CHARTER TOWNSHIP OF YPSILANTI BOARD OF TRUSTEES

Supervisor

BRENDA L. STUMBO

Clerk

HEATHER JARRELL ROE

Treasurer

STAN ELDRIDGE

Trustees

RYAN HUNTER
JOHN P. NEWMAN II
GLORIA PETERSON
DEBBIE SWANSON

June 18, 2024

Regular Meeting – 6:00 p.m.

Ypsilanti Township Civic Center
7200 S. Huron River Drive
Ypsilanti, MI 48197

Charter Township of Ypsilanti

7200 S. HURON RIVER DRIVE•YPSILANTI, MI 48197

SUPERVISOR BRENDA STUMBO • CLERK HEATHER JARRELL ROE • TREASURER STAN ELDRIDGE TRUSTEES: RYAN HUNTER • JOHN P. NEWMAN II • GLORIA PETERSON • DEBBIE SWANSON

YPSILANTI TOWNSHIP
— WHERE YOUR FUTURE GROWS —

REGULAR MEETING AGENDA

TUESDAY, JUNE 18, 2024
6:00 P.M.

1. CALL TO ORDER

2. PLEDGE OF ALLEGIANCE AND INVOCATION

3. FIRE DEPARTMENT HONORS

4. CONSENT AGENDA

   A. MINUTES OF THE MAY 21, 2024 REGULAR MEETING AND CLOSED SESSION

   B. STATEMENTS AND CHECKS

      1. STATEMENTS AND CHECKS FOR JUNE 4, 2024 IN THE AMOUNT OF $1,348,145.49
      2. STATEMENTS AND CHECKS FOR JUNE 18, 2024 IN THE AMOUNT OF $514,466.16
      3. CLARITY HEALTHCARE DEDUCTIBLE ACH EFT FOR APRIL 2024 IN THE AMOUNT OF $70,123.69
      4. CLARITY HEALTHCARE DEDUCTIBLE ADMIN FEE FOR APRIL 2024 IN THE AMOUNT OF $1,620.83

   C. TREASURER'S REPORT MAY 2024

5. ATTORNEY REPORT

   A. GENERAL LEGAL UPDATE

NEW BUSINESS

1. RESOLUTION 2024-08, REGARDING THE TEMPORARY ROAD CLOSURE OF MARY CATHERINE ST. FOR THE WEST WILLOW FARMERS MARKET BLOCK PARTY

2. RESOLUTION 2024-09, REGARDING THE TEMPORARY ROAD CLOSURE OF PACKARD RD. FOR PEACENIC YPSILANTI-YPSILANTI CHARTER TOWNSHIP

3. REQUEST TO SELL A BRINDLEE MOUNTAIN FIRE APPARATUS

4. REQUEST TO APPROVE CHANGE ORDER #1 WITH NORTHGATE CONSTRUCTION FOR THE GREEN OAKS GOLF COURSE BATHROOM RENOVATIONS IN THE AMOUNT OF $17,750.00 BUDGETED IN LINE ITEM #101-902-981-100

5. BUDGET AMENDMENT #8

AUTHORIZATIONS AND BIDS

1. REQUEST APPROVAL TO SEEK SEALED BIDS FOR PLAYGROUND SURFACE REPLACEMENT AT FORD HERITAGE PARK

2. REQUEST TO SEEK SEALED BIDS FOR SANITARY WATER LINE SITE WORK AND RESTROOM DEMOLITION FORD HERITAGE PARK AND SITE WORK AND PAVILION INSTALLATION AT LAKESIDE PARK

OTHER BUSINESS

PUBLIC COMMENTS

- THREE MINUTES PER PERSON
- ALL COMMENTS MUST BE ADDRESSED TO THE CHAIR
- PUBLIC COMMENTS ARE ALSO WELCOME AS THE BOARD ADDRESSES EACH AGENDA ITEM

BOARD MEMBER UPDATES

DEPARTMENTAL REPORTS

CHARTER TOWNSHIP OF YPSILANTI FIRE DEPARTMENT

222 South Ford Boulevard, Ypsilanti, MI 48198

MONTHLY REPORT FOR MAY 2024

Fire Department staffing levels are as follows:

1 Fire Chief	1 Fire Marhsall	3 Shift Captains
16 Fire Fighters	3 Shift Lieutenants	1 Clerk III/Staff Support

All fire department response personnel are licensed as Emergency Medical Technicians by the State of Michigan Public Health. During the month, the fire department responded to **518** requests for assistance. Of those requests, **305** were medical emergency service calls, with the remaining **213** incidents classified as non-medical and/or fire related.

Department activities for the month of May 2024:

1) Smoke Alarms
    a) 1614 Knowles

2) Fire fighters received training in the following areas:
    a) Continuing Education Classes
    b) CNX Training
    c) Radio Training
    d) AFV Training

3) Pub Education
    a) Ypsilanti City Memorial Day Parade

The Fire Marshal had these activities / events for the month of May 2024:

1. Fire Investigations: 2
2. Fire Investigations interview:
3. Fire Investigations follow up:
4. Food Truck Development Program:
5. Building Inspections: 11
6. Building Re-inspections: 3
7. Liquor Inspections:
8. Junk Yard Inspections:
9. Business Tour:
10. Plan Reviews: 6
11. Site Plan Reviews:
12. Hood / Fire Suppression Inspections: 4
13. Meetings: 10
14. Chief Meetings I attended: 1
15. Zoom Meeting:
16. Fire Alarm Inspections:
17. Occupant Load Certificates:
18. Burn Permit: 1
19. Burn Complaints: 2
20. Knox Box: 3
21. Fire Drills: 2
22. Training: 7
23. Business/Community Engagement: 2
24. Citizen Engagement: 1
25. Building Improvement project:
26. New Construction Site Visit:
27. Safety Inspections:
28. Addressing:
29. Code Research: Weekly

The Fire Chief attended these meetings / events for the month of April 2024:

1. Board Meetings
2. County Fire Chiefs meeting representing the Township.
3. Sog updates
4. New Fire fighter hire introduction to the township.
5. Michigan Fire Inspectors educational seminar for continuing education points
6. FDIC, Fire department instructors conference
7. Hosted a Hazardous Material training drill /jointly with Ypsilanti Township Clerk's office for up-coming election days.
8. Scheduled Annual Department Photo end of April.
9. Hosted Firehouse Friday with W/4 country and the community with a donation of food to the local food drive charity
10. Many 911 responses
11. Working on a Tourn out Gear Granit through the state of Michigan for free gear for the firefighters
12. Washtenaw 100 club dinner annual
13. Officer meeting, monthly to discuss current affairs/ problem solving.
14. Attended radio consortium meeting with Supervisor Stumbo for further information.
15. Attended EMU ribbon cutting ceremony with supervisor Stumbo
16. Attended and was a guest speaker at a neighborhood watch meeting Gault Village
17. Instructed two of our members in state mandated ICS 400 class and they passed.
18. Worked with the Fire Marshal on several fire investigations/fire inspections.
19. Replaced many broken or needed fire tools, fireground, auto accidents, Emergency Medical equipment.
20. Prepare station #3 (Hewit Road station for construction update, starting soon)
21. Developed a new shoulder patch. (It's been over 20 years without an update) will be worn shortly.
22. Working with the Fire Marshal on a food truck inspection with our surrounding neighbors, cities, and Townships.

There were 0 injuries, and 0 deaths reported this month for civilians.
There were 0 injuries, and 0 deaths reported this month for fire fighters.

This month the total fire loss, including vehicle fires, is estimated at ***$189,600.00.*** All occurred at the following locations:

DATE OF LOSS	ADDRESS	ESTIMATED LOSS
1) 5/01/2024	Exit 185	$ 10,000.00 (Vehicle Fire)
2) 5/02/2024	2067 Bradley	$ 10,000.00 (Vehicle Fire)
3) 5/03/2024	1665 Meadow Woods	$ 11,000.00 (Vehicle Fire)
4) 5/04/2024	25 Broadmoor	$ 0.00 (Trash Fire)
5) 5/07/2024	1053 Woodglen	$ 0.00 (Excessive heat)
6) 5/07/2024	2735 Washtenaw	$ 0.00 (Cooking Fire)
7) 5/12/2024	1901 Ridgeview	$ 0.00 (Mutual Aid - Superior)
8) 5/13/2024	1400 G	$ 100.00 (Outside Equipment Fire)
9) 5/14/2024	564 Woburn	$ 500.00 (Dumpster Fire)
10) 5/16/2024	405 Greenlawn	$ 0.00 (Outside trash Fire)
11) 5/17/2024	7 Oak	$ 0.00 (Mutual Aid – City)
12) 5/18/2024	782 Woodcreek	$ 21,000.00 (Vehicle Fire)
13) 5/18/2024	504 N Hamilton	$ 35,000.00 (Building Fire)
14) 5/23/2024	936 E Clark Road	$ 0.00 (Trash Fire)
15) 5/24/2024	1064 Monroe	$ 0.00 (Mutual Aid – City)
16) 5/24/2024	I-94 WB	$ 0.00 (Vehicle Fire)
17) 5/26/2024	1690 Dorothy	$ 2,000.00 (Building Fire)
18) 2/28/2024	1708 W Cross	$ 0.00 (Mutual Aid – City)
19) 5/28/2024	183	$ 0.00 (Vehicle Fire)
20) 5/28/2024	1323 Elmwood	$ 0.00 (Cooking Fire)
21) 5/29/2024	983 Desoto	$ 0.00 (Outside Rubbish Fire)

Respectfully submitted,

Maria Batianis
Charter Township of Ypsilanti Fire Department

Attachment: Image Trend Incident Type Report (Summary): 5/01/2024 – 5/31/2024

Monthly Incident Report's 2024

Basic Incident Type Code And Description (FD1.21)	Total Incidents	Total Incidents Percent of Incidents	Total Property Loss	Total Content Loss	Total Loss	Total Loss Percent of Total
Incident Type Category (FD1.21): 1 - Fire						
111 - Building fire	7	1.35%	92,000.00	55,000.00	147,000.00	77.53%
113 - Cooking fire, confined to container	2	0.39%	0.00	0.00	0.00	0.00%
118 - Trash or rubbish fire, contained	2	0.39%				
131 - Passenger vehicle fire	5	0.97%	35,000.00	7,000.00	42,000.00	22.15%
151 - Outside rubbish, trash or waste fire	2	0.39%	0.00	0.00	0.00	0.00%
154 - Dumpster or other outside trash receptacle fire	1	0.19%	500.00	0.00	500.00	0.26%
162 - Outside equipment fire	1	0.19%	100.00	0.00	100.00	0.05%
	Total: 20	**Total: 3.86%**	**Total: 127,600.00**	**Total: 62,000.00**	**Total: 189,600.00**	**Total: 100.00%**
Incident Type Category (FD1.21): 2 - Overpressure Rupture, Explosion, Overheat (No Fire)						
200 - Overpressure rupture, explosion, overheat, other	1	0.19%				
251 - Excessive heat, scorch burns with no ignition	1	0.19%				
	Total: 2	**Total: 0.39%**	**Total: 0.00**	**Total: 0.00**	**Total: 0.00**	**Total: 0.00%**
Incident Type Category (FD1.21): 3 - Rescue & Emergency Medical Service Incident						
300 - Rescue, EMS incident, other	20	3.86%				
311 - Medical assist, assist EMS crew	140	27.03%				
320 - Emergency medical service, other	55	10.62%				
321 - EMS call, excluding vehicle accident with injury	64	12.36%				
322 - Motor vehicle accident with injuries	12	2.32%				
324 - Motor vehicle accident with no injuries.	12	2.32%				
331 - Lock-in (if lock out , use 511)	1	0.19%				
353 - Removal of victim(s) from stalled elevator	1	0.19%				
	Total: 305	**Total: 58.88%**	**Total: 0.00**	**Total: 0.00**	**Total: 0.00**	**Total: 0.00%**
Incident Type Category (FD1.21): 4 - Hazardous Condition (No Fire)						
412 - Gas leak (natural gas or LPG)	1	0.19%				
413 - Oil or other combustible liquid spill	1	0.19%				
421 - Chemical hazard (no spill or leak)	1	0.19%				
424 - Carbon monoxide incident	1	0.19%				
440 - Electrical wiring/equipment problem, other	2	0.39%				
444 - Power line down	3	0.58%				
445 - Arcing, shorted electrical equipment	1	0.19%				
480 - Attempted burning, illegal action, other	1	0.19%				
	Total: 11	**Total: 2.12%**	**Total: 0.00**	**Total: 0.00**	**Total: 0.00**	**Total: 0.00%**
Incident Type Category (FD1.21): 5 - Service Call						
500 - Service call, other	4	0.77%				
510 - Person in distress, other	1	0.19%				
511 - Lock-out	1	0.19%				
531 - Smoke or odor removal	4	0.77%				
550 - Public service assistance, other	9	1.74%				
551 - Assist police or other governmental agency	3	0.58%				
554 - Assist invalid	2	0.39%				
561 - Unauthorized burning	5	0.97%				
	Total: 29	**Total: 5.60%**	**Total: 0.00**	**Total: 0.00**	**Total: 0.00**	**Total: 0.00%**
Incident Type Category (FD1.21): 6 - Good Intent Call						
600 - Good intent call, other	1	0.19%				

Basic Incident Type Code And Description (FD1.21)	Total Incidents	Total Incidents Percent of Incidents	Total Property Loss	Total Content Loss	Total Loss	Total Loss Percent of Total
611 - Dispatched and cancelled en route	104	20.08%				
622 - No incident found on arrival at dispatch address	5	0.97%				
651 - Smoke scare, odor of smoke	2	0.39%				
	Total: 112	**Total: 21.62%**	**Total: 0.00**	**Total: 0.00**	**Total: 0.00**	**Total: 0.00%**
Incident Type Category (FD1.21): 7 - False Alarm & False Call						
700 - False alarm or false call, other	15	2.90%				
710 - Malicious, mischievous false call, other	1	0.19%				
715 - Local alarm system, malicious false alarm	1	0.19%				
731 - Sprinkler activation due to malfunction	1	0.19%				
733 - Smoke detector activation due to malfunction	4	0.77%				
735 - Alarm system sounded due to malfunction	2	0.39%				
736 - CO detector activation due to malfunction	4	0.77%				
741 - Sprinkler activation, no fire - unintentional	1	0.19%				
743 - Smoke detector activation, no fire - unintentional	5	0.97%				
745 - Alarm system activation, no fire - unintentional	4	0.77%				
746 - Carbon monoxide detector activation, no CO	1	0.19%				
	Total: 39	**Total: 7.53%**	**Total: 0.00**	**Total: 0.00**	**Total: 0.00**	**Total: 0.00%**
	Total: 518	**Total: 100.00%**	**Total: 127,600.00**	**Total: 62,000.00**	**Total: 189,600.00**	**Total: 100.00%**

Township Supervisor
Brenda L. Stumbo
Township Clerk
Heather Jarrell Roe
Township Treasurer
Stan Eldridge

YPSILANTI TOWNSHIP
— HYDRO DAM OPERATIONS —

Trustees
John Newman II
Gloria Peterson
Debbie Swanson
Jimmie Wilson Jr

Date: June 10, 2024

To: **Clerk's Office**

CC: **Brenda Stumbo, Supervisor**

From: Michael Saranen, Operation Manager

Subject: Department Report (activities in May 2024)

Activities:

Ford Lake Dam (Hydro Station)

General Operation Summary:
The Hydro Station is operating safely and continues to get routine safety inspections and preventive maintenance. Operators had 2 after-hour call-in for the month.

Average precipitation for the month of is around 3.72", this year it was below normal at 2.55".

Regulatory Status:

For 2024-

- DSSMR- **Complete, Filed with FERC**
- Owners Dam Safety Program Review - **Started**
- EAP annual update and test -
- EAP First Responder Training - **Complete**
- WQ Report – **Equipment deployed gathering data**
- Nuisance Plant Plan Report -
- Wildlife Plan Report -
- Historical Activity Report -
- Gate Certification -
- Security Review - **Started**
- FERC Security Inspection - TBD
- FERC Annual Dam Safety Inspection **– June**
- Annual DEQ Lake Operation Monitoring Report- **In review by State**
- Spillway Assessment Action Plan - **Filed, addressing comments by FERC, Ongoing**
- Public Safety Plan - **Installing new safety signs in 2024**
- Fish & Sediment Analysis - Not required until 2033
    - Part 12 Comprehensive Analysis Inspection – **Started, getting proposals**

Future Items:

- Shoreline Restoration, Ford Lake Park
- PMF Study for watershed – Discussing
- Shoreline Erosion Survey – 2025
- Protective Relay testing – 2024
- Emergency Gen Testing – 2025
- Concrete repairs – On Hold
- Windows/additional concrete repairs (powerhouse and dam) - TBD
- EAP Tabletop and Functional Exercise – 2024, July
- EAP Rewrite - 2025

Projects:

Concrete Repairs- **Delayed**, approved by the Board to go out to bid. Construction was planned for summer 2023, however the cost came in doubled and the project will be rebid in coming months.

Sluice Gate Stress Analysis- 2024, the FERC has requested a detailed study of the spillway gates. This is a common industry request from FERC as they continuously look at safety involving dams. We are currently working with engineering to develop a procedure to complete this task. **Awarded, Start in July**

Turbine Inspections and Maintenance- Conduct cleaning, inspection and maintenance on turbine equipment and associated spaces. #2 was inspected and found to be satisfactory. #1 is planned in the 1st quarter of the year. **Delayed**

Operation Summary

2024	**May**	**YTD**	**5 Year Ave.**
Precipitation total (inches)[1]	2.55	14.22	38.0
Days Online	31	153	359.4
Generation MWH (estimated)	1,041.623	5,926.531	10,469.1
Generation MWH **lost** (estimated)*	67.382	71.118	515.6
After Hour Call In			
Water levels	1	10	38
Mechanical/Electrical	1	3	4
Other	0	0	2
Totals	2	13	43

Recent History	2019	2020	2021	2022	2023
Precipitation total (inches)	45.4	41.4	40.0	26.37	36.65
Days Online	350.6	359.7	360.0	363.5	363.4
Generation MWH (estimated)	12,576.7	10,722.7	10,524.5	9,185.151	9,336.397
Generation MWH **lost** (estimated)*	1,005.8	570.2	423.2	362.5	216.076
After Hour Call In					
Water levels	30	69	33	36	22
Mechanical/Electrical	3	4	9	0	3
Other	0	2	0	4	2
Totals	33	75	42	40	27

[1] Preliminary totals from NOAA for Detroit
*losses related to scheduled & unscheduled maintenance and water quality discharges.

Water Quality Summary:

MOU with City of Ann Arbor

The Parties share a common interest in eliminating and preventing nuisance blue green algae blooms in Ford and Belleville Lakes, and they acknowledge that information about water quality and conditions in the lakes is important to advancing their common interest. THEREFORE, the Parties enter into this Memorandum of Understanding to memorialize their understanding as to their efforts to cooperate and work together to monitor, collect, and share water quality information regarding Ford and Belleville Lakes.

Work Plan

- MOU has been signed, for 2024 the current plan is to gather WQ data for future use.
- Additional activities may be identified in the coming months.

Current Activities

- WQ lake buoy has been deployed and is gathering data.

Sluice Gate Usage Summary
Releasing water from the sluice gates is primary done to maintain lake level when flow exceeds the powerhouse. At certain times, we can use the gates to help keep the lake mixed to maintain oxygen levels (effectiveness depends on a number of factors) at the bottom of the lake.

The water quality monitoring begins on June 1st and will end on September 30th; operators monitor the water quality conditions and take readings as outline in the WQ Plan. The dam releases water from the bottom gates to maintain run of river and/or help with water quality in Ford Lake. The Federal License requires us to pass water with a minimum of 5mg/l of dissolved oxygen all the time. Therefore, spilling from the bottom gates in the summer to improve the lake is not always possible.

Current Year **2024**	Current Year Days Spilled	Current Year Lost KWh*	Current Year Lost KW$*	Prior Yr. Lost KW$*
January	7.6	0	0	0
February	11.4	0	0	0
March	.4	0	0	0
April	8.75	0	0	0
May	9.1	39,205	$ 1,628	$ 1,597
June				$ 8,241
July				$ 373
August				$ 268
September				$ 86
October				0
November				0
December				0
Totals	37.25	39,205	$ 1,628	$ 10,565

*Estimated losses from diverting water away from generators for the **purpose of improving WQ**.

Sargent Charles Dam

This dam continues to get routine safety inspections and appropriate maintenance.

In October 2023, the dam was inspected by the state. In their report the dam is in satisfactory condition, the report listed some maintenance recommendations to help maintain a safe dam. Staff are reviewing the report for follow-up actions.

WASHTENAW COUNTY
OFFICE OF THE SHERIFF

2201 Hogback Road ◆ Ann Arbor, Michigan 48105-9732 ◆ **OFFICE** (734) 971-8400 ◆ **FAX** (734) 973-4624 ◆ **EMAIL** sheriffinfo@ewashtenaw.org

JERRY L. CLAYTON
SHERIFF

MARK A. PTASZEK
UNDERSHERIFF

To: Brenda Stumbo, Ypsilanti Township Supervisor
From: Chad Teets, Police Services Lieutenant
Cc: Ypsilanti Township Board
Keith Flores, WCSO Police Services Commander
Nancy Hansen, WCSO Police Services Captain
Date: June 7, 2024
Re: May 2024 Police Services Monthly Report

SUMMARY:
During the month of May 2024, there were 3,840 calls for service in Ypsilanti Township. In May 2023, there were 3,589 calls for service in Ypsilanti Township.

OPERATIONS
During May 2024, Patrol Operations responded to calls for service, conducted traffic enforcement, and completed criminal investigations in support of our citizen's quality of life.

In the month of May 2024 there were 7 home invasions, which is a -57% change as compared to May 2023 (11 home invasions). In many of these incidents domestic relationships and unauthorized entry were common. The best prevention methods for a typical residential home invasion are to keep all windows and doors locked (including vehicles in the driveway), including deadbolts, while away from home. External lighting and visual deterrents such as "Beware of Dog" or alarm signage also discourages criminals.

In the month of May 2024 there was 1 breaking and entering. In the month of May 2023, we saw no breaking and entering's (100% increase).

In May 2024 there were 12 reported UDAA's. This is an 8% increase compared to May 2023 where there were 11 reported UDAA's. Many of these vehicle thefts occurred by the suspect gaining entry to an unlocked vehicle. Citizens are reminded to lock all vehicle doors and keep ignition keys in separate and secure areas to prevent such thefts. Valuables, if left in a vehicle, should be placed in a concealed location. Many vehicles that are being targeted are Hyundai and Kia makes due to well-known theft practices. The following website provides further information regarding the reduction of potential for theft of your vehicle, common vehicles targeted, and further information.

https://www.nhtsa.gov/road-safety/vehicle-theft-prevention

YOUTH INITIATIVE
The Sheriff's Office continues to partner with courts, probation, and social services to ensure that there is accountability beyond the Sheriff's Office contact with the offenders that are consistently involved in crimes. From a year-to-year perspective, comparing 2024 to 2023, our juvenile offenses and complaints are up 71% (from 24 to 41) and our runaway complaints are up 29% (from 7 to 9).

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JERRY L. CLAYTON
SHERIFF

MARK A. PTASZEK
UNDERSHERIFF

COMMUNITY ACTION TEAM

The purpose of the Community Action Team (CAT) is to respond to situations involving or with a nexus of drugs, guns, or violence. The team focuses on the timely assessment and response to tips they receive from our community and community problems identified through crime pattern analysis.

CAT collaboration with the Michigan Department of Corrections in reference to parole compliance contributes to effective monitoring and management of parolees who live in our community. Timely and efficient response to tips regarding parolee misconduct combined with regular unannounced home visits are expected by the parolees that reside in Ypsilanti Township and surrounding areas.

For any violent crime tips related to guns, gang activity or violence in general please call 734-661-9034.

CLEMIS ONLINE REPORTING

Citizens can now fill out a police report online utilizing CLEMIS' new "online reporting tool". Citizens can visit: https://www.washtenaw.org/3439/File-a-Police-Report to fill out an online report.

WASHTENAW ALERT (EVERBRIDGE)

As a reminder for residents they can sign up for "Up-to-the-minute updates" from the Washtenaw County Sheriff's Office by email or cell phone at www.washtenaw.org/alerts

HOUSE WATCH

If you plan on being gone for a period of time sign your house up for house checks. The house watch form can be found at: https://www.washtenaw.org/1743/House-Watch

NEW FACES

The Sheriff's Office is hiring! We continue to hire highly qualified, motivated, and diverse people that are committed to pursuing our mission: Creating public safety, providing quality service, and building strong and sustainable communities.

If you are interested in joining us in serving your community in Police Services, Corrections, Communications, Emergency Services or Community Corrections please check us out at: https://www.washtenaw.org/1124/Sheriff

We have rewarding career opportunities available for those seeking a profession with a greater purpose.

2024 Ypsilanti Township Monthly Call Report (WD)
City:Ypsilanti Twp-YPT

Search Criteria: (This report counts for offenses but excludes UCR status of 'Unfounded'.)	
Month:	May
Year:	2024
City:	Ypsilanti Twp-YPT

2024 Ypsilanti Township Monthly Call Report (WD)

City:Ypsilanti Twp-YPT

CLASS	Description	May/2024	May/2023	% CHG	YTD 2024	YTD 2023	% CHG	ADULT May/2024	ADULT YTD	JUV May/2023	JUV YTD	Total May	Total YTD
09001	MURDER/NONNEGLIGENT MANSLAUGHTER (VOLUNTARY)	4	0	0%	5	1	400%	4	4	0	0	4	4
09002	NEGLIGENT HOMICIDE/MANSLAUGHTER (INVOLUNTARY)	0	0	0%	1	1	0%	0	0	0	0	0	0
10001	KIDNAPPING/ABDUCTION	1	2	-50%	3	6	-50%	0	0	0	0	0	0
10002	PARENTAL KIDNAPPING	0	0	0%	1	0	0%	0	0	0	0	0	0
11001	SEXUAL PENETRATION PENIS/VAGINA -CSC lST DEGREE	6	3	100%	18	8	125%	0	0	0	0	0	0
11002	SEXUAL PENETRATION PENIS/VAGINA -CSC 3RD DEGREE	1	0	0%	4	3	33.33%	0	1	0	0	0	1
11003	SEXUAL PENETRATION ORAL/ANAL -CSC lST DEGREE	0	0	0%	2	1	100%	0	0	0	0	0	0
11004	SEXUAL PENETRATION ORAL/ANAL -CSC 3RD DEGREE	0	1	-100%	1	2	-50%	0	0	0	0	0	0
11005	SEXUAL PENETRATION OBJECT -CSC IST DEGREE	0	0	0%	1	0	0%	0	0	0	0	0	0
11007	SEXUAL CONTACT FORCIBLE -CSC 2ND DEGREE	2	1	100%	8	3	166.6%	0	0	0	0	0	0
11008	SEXUAL CONTACT FORCIBLE -CSC 4TH DEGREE	0	1	-100%	6	6	0%	0	2	0	0	0	2
12000	ROBBERY	2	1	100%	6	5	20%	1	1	0	1	1	2
12001	ROBBERY	0	0	0%	0	3	-100%	0	0	0	0	0	0
13001	NONAGGRAVATED ASSAULT	35	37	-5.40%	143	180	-20.5%	10	43	0	2	10	45
13002	AGGRAVATED/FELONIOUS ASSAULT	43	36	19.44%	134	141	-4.96%	13	52	0	3	13	55
13003	INTIMIDATION/STALKING	1	13	-92.3%	41	39	5.128%	0	7	0	0	0	7
20000	ARSON	2	0	0%	4	0	0%	1	2	0	0	1	2
21000	EXTORTION	1	1	0%	7	9	-22.2%	0	0	0	0	0	0
22001	BURGLARY -FORCED ENTRY	7	10	-30%	29	33	-12.1%	0	3	0	0	0	3
22002	BURGLARY -ENTRY WITHOUT FORCE (Intent to Commit)	1	2	-50%	11	9	22.22%	0	0	0	1	0	1
23001	LARCENY -POCKETPICKING	0	0	0%	1	0	0%	0	0	0	0	0	0
23002	LARCENY -PURSESNATCHING	0	0	0%	1	2	-50%	0	0	0	0	0	0

2024 Ypsilanti Township Monthly Call Report (WD)

City:Ypsilanti Twp-YPT

								ADULT		JUV		Total	
CLASS	Description	May/2024	May/2023	% CHG	YTD 2024	YTD 2023	% CHG	May/2024	YTD	May/2023	YTD	May	YTD
23003	LARCENY -THEFT FROM BUILDING	8	13	-38.4%	45	41	9.756%	1	4	0	0	1	4
23005	LARCENY -THEFT FROM MOTOR VEHICLE	9	18	-50%	56	70	-20%	0	1	0	2	0	3
23006	LARCENY -THEFT OF MOTOR VEHICLE PARTS/ACCESSORIES	2	2	0%	11	18	-38.8%	0	1	0	0	0	1
23007	LARCENY -OTHER	9	11	-18.1%	31	34	-8.82%	0	2	0	1	0	3
24001	MOTOR VEHICLE THEFT	12	9	33.33%	68	42	61.90%	0	2	0	2	0	4
24002	MOTOR VEHICLE, AS STOLEN PROPERTY	1	1	0%	7	8	-12.5%	0	1	0	4	0	5
25000	FORGERY/COUNTERFEITING	1	2	-50%	6	10	-40%	0	0	0	0	0	0
26001	FRAUD -FALSE PRETENSE/SWINDLE/CONFIDENCE GAME	8	10	-20%	20	34	-41.1%	1	2	0	0	1	2
26002	FRAUD -CREDIT CARD/AUTOMATIC TELLER MACHINE	3	5	-40%	12	24	-50%	0	0	0	0	0	0
26005	FRAUD -WIRE FRAUD	1	1	0%	8	4	100%	0	0	0	0	0	0
26007	FRAUD - IDENTITY THEFT	4	9	-55.5%	17	43	-60.4%	0	0	0	0	0	0
27000	EMBEZZLEMENT	0	2	-100%	2	7	-71.4%	0	0	0	0	0	0
28000	STOLEN PROPERTY	1	1	0%	9	10	-10%	0	1	0	0	0	1
29000	DAMAGE TO PROPERTY	32	28	14.28%	121	140	-13.5%	2	5	0	0	2	5
30001	RETAIL FRAUD -MISREPRESENTATION	0	1	-100%	0	4	-100%	0	0	0	0	0	0
30002	RETAIL FRAUD -THEFT	6	8	-25%	22	34	-35.2%	0	2	0	1	0	3
35001	VIOLATION OF CONTROLLED SUBSTANCE ACT	5	5	0%	34	53	-35.8%	2	12	0	0	2	12
35002	NARCOTIC EQUIPMENT VIOLATIONS	0	0	0%	6	10	-40%	0	1	0	0	0	1
37000	OBSCENITY	0	2	-100%	3	4	-25%	0	0	0	0	0	0
51000	BRIBERY	1	0	0%	1	0	0%	0	0	0	0	0	0
52001	WEAPONS OFFENSE- CONCEALED	7	7	0%	35	51	-31.3%	3	15	1	3	4	18
52003	WEAPONS OFFENSE -OTHER	3	4	-25%	11	20	-45%	0	0	0	0	0	0
72000	ANIMAL CRUELTY	1	1	0%	3	6	-50%	0	0	0	0	0	0
	Group A Totals	**220**	**248**	**-11.2%**	**955**	**1119**	**-14.6%**	**38**	**164**	**1**	**20**	**39**	**184**
22003	BURGLARY - UNLAWFUL ENTRY (NO INTENT)	0	0	0%	0	1	-100%	0	0	0	0	0	0
22004	POSSESSION OF BURGLARY TOOLS	1	0	0%	1	0	0%	0	0	0	0	0	0

2024 Ypsilanti Township Monthly Call Report (WD)

City:Ypsilanti Twp-YPT

CLASS	Description	May/2024	May/2023	% CHG	YTD 2024	YTD 2023	% CHG	ADULT May/2024	ADULT YTD	JUV May/2023	JUV YTD	Total May	Total YTD
26006	FRAUD -BAD CHECKS	0	2	-100%	2	3	-33.3%	0	0	0	0	0	0
36004	SEX OFFENSE -OTHER	0	0	0%	3	3	0%	0	1	0	0	0	1
38001	FAMILY -ABUSE/NEGLECT NONVIOLENT	4	8	-50%	22	23	-4.34%	0	4	0	0	0	4
38002	FAMILY -NONSUPPORT	0	0	0%	0	1	-100%	0	0	0	0	0	0
38003	FAMILY -OTHER	0	0	0%	1	2	-50%	0	0	0	0	0	0
41002	LIQUOR VIOLATIONS -OTHER	3	1	200%	5	4	25%	0	0	0	0	0	0
48000	OBSTRUCTING POLICE	9	13	-30.7%	83	76	9.210%	1	14	0	4	1	18
49000	ESCAPE/FLIGHT	0	0	0%	0	1	-100%	0	0	0	0	0	0
50000	OBSTRUCTING JUSTICE	21	26	-19.2%	94	103	-8.73%	7	38	0	0	7	38
53001	DISORDERLY CONDUCT	1	1	0%	4	5	-20%	0	1	0	0	0	1
53002	PUBLIC PEACE -OTHER	0	0	0%	4	3	33.33%	0	1	0	0	0	1
54001	HIT and RUN MOTOR VEHICLE ACCIDENT	0	0	0%	1	0	0%	0	0	0	0	0	0
54002	OPERATING UNDER THE INFLUENCE OF LIQUOR OR DRUGS	10	9	11.11%	80	63	26.98%	6	61	1	1	7	62
55000	HEALTH AND SAFETY	4	3	33.33%	15	16	-6.25%	0	0	0	0	0	0
57001	TRESPASS	0	3	-100%	7	13	-46.1%	0	1	0	0	0	1
58000	SMUGGLING	0	0	0%	1	1	0%	0	0	0	0	0	0
63000	VAGRANCY	0	1	-100%	1	1	0%	0	0	0	0	0	0
70000	JUVENILE RUNAWAY	9	7	28.57%	39	24	62.5%	0	0	0	0	0	0
73000	MISCELLANEOUS CRIMINAL OFFENSE	5	5	0%	21	10	110%	0	0	0	0	0	0
75000	SOLICITATION	0	0	0%	1	0	0%	0	0	0	0	0	0
	Group B Totals	**67**	**79**	**-15.1%**	**385**	**353**	**9.065%**	**14**	**121**	**1**	**5**	**15**	**126**
2800	JUVENILE OFFENSES AND COMPLAINTS	41	24	70.83%	147	100	47%	0	0	0	0	0	0
2900	TRAFFIC OFFENSES	16	44	-63.6%	69	102	-32.3%	0	0	0	0	0	0
3000	WARRANTS	27	51	-47.0%	152	195	-22.0%	15	88	1	3	16	91
3100	TRAFFIC CRASHES	97	98	-1.02%	498	538	-7.43%	0	1	0	0	0	1
3200	SICK / INJURY COMPLAINT	259	236	9.745%	1108	1036	6.949%	0	0	0	0	0	0
3300	MISCELLANEOUS COMPLAINTS	903	884	2.149%	3888	3711	4.769%	0	2	0	0	0	2

2024 Ypsilanti Township Monthly Call Report (WD)

City:Ypsilanti Twp-YPT

CLASS	Description	May/2024	May/2023	% CHG	YTD 2024	YTD 2023	% CHG	ADULT May/2024	ADULT YTD	JUV May/2023	JUV YTD	Total May	Total YTD
3400	WATERCRAFT COMPLAINTS / ACCIDENTS	0	1	-100%	0	2	-100%	0	0	0	0	0	0
3500	NON - CRIMINAL COMPLAINTS	920	927	-0.75%	4736	4470	5.950%	0	0	0	3	0	3
3700	MISCELLANEOUS TRAFFIC COMPLAINTS	1000	864	15.74%	5425	5439	-0.25%	0	0	0	0	0	0
3800	ANIMAL COMPLAINTS	114	91	25.27%	418	387	8.010%	0	0	0	0	0	0
3900	ALARMS	114	107	6.542%	587	545	7.706%	0	0	0	0	0	0
	Group C Totals	**3491**	**3327**	**4.929%**	**17028**	**16525**	**3.043%**	**15**	**91**	**1**	**6**	**16**	**97**
4000	HAZARDOUS TRAFFIC CITATIONS / WARNINGS	0	0	0%	4	1	300%	0	0	0	0	0	0
4100	NON-HAZARDOUS TRAFFIC CITATIONS / WARNINGS	0	1	-100%	2	2	0%	0	0	0	0	0	0
4200	PARKING CITATIONS	1	0	0%	2	6	-66.6%	0	0	0	0	0	0
4300	LICENSE / TITLE / REGISTRATION CITATIONS	0	1	-100%	3	2	50%	0	0	0	0	0	0
4500	MISCELLANEOUS A THROUGH UUUU	24	19	26.31%	122	80	52.5%	0	0	0	0	0	0
4600	LIQUOR CITATIONS / SUMMONS	0	1	-100%	0	1	-100%	0	0	0	0	0	0
	Group D Totals	**25**	**22**	**13.63%**	**133**	**92**	**44.56%**	**0**	**0**	**0**	**0**	**0**	**0**
5000	FIRE CLASSIFICATIONS	0	0	0%	1	0	0%	0	0	0	0	0	0
	Group E Totals	**0**	**0**	**0%**	**1**	**0**	**0%**	**0**	**0**	**0**	**0**	**0**	**0**
6000	MISCELLANEOUS ACTIVITIES (6000)	37	31	19.35%	223	193	15.54%	0	0	0	0	0	0
6100	MISCELLANEOUS ACTIVITIES (6100)	129	101	27.72%	432	418	3.349%	0	0	0	0	0	0
6300	CANINE ACTIVITIES	1	8	-87.5%	12	31	-61.2%	0	0	0	0	0	0
6500	CRIME PREVENTION ACTIVITIES	7	3	133.3%	27	25	8%	0	0	0	0	0	0
6600	COURT / WARRANT ACTIVITIES	0	1	-100%	1	11	-90.9%	0	0	0	0	0	0
6700	INVESTIGATIVE ACTIVITIES	54	50	8%	215	216	-0.46%	0	0	0	0	0	0
	Group F Totals	**228**	**194**	**17.52%**	**910**	**894**	**1.789%**	**0**	**0**	**0**	**0**	**0**	**0**
	City : Ypsilanti Twp Totals	**4031**	**3870**	**4.160%**	**19412**	**18983**	**2.259%**	**67**	**376**	**3**	**31**	**70**	**407**

Out of Area Time Ypsilanti TWP

For: 05/01/2024 thru 05/31/2024

Patrol Area	Reporting Area	Username	Location	Activity Category	Incident Number	Comments	Start Time	Duration in Minutes	Start Date
YPSILANTI TWP	SUPERIOR TWP	WDGOMBOSJ	MACARTHUR BLVD	BACKUP DISPATCHED CALLS	240032842	BACK SUT UNITS ON LARGE FIGHT ON SUT / YP [T BORDER, I WAS CLOSEST UNIT. OKAY PER SGT KRINGS	20:50:00	10	5/3/2024
YPSILANTI TWP	SUPERIOR TWP	WDCUSOJ	TELFORD CT	BACKUP DISPATCHED CALLS	240033031	BACKUP SUT UNIT ON AN EDP - PETITION; OTHER SUT UNIT TIED UP ON A DEATH; OK PER SGT. HOUK.	13:15:00	45	5/4/2024
YPSILANTI TWP	SUPERIOR TWP	WDTRIPPB	PROSPECT RD/CHERRY HILL RD	BACK-UP TRAFFIC STOP	240033382	ASSIST WITH SCENE SECURITY DURING SOBRIETIES FOR UNAVOIDABLE TRAFFIC STOP/OWI DRIVER; PER SGT ERBES	19:50:00	10	5/5/2024
YPSILANTI TWP	SUPERIOR TWP	WDGOMBOSJ	N PROSPECT ST/E CLARK RD	BACK-UP TRAFFIC STOP	240033396	BACK SUT UNITS ON FLEE AND ELUDE / CRASH OKAY PER SGT ERBES AND THE SGT PENNINGTON	21:25:00	110	5/5/2024
YPSILANTI TWP	SUPERIOR TWP	WDGERWIGB	N PROSPECT ST/E CLARK RD	BACK-UP TRAFFIC STOP	240033396	Superior units involved in a flee and elude and the S1 vehicle struck a pole on Geddes Rd // S1 was trapped in the vehicle // ok by sgt erbes	21:30:00	60	5/5/2024
YPSILANTI TWP	SUPERIOR TWP	WDCUSOJ	N PROSPECT ST/E CLARK RD	BACKUP DISPATCHED CALLS	240033396	BACKUP SUT UNITS IN A PURSUIT; OK PER SGT. ERBES.	21:35:00	85	5/5/2024
YPSILANTI TWP	SUPERIOR TWP	WDSAMAHAD	RIDGE RD	BACKUP DISPATCHED CALLS	240035276	ASSISTED WITH SPANISH TRANSLATION // SGT ARTS APPROVAL	12:05:00	130	5/12/2024
YPSILANTI TWP	SUPERIOR TWP	WDSHANKLANDC	EVERGREEN LN	BACKUP DISPATCHED CALLS	240036621	PER 623 SGT BYNUM, SHOTS FIRED IN THE AREA. SHELL CASINGS LOCATED SEE REPORT. NO-ONE WAS INJURED	04:30:00	45	5/17/2024
YPSILANTI TWP	SUPERIOR TWP	WDTRASKOSR	EVERGREEN LN	BACKUP DISPATCHED CALLS	240036621	ASSISTED SUPERIOR UNITS WITH AWIM / APPROVED SGT. BYNUM	04:30:00	100	5/17/2024
YPSILANTI TWP	SUPERIOR TWP	WDPEARSONA	GOTFREDSON RD/GEDDES RD	BACKUP DISPATCHED CALLS	240037307	assist with disorderly due to only 1 SUT unit being available per sgt rush	13:35:00	20	5/19/2024
YPSILANTI TWP	SUPERIOR TWP	WDTRIPPB	SUPERIOR RD	BACKUP DISPATCHED CALLS	240037352	CLOSEST UNIT TO BACK LONE SUPERIOR UNIT ON A ROAD RAGE POSSIBLE DOMESTIC; SUSPECT INTENTIONALLY RAMMED VICTIM VEHICLE; ASSISTED WITH DETAINING SUSPECT AND KEEPING SCENE SECURE; PER SGT MONTGOMERY	18:00:00	20	5/19/2024
YPSILANTI TWP	SUPERIOR TWP	WDGOMBOSJ	WHITE OAK LN	BACKUP DISPATCHED CALLS	240037397	SHOTS HEARD, OKAY TO BACK PER SGT ERBES DUE TO SVERAL SHOOTINGS IN THE SAME COMPLEX IN THE LAST WEEK. SUT UNITS TIED UP	21:10:00	15	5/19/2024
YPSILANTI TWP	SUPERIOR TWP	WDROYJ	WHITE OAK LN	BACKUP DISPATCHED CALLS	240037397	BACK UP UNITS ON SHOTS HEARD CALL APPROVED BY SGT ERBES	21:20:00	20	5/19/2024
YPSILANTI TWP	LODI TOWNSHIP	WDROBERTSG	TESSMER RD	BACKUP DISPATCHED CALLS	240038885	AST WITH POSSIBLE K9 TRACK MISSING PERSON - APV SGT WALLACE	02:30:00	40	5/25/2024
YPSILANTI TWP	SUPERIOR TWP	WDSHANKLANDC	STAMFORD RD/STAMFORD CT	BACKUP DISPATCHED CALLS	240038891	PER 623 SGT BYNUM 645 DEPUTY HILL HAD NO BACK. PEOPLE OUTSIDE IN THE PARKING LOT BEING LOUD	03:55:00	10	5/25/2024
YPSILANTI TWP	SUPERIOR TWP	WDHEATHV	GLENHILL DR	BACKUP DISPATCHED CALLS	240039675	ASSIST SUT UNITS WITH SWATTING/POSS HOMICIDE CALL APPROVED BY 630 SGT PENNINGTON	20:45:00	35	5/27/2024
YPSILANTI TWP	SUPERIOR TWP	WDSIMMST	GLENHILL DR	BACKUP DISPATCHED CALLS	240039675	SWATTING CALL / DISP ADVISED HEARING GUNSHOTS / SGT PENNINGTON	20:45:00	50	5/27/2024
YPSILANTI TWP	SUPERIOR TWP	WDVANDERROESTB	GLENHILL DR	BACKUP DISPATCHED CALLS	240039675	ASSIST SUP TWP W/ POSS SHOOTING // SGT PENNINGTON	20:45:00	35	5/27/2024
YPSILANTI TWP	SUPERIOR TWP	WDCUSOJ	GLENHILL DR	BACKUP DISPATCHED CALLS	240039675	REPORT THAT THE CALLER JUST SHOT HIS DAUGHTER AND WOULD SHOOT POLICE; DETERMINED TO BE 'SWATTING' CALL; OK PER SGT. PENNINGTON.	20:50:00	25	5/27/2024
YPSILANTI TWP	SUPERIOR TWP	WDHANNAHK	GLENHILL DR	BACKUP DISPATCHED CALLS	240039675	BU SUP. TWP. POSSIBLE MULTIPLE SHOOTING VICTIMS, MORE VICTIMS INSIDE. MULTIPLE SHOTS HEARD FROM CALL TAKER. APPROVED BY SGT. PENNINGTON.	20:50:00	30	5/27/2024
YPSILANTI TWP	SUPERIOR TWP	WDHOWARDS	GLENHILL DR	BACKUP DISPATCHED CALLS	240039675	SWATTING CALL / MALE ADVISED HE HAD JUST SHOT HIS WIFE AND DAUGHTER / APPROVED BY SGT. PENNINGTON	20:50:00	30	5/27/2024
YPSILANTI TWP	SUPERIOR TWP	WDSHANKLANDC	GLENHILL DR	BACKUP DISPATCHED CALLS	240039675	POSSIBLE SHOOTING IN SUPERIOR TWP - SGT PENNIGTON APPROVED	20:50:00	30	5/27/2024
YPSILANTI TWP	SUPERIOR TWP	WDTROWBRIDGEM	GLENHILL DR	BACKUP DISPATCHED CALLS	240039675	BACKUP OTHER UNITS ON SWATTING CALL SGT PENNINGTON APPROVAL	21:00:00	25	5/27/2024
YPSILANTI TWP	ANN ARBOR TWP	WDBECHTOLG	E HURON RIVER DR	BACKUP DISPATCHED CALLS	240040702	SUT UNITS ON MEETING/ CALL WAS POSSIBLE DOMESTIC VIOLENCE WITH ONE ARMED AND DANGEROUS/SGT HOGAN APPROVED	09:35:00	25	5/31/2024
							Sum:	**1,005**	

Into Area Time Ypsilanti TWP

For: 05/01/2024 thru 05/31/2024

Patrol Area	Reporting Area	Username	Location	Activity Category	Incident Number	Comments	Start Time	Duration in Minutes	Start Date
ANN ARBOR-SUPERIOR TWP COLLABORATION	YPSILANTI TWP	WDHALLR	RUSSELL ST	BACKUP DISPATCHED CALLS	240032100	BACK UP UNIT FOR POSSIBLE STABBING IN YPSI TWP- APPROVED BY LT. CRASTENBURG	10:45:00	40	5/1/2024
DEXTER-DEXTER TWP-WEBSTER TWP	YPSILANTI TWP	WDDUONGJ	JAMES L HART PKWY	BACKUP DISPATCHED CALLS	240032482	HELD OVER ON INCIDENT IN YPSI TWP / LARGE SUBJECT HIGH ON COCAINE / STUMBLING / COULD HARDLY STAND AND SPEAK COHERENTLY / BACKING UP ONLY YPSI TWP UNIT ON SCENE / PER SGT HOUK	16:02:00	78	5/2/2024
ANN ARBOR-SUPERIOR TWP COLLABORATION	YPSILANTI TWP	WDPREUTHUNO	APPLERIDGE ST	BACK-UP TRAFFIC STOP	240032606	Backed up Deputies Trowbridge and Lowhorn SGT Bynum	22:30:00	5	5/2/2024
SCIO TWP	YPSILANTI TWP	WDSILLERB	WCJ	DETAIL		IN WCJ WITH OWI ARREST FROM YPSI TWP / 24-33168	00:02:00	28	5/5/2024
ANN ARBOR-SUPERIOR TWP COLLABORATION	YPSILANTI TWP	WDCLARKA	VILLA DR	BACKUP DISPATCHED CALLS	240033326	BU MDOP POSSIBLE GUN SGT. HOUK APPROVAL	14:50:00	20	5/5/2024
ANN ARBOR-SUPERIOR TWP COLLABORATION	YPSILANTI TWP	WDLYONSW	VILLA DR	BACKUP DISPATCHED CALLS	240033326	ASSIST TWP UNITS MDOP PSS 121 INVOLED. APPROVED BY SGT HOUK	14:55:00	10	5/5/2024
ANN ARBOR-SUPERIOR TWP COLLABORATION	YPSILANTI TWP	WDLOWHORNB	HARRIET ST/S HAMILTON ST	BACK-UP TRAFFIC STOP	240033392	ASSIST YPT DEPS (SIMMS/ GOMBOS) WITH SEARCH OF FEMALE, OK WITH SGT ERBES	20:50:00	10	5/5/2024
ANN ARBOR-SUPERIOR TWP COLLABORATION	YPSILANTI TWP	WDCLARKA	CONCORD DR	BACKUP DISPATCHED CALLS	240033483	Warrant Arrest assist YPT units Sgt. Houk Approval	09:45:00	15	5/6/2024
DEXTER-DEXTER TWP-WEBSTER TWP	YPSILANTI TWP	WDDUONGJ	SW STATION 2	DETAIL		SEARCH WARRANT SERVICE / 24-33978 / PER LT HUNT	20:10:00	170	5/7/2024
SCIO TWP	YPSILANTI TWP	WDWARDB	STA 2	DETAIL		SEARCH WARRANT PER LT. CRATSENBERG (SWAT/ CNT)	20:10:00	120	5/7/2024
MANCHESTER-LODI COLLABORATION	YPSILANTI TWP	WDVANTUYLM	DEVONSHIRE	SPECIAL EVENT DETAIL		REASSIGNED PER LT. HUNT TO ASSIST WITH SWAT SEARCH WARRANT AT ABOVE ADDRESS. CFS#240033978	20:13:00	149	5/7/2024
ANN ARBOR-SUPERIOR TWP COLLABORATION	YPSILANTI TWP	WDCLARKA	CONCORD DR	DISPATCHED CALLS	240034141	BU Felonious Assault suspects with guns and a bat Sgt. Arts Approval	13:20:00	30	5/8/2024
ANN ARBOR-SUPERIOR TWP COLLABORATION	YPSILANTI TWP	WDCARTERA	CONCORD DR	BACKUP DISPATCHED CALLS	240034141	DISP: PER SGT. ARTS / BACK-UP YPSI TWP UNITS / F/A IN PROGRESS / SECURE ON SCENE	13:25:00	20	5/8/2024
ANN ARBOR-SUPERIOR TWP COLLABORATION	YPSILANTI TWP	WDHILLD	CONCORD DR	BACKUP DISPATCHED CALLS	240034259	1 IC for an FA in progress with a knife. SGT Pennington Approved	19:00:00	50	5/8/2024
ANN ARBOR-SUPERIOR TWP COLLABORATION	YPSILANTI TWP	WDNEDDOK	CONCORD DR	BACKUP DISPATCHED CALLS	240034259	FA IN HURON HEIGHTS SUSPECT INVOVLED IN ANOTHER FA EARLIER TODAY APPROVAL TO ASSIST PER SGT. PENNINGTON	19:22:00	17	5/8/2024
ANN ARBOR-SUPERIOR TWP COLLABORATION	YPSILANTI TWP	WDMIZERK	RIDGE RD/APPLERIDGE ST	BACKUP DISPATCHED CALLS	240034277	DISP: ASSIST TWP WITH SHOOTING THAT JUST OCCURED - OK PER SGT PENNINGTON	20:45:00	40	5/8/2024
ANN ARBOR-SUPERIOR TWP COLLABORATION	YPSILANTI TWP	WDCUSOJ	JEROME AVE	BACKUP DISPATCHED CALLS	240034443	DV IN PROGRESS; V1 ADVISED S1 HAD A KNIFE; OK PER SGT. HOGAN.	13:20:00	10	5/9/2024
ANN ARBOR-SUPERIOR TWP COLLABORATION	YPSILANTI TWP	WDTRIPPB	PRESCOTT ST	BACKUP DISPATCHED CALLS	240034540	CHECKED AREA FOR SUSPECT POSSIBLY WITH A GUN; NO YPSI UNITS AVAILABLE TO BACK; UNABLE TO LOCATE SUSPECT; PER SGT PENNINGTON	21:10:00	15	5/9/2024
ANN ARBOR-SUPERIOR TWP COLLABORATION	YPSILANTI TWP	WDHILLJ	CONCORD DR	BACKUP DISPATCHED CALLS	240035448	ASSIST YPT UNIT WITH EDP SUBJECT ARMED WITH KNIFE - ASSIST AT TRINITY HEALTH - APPROVE SGT BYNUM	06:30:00	50	5/13/2024
SCIO TWP	YPSILANTI TWP	WDCARNEYK	STATION 2	FOLLOW-UP		FOLLOW UP FOR CFS 24-31264. SPOKE WITH ATF AGENT JOSH REGARDING CASE. SGT. KRINGS APPROVED.	16:15:00	45	5/14/2024
ANN ARBOR-SUPERIOR TWP COLLABORATION	YPSILANTI TWP	WDCUSOJ	CHESTNUT DR	BACKUP DISPATCHED CALLS	240036244	STRANGULATION THAT JUST OCCURED; BOL FOR SUSPECT; OK PER SGT. BYNUM.	20:25:00	5	5/15/2024
ANN ARBOR-SUPERIOR TWP COLLABORATION	YPSILANTI TWP	WDHILLD	N FORD BLVD/HOLMES RD	DISPATCHED CALLS	240036276	SUBJECT STANDING IN THE MIDDLE OF INTERSECTION WHILE LEAVING MY STOP. TOOK SUBJECT BACK TO THE BLVD	21:55:00	5	5/15/2024
ANN ARBOR-SUPERIOR TWP COLLABORATION	YPSILANTI TWP	WDSIRIANNIJ	NASH AVE	EVIDENCE TECH DETAIL	240036319	ASSIST YPT DEPS WITH AWIM/SHOOTING. ASSIST WITH EVIDENCE TECH OF SCENE. APPROVED BY SGT. BYNUM.	02:45:00	135	5/16/2024
ANN ARBOR-SUPERIOR TWP COLLABORATION	YPSILANTI TWP	WDTRIPPB	NASH AVE	BACKUP DISPATCHED CALLS	240036319	ASSIST WITH CONFIRMED SHOOTING OF A RESIDENCE; ARRIVED ON SCENE AND LOCATED SHELL CASINGS; ASSISTED WITH SCENE SECURITY AND NEIGHBORHOOD CANVASS; PER SGT BYNUM	02:45:00	75	5/16/2024
ANN ARBOR-SUPERIOR TWP COLLABORATION	YPSILANTI TWP	WDNEDDOK	W WARNER ST	DETAIL		24-36680 DROP OFF EQUIPMENT AT LT. CRATSENBURG'S REQUEST	12:45:00	13	5/17/2024
ANN ARBOR-SUPERIOR TWP COLLABORATION	YPSILANTI TWP	WDNEDDOK	E MICHIGAN AVE	BACKUP DISPATCHED CALLS	240036718	BU 727 ALL OTHER UNITS ON 24-36680 APPROVAL TO ASSIST PER SGT. HOGAN	12:58:00	16	5/17/2024

Into Area Time Ypsilanti TWP

For: 05/01/2024 thru 05/31/2024

ANN ARBOR-SUPERIOR TWP COLLABORATION	YPSILANTI TWP	WDNEDDOK	RUE DEAUVILLE BLVD	BACKUP DISPATCHED CALLS	240036724	BU 727 ALL OTHER UNITS ON 24-36680 APPROVAL TO ASSIST PER SGT. HOGAN	13:14:00	11	5/17/2024
ANN ARBOR-SUPERIOR TWP COLLABORATION	YPSILANTI TWP	WDNEDDOK	W WARNER ST	DETAIL		24-36680 DROP OFF EQUIPMENT AT SGT. HOGAN'S REQUEST	13:25:00	12	5/17/2024
ANN ARBOR-SUPERIOR TWP COLLABORATION	YPSILANTI TWP	WDNEDDOK	TAFT ST	BACKUP DISPATCHED CALLS	240036728	BU 727 ALL OTHER UNITS ON 24-36680 APPROVAL TO ASSIST PER SGT. HOGAN	13:37:00	14	5/17/2024
ANN ARBOR-SUPERIOR TWP COLLABORATION	YPSILANTI TWP	WDHILLD	NASH AVE	BACKUP DISPATCHED CALLS	240036896	shooting. sgt pennington approved	22:20:00	210	5/17/2024
ANN ARBOR-SUPERIOR TWP COLLABORATION	YPSILANTI TWP	WDCARTERA	NASH AVE	BACKUP DISPATCHED CALLS	240036896	DISP: PER SGT. PENNINGTON - BACK-UP YPSI TWP UNITS / SHOOTING / MAN DOWN / ASSIST W/ PERIMETER / SCENE SECURITY / CROWD CONTROL	22:25:00	96	5/17/2024
ANN ARBOR-SUPERIOR TWP COLLABORATION	YPSILANTI TWP	WDTRIPPB	NASH AVE	BACKUP DISPATCHED CALLS	240036896	ASSIST YPSI TOWNSHIP UNITS WITH SHOOTING THAT JUST OCCURRED/ SUSPECT AT GUNPOINT; ARRIVED ON SCENE AND INTERVIEWED WITNESS; PER SGT PENNINGTON	22:25:00	25	5/17/2024
YORK TWP	YPSILANTI TWP	WDKNOPW	NASH AVE	BACKUP DISPATCHED CALLS	240036896	Sgt Pennington asking for all units on a homicide.	22:25:00	95	5/17/2024
ANN ARBOR-SUPERIOR TWP COLLABORATION	YPSILANTI TWP	WDLOWHORNB	NASH AVE	BACKUP DISPATCHED CALLS	240036896	SHOOTING, ASSIST YPT DEPS WITH SCENE SECURITY, NEIGHBORHOOD CANVAS. LT CRATS ON SCENE AND APPROVED	22:50:00	190	5/17/2024
ANN ARBOR-SUPERIOR TWP COLLABORATION	YPSILANTI TWP	WDTRIPPB	GEORGE PL	BACKUP DISPATCHED CALLS	240036902	NO YPT UNITS AVAILABLE TO BACK DUE TO SHOOTING; ASSISTED WITH VICTIM STATEMENT; PER SGT PENNINGTON	22:50:00	45	5/17/2024
ANN ARBOR-SUPERIOR TWP COLLABORATION	YPSILANTI TWP	WDTRIPPB	STEVENS DR	DISPATCHED CALLS	240036921	NO YPSI TWP UNITS AVAILABLE DUE TO SHOOTING; ASSIST WITH WITNESS IDENTIFICATION; PER SGT PENNINGTON	00:15:00	25	5/18/2024
ANN ARBOR-SUPERIOR TWP COLLABORATION	YPSILANTI TWP	WDTRIPPB	JULIE DR/LAKE DR	BACKUP DISPATCHED CALLS	240036927	ASSIST YPT DEPUTIES WITH SECURING SUBJECT WITH EXCITED DELERIUM/ HALLUCINATIONS; PER SGT PENNINGTON	00:40:00	55	5/18/2024
ANN ARBOR-SUPERIOR TWP COLLABORATION	YPSILANTI TWP	WDHILLJ	JULIE DR/LAKE DR	BACKUP DISPATCHED CALLS	240036927	Assist YPT with EDP subject - assist in transport to Trinity with uncooperative subject - Approving SGT Pennington	00:45:00	105	5/18/2024
ANN ARBOR-SUPERIOR TWP COLLABORATION	YPSILANTI TWP	WDTRIPPB	HOLMES RD	DISPATCHED CALLS	240036937	NO YPSI TWP UNITS TO BACK DUE TO SHOOTING; ASSIST WITH DRIVING SUBJECT TO GAS STATION TO LOOK FOR CAR AFTER VERBAL DISPUTE; PER SGT PENNINGTON	01:55:00	45	5/18/2024
ANN ARBOR-SUPERIOR TWP COLLABORATION	YPSILANTI TWP	WDHILLJ	SPINNAKER WAY	BACKUP DISPATCHED CALLS	240036945	Assist YPT with Welfare check - contact with caller - approving sgt Pennington	03:00:00	30	5/18/2024
ANN ARBOR-SUPERIOR TWP COLLABORATION	YPSILANTI TWP	WDHILLD	saint joes	DETAIL		24-36896 hospital guard	04:00:00	240	5/18/2024
ANN ARBOR-SUPERIOR TWP COLLABORATION	YPSILANTI TWP	WDHILLJ	HOLMES RD	DISPATCHED CALLS	240037415	ASSIST YPT UNIT REQUESTING MORE UNITS - APPROV SGT ERBES	22:20:00	20	5/19/2024
ANN ARBOR-SUPERIOR TWP COLLABORATION	YPSILANTI TWP	WDGOMBOSJ	RUSSELL CT	BACKUP DISPATCHED CALLS	240037692	SHOOTING. RESPOND TO BACK YPT UNITS DUE TO TWO GSW VICTIM AND POSSIBLE SUSPECT BARRICADE SUSPECT. SGT BYNUM ADVSIED	20:30:00	210	5/20/2024
ANN ARBOR-SUPERIOR TWP COLLABORATION	YPSILANTI TWP	WDLOWHORNB	RUSSELL CT	BACKUP DISPATCHED CALLS	240037692	BU YPT FOR HOMICIDE SHOOTING, APV LT CRATS	20:40:00	150	5/20/2024
ANN ARBOR-SUPERIOR TWP COLLABORATION	YPSILANTI TWP	WDWIONJ	RUSSELL CT	BACKUP DISPATCHED CALLS	240037692	pick up lrad and deliver to scene; handle runs per Lt. Cratsenburg	20:50:00	40	5/20/2024
ANN ARBOR-SUPERIOR TWP COLLABORATION	YPSILANTI TWP	WDWIONJ	FOREST CT	BACKUP DISPATCHED CALLS	240037698	backup per Lt. Cratsenburg	21:30:00	45	5/20/2024
ANN ARBOR-SUPERIOR TWP COLLABORATION	YPSILANTI TWP	WDWIONJ	WOBURN DR	BACKUP DISPATCHED CALLS	240037708	backup per Lt. Cratsenburg - rerouted	22:15:00	5	5/20/2024
ANN ARBOR-SUPERIOR TWP COLLABORATION	YPSILANTI TWP	WDWIONJ	DEVONSHIRE ST	BACKUP DISPATCHED CALLS	240037710	backup per Lt. Cratsenburg	22:20:00	20	5/20/2024
ANN ARBOR-SUPERIOR TWP COLLABORATION	YPSILANTI TWP	WDHILLJ	FALL RIVER RD	DISPATCHED CALLS	240037731	UTL - IN THE AREA - APPROV SGT BYNUM	01:50:00	10	5/21/2024
ANN ARBOR-SUPERIOR TWP COLLABORATION	YPSILANTI TWP	WDFARMERA	INTERNATIONAL DR	BACKUP DISPATCHED CALLS		BACKED UP YPT DEP. PER SGT. PENNINGTON'S REQ.	20:02:00	28	5/22/2024
ANN ARBOR-SUPERIOR TWP COLLABORATION	YPSILANTI TWP	WDSIRIANNIJ	SHARE AVE	BACKUP DISPATCHED CALLS	240038575	ASSIST YPT WITH HOMICIDE INVESTIGATION / OUT AT TRINITY WITH VICTIM / APPROVED BY SGT. PENNINGTON	00:00:00	55	5/24/2024
ANN ARBOR-SUPERIOR TWP COLLABORATION	YPSILANTI TWP	WDTRIPPB	SHARE AVE	BACKUP DISPATCHED CALLS	240038575	NEIGHBORHOOD CANVASS FOR SHOOTING THAT JUST OCCURRED; FOLLOWED VICTIM TO TRINITY FOR UPDATES; DETAINED POSSIBLE SUSPECT AND OBSERVE SUBJECTS IN DETECTIVE BUREAU FOR INTERVIEWS; PER SGT PENNINGTON	00:00:00	240	5/24/2024
ANN ARBOR-SUPERIOR TWP COLLABORATION	YPSILANTI TWP	WDSIRIANNIJ	SHARE AVE	BACKUP DISPATCHED CALLS	240038575	ASSIST YPT WITH HOMICIDE INVESTIGATION / OUT AT DB WITH DETAINED SUBJECTS FOR INTERVIEWS / VEHICLE PROCESSING / APPROVED BY SGT. PENNINGTON	01:25:00	395	5/24/2024
ANN ARBOR-SUPERIOR TWP COLLABORATION	YPSILANTI TWP	WDLYONSW	GLENWOOD AVE	BACKUP DISPATCHED CALLS	240038682	ASSIST WITH DV NO BACK UP FOR 719 APPROVED BY SGT WILLIAMS	13:30:00	50	5/24/2024

Into Area Time Ypsilanti TWP

For: 05/01/2024 thru 05/31/2024

ANN ARBOR-SUPERIOR TWP COLLABORATION	YPSILANTI TWP	WDLYONSW	GROVE RD	BACKUP DISPATCHED CALLS	240039010	ASSIST YPSI TWP WITH SHOTS FIRED. APPROVED BY SGT WILLIAMS	15:45:00	55	5/25/2024
SALEM TWP	YPSILANTI TWP	WDTROWBRIDGEM	BROOKWOOD AVE	DISPATCHED CALLS	240039014	HANDLED TWP RUNS DUE TO YPSI UNITS BEING ON SHOOTING SGT WILLIAMS APPROVAL	16:00:00	30	5/25/2024
ANN ARBOR-SUPERIOR TWP COLLABORATION	YPSILANTI TWP	WDLOWHORNB	BROOKWOOD AVE	DISPATCHED CALLS	240039014	FAMILY TROUBLE, NO YPT CARS AVAILABLE DUE TO SHOOTING CR No: 240039010, APPROVED BY SGT WILLIAMS	16:01:00	39	5/25/2024
SALEM TWP	YPSILANTI TWP	WDTROWBRIDGEM	WOODLAWN AVE/ECORSE RD	DISPATCHED CALLS	240039015	HANDLED YPT RUNS DUE TO YPT UNITS BEING ON SHOOTING SGT WILLIAMS APPROVAL	16:30:00	15	5/25/2024
ANN ARBOR-SUPERIOR TWP COLLABORATION	YPSILANTI TWP	WDLOWHORNB	WOODLAWN AVE/ECORSE RD	DISPATCHED CALLS	240039015	CR No: 240039010 NO YPT CARS AVAIL, JUVENILE COMPLAINT APPROVED BY SGT WILLIAMS	16:40:00	10	5/25/2024
ANN ARBOR-SUPERIOR TWP COLLABORATION	YPSILANTI TWP	WDLOWHORNB	BELMONT DR	DISPATCHED CALLS	240039016	CR No: 240039010 NO YPT CARS AVAIL DUE TO SHOOTING, NOISE COMPLAINT APPROVED BY SGT WILLIAMS	16:50:00	30	5/25/2024
SALEM TWP	YPSILANTI TWP	WDTROWBRIDGEM	BELMONT DR	DISPATCHED CALLS	240039016	HANDLED YPT RUNS DUE TO YPT DEPS BEING ON SHOOTING AND NO UNITS AVAIL SGT WILLIAMS APPROVAL	16:50:00	15	5/25/2024
ANN ARBOR-SUPERIOR TWP COLLABORATION	YPSILANTI TWP	WDLOWHORNB	GOLFSIDE RD	DISPATCHED CALLS	240039027	CR No: 240039010 NO YPT CARS AVAIL DUE TO SHOOTING, EDP APPROVED BY SGT WILLIAMS	17:30:00	90	5/25/2024
SALEM TWP	YPSILANTI TWP	WDTROWBRIDGEM	GOLFSIDE RD	DISPATCHED CALLS	240039027	HANDLED YPT RUNS DUE TO YPT DEPS BEING ON SHOOTING AND NO UNITS AVAIL SGT WILLIAMS APPROVAL	17:50:00	55	5/25/2024
							Sum:	**3,976**	

JERRY L. CLAYTON
SHERIFF

YPSILANTI TOWNSHIP MONTHLY POLICE SERVICES DATA
May 2024

Incidents	Month 2024	Month 2023	% Change	YTD 2024	YTD 2023	% Change
Traffic Stops	916	765	20%	4729	4802	-2%
Citations	159	192	-17%	889	1327	-33%
Drunk Driving (OWI)	1	8	-88%	41	52	-21%
Drugged Driving (OUID)	1	1	0%	21	8	163%
Calls for Service Total	3840	3589	7%	17500	17847	-2%
Calls for Service *(Traffic stops and non-response medicals removed)*	2448	2319	6%	10438	10519	-1%
Robberies	2	1	100%	6	8	-25%
Assaultive Crimes	78	72	8%	282	328	-14%
Home Invasions	7	11	-36%	29	37	-22%
Breaking and Entering's	1	0	+	6	5	20%
Larcenies	28	44	-36%	137	165	-17%
Vehicle Thefts	12	11	9%	70	44	59%
Traffic Crashes	69	80	-14%	343	411	-17%
Medical Assists	58	58	0%	252	239	5%
Animal Complaints *(ACO Response)*	65	58	12%	228	292	-22%

In/Out of Area Time	Month *(minutes)*	YTD *(minutes)*
Into Area Time	3976	7526
Out of Area Time	935	5739
Investigative Ops (DB)	48720	168755
Secondary Road Patrol	1995	3443
County Wide	870	2480

+ = Positive Change
- = Negative Change

	Hours Accum.	Hours Used	Balance
Banked Hours	1220	TBD	1433.25

CONSENT AGENDA

CHARTER TOWNSHIP OF YPSILANTI
MINUTES OF THE MAY 21, 2024 REGULAR BOARD MEETING

Supervisor Brenda Stumbo called the meeting to order at approximately 6:00pm in the Ypsilanti Township Civic Center Board Room, 7200 S. Huron River Drive, Ypsilanti Township. The Pledge of Allegiance was recited followed by a moment of silent prayer.

Members Present: Supervisor Brenda Stumbo (arrived 6:25pm), Clerk Heather Jarrell Roe, and Treasurer Stan Eldridge
Trustees: John Newman II (arrived 6:11pm), Gloria Peterson, Debbie Swanson, and Ryan Hunter

Members Absent: none

Legal Counsel: Wm. Douglas Winters

CONSENT AGENDA

A. **MINUTES OF THE MAY 7, 2024 REGULAR MEETING AND CLOSED SESSION**

B. **STATEMENTS AND CHECKS**

1. **STATEMENTS AND CHECKS FOR MAY 21, 2024 IN THE AMOUNT OF $960,052.33**
2. **CLARITY HEALTHCARD DEDUCTIBLE ACH EFT FOR APRIL 2024 IN THE AMOUNT OF $59,976.16**
3. **CLARITY HEALTHCARE DEDUCTIBLE ADMIN FEE FOR APRIL 2024 IN THE AMOUNT OF $1,588.19**

C. **TREASURERS' REPORT APRIL 2024**

A motion was made by Treasurer Eldridge and supported by Trustee Swanson to approve the Consent Agenda.

The motion carried unanimously.

ATTORNEY REPORT

A. **GENERAL LEGAL UPDATE**

Attorney Winters stated that for the second time this year we have contractor who has gone through the bidding process and then when it comes time for them to sign the contract they refuse. He said they claim they did not calculate the prevailing wage and fringe benefits in their bid which is required by the Township to pay the contractors' staff. Attorney Winters stated this ordinance was adopted by the Township in 1974.

OLD BUSINESS

1. **REQUEST AUTHORIZATION TO SEEK SEALED BIDS FOR PATHWAY AND PLAYGROUND SURFACE REPAIRS AT BURNS PARK AND PATHWAY RENOVATION AND PLAYGROUND REPLACEMENT AT WEST WILLOW PARK (TABLED AT THE MAY 7, 2024 REGULAR MEETING)**

A motion was made by Treasurer Eldridge and supported by Trustee Hunter to remove from the table.

The motion carried unanimously.

John Hines, Municipal Services Director explained the proposed changes that were made regarding the renovations for West Willow Park after he met with their neighborhood groups.

Trustee Swanson verified that there would be wood chips. She asked if we were limited who could bid on the project. She stated it would be better if we had more competition in the bidding process so we could get better pricing.

Trustee Peterson thanked Mr. Hines for meeting with the neighbors in West Willow and she said she understood they are satisfied with the plans for their park.

A motion was made by Treasurer Eldridge and supported by Trustee Peterson to approve the request authorization to seek sealed bids for pathway and playground surface repairs at Burns Park and pathway renovation and playground replacement at West Willow Park.

The motion carried unanimously.

NEW BUSINESS

1. **REQUEST TO APPROVE THE CONTRACT WITH THE WASHTENAW COUNTY SHERIFF'S OFFICE AND WASHTENAW COUNTY TO FACILITATE COLLABORATIVE SHARING OF A SCHOOL RESOURCE OFFICER FOR THE SUMMER MONTHS WITH THE LINCOLN CONSOLIDATED SCHOOL DISTRICT IN THE AMOUNT OF $30,263.21 BUDGETED IN LINE ITEM #266-301-831-008**

Trustee Swanson asked if we contract with the Sheriff's office would we be paying for services that won't be provided because the officer would be on vacation.

Treasurer Eldridge said we do absorb the cost if they take a vacation.

A motion was made by Trustee Peterson and supported by Trustee Swanson to approve the contract with Washtenaw County Sheriff's Office and Washtenaw County to facilitate collaborative sharing of a School Resource Officer for the summer months with the Lincoln Consolidated School District in the amount of $30,263.21 budgeted in LINE ITEM #266-301-831-008 (see attached).

The motion carried unanimously.

2. **REQUEST TO APPROVE THE 2024 THIRD AGREEMENT WITH THE WASHTENAW COUNTY ROAD COMMISSION (WCRC) IN THE AMOUNT OF $1,861,865.87 BUDGETED IN LINE ITEM #101-902-981-130**

A motion was made by Treasurer Eldridge and supported by Trustee Peterson to approve the 2024 Third Agreement with the Washtenaw County Road Commission (WCRC) in the amount of $1,861,865.87 budgeted in line item #101-902-981-130 (see attached).

The motion carried unanimously.

3. **REQUEST TO WAIVE THE FINANCIAL POLICY AND AWARD THE LOW QUOTE FROM DIUBLE FOR THE PURCHASE OF A BOBCAT TRACTOR IN THE AMOUNT OF $28,694.80 BUDGETED IN LINE ITEM #101-770-977-000**

A motion was made by Treasurer Eldridge and supported by Trustee Peterson to request to waive the financial policy and award the low quote from Diuble for the purchase of a bobcat tractor in the amount of $28,694.80 budgeted in line item #101-770-977-000.

The motion carried unanimously.

4. **REQUEST TO APPROVE THE AGREEMENT WITH RUN SIGNUP TO HOST REGISTRATION FOR THE DIVOT DASH 5K AT GREEN OAKS GOLF COURSE ON OCTOBER 15, 2024**

John Hines, Municipal Services Director explained the process regarding registration being handled by Run Signup for the Divot Dash 5K.

Trustee Swanson questioned the security issues regarding peoples' data being given out to an outside company. She said that if the company is taking credit cards, etc. and they don't keep it safe will the Township be liable since the event will be on Ypsilanti Township property.

A motion was made by Treasurer Eldridge and supported by Trustee Peterson to approve the agreement with Run sign up to host registration for the Divot Dash 5K at Green Oaks Golf Course on October 15, 2024 (see attached).

The motion carried unanimously.

5. **BUDGET AMENDEMENT #7**

Clerk Jarrell Roe read Budget Amendment #7.

A motion was made by Clerk Jarrell Roe and supported by Trustee Swanson to approve budget amendment #7 (see attached).

The motion carried unanimously.

AUTHORIZATION AND BIDS

1. **REQUEST TO SEEK SEALED BIDS FOR PATHWAY RENOVATION AND PLAYGROUND REPLACEMENT AT APPLERIDGE PARK AS PART OF THE WASHTENAW COUNTY COMMUNITY DEVELOPMENT BLOCK GRANT (CDBG) PROJECT FUNDING**

A motion was made by Clerk Jarrell Roe and supported by Trustee Swanson to approve the request to seek sealed bids for pathway renovation and playground replacement at Appleridge Park as part of the Washtenaw County Community Development Block Grant (CDBG) Project Funding.

Trustee Swanson explained what she doesn't like about the renovation and replacement at Appleridge Park. She said she doesn't like being so specific about playground equipment because it would limit the amount of vendors who would bid on the job.

The motion carried unanimously.

2. **REQUEST TO REJECT THE BIDS FOR THE REPLACEMENT AND INSTALLATION OF THE COMMUNITY CENTER RENOVATION HVAC PROJECT AND ACCEPT THE LOW QUOTE FROM W.J. ONEIL IN THE AMOUNT OF $110,000.00 BUDGETED IN LINE ITEM #213-901-975-555**

A motion was made by Clerk Jarrell Roe and supported by Treasurer Eldridge to reject the bids for the replacement and installation of the Community Center renovation HVAC Project and accept the low quote from W.J. Oneil in the amount of $110,000.00 budgeted in line item #213-901-975-555.

John Hines, Municipal Services Director explained why this was brought back to the Board.

The motion carried unanimously.

3. **REQUEST TO SEEK SEALED BIDS FOR THE PURCHASE OF ONE NEW FORD TRANSIT VAN FOR BUILDING OPERATIONS**

A motion was made by Clerk Jarrell Roe and supported by Trustee Peterson to approve the request to seek sealed bids for the purchase of one new Ford Transit Van for Building Operations.

The motion carried unanimously.

4. **REQUEST TO WAIVE THE FINANCIAL POLICY AND AWARD THE LOW QUOTE FOR REPAIRS TO FIRE STATION #3 TO BMS MANAGEMENT IN THE AMOUNT OF $52,092.28 BUDGETED IN LINE ITEM #206-901-976-005 DUE TO ALLIED BUILDING SERVICE WITHDRAWING THEIR QUOTE**

A motion was made by Clerk Jarrell Roe and supported by Treasurer Eldridge to waive the financial policy and award the low quote for repairs to Fire Station #3 to BMS Management in the amount of $52,092.28 budgeted in line item #206-901-976-005 due to Allied Building Service withdrawing their quote.

The motion carried unanimously.

CLOSED SESSION

1. **REQUEST TO ENTER INTO CLOSED SESSION IN ACCORDANCE WITH THE OPEN MEETINGS ACT SECTION 15.268 TO CONSIDER MATERIAL EXEMPT FROM DISCUSSION OR DISCLOSURE BY FEDERAL OR STATE STATUE**

A motion was made by Clerk Jarrell Roe and supported by Treasurer Eldridge to approve request to enter Closed Session in accordance with the Open Meeting Act Section 15.268 to consider material exempt from discussion of disclosure by Federal or State Statue.

Swanson……Yes	Newman……Yes	Peterson……Yes
Jarrell Roe……Yes	Stumbo……Yes	Eldridge……Yes
Newman……Yes		

Motion carried unanimously.

The Board went into closed session at 6:55pm and came out at 7:53pm.

OTHER BUSINESS

1. **REQUEST TO ACCEPT THE RESIGNATION AND SEPARATION AGREEMENT BETWEEN YPSILANTI TOWNSHIP AND MICHELLE TOWLER**

A motion was made by Clerk Jarrell Roe and supported by Trustee Peterson to accept the resignation and separation agreement between Ypsilanti Township and Michelle Towler.

The motion carried unanimously.

2. **REQUEST AUTHORIZATION TO ACCEPT THE LOW QUOTE FOR $12,800.00 FROM PAT WALTERS & SONS FOR THE INSTALLATION OF TWO MINI SPLIT HEAT PUMPS TO PROVIDE CONDITIONING AIR DURING THE SUMMER MONTHS AND PROVIDE ADDITIONAL HEATING IF NEEDED IN THE WINTER MONTHS FOR THE CRC BUILDING**

A motion was made Clerk Jarrell Roe and supported by Trustee Peterson to request authorization to accept the low quote for $12,800.00 from Pat Walters & Sons for the installation of two mini split heat pumps to provide conditioning air during the summer months and provide additional heating if needed in the winter months for the CRC building.

The motion carried unanimously.

PUBLIC COMMENTS

Two public comments were given.

A motion was made by Clerk Jarrell Roe and seconded by Treasurer Eldridge to Adjourn.

The motion carried unanimously.

The meeting was adjourned at approximately 8:01pm.

Respectfully Submitted,

Brenda L. Stumbo, Supervisor
Charter Township of Ypsilanti

Heather Jarrell Roe, Clerk
Charter Township of Ypsilanti

AGREEMENT TO ASSIGN THE LINCOLN CONSILIDATED SCHOOL DISTRICT CONTRACTUAL DEPUTY TO YPSILANTI TOWNSHIP FOR THE TIME PERIOD OF JUNE 16, 2024 THROUGH AUGUST 17, 2024

AGREEMENT is made this 6 May 2024 by YPSILANTI TOWNSHIP, a Michigan municipal corporation located at 7200 S. Huron River Drive, Ypsilanti, Michigan, ("Township"), the LINCOLN CONSOLIDATED SCHOOL DISTRICT, located at 8970 Whittaker Road, Ypsilanti, Michigan ("School"), the COUNTY OF WASHTENAW, a municipal corporation, with offices located in the County Administration Building, 220 North Main Street, Ann Arbor, Michigan ("County") and the WASHTENAW COUNTY SHERIFF's OFFICE located at 2201 Hogback Road, Ann Arbor, Michigan ("Sheriff")

WHEREAS, the Township and the School currently contract with the County and the Sheriff to provide contractual police services in their respective jurisdictions and;

WHEREAS, the deputy assigned to the School is primarily used during the standard school year of August through early June; and

WHEREAS, Ypsilanti Township and the School have discussed and agreed upon a sharing arrangement, whereby the deputy assigned to the School will work for the Township from June 16, 2024 through August 17, 2024 with the Township being financially responsible for that deputy for the time that he/she works for the Township; and

WHEREAS, the School deputy will be reassigned to the Township and given assignments as agreed upon by the Township and Sheriff, thereby enhancing police services in the Township during the summer months.

WHEREAS, the parties now desire to memorialize this Agreement to writing.

NOW THEREFORE, the parties agree as follows:

ARTICLE I – Assignment of Contractual Deputy

The parties agree that beginning on June 16, 2024 and concluding on August 17, 2024 the contractual deputy assigned to Lincoln Consolidated School District will be reassigned to the Ypsilanti Township. Upon expiration, the deputy will be reassigned back to the Lincoln Consolidated School District.

ARTICLE II - TERM

This contract shall begin on June 16, 2024 and continue through August 17, 2024.

ARTICLE III –PAYMENT FOR REASSIGNED DEPUTY

During the term of this Agreement, the parties agree that the Township shall be responsible to pay the County for the price of the reassigned deputy at the rates established and agreed upon in the police service contract currently in effect between the County, Township and Sheriff, which Agreement is incorporated by reference into this Agreement. Using these rates, the price of the reassigned deputy for the term of this contract shall be $30,263.21 payable by the Township as follows: June invoice--$7,387.08; July invoice--$14,774.17; August invoice--$8,101.96. These rates are subject to change based on the availability of staffing levels and the implementation of this contract.

ARTICLE IV- CHANGES IN SCOPE OR SCHEDULE OR SERVICES

Changes mutually agreed upon by the parties will be incorporated into this Agreement by written amendments signed by all parties.

ARTICLE V - EXTENT OF CONTRACT

The terms of this document represents the entire agreement between the parties on the reassignment of the School contractual deputy to the Township for the term described in this Agreement and supersedes all prior representations, negotiations or agreements whether written or oral on this matter.

YPSILANTI TOWNSHIP

By: Brenda L. Stumbo
Brenda Stumbo (DATE) May 22, 2024
Supervisor

By: Heather Jarrell Roe
Heather Jarrell Roe (DATE) May 22, 2024
Clerk

WASHTENAW COUNTY

By: _____
Gregory Dill (DATE)
County Administrator

WASHTENAW COUNTY SHERIFF'S OFFICE

By: _____
Jerry L. Clayton
Sheriff

LINCOLN CONSOLIDATED SCHOOLS

By: _____
Robert Jansen
Superintendent

APPROVED AS TO FORM:

By: _____
Michelle K. Billard
Office of Corporation Counsel

ATTESTED TO:

By: _____
Lawrence Kestenbaum (DATE)
County Clerk/Register

2024 YPSILANTI TOWNSHIP THIRD AGREEMENT

THIS AGREEMENT, made and entered into this 22 day of May, 2024, by and between the Township Board of Ypsilanti Township ("Ypsilanti Township"), Washtenaw County, and the Board of Washtenaw County Road Commissioners ("WCRC").

WHEREAS, Ypsilanti Township desires that certain improvements be made upon the local roads in the Township of Ypsilanti, and

WHEREAS, proper authority is provided to the parties of the agreement under the provisions in Act 51 of Public Acts of 1951 as amended,

IT IS NOW THEREFORE AGREED, the WCRC will accomplish the improvements as specified herein, all in accordance with the standards of the Board of Washtenaw County Road Commissioners,

IT IS FURTHER AGREED, Ypsilanti Township shall pay WCRC for the actual project costs incurred for the project; and

IT IS FURTHER AGREED, the WCRC will submit an invoice to the Township on July 1, 2024, for 50% of the estimated project costs. Following project completion and final accounting of the project costs, WCRC will submit the final invoice for the actual remaining unpaid costs. The final invoice shall provide supporting detail and information, which reasonably identifies the actual project costs incurred by WCRC. The Township described herein agrees to remit payment within 30 days from receipt of WCRC invoices.

Greene Farms Subdivision 2024:
Work to include forestry, milling the existing pavement, the placement of 2" HMA resurfacing, ADA sidewalk ramp upgrades, and associated project restoration.
Roads to include:

(Phase 5)
Berwick Drive, Warwick Drive to Roxbury Drive
Berwick Court, Berwick Drive to End of Road
Hampton Drive, Hitchingham Road to Berwick Drive
Hampton Court, Hampton Drive to End of Road
Houston Court, Berwick Drive to End of Road
Crest Drive, Hitchingham Road to Berwick Drive
Oxford Court, Crest Drive to End of Road
(Phase 6)
Marlow Drive, Bemis Road to Essex Drive
Essex Drive, Marlow Drive to Warwick Drive
Kensington Drive, Essex Drive to Amrhein Drive
Carlton Drive, Essex Drive to Amrhein Drive
Warwick Drive, Essex Drive to Amrhein Drive
Amrhein Drive, Bemis Road to Roxbury Court
(Phase 7)
Warwick Drive, Bemis Road to Essex Drive
Essex Drive, Warwick Drive to Marlow Drive
Winterfield Drive, Essex Drive to Warwick Drive
Newbury Drive, Essex Drive to Warwick Drive

Estimated project cost for Greene Farms Subdivision 2024: $ 1,180,000.00

2024 Ypsilanti Township Third Agreement

Sugarbrook 2024:
As a division of the Ypsilanti Community Utilities Authority contract, work to include milling the existing pavement, the placement of 2" HMA resurfacing, ADA sidewalk ramp upgrades, and associated restoration.
Roads to include:

McCarthy Street, Knowles Street to Conway Street
McCarthy Court, Conway Street to End of Road
Knowles Street, McCarthy Street to Andrea Avenue
Heather Ridge, McCarthy Street to Andrea Avenue
Lynn Avenue, McCarthy Street to Harry Street
Conway Street, McCarthy Street to Harry Street
Harry Street, Grove Road to Foley Avenue
Andrea Avenue, Harry Street to Foley Avenue
Foley Avenue, Harry Street to Andrea Street
Crittendon Avenue, Harry Street to Harmon Avenue

Estimated project cost for Sugarbrook 2024: $ 998,000.00

AGREEMENT SUMMARY

2024 LOCAL ROAD PROGRAM	
Greene Farms Subdivision 2024 (Phases 5, 6, 7)	$ 1,180,000.00
Less WCRC 2024 Local Matching Funds	$ 316,134.13
Subtotal	$ 863,865.87
Sugarbrook 2024	$ 998,000.00
ESTIMATED AMOUNT TO BE PAID BY YPSILANTI TOWNSHIP UNDER THIS AGREEMENT DURING 2024:	**$ 1,861,865.87**

CHARTER TOWNSHIP OF YPSILANTI:

Brenda L. Stumbo

Brenda Stumbo, Supervisor May 22, 2024

Heather Jarrell Roe

Heather Jarrell Roe, Clerk May 22, 2024

WASHTENAW COUNTY ROAD COMMISSION:

Barbara Ryan Fuller, Chair

Matthew MacDonell, Managing Director

The RunSignup Event Contract

1. Overview and Scope. RunSignUp's Software-as-a-Service, or "SaaS", solutions (each a "**Service**") enable the provision of technology-based Service to help facilitate the administration and management of various races, activities, clubs, online giving sites, charitable donations and other events (collectively, "**Events**"). A Service may be used by directors or organizers of an Event, sponsoring organizations, charities, not-for-profit entities, and other individuals and entities managing or supporting an Event (collectively, "**Organizers**"). This Agreement is entered into between RunSignup and the Organizer of the Event which/who: (a) is duly authorized to receive the registration fees, donations, membership fees, ticket fees and any and all other payments which are processed and collected for the Event through the use of our Service (collectively, the "**Event Proceeds**"); or (b) is otherwise using the Service to support an Event. You represent that you are the Organizer or its authorized representative and have the requisite authority to enter into this Agreement and receive the Event Proceeds. Organizers using a Service are referred to in this Agreement collectively as "**you**" or "**yours**" or as the Organizer.

2. **Contracting Parties**. This Agreement is entered into between RunSignup, Inc., a Delaware corporation doing business as RunSignup, BikeSignup, TriSignup, SkiSignup, PaddleSignup, AdventureSignup, GiveSignup, and Ticketsignup (collectively, "**RunSignup**", "**we**" or "**us**") at 300 Mill Street, Suite 200, Moorestown, NJ 08057, and you.

3. License, Restrictions and Intellectual Property Rights.

   a. We grant you a limited, non-exclusive, non-transferable, non-sublicensable license for you to use the Service on a time-bounded basis for the subscription period specified in the "Termination" provision below. You may use the Service, and shall ensure that your Authorized Users (defined in Section 3(d) below) use the Service, solely in support of your particular Event and solely for the purposes for which we designed the Service to be used as contemplated in this Agreement.

   b. As applicable, the Service will be made available to you through one of our websites, including runsignup.com, bikesignup.com, trisignup.com, skisignup.com, paddlesignup.com, adventuresignup.com, givesignup.org, and ticketsignup.io, or through a mobile application or other cloud-based platform, which we may make available for your use (individually, a "**Site**" and collectively, the "**Sites**").

   c. Unless expressly authorized in this Agreement, you shall not, and Organizers shall ensure that its Authorized Users (defined in Section 3(d) below) do not: (i) permit any third-party to access, use or copy all or any portion of the Service; (ii) modify, reverse engineer, decompile, disassemble, distribute, create derivative works based on, copy or otherwise exploit or circumvent access controls to all or any portion of the Service; (iii) sell, sublicense, rent, lease, or otherwise transfer rights to all or any portion of the Service; (vi) use the Service to operate in an outsourcing, service bureau or similar manner; or (v) use the Service in any manner which (a) poses a security risk, violates applicable laws or

regulations, or violates any acceptable use policy or other terms of use which are posted on the Sites where the Service is accessed; (b) overburdens or impairs the performance or operation of the Service or our hosted environment; (c) introduces offensive, pornographic, infringing or other inappropriate content; (d) poses a liability risk to Us; or (e) violates our Code of Conduct or similar policy to the extent posted on our Site. The restrictions, conditions, limitations and prohibitions regarding the Service which are set forth in this Agreement shall apply equally to the applicable Site(s) and the underlying technology throughout which the Service is provided. Any rights not granted hereunder are reserved by RunSignup.

d. You may only permit access to the Service by your employees and third parties (for example, volunteers or contractors) who you authorize to use the Service in support of the operations of the applicable Event and who are bound by the confidentiality, limited use, intellectual property and other applicable conditions and restrictions of this Agreement ("**Authorized Users**"). As the Organizer, you shall be responsible and liable to ensure that each Authorized User complies with the terms and conditions set forth in this Agreement.

e. We retain all right, title and interest in and to the Service and Sites (including, without limitation, the underlying technology, along with the features, functions, design, "look and feel", graphics, branding, design and other content) and in and to the associated documentation and materials, and in all related intellectual property, modifications, enhancements and derivative works, including all know-how, methods and processes, as well as all related technology and all content (other than your posted Custom Content, as defined in Section 6(a) below), will belong solely and exclusively to RunSignup. In addition to the other restrictions and limitations set forth herein, you agree that, except as expressly authorized hereunder in connection with your use of the Service and a Site, you shall treat our intellectual property as confidential information and shall not disclose or distribute it, in whole or in part.

f. Nothing in this Agreement prevents you from using another registration provider or discontinuing use of the Service without penalty (but, if applicable, you shall pay any and all fees due under this Agreement) during the period which this Agreement is in effect.

4. Credit Card Information. In connection with the handling of credit card information in the provision of our Services, we have undergone a rigorous independent data security assessment to earn a designation as a Level 1 "**PCI-DSS**" ("**Payment Card Industry Data Security Standard**") Service Provider. To the extent that we handle credit card information for your Event, we agree to maintain Level 1 PCI-DSS compliance during the term of this Agreement and to retain an independent, qualified firm to validate compliance on at least an annual basis. To the extent applicable, RunSignup agrees to provide you with proof of compliance on written request no more frequently than annually. RunSignup acknowledges that, when credit card information is used for transactions on our Site, we will employ measures designed to protect cardholder data under the requirements listed in the PCI-DSS once it has been encrypted by our SSL certificate and transmitted to our servers. We do not store any user credit card information on our servers, but pass that directly to a third party payment gateway for processing. For those users who request to

have their credit card data stored, we use a secure online credit card "vault" service. We will confirm that any third party payment gateways or third party vault services we use will have also been designated as PCI Level 1 compliant.

5. Information We Collect; Information Security

   a. In the course of providing the Services, we will collect certain information as follows:
      i. From individuals using the Sites and/or Service to registering for Events (each a "Participant") or to set up a profile, we may collect their name, address, email address, gender, date of birth, phone number and other information, which we will store on our Sites as a profile (collectively, "**Profile Data**").
      ii. We will also store the lists and reports of Participants who have registered for the Event ("**Event Data**"). You may use the Event Data in support of the administration and support of your Event and to market your future Events to Participants and (as applicable solicit donations, subject to your compliance with this Agreement, applicable data security/privacy laws, and the terms of the RunSignup Privacy Policy.
      iii. We will not use Profile Data or Event Data to market Events or other services directly to Participants and we will not share or sell Event Data to other Events or advertisers.
      iv. If you are using a Service to facilitate the marketing of an Event or the payment and collection of fees or donations in connection with an Event, we will collect information from you, including your name, address, date of birth, tax identification number and other information that will allow us to identify you. We will also collect information about the entity that will receive the proceeds from the account if an entity will receive the proceeds (collectively, "**Organizer Data**"). The Organizer Data is required to satisfy various regulatory, credit card network, beneficial ownership, underwriting and "know your customer" requirements and guidelines for approving the payment account and to prevent funding terrorism and money laundering. We may request additional information to help us verify the information collected, or information needed, including information related to taxes described in Section 8, below. You agree to provide us this additional information. You consent to our use of independent third party services, including the use of credit reports, to verify information you provide and to determine the financial risk of processing transactions on your behalf. If any of the information you provide cannot be verified or is otherwise determined to be erroneous including by a state, local, or foreign government, you agree to indemnify RunSignup for any fees, penalties, or other charges imposed related to the erroneous information.
      v. The Profile Data, Event Data and Organizer Data may be collectively referred to as "**Collected Data**".

   b. We agree to maintain commercially reasonable safeguards designed to protect the Collected Data from unauthorized disclosure or use. You hereby consent to our collection, use and handling of Collected Data and other information which you provide to us or which our Service generates about you in a manner consistent with

this Agreement and the RunSignup Privacy Policy. Details regarding our handling of the Collected Data is set forth in the RunSignup privacy policy, which can be found at https://RunSignup.com/About-Us/Privacy-Policy (the "**RunSignup Privacy Policy**"), and you confirm that you have reviewed such policy and agree thereto. Such uses of data include: (i) the disclosure of Collected Data to third parties to support our provisioning of the Service; and (ii) the utilization of aggregated data pursuant to Section 5(c) below.

c. You shall maintain, and shall ensure that your Authorized Users maintain, the confidentiality of your user name, password and other account information (collectively, "**Account Information**"), which enables access and use of the Services. You shall maintain the confidentiality of your Account Information and be solely responsible for any unauthorized disclosure or use of such Account Information, along with any ensuing liability for any harm or damages caused thereby.

d. You shall protect the privacy and security of personal information and any other regulated information regarding registrants, Participants, members and others (including such information which is a part of Event Data) in accordance with all applicable laws, regulations, prevailing industry standards and other applicable data security guidelines ("**Data Security Laws**"). In addition, you shall ensure that: (i) you, and any other applicable party which accesses such information, has posted, and complies with, a privacy policy to address applicable collection, uses and storage practices; and (ii) such privacy policies comply with all applicable Data Security Laws.

e. You shall be solely responsible and liable for, and shall indemnify, defend and hold us harmless from, any liability or damages or harm of any kind incurred or alleged to have been incurred by any individual or entity which arises out, relates to of or is connected with any actions or omissions of you or any Authorized User or any Participant which is based upon or results in the unauthorized access to, disclosure of, or breach of security or integrity or privacy regarding any information accessed, uploaded, provided, generated processed, utilized, stored or otherwise handled by you or us including but not limited to Event Data in connection with this Agreement, a Service or an Event.

6. Content You Post.

a. You, may choose to post, upload, publish, submit, display or transmit data, text, images, recordings, materials, logos, marks or other content on or through the Services or the Sites "**Custom Content**"). You may not post any content that infringes the intellectual property rights of another party.

b. You on behalf of your organization, each Authorized User and each Participant: hereby grant to RunSignup a non-exclusive, worldwide, royalty-free, perpetual, irrevocable, transferable license to use, display, reproduce, distribute, modify and transmit, in digital or printed form, all Custom Content in connection with the implementation, operation, maintenance and promotion of the Service and the promotion of your Event. However, we may also use your name, logo and/or other marks for the purpose of listing your organization as a user of our Service on our promotional materials (including on our

Site). We agree to discontinue such use of your name or marks, which we have inserted or posted in our promotional materials within ten (10) days of your written request. You represent and warrant that, to the extent that any Custom Content is owned by a third party, the owner has granted you the necessary rights to effectuate the license granted to us above.

c. You agree that we may de-personalize (remove any personally identifying information protected under applicable law) and aggregate any data, information or content which we collect, handle, store, process or otherwise access in connection with our provision of the Service (including data and Custom Content which you provide or post) to perform analytics, improve and market the Services, or for any other business or commercial purpose. We shall have no obligation or liability in connection with the use of any of data, information or content, which we de-personalize, unless and to the extent prohibited by applicable law.

7. Fees. Each online Participant using our Services will pay the registration fee charged by you plus a fee for processing such registrations (a "**Processing Fee**"), which is calculated and charged per transaction (not including donations) as follows:

Checkout Total (Not Including Donations)	Processing Fee
$0	$0
$.01 to $249.99	$1.00 + 6.0% of Checkout Total
$250.00 to $999.99	$1.00 + 5.0% of Checkout Total
$1,000.00+	$1.00 + 4.0% of Checkout Total

Processing Fees for donations are 4.0% of the donation total.

The Processing Fee is established by us and may be changed from time to time at our discretion but will always be clearly disclosed on our Sites to you and to your registrants. We will not change Processing Fees while your race or ticket-based Event is open and accepting registrations or transactions through the Service. We will be responsible for collecting all registration fees and Processing Fees and you hereby expressly consent to, and authorize us, to collect all such fees in connection with our provision of the Service.

8. Taxes. You will be responsible for the collection and payment of any and all sales and/or use tax ("**Sales Tax**"), excise, privilege taxes, duties, value added taxes, fees, assessments or similar liabilities (collectively, "Taxes"), except to the extent that (i) we automatically calculate, collect, or remit Sales Tax on your behalf according to applicable law (for more information, see our Site for details); or (ii) we expressly agree with you to receive Sales Tax or other transaction-based charges on your behalf in connection with your sales through our Site. Any and all fees payable by you and/or the online registrants pursuant to this Agreement, including but not limited to the Processing Fee are exclusive of all Taxes, and you and/or the online registrants will pay any Taxes that are imposed and payable on such amounts. All payments made by you to RunSignup under this Agreement

will be made free and clear of any deduction or withholding (including but not limited to cross-border withholding taxes), as may be required by law. If any such deduction or withholding is required on any payment, you will pay such additional amounts as are necessary so that the net amount received by RunSignup is equal to the amount then due and payable under this Agreement. Except as otherwise provided in this Agreement, you agree that RunSignup is not obligated to determine whether Taxes apply, and RunSignup is not responsible to collect, report, or remit any Taxes arising from any transaction. However, if a taxing authority requires us to pay any of your Taxes, you will promptly reimburse us for the amounts paid.

9. **Important Information About Procedures for Opening a New Payment Account:** Establishing a payment account with RunSignup for the collection of fees or donations (a "**Payment Account**") requires us to obtain, verify and record information that identifies each person who opens an account. When a payment account is opened, we will ask for certain Organizer Data (as defined in Section 5 above) and you agree to provide such information. We may ask you for additional information now or in the future if your payment processing increases or if we are unable to verify your identity or the identity or tax identification number for the entity that is receiving Event proceeds.

a. RunSignup uses Adyen and we may use other payment processing services now and in the future (collectively "**Processors**") for payment processing for payment accounts.

i. In order for you to use a Payment Account you must be approved as a sub-merchant by RunSignup and Processors by submitting the required Organizer Data which may vary based on your processing volume. By accepting this Agreement and using an Advanced Payment Account you also agree to the Adyen Terms and Conditions (https://www.adyen.com/legal/terms-and-conditions-adyen-for-platforms).

ii. We allow you to choose direct deposit or check payments from the credit card payment gateway to the Payment Account which we maintain for your Event on a Weekly, Monthly or Daily basis (Daily Payments must be approved by RunSignup and are only for direct deposit). Weekly is the default option. Weekly Check payments are only processed if proceeds of at least $1,000 are owed or if there is a transaction that is more than 90 days old, however we won't pay less than certain minimum amounts. RunSignup charges a $10.00 fee to process a payment by check. The fee will be available to see on our site and will be deducted from registration proceeds prior to sending you a check. Direct Deposit weekly payments are no cost to you and are not subject to the $1,000 minimum. Payments will be made on this basis with the exception of funds held to establish a refund reserve when required. The refund reserve will be paid to you via your selected payment method after the conclusion of your Event and after we have been able to verify that there are no chargebacks for your Event. All registration fees, except for Processing Fees are your exclusive property.

b. Refunds - You shall exclusively and directly be liable for and handle refunds. If RunSignup, for any reason has to handle refunds or chargebacks on your behalf You will be liable to RunSignup for the registration proceeds refunded to participants for Your Event as well as any applicable RunSignup processing fees for the original registration and refund and any fees from the credit card brands or Processors to process the chargebacks. RunSignup has a service that helps you process refunds, these refunds come out of your reserve funds and will not be processed if the reserve funds do not meet the refund requests. Additional funds can be added to the refund reserve as needed.

c. RunSignup reserves the right to withhold payments from an Event or Organizer if there are complaints from registrants or repeated chargebacks or if an Event has been cancelled and there are not sufficient funds available for refunds. RunSignup may require a holdback reserve from Events as a reserve for refunds and chargebacks. Additionally, that holdback may be increased for some Events based on the newness of the Event or newness of the registration history with RunSignup or based on RunSignup's internal underwriting review of the creditworthiness of the Organizer Data submitted for the Event Payment Account. RunSignup reserves the right to withhold and deduct payment from an Event or Organizer for chargebacks that are processed against the Event. RunSignup will release any Event holdbacks after an Event has been completed and it is determined that there are no additional refunds or chargebacks to be processed for that Event.

d. We may now or in the future use other Processors for payment processing. You agree and provide consent that if we decide to use another payment processing company that we may move your Payment Account or set up another similar Payment Account with any other payment processing company providing similar services for the processing and payment of Registration fees or other Event proceeds as long as there are no other material changes in the Services provided under this Agreement.

10. Payment of Registration Fees. In connection with our collection of fees in the provision of our Services, you agree as follows: (i) we may send registration fees collected by us, minus our Processing Fees, directly to you via the methods identified in Payments above and you warrant that you are an authorized representative of the Organizer in this regard and (ii) you shall indemnify us for any claims, loss or expenses (including attorney's fees) brought by the Organizer or any other individual, entity or organization that relates to or arises from our payment of funds to you (including a claim that we wrongfully paid such funds to you and should have paid a different individual, entity or organization).

11. Termination. This Agreement will remain in effect until terminated in accordance with its terms. Either party may terminate this Agreement upon written notice if the other party is in material breach and fails, within thirty (30) days of receipt of written notice of the breach, to correct the breach. In addition, RunSignup may immediately deactivate, suspend or terminate your use of the Service for your Event, or delist any Site, if you misuse the Service or the Sites in violation of the terms hereof, including i) by breaching Section 3 above or infringing our intellectual property rights in the Service or Sites; (ii) if RunSignup is unable to approve your Payment Account for processing or continued processing now or in the future in our sole discretion, based on our internal underwriting guidelines; or (iii) if you violate the Code of

Conduct for our Site. RunSignup may also terminate this Agreement, and your access to and use of the Service and Site(s), at any time after your Event is completed (or, as applicable, cancelled), with or without cause, upon written notice to you, but, unless you have misused the Service or the Sites in a fraudulent or other improper manner, you shall then have the right to retrieve your data in accordance with the terms below. Upon termination, all rights (including rights to access and use the Service and Site) and obligations shall automatically terminate and you shall promptly return all proprietary information and materials of ours to us. You agree that, following termination or expiration hereof, we may maintain your data and content (including Collected Data and Custom Content) in accordance with our then-current backup, retention and data retention policies and for the ongoing purposes authorized herein. Upon request within one (1) year after termination, we will make available to you (via electronic download or such other method pursuant to our then-standard practices) your content and data which remains in our possession. After such one-year period, we may, without obligation to do so, delete any or all of your data and/or content without liability. We can also terminate this Agreement if our payment processing vendors terminate our right to process or accept payments, whether with respect to you or our customers at large.

You may discontinue use of the Services at any time without penalty and without notice to RunSignup, however you will continue to be liable for any chargebacks or refunds for your event.

12. Representations and Warranties and Associated Disclaimers. Each party represents and warrants that it has the necessary and full right, power, authority and capability to enter into this Agreement and to perform its obligations hereunder; that it owns or controls the rights granted or licensed to the other party herein; that the execution and performance of its obligations under this Agreement will not violate any known rights of any third party, any contractual commitments or any applicable federal, state and local law or regulation; and that the marks, logos and intellectual property licensed to the other party herein do not violate the proprietary rights of a third party.

EXCEPT FOR THE WARRANTIES EXPRESSLY PROVIDED HEREIN, THE SERVICES AND THE SITES ARE PROVIDED "AS IS" AND EACH PARTY DISCLAIMS ALL OTHER WARRANTIES, INCLUDING WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. WITHOUT LIMITATION, RUNSIGNUP EXPRESSLY DISCLAIMS ANY WARRANTY, REPRESENTATION, COMMITMENT OR LIABILITY: (i) THAT THE USE OF THE SERVICES, THE SITES, THE CONTENT THEREON OR ANY ASSOCIATED INTELLECTUAL PROPERTY WILL BE UNINTERRUPTED OR ERROR FREE OR THAT THE OPERATION OR USE THEREOF WILL MEET YOUR REQUIREMENTS; (ii) REGARDING ANY WEBSITES (INCLUDING THIRD PARTY WEBSITE FOR WHICH A LINK IS PROVIDED FROM OUR SERVICE OR SITE), TECHNOLOGY, SOLUTIONS OR OTHER PRODUCTS OR SERVICES (INCLUDING PAYMENT GATEWAYS AND DATA VAULTS) PROVIDED OR MADE AVAILABLE BY THIRD PARTIES; AND (iii). REGARDING THE ACCURACY OF ANY INFORMATION OR CONTENT THAT YOU POST OR ACCESS THROUGH THE SERVICES OR THE SITES. YOU ARE SOLELY RESPONSIBLE FOR ALL ASPECTS OF THE EVENT, INCLUDING WITH RESPECT TO ALL DATA AND CONTENT WHICH YOU POST OR SHARE.

13. Indemnification.

We will defend, indemnify and hold you harmless from and against any damages, losses, and costs that directly arise out of a claim brought by a third party (i) which alleges that the Services (in the form which we make them available to you) infringe a third party's copyright, patent, trademark, trade secret or other intellectual property right enforceable in the United States; (ii) seeking damages resulting from the unauthorized disclosure of credit card information or other personal information (where "**personal information**" means personally identifiable information (PII) which is protected under applicable law) hereunder to the extent such damages are caused by our breach of data security measures which we commit to undertake in this Agreement. As a condition of our indemnity obligation, you must promptly notify us of any such claim; grant us sole control of the defense and settlement of any such claim; and cooperate with us to facilitate our ability to settle or defend the claim. In the event of a covered infringement claim, we will endeavor to obtain for you the right to continue using the Services, or to replace or modify the Services so that they are not infringing and materially similar. If these alternatives are not commercially reasonable, we will notify you and terminate the Services. We shall have no indemnity obligations to you if the infringement claim is caused by your misuse of the Services, or Your use of the Services in combination with unauthorized products or services. THESE ARE OUR EXCLUSIVE OBLIGATIONS WITH RESPECT TO INFRINGEMENT OF INTELLECTUAL PROPERTY RIGHTS AND UNAUTHORIZED DISCLOSURE OF CREDIT CARD INFORMATION AND PII.

You shall indemnify, defend and hold harmless RunSignup and its directors, officers, employees, affiliates, contractors and agents (collectively, the "**RunSignup Indemnitees**"), against any damages, losses and costs that directly arise out of a claim brought by a third party (including an individual, entity or organization): (i) which alleges that your data, content or other information or materials infringes a third party's copyright, trademark, trade secret, patent or other intellectual property right enforceable in the United States; (ii) seeking damages for the unauthorized disclosure of Event Data or personally identifiable data by you or an Authorized User as a result of a breach of a warranty, covenant or obligation hereunder; (iii) which arises out of or is caused by a misuse of the Service by you or any of your Authorized Users in violation of the usage or licensing restrictions and/or prohibitions set forth in this Agreement; (iv) which is based on injury, harm or other damage to, or a dispute over payments made or refunds requested by, a participant, volunteer, sponsoring organization, entity or support resource involved in any Event or (as applicable) any of your club's running activities; (v) which arises from your breach of a representation or warranty provided hereunder (including, by way of example and not limitation, a claim brought by a third party provider of online Event management and/or registration services due to your breach of a representation or warranty in Section 12 above) or (vi) which is brought by a timer, event organizer, Event director or other organization (other than the Organizer which is entering into this Agreement) and is based on or arises out of the Service, the use of the Sites or other matters related to your Event. With the exception of gross negligence on the part of any Township employee, nothing herein shall be construed to waive, limit, or restrict any governmental immunity defense available to the Charter Township of Ypsilanti.

14. LIMITATION ON LIABILITY.

EXCEPT TO THE EXTENT PROHIBITED BY LAW, IN NO EVENT SHALL RUNSIGNUP BE LIABLE FOR ANY INDIRECT, INCIDENTAL, SPECIAL, PUNITIVE, EXEMPLARY OR CONSEQUENTIAL DAMAGES, INCLUDING ANY LOST PROFITS OR LOST REVENUE, ARISING OUT OF OR IN CONNECTION WITH THIS AGREEMENT. IN NO EVENT WILL THE LIABILITY OF RUNSIGNUP UNDER THIS AGREEMENT EXCEED: (A) THE AMOUNT OF PROCESSING FEES COLLECTED AND RETAINED BY US FOR YOUR EVENT FOR THE SIX (6) MONTH PERIOD PRECEDING THE DATE OF THE INITIAL CLAIM ASSERTED AGAINST US HEREUNDER; OR (B) IF WE DO NOT COLLECT OR RETAIN ANY PROCESSING FEES FOR YOUR EVENT, ONE HUNDRED DOLLARS ($100). MULTIPLE CLAIMS SHALL NOT INCREASE THE CAPS. THE REMEDIES PROVIDED IN THIS AGREEMENT ARE EXCLUSIVE, SHALL APPLY TO ALL CAUSES OF ACTION (INCLUDING NEGLIGENCE) AND SHALL APPLY REGARDLESS OF THE FAILURE OF ESSENTIAL PURPOSES OF ANY LIMITED REMEDY AND EVEN IF A PARTY HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH LIABILITIES. NOTHING SET FORTH ABOVE SHALL LIMIT OUR OBLIGATION TO PAY UNDISPUTED FEES PROPERLY DUE TO YOU UNDER THIS AGREEMENT.

15. Miscellaneous.

a. Independent Contractor Relationship; No Third-Party Beneficiaries. The parties are independent contractors and nothing contained in this Agreement will be construed to create an association, trust, partnership, agency or joint venture between the parties. Except as expressly set forth herein, this Agreement does not and is not intended to confer any rights or remedies, express or implied, upon any person other than the parties hereto.

b. Assignment. You may not assign or transfer any part of this Agreement without the prior written consent of RunSignup. We may assign this Agreement to an affiliate or in connection with a merger, acquisition, corporate reorganization, or sale of all or substantially all of its assets or a controlling interest in our stock, but will endeavor to provide notice of such assignment as soon as practicable after it occurs.

c. Force Majeure. Neither party will be liable to the other for any failure to perform any of its obligations under this Agreement during any period in which performance is delayed by circumstances not within such party's reasonable control, such as a natural disaster, act of war or terrorism, government action or orders, labor disruption, internet outages or interruptions or power outages. Notwithstanding the above, the terms and conditions of Sections 9(b) and 9(c) shall continue to remain in full force and effect despite the occurrence of a force majeure event. Additionally, Organizers shall remain financially responsible to Participants and/or RunSignup as applicable for any refunds and chargebacks necessitated by a Force Majeure event that causes a cancellation or interruption of an Event for which Services have been provided under this Agreement.

d. Compliance with Laws. Each of us shall abide by all applicable laws and regulations, including those addressing data security and export controls, regarding our exercise of rights and performance of obligations under this Agreement.

e. Entire Agreement; Severability; Waiver. This Agreement is the entire agreement between you and RunSignup with respect to its subject matter and supersedes all prior oral and written understandings, communications or agreements between you and us regarding that subject matter. No amendment to or modification of this Agreement will be valid or binding unless it is in writing and executed by authorized representatives of both parties. If any provision of this Agreement is found to be void or unenforceable, the provision will be stricken or modified and the remainder of this Agreement will remain in full force and will not be terminated. A waiver of any default is not a waiver of any subsequent default. All waivers must be in writing to be effective.

f. Governing Law and Jurisdiction. The laws of the State of New Jersey shall govern the interpretation and enforcement of this Agreement and any dispute arising out of or related hereto, without regard to its conflict of laws principles. The parties irrevocably submit to the exclusive jurisdiction of the state and federal courts located in New Jersey with respect to any dispute arising out of or relating to this Agreement.

g. Notices. All notices must be in writing and shall be sent by first class U.S. mail or a nationally known express or overnight courier (such as FedEx, UPS or the U.S. Postal Service). Notices to us shall be sent to our main address as listed on each Site and, for each notice, a copy shall also be sent to Our CFO. Notice to You may be sent to your address set forth in the Agreement. Notices shall be deemed given upon receipt thereof.

Company

Heather Jarrell Roe

Signature

Brenda L. Stumbo Heather Jarrell Roe

Printed Name & Title Supervisor Clerk

Date May 22, 2024

RunSignUp, Inc.

_____

Signature

_____

Printed Name & Title

Date_____

CHARTER TOWNSHIP OF YPSILANTI
2024 BUDGET AMENDMENT # 7

May 21, 2024

AMOUNTS ROUNDED UP TO THE NEAREST DOLLAR

101 - GENERAL OPERATIONS FUND

Total Increase $30,060.00

Request to increase the budget for PTO payout at 75%. This will be funded by an appropriation of prior year fund balance.

Revenues:	**Prior Year Fund Balance**	**101-000-699.999**		**$2,302.00**
			Net Revenues	**$2,302.00**
Expenditures:	**Salaries Pay Out**	**101-191-708.004**		**$2,138.00**
	FICA	**101-191-715.000**		**$164.00**
			Net Expenditures	**$2,302.00**

Request to increase the budget for the required voter ID cards sent out in December of 2023. The invoice was not received until after the close of year end and was paid out of the 2024 budget. This will be funded by an appropriation of prior year fund balance.

Revenues:	**Prior Year Fund Balance**	**101-000-699-999**		**$4,000.00**
			Net Revenues	**$4,000.00**
Expenditures:	**Office Supplies**	**101-262-727.000**		**$4,000.00**
			Net Expenditures	**$4,000.00**

Request to increase the budget for the purchase of a trailer for election equipment transportation as the old trailer was leaking. This will be funded by an appropriation of prior year fund balance.

Revenues:	**Prior Year Fund Balance**	**101-000-699-999**		**$10,158.00**
			Net Revenues	**$10,158.00**
Expenditures:	**Equipment**	**101-262-977.000**		**$10,158.00**
			Net Expenditures	**$10,158.00**

Request to increase the budget for summertime Internships provided through Michigan Works. We are contracting for 4 interns at $3,400 per intern for the summer. This will be funded by an appropriation of prior year fund balance.

Revenues:	**Prior Year Fund Balance**	**101-000-699-999**		**$13,600.00**
			Net Revenues	**$13,600.00**
Expenditures:	**Contractual Services**	**101-270-818.000**		**$13,600.00**
			Net Expenditures	**$13,600.00**

CHARTER TOWNSHIP OF YPSILANTI
2024 BUDGET AMENDMENT # 7

May 21, 2024

213 - BIKE, SIDEWALK, REC, ROADS FUND (BSRII)

Total Increase $110,000.00

Request to increase the budget for HVAC system at the Community Center. This will be funded 100% by a Department of Energy Grant (EECBG) when awarded.

Revenues:	**Dept of Energy - EECBG**	**213-000-529.500**		**$110,000.00**
			Net Revenues	**$110,000.00**
Expenditures:	**Cap Outlay/ Energy-Com Center**	**213-901-975.555**		**$110,000.00**
			Net Expenditures	**$110,000.00**

217 - FIRE SPECIAL MILLAGE CAPITAL FUND

Total Increase $70,000.00

Request to increase the capital outlay line in the Fire Special Millage Capital Fund for the Hewitt Fire Station improvements. This was originally budget for 2024 in the Fire Fund 206, but there are additional funds of over $200K in the special capital fund that must be used for capital or capital improvement. The original budget requested $10,000 for engineering and $60,000 for construction to repair Hewitt Station ceiling and gutters. This will be funded by an appropriation of prior year fund balance.

Revenues:	**Prior Year Fund Balance**	**217-000-699.999**		**$70,000.00**
			Net Revenues	**$70,000.00**
Expenditures:	**Capital Outlay Fire Station**	**217-901-976.005**		**$70,000.00**
			Net Expenditures	**$70,000.00**

Motion to Amend the 2024 Budget (#7)

Move to increase the General Fund budget by $30,060 to $26,966,268 and approve the department line item changes as outlined.

Move to increase the Bike, Sidewalk, Rec, Roads Fund (BSRII) budget by $110,000 to $4,406,036 and approve the department line item changes as outlined.

Move to increase the Fire Special Millage Capital Fund budget by $70,000 to $1,614,869 and approve the department line item changes as outlined.

Supervisor
BRENDA L. STUMBO
Clerk
HEATHER JARRELL ROE
Treasurer
STAN ELDRIDGE
Trustees
RYAN HUNTER
JOHN P. NEWMAN II
GLORIA PETERSON
DEBBIE SWANSON

YPSILANTI TOWNSHIP
— WHERE YOUR FUTURE GROWS —

Accounting Department

7200 S. Huron River Drive
Ypsilanti, MI 48197
Phone: (734) 544-4000 Ext 5
Fax: (734) 484-5154

STATEMENTS AND CHECKS

JUNE 4, 2024 BOARD MEETING

ACCOUNTS PAYABLE CHECKS -	$	922,776.73
HAND CHECKS -	$	425,368.76
CREDIT CARDS PURCHASES -	$	0.00
GRAND TOTAL -	**$**	**1,348,145.49**

CHECK REGISTER FOR CHARTER TOWNSHIP OF YPSILANTI
CHECK NUMBERS 196848 - 196868

HAND CHECKS

Check Date	Check	Vendor Name	Description	Amount
Bank AP AP				
05/23/2024	196848	ALLIED, INC.	ANNUAL OSHA INSPECTIONS- LIFTS	258.75
05/23/2024	196849	COMCAST	ACCT. #8529 10 234 0279396	162.50
05/23/2024	196850	DTE ENERGY	STREETLIGHTS - APRIL 2024	90,634.67
05/23/2024	196851	WASTE MANAGEMENT	ACCT. #20-37335-53005	75.79
05/23/2024	196852	WASTE MANAGEMENT	ACCT. #14-44697-63004	176.20
05/23/2024	196853	WASTE MANAGEMENT	ACCT. #6-99239-92003	390.48
05/23/2024	196854	YAMAHA MOTOR FINANCE CORPORATION	GOLF CART LEASE - JUNE 2024	6,900.00
05/23/2024	196855	YPSILANTI COMMUNITY	ACCT. #2-037-360000-01	176.88
			ACCT. #2-087-560550-01	90.26
			ACCT. #2-087-560600-01	90.26
			ACCT. #2-087-560650-01	42.95
			ACCT. #2-087-560610-01	90.26
			ACCT. #2-085-341000-01	36.10
			ACCT. #2-085-341010-01	97.11
			ACCT. #4-085-803600-02	144.43
			ACCT. #4-070-428255-01	120.50
			ACCT. #4-037-360100-01	144.43
			ACCT. #4-037-360200-01	212.95
			ACCT. #4-074-535400-01	103.98
			ACCT. #4-083-487600-01	144.43
			ACCT. #4-085-789900-01	131.38
			ACCT. #4-085-803450-01	151.29
			ACCT. #4-087-560100-01	192.39
			ACCT. #4-087-560150-01	178.69
			ACCT. #4-087-560200-01	31.76
			ACCT. #2-087-560500-01	97.11
			ACCT. #2-060-771600-01	36.63
				2,313.79
05/24/2024	196856	HOLLAND MOTOR HOMES & BUS COMPANY	PURCHASE OF 15 PASSENGER 50 & BEYOND BUS	84,797.00
05/24/2024	196857	ANDREW MIARS	PAYROLL SERVICES 5/6/24-5/17/24 - 67 HOU	3,015.00
05/29/2024	196858	ALLIED FENCE & SECURITY	REPLACEMENT - FHP DUGOUT FENCE FIX	1,150.00
05/29/2024	196859	DAVID BOWMAN	REPLACEMENT - JUROR COMPENSATION	18.00
05/29/2024	196860	HOLOCAUST MEMORIAL CENTER	REPLACEMENT - 50 & BEYOND TRIP	156.00
05/29/2024	196861	JOSHUA BYERS	REPLACEMENT - JUROR COMPENSATION	18.00
05/29/2024	196862	KAMILAH DAVIS-WILSON	REPLACEMENT - SHELTER RENTAL	200.00
05/29/2024	196863	LAWANDA BEAN	REPLACEMENT - JUROR COMPENSATION	18.00
05/30/2024	196864	BLUE CROSS BLUE SHIELD OF MI	HEALTH INSURANCE - JUNE 2024	184,129.15
05/30/2024	196865	BLUE CROSS BLUE SHIELD OF MI	HEALTH INSURANCE - JUNE 2024	29,857.10
05/30/2024	196866	DELTA DENTAL PLAN OF MICHIGAN	DENTAL INSURANCE - JUNE 2024	13,442.06
05/30/2024	196867	STANDARD INSURANCE COMPANY	DISABILITY INSURANCE - JUNE 2024	1,767.33
			LIFE INSURANCE - JUNE 2024	2,797.02
				4,564.35
05/30/2024	196868	STANDARD INSURANCE COMPANY	VSP - JUNE 2024	3,091.92

AP TOTALS:

Total of 21 Checks:	425,368.76
Less 0 Void Checks:	0.00
Total of 21 Disbursements:	425,368.76

CHECK REGISTER FOR CHARTER TOWNSHIP OF YPSILANTI
CHECK NUMBERS 196869 - 196968

A/P Checks

Check Date	Check	Vendor Name	Description	Amount
Bank AP AP				
06/04/2024	196869	LILLIAN GIORDANO	2024 YOUTH SOCCER OFFICIAL ON 5/4, 5/11	200.00
06/04/2024	196870	A DESIGN LINE	TWP APPAREL	96.98
06/04/2024	196871	A.R. BROUWER COMPANY	WEST WILLOW ARPA SHELTER PROJECT	8,925.30
			FLP ARPA SHELTER 1-4 PROJECT	84,851.10
				93,776.40
06/04/2024	196872	AHEAD	GREEN OAKS STAFF PATCH LOGO HATS.	326.52
06/04/2024	196873	ALI METAJ	SPRING 2024 SOFTBALL OFFICIAL	80.00
06/04/2024	196874	ALL SEASONS LANDSCAPING CO.	TRUCK & LAWNCARE ITEMS	292.47
			EDGER BLADE	5.98
				298.45
06/04/2024	196875	ALLGRAPHICS CORPORATION	SPECIAL EVENT CREW NECK SWEATSHIRTS	972.00
06/04/2024	196876	AMAZON CAPITAL SERVICES	MAGNETS FOR BOARD	8.98
			MISC SUPPLIES FOR ALL STATIONS	187.21
			BIBS & JACKETS FOR FF BROUILLETTTE & ROL	559.96
			DRUM UNITS	199.35
			OFFICE SUPPLIES	100.16
			VIDEO CABLES	74.06
			OFFICE TOOLS	78.50
			OFFICE SUPPLIES - ACCOUNTING	17.99
			POUF OTTOMAN - ACCOUNTING	67.89
			HON OFFICE CHAIRS - ORDINANCE/BUILDING	1,291.96
			OFFICE SUPPLIES - ORDINANCE	154.02
			OFFICE SUPPLIES - ORDINANCE	98.15
			SUPPLIES - RECREATION	25.99
			SPECIAL EVENT PARK SUPPLIES - RECREATION	92.90
			LANYARDS WITH ID BADGE HOLDERS - RECREAT	25.98
			TARPS/SORBENT SINGLE WEIGHT PADS	410.92
				3,394.02
06/04/2024	196877	AMERICAN DREAM HOME IMPROVEMENT	REFUND - PERMIT FEES #PB24-0341	142.50
06/04/2024	196878	ANN ARBOR CLEANING SUPPLY	CLEANING SUPPLIES FOR THE COMMUNITY CENT	607.66
06/04/2024	196879	AUTO VALUE YPSILANTI	POWER SERVICE	164.28
			BATTERY FOR #95, SHOP SUPPLIES	231.70
			BATTERY FOR #90	192.91
			257- OIL CHANGE SUPPLIES, BELT AND SPARK	190.42
				779.31
06/04/2024	196880	B-BALL SKILLS LLC	75% PAYOUT FOR NEW MEMBERSHIPS	288.00
06/04/2024	196881	BACK TO NATURE LAWN CARE	BROADLEAF WEED CONTROL	202.25
			EARLY SPRING PRE EMERGENT & FERRILIZER	74.75
				277.00
06/04/2024	196882	C-MAR PRODUCTS	24 DRUMS TRASH PARK TRASH CANS	639.00
06/04/2024	196883	CARLISLE/WORTMAN ASSOCIATES	FORTIS ACADEMY MEETING	300.00
06/04/2024	196884	CHARTER TOWNSHIP OF SUPERIOR	ACCT. #HURO-007200-0000-01	85.73
06/04/2024	196885	CIVICPLUS LLC	HOSTING SUBSCRIPTION/ADMIN SUPPORT FEE F	450.00
			HOSTING SUBSCRIPTION/ADMIN SUPPORT FEE F	1,350.00
				1,800.00

Check Date	Check	Vendor Name	Description	Amount
06/04/2024	196886	CLI CONCRETE LEVELING INC.	SIDEWALK LEVELING ROUND 1 MAY 2024	2,450.00
06/04/2024	196887	COLMAN-WOLF SANITARY SUPPLY CO	CUSTODIAL SUPPLIES - LEC	95.72
06/04/2024	196888	CRYSTAL FLASH, INC.	FUEL FOR HQ - REGULAR	543.56
			DIESEL GASOLINE FOR HQ FIRE STATION	2,212.65
				2,756.21
06/04/2024	196889	DANCE WITH ELEGANCE	SPRING CLASS INSTRUCTION	1,358.00
06/04/2024	196890	DANIELLE FIELHAUER	SPRING 2024 ZUMBA & ZUMBA GOLD	318.50
06/04/2024	196891	DOAN CONSTRUCTION COMPANY	RIDGE ROAD SIDEWALK PROJECT	177,001.93
06/04/2024	196892	DOHYOUN LEE	SPRING 2024 TENNIS INSTRUCTOR	20.00
06/04/2024	196893	ELIJAH FRANKS	2024 YOUTH SOCCER OFFICIAL ON 5/11 & 5/1	120.00
06/04/2024	196894	FASTENAL	SHOP SUPPLIES	111.16
			1/2 INCH AIR REEL	450.61
			SHOP SUPPLIES	384.74
			SHOP SUPPLIES	238.68
				1,185.19
06/04/2024	196895	FUN TIME SPORTS LLC	70% PAYOUT FOR FLAG FOOTBALL	392.00
06/04/2024	196896	GARY TURNBULL	SPRING 2024 SOFTBALL OFFICIAL	160.00
06/04/2024	196897	GILES MARKS	REFUND - PERMIT FEES #PM24-0307	37.50
06/04/2024	196898	GLEN N. SAINT JOHNS	SPRING 2024 SOFTBALL OFFICIAL ON 5/6 & 5	320.00
06/04/2024	196899	GLOBAL GREEN SERVICE GROUP, LLC	DISPOSAL OF ABESTEO INSULATION FROM HYDR	450.00
06/04/2024	196900	GLOBAL INDUSTRIAL EQUIPMENT COMPANY	SAFETY - FALL PROTECTION EQUIPMENT	89.00
06/04/2024	196901	GOOSE BUSTERS OF MICHIGAN, LLC	GOOSE NEST DESTRUCTION SERVICE	2,300.00
			JUNE BORDER COLLIE SERVICES	455.00
				2,755.00
06/04/2024	196902	GRAINGER	SAFETY SUPPLIES, PPE RESTOCK STORE	556.32
			RESTOCK SAFETY STORE	49.95
				606.27
06/04/2024	196903	GRIFFIN PEST SOLUTIONS	PEST CONTROL FOR #3	31.00
			PEST CONTROL FOR #1	31.00
			PEST CONTROL FOR #4	31.00
				93.00
06/04/2024	196904	HENDERSON GLASS SOLUTIONS LLC	EMERGENCY REPAIR FOR BUSTED OUT WINDOW I	750.07
06/04/2024	196905	HOME DEPOT	FROST FREE HOSE SPIGOT	42.70
			PARK& GROUNDS TOOLS LANDSCAPE SUPPLIES	459.74
			MAINT TOOLS & SUPPLIES FOR REC - TAPE ME	61.67
			MAINT SUPPLY FOR REC AND COVER FOR HARRI	34.48
				598.59
06/04/2024	196906	HUTSON INC OF MICHIGAN	257 PARTS	94.86
06/04/2024	196907	INFINITY FITNESS LLC	SPRING CLASS INSTRUCTION	98.00
06/04/2024	196908	JIBRIL NAEEM	APRIL AND MAY MEMBERSHIPS AND SPRING MOD	2,513.00
06/04/2024	196909	JOSEPH STOUT	SPRING 2024 TENNIS INSTRUCTOR	20.00
06/04/2024	196910	KEMPF CONSTRUCTION AND LANDSCAPING	YPSILANTI TOWNSHIP FIRE STATION #4 SUMP	2,042.38
06/04/2024	196911	KONE INC	ELEVATOR MAINTENANCE 05/01/24-07/31/24	225.54
06/04/2024	196912	LAUREL HANNA	YOUTH SOCCER SITE SUPERVISOR	125.00
06/04/2024	196913	LAWRENCE HENDRICKS	SPRING 2024 TENNIS INSTRUCTOR	35.00
06/04/2024	196914	LINDA HILL	REFUND - 50 BEYOND DAY TRIP	50.00

Check Date	Check	Vendor Name	Description	Amount
06/04/2024	196915	LOOKING GOOD LAWNS	YTWM INVOICE 2024-5C	3,400.00
			YTWM INVOICE 2024-4C	3,400.00
				6,800.00
06/04/2024	196916	MARIALANA BRANCH	SPRING 2024 SOFTBALL OFFICIAL	80.00
06/04/2024	196917	MAYA GLENN	SPRING 2024 TURN UPDANCE HIIT FITNESS IN	245.00
06/04/2024	196918	MESSENGER PRINTING	NHW 2ND QTR NEWSLETTERS - COMM. ENGAGEME	3,761.18
			CYBER SECURITY POSTCARDS - COMMUNITY RES	8,752.48
				12,513.66
06/04/2024	196919	MICHAEL A. CROMER	CLOTHING REIMBURSEMENT FOR 2024	158.99
06/04/2024	196920	MICHIGAN ASSOC. OF PLANNING	ANNUAL GROUP MEMBERSHIP PC AND ZBA	725.00
06/04/2024	196921	MICHIGAN LINEN SERVICE, INC.	LAUNDRY SERVICES 2024	24.00
			LAUNDRY SERVICES 2024	24.00
			LINEN SERVICE FOR STATION HQ	190.40
			LINEN SERVICE FOR STATION 3	86.26
			LINEN SERVICE FOR STATION 4	85.03
			LAUNDRY FOR CIVIC CENTER 5/21/2024 (INVO	101.10
			MAINT. GARAGE LINEN SERVICE 5/21/24 (INV	24.00
			LINEN SERVICE FOR COMMUNITY CENTER 5/21/	49.50
			WEEKLY LINEN SERVICES	10.50
			WEEKLY LINEN SERVICES	68.50
			LEC LAUNDRY SERVICE	61.75
			LAUNDRY FOR CIVIC CENTER 5/14/2024 (INVO	101.10
			MAINT. GARAGE LINEN SERVICE 5/14/24 (INV	24.00
			LINEN SERVICE FOR COMMUNITY CENTER 5/14/	49.50
			LINEN SERVICE FOR STATION 4	85.03
			LINEN SERVICE FOR STATION 3	86.26
			LINEN SERVICE FOR STATION HQ	190.40
				1,261.33
06/04/2024	196922	MILTON ANDREWS	MILT ANDREWS CONTRACTUAL INSPECTIONS 05/	710.00
06/04/2024	196923	NEXTCARE URGENT CARE MICHIGAN	PRE-EMPLOYMENT DRUG SCREENS	1,100.00
06/04/2024	196924	OKINAWAN KARATE CLUB	SPRING SESSION PAYOUT	485.80
06/04/2024	196925	ONSITE SUBSTANCE ABUSE TESTING	RECOVERY COURT DRUG TESTING	188.00
06/04/2024	196926	ORCHARD, HILTZ & MCCLIMENT INC	ENG CONST.CEILING FOR STATION 3	1,815.75
06/04/2024	196927	PARKWAY SERVICES, INC.	PORTABLE TOILET EXTRA CLEANING - FORD HE	75.00
			PORTABLE TOILET RENTAL - FORD LAKE PARK	180.00
			PORTABLE TOILET RENTAL - FORD HERITAGE P	320.00
				575.00
06/04/2024	196928	PEARLINE DAVIS	RECOVERY COURT PAYROLL	445.20
			RECOVERY COURT PAYROLL	575.05
				1,020.25
06/04/2024	196929	PEPSI BEVERAGES COMPANY	PEPSI VENDING ORDER MAY 2024	318.37
			BEVERAGES FOR RESALE IN THE GOLF SHOP.	608.73
				927.10
06/04/2024	196930	PGA OF AMERICA	PGA ASSOCIATION DUES	601.00
06/04/2024	196931	PINTER'S FLOWERLAND, INC.	PINTER FLOWERS	483.68
06/04/2024	196932	PPM LANDSCAPE CONTRACTORS INC	LIMB REMOVAL - HARRIS PARK AND 1306 BLOS	885.00

Check Date	Check	Vendor Name	Description	Amount
06/04/2024	196933	PRINTING SYSTEMS	BALLOT INSTRUCTIONS FOR PRECINCT SECRECY	481.59
			NOVEMBER ELECTION ABSENTEE SECRECY SLEEV	1,992.30
			AV BALLOT OUTER ENVELOPES	2,552.35
			AV BALLOT RETURN ENVELOPE	1,350.70
				6,376.94
06/04/2024	196934	PRIORITY ONE EMERGENCY	PATCH CHANGE OVER FOR STAFF	84.00
			PATCH CHANGE & NAME ON JACKET	17.00
			PATCH CHANGE OVER FOR STAFF	182.00
			PATCH CHANGE OVER FOR BROUILLETTE	28.00
				311.00
06/04/2024	196935	RAPHAEL A. PEOPLES	2024 YOUTH SOCCER OFFICIAL ON 5/11 AND 5	120.00
06/04/2024	196936	RHETT REYES	RECOVERY COURT PARYOLL	1,015.88
			RECOVERY COURT PAYROLL	1,386.75
				2,402.63
06/04/2024	196937	ROBERT ACTON	ROBERT ACTON CONTRACTUAL INSPECTIONS 05.	1,350.00
06/04/2024	196938	ROBERTSON MORRISON, INC.	MAINTENACE ON ALL AC UNITS @1	820.00
			MAINTENACE ON ALL AC UNITS @4	250.00
			MAINTENACE ON ALL AC UNITS @3	250.00
				1,320.00
06/04/2024	196939	ROGER JAUSSI	SPRING 2024 SOFTBALL OFFICIAL	320.00
06/04/2024	196940	S & W PLUS HOME SERVICES CORP	REPLACE 6 WINDOWS AT THE GOLF MAINTENANC	3,750.00
06/04/2024	196941	SALADINO CONSTRUCTION COMPANY	SIDEWALK REPLACEMENT ROUND #1 2024	9,360.00
06/04/2024	196942	SALINE AREA SCHOOLS	YOUTH DANCE RECITAL FACILITY RENTAL	700.00
06/04/2024	196943	SAM'S CLUB DIRECT	OPERATING SUPPLIES FOR THE GOLF SHOP.	33.78
			FOOD AND BEVERAGE FOR RESALE IN THE GOLF	179.48
			RE-STOCK SUPPLIES FOR THE TRUCKS AND STA	242.12
			RE-STOCK SUPPLIES FOR THE TRUCKS AND STA	14.98
			WATER - SUPERVISOR	19.90
				490.26
06/04/2024	196944	SHANNON STRAUB	REIMBURSEMENT FOR MILEAGE	261.30
06/04/2024	196945	SHERWIN WILLIAMS COMPANY	WEST WILLOW CRC OVERHANG	165.40
06/04/2024	196946	SIGNS BY TOMORROW	COMMUNITY EVENTS BANNER - RECREATION	212.00
06/04/2024	196947	SITEONE LANDSCAPE SUPPLY, LLC	POST EMERGENT HERBICIDE, PLANT PROTECTAN	913.22
			BACKPACK SPRAYER, IRRIGATION SUPPLIES, H	1,031.27
				1,944.49
06/04/2024	196948	SPARTAN DISTRIBUTORS	THROTTLE CABLE, TRACTION CABLE AND HEADL	514.21
			PARTS TO REPAIR 4100D DECK LIFT ARM	804.84
				1,319.05
06/04/2024	196949	SPENCER MBROH	2024 YOUTH SOCCER	140.00
06/04/2024	196950	STANDARD PRINTING	CLUBVIEW PARK POSTCARDS - COMMUNITY ENGA	1,138.39
			FINAL APPROVAL TAGS - BUILDING	400.00
				1,538.39

Check Date	Check	Vendor Name	Description	Amount
06/04/2024	196951	STATE OF MICHIGAN - MDOT	HURON BRIDGE TAP GRANT JOB#113542CON	18.92
06/04/2024	196952	STEPHEN BROWN	STEVE BROWN CONTRACTUAL INSP 05.06.24 -	1,950.00
06/04/2024	196953	TARGET SPECIALTY PRODUCTS	SUMMER GREENS FERTILIZER AND SEED OIL	311.25
			SUMMER GREENS FERTILIZER MICROS	943.00
			FERTILIZER FOR GREENS - SUMMER	970.00
			WETTING AGENT FOR GREENS SUMMER MONTHS	969.00
			FERTILIZER FOR THE GREENS SUMMER MONTHS	940.00
			MICRONUTRIENT FERTIZILER W/ NITROGEN FOR	895.00
			MICRONUTRIENT FERTIZILER FOR GREENS	870.00
			SOIL SURFACTANT FOR GREENS	969.00
				6,867.25
06/04/2024	196954	THE SWEATSHOP CUSTOM EMBROIDERY	SCREENED 50/50 SHIRTS	824.00
06/04/2024	196955	THERESE FOOTE	SPRING 2024 YOGA INSTRUCTION	226.80
06/04/2024	196956	TRAVIS ERBY	SPRING PORTRAIT DRAWING	224.00
06/04/2024	196957	WASHTENAW COUNTY SHERIFF'S OFFICE	RECOVERY COURT DRUG TESTING	270.00
06/04/2024	196958	WASHTENAW COUNTY TREASURER#	POLICE SERVICE UNITS FOR MAY 2024	517,095.95
06/04/2024	196959	WILLIAM KLIBER IV	2024 YOUTH SOCCER OFFICIAL ON 5/11 & 5/1	140.00
06/04/2024	196960	WONDERLAND TIRE COMPANY	CHANGE OUT TIRES	10,634.52
06/04/2024	196961	YAMAHA GOLF CARS PLUS	GOLF CART REPAIRS TO CARTS #43 AND #8.	53.72
06/04/2024	196962	YPSILANTI ACE HARDWARE	SUPPLIES FOR ALL STATIONS	99.56
06/04/2024	196963	YPSILANTI COMMUNITY	DIESEL AND GAS CHARGES 2024	1,716.79
			WATER REBATE APRIL - YCUA	1,640.00
			LIFT - STATION MAINT. FORD BLVD - APRIL	87.93
			LIFT - STATION MAINT. NORTH HYDRO PARK -	3,644.90
			LIFT - STATION MAINT. FORD LAKE PARK - A	88.09
			LIFT STATION MAINT. TUTTLE HILL APRIL 20	176.13
				7,353.84
06/04/2024	196964	YPSILANTI MEALS ON WHEELS	2024 ANNUAL CONTRIBUTION	10,000.00
06/04/2024	196965	YPSILANTI TOWNSHIP PETTY CASH	PETTY CASH REIMBURSEMENT	28.70
06/04/2024	196966	FASTENAL	NORTH BAY OBSERVATION DECK REPAIR SUPPLI	265.26
06/04/2024	196967	MIDSTATES RECREATION	LAKESIDE REPLACEMENT PARTS	2,251.48
			RAMBLING ROAD REPLACEMENT PARTS	871.38
				3,122.86
06/04/2024	196968	TAMIKO THOMAS	REFUND - B-BALL SKILLS	120.00

AP TOTALS:

Total of 100 Checks:	922,776.73
Less 0 Void Checks:	0.00
Total of 100 Disbursements:	922,776.73

Supervisor
BRENDA L. STUMBO
Clerk
HEATHER JARRELL ROE
Treasurer
STAN ELDRIDGE
Trustees
RYAN HUNTER
JOHN P. NEWMAN II
GLORIA PETERSON
DEBBIE SWANSON



YPSILANTI TOWNSHIP

— WHERE YOUR FUTURE GROWS —

Accounting Department

7200 S. Huron River Drive
Ypsilanti, MI 48197
Phone: (734) 544-4000 Ext 5
Fax: (734) 484-5154

STATEMENTS AND CHECKS

JUNE 18, 2024 BOARD MEETING

ACCOUNTS PAYABLE CHECKS -	$	453,720.57
HAND CHECKS -	$	52,772.32
CREDIT CARD PURCHASES-	$	7,973.27
GRAND TOTAL -	**$**	**514,466.16**

Clarity Health Care Deductible –

ACH EFT – $70,123.69 (MAY)
ADMIN FEE - $ 1,620.83 (MAY)

CHECK REGISTER FOR CHARTER TOWNSHIP OF YPSILANTI
CHECK NUMBERS 196969 - 196994

HAND CHECKS

Check Date	Check	Vendor Name	Description	Amount
Bank AP AP				
06/03/2024	196969	AUTO VALUE YPSILANTI	TRU FUEL	50.94
06/03/2024	196970	YPSILANTI ACE HARDWARE	YARD BAGS	5.98
			YARD RAKES - COMMUNITY ENGAGEMENT	99.95
			YARD BAGS	2.99
			SUPPLIES	38.58
				147.50
06/03/2024	196971	PRINTING SYSTEMS	POSTAGE FOR APPLICATIONS AUGUST 2024	1,474.16
06/04/2024	196972	ANDREW MIARS	PAYROLL SERVICES 5/20/24-5/31/24 -61.25	2,756.25
06/04/2024	196973	GUARDIAN ALARM	SERVICE TRIP FEE - CIVIC CENTER (INV#233	50.00
06/07/2024	196974	PGA OF AMERICA	PGA ASSOCIATION DUES	601.00
06/07/2024	196975	COMCAST	ACCT. #8529 10 234 0884997	142.95
06/07/2024	196976	COMCAST CABLE	ACCT. #8529 01 001 0000523 (CAMERAS)	11,238.40
06/07/2024	196977	DTE ENERGY	GAS & ELECTRIC INVOICES	17,635.87
06/10/2024	196978	STARUEN SMITH	REPLACEMENT - CANDIDATE FILING FEE	100.00
06/11/2024	196979	CLEAR RATE COMMUNICATIONS, INC	ACCT. #4850408	262.28
06/11/2024	196980	COMCAST	ACCT. #8529 10 234 0124352	129.28
06/11/2024	196981	COMCAST	ACCT. #8529 10 234 0586337	71.84
06/11/2024	196982	COMCAST	ACCT. #8529 10 234 0186229	189.40
06/11/2024	196983	GUARDIAN ALARM	CUSTOMER #100169	50.00
06/11/2024	196984	GUARDIAN ALARM	CUSTOMER #100169	2,024.40
06/11/2024	196985	VERIZON WIRELESS	ACCT. #542198411-00001	508.74
06/11/2024	196986	VERIZON WIRELESS	ACCT. #742203150-00001	2,851.52
06/11/2024	196987	VERIZON WIRELESS	ACCT. #342201808-00001	525.51
06/11/2024	196988	WASTE MANAGEMENT	ACCT. #6-98933-92004	6,561.92
06/11/2024	196989	WASTE MANAGEMENT	ACCT. #16-27603-32004	1,367.93
06/11/2024	196990	WASTE MANAGEMENT	ACCT. #14-44697-63004	174.29
06/11/2024	196991	WASTE MANAGEMENT	ACCT. #20-37335-53005	74.98
06/11/2024	196992	WASTE MANAGEMENT	ACCT. #6-98156-42005	225.60
06/11/2024	196993	WASTE MANAGEMENT	ACCT. #6-98680-82001	1,250.38
06/11/2024	196994	WEX BANK	WEX CREDIT CARD CHARGES ENDING MAY 2024	2,307.18

AP TOTALS:

Total of 26 Checks:	52,772.32
Less 0 Void Checks:	0.00
Total of 26 Disbursements:	52,772.32

CHECK REGISTER FOR CHARTER TOWNSHIP OF YPSILANTI
CHECK NUMBERS 196995 - 197110

A/P Checks

Check Date	Check	Vendor Name	Description	Amount
Bank AP AP				
06/18/2024	196995	LILLIAN GIORDANO	YOUTH SOCCER OFFICIAL	60.00
06/18/2024	196996	14-B DISTRICT COURT	SMALL CLAIMS COURT FILING FEE	120.00
06/18/2024	196997	A DESIGN LINE	SCREEN CLEANING CLOTH - COMMUNITY ENGAGE	646.36
06/18/2024	196998	AAMCO TRANSMISSIONS AND	#73- A/C RECHARGE	290.00
06/18/2024	196999	ADVANCED TURF SOLUTIONS	SUMMER FUNGICIDE AND SEED	2,500.45
06/18/2024	197000	AFV EDUCATE INC	AFV ER RESPONDER TRAINING	3,000.00
06/18/2024	197001	ALI METAJ	COED SOFTBALL UMPIRE	80.00
06/18/2024	197002	ALLGRAPHICS CORPORATION	EVENT HOODIES	884.00
06/18/2024	197003	AMAZON CAPITAL SERVICES	BADGE HOLDER & DUST OFF	47.98
			LAWN CARE ITEMS	41.96
			NOTE PADS - ASSORTED SIZES	68.78
			BALLPOINT PENS - SUPERVISOR'S OFFICE	9.12
			SPECIAL EVENT PARK SUPPLIES - RECREATION	156.68
			COFFEE SUPPLIES - PARKS & GROUNDS	31.10
			OFFICE SUPPLIES - CLERKS	48.35
			OFFICE SUPPLIES - CLERKS	15.46
			TRASH PICKERS - COMMUNITY ENGAGEMENT	220.68
			STARBUCKS COFFEE - BUILDING	70.52
			OFFICE SUPPLIES - OCS	21.97
			VOYAGER 5200 OFFICE	255.98
			SCREEN PROTECTORS FOR IPHONES	89.87
			HDMI CABLE	63.48
			WESTERN DIGITAL 18TB WD RED PRO	1,615.75
			OFFICE SUPPLIES - OCS	17.95
			SUPPLIES	45.39
			REPLACEMENT TIRES FOR WELDER	169.98
			STAPLES T50 1/2" - RECREATION	59.75
			PICKLEBALL SUPPLIES - RECREATION	107.40
				3,158.15
06/18/2024	197004	ANN ARBOR CLEANING SUPPLY	CLEANING SUPPLIES - PARKS	28.35
			CUSTODIAL SUPPLIES - CIVIC	37.80
			CUSTODIAL SUPPLIES - CIVIC	160.20
			CLEANING SUPPLIES - PARKS	736.65
			TRASH BAGS - COMMUNITY ENGAGEMENT	56.70
			CUSTODIAL SUPPLIES - 14B COURT	116.86
				1,136.56
06/18/2024	197005	ANNETTE GONTARSKI	TRAVEL EXPENSE	883.72
06/18/2024	197006	APPLIED INNOVATION	CONTRACT INVOICE	62.40
			QUARTERLY PRINTER MAINTENANCE	2,514.60
				2,577.00
06/18/2024	197007	AUGUSTA PEARSON	REFUND - 50 & BEYOND DAY TRIP	82.00
			REFUND - 50 & BEYOND DAY TRIPS	87.00
				169.00
06/18/2024	197008	AUTO VALUE YPSILANTI	DEF	207.79
			HYDRAULIC HOSE FOR 4100D	60.94
			CABLE TIES	6.69
			BATTERY AND BATTERY CABLE FOR CASE 75XT	117.24

Check Date	Check	Vendor Name	Description	Amount
			TRUFUEL/TAPE/HOTSHINE TIRE/FLARE CONTAIN	96.24
				488.90
06/18/2024	197009	B-BALL SKILLS LLC	B-BALL SKILLS PAYMENT 5/21-6/4	149.00
06/18/2024	197010	BACK TO NATURE LAWN CARE	BROADLEAF WEED CONTROL	130.50
06/18/2024	197011	BARR ENGINEERING COMPANY	PROFESSIONAL SERVICES FROM 4/20 2024 TO	10,119.56
06/18/2024	197012	BILL ERNAT CONSULTING	GRANT SERVICES FROM 2/26/24 - 5/10/2024	2,250.00
			DEPT OF ENERGY EFFICIENT BLOCK GRANT	850.00
			ACQUIRE GRANTS -FORD LAKE LOOP PROJECT	1,075.00
				4,175.00
06/18/2024	197013	BOUND TREE MEDICAL, LLC.	CURAPLEX ASSURE PRISM ORANGE KIT	77.84
06/18/2024	197014	CALLAWAY GOLF SALES COMPANY	CALLAWAY GOLF BALLS AND HATS FOR RESALE	390.36
06/18/2024	197015	CAR TECH LLC	#705 OCS TIRE REPAIR	30.00
06/18/2024	197016	CINTAS CORPORATION	MONTHLY SERVICE FOR AED AT CRC	130.50
			FIRST AID CABINET SERVICE - 5/2/24	7.16
			FIRST AID CABINET SERVICE - 5/2/24	76.23
			FIRST AID CABINET SERVICE - 5/2/24	7.15
			FIRST AID CABINET SERVICE - 5/2/24	81.52
			FIRST AID CABINET SERVICE - 5/2/24	30.41
			FIRST AID CABINET SERVICE - 5/2/24	57.11
			FIRST AID CABINET SERVICE - 5/2/24	46.48
			FIRST AID CABINET SERVICE - 5/2/24	41.15
				477.71
06/18/2024	197017	CLARION EVENTS INC	FIRE ENGINEERING TRAINING	2,865.00
06/18/2024	197018	COLMAN-WOLF SANITARY SUPPLY CO	TRASH BAGS - 14B COURT	186.44
06/18/2024	197019	COMCAST BUSINESS	ACCT. #939737137	3,632.55
06/18/2024	197020	COMMUNICATION SQUARE LLC	MONTHLY OFFICE 365	4,560.00
			MONTHLY OFFICE 365	4,560.00
				9,120.00
06/18/2024	197021	CONTRACTORS CONNECTION	P&G SUPPLIES	999.60
06/18/2024	197022	CRYSTAL FLASH, INC.	CC: REFILL GAS FUEL TANK - STATE OF MICH	1,201.05
			FORD LAKE PARK: REFILL GAS FUEL TANK - S	1,196.43
			FORD LAKE PARK: REFILL DIESEL FUEL TANK	679.66
			FORD LAKE PARK: REFILL DIESEL FUEL TANK	1,015.76
			FORD LAKE PARK: REFILL GAS FUEL TANK - S	696.12
			CC: REFILL GAS FUEL TANK - STATE OF MICH	635.50
			GASOLINE 05/16/24	910.96
			DIESEL FUEL FOR EQUIPMENT 05/16/24	572.50
				6,907.98
06/18/2024	197023	CSI EMERGENCY APPARATUS, LLC	REPAIR A/C ON ROSIE	405.22
06/18/2024	197024	DAMRON INVESTIGATIONS, INC	BACKGROUND INVESTIGATIONS (STEPHENS, LAC	1,500.00
			BACKGROUND INVESTIGATIONS (STEPHENS, LAC	1,500.00
			BACKGROUND INVESTIGATIONS (STEPHENS, LAC	1,500.00
				4,500.00
06/18/2024	197025	DISPUTE RESOLUTION CENTER	YEARLY DUES	1,875.00
06/18/2024	197026	DIUBLE EQUIPMENT INC.	PARKS AND GROUNDS TRACTOR	28,694.80
06/18/2024	197027	ELIJAH FRANKS	YOUTH SOCCER OFFICIAL	60.00
06/18/2024	197028	ELLEN TALIFARRO	WEEKEND RECORDING INVOICE	469.57
06/18/2024	197029	EMERGENT HEALTH PARTNERS	FIRE DISPATCHING SERVICES	8,430.55

Check Date	Check	Vendor Name	Description	Amount
06/18/2024	197030	EXCEL HOME IMPROVEMENTS INC	COMMUNITY RESOURCE CENTER IMPROVEMENTS	27,847.00
06/18/2024	197031	FIBER LINK	MISSDIG RESPONSE AND LOCATE SERVICES	366.25
06/18/2024	197032	GARY TURNBULL	COED SOFTBALL UMPIRE	160.00
06/18/2024	197033	GENE BUTMAN FORD	REPLACED CYLINDER ON CHIEF'S EXPEDITION	272.90
06/18/2024	197034	GLOBAL INDUSTRIAL EQUIPMENT COMPANY	SAFETY - FALL PROTECTION EQUIPMENT	85.51
06/18/2024	197035	GOVERNMENTAL CONSULTANT SERVICES	PROFESSIONAL SERVICES RETAINER FEE - JUN	3,503.85
06/18/2024	197036	GRAINGER	BUG SPRAY - PARKS	293.02
			MAINTENANCE SUPPLIES	56.65
			MAINTENANCE SUPPLIES	34.81
			WINDOW GLAZING- WINDOW REPAIR	21.40
				405.88
06/18/2024	197037	GRANGER CONSTRUCTION COMPANY	EMU GOLF TRAINING FACILITY	120,000.00
06/18/2024	197038	GRANGER CONSTRUCTION COMPANY	EMU GOLF TRAINING FACILITY	3,000.00
06/18/2024	197039	GRANGER CONSTRUCTION COMPANY	EMU GOLF TRAINING FACILITY	30,000.00
06/18/2024	197040	GRIFFIN PEST SOLUTIONS	PEST CONTROL FOR #1	31.00
			PEST CONTROL FOR #4	31.00
			PEST CONTROL FOR #3	31.00
			LEC APRIL PEST SOLUTIONS	68.00
				161.00
06/18/2024	197041	HALEY MECHANICAL	REFUND - PERMIT FEES #PM24-0446	37.50
06/18/2024	197042	HARTFORD STEAM BOILER INSPECTION	ROUTINE OIL TESTING ON TRANSFORMER- 2024	105.00
06/18/2024	197043	HERMAN & ASSOCIATES	SOIL SURFACTANT FOR TEES - SUMMER	509.95
06/18/2024	197044	HOME DEPOT	MAINTENANCE TOOLS - PLIERS/AUGER BITS (I	102.18
			SUPPLIES FOR FLP FENCE (INV#6022049)	600.38
			MAINTENANCE TOOLS - HAMMER & DRIVER (INV	77.95
			FLP GARAGE MATERIALS - POSTS & FLY TRAPS	78.46
			MAINTENANCE TOOLS - RAKES (INV#5611814)	59.96
			5 TIER WIRE SHELVES - ELECTIONS	387.00
			FENCE PANELS - FLP	1,470.00
			FENCE PANELS - FLP	1,549.00
			CAR WASH SUPPLIES - PARKS	39.91
			CUSTODIAL SUPPLIES - COMMUNITY CENTER &	21.61
			CREDIT MEMO	(1,470.00)
				2,916.45
06/18/2024	197045	HOME INSPECTION PLUS LLC	REFUND - PERMIT FEES #PB23-1104 & #PP23-	127.50
06/18/2024	197046	HOWLETT LOCK & DOOR	DOOR WORK AT CRC BUILDING	5,874.34
06/18/2024	197047	J.F. MOORE & ASSOCIATES, LLC	SMALL CLAIMS COURT SERVER FEE: JENNETTES	36.00
06/18/2024	197048	J.F. MOORE & ASSOCIATES, LLC	SERVER FEE SMALL CLAIMS COURT	147.00
06/18/2024	197049	JANICE CAMPBELL	REFUND - 50 & BEYOND DAY TRIPS	82.00
06/18/2024	197050	JTW PIPES LLC	BACKFLOW TESTING 2024	800.00
06/18/2024	197051	LANGUAGE LINE SERVICES	INTERPRETER SERVICES	404.10
06/18/2024	197052	LAUREL HANNA	YOUTH SOCCER OFFICIAL	125.00
06/18/2024	197053	LIFE AFTER INCARCERATION	LAITR PILOT: COMMUNITY BEAUTIFICATION SE	9,000.00
06/18/2024	197054	LINDA JOHNSON	REFUND - 50 & BEYOND DAY TRIPS	30.00
06/18/2024	197055	LINDE GAS & EQUIPMENT INC	OXYGEN RENTAL	332.70
06/18/2024	197056	LJM CONSTRUCTION	REFUND - PERMIT FEES #PB24-0419	100.00
06/18/2024	197057	LOOKING GOOD LAWNS	ORDINANCE MOWING	1,585.00
06/18/2024	197058	LOUISE HOLMAN	REFUND - 50 & BEYOND DAY TRIPS	82.00
06/18/2024	197059	MARTHA BILBEY	REFUND - SHELTER RENTAL	100.00
06/18/2024	197060	MCMASTER-CARR	SS HARDWARE FOR SIGN INSTALL	27.16
06/18/2024	197061	MESSENGER PRINTING	NHW POSTCARDS DATE CHANGE - COMM. ENGAGE	438.13
06/18/2024	197062	MICHIGAN EMERGENCY MANAGEMENT ASSOC	MEMBERSHIP FOR CHIEF DENSMORE	50.00

Check Date	Check	Vendor Name	Description	Amount
06/18/2024	197063	MICHIGAN LINEN SERVICE, INC.	WEEKLY LINEN SERVICES	13.50
			LAUNDRY SERVICES 2024	24.00
			LINEN SERVICE FOR STATION 4	85.03
			LINEN SERVICE FOR STATION 3	86.26
			LINEN SERVICE FOR STATION HQ	190.40
			LINEN SERVICE FOR STATION HQ	190.40
			LINEN SERVICE FOR STATION 3	86.26
			LINEN SERVICE FOR STATION 4	85.03
			LAUNDRY SERVICES 2024	24.00
			MAINT. GARAGE LINEN SERVICE 6/4/24 (INV#	24.00
			LAUNDRY FOR CIVIC CENTER 6/4/2024 (INVOI	101.10
			LINEN SERVICE FOR COMMUNITY CENTER 6/4/2	49.50
			LEC LAUNDRY SERVICE	60.25
			MAINT. GARAGE LINEN SERVICE 5/28/24 (INV	24.00
			LAUNDRY FOR CIVIC CENTER 5/28/2024 (INVO	101.10
			LINEN SERVICE FOR COMMUNITY CENTER 5/28/	49.50
			WEEKLY LINEN SERVICES	58.00
				1,252.33
06/18/2024	197064	MICHIGAN TOWNSHIP ASSOC.**	MEMBERSHIP AND DUES	8,776.63
06/18/2024	197065	MIDWESTERN CONSULTING	MIDWESTERN CONSULTING GRANT SERVICES	2,317.90
			MIDWESTERN CONSULTING GRANT SERVICES	750.30
			MIDWESTERN CONSULTING GRANT SERVICES	2,671.84
			MIDWESTERN CONSULTING GRANT SERVICES	5,641.25
				11,381.29
06/18/2024	197066	MILTON ANDREWS	MILT ANDREWS CONTRACTUAL INSPECTIONS 05/	400.00
06/18/2024	197067	NEIGHBORHOOD ROOFING	REFUND - PERMIT FEES #PB24-0215	82.50
06/18/2024	197068	NICHOLAS DUNLEAVY	REIMBURSEMENT FOR COLLEGE CLASSES TOWARD	1,237.77
06/18/2024	197069	OFFICE EXPRESS	OFFICE SUPPLIES - CLERKS	111.67
			BUINESS CARDS - ERICA HOLMES	30.00
				141.67
06/18/2024	197070	ONSITE SUBSTANCE ABUSE TESTING	RECOVERY COURT DRUG TESTING	13.00
			RECOVERY COURT PAYROLL	380.00
				393.00
06/18/2024	197071	ORCHARD, HILTZ & MCCLIMENT INC	ENG CONST.CEILING FOR STATION 3	1,406.00
			COMFORT INN - DETAILED ENGINEERING	515.00
			HOLIDAY INN - SITE PLAN REVIEW	1,395.00
			VISIBLE LEARNING CENTER - CE SERVICES	4,739.00
			WHITE WATER CAR WASH - SITE PLAN REVIEW	1,584.50
			DR. PAWS - CE SERVICES	492.00
			CARPORT REBUILDING PROJECT	1,795.00
			CONSTRUCTION ENGINEERING SERVICES FOR RI	19,202.50
				31,129.00
06/18/2024	197072	ORKIN LLC	295 DAKOTA VERMIN ABATEMENT	125.00
			295 DAKOTA VERMIN ABATEMENT	125.00
			295 DAKOTA VERMIN ABATEMENT	125.00
				375.00
06/18/2024	197073	PARKWAY SERVICES, INC.	PORTABLE TOILET RENTAL - FORD LAKE PARK	180.00

Check Date	Check	Vendor Name	Description	Amount
			PORTABLE TOILET RENTAL - FORD LAKE PARK	310.00
			PORT A JOHN SERVICE - HYDRO	130.00
				620.00
06/18/2024	197074	PEARLINE DAVIS	RECOVERY COURT PAYROLL	139.13
			RECOVERY COURT PAYROLL	148.40
				287.53
06/18/2024	197075	PINTER'S FLOWERLAND, INC.	FLOWERS FOR #3 & HQ	88.00
06/18/2024	197076	PPM LANDSCAPE CONTRACTORS INC	TREE REMOVAL - CLUBVIEW PARK	2,350.00
			TREE AND SHRUB REMOVAL - FORD LAKE PARK	6,850.00
				9,200.00
06/18/2024	197077	PREMIER SAFETY & SERVICE	AED PADS FOR COMMUNICTY CENTER	156.42
			REPLACMENT AED PADS AND BATTERIES	1,201.41
				1,357.83
06/18/2024	197078	PRIORITY ONE EMERGENCY	PATCH CHANGE OVER FOR STAFF	322.00
			PATCH CHANGE & PATCH APPLICATION	44.00
			PATCH CHANGE OVER	42.00
			NAME BADGE FOR FF BROUILLETTE	16.99
			VEHICLE #710 -SAFETY LIGHTS, LAPTOP STA	3,411.91
				3,836.90
06/18/2024	197079	QUADIENT LEASING USA, INC	POSTAGE MACHINE LEASE - 2ND QTR 2024	1,405.80
06/18/2024	197080	RANDALL MASCHARKA	PHOTOGRAPHY SERVICES	900.00
06/18/2024	197081	RAPHAEL A. PEOPLES	YOUTH SOCCER REF	80.00
06/18/2024	197082	RELIC LAW PLLC	LEGAL SERVICES 4/19/2024-4/30/2024	14,137.50
06/18/2024	197083	RHETT REYES	RECOVERY COURT PAYROLL	1,064.25
			RECOVERY COURT PAYROLL	1,032.00
				2,096.25
06/18/2024	197084	RICK PLISICO	RICK PLISCO CONTRACTUAL INSPECTIONS MAY	100.00
06/18/2024	197085	ROBERT ACTON	ROBERT ACTON CONTRACTUAL INSPECTIONS 05.	1,000.00
06/18/2024	197086	ROGER JAUSSI	COED SOFTBALL UMPIRE	160.00
06/18/2024	197087	RS AMERICAS, INC	BULGIN CONNECTOR SOCKET - CIVIC POND	108.54
06/18/2024	197088	SAM'S CLUB DIRECT	OPERATING SUPPLIES AND FOOD AND BEVERAGE	381.62
			CONCESSION REPLENISH AT COMMUNITY CENTER	59.86
			CONCESSIONS FOR COMMUNITY CENTER	111.90
			COFFEE - RES. SERVICES	48.90
			COFFEE SUPPLIES - PARKS & GROUNDS	43.92
				646.20
06/18/2024	197089	SEMCOG	SEMCOG ANNUAL DUES - 2023	7,734.00
06/18/2024	197090	SIERRA ORTIZ	REFUND - SHELTER RENTAL	100.00
06/18/2024	197091	SIGNS BY TOMORROW	SPONSOR BANNER - RECREATION	200.00
			MAGNETIC VEHICLE SIGNS - RECREATION	409.10
				609.10
06/18/2024	197092	SPARTAN DISTRIBUTORS	HYDRAULIC HOSE FOR 4100D	163.60
06/18/2024	197093	SPENCER MBROH	YOUTH SOCCER OFFICIAL	60.00

Check Date	Check	Vendor Name	Description	Amount
06/18/2024	197094	SPICER GROUP	APPLERIDGE PARK IMPROVEMENTS	1,892.50
06/18/2024	197095	STANTEC	COMMUNITY CENTER BATHROOM IMPROVEMENTS	5,556.00
			GREEN OAKS GOLF COURSE BATHROOM IMPROVEM	4,737.50
			COMMUNITY CENTER WATER DAMAGE RENOVATION	4,653.00
				14,946.50
06/18/2024	197096	STEPHEN BROWN	STEVE BROWN CONTRACTUAL INSP 05.19.24 -	1,650.00
06/18/2024	197097	STERICYCLE INC	STERI-SAFE BUDGET SUBSCRIPTION	269.10
06/18/2024	197098	TESS SEIBERT	YOUTH DANCE INSTRUCTOR	128.00
06/18/2024	197099	ULINE	SECURITY CARTS - ELECTIONS	3,134.00
			DELINEATOR POST WITH BASE - SPECIAL EVEN	425.68
				3,559.68
06/18/2024	197100	UNITED STATES POSTAL SERVICE	REPLENISH THE POSTAGE MACHINE WITH POSTA	10,000.00
06/18/2024	197101	UTILITIES INSTRUMENTATION SERV	SERVICE CALL FOR PROGRAMMING 5/8/24	1,296.00
06/18/2024	197102	VIRGIL MINGAS	M & M DJ SERVICES FOR SPECIAL EVENT AT F	500.00
06/18/2024	197103	W.J. O'NEIL COMPANY	BOARD APPROVED P.M. CIVIC CENTER ANNUAL	1,117.00
			BOARD APPROVED P.M. LEC ANNUAL FEE	441.00
			BOARD APPROVED P.M. COMMUNITY CENTER ANN	1,182.00
			BOARD APPROVED P.M. 14B ANNUAL FEE	416.00
			BOARD APPROVED P.M. LEC ANNUAL FEE	441.00
			BOARD APPROVED P.M. CIVIC CENTER ANNUAL	1,117.00
			BOARD APPROVED P.M. COMMUNITY CENTER ANN	1,182.00
			BOARD APPROVED P.M. 14B ANNUAL FEE	416.00
				6,312.00
06/18/2024	197104	WASHTENAW COUNTY SHERIFF'S OFFICE	REOVERY COURT DRUG TESTING	57.00
06/18/2024	197105	WILLIAM KLIBER IV	YOUTH SOCCER OFFICIAL	60.00
06/18/2024	197106	WITMER PUBLIC SAFELY GROUP, INC	TECH RESCUE HELMETS	791.80
06/18/2024	197107	YPSILANTI ACE HARDWARE	KEY MADE	3.78
			HARDWARE	9.59
				13.37
06/18/2024	197108	YPSILANTI COMMUNITY	DIESEL AND GAS CHARGES 2024	2,011.14
06/18/2024	197109	YPSILANTI COMMUNITY SCHOOLS	GYM RENTAL FOR WINTER BASKETBALL	1,470.00
06/18/2024	197110	ZACHARY ROLAND	PER UNION CONTRACT/PERSONAL PHONE REIMBU	500.00

AP TOTALS:

Total of 116 Checks:	453,720.57
Less 0 Void Checks:	0.00
Total of 116 Disbursements:	453,720.57

CHECK REGISTER FOR CHARTER TOWNSHIP OF YPSILANTI
CHECK NUMBERS 108 - 109

CREDIT CARDS

Bank CARDS COMERICA COMMERICAL CARD

Check Date	Check	Vendor Name	Invoice Vendor	Description	Amount
06/18/2024	108(E)	COMERICA BANK	STATE OF MICHIGAN*#	APRIL SALLEY CEO RENEWAL	30.00
			STATE OF MICHIGAN*#	SHANNON STRAUB CER RENEWAL FEE	30.00
			HOME DEPOT	REPLACEMENT BLINDS FOR COMMUNI	24.48
			HOME DEPOT	REPLACEMENT BLINDS FOR OFFICE	39.98
			SAM'S CLUB DIRECT	ORTHOGROUNDCLEAR - MAINTENANCE	73.96
			GORDON FOOD SERVICE INC.	OPERATING SUPPLIES AND FOOD AN	724.22
			GORDON FOOD SERVICE INC.	OPERATING SUPPLIES AND FOOD AN	617.40
			GORDON FOOD SERVICE INC.	OPERATING SUPPLIES AND FOOD AN	504.01
			GORDON FOOD SERVICE INC.	OPERATING SUPPLIES AND FOOD AN	381.34
			ZOHO CORPORATION	SITE24X7 UPGRADE	447.93
			WASHTENAW COUNTY DEPARTMENT	TESTING TUBES APPLERIDGE WELL	90.00
			WASHTENAW COUNTY DEPARTMENT	TESTING TUBES APPLERIDGE WELL	15.00
			DETROIT TIGERS TICKET DEPT.	50 & BEYOND OUTING	940.00
			WALMART	MATERIALS FOR PICKLEBALL TOURN	99.34
			ALRO METALS OUTLET	METAL FOR HYDRO PROJECT	50.80
			BOYNE MOUNTAIN RESORT	DEPOSIT FOR LODGING FOR TRAVIS	249.89
			CANDLEWOOD SUITES	HOTEL STAY FOR CONFERENCE	313.10
			CITY OF LANSING	PARKING CONFERENCE	15.00
			DICK'S MERCHANDISING & SUPPLY	REPLACEMENT EQUIPMENT BAGS AND	115.90
			DR POWER EQUIPMENT	TRIMMER HEAD PARTS - P&G	109.97
			DOUBLETREE HOTEL LANSING	HOTEL ROOM PEARLINE DAVIS	165.80
			DOUBLETREE HOTEL LANSING	HOTEL ROOM RHETT REYES	384.43
			GALLS LLC	ORDINANCE OFFICER SHOES - JAMI	120.00
			MINIORANGE	MINIORANGE SAML SSO PLUGIN	399.00
			OTTER AI	SUBSRCIPTION SERVICE FOR TRANS	119.99
			PACK N PARCEL	SHIPPING TO EGLE WATER SAMPLE	79.78
			PACK N PARCEL	GROUND SHIPPING FOR OIL TEST T	21.95
			TRANSUNION RISK & ALTERNATIVE	MONTHLY SUBSCRIPTION FEES FOR	75.00
			TRELLO INC	TRELLO ANNUAL SUBSCRIPTION	719.94
			TRELLO INC	TRELLO ANNUAL SUBSCRIPTION	479.96
			WIRE AND CABLE YOUR WAY LLC	PORTABLE CORD - CIVIC POND	535.10
					7,973.27

CARDS TOTALS:

Total of 1 Checks:	7,973.27
Less 0 Void Checks:	0.00
Total of 1 Disbursements:	7,973.27

YPSILANTI TOWNSHIP
— OFFICE OF THE TREASURER —

MONTHLY TREASURER'S REPORT
STAN ELDRIDGE
MAY 1, 2024 - MAY 31, 2024

Account Name	Beginning Balance	Cash Receipts	Cash Disbursements	Ending Balance
101 - General Fund	18,478,569.89	1,137,892.18	2,526,262.89	17,090,199.18
101 - Payroll	197,239.33	849,509.54	822,411.98	224,336.89
101 - Willow Run Escrow	146,441.72	49.62	0.00	146,491.34
206 - Fire Department	6,420,346.93	43,295.78	413,830.88	6,049,811.83
208 - Parks Fund	16,626.29	72.91	0.00	16,699.20
213 - Roads/Bike Path/Rec/General Fund	2,757,326.37	13,317.12	129,274.96	2,641,368.53
216 - Fire Pension & OPEB Millage Fund	1,508,051.53	6,617.20	0.00	1,514,668.73
217 - Fire Special Millage Capital Fund	208,244.38	930.71	0.00	209,175.09
226 - Environmental Services	4,135,732.01	15,886.87	246,026.67	3,905,592.21
230 - Recreation	319,545.31	230,420.06	245,590.58	304,374.79
236 - 14-B District Court	37,268.13	322,290.32	133,542.08	226,016.37
244 - Economic Development	76,304.90	332.67	0.00	76,637.57
249 - Building Department Fund	1,596,889.42	79,716.56	62,903.90	1,613,702.08
250 - LDFA Tax	96,140.60	419.25	0.00	96,559.85
252 - Hydro Station Fund	1,160,750.47	123,527.71	30,729.54	1,253,548.64
266 - Law Enforcement Fund	16,114,829.18	96,804.66	92,026.85	16,119,606.99
282 - Cares Act Fund	0.00	0.00	0.00	0.00
284 - Opioid Settlement Fund	26,361.54	113.93	0.00	26,475.47
287 - Nuisance Abatement Fund	54,010.68	1,501.17	740.00	54,771.85
398 - LDFA 2006 Bonds	86.23	0.00	0.00	86.23
584 - Green Oaks Golf Course	220,322.71	303,456.07	244,639.80	279,138.98
597 - Compost Site	863,805.69	47,601.06	51,073.53	860,333.22
661 - Motor Pool	260,697.06	1,372.87	14,412.35	247,657.58
702 - General Tax Collection	89,290.16	16,035.24	0.00	105,325.40
703 - Current Tax Collections	29,224.40	11.00	0.00	29,235.40
707 - Bonds & Escrow/GreenTop	1,886,474.83	20,143.03	6,233.25	1,900,384.61
708 - Fire Withholding Bonds	95,569.79	29.20	9,683.50	85,915.49
GRAND TOTAL	**56,796,149.55**	**3,311,346.73**	**5,029,382.76**	**55,078,113.52**

ATTORNEY REPORT

GENERAL LEGAL UPDATE

NEW BUSINESS

CHARTER TOWNSHIP
OF YPSILANTI

RESOLUTION NO. 2024-08

RESOLUTION REGARDING
TEMPORARY ROAD
CLOSURE

Resolution authorizing the temporary road closure of Mary Catherine St. between Lori St. and Desoto Ave. and Jeff St. and between Desoto Ave. and State St. for the West Willow Farmers Market Block Party on July 20, 2024 from 4:45pm to 8:00pm.

WHEREAS, the Charter Township of Ypsilanti Board of Trustees has approved the temporary closure of Ypsilanti Township roads as indicated above; and

WHEREAS, the Driveways, Banners, and Parades Act 200 of 1969 requires the Township to authorize an official designated by resolution to make such request from the Road Commission.

NOW THEREFORE, BE IT RESOLVED that the Township of Ypsilanti Board of Trustees designates and agrees that Joshua McCallister, Event Planner, be the authorized official designee in this instance, when application is made to the Washtenaw County Road Commission for this temporary road closure.

Subject: Road Closure Request for West Willow Farmers Market Block Party

Dear Mrs. Roe,

I hope this message finds you well. I am writing to request a road closure for an upcoming community event in the West Willow neighborhood.

Event Details:
- Name: West Willow Farmers Market Block Party
- Date: July 20th
- Time: 5:00 pm to 8:00 pm
- Location: Marry Catherine and Chevrolet St to DeSoto and Jeff and State St

We plan to host 16 vendors, a water balloon fight, and music. We will also be canvassing for signatures to support the installation of speed humps on Jeff St and Marry Catherine.

Road Closure:
- Affected Roads: Marry Catherine and Chevrolet St to DeSoto and Jeff and State St
- Closure Duration: [4:45 pm] to [8:00 pm]
- Traffic Control: Road closure signs and caution tape will be placed at all road ends to ensure safety and proper notification.

Emergency Plan:
In case of an emergency, we have established the following evacuation procedures:
- Evacuation Routes: Attendees will be directed to the nearest exits along the open sections of Marry Catherine and Lori St, as well as DeSoto and Jeff St.
- Emergency Contacts: Designated volunteers will be stationed at key points to assist with the evacuation and contact emergency services if needed.
- First Aid: A first aid station will be set up at [specified location] within the event area.

Attached is a PDF map of the West Willow neighborhood highlighting the event area and proposed road closures.

We appreciate your assistance in facilitating this event and ensuring it runs smoothly. Please let us know if there are any additional requirements or forms we need to complete.

Thank you for your time and consideration.

Best regards,

Joshua McAllister
Email: Joshua.mcallister1987@gmail.com
Phone: 248-981-2616
West Willow Farmers Market

Emergency Plan:

1. Evacuation Routes:
   - Primary Exit: Marry Catherine and Lori St
   - Secondary Exit: DeSoto and Jeff St
   - Tertiary Exit: State St

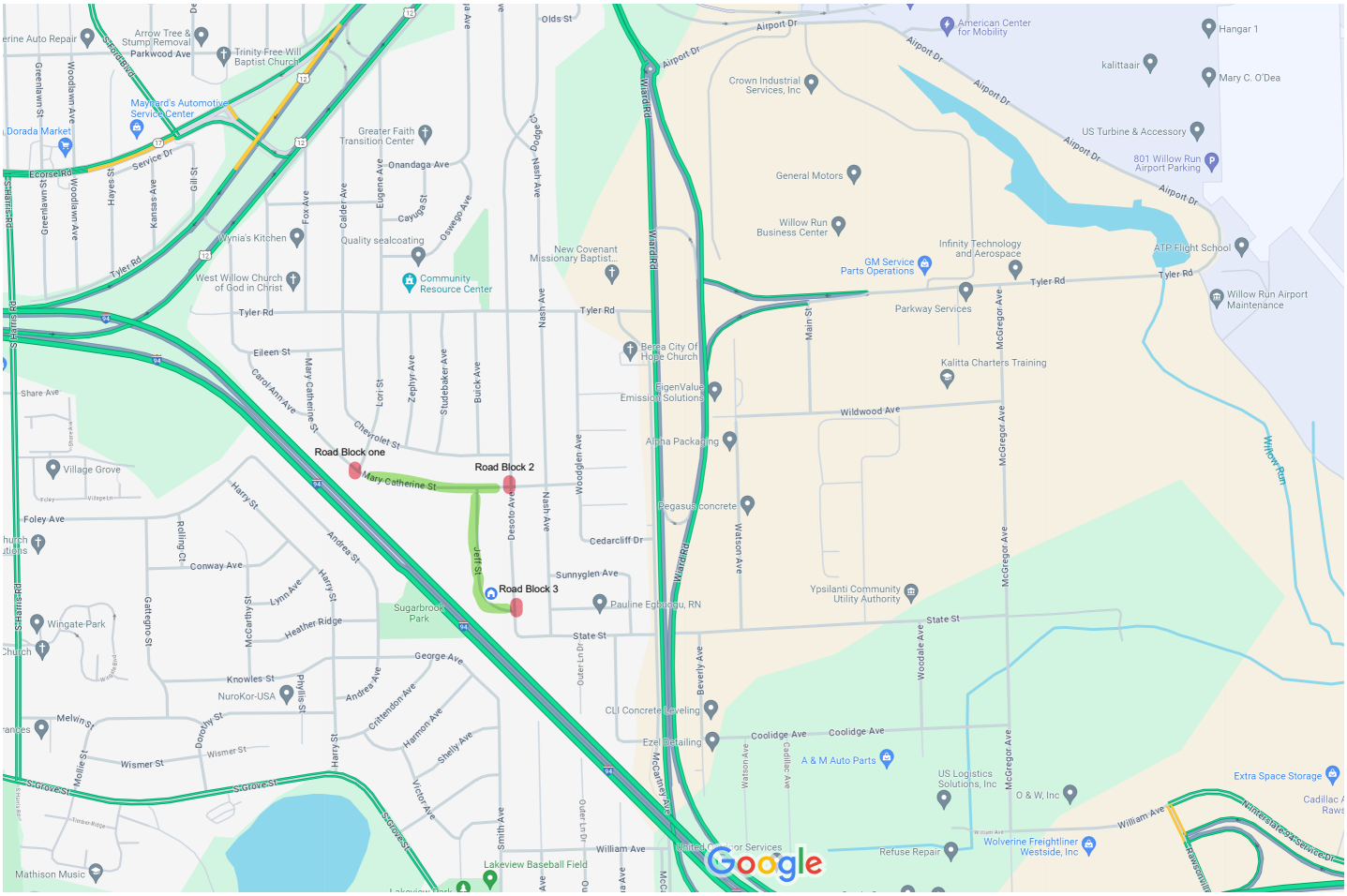
2. Emergency Contacts:
   - Event Coordinator: Joshua McAllister, 248-981-2616
   - Safety Officer: Marlin Outley, 313-229-2952
   - First Aid Coordinator: WCHD

3. Evacuation Procedure:
   - In case of an emergency, event staff will use megaphones to direct attendees to the nearest exits.
   - Volunteers will assist with guiding attendees and ensuring a smooth evacuation.
   - First aid personnel will be on standby to assist with any injuries or medical emergencies.

4. Communication Plan:
   - Event staff will be equipped with walkie-talkies for quick communication.
   - Local emergency services will be notified in advance about the event and its location.

5. First Aid Station:
   - Location: Corner of Jeff St and Marry Catherine
   - Staffed by certified first aid responders.
   - Equipped with basic medical supplies and an AED (Automated External Defibrillator).

Google Maps



Map data ©2024 500 ft

Typical traffic	*Fast*	*Slow*

S M T W T F S

Friday, 5:40 PM

8:00 AM 12:00 PM 4:00 PM 8:00 PM

CHARTER TOWNSHIP
OF YPSILANTI

RESOLUTION NO. 2024-09

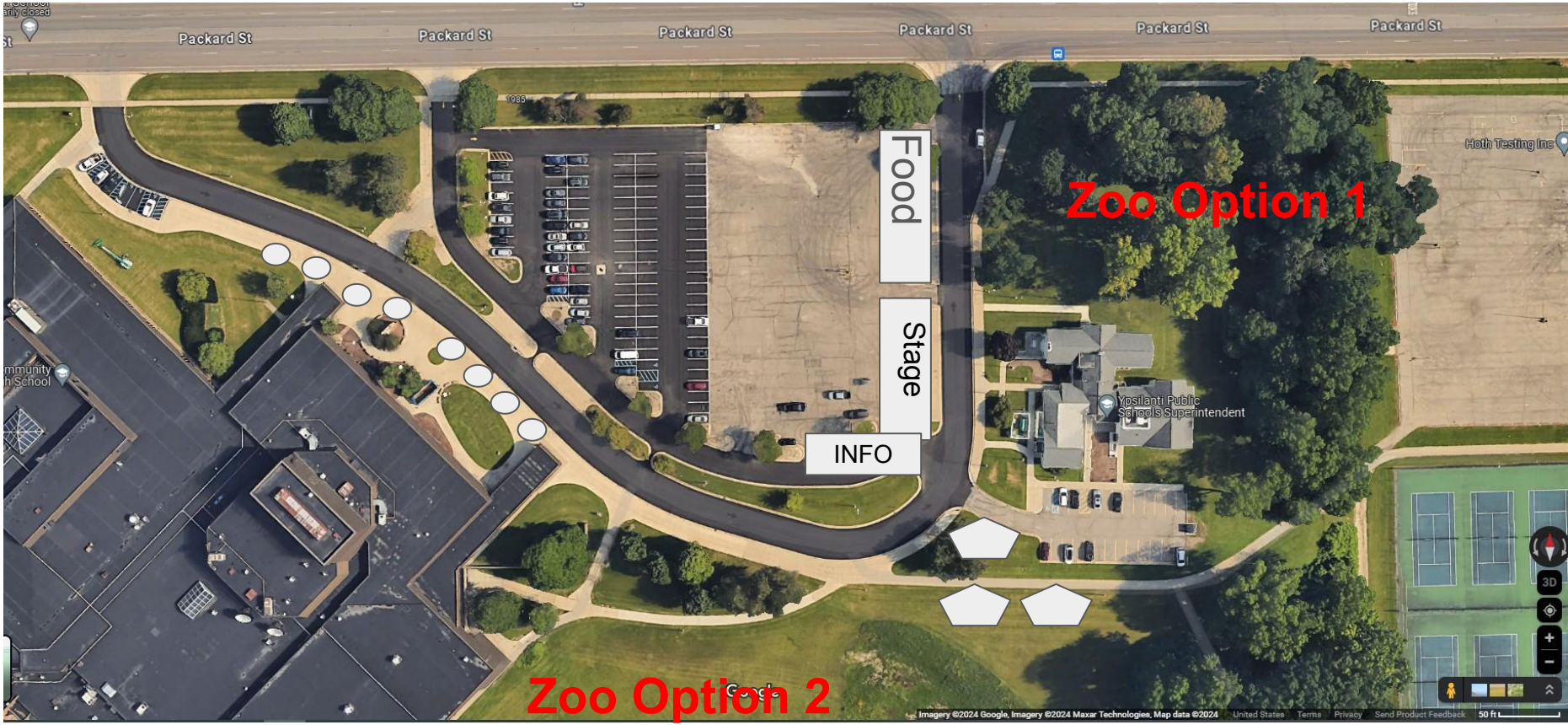
RESOLUTION REGARDING
TEMPORARY ROAD
CLOSURE

Resolution authorizing the temporary road closure of Packard Rd. between. Rosedale and Kewanee for Peacenic Ypsilanti-Ypsilanti Charter Township on Saturday, August 10, 2024 from 3:00pm to 7:00pm.

WHEREAS, the Charter Township of Ypsilanti Board of Trustees has approved the temporary closure of Ypsilanti Township roads as indicated above; and

WHEREAS, the Driveways, Banners, and Parades Act 200 of 1969 requires the Township to authorize an official designated by resolution to make such request from the Road Commission.

NOW THEREFORE, BE IT RESOLVED that the Township of Ypsilanti Board of Trustees designates and agrees that Reverand Joseph O. Jackson be the authorized official designee in this instance, when application is made to the Washtenaw County Road Commission for this temporary road closure.


Packard St
Packard St
Packard St
Packard St
Packard St
Packard St
Food
Stage
INFO
Zoo Option 1
Zoo Option 2
Hoth Testing Inc
Ypsilanti Public Schools Superintendent
Google
Imagery ©2024 Google, Imagery ©2024 Maxar Technologies, Map data ©2024
United States
Terms
Privacy
Send Product Feedback
50 ft


Rosedale Rd
The Dental Spa
Kewanee St
Healthy, Smile Family Dentistry
Berkley Ave
Courtland St
Packard St
Packard St
Packard St
Hoth Testing Inc
Ypsilanti Community High School
Ypsilanti Public Schools Superintendent
N Hewitt Rd
Ypsilanti STEMM Middle College
Google
Imagery ©2024 Google, Imagery ©2024 Maxar Technologies, Map data ©2024
United States
Terms
Privacy
Send Prod

CHARTER TOWNSHIP OF YPSILANTI FIRE DEPARTMENT

222 South Ford Boulevard, Ypsilanti, MI 48198
Phone 734-544-4225 Fax 734-544-4195

Steven Densmore
Fire Chief

Supervisor Stumbo
Township Officials
Ryan Hunter
John P. Newman II
Gloria Peterson
Debbie Swanson
Heather Jarrell Roe Clerk
Stan Eldridge Treasurer

RE: Selling of Old Fire Apparatus
Brindlee Mountain Fire Apparatus

I would like to propose the selling of our oldest fire engine and ladder truck that have not been in service for several months after receiving our two newest fire engines. This fire engine and ladder truck are well over 25 years old and have done a tremendous job of firefighting while they were in service in the township. In the past the used fire equipment apparatus was actioned off using Bidnet. I would suggest that we use a accompany that specializes in selling new and old fire apparatus. The company mentioned is Brindlee Mountain Fire apparatus located in Union grove, Alabama. The process is that we take pictures of both units send Brindlee those pictures and they do all the advertising through the country via web site, a published trade magazine and of course word of mouth to local dealers.

Brindlee will do fair market value research pricing to compare the going rate for our apparatus. Once completed they will notify us and then we can ask for an increase or decrease depending on our needs. Once a buyer is interested Brindlee Mountain will reach out to use with a contact information of a prospective buyer. The township will meet with the consumer for a tour of the Engine and ladder and if the price is right and selected, they will issue a check for that amount to the township while notifying Brindlee of the same. Brindlee Mountain will take up to 10% for their advertising and behind-the-scenes work. I have firsthand experience using the company

with my past employer. I hold the company high standards for their assistance in finding a customer the right apparatus for their needs.

I have reached out to both the township supervisor Stumbo and Accounting director Neel to ensure that we are still following the required township policy for us to use Brindlee Mountain for the sales. Both supervisor Stumbo and Accounting director Neel agreed that we can proceed without any issues.

Best



Steven W. Densmore

Fire Chief

BUYING

Brindlee Mountain Fire Apparatus has the nation's largest inventory of used fire trucks. Visit firetruckmall.com to find the fire truck that meets the needs of your community.

You can visit our 40 acre facility in North Alabama where you have the opportunity to test drive the truck, perform a full inspection, and even pump test on site.

Our Sales Team will help you find the right truck to fit your budget.

LET US HELP FIND YOUR NEXT FIRE TRUCK



SELLING

Do you have a fire truck you need to sell? We can help make that happen!

More people visit firetruckmall.com to shop for trucks than any other site. Your truck can be seen by other departments all over the nation and around the world.

Contact purchasing@firetruckmall.com to connect with a Purchasing Specialist to guide you through the process of selling your truck.



FIRE TRUCK FINDER®

Haven't found the right fire truck for your department? Sign Up for our Fire Truck Finder® to get immediate updates when a truck meeting your needs is listed!

You can choose to receive text and/or email notications to be the first to see any new trucks listed.

You will only receive updates on trucks you're interested in.

Find your next fire truck faster with the Fire Truck Finder®!

256.776.7786
sales@firetruckmall.com
www.FireTruckMall.com



BRINDLEE MOUNTAIN FIRE APPARATUS

Let us help you Protect your Community

Township Supervisor
Brenda L. Stumbo
Township Clerk
Heather Jarrell Roe
Township Treasurer
Stan Eldridge

YPSILANTI TOWNSHIP
— RESIDENTIAL SERVICES DEPARTMENT —

Trustees
Ryan Hunter
John Newman II
Gloria Peterson
Debbie Swanson

MEMORANDUM

To: Charter Township of Ypsilanti Board of Trustees

From: John Hines, Municipal Services Director

Date: June 12, 2024

Subject: Request authorization to approve Change Order #1 for the Green Oaks Golf Course Bathroom Renovations as part of the American Rescue Plan Act (ARPA) funds.

The Residential Services Department is requesting authorization for the signing of Change Order #1 with Northgate Construction for $17,750 for additional repairs needed for the on-course restrooms and maintenance garage bathrooms budgeted in account 101-902-981.100.

Change Order #1 provided by Northgate Construction and recommended by Township Staff includes:

1. Removing the existing lightning rods and installing new rods that are ground outside the building. The existing rods go through the center of the structures and is not the safest route in the case of a lightning strike.

2. Re-concrete in front of both sets of exterior bathroom doors past the frost line. The original scope was for just the apron. This will add consistency in pour and alleviate any trip hazard potential.

3. For added safety and security, mechanical keyless locks would be added to all four doors.

4. Lastly, in the maintenance garage, Northgate would epoxy the floors in the bathrooms at that will be beneficial with the renovations taking place. The original scope was to leave the flooring as it was.

Attached is the prepared Change Order by Northgate Construction outlining the work expected to be added and updated costs associated with each line.

NorthGate Construction, L.L.C.
5751 S. Sheldon Rd. Canton, MI 48188
734-340-3208

CHANGE ORDER

Customer Name: Green Oaks Golf Club Date: 5-14-24
Street: 1775 E. Clark Rd. City: Ypsilanti State: MI ZIP: 48198
Number: 7343518947 E-Mail: jhines@ypsitownship.org
Inspector: Tim Snyder Inspector Phone: 734-262-0132

We hereby agree to make the following change(s):	Amount:
Remove old lighting rods and install new lighting rods .	3,500
New rods, new, wire, new rod in ground, clamps 4' grounding stakes #6 braided copper wire ran on the outside of the roof	1,500
100% Mechanical keyless entry door lock with handle , waterproof combination door locks x 4 for out door locks auto locking 4-6 passcode unlocking	1,750
Concrete in front of the doors of back 9 and front 9 bathrooms Depth pass frost line in front of doors to prevent heaving	9,000
Epoxy floors in the maintenance restrooms not previously in bid. $2,000 ***Hold for now until board meeting on June 16th 2024***	2,000

Total Price for Changes: $17,750

Revised Contract Total: $218,880

Total Due Amount: $17,750

THIS CHANGE ORDER BECOMES PART OF AND IN CONFORMANCE WITH THE EXISTING CONTRACT.

We hereby agree to make the change(s) specified above at the price indicated per this Change Order. The prices and specifications of this Change Order are satisfactory and are hereby accepted. All work is to be performed under the established terms and conditions specified in the original contract unless otherwise specified.

X _____
NGC, Authorized Signature
Date: 5-14-24

X _____
Owner Signature
Date: _____

CHARTER TOWNSHIP OF YPSILANTI
2024 BUDGET AMENDMENT # 8

JUNE 18, 2024

AMOUNTS ROUNDED UP TO THE NEAREST DOLLAR

101 - GENERAL OPERATIONS FUND

Total Increase $60,198.00

Request to increase budget and add a new line number for payout of employee resignation settlement of 6 months of wages approved by the Board on May 21, 2024. This will be funded by an appropriation of prior year fund balance.

Revenues:	**Prior Year Fund Balance**	**101-000-699.999**		**$29,717.00**
			Net Revenues	**$29,717.00**
Expenditures:	**Severance Payout**	**101-191-706.200**		**$27,605.00**
	FICA	**101-191-715.000**		**$2,112.00**
			Net Expenditures	**$29,717.00**

Request to increase budget for 7 months of the 12 months fringe benefits settlement as part of employee resignation approved by the Board on May 21, 2024. This request is for 2024 for 7 months of health, dental and vision coverage totaling $8,105. The remaining 5 months fringe benefits totaling $6,637 will be requested as part of the 2025 budget. This will be funded by an appropriation of prior year fund balance.

Revenues:	**Prior Year Fund Balance**	**101-000-699-999**		**$8,105.00**
			Net Revenues	**$8,105.00**
Expenditures:	**BCBS - Health**	**101-191-719.000**		**$4,847.00**
	Health Care Deductible	**101-191-719.020**		**$2,975.00**
	Dental	**101-191-719.015**		**$223.00**
	Vision	**101-191-719.016**		**$60.00**
			Net Expenditures	**$8,105.00**

Request to increase budget and add a new line number for the contractual services of a payroll specialist to perform payroll obligations, audit payroll from January 2024 to current period, and assist with training a new payroll specialist. This is not to exceed $20,000. We were able to obtain retired senior payroll specialist Andrew Miars for this project. This will be funded by an appropriation of prior year fund balance.

Revenues:	**Prior Year Fund Balance**	**101-000-699-999**		**$20,000.00**
			Net Revenues	**$20,000.00**
Expenditures:	**Contractual Services**	**101-191-818.000**		**$20,000.00**
			Net Expenditures	**$20,000.00**

Request to increase the budget for PTO payout at 75%. This will be funded by an appropriation of prior year fund balance.

Revenues:	**Prior Year Fund Balance**	**101-000-699.999**		**$2,376.00**
			Net Revenues	**$2,376.00**
Expenditures:	**Salary PTO Payout**	**101-271-708.004**		**$2,207.00**
	FICA	**101-271-715.000**		**$169.00**
			Net Expenditures	**$2,376.00**

Motion to Amend the 2024 Budget (#8)

Move to increase the General Fund budget by $60,198 to $27,026,526 and approve the department line item changes as outlined.

AUTHORIZATIONS AND BIDS

Township Supervisor
Brenda L. Stumbo
Township Clerk
Heather Jarrell Roe
Township Treasurer
Stan Eldridge

YPSILANTI TOWNSHIP
— RESIDENTIAL SERVICES DEPARTMENT —

Trustees
Ryan Hunter
John Newman II
Gloria Peterson
Debbie Swanson

MEMORANDUM

To: Charter Township of Ypsilanti Board of Trustees

From: John Hines, Municipal Services Director

Date: June 12, 2024

RE: Request Authorization to seek sealed bids for playground surface replacement at Ford Heritage Park as part of the American Rescue Plan Act (ARPA) project funding

The Residential Services Department is requesting authorization to seek sealed bids for the replacement of the existing rubberized poured in place playground surface and fiber mulch at Ford Heritage Park budgeted in GL #101-902-981.090.

Spicer Group was approved by the Township Board last year at the June 6, 2023 meeting to provide professional engineering services for the Ford Heritage Playground Surface replacement project. The prepared bid package will focus on replacing the poured in place surface around the playground. This repair is necessary due to the surface's age, weather and year-round use. The current surface has started to compact, leaving the outside edges bare which allows weeds to grow through. Over its twenty years, the surface has received many temporary patches to fix where the rubber is worn down; and many of those are now deteriorating to leave uneven spots.

The RFP prepared by Spicer is to remove and replace the current rubberized poured in place surface around the playground and the fiber mulch areas as the primary package. Also requested as an alternate option, is a bid for rubberized pour in place surface to be used only, replacing any fiber mulch as well.

Staff will return to the Board of Trustees to recommend and award the selection of a bidder.

90% Bid Package

BIDDING DOCUMENTS
FOR

FORD HERITAGE PLAYGROUNG SURFACE IMPROVEMENTS

YPSILANTI CHARTER TOWNSHIP
YPSILANTI, MICHIGAN

Prepared By:
SPICER GROUP, INC.

JUNE 2024

Plans Included

DP-XXXX-1

Project I.D. Number: 134586SG2023

90% Bid Package

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90% Bid Package

CHARTER TOWNSHIP OF YPSILANTI

FORD HERITAGE PLAYGROUND SURFACE IMPROVEMENTS

ADVERTISEMENT FOR BIDS

Sealed Bids for the **Ford Heritage Playground Surface Improvements** will be received by CLERK'S OFFICE, Ypsilanti Township Civic Center, 7200 S. Huron River Dr., Ypsilanti MI., 48197, until **2:00 p.m.** local time on **July 9th, 2024.**

The Project consists of removing and replacing existing poured-in-place playground surfacing at Ford Heritage Park.

The Issuing Office for the Bidding Documents is: Spicer Group, Inc., 125 Helle Blvd., Suite 2, Dundee, MI 48131, Elsie Jorgensen, 269-252-6100, elsie.jorgensen@spicergroup.com. The contract documents for bidding purposes are available beginning June 20, 2024 on MITN Purchasing Group, Bidnetdirect.com; and Charter Township of Ypsilanti, 7200 Huron River Drive, Ypsilanti, MI 48197. **Bidders are encouraged to download plans from MITN at Bidnetdirect.com at no additional cost.** Neither Owner nor ENGINEER will be responsible for full or partial sets of Bidding Documents, including Addenda if any, obtained from sources other than the Issuing Office. Bidders should direct correspondence to ENGINEER.

For bidders choosing to pick up copies of bid documents, copies may be obtained on or after 12:00 PM, local time June 20, 2024 at the CLERK'S OFFICE, Ypsilanti Township Civic Center, 7200 S. Huron River Dr., Ypsilanti MI., 48197 for no fee.

Bid Security in the form of a Bid Bond for a sum no less than 5% of the amount of the Bid will be required with each Bid.

Bidders should note that prevailing wages will be required for this project. Please see the Instructions to Bidders, Article I for the wage documentation.

The OWNER reserves the right to accept any Bid, reject any Bid, or waive irregularities in Bids.

No Bid may be withdrawn for a period of 60 calendar days after the scheduled closing time for receipt of bids.

John Hines, Municipal Services Director
Charter Township of Ypsilanti

+ + END OF ADVERTISEMENT FOR BIDS + +

90% Bid Package

INSTRUCTIONS TO BIDDERS

ARTICLE 1 – FEDERAL REQUIREMENTS

1.01 This project will be partially funded with Federal funds from the United States Department of Commerce, Economic Development Administration and therefore is subject to the Federal laws and regulations associated with that program.

1.02 Prevailing Wage: Bidder acknowledges the Owner's requirements for prevailing wage for all labor on the entire project including Bidders subcontractors and laborers. Payments for work completed by the Contractor and/or subcontractor shall be withheld for failure to comply with the contract prevailing wage requirements (Davis-Bacon) and for failure to submit weekly certified payrolls. The Owner shall have the right to terminate the contract for non-compliance to the contract's prevailing wage requirements. Also, if the Contractor or subcontractor fails to comply with the contract prevailing wage requirements, it shall be noted in the Contractor's performance evaluation for appropriate action if applicable. Project Staff is strongly encouraged to complete and submit interim Contractor performance evaluations regarding unresolved prevailing wage rate violation issues.

ARTICLE 2 – DEFINED TERMS

2.01 Terms used in these Instructions to Bidders have the meanings indicated in the General Conditions and Supplementary Conditions. Additional terms used in these Instructions to Bidders have the meanings indicated below:

A. *Issuing Office* – The office from which the Bidding Documents are to be issued.

ARTICLE 3 – COPIES OF BIDDING DOCUMENTS

3.01 Complete sets of the Bidding Documents may be obtained from the Issuing Office in the number and format stated in the advertisement or invitation to bid.

3.02 Complete sets of Bidding Documents shall be used in preparing Bids; neither Owner nor Engineer assumes any responsibility for errors or misinterpretations resulting from the use of incomplete sets of Bidding Documents.

3.03 Owner and Engineer, in making copies of Bidding Documents available on the above terms, do so only for the purpose of obtaining Bids for the Work and do not authorize or confer a license for any other use.

ARTICLE 4 – QUALIFICATIONS OF BIDDERS

4.01 To demonstrate Bidder's qualifications to perform the Work, after submitting its Bid and within 3 days of Owner's request, Bidder shall submit (a) written evidence establishing its qualifications such as financial data, previous experience, and present commitments, and (b) the following additional information:

4.02 A Bidder's failure to submit required qualification information within the times indicated may disqualify Bidder from receiving an award of the Contract.

4.03 No requirement in this Article 3 to submit information will prejudice the right of Owner to seek additional pertinent information regarding Bidder's qualifications.

4.04 Bidder is advised to carefully review those portions of the Bid Form requiring Bidder's representations and certifications.

ARTICLE 5 – SITE AND OTHER AREAS; EXISTING SITE CONDITIONS; EXAMINATION OF SITE; OWNER'S SAFETY PROGRAM; OTHER WORK AT THE SITE

5.01 *Site and Other Areas*

A. The Site is identified in the Bidding Documents. By definition, the Site includes rights-of-way, easements, and other lands furnished by Owner for the use of the Contractor. Any additional lands required for temporary construction facilities, construction equipment, or storage of materials and equipment, and any access needed for such additional lands, are to be obtained and paid for by Contractor.

5.02 *Existing Site Conditions*

A. Subsurface and Physical Conditions; Hazardous Environmental Conditions

1. The Supplementary Conditions identify:

a. those reports known to Owner of explorations and tests of subsurface conditions at or adjacent to the Site.

b. those drawings known to Owner of physical conditions relating to existing surface or subsurface structures at the Site (except Underground Facilities).

c. reports and drawings known to Owner relating to Hazardous Environmental Conditions that have been identified at or adjacent to the Site.

d. Technical Data contained in such reports and drawings.

2. Owner will make copies of reports and drawings referenced above available to any Bidder on request. These reports and drawings are not part of the Contract Documents, but the Technical Data contained therein upon whose accuracy Bidder is entitled to rely, as provided in the General Conditions, has been identified and established in the Supplementary Conditions. Bidder is responsible for any interpretation or conclusion Bidder draws from any Technical Data or any other data, interpretations, opinions, or information contained in such reports or shown or indicated in such drawings.

3. If the Supplementary Conditions do not identify Technical Data, the default definition of Technical Data set forth in Article 1 of the General Conditions will apply.

B. Underground Facilities: Information and data shown or indicated in the Bidding Documents with respect to existing Underground Facilities at or contiguous to the Site are set forth in the Contract Documents and are based upon information and data furnished to Owner and Engineer by owners of such Underground Facilities, including Owner, or others.

C. Adequacy of Data: Provisions concerning responsibilities for the adequacy of data furnished to prospective Bidders with respect to subsurface conditions, other physical conditions, and Underground Facilities, and possible changes in the Bidding Documents due to differing or unanticipated subsurface or physical conditions appear in Paragraphs 5.03, 5.04, and 5.05 of the General Conditions. Provisions concerning responsibilities for the adequacy of data furnished to prospective Bidders with respect to a Hazardous Environmental Condition at the Site, if any, and possible changes in the Contract Documents due to any Hazardous Environmental Condition uncovered or revealed at the Site which was not shown or indicated in the Drawings or Specifications or identified in the Contract Documents to be within the scope of the Work, appear in Paragraph 5.06 of the General Conditions.

5.03 *Site Visit and Testing by Bidders*

A. Bidder shall conduct the required Site visit during normal working hours, and shall not disturb any ongoing operations at the Site.

B. On request, and to the extent Owner has control over the Site, and schedule permitting, the Owner will provide Bidder access to the Site to conduct such additional examinations, investigations, explorations, tests, and studies as Bidder deems necessary for preparing and submitting a successful Bid. Owner will not have any obligation to grant such access if doing so is not practical because of existing operations, security or safety concerns, or restraints on Owner's authority regarding the Site.

C. Bidder shall comply with all applicable Laws and Regulations regarding excavation and location of utilities, obtain all permits, and comply with all terms and conditions established by Owner or by property owners or other entities controlling the Site with respect to schedule, access, existing operations, security, liability insurance, and applicable safety programs.

D. Bidder shall fill all holes and clean up and restore the Site to its former condition upon completion of such explorations, investigations, tests, and studies.

5.04 *Owner's Safety Program*

A. Site visits and work at the Site may be governed by an Owner safety program. As the General Conditions indicate, if an Owner safety program exists, it will be noted in the Supplementary Conditions.

5.05 *Other Work at the Site*

A. Reference is made to Article 8 of the Supplementary Conditions for the identification of the general nature of other work of which Owner is aware (if any) that is to be performed at the Site by Owner or others (such as utilities and other prime contractors) and relates to the Work contemplated by these Bidding Documents. If Owner is party to a written contract for such other work, then on request, Owner will provide to each Bidder access to examine such contracts (other than portions thereof related to price and other confidential matters), if any.

ARTICLE 6 – BIDDER'S REPRESENTATIONS

6.01 It is the responsibility of each Bidder before submitting a Bid to:

A. examine and carefully study the Bidding Documents, and any data and reference items identified in the Bidding Documents;

B. visit the Site, conduct a thorough, alert visual examination of the Site and adjacent areas, and become familiar with and satisfy itself as to the general, local, and Site conditions that may affect cost, progress, and performance of the Work;

C. become familiar with and satisfy itself as to all Laws and Regulations that may affect cost, progress, and performance of the Work;

D. carefully study all: (1) reports of explorations and tests of subsurface conditions at or adjacent to the Site and all drawings of physical conditions relating to existing surface or subsurface structures at the Site that have been identified in the Supplementary Conditions, especially with respect to Technical Data in such reports and drawings, and (2) reports and drawings relating to Hazardous Environmental Conditions, if any, at or adjacent to the Site that have been identified in the Supplementary Conditions, especially with respect to Technical Data in such reports and drawings;

E. consider the information known to Bidder itself; information commonly known to contractors doing business in the locality of the Site; information and observations obtained from visits to the Site; the Bidding Documents; and the Site-related reports and drawings identified in the Bidding Documents, with respect to the effect of such information, observations, and documents on (1) the cost, progress, and performance of the Work; (2) the means, methods, techniques, sequences, and procedures of construction to be employed by Bidder; and (3) Bidder's safety precautions and programs;

F. agree, based on the information and observations referred to in the preceding paragraph, that at the time of submitting its Bid no further examinations, investigations, explorations, tests, studies, or data are necessary for the determination of its Bid for performance of the Work at the price bid and within the times required, and in accordance with the other terms and conditions of the Bidding Documents;

G. become aware of the general nature of the work to be performed by Owner and others at the Site that relates to the Work as indicated in the Bidding Documents;

H. promptly give Engineer written notice of all conflicts, errors, ambiguities, or discrepancies that Bidder discovers in the Bidding Documents and confirm that the written resolution thereof by Engineer is acceptable to Bidder;

I. determine that the Bidding Documents are generally sufficient to indicate and convey understanding of all terms and conditions for the performance and furnishing of the Work; and

J. agree that the submission of a Bid will constitute an incontrovertible representation by Bidder that Bidder has complied with every requirement of this Article, that without exception the Bid and all prices in the Bid are premised upon performing and furnishing the Work required by the Bidding Documents.

ARTICLE 7 – PRE-BID CONFERENCE

7.01 No pre-bid conference will be held for this project. Bidders are encouraged to visit the site prior to bidding on this project.

ARTICLE 8 – INTERPRETATIONS AND ADDENDA

8.01 All questions about the meaning or intent of the Bidding Documents are to be submitted via email only to Elsie Jorgensen at elsie.jorgensen@spicergroup.com. All email questions must be received by 5:00 P.M. on Tuesday, July 2, 2024. Interpretations or clarifications considered necessary by Engineer in response to such questions will be issued by Addenda delivered to all parties recorded as having received the Bidding Documents. Questions received after 5:00 P.M. July 2, 2024 may not be answered Only questions answered by Addenda will be binding. Oral and other interpretations or clarifications will be without legal effect.

8.02 Addenda may be issued to clarify, correct, supplement, or change the Bidding Documents.

ARTICLE 9 – BID SECURITY

9.01 A Bid must be accompanied by Bid security made payable to Owner in an amount of 5 percent of Bidder's maximum Bid price (determined by adding the base bid and all alternates) and in the form of a certified check, bank money order, or a Bid bond issued by a surety meeting the requirements of Paragraphs 6.01 and 6.02 of the General Conditions.

9.02 The Bid security of the apparent Successful Bidder will be retained until Owner awards the contract to such Bidder, and such Bidder has executed the Contract Documents, furnished the required contract security, and met the other conditions of the Notice of Award, whereupon the Bid security will be released. If the Successful Bidder fails to execute and deliver the Contract Documents and furnish the required contract security within 15 days after the Notice of Award, Owner may consider Bidder to be in default, annul the Notice of Award, and the Bid security of that Bidder will be forfeited. Such forfeiture shall be Owner's exclusive remedy if Bidder defaults.

9.03 The Bid security of other Bidders that Owner believes to have a reasonable chance of receiving the award may be retained by Owner until the earlier of seven days after the Effective Date of the Contract or 61 days after the Bid opening, whereupon Bid security furnished by such Bidders will be released.

9.04 Bid security of other Bidders that Owner believes do not have a reasonable chance of receiving the award will be released within seven days after the Bid opening.

ARTICLE 10 – CONTRACT TIMES

10.01 The number of days within which, or the dates by which, the Work is to be substantially completed and ready for final payment are set forth in the Agreement.

ARTICLE 11 – LIQUIDATED DAMAGES

11.01 Provisions for liquidated damages, if any, for failure to timely attain a Milestone, Substantial Completion, or completion of the Work in readiness for final payment, are set forth in the Agreement.

ARTICLE 12 – SUBSTITUTE AND "OR-EQUAL" ITEMS

12.01 The Contract for the Work, as awarded, will be on the basis of materials and equipment specified or described in the Bidding Documents without consideration during the bidding and Contract award process of possible substitute or "or-equal" items. In cases in which the Contract allows the Contractor to request that Engineer authorize the use of a substitute or "or-equal" item of material or equipment, application for such acceptance may not be made to and will not be considered by Engineer until after the Effective Date of the Contract.

12.02 All prices that Bidder sets forth in its Bid shall be based on the presumption that the Contractor will furnish the materials and equipment specified or described in the Bidding Documents, as supplemented by Addenda. Any assumptions regarding the possibility of post-Bid approvals of "or-equal" or substitution requests are made at Bidder's sole risk.

ARTICLE 13 – SUBCONTRACTORS, SUPPLIERS, AND OTHERS

13.01 A Bidder shall be prepared to retain specific Subcontractors, Suppliers, or other individuals or entities for the performance of the Work if required by the Bidding Documents (most commonly in the Specifications) to do so. If a prospective Bidder objects to retaining any such Subcontractor, Supplier, or other individual or entity, and the concern is not relieved by an Addendum, then the prospective Bidder should refrain from submitting a Bid.

13.02 Subsequent to the submittal of the Bid, Owner may not require the Successful Bidder or Contractor to retain any Subcontractor, Supplier, or other individual or entity against which Contractor has reasonable objection.

13.03 The apparent Successful Bidder, and any other Bidder so requested, shall within five days after Bid opening, submit to Owner a list of the Subcontractors or Suppliers.

13.04 If requested by Owner, such list shall be accompanied by an experience statement with pertinent information regarding similar projects and other evidence of qualification for each such Subcontractor, Supplier, or other individual or entity. If Owner or Engineer, after due investigation, has reasonable objection to any proposed Subcontractor, Supplier, individual, or entity, Owner may, before the Notice of Award is given, request apparent Successful Bidder to submit an acceptable substitute, in which case apparent Successful Bidder shall submit a substitute, Bidder's Bid price will be increased (or decreased) by the difference in cost occasioned by such substitution, and Owner may consider such price adjustment in evaluating Bids and making the Contract award.

13.05 If apparent Successful Bidder declines to make any such substitution, Owner may award the Contract to the next lowest Bidder that proposes to use acceptable Subcontractors, Suppliers, or other individuals or entities. Declining to make requested substitutions will constitute grounds for forfeiture of the Bid security of any Bidder. Any Subcontractor, Supplier, individual, or entity so

listed and against which Owner or Engineer makes no written objection prior to the giving of the Notice of Award will be deemed acceptable to Owner and Engineer subject to subsequent revocation of such acceptance as provided in Paragraph 7.06 of the General Conditions.

ARTICLE 14 – PREPARATION OF BID

14.01 The Bid Form is included with the Bidding Documents.

A. All blanks on the Bid Form shall be completed in ink and the Bid Form signed in ink. Erasures or alterations shall be initialed in ink by the person signing the Bid Form. A Bid price shall be indicated for each section, Bid item, alternate, adjustment unit price item, and unit price item listed therein.

B. If the Bid Form expressly indicates that submitting pricing on a specific alternate item is optional, and Bidder elects to not furnish pricing for such optional alternate item, then Bidder may enter the words "No Bid" or "Not Applicable."

14.02 A Bid by a corporation shall be executed in the corporate name by a corporate officer (whose title must appear under the signature), accompanied by evidence of authority to sign. The corporate address and state of incorporation shall be shown.

14.03 A Bid by a limited liability company shall be executed in the name of the firm by a member or other authorized person and accompanied by evidence of authority to sign. The state of formation of the firm and the official address of the firm shall be shown.

14.04 A Bid by an individual shall show the Bidder's name and official address.

14.05 A Bid by a joint venture shall be executed by an authorized representative of each joint venturer in the manner indicated on the Bid Form. The official address of the joint venture shall be shown.

14.06 All names shall be printed in ink below the signatures.

14.07 The Bid shall contain an acknowledgment of receipt of all Addenda, the numbers of which shall be filled in on the Bid Form.

14.08 Postal and e-mail addresses and telephone number for communications regarding the Bid shall be shown.

14.09 The Bid shall contain evidence of Bidder's authority and qualification to do business in the state where the Project is located, or Bidder shall covenant in writing to obtain such authority and qualification prior to award of the Contract and attach such covenant to the Bid. Bidder's state contractor license number, if any, shall also be shown on the Bid Form..

ARTICLE 15 – BASIS OF BID

15.01 Base Bid with Alternates

A. Bidders shall submit a Bid on a lump sum basis for the base Bid and include a separate price for each alternate described in the Bidding Documents and as provided for in the Bid Form. The price for each alternate will be the amount added to or deleted from the base Bid if Owner selects the alternate.

B. In the comparison of Bids, alternates will be applied in the same order of priority as listed in the Bid Form.

15.02 *Unit Price*

A. Bidders shall submit a Bid on a unit price basis for each item of Work listed in the unit price section of the Bid Form.

B. The "Bid Price" (sometimes referred to as the extended price) for each unit price Bid item will be the product of the "Estimated Quantity" (which Owner or its representative has set forth in the Bid Form) for the item and the corresponding "Bid Unit Price" offered by the Bidder. The total of all unit price Bid items will be the sum of these "Bid Prices"; such total will be used by Owner for Bid comparison purposes. The final quantities and Contract Price will be determined in accordance with Paragraph 13.03 of the General Conditions.

C. Discrepancies between the multiplication of units of Work and unit prices will be resolved in favor of the unit prices. Discrepancies between the indicated sum of any column of figures and the correct sum thereof will be resolved in favor of the correct sum.

15.03 *Allowances*

A. For cash allowances the Bid price shall include such amounts as the Bidder deems proper for Contractor's overhead, costs, profit, and other expenses on account of cash allowances, if any, named in the Contract Documents, in accordance with Paragraph 13.02.B of the General Conditions.

ARTICLE 16 – SUBMITTAL OF BID

16.01 With each copy of the Bidding Documents, a Bidder is furnished one Affidavit of Compliance – Iran Economic Sanctions Act (C210) This form must be signed, notarized and included with the submitted bid package.

16.02 A Bid shall be received no later than the date and time prescribed and at the place indicated in the advertisement or invitation to bid and shall be enclosed in a plainly marked package with the Project title (and, if applicable, the designated portion of the Project for which the Bid is submitted), the name and address of Bidder, and shall be accompanied by the Bid security and other required documents. If a Bid is sent by mail or other delivery system, the sealed envelope containing the Bid shall be enclosed in a separate package plainly marked on the outside with the notation "BID ENCLOSED." A mailed Bid shall be addressed to Ypsilanti Township Civic Center, 7200 S. Huron River Dr., Ypsilanti MI., 48197

16.03 Bids received after the date and time prescribed for the opening of bids, or not submitted at the correct location or in the designated manner, will not be accepted and will be returned to the Bidder unopened.

ARTICLE 17 – MODIFICATION AND WITHDRAWAL OF BID

17.01 A Bid may be withdrawn by an appropriate document duly executed in the same manner that a Bid must be executed and delivered to the place where Bids are to be submitted prior to the date and time for the opening of Bids. Upon receipt of such notice, the unopened Bid will be returned to the Bidder.

17.02 If a Bidder wishes to modify its Bid prior to Bid opening, Bidder must withdraw its initial Bid in the manner specified in Paragraph 16.01 and submit a new Bid prior to the date and time for the opening of Bids.

17.03 If within 24 hours after Bids are opened any Bidder files a duly signed written notice with Owner and promptly thereafter demonstrates to the reasonable satisfaction of Owner that there was a material and substantial mistake in the preparation of its Bid, that Bidder may withdraw its Bid, and the Bid security will be returned. Thereafter, if the Work is rebid, that Bidder will be disqualified from further bidding on the Work.

ARTICLE 18 – OPENING OF BIDS

18.01 Bids will be opened at the time and place indicated in the advertisement or invitation to bid and, unless obviously non-responsive, read aloud publicly. An abstract of the amounts of the base Bids and major alternates, if any, will be made available to Bidders after the opening of Bids.

ARTICLE 19 – BIDS TO REMAIN SUBJECT TO ACCEPTANCE

19.01 All Bids will remain subject to acceptance for the period of time stated in the Bid Form, but Owner may, in its sole discretion, release any Bid and return the Bid security prior to the end of this period.

ARTICLE 20 – EVALUATION OF BIDS AND AWARD OF CONTRACT

20.01 Owner reserves the right to reject any or all Bids, including without limitation, nonconforming, nonresponsive, unbalanced, or conditional Bids. Owner will reject the Bid of any Bidder that Owner finds, after reasonable inquiry and evaluation, to not be responsible. If Bidder purports to add terms or conditions to its Bid, takes exception to any provision of the Bidding Documents, or attempts to alter the contents of the Contract Documents for purposes of the Bid, then the Owner will reject the Bid as nonresponsive; provided that Owner also reserves the right to waive all minor informalities not involving price, time, or changes in the Work.

20.02 If Owner awards the contract for the Work, such award shall be to the responsible Bidder submitting the lowest responsive Bid.

20.03 Evaluation of Bids

A. In evaluating Bids, Owner will consider whether or not the Bids comply with the prescribed requirements, and such alternates, unit prices, and other data, as may be requested in the Bid Form or prior to the Notice of Award.

B. For the determination of the apparent low Bidder when unit price bids are submitted, Bids will be compared on the basis of the total of the products of the estimated quantity of each item and unit price Bid for that item, together with any lump sum items.

20.04 In evaluating whether a Bidder is responsible, Owner will consider the qualifications of the Bidder and may consider the qualifications and experience of Subcontractors and Suppliers proposed for those portions of the Work for which the identity of Subcontractors and Suppliers must be submitted as provided in the Bidding Documents.

20.05 Owner may conduct such investigations as Owner deems necessary to establish the responsibility, qualifications, and financial ability of Bidders and any proposed Subcontractors or Suppliers.

ARTICLE 21 – BONDS AND INSURANCE

21.01 Article 6 of the General Conditions, as may be modified by the Supplementary Conditions, sets forth Owner's requirements as to performance and payment bonds and insurance. When the Successful Bidder delivers the Agreement (executed by Successful Bidder) to Owner, it shall be accompanied by required bonds and insurance documentation.

ARTICLE 22 – SIGNING OF AGREEMENT

22.01 When Owner issues a Notice of Award to the Successful Bidder, it shall be accompanied by the unexecuted counterparts of the Agreement along with the other Contract Documents as identified in the Agreement. Within 15 days thereafter, Successful Bidder shall execute and deliver the required number of counterparts of the Agreement (and any bonds and insurance documentation required to be delivered by the Contract Documents) to Owner. Within ten days thereafter, Owner shall deliver one fully executed counterpart of the Agreement to Successful Bidder, together with

printed and electronic copies of the Contract Documents as stated in Paragraph 2.02 of the General Conditions.

ARTICLE 23 – EQUAL EMPLOYMENT

23.01 Attention of Bidders is particularly called to the requirement for ensuring that employees and applicants for employment are not discriminated against on any illegal basis with respect to hire, tenure, terms, conditions, or privileges of employment, or a matter directly or indirectly related to employment, because of race, color, religion, national origin, age, sex, height, weight, marital status, partisan considerations, genetic information, or a disability that is unrelated to the individual's ability to perform the duties of a particular job or position as required by Public Act 453 of 1976 (Elliot-Larsen Civil Rights Act), Public Act 220 of 1976 (Persons with Disabilities Act), as amended, and Executive Directive 2019-09.

ARTICLE 24 – BUILD AMERICA, BUY AMERICA (BABA)

24.01 Attention of Bidders is particularly called to the requirement for ensuring that all of the iron, steel, manufactured products, and construction materials used in the project are produced in the United States." (Build America, Buy America Act, P.L. 117-58, Secs 70911 - 70917.

AFFIDAVIT OF COMPLIANCE-IRAN ECONOMIC SANCTIONS ACT
MICHIGAN PUBLIC ACT 517 OF 2012

The undersigned, as owner or authorized officer of the below named CONTRACTOR, pursuant to the compliance certification requirement by the State of Michigan, and as referenced by OWNER in the BIDDING DOCUMENTS, hereby certifies, represents and warrants that the CONTRACTOR (including its Officers, Directors and Employees) is not an "Iran linked business" as defined by the Iran Economic Sanctions Act, Michigan Public Act 517 of 2012 (THE ACT). And, that in the event CONTRACTOR is awarded a contract as a result of the aforementioned BIDDING DOCUMENTS, the Contractor will not become an "Iran linked business" at any time during the course of preforming the work or any services under the contract.

The CONTACTOR further acknowledges that any person who is found to have submitted a false certification is responsible for a civil penalty of not more than $250,000.00 or 2 times the amount of the contract or proposed contract for which the false certification was made, whichever is greater. The cost of the OWNER'S investigation and reasonable attorney fees may also be added in addition to the fine. Moreover, any person who submitted a false certification shall be ineligible to bid on any other of the OWNER'S projects for three (3) years from the date that it is determined that the person has submitted the false certification.

CONTRACTOR:

_____
Name of Contractor
By: _____
Its: _____
Date: _____

STATE OF _____}
ss.
COUNTY OF _____}

This instrument was acknowledged before me on the _____day of _____, ____
by_____.

_____
, Notary Public
_____ County, State of _____
My Commission expires: _____
Acting in the County of: _____

90% Bid Package

BID FORM
FOR CONSTRUCTION CONTRACTS

ARTICLE 1 – BID RECIPIENT

1.01 This Bid is submitted to:

Clerk's Office
Ypsilanti Township Civic Center
7200 S Huron River Dr
Ypsilanti, MI 48197

1.02 The undersigned Bidder proposes and agrees, if this Bid is accepted, to enter into an Agreement with Owner in the form included in the Bidding Documents to perform all Work as specified or indicated in the Bidding Documents for the prices and within the times indicated in this Bid and in accordance with the other terms and conditions of the Bidding Documents.

ARTICLE 2 – BIDDER'S ACKNOWLEDGEMENTS

2.01 Bidder accepts all of the terms and conditions of the Instructions to Bidders, including without limitation those dealing with the disposition of Bid security. This Bid will remain subject to acceptance for 45 days after the Bid opening, or for such longer period of time that Bidder may agree to in writing upon request of Owner.

ARTICLE 3 – BIDDER'S REPRESENTATIONS

3.01 In submitting this Bid, Bidder represents that:

A. Bidder has examined and carefully studied the Bidding Documents, and any data and reference items identified in the Bidding Documents, and hereby acknowledges receipt of the following Addenda:

Addendum No.	**Addendum, Date**
_____	_____
_____	_____
_____	_____

If no addenda have been issued, insert "N/A". Bidder shall submit signed copies of the Addendum Acknowledgment receipt form issued with each addendum with the complete bid form.

B. Bidder has visited the Site, conducted a thorough, alert visual examination of the Site and adjacent areas, and become familiar with and satisfied itself as to the general, local, and Site conditions that may affect cost, progress, and performance of the Work.

C. Bidder is familiar with and has satisfied itself as to all Laws and Regulations that may affect cost, progress, and performance of the Work.

D. Bidder has carefully studied all: (1) reports of explorations and tests of subsurface conditions at or adjacent to the Site and all drawings of physical conditions relating to existing surface or subsurface structures at the Site that have been identified in the Supplementary Conditions,

especially with respect to Technical Data in such reports and drawings, and (2) reports and drawings relating to Hazardous Environmental Conditions, if any, at or adjacent to the Site that have been identified in the Supplementary Conditions, especially with respect to Technical Data in such reports and drawings.

E. Bidder has considered the information known to Bidder itself; information commonly known to contractors doing business in the locality of the Site; information and observations obtained from visits to the Site; the Bidding Documents; and any Site-related reports and drawings identified in the Bidding Documents, with respect to the effect of such information, observations, and documents on (1) the cost, progress, and performance of the Work; (2) the means, methods, techniques, sequences, and procedures of construction to be employed by Bidder; and (3) Bidder's safety precautions and programs.

F. Bidder agrees, based on the information and observations referred to in the preceding paragraph, that no further examinations, investigations, explorations, tests, studies, or data are necessary for the determination of this Bid for performance of the Work at the price bid and within the times required, and in accordance with the other terms and conditions of the Bidding Documents.

G. Bidder is aware of the general nature of work to be performed by Owner and others at the Site that relates to the Work as indicated in the Bidding Documents.

H. Bidder has given Engineer written notice of all conflicts, errors, ambiguities, or discrepancies that Bidder has discovered in the Bidding Documents, and confirms that the written resolution thereof by Engineer is acceptable to Bidder.

I. The Bidding Documents are generally sufficient to indicate and convey understanding of all terms and conditions for the performance and furnishing of the Work.

J. The submission of this Bid constitutes an incontrovertible representation by Bidder that Bidder has complied with every requirement of this Article, and that without exception the Bid and all prices in the Bid are premised upon performing and furnishing the Work required by the Bidding Documents.

ARTICLE 4 – BIDDER'S CERTIFICATION

4.01 Bidder certifies that:

A. This Bid is genuine and not made in the interest of or on behalf of any undisclosed individual or entity and is not submitted in conformity with any collusive agreement or rules of any group, association, organization, or corporation;

B. Bidder has not directly or indirectly induced or solicited any other Bidder to submit a false or sham Bid;

C. Bidder has not solicited or induced any individual or entity to refrain from bidding; and

D. Bidder has not engaged in corrupt, fraudulent, collusive, or coercive practices in competing for the Contract. For the purposes of this Paragraph 4.01.D:

1. "corrupt practice" means the offering, giving, receiving, or soliciting of any thing of value likely to influence the action of a public official in the bidding process;

2. "fraudulent practice" means an intentional misrepresentation of facts made (a) to influence the bidding process to the detriment of Owner, (b) to establish bid prices at artificial non-competitive levels, or (c) to deprive Owner of the benefits of free and open competition;

3. "collusive practice" means a scheme or arrangement between two or more Bidders, with or without the knowledge of Owner, a purpose of which is to establish bid prices at artificial, non-competitive levels; and

4. "coercive practice" means harming or threatening to harm, directly or indirectly, persons or their property to influence their participation in the bidding process or affect the execution of the Contract.

ARTICLE 5 – BASIS OF BID

5.01 Bidder will complete the Work in accordance with the Contract Documents for the following price(s):

Ford Heritage Park					
Item No.	**Description**	**Unit**	**Estimated Quantity**	**Bid Unit Price**	**Bid Price**
1.	Mobilization, Max 5%	Each	1		
2.	Removal of Fiber Mulch Safety Surfacing	Sq Ft	3900		
3.	Removal of Poured-in-Place Safety Surfacing	Sq Ft	5600		
4.	Engineered Wood Fiber Safety Surfacing	Sq Ft	3900		
5.	Poured-in-Place Safety Surfacing	Sq Ft	5600		
Total of Ford Heritage Park					$

Alternates					
Item No.	**Description**	**Unit**	**Estimated Quantity**	**Bid Unit Price**	**Bid Price**
1.	Mobilization, Max 5%	Each	1		
2.	Removal of Fiber Mulch Safety Surfacing	Sq Ft	3900		
3.	Removal of Poured-in-Place Safety Surfacing	Sq Ft	5600		
4.	Poured-in-Place Safety Surfacing	Sq Ft	9500		
Total of Ford Heritage Park					$

Bidder acknowledges that (1) each Bid Unit Price includes an amount considered by Bidder to be adequate to cover Contractor's overhead and profit for each separately identified item, and (2) estimated quantities are not guaranteed, and are solely for the purpose of comparison of Bids, and final payment for all unit price Bid items will be based on actual quantities, determined as provided in the Contract Documents.

ARTICLE 6 – TIME OF COMPLETION

6.01 Bidder agrees that the Work will be substantially complete on or before **November 1, 2024** and will be completed and ready for final payment in accordance with Paragraph 15.06 of the General Conditions on or before **November 30, 2024.**

6.02 Bidder accepts the provisions of the Agreement as to liquidated damages.

ARTICLE 7 – ATTACHMENTS TO THIS BID

7.01 The following documents are submitted with and made a condition of this Bid:

A. Required Bid security;

B. Affidavit of Compliance – Iran Economic Sanctions Act;

ARTICLE 8 – DEFINED TERMS

8.01 The terms used in this Bid with initial capital letters have the meanings stated in the Instructions to Bidders, the General Conditions, and the Supplementary Conditions.

ARTICLE 9 – BID SUBMITTAL

BIDDER: *[Indicate correct name of bidding entity]*

_____

By:
[Signature] _____

[Printed name] _____
(If Bidder is a corporation, a limited liability company, a partnership, or a joint venture, attach evidence of authority to sign.)

Attest:
[Signature] _____

[Printed name] _____

Title: _____

Submittal Date: _____

Address for giving notices:

_____

_____

_____

Telephone Number: _____

Fax Number: _____

Contact Name and e-mail address: _____

_____

Bidder's License No.: _____
(where applicable)

NOTE TO USER: Use in those states or other jurisdictions where applicable or required.

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NOTICE OF AWARD

Date of Issuance:

Owner:	Ypsilanti Charter Township	Owner's Contract No.:	
Engineer:	Spicer Group, Inc.	Engineer's Project No.:	134586SG2023
Project:	Ford Heritage Playground Surface Improvements	Contract Name:	Ford Heritage Playground Surface Improvements

Bidder:

Bidder's Address:

TO BIDDER:

You are notified that Owner has accepted your Bid dated [_____] for the above Contract, and that you are the Successful Bidder and are awarded a Contract for:

Ford Heritage Playground Surface Improvements

The Contract Price of the awarded Contract is: $_____ *[note if subject to unit prices, or cost-plus]*

[ ] unexecuted counterparts of the Agreement accompany this Notice of Award, and one copy of the Contract Documents accompanies this Notice of Award, or has been transmitted or made available to Bidder electronically. *[revise if multiple copies accompany the Notice of Award]*

☐ a set of the Drawings will be delivered separately from the other Contract Documents.

You must comply with the following conditions precedent within 15 days of the date of receipt of this Notice of Award:

1. Deliver to Owner [____]counterparts of the Agreement, fully executed by Bidder.
2. Deliver with the executed Agreement(s) the Contract security *[e.g., performance and payment bonds]* and insurance documentation as specified in the Instructions to Bidders and General Conditions, Articles 2 and 6.
3. Other conditions precedent (if any):

Failure to comply with these conditions within the time specified will entitle Owner to consider you in default, annul this Notice of Award, and declare your Bid security forfeited.

Within ten days after you comply with the above conditions, Owner will return to you one fully executed counterpart of the Agreement, together with any additional copies of the Contract Documents as indicated in Paragraph 2.02 of the General Conditions.

Owner**:**

_____	_____
Authorized Signature	Authorized Signature
By:	By:
Title:	Title:

Copy: Engineer

90% Bid Package

AGREEMENT

THIS AGREEMENT is by and between Ypsilanti Charter Township ("Owner") and _____ ("Contractor").

Owner and Contractor hereby agree as follows:

ARTICLE 1 – WORK

1.01 Contractor shall complete all Work as specified or indicated in the Contract Documents. The Work is generally described as follows:

ARTICLE 2 – THE PROJECT

2.01 The Project, of which the Work under the Contract Documents is a part, is generally described as follows: Burns Park and West Willow Park Improvements.

ARTICLE 3 – ENGINEER

3.01 The Project has been designed by Spicer Group, Inc.

3.02 The Owner has retained Spicer Group, Inc. ("Engineer") to act as Owner's representative, assume all duties and responsibilities, and have the rights and authority assigned to Engineer in the Contract Documents in connection with the completion of the Work in accordance with the Contract Documents.

ARTICLE 4 – CONTRACT TIMES

4.01 *Time of the Essence*

A. All time limits for Milestones, if any, Substantial Completion, and completion and readiness for final payment as stated in the Contract Documents are of the essence of the Contract.

4.02 *Contract Times: Dates*

A. The Work will be substantially completed on or before November 1, 2024 and completed and ready for final payment in accordance with Paragraph 15.06 of the General Conditions on or before November 30, 2024

4.03 *Liquidated Damages*

A. Contractor and Owner recognize that time is of the essence as stated in Paragraph 4.01 above and that Owner will suffer financial and other losses if the Work is not completed and Milestones not achieved within the times specified in Paragraph 4.02 above, plus any extensions thereof allowed in accordance with the Contract. The parties also recognize the delays, expense, and difficulties involved in proving in a legal or arbitration proceeding the actual loss suffered by Owner if the Work is not completed on time. Accordingly, instead of requiring any such proof, Owner and Contractor agree that as liquidated damages for delay (but not as a penalty):

1. Substantial Completion: Contractor shall pay Owner $600 for each day that expires after the time (as duly adjusted pursuant to the Contract) specified in Paragraph 4.02.A above for Substantial Completion until the Work is substantially complete.

2. Completion of Remaining Work: After Substantial Completion, if Contractor shall neglect, refuse, or fail to complete the remaining Work within the Contract Time (as duly adjusted pursuant to the Contract) for completion and readiness for final payment, Contractor shall pay Owner $600 for each day that expires after such time until the Work is completed and ready for final payment.

3. Liquidated damages for failing to timely attain Substantial Completion and final completion are not additive and will not be imposed concurrently.

4.04 *Special Damages*

A. In addition to the amount provided for liquidated damages, Contractor shall reimburse Owner (1) for any fines or penalties imposed on Owner as a direct result of the Contractor's failure to attain Substantial Completion according to the Contract Times, and (2) for the actual costs reasonably incurred by Owner for engineering, construction observation, inspection, and administrative services needed after the time specified in Paragraph 4.02 for Substantial Completion (as duly adjusted pursuant to the Contract), until the Work is substantially complete.

B. After Contractor achieves Substantial Completion, if Contractor shall neglect, refuse, or fail to complete the remaining Work within the Contract Times, Contractor shall reimburse Owner for the actual costs reasonably incurred by Owner for engineering, construction observation, inspection, and administrative services needed after the time specified in Paragraph 4.02 for Work to be completed and ready for final payment (as duly adjusted pursuant to the Contract), until the Work is completed and ready for final payment.

ARTICLE 5 – CONTRACT PRICE

5.01 Owner shall pay Contractor for completion of the Work in accordance with the Contract Documents the amounts that follow, subject to adjustment under the Contract:

A. For all Unit Price Work, an amount equal to the sum of the extended prices (established for each separately identified item of Unit Price Work by multiplying the unit price times the actual quantity of that item):

The extended prices for Unit Price Work set forth as of the Effective Date of the Contract are based on estimated quantities. As provided in Paragraph 13.03 of the General Conditions, estimated quantities are not guaranteed, and determinations of actual quantities and classifications are to be made by Engineer.

B. For all Work, at the prices stated in Contractor's Bid, attached hereto as an exhibit.

ARTICLE 6 – PAYMENT PROCEDURES

6.01 *Submittal and Processing of Payments*

A. Contractor shall submit Applications for Payment in accordance with Article 15 of the General Conditions. Applications for Payment will be processed by Engineer as provided in the General Conditions.

6.02 *Progress Payments; Retainage*

A. Owner shall make progress payments on account of the Contract Price on the basis of Contractor's Applications for Payment on or about the 1st day of each month during performance of the Work as provided in Paragraph 6.02.A.1 below, provided that such

Applications for Payment have been submitted in a timely manner and otherwise meet the requirements of the Contract. All such payments will be measured by the Schedule of Values established as provided in the General Conditions (and in the case of Unit Price Work based on the number of units completed) or, in the event there is no Schedule of Values, as provided elsewhere in the Contract.

1. Prior to Substantial Completion, progress payments will be made in an amount equal to the percentage indicated below but, in each case, less the aggregate of payments previously made and less such amounts as Owner may withhold, including but not limited to liquidated damages, in accordance with the Contract

   a. 90 percent of Work completed (with the balance being retainage). If the Work has been 50 percent completed as determined by Engineer, and if the character and progress of the Work have been satisfactory to Owner and Engineer, then as long as the character and progress of the Work remain satisfactory to Owner and Engineer, there will be no additional retainage; and

B. Upon Substantial Completion, Owner shall pay an amount sufficient to increase total payments to Contractor to 95 percent of the Work completed, less such amounts set off by Owner pursuant to Paragraph 15.01.E of the General Conditions, and less 50 percent of Engineer's estimate of the value of Work to be completed or corrected as shown on the punch list of items to be completed or corrected prior to final payment.

6.03 *Final Payment*

A. Upon final completion and acceptance of the Work in accordance with Paragraph 15.06 of the General Conditions, Owner shall pay the remainder of the Contract Price as recommended by Engineer as provided in said Paragraph 15.06.

ARTICLE 7 – INTEREST

7.01 All amounts not paid when due shall bear interest at the rate of *0* percent per annum.

ARTICLE 8 – CONTRACTOR'S REPRESENTATIONS

8.01 In order to induce Owner to enter into this Contract, Contractor makes the following representations:

A. Contractor has examined and carefully studied the Contract Documents, and any data and reference items identified in the Contract Documents.

B. Contractor has visited the Site, conducted a thorough, alert visual examination of the Site and adjacent areas, and become familiar with and is satisfied as to the general, local, and Site conditions that may affect cost, progress, and performance of the Work.

C. Contractor is familiar with and is satisfied as to all Laws and Regulations that may affect cost, progress, and performance of the Work.

D. Contractor has carefully studied all: (1) reports of explorations and tests of subsurface conditions at or adjacent to the Site and all drawings of physical conditions relating to existing surface or subsurface structures at the Site that have been identified in the Supplementary Conditions, especially with respect to Technical Data in such reports and drawings, and (2) reports and drawings relating to Hazardous Environmental Conditions, if any, at or adjacent to the Site that have been identified in the Supplementary Conditions, especially with respect to Technical Data in such reports and drawings.

E. Contractor has considered the information known to Contractor itself; information commonly known to contractors doing business in the locality of the Site; information and observations obtained from visits to the Site; the Contract Documents; and the Site-related reports and

drawings identified in the Contract Documents, with respect to the effect of such information, observations, and documents on (1) the cost, progress, and performance of the Work; (2) the means, methods, techniques, sequences, and procedures of construction to be employed by Contractor; and (3) Contractor's safety precautions and programs.

F. Based on the information and observations referred to in the preceding paragraph, Contractor agrees that no further examinations, investigations, explorations, tests, studies, or data are necessary for the performance of the Work at the Contract Price, within the Contract Times, and in accordance with the other terms and conditions of the Contract.

G. Contractor is aware of the general nature of work to be performed by Owner and others at the Site that relates to the Work as indicated in the Contract Documents.

H. Contractor has given Engineer written notice of all conflicts, errors, ambiguities, or discrepancies that Contractor has discovered in the Contract Documents, and the written resolution thereof by Engineer is acceptable to Contractor.

I. The Contract Documents are generally sufficient to indicate and convey understanding of all terms and conditions for performance and furnishing of the Work.

J. Contractor's entry into this Contract constitutes an incontrovertible representation by Contractor that without exception all prices in the Agreement are premised upon performing and furnishing the Work required by the Contract Documents.

ARTICLE 9 – CONTRACT DOCUMENTS

9.01 *Contents*

A. The Contract Documents consist of the following:

1. This Agreement (pages 1 to 7, inclusive).
2. Performance bond (pages 1 to 3, inclusive).
3. Payment bond (pages 1 to 4, inclusive).
4. Maintenance and Guarantee (pages 1 to 2, inclusive).
5. General Conditions (pages 1 to 65, inclusive).
6. Supplementary Conditions (pages 1 to 5, inclusive).
7. Specifications as listed in the table of contents of the Project Manual.
8. The Drawings are listed on the document title page.
9. Addenda (numbers ___ to ___, inclusive).
10. Exhibits to this Agreement (enumerated as follows):
    a. Contractor's Bid (pages ___ to ___, inclusive).
11. The following which may be delivered or issued on or after the Effective Date of the Contract and are not attached hereto:
    a. Notice to Proceed.
    b. Work Change Directives.
    c. Change Orders.
    d. Field Orders.

B. The documents listed in Paragraph 9.01.A are attached to this Agreement (except as expressly noted otherwise above).

C. There are no Contract Documents other than those listed above in this Article 9.

D. The Contract Documents may only be amended, modified, or supplemented as provided in the General Conditions.

ARTICLE 10 – MISCELLANEOUS

10.01 *Terms*

A. Terms used in this Agreement will have the meanings stated in the General Conditions and the Supplementary Conditions.

10.02 *Assignment of Contract*

A. Unless expressly agreed to elsewhere in the Contract, no assignment by a party hereto of any rights under or interests in the Contract will be binding on another party hereto without the written consent of the party sought to be bound; and, specifically but without limitation, money that may become due and money that is due may not be assigned without such consent (except to the extent that the effect of this restriction may be limited by law), and unless specifically stated to the contrary in any written consent to an assignment, no assignment will release or discharge the assignor from any duty or responsibility under the Contract Documents.

10.03 *Successors and Assigns*

A. Owner and Contractor each binds itself, its successors, assigns, and legal representatives to the other party hereto, its successors, assigns, and legal representatives in respect to all covenants, agreements, and obligations contained in the Contract Documents.

10.04 *Severability*

A. Any provision or part of the Contract Documents held to be void or unenforceable under any Law or Regulation shall be deemed stricken, and all remaining provisions shall continue to be valid and binding upon Owner and Contractor, who agree that the Contract Documents shall be reformed to replace such stricken provision or part thereof with a valid and enforceable provision that comes as close as possible to expressing the intention of the stricken provision.

10.05 *Contractor's Certifications*

A. Contractor certifies that it has not engaged in corrupt, fraudulent, collusive, or coercive practices in competing for or in executing the Contract. For the purposes of this Paragraph 10.05:

1. "corrupt practice" means the offering, giving, receiving, or soliciting of any thing of value likely to influence the action of a public official in the bidding process or in the Contract execution;

2. "fraudulent practice" means an intentional misrepresentation of facts made (a) to influence the bidding process or the execution of the Contract to the detriment of Owner, (b) to establish Bid or Contract prices at artificial non-competitive levels, or (c) to deprive Owner of the benefits of free and open competition;

3. "collusive practice" means a scheme or arrangement between two or more Bidders, with or without the knowledge of Owner, a purpose of which is to establish Bid prices at artificial, non-competitive levels; and

4. "coercive practice" means harming or threatening to harm, directly or indirectly, persons or their property to influence their participation in the bidding process or affect the execution of the Contract.

10.06 *Other Provisions*

A. Owner stipulates that if the General Conditions that are made a part of this Contract are based on EJCDC® C-700, Standard General Conditions for the Construction Contract, published by the Engineers Joint Contract Documents Committee®, and if Owner is the party that has furnished said General Conditions, then Owner has plainly shown all modifications to the standard wording of such published document to the Contractor, through a process such as highlighting or "track changes" (redline/strikeout), or in the Supplementary Conditions.

B. Equal Opportunity

Contractor shall not discriminate against an employee or applicant for employment with respect to hire, tenure, terms, conditions, or privileges of employment, or a matter directly or indirectly related to employment, because of race, color, religion, national origin, age, sex, height, weight, marital status, or because of a handicap that is unrelated to the person's ability to perform the duties of a particular job or position.

IN WITNESS WHEREOF, Owner and Contractor have signed this Agreement.

This Agreement will be effective on _____ (which is the Effective Date of the Contract).

OWNER:	CONTRACTOR:
Ypsilanti Charter Township	
By:	By:
Title:	Title:
Attest:	Attest:
Title:	Title:
Address for giving notices:	Address for giving notices:
7200 Huron River Drive	
Ypsilanti, MI 48197	

90% Bid Package

NOTICE TO PROCEED

Owner:	Ypsilanti Charter Township	Owner's Contract No.:	
Contractor:		Contractor's Project No.:	
Engineer:	Spicer Group, Inc.	Engineer's Project No.:	134586SG2023
Project:	Ford Heritage Playground Surface Improvements	Contract Name:	Ford Heritage Playground Surface Improvements
		Effective Date of Contract:	

TO CONTRACTOR:

Owner hereby notifies Contractor that the Contract Times under the above Contract will commence to run on _____**, 2024.** *[see Paragraph 4.01 of the General Conditions]*

On that date, Contractor shall start performing its obligations under the Contract Documents. No Work shall be done at the Site prior to such date. In accordance with the Agreement, the date of Substantial Completion is **November 1, 2024**, and the date of readiness for final payment is **November 30, 2024.**

Owner**:** **Ypsilanti Charter Township**

	_____ Authorized Signature		_____ Authorized Signature
By:	_____	By:	_____
Title:	_____	Title:	_____
Date Issued:	_____	Date Issued:	_____

Copy: Engineer

90% Bid Package

PERFORMANCE BOND

CONTRACTOR *(name and address)*:

SURETY *(name and address of principal place of business)*:

OWNER *(name and address)*:
Ypsilanti Charter Township
7200 S Huron River Dr
Ypsilanti, MI 48197

CONSTRUCTION CONTRACT
Effective Date of the Agreement:
Amount:
Description *(name and location)*:

BOND
Bond Number:
Date *(not earlier than the Effective Date of the Agreement of the Construction Contract)*:
Amount:
Modifications to this Bond Form: ☐ None ☐ See Paragraph 16

Surety and Contractor, intending to be legally bound hereby, subject to the terms set forth below, do each cause this Performance Bond to be duly executed by an authorized officer, agent, or representative.

CONTRACTOR AS PRINCIPAL	**SURETY**
_____ *(seal)*	_____ *(seal)*
Contractor's Name and Corporate Seal	Surety's Name and Corporate Seal
By: _____	**By:** _____
Signature	Signature *(attach power of attorney)*
_____	_____
Print Name	Print Name
_____	_____
Title	Title
Attest: _____	**Attest:** _____
Signature	Signature
_____	_____
Title	Title

Notes: (1) Provide supplemental execution by any additional parties, such as joint venturers. (2) Any singular reference to Contractor, Surety, Owner, or other party shall be considered plural where applicable.

1. The Contractor and Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors, and assigns to the Owner for the performance of the Construction Contract, which is incorporated herein by reference.

2. If the Contractor performs the Construction Contract, the Surety and the Contractor shall have no obligation under this Bond, except when applicable to participate in a conference as provided in Paragraph 3.

3. If there is no Owner Default under the Construction Contract, the Surety's obligation under this Bond shall arise after:

3.1 The Owner first provides notice to the Contractor and the Surety that the Owner is considering declaring a Contractor Default. Such notice shall indicate whether the Owner is requesting a conference among the Owner, Contractor, and Surety to discuss the Contractor's performance. If the Owner does not request a conference, the Surety may, within five (5) business days after receipt of the Owner's notice, request such a conference. If the Surety timely requests a conference, the Owner shall attend. Unless the Owner agrees otherwise, any conference requested under this Paragraph 3.1 shall be held within ten (10) business days of the Surety's receipt of the Owner's notice. If the Owner, the Contractor, and the Surety agree, the Contractor shall be allowed a reasonable time to perform the Construction Contract, but such an agreement shall not waive the Owner's right, if any, subsequently to declare a Contractor Default;

3.2 The Owner declares a Contractor Default, terminates the Construction Contract and notifies the Surety; and

3.3 The Owner has agreed to pay the Balance of the Contract Price in accordance with the terms of the Construction Contract to the Surety or to a contractor selected to perform the Construction Contract.

4. Failure on the part of the Owner to comply with the notice requirement in Paragraph 3.1 shall not constitute a failure to comply with a condition precedent to the Surety's obligations, or release the Surety from its obligations, except to the extent the Surety demonstrates actual prejudice.

5. When the Owner has satisfied the conditions of Paragraph 3, the Surety shall promptly and at the Surety's expense take one of the following actions:

5.1 Arrange for the Contractor, with the consent of the Owner, to perform and complete the Construction Contract;

5.2 Undertake to perform and complete the Construction Contract itself, through its agents or independent contractors;

5.3 Obtain bids or negotiated proposals from qualified contractors acceptable to the Owner for a contract for performance and completion of the Construction Contract, arrange for a contract to be prepared for execution by the Owner and a contractor selected with the Owners concurrence, to be secured with performance and payment bonds executed by a qualified surety equivalent to the bonds issued on the Construction Contract, and pay to the Owner the amount of damages as described in Paragraph 7 in excess of the Balance of the Contract Price incurred by the Owner as a result of the Contractor Default; or

5.4 Waive its right to perform and complete, arrange for completion, or obtain a new contractor, and with reasonable promptness under the circumstances:

5.4.1 After investigation, determine the amount for which it may be liable to the Owner and, as soon as practicable after the amount is determined, make payment to the Owner; or

5.4.2 Deny liability in whole or in part and notify the Owner, citing the reasons for denial.

6. If the Surety does not proceed as provided in Paragraph 5 with reasonable promptness, the Surety shall be deemed to be in default on this Bond seven days after receipt of an additional written notice from the Owner to the Surety demanding that the Surety perform its obligations under this Bond, and the Owner shall be entitled to enforce any remedy available to the Owner. If the Surety proceeds as provided in Paragraph 5.4, and the Owner refuses the payment or the Surety has denied liability, in whole or in part, without further notice the Owner shall be entitled to enforce any remedy available to the Owner.

7. If the Surety elects to act under Paragraph 5.1, 5.2, or 5.3, then the responsibilities of the Surety to the Owner shall not be greater than those of the Contractor under the Construction Contract, and the responsibilities of the Owner to the Surety shall not be greater than those of the Owner under the Construction Contract. Subject to the commitment by the Owner to pay the Balance of the Contract Price, the Surety is obligated, without duplication for:

7.1 the responsibilities of the Contractor for correction of defective work and completion of the Construction Contract;

7.2 additional legal, design professional, and delay costs resulting from the Contractor's Default, and resulting from the actions or failure to act of the Surety under Paragraph 5; and

7.3 liquidated damages, or if no liquidated damages are specified in the Construction Contract, actual damages caused by delayed performance or non-performance of the Contractor.

8. If the Surety elects to act under Paragraph 5.1, 5.3, or 5.4, the Surety's liability is limited to the amount of this Bond.

9. The Surety shall not be liable to the Owner or others for obligations of the Contractor that are unrelated to the Construction Contract, and the Balance of the Contract Price shall not be reduced or set off on account of any such unrelated obligations. No right of action shall accrue on this Bond to any person or entity other than the Owner or its heirs, executors, administrators, successors, and assigns.

10. The Surety hereby waives notice of any change, including changes of time, to the Construction Contract or to related subcontracts, purchase orders, and other obligations.

11. Any proceeding, legal or equitable, under this Bond may be instituted in any court of competent jurisdiction in the location in which the work or part of the work is located and shall be instituted within two years after a declaration of Contractor Default or within two years after the Contractor ceased working or within two years after the Surety refuses or fails to perform its obligations under this Bond, whichever occurs first. If the provisions of this paragraph are void or prohibited by law, the minimum periods of limitations available to sureties as a defense in the jurisdiction of the suit shall be applicable.

12. Notice to the Surety, the Owner, or the Contractor shall be mailed or delivered to the address shown on the page on which their signature appears.

13. When this Bond has been furnished to comply with a statutory or other legal requirement in the location where the construction was to be performed, any provision in this Bond conflicting with said statutory or legal requirement shall be deemed deleted herefrom and provisions conforming to such statutory or other legal requirement shall be deemed incorporated herein. When so furnished, the intent is that this Bond shall be construed as a statutory bond and not as a common law bond.

14. Definitions

14.1 Balance of the Contract Price: The total amount payable by the Owner to the Contractor under the Construction Contract after all proper adjustments have been made including allowance for the Contractor for any amounts received or to be received by the Owner in settlement of insurance or other claims for damages to which the Contractor is entitled, reduced by all valid and proper payments made to or on behalf of the Contractor under the Construction Contract.

14.2 Construction Contract: The agreement between the Owner and Contractor identified on the cover page, including all Contract Documents and changes made to the agreement and the Contract Documents.

14.3 Contractor Default: Failure of the Contractor, which has not been remedied or waived, to perform or otherwise to comply with a material term of the Construction Contract.

14.4 Owner Default: Failure of the Owner, which has not been remedied or waived, to pay the Contractor as required under the Construction Contract or to perform and complete or comply with the other material terms of the Construction Contract.

14.5 Contract Documents: All the documents that comprise the agreement between the Owner and Contractor.

15. If this Bond is issued for an agreement between a contractor and subcontractor, the term Contractor in this Bond shall be deemed to be Subcontractor and the term Owner shall be deemed to be Contractor.

16. Modifications to this Bond are as follows:

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PAYMENT BOND

CONTRACTOR *(name and address)*:

SURETY *(name and address of principal place of business)*:

OWNER *(name and address)*:
Ypsilanti Charter Township
7200 S Huron River Dr
Ypsilanti, MI 48197

CONSTRUCTION CONTRACT
Effective Date of the Agreement:
Amount:
Description *(name and location)*:

BOND
Bond Number:
Date *(not earlier than the Effective Date of the Agreement of the Construction Contract)*:
Amount:
Modifications to this Bond Form: ☐ None ☐ See Paragraph 18

Surety and Contractor, intending to be legally bound hereby, subject to the terms set forth below, do each cause this Payment Bond to be duly executed by an authorized officer, agent, or representative.

CONTRACTOR AS PRINCIPAL	**SURETY**
_____ *(seal)*	_____ *(seal)*
Contractor's Name and Corporate Seal	Surety's Name and Corporate Seal
By: _____	**By:** _____
Signature	Signature *(attach power of attorney)*
_____	_____
Print Name	Print Name
_____	_____
Title	Title
Attest: _____	**Attest:** _____
Signature	Signature
_____	_____
Title	Title

Notes: (1) Provide supplemental execution by any additional parties, such as joint venturers. (2) Any singular reference to Contractor, Surety, Owner, or other party shall be considered plural where applicable.

1. The Contractor and Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors, and assigns to the Owner to pay for labor, materials, and equipment furnished for use in the performance of the Construction Contract, which is incorporated herein by reference, subject to the following terms.

2. If the Contractor promptly makes payment of all sums due to Claimants, and defends, indemnifies, and holds harmless the Owner from claims, demands, liens, or suits by any person or entity seeking payment for labor, materials, or equipment furnished for use in the performance of the Construction Contract, then the Surety and the Contractor shall have no obligation under this Bond.

3. If there is no Owner Default under the Construction Contract, the Surety's obligation to the Owner under this Bond shall arise after the Owner has promptly notified the Contractor and the Surety (at the address described in Paragraph 13) of claims, demands, liens, or suits against the Owner or the Owner's property by any person or entity seeking payment for labor, materials, or equipment furnished for use in the performance of the Construction Contract, and tendered defense of such claims, demands, liens, or suits to the Contractor and the Surety.

4. When the Owner has satisfied the conditions in Paragraph 3, the Surety shall promptly and at the Surety's expense defend, indemnify, and hold harmless the Owner against a duly tendered claim, demand, lien, or suit.

5. The Surety's obligations to a Claimant under this Bond shall arise after the following:

   5.1 Claimants who do not have a direct contract with the Contractor,

      5.1.1 have furnished a written notice of non-payment to the Contractor, stating with substantial accuracy the amount claimed and the name of the party to whom the materials were, or equipment was, furnished or supplied or for whom the labor was done or performed, within ninety (90) days after having last performed labor or last furnished materials or equipment included in the Claim; and

      5.1.2 have sent a Claim to the Surety (at the address described in Paragraph 13).

   5.2 Claimants who are employed by or have a direct contract with the Contractor have sent a Claim to the Surety (at the address described in Paragraph 13).

6. If a notice of non-payment required by Paragraph 5.1.1 is given by the Owner to the Contractor, that is sufficient to satisfy a Claimant's obligation to furnish a written notice of non-payment under Paragraph 5.1.1.

7. When a Claimant has satisfied the conditions of Paragraph 5.1 or 5.2, whichever is applicable, the Surety shall promptly and at the Surety's expense take the following actions:

   7.1 Send an answer to the Claimant, with a copy to the Owner, within sixty (60) days after receipt of the Claim, stating the amounts that are undisputed and the basis for challenging any amounts that are disputed; and

   7.2 Pay or arrange for payment of any undisputed amounts.

   7.3 The Surety's failure to discharge its obligations under Paragraph 7.1 or 7.2 shall not be deemed to constitute a waiver of defenses the Surety or Contractor may have or acquire as to a Claim, except as to undisputed amounts for which the Surety and Claimant have reached agreement. If, however, the Surety fails to discharge its obligations under Paragraph 7.1 or 7.2, the Surety shall indemnify the Claimant for the reasonable attorney's fees the Claimant incurs thereafter to recover any sums found to be due and owing to the Claimant.

8. The Surety's total obligation shall not exceed the amount of this Bond, plus the amount of reasonable attorney's fees provided under Paragraph 7.3, and the amount of this Bond shall be credited for any payments made in good faith by the Surety.

9. Amounts owed by the Owner to the Contractor under the Construction Contract shall be used for the performance of the Construction Contract and to satisfy claims, if any, under any construction performance bond. By the Contractor furnishing and the Owner accepting this Bond, they agree that all funds earned by the Contractor in the performance of the Construction Contract are dedicated to satisfy obligations of the Contractor and Surety under this Bond, subject to the Owner's priority to use the funds for the completion of the work.

10. The Surety shall not be liable to the Owner, Claimants, or others for obligations of the Contractor that are unrelated to the Construction Contract. The Owner shall not be liable for the payment of any costs or expenses of any Claimant under this Bond, and shall have under this Bond no obligation to make payments

to or give notice on behalf of Claimants, or otherwise have any obligations to Claimants under this Bond.

11. The Surety hereby waives notice of any change, including changes of time, to the Construction Contract or to related subcontracts, purchase orders, and other obligations.

12. No suit or action shall be commenced by a Claimant under this Bond other than in a court of competent jurisdiction in the state in which the project that is the subject of the Construction Contract is located or after the expiration of one year from the date (1) on which the Claimant sent a Claim to the Surety pursuant to Paragraph 5.1.2 or 5.2, or (2) on which the last labor or service was performed by anyone or the last materials or equipment were furnished by anyone under the Construction Contract, whichever of (1) or (2) first occurs. If the provisions of this paragraph are void or prohibited by law, the minimum period of limitation available to sureties as a defense in the jurisdiction of the suit shall be applicable.

13. Notice and Claims to the Surety, the Owner, or the Contractor shall be mailed or delivered to the address shown on the page on which their signature appears. Actual receipt of notice or Claims, however accomplished, shall be sufficient compliance as of the date received.

14. When this Bond has been furnished to comply with a statutory or other legal requirement in the location where the construction was to be performed, any provision in this Bond conflicting with said statutory or legal requirement shall be deemed deleted herefrom and provisions conforming to such statutory or other legal requirement shall be deemed incorporated herein. When so furnished, the intent is that this Bond shall be construed as a statutory bond and not as a common law bond.

15. Upon requests by any person or entity appearing to be a potential beneficiary of this Bond, the Contractor and Owner shall promptly furnish a copy of this Bond or shall permit a copy to be made.

16. **Definitions**

16.1 **Claim:** A written statement by the Claimant including at a minimum:

1. The name of the Claimant;
2. The name of the person for whom the labor was done, or materials or equipment furnished;
3. A copy of the agreement or purchase order pursuant to which labor, materials, or equipment was furnished for use in the performance of the Construction Contract;
4. A brief description of the labor, materials, or equipment furnished;
5. The date on which the Claimant last performed labor or last furnished materials or equipment for use in the performance of the Construction Contract;
6. The total amount earned by the Claimant for labor, materials, or equipment furnished as of the date of the Claim;
7. The total amount of previous payments received by the Claimant; and
8. The total amount due and unpaid to the Claimant for labor, materials, or equipment furnished as of the date of the Claim.

16.2 **Claimant:** An individual or entity having a direct contract with the Contractor or with a subcontractor of the Contractor to furnish labor, materials, or equipment for use in the performance of the Construction Contract. The term Claimant also includes any individual or entity that has rightfully asserted a claim under an applicable mechanic's lien or similar statute against the real property upon which the Project is located. The intent of this Bond shall be to include without limitation in the terms of "labor, materials, or equipment" that part of the water, gas, power, light, heat, oil, gasoline, telephone service, or rental equipment used in the Construction Contract, architectural and engineering services required for performance of the work of the Contractor and the Contractor's subcontractors, and all other items for which a mechanic's lien may be asserted in the jurisdiction where the labor, materials, or equipment were furnished.

16.3 **Construction Contract:** The agreement between the Owner and Contractor identified on the cover page, including all Contract Documents and all changes made to the agreement and the Contract Documents.

16.4 **Owner Default**: Failure of the Owner, which has not been remedied or waived, to pay the Contractor as required under the Construction Contract or to perform and complete or comply with the other material terms of the Construction Contract.

16.5 **Contract Documents:** All the documents that comprise the agreement between the Owner and Contractor.

17. If this Bond is issued for an agreement between a contractor and subcontractor, the term Contractor in this Bond shall be deemed to be Subcontractor and the term Owner shall be deemed to be Contractor.

18. Modifications to this Bond are as follows:

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MAINTENANCE AND GUARANTEE BOND

KNOW ALL PERSONS BY THESE PRESENTS, that we, the undersigned, _____

_____as Principal, and _____,

as Surety, are held and firmly bound onto Charter Township of Ypsilanti, OWNER,

in the sum of _____

_____ Dollars ($_____) to be paid to the Owner for which payment

will and truly be made jointly and severally bind ourselves, our heirs, our executors, administrators, and assigns, firmly by these presents.

Sealed with our signature and seals and dated this _____day of _____, 20___.

WHEREAS, the above named Principal has entered into a certain written Contract with Charter Township of Ypsilanti dated _____, 20___, wherein the Principal agreed as follows:

_____

_____

_____

NOW THEREFORE, THE CONDITION OF THIS OBLIGATION IS SUCH that by and under said Contract, the above-named Principal has agreed with the OWNER, for a period of one (2) years from the date of payment of the final estimate, to keep in good order and repair and defect in all work done under said Contract, either by the Principal or his subcontractors, or his suppliers, that may develop during said period due to improper materials, defective equipment, workmanship or arrangements; any other work affected in making good such imperfections, shall also be made good, all without expense to the OWNER, excepting only such part or parts of said Work as may have been disturbed without the consent or approval of the Principal after final acceptance of the Work, and that whenever directed to do so by the OWNER, by notice served in writing, either personally or by mail, on the Principal, legal representative, successor, or on the Surety, he/she will at once make such repairs as directed by the OWNER; and in case of failure to do so within one (1) week from the date of service of such notice, or within a reasonable time as shall be fixed in said notice, then the OWNER shall have the right to purchase such materials and employ such labor and equipment as may be necessary for the purpose and to undertake to do and make such repairs, and charge the expense thereof to and receive same from said Principal or Surety. If any repair is necessary to be made at once to protect life and property, then and in that case, the OWNER may take immediate steps to repair or barricade such defects without notice to the CONTRACTOR. In such accounting the OWNER shall not be held to obtain the lowest figure for doing of the Work or nay part thereof, but all sums actually paid therefore shall be charged to the Principal or Surety. In this connection, the judgement of the OWNER is final and conclusive. If the said Principal, for a period of one (2) years from the date of the final estimate of payment, shall keep such Work so constructed under the Contact in good order and repair, excepting only such part or parts of such Work as may have been disturbed without the consent or approval of said Principal after final acceptance of the same, and shall, whenever notice is given as herein specified, at once proceed to make repair as in said notice directed or shall reimburse the OWNER for any expense incurred by making such repairs should the Principal or Surety fail to do as hereinbefore specified, and shall fully indemnify, defend and hold harmless said OWNER from all law suits and actions for damages of every name and description brought or claimed against it for or on account of any injury to person(s) or property received or sustained by any party or parties, by or from any of the acts or omissions or through the prosecution of the Work included in said Contract, and from any and all claims arising under the Workman's Compensation Act, so-called, of the State of Michigan, then the above obligation shall be void, otherwise to remain in full force and effect.

IN WITNESS WHEREOF, the parties have caused this instrument to be executed by their respective authorized officers this _____ day of _____, 20__.

Signed, Sealed and Delivered
in the presence of:

_____	_____
Signature	Signature
_____	_____
Name	Name
	_____
	Principal
_____	_____
Signature	Signature
_____	_____
Name	Name
	_____
	Surety

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Application Period:	Application Date:	**Contractor's Application for Payment No. 1**
To (Owner): Ypsilanti Charter Township	From (Contractor):	Via (Engineer): Spicer Group, Inc.
Project: Ford Heritage Playground Surface Improvements	Contract:	
Owner's Contract No.:	Contractor's Project No.:	Engineer's Project No.: 134586SG2023

Application For Payment Change Order Summary

Approved Change Orders		
Number	Additions	Deductions
TOTALS		
NET CHANGE BY CHANGE ORDERS		

1. ORIGINAL CONTRACT PRICE..... $ _____
2. Net change by Change Orders..... $ _____
3. Current Contract Price (Line 1 ± 2)..... $ _____
4. TOTAL COMPLETED AND STORED TO DATE
   (Column F total on Progress Estimates)..... $ _____
5. RETAINAGE:
   a. X _____ Work Completed..... $ _____
   b. X _____ Stored Material..... $ _____
   c. Total Retainage (Line 5.a + Line 5.b)..... $ _____
6. AMOUNT ELIGIBLE TO DATE (Line 4 - Line 5.c)..... $ _____
7. LESS PREVIOUS PAYMENTS (Line 6 from prior Application)..... $ _____
8. AMOUNT DUE THIS APPLICATION..... $ _____
9. BALANCE TO FINISH, PLUS RETAINAGE
   (Column G total on Progress Estimates + Line 5.c above)..... $ _____

Contractor's Certification

The undersigned Contractor certifies, to the best of its knowledge, the following:
(1) All previous progress payments received from Owner on account of Work done under the Contract have been applied on account to discharge Contractor's legitimate obligations incurred in connection with the Work covered by prior Applications for Payment;
(2) Title to all Work, materials and equipment incorporated in said Work, or otherwise listed in or covered by this Application for Payment, will pass to Owner at time of payment free and clear of all Liens, security interests, and encumbrances (except such as are covered by a bond acceptable to Owner indemnifying Owner against any such Liens, security interest, or encumbrances); and
(3) All the Work covered by this Application for Payment is in accordance with the Contract Documents and is not defective.

Contractor Signature

By:	Date:

Payment of: $ _____
(Line 8 or other - attach explanation of the other amount)

is recommended by: _____ _____
(Engineer) (Date)

Payment of: $ _____
(Line 8 or other - attach explanation of the other amount)

is approved by: _____ _____
(Owner) (Date)

Approved by: _____ _____
Funding or Financing Entity (if applicable) (Date)

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CERTIFICATE OF SUBSTANTIAL COMPLETION

Owner:	Ypsilanti Charter Township	Owner's Contract No.:	
Contractor:		Contractor's Project No.:	
Engineer:	Spicer Group, Inc.	Engineer's Project No.: 134586SG2023	
Project:	Ford Heritage Playground Surface Improvements	Contract Name: Ford Heritage Playground Surface Improvements	

This [preliminary] [final] Certificate of Substantial Completion applies to:

☐ All Work ☐ The following specified portions of the Work:

The Work to which this Certificate applies has been inspected by authorized representatives of Owner, Contractor, and Engineer, and found to be substantially complete. The Date of Substantial Completion of the Work or portion thereof designated above is hereby established, subject to the provisions of the Contract pertaining to Substantial Completion. The date of Substantial Completion in the final Certificate of Substantial Completion marks the commencement of the contractual correction period and applicable warranties required by the Contract.

A punch list of items to be completed or corrected is attached to this Certificate. This list may not be all-inclusive, and the failure to include any items on such list does not alter the responsibility of the Contractor to complete all Work in accordance with the Contract.

The responsibilities between Owner and Contractor for security, operation, safety, maintenance, heat, utilities, insurance, and warranties upon Owner's use or occupancy of the Work shall be as provided in the Contract, except as amended as follows: *[Note: Amendments of contractual responsibilities recorded in this Certificate should be the product of mutual agreement of Owner and Contractor; see Paragraph 15.03.D of the General Conditions.]*

Amendments to Owner's responsibilities:
☐ None
☐ As follows

Amendments to Contractor's responsibilities:
☐ None
☐ As follows:

The following documents are attached to and made a part of this Certificate: *[punch list; others]*

This Certificate does not constitute an acceptance of Work not in accordance with the Contract Documents, nor is it a release of Contractor's obligation to complete the Work in accordance with the Contract.

EXECUTED BY ENGINEER:	RECEIVED:	RECEIVED:
By: _____ (Authorized signature)	By: _____ Owner (Authorized Signature)	By: _____ Contractor (Authorized Signature)
Title: _____	Title: _____	Title: _____
Date: _____	Date: _____	Date: _____

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STANDARD GENERAL CONDITIONS OF THE CONSTRUCTION CONTRACT

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ARTICLE 1 – DEFINITIONS AND TERMINOLOGY

1.01 *Defined Terms*

A. Wherever used in the Bidding Requirements or Contract Documents, a term printed with initial capital letters, including the term's singular and plural forms, will have the meaning indicated in the definitions below. In addition to terms specifically defined, terms with initial capital letters in the Contract Documents include references to identified articles and paragraphs, and the titles of other documents or forms.

1. *Addenda*—Written or graphic instruments issued prior to the opening of Bids which clarify, correct, or change the Bidding Requirements or the proposed Contract Documents.

2. *Agreement*—The written instrument, executed by Owner and Contractor, that sets forth the Contract Price and Contract Times, identifies the parties and the Engineer, and designates the specific items that are Contract Documents.

3. *Application for Payment*—The form acceptable to Engineer which is to be used by Contractor during the course of the Work in requesting progress or final payments and which is to be accompanied by such supporting documentation as is required by the Contract Documents.

4. *Bid*—The offer of a Bidder submitted on the prescribed form setting forth the prices for the Work to be performed.

5. *Bidder*—An individual or entity that submits a Bid to Owner.

6. *Bidding Documents*—The Bidding Requirements, the proposed Contract Documents, and all Addenda.

7. *Bidding Requirements*—The advertisement or invitation to bid, Instructions to Bidders, Bid Bond or other Bid security, if any, the Bid Form, and the Bid with any attachments.

8. *Change Order*—A document which is signed by Contractor and Owner and authorizes an addition, deletion, or revision in the Work or an adjustment in the Contract Price or the Contract Times, or other revision to the Contract, issued on or after the Effective Date of the Contract.

9. *Change Proposal*—A written request by Contractor, duly submitted in compliance with the procedural requirements set forth herein, seeking an adjustment in Contract Price or Contract Times, or both; contesting an initial decision by Engineer concerning the requirements of the Contract Documents or the acceptability of Work under the Contract Documents; challenging a set-off against payments due; or seeking other relief with respect to the terms of the Contract.

10. *Claim*—(a) A demand or assertion by Owner directly to Contractor, duly submitted in compliance with the procedural requirements set forth herein: seeking an adjustment of Contract Price or Contract Times, or both; contesting an initial decision by Engineer concerning the requirements of the Contract Documents or the acceptability of Work under the Contract Documents; contesting Engineer's decision regarding a Change Proposal; seeking resolution of a contractual issue that Engineer has declined to address; or seeking other relief with respect to the terms of the Contract; or (b) a demand or assertion by Contractor directly to Owner, duly submitted in compliance with the procedural requirements set forth herein, contesting Engineer's decision regarding a Change Proposal; or seeking resolution of a contractual issue that Engineer has declined to address. A demand for money or services by a third party is not a Claim.

11. *Constituent of Concern*—Asbestos, petroleum, radioactive materials, polychlorinated biphenyls (PCBs), hazardous waste, and any substance, product, waste, or other material

of any nature whatsoever that is or becomes listed, regulated, or addressed pursuant to (a) the Comprehensive Environmental Response, Compensation and Liability Act, 42 U.S.C. §§9601 et seq. ("CERCLA"); (b) the Hazardous Materials Transportation Act, 49 U.S.C. §§5501 et seq.; (c) the Resource Conservation and Recovery Act, 42 U.S.C. §§6901 et seq. ("RCRA"); (d) the Toxic Substances Control Act, 15 U.S.C. §§2601 et seq.; (e) the Clean Water Act, 33 U.S.C. §§1251 et seq.; (f) the Clean Air Act, 42 U.S.C. §§7401 et seq.; or (g) any other federal, state, or local statute, law, rule, regulation, ordinance, resolution, code, order, or decree regulating, relating to, or imposing liability or standards of conduct concerning, any hazardous, toxic, or dangerous waste, substance, or material.

12. *Contract*—The entire and integrated written contract between the Owner and Contractor concerning the Work.
13. *Contract Documents*—Those items so designated in the Agreement, and which together comprise the Contract.
14. *Contract Price*—The money that Owner has agreed to pay Contractor for completion of the Work in accordance with the Contract Documents. .
15. *Contract Times*—The number of days or the dates by which Contractor shall: (a) achieve Milestones, if any; (b) achieve Substantial Completion; and (c) complete the Work.
16. *Contractor*—The individual or entity with which Owner has contracted for performance of the Work.
17. *Cost of the Work*—See Paragraph 13.01 for definition.
18. *Drawings*—The part of the Contract that graphically shows the scope, extent, and character of the Work to be performed by Contractor.
19. *Effective Date of the Contract*—The date, indicated in the Agreement, on which the Contract becomes effective.
20. *Engineer*—The individual or entity named as such in the Agreement.
21. *Field Order*—A written order issued by Engineer which requires minor changes in the Work but does not change the Contract Price or the Contract Times.
22. *Hazardous Environmental Condition*—The presence at the Site of Constituents of Concern in such quantities or circumstances that may present a danger to persons or property exposed thereto. The presence at the Site of materials that are necessary for the execution of the Work, or that are to be incorporated in the Work, and that are controlled and contained pursuant to industry practices, Laws and Regulations, and the requirements of the Contract, does not establish a Hazardous Environmental Condition.
23. *Laws and Regulations; Laws or Regulations*—Any and all applicable laws, statutes, rules, regulations, ordinances, codes, and orders of any and all governmental bodies, agencies, authorities, and courts having jurisdiction.
24. *Liens*—Charges, security interests, or encumbrances upon Contract-related funds, real property, or personal property.
25. *Milestone*—A principal event in the performance of the Work that the Contract requires Contractor to achieve by an intermediate completion date or by a time prior to Substantial Completion of all the Work.
26. *Notice of Award*—The written notice by Owner to a Bidder of Owner's acceptance of the Bid.
27. *Notice to Proceed*—A written notice by Owner to Contractor fixing the date on which the Contract Times will commence to run and on which Contractor shall start to perform the Work.

28. *Owner*—The individual or entity with which Contractor has contracted regarding the Work, and which has agreed to pay Contractor for the performance of the Work, pursuant to the terms of the Contract.

29. *Progress Schedule*—A schedule, prepared and maintained by Contractor, describing the sequence and duration of the activities comprising the Contractor's plan to accomplish the Work within the Contract Times.

30. *Project*—The total undertaking to be accomplished for Owner by engineers, contractors, and others, including planning, study, design, construction, testing, commissioning, and start-up, and of which the Work to be performed under the Contract Documents is a part.

31. *Project Manual*—The written documents prepared for, or made available for, procuring and constructing the Work, including but not limited to the Bidding Documents or other construction procurement documents, geotechnical and existing conditions information, the Agreement, bond forms, General Conditions, Supplementary Conditions, and Specifications. The contents of the Project Manual may be bound in one or more volumes.

32. *Resident Project Representative*—The authorized representative of Engineer assigned to assist Engineer at the Site. As used herein, the term Resident Project Representative or "RPR" includes any assistants or field staff of Resident Project Representative.

33. *Samples*—Physical examples of materials, equipment, or workmanship that are representative of some portion of the Work and that establish the standards by which such portion of the Work will be judged.

34. *Schedule of Submittals*—A schedule, prepared and maintained by Contractor, of required submittals and the time requirements for Engineer's review of the submittals and the performance of related construction activities.

35. *Schedule of Values*—A schedule, prepared and maintained by Contractor, allocating portions of the Contract Price to various portions of the Work and used as the basis for reviewing Contractor's Applications for Payment.

36. *Shop Drawings*—All drawings, diagrams, illustrations, schedules, and other data or information that are specifically prepared or assembled by or for Contractor and submitted by Contractor to illustrate some portion of the Work. Shop Drawings, whether approved or not, are not Drawings and are not Contract Documents.

37. *Site*—Lands or areas indicated in the Contract Documents as being furnished by Owner upon which the Work is to be performed, including rights-of-way and easements, and such other lands furnished by Owner which are designated for the use of Contractor.

38. *Specifications*—The part of the Contract that consists of written requirements for materials, equipment, systems, standards, and workmanship as applied to the Work, and certain administrative requirements and procedural matters applicable to the Work.

39. *Subcontractor*—An individual or entity having a direct contract with Contractor or with any other Subcontractor for the performance of a part of the Work.

40. *Substantial Completion*—The time at which the Work (or a specified part thereof) has progressed to the point where, in the opinion of Engineer, the Work (or a specified part thereof) is sufficiently complete, in accordance with the Contract Documents, so that the Work (or a specified part thereof) can be utilized for the purposes for which it is intended. The terms "substantially complete" and "substantially completed" as applied to all or part of the Work refer to Substantial Completion thereof.

41. *Successful Bidder*—The Bidder whose Bid the Owner accepts, and to which the Owner makes an award of contract, subject to stated conditions.

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42. *Supplementary Conditions*—The part of the Contract that amends or supplements these General Conditions.

43. *Supplier*—A manufacturer, fabricator, supplier, distributor, materialman, or vendor having a direct contract with Contractor or with any Subcontractor to furnish materials or equipment to be incorporated in the Work by Contractor or a Subcontractor.

44. *Technical Data*—Those items expressly identified as Technical Data in the Supplementary Conditions, with respect to either (a) subsurface conditions at the Site, or physical conditions relating to existing surface or subsurface structures at the Site (except Underground Facilities) or (b) Hazardous Environmental Conditions at the Site. If no such express identifications of Technical Data have been made with respect to conditions at the Site, then the data contained in boring logs, recorded measurements of subsurface water levels, laboratory test results, and other factual, objective information regarding conditions at the Site that are set forth in any geotechnical or environmental report prepared for the Project and made available to Contractor are hereby defined as Technical Data with respect to conditions at the Site under Paragraphs 5.03, 5.04, and 5.06.

45. *Underground Facilities*—All underground pipelines, conduits, ducts, cables, wires, manholes, vaults, tanks, tunnels, or other such facilities or attachments, and any encasements containing such facilities, including but not limited to those that convey electricity, gases, steam, liquid petroleum products, telephone or other communications, fiber optic transmissions, cable television, water, wastewater, storm water, other liquids or chemicals, or traffic or other control systems.

46. *Unit Price Work*—Work to be paid for on the basis of unit prices.

47. *Work*—The entire construction or the various separately identifiable parts thereof required to be provided under the Contract Documents. Work includes and is the result of performing or providing all labor, services, and documentation necessary to produce such construction; furnishing, installing, and incorporating all materials and equipment into such construction; and may include related services such as testing, start-up, and commissioning, all as required by the Contract Documents.

48. *Work Change Directive*—A written directive to Contractor issued on or after the Effective Date of the Contract, signed by Owner and recommended by Engineer, ordering an addition, deletion, or revision in the Work.

1.02 *Terminology*

A. The words and terms discussed in the following paragraphs are not defined but, when used in the Bidding Requirements or Contract Documents, have the indicated meaning.

B. *Intent of Certain Terms or Adjectives*:

1. The Contract Documents include the terms “as allowed,” “as approved,” “as ordered,” “as directed” or terms of like effect or import to authorize an exercise of professional judgment by Engineer. In addition, the adjectives “reasonable,” “suitable,” “acceptable,” “proper,” “satisfactory,” or adjectives of like effect or import are used to describe an action or determination of Engineer as to the Work. It is intended that such exercise of professional judgment, action, or determination will be solely to evaluate, in general, the Work for compliance with the information in the Contract Documents and with the design concept of the Project as a functioning whole as shown or indicated in the Contract Documents (unless there is a specific statement indicating otherwise). The use of any such term or adjective is not intended to and shall not be effective to assign to Engineer any duty or authority to supervise or direct the performance of the Work, or any duty or authority to undertake responsibility contrary to the provisions of Article 10 or any other provision of the Contract Documents.

C. *Day*:

1. The word "day" means a calendar day of 24 hours measured from midnight to the next midnight.

D. *Defective*:

1. The word "defective," when modifying the word "Work," refers to Work that is unsatisfactory, faulty, or deficient in that it:

a. does not conform to the Contract Documents; or

b. does not meet the requirements of any applicable inspection, reference standard, test, or approval referred to in the Contract Documents; or

c. has been damaged prior to Engineer's recommendation of final payment (unless responsibility for the protection thereof has been assumed by Owner at Substantial Completion in accordance with Paragraph 15.03 or 15.04).

E. *Furnish, Install, Perform, Provide*:

1. The word "furnish," when used in connection with services, materials, or equipment, shall mean to supply and deliver said services, materials, or equipment to the Site (or some other specified location) ready for use or installation and in usable or operable condition.

2. The word "install," when used in connection with services, materials, or equipment, shall mean to put into use or place in final position said services, materials, or equipment complete and ready for intended use.

3. The words "perform" or "provide," when used in connection with services, materials, or equipment, shall mean to furnish and install said services, materials, or equipment complete and ready for intended use.

4. If the Contract Documents establish an obligation of Contractor with respect to specific services, materials, or equipment, but do not expressly use any of the four words "furnish," "install," "perform," or "provide," then Contractor shall furnish and install said services, materials, or equipment complete and ready for intended use.

F. Unless stated otherwise in the Contract Documents, words or phrases that have a well-known technical or construction industry or trade meaning are used in the Contract Documents in accordance with such recognized meaning.

ARTICLE 2 – PRELIMINARY MATTERS

2.01 *Delivery of Bonds and Evidence of Insurance*

A. *Bonds*: When Contractor delivers the executed counterparts of the Agreement to Owner, Contractor shall also deliver to Owner such bonds as Contractor may be required to furnish.

B. *Evidence of Contractor's Insurance*: When Contractor delivers the executed counterparts of the Agreement to Owner, Contractor shall also deliver to Owner, with copies to each named insured and additional insured (as identified in the Supplementary Conditions or elsewhere in the Contract), the certificates and other evidence of insurance required to be provided by Contractor in accordance with Article 6.

C. *Evidence of Owner's Insurance*: After receipt of the executed counterparts of the Agreement and all required bonds and insurance documentation, Owner shall promptly deliver to Contractor, with copies to each named insured and additional insured (as identified in the Supplementary Conditions or otherwise), the certificates and other evidence of insurance required to be provided by Owner under Article 6.

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2.02 *Copies of Documents*

A. Owner shall furnish to Contractor four printed copies of the Contract (including one fully executed counterpart of the Agreement), and one copy in electronic portable document format (PDF). Additional printed copies will be furnished upon request at the cost of reproduction.

B. Owner shall maintain and safeguard at least one original printed record version of the Contract, including Drawings and Specifications signed and sealed by Engineer and other design professionals. Owner shall make such original printed record version of the Contract available to Contractor for review. Owner may delegate the responsibilities under this provision to Engineer.

2.03 *Before Starting Construction*

A. *Preliminary Schedules*: Within 10 days after the Effective Date of the Contract (or as otherwise specifically required by the Contract Documents), Contractor shall submit to Engineer for timely review:

1. a preliminary Progress Schedule indicating the times (numbers of days or dates) for starting and completing the various stages of the Work, including any Milestones specified in the Contract;

2. a preliminary Schedule of Submittals; and

3. a preliminary Schedule of Values for all of the Work which includes quantities and prices of items which when added together equal the Contract Price and subdivides the Work into component parts in sufficient detail to serve as the basis for progress payments during performance of the Work. Such prices will include an appropriate amount of overhead and profit applicable to each item of Work.

2.04 *Preconstruction Conference; Designation of Authorized Representatives*

A. Before any Work at the Site is started, a conference attended by Owner, Contractor, Engineer, and others as appropriate will be held to establish a working understanding among the parties as to the Work and to discuss the schedules referred to in Paragraph 2.03.A, procedures for handling Shop Drawings, Samples, and other submittals, processing Applications for Payment, electronic or digital transmittals, and maintaining required records.

B. At this conference Owner and Contractor each shall designate, in writing, a specific individual to act as its authorized representative with respect to the services and responsibilities under the Contract. Such individuals shall have the authority to transmit and receive information, render decisions relative to the Contract, and otherwise act on behalf of each respective party.

2.05 *Initial Acceptance of Schedules*

A. At least 10 days before submission of the first Application for Payment a conference, attended by Contractor, Engineer, and others as appropriate, will be held to review for acceptability to Engineer as provided below the schedules submitted in accordance with Paragraph 2.03.A. Contractor shall have an additional 10 days to make corrections and adjustments and to complete and resubmit the schedules. No progress payment shall be made to Contractor until acceptable schedules are submitted to Engineer.

1. The Progress Schedule will be acceptable to Engineer if it provides an orderly progression of the Work to completion within the Contract Times. Such acceptance will not impose on Engineer responsibility for the Progress Schedule, for sequencing, scheduling, or progress of the Work, nor interfere with or relieve Contractor from Contractor's full responsibility therefor.

2. Contractor's Schedule of Submittals will be acceptable to Engineer if it provides a workable arrangement for reviewing and processing the required submittals.

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3. Contractor's Schedule of Values will be acceptable to Engineer as to form and substance if it provides a reasonable allocation of the Contract Price to the component parts of the Work.

2.06 *Electronic Transmittals*

A. Except as otherwise stated elsewhere in the Contract, the Owner, Engineer, and Contractor may transmit, and shall accept, Project-related correspondence, text, data, documents, drawings, information, and graphics, including but not limited to Shop Drawings and other submittals, in electronic media or digital format, either directly, or through access to a secure Project website.

B. If the Contract does not establish protocols for electronic or digital transmittals, then Owner, Engineer, and Contractor shall jointly develop such protocols.

C. When transmitting items in electronic media or digital format, the transmitting party makes no representations as to long term compatibility, usability, or readability of the items resulting from the recipient's use of software application packages, operating systems, or computer hardware differing from those used in the drafting or transmittal of the items, or from those established in applicable transmittal protocols.

ARTICLE 3 – DOCUMENTS: INTENT, REQUIREMENTS, REUSE

3.01 *Intent*

A. The Contract Documents are complementary; what is required by one is as binding as if required by all.

B. It is the intent of the Contract Documents to describe a functionally complete project (or part thereof) to be constructed in accordance with the Contract Documents.

C. Unless otherwise stated in the Contract Documents, if there is a discrepancy between the electronic or digital versions of the Contract Documents (including any printed copies derived from such electronic or digital versions) and the printed record version, the printed record version shall govern.

D. The Contract supersedes prior negotiations, representations, and agreements, whether written or oral.

E. Engineer will issue clarifications and interpretations of the Contract Documents as provided herein.

3.02 *Reference Standards*

A. Standards Specifications, Codes, Laws and Regulations

1. Reference in the Contract Documents to standard specifications, manuals, reference standards, or codes of any technical society, organization, or association, or to Laws or Regulations, whether such reference be specific or by implication, shall mean the standard specification, manual, reference standard, code, or Laws or Regulations in effect at the time of opening of Bids (or on the Effective Date of the Contract if there were no Bids), except as may be otherwise specifically stated in the Contract Documents.

2. No provision of any such standard specification, manual, reference standard, or code, or any instruction of a Supplier, shall be effective to change the duties or responsibilities of Owner, Contractor, or Engineer, or any of their subcontractors, consultants, agents, or employees, from those set forth in the part of the Contract Documents prepared by or for Engineer. No such provision or instruction shall be effective to assign to Owner, Engineer, or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors, any duty or authority to supervise or direct the

performance of the Work or any duty or authority to undertake responsibility inconsistent with the provisions of the part of the Contract Documents prepared by or for Engineer.

3.03 *Reporting and Resolving Discrepancies*

A. *Reporting Discrepancies*:

1. *Contractor's Verification of Figures and Field Measurements*: Before undertaking each part of the Work, Contractor shall carefully study the Contract Documents, and check and verify pertinent figures and dimensions therein, particularly with respect to applicable field measurements. Contractor shall promptly report in writing to Engineer any conflict, error, ambiguity, or discrepancy that Contractor discovers, or has actual knowledge of, and shall not proceed with any Work affected thereby until the conflict, error, ambiguity, or discrepancy is resolved, by a clarification or interpretation by Engineer, or by an amendment or supplement to the Contract Documents issued pursuant to Paragraph 11.01.

2. *Contractor's Review of Contract Documents*: If, before or during the performance of the Work, Contractor discovers any conflict, error, ambiguity, or discrepancy within the Contract Documents, or between the Contract Documents and (a) any applicable Law or Regulation, (b) actual field conditions, (c) any standard specification, manual, reference standard, or code, or (d) any instruction of any Supplier, then Contractor shall promptly report it to Engineer in writing. Contractor shall not proceed with the Work affected thereby (except in an emergency as required by Paragraph 7.15) until the conflict, error, ambiguity, or discrepancy is resolved, by a clarification or interpretation by Engineer, or by an amendment or supplement to the Contract Documents issued pursuant to Paragraph 11.01.

3. Contractor shall not be liable to Owner or Engineer for failure to report any conflict, error, ambiguity, or discrepancy in the Contract Documents unless Contractor had actual knowledge thereof.

B. *Resolving Discrepancies*:

1. Except as may be otherwise specifically stated in the Contract Documents, the provisions of the part of the Contract Documents prepared by or for Engineer shall take precedence in resolving any conflict, error, ambiguity, or discrepancy between such provisions of the Contract Documents and:

a. the provisions of any standard specification, manual, reference standard, or code, or the instruction of any Supplier (whether or not specifically incorporated by reference as a Contract Document); or

b. the provisions of any Laws or Regulations applicable to the performance of the Work (unless such an interpretation of the provisions of the Contract Documents would result in violation of such Law or Regulation).

3.04 *Requirements of the Contract Documents*

A. During the performance of the Work and until final payment, Contractor and Owner shall submit to the Engineer all matters in question concerning the requirements of the Contract Documents (sometimes referred to as requests for information or interpretation—RFIs), or relating to the acceptability of the Work under the Contract Documents, as soon as possible after such matters arise. Engineer will be the initial interpreter of the requirements of the Contract Documents, and judge of the acceptability of the Work thereunder.

B. Engineer will, with reasonable promptness, render a written clarification, interpretation, or decision on the issue submitted, or initiate an amendment or supplement to the Contract Documents. Engineer's written clarification, interpretation, or decision will be final and

binding on Contractor, unless it appeals by submitting a Change Proposal, and on Owner, unless it appeals by filing a Claim.

C. If a submitted matter in question concerns terms and conditions of the Contract Documents that do not involve (1) the performance or acceptability of the Work under the Contract Documents, (2) the design (as set forth in the Drawings, Specifications, or otherwise), or (3) other engineering or technical matters, then Engineer will promptly give written notice to Owner and Contractor that Engineer is unable to provide a decision or interpretation. If Owner and Contractor are unable to agree on resolution of such a matter in question, either party may pursue resolution as provided in Article 12.

3.05 *Reuse of Documents*

A. Contractor and its Subcontractors and Suppliers shall not:

1. have or acquire any title to or ownership rights in any of the Drawings, Specifications, or other documents (or copies of any thereof) prepared by or bearing the seal of Engineer or its consultants, including electronic media editions, or reuse any such Drawings, Specifications, other documents, or copies thereof on extensions of the Project or any other project without written consent of Owner and Engineer and specific written verification or adaptation by Engineer; or

2. have or acquire any title or ownership rights in any other Contract Documents, reuse any such Contract Documents for any purpose without Owner's express written consent, or violate any copyrights pertaining to such Contract Documents.

B. The prohibitions of this Paragraph 3.05 will survive final payment, or termination of the Contract. Nothing herein shall preclude Contractor from retaining copies of the Contract Documents for record purposes.

ARTICLE 4 – COMMENCEMENT AND PROGRESS OF THE WORK

4.01 *Commencement of Contract Times; Notice to Proceed*

A. The Contract Times will commence to run on the thirtieth day after the Effective Date of the Contract or, if a Notice to Proceed is given, on the day indicated in the Notice to Proceed. A Notice to Proceed may be given at any time within 30 days after the Effective Date of the Contract. In no event will the Contract Times commence to run later than the sixtieth day after the day of Bid opening or the thirtieth day after the Effective Date of the Contract, whichever date is earlier.

4.02 *Starting the Work*

A. Contractor shall start to perform the Work on the date when the Contract Times commence to run. No Work shall be done at the Site prior to such date.

4.03 *Reference Points*

A. Owner shall provide engineering surveys to establish reference points for construction which in Engineer's judgment are necessary to enable Contractor to proceed with the Work. Contractor shall be responsible for laying out the Work, shall protect and preserve the established reference points and property monuments, and shall make no changes or relocations without the prior written approval of Owner. Contractor shall report to Engineer whenever any reference point or property monument is lost or destroyed or requires relocation because of necessary changes in grades or locations, and shall be responsible for the accurate replacement or relocation of such reference points or property monuments by professionally qualified personnel.

4.04 *Progress Schedule*

A. Contractor shall adhere to the Progress Schedule established in accordance with Paragraph 2.05 as it may be adjusted from time to time as provided below.

1. Contractor shall submit to Engineer for acceptance (to the extent indicated in Paragraph 2.05) proposed adjustments in the Progress Schedule that will not result in changing the Contract Times.

2. Proposed adjustments in the Progress Schedule that will change the Contract Times shall be submitted in accordance with the requirements of Article 11.

B. Contractor shall carry on the Work and adhere to the Progress Schedule during all disputes or disagreements with Owner. No Work shall be delayed or postponed pending resolution of any disputes or disagreements, or during any appeal process, except as permitted by Paragraph 16.04, or as Owner and Contractor may otherwise agree in writing.

4.05 *Delays in Contractor's Progress*

A. If Owner, Engineer, or anyone for whom Owner is responsible, delays, disrupts, or interferes with the performance or progress of the Work, then Contractor shall be entitled to an equitable adjustment in the Contract Times and Contract Price. Contractor's entitlement to an adjustment of the Contract Times is conditioned on such adjustment being essential to Contractor's ability to complete the Work within the Contract Times.

B. Contractor shall not be entitled to an adjustment in Contract Price or Contract Times for delay, disruption, or interference caused by or within the control of Contractor. Delay, disruption, and interference attributable to and within the control of a Subcontractor or Supplier shall be deemed to be within the control of Contractor.

C. If Contractor's performance or progress is delayed, disrupted, or interfered with by unanticipated causes not the fault of and beyond the control of Owner, Contractor, and those for which they are responsible, then Contractor shall be entitled to an equitable adjustment in Contract Times. Contractor's entitlement to an adjustment of the Contract Times is conditioned on such adjustment being essential to Contractor's ability to complete the Work within the Contract Times. Such an adjustment shall be Contractor's sole and exclusive remedy for the delays, disruption, and interference described in this paragraph. Causes of delay, disruption, or interference that may give rise to an adjustment in Contract Times under this paragraph include but are not limited to the following:

1. severe and unavoidable natural catastrophes such as fires, floods, epidemics, and earthquakes;

2. abnormal weather conditions;

3. acts or failures to act of utility owners (other than those performing other work at or adjacent to the Site by arrangement with the Owner, as contemplated in Article 8); and

4. acts of war or terrorism.

D. Delays, disruption, and interference to the performance or progress of the Work resulting from the existence of a differing subsurface or physical condition, an Underground Facility that was not shown or indicated by the Contract Documents, or not shown or indicated with reasonable accuracy, and those resulting from Hazardous Environmental Conditions, are governed by Article 5.

E. Paragraph 8.03 governs delays, disruption, and interference to the performance or progress of the Work resulting from the performance of certain other work at or adjacent to the Site.

F. Contractor shall not be entitled to an adjustment in Contract Price or Contract Times for any delay, disruption, or interference if such delay is concurrent with a delay, disruption, or interference caused by or within the control of Contractor.

G. Contractor must submit any Change Proposal seeking an adjustment in Contract Price or Contract Times under this paragraph within 30 days of the commencement of the delaying, disrupting, or interfering event.

ARTICLE 5 – AVAILABILITY OF LANDS; SUBSURFACE AND PHYSICAL CONDITIONS; HAZARDOUS ENVIRONMENTAL CONDITIONS

5.01 *Availability of Lands*

A. Owner shall furnish the Site. Owner shall notify Contractor of any encumbrances or restrictions not of general application but specifically related to use of the Site with which Contractor must comply in performing the Work.

B. Upon reasonable written request, Owner shall furnish Contractor with a current statement of record legal title and legal description of the lands upon which permanent improvements are to be made and Owner's interest therein as necessary for giving notice of or filing a mechanic's or construction lien against such lands in accordance with applicable Laws and Regulations.

C. Contractor shall provide for all additional lands and access thereto that may be required for temporary construction facilities or storage of materials and equipment.

5.02 *Use of Site and Other Areas*

A. *Limitation on Use of Site and Other Areas*:

1. Contractor shall confine construction equipment, temporary construction facilities, the storage of materials and equipment, and the operations of workers to the Site, adjacent areas that Contractor has arranged to use through construction easements or otherwise, and other adjacent areas permitted by Laws and Regulations, and shall not unreasonably encumber the Site and such other adjacent areas with construction equipment or other materials or equipment. Contractor shall assume full responsibility for (a) damage to the Site; (b) damage to any such other adjacent areas used for Contractor's operations; (c) damage to any other adjacent land or areas; and (d) for injuries and losses sustained by the owners or occupants of any such land or areas; provided that such damage or injuries result from the performance of the Work or from other actions or conduct of the Contractor or those for which Contractor is responsible.

2. If a damage or injury claim is made by the owner or occupant of any such land or area because of the performance of the Work, or because of other actions or conduct of the Contractor or those for which Contractor is responsible, Contractor shall (a) take immediate corrective or remedial action as required by Paragraph 7.12, or otherwise; (b) promptly attempt to settle the claim as to all parties through negotiations with such owner or occupant, or otherwise resolve the claim by arbitration or other dispute resolution proceeding, or at law; and (c) to the fullest extent permitted by Laws and Regulations, indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them from and against any such claim, and against all costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to any claim or action, legal or equitable, brought by any such owner or occupant against Owner, Engineer, or any other party indemnified hereunder to the extent caused directly or indirectly, in whole or in part by, or based upon, Contractor's performance of the Work, or because of other actions or conduct of the Contractor or those for which Contractor is responsible.

B. *Removal of Debris During Performance of the Work*: During the progress of the Work the Contractor shall keep the Site and other adjacent areas free from accumulations of waste materials, rubbish, and other debris. Removal and disposal of such waste materials, rubbish, and other debris shall conform to applicable Laws and Regulations.

C. *Cleaning*: Prior to Substantial Completion of the Work Contractor shall clean the Site and the Work and make it ready for utilization by Owner. At the completion of the Work Contractor shall remove from the Site and adjacent areas all tools, appliances, construction equipment and machinery, and surplus materials and shall restore to original condition all property not designated for alteration by the Contract Documents.

D. *Loading of Structures*: Contractor shall not load nor permit any part of any structure to be loaded in any manner that will endanger the structure, nor shall Contractor subject any part of the Work or adjacent structures or land to stresses or pressures that will endanger them.

5.03 *Subsurface and Physical Conditions*

A. *Reports and Drawings*: The Supplementary Conditions identify:

1. those reports known to Owner of explorations and tests of subsurface conditions at or adjacent to the Site;

2. those drawings known to Owner of physical conditions relating to existing surface or subsurface structures at the Site (except Underground Facilities); and

3. Technical Data contained in such reports and drawings.

B. *Reliance by Contractor on Technical Data Authorized*: Contractor may rely upon the accuracy of the Technical Data expressly identified in the Supplementary Conditions with respect to such reports and drawings, but such reports and drawings are not Contract Documents. If no such express identification has been made, then Contractor may rely upon the accuracy of the Technical Data (as defined in Article 1) contained in any geotechnical or environmental report prepared for the Project and made available to Contractor. Except for such reliance on Technical Data, Contractor may not rely upon or make any claim against Owner or Engineer, or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors, with respect to:

1. the completeness of such reports and drawings for Contractor's purposes, including, but not limited to, any aspects of the means, methods, techniques, sequences, and procedures of construction to be employed by Contractor, and safety precautions and programs incident thereto; or

2. other data, interpretations, opinions, and information contained in such reports or shown or indicated in such drawings; or

3. any Contractor interpretation of or conclusion drawn from any Technical Data or any such other data, interpretations, opinions, or information.

5.04 *Differing Subsurface or Physical Conditions*

A. *Notice by Contractor*: If Contractor believes that any subsurface or physical condition that is uncovered or revealed at the Site either:

1. is of such a nature as to establish that any Technical Data on which Contractor is entitled to rely as provided in Paragraph 5.03 is materially inaccurate; or

2. is of such a nature as to require a change in the Drawings or Specifications; or

3. differs materially from that shown or indicated in the Contract Documents; or

4. is of an unusual nature, and differs materially from conditions ordinarily encountered and generally recognized as inherent in work of the character provided for in the Contract Documents;

then Contractor shall, promptly after becoming aware thereof and before further disturbing the subsurface or physical conditions or performing any Work in connection therewith (except in an emergency as required by Paragraph 7.15), notify Owner and Engineer in writing about such condition. Contractor shall not further disturb such condition or perform any Work in connection therewith (except with respect to an emergency) until receipt of a written statement permitting Contractor to do so.

B. *Engineer's Review*: After receipt of written notice as required by the preceding paragraph, Engineer will promptly review the subsurface or physical condition in question; determine the necessity of Owner's obtaining additional exploration or tests with respect to the condition; conclude whether the condition falls within any one or more of the differing site condition categories in Paragraph 5.04.A above; obtain any pertinent cost or schedule information from Contractor; prepare recommendations to Owner regarding the Contractor's resumption of Work in connection with the subsurface or physical condition in question and the need for any change in the Drawings or Specifications; and advise Owner in writing of Engineer's findings, conclusions, and recommendations.

C. *Owner's Statement to Contractor Regarding Site Condition*: After receipt of Engineer's written findings, conclusions, and recommendations, Owner shall issue a written statement to Contractor (with a copy to Engineer) regarding the subsurface or physical condition in question, addressing the resumption of Work in connection with such condition, indicating whether any change in the Drawings or Specifications will be made, and adopting or rejecting Engineer's written findings, conclusions, and recommendations, in whole or in part.

D. *Possible Price and Times Adjustments*:

1. Contractor shall be entitled to an equitable adjustment in Contract Price or Contract Times, or both, to the extent that the existence of a differing subsurface or physical condition, or any related delay, disruption, or interference, causes an increase or decrease in Contractor's cost of, or time required for, performance of the Work; subject, however, to the following:

   a. such condition must fall within any one or more of the categories described in Paragraph 5.04.A;

   b. with respect to Work that is paid for on a unit price basis, any adjustment in Contract Price will be subject to the provisions of Paragraph 13.03; and,

   c. Contractor's entitlement to an adjustment of the Contract Times is conditioned on such adjustment being essential to Contractor's ability to complete the Work within the Contract Times.

2. Contractor shall not be entitled to any adjustment in the Contract Price or Contract Times with respect to a subsurface or physical condition if:

   a. Contractor knew of the existence of such condition at the time Contractor made a commitment to Owner with respect to Contract Price and Contract Times by the submission of a Bid or becoming bound under a negotiated contract, or otherwise; or

   b. the existence of such condition reasonably could have been discovered or revealed as a result of any examination, investigation, exploration, test, or study of the Site and contiguous areas expressly required by the Bidding Requirements or Contract Documents to be conducted by or for Contractor prior to Contractor's making such commitment; or

c. Contractor failed to give the written notice as required by Paragraph 5.04.A.

3. If Owner and Contractor agree regarding Contractor's entitlement to and the amount or extent of any adjustment in the Contract Price or Contract Times, or both, then any such adjustment shall be set forth in a Change Order.

4. Contractor may submit a Change Proposal regarding its entitlement to or the amount or extent of any adjustment in the Contract Price or Contract Times, or both, no later than 30 days after Owner's issuance of the Owner's written statement to Contractor regarding the subsurface or physical condition in question.

5.05 *Underground Facilities*

A. *Contractor's Responsibilities*: The information and data shown or indicated in the Contract Documents with respect to existing Underground Facilities at or adjacent to the Site is based on information and data furnished to Owner or Engineer by the owners of such Underground Facilities, including Owner, or by others. Unless it is otherwise expressly provided in the Supplementary Conditions:

1. Owner and Engineer do not warrant or guarantee the accuracy or completeness of any such information or data provided by others; and

2. the cost of all of the following will be included in the Contract Price, and Contractor shall have full responsibility for:

a. reviewing and checking all information and data regarding existing Underground Facilities at the Site;

b. locating all Underground Facilities shown or indicated in the Contract Documents as being at the Site;

c. coordination of the Work with the owners (including Owner) of such Underground Facilities, during construction; and

d. the safety and protection of all existing Underground Facilities at the Site, and repairing any damage thereto resulting from the Work.

B. *Notice by Contractor*: If Contractor believes that an Underground Facility that is uncovered or revealed at the Site was not shown or indicated in the Contract Documents, or was not shown or indicated with reasonable accuracy, then Contractor shall, promptly after becoming aware thereof and before further disturbing conditions affected thereby or performing any Work in connection therewith (except in an emergency as required by Paragraph 7.15), identify the owner of such Underground Facility and give written notice to that owner and to Owner and Engineer.

C. *Engineer's Review*: Engineer will promptly review the Underground Facility and conclude whether such Underground Facility was not shown or indicated in the Contract Documents, or was not shown or indicated with reasonable accuracy; obtain any pertinent cost or schedule information from Contractor; prepare recommendations to Owner regarding the Contractor's resumption of Work in connection with the Underground Facility in question; determine the extent, if any, to which a change is required in the Drawings or Specifications to reflect and document the consequences of the existence or location of the Underground Facility; and advise Owner in writing of Engineer's findings, conclusions, and recommendations. During such time, Contractor shall be responsible for the safety and protection of such Underground Facility.

D. *Owner's Statement to Contractor Regarding Underground Facility*: After receipt of Engineer's written findings, conclusions, and recommendations, Owner shall issue a written statement to Contractor (with a copy to Engineer) regarding the Underground Facility in question, addressing the resumption of Work in connection with such Underground Facility,

indicating whether any change in the Drawings or Specifications will be made, and adopting or rejecting Engineer's written findings, conclusions, and recommendations in whole or in part.

E. *Possible Price and Times Adjustments*:

1. Contractor shall be entitled to an equitable adjustment in the Contract Price or Contract Times, or both, to the extent that any existing Underground Facility at the Site that was not shown or indicated in the Contract Documents, or was not shown or indicated with reasonable accuracy, or any related delay, disruption, or interference, causes an increase or decrease in Contractor's cost of, or time required for, performance of the Work; subject, however, to the following:

a. Contractor did not know of and could not reasonably have been expected to be aware of or to have anticipated the existence or actual location of the Underground Facility in question;

b. With respect to Work that is paid for on a unit price basis, any adjustment in Contract Price will be subject to the provisions of Paragraph 13.03;

c. Contractor's entitlement to an adjustment of the Contract Times is conditioned on such adjustment being essential to Contractor's ability to complete the Work within the Contract Times; and

d. Contractor gave the notice required in Paragraph 5.05.B.

2. If Owner and Contractor agree regarding Contractor's entitlement to and the amount or extent of any adjustment in the Contract Price or Contract Times, or both, then any such adjustment shall be set forth in a Change Order.

3. Contractor may submit a Change Proposal regarding its entitlement to or the amount or extent of any adjustment in the Contract Price or Contract Times, or both, no later than 30 days after Owner's issuance of the Owner's written statement to Contractor regarding the Underground Facility in question.

5.06 *Hazardous Environmental Conditions at Site*

A. *Reports and Drawings*: The Supplementary Conditions identify:

1. those reports and drawings known to Owner relating to Hazardous Environmental Conditions that have been identified at or adjacent to the Site; and

2. Technical Data contained in such reports and drawings.

B. *Reliance by Contractor on Technical Data Authorized*: Contractor may rely upon the accuracy of the Technical Data expressly identified in the Supplementary Conditions with respect to such reports and drawings, but such reports and drawings are not Contract Documents. If no such express identification has been made, then Contractor may rely on the accuracy of the Technical Data (as defined in Article 1) contained in any geotechnical or environmental report prepared for the Project and made available to Contractor. Except for such reliance on Technical Data, Contractor may not rely upon or make any claim against Owner or Engineer, or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors with respect to:

1. the completeness of such reports and drawings for Contractor's purposes, including, but not limited to, any aspects of the means, methods, techniques, sequences and procedures of construction to be employed by Contractor and safety precautions and programs incident thereto; or

2. other data, interpretations, opinions and information contained in such reports or shown or indicated in such drawings; or

3. any Contractor interpretation of or conclusion drawn from any Technical Data or any such other data, interpretations, opinions or information.

C. Contractor shall not be responsible for removing or remediating any Hazardous Environmental Condition encountered, uncovered, or revealed at the Site unless such removal or remediation is expressly identified in the Contract Documents to be within the scope of the Work.

D. Contractor shall be responsible for controlling, containing, and duly removing all Constituents of Concern brought to the Site by Contractor, Subcontractors, Suppliers, or anyone else for whom Contractor is responsible, and for any associated costs; and for the costs of removing and remediating any Hazardous Environmental Condition created by the presence of any such Constituents of Concern.

E. If Contractor encounters, uncovers, or reveals a Hazardous Environmental Condition whose removal or remediation is not expressly identified in the Contract Documents as being within the scope of the Work, or if Contractor or anyone for whom Contractor is responsible creates a Hazardous Environmental Condition, then Contractor shall immediately: (1) secure or otherwise isolate such condition; (2) stop all Work in connection with such condition and in any area affected thereby (except in an emergency as required by Paragraph 7.15); and (3) notify Owner and Engineer (and promptly thereafter confirm such notice in writing). Owner shall promptly consult with Engineer concerning the necessity for Owner to retain a qualified expert to evaluate such condition or take corrective action, if any. Promptly after consulting with Engineer, Owner shall take such actions as are necessary to permit Owner to timely obtain required permits and provide Contractor the written notice required by Paragraph 5.06.F. If Contractor or anyone for whom Contractor is responsible created the Hazardous Environmental Condition in question, then Owner may remove and remediate the Hazardous Environmental Condition, and impose a set-off against payments to account for the associated costs.

F. Contractor shall not resume Work in connection with such Hazardous Environmental Condition or in any affected area until after Owner has obtained any required permits related thereto, and delivered written notice to Contractor either (1) specifying that such condition and any affected area is or has been rendered safe for the resumption of Work, or (2) specifying any special conditions under which such Work may be resumed safely.

G. If Owner and Contractor cannot agree as to entitlement to or on the amount or extent, if any, of any adjustment in Contract Price or Contract Times, or both, as a result of such Work stoppage or such special conditions under which Work is agreed to be resumed by Contractor, then within 30 days of Owner's written notice regarding the resumption of Work, Contractor may submit a Change Proposal, or Owner may impose a set-off.

H. If after receipt of such written notice Contractor does not agree to resume such Work based on a reasonable belief it is unsafe, or does not agree to resume such Work under such special conditions, then Owner may order the portion of the Work that is in the area affected by such condition to be deleted from the Work, following the contractual change procedures in Article 11. Owner may have such deleted portion of the Work performed by Owner's own forces or others in accordance with Article 8.

I. To the fullest extent permitted by Laws and Regulations, Owner shall indemnify and hold harmless Contractor, Subcontractors, and Engineer, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to a Hazardous Environmental Condition, provided that such Hazardous Environmental Condition (1) was not shown or indicated in the Drawings, Specifications, or other Contract Documents, identified as Technical Data entitled to limited reliance pursuant to Paragraph 5.06.B, or identified in the Contract Documents to

be included within the scope of the Work, and (2) was not created by Contractor or by anyone for whom Contractor is responsible. Nothing in this Paragraph 5.06.H shall obligate Owner to indemnify any individual or entity from and against the consequences of that individual's or entity's own negligence.

J. To the fullest extent permitted by Laws and Regulations, Contractor shall indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to the failure to control, contain, or remove a Constituent of Concern brought to the Site by Contractor or by anyone for whom Contractor is responsible, or to a Hazardous Environmental Condition created by Contractor or by anyone for whom Contractor is responsible. Nothing in this Paragraph 5.06.J shall obligate Contractor to indemnify any individual or entity from and against the consequences of that individual's or entity's own negligence.

K. The provisions of Paragraphs 5.03, 5.04, and 5.05 do not apply to the presence of Constituents of Concern or to a Hazardous Environmental Condition uncovered or revealed at the Site.

ARTICLE 6 – BONDS AND INSURANCE

6.01 *Performance, Payment, and Other Bonds*

A. Contractor shall furnish a performance bond and a payment bond, each in an amount at least equal to the Contract Price, as security for the faithful performance and payment of all of Contractor's obligations under the Contract. These bonds shall remain in effect until one year after the date when final payment becomes due or until completion of the correction period specified in Paragraph 15.08, whichever is later, except as provided otherwise by Laws or Regulations, the Supplementary Conditions, or other specific provisions of the Contract. Contractor shall also furnish such other bonds as are required by the Supplementary Conditions or other specific provisions of the Contract.

B. All bonds shall be in the form prescribed by the Contract except as provided otherwise by Laws or Regulations, and shall be executed by such sureties as are named in "Companies Holding Certificates of Authority as Acceptable Sureties on Federal Bonds and as Acceptable Reinsuring Companies" as published in Circular 570 (as amended and supplemented) by the Financial Management Service, Surety Bond Branch, U.S. Department of the Treasury. A bond signed by an agent or attorney-in-fact must be accompanied by a certified copy of that individual's authority to bind the surety. The evidence of authority shall show that it is effective on the date the agent or attorney-in-fact signed the accompanying bond.

C. Contractor shall obtain the required bonds from surety companies that are duly licensed or authorized in the jurisdiction in which the Project is located to issue bonds in the required amounts.

D. If the surety on a bond furnished by Contractor is declared bankrupt or becomes insolvent, or its right to do business is terminated in any state or jurisdiction where any part of the Project is located, or the surety ceases to meet the requirements above, then Contractor shall promptly notify Owner and Engineer and shall, within 20 days after the event giving rise to such notification, provide another bond and surety, both of which shall comply with the bond and surety requirements above.

E. If Contractor has failed to obtain a required bond, Owner may exclude the Contractor from the Site and exercise Owner's termination rights under Article 16.

F. Upon request, Owner shall provide a copy of the payment bond to any Subcontractor, Supplier, or other person or entity claiming to have furnished labor or materials used in the performance of the Work.

6.02 *Insurance—General Provisions*

A. Owner and Contractor shall obtain and maintain insurance as required in this Article and in the Supplementary Conditions.

B. All insurance required by the Contract to be purchased and maintained by Owner or Contractor shall be obtained from insurance companies that are duly licensed or authorized, in the state or jurisdiction in which the Project is located, to issue insurance policies for the required limits and coverages. Unless a different standard is indicated in the Supplementary Conditions, all companies that provide insurance policies required under this Contract shall have an A.M. Best rating of A-VII or better.

C. Contractor shall deliver to Owner, with copies to each named insured and additional insured (as identified in this Article, in the Supplementary Conditions, or elsewhere in the Contract), certificates of insurance establishing that Contractor has obtained and is maintaining the policies, coverages, and endorsements required by the Contract. Upon request by Owner or any other insured, Contractor shall also furnish other evidence of such required insurance, including but not limited to copies of policies and endorsements, and documentation of applicable self-insured retentions and deductibles. Contractor may block out (redact) any confidential premium or pricing information contained in any policy or endorsement furnished under this provision.

D. Owner shall deliver to Contractor, with copies to each named insured and additional insured (as identified in this Article, the Supplementary Conditions, or elsewhere in the Contract), certificates of insurance establishing that Owner has obtained and is maintaining the policies, coverages, and endorsements required of Owner by the Contract (if any). Upon request by Contractor or any other insured, Owner shall also provide other evidence of such required insurance (if any), including but not limited to copies of policies and endorsements, and documentation of applicable self-insured retentions and deductibles. Owner may block out (redact) any confidential premium or pricing information contained in any policy or endorsement furnished under this provision.

E. Failure of Owner or Contractor to demand such certificates or other evidence of the other party's full compliance with these insurance requirements, or failure of Owner or Contractor to identify a deficiency in compliance from the evidence provided, shall not be construed as a waiver of the other party's obligation to obtain and maintain such insurance.

F. If either party does not purchase or maintain all of the insurance required of such party by the Contract, such party shall notify the other party in writing of such failure to purchase prior to the start of the Work, or of such failure to maintain prior to any change in the required coverage.

G. If Contractor has failed to obtain and maintain required insurance, Owner may exclude the Contractor from the Site, impose an appropriate set-off against payment, and exercise Owner's termination rights under Article 16.

H. Without prejudice to any other right or remedy, if a party has failed to obtain required insurance, the other party may elect to obtain equivalent insurance to protect such other party's interests at the expense of the party who was required to provide such coverage, and the Contract Price shall be adjusted accordingly.

I. Owner does not represent that insurance coverage and limits established in this Contract necessarily will be adequate to protect Contractor or Contractor's interests.

J. The insurance and insurance limits required herein shall not be deemed as a limitation on Contractor's liability under the indemnities granted to Owner and other individuals and entities in the Contract.

6.03 *Contractor's Insurance*

A. *Workers' Compensation*: Contractor shall purchase and maintain workers' compensation and employer's liability insurance for:

1. claims under workers' compensation, disability benefits, and other similar employee benefit acts.
2. United States Longshoreman and Harbor Workers' Compensation Act and Jones Act coverage (if applicable).
3. claims for damages because of bodily injury, occupational sickness or disease, or death of Contractor's employees (by stop-gap endorsement in monopolist worker's compensation states).
4. Foreign voluntary worker compensation (if applicable).

B. *Commercial General Liability—Claims Covered*: Contractor shall purchase and maintain commercial general liability insurance, covering all operations by or on behalf of Contractor, on an occurrence basis, against:

1. claims for damages because of bodily injury, sickness or disease, or death of any person other than Contractor's employees.
2. claims for damages insured by reasonably available personal injury liability coverage.
3. claims for damages, other than to the Work itself, because of injury to or destruction of tangible property wherever located, including loss of use resulting therefrom.

C. *Commercial General Liability—Form and Content*: Contractor's commercial liability policy shall be written on a 1996 (or later) ISO commercial general liability form (occurrence form) and include the following coverages and endorsements:

1. Products and completed operations coverage:
   a. Such insurance shall be maintained for three years after final payment.
   b. Contractor shall furnish Owner and each other additional insured (as identified in the Supplementary Conditions or elsewhere in the Contract) evidence of continuation of such insurance at final payment and three years thereafter.
2. Blanket contractual liability coverage, to the extent permitted by law, including but not limited to coverage of Contractor's contractual indemnity obligations in Paragraph 7.18.
3. Broad form property damage coverage.
4. Severability of interest.
5. Underground, explosion, and collapse coverage.
6. Personal injury coverage.
7. Additional insured endorsements that include both ongoing operations and products and completed operations coverage through ISO Endorsements CG 20 10 10 01 and CG 20 37 10 01 (together); or CG 20 10 07 04 and CG 20 37 07 04 (together); or their equivalent.
8. For design professional additional insureds, ISO Endorsement CG 20 32 07 04, "Additional Insured—Engineers, Architects or Surveyors Not Engaged by the Named Insured" or its equivalent.

D. *Automobile liability*: Contractor shall purchase and maintain automobile liability insurance against claims for damages because of bodily injury or death of any person or property damage arising out of the ownership, maintenance, or use of any motor vehicle. The automobile liability policy shall be written on an occurrence basis.

E. *Umbrella or excess liability*: Contractor shall purchase and maintain umbrella or excess liability insurance written over the underlying employer's liability, commercial general liability, and automobile liability insurance described in the paragraphs above. Subject to industry-standard exclusions, the coverage afforded shall follow form as to each and every one of the underlying policies.

F. *Contractor's pollution liability insurance*: Contractor shall purchase and maintain a policy covering third-party injury and property damage claims, including clean-up costs, as a result of pollution conditions arising from Contractor's operations and completed operations. This insurance shall be maintained for no less than three years after final completion.

G. *Additional insureds*: The Contractor's commercial general liability, automobile liability, umbrella or excess, and pollution liability policies shall include and list as additional insureds Owner and Engineer, and any individuals or entities identified in the Supplementary Conditions; include coverage for the respective officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of all such additional insureds; and the insurance afforded to these additional insureds shall provide primary coverage for all claims covered thereby (including as applicable those arising from both ongoing and completed operations) on a non-contributory basis. Contractor shall obtain all necessary endorsements to support these requirements.

H. *Contractor's professional liability insurance*: If Contractor will provide or furnish professional services under this Contract, through a delegation of professional design services or otherwise, then Contractor shall be responsible for purchasing and maintaining applicable professional liability insurance. This insurance shall provide protection against claims arising out of performance of professional design or related services, and caused by a negligent error, omission, or act for which the insured party is legally liable. It shall be maintained throughout the duration of the Contract and for a minimum of two years after Substantial Completion. If such professional design services are performed by a Subcontractor, and not by Contractor itself, then the requirements of this paragraph may be satisfied through the purchasing and maintenance of such insurance by such Subcontractor.

I. *General provisions*: The policies of insurance required by this Paragraph 6.03 shall:

1. include at least the specific coverages provided in this Article.

2. be written for not less than the limits of liability provided in this Article and in the Supplementary Conditions, or required by Laws or Regulations, whichever is greater.

3. contain a provision or endorsement that the coverage afforded will not be canceled, materially changed, or renewal refused until at least 10 days prior written notice has been given to Contractor. Within three days of receipt of any such written notice, Contractor shall provide a copy of the notice to Owner, Engineer, and each other insured under the policy.

4. remain in effect at least until final payment (and longer if expressly required in this Article) and at all times thereafter when Contractor may be correcting, removing, or replacing defective Work as a warranty or correction obligation, or otherwise, or returning to the Site to conduct other tasks arising from the Contract Documents.

5. be appropriate for the Work being performed and provide protection from claims that may arise out of or result from Contractor's performance of the Work and Contractor's other obligations under the Contract Documents, whether it is to be performed by Contractor, any Subcontractor or Supplier, or by anyone directly or indirectly employed

by any of them to perform any of the Work, or by anyone for whose acts any of them may be liable.

J. The coverage requirements for specific policies of insurance must be met by such policies, and not by reference to excess or umbrella insurance provided in other policies.

6.04 *Owner's Liability Insurance*

A. In addition to the insurance required to be provided by Contractor under Paragraph 6.03, Owner, at Owner's option, may purchase and maintain at Owner's expense Owner's own liability insurance as will protect Owner against claims which may arise from operations under the Contract Documents.

B. Owner's liability policies, if any, operate separately and independently from policies required to be provided by Contractor, and Contractor cannot rely upon Owner's liability policies for any of Contractor's obligations to the Owner, Engineer, or third parties.

6.05 *Property Insurance*

A. *Builder's Risk*: Unless otherwise provided in the Supplementary Conditions, Contractor shall purchase and maintain builder's risk insurance upon the Work on a completed value basis, in the amount of the full insurable replacement cost thereof (subject to such deductible amounts as may be provided in the Supplementary Conditions or required by Laws and Regulations). This insurance shall:

1. include the Owner and Contractor as named insureds, and all Subcontractors, and any individuals or entities required by the Supplementary Conditions to be insured under such builder's risk policy, as insureds or named insureds. For purposes of the remainder of this Paragraph 6.05, Paragraphs 6.06 and 6.07, and any corresponding Supplementary Conditions, the parties required to be insured shall collectively be referred to as "insureds."

2. be written on a builder's risk "all risk" policy form that shall at least include insurance for physical loss or damage to the Work, temporary buildings, falsework, and materials and equipment in transit, and shall insure against at least the following perils or causes of loss: fire; lightning; windstorm; riot; civil commotion; terrorism; vehicle impact; aircraft; smoke; theft; vandalism and malicious mischief; mechanical breakdown, boiler explosion, and artificially generated electric current; earthquake; volcanic activity, and other earth movement; flood; collapse; explosion; debris removal; demolition occasioned by enforcement of Laws and Regulations; water damage (other than that caused by flood); and such other perils or causes of loss as may be specifically required by the Supplementary Conditions. If insurance against mechanical breakdown, boiler explosion, and artificially generated electric current; earthquake; volcanic activity, and other earth movement; or flood, are not commercially available under builder's risk policies, by endorsement or otherwise, such insurance may be provided through other insurance policies acceptable to Owner and Contractor.

3. cover, as insured property, at least the following: (a) the Work and all materials, supplies, machinery, apparatus, equipment, fixtures, and other property of a similar nature that are to be incorporated into or used in the preparation, fabrication, construction, erection, or completion of the Work, including Owner-furnished or assigned property; (b) spare parts inventory required within the scope of the Contract; and (c) temporary works which are not intended to form part of the permanent constructed Work but which are intended to provide working access to the Site, or to the Work under construction, or which are intended to provide temporary support for the Work under construction, including scaffolding, form work, fences, shoring, falsework, and temporary structures.

4. cover expenses incurred in the repair or replacement of any insured property (including but not limited to fees and charges of engineers and architects).

5. extend to cover damage or loss to insured property while in temporary storage at the Site or in a storage location outside the Site (but not including property stored at the premises of a manufacturer or Supplier).
6. extend to cover damage or loss to insured property while in transit.
7. allow for partial occupation or use of the Work by Owner, such that those portions of the Work that are not yet occupied or used by Owner shall remain covered by the builder's risk insurance.
8. allow for the waiver of the insurer's subrogation rights, as set forth below.
9. provide primary coverage for all losses and damages caused by the perils or causes of loss covered.
10. not include a co-insurance clause.
11. include an exception for ensuing losses from physical damage or loss with respect to any defective workmanship, design, or materials exclusions.
12. include performance/hot testing and start-up.
13. be maintained in effect, subject to the provisions herein regarding Substantial Completion and partial occupancy or use of the Work by Owner, until the Work is complete.

B. *Notice of Cancellation or Change*: All the policies of insurance (and the certificates or other evidence thereof) required to be purchased and maintained in accordance with this Paragraph 6.05 will contain a provision or endorsement that the coverage afforded will not be canceled or materially changed or renewal refused until at least 10 days prior written notice has been given to the purchasing policyholder. Within three days of receipt of any such written notice, the purchasing policyholder shall provide a copy of the notice to each other insured.

C. *Deductibles*: The purchaser of any required builder's risk or property insurance shall pay for costs not covered because of the application of a policy deductible.

D. *Partial Occupancy or Use by Owner*: If Owner will occupy or use a portion or portions of the Work prior to Substantial Completion of all the Work as provided in Paragraph 15.04, then Owner (directly, if it is the purchaser of the builder's risk policy, or through Contractor) will provide notice of such occupancy or use to the builder's risk insurer. The builder's risk insurance shall not be canceled or permitted to lapse on account of any such partial use or occupancy; rather, those portions of the Work that are occupied or used by Owner may come off the builder's risk policy, while those portions of the Work not yet occupied or used by Owner shall remain covered by the builder's risk insurance.

E. *Additional Insurance*: If Contractor elects to obtain other special insurance to be included in or supplement the builder's risk or property insurance policies provided under this Paragraph 6.05, it may do so at Contractor's expense.

F. *Insurance of Other Property*: If the express insurance provisions of the Contract do not require or address the insurance of a property item or interest, such as tools, construction equipment, or other personal property owned by Contractor, a Subcontractor, or an employee of Contractor or a Subcontractor, then the entity or individual owning such property item will be responsible for deciding whether to insure it, and if so in what amount.

6.06 *Waiver of Rights*

A. All policies purchased in accordance with Paragraph 6.05, expressly including the builder's risk policy, shall contain provisions to the effect that in the event of payment of any loss or damage the insurers will have no rights of recovery against any insureds thereunder, or against Engineer or its consultants, or their officers, directors, members, partners, employees, agents, consultants, or subcontractors. Owner and Contractor waive all rights against each other and

the respective officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them, for all losses and damages caused by, arising out of, or resulting from any of the perils or causes of loss covered by such policies and any other property insurance applicable to the Work; and, in addition, waive all such rights against Engineer, its consultants, all Subcontractors, all individuals or entities identified in the Supplementary Conditions as insureds, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them, under such policies for losses and damages so caused. None of the above waivers shall extend to the rights that any party making such waiver may have to the proceeds of insurance held by Owner or Contractor as trustee or fiduciary, or otherwise payable under any policy so issued.

B. Owner waives all rights against Contractor, Subcontractors, and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them, for:

1. loss due to business interruption, loss of use, or other consequential loss extending beyond direct physical loss or damage to Owner's property or the Work caused by, arising out of, or resulting from fire or other perils whether or not insured by Owner; and

2. loss or damage to the completed Project or part thereof caused by, arising out of, or resulting from fire or other insured peril or cause of loss covered by any property insurance maintained on the completed Project or part thereof by Owner during partial occupancy or use pursuant to Paragraph 15.04, after Substantial Completion pursuant to Paragraph 15.03, or after final payment pursuant to Paragraph 15.06.

C. Any insurance policy maintained by Owner covering any loss, damage or consequential loss referred to in Paragraph 6.06.B shall contain provisions to the effect that in the event of payment of any such loss, damage, or consequential loss, the insurers will have no rights of recovery against Contractor, Subcontractors, or Engineer, or the officers, directors, members, partners, employees, agents, consultants, or subcontractors of each and any of them.

D. Contractor shall be responsible for assuring that the agreement under which a Subcontractor performs a portion of the Work contains provisions whereby the Subcontractor waives all rights against Owner, Contractor, all individuals or entities identified in the Supplementary Conditions as insureds, the Engineer and its consultants, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them, for all losses and damages caused by, arising out of, relating to, or resulting from any of the perils or causes of loss covered by builder's risk insurance and any other property insurance applicable to the Work.

6.07 *Receipt and Application of Property Insurance Proceeds*

A. Any insured loss under the builder's risk and other policies of insurance required by Paragraph 6.05 will be adjusted and settled with the named insured that purchased the policy. Such named insured shall act as fiduciary for the other insureds, and give notice to such other insureds that adjustment and settlement of a claim is in progress. Any other insured may state its position regarding a claim for insured loss in writing within 15 days after notice of such claim.

B. Proceeds for such insured losses may be made payable by the insurer either jointly to multiple insureds, or to the named insured that purchased the policy in its own right and as fiduciary for other insureds, subject to the requirements of any applicable mortgage clause. A named insured receiving insurance proceeds under the builder's risk and other policies of insurance required by Paragraph 6.05 shall distribute such proceeds in accordance with such agreement as the parties in interest may reach, or as otherwise required under the dispute resolution provisions of this Contract or applicable Laws and Regulations.

C. If no other special agreement is reached, the damaged Work shall be repaired or replaced, the money so received applied on account thereof, and the Work and the cost thereof covered by Change Order, if needed.

ARTICLE 7 – CONTRACTOR'S RESPONSIBILITIES

7.01 *Supervision and Superintendence*

A. Contractor shall supervise, inspect, and direct the Work competently and efficiently, devoting such attention thereto and applying such skills and expertise as may be necessary to perform the Work in accordance with the Contract Documents. Contractor shall be solely responsible for the means, methods, techniques, sequences, and procedures of construction.

B. At all times during the progress of the Work, Contractor shall assign a competent resident superintendent who shall not be replaced without written notice to Owner and Engineer except under extraordinary circumstances.

7.02 *Labor; Working Hours*

A. Contractor shall provide competent, suitably qualified personnel to survey and lay out the Work and perform construction as required by the Contract Documents. Contractor shall at all times maintain good discipline and order at the Site.

B. Except as otherwise required for the safety or protection of persons or the Work or property at the Site or adjacent thereto, and except as otherwise stated in the Contract Documents, all Work at the Site shall be performed during regular working hours, Monday through Friday. Contractor will not perform Work on a Saturday, Sunday, or any legal holiday. Contractor may perform Work outside regular working hours or on Saturdays, Sundays, or legal holidays only with Owner's written consent, which will not be unreasonably withheld.

7.03 *Services, Materials, and Equipment*

A. Unless otherwise specified in the Contract Documents, Contractor shall provide and assume full responsibility for all services, materials, equipment, labor, transportation, construction equipment and machinery, tools, appliances, fuel, power, light, heat, telephone, water, sanitary facilities, temporary facilities, and all other facilities and incidentals necessary for the performance, testing, start up, and completion of the Work, whether or not such items are specifically called for in the Contract Documents.

B. All materials and equipment incorporated into the Work shall be of good quality and new, except as otherwise provided in the Contract Documents. All special warranties and guarantees required by the Specifications shall expressly run to the benefit of Owner. If required by Engineer, Contractor shall furnish satisfactory evidence (including reports of required tests) as to the source, kind, and quality of materials and equipment.

C. All materials and equipment shall be stored, applied, installed, connected, erected, protected, used, cleaned, and conditioned in accordance with instructions of the applicable Supplier, except as otherwise may be provided in the Contract Documents.

7.04 *"Or Equals"*

A. Whenever an item of material or equipment is specified or described in the Contract Documents by using the name of a proprietary item or the name of a particular Supplier, the Contract Price has been based upon Contractor furnishing such item as specified. The specification or description of such an item is intended to establish the type, function, appearance, and quality required. Unless the specification or description contains or is followed by words reading that no like, equivalent, or "or equal" item is permitted, Contractor may request that Engineer authorize the use of other items of material or equipment, or items from other proposed suppliers under the circumstances described below.

1. If Engineer in its sole discretion determines that an item of material or equipment proposed by Contractor is functionally equal to that named and sufficiently similar so that no change in related Work will be required, Engineer shall deem it an "or equal" item. For the purposes of this paragraph, a proposed item of material or equipment will be considered functionally equal to an item so named if:

   a. in the exercise of reasonable judgment Engineer determines that:

      1) it is at least equal in materials of construction, quality, durability, appearance, strength, and design characteristics;

      2) it will reliably perform at least equally well the function and achieve the results imposed by the design concept of the completed Project as a functioning whole;

      3) it has a proven record of performance and availability of responsive service; and

      4) it is not objectionable to Owner.

   b. Contractor certifies that, if approved and incorporated into the Work:

      1) there will be no increase in cost to the Owner or increase in Contract Times; and

      2) it will conform substantially to the detailed requirements of the item named in the Contract Documents.

B. *Contractor's Expense*: Contractor shall provide all data in support of any proposed "or equal" item at Contractor's expense.

C. *Engineer's Evaluation and Determination*: Engineer will be allowed a reasonable time to evaluate each "or-equal" request. Engineer may require Contractor to furnish additional data about the proposed "or-equal" item. Engineer will be the sole judge of acceptability. No "or-equal" item will be ordered, furnished, installed, or utilized until Engineer's review is complete and Engineer determines that the proposed item is an "or-equal", which will be evidenced by an approved Shop Drawing or other written communication. Engineer will advise Contractor in writing of any negative determination.

D. *Effect of Engineer's Determination*: Neither approval nor denial of an "or-equal" request shall result in any change in Contract Price. The Engineer's denial of an "or-equal" request shall be final and binding, and may not be reversed through an appeal under any provision of the Contract Documents.

E. *Treatment as a Substitution Request*: If Engineer determines that an item of material or equipment proposed by Contractor does not qualify as an "or-equal" item, Contractor may request that Engineer considered the proposed item as a substitute pursuant to Paragraph 7.05.

7.05 *Substitutes*

A. Unless the specification or description of an item of material or equipment required to be furnished under the Contract Documents contains or is followed by words reading that no substitution is permitted, Contractor may request that Engineer authorize the use of other items of material or equipment under the circumstances described below. To the extent possible such requests shall be made before commencement of related construction at the Site.

   1. Contractor shall submit sufficient information as provided below to allow Engineer to determine if the item of material or equipment proposed is functionally equivalent to that named and an acceptable substitute therefor. Engineer will not accept requests for review of proposed substitute items of material or equipment from anyone other than Contractor.

2. The requirements for review by Engineer will be as set forth in Paragraph 7.05.B, as supplemented by the Specifications, and as Engineer may decide is appropriate under the circumstances.

3. Contractor shall make written application to Engineer for review of a proposed substitute item of material or equipment that Contractor seeks to furnish or use. The application:

   a. shall certify that the proposed substitute item will:

      1) perform adequately the functions and achieve the results called for by the general design,

      2) be similar in substance to that specified, and

      3) be suited to the same use as that specified.

   b. will state:

      1) the extent, if any, to which the use of the proposed substitute item will necessitate a change in Contract Times,

      2) whether use of the proposed substitute item in the Work will require a change in any of the Contract Documents (or in the provisions of any other direct contract with Owner for other work on the Project) to adapt the design to the proposed substitute item, and

      3) whether incorporation or use of the proposed substitute item in connection with the Work is subject to payment of any license fee or royalty.

   c. will identify:

      1) all variations of the proposed substitute item from that specified, and

      2) available engineering, sales, maintenance, repair, and replacement services.

   d. shall contain an itemized estimate of all costs or credits that will result directly or indirectly from use of such substitute item, including but not limited to changes in Contract Price, shared savings, costs of redesign, and claims of other contractors affected by any resulting change.

B. *Engineer's Evaluation and Determination*: Engineer will be allowed a reasonable time to evaluate each substitute request, and to obtain comments and direction from Owner. Engineer may require Contractor to furnish additional data about the proposed substitute item. Engineer will be the sole judge of acceptability. No substitute will be ordered, furnished, installed, or utilized until Engineer's review is complete and Engineer determines that the proposed item is an acceptable substitute. Engineer's determination will be evidenced by a Field Order or a proposed Change Order accounting for the substitution itself and all related impacts, including changes in Contract Price or Contract Times. Engineer will advise Contractor in writing of any negative determination.

C. *Special Guarantee*: Owner may require Contractor to furnish at Contractor's expense a special performance guarantee or other surety with respect to any substitute.

D. *Reimbursement of Engineer's Cost*: Engineer will record Engineer's costs in evaluating a substitute proposed or submitted by Contractor. Whether or not Engineer approves a substitute so proposed or submitted by Contractor, Contractor shall reimburse Owner for the reasonable charges of Engineer for evaluating each such proposed substitute. Contractor shall also reimburse Owner for the reasonable charges of Engineer for making changes in the Contract Documents (or in the provisions of any other direct contract with Owner) resulting from the acceptance of each proposed substitute.

E. *Contractor's Expense*: Contractor shall provide all data in support of any proposed substitute at Contractor's expense.

F. *Effect of Engineer's Determination*: If Engineer approves the substitution request, Contractor shall execute the proposed Change Order and proceed with the substitution. The Engineer's denial of a substitution request shall be final and binding, and may not be reversed through an appeal under any provision of the Contract Documents. Contractor may challenge the scope of reimbursement costs imposed under Paragraph 7.05.D, by timely submittal of a Change Proposal.

7.06 *Concerning Subcontractors, Suppliers, and Others*

A. Contractor may retain Subcontractors and Suppliers for the performance of parts of the Work. Such Subcontractors and Suppliers must be acceptable to Owner.

B. Contractor shall retain specific Subcontractors, Suppliers, or other individuals or entities for the performance of designated parts of the Work if required by the Contract to do so.

C. Subsequent to the submittal of Contractor's Bid or final negotiation of the terms of the Contract, Owner may not require Contractor to retain any Subcontractor, Supplier, or other individual or entity to furnish or perform any of the Work against which Contractor has reasonable objection.

D. Prior to entry into any binding subcontract or purchase order, Contractor shall submit to Owner the identity of the proposed Subcontractor or Supplier (unless Owner has already deemed such proposed Subcontractor or Supplier acceptable, during the bidding process or otherwise). Such proposed Subcontractor or Supplier shall be deemed acceptable to Owner unless Owner raises a substantive, reasonable objection within five days.

E. Owner may require the replacement of any Subcontractor, Supplier, or other individual or entity retained by Contractor to perform any part of the Work. Owner also may require Contractor to retain specific replacements; provided, however, that Owner may not require a replacement to which Contractor has a reasonable objection. If Contractor has submitted the identity of certain Subcontractors, Suppliers, or other individuals or entities for acceptance by Owner, and Owner has accepted it (either in writing or by failing to make written objection thereto), then Owner may subsequently revoke the acceptance of any such Subcontractor, Supplier, or other individual or entity so identified solely on the basis of substantive, reasonable objection after due investigation. Contractor shall submit an acceptable replacement for the rejected Subcontractor, Supplier, or other individual or entity.

F. If Owner requires the replacement of any Subcontractor, Supplier, or other individual or entity retained by Contractor to perform any part of the Work, then Contractor shall be entitled to an adjustment in Contract Price or Contract Times, or both, with respect to the replacement; and Contractor shall initiate a Change Proposal for such adjustment within 30 days of Owner's requirement of replacement.

G. No acceptance by Owner of any such Subcontractor, Supplier, or other individual or entity, whether initially or as a replacement, shall constitute a waiver of the right of Owner to the completion of the Work in accordance with the Contract Documents.

H. On a monthly basis Contractor shall submit to Engineer a complete list of all Subcontractors and Suppliers having a direct contract with Contractor, and of all other Subcontractors and Suppliers known to Contractor at the time of submittal.

I. Contractor shall be fully responsible to Owner and Engineer for all acts and omissions of the Subcontractors, Suppliers, and other individuals or entities performing or furnishing any of the Work just as Contractor is responsible for Contractor's own acts and omissions.

J. Contractor shall be solely responsible for scheduling and coordinating the work of Subcontractors, Suppliers, and all other individuals or entities performing or furnishing any of the Work.

K. Contractor shall restrict all Subcontractors, Suppliers, and such other individuals or entities performing or furnishing any of the Work from communicating with Engineer or Owner, except through Contractor or in case of an emergency, or as otherwise expressly allowed herein.

L. The divisions and sections of the Specifications and the identifications of any Drawings shall not control Contractor in dividing the Work among Subcontractors or Suppliers or delineating the Work to be performed by any specific trade.

M. All Work performed for Contractor by a Subcontractor or Supplier shall be pursuant to an appropriate contractual agreement that specifically binds the Subcontractor or Supplier to the applicable terms and conditions of the Contract Documents for the benefit of Owner and Engineer.

N. Owner may furnish to any Subcontractor or Supplier, to the extent practicable, information about amounts paid to Contractor on account of Work performed for Contractor by the particular Subcontractor or Supplier.

O. Nothing in the Contract Documents:

1. shall create for the benefit of any such Subcontractor, Supplier, or other individual or entity any contractual relationship between Owner or Engineer and any such Subcontractor, Supplier, or other individual or entity; nor

2. shall create any obligation on the part of Owner or Engineer to pay or to see to the payment of any money due any such Subcontractor, Supplier, or other individual or entity except as may otherwise be required by Laws and Regulations.

7.07 *Patent Fees and Royalties*

A. Contractor shall pay all license fees and royalties and assume all costs incident to the use in the performance of the Work or the incorporation in the Work of any invention, design, process, product, or device which is the subject of patent rights or copyrights held by others. If a particular invention, design, process, product, or device is specified in the Contract Documents for use in the performance of the Work and if, to the actual knowledge of Owner or Engineer, its use is subject to patent rights or copyrights calling for the payment of any license fee or royalty to others, the existence of such rights shall be disclosed by Owner in the Contract Documents.

B. To the fullest extent permitted by Laws and Regulations, Owner shall indemnify and hold harmless Contractor, and its officers, directors, members, partners, employees, agents, consultants, and subcontractors from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals, and all court or arbitration or other dispute resolution costs) arising out of or relating to any infringement of patent rights or copyrights incident to the use in the performance of the Work or resulting from the incorporation in the Work of any invention, design, process, product, or device specified in the Contract Documents, but not identified as being subject to payment of any license fee or royalty to others required by patent rights or copyrights.

C. To the fullest extent permitted by Laws and Regulations, Contractor shall indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute

resolution costs) arising out of or relating to any infringement of patent rights or copyrights incident to the use in the performance of the Work or resulting from the incorporation in the Work of any invention, design, process, product, or device not specified in the Contract Documents.

7.08 *Permits*

A. Unless otherwise provided in the Contract Documents, Contractor shall obtain and pay for all construction permits and licenses. Owner shall assist Contractor, when necessary, in obtaining such permits and licenses. Contractor shall pay all governmental charges and inspection fees necessary for the prosecution of the Work which are applicable at the time of the submission of Contractor's Bid (or when Contractor became bound under a negotiated contract). Owner shall pay all charges of utility owners for connections for providing permanent service to the Work

7.09 *Taxes*

A. Contractor shall pay all sales, consumer, use, and other similar taxes required to be paid by Contractor in accordance with the Laws and Regulations of the place of the Project which are applicable during the performance of the Work.

7.10 *Laws and Regulations*

A. Contractor shall give all notices required by and shall comply with all Laws and Regulations applicable to the performance of the Work. Except where otherwise expressly required by applicable Laws and Regulations, neither Owner nor Engineer shall be responsible for monitoring Contractor's compliance with any Laws or Regulations.

B. If Contractor performs any Work or takes any other action knowing or having reason to know that it is contrary to Laws or Regulations, Contractor shall bear all resulting costs and losses, and shall indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such Work or other action. It shall not be Contractor's responsibility to make certain that the Work described in the Contract Documents is in accordance with Laws and Regulations, but this shall not relieve Contractor of Contractor's obligations under Paragraph 3.03.

C. Owner or Contractor may give notice to the other party of any changes after the submission of Contractor's Bid (or after the date when Contractor became bound under a negotiated contract) in Laws or Regulations having an effect on the cost or time of performance of the Work, including but not limited to changes in Laws or Regulations having an effect on procuring permits and on sales, use, value-added, consumption, and other similar taxes. If Owner and Contractor are unable to agree on entitlement to or on the amount or extent, if any, of any adjustment in Contract Price or Contract Times resulting from such changes, then within 30 days of such notice Contractor may submit a Change Proposal, or Owner may initiate a Claim.

7.11 *Record Documents*

A. Contractor shall maintain in a safe place at the Site one printed record copy of all Drawings, Specifications, Addenda, Change Orders, Work Change Directives, Field Orders, written interpretations and clarifications, and approved Shop Drawings. Contractor shall keep such record documents in good order and annotate them to show changes made during construction. These record documents, together with all approved Samples, will be available to Engineer for reference. Upon completion of the Work, Contractor shall deliver these record documents to Engineer.

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7.12 *Safety and Protection*

A. Contractor shall be solely responsible for initiating, maintaining, and supervising all safety precautions and programs in connection with the Work. Such responsibility does not relieve Subcontractors of their responsibility for the safety of persons or property in the performance of their work, nor for compliance with applicable safety Laws and Regulations. Contractor shall take all necessary precautions for the safety of, and shall provide the necessary protection to prevent damage, injury, or loss to:

1. all persons on the Site or who may be affected by the Work;
2. all the Work and materials and equipment to be incorporated therein, whether in storage on or off the Site; and
3. other property at the Site or adjacent thereto, including trees, shrubs, lawns, walks, pavements, roadways, structures, other work in progress, utilities, and Underground Facilities not designated for removal, relocation, or replacement in the course of construction.

B. Contractor shall comply with all applicable Laws and Regulations relating to the safety of persons or property, or to the protection of persons or property from damage, injury, or loss; and shall erect and maintain all necessary safeguards for such safety and protection. Contractor shall notify Owner; the owners of adjacent property, Underground Facilities, and other utilities; and other contractors and utility owners performing work at or adjacent to the Site, when prosecution of the Work may affect them, and shall cooperate with them in the protection, removal, relocation, and replacement of their property or work in progress.

C. Contractor shall comply with the applicable requirements of Owner's safety programs, if any. The Supplementary Conditions identify any Owner's safety programs that are applicable to the Work.

D. Contractor shall inform Owner and Engineer of the specific requirements of Contractor's safety program with which Owner's and Engineer's employees and representatives must comply while at the Site.

E. All damage, injury, or loss to any property referred to in Paragraph 7.12.A.2 or 7.12.A.3 caused, directly or indirectly, in whole or in part, by Contractor, any Subcontractor, Supplier, or any other individual or entity directly or indirectly employed by any of them to perform any of the Work, or anyone for whose acts any of them may be liable, shall be remedied by Contractor at its expense (except damage or loss attributable to the fault of Drawings or Specifications or to the acts or omissions of Owner or Engineer or anyone employed by any of them, or anyone for whose acts any of them may be liable, and not attributable, directly or indirectly, in whole or in part, to the fault or negligence of Contractor or any Subcontractor, Supplier, or other individual or entity directly or indirectly employed by any of them).

F. Contractor's duties and responsibilities for safety and protection shall continue until such time as all the Work is completed and Engineer has issued a notice to Owner and Contractor in accordance with Paragraph 15.06.B that the Work is acceptable (except as otherwise expressly provided in connection with Substantial Completion).

G. Contractor's duties and responsibilities for safety and protection shall resume whenever Contractor or any Subcontractor or Supplier returns to the Site to fulfill warranty or correction obligations, or to conduct other tasks arising from the Contract Documents.

7.13 *Safety Representative*

A. Contractor shall designate a qualified and experienced safety representative at the Site whose duties and responsibilities shall be the prevention of accidents and the maintaining and supervising of safety precautions and programs.

7.14 *Hazard Communication Programs*

A. Contractor shall be responsible for coordinating any exchange of material safety data sheets or other hazard communication information required to be made available to or exchanged between or among employers at the Site in accordance with Laws or Regulations.

7.15 *Emergencies*

A. In emergencies affecting the safety or protection of persons or the Work or property at the Site or adjacent thereto, Contractor is obligated to act to prevent threatened damage, injury, or loss. Contractor shall give Engineer prompt written notice if Contractor believes that any significant changes in the Work or variations from the Contract Documents have been caused thereby or are required as a result thereof. If Engineer determines that a change in the Contract Documents is required because of the action taken by Contractor in response to such an emergency, a Work Change Directive or Change Order will be issued.

7.16 *Shop Drawings, Samples, and Other Submittals*

A. *Shop Drawing and Sample Submittal Requirements*:

1. Before submitting a Shop Drawing or Sample, Contractor shall have:

a. reviewed and coordinated the Shop Drawing or Sample with other Shop Drawings and Samples and with the requirements of the Work and the Contract Documents;

b. determined and verified all field measurements, quantities, dimensions, specified performance and design criteria, installation requirements, materials, catalog numbers, and similar information with respect thereto;

c. determined and verified the suitability of all materials and equipment offered with respect to the indicated application, fabrication, shipping, handling, storage, assembly, and installation pertaining to the performance of the Work; and

d. determined and verified all information relative to Contractor's responsibilities for means, methods, techniques, sequences, and procedures of construction, and safety precautions and programs incident thereto.

2. Each submittal shall bear a stamp or specific written certification that Contractor has satisfied Contractor's obligations under the Contract Documents with respect to Contractor's review of that submittal, and that Contractor approves the submittal.

3. With each submittal, Contractor shall give Engineer specific written notice of any variations that the Shop Drawing or Sample may have from the requirements of the Contract Documents. This notice shall be set forth in a written communication separate from the Shop Drawings or Sample submittal; and, in addition, in the case of Shop Drawings by a specific notation made on each Shop Drawing submitted to Engineer for review and approval of each such variation.

B. *Submittal Procedures for Shop Drawings and Samples*: Contractor shall submit Shop Drawings and Samples to Engineer for review and approval in accordance with the accepted Schedule of Submittals. Each submittal will be identified as Engineer may require.

1. *Shop Drawings*:

a. Contractor shall submit the number of copies required in the Specifications.

b. Data shown on the Shop Drawings will be complete with respect to quantities, dimensions, specified performance and design criteria, materials, and similar data to show Engineer the services, materials, and equipment Contractor proposes to provide and to enable Engineer to review the information for the limited purposes required by Paragraph 7.16.D.

2. *Samples*:

   a. Contractor shall submit the number of Samples required in the Specifications.

   b. Contractor shall clearly identify each Sample as to material, Supplier, pertinent data such as catalog numbers, the use for which intended and other data as Engineer may require to enable Engineer to review the submittal for the limited purposes required by Paragraph 7.16.D.

3. Where a Shop Drawing or Sample is required by the Contract Documents or the Schedule of Submittals, any related Work performed prior to Engineer's review and approval of the pertinent submittal will be at the sole expense and responsibility of Contractor.

C. *Other Submittals*: Contractor shall submit other submittals to Engineer in accordance with the accepted Schedule of Submittals, and pursuant to the applicable terms of the Specifications.

D. *Engineer's Review*:

1. Engineer will provide timely review of Shop Drawings and Samples in accordance with the Schedule of Submittals acceptable to Engineer. Engineer's review and approval will be only to determine if the items covered by the submittals will, after installation or incorporation in the Work, conform to the information given in the Contract Documents and be compatible with the design concept of the completed Project as a functioning whole as indicated by the Contract Documents.

2. Engineer's review and approval will not extend to means, methods, techniques, sequences, or procedures of construction or to safety precautions or programs incident thereto.

3. Engineer's review and approval of a separate item as such will not indicate approval of the assembly in which the item functions.

4. Engineer's review and approval of a Shop Drawing or Sample shall not relieve Contractor from responsibility for any variation from the requirements of the Contract Documents unless Contractor has complied with the requirements of Paragraph 7.16.A.3 and Engineer has given written approval of each such variation by specific written notation thereof incorporated in or accompanying the Shop Drawing or Sample. Engineer will document any such approved variation from the requirements of the Contract Documents in a Field Order.

5. Engineer's review and approval of a Shop Drawing or Sample shall not relieve Contractor from responsibility for complying with the requirements of Paragraph 7.16.A and B.

6. Engineer's review and approval of a Shop Drawing or Sample, or of a variation from the requirements of the Contract Documents, shall not, under any circumstances, change the Contract Times or Contract Price, unless such changes are included in a Change Order.

7. Neither Engineer's receipt, review, acceptance or approval of a Shop Drawing, Sample, or other submittal shall result in such item becoming a Contract Document.

8. Contractor shall perform the Work in compliance with the requirements and commitments set forth in approved Shop Drawings and Samples, subject to the provisions of Paragraph 7.16.D.4.

E. *Resubmittal Procedures*:

1. Contractor shall make corrections required by Engineer and shall return the required number of corrected copies of Shop Drawings and submit, as required, new Samples for review and approval. Contractor shall direct specific attention in writing to revisions other than the corrections called for by Engineer on previous submittals.

2. Contractor shall furnish required submittals with sufficient information and accuracy to obtain required approval of an item with no more than three submittals. Engineer will record Engineer's time for reviewing a fourth or subsequent submittal of a Shop Drawings, sample, or other item requiring approval, and Contractor shall be responsible for Engineer's charges to Owner for such time. Owner may impose a set-off against payments due to Contractor to secure reimbursement for such charges.

3. If Contractor requests a change of a previously approved submittal item, Contractor shall be responsible for Engineer's charges to Owner for its review time, and Owner may impose a set-off against payments due to Contractor to secure reimbursement for such charges, unless the need for such change is beyond the control of Contractor.

7.17 *Contractor's General Warranty and Guarantee*

A. Contractor warrants and guarantees to Owner that all Work will be in accordance with the Contract Documents and will not be defective. Engineer and its officers, directors, members, partners, employees, agents, consultants, and subcontractors shall be entitled to rely on Contractor's warranty and guarantee.

B. Contractor's warranty and guarantee hereunder excludes defects or damage caused by:

1. abuse, modification, or improper maintenance or operation by persons other than Contractor, Subcontractors, Suppliers, or any other individual or entity for whom Contractor is responsible; or

2. normal wear and tear under normal usage.

C. Contractor's obligation to perform and complete the Work in accordance with the Contract Documents shall be absolute. None of the following will constitute an acceptance of Work that is not in accordance with the Contract Documents or a release of Contractor's obligation to perform the Work in accordance with the Contract Documents:

1. observations by Engineer;

2. recommendation by Engineer or payment by Owner of any progress or final payment;

3. the issuance of a certificate of Substantial Completion by Engineer or any payment related thereto by Owner;

4. use or occupancy of the Work or any part thereof by Owner;

5. any review and approval of a Shop Drawing or Sample submittal;

6. the issuance of a notice of acceptability by Engineer;

7. any inspection, test, or approval by others; or

8. any correction of defective Work by Owner.

D. If the Contract requires the Contractor to accept the assignment of a contract entered into by Owner, then the specific warranties, guarantees, and correction obligations contained in the assigned contract shall govern with respect to Contractor's performance obligations to Owner for the Work described in the assigned contract.

7.18 *Indemnification*

A. To the fullest extent permitted by Laws and Regulations, and in addition to any other obligations of Contractor under the Contract or otherwise, Contractor shall indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to the performance of the Work, provided that any

such claim, cost, loss, or damage is attributable to bodily injury, sickness, disease, or death, or to injury to or destruction of tangible property (other than the Work itself), including the loss of use resulting therefrom but only to the extent caused by any negligent act or omission of Contractor, any Subcontractor, any Supplier, or any individual or entity directly or indirectly employed by any of them to perform any of the Work or anyone for whose acts any of them may be liable.

B. In any and all claims against Owner or Engineer or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors by any employee (or the survivor or personal representative of such employee) of Contractor, any Subcontractor, any Supplier, or any individual or entity directly or indirectly employed by any of them to perform any of the Work, or anyone for whose acts any of them may be liable, the indemnification obligation under Paragraph 7.18.A shall not be limited in any way by any limitation on the amount or type of damages, compensation, or benefits payable by or for Contractor or any such Subcontractor, Supplier, or other individual or entity under workers' compensation acts, disability benefit acts, or other employee benefit acts.

C. The indemnification obligations of Contractor under Paragraph 7.18.A shall not extend to the liability of Engineer and Engineer's officers, directors, members, partners, employees, agents, consultants and subcontractors arising out of:

1. the preparation or approval of, or the failure to prepare or approve maps, Drawings, opinions, reports, surveys, Change Orders, designs, or Specifications; or

2. giving directions or instructions, or failing to give them, if that is the primary cause of the injury or damage.

7.19 *Delegation of Professional Design Services*

A. Contractor will not be required to provide professional design services unless such services are specifically required by the Contract Documents for a portion of the Work or unless such services are required to carry out Contractor's responsibilities for construction means, methods, techniques, sequences and procedures. Contractor shall not be required to provide professional services in violation of applicable Laws and Regulations.

B. If professional design services or certifications by a design professional related to systems, materials, or equipment are specifically required of Contractor by the Contract Documents, Owner and Engineer will specify all performance and design criteria that such services must satisfy. Contractor shall cause such services or certifications to be provided by a properly licensed professional, whose signature and seal shall appear on all drawings, calculations, specifications, certifications, and other submittals prepared by such professional. Shop Drawings and other submittals related to the Work designed or certified by such professional, if prepared by others, shall bear such professional's written approval when submitted to Engineer.

C. Owner and Engineer shall be entitled to rely upon the adequacy, accuracy, and completeness of the services, certifications, or approvals performed by such design professionals, provided Owner and Engineer have specified to Contractor all performance and design criteria that such services must satisfy.

D. Pursuant to this paragraph, Engineer's review and approval of design calculations and design drawings will be only for the limited purpose of checking for conformance with performance and design criteria given and the design concept expressed in the Contract Documents. Engineer's review and approval of Shop Drawings and other submittals (except design calculations and design drawings) will be only for the purpose stated in Paragraph 7.16.D.1.

E. Contractor shall not be responsible for the adequacy of the performance or design criteria specified by Owner or Engineer.

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ARTICLE 8 – OTHER WORK AT THE SITE

8.01 *Other Work*

A. In addition to and apart from the Work under the Contract Documents, the Owner may perform other work at or adjacent to the Site. Such other work may be performed by Owner's employees, or through contracts between the Owner and third parties. Owner may also arrange to have third-party utility owners perform work on their utilities and facilities at or adjacent to the Site.

B. If Owner performs other work at or adjacent to the Site with Owner's employees, or through contracts for such other work, then Owner shall give Contractor written notice thereof prior to starting any such other work. If Owner has advance information regarding the start of any utility work at or adjacent to the Site, Owner shall provide such information to Contractor.

C. Contractor shall afford each other contractor that performs such other work, each utility owner performing other work, and Owner, if Owner is performing other work with Owner's employees, proper and safe access to the Site, and provide a reasonable opportunity for the introduction and storage of materials and equipment and the execution of such other work. Contractor shall do all cutting, fitting, and patching of the Work that may be required to properly connect or otherwise make its several parts come together and properly integrate with such other work. Contractor shall not endanger any work of others by cutting, excavating, or otherwise altering such work; provided, however, that Contractor may cut or alter others' work with the written consent of Engineer and the others whose work will be affected.

D. If the proper execution or results of any part of Contractor's Work depends upon work performed by others under this Article 8, Contractor shall inspect such other work and promptly report to Engineer in writing any delays, defects, or deficiencies in such other work that render it unavailable or unsuitable for the proper execution and results of Contractor's Work. Contractor's failure to so report will constitute an acceptance of such other work as fit and proper for integration with Contractor's Work except for latent defects and deficiencies in such other work.

8.02 *Coordination*

A. If Owner intends to contract with others for the performance of other work at or adjacent to the Site, to perform other work at or adjacent to the Site with Owner's employees, or to arrange to have utility owners perform work at or adjacent to the Site, the following will be set forth in the Supplementary Conditions or provided to Contractor prior to the start of any such other work:

1. the identity of the individual or entity that will have authority and responsibility for coordination of the activities among the various contractors;

2. an itemization of the specific matters to be covered by such authority and responsibility; and

3. the extent of such authority and responsibilities.

B. Unless otherwise provided in the Supplementary Conditions, Owner shall have sole authority and responsibility for such coordination.

8.03 *Legal Relationships*

A. If, in the course of performing other work at or adjacent to the Site for Owner, the Owner's employees, any other contractor working for Owner, or any utility owner causes damage to the Work or to the property of Contractor or its Subcontractors, or delays, disrupts, interferes with, or increases the scope or cost of the performance of the Work, through actions or inaction, then Contractor shall be entitled to an equitable adjustment in the Contract Price or the Contract Times, or both. Contractor must submit any Change Proposal seeking an

equitable adjustment in the Contract Price or the Contract Times under this paragraph within 30 days of the damaging, delaying, disrupting, or interfering event. The entitlement to, and extent of, any such equitable adjustment shall take into account information (if any) regarding such other work that was provided to Contractor in the Contract Documents prior to the submittal of the Bid or the final negotiation of the terms of the Contract. When applicable, any such equitable adjustment in Contract Price shall be conditioned on Contractor assigning to Owner all Contractor's rights against such other contractor or utility owner with respect to the damage, delay, disruption, or interference that is the subject of the adjustment. Contractor's entitlement to an adjustment of the Contract Times is conditioned on such adjustment being essential to Contractor's ability to complete the Work within the Contract Times.

B. Contractor shall take reasonable and customary measures to avoid damaging, delaying, disrupting, or interfering with the work of Owner, any other contractor, or any utility owner performing other work at or adjacent to the Site. If Contractor fails to take such measures and as a result damages, delays, disrupts, or interferes with the work of any such other contractor or utility owner, then Owner may impose a set-off against payments due to Contractor, and assign to such other contractor or utility owner the Owner's contractual rights against Contractor with respect to the breach of the obligations set forth in this paragraph.

C. When Owner is performing other work at or adjacent to the Site with Owner's employees, Contractor shall be liable to Owner for damage to such other work, and for the reasonable direct delay, disruption, and interference costs incurred by Owner as a result of Contractor's failure to take reasonable and customary measures with respect to Owner's other work. In response to such damage, delay, disruption, or interference, Owner may impose a set-off against payments due to Contractor.

D. If Contractor damages, delays, disrupts, or interferes with the work of any other contractor, or any utility owner performing other work at or adjacent to the Site, through Contractor's failure to take reasonable and customary measures to avoid such impacts, or if any claim arising out of Contractor's actions, inactions, or negligence in performance of the Work at or adjacent to the Site is made by any such other contractor or utility owner against Contractor, Owner, or Engineer, then Contractor shall (1) promptly attempt to settle the claim as to all parties through negotiations with such other contractor or utility owner, or otherwise resolve the claim by arbitration or other dispute resolution proceeding or at law, and (2) indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them from and against any such claims, and against all costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such damage, delay, disruption, or interference.

ARTICLE 9 – OWNER'S RESPONSIBILITIES

9.01 *Communications to Contractor*

A. Except as otherwise provided in these General Conditions, Owner shall issue all communications to Contractor through Engineer.

9.02 *Replacement of Engineer*

A. Owner may at its discretion appoint an engineer to replace Engineer, provided Contractor makes no reasonable objection to the replacement engineer. The replacement engineer's status under the Contract Documents shall be that of the former Engineer.

9.03 *Furnish Data*

A. Owner shall promptly furnish the data required of Owner under the Contract Documents.

9.04 *Pay When Due*

A. Owner shall make payments to Contractor when they are due as provided in the Agreement.

9.05 *Lands and Easements; Reports, Tests, and Drawings*

A. Owner's duties with respect to providing lands and easements are set forth in Paragraph 5.01.

B. Owner's duties with respect to providing engineering surveys to establish reference points are set forth in Paragraph 4.03.

C. Article 5 refers to Owner's identifying and making available to Contractor copies of reports of explorations and tests of conditions at the Site, and drawings of physical conditions relating to existing surface or subsurface structures at the Site.

9.06 *Insurance*

A. Owner's responsibilities, if any, with respect to purchasing and maintaining liability and property insurance are set forth in Article 6.

9.07 *Change Orders*

A. Owner's responsibilities with respect to Change Orders are set forth in Article 11.

9.08 *Inspections, Tests, and Approvals*

A. Owner's responsibility with respect to certain inspections, tests, and approvals is set forth in Paragraph 14.02.B.

9.09 *Limitations on Owner's Responsibilities*

A. The Owner shall not supervise, direct, or have control or authority over, nor be responsible for, Contractor's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of Contractor to comply with Laws and Regulations applicable to the performance of the Work. Owner will not be responsible for Contractor's failure to perform the Work in accordance with the Contract Documents.

9.10 *Undisclosed Hazardous Environmental Condition*

A. Owner's responsibility in respect to an undisclosed Hazardous Environmental Condition is set forth in Paragraph 5.06.

9.11 *Evidence of Financial Arrangements*

A. Upon request of Contractor, Owner shall furnish Contractor reasonable evidence that financial arrangements have been made to satisfy Owner's obligations under the Contract Documents (including obligations under proposed changes in the Work).

9.12 *Safety Programs*

A. While at the Site, Owner's employees and representatives shall comply with the specific applicable requirements of Contractor's safety programs of which Owner has been informed.

B. Owner shall furnish copies of any applicable Owner safety programs to Contractor.

ARTICLE 10 – ENGINEER'S STATUS DURING CONSTRUCTION

10.01 *Owner's Representative*

A. Engineer will be Owner's representative during the construction period. The duties and responsibilities and the limitations of authority of Engineer as Owner's representative during construction are set forth in the Contract.

90% Bid Package

10.02 *Visits to Site*

A. Engineer will make visits to the Site at intervals appropriate to the various stages of construction as Engineer deems necessary in order to observe as an experienced and qualified design professional the progress that has been made and the quality of the various aspects of Contractor's executed Work. Based on information obtained during such visits and observations, Engineer, for the benefit of Owner, will determine, in general, if the Work is proceeding in accordance with the Contract Documents. Engineer will not be required to make exhaustive or continuous inspections on the Site to check the quality or quantity of the Work. Engineer's efforts will be directed toward providing for Owner a greater degree of confidence that the completed Work will conform generally to the Contract Documents. On the basis of such visits and observations, Engineer will keep Owner informed of the progress of the Work and will endeavor to guard Owner against defective Work.

B. Engineer's visits and observations are subject to all the limitations on Engineer's authority and responsibility set forth in Paragraph 10.08. Particularly, but without limitation, during or as a result of Engineer's visits or observations of Contractor's Work, Engineer will not supervise, direct, control, or have authority over or be responsible for Contractor's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of Contractor to comply with Laws and Regulations applicable to the performance of the Work.

10.03 *Project Representative*

A. If Owner and Engineer have agreed that Engineer will furnish a Resident Project Representative to represent Engineer at the Site and assist Engineer in observing the progress and quality of the Work, then the authority and responsibilities of any such Resident Project Representative will be as provided in the Supplementary Conditions, and limitations on the responsibilities thereof will be as provided in Paragraph 10.08. If Owner designates another representative or agent to represent Owner at the Site who is not Engineer's consultant, agent, or employee, the responsibilities and authority and limitations thereon of such other individual or entity will be as provided in the Supplementary Conditions.

10.04 *Rejecting Defective Work*

A. Engineer has the authority to reject Work in accordance with Article 14.

10.05 *Shop Drawings, Change Orders and Payments*

A. Engineer's authority, and limitations thereof, as to Shop Drawings and Samples, are set forth in Paragraph 7.16.

B. Engineer's authority, and limitations thereof, as to design calculations and design drawings submitted in response to a delegation of professional design services, if any, are set forth in Paragraph 7.19.

C. Engineer's authority as to Change Orders is set forth in Article 11.

D. Engineer's authority as to Applications for Payment is set forth in Article 15.

10.06 *Determinations for Unit Price Work*

A. Engineer will determine the actual quantities and classifications of Unit Price Work performed by Contractor as set forth in Paragraph 13.03.

10.07 *Decisions on Requirements of Contract Documents and Acceptability of Work*

A. Engineer will render decisions regarding the requirements of the Contract Documents, and judge the acceptability of the Work, pursuant to the specific procedures set forth herein for initial interpretations, Change Proposals, and acceptance of the Work. In rendering such decisions and judgments, Engineer will not show partiality to Owner or Contractor, and will

not be liable to Owner, Contractor, or others in connection with any proceedings, interpretations, decisions, or judgments conducted or rendered in good faith.

10.08 *Limitations on Engineer's Authority and Responsibilities*

A. Neither Engineer's authority or responsibility under this Article 10 or under any other provision of the Contract, nor any decision made by Engineer in good faith either to exercise or not exercise such authority or responsibility or the undertaking, exercise, or performance of any authority or responsibility by Engineer, shall create, impose, or give rise to any duty in contract, tort, or otherwise owed by Engineer to Contractor, any Subcontractor, any Supplier, any other individual or entity, or to any surety for or employee or agent of any of them.

B. Engineer will not supervise, direct, control, or have authority over or be responsible for Contractor's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of Contractor to comply with Laws and Regulations applicable to the performance of the Work. Engineer will not be responsible for Contractor's failure to perform the Work in accordance with the Contract Documents.

C. Engineer will not be responsible for the acts or omissions of Contractor or of any Subcontractor, any Supplier, or of any other individual or entity performing any of the Work.

D. Engineer's review of the final Application for Payment and accompanying documentation and all maintenance and operating instructions, schedules, guarantees, bonds, certificates of inspection, tests and approvals, and other documentation required to be delivered by Paragraph 15.06.A will only be to determine generally that their content complies with the requirements of, and in the case of certificates of inspections, tests, and approvals, that the results certified indicate compliance with the Contract Documents.

E. The limitations upon authority and responsibility set forth in this Paragraph 10.08 shall also apply to the Resident Project Representative, if any.

10.09 *Compliance with Safety Program*

A. While at the Site, Engineer's employees and representatives will comply with the specific applicable requirements of Owner's and Contractor's safety programs (if any) of which Engineer has been informed.

ARTICLE 11 – AMENDING THE CONTRACT DOCUMENTS; CHANGES IN THE WORK

11.01 *Amending and Supplementing Contract Documents*

A. The Contract Documents may be amended or supplemented by a Change Order, a Work Change Directive, or a Field Order.

1. *Change Orders*:

a. If an amendment or supplement to the Contract Documents includes a change in the Contract Price or the Contract Times, such amendment or supplement must be set forth in a Change Order. A Change Order also may be used to establish amendments and supplements of the Contract Documents that do not affect the Contract Price or Contract Times.

b. Owner and Contractor may amend those terms and conditions of the Contract Documents that do not involve (1) the performance or acceptability of the Work, (2) the design (as set forth in the Drawings, Specifications, or otherwise), or (3) other engineering or technical matters, without the recommendation of the Engineer. Such an amendment shall be set forth in a Change Order.

2. *Work Change Directives*: A Work Change Directive will not change the Contract Price or the Contract Times but is evidence that the parties expect that the modification ordered or documented by a Work Change Directive will be incorporated in a subsequently issued Change Order, following negotiations by the parties as to the Work Change Directive's effect, if any, on the Contract Price and Contract Times; or, if negotiations are unsuccessful, by a determination under the terms of the Contract Documents governing adjustments, expressly including Paragraph 11.04 regarding change of Contract Price. Contractor must submit any Change Proposal seeking an adjustment of the Contract Price or the Contract Times, or both, no later than 30 days after the completion of the Work set out in the Work Change Directive. Owner must submit any Claim seeking an adjustment of the Contract Price or the Contract Times, or both, no later than 60 days after issuance of the Work Change Directive.

3. *Field Orders*: Engineer may authorize minor changes in the Work if the changes do not involve an adjustment in the Contract Price or the Contract Times and are compatible with the design concept of the completed Project as a functioning whole as indicated by the Contract Documents. Such changes will be accomplished by a Field Order and will be binding on Owner and also on Contractor, which shall perform the Work involved promptly. If Contractor believes that a Field Order justifies an adjustment in the Contract Price or Contract Times, or both, then before proceeding with the Work at issue, Contractor shall submit a Change Proposal as provided herein.

11.02 *Owner-Authorized Changes in the Work*

A. Without invalidating the Contract and without notice to any surety, Owner may, at any time or from time to time, order additions, deletions, or revisions in the Work. Such changes shall be supported by Engineer's recommendation, to the extent the change involves the design (as set forth in the Drawings, Specifications, or otherwise), or other engineering or technical matters. Such changes may be accomplished by a Change Order, if Owner and Contractor have agreed as to the effect, if any, of the changes on Contract Times or Contract Price; or by a Work Change Directive. Upon receipt of any such document, Contractor shall promptly proceed with the Work involved; or, in the case of a deletion in the Work, promptly cease construction activities with respect to such deleted Work. Added or revised Work shall be performed under the applicable conditions of the Contract Documents. Nothing in this paragraph shall obligate Contractor to undertake work that Contractor reasonably concludes cannot be performed in a manner consistent with Contractor's safety obligations under the Contract Documents or Laws and Regulations.

11.03 *Unauthorized Changes in the Work*

A. Contractor shall not be entitled to an increase in the Contract Price or an extension of the Contract Times with respect to any work performed that is not required by the Contract Documents, as amended, modified, or supplemented, except in the case of an emergency as provided in Paragraph 7.15 or in the case of uncovering Work as provided in Paragraph 14.05.

11.04 *Change of Contract Price*

A. The Contract Price may only be changed by a Change Order. Any Change Proposal for an adjustment in the Contract Price shall comply with the provisions of Paragraph 11.06. Any Claim for an adjustment of Contract Price shall comply with the provisions of Article 12.

B. An adjustment in the Contract Price will be determined as follows:

1. where the Work involved is covered by unit prices contained in the Contract Documents, then by application of such unit prices to the quantities of the items involved (subject to the provisions of Paragraph 13.03); or

2. where the Work involved is not covered by unit prices contained in the Contract Documents, then by a mutually agreed lump sum (which may include an allowance for overhead and profit not necessarily in accordance with Paragraph 11.04.C.2); or

3. where the Work involved is not covered by unit prices contained in the Contract Documents and the parties do not reach mutual agreement to a lump sum, then on the basis of the Cost of the Work (determined as provided in Paragraph 13.01) plus a Contractor's fee for overhead and profit (determined as provided in Paragraph 11.04.C).

C. *Contractor's Fee*: When applicable, the Contractor's fee for overhead and profit shall be determined as follows:

1. a mutually acceptable fixed fee; or

2. if a fixed fee is not agreed upon, then a fee based on the following percentages of the various portions of the Cost of the Work:

a. for costs incurred under Paragraphs 13.01.B.1 and 13.01.B.2, the Contractor's fee shall be 15 percent;

b. for costs incurred under Paragraph 13.01.B.3, the Contractor's fee shall be five percent;

c. where one or more tiers of subcontracts are on the basis of Cost of the Work plus a fee and no fixed fee is agreed upon, the intent of Paragraphs 11.01.C.2.a and 11.01.C.2.b is that the Contractor's fee shall be based on: (1) a fee of 15 percent of the costs incurred under Paragraphs 13.01.A.1 and 13.01.A.2 by the Subcontractor that actually performs the Work, at whatever tier, and (2) with respect to Contractor itself and to any Subcontractors of a tier higher than that of the Subcontractor that actually performs the Work, a fee of five percent of the amount (fee plus underlying costs incurred) attributable to the next lower tier Subcontractor; provided, however, that for any such subcontracted work the maximum total fee to be paid by Owner shall be no greater than 27 percent of the costs incurred by the Subcontractor that actually performs the work;

d. no fee shall be payable on the basis of costs itemized under Paragraphs 13.01.B.4, 13.01.B.5, and 13.01.C;

e. the amount of credit to be allowed by Contractor to Owner for any change which results in a net decrease in cost will be the amount of the actual net decrease in cost plus a deduction in Contractor's fee by an amount equal to five percent of such net decrease; and

f. when both additions and credits are involved in any one change, the adjustment in Contractor's fee shall be computed on the basis of the net change in accordance with Paragraphs 11.04.C.2.a through 11.04.C.2.e, inclusive.

11.05 *Change of Contract Times*

A. The Contract Times may only be changed by a Change Order. Any Change Proposal for an adjustment in the Contract Times shall comply with the provisions of Paragraph 11.06. Any Claim for an adjustment in the Contract Times shall comply with the provisions of Article 12.

B. An adjustment of the Contract Times shall be subject to the limitations set forth in Paragraph 4.05, concerning delays in Contractor's progress.

11.06 *Change Proposals*

A. Contractor shall submit a Change Proposal to Engineer to request an adjustment in the Contract Times or Contract Price; appeal an initial decision by Engineer concerning the requirements of the Contract Documents or relating to the acceptability of the Work under the

Contract Documents; contest a set-off against payment due; or seek other relief under the Contract. The Change Proposal shall specify any proposed change in Contract Times or Contract Price, or both, or other proposed relief, and explain the reason for the proposed change, with citations to any governing or applicable provisions of the Contract Documents.

1. *Procedures*: Contractor shall submit each Change Proposal to Engineer promptly (but in no event later than 30 days) after the start of the event giving rise thereto, or after such initial decision. The Contractor shall submit supporting data, including the proposed change in Contract Price or Contract Time (if any), to the Engineer and Owner within 15 days after the submittal of the Change Proposal. The supporting data shall be accompanied by a written statement that the supporting data are accurate and complete, and that any requested time or price adjustment is the entire adjustment to which Contractor believes it is entitled as a result of said event. Engineer will advise Owner regarding the Change Proposal, and consider any comments or response from Owner regarding the Change Proposal.

2. *Engineer's Action*: Engineer will review each Change Proposal and, within 30 days after receipt of the Contractor's supporting data, either deny the Change Proposal in whole, approve it in whole, or deny it in part and approve it in part. Such actions shall be in writing, with a copy provided to Owner and Contractor. If Engineer does not take action on the Change Proposal within 30 days, then either Owner or Contractor may at any time thereafter submit a letter to the other party indicating that as a result of Engineer's inaction the Change Proposal is deemed denied, thereby commencing the time for appeal of the denial under Article 12.

3. *Binding Decision*: Engineer's decision will be final and binding upon Owner and Contractor, unless Owner or Contractor appeals the decision by filing a Claim under Article 12.

B. *Resolution of Certain Change Proposals*: If the Change Proposal does not involve the design (as set forth in the Drawings, Specifications, or otherwise), the acceptability of the Work, or other engineering or technical matters, then Engineer will notify the parties that the Engineer is unable to resolve the Change Proposal. For purposes of further resolution of such a Change Proposal, such notice shall be deemed a denial, and Contractor may choose to seek resolution under the terms of Article 12.

11.07 *Execution of Change Orders*

A. Owner and Contractor shall execute appropriate Change Orders covering:

1. changes in the Contract Price or Contract Times which are agreed to by the parties, including any undisputed sum or amount of time for Work actually performed in accordance with a Work Change Directive;

2. changes in Contract Price resulting from an Owner set-off, unless Contractor has duly contested such set-off;

3. changes in the Work which are: (a) ordered by Owner pursuant to Paragraph 11.02, (b) required because of Owner's acceptance of defective Work under Paragraph 14.04 or Owner's correction of defective Work under Paragraph 14.07, or (c) agreed to by the parties, subject to the need for Engineer's recommendation if the change in the Work involves the design (as set forth in the Drawings, Specifications, or otherwise), or other engineering or technical matters; and

4. changes in the Contract Price or Contract Times, or other changes, which embody the substance of any final and binding results under Paragraph 11.06, or Article 12.

B. If Owner or Contractor refuses to execute a Change Order that is required to be executed under the terms of this Paragraph 11.07, it shall be deemed to be of full force and effect, as if fully executed.

11.08 *Notification to Surety*

A. If the provisions of any bond require notice to be given to a surety of any change affecting the general scope of the Work or the provisions of the Contract Documents (including, but not limited to, Contract Price or Contract Times), the giving of any such notice will be Contractor's responsibility. The amount of each applicable bond will be adjusted to reflect the effect of any such change.

ARTICLE 12 – CLAIMS

12.01 *Claims*

A. *Claims Process*: The following disputes between Owner and Contractor shall be submitted to the Claims process set forth in this Article:

1. Appeals by Owner or Contractor of Engineer's decisions regarding Change Proposals;

2. Owner demands for adjustments in the Contract Price or Contract Times, or other relief under the Contract Documents; and

3. Disputes that Engineer has been unable to address because they do not involve the design (as set forth in the Drawings, Specifications, or otherwise), the acceptability of the Work, or other engineering or technical matters.

B. *Submittal of Claim*: The party submitting a Claim shall deliver it directly to the other party to the Contract promptly (but in no event later than 30 days) after the start of the event giving rise thereto; in the case of appeals regarding Change Proposals within 30 days of the decision under appeal. The party submitting the Claim shall also furnish a copy to the Engineer, for its information only. The responsibility to substantiate a Claim shall rest with the party making the Claim. In the case of a Claim by Contractor seeking an increase in the Contract Times or Contract Price, or both, Contractor shall certify that the Claim is made in good faith, that the supporting data are accurate and complete, and that to the best of Contractor's knowledge and belief the amount of time or money requested accurately reflects the full amount to which Contractor is entitled.

C. *Review and Resolution*: The party receiving a Claim shall review it thoroughly, giving full consideration to its merits. The two parties shall seek to resolve the Claim through the exchange of information and direct negotiations. The parties may extend the time for resolving the Claim by mutual agreement. All actions taken on a Claim shall be stated in writing and submitted to the other party, with a copy to Engineer.

D. *Mediation*:

1. At any time after initiation of a Claim, Owner and Contractor may mutually agree to mediation of the underlying dispute. The agreement to mediate shall stay the Claim submittal and response process.

2. If Owner and Contractor agree to mediation, then after 60 days from such agreement, either Owner or Contractor may unilaterally terminate the mediation process, and the Claim submittal and decision process shall resume as of the date of the termination. If the mediation proceeds but is unsuccessful in resolving the dispute, the Claim submittal and decision process shall resume as of the date of the conclusion of the mediation, as determined by the mediator.

3. Owner and Contractor shall each pay one-half of the mediator's fees and costs.

E. *Partial Approval*: If the party receiving a Claim approves the Claim in part and denies it in part, such action shall be final and binding unless within 30 days of such action the other party invokes the procedure set forth in Article 17 for final resolution of disputes.

F. *Denial of Claim*: If efforts to resolve a Claim are not successful, the party receiving the Claim may deny it by giving written notice of denial to the other party. If the receiving party does not take action on the Claim within 90 days, then either Owner or Contractor may at any time thereafter submit a letter to the other party indicating that as a result of the inaction, the Claim is deemed denied, thereby commencing the time for appeal of the denial. A denial of the Claim shall be final and binding unless within 30 days of the denial the other party invokes the procedure set forth in Article 17 for the final resolution of disputes.

G. *Final and Binding Results*: If the parties reach a mutual agreement regarding a Claim, whether through approval of the Claim, direct negotiations, mediation, or otherwise; or if a Claim is approved in part and denied in part, or denied in full, and such actions become final and binding; then the results of the agreement or action on the Claim shall be incorporated in a Change Order to the extent they affect the Contract, including the Work, the Contract Times, or the Contract Price.

ARTICLE 13 – COST OF THE WORK; ALLOWANCES; UNIT PRICE WORK

13.01 *Cost of the Work*

A. *Purposes for Determination of Cost of the Work*: The term Cost of the Work means the sum of all costs necessary for the proper performance of the Work at issue, as further defined below. The provisions of this Paragraph 13.01 are used for two distinct purposes:

1. To determine Cost of the Work when Cost of the Work is a component of the Contract Price, under cost-plus-fee, time-and-materials, or other cost-based terms; or

2. To determine the value of a Change Order, Change Proposal, Claim, set-off, or other adjustment in Contract Price. When the value of any such adjustment is determined on the basis of Cost of the Work, Contractor is entitled only to those additional or incremental costs required because of the change in the Work or because of the event giving rise to the adjustment.

B. *Costs Included*: Except as otherwise may be agreed to in writing by Owner, costs included in the Cost of the Work shall be in amounts no higher than those prevailing in the locality of the Project, shall not include any of the costs itemized in Paragraph 13.01.C, and shall include only the following items:

1. Payroll costs for employees in the direct employ of Contractor in the performance of the Work under schedules of job classifications agreed upon by Owner and Contractor. Such employees shall include, without limitation, superintendents, foremen, and other personnel employed full time on the Work. Payroll costs for employees not employed full time on the Work shall be apportioned on the basis of their time spent on the Work. Payroll costs shall include, but not be limited to, salaries and wages plus the cost of fringe benefits, which shall include social security contributions, unemployment, excise, and payroll taxes, workers' compensation, health and retirement benefits, bonuses, sick leave, and vacation and holiday pay applicable thereto. The expenses of performing Work outside of regular working hours, on Saturday, Sunday, or legal holidays, shall be included in the above to the extent authorized by Owner.

2. Cost of all materials and equipment furnished and incorporated in the Work, including costs of transportation and storage thereof, and Suppliers' field services required in connection therewith. All cash discounts shall accrue to Contractor unless Owner deposits funds with Contractor with which to make payments, in which case the cash discounts shall accrue to Owner. All trade discounts, rebates, and refunds and returns

from sale of surplus materials and equipment shall accrue to Owner, and Contractor shall make provisions so that they may be obtained.

3. Payments made by Contractor to Subcontractors for Work performed by Subcontractors. If required by Owner, Contractor shall obtain competitive bids from subcontractors acceptable to Owner and Contractor and shall deliver such bids to Owner, who will then determine, with the advice of Engineer, which bids, if any, will be acceptable. If any subcontract provides that the Subcontractor is to be paid on the basis of Cost of the Work plus a fee, the Subcontractor's Cost of the Work and fee shall be determined in the same manner as Contractor's Cost of the Work and fee as provided in this Paragraph 13.01.

4. Costs of special consultants (including but not limited to engineers, architects, testing laboratories, surveyors, attorneys, and accountants) employed for services specifically related to the Work.

5. Supplemental costs including the following:

   a. The proportion of necessary transportation, travel, and subsistence expenses of Contractor's employees incurred in discharge of duties connected with the Work.

   b. Cost, including transportation and maintenance, of all materials, supplies, equipment, machinery, appliances, office, and temporary facilities at the Site, and hand tools not owned by the workers, which are consumed in the performance of the Work, and cost, less market value, of such items used but not consumed which remain the property of Contractor.

   c. Rentals of all construction equipment and machinery, and the parts thereof, whether rented from Contractor or others in accordance with rental agreements approved by Owner with the advice of Engineer, and the costs of transportation, loading, unloading, assembly, dismantling, and removal thereof. All such costs shall be in accordance with the terms of said rental agreements. The rental of any such equipment, machinery, or parts shall cease when the use thereof is no longer necessary for the Work.

   d. Sales, consumer, use, and other similar taxes related to the Work, and for which Contractor is liable, as imposed by Laws and Regulations.

   e. Deposits lost for causes other than negligence of Contractor, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable, and royalty payments and fees for permits and licenses.

   f. Losses and damages (and related expenses) caused by damage to the Work, not compensated by insurance or otherwise, sustained by Contractor in connection with the performance of the Work (except losses and damages within the deductible amounts of property insurance established in accordance with Paragraph 6.05), provided such losses and damages have resulted from causes other than the negligence of Contractor, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable. Such losses shall include settlements made with the written consent and approval of Owner. No such losses, damages, and expenses shall be included in the Cost of the Work for the purpose of determining Contractor's fee.

   g. The cost of utilities, fuel, and sanitary facilities at the Site.

   h. Minor expenses such as communication service at the Site, express and courier services, and similar petty cash items in connection with the Work.

   i. The costs of premiums for all bonds and insurance that Contractor is required by the Contract Documents to purchase and maintain.

C. *Costs Excluded*: The term Cost of the Work shall not include any of the following items:

1. Payroll costs and other compensation of Contractor's officers, executives, principals (of partnerships and sole proprietorships), general managers, safety managers, engineers, architects, estimators, attorneys, auditors, accountants, purchasing and contracting agents, expediters, timekeepers, clerks, and other personnel employed by Contractor, whether at the Site or in Contractor's principal or branch office for general administration of the Work and not specifically included in the agreed upon schedule of job classifications referred to in Paragraph 13.01.B.1 or specifically covered by Paragraph 13.01.B.4. The payroll costs and other compensation excluded here are to be considered administrative costs covered by the Contractor's fee.

2. Expenses of Contractor's principal and branch offices other than Contractor's office at the Site.

3. Any part of Contractor's capital expenses, including interest on Contractor's capital employed for the Work and charges against Contractor for delinquent payments.

4. Costs due to the negligence of Contractor, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable, including but not limited to, the correction of defective Work, disposal of materials or equipment wrongly supplied, and making good any damage to property.

5. Other overhead or general expense costs of any kind and the costs of any item not specifically and expressly included in Paragraph 13.01.B.

D. *Contractor's Fee*: When the Work as a whole is performed on the basis of cost-plus, Contractor's fee shall be determined as set forth in the Agreement. When the value of any Work covered by a Change Order, Change Proposal, Claim, set-off, or other adjustment in Contract Price is determined on the basis of Cost of the Work, Contractor's fee shall be determined as set forth in Paragraph 11.04.C.

E. *Documentation*: Whenever the Cost of the Work for any purpose is to be determined pursuant to this Article 13, Contractor will establish and maintain records thereof in accordance with generally accepted accounting practices and submit in a form acceptable to Engineer an itemized cost breakdown together with supporting data.

13.02 *Allowances*

A. It is understood that Contractor has included in the Contract Price all allowances so named in the Contract Documents and shall cause the Work so covered to be performed for such sums and by such persons or entities as may be acceptable to Owner and Engineer.

B. *Cash Allowances*: Contractor agrees that:

1. the cash allowances include the cost to Contractor (less any applicable trade discounts) of materials and equipment required by the allowances to be delivered at the Site, and all applicable taxes; and

2. Contractor's costs for unloading and handling on the Site, labor, installation, overhead, profit, and other expenses contemplated for the cash allowances have been included in the Contract Price and not in the allowances, and no demand for additional payment on account of any of the foregoing will be valid.

C. *Contingency Allowance*: Contractor agrees that a contingency allowance, if any, is for the sole use of Owner to cover unanticipated costs.

D. Prior to final payment, an appropriate Change Order will be issued as recommended by Engineer to reflect actual amounts due Contractor on account of Work covered by allowances, and the Contract Price shall be correspondingly adjusted.

13.03 *Unit Price Work*

A. Where the Contract Documents provide that all or part of the Work is to be Unit Price Work, initially the Contract Price will be deemed to include for all Unit Price Work an amount equal to the sum of the unit price for each separately identified item of Unit Price Work times the estimated quantity of each item as indicated in the Agreement.

B. The estimated quantities of items of Unit Price Work are not guaranteed and are solely for the purpose of comparison of Bids and determining an initial Contract Price. Payments to Contractor for Unit Price Work will be based on actual quantities.

C. Each unit price will be deemed to include an amount considered by Contractor to be adequate to cover Contractor's overhead and profit for each separately identified item.

D. Engineer will determine the actual quantities and classifications of Unit Price Work performed by Contractor. Engineer will review with Contractor the Engineer's preliminary determinations on such matters before rendering a written decision thereon (by recommendation of an Application for Payment or otherwise). Engineer's written decision thereon will be final and binding (except as modified by Engineer to reflect changed factual conditions or more accurate data) upon Owner and Contractor, subject to the provisions of the following paragraph.

E. Within 30 days of Engineer's written decision under the preceding paragraph, Contractor may submit a Change Proposal, or Owner may file a Claim, seeking an adjustment in the Contract Price if:

1. the quantity of any item of Unit Price Work performed by Contractor differs materially and significantly from the estimated quantity of such item indicated in the Agreement;

2. there is no corresponding adjustment with respect to any other item of Work; and

3. Contractor believes that it is entitled to an increase in Contract Price as a result of having incurred additional expense or Owner believes that Owner is entitled to a decrease in Contract Price, and the parties are unable to agree as to the amount of any such increase or decrease.

ARTICLE 14 – TESTS AND INSPECTIONS; CORRECTION, REMOVAL OR ACCEPTANCE OF DEFECTIVE WORK

14.01 *Access to Work*

A. Owner, Engineer, their consultants and other representatives and personnel of Owner, independent testing laboratories, and authorities having jurisdiction will have access to the Site and the Work at reasonable times for their observation, inspection, and testing. Contractor shall provide them proper and safe conditions for such access and advise them of Contractor's safety procedures and programs so that they may comply therewith as applicable.

14.02 *Tests, Inspections, and Approvals*

A. Contractor shall give Engineer timely notice of readiness of the Work (or specific parts thereof) for all required inspections and tests, and shall cooperate with inspection and testing personnel to facilitate required inspections and tests.

B. Owner shall retain and pay for the services of an independent inspector, testing laboratory, or other qualified individual or entity to perform all inspections and tests expressly required by the Contract Documents to be furnished and paid for by Owner, except that costs incurred in connection with tests or inspections of covered Work shall be governed by the provisions of Paragraph 14.05.

C. If Laws or Regulations of any public body having jurisdiction require any Work (or part thereof) specifically to be inspected, tested, or approved by an employee or other representative of such public body, Contractor shall assume full responsibility for arranging and obtaining such inspections, tests, or approvals, pay all costs in connection therewith, and furnish Engineer the required certificates of inspection or approval.

D. Contractor shall be responsible for arranging, obtaining, and paying for all inspections and tests required:

1. by the Contract Documents, unless the Contract Documents expressly allocate responsibility for a specific inspection or test to Owner;

2. to attain Owner's and Engineer's acceptance of materials or equipment to be incorporated in the Work;

3. by manufacturers of equipment furnished under the Contract Documents;

4. for testing, adjusting, and balancing of mechanical, electrical, and other equipment to be incorporated into the Work; and

5. for acceptance of materials, mix designs, or equipment submitted for approval prior to Contractor's purchase thereof for incorporation in the Work.

Such inspections and tests shall be performed by independent inspectors, testing laboratories, or other qualified individuals or entities acceptable to Owner and Engineer.

E. If the Contract Documents require the Work (or part thereof) to be approved by Owner, Engineer, or another designated individual or entity, then Contractor shall assume full responsibility for arranging and obtaining such approvals.

F. If any Work (or the work of others) that is to be inspected, tested, or approved is covered by Contractor without written concurrence of Engineer, Contractor shall, if requested by Engineer, uncover such Work for observation. Such uncovering shall be at Contractor's expense unless Contractor had given Engineer timely notice of Contractor's intention to cover the same and Engineer had not acted with reasonable promptness in response to such notice.

14.03 *Defective Work*

A. *Contractor's Obligation*: It is Contractor's obligation to assure that the Work is not defective.

B. *Engineer's Authority*: Engineer has the authority to determine whether Work is defective, and to reject defective Work.

C. *Notice of Defects*: Prompt notice of all defective Work of which Owner or Engineer has actual knowledge will be given to Contractor.

D. *Correction, or Removal and Replacement*: Promptly after receipt of written notice of defective Work, Contractor shall correct all such defective Work, whether or not fabricated, installed, or completed, or, if Engineer has rejected the defective Work, remove it from the Project and replace it with Work that is not defective.

E. *Preservation of Warranties*: When correcting defective Work, Contractor shall take no action that would void or otherwise impair Owner's special warranty and guarantee, if any, on said Work.

F. *Costs and Damages*: In addition to its correction, removal, and replacement obligations with respect to defective Work, Contractor shall pay all claims, costs, losses, and damages arising out of or relating to defective Work, including but not limited to the cost of the inspection, testing, correction, removal, replacement, or reconstruction of such defective Work, fines levied against Owner by governmental authorities because the Work is defective, and the costs of repair or replacement of work of others resulting from defective Work. Prior to final payment, if Owner and Contractor are unable to agree as to the measure of such claims, costs,

losses, and damages resulting from defective Work, then Owner may impose a reasonable set-off against payments due under Article 15.

14.04 *Acceptance of Defective Work*

A. If, instead of requiring correction or removal and replacement of defective Work, Owner prefers to accept it, Owner may do so (subject, if such acceptance occurs prior to final payment, to Engineer's confirmation that such acceptance is in general accord with the design intent and applicable engineering principles, and will not endanger public safety). Contractor shall pay all claims, costs, losses, and damages attributable to Owner's evaluation of and determination to accept such defective Work (such costs to be approved by Engineer as to reasonableness), and for the diminished value of the Work to the extent not otherwise paid by Contractor. If any such acceptance occurs prior to final payment, the necessary revisions in the Contract Documents with respect to the Work shall be incorporated in a Change Order. If the parties are unable to agree as to the decrease in the Contract Price, reflecting the diminished value of Work so accepted, then Owner may impose a reasonable set-off against payments due under Article 15. If the acceptance of defective Work occurs after final payment, Contractor shall pay an appropriate amount to Owner.

14.05 *Uncovering Work*

A. Engineer has the authority to require special inspection or testing of the Work, whether or not the Work is fabricated, installed, or completed.

B. If any Work is covered contrary to the written request of Engineer, then Contractor shall, if requested by Engineer, uncover such Work for Engineer's observation, and then replace the covering, all at Contractor's expense.

C. If Engineer considers it necessary or advisable that covered Work be observed by Engineer or inspected or tested by others, then Contractor, at Engineer's request, shall uncover, expose, or otherwise make available for observation, inspection, or testing as Engineer may require, that portion of the Work in question, and provide all necessary labor, material, and equipment.

1. If it is found that the uncovered Work is defective, Contractor shall be responsible for all claims, costs, losses, and damages arising out of or relating to such uncovering, exposure, observation, inspection, and testing, and of satisfactory replacement or reconstruction (including but not limited to all costs of repair or replacement of work of others); and pending Contractor's full discharge of this responsibility the Owner shall be entitled to impose a reasonable set-off against payments due under Article 15.

2. If the uncovered Work is not found to be defective, Contractor shall be allowed an increase in the Contract Price or an extension of the Contract Times, or both, directly attributable to such uncovering, exposure, observation, inspection, testing, replacement, and reconstruction. If the parties are unable to agree as to the amount or extent thereof, then Contractor may submit a Change Proposal within 30 days of the determination that the Work is not defective.

14.06 *Owner May Stop the Work*

A. If the Work is defective, or Contractor fails to supply sufficient skilled workers or suitable materials or equipment, or fails to perform the Work in such a way that the completed Work will conform to the Contract Documents, then Owner may order Contractor to stop the Work, or any portion thereof, until the cause for such order has been eliminated; however, this right of Owner to stop the Work shall not give rise to any duty on the part of Owner to exercise this right for the benefit of Contractor, any Subcontractor, any Supplier, any other individual or entity, or any surety for, or employee or agent of any of them.

14.07 *Owner May Correct Defective Work*

A. If Contractor fails within a reasonable time after written notice from Engineer to correct defective Work, or to remove and replace rejected Work as required by Engineer, or if Contractor fails to perform the Work in accordance with the Contract Documents, or if Contractor fails to comply with any other provision of the Contract Documents, then Owner may, after seven days written notice to Contractor, correct or remedy any such deficiency.

B. In exercising the rights and remedies under this Paragraph 14.07, Owner shall proceed expeditiously. In connection with such corrective or remedial action, Owner may exclude Contractor from all or part of the Site, take possession of all or part of the Work and suspend Contractor's services related thereto, and incorporate in the Work all materials and equipment stored at the Site or for which Owner has paid Contractor but which are stored elsewhere. Contractor shall allow Owner, Owner's representatives, agents and employees, Owner's other contractors, and Engineer and Engineer's consultants access to the Site to enable Owner to exercise the rights and remedies under this paragraph.

C. All claims, costs, losses, and damages incurred or sustained by Owner in exercising the rights and remedies under this Paragraph 14.07 will be charged against Contractor as set-offs against payments due under Article 15. Such claims, costs, losses and damages will include but not be limited to all costs of repair, or replacement of work of others destroyed or damaged by correction, removal, or replacement of Contractor's defective Work.

D. Contractor shall not be allowed an extension of the Contract Times because of any delay in the performance of the Work attributable to the exercise by Owner of Owner's rights and remedies under this Paragraph 14.07.

ARTICLE 15 – PAYMENTS TO CONTRACTOR; SET-OFFS; COMPLETION; CORRECTION PERIOD

15.01 *Progress Payments*

A. *Basis for Progress Payments*: The Schedule of Values established as provided in Article 2 will serve as the basis for progress payments and will be incorporated into a form of Application for Payment acceptable to Engineer. Progress payments on account of Unit Price Work will be based on the number of units completed during the pay period, as determined under the provisions of Paragraph 13.03. Progress payments for cost-based Work will be based on Cost of the Work completed by Contractor during the pay period.

B. *Applications for Payments*:

1. At least 20 days before the date established in the Agreement for each progress payment (but not more often than once a month), Contractor shall submit to Engineer for review an Application for Payment filled out and signed by Contractor covering the Work completed as of the date of the Application and accompanied by such supporting documentation as is required by the Contract Documents. If payment is requested on the basis of materials and equipment not incorporated in the Work but delivered and suitably stored at the Site or at another location agreed to in writing, the Application for Payment shall also be accompanied by a bill of sale, invoice, or other documentation warranting that Owner has received the materials and equipment free and clear of all Liens, and evidence that the materials and equipment are covered by appropriate property insurance, a warehouse bond, or other arrangements to protect Owner's interest therein, all of which must be satisfactory to Owner.

2. Beginning with the second Application for Payment, each Application shall include an affidavit of Contractor stating that all previous progress payments received on account of the Work have been applied on account to discharge Contractor's legitimate obligations associated with prior Applications for Payment.

3. The amount of retainage with respect to progress payments will be as stipulated in the Agreement.

C. *Review of Applications*:

1. Engineer will, within 10 days after receipt of each Application for Payment, including each resubmittal, either indicate in writing a recommendation of payment and present the Application to Owner, or return the Application to Contractor indicating in writing Engineer's reasons for refusing to recommend payment. In the latter case, Contractor may make the necessary corrections and resubmit the Application.

2. Engineer's recommendation of any payment requested in an Application for Payment will constitute a representation by Engineer to Owner, based on Engineer's observations of the executed Work as an experienced and qualified design professional, and on Engineer's review of the Application for Payment and the accompanying data and schedules, that to the best of Engineer's knowledge, information and belief:

   a. the Work has progressed to the point indicated;

   b. the quality of the Work is generally in accordance with the Contract Documents (subject to an evaluation of the Work as a functioning whole prior to or upon Substantial Completion, the results of any subsequent tests called for in the Contract Documents, a final determination of quantities and classifications for Unit Price Work under Paragraph 13.03, and any other qualifications stated in the recommendation); and

   c. the conditions precedent to Contractor's being entitled to such payment appear to have been fulfilled in so far as it is Engineer's responsibility to observe the Work.

3. By recommending any such payment Engineer will not thereby be deemed to have represented that:

   a. inspections made to check the quality or the quantity of the Work as it has been performed have been exhaustive, extended to every aspect of the Work in progress, or involved detailed inspections of the Work beyond the responsibilities specifically assigned to Engineer in the Contract; or

   b. there may not be other matters or issues between the parties that might entitle Contractor to be paid additionally by Owner or entitle Owner to withhold payment to Contractor.

4. Neither Engineer's review of Contractor's Work for the purposes of recommending payments nor Engineer's recommendation of any payment, including final payment, will impose responsibility on Engineer:

   a. to supervise, direct, or control the Work, or

   b. for the means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or

   c. for Contractor's failure to comply with Laws and Regulations applicable to Contractor's performance of the Work, or

   d. to make any examination to ascertain how or for what purposes Contractor has used the money paid on account of the Contract Price, or

   e. to determine that title to any of the Work, materials, or equipment has passed to Owner free and clear of any Liens.

5. Engineer may refuse to recommend the whole or any part of any payment if, in Engineer's opinion, it would be incorrect to make the representations to Owner stated in Paragraph 15.01.C.2.

6. Engineer will recommend reductions in payment (set-offs) necessary in Engineer's opinion to protect Owner from loss because:

   a. the Work is defective, requiring correction or replacement;

   b. the Contract Price has been reduced by Change Orders;

   c. Owner has been required to correct defective Work in accordance with Paragraph 14.07, or has accepted defective Work pursuant to Paragraph 14.04;

   d. Owner has been required to remove or remediate a Hazardous Environmental Condition for which Contractor is responsible; or

   e. Engineer has actual knowledge of the occurrence of any of the events that would constitute a default by Contractor and therefore justify termination for cause under the Contract Documents.

D. *Payment Becomes Due*:

1. Ten days after presentation of the Application for Payment to Owner with Engineer's recommendation, the amount recommended (subject to any Owner set-offs) will become due, and when due will be paid by Owner to Contractor.

E. *Reductions in Payment by Owner*:

1. In addition to any reductions in payment (set-offs) recommended by Engineer, Owner is entitled to impose a set-off against payment based on any of the following:

   a. claims have been made against Owner on account of Contractor's conduct in the performance or furnishing of the Work, or Owner has incurred costs, losses, or damages on account of Contractor's conduct in the performance or furnishing of the Work, including but not limited to claims, costs, losses, or damages from workplace injuries, adjacent property damage, non-compliance with Laws and Regulations, and patent infringement;

   b. Contractor has failed to take reasonable and customary measures to avoid damage, delay, disruption, and interference with other work at or adjacent to the Site;

   c. Contractor has failed to provide and maintain required bonds or insurance;

   d. Owner has been required to remove or remediate a Hazardous Environmental Condition for which Contractor is responsible;

   e. Owner has incurred extra charges or engineering costs related to submittal reviews, evaluations of proposed substitutes, tests and inspections, or return visits to manufacturing or assembly facilities;

   f. the Work is defective, requiring correction or replacement;

   g. Owner has been required to correct defective Work in accordance with Paragraph 14.07, or has accepted defective Work pursuant to Paragraph 14.04;

   h. the Contract Price has been reduced by Change Orders;

   i. an event that would constitute a default by Contractor and therefore justify a termination for cause has occurred;

   j. liquidated damages have accrued as a result of Contractor's failure to achieve Milestones, Substantial Completion, or final completion of the Work;

   k. Liens have been filed in connection with the Work, except where Contractor has delivered a specific bond satisfactory to Owner to secure the satisfaction and discharge of such Liens;

l. there are other items entitling Owner to a set off against the amount recommended.

2. If Owner imposes any set-off against payment, whether based on its own knowledge or on the written recommendations of Engineer, Owner will give Contractor immediate written notice (with a copy to Engineer) stating the reasons for such action and the specific amount of the reduction, and promptly pay Contractor any amount remaining after deduction of the amount so withheld. Owner shall promptly pay Contractor the amount so withheld, or any adjustment thereto agreed to by Owner and Contractor, if Contractor remedies the reasons for such action. The reduction imposed shall be binding on Contractor unless it duly submits a Change Proposal contesting the reduction.

3. Upon a subsequent determination that Owner's refusal of payment was not justified, the amount wrongfully withheld shall be treated as an amount due as determined by Paragraph 15.01.C.1 and subject to interest as provided in the Agreement.

15.02 *Contractor's Warranty of Title*

A. Contractor warrants and guarantees that title to all Work, materials, and equipment furnished under the Contract will pass to Owner free and clear of (1) all Liens and other title defects, and (2) all patent, licensing, copyright, or royalty obligations, no later than seven days after the time of payment by Owner.

15.03 *Substantial Completion*

A. When Contractor considers the entire Work ready for its intended use Contractor shall notify Owner and Engineer in writing that the entire Work is substantially complete and request that Engineer issue a certificate of Substantial Completion. Contractor shall at the same time submit to Owner and Engineer an initial draft of punch list items to be completed or corrected before final payment.

B. Promptly after Contractor's notification, Owner, Contractor, and Engineer shall make an inspection of the Work to determine the status of completion. If Engineer does not consider the Work substantially complete, Engineer will notify Contractor in writing giving the reasons therefor.

C. If Engineer considers the Work substantially complete, Engineer will deliver to Owner a preliminary certificate of Substantial Completion which shall fix the date of Substantial Completion. Engineer shall attach to the certificate a punch list of items to be completed or corrected before final payment. Owner shall have seven days after receipt of the preliminary certificate during which to make written objection to Engineer as to any provisions of the certificate or attached punch list. If, after considering the objections to the provisions of the preliminary certificate, Engineer concludes that the Work is not substantially complete, Engineer will, within 14 days after submission of the preliminary certificate to Owner, notify Contractor in writing that the Work is not substantially complete, stating the reasons therefor. If Owner does not object to the provisions of the certificate, or if despite consideration of Owner's objections Engineer concludes that the Work is substantially complete, then Engineer will, within said 14 days, execute and deliver to Owner and Contractor a final certificate of Substantial Completion (with a revised punch list of items to be completed or corrected) reflecting such changes from the preliminary certificate as Engineer believes justified after consideration of any objections from Owner.

D. At the time of receipt of the preliminary certificate of Substantial Completion, Owner and Contractor will confer regarding Owner's use or occupancy of the Work following Substantial Completion, review the builder's risk insurance policy with respect to the end of the builder's risk coverage, and confirm the transition to coverage of the Work under a permanent property insurance policy held by Owner. Unless Owner and Contractor agree otherwise in writing, Owner shall bear responsibility for security, operation, protection of the Work, property insurance, maintenance, heat, and utilities upon Owner's use or occupancy of the Work.

E. After Substantial Completion the Contractor shall promptly begin work on the punch list of items to be completed or corrected prior to final payment. In appropriate cases Contractor may submit monthly Applications for Payment for completed punch list items, following the progress payment procedures set forth above.

F. Owner shall have the right to exclude Contractor from the Site after the date of Substantial Completion subject to allowing Contractor reasonable access to remove its property and complete or correct items on the punch list.

15.04 *Partial Use or Occupancy*

A. Prior to Substantial Completion of all the Work, Owner may use or occupy any substantially completed part of the Work which has specifically been identified in the Contract Documents, or which Owner, Engineer, and Contractor agree constitutes a separately functioning and usable part of the Work that can be used by Owner for its intended purpose without significant interference with Contractor's performance of the remainder of the Work, subject to the following conditions:

1. At any time Owner may request in writing that Contractor permit Owner to use or occupy any such part of the Work that Owner believes to be substantially complete. If and when Contractor agrees that such part of the Work is substantially complete, Contractor, Owner, and Engineer will follow the procedures of Paragraph 15.03.A through E for that part of the Work.

2. At any time Contractor may notify Owner and Engineer in writing that Contractor considers any such part of the Work substantially complete and request Engineer to issue a certificate of Substantial Completion for that part of the Work.

3. Within a reasonable time after either such request, Owner, Contractor, and Engineer shall make an inspection of that part of the Work to determine its status of completion. If Engineer does not consider that part of the Work to be substantially complete, Engineer will notify Owner and Contractor in writing giving the reasons therefor. If Engineer considers that part of the Work to be substantially complete, the provisions of Paragraph 15.03 will apply with respect to certification of Substantial Completion of that part of the Work and the division of responsibility in respect thereof and access thereto.

4. No use or occupancy or separate operation of part of the Work may occur prior to compliance with the requirements of Paragraph 6.05 regarding builder's risk or other property insurance.

15.05 *Final Inspection*

A. Upon written notice from Contractor that the entire Work or an agreed portion thereof is complete, Engineer will promptly make a final inspection with Owner and Contractor and will notify Contractor in writing of all particulars in which this inspection reveals that the Work, or agreed portion thereof, is incomplete or defective. Contractor shall immediately take such measures as are necessary to complete such Work or remedy such deficiencies.

15.06 *Final Payment*

A. *Application for Payment*:

1. After Contractor has, in the opinion of Engineer, satisfactorily completed all corrections identified during the final inspection and has delivered, in accordance with the Contract Documents, all maintenance and operating instructions, schedules, guarantees, bonds, certificates or other evidence of insurance, certificates of inspection, annotated record documents (as provided in Paragraph 7.11), and other documents, Contractor may make application for final payment.

2. The final Application for Payment shall be accompanied (except as previously delivered) by:

   a. all documentation called for in the Contract Documents;

   b. consent of the surety, if any, to final payment;

   c. satisfactory evidence that all title issues have been resolved such that title to all Work, materials, and equipment has passed to Owner free and clear of any Liens or other title defects, or will so pass upon final payment.

   d. a list of all disputes that Contractor believes are unsettled; and

   e. complete and legally effective releases or waivers (satisfactory to Owner) of all Lien rights arising out of the Work, and of Liens filed in connection with the Work.

3. In lieu of the releases or waivers of Liens specified in Paragraph 15.06.A.2 and as approved by Owner, Contractor may furnish receipts or releases in full and an affidavit of Contractor that: (a) the releases and receipts include all labor, services, material, and equipment for which a Lien could be filed; and (b) all payrolls, material and equipment bills, and other indebtedness connected with the Work for which Owner might in any way be responsible, or which might in any way result in liens or other burdens on Owner's property, have been paid or otherwise satisfied. If any Subcontractor or Supplier fails to furnish such a release or receipt in full, Contractor may furnish a bond or other collateral satisfactory to Owner to indemnify Owner against any Lien, or Owner at its option may issue joint checks payable to Contractor and specified Subcontractors and Suppliers.

B. *Engineer's Review of Application and Acceptance*:

1. If, on the basis of Engineer's observation of the Work during construction and final inspection, and Engineer's review of the final Application for Payment and accompanying documentation as required by the Contract Documents, Engineer is satisfied that the Work has been completed and Contractor's other obligations under the Contract have been fulfilled, Engineer will, within ten days after receipt of the final Application for Payment, indicate in writing Engineer's recommendation of final payment and present the Application for Payment to Owner for payment. Such recommendation shall account for any set-offs against payment that are necessary in Engineer's opinion to protect Owner from loss for the reasons stated above with respect to progress payments. At the same time Engineer will also give written notice to Owner and Contractor that the Work is acceptable, subject to the provisions of Paragraph 15.07. Otherwise, Engineer will return the Application for Payment to Contractor, indicating in writing the reasons for refusing to recommend final payment, in which case Contractor shall make the necessary corrections and resubmit the Application for Payment.

C. *Completion of Work*: The Work is complete (subject to surviving obligations) when it is ready for final payment as established by the Engineer's written recommendation of final payment.

D. *Payment Becomes Due*: Thirty days after the presentation to Owner of the final Application for Payment and accompanying documentation, the amount recommended by Engineer (less any further sum Owner is entitled to set off against Engineer's recommendation, including but not limited to set-offs for liquidated damages and set-offs allowed under the provisions above with respect to progress payments) will become due and shall be paid by Owner to Contractor.

15.07 *Waiver of Claims*

A. The making of final payment will not constitute a waiver by Owner of claims or rights against Contractor. Owner expressly reserves claims and rights arising from unsettled Liens, from defective Work appearing after final inspection pursuant to Paragraph 15.05, from Contractor's failure to comply with the Contract Documents or the terms of any special

guarantees specified therein, from outstanding Claims by Owner, or from Contractor's continuing obligations under the Contract Documents.

B. The acceptance of final payment by Contractor will constitute a waiver by Contractor of all claims and rights against Owner other than those pending matters that have been duly submitted or appealed under the provisions of Article 17.

15.08 *Correction Period*

A. If within one year after the date of Substantial Completion (or such longer period of time as may be prescribed by the terms of any applicable special guarantee required by the Contract Documents, or by any specific provision of the Contract Documents), any Work is found to be defective, or if the repair of any damages to the Site, adjacent areas that Contractor has arranged to use through construction easements or otherwise, and other adjacent areas used by Contractor as permitted by Laws and Regulations, is found to be defective, then Contractor shall promptly, without cost to Owner and in accordance with Owner's written instructions:

1. correct the defective repairs to the Site or such other adjacent areas;
2. correct such defective Work;
3. if the defective Work has been rejected by Owner, remove it from the Project and replace it with Work that is not defective, and
4. satisfactorily correct or repair or remove and replace any damage to other Work, to the work of others, or to other land or areas resulting therefrom.

B. If Contractor does not promptly comply with the terms of Owner's written instructions, or in an emergency where delay would cause serious risk of loss or damage, Owner may have the defective Work corrected or repaired or may have the rejected Work removed and replaced. Contractor shall pay all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such correction or repair or such removal and replacement (including but not limited to all costs of repair or replacement of work of others).

C. In special circumstances where a particular item of equipment is placed in continuous service before Substantial Completion of all the Work, the correction period for that item may start to run from an earlier date if so provided in the Specifications.

D. Where defective Work (and damage to other Work resulting therefrom) has been corrected or removed and replaced under this paragraph, the correction period hereunder with respect to such Work will be extended for an additional period of one year after such correction or removal and replacement has been satisfactorily completed.

E. Contractor's obligations under this paragraph are in addition to all other obligations and warranties. The provisions of this paragraph shall not be construed as a substitute for, or a waiver of, the provisions of any applicable statute of limitation or repose.

ARTICLE 16 – SUSPENSION OF WORK AND TERMINATION

16.01 *Owner May Suspend Work*

A. At any time and without cause, Owner may suspend the Work or any portion thereof for a period of not more than 90 consecutive days by written notice to Contractor and Engineer. Such notice will fix the date on which Work will be resumed. Contractor shall resume the Work on the date so fixed. Contractor shall be entitled to an adjustment in the Contract Price or an extension of the Contract Times, or both, directly attributable to any such suspension.

Any Change Proposal seeking such adjustments shall be submitted no later than 30 days after the date fixed for resumption of Work.

16.02 *Owner May Terminate for Cause*

A. The occurrence of any one or more of the following events will constitute a default by Contractor and justify termination for cause:

1. Contractor's persistent failure to perform the Work in accordance with the Contract Documents (including, but not limited to, failure to supply sufficient skilled workers or suitable materials or equipment or failure to adhere to the Progress Schedule);

2. Failure of Contractor to perform or otherwise to comply with a material term of the Contract Documents;

3. Contractor's disregard of Laws or Regulations of any public body having jurisdiction; or

4. Contractor's repeated disregard of the authority of Owner or Engineer.

B. If one or more of the events identified in Paragraph 16.02.A occurs, then after giving Contractor (and any surety) ten days written notice that Owner is considering a declaration that Contractor is in default and termination of the contract, Owner may proceed to:

1. declare Contractor to be in default, and give Contractor (and any surety) notice that the Contract is terminated; and

2. enforce the rights available to Owner under any applicable performance bond.

C. Subject to the terms and operation of any applicable performance bond, if Owner has terminated the Contract for cause, Owner may exclude Contractor from the Site, take possession of the Work, incorporate in the Work all materials and equipment stored at the Site or for which Owner has paid Contractor but which are stored elsewhere, and complete the Work as Owner may deem expedient.

D. Owner may not proceed with termination of the Contract under Paragraph 16.02.B if Contractor within seven days of receipt of notice of intent to terminate begins to correct its failure to perform and proceeds diligently to cure such failure.

E. If Owner proceeds as provided in Paragraph 16.02.B, Contractor shall not be entitled to receive any further payment until the Work is completed. If the unpaid balance of the Contract Price exceeds the cost to complete the Work, including all related claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals) sustained by Owner, such excess will be paid to Contractor. If the cost to complete the Work including such related claims, costs, losses, and damages exceeds such unpaid balance, Contractor shall pay the difference to Owner. Such claims, costs, losses, and damages incurred by Owner will be reviewed by Engineer as to their reasonableness and, when so approved by Engineer, incorporated in a Change Order. When exercising any rights or remedies under this paragraph, Owner shall not be required to obtain the lowest price for the Work performed.

F. Where Contractor's services have been so terminated by Owner, the termination will not affect any rights or remedies of Owner against Contractor then existing or which may thereafter accrue, or any rights or remedies of Owner against Contractor or any surety under any payment bond or performance bond. Any retention or payment of money due Contractor by Owner will not release Contractor from liability.

G. If and to the extent that Contractor has provided a performance bond under the provisions of Paragraph 6.01.A, the provisions of that bond shall govern over any inconsistent provisions of Paragraphs 16.02.B and 16.02.D.

16.03 *Owner May Terminate For Convenience*

A. Upon seven days written notice to Contractor and Engineer, Owner may, without cause and without prejudice to any other right or remedy of Owner, terminate the Contract. In such case, Contractor shall be paid for (without duplication of any items):

1. completed and acceptable Work executed in accordance with the Contract Documents prior to the effective date of termination, including fair and reasonable sums for overhead and profit on such Work;

2. expenses sustained prior to the effective date of termination in performing services and furnishing labor, materials, or equipment as required by the Contract Documents in connection with uncompleted Work, plus fair and reasonable sums for overhead and profit on such expenses; and

3. other reasonable expenses directly attributable to termination, including costs incurred to prepare a termination for convenience cost proposal.

B. Contractor shall not be paid on account of loss of anticipated overhead, profits, or revenue, or other economic loss arising out of or resulting from such termination.

16.04 *Contractor May Stop Work or Terminate*

A. If, through no act or fault of Contractor, (1) the Work is suspended for more than 90 consecutive days by Owner or under an order of court or other public authority, or (2) Engineer fails to act on any Application for Payment within 30 days after it is submitted, or (3) Owner fails for 30 days to pay Contractor any sum finally determined to be due, then Contractor may, upon seven days written notice to Owner and Engineer, and provided Owner or Engineer do not remedy such suspension or failure within that time, terminate the contract and recover from Owner payment on the same terms as provided in Paragraph 16.03.

B. In lieu of terminating the Contract and without prejudice to any other right or remedy, if Engineer has failed to act on an Application for Payment within 30 days after it is submitted, or Owner has failed for 30 days to pay Contractor any sum finally determined to be due, Contractor may, seven days after written notice to Owner and Engineer, stop the Work until payment is made of all such amounts due Contractor, including interest thereon. The provisions of this paragraph are not intended to preclude Contractor from submitting a Change Proposal for an adjustment in Contract Price or Contract Times or otherwise for expenses or damage directly attributable to Contractor's stopping the Work as permitted by this paragraph.

ARTICLE 17 – FINAL RESOLUTION OF DISPUTES

17.01 *Methods and Procedures*

A. *Disputes Subject to Final Resolution*: The following disputed matters are subject to final resolution under the provisions of this Article:

1. A timely appeal of an approval in part and denial in part of a Claim, or of a denial in full; and

2. Disputes between Owner and Contractor concerning the Work or obligations under the Contract Documents, and arising after final payment has been made.

B. *Final Resolution of Disputes*: For any dispute subject to resolution under this Article, Owner or Contractor may:

1. elect in writing to invoke the dispute resolution process provided for in the Supplementary Conditions; or

2. agree with the other party to submit the dispute to another dispute resolution process; or

3. if no dispute resolution process is provided for in the Supplementary Conditions or mutually agreed to, give written notice to the other party of the intent to submit the dispute to a court of competent jurisdiction.

ARTICLE 18 – MISCELLANEOUS

18.01 *Giving Notice*

A. Whenever any provision of the Contract Documents requires the giving of written notice, it will be deemed to have been validly given if:

1. delivered in person, by a commercial courier service or otherwise, to the individual or to a member of the firm or to an officer of the corporation for which it is intended; or

2. delivered at or sent by registered or certified mail, postage prepaid, to the last business address known to the sender of the notice.

18.02 *Computation of Times*

A. When any period of time is referred to in the Contract by days, it will be computed to exclude the first and include the last day of such period. If the last day of any such period falls on a Saturday or Sunday or on a day made a legal holiday by the law of the applicable jurisdiction, such day will be omitted from the computation.

18.03 *Cumulative Remedies*

A. The duties and obligations imposed by these General Conditions and the rights and remedies available hereunder to the parties hereto are in addition to, and are not to be construed in any way as a limitation of, any rights and remedies available to any or all of them which are otherwise imposed or available by Laws or Regulations, by special warranty or guarantee, or by other provisions of the Contract. The provisions of this paragraph will be as effective as if repeated specifically in the Contract Documents in connection with each particular duty, obligation, right, and remedy to which they apply.

18.04 *Limitation of Damages*

A. With respect to any and all Change Proposals, Claims, disputes subject to final resolution, and other matters at issue, neither Owner nor Engineer, nor any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors, shall be liable to Contractor for any claims, costs, losses, or damages sustained by Contractor on or in connection with any other project or anticipated project.

18.05 *No Waiver*

A. A party's non-enforcement of any provision shall not constitute a waiver of that provision, nor shall it affect the enforceability of that provision or of the remainder of this Contract.

18.06 *Survival of Obligations*

A. All representations, indemnifications, warranties, and guarantees made in, required by, or given in accordance with the Contract, as well as all continuing obligations indicated in the Contract, will survive final payment, completion, and acceptance of the Work or termination or completion of the Contract or termination of the services of Contractor.

18.07 *Controlling Law*

A. This Contract is to be governed by the law of the state in which the Project is located.

18.08 *Headings*

A. Article and paragraph headings are inserted for convenience only and do not constitute parts of these General Conditions.

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Supplementary Conditions

These Supplementary Conditions amend or supplement the Standard General Conditions of the Construction Contract, EJCDC® C-700 (2013 Edition). All provisions that are not so amended or supplemented remain in full force and effect.

The terms used in these Supplementary Conditions have the meanings stated in the General Conditions. Additional terms used in these Supplementary Conditions have the meanings stated below, which are applicable to both the singular and plural thereof.

The address system used in these Supplementary Conditions is the same as the address system used in the General Conditions, with the prefix "SC" added thereto.

ARTICLE 5 – AVAILABILITY OF LANDS; SUBSURFACE AND PHYSICAL CONDITIONS; HAZARDOUS ENVIRONMENTAL CONDITIONS

SC-5.03 Subsurface and Physical Conditions

SC-5.03 Delete Paragraphs 5.03.A and 5.03.B in their entirety and insert the following:

A. No reports of exploration or test of subsurface conditions at or adjacent to the Site, or drawings of physical conditions relating to existing surface or subsurface structures at the Site, are known to the Owner.

SC-5.06 Hazardous Environmental Conditions

SC 5.06 Delete Paragraphs 5.06.A and 5.06.B in their entirety and insert the following:

A. No reports or drawings related to Hazardous Environmental Conditions at the Site are known to Owner.

B. Not Used.

ARTICLE 6 – BONDS AND INSURANCE

SC-6.03 Contractor's Liability Insurance

SC 6.03 Add the following new paragraph immediately after Paragraph 6.03.J:

K. The limits of liability for the insurance required by Paragraph 6.03 of the General Conditions shall provide coverage for not less than the following amounts or greater where required by Laws and Regulations:

1. Workers' Compensation, and related coverages under Paragraphs 6.03.A.1 and A.2 of the General Conditions:

$1,000,000.00 limit each accident

2. Contractor's Commercial General Liability under Paragraphs 6.03.B and 6.03.C of the General Conditions:

Combined single limit of $1,000,000.00 each occurrence for bodily injury 7 property damage. Must include 60 day written notice for change of coverate, cancellation, or non-renewal of coverate. Must name "The Charter Township of Ypsilanti and its past, present, and future elected officials shall be named as "additional named insured" on the general liability policy with respect to the services provided under this contract' – Occurrence basis.

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3. **Automobile Liability under Paragraph 6.03.D of the General Conditions:**

   Covers owned, hired, and non-owned vehicles with personal protection insurance and property protection. Includes residual liability insurance with a combined single limit of $1,000,000.00 each accident for bodily injury and property damage.

4. **Owner's Protective Liability**

   Combined single limit of $1,000,000.00 each occurrence for bodily injury & property damage.

5. **Builder's Risk**

   Option. May be used to cover everything.

ARTICLE 7 – CONTRACTOR'S RESPONSIBILITIES

SC-7.02 Labor; Working Hours

SC-7.02.B. Add the following new subparagraphs immediately after Paragraph 7.02.B:

1. **Regular working hours will be** *7 A.M to 7 P.M.*
2. **Owner's legal holidays shall be defined as U.S. Federal Holidays.**

SC-7.02.B. Amend the first and second sentences of Paragraph 7.02.B to state "…all Work at the Site shall be performed during regular working hours, Monday through Saturday. Contractor will not perform Work on a Sunday or any legal holiday."

SC-7.08 Permits

SC 7.08 Add the following new subparagraphs immediately after Paragraph 7.08.A:

B. A Soil Erosion and Sedimentation Control (SESC) Permit is not required since the Owner is an Authorized Public Agency (APA). However, the Contractor will need to construct the project in accordance with SESC measure as described in the bidding plans and specifications.

ARTICLE 10 – ENGINEER'S STATUS DURING CONSTRUCTION

SC-10.03 Project Representative

SC-10.03 Add the following new paragraphs immediately after Paragraph 10.03.A:

B. The Resident Project Representative (RPR) will be Engineer's representative at the Site, will act as directed by and under the supervision of Engineer, and will confer with Engineer regarding RPR's actions.

1. **General: RPR's dealings in matters pertaining to the Work in general shall be with Engineer and Contractor. RPR's dealings with Subcontractors shall only be through or with the full knowledge and approval of Contractor. RPR shall generally communicate with Owner only with the knowledge of and under the direction of Engineer.**
2. **Schedules: Review the progress schedule, schedule of Shop Drawing and Sample submittals, and Schedule of Values prepared by Contractor and consult with Engineer concerning acceptability.**
3. **Conferences and Meetings: Attend meetings with Contractor, such as preconstruction conferences, progress meetings, job conferences, and other**

Project-related meetings, and prepare and circulate copies of minutes thereof.

4. **Liaison:**

   a. **Serve as Engineer's liaison with Contractor. Working principally through Contractor's authorized representative or designee, assist in providing information regarding the provisions and intent of the Contract Documents.**

   b. **Assist Engineer in serving as Owner's liaison with Contractor when Contractor's operations affect Owner's on-Site operations.**

   c. **Assist in obtaining from Owner additional details or information, when required for proper execution of the Work.**

5. **Interpretation of Contract Documents: Report to Engineer when clarifications and interpretations of the Contract Documents are needed and transmit to Contractor clarifications and interpretations as issued by Engineer.**

6. **Shop Drawings and Samples:**

   a. **Record date of receipt of Samples and Contractor-approved Shop Drawings.**

   b. **Receive Samples which are furnished at the Site by Contractor, and notify Engineer of availability of Samples for examination.**

   c. **Advise Engineer and Contractor of the commencement of any portion of the Work requiring a Shop Drawing or Sample submittal for which RPR believes that the submittal has not been approved by Engineer.**

7. **Modifications: Consider and evaluate Contractor's suggestions for modifications in Drawings or Specifications and report such suggestions, together with RPR's recommendations, if any, to Engineer. Transmit to Contractor in writing decisions as issued by Engineer.**

8. **Review of Work and Rejection of Defective Work:**

   a. **Conduct on-Site observations of Contractor's work in progress to assist Engineer in determining if the Work is in general proceeding in accordance with the Contract Documents.**

   b. **Report to Engineer whenever RPR believes that any part of Contractor's work in progress is defective, will not produce a completed Project that conforms generally to the Contract Documents, or will imperil the integrity of the design concept of the completed Project as a functioning whole as indicated in the Contract Documents, or has been damaged, or does not meet the requirements of any inspection, test or approval required to be made; and advise Engineer of that part of work in progress that RPR believes should be corrected or rejected or should be uncovered for observation, or requires special testing, inspection or approval.**

9. **Inspections, Tests, and System Start-ups:**

   a. **Verify that tests, equipment, and systems start-ups and operating and maintenance training are conducted in the presence of appropriate Owner's personnel, and that Contractor maintains adequate records thereof.**

b. **Observe, record, and report to Engineer appropriate details relative to the test procedures and systems start-ups.**

10. **Records:**

    a. **Prepare a daily report or keep a diary or log book, recording Contractor's hours on the Site, Subcontractors present at the Site, weather conditions, data relative to questions of Change Orders, Field Orders, Work Change Directives, or changed conditions, Site visitors, deliveries of equipment or materials, daily activities, decisions, observations in general, and specific observations in more detail as in the case of observing test procedures; and send copies to Engineer.**

    b. **Record names, addresses, fax numbers, e-mail addresses, web site locations, and telephone numbers of all Contractors, Subcontractors, and major Suppliers of materials and equipment.**

    c. **Maintain records for use in preparing Project documentation.**

11. **Reports:**

    a. **Furnish to Engineer periodic reports as required of progress of the Work and of Contractor's compliance with the Progress Schedule and schedule of Shop Drawing and Sample submittals.**

    b. **Draft and recommend to Engineer proposed Change Orders, Work Change Directives, and Field Orders. Obtain backup material from Contractor.**

    c. **Immediately notify Engineer of the occurrence of any Site accidents, emergencies, acts of God endangering the Work, force majeure or delay events, damage to property by fire or other causes, or the discovery of any Constituent of Concern or Hazardous Environmental Condition.**

12. **Payment Requests: Review applications for payment with Contractor for compliance with the established procedure for their submission and forward with recommendations to Engineer, noting particularly the relationship of the payment requested to the Schedule of Values, Work completed, and materials and equipment delivered at the Site but not incorporated in the Work.**

13. **Certificates, Operation and Maintenance Manuals: During the course of the Work, verify that materials and equipment certificates, operation and maintenance manuals and other data required by the Contract Documents to be assembled and furnished by Contractor are applicable to the items actually installed and in accordance with the Contract Documents, and have these documents delivered to Engineer for review and forwarding to Owner prior to payment for that part of the Work.**

14. **Completion:**

    a. **Participate in Engineer's visits to the Site to determine Substantial Completion, assist in the determination of Substantial Completion and the preparation of a punch list of items to be completed or corrected.**

    b. **Participate in Engineer's final visit to the Site to determine completion of the Work, in the company of Owner and Contractor, and prepare a final punch list of items to be completed and deficiencies to be remedied.**

c. **Observe whether all items on the final list have been completed or corrected and make recommendations to Engineer concerning acceptance and issuance of the notice of acceptability of the work.**

C. The RPR shall not:

1. **Authorize any deviation from the Contract Documents or substitution of materials or equipment (including "or-equal" items).**
2. **Exceed limitations of Engineer's authority as set forth in the Contract Documents.**
3. **Undertake any of the responsibilities of Contractor, Subcontractors, or Suppliers.**
4. **Advise on, issue directions relative to, or assume control over any aspect of the means, methods, techniques, sequences or procedures of Contractor's work.**
5. **Advise on, issue directions regarding, or assume control over security or safety practices, precautions, and programs in connection with the activities or operations of Owner or Contractor.**
6. **Participate in specialized field or laboratory tests or inspections conducted off-site by others except as specifically authorized by Engineer.**
7. **Accept Shop Drawing or Sample submittals from anyone other than Contractor.**
8. **Authorize Owner to occupy the Project in whole or in part.**

ARTICLE 13 – COST OF THE WORK; ALLOWANCES; UNIT PRICE WORK

SC-13.01 Cost of the Work

SC-13.01 Add the following to the end of Paragraph 13.01.B.1:

Contractor is required to observe and abide by The Charter Township of Ypsilanti's Prevailing Wage and Living Wage requirements. The relevant Township ordinances, as well as the relevant Prevailing Wage Decision are included in the Bidding Documents.

Work Change Directive No.

Date of Issuance:		Effective Date:	
Owner:	Ypsilanti Charter Township	Owner's Contract No.:	
Contractor:		Contractor's Project No.:	
Engineer:	Spicer Group, Inc.	Engineer's Project No.: 134586SG2023	
Project:	Ford Heritage Playground Surface Improvements	Contract Name: Ford Heritage Playground Surface Improvements	

Contractor is directed to proceed promptly with the following change(s):

Description:

Attachments: *[List documents supporting change]*

Purpose for Work Change Directive:

Directive to proceed promptly with the Work described herein, prior to agreeing to changes on Contract Price and Contract Time, is issued due to: *[check one or both of the following]*

☐ Non-agreement on pricing of proposed change.

☐ Necessity to proceed for schedule or other Project reasons.

Estimated Change in Contract Price and Contract Times (non-binding, preliminary):

Contract Price $ [increase] [decrease].

Contract Time days [increase] [decrease].

Basis of estimated change in Contract Price:

☐ Lump Sum ☐ Unit Price

☐ Cost of the Work ☐ Other

RECOMMENDED:	AUTHORIZED BY:	RECEIVED:
By:	By:	By:
Engineer (Authorized Signature)	Owner (Authorized Signature)	Contractor (Authorized Signature)
Title:	Title:	Title:
Date:	Date:	Date:

Approved by Funding Agency (if applicable)

By: Date:

Title:

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Change Order No. _____

Date of Issuance:	Effective Date:
Owner: Ypsilanti Charter Township	Owner's Contract No.:
Contractor:	Contractor's Project No.:
Engineer: Spicer Group, Inc.	Engineer's Project No.: 134586SG2023
Project: Ford Heritage Playground Surface Improvements	Contract Name: Ford Heritage Playground Surface Improvements

The Contract is modified as follows upon execution of this Change Order:

Description:

Attachments: *[List documents supporting change]*

CHANGE IN CONTRACT PRICE	**CHANGE IN CONTRACT TIMES** *[note changes in Milestones if applicable]*
Original Contract Price: $_____	Original Contract Times: Substantial Completion: _____ Ready for Final Payment: _____ days or dates
[Increase] [Decrease] from previously approved Change Orders No. ___ to No. ___: $_____	[Increase] [Decrease] from previously approved Change Orders No. ___ to No. ___: Substantial Completion: _____ Ready for Final Payment: _____ days
Contract Price prior to this Change Order: $_____	Contract Times prior to this Change Order: Substantial Completion: _____ Ready for Final Payment: _____ days or dates
[Increase] [Decrease] of this Change Order: $_____	[Increase] [Decrease] of this Change Order: Substantial Completion: _____ Ready for Final Payment: _____ days or dates
Contract Price incorporating this Change Order: $_____	Contract Times with all approved Change Orders: Substantial Completion: _____ Ready for Final Payment: _____ days or dates

RECOMMENDED:	ACCEPTED:	ACCEPTED:
By: _____	By: _____	By: _____
Engineer (if required)	Owner (Authorized Signature)	Contractor (Authorized Signature)
Title: _____	Title: _____	Title: _____
Date: _____	Date: _____	Date: _____

Approved by Funding Agency (if applicable)

By: _____ Date:

Title: _____

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Field Order No. _____

Date of Issuance:		Effective Date:	
Owner:	Ypsilanti Charter Township	Owner's Contract No.:	
Contractor:		Contractor's Project No.:	
Engineer:	Spicer group, Inc.	Engineer's Project No.:	134586SG2023
Project:	Ford Heritage Playground Surface Improvements	Contract Name: Ford Heritage Playground Surface Improvements	

Contractor is hereby directed to promptly execute this Field Order, issued in accordance with General Conditions Paragraph III "Changes in the Work", for minor changes in the Work without changes in Contract Price or Contract Times. If Contractor considers that a change in Contract Price or Contract Times is required, submit a Change Proposal before proceeding with this Work.

Reference: _____ Specification(s) _____ Drawing(s) / Detail(s)

Description:

Attachments:

ISSUED:	RECEIVED:
By: _____ Engineer (Authorized Signature)	By: _____ Contractor (Authorized Signature)
Title: _____	Title: _____
Date: _____	Date: _____

Copy to: Owner

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"General Decision Number: MI20240001 05/03/2024

Superseded General Decision Number: MI20230001

State: Michigan

Construction Types: Highway (Highway, Airport & Bridge xxxxx and Sewer/Incid. to Hwy.)

Counties: Michigan Statewide.

Note: Contracts subject to the Davis-Bacon Act are generally required to pay at least the applicable minimum wage rate required under Executive Order 14026 or Executive Order 13658. Please note that these Executive Orders apply to covered contracts entered into by the federal government that are subject to the Davis-Bacon Act itself, but do not apply to contracts subject only to the Davis-Bacon Related Acts, including those set forth at 29 CFR 5.1(a)(1).

If the contract is entered into on or after January 30, 2022, or the contract is renewed or extended (e.g., an option is exercised) on or after January 30, 2022:	. Executive Order 14026 generally applies to the contract. . The contractor must pay all covered workers at least $17.20 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract in 2024.
If the contract was awarded on or between January 1, 2015 and January 29, 2022, and the contract is not renewed or extended on or after January 30, 2022:	. Executive Order 13658 generally applies to the contract. . The contractor must pay all covered workers at least $12.90 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on that contract in 2024.

The applicable Executive Order minimum wage rate will be adjusted annually. If this contract is covered by one of the Executive Orders and a classification considered necessary for performance of work on the contract does not appear on this wage determination, the contractor must still submit a conformance request.

Additional information on contractor requirements and worker protections under the Executive Orders is available at

http://www.dol.gov/whd/govcontracts.

Modification Number	Publication Date
0	01/05/2024
1	02/23/2024
2	04/05/2024
3	04/19/2024
4	04/26/2024
5	05/03/2024

CARP0004-004 06/01/2019

REMAINDER OF STATE

	Rates	Fringes
CARPENTER (Piledriver)	$ 27.62	20.59

CARP0004-005 06/01/2018

LIVINGSTON (Townships of Brighton, Deerfield, Genoa, Hartland, Oceola & Tyrone), MACOMB, MONROE, OAKLAND, SANILAC, ST. CLAIR AND WAYNE COUNTIES

	Rates	Fringes
CARPENTER (Piledriver)	$ 30.50	27.28

ELEC0017-005 06/01/2023

STATEWIDE

	Rates	Fringes
Line Construction		
Groundman/Driver	$ 29.24	7.20+32%
Journeyman Signal Tech, Communications Tech, Tower Tech & Fiber Optic Splicers	$ 52.02	7.20+32%
Journeyman Specialist	$ 53.83	32%+7.20
Operator A	$ 37.13	7.20+32%
Operator B	$ 34.67	7.20+32%

Classifications

Journeyman Specialist: Refers to a crew of only one person working alone.
Operator A: Shall be proficient in operating all power equipment including: Backhoe, Excavator, Directional Bore and Boom/Digger truck.
Operator B: Shall be proficient in operating any 2 of the above mentioned pieces of equipment listed under Operator A.

ENGI0324-003 06/01/2023

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ALCONA, ALPENA, ARENAC, BAY, CHEBOYGAN, CLARE, CLINTON,
CRAWFORD, GENESEE, GLADWIN, GRATIOT, HURON, INGHAM, IOSCO,
ISABELLA, JACKSON, LAPEER, LENAWEE, LIVINGSTON, MACOMB,
MIDLAND, MONROE, MONTMORENCY, OAKLAND, OGEMAW, OSCODA, OTSEGO,
PRESQUE ISLE, ROSCOMMON, SAGINAW, ST. CLAIR, SANILAC,
SHIAWASSEE, TUSCOLA, WASHTENAW AND WAYNE COUNTIES:

	Rates	Fringes
OPERATOR: Power Equipment (Steel Erection)		
GROUP 1	$ 53.02	25.25
GROUP 2	$ 54.02	25.25
GROUP 3	$ 51.52	25.25
GROUP 4	$ 52.52	25.25
GROUP 5	$ 50.02	25.25
GROUP 6	$ 51.02	25.25
GROUP 7	$ 49.75	25.25
GROUP 8	$ 50.75	25.25
GROUP 9	$ 49.30	25.25
GROUP 10	$ 50.30	25.25
GROUP 11	$ 48.57	25.25
GROUP 12	$ 49.57	25.25
GROUP 13	$ 48.21	25.25
GROUP 14	$ 49.21	25.25
GROUP 15	$ 47.57	25.25
GROUP 16	$ 44.37	25.25
GROUP 17	$ 28.89	12.40
GROUP 18	$ 33.38	25.25

FOOTNOTE:

Paid Holidays: New Year's Day, Memorial Day, Fourth of July, Labor Day, Thanksgiving Day and Christmas Day.

POWER EQUIPMENT OPERATOR CLASSIFICATIONS

GROUP 1: Engineer when operating combination of boom and jib 400' or longer

GROUP 2: Engineer when operating combination of boom and jib 400' or longer on a crane that requires an oiler

GROUP 3: Engineer when operating combination of boom and jib 300' or longer

GROUP 4: Engineer when operating combination of boom and jib 300' or longer on a crane that requires an oiler

GROUP 5: Engineer when operating combination of boom and jib 220' or longer

GROUP 6: Engineer when operating combination of boom and jib 220' or longer on a crane that requires an oiler

GROUP 7: Engineer when operating combination of boom and jib

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140' or longer

GROUP 8: Engineer when operating combination of boom and jib 140' or longer on a crane that requires an oiler

GROUP 9: Tower crane & derrick operator (where operator's work station is 50 ft. or more above first sub-level)

GROUP 10: Tower crane & derrick operator (where operator's work station is 50 ft. or more above first sub-level) on a crane that requires an oiler

GROUP 11: Engineer when operating combination of boom and jib 120' or longer

GROUP 12: Engineer when operating combination of boom and jib 120' or longer on a crane that requires an oiler

GROUP 13: Crane operator; job mechanic and 3 drum hoist and excavator

GROUP 14: Crane operator on a crane that requires an oiler

GROUP 15: Hoisting operator; 2 drum hoist and rubber tired backhoe

GROUP 16: Forklift and 1 drum hoist

GROUP 17: Compressor or welder operator

GROUP 18: Oiler

ENGI0324-004 06/01/2023

AREA 1: ALLEGAN, BARRY, BERRIEN, BRANCH, CALHOUN, CASS, EATON, HILLSDALE, IONIA, KALAMAZOO, KENT, LAKE, MANISTEE, MASON, MECOSTA, MONTCALM, MUSKEGON, NEWAYGO, OCEANA, OSCEOLA, OTTAWA, ST. JOSEPH, VAN BUREN

AREA 2: ANTRIM, BENZIE, CHARLEVOIX, EMMET, GRAND TRAVERSE, KALKASKA, LEELANAU, MISSAUKEE AND WEXFORD COUNTIES:

	Rates	Fringes
OPERATOR: Power Equipment (Steel Erection)		
AREA 1		
GROUP 1	$ 53.02	25.25
GROUP 2	$ 49.75	25.25
GROUP 3	$ 48.21	25.25
GROUP 4	$ 44.37	25.25
GROUP 5	$ 28.89	12.40
GROUP 6	$ 33.38	25.25
AREA 2		
GROUP 1	$ 53.02	25.25
GROUP 2	$ 49.75	24.25

GROUP 3.....$ 48.21 25.25
GROUP 4.....$ 44.37 25.25
GROUP 5.....$ 28.89 12.40
GROUP 6.....$ 33.38 25.25

FOOTNOTES:

Crane operator with main boom and jib 300' or longer: $1.50 additional to the group 1 rate. Crane operator with main boom and jib 400' or longer: $3.00 additional to the group 1 rate.
PAID HOLIDAYS: New Year's Day, Memorial Day, Fourth of July, Labor Day, Thanksgiving Day and Christmas Day.

POWER EQUIPMENT OPERATOR CLASSIFICATIONS:

GROUP 1: Crane Operator with main boom & jib 400', 300', or 220' or longer.

GROUP 2: Crane Operator with main boom & jib 140' or longer, Tower Crane; Gantry Crane; Whirley Derrick.

GROUP 3: Regular Equipment Operator, Crane, Dozer, Loader, Hoist, Straddle Wagon, Mechanic, Grader and Hydro Excavator.

GROUP 4: Air Tugger (single drum), Material Hoist Pump 6"" or over, Elevators, Brokk Concrete Breaker.

GROUP 5: Air Compressor, Welder, Generators, Conveyors

GROUP 6: Oiler and fire tender

ENGI0324-005 09/01/2023

AREA 1: GENESEE, LAPEER, LIVINGSTON, MACOMB, MONROE, OAKLAND, ST. CLAIR, WASHTENAW AND WAYNE COUNTIES

AREA 2: ALCONA, ALLEGAN, ALGER, ALPENA, ANTRIM, ARENAC, BARAGA, BARRY, BAY, BENZIE, BERRIEN, BRANCH, CALHOUN, CASS, CHARLEVOIX, CHEBOYGAN, CHIPPEWA, CLARE, CLINTON, CRAWFORD, DELTA, DICKINSON, EATON, EMMET, GLADWIN, GOGEBIC, GRAND TRAVERSE, GRATIOT, HILLSDALE, HOUGHTON, HURON, INGHAM, IONIA, IOSCO, IRON, ISABELLA, JACKSON, KALAMAZOO, KALKASKA, KENT, KWEENAW, LAKE, LEELANAU, LENAWEE, LUCE, MACKINAC, MANISTEE, MARQUETTE, MASON, MECOSTA, MENOMINEE, MIDLAND, MISSAUKEE, MONTCALM, MONTMORENCY, MUSKEGON, NEWAYGO, OCEANA, OGEMAW, ONTONAGON, OSCEOLA, OSCODA, OTSEGO, OTTAWA, PRESQUE ISLE, ROSCOMMON, SAGINAW, SANILAC, SCHOOLCRAFT, SHIAWASSEE, ST. JOSEPH, TUSCOLA, VAN BUREN AND WEXFORD COUNTIES

	Rates	Fringes
OPERATOR: Power Equipment (Underground construction (including sewer))		
AREA 1:		

90% Bid Package

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       GROUP 1.....................$ 41.08            25.25
       GROUP 2.....................$ 36.25            25.25
       GROUP 3.....................$ 35.52            25.25
       GROUP 4.....................$ 34.95            25.25
       GROUP 5.....................$ 25.35            12.10
      AREA 2:
       GROUP 1.....................$ 39.27            25.25
       GROUP 2.....................$ 34.38            25.25
       GROUP 3.....................$ 33.88            25.25
       GROUP 4.....................$ 33.60            25.25
       GROUP 5.....................$ 25.35            12.10

  POWER EQUIPMENT OPERATOR CLASSIFICATIONS

    GROUP 1: Backfiller tamper; Backhoe; Batch plant operator
    (concrete); Clamshell; Concrete paver (2 drums or larger);
    Conveyor loader (Euclid type); Crane (crawler, truck type
    or pile driving); Dozer; Dragline; Elevating grader;
    Endloader; Gradall (and similar type machine); Grader;
    Mechanic; Power shovel; Roller (asphalt); Scraper
    (self-propelled or tractor drawn); Side boom tractor (type
    D-4 or equivalent and larger); Slip form paver; Slope
    paver; Trencher (over 8 ft. digging capacity); Well
    drilling rig; Concrete pump with boom operator; Hydro
    Excavator

    GROUP 2: Boom truck (power swing type boom); Crusher; Hoist;
    Pump (1 or more - 6-in. discharge or larger - gas or
    diesel- powered or powered by generator of 300 amperes or
    more - inclusive of generator); Side boom tractor (smaller
    than type D-4 or equivalent); Tractor (pneu-tired, other
    than backhoe or front end loader); Trencher (8-ft. digging
    capacity and smaller);Vac Truck and  End dump operator;

    GROUP 3: Air compressors (600 cfm or larger); Air compressors
    (2 or more-less than 600 cfm); Boom truck (non-swinging,
    non- powered type boom); Concrete breaker (self-propelled
    or truck mounted - includes compressor); Concrete paver (1
    drum-1/2 yd. or larger); Elevator (other than passenger);
    Maintenance person; Pump (2 or more-4-in. up to 6-in.
    discharge-gas or diesel powered - excluding submersible
    pumps); Pumpcrete machine (and similar equipment); Wagon
    drill (multiple); Welding machine or generator (2 or
    more-300 amp. or larger - gas or diesel powered)

    GROUP 4: Boiler; Concrete saw (40 hp or over); Curing machine
    (self-propelled); Farm tractor (with attachment); Finishing
    machine (concrete); Hydraulic pipe pushing machine;
    Mulching equipment; Pumps (2 or more up to 4-in. discharge,
    if used 3 hours or more a day, gas or diesel powered -
    excluding submersible pumps); Roller (other than asphalt);
    Stump remover; Trencher (service); Vibrating compaction
    equipment, self-propelled (6 ft. wide or over); Sweeper
    (Wayne type); Water wagon and Extend-a boom forklift

  Group 5: Fire Person, Oiler

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90% Bid Package

* ENGI0324-006 06/01/2023

GENESEE, MACOMB, MONROE, OAKLAND, WASHTENAW, WAYNE, ALCONA, ALGER, ALLEGAN, ALPENA, ANTRIM, ARENAC, BARAGA, BARRY, BAY, BENZIE, BERRIEN, BRANCH, CALHOUN, CASS, CHARLEVOIX, CHEBOYGAN, CHIPPEWA, CLARE, CLINTON, CRAWFORD, DELTA, DICKINSON, EATON, EMMET, GLADWIN, GOGEBIC, GRAND TRAVERSE, GRATIOT, HILLSDALE, HOUGHTON, HURON, INGHAM, IONIA, IOSCO, IRON, ISABELLA, JACKSON, KALAMAZOO, KALKASKA, KENT, KEWEENAW, LAKE, LAPEER, LEELANAU, LENAWEE, LIVINGSTON, LUCE, MACKINAC, MANISTEE, MARQUETTE, MASON, MECOSTA, MENOMINEE, MIDLAND, MISSAUKEE, MONTCALM, MONTMORENCY, MUSKEGON, NEWAYGO, OCEANA, OGEMAW, ONTONAGON, OSCEOLA, OSCODA, OTSEGO, OTTAWA, PRESQUE ISLE, ROSCOMMON, SAGINAW, ST. CLARE, ST. JOSEPH, SANILAC, SCHOOLCRAFT, SHIAWASSEE, TUSCOLA, VAN BUREN AND WEXFORD COUNTIES

	Rates	Fringes
Power equipment operators: (AIRPORT, BRIDGE & HIGHWAY CONSTRUCTION)		
GROUP 1	$ 40.46	25.25
GROUP 2	$ 37.73	25.25
GROUP 3	$ 33.17	25.55
GROUP 4	$ 33.00	25.25

POWER EQUIPMENT OPERATOR CLASSIFICATIONS

GROUP 1: Asphalt plant operator; Crane operator (does not include work on bridge construction projects when the crane operator is erecting structural components); Dragline operator; Shovel operator; Locomotive operator; Paver operator (5 bags or more); Elevating grader operator; Pile driving operator; Roller operator (asphalt); Blade grader operator; Trenching machine operator (ladder or wheel type); Auto-grader; Slip form paver; Self-propelled or tractor-drawn scraper; Conveyor loader operator (Euclid type); Endloader operator (1 yd. capacity and over); Bulldozer; Hoisting engineer; Tractor operator; Finishing machine operator (asphalt); Mechanic; Pump operator (6-in. discharge or over, gas, diesel powered or generator of 300 amp. or larger); Shouldering or gravel distributing machine operator (self- propelled); Backhoe (with over 3/8 yd. bucket); Side boom tractor (type D-4 or equivalent or larger); Tube finisher (slip form paving); Gradall (and similar type machine); Asphalt paver (self- propelled); Asphalt planer (self-propelled); Batch plant (concrete-central mix); Slurry machine (asphalt); Concrete pump (3 in. and over); Roto-mill; Swinging boom truck (over 12 ton capacity); Hydro demolisher (water blaster); Farm-type tractor with attached pan; Vacuum truck operator; Batch Plant (concrete dry batch); Concrete Saw Operator (40h.p. or over; Tractor Operator (farm type); Finishing Machine Operator (concrete); Grader Operator (self-propelled fine grade or form (concrete)).

GROUP 2: Screening plant operator; Washing plant operator;

Crusher operator; Backhoe (with 3/8 yd. bucket or less); Side boom tractor (smaller than D-4 type or equivalent); Sweeper (Wayne type and similar equipment); Greese Truck; Air Compressor Operator (600 cu.ft. per min or more); Air Compressor Operator (two or more, less than 600 cfm);

GROUP 3: Boiler fire tender; Tractor operator (farm type with attachment); Concrete Breaker; Wagon Drill Operator;

GROUP 4: Oiler; Fire tender; Trencher (service); Flexplane operator; Cleftplane operator; Boom or winch hoist truck operator; Endloader operator *under 1 yd. capacity); Roller Operator (other than asphalt); Curing equipment operator (self-propelled); Power bin operator; Plant drier (6 ft. wide or over); Guard post driver operator (power driven); All mulching equipment; Stump remover; Concrete pump (under 3-in.); Mesh installer (self-propelled); End dump; Skid Steer.

ENGI0324-007 05/01/2023

ALGER, BARAGA, CHIPPEWA, DELTA, DICKINSON, GOGEBIC, HOUGHTON, IRON, KEWEENAW, LUCE, MACKINAC MARQUETTE, MENOMINEE, ONTONAGON AND SCHOOLCRAFT COUNTIES:

	Rates	Fringes
OPERATOR: Power Equipment (Steel Erection)		
Compressor, welder and forklift	$ 38.50	25.00
Crane operator, main boom & jib 120' or longer	$ 44.97	25.00
Crane operator, main boom & jib 140' or longer	$ 44.17	24.60
Crane operator, main boom & jib 220' or longer	$ 45.27	25.00
Mechanic with truck and tools	$ 44.10	25.00
Oiler and fireman	$ 39.96	25.00
Regular operator	$ 42.32	25.00

ENGI0324-008 10/01/2023

ALCONA, ALGER, ALLEGAN, ALPENA, ANTRIM, ARENAC, BARAGA, BARRY, BAY, BENZIE, BERRIEN, BRANCH, CALHOUN, CASS, CHARLEVOIX, CHEBOYGAN, CHIPPEWA, CLARE, CLINTON, CRAWFORD, DELTA, DICKINSON, EATON, EMMET, GENESEE, GLADWIN, GOGEBIC, GRAND TRAVERSE, GRATIOT, HILLSDALE, HOUGHTON, HURON, INGHAM, IONIA, IOSCO, IRON, ISABELLA, JACKSON, KALAMAZOO, KALKASKA, KENT, KEWEENAW, LAKE, LAPEER, LEELANAU, LENAWEE, LIVINGSTON, LUCE, MACKINAC, MACOMB, MANISTEE, MARQUETTE, MASON, MECOSTA, MENOMINEE, MIDLAND, MISSAUKEE, MONTCALM, MONTMORENCY, MONROE, MUSKEGON, NEWAYGO, OAKLAND, OCEANA, OGEMAW, ONTONAGON, OSCEOLA, OSCODA, OTSEGO, OTTAWA, PRESQUE ISLE, ROSCOMMON, SAGINAW, ST. CLARE, ST. JOSEPH, SANILAC, SCHOOLCRAFT, SHIAWASSEE, TUSCOLA,

90% Bid Package

VAN BUREN, WASHTENAW, WAYNE AND WEXFORD COUNTIES

	Rates	Fringes
OPERATOR: Power Equipment (Sewer Relining)		
GROUP 1	$ 37.37	15.44
GROUP 2	$ 35.33	15.44

SEWER RELINING CLASSIFICATIONS

GROUP 1: Operation of audio-visual closed circuit TV system, including remote in-ground cutter and other equipment used in connection with the CCTV system

GROUP 2: Operation of hot water heaters and circulation systems, water jetters and vacuum and mechanical debris removal systems

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ENGI0325-012 05/01/2023

	Rates	Fringes
Power equipment operators - gas distribution and duct installation work:		
GROUP 1	$ 36.18	25.25
GROUP 2	$ 33.45	25.25

SCOPE OF WORK: The construction, installation, treating and reconditioning of pipelines transporting gas vapors within cities, towns, subdivisions, suburban areas, or within private property boundaries, up to and including private meter settings of private industrial, governmental or other premises, more commonly referred to as ""distribution work,"" starting from the first metering station, connection, similar or related facility, of the main or cross country pipeline and including duct installation.

Group 1: Backhoe, crane, grader, mechanic, dozer (D-6 equivalent or larger), side boom (D-4 equivalent or larger), trencher(except service), endloader (2 yd. capacity or greater).

GROUP 2: Dozer (less than D-6 equivalent), endloader (under 2 yd. capacity), side boom (under D-4 capacity), backfiller, pumps (1 or 2 of 6-inch discharge or greater), boom truck (with powered boom), tractor (wheel type other than backhoe or front endloader). Tamper (self-propelled), boom truck (with non-powered boom), concrete saw (20 hp or larger), pumps (2 to 4 under 6-inch discharge), compressor (2 or more or when one is used continuously into the second day) and trencher(service). Oiler, hydraulic pipe pushing machine, grease person and hydrostatic testing operator.

IRON0008-007 06/01/2022

ALGER, BARAGA, CHIPPEWA, DELTA, DICKINSON, GOGEBIC, HOUGHTON, IRON, KEWEENAW, LUCE, MACKINAC MARQUETTE, MENOMINEE, ONTONAGON AND SCHOOLCRAFT COUNTIES:

	Rates	Fringes
Ironworker - pre-engineered metal building erector	$ 23.70	6.95
IRONWORKER		
General contracts $10,000,000 or greater	$ 38.14	28.70
General contracts less than $10,000,000	$ 38.14	28.70

Paid Holidays: New Year's Day, Memorial Day, July 4th, Labor Day, Thanksgiving Day & Christmas Day.

IRON0025-002 06/01/2023

ALCONA, ALPENA, ARENAC, BAY, CHEBOYGAN, CLARE, CLINTON, CRAWFORD, GENESEE, GLADWIN, GRATIOT, HURON, INGHAM, IOSCO, ISABELLA, JACKSON, LAPEER, LIVINGSTON, MACOMB, MIDLAND, MONTMORENCY, OAKLAND, OGEMAW, OSCODA, OTSEGO, PRESQUE ISLE, ROSCOMMON, SAGINAW, SANILAC, SHIAWASSEE, ST. CLAIR, TUSCOLA, WASHTENAW AND WAYNE COUNTIES:

	Rates	Fringes
Ironworker - pre-engineered metal building erector ALLEGAN, ANTRIM, BARRY, BENZIE, BRANCH, CALHOUN, CHARLEVOIX, EATON, EMMET, GRAND TRAVERSE, HILLSDALE, IONIA, KALAMAZOO, KALKASKA, KENT, LAKE, LEELANAU, MANISTEE, MASON, MECOSTA, MISSAUKEE, MONTCALM, MUSKEGON, NEWAYGO, OCEANA, OSCEOLA, OTTAWA, ST. JOSEPH, VAN BUREN AND WEXFORD COUNTIES:	$ 24.59	25.43
Bay, Genesee, Lapeer, Livingston (east of Burkhardt Road), Macomb, Midland, Oakland, Saginaw, St. Clair, The University of Michigan, Washtenaw (east of U.S. 23) & Wayne	$ 25.81	26.43
IRONWORKER		
Ornamental and Structural	$ 34.50	38.44
Reinforcing	$ 32.68	35.15

90% Bid Package

IRON0055-005 07/01/2022

LENAWEE AND MONROE COUNTIES:

	Rates	Fringes
IRONWORKER		
Pre-engineered metal buildings	$ 23.59	19.35
All other work	$ 33.00	27.20

IRON0292-003 06/01/2020

BERRIEN AND CASS COUNTIES:

	Rates	Fringes
IRONWORKER (Including pre-engineered metal building erector)	$ 31.75	22.84

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* LABO0005-006 10/01/2022

	Rates	Fringes
Laborers - hazardous waste abatement: (ALCONA, ALPENA, ANTRIM, BENZIE, CHARLEVOIX, CHEBOYGAN, CRAWFORD, EMMET, GRAND TRAVERSE, IOSCO, KALKASKA, LEELANAU, MISSAUKEE, MONTMORENCY, OSCODA, OTSEGO, PRESQUE ISLE AND WEXFORD COUNTIES - Zone 10)		
Levels A, B or C	$ 17.45	12.75
class b	$ 18.64	12.90
Work performed in conjunction with site preparation not requiring the use of personal protective equipment; Also, Level D	$ 16.45 **	12.75
class a	$ 17.64	12.90
Zone 10		
Laborers - hazardous waste abatement: (ALGER, BARAGA, CHIPPEWA, DELTA, DICKINSON, GOGEBIC, HOUGHTON, IRON, KEWEENAW, LUCE, MACKINAC, MARQUETTE, MENOMINEE, ONTONAGON AND SCHOOLCRAFT COUNTIES - Zone 11)		
Levels A, B or C	$ 25.18	12.90
Work performed in conjunction with site preparation not requiring the use of personal		

protective equipment;
Also, Level D.....$ 22.58 12.90
Laborers - hazardous waste abatement: (ALLEGAN, BARRY, BERRIEN, BRANCH, CALHOUN, CASS, IONIA COUNTY (except the city of Portland); KALAMAZOO, KENT, LAKE, MANISTEE, MASON, MECOSTA, MONTCALM, MUSKEGON, NEWAYGO, OCEANA, OSCEOLA, OTTAWA, ST. JOSEPH AND VAN BUREN COUNTIES - Zone 9)
Levels A, B or C.....$ 21.88 13.26
Work performed in conjunction with site preparation not requiring the use of personal protective equipment;
Also, Level D.....$ 20.80 12.90
Laborers - hazardous waste abatement: (ARENAC, BAY, CLARE, GLADWIN, GRATIOT, HURON, ISABELLA, MIDLAND, OGEMAW, ROSCOMMON, SAGINAW AND TUSCOLA COUNTIES - Zone 8)
Levels A, B or C.....$ 23.74 12.95
Work performed in conjunction with site preparation not requiring the use of personal protective equipment;
Also, Level D.....$ 20.80 12.90
Laborers - hazardous waste abatement: (CLINTON, EATON AND INGHAM COUNTIES; IONIA COUNTY (City of Portland); LIVINGSTON COUNTY (west of Oak Grove Rd., including the City of Howell) - Zone 6)
Levels A, B or C.....$ 26.33 12.95
Work performed in conjunction with site preparation not requiring the use of personal protective equipment;
Also, Level D.....$ 24.64 12.90
Laborers - hazardous waste abatement: (GENESEE, LAPEER AND SHIAWASSEE COUNTIES - Zone 7)
Levels A, B or C.....$ 24.20 13.80
Work performed in conjunction with site preparation not requiring the use of personal protective equipment;
Also, Level D.....$ 23.20 13.80

90% Bid Package

Laborers - hazardous waste abatement: (HILLSDALE, JACKSON AND LENAWEE COUNTIES - Zone 4)

Levels A, B or C	$ 27.13	14.95
Work performed in conjunction with site preparation not requiring the use of personal protective equipment; Also, Level D	$ 24.17	12.90

Laborers - hazardous waste abatement: (LIVINGSTON COUNTY (east of Oak Grove Rd. and south of M-59, excluding the city of Howell); AND WASHTENAW COUNTY - Zone 3)

Levels A, B or C	$ 29.93	14.20
Work performed in conjunction with site preparation not requiring the use of personal protective equipment; Also, Level D	$ 28.93	14.20

Laborers - hazardous waste abatement: (MACOMB AND WAYNE COUNTIES - Zone 1)

Levels A, B or C	$ 29.93	16.90
Work performed in conjunction with site preparation not requiring the use of personal protective equipment; Also, Level D	$ 28.93	16.90

Laborers - hazardous waste abatement: (MONROE COUNTY - Zone 4)

Levels A, B or C	$ 31.75	14.90
Work performed in conjunction with site preparation not requiring the use of personal protective equipment; Also, Level D	$ 31.75	14.90

Laborers - hazardous waste abatement: (OAKLAND COUNTY and the Northeast portion of LIVINGSTON COUNTY bordered by Oak Grove Road on the West and M-59 on the South - Zone 2)

Level A, B, C	$ 29.93	16.90
Work performed in conjunction with site preparation not requiring the use of personal protective equipment; Also, Level D	$ 28.93	16.90

Laborers - hazardous waste abatement: (SANILAC AND ST. CLAIR COUNTIES - Zone 5)

Levels A, B or C	$ 26.21	16.62
Work performed in conjunction with site preparation not requiring the use of personal protective equipment; Also, Level D	$ 24.75	16.35

LABO0259-001 09/01/2023

AREA 1: MACOMB, OAKLAND AND WAYNE COUNTIES
AREA 2: ALCONA, ALGER, ALLEGAN, ALPENA, ANTRIM, ARENAC, BARAGA, BARRY, BAY, BENZIE, BERRIEN, BRANCH, CALHOUN, CASS, CHARLEVOIX, CHEBOYGAN, CHIPPEWA, CLARE, CLINTON, CRAWFORD, DELTA, DICKINSON, EATON, EMMET, GENESEE, GLADWIN, GOGEBIC, GRAND TRAVERSE, GRATIOT, HILLSDALE, HOUGHTON, HURON, INGHAM, IONIA, IOSCO, IRON, ISABELLA, JACKSON, KALAMAZOO, KALKASKA, KENT, KEWEENAW, LAKE, LAPEER, LEELANAU, LENAWEE, LIVINGSTON, LUCE, MACKINAC, MANISTEE, MARQUETTE, MASON, MECOSTA, MENOMINEE, MIDLAND, MISSAUKEE, MONROE, MONTCALM, MONTMORENCY, MUSKEGON, NEWAYGO, OCEANA, OGEMAW, ONTONAGON, OSCEOLA, OSCODA, OTSEGO, OTTAWA, PRESQUE ISLE, ROSCOMMON, SAGINAW, ST. CLARE, ST. JOSEPH, SANILAC, SCHOOLCRAFT, SHIAWASSEE, TUSCOLA, VAN BUREN, WASHTENAW AND WEXFORD COUNTIES

	Rates	Fringes
Laborers - tunnel, shaft and caisson:		
AREA 1		
GROUP 1	$ 23.62	16.93
GROUP 2	$ 23.73	16.93
GROUP 3	$ 23.79	16.93
GROUP 4	$ 23.97	16.93
GROUP 5	$ 24.22	16.93
GROUP 6	$ 24.55	16.93
GROUP 7	$ 17.83	16.93
AREA 2		
GROUP 1	$ 27.57	16.93
GROUP 2	$ 25.24	16.93
GROUP 3	$ 25.34	16.93
GROUP 4	$ 29.57	16.93
GROUP 5	$ 25.76	16.93
GROUP 6	$ 26.07	16.93
GROUP 7	$ 25.57	16.93

SCOPE OF WORK: Tunnel, shaft and caisson work of every type and description and all operations incidental thereto, including, but not limited to, shafts and tunnels for sewers, water, subways, transportation, diversion, sewerage, caverns, shelters, aquafers, reservoirs, missile silos and steel sheeting for underground construction.

TUNNEL LABORER CLASSIFICATIONS

90% Bid Package

GROUP 1: Tunnel, shaft and caisson laborer, dump, shanty, hog house tender, testing (on gas) and watchman

GROUP 2: Manhole, headwall, catch basin builder, bricklayer tender, mortar machine and material mixer

GROUP 3: Air tool operator (jackhammer, bush hammer and grinder), first bottom, second bottom, cage tender, car pusher, carrier, concrete, concrete form, concrete repair, cement invert laborer, cement finisher, concrete shoveler, conveyor, floor, gasoline and electric tool operator, gunite, grout operator, welder, heading dinky person, inside lock tender, pea gravel operator, pump, outside lock tender, scaffold, top signal person, switch person, track, tugger, utility person, vibrator, winch operator, pipe jacking, wagon drill and air track operator and concrete saw operator (under 40 h.p.)

GROUP 4: Tunnel, shaft and caisson mucker, bracer, liner plate, long haul dinky driver and well point

GROUP 5: Tunnel, shaft and caisson miner, drill runner, key board operator, power knife operator, reinforced steel or mesh (e.g. wire mesh, steel mats, dowel bars, etc.)

GROUP 6: Dynamite and powder

GROUP 7: Restoration laborer, seeding, sodding, planting, cutting, mulching and top soil grading; and the restoration of property such as replacing mailboxes, wood chips, planter boxes, flagstones, etc.

LABO0334-001 09/01/2023

	Rates	Fringes
Laborers - open cut:		
ZONE 1 - MACOMB, OAKLAND AND WAYNE COUNTIES:		
GROUP 1	$ 29.87	16.95
GROUP 2	$ 31.87	16.95
GROUP 3	$ 28.03	16.95
GROUP 4	$ 23.71	16.72
GROUP 5	$ 24.17	16.72
GROUP 6	$ 22.00	16.72
GROUP 7	$ 17.84	16.72
ZONE 2 - LIVINGSTON COUNTY (east of M-151 (Oak Grove Rd.)); MONROE AND WASHTENAW COUNTIES:		
GROUP 1	$ 30.70	13.45
GROUP 2	$ 32.70	13.45
GROUP 3	$ 26.89	13.45
GROUP 4	$ 25.10	16.72
GROUP 5	$ 25.25	16.72
GROUP 6	$ 22.55	16.72

GROUP 7.....$ 22.11 16.72
ZONE 3 - CLINTON, EATON,
GENESEE, HILLSDALE AND
INGHAM COUNTIES; IONIA
COUNTY (City of Portland);
JACKSON, LAPEER AND
LENAWEE COUNTIES;
LIVINGSTON COUNTY (west of
M-151 Oak Grove Rd.);
SANILAC, ST. CLAIR AND
SHIAWASSEE COUNTIES:
GROUP 1.....$ 28.89 13.45
GROUP 2.....$ 30.89 13.45
GROUP 3.....$ 26.89 13.45
GROUP 4.....$ 23.30 16.72
GROUP 5.....$ 23.44 16.72
GROUP 6.....$ 20.74 16.72
GROUP 7.....$ 22.23 16.72
ZONE 4 - ALCONA, ALLEGAN,
ALPENA, ANTRIM, ARENAC,
BARRY, BAY, BENZIE,
BERRIEN, BRANCH,
CALHOUN, CASS, CHARLEVOIX,
CHEBOYGAN, CLARE,
CRAWFORD, EMMET,
GLADWIN, GRAND TRAVERSE,
GRATIOT AND HURON
COUNTIES; IONIA COUNTY
(EXCEPT THE CITY OF
PORTLAND); IOSCO,
ISABELLA, KALAMAZOO,
KALKASKA, KENT,
LAKE,LEELANAU, MANISTEE,
MASON, MECOSTA, MIDLAND,
MISSAUKEE, MONTCALM,
MONTMORENCY, MUSKEGON,
NEWAYGO, OCEANA, OGEMAW,
OSCEOLA, OSCODA, OTSEGO,
OTTAWA, PRESQUE ISLE,
ROSCOMMON, SAGINAW, ST.
JOSEPH, TUSCOLA, VAN BUREN
AND WEXFORD COUNTIES:
GROUP 1.....$ 27.87 13.45
GROUP 2.....$ 29.87 13.45
GROUP 3.....$ 25.87 13.45
GROUP 4.....$ 22.33 16.72
GROUP 5.....$ 22.45 16.72
GROUP 6.....$ 19.67 16.72
GROUP 7.....$ 22.30 16.72
ZONE 5 - ALGER, BARAGA,
CHIPPEWA, DELTA,
DICKINSON, GOGEBIC,
HOUGHTON, IRON,
KEWEENAW, LUCE, MACKINAC,
MARQUETTE, MENOMINEE,
ONTONAGON AND SCHOOLCRAFT
COUNTIES:
GROUP 1.....$ 28.09 13.45

GROUP 2	$ 30.09	13.45
GROUP 3	$ 26.09	13.45
GROUP 4	$ 22.56	16.72
GROUP 5	$ 22.64	16.72
GROUP 6	$ 19.99	16.72
GROUP 7	$ 22.45	16.72

SCOPE OF WORK:

Open cut construction work shall be construed to mean work which requires the excavation of earth including industrial, commercial and residential building site excavation and preparation, land balancing, demolition and removal of concrete and underground appurtenances, grading, paving, sewers, utilities and improvements; retention, oxidation, flocculation and irrigation facilities, and also including but not limited to underground piping, conduits, steel sheeting for underground construction, and all work incidental thereto, and general excavation. For all areas except the Upper Peninsula, open cut construction work shall also be construed to mean waterfront work, piers, docks, seawalls, breakwalls, marinas and all incidental work. Open cut construction work shall not include any structural modifications, alterations, additions and repairs to buildings, or highway work, including roads, streets, bridge construction and parking lots or steel erection work and excavation for the building itself and back filling inside of and within 5 ft. of the building and foundations, footings and piers for the building. Open cut construction work shall not include any work covered under Tunnel, Shaft and Caisson work.

OPEN CUT LABORER CLASSIFICATIONS

GROUP 1: Construction laborer

GROUP 2: Mortar and material mixer, concrete form person, signal person, well point person, manhole, headwall and catch basin builder, headwall, seawall, breakwall and dock builder

GROUP 3: Air, gasoline and electric tool operator, vibrator operator, driller, pump person, tar kettle operator, bracer, rodder, reinforced steel or mesh person (e.g., wire mesh, steel mats, dowel bars, etc.), welder, pipe jacking and boring person, wagon drill and air track operator and concrete saw operator (under 40 h.p.), windlass and tugger person and directional boring person

GROUP 4: Trench or excavating grade person

GROUP 5: Pipe layer (including crock, metal pipe, multi-plate or other conduits)

GROUP 6: Grouting man, audio-visual television operations and all other operations in connection with closed circuit television inspection, pipe cleaning and pipe relining work and the installation and repair of water service pipe and

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appurtenances

GROUP 7: Restoration laborer, seeding, sodding, planting, cutting, mulching and top soil grading; and the restoration of property such as replacing mailboxes, wood chips, planter boxes, flagstones, etc.

LABO0465-001 06/01/2023

LABORER: Highway, Bridge and Airport Construction

AREA 1: GENESEE, MACOMB, MONROE, OAKLAND, WASHTENAW AND WAYNE COUNTIES

AREA 2: ALLEGAN, BARRY, BAY, BERRIEN, BRANCH, CALHOUN, CASS, CLINTON, EATON, GRATIOT, HILLSDALE, HURON, INGHAM, JACKSON, KALAMAZOO, LAPEER, LENAWEE, LIVINGSTON, MIDLAND, MUSKEGON, SAGINAW, SANILAC, SHIAWASSEE, ST. CLAIR, ST. JOSEPH, TUSCOLA AND VAN BUREN COUNTIES

AREA 3: ALCONA, ALPENA, ANTRIM, ARENAC, BENZIE, CHARLEVOIX, CHEBOYGAN, CLARE, CRAWFORD, EMMET, GLADWIN, GRAND TRAVERSE, IONIA, IOSCO, ISABELLA, KALKASKA, KENT, LAKE, LEELANAU, MANISTEE, MASON, MECOSTA, MISSAUKEE, MONTCALM, MONTMORENCY, NEWAYGO, OCEANA, OGEMAW, OSCEOLA, OSCODA, OTSEGO, OTTAWA, PRESQUE ISLE, ROSCOMMON AND WEXFORD COUNTIES

AREA 4: ALGER, BARAGA, CHIPPEWA, DELTA, DICKINSON, GOGEBIC, HOUGHTON, IRON, KEWEENAW, LUCE, MACKINAC, MARQUETTE, MENOMINEE, ONTONAGON AND SCHOOLCRAFT COUNTIES

	Rates	Fringes
LABORER (AREA 1)		
GROUP 1	$ 32.52	14.45
GROUP 2	$ 32.65	14.45
GROUP 3	$ 32.83	14.45
GROUP 4	$ 32.91	14.45
GROUP 5	$ 33.12	14.45
GROUP 6	$ 33.42	14.45
LABORER (AREA 2)		
GROUP 1	$ 30.37	14.45
GROUP 2	$ 30.57	14.45
GROUP 3	$ 30.81	14.45
GROUP 4	$ 31.16	14.45
GROUP 5	$ 31.03	14.45
GROUP 6	$ 31.37	14.45
LABORER (AREA 3)		
GROUP 1	$ 29.67	14.45
GROUP 2	$ 29.88	14.45
GROUP 3	$ 30.17	14.45
GROUP 4	$ 30.61	14.45
GROUP 5	$ 30.23	14.45
GROUP 6	$ 30.66	14.45
LABORER (AREA 4)		
GROUP 1	$ 30.52	13.45

GROUP 2	$ 30.73	13.45
GROUP 3	$ 31.02	13.45
GROUP 4	$ 31.46	13.45
GROUP 5	$ 31.08	13.45
GROUP 6	$ 31.51	13.45

LABORER CLASSIFICATIONS

GROUP 1: Asphalt shoveler or loader; asphalt plant misc.; burlap person; yard person; dumper (wagon, truck, etc.); joint filling laborer; miscellaneous laborer; unskilled laborer; sprinkler laborer; form setting laborer; form stripper; pavement reinforcing; handling and placing (e.g., wire mesh, steel mats, dowel bars); mason's tender or bricklayer's tender on manholes; manhole builder; headwalls, etc.; waterproofing,(other than buildings) seal coating and slurry mix, shoring, underpinning; pressure grouting; bridge pin and hanger removal; material recycling laborer; horizontal paver laborer (brick, concrete, clay, stone and asphalt); ground stabilization and modification laborer; grouting; waterblasting; top person; railroad track and trestle laborer; carpenters' tender; guard rail builders' tender; earth retention barrier and wall and M.S.E. wall installer's tender; highway and median installer's tender(including sound, retaining, and crash barriers); fence erector's tender; asphalt raker tender; sign installer; remote control operated equipment.

GROUP 2: Mixer operator (less than 5 sacks); air or electric tool operator (jackhammer, etc.); spreader; boxperson (asphalt, stone, gravel); concrete paddler; power chain saw operator; paving batch truck dumper; tunnel mucker (highway work only); concrete saw (under 40 h.p.) and dry pack machine; roto-mill grounds person.

GROUP 3: Tunnel miner (highway work only); finishers tenders; guard rail builders; highway and median barrier installer; earth retention barrier and wall and M.S.E. wall installer's (including sound, retaining and crash barriers); fence erector; bottom person; powder person; wagon drill and air track operator; diamond and core drills; grade checker; certified welders; curb and side rail setter's tender.

GROUP 4: Asphalt raker

GROUP 5: Pipe layers, oxy-gun

GROUP 6: Line-form setter for curb or pavement; asphalt screed checker/screw man on asphalt paving machines.

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* LABO1076-005 04/01/2024

MICHIGAN STATEWIDE

	Rates	Fringes

LABORER (DISTRIBUTION WORK)

Zone 1	$ 27.16	13.45
Zone 2	$ 25.42	13.45
Zone 3	$ 23.55	13.45
Zone 4	$ 22.92	13.45
Zone 5	$ 22.95	13.45

DISTRIBUTION WORK - The construction, installation, treating and reconditioning of distribution pipelines transporting coal, oil, gas or other similar materials, vapors or liquids, including pipelines within private property boundaries, up to and including the meter settings on residential, commercial, industrial, institutional, private and public structures. All work covering pumping stations and tank farms not covered by the Building Trades Agreement. Other distribution lines with the exception of sewer, water and cable television are included.

Underground Duct Layer Pay: $.40 per hour above the base pay rate.

Zone 1 - Macomb, Oakland and Wayne
Zone 2 - Monroe and Washtenaw
Zone 3 - Bay, Genesee, Lapeer, Midland, Saginaw, Sanilac, Shiawassee and St. Clair
Zone 4 - Alger, Baraga, Chippewa, Delta, Dickinson, Gogebic, Houghton, Iron, Keweenaw, Luce, Mackinac, Marquette, Menominee, Ontonagon and Schoolcraft
Zone 5 - Remaining Counties in Michigan

PAIN0022-002 07/01/2008

HILLSDALE, JACKSON AND LENAWEE COUNTIES; LIVINGSTON COUNTY (east of the eastern city limits of Howell, not including the city of Howell, north to the Genesee County line and south to the Washtenaw County line); MACOMB, MONROE, OAKLAND, WASHTENAW AND WAYNE COUNTIES:

	Rates	Fringes
PAINTER	$ 25.06	14.75

FOOTNOTES: For all spray work and journeyman rigging for spray work, also blowing off, $0.80 per hour additional (applies only to workers doing rigging for spray work on off the floor work. Does not include setting up or moving rigging on floor surfaces, nor does it apply to workers engaged in covering up or tending spray equipment. For all sandblasting and spray work performed on highway bridges, overpasses, tanks or steel, $0.80 per hour additional. For all brushing, cleaning and other preparatory work (other than spraying or steeplejack work) at scaffold heights of fifty (50) feet from the ground or higher, $0.50 per hour additional. For all preparatorial work and painting performed on open steel under forty (40) feet when no scaffolding is involved, $0.50 per hour additional. For all

swing stage work-window jacks and window belts-exterior and interior, $0.50 per hour additional. For all spray work and sandblaster work to a scaffold height of forty (40) feet above the floor level, $0.80 per hour additional. For all preparatorial work and painting on all highway bridges or overpasses up to forty (40) feet in height, $0.50 per hour additional. For all steeplejack work performed where the elevation is forty (40) feet or more, $1.25 per hour additional.

PAIN0312-001 06/01/2018

EXCLUDES: ALLEGAN COUNTY (Townships of Dorr, Fillmore, Heath, Hopkins, Laketown, Leighton, Manlius, Monterey, Overisel, Salem, Saugatuck and Wayland); INCLUDES: Barry, Berrien, Branch, Calhoun, Cass, Hillsdale, Kalamazoo, St. Joseph, Van Buren

	Rates	Fringes
PAINTER		
Brush and roller	$ 23.74	13.35
Spray, Sandblast, Sign Painting	$ 24.94	13.35

PAIN0845-003 05/10/2018

CLINTON COUNTY; EATON COUNTY (does not include the townships of Bellevue and Olivet); INGHAM COUNTY; IONIA COUNTY (east of Hwy. M 66); LIVINGSTON COUNTY (west of the eastern city limits of Howell, including the city of Howell, north to the Genesee County line and south to the Washtenaw County line); AND SHIAWASSEE COUNTY (Townships of Bennington, Laingsbury and Perry):

	Rates	Fringes
PAINTER	$ 25.49	13.74

PAIN0845-015 05/10/2018

MUSKEGON COUNTY; NEWAYGO COUNTY (except the Townships of Barton, Big Prairie, Brooks, Croton, Ensley, Everett, Goodwell, Grant, Home, Monroe, Norwich and Wilcox); OCEANA COUNTY; OTTAWA COUNTY (except the townships of Allendale, Blendone, Chester, Georgetown, Holland, Jamestown, Olive, Park, Polkton, Port Sheldon, Tallmadge, Wright and Zeeland):

	Rates	Fringes
PAINTER	$ 25.49	13.74

PAIN0845-018 05/10/2018

ALLEGAN COUNTY (Townships of Dorr, Fillmore, Heath, Hopkins, Laketown, Leighton, Manlius, Monterey, Overisel, Salem, Saugatuck and Wayland); IONIA COUNTY (west of Hwy. M-66); KENT, MECOSTA AND MONTCALM COUNTIES; NEWAYGO COUNTY (Townships of Barton, Big Prairie, Brooks, Croton, Ensley, Everett, Goodwell, Grant, Home, Monroe, Norwich and Wilcox); OSCEOLA COUNTY (south of Hwy. #10); OTTAWA COUNTY (Townships of Allendale, Blendone, Chester, Georgetown, Holland, Jamestown, Olive, Park, Polkton, Port Sheldon, Tallmadge, Wright and Zeeland):

	Rates	Fringes
PAINTER	$ 25.49	13.74

FOOTNOTES: Lead abatement work: $1.00 per hour additional.

PAIN1011-003 06/02/2022

ALGER, BARAGA, CHIPPEWA, DELTA, DICKINSON, GOGEBIC, HOUGHTON, IRON, KEWEENAW, LUCE, MACKINAC, MARQUETTE, MENOMINEE, ONTONAGON AND SCHOOLCRAFT COUNTIES:

	Rates	Fringes
PAINTER	$ 24.66	14.99

FOOTNOTES: High pay (bridges, overpasses, watertower): 30 to 80 ft.: $.65 per hour additional. 80 ft. and over: $1.30 per hour additional.

PAIN1474-002 06/01/2010

HURON COUNTY; LAPEER COUNTY (east of Hwy. M-53); ST. CLAIR, SANILAC AND TUSCOLA COUNTIES:

	Rates	Fringes
PAINTER	$ 23.79	12.02

FOOTNOTES: Lead abatement work: $1.00 per hour additional. Work with any hazardous material: $1.00 per hour additional. Sandblasting, steam cleaning and acid cleaning: $1.00 per hour additional. Ladder work at or above 40 ft., scaffold work at or above 40 ft., swing stage, boatswain chair, window jacks and all work performed over a falling height of 40 ft.: $1.00 per hour additional. Spray gun work, pick pullers and those handling needles, blowing off by air pressure, and any person rigging (setting up and moving off the ground): $1.00 per hour additional. Steeplejack, tanks, gas holders, stacks, flag poles, radio towers and beacons, power line towers, bridges, etc.: $1.00 per hour additional, paid from the ground up.

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PAIN1803-003 06/01/2019

ALCONA, ALPENA, ANTRIM, ARENAC, BAY, BENZIE, CHARLEVOIX, CHEBOYGAN, CLARE, CRAWFORD, EMMET, GLADWIN, GRAND TRAVERSE, GRATIOT, IOSCO, ISABELLA, KALKASKA, LAKE, LEELANAU, MANISTEE, MASON, MIDLAND, MISSAUKEE, MONTMORENCY AND OGEMAW COUNTIES; OSCEOLA COUNTY (north of Hwy. #10); OSCODA, OTSEGO, PRESQUE ISLE, ROSCOMMON, SAGINAW AND WEXFORD COUNTIES:

	Rates	Fringes
PAINTER		
Work performed on water, bridges over water or moving traffic, radio and powerline towers, elevated tanks, steeples, smoke stacks over 40 ft. of falling heights, recovery of lead-based paints and any work associated with industrial plants, except maintenance of industrial plants	$ 25.39	14.68
All other work, including maintenance of industrial plant	$ 25.39	14.68

FOOTNOTES: Spray painting, sandblasting, blowdown associated with spraying and blasting, water blasting and work involving a swing stage, boatswain chair or spider: $1.00 per hour additional. All work performed inside tanks, vessels, tank trailers, railroad cars, sewers, smoke stacks, boilers or other spaces having limited egress not including buildings, opentop tanks, pits, etc.: $1.25 per hour additional.

PLAS0514-001 06/01/2023

ZONE 1: GENESEE, LIVINGSTON, MACOMB, MONROE, OAKLAND, SAGINAW, WASHTENAW AND WAYNE COUNTIES

ZONE 2: ALCONA, ALGER, ALLEGAN, ALPENA, ANTRIM, ARENAC, BARAGA, BARRY, BAY, BENZIE, BERRIEN, BRANCH, CALHOUN, CASS, CHARLEVOIX, CHEBOYGAN, CHIPPEWA, CLARE, CLINTON, CRAWFORD, DELTA, DICKINSON, EATON, EMMET, GLADWIN, GOGEBIC, GRAND TRAVERSE, GRATIOT, HILLSDALE, HOUGHTON, HURON, INGHAM, IONIA, IOSCO, IRON, ISABELLA, JACKSON, KALAMAZOO, KALKASKA, KENT, KEWEENAW, LAKE, LAPEER, LEELANAU, LENAWEE, LUCE, MACKINAC, MANISTEE, MARQUETTE, MASON, MECOSTA, MENOMINEE, MIDLAND, MISSAUKEE, MONTCALM, MONTMORENCY, MUSKEGON, NEWAYGO, OCEANA, OGEMAW, ONTONAGON, OSCEOLA, OSCODA, OTSEGO, OTTAWA, PRESQUE ISLE, ROSCOMMON, SANILAC, SCHOOLCRAFT, SHIAWASSEE, ST. CLAIR, ST. JOSEPH, TUSCOLA, VAN BUREN AND WEXFORD COUNTIES

	Rates	Fringes
CEMENT MASON/CONCRETE FINISHER		
ZONE 1	$ 33.00	18.51
ZONE 2	$ 31.50	18.51

PLUM0190-003 05/01/2015

ALCONA, ALGER, ALLEGAN, ALPENA, ANTRIM, ARENAC, BARAGA, BARRY, BAY, BENZIE, BERRIEN, BRANCH, CALHOUN, CASS, CHARLEVOIX, CHEBOYGAN, CHIPPEWA, CLARE, CLINTON, CRAWFORD, DELTA, DICKINSON, EATON, EMMET, GENESEE, GLADWIN, GOGEBIC, GRAND TRAVERSE, GRATIOT, HILLSDALE, HOUGHTON, HURON, INGHAM, IONIA, IOSCO, IRON, ISABELLA, JACKSON, KALAMAZOO, KALKASKA, KENT, KEWEENAW, LAKE, LAPEER, LEELANAU, LENAWEE, LIVINGSTON, LUCE, MACKINAC, MACOMB, MANISTEE, MARQUETTE, MASON, MECOSTA, MENOMINEE, MIDLAND, MISSAUKEE, MONTCALM, MONTMORENCY, MONROE, MUSKEGON, NEWAYGO, OAKLAND, OCEANA, OGEMAW, ONTONAGON, OSCEOLA, OSCODA, OTSEGO, OTTAWA, PRESQUE ISLE, ROSCOMMON, SAGINAW, ST. CLARE, ST. JOSEPH, SANILAC, SCHOOLCRAFT, SHIAWASSEE, TUSCOLA, VAN BUREN, WASHTENAW, WAYNE AND WEXFORD COUNTIES

	Rates	Fringes
Plumber/Pipefitter - gas distribution pipeline:		
Welding in conjunction with gas distribution pipeline work	$ 33.03	20.19
All other work:	$ 24.19	12.28

TEAM0007-004 06/01/2023

AREA 1: ALCONA, ALGER, ALLEGAN, ALPENA, ANTRIM, ARENAC, BARAGA, BARRY, BAY, BENZIE, BERRIEN, BRANCH, CALHOUN, CASS, CHARLEVOIX, CHEBOYGAN, CHIPPEWA, CLARE, CLINTON, CRAWFORD, DELTA, DICKINSON, EATON, EMMET, GLADWIN, GOGEBIC, GRAND TRAVERSE, GRATIOT, HILLSDALE, HOUGHTON, HURON, INGHAM, IONIA, IOSCO, IRON, ISABELLA, JACKSON, KALAMAZOO, KALKASKA, KENT, KEWEENAW, LAKE, LAPEER, LEELANAU, LENAWEE, LUCE, MACKINAC, MANISTEE, MARQUETTE, MASON, MECOSTA, MENOMINEE, MIDLAND, MISSAUKEE, MONTCALM, MONTMORENCY, MUSKEGON, NEWAYGO, OCEANA, OGEMAW, ONTONAGON, OSCEOLA, OSCODA, OTSEGO, OTTAWA, PRESQUE ISLE, ROSCOMMON, SAGINAW, SANILAC, SCHOOLCRAFT, SHIAWASSEE, ST. CLAIR, ST. JOSEPH, TUSCOLA, VAN BUREN AND WEXFORD COUNTIES

AREA 2: GENESEE, LIVINGSTON, MACOMB, MONROE, OAKLAND, WASHTENAW AND WAYNE COUNTIES

	Rates	Fringes
TRUCK DRIVER		
AREA 1		
Euclids, double bottoms and lowboys	$ 31.55	.75 + a+b
Trucks under 8 cu. yds	$ 31.30	.75 + a+b

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      Trucks, 8 cu. yds. and
      over.....................$ 31.30        .75 + a+b
     AREA 2
      Euclids, double bottomms
      and lowboys..............$ 24.895       .50 + a+b
      Euclids, double bottoms
      and lowboys..............$ 31.65        .75 + a+b
      Trucks under 8 cu. yds.....$ 31.40       .75 + a+b
      Trucks, 8 cu. yds. and
      over.....................$ 31.50        .75 + a+b

Footnote:
a. $470.70 per week
b. $68.70 daily
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 TEAM0247-004 04/01/2013

AREA 1: ALCONA, ALGER, ALLEGAN, ALPENA, ANTRIM, ARENAC, BARAGA,
BARRY, BAY, BENZIE, BERRIEN, BRANCH, CALHOUN, CASS, CHARLEVOIX,
CHEBOYGAN, CHIPPEWA, CLARE, CLINTON, CRAWFORD, DELTA,
DICKINSON, EATON, EMMET, GLADWIN, GOGEBIC, GRAND TRAVERSE,
GRATIOT, HILLSDALE, HOUGHTON, HURON, INGHAM,  IONIA, IOSCO,
IRON, ISABELLA, JACKSON, KALAMAZOO, KALKASKA, KENT, KEWEENAW,
LAKE, LAPEER, LEELANAU, LENAWEE, LUCE, MACKINAC, MANISTEE,
MARQUETTE, MASON, MECOSTA, MENOMINEE, MIDLAND, MISSAUKEE,
MONTCALM, MONTMORENCY, MUSKEGON, NEWAYGO, OCEANA, OGEMAW,
ONTONAGON, OSCEOLA, OSCODA, OTSEGO, OTTAWA, PRESQUE ISLE,
ROSCOMMON, SANILAC, SCHOOLCRAFT, SHIAWASSEE, SAGINAW, ST.
CLAIR, ST. JOSEPH, TUSCOLA, VAN BUREN  AND WEXFORD COUNTIES

AREA 2: GENESEE, LIVINGSTON,  MACOMB, MONROE, OAKLAND,
WASHTENAW AND WAYNE COUNTIES


                                 Rates          Fringes

Sign Installer
     AREA 1
      GROUP 1.....................$ 21.78           11.83
      GROUP 2.....................$ 25.27         11.8375
     AREA 2
      GROUP 1.....................$ 22.03           11.83
      GROUP 2.....................$ 25.02         11.8375

FOOTNOTE:

a. $132.70 per week, plus $17.80 per day.


SIGN INSTALLER CLASSIFICATIONS:

  GROUP 1: performs all necessary labor and uses all tools
  required to construct and set concrete forms required in
  the installation of highway and street signs

  GROUP 2: performs all miscellaneous labor, uses all hand and
  power tools, and operates all other equipment, mobile or
  otherwise, required for the installation of highway and
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90% Bid Package

street signs

TEAM0247-010 04/01/2018

AREA 1: LAPEER AND SHIAWASSEE COUNTIES

AREA 2: GENESEE, MACOMB, MONROE, OAKLAND, ST. CLAIR, WASHTENAW AND WAYNE COUNTIES

	Rates	Fringes
TRUCK DRIVER (Underground construction)		
AREA 1		
GROUP 1	$ 23.82	19.04
GROUP 2	$ 23.91	19.04
GROUP 3	$ 24.12	19.04
AREA 2		
GROUP 1	$ 24.12	19.04
GROUP 2	$ 24.26	19.04
GROUP 3	$ 24.45	19.04

PAID HOLIDAYS: New Year's Day, Memorial Day, Fourth of July, Labor Day, Thanksgiving Day and Christmas Day.

SCOPE OF WORK: Excavation, site preparation, land balancing, grading, sewers, utilities and improvements; also including but not limited to, tunnels, underground piping, retention, oxidation, flocculation facilities, conduits, general excavation and steel sheeting for underground construction. Underground construction work shall not include any structural modifications, alterations, additions and repairs to buildings or highway work, including roads, streets, bridge construction and parking lots or steel erection.

TRUCK DRIVER CLASSIFICATIONS

GROUP 1: Truck driver on all trucks (EXCEPT dump trucks of 8 cubic yards capacity or over, pole trailers, semis, low boys, Euclid, double bottom and fuel trucks)

GROUP 2: Truck driver on dump trucks of 8 cubic yards capacity or over, pole trailers, semis and fuel trucks

GROUP 3: Truck driver on low boy, Euclid and double bottom

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* SUMI2002-001 05/01/2002

	Rates	Fringes
FLAG PERSON	$ 10.10 **	0.00
LINE PROTECTOR (ZONE 1: GENESEE, MACOMB, MONROE,		

OAKLAND, WASHTENAW AND WAYNE)....$ 22.89 13.45

LINE PROTECTOR (ZONE 2:
STATEWIDE (EXCLUDING GENESEE,
MACOMB, MONROE, OAKLAND,
WASHTENAW AND WAYNE).....$ 20.19 13.45

Pavement Marking Machine
(ZONE 1: GENESEE, MACOMB,
MONROE, OAKLAND, WASHTENAW
AND WAYNE COUNTIES)
Group 1.....$ 30.52 13.45

Pavement Marking Machine
(ZONE 1: GENESEE, MACOMB,
MONROE, OAKLAND, WASHTENAW
AND WAYNE)
Group 2.....$ 27.47 13.45

Pavement Marking Machine
(ZONE 2: STATEWIDE (EXCLUDING
GENESEE, MACOMB, MONROE,
OAKLAND, WASHTENAW AND WAYNE
COUNTIES)
Group 1.....$ 26.92 13.45

Pavement Marking Machine
(ZONE 2: STATEWIDE (EXCLUDING
GENESEE, MACOMB, MONROE,
OAKLAND, WASHTENAW AND WAYNE)
Group 2.....$ 24.23 13.45

WORK CLASSIFICATIONS:

PAVEMENT MARKER GROUP 1: Drives or operates a truck mounted striper, grinder, blaster, groover, or thermoplastic melter for the placement or removal of temporary or permanent pavement markings or markers.

PAVEMENT MARKER GROUP 2: Performs all functions involved for the placement or removal of temporary or permanent pavement markings or markers not covered by the classification of Pavement Marker Group 1 or Line Protector.

LINE PROTECTOR: Performs all operations for the protection or removal of temporary or permanent pavement markings or markers in a moving convoy operation not performed by the classification of Pavement Marker Group 1. A moving convoy operation is comprised of only Pavement Markers Group 1 and Line Protectors.

WELDERS - Receive rate prescribed for craft performing operation to which welding is incidental.

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** Workers in this classification may be entitled to a higher minimum wage under Executive Order 14026 ($17.20) or 13658 ($12.90). Please see the Note at the top of the wage determination for more information. Please also note that the minimum wage requirements of Executive Order 14026 are not currently being enforced as to any contract or subcontract to which the states of Texas, Louisiana, or Mississippi, including their agencies, are a party.

Note: Executive Order (EO) 13706, Establishing Paid Sick Leave for Federal Contractors applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2017. If this contract is covered by the EO, the contractor must provide employees with 1 hour of paid sick leave for every 30 hours they work, up to 56 hours of paid sick leave each year. Employees must be permitted to use paid sick leave for their own illness, injury or other health-related needs, including preventive care; to assist a family member (or person who is like family to the employee) who is ill, injured, or has other health-related needs, including preventive care; or for reasons resulting from, or to assist a family member (or person who is like family to the employee) who is a victim of, domestic violence, sexual assault, or stalking. Additional information on contractor requirements and worker protections under the EO is available at https://www.dol.gov/agencies/whd/government-contracts.

Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29CFR 5.5 (a) (1) (iii)).

The body of each wage determination lists the classification and wage rates that have been found to be prevailing for the cited type(s) of construction in the area covered by the wage determination. The classifications are listed in alphabetical order of ""identifiers"" that indicate whether the particular rate is a union rate (current union negotiated rate for local), a survey rate (weighted average rate) or a union average rate (weighted union average rate).

Union Rate Identifiers

A four letter classification abbreviation identifier enclosed in dotted lines beginning with characters other than ""SU"" or ""UAVG"" denotes that the union classification and rate were prevailing for that classification in the survey. Example: PLUM0198-005 07/01/2014. PLUM is an abbreviation identifier of the union which prevailed in the survey for this classification, which in this example would be Plumbers. 0198 indicates the local union number or district council number where applicable, i.e., Plumbers Local 0198. The next number, 005 in the example, is an internal number used in processing

the wage determination. 07/01/2014 is the effective date of the most current negotiated rate, which in this example is July 1, 2014.

Union prevailing wage rates are updated to reflect all rate changes in the collective bargaining agreement (CBA) governing this classification and rate.

Survey Rate Identifiers

Classifications listed under the ""SU"" identifier indicate that no one rate prevailed for this classification in the survey and the published rate is derived by computing a weighted average rate based on all the rates reported in the survey for that classification. As this weighted average rate includes all rates reported in the survey, it may include both union and non-union rates. Example: SULA2012-007 5/13/2014. SU indicates the rates are survey rates based on a weighted average calculation of rates and are not majority rates. LA indicates the State of Louisiana. 2012 is the year of survey on which these classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. 5/13/2014 indicates the survey completion date for the classifications and rates under that identifier.

Survey wage rates are not updated and remain in effect until a new survey is conducted.

Union Average Rate Identifiers

Classification(s) listed under the UAVG identifier indicate that no single majority rate prevailed for those classifications; however, 100% of the data reported for the classifications was union data. EXAMPLE: UAVG-OH-0010 08/29/2014. UAVG indicates that the rate is a weighted union average rate. OH indicates the state. The next number, 0010 in the example, is an internal number used in producing the wage determination. 08/29/2014 indicates the survey completion date for the classifications and rates under that identifier.

A UAVG rate will be updated once a year, usually in January of each year, to reflect a weighted average of the current negotiated/CBA rate of the union locals from which the rate is based.

State Adopted Rate Identifiers

Classifications listed under the ""SA"" identifier indicate that the prevailing wage rate set by a state (or local) government was adopted under 29 C.F.R 1.3(g)-(h). Example: SAME2023-007 01/03/2024. SA reflects that the rates are state adopted. ME refers to the State of Maine. 2023 is the year during which the state completed the survey on which the listed classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. 01/03/2024 reflects the date on which the classifications and rates under the ?SA? identifier took effect under state law in the state from which the rates were adopted.

90% Bid Package

WAGE DETERMINATION APPEALS PROCESS

1.) Has there been an initial decision in the matter? This can be:

* an existing published wage determination
* a survey underlying a wage determination
* a Wage and Hour Division letter setting forth a position on a wage determination matter
* a conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour National Office because National Office has responsibility for the Davis-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described in 2.) and 3.) should be followed.

With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the Branch of Construction Wage Determinations. Write to:

Branch of Construction Wage Determinations
Wage and Hour Division
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

2.) If the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Write to:

Wage and Hour Administrator
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

The request should be accompanied by a full statement of the interested party's position and by any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3.) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

4.) All decisions by the Administrative Review Board are final.

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END OF GENERAL DECISION"

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SECTION 01 10 00

SUMMARY

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Contract description.
2. Contractor's use of Site.
3. Permits.
4. Specification conventions.

1.2 CONTRACT DESCRIPTION

A. Work of the Project consists of removing and replacing existing poured-in-place playground surfacing at Ford Heritage Park.

B. Perform Work of Contract under stipulated sum Contract with Owner according to Conditions of Contract.

1.3 CONTRACTOR'S USE OF SITE

A. Access to Site: Contractor may, at their own cost, close the park or portions of the park to public. Contractor is responsible for safety and security of the site. Contractor must allow safe and reasonable access to the Owner or Owner’s representative.

B. Time Restrictions for Performing Work: as described in General and Supplemental Conditions.

C. Construction Plan: Before start of construction, submit by email an electronic file in PDF format of construction plan regarding access to Work, use of Site, and utility outages for acceptance by Owner. After acceptance of plan, construction operations shall comply with accepted plan unless deviations are accepted by Owner in writing.

1.4 PERMITS

A. Furnish any necessary permits for construction of Work and delivery of materials.

1.5 SPECIFICATION CONVENTIONS

A. These Specifications are written in imperative mood and streamlined form. This imperative language is directed to Contractor unless specifically noted otherwise. The words "shall be" are included by inference where a colon (:) is used within sentences or phrases.

PART 2 - PRODUCTS - Not Used

PART 3 - EXECUTION - Not Used

END OF SECTION 01 10 00

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SECTION 01 20 00

PRICE AND PAYMENT PROCEDURES

PART 1 - GENERAL

1.1 SECTION INCLUDES

A. Application for Payment.

B. Change procedures.

C. Defect assessment.

D. Unit prices.

1.2 APPLICATION FOR PAYMENT

A. Submit via email electronic file in PDF format of each Application for Payment on EJCDC C-620 - Contractor's Application for Payment.

B. Content and Format: Use Schedule of Values for listing items in Application for Payment.

C. Submit updated construction schedule with each Application for Payment.

D. Payment Period: Submit at intervals stipulated in the Agreement.

E. Submit submittals with transmittal letter as specified in Section 01 33 00 - Submittal Procedures.

F. Substantiating Data: When Engineer requires substantiating information, submit data justifying dollar amounts in question. Include the following with Application for Payment:
   1. Partial release of liens from major Subcontractors and vendors.
   2. Affidavits attesting to off-Site stored products.
   3. Construction Progress Schedule, revised and current as specified in Section 01 33 00 - Submittal Procedures.

1.3 CHANGE PROCEDURES

A. Submittals: Submit name of individual who is authorized to receive change documents and is responsible for informing others in Contractor's employ or Subcontractors of changes to the Work.

B. Carefully study and compare Contract Documents before proceeding with fabrication and installation of Work. Promptly advise Engineer of any error, inconsistency, omission, or apparent discrepancy.

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C. Requests for Interpretation (RFI) and Clarifications: Allot time in construction scheduling for liaison with Engineer; establish procedures for handling queries and clarifications.

1. Use CSI Form 13.2A - Request for Interpretation for requesting interpretations.
2. Engineer may respond with a direct answer on the Request for Interpretation form,, EJCDC C-942 - Field Order, or CSI Form 13/6A - Change Order Request (Proposal).

D. Engineer will advise of minor changes in the Work not involving adjustment to Contract Sum/Price or Contract Time by issuing supplemental instructions on EJCDC C-942.

E. Engineer may issue CSI Form 13/6A including a detailed description of proposed change with supplementary or revised Drawings and Specifications, a change in Contract Time for executing the change with stipulation of overtime work required and with the period of time during which the requested price will be considered valid. Contractor will prepare and submit estimate within 5 days.

F. Document requested substitutions according to Section 01 25 00 - Substitution Procedures.

G. Unit Price Change Order: For Contract unit prices and quantities, the Change Order will be executed on a fixed unit price basis. For unit costs or quantities of units of that which are not predetermined, execute Work under Work Directive Change. Changes in Contract Sum/Price or Contract Time will be computed as specified for Force Account Change Order.

H. Work Directive Change: Engineer may issue directive, on EJCDC C-940 - Work Change Directive signed by Owner, instructing Contractor to proceed with change in the Work, for subsequent inclusion in a Change Order. Document will describe changes in the Work and designate method of determining any change in Contract Sum/Price or Contract Time. Promptly execute change.

I. Force Account Change Order: Submit itemized account and supporting data after completion of change, within time limits indicated in Conditions of the Contract. Engineer will determine change allowable in Contract Sum/Price and Contract Time as provided in Contract Documents.

J. Maintain detailed records of Work done on force account basis. Provide full information required for evaluation of proposed changes and to substantiate costs for changes in the Work.

K. Document each quotation for change in Project Cost or Time with sufficient data to allow evaluation of quotation.

L. Change Order Forms: EJCDC C-941 - Change Order.

M. Execution of Change Orders: Engineer will issue Change Orders for signatures of parties as provided in Conditions of the Contract.

N. Correlation of Contractor Submittals:

1. Promptly revise Schedule of Values and Application for Payment forms to record each authorized Change Order as separate line item and adjust Contract Sum/Price.
2. Promptly revise Progress Schedules to reflect change in Contract Time, revise subschedules to adjust times for other items of Work affected by the change, and resubmit.
3. Promptly enter changes in Record Documents.

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1.4 DEFECT ASSESSMENT

A. Replace the Work, or portions of the Work, not conforming to specified requirements.

B. If, in the opinion of Engineer, it is not practical to remove and replace the Work, Engineer will direct appropriate remedy or adjust payment.

C. The defective Work may remain, but unit sum/price will be adjusted to new sum/price at discretion of Engineer.

D. Defective Work will be partially repaired according to instructions of Engineer, and unit sum/price will be adjusted to new sum/price at discretion of Engineer.

E. Individual Specification Sections may modify these options or may identify specific formula or percentage sum/price reduction.

F. Authority of Engineer to assess defects and identify payment adjustments is final.

G. Nonpayment for Rejected Products: Payment will not be made for rejected products for any of the following reasons:

1. Products wasted or disposed of in a manner that is not acceptable.
2. Products determined as unacceptable before or after placement.
3. Products not completely unloaded from transporting vehicle.
4. Products placed beyond lines and levels of the required Work.
5. Products remaining on hand after completion of the Work.
6. Loading, hauling, and disposing of rejected products.

1.5 UNIT PRICES

A. Authority: Measurement methods are delineated in 01 22 20 - Measurement and Payment section.

B. Take measurements and compute quantities. Engineer will verify measurements and quantities.

C. Unit Quantities: Quantities and measurements indicated on Bid Form are for Contract purposes only. Actual quantities provided shall determine payment.

1. When actual Work requires more or fewer quantities than those quantities indicated, provide required quantities at contracted unit sum/prices.
2. When actual Work requires 25 percent or greater change in quantity than those quantities indicated, Owner or Contractor may claim a Contract Price adjustment.

D. Payment Includes: Full compensation for required labor, products, tools, equipment, plant and facilities, transportation, services and incidentals; erection, application, or installation of item of the Work; overhead and profit.

E. Final payment for Work governed by unit prices will be made on basis of actual measurements and quantities accepted by Engineer multiplied by unit sum/price for Work incorporated in or made necessary by the Work.

F. Measurement of Quantities:

1. Weigh Scales: Inspected, tested, and certified by applicable State weights and measures department within past year.
2. Platform Scales: Of sufficient size and capacity to accommodate conveying vehicle.
3. Metering Devices: Inspected, tested, and certified by applicable State department within past year.
4. Measurement by Weight: Concrete reinforcing steel, rolled or formed steel, or other metal shapes will be measured by handbook weights. Welded assemblies will be measured by handbook or scale weight.
5. Measurement by Volume: Measured by cubic dimension using mean length, width, and height or thickness.
6. Measurement by Area: Measured by square dimension using mean length and width or radius.
7. Linear Measurement: Measured by linear dimension, at item centerline or mean chord.
8. Stipulated Sum/Price Measurement: Items measured by weight, volume, area, or linear means or combination, as appropriate, as completed item or unit of the Work.

PART 2 - PRODUCTS - Not Used

PART 3 - EXECUTION - Not Used

END OF SECTION 01 20 00

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SECTION 01 22 20

MEASUREMENT AND PAYMENT

PART 1 - GENERAL

1.1 SCOPE

1. This section describes the method of measurement and basis of payment for all items of the work included in the Contract and indicated in the Bid Proposal. Provide all labor, material, tools, equipment, and services required to complete the Work included in the Contract Documents. Items described in the Specifications and indicated on the Drawings, but not shown in this specification section, are considered incidental to the Project.

2. Each bid item on the bid form includes all work items required to construct the work as shown on the drawings and indicated in the specifications, including those items not specifically stated below in this section.

3. From time to time, Contractors may receive written authorization to perform additions to or deletions from the Work, on a Unit Rate Price basis; the costs of Changes shall be calculated in accordance with the Unit Rate Pricing or "Add/Deduct" indicated on this Bid Form.

   Unless otherwise noted, each Unit Rate Price includes all direct and indirect costs for labor, equipment, transportation, testing services, general work expenses, applicable taxes, overhead, and other costs required to complete the work.

   a) The all-inclusive Unit Rate Prices are fixed for the duration of this Contract, and not subject to escalation.
   b) The Unit Rate Prices shall include all Work the Contractor is required to perform without regard to the quantities involved, difficulty in performing the Work, materials or equipment required, and specific handling of materials and equipment.
   c) All Unit Rate Prices shall apply at 100% of their value for both additions and deletions to the Scope of Work, unless mutually agreed to otherwise in accordance with the Contract Documents.

1.2 UNIT PRICE – MEASUREMENT AND PAYMENT

1. Removal of Fiber Mulch Safety Surfacing
   a) Basis of Measurement: By the unit price bid per square foot as stated in the proposal.
   b) Basis of Payment: Installs all the associated labor, material, and equipment for complete removal of existing fiber mulch and wear mats including all excavation required to prepare area for installation of new safety surface and disposal of existing material.

2. Removal of Poured-in-Place Safety Surfacing
   a) Basis of Measurement: By the unit price bid per square foot as stated in the proposal.
   b) Basis of Payment: Install all the associated labor, materials, and equipment for complete removal of existing poured-in-place safety surfacing including all excavation required to prepare are for installation of new safety surface and disposal of existing material.

3. Engineered Wood Fiber Safety Surfacing
   a) Basis of Measurement: By the unit price of square foot as stated in the proposal.
   b) Basis of Payment: Includes associated all labor, materials, and equipment needed to install safety surfacing including engineered wood fiber, wear pads, geotextile fiber, and peastone as needed.

4. Poured-in-Place Safety Surfacing
   a) Basis of Measurement: By the unit price of square foot as stated in the proposal.
   b) Basis of Payment: Includes associated all labor, materials, and equipment needed to install safety surfacing including poured in place safety surface at depth specified by manufacturer, geotextile fiber, underdrain, and peastone as needed.
   c)

5. Mobilization, Max 5%
   a) Basis of Measurement: Included in the lump sum price bid as stated in the proposal.
   b) Basis of Payment: This work consists of preparatory work and operations including, but not limited to, the following:
      a. The movement of personnel, equipment, supplies, and incidental to the project site
      b. Establishment of the contractor's offices, buildings, and other facilities to support work on the project including associated job sites posters.
      c. Other work and operations the contractor must perform.
      d. Expenses incurred, before beginning work on pay items at the project site.
      e. Pre-construction costs, exclusive of bidding costs, that are necessary direct costs to the project rather than directly attributable to other pay items under contract.
      f. Payment shall be in accordance with MDOT Standard Specifications of Construction Table 150-1.

END OF SECTION 01 22 20

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SECTION 01 25 00

SUBSTITUTION PROCEDURES

PART 1 - GENERAL

1.1 SECTION INCLUDES

A. Quality assurance.

B. Product options.

C. Product substitution procedures.

1.2 QUALITY ASSURANCE

A. Contract is based on products and standards established in Contract Documents without consideration of proposed substitutions.

B. Products specified define standard of quality, type, function, dimension, appearance, and performance required.

C. Substitution Proposals: Permitted for specified products except where specified otherwise. Do not substitute products unless substitution has been accepted and approved in writing by Owner.

1.3 PRODUCT OPTIONS

A. See Section 01 60 00 - Product Requirements.

1.4 PRODUCT SUBSTITUTION PROCEDURES

A. Engineer will consider requests for substitutions only within 15 days after date of Owner-Contractor Agreement.

B. Substitutions may be considered when a product becomes unavailable through no fault of Contractor.

C. Document each request with complete data, substantiating compliance of proposed substitution with Contract Documents, including:

1. Manufacturer's name and address, product, trade name, model, or catalog number, performance and test data, and reference standards.
2. Itemized point-by-point comparison of proposed substitution with specified product, listing variations in quality, performance, and other pertinent characteristics.
3. Reference to Article and Paragraph numbers in Specification Section.

4. Cost data comparing proposed substitution with specified product and amount of net change to Contract Sum.
5. Changes required in other Work.
6. Availability of maintenance service and source of replacement parts as applicable.
7. Certified test data to show compliance with performance characteristics specified.
8. Samples when applicable or requested.
9. Other information as necessary to assist Engineer's evaluation.

D. A request constitutes a representation that Contractor:

1. Has investigated proposed product and determined that it meets or exceeds quality level of specified product.
2. Will provide same warranty for substitution as for specified product.
3. Will coordinate installation and make changes to other Work that may be required for the Work to be complete with no additional cost to Owner.
4. Waives claims for additional costs or time extension that may subsequently become apparent.
5. Will coordinate installation of the accepted substitute, making such changes as may be required for the Work to be complete in all respects.
6. Will reimburse Owner for review or redesign services associated with reapproval by authorities having jurisdiction.

E. Substitutions will not be considered when they are indicated or implied on Shop Drawing or Product Data submittals without separate written request or when acceptance will require revision to Contract Documents.

F. Substitution Submittal Procedure:

1. Submit requests for substitutions on CSI Form 13.1A Substitution Request-After the Bidding/Negotiating Stage.
2. Submit, via email, a file in PDF format of Request for Substitution for consideration. Limit each request to one proposed substitution.
3. Submit Shop Drawings, Product Data, and certified test results attesting to proposed product equivalence. Burden of proof is on proposer.
4. Engineer will notify Contractor in writing of decision to accept or reject request.

PART 2 - PRODUCTS - Not Used

PART 3 - EXECUTION - Not Used

END OF SECTION 01 25 00

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SECTION 01 30 00

ADMINISTRATIVE REQUIREMENTS

PART 1 - GENERAL

1.1 SECTION INCLUDES

A. Coordination and Project conditions.

B. Preconstruction meeting.

C. Progress meetings.

D. Closeout meeting.

1.2 COORDINATION AND PROJECT CONDITIONS

A. Coordinate scheduling, submittals, and Work of various Sections of Project Manual to ensure efficient and orderly sequence of installation of interdependent construction elements, with provisions for accommodating items installed later.

B. Verify that utility requirements and characteristics of operating equipment are compatible with building utilities. Coordinate Work of various Sections having interdependent responsibilities for installing, connecting to, and placing operating equipment in service.

C. Coordination Meetings: In addition to other meetings specified in this Section, hold coordination meetings with personnel and Subcontractors to ensure coordination of Work.

D. Coordinate completion and clean-up of Work of separate Sections in preparation for Substantial Completion.

E. After Owner's occupancy of premises, coordinate access to Site for correction of defective Work and Work not complying with Contract Documents, to minimize disruption of Owner's activities.

1.3 PRECONSTRUCTION MEETING

A. Engineer will schedule and preside over meeting after Notice of Award.

B. Attendance Required: Engineer, Owner, major Subcontractors, and Contractor.

C. Minimum Agenda:
1. Submission of executed bonds and insurance certificates.
2. Distribution of Contract Documents.
3. Submission of list of Subcontractors, list of products, schedule of values, and Progress Schedule.
4. Designation of personnel representing parties in Contract and Engineer.

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5. Communication procedures.
6. Procedures and processing of requests for interpretations, field decisions, field orders, submittals, substitutions, Applications for Payments, proposal request, Change Orders, and Contract closeout procedures.
7. Scheduling.
8. Critical Work sequencing.

D. Engineer: Record minutes and distribute copies to participants within two days after meeting, with two copies each to Contractor, Owner, and those affected by decisions made.

1.4 PROGRESS MEETINGS

A. Schedule and administer meetings throughout progress of the Work at maximum monthly intervals.

B. Engineer will make arrangements for meetings, prepare agenda with copies for participants, and preside over meetings.

C. Attendance Required: Job superintendent, major Subcontractors and suppliers, and Engineer, as appropriate to agenda topics for each meeting.

D. Minimum Agenda:

1. Review minutes of previous meetings.
2. Review of Work progress.
3. Field observations, problems, and decisions.
4. Identification of problems impeding planned progress.
5. Review of submittal schedule and status of submittals.
6. Review of off-Site fabrication and delivery schedules.
7. Maintenance of Progress Schedule.
8. Corrective measures to regain projected schedules.
9. Planned progress during succeeding work period.
10. Coordination of projected progress.
11. Maintenance of quality and work standards.
12. Effect of proposed changes on Progress Schedule and coordination.
13. Other business relating to Work.

E. Engineer: Record minutes and distribute copies to participants within two days after meeting, with two copies each to Contractor, Owner, and those affected by decisions made.

1.5 CLOSEOUT MEETING

A. Schedule Project closeout meeting with sufficient time to prepare for requesting Substantial Completion. Preside over meeting and be responsible for minutes.

B. Attendance Required: Contractor, major Subcontractors, Engineer, Owner, and others appropriate to agenda.

C. Notify Engineer four days in advance of meeting date.

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D. Minimum Agenda:

1. Contractor's inspection of Work.
2. Contractor's preparation of an initial "punch list."
3. Procedure to request Engineer inspection to determine date of Substantial Completion.
4. Completion time for correcting deficiencies.
5. Inspections by authorities having jurisdiction.
6. Final cleaning.
7. Preparation for final inspection.
8. Closeout Submittals:
9. Final Application for Payment.
10. Contractor's demobilization of Site.
11. Maintenance.

E. Record minutes and distribute copies to participants within two days after meeting, with two copies each to Engineer, Owner, and those affected by decisions made.

PART 2 - PRODUCTS - Not Used

PART 3 - EXECUTION – Not Used

END OF SECTION 01 30 00

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SECTION 01 32 16

CONSTRUCTION PROGRESS SCHEDULE

PART 1 - GENERAL

1.1 SECTION INCLUDES

A. Submittals.

B. Review and evaluation.

C. Updating schedules.

D. Distribution.

1.2 SUBMITTALS

A. Within 10 days after date of Owner-Contractor Agreement, submit proposed preliminary network diagram defining planned operations for first 60 days of Work, with general outline for remainder of Work.

B. Participate in review of preliminary and complete network diagrams jointly with Engineer.

C. Within 20 days after joint review of proposed preliminary network diagram, submit draft of proposed complete network diagram for review. Include written certification that major Subcontractors have reviewed and accepted proposed schedule.

D. Within 10 days after joint review, submit complete network analysis consisting of network diagrams and mathematical analyses.

E. Submit updated network schedules with each Application for Payment.

F. Submit number of opaque reproductions Contractor requires, plus two copies Engineer will retain.

G. Submit network schedules under transmittal letter form specified in Section 01 33 00 - Submittal Procedures.

H. Schedule Updates:

1. Overall percent complete, projected and actual.
2. Completion progress by listed activity and sub activity, to within five working days prior to submittal.
3. Changes in Work scope and activities modified since submittal.
4. Delays in submittals or resubmittals, deliveries, or Work.
5. Adjusted or modified sequences of Work.
6. Other identifiable changes.
7. Revised projections of progress and completion.

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I. Narrative Progress Report:

1. Submit with each monthly submission of Progress Schedule.
2. Summary of Work completed during the past period between reports.
3. Work planned during the next period.
4. Explanation of differences between summary of Work completed and Work planned in previously submitted report.
5. Current and anticipated delaying factors and estimated impact on other activities and completion milestones.
6. Corrective action taken or proposed.

1.3 REVIEW AND EVALUATION

A. Participate in joint review and evaluation of schedules with Engineer at each submittal.

B. Evaluate Project status to determine Work behind schedule and Work ahead of schedule.

C. After review, revise schedules incorporating results of review, and resubmit within 10 days.

1.4 UPDATING SCHEDULES

A. Maintain schedules to record actual start and finish dates of completed activities.

B. Indicate progress of each activity to date of revision, with projected completion date of each activity. Update schedules to depict current status of Work.

C. Identify activities modified since previous submittal, major changes in Work, and other identifiable changes.

D. Upon approval of a Change Order, include the change in the next schedule submittal.

E. Indicate changes required to maintain Date of Substantial Completion.

F. Submit sorts as required to support recommended changes.

G. Prepare narrative report to define problem areas, anticipated delays, and impact on schedule. Report corrective action taken or proposed and its effect.

1.5 DISTRIBUTION

A. Following joint review, distribute copies of updated schedules to Contractor's Project site file, to Subcontractors, suppliers, Engineer, Owner, and other concerned parties.

B. Instruct recipients to promptly report, in writing, problems anticipated by projections shown in schedules.

PART 2 - PRODUCTS - Not Used

PART 3 - EXECUTION - Not Used

END OF SECTION 01 32 16

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SECTION 01 33 00

SUBMITTAL PROCEDURES

PART 1 - GENERAL

1.1 SECTION INCLUDES

A. Definitions.

B. Submittal procedures.

C. Construction progress schedules.

D. Proposed product list.

E. Product data.

F. Use of electronic CAD files of Project Drawings.

G. Shop Drawings.

H. Samples.

I. Other submittals.

J. Test reports.

K. Certificates.

L. Manufacturer's instructions.

M. Manufacturer's field reports.

N. Erection Drawings.

O. Contractor review.

P. Engineer review.

1.2 DEFINITIONS

A. Action Submittals: Written and graphic information and physical samples that require Engineer's responsive action.

B. Informational Submittals: Written and graphic information and physical Samples that do not require Engineer's responsive action. Submittals may be rejected for not complying with requirements.

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1.3 SUBMITTAL PROCEDURES

A. Transmit each submittal with CSI Form 12.1A - Submittal Transmittal.

B. Sequentially number transmittal forms. Mark revised submittals with original number and sequential alphabetic suffix.

C. Identify: Project, Contractor, Subcontractor and supplier, pertinent Drawing and detail number, and Specification Section number appropriate to submittal.

D. Apply Contractor's stamp, signed or initialed, certifying that review, approval, verification of products required, field dimensions, adjacent construction Work, and coordination of information is according to requirements of the Work and Contract Documents.

E. Schedule submittals to expedite Project, and submit electronic submittals via email as PDF electronic files. Coordinate submission of related items.

F. For each submittal for review, allow 15 days excluding delivery time to and from Contractor.

G. Identify variations in Contract Documents and product or system limitations that may be detrimental to successful performance of completed Work.

H. Allow space on submittals for Contractor and Engineer review stamps.

I. When revised for resubmission, identify changes made since previous submission.

J. Distribute copies of reviewed submittals as appropriate. Instruct parties to promptly report inability to comply with requirements.

K. Submittals not requested will not be recognized nor processed.

L. Incomplete Submittals: Engineer will not review. Complete submittals for each item are required. Delays resulting from incomplete submittals are not the responsibility of Engineer.

1.4 CONSTRUCTION PROGRESS SCHEDULES

A. Comply with Section 01 32 16 - Construction Progress Schedule

1.5 PROPOSED PRODUCT LIST

A. Within 15 days after date of Owner-Contractor Agreement, submit list of major products proposed for use, with name of manufacturer, trade name, and model number of each product.

B. For products specified only by reference standards, indicate manufacturer, trade name, model or catalog designation, and reference standards.

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1.6 PRODUCT DATA

A. Product Data: Action Submittal: Submit to Engineer for review for assessing conformance with information given and design concept expressed in Contract Documents.

B. Submit electronic submittals via email as PDF electronic files.

C. Mark each copy to identify applicable products, models, options, and other data. Supplement manufacturers' standard data to provide information specific to this Project.

D. Indicate product utility and electrical characteristics, utility connection requirements, and location of utility outlets for service for functional equipment and appliances.

E. After review, produce copies and distribute according to "Submittal Procedures" Article and for record documents described in Section 01 70 00 - Execution and Closeout Requirements.

1.7 ELECTRONIC CAD FILES OF PROJECT DRAWINGS

A. Electronic CAD Files of Project Drawings: May only be used to expedite production of Shop Drawings for the Project. Use for other Projects or purposes is not allowed.

B. Electronic CAD Files of Project Drawings: Distributed only under the following conditions:

1. Use of files is solely at receiver's risk. Engineer does not warrant accuracy of files. Receiving files in electronic form does not relieve receiver of responsibilities for measurements, dimensions, and quantities set forth in Contract Documents. In the event of ambiguity, discrepancy, or conflict between information on electronic media and that in Contract Documents, notify Engineer of discrepancy and use information in hard-copy Drawings and Specifications.
2. CAD files do not necessarily represent the latest Contract Documents, existing conditions, and as-built conditions. Receiver is responsible for determining and complying with these conditions and for incorporating addenda and modifications.
3. User is responsible for removing information not normally provided on Shop Drawings and removing references to Contract Documents. Shop Drawings submitted with information associated with other trades or with references to Contract Documents will not be reviewed and will be immediately returned.
4. Receiver shall not hold Engineer responsible for data or file clean-up required to make files usable, nor for error or malfunction in translation, interpretation, or use of this electronic information.
5. Receiver shall understand that even though Engineer has computer virus scanning software to detect presence of computer viruses, there is no guarantee that computer viruses are not present in files or in electronic media.
6. Receiver shall not hold Engineer responsible for such viruses or their consequences, and shall hold Engineer harmless against costs, losses, or damage caused by presence of computer virus in files or media.

1.8 SHOP DRAWINGS

A. Shop Drawings: Action Submittal: Submit to Engineer for assessing conformance with information given and design concept expressed in Contract Documents.

B. Indicate special utility and electrical characteristics, utility connection requirements, and location of utility outlets for service for functional equipment and appliances.

C. When required by individual Specification Sections, provide Shop Drawings signed and sealed by a professional Engineer responsible for designing components shown on Shop Drawings.

1. Include signed and sealed calculations to support design.
2. Submit Shop Drawings and calculations in form suitable for submission to and approval by authorities having jurisdiction.
3. Make revisions and provide additional information when required by authorities having jurisdiction.

D. Submit electronic submittals via email as PDF electronic files.

E. After review, produce copies and distribute according to "Submittal Procedures" Article and for record documents described in Section 01 70 00 - Execution and Closeout Requirements.

1.9 SAMPLES

A. Samples: Action Submittal: Submit to Engineer for assessing conformance with information given and design concept expressed in Contract Documents.

B. Samples for Selection as Specified in Product Sections:

1. Submit to Engineer for aesthetic, color, and finish selection.
2. Submit Samples of finishes, textures, and patterns for Engineer selection.

C. Submit Samples to illustrate functional and aesthetic characteristics of products, with integral parts and attachment devices. Coordinate Sample submittals for interfacing work.

D. Include identification on each Sample, with full Project information.

E. Submit number of Samples specified in individual Specification Sections; Engineer will retain one Sample.

F. Reviewed Samples that may be used in the Work are indicated in individual Specification Sections.

G. Samples will not be used for testing purposes unless specifically stated in Specification Section.

H. After review, produce copies and distribute according to "Submittal Procedures" Article and for record documents described in Section 01 70 00 - Execution and Closeout Requirements.

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1.10 OTHER SUBMITTALS

A. Closeout Submittals: Comply with Section 01 70 00 - Execution and Closeout Requirements.

B. Informational Submittal: Submit data for Engineer's knowledge as Contract administrator or for Owner.

C. Submit information for assessing conformance with information given and design concept expressed in Contract Documents.

1.11 TEST REPORTS

A. Informational Submittal: Submit reports for Engineer's knowledge as Contract administrator or for Owner.

B. Submit test reports for information for assessing conformance with information given and design concept expressed in Contract Documents.

1.12 CERTIFICATES

A. Informational Submittal: Submit certification by manufacturer, installation/application Subcontractor, or Contractor to Engineer, in quantities specified for Product Data.

B. Indicate material or product conforms to or exceeds specified requirements. Submit supporting reference data, affidavits, and certifications as appropriate.

C. Certificates may be recent or previous test results on material or product but must be acceptable to Engineer.

1.13 MANUFACTURER'S INSTRUCTIONS

A. Informational Submittal: Submit manufacturer's installation instructions for Engineer's knowledge as Contract administrator or for Owner.

B. Submit printed instructions for delivery, storage, assembly, installation, adjusting, and finishing, to Engineer in quantities specified for Product Data.

C. Indicate special procedures, perimeter conditions requiring special attention, and special environmental criteria required for application or installation.

1.14 MANUFACTURER'S FIELD REPORTS

A. Informational Submittal: Submit reports for Engineer's knowledge as Contract administrator or for Owner.

B. Submit report within 5 days of observation to Engineer for information.

C. Submit reports for information for assessing conformance with information given and design concept expressed in Contract Documents.

1.15 ERECTION DRAWINGS

A. Informational Submittal: Submit Drawings for Engineer's knowledge as Contract administrator or for Owner.

B. Submit Drawings for information assessing conformance with information given and design concept expressed in Contract Documents.

C. Data indicating inappropriate or unacceptable Work may be subject to action by Engineer or Owner.

1.16 CONTRACTOR REVIEW

A. Review for compliance with Contract Documents and approve submittals before transmitting to Engineer.

B. Contractor: Responsible for:

1. Determination and verification of materials including manufacturer's catalog numbers.
2. Determination and verification of field measurements and field construction criteria.
3. Checking and coordinating information in submittal with requirements of Work and of Contract Documents.
4. Determination of accuracy and completeness of dimensions and quantities.
5. Confirmation and coordination of dimensions and field conditions at Site.
6. Construction means, techniques, sequences, and procedures.
7. Safety precautions.
8. Coordination and performance of Work of all trades.

C. Stamp, sign or initial, and date each submittal to certify compliance with requirements of Contract Documents.

D. Do not fabricate products or begin Work for which submittals are required until approved submittals have been received from Engineer.

1.17 ENGINEER REVIEW

A. Do not make "mass submittals" to Engineer. "Mass submittals" are defined as six or more submittals or items in one day or 15 or more submittals or items in one week. If "mass submittals" are received, Engineer's review time stated above will be extended as necessary to perform proper review. Engineer will review "mass submittals" based on priority determined by Engineer after consultation with Owner and Contractor.

B. Informational submittals and other similar data are for Engineer's information, do not require Engineer's responsive action, and will not be reviewed or returned with comment.

C. Submittals made by Contractor that are not required by Contract Documents may be returned without action.

D. Submittal approval does not authorize changes to Contract requirements unless accompanied by Change Order, Field Order, or Work Change Directive.

PART 2 - PRODUCTS - Not Used

PART 3 - EXECUTION - Not Used

END OF SECTION 01 33 00

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SECTION 01 40 00

QUALITY REQUIREMENTS

PART 1 - GENERAL

1.1 SECTION INCLUDES

A. Quality control.

B. Tolerances.

C. References.

D. Labeling.

E. Mockup requirements.

F. Testing and inspection services.

G. Manufacturers' field services.

1.2 QUALITY CONTROL

A. Monitor quality control over suppliers, manufacturers, products, services, Site conditions, and workmanship, to produce Work of specified quality.

B. Comply with specified standards as the minimum quality for the Work except where more stringent tolerances, codes, or specified requirements indicate higher standards or more precise workmanship.

C. Perform Work using persons qualified to produce required and specified quality.

D. Products, materials, and equipment may be subject to inspection by Engineer and Owner at place of manufacture or fabrication. Such inspections shall not relieve Contractor of complying with requirements of Contract Documents.

E. Supervise performance of Work in such manner and by such means to ensure that Work, whether completed or in progress, will not be subjected to harmful, dangerous, damaging, or otherwise deleterious exposure during construction period.

1.3 TOLERANCES

A. Monitor fabrication and installation tolerance control of products to produce acceptable Work. Do not permit tolerances to accumulate.

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B. Comply with manufacturers' recommended tolerances and tolerance requirements in reference standards. When such tolerances conflict with Contract Documents, request clarification from Engineer before proceeding.

C. Adjust products to appropriate dimensions; position before securing products in place.

1.4 REFERENCES

A. For products or workmanship specified by association, trade, or other consensus standards, comply with requirements of standard except when more rigid requirements are specified or are required by applicable codes.

B. Conform to reference standard by date of issue current as of date of Contract Documents except where specific date is established by code.

C. Obtain copies of standards and maintain on Site when required by product Specification Sections.

D. When requirements of indicated reference standards conflict with Contract Documents, request clarification from Engineer before proceeding.

E. Neither contractual relationships, duties, or responsibilities of parties in Contract nor those of Engineer shall be altered from Contract Documents by mention or inference in reference documents.

1.5 LABELING

A. Attach label from agency approved by authorities having jurisdiction for products, assemblies, and systems required to be labeled by applicable code.

B. Label Information: Include manufacturer's or fabricator's identification, approved agency identification, and the following information, as applicable, on each label:

1. Model number.
2. Serial number.
3. Performance characteristics.

C. Manufacturer's Nameplates, Trademarks, Logos, and Other Identifying Marks on Products: Not allowed on surfaces exposed to view in public areas, interior or exterior.

1.6 MOCK-UP REQUIREMENTS

A. Tests will be performed under provisions identified in this Section and identified in individual product Specification Sections.

B. Assemble and erect specified or indicated items with specified or indicated attachment and anchorage devices, flashings, seals, and finishes.

C. Accepted mockups shall be comparison standard for remaining Work.

D. Where mockup has been accepted by Engineer and is specified in product Specification Sections to be removed, remove mockup and clear area when directed to do so by Engineer.

1.7 TESTING AND INSPECTION SERVICES

A. Owner will employ and pay for specified services of an independent firm to perform testing and inspection.

B. Independent firm will perform tests, inspections, and other services specified in individual Specification Sections and as required by authorities having jurisdiction.

1. Laboratory: Authorized to operate in State of Michigan.
2. Laboratory Staff: Maintain full-time Professional Engineer on staff to review services.
3. Testing Equipment: Calibrated at reasonable intervals with devices of an accuracy traceable to National Bureau of Standards or accepted values of natural physical constants.

C. Testing, inspections, and source quality control may occur on or off Project Site. Perform off-Site testing as required by Engineer or Owner.

D. Reports shall be submitted by independent firm to Engineer, Contractor, and authorities having jurisdiction, in duplicate, indicating observations and results of tests and compliance or noncompliance with Contract Documents.

1. Submit final report indicating correction of Work previously reported as noncompliant.

E. Cooperate with independent firm; furnish samples of materials, design mix, equipment, tools, storage, safe access, and assistance by incidental labor as requested.

1. Notify Engineer and independent firm 48 hours before expected time for operations requiring services.
2. Make arrangements with independent firm and pay for additional Samples and tests required for Contractor's use.

F. Employment of testing agency or laboratory shall not relieve Contractor of obligation to perform Work according to requirements of Contract Documents.

G. Retesting or re-inspection required because of nonconformance with specified or indicated requirements shall be performed by same independent firm on instructions from Engineer. Payment for retesting or re-inspection will be charged to Contractor by deducting testing charges from Contract Sum/Price.

H. Agency Responsibilities:

1. Test Samples of mixes submitted by Contractor.
2. Provide qualified personnel at Site. Cooperate with Engineer and Contractor in performance of services.
3. Perform indicated sampling and testing of products according to specified standards.
4. Ascertain compliance of materials and mixes with requirements of Contract Documents.
5. Promptly notify Engineer and Contractor of observed irregularities or nonconformance of Work or products.

6. Perform additional tests required by Engineer.
7. Attend preconstruction meetings and progress meetings.

I. Agency Reports: After each test, promptly submit two copies of report to Engineer, Contractor, and authorities having jurisdiction. When requested by Engineer, provide interpretation of test results. Include the following:

1. Date issued.
2. Project title and number.
3. Name of inspector.
4. Date and time of sampling or inspection.
5. Identification of product and Specification Section.
6. Location in Project.
7. Type of inspection or test.
8. Date of test.
9. Results of tests.
10. Conformance with Contract Documents.

J. Limits on Testing Authority:

1. Agency or laboratory may not release, revoke, alter, or enlarge on requirements of Contract Documents.
2. Agency or laboratory may not approve or accept any portion of the Work.
3. Agency or laboratory may not assume duties of Contractor.
4. Agency or laboratory has no authority to stop the Work.

1.8 MANUFACTURER'S FIELD SERVICES

A. When specified in individual Specification Sections, require material or product suppliers or manufacturers to provide qualified staff personnel to observe Site conditions, conditions of surfaces and installation, and quality of workmanship, as applicable, and to initiate instructions when necessary.

B. Submit qualifications of observer to Engineer 30 days in advance of required observations. Observer is subject to approval of Engineer.

C. Report observations and Site decisions or instructions given to applicators or installers that are supplemental or contrary to manufacturer's written instructions.

D. Refer to Section 01 33 00 - Submittal Procedures, "Manufacturer's Field Reports" Article.

PART 2 - PRODUCTS - Not Used

PART 3 - EXECUTION - Not Used

END OF SECTION 01 40 00

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SECTION 01 50 00

TEMPORARY FACILITIES AND CONTROLS

PART 1 - GENERAL

1.1 SECTION INCLUDES

A. Temporary Utilities:

1. Temporary electricity.

B. Construction Facilities:
1. Vehicular access.
2. Parking.
3. Progress cleaning and waste removal.
4. Traffic regulation.

C. Temporary Controls:

1. Barriers.
2. Enclosures and fencing.
3. Security.
4. Water control.
5. Dust control.
6. Erosion and sediment control.
7. Noise control.

1.2 REFERENCES

A. ASTM International:

1. ASTM E 84 - Standard Test Method for Surface Burning Characteristics of Building Materials.
2. ASTM E 90 - Standard Test Method for Laboratory Measurement of Airborne Sound Transmission Loss of Building Partitions and Elements.
3. ASTM E 119 - Standard Test Methods for Fire Tests of Building Construction and Materials.

1.3 TEMPORARY ELECTRICITY

A. Provide and pay for power service required from utility source as needed for construction operation.

B. Complement existing power service capacity and characteristics as required for construction operations.

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1.4 PARKING

A. If Site space is not adequate, provide additional off-Site parking.

B. Permanent Pavements and Parking Facilities:
   1. Avoid traffic loading beyond paving design capacity. Tracked vehicles are not allowed.

C. Maintenance:

   1. Maintain traffic and parking areas in sound condition free of excavated material, construction equipment, products, mud, snow, ice, and the like.
   2. Maintain existing and permanent paved areas used for construction; promptly repair breaks, potholes, low areas, standing water, and other deficiencies, to maintain paving and drainage in original condition.

D. Mud from Site vehicles: Provide means of removing mud from vehicle wheels before entering streets.

1.5 PROGRESS CLEANING AND WASTE REMOVAL

A. Maintain areas free of waste materials, debris, and rubbish. Maintain Site in clean and orderly condition.

B. Collect and remove waste materials, debris, and rubbish from Site periodically and dispose of off-Site.

1.6 TRAFFIC REGULATION

A. Signs, Signals, and Devices:

   1. Post-Mounted and Wall-Mounted Traffic Control and Informational Signs: As approved by authorities having jurisdiction.
   2. Traffic Cones, Drums, Flares, and Lights: As approved by authorities having jurisdiction.
   3. Flag Person Equipment: As required by authorities having jurisdiction.

B. Flag Persons: Provide trained and equipped flag persons to regulate traffic when construction operations or traffic encroach on public traffic lanes.

C. Haul Routes:

   1. Consult with authorities having jurisdiction and establish public thoroughfares to be used for haul routes and Site access.
   2. Confine construction traffic to designated haul routes.
   3. Provide traffic control at critical areas of haul routes to regulate traffic and to minimize interference with public traffic.

D. Traffic Signs and Signals:

   1. Provide signs at approaches to Site and on Site, at crossroads, detours, parking areas, and elsewhere as needed to direct construction and affected public traffic.

2. Relocate signs and signals as Work progresses, to maintain effective traffic control.

E. Removal:

1. Remove equipment and devices when no longer required.
2. Repair damage caused by installation.
3. Remove post settings to depth of 2 feet.

1.7 BARRIERS

A. Provide barriers to prevent unauthorized entry to construction areas, to allow for Owner's use of Site, and to protect existing facilities and adjacent properties from damage from construction operations and demolition.

B. Tree and Plant Protection: Preserve and protect existing trees and plants designated to remain.

1. Protect areas within drip lines from traffic, parking, storage, dumping, chemically injurious materials and liquids, ponding, and continuous running water.
2. Replace trees and plants damaged by construction operations.

C. Protect non-owned vehicular traffic, stored materials, Site, and structures from damage.

1.8 ENCLOSURES AND FENCING

A. Construction: Contractor's option.

B. Exterior Enclosures: Contractor’s option

1.9 SECURITY

A. Security Program:

1. Protect Work on existing premises from theft, vandalism, and unauthorized entry.

1.10 WATER CONTROL

A. Grade Site to drain. Maintain excavations free of water. Provide, operate, and maintain necessary pumping equipment.

1.11 DUST CONTROL

A. Execute Work by methods that minimize raising dust from construction operations.

B. Provide positive means to prevent airborne dust from dispersing into atmosphere.

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1.12 EROSION AND SEDIMENT CONTROL

A. Plan and execute construction by methods to control surface drainage from cuts and fills from borrow and waste disposal areas. Prevent erosion and sedimentation.

B. Minimize surface area of bare soil exposed at one time.

C. Provide temporary measures including berms, dikes, drains, and other devices to prevent water flow.

D. Construct fill and waste areas by selective placement to avoid erosive surface silts and clays.

E. Periodically inspect earthwork to detect evidence of erosion and sedimentation. Promptly apply corrective measures.

1.13 NOISE CONTROL

A. Provide methods, means, and facilities to minimize noise produced by construction operations.

PART 2 - PRODUCTS - Not Used

PART 3 - EXECUTION - Not Used

END OF SECTION 01 50 00

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SECTION 01 60 00

PRODUCT REQUIREMENTS

PART 1 - GENERAL

1.1 SECTION INCLUDES

A. Products.

B. Product delivery requirements.

C. Product storage and handling requirements.

D. Product options.

1.2 PRODUCTS

A. At minimum, comply with specified requirements and reference standards.

B. Specified products define standard of quality, type, function, dimension, appearance, and performance required.

C. Furnish products of qualified manufacturers that are suitable for intended use. Furnish products of each type by single manufacturer unless specified otherwise. Confirm that manufacturer's production capacity can provide sufficient product, on time, to meet Project requirements.

D. Do not use materials and equipment removed from existing premises except as specifically permitted by Contract Documents.

E. Furnish interchangeable components from same manufacturer for components being replaced.

1.3 PRODUCT DELIVERY REQUIREMENTS

A. Transport and handle products according to manufacturer's instructions.

B. Promptly inspect shipments to ensure products comply with requirements, quantities are correct, and products are undamaged.

C. Provide equipment and personnel to handle products; use methods to prevent soiling, disfigurement, or damage.

1.4 PRODUCT STORAGE AND HANDLING REQUIREMENTS

A. Store and protect products according to manufacturer's instructions.

B. Store products with seals and labels intact and legible.

C. Store sensitive products in weathertight, climate-controlled enclosures in an environment suitable to product.

D. For exterior storage of fabricated products, place products on sloped supports aboveground.

E. Provide off-Site storage and protection when Site does not permit on-Site storage or protection.

F. Cover products subject to deterioration with impervious sheet covering. Provide ventilation to prevent condensation and degradation of products.

G. Store loose granular materials on solid flat surfaces in well-drained area. Prevent mixing with foreign matter.

H. Provide equipment and personnel to store products; use methods to prevent soiling, disfigurement, or damage.

I. Arrange storage of products to permit access for inspection. Periodically inspect to verify products are undamaged and are maintained in acceptable condition.

1.5 PRODUCT OPTIONS

A. Products Specified by Reference Standards or by Description Only: Products complying with specified reference standards or description.

B. Products Specified by Naming One or More Manufacturers: Products of one of manufacturers named and complying with Specifications; no options or substitutions allowed.

C. Products Specified by Naming One or More Manufacturers with Provision for Substitutions: Submit Request for Substitution for any manufacturer not named, according to Section 01 25 00 - Substitution Procedures.

PART 2 - PRODUCTS – Not Used

PART 3 - EXECUTION - Not Used

END OF SECTION 01 60 00

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SECTION 01 70 00

EXECUTION AND CLOSEOUT REQUIREMENTS

PART 1 - GENERAL

1.1 SECTION INCLUDES

A. Field engineering.

B. Closeout procedures.

C. Manual for equipment and systems.

D. Product warranties and product bonds.

E. Examination.

F. Preparation.

G. Execution.

H. Protecting installed construction.

I. Final cleaning.

1.2 FIELD ENGINEERING

A. Owner will locate and Contractor shall protect survey control and reference points. Promptly notify Engineer of discrepancies discovered.

B. Control datum for survey is indicated on Drawings.

C. Verify setbacks and easements; confirm Drawing dimensions and elevations.

D. Provide field engineering services. Establish elevations, lines, and levels using recognized engineering survey practices.

E. Maintain complete and accurate log of control and survey Work as Work progresses.

F. Protect survey control points prior to starting Site Work; preserve permanent reference points during construction.

G. Promptly report to Engineer loss or destruction of reference point or relocation required because of changes in grades or other reasons.

H. Replace dislocated survey control points based on original survey control. Make no changes without prior written notice to Engineer.

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1.3 CLOSEOUT PROCEDURES

A. Prerequisites to Substantial Completion: Complete following items before requesting Certification of Substantial Completion, either for entire Work or for portions of Work:

1. Submit maintenance manuals, Project record documents, and other similar final record data in compliance with this Section.
2. Complete facility startup, testing, adjusting, balancing of systems and equipment, demonstrations, and instructions to Owner's operating and maintenance personnel as specified in compliance with this Section.
3. Conduct inspection to establish basis for request that Work is substantially complete. Create comprehensive list (initial punch list) indicating items to be completed or corrected, value of incomplete or nonconforming Work, reason for being incomplete, and date of anticipated completion for each item. Include copy of list with request for Certificate of Substantial Completion.
4. Obtain and submit releases enabling Owner's full, unrestricted use of Project and access to services and utilities. Include certificate of occupancy, operating certificates, and similar releases from authorities having jurisdiction and utility companies.
5. Deliver tools, spare parts, extra stocks of material, and similar physical items to Owner.
6. Discontinue or change over and remove temporary facilities and services from Project Site, along with construction tools, mockups, and similar elements.
7. Perform final cleaning according to this Section.

B. Substantial Completion Inspection:

1. When Contractor considers Work to be substantially complete, submit to Engineer:

    a. Written certificate that Work, or designated portion, is substantially complete.
    b. List of items to be completed or corrected (initial punch list).

2. Within seven days after receipt of request for Substantial Completion, Engineer will make inspection to determine whether Work or designated portion is substantially complete.
3. Should Engineer determine that Work is not substantially complete:

    a. Engineer will promptly notify Contractor in writing, stating reasons for its opinion.
    b. Contractor shall remedy deficiencies in Work and send second written request for Substantial Completion to Engineer.
    c. Engineer will reinspect Work.
    d. Redo and Inspection of Deficient Work: Repeated until Work passes Engineer's inspection.

4. When Engineer finds that Work is substantially complete, Engineer will:

    a. Prepare Certificate of Substantial Completion on EJCDC C-625 - Certificate of Substantial Completion, accompanied by Contractor's list of items to be completed or corrected as verified and amended by Engineer and Owner (final punch list).
    b. Submit Certificate to Owner and Contractor for their written acceptance of responsibilities assigned to them in Certificate.

5. After Work is substantially complete, Contractor shall:

a. Allow Owner occupancy of Project under provisions stated in Certificate of Substantial Completion.
b. Complete Work listed for completion or correction within time period stipulated.

C. Prerequisites for Final Completion: Complete following items before requesting final acceptance and final payment.

1. When Contractor considers Work to be complete, submit written certification that:

a. Contract Documents have been reviewed.
b. Work has been examined for compliance with Contract Documents.
c. Work has been completed according to Contract Documents.
d. Work is completed and ready for final inspection.

2. Submittals: Submit following:

a. Final punch list indicating all items have been completed or corrected.
b. Final payment request with final releases and supporting documentation not previously submitted and accepted. Include certificates of insurance for products and completed operations where required.
c. Specified warranties, workmanship/maintenance bonds, maintenance agreements, and other similar documents.
d. Accounting statement for final changes to Contract Sum.

3. Perform final cleaning for Contractor-soiled areas according to this Section.

D. Final Completion Inspection:

1. Within seven days after receipt of request for final inspection, Engineer will make inspection to determine whether Work or designated portion is complete.
2. Should Engineer consider Work to be incomplete or defective:

a. Engineer will promptly notify Contractor in writing, listing incomplete or defective Work.
b. Contractor shall remedy stated deficiencies and send second written request to Engineer that Work is complete.
c. Engineer will reinspect Work.
d. Redo and Inspection of Deficient Work: Repeated until Work passes Engineer's inspection.

1.4 MANUAL FOR EQUIPMENT AND SYSTEMS

A. Submit two copies of preliminary draft or proposed formats and outlines of contents before start of Work. Engineer will review draft and return one copy with comments.

B. For equipment, or component parts of equipment put into service during construction and operated by Owner, submit documents within ten days after acceptance.

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C. Submit one copy of completed volumes before Substantial Completion. Draft copy will be reviewed and returned after Substantial Completion, with Engineer comments. Revise content of document sets as required prior to final submission.

D. Submit in PDF composite electronic indexed file of final manual within ten days after final inspection.

E. Maintenance Requirements: Include routine procedures and guide for preventative maintenance and troubleshooting; disassembly, repair, and reassembly instructions; and alignment, adjusting, balancing, and checking instructions.

1.5 PRODUCT WARRANTIES AND PRODUCT BONDS

A. Obtain warranties and bonds executed in duplicate by responsible Subcontractors, suppliers, and manufacturers within ten days after completion of applicable item of Work.

B. Execute and assemble transferable warranty documents and bonds from Subcontractors, suppliers, and manufacturers.

C. Verify documents are in proper form, contain full information, and are notarized.

D. Co-execute submittals when required.

E. Submit prior to final Application for Payment.

F. Time of Submittals:

1. For equipment or component parts of equipment put into service during construction with Owner's permission, submit documents within ten days after acceptance.
2. Make other submittals within ten days after date of Substantial Completion, prior to final Application for Payment.
3. For items of Work for which acceptance is delayed beyond Substantial Completion, submit within ten days after acceptance, listing date of acceptance as beginning of warranty or bond period.

PART 2 - PRODUCTS - Not Used

PART 3 - EXECUTION

3.1 EXAMINATION

A. Verify that existing Site conditions and substrate surfaces are acceptable for subsequent Work. Beginning new Work means acceptance of existing conditions.

B. Verify that existing substrate is capable of structural support or attachment of new Work being applied or attached.

C. Examine and verify specific conditions described in individual Specification Sections.

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D. Verify that utility services are available with correct characteristics and in correct locations.

3.2 PREPARATION

A. Clean substrate surfaces prior to applying next material or substance according to manufacturer's instructions.

B. Seal cracks or openings of substrate prior to applying next material or substance.

C. Apply manufacturer-required or -recommended substrate primer, sealer, or conditioner prior to applying new material or substance in contact or bond.

3.3 EXECUTION

A. Comply with manufacturer's installation instructions, performing each step in sequence. Maintain one set of manufacturer's installation instructions at Project Site during installation and until completion of construction.

B. When manufacturer's installation instructions conflict with Contract Documents, request clarification from Engineer before proceeding.

C. Verify that field measurements are as indicated on approved Shop Drawings or as instructed by manufacturer.

D. Secure products in place with positive anchorage devices designed and sized to withstand stresses, vibration, physical distortion, or disfigurement.

1. Secure Work true to line and level and within specified tolerances, or if not specified, industry-recognized tolerances.
2. Physically separate products in place, provide electrical insulation, or provide protective coatings to prevent galvanic action or corrosion between dissimilar metals.
3. Exposed Joints: Provide uniform joint width and arrange to obtain best visual effect. Refer questionable visual-effect choices to Engineer for final decision.

E. Allow for expansion of materials and building movement.

F. Climatic Conditions and Project Status: Install each unit of Work under conditions to ensure best possible results in coordination with entire Project.

1. Isolate each unit of Work from incompatible Work as necessary to prevent deterioration.
2. Coordinate enclosure of Work with required inspections and tests to minimize necessity of uncovering Work for those purposes.

G. Mounting Heights: Where not indicated, mount individual units of Work at industry recognized standard mounting heights for particular application indicated.

1. Refer questionable mounting heights choices to Engineer for final decision.
2. Elements Identified as Accessible to Handicapped: Comply with applicable codes and regulations.

H. Adjust operating products and equipment to ensure smooth and unhindered operation.

I. Clean and perform maintenance on installed Work as frequently as necessary through remainder of construction period. Lubricate operable components as recommended by manufacturer.

3.4 PROTECTING INSTALLED CONSTRUCTION

A. Protect installed Work and provide special protection where specified in individual Specification Sections.

B. Provide temporary and removable protection for installed products. Control activity in immediate Work area to prevent damage.

C. Provide protective coverings at walls, projections, jambs, sills, and soffits of openings.

D. Use durable sheet materials to protect finished floors, stairs, and other surfaces from traffic, dirt, wear, damage, or movement of heavy objects.

E. Prohibit traffic or storage upon waterproofed or roofed surfaces. When traffic or activity is necessary, obtain recommendations for protection from waterproofing or roofing material manufacturer.

F. Prohibit traffic from landscaped areas.

3.5 FINAL CLEANING

A. Execute final cleaning prior to final Project assessment.

1. Employ experienced personnel or professional cleaning firm.

B. Clean Site; sweep paved areas, rake clean landscaped surfaces.

C. Remove waste and surplus materials, rubbish, and construction facilities from Site.

END OF SECTION 01 70 00

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SECTION 02 41 13

SITE DEMOLITION

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification sections, apply to this section.

1.2 SUMMARY

A. Provide labor, materials, and equipment as necessary to complete work as indicated on the Drawings and specified herein.

B. This section includes the removal of existing structures, fences, pavements, and other items indicated on the Drawings or specified, or both.

C. Related sections include the following:
1. Division 01 Section "General Requirements – Temporary Facilities and Controls."
2. Division 31 Section "Site Clearing."
3. Division 31 Section "Earthwork."

1.3 PROJECT CONDITIONS

A. Do not close or obstruct streets, walks or other occupied or used facilities without permission from the Project Representative. Provide alternate routes around closed or obstructed traffic ways if required.

PART 2 - EXECUTION

2.1 PREPERATION

A. Provide, erect, and maintain temporary barriers, and barricades to protect existing operations.

B. Erect and maintain weatherproof closures for exterior openings, if applicable.

C. Erect and maintain temporary partitions to prevent spread of dust, odors, and noise to permit continued Owner occupancy, if applicable.

D. Protect existing materials and equipment which are not to be demolished.

E. Prevent movement of structure; provide bracing and shoring.

F. Notify affected utility companies before starting work and comply with their requirements.

G. Mark locations and termination of utilities.

H. Provide appropriate temporary signage including signage for exit of site egress.

2.2 DEMOLITION

A. Disconnect, remove, cap, and identify designated utilities within demolition areas.

B. Demolish in an orderly and careful manner. Protect existing structures and existing utilities designed to be left in service.

C. Remove demolished materials from site except where specifically noted otherwise. Do not burn or bury materials on site.

D. Remove materials as Work progresses. Upon completion of Work, leave areas in clean condition.

E. Remove temporary Work.

2.3 REMOVAL OF PAVEMENTS

A. Saw cut concrete curb and gutter and flatwork on nearest existing joint beyond area required to be removed as shown on the Drawings.

B. Provide a minimum of 18 inches between the new gutter pan edge and the bituminous paving edge.

2.4 CLEANUP

A. Contractor shall be responsible for disposing debris from demolition and salvage operations. Disposal of debris shall be done legally off the Owner's property, except that specifically requested for salvage by the Owner or Engineer. Burning of debris is not permitted.

B. During demolition operations, keep dust to a minimum using appropriate methods.

C. During demolition operations, access roads and adjacent concrete pathways shall be maintained broom clean. Roads shall be cleaned by using a pick-up type sweeper. A front-end tractor mounted sweeper is not permitted.

D. The site shall be graded to provide surface drainage and shall be left in a clean condition.

END OF SECTION 02 41 13

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SECTION 32 18 16.33

PLAYGROUND PROTECTIVE SURFACES

PART 1 GENERAL

1.1 WORK INCLUDED

A. Playground Surfacing; typed as indicated on the drawings and in this section.

1.2 RELATED SECTIONS

A. Section 01 33 00 – Submittals

1.3 REFERENCES

A. CPSC – Consumer Product Safety Commission, Public Playground Safety Handbook.

B. ASTM F1487 – American Society for Testing and Materials, Playgrounds for Public Use.

C. ADAAG – Americans with Disabilities Act Accessibility Guidelines for Play Areas.

D. ASTM C67 – Standard Test Method for Weathering and Aging of Surface Systems and Materials and Standard Test Method for Rubber – Deterioration in an Air Over.

E. ASTM D412 – Standard Test Method for Vulcanized Rubber and Thermoplastic rubbers and Thermoplastic Elastomers-tension.

F. ASTM D624 – Standard Test Method for Tear Strength of Conventional Bulcanized Rubber and Thermoplastic Elastomers.

G. ASTM D2047 – Standard Test Method for Determining the Static Coefficient of Friction of Ceramic Tile and Other Like Surfaces by the Horizontal Dynamometer Pull Meter Method.

H. ASTM D2434 – Standard Test Method for Permeability of Granular Soils (Constant Head).

I. ASTM D2859 – Standard Test Method for the Surface Flammability of Products (Burn Pill Test).

J. ASTM D3776 – Standard Test Methods for Mass Per Unit Area (Weight) of Fabric.

K. ASTM D3786 – Standard Test Method for Bursting Strength of Textile Fabrics - Diaphragm Bursting Strength Tester Method.

L. ASTM D4491 – Standard Test Methods for Water Permeability of Geotextiles by Permittivity.

M. ASTM D4533 – Standard Test Method for Trapezoid Tearing Strength of Geotextiles.

N. ASTM D4632 – Standard Test Method for Grab Breaking Load and Elongation of Geotextiles.

O. ASTM D4716 – Standard Test Method for Determining the (In plane) Flow rate per Unit Width and Hydraulic Transmissivity of a Geosynthetic Using a Constant Head.

P. ASTM D4751 – Standard Test Method for Determining Apparent Opening Size of a Geotextile. ASTM D4833 – Standard Test Method for Index Puncture Resistance of Geomembranes, and Related Products.

Q. ASTM D5199 – Standard Test Method for Measuring the Nominal Thickness of Geosynthetics.

R. ASTM E108 – Standard Test Method for Fire Tests of Surface Systems and Materials.

S. ASTM E303 – Standard Test Method for Measuring Surface Frictional Properties Using the British Pendulum Tester.

T. ASTM F1292 and F355-95 – Standard Test Method for Impact Attenuation of Surface Systems Under and Around Playground Equipment.

U. ASTM F1951 – Standard Specification for Determination of Accessibility of Surface Systems Under and Around Playground Equipment.

V. ASTM F2075 – Standard Specification for Engineered Wood Fiber for Use as a Playground Safety Surface Under and Around Playground Equipment.

W. 16 CFR 1500.44 – Method for Determining Extremely Flammable and Flammable Solids.

1.4 QUALITY ASSURANCE

A. Manufacturer Qualifications:
   1. Member of International Play Equipment Manufacturer's Association (IPEMA).
   2. Sales Representatives Installers trained by National Playground Safety Institute (NPSI).

B. Installer Qualifications:
   1. A firm or individual certified, licensed, or otherwise qualified by surfacing manufacturer as experienced and with sufficient trained staff to install manufacturer's products according to specified requirements.
   2. Certified installers who have successfully completed a Certified Installers Training Program.

C. Workmanship: The Contractor is responsible for correction of work which does not conform to the specified requirements.

1.5 SUBMITTALS

A. Submit under the provision of Section 01 33 00.

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B. Product Data: Submit manufacturer's product data, specifications, warranty, detailed drawings, maintenance, and installation instructions, ASTM F 1292 test results, ASTM F1951 Accessibility test results, ASTM F2075 test results, and IPEMA Certificates of Compliance, where applicable.

C. Samples: Submit manufacturer's samples of each specified material.

D. Manufacturer's / Installer's Certificates: Certify products meet or exceed the specified requirements.

E. Quality Assurance / Control: Certificate of qualifications of the surfacing installer.

F. Maintenance Instructions: Submit manufacturer's maintenance and cleaning instructions for playground surfacing.

G. Warranty: Submit manufacturer's standard warranty.

H. References: Submit at least 3 customers that have been using the product for at least 3 years.

1.6 DELIVERY, STORAGE AND HANDLING

A. Delivery: Deliver materials to site in manufacturer's original, unopened containers and packaging, with labels clearly identifying product name and manufacturer. Deliver engineered wood fiber playground surfacing to site in bulk.

B. Storage: Store materials in a clean, dry area in accordance with manufacturer's instructions. Store engineered wood fiber playground surfacing to prevent contamination.

C. Handling: Protect materials during handling and installation to prevent damage. Handle engineered wood fiber playground surfacing to prevent contamination.

1.7 COORDINATION

A. Coordinate work with the work of other trades on the project.

1.8 WARRANTY

A. Warranty covers Playground Surfacing for the following periods:
   1. Poured-In-Place Rubber:
      a. Aromatic Urethane: 7 years.
      b. Aliphatic Urethane: 10 years.
   2. Engineered Wood Fiber: 15 years.
   3. Wear Mats: 5 years.

B. Operation Data: Submit for continuing Owner maintenance.

C. Maintenance Data: Include methods for cleaning, replacement, and repair.

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PART 2 PRODUCTS

2.1 MANUFACTURER / PRODUCT

A. Poured-In-Place Rubber Safety Surfacing:
   1. Acceptable Manufacturer(s):
      a. Vitriturf (represented by Penchura), 889 S. Old US 23, Brighton, MI 48114, 810-229-6245, www.penchura.com.
      b. GT Impax Poured, Gametime represented by Sinclair Recreation), 128 East Lakewood Blvd, Ste 40, Holland, MI 48424, (800) 444-4954, www.sinclair-rec.com.
      c. Or approved equal.

B. Engineered Wood Fiber Safety Surfacing:
   1. Acceptable Manufacturer(s):
      a. Wood carpet, Zeager Bros., Inc. (represented by Penchura), 889 S. Old US 23, Brighton, MI 48114, 810-229-6245, www.penchura.com
      b. GT Impax Fiber, Gametime represented by Sinclair Recreation), 128 East Lakewood Blvd, Ste 40, Holland, MI 48424, (800) 444-4954, www.sinclair-rec.com.
      c. Or approved equal.

C. Rubber Wear Mats:
   1. Acceptable Manufacturer(s):
      a. DynaCushion Beveled Wear Mat, Pierceton Rubber Products, Inc., 3076 South 900 East, Pierceton, IN 46562, 574-265-1996, www.dynacushion.com
      b. Or approved equal.
   2. Wear Mats installation shall not create a trip hazard.
   3. Wear Mats will be installed in per the manufacturer's specifications and will be required in the following locations:
      a. Swings – Wear mat shall be placed directly beneath the swing seat, minimum size four (4) feet by six (6) feet for each swing
      b. Slides – Wear mat shall be placed directly under the slide exit, minimum size three (3) feet by three (3) feet.
      c. Merry-go-rounds – Wear mat shall extend a minimum of three (3) feet beyond the outside edge of the merry-go-round, in all directions.

D. GEOTEXTILE FABRIC
   1. Geotextile fabric shall be a polyester drainage fabric, non-woven, meeting or exceeding the following:

PROPERTIES	STANDARD	AMOCO 4546
Physical		*(or approved equal)*
• Grab Tensile Strength	• ASTM-D 4632	• 90 oz/yd^2
• Grab Tensile Elongation	• ASTM- D 4632	• 50%
• Mullen Burst	• ASTM- D 3786	• 185 lb/in^2
• Puncture	• ASTM- D 4833	• 55lbs.
• Trapezoidal Tear	• ASTM- D 4533	• 40 lbs.
• UV Resistance	• ASTM- D 4355	• 70/500 (%@_hr)
Hydraulic		

• Apparent Opening Size • Permittivity • Flow Rate	• ASTM- D 4751 • ASTM- D 4491 • ASTM- D 4491	• 70 (US std. Sieve no.) • 145 gal/min/feet^2

E. PEASTONE
1. Peastone shall be natural smooth rock material. Supply sample of peastone to the Owner for approval prior to delivery to site.
2. Peastone is not an acceptable safety surfacing; it is only to be used in the drainage layer as indicated on the drawings.

PART 3 EXECUTION

3.1 INSPECTION

A. Contractor shall thoroughly examine the areas and conditions under which excavation, filling, and grading are to be performed. Architect is to be notified, in writing, of conditions detrimental to the proper and timely completion of the work. Do not proceed with the work until unsatisfactory conditions have been corrected in an acceptable manner.

3.2 PREPARATION

A. Excavate play area as indicated on the drawings and to ensure proper safety use zones of play equipment.

B. The subgrade shall be graded to a minimum of 1% and a maximum of 5% to insure positive drainage throughout the site.

C. Remove foreign materials, weeds and undesirable plants and their roots. Remove contaminated subsoil.

D. The subgrade shall be compacted to 95% of the dry density, as determined by the provisions of AASHTO or T 205.

E. Drainage Trenches
1. Dig trenches and construct the drainage as indicated on the drawings.
2. Fabric and stone shall be placed in the trenches, to depths indicated on the drawings.
3. Four (4) inch perforated pipe shall be placed in the trenches, as indicated on the drawings. Unless otherwise indicated on the plans, pipe shall have a minimum slope of 0.5%.
4. All installation sites shall have positive grade to facilitate drainage away from the playground area and other active areas within the park.

F. Install the playground equipment.

G. Install the edging around the play area.

H. Rubber Poured-In-Place Surfacing:
1. Aggregate Subbase:

a. Compacted irregular aggregate sized 0.75 inches or less in size with a
b. Minimum depth: 4 inches, or as indicated on the drawings.
c. Tolerance: 0.5".

2. Concrete Subbase:
   a. Shall meet the requirements of Section 03 30 00.
   b. Minimum Depth: Per manufacturer's recommenations.
   c. Tolerance: 0.125 inches per 10 feet.
   d. Cure Time: 7-21 days, per the manufacturer's recommendations.
3. Asphalt Subbase:
   a. Shall meet the requirements of Section 32 12 16.
   b. Cure Time: 21-28 days, per the manufacturer's recommendations.
   c. New asphalt must be pressure washed prior to installation of rubber surfacing.
   d. The Contractor shall flood the asphalt surface to ensure proper slope and tolerance.
      i. Any areas holding water to cover a flat nickel shall be patched prior to installation of the rubber surfacing.

3.3 INSTALLATION

A. Begin the safety surfacing only after the play equipment and edging have been installed.

B. All surfacing types shall be installed to the proper depth with the finish surface elevation at the finish grade markers on the play equipment.

C. Geotextile Fabric
   1. Geotextile fabric shall be used as separation between the subsoil and safety surfacing.
   2. In areas where equipment exists, it is necessary to cut the fabric to fit. Once fitted, any cuts should be overlapped with fabric wherever possible.
   3. Geotextile fabric shall be placed on smooth subgrade and all wrinkles removed. All seams shall overlap a minimum of six (6) inches.
   4. Machinery shall not disturb or travel on the geotextile fabric.

D. Wear Mats
   1. Place all wear mats in the required areas per this specification, Part 2, 2.1, B.1.
   2. All wear mats shall be installed as per the manufacturer's specifications to assure maximum impact protection for proposed equipment fall heights.

E. Engineered Wood Fiber (EWF) Safety Surfacing
   1. Place Engineered Wood Fiber Safety Surfacing in all remaining areas, as indicated on the plans.
   2. Rake the EWF level.
   3. All material must be installed to allow for settling and natural compaction.

F. Poured-In-Place Rubber Surfacing
   1. Thoroughly mix materials on site with a rotating tumbler.
   2. The surfacing thickness throughout the playground equipment use zone shall be required to meet the impact attenuation requirements of the manufacturer.
   3. Whenever practical, surfacing material shall be installed in one continuous pour on the same day of up to 2,000 square feet.

a. Where seams are required a step configuration will be constructed to maintain surfacing integrity.
   i. Step the seam and fully coat the step of the previous work with polyurethane binder to ensure 100% bond with the new work.
b. Surfaces with multiple seams shall have a topcoat of urethane before being placed into use.
c. Butt joint seams are not acceptable, except for repairs.

4. Apply adhesive in small quantities material can be placed before the adhesive dries.
5. Primer will be used between the attenuation cushion layer and the wear course layer.
6. Material shall cover all foundations and fill around all elements penetrating the surface.
7. Minimize excessibe adhesive on adjacent surfaces or play equipment. Spills of adhesive shall be promptly cleaned.
8. The surface shall be allowed to cure in accordance with the manufacturer's instructions.
   a. The surface shall be protected from all traffic during the curing period, or for a minimum of 48 hours.

3.4 GUARANTEE and MAINTENANCE

A. All Materials and Installations shall be guaranteed by the manufacturer/supplier for a period of one year beyond the date of final acceptance by the Owner. The manufacturer/supplier shall provide a written maintenance plan to the Owner which describes, in detail, any, and all maintenance requirements which will need to be accomplished during the life of the safety surfacing.

3.5 DISPOSAL OF EXCESS AND WASTE MATERIALS

A. Remove excess excavated material, trash, debris and waste materials and legally dispose of such off the property, except as otherwise specifically noted.

3.6 ACCEPTANCE

A. Inspection will be made jointly by the Contractor, Engineer, and the Owner's representative.

B. Upon acceptance of the work by the Engineer and owner, the project will be approved for final payment.

END OF SECTION



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BY	MARK	REVISIONS	DATE

THE WORK REPRESENTED BY THIS DRAWING WAS DESIGNED BY THE ENGINEER FOR THIS SPECIFIC APPLICATION AND SPECIFIC LOCATION DESCRIBED HEREON IN ACCORDANCE WITH THE CONDITIONS PREVALENT AT THE TIME THE DESIGN WAS DONE. THE ENGINEER DOES NOT GUARANTEE AND WILL NOT BE LIABLE FOR ANY OTHER LOCATION, CONDITION, DESIGN OR PURPOSE.

FORD HERITAGE PLAYGROUND SURFACE
YPSILANTI CHARTER TOWNSHIP, MICHIGAN

FORD HERITAGE PARK SITE PLAN

SAGINAW OFFICE
230 S. Washington Ave.
Saginaw, MI 48607
Tel. 989-754-4717
Fax. 989-754-4440
www.SpicerGroup.com

DE. BY: EMJ	CH. BY:	PROJECT NO.	
DR. BY: EMJ	APP. BY: PAW	13453653G2023	
STDS.		SHEET 1 OF 1	DP 1
DATE JUNE, 2024		FILE NO.	
SCALE 1" = 10'		DP-XXXX-1	

Township Supervisor
Brenda L. Stumbo
Township Clerk
Heather Jarrell Roe
Township Treasurer
Stan Eldridge

YPSILANTI TOWNSHIP
— RESIDENTIAL SERVICES DEPARTMENT —

Trustees
Ryan Hunter
John Newman II
Gloria Peterson
Debbie Swanson

MEMORANDUM

To: Charter Township of Ypsilanti Board of Trustees

From: John Hines, Municipal Services Director

Date: June 13, 2024

RE: Request Authorization to seek sealed bids for sanitary and water line site work at Ford Heritage Park and restroom demolition, site work and pavilion installation at Lakeside Park as part of the American Rescue Plan Act (ARPA) projects funding.

The Residential Services Department is requesting authorization to seek sealed bids for the installation of water service and sanitary service, base preparation for the pre-fabricated bathroom structure and sidewalks at Ford Heritage Park budgeted in GL #101-902-981.080 and the removal of the existing bathroom structure, removal of existing concrete slab, base preparation for new pre-fabricated bathrooms structure, hook up existing utilities and install concrete pad and pavilion at Lakeside Park that is budgeted in GL#101-902-981.120.

Spicer Group was approved by the board in June 2023 to provide professional engineering services for both approved ARPA projects at Ford Heritage and Lakeside park. At the April 2, 2024 BOT meeting, the board approved CXT pre-fabricated bathroom structures to be installed at each park.

At Lakeside Park, the restroom structure will be in place of the aged bathroom on site connected to the pavilion. The RFP attached includes the removal of the current bathrooms and remodel of the existing site work to be able to accommodate the new facility. It also includes new concrete and pre-fabricated pavilion to replace the former pavilion that was removed due to structural concerns.

For Ford Heritage Park, the bathroom structure will be new for the park. The RFP will include the water and sanitary service that will need to be brought from the adjacent neighborhood, sitework to host the facility and sidewalk to connect to the existing sidewalk.

Staff will return to the Board of Trustees to recommend and award the selection of a bidder.

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CONTRACT DOCUMENTS
FOR

FORD HERITAGE PARK AND LAKESIDE PARK IMPROVEMENTS

YPSILANTI CHARTER TOWNSHIP
YPSILANTI, MICHIGAN

Prepared By:
SPICER GROUP, INC.

JUNE 2024

Plans Included

Project I.D. Number: 134586SG2023

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CHARTER TOWNSHIP OF YPSILANTI

YPSILANTI, MICHIGAN
FORD HERITAGE PARK AND LAKESIDE PARK IMPROVEMENTS

ADVERTISEMENT FOR BIDS

Sealed Bids for the **Ford Heritage Park and Lakeside Park Improvements** will be received by CLERK'S OFFICE, Ypsilanti Township Civic Center, 7200 S. Huron River Dr., Ypsilanti MI., 48197, until **10:00 a.m.** local time on **July 9, 2024**

The Project includes installation of water service and sanitary service, base preparation for bathroom structure, and sidewalks at Ford Heritage. Work at Lakeside included removal of existing bathroom structure, removal of existing concrete slab, base preparation for new bathroom structure, hookup existing utilities, install concrete pad and pavilion.

The Issuing Office for the Bidding Documents is: Spicer Group, Inc., 125 Helle Blvd., Suite 2, Dundee, MI 48131, Elsie Jorgensen, 269-252-6100, elsie.jorgensen@spicergroup.com. The contract documents for bidding purposes are available beginning June 20, 2024 on MITN Purchasing Group, Bidnetdirect.com; and Charter Township of Ypsilanti, 7200 Huron River Drive, Ypsilanti, MI 48197. **Bidders are encouraged to download plans from MITN at Bientedirect.com at no additional cost.** Neither Owner nor ENGINEER will be responsible for full or partial sets of Bidding Documents, including Addenda if any, obtained from sources other than the Issuing Office. Bidders should direct correspondence to ENGINEER.

For bidders choosing to pick up copies of bid documents, copies may be obtained on or after 12:00 PM, local time June 20, 2024 at the CLERK'S OFFICE, Ypsilanti Township Civic Center, 7200 S. Huron River Dr., Ypsilanti MI., 48197 for no fee.

Bid Security in the form of a Bid Bond for a sum no less than 5% of the amount of the Bid will be required with each Bid.

The OWNER reserves the right to accept any Bid, reject any Bid, or waive irregularities in Bids.

No Bid may be withdrawn for a period of 60 calendar days after the scheduled closing time for receipt of bids.

John Hines, Municipal Services Director
Charter Township of Ypsilanti

+ + END OF ADVERTISEMENT FOR BIDS + +

90% Bid Package

INSTRUCTIONS TO BIDDERS

ARTICLE 1 – DEFINED TERMS

1.01 Terms used in these Instructions to Bidders have the meanings indicated in the General Conditions and Supplementary Conditions. Additional terms used in these Instructions to Bidders have the meanings indicated below:

A. *Issuing Office* – The office from which the Bidding Documents are to be issued.

ARTICLE 2 – COPIES OF BIDDING DOCUMENTS

2.01 Complete sets of the Bidding Documents may be obtained from the Issuing Office in the number and format stated in the advertisement or invitation to bid.

2.02 Complete sets of Bidding Documents shall be used in preparing Bids; neither Owner nor Engineer assumes any responsibility for errors or misinterpretations resulting from the use of incomplete sets of Bidding Documents.

2.03 Owner and Engineer, in making copies of Bidding Documents available on the above terms, do so only for the purpose of obtaining Bids for the Work and do not authorize or confer a license for any other use.

ARTICLE 3 – QUALIFICATIONS OF BIDDERS

3.01 To demonstrate Bidder's qualifications to perform the Work, after submitting its Bid and within 3 days of Owner's request, Bidder shall submit (a) written evidence establishing its qualifications such as financial data, previous experience, and present commitments, and (b) the following additional information:

3.02 A Bidder's failure to submit required qualification information within the times indicated may disqualify Bidder from receiving an award of the Contract.

3.03 No requirement in this Article 3 to submit information will prejudice the right of Owner to seek additional pertinent information regarding Bidder's qualifications.

3.04 Bidder is advised to carefully review those portions of the Bid Form requiring Bidder's representations and certifications.

ARTICLE 4 – SITE AND OTHER AREAS; EXISTING SITE CONDITIONS; EXAMINATION OF SITE; OWNER'S SAFETY PROGRAM; OTHER WORK AT THE SITE

4.01 *Site and Other Areas*

A. The Site is identified in the Bidding Documents. By definition, the Site includes rights-of-way, easements, and other lands furnished by Owner for the use of the Contractor. Any additional lands required for temporary construction facilities, construction equipment, or storage of materials and equipment, and any access needed for such additional lands, are to be obtained and paid for by Contractor.

4.02 *Existing Site Conditions*

A. Subsurface and Physical Conditions; Hazardous Environmental Conditions

1. The Supplementary Conditions identify:

a. those reports known to Owner of explorations and tests of subsurface conditions at or adjacent to the Site.

b. those drawings known to Owner of physical conditions relating to existing surface or subsurface structures at the Site (except Underground Facilities).

c. reports and drawings known to Owner relating to Hazardous Environmental Conditions that have been identified at or adjacent to the Site.

d. Technical Data contained in such reports and drawings.

2. Owner will make copies of reports and drawings referenced above available to any Bidder on request. These reports and drawings are not part of the Contract Documents, but the Technical Data contained therein upon whose accuracy Bidder is entitled to rely, as provided in the General Conditions, has been identified and established in the Supplementary Conditions. Bidder is responsible for any interpretation or conclusion Bidder draws from any Technical Data or any other data, interpretations, opinions, or information contained in such reports or shown or indicated in such drawings.

3. If the Supplementary Conditions do not identify Technical Data, the default definition of Technical Data set forth in Article 1 of the General Conditions will apply.

B. Underground Facilities: Information and data shown or indicated in the Bidding Documents with respect to existing Underground Facilities at or contiguous to the Site are set forth in the Contract Documents and are based upon information and data furnished to Owner and Engineer by owners of such Underground Facilities, including Owner, or others.

C. Adequacy of Data: Provisions concerning responsibilities for the adequacy of data furnished to prospective Bidders with respect to subsurface conditions, other physical conditions, and Underground Facilities, and possible changes in the Bidding Documents due to differing or unanticipated subsurface or physical conditions appear in Paragraphs 5.03, 5.04, and 5.05 of the General Conditions. Provisions concerning responsibilities for the adequacy of data furnished to prospective Bidders with respect to a Hazardous Environmental Condition at the Site, if any, and possible changes in the Contract Documents due to any Hazardous Environmental Condition uncovered or revealed at the Site which was not shown or indicated in the Drawings or Specifications or identified in the Contract Documents to be within the scope of the Work, appear in Paragraph 5.06 of the General Conditions.

4.03 *Site Visit and Testing by Bidders*

A. Bidder shall conduct the required Site visit during normal working hours, and shall not disturb any ongoing operations at the Site.

B. On request, and to the extent Owner has control over the Site, and schedule permitting, the Owner will provide Bidder access to the Site to conduct such additional examinations, investigations, explorations, tests, and studies as Bidder deems necessary for preparing and submitting a successful Bid. Owner will not have any obligation to grant such access if doing so is not practical because of existing operations, security or safety concerns, or restraints on Owner's authority regarding the Site.

C. Bidder shall comply with all applicable Laws and Regulations regarding excavation and location of utilities, obtain all permits, and comply with all terms and conditions established by Owner or by property owners or other entities controlling the Site with respect to schedule, access, existing operations, security, liability insurance, and applicable safety programs.

D. Bidder shall fill all holes and clean up and restore the Site to its former condition upon completion of such explorations, investigations, tests, and studies.

4.04 *Owner's Safety Program*

A. Site visits and work at the Site may be governed by an Owner safety program. As the General Conditions indicate, if an Owner safety program exists, it will be noted in the Supplementary Conditions.

4.05 *Other Work at the Site*

A. Reference is made to Article 8 of the Supplementary Conditions for the identification of the general nature of other work of which Owner is aware (if any) that is to be performed at the Site by Owner or others (such as utilities and other prime contractors) and relates to the Work contemplated by these Bidding Documents. If Owner is party to a written contract for such other work, then on request, Owner will provide to each Bidder access to examine such contracts (other than portions thereof related to price and other confidential matters), if any.

ARTICLE 5 – BIDDER'S REPRESENTATIONS

5.01 It is the responsibility of each Bidder before submitting a Bid to:

A. examine and carefully study the Bidding Documents, and any data and reference items identified in the Bidding Documents;

B. visit the Site, conduct a thorough, alert visual examination of the Site and adjacent areas, and become familiar with and satisfy itself as to the general, local, and Site conditions that may affect cost, progress, and performance of the Work;

C. become familiar with and satisfy itself as to all Laws and Regulations that may affect cost, progress, and performance of the Work;

D. carefully study all: (1) reports of explorations and tests of subsurface conditions at or adjacent to the Site and all drawings of physical conditions relating to existing surface or subsurface structures at the Site that have been identified in the Supplementary Conditions, especially with respect to Technical Data in such reports and drawings, and (2) reports and drawings relating to Hazardous Environmental Conditions, if any, at or adjacent to the Site that have been identified in the Supplementary Conditions, especially with respect to Technical Data in such reports and drawings;

E. consider the information known to Bidder itself; information commonly known to contractors doing business in the locality of the Site; information and observations obtained from visits to the Site; the Bidding Documents; and the Site-related reports and drawings identified in the Bidding Documents, with respect to the effect of such information, observations, and documents on (1) the cost, progress, and performance of the Work; (2) the means, methods, techniques, sequences, and procedures of construction to be employed by Bidder; and (3) Bidder's safety precautions and programs;

F. agree, based on the information and observations referred to in the preceding paragraph, that at the time of submitting its Bid no further examinations, investigations, explorations, tests, studies, or data are necessary for the determination of its Bid for performance of the Work at the price bid and within the times required, and in accordance with the other terms and conditions of the Bidding Documents;

G. become aware of the general nature of the work to be performed by Owner and others at the Site that relates to the Work as indicated in the Bidding Documents;

H. promptly give Engineer written notice of all conflicts, errors, ambiguities, or discrepancies that Bidder discovers in the Bidding Documents and confirm that the written resolution thereof by Engineer is acceptable to Bidder;

I. determine that the Bidding Documents are generally sufficient to indicate and convey understanding of all terms and conditions for the performance and furnishing of the Work; and

J. agree that the submission of a Bid will constitute an incontrovertible representation by Bidder that Bidder has complied with every requirement of this Article, that without exception the Bid and all prices in the Bid are premised upon performing and furnishing the Work required by the Bidding Documents.

ARTICLE 6 – PRE-BID CONFERENCE

6.01 No pre-bid conference will be held for this project. Bidders are encouraged to visit the site prior to bidding on this project.

ARTICLE 7 – INTERPRETATIONS AND ADDENDA

7.01 All questions about the meaning or intent of the Bidding Documents are to be submitted via email only to Elsie Jorgensen at elsie.jorgensen@spicergroup.com. All email questions must be received by 5:00 P.M. on Tuesday, July 2, 2024. Interpretations or clarifications considered necessary by Engineer in response to such questions will be issued by Addenda delivered to all parties recorded as having received the Bidding Documents. Questions received after 5:00 P.M. July 2, 2024 may not be answered Only questions answered by Addenda will be binding. Oral and other interpretations or clarifications will be without legal effect.

7.02 Addenda may be issued to clarify, correct, supplement, or change the Bidding Documents.

ARTICLE 8 – BID SECURITY

8.01 A Bid must be accompanied by Bid security made payable to Owner in an amount of 5 percent of Bidder's maximum Bid price (determined by adding the base bid and all alternates) and in the form of a certified check, bank money order, or a Bid bond issued by a surety meeting the requirements of Paragraphs 6.01 and 6.02 of the General Conditions.

8.02 The Bid security of the apparent Successful Bidder will be retained until Owner awards the contract to such Bidder, and such Bidder has executed the Contract Documents, furnished the required contract security, and met the other conditions of the Notice of Award, whereupon the Bid security will be released. If the Successful Bidder fails to execute and deliver the Contract Documents and furnish the required contract security within 15 days after the Notice of Award, Owner may consider Bidder to be in default, annul the Notice of Award, and the Bid security of that Bidder will be forfeited. Such forfeiture shall be Owner's exclusive remedy if Bidder defaults.

8.03 The Bid security of other Bidders that Owner believes to have a reasonable chance of receiving the award may be retained by Owner until the earlier of seven days after the Effective Date of the Contract or 61 days after the Bid opening, whereupon Bid security furnished by such Bidders will be released.

8.04 Bid security of other Bidders that Owner believes do not have a reasonable chance of receiving the award will be released within seven days after the Bid opening.

ARTICLE 9 – CONTRACT TIMES

9.01 The number of days within which, or the dates by which, the Work is to be substantially completed and ready for final payment are set forth in the Agreement.

ARTICLE 10 – LIQUIDATED DAMAGES

10.01 Provisions for liquidated damages, if any, for failure to timely attain a Milestone, Substantial Completion, or completion of the Work in readiness for final payment, are set forth in the Agreement.

ARTICLE 11 – SUBSTITUTE AND "OR-EQUAL" ITEMS

11.01 The Contract for the Work, as awarded, will be on the basis of materials and equipment specified or described in the Bidding Documents without consideration during the bidding and Contract award process of possible substitute or "or-equal" items. In cases in which the Contract allows the

Contractor to request that Engineer authorize the use of a substitute or "or-equal" item of material or equipment, application for such acceptance may not be made to and will not be considered by Engineer until after the Effective Date of the Contract.

11.02 All prices that Bidder sets forth in its Bid shall be based on the presumption that the Contractor will furnish the materials and equipment specified or described in the Bidding Documents, as supplemented by Addenda. Any assumptions regarding the possibility of post-Bid approvals of "or-equal" or substitution requests are made at Bidder's sole risk.

ARTICLE 12 – SUBCONTRACTORS, SUPPLIERS, AND OTHERS

12.01 A Bidder shall be prepared to retain specific Subcontractors, Suppliers, or other individuals or entities for the performance of the Work if required by the Bidding Documents (most commonly in the Specifications) to do so. If a prospective Bidder objects to retaining any such Subcontractor, Supplier, or other individual or entity, and the concern is not relieved by an Addendum, then the prospective Bidder should refrain from submitting a Bid.

12.02 Subsequent to the submittal of the Bid, Owner may not require the Successful Bidder or Contractor to retain any Subcontractor, Supplier, or other individual or entity against which Contractor has reasonable objection.

12.03 The apparent Successful Bidder, and any other Bidder so requested, shall within five days after Bid opening, submit to Owner a list of the Subcontractors or Suppliers.

12.04 If requested by Owner, such list shall be accompanied by an experience statement with pertinent information regarding similar projects and other evidence of qualification for each such Subcontractor, Supplier, or other individual or entity. If Owner or Engineer, after due investigation, has reasonable objection to any proposed Subcontractor, Supplier, individual, or entity, Owner may, before the Notice of Award is given, request apparent Successful Bidder to submit an acceptable substitute, in which case apparent Successful Bidder shall submit a substitute, Bidder's Bid price will be increased (or decreased) by the difference in cost occasioned by such substitution, and Owner may consider such price adjustment in evaluating Bids and making the Contract award.

12.05 If apparent Successful Bidder declines to make any such substitution, Owner may award the Contract to the next lowest Bidder that proposes to use acceptable Subcontractors, Suppliers, or other individuals or entities. Declining to make requested substitutions will constitute grounds for forfeiture of the Bid security of any Bidder. Any Subcontractor, Supplier, individual, or entity so listed and against which Owner or Engineer makes no written objection prior to the giving of the Notice of Award will be deemed acceptable to Owner and Engineer subject to subsequent revocation of such acceptance as provided in Paragraph 7.06 of the General Conditions.

ARTICLE 13 – PREPARATION OF BID

13.01 The Bid Form is included with the Bidding Documents.

A. All blanks on the Bid Form shall be completed in ink and the Bid Form signed in ink. Erasures or alterations shall be initialed in ink by the person signing the Bid Form. A Bid price shall be indicated for each section, Bid item, alternate, adjustment unit price item, and unit price item listed therein.

B. If the Bid Form expressly indicates that submitting pricing on a specific alternate item is optional, and Bidder elects to not furnish pricing for such optional alternate item, then Bidder may enter the words "No Bid" or "Not Applicable."

13.02 A Bid by a corporation shall be executed in the corporate name by a corporate officer (whose title must appear under the signature), accompanied by evidence of authority to sign. The corporate address and state of incorporation shall be shown.

13.03 A Bid by a limited liability company shall be executed in the name of the firm by a member or other authorized person and accompanied by evidence of authority to sign. The state of formation of the firm and the official address of the firm shall be shown.

13.04 A Bid by an individual shall show the Bidder's name and official address.

13.05 A Bid by a joint venture shall be executed by an authorized representative of each joint venturer in the manner indicated on the Bid Form. The official address of the joint venture shall be shown.

13.06 All names shall be printed in ink below the signatures.

13.07 The Bid shall contain an acknowledgment of receipt of all Addenda, the numbers of which shall be filled in on the Bid Form.

13.08 Postal and e-mail addresses and telephone number for communications regarding the Bid shall be shown.

13.09 The Bid shall contain evidence of Bidder's authority and qualification to do business in the state where the Project is located, or Bidder shall covenant in writing to obtain such authority and qualification prior to award of the Contract and attach such covenant to the Bid. Bidder's state contractor license number, if any, shall also be shown on the Bid Form..

ARTICLE 14 – BASIS OF BID

14.01 Base Bid with Alternates

A. Bidders shall submit a Bid on a lump sum basis for the base Bid and include a separate price for each alternate described in the Bidding Documents and as provided for in the Bid Form. The price for each alternate will be the amount added to or deleted from the base Bid if Owner selects the alternate.

B. In the comparison of Bids, alternates will be applied in the same order of priority as listed in the Bid Form.

14.02 *Unit Price*

A. Bidders shall submit a Bid on a unit price basis for each item of Work listed in the unit price section of the Bid Form.

B. The "Bid Price" (sometimes referred to as the extended price) for each unit price Bid item will be the product of the "Estimated Quantity" (which Owner or its representative has set forth in the Bid Form) for the item and the corresponding "Bid Unit Price" offered by the Bidder. The total of all unit price Bid items will be the sum of these "Bid Prices"; such total will be used by Owner for Bid comparison purposes. The final quantities and Contract Price will be determined in accordance with Paragraph 13.03 of the General Conditions.

C. Discrepancies between the multiplication of units of Work and unit prices will be resolved in favor of the unit prices. Discrepancies between the indicated sum of any column of figures and the correct sum thereof will be resolved in favor of the correct sum.

14.03 *Allowances*

A. For cash allowances the Bid price shall include such amounts as the Bidder deems proper for Contractor's overhead, costs, profit, and other expenses on account of cash allowances, if any, named in the Contract Documents, in accordance with Paragraph 13.02.B of the General Conditions.

ARTICLE 15 – SUBMITTAL OF BID

15.01 With each copy of the Bidding Documents, a Bidder is furnished one Affidavit of Compliance – Iran Economic Sanctions Act (C210) This form must be signed, notarized and included with the submitted bid package.

15.02 A Bid shall be received no later than the date and time prescribed and at the place indicated in the advertisement or invitation to bid and shall be enclosed in a plainly marked package with the Project title (and, if applicable, the designated portion of the Project for which the Bid is submitted), the name and address of Bidder, and shall be accompanied by the Bid security and other required documents. If a Bid is sent by mail or other delivery system, the sealed envelope containing the Bid shall be enclosed in a separate package plainly marked on the outside with the notation "BID ENCLOSED." A mailed Bid shall be addressed to Ypsilanti Township Civic Center, 7200 S. Huron River Dr., Ypsilanti MI., 48197

15.03 Bids received after the date and time prescribed for the opening of bids, or not submitted at the correct location or in the designated manner, will not be accepted and will be returned to the Bidder unopened.

ARTICLE 16 – MODIFICATION AND WITHDRAWAL OF BID

16.01 A Bid may be withdrawn by an appropriate document duly executed in the same manner that a Bid must be executed and delivered to the place where Bids are to be submitted prior to the date and time for the opening of Bids. Upon receipt of such notice, the unopened Bid will be returned to the Bidder.

16.02 If a Bidder wishes to modify its Bid prior to Bid opening, Bidder must withdraw its initial Bid in the manner specified in Paragraph 16.01 and submit a new Bid prior to the date and time for the opening of Bids.

16.03 If within 24 hours after Bids are opened any Bidder files a duly signed written notice with Owner and promptly thereafter demonstrates to the reasonable satisfaction of Owner that there was a material and substantial mistake in the preparation of its Bid, that Bidder may withdraw its Bid, and the Bid security will be returned. Thereafter, if the Work is rebid, that Bidder will be disqualified from further bidding on the Work.

ARTICLE 17 – OPENING OF BIDS

17.01 Bids will be opened at the time and place indicated in the advertisement or invitation to bid and, unless obviously non-responsive, read aloud publicly. An abstract of the amounts of the base Bids and major alternates, if any, will be made available to Bidders after the opening of Bids.

ARTICLE 18 – BIDS TO REMAIN SUBJECT TO ACCEPTANCE

18.01 All Bids will remain subject to acceptance for the period of time stated in the Bid Form, but Owner may, in its sole discretion, release any Bid and return the Bid security prior to the end of this period.

ARTICLE 19 – EVALUATION OF BIDS AND AWARD OF CONTRACT

19.01 Owner reserves the right to reject any or all Bids, including without limitation, nonconforming, nonresponsive, unbalanced, or conditional Bids. Owner will reject the Bid of any Bidder that Owner finds, after reasonable inquiry and evaluation, to not be responsible. If Bidder purports to add terms or conditions to its Bid, takes exception to any provision of the Bidding Documents, or attempts to alter the contents of the Contract Documents for purposes of the Bid, then the Owner will reject the Bid as nonresponsive; provided that Owner also reserves the right to waive all minor informalities not involving price, time, or changes in the Work.

19.02 If Owner awards the contract for the Work, such award shall be to the responsible Bidder submitting the lowest responsive Bid.

19.03 Evaluation of Bids

A. In evaluating Bids, Owner will consider whether or not the Bids comply with the prescribed requirements, and such alternates, unit prices, and other data, as may be requested in the Bid Form or prior to the Notice of Award.

B. For the determination of the apparent low Bidder when unit price bids are submitted, Bids will be compared on the basis of the total of the products of the estimated quantity of each item and unit price Bid for that item, together with any lump sum items.

19.04 In evaluating whether a Bidder is responsible, Owner will consider the qualifications of the Bidder and may consider the qualifications and experience of Subcontractors and Suppliers proposed for those portions of the Work for which the identity of Subcontractors and Suppliers must be submitted as provided in the Bidding Documents.

19.05 Owner may conduct such investigations as Owner deems necessary to establish the responsibility, qualifications, and financial ability of Bidders and any proposed Subcontractors or Suppliers.

ARTICLE 20 – BONDS AND INSURANCE

20.01 Article 6 of the General Conditions, as may be modified by the Supplementary Conditions, sets forth Owner's requirements as to performance and payment bonds and insurance. When the Successful Bidder delivers the Agreement (executed by Successful Bidder) to Owner, it shall be accompanied by required bonds and insurance documentation.

ARTICLE 21 – SIGNING OF AGREEMENT

21.01 When Owner issues a Notice of Award to the Successful Bidder, it shall be accompanied by the unexecuted counterparts of the Agreement along with the other Contract Documents as identified in the Agreement. Within 15 days thereafter, Successful Bidder shall execute and deliver the required number of counterparts of the Agreement (and any bonds and insurance documentation required to be delivered by the Contract Documents) to Owner. Within ten days thereafter, Owner shall deliver one fully executed counterpart of the Agreement to Successful Bidder, together with printed and electronic copies of the Contract Documents as stated in Paragraph 2.02 of the General Conditions.

ARTICLE 22 – EQUAL EMPLOYMENT

22.01 Attention of Bidders is particularly called to the requirement for ensuring that employees and applicants for employment are not discriminated against on any illegal basis with respect to hire, tenure, terms, conditions, or privileges of employment, or a matter directly or indirectly related to employment, because of race, color, religion, national origin, age, sex, height, weight, marital status, partisan considerations, genetic information, or a disability that is unrelated to the individual's ability to perform the duties of a particular job or position as required by Public Act 453 of 1976 (Elliot-Larsen Civil Rights Act), Public Act 220 of 1976 (Persons with Disabilities Act), as amended, and Executive Directive 2019-09.

ARTICLE 23 – BUILD AMERICA, BUY AMERICA (BABA)

23.01 Attention of Bidders is particularly called to the requirement for ensuring that all of the iron, steel, manufactured products, and construction materials used in the project are produced in the United States." (Build America, Buy America Act, P.L. 117-58, Secs 70911 - 70917.

AFFIDAVIT OF COMPLIANCE-IRAN ECONOMIC SANCTIONS ACT
MICHIGAN PUBLIC ACT 517 OF 2012

The undersigned, as owner or authorized officer of the below named CONTRACTOR, pursuant to the compliance certification requirement by the State of Michigan, and as referenced by OWNER in the BIDDING DOCUMENTS, hereby certifies, represents and warrants that the CONTRACTOR (including its Officers, Directors and Employees) is not an "Iran linked business" as defined by the Iran Economic Sanctions Act, Michigan Public Act 517 of 2012 (THE ACT). And, that in the event CONTRACTOR is awarded a contract as a result of the aforementioned BIDDING DOCUMENTS, the Contractor will not become an "Iran linked business" at any time during the course of preforming the work or any services under the contract.

The CONTACTOR further acknowledges that any person who is found to have submitted a false certification is responsible for a civil penalty of not more than $250,000.00 or 2 times the amount of the contract or proposed contract for which the false certification was made, whichever is greater. The cost of the OWNER'S investigation and reasonable attorney fees may also be added in addition to the fine. Moreover, any person who submitted a false certification shall be ineligible to bid on any other of the OWNER'S projects for three (3) years from the date that it is determined that the person has submitted the false certification.

CONTRACTOR:

_____
Name of Contractor
By: _____
Its: _____
Date: _____

STATE OF _____}
ss.
COUNTY OF _____}

This instrument was acknowledged before me on the _____day of _____, ____
by_____.

_____
, Notary Public
_____ County, State of _____
My Commission expires: _____
Acting in the County of: _____

90% Bid Package

NOTICE OF AWARD

Date of Issuance:

Owner:	Ypsilanti Charter Township	Owner's Contract No.:	
Engineer:	Spicer Group, Inc.	Engineer's Project No.:	134586SG2023
Project:	Ford Heritage Park and Lakeside Park Improvements	Contract Name:	Ford Heritage Park and Lakeside Park Improvements

Bidder:

Bidder's Address:

TO BIDDER:

You are notified that Owner has accepted your Bid dated [_____] for the above Contract, and that you are the Successful Bidder and are awarded a Contract for:

Ford Heritage Park and Lakeside Park Improvements

The Contract Price of the awarded Contract is: $_____ *[note if subject to unit prices, or cost-plus]*

[ ] unexecuted counterparts of the Agreement accompany this Notice of Award, and one copy of the Contract Documents accompanies this Notice of Award, or has been transmitted or made available to Bidder electronically. *[revise if multiple copies accompany the Notice of Award]*

☐ a set of the Drawings will be delivered separately from the other Contract Documents.

You must comply with the following conditions precedent within 15 days of the date of receipt of this Notice of Award:

1. Deliver to Owner [____]counterparts of the Agreement, fully executed by Bidder.
2. Deliver with the executed Agreement(s) the Contract security *[e.g., performance and payment bonds]* and insurance documentation as specified in the Instructions to Bidders and General Conditions, Articles 2 and 6.
3. Other conditions precedent (if any):

Failure to comply with these conditions within the time specified will entitle Owner to consider you in default, annul this Notice of Award, and declare your Bid security forfeited.

Within ten days after you comply with the above conditions, Owner will return to you one fully executed counterpart of the Agreement, together with any additional copies of the Contract Documents as indicated in Paragraph 2.02 of the General Conditions.

Owner**:**

_____	_____
Authorized Signature	Authorized Signature
By:	By:
Title:	Title:

Copy: Engineer

90% Bid Package

AGREEMENT

THIS AGREEMENT is by and between Ypsilanti Charter Township ("Owner") and _____ ("Contractor").

Owner and Contractor hereby agree as follows:

ARTICLE 1 – WORK

1.01 Contractor shall complete all Work as specified or indicated in the Contract Documents. The Work is generally described as follows:

ARTICLE 2 – THE PROJECT

2.01 The Project, of which the Work under the Contract Documents is a part, is generally described as follows: Burns Park and West Willow Park Improvements.

ARTICLE 3 – ENGINEER

3.01 The Project has been designed by Spicer Group, Inc.

3.02 The Owner has retained Spicer Group, Inc. ("Engineer") to act as Owner's representative, assume all duties and responsibilities, and have the rights and authority assigned to Engineer in the Contract Documents in connection with the completion of the Work in accordance with the Contract Documents.

ARTICLE 4 – CONTRACT TIMES

4.01 *Time of the Essence*

A. All time limits for Milestones, if any, Substantial Completion, and completion and readiness for final payment as stated in the Contract Documents are of the essence of the Contract.

4.02 *Contract Times: Dates*

A. The Work will be substantially completed on or before December 1, 2024 and completed and ready for final payment in accordance with Paragraph 15.06 of the General Conditions on or before December 30, 2024

4.03 *Liquidated Damages*

A. Contractor and Owner recognize that time is of the essence as stated in Paragraph 4.01 above and that Owner will suffer financial and other losses if the Work is not completed and Milestones not achieved within the times specified in Paragraph 4.02 above, plus any extensions thereof allowed in accordance with the Contract. The parties also recognize the delays, expense, and difficulties involved in proving in a legal or arbitration proceeding the actual loss suffered by Owner if the Work is not completed on time. Accordingly, instead of requiring any such proof, Owner and Contractor agree that as liquidated damages for delay (but not as a penalty):

1. Substantial Completion: Contractor shall pay Owner $600 for each day that expires after the time (as duly adjusted pursuant to the Contract) specified in Paragraph 4.02.A above for Substantial Completion until the Work is substantially complete.

2. Completion of Remaining Work: After Substantial Completion, if Contractor shall neglect, refuse, or fail to complete the remaining Work within the Contract Time (as duly adjusted pursuant to the Contract) for completion and readiness for final payment, Contractor shall pay Owner $600 for each day that expires after such time until the Work is completed and ready for final payment.

3. Liquidated damages for failing to timely attain Substantial Completion and final completion are not additive and will not be imposed concurrently.

4.04 *Special Damages*

A. In addition to the amount provided for liquidated damages, Contractor shall reimburse Owner (1) for any fines or penalties imposed on Owner as a direct result of the Contractor's failure to attain Substantial Completion according to the Contract Times, and (2) for the actual costs reasonably incurred by Owner for engineering, construction observation, inspection, and administrative services needed after the time specified in Paragraph 4.02 for Substantial Completion (as duly adjusted pursuant to the Contract), until the Work is substantially complete.

B. After Contractor achieves Substantial Completion, if Contractor shall neglect, refuse, or fail to complete the remaining Work within the Contract Times, Contractor shall reimburse Owner for the actual costs reasonably incurred by Owner for engineering, construction observation, inspection, and administrative services needed after the time specified in Paragraph 4.02 for Work to be completed and ready for final payment (as duly adjusted pursuant to the Contract), until the Work is completed and ready for final payment.

ARTICLE 5 – CONTRACT PRICE

5.01 Owner shall pay Contractor for completion of the Work in accordance with the Contract Documents the amounts that follow, subject to adjustment under the Contract:

A. For all Unit Price Work, an amount equal to the sum of the extended prices (established for each separately identified item of Unit Price Work by multiplying the unit price times the actual quantity of that item):

The extended prices for Unit Price Work set forth as of the Effective Date of the Contract are based on estimated quantities. As provided in Paragraph 13.03 of the General Conditions, estimated quantities are not guaranteed, and determinations of actual quantities and classifications are to be made by Engineer.

B. For all Work, at the prices stated in Contractor's Bid, attached hereto as an exhibit.

ARTICLE 6 – PAYMENT PROCEDURES

6.01 *Submittal and Processing of Payments*

A. Contractor shall submit Applications for Payment in accordance with Article 15 of the General Conditions. Applications for Payment will be processed by Engineer as provided in the General Conditions.

6.02 *Progress Payments; Retainage*

A. Owner shall make progress payments on account of the Contract Price on the basis of Contractor's Applications for Payment on or about the 1st day of each month during performance of the Work as provided in Paragraph 6.02.A.1 below, provided that such

Applications for Payment have been submitted in a timely manner and otherwise meet the requirements of the Contract. All such payments will be measured by the Schedule of Values established as provided in the General Conditions (and in the case of Unit Price Work based on the number of units completed) or, in the event there is no Schedule of Values, as provided elsewhere in the Contract.

1. Prior to Substantial Completion, progress payments will be made in an amount equal to the percentage indicated below but, in each case, less the aggregate of payments previously made and less such amounts as Owner may withhold, including but not limited to liquidated damages, in accordance with the Contract

   a. 90 percent of Work completed (with the balance being retainage). If the Work has been 50 percent completed as determined by Engineer, and if the character and progress of the Work have been satisfactory to Owner and Engineer, then as long as the character and progress of the Work remain satisfactory to Owner and Engineer, there will be no additional retainage; and

B. Upon Substantial Completion, Owner shall pay an amount sufficient to increase total payments to Contractor to 95 percent of the Work completed, less such amounts set off by Owner pursuant to Paragraph 15.01.E of the General Conditions, and less 50 percent of Engineer's estimate of the value of Work to be completed or corrected as shown on the punch list of items to be completed or corrected prior to final payment.

6.03 *Final Payment*

A. Upon final completion and acceptance of the Work in accordance with Paragraph 15.06 of the General Conditions, Owner shall pay the remainder of the Contract Price as recommended by Engineer as provided in said Paragraph 15.06.

ARTICLE 7 – INTEREST

7.01 All amounts not paid when due shall bear interest at the rate of *0* percent per annum.

ARTICLE 8 – CONTRACTOR'S REPRESENTATIONS

8.01 In order to induce Owner to enter into this Contract, Contractor makes the following representations:

A. Contractor has examined and carefully studied the Contract Documents, and any data and reference items identified in the Contract Documents.

B. Contractor has visited the Site, conducted a thorough, alert visual examination of the Site and adjacent areas, and become familiar with and is satisfied as to the general, local, and Site conditions that may affect cost, progress, and performance of the Work.

C. Contractor is familiar with and is satisfied as to all Laws and Regulations that may affect cost, progress, and performance of the Work.

D. Contractor has carefully studied all: (1) reports of explorations and tests of subsurface conditions at or adjacent to the Site and all drawings of physical conditions relating to existing surface or subsurface structures at the Site that have been identified in the Supplementary Conditions, especially with respect to Technical Data in such reports and drawings, and (2) reports and drawings relating to Hazardous Environmental Conditions, if any, at or adjacent to the Site that have been identified in the Supplementary Conditions, especially with respect to Technical Data in such reports and drawings.

E. Contractor has considered the information known to Contractor itself; information commonly known to contractors doing business in the locality of the Site; information and observations obtained from visits to the Site; the Contract Documents; and the Site-related reports and

drawings identified in the Contract Documents, with respect to the effect of such information, observations, and documents on (1) the cost, progress, and performance of the Work; (2) the means, methods, techniques, sequences, and procedures of construction to be employed by Contractor; and (3) Contractor's safety precautions and programs.

F. Based on the information and observations referred to in the preceding paragraph, Contractor agrees that no further examinations, investigations, explorations, tests, studies, or data are necessary for the performance of the Work at the Contract Price, within the Contract Times, and in accordance with the other terms and conditions of the Contract.

G. Contractor is aware of the general nature of work to be performed by Owner and others at the Site that relates to the Work as indicated in the Contract Documents.

H. Contractor has given Engineer written notice of all conflicts, errors, ambiguities, or discrepancies that Contractor has discovered in the Contract Documents, and the written resolution thereof by Engineer is acceptable to Contractor.

I. The Contract Documents are generally sufficient to indicate and convey understanding of all terms and conditions for performance and furnishing of the Work.

J. Contractor's entry into this Contract constitutes an incontrovertible representation by Contractor that without exception all prices in the Agreement are premised upon performing and furnishing the Work required by the Contract Documents.

ARTICLE 9 – CONTRACT DOCUMENTS

9.01 *Contents*

A. The Contract Documents consist of the following:

1. This Agreement (pages 1 to 7, inclusive).
2. Performance bond (pages 1 to 3, inclusive).
3. Payment bond (pages 1 to 4, inclusive).
4. Maintenance and Guarantee (pages 1 to 2, inclusive).
5. General Conditions (pages 1 to 65, inclusive).
6. Supplementary Conditions (pages 1 to 5, inclusive).
7. Specifications as listed in the table of contents of the Project Manual.
8. The Drawings are listed on the document title page.
9. Addenda (numbers ___ to ___, inclusive).
10. Exhibits to this Agreement (enumerated as follows):
    a. Contractor's Bid (pages ___ to ___, inclusive).
11. The following which may be delivered or issued on or after the Effective Date of the Contract and are not attached hereto:
    a. Notice to Proceed.
    b. Work Change Directives.
    c. Change Orders.
    d. Field Orders.

B. The documents listed in Paragraph 9.01.A are attached to this Agreement (except as expressly noted otherwise above).

C. There are no Contract Documents other than those listed above in this Article 9.

D. The Contract Documents may only be amended, modified, or supplemented as provided in the General Conditions.

ARTICLE 10 – MISCELLANEOUS

10.01 *Terms*

A. Terms used in this Agreement will have the meanings stated in the General Conditions and the Supplementary Conditions.

10.02 *Assignment of Contract*

A. Unless expressly agreed to elsewhere in the Contract, no assignment by a party hereto of any rights under or interests in the Contract will be binding on another party hereto without the written consent of the party sought to be bound; and, specifically but without limitation, money that may become due and money that is due may not be assigned without such consent (except to the extent that the effect of this restriction may be limited by law), and unless specifically stated to the contrary in any written consent to an assignment, no assignment will release or discharge the assignor from any duty or responsibility under the Contract Documents.

10.03 *Successors and Assigns*

A. Owner and Contractor each binds itself, its successors, assigns, and legal representatives to the other party hereto, its successors, assigns, and legal representatives in respect to all covenants, agreements, and obligations contained in the Contract Documents.

10.04 *Severability*

A. Any provision or part of the Contract Documents held to be void or unenforceable under any Law or Regulation shall be deemed stricken, and all remaining provisions shall continue to be valid and binding upon Owner and Contractor, who agree that the Contract Documents shall be reformed to replace such stricken provision or part thereof with a valid and enforceable provision that comes as close as possible to expressing the intention of the stricken provision.

10.05 *Contractor's Certifications*

A. Contractor certifies that it has not engaged in corrupt, fraudulent, collusive, or coercive practices in competing for or in executing the Contract. For the purposes of this Paragraph 10.05:

1. "corrupt practice" means the offering, giving, receiving, or soliciting of any thing of value likely to influence the action of a public official in the bidding process or in the Contract execution;

2. "fraudulent practice" means an intentional misrepresentation of facts made (a) to influence the bidding process or the execution of the Contract to the detriment of Owner, (b) to establish Bid or Contract prices at artificial non-competitive levels, or (c) to deprive Owner of the benefits of free and open competition;

3. "collusive practice" means a scheme or arrangement between two or more Bidders, with or without the knowledge of Owner, a purpose of which is to establish Bid prices at artificial, non-competitive levels; and

4. "coercive practice" means harming or threatening to harm, directly or indirectly, persons or their property to influence their participation in the bidding process or affect the execution of the Contract.

10.06 *Other Provisions*

A. Owner stipulates that if the General Conditions that are made a part of this Contract are based on EJCDC® C-700, Standard General Conditions for the Construction Contract, published by the Engineers Joint Contract Documents Committee®, and if Owner is the party that has furnished said General Conditions, then Owner has plainly shown all modifications to the standard wording of such published document to the Contractor, through a process such as highlighting or "track changes" (redline/strikeout), or in the Supplementary Conditions.

B. Equal Opportunity

Contractor shall not discriminate against an employee or applicant for employment with respect to hire, tenure, terms, conditions, or privileges of employment, or a matter directly or indirectly related to employment, because of race, color, religion, national origin, age, sex, height, weight, marital status, or because of a handicap that is unrelated to the person's ability to perform the duties of a particular job or position.

IN WITNESS WHEREOF, Owner and Contractor have signed this Agreement.

This Agreement will be effective on _____ (which is the Effective Date of the Contract).

OWNER:	CONTRACTOR:
Ypsilanti Charter Township	
By:	By:
Title:	Title:
Attest:	Attest:
Title:	Title:
Address for giving notices:	Address for giving notices:
7200 Huron River Drive	
Ypsilanti, MI 48197	

90% Bid Package

NOTICE TO PROCEED

Owner:	Ypsilanti Charter Township	Owner's Contract No.:	
Contractor:		Contractor's Project No.:	
Engineer:	Spicer Group, Inc.	Engineer's Project No.:	134586SG2023
Project:	Ford Heritage Park and Lakeside Park Improvements	Contract Name:	Ford Heritage Park and Lakeside Park Improvements
		Effective Date of Contract:	

TO CONTRACTOR:

Owner hereby notifies Contractor that the Contract Times under the above Contract will commence to run on _____**, 2024.** *[see Paragraph 4.01 of the General Conditions]*

On that date, Contractor shall start performing its obligations under the Contract Documents. No Work shall be done at the Site prior to such date. In accordance with the Agreement, the date of Substantial Completion is **December 1, 2024**, and the date of readiness for final payment is **December 30, 2024.**

Owner**:**	**Ypsilanti Charter Township**		
	_____		_____
	Authorized Signature		Authorized Signature
By:		By:	
	_____		_____
Title:	_____	Title:	_____
Date Issued:	_____	Date Issued:	_____

Copy: Engineer

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PERFORMANCE BOND

CONTRACTOR *(name and address)*:

SURETY *(name and address of principal place of business)*:

OWNER *(name and address)*:
Ypsilanti Charter Township
7200 S Huron River Dr
Ypsilanti, MI 48197

CONSTRUCTION CONTRACT
Effective Date of the Agreement:
Amount:
Description *(name and location)*:

BOND
Bond Number:
Date *(not earlier than the Effective Date of the Agreement of the Construction Contract)*:
Amount:
Modifications to this Bond Form: ☐ None ☐ See Paragraph 16

Surety and Contractor, intending to be legally bound hereby, subject to the terms set forth below, do each cause this Performance Bond to be duly executed by an authorized officer, agent, or representative.

CONTRACTOR AS PRINCIPAL	**SURETY**
_____ *(seal)*	_____ *(seal)*
Contractor's Name and Corporate Seal	Surety's Name and Corporate Seal
By: _____	**By:** _____
Signature	Signature *(attach power of attorney)*
_____	_____
Print Name	Print Name
_____	_____
Title	Title
Attest: _____	**Attest:** _____
Signature	Signature
_____	_____
Title	Title

Notes: (1) Provide supplemental execution by any additional parties, such as joint venturers. (2) Any singular reference to Contractor, Surety, Owner, or other party shall be considered plural where applicable.

1. The Contractor and Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors, and assigns to the Owner for the performance of the Construction Contract, which is incorporated herein by reference.

2. If the Contractor performs the Construction Contract, the Surety and the Contractor shall have no obligation under this Bond, except when applicable to participate in a conference as provided in Paragraph 3.

3. If there is no Owner Default under the Construction Contract, the Surety's obligation under this Bond shall arise after:

3.1 The Owner first provides notice to the Contractor and the Surety that the Owner is considering declaring a Contractor Default. Such notice shall indicate whether the Owner is requesting a conference among the Owner, Contractor, and Surety to discuss the Contractor's performance. If the Owner does not request a conference, the Surety may, within five (5) business days after receipt of the Owner's notice, request such a conference. If the Surety timely requests a conference, the Owner shall attend. Unless the Owner agrees otherwise, any conference requested under this Paragraph 3.1 shall be held within ten (10) business days of the Surety's receipt of the Owner's notice. If the Owner, the Contractor, and the Surety agree, the Contractor shall be allowed a reasonable time to perform the Construction Contract, but such an agreement shall not waive the Owner's right, if any, subsequently to declare a Contractor Default;

3.2 The Owner declares a Contractor Default, terminates the Construction Contract and notifies the Surety; and

3.3 The Owner has agreed to pay the Balance of the Contract Price in accordance with the terms of the Construction Contract to the Surety or to a contractor selected to perform the Construction Contract.

4. Failure on the part of the Owner to comply with the notice requirement in Paragraph 3.1 shall not constitute a failure to comply with a condition precedent to the Surety's obligations, or release the Surety from its obligations, except to the extent the Surety demonstrates actual prejudice.

5. When the Owner has satisfied the conditions of Paragraph 3, the Surety shall promptly and at the Surety's expense take one of the following actions:

5.1 Arrange for the Contractor, with the consent of the Owner, to perform and complete the Construction Contract;

5.2 Undertake to perform and complete the Construction Contract itself, through its agents or independent contractors;

5.3 Obtain bids or negotiated proposals from qualified contractors acceptable to the Owner for a contract for performance and completion of the Construction Contract, arrange for a contract to be prepared for execution by the Owner and a contractor selected with the Owners concurrence, to be secured with performance and payment bonds executed by a qualified surety equivalent to the bonds issued on the Construction Contract, and pay to the Owner the amount of damages as described in Paragraph 7 in excess of the Balance of the Contract Price incurred by the Owner as a result of the Contractor Default; or

5.4 Waive its right to perform and complete, arrange for completion, or obtain a new contractor, and with reasonable promptness under the circumstances:

5.4.1 After investigation, determine the amount for which it may be liable to the Owner and, as soon as practicable after the amount is determined, make payment to the Owner; or

5.4.2 Deny liability in whole or in part and notify the Owner, citing the reasons for denial.

6. If the Surety does not proceed as provided in Paragraph 5 with reasonable promptness, the Surety shall be deemed to be in default on this Bond seven days after receipt of an additional written notice from the Owner to the Surety demanding that the Surety perform its obligations under this Bond, and the Owner shall be entitled to enforce any remedy available to the Owner. If the Surety proceeds as provided in Paragraph 5.4, and the Owner refuses the payment or the Surety has denied liability, in whole or in part, without further notice the Owner shall be entitled to enforce any remedy available to the Owner.

7. If the Surety elects to act under Paragraph 5.1, 5.2, or 5.3, then the responsibilities of the Surety to the Owner shall not be greater than those of the Contractor under the Construction Contract, and the responsibilities of the Owner to the Surety shall not be greater than those of the Owner under the Construction Contract. Subject to the commitment by the Owner to pay the Balance of the Contract Price, the Surety is obligated, without duplication for:

7.1 the responsibilities of the Contractor for correction of defective work and completion of the Construction Contract;

7.2 additional legal, design professional, and delay costs resulting from the Contractor's Default, and resulting from the actions or failure to act of the Surety under Paragraph 5; and

7.3 liquidated damages, or if no liquidated damages are specified in the Construction Contract, actual damages caused by delayed performance or non-performance of the Contractor.

8. If the Surety elects to act under Paragraph 5.1, 5.3, or 5.4, the Surety's liability is limited to the amount of this Bond.

9. The Surety shall not be liable to the Owner or others for obligations of the Contractor that are unrelated to the Construction Contract, and the Balance of the Contract Price shall not be reduced or set off on account of any such unrelated obligations. No right of action shall accrue on this Bond to any person or entity other than the Owner or its heirs, executors, administrators, successors, and assigns.

10. The Surety hereby waives notice of any change, including changes of time, to the Construction Contract or to related subcontracts, purchase orders, and other obligations.

11. Any proceeding, legal or equitable, under this Bond may be instituted in any court of competent jurisdiction in the location in which the work or part of the work is located and shall be instituted within two years after a declaration of Contractor Default or within two years after the Contractor ceased working or within two years after the Surety refuses or fails to perform its obligations under this Bond, whichever occurs first. If the provisions of this paragraph are void or prohibited by law, the minimum periods of limitations available to sureties as a defense in the jurisdiction of the suit shall be applicable.

12. Notice to the Surety, the Owner, or the Contractor shall be mailed or delivered to the address shown on the page on which their signature appears.

13. When this Bond has been furnished to comply with a statutory or other legal requirement in the location where the construction was to be performed, any provision in this Bond conflicting with said statutory or legal requirement shall be deemed deleted herefrom and provisions conforming to such statutory or other legal requirement shall be deemed incorporated herein. When so furnished, the intent is that this Bond shall be construed as a statutory bond and not as a common law bond.

14. Definitions

14.1 Balance of the Contract Price: The total amount payable by the Owner to the Contractor under the Construction Contract after all proper adjustments have been made including allowance for the Contractor for any amounts received or to be received by the Owner in settlement of insurance or other claims for damages to which the Contractor is entitled, reduced by all valid and proper payments made to or on behalf of the Contractor under the Construction Contract.

14.2 Construction Contract: The agreement between the Owner and Contractor identified on the cover page, including all Contract Documents and changes made to the agreement and the Contract Documents.

14.3 Contractor Default: Failure of the Contractor, which has not been remedied or waived, to perform or otherwise to comply with a material term of the Construction Contract.

14.4 Owner Default: Failure of the Owner, which has not been remedied or waived, to pay the Contractor as required under the Construction Contract or to perform and complete or comply with the other material terms of the Construction Contract.

14.5 Contract Documents: All the documents that comprise the agreement between the Owner and Contractor.

15. If this Bond is issued for an agreement between a contractor and subcontractor, the term Contractor in this Bond shall be deemed to be Subcontractor and the term Owner shall be deemed to be Contractor.

16. Modifications to this Bond are as follows:

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PAYMENT BOND

CONTRACTOR *(name and address)*:

SURETY *(name and address of principal place of business)*:

OWNER *(name and address)*:
Ypsilanti Charter Township
7200 S Huron River Dr
Ypsilanti, MI 48197

CONSTRUCTION CONTRACT
Effective Date of the Agreement:
Amount:
Description *(name and location)*:

BOND
Bond Number:
Date *(not earlier than the Effective Date of the Agreement of the Construction Contract)*:
Amount:
Modifications to this Bond Form: ☐ None ☐ See Paragraph 18

Surety and Contractor, intending to be legally bound hereby, subject to the terms set forth below, do each cause this Payment Bond to be duly executed by an authorized officer, agent, or representative.

CONTRACTOR AS PRINCIPAL	**SURETY**
_____ *(seal)*	_____ *(seal)*
Contractor's Name and Corporate Seal	Surety's Name and Corporate Seal
By: _____	**By:** _____
Signature	Signature *(attach power of attorney)*
_____	_____
Print Name	Print Name
_____	_____
Title	Title
Attest: _____	**Attest:** _____
Signature	Signature
_____	_____
Title	Title

Notes: (1) Provide supplemental execution by any additional parties, such as joint venturers. (2) Any singular reference to Contractor, Surety, Owner, or other party shall be considered plural where applicable.

1. The Contractor and Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors, and assigns to the Owner to pay for labor, materials, and equipment furnished for use in the performance of the Construction Contract, which is incorporated herein by reference, subject to the following terms.

2. If the Contractor promptly makes payment of all sums due to Claimants, and defends, indemnifies, and holds harmless the Owner from claims, demands, liens, or suits by any person or entity seeking payment for labor, materials, or equipment furnished for use in the performance of the Construction Contract, then the Surety and the Contractor shall have no obligation under this Bond.

3. If there is no Owner Default under the Construction Contract, the Surety's obligation to the Owner under this Bond shall arise after the Owner has promptly notified the Contractor and the Surety (at the address described in Paragraph 13) of claims, demands, liens, or suits against the Owner or the Owner's property by any person or entity seeking payment for labor, materials, or equipment furnished for use in the performance of the Construction Contract, and tendered defense of such claims, demands, liens, or suits to the Contractor and the Surety.

4. When the Owner has satisfied the conditions in Paragraph 3, the Surety shall promptly and at the Surety's expense defend, indemnify, and hold harmless the Owner against a duly tendered claim, demand, lien, or suit.

5. The Surety's obligations to a Claimant under this Bond shall arise after the following:

   5.1 Claimants who do not have a direct contract with the Contractor,

      5.1.1 have furnished a written notice of non-payment to the Contractor, stating with substantial accuracy the amount claimed and the name of the party to whom the materials were, or equipment was, furnished or supplied or for whom the labor was done or performed, within ninety (90) days after having last performed labor or last furnished materials or equipment included in the Claim; and

      5.1.2 have sent a Claim to the Surety (at the address described in Paragraph 13).

   5.2 Claimants who are employed by or have a direct contract with the Contractor have sent a Claim to the Surety (at the address described in Paragraph 13).

6. If a notice of non-payment required by Paragraph 5.1.1 is given by the Owner to the Contractor, that is sufficient to satisfy a Claimant's obligation to furnish a written notice of non-payment under Paragraph 5.1.1.

7. When a Claimant has satisfied the conditions of Paragraph 5.1 or 5.2, whichever is applicable, the Surety shall promptly and at the Surety's expense take the following actions:

   7.1 Send an answer to the Claimant, with a copy to the Owner, within sixty (60) days after receipt of the Claim, stating the amounts that are undisputed and the basis for challenging any amounts that are disputed; and

   7.2 Pay or arrange for payment of any undisputed amounts.

   7.3 The Surety's failure to discharge its obligations under Paragraph 7.1 or 7.2 shall not be deemed to constitute a waiver of defenses the Surety or Contractor may have or acquire as to a Claim, except as to undisputed amounts for which the Surety and Claimant have reached agreement. If, however, the Surety fails to discharge its obligations under Paragraph 7.1 or 7.2, the Surety shall indemnify the Claimant for the reasonable attorney's fees the Claimant incurs thereafter to recover any sums found to be due and owing to the Claimant.

8. The Surety's total obligation shall not exceed the amount of this Bond, plus the amount of reasonable attorney's fees provided under Paragraph 7.3, and the amount of this Bond shall be credited for any payments made in good faith by the Surety.

9. Amounts owed by the Owner to the Contractor under the Construction Contract shall be used for the performance of the Construction Contract and to satisfy claims, if any, under any construction performance bond. By the Contractor furnishing and the Owner accepting this Bond, they agree that all funds earned by the Contractor in the performance of the Construction Contract are dedicated to satisfy obligations of the Contractor and Surety under this Bond, subject to the Owner's priority to use the funds for the completion of the work.

10. The Surety shall not be liable to the Owner, Claimants, or others for obligations of the Contractor that are unrelated to the Construction Contract. The Owner shall not be liable for the payment of any costs or expenses of any Claimant under this Bond, and shall have under this Bond no obligation to make payments

to or give notice on behalf of Claimants, or otherwise have any obligations to Claimants under this Bond.

11. The Surety hereby waives notice of any change, including changes of time, to the Construction Contract or to related subcontracts, purchase orders, and other obligations.

12. No suit or action shall be commenced by a Claimant under this Bond other than in a court of competent jurisdiction in the state in which the project that is the subject of the Construction Contract is located or after the expiration of one year from the date (1) on which the Claimant sent a Claim to the Surety pursuant to Paragraph 5.1.2 or 5.2, or (2) on which the last labor or service was performed by anyone or the last materials or equipment were furnished by anyone under the Construction Contract, whichever of (1) or (2) first occurs. If the provisions of this paragraph are void or prohibited by law, the minimum period of limitation available to sureties as a defense in the jurisdiction of the suit shall be applicable.

13. Notice and Claims to the Surety, the Owner, or the Contractor shall be mailed or delivered to the address shown on the page on which their signature appears. Actual receipt of notice or Claims, however accomplished, shall be sufficient compliance as of the date received.

14. When this Bond has been furnished to comply with a statutory or other legal requirement in the location where the construction was to be performed, any provision in this Bond conflicting with said statutory or legal requirement shall be deemed deleted herefrom and provisions conforming to such statutory or other legal requirement shall be deemed incorporated herein. When so furnished, the intent is that this Bond shall be construed as a statutory bond and not as a common law bond.

15. Upon requests by any person or entity appearing to be a potential beneficiary of this Bond, the Contractor and Owner shall promptly furnish a copy of this Bond or shall permit a copy to be made.

16. **Definitions**

16.1 **Claim:** A written statement by the Claimant including at a minimum:

1. The name of the Claimant;
2. The name of the person for whom the labor was done, or materials or equipment furnished;
3. A copy of the agreement or purchase order pursuant to which labor, materials, or equipment was furnished for use in the performance of the Construction Contract;
4. A brief description of the labor, materials, or equipment furnished;
5. The date on which the Claimant last performed labor or last furnished materials or equipment for use in the performance of the Construction Contract;
6. The total amount earned by the Claimant for labor, materials, or equipment furnished as of the date of the Claim;
7. The total amount of previous payments received by the Claimant; and
8. The total amount due and unpaid to the Claimant for labor, materials, or equipment furnished as of the date of the Claim.

16.2 **Claimant:** An individual or entity having a direct contract with the Contractor or with a subcontractor of the Contractor to furnish labor, materials, or equipment for use in the performance of the Construction Contract. The term Claimant also includes any individual or entity that has rightfully asserted a claim under an applicable mechanic's lien or similar statute against the real property upon which the Project is located. The intent of this Bond shall be to include without limitation in the terms of "labor, materials, or equipment" that part of the water, gas, power, light, heat, oil, gasoline, telephone service, or rental equipment used in the Construction Contract, architectural and engineering services required for performance of the work of the Contractor and the Contractor's subcontractors, and all other items for which a mechanic's lien may be asserted in the jurisdiction where the labor, materials, or equipment were furnished.

16.3 **Construction Contract:** The agreement between the Owner and Contractor identified on the cover page, including all Contract Documents and all changes made to the agreement and the Contract Documents.

16.4 **Owner Default**: Failure of the Owner, which has not been remedied or waived, to pay the Contractor as required under the Construction Contract or to perform and complete or comply with the other material terms of the Construction Contract.

16.5 **Contract Documents:** All the documents that comprise the agreement between the Owner and Contractor.

17. If this Bond is issued for an agreement between a contractor and subcontractor, the term Contractor in this Bond shall be deemed to be Subcontractor and the term Owner shall be deemed to be Contractor.

18. Modifications to this Bond are as follows:

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MAINTENANCE AND GUARANTEE BOND

KNOW ALL PERSONS BY THESE PRESENTS, that we, the undersigned, _____

_____as Principal, and _____,

as Surety, are held and firmly bound onto Charter Township of Ypsilanti, OWNER,

in the sum of _____

_____ Dollars ($_____) to be paid to the Owner for which payment

will and truly be made jointly and severally bind ourselves, our heirs, our executors, administrators, and assigns, firmly by these presents.

Sealed with our signature and seals and dated this _____day of _____, 20___.

WHEREAS, the above named Principal has entered into a certain written Contract with Charter Township of Ypsilanti dated _____, 20___, wherein the Principal agreed as follows:

_____

_____

_____

NOW THEREFORE, THE CONDITION OF THIS OBLIGATION IS SUCH that by and under said Contract, the above-named Principal has agreed with the OWNER, for a period of one (2) years from the date of payment of the final estimate, to keep in good order and repair and defect in all work done under said Contract, either by the Principal or his subcontractors, or his suppliers, that may develop during said period due to improper materials, defective equipment, workmanship or arrangements; any other work affected in making good such imperfections, shall also be made good, all without expense to the OWNER, excepting only such part or parts of said Work as may have been disturbed without the consent or approval of the Principal after final acceptance of the Work, and that whenever directed to do so by the OWNER, by notice served in writing, either personally or by mail, on the Principal, legal representative, successor, or on the Surety, he/she will at once make such repairs as directed by the OWNER; and in case of failure to do so within one (1) week from the date of service of such notice, or within a reasonable time as shall be fixed in said notice, then the OWNER shall have the right to purchase such materials and employ such labor and equipment as may be necessary for the purpose and to undertake to do and make such repairs, and charge the expense thereof to and receive same from said Principal or Surety. If any repair is necessary to be made at once to protect life and property, then and in that case, the OWNER may take immediate steps to repair or barricade such defects without notice to the CONTRACTOR. In such accounting the OWNER shall not be held to obtain the lowest figure for doing of the Work or nay part thereof, but all sums actually paid therefore shall be charged to the Principal or Surety. In this connection, the judgement of the OWNER is final and conclusive. If the said Principal, for a period of one (2) years from the date of the final estimate of payment, shall keep such Work so constructed under the Contact in good order and repair, excepting only such part or parts of such Work as may have been disturbed without the consent or approval of said Principal after final acceptance of the same, and shall, whenever notice is given as herein specified, at once proceed to make repair as in said notice directed or shall reimburse the OWNER for any expense incurred by making such repairs should the Principal or Surety fail to do as hereinbefore specified, and shall fully indemnify, defend and hold harmless said OWNER from all law suits and actions for damages of every name and description brought or claimed against it for or on account of any injury to person(s) or property received or sustained by any party or parties, by or from any of the acts or omissions or through the prosecution of the Work included in said Contract, and from any and all claims arising under the Workman's Compensation Act, so-called, of the State of Michigan, then the above obligation shall be void, otherwise to remain in full force and effect.

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IN WITNESS WHEREOF, the parties have caused this instrument to be executed by their respective authorized officers this _____ day of _____, 20__.

Signed, Sealed and Delivered
in the presence of:

_____
Signature

_____
Name

_____
Signature

_____
Name

_____
Principal

_____
Signature

_____
Name

_____
Signature

_____
Name

_____
Surety

90% Bid Package

Application Period:	Application Date:	**Contractor's Application for Payment No. 1**
To (Owner): Ypsilanti Charter Township	From (Contractor):	Via (Engineer): Spicer Group, Inc.
Project: Burns Park and West Willow Park Improvements	Contract:	
Owner's Contract No.:	Contractor's Project No.:	Engineer's Project No.: 134586SG2023

Application For Payment Change Order Summary

Approved Change Orders		
Number	Additions	Deductions
TOTALS		
NET CHANGE BY CHANGE ORDERS		

1. ORIGINAL CONTRACT PRICE..... $ _____
2. Net change by Change Orders..... $ _____
3. Current Contract Price (Line 1 ± 2)..... $ _____
4. TOTAL COMPLETED AND STORED TO DATE
   (Column F total on Progress Estimates)..... $ _____
5. RETAINAGE:
   a. X _____ Work Completed..... $ _____
   b. X _____ Stored Material..... $ _____
   c. Total Retainage (Line 5.a + Line 5.b)..... $ _____
6. AMOUNT ELIGIBLE TO DATE (Line 4 - Line 5.c)..... $ _____
7. LESS PREVIOUS PAYMENTS (Line 6 from prior Application)..... $ _____
8. AMOUNT DUE THIS APPLICATION..... $ _____
9. BALANCE TO FINISH, PLUS RETAINAGE
   (Column G total on Progress Estimates + Line 5.c above)..... $ _____

Contractor's Certification

The undersigned Contractor certifies, to the best of its knowledge, the following:
(1) All previous progress payments received from Owner on account of Work done under the Contract have been applied on account to discharge Contractor's legitimate obligations incurred in connection with the Work covered by prior Applications for Payment;
(2) Title to all Work, materials and equipment incorporated in said Work, or otherwise listed in or covered by this Application for Payment, will pass to Owner at time of payment free and clear of all Liens, security interests, and encumbrances (except such as are covered by a bond acceptable to Owner indemnifying Owner against any such Liens, security interest, or encumbrances); and
(3) All the Work covered by this Application for Payment is in accordance with the Contract Documents and is not defective.

Contractor Signature

By:	Date:

Payment of: $ _____
(Line 8 or other - attach explanation of the other amount)

is recommended by: _____ _____
(Engineer) (Date)

Payment of: $ _____
(Line 8 or other - attach explanation of the other amount)

is approved by: _____ _____
(Owner) (Date)

Approved by: _____ _____
Funding or Financing Entity (if applicable) (Date)

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PERFORMANCE BOND

CONTRACTOR *(name and address)*:

SURETY *(name and address of principal place of business)*:

OWNER *(name and address)*:
Ypsilanti Charter Township
7200 S Huron River Dr
Ypsilanti, MI 48197

CONSTRUCTION CONTRACT
Effective Date of the Agreement:
Amount:
Description *(name and location)*:

BOND
Bond Number:
Date *(not earlier than the Effective Date of the Agreement of the Construction Contract)*:
Amount:
Modifications to this Bond Form: ☐ None ☐ See Paragraph 16

Surety and Contractor, intending to be legally bound hereby, subject to the terms set forth below, do each cause this Performance Bond to be duly executed by an authorized officer, agent, or representative.

CONTRACTOR AS PRINCIPAL	**SURETY**
_____ *(seal)*	_____ *(seal)*
Contractor's Name and Corporate Seal	Surety's Name and Corporate Seal
By: _____	**By:** _____
Signature	Signature *(attach power of attorney)*
_____	_____
Print Name	Print Name
_____	_____
Title	Title
Attest: _____	**Attest:** _____
Signature	Signature
_____	_____
Title	Title

Notes: (1) Provide supplemental execution by any additional parties, such as joint venturers. (2) Any singular reference to Contractor, Surety, Owner, or other party shall be considered plural where applicable.

1. The Contractor and Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors, and assigns to the Owner for the performance of the Construction Contract, which is incorporated herein by reference.

2. If the Contractor performs the Construction Contract, the Surety and the Contractor shall have no obligation under this Bond, except when applicable to participate in a conference as provided in Paragraph 3.

3. If there is no Owner Default under the Construction Contract, the Surety's obligation under this Bond shall arise after:

3.1 The Owner first provides notice to the Contractor and the Surety that the Owner is considering declaring a Contractor Default. Such notice shall indicate whether the Owner is requesting a conference among the Owner, Contractor, and Surety to discuss the Contractor's performance. If the Owner does not request a conference, the Surety may, within five (5) business days after receipt of the Owner's notice, request such a conference. If the Surety timely requests a conference, the Owner shall attend. Unless the Owner agrees otherwise, any conference requested under this Paragraph 3.1 shall be held within ten (10) business days of the Surety's receipt of the Owner's notice. If the Owner, the Contractor, and the Surety agree, the Contractor shall be allowed a reasonable time to perform the Construction Contract, but such an agreement shall not waive the Owner's right, if any, subsequently to declare a Contractor Default;

3.2 The Owner declares a Contractor Default, terminates the Construction Contract and notifies the Surety; and

3.3 The Owner has agreed to pay the Balance of the Contract Price in accordance with the terms of the Construction Contract to the Surety or to a contractor selected to perform the Construction Contract.

4. Failure on the part of the Owner to comply with the notice requirement in Paragraph 3.1 shall not constitute a failure to comply with a condition precedent to the Surety's obligations, or release the Surety from its obligations, except to the extent the Surety demonstrates actual prejudice.

5. When the Owner has satisfied the conditions of Paragraph 3, the Surety shall promptly and at the Surety's expense take one of the following actions:

5.1 Arrange for the Contractor, with the consent of the Owner, to perform and complete the Construction Contract;

5.2 Undertake to perform and complete the Construction Contract itself, through its agents or independent contractors;

5.3 Obtain bids or negotiated proposals from qualified contractors acceptable to the Owner for a contract for performance and completion of the Construction Contract, arrange for a contract to be prepared for execution by the Owner and a contractor selected with the Owners concurrence, to be secured with performance and payment bonds executed by a qualified surety equivalent to the bonds issued on the Construction Contract, and pay to the Owner the amount of damages as described in Paragraph 7 in excess of the Balance of the Contract Price incurred by the Owner as a result of the Contractor Default; or

5.4 Waive its right to perform and complete, arrange for completion, or obtain a new contractor, and with reasonable promptness under the circumstances:

5.4.1 After investigation, determine the amount for which it may be liable to the Owner and, as soon as practicable after the amount is determined, make payment to the Owner; or

5.4.2 Deny liability in whole or in part and notify the Owner, citing the reasons for denial.

6. If the Surety does not proceed as provided in Paragraph 5 with reasonable promptness, the Surety shall be deemed to be in default on this Bond seven days after receipt of an additional written notice from the Owner to the Surety demanding that the Surety perform its obligations under this Bond, and the Owner shall be entitled to enforce any remedy available to the Owner. If the Surety proceeds as provided in Paragraph 5.4, and the Owner refuses the payment or the Surety has denied liability, in whole or in part, without further notice the Owner shall be entitled to enforce any remedy available to the Owner.

7. If the Surety elects to act under Paragraph 5.1, 5.2, or 5.3, then the responsibilities of the Surety to the Owner shall not be greater than those of the Contractor under the Construction Contract, and the responsibilities of the Owner to the Surety shall not be greater than those of the Owner under the Construction Contract. Subject to the commitment by the Owner to pay the Balance of the Contract Price, the Surety is obligated, without duplication for:

7.1 the responsibilities of the Contractor for correction of defective work and completion of the Construction Contract;

7.2 additional legal, design professional, and delay costs resulting from the Contractor's Default, and resulting from the actions or failure to act of the Surety under Paragraph 5; and

7.3 liquidated damages, or if no liquidated damages are specified in the Construction Contract, actual damages caused by delayed performance or non-performance of the Contractor.

8. If the Surety elects to act under Paragraph 5.1, 5.3, or 5.4, the Surety's liability is limited to the amount of this Bond.

9. The Surety shall not be liable to the Owner or others for obligations of the Contractor that are unrelated to the Construction Contract, and the Balance of the Contract Price shall not be reduced or set off on account of any such unrelated obligations. No right of action shall accrue on this Bond to any person or entity other than the Owner or its heirs, executors, administrators, successors, and assigns.

10. The Surety hereby waives notice of any change, including changes of time, to the Construction Contract or to related subcontracts, purchase orders, and other obligations.

11. Any proceeding, legal or equitable, under this Bond may be instituted in any court of competent jurisdiction in the location in which the work or part of the work is located and shall be instituted within two years after a declaration of Contractor Default or within two years after the Contractor ceased working or within two years after the Surety refuses or fails to perform its obligations under this Bond, whichever occurs first. If the provisions of this paragraph are void or prohibited by law, the minimum periods of limitations available to sureties as a defense in the jurisdiction of the suit shall be applicable.

12. Notice to the Surety, the Owner, or the Contractor shall be mailed or delivered to the address shown on the page on which their signature appears.

13. When this Bond has been furnished to comply with a statutory or other legal requirement in the location where the construction was to be performed, any provision in this Bond conflicting with said statutory or legal requirement shall be deemed deleted herefrom and provisions conforming to such statutory or other legal requirement shall be deemed incorporated herein. When so furnished, the intent is that this Bond shall be construed as a statutory bond and not as a common law bond.

14. Definitions

14.1 Balance of the Contract Price: The total amount payable by the Owner to the Contractor under the Construction Contract after all proper adjustments have been made including allowance for the Contractor for any amounts received or to be received by the Owner in settlement of insurance or other claims for damages to which the Contractor is entitled, reduced by all valid and proper payments made to or on behalf of the Contractor under the Construction Contract.

14.2 Construction Contract: The agreement between the Owner and Contractor identified on the cover page, including all Contract Documents and changes made to the agreement and the Contract Documents.

14.3 Contractor Default: Failure of the Contractor, which has not been remedied or waived, to perform or otherwise to comply with a material term of the Construction Contract.

14.4 Owner Default: Failure of the Owner, which has not been remedied or waived, to pay the Contractor as required under the Construction Contract or to perform and complete or comply with the other material terms of the Construction Contract.

14.5 Contract Documents: All the documents that comprise the agreement between the Owner and Contractor.

15. If this Bond is issued for an agreement between a contractor and subcontractor, the term Contractor in this Bond shall be deemed to be Subcontractor and the term Owner shall be deemed to be Contractor.

16. Modifications to this Bond are as follows:

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STANDARD GENERAL CONDITIONS OF THE CONSTRUCTION CONTRACT

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ARTICLE 1 – DEFINITIONS AND TERMINOLOGY

1.01 *Defined Terms*

A. Wherever used in the Bidding Requirements or Contract Documents, a term printed with initial capital letters, including the term's singular and plural forms, will have the meaning indicated in the definitions below. In addition to terms specifically defined, terms with initial capital letters in the Contract Documents include references to identified articles and paragraphs, and the titles of other documents or forms.

1. *Addenda*—Written or graphic instruments issued prior to the opening of Bids which clarify, correct, or change the Bidding Requirements or the proposed Contract Documents.

2. *Agreement*—The written instrument, executed by Owner and Contractor, that sets forth the Contract Price and Contract Times, identifies the parties and the Engineer, and designates the specific items that are Contract Documents.

3. *Application for Payment*—The form acceptable to Engineer which is to be used by Contractor during the course of the Work in requesting progress or final payments and which is to be accompanied by such supporting documentation as is required by the Contract Documents.

4. *Bid*—The offer of a Bidder submitted on the prescribed form setting forth the prices for the Work to be performed.

5. *Bidder*—An individual or entity that submits a Bid to Owner.

6. *Bidding Documents*—The Bidding Requirements, the proposed Contract Documents, and all Addenda.

7. *Bidding Requirements*—The advertisement or invitation to bid, Instructions to Bidders, Bid Bond or other Bid security, if any, the Bid Form, and the Bid with any attachments.

8. *Change Order*—A document which is signed by Contractor and Owner and authorizes an addition, deletion, or revision in the Work or an adjustment in the Contract Price or the Contract Times, or other revision to the Contract, issued on or after the Effective Date of the Contract.

9. *Change Proposal*—A written request by Contractor, duly submitted in compliance with the procedural requirements set forth herein, seeking an adjustment in Contract Price or Contract Times, or both; contesting an initial decision by Engineer concerning the requirements of the Contract Documents or the acceptability of Work under the Contract Documents; challenging a set-off against payments due; or seeking other relief with respect to the terms of the Contract.

10. *Claim*—(a) A demand or assertion by Owner directly to Contractor, duly submitted in compliance with the procedural requirements set forth herein: seeking an adjustment of Contract Price or Contract Times, or both; contesting an initial decision by Engineer concerning the requirements of the Contract Documents or the acceptability of Work under the Contract Documents; contesting Engineer's decision regarding a Change Proposal; seeking resolution of a contractual issue that Engineer has declined to address; or seeking other relief with respect to the terms of the Contract; or (b) a demand or assertion by Contractor directly to Owner, duly submitted in compliance with the procedural requirements set forth herein, contesting Engineer's decision regarding a Change Proposal; or seeking resolution of a contractual issue that Engineer has declined to address. A demand for money or services by a third party is not a Claim.

11. *Constituent of Concern*—Asbestos, petroleum, radioactive materials, polychlorinated biphenyls (PCBs), hazardous waste, and any substance, product, waste, or other material

of any nature whatsoever that is or becomes listed, regulated, or addressed pursuant to (a) the Comprehensive Environmental Response, Compensation and Liability Act, 42 U.S.C. §§9601 et seq. ("CERCLA"); (b) the Hazardous Materials Transportation Act, 49 U.S.C. §§5501 et seq.; (c) the Resource Conservation and Recovery Act, 42 U.S.C. §§6901 et seq. ("RCRA"); (d) the Toxic Substances Control Act, 15 U.S.C. §§2601 et seq.; (e) the Clean Water Act, 33 U.S.C. §§1251 et seq.; (f) the Clean Air Act, 42 U.S.C. §§7401 et seq.; or (g) any other federal, state, or local statute, law, rule, regulation, ordinance, resolution, code, order, or decree regulating, relating to, or imposing liability or standards of conduct concerning, any hazardous, toxic, or dangerous waste, substance, or material.

12. *Contract*—The entire and integrated written contract between the Owner and Contractor concerning the Work.
13. *Contract Documents*—Those items so designated in the Agreement, and which together comprise the Contract.
14. *Contract Price*—The money that Owner has agreed to pay Contractor for completion of the Work in accordance with the Contract Documents. .
15. *Contract Times*—The number of days or the dates by which Contractor shall: (a) achieve Milestones, if any; (b) achieve Substantial Completion; and (c) complete the Work.
16. *Contractor*—The individual or entity with which Owner has contracted for performance of the Work.
17. *Cost of the Work*—See Paragraph 13.01 for definition.
18. *Drawings*—The part of the Contract that graphically shows the scope, extent, and character of the Work to be performed by Contractor.
19. *Effective Date of the Contract*—The date, indicated in the Agreement, on which the Contract becomes effective.
20. *Engineer*—The individual or entity named as such in the Agreement.
21. *Field Order*—A written order issued by Engineer which requires minor changes in the Work but does not change the Contract Price or the Contract Times.
22. *Hazardous Environmental Condition*—The presence at the Site of Constituents of Concern in such quantities or circumstances that may present a danger to persons or property exposed thereto. The presence at the Site of materials that are necessary for the execution of the Work, or that are to be incorporated in the Work, and that are controlled and contained pursuant to industry practices, Laws and Regulations, and the requirements of the Contract, does not establish a Hazardous Environmental Condition.
23. *Laws and Regulations; Laws or Regulations*—Any and all applicable laws, statutes, rules, regulations, ordinances, codes, and orders of any and all governmental bodies, agencies, authorities, and courts having jurisdiction.
24. *Liens*—Charges, security interests, or encumbrances upon Contract-related funds, real property, or personal property.
25. *Milestone*—A principal event in the performance of the Work that the Contract requires Contractor to achieve by an intermediate completion date or by a time prior to Substantial Completion of all the Work.
26. *Notice of Award*—The written notice by Owner to a Bidder of Owner's acceptance of the Bid.
27. *Notice to Proceed*—A written notice by Owner to Contractor fixing the date on which the Contract Times will commence to run and on which Contractor shall start to perform the Work.

28. *Owner*—The individual or entity with which Contractor has contracted regarding the Work, and which has agreed to pay Contractor for the performance of the Work, pursuant to the terms of the Contract.

29. *Progress Schedule*—A schedule, prepared and maintained by Contractor, describing the sequence and duration of the activities comprising the Contractor's plan to accomplish the Work within the Contract Times.

30. *Project*—The total undertaking to be accomplished for Owner by engineers, contractors, and others, including planning, study, design, construction, testing, commissioning, and start-up, and of which the Work to be performed under the Contract Documents is a part.

31. *Project Manual*—The written documents prepared for, or made available for, procuring and constructing the Work, including but not limited to the Bidding Documents or other construction procurement documents, geotechnical and existing conditions information, the Agreement, bond forms, General Conditions, Supplementary Conditions, and Specifications. The contents of the Project Manual may be bound in one or more volumes.

32. *Resident Project Representative*—The authorized representative of Engineer assigned to assist Engineer at the Site. As used herein, the term Resident Project Representative or "RPR" includes any assistants or field staff of Resident Project Representative.

33. *Samples*—Physical examples of materials, equipment, or workmanship that are representative of some portion of the Work and that establish the standards by which such portion of the Work will be judged.

34. *Schedule of Submittals*—A schedule, prepared and maintained by Contractor, of required submittals and the time requirements for Engineer's review of the submittals and the performance of related construction activities.

35. *Schedule of Values*—A schedule, prepared and maintained by Contractor, allocating portions of the Contract Price to various portions of the Work and used as the basis for reviewing Contractor's Applications for Payment.

36. *Shop Drawings*—All drawings, diagrams, illustrations, schedules, and other data or information that are specifically prepared or assembled by or for Contractor and submitted by Contractor to illustrate some portion of the Work. Shop Drawings, whether approved or not, are not Drawings and are not Contract Documents.

37. *Site*—Lands or areas indicated in the Contract Documents as being furnished by Owner upon which the Work is to be performed, including rights-of-way and easements, and such other lands furnished by Owner which are designated for the use of Contractor.

38. *Specifications*—The part of the Contract that consists of written requirements for materials, equipment, systems, standards, and workmanship as applied to the Work, and certain administrative requirements and procedural matters applicable to the Work.

39. *Subcontractor*—An individual or entity having a direct contract with Contractor or with any other Subcontractor for the performance of a part of the Work.

40. *Substantial Completion*—The time at which the Work (or a specified part thereof) has progressed to the point where, in the opinion of Engineer, the Work (or a specified part thereof) is sufficiently complete, in accordance with the Contract Documents, so that the Work (or a specified part thereof) can be utilized for the purposes for which it is intended. The terms "substantially complete" and "substantially completed" as applied to all or part of the Work refer to Substantial Completion thereof.

41. *Successful Bidder*—The Bidder whose Bid the Owner accepts, and to which the Owner makes an award of contract, subject to stated conditions.

42. *Supplementary Conditions*—The part of the Contract that amends or supplements these General Conditions.

43. *Supplier*—A manufacturer, fabricator, supplier, distributor, materialman, or vendor having a direct contract with Contractor or with any Subcontractor to furnish materials or equipment to be incorporated in the Work by Contractor or a Subcontractor.

44. *Technical Data*—Those items expressly identified as Technical Data in the Supplementary Conditions, with respect to either (a) subsurface conditions at the Site, or physical conditions relating to existing surface or subsurface structures at the Site (except Underground Facilities) or (b) Hazardous Environmental Conditions at the Site. If no such express identifications of Technical Data have been made with respect to conditions at the Site, then the data contained in boring logs, recorded measurements of subsurface water levels, laboratory test results, and other factual, objective information regarding conditions at the Site that are set forth in any geotechnical or environmental report prepared for the Project and made available to Contractor are hereby defined as Technical Data with respect to conditions at the Site under Paragraphs 5.03, 5.04, and 5.06.

45. *Underground Facilities*—All underground pipelines, conduits, ducts, cables, wires, manholes, vaults, tanks, tunnels, or other such facilities or attachments, and any encasements containing such facilities, including but not limited to those that convey electricity, gases, steam, liquid petroleum products, telephone or other communications, fiber optic transmissions, cable television, water, wastewater, storm water, other liquids or chemicals, or traffic or other control systems.

46. *Unit Price Work*—Work to be paid for on the basis of unit prices.

47. *Work*—The entire construction or the various separately identifiable parts thereof required to be provided under the Contract Documents. Work includes and is the result of performing or providing all labor, services, and documentation necessary to produce such construction; furnishing, installing, and incorporating all materials and equipment into such construction; and may include related services such as testing, start-up, and commissioning, all as required by the Contract Documents.

48. *Work Change Directive*—A written directive to Contractor issued on or after the Effective Date of the Contract, signed by Owner and recommended by Engineer, ordering an addition, deletion, or revision in the Work.

1.02 *Terminology*

A. The words and terms discussed in the following paragraphs are not defined but, when used in the Bidding Requirements or Contract Documents, have the indicated meaning.

B. *Intent of Certain Terms or Adjectives*:

1. The Contract Documents include the terms “as allowed,” “as approved,” “as ordered,” “as directed” or terms of like effect or import to authorize an exercise of professional judgment by Engineer. In addition, the adjectives “reasonable,” “suitable,” “acceptable,” “proper,” “satisfactory,” or adjectives of like effect or import are used to describe an action or determination of Engineer as to the Work. It is intended that such exercise of professional judgment, action, or determination will be solely to evaluate, in general, the Work for compliance with the information in the Contract Documents and with the design concept of the Project as a functioning whole as shown or indicated in the Contract Documents (unless there is a specific statement indicating otherwise). The use of any such term or adjective is not intended to and shall not be effective to assign to Engineer any duty or authority to supervise or direct the performance of the Work, or any duty or authority to undertake responsibility contrary to the provisions of Article 10 or any other provision of the Contract Documents.

C. *Day*:

1. The word "day" means a calendar day of 24 hours measured from midnight to the next midnight.

D. *Defective*:

1. The word "defective," when modifying the word "Work," refers to Work that is unsatisfactory, faulty, or deficient in that it:

a. does not conform to the Contract Documents; or

b. does not meet the requirements of any applicable inspection, reference standard, test, or approval referred to in the Contract Documents; or

c. has been damaged prior to Engineer's recommendation of final payment (unless responsibility for the protection thereof has been assumed by Owner at Substantial Completion in accordance with Paragraph 15.03 or 15.04).

E. *Furnish, Install, Perform, Provide*:

1. The word "furnish," when used in connection with services, materials, or equipment, shall mean to supply and deliver said services, materials, or equipment to the Site (or some other specified location) ready for use or installation and in usable or operable condition.

2. The word "install," when used in connection with services, materials, or equipment, shall mean to put into use or place in final position said services, materials, or equipment complete and ready for intended use.

3. The words "perform" or "provide," when used in connection with services, materials, or equipment, shall mean to furnish and install said services, materials, or equipment complete and ready for intended use.

4. If the Contract Documents establish an obligation of Contractor with respect to specific services, materials, or equipment, but do not expressly use any of the four words "furnish," "install," "perform," or "provide," then Contractor shall furnish and install said services, materials, or equipment complete and ready for intended use.

F. Unless stated otherwise in the Contract Documents, words or phrases that have a well-known technical or construction industry or trade meaning are used in the Contract Documents in accordance with such recognized meaning.

ARTICLE 2 – PRELIMINARY MATTERS

2.01 *Delivery of Bonds and Evidence of Insurance*

A. *Bonds*: When Contractor delivers the executed counterparts of the Agreement to Owner, Contractor shall also deliver to Owner such bonds as Contractor may be required to furnish.

B. *Evidence of Contractor's Insurance*: When Contractor delivers the executed counterparts of the Agreement to Owner, Contractor shall also deliver to Owner, with copies to each named insured and additional insured (as identified in the Supplementary Conditions or elsewhere in the Contract), the certificates and other evidence of insurance required to be provided by Contractor in accordance with Article 6.

C. *Evidence of Owner's Insurance*: After receipt of the executed counterparts of the Agreement and all required bonds and insurance documentation, Owner shall promptly deliver to Contractor, with copies to each named insured and additional insured (as identified in the Supplementary Conditions or otherwise), the certificates and other evidence of insurance required to be provided by Owner under Article 6.

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2.02 *Copies of Documents*

A. Owner shall furnish to Contractor four printed copies of the Contract (including one fully executed counterpart of the Agreement), and one copy in electronic portable document format (PDF). Additional printed copies will be furnished upon request at the cost of reproduction.

B. Owner shall maintain and safeguard at least one original printed record version of the Contract, including Drawings and Specifications signed and sealed by Engineer and other design professionals. Owner shall make such original printed record version of the Contract available to Contractor for review. Owner may delegate the responsibilities under this provision to Engineer.

2.03 *Before Starting Construction*

A. *Preliminary Schedules*: Within 10 days after the Effective Date of the Contract (or as otherwise specifically required by the Contract Documents), Contractor shall submit to Engineer for timely review:

1. a preliminary Progress Schedule indicating the times (numbers of days or dates) for starting and completing the various stages of the Work, including any Milestones specified in the Contract;

2. a preliminary Schedule of Submittals; and

3. a preliminary Schedule of Values for all of the Work which includes quantities and prices of items which when added together equal the Contract Price and subdivides the Work into component parts in sufficient detail to serve as the basis for progress payments during performance of the Work. Such prices will include an appropriate amount of overhead and profit applicable to each item of Work.

2.04 *Preconstruction Conference; Designation of Authorized Representatives*

A. Before any Work at the Site is started, a conference attended by Owner, Contractor, Engineer, and others as appropriate will be held to establish a working understanding among the parties as to the Work and to discuss the schedules referred to in Paragraph 2.03.A, procedures for handling Shop Drawings, Samples, and other submittals, processing Applications for Payment, electronic or digital transmittals, and maintaining required records.

B. At this conference Owner and Contractor each shall designate, in writing, a specific individual to act as its authorized representative with respect to the services and responsibilities under the Contract. Such individuals shall have the authority to transmit and receive information, render decisions relative to the Contract, and otherwise act on behalf of each respective party.

2.05 *Initial Acceptance of Schedules*

A. At least 10 days before submission of the first Application for Payment a conference, attended by Contractor, Engineer, and others as appropriate, will be held to review for acceptability to Engineer as provided below the schedules submitted in accordance with Paragraph 2.03.A. Contractor shall have an additional 10 days to make corrections and adjustments and to complete and resubmit the schedules. No progress payment shall be made to Contractor until acceptable schedules are submitted to Engineer.

1. The Progress Schedule will be acceptable to Engineer if it provides an orderly progression of the Work to completion within the Contract Times. Such acceptance will not impose on Engineer responsibility for the Progress Schedule, for sequencing, scheduling, or progress of the Work, nor interfere with or relieve Contractor from Contractor's full responsibility therefor.

2. Contractor's Schedule of Submittals will be acceptable to Engineer if it provides a workable arrangement for reviewing and processing the required submittals.

3. Contractor's Schedule of Values will be acceptable to Engineer as to form and substance if it provides a reasonable allocation of the Contract Price to the component parts of the Work.

2.06 *Electronic Transmittals*

A. Except as otherwise stated elsewhere in the Contract, the Owner, Engineer, and Contractor may transmit, and shall accept, Project-related correspondence, text, data, documents, drawings, information, and graphics, including but not limited to Shop Drawings and other submittals, in electronic media or digital format, either directly, or through access to a secure Project website.

B. If the Contract does not establish protocols for electronic or digital transmittals, then Owner, Engineer, and Contractor shall jointly develop such protocols.

C. When transmitting items in electronic media or digital format, the transmitting party makes no representations as to long term compatibility, usability, or readability of the items resulting from the recipient's use of software application packages, operating systems, or computer hardware differing from those used in the drafting or transmittal of the items, or from those established in applicable transmittal protocols.

ARTICLE 3 – DOCUMENTS: INTENT, REQUIREMENTS, REUSE

3.01 *Intent*

A. The Contract Documents are complementary; what is required by one is as binding as if required by all.

B. It is the intent of the Contract Documents to describe a functionally complete project (or part thereof) to be constructed in accordance with the Contract Documents.

C. Unless otherwise stated in the Contract Documents, if there is a discrepancy between the electronic or digital versions of the Contract Documents (including any printed copies derived from such electronic or digital versions) and the printed record version, the printed record version shall govern.

D. The Contract supersedes prior negotiations, representations, and agreements, whether written or oral.

E. Engineer will issue clarifications and interpretations of the Contract Documents as provided herein.

3.02 *Reference Standards*

A. Standards Specifications, Codes, Laws and Regulations

1. Reference in the Contract Documents to standard specifications, manuals, reference standards, or codes of any technical society, organization, or association, or to Laws or Regulations, whether such reference be specific or by implication, shall mean the standard specification, manual, reference standard, code, or Laws or Regulations in effect at the time of opening of Bids (or on the Effective Date of the Contract if there were no Bids), except as may be otherwise specifically stated in the Contract Documents.

2. No provision of any such standard specification, manual, reference standard, or code, or any instruction of a Supplier, shall be effective to change the duties or responsibilities of Owner, Contractor, or Engineer, or any of their subcontractors, consultants, agents, or employees, from those set forth in the part of the Contract Documents prepared by or for Engineer. No such provision or instruction shall be effective to assign to Owner, Engineer, or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors, any duty or authority to supervise or direct the

performance of the Work or any duty or authority to undertake responsibility inconsistent with the provisions of the part of the Contract Documents prepared by or for Engineer.

3.03 *Reporting and Resolving Discrepancies*

A. *Reporting Discrepancies*:

1. *Contractor's Verification of Figures and Field Measurements*: Before undertaking each part of the Work, Contractor shall carefully study the Contract Documents, and check and verify pertinent figures and dimensions therein, particularly with respect to applicable field measurements. Contractor shall promptly report in writing to Engineer any conflict, error, ambiguity, or discrepancy that Contractor discovers, or has actual knowledge of, and shall not proceed with any Work affected thereby until the conflict, error, ambiguity, or discrepancy is resolved, by a clarification or interpretation by Engineer, or by an amendment or supplement to the Contract Documents issued pursuant to Paragraph 11.01.

2. *Contractor's Review of Contract Documents*: If, before or during the performance of the Work, Contractor discovers any conflict, error, ambiguity, or discrepancy within the Contract Documents, or between the Contract Documents and (a) any applicable Law or Regulation, (b) actual field conditions, (c) any standard specification, manual, reference standard, or code, or (d) any instruction of any Supplier, then Contractor shall promptly report it to Engineer in writing. Contractor shall not proceed with the Work affected thereby (except in an emergency as required by Paragraph 7.15) until the conflict, error, ambiguity, or discrepancy is resolved, by a clarification or interpretation by Engineer, or by an amendment or supplement to the Contract Documents issued pursuant to Paragraph 11.01.

3. Contractor shall not be liable to Owner or Engineer for failure to report any conflict, error, ambiguity, or discrepancy in the Contract Documents unless Contractor had actual knowledge thereof.

B. *Resolving Discrepancies*:

1. Except as may be otherwise specifically stated in the Contract Documents, the provisions of the part of the Contract Documents prepared by or for Engineer shall take precedence in resolving any conflict, error, ambiguity, or discrepancy between such provisions of the Contract Documents and:

a. the provisions of any standard specification, manual, reference standard, or code, or the instruction of any Supplier (whether or not specifically incorporated by reference as a Contract Document); or

b. the provisions of any Laws or Regulations applicable to the performance of the Work (unless such an interpretation of the provisions of the Contract Documents would result in violation of such Law or Regulation).

3.04 *Requirements of the Contract Documents*

A. During the performance of the Work and until final payment, Contractor and Owner shall submit to the Engineer all matters in question concerning the requirements of the Contract Documents (sometimes referred to as requests for information or interpretation—RFIs), or relating to the acceptability of the Work under the Contract Documents, as soon as possible after such matters arise. Engineer will be the initial interpreter of the requirements of the Contract Documents, and judge of the acceptability of the Work thereunder.

B. Engineer will, with reasonable promptness, render a written clarification, interpretation, or decision on the issue submitted, or initiate an amendment or supplement to the Contract Documents. Engineer's written clarification, interpretation, or decision will be final and

binding on Contractor, unless it appeals by submitting a Change Proposal, and on Owner, unless it appeals by filing a Claim.

C. If a submitted matter in question concerns terms and conditions of the Contract Documents that do not involve (1) the performance or acceptability of the Work under the Contract Documents, (2) the design (as set forth in the Drawings, Specifications, or otherwise), or (3) other engineering or technical matters, then Engineer will promptly give written notice to Owner and Contractor that Engineer is unable to provide a decision or interpretation. If Owner and Contractor are unable to agree on resolution of such a matter in question, either party may pursue resolution as provided in Article 12.

3.05 *Reuse of Documents*

A. Contractor and its Subcontractors and Suppliers shall not:

1. have or acquire any title to or ownership rights in any of the Drawings, Specifications, or other documents (or copies of any thereof) prepared by or bearing the seal of Engineer or its consultants, including electronic media editions, or reuse any such Drawings, Specifications, other documents, or copies thereof on extensions of the Project or any other project without written consent of Owner and Engineer and specific written verification or adaptation by Engineer; or

2. have or acquire any title or ownership rights in any other Contract Documents, reuse any such Contract Documents for any purpose without Owner's express written consent, or violate any copyrights pertaining to such Contract Documents.

B. The prohibitions of this Paragraph 3.05 will survive final payment, or termination of the Contract. Nothing herein shall preclude Contractor from retaining copies of the Contract Documents for record purposes.

ARTICLE 4 – COMMENCEMENT AND PROGRESS OF THE WORK

4.01 *Commencement of Contract Times; Notice to Proceed*

A. The Contract Times will commence to run on the thirtieth day after the Effective Date of the Contract or, if a Notice to Proceed is given, on the day indicated in the Notice to Proceed. A Notice to Proceed may be given at any time within 30 days after the Effective Date of the Contract. In no event will the Contract Times commence to run later than the sixtieth day after the day of Bid opening or the thirtieth day after the Effective Date of the Contract, whichever date is earlier.

4.02 *Starting the Work*

A. Contractor shall start to perform the Work on the date when the Contract Times commence to run. No Work shall be done at the Site prior to such date.

4.03 *Reference Points*

A. Owner shall provide engineering surveys to establish reference points for construction which in Engineer's judgment are necessary to enable Contractor to proceed with the Work. Contractor shall be responsible for laying out the Work, shall protect and preserve the established reference points and property monuments, and shall make no changes or relocations without the prior written approval of Owner. Contractor shall report to Engineer whenever any reference point or property monument is lost or destroyed or requires relocation because of necessary changes in grades or locations, and shall be responsible for the accurate replacement or relocation of such reference points or property monuments by professionally qualified personnel.

4.04 *Progress Schedule*

A. Contractor shall adhere to the Progress Schedule established in accordance with Paragraph 2.05 as it may be adjusted from time to time as provided below.

1. Contractor shall submit to Engineer for acceptance (to the extent indicated in Paragraph 2.05) proposed adjustments in the Progress Schedule that will not result in changing the Contract Times.

2. Proposed adjustments in the Progress Schedule that will change the Contract Times shall be submitted in accordance with the requirements of Article 11.

B. Contractor shall carry on the Work and adhere to the Progress Schedule during all disputes or disagreements with Owner. No Work shall be delayed or postponed pending resolution of any disputes or disagreements, or during any appeal process, except as permitted by Paragraph 16.04, or as Owner and Contractor may otherwise agree in writing.

4.05 *Delays in Contractor's Progress*

A. If Owner, Engineer, or anyone for whom Owner is responsible, delays, disrupts, or interferes with the performance or progress of the Work, then Contractor shall be entitled to an equitable adjustment in the Contract Times and Contract Price. Contractor's entitlement to an adjustment of the Contract Times is conditioned on such adjustment being essential to Contractor's ability to complete the Work within the Contract Times.

B. Contractor shall not be entitled to an adjustment in Contract Price or Contract Times for delay, disruption, or interference caused by or within the control of Contractor. Delay, disruption, and interference attributable to and within the control of a Subcontractor or Supplier shall be deemed to be within the control of Contractor.

C. If Contractor's performance or progress is delayed, disrupted, or interfered with by unanticipated causes not the fault of and beyond the control of Owner, Contractor, and those for which they are responsible, then Contractor shall be entitled to an equitable adjustment in Contract Times. Contractor's entitlement to an adjustment of the Contract Times is conditioned on such adjustment being essential to Contractor's ability to complete the Work within the Contract Times. Such an adjustment shall be Contractor's sole and exclusive remedy for the delays, disruption, and interference described in this paragraph. Causes of delay, disruption, or interference that may give rise to an adjustment in Contract Times under this paragraph include but are not limited to the following:

1. severe and unavoidable natural catastrophes such as fires, floods, epidemics, and earthquakes;

2. abnormal weather conditions;

3. acts or failures to act of utility owners (other than those performing other work at or adjacent to the Site by arrangement with the Owner, as contemplated in Article 8); and

4. acts of war or terrorism.

D. Delays, disruption, and interference to the performance or progress of the Work resulting from the existence of a differing subsurface or physical condition, an Underground Facility that was not shown or indicated by the Contract Documents, or not shown or indicated with reasonable accuracy, and those resulting from Hazardous Environmental Conditions, are governed by Article 5.

E. Paragraph 8.03 governs delays, disruption, and interference to the performance or progress of the Work resulting from the performance of certain other work at or adjacent to the Site.

F. Contractor shall not be entitled to an adjustment in Contract Price or Contract Times for any delay, disruption, or interference if such delay is concurrent with a delay, disruption, or interference caused by or within the control of Contractor.

G. Contractor must submit any Change Proposal seeking an adjustment in Contract Price or Contract Times under this paragraph within 30 days of the commencement of the delaying, disrupting, or interfering event.

ARTICLE 5 – AVAILABILITY OF LANDS; SUBSURFACE AND PHYSICAL CONDITIONS; HAZARDOUS ENVIRONMENTAL CONDITIONS

5.01 *Availability of Lands*

A. Owner shall furnish the Site. Owner shall notify Contractor of any encumbrances or restrictions not of general application but specifically related to use of the Site with which Contractor must comply in performing the Work.

B. Upon reasonable written request, Owner shall furnish Contractor with a current statement of record legal title and legal description of the lands upon which permanent improvements are to be made and Owner's interest therein as necessary for giving notice of or filing a mechanic's or construction lien against such lands in accordance with applicable Laws and Regulations.

C. Contractor shall provide for all additional lands and access thereto that may be required for temporary construction facilities or storage of materials and equipment.

5.02 *Use of Site and Other Areas*

A. *Limitation on Use of Site and Other Areas*:

1. Contractor shall confine construction equipment, temporary construction facilities, the storage of materials and equipment, and the operations of workers to the Site, adjacent areas that Contractor has arranged to use through construction easements or otherwise, and other adjacent areas permitted by Laws and Regulations, and shall not unreasonably encumber the Site and such other adjacent areas with construction equipment or other materials or equipment. Contractor shall assume full responsibility for (a) damage to the Site; (b) damage to any such other adjacent areas used for Contractor's operations; (c) damage to any other adjacent land or areas; and (d) for injuries and losses sustained by the owners or occupants of any such land or areas; provided that such damage or injuries result from the performance of the Work or from other actions or conduct of the Contractor or those for which Contractor is responsible.

2. If a damage or injury claim is made by the owner or occupant of any such land or area because of the performance of the Work, or because of other actions or conduct of the Contractor or those for which Contractor is responsible, Contractor shall (a) take immediate corrective or remedial action as required by Paragraph 7.12, or otherwise; (b) promptly attempt to settle the claim as to all parties through negotiations with such owner or occupant, or otherwise resolve the claim by arbitration or other dispute resolution proceeding, or at law; and (c) to the fullest extent permitted by Laws and Regulations, indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them from and against any such claim, and against all costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to any claim or action, legal or equitable, brought by any such owner or occupant against Owner, Engineer, or any other party indemnified hereunder to the extent caused directly or indirectly, in whole or in part by, or based upon, Contractor's performance of the Work, or because of other actions or conduct of the Contractor or those for which Contractor is responsible.

B. *Removal of Debris During Performance of the Work*: During the progress of the Work the Contractor shall keep the Site and other adjacent areas free from accumulations of waste materials, rubbish, and other debris. Removal and disposal of such waste materials, rubbish, and other debris shall conform to applicable Laws and Regulations.

C. *Cleaning*: Prior to Substantial Completion of the Work Contractor shall clean the Site and the Work and make it ready for utilization by Owner. At the completion of the Work Contractor shall remove from the Site and adjacent areas all tools, appliances, construction equipment and machinery, and surplus materials and shall restore to original condition all property not designated for alteration by the Contract Documents.

D. *Loading of Structures*: Contractor shall not load nor permit any part of any structure to be loaded in any manner that will endanger the structure, nor shall Contractor subject any part of the Work or adjacent structures or land to stresses or pressures that will endanger them.

5.03 *Subsurface and Physical Conditions*

A. *Reports and Drawings*: The Supplementary Conditions identify:

1. those reports known to Owner of explorations and tests of subsurface conditions at or adjacent to the Site;

2. those drawings known to Owner of physical conditions relating to existing surface or subsurface structures at the Site (except Underground Facilities); and

3. Technical Data contained in such reports and drawings.

B. *Reliance by Contractor on Technical Data Authorized*: Contractor may rely upon the accuracy of the Technical Data expressly identified in the Supplementary Conditions with respect to such reports and drawings, but such reports and drawings are not Contract Documents. If no such express identification has been made, then Contractor may rely upon the accuracy of the Technical Data (as defined in Article 1) contained in any geotechnical or environmental report prepared for the Project and made available to Contractor. Except for such reliance on Technical Data, Contractor may not rely upon or make any claim against Owner or Engineer, or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors, with respect to:

1. the completeness of such reports and drawings for Contractor's purposes, including, but not limited to, any aspects of the means, methods, techniques, sequences, and procedures of construction to be employed by Contractor, and safety precautions and programs incident thereto; or

2. other data, interpretations, opinions, and information contained in such reports or shown or indicated in such drawings; or

3. any Contractor interpretation of or conclusion drawn from any Technical Data or any such other data, interpretations, opinions, or information.

5.04 *Differing Subsurface or Physical Conditions*

A. *Notice by Contractor*: If Contractor believes that any subsurface or physical condition that is uncovered or revealed at the Site either:

1. is of such a nature as to establish that any Technical Data on which Contractor is entitled to rely as provided in Paragraph 5.03 is materially inaccurate; or

2. is of such a nature as to require a change in the Drawings or Specifications; or

3. differs materially from that shown or indicated in the Contract Documents; or

4. is of an unusual nature, and differs materially from conditions ordinarily encountered and generally recognized as inherent in work of the character provided for in the Contract Documents;

then Contractor shall, promptly after becoming aware thereof and before further disturbing the subsurface or physical conditions or performing any Work in connection therewith (except in an emergency as required by Paragraph 7.15), notify Owner and Engineer in writing about such condition. Contractor shall not further disturb such condition or perform any Work in connection therewith (except with respect to an emergency) until receipt of a written statement permitting Contractor to do so.

B. *Engineer's Review*: After receipt of written notice as required by the preceding paragraph, Engineer will promptly review the subsurface or physical condition in question; determine the necessity of Owner's obtaining additional exploration or tests with respect to the condition; conclude whether the condition falls within any one or more of the differing site condition categories in Paragraph 5.04.A above; obtain any pertinent cost or schedule information from Contractor; prepare recommendations to Owner regarding the Contractor's resumption of Work in connection with the subsurface or physical condition in question and the need for any change in the Drawings or Specifications; and advise Owner in writing of Engineer's findings, conclusions, and recommendations.

C. *Owner's Statement to Contractor Regarding Site Condition*: After receipt of Engineer's written findings, conclusions, and recommendations, Owner shall issue a written statement to Contractor (with a copy to Engineer) regarding the subsurface or physical condition in question, addressing the resumption of Work in connection with such condition, indicating whether any change in the Drawings or Specifications will be made, and adopting or rejecting Engineer's written findings, conclusions, and recommendations, in whole or in part.

D. *Possible Price and Times Adjustments*:

1. Contractor shall be entitled to an equitable adjustment in Contract Price or Contract Times, or both, to the extent that the existence of a differing subsurface or physical condition, or any related delay, disruption, or interference, causes an increase or decrease in Contractor's cost of, or time required for, performance of the Work; subject, however, to the following:

   a. such condition must fall within any one or more of the categories described in Paragraph 5.04.A;

   b. with respect to Work that is paid for on a unit price basis, any adjustment in Contract Price will be subject to the provisions of Paragraph 13.03; and,

   c. Contractor's entitlement to an adjustment of the Contract Times is conditioned on such adjustment being essential to Contractor's ability to complete the Work within the Contract Times.

2. Contractor shall not be entitled to any adjustment in the Contract Price or Contract Times with respect to a subsurface or physical condition if:

   a. Contractor knew of the existence of such condition at the time Contractor made a commitment to Owner with respect to Contract Price and Contract Times by the submission of a Bid or becoming bound under a negotiated contract, or otherwise; or

   b. the existence of such condition reasonably could have been discovered or revealed as a result of any examination, investigation, exploration, test, or study of the Site and contiguous areas expressly required by the Bidding Requirements or Contract Documents to be conducted by or for Contractor prior to Contractor's making such commitment; or

c. Contractor failed to give the written notice as required by Paragraph 5.04.A.

3. If Owner and Contractor agree regarding Contractor's entitlement to and the amount or extent of any adjustment in the Contract Price or Contract Times, or both, then any such adjustment shall be set forth in a Change Order.

4. Contractor may submit a Change Proposal regarding its entitlement to or the amount or extent of any adjustment in the Contract Price or Contract Times, or both, no later than 30 days after Owner's issuance of the Owner's written statement to Contractor regarding the subsurface or physical condition in question.

5.05 *Underground Facilities*

A. *Contractor's Responsibilities*: The information and data shown or indicated in the Contract Documents with respect to existing Underground Facilities at or adjacent to the Site is based on information and data furnished to Owner or Engineer by the owners of such Underground Facilities, including Owner, or by others. Unless it is otherwise expressly provided in the Supplementary Conditions:

1. Owner and Engineer do not warrant or guarantee the accuracy or completeness of any such information or data provided by others; and

2. the cost of all of the following will be included in the Contract Price, and Contractor shall have full responsibility for:

a. reviewing and checking all information and data regarding existing Underground Facilities at the Site;

b. locating all Underground Facilities shown or indicated in the Contract Documents as being at the Site;

c. coordination of the Work with the owners (including Owner) of such Underground Facilities, during construction; and

d. the safety and protection of all existing Underground Facilities at the Site, and repairing any damage thereto resulting from the Work.

B. *Notice by Contractor*: If Contractor believes that an Underground Facility that is uncovered or revealed at the Site was not shown or indicated in the Contract Documents, or was not shown or indicated with reasonable accuracy, then Contractor shall, promptly after becoming aware thereof and before further disturbing conditions affected thereby or performing any Work in connection therewith (except in an emergency as required by Paragraph 7.15), identify the owner of such Underground Facility and give written notice to that owner and to Owner and Engineer.

C. *Engineer's Review*: Engineer will promptly review the Underground Facility and conclude whether such Underground Facility was not shown or indicated in the Contract Documents, or was not shown or indicated with reasonable accuracy; obtain any pertinent cost or schedule information from Contractor; prepare recommendations to Owner regarding the Contractor's resumption of Work in connection with the Underground Facility in question; determine the extent, if any, to which a change is required in the Drawings or Specifications to reflect and document the consequences of the existence or location of the Underground Facility; and advise Owner in writing of Engineer's findings, conclusions, and recommendations. During such time, Contractor shall be responsible for the safety and protection of such Underground Facility.

D. *Owner's Statement to Contractor Regarding Underground Facility*: After receipt of Engineer's written findings, conclusions, and recommendations, Owner shall issue a written statement to Contractor (with a copy to Engineer) regarding the Underground Facility in question, addressing the resumption of Work in connection with such Underground Facility,

indicating whether any change in the Drawings or Specifications will be made, and adopting or rejecting Engineer's written findings, conclusions, and recommendations in whole or in part.

E. *Possible Price and Times Adjustments*:

1. Contractor shall be entitled to an equitable adjustment in the Contract Price or Contract Times, or both, to the extent that any existing Underground Facility at the Site that was not shown or indicated in the Contract Documents, or was not shown or indicated with reasonable accuracy, or any related delay, disruption, or interference, causes an increase or decrease in Contractor's cost of, or time required for, performance of the Work; subject, however, to the following:

a. Contractor did not know of and could not reasonably have been expected to be aware of or to have anticipated the existence or actual location of the Underground Facility in question;

b. With respect to Work that is paid for on a unit price basis, any adjustment in Contract Price will be subject to the provisions of Paragraph 13.03;

c. Contractor's entitlement to an adjustment of the Contract Times is conditioned on such adjustment being essential to Contractor's ability to complete the Work within the Contract Times; and

d. Contractor gave the notice required in Paragraph 5.05.B.

2. If Owner and Contractor agree regarding Contractor's entitlement to and the amount or extent of any adjustment in the Contract Price or Contract Times, or both, then any such adjustment shall be set forth in a Change Order.

3. Contractor may submit a Change Proposal regarding its entitlement to or the amount or extent of any adjustment in the Contract Price or Contract Times, or both, no later than 30 days after Owner's issuance of the Owner's written statement to Contractor regarding the Underground Facility in question.

5.06 *Hazardous Environmental Conditions at Site*

A. *Reports and Drawings*: The Supplementary Conditions identify:

1. those reports and drawings known to Owner relating to Hazardous Environmental Conditions that have been identified at or adjacent to the Site; and

2. Technical Data contained in such reports and drawings.

B. *Reliance by Contractor on Technical Data Authorized*: Contractor may rely upon the accuracy of the Technical Data expressly identified in the Supplementary Conditions with respect to such reports and drawings, but such reports and drawings are not Contract Documents. If no such express identification has been made, then Contractor may rely on the accuracy of the Technical Data (as defined in Article 1) contained in any geotechnical or environmental report prepared for the Project and made available to Contractor. Except for such reliance on Technical Data, Contractor may not rely upon or make any claim against Owner or Engineer, or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors with respect to:

1. the completeness of such reports and drawings for Contractor's purposes, including, but not limited to, any aspects of the means, methods, techniques, sequences and procedures of construction to be employed by Contractor and safety precautions and programs incident thereto; or

2. other data, interpretations, opinions and information contained in such reports or shown or indicated in such drawings; or

3. any Contractor interpretation of or conclusion drawn from any Technical Data or any such other data, interpretations, opinions or information.

C. Contractor shall not be responsible for removing or remediating any Hazardous Environmental Condition encountered, uncovered, or revealed at the Site unless such removal or remediation is expressly identified in the Contract Documents to be within the scope of the Work.

D. Contractor shall be responsible for controlling, containing, and duly removing all Constituents of Concern brought to the Site by Contractor, Subcontractors, Suppliers, or anyone else for whom Contractor is responsible, and for any associated costs; and for the costs of removing and remediating any Hazardous Environmental Condition created by the presence of any such Constituents of Concern.

E. If Contractor encounters, uncovers, or reveals a Hazardous Environmental Condition whose removal or remediation is not expressly identified in the Contract Documents as being within the scope of the Work, or if Contractor or anyone for whom Contractor is responsible creates a Hazardous Environmental Condition, then Contractor shall immediately: (1) secure or otherwise isolate such condition; (2) stop all Work in connection with such condition and in any area affected thereby (except in an emergency as required by Paragraph 7.15); and (3) notify Owner and Engineer (and promptly thereafter confirm such notice in writing). Owner shall promptly consult with Engineer concerning the necessity for Owner to retain a qualified expert to evaluate such condition or take corrective action, if any. Promptly after consulting with Engineer, Owner shall take such actions as are necessary to permit Owner to timely obtain required permits and provide Contractor the written notice required by Paragraph 5.06.F. If Contractor or anyone for whom Contractor is responsible created the Hazardous Environmental Condition in question, then Owner may remove and remediate the Hazardous Environmental Condition, and impose a set-off against payments to account for the associated costs.

F. Contractor shall not resume Work in connection with such Hazardous Environmental Condition or in any affected area until after Owner has obtained any required permits related thereto, and delivered written notice to Contractor either (1) specifying that such condition and any affected area is or has been rendered safe for the resumption of Work, or (2) specifying any special conditions under which such Work may be resumed safely.

G. If Owner and Contractor cannot agree as to entitlement to or on the amount or extent, if any, of any adjustment in Contract Price or Contract Times, or both, as a result of such Work stoppage or such special conditions under which Work is agreed to be resumed by Contractor, then within 30 days of Owner's written notice regarding the resumption of Work, Contractor may submit a Change Proposal, or Owner may impose a set-off.

H. If after receipt of such written notice Contractor does not agree to resume such Work based on a reasonable belief it is unsafe, or does not agree to resume such Work under such special conditions, then Owner may order the portion of the Work that is in the area affected by such condition to be deleted from the Work, following the contractual change procedures in Article 11. Owner may have such deleted portion of the Work performed by Owner's own forces or others in accordance with Article 8.

I. To the fullest extent permitted by Laws and Regulations, Owner shall indemnify and hold harmless Contractor, Subcontractors, and Engineer, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to a Hazardous Environmental Condition, provided that such Hazardous Environmental Condition (1) was not shown or indicated in the Drawings, Specifications, or other Contract Documents, identified as Technical Data entitled to limited reliance pursuant to Paragraph 5.06.B, or identified in the Contract Documents to

be included within the scope of the Work, and (2) was not created by Contractor or by anyone for whom Contractor is responsible. Nothing in this Paragraph 5.06.H shall obligate Owner to indemnify any individual or entity from and against the consequences of that individual's or entity's own negligence.

J. To the fullest extent permitted by Laws and Regulations, Contractor shall indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to the failure to control, contain, or remove a Constituent of Concern brought to the Site by Contractor or by anyone for whom Contractor is responsible, or to a Hazardous Environmental Condition created by Contractor or by anyone for whom Contractor is responsible. Nothing in this Paragraph 5.06.J shall obligate Contractor to indemnify any individual or entity from and against the consequences of that individual's or entity's own negligence.

K. The provisions of Paragraphs 5.03, 5.04, and 5.05 do not apply to the presence of Constituents of Concern or to a Hazardous Environmental Condition uncovered or revealed at the Site.

ARTICLE 6 – BONDS AND INSURANCE

6.01 *Performance, Payment, and Other Bonds*

A. Contractor shall furnish a performance bond and a payment bond, each in an amount at least equal to the Contract Price, as security for the faithful performance and payment of all of Contractor's obligations under the Contract. These bonds shall remain in effect until one year after the date when final payment becomes due or until completion of the correction period specified in Paragraph 15.08, whichever is later, except as provided otherwise by Laws or Regulations, the Supplementary Conditions, or other specific provisions of the Contract. Contractor shall also furnish such other bonds as are required by the Supplementary Conditions or other specific provisions of the Contract.

B. All bonds shall be in the form prescribed by the Contract except as provided otherwise by Laws or Regulations, and shall be executed by such sureties as are named in "Companies Holding Certificates of Authority as Acceptable Sureties on Federal Bonds and as Acceptable Reinsuring Companies" as published in Circular 570 (as amended and supplemented) by the Financial Management Service, Surety Bond Branch, U.S. Department of the Treasury. A bond signed by an agent or attorney-in-fact must be accompanied by a certified copy of that individual's authority to bind the surety. The evidence of authority shall show that it is effective on the date the agent or attorney-in-fact signed the accompanying bond.

C. Contractor shall obtain the required bonds from surety companies that are duly licensed or authorized in the jurisdiction in which the Project is located to issue bonds in the required amounts.

D. If the surety on a bond furnished by Contractor is declared bankrupt or becomes insolvent, or its right to do business is terminated in any state or jurisdiction where any part of the Project is located, or the surety ceases to meet the requirements above, then Contractor shall promptly notify Owner and Engineer and shall, within 20 days after the event giving rise to such notification, provide another bond and surety, both of which shall comply with the bond and surety requirements above.

E. If Contractor has failed to obtain a required bond, Owner may exclude the Contractor from the Site and exercise Owner's termination rights under Article 16.

F. Upon request, Owner shall provide a copy of the payment bond to any Subcontractor, Supplier, or other person or entity claiming to have furnished labor or materials used in the performance of the Work.

6.02 *Insurance—General Provisions*

A. Owner and Contractor shall obtain and maintain insurance as required in this Article and in the Supplementary Conditions.

B. All insurance required by the Contract to be purchased and maintained by Owner or Contractor shall be obtained from insurance companies that are duly licensed or authorized, in the state or jurisdiction in which the Project is located, to issue insurance policies for the required limits and coverages. Unless a different standard is indicated in the Supplementary Conditions, all companies that provide insurance policies required under this Contract shall have an A.M. Best rating of A-VII or better.

C. Contractor shall deliver to Owner, with copies to each named insured and additional insured (as identified in this Article, in the Supplementary Conditions, or elsewhere in the Contract), certificates of insurance establishing that Contractor has obtained and is maintaining the policies, coverages, and endorsements required by the Contract. Upon request by Owner or any other insured, Contractor shall also furnish other evidence of such required insurance, including but not limited to copies of policies and endorsements, and documentation of applicable self-insured retentions and deductibles. Contractor may block out (redact) any confidential premium or pricing information contained in any policy or endorsement furnished under this provision.

D. Owner shall deliver to Contractor, with copies to each named insured and additional insured (as identified in this Article, the Supplementary Conditions, or elsewhere in the Contract), certificates of insurance establishing that Owner has obtained and is maintaining the policies, coverages, and endorsements required of Owner by the Contract (if any). Upon request by Contractor or any other insured, Owner shall also provide other evidence of such required insurance (if any), including but not limited to copies of policies and endorsements, and documentation of applicable self-insured retentions and deductibles. Owner may block out (redact) any confidential premium or pricing information contained in any policy or endorsement furnished under this provision.

E. Failure of Owner or Contractor to demand such certificates or other evidence of the other party's full compliance with these insurance requirements, or failure of Owner or Contractor to identify a deficiency in compliance from the evidence provided, shall not be construed as a waiver of the other party's obligation to obtain and maintain such insurance.

F. If either party does not purchase or maintain all of the insurance required of such party by the Contract, such party shall notify the other party in writing of such failure to purchase prior to the start of the Work, or of such failure to maintain prior to any change in the required coverage.

G. If Contractor has failed to obtain and maintain required insurance, Owner may exclude the Contractor from the Site, impose an appropriate set-off against payment, and exercise Owner's termination rights under Article 16.

H. Without prejudice to any other right or remedy, if a party has failed to obtain required insurance, the other party may elect to obtain equivalent insurance to protect such other party's interests at the expense of the party who was required to provide such coverage, and the Contract Price shall be adjusted accordingly.

I. Owner does not represent that insurance coverage and limits established in this Contract necessarily will be adequate to protect Contractor or Contractor's interests.

J. The insurance and insurance limits required herein shall not be deemed as a limitation on Contractor's liability under the indemnities granted to Owner and other individuals and entities in the Contract.

6.03 *Contractor's Insurance*

A. *Workers' Compensation*: Contractor shall purchase and maintain workers' compensation and employer's liability insurance for:

1. claims under workers' compensation, disability benefits, and other similar employee benefit acts.
2. United States Longshoreman and Harbor Workers' Compensation Act and Jones Act coverage (if applicable).
3. claims for damages because of bodily injury, occupational sickness or disease, or death of Contractor's employees (by stop-gap endorsement in monopolist worker's compensation states).
4. Foreign voluntary worker compensation (if applicable).

B. *Commercial General Liability—Claims Covered*: Contractor shall purchase and maintain commercial general liability insurance, covering all operations by or on behalf of Contractor, on an occurrence basis, against:

1. claims for damages because of bodily injury, sickness or disease, or death of any person other than Contractor's employees.
2. claims for damages insured by reasonably available personal injury liability coverage.
3. claims for damages, other than to the Work itself, because of injury to or destruction of tangible property wherever located, including loss of use resulting therefrom.

C. *Commercial General Liability—Form and Content*: Contractor's commercial liability policy shall be written on a 1996 (or later) ISO commercial general liability form (occurrence form) and include the following coverages and endorsements:

1. Products and completed operations coverage:
   a. Such insurance shall be maintained for three years after final payment.
   b. Contractor shall furnish Owner and each other additional insured (as identified in the Supplementary Conditions or elsewhere in the Contract) evidence of continuation of such insurance at final payment and three years thereafter.
2. Blanket contractual liability coverage, to the extent permitted by law, including but not limited to coverage of Contractor's contractual indemnity obligations in Paragraph 7.18.
3. Broad form property damage coverage.
4. Severability of interest.
5. Underground, explosion, and collapse coverage.
6. Personal injury coverage.
7. Additional insured endorsements that include both ongoing operations and products and completed operations coverage through ISO Endorsements CG 20 10 10 01 and CG 20 37 10 01 (together); or CG 20 10 07 04 and CG 20 37 07 04 (together); or their equivalent.
8. For design professional additional insureds, ISO Endorsement CG 20 32 07 04, "Additional Insured—Engineers, Architects or Surveyors Not Engaged by the Named Insured" or its equivalent.

D. *Automobile liability*: Contractor shall purchase and maintain automobile liability insurance against claims for damages because of bodily injury or death of any person or property damage arising out of the ownership, maintenance, or use of any motor vehicle. The automobile liability policy shall be written on an occurrence basis.

E. *Umbrella or excess liability*: Contractor shall purchase and maintain umbrella or excess liability insurance written over the underlying employer's liability, commercial general liability, and automobile liability insurance described in the paragraphs above. Subject to industry-standard exclusions, the coverage afforded shall follow form as to each and every one of the underlying policies.

F. *Contractor's pollution liability insurance*: Contractor shall purchase and maintain a policy covering third-party injury and property damage claims, including clean-up costs, as a result of pollution conditions arising from Contractor's operations and completed operations. This insurance shall be maintained for no less than three years after final completion.

G. *Additional insureds*: The Contractor's commercial general liability, automobile liability, umbrella or excess, and pollution liability policies shall include and list as additional insureds Owner and Engineer, and any individuals or entities identified in the Supplementary Conditions; include coverage for the respective officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of all such additional insureds; and the insurance afforded to these additional insureds shall provide primary coverage for all claims covered thereby (including as applicable those arising from both ongoing and completed operations) on a non-contributory basis. Contractor shall obtain all necessary endorsements to support these requirements.

H. *Contractor's professional liability insurance*: If Contractor will provide or furnish professional services under this Contract, through a delegation of professional design services or otherwise, then Contractor shall be responsible for purchasing and maintaining applicable professional liability insurance. This insurance shall provide protection against claims arising out of performance of professional design or related services, and caused by a negligent error, omission, or act for which the insured party is legally liable. It shall be maintained throughout the duration of the Contract and for a minimum of two years after Substantial Completion. If such professional design services are performed by a Subcontractor, and not by Contractor itself, then the requirements of this paragraph may be satisfied through the purchasing and maintenance of such insurance by such Subcontractor.

I. *General provisions*: The policies of insurance required by this Paragraph 6.03 shall:

1. include at least the specific coverages provided in this Article.

2. be written for not less than the limits of liability provided in this Article and in the Supplementary Conditions, or required by Laws or Regulations, whichever is greater.

3. contain a provision or endorsement that the coverage afforded will not be canceled, materially changed, or renewal refused until at least 10 days prior written notice has been given to Contractor. Within three days of receipt of any such written notice, Contractor shall provide a copy of the notice to Owner, Engineer, and each other insured under the policy.

4. remain in effect at least until final payment (and longer if expressly required in this Article) and at all times thereafter when Contractor may be correcting, removing, or replacing defective Work as a warranty or correction obligation, or otherwise, or returning to the Site to conduct other tasks arising from the Contract Documents.

5. be appropriate for the Work being performed and provide protection from claims that may arise out of or result from Contractor's performance of the Work and Contractor's other obligations under the Contract Documents, whether it is to be performed by Contractor, any Subcontractor or Supplier, or by anyone directly or indirectly employed

by any of them to perform any of the Work, or by anyone for whose acts any of them may be liable.

J. The coverage requirements for specific policies of insurance must be met by such policies, and not by reference to excess or umbrella insurance provided in other policies.

6.04 *Owner's Liability Insurance*

A. In addition to the insurance required to be provided by Contractor under Paragraph 6.03, Owner, at Owner's option, may purchase and maintain at Owner's expense Owner's own liability insurance as will protect Owner against claims which may arise from operations under the Contract Documents.

B. Owner's liability policies, if any, operate separately and independently from policies required to be provided by Contractor, and Contractor cannot rely upon Owner's liability policies for any of Contractor's obligations to the Owner, Engineer, or third parties.

6.05 *Property Insurance*

A. *Builder's Risk*: Unless otherwise provided in the Supplementary Conditions, Contractor shall purchase and maintain builder's risk insurance upon the Work on a completed value basis, in the amount of the full insurable replacement cost thereof (subject to such deductible amounts as may be provided in the Supplementary Conditions or required by Laws and Regulations). This insurance shall:

1. include the Owner and Contractor as named insureds, and all Subcontractors, and any individuals or entities required by the Supplementary Conditions to be insured under such builder's risk policy, as insureds or named insureds. For purposes of the remainder of this Paragraph 6.05, Paragraphs 6.06 and 6.07, and any corresponding Supplementary Conditions, the parties required to be insured shall collectively be referred to as "insureds."

2. be written on a builder's risk "all risk" policy form that shall at least include insurance for physical loss or damage to the Work, temporary buildings, falsework, and materials and equipment in transit, and shall insure against at least the following perils or causes of loss: fire; lightning; windstorm; riot; civil commotion; terrorism; vehicle impact; aircraft; smoke; theft; vandalism and malicious mischief; mechanical breakdown, boiler explosion, and artificially generated electric current; earthquake; volcanic activity, and other earth movement; flood; collapse; explosion; debris removal; demolition occasioned by enforcement of Laws and Regulations; water damage (other than that caused by flood); and such other perils or causes of loss as may be specifically required by the Supplementary Conditions. If insurance against mechanical breakdown, boiler explosion, and artificially generated electric current; earthquake; volcanic activity, and other earth movement; or flood, are not commercially available under builder's risk policies, by endorsement or otherwise, such insurance may be provided through other insurance policies acceptable to Owner and Contractor.

3. cover, as insured property, at least the following: (a) the Work and all materials, supplies, machinery, apparatus, equipment, fixtures, and other property of a similar nature that are to be incorporated into or used in the preparation, fabrication, construction, erection, or completion of the Work, including Owner-furnished or assigned property; (b) spare parts inventory required within the scope of the Contract; and (c) temporary works which are not intended to form part of the permanent constructed Work but which are intended to provide working access to the Site, or to the Work under construction, or which are intended to provide temporary support for the Work under construction, including scaffolding, form work, fences, shoring, falsework, and temporary structures.

4. cover expenses incurred in the repair or replacement of any insured property (including but not limited to fees and charges of engineers and architects).

5. extend to cover damage or loss to insured property while in temporary storage at the Site or in a storage location outside the Site (but not including property stored at the premises of a manufacturer or Supplier).
6. extend to cover damage or loss to insured property while in transit.
7. allow for partial occupation or use of the Work by Owner, such that those portions of the Work that are not yet occupied or used by Owner shall remain covered by the builder's risk insurance.
8. allow for the waiver of the insurer's subrogation rights, as set forth below.
9. provide primary coverage for all losses and damages caused by the perils or causes of loss covered.
10. not include a co-insurance clause.
11. include an exception for ensuing losses from physical damage or loss with respect to any defective workmanship, design, or materials exclusions.
12. include performance/hot testing and start-up.
13. be maintained in effect, subject to the provisions herein regarding Substantial Completion and partial occupancy or use of the Work by Owner, until the Work is complete.

B. *Notice of Cancellation or Change*: All the policies of insurance (and the certificates or other evidence thereof) required to be purchased and maintained in accordance with this Paragraph 6.05 will contain a provision or endorsement that the coverage afforded will not be canceled or materially changed or renewal refused until at least 10 days prior written notice has been given to the purchasing policyholder. Within three days of receipt of any such written notice, the purchasing policyholder shall provide a copy of the notice to each other insured.

C. *Deductibles*: The purchaser of any required builder's risk or property insurance shall pay for costs not covered because of the application of a policy deductible.

D. *Partial Occupancy or Use by Owner*: If Owner will occupy or use a portion or portions of the Work prior to Substantial Completion of all the Work as provided in Paragraph 15.04, then Owner (directly, if it is the purchaser of the builder's risk policy, or through Contractor) will provide notice of such occupancy or use to the builder's risk insurer. The builder's risk insurance shall not be canceled or permitted to lapse on account of any such partial use or occupancy; rather, those portions of the Work that are occupied or used by Owner may come off the builder's risk policy, while those portions of the Work not yet occupied or used by Owner shall remain covered by the builder's risk insurance.

E. *Additional Insurance*: If Contractor elects to obtain other special insurance to be included in or supplement the builder's risk or property insurance policies provided under this Paragraph 6.05, it may do so at Contractor's expense.

F. *Insurance of Other Property*: If the express insurance provisions of the Contract do not require or address the insurance of a property item or interest, such as tools, construction equipment, or other personal property owned by Contractor, a Subcontractor, or an employee of Contractor or a Subcontractor, then the entity or individual owning such property item will be responsible for deciding whether to insure it, and if so in what amount.

6.06 *Waiver of Rights*

A. All policies purchased in accordance with Paragraph 6.05, expressly including the builder's risk policy, shall contain provisions to the effect that in the event of payment of any loss or damage the insurers will have no rights of recovery against any insureds thereunder, or against Engineer or its consultants, or their officers, directors, members, partners, employees, agents, consultants, or subcontractors. Owner and Contractor waive all rights against each other and

the respective officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them, for all losses and damages caused by, arising out of, or resulting from any of the perils or causes of loss covered by such policies and any other property insurance applicable to the Work; and, in addition, waive all such rights against Engineer, its consultants, all Subcontractors, all individuals or entities identified in the Supplementary Conditions as insureds, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them, under such policies for losses and damages so caused. None of the above waivers shall extend to the rights that any party making such waiver may have to the proceeds of insurance held by Owner or Contractor as trustee or fiduciary, or otherwise payable under any policy so issued.

B. Owner waives all rights against Contractor, Subcontractors, and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them, for:

1. loss due to business interruption, loss of use, or other consequential loss extending beyond direct physical loss or damage to Owner's property or the Work caused by, arising out of, or resulting from fire or other perils whether or not insured by Owner; and

2. loss or damage to the completed Project or part thereof caused by, arising out of, or resulting from fire or other insured peril or cause of loss covered by any property insurance maintained on the completed Project or part thereof by Owner during partial occupancy or use pursuant to Paragraph 15.04, after Substantial Completion pursuant to Paragraph 15.03, or after final payment pursuant to Paragraph 15.06.

C. Any insurance policy maintained by Owner covering any loss, damage or consequential loss referred to in Paragraph 6.06.B shall contain provisions to the effect that in the event of payment of any such loss, damage, or consequential loss, the insurers will have no rights of recovery against Contractor, Subcontractors, or Engineer, or the officers, directors, members, partners, employees, agents, consultants, or subcontractors of each and any of them.

D. Contractor shall be responsible for assuring that the agreement under which a Subcontractor performs a portion of the Work contains provisions whereby the Subcontractor waives all rights against Owner, Contractor, all individuals or entities identified in the Supplementary Conditions as insureds, the Engineer and its consultants, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them, for all losses and damages caused by, arising out of, relating to, or resulting from any of the perils or causes of loss covered by builder's risk insurance and any other property insurance applicable to the Work.

6.07 *Receipt and Application of Property Insurance Proceeds*

A. Any insured loss under the builder's risk and other policies of insurance required by Paragraph 6.05 will be adjusted and settled with the named insured that purchased the policy. Such named insured shall act as fiduciary for the other insureds, and give notice to such other insureds that adjustment and settlement of a claim is in progress. Any other insured may state its position regarding a claim for insured loss in writing within 15 days after notice of such claim.

B. Proceeds for such insured losses may be made payable by the insurer either jointly to multiple insureds, or to the named insured that purchased the policy in its own right and as fiduciary for other insureds, subject to the requirements of any applicable mortgage clause. A named insured receiving insurance proceeds under the builder's risk and other policies of insurance required by Paragraph 6.05 shall distribute such proceeds in accordance with such agreement as the parties in interest may reach, or as otherwise required under the dispute resolution provisions of this Contract or applicable Laws and Regulations.

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C. If no other special agreement is reached, the damaged Work shall be repaired or replaced, the money so received applied on account thereof, and the Work and the cost thereof covered by Change Order, if needed.

ARTICLE 7 – CONTRACTOR'S RESPONSIBILITIES

7.01 *Supervision and Superintendence*

A. Contractor shall supervise, inspect, and direct the Work competently and efficiently, devoting such attention thereto and applying such skills and expertise as may be necessary to perform the Work in accordance with the Contract Documents. Contractor shall be solely responsible for the means, methods, techniques, sequences, and procedures of construction.

B. At all times during the progress of the Work, Contractor shall assign a competent resident superintendent who shall not be replaced without written notice to Owner and Engineer except under extraordinary circumstances.

7.02 *Labor; Working Hours*

A. Contractor shall provide competent, suitably qualified personnel to survey and lay out the Work and perform construction as required by the Contract Documents. Contractor shall at all times maintain good discipline and order at the Site.

B. Except as otherwise required for the safety or protection of persons or the Work or property at the Site or adjacent thereto, and except as otherwise stated in the Contract Documents, all Work at the Site shall be performed during regular working hours, Monday through Friday. Contractor will not perform Work on a Saturday, Sunday, or any legal holiday. Contractor may perform Work outside regular working hours or on Saturdays, Sundays, or legal holidays only with Owner's written consent, which will not be unreasonably withheld.

7.03 *Services, Materials, and Equipment*

A. Unless otherwise specified in the Contract Documents, Contractor shall provide and assume full responsibility for all services, materials, equipment, labor, transportation, construction equipment and machinery, tools, appliances, fuel, power, light, heat, telephone, water, sanitary facilities, temporary facilities, and all other facilities and incidentals necessary for the performance, testing, start up, and completion of the Work, whether or not such items are specifically called for in the Contract Documents.

B. All materials and equipment incorporated into the Work shall be of good quality and new, except as otherwise provided in the Contract Documents. All special warranties and guarantees required by the Specifications shall expressly run to the benefit of Owner. If required by Engineer, Contractor shall furnish satisfactory evidence (including reports of required tests) as to the source, kind, and quality of materials and equipment.

C. All materials and equipment shall be stored, applied, installed, connected, erected, protected, used, cleaned, and conditioned in accordance with instructions of the applicable Supplier, except as otherwise may be provided in the Contract Documents.

7.04 *"Or Equals"*

A. Whenever an item of material or equipment is specified or described in the Contract Documents by using the name of a proprietary item or the name of a particular Supplier, the Contract Price has been based upon Contractor furnishing such item as specified. The specification or description of such an item is intended to establish the type, function, appearance, and quality required. Unless the specification or description contains or is followed by words reading that no like, equivalent, or "or equal" item is permitted, Contractor may request that Engineer authorize the use of other items of material or equipment, or items from other proposed suppliers under the circumstances described below.

1. If Engineer in its sole discretion determines that an item of material or equipment proposed by Contractor is functionally equal to that named and sufficiently similar so that no change in related Work will be required, Engineer shall deem it an "or equal" item. For the purposes of this paragraph, a proposed item of material or equipment will be considered functionally equal to an item so named if:

    a. in the exercise of reasonable judgment Engineer determines that:

        1) it is at least equal in materials of construction, quality, durability, appearance, strength, and design characteristics;

        2) it will reliably perform at least equally well the function and achieve the results imposed by the design concept of the completed Project as a functioning whole;

        3) it has a proven record of performance and availability of responsive service; and

        4) it is not objectionable to Owner.

    b. Contractor certifies that, if approved and incorporated into the Work:

        1) there will be no increase in cost to the Owner or increase in Contract Times; and

        2) it will conform substantially to the detailed requirements of the item named in the Contract Documents.

B. *Contractor's Expense*: Contractor shall provide all data in support of any proposed "or equal" item at Contractor's expense.

C. *Engineer's Evaluation and Determination*: Engineer will be allowed a reasonable time to evaluate each "or-equal" request. Engineer may require Contractor to furnish additional data about the proposed "or-equal" item. Engineer will be the sole judge of acceptability. No "or-equal" item will be ordered, furnished, installed, or utilized until Engineer's review is complete and Engineer determines that the proposed item is an "or-equal", which will be evidenced by an approved Shop Drawing or other written communication. Engineer will advise Contractor in writing of any negative determination.

D. *Effect of Engineer's Determination*: Neither approval nor denial of an "or-equal" request shall result in any change in Contract Price. The Engineer's denial of an "or-equal" request shall be final and binding, and may not be reversed through an appeal under any provision of the Contract Documents.

E. *Treatment as a Substitution Request*: If Engineer determines that an item of material or equipment proposed by Contractor does not qualify as an "or-equal" item, Contractor may request that Engineer considered the proposed item as a substitute pursuant to Paragraph 7.05.

7.05 *Substitutes*

A. Unless the specification or description of an item of material or equipment required to be furnished under the Contract Documents contains or is followed by words reading that no substitution is permitted, Contractor may request that Engineer authorize the use of other items of material or equipment under the circumstances described below. To the extent possible such requests shall be made before commencement of related construction at the Site.

    1. Contractor shall submit sufficient information as provided below to allow Engineer to determine if the item of material or equipment proposed is functionally equivalent to that named and an acceptable substitute therefor. Engineer will not accept requests for review of proposed substitute items of material or equipment from anyone other than Contractor.

2. The requirements for review by Engineer will be as set forth in Paragraph 7.05.B, as supplemented by the Specifications, and as Engineer may decide is appropriate under the circumstances.

3. Contractor shall make written application to Engineer for review of a proposed substitute item of material or equipment that Contractor seeks to furnish or use. The application:

   a. shall certify that the proposed substitute item will:

      1) perform adequately the functions and achieve the results called for by the general design,

      2) be similar in substance to that specified, and

      3) be suited to the same use as that specified.

   b. will state:

      1) the extent, if any, to which the use of the proposed substitute item will necessitate a change in Contract Times,

      2) whether use of the proposed substitute item in the Work will require a change in any of the Contract Documents (or in the provisions of any other direct contract with Owner for other work on the Project) to adapt the design to the proposed substitute item, and

      3) whether incorporation or use of the proposed substitute item in connection with the Work is subject to payment of any license fee or royalty.

   c. will identify:

      1) all variations of the proposed substitute item from that specified, and

      2) available engineering, sales, maintenance, repair, and replacement services.

   d. shall contain an itemized estimate of all costs or credits that will result directly or indirectly from use of such substitute item, including but not limited to changes in Contract Price, shared savings, costs of redesign, and claims of other contractors affected by any resulting change.

B. *Engineer's Evaluation and Determination*: Engineer will be allowed a reasonable time to evaluate each substitute request, and to obtain comments and direction from Owner. Engineer may require Contractor to furnish additional data about the proposed substitute item. Engineer will be the sole judge of acceptability. No substitute will be ordered, furnished, installed, or utilized until Engineer's review is complete and Engineer determines that the proposed item is an acceptable substitute. Engineer's determination will be evidenced by a Field Order or a proposed Change Order accounting for the substitution itself and all related impacts, including changes in Contract Price or Contract Times. Engineer will advise Contractor in writing of any negative determination.

C. *Special Guarantee*: Owner may require Contractor to furnish at Contractor's expense a special performance guarantee or other surety with respect to any substitute.

D. *Reimbursement of Engineer's Cost*: Engineer will record Engineer's costs in evaluating a substitute proposed or submitted by Contractor. Whether or not Engineer approves a substitute so proposed or submitted by Contractor, Contractor shall reimburse Owner for the reasonable charges of Engineer for evaluating each such proposed substitute. Contractor shall also reimburse Owner for the reasonable charges of Engineer for making changes in the Contract Documents (or in the provisions of any other direct contract with Owner) resulting from the acceptance of each proposed substitute.

E. *Contractor's Expense*: Contractor shall provide all data in support of any proposed substitute at Contractor's expense.

F. *Effect of Engineer's Determination*: If Engineer approves the substitution request, Contractor shall execute the proposed Change Order and proceed with the substitution. The Engineer's denial of a substitution request shall be final and binding, and may not be reversed through an appeal under any provision of the Contract Documents. Contractor may challenge the scope of reimbursement costs imposed under Paragraph 7.05.D, by timely submittal of a Change Proposal.

7.06 *Concerning Subcontractors, Suppliers, and Others*

A. Contractor may retain Subcontractors and Suppliers for the performance of parts of the Work. Such Subcontractors and Suppliers must be acceptable to Owner.

B. Contractor shall retain specific Subcontractors, Suppliers, or other individuals or entities for the performance of designated parts of the Work if required by the Contract to do so.

C. Subsequent to the submittal of Contractor's Bid or final negotiation of the terms of the Contract, Owner may not require Contractor to retain any Subcontractor, Supplier, or other individual or entity to furnish or perform any of the Work against which Contractor has reasonable objection.

D. Prior to entry into any binding subcontract or purchase order, Contractor shall submit to Owner the identity of the proposed Subcontractor or Supplier (unless Owner has already deemed such proposed Subcontractor or Supplier acceptable, during the bidding process or otherwise). Such proposed Subcontractor or Supplier shall be deemed acceptable to Owner unless Owner raises a substantive, reasonable objection within five days.

E. Owner may require the replacement of any Subcontractor, Supplier, or other individual or entity retained by Contractor to perform any part of the Work. Owner also may require Contractor to retain specific replacements; provided, however, that Owner may not require a replacement to which Contractor has a reasonable objection. If Contractor has submitted the identity of certain Subcontractors, Suppliers, or other individuals or entities for acceptance by Owner, and Owner has accepted it (either in writing or by failing to make written objection thereto), then Owner may subsequently revoke the acceptance of any such Subcontractor, Supplier, or other individual or entity so identified solely on the basis of substantive, reasonable objection after due investigation. Contractor shall submit an acceptable replacement for the rejected Subcontractor, Supplier, or other individual or entity.

F. If Owner requires the replacement of any Subcontractor, Supplier, or other individual or entity retained by Contractor to perform any part of the Work, then Contractor shall be entitled to an adjustment in Contract Price or Contract Times, or both, with respect to the replacement; and Contractor shall initiate a Change Proposal for such adjustment within 30 days of Owner's requirement of replacement.

G. No acceptance by Owner of any such Subcontractor, Supplier, or other individual or entity, whether initially or as a replacement, shall constitute a waiver of the right of Owner to the completion of the Work in accordance with the Contract Documents.

H. On a monthly basis Contractor shall submit to Engineer a complete list of all Subcontractors and Suppliers having a direct contract with Contractor, and of all other Subcontractors and Suppliers known to Contractor at the time of submittal.

I. Contractor shall be fully responsible to Owner and Engineer for all acts and omissions of the Subcontractors, Suppliers, and other individuals or entities performing or furnishing any of the Work just as Contractor is responsible for Contractor's own acts and omissions.

J. Contractor shall be solely responsible for scheduling and coordinating the work of Subcontractors, Suppliers, and all other individuals or entities performing or furnishing any of the Work.

K. Contractor shall restrict all Subcontractors, Suppliers, and such other individuals or entities performing or furnishing any of the Work from communicating with Engineer or Owner, except through Contractor or in case of an emergency, or as otherwise expressly allowed herein.

L. The divisions and sections of the Specifications and the identifications of any Drawings shall not control Contractor in dividing the Work among Subcontractors or Suppliers or delineating the Work to be performed by any specific trade.

M. All Work performed for Contractor by a Subcontractor or Supplier shall be pursuant to an appropriate contractual agreement that specifically binds the Subcontractor or Supplier to the applicable terms and conditions of the Contract Documents for the benefit of Owner and Engineer.

N. Owner may furnish to any Subcontractor or Supplier, to the extent practicable, information about amounts paid to Contractor on account of Work performed for Contractor by the particular Subcontractor or Supplier.

O. Nothing in the Contract Documents:

1. shall create for the benefit of any such Subcontractor, Supplier, or other individual or entity any contractual relationship between Owner or Engineer and any such Subcontractor, Supplier, or other individual or entity; nor

2. shall create any obligation on the part of Owner or Engineer to pay or to see to the payment of any money due any such Subcontractor, Supplier, or other individual or entity except as may otherwise be required by Laws and Regulations.

7.07 *Patent Fees and Royalties*

A. Contractor shall pay all license fees and royalties and assume all costs incident to the use in the performance of the Work or the incorporation in the Work of any invention, design, process, product, or device which is the subject of patent rights or copyrights held by others. If a particular invention, design, process, product, or device is specified in the Contract Documents for use in the performance of the Work and if, to the actual knowledge of Owner or Engineer, its use is subject to patent rights or copyrights calling for the payment of any license fee or royalty to others, the existence of such rights shall be disclosed by Owner in the Contract Documents.

B. To the fullest extent permitted by Laws and Regulations, Owner shall indemnify and hold harmless Contractor, and its officers, directors, members, partners, employees, agents, consultants, and subcontractors from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals, and all court or arbitration or other dispute resolution costs) arising out of or relating to any infringement of patent rights or copyrights incident to the use in the performance of the Work or resulting from the incorporation in the Work of any invention, design, process, product, or device specified in the Contract Documents, but not identified as being subject to payment of any license fee or royalty to others required by patent rights or copyrights.

C. To the fullest extent permitted by Laws and Regulations, Contractor shall indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute

resolution costs) arising out of or relating to any infringement of patent rights or copyrights incident to the use in the performance of the Work or resulting from the incorporation in the Work of any invention, design, process, product, or device not specified in the Contract Documents.

7.08 *Permits*

A. Unless otherwise provided in the Contract Documents, Contractor shall obtain and pay for all construction permits and licenses. Owner shall assist Contractor, when necessary, in obtaining such permits and licenses. Contractor shall pay all governmental charges and inspection fees necessary for the prosecution of the Work which are applicable at the time of the submission of Contractor's Bid (or when Contractor became bound under a negotiated contract). Owner shall pay all charges of utility owners for connections for providing permanent service to the Work

7.09 *Taxes*

A. Contractor shall pay all sales, consumer, use, and other similar taxes required to be paid by Contractor in accordance with the Laws and Regulations of the place of the Project which are applicable during the performance of the Work.

7.10 *Laws and Regulations*

A. Contractor shall give all notices required by and shall comply with all Laws and Regulations applicable to the performance of the Work. Except where otherwise expressly required by applicable Laws and Regulations, neither Owner nor Engineer shall be responsible for monitoring Contractor's compliance with any Laws or Regulations.

B. If Contractor performs any Work or takes any other action knowing or having reason to know that it is contrary to Laws or Regulations, Contractor shall bear all resulting costs and losses, and shall indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such Work or other action. It shall not be Contractor's responsibility to make certain that the Work described in the Contract Documents is in accordance with Laws and Regulations, but this shall not relieve Contractor of Contractor's obligations under Paragraph 3.03.

C. Owner or Contractor may give notice to the other party of any changes after the submission of Contractor's Bid (or after the date when Contractor became bound under a negotiated contract) in Laws or Regulations having an effect on the cost or time of performance of the Work, including but not limited to changes in Laws or Regulations having an effect on procuring permits and on sales, use, value-added, consumption, and other similar taxes. If Owner and Contractor are unable to agree on entitlement to or on the amount or extent, if any, of any adjustment in Contract Price or Contract Times resulting from such changes, then within 30 days of such notice Contractor may submit a Change Proposal, or Owner may initiate a Claim.

7.11 *Record Documents*

A. Contractor shall maintain in a safe place at the Site one printed record copy of all Drawings, Specifications, Addenda, Change Orders, Work Change Directives, Field Orders, written interpretations and clarifications, and approved Shop Drawings. Contractor shall keep such record documents in good order and annotate them to show changes made during construction. These record documents, together with all approved Samples, will be available to Engineer for reference. Upon completion of the Work, Contractor shall deliver these record documents to Engineer.

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7.12 *Safety and Protection*

A. Contractor shall be solely responsible for initiating, maintaining, and supervising all safety precautions and programs in connection with the Work. Such responsibility does not relieve Subcontractors of their responsibility for the safety of persons or property in the performance of their work, nor for compliance with applicable safety Laws and Regulations. Contractor shall take all necessary precautions for the safety of, and shall provide the necessary protection to prevent damage, injury, or loss to:

1. all persons on the Site or who may be affected by the Work;
2. all the Work and materials and equipment to be incorporated therein, whether in storage on or off the Site; and
3. other property at the Site or adjacent thereto, including trees, shrubs, lawns, walks, pavements, roadways, structures, other work in progress, utilities, and Underground Facilities not designated for removal, relocation, or replacement in the course of construction.

B. Contractor shall comply with all applicable Laws and Regulations relating to the safety of persons or property, or to the protection of persons or property from damage, injury, or loss; and shall erect and maintain all necessary safeguards for such safety and protection. Contractor shall notify Owner; the owners of adjacent property, Underground Facilities, and other utilities; and other contractors and utility owners performing work at or adjacent to the Site, when prosecution of the Work may affect them, and shall cooperate with them in the protection, removal, relocation, and replacement of their property or work in progress.

C. Contractor shall comply with the applicable requirements of Owner's safety programs, if any. The Supplementary Conditions identify any Owner's safety programs that are applicable to the Work.

D. Contractor shall inform Owner and Engineer of the specific requirements of Contractor's safety program with which Owner's and Engineer's employees and representatives must comply while at the Site.

E. All damage, injury, or loss to any property referred to in Paragraph 7.12.A.2 or 7.12.A.3 caused, directly or indirectly, in whole or in part, by Contractor, any Subcontractor, Supplier, or any other individual or entity directly or indirectly employed by any of them to perform any of the Work, or anyone for whose acts any of them may be liable, shall be remedied by Contractor at its expense (except damage or loss attributable to the fault of Drawings or Specifications or to the acts or omissions of Owner or Engineer or anyone employed by any of them, or anyone for whose acts any of them may be liable, and not attributable, directly or indirectly, in whole or in part, to the fault or negligence of Contractor or any Subcontractor, Supplier, or other individual or entity directly or indirectly employed by any of them).

F. Contractor's duties and responsibilities for safety and protection shall continue until such time as all the Work is completed and Engineer has issued a notice to Owner and Contractor in accordance with Paragraph 15.06.B that the Work is acceptable (except as otherwise expressly provided in connection with Substantial Completion).

G. Contractor's duties and responsibilities for safety and protection shall resume whenever Contractor or any Subcontractor or Supplier returns to the Site to fulfill warranty or correction obligations, or to conduct other tasks arising from the Contract Documents.

7.13 *Safety Representative*

A. Contractor shall designate a qualified and experienced safety representative at the Site whose duties and responsibilities shall be the prevention of accidents and the maintaining and supervising of safety precautions and programs.

7.14 *Hazard Communication Programs*

A. Contractor shall be responsible for coordinating any exchange of material safety data sheets or other hazard communication information required to be made available to or exchanged between or among employers at the Site in accordance with Laws or Regulations.

7.15 *Emergencies*

A. In emergencies affecting the safety or protection of persons or the Work or property at the Site or adjacent thereto, Contractor is obligated to act to prevent threatened damage, injury, or loss. Contractor shall give Engineer prompt written notice if Contractor believes that any significant changes in the Work or variations from the Contract Documents have been caused thereby or are required as a result thereof. If Engineer determines that a change in the Contract Documents is required because of the action taken by Contractor in response to such an emergency, a Work Change Directive or Change Order will be issued.

7.16 *Shop Drawings, Samples, and Other Submittals*

A. *Shop Drawing and Sample Submittal Requirements*:

1. Before submitting a Shop Drawing or Sample, Contractor shall have:

a. reviewed and coordinated the Shop Drawing or Sample with other Shop Drawings and Samples and with the requirements of the Work and the Contract Documents;

b. determined and verified all field measurements, quantities, dimensions, specified performance and design criteria, installation requirements, materials, catalog numbers, and similar information with respect thereto;

c. determined and verified the suitability of all materials and equipment offered with respect to the indicated application, fabrication, shipping, handling, storage, assembly, and installation pertaining to the performance of the Work; and

d. determined and verified all information relative to Contractor's responsibilities for means, methods, techniques, sequences, and procedures of construction, and safety precautions and programs incident thereto.

2. Each submittal shall bear a stamp or specific written certification that Contractor has satisfied Contractor's obligations under the Contract Documents with respect to Contractor's review of that submittal, and that Contractor approves the submittal.

3. With each submittal, Contractor shall give Engineer specific written notice of any variations that the Shop Drawing or Sample may have from the requirements of the Contract Documents. This notice shall be set forth in a written communication separate from the Shop Drawings or Sample submittal; and, in addition, in the case of Shop Drawings by a specific notation made on each Shop Drawing submitted to Engineer for review and approval of each such variation.

B. *Submittal Procedures for Shop Drawings and Samples*: Contractor shall submit Shop Drawings and Samples to Engineer for review and approval in accordance with the accepted Schedule of Submittals. Each submittal will be identified as Engineer may require.

1. *Shop Drawings*:

a. Contractor shall submit the number of copies required in the Specifications.

b. Data shown on the Shop Drawings will be complete with respect to quantities, dimensions, specified performance and design criteria, materials, and similar data to show Engineer the services, materials, and equipment Contractor proposes to provide and to enable Engineer to review the information for the limited purposes required by Paragraph 7.16.D.

2. *Samples*:

   a. Contractor shall submit the number of Samples required in the Specifications.

   b. Contractor shall clearly identify each Sample as to material, Supplier, pertinent data such as catalog numbers, the use for which intended and other data as Engineer may require to enable Engineer to review the submittal for the limited purposes required by Paragraph 7.16.D.

3. Where a Shop Drawing or Sample is required by the Contract Documents or the Schedule of Submittals, any related Work performed prior to Engineer's review and approval of the pertinent submittal will be at the sole expense and responsibility of Contractor.

C. *Other Submittals*: Contractor shall submit other submittals to Engineer in accordance with the accepted Schedule of Submittals, and pursuant to the applicable terms of the Specifications.

D. *Engineer's Review*:

1. Engineer will provide timely review of Shop Drawings and Samples in accordance with the Schedule of Submittals acceptable to Engineer. Engineer's review and approval will be only to determine if the items covered by the submittals will, after installation or incorporation in the Work, conform to the information given in the Contract Documents and be compatible with the design concept of the completed Project as a functioning whole as indicated by the Contract Documents.

2. Engineer's review and approval will not extend to means, methods, techniques, sequences, or procedures of construction or to safety precautions or programs incident thereto.

3. Engineer's review and approval of a separate item as such will not indicate approval of the assembly in which the item functions.

4. Engineer's review and approval of a Shop Drawing or Sample shall not relieve Contractor from responsibility for any variation from the requirements of the Contract Documents unless Contractor has complied with the requirements of Paragraph 7.16.A.3 and Engineer has given written approval of each such variation by specific written notation thereof incorporated in or accompanying the Shop Drawing or Sample. Engineer will document any such approved variation from the requirements of the Contract Documents in a Field Order.

5. Engineer's review and approval of a Shop Drawing or Sample shall not relieve Contractor from responsibility for complying with the requirements of Paragraph 7.16.A and B.

6. Engineer's review and approval of a Shop Drawing or Sample, or of a variation from the requirements of the Contract Documents, shall not, under any circumstances, change the Contract Times or Contract Price, unless such changes are included in a Change Order.

7. Neither Engineer's receipt, review, acceptance or approval of a Shop Drawing, Sample, or other submittal shall result in such item becoming a Contract Document.

8. Contractor shall perform the Work in compliance with the requirements and commitments set forth in approved Shop Drawings and Samples, subject to the provisions of Paragraph 7.16.D.4.

E. *Resubmittal Procedures*:

1. Contractor shall make corrections required by Engineer and shall return the required number of corrected copies of Shop Drawings and submit, as required, new Samples for review and approval. Contractor shall direct specific attention in writing to revisions other than the corrections called for by Engineer on previous submittals.

2. Contractor shall furnish required submittals with sufficient information and accuracy to obtain required approval of an item with no more than three submittals. Engineer will record Engineer's time for reviewing a fourth or subsequent submittal of a Shop Drawings, sample, or other item requiring approval, and Contractor shall be responsible for Engineer's charges to Owner for such time. Owner may impose a set-off against payments due to Contractor to secure reimbursement for such charges.

3. If Contractor requests a change of a previously approved submittal item, Contractor shall be responsible for Engineer's charges to Owner for its review time, and Owner may impose a set-off against payments due to Contractor to secure reimbursement for such charges, unless the need for such change is beyond the control of Contractor.

7.17 *Contractor's General Warranty and Guarantee*

A. Contractor warrants and guarantees to Owner that all Work will be in accordance with the Contract Documents and will not be defective. Engineer and its officers, directors, members, partners, employees, agents, consultants, and subcontractors shall be entitled to rely on Contractor's warranty and guarantee.

B. Contractor's warranty and guarantee hereunder excludes defects or damage caused by:

1. abuse, modification, or improper maintenance or operation by persons other than Contractor, Subcontractors, Suppliers, or any other individual or entity for whom Contractor is responsible; or

2. normal wear and tear under normal usage.

C. Contractor's obligation to perform and complete the Work in accordance with the Contract Documents shall be absolute. None of the following will constitute an acceptance of Work that is not in accordance with the Contract Documents or a release of Contractor's obligation to perform the Work in accordance with the Contract Documents:

1. observations by Engineer;

2. recommendation by Engineer or payment by Owner of any progress or final payment;

3. the issuance of a certificate of Substantial Completion by Engineer or any payment related thereto by Owner;

4. use or occupancy of the Work or any part thereof by Owner;

5. any review and approval of a Shop Drawing or Sample submittal;

6. the issuance of a notice of acceptability by Engineer;

7. any inspection, test, or approval by others; or

8. any correction of defective Work by Owner.

D. If the Contract requires the Contractor to accept the assignment of a contract entered into by Owner, then the specific warranties, guarantees, and correction obligations contained in the assigned contract shall govern with respect to Contractor's performance obligations to Owner for the Work described in the assigned contract.

7.18 *Indemnification*

A. To the fullest extent permitted by Laws and Regulations, and in addition to any other obligations of Contractor under the Contract or otherwise, Contractor shall indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to the performance of the Work, provided that any

such claim, cost, loss, or damage is attributable to bodily injury, sickness, disease, or death, or to injury to or destruction of tangible property (other than the Work itself), including the loss of use resulting therefrom but only to the extent caused by any negligent act or omission of Contractor, any Subcontractor, any Supplier, or any individual or entity directly or indirectly employed by any of them to perform any of the Work or anyone for whose acts any of them may be liable.

B. In any and all claims against Owner or Engineer or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors by any employee (or the survivor or personal representative of such employee) of Contractor, any Subcontractor, any Supplier, or any individual or entity directly or indirectly employed by any of them to perform any of the Work, or anyone for whose acts any of them may be liable, the indemnification obligation under Paragraph 7.18.A shall not be limited in any way by any limitation on the amount or type of damages, compensation, or benefits payable by or for Contractor or any such Subcontractor, Supplier, or other individual or entity under workers' compensation acts, disability benefit acts, or other employee benefit acts.

C. The indemnification obligations of Contractor under Paragraph 7.18.A shall not extend to the liability of Engineer and Engineer's officers, directors, members, partners, employees, agents, consultants and subcontractors arising out of:

1. the preparation or approval of, or the failure to prepare or approve maps, Drawings, opinions, reports, surveys, Change Orders, designs, or Specifications; or

2. giving directions or instructions, or failing to give them, if that is the primary cause of the injury or damage.

7.19 *Delegation of Professional Design Services*

A. Contractor will not be required to provide professional design services unless such services are specifically required by the Contract Documents for a portion of the Work or unless such services are required to carry out Contractor's responsibilities for construction means, methods, techniques, sequences and procedures. Contractor shall not be required to provide professional services in violation of applicable Laws and Regulations.

B. If professional design services or certifications by a design professional related to systems, materials, or equipment are specifically required of Contractor by the Contract Documents, Owner and Engineer will specify all performance and design criteria that such services must satisfy. Contractor shall cause such services or certifications to be provided by a properly licensed professional, whose signature and seal shall appear on all drawings, calculations, specifications, certifications, and other submittals prepared by such professional. Shop Drawings and other submittals related to the Work designed or certified by such professional, if prepared by others, shall bear such professional's written approval when submitted to Engineer.

C. Owner and Engineer shall be entitled to rely upon the adequacy, accuracy, and completeness of the services, certifications, or approvals performed by such design professionals, provided Owner and Engineer have specified to Contractor all performance and design criteria that such services must satisfy.

D. Pursuant to this paragraph, Engineer's review and approval of design calculations and design drawings will be only for the limited purpose of checking for conformance with performance and design criteria given and the design concept expressed in the Contract Documents. Engineer's review and approval of Shop Drawings and other submittals (except design calculations and design drawings) will be only for the purpose stated in Paragraph 7.16.D.1.

E. Contractor shall not be responsible for the adequacy of the performance or design criteria specified by Owner or Engineer.

90% Bid Package

ARTICLE 8 – OTHER WORK AT THE SITE

8.01 *Other Work*

A. In addition to and apart from the Work under the Contract Documents, the Owner may perform other work at or adjacent to the Site. Such other work may be performed by Owner's employees, or through contracts between the Owner and third parties. Owner may also arrange to have third-party utility owners perform work on their utilities and facilities at or adjacent to the Site.

B. If Owner performs other work at or adjacent to the Site with Owner's employees, or through contracts for such other work, then Owner shall give Contractor written notice thereof prior to starting any such other work. If Owner has advance information regarding the start of any utility work at or adjacent to the Site, Owner shall provide such information to Contractor.

C. Contractor shall afford each other contractor that performs such other work, each utility owner performing other work, and Owner, if Owner is performing other work with Owner's employees, proper and safe access to the Site, and provide a reasonable opportunity for the introduction and storage of materials and equipment and the execution of such other work. Contractor shall do all cutting, fitting, and patching of the Work that may be required to properly connect or otherwise make its several parts come together and properly integrate with such other work. Contractor shall not endanger any work of others by cutting, excavating, or otherwise altering such work; provided, however, that Contractor may cut or alter others' work with the written consent of Engineer and the others whose work will be affected.

D. If the proper execution or results of any part of Contractor's Work depends upon work performed by others under this Article 8, Contractor shall inspect such other work and promptly report to Engineer in writing any delays, defects, or deficiencies in such other work that render it unavailable or unsuitable for the proper execution and results of Contractor's Work. Contractor's failure to so report will constitute an acceptance of such other work as fit and proper for integration with Contractor's Work except for latent defects and deficiencies in such other work.

8.02 *Coordination*

A. If Owner intends to contract with others for the performance of other work at or adjacent to the Site, to perform other work at or adjacent to the Site with Owner's employees, or to arrange to have utility owners perform work at or adjacent to the Site, the following will be set forth in the Supplementary Conditions or provided to Contractor prior to the start of any such other work:

1. the identity of the individual or entity that will have authority and responsibility for coordination of the activities among the various contractors;

2. an itemization of the specific matters to be covered by such authority and responsibility; and

3. the extent of such authority and responsibilities.

B. Unless otherwise provided in the Supplementary Conditions, Owner shall have sole authority and responsibility for such coordination.

8.03 *Legal Relationships*

A. If, in the course of performing other work at or adjacent to the Site for Owner, the Owner's employees, any other contractor working for Owner, or any utility owner causes damage to the Work or to the property of Contractor or its Subcontractors, or delays, disrupts, interferes with, or increases the scope or cost of the performance of the Work, through actions or inaction, then Contractor shall be entitled to an equitable adjustment in the Contract Price or the Contract Times, or both. Contractor must submit any Change Proposal seeking an

equitable adjustment in the Contract Price or the Contract Times under this paragraph within 30 days of the damaging, delaying, disrupting, or interfering event. The entitlement to, and extent of, any such equitable adjustment shall take into account information (if any) regarding such other work that was provided to Contractor in the Contract Documents prior to the submittal of the Bid or the final negotiation of the terms of the Contract. When applicable, any such equitable adjustment in Contract Price shall be conditioned on Contractor assigning to Owner all Contractor's rights against such other contractor or utility owner with respect to the damage, delay, disruption, or interference that is the subject of the adjustment. Contractor's entitlement to an adjustment of the Contract Times is conditioned on such adjustment being essential to Contractor's ability to complete the Work within the Contract Times.

B. Contractor shall take reasonable and customary measures to avoid damaging, delaying, disrupting, or interfering with the work of Owner, any other contractor, or any utility owner performing other work at or adjacent to the Site. If Contractor fails to take such measures and as a result damages, delays, disrupts, or interferes with the work of any such other contractor or utility owner, then Owner may impose a set-off against payments due to Contractor, and assign to such other contractor or utility owner the Owner's contractual rights against Contractor with respect to the breach of the obligations set forth in this paragraph.

C. When Owner is performing other work at or adjacent to the Site with Owner's employees, Contractor shall be liable to Owner for damage to such other work, and for the reasonable direct delay, disruption, and interference costs incurred by Owner as a result of Contractor's failure to take reasonable and customary measures with respect to Owner's other work. In response to such damage, delay, disruption, or interference, Owner may impose a set-off against payments due to Contractor.

D. If Contractor damages, delays, disrupts, or interferes with the work of any other contractor, or any utility owner performing other work at or adjacent to the Site, through Contractor's failure to take reasonable and customary measures to avoid such impacts, or if any claim arising out of Contractor's actions, inactions, or negligence in performance of the Work at or adjacent to the Site is made by any such other contractor or utility owner against Contractor, Owner, or Engineer, then Contractor shall (1) promptly attempt to settle the claim as to all parties through negotiations with such other contractor or utility owner, or otherwise resolve the claim by arbitration or other dispute resolution proceeding or at law, and (2) indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them from and against any such claims, and against all costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such damage, delay, disruption, or interference.

ARTICLE 9 – OWNER'S RESPONSIBILITIES

9.01 *Communications to Contractor*

A. Except as otherwise provided in these General Conditions, Owner shall issue all communications to Contractor through Engineer.

9.02 *Replacement of Engineer*

A. Owner may at its discretion appoint an engineer to replace Engineer, provided Contractor makes no reasonable objection to the replacement engineer. The replacement engineer's status under the Contract Documents shall be that of the former Engineer.

9.03 *Furnish Data*

A. Owner shall promptly furnish the data required of Owner under the Contract Documents.

9.04 *Pay When Due*

A. Owner shall make payments to Contractor when they are due as provided in the Agreement.

9.05 *Lands and Easements; Reports, Tests, and Drawings*

A. Owner's duties with respect to providing lands and easements are set forth in Paragraph 5.01.

B. Owner's duties with respect to providing engineering surveys to establish reference points are set forth in Paragraph 4.03.

C. Article 5 refers to Owner's identifying and making available to Contractor copies of reports of explorations and tests of conditions at the Site, and drawings of physical conditions relating to existing surface or subsurface structures at the Site.

9.06 *Insurance*

A. Owner's responsibilities, if any, with respect to purchasing and maintaining liability and property insurance are set forth in Article 6.

9.07 *Change Orders*

A. Owner's responsibilities with respect to Change Orders are set forth in Article 11.

9.08 *Inspections, Tests, and Approvals*

A. Owner's responsibility with respect to certain inspections, tests, and approvals is set forth in Paragraph 14.02.B.

9.09 *Limitations on Owner's Responsibilities*

A. The Owner shall not supervise, direct, or have control or authority over, nor be responsible for, Contractor's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of Contractor to comply with Laws and Regulations applicable to the performance of the Work. Owner will not be responsible for Contractor's failure to perform the Work in accordance with the Contract Documents.

9.10 *Undisclosed Hazardous Environmental Condition*

A. Owner's responsibility in respect to an undisclosed Hazardous Environmental Condition is set forth in Paragraph 5.06.

9.11 *Evidence of Financial Arrangements*

A. Upon request of Contractor, Owner shall furnish Contractor reasonable evidence that financial arrangements have been made to satisfy Owner's obligations under the Contract Documents (including obligations under proposed changes in the Work).

9.12 *Safety Programs*

A. While at the Site, Owner's employees and representatives shall comply with the specific applicable requirements of Contractor's safety programs of which Owner has been informed.

B. Owner shall furnish copies of any applicable Owner safety programs to Contractor.

ARTICLE 10 – ENGINEER'S STATUS DURING CONSTRUCTION

10.01 *Owner's Representative*

A. Engineer will be Owner's representative during the construction period. The duties and responsibilities and the limitations of authority of Engineer as Owner's representative during construction are set forth in the Contract.

10.02 *Visits to Site*

A. Engineer will make visits to the Site at intervals appropriate to the various stages of construction as Engineer deems necessary in order to observe as an experienced and qualified design professional the progress that has been made and the quality of the various aspects of Contractor's executed Work. Based on information obtained during such visits and observations, Engineer, for the benefit of Owner, will determine, in general, if the Work is proceeding in accordance with the Contract Documents. Engineer will not be required to make exhaustive or continuous inspections on the Site to check the quality or quantity of the Work. Engineer's efforts will be directed toward providing for Owner a greater degree of confidence that the completed Work will conform generally to the Contract Documents. On the basis of such visits and observations, Engineer will keep Owner informed of the progress of the Work and will endeavor to guard Owner against defective Work.

B. Engineer's visits and observations are subject to all the limitations on Engineer's authority and responsibility set forth in Paragraph 10.08. Particularly, but without limitation, during or as a result of Engineer's visits or observations of Contractor's Work, Engineer will not supervise, direct, control, or have authority over or be responsible for Contractor's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of Contractor to comply with Laws and Regulations applicable to the performance of the Work.

10.03 *Project Representative*

A. If Owner and Engineer have agreed that Engineer will furnish a Resident Project Representative to represent Engineer at the Site and assist Engineer in observing the progress and quality of the Work, then the authority and responsibilities of any such Resident Project Representative will be as provided in the Supplementary Conditions, and limitations on the responsibilities thereof will be as provided in Paragraph 10.08. If Owner designates another representative or agent to represent Owner at the Site who is not Engineer's consultant, agent, or employee, the responsibilities and authority and limitations thereon of such other individual or entity will be as provided in the Supplementary Conditions.

10.04 *Rejecting Defective Work*

A. Engineer has the authority to reject Work in accordance with Article 14.

10.05 *Shop Drawings, Change Orders and Payments*

A. Engineer's authority, and limitations thereof, as to Shop Drawings and Samples, are set forth in Paragraph 7.16.

B. Engineer's authority, and limitations thereof, as to design calculations and design drawings submitted in response to a delegation of professional design services, if any, are set forth in Paragraph 7.19.

C. Engineer's authority as to Change Orders is set forth in Article 11.

D. Engineer's authority as to Applications for Payment is set forth in Article 15.

10.06 *Determinations for Unit Price Work*

A. Engineer will determine the actual quantities and classifications of Unit Price Work performed by Contractor as set forth in Paragraph 13.03.

10.07 *Decisions on Requirements of Contract Documents and Acceptability of Work*

A. Engineer will render decisions regarding the requirements of the Contract Documents, and judge the acceptability of the Work, pursuant to the specific procedures set forth herein for initial interpretations, Change Proposals, and acceptance of the Work. In rendering such decisions and judgments, Engineer will not show partiality to Owner or Contractor, and will

not be liable to Owner, Contractor, or others in connection with any proceedings, interpretations, decisions, or judgments conducted or rendered in good faith.

10.08 *Limitations on Engineer's Authority and Responsibilities*

A. Neither Engineer's authority or responsibility under this Article 10 or under any other provision of the Contract, nor any decision made by Engineer in good faith either to exercise or not exercise such authority or responsibility or the undertaking, exercise, or performance of any authority or responsibility by Engineer, shall create, impose, or give rise to any duty in contract, tort, or otherwise owed by Engineer to Contractor, any Subcontractor, any Supplier, any other individual or entity, or to any surety for or employee or agent of any of them.

B. Engineer will not supervise, direct, control, or have authority over or be responsible for Contractor's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of Contractor to comply with Laws and Regulations applicable to the performance of the Work. Engineer will not be responsible for Contractor's failure to perform the Work in accordance with the Contract Documents.

C. Engineer will not be responsible for the acts or omissions of Contractor or of any Subcontractor, any Supplier, or of any other individual or entity performing any of the Work.

D. Engineer's review of the final Application for Payment and accompanying documentation and all maintenance and operating instructions, schedules, guarantees, bonds, certificates of inspection, tests and approvals, and other documentation required to be delivered by Paragraph 15.06.A will only be to determine generally that their content complies with the requirements of, and in the case of certificates of inspections, tests, and approvals, that the results certified indicate compliance with the Contract Documents.

E. The limitations upon authority and responsibility set forth in this Paragraph 10.08 shall also apply to the Resident Project Representative, if any.

10.09 *Compliance with Safety Program*

A. While at the Site, Engineer's employees and representatives will comply with the specific applicable requirements of Owner's and Contractor's safety programs (if any) of which Engineer has been informed.

ARTICLE 11 – AMENDING THE CONTRACT DOCUMENTS; CHANGES IN THE WORK

11.01 *Amending and Supplementing Contract Documents*

A. The Contract Documents may be amended or supplemented by a Change Order, a Work Change Directive, or a Field Order.

1. *Change Orders*:

a. If an amendment or supplement to the Contract Documents includes a change in the Contract Price or the Contract Times, such amendment or supplement must be set forth in a Change Order. A Change Order also may be used to establish amendments and supplements of the Contract Documents that do not affect the Contract Price or Contract Times.

b. Owner and Contractor may amend those terms and conditions of the Contract Documents that do not involve (1) the performance or acceptability of the Work, (2) the design (as set forth in the Drawings, Specifications, or otherwise), or (3) other engineering or technical matters, without the recommendation of the Engineer. Such an amendment shall be set forth in a Change Order.

2. *Work Change Directives*: A Work Change Directive will not change the Contract Price or the Contract Times but is evidence that the parties expect that the modification ordered or documented by a Work Change Directive will be incorporated in a subsequently issued Change Order, following negotiations by the parties as to the Work Change Directive's effect, if any, on the Contract Price and Contract Times; or, if negotiations are unsuccessful, by a determination under the terms of the Contract Documents governing adjustments, expressly including Paragraph 11.04 regarding change of Contract Price. Contractor must submit any Change Proposal seeking an adjustment of the Contract Price or the Contract Times, or both, no later than 30 days after the completion of the Work set out in the Work Change Directive. Owner must submit any Claim seeking an adjustment of the Contract Price or the Contract Times, or both, no later than 60 days after issuance of the Work Change Directive.

3. *Field Orders*: Engineer may authorize minor changes in the Work if the changes do not involve an adjustment in the Contract Price or the Contract Times and are compatible with the design concept of the completed Project as a functioning whole as indicated by the Contract Documents. Such changes will be accomplished by a Field Order and will be binding on Owner and also on Contractor, which shall perform the Work involved promptly. If Contractor believes that a Field Order justifies an adjustment in the Contract Price or Contract Times, or both, then before proceeding with the Work at issue, Contractor shall submit a Change Proposal as provided herein.

11.02 *Owner-Authorized Changes in the Work*

A. Without invalidating the Contract and without notice to any surety, Owner may, at any time or from time to time, order additions, deletions, or revisions in the Work. Such changes shall be supported by Engineer's recommendation, to the extent the change involves the design (as set forth in the Drawings, Specifications, or otherwise), or other engineering or technical matters. Such changes may be accomplished by a Change Order, if Owner and Contractor have agreed as to the effect, if any, of the changes on Contract Times or Contract Price; or by a Work Change Directive. Upon receipt of any such document, Contractor shall promptly proceed with the Work involved; or, in the case of a deletion in the Work, promptly cease construction activities with respect to such deleted Work. Added or revised Work shall be performed under the applicable conditions of the Contract Documents. Nothing in this paragraph shall obligate Contractor to undertake work that Contractor reasonably concludes cannot be performed in a manner consistent with Contractor's safety obligations under the Contract Documents or Laws and Regulations.

11.03 *Unauthorized Changes in the Work*

A. Contractor shall not be entitled to an increase in the Contract Price or an extension of the Contract Times with respect to any work performed that is not required by the Contract Documents, as amended, modified, or supplemented, except in the case of an emergency as provided in Paragraph 7.15 or in the case of uncovering Work as provided in Paragraph 14.05.

11.04 *Change of Contract Price*

A. The Contract Price may only be changed by a Change Order. Any Change Proposal for an adjustment in the Contract Price shall comply with the provisions of Paragraph 11.06. Any Claim for an adjustment of Contract Price shall comply with the provisions of Article 12.

B. An adjustment in the Contract Price will be determined as follows:

1. where the Work involved is covered by unit prices contained in the Contract Documents, then by application of such unit prices to the quantities of the items involved (subject to the provisions of Paragraph 13.03); or

2. where the Work involved is not covered by unit prices contained in the Contract Documents, then by a mutually agreed lump sum (which may include an allowance for overhead and profit not necessarily in accordance with Paragraph 11.04.C.2); or

3. where the Work involved is not covered by unit prices contained in the Contract Documents and the parties do not reach mutual agreement to a lump sum, then on the basis of the Cost of the Work (determined as provided in Paragraph 13.01) plus a Contractor's fee for overhead and profit (determined as provided in Paragraph 11.04.C).

C. *Contractor's Fee*: When applicable, the Contractor's fee for overhead and profit shall be determined as follows:

1. a mutually acceptable fixed fee; or

2. if a fixed fee is not agreed upon, then a fee based on the following percentages of the various portions of the Cost of the Work:

a. for costs incurred under Paragraphs 13.01.B.1 and 13.01.B.2, the Contractor's fee shall be 15 percent;

b. for costs incurred under Paragraph 13.01.B.3, the Contractor's fee shall be five percent;

c. where one or more tiers of subcontracts are on the basis of Cost of the Work plus a fee and no fixed fee is agreed upon, the intent of Paragraphs 11.01.C.2.a and 11.01.C.2.b is that the Contractor's fee shall be based on: (1) a fee of 15 percent of the costs incurred under Paragraphs 13.01.A.1 and 13.01.A.2 by the Subcontractor that actually performs the Work, at whatever tier, and (2) with respect to Contractor itself and to any Subcontractors of a tier higher than that of the Subcontractor that actually performs the Work, a fee of five percent of the amount (fee plus underlying costs incurred) attributable to the next lower tier Subcontractor; provided, however, that for any such subcontracted work the maximum total fee to be paid by Owner shall be no greater than 27 percent of the costs incurred by the Subcontractor that actually performs the work;

d. no fee shall be payable on the basis of costs itemized under Paragraphs 13.01.B.4, 13.01.B.5, and 13.01.C;

e. the amount of credit to be allowed by Contractor to Owner for any change which results in a net decrease in cost will be the amount of the actual net decrease in cost plus a deduction in Contractor's fee by an amount equal to five percent of such net decrease; and

f. when both additions and credits are involved in any one change, the adjustment in Contractor's fee shall be computed on the basis of the net change in accordance with Paragraphs 11.04.C.2.a through 11.04.C.2.e, inclusive.

11.05 *Change of Contract Times*

A. The Contract Times may only be changed by a Change Order. Any Change Proposal for an adjustment in the Contract Times shall comply with the provisions of Paragraph 11.06. Any Claim for an adjustment in the Contract Times shall comply with the provisions of Article 12.

B. An adjustment of the Contract Times shall be subject to the limitations set forth in Paragraph 4.05, concerning delays in Contractor's progress.

11.06 *Change Proposals*

A. Contractor shall submit a Change Proposal to Engineer to request an adjustment in the Contract Times or Contract Price; appeal an initial decision by Engineer concerning the requirements of the Contract Documents or relating to the acceptability of the Work under the

Contract Documents; contest a set-off against payment due; or seek other relief under the Contract. The Change Proposal shall specify any proposed change in Contract Times or Contract Price, or both, or other proposed relief, and explain the reason for the proposed change, with citations to any governing or applicable provisions of the Contract Documents.

1. *Procedures*: Contractor shall submit each Change Proposal to Engineer promptly (but in no event later than 30 days) after the start of the event giving rise thereto, or after such initial decision. The Contractor shall submit supporting data, including the proposed change in Contract Price or Contract Time (if any), to the Engineer and Owner within 15 days after the submittal of the Change Proposal. The supporting data shall be accompanied by a written statement that the supporting data are accurate and complete, and that any requested time or price adjustment is the entire adjustment to which Contractor believes it is entitled as a result of said event. Engineer will advise Owner regarding the Change Proposal, and consider any comments or response from Owner regarding the Change Proposal.

2. *Engineer's Action*: Engineer will review each Change Proposal and, within 30 days after receipt of the Contractor's supporting data, either deny the Change Proposal in whole, approve it in whole, or deny it in part and approve it in part. Such actions shall be in writing, with a copy provided to Owner and Contractor. If Engineer does not take action on the Change Proposal within 30 days, then either Owner or Contractor may at any time thereafter submit a letter to the other party indicating that as a result of Engineer's inaction the Change Proposal is deemed denied, thereby commencing the time for appeal of the denial under Article 12.

3. *Binding Decision*: Engineer's decision will be final and binding upon Owner and Contractor, unless Owner or Contractor appeals the decision by filing a Claim under Article 12.

B. *Resolution of Certain Change Proposals*: If the Change Proposal does not involve the design (as set forth in the Drawings, Specifications, or otherwise), the acceptability of the Work, or other engineering or technical matters, then Engineer will notify the parties that the Engineer is unable to resolve the Change Proposal. For purposes of further resolution of such a Change Proposal, such notice shall be deemed a denial, and Contractor may choose to seek resolution under the terms of Article 12.

11.07 *Execution of Change Orders*

A. Owner and Contractor shall execute appropriate Change Orders covering:

1. changes in the Contract Price or Contract Times which are agreed to by the parties, including any undisputed sum or amount of time for Work actually performed in accordance with a Work Change Directive;

2. changes in Contract Price resulting from an Owner set-off, unless Contractor has duly contested such set-off;

3. changes in the Work which are: (a) ordered by Owner pursuant to Paragraph 11.02, (b) required because of Owner's acceptance of defective Work under Paragraph 14.04 or Owner's correction of defective Work under Paragraph 14.07, or (c) agreed to by the parties, subject to the need for Engineer's recommendation if the change in the Work involves the design (as set forth in the Drawings, Specifications, or otherwise), or other engineering or technical matters; and

4. changes in the Contract Price or Contract Times, or other changes, which embody the substance of any final and binding results under Paragraph 11.06, or Article 12.

B. If Owner or Contractor refuses to execute a Change Order that is required to be executed under the terms of this Paragraph 11.07, it shall be deemed to be of full force and effect, as if fully executed.

11.08 *Notification to Surety*

A. If the provisions of any bond require notice to be given to a surety of any change affecting the general scope of the Work or the provisions of the Contract Documents (including, but not limited to, Contract Price or Contract Times), the giving of any such notice will be Contractor's responsibility. The amount of each applicable bond will be adjusted to reflect the effect of any such change.

ARTICLE 12 – CLAIMS

12.01 *Claims*

A. *Claims Process*: The following disputes between Owner and Contractor shall be submitted to the Claims process set forth in this Article:

1. Appeals by Owner or Contractor of Engineer's decisions regarding Change Proposals;

2. Owner demands for adjustments in the Contract Price or Contract Times, or other relief under the Contract Documents; and

3. Disputes that Engineer has been unable to address because they do not involve the design (as set forth in the Drawings, Specifications, or otherwise), the acceptability of the Work, or other engineering or technical matters.

B. *Submittal of Claim*: The party submitting a Claim shall deliver it directly to the other party to the Contract promptly (but in no event later than 30 days) after the start of the event giving rise thereto; in the case of appeals regarding Change Proposals within 30 days of the decision under appeal. The party submitting the Claim shall also furnish a copy to the Engineer, for its information only. The responsibility to substantiate a Claim shall rest with the party making the Claim. In the case of a Claim by Contractor seeking an increase in the Contract Times or Contract Price, or both, Contractor shall certify that the Claim is made in good faith, that the supporting data are accurate and complete, and that to the best of Contractor's knowledge and belief the amount of time or money requested accurately reflects the full amount to which Contractor is entitled.

C. *Review and Resolution*: The party receiving a Claim shall review it thoroughly, giving full consideration to its merits. The two parties shall seek to resolve the Claim through the exchange of information and direct negotiations. The parties may extend the time for resolving the Claim by mutual agreement. All actions taken on a Claim shall be stated in writing and submitted to the other party, with a copy to Engineer.

D. *Mediation*:

1. At any time after initiation of a Claim, Owner and Contractor may mutually agree to mediation of the underlying dispute. The agreement to mediate shall stay the Claim submittal and response process.

2. If Owner and Contractor agree to mediation, then after 60 days from such agreement, either Owner or Contractor may unilaterally terminate the mediation process, and the Claim submittal and decision process shall resume as of the date of the termination. If the mediation proceeds but is unsuccessful in resolving the dispute, the Claim submittal and decision process shall resume as of the date of the conclusion of the mediation, as determined by the mediator.

3. Owner and Contractor shall each pay one-half of the mediator's fees and costs.

E. *Partial Approval*: If the party receiving a Claim approves the Claim in part and denies it in part, such action shall be final and binding unless within 30 days of such action the other party invokes the procedure set forth in Article 17 for final resolution of disputes.

F. *Denial of Claim*: If efforts to resolve a Claim are not successful, the party receiving the Claim may deny it by giving written notice of denial to the other party. If the receiving party does not take action on the Claim within 90 days, then either Owner or Contractor may at any time thereafter submit a letter to the other party indicating that as a result of the inaction, the Claim is deemed denied, thereby commencing the time for appeal of the denial. A denial of the Claim shall be final and binding unless within 30 days of the denial the other party invokes the procedure set forth in Article 17 for the final resolution of disputes.

G. *Final and Binding Results*: If the parties reach a mutual agreement regarding a Claim, whether through approval of the Claim, direct negotiations, mediation, or otherwise; or if a Claim is approved in part and denied in part, or denied in full, and such actions become final and binding; then the results of the agreement or action on the Claim shall be incorporated in a Change Order to the extent they affect the Contract, including the Work, the Contract Times, or the Contract Price.

ARTICLE 13 – COST OF THE WORK; ALLOWANCES; UNIT PRICE WORK

13.01 *Cost of the Work*

A. *Purposes for Determination of Cost of the Work*: The term Cost of the Work means the sum of all costs necessary for the proper performance of the Work at issue, as further defined below. The provisions of this Paragraph 13.01 are used for two distinct purposes:

1. To determine Cost of the Work when Cost of the Work is a component of the Contract Price, under cost-plus-fee, time-and-materials, or other cost-based terms; or

2. To determine the value of a Change Order, Change Proposal, Claim, set-off, or other adjustment in Contract Price. When the value of any such adjustment is determined on the basis of Cost of the Work, Contractor is entitled only to those additional or incremental costs required because of the change in the Work or because of the event giving rise to the adjustment.

B. *Costs Included*: Except as otherwise may be agreed to in writing by Owner, costs included in the Cost of the Work shall be in amounts no higher than those prevailing in the locality of the Project, shall not include any of the costs itemized in Paragraph 13.01.C, and shall include only the following items:

1. Payroll costs for employees in the direct employ of Contractor in the performance of the Work under schedules of job classifications agreed upon by Owner and Contractor. Such employees shall include, without limitation, superintendents, foremen, and other personnel employed full time on the Work. Payroll costs for employees not employed full time on the Work shall be apportioned on the basis of their time spent on the Work. Payroll costs shall include, but not be limited to, salaries and wages plus the cost of fringe benefits, which shall include social security contributions, unemployment, excise, and payroll taxes, workers' compensation, health and retirement benefits, bonuses, sick leave, and vacation and holiday pay applicable thereto. The expenses of performing Work outside of regular working hours, on Saturday, Sunday, or legal holidays, shall be included in the above to the extent authorized by Owner.

2. Cost of all materials and equipment furnished and incorporated in the Work, including costs of transportation and storage thereof, and Suppliers' field services required in connection therewith. All cash discounts shall accrue to Contractor unless Owner deposits funds with Contractor with which to make payments, in which case the cash discounts shall accrue to Owner. All trade discounts, rebates, and refunds and returns

from sale of surplus materials and equipment shall accrue to Owner, and Contractor shall make provisions so that they may be obtained.

3. Payments made by Contractor to Subcontractors for Work performed by Subcontractors. If required by Owner, Contractor shall obtain competitive bids from subcontractors acceptable to Owner and Contractor and shall deliver such bids to Owner, who will then determine, with the advice of Engineer, which bids, if any, will be acceptable. If any subcontract provides that the Subcontractor is to be paid on the basis of Cost of the Work plus a fee, the Subcontractor's Cost of the Work and fee shall be determined in the same manner as Contractor's Cost of the Work and fee as provided in this Paragraph 13.01.

4. Costs of special consultants (including but not limited to engineers, architects, testing laboratories, surveyors, attorneys, and accountants) employed for services specifically related to the Work.

5. Supplemental costs including the following:

   a. The proportion of necessary transportation, travel, and subsistence expenses of Contractor's employees incurred in discharge of duties connected with the Work.

   b. Cost, including transportation and maintenance, of all materials, supplies, equipment, machinery, appliances, office, and temporary facilities at the Site, and hand tools not owned by the workers, which are consumed in the performance of the Work, and cost, less market value, of such items used but not consumed which remain the property of Contractor.

   c. Rentals of all construction equipment and machinery, and the parts thereof, whether rented from Contractor or others in accordance with rental agreements approved by Owner with the advice of Engineer, and the costs of transportation, loading, unloading, assembly, dismantling, and removal thereof. All such costs shall be in accordance with the terms of said rental agreements. The rental of any such equipment, machinery, or parts shall cease when the use thereof is no longer necessary for the Work.

   d. Sales, consumer, use, and other similar taxes related to the Work, and for which Contractor is liable, as imposed by Laws and Regulations.

   e. Deposits lost for causes other than negligence of Contractor, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable, and royalty payments and fees for permits and licenses.

   f. Losses and damages (and related expenses) caused by damage to the Work, not compensated by insurance or otherwise, sustained by Contractor in connection with the performance of the Work (except losses and damages within the deductible amounts of property insurance established in accordance with Paragraph 6.05), provided such losses and damages have resulted from causes other than the negligence of Contractor, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable. Such losses shall include settlements made with the written consent and approval of Owner. No such losses, damages, and expenses shall be included in the Cost of the Work for the purpose of determining Contractor's fee.

   g. The cost of utilities, fuel, and sanitary facilities at the Site.

   h. Minor expenses such as communication service at the Site, express and courier services, and similar petty cash items in connection with the Work.

   i. The costs of premiums for all bonds and insurance that Contractor is required by the Contract Documents to purchase and maintain.

C. *Costs Excluded*: The term Cost of the Work shall not include any of the following items:

1. Payroll costs and other compensation of Contractor's officers, executives, principals (of partnerships and sole proprietorships), general managers, safety managers, engineers, architects, estimators, attorneys, auditors, accountants, purchasing and contracting agents, expediters, timekeepers, clerks, and other personnel employed by Contractor, whether at the Site or in Contractor's principal or branch office for general administration of the Work and not specifically included in the agreed upon schedule of job classifications referred to in Paragraph 13.01.B.1 or specifically covered by Paragraph 13.01.B.4. The payroll costs and other compensation excluded here are to be considered administrative costs covered by the Contractor's fee.

2. Expenses of Contractor's principal and branch offices other than Contractor's office at the Site.

3. Any part of Contractor's capital expenses, including interest on Contractor's capital employed for the Work and charges against Contractor for delinquent payments.

4. Costs due to the negligence of Contractor, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable, including but not limited to, the correction of defective Work, disposal of materials or equipment wrongly supplied, and making good any damage to property.

5. Other overhead or general expense costs of any kind and the costs of any item not specifically and expressly included in Paragraph 13.01.B.

D. *Contractor's Fee*: When the Work as a whole is performed on the basis of cost-plus, Contractor's fee shall be determined as set forth in the Agreement. When the value of any Work covered by a Change Order, Change Proposal, Claim, set-off, or other adjustment in Contract Price is determined on the basis of Cost of the Work, Contractor's fee shall be determined as set forth in Paragraph 11.04.C.

E. *Documentation*: Whenever the Cost of the Work for any purpose is to be determined pursuant to this Article 13, Contractor will establish and maintain records thereof in accordance with generally accepted accounting practices and submit in a form acceptable to Engineer an itemized cost breakdown together with supporting data.

13.02 *Allowances*

A. It is understood that Contractor has included in the Contract Price all allowances so named in the Contract Documents and shall cause the Work so covered to be performed for such sums and by such persons or entities as may be acceptable to Owner and Engineer.

B. *Cash Allowances*: Contractor agrees that:

1. the cash allowances include the cost to Contractor (less any applicable trade discounts) of materials and equipment required by the allowances to be delivered at the Site, and all applicable taxes; and

2. Contractor's costs for unloading and handling on the Site, labor, installation, overhead, profit, and other expenses contemplated for the cash allowances have been included in the Contract Price and not in the allowances, and no demand for additional payment on account of any of the foregoing will be valid.

C. *Contingency Allowance*: Contractor agrees that a contingency allowance, if any, is for the sole use of Owner to cover unanticipated costs.

D. Prior to final payment, an appropriate Change Order will be issued as recommended by Engineer to reflect actual amounts due Contractor on account of Work covered by allowances, and the Contract Price shall be correspondingly adjusted.

13.03 *Unit Price Work*

A. Where the Contract Documents provide that all or part of the Work is to be Unit Price Work, initially the Contract Price will be deemed to include for all Unit Price Work an amount equal to the sum of the unit price for each separately identified item of Unit Price Work times the estimated quantity of each item as indicated in the Agreement.

B. The estimated quantities of items of Unit Price Work are not guaranteed and are solely for the purpose of comparison of Bids and determining an initial Contract Price. Payments to Contractor for Unit Price Work will be based on actual quantities.

C. Each unit price will be deemed to include an amount considered by Contractor to be adequate to cover Contractor's overhead and profit for each separately identified item.

D. Engineer will determine the actual quantities and classifications of Unit Price Work performed by Contractor. Engineer will review with Contractor the Engineer's preliminary determinations on such matters before rendering a written decision thereon (by recommendation of an Application for Payment or otherwise). Engineer's written decision thereon will be final and binding (except as modified by Engineer to reflect changed factual conditions or more accurate data) upon Owner and Contractor, subject to the provisions of the following paragraph.

E. Within 30 days of Engineer's written decision under the preceding paragraph, Contractor may submit a Change Proposal, or Owner may file a Claim, seeking an adjustment in the Contract Price if:

1. the quantity of any item of Unit Price Work performed by Contractor differs materially and significantly from the estimated quantity of such item indicated in the Agreement;

2. there is no corresponding adjustment with respect to any other item of Work; and

3. Contractor believes that it is entitled to an increase in Contract Price as a result of having incurred additional expense or Owner believes that Owner is entitled to a decrease in Contract Price, and the parties are unable to agree as to the amount of any such increase or decrease.

ARTICLE 14 – TESTS AND INSPECTIONS; CORRECTION, REMOVAL OR ACCEPTANCE OF DEFECTIVE WORK

14.01 *Access to Work*

A. Owner, Engineer, their consultants and other representatives and personnel of Owner, independent testing laboratories, and authorities having jurisdiction will have access to the Site and the Work at reasonable times for their observation, inspection, and testing. Contractor shall provide them proper and safe conditions for such access and advise them of Contractor's safety procedures and programs so that they may comply therewith as applicable.

14.02 *Tests, Inspections, and Approvals*

A. Contractor shall give Engineer timely notice of readiness of the Work (or specific parts thereof) for all required inspections and tests, and shall cooperate with inspection and testing personnel to facilitate required inspections and tests.

B. Owner shall retain and pay for the services of an independent inspector, testing laboratory, or other qualified individual or entity to perform all inspections and tests expressly required by the Contract Documents to be furnished and paid for by Owner, except that costs incurred in connection with tests or inspections of covered Work shall be governed by the provisions of Paragraph 14.05.

C. If Laws or Regulations of any public body having jurisdiction require any Work (or part thereof) specifically to be inspected, tested, or approved by an employee or other representative of such public body, Contractor shall assume full responsibility for arranging and obtaining such inspections, tests, or approvals, pay all costs in connection therewith, and furnish Engineer the required certificates of inspection or approval.

D. Contractor shall be responsible for arranging, obtaining, and paying for all inspections and tests required:

1. by the Contract Documents, unless the Contract Documents expressly allocate responsibility for a specific inspection or test to Owner;

2. to attain Owner's and Engineer's acceptance of materials or equipment to be incorporated in the Work;

3. by manufacturers of equipment furnished under the Contract Documents;

4. for testing, adjusting, and balancing of mechanical, electrical, and other equipment to be incorporated into the Work; and

5. for acceptance of materials, mix designs, or equipment submitted for approval prior to Contractor's purchase thereof for incorporation in the Work.

Such inspections and tests shall be performed by independent inspectors, testing laboratories, or other qualified individuals or entities acceptable to Owner and Engineer.

E. If the Contract Documents require the Work (or part thereof) to be approved by Owner, Engineer, or another designated individual or entity, then Contractor shall assume full responsibility for arranging and obtaining such approvals.

F. If any Work (or the work of others) that is to be inspected, tested, or approved is covered by Contractor without written concurrence of Engineer, Contractor shall, if requested by Engineer, uncover such Work for observation. Such uncovering shall be at Contractor's expense unless Contractor had given Engineer timely notice of Contractor's intention to cover the same and Engineer had not acted with reasonable promptness in response to such notice.

14.03 *Defective Work*

A. *Contractor's Obligation*: It is Contractor's obligation to assure that the Work is not defective.

B. *Engineer's Authority*: Engineer has the authority to determine whether Work is defective, and to reject defective Work.

C. *Notice of Defects*: Prompt notice of all defective Work of which Owner or Engineer has actual knowledge will be given to Contractor.

D. *Correction, or Removal and Replacement*: Promptly after receipt of written notice of defective Work, Contractor shall correct all such defective Work, whether or not fabricated, installed, or completed, or, if Engineer has rejected the defective Work, remove it from the Project and replace it with Work that is not defective.

E. *Preservation of Warranties*: When correcting defective Work, Contractor shall take no action that would void or otherwise impair Owner's special warranty and guarantee, if any, on said Work.

F. *Costs and Damages*: In addition to its correction, removal, and replacement obligations with respect to defective Work, Contractor shall pay all claims, costs, losses, and damages arising out of or relating to defective Work, including but not limited to the cost of the inspection, testing, correction, removal, replacement, or reconstruction of such defective Work, fines levied against Owner by governmental authorities because the Work is defective, and the costs of repair or replacement of work of others resulting from defective Work. Prior to final payment, if Owner and Contractor are unable to agree as to the measure of such claims, costs,

losses, and damages resulting from defective Work, then Owner may impose a reasonable set-off against payments due under Article 15.

14.04 *Acceptance of Defective Work*

A. If, instead of requiring correction or removal and replacement of defective Work, Owner prefers to accept it, Owner may do so (subject, if such acceptance occurs prior to final payment, to Engineer's confirmation that such acceptance is in general accord with the design intent and applicable engineering principles, and will not endanger public safety). Contractor shall pay all claims, costs, losses, and damages attributable to Owner's evaluation of and determination to accept such defective Work (such costs to be approved by Engineer as to reasonableness), and for the diminished value of the Work to the extent not otherwise paid by Contractor. If any such acceptance occurs prior to final payment, the necessary revisions in the Contract Documents with respect to the Work shall be incorporated in a Change Order. If the parties are unable to agree as to the decrease in the Contract Price, reflecting the diminished value of Work so accepted, then Owner may impose a reasonable set-off against payments due under Article 15. If the acceptance of defective Work occurs after final payment, Contractor shall pay an appropriate amount to Owner.

14.05 *Uncovering Work*

A. Engineer has the authority to require special inspection or testing of the Work, whether or not the Work is fabricated, installed, or completed.

B. If any Work is covered contrary to the written request of Engineer, then Contractor shall, if requested by Engineer, uncover such Work for Engineer's observation, and then replace the covering, all at Contractor's expense.

C. If Engineer considers it necessary or advisable that covered Work be observed by Engineer or inspected or tested by others, then Contractor, at Engineer's request, shall uncover, expose, or otherwise make available for observation, inspection, or testing as Engineer may require, that portion of the Work in question, and provide all necessary labor, material, and equipment.

1. If it is found that the uncovered Work is defective, Contractor shall be responsible for all claims, costs, losses, and damages arising out of or relating to such uncovering, exposure, observation, inspection, and testing, and of satisfactory replacement or reconstruction (including but not limited to all costs of repair or replacement of work of others); and pending Contractor's full discharge of this responsibility the Owner shall be entitled to impose a reasonable set-off against payments due under Article 15.

2. If the uncovered Work is not found to be defective, Contractor shall be allowed an increase in the Contract Price or an extension of the Contract Times, or both, directly attributable to such uncovering, exposure, observation, inspection, testing, replacement, and reconstruction. If the parties are unable to agree as to the amount or extent thereof, then Contractor may submit a Change Proposal within 30 days of the determination that the Work is not defective.

14.06 *Owner May Stop the Work*

A. If the Work is defective, or Contractor fails to supply sufficient skilled workers or suitable materials or equipment, or fails to perform the Work in such a way that the completed Work will conform to the Contract Documents, then Owner may order Contractor to stop the Work, or any portion thereof, until the cause for such order has been eliminated; however, this right of Owner to stop the Work shall not give rise to any duty on the part of Owner to exercise this right for the benefit of Contractor, any Subcontractor, any Supplier, any other individual or entity, or any surety for, or employee or agent of any of them.

14.07 *Owner May Correct Defective Work*

A. If Contractor fails within a reasonable time after written notice from Engineer to correct defective Work, or to remove and replace rejected Work as required by Engineer, or if Contractor fails to perform the Work in accordance with the Contract Documents, or if Contractor fails to comply with any other provision of the Contract Documents, then Owner may, after seven days written notice to Contractor, correct or remedy any such deficiency.

B. In exercising the rights and remedies under this Paragraph 14.07, Owner shall proceed expeditiously. In connection with such corrective or remedial action, Owner may exclude Contractor from all or part of the Site, take possession of all or part of the Work and suspend Contractor's services related thereto, and incorporate in the Work all materials and equipment stored at the Site or for which Owner has paid Contractor but which are stored elsewhere. Contractor shall allow Owner, Owner's representatives, agents and employees, Owner's other contractors, and Engineer and Engineer's consultants access to the Site to enable Owner to exercise the rights and remedies under this paragraph.

C. All claims, costs, losses, and damages incurred or sustained by Owner in exercising the rights and remedies under this Paragraph 14.07 will be charged against Contractor as set-offs against payments due under Article 15. Such claims, costs, losses and damages will include but not be limited to all costs of repair, or replacement of work of others destroyed or damaged by correction, removal, or replacement of Contractor's defective Work.

D. Contractor shall not be allowed an extension of the Contract Times because of any delay in the performance of the Work attributable to the exercise by Owner of Owner's rights and remedies under this Paragraph 14.07.

ARTICLE 15 – PAYMENTS TO CONTRACTOR; SET-OFFS; COMPLETION; CORRECTION PERIOD

15.01 *Progress Payments*

A. *Basis for Progress Payments*: The Schedule of Values established as provided in Article 2 will serve as the basis for progress payments and will be incorporated into a form of Application for Payment acceptable to Engineer. Progress payments on account of Unit Price Work will be based on the number of units completed during the pay period, as determined under the provisions of Paragraph 13.03. Progress payments for cost-based Work will be based on Cost of the Work completed by Contractor during the pay period.

B. *Applications for Payments*:

1. At least 20 days before the date established in the Agreement for each progress payment (but not more often than once a month), Contractor shall submit to Engineer for review an Application for Payment filled out and signed by Contractor covering the Work completed as of the date of the Application and accompanied by such supporting documentation as is required by the Contract Documents. If payment is requested on the basis of materials and equipment not incorporated in the Work but delivered and suitably stored at the Site or at another location agreed to in writing, the Application for Payment shall also be accompanied by a bill of sale, invoice, or other documentation warranting that Owner has received the materials and equipment free and clear of all Liens, and evidence that the materials and equipment are covered by appropriate property insurance, a warehouse bond, or other arrangements to protect Owner's interest therein, all of which must be satisfactory to Owner.

2. Beginning with the second Application for Payment, each Application shall include an affidavit of Contractor stating that all previous progress payments received on account of the Work have been applied on account to discharge Contractor's legitimate obligations associated with prior Applications for Payment.

3. The amount of retainage with respect to progress payments will be as stipulated in the Agreement.

C. *Review of Applications*:

1. Engineer will, within 10 days after receipt of each Application for Payment, including each resubmittal, either indicate in writing a recommendation of payment and present the Application to Owner, or return the Application to Contractor indicating in writing Engineer's reasons for refusing to recommend payment. In the latter case, Contractor may make the necessary corrections and resubmit the Application.

2. Engineer's recommendation of any payment requested in an Application for Payment will constitute a representation by Engineer to Owner, based on Engineer's observations of the executed Work as an experienced and qualified design professional, and on Engineer's review of the Application for Payment and the accompanying data and schedules, that to the best of Engineer's knowledge, information and belief:

a. the Work has progressed to the point indicated;

b. the quality of the Work is generally in accordance with the Contract Documents (subject to an evaluation of the Work as a functioning whole prior to or upon Substantial Completion, the results of any subsequent tests called for in the Contract Documents, a final determination of quantities and classifications for Unit Price Work under Paragraph 13.03, and any other qualifications stated in the recommendation); and

c. the conditions precedent to Contractor's being entitled to such payment appear to have been fulfilled in so far as it is Engineer's responsibility to observe the Work.

3. By recommending any such payment Engineer will not thereby be deemed to have represented that:

a. inspections made to check the quality or the quantity of the Work as it has been performed have been exhaustive, extended to every aspect of the Work in progress, or involved detailed inspections of the Work beyond the responsibilities specifically assigned to Engineer in the Contract; or

b. there may not be other matters or issues between the parties that might entitle Contractor to be paid additionally by Owner or entitle Owner to withhold payment to Contractor.

4. Neither Engineer's review of Contractor's Work for the purposes of recommending payments nor Engineer's recommendation of any payment, including final payment, will impose responsibility on Engineer:

a. to supervise, direct, or control the Work, or

b. for the means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or

c. for Contractor's failure to comply with Laws and Regulations applicable to Contractor's performance of the Work, or

d. to make any examination to ascertain how or for what purposes Contractor has used the money paid on account of the Contract Price, or

e. to determine that title to any of the Work, materials, or equipment has passed to Owner free and clear of any Liens.

5. Engineer may refuse to recommend the whole or any part of any payment if, in Engineer's opinion, it would be incorrect to make the representations to Owner stated in Paragraph 15.01.C.2.

6. Engineer will recommend reductions in payment (set-offs) necessary in Engineer's opinion to protect Owner from loss because:

   a. the Work is defective, requiring correction or replacement;

   b. the Contract Price has been reduced by Change Orders;

   c. Owner has been required to correct defective Work in accordance with Paragraph 14.07, or has accepted defective Work pursuant to Paragraph 14.04;

   d. Owner has been required to remove or remediate a Hazardous Environmental Condition for which Contractor is responsible; or

   e. Engineer has actual knowledge of the occurrence of any of the events that would constitute a default by Contractor and therefore justify termination for cause under the Contract Documents.

D. *Payment Becomes Due*:

1. Ten days after presentation of the Application for Payment to Owner with Engineer's recommendation, the amount recommended (subject to any Owner set-offs) will become due, and when due will be paid by Owner to Contractor.

E. *Reductions in Payment by Owner*:

1. In addition to any reductions in payment (set-offs) recommended by Engineer, Owner is entitled to impose a set-off against payment based on any of the following:

   a. claims have been made against Owner on account of Contractor's conduct in the performance or furnishing of the Work, or Owner has incurred costs, losses, or damages on account of Contractor's conduct in the performance or furnishing of the Work, including but not limited to claims, costs, losses, or damages from workplace injuries, adjacent property damage, non-compliance with Laws and Regulations, and patent infringement;

   b. Contractor has failed to take reasonable and customary measures to avoid damage, delay, disruption, and interference with other work at or adjacent to the Site;

   c. Contractor has failed to provide and maintain required bonds or insurance;

   d. Owner has been required to remove or remediate a Hazardous Environmental Condition for which Contractor is responsible;

   e. Owner has incurred extra charges or engineering costs related to submittal reviews, evaluations of proposed substitutes, tests and inspections, or return visits to manufacturing or assembly facilities;

   f. the Work is defective, requiring correction or replacement;

   g. Owner has been required to correct defective Work in accordance with Paragraph 14.07, or has accepted defective Work pursuant to Paragraph 14.04;

   h. the Contract Price has been reduced by Change Orders;

   i. an event that would constitute a default by Contractor and therefore justify a termination for cause has occurred;

   j. liquidated damages have accrued as a result of Contractor's failure to achieve Milestones, Substantial Completion, or final completion of the Work;

   k. Liens have been filed in connection with the Work, except where Contractor has delivered a specific bond satisfactory to Owner to secure the satisfaction and discharge of such Liens;

l. there are other items entitling Owner to a set off against the amount recommended.

2. If Owner imposes any set-off against payment, whether based on its own knowledge or on the written recommendations of Engineer, Owner will give Contractor immediate written notice (with a copy to Engineer) stating the reasons for such action and the specific amount of the reduction, and promptly pay Contractor any amount remaining after deduction of the amount so withheld. Owner shall promptly pay Contractor the amount so withheld, or any adjustment thereto agreed to by Owner and Contractor, if Contractor remedies the reasons for such action. The reduction imposed shall be binding on Contractor unless it duly submits a Change Proposal contesting the reduction.

3. Upon a subsequent determination that Owner's refusal of payment was not justified, the amount wrongfully withheld shall be treated as an amount due as determined by Paragraph 15.01.C.1 and subject to interest as provided in the Agreement.

15.02 *Contractor's Warranty of Title*

A. Contractor warrants and guarantees that title to all Work, materials, and equipment furnished under the Contract will pass to Owner free and clear of (1) all Liens and other title defects, and (2) all patent, licensing, copyright, or royalty obligations, no later than seven days after the time of payment by Owner.

15.03 *Substantial Completion*

A. When Contractor considers the entire Work ready for its intended use Contractor shall notify Owner and Engineer in writing that the entire Work is substantially complete and request that Engineer issue a certificate of Substantial Completion. Contractor shall at the same time submit to Owner and Engineer an initial draft of punch list items to be completed or corrected before final payment.

B. Promptly after Contractor's notification, Owner, Contractor, and Engineer shall make an inspection of the Work to determine the status of completion. If Engineer does not consider the Work substantially complete, Engineer will notify Contractor in writing giving the reasons therefor.

C. If Engineer considers the Work substantially complete, Engineer will deliver to Owner a preliminary certificate of Substantial Completion which shall fix the date of Substantial Completion. Engineer shall attach to the certificate a punch list of items to be completed or corrected before final payment. Owner shall have seven days after receipt of the preliminary certificate during which to make written objection to Engineer as to any provisions of the certificate or attached punch list. If, after considering the objections to the provisions of the preliminary certificate, Engineer concludes that the Work is not substantially complete, Engineer will, within 14 days after submission of the preliminary certificate to Owner, notify Contractor in writing that the Work is not substantially complete, stating the reasons therefor. If Owner does not object to the provisions of the certificate, or if despite consideration of Owner's objections Engineer concludes that the Work is substantially complete, then Engineer will, within said 14 days, execute and deliver to Owner and Contractor a final certificate of Substantial Completion (with a revised punch list of items to be completed or corrected) reflecting such changes from the preliminary certificate as Engineer believes justified after consideration of any objections from Owner.

D. At the time of receipt of the preliminary certificate of Substantial Completion, Owner and Contractor will confer regarding Owner's use or occupancy of the Work following Substantial Completion, review the builder's risk insurance policy with respect to the end of the builder's risk coverage, and confirm the transition to coverage of the Work under a permanent property insurance policy held by Owner. Unless Owner and Contractor agree otherwise in writing, Owner shall bear responsibility for security, operation, protection of the Work, property insurance, maintenance, heat, and utilities upon Owner's use or occupancy of the Work.

E. After Substantial Completion the Contractor shall promptly begin work on the punch list of items to be completed or corrected prior to final payment. In appropriate cases Contractor may submit monthly Applications for Payment for completed punch list items, following the progress payment procedures set forth above.

F. Owner shall have the right to exclude Contractor from the Site after the date of Substantial Completion subject to allowing Contractor reasonable access to remove its property and complete or correct items on the punch list.

15.04 *Partial Use or Occupancy*

A. Prior to Substantial Completion of all the Work, Owner may use or occupy any substantially completed part of the Work which has specifically been identified in the Contract Documents, or which Owner, Engineer, and Contractor agree constitutes a separately functioning and usable part of the Work that can be used by Owner for its intended purpose without significant interference with Contractor's performance of the remainder of the Work, subject to the following conditions:

1. At any time Owner may request in writing that Contractor permit Owner to use or occupy any such part of the Work that Owner believes to be substantially complete. If and when Contractor agrees that such part of the Work is substantially complete, Contractor, Owner, and Engineer will follow the procedures of Paragraph 15.03.A through E for that part of the Work.

2. At any time Contractor may notify Owner and Engineer in writing that Contractor considers any such part of the Work substantially complete and request Engineer to issue a certificate of Substantial Completion for that part of the Work.

3. Within a reasonable time after either such request, Owner, Contractor, and Engineer shall make an inspection of that part of the Work to determine its status of completion. If Engineer does not consider that part of the Work to be substantially complete, Engineer will notify Owner and Contractor in writing giving the reasons therefor. If Engineer considers that part of the Work to be substantially complete, the provisions of Paragraph 15.03 will apply with respect to certification of Substantial Completion of that part of the Work and the division of responsibility in respect thereof and access thereto.

4. No use or occupancy or separate operation of part of the Work may occur prior to compliance with the requirements of Paragraph 6.05 regarding builder's risk or other property insurance.

15.05 *Final Inspection*

A. Upon written notice from Contractor that the entire Work or an agreed portion thereof is complete, Engineer will promptly make a final inspection with Owner and Contractor and will notify Contractor in writing of all particulars in which this inspection reveals that the Work, or agreed portion thereof, is incomplete or defective. Contractor shall immediately take such measures as are necessary to complete such Work or remedy such deficiencies.

15.06 *Final Payment*

A. *Application for Payment*:

1. After Contractor has, in the opinion of Engineer, satisfactorily completed all corrections identified during the final inspection and has delivered, in accordance with the Contract Documents, all maintenance and operating instructions, schedules, guarantees, bonds, certificates or other evidence of insurance, certificates of inspection, annotated record documents (as provided in Paragraph 7.11), and other documents, Contractor may make application for final payment.

2. The final Application for Payment shall be accompanied (except as previously delivered) by:

   a. all documentation called for in the Contract Documents;

   b. consent of the surety, if any, to final payment;

   c. satisfactory evidence that all title issues have been resolved such that title to all Work, materials, and equipment has passed to Owner free and clear of any Liens or other title defects, or will so pass upon final payment.

   d. a list of all disputes that Contractor believes are unsettled; and

   e. complete and legally effective releases or waivers (satisfactory to Owner) of all Lien rights arising out of the Work, and of Liens filed in connection with the Work.

3. In lieu of the releases or waivers of Liens specified in Paragraph 15.06.A.2 and as approved by Owner, Contractor may furnish receipts or releases in full and an affidavit of Contractor that: (a) the releases and receipts include all labor, services, material, and equipment for which a Lien could be filed; and (b) all payrolls, material and equipment bills, and other indebtedness connected with the Work for which Owner might in any way be responsible, or which might in any way result in liens or other burdens on Owner's property, have been paid or otherwise satisfied. If any Subcontractor or Supplier fails to furnish such a release or receipt in full, Contractor may furnish a bond or other collateral satisfactory to Owner to indemnify Owner against any Lien, or Owner at its option may issue joint checks payable to Contractor and specified Subcontractors and Suppliers.

B. *Engineer's Review of Application and Acceptance*:

1. If, on the basis of Engineer's observation of the Work during construction and final inspection, and Engineer's review of the final Application for Payment and accompanying documentation as required by the Contract Documents, Engineer is satisfied that the Work has been completed and Contractor's other obligations under the Contract have been fulfilled, Engineer will, within ten days after receipt of the final Application for Payment, indicate in writing Engineer's recommendation of final payment and present the Application for Payment to Owner for payment. Such recommendation shall account for any set-offs against payment that are necessary in Engineer's opinion to protect Owner from loss for the reasons stated above with respect to progress payments. At the same time Engineer will also give written notice to Owner and Contractor that the Work is acceptable, subject to the provisions of Paragraph 15.07. Otherwise, Engineer will return the Application for Payment to Contractor, indicating in writing the reasons for refusing to recommend final payment, in which case Contractor shall make the necessary corrections and resubmit the Application for Payment.

C. *Completion of Work*: The Work is complete (subject to surviving obligations) when it is ready for final payment as established by the Engineer's written recommendation of final payment.

D. *Payment Becomes Due*: Thirty days after the presentation to Owner of the final Application for Payment and accompanying documentation, the amount recommended by Engineer (less any further sum Owner is entitled to set off against Engineer's recommendation, including but not limited to set-offs for liquidated damages and set-offs allowed under the provisions above with respect to progress payments) will become due and shall be paid by Owner to Contractor.

15.07 *Waiver of Claims*

A. The making of final payment will not constitute a waiver by Owner of claims or rights against Contractor. Owner expressly reserves claims and rights arising from unsettled Liens, from defective Work appearing after final inspection pursuant to Paragraph 15.05, from Contractor's failure to comply with the Contract Documents or the terms of any special

guarantees specified therein, from outstanding Claims by Owner, or from Contractor's continuing obligations under the Contract Documents.

B. The acceptance of final payment by Contractor will constitute a waiver by Contractor of all claims and rights against Owner other than those pending matters that have been duly submitted or appealed under the provisions of Article 17.

15.08 *Correction Period*

A. If within one year after the date of Substantial Completion (or such longer period of time as may be prescribed by the terms of any applicable special guarantee required by the Contract Documents, or by any specific provision of the Contract Documents), any Work is found to be defective, or if the repair of any damages to the Site, adjacent areas that Contractor has arranged to use through construction easements or otherwise, and other adjacent areas used by Contractor as permitted by Laws and Regulations, is found to be defective, then Contractor shall promptly, without cost to Owner and in accordance with Owner's written instructions:

1. correct the defective repairs to the Site or such other adjacent areas;
2. correct such defective Work;
3. if the defective Work has been rejected by Owner, remove it from the Project and replace it with Work that is not defective, and
4. satisfactorily correct or repair or remove and replace any damage to other Work, to the work of others, or to other land or areas resulting therefrom.

B. If Contractor does not promptly comply with the terms of Owner's written instructions, or in an emergency where delay would cause serious risk of loss or damage, Owner may have the defective Work corrected or repaired or may have the rejected Work removed and replaced. Contractor shall pay all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such correction or repair or such removal and replacement (including but not limited to all costs of repair or replacement of work of others).

C. In special circumstances where a particular item of equipment is placed in continuous service before Substantial Completion of all the Work, the correction period for that item may start to run from an earlier date if so provided in the Specifications.

D. Where defective Work (and damage to other Work resulting therefrom) has been corrected or removed and replaced under this paragraph, the correction period hereunder with respect to such Work will be extended for an additional period of one year after such correction or removal and replacement has been satisfactorily completed.

E. Contractor's obligations under this paragraph are in addition to all other obligations and warranties. The provisions of this paragraph shall not be construed as a substitute for, or a waiver of, the provisions of any applicable statute of limitation or repose.

ARTICLE 16 – SUSPENSION OF WORK AND TERMINATION

16.01 *Owner May Suspend Work*

A. At any time and without cause, Owner may suspend the Work or any portion thereof for a period of not more than 90 consecutive days by written notice to Contractor and Engineer. Such notice will fix the date on which Work will be resumed. Contractor shall resume the Work on the date so fixed. Contractor shall be entitled to an adjustment in the Contract Price or an extension of the Contract Times, or both, directly attributable to any such suspension.

Any Change Proposal seeking such adjustments shall be submitted no later than 30 days after the date fixed for resumption of Work.

16.02 *Owner May Terminate for Cause*

A. The occurrence of any one or more of the following events will constitute a default by Contractor and justify termination for cause:

1. Contractor's persistent failure to perform the Work in accordance with the Contract Documents (including, but not limited to, failure to supply sufficient skilled workers or suitable materials or equipment or failure to adhere to the Progress Schedule);

2. Failure of Contractor to perform or otherwise to comply with a material term of the Contract Documents;

3. Contractor's disregard of Laws or Regulations of any public body having jurisdiction; or

4. Contractor's repeated disregard of the authority of Owner or Engineer.

B. If one or more of the events identified in Paragraph 16.02.A occurs, then after giving Contractor (and any surety) ten days written notice that Owner is considering a declaration that Contractor is in default and termination of the contract, Owner may proceed to:

1. declare Contractor to be in default, and give Contractor (and any surety) notice that the Contract is terminated; and

2. enforce the rights available to Owner under any applicable performance bond.

C. Subject to the terms and operation of any applicable performance bond, if Owner has terminated the Contract for cause, Owner may exclude Contractor from the Site, take possession of the Work, incorporate in the Work all materials and equipment stored at the Site or for which Owner has paid Contractor but which are stored elsewhere, and complete the Work as Owner may deem expedient.

D. Owner may not proceed with termination of the Contract under Paragraph 16.02.B if Contractor within seven days of receipt of notice of intent to terminate begins to correct its failure to perform and proceeds diligently to cure such failure.

E. If Owner proceeds as provided in Paragraph 16.02.B, Contractor shall not be entitled to receive any further payment until the Work is completed. If the unpaid balance of the Contract Price exceeds the cost to complete the Work, including all related claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals) sustained by Owner, such excess will be paid to Contractor. If the cost to complete the Work including such related claims, costs, losses, and damages exceeds such unpaid balance, Contractor shall pay the difference to Owner. Such claims, costs, losses, and damages incurred by Owner will be reviewed by Engineer as to their reasonableness and, when so approved by Engineer, incorporated in a Change Order. When exercising any rights or remedies under this paragraph, Owner shall not be required to obtain the lowest price for the Work performed.

F. Where Contractor's services have been so terminated by Owner, the termination will not affect any rights or remedies of Owner against Contractor then existing or which may thereafter accrue, or any rights or remedies of Owner against Contractor or any surety under any payment bond or performance bond. Any retention or payment of money due Contractor by Owner will not release Contractor from liability.

G. If and to the extent that Contractor has provided a performance bond under the provisions of Paragraph 6.01.A, the provisions of that bond shall govern over any inconsistent provisions of Paragraphs 16.02.B and 16.02.D.

16.03 *Owner May Terminate For Convenience*

A. Upon seven days written notice to Contractor and Engineer, Owner may, without cause and without prejudice to any other right or remedy of Owner, terminate the Contract. In such case, Contractor shall be paid for (without duplication of any items):

1. completed and acceptable Work executed in accordance with the Contract Documents prior to the effective date of termination, including fair and reasonable sums for overhead and profit on such Work;

2. expenses sustained prior to the effective date of termination in performing services and furnishing labor, materials, or equipment as required by the Contract Documents in connection with uncompleted Work, plus fair and reasonable sums for overhead and profit on such expenses; and

3. other reasonable expenses directly attributable to termination, including costs incurred to prepare a termination for convenience cost proposal.

B. Contractor shall not be paid on account of loss of anticipated overhead, profits, or revenue, or other economic loss arising out of or resulting from such termination.

16.04 *Contractor May Stop Work or Terminate*

A. If, through no act or fault of Contractor, (1) the Work is suspended for more than 90 consecutive days by Owner or under an order of court or other public authority, or (2) Engineer fails to act on any Application for Payment within 30 days after it is submitted, or (3) Owner fails for 30 days to pay Contractor any sum finally determined to be due, then Contractor may, upon seven days written notice to Owner and Engineer, and provided Owner or Engineer do not remedy such suspension or failure within that time, terminate the contract and recover from Owner payment on the same terms as provided in Paragraph 16.03.

B. In lieu of terminating the Contract and without prejudice to any other right or remedy, if Engineer has failed to act on an Application for Payment within 30 days after it is submitted, or Owner has failed for 30 days to pay Contractor any sum finally determined to be due, Contractor may, seven days after written notice to Owner and Engineer, stop the Work until payment is made of all such amounts due Contractor, including interest thereon. The provisions of this paragraph are not intended to preclude Contractor from submitting a Change Proposal for an adjustment in Contract Price or Contract Times or otherwise for expenses or damage directly attributable to Contractor's stopping the Work as permitted by this paragraph.

ARTICLE 17 – FINAL RESOLUTION OF DISPUTES

17.01 *Methods and Procedures*

A. *Disputes Subject to Final Resolution*: The following disputed matters are subject to final resolution under the provisions of this Article:

1. A timely appeal of an approval in part and denial in part of a Claim, or of a denial in full; and

2. Disputes between Owner and Contractor concerning the Work or obligations under the Contract Documents, and arising after final payment has been made.

B. *Final Resolution of Disputes*: For any dispute subject to resolution under this Article, Owner or Contractor may:

1. elect in writing to invoke the dispute resolution process provided for in the Supplementary Conditions; or

2. agree with the other party to submit the dispute to another dispute resolution process; or

3. if no dispute resolution process is provided for in the Supplementary Conditions or mutually agreed to, give written notice to the other party of the intent to submit the dispute to a court of competent jurisdiction.

ARTICLE 18 – MISCELLANEOUS

18.01 *Giving Notice*

A. Whenever any provision of the Contract Documents requires the giving of written notice, it will be deemed to have been validly given if:

1. delivered in person, by a commercial courier service or otherwise, to the individual or to a member of the firm or to an officer of the corporation for which it is intended; or

2. delivered at or sent by registered or certified mail, postage prepaid, to the last business address known to the sender of the notice.

18.02 *Computation of Times*

A. When any period of time is referred to in the Contract by days, it will be computed to exclude the first and include the last day of such period. If the last day of any such period falls on a Saturday or Sunday or on a day made a legal holiday by the law of the applicable jurisdiction, such day will be omitted from the computation.

18.03 *Cumulative Remedies*

A. The duties and obligations imposed by these General Conditions and the rights and remedies available hereunder to the parties hereto are in addition to, and are not to be construed in any way as a limitation of, any rights and remedies available to any or all of them which are otherwise imposed or available by Laws or Regulations, by special warranty or guarantee, or by other provisions of the Contract. The provisions of this paragraph will be as effective as if repeated specifically in the Contract Documents in connection with each particular duty, obligation, right, and remedy to which they apply.

18.04 *Limitation of Damages*

A. With respect to any and all Change Proposals, Claims, disputes subject to final resolution, and other matters at issue, neither Owner nor Engineer, nor any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors, shall be liable to Contractor for any claims, costs, losses, or damages sustained by Contractor on or in connection with any other project or anticipated project.

18.05 *No Waiver*

A. A party's non-enforcement of any provision shall not constitute a waiver of that provision, nor shall it affect the enforceability of that provision or of the remainder of this Contract.

18.06 *Survival of Obligations*

A. All representations, indemnifications, warranties, and guarantees made in, required by, or given in accordance with the Contract, as well as all continuing obligations indicated in the Contract, will survive final payment, completion, and acceptance of the Work or termination or completion of the Contract or termination of the services of Contractor.

18.07 *Controlling Law*

A. This Contract is to be governed by the law of the state in which the Project is located.

18.08 *Headings*

A. Article and paragraph headings are inserted for convenience only and do not constitute parts of these General Conditions.

90% Bid Package

NOTICE TO PROCEED

Owner:	Ypsilanti Charter Township	Owner's Contract No.:	
Contractor:		Contractor's Project No.:	
Engineer:	Spicer Group, Inc.	Engineer's Project No.:	134586SG2023
Project:	Ford Heritage Park and Lakeside Park Improvements	Contract Name:	Ford Heritage Park and Lakeside Park Improvements
		Effective Date of Contract:	

TO CONTRACTOR:

Owner hereby notifies Contractor that the Contract Times under the above Contract will commence to run on _____**, 2024.** *[see Paragraph 4.01 of the General Conditions]*

On that date, Contractor shall start performing its obligations under the Contract Documents. No Work shall be done at the Site prior to such date. In accordance with the Agreement, the date of Substantial Completion is **December 1, 2024**, and the date of readiness for final payment is **December 30, 2024.**

Owner**:**	**Ypsilanti Charter Township**		
	_____		_____
	Authorized Signature		Authorized Signature
By:		By:	
	_____		_____
Title:	_____	Title:	_____
Date Issued:	_____	Date Issued:	_____

Copy: Engineer

"General Decision Number: MI20240001 05/03/2024

Superseded General Decision Number: MI20230001

State: Michigan

Construction Types: Highway (Highway, Airport & Bridge xxxxx and Sewer/Incid. to Hwy.)

Counties: Michigan Statewide.

Note: Contracts subject to the Davis-Bacon Act are generally required to pay at least the applicable minimum wage rate required under Executive Order 14026 or Executive Order 13658. Please note that these Executive Orders apply to covered contracts entered into by the federal government that are subject to the Davis-Bacon Act itself, but do not apply to contracts subject only to the Davis-Bacon Related Acts, including those set forth at 29 CFR 5.1(a)(1).

If the contract is entered into on or after January 30, 2022, or the contract is renewed or extended (e.g., an option is exercised) on or after January 30, 2022:	. Executive Order 14026 generally applies to the contract. . The contractor must pay all covered workers at least $17.20 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract in 2024.
If the contract was awarded on or between January 1, 2015 and January 29, 2022, and the contract is not renewed or extended on or after January 30, 2022:	. Executive Order 13658 generally applies to the contract. . The contractor must pay all covered workers at least $12.90 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on that contract in 2024.

The applicable Executive Order minimum wage rate will be adjusted annually. If this contract is covered by one of the Executive Orders and a classification considered necessary for performance of work on the contract does not appear on this wage determination, the contractor must still submit a conformance request.

Additional information on contractor requirements and worker protections under the Executive Orders is available at

http://www.dol.gov/whd/govcontracts.

Modification Number	Publication Date
0	01/05/2024
1	02/23/2024
2	04/05/2024
3	04/19/2024
4	04/26/2024
5	05/03/2024

CARP0004-004 06/01/2019

REMAINDER OF STATE

	Rates	Fringes
CARPENTER (Piledriver)	$ 27.62	20.59

CARP0004-005 06/01/2018

LIVINGSTON (Townships of Brighton, Deerfield, Genoa, Hartland, Oceola & Tyrone), MACOMB, MONROE, OAKLAND, SANILAC, ST. CLAIR AND WAYNE COUNTIES

	Rates	Fringes
CARPENTER (Piledriver)	$ 30.50	27.28

ELEC0017-005 06/01/2023

STATEWIDE

	Rates	Fringes
Line Construction		
Groundman/Driver	$ 29.24	7.20+32%
Journeyman Signal Tech, Communications Tech, Tower Tech & Fiber Optic Splicers	$ 52.02	7.20+32%
Journeyman Specialist	$ 53.83	32%+7.20
Operator A	$ 37.13	7.20+32%
Operator B	$ 34.67	7.20+32%

Classifications

Journeyman Specialist: Refers to a crew of only one person working alone.
Operator A: Shall be proficient in operating all power equipment including: Backhoe, Excavator, Directional Bore and Boom/Digger truck.
Operator B: Shall be proficient in operating any 2 of the above mentioned pieces of equipment listed under Operator A.

ENGI0324-003 06/01/2023

ALCONA, ALPENA, ARENAC, BAY, CHEBOYGAN, CLARE, CLINTON,
CRAWFORD, GENESEE, GLADWIN, GRATIOT, HURON, INGHAM, IOSCO,
ISABELLA, JACKSON, LAPEER, LENAWEE, LIVINGSTON, MACOMB,
MIDLAND, MONROE, MONTMORENCY, OAKLAND, OGEMAW, OSCODA, OTSEGO,
PRESQUE ISLE, ROSCOMMON, SAGINAW, ST. CLAIR, SANILAC,
SHIAWASSEE, TUSCOLA, WASHTENAW AND WAYNE COUNTIES:

	Rates	Fringes
OPERATOR: Power Equipment (Steel Erection)		
GROUP 1	$ 53.02	25.25
GROUP 2	$ 54.02	25.25
GROUP 3	$ 51.52	25.25
GROUP 4	$ 52.52	25.25
GROUP 5	$ 50.02	25.25
GROUP 6	$ 51.02	25.25
GROUP 7	$ 49.75	25.25
GROUP 8	$ 50.75	25.25
GROUP 9	$ 49.30	25.25
GROUP 10	$ 50.30	25.25
GROUP 11	$ 48.57	25.25
GROUP 12	$ 49.57	25.25
GROUP 13	$ 48.21	25.25
GROUP 14	$ 49.21	25.25
GROUP 15	$ 47.57	25.25
GROUP 16	$ 44.37	25.25
GROUP 17	$ 28.89	12.40
GROUP 18	$ 33.38	25.25

FOOTNOTE:

Paid Holidays: New Year's Day, Memorial Day, Fourth of July, Labor Day, Thanksgiving Day and Christmas Day.

POWER EQUIPMENT OPERATOR CLASSIFICATIONS

GROUP 1: Engineer when operating combination of boom and jib 400' or longer

GROUP 2: Engineer when operating combination of boom and jib 400' or longer on a crane that requires an oiler

GROUP 3: Engineer when operating combination of boom and jib 300' or longer

GROUP 4: Engineer when operating combination of boom and jib 300' or longer on a crane that requires an oiler

GROUP 5: Engineer when operating combination of boom and jib 220' or longer

GROUP 6: Engineer when operating combination of boom and jib 220' or longer on a crane that requires an oiler

GROUP 7: Engineer when operating combination of boom and jib

140' or longer

GROUP 8: Engineer when operating combination of boom and jib 140' or longer on a crane that requires an oiler

GROUP 9: Tower crane & derrick operator (where operator's work station is 50 ft. or more above first sub-level)

GROUP 10: Tower crane & derrick operator (where operator's work station is 50 ft. or more above first sub-level) on a crane that requires an oiler

GROUP 11: Engineer when operating combination of boom and jib 120' or longer

GROUP 12: Engineer when operating combination of boom and jib 120' or longer on a crane that requires an oiler

GROUP 13: Crane operator; job mechanic and 3 drum hoist and excavator

GROUP 14: Crane operator on a crane that requires an oiler

GROUP 15: Hoisting operator; 2 drum hoist and rubber tired backhoe

GROUP 16: Forklift and 1 drum hoist

GROUP 17: Compressor or welder operator

GROUP 18: Oiler

ENGI0324-004 06/01/2023

AREA 1: ALLEGAN, BARRY, BERRIEN, BRANCH, CALHOUN, CASS, EATON, HILLSDALE, IONIA, KALAMAZOO, KENT, LAKE, MANISTEE, MASON, MECOSTA, MONTCALM, MUSKEGON, NEWAYGO, OCEANA, OSCEOLA, OTTAWA, ST. JOSEPH, VAN BUREN

AREA 2: ANTRIM, BENZIE, CHARLEVOIX, EMMET, GRAND TRAVERSE, KALKASKA, LEELANAU, MISSAUKEE AND WEXFORD COUNTIES:

	Rates	Fringes
OPERATOR: Power Equipment (Steel Erection)		
AREA 1		
GROUP 1	$ 53.02	25.25
GROUP 2	$ 49.75	25.25
GROUP 3	$ 48.21	25.25
GROUP 4	$ 44.37	25.25
GROUP 5	$ 28.89	12.40
GROUP 6	$ 33.38	25.25
AREA 2		
GROUP 1	$ 53.02	25.25
GROUP 2	$ 49.75	24.25

GROUP 3.....$ 48.21 25.25
GROUP 4.....$ 44.37 25.25
GROUP 5.....$ 28.89 12.40
GROUP 6.....$ 33.38 25.25

FOOTNOTES:

Crane operator with main boom and jib 300' or longer: $1.50 additional to the group 1 rate. Crane operator with main boom and jib 400' or longer: $3.00 additional to the group 1 rate.
PAID HOLIDAYS: New Year's Day, Memorial Day, Fourth of July, Labor Day, Thanksgiving Day and Christmas Day.

POWER EQUIPMENT OPERATOR CLASSIFICATIONS:

GROUP 1: Crane Operator with main boom & jib 400', 300', or 220' or longer.

GROUP 2: Crane Operator with main boom & jib 140' or longer, Tower Crane; Gantry Crane; Whirley Derrick.

GROUP 3: Regular Equipment Operator, Crane, Dozer, Loader, Hoist, Straddle Wagon, Mechanic, Grader and Hydro Excavator.

GROUP 4: Air Tugger (single drum), Material Hoist Pump 6"" or over, Elevators, Brokk Concrete Breaker.

GROUP 5: Air Compressor, Welder, Generators, Conveyors

GROUP 6: Oiler and fire tender

ENGI0324-005 09/01/2023

AREA 1: GENESEE, LAPEER, LIVINGSTON, MACOMB, MONROE, OAKLAND, ST. CLAIR, WASHTENAW AND WAYNE COUNTIES

AREA 2: ALCONA, ALLEGAN, ALGER, ALPENA, ANTRIM, ARENAC, BARAGA, BARRY, BAY, BENZIE, BERRIEN, BRANCH, CALHOUN, CASS, CHARLEVOIX, CHEBOYGAN, CHIPPEWA, CLARE, CLINTON, CRAWFORD, DELTA, DICKINSON, EATON, EMMET, GLADWIN, GOGEBIC, GRAND TRAVERSE, GRATIOT, HILLSDALE, HOUGHTON, HURON, INGHAM, IONIA, IOSCO, IRON, ISABELLA, JACKSON, KALAMAZOO, KALKASKA, KENT, KWEENAW, LAKE, LEELANAU, LENAWEE, LUCE, MACKINAC, MANISTEE, MARQUETTE, MASON, MECOSTA, MENOMINEE, MIDLAND, MISSAUKEE, MONTCALM, MONTMORENCY, MUSKEGON, NEWAYGO, OCEANA, OGEMAW, ONTONAGON, OSCEOLA, OSCODA, OTSEGO, OTTAWA, PRESQUE ISLE, ROSCOMMON, SAGINAW, SANILAC, SCHOOLCRAFT, SHIAWASSEE, ST. JOSEPH, TUSCOLA, VAN BUREN AND WEXFORD COUNTIES

	Rates	Fringes
OPERATOR: Power Equipment (Underground construction (including sewer))		
AREA 1:		

GROUP 1	$ 41.08	25.25
GROUP 2	$ 36.25	25.25
GROUP 3	$ 35.52	25.25
GROUP 4	$ 34.95	25.25
GROUP 5	$ 25.35	12.10
AREA 2:		
GROUP 1	$ 39.27	25.25
GROUP 2	$ 34.38	25.25
GROUP 3	$ 33.88	25.25
GROUP 4	$ 33.60	25.25
GROUP 5	$ 25.35	12.10

POWER EQUIPMENT OPERATOR CLASSIFICATIONS

GROUP 1: Backfiller tamper; Backhoe; Batch plant operator (concrete); Clamshell; Concrete paver (2 drums or larger); Conveyor loader (Euclid type); Crane (crawler, truck type or pile driving); Dozer; Dragline; Elevating grader; Endloader; Gradall (and similar type machine); Grader; Mechanic; Power shovel; Roller (asphalt); Scraper (self-propelled or tractor drawn); Side boom tractor (type D-4 or equivalent and larger); Slip form paver; Slope paver; Trencher (over 8 ft. digging capacity); Well drilling rig; Concrete pump with boom operator; Hydro Excavator

GROUP 2: Boom truck (power swing type boom); Crusher; Hoist; Pump (1 or more - 6-in. discharge or larger - gas or diesel- powered or powered by generator of 300 amperes or more - inclusive of generator); Side boom tractor (smaller than type D-4 or equivalent); Tractor (pneu-tired, other than backhoe or front end loader); Trencher (8-ft. digging capacity and smaller);Vac Truck and End dump operator;

GROUP 3: Air compressors (600 cfm or larger); Air compressors (2 or more-less than 600 cfm); Boom truck (non-swinging, non- powered type boom); Concrete breaker (self-propelled or truck mounted - includes compressor); Concrete paver (1 drum-1/2 yd. or larger); Elevator (other than passenger); Maintenance person; Pump (2 or more-4-in. up to 6-in. discharge-gas or diesel powered - excluding submersible pumps); Pumpcrete machine (and similar equipment); Wagon drill (multiple); Welding machine or generator (2 or more-300 amp. or larger - gas or diesel powered)

GROUP 4: Boiler; Concrete saw (40 hp or over); Curing machine (self-propelled); Farm tractor (with attachment); Finishing machine (concrete); Hydraulic pipe pushing machine; Mulching equipment; Pumps (2 or more up to 4-in. discharge, if used 3 hours or more a day, gas or diesel powered - excluding submersible pumps); Roller (other than asphalt); Stump remover; Trencher (service); Vibrating compaction equipment, self-propelled (6 ft. wide or over); Sweeper (Wayne type); Water wagon and Extend-a boom forklift

Group 5: Fire Person, Oiler

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* ENGI0324-006 06/01/2023

GENESEE, MACOMB, MONROE, OAKLAND, WASHTENAW, WAYNE, ALCONA, ALGER, ALLEGAN, ALPENA, ANTRIM, ARENAC, BARAGA, BARRY, BAY, BENZIE, BERRIEN, BRANCH, CALHOUN, CASS, CHARLEVOIX, CHEBOYGAN, CHIPPEWA, CLARE, CLINTON, CRAWFORD, DELTA, DICKINSON, EATON, EMMET, GLADWIN, GOGEBIC, GRAND TRAVERSE, GRATIOT, HILLSDALE, HOUGHTON, HURON, INGHAM, IONIA, IOSCO, IRON, ISABELLA, JACKSON, KALAMAZOO, KALKASKA, KENT, KEWEENAW, LAKE, LAPEER, LEELANAU, LENAWEE, LIVINGSTON, LUCE, MACKINAC, MANISTEE, MARQUETTE, MASON, MECOSTA, MENOMINEE, MIDLAND, MISSAUKEE, MONTCALM, MONTMORENCY, MUSKEGON, NEWAYGO, OCEANA, OGEMAW, ONTONAGON, OSCEOLA, OSCODA, OTSEGO, OTTAWA, PRESQUE ISLE, ROSCOMMON, SAGINAW, ST. CLARE, ST. JOSEPH, SANILAC, SCHOOLCRAFT, SHIAWASSEE, TUSCOLA, VAN BUREN AND WEXFORD COUNTIES

	Rates	Fringes
Power equipment operators: (AIRPORT, BRIDGE & HIGHWAY CONSTRUCTION)		
GROUP 1	$ 40.46	25.25
GROUP 2	$ 37.73	25.25
GROUP 3	$ 33.17	25.55
GROUP 4	$ 33.00	25.25

POWER EQUIPMENT OPERATOR CLASSIFICATIONS

GROUP 1: Asphalt plant operator; Crane operator (does not include work on bridge construction projects when the crane operator is erecting structural components); Dragline operator; Shovel operator; Locomotive operator; Paver operator (5 bags or more); Elevating grader operator; Pile driving operator; Roller operator (asphalt); Blade grader operator; Trenching machine operator (ladder or wheel type); Auto-grader; Slip form paver; Self-propelled or tractor-drawn scraper; Conveyor loader operator (Euclid type); Endloader operator (1 yd. capacity and over); Bulldozer; Hoisting engineer; Tractor operator; Finishing machine operator (asphalt); Mechanic; Pump operator (6-in. discharge or over, gas, diesel powered or generator of 300 amp. or larger); Shouldering or gravel distributing machine operator (self- propelled); Backhoe (with over 3/8 yd. bucket); Side boom tractor (type D-4 or equivalent or larger); Tube finisher (slip form paving); Gradall (and similar type machine); Asphalt paver (self- propelled); Asphalt planer (self-propelled); Batch plant (concrete-central mix); Slurry machine (asphalt); Concrete pump (3 in. and over); Roto-mill; Swinging boom truck (over 12 ton capacity); Hydro demolisher (water blaster); Farm-type tractor with attached pan; Vacuum truck operator; Batch Plant (concrete dry batch); Concrete Saw Operator (40h.p. or over; Tractor Operator (farm type); Finishing Machine Operator (concrete); Grader Operator (self-propelled fine grade or form (concrete)).

GROUP 2: Screening plant operator; Washing plant operator;

Crusher operator; Backhoe (with 3/8 yd. bucket or less); Side boom tractor (smaller than D-4 type or equivalent); Sweeper (Wayne type and similar equipment); Greese Truck; Air Compressor Operator (600 cu.ft. per min or more); Air Compressor Operator (two or more, less than 600 cfm);

GROUP 3: Boiler fire tender; Tractor operator (farm type with attachment); Concrete Breaker; Wagon Drill Operator;

GROUP 4: Oiler; Fire tender; Trencher (service); Flexplane operator; Cleftplane operator; Boom or winch hoist truck operator; Endloader operator *under 1 yd. capacity); Roller Operator (other than asphalt); Curing equipment operator (self-propelled); Power bin operator; Plant drier (6 ft. wide or over); Guard post driver operator (power driven); All mulching equipment; Stump remover; Concrete pump (under 3-in.); Mesh installer (self-propelled); End dump; Skid Steer.

ENGI0324-007 05/01/2023

ALGER, BARAGA, CHIPPEWA, DELTA, DICKINSON, GOGEBIC, HOUGHTON, IRON, KEWEENAW, LUCE, MACKINAC MARQUETTE, MENOMINEE, ONTONAGON AND SCHOOLCRAFT COUNTIES:

	Rates	Fringes
OPERATOR: Power Equipment (Steel Erection)		
Compressor, welder and forklift	$ 38.50	25.00
Crane operator, main boom & jib 120' or longer	$ 44.97	25.00
Crane operator, main boom & jib 140' or longer	$ 44.17	24.60
Crane operator, main boom & jib 220' or longer	$ 45.27	25.00
Mechanic with truck and tools	$ 44.10	25.00
Oiler and fireman	$ 39.96	25.00
Regular operator	$ 42.32	25.00

ENGI0324-008 10/01/2023

ALCONA, ALGER, ALLEGAN, ALPENA, ANTRIM, ARENAC, BARAGA, BARRY, BAY, BENZIE, BERRIEN, BRANCH, CALHOUN, CASS, CHARLEVOIX, CHEBOYGAN, CHIPPEWA, CLARE, CLINTON, CRAWFORD, DELTA, DICKINSON, EATON, EMMET, GENESEE, GLADWIN, GOGEBIC, GRAND TRAVERSE, GRATIOT, HILLSDALE, HOUGHTON, HURON, INGHAM, IONIA, IOSCO, IRON, ISABELLA, JACKSON, KALAMAZOO, KALKASKA, KENT, KEWEENAW, LAKE, LAPEER, LEELANAU, LENAWEE, LIVINGSTON, LUCE, MACKINAC, MACOMB, MANISTEE, MARQUETTE, MASON, MECOSTA, MENOMINEE, MIDLAND, MISSAUKEE, MONTCALM, MONTMORENCY, MONROE, MUSKEGON, NEWAYGO, OAKLAND, OCEANA, OGEMAW, ONTONAGON, OSCEOLA, OSCODA, OTSEGO, OTTAWA, PRESQUE ISLE, ROSCOMMON, SAGINAW, ST. CLARE, ST. JOSEPH, SANILAC, SCHOOLCRAFT, SHIAWASSEE, TUSCOLA,

VAN BUREN, WASHTENAW, WAYNE AND WEXFORD COUNTIES

	Rates	Fringes
OPERATOR: Power Equipment (Sewer Relining)		
GROUP 1	$ 37.37	15.44
GROUP 2	$ 35.33	15.44

SEWER RELINING CLASSIFICATIONS

GROUP 1: Operation of audio-visual closed circuit TV system, including remote in-ground cutter and other equipment used in connection with the CCTV system

GROUP 2: Operation of hot water heaters and circulation systems, water jetters and vacuum and mechanical debris removal systems

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ENGI0325-012 05/01/2023

	Rates	Fringes
Power equipment operators - gas distribution and duct installation work:		
GROUP 1	$ 36.18	25.25
GROUP 2	$ 33.45	25.25

SCOPE OF WORK: The construction, installation, treating and reconditioning of pipelines transporting gas vapors within cities, towns, subdivisions, suburban areas, or within private property boundaries, up to and including private meter settings of private industrial, governmental or other premises, more commonly referred to as ""distribution work,"" starting from the first metering station, connection, similar or related facility, of the main or cross country pipeline and including duct installation.

Group 1: Backhoe, crane, grader, mechanic, dozer (D-6 equivalent or larger), side boom (D-4 equivalent or larger), trencher(except service), endloader (2 yd. capacity or greater).

GROUP 2: Dozer (less than D-6 equivalent), endloader (under 2 yd. capacity), side boom (under D-4 capacity), backfiller, pumps (1 or 2 of 6-inch discharge or greater), boom truck (with powered boom), tractor (wheel type other than backhoe or front endloader). Tamper (self-propelled), boom truck (with non-powered boom), concrete saw (20 hp or larger), pumps (2 to 4 under 6-inch discharge), compressor (2 or more or when one is used continuously into the second day) and trencher(service). Oiler, hydraulic pipe pushing machine, grease person and hydrostatic testing operator.

IRON0008-007 06/01/2022

ALGER, BARAGA, CHIPPEWA, DELTA, DICKINSON, GOGEBIC, HOUGHTON, IRON, KEWEENAW, LUCE, MACKINAC MARQUETTE, MENOMINEE, ONTONAGON AND SCHOOLCRAFT COUNTIES:

	Rates	Fringes
Ironworker - pre-engineered metal building erector	$ 23.70	6.95
IRONWORKER		
General contracts $10,000,000 or greater	$ 38.14	28.70
General contracts less than $10,000,000	$ 38.14	28.70

Paid Holidays: New Year's Day, Memorial Day, July 4th, Labor Day, Thanksgiving Day & Christmas Day.

IRON0025-002 06/01/2023

ALCONA, ALPENA, ARENAC, BAY, CHEBOYGAN, CLARE, CLINTON, CRAWFORD, GENESEE, GLADWIN, GRATIOT, HURON, INGHAM, IOSCO, ISABELLA, JACKSON, LAPEER, LIVINGSTON, MACOMB, MIDLAND, MONTMORENCY, OAKLAND, OGEMAW, OSCODA, OTSEGO, PRESQUE ISLE, ROSCOMMON, SAGINAW, SANILAC, SHIAWASSEE, ST. CLAIR, TUSCOLA, WASHTENAW AND WAYNE COUNTIES:

	Rates	Fringes
Ironworker - pre-engineered metal building erector		
ALLEGAN, ANTRIM, BARRY, BENZIE, BRANCH, CALHOUN, CHARLEVOIX, EATON, EMMET, GRAND TRAVERSE, HILLSDALE, IONIA, KALAMAZOO, KALKASKA, KENT, LAKE, LEELANAU, MANISTEE, MASON, MECOSTA, MISSAUKEE, MONTCALM, MUSKEGON, NEWAYGO, OCEANA, OSCEOLA, OTTAWA, ST. JOSEPH, VAN BUREN AND WEXFORD COUNTIES:	$ 24.59	25.43
Bay, Genesee, Lapeer, Livingston (east of Burkhardt Road), Macomb, Midland, Oakland, Saginaw, St. Clair, The University of Michigan, Washtenaw (east of U.S. 23) & Wayne	$ 25.81	26.43
IRONWORKER		
Ornamental and Structural	$ 34.50	38.44
Reinforcing	$ 32.68	35.15

IRON0055-005 07/01/2022

LENAWEE AND MONROE COUNTIES:

	Rates	Fringes
IRONWORKER		
Pre-engineered metal buildings	$ 23.59	19.35
All other work	$ 33.00	27.20

IRON0292-003 06/01/2020

BERRIEN AND CASS COUNTIES:

	Rates	Fringes
IRONWORKER (Including pre-engineered metal building erector)	$ 31.75	22.84

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* LABO0005-006 10/01/2022

	Rates	Fringes
Laborers - hazardous waste abatement: (ALCONA, ALPENA, ANTRIM, BENZIE, CHARLEVOIX, CHEBOYGAN, CRAWFORD, EMMET, GRAND TRAVERSE, IOSCO, KALKASKA, LEELANAU, MISSAUKEE, MONTMORENCY, OSCODA, OTSEGO, PRESQUE ISLE AND WEXFORD COUNTIES - Zone 10)		
Levels A, B or C	$ 17.45	12.75
class b	$ 18.64	12.90
Work performed in conjunction with site preparation not requiring the use of personal protective equipment; Also, Level D	$ 16.45 **	12.75
class a	$ 17.64	12.90
Zone 10		
Laborers - hazardous waste abatement: (ALGER, BARAGA, CHIPPEWA, DELTA, DICKINSON, GOGEBIC, HOUGHTON, IRON, KEWEENAW, LUCE, MACKINAC, MARQUETTE, MENOMINEE, ONTONAGON AND SCHOOLCRAFT COUNTIES - Zone 11)		
Levels A, B or C	$ 25.18	12.90
Work performed in conjunction with site preparation not requiring the use of personal		

protective equipment;
Also, Level D.....$ 22.58 12.90
Laborers - hazardous waste abatement: (ALLEGAN, BARRY, BERRIEN, BRANCH, CALHOUN, CASS, IONIA COUNTY (except the city of Portland); KALAMAZOO, KENT, LAKE, MANISTEE, MASON, MECOSTA, MONTCALM, MUSKEGON, NEWAYGO, OCEANA, OSCEOLA, OTTAWA, ST. JOSEPH AND VAN BUREN COUNTIES - Zone 9)
Levels A, B or C.....$ 21.88 13.26
Work performed in conjunction with site preparation not requiring the use of personal protective equipment;
Also, Level D.....$ 20.80 12.90
Laborers - hazardous waste abatement: (ARENAC, BAY, CLARE, GLADWIN, GRATIOT, HURON, ISABELLA, MIDLAND, OGEMAW, ROSCOMMON, SAGINAW AND TUSCOLA COUNTIES - Zone 8)
Levels A, B or C.....$ 23.74 12.95
Work performed in conjunction with site preparation not requiring the use of personal protective equipment;
Also, Level D.....$ 20.80 12.90
Laborers - hazardous waste abatement: (CLINTON, EATON AND INGHAM COUNTIES; IONIA COUNTY (City of Portland); LIVINGSTON COUNTY (west of Oak Grove Rd., including the City of Howell) - Zone 6)
Levels A, B or C.....$ 26.33 12.95
Work performed in conjunction with site preparation not requiring the use of personal protective equipment;
Also, Level D.....$ 24.64 12.90
Laborers - hazardous waste abatement: (GENESEE, LAPEER AND SHIAWASSEE COUNTIES - Zone 7)
Levels A, B or C.....$ 24.20 13.80
Work performed in conjunction with site preparation not requiring the use of personal protective equipment;
Also, Level D.....$ 23.20 13.80

Laborers - hazardous waste abatement: (HILLSDALE, JACKSON AND LENAWEE COUNTIES - Zone 4)		
Levels A, B or C	$ 27.13	14.95
Work performed in conjunction with site preparation not requiring the use of personal protective equipment;		
Also, Level D	$ 24.17	12.90
Laborers - hazardous waste abatement: (LIVINGSTON COUNTY (east of Oak Grove Rd. and south of M-59, excluding the city of Howell); AND WASHTENAW COUNTY - Zone 3)		
Levels A, B or C	$ 29.93	14.20
Work performed in conjunction with site preparation not requiring the use of personal protective equipment;		
Also, Level D	$ 28.93	14.20
Laborers - hazardous waste abatement: (MACOMB AND WAYNE COUNTIES - Zone 1)		
Levels A, B or C	$ 29.93	16.90
Work performed in conjunction with site preparation not requiring the use of personal protective equipment;		
Also, Level D	$ 28.93	16.90
Laborers - hazardous waste abatement: (MONROE COUNTY - Zone 4)		
Levels A, B or C	$ 31.75	14.90
Work performed in conjunction with site preparation not requiring the use of personal protective equipment;		
Also, Level D	$ 31.75	14.90
Laborers - hazardous waste abatement: (OAKLAND COUNTY and the Northeast portion of LIVINGSTON COUNTY bordered by Oak Grove Road on the West and M-59 on the South - Zone 2)		
Level A, B, C	$ 29.93	16.90
Work performed in conjunction with site preparation not requiring the use of personal protective equipment;		
Also, Level D	$ 28.93	16.90

Laborers - hazardous waste abatement: (SANILAC AND ST. CLAIR COUNTIES - Zone 5)		
Levels A, B or C	$ 26.21	16.62
Work performed in conjunction with site preparation not requiring the use of personal protective equipment; Also, Level D	$ 24.75	16.35

LABO0259-001 09/01/2023

AREA 1: MACOMB, OAKLAND AND WAYNE COUNTIES
AREA 2: ALCONA, ALGER, ALLEGAN, ALPENA, ANTRIM, ARENAC, BARAGA, BARRY, BAY, BENZIE, BERRIEN, BRANCH, CALHOUN, CASS, CHARLEVOIX, CHEBOYGAN, CHIPPEWA, CLARE, CLINTON, CRAWFORD, DELTA, DICKINSON, EATON, EMMET, GENESEE, GLADWIN, GOGEBIC, GRAND TRAVERSE, GRATIOT, HILLSDALE, HOUGHTON, HURON, INGHAM, IONIA, IOSCO, IRON, ISABELLA, JACKSON, KALAMAZOO, KALKASKA, KENT, KEWEENAW, LAKE, LAPEER, LEELANAU, LENAWEE, LIVINGSTON, LUCE, MACKINAC, MANISTEE, MARQUETTE, MASON, MECOSTA, MENOMINEE, MIDLAND, MISSAUKEE, MONROE, MONTCALM, MONTMORENCY, MUSKEGON, NEWAYGO, OCEANA, OGEMAW, ONTONAGON, OSCEOLA, OSCODA, OTSEGO, OTTAWA, PRESQUE ISLE, ROSCOMMON, SAGINAW, ST. CLARE, ST. JOSEPH, SANILAC, SCHOOLCRAFT, SHIAWASSEE, TUSCOLA, VAN BUREN, WASHTENAW AND WEXFORD COUNTIES

	Rates	Fringes
Laborers - tunnel, shaft and caisson:		
AREA 1		
GROUP 1	$ 23.62	16.93
GROUP 2	$ 23.73	16.93
GROUP 3	$ 23.79	16.93
GROUP 4	$ 23.97	16.93
GROUP 5	$ 24.22	16.93
GROUP 6	$ 24.55	16.93
GROUP 7	$ 17.83	16.93
AREA 2		
GROUP 1	$ 27.57	16.93
GROUP 2	$ 25.24	16.93
GROUP 3	$ 25.34	16.93
GROUP 4	$ 29.57	16.93
GROUP 5	$ 25.76	16.93
GROUP 6	$ 26.07	16.93
GROUP 7	$ 25.57	16.93

SCOPE OF WORK: Tunnel, shaft and caisson work of every type and description and all operations incidental thereto, including, but not limited to, shafts and tunnels for sewers, water, subways, transportation, diversion, sewerage, caverns, shelters, aquafers, reservoirs, missile silos and steel sheeting for underground construction.

TUNNEL LABORER CLASSIFICATIONS

GROUP 1: Tunnel, shaft and caisson laborer, dump, shanty, hog house tender, testing (on gas) and watchman

GROUP 2: Manhole, headwall, catch basin builder, bricklayer tender, mortar machine and material mixer

GROUP 3: Air tool operator (jackhammer, bush hammer and grinder), first bottom, second bottom, cage tender, car pusher, carrier, concrete, concrete form, concrete repair, cement invert laborer, cement finisher, concrete shoveler, conveyor, floor, gasoline and electric tool operator, gunite, grout operator, welder, heading dinky person, inside lock tender, pea gravel operator, pump, outside lock tender, scaffold, top signal person, switch person, track, tugger, utility person, vibrator, winch operator, pipe jacking, wagon drill and air track operator and concrete saw operator (under 40 h.p.)

GROUP 4: Tunnel, shaft and caisson mucker, bracer, liner plate, long haul dinky driver and well point

GROUP 5: Tunnel, shaft and caisson miner, drill runner, key board operator, power knife operator, reinforced steel or mesh (e.g. wire mesh, steel mats, dowel bars, etc.)

GROUP 6: Dynamite and powder

GROUP 7: Restoration laborer, seeding, sodding, planting, cutting, mulching and top soil grading; and the restoration of property such as replacing mailboxes, wood chips, planter boxes, flagstones, etc.

LABO0334-001 09/01/2023

	Rates	Fringes
Laborers - open cut:		
ZONE 1 - MACOMB, OAKLAND AND WAYNE COUNTIES:		
GROUP 1	$ 29.87	16.95
GROUP 2	$ 31.87	16.95
GROUP 3	$ 28.03	16.95
GROUP 4	$ 23.71	16.72
GROUP 5	$ 24.17	16.72
GROUP 6	$ 22.00	16.72
GROUP 7	$ 17.84	16.72
ZONE 2 - LIVINGSTON COUNTY (east of M-151 (Oak Grove Rd.)); MONROE AND WASHTENAW COUNTIES:		
GROUP 1	$ 30.70	13.45
GROUP 2	$ 32.70	13.45
GROUP 3	$ 26.89	13.45
GROUP 4	$ 25.10	16.72
GROUP 5	$ 25.25	16.72
GROUP 6	$ 22.55	16.72

GROUP 7.....$ 22.11 16.72
ZONE 3 - CLINTON, EATON, GENESEE, HILLSDALE AND INGHAM COUNTIES; IONIA COUNTY (City of Portland); JACKSON, LAPEER AND LENAWEE COUNTIES; LIVINGSTON COUNTY (west of M-151 Oak Grove Rd.); SANILAC, ST. CLAIR AND SHIAWASSEE COUNTIES:
GROUP 1.....$ 28.89 13.45
GROUP 2.....$ 30.89 13.45
GROUP 3.....$ 26.89 13.45
GROUP 4.....$ 23.30 16.72
GROUP 5.....$ 23.44 16.72
GROUP 6.....$ 20.74 16.72
GROUP 7.....$ 22.23 16.72
ZONE 4 - ALCONA, ALLEGAN, ALPENA, ANTRIM, ARENAC, BARRY, BAY, BENZIE, BERRIEN, BRANCH, CALHOUN, CASS, CHARLEVOIX, CHEBOYGAN, CLARE, CRAWFORD, EMMET, GLADWIN, GRAND TRAVERSE, GRATIOT AND HURON COUNTIES; IONIA COUNTY (EXCEPT THE CITY OF PORTLAND); IOSCO, ISABELLA, KALAMAZOO, KALKASKA, KENT, LAKE,LEELANAU, MANISTEE, MASON, MECOSTA, MIDLAND, MISSAUKEE, MONTCALM, MONTMORENCY, MUSKEGON, NEWAYGO, OCEANA, OGEMAW, OSCEOLA, OSCODA, OTSEGO, OTTAWA, PRESQUE ISLE, ROSCOMMON, SAGINAW, ST. JOSEPH, TUSCOLA, VAN BUREN AND WEXFORD COUNTIES:
GROUP 1.....$ 27.87 13.45
GROUP 2.....$ 29.87 13.45
GROUP 3.....$ 25.87 13.45
GROUP 4.....$ 22.33 16.72
GROUP 5.....$ 22.45 16.72
GROUP 6.....$ 19.67 16.72
GROUP 7.....$ 22.30 16.72
ZONE 5 - ALGER, BARAGA, CHIPPEWA, DELTA, DICKINSON, GOGEBIC, HOUGHTON, IRON, KEWEENAW, LUCE, MACKINAC, MARQUETTE, MENOMINEE, ONTONAGON AND SCHOOLCRAFT COUNTIES:
GROUP 1.....$ 28.09 13.45

GROUP 2	$ 30.09	13.45
GROUP 3	$ 26.09	13.45
GROUP 4	$ 22.56	16.72
GROUP 5	$ 22.64	16.72
GROUP 6	$ 19.99	16.72
GROUP 7	$ 22.45	16.72

SCOPE OF WORK:

Open cut construction work shall be construed to mean work which requires the excavation of earth including industrial, commercial and residential building site excavation and preparation, land balancing, demolition and removal of concrete and underground appurtenances, grading, paving, sewers, utilities and improvements; retention, oxidation, flocculation and irrigation facilities, and also including but not limited to underground piping, conduits, steel sheeting for underground construction, and all work incidental thereto, and general excavation. For all areas except the Upper Peninsula, open cut construction work shall also be construed to mean waterfront work, piers, docks, seawalls, breakwalls, marinas and all incidental work. Open cut construction work shall not include any structural modifications, alterations, additions and repairs to buildings, or highway work, including roads, streets, bridge construction and parking lots or steel erection work and excavation for the building itself and back filling inside of and within 5 ft. of the building and foundations, footings and piers for the building. Open cut construction work shall not include any work covered under Tunnel, Shaft and Caisson work.

OPEN CUT LABORER CLASSIFICATIONS

GROUP 1: Construction laborer

GROUP 2: Mortar and material mixer, concrete form person, signal person, well point person, manhole, headwall and catch basin builder, headwall, seawall, breakwall and dock builder

GROUP 3: Air, gasoline and electric tool operator, vibrator operator, driller, pump person, tar kettle operator, bracer, rodder, reinforced steel or mesh person (e.g., wire mesh, steel mats, dowel bars, etc.), welder, pipe jacking and boring person, wagon drill and air track operator and concrete saw operator (under 40 h.p.), windlass and tugger person and directional boring person

GROUP 4: Trench or excavating grade person

GROUP 5: Pipe layer (including crock, metal pipe, multi-plate or other conduits)

GROUP 6: Grouting man, audio-visual television operations and all other operations in connection with closed circuit television inspection, pipe cleaning and pipe relining work and the installation and repair of water service pipe and

appurtenances

GROUP 7: Restoration laborer, seeding, sodding, planting, cutting, mulching and top soil grading; and the restoration of property such as replacing mailboxes, wood chips, planter boxes, flagstones, etc.

LABO0465-001 06/01/2023

LABORER: Highway, Bridge and Airport Construction

AREA 1: GENESEE, MACOMB, MONROE, OAKLAND, WASHTENAW AND WAYNE COUNTIES

AREA 2: ALLEGAN, BARRY, BAY, BERRIEN, BRANCH, CALHOUN, CASS, CLINTON, EATON, GRATIOT, HILLSDALE, HURON, INGHAM, JACKSON, KALAMAZOO, LAPEER, LENAWEE, LIVINGSTON, MIDLAND, MUSKEGON, SAGINAW, SANILAC, SHIAWASSEE, ST. CLAIR, ST. JOSEPH, TUSCOLA AND VAN BUREN COUNTIES

AREA 3: ALCONA, ALPENA, ANTRIM, ARENAC, BENZIE, CHARLEVOIX, CHEBOYGAN, CLARE, CRAWFORD, EMMET, GLADWIN, GRAND TRAVERSE, IONIA, IOSCO, ISABELLA, KALKASKA, KENT, LAKE, LEELANAU, MANISTEE, MASON, MECOSTA, MISSAUKEE, MONTCALM, MONTMORENCY, NEWAYGO, OCEANA, OGEMAW, OSCEOLA, OSCODA, OTSEGO, OTTAWA, PRESQUE ISLE, ROSCOMMON AND WEXFORD COUNTIES

AREA 4: ALGER, BARAGA, CHIPPEWA, DELTA, DICKINSON, GOGEBIC, HOUGHTON, IRON, KEWEENAW, LUCE, MACKINAC, MARQUETTE, MENOMINEE, ONTONAGON AND SCHOOLCRAFT COUNTIES

	Rates	Fringes
LABORER (AREA 1)		
GROUP 1	$ 32.52	14.45
GROUP 2	$ 32.65	14.45
GROUP 3	$ 32.83	14.45
GROUP 4	$ 32.91	14.45
GROUP 5	$ 33.12	14.45
GROUP 6	$ 33.42	14.45
LABORER (AREA 2)		
GROUP 1	$ 30.37	14.45
GROUP 2	$ 30.57	14.45
GROUP 3	$ 30.81	14.45
GROUP 4	$ 31.16	14.45
GROUP 5	$ 31.03	14.45
GROUP 6	$ 31.37	14.45
LABORER (AREA 3)		
GROUP 1	$ 29.67	14.45
GROUP 2	$ 29.88	14.45
GROUP 3	$ 30.17	14.45
GROUP 4	$ 30.61	14.45
GROUP 5	$ 30.23	14.45
GROUP 6	$ 30.66	14.45
LABORER (AREA 4)		
GROUP 1	$ 30.52	13.45

GROUP 2	$ 30.73	13.45
GROUP 3	$ 31.02	13.45
GROUP 4	$ 31.46	13.45
GROUP 5	$ 31.08	13.45
GROUP 6	$ 31.51	13.45

LABORER CLASSIFICATIONS

GROUP 1: Asphalt shoveler or loader; asphalt plant misc.; burlap person; yard person; dumper (wagon, truck, etc.); joint filling laborer; miscellaneous laborer; unskilled laborer; sprinkler laborer; form setting laborer; form stripper; pavement reinforcing; handling and placing (e.g., wire mesh, steel mats, dowel bars); mason's tender or bricklayer's tender on manholes; manhole builder; headwalls, etc.; waterproofing,(other than buildings) seal coating and slurry mix, shoring, underpinning; pressure grouting; bridge pin and hanger removal; material recycling laborer; horizontal paver laborer (brick, concrete, clay, stone and asphalt); ground stabilization and modification laborer; grouting; waterblasting; top person; railroad track and trestle laborer; carpenters' tender; guard rail builders' tender; earth retention barrier and wall and M.S.E. wall installer's tender; highway and median installer's tender(including sound, retaining, and crash barriers); fence erector's tender; asphalt raker tender; sign installer; remote control operated equipment.

GROUP 2: Mixer operator (less than 5 sacks); air or electric tool operator (jackhammer, etc.); spreader; boxperson (asphalt, stone, gravel); concrete paddler; power chain saw operator; paving batch truck dumper; tunnel mucker (highway work only); concrete saw (under 40 h.p.) and dry pack machine; roto-mill grounds person.

GROUP 3: Tunnel miner (highway work only); finishers tenders; guard rail builders; highway and median barrier installer; earth retention barrier and wall and M.S.E. wall installer's (including sound, retaining and crash barriers); fence erector; bottom person; powder person; wagon drill and air track operator; diamond and core drills; grade checker; certified welders; curb and side rail setter's tender.

GROUP 4: Asphalt raker

GROUP 5: Pipe layers, oxy-gun

GROUP 6: Line-form setter for curb or pavement; asphalt screed checker/screw man on asphalt paving machines.

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* LABO1076-005 04/01/2024

MICHIGAN STATEWIDE

	Rates	Fringes

LABORER (DISTRIBUTION WORK)

Zone 1	$ 27.16	13.45
Zone 2	$ 25.42	13.45
Zone 3	$ 23.55	13.45
Zone 4	$ 22.92	13.45
Zone 5	$ 22.95	13.45

DISTRIBUTION WORK - The construction, installation, treating and reconditioning of distribution pipelines transporting coal, oil, gas or other similar materials, vapors or liquids, including pipelines within private property boundaries, up to and including the meter settings on residential, commercial, industrial, institutional, private and public structures. All work covering pumping stations and tank farms not covered by the Building Trades Agreement. Other distribution lines with the exception of sewer, water and cable television are included.

Underground Duct Layer Pay: $.40 per hour above the base pay rate.

Zone 1 - Macomb, Oakland and Wayne
Zone 2 - Monroe and Washtenaw
Zone 3 - Bay, Genesee, Lapeer, Midland, Saginaw, Sanilac, Shiawassee and St. Clair
Zone 4 - Alger, Baraga, Chippewa, Delta, Dickinson, Gogebic, Houghton, Iron, Keweenaw, Luce, Mackinac, Marquette, Menominee, Ontonagon and Schoolcraft
Zone 5 - Remaining Counties in Michigan

PAIN0022-002 07/01/2008

HILLSDALE, JACKSON AND LENAWEE COUNTIES; LIVINGSTON COUNTY (east of the eastern city limits of Howell, not including the city of Howell, north to the Genesee County line and south to the Washtenaw County line); MACOMB, MONROE, OAKLAND, WASHTENAW AND WAYNE COUNTIES:

	Rates	Fringes
PAINTER	$ 25.06	14.75

FOOTNOTES: For all spray work and journeyman rigging for spray work, also blowing off, $0.80 per hour additional (applies only to workers doing rigging for spray work on off the floor work. Does not include setting up or moving rigging on floor surfaces, nor does it apply to workers engaged in covering up or tending spray equipment. For all sandblasting and spray work performed on highway bridges, overpasses, tanks or steel, $0.80 per hour additional. For all brushing, cleaning and other preparatory work (other than spraying or steeplejack work) at scaffold heights of fifty (50) feet from the ground or higher, $0.50 per hour additional. For all preparatorial work and painting performed on open steel under forty (40) feet when no scaffolding is involved, $0.50 per hour additional. For all

swing stage work-window jacks and window belts-exterior and interior, $0.50 per hour additional. For all spray work and sandblaster work to a scaffold height of forty (40) feet above the floor level, $0.80 per hour additional. For all preparatorial work and painting on all highway bridges or overpasses up to forty (40) feet in height, $0.50 per hour additional. For all steeplejack work performed where the elevation is forty (40) feet or more, $1.25 per hour additional.

PAIN0312-001 06/01/2018

EXCLUDES: ALLEGAN COUNTY (Townships of Dorr, Fillmore, Heath, Hopkins, Laketown, Leighton, Manlius, Monterey, Overisel, Salem, Saugatuck and Wayland); INCLUDES: Barry, Berrien, Branch, Calhoun, Cass, Hillsdale, Kalamazoo, St. Joseph, Van Buren

	Rates	Fringes
PAINTER		
Brush and roller	$ 23.74	13.35
Spray, Sandblast, Sign Painting	$ 24.94	13.35

PAIN0845-003 05/10/2018

CLINTON COUNTY; EATON COUNTY (does not include the townships of Bellevue and Olivet); INGHAM COUNTY; IONIA COUNTY (east of Hwy. M 66); LIVINGSTON COUNTY (west of the eastern city limits of Howell, including the city of Howell, north to the Genesee County line and south to the Washtenaw County line); AND SHIAWASSEE COUNTY (Townships of Bennington, Laingsbury and Perry):

	Rates	Fringes
PAINTER	$ 25.49	13.74

PAIN0845-015 05/10/2018

MUSKEGON COUNTY; NEWAYGO COUNTY (except the Townships of Barton, Big Prairie, Brooks, Croton, Ensley, Everett, Goodwell, Grant, Home, Monroe, Norwich and Wilcox); OCEANA COUNTY; OTTAWA COUNTY (except the townships of Allendale, Blendone, Chester, Georgetown, Holland, Jamestown, Olive, Park, Polkton, Port Sheldon, Tallmadge, Wright and Zeeland):

	Rates	Fringes
PAINTER	$ 25.49	13.74

PAIN0845-018 05/10/2018

ALLEGAN COUNTY (Townships of Dorr, Fillmore, Heath, Hopkins, Laketown, Leighton, Manlius, Monterey, Overisel, Salem, Saugatuck and Wayland); IONIA COUNTY (west of Hwy. M-66); KENT, MECOSTA AND MONTCALM COUNTIES; NEWAYGO COUNTY (Townships of Barton, Big Prairie, Brooks, Croton, Ensley, Everett, Goodwell, Grant, Home, Monroe, Norwich and Wilcox); OSCEOLA COUNTY (south of Hwy. #10); OTTAWA COUNTY (Townships of Allendale, Blendone, Chester, Georgetown, Holland, Jamestown, Olive, Park, Polkton, Port Sheldon, Tallmadge, Wright and Zeeland):

	Rates	Fringes
PAINTER	$ 25.49	13.74

FOOTNOTES: Lead abatement work: $1.00 per hour additional.

PAIN1011-003 06/02/2022

ALGER, BARAGA, CHIPPEWA, DELTA, DICKINSON, GOGEBIC, HOUGHTON, IRON, KEWEENAW, LUCE, MACKINAC, MARQUETTE, MENOMINEE, ONTONAGON AND SCHOOLCRAFT COUNTIES:

	Rates	Fringes
PAINTER	$ 24.66	14.99

FOOTNOTES: High pay (bridges, overpasses, watertower): 30 to 80 ft.: $.65 per hour additional. 80 ft. and over: $1.30 per hour additional.

PAIN1474-002 06/01/2010

HURON COUNTY; LAPEER COUNTY (east of Hwy. M-53); ST. CLAIR, SANILAC AND TUSCOLA COUNTIES:

	Rates	Fringes
PAINTER	$ 23.79	12.02

FOOTNOTES: Lead abatement work: $1.00 per hour additional. Work with any hazardous material: $1.00 per hour additional. Sandblasting, steam cleaning and acid cleaning: $1.00 per hour additional. Ladder work at or above 40 ft., scaffold work at or above 40 ft., swing stage, boatswain chair, window jacks and all work performed over a falling height of 40 ft.: $1.00 per hour additional. Spray gun work, pick pullers and those handling needles, blowing off by air pressure, and any person rigging (setting up and moving off the ground): $1.00 per hour additional. Steeplejack, tanks, gas holders, stacks, flag poles, radio towers and beacons, power line towers, bridges, etc.: $1.00 per hour additional, paid from the ground up.

PAIN1803-003 06/01/2019

ALCONA, ALPENA, ANTRIM, ARENAC, BAY, BENZIE, CHARLEVOIX, CHEBOYGAN, CLARE, CRAWFORD, EMMET, GLADWIN, GRAND TRAVERSE, GRATIOT, IOSCO, ISABELLA, KALKASKA, LAKE, LEELANAU, MANISTEE, MASON, MIDLAND, MISSAUKEE, MONTMORENCY AND OGEMAW COUNTIES; OSCEOLA COUNTY (north of Hwy. #10); OSCODA, OTSEGO, PRESQUE ISLE, ROSCOMMON, SAGINAW AND WEXFORD COUNTIES:

	Rates	Fringes
PAINTER		
Work performed on water, bridges over water or moving traffic, radio and powerline towers, elevated tanks, steeples, smoke stacks over 40 ft. of falling heights, recovery of lead-based paints and any work associated with industrial plants, except maintenance of industrial plants	$ 25.39	14.68
All other work, including maintenance of industrial plant	$ 25.39	14.68

FOOTNOTES: Spray painting, sandblasting, blowdown associated with spraying and blasting, water blasting and work involving a swing stage, boatswain chair or spider: $1.00 per hour additional. All work performed inside tanks, vessels, tank trailers, railroad cars, sewers, smoke stacks, boilers or other spaces having limited egress not including buildings, opentop tanks, pits, etc.: $1.25 per hour additional.

PLAS0514-001 06/01/2023

ZONE 1: GENESEE, LIVINGSTON, MACOMB, MONROE, OAKLAND, SAGINAW, WASHTENAW AND WAYNE COUNTIES

ZONE 2: ALCONA, ALGER, ALLEGAN, ALPENA, ANTRIM, ARENAC, BARAGA, BARRY, BAY, BENZIE, BERRIEN, BRANCH, CALHOUN, CASS, CHARLEVOIX, CHEBOYGAN, CHIPPEWA, CLARE, CLINTON, CRAWFORD, DELTA, DICKINSON, EATON, EMMET, GLADWIN, GOGEBIC, GRAND TRAVERSE, GRATIOT, HILLSDALE, HOUGHTON, HURON, INGHAM, IONIA, IOSCO, IRON, ISABELLA, JACKSON, KALAMAZOO, KALKASKA, KENT, KEWEENAW, LAKE, LAPEER, LEELANAU, LENAWEE, LUCE, MACKINAC, MANISTEE, MARQUETTE, MASON, MECOSTA, MENOMINEE, MIDLAND, MISSAUKEE, MONTCALM, MONTMORENCY, MUSKEGON, NEWAYGO, OCEANA, OGEMAW, ONTONAGON, OSCEOLA, OSCODA, OTSEGO, OTTAWA, PRESQUE ISLE, ROSCOMMON, SANILAC, SCHOOLCRAFT, SHIAWASSEE, ST. CLAIR, ST. JOSEPH, TUSCOLA, VAN BUREN AND WEXFORD COUNTIES

	Rates	Fringes
CEMENT MASON/CONCRETE FINISHER		
ZONE 1	$ 33.00	18.51
ZONE 2	$ 31.50	18.51

PLUM0190-003 05/01/2015

ALCONA, ALGER, ALLEGAN, ALPENA, ANTRIM, ARENAC, BARAGA, BARRY, BAY, BENZIE, BERRIEN, BRANCH, CALHOUN, CASS, CHARLEVOIX, CHEBOYGAN, CHIPPEWA, CLARE, CLINTON, CRAWFORD, DELTA, DICKINSON, EATON, EMMET, GENESEE, GLADWIN, GOGEBIC, GRAND TRAVERSE, GRATIOT, HILLSDALE, HOUGHTON, HURON, INGHAM, IONIA, IOSCO, IRON, ISABELLA, JACKSON, KALAMAZOO, KALKASKA, KENT, KEWEENAW, LAKE, LAPEER, LEELANAU, LENAWEE, LIVINGSTON, LUCE, MACKINAC, MACOMB, MANISTEE, MARQUETTE, MASON, MECOSTA, MENOMINEE, MIDLAND, MISSAUKEE, MONTCALM, MONTMORENCY, MONROE, MUSKEGON, NEWAYGO, OAKLAND, OCEANA, OGEMAW, ONTONAGON, OSCEOLA, OSCODA, OTSEGO, OTTAWA, PRESQUE ISLE, ROSCOMMON, SAGINAW, ST. CLARE, ST. JOSEPH, SANILAC, SCHOOLCRAFT, SHIAWASSEE, TUSCOLA, VAN BUREN, WASHTENAW, WAYNE AND WEXFORD COUNTIES

	Rates	Fringes
Plumber/Pipefitter - gas distribution pipeline:		
Welding in conjunction with gas distribution pipeline work	$ 33.03	20.19
All other work:	$ 24.19	12.28

TEAM0007-004 06/01/2023

AREA 1: ALCONA, ALGER, ALLEGAN, ALPENA, ANTRIM, ARENAC, BARAGA, BARRY, BAY, BENZIE, BERRIEN, BRANCH, CALHOUN, CASS, CHARLEVOIX, CHEBOYGAN, CHIPPEWA, CLARE, CLINTON, CRAWFORD, DELTA, DICKINSON, EATON, EMMET, GLADWIN, GOGEBIC, GRAND TRAVERSE, GRATIOT, HILLSDALE, HOUGHTON, HURON, INGHAM, IONIA, IOSCO, IRON, ISABELLA, JACKSON, KALAMAZOO, KALKASKA, KENT, KEWEENAW, LAKE, LAPEER, LEELANAU, LENAWEE, LUCE, MACKINAC, MANISTEE, MARQUETTE, MASON, MECOSTA, MENOMINEE, MIDLAND, MISSAUKEE, MONTCALM, MONTMORENCY, MUSKEGON, NEWAYGO, OCEANA, OGEMAW, ONTONAGON, OSCEOLA, OSCODA, OTSEGO, OTTAWA, PRESQUE ISLE, ROSCOMMON, SAGINAW, SANILAC, SCHOOLCRAFT, SHIAWASSEE, ST. CLAIR, ST. JOSEPH, TUSCOLA, VAN BUREN AND WEXFORD COUNTIES

AREA 2: GENESEE, LIVINGSTON, MACOMB, MONROE, OAKLAND, WASHTENAW AND WAYNE COUNTIES

	Rates	Fringes
TRUCK DRIVER		
AREA 1		
Euclids, double bottoms and lowboys	$ 31.55	.75 + a+b
Trucks under 8 cu. yds	$ 31.30	.75 + a+b

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      Trucks, 8 cu. yds. and
      over.....................$ 31.30        .75 + a+b
     AREA 2
      Euclids, double bottomms
      and lowboys..............$ 24.895       .50 + a+b
      Euclids, double bottoms
      and lowboys..............$ 31.65        .75 + a+b
      Trucks under 8 cu. yds.....$ 31.40       .75 + a+b
      Trucks, 8 cu. yds. and
      over.....................$ 31.50        .75 + a+b

 Footnote:
 a. $470.70 per week
 b. $68.70 daily
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  TEAM0247-004 04/01/2013

 AREA 1: ALCONA, ALGER, ALLEGAN, ALPENA, ANTRIM, ARENAC, BARAGA,
 BARRY, BAY, BENZIE, BERRIEN, BRANCH, CALHOUN, CASS, CHARLEVOIX,
 CHEBOYGAN, CHIPPEWA, CLARE, CLINTON, CRAWFORD, DELTA,
 DICKINSON, EATON, EMMET, GLADWIN, GOGEBIC, GRAND TRAVERSE,
 GRATIOT, HILLSDALE, HOUGHTON, HURON, INGHAM,  IONIA, IOSCO,
 IRON, ISABELLA, JACKSON, KALAMAZOO, KALKASKA, KENT, KEWEENAW,
 LAKE, LAPEER, LEELANAU, LENAWEE, LUCE, MACKINAC, MANISTEE,
 MARQUETTE, MASON, MECOSTA, MENOMINEE, MIDLAND, MISSAUKEE,
 MONTCALM, MONTMORENCY, MUSKEGON, NEWAYGO, OCEANA, OGEMAW,
 ONTONAGON, OSCEOLA, OSCODA, OTSEGO, OTTAWA, PRESQUE ISLE,
 ROSCOMMON, SANILAC, SCHOOLCRAFT, SHIAWASSEE, SAGINAW, ST.
 CLAIR, ST. JOSEPH, TUSCOLA, VAN BUREN  AND WEXFORD COUNTIES

 AREA 2: GENESEE, LIVINGSTON,  MACOMB, MONROE, OAKLAND,
 WASHTENAW AND WAYNE COUNTIES


                                  Rates          Fringes

 Sign Installer
      AREA 1
       GROUP 1...................$ 21.78           11.83
       GROUP 2...................$ 25.27         11.8375
      AREA 2
       GROUP 1...................$ 22.03           11.83
       GROUP 2...................$ 25.02         11.8375

 FOOTNOTE:

 a. $132.70 per week, plus $17.80 per day.


 SIGN INSTALLER CLASSIFICATIONS:

   GROUP 1: performs all necessary labor and uses all tools
   required to construct and set concrete forms required in
   the installation of highway and street signs

   GROUP 2: performs all miscellaneous labor, uses all hand and
   power tools, and operates all other equipment, mobile or
   otherwise, required for the installation of highway and
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street signs

TEAM0247-010 04/01/2018

AREA 1: LAPEER AND SHIAWASSEE COUNTIES

AREA 2: GENESEE, MACOMB, MONROE, OAKLAND, ST. CLAIR, WASHTENAW AND WAYNE COUNTIES

	Rates	Fringes
TRUCK DRIVER (Underground construction)		
AREA 1		
GROUP 1	$ 23.82	19.04
GROUP 2	$ 23.91	19.04
GROUP 3	$ 24.12	19.04
AREA 2		
GROUP 1	$ 24.12	19.04
GROUP 2	$ 24.26	19.04
GROUP 3	$ 24.45	19.04

PAID HOLIDAYS: New Year's Day, Memorial Day, Fourth of July, Labor Day, Thanksgiving Day and Christmas Day.

SCOPE OF WORK: Excavation, site preparation, land balancing, grading, sewers, utilities and improvements; also including but not limited to, tunnels, underground piping, retention, oxidation, flocculation facilities, conduits, general excavation and steel sheeting for underground construction. Underground construction work shall not include any structural modifications, alterations, additions and repairs to buildings or highway work, including roads, streets, bridge construction and parking lots or steel erection.

TRUCK DRIVER CLASSIFICATIONS

GROUP 1: Truck driver on all trucks (EXCEPT dump trucks of 8 cubic yards capacity or over, pole trailers, semis, low boys, Euclid, double bottom and fuel trucks)

GROUP 2: Truck driver on dump trucks of 8 cubic yards capacity or over, pole trailers, semis and fuel trucks

GROUP 3: Truck driver on low boy, Euclid and double bottom

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* SUMI2002-001 05/01/2002

	Rates	Fringes
FLAG PERSON	$ 10.10 **	0.00
LINE PROTECTOR (ZONE 1: GENESEE, MACOMB, MONROE,		

OAKLAND, WASHTENAW AND WAYNE)....$ 22.89 13.45

LINE PROTECTOR (ZONE 2:
STATEWIDE (EXCLUDING GENESEE,
MACOMB, MONROE, OAKLAND,
WASHTENAW AND WAYNE).....$ 20.19 13.45

Pavement Marking Machine
(ZONE 1: GENESEE, MACOMB,
MONROE, OAKLAND, WASHTENAW
AND WAYNE COUNTIES)
Group 1.....$ 30.52 13.45

Pavement Marking Machine
(ZONE 1: GENESEE, MACOMB,
MONROE, OAKLAND, WASHTENAW
AND WAYNE)
Group 2.....$ 27.47 13.45

Pavement Marking Machine
(ZONE 2: STATEWIDE (EXCLUDING
GENESEE, MACOMB, MONROE,
OAKLAND, WASHTENAW AND WAYNE
COUNTIES)
Group 1.....$ 26.92 13.45

Pavement Marking Machine
(ZONE 2: STATEWIDE (EXCLUDING
GENESEE, MACOMB, MONROE,
OAKLAND, WASHTENAW AND WAYNE)
Group 2.....$ 24.23 13.45

WORK CLASSIFICATIONS:

PAVEMENT MARKER GROUP 1: Drives or operates a truck mounted striper, grinder, blaster, groover, or thermoplastic melter for the placement or removal of temporary or permanent pavement markings or markers.

PAVEMENT MARKER GROUP 2: Performs all functions involved for the placement or removal of temporary or permanent pavement markings or markers not covered by the classification of Pavement Marker Group 1 or Line Protector.

LINE PROTECTOR: Performs all operations for the protection or removal of temporary or permanent pavement markings or markers in a moving convoy operation not performed by the classification of Pavement Marker Group 1. A moving convoy operation is comprised of only Pavement Markers Group 1 and Line Protectors.

WELDERS - Receive rate prescribed for craft performing operation to which welding is incidental.

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** Workers in this classification may be entitled to a higher minimum wage under Executive Order 14026 ($17.20) or 13658 ($12.90). Please see the Note at the top of the wage determination for more information. Please also note that the minimum wage requirements of Executive Order 14026 are not currently being enforced as to any contract or subcontract to which the states of Texas, Louisiana, or Mississippi, including their agencies, are a party.

Note: Executive Order (EO) 13706, Establishing Paid Sick Leave for Federal Contractors applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2017. If this contract is covered by the EO, the contractor must provide employees with 1 hour of paid sick leave for every 30 hours they work, up to 56 hours of paid sick leave each year. Employees must be permitted to use paid sick leave for their own illness, injury or other health-related needs, including preventive care; to assist a family member (or person who is like family to the employee) who is ill, injured, or has other health-related needs, including preventive care; or for reasons resulting from, or to assist a family member (or person who is like family to the employee) who is a victim of, domestic violence, sexual assault, or stalking. Additional information on contractor requirements and worker protections under the EO is available at https://www.dol.gov/agencies/whd/government-contracts.

Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29CFR 5.5 (a) (1) (iii)).

The body of each wage determination lists the classification and wage rates that have been found to be prevailing for the cited type(s) of construction in the area covered by the wage determination. The classifications are listed in alphabetical order of ""identifiers"" that indicate whether the particular rate is a union rate (current union negotiated rate for local), a survey rate (weighted average rate) or a union average rate (weighted union average rate).

Union Rate Identifiers

A four letter classification abbreviation identifier enclosed in dotted lines beginning with characters other than ""SU"" or ""UAVG"" denotes that the union classification and rate were prevailing for that classification in the survey. Example: PLUM0198-005 07/01/2014. PLUM is an abbreviation identifier of the union which prevailed in the survey for this classification, which in this example would be Plumbers. 0198 indicates the local union number or district council number where applicable, i.e., Plumbers Local 0198. The next number, 005 in the example, is an internal number used in processing

the wage determination. 07/01/2014 is the effective date of the most current negotiated rate, which in this example is July 1, 2014.

Union prevailing wage rates are updated to reflect all rate changes in the collective bargaining agreement (CBA) governing this classification and rate.

Survey Rate Identifiers

Classifications listed under the ""SU"" identifier indicate that no one rate prevailed for this classification in the survey and the published rate is derived by computing a weighted average rate based on all the rates reported in the survey for that classification. As this weighted average rate includes all rates reported in the survey, it may include both union and non-union rates. Example: SULA2012-007 5/13/2014. SU indicates the rates are survey rates based on a weighted average calculation of rates and are not majority rates. LA indicates the State of Louisiana. 2012 is the year of survey on which these classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. 5/13/2014 indicates the survey completion date for the classifications and rates under that identifier.

Survey wage rates are not updated and remain in effect until a new survey is conducted.

Union Average Rate Identifiers

Classification(s) listed under the UAVG identifier indicate that no single majority rate prevailed for those classifications; however, 100% of the data reported for the classifications was union data. EXAMPLE: UAVG-OH-0010 08/29/2014. UAVG indicates that the rate is a weighted union average rate. OH indicates the state. The next number, 0010 in the example, is an internal number used in producing the wage determination. 08/29/2014 indicates the survey completion date for the classifications and rates under that identifier.

A UAVG rate will be updated once a year, usually in January of each year, to reflect a weighted average of the current negotiated/CBA rate of the union locals from which the rate is based.

State Adopted Rate Identifiers

Classifications listed under the ""SA"" identifier indicate that the prevailing wage rate set by a state (or local) government was adopted under 29 C.F.R §1.3(g)-(h). Example: SAME2023-007 01/03/2024. SA reflects that the rates are state adopted. ME refers to the State of Maine. 2023 is the year during which the state completed the survey on which the listed classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. 01/03/2024 reflects the date on which the classifications and rates under the ?SA? identifier took effect under state law in the state from which the rates were adopted.

WAGE DETERMINATION APPEALS PROCESS

1.) Has there been an initial decision in the matter? This can be:

* an existing published wage determination
* a survey underlying a wage determination
* a Wage and Hour Division letter setting forth a position on a wage determination matter
* a conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour National Office because National Office has responsibility for the Davis-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described in 2.) and 3.) should be followed.

With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the Branch of Construction Wage Determinations. Write to:

Branch of Construction Wage Determinations
Wage and Hour Division
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

2.) If the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Write to:

Wage and Hour Administrator
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

The request should be accompanied by a full statement of the interested party's position and by any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3.) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

4.) All decisions by the Administrative Review Board are final.

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END OF GENERAL DECISION"

90% Bid Package

SECTION 01 10 00

SUMMARY

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Contract description.
2. Contractor's use of Site.
3. Permits.
4. Specification conventions.

1.2 CONTRACT DESCRIPTION

A. The Work of the Project includes installation of water service and sanitary service, base preparation for bathroom structure, and sidewalks at Ford Heritage. Work at Lakeside included removal of existing bathroom structure, removal of existing concrete slab, base preparation for new bathroom structure, hookup existing utilities, install concrete pad and pavilion.

B. Perform Work of Contract under stipulated sum Contract with Owner according to Conditions of Contract.

1.3 CONTRACTOR'S USE OF SITE

A. Access to Site: Contractor may, at their own cost, close the park or portions of the park to public. Contractor is responsible for safety and security of the site. Contractor must allow safe and reasonable access to the Owner or Owner’s representative.

B. Time Restrictions for Performing Work: as described in General and Supplemental Conditions.

C. Construction Plan: Before start of construction, submit by email an electronic file in PDF format of construction plan regarding access to Work, use of Site, and utility outages for acceptance by Owner. After acceptance of plan, construction operations shall comply with accepted plan unless deviations are accepted by Owner in writing.

1.4 PERMITS

A. Furnish any necessary permits for construction of Work and delivery of materials.

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1.5 SPECIFICATION CONVENTIONS

A. These Specifications are written in imperative mood and streamlined form. This imperative language is directed to Contractor unless specifically noted otherwise. The words "shall be" are included by inference where a colon (:) is used within sentences or phrases.

PART 2 - PRODUCTS - Not Used

PART 3 - EXECUTION - Not Used

END OF SECTION 01 10 00

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SECTION 01 20 00

PRICE AND PAYMENT PROCEDURES

PART 1 - GENERAL

1.1 SECTION INCLUDES

A. Application for Payment.

B. Change procedures.

C. Defect assessment.

D. Unit prices.

1.2 APPLICATION FOR PAYMENT

A. Submit via email electronic file in PDF format of each Application for Payment on EJCDC C-620 - Contractor's Application for Payment.

B. Content and Format: Use Schedule of Values for listing items in Application for Payment.

C. Submit updated construction schedule with each Application for Payment.

D. Payment Period: Submit at intervals stipulated in the Agreement.

E. Submit submittals with transmittal letter as specified in Section 01 33 00 - Submittal Procedures.

F. Substantiating Data: When Engineer requires substantiating information, submit data justifying dollar amounts in question. Include the following with Application for Payment:
   1. Partial release of liens from major Subcontractors and vendors.
   2. Affidavits attesting to off-Site stored products.
   3. Construction Progress Schedule, revised and current as specified in Section 01 33 00 - Submittal Procedures.

1.3 CHANGE PROCEDURES

A. Submittals: Submit name of individual who is authorized to receive change documents and is responsible for informing others in Contractor's employ or Subcontractors of changes to the Work.

B. Carefully study and compare Contract Documents before proceeding with fabrication and installation of Work. Promptly advise Engineer of any error, inconsistency, omission, or apparent discrepancy.

C. Requests for Interpretation (RFI) and Clarifications: Allot time in construction scheduling for liaison with Engineer; establish procedures for handling queries and clarifications.

1. Use CSI Form 13.2A - Request for Interpretation for requesting interpretations.
2. Engineer may respond with a direct answer on the Request for Interpretation form,, EJCDC C-942 - Field Order, or CSI Form 13/6A - Change Order Request (Proposal).

D. Engineer will advise of minor changes in the Work not involving adjustment to Contract Sum/Price or Contract Time by issuing supplemental instructions on EJCDC C-942.

E. Engineer may issue CSI Form 13/6A including a detailed description of proposed change with supplementary or revised Drawings and Specifications, a change in Contract Time for executing the change with stipulation of overtime work required and with the period of time during which the requested price will be considered valid. Contractor will prepare and submit estimate within 5 days.

F. Document requested substitutions according to Section 01 25 00 - Substitution Procedures.

G. Unit Price Change Order: For Contract unit prices and quantities, the Change Order will be executed on a fixed unit price basis. For unit costs or quantities of units of that which are not predetermined, execute Work under Work Directive Change. Changes in Contract Sum/Price or Contract Time will be computed as specified for Force Account Change Order.

H. Work Directive Change: Engineer may issue directive, on EJCDC C-940 - Work Change Directive signed by Owner, instructing Contractor to proceed with change in the Work, for subsequent inclusion in a Change Order. Document will describe changes in the Work and designate method of determining any change in Contract Sum/Price or Contract Time. Promptly execute change.

I. Force Account Change Order: Submit itemized account and supporting data after completion of change, within time limits indicated in Conditions of the Contract. Engineer will determine change allowable in Contract Sum/Price and Contract Time as provided in Contract Documents.

J. Maintain detailed records of Work done on force account basis. Provide full information required for evaluation of proposed changes and to substantiate costs for changes in the Work.

K. Document each quotation for change in Project Cost or Time with sufficient data to allow evaluation of quotation.

L. Change Order Forms: EJCDC C-941 - Change Order.

M. Execution of Change Orders: Engineer will issue Change Orders for signatures of parties as provided in Conditions of the Contract.

N. Correlation of Contractor Submittals:

1. Promptly revise Schedule of Values and Application for Payment forms to record each authorized Change Order as separate line item and adjust Contract Sum/Price.
2. Promptly revise Progress Schedules to reflect change in Contract Time, revise subschedules to adjust times for other items of Work affected by the change, and resubmit.
3. Promptly enter changes in Record Documents.

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1.4 DEFECT ASSESSMENT

A. Replace the Work, or portions of the Work, not conforming to specified requirements.

B. If, in the opinion of Engineer, it is not practical to remove and replace the Work, Engineer will direct appropriate remedy or adjust payment.

C. The defective Work may remain, but unit sum/price will be adjusted to new sum/price at discretion of Engineer.

D. Defective Work will be partially repaired according to instructions of Engineer, and unit sum/price will be adjusted to new sum/price at discretion of Engineer.

E. Individual Specification Sections may modify these options or may identify specific formula or percentage sum/price reduction.

F. Authority of Engineer to assess defects and identify payment adjustments is final.

G. Nonpayment for Rejected Products: Payment will not be made for rejected products for any of the following reasons:

1. Products wasted or disposed of in a manner that is not acceptable.
2. Products determined as unacceptable before or after placement.
3. Products not completely unloaded from transporting vehicle.
4. Products placed beyond lines and levels of the required Work.
5. Products remaining on hand after completion of the Work.
6. Loading, hauling, and disposing of rejected products.

1.5 UNIT PRICES

A. Authority: Measurement methods are delineated in 01 22 20 - Measurement and Payment section.

B. Take measurements and compute quantities. Engineer will verify measurements and quantities.

C. Unit Quantities: Quantities and measurements indicated on Bid Form are for Contract purposes only. Actual quantities provided shall determine payment.

1. When actual Work requires more or fewer quantities than those quantities indicated, provide required quantities at contracted unit sum/prices.
2. When actual Work requires 25 percent or greater change in quantity than those quantities indicated, Owner or Contractor may claim a Contract Price adjustment.

D. Payment Includes: Full compensation for required labor, products, tools, equipment, plant and facilities, transportation, services and incidentals; erection, application, or installation of item of the Work; overhead and profit.

E. Final payment for Work governed by unit prices will be made on basis of actual measurements and quantities accepted by Engineer multiplied by unit sum/price for Work incorporated in or made necessary by the Work.

F. Measurement of Quantities:

1. Weigh Scales: Inspected, tested, and certified by applicable State weights and measures department within past year.
2. Platform Scales: Of sufficient size and capacity to accommodate conveying vehicle.
3. Metering Devices: Inspected, tested, and certified by applicable State department within past year.
4. Measurement by Weight: Concrete reinforcing steel, rolled or formed steel, or other metal shapes will be measured by handbook weights. Welded assemblies will be measured by handbook or scale weight.
5. Measurement by Volume: Measured by cubic dimension using mean length, width, and height or thickness.
6. Measurement by Area: Measured by square dimension using mean length and width or radius.
7. Linear Measurement: Measured by linear dimension, at item centerline or mean chord.
8. Stipulated Sum/Price Measurement: Items measured by weight, volume, area, or linear means or combination, as appropriate, as completed item or unit of the Work.

PART 2 - PRODUCTS - Not Used

PART 3 - EXECUTION - Not Used

END OF SECTION 01 20 00

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SECTION 01 22 20

MEASUREMENT AND PAYMENT

PART 1 - GENERAL

1.1 SCOPE

1. This section describes the method of measurement and basis of payment for all items of the work included in the Contract and indicated in the Bid Proposal. Provide all labor, material, tools, equipment, and services required to complete the Work included in the Contract Documents. Items described in the Specifications and indicated on the Drawings, but not shown in this specification section, are considered incidental to the Project.

2. Each bid item on the bid form includes all work items required to construct the work as shown on the drawings and indicated in the specifications, including those items not specifically stated below in this section.

3. From time to time, Contractors may receive written authorization to perform additions to or deletions from the Work, on a Unit Rate Price basis; the costs of Changes shall be calculated in accordance with the Unit Rate Pricing or "Add/Deduct" indicated on this Bid Form.

   Unless otherwise noted, each Unit Rate Price includes all direct and indirect costs for labor, equipment, transportation, testing services, general work expenses, applicable taxes, overhead, and other costs required to complete the work.

   a) The all-inclusive Unit Rate Prices are fixed for the duration of this Contract, and not subject to escalation.
   b) The Unit Rate Prices shall include all Work the Contractor is required to perform without regard to the quantities involved, difficulty in performing the Work, materials or equipment required, and specific handling of materials and equipment.
   c) All Unit Rate Prices shall apply at 100% of their value for both additions and deletions to the Scope of Work, unless mutually agreed to otherwise in accordance with the Contract Documents.

1.2 UNIT PRICE – MEASUREMENT AND PAYMENT

1. Section 01 20 00 – Price and Payment Procedures Contract Sum/Price.

2. Pavement Removal
   a) Basis of Measurement: By the unit price bid per square yard as stated in the proposal.
   b) Basis of Payment: Includes all associated labor, material, and equipment for saw cutting, removal, and disposal of asphalt pavement.

3. Remove and Reinstall Fence
   a) Basis of Measurement: By the unit price bid per each as stated in the proposal.
   b) Basis of Payment: Includes all associated labor, material, and equipment for complete removal and reinstallation of fence piece that are required to be removed for installation of other items

on site. Included removal, storage, and reinstallation of fence posts and slants. If removal of post and slants damages them, Contractor will replace them at no cost to the Owner.

4. Demolish Existing Bathroom – Lakeside:
   a) Basis of Measurement: By the unit price bid per lump sum as stated in the proposal.
   b) Basis of Payment: Includes all associated labor, materials, and equipment required to remove and dispose of existing bathroom building and everything contained within the building at Lakeside Park. Utility services will be protected for future reuse.

5. Demolish Existing Concrete Pad – Lakeside:
   a) Basis of Measurement: By the unit price per lump sum as stated in the proposal.
   b) Basis of Payment: Includes all associated labor, materials, and equipment to demolish and dispose existing concrete pad located at Lakeside Park.

6. Sanitary Sewer Lead, _ inch:
   a) Basis of Measurement: By the unit price per linear foot as stated in the proposal.
   b) Basis of Payment: Included all associated labor, materials, and equipment needed to install sanitary sewer lead including all bends and fittings, and cleanouts need for a complete install.

7. Copper Water Service, _ inch:
   a) Basis of Measurement: By the unit price of linear foot as stated in the proposal.
   b) Basis of Payment: Includes all associated labor, material, equipment, needed to install water service including, all bends and fittings required for a complete install.

8. _" Corporation & Saddle:
   a) Basis of Measurement: Included in the unit price bid per each at the size as stated in the proposal.
   b) Basis of Payment: Includes all associated material, labor, equipment, tapping, bedding, backfill, compaction for a complete installation.

9. _" Curb Stop & Box:
   a) Basis of Measurement: Included in the unit price bid per each at the size as stated in the proposal.
   b) Basis of Payment: Includes all associated material, labor, equipment, excavation, backfill, compaction, and restoration for a complete installation.

10. Excavation, Earth:
    a) Basis of Measurement: At the unit price per cubic yard as stated in the proposal.
    b) Basis of Payment: Includes all associated labor, material, and equipment for excavation, trenching, grading, compaction, hauling, and storing or disposal of excavated materials. The Engineer will not pay for removing topsoil and frozen material to facilitate the Contractor's operations.

11. Class II Sand Subbase:
    a) Basis of Measurement: By the unit price of cubic yards as stated in the proposal.
    b) Basis of Payment: Includes all associated labor, material, and equipment for providing, hauling, placing, compacting, and shaping the material, and providing water for compaction.

12. Aggregate Base:
    a) Basis of Measurement: By the unit price of cubic yards as stated in the proposal.
    b) Basis of Payment: Includes all associated labor, material, and equipment for providing, hauling, placing, compacting, and shaping the material, and providing water for compaction.

13. Sidewalk, _inch:
    a) Basis of Measurement: at the unit price per square foot as stated in the proposal.
    b) Basis of Payment: Includes all associated labor, material, saw cutting, mix design, supplying to the site, preparing base, formwork, and testing in accordance with plan details for a complete installation.

14. Concrete Pad, _inch:
    a) Basis of Measurement: At the unit price per square yard as stated in the proposal.
    b) Basis of Payment: Includes all associated labor, material, saw cutting, mix design, supplying to the site, preparing base, formwork, and testing in accordance with plan details for a complete installation.

15. Demolish and Reinstall Concrete Driveway, _inch:
    a) Basis of Measurement: At the unit price per square yard as stated in the proposal.
    b) Basis of Payment: Includes all associated labor, material, saw cutting, removal and disposal of existing, mix design, supplying to the site, preparing base, formwork, and testing in accordance with plan details for t a complete installation.

16. Concrete Curb & Gutter, Det__:
    a) Basis of Measurement: At the unit price per linear foot as stated in the proposal.
    b) Basis of Payment: Includes all associated labor, material, equipment needed to install curb and curb as specified on plans.

17. HMA, __:
    a) Basis of Measurement: At the unit price per ton as stated in the proposal.
    b) Basis of Payment: Includes all associated labor, material, equipment, saw cutting, mix design, supplying to site, preparing base, testing, tack coating surfaces, placing, compacting, and rolling in accordance with the plan details for a complete installation.

18. Sanitary Sewer Connection:
    a) Basis of Measurement: At the unit price per each as stated in the proposal.
    b) Basis of Payment: Includes all associated labor, material, equipment needed to tap existing sanitary sewer.

19. Water Service Connection:
    a) Basis of Measurement: At the unit price per each as stated in the proposal.
    b) Basis of Payment: Includes all associated labor, material, equipment needed to tap existing water main.

20. Electrical Extension and Connection – Lakeside:
    a) Basis of Measurement: At the unit price per lump sum as stated in the proposal.

b) Basis of Payment: Includes all associated labor, material, equipment needed for full electrical installation and connection to proposed bathroom structure at Lakeside Park.

21. Electrical Extension and Connection – Ford Heritage:
    a) Basis od Measurement: At the unit price per lump sum as stated in the proposal.
    b) Basis of Payment: Includes all associated labor, material, equipment needed for full electrical installation and connection to proposed bathroom structure at Ford Heritage Park.

22. Pavilion, 20'x44', Supply and Install – Lakeside:
    a) Basis od Measurement: At the unit price per lump sum as stated in the proposal.
    b) Basis of Payment: Includes all associated labor, material, equipment needed to supply and install 20'x44' pavilion per manufacturer's instructions.

23. Restoration:
    a) Basis of Measurement: By the unit price bid per square yard as stated in the proposal.
    b) Basis of Payment: Includes all excavation, labor, materials, fertilizer, mulch, landscape, grading, topsoil, subsoil, seeding, watering, and maintenance to provide uniform grass growth and any re-seeding and erosion repair to provide for a uniform growth at the completion of the project.

24. Soil Erosion and Sedimentation Control
    a) Basis of Measurement: Included in the lump sum price bid as stated in the Proposal.
    b) Basis of Payment: Includes all associated labor, material, and equipment, permit fees, etc. required for soil erosion prevention and sedimentation control required for this project. Additional control measures shall be employed as required by site conditions and applicable enforcing agency having project jurisdiction at no additional cost.

25. Mobilization, Max 5%
    a) Basis of Measurement: Included in the lump sum price bid as stated in the proposal.
    b) Basis of Payment: This work consists of preparatory work and operations including, but not limited to, the following:
        a. The movement of personnel, equipment, supplies, and incidental to the project site
        b. Establishment of the contractor's offices, buildings, and other facilities to support work on the project including associated job sites posters.
        c. Other work and operations the contractor must perform.
        d. Expenses incurred, before beginning work on pay items at the project site.
        e. Pre-construction costs, exclusive of bidding costs, that are necessary direct costs to the project rather than directly attributable to other pay items under contract.
        f. Payment shall be in accordance with MDOT Standard Specifications of Construction Table 150-1.

END OF SECTION 01 22 20

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SECTION 01 25 00

SUBSTITUTION PROCEDURES

PART 1 - GENERAL

1.1 SECTION INCLUDES

A. Quality assurance.

B. Product options.

C. Product substitution procedures.

1.2 QUALITY ASSURANCE

A. Contract is based on products and standards established in Contract Documents without consideration of proposed substitutions.

B. Products specified define standard of quality, type, function, dimension, appearance, and performance required.

C. Substitution Proposals: Permitted for specified products except where specified otherwise. Do not substitute products unless substitution has been accepted and approved in writing by Owner.

1.3 PRODUCT OPTIONS

A. See Section 01 60 00 - Product Requirements.

1.4 PRODUCT SUBSTITUTION PROCEDURES

A. Engineer will consider requests for substitutions only within 15 days after date of Owner-Contractor Agreement.

B. Substitutions may be considered when a product becomes unavailable through no fault of Contractor.

C. Document each request with complete data, substantiating compliance of proposed substitution with Contract Documents, including:

1. Manufacturer's name and address, product, trade name, model, or catalog number, performance and test data, and reference standards.
2. Itemized point-by-point comparison of proposed substitution with specified product, listing variations in quality, performance, and other pertinent characteristics.
3. Reference to Article and Paragraph numbers in Specification Section.

4. Cost data comparing proposed substitution with specified product and amount of net change to Contract Sum.
5. Changes required in other Work.
6. Availability of maintenance service and source of replacement parts as applicable.
7. Certified test data to show compliance with performance characteristics specified.
8. Samples when applicable or requested.
9. Other information as necessary to assist Engineer's evaluation.

D. A request constitutes a representation that Contractor:

1. Has investigated proposed product and determined that it meets or exceeds quality level of specified product.
2. Will provide same warranty for substitution as for specified product.
3. Will coordinate installation and make changes to other Work that may be required for the Work to be complete with no additional cost to Owner.
4. Waives claims for additional costs or time extension that may subsequently become apparent.
5. Will coordinate installation of the accepted substitute, making such changes as may be required for the Work to be complete in all respects.
6. Will reimburse Owner for review or redesign services associated with reapproval by authorities having jurisdiction.

E. Substitutions will not be considered when they are indicated or implied on Shop Drawing or Product Data submittals without separate written request or when acceptance will require revision to Contract Documents.

F. Substitution Submittal Procedure:

1. Submit requests for substitutions on CSI Form 13.1A Substitution Request-After the Bidding/Negotiating Stage.
2. Submit, via email, a file in PDF format of Request for Substitution for consideration. Limit each request to one proposed substitution.
3. Submit Shop Drawings, Product Data, and certified test results attesting to proposed product equivalence. Burden of proof is on proposer.
4. Engineer will notify Contractor in writing of decision to accept or reject request.

PART 2 - PRODUCTS - Not Used

PART 3 - EXECUTION - Not Used

END OF SECTION 01 25 00

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SECTION 01 30 00

ADMINISTRATIVE REQUIREMENTS

PART 1 - GENERAL

1.1 SECTION INCLUDES

A. Coordination and Project conditions.

B. Preconstruction meeting.

C. Progress meetings.

D. Closeout meeting.

1.2 COORDINATION AND PROJECT CONDITIONS

A. Coordinate scheduling, submittals, and Work of various Sections of Project Manual to ensure efficient and orderly sequence of installation of interdependent construction elements, with provisions for accommodating items installed later.

B. Verify that utility requirements and characteristics of operating equipment are compatible with building utilities. Coordinate Work of various Sections having interdependent responsibilities for installing, connecting to, and placing operating equipment in service.

C. Coordination Meetings: In addition to other meetings specified in this Section, hold coordination meetings with personnel and Subcontractors to ensure coordination of Work.

D. Coordinate completion and clean-up of Work of separate Sections in preparation for Substantial Completion.

E. After Owner's occupancy of premises, coordinate access to Site for correction of defective Work and Work not complying with Contract Documents, to minimize disruption of Owner's activities.

1.3 PRECONSTRUCTION MEETING

A. Engineer will schedule and preside over meeting after Notice of Award.

B. Attendance Required: Engineer, Owner, major Subcontractors, and Contractor.

C. Minimum Agenda:
   1. Submission of executed bonds and insurance certificates.
   2. Distribution of Contract Documents.
   3. Submission of list of Subcontractors, list of products, schedule of values, and Progress Schedule.
   4. Designation of personnel representing parties in Contract and Engineer.

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5. Communication procedures.
6. Procedures and processing of requests for interpretations, field decisions, field orders, submittals, substitutions, Applications for Payments, proposal request, Change Orders, and Contract closeout procedures.
7. Scheduling.
8. Critical Work sequencing.

D. Engineer: Record minutes and distribute copies to participants within two days after meeting, with two copies each to Contractor, Owner, and those affected by decisions made.

1.4 PROGRESS MEETINGS

A. Schedule and administer meetings throughout progress of the Work at maximum monthly intervals.

B. Engineer will make arrangements for meetings, prepare agenda with copies for participants, and preside over meetings.

C. Attendance Required: Job superintendent, major Subcontractors and suppliers, and Engineer, as appropriate to agenda topics for each meeting.

D. Minimum Agenda:

1. Review minutes of previous meetings.
2. Review of Work progress.
3. Field observations, problems, and decisions.
4. Identification of problems impeding planned progress.
5. Review of submittal schedule and status of submittals.
6. Review of off-Site fabrication and delivery schedules.
7. Maintenance of Progress Schedule.
8. Corrective measures to regain projected schedules.
9. Planned progress during succeeding work period.
10. Coordination of projected progress.
11. Maintenance of quality and work standards.
12. Effect of proposed changes on Progress Schedule and coordination.
13. Other business relating to Work.

E. Engineer: Record minutes and distribute copies to participants within two days after meeting, with two copies each to Contractor, Owner, and those affected by decisions made.

1.5 CLOSEOUT MEETING

A. Schedule Project closeout meeting with sufficient time to prepare for requesting Substantial Completion. Preside over meeting and be responsible for minutes.

B. Attendance Required: Contractor, major Subcontractors, Engineer, Owner, and others appropriate to agenda.

C. Notify Engineer four days in advance of meeting date.

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D. Minimum Agenda:

1. Contractor's inspection of Work.
2. Contractor's preparation of an initial "punch list."
3. Procedure to request Engineer inspection to determine date of Substantial Completion.
4. Completion time for correcting deficiencies.
5. Inspections by authorities having jurisdiction.
6. Final cleaning.
7. Preparation for final inspection.
8. Closeout Submittals:
9. Final Application for Payment.
10. Contractor's demobilization of Site.
11. Maintenance.

E. Record minutes and distribute copies to participants within two days after meeting, with two copies each to Engineer, Owner, and those affected by decisions made.

PART 2 - PRODUCTS - Not Used

PART 3 - EXECUTION – Not Used

END OF SECTION 01 30 00

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SECTION 01 32 16

CONSTRUCTION PROGRESS SCHEDULE

PART 1 - GENERAL

1.1 SECTION INCLUDES

A. Submittals.

B. Review and evaluation.

C. Updating schedules.

D. Distribution.

1.2 SUBMITTALS

A. Within 10 days after date of Owner-Contractor Agreement, submit proposed preliminary network diagram defining planned operations for first 60 days of Work, with general outline for remainder of Work.

B. Participate in review of preliminary and complete network diagrams jointly with Engineer.

C. Within 20 days after joint review of proposed preliminary network diagram, submit draft of proposed complete network diagram for review. Include written certification that major Subcontractors have reviewed and accepted proposed schedule.

D. Within 10 days after joint review, submit complete network analysis consisting of network diagrams and mathematical analyses.

E. Submit updated network schedules with each Application for Payment.

F. Submit number of opaque reproductions Contractor requires, plus two copies Engineer will retain.

G. Submit network schedules under transmittal letter form specified in Section 01 33 00 - Submittal Procedures.

H. Schedule Updates:

1. Overall percent complete, projected and actual.
2. Completion progress by listed activity and subactivity, to within five working days prior to submittal.
3. Changes in Work scope and activities modified since submittal.
4. Delays in submittals or resubmittals, deliveries, or Work.
5. Adjusted or modified sequences of Work.
6. Other identifiable changes.
7. Revised projections of progress and completion.

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I. Narrative Progress Report:

1. Submit with each monthly submission of Progress Schedule.
2. Summary of Work completed during the past period between reports.
3. Work planned during the next period.
4. Explanation of differences between summary of Work completed and Work planned in previously submitted report.
5. Current and anticipated delaying factors and estimated impact on other activities and completion milestones.
6. Corrective action taken or proposed.

1.3 REVIEW AND EVALUATION

A. Participate in joint review and evaluation of schedules with Engineer at each submittal.

B. Evaluate Project status to determine Work behind schedule and Work ahead of schedule.

C. After review, revise schedules incorporating results of review, and resubmit within 10 days.

1.4 UPDATING SCHEDULES

A. Maintain schedules to record actual start and finish dates of completed activities.

B. Indicate progress of each activity to date of revision, with projected completion date of each activity. Update schedules to depict current status of Work.

C. Identify activities modified since previous submittal, major changes in Work, and other identifiable changes.

D. Upon approval of a Change Order, include the change in the next schedule submittal.

E. Indicate changes required to maintain Date of Substantial Completion.

F. Submit sorts as required to support recommended changes.

G. Prepare narrative report to define problem areas, anticipated delays, and impact on schedule. Report corrective action taken or proposed and its effect.

1.5 DISTRIBUTION

A. Following joint review, distribute copies of updated schedules to Contractor's Project site file, to Subcontractors, suppliers, Engineer, Owner, and other concerned parties.

B. Instruct recipients to promptly report, in writing, problems anticipated by projections shown in schedules.

PART 2 - PRODUCTS - Not Used

PART 3 - EXECUTION - Not Used

END OF SECTION 01 32 16

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SECTION 01 33 00

SUBMITTAL PROCEDURES

PART 1 - GENERAL

1.1 SECTION INCLUDES

A. Definitions.

B. Submittal procedures.

C. Construction progress schedules.

D. Proposed product list.

E. Product data.

F. Use of electronic CAD files of Project Drawings.

G. Shop Drawings.

H. Samples.

I. Other submittals.

J. Test reports.

K. Certificates.

L. Manufacturer's instructions.

M. Manufacturer's field reports.

N. Erection Drawings.

O. Contractor review.

P. Engineer review.

1.2 DEFINITIONS

A. Action Submittals: Written and graphic information and physical samples that require Engineer's responsive action.

B. Informational Submittals: Written and graphic information and physical Samples that do not require Engineer's responsive action. Submittals may be rejected for not complying with requirements.

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1.3 SUBMITTAL PROCEDURES

A. Transmit each submittal with CSI Form 12.1A - Submittal Transmittal.

B. Sequentially number transmittal forms. Mark revised submittals with original number and sequential alphabetic suffix.

C. Identify: Project, Contractor, Subcontractor and supplier, pertinent Drawing and detail number, and Specification Section number appropriate to submittal.

D. Apply Contractor's stamp, signed or initialed, certifying that review, approval, verification of products required, field dimensions, adjacent construction Work, and coordination of information is according to requirements of the Work and Contract Documents.

E. Schedule submittals to expedite Project, and submit electronic submittals via email as PDF electronic files. Coordinate submission of related items.

F. For each submittal for review, allow 15 days excluding delivery time to and from Contractor.

G. Identify variations in Contract Documents and product or system limitations that may be detrimental to successful performance of completed Work.

H. Allow space on submittals for Contractor and Engineer review stamps.

I. When revised for resubmission, identify changes made since previous submission.

J. Distribute copies of reviewed submittals as appropriate. Instruct parties to promptly report inability to comply with requirements.

K. Submittals not requested will not be recognized nor processed.

L. Incomplete Submittals: Engineer will not review. Complete submittals for each item are required. Delays resulting from incomplete submittals are not the responsibility of Engineer.

1.4 CONSTRUCTION PROGRESS SCHEDULES

A. Comply with Section 01 32 16 - Construction Progress Schedule

1.5 PROPOSED PRODUCT LIST

A. Within 15 days after date of Owner-Contractor Agreement, submit list of major products proposed for use, with name of manufacturer, trade name, and model number of each product.

B. For products specified only by reference standards, indicate manufacturer, trade name, model or catalog designation, and reference standards.

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1.6 PRODUCT DATA

A. Product Data: Action Submittal: Submit to Engineer for review for assessing conformance with information given and design concept expressed in Contract Documents.

B. Submit electronic submittals via email as PDF electronic files.

C. Mark each copy to identify applicable products, models, options, and other data. Supplement manufacturers' standard data to provide information specific to this Project.

D. Indicate product utility and electrical characteristics, utility connection requirements, and location of utility outlets for service for functional equipment and appliances.

E. After review, produce copies and distribute according to "Submittal Procedures" Article and for record documents described in Section 01 70 00 - Execution and Closeout Requirements.

1.7 ELECTRONIC CAD FILES OF PROJECT DRAWINGS

A. Electronic CAD Files of Project Drawings: May only be used to expedite production of Shop Drawings for the Project. Use for other Projects or purposes is not allowed.

B. Electronic CAD Files of Project Drawings: Distributed only under the following conditions:

1. Use of files is solely at receiver's risk. Engineer does not warrant accuracy of files. Receiving files in electronic form does not relieve receiver of responsibilities for measurements, dimensions, and quantities set forth in Contract Documents. In the event of ambiguity, discrepancy, or conflict between information on electronic media and that in Contract Documents, notify Engineer of discrepancy and use information in hard-copy Drawings and Specifications.
2. CAD files do not necessarily represent the latest Contract Documents, existing conditions, and as-built conditions. Receiver is responsible for determining and complying with these conditions and for incorporating addenda and modifications.
3. User is responsible for removing information not normally provided on Shop Drawings and removing references to Contract Documents. Shop Drawings submitted with information associated with other trades or with references to Contract Documents will not be reviewed and will be immediately returned.
4. Receiver shall not hold Engineer responsible for data or file clean-up required to make files usable, nor for error or malfunction in translation, interpretation, or use of this electronic information.
5. Receiver shall understand that even though Engineer has computer virus scanning software to detect presence of computer viruses, there is no guarantee that computer viruses are not present in files or in electronic media.
6. Receiver shall not hold Engineer responsible for such viruses or their consequences, and shall hold Engineer harmless against costs, losses, or damage caused by presence of computer virus in files or media.

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1.8 SHOP DRAWINGS

A. Shop Drawings: Action Submittal: Submit to Engineer for assessing conformance with information given and design concept expressed in Contract Documents.

B. Indicate special utility and electrical characteristics, utility connection requirements, and location of utility outlets for service for functional equipment and appliances.

C. When required by individual Specification Sections, provide Shop Drawings signed and sealed by a professional Engineer responsible for designing components shown on Shop Drawings.

1. Include signed and sealed calculations to support design.
2. Submit Shop Drawings and calculations in form suitable for submission to and approval by authorities having jurisdiction.
3. Make revisions and provide additional information when required by authorities having jurisdiction.

D. Submit electronic submittals via email as PDF electronic files.

E. After review, produce copies and distribute according to "Submittal Procedures" Article and for record documents described in Section 01 70 00 - Execution and Closeout Requirements.

1.9 SAMPLES

A. Samples: Action Submittal: Submit to Engineer for assessing conformance with information given and design concept expressed in Contract Documents.

B. Samples for Selection as Specified in Product Sections:

1. Submit to Engineer for aesthetic, color, and finish selection.
2. Submit Samples of finishes, textures, and patterns for Engineer selection.

C. Submit Samples to illustrate functional and aesthetic characteristics of products, with integral parts and attachment devices. Coordinate Sample submittals for interfacing work.

D. Include identification on each Sample, with full Project information.

E. Submit number of Samples specified in individual Specification Sections; Engineer will retain one Sample.

F. Reviewed Samples that may be used in the Work are indicated in individual Specification Sections.

G. Samples will not be used for testing purposes unless specifically stated in Specification Section.

H. After review, produce copies and distribute according to "Submittal Procedures" Article and for record documents described in Section 01 70 00 - Execution and Closeout Requirements.

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1.10 OTHER SUBMITTALS

A. Closeout Submittals: Comply with Section 01 70 00 - Execution and Closeout Requirements.

B. Informational Submittal: Submit data for Engineer's knowledge as Contract administrator or for Owner.

C. Submit information for assessing conformance with information given and design concept expressed in Contract Documents.

1.11 TEST REPORTS

A. Informational Submittal: Submit reports for Engineer's knowledge as Contract administrator or for Owner.

B. Submit test reports for information for assessing conformance with information given and design concept expressed in Contract Documents.

1.12 CERTIFICATES

A. Informational Submittal: Submit certification by manufacturer, installation/application Subcontractor, or Contractor to Engineer, in quantities specified for Product Data.

B. Indicate material or product conforms to or exceeds specified requirements. Submit supporting reference data, affidavits, and certifications as appropriate.

C. Certificates may be recent or previous test results on material or product but must be acceptable to Engineer.

1.13 MANUFACTURER'S INSTRUCTIONS

A. Informational Submittal: Submit manufacturer's installation instructions for Engineer's knowledge as Contract administrator or for Owner.

B. Submit printed instructions for delivery, storage, assembly, installation, adjusting, and finishing, to Engineer in quantities specified for Product Data.

C. Indicate special procedures, perimeter conditions requiring special attention, and special environmental criteria required for application or installation.

1.14 MANUFACTURER'S FIELD REPORTS

A. Informational Submittal: Submit reports for Engineer's knowledge as Contract administrator or for Owner.

B. Submit report within 5 days of observation to Engineer for information.

C. Submit reports for information for assessing conformance with information given and design concept expressed in Contract Documents.

1.15 ERECTION DRAWINGS

A. Informational Submittal: Submit Drawings for Engineer's knowledge as Contract administrator or for Owner.

B. Submit Drawings for information assessing conformance with information given and design concept expressed in Contract Documents.

C. Data indicating inappropriate or unacceptable Work may be subject to action by Engineer or Owner.

1.16 CONTRACTOR REVIEW

A. Review for compliance with Contract Documents and approve submittals before transmitting to Engineer.

B. Contractor: Responsible for:

1. Determination and verification of materials including manufacturer's catalog numbers.
2. Determination and verification of field measurements and field construction criteria.
3. Checking and coordinating information in submittal with requirements of Work and of Contract Documents.
4. Determination of accuracy and completeness of dimensions and quantities.
5. Confirmation and coordination of dimensions and field conditions at Site.
6. Construction means, techniques, sequences, and procedures.
7. Safety precautions.
8. Coordination and performance of Work of all trades.

C. Stamp, sign or initial, and date each submittal to certify compliance with requirements of Contract Documents.

D. Do not fabricate products or begin Work for which submittals are required until approved submittals have been received from Engineer.

1.17 ENGINEER REVIEW

A. Do not make "mass submittals" to Engineer. "Mass submittals" are defined as six or more submittals or items in one day or 15 or more submittals or items in one week. If "mass submittals" are received, Engineer's review time stated above will be extended as necessary to perform proper review. Engineer will review "mass submittals" based on priority determined by Engineer after consultation with Owner and Contractor.

B. Informational submittals and other similar data are for Engineer's information, do not require Engineer's responsive action, and will not be reviewed or returned with comment.

C. Submittals made by Contractor that are not required by Contract Documents may be returned without action.

D. Submittal approval does not authorize changes to Contract requirements unless accompanied by Change Order, Field Order, or Work Change Directive.

PART 2 - PRODUCTS - Not Used

PART 3 - EXECUTION - Not Used

END OF SECTION 01 33 00

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SECTION 01 40 00

QUALITY REQUIREMENTS

PART 1 - GENERAL

1.1 SECTION INCLUDES

A. Quality control.

B. Tolerances.

C. References.

D. Labeling.

E. Mockup requirements.

F. Testing and inspection services.

G. Manufacturers' field services.

1.2 QUALITY CONTROL

A. Monitor quality control over suppliers, manufacturers, products, services, Site conditions, and workmanship, to produce Work of specified quality.

B. Comply with specified standards as the minimum quality for the Work except where more stringent tolerances, codes, or specified requirements indicate higher standards or more precise workmanship.

C. Perform Work using persons qualified to produce required and specified quality.

D. Products, materials, and equipment may be subject to inspection by Engineer and Owner at place of manufacture or fabrication. Such inspections shall not relieve Contractor of complying with requirements of Contract Documents.

E. Supervise performance of Work in such manner and by such means to ensure that Work, whether completed or in progress, will not be subjected to harmful, dangerous, damaging, or otherwise deleterious exposure during construction period.

1.3 TOLERANCES

A. Monitor fabrication and installation tolerance control of products to produce acceptable Work. Do not permit tolerances to accumulate.

B. Comply with manufacturers' recommended tolerances and tolerance requirements in reference standards. When such tolerances conflict with Contract Documents, request clarification from Engineer before proceeding.

C. Adjust products to appropriate dimensions; position before securing products in place.

1.4 REFERENCES

A. For products or workmanship specified by association, trade, or other consensus standards, comply with requirements of standard except when more rigid requirements are specified or are required by applicable codes.

B. Conform to reference standard by date of issue current as of date of Contract Documents except where specific date is established by code.

C. Obtain copies of standards and maintain on Site when required by product Specification Sections.

D. When requirements of indicated reference standards conflict with Contract Documents, request clarification from Engineer before proceeding.

E. Neither contractual relationships, duties, or responsibilities of parties in Contract nor those of Engineer shall be altered from Contract Documents by mention or inference in reference documents.

1.5 LABELING

A. Attach label from agency approved by authorities having jurisdiction for products, assemblies, and systems required to be labeled by applicable code.

B. Label Information: Include manufacturer's or fabricator's identification, approved agency identification, and the following information, as applicable, on each label:

1. Model number.
2. Serial number.
3. Performance characteristics.

C. Manufacturer's Nameplates, Trademarks, Logos, and Other Identifying Marks on Products: Not allowed on surfaces exposed to view in public areas, interior or exterior.

1.6 MOCK-UP REQUIREMENTS

A. Tests will be performed under provisions identified in this Section and identified in individual product Specification Sections.

B. Assemble and erect specified or indicated items with specified or indicated attachment and anchorage devices, flashings, seals, and finishes.

C. Accepted mockups shall be comparison standard for remaining Work.

D. Where mockup has been accepted by Engineer and is specified in product Specification Sections to be removed, remove mockup and clear area when directed to do so by Engineer.

1.7 TESTING AND INSPECTION SERVICES

A. Owner will employ and pay for specified services of an independent firm to perform testing and inspection.

B. Independent firm will perform tests, inspections, and other services specified in individual Specification Sections and as required by authorities having jurisdiction.

1. Laboratory: Authorized to operate in State of Michigan.
2. Laboratory Staff: Maintain full-time Professional Engineer on staff to review services.
3. Testing Equipment: Calibrated at reasonable intervals with devices of an accuracy traceable to National Bureau of Standards or accepted values of natural physical constants.

C. Testing, inspections, and source quality control may occur on or off Project Site. Perform off-Site testing as required by Engineer or Owner.

D. Reports shall be submitted by independent firm to Engineer, Contractor, and authorities having jurisdiction, in duplicate, indicating observations and results of tests and compliance or noncompliance with Contract Documents.

1. Submit final report indicating correction of Work previously reported as noncompliant.

E. Cooperate with independent firm; furnish samples of materials, design mix, equipment, tools, storage, safe access, and assistance by incidental labor as requested.

1. Notify Engineer and independent firm 48 hours before expected time for operations requiring services.
2. Make arrangements with independent firm and pay for additional Samples and tests required for Contractor's use.

F. Employment of testing agency or laboratory shall not relieve Contractor of obligation to perform Work according to requirements of Contract Documents.

G. Retesting or re-inspection required because of nonconformance with specified or indicated requirements shall be performed by same independent firm on instructions from Engineer. Payment for retesting or re-inspection will be charged to Contractor by deducting testing charges from Contract Sum/Price.

H. Agency Responsibilities:

1. Test Samples of mixes submitted by Contractor.
2. Provide qualified personnel at Site. Cooperate with Engineer and Contractor in performance of services.
3. Perform indicated sampling and testing of products according to specified standards.
4. Ascertain compliance of materials and mixes with requirements of Contract Documents.
5. Promptly notify Engineer and Contractor of observed irregularities or nonconformance of Work or products.

6. Perform additional tests required by Engineer.
7. Attend preconstruction meetings and progress meetings.

I. Agency Reports: After each test, promptly submit two copies of report to Engineer, Contractor, and authorities having jurisdiction. When requested by Engineer, provide interpretation of test results. Include the following:

1. Date issued.
2. Project title and number.
3. Name of inspector.
4. Date and time of sampling or inspection.
5. Identification of product and Specification Section.
6. Location in Project.
7. Type of inspection or test.
8. Date of test.
9. Results of tests.
10. Conformance with Contract Documents.

J. Limits on Testing Authority:

1. Agency or laboratory may not release, revoke, alter, or enlarge on requirements of Contract Documents.
2. Agency or laboratory may not approve or accept any portion of the Work.
3. Agency or laboratory may not assume duties of Contractor.
4. Agency or laboratory has no authority to stop the Work.

1.8 MANUFACTURER'S FIELD SERVICES

A. When specified in individual Specification Sections, require material or product suppliers or manufacturers to provide qualified staff personnel to observe Site conditions, conditions of surfaces and installation, and quality of workmanship, as applicable, and to initiate instructions when necessary.

B. Submit qualifications of observer to Engineer 30 days in advance of required observations. Observer is subject to approval of Engineer.

C. Report observations and Site decisions or instructions given to applicators or installers that are supplemental or contrary to manufacturer's written instructions.

D. Refer to Section 01 33 00 - Submittal Procedures, "Manufacturer's Field Reports" Article.

PART 2 - PRODUCTS - Not Used

PART 3 - EXECUTION - Not Used

END OF SECTION 01 40 00

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SECTION 01 50 00

TEMPORARY FACILITIES AND CONTROLS

PART 1 - GENERAL

1.1 SECTION INCLUDES

A. Temporary Utilities:

1. Temporary electricity.

B. Construction Facilities:
1. Vehicular access.
2. Parking.
3. Progress cleaning and waste removal.
4. Traffic regulation.

C. Temporary Controls:

1. Barriers.
2. Enclosures and fencing.
3. Security.
4. Water control.
5. Dust control.
6. Erosion and sediment control.
7. Noise control.

1.2 REFERENCES

A. ASTM International:

1. ASTM E 84 - Standard Test Method for Surface Burning Characteristics of Building Materials.
2. ASTM E 90 - Standard Test Method for Laboratory Measurement of Airborne Sound Transmission Loss of Building Partitions and Elements.
3. ASTM E 119 - Standard Test Methods for Fire Tests of Building Construction and Materials.

1.3 TEMPORARY ELECTRICITY

A. Provide and pay for power service required from utility source as needed for construction operation.

B. Complement existing power service capacity and characteristics as required for construction operations.

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1.4 PARKING

A. If Site space is not adequate, provide additional off-Site parking.

B. Permanent Pavements and Parking Facilities:
   1. Avoid traffic loading beyond paving design capacity. Tracked vehicles are not allowed.

C. Maintenance:

   1. Maintain traffic and parking areas in sound condition free of excavated material, construction equipment, products, mud, snow, ice, and the like.
   2. Maintain existing and permanent paved areas used for construction; promptly repair breaks, potholes, low areas, standing water, and other deficiencies, to maintain paving and drainage in original condition.

D. Mud from Site vehicles: Provide means of removing mud from vehicle wheels before entering streets.

1.5 PROGRESS CLEANING AND WASTE REMOVAL

A. Maintain areas free of waste materials, debris, and rubbish. Maintain Site in clean and orderly condition.

B. Collect and remove waste materials, debris, and rubbish from Site periodically and dispose of off-Site.

1.6 TRAFFIC REGULATION

A. Signs, Signals, and Devices:

   1. Post-Mounted and Wall-Mounted Traffic Control and Informational Signs: As approved by authorities having jurisdiction.
   2. Traffic Cones, Drums, Flares, and Lights: As approved by authorities having jurisdiction.
   3. Flag Person Equipment: As required by authorities having jurisdiction.

B. Flag Persons: Provide trained and equipped flag persons to regulate traffic when construction operations or traffic encroach on public traffic lanes.

C. Haul Routes:

   1. Consult with authorities having jurisdiction and establish public thoroughfares to be used for haul routes and Site access.
   2. Confine construction traffic to designated haul routes.
   3. Provide traffic control at critical areas of haul routes to regulate traffic and to minimize interference with public traffic.

D. Traffic Signs and Signals:

   1. Provide signs at approaches to Site and on Site, at crossroads, detours, parking areas, and elsewhere as needed to direct construction and affected public traffic.

2. Relocate signs and signals as Work progresses, to maintain effective traffic control.

E. Removal:

1. Remove equipment and devices when no longer required.
2. Repair damage caused by installation.
3. Remove post settings to depth of 2 feet.

1.7 BARRIERS

A. Provide barriers to prevent unauthorized entry to construction areas, to allow for Owner's use of Site, and to protect existing facilities and adjacent properties from damage from construction operations and demolition.

B. Tree and Plant Protection: Preserve and protect existing trees and plants designated to remain.

1. Protect areas within drip lines from traffic, parking, storage, dumping, chemically injurious materials and liquids, ponding, and continuous running water.
2. Replace trees and plants damaged by construction operations.

C. Protect non-owned vehicular traffic, stored materials, Site, and structures from damage.

1.8 ENCLOSURES AND FENCING

A. Construction: Contractor's option.

B. Exterior Enclosures: Contractor’s option

1.9 SECURITY

A. Security Program:

1. Protect Work on existing premises from theft, vandalism, and unauthorized entry.

1.10 WATER CONTROL

A. Grade Site to drain. Maintain excavations free of water. Provide, operate, and maintain necessary pumping equipment.

1.11 DUST CONTROL

A. Execute Work by methods that minimize raising dust from construction operations.

B. Provide positive means to prevent airborne dust from dispersing into atmosphere.

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1.12 EROSION AND SEDIMENT CONTROL

A. Plan and execute construction by methods to control surface drainage from cuts and fills from borrow and waste disposal areas. Prevent erosion and sedimentation.

B. Minimize surface area of bare soil exposed at one time.

C. Provide temporary measures including berms, dikes, drains, and other devices to prevent water flow.

D. Construct fill and waste areas by selective placement to avoid erosive surface silts and clays.

E. Periodically inspect earthwork to detect evidence of erosion and sedimentation. Promptly apply corrective measures.

1.13 NOISE CONTROL

A. Provide methods, means, and facilities to minimize noise produced by construction operations.

PART 2 - PRODUCTS - Not Used

PART 3 - EXECUTION - Not Used

END OF SECTION 01 50 00

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SECTION 01 60 00

PRODUCT REQUIREMENTS

PART 1 - GENERAL

1.1 SECTION INCLUDES

A. Products.

B. Product delivery requirements.

C. Product storage and handling requirements.

D. Product options.

1.2 PRODUCTS

A. At minimum, comply with specified requirements and reference standards.

B. Specified products define standard of quality, type, function, dimension, appearance, and performance required.

C. Furnish products of qualified manufacturers that are suitable for intended use. Furnish products of each type by single manufacturer unless specified otherwise. Confirm that manufacturer's production capacity can provide sufficient product, on time, to meet Project requirements.

D. Do not use materials and equipment removed from existing premises except as specifically permitted by Contract Documents.

E. Furnish interchangeable components from same manufacturer for components being replaced.

1.3 PRODUCT DELIVERY REQUIREMENTS

A. Transport and handle products according to manufacturer's instructions.

B. Promptly inspect shipments to ensure products comply with requirements, quantities are correct, and products are undamaged.

C. Provide equipment and personnel to handle products; use methods to prevent soiling, disfigurement, or damage.

1.4 PRODUCT STORAGE AND HANDLING REQUIREMENTS

A. Store and protect products according to manufacturer's instructions.

B. Store products with seals and labels intact and legible.

C. Store sensitive products in weathertight, climate-controlled enclosures in an environment suitable to product.

D. For exterior storage of fabricated products, place products on sloped supports aboveground.

E. Provide off-Site storage and protection when Site does not permit on-Site storage or protection.

F. Cover products subject to deterioration with impervious sheet covering. Provide ventilation to prevent condensation and degradation of products.

G. Store loose granular materials on solid flat surfaces in well-drained area. Prevent mixing with foreign matter.

H. Provide equipment and personnel to store products; use methods to prevent soiling, disfigurement, or damage.

I. Arrange storage of products to permit access for inspection. Periodically inspect to verify products are undamaged and are maintained in acceptable condition.

1.5 PRODUCT OPTIONS

A. Products Specified by Reference Standards or by Description Only: Products complying with specified reference standards or description.

B. Products Specified by Naming One or More Manufacturers: Products of one of manufacturers named and complying with Specifications; no options or substitutions allowed.

C. Products Specified by Naming One or More Manufacturers with Provision for Substitutions: Submit Request for Substitution for any manufacturer not named, according to Section 01 25 00 - Substitution Procedures.

PART 2 - PRODUCTS – Not Used

PART 3 - EXECUTION - Not Used

END OF SECTION 01 60 00

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SECTION 01 70 00

EXECUTION AND CLOSEOUT REQUIREMENTS

PART 1 - GENERAL

1.1 SECTION INCLUDES

A. Field engineering.

B. Closeout procedures.

C. Manual for equipment and systems.

D. Product warranties and product bonds.

E. Examination.

F. Preparation.

G. Execution.

H. Protecting installed construction.

I. Final cleaning.

1.2 FIELD ENGINEERING

A. Owner will locate and Contractor shall protect survey control and reference points. Promptly notify Engineer of discrepancies discovered.

B. Control datum for survey is indicated on Drawings.

C. Verify setbacks and easements; confirm Drawing dimensions and elevations.

D. Provide field engineering services. Establish elevations, lines, and levels using recognized engineering survey practices.

E. Maintain complete and accurate log of control and survey Work as Work progresses.

F. Protect survey control points prior to starting Site Work; preserve permanent reference points during construction.

G. Promptly report to Engineer loss or destruction of reference point or relocation required because of changes in grades or other reasons.

H. Replace dislocated survey control points based on original survey control. Make no changes without prior written notice to Engineer.

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1.3 CLOSEOUT PROCEDURES

A. Prerequisites to Substantial Completion: Complete following items before requesting Certification of Substantial Completion, either for entire Work or for portions of Work:

1. Submit maintenance manuals, Project record documents, and other similar final record data in compliance with this Section.
2. Complete facility startup, testing, adjusting, balancing of systems and equipment, demonstrations, and instructions to Owner's operating and maintenance personnel as specified in compliance with this Section.
3. Conduct inspection to establish basis for request that Work is substantially complete. Create comprehensive list (initial punch list) indicating items to be completed or corrected, value of incomplete or nonconforming Work, reason for being incomplete, and date of anticipated completion for each item. Include copy of list with request for Certificate of Substantial Completion.
4. Obtain and submit releases enabling Owner's full, unrestricted use of Project and access to services and utilities. Include certificate of occupancy, operating certificates, and similar releases from authorities having jurisdiction and utility companies.
5. Deliver tools, spare parts, extra stocks of material, and similar physical items to Owner.
6. Discontinue or change over and remove temporary facilities and services from Project Site, along with construction tools, mockups, and similar elements.
7. Perform final cleaning according to this Section.

B. Substantial Completion Inspection:

1. When Contractor considers Work to be substantially complete, submit to Engineer:

    a. Written certificate that Work, or designated portion, is substantially complete.
    b. List of items to be completed or corrected (initial punch list).

2. Within seven days after receipt of request for Substantial Completion, Engineer will make inspection to determine whether Work or designated portion is substantially complete.
3. Should Engineer determine that Work is not substantially complete:

    a. Engineer will promptly notify Contractor in writing, stating reasons for its opinion.
    b. Contractor shall remedy deficiencies in Work and send second written request for Substantial Completion to Engineer.
    c. Engineer will reinspect Work.
    d. Redo and Inspection of Deficient Work: Repeated until Work passes Engineer's inspection.

4. When Engineer finds that Work is substantially complete, Engineer will:

    a. Prepare Certificate of Substantial Completion on EJCDC C-625 - Certificate of Substantial Completion, accompanied by Contractor's list of items to be completed or corrected as verified and amended by Engineer and Owner (final punch list).
    b. Submit Certificate to Owner and Contractor for their written acceptance of responsibilities assigned to them in Certificate.

5. After Work is substantially complete, Contractor shall:

a. Allow Owner occupancy of Project under provisions stated in Certificate of Substantial Completion.
b. Complete Work listed for completion or correction within time period stipulated.

C. Prerequisites for Final Completion: Complete following items before requesting final acceptance and final payment.

1. When Contractor considers Work to be complete, submit written certification that:

a. Contract Documents have been reviewed.
b. Work has been examined for compliance with Contract Documents.
c. Work has been completed according to Contract Documents.
d. Work is completed and ready for final inspection.

2. Submittals: Submit following:

a. Final punch list indicating all items have been completed or corrected.
b. Final payment request with final releases and supporting documentation not previously submitted and accepted. Include certificates of insurance for products and completed operations where required.
c. Specified warranties, workmanship/maintenance bonds, maintenance agreements, and other similar documents.
d. Accounting statement for final changes to Contract Sum.

3. Perform final cleaning for Contractor-soiled areas according to this Section.

D. Final Completion Inspection:

1. Within seven days after receipt of request for final inspection, Engineer will make inspection to determine whether Work or designated portion is complete.
2. Should Engineer consider Work to be incomplete or defective:

a. Engineer will promptly notify Contractor in writing, listing incomplete or defective Work.
b. Contractor shall remedy stated deficiencies and send second written request to Engineer that Work is complete.
c. Engineer will reinspect Work.
d. Redo and Inspection of Deficient Work: Repeated until Work passes Engineer's inspection.

1.4 MANUAL FOR EQUIPMENT AND SYSTEMS

A. Submit two copies of preliminary draft or proposed formats and outlines of contents before start of Work. Engineer will review draft and return one copy with comments.

B. For equipment, or component parts of equipment put into service during construction and operated by Owner, submit documents within ten days after acceptance.

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C. Submit one copy of completed volumes before Substantial Completion. Draft copy will be reviewed and returned after Substantial Completion, with Engineer comments. Revise content of document sets as required prior to final submission.

D. Submit in PDF composite electronic indexed file of final manual within ten days after final inspection.

E. Maintenance Requirements: Include routine procedures and guide for preventative maintenance and troubleshooting; disassembly, repair, and reassembly instructions; and alignment, adjusting, balancing, and checking instructions.

1.5 PRODUCT WARRANTIES AND PRODUCT BONDS

A. Obtain warranties and bonds executed in duplicate by responsible Subcontractors, suppliers, and manufacturers within ten days after completion of applicable item of Work.

B. Execute and assemble transferable warranty documents and bonds from Subcontractors, suppliers, and manufacturers.

C. Verify documents are in proper form, contain full information, and are notarized.

D. Co-execute submittals when required.

E. Submit prior to final Application for Payment.

F. Time of Submittals:

1. For equipment or component parts of equipment put into service during construction with Owner's permission, submit documents within ten days after acceptance.
2. Make other submittals within ten days after date of Substantial Completion, prior to final Application for Payment.
3. For items of Work for which acceptance is delayed beyond Substantial Completion, submit within ten days after acceptance, listing date of acceptance as beginning of warranty or bond period.

PART 2 - PRODUCTS - Not Used

PART 3 - EXECUTION

3.1 EXAMINATION

A. Verify that existing Site conditions and substrate surfaces are acceptable for subsequent Work. Beginning new Work means acceptance of existing conditions.

B. Verify that existing substrate is capable of structural support or attachment of new Work being applied or attached.

C. Examine and verify specific conditions described in individual Specification Sections.

D. Verify that utility services are available with correct characteristics and in correct locations.

3.2 PREPARATION

A. Clean substrate surfaces prior to applying next material or substance according to manufacturer's instructions.

B. Seal cracks or openings of substrate prior to applying next material or substance.

C. Apply manufacturer-required or -recommended substrate primer, sealer, or conditioner prior to applying new material or substance in contact or bond.

3.3 EXECUTION

A. Comply with manufacturer's installation instructions, performing each step in sequence. Maintain one set of manufacturer's installation instructions at Project Site during installation and until completion of construction.

B. When manufacturer's installation instructions conflict with Contract Documents, request clarification from Engineer before proceeding.

C. Verify that field measurements are as indicated on approved Shop Drawings or as instructed by manufacturer.

D. Secure products in place with positive anchorage devices designed and sized to withstand stresses, vibration, physical distortion, or disfigurement.

1. Secure Work true to line and level and within specified tolerances, or if not specified, industry-recognized tolerances.
2. Physically separate products in place, provide electrical insulation, or provide protective coatings to prevent galvanic action or corrosion between dissimilar metals.
3. Exposed Joints: Provide uniform joint width and arrange to obtain best visual effect. Refer questionable visual-effect choices to Engineer for final decision.

E. Allow for expansion of materials and building movement.

F. Climatic Conditions and Project Status: Install each unit of Work under conditions to ensure best possible results in coordination with entire Project.

1. Isolate each unit of Work from incompatible Work as necessary to prevent deterioration.
2. Coordinate enclosure of Work with required inspections and tests to minimize necessity of uncovering Work for those purposes.

G. Mounting Heights: Where not indicated, mount individual units of Work at industry recognized standard mounting heights for particular application indicated.

1. Refer questionable mounting heights choices to Engineer for final decision.
2. Elements Identified as Accessible to Handicapped: Comply with applicable codes and regulations.

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H. Adjust operating products and equipment to ensure smooth and unhindered operation.

I. Clean and perform maintenance on installed Work as frequently as necessary through remainder of construction period. Lubricate operable components as recommended by manufacturer.

3.4 PROTECTING INSTALLED CONSTRUCTION

A. Protect installed Work and provide special protection where specified in individual Specification Sections.

B. Provide temporary and removable protection for installed products. Control activity in immediate Work area to prevent damage.

C. Provide protective coverings at walls, projections, jambs, sills, and soffits of openings.

D. Use durable sheet materials to protect finished floors, stairs, and other surfaces from traffic, dirt, wear, damage, or movement of heavy objects.

E. Prohibit traffic or storage upon waterproofed or roofed surfaces. When traffic or activity is necessary, obtain recommendations for protection from waterproofing or roofing material manufacturer.

F. Prohibit traffic from landscaped areas.

3.5 FINAL CLEANING

A. Execute final cleaning prior to final Project assessment.

1. Employ experienced personnel or professional cleaning firm.

B. Clean Site; sweep paved areas, rake clean landscaped surfaces.

C. Remove waste and surplus materials, rubbish, and construction facilities from Site.

END OF SECTION 01 70 00

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SECTION 02 41 13

SITE DEMOLITION

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification sections, apply to this section.

1.2 SUMMARY

A. Provide labor, materials, and equipment as necessary to complete work as indicated on the Drawings and specified herein.

B. This section includes the removal of existing structures, fences, pavements, and other items indicated on the Drawings or specified, or both.

C. Related sections include the following:
1. Division 01 Section “General Requirements – Temporary Facilities and Controls.”
2. Division 31 Section “Site Clearing.”
3. Division 31 Section “Earthwork.”

1.3 PROJECT CONDITIONS

A. Do not close or obstruct streets, walks or other occupied or used facilities without permission from the Project Representative. Provide alternate routes around closed or obstructed traffic ways if required.

PART 2 - EXECUTION

2.1 PREPERATION

A. Provide, erect, and maintain temporary barriers, and barricades to protect existing operations.

B. Erect and maintain weatherproof closures for exterior openings, if applicable.

C. Erect and maintain temporary partitions to prevent spread of dust, odors, and noise to permit continued Owner occupancy, if applicable.

D. Protect existing materials and equipment which are not to be demolished.

E. Prevent movement of structure; provide bracing and shoring.

F. Notify affected utility companies before starting work and comply with their requirements.

G. Mark locations and termination of utilities.

H. Provide appropriate temporary signage including signage for exit of site egress.

2.2 DEMOLITION

A. Disconnect, remove, cap, and identify designated utilities within demolition areas.

B. Demolish in an orderly and careful manner. Protect existing structures and existing utilities designed to be left in service.

C. Remove demolished materials from site except where specifically noted otherwise. Do not burn or bury materials on site.

D. Remove materials as Work progresses. Upon completion of Work, leave areas in clean condition.

E. Remove temporary Work.

2.3 REMOVAL OF PAVEMENTS

A. Saw cut concrete curb and gutter and flatwork on nearest existing joint beyond area required to be removed as shown on the Drawings.

B. Provide a minimum of 18 inches between the new gutter pan edge and the bituminous paving edge.

2.4 CLEANUP

A. Contractor shall be responsible for disposing debris from demolition and salvage operations. Disposal of debris shall be done legally off the Owner's property, except that specifically requested for salvage by the Owner or Engineer. Burning of debris is not permitted.

B. During demolition operations, keep dust to a minimum using appropriate methods.

C. During demolition operations, access roads and adjacent concrete pathways shall be maintained broom clean. Roads shall be cleaned by using a pick-up type sweeper. A front-end tractor mounted sweeper is not permitted.

D. The site shall be graded to provide surface drainage and shall be left in a clean condition.

END OF SECTION 02 41 13

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SECTION 02 41 16

STRUCTURE DEMOLITION

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Demolishing designated structures.
2. Demolishing designated foundations.
3. Demolishing designated slabs-on-grade.
4. Removing designated items for reuse and Owner's retention.
5. Protecting items designated to remain.
6. Removing demolished materials.

B. Related Requirements:

1. Section 024119 - Selective Structure Demolition: Demolishing designated components.
2. Section 310513 - Soils for Earthwork: Backfill materials.
3. Section 310516 - Aggregates for Earthwork: Backfill materials.
4. Section 312323 - Fill: Backfill materials.

1.2 SUBMITTALS

A. Section 013300 - Submittal Procedures: Requirements for submittals.

B. Shop Drawings: Indicate:

1. Demolition and removal sequence and location of salvageable items.
2. Location and construction of barricades fences and temporary Work.

C. Permits: Submit copies of permits required by regulatory agencies for demolition and sidewalk and street closings.

D. Qualifications Statements:

1. Submit qualifications for demolition firm and licensed professional.

1.3 CLOSEOUT SUBMITTALS

A. Section 017000 - Execution and Closeout Requirements: Requirements for submittals.

B. Project Record Documents: Accurately record actual locations of capped utilities, subsurface obstructions.

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C. Operation and Maintenance Data: Submit description of system, inspection data, and parts lists.

1.4 QUALITY ASSURANCE

A. Perform Work according to State of Michigan Department of Transportation standards.

B. Conform to applicable building code for demolition of structures, safety of adjacent structures, dust control, electrical disconnection, and re-connection.

C. Conform to applicable building code for procedures when hazardous or contaminated materials are discovered.

D. Permits: Obtain required permits from authorities having jurisdiction.

E. Maintain one copy each document on-Site.

1.5 QUALIFICATIONS

A. Demolition Firm: Company specializing in performing Work of this Section with minimum 3 years' experience.

1.6 EXISTING CONDITIONS

A. Buildings indicated to be demolished will be vacated before start of Work.

B. Owner assumes no responsibility for actual condition of buildings to be demolished.

C. Notify Engineer upon discovery of hazardous materials.

D. Do not sell demolished materials on-Site.

E. Maintain existing sidewalks to greatest extent possible.

1.7 FILL MATERIALS

A. Fill Material: as specified in Section 310516 - Aggregates for Earthwork.

PART 2 - EXECUTION

2.1 EXAMINATION

A. Examine existing buildings indicated to be demolished before demolition.

B. Determine where removals may result in structural deficiency or unplanned building collapse during demolition. Coordinate demolition sequence and procedures to prevent structures from becoming unstable.

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C. Determine where demolition may affect structural integrity or weather resistance of adjacent buildings indicated to remain.

1. Identify measures required to protect buildings from damage.
2. Identify remedial Work including patching, repairing, bracing, and other Work required to leave buildings indicated to remain in structurally sound, weathertight, and watertight condition.

D. Verify hazardous material abatement is complete before beginning demolition.

E. Existing Building Documentation

1. Document condition of adjacent structures indicated to remain.

2.2 PREPARATION

A. Section 017000 - Execution and Closeout Requirements: Requirements for installation preparation.

B. Call local utility line information service Miss Dig not less than three working days before performing Work.

1. Request underground utilities to be located and marked within and surrounding construction areas.

C. Notify affected utility companies before starting Work, and comply with utility's requirements.

D. Do not close or obstruct roadways or sidewalks without permits.

E. Erect and maintain temporary barriers and security devices including warning signs and lights, and similar measures, for protection of the public and Owner.

F. Protect existing trees, structures and site features indicated to remain.

G. Prevent movement or settlement of adjacent structures. Provide bracing and shoring.

2.3 DEMOLITION

A. General:

1. Use of explosives is not permitted.
2. Conduct demolition to minimize interference with adjacent structures.
3. Cease operations immediately when adjacent structures appear to be in danger. Notify Engineer. Do not resume operations until directed.
4. Conduct operations with minimum interference to public or private accesses to occupied adjacent structures.
5. Obtain written permission from adjacent property owners when demolition equipment will traverse, infringe upon, or limit access to their property.
6. Sprinkling:

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a. Sprinkle Work with water to minimize dust.
b. Provide hoses and water connections required for this purpose.

B. Capped Utilities:

1. Disconnect and cap designated utilities.
2. Identify utilities at termination of demolition.
3. Record termination or capped location on Record Documents.

C. Remove foundation walls and footings to minimum of two ft below finished grade within area of new construction.

D. Remove concrete slabs-on-grade.

E. Remove materials to be re-installed or retained in manner to prevent damage; store and protect according to requirements of Section 016000 - Product Requirements.

F. Backfill areas excavated and open pits and holes resulting from demolition according to Section 312323 - Fill.

G. Rough grade and compact areas affected by demolition to maintain Site grades and contours.

H. Continuously clean up and remove demolished materials from Site. Do not allow materials to accumulate on-Site.

I. Do not burn or bury materials on-Site; leave Site in clean condition.

END OF SECTION 02 41 16

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SECTION 03 10 00

CONCRETE FORMING AND ACCESSORIES

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Formwork for cast-in-place concrete.
2. Shoring, bracing, and anchorage.
3. Form accessories.
4. Form stripping.

B. Related Requirements:

1. Section 032000 - Concrete Reinforcing: Reinforcing steel and required supports for cast-in-place concrete.
2. Section 033000 - Cast-in-Place Concrete: Cast-in-place or in-situ concrete for structural building frame, slabs-on-grade, and other concrete components associated with building.

C. American Concrete Institute:

1. ACI 117 - Specification for Tolerances for Concrete Construction and Materials.
2. ACI 301 - Specifications for Structural Concrete.
3. ACI 318 - Building Code Requirements for Structural Concrete.
4. ACI 347 - Guide to Formwork for Concrete.

D. American Forest & Paper Association:

1. AF&PA - National Design Specification (NDS) for Wood Construction.

E. American Society of Mechanical Engineers:

1. ASME A17.1 - Safety Code for Elevators and Escalators.

F. APA - The Engineered Wood Association:

1. APA/EWA PS 1 - Voluntary Product Standard - Structural Plywood.

G. ASTM International:

1. ASTM D1751 - Standard Specification for Preformed Expansion Joint Filler for Concrete Paving and Structural Construction (Nonextruding and Resilient Bituminous Types).
2. ASTM E96 - Standard Test Methods for Water Vapor Transmission of Materials.

H. West Coast Lumber Inspection Bureau:

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1. WCLIB - Standard No. 17 Grading Rules for West Coast Lumber.

1.2 COORDINATION

A. Section 013000 - Administrative Requirements: Requirements for coordination.

B. Coordinate Work of this Section with other Sections of Work in forming and placing openings, slots, reglets, recesses, sleeves, bolts, anchors, other inserts, and components of other Work.

1.3 SUBMITTALS

A. Section 013300 - Submittal Procedures: Requirements for submittals.

B. Product Data: Submit manufacturer information on void form materials and installation requirements.

C. Shop Drawings:

1. Indicate:

a. Formwork, shoring, and reshoring.
b. Pertinent dimensions, openings, methods of construction, types of connections, materials, joint arrangement and details, ties and shores, location of framing, studding and bracing, and temporary supports.
c. Means of leakage prevention for concrete exposed to view in finished construction.
d. Sequence and timing of erection and stripping, assumed compressive strength at time of stripping, height of lift, and height of drop during placement.
e. Vertical, horizontal, and special loads according to ACI 347, and camber diagrams when applicable.
f. Notes to formwork erector showing size and location of conduits and piping embedded in concrete according to ACI 318.
g. Procedure and schedule for removal of shores and installation and removal of reshores.

D. Manufacturer's Certificate: Certify that products meet or exceed specified requirements.

E. Delegated Design Submittals:

1. Submit signed and sealed Shop Drawings with design calculations and assumptions for formwork, shoring, and reshores.
2. Indicate loads transferred to structure during process of concreting, shoring, and reshoring.
3. Include structural calculations to support design.

F. Field Quality-Control Submittals: Indicate results of Contractor-furnished tests and inspections.

G. Qualifications Statement:

1. Submit qualifications for licensed professional.

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1.4 QUALITY ASSURANCE

A. Perform Work according to ACI 347, 301, and 318.

B. For wood products furnished for Work of this Section, comply with AF&PA.

C. Perform Work according to Municipal, State and Federal standards.

1.5 QUALIFICATIONS

A. Licensed Professional: Professional engineer experienced in design of specified Work and licensed in State of Michigan.

1.6 DELIVERY, STORAGE, AND HANDLING

A. Section 016000 - Product Requirements: Requirements for transporting, handling, storing, and protecting products.

B. Inspection: Accept void forms on Site in manufacturer's original packaging and inspect for damage.

C. Store materials off ground in ventilated and protected manner to prevent deterioration from moisture.

PART 2 - PRODUCTS

2.1 PERFORMANCE AND DESIGN CRITERIA

A. Design, engineer, and construct formwork, shoring, and bracing according to ACI 318 to conform to design and applicable code requirements to achieve concrete shape, line, and dimension as indicated on Drawings.

2.2 WOOD FORM MATERIALS

A. Form Materials: At discretion of Contractor.

2.3 PREFABRICATED FORMS

A. Manufacturers:
   1. Sonoco Products Co.
   2. Substitutions: As specified in Section 016000 - Product Requirements

B. Preformed Steel Forms:

   1. Description: Matched, tightly fitted, and stiffened to support weight of concrete without deflection detrimental to tolerances and appearance of finished surfaces.

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C. FRP Forms: Matched, tightly fitted, and stiffened to support weight of concrete without deflection detrimental to tolerances and appearance of finished concrete surfaces.

D. Pan:

1. Material: Steel.
2. Configuration: Size and profile as required.

E. Tubular Column:

1. Description: Round spirally wound laminated fiber.
2. Surface Treatment: Release agent, non-reusable.
3. Sizes: As indicated on Drawings.

F. Steel Forms:

1. Description: Sheet steel, suitably reinforced.
2. Design: For particular use as indicated on Drawings.

G. Form Liners: Smooth, durable, grainless, and non-staining hardboard unless otherwise indicated on Drawings.

H. Framing, Studding, and Bracing: Stud or No. 3 structural light-framing grade.

2.4 FORMWORK ACCESSORIES

A. Form Ties:

1. Type: Removable.
2. Material: Galvanized
3. Length: Adjustable.
4. Furnish waterproofing washer.
5. Free of defects capable of leaving holes larger than 1 inch in concrete surface.

B. Spreaders:

1. Description: Standard, non-corrosive metal-form clamp assembly, of type acting as spreaders and leaving no metal within 1 inch of concrete face.
2. Wire ties, wood spreaders, or through bolts are not permitted.

C. Form Release Agent:

1. Description: Colorless mineral oil that will not stain concrete or absorb moisture or impair natural bonding or color characteristics of coating intended for use on concrete.

D. Corners:

1. Type: Chamfer.
2. Size: 3/4 by 3/4 inches.
3. Lengths: Maximum possible.

E. Dovetail Anchor Slot:

1. Material: Galvanized steel.
2. Thickness: 22 gage.
3. Filling: None.
4. Fasten slot to concrete formwork according to manufacturer instructions, and insert foam filler to prevent concrete from entering slot during pour.

F. Flashing Reglets:

1. Material: Galvanized steel.
2. Thickness: 22 gage.
3. Lengths: Maximum possible.
4. Furnish alignment splines for joints.
5. Filling: Foam
6. Fasten flashing reglet to concrete formwork according to manufacturer instructions, and insert foam to prevent concrete from entering reglet during pour.

7. Description: Polyethylene sheet.
8. Thickness: 8 mils.

G. Bituminous Joint Filler: Comply with ASTM D1751.

H. Nails, Spikes, Lag Bolts, Through Bolts, Anchorages: Size, strength, and character to maintain formwork in place while placing concrete.

I. Waterstop:

1. Description: Flexible strip of bentonite waterproofing compound in coil form for joints in concrete construction.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Section 017000 - Execution and Closeout Requirements: Requirements for installation examination.

B. Verify lines, levels, and centers before proceeding with formwork.

C. Verify that dimensions agree with Shop Drawings.

D. If formwork is placed after reinforcement resulting in insufficient concrete cover over reinforcement, request instructions from Architect/Engineer before proceeding.

3.2 INSTALLATION

A. Earth Forms: Not permitted.

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B. Formwork:

1. Provide top form for sloped surfaces steeper than 1.5 horizontal to 1 vertical to hold shape of concrete during placement, unless it can be demonstrated that top forms can be omitted.
2. Construct forms to correct shape and dimensions, mortar-tight, braced, and of sufficient strength to maintain shape and position under imposed loads from construction operations.
3. Camber forms where necessary to produce level finished soffits unless indicated otherwise on Drawings.
4. Positioning:

    a. Carefully verify horizontal and vertical positions of forms.
    b. Correct misaligned or misplaced forms before placing concrete.

5. Complete wedging and bracing before placing concrete.
6. Erect formwork, shoring, and bracing to achieve design requirements according to ACI 318.
7. Stripping:

    a. Arrange and assemble formwork to permit dismantling and stripping.
    b. Do not damage concrete during stripping.
    c. Permit removal of remaining principal shores.

8. Obtain approval of Architect/Engineer before framing openings in structural members not indicated on Drawings.
9. Install fillet and chamfer strips on external corners of beams, joists, columns
10. Install void forms according to manufacturer instructions.
11. Do not reuse wood formwork more than 2 times for concrete surfaces to be exposed to view.
12. Do not patch formwork.
13. Leave forms in place for minimum number of days according to ACI 347.

C. Form Removal:

1. Do not remove forms or bracing until concrete has gained sufficient strength to carry its own weight and imposed loads, and removal has been approved by Architect/Engineer.
2. Loosen forms carefully; do not wedge pry bars, hammers, or tools against finish concrete surfaces scheduled for exposure to view.
3. Store removed forms in manner that surfaces to be in contact with fresh concrete will not be damaged.
4. Discard damaged forms.
5. Form Release Agent:

    a. Apply according to manufacturer instructions.
    b. Apply prior to placement of reinforcing steel, anchoring devices, and embedded items.
    c. Do not apply form release agent if concrete surfaces are indicated to receive special finishes or applied coverings that may be affected by agent.
    d. Soak inside surfaces of untreated forms with clean water, and keep surfaces coated prior to placement of concrete.

6. Form Cleaning:

a. Clean forms as erection proceeds to remove foreign matter within forms.
b. Clean formed cavities of debris prior to placing concrete.
c. Flush with water or use compressed air to remove remaining foreign matter.
d. Ensure that water and debris drain to exterior through cleanout ports.
e. Cold Weather:

1) During cold weather, remove ice and snow from within forms.
2) Do not use de-icing salts.
3) Do not use water to clean out forms, unless formwork and concrete construction proceed within heated enclosure; use compressed air or other dry method to remove foreign matter.

7. Reuse and Coating of Forms:

a. Thoroughly clean forms and reapply form coating before each reuse.
b. For exposed Work, do not reuse forms with damaged faces or edges.
c. Apply form coating to forms according to manufacturer instructions.
d. Do not coat forms for concrete indicated to receive "scored finish."
e. Apply form coatings before placing reinforcing steel.

D. Forms for Smooth Finish Concrete:

1. Use steel, plywood, or lined-board forms.
2. Use clean and smooth plywood and form liners, uniform in size, and free from surface and edge damage capable of affecting resulting concrete finish.
3. Install form lining with close-fitting square joints between separate sheets without springing into place.
4. Use full-sized sheets of form liners and plywood wherever possible.
5. Tape joints to prevent protrusions in concrete.
6. Apply forming and strip wood forms in a manner to protect corners and edges.
7. Level and continue horizontal joints.
8. Keep wood forms wet until stripped.

E. Architectural Form Liners:

1. Erect architectural side of formwork first.
2. Attach form liner to forms before installing form ties.
3. Install form liners square, with joints and pattern aligned.
4. Seal form liner joints to prevent grout leaks.
5. Dress joints and edges to match form liner pattern and texture.

F. Forms for Surfaces to Receive Membrane Waterproofing:

1. Use plywood or steel forms.
2. After erection of forms, tape form joints to prevent protrusions in concrete.

G. Framing, Studding, and Bracing:

1. Maximum Spacing of Studs:

a. Boards: Maximum 16 inches o.c.

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b. Plywood: 12 inches o.c.

2. Size framing, bracing, centering, and supporting members for sufficient strength to maintain shape and position under imposed loads from construction operations.
3. Construct beam soffits of material minimum 2 inches thick.
4. Distribute bracing loads over base area on which bracing is erected.
5. When placed on ground, protect against undermining, settlement, and accidental impact.

H. Form Anchors and Hangers:

1. Do not use anchors and hangers leaving exposed metal at concrete surface.
2. Symmetrically arrange hangers supporting forms from structural-steel members to minimize twisting or rotation of member.
3. Penetration of structural-steel members is not permitted.

I. Inserts, Embedded Parts, and Openings:

1. Install formed openings for items to be embedded in or passing through concrete Work.
2. Locate and set in place items required to be cast directly into concrete.
3. Install accessories straight, level, and plumb, and ensure that items are not disturbed during concrete placement.
4. Joints:

a. Install waterstops continuous without displacing reinforcement.

5. Openings:

a. Provide temporary ports or openings in formwork as required to facilitate cleaning and inspection.
b. Locate openings at bottom of forms to allow flushing water to drain.

6. Close temporary openings with tight-fitting panels, flush with inside face of forms, and neatly fitted such that joints will not be apparent in exposed concrete surfaces.

J. Form Ties:

1. Provide sufficient strength and quantity to prevent spreading of forms.
2. Place ties at least 1 inch away from finished surface of concrete.
3. Leave inner rods in concrete when forms are stripped.
4. Space form ties equidistant, symmetrical, and aligned vertically and horizontally unless indicated otherwise on Drawings.

K. Arrange formwork to allow proper erection sequence and to permit form removal without damage to concrete.

L. Construction Joints:

1. Install surfaced pouring strip where construction joints intersect on exposed surfaces to provide straight line at joints.
2. Just prior to subsequent concrete placement, remove strip and tighten forms to conceal shrinkage.

3. Appearance:

    a. Show no overlapping of construction joints.
    b. Construct joints to present same appearance as butted plywood joints.

4. Arrange joints in continuous line straight, true, and sharp.

M. Embedded Items:

1. Make provisions for pipes, sleeves, anchors, inserts, reglets, anchor slots, nailers, waterstops, and other features.
2. Do not embed wood or uncoated aluminum in concrete.
3. Obtain installation and setting information for embedded items furnished under other Sections.
4. Securely anchor embedded items in correct location and alignment prior to placing concrete.
5. Ensure that conduits and pipes, including those made of coated aluminum, meet requirements of ACI 318 regarding size and location limitations.

N. Openings for Items Passing through Concrete:

1. Frame openings in concrete where indicated on Drawings.
2. Establish exact locations, sizes, and other conditions required for openings and attachment of Work specified under other Sections.
3. Coordinate Work to avoid cutting and patching of concrete after placement.
4. Perform cutting and repairing of concrete required as result of failure to provide required openings.

O. Screeds:

1. Set screeds and establish levels for tops of and finish on concrete slabs.
2. Slope slabs to drain where required or as indicated on Drawings.
3. Before depositing concrete, remove debris from space to be occupied by concrete and thoroughly wet forms; remove freestanding water.

P. Screed Supports:

1. For concrete over waterproof membranes and vapor retarder membranes, use cradle-, pad-, or base-type screed supports that will not puncture membrane.
2. Staking through membrane is not permitted.

Q. Cleanouts and Access Panels:

1. Provide removable cleanout sections or access panels at bottoms of forms to permit inspection and effective cleaning of loose dirt, debris, and waste material.
2. Clean forms and surfaces against which concrete is to be placed.
3. Remove chips, sawdust, and other debris.
4. Thoroughly blow out forms with compressed air just before concrete is placed.

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3.3 TOLERANCES

A. Tolerances: Construct formwork to produce completed concrete surfaces within construction tolerances according to ACI 117.

B. Section 014000 - Quality Requirements: Requirements for inspecting and testing.

C. Inspection:

1. Inspect erected formwork, shoring, and bracing to ensure that Work complies with formwork design and that supports, fastenings, wedges, ties, and items are secure.
2. Notify Architect/Engineer after placement of reinforcing steel in forms but prior to placing concrete.
3. Schedule concrete placement to permit formwork inspection before placing concrete.

END OF SECTION 031000

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SECTION 03 20 00

CONCRETE REINFORCING

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Reinforcing bars.
2. Welded wire fabric.
3. Reinforcement accessories.

B. Related Requirements:

1. Section 031000 - Concrete Forming and Accessories: Form materials, waterstops, and accessories required to form cast-in-place concrete.
2. Section 033000 - Cast-in-Place Concrete: Cast-in-place or in-situ concrete for structural building frame, slabs on grade, and other concrete components associated with building.

1.2 REFERENCE STANDARDS

A. American Concrete Institute:

1. ACI 301 - Specifications for Structural Concrete.
2. ACI 318 - Building Code Requirements for Structural Concrete.
3. ACI 530/530.1 - Building Code Requirements and Specification for Masonry Structures.
4. ACI SP-66 - ACI Detailing Manual.

B. American Welding Society:

1. AWS D1.4 - Structural Welding Code - Reinforcing Steel.
2. ASTM International:

3. ASTM A184 - Standard Specification for Welded Deformed Steel Bar Mats for Concrete Reinforcement.
4. ASTM A615 - Standard Specification for Deformed and Plain Carbon-Steel Bars for Concrete Reinforcement.
5. ASTM A704 - Standard Specification for Welded Steel Plain Bar or Rod Mats for Concrete Reinforcement.
6. ASTM A706 - Standard Specification for Deformed and Plain Low-Alloy Steel Bars for Concrete Reinforcement.
7. ASTM A767 - Standard Specification for Zinc-CoatedGalvanized Steel Bars for Concrete Reinforcement.
8. ASTM A775 - Standard Specification for Epoxy-Coated Steel Reinforcing Bars.
9. ASTM A884 - Standard Specification for Epoxy-Coated Steel Wire and Welded Wire Reinforcement.

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10. ASTM A934 - Standard Specification for Epoxy-Coated Prefabricated Steel Reinforcing Bars.
11. ASTM A996 - Standard Specification for Rail-Steel and Axle-Steel Deformed Bars for Concrete Reinforcement.
12. ASTM A1064 - Standard Specification for Carbon-Steel Wire and Welded Wire Reinforcement, Plain and Deformed, for Concrete.
13.

C. Concrete Reinforcing Steel Institute:

1. CRSI 10-MSP - Manual of Standard Practice.
2. CRSI 10PLACE - Placing Reinforcing Bars.

1.3 COORDINATION

A. Section 013000 - Administrative Requirements: Requirements for coordination.

B. Coordinate Work of this Section with placement of formwork, formed openings, and other Work.

1.4 SUBMITTALS

A. Section 013300 - Submittal Procedures: Requirements for submittals.

B. Shop Drawings:

1. Indicate bar sizes, spacings, locations, splice locations, and quantities of reinforcing steel.
2. Indicate bending and cutting schedules.
3. Indicate supporting and spacing devices.

C. Manufacturer's Certificate: Certify that products meet or exceed specified requirements.

D. Submit certified copies of mill test report of reinforcement materials analysis.

E. Welder Certificates: Certify welders and welding procedures employed on Work, verifying AWS qualification within previous 12 months.

F. Source Quality-Control Submittals: Indicate results of factory tests and inspections.

G. Field Quality-Control Submittals: Indicate results of Contractor-furnished tests and inspections.

H. Qualifications Statement:

1. Welders: Qualify procedures and personnel according to AWS D1.1.

1.5 QUALITY ASSURANCE

A. Perform Work according to ACI 301 ACI 318.

B. Prepare Shop Drawings according to ACI SP-66.

C. Perform Work according to Municipal, State, ad Federal standards.

1.6 QUALIFICATIONS

A. Welders: AWS qualified within previous 12 months for employed weld types.

1.7 DELIVERY, STORAGE, AND HANDLING

A. Section 016000 - Product Requirements: Requirements for transporting, handling, storing, and protecting products.

B. Inspection: Accept materials on Site in manufacturer's original packaging and inspect for damage.

C. Store materials according to manufacturer instructions.

D. Protection:

1. Protect materials from moisture by storing in clean, dry location remote from construction operations areas.
2. Provide additional protection according to manufacturer instructions.

1.8 EXISTING CONDITIONS

A. Field Measurements:

1. Verify field measurements prior to fabrication.
2. Indicate field measurements on Shop Drawings.

PART 2 - PRODUCTS

2.1 REINFORCEMENT

A. Reinforcing Steel:

1. Comply with ASTM A615.
2. Yield Strength: 60 ksi.
3. Billet Bars: Deformed.
4. Finish: Uncoated.

2.2 FABRICATION

A. Fabricate concrete reinforcement according to ACI 318.

B. Form standard hooks for 90-degree bends, stirrups and tie hooks as indicated on Drawings.

C. Form reinforcement bends with minimum diameters according to ACI 318.

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D. Fabricate column reinforcement with offset bends at reinforcement splices.

E. Form ties and stirrups from following:

1. Bars No. 10 and Smaller: No. 3 deformed bars.
2. Bars No. 11 and Larger: No. 4 deformed bars.

F. Splicing:

1. If not indicated on Drawings, locate reinforcement splices at point of minimum stress.
2. Obtain approval of splice locations from Engineer.

2.3 ACCESSORY MATERIALS

A. Tie Wire:

1. Minimum 16 gage, annealed type.

B. Chairs, Bolsters, Bar Supports, and Spacers:

1. Size and Shape: To strengthen and support reinforcement during concrete placement conditions.

C. Epoxy Coating Patching Material: Type as recommended by coating manufacturer.

2.4 SOURCE QUALITY CONTROL

A. Provide shop inspection and testing of completed assembly.

B. Section 014000 - Quality Requirements: Requirements for testing, inspection, and analysis.

C. Certificate of Compliance:

1. If fabricator is approved by authorities having jurisdiction, submit certificate of compliance indicating Work performed at fabricator's facility conforms to Contract Documents.
2. Specified shop tests are not required for Work performed by approved fabricator.

PART 3 - EXECUTION

3.1 INSTALLATION

A. Place, support, and secure reinforcement against displacement.

B. Do not deviate from required position beyond specified tolerance.

C. Do not weld crossing reinforcement bars for assembly except as permitted by Engineer.

D. Do not displace or damage vapor retarder.

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E. Accommodate placement of formed openings.

F. Spacing:

1. Space reinforcement bars with minimum clear spacing according to ACI 318.
2. If bars are indicated in multiple layers, place upper bars directly above lower bars.

G. Maintain minimum concrete cover around reinforcement according to ACI 318.

3.2 TOLERANCES

A. Section 014000 - Quality Requirements: Requirements for tolerances.

B. Install reinforcement within following tolerances for flexural members, walls, and compression members:

1. Reinforcement Depth Greater Than 8 Inches:

a. Depth Tolerance: Plus or Minus 3/8 inch
b. Minus 3/8 inch

2. Reinforcement Depth Less Than or Equal to 8 Inches:

a. Depth Tolerance: Plus or Minus 1/2 inch
b. Minus 1/2 inch

C. Foundation Walls: Install reinforcement within tolerances according to ACI 530/530.1.

3.3 FIELD QUALITY CONTROL

A. Section 017000 - Execution and Closeout Requirements: Requirements for testing, adjusting, and balancing.

B. Perform field inspection and testing according to ACI 318.

C. Provide unrestricted access to Work and cooperate with appointed inspection and testing firm.

D. Reinforcement Inspection:

1. Placement Acceptance: Inspect specified and ACI 318 material requirements and specified placement tolerances.
2. Welding: Inspect welds according to AWS D1.1.
3. Periodic Placement Inspection: Inspect for correct materials, fabrication, sizes, locations, spacing, concrete cover, and splicing.
4. Weldability Inspection: Inspect for reinforcement weldability if formed from steel other than ASTM A706.
5. Continuous Weld Inspection: Inspect reinforcement according to ACI 318.
6. Periodic Weld Inspection: Inspect other welded connections.

END OF SECTION 03 20 00

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SECTION 033000

CAST-IN-PLACE CONCRETE

1.1 SUMMARY

A. Provide all materials and labor necessary to complete all concrete, plain and reinforced, as indicated on Drawings or as specified in these specifications and as required to complete the Project. Work, without limiting the generality thereof, includes:

1. Installation of concrete to provide pile caps, transfer beams, grade beams, footings, foundations, suspended slabs, building walls, elevator shaft walls, retaining walls, slabs on grade, electrical ductbanks, and other incidental concrete Work.
2. Setting of utility structures to grade, setting of granite curb, setting of precast concrete curb, grouting around pipe at manholes, manhole bases, and general repairs caused by utility Work.
3. Installation of concrete to provide bridge abutments, water retention vaults, sewage vaults, sewage clarifiers, and tunnel structures.
4. Concrete slurry wall construction.
5. Mass concrete foundations and related structures.
6. Lightweight concrete at new composite slab locations.
7. Concrete pads for mechanical equipment.
8. Concrete fill in steel stairs.
9. Furnishing and installation of admixtures.
10. Work of other trades required to be built into concrete, such as inserts for connections to steel members, waterstops, flashing reglets, anchors, embedded plates, and reinforcing dowels.
11. Providing vapor retarder below slabs on grade.
12. Finishing of concrete as specified herein or as indicated on Drawings.

B. Related Requirements:

1. Section 031000 - Concrete Forming and Accessories
2. Section 032000 - Concrete Reinforcing: Requirements for reinforcing steel and supports.
3. Section 033500 - Concrete Finishing: Finishing of concrete floor surfaces.

1.2 REFERENCE STANDARDS

A. American Association of State Highway and Transportation Officials (AASHTO):

1. AASHTO M182 - Standard Specification for Burlap Cloth Made from Jute or Kenaf and Cotton Mats.

B. American Concrete Institute:

1. ACI 117 (117M) - Specification for Tolerances for Concrete Construction and Materials.
2. ACI 232.3R - Report on High-Volume Fly Ash Concrete for Structural Applications.
3. ACI 228.1R - Report on Methods for Estimating In-Place Concrete Strength.

4. ACI 239R - Ultra-High-Performance Concrete: An Emerging Technology Report.
5. ACI 301 (301M) - Specifications for Structural Concrete.
6. ACI 302.1R - Guide for Concrete Floor and Slab Construction.
7. ACI 305R - Guide to Hot Weather Concreting.
8. ACI 305.1 (305.1M) - Specification for Hot Weather Concreting.
9. ACI 306.1 - Standard Specification for Cold Weather Concreting.
10. ACI 306R - Guide to Cold Weather Concreting.
11. ACI 308.1 (308.1M) - Specification for Curing Concrete.
12. ACI 318 (318M) - Building Code Requirements for Structural Concrete.
13. ACI 350.5 (350.5M) - Specifications for Environmental Concrete Structures.
14. ACI 357.3R - Guide for Design and Construction of Waterfront and Coastal Concrete Marine Structures.
15. ACI 362.1R - Guide for the Design and Construction of Durable Concrete Parking Structures.
16. ACI 363.2R - Guide to Quality Control and Assurance of High-Strength Concrete.
17. ACI 440R - Report on Fiber-Reinforced Polymer (FRP) Reinforcement for Concrete Structures.

C. ASTM International:

1. ASTM A820/A820M - Standard Specification for Steel Fibers for Fiber-Reinforced Concrete
2. ASTM C31/C31M - Standard Practice for Making and Curing Concrete Test Specimens in the Field.
3. ASTM C33/C33M - Standard Specification for Concrete Aggregates.
4. ASTM C39/C39M - Standard Test Method for Compressive Strength of Cylindrical Concrete Specimens.
5. ASTM C42/C42M - Standard Test Method for Obtaining and Testing Drilled Cores and Sawed Beams of Concrete.
6. ASTM C94/C94M - Standard Specification for Ready-Mixed Concrete.
7. ASTM C143/C143M - Standard Test Method for Slump of Hydraulic-Cement Concrete.
8. ASTM C150/C150M - Standard Specification for Portland Cement.
9. ASTM C171 - Standard Specification for Sheet Materials for Curing Concrete.
10. ASTM C172/C172M - Standard Practice for Sampling Freshly Mixed Concrete.
11. ASTM C173/C173M - Standard Test Method for Air Content of Freshly Mixed Concrete by the Volumetric Method.
12. ASTM C231/C231M - Standard Test Method for Air Content of Freshly Mixed Concrete by the Pressure Method.
13. ASTM C260/C260M - Standard Specification for Air-Entraining Admixtures for Concrete.
14. ASTM C309 - Standard Specification for Liquid Membrane-Forming Compounds for Curing Concrete.
15. ASTM C330/C330M - Standard Specification for Lightweight Aggregates for Structural Concrete.
16. ASTM C494/C494M - Standard Specification for Chemical Admixtures for Concrete.
17. ASTM C567/C567M - Standard Test Method for Determining Density of Structural Lightweight Concrete.
18. ASTM C595/C595M - Standard Specification for Blended Hydraulic Cements.
19. ASTM C618 - Standard Specification for Coal Fly Ash and Raw or Calcined Natural Pozzolan for Use in Concrete.
20. ASTM C685/C685M - Standard Specification for Concrete Made by Volumetric Batching and Continuous Mixing.

21. ASTM C845/C845M - Standard Specification for Expansive Hydraulic Cement.
22. ASTM C881/C881M - Standard Specification for Epoxy-Resin-Base Bonding Systems for Concrete.
23. ASTM C979/C979M - Standard Specification for Pigments for Integrally Colored Concrete.
24. ASTM C989/C989M - Standard Specification for Slag Cement for Use in Concrete and Mortars.
25. ASTM C1017/C1017M - Standard Specification for Chemical Admixtures for Use in Producing Flowing Concrete.
26. ASTM C1059/C1059M - Standard Specification for Latex Agents for Bonding Fresh to Hardened Concrete.
27. ASTM C1064/C1064M - Standard Test Method for Temperature of Freshly Mixed Hydraulic-Cement Concrete.
28. ASTM C1074 - Standard Practice for Estimating Concrete Strength by the Maturity Method.
29. ASTM C1077 - Standard Practice for Agencies Testing Concrete and Concrete Aggregates for Use in Construction and Criteria for Testing Agency Evaluation.
30. ASTM C1107/C1107M - Standard Specification for Packaged Dry, Hydraulic-Cement Grout (Nonshrink).
31. ASTM C1116/C1116M - Standard Specification for Fiber-Reinforced Concrete.
32. ASTM C1157/C1157M - Standard Performance Specification for Hydraulic Cement.
33. ASTM C1218/C1218M - Standard Test Method for Water-Soluble Chloride in Mortar and Concrete.
34. ASTM C1240 - Standard Specification for Silica Fume Used in Cementitious Mixtures.
35. ASTM C1260 - Standard Test Method for Potential Alkali Reactivity of Aggregates (Mortar-Bar Method).
36. ASTM C1293 - Standard Test Method for Determination of Length Change of Concrete Due to Alkali-Silica Reaction.
37. ASTM C1315 - Standard Specification for Liquid Membrane-Forming Compounds Having Special Properties for Curing and Sealing Concrete.
38. ASTM C1567 - Standard Test Method for Determining the Potential Alkali-Silica Reactivity of Combinations of Cementitious Materials and Aggregate (Accelerated Mortar-Bar Method).
39. ASTM C1602/C1602M - Standard Specification for Mixing Water Used in the Production of Hydraulic Cement Concrete.
40. ASTM C1611/C1611M - Standard Test Method for Slump Flow of Self-Consolidating Concrete.
41. ASTM C1778 - Standard Guide for Reducing the Risk of Deleterious Alkali-Aggregate Reaction in Concrete.
42. ASTM D994/D994M - Standard Specification for Preformed Expansion Joint Filler for Concrete (Bituminous Type).
43. ASTM D1751 - Standard Specification for Preformed Expansion Joint Filler for Concrete Paving and Structural Construction (Nonextruding and Resilient Bituminous Types).
44. ASTM D1752 - Standard Specification for Preformed Sponge Rubber, Cork and Recycled PVC Expansion Joint Fillers for Concrete Paving and Structural Construction.
45. ASTM D6690 - Standard Specification for Joint and Crack Sealants, Hot Applied, for Concrete and Asphalt Pavements.
46. .
47. ASTM E154/E154M - Standard Test Methods for Water Vapor Retarders Used in Contact with Earth Under Concrete Slabs, on Walls, or as Ground Cover.

48. ASTM E329 - Standard Specification for Agencies Engaged in Construction Inspection, Testing, or Special Inspection.
49. ASTM E1155 (E1155M) - Standard Test Method for Determining FF Floor Flatness and FL Floor Levelness Numbers.
50. ASTM E1643 - Standard Practice for Selection, Design, Installation, and Inspection of Water Vapor Retarders Used in Contact with Earth or Granular Fill Under Concrete Slabs.
51. ASTM E1745 - Standard Specification for Plastic Water Vapor Retarders Used in Contact with Soil or Granular Fill under Concrete Slabs.
52. ASTM E1993/E1993M - Standard Specification for Bituminous Water Vapor Retarders Used in Contact with Soil or Granular Fill Under Concrete Slabs.

D. Canadian Standards Association (CSA):

1. CSA A23.1/A23.2 - Concrete Materials and Methods of Concrete Construction/Test Methods and Standard Practices for Concrete.

E. National Ready Mixed Concrete Association (NRMCA):

1. NRMCA - Certification of Ready Mixed Concrete Production Facilities.

F. National Sanitation Foundation (NSF):

1. NSF/ANSI Standard 61 - Drinking Water System Components - Health Effects.

G. South Coast Air Quality Management District:

1. SCAQMD Rule 1168 - Adhesive and Sealant Applications.

H. U.S. Army Corps of Engineers:

1. CRD-C 48 - Standard Test Method for Water Permeability of Concrete.

1.3 COORDINATION

A. Coordinate placement of control and expansion joint devices with erection of concrete formwork and placement of form accessories.

1.4 SUBMITTALS

A. Product Data: Submit date on joint devices, attachment accessories, admixtures, and mix design.

B. Design Data:
1. Submit concrete mix design for each concrete strength.
2. Submit separate mix designs if admixtures are required for the following:
   a. Hot and cold weather Work.
   b. Air entrained concrete Work.
3. Identify mix ingredients and proportions, including admixtures.
4. Identify chloride content of admixtures and whether or not chlorides were added during manufacture.

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C. Manufacturer's Certificate: Certify that products meet or exceed specified requirements.

D. Manufacturer Instructions: Submit installation procedures and interfacing required for adjacent Work.

E. Field Quality-Control Submittals: Indicate results of Contractor-furnished tests and inspections.

1.5 CLOSEOUT SUBMITTALS

A. Section 017000 - Execution and Closeout Requirements: Requirements for submittals.

B. Project Record Documents: Record actual locations of embedded utilities and components concealed from view in finished construction.

1.6 QUALITY ASSURANCE

A. Perform Work according to ACI 301.

B. Comply with ACI 305R when pouring concrete during hot weather.

C. Comply with ACI 306.1 when pouring concrete during cold weather. Retain Paragraph below if Contractor retains testing agency for concrete mixture design or material test reports.

D. Acquire cement and aggregate from one source for Work.

E. Perform Work according to Municipal, State, and Federal standards.

1.7 AMBIENT CONDITIONS

A. Section 015000 - Temporary Facilities and Controls: Requirements for ambient condition control facilities for product storage and installation.

B. Maintain concrete temperature after installation at minimum 50 degrees F for minimum seven days.

PART 2 - PRODUCTS

2.1 PERFORMANCE AND DESIGN CRITERIA

A. Vapor Retarder Permeance: Maximum 1 perm when tested according to ASTM E96, water method.

2.2 MATERIALS

A. Concrete:
1. Cement:

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a. Comply with ASTM C150, Type IIA – Air Entraining.
b. Type: Portland.

2. Normal Weight Aggregates:
   a. Comply with ASTM C33.
   b. Coarse Aggregate Maximum Size: According to ACI 301
3. Water:
   a. Comply with ACI 318.
   b. Potable, without deleterious amounts of chloride ions.

B. Admixtures:
1. Air Entrainment: Comply with ASTM C260.
2. Chemical:
   a. Comply with ASTM C494.
   b. Type A – Water Reducing.
   c. Type B – Retarding.
   d. Type C – Accelerating.
   e. Type D – Water Reducing and Retarding.
   f. Type E – Water Reducing and Accelerating.
   g. Type F – Water Reducing, High Range.
   h. Type G – Water Reducing, High Range, and Retarding.
3. Fly Ash: Comply with ASTM C618, Class F or C.
4. Silica Fume: Comply with ASTM C1240.
5. Slag:
   a. Description: Ground-granulated blast-furnace slag.
   b. Comply with ASTM C989.
   c. Grade 100 to 120.
6. Plasticizing:
   a. Comply with ASTM C1017.
   b. Type II, plasticizing and retarding.

2.3 CONCRETE MIX

A. Select proportions for normal weight concrete according to ACI 301, Method 1.

B. Concrete Mixtures, general
1. Prepare design mixtures for each type and strength of concrete, proportional on the basis of laboratory trail mixture or field test date, or both.
2. Cementitious Materials: Limit percentage, by weight, of cementitious materials other than Portland cement in concrete as follows:
   a. Fly Ash: 25%
   b. Ground Granulated Blast-Furnace Slag: 50%
   c. Combined Fly Ash and Ground Granulated Blast-Furnace Slag: 50%
   d. Portland cement minimum, with fly ash not exceeding 25%.
3. Limit water-soluble, chloride-ion content in hardened concrete to 0.15% by weight of cement.
4. Admixtures: Use admixtures according to manufacturer's written instructions.
   a. Use water-reducing, high-range water-reducing or plasticizing admixture in concrete, as required, for placement and workability.
   b. Use water-reducing and retarding admixture when required by high temperatures, low humidity, or other adverse placement conditions.

c. Use water-reducing admixture in pumped concrete, concrete for heavy-use industrial slabs and parking structure slabs, concrete required to be watertight, and concrete with water-cementitious materials ration below 0.50.
d. Use air-entraining admixture in exterior exposed concrete unless otherwise indicated. Add air-entraining admixture at manufacturer's prescribed rate to result in concrete at point of placement having a total air content with a tolerance of plus or minus 1-1/2 percent with the following limits:
   1) Concrete structures and slabs exposed to freezing and thawing, deicer chemicals, or hydraulic pressure: 5.0 percent.
   2) Other concrete not exposed to freezing, thawing, or hydraulic pressure, or ro receive a surface hardener: 2 to 4 percent.

C. Concrete mixtures for building elements:
1. Class A – Structural Concrete:
   a. Minimum Compressive Strength: 3000 psi at 7 days.
   b. Minimum Compressive Strength: 3500 psi at 28 days.
   c. Slump Limit: 4-1 inches.
2. Class B – Mud Mat Concrete or Slab On Fill Concrete:
   a. Minimum Compressive Strength: 3000 psi at 7 days.
   b. Minimum Compressive Strength: 3500 psi at 28 days.
   c. Slump Limit: 4-1 inches.
3. Class C – Fill or Superstructure Concrete:
   a. Minimum Compressive Strength: 3000 psi at 7 days.
   b. Minimum Compressive Strength: 3500 psi at 28 days.
   c. Slump Limit: 4-1 inches.

D. Admixtures:
1. Include admixture types and quantities indicated in concrete mix designs only in approved by Engineer.
2. Cold Weather:
   a. Use accelerating admixtures in cold weather.
   b. Use of admixtures will not relax cold-weather placement requirements.
3. Hot Weather: Use set-retarding admixtures.
4. Use calcium chloride only if approved by Engineer.
5. Add air entrainment admixture to concrete mix for Work exposed to freezing and thawing or deicing chemicals.
6. For concrete exposed to deicing chemicals, limit fly ash, pozzolans, silica fumes, and slag content as required.

E. Average Compressive Strength Reduction: Not permit

F. Ready-Mixed Concrete: Mix and deliver concrete according to ASTM C685.

G. Site-Mixed Concrete: Mix Concrete according to ACI 318.FIBER REINFORCEMENT

2.4 ACCESSORIES

A. Bonding Agent:
1. Description: Two-component modified epoxy resin.

B. Non-shrink Grout
   1. Description: Premixed compound consisting of non-metallic aggregate, cement, and water-reducing and plasticizing agents.
   2. Comply with ASTM C1107
   3. Minimum Compressive Strength: 2,400 psi.

C. Bentonite Waterstops: Continuous 1 inch x ¾ inch strips, containing 75% bentonite by weight. Proper care and construction procedures shall be used to avoid damaging or displacing the strip while placing concrete. If the material exhibits considerable swelling prior to confinement in the joint, it must be replaced as directed by the Engineer. Joint shall be cleaned from debris and dry prior to replacement. Install per manufacturer's instructions as approved by the Engineer.

D. Wall Sleeves: HDPE thermoplastic sleeves, “CS” model, used for non-concrete pipe penetrations requiring “Link-seals”.

E. Expansion Joints: ANSI/ASTM D1751, fiber type; ¼ inch to 1 inch thick.

F. Form Release Agent: Colorless material which will not stain concrete, absorb moisture or impair natural bonding or color characteristics of coating intended for use on concrete.

G. Corners: Chamfered, wood strop type ¾” x ¾” size.

H. Vapor Retarder: Clear polyethylene film, 6 mils thick, with joint tap. Joint tap as recommended by manufacturer.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Verification of Conditions:

   1. Before placing concrete, verify that installation of concrete forms, accessories, and reinforcement, and embedded items is complete and that required inspections have been performed.
   2. Do not proceed until unsatisfactory conditions have been corrected.

B. Verify requirements for concrete cover over reinforcement.

C. Verify that anchors, seats, plates, reinforcement, and other items to be cast into concrete are accurately placed, positioned securely, and will not interfere with placing concrete.

3.2 PREPARATION

A. Previously Placed Concrete:

   1. Prepare previously placed concrete by cleaning with steel brush and applying bonding agent.
   2. Remove laitance, coatings, and unsound materials.

B. In locations where new concrete is doweled to existing work, drill holes in existing concrete, insert steel dowels, and pack solid with non-shrink grout.

C. Remove debris and ice from formwork, reinforcement, and concrete substrates.

D. Remove water from areas receiving concrete before concrete is placed.

3.3 INSTALLATION

A. Placing Concrete:

1. Place concrete according to ACI 301.
2. Notify testing laboratory and Engineer, minimum 48 hours prior to commencement of operations.
3. Ensure that reinforcement, inserts, embedded parts, formed expansion and contraction joints, and existing utilities are not disturbed during concrete placement.
4. Install vapor retarder under interior slabs on grade according to ASTM E1643.
5. Lap joints minimum 6 inches and seal watertight by taping edges and ends.
6. Repairs:
    a. Repair vapor retarder damaged during placement of concrete reinforcement.
    b. Using vapor retarder material, lap over damaged areas minimum 6 inches and seal watertight.
7. Joint Filler:

    a. Separate slabs on grade from vertical surfaces with joint filler.
    b. Place joint filler in floor slab pattern placement sequence; set top to required elevations; secure to resist movement by wet concrete.
    c. Extend joint filler from bottom of slab to within 1/2 inch of finished slab surface.

8. Joint Devices:

    a. Coordination: Install construction joint devices in coordination with floor slab pattern placement sequence; set top to required elevations; secure to resist movement by wet concrete.
    b. Install joint device anchors, maintaining correct position to allow joint cover to be flush with floor and wall finish.
    c. Install joint covers in longest practical length when adjacent construction activity is complete.

9. Deposit concrete at final position, preventing segregation of mix.
10. Place concrete in continuous operation for each panel or section as determined by predetermined joints.
11. Consolidate concrete.
12. Maintain records of concrete placement, including date, location, quantity, air temperature, and test samples taken.
13. Place concrete continuously between predetermined expansion, control, and construction joints.
14. Do not interrupt successive placement and do not permit cold joints to occur.
15. Place floor slabs in indicated checkerboard or saw-cut pattern.
16. Saw-Cut Joints:

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a. Saw-cut joints within 12 hours after placing.
b. Use 3/16 inch thick blade.
c. Cut into 1/4 depth of slab thickness.

17. Screeding:

a. Screed floors and slabs on grade level.
b. Surface Flatness: Maximum ¼ inch in 10 feet.

B. Separate Floor Toppings:

1. Prior to placing floor topping, remove deleterious material, roughen substrate concrete surface, and broom and vacuum clean.
2. Place required dividers and reinforcement and other items to be cast in concrete.
3. Apply bonding agent to substrate.

C. Concrete Finishing:

1. Provide formed concrete surfaces to be left exposed with smooth finish. finish.

D. Curing and Protection:

1. Immediately after placement, protect concrete from premature drying, excessively hot or cold temperatures, and mechanical injury.
2. Protect concrete footings from freezing for minimum of five days.
3. Maintain concrete with minimal moisture loss at relatively constant temperature for period as necessary for hydration of cement and hardening of concrete.

3.4 FIELD QUALITY CONTROL

A. Section 014000 - Quality Requirements: Requirements for inspecting and testing.

B. Provide unrestricted access to Work and cooperate with appointed testing and inspection firm.

C. Submit proposed mix design of each class of concrete to inspection and testing firm for review prior to commencement of Work.

D. Concrete Inspections:

1. Continuous Placement Inspection: Inspect for proper installation procedures.
2. Periodic Curing Inspection: Inspect for specified curing temperature and procedures.

E. Strength Test Samples:

1. Sampling Procedures: Comply with ASTM C172.
2. Cylinder Molding and Curing Procedures:

a. Comply with ASTM C31.
b. Cylinder Specimens: Field cured.

3. Sample concrete and make one set of three cylinders for every 75 cu. yd. or less of each class of concrete placed each day, and for every 5,000 sq. ft. of surface area for slabs and walls.
4. If volume of concrete for a class of concrete would provide less than five sets of cylinders, take samples from five randomly selected batches, or from every batch if less than five batches are used.
5. Make one additional cylinder during cold weather concreting and field cure.

F. Field Testing:

1. Slump Test Method: Comply with ASTM C143.
2. Air Content Test Method: Comply with ASTM C173.
3. Temperature Test Method: Comply with ASTM C1064.
4. Compressive Strength Concrete:

    a. Measure slump and temperature for each sample.
    b. Measure air content in air-entrained concrete for each sample.

G. Cylinder Compressive Strength Testing:

1. Test Method: Comply with ASTM C39.
2. Test Acceptance: According to ACI 318.
3. Test one cylinder at seven days.
4. Test one cylinder at 28 days.
5. Retain one cylinder for 30 days for testing when requested by Engineer.
6. Dispose of remaining cylinders if testing is not required.

H. Core Compressive Strength Testing:

1. Sampling and Testing Procedures: Comply with ASTM C42.
2. Test Acceptance: According to ACI 318.
3. Drill three cores for each failed strength test from failed concrete.

I. Patching:

1. Allow Engineer to inspect concrete surfaces immediately upon removal of forms.
2. Honeycombing or Embedded Debris in Concrete:

    a. Not acceptable.
    b. Notify Architect/Engineer upon discovery.

3. Patch imperfections according to ACI 301.

J. Defective Concrete:

1. Description: Concrete not conforming to required lines, details, dimensions, tolerances, or specified requirements.
2. Repair or replacement of defective concrete will be determined by Architect/Engineer.
3. Do not patch, fill, touch up, repair, or replace exposed concrete except upon express direction of Architect/Engineer for each individual area.

END OF SECTION 033000

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SECTION 26 00 00
BASIC ELECTRICAL REQUIREMENTS

PART 1 GENERAL

1.1 SECTION INCLUDES

A. Basic Electrical Requirements specifically applicable to Division 16 Sections, in addition to Division 1 - General Requirements.

1.2 REFERENCES

A. ANSI/NFPA 70 - National Electrical Code.

1.3 SUBMITTALS

A. Submit under provisions of Section 01 33 00.

B. Submit shop drawings and product data grouped to include complete submittals of related systems, products, and accessories in a single submittal.

C. Mark dimensions and values in units to match those specified.

D. Submit shop drawings indicating layout of completed assemblies, interconnecting cabling, dimensions, weights, and external power requirements.

E. Submit product data under provisions of Section 01 33 00.

F. Submit product data for each component specified.

G. Submit manufacturer's installation instructions under provisions of Section 01 33 00.

1.4 REGULATORY REQUIREMENTS

A. Conform to applicable Building Code for Ypsilanti Charter Township.

B. Electrical: Conform to NFPA 70.

C. Furnish products listed and classified by Underwriters Laboratories, Inc. or testing firm acceptable to authority having jurisdiction as suitable for purpose specified and shown.

D. Fire Protection: Conform to NFPA 820.

E. Obtain permits, and request inspections from authority having jurisdiction.

1.5 PROJECT/SITE CONDITIONS

A. Install Work in locations shown on Drawings, unless prevented by Project conditions.

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B. Prepare drawings showing proposed rearrangement of Work to meet Project conditions, including changes to Work specified in other Sections. Obtain permission of Owner before proceeding.

1.6 SEQUENCING AND SCHEDULING

A. Construct Work in sequence under provisions of Section 01 10 00.

PART 2 PRODUCTS

A. Not Used.

PART 3 EXECUTION

A. Not Used.

END OF SECTION

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SECTION 26 05 19
LOW-VOLTAGE ELECTRICAL POWER CONDUCTORS AND CABLES

PART 1 - GENERAL

1.1 SUMMARY

A. Section includes:
1. Building wire and cable
2. Nonmetallic-sheathed cable
3. Direct burial cable
4. Service entrance cable
5. Armored cable
6. Metal clad cable
7. Wiring connectors and connections

B. Related Sections:
1. Section 26 05 53 - Identification for Electrical Systems.
2. Section 31 23 17 - Trenching.
3. Section 31 23 23 - Fill.

1.2 REFERENCES

A. International Electrical Testing Association:
1. NETA ATS - Acceptance Testing Specifications for Electrical Power Distribution Equipment and Systems.

B. National Fire Protection Association:
1. NFPA 70 - National Electrical Code.
2. NFPA 262 - Standard Method of Test for Flame Travel and Smoke of Wires and Cables for Use in Air-Handling Spaces.

C. Underwriters Laboratories, Inc.:
1. UL 1277 - Standard for Safety for Electrical Power and Control Tray Cables with Optional Optical-Fiber Members.

1.3 SYSTEM DESCRIPTION

A. Product Requirements: Provide products as follows:
1. Solid conductor for feeders and branch circuits 10 AWG and smaller.
2. Stranded conductors for control circuits.
3. Conductor not smaller than 12 AWG for power and lighting circuits.
4. Conductor not smaller than 14 AWG for control circuits.
5. Increase wire size in branch circuits to limit voltage drop to a maximum of 3 percent.
6. Use 10 AWG conductors for 20 ampere, 120 volt branch circuits longer than 75 feet.

B. Wiring Methods: Provide the following wiring methods:

1. Concealed Dry Interior Locations: Use only building wire, Type THHN/THWN insulation, in raceway, nonmetallic- sheathed cable, armored cable or metal clad cable.
2. Exposed Dry Interior Locations: Use only building wire, Type THHN/THWN insulation, in raceway, nonmetallic-sheathed cable, armored cable or metal clad cable.
3. Above Accessible Ceilings: Use only building wire, Type THHN/THWN insulation, in raceway, nonmetallic-sheathed cable, armored cable or metal clad cable.
4. Wet or Damp Interior Locations: Use only building wire, Type THHN/THWN insulation, in raceway, direct burial cable, armored cable or metal clad cable.
5. Exterior Locations: Use only building wire, Type THHN/THWN insulation, in raceway, direct burial cable, service-entrance cable, armored cable or metal clad cable.
6. Underground Locations: Use only building wire, Type THHN/THWN insulation, in raceway, direct burial cable, service-entrance cable, armored cable or metal clad cable.

1.4 DESIGN REQUIREMENTS

A. Conductor sizes are based on copper unless indicated as aluminum or "AL".

B. When aluminum conductor is substituted for copper conductor, size to match circuit requirements, terminations, conductor ampacity and voltage drop.

C. Substituting aluminum conductors for copper must be approved by owner and engineer prior to procurement and installation.

1.5 SUBMITTALS

A. Section 01 33 00 - Submittal Procedures: Requirements for submittals.

B. Product Data: Submit for building wire and each cable assembly type.

C. Design Data: Indicate voltage drop and ampacity calculations for aluminum conductors substituted for copper conductors.

D. Test Reports: Indicate procedures and values obtained.

1.6 CLOSEOUT SUBMITTALS

A. Section 01 70 00 - Execution and Closeout Requirements: Requirements for submittals.

B. Project Record Documents: Record actual locations of components and circuits.

1.7 QUALITY ASSURANCE

A. Provide wiring materials located in plenums with peak optical density not greater than 0.5, average optical density not greater than 0.15, and flame spread not greater than 5 feet (1.5 m) when tested in accordance with NFPA 262.

B. Perform Work in accordance with all applicable Federal, State, and local Codes and Ordinances.

C. Maintain one copy of each document on site.

1.8 QUALIFICATIONS

A. Manufacturer: Company specializing in manufacturing products specified in this section with minimum three years documented experience.

1.9 FIELD MEASUREMENTS

A. Verify field measurements are as indicated on Drawings.

1.10 COORDINATION

A. Section 01 30 00 - Administrative Requirements: Requirements for coordination.

B. Where wire and cable destination is indicated and routing is not shown, determine routing and lengths required.

C. Wire and cable routing indicated is approximate unless dimensioned. Include wire and cable lengths of an additional 10% or 10 feet, whichever is shorter, of length shown.

PART 2 - PRODUCTS

2.1 BUILDING WIRE

A. Manufacturers:
1. Cerro Wire LLC.
2. General Cable; General Cable Corporation.
3. Southwire Company.
4. Substitutions: Section 01 60 00 - Product Requirements.

B. Product Description: Single conductor insulated wire.

C. Conductor: Copper.

D. Insulation Voltage Rating: 600 volts.

E. Insulation Temperature Rating: 105 degrees C.

F. Insulation Material: Thermoplastic.

2.2 NONMETALLIC-SHEATHED CABLE

A. Manufacturers:
1. Cerro Wire LLC.
2. General Cable; General Cable Corporation.
3. Southwire Company.
4. Substitutions: Section 01 60 00 - Product Requirements.

B. Conductor: Copper.

C. Insulation Voltage Rating: 600 volts.

2.3 DIRECT BURIAL CABLE

A. Manufacturers:
1. Cerro Wire LLC.
2. General Cable; General Cable Corporation.
3. Southwire Company.
4. Substitutions: Section 01 60 00 - Product Requirements.

B. Conductor: Copper.

C. Insulation Voltage Rating: 600 volts.

D. Insulation Temperature Rating: 90 degrees C.

2.4 SERVICE ENTRANCE CABLE

A. Manufacturers:
1. Cerro Wire LLC.
2. General Cable; General Cable Corporation.
3. Southwire Company.
4. Substitutions: Section 01 60 00 - Product Requirements.

B. Conductor: Copper.

C. Insulation Voltage Rating: 600 volts.

D. Insulation: Type USE, SE, or USE-2, as approved by Utility Company.

2.5 ARMORED CABLE

A. Manufacturers:
1. Cerro Wire LLC.
2. General Cable; General Cable Corporation.
3. Southwire Company.
4. Substitutions: Section 01 60 00 - Product Requirements.

B. Conductor: Copper.

C. Insulation Voltage Rating: 600 volts.

D. Insulation Temperature Rating: 90 degrees C.

E. Insulation Material: Thermoplastic.

F. Armor Material: Aluminum.

G. Armor Design: Interlocked metal tape.

2.6 METAL CLAD CABLE

A. Manufacturers:
   1. Cerro Wire LLC.
   2. General Cable; General Cable Corporation.
   3. Southwire Company.
   4. Substitutions: Section 01 60 00 - Product Requirements.

B. Conductor: Copper.

C. Insulation Voltage Rating: 600 volts.

D. Insulation Temperature Rating: 90 degrees C.

E. Insulation Material: Thermoplastic.

F. Armor Material: Aluminum.

G. Armor Design: Interlocked metal tape.

H. Jacket: Where required.

2.7 INSTRUMENTATION CABLE

A. Description: Twisted Shield Pair(s), single or multi pair with overall jacket.

B. Conductor: Copper, wire sized to match instrument per manufacturers recommendation.

C. Insulation Voltage Rating: 600 volts.

2.8 WIRING CONNECTORS

A. Split Bolt Connectors:
   1. Manufacturers:
      a. Burndy: Part of Hubbell Electrical Systems.
      b. ILSCO.
      c. Thomas & Betts Corporation; A Member of the ABB Group.
      d. Substitutions: Section 01 60 00 - Product Requirements.

B. Solderless Pressure Connectors:
      a. Burndy: Part of Hubbell Electrical Systems.
      b. ILSCO.
      c. Thomas & Betts Corporation; A Member of the ABB Group.
      d. Substitutions: Section 01 60 00 - Product Requirements.

C. Spring Wire Connectors:
   1. Manufacturers:
      a. Burndy: Part of Hubbell Electrical Systems.
      b. ILSCO.

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c. Thomas & Betts Corporation; A Member of the ABB Group.
d. Substitutions: Section 01 60 00 - Product Requirements.

D. Compression Connectors:
1. Manufacturers:
a. Burndy: Part of Hubbell Electrical Systems.
b. ILSCO.
c. Thomas & Betts Corporation; A Member of the ABB Group.
d. Substitutions: Section 01 60 00 - Product Requirements.

2.9 TERMINATIONS

A. Terminal Lugs for Wires 6 AWG and Smaller: Solderless, compression type copper.

B. Lugs for Wires 4 AWG and Larger: Color keyed, compression type copper, with insulating sealing collars.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Section 01 30 00 - Administrative Requirements: Coordination and project conditions.

B. Verify interior of building has been protected from weather.

C. Verify mechanical work likely to damage wire and cable has been completed.

D. Verify raceway installation is complete and supported.

3.2 PREPARATION

A. Completely and thoroughly swab raceway before installing wire.

3.3 INSTALLATION

A. Route wire and cable to meet Project conditions.

B. Neatly train and lace wiring inside boxes, equipment, and panelboards.

C. Identify and color code wire and cable under provisions of Section 26 05 53. Identify each conductor with its circuit number or other designation indicated.

D. Special Techniques--Building Wire in Raceway:
1. Pull conductors into raceway at same time.
2. Install building wire 4 AWG and larger with pulling equipment.

E. Special Techniques - Cable:
1. Protect exposed cable from damage.

2. Support cables above accessible ceiling, using spring metal clips or metal cable ties to support cables from structure or ceiling suspension system. Do not rest cable on ceiling panels.
3. Use suitable cable fittings and connectors.

F. Special Techniques - Direct Burial Cable:
1. Trench and backfill for direct burial cable installation. Refer to Section 31 23 23 and Section 31 23 17. Install warning tape along entire length of direct burial cable, within 3 inches of grade.
2. Use suitable direct burial cable fittings and connectors.

G. Special Techniques - Wiring Connections:
1. Clean conductor surfaces before installing lugs and connectors.
2. Make splices, taps, and terminations to carry full ampacity of conductors with no perceptible temperature rise.
3. Tape uninsulated conductors and connectors with electrical tape to 150 percent of insulation rating of conductor.
4. Install split bolt connectors for copper conductor splices and taps, 6 AWG and larger.
5. Install solderless pressure connectors with insulating covers for copper conductor splices and taps, 8 AWG and smaller.
6. Install insulated spring wire connectors with plastic caps for copper conductor splices and taps, 10 AWG and smaller.
7. Terminate aluminum conductors with tin-plated, aluminum-bodied compression connectors only. Fill with anti-oxidant compound before installing conductor.
8. Install suitable reducing connectors or mechanical connector adaptors for connecting aluminum conductors to copper conductors.

H. Install stranded conductors for branch circuits 10 AWG and smaller. Install crimp on fork terminals for device terminations. Do not place bare stranded conductors directly under screws.

I. Install terminal lugs on ends of 600 volt wires unless lugs are furnished on connected device, such as circuit breakers.

J. Size lugs in accordance with manufacturer's recommendations terminating wire sizes. Install 2-hole type lugs to connect wires 4 AWG and larger to copper bus bars.

K. For terminal lugs fastened together such as on motors, transformers, and other apparatus, or when space between studs is small enough that lugs can turn and touch each other, insulate for dielectric strength of 2-1/2 times normal potential of circuit.

3.4 WIRE COLOR

A. General:
1. For wire sizes 10 AWG and smaller, install wire colors in accordance with the following:
   a. Black and red for single phase circuits at 120/240 volts.
   b. Black, red, and blue for circuits at 120/208 volts single or three phase.
   c. Orange, brown, and yellow for circuits at 277/480 volts single or three phase.
2. For wire sizes 8 AWG and larger, identify wire with colored tape at terminals, splices and boxes. Colors are as follows:

a. Black and red for single phase circuits at 120/240 volts.
b. Black, red, and blue for circuits at 120/208 volts single or three phase.
c. Orange, brown, and yellow for circuits at 277/480 volts single or three phase.

B. Neutral Conductors: White. When two or more neutrals are located in one conduit, individually identify each with proper circuit number.

C. Branch Circuit Conductors: Install three or four wire home runs with each phase uniquely color coded.

D. Feeder Circuit Conductors: Uniquely color code each phase.

E. Ground Conductors:
1. For 6 AWG and smaller: Green.
2. For 4 AWG and larger: Identify with green tape at both ends and visible points including junction boxes.

3.5 FIELD QUALITY CONTROL

A. Section 01 40 00 - Quality Requirements

B. Section 01 70 00 - Execution and Closeout Requirements.

C. Inspect and test in accordance with NETA ATS, except Section 4.

D. Perform inspections and tests listed in NETA ATS, Section 7.3.1.

END OF SECTION

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SECTION 26 05 26
GROUNDING AND BONDING FOR ELECTRICAL SYSTEMS

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:
   1. Rod electrodes.
   2. Active electrodes.
   3. Wire.
   4. Mechanical connectors.
   5. Exothermic connections.

B. Related Sections:
   1. Section 03 20 00 - Concrete Reinforcing: Bonding or welding bars when reinforcing steel is used for electrodes.

1.2 REFERENCES

A. Institute of Electrical and Electronics Engineers:
   1. IEEE 142 - Recommended Practice for Grounding of Industrial and Commercial Power Systems.
   2. IEEE 1100 - Recommended Practice for Powering and Grounding Electronic Equipment.

B. International Electrical Testing Association:
   1. NETA ATS - Acceptance Testing Specifications for Electrical Power Distribution Equipment and Systems.

C. National Fire Protection Association:
   1. NFPA 70 - National Electrical Code.
   2. NFPA 99 - Standard for Health Care Facilities.

1.3 SYSTEM DESCRIPTION

A. Grounding systems use the following elements as grounding electrodes:
   1. Metal underground water pipe.
   2. Metal building frame.
   3. Concrete-encased electrode.
   4. Rod electrode.
   5. Plate electrode.

1.4 PERFORMANCE REQUIREMENTS

A. Grounding System Resistance: 5 ohms maximum.

1.5 SUBMITTALS

A. Section 01 33 00 - Submittal Procedures: Requirements for submittals.

B. Product Data: Submit data on grounding electrodes and connections.

C. Test Reports: Indicate overall resistance to ground and resistance of each electrode.

D. Manufacturer's Installation Instructions: Submit for active electrodes.

E. Manufacturer's Certificate: Certify Products meet or exceed specified requirements.

1.6 CLOSEOUT SUBMITTALS

A. Section 01 70 00 - Execution and Closeout Requirements: Requirements for submittals.

B. Project Record Documents: Record actual locations of components and grounding electrodes.

1.7 QUALITY ASSURANCE

A. Provide grounding materials conforming to requirements of NEC, IEEE 142, and UL labeled.

B. Perform Work in accordance with all applicable Federal, State, and local Codes and Ordinances.

C. Maintain one copy of each document on site.

1.8 QUALIFICATIONS

A. Manufacturer: Company specializing in manufacturing Products specified in this section with minimum three years documented experience.

B. Installer: Company specializing in performing work of this section with minimum three (3) years documented experience or approved by manufacturer.

1.9 PRE-INSTALLATION MEETINGS

A. Section 01 30 00 - Administrative Requirements: Pre-installation meeting.

B. Convene minimum one week prior to commencing work of this section.

1.10 DELIVERY, STORAGE, AND HANDLING

A. Section 01 60 00 - Product Requirements: Requirements for transporting, handling, storing, and protecting products.

B. Accept materials on site in original factory packaging, labeled with manufacturer's identification.

C. Protect from weather and construction traffic, dirt, water, chemical, and mechanical damage, by storing in original packaging.

D. Do not deliver items to project before time of installation. Limit shipment of bulk and multiple-use materials to quantities needed for immediate installation.

1.11 COORDINATION

A. Section 01 30 00 - Administrative Requirements: Requirements for coordination.

B. Complete grounding and bonding of building reinforcing steel prior concrete placement.

PART 2 - PRODUCTS

2.1 ROD ELECTRODES

A. Manufacturers:
1. ERICO International Corporation.
2. Harger Lightning & Grounding.
3. Substitutions: Section 01 60 00 - Product Requirements.

B. Product Description:
1. Material: Copper.
2. Diameter: 3/4 inch, unless otherwise indicated on drawings.
3. Length: 10 feet, unless otherwise indicated on drawings.

C. Connector: Connector for exothermic welded connection.
1. U-bolt clamp only allowed upon approval by Engineer.

2.2 ACTIVE ELECTRODES

A. Manufacturers:
1. ERICO International Corporation.
2. Harger Lightning & Grounding.
3. Substitutions: Section 01 60 00 - Product Requirements.

B. Product Description:
1. Material: Metallic-salt-filled copper-tube electrode.
2. Shape: As indicated on Drawings.
3. Length: As indicated on Drawings.
4. Connector: Connector for exothermic welded connection.
5. U-bolt clamp only allowed upon approval by Engineer.

2.3 WIRE

A. Material: Stranded copper.

B. Foundation Electrodes: 2 AWG.

C. Grounding Electrode Conductor: Copper conductor, bare.

D. Bonding Conductor: Copper conductor, bare.

2.4 MECHANICAL CONNECTORS

A. Manufacturers:
1. Burndy: Part of Hubbell Electrical Systems.
2. ERICO International Corporation.
3. Harger Lightning & Grounding.
4. Substitutions: Section 01 60 00 - Product Requirements.

B. Description: Bronze connectors, suitable for grounding and bonding applications, in configurations required for particular installation.

2.5 EXOTHERMIC CONNECTIONS

A. Manufacturers:
1. Cadweld.
2. ERICO International Corporation.
3. Harger Lightning & Grounding.
4. Substitutions: Section 01 60 00 - Product Requirements.

B. Product Description: Exothermic materials, accessories, and tools for preparing and making permanent field connections between grounding system components.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Section 01 30 00 - Administrative Requirements: Verification of existing conditions before starting work.

B. Verify final backfill and compaction has been completed before driving rod electrodes.

3.2 PREPARATION

A. Remove paint, rust, mill oils, and surface contaminants at connection points.

3.3 INSTALLATION

A. Install in accordance with IEEE 142
1. Where sensitive equipment is present, install in accordance with IEEE 1100.

B. Install rod electrodes at locations as indicated on Drawings. Install additional rod electrodes to achieve specified resistance to ground.

C. Install grounding and bonding conductors concealed from view.

D. Install 2 AWG bare copper wire in foundation footing as indicated on Drawings.

E. Bond together metal siding not attached to grounded structure; bond to ground.

F. Bond together reinforcing steel and metal accessories in water containment structures.

G. Bond together each metallic raceway, pipe, duct and other metal object entering space under access floors. Bond to underfloor ground grid. Install 2 AWG bare copper bonding conductor.

H. Install isolated grounding conductor for circuits supplying, personal computers and other such sensitive electronics in accordance with IEEE 1100.

I. Equipment Grounding Conductor: Install separate, insulated conductor within each feeder and branch circuit raceway. Terminate each end on suitable lug, bus, or bushing.

J. Install continuous grounding using underground cold water system and building steel as grounding electrode. Where water piping is not available, install artificial station ground by means of driven rods or buried electrodes.

K. Permanently ground entire light and power system in accordance with NEC, including service equipment, distribution panels, lighting panelboards, switch and starter enclosures, motor frames, grounding type receptacles, and other exposed non-current carrying metal parts of electrical equipment.

L. Install branch circuits feeding isolated ground receptacles with separate insulated grounding conductor, connected only at isolated ground receptacle, ground terminals, and at ground bus of serving panel.

M. Accomplish grounding of electrical system by using insulated grounding conductor installed with feeders and branch circuit conductors in conduits. Size grounding conductors in accordance with NEC. Install from grounding bus of serving panel to ground bus of served panel, grounding screw of receptacles, lighting fixture housing, light switch outlet boxes or metal enclosures of service equipment. Ground conduits by means of grounding bushings on terminations at panelboards with installed number 12 conductor to grounding bus.

N. Grounding electrical system using continuous metal raceway system enclosing circuit conductors in accordance with NEC.

O. Permanently attach equipment and grounding conductors prior to energizing equipment.

3.4 FIELD QUALITY CONTROL

A. Section 01 40 00 - Quality Requirements: Field inspecting, testing, adjusting, and balancing.

B. Section 01 70 00 - Execution and Closeout Requirements: Field inspecting, testing, adjusting, and balancing.

C. Inspect and test in accordance with NETA ATS, except Section 4.

D. Grounding and Bonding: Perform inspections and tests listed in NETA ATS, Section 7.13.

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E. Perform ground resistance testing in accordance with IEEE 142.

F. Perform leakage current tests in accordance with NFPA 99.

G. Perform continuity testing in accordance with IEEE 142.

H. When improper grounding is found on receptacles, check receptacles in entire project and correct. Perform retest.

END OF SECTION

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SECTION 26 05 29
HANGERS AND SUPPORTS FOR ELECTRICAL SYSTEMS

PART 1 GENERAL

1.1 SUMMARY

A. Section Includes:
   1. Conduit supports.
   2. Formed steel channel.
   3. Spring steel clips.
   4. Equipment bases and supports.

1.2 REFERENCES

A. ASTM International:
   1. ASTM E84 - Standard Test Method for Surface Burning Characteristics of Building Materials.

B. FM Global:
   1. FM - Approval Guide, A Guide to Equipment, Materials & Services Approved By Factory Mutual Research For Property Conservation.

C. National Fire Protection Association:
   1. NFPA 70 - National Electrical Code.

D. Intertek Testing Services (Warnock Hersey Listed):
   1. WH - Certification Listings.

1.3 SUBMITTALS

A. Section 01 33 00 - Submittal Procedures: Requirements for submittals.

B. Shop Drawings: Indicate system layout with location and detail of trapeze hangers.

C. Product Data:
   1. Hangers and Supports: Submit manufacturers catalog data including load capacity.

D. Design Data: Indicate load carrying capacity of trapeze hangers and hangers and supports.

E. Manufacturer's Installation Instructions:
   1. Hangers and Supports: Submit special procedures and assembly of components.

F. Manufacturer's Certificate: Certify products meet or exceed specified requirements.

1.4 QUALITY ASSURANCE

A. Perform Work in accordance with all applicable standards.

B. Maintain two copies of each document on site.

1.5 QUALIFICATIONS

A. Manufacturer: Company specializing in manufacturing Products specified in this section with minimum three years documented experience.

B. Installer: Company specializing in performing work of this section with minimum three years documented experience or approved by manufacturer.

1.6 PRE-INSTALLATION MEETINGS

A. Section 01 30 00 - Administrative Requirements: Pre-installation meeting.

B. Convene minimum one week prior to commencing work of this section.

1.7 DELIVERY, STORAGE, AND HANDLING

A. Section 01 60 00 - Product Requirements: Requirements for transporting, handling, storing, and protecting products.

B. Accept materials on site in original factory packaging, labeled with manufacturer's identification.

C. Protect from weather and construction traffic, dirt, water, chemical, and mechanical damage, by storing in original packaging.

1.8 ENVIRONMENTAL REQUIREMENTS

A. Section 01 60 00 - Product Requirements: Environmental conditions affecting products on site.

B. Provide ventilation in areas to receive solvent cured materials.

PART 2 PRODUCTS

2.1 CONDUIT SUPPORTS

A. Manufacturers:
   1. ERICO International Corporation.
   2. Thomas & Betts Corporation: A Member of the ABB Group.
   3. Unistrut: Part of Atkore International.
   4. Substitutions: Section 01 60 00 – Product Requirements.

B. Hanger Rods: Threaded high tensile strength galvanized carbon steel with free running threads.

C. Beam Clamps: Malleable Iron, with tapered hole in base and back to accept either bolt or hanger rod. Set screw: hardened steel.

D. Conduit clamps for trapeze hangers: Galvanized steel, notched to fit trapeze with single bolt to tighten.

E. Conduit clamps - general purpose: One hole malleable iron for surface mounted conduits.

F. Cable Ties: High strength nylon temperature rated to 185 degrees F. Self locking.

2.2 FORMED STEEL CHANNEL

A. Manufacturers:
1. B-Line, and Eaton Business.
2. Unistrut: Part of Atkore International.
3. Substitutions: Section 01 60 00 – Product Requirements.

B. Product Description: Galvanized 12 gage thick steel. With holes 1-1/2 inches on center.

2.3 SPRING STEEL CLIPS

A. Manufacturers:
1. B-line, an Eaton Business.
2. Minerallac Company.
3. Morris Products, Inc.
4. Substitutions: Section 01 60 00 – Product Requirements.

B. Product Description: Mounting hole and screw closure.

2.4 MECHANICAL SLEEVE SEALS

A. Manufacturers:
1. Pipeline Seal and Insulator, Inc.
2. Substitution: Section 01 60 00 – Product Requirements.

B. Product Description: Modular mechanical type, consisting of interlocking synthetic rubber links shaped to continuously fill annular space between object and sleeve, connected with bolts and pressure plates causing rubber sealing elements to expand when tightened, providing watertight seal and electrical insulation.

PART 3 EXECUTION

3.1 EXAMINATION

A. Section 01 30 00 - Administrative Requirements: Verification of existing conditions before starting work.

3.2 PREPARATION

A. Remove incompatible materials affecting bond.

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B. Install backing and/or damming materials to arrest liquid material leakage where required.

C. Obtain permission from Engineer before using powder-actuated anchors.

D. Do not drill or cut structural members.

3.3 INSTALLATION - HANGERS AND SUPPORTS

A. Anchors and Fasteners:
   1. Concrete Structural Elements: Provide precast inserts, expansion anchors, powder actuated anchors and preset inserts.
   2. Steel Structural Elements: Provide beam clamps, spring steel clips, steel ramset fasteners, and welded fasteners.
   3. Concrete Surfaces: Provide self-drilling anchors and expansion anchors.
   4. Hollow Masonry, Plaster, and Gypsum Board Partitions: Provide toggle bolts and hollow wall fasteners.
   5. Solid Masonry Walls: Provide expansion anchors and preset inserts.
   6. Sheet Metal: Provide sheet metal screws.
   7. Wood Elements: Provide wood screws.

B. Inserts:
   1. Install inserts for placement in concrete forms.
   2. Install inserts for suspending hangers from reinforced concrete slabs and sides of reinforced concrete beams.
   3. Provide hooked rod to concrete reinforcement section for inserts carrying pipe over 4 inches.
   4. Where concrete slabs form finished ceiling, locate inserts flush with slab surface.
   5. Where inserts are omitted, drill through concrete slab from below and provide through-bolt with recessed square steel plate and nut above flush with top of or recessed into and grouted flush with slab as indicated on drawings.

C. Install conduit and raceway support and spacing in accordance with NEC.

D. Do not fasten supports to pipes, ducts, mechanical equipment, or conduit.

E. Install multiple conduit runs on common hangers.

F. Supports:
   1. Fabricate supports from structural steel or formed steel channel. Install hexagon head bolts to present neat appearance with adequate strength and rigidity. Install spring lock washers under nuts.
   2. Install surface mounted cabinets and panelboards with minimum of four anchors.
   3. In wet and damp locations install steel channel supports to stand cabinets and panelboards 1 inch off wall.
   4. Support vertical conduit at every floor.

3.4 INSTALLATION - EQUIPMENT BASES AND SUPPORTS

A. Provide housekeeping pads of concrete, minimum 3-1/2 inches thick and extending 6 inches beyond supported equipment.

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B. Using templates furnished with equipment, install anchor bolts, and accessories for mounting and anchoring equipment.

C. Construct supports of steel members. Brace and fasten with flanges bolted to structure.

3.5 INSTALLATION - SLEEVES

A. Exterior watertight entries: Seal with adjustable interlocking rubber links.

B. Conduit penetrations not required to be watertight: Sleeve and fill with silicon foam.

C. Set sleeves in position in forms. Provide reinforcing around sleeves.

D. Size sleeves large enough to allow for movement due to expansion and contraction. Provide for continuous insulation wrapping.

E. Extend sleeves through floors 1 inch above finished floor level. Caulk sleeves.

F. Where conduit or raceway penetrates floor, ceiling, or wall, close off space between conduit or raceway and adjacent work with stuffing or fire stopping insulation and caulk airtight. Provide close fitting metal collar or escutcheon covers at both sides of penetration.

G. Install chrome plated steel plastic or stainless steel escutcheons at finished surfaces.

3.6 FIELD QUALITY CONTROL

A. Section 01 40 00 - Quality Requirements: Field inspecting, testing, adjusting, and balancing.

3.7 CLEANING

A. Section 01 70 00 - Execution and Closeout Requirements: Requirements for cleaning.

3.8 PROTECTION OF FINISHED WORK

A. Section 01 70 00 - Execution and Closeout Requirements: Requirements for protecting finished Work.

B. Protect adjacent surfaces from damage by material installation.

END OF SECTION

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SECTION 26 05 33
RACEWAY AND BOXES FOR ELECTRICAL SYSTEMS

PART 1 - GENERAL

1.1 SUMMARY

A. Section includes conduit and tubing, surface raceways, wireways, outlet boxes, pull and junction boxes, and handholes.

B. Related Sections:
1. Section 26 05 26 - Grounding and Bonding for Electrical Systems.
2. Section 26 05 29 - Hangers and Supports for Electrical Systems.
3. Section 26 05 53 - Identification for Electrical Systems.
4. Section 26 05 83 - Equipment Wiring Connections.
5. Section 26 27 16 - Electrical Cabinets and Enclosures.
6. Section 26 27 26 - Wiring Devices.

1.2 REFERENCES

A. American National Standards Institute:
1. ANSI C80.1 - Rigid Steel Conduit, Zinc Coated.
2. ANSI C80.3 - Specification for Electrical Metallic Tubing, Zinc Coated.
3. ANSI C80.5 - Aluminum Rigid Conduit - (ARC).

B. National Electrical Manufacturers Association:
1. NEMA 250 - Enclosures for Electrical Equipment (1000 Volts Maximum).
2. NEMA FB 1 - Fittings, Cast Metal Boxes, and Conduit Bodies for Conduit and Cable Assemblies.
3. NEMA OS 1 - Sheet Steel Outlet Boxes, Device Boxes, Covers, and Box Supports.
4. NEMA OS 2 - Nonmetallic Outlet Boxes, Device Boxes, Covers, and Box Supports.
5. NEMA RN 1 - Polyvinyl Chloride (PVC) Externally Coated Galvanized Rigid Steel Conduit and Intermediate Metal Conduit.
6. NEMA TC 2 - Electrical Polyvinyl Chloride (PVC) Tubing and Conduit.
7. NEMA TC 3 - PVC Fittings for Use with Rigid PVC Conduit and Tubing.

1.3 SYSTEM DESCRIPTION

A. Raceway and boxes located as indicated on Drawings, and at other locations required for splices, taps, wire pulling, equipment connections, and compliance with regulatory requirements. Raceway and boxes are shown in approximate locations unless dimensioned. Provide raceway to complete wiring system.

B. Underground More than 5 feet outside Foundation Wall: Provide rigid steel conduit, plastic coated conduit, or thickwall nonmetallic conduit. Provide cast metal boxes or nonmetallic handhole.

C. Underground Within 5 feet from Foundation Wall: Provide rigid steel conduit or plastic coated conduit. Provide cast metal or nonmetallic boxes.

D. In or Under Slab on Grade: Provide rigid steel conduit, plastic coated conduit or thickwall nonmetallic conduit. Provide cast or nonmetallic metal boxes.

E. Outdoor Locations, Above Grade: Provide rigid steel conduit. Provide cast metal or nonmetallic outlet, pull, and junction boxes.

F. In Slab Above Grade: Provide rigid steel conduit, intermediate metal conduit or thickwall nonmetallic conduit. Provide sheet metal boxes.

G. In Masonry Wall, Above Grade: Provide rigid steel conduit. Provide weatherproof cast metal or nonmetallic outlet, pull, and junction boxes.

H. Wet and Damp Locations: Provide rigid steel conduit, plastic coated conduit or thickwall nonmetallic conduit. Provide cast metal or nonmetallic outlet, junction, and pull boxes. Provide flush mounting outlet box in finished areas.

I. Concealed Dry Locations: Provide rigid steel conduit or thickwall nonmetallic conduit. Provide sheet-metal boxes. Provide flush mounting outlet box in finished areas. Provide hinged enclosure for large pull boxes.

J. Exposed Dry Locations: Provide rigid steel conduit or electrical metallic tubing. Provide sheet-metal boxes. Provide flush mounting outlet box in finished areas. Provide hinged enclosure for large pull boxes.

K. Hazardous Locations: Provide rigid steel conduit, or plastic coated conduit. Provide Explosionproof boxes. Provide hinged enclosure for large pull boxes. All connections and penetrations shall be sealed to prevent intrusion of gases.

L. Pump Stations: Provide rigid steel conduit, or thickwall nonmetallic conduit (as listed above). Provide ventilated hinged enclosures for pull boxes. All connections and penetrations shall be sealed to prevent intrusion of moisture and gases.

1.4 DESIGN REQUIREMENTS

A. Minimum Raceway Size: 3/4 inch unless otherwise specified.

1.5 SUBMITTALS

A. Section 01 33 00 - Submittal Procedures: Submittal procedures.

B. Product Data: Submit for the following:
   1. Flexible metal conduit.
   2. Liquidtight flexible metal conduit.
   3. Nonmetallic conduit.
   4. Flexible nonmetallic conduit.
   5. Nonmetallic tubing.
   6. Raceway fittings.
   7. Conduit bodies.
   8. Surface raceway.
   9. Wireway.
   10. Pull and junction boxes.
   11. Handholes.

C. Manufacturer's Installation Instructions: Submit application conditions and limitations of use stipulated by Product testing agency specified under Regulatory Requirements. Include instructions for storage, handling, protection, examination, preparation, and installation of Product.

1.6 CLOSEOUT SUBMITTALS

A. Section 01 70 00 - Execution and Closeout Requirements: Closeout procedures.

B. Project Record Documents:
   1. Record actual routing of conduits larger than 1 inch.
   2. Record actual locations and mounting heights of outlet, pull, and junction boxes.

1.7 DELIVERY, STORAGE, AND HANDLING

A. Section 01 60 00 - Product Requirements: Product storage and handling requirements.

B. Protect conduit from corrosion and entrance of debris by storing above grade. Provide appropriate covering.

C. Protect PVC conduit from sunlight.

1.8 COORDINATION

A. Section 01 30 00 - Administrative Requirements: Coordination and project conditions.

B. Coordinate installation of outlet boxes for equipment connected under Section 26 05 83.

C. Coordinate mounting heights, orientation and locations of outlets mounted above counters, benches, and backsplashes.

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PART 2 - PRODUCTS

2.1 METAL CONDUIT

A. Manufacturers:
1. Allied Tube & Conduit; a part of Atkore International.
2. EGS/Appleton Electric.
3. Thomas & Betts Corporation; A Member of the ABB Group.
4. Substitutions: Section 01 60 00 - Product Requirements.

B. Rigid Steel Conduit: ANSI C80.1.

C. Rigid Aluminum Conduit: ANSI C80.5.

D. Intermediate Metal Conduit (IMC): Rigid steel.

E. Fittings and Conduit Bodies: NEMA FB 1; material to match conduit.

2.2 PVC COATED METAL CONDUIT

A. Manufacturers:
1. Plasti-Bond.
2. Thomas & Betts Corporation; A Member of the ABB Group.
3. Substitutions: Section 01 60 00 - Product Requirements.

B. Product Description: NEMA RN 1; rigid steel conduit with external PVC coating, 20 mil thick.

C. Fittings and Conduit Bodies: NEMA FB 1; steel fittings with external PVC coating to match conduit.

2.3 FLEXIBLE METAL CONDUIT

A. Manufacturers:
1. AFC Cable Systems; a part of Atkore International.
2. EGS/Appleton Electric.
3. Southwire Company.
4. Substitutions: Section 01 60 00 - Product Requirements.

B. Product Description: Interlocked steel construction.

C. Fittings: NEMA FB 1.

2.4 LIQUIDTIGHT FLEXIBLE METAL CONDUIT

A. Manufacturers:

1. AFC Cable Systems; a part of Atkore International.
2. EGS/Appleton Electric.
3. Southwire Company.
4. Substitutions: Section 01 60 00 - Product Requirements.

B. Product Description: Interlocked steel construction with PVC jacket.

C. Fittings: NEMA FB 1.

2.5 ELECTRICAL METALLIC TUBING (EMT)

A. Manufacturers:
1. Carlon; a brand of Thomas & Betts Corporation.
2. Republic Conduit.
3. Western Tube and Conduit Corporation.
4. Substitutions: Section 01 60 00 - Product Requirements.

B. Product Description: ANSI C80.3; galvanized tubing.

C. Fittings and Conduit Bodies: NEMA FB 1; steel, set screw type.

2.6 NONMETALLIC CONDUIT

A. Manufacturers:
1. Carlon; a brand of Thomas & Betts Corporation.
2. EGS/Appleton Electric.
3. Substitutions: Section 01 60 00 - Product Requirements.

B. Product Description: NEMA TC 2; Schedule 40 PVC and Schedule 80 PVC, as indicated.

C. Fittings and Conduit Bodies: NEMA TC 3.

2.7 NONMETALLIC TUBING

A. Manufacturers:
1. Carlon; a brand of Thomas & Betts Corporation.
2. Substitutions: Section 01 60 00 - Product Requirements.

B. Product Description: NEMA TC 2.

C. Fittings and Conduit Bodies: NEMA TC 3.

2.8 SURFACE METAL RACEWAY

A. Manufacturers:

1. Niedax Inc.
2. Panduit Corp.
3. Wiremold / Legrand.
4. Substitutions: Section 01 60 00 - Product Requirements.

B. Product Description: Sheet metal channel with fitted cover, suitable for use as surface metal raceway.

C. Size: Per Code plus additional 25% spare, unless otherwise indicated.

D. Finish: Gray enamel. Stainless steel in hazardous locations or where corrosive elements are present.

E. Fittings, Boxes, and Extension Rings: Furnish manufacturer's standard accessories; match finish on raceway.

2.9 SURFACE NONMETAL RACEWAY

A. Manufacturers:
1. Panduit Corp.
2. Wiremold / Legrand.
3. Substitutions: Section 01 60 00 - Product Requirements.

B. Product Description: Fiberglass channel with fitted cover, suitable for use as surface raceway.

C. Size: Per Code plus additional 25% spare, unless otherwise indicated.

D. Finish: Gray.

E. Fittings, Boxes, and Extension Rings: Furnish manufacturer's standard accessories, finish to match raceway.

2.10 WIREWAY

A. Manufacturers:
1. Carlon; a brand of Thomas & Betts Corporation.
2. Hoffman; a brand of Pentair Equipment Protection.
3. Square D; by Schneider Electric.
4. Substitutions: Section 01 60 00 - Product Requirements.

B. Product Description: General purpose, Oiltight and dust-tight, or Raintight type wireway. Product rating shall match NEMA Rating for enclosures in same location.

C. Knockouts: Manufacturer's standard. Bottom only in Wet, Damp or Outdoor locations.

D. Size: 4 x 4 inch, 6 x 6 inch, 8 x 8 inch, and 12 x 12 inch; length as indicated on Drawings.

E. Cover: Hinged or Screw cover with full gaskets.

F. Connector: Slip-in or Flanged.

G. Fittings: Lay-in type with removable top, bottom, and side; captive screws and drip shield.

H. Finish: Rust inhibiting primer coating with gray enamel finish.

2.11 OUTLET BOXES

A. Manufacturers:
   1. Allied Moulded Products, Inc.
   2. Carlon; a brand of Thomas & Betts Corporation.
   3. RACO; Hubbell.
   4. Substitutions: Section 01 60 00 - Product Requirements.

B. Sheet Metal Outlet Boxes: NEMA OS 1, galvanized steel.
   1. Luminaire and Equipment Supporting Boxes: Rated for weight of equipment supported; furnish 1/2 inch male fixture studs where required.
   2. Concrete Ceiling Boxes: Concrete type.

C. Nonmetallic Outlet Boxes: NEMA OS 2.

D. Cast Boxes: NEMA FB 1, Type FD, cast feralloy. Furnish gasketed cover by box manufacturer. Furnish threaded hubs.

E. Wall Plates for Finished Areas: As specified in Section 26 27 26.

F. Wall Plates for Unfinished Areas: Furnish gasketed cover.

2.12 PULL AND JUNCTION BOXES

A. Manufacturers:
   1. Emerson Process Management; Rosemount Division.
   2. Hoffman; a brand of Pentair Equipment Protection.
   3. RACO; Hubbell.
   4. Substitutions: Section 01 60 00 - Product Requirements.

B. Sheet Metal Boxes: NEMA OS 1, galvanized steel.

C. Hinged Enclosures: As specified in Section 26 27 16.

D. Surface Mounted Cast Metal Box: NEMA 250, Type 4, 4X or 6 (per environmental conditions); flat-flanged, surface mounted junction box:
   1. Material: Galvanized cast iron.
   2. Cover: Furnish with ground flange, neoprene gasket, and stainless steel cover screws.

E. In-Ground Cast Metal Box: NEMA 250, Type 6, flanged, recessed cover box for flush mounting:
   1. Material: Galvanized cast iron.
   2. Cover: Smooth or Nonskid cover (to match surrounding surfaces) with neoprene gasket and stainless steel cover screws.
   3. Cover Legend: "ELECTRIC" unless otherwise indicated.

F. Fiberglass Concrete composite Handholes: Die-molded, glass-fiber concrete composite hand holes:
   1. Cable Entrance: Pre-cut 6 inch x 6 inch cable entrance at center bottom of each side.
   2. Cover: Glass-fiber concrete composite, weatherproof cover with nonskid finish.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Section 01 30 00 - Administrative Requirements: Coordination and project conditions.

B. Verify outlet locations and routing and termination locations of raceway prior to rough-in.

3.2 INSTALLATION

A. Ground and bond raceway and boxes in accordance with Section 26 05 26.

B. Fasten raceway and box supports to structure and finishes in accordance with Section 26 05 29.

C. Identify raceway and boxes in accordance with Section 26 05 53.

D. Arrange raceway and boxes to maintain headroom and present neat appearance.

3.3 INSTALLATION - RACEWAY

A. Raceway routing is shown in approximate locations unless dimensioned. Route to complete wiring system.

B. Arrange raceway supports to prevent misalignment during wiring installation.

C. Support raceway using coated steel or malleable iron straps, lay-in adjustable hangers, clevis hangers, and split hangers.

D. Group related raceway; support using conduit rack. Construct rack using steel channel specified in Section 26 05 29; provide space on each for 25 percent additional raceways.

E. Do not support raceway with wire or perforated pipe straps. Remove wire used for temporary supports

F. Do not attach raceway to ceiling support wires or other piping systems.

G. Construct wireway supports from steel channel specified in Section 26 05 29.

H. Route exposed raceway parallel and perpendicular to walls.

I. Route raceway installed above accessible ceilings parallel and perpendicular to walls.

J. Route conduit in and under slab from point-to-point.

K. Maximum Size Conduit in Slab Above Grade: 3/4 inch. Do not cross conduits in slab.

L. Maintain clearance between raceway and piping for maintenance purposes.

M. Maintain 12 inch clearance between raceway and surfaces with temperatures exceeding 104 degrees F.

N. Cut conduit square using saw or pipe cutter; de-burr cut ends.

O. Bring conduit to shoulder of fittings; fasten securely.

P. Join nonmetallic conduit using cement as recommended by manufacturer. Wipe nonmetallic conduit dry and clean before joining. Apply full even coat of cement to entire area inserted in fitting. Allow joint to cure for minimum 20 minutes.

Q. Install conduit hubs or sealing locknuts to fasten conduit to sheet metal boxes in damp and wet locations and to cast boxes.

R. Install no more than equivalent of three 90 degree bends between boxes. Install conduit bodies to make sharp changes in direction, as around beams. Install factory elbows for bends in metal conduit larger than 2 inch size.

S. Avoid moisture traps; install junction box with drain fitting at low points in conduit system.

T. Install fittings to accommodate expansion and deflection where raceway crosses seismic, control and expansion joints.

U. Install suitable pull string or cord in each empty raceway except sleeves and nipples.

V. Install suitable caps to protect installed conduit against entrance of dirt and moisture.

W. Surface Raceway: Install flat-head screws, clips, and straps to fasten raceway channel to surfaces; mount plumb and level. Install insulating bushings and inserts at connections to outlets and corner fittings.

X. Close ends and unused openings in wireway.

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3.4 INSTALLATION - BOXES

A. Install wall mounted boxes at elevations to accommodate mounting heights specified in section for outlet device, unless indicated on Drawings.

B. Adjust box location up to 10 feet prior to rough-in to accommodate intended purpose.

C. Orient boxes to accommodate wiring devices oriented as specified in Section 26 27 26.

D. Install pull boxes and junction boxes above accessible ceilings and in unfinished areas only.

E. In Accessible Ceiling Areas: Install outlet and junction boxes no more than 6 inches from ceiling access panel or from removable recessed luminaire.

F. Locate flush mounting box in masonry wall to require cutting of masonry unit corner only. Coordinate masonry cutting to achieve neat opening.

G. Do not install flush mounting box back-to-back in walls; install with minimum 6 inches separation. Install with minimum 24 inches separation in acoustic rated walls.

H. Secure flush mounting box to interior wall and partition studs. Accurately position to allow for surface finish thickness.

I. Install stamped steel bridges to fasten flush mounting outlet box between studs.

J. Install flush mounting box without damaging wall insulation or reducing its effectiveness.

K. Install adjustable steel channel fasteners for hung ceiling outlet box.

L. Do not fasten boxes to ceiling support wires or other piping systems.

M. Support boxes independently of conduit.

N. Install gang box where more than one device is mounted together. Do not use sectional box.

O. Install gang box with plaster ring for single device outlets.

3.5 INTERFACE WITH OTHER PRODUCTS

A. Route conduit through roof openings for piping and ductwork or through suitable roof jack with pitch pocket. Coordinate location with roofing installation as required.

B. Locate outlet boxes to allow luminaires positioned as indicated on Drawings.

C. Align adjacent wall mounted outlet boxes for switches, thermostats, and similar devices.

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3.6 ADJUSTING

A. Section 01 70 00 - Execution and Closeout Requirements: Testing, adjusting, and balancing.

B. Adjust flush-mounting outlets to make front flush with finished wall material.

C. Install knockout closures in unused openings in boxes.

3.7 CLEANING

A. Section 01 70 00 - Execution and Closeout Requirements: Final cleaning.

B. Clean interior of boxes to remove dust, debris, and other material.

C. Clean exposed surfaces and restore finish.

END OF SECTION

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SECTION 26 05 53
IDENTIFICATION FOR ELECTRICAL SYSTEMS

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:
   1. Nameplates.
   2. Labels.
   3. Wire markers.
   4. Conduit markers.
   5. Underground Warning Tape.
   6. Lockout Devices.

1.2 SUBMITTALS

A. Section 01 33 00 - Submittal Procedures: Submittal procedures.

B. Product Data:
   1. Submit manufacturer's catalog literature for each product required.
   2. Submit electrical identification schedule including list of wording, symbols, letter size, color coding, tag number, location, and function.

C. Samples:
   1. Submit one sample of each type of identification products applicable to project.
   2. Submit one nameplate, 4 x 4 inch in size illustrating materials and engraving quality.

D. Manufacturer's Installation Instructions: Indicate installation instructions, special procedures, and installation.

1.3 CLOSEOUT SUBMITTALS

A. Section 01 70 00 - Execution and Closeout Requirements: Requirements for submittals.

B. Project Record Documents: Record actual locations of tagged devices; include tag numbers.

1.4 QUALITY ASSURANCE

A. Perform Work in accordance with all applicable Federal, State, and local code and ordinances.

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1.5 QUALIFICATIONS

A. Manufacturer: Company specializing in manufacturing Products specified in this section with minimum three years documented experience.

B. Installer: Company specializing in performing Work of this section with minimum three years documented experience or approved by manufacturer.

1.6 DELIVERY, STORAGE, AND HANDLING

A. Section 01 60 00 - Product Requirements: Requirements for transporting, handling, storing, and protecting products.

B. Accept identification products on site in original containers. Inspect for damage.

C. Accept materials on site in original factory packaging, labeled with manufacturer's identification, including product density and thickness.

D. Protect insulation from weather and construction traffic, dirt, water, chemical, and mechanical damage, by storing in original wrapping.

1.7 ENVIRONMENTAL REQUIREMENTS

A. Section 01 60 00 - Product Requirements: Environmental conditions affecting products on site.

B. Install labels and nameplates only when ambient temperature and humidity conditions for adhesive are within range recommended by manufacturer.

1.8 EXTRA MATERIALS

A. Section 01 70 00 - Execution and Closeout Requirements: Requirements for extra materials.

B. Furnish two containers of any spray-on adhesives used.

PART 2 - PRODUCTS

2.1 NAMEPLATES

A. Manufacturers:
   1. Craftmark Pipe Markers.
   2. Kolbi Pipe Marker Co.
   3. Seton Identification Products.
   4. Substitutions: Section 01 60 00 - Product Requirements.

B. Product Description: Laminated three-layer plastic with engraved black letters on white contrasting background color, unless otherwise indicated.

C. Letter Size:
1. 1/8 inch high letters for identifying individual equipment and loads.
2. 1/4 inch high letters for identifying grouped equipment and loads.
3. Minimum 1/8 inch high letters for identifying any required information, not otherwise specified.

D. Minimum nameplate thickness: 1/8 inch.

2.2 LABELS

A. Manufacturers:
1. Brady ID.
2. Seton Identification Products.
3. Substitutions: Section 01 60 00 - Product Requirements.

B. Labels: Embossed adhesive tape, with 3/16 inch black letters on white background.

2.3 WIRE MARKERS

A. Manufacturers:
1. Brady ID.
2. Grafoplast Wire Markers.
3. Ideal Industries, Inc.
4. Substitutions: Section 01 60 00 - Product Requirements.

B. Description: Cloth tape, split sleeve, or tubing type wire markers.

C. Legend:
1. Power and Lighting Circuits: Branch circuit or feeder number as indicated on Drawings.
2. Control Circuits: Control wire number as indicated on schematic and interconnection diagrams. Where shop drawings indicate a different labeling methodology at the same location, EACH wire shall bear BOTH labels for clarity.
3. Communication Cables: Communication and cable type using industry standard designations or as indicated on Drawings.

2.4 CONDUIT AND RACEWAY MARKERS

A. Manufacturers:
1. Brady ID.
2. Ideal Industries, Inc.
3. Seton Identification Products.
4. Substitutions: Section 01 60 00 - Product Requirements.

B. Description:
   1. Where susceptible to mechanical damage: Nameplate fastened with straps
   2. With flat smooth surface not susceptible to mechanical damage: Nameplate fastened with adhesive.
   3. Without flat smooth surface: Labels fastened with adhesive.
   4. All other locations, where identification is required: Stencils.

C. Color:
   1. Medium Voltage System: Black lettering on white background.
   2. 480 Volt System: Black lettering on white background.
   3. 208 Volt System: Black lettering on white background.
   4. All other Systems: Black lettering on white background.

D. Legend:
   1. Medium Voltage System: HIGH VOLTAGE.
   2. 480 Volt System: 480 VOLTS.
   3. 208 Volt System: 208 VOLTS.
   4. Instrumentation & Controls: I & C.
   5. Communications: COMMUNICATIONS

2.5 STENCILS

A. Manufacturers:
   1. Kolbi Pipe Marker Co.
   2. Pipemarker.com; Brimar Industries, Inc.
   3. Seton Identification Products.
   4. Substitutions: Section 01 60 00 - Product Requirements.

2.6 UNDERGROUND WARNING TAPE

A. Manufacturers:
   1. Brady ID.
   2. Kolbi Pipe Marker Co.
   3. Seton Identification Products.
   4. Substitutions: Section 01 60 00 - Product Requirements.

B. Description: 4 inch wide plastic tape, detectable type, colored red or yellow, based on warning type, with suitable warning legend describing buried electrical lines.

2.7 LOCKOUT DEVICES

A. Lockout Hasps:
   1. Manufacturers:
      a. Brady ID.
      b. Master Lock Company, LLC.
      c. Substitutions: Section 01 60 00 - Product Requirements.

2. Anodized aluminum with erasable label surface; size minimum 7-1/4 x 3 inches.
   a. Reinforced nylon hasp may be allowed in hazardous or corrosive locations per Engineer's approval.

PART 3 - EXECUTION

3.1 PREPARATION

A. Degrease and clean surfaces to receive adhesive for identification materials.

B. Prepare surfaces in accordance with Section 09 90 00 for stencil painting.

3.2 INSTALLATION

A. Install identifying devices after completion of painting.

B. Nameplate Installation:
   1. Install nameplate parallel to equipment lines.
   2. Install nameplate for each electrical distribution and control equipment enclosure with corrosive-resistant mechanical fasteners, or adhesive.
   3. Install nameplates for each control panel and major control components located outside panel with corrosive-resistant mechanical fasteners, or adhesive.
   4. Secure nameplate to equipment front using screws, rivets, or adhesive.
      a. Screws shall be Standard or Philips type.
      b. Rivets must be approved by Engineer prior to purchase and installation.
   5. Secure nameplate to inside surface of door on recessed panelboard in finished locations.
   6. Install nameplates for the following:
      a. Switchboards.
      b. Panelboards.
      c. Transformers.
      d. Service Disconnects.
      e. Control Cabinets.
      f. Remote Instrumentation and Control Enclosures.
      g. Terminal Boxes.

C. Label Installation:
   1. Install label parallel to equipment lines.
   2. Install label for identification of individual control device stations.
   3. Install labels for permanent adhesion and seal with clear lacquer.

D. Wire Marker Installation:
   1. Install wire marker for each conductor at panelboard gutters, pull boxes, outlet and junction boxes, and each load connection.
   2. Mark data cabling at each end. Install additional marking at accessible locations along the cable run.
   3. Install labels at data outlets identifying patch panel and port designation.

a. If otherwise indicated on Drawings, BOTH designations shall be labeled.

E. Conduit and Raceway Marker Installation:
1. Install Conduit and Raceway marker for each Conduit and Raceway longer than 6 feet.
2. Conduit and Raceway Marker Spacing: 20 feet on center.
3. Raceway Painting: Identify conduit using field painting in accordance with Section 09 90 00.
   a. Paint colored band on each conduit longer than 6 feet.
   b. Paint bands 20 feet on center.
   c. Color:
      1) 480 Volt System: Blue.
      2) 208 Volt System: Yellow.
      3) Other Systems: As indicated on Drawings.

F. Underground Warning Tape Installation:
1. Install underground warning tape along length of each underground conduit, raceway, or cable 6 to 8 inches below finished grade, directly above buried conduit, raceway, or cable.

END OF SECTION

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SECTION 26 05 83
WIRING CONNECTIONS

PART 1 - GENERAL

1.1 SUMMARY

A. Section includes electrical connections to equipment.

B. Related Sections:
1. Section 26 05 19 - Low-Voltage Electrical Power Conductors and Cables.
2. Section 26 05 33 - Raceway and Boxes for Electrical Systems.

1.2 REFERENCES

A. National Electrical Manufacturers Association:
1. NEMA WD 1 - General Requirements for Wiring Devices.
2. NEMA WD 6 - Wiring Devices-Dimensional Requirements.

1.3 SUBMITTALS

A. Section 01 33 00 - Submittal Procedures: Submittal procedures.

B. Product Data: Submit wiring device manufacturer's catalog information showing dimensions, configurations, and construction.

C. Manufacturer's installation instructions.

1.4 CLOSEOUT SUBMITTALS

A. Section 01 70 00 - Execution and Closeout Requirements: Submittal procedures.

B. Project Record Documents: Record actual locations, sizes, and configurations of equipment connections.

1.5 COORDINATION

A. Section 01 30 00 - Administrative Requirements: Coordination and project conditions.

B. Obtain and review shop drawings, product data, manufacturer's wiring diagrams, and manufacturer's instructions for equipment furnished under other sections.

C. Determine connection locations and requirements.

D. Sequence rough-in of electrical connections to coordinate with installation of equipment.

E. Sequence electrical connections to coordinate with start-up of equipment.

PART 2 - PRODUCTS

2.1 CORD AND PLUGS

A. Manufacturers:
   1. Leviton Manufacturing Co., Inc.
   2. Pass & Seymour/Legrand (Pass & Seymour).
   3. Square D; by Schneider Electric.
   4. Substitutions: Section 01 60 00 - Product Requirements.

B. Attachment Plug Construction: Conform to NEMA WD 1.

C. Configuration: NEMA WD 6; match receptacle configuration at outlet furnished for equipment.

D. Cord Construction:
   1. Multiconductor flexible cord with identified equipment grounding conductor, suitable for use in damp locations.
      a. Up to 277 Volts: Type SJO.
      b. Up to 600 Volts: Type SO.

E. Size: Suitable for connected load of equipment, length of cord, and rating of branch circuit overcurrent protection.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Section 01 30 00 - Administrative Requirements: Coordination and project conditions.

B. Verify equipment is ready for electrical connection, for wiring, and to be energized.

3.2 INSTALLATION

A. Make electrical connections.

B. Make conduit connections to equipment using flexible conduit. Use liquidtight flexible conduit with watertight connectors in damp or wet locations.

C. Connect heat producing equipment using wire and cable with insulation suitable for temperatures encountered.

D. Install receptacle outlet to accommodate connection with attachment plug.

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E. Install cord and cap for field-supplied attachment plug.

F. Install suitable strain-relief clamps and fittings for cord connections at outlet boxes and equipment connection boxes.

G. Install disconnect switches, controllers, control stations, and control devices to complete equipment wiring requirements.

H. Install terminal block jumpers to complete equipment wiring requirements.

I. Install interconnecting conduit and wiring between devices and equipment to complete equipment wiring requirements.

3.3 ADJUSTING

A. Section 01 70 00 - Execution and Closeout Requirements: Testing, adjusting, and balancing.

B. Cooperate with utilization equipment installers and field service personnel during checkout and starting of equipment to allow testing and balancing and other startup operations. Provide personnel to operate electrical system and checkout wiring connection components and configurations.

END OF SECTION

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SECTION 26 24 16
PANELBOARDS

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:
1. Distribution and branch circuit panelboards.
2. Load centers.

B. Related Requirements:
1. Section 26 05 26 - Grounding and Bonding for Electrical Systems.
2. Section 26 05 53 - Identification for Electrical Systems.
3. Section 26 28 13 - Fuses.

1.2 REFERENCE STANDARDS

A. Institute of Electrical and Electronics Engineers:
1. IEEE C62.41 - Recommended Practice on Surge Voltages in Low-Voltage AC Power Circuits.

B. National Electrical Manufacturers Association:
1. NEMA FU 1 - Low Voltage Cartridge Fuses.
2. NEMA ICS 2 - Industrial Control and Systems: Controllers, Contactors, and Overload Relays, Rated Not More Than 2000 Volts AC or 750 Volts DC.
3. NEMA ICS 5 - Industrial Control and Systems: Control Circuit and Pilot Devices.
4. NEMA KS 1 - Enclosed and Miscellaneous Distribution Equipment Switches (600 Volts Maximum).
5. NEMA PB 1 - Panelboards.
6. NEMA PB 1.1 - General Instructions for Proper Installation, Operation, and Maintenance of Panelboards Rated 600 Volts or Less.

C. International Electrical Testing Association:
1. NETA ATS - Acceptance Testing Specifications for Electrical Power Distribution Equipment and Systems.

D. National Fire Protection Association:
1. NFPA 70 - National Electrical Code.

E. UL:
1. UL 50 - Cabinets and Boxes
2. UL 67 - Safety for Panelboards.
3. UL 489 - Molded-Case Circuit Breakers, Molded-Case Switches, and Circuit-Breaker Enclosures.
4. UL 1283 - Electromagnetic Interference Filters.
5. UL 1449 - Transient Voltage Surge Suppressors.
6. UL 1699 - Arc-Fault Circuit Interrupters.

1.3 SUBMITTALS

A. Section 01 33 00 - Submittal Procedures: Requirements for submittals.

B. Product Data: Submit catalog data showing specified features of standard products.

C. Shop Drawings: Indicate outline and support point dimensions, voltage, main bus ampacity, integrated short circuit ampere rating, circuit breaker, and fusible switch arrangement and sizes.

D. Source Quality Control Submittals: Indicate results of shop or factory tests and inspections.

E. Field Quality Control Submittals: Indicate results of Contractor furnished tests and inspections.

1.4 CLOSEOUT SUBMITTALS

A. Section 01 70 00 - Execution and Closeout Requirements: Requirements for submittals.

B. Project Record Documents: Record actual locations of panelboards and record actual circuiting arrangements.

C. Operation and Maintenance Data: Submit spare parts listing, source and current prices of replacement parts and supplies, and recommended maintenance procedures and intervals.

1.5 MAINTENANCE MATERIAL SUBMITTALS

A. Section 01 70 00 - Execution and Closeout Requirements: Requirements for maintenance products.

B. Extra Stock Materials:
   1. Furnish two of each panelboard key. Panelboards keyed alike to Owner's current keying system.

1.6 QUALITY ASSURANCE

A. Qualifications
   1. Manufacturer: Company specializing in manufacturing products specified in this Section with minimum three years' documented experience.

PART 2 - PRODUCTS

2.1 BRANCH CIRCUIT PANELBOARDS

A. Manufacturers:
   1. Eaton.
   2. Siemens Industry, Inc.
   3. Square D; by Schneider Electric.
   4. Substitutions: Section 01 60 00 - Product Requirements.

B. Description: NEMA PB1, circuit breaker type, lighting and appliance branch circuit panelboard.

C. Materials:
1. Panelboard Bus: Copper, current carrying components, ratings as indicated on Drawings. Furnish copper ground bus in each panelboard; furnish insulated ground bus as indicated on Drawings.
2. For non-linear load applications subject to harmonics furnish 200 percent rated, plated copper, solid neutral.
3. Minimum Integrated Short Circuit Rating: 10,000 A rms symmetrical for 240 V panelboards; 65,000 S rms symmetrical for 480 V panelboards, or as indicated on Drawings.
4. Molded Case Circuit Breakers: UL 489, bolt-on type thermal magnetic trip circuit breakers, with common trip handle for all poles, listed as Type SWD for lighting circuits, Type HACR for air conditioning equipment circuits, Class A ground fault interrupter circuit breakers as indicated on Drawings. Provide UL class 760 arc-fault interrupter circuit breakers as indicated on Drawings. Do not use tandem circuit breakers.
5. Current Limiting Molded Case Circuit Breakers: UL 489, circuit breakers with integral thermal and instantaneous magnetic trip in each pole, coordinated with automatically resetting current limiting elements in each pole. Interrupting rating 100,000 symmetrical A, let-through current and energy level less than permitted for same size NEMA FU 1, Class RK-5 fuse.
6. Surge Suppresser: External Device, installed next to panelboard; refer to Section 26 35 53. Match Panelboard Manufacturer.
7. Enclosure: NEMA PB 1, Type 1 (Indoor), Type 3R (Outdoor).
8. Cabinet Box: Minimum 6 inches deep.

D. Cabinet Front: Flush or Surface cabinet front with concealed trim clamps, concealed hinge, metal directory frame, and flush lock keyed alike. Finishes:
1. Finish in manufacturer's standard gray enamel.

2.2 LOAD CENTERS

A. Manufacturers:
1. Eaton.
2. Siemens Industry, Inc.
3. Square D; by Schneider Electric.
4. Substitutions: Section 01 60 00 - Product Requirements.

B. Description: Circuit breaker load center, with bus ratings as indicated on Drawings.

C. Performance:
1. Minimum Integrated Short Circuit Rating: 10,000 A rms symmetrical.

D. Materials:
1. Molded Case Circuit Breakers: UL 489, plug-on type thermal magnetic trip circuit breakers, with common trip handle for poles, listed as Type SWD for lighting circuits, Class A ground fault interrupter circuit breakers as indicated on Drawings. Do not use tandem circuit breakers.
2. Enclosure:
   a. Indoor and Dry Locations: General Purpose

b. Outdoor, Wet, or Damp Locations: Rainproof.

E. Box: Flush or Surface type with door and lock on door. Finishes:
1. Finish in manufacturer's standard gray enamel.

2.3 SOURCE QUALITY CONTROL

A. Section 01 40 00 - Quality Requirements: Testing, inspection, and analysis requirements.

B. Independently test surge suppressers with category C3 high exposure waveform (20 kV-1.2/50us, 10kA-8/20 us) per IEEE C62.41.

PART 3 - EXECUTION

3.1 INSTALLATION

A. Install panelboards and load centers according to NEMA PB 1.1.

B. Install panelboards and load centers plumb.

C. Install recessed panelboards and load centers flush with wall finishes.

D. Height: 6 feet to top of panelboard and load center; install panelboards taller than 6 feet with bottom no more than 4 inches above floor.

E. Install filler plates for unused spaces in panelboards.

F. Provide typed circuit directory for each branch circuit panelboard and load center. Revise directory to reflect circuiting changes to balance phase loads. Identify each circuit as to its clear, evident and specific purpose of use.

G. Install engraved plastic nameplates according to Section 26 05 53.

H. Install spare conduits out of each recessed panelboard to accessible location above ceiling or below floor. Minimum spare conduits: 25%, empty 1 inch. Identify each as spare.

I. Ground and bond panelboard enclosure according to Section 26 05 26. Connect equipment ground bars of panels according to NFPA 70.

3.2 FIELD QUALITY CONTROL

A. Section 01 40 00 - Quality Requirements: Requirements for inspecting and testing.

B. Inspect and test according to NETA ATS, except Section 4.

C. Perform circuit breaker inspections and tests listed in NETA ATS, Section 7.6.

D. Perform switch inspections and tests listed in NETA ATS, Section 7.5.

E. Perform controller inspections and tests listed in NETA ATS, Section 7.16.1.

3.3 ADJUSTING

A. Section 01 70 00 - Execution and Closeout Requirements: Requirements for starting and adjusting.

B. Measure steady state load currents at each panelboard feeder; rearrange circuits in panelboard to balance phase loads to within 5 percent of each other. Maintain proper phasing for multi-wire branch circuits.

3.4 CLEANING

A. Section 01 70 00 - Execution and Closeout Requirements: Requirements for cleaning.

B. Clean existing panelboards and load centers to remain or to be reinstalled.

END OF SECTION

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SECTION 26 27 16
ELECTRICAL CABINETS AND ENCLOSURES

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:
   1. Hinged cover enclosures.
   2. Cabinets.
   3. Terminal blocks.
   4. Accessories.

B. Related Requirements:
   1. Section 26 05 26 - Grounding and Bonding for Electrical Systems.
   2. Section 26 05 29 - Hangers and Supports for Electrical Systems.
   3. Section 26 05 33 - Raceway and Boxes for Electrical Systems.

1.2 REFERENCE STANDARDS

A. National Electrical Manufacturers Association:
   1. NEMA 250 - Enclosures for Electrical Equipment (1000 Volts Maximum).
   2. NEMA ICS 4 - Industrial Control and Systems: Terminal Blocks.

1.3 SUBMITTALS

A. Section 01 33 00 - Submittal Procedures.

B. Product Data: Submit manufacturer's standard data for enclosures, cabinets, and terminal blocks.

C. Manufacturer's Instructions: Submit application conditions and limitations of use stipulated by product testing agency specified under Regulatory Requirements. Include instructions for storage, handling, protection, examination, preparation, and installation of product.

D. Qualification Statements:
   1. Submit manufacturer, installer, and licensed professional experience qualifications.
   2. Submit manufacturer's approval of installer.

1.4 MAINTENANCE MATERIAL SUBMITTALS

A. Section 01 70 00 - Execution and Closeout Requirements: Requirements for maintenance materials.

B. Extra Stock Materials:

1. Furnish two of each key.

1.5 QUALIFICATIONS

A. Manufacturer: Company specializing in manufacturing Products specified in this section with minimum three years documented experience.

PART 2 - PRODUCTS

2.1 HINGED COVER ENCLOSURES

A. Manufacturers:
   1. Saginaw Control Engineering
   2. Hoffman; a brand of Pentair Equipment Protection.
   3. Wiegmann; Hubbell Inc.
   4. Substitutions: Section 01 60 00 - Product Requirements.

B. Description: NEMA 250, steel, stainless steel, or fiberglass enclosure.
   1. Indoor, Dry Locations: NEMA 1, steel
   2. Wet, Damp, or Outdoor Locations: NEMA 3R, steel
   3. Hazardous Locations: NEMA 4X, stainless steel
      a. NEMA 4X, Fiberglass where corrosive materials are present.
   4. Covers: Continuous hinge, held closed by flush latch operable by screwdriver or key (as indicated), hasp and staple for padlock.
   5. Furnish interior metal panel for mounting terminal blocks and electrical components; finish with white enamel.
   6. Enclosure Finish: Manufacturer's standard enamel, unless stainless steel.

2.2 CABINETS

A. Manufacturers:
   1. Saginaw Control Engineering
   2. Hammond Mfg. Co. Inc.
   3. Hoffman; a brand of Pentair Equipment Protection.
   4. Substitutions: Section 01 60 00 - Product Requirements.

B. Description:
   1. Boxes: Galvanized steel.
   2. Box Size: As required for wiring and components plus 25% spare, or as shown on drawings.
   3. Backplate: Furnish interior metal panel for mounting terminal blocks and electrical components; finish with white enamel.
   4. Fronts: Steel, flush or surface type (as indicated) with concealed trim clamps, screw cover front, door with concealed hinge, and flush lock keyed to match branch circuit panelboard.
   5. Knockouts: Manufacturer’s standard, unless otherwise indicated.
   6. Ratings: NEMA ICS 6:

a. Indoor, Dry Locations: Type 1 or 12
b. Indoor, Wet or Damp Locations: Type 3R, 4 or 4X
c. Outdoor Locations: Type 3R, 4 or 4X
d. Hazardous Locations: Type 4X

C. Fabrication
1. Furnish metal barriers to form separate compartments wiring of different systems and voltages.
2. Furnish accessory feet for free-standing equipment.

D. Finishes:
1. Finish with gray baked enamel.

E. Spare Capacity: Minimum 25 percent space.
1. Space shall be defined as Square Inches of exposed Enclosure's Sub-panel, typically White in color, in which future components can be installed.

2.3 TERMINAL BLOCKS

A. Manufacturers:
1. Allen-Bradley/Rockwell Automation.
2. Bussmann, an Eaton business.
3. Square D; by Schneider Electric.
4. Substitutions: Section 01 60 00 - Product Requirements.

B. Description:
1. Terminal Blocks: NEMA ICS 4.
2. Power Terminals: Unit construction type with closed back and tubular pressure screw connectors, rated 600 volts.
3. Signal and Control Terminals: Modular construction type, suitable for channel mounting, with tubular pressure screw connectors, rated 300 volts.
4. Furnish ground bus terminal block, with each connector bonded to enclosure.

C. Spare Capacity: Minimum 25 percent additional Terminals for each power and signal type including, but not limited to:
1. Power: 480vac, 120vac, 24vdc.
2. Signal: Discrete Input, Discrete Output, Analog Input, Analog Output.

2.4 PLASTIC RACEWAY

A. Manufacturers:
1. Panduit Corp.
2. Wiremold / Legrand.
3. Substitutions: Section 01 60 00 - Product Requirements.

B. Description: Plastic channel with hinged or snap-on cover.

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2.5 CORROSION PROTECTION

A. Manufacturers; Emitter:
   1. Cortec Corporation.
   2. Substitutions: Section 01 60 00 - Product Requirements.
   3. Description: Foam emitter to provide long term protection against corrosion by airborne contaminants.
      a. For each enclosure, furnish quantity as indicated in manufacturer's instructions to protect the enclosure.

B. Manufacturers; Absorber:
   1. Cortec Corporation.
   2. Substitutions: Section 01 60 00 - Product Requirements.
   3. Description: Plastic cup with breathable membrane to absorb corrosive gasses from the enclosure.
      a. For each enclosure, furnish quantity as indicated in manufacturer's instructions to protect the enclosure.

PART 3 - EXECUTION

3.1 INSTALLATION

A. Install enclosures and boxes plumb. Anchor securely to wall and structural supports at each corner in accordance with Section 26 05 29.

B. Install cabinet fronts plumb.

3.2 CLEANING

A. Section 01 70 00 - Execution and Closeout Requirements: Final cleaning.

B. Clean existing cabinets and enclosures to remain or to be reinstalled.

C. Clean electrical parts to remove conductive and harmful materials.

D. Remove dirt and debris from enclosure.

E. Clean finishes and touch up damage.

END OF SECTION

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SECTION 26 27 26
WIRING DEVICES

PART 1 - GENERAL

1.1 SUMMARY

A. Section includes wall switches; wall dimmers; receptacles; multioutlet assembly; and device plates and decorative box covers.

B. Related Sections:
   1. Section 26 05 33 - Raceway and Boxes for Electrical Systems: Outlet boxes for wiring devices.

1.2 REFERENCES

A. National Electrical Manufacturers Association:
   1. NEMA WD 1 - General Requirements for Wiring Devices.
   2. NEMA WD 6 - Wiring Devices-Dimensional Requirements.

1.3 SUBMITTALS

A. Section 01 33 00 - Submittal Procedures: Submittal procedures.

B. Product Data: Submit manufacturer's catalog information showing dimensions, colors, and configurations.

C. Samples: Submit two samples of each wiring device and wall plate illustrating materials, construction, color, and finish.

1.4 QUALIFICATIONS

A. Manufacturer: Company specializing in manufacturing products specified in this section with minimum three years documented experience.

1.5 EXTRA MATERIALS

A. Section 01 70 00 - Execution and Closeout Requirements: Spare parts and maintenance products.

B. Furnish two of each style, size, and finish wall plate.

PART 2 - PRODUCTS

2.1 WALL SWITCHES

A. Manufacturers:
1. Leviton Manufacturing Co., Inc.
2. Lutron Electronics Co., Inc.
3. Pass & Seymour/Legrand (Pass & Seymour).
4. Substitutions: Section 01 60 00 - Product Requirements.

B. Product Description: NEMA WD 1, Heavy-Duty, AC only general-use snap switch.

C. Body and Handle: Ivory plastic with toggle handle.

D. Ratings:
1. Voltage: 120-277 volts, AC.
2. Current: 20 amperes.

2.2 RECEPTACLES

A. Manufacturers:
1. Eaton (Arrow Hart).
2. Hubbell Premise Wiring.
3. Leviton Manufacturing Co., Inc.
4. Substitutions: Section 01 60 00 - Product Requirements.

B. Product Description: NEMA WD 1, Heavy-duty general use receptacle.

C. Device Body: Ivory plastic.

D. Configuration: NEMA WD 6, type.

E. Convenience Receptacle: Type 5-20.

F. GFCI Receptacle: Convenience receptacle with integral ground fault circuit interrupter to meet regulatory requirements.
1. Status Indicator Light: Red or Green LED
2. TEST and RESET Pushbuttons

2.3 WALL PLATES

A. Manufacturers:
1. Leviton Manufacturing Co., Inc.
2. RACO; Hubbell.
3. Square D; by Schneider Electric.
4. Substitutions: Section 01 60 00 - Product Requirements.

B. Decorative Cover Plate: Ivory plastic or Smooth 302 stainless steel.

C. Jumbo Cover Plate: Smooth 302 stainless steel.

D. Weatherproof Cover Plate: Stainless steel plate with threaded and gasketed device cover.

2.4 MULTIOUTLET ASSEMBLY

A. Manufacturers:
   1. Cutler-Hammer.
   2. Wiremold / Legrand.
   3. Substitutions: Section 01 60 00 - Product Requirements.

B. Multi-outlet Assembly: Sheet metal channel with fitted cover, with pre-wired receptacles, suitable for use as multi-outlet assembly.

C. Size: As required or indicated on Drawings.

D. Receptacles: Furnish covers and accessories to accept receptacles specified in this Section.

E. Receptacle Spacing: As indicated on Drawings.

F. Receptacle Color: Ivory.

G. Channel Finish: Ivory enamel.
   1. Wet, Damp, or Outdoor Locations: Stainless steel.

H. Fittings: Furnish manufacturer's standard couplings, elbows, outlet and device boxes, and connectors

PART 3 - EXECUTION

3.1 EXAMINATION

A. Section 01 30 00 - Administrative Requirements: Coordination and project conditions.

B. Verify outlet boxes are installed at proper height.

C. Verify wall openings are neatly cut and completely covered by wall plates.

D. Verify branch circuit wiring installation is completed, tested, and ready for connection to wiring devices.

3.2 PREPARATION

A. Clean debris from outlet boxes.

3.3 INSTALLATION

A. Install devices plumb and level.

B. Install switches with OFF position down.

C. Do not share neutral conductor on load side of dimmers.

D. Install receptacles with grounding pole on bottom.

E. Connect wiring device grounding terminal to outlet box with bonding jumper and branch circuit equipment grounding conductor.

F. Install wall plates on flush mounted switches, receptacles, and blank outlets.

G. Install decorative plates on switch, receptacle, and blank outlets in finished areas.

H. Connect wiring devices by wrapping solid conductor around screw terminal. Install stranded conductor for branch circuits 10 AWG and smaller. When stranded conductors are used in lieu of solid, use crimp on fork terminals for device terminations. Do not place bare stranded conductors directly under device screws.

I. Use jumbo size plates for outlets installed in masonry walls.

J. Install galvanized steel plates on outlet boxes and junction boxes in unfinished areas, above accessible ceilings, and on surface mounted outlets.

3.4 INTERFACE WITH OTHER PRODUCTS

A. Coordinate locations of outlet boxes provided under Section 26 05 33 to obtain mounting heights as specified and as indicated on drawings.

B. Install wall switch 48 inches above finished floor.

C. Install convenience receptacle Minimum 18 inches above finished floor.

D. Install convenience receptacle 6 inches above counter.

3.5 FIELD QUALITY CONTROL

A. Section 01 40 00 - Quality Requirements

B. Inspect each wiring device for defects.

C. Operate each wall switch with circuit energized and verify proper operation.

D. Verify each receptacle device is energized.

E. Test each receptacle device for proper polarity.

F. Test each GFCI receptacle device for proper operation.

3.6 ADJUSTING

A. Section 01 70 00 - Execution and Closeout Requirements: Testing, adjusting, and balancing.

B. Adjust devices and wall plates to be flush and level.

3.7 CLEANING

A. Section 01 70 00 - Execution and Closeout Requirements: Final cleaning.

B. Clean exposed surfaces to remove splatters and restore finish.

END OF SECTION

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SECTION 26 28 13
FUSES

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:
1. Fuses.

1.2 REFERENCE STANDARDS

A. National Electrical Manufacturers Association:
1. NEMA FU 1 - Low Voltage Cartridge Fuses.

1.3 SUBMITTALS

A. Section 01 33 00 - Submittal Procedures: Submittal procedures.

B. Product Data: Submit data sheets showing electrical characteristics, including time-current curves.

1.4 CLOSEOUT SUBMITTALS

A. Section 01 70 00 - Execution and Closeout Requirements: Closeout procedures.

B. Project Record Documents: Record actual sizes, ratings, and locations of fuses.

1.5 MAINTENANCE MATERIALS

A. Section 01 70 00 - Execution and Closeout Requirements: Requirements for maintenance materials

B. Spare Parts:
1. Furnish two fuse pullers.

C. Extra Materials:
1. Furnish three spare fuses of each Class, size, and rating installed.

1.6 QUALITY ASSURANCE

A. Qualifications:
1. Manufacturer: Company specializing in manufacturing products specified in this section with minimum three years documented experience.

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PART 2 - PRODUCTS

2.1 MANUFACTURERS

A. Manufacturers:
   1. Bussmann, an Eaton business.
   2. Substitutions: Section 01 60 00 - Product Requirements.

2.2 DESIGN REQUIREMENTS

A. Select fuses to provide appropriate levels of short circuit and overcurrent protection for the following components: wire, cable, bus structures, and other equipment. Design system to maintain component damage within acceptable levels during faults.

B. Select fuses to coordinate with time current characteristics of other overcurrent protective elements, including other fuses, circuit breakers, and protective relays. Design system to maintain operation of device closest to fault operates.

2.3 FUSES PERFORMANCE REQUIREMENTS

A. Main Service Switches Larger than 600 amperes: Class L (time delay).

B. Main Service Switches: Class RK1 (time delay). RK5. J (time delay).

C. Power Load Feeder Switches Larger than 600 amperes: Class L (time delay).

D. Power Load Feeder Switches: Class RK1 (time delay). RK5. J (time delay).

E. Motor Load Feeder Switches: Class RK1 (time delay). RK5. J (time delay).

F. Lighting Load Feeder Switches Larger than 600 amperes: Class L time delay.

G. Lighting Load Feeder Switches: Class RK1 (time delay). RK5. J (time delay).

H. Other Feeder Switches Larger than 600 amperes: Class L time delay.

I. Other Feeder Switches: Class RK1 (time delay). RK5. J (time delay).

J. General Purpose Branch Circuits: Class RK1 (time delay). RK5. J (time delay).

K. Motor Branch Circuits: Class RK1 (time delay). RK5. J (time delay).

L. Lighting Branch Circuits: Class G.

2.4 FUSES

A. Dimensions and Performance: NEMA FU 1, Class as specified or as indicated on Drawings.

B. Voltage: Rating suitable for circuit phase-to-phase voltage.

2.5 CLASS RK1 (TIME DELAY) FUSES

A. Dimensions and Performance: NEMA FU 1.

B. Voltage: Rating suitable for circuit phase-to-phase voltage.

2.6 CLASS RK1 (NON-TIME-DELAY) FUSES

A. Dimensions and Performance: NEMA FU 1.

B. Voltage: Rating suitable for circuit phase-to-phase voltage.

2.7 CLASS RK5 FUSES

A. Dimensions and Performance: NEMA FU 1.

B. Voltage: Rating suitable for circuit phase-to-phase voltage.

2.8 CLASS J (TIME DELAY) FUSES

A. Dimensions and Performance: NEMA FU 1.

B. Voltage: Rating suitable for circuit phase-to-phase voltage.

2.9 CLASS J (NON-TIME-DELAY) FUSES

A. Dimensions and Performance: NEMA FU 1.

B. Voltage: Rating suitable for circuit phase-to-phase voltage.

2.10 CLASS T FUSES

A. Dimensions and Performance: NEMA FU 1.

B. Voltage: Rating suitable for circuit phase-to-phase voltage.

2.11 CLASS L (FAST-ACTING) FUSES

A. Dimensions and Performance: NEMA FU 1.

B. Voltage: Rating suitable for circuit phase-to-phase voltage.

2.12 CLASS L (TIME DELAY) FUSES

A. Dimensions and Performance: NEMA FU 1.

B. Voltage: Rating suitable for circuit phase-to-phase voltage.

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2.13 CLASS G FUSES

A. Dimensions and Performance: NEMA FU 1.

B. Voltage: Rating suitable for circuit phase-to-phase voltage.

PART 3 - EXECUTION

3.1 INSTALLATION

A. Install fuse with label oriented so manufacturer, type, and size are easily read.

END OF SECTION

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SECTION 26 28 16.16
ENCLOSED SWITCHES

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:
   1. Fusible.
   2. Nonfusible switches.

B. Related Requirements:
   1. Section 26 05 29 - Hangers and Supports for Electrical Systems.
   2. Section 26 05 53 - Identification for Electrical Systems.
   3. Section 26 28 13 - Fuses.

1.2 REFERENCE STANDARDS

A. National Electrical Manufacturers Association:
   1. NEMA FU 1 - Low Voltage Cartridge Fuses.
   2. NEMA KS 1 - Enclosed and Miscellaneous Distribution Equipment Switches (600 Volts Maximum).

B. International Electrical Testing Association:
   1. NETA ATS - Acceptance Testing Specifications for Electrical Power Distribution Equipment and Systems.

1.3 SUBMITTALS

A. Section 01 33 00 - Submittal Procedures: Submittal procedures.

B. Product Data: Submit switch ratings and enclosure dimensions.

1.4 CLOSEOUT SUBMITTALS

A. Section 01 70 00 - Execution and Closeout Requirements: Closeout procedures.

B. Project Record Documents: Record actual locations of enclosed switches and ratings of installed fuses.

1.5 QUALIFICATIONS

A. Manufacturer: Company specializing in manufacturing products specified in this section with minimum three years documented experience.

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PART 2 - PRODUCTS

2.1 FUSIBLE SWITCH ASSEMBLIES

A. Manufacturers:
1. Square D; by Schneider Electric.
2. Eaton.
3. Siemens Power Transmission & Distribution, Inc.
4. Substitutions: Section 01 60 00 - Product Requirements.

B. Description: NEMA KS 1, Type HD, enclosed load interrupter knife switch. Handle lockable in OFF position.

C. Operation:
1. Switch Ratings
a. Switch Rating: Horsepower rated for AC or DC as indicated on Drawings.
b. Short Circuit Current Rating: UL listed for 10,000 rms symmetrical amperes when used with or protected by Class H or K fuses (30-600 ampere). 200,000 rms symmetrical amperes when used with or protected by Class R or Class J fuses (30-600 ampere switches employing appropriate fuse rejection schemes). 200,000 rms symmetrical amperes when used with or protected by Class L fuses (800-1200 ampere).

D. Materials:
1. Fuse clips: Designed to accommodate NEMA FU 1 fuses.
a. Fuse Class to match required application.
2. Enclosure: NEMA KS 1, to meet conditions. Fabricate enclosure from steel finished with manufacturer's standard gray enamel.
a. Interior Dry Locations: Type 1.
b. Exterior Locations: Type 3R or 4.
c. Industrial Locations: Type 4X.
d. Hazardous Locations: Type 4X.
3. Service Entrance: Switches identified for use as service equipment are to be labeled for this application. Furnish solid neutral assembly and equipment ground bar.
4. Furnish switches with entirely copper current carrying parts.

2.2 NONFUSIBLE SWITCH ASSEMBLIES

A. Manufacturers:
1. Square D; by Schneider Electric.
2. Eaton.
3. Siemens Power Transmission & Distribution, Inc.
4. Substitutions: Section 01 60 00 - Product Requirements.

B. Description: NEMA KS 1, Type HD enclosed load interrupter knife switch. Handle lockable in OFF position.

C. Operation:

1. Switch Ratings
    a. Switch Rating: Horsepower rated for AC or DC as indicated on Drawings.
    b. Short Circuit Current Rating: UL listed for 10,000 rms symmetrical amperes when used with or protected by Class H or K fuses (30-600 ampere). 200,000 rms symmetrical amperes when used with or protected by Class R or Class J fuses (30-600 ampere switches employing appropriate fuse rejection schemes). 200,000 rms symmetrical amperes when used with or protected by Class L fuses (800-1200 ampere).

D. Materials:
1. Enclosure: NEMA KS 1, to meet conditions. Fabricate enclosure from steel finished with manufacturer's standard gray enamel.
    a. Interior Dry Locations: Type 1.
    b. Exterior Locations: Type 3R or 4.
    c. Industrial Locations: Type 4X.
    d. Hazardous Locations: Type 4X.
2. Service Entrance: Switches identified for use as service equipment are to be labeled for this application. Furnish solid neutral assembly and equipment ground bar.
3. Furnish switches with entirely copper current carrying parts.

PART 3 - EXECUTION

3.1 INSTALLATION

A. Install enclosed switches where indicated.

B. Install enclosed switches plumb. Provide supports in accordance with Section 26 05 29.

C. Height: 5 feet to operating handle.

D. Install fuses for fusible disconnect switches. Refer to Section 26 28 13 for product requirements.

E. Install engraved plastic nameplates in accordance with Section 26 05 53. Engrave nameplates with the equipment served and the panel and circuit number supplying the switch.

F. Apply adhesive tag on inside door of each fused switch indicating NEMA fuse class and size installed.

3.2 FIELD QUALITY CONTROL

A. Section 01 70 00 - Execution and Closeout Requirements: Requirements for testing, adjusting, and balancing.

B. Inspect and test in accordance with NETA ATS, except Section 4.

C. Perform inspections and tests listed in NETA ATS, Section 7.5.

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3.3 CLEANING

A. Section 01 70 00 - Execution and Closeout Requirements: Requirements for cleaning.

B. Clean existing enclosed switches to remain or to be reinstalled.

END OF SECTION

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SECTION 26 35 53
VOLTAGE REGULATORS

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:
1. Transient voltage surge suppressors.

B. Related Sections:
1. Section 26 24 16 - Panelboards: Transient voltage surge suppressors integrated in panelboards.

1.2 REFERENCES

A. Institute of Electrical and Electronics Engineers:
1. IEEE 1100 - Recommended Practice for Powering and Grounding Electronic Equipment.
2. IEEE C62.41 - Recommended Practice on Surge Voltages in Low-Voltage AC Power Circuits.
3. IEEE C62.45 - Guide on Surge Testing for Equipment Connected to Low-Voltage AC Power Circuits.

B. National Electrical Manufacturers Association:
1. NEMA LS 1 - Low Voltage Surge Protection Devices.

C. National Fire Protection Association:
1. NFPA 70 - National Electrical Code.
2. NFPA 780 - Standard for the Installation of Lightning Protection Systems.

D. UL:
1. UL 1283 - Electromagnetic Interference Filters.
2. UL 1449 - Transient Voltage Surge Suppressors.

1.3 SUBMITTALS

A. Section 01 33 00 - Submittal Procedures: Requirements for submittals.

B. Product Data: Submit capacity, dimensions, weights, details, and wiring configuration.

C. Test Reports:
1. Indicate let-through voltage test data.
2. Submit spectrum analysis of each unit.
3. Submit test reports from nationally recognized independent testing laboratory verifying suppressors can survive published surge current rating.

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D. Manufacturer's Installation Instructions: Submit installation instructions and connection requirements.

E. Manufacturer's Certificate: Certify transient voltage surge suppression device complies with UL 1449 Second Edition Surge Voltage Ratings.

1.4 CLOSEOUT SUBMITTALS

A. Section 01 70 00 - Execution and Closeout Requirements: Requirements for submittals.

B. Project Record Documents: Record actual locations of transient voltage surge suppressors.

C. Operation and Maintenance Data: Submit manufacturer's descriptive literature, installation instructions, and maintenance and repair data.

1.5 QUALITY ASSURANCE

A. List individual units under UL 1449 and UL 1283.

B. Perform Work according to all applicable Federal, State, and Local Codes and Ordinances.

C. Maintain one copy of each document on Site.

1.6 QUALIFICATIONS

A. Manufacturer: Company specializing in manufacturing products specified in this Section with minimum three years' documented experience.

1.7 DELIVERY, STORAGE, AND HANDLING

A. Section 01 60 00 - Product Requirements: Requirements for transporting, handling, storing, and protecting products.

B. Accept equipment on Site in factory packaging. Inspect for damage.

C. Protect equipment from damage by providing temporary covers until construction is complete in adjacent space.

1.8 WARRANTY

A. Section 01 70 00 - Execution and Closeout Requirements: Requirements for warranties.

B. Furnish five-year manufacturer's warranty for transient voltage surge suppressor part failure.

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PART 2 - PRODUCTS

2.1 TRANSIENT VOLTAGE SURGE SUPPRESSOR (TVSS)

A. Manufacturers:
1. Square D, by Schneider Electric.
2. Cooper Industries, Inc.
3. General Electric Company.
4. Siemens Industry, Inc.
5. Substitutions: Section 01 60 00 - Product Requirements.

B. Product Description: Surge protective devices for protection of AC electrical circuits.

C. Types: Service entrance switchboards, Enclosed switchgear, Busway systems, Distribution switchboards, Power panelboards, Lighting panelboards.

D. Unit Operating Voltage: As indicated on Drawings.

E. Maximum Continuous Operating Voltage: Greater than 115 percent of nominal system operating voltage.

F. Construction:
1. Finish: Factory finish of baked enamel.
2. Balanced Suppression Platform: Equally distribute surge current to metal oxide varistor (MOV) components to ensure equal stressing and maximum performance. Furnish surge suppression platform with equal impedance paths to each matched MOV.
3. Internal Connections: Hardwired with connections using low impedance conductors and compression fittings.
4. Safety and Diagnostic Monitoring: Equipped with standard overcurrent protection:
   a. Continuous monitoring of fusing system.
   b. Monitor individual MOVs (including neutral to ground). Capable of identifying open circuit failures not monitored by conventional fusing systems.
   c. Monitor for overheating in each mode due to thermal runaway.
   d. Furnish green and red solid state indicator light on each phase. Absence of green light and presence of red light indicates which phases have been damaged. Fault detection activates flashing trouble light. Units not capable of detecting open circuit damage, thermal conditions, and over current will not be accepted.
5. Labeling: Permanently affix UL 1449 suppression voltage ratings and CSA to unit.

G. Rating:
1. Electrical Noise Filter: Furnish each unit with high performance EMI/RFI noise rejection filter. Electric line noise attenuation no less than 45 dB at 100 kHz using MIL-STD-220A insertion loss test method.

H. Accessories:
1. Digital display transient event counter with manual reset.
2. Local audible alarm.

3. Form C dry contacts one normally open (NO) and one normally closed (NC) for remote status monitoring.
4. Push-to-test feature.

I. Surge Current Capacity:
   1. Total Surge Current Survival Based on 8-by-20-microsecond Waveform:
      a. Service Entrance (Switchboards, Switchgear, and MCCs):
         1) Minimum Surge Current per Phase: 250kA.
         2) Minimum Surge Current per Mode: 125kA.
      b. High-Exposure Rooftop Locations:
         1) Minimum Surge Current per Phase: 160kA.
         2) Minimum Surge Current per Mode: 80kA.
      c. Distribution and Branch Locations (Panelboards, MCCs, Bus Ducts):
         1) Minimum Surge Current per Phase: 120kA.
         2) Minimum Surge Current per Mode: 60kA.

J. Protection Modes: For Wye configured system, furnish device with directly connected suppression elements between line-neutral (L-N), line-ground (L-G), and neutral-ground (N-G). For Delta configured system, furnish device with suppression elements between line to line (L-L) and line to ground (L-G).

K. Do not exceed following for maximum UL 1449 suppression voltage ratings:
   1. WYE; L-N, L-G, N-G:
      a. 208Y/120: 400 V.
      b. 480Y/277: 800 V.
      c. 600Y/347: 1,200 V.
   2. Delta; L-L, L-G:
      a. 208Y/120: 800 V.
      b. 480Y/277: 1,500 V.
      c. 600Y/347: 2,000 V.

L. ANSI/IEEE Catalog C3 Let Through Voltage: Based on ANSI/IEEE C62.41 and C62.45 recommended procedures for Catalog C3 surges (20 kV, 10kA) and not less than:
   1. 208Y/120; L-N: 500 V.
   2. 480Y/277; L-N: 900 V.
   3. 600Y/347; L-N: 1,300 V.

M. ANSI/IEEE Cat. B3 Let Through Voltage: Based on ANSI/IEEE C62.41 and C62.45 recommended procedures for ANSI/IEEE Catalog B3 Ringwave (6 kV, 500 amps) not less than:
   1. 208Y/120:
      a. WYE; L-N, L-G, N-G: 400 V.
      b. L-N: 170 V.
   2. 480Y/277:
      a. WYE; L-N, L-G, N-G: 800 V.
      b. L-N: 300 V.
   3. 600Y/347:
      a. WYE; L-N, L-G, N-G: 1,200 V.
      b. L-N: 470 V.

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2.2 SOURCE QUALITY CONTROL AND TESTS

A. Section 01 40 00 - Quality Requirements: Testing, inspection, and analysis requirements.

B. Test units to specified surge ratings to ensure devices will achieve required life expectancy and reliability. Testing to full ratings also verifies internal construction quality of suppressors. Provide withstand testing for each mode and each phase basis.

C. Perform actual let-through voltage test data in form of oscillograph results for ANSI/IEEE C62.41 Catalog C3 (20 kV, 10 kA), Catalog C1 (6 kV, 3 kA), and Catalog. B3 (6 kv, 500 A at 100 kHz) tested according to ANSI/IEEE C62.45.

D. Perform spectrum analysis of each unit based on MIL-STD-220A test procedures between 50 kHz and 200 kHz verifying device noise attenuation exceeds 45 dB at 100 kHz.

E. Perform test verifying suppressors can survive published surge current rating for each mode and each phase basis. Test wave based on ANSI/IEEE C62.41, 8-by-20-microsecond current wave.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Section 01 30 00 - Administrative Requirements: Verification of existing conditions before starting Work.

B. Verify mounting area is ready for equipment.

C. Verify circuit rough-ins are at correct location.

3.2 INSTALLATION

A. Install according to IEEE 1100.

B. Install service entrance suppressors in switchboard or switchgear at point of origination for each power configuration within distribution system.

C. Install distribution and branch suppressors externally, next to panelboards.

D. Install using direct bus bar connection.

E. Install indicator lights, trouble alarms, and surge counter in face of switchboard, switchgear, and panelboard.

F. Install with maximum conductor length of 14 inches. Install suppressor with internal fusing.

END OF SECTION

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SECTION 26 51 00
INTERIOR LIGHTING

PART 1 - GENERAL

1.1 SUMMARY

A. Section includes interior luminaires, lamps, ballasts, and accessories.

B. Related Sections:
   1. Section 26 05 26 - Grounding and Bonding for Electrical Systems.
   2. Section 26 05 33 - Raceway and Boxes for Electrical Systems.

1.2 REFERENCES

A. American National Standards Institute:
   1. ANSI C82.1 - American National Standard for Lamp Ballast-Line Frequency Fluorescent Lamp Ballast.
   2. ANSI C82.4 - American National Standard for Ballasts-for High-Intensity-Discharge and Low-Pressure Sodium Lamps (Multiple-Supply Type).

1.3 SUBMITTALS

A. Section 01 33 00 - Submittal Procedures: Submittal procedures.

B. Shop Drawings: Indicate dimensions and components for each luminaire not standard product of manufacturer.

C. Product Data: Submit dimensions, ratings, and performance data.

D. Samples: Submit two color chips 3 x 3 inch (75 x 75 mm) in size illustrating luminaire finish color where indicated in luminaire schedule.

1.4 QUALIFICATIONS

A. Manufacturer: Company specializing in manufacturing products specified in this section with minimum three years documented experience.

1.5 FIELD MEASUREMENTS

A. Verify field measurements prior to fabrication.

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PART 2 - PRODUCTS

2.1 INTERIOR LUMINAIRES

A. Product Description: Complete interior luminaire assemblies, with features, options, and accessories as provided by prefabricated building manufacturer.

B. Refer to Section 01 60 00 - Product Requirements for product options.

2.2 FLUORESCENT BALLASTS

A. Manufacturers:
   1. As provided by luminaire manufacturer.
   2. Substitutions: Section 01 60 00 - Product Requirements.

B. Product Description: Electronic ballast, instant start, less than 10 percent THD, High-power-factor type electromagnetic ballast certified by Certified Ballast Manufacturers, Inc. to comply with ANSI C82.1, suitable for lamps specified, with voltage to match luminaire voltage.

2.3 FLUORESCENT DIMMING BALLASTS AND CONTROLS

A. Manufacturers:
   1. As provided by luminaire manufacturer.
   2. Substitutions: Section 01 60 00 - Product Requirements.

B. Product Description: Electrical assembly of control unit and ballast to furnish smooth dimming of fluorescent lamps.

C. Control Unit: Linear slide type, rated 1500 watts at 120 volts.

D. Ballast: Selected by dimming system manufacturer as suitable for operation with control unit and suitable for lamp type and quantity specified for luminaire.

2.4 INCANDESCENT LAMPS

A. Manufacturers:
   1. As provided by luminaire manufacturer.
   2. Substitutions: Section 01 60 00 - Product Requirements.

2.5 FLUORESCENT LAMPS

A. Manufacturers:
   1. As provided by luminaire manufacturer.
   2. Substitutions: Section 01 60 00 - Product Requirements.

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PART 3 - EXECUTION

3.1 INSTALLATION

A. Install suspended luminaires using pendants supported from swivel hangers. Install pendant length required to suspend luminaire at indicated height.

B. Support luminaires larger than 2 x 4 foot (600 x 1200 mm) size independent of ceiling framing.

C. Locate recessed ceiling luminaires as indicated on Drawings; coordinated with reflected ceiling plan.

D. Install surface mounted luminaires plumb and adjust to align with building lines and with each other. Secure to prevent movement.

E. Install recessed luminaires to permit removal from below.

F. Install recessed luminaires using accessories and firestopping materials to meet regulatory requirements for fire rating.

G. Install clips to secure recessed grid-supported luminaires in place.

H. Install wall-mounted luminaires at height as indicated on Drawings.

I. Install accessories furnished with each luminaire.

J. Connect luminaires to branch circuit outlets provided under Section 26 05 33 using flexible conduit, unless otherwise indicated on Drawings.

K. Make wiring connections to branch circuit using building wire with insulation suitable for temperature conditions within luminaire.

L. Install specified lamps in each luminaire.

M. Ground and bond interior luminaires in accordance with Section 26 05 26.

3.2 FIELD QUALITY CONTROL

A. Section 01 40 00 - Quality Requirements: Field inspecting, testing, adjusting, and balancing.

B. Operate each luminaire after installation and connection. Inspect for proper connection and operation.

3.3 ADJUSTING

A. Section 01 70 00 - Execution and Closeout Requirements: Testing, adjusting, and balancing.

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B. Aim and adjust luminaires as necessary to achieve required illumination levels.

3.4 CLEANING

A. Section 01 70 00 - Execution and Closeout Requirements: Final cleaning.

B. Remove dirt and debris from enclosures.

C. Clean photometric control surfaces as recommended by manufacturer.

D. Clean finishes and touch up damage.

3.5 PROTECTION OF FINISHED WORK

A. Section 01 70 00 - Execution and Closeout Requirements: Protecting finished work.

B. Relamp luminaires having failed lamps at Substantial Completion.

C. Replace all failed luminaire components and accessories at Substantial Completion.

END OF SECTION

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SECTION 26 56 00
EXTERIOR LIGHTING

PART 1 - GENERAL

1.1 SUMMARY

A. Section includes exterior luminaries and accessories.

1.2 REFERENCES

A. American National Standards Institute:
   1. ANSI C82.1 - American National Standard for Lamp Ballast-Line Frequency Fluorescent Lamp Ballast.
   2. ANSI C82.4 - American National Standard for Ballasts-for High-Intensity-Discharge and Low-Pressure Sodium Lamps (Multiple-Supply Type).
   3. ANSI O5.1 - Wood Poles, Specifications and Dimensions.

1.3 SUBMITTALS

A. Section 01 33 00 - Submittal Procedures: Submittal procedures.

B. Shop Drawings: Indicate dimensions and components for each luminaire not standard Product of manufacturer.

C. Product Data: Submit dimensions, ratings, and performance data.

D. Samples: Submit two color chips 3 x 3 inch (75 x 75 mm) in size illustrating luminaire finish color where indicated in luminaire schedule.

1.4 QUALIFICATIONS

A. Manufacturer: Company specializing in manufacturing products specified in this section with minimum three years documented experience.

1.5 DELIVERY, STORAGE, AND HANDLING

A. Section 01 60 00 - Product Requirements: Product storage and handling requirements.

B. Store and handle solid wood poles in accordance with ANSI O5.1.

1.6 COORDINATION

A. Section 01 30 00 - Administrative Requirements: Coordination and project conditions.

B. Furnish bolt templates and pole mounting accessories to installer of pole foundations.

PART 2 - PRODUCTS

2.1 LUMINAIRES

A. Product Description: Complete exterior luminaire assemblies, with features, options, and accessories as provided by prefabricated building manufacturer.

B. Substitutions are not permitted.

2.2 LAMPS - GENERAL

A. Minimum Efficacy, Lamps Greater Than 100 Watts: 60 lumens/W, except where otherwise indicated or permitted by applicable code.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Section 01 30 00 - Administrative Requirements: Coordination and Project conditions.

B. Verify foundations are ready to receive fixtures.

3.2 INSTALLATION

A. Install lamps in each luminaire.

B. Bond and ground luminaries and metal accessories in accordance with Section 26 05 26.

3.3 FIELD QUALITY CONTROL

A. Section 01 40 00 - Quality Requirements: Field inspecting, testing, adjusting, and balancing.

B. Operate each luminaire after installation and connection. Inspect for improper connections and operation.

3.4 ADJUSTING

A. Section 01 70 00 - Execution and Closeout Requirements: Testing, adjusting, and balancing.

B. Aim and adjust luminaries to provide illumination levels and distribution as necessary for required illumination levels.

3.5 CLEANING

A. Section 01 70 00 - Execution and Closeout Requirements: Final cleaning.

B. Clean photometric control surfaces as recommended by manufacturer.

C. Clean finishes and touch up damage.

3.6 PROTECTION OF FINISHED WORK

A. Section 01 70 00 - Execution and Closeout Requirements: Protecting finished work.

B. Relamp luminaries having failed lamps at Substantial Completion.

END OF SECTION

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SECTION 310513

SOILS FOR EARTHWORK

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Subsoil.
2. Topsoil.

B. Related Requirements:

1. Section 310516 "Aggregates for Earthwork" for coarse and fine aggregate materials.
2. Section 312213 "Rough Grading" for removal of topsoil, rough grading, and filling associated with contouring of Site.
3. Section 312316 "Excavation" for excavating as required for building foundations and utilities within building perimeter.
4. Section 312316.13 "Trenching" for excavating as required for building foundations and utilities within building perimeter.
5. Section 312323 "Fill" for backfilling as required at building perimeter and Site structures to subgrade elevations.
6. Section 312500 "Erosion and Sedimentation Controls" for slope protection and erosion control.
7. Section 329119 "Landscape Grading" for placing, leveling, and compacting topsoil materials prior to final landscaping Work.
8. Section 329219 "Seeding" for fertilizing, seeding, hydroseeding, mulching, and maintenance.

1.2 SUBMITTALS

A. Product Data:

1. Subsoil.
2. Topsoil.

B. Source Quality-Control Reports: For subsoil and topsoil materials.

1.3 QUALITY ASSURANCE

A. Furnish each subsoil and topsoil material from single source throughout Work.

B. Perform Work according to Local, State and Federal standards.

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PART 2 - PRODUCTS

2.1 SUBSOIL

A. MDOT Subsoil: native material conforming to State of Michigan Department of Transportation standard specifications for construction.

B. Municipal Subsoil:
   1. Native Material
   2. Graded.
   3. Free of lumps larger than 3 inches, rocks larger than 2 inches, and debris.

2.2 TOPSOIL

A. In accordance with Michigan Department of Transportation construction standards.

2.3 SOURCE QUALITY CONTROL

A. Testing and Analysis:

   1. Subsoil Material: Comply with Michigan Department of Transportation standards for construction.
   2. Topsoil Material: Comply with Michigan Department of Transportation standards for construction.
   3. If tests indicate materials do not meet specified requirements, change material and retest.

B. Certificate of Compliance:

   1. If supplier is approved by authorities having jurisdiction, submit certificate of compliance indicating Work performed at source conforms to Contract Documents.
   2. Specified source tests are not required for Work performed by approved supplier.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine substrates, areas, and conditions for compliance with requirements for installation tolerances and other conditions affecting performance of the Work.

3.2 INSTALLATION OF SUBSOIL AND TOPSOIL

A. Excavation:

   1. Excavate subsoil and topsoil from designated areas.
   2. Strip topsoil to full depth of topsoil in designated areas.

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3. Remove excess excavated materials, subsoil, and topsoil not intended for reuse from Site.
4. Remove excavated materials not meeting requirements for subsoil and topsoil materials from Site.

B. Stockpiling:

1. Stockpile excavated material meeting requirements for subsoil and topsoil materials.
2. Stockpile materials on Site at locations as designated by Engineer.
3. Stockpile in sufficient quantities to meet Project schedule and requirements.
4. Separate differing materials with dividers or stockpile apart to prevent intermixing of soil types or contamination.
5. Stockpile topsoil maximum 8 feet high.
6. Direct surface water away from stockpile to prevent erosion or deterioration of materials.

3.3 CLEANING

A. Stockpile:

1. Remove stockpile and leave area in clean and neat condition.

    a. Grade Site surface to prevent freestanding surface water.

END OF SECTION 310513

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SECTION 310516

AGGREGATES FOR EARTHWORK

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Coarse aggregate.
2. Fine aggregate.

B. Related Requirements:

1. Section 310513 "Soils for Earthwork" for granular fill, topsoil, and grading materials.
2. Section 312213 "Rough Grading" for removal of topsoil, rough grading, and filling associated with contouring of Site.
3. Section 312316 "Excavation" for excavating as required for building foundations and utilities within building perimeter.
4. Section 312316.13 "Trenching" for excavating as required for building foundations and utilities within building perimeter.
5. Section 312323 "Fill" for backfilling as required at building perimeter and Site structures to subgrade elevations.
6. Section 312500 "Erosion and Sedimentation Controls" for slope protection and erosion control.
7. Section 321123 "Aggregate Base Courses" for subbase and base course for placement under asphalt or concrete paving, unit paving, or placed and left exposed.
8. Section 329119 "Landscape Grading" for placing, leveling, and compacting topsoil materials prior to final landscaping Work.
9. Section 331416 "Site Water Utility Distribution Piping" for pipe materials, fittings, valves, meters, and backflow preventers.
10. Section 333100 "Sanitary Sewerage Piping" for pipe materials and accessories normally encountered with gravity sanitary building piping.

1.2 SUBMITTALS

A. Product Data:

1. Fine aggregate.
2. Coarse aggregate.
3. Submit name of imported materials source.

B. Source Quality-Control Reports: For fine- and coarse-aggregate materials.

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1.3 QUALITY ASSURANCE

A. Furnish each coarse and, fine aggregate material from single source throughout Work.

B. Perform Work according to Local, State, and Federal standards.

PART 2 - PRODUCTS

2.1 COARSE AGGREGATE

A. Dense-Graded Aggregate Type 21AA crushed limestone: Conforming to State of Michigan Department of Transportation standards for construction.

2.2 FINE AGGREGATE

A. Class II Sand: Conforming to State of Michigan Department of Transportation standards for construction.

2.3 SOURCE QUALITY CONTROL

A. Testing and Analysis:

1. Coarse-Aggregate Material: Perform in accordance with MTM 108 and MTM 109 and other applicable MDOT testing standards
2. Fine-Aggregate Material: Perform in accordance with MTM 108 and MTM 109 and other applicable MDOT testing standards
3. If tests indicate materials do not meet specified requirements, change material and retest.

B. Certificate of Compliance:

1. If supplier is approved by authorities having jurisdiction, submit certificate of compliance indicating Work performed at source conforms to Contract Documents.
2. Specified source tests are not required for Work performed by approved supplier.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine substrates, areas, and conditions for compliance with requirements for installation tolerances and other conditions affecting performance of the Work.

3.2 INSTALLATION OF COARSE AGGREGATE AND FINE AGGREGATE

A. Excavation:

1. Excavate aggregate materials from Site locations as designated by Architect/Engineer and as specified in Section 312213 "Rough Grading."
2. Remove excess excavated coarse-aggregate and fine-aggregate materials not intended for reuse from Site.
3. Remove excavated materials not meeting requirements for coarse aggregate and fine aggregate from Site.

B. Stockpiling:

1. Stockpile materials on Site at locations as designated by Engineer.
2. Stockpile excavated material meeting requirements for coarse-aggregate and fine-aggregate materials.
3. Stockpile in sufficient quantities to meet Project schedule and requirements.
4. Separate different aggregate materials with dividers or stockpile apart to prevent intermixing of aggregate types or contamination.
5. Direct surface water away from stockpile site to prevent erosion or deterioration of materials.

3.3 CLEANING

A. Stockpile:

1. Remove stockpile and leave area in clean and neat condition.

    a. Grade Site surface to prevent freestanding surface water.

END OF SECTION 310516

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SECTION 312213

ROUGH GRADING

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Excavating topsoil.
2. Excavating subsoil.
3. Cutting, grading, filling.

B. Related Requirements:

1. Section 024116 "Structure Demolition" for demolition of structures, foundations, slabs on grade, and utilities.
2. Section 310513 "Soils for Earthwork" for soils for fill.
3. Section 310516 "Aggregates for Earthwork" for aggregates for fill.
4. Section 312316 "Excavation" for building excavation.
5. Section 312316.13 "Trenching" for trenching and backfilling for utilities.
6. Section 312323 "Fill" for general building area backfilling.

1.2 SUBMITTALS

A. Source Quality-Control Reports: For subsoil and topsoil.

B. Material Test Reports: For each fill material, by a qualified testing agency.

C. Field Quality-Control Reports: For fill material placement and compaction.

1.3 CLOSEOUT SUBMITTALS

A. Project Record Documents: Record actual locations of remaining utilities by horizontal dimensions, elevations or inverts, and slope gradients.

1.4 QUALITY ASSURANCE

A. Perform Work according to Michigan Department of Transportation standards.

B. Furnish each coarse and fine-aggregate material from single source throughout Work.

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PART 2 - PRODUCTS

2.1 MATERIALS

A. Topsoil: As specified in Section 310513 "Soils for Earthwork" k.

B. Subsoil Fill: As specified in Section 310513 "Soils for Earthwork".

C. Structural Fill: As specified in Section 310516 "Aggregates for Earthwork".

D. Granular Fill: As specified in Section 310516 "Aggregates for Earthwork".

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine substrates, areas, and conditions with Installer present, for compliance with requirements for installation tolerances and other conditions affecting performance of the Work.

B. Verify Site conditions under provisions of Section 013000 Administrative Requirements.

C. Verify survey benchmark and intended elevations for the Work are as indicated on Drawings.

3.2 PREPARATION

A. Call Miss Dig not less than three working days before performing Work.

1. Request underground utilities to be located and marked within and surrounding construction areas.

B. Identify required lines, levels, contours, and datum.

C. Notify utility company to remove or relocate utilities.

D. Protect utilities indicated to remain free from damage.

E. Protect plant life, lawns, rock outcropping and other features remaining as portion of final landscaping.

F. Protect benchmarks, survey control point, existing structures, fences, sidewalks, paving, and curbs from excavating equipment and vehicular traffic.

3.3 TOPSOIL EXCAVATION

A. Excavate topsoil from areas to be further excavated, relandscaped, or regraded without mixing with foreign materials for use in finish grading.

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B. Do not excavate wet topsoil.

C. Stockpile in area designated on Site to depth not exceeding 8 feet and protect from erosion.

D. Remove from Site excess topsoil not intended for reuse.

3.4 SUBSOIL EXCAVATION

A. Excavate subsoil from areas to be further excavated, relandscaped, or regraded.

B. Do not excavate wet subsoil.

C. When excavating through roots, perform Work by hand and cut roots with sharp axe or a Sawzall reciprocating saw.

D. Remove from Site excess subsoil not intended for reuse.

E. Benching Slopes: Horizontally bench existing slopes greater than 1:4 to key placed fill material to slope to provide firm bearing.

F. Stability: Replace damaged or displaced subsoil as specified for fill.

3.5 FILLING

A. Fill areas to contours and elevations with unfrozen materials.

B. Place material in continuous layers as follows:

1. Subsoil Fill: Maximum 12 inches compacted depth.
2. Structural Fill: Maximum 8 inches compacted depth.
3. Granular Fill: Maximum 8 inches compacted depth.

C. Maintain optimum moisture content of fill materials to attain required compaction density.

D. Slope grade away from building with a minimum 2 percent slope for minimum distance of 10 feet, unless noted otherwise.

E. Make grade changes gradual. Blend slope into level areas.

F. Repair or replace items damaged by excavation or filling.

G. Install Work according to Michigan Department of Transportation standards.

3.6 TOLERANCES

A. Top Surface of Subgrade: Plus or minus 1.2 inches from required elevation.

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3.7 FIELD QUALITY CONTROL

A. Perform in-place compaction tests according to the following:

1. Density Tests: ASTM D6938.
2. Moisture Tests: ASTM D6938.

B. When tests indicate Work does not meet specified requirements, remove Work, replace, and retest.

C. Frequency of Tests: at discretion of Engineer.

D. Prepare test and inspection reports.

END OF SECTION 312213

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SECTION 312316

EXCAVATION

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Soil densification.
2. Excavating for building foundations.
3. Excavating for slabs on grade.
4. Excavating for Site structures.
5. Excavating for landscaping.

B. Related Requirements:

1. Section 310513 "Soils for Earthwork" for stockpiling of fill and grading materials.
2. Section 310516 "Aggregates for Earthwork" for stockpiling of coarse- and fine-aggregate materials.
3. Section 312213 "Rough Grading" for topsoil and subsoil removal from Site surface.
4. Section 312316.13 "Trenching" for excavating as required for building foundations and utilities within building perimeter.
5. Section 312323 "Fill" for backfilling at building perimeter and Site structures, and fill under slabs on grade, pavement, and landscaped areas.
6. Section 312500 "Erosion and Sedimentation Controls" for slope protection and erosion control.
7. Section 331416 "Site Water Utility Distribution Piping" for pipe materials, fittings, valves, meters, and backflow preventers.
8. Section 333100 "Sanitary Sewerage Piping" for pipe materials and accessories normally encountered with gravity sanitary building piping.

1.2 SUBMITTALS

A. Field Quality-Control Reports: For Contractor-furnished tests and inspections.

B. Qualifications Statement: For licensed professional.

1.3 QUALITY ASSURANCE

A. Licensed Professionals Qualifications: Contractor experienced in design of specified Work and licensed in State of Michigan.

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PART 2 - PRODUCTS

2.1 PERFORMANCE REQUIREMENTS

A. Perform Work according to:

1. The State of Michigan Department of Transportation standards.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine substrates, areas, and conditions for compliance with requirements for installation tolerances and other conditions affecting performance of the Work.

3.2 PREPARATION

A. Call Miss Dig not less than three working days before performing Work.

B. Request that underground utilities be located and marked within and immediately surrounding Site.

C. Identify required lines, levels, contours, and data.

D. Existing Utilities:
1. Protect from damage utilities indicated to remain.

E. Protect plant life, lawns, rock outcroppings and other features designated to remain as portion of final landscaping.

F. Protect benchmarks, existing structures, fences, sidewalks, paving, curbs and survey control points from excavating equipment and vehicular traffic.

G. Do not close or obstruct roadways, sidewalks, hydrants without permits.

H. Erect and maintain temporary barriers and security devices including warning signs, warning lights, and similar measures, for protection of public, and existing improvements indicated to remain.

3.3 SOIL DENSIFICATION BY VIBRO-COMPACTION

A. Before excavating Site, vibro-compact substrates below bearing surfaces for footings as indicated on Drawings.

B. Densify existing subsoils with existing relative density rating of "compact to dense" to attain relative density rating of "very dense."

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C. Depth Vibrator:

1. Type: Poker.
2. Follower Tubes: Furnish visible marking every 12 inches to enable insertion depth measurement.
3. Motion: Radial in horizontal plane.
4. Data Acquisition System: Record amps or pressure of vibrator motor over time and depth.

D. Procedure: Perform densification in presence of Engineer, directly under each footing, with vibrator inserted in grid pattern at maximum 6 feet o.c.

1. Arrange compaction grid for each footing for maximum number of insertion points, and with outermost insertion points within bearing area of footings.
2. Adjust compaction grid arrangement and spacing as directed by Engineer to achieve required densification.
3. Insert vibrator to maximum specified depth, densify soils for 30 seconds or other amount of time as directed by Engineer, and withdraw vibrator every 12 inches while repeating densification at each increment.
4. If subsurface obstruction prevents vibrator insertion to specified depth, request instructions from Engineer to compensate for obstruction.

3.4 TOLERANCES

A. Maximum Deviation from Center of Completed Compaction: 8 inches from indicated position.

B. Maximum Deviation from Vertical: 4 degrees during vibrator insertion.

3.5 EXCAVATION

A. Underpin adjacent structures which may be damaged by excavation Work.

B. Excavate subsoil to accommodate building foundations, slabs on grade, paving, Site structures, and construction operations.

C. Excavate to working elevation for piling Work.

D. Compact disturbed load-bearing soil in direct contact with foundations to original bearing capacity as specified in Section 312323 "Fill" and Section 312316.13 "Trenching".

E. Slope banks with machine to angle of repose or less until shored.

F. Do not interfere with 45-degree bearing splay of foundations.

G. Grade top perimeter of excavation to prevent surface water from draining into excavation.

H. Trim excavation and remove loose matter.

I. Removal of Deleterious Materials:

1. Remove lumped subsoil, boulders, and rock up to 1/3 cu. yd., measured by volume.

2. Remove larger material as specified in Section 312323 "Fill".
3. Remove excess and unsuitable material from Site.

J. Notify Engineer of unexpected subsurface conditions.

K. Correct over-excavated areas as directed by Engineer.

1. Remove excavated material from Site.
2. Stockpile subsoil in area designated on Site to depth not exceeding 8 feet and protect from erosion.
3. Stockpile excavated material in area designated on Site as specified in Section 310513 "Soils for Earthwork".

L. Repair or replace items indicated to remain that have been damaged by excavation.

3.6 FIELD QUALITY CONTROL

A. Tests and Inspections:

1. Request visual inspection of bearing surfaces by Engineer before installing subsequent Work.

B. Prepare test and inspection reports.

3.7 PROTECTION

A. Prevent displacement or loose soil from falling into excavation and maintain soil stability.

B. Protect bottom of excavations and soil adjacent to and beneath foundation from freezing.

C. Protect structures, utilities, and other facilities from damage caused by settlement, lateral movement, undermining, washout, and other hazards that may be created by earth operations.

END OF SECTION 312316

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SECTION 312316.13

TRENCHING

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Excavating trenches for utilities from 5 feet outside building to utility service.
2. Compacted fill from top of utility bedding.
3. Fill materials.
4. Trench shoring shields or boxes.
5. Temporary steel plates.
6. Geotextiles.
7. Backfilling and compaction.

B. Related Requirements:

1. Section 033000 "Cast-in-Place Concrete" for concrete materials.
2. Section 310513 "Soils for Earthwork" for soils for fill.
3. Section 310516 "Aggregates for Earthwork" for aggregates for fill.
4. Section 312213 "Rough Grading" for topsoil and subsoil removal from Site surface.
5. Section 312316 "Excavation" for general building excavation.
6. Section 312323 "Fill" for general backfilling.
7. Section 329119 "Landscape Grading" for filling of topsoil over backfilled trenches to finish grade elevation.
8. Section 333100 "Sanitary Sewerage Piping" for sanitary sewer piping and bedding from building to utility service.

1.2 SUBMITTALS

A. Source Quality-Control Reports: For subsoil.

B. Material Test Reports: For each fill material, by a qualified testing agency.

C. Field Quality-Control Reports: For fill material placement and compaction.

1.3 QUALITY ASSURANCE

A. Manufacturers Qualifications: Company specializing in manufacturing products specified in this Section with minimum three years' documented experience.

B. Installers Qualifications: Company specializing in performing Work of this Section with minimum three years' documented experience and approved by manufacturer.

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C. Furnish each coarse and fine-aggregate material from single source throughout Work.

1.4 PROTECTION OF UNDERGROUND FACILITIES

A. The Contractor will conduct an investigation to assure that no damage to existing structures, drainage lines, utilities, or conduits will occur.

B. The Contractor is required to use caution when encountering active or abandoned utility structures to avoid possibly disturbing or damaging asbestos-containing materials (ACM), which may be present. The Contractor will notify the Architect/Engineer of any suspected ACM encountered in Site utility structures and is responsible for arranging testing of the suspect material by polarized light microscopy (PLM) or other approved method before proceeding with any Work that would disturb the structures.

C. While the excavation is open, protect, support, or remove underground installations as necessary.

PART 2 - PRODUCTS

2.1 PERFORMANCE REQUIREMENTS

A. Perform Work according to:

1. The State of Michigan Department of Transportation standards.

2.2 FILL MATERIALS

A. Subsoil Fill: As specified in Section 310513 "Soils for Earthwork".

B. Structural Fill: As specified in Section 310516 "Aggregates for Earthwork".

C. Granular Fill: As specified in Section 310516 "Aggregates for Earthwork".

2.3 EXCAVATION SUPPORT MATERIALS

A. Timber and lumber for shoring and bracing shall be new, merchantable pine. Douglas Fir or Spruce, unless otherwise shown or specified. Secondhand timber or lumber shall not be used where strength and/pt appearance are important considerations.

B. Steel for sheeting, shoring, and bracing shall be as per the referenced ASTM specifications.

C. Temporary Sheeting: Select section modulus, embedment depth and bracing required to complete the work.

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PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine substrates, areas, and conditions for compliance with requirements for installation tolerances and other conditions affecting performance.

B. Proceed with trench excavation only after unsatisfactory conditions have been corrected.

3.2 LINES AND GRADES

A. Lay pipes and conduit to lines and grades as indicated on Drawings.

1. Engineer and Owner reserves right to make changes in lines, grades, and depths of utilities when changes are required for Project conditions.

B. Use laser-beam instrument with qualified operator to establish lines and grades.

3.3 PREPARATION

A. Call Miss Dig not less than three working days before performing Work.

1. Request underground utilities to be located and marked within and surrounding construction areas.
2. If utilities are to remain in place, provide adequate means of protecting during trench excavation operations.
3. Should uncharted or incorrectly charted piping or other utilities be encountered during trench excavation, consult Architect/Engineer immediately for directions. Cooperate with Architect/Engineer and public utility service companies as required to keep their respective services and facilities in operation. Repair damaged utilities to the satisfaction of utility company.

B. Identify required lines, levels, contours, and datum locations.

C. Protect plant life, lawns, rock outcropping, and other features remaining as portion of final landscaping.

D. Protect benchmarks, existing structures, fences, sidewalks, paving, and curbs from excavating equipment and vehicular traffic.

E. Maintain and protect above- and below-grade utilities indicated to remain.

F. Establish temporary traffic control and detours when trenching is performed in public right-of-way. Relocate controls and reroute traffic as required during progress of Work.

3.4 TRENCHING

A. Excavate subsoil required for utility service.

B. Remove lumped subsoil, boulders, and rock more than 1/6 cu. yd. measured by volume.

C. Do not advance open trench more than one pipe length ahead of installed pipe or conduit.

D. Cut trenches to width as indicated on Drawings Remove water or materials that interfere with Work.

E. Excavate bottom of trenches in accordance with trench details or specifications.

F. Excavate trenches to depth as indicated on Drawings. Provide uniform and continuous bearing and support for bedding material and utilities.

G. Do not interfere with 45-degree bearing splay of trench or foundations.

H. When Project conditions permit, slope side walls of excavation starting 1 foot above top of pipe or conduit. When side walls cannot be sloped, provide sheeting and trench shoring shields to protect excavation as specified in this Section.

I. When subsurface materials at bottom of trench are loose or soft, excavate to greater depth as directed by Architect/Engineer until suitable material is encountered.

J. Cut out soft areas of subgrade not capable of compaction in place. Backfill with Fill Type and compact to density equal to or greater than requirements for subsequent backfill material.

K. Trim excavation. Hand trim for bell and spigot pipe joints. Remove loose matter.

L. Correct over-excavated areas with compacted backfill as specified for authorized excavation or replace with fill concrete as directed by Engineer.

M. Remove from Site excess subsoil not intended for reuse.

N. Locate a stairway, ladder, ramp, or other safe means of egress in trench excavations that are 4 feet or more in depth to require no more than 25 feet of lateral travel for personnel.

3.5 SHEETING, SHORING, AND TRENCH SHORING SHIELDS

A. Utilize sheeting, shoring, and trench shoring shields and brace excavations to prevent danger to persons, structures, and adjacent properties and to prevent caving, erosion, and loss of surrounding subsoil.

B. Support trenches more than 5 feet deep excavated through unstable, loose, or soft material. Provide sheeting, shoring, bracing, trench shoring shields, or other protection to maintain stability of excavation.

C. When sheeting is used, drive it ahead of the excavation operations to avoid the loss of material from behind the sheeting. Fill voids that occur outside of the sheeting with gravel borrow, thoroughly compacted.

D. Assemble and place trench shoring shields according to manufacturer's written instructions.

E. Design sheeting and shoring to be removed at completion of excavation Work.

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F. Repair damage caused by failure of the sheeting, shoring, trench shoring shields, or bracing and for settlement of filled excavations or adjacent soil.

G. Repair damage to new and existing Work from settlement, water pressure, earth pressure, or other causes resulting from inadequate sheeting, shoring, trench shoring shields, or bracing.

3.6 BACKFILLING

A. Backfill trenches to contours and elevations with unfrozen fill materials.

B. Systematically backfill to allow maximum time for natural settlement. Do not backfill over porous, wet, frozen, or spongy subgrade surfaces.

C. Place material in continuous layers as follows:

1. Subsoil Fill: Maximum 12 inches compacted depth.
2. Structural Fill: Maximum 8 inches compacted depth.
3. Granular Fill: Maximum 8 inches compacted depth.

D. Employ placement method that does not disturb or damage foundation perimeter drainage.

E. Maintain optimum moisture content of fill materials to attain required compaction density.

F. Do not leave more than 50 feet of trench open at end of working day.

G. Protect open trench to prevent danger to Owner and the public.

3.7 TOLERANCES

A. Top Surface of Backfilling Under Paved Areas: Plus or minus ½ inch from required elevations.

B. Top Surface of General Backfilling: Plus or minus 1/2 inch from required elevations.

3.8 FIELD QUALITY CONTROL

A. Perform in place compaction tests according to the following:

1. Density Tests: ASTM D6938.
2. Moisture Tests: ASTM D6938.

B. When tests indicate Work does not meet specified requirements, remove Work, replace, compact, and retest.

C. Frequency of Tests: at discretion of Engineer.

3.9 PROTECTION OF FINISHED WORK

A. Reshape and recompact fills subjected to vehicular traffic during construction.

END OF SECTION 312316.13

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SECTION 321123

AGGREGATE BASE COURSES

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes: Aggregate materials.

B. Related Requirements:

1. Section 312213 "Rough Grading" for preparation of site for base course.
2. Section 312316.13 "Trenching" for compacted fill under base course.
3. Section 312323 "Fill" for compacted fill under base course.
4. Section 321216 "Asphalt Paving" for binder and finish asphalt courses.
5. Section 321313 "Concrete Paving" for finish concrete surface course.

1.2 SUBMITTALS

A. Product Data:

1. Aggregate materials.

B. Materials Source: Submit name of aggregate materials suppliers.

1.3 QUALITY ASSURANCE

A. Furnish each aggregate material from single source throughout the Work.

PART 2 - PRODUCTS

2.1 PERFORMANCE REQUIREMENTS

A. Perform Work according to:

1. The State of Michigan Department of Transportation standards.

2.2 AGGREGATE MATERIALS

A. Coarse Aggregate: As specified in Section 310513 “Aggregates for Earthwork”

B. Fine Aggregate: As specified in Section 310516 “Aggregates for Earthwork”

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PART 3 - EXECUTION

3.1 EXAMINATION

A. Verify compacted substrate is dry and ready to support paving and imposed loads.

1. Proof roll substrate with 3 ton in minimum two perpendicular passes to identify soft spots.
2. Remove soft substrate and replace with compacted fill as specified in Section 312323 "Fill."

B. Verify substrate has been inspected, gradients and elevations are correct.

C. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

A. Correct irregularities in substrate gradient and elevation by scarifying, reshaping, and re-compacting.

B. Do not place fill on soft, muddy, or frozen surfaces.

3.3 INSTALLATION OF AGGREGATE MATERIALS

A. Install geotextile fabric over subgrade according to manufacturer's instructions.

1. Lap ends and edges minimum 6 inches.
2. Anchor fabric to subgrade when required to prevent displacement until aggregate is installed.

B. Spread aggregate over prepared substrate to total compacted thickness indicated on Drawings.

C. Roller compact aggregate to density indicated on Drawings.

D. Level and contour surfaces to elevations, profiles, and gradients indicated.

E. Add small quantities of fine aggregate to coarse aggregate when required to assist compaction.

F. Maintain optimum moisture content of fill materials to attain specified compaction density.

G. Use mechanical tamping equipment in areas inaccessible to compaction equipment.

3.4 TOLERANCES

A. Maximum Variation from Flat Surface: 1/4 inch measured with 10 foot straight edge.

B. Maximum Variation from Thickness: 1/4 inch.

C. Maximum Variation from Elevation: 1/2 inch.

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3.5 FIELD QUALITY CONTROL

A. When tests indicate Work does not meet specified requirements, remove Work, replace, and retest.

B. Frequency of Tests: At discretion of Engineer.

3.6 COMPACTION

A. Compact materials to maximum density as indicated on the Drawings

END OF SECTION 321123

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SECTION 32 12 16

ASPHALT PAVING

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Asphalt materials.
2. Aggregate materials.
3. Aggregate subbase.
4. Asphalt paving base course, binder course, and wearing course.

1.2 REFERENCE STANDARDS

A. American Association of State Highway and Transportation Officials:
1. AASHTO M29 - Standard Specification for Fine Aggregate for Bituminous Paving Mixtures.
2. AASHTO M140 - Standard Specification for Emulsified Asphalt.
3. AASHTO M208 - Standard Specification for Cationic Emulsified Asphalt.
4. AASHTO M288 - Standard Specification for Geotextile Specification for Highway Applications.
5. AASHTO M320 - Standard Specification for Performance-Graded Asphalt Binder.
6. AASHTO M324 - Standard Specification for Joint and Crack Sealants, Hot Applied, for Concrete and Asphalt Pavements.
7. AASHTO MP1a - Standard Specification for Performance-Graded Asphalt Binder.

B. Asphalt Institute:

1. AI MS-2 - Mix Design Methods for Asphalt Concrete and Other Hot- Mix Types.
2. AI MS-19 - Basic Asphalt Emulsion Manual.
3. AI SP-2 - Superpave Mix Design.

C. ASTM International:

1. ASTM C1371 - Standard Test Method for Determination of Emittance of Materials Near Room Temperature Using Portable Emissometers.
2. ASTM C1549 - Standard Test Method for Determination of Solar Reflectance Near Ambient Temperature Using a Portable Solar Reflectometer.
3. ASTM D242 - Standard Specification for Mineral Filler For Bituminous Paving Mixtures.
4. ASTM D692 - Standard Specification for Coarse Aggregate for Bituminous Paving Mixtures.
5. ASTM D946 - Standard Specification for Penetration-Graded Asphalt Cement for Use in Pavement Construction.
6. ASTM D977 - Standard Specification for Emulsified Asphalt.

7. ASTM D1073 - Standard Specification for Fine Aggregate for Bituminous Paving Mixtures.
8. ASTM D1188 - Standard Test Method for Bulk Specific Gravity and Density of Compacted Bituminous Mixtures Using Coated Samples
9. ASTM D2027 - Standard Specification for Cutback Asphalt (Medium-Curing Type).
10. ASTM D2397 - Standard Specification for Cationic Emulsified Asphalt.
11. ASTM D2726 - Standard Test Method for Bulk Specific Gravity and Density of Non-Absorptive Compacted Bituminous Mixtures.
12. ASTM D2950 - Standard Test Method for Density of Bituminous Concrete in Place by Nuclear Methods.
13. ASTM D3381 - Standard Specification for Viscosity-Graded Asphalt Cement for Use in Pavement Construction.
14. ASTM D3515 - Standard Specification for Hot-Mixed, Hot-Laid Bituminous Paving Mixtures.
15. ASTM D3549 - Standard Test Method for Thickness or Height of Compacted Bituminous Paving Mixture Specimens.
16. ASTM D3910 - Standard Practices for Design, Testing, and Construction of Slurry Seal.
17. ASTM D6690 - Standard Specification for Joint and Crack Sealants, Hot Applied, for Concrete and Asphalt Pavements.
18. ASTM E408 - Standard Test Methods for Total Normal Emittance of Surfaces Using Inspection-Meter Techniques.
19. ASTM E903 - Standard Test Method for Solar Absorptance, Reflectance, and Transmittance of Materials Using Integrating Spheres.
20. ASTM E1918 - Standard Test Method for Measuring Solar Reflectance of Horizontal and Low-Sloped Surfaces in the Field.
21. ASTM E1980 - Standard Practice for Calculating Solar Reflectance Index of Horizontal and Low-Sloped Opaque Surfaces.

1.3 SUBMITTALS

A. Section 01 33 00 - Submittal Procedures: Requirements for submittals.

B. Product Data:

1. Submit product information for asphalt and aggregate materials.
2. Submit mix design with laboratory test results supporting design.

C. Manufacturer's Certificate: Certify Products meet or exceed specified requirements.

1.4 QUALITY ASSURANCE

A. Mixing Plant: Certified by Michigan Department of Transportation.

B. Obtain materials from same source throughout.

C. Perform Work in accordance with Michigan Department of Transportation standard.

D. Maintain one copy of document on site.

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1.5 QUALIFICATIONS

A. Installer: Company specializing in performing work of this section with minimum 2 years' experience.

1.6 AMBIENT CONDITIONS

A. Section 01 50 00 - Temporary Facilities and Controls: Ambient conditions control facilities for product storage and installation.

B. Do not place asphalt mixture between November 15 and March 1.

C. Do not place asphalt mixture when ambient air or base surface temperature is less than 40 degrees F, or surface is wet or frozen.

PART 2 - PRODUCTS

2.1 ASPHALT PAVING

A. Performance / Design Criteria:

B. Asphalt Materials:

1. Asphalt Binder: AASHTO M320; performance grade PG 58-28.
2. Tack Coat: In accordance with Michigan Department of Transportation standards.

C. Aggregate Materials:

1. Coarse Aggregate: ASTM D692; crushed stone, gravel, or blast furnace slag.
2. Fine Aggregate: AASHTO M29; natural sand or sand manufactured from stone, gravel, or blast furnace slag.

2.2 MIXES

A. Use dry material to avoid foaming. Mix uniformly.

B. Asphalt Paving Mixtures: Designed in accordance with Michigan Department of Transportation standards.
1. Wearing Course: 36A.

2.3 SOURCE QUALITY CONTROL

A. Section 01 40 00 - Quality Requirements: Testing, inspection and analysis requirements.

B. Submit proposed mix design for review prior to beginning of Work.

C. Test samples in accordance with AI MS-2.

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PART 3 - EXECUTION

3.1 EXAMINATION

A. Section 01 70 00 - Execution and Closeout Requirements: Requirements for installation examination.

B. Verify compacted subbase is dry and ready to support paving and imposed loads.

1. Proof roll subbase with fully loaded tandem-axle dump truck in minimum two perpendicular passes to identify soft spots.
2. Remove soft subbase and replace with compacted fill as specified in Section 31 23 23 - Fill.

C. Verify gradients and elevations of base are correct.

3.2 INSTALLATION

A. Subbase:
1. Prepare subbase in accordance with the State of Michigan Department of Transportation.

B. Tack Coat:

1. Apply tack coat in accordance with Michigan Department of Transportation standards.

C. Double Course Asphalt Paving:

1. Install Work in accordance with Michigan Department of Transportation standards.
2. Place asphalt wearing course after tack coat has “broke” but before it loses tackiness.
3. Place each course of asphalt to thickness indicated on Drawings.
4. Compact each course by rolling to specified density. Do not displace or extrude paving from position. Hand compact in areas inaccessible to rolling equipment.
5. Perform rolling with consecutive passes to achieve even and smooth finish, without roller marks.

3.3 TOLERANCES

A. Section 01 40 00 - Quality Requirements: Tolerances.

B. Flatness: Maximum variation of 1/4 inch measured with 10 foot straight edge.

C. Scheduled Compacted Thickness: Within 1/4 inch.

D. Variation from Indicated Elevation: Within 1/2 inch.

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3.4 FIELD QUALITY CONTROL

A. Section 01 70 00 - Execution and Closeout Requirements: Requirements for testing, adjusting, and balancing.

B. Take samples and perform tests including mat density tests in accordance with Michigan Department of Transportation standards.

C. Asphalt Paving Mix Temperature: Measure temperature at time of placement.

D. Asphalt Paving Density: ASTM D2950 nuclear method; test one location for every 500 square yards compacted paving.

3.5 PROTECTION

A. Section 01 70 00 - Execution and Closeout Requirements: Requirements for protecting finished Work.

B. Immediately after placement, protect paving from mechanical injury until surface temperature is less than 140 degrees F (60 degrees C).

END OF SECTION 32 12 16

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SECTION 32 33 00

SITE FURNISHINGS

PART 1 - GENERAL

1.1 SUMMARY

A. This section covers supplying and installing all items of site furnishings or amenities, as shown on the drawings, as herein specified, and/or as required for a complete job.

1.2 RELATED SECTIONS

A. Section 01 30 00 - Submittal Procedures

B. Section 01 60 00 – Product Requirements.

C. Section 03 30 00 – Cast-in-Place Concrete.

1.3 SUBMITTALS

A. Submit shop drawings and product data for all items to be installed within this section.

B. Provide complete product information for all items of site furnishings required for the project to the engineer for approval.

PART 2 - PRODUCTS

2.1 MATERIAL

A. Pavilion (1 ea.): RCP Shelters, Inc 20’x44’ Laminated-Wood Gable Shelter with shingle roof. Color to be determined by Owner. Model # LW-G2044-03.

PART 3 - EXECUTION

3.1 INSTALLATION

A. The Contractor shall be responsible for any assembly requirements and installation of site furnishings, including concrete footings. Assemble and install per manufacturer’s instructions.

B. Field locate with Owner/Engineer prior to installation, unless noted otherwise.

END OF SECTION

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SECTION 329119

LANDSCAPE GRADING

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes: Final grade topsoil for finish landscaping.

B. Related Requirements:

1. Section 312213 "Rough Grading" for Site contouring.
2. Section 312316.13 "Trenching" for backfilling trenches.
3. Section 312323 "Fill" for backfilling at building areas.
4. Section 329219 "Seeding" for finish ground cover.

1.2 SUBMITTALS

A. Materials Source: Submit name of imported materials source.

1.3 QUALITY ASSURANCE

A. Furnish each topsoil material from single source throughout the Work.

PART 2 - PRODUCTS

2.1 PERFORMANCE REQUIREMENTS

A. Perform Work according to:

1. The State of Michigan Department of Transportation standards.

2.2 MATERIAL

A. Topsoil: As specified in Section 31 05 13.00 “Soils for Earthwork”.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Verify building and trench backfilling have been inspected.

B. Verify substrate base has been contoured and compacted.

C. Proceed with placement only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

A. Protect landscaping and other features remaining as final Work.

B. Protect existing structures, fences, sidewalks, utilities, paving, and curbs.

3.3 SUBSTRATE PREPARATION

A. Eliminate uneven areas and low spots.

B. Remove debris, roots, branches, stones, in excess of 2 inches in size. Remove contaminated subsoil.

C. Scarify surface to depth of 6 inches where topsoil is scheduled. Scarify in areas where equipment used for hauling and spreading topsoil has compacted subsoil.

3.4 PLACING TOPSOIL

A. Place topsoil in areas where seeding, is required to thickness as indicated on Drawings. Place topsoil during dry weather.

B. Fine grade topsoil to eliminate rough or low areas. Maintain profiles and contour of subgrade.

C. Remove roots, weeds, rocks, and foreign material while spreading.

D. Manually spread topsoil close to plant material and building to prevent damage.

E. Lightly compact and Roll placed topsoil.

F. Remove surplus subsoil and topsoil from site.

3.5 TOLERANCES

A. Top of Topsoil: Plus or minus 1/2 inch.

3.6 PROTECTION OF INSTALLED WORK

A. Prohibit construction traffic over topsoil.

END OF SECTION 329119

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SECTION 329219

SEEDING

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes: Seed mixture.

B. Related Requirements:

1. Section 312213 "Rough Grading" for rough grading of Site.
2. Section 312316.13 "Trenching" for rough grading over cut.

1.2 DEFINITIONS

A. Weeds: A vegetative species other than specified species to be established in given area. Include Dandelion, Jimsonweed, Quackgrass, Horsetail, Morning Glory, Rush Grass, Mustard, Lambsquarter, Chickweed, Cress, Crabgrass, Canadian Thistle, Nutgrass, Poison Oak, Blackberry, Tansy Ragwort, Bermuda Grass, Johnson Grass, Poison Ivy, Nut Sedge, Nimble Will, Bindweed, Bent Grass, Wild Garlic, Perennial Sorrel, and Brome Grass.

1.3 SUBMITTALS

A. Product Data:

1. Seed mixture.
2. Submit data for seed mix, fertilizer, mulch, and other accessories.

1.4 CLOSEOUT SUBMITTALS

A. Operation and Maintenance Data: Include maintenance instructions, cutting method and maximum grass height; types, application frequency, and recommended coverage of fertilizer.

1.5 QUALITY ASSURANCE

A. Provide seed mixture in containers showing percentage of seed mix, germination percentage, inert matter percentage, weed percentage, year of production, net weight, date of packaging, and location of packaging.

B. Seed Suppliers Qualifications: Company specializing in manufacturing products specified in this Section with minimum three years' documented experience.

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C. Installers Qualifications: Company specializing in performing Work of this Section with minimum years' documented experience.

1.6 DELIVERY, STORAGE, AND HANDLING

A. Deliver grass seed mixture in sealed containers. Seed in damaged packaging is not acceptable.

B. Deliver fertilizer in waterproof bags showing weight, chemical analysis, and name of manufacturer.

1.7 MAINTENANCE SERVICE

A. Maintain seeded areas for three months from Date of Substantial Completion.

B. Maintain seeded areas immediately after placement until grass is well established and exhibits vigorous growing condition for two cuttings.

PART 2 - PRODUCTS

2.1 PERFORMANCE REQUIREMENTS

A. Perform Work according to:

1. The State of Michigan Department of Transportation standards.

2.2 SEED MIXTURE

A. Description:
1. Kentucky Blue Grass: 15 percent.
2. Turf Type (1 elite variety) Perennial Ryegrass: 15%
3. Chewing Fescue (1 elite variety): 15%
4. Creeping Red Fescue Grass: 15 percent.
5. Turf Type Tall Fescue (1 elite variety): 40%

2.3 ACCESSORIES

A. Mulching Material:

1. Oat or wheat straw, free from weeds, foreign matter detrimental to plant life, and dry. Hay or chopped cornstalks are not acceptable.

B. Fertilizer: FS O-F-241, type and grade recommended for grass, with 50% of the elements derived from organic sources and of proportion necessary to eliminate deficiencies of topsoil to the following proportions: 18% nitrogen, 24% phosphoric acid, 6% potassium.

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C. Lime: ASTM C602, Class T agricultural limestone containing a minimum 80 percent calcium carbonate equivalent.

D. Water: Clean, fresh, and free of substances or matter capable of inhibiting vigorous growth of grass.

E. Erosion Fabric: Jute matting, open weave.

F. Herbicide: 25% Prometon, 4-bis, and 75% inert ingredients.

G. Stakes: Softwood lumber, chisel pointed.

H. String: Inorganic fiber.

2.4 SOURCE QUALITY CONTROL

A. Provide recommendation for fertilizer and lime application rates for specified seed mix as result of testing.

B. Testing is not required when recent tests and certificates are available for imported topsoil. Submit these test results to testing laboratory. Indicate, by test results, information necessary to determine suitability.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Verify prepared soil base is ready to receive the Work of this Section.

3.2 FERTILIZING

A. Apply fertilizer at application rate 8 lbs per 1000 square feet.

B. Apply after smooth raking of topsoil and prior to roller compaction.

C. Do not apply fertilizer at same time or with same machine used to apply seed.

D. Mix fertilizer thoroughly into upper 2 inches of topsoil.

E. Lightly water soil to aid dissipation of fertilizer. Irrigate top level of soil uniformly.

3.3 SEEDING

A. Apply seed at rate of 8 lb./1,000 sq. ft. evenly in two intersecting directions. Rake in lightly.

B. Do not seed areas in excess of that which can be mulched on same day.

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C. Planting Season: May 1 to October 10, unless otherwise approved by the Engineer.

D. Do not sow immediately following rain, when ground is too dry, or when winds are over 12 mph.

E. Roll seeded area with roller not exceeding 112 lb./linear foot.

F. Immediately following seeding and compacting, apply mulch to thickness of 1/8 inches. Maintain clear of shrubs and trees.

G. Apply water with fine spray immediately after each area has been mulched. Saturate to 4 inches of soil.

3.4 HYDROSEEDING

A. Apply fertilizer, mulch and seeded slurry with hydraulic seeder at rate of 8 lb./1,000 sq. ft. evenly in one pass.

B. After application, apply water with fine spray immediately after each area has been hydroseeded. Saturate to 4 inches of soil and maintain moisture levels two to four inches.

3.5 SEED PROTECTION

A. Cover seeded slopes where grade is 6 in./ft. or greater with erosion fabric. Roll fabric onto slopes without stretching or pulling.

B. Lay fabric smoothly on surface, bury top end of each section in 6 inch deep excavated topsoil trench. Overlap edges and ends of adjacent rolls minimum 12 inches. Backfill trench and rake smooth, level with adjacent soil.

C. Secure outside edges and overlaps at 36-inch intervals with stakes.

D. Lightly dress slopes with topsoil to ensure close contact between fabric and soil.

3.6 MAINTENANCE

A. Contractor shall guarantee a uniform grass growth over the entire project and shall reseed bare and thin areas until this is accomplished at no additional cost to the project.

B. Immediately reseed areas showing bare spots.

C. Repair any eroded areas and reseed immediately.

D. Water to prevent grass and soil from drying out.

E. Roll surface to remove minor depressions or irregularities.

F. Control growth of weeds. Apply herbicides. Remedy damage resulting from improper use fo herbicides.

G. Repair washouts or gullies.

H. Protect from traffic and erosion in newly seeded areas in the responsibility of Contractor. Safety fences and/or silt fences with appropriate signage may be used at the Contractor's expense until the grasses are fully established.

END OF SECTION 329219

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SECTION 331417 - SITE WATER SERVICE UTILITY LATERALS

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Water piping and fittings.
2. Corporation stop assemblies.
3. Curb stop assemblies.
4. Backflow preventers.
5. Water meters.

B. Related Requirements:
1. Section 310516 "Aggregates for Earthwork" for bedding- and cover-material type.
2. Section 312316.13 "Trenching" for excavation of pipe trench.
3. Section 312323 "Fill" for backfilling of trench.

1.2 SUBMITTALS

A. Product Data:

1. Water piping and fittings.
2. Corporation stop assemblies.
3. Curb stop assemblies.
4. Backflow preventers.
5. Water meters.
6. Meter setting equipment.

B. Field Quality-Control Reports: For utility laterals as specified in this Section.

C. Qualifications Statement: For manufacturer.

1.3 CLOSEOUT SUBMITTALS

A. Project Record Documents: Record actual locations of piping mains, curb stops, connections, thrust restraints, pressure-pipe centerline elevations, and gravity-pipe invert elevations.

B. Identify and describe unexpected variations to subsoil conditions or discovery of uncharted utilities.

1.4 QUALITY ASSURANCE

A. Manufacturers Qualifications: Company specializing in manufacturing products specified in this Section with minimum three years' documented experience.

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1.5 DELIVERY, STORAGE, AND HANDLING

A. Inspection: Accept materials on Site in manufacturer's original packaging and inspect for damage.

B. Store materials according to manufacturer instructions.

C. Protection:

1. Protect materials from moisture and dust by storing in clean, dry location remote from construction operations areas.
2. Provide additional protection according to manufacturer instructions.

PART 2 - PRODUCTS

2.1 PERFORMANCE REQUIREMENTS

A. Perform Work according to:

1. Ypsilanti Community Utility Authority standards.

2.2 WATER PIPING AND FITTINGS

A. Copper Tubing:

1. Comply with ASTM B88.
2. Type: K, annealed.
3. Fittings: Cast copper; ASME B16.18.

2.3 CORPORATION STOP ASSEMBLIES

A. Manufacturers:

1. A.Y. McDonald Mfg. Co.
2. Hydro Instruments.
3. Mueller Co.

B. Corporation Stops:

1. Mueller Catalog No. B-25000N- Ball Valves

C. Service Saddles:

1. Type: Double strap.
2. Designed to hold pressures in excess of pipe working pressure.
3. Mueller BR2S Series, or approved equal.

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2.4 CURB STOP ASSEMBLIES

A. Manufacturers:
1. Ford Meter Box, Inc.
2. A.Y. MacDonald Mfg. Co.

B. Curb Stops:
1. B22-XXX-NL.
2. Or approved equal.

C. Curb Boxes and Covers:
a. A.Y. MacDonald Mfg. Co. Series 5603

2.5 BACKFLOW PREVENTERS

A. Manufacturers:

1. FEBCO; A WATTS Brand.
2. Flomatic Corporation.
3. Matco-Norca.
4. NIBCO INC.
5. WATTS.
6. Zurn Industries, LLC.

B. Reduced-Pressure Backflow Preventers:

1. Comply with AWWA C511.
2. Materials:

a. Body: Bronze.
b. Internal Parts: Bronze.
c. Springs: Stainless steel.

C. Double-Check Valve Assemblies:

1. Comply with AWWA C511.
2. Materials:

a. Body: Bronze.
b. Internal Parts: Corrosion resistant.
c. Springs: Stainless steel.

3. Check Valves:

a. Quantity: Two, operating independently.
b. Intermediate atmospheric vent.

2.6 WATER METERS

A. To be furnished and installed by YCUA.

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2.7 MATERIALS

A. Bedding: As specified in Section 310516 "Aggregates for Earthwork".

B. Cover: As specified in Section 310516 "Aggregates for Earthwork".

C. Soil Backfill from Above Pipe to Finish Grade:

1. Soil Type as specified in Section 310513 "Soils for Earthwork".
2. Subsoil: No rocks greater than 6 inches in diameter, frozen earth, or foreign matter.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine substrates, areas, and conditions, with Installer present, for compliance with requirements for installation tolerances and other conditions affecting performance of the Work.

B. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

A. Cut pipe ends square, ream pipe and tube ends to full pipe diameter, and remove burrs.

B. Remove scale and dirt from inside and outside of piping before assembly.

C. Prepare pipe connections to equipment with flanges or unions.

3.3 INSTALLATION OF SITE WATER SERVICE UTILITY LATERALS

A. Corporation Stop Assemblies:

1. Make connection for each different kind of water main, using suitable materials, equipment, and methods as approved by Engineer.
2. Provide service clamps for mains constructed of materials other than cast iron or ductile iron.
3. Location:

a. Screw corporation stops directly into tapped and threaded iron main at 10- and 2-o'clock positions along main's circumference.
b. Locate and stagger corporation stops at least 12 inches apart longitudinally.

4. Plastic Pipe Mains:

a. Provide full support for service clamp for full circumference of pipe, with minimum 2-inch width of bearing area.
b. Exercise care against crushing or causing other damage to mains at time of tapping or installation of service clamp or corporation stop.

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5. Use seals or other devices such that no leaks are present in mains at points of tapping.
6. Do not backfill and cover service connections until installation has been approved by Engineer.

B. Bedding:

1. Excavate pipe trench as specified in Section 312316.13 "Trenching".
2. Placement:

    a. Place bedding material as indicated on Drawings.
    b. Level fill materials in one continuous layer not exceeding 8 inches of compacted depth.
    c. Compact to 95 percent maximum density.

3. Backfill around sides and to top of pipe with cover fill, tamp in place, and compact to 95 percent maximum density.
4. Maintain optimum moisture content of fill material to attain required compaction density.

C. Pipe and Fittings:

1. Maintain separation of water main from sewer piping according to YCUA code.
2. Group piping with other Site piping Work whenever practical.
3. Install pipe to allow for expansion and contraction without stressing pipe or joints.
4. Install access fittings to permit disinfection of water system.
5. Thrust Restraints: Form and place concrete for thrust restraints at each elbow or change of direction of pipe.
6. Establish elevations of buried piping with not less than 4.5 feet of cover.
7. Backfill trench as specified in Section 312323 "Fill".

D. Curb Stop Assemblies:

1. Set curb stops on compacted soil.
2. Boxes:

    a. Center and plumb curb boxes over curb stops.
    b. Set box cover flush with finished grade.

E. Water Meters: Install positive displacement meters according to AWWA M6, with isolating valves on inlet and outlet as indicated on Drawings.

F. Backflow Preventers:

1. Install backflow preventers where indicated on Drawings and according to manufacturer instructions.
2. Testing and Installation Requirements: Comply with local water company requirements and plumbing codes.

G. Service Connections:

1. Install water service according to utility company requirements.

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2. Install water service to within 5 feet of building and connect to building water service as specified in Section 221100 "Facility Water Distribution."
3. Metal Sleeve:

    a. Install metal sleeve surrounding service main to 6 inches above floor, and minimum 6 feet below grade.
    b. Size: Accommodate minimum 2 inches of insulation.

H. Precast-Concrete Vaults: As specified in Section 330563 "Concrete Vaults and Chambers."

3.4 TOLERANCES

A. Install pipe to indicated elevation to within tolerance of 5/8 inch.

3.5 FIELD QUALITY CONTROL

A. Tests and Inspections:

1. Pressure test water distribution system according to AWWA C600.
2. Pressure test system according to AWWA C600 and following:

    a. Test Pressure: Not less than 200 psig or 50 psi in excess of maximum static pressure, whichever is greater.
    b. Conduct hydrostatic test for a minimum of two hours.
    c. Slowly fill with water section to be tested, and expel air from piping at high points.
    d. Install corporation cocks at high points.
    e. Close air vents and corporation cocks after air is expelled.
    f. Raise pressure to specified test pressure.
    g. Observe joints, fittings, and valves under test.
    h. Remove and renew cracked pipes, joints, fittings, and valves that show visible leakage. Retest.
    i. Correct visible deficiencies and continue testing at same test pressure for additional two hours to determine leakage rate. Maintain pressure within plus or minus 5.0 psi of test pressure.
    j. Leakage is defined as quantity of water supplied to piping as necessary to maintain test pressure during testing period.
    k. Compute maximum allowable leakage using following formula:

        1) L = SD x sqrt(P)/C.
        2) L = testing allowance, gph.
        3) S = length of pipe tested, feet.
        4) D = nominal diameter of pipe, inches.
        5) P = average test pressure during hydrostatic test, psig.
        6) C = 148,000.

    l. If pipe under test contains sections of various diameters, calculate allowable leakage from sum of computed leakage for each size.
    m. Leakage:

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1) If test of pipe indicates leakage greater than that allowed, locate source of leakage, make corrections, and retest until leakage is within allowable limits.
2) Correct visible leaks regardless of quantity of leakage.

B. Compaction Testing for Bedding: Comply with ASTM D6938.

C. If tests indicate Work does not meet specified requirements, remove Work, replace, and retest.

D. Frequency of Compaction Tests: As directed by Engineer.

END OF SECTION 331417

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SECTION 333111

PUBLIC SANITARY SEWERAGE GRAVITY PIPING

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Sanitary sewerage piping.
2. Manholes.
3. Flexible couplings.
4. Flexible pipe boots for manhole pipe entrances.
5. Pile support systems.
6. Concrete encasement and cradles.

B. Related Requirements:
1. Section 310513 "Soils for Earthwork" for soils for backfill in trenches.
2. Section 310516 "Aggregates for Earthwork" for aggregate for backfill in trenches.
3. Section 312316 "Excavation" for product and execution requirements for excavation and backfill required by this Section.
4. Section 312316.13 "Trenching" for execution requirements for trenching required by this Section.
5. Section 312323 "Fill" for requirements for backfilling as required by this Section.

1.2 DEFINITIONS

A. ABS: Acrylonitrile butadiene styrene.

B. Bedding: Fill placed under, beside, and directly over pipe, prior to subsequent backfill operations.

C. EPDM: Ethylene-propylene-diene terpolymer.

1.3 COORDINATION

A. Coordinate Work of this Section with Ypsilanti Community Utilities Authority.

B. Notify affected utility companies at least 72 hours prior to construction.

1.4 SUBMITTALS

A. Product Data:

1. Sanitary sewerage piping.
2. Flexible couplings.

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3. Flexible pipe boots for manhole pipe entrances.

B. Material Test Reports: For piping and accessories.

C. Manufacturer Instructions:

1. Indicate special procedures required to install specified products.

D. Source Quality-Control Reports: For piping and accessories.

E. Qualifications Statements: For manufacturer and installer.

1.5 CLOSEOUT SUBMITTALS

A. Project Record Documents: Record invert elevations and actual locations of pipe runs, connections, manholes, and cleanouts.

1.6 QUALITY ASSURANCE

A. Manufacturers Qualifications: Company specializing in manufacturing products specified in this Section with minimum three years' documented experience.

B. Installers Qualifications: Company specializing in performing Work of this Section with minimum three years' documented experience and approved by manufacturer.

1.7 DELIVERY, STORAGE, AND HANDLING

A. Inspection: Accept materials on Site in manufacturer's original packaging and inspect for damage.

B. Storage:

1. Store materials according to manufacturer instructions.
2. Store valves in shipping containers with labeling in place.

C. Protection:

1. Protect materials from moisture and dust by storing in clean, dry location remote from construction operations areas.
2. Block individual and stockpiled pipe lengths to prevent moving.
3. Provide additional protection according to manufacturer instructions.

PART 2 - PRODUCTS

2.1 PERFORMANCE REQUIREMENTS

A. Perform Work according to:

1. Ypsilanti Community Utilities Authority standards.

2.2 SANITARY SEWERAGE PIPING

A. Plastic Pipe:

1. Material: PVC.
2. Comply with ASTM D3034, SDR-35.
3. Inside Nominal Diameter: 6 inches.
4. End Connections: Bell-and-spigot style, with rubber-ring-sealed gasket joint.
5. Fittings: PVC.
6. Joints:

    a. Elastomeric gaskets.
    b. Comply with ASTM F477.

2.3 FLEXIBLE COUPLINGS

A. Manufacturers:

1. Fernco Inc.
2. Romac Industries, Inc.

B. Material: Resilient, chemical-resistant, elastomeric PVC.

C. Attachment: Two Series-300 stainless-steel clamps, screws, and housings.

2.4 MATERIALS

A. Bedding and Cover:

1. Bedding: A specified in Section 310516 "Aggregates for Earthwork".
2. Cover: As specified in Section 310516 "Aggregates for Earthwork".
3. Soil Backfill from Above Pipe to Finish Grade:

    a. Soil Type As specified in Section 310513 "Soils for Earthwork".
    b. Subsoil with no rocks more than 6 inches in diameter, frozen earth, or foreign matter.

2.5 SOURCE QUALITY CONTROL

A. Provide shop inspection and testing of pipe.

B. Owner Inspection:

1. Make completed pipe sections available for inspection at manufacturer's factory prior to packaging for shipment.
2. Notify Owner at least seven days before inspection is allowed.

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C. Owner Witnessing:

1. Allow witnessing of factory inspections and tests at manufacturer's test facility.
2. Notify Owner at least seven days before inspections and tests are scheduled.

D. Certificate of Compliance:

1. If manufacturer is approved by authorities having jurisdiction, submit certificate of compliance indicating Work performed at manufacturer's facility conforms to Contract Documents.
2. Specified shop tests are not required for Work performed by approved manufacturer.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine substrates, areas, and conditions for compliance with requirements for installation tolerances and other conditions affecting performance of the Work.

B. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

A. Correct over-excavation with coarse aggregate.

B. Identify and describe unexpected variations to subsoil conditions or discovery of uncharted utilities.

C. Remove large stones or other hard materials that could damage pipe or impede consistent backfilling or compaction.

D. Protect and support existing sewer lines, utilities, and appurtenances.

E. Utilities:

1. Maintain profiles of utilities.
2. Coordinate with other utilities to eliminate interference.
3. Notify Engineer if crossing conflicts occur.

3.3 INSTALLATION OF PIPING

A. Bedding:

1. Excavate pipe trench as specified in Section 312316.13 "Trenching".
2. Excavate to lines and grades as indicated on Drawings, or as required to accommodate installation of encasement.
3. Dewater excavations to maintain dry conditions and to preserve final grades at bottom of excavation.

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4. Provide sheeting and shoring as specified in Section 312316.13 "Trenching".

5. Placement:

   a. Place bedding material at trench bottom.
   b. Level materials in continuous layer not exceeding 8-inch compacted depth.
   c. Compact to 95 percent of maximum density.

B. Piping:

1. Install pipe, fittings, and accessories according to ASTM D2321, and seal joints watertight.
2. Lay pipe to slope gradients as indicated on Drawings.
3. Begin at downstream end of system and progress upstream.
4. Bedding:
   a. As indicated on Drawings.

5. Lay bell-and-spigot pipe with bells upstream.
6. Backfill and compact as specified in Section 312316.13 "Trenching."
7. Do not displace or damage pipe when compacting.

C. Connections to Existing Manholes:

1. Drilling:

   a. Core drill existing manhole to clean opening.
   b. Use of pneumatic hammers, chipping guns, sledge hammers are not permitted.

2. Install watertight neoprene gasket and seal with nonshrink concrete grout.

3. Prevent construction debris from entering existing sewer line when making connection.

D. Wye Branches and Tees:

1. Concurrent with pipe-laying operations, install wye branches and pipe tees at locations indicated on Drawings.
2. Use standard fittings of same material and joint type as sewer main.
3. Maintain minimum 5-foot separation distance between wye connection and manhole.
4. Use saddle wye or tee with stainless-steel clamps for taps into existing piping.
5. Mount saddles with solvent cement or gasket and secure with metal bands.
6. Lay out holes with template, and cut holes with mechanical cutter.

E. Sanitary Laterals:

1. Construct laterals from wye branch to terminal point at right-of-way.
2. Where depth of main pipeline warrants, construct riser-type laterals from wye branch.
3. Minimum Depth of Cover over Piping: 3 feet.
4. Minimum Separation Distance between Laterals: 5 feet.
5. Install watertight plug, braced to withstand pipeline test pressure thrust, at termination of lateral.
6. Marker Stake:

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a. Install temporary marker stake extending from end of lateral to 12 inches above finished grade.
b. Paint top 6 inches of stake with fluorescent orange paint.

F. Backfilling:

1. Backfill around sides and to top of pipe with cover fill in minimum lifts of 6 inches.
2. Tamp fill in place, and compact to 95 percent of maximum density.
3. Place and compact material immediately adjacent to pipes to avoid damage to pipe and prevent pipe misalignment.
4. Maintain optimum moisture content of bedding material as required to attain specified compaction density.
5. As specified in Section 312323 "Fill."

3.4 TOLERANCES

A. Maximum Variation from Indicated Slope: 1/8 inch in 10 feet.

3.5 FIELD QUALITY CONTROL

A. Request inspection by Engineer prior to and immediately after placing bedding.

B. Testing:

1. If tests indicate that Work does not meet specified requirements, remove Work, replace, and retest.
2. Perform testing on Site sanitary sewage system according to Ypsilanti Community Utilities Authority standards.

3. Compaction Testing:

a. Comply with ASTM D6938.
b. Testing Frequency: As directed by Engineer.

C. Prepare test and inspection reports.

3.6 PROTECTION

A. Protect pipe and aggregate cover from damage or displacement until backfilling operation is in progress.

B. Cap open ends of piping during periods of Work stoppage.

END OF SECTION 333111

FORD HERITAGE PARK AND LAKESIDE PARK IMPROVEMENTS

CHARTER TOWNSHIP OF YPSILANTI



AREA MAP
NOT TO SCALE

PLAN INDEX		
FILE NO.	**DESCRIPTION**	**NO.**
D-6149-1	COVER SHEET	1
D-6149-2	NOTE SHEET	2
D-6149-3	FORD HERITAGE PLAN EXISTING SITE AND DEMOLITION PLAN	3
D-6149-4	FORD HERITAGE PARK SITE PLAN	4
D-6149-5	LAKESIDE PARK EXISTING SITE AND DEMOLITION PLAN	5
D-6149-6	LAKESIDE PARK SITE PLAN	6
DE-1201-1-2	FORD HERITAGE AND LAKESIDE ELECTRICAL PLANS	7-8
D-6149-7	DETAIL SHEET	9



LOCATION MAP
NOT TO SCALE

N

SECTIONS 22 & 23,
T3S-R7E,
YPSILANTI CHARTER TOWNSHIP,
WASHTENAW COUNTY, MICHIGAN

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BY	MARK	REVISIONS	DATE

THE WORK REPRESENTED BY THIS DRAWING WAS DESIGNED BY THE ENGINEER FOR THIS SPECIFIC APPLICATION AND SPECIFIC LOCATION DESCRIBED HEREON IN ACCORDANCE WITH THE CONDITIONS PREVALENT AT THE TIME THE DESIGN WAS DONE. THE ENGINEER DOES NOT GUARANTEE AND WILL NOT BE LIABLE FOR ANY OTHER LOCATION, CONDITION, DESIGN OR PURPOSE.

FORD HERITAGE & LAKESIDE PARK IMPROVEMENTS
CHARTER TOWNSHIP OF YPSILANTI

COVER SHEET

STATE OF MICHIGAN
PHILIP A. WESTMORELAND
ENGINEER
No. 46775
LICENSED PROFESSIONAL ENGINEER

Spicer group © 2024
DUNDEE OFFICE
125 Helle Blvd, Suite 2
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www.SpicerGroup.com

DE. BY: JTC	CH. BY: PAW	PROJECT NO.	
DR. BY: JTC	APP. BY: PAW	134586SG2023	
STDS. N/A	SHEET 1 OF 9	D	
DATE JUNE, 2024	FILE NO.	1	
SCALE N/A	D-6149-1		

GENERAL NOTES

NO WORK SHALL BE PERFORMED BEFORE 7:00 AM OR AFTER 7:00 PM MONDAY THROUGH SATURDAY. NO WORK SHALL HAPPEN ON SUNDAYS OR HOLIDAYS, UNLESS AUTHORIZED BY THE OWNER.

CONTRACTOR SHALL NOTIFY ENGINEER 48 HOURS PRIOR TO START OF CONSTRUCTION, CONSTRUCTION STAKING AND INSPECTION.

CONTRACTOR SHALL MAINTAIN ACCESS FOR MAIL DELIVERY AND GARBAGE PICKUP AT ALL PARCELS. IF THESE SERVICES CANNOT BE PERFORMED, CONTRACTOR IS RESPONSIBLE FOR TAKING THE NECESSARY MEASURES TO CARRY THEM OUT.

COORDINATE DRIVE CLOSURES AND MAIL BOX RELOCATION WITH LANDOWNERS A MINIMUM OF ONE DAY IN ADVANCE.

CONTRACTOR TO PROVIDE DUST CONTROL AND SWEEP ROADS DAILY.

ALL EXCAVATED MATERIAL NOT TO BE REUSED OR DISPOSED OF ON SITE SHALL BE REMOVED FROM SITE. THE CONTRACTOR IS RESPONSIBLE FOR DISPOSING OF MATERIALS ACCORDING TO LOCAL AND STATE REQUIREMENTS.

UNDERGROUND UTILITIES/MISS DIG
FOR PROTECTION OF UNDERGROUND UTILITIES AND IN CONFORMANCE WITH PUBLIC ACT 174, 2013, THE CONTRACTOR SHALL DIAL 1-800-482-7171 OR 811 A MINIMUM OF THREE FULL WORKING DAYS, EXCLUDING SATURDAYS, SUNDAYS, AND HOLIDAYS, PRIOR TO BEGINNING EACH EXCAVATION IN AREAS WHERE PUBLIC UTILITIES HAVE NOT BEEN PREVIOUSLY LOCATED. MEMBERS WILL THUS BE ROUTINELY NOTIFIED. THIS DOES NOT RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY OF NOTIFYING UTILITY OWNERS WHO MAY NOT BE A PART OF THE "MISS DIG" ALERT SYSTEM.

THE EXISTING UTILITIES ON THESE DRAWINGS HAVE BEEN SHOWN ACCORDING TO THE BEST AVAILABLE INFORMATION. CONTRACTOR SHALL FIELD LOCATE ALL UTILITIES PRIOR TO BEGINNING CONSTRUCTION AND SHALL NOTIFY THE ENGINEER AS TO WHERE POSSIBLE CONFLICT EXISTS.

ALL CONSTRUCTION UNDER EXISTING UTILITIES, INCLUDING HOUSE SERVICES, SHALL BE COMPLETELY BACKFILLED WITH SAND, IN 12" LAYERS, AND COMPACTED TO NOT LESS THAN 95% OF THE MAXIMUM UNIT WEIGHT.

ANY UTILITIES ENCOUNTERED DURING CONSTRUCTION SHALL BE SUPPORTED, PER THE SPECIFICATIONS OF THE INDIVIDUAL UTILITY COMPANY CLAIMING OWNERSHIP OF THE UTILITY.

SOIL EROSION AND SEDIMENTATION CONTROL MEASURES
APPROPRIATE SOIL EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE IN PLACE PRIOR TO EARTH-DISTURBING ACTIVITIES. PLACE TURF ESTABLISHMENT ITEMS AS SOON AS POSSIBLE ON POTENTIAL ERODABLE SLOPES AS DIRECTED BY OWNER. CRITICAL DITCH GRADES SHALL BE PROTECTED WITH EITHER SOD, SEED/MULCH, OR SEED/MULCH BLANKET AS DIRECTED BY OWNER.

IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO ENSURE THAT SOIL EROSION AND SEDIMENTATION CONTROL MEASURES ARE IN PLACE AND MAINTAINED UNTIL THE CONTRACT HAS BEEN COMPLETED AND ACCEPTED. MEASURES SHALL ONLY BE PAID FOR ONCE.

ALL CATCHBASINS AND SEDIMENTATION TRAPS/BASINS SHALL BE CLEANED OUT UPON COMPLETION OF THE PROJECT.

CONTRACTOR SHALL CONFORM TO SOIL EROSION AND SEDIMENTATION CONTROL ACT, PART 91 OF ACT 451 OF 1994.

PROPERTY OWNERS
PROPERTY OWNERS' NAMES, WHERE SHOWN, ARE FOR INFORMATION ONLY, AND THEIR ACCURACY IS NOT GUARANTEED.

ADJUSTING MONUMENT BOXES
ALL GOVERNMENT CORNERS ON THIS PROJECT SHALL BE PRESERVED, WHETHER SHOWN OR NOT. IT MAY BE NECESSARY TO PLACE OR ADJUST MONUMENT BOXES, AS REQUIRED.

TRAFFIC
THE CONTRACTOR SHALL MAINTAIN LOCAL TRAFFIC AT ALL TIMES. SIGNAGE MUST BE IN ACCORDANCE WITH THE MICHIGAN MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES AND SHALL BE COORDINATED WITH THE ENGINEER AND GOVERNING ROAD AGENCY. PERMITS MAY BE REQUIRED.

PERMITS
PRIOR TO COMMENCING CONSTRUCTION, THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL PERMITS REQUIRED BY THE APPROPRIATE AGENCIES.

CONSTRUCTION PROCEDURES SHALL CONFORM TO THE REQUIREMENTS OF THE APPROPRIATE AGENCIES.

CONCRETE AND ACCESSORIES
ALL CONCRETE WORK SHALL BE PERFORMED IN ACCORDANCE WITH ACI 301, ACI 350 AND MDOT STANDARD SPECIFICATION FOR CONSTRUCTION (LATEST EDITION). CONCRETE PLACED IN COLD WEATHER SHALL CONFORM TO ACI-306R. CONCRETE PLACED IN HOT WEATHER SHALL CONFORM TO ACI-305R.

CONCRETE SHALL HAVE A COMPRESSIVE STRENGTH OF 4000 PSI AT 28 DAYS.

CONCRETE SHALL HAVE A SLUMP RANGE OF 2"-4".

CONCRETE SUBJECT TO FREEZE/THAW CYCLES SHALL HAVE A AIR CONTENT OF 5%-7% BY VOLUME PER ASTM C260.

FINE AGGREGATE AND COARSE AGGREGATE SHALL CONFORM TO ASTM C33.

CONTRACTOR SHALL SUBMIT CONCRETE MIX DESIGN TO OWNER FOR REVIEW AND APPROVAL.

NON-SHRINK GROUT SHALL CONFORM TO ASTM C1107 AND BE PREMIXED AND CONSIST OF COMPOUND CONSISTING OF NON-METALLIC AGGREGATE, CEMENT, WATER REDUCING AGENT AND PLASTICIZING AGENTS CAPABLE OF DEVELOPING MINIMUM COMPRESSIVE STRENGTHS OF 2,400 PSI IN 48 HOURS AND 7,000 PSI IN S8 DAYS.

WATERSTOP SHALL BE CONTINUOUS 1"x3/4" STRIPS CONTAINING 75% BENTONITE (WATERSTOP-RX-101 OR APPROVED EQUAL). INSTALL PER MANUFACTURERS INSTRUCTIONS.

CONCRETE REINFORCING STEEL SHALL CONFORM TO ASTM A615 AND HAVE A YIELD STRENGTH OF 60 ksi.. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS TO OWNER FOR REVIEW AND APPROVAL.

EPOXY FOR ANCHOR BOLTS AND REINFORCING STEEL SHALL BE HILTI-HY-200 EPOXY INJECTABLE MORTAR. INSTALL PER MANUFACTURERS INSTRUCTIONS.

THREADED ANCHOR RODS SHALL BE HILTI HAS-R ANCHOR RODS (PICK TYPE FOR PROJECT = HAS-E CARBON STEEL ZINC COATED, HAS-B HIGH STRENGTH STEEL, HAS-R 304 STAINLESS STEEL, HAS-R 316 STAINLESS STEEL)

PLYWOOD FORMWORK SHALL BE CONSTRUCTED OF 5-PLY DOUGLAS FIR, SOUND SHEETS WITH CLEAN, TRUE EDGES. STEEL FORMS SHALL BE SMOOTH, TRUE AND UNDAMAGED. ALL FORMWORK SHALL BE STIFFENED OR BRACED TO SUPPORT THE WEIGHT OF THE CONCRETE WITH MINIMUM DEFLECTION. DO NOT REMOVE FORMS OR BRACING UNTIL CONCRETE HAS GAINED SUFFICIENT STRENGTH TO CARRY ITS OWN WEIGHT AND IMPOSED LOADS.

PROVIDE 3/4" CHAMFER STRIPS ON EXTERNAL CORNERS OF VISUALLY EXPOSED CONCRETE CORNERS.

HOT POURED JOINT SEALANT SHALL CONFORM WITH ASTM D-3405.

GENERAL NOTES CONT.

SITE WORK
ELECTRIC SERVICE TO BUILDING AND PARKING LOT LIGHTS SHALL BE UNDERGROUND. ALL UTILITY COMPANY SERVICE LINES AND PAD LOCATIONS ARE SHOWN FOR REFERENCE ONLY. EXACT LOCATIONS TO BE COORDINATED WITH UTILITY COMPANY.

ALL TRENCHED CONSTRUCTION UNDER EXISTING, PROPOSED AND FUTURE GRAVEL, PAVED SURFACES OR UTILITIES SHALL BE COMPLETELY BACKFILLED WITH CLASS II SAND OR OTHER APPROVED GRANULAR MATERIAL IN 12" LAYERS AND COMPACTED TO 95% OF ITS MAXIMUM UNIT WEIGHT.

UNPAVED AREAS SHALL BE SMOOTHLY GRADED AND THE SURFACE STABILIZED BY SEEDING OR OTHERWISE. THE MAXIMUM DESIRABLE SLOPE IS 3 HORIZONTAL TO 1 VERTICAL UNLESS NOTED OTHERWISE.

CONTRACTOR IS RESPONSIBLE TO MAINTAIN POSITIVE DRAINAGE PATTERN TO ENSURE NO PONDING OF WATER ON ADJACENT EXISTING AND PROPOSED PAVED SURFACES.

DIMENSIONS SHOWN ARE GIVEN TO THE BACK OF CURBS AND FACE OF BUILDINGS UNLESS NOTED OTHERWISE.

WHERE A DISCREPANCY OCCURS BETWEEN PROPOSED WORK AND FIELD CONDITIONS, THE CONTRACTOR SHALL NOTIFY THE ENGINEER FOR CLARIFICATION.

PAVEMENT / SIDEWALK
CONTRACTOR SHALL SAWCUT PAVEMENT AND CURB & GUTTER FOR A CLEAN EDGE TO INSTALL PROPOSED PAVEMENT AND CURB & GUTTER.

HMA PAVEMENT AND OR CONCRETE SHALL NOT BE PLACED WHEN THE SURFACE BEING OVERLAID IS WET, OR WHEN RAIN IS FORECAST OR THREATENING.

SIDEWALK SHALL BE CONSTRUCTED WITH A CROSS SLOPE SLOPED TOWARD THE STREET OR PARKING AREAS, SLOPES NOT TO EXCEED 2% UNLESS NECESSARY TO PROVIDE POSITIVE DRAINAGE OR MEET EXISTING SIDEWALKS, CURBS OR PAVEMENT.

IN GRASS AREAS, THE SURFACE OF THE SIDEWALK SHALL BE ABOUT ½ INCH HIGH THAN THE ADJACENT GROUND SURFACE, UNLESS NECESSARY TO PROVIDE POSITIVE DRAINAGE OR MEET EXISTING SIDEWALKS, CURBS OR PAVEMENT.

THE CONTRACTOR SHALL PROTECT FRESH HMA OR CONCRETE FROM DAMAGE BY THE WEATHER, TRAFFIC OR VANDALISM. DAMAGED HMA OR CONCRETE SHALL BE REPLACED AT THE CONTRACTORS EXPENSE.

PAVEMENT MARKINGS AND SIGNS
ALL PERMANENT PAVEMENT MARKINGS, SHAPES, AND DIMENSIONS SHALL CONFORM WITH MDOT PAVEMENT MARKING TYPICALS PAVE-900 SERIES.

PARK OPERATIONS
PARK SHALL BE CLOSED DURING CONSTRUCTION. CONTRACTOR WILL BE RESPONSIBLE FOR DISPLAYING PARK CLOSED SIGNS.

CONTACTS

TOWNSHIP SUPERVISOR ATT: BRENDA STUMBO 7200 S HURON RIVER DR YPSILANTI, MI 48197 PHONE: (734) 481-0617	SUPERVISOR	YPSILANTI COMMUNITY UTILITY AUTHORITY ATT: MICHAEL SHAFFER 2777 STATE RD YPSILANTI, MI 48198 PHONE: (734) 484-4600	UTILITIES
MUNICIPAL SERVICES DIRECTOR ATT: JOHN HINES 7200 S HURON RIVER DR YPSILANTI, MI 48197 PHONE: (734) 351-8947	COMMISSIONER	AT&T ATT: SHANITA CRANKFIELD 54 N MILL ST., 4TH FLOOR PONTIAC, MI 48342 PHONE: (248) 454-4344	INTERNET
DTE ENERGY ATT: SARAH KIPP ONE ENERGY PLAZA DETROIT, MI 48226 PHONE: (313) 235-5111	ELECTRIC		
DTE GAS ATT: MICHAEL HARRISON ONE ENERGY PLAZA DETROIT, MI 48226 PHONE: (313) 235-5632	GAS		
PARK METRO FIBERNET ATT: ERIC ESSENBURG 7200 2722 E MICHIGAN AVE LANSING MI, 48912 PHONE: (616) 821-7705	PHONE		

ABBREVIATIONS

BC = BACK OF CURB
BM = BENCH MARK
C/C = CENTER TO CENTER
CB = CATCH BASIN
CL = CENTERLINE
CJ = CONSTRUCTION JOINT
CMP = CORRUGATED METAL PIPE
CSP = CORRUGATED STEEL PIPE
CONC = CONCRETE
DI = DUCTILE IRON PIPE
EF = EACH FACE
ELEC = ELECTRIC
EL OR ELEV = ELEVATION
EOM = EDGE OF METAL
EOP = EDGE OF PAVEMENT
EQ/SP = EQUALLY SPACED
ESMT = EASEMENT
EW = EACH WAY
EX OR EXIST = EXISTING
FF = FINISH FLOOR
FL = FLOW LINE
FS = FINISH SURFACE
FG = FINISH GROUND
GALV = GALVANIZED
G = GUTTER
HDG = HOT DIP GALVANIZED
HDPE = HIGH DENSITY POLYETHYLENE
HP = HIGH POINT
HMA = HOT MIX ASPHALT
HYD = HYDRANT
INV = INVERT
LP = LOW POINT
OC = ON CENTER
OH = OVERHEAD
MH = MANHOLE
MIN = MINIMUM
MOM = MONUMENT
NFL = NOT FIELD LOCATED
NTS = NOT TO SCALE
PROP = PROPOSED
PVC = POLYVINYL CHLORIDE
RCP = REINFORCED CONCRETE PIPE
ROW = RIGHT OF WAY
SAN = SANITARY
SB = SOIL BORING
SS = STAINLESS STEEL
STA = STATION
STM = STORM
SWR = SEWER
T/B = TOP AND BOTTOM
TC = TOP OF CURB
TOB = TOP OF BANK
TOS = TOE OF SLOPE
TELE = TELEPHONE
TRW = TOP OF RETAINING WALL
TW = TOP OF WALK
UNO = UNLESS NOTED OTHERWISE
WM = WATER MAIN
WS = WATER SURFACE ELEVATION

LINE TYPE LEGEND

- EXISTING ROAD CENTERLINE
- EXISTING WATER MAIN
- EXISTING SANITARY SEWER OR FORCEMAIN
- EXISTING STORM SEWER
- EXISTING TELEPHONE CABLE
- EXISTING GAS MAIN
- EXISTING ELECTRIC
- CABLE TV
- PROPOSED UTILITY
- EXISTING CURB & GUTTER
- PROPOSED CURB & GUTTER
- FENCE LINE
- OVERHEAD UTILITY
- RAILROAD TRACKS
- STATION LINE
- LIMITS OF RIGHT OF WAY
- EASEMENT
- SILT FENCE
- REVERSE PAN CURB & GUTTER
- TREE LINE
- EXISTING CONTOURS
- PROPOSED CONTOURS

SYMBOL LEGEND
EXISTING SYMBOLS

- MANHOLE
- CATCH BASIN
- CURB CATCH BASIN
- FIRE HYDRANT
- GAS VALVE
- WATER VALVE
- TELEPHONE PEDESTAL
- POWER POLE
- TELEPHONE POLE
- POWER AND TELEPHONE POLE
- LIGHT POLE
- GUY ANCHOR AND POLE
- MAIL BOX
- WATER METER
- TELEPHONE MANHOLE
- ELECTRIC MANHOLE
- M.W. - MONITORING WELL
- HAND HOLE
- TRANSFORMER
- ELECTRICAL PEDESTAL
- BARRIER FREE PARKING
- SPRINKLER
- RAILROAD SIGNAL
- ANTENNA
- SATELLITE DISH
- AC - AIR CONDITIONING UNIT
- SB8 - SOIL BORING
- BENCH MARK
- FOUND SURVEY CORNER
- SET 1/2" IRON ROD
- 1/4 SECTION CORNER
- BREAK IN LINE
- EXISTING SIGN-1 POST
- EXISTING SIGN-2 POST
- STUMP
- WETLANDS
- PINE
- BUSH
- TREE

PROPOSED SYMBOLS

- MANHOLE
- CATCHBASIN
- FIRE HYDRANT
- WATER VALVE
- BARRIER FREE PARKING
- LIGHT POLES
- DRAINAGE FLOW
- 600.00 LABEL - SPOT ELEVATION LABELS
  - G = GUTTER
  - TW = WALK
  - TC = TOP OF CURB
  - FS = FINISH SURFACE

MICHIGAN ASSOCIATION OF COUNTY DRAIN COMMISSIONERS SOIL EROSION AND SEDIMENTATION CONTROL KEYING SYSTEM

KEY	SESC MEASURE	SYMBOL	WHERE USED
1	Seeding		When bare soil is exposed, temporarily or permanently, to erosive forces from wind or water on flat areas, mild slopes, grassed waterways and spillways, diversion ditches and dikes, borrow and stockpile areas, and spoil piles.
2	Mulch		On flat areas, slopes, grassed waterways and spillways, diversion ditches and dikes, borrow and stockpile areas, and spoil piles when areas are subject to raindrop impact, and erosive forces from wind or water.
5	Perimeter Sediment Control Measures (Silt Fence, Straw Wattles, etc.)		As a temporary measure used to capture sediment from sheet flow. May also divert small volumes of sheet flow to protected outlets.

DETAILED DRAWINGS AND SPECIFICATIONS ARE LOCATED IN THE MICHIGAN ASSOCIATION OF COUNTY DRAIN COMMISSIONERS SOIL EROSION AND SEDIMENTATION CONTROL AUTHORIZED PUBLIC AGENCY PROCEDURES MANUAL

SYMBOLOGY FOR INSERTION INTO CONSTRUCTION DRAWINGS:

- (#/P) = PERMANENT MEASURE
- (#/T) = TEMPORARY MEASURE

90% Bid Package

BY	MARK	REVISIONS	DATE

THE WORK REPRESENTED BY THIS DRAWING WAS DESIGNED BY THE ENGINEER FOR THIS SPECIFIC APPLICATION AND SPECIFIC LOCATION DESCRIBED HEREON IN ACCORDANCE WITH THE CONDITIONS PREVALENT AT THE TIME THE DESIGN WAS DONE. THE ENGINEER DOES NOT GUARANTEE AND WILL NOT BE LIABLE FOR ANY OTHER LOCATION, CONDITION, DESIGN OR PURPOSE

FORD HERITAGE & LAKESIDE PARK IMPROVEMENTS
CHARTER TOWNSHIP OF YPSILANTI

NOTE SHEET

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SAGINAW OFFICE
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Saginaw, MI 48607
Tel: 989-754-4717
Fax: 989-754-4440
www.SpicerGroup.com

DE. BY: JTC DR. BY: JTC	CH. BY: PAW APP. BY: PAW	PROJECT NO. 134586SG2023	
STDS. N/A	SHEET 2 OF 9		D
DATE JUNE, 2024 SCALE N/A	FILE NO. D-6149-2		2



OVERALL SITE PLAN
SCALE: 1" = 40'

N

SECTION 22
T.3S.-R.7E.,
TOWNSHIP,
COUNTY, MICHIGAN

DEMOLITION NOTES

1. PROTECT TREES, PLANT GROWTH, AND FEATURES DESIGNATED TO REMAIN, AS FINAL LANDSCAPING.
2. CONTRACTOR SHALL COORDINATE WITH OWNER'S REPRESENTATIVE THE TAGGING OF SPECIFIC TREES/SHRUBS TO BE PRESERVED PRIOR TO BEGINNING DEMOLITION.
3. CLEAR AREAS REQUIRED FOR ACCESS TO SITE AND EXECUTION OF WORK.
4. REMOVE NOTED WALLS, FOUNDATIONS, PAVING, CURBS, AND SIDEWALKS.
5. SAWCUT ALL PAVEMENT, CURBS AND WALKS NOTED FOR REMOVAL FOR A CLEAN EDGE,
6. REMOVE ALL CLEARED ITEMS FROM SITE AND PROPERLY DISPOSE OF.
7. CONTRACTOR SHALL BE RESPONSIBLE FOR SEEDING ALL DISTURBED AREAS.

DEMOLITION ITEMS

1. CONTRACTOR TO SAWCUT AND DEMO HMA PATH.
2. REMOVE AND REINSTALL FENCE AS NEEDED FOR ACCESS AND CONSTRUCTION.
3. CONTRACTOR TO SAWCUT AND DEMO DRIVEWAY AS NEEDED TO INSTALL SANITARY TAP.
4. CONTRACTOR SHALL SAWCUT AND DEMO SIDEWALK AS NEEDED FOR SANITARY LEAD INSTALLATION.
5. CONTRACTOR SHALL REMOVE 12" TREES FOR INSTALLATION OF SANITARY SERVICE LINE.
6. CONTRACTOR SHALL PROTECT EXISTING TREE.

CONTROL POINTS
#100 - 727.92'
#101 - 728.50'
#102 - 727.38'

BENCHMARKS
#200 - 727.42'
#201 - 732.53'

90% Bid Package

BY	MARK	REVISIONS	DATE

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FORD HERITAGE & LAKESIDE PARK IMPROVEMENTS
CHARTER TOWNSHIP OF YPSILANTI

FORD HERITAGE PARK EXISTING SITE AND DEMOLITION PLAN

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DE. BY: ---- DR. BY: ----	CH. BY: ---- APP. BY: PAW	PROJECT NO. 134586SG2023
STDS.	SHEET 3 OF 9	D 3
DATE JUNE, 2024 SCALE	FILE NO. D-6149-3	

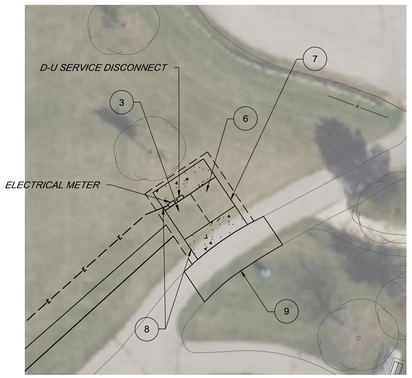
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OVERALL SITE PLAN
SCALE: 1" = 40'

N

SECTION 22
T.3S.-R.7E.,
TOWNSHIP,
COUNTY, MICHIGAN



BATHROOM ENLARGEMENT
SCALE: 1" = 20'

CONSTRUCTION NOTES:

1. CONTRACTOR TO TAP EXISTING __" WATER MAIN WITH 1-1/2" SADDLE AND CORP.
2. CONTRACTOR TO INSTALL 1-1/2" CURB STOP.
3. CONTRACTOR TO CONNECT TO PROPOSED WATER SERVICE. SEE STUB UP PLAN ON DETAIL SHEET.
4. CONTRACTOR TO TAP EXISTING 12" SANITARY SEWER WITH WYE.
5. CONTRACTOR TO INSTALL APPROXIMATELY 465' OF SANITARY SERVICE LEAD AT 1% SLOPE.
6. CONTRACTOR TO CONNECT TO PROPOSED SANITARY SERVICE LEAD. SEE STUB UP PLAN ON DETAIL SHEET.
7. PROPOSED CXT CORTEZ BATHROOM STRUCTURE, INSTALL ON COMPACTED SUB-BASE PER MANUFACTURER REQUIREMENTS. SEE DETAIL SHEET.
8. PROPOSED 17'X6' ON EACH SIDE OF BATHROOM. TO BE POURED AFTER INSTALLATION OF BATHROOM BUILDING. SIDEWALKS TO SLOPE 2% AWAY FROM BUILDING.
9. CONTRACTOR TO REPLACE HMA PATH WAY. SEE DETAIL SHEET.
10. CONTRACTOR TO REPLACE CONCRETE DRIVEWAY. SEE DETAIL SHEET.
11. CONTRACTOR TO REPLACE CONCRETE SIDEWALK. SEE DETAIL SHEET.
12. CONTRACTOR TO INSTALL 1-1/2" COPPER WATER SERVICE.

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BY	MARK	REVISIONS	DATE

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FORD HERITAGE & LAKESIDE PARK IMPROVEMENTS
CHARTER TOWNSHIP OF YPSILANTI

FORD HERITAGE PARK SITE PLAN

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DE. BY: ----	CH. BY: ----	PROJECT NO.	
DR. BY: ----	APP. BY: PAW	134586SG2023	
STDS.		SHEET 4 OF 9	D 4
DATE JUNE, 2024		FILE NO.	
SCALE AS SHOWN		D-6149-4	

Plotted: 07/22/2024 3:14:15 PM By: Paul Pallaghy Project Path: K:\Work\Projects\134586SG2023 Ford Heritage Park and Lakeside Park Improvements\CAD\Civil\Plan Sheets\Site Plan.dwg, 07/22/2024 3:14:03 PM, Paul Pallaghy, 1=1



N

SECTION 23
T3S-R7E,
YPSILANTI CHARTER TOWNSHIP,
WASHTENAW COUNTY, MICHIGAN

DEMOLITION NOTES

1. PROTECT TREES, PLANT GROWTH, AND FEATURES DESIGNATED TO REMAIN, AS FINAL LANDSCAPING.
2. CONTRACTOR SHALL COORDINATE WITH OWNER'S REPRESENTATIVE THE TAGGING OF SPECIFIC TREES/SHRUBS TO BE PRESERVED PRIOR TO BEGINNING DEMOLITION.
3. CLEAR AREAS REQUIRED FOR ACCESS TO SITE AND EXECUTION OF WORK.
4. REMOVE NOTED WALLS, FOUNDATIONS, PAVING, CURBS, AND SIDEWALKS.
5. REMOVE ALL CLEARED ITEMS FROM SITE AND PROPERLY DISPOSE OF.
6. CONTRACTOR SHALL BE RESPONSIBLE FOR SEEDING ALL DISTURBED AREAS.

DEMOLITION ITEMS

1. CONTRACTOR TO REMOVE AND REINSTALL EXISTING FENCE AS NEEDED FOR ACCESS TO THE SITE.
2. CONTRACTOR TO PROTECT EXISTING PLAYGROUND.
3. CONTRACTOR TO CUT AND CAP EXISTING WATER SERVICE LEAD FOR FUTURE CONNECTION.
4. CONTRACTOR TO CUT AND CAP EXISTING SANITARY SERVICE LEAD FOR FUTURE CONNECTION.
5. CONTRACTOR TO REMOVE EXISTING RESTROOM AND CONCRETE FOUNDATION/SLAB.

90% Bid Package

BY	MARK	REVISIONS	DATE

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FORD HERITAGE & LAKESIDE PARK IMPROVEMENTS
CHARTER TOWNSHIP OF YPSILANTI

LAKESIDE PARK EXISTING SITE AND DEMOLITION PLAN

DUNDEE OFFICE
125 Helle Blvd, Suite 2
Dundee, MI 48131
Tel. 734-823-3308
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DE. BY: EMJ	CH. BY: PAW	PROJECT NO.	
DR. BY: JTC	APP. BY: PAW	134586SG2023	
STDS. N/A	SHEET 5 OF 9	D	
DATE JUNE, 2024	FILE NO.	5	
SCALE 1" = 20'	D-6149-5		



N

SECTION 23
T3S-R7E,
YPSILANTI CHARTER TOWNSHIP,
WASHTENAW COUNTY, MICHIGAN

CONSTRUCTION NOTES:

1. CONNECT TO EXISTING WATER SERVICE LEAD AND INSTALL NEW LINE TO CXT BATHROOM STRUCTURE. SEE STUB UP DETAIL.
2. CONNECT TO EXISTING SANITARY SEWER SERVICE LEAD AND INSTALL NEW LINE TO CXT BATHROOM STRUCTURE. SEE STUB UP DETAIL.
3. PROPOSED 20'x44' LAMINATED WOOD GABLE SHELTER FROM RCP SHELTERS. INSTALL COLUMNS IN CONCRETE PIERS PER MANUFACTURER REQUIREMENTS.
4. PROPOSED 24'x48' 6" THICK CONCRETE SLAB.
5. PROPOSED 5' WIDE 4" CONCRETE PATH, SEE DETAIL.
6. PROPOSED CXT CORTEZ BATHROOM STRUCTURE, INSTALL ON COMPACTED SUB-BASE PER MANUFACTURER REQUIREMENTS. SEE DETAIL.
7. PROPOSED 17'X6' ON EACH SIDE OF BATHROOM. TO BE POURED AFTER INSTALLATION OF BATHROOM BUILDING. SIDEWALKS TO SLOPE 2% AWAY FROM BUILDING. SEE DETAIL.
8. CONTRACTOR SHALL FIELD VERIFY UTILITY LOCATIONS, HAND DIG OR HYDRO-EXCAVATE, AND AVOID CONFLICT WITH OTHER UNDERGROUND UTILITIES.

90% Bid Package

BY	MARK	REVISIONS	DATE

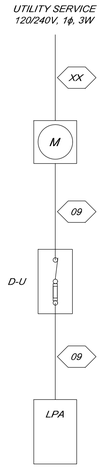
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FORD HERITAGE & LAKESIDE PARK IMPROVEMENTS
CHARTER TOWNSHIP OF YPSILANTI

LAKESIDE PARK SITE PLAN

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Dundee, MI 48131
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DR. BY: JTC	APP. BY: PAW		
STDS. N/A		SHEET 6 OF 9	D 6
DATE JUNE, 2024		FILE NO.	
SCALE 1" = 20'		D-6149-6	



ONE-LINE DIAGRAM

SCALE: N/A

KEY

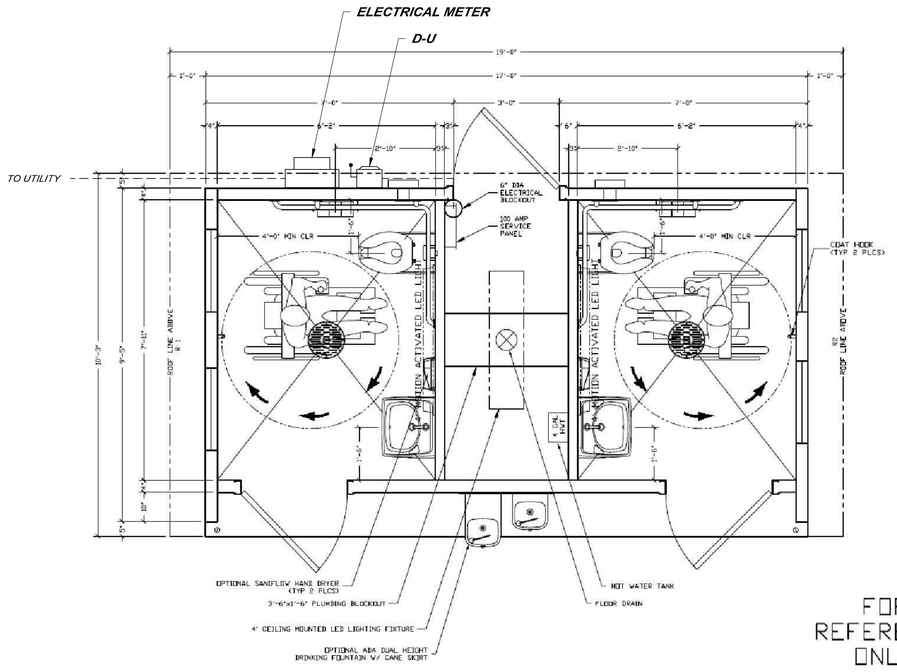
M	UTILITY METER
D-U	DISCONNECT SWITCH, UTILITY SERVICE RATED, FUSIBLE, NEMA 3R 120/240VAC, 2-POLE, 100A RATED, 100A FUSED
TVSS	TRANSIENT VOLTAGE SURGE SUPPRESSOR
LPA	LIGHTING PANEL A 120/240VAC, 100A
REC	DUPLEX RECEPTACLE 120 VAC, 20 AMP

FEEDER SCHEDULE

#	CONDUIT	WIRE	CAPACITY AMPS
XX	AS REQUIRED BY UTILITY		
*	AS REQUIRED BY PRODUCT MANUFACTURER		
01	2 x 3.50"	2 SETS, 3 x 350 MCM & #1 GND (PER SET.)	600
02	1 x 4.00"	1 SET, 3 x 600 MCM & #2/0 GND	400
03	1 x 3.00"	1 SET, 3 x 250 MCM & #4 GND	250
04	1 x 2.50"	1 SET, 3 x #4/0 AWG & #4 GND	225
05	1 x 2.00"	1 SET, 3 x #3/0 AWG & #6 GND	200
06	1 x 2.00"	1 SET, 3 x #3/0 AWG & #6 GND	200
07	1 x 2.00"	1 SET, 3 x #1/0 AWG & #6 GND	150
08	1 x 2.00"	1 SET, 3 x #1 AWG & #6 GND	125
09	1 x 1.50"	1 SET, 3 x #2 AWG & #8 GND	100
10	1 x 1.50"	1 SET, 3 x #3 AWG & #8 GND	90
11	1 x 1.50"	1 SET, 3 x #4 AWG & #8 GND	80
12	1 x 1.50"	1 SET, 3 x #4 AWG & #8 GND	70
13	1 x 1.00"	1 SET, 3 x #6 AWG & #10 GND	60
14	1 x 1.00"	1 SET, 3 x #6 AWG & #10 GND	50
15	1 x 1.00"	1 SET, 3 x #8 AWG & #10 GND	40
16	1 x 0.75"	1 SET, 3 x #10 AWG & #10 GND	30
17	1 x 0.75"	1 SET, 3 x #10 AWG & #10 GND	25
18	1 x 0.75"	1 SET, 3 x #12 AWG & #12 GND	20
19	1 x 0.75"	1 SET, 3 x #12 AWG & #12 GND	15
20	1 x 0.75"	1 SET, 2 x #12 AWG & #12 GND	20
21	1 x 0.75"	1 SET, 2 x #12 AWG & #12 GND	15

NOTES:

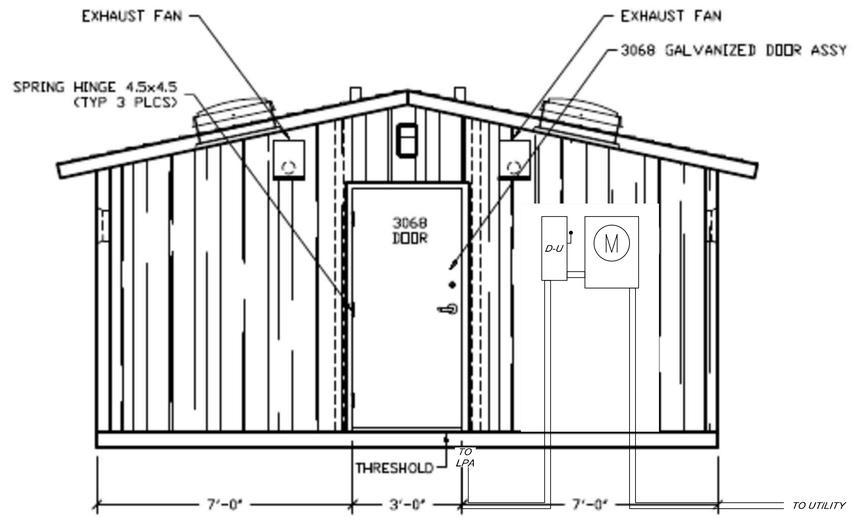
1. ALL CONDUCTORS SHALL BE STRANDED COPPER, WITH THHN/THWN INSULATION.
2. CONTRACTOR SHALL BE RESPONSIBLE FOR ANY CHANGES OR VERIFICATIONS NECESSARY DUE TO FIELD CHANGES OR APPROVED SUBSTITUTIONS.



FOR REFERENCE ONLY

FLOOR PLAN

SCALE: 1/2" = 1'-0"



REAR ELEVATION

REAR ELEVATION

SCALE: 1/2" = 1'-0"

NOTES:
1. A

90% Bid Package

BY	MARK	REVISIONS	DATE

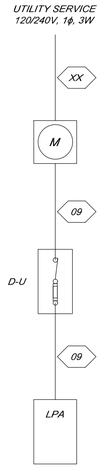
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FORD HERITAGE & LAKESIDE PARK IMPROVEMENTS
CHARTER TOWNSHIP OF YPSILANTI

FORD HERITAGE PARK ELECTRICAL PLAN

Spicer group
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125 Helle Blvd, Suite 2
Dundee, MI 48131
Tel. 734-823-3308
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DE. BY: LAM	CH. BY:	PROJECT NO.	
DR. BY: LAM	APP. BY: PAW	134586SG2023	
STDS.	SHEET 7 OF 9		E
DATE	FILE NO. DE-1201-01		1
SCALE			



ONE-LINE DIAGRAM

SCALE: N/A

KEY

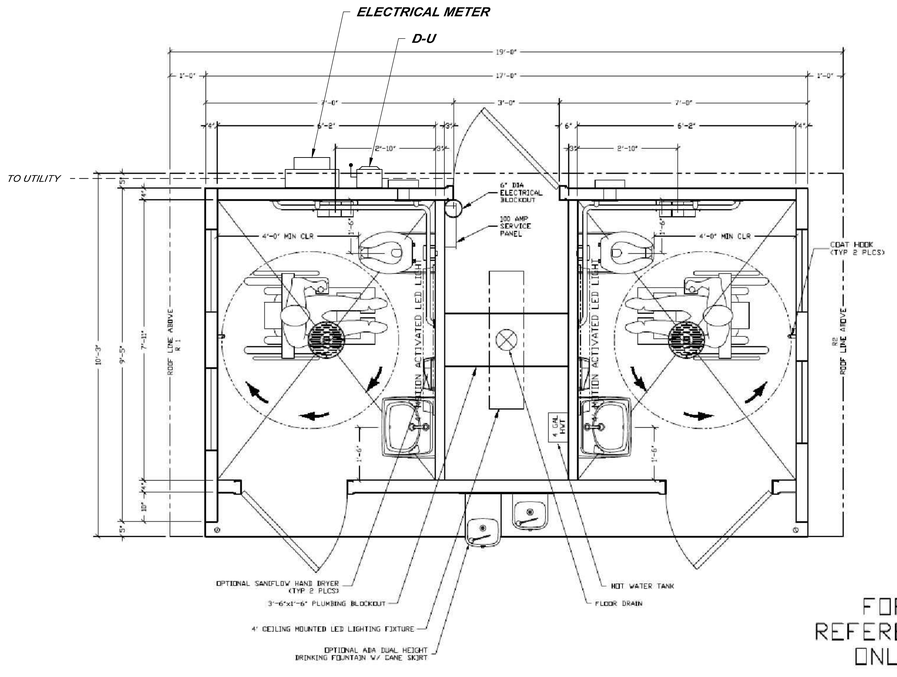
M	UTILITY METER
D-U	DISCONNECT SWITCH, UTILITY SERVICE RATED, FUSIBLE, NEMA 3R 120/240VAC, 2-POLE, 100A RATED, 100A FUSED
TVSS	TRANSIENT VOLTAGE SURGE SUPPRESSOR
LPA	LIGHTING PANEL A 120/240VAC, 100A
REC	DUPLEX RECEPTACLE 120 VAC, 20 AMP

FEEDER SCHEDULE

#	CONDUIT	WIRE	CAPACITY AMPS
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*	AS REQUIRED BY PRODUCT MANUFACTURER		
01	2 x 3.50"	2 SETS, 3 x 350 MCM & #1 GND (PER SET.)	600
02	1 x 4.00"	1 SET, 3 x 600 MCM & #2/0 GND	400
03	1 x 3.00"	1 SET, 3 x 250 MCM & #4 GND	250
04	1 x 2.50"	1 SET, 3 x #4/0 AWG & #4 GND	225
05	1 x 2.00"	1 SET, 3 x #3/0 AWG & #6 GND	200
06	1 x 2.00"	1 SET, 3 x #3/0 AWG & #6 GND	200
07	1 x 2.00"	1 SET, 3 x #1/0 AWG & #6 GND	150
08	1 x 2.00"	1 SET, 3 x #1 AWG & #6 GND	125
09	1 x 1.50"	1 SET, 3 x #2 AWG & #8 GND	100
10	1 x 1.50"	1 SET, 3 x #3 AWG & #8 GND	90
11	1 x 1.50"	1 SET, 3 x #4 AWG & #8 GND	80
12	1 x 1.50"	1 SET, 3 x #4 AWG & #8 GND	70
13	1 x 1.00"	1 SET, 3 x #6 AWG & #10 GND	60
14	1 x 1.00"	1 SET, 3 x #6 AWG & #10 GND	50
15	1 x 1.00"	1 SET, 3 x #8 AWG & #10 GND	40
16	1 x 0.75"	1 SET, 3 x #10 AWG & #10 GND	30
17	1 x 0.75"	1 SET, 3 x #10 AWG & #10 GND	25
18	1 x 0.75"	1 SET, 3 x #12 AWG & #12 GND	20
19	1 x 0.75"	1 SET, 3 x #12 AWG & #12 GND	15
20	1 x 0.75"	1 SET, 2 x #12 AWG & #12 GND	20
21	1 x 0.75"	1 SET, 2 x #12 AWG & #12 GND	15

NOTES:

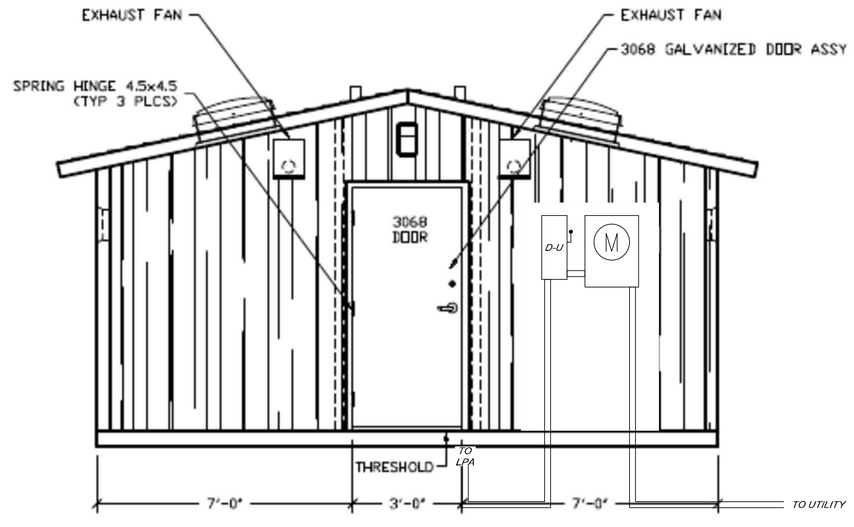
1. ALL CONDUCTORS SHALL BE STRANDED COPPER, WITH THHN/THWN INSULATION.
2. CONTRACTOR SHALL BE RESPONSIBLE FOR ANY CHANGES OR VERIFICATIONS NECESSARY DUE TO FIELD CHANGES OR APPROVED SUBSTITUTIONS.



FOR REFERENCE ONLY

FLOOR PLAN

SCALE: 1/2" = 1'-0"



REAR ELEVATION

REAR ELEVATION

SCALE: 1/2" = 1'-0"

NOTES:
1. A

90% Bid Package

BY	MARK	REVISIONS	DATE

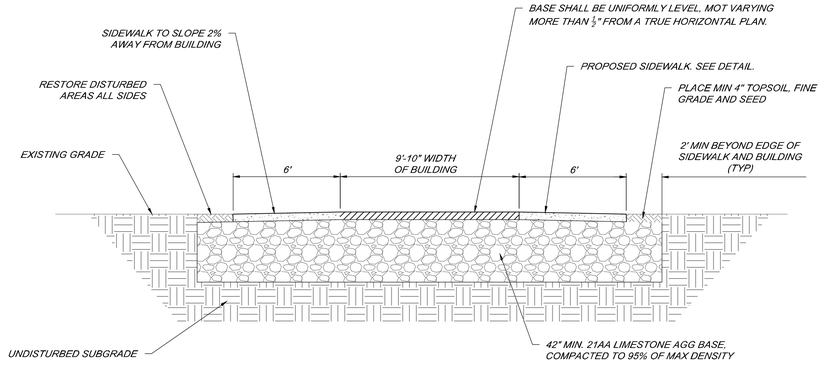
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FORD HERITAGE & LAKESIDE PARK IMPROVEMENTS
CHARTER TOWNSHIP OF YPSILANTI

LAKESIDE PARK ELECTRICAL PLAN

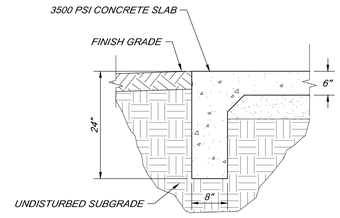
Spicer group
DUNDEE OFFICE
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Tel. 734-823-3308
www.SpicerGroup.com

DE. BY: LAM	CH. BY:	PROJECT NO. 134586SG2023
DR. BY: LAM	APP. BY: PAW	
STDS.	SHEET 8 OF 9	E 2
DATE	FILE NO. DE-1201-02	
SCALE AS SHOWN		



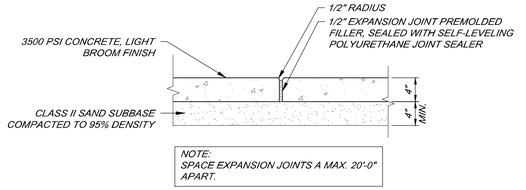
CXT CORTEZ BATHROOM BASE

NOT TO SCALE



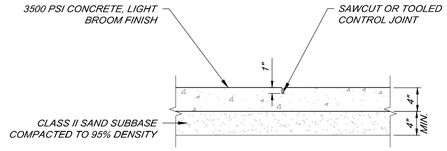
CONCRETE SLAB DETAIL

NOT TO SCALE



TYP. EXPANSION JOINT DETAIL

NOT TO SCALE

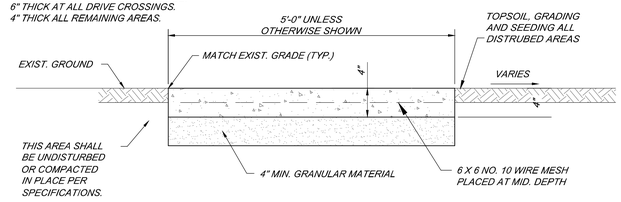


TYP. CONTROL JOINT DETAIL

NOT TO SCALE

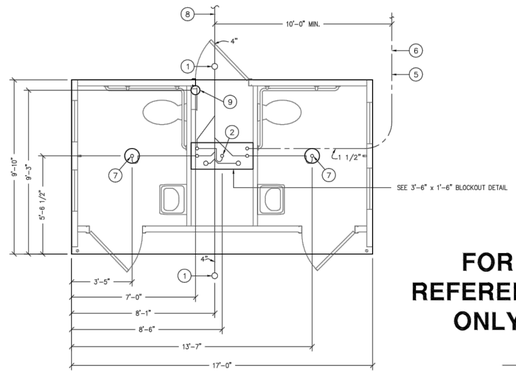
SIDEWALK CONSTRUCTION NOTES:

PROVIDE EXPANSION JOINTS:
- AROUND STRUCTURES LOCATED WITHIN THE SIDEWALK.
- AT SLAB ADJACENT TO DRIVEWAY CROSSING.
- AT SPACING AS SPECIFIED.
- AT SAWCUT JOINTS
- THICKNESS OF CONCRETE SHALL BE: 6" THICK AT ALL DRIVE CROSSINGS. 4" THICK ALL REMAINING AREAS.



CONCRETE SIDEWALK

NOT TO SCALE



FLOOR DRAIN BLOCKOUTS & BELOW FLOOR PIPING

ALL PIPING INDICATED ON THIS SHEET IS NOT BY CXT

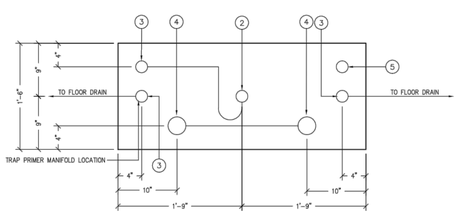
FOR REFERENCE ONLY

BELOW FLOOR PIPING – KEY NOTES

1. 4" CLEAN OUT TO GRADE.
2. 2" FLOOR DRAIN. FIELD INSTALLED TRAP PRIMER SYSTEM IF REQUIRED BY AUTHORITY HAVING JURISDICTION. (3'-6" x 1'-6" BLOCKOUT)
3. 2" VENT PIPES EXTENDED 12" ABOVE FINISHED FLOOR LEVEL, PROVIDE TEST PLUG. (3'-6" x 1'-6" BLOCKOUT)
4. 3" WASTE PIPE EXTENDED 12" ABOVE FINISHED FLOOR LEVEL, PROVIDE TEST PLUG. (3'-6" x 1'-6" BLOCKOUT)
5. 1 1/2" TYPE K ANNEALED "SOFT" COPPER WATER SERVICE EXTENDED 12" ABOVE FINISHED FLOOR LEVEL, PROVIDE CAP AT END. (3'-6" x 1'-6" BLOCKOUT)
6. MIN. BURY PER LOCAL REQUIREMENTS TO PROTECT AGAINST FREEZING AND DAMAGE.
7. 2" FLOOR DRAIN. FIELD INSTALLED TRAP PRIMER SYSTEM IF REQUIRED BY AUTHORITY HAVING JURISDICTION. (10" BLOCKOUT)
8. 30" MIN. BURY, PROVIDE TRACER TAPE.
9. ELECTRICAL STUB UP, (6"ø BLOCKOUT)

PIPING LEGEND

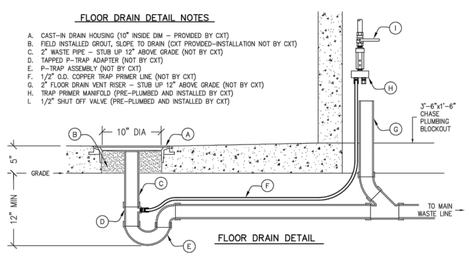
- BELOW FLOOR WASTE PIPING SCH 40 ABS TYPE DWV
- BELOW FLOOR VENT PIPING SCH 40 ABS TYPE DWV
- 1 1/2" TYPE "K" ANNEALED "SOFT" COPPER WATER SERVICE



3'–6" x 1'–6" BLOCKOUT DETAIL

FLOOR DRAIN DETAIL NOTES

A. CAST-IN DRAIN HOUSING (10" INSIDE DIM – PROVIDED BY CXT)
B. FIELD INSTALLED GROUT, SLOPE TO DRAIN (CXT PROVIDED–INSTALLATION NOT BY CXT)
C. 2" WASTE PIPE – STUB UP 12" ABOVE GRADE (NOT BY CXT)
D. TAPPED P-TRAP ADAPTER (NOT BY CXT)
E. P-TRAP ASSEMBLY (NOT BY CXT)
F. 1/2" O.D. COPPER TRAP PRIMER LINE (NOT BY CXT)
G. 3" FLOOR DRAIN VENT RISER – STUB UP 12" ABOVE GRADE (NOT BY CXT)
H. TRAP PRIMER MANIFOLD (PRE-PLUMBED AND INSTALLED BY CXT)
I. 1/2" SHUT OFF VALVE (PRE-PLUMBED AND INSTALLED BY CXT)



FLOOR DRAIN DETAIL

THIS DRAWING IS SUPPLIED FOR REFERENCE ONLY. PLEASE CONTACT CXT ENGINEERING DEPARTMENT FOR BUILDING SPECIFIC CONTROLLED DOCUMENTS PRIOR TO ANY FIELD WORK.

3508 N. Sullivan Bldg. #7 Spokane, WA. 99216
CXT
Precast Products
901 N. Highway 77 Hillsboro, TX 76645

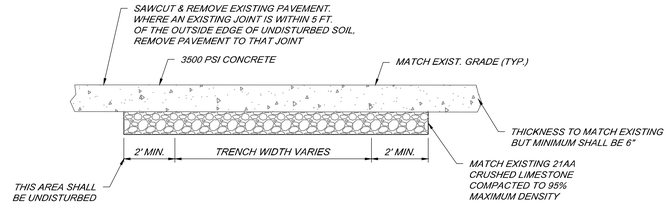
PROJECT
CORTEZ
CXT STANDARD BUILDING
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NO.	REVISION	APPROVAL	DATE
SCALE	1/4"=1'-0"	DATE	04/30/18
DRAWN		FILE NO.	FOR REF
CHECKED		PLOT	48

FIELD STUB UP LOCATIONS

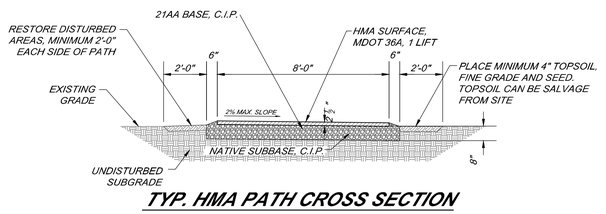
DWG NO. CR-17 | SHEET | REV.



CONCRETE DRIVEWAY RESTORATION

NOT TO SCALE

NOTE: THE PROPOSED ACCESSIBLE PATH'S RUNNING SLOPE SHALL NOT EXCEED 5% (1:20) SLOPE AND THE PATH'S CROSS SLOPE SHALL NOT EXCEED 2%, (1:50) UNLESS OTHERWISE NOTED.



TYP. HMA PATH CROSS SECTION

NOT TO SCALE

90% Bid Package

BY	MARK	REVISIONS	DATE

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FORD HERITAGE & LAKESIDE PARK IMPROVEMENTS
CHARTER TOWNSHIP OF YPSILANTI

DETAIL SHEET

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DE. BY: JTC	CH. BY: PAW	PROJECT NO.	
DR. BY: JTC	APP. BY: PAW	134586SG2023	
STDS. N/A	SHEET 9 OF 9		D
DATE JUNE, 2024	FILE NO.		9
SCALE N/A	D-6149-9		

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