# PUBLIC IMPROVEMENT REQUEST FOR PROPOSAL

## RFP# 23-17

# STREET RESURFACING PROJECT – 2023 (FILE No. 2023-004)

City of Ann Arbor
ENGINEERING UNIT/PUBLIC SERVICES AREA



Due Date: May 17, 2023 by 10:00 a.m. (local time)

Issued By:

City of Ann Arbor Procurement Unit 301 E. Huron Street Ann Arbor, MI 48104

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## <u>SECTION I - GENERAL INFORMATION</u>

#### A. OBJECTIVE

The purpose of this Request for Proposal (RFP) is to select a firm to provide construction services for the Street Resurfacing Project – 2023

#### **B. BID SECURITY**

Each bid <u>must be accompanied</u> by a certified check or Bid Bond by a surety licensed and authorized to do business within the State of Michigan, in the amount of 5% of the total of the bid price.

Proposals that fail to provide a bid security upon proposal opening will be deemed non-responsive and will not be considered for award.

#### C. QUESTIONS AND CLARIFICATIONS / DESIGNATED CITY CONTACTS

All questions regarding this Request for Proposal (RFP) shall be submitted via e-mail. Questions will be accepted and answered in accordance with the terms and conditions of this RFP.

All questions shall be submitted on or before May 5, 2023 at 10:00 a.m. (local time), and should be addressed as follows:

Scope of Work/Proposal Content questions shall be e-mailed to Andrea Wright, Engineering Analyst, <a href="mailed:awright@a2gov.org">awright@a2gov.org</a>.

RFP Process and Compliance questions shall be e-mailed to Colin Spencer, Buyer - CSpencer@a2gov.org

Should any prospective bidder be in doubt as to the true meaning of any portion of this RFP, or should the prospective bidder find any ambiguity, inconsistency, or omission therein, the prospective bidder shall make a written request for an official interpretation or correction by the due date for questions above.

All interpretations, corrections, or additions to this RFP will be made only as an official addendum that will be posted to a2gov.org and MITN.info and it shall be the prospective bidder's responsibility to ensure they have received all addenda before submitting a proposal. Any addendum issued by the City shall become part of the RFP, and must be incorporated in the proposal where applicable.

#### D. PRE-PROPOSAL MEETING

No pre-proposal meeting will be held for this RFP. Please contact staff indicated above with general questions regarding the RFP.

#### E. PROPOSAL FORMAT

To be considered, each firm must submit a response to this RFP using the format provided in Section III. No other distribution of proposals is to be made by the prospective bidder. An official authorized to bind the bidder to its provisions must sign the proposal. Each proposal must remain valid for at least one hundred and twenty (120) days from the due date of this RFP.

Proposals should be prepared simply and economically providing a straightforward, concise description of the bidder's ability to meet the requirements of the RFP. No erasures are permitted. Mistakes may be crossed out and corrected and must be initialed in ink by the person signing the proposal.

## F. SELECTION CRITERIA

Responses to this RFP will be evaluated using a point system as shown in Section III. A selection committee comprised primarily of staff from the City will complete the evaluation.

If interviews are desired by the City, the selected firms will be given the opportunity to discuss their proposal, qualifications, past experience, and their fee proposal in more detail. The City further reserves the right to interview the key personnel assigned by the selected bidder to this project.

All proposals submitted may be subject to clarifications and further negotiation. All agreements resulting from negotiations that differ from what is represented within the RFP or in the proposal response shall be documented and included as part of the final contract.

#### G. SEALED PROPOSAL SUBMISSION

All proposals are due and must be delivered to the City on or before May 17, 2023 by 10:00a.m. (local time). Proposals submitted late or via oral, telephonic, telegraphic, electronic mail or facsimile will not be considered or accepted.

Each respondent should submit in a sealed envelope

- one (1) original proposal
- one (1) additional proposal copy
- one (1) digital copy of the proposal preferably on a USB/flash drive as one file in PDF format

Proposals submitted should be clearly marked: "RFP No. 23-17 – STREET RESURFACING PROJECT – 2023" and list the bidder's name and address.

Proposals must be addressed and delivered to: City of Ann Arbor c/o Customer Service 301 East Huron Street Ann Arbor, MI 48107

All proposals received on or before the due date will be publicly opened and recorded on the due date. No immediate decisions will be rendered.

Hand delivered proposals may be dropped off in the Purchasing drop box located in the Ann Street (north) vestibule/entrance of City Hall which is open to the public Monday through Friday from 8am to 5pm (except holidays). The City will not be liable to any prospective bidder for any unforeseen circumstances, delivery, or postal delays. Postmarking on the due date will not substitute for receipt of the proposal.

Bidders are responsible for submission of their proposal. Additional time will not be granted to a single prospective bidder. However, additional time may be granted to all prospective bidders at the discretion of the City.

A proposal may be disqualified if the following required forms are not included with the proposal:

- Attachment D Prevailing Wage Declaration of Compliance
- Attachment E Living Wage Declaration of Compliance
- Attachment G Vendor Conflict of Interest Disclosure Form
- Attachment H Non-Discrimination Declaration of Compliance

Proposals that fail to provide these forms listed above upon proposal opening may be deemed non-responsive and may not be considered for award.

#### H. DISCLOSURES

Under the Freedom of Information Act (Public Act 442), the City is obligated to permit review of its files, if requested by others. All information in a proposal is subject to disclosure under this provision. This act also provides for a complete disclosure of contracts and attachments thereto.

#### I. TYPE OF CONTRACT

A sample of the Construction Agreement is included as Attachment A. Those who wish to submit a proposal to the City are required to review this sample agreement carefully. **The City will not entertain changes to its Construction Agreement.** 

For all construction work, the respondent must further adhere to the City of Ann Arbor General Conditions. The General Conditions are included herein. Retainage will be

held as necessary based on individual tasks and not on the total contract value. The Contractor shall provide the required bonds included in the Contract Documents for the duration of the Contract.

The City reserves the right to award the total proposal, to reject any or all proposals in whole or in part, and to waive any informality or technical defects if, in the City's sole judgment, the best interests of the City will be so served.

This RFP and the selected bidder's response thereto, shall constitute the basis of the scope of services in the contract by reference.

#### J. NONDISCRIMINATION

All bidders proposing to do business with the City shall satisfy the contract compliance administrative policy adopted by the City Administrator in accordance with the Section 9:158 of the Ann Arbor City Code. Breach of the obligation not to discriminate as outlined in Attachment G shall be a material breach of the contract. Contractors are required to post a copy of Ann Arbor's Non-Discrimination Ordinance attached at all work locations where its employees provide services under a contract with the City.

#### K. WAGE REQUIREMENTS

The Attachments provided herein outline the requirements for payment of prevailing wages or of a "living wage" to employees providing service to the City under this contract. The successful bidder must comply with all applicable requirements and provide documentary proof of compliance when requested.

Pursuant to Resolution R-16-469 all public improvement contractors are subject to prevailing wage and will be required to provide to the City payroll records sufficient to demonstrate compliance with the prevailing wage requirements. Use of Michigan Department of Transportation Prevailing Wage Forms (sample attached hereto) or a City-approved equivalent will be required along with wage rate interviews.

For laborers whose wage level are subject to federal, state and/or local prevailing wage law the appropriate Davis-Bacon wage rate classification is identified based upon the work including within this contract. **The wage determination(s) current on the date 10 days before proposals are due shall apply to this contract.** The U.S. Department of Labor (DOL) has provided explanations to assist with classification in the following resource link: www.wdol.gov.

For the purposes of this RFP the Construction Type of Highway will apply.

#### L. CONFLICT OF INTEREST DISCLOSURE

The City of Ann Arbor Purchasing Policy requires that the consultant complete a Conflict of Interest Disclosure form. A contract may not be awarded to the selected bidder unless and until the Procurement Unit and the City Administrator have reviewed the Disclosure form and determined that no conflict exists under applicable federal, state, or local law or administrative regulation. Not every relationship or situation disclosed on the Disclosure Form may be a disqualifying conflict. Depending on applicable law and regulations, some contracts may awarded on the recommendation of the City Administrator after full disclosure, where such action is allowed by law, if demonstrated competitive pricing exists and/or it is determined the award is in the best interest of the City. A copy of the Conflict of Interest Disclosure Form is attached.

#### M. COST LIABILITY

The City of Ann Arbor assumes no responsibility or liability for costs incurred by the bidder prior to the execution of an Agreement. The liability of the City is limited to the terms and conditions outlined in the Agreement. By submitting a proposal, bidder agrees to bear all costs incurred or related to the preparation, submission, and selection process for the proposal.

#### N. DEBARMENT

Submission of a proposal in response to this RFP is certification that the Respondent is not currently debarred, suspended, proposed for debarment, and declared ineligible or voluntarily excluded from participation in this transaction by any State or Federal departments or agency. Submission is also agreement that the City will be notified of any changes in this status.

#### O. PROPOSAL PROTEST

All proposal protests must be in writing and filed with the Purchasing Manager within five (5) business days of any notices of intent, including, but not exclusively, divisions on prequalification of bidders, shortlisting of bidders, or a notice of intent to award. Only bidders who responded to the solicitation may file a bid protest. The bidder must clearly state the reasons for the protest. If any bidder contacts a City Service Area/Unit and indicates a desire to protest an award, the Service Area/Unit shall refer the bidder to the Purchasing Manager. The Purchasing Manager will provide the bidder with the appropriate instructions for filing the protest. The protest shall be reviewed by the City Administrator or designee, whose decision shall be final.

Any inquiries or requests regarding this procurement should be only submitted in writing to the Designated City Contacts provided herein. Attempts by the bidder to initiate contact with anyone other than the Designated City Contacts provided herein that the bidder believes can influence the procurement decision, e.g., Elected Officials,

City Administrator, Selection Committee Members, Appointed Committee Members, etc., may lead to immediate elimination from further consideration.

#### P. SCHEDULE

The following is the schedule for this RFP process.

## Activity/Event Anticipated Date

Pre-Proposal Conference n/a

Written Question Deadline May 5, 2023, 1:00 p.m. (Local Time)

Addenda Published (if needed) Week of May 8, 2023

Proposal Due Date May 17, 2023, 2:00 p.m. (Local Time)

Selection May 19, 2023 Expected City Council Authorizations June 5, 2023

The above schedule is for information purposes only and is subject to change at the City's discretion.

#### Q. IRS FORM W-9

The selected bidder will be required to provide the City of Ann Arbor an IRS form W-9.

#### **R. RESERVATION OF RIGHTS**

- 1. The City reserves the right in its sole and absolute discretion to accept or reject any or all proposals, or alternative proposals, in whole or in part, with or without cause.
- 2. The City reserves the right to waive, or not waive, informalities or irregularities in terms or conditions of any proposal if determined by the City to be in its best interest.
- 3. The City reserves the right to request additional information from any or all bidders.
- 4. The City reserves the right to reject any proposal that it determines to be unresponsive and deficient in any of the information requested within RFP.
- 5. The City reserves the right to determine whether the scope of the project will be entirely as described in the RFP, a portion of the scope, or a revised scope be implemented.
- 6. The City reserves the right to select one or more contractors or service providers to perform services.
- 7. The City reserves the right to retain all proposals submitted and to use any ideas in a proposal regardless of whether that proposal is selected. Submission of a proposal indicates acceptance by the firm of the conditions contained in this RFP, unless clearly and specifically noted in the proposal submitted.
- 8. The City reserves the right to disqualify proposals that fail to respond to any requirements outlined in the RFP, or failure to enclose copies of the required documents outlined within the RFP.

#### S. IDLEFREE ORDINANCE

The City of Ann Arbor adopted an idling reduction Ordinance that went into effect July 1, 2017. The full text of the ordinance (including exemptions) can be found at: www.a2gov.org/idlefree.

Under the ordinance, No Operator of a Commercial Vehicle shall cause or permit the Commercial Vehicle to Idle:

- (a) For any period of time while the Commercial Vehicle is unoccupied; or
- (b) For more than 5 minutes in any 60-minute period while the Commercial Vehicle is occupied.

In addition, generators and other internal combustion engines are covered

(1) Excluding Motor Vehicle engines, no internal combustion engine shall be operated except when it is providing power or electrical energy to equipment or a tool that is actively in use.

#### T. ENVIRONMENTAL COMMITMENT

The City of Ann Arbor recognizes its responsibility to minimize negative impacts on human health and the environment while supporting a vibrant community and economy. The City further recognizes that the products and services the City buys have inherent environmental and economic impacts and that the City should make procurement decisions that embody, promote, and encourage the City's commitment to the environment.

The City encourages potential vendors to bring forward emerging and progressive products and services that are best suited to the City's environmental principles.

#### **U. MAJOR SUBCONTRACTORS**

The Bidder shall identify each major subcontractor it expects to engage for this Contract if the work to be subcontracted is 15% or more of the bid sum or over \$50,000, whichever is less. The Bidder also shall identify the work to be subcontracted to each major subcontractor. The Bidder shall not change or replace a subcontractor without approval by the City.

#### N. LIQUIDATED DAMAGES

A liquidated damages clause, as given on page C-2, Article III of the Contract, provides that the Contractor shall pay the City as liquidated damages, and not as a penalty, a sum certain per day for each and every day that the Contractor may be in default of completion of the specified work, within the time(s) stated in the Contract, or written extensions.

Liquidated damages clauses, as given in the General Conditions, provide further that the City shall be entitled to impose and recover liquidated damages for breach of the obligations under Chapter 112 of the City Code.

The liquidated damages are for the non-quantifiable aspects of any of the previously identified events and do not cover actual damages that can be shown or quantified nor are they intended to preclude recovery of actual damages in addition to the recovery of liquidated damages.

# **SECTION II - SCOPE OF WORK**

Please see the plan set and detailed specifications for more details.

# **SECTION III - MINIMUM INFORMATION REQUIRED**

#### PROPOSAL FORMAT

The following describes the elements that should be included in each of the proposal sections and the weighted point system that will be used for evaluation of the proposals.

Bidders should organize Proposals into the following Sections:

- A. Qualifications, Experience and Accountability
- B. Workplace Safety
- C. Workforce Development
- D. Social Equity and Sustainability
- E. Schedule of Pricing/Cost
- F. Authorized Negotiator
- G. Attachments

Bidders are strongly encouraged to provided details for all of the information requested below within initial proposals. Backup documentation may be requested at the sole discretion of the City to validate all of the responses provided herein by bidders. False statements by bidders to any of the criteria provided herein will result in the proposal being considered non-responsive and will not be considered for award.

Pursuant to Sec 1:325 of the City Code which sets forth requirements for evaluating public improvement bids, Bidders should submit the following:

#### A. Qualifications, Experience and Accountability - 20 Points

- 1. Qualifications and experience of the bidder and of key persons, management, and supervisory personnel to be assigned by the bidder.
- 2. References from individuals or entities the bidder has worked for within the last five (5) years including information regarding records of performance and job site cooperation.
- 3. Evidence of any quality control program used by the bidder and the results of any such program on the bidder's previous projects.
- 4. A statement from the bidder as to any major subcontractors it expects to engage including the name, work, and amount.

## B. Workplace Safety – 20 Points

- 1. Provide a copy of the bidder's safety program, and evidence of a safety-training program for employees addressing potential hazards of the proposed job site. Bidder must identify a designated qualified safety representative responsible for bidder's safety program who serves as a contact for safety related matters.
- 2. Provide the bidder's Experience Modification Rating ("EMR") for the last three consecutive years. Preference within this criterion will be given to an EMR of 1.0 or less based on a three-year average.
- 3. Evidence that all craft labor that will be employed by the bidder for the project has, or will have prior to project commencement, completed at least an authorized 10-hour OSHA Construction Safety Course.
- 4. For the last three years provide a copy of any documented violations and the bidder's corrective actions as a result of inspections conducted by the Michigan Occupational Safety & Health Administration (MIOSHA), U.S. Department of Labor Occupational Safety and Health Administration (OSHA), or any other applicable safety agency.

## C. Workforce Development – 20 Points

- 1. Documentation as to bidder's pay rates, health insurance, pension or other retirement benefits, paid leave, or other fringe benefits to its employees.
- 2.. Documentation that the bidder participates in a Registered Apprenticeship Program that is registered with the United States Department of Labor Office of Apprenticeship or by a State Apprenticeship Agency recognized by the USDOL Office of Apprenticeship. USDOL apprenticeship agreements shall be disclosed to the City in the solicitation response.
- 3. Bidders shall disclose the number of non-craft employees who will work on the project on a 1099 basis, and the bidders shall be awarded points based on their relative reliance on 1099 work arrangements with more points assigned to companies with fewer 1099 arrangements. Bidders will acknowledge that the City may ask them to produce payroll records at points during the project to verify compliance with this section.

#### D. Social Equity and Sustainability – 20 Points

1. A statement from the bidder as to what percentage of its workforce resides in the City of Ann Arbor and in Washtenaw County, Michigan. The City will consider in

evaluating which bids best serve its interests, the extent to which responsible and qualified bidders employ individuals in either the city of the county. Washtenaw County jurisdiction is prioritized for evaluation purposes for this solicitation.

- 2. Evidence of Equal Employment Opportunity Programs for minorities, women, veterans, returning citizens, and small businesses.
- 3. Evidence that the bidder is an equal opportunity employer and does not discriminate on the basis of race, sex, pregnancy, age, religion, national origin, marital status, sexual orientation, gender identity or expression, height, weight, or disability.
- 4. The bidder's proposed use of sustainable products, technologies, or practices for the project, which reduce the impact on human health and the environment, including raw materials acquisition, production, manufacturing, packaging, distribution, reuse, operation, maintenance, and waste management.
- 5. The bidder's environmental record, including findings of violations and penalties imposed by government agencies.

# E. Schedule of Pricing/Cost – 20 Points

Company: Project: 2023 Annual Resurfacing Program

File #: 2023-004 RFP#: 23-17

<u>Item</u>	<u>Description</u>	<u>Unit</u>	Estimated Quantity	<u>Unit Price</u>	Total Price
1047051	Certified Payroll Compliance and Reporting	LS	1.00 \$ _	\$	
1047051	General Conditions, Max \$300,000.00	LS	1.00 \$ _	\$	
1047051	_Project Supervision, Max \$50,000.00	LS	1.00 \$ _	\$	
2020004	Tree, Rem, 6 inch to 18 inch	Ea	1.00 \$ _	\$	
2030011	Dr Structure, Rem	Ea	100.00 \$	\$	
2030015	S Sewer, Rem, Less than 24 inch	Ft	960.00		
2040005	5 Pavt, Rem	Syd	10.00 \$ _	\$	
2047001	Curb, Gutter, and Curb and Gutter, Any Type, Rem	Ft	9,870.00 \$ _	\$	
2047001	_Exploratory Excavation, Vertical	Ft	3.00 \$ _	\$	
2047011	Sidewalk, Sidewalk Ramp, and Driveway Approach, Any Thickness, Rem	Syd	817.45 \$ _	\$	
2050010	Embankment, CIP	Cyd	100.00 \$ _	\$	
2050023	Granular Material, Cl II	Cyd	30.00 \$ _	\$	
2057011	Grading, Driveway Approach	Syd	803.88 \$ _	\$	
2057011	Grading, Sidewalk	Syd	84.66 \$ _	\$	
2057011	Grading, Sidewalk Ramp	Syd	119.17 \$ _	\$	
2057011	_Machine Grading, Special	Syd	72,459.48 \$ _	\$	
2057021	_Undercutting, Type IIA	Cyd	7,908.26 \$ _	\$	
2057021	Undercutting, Type IIB	Cyd	30.00 \$ _	\$	
2057021	Undercutting, Type IIC	Cyd	75.00 \$ _	\$	
2080036	Erosion Control, Silt Fence	Ft	420.00 \$ _	\$	
2087050	Erosion Control, Inlet Protection, Fabric Drop	Ea	170.00 \$ _	\$	
3010002	2 Subbase, CIP	Cyd	80.00 \$ _	\$	
3027011	_Aggregate Base, 6 inch, Modified	Syd	150.00 \$ _	\$	
3027031	_Aggregate Base, Modified	Ton	100.00 \$ _	\$	
3057011	Shared use Path, HMA Base Crushing and Shaping	Syd	358.00 \$ _	\$	

Company: Project: 2023 Annual Resurfacing Program

File #: 2023-004 RFP#: 23-17

<u>Item</u>	<u>Description</u>	<u>Unit</u>	Estimated Quantity	<u>Unit Price</u>	<u>Total Price</u>
307702	1 _Trenching, Modified	Cyd	10.00 \$ _	\$	
3080010	O Geotextile, Stabilization	Syd	316.00 \$ _	\$	
308701	1 _Structural Geogrid (Base)	Syd	250.00 \$ _	\$	
4020987	7 Sewer, Cl IV, 12 inch, Tr Det B	Ft	900.00 \$ _	\$	
4021260	Trench Undercut and Backfill	Cyd	100.00 \$ _	\$	
4030200	O Dr Structure, 24 inch dia	Ea	97.00 \$ _	\$	
4030210	O Dr Structure, 48 inch dia	Ea	1.00 \$ _	\$	
4030280	O Dr Structure, Adj, Add Depth	Ft	5.00 \$ _	\$	
4037050	O _Structure Covers	Ea	70.00 \$ _	\$	
4037050	D _Dr Structure Cover, Type K, Modified	Ea	117.00 \$	\$	
4037050	O _Adjust Structure Cover	Ea	252.00 \$ _	\$	
4037050	O _Dr Structure, Point	Ea	1.00 \$ _	\$	
4037050	O _Structure, Reconstruct	Ea	2.00 \$ _	\$	
4047003	L_Underdrain, Subgrade, 6 inch, Special	Ft	980.00 \$ _	\$	
501000	1 Pavt, Cleaning	LS	1.00 \$ _	\$	
5010002	2 Cold Milling HMA Surface	Syd	69,794.96 \$ _	\$	
5010005	5 HMA Surface, Rem	Syd	3,694.55 \$ _	\$	
501002	5 Hand Patching	Ton	100.00 \$ _	\$	
5010703	3 HMA, 4EL	Ton	16,354.70 \$ _	\$	
501701	1 _Cold Milling for Concrete Curb and Gutter Reveal	Syd	771.67 \$ _	\$	
501701	1 _Cold Milling HMA Surface, Driveway Approach	Syd	115.00 \$ _	\$	
501701	1 _Cold Milling HMA Surface, Modified	Syd	300.00 \$ _	\$	
5017032	1 _Hand Patching, Modified	Ton	25.00 \$ _	\$	
5017033	1 _HMA, Wedging, 4EL	Ton	16.00 \$ _	\$	
6020054	1 Conc Pavt, Misc, Nonreinf, 8 inch	Syd	12.44 \$ _	\$	

Company: Project: 2023 Annual Resurfacing Program

File #: 2023-004 RFP#: 23-17

<u>Item</u>	<u>Description</u>	<u>Unit</u>	Estimated Quantity	Unit Price <u>Total Price</u>
6027011	_Raised Crosswalk, Conc	Syd	273.00 \$ _	\$
6027011	_Raised Intersection, Conc	Syd	560.00 \$ _	\$
6027011	Speed Hump, Conc	Syd	162.00 \$ _	\$
6027011	Speed Table, Conc	Syd	70.00 \$ _	\$
6027021	_Flowable Fill	Cyd	202.92 \$ _	\$
8017011	_Driveway, Nonreinf Conc, 6 inch, Modified	Syd	527.44 \$ _	\$
8017011	_Driveway, Nonreinf Conc, 8 inch, Modified	Syd	46.44 \$ _	\$
8027001	Curb and Gutter, Conc, Barrier	Ft	5,977.50 \$ _	\$
8027001	Curb and Gutter, Conc, Mountable	Ft	255.00 \$ _	\$
8027001	_Driveway Opening, Conc, Det M, Modified	Ft	3,560.00 \$ _	\$
8037001	Detectable Warning Surface, Modified	Ft	454.00 \$ _	\$
8037010	_Sidewalk Ramp, Conc, 6 inch, Modified	Sft	592.17 \$ _	\$
8037010	_Sidewalk Retaining Wall, Integral, 6 inch to 18 inch Height	Sft	150.00 \$ _	\$
8037010	_Sidewalk Retaining Wall, Integral, 18 inch to 30 inch Height	Sft	50.00 \$ _	\$
8037010	_Sidewalk, Conc or Clay Brick Pavers, Rem and Reinstall	Sft	48.00 \$ _	\$
8037010	_Sidewalk, Conc, 4 inch, Modified	Sft	381.00 \$ _	\$
8037010	_Sidewalk, Conc, 6 inch, Modified	Sft	328.50 \$ _	\$
8037010	_Sidewalk, Conc, 8 inch, Modified	Sft	100.00	
8060010	Shared use Path, Aggregate	Ton	25.00 \$ _	\$
8060040	Shared use Path, HMA	Ton	350.00 \$ _	\$
8067011	Shared use Path, Grading, Modified	Syd	700.00 \$ _	\$
8067031	Shared use Path, HMA, Wedging	Ton	100.00 \$ _	\$
8110214	Pavt Mrkg, Thermopl, 12 inch, Crosswalk	Ft	1,414.00 \$ _	\$
8110218	B Pavt Mrkg, Thermopl, 24 inch, Stop Bar	Ft	968.00 \$ _	\$
8110321	Rem Curing Compound, for Spec Mrkg	Sft	1,008.00 \$ _	\$

Project: 2023 Annual Resurfacing Program

File #: 2023-004 RFP#: 23-17

<u>Item</u>	<u>Description</u>	<u>Unit</u>	Estimated Quantity	<u>Unit Price</u>	Total Price
811705	O _Pavt Mrkg, Polyurea, Speed Hump Chevron, White	Ea	28.00 \$ _	\$	
812001	2 Barricade, Type III, High Intensity, Double Sided, Lighted, Furn	Ea	82.00 \$ _	\$	
812001	3 Barricade, Type III, High Intensity, Double Sided, Lighted, Oper	Ea	82.00 \$ _	\$	
812003	5 Channelizing Device, 42 inch, Fluorescent, Furn	Ea	160.00 \$ _	\$	
812003	6 Channelizing Device, 42 inch, Fluorescent, Oper	Ea	160.00 \$ _	\$	
812014	0 Lighted Arrow, Type C, Furn	Ea	3.00 \$ _	\$	
812014	1 Lighted Arrow, Type C, Oper	Ea	3.00 \$ _	\$	
812025	2 Plastic Drum, Fluorescent, Furn	Ea	862.00 \$ _	\$	
812025	3 Plastic Drum, Fluorescent, Oper	Ea	862.00 \$ _	\$	
812031	0 Sign Cover	Ea	12.00 \$ _	\$	
812033	O Sign, Portable, Changeable Message, Furn	Ea	4.00 \$ _	\$	
812033	1 Sign, Portable, Changeable Message, Oper	Ea	7.00 \$ _	\$	
812035	O Sign, Type B, Temp, Prismatic, Furn	Sft	3,092.00 \$ _	\$	
812035	1 Sign, Type B, Temp, Prismatic, Oper	Sft	3,092.00 \$ _	\$	
812035	2 Sign, Type B, Temp, Prismatic, Special, Furn	Sft	768.00 \$ _	\$	
812035	3 Sign, Type B, Temp, Prismatic, Special, Oper	Sft	768.00 \$ _	\$	
812037	O Traf Regulator Control	LS	1.00 \$ _	\$	
812705	0 _Pedestrian Type II Barricade, Temp	Ea	77.00 \$ _	\$	
812705	O _Pedestrian Type II Channelizer, Temp	Ea	5.00 \$ _	\$	
812705	O _Temporary No Parking Sign	Ea	644.00 \$ _	\$	
812705	1 _Minor Traffic Control, Max \$135,000.00	LS	1.00 \$ _	\$	
815706	0 _Irrigation System, Protection and Maintenance, Allowance	DLR	15,000.00 \$ _	1.00 \$	15,000
816701	1 _Slope Restoration	Syd	4,055.98 \$ _	\$	
821705	0 _Monument Box, Adj	Ea	4.00 \$ _	\$	
823042	1 Water Shutoff, Adj, Case 1	Ea	3.00 \$ _	\$	

company:					
Project: 2023	Annual Resurfacing Program				
File #: 2023-0	04			RFP#: 2	23-17
<u>Item</u>	<u>Description</u>	<u>Unit</u>	Estimated Quantity	Unit Price	Total Price
8507050	D _HMA Surface, Around Structure Cover, Rem	Ea	7.00 \$	\$	

## F. AUTHORIZED NEGOTIATOR / NEGOTIATIBLE ELEMENTS (ALTERNATES)

Include the name, phone number, and e-mail address of persons(s) in your organization authorized to negotiate the agreement with the City.

The proposal price shall include materials and equipment selected from the designated items and manufacturers listed in the bidding documents. This is done to establish uniformity in bidding and to establish standards of quality for the items named.

If the bidder wishes to quote alternate items for consideration by the City, it may do so under this Section. A complete description of the item and the proposed price differential must be provided. Unless approved at the time of award, substitutions where items are specifically named will be considered only as a negotiated change in Contract Sum.

If the Bidder takes exception to the time stipulated in Article III of the Contract, Time of Completion, page C-2, it is requested to stipulate its proposed time for performance of the work.

Consideration for any proposed alternative items or time may be negotiated at the discretion of the City.

#### G. ATTACHMENTS

General Declaration, Legal Status of Bidder, Conflict of Interest Form, Living Wage Compliance Form, Prevailing Wage Compliance Form and the Non-Discrimination Form should be completed and returned with the proposal. These elements should be included as attachments to the proposal submission.

#### PROPOSAL EVALUATION

- 1. The selection committee will evaluate each proposal by the above-described criteria and point system. The City reserves the right to reject any proposal that it determines to be unresponsive and deficient in any of the information requested for evaluation. A proposal with all the requested information does not guarantee the proposing firm to be a candidate for an interview if interviews are selected to be held by the City. The committee may contact references to verify material submitted by the bidder.
- 2. The committee then will schedule interviews with the selected firms if necessary. The selected firms will be given the opportunity to discuss in more detail their qualifications, past experience, proposed work plan (if applicable) and pricing.
- 3. The interview should include the project team members expected to work on the project, but no more than six members total. The interview shall consist of a presentation of up to thirty minutes (or the length provided by the committee) by the

bidder, including the person who will be the project manager on this contract, followed by approximately thirty minutes of questions and answers. Audiovisual aids may be used during the oral interviews. The committee may record the oral interviews.

4. The firms interviewed will then be re-evaluated by the above criteria and adjustments to scoring will be made as appropriate. After evaluation of the proposals, further negotiation with the selected firm may be pursued leading to the award of a contract by City Council, if suitable proposals are received.

The City reserves the right to waive the interview process and evaluate the bidder based on their proposal and pricing schedules alone.

The City will determine whether the final scope of the project to be negotiated will be entirely as described in this RFP, a portion of the scope, or a revised scope.

Work to be done under this contract is generally described through the plans and detailed specifications and must be completed fully in accordance with the contract documents.

Any proposal that does not conform fully to these instructions may be rejected.

#### PREPARATION OF PROPOSALS

Proposals should have no plastic bindings but will not be rejected as non-responsive for being bound. Staples or binder clips are acceptable. Proposals should be printed double sided on recycled paper.

Each person signing the proposal certifies that they are a person in the bidder's firm/organization responsible for the decisions regarding the fees being offered in the Proposal and has not and will not participate in any action contrary to the terms of this provision.

#### **ADDENDA**

If it becomes necessary to revise any part of the RFP, notice of the addendum will be posted to Michigan Inter-governmental Trade Network (MITN) www.mitn.info and/or the City of Ann Arbor web site www.A2gov.org for all parties to download.

Each bidder should acknowledge in its proposal all addenda it has received on the General Declarations form provided in the Attachments section herein. The failure of a bidder to receive or acknowledge receipt of any addenda shall not relieve the bidder of the responsibility for complying with the terms thereof. The City will not be bound by oral responses to inquiries or written responses other than official written addenda.

## **SECTION IV - ATTACHMENTS**

Attachment A – Sample Standard Contract

Attachment B – General Declarations

Attachment C - Legal Status of Bidder

Attachment D – Prevailing Wage Declaration of Compliance Form

Attachment E – Living Wage Declaration of Compliance Form

Attachment F – Living Wage Ordinance Poster

Attachment G – Vendor Conflict of Interest Disclosure Form

Attachment H – Non-Discrimination Ordinance Declaration of Compliance Form

Attachment I – Non-Discrimination Ordinance Poster

Sample Certified Payroll Report Template

# ATTACHMENT A SAMPLE STANDARD CONTRACT

If a contract is awarded, the selected contractor will be required to adhere to a set of general contract provisions which will become a part of any formal agreement. These provisions are general principles which apply to all contractors of service to the City of Ann Arbor such as the following:

	Administrative Use Only Contract Date:	
CONTRACT		
THIS CONTRACT is between the CITY OF ANN ARBOR, a Michigent Huron Street, Ann Arbor, Michigan 48104 ("City") and("Contractor")	gan Municipal Corporation, 301	
(An individual/partnership/corporation, include state of incorporation	on) (Address)	
Based upon the mutual promises below, the Contractor and the C	ity agree as follows:	
ARTICLE L. Scano of Work		

## ARTICLE I - Scope of Work

The Contractor agrees to furnish all of the materials, equipment and labor necessary; and to abide by all the duties and responsibilities applicable to it for the project titled **[Insert Title of Bid and Bid Number]** in accordance with the requirements and provisions of the following documents, including all written modifications incorporated into any of the documents, all of which are incorporated as part of this Contract:

Non-discrimination and Living Wage Declaration of Compliance Forms (if applicable) Vendor Conflict of Interest Form Prevailing Wage Declaration of Compliance Form (if applicable) Bid Forms Contract and Exhibits Bonds General Conditions Standard Specifications Detailed Specifications Plans Addenda

#### **ARTICLE II - Definitions**

Administering Service Area/Unit means [Insert Name of Administering Service Unit]

Project means [Insert Title of Bid and Bid Number]

**Supervising Professional** means the person acting under the authorization of the manager of the Administering Service Area/Unit. At the time this Contract is executed,

title]. If there	ng Professional is: [Insert the person's name] whose job title is [Insert job is any question concerning who the Supervising Professional is, Contractor with the manager of the Administering Service Area/Unit.
Contractor's title is [Insert	Representative means [Insert name] whose job i job title].
ARTICLE III -	Time of Completion
(A)	The work to be completed under this Contract shall begin immediately on the date specified in the Notice to Proceed issued by the City.
(B)	The entire work for this Contract shall be completed within ( ) consecutive calendar days.
(C)	Failure to complete all the work within the time specified above, including any extension granted in writing by the Supervising Professional, shall obligate the Contractor to pay the City, as liquidated damages and not as a penalty, an amount equal to \$ for each calendar day of delay in the completion of all the work. If any liquidated damages are unpaid by the Contractor, the City shall be entitled to deduct these unpaid liquidated damages from the monies due the Contractor.
	The liquidated damages are for the non-quantifiable aspects of any of the previously identified events and do not cover actual damages that can be shown or quantified nor are they intended to preclude recovery of actual damages in addition to the recovery of liquidated damages.
ARTICLE IV -	The Contract Sum
(A)	The City shall pay to the Contractor for the performance of the Contract, the unit prices as given in the Bid Form for the estimated bid total of:
	Dollars (\$)

(B) The amount paid shall be equitably adjusted to cover changes in the work ordered by the Supervising Professional but not required by the Contract Documents. Increases or decreases shall be determined only by written agreement between the City and Contractor.

## **ARTICLE V - Assignment**

This Contract may not be assigned or subcontracted any portion of any right or obligation under this contract without the written consent of the City. Notwithstanding any consent by the City to any assignment, Contractor shall at all times remain bound to all warranties, certifications, indemnifications, promises and performances, however described, as are required of it under this contract unless specifically released from the requirement, in writing, by the City.

#### **ARTICLE VI - Choice of Law**

This Contract shall be construed, governed, and enforced in accordance with the laws of the State of Michigan. By executing this Contract, the Contractor and the City agree to venue in a court of appropriate jurisdiction sitting within Washtenaw County for purposes of any action arising under this Contract. The parties stipulate that the venue referenced in this Contract is for convenience and waive any claim of non-convenience.

Whenever possible, each provision of the Contract will be interpreted in a manner as to be effective and valid under applicable law. The prohibition or invalidity, under applicable law, of any provision will not invalidate the remainder of the Contract.

#### **ARTICLE VII - Relationship of the Parties**

The parties of the Contract agree that it is not a Contract of employment but is a Contract to accomplish a specific result. Contractor is an independent Contractor performing services for the City. Nothing contained in this Contract shall be deemed to constitute any other relationship between the City and the Contractor.

Contractor certifies that it has no personal or financial interest in the project other than the compensation it is to receive under the Contract. Contractor certifies that it is not, and shall not become, overdue or in default to the City for any Contract, debt, or any other obligation to the City including real or personal property taxes. City shall have the right to set off any such debt against compensation awarded for services under this Contract.

#### **ARTICLE VIII - Notice**

All notices given under this Contract shall be in writing, and shall be by personal delivery or by certified mail with return receipt requested to the parties at their respective addresses as specified in the Contract Documents or other address the Contractor may specify in writing. Notice will be deemed given on the date when one of the following first occur: (1) the date of actual receipt; or (2) three days after mailing certified U.S. mail.

#### **ARTICLE IX - Indemnification**

To the fullest extent permitted by law, Contractor shall indemnify, defend and hold the City, its officers, employees and agents harmless from all suits, claims, judgments and expenses including attorney's fees resulting or alleged to result, in whole or in part, from any act or omission, which is in any way connected or associated with this Contract, by the Contractor or anyone acting on the Contractor's behalf under this Contract. Contractor shall not be responsible to indemnify the City for losses or damages caused by or resulting from the City's sole negligence. The provisions of this Article shall survive the expiration or earlier termination of this contract for any reason.

#### **ARTICLE X - Entire Agreement**

This Contract represents the entire understanding between the City and the Contractor and it supersedes all prior representations, negotiations, agreements, or understandings whether written or oral. Neither party has relied on any prior representations in entering into this Contract. No terms or conditions of either party's invoice, purchase order or other administrative document shall modify the terms and conditions of this Contract, regardless of the other party's failure to object to such form. This Contract shall be binding on and shall inure to the benefit of the parties

to this Contract and their permitted successors and permitted assigns and nothing in this Contract, express or implied, is intended to or shall confer on any other person or entity any legal or equitable right, benefit, or remedy of any nature whatsoever under or by reason of this Contract. This Contract may be altered, amended or modified only by written amendment signed by the City and the Contractor.

#### **ARTICLE XI – Electronic Transactions**

The City and Contractor agree that signatures on this Contract may be delivered electronically in lieu of an original signature and agree to treat electronic signatures as original signatures that bind them to this Contract. This Contract may be executed and delivered by facsimile and upon such delivery, the facsimile signature will be deemed to have the same effect as if the original signature had been delivered to the other party.

FOR CONTRACTOR	FOR THE CITY OF ANN ARBOR
Ву	By Christopher Taylor, Mayor
lts:	
	By Jacqueline Beaudry, City Clerk
	Approved as to substance
	By Milton Dohoney, Jr. City Administrator
	By Brian Steglitz Services Area Administrator
	Approved as to form and content
	Atleen Kaur, City Attorney

# PERFORMANCE BOND

of	/"), for \$
corporation duly authorized to do business in the State of Michigan (referre "Surety"), are bound to the City of Ann Arbor, Michigan (referred to as "City , the payment of which Principal and Surety bind themselves, their heirs, ex	ed to as /"), for \$
(2) The Principal has entered a written Contract with the City entitled	
and this bond is given for that Contract in compliant Act No. 213 of the Michigan Public Acts of 1963, as amended, being MCL 129.20 (3) Whenever the Principal is declared by the City to be in default under the Contract Surety may promptly remedy the default or shall promptly:	1 <u>et seq</u> .
(a) complete the Contract in accordance with its terms and conditions; or	
<ul> <li>(b) obtain a bid or bids for submission to the City for completing the Co accordance with its terms and conditions, and upon determination by Surety of the responsible bidder, arrange for a Contract between such bidder and the City, a available, as work progresses, sufficient funds to pay the cost of completion balance of the Contract price; but not exceeding, including other costs and dam which Surety may be liable hereunder, the amount set forth in paragraph 1.</li> <li>(4) Surety shall have no obligation to the City if the Principal fully and promptly price in the contract price;</li> </ul>	ne lowest nd make less the nages for
under the Contract.	Jenomis
(5) Surety agrees that no change, extension of time, alteration or addition to the terr Contract or to the work to be performed thereunder, or the specifications accomit shall in any way affect its obligations on this bond, and waives notice of a change, extension of time, alteration or addition to the terms of the Contract work, or to the specifications.	npanying any such
(6) Principal, Surety, and the City agree that signatures on this bond may be delectronically in lieu of an original signature and agree to treat electronic signal original signatures that bind them to this bond. This bond may be executed and by facsimile and upon such delivery, the facsimile signature will be deemed to same effect as if the original signature had been delivered to the other party.	itures as delivered
SIGNED AND SEALED this day of, 202	
(Name of Surety Company) (Name of Principal)	
By By	
(Signature)	
(Signature)	
Its Its (Title of Office) (Title of Office)	
Approved as to form: Name and address of agent:	
Atleen Kaur, City Attorney	

# LABOR AND MATERIAL BOND

(1)	1)	
	of	
	as "Principal"), and	, a corporation
	duly authorized to do business in the State of Michig	an, (referred to as "Surety"), are bound
	to the City of Ann Arbor, Michigan (referred to as "Cit	ty"), for the use and benefit of claimants
	as defined in Act 213 of Michigan Public Acts of 196	63, as amended, being MCL 129.201 <u>et</u>
	seq., in the amount of	
	\$, for the payment of which Pri	ncipal and Surety bind themselves, their
	heirs, executors, administrators, successors and assi	igns, jointly and severally, by this bond.
(2)	2) The Principal has entered a written Contract with the	Cityentitled
	<u>, for</u> RFP No	; and this bond is
	given for that Contract in compliance with Act No. 213	3 of the Michigan Public Acts of 1963 as
	amended;	
(3)	3) If the Principal fails to promptly and fully repay clain	nants for labor and material reasonably
	required under the Contract, the Surety shall pay tho	se claimants.
(4)	4) Surety's obligations shall not exceed the amount state	ed in paragraph 1, and Surety shall have
	no obligation if the Principal promptly and fully pays t	he claimants.
(5)	5) Principal, Surety, and the City agree that signat	ures on this bond may be delivered
	electronically in lieu of an original signature and agree	to treat electronic signatures as original
	signatures that bind them to this bond. This bond may	y be executed and delivered by facsimile
	and upon such delivery, the facsimile signature will b	e deemed to have the same effect as if
	the original signature had been delivered to the other	party.
SIG	SIGNED AND SEALED this day of	, 202_
•	Name of Surety Company)	(Name of Principal)
Ву	By (Signature)	By
	,	(Signature)
Its_	ts (Title of Office)	(Title of Office)
(	(TILLE OF OFFICE)	

Approved as to form:	Name and address of agent:
Atleen Kaur, City Attorney	

#### **GENERAL CONDITIONS**

## **Section 1 - Execution, Correlation and Intent of Documents**

The contract documents shall be signed in 2 copies by the City and the Contractor.

The contract documents are complementary and what is called for by any one shall be binding. The intention of the documents is to include all labor and materials, equipment and transportation necessary for the proper execution of the work. Materials or work described in words which so applied have a well-known technical or trade meaning have the meaning of those recognized standards.

In case of a conflict among the contract documents listed below in any requirement(s), the requirement(s) of the document listed first shall prevail over any conflicting requirement(s) of a document listed later.

(1) Addenda in reverse chronological order; (2) Detailed Specifications; (3) Standard Specifications; (4) Plans; (5) General Conditions; (6) Contract; (7) Bid Forms; (8) Bond Forms; (9) Bid.

## **Section 2 - Order of Completion**

The Contractor shall submit with each invoice, and at other times reasonably requested by the Supervising Professional, schedules showing the order in which the Contractor proposes to carry on the work. They shall include the dates at which the Contractor will start the several parts of the work, the estimated dates of completion of the several parts, and important milestones within the several parts.

# Section 3 - Familiarity with Work

The Bidder or its representative shall make personal investigations of the site of the work and of existing structures and shall determine to its own satisfaction the conditions to be encountered, the nature of the ground, the difficulties involved, and all other factors affecting the work proposed under this Contract. The Bidder to whom this Contract is awarded will not be entitled to any additional compensation unless conditions are clearly different from those which could reasonably have been anticipated by a person making diligent and thorough investigation of the site.

The Bidder shall immediately notify the City upon discovery, and in every case prior to submitting its Bid, of every error or omission in the bidding documents that would be identified by a reasonably competent, diligent Bidder. In no case will a Bidder be allowed the benefit of extra compensation or time to complete the work under this Contract for extra expenses or time spent as a result of the error or omission.

# **Section 4 - Wage Requirements**

Under this Contract, the Contractor shall conform to Chapter 14 of Title I of the Code of the City of Ann Arbor as amended; which in part states "...that all craftsmen, mechanics and laborers employed directly on the site in connection with said improvements, including said employees of

subcontractors, shall receive the prevailing wage for the corresponding classes of craftsmen, mechanics and laborers, as determined by statistics for the Ann Arbor area compiled by the United States Department of Labor. At the request of the City, any contractor or subcontractor shall provide satisfactory proof of compliance with the contract provisions required by the Section.

Pursuant to Resolution R-16-469 all public improvement contractors are subject to prevailing wage and will be required to provide to the City payroll records sufficient to demonstrate compliance with the prevailing wage requirements. A sample Prevailing Wage Form is provided in the Appendix herein for reference as to what will be expected from contractors. Use of the Prevailing Wage Form provided in the Appendix section or a City-approved equivalent will be required along with wage rate interviews.

Where the Contract and the Ann Arbor City Ordinance are silent as to definitions of terms required in determining contract compliance with regard to prevailing wages, the definitions provided in the Davis-Bacon Act as amended (40 U.S.C. 278-a to 276-a-7) for the terms shall be used.

If the Contractor is a "covered employer" as defined in Chapter 23 of the Ann Arbor City Code, the Contractor agrees to comply with the living wage provisions of Chapter 23 of the Ann Arbor City Code. The Contractor agrees to pay those employees providing Services to the City under this Contract a "living wage," as defined in Section 1:815 of the Ann Arbor City Code, as adjusted in accordance with Section 1:815(3); to post a notice approved by the City of the applicability of Chapter 23 in every location in which regular or contract employees providing services under this Contract are working; to maintain records of compliance; if requested by the City, to provide documentation to verify compliance; to take no action that would reduce the compensation, wages, fringe benefits, or leave available to any employee or person contracted for employment in order to pay the living wage required by Section 1:815; and otherwise to comply with the requirements of Chapter 23.

Contractor agrees that all subcontracts entered into by the Contractor shall contain similar wage provision covering subcontractor's employees who perform work on this contract.

#### **Section 5 - Non-Discrimination**

The Contractor agrees to comply, and to require its subcontractor(s) to comply, with the nondiscrimination provisions of MCL 37.2209. The Contractor further agrees to comply with the provisions of Section 9:158 of Chapter 112 of Title IX of the Ann Arbor City Code, and to assure that applicants are employed and that employees are treated during employment in a manner which provides equal employment opportunity.

# Section 6 - Materials, Appliances, Employees

Unless otherwise stipulated, the Contractor shall provide and pay for all materials, labor, water, tools, equipment, light, power, transportation, and other facilities necessary or used for the execution and completion of the work. Unless otherwise specified, all materials incorporated in the permanent work shall be new, and both workmanship and materials shall be of the highest quality. The Contractor shall, if required, furnish satisfactory evidence as to the kind and quality of materials.

The Contractor shall at all times enforce strict discipline and good order among its employees, and shall seek to avoid employing on the work any unfit person or anyone not skilled in the work assigned.

Adequate sanitary facilities shall be provided by the Contractor.

## **Section 7 - Qualifications for Employment**

The Contractor shall employ competent laborers and mechanics for the work under this Contract. For work performed under this Contract, employment preference shall be given to qualified local residents.

# **Section 8 - Royalties and Patents**

The Contractor shall pay all royalties and license fees. It shall defend all suits or claims for infringements of any patent rights and shall hold the City harmless from loss on account of infringement except that the City shall be responsible for all infringement loss when a particular process or the product of a particular manufacturer or manufacturers is specified, unless the City has notified the Contractor prior to the signing of the Contract that the particular process or product is patented or is believed to be patented.

## **Section 9 - Permits and Regulations**

The Contractor must secure and pay for all permits, permit or plan review fees and licenses necessary for the prosecution of the work. These include but are not limited to City building permits, right-of-way permits, lane closure permits, right-of-way occupancy permits, and the like. The City shall secure and pay for easements shown on the plans unless otherwise specified.

The Contractor shall give all notices and comply with all laws, ordinances, rules and regulations bearing on the conduct of the work as drawn and specified. If the Contractor observes that the contract documents are at variance with those requirements, it shall promptly notify the Supervising Professional in writing, and any necessary changes shall be adjusted as provided in the Contract for changes in the work.

# Section 10 - Protection of the Public and of Work and Property

The Contractor is responsible for the means, methods, sequences, techniques and procedures of construction and safety programs associated with the work contemplated by this contract. The Contractor, its agents or sub-contractors, shall comply with the "General Rules and Regulations for the Construction Industry" as published by the Construction Safety Commission of the State of Michigan and to all other local, State and National laws, ordinances, rules and regulations pertaining to safety of persons and property.

The Contractor shall take all necessary and reasonable precautions to protect the safety of the public. It shall continuously maintain adequate protection of all work from damage, and shall take all necessary and reasonable precautions to adequately protect all public and private property from injury or loss arising in connection with this Contract. It shall make good any damage, injury or loss to its work and to public and private property resulting from lack of reasonable protective precautions, except as may be due to errors in the contract documents, or caused by agents or

employees of the City. The Contractor shall obtain and maintain sufficient insurance to cover damage to any City property at the site by any cause.

In an emergency affecting the safety of life, or the work, or of adjoining property, the Contractor is, without special instructions or authorization from the Supervising Professional, permitted to act at its discretion to prevent the threatened loss or injury. It shall also so act, without appeal, if authorized or instructed by the Supervising Professional.

Any compensation claimed by the Contractor for emergency work shall be determined by agreement or in accordance with the terms of Claims for Extra Cost - Section 15.

## **Section 11 - Inspection of Work**

The City shall provide sufficient competent personnel for the inspection of the work.

The Supervising Professional shall at all times have access to the work whenever it is in preparation or progress, and the Contractor shall provide proper facilities for access and for inspection.

If the specifications, the Supervising Professional's instructions, laws, ordinances, or any public authority require any work to be specially tested or approved, the Contractor shall give the Supervising Professional timely notice of its readiness for inspection, and if the inspection is by an authority other than the Supervising Professional, of the date fixed for the inspection. Inspections by the Supervising Professional shall be made promptly, and where practicable at the source of supply. If any work should be covered up without approval or consent of the Supervising Professional, it must, if required by the Supervising Professional, be uncovered for examination and properly restored at the Contractor's expense.

Re-examination of any work may be ordered by the Supervising Professional, and, if so ordered, the work must be uncovered by the Contractor. If the work is found to be in accordance with the contract documents, the City shall pay the cost of re-examination and replacement. If the work is not in accordance with the contract documents, the Contractor shall pay the cost.

# Section 12 - Superintendence

The Contractor shall keep on the work site, during its progress, a competent superintendent and any necessary assistants, all satisfactory to the Supervising Professional. The superintendent will be responsible to perform all on-site project management for the Contractor. The superintendent shall be experienced in the work required for this Contract. The superintendent shall represent the Contractor and all direction given to the superintendent shall be binding as if given to the Contractor. Important directions shall immediately be confirmed in writing to the Contractor. Other directions will be confirmed on written request. The Contractor shall give efficient superintendence to the work, using its best skill and attention.

# **Section 13 - Changes in the Work**

The City may make changes to the quantities of work within the general scope of the Contract at any time by a written order and without notice to the sureties. If the changes add to or deduct from the extent of the work, the Contract Sum shall be adjusted accordingly. All the changes shall be

executed under the conditions of the original Contract except that any claim for extension of time caused by the change shall be adjusted at the time of ordering the change.

In giving instructions, the Supervising Professional shall have authority to make minor changes in the work not involving extra cost and not inconsistent with the purposes of the work, but otherwise, except in an emergency endangering life or property, no extra work or change shall be made unless in pursuance of a written order by the Supervising Professional, and no claim for an addition to the Contract Sum shall be valid unless the additional work was ordered in writing.

The Contractor shall proceed with the work as changed and the value of the work shall be determined as provided in Claims for Extra Cost - Section 15.

#### Section 14 - Extension of Time

Extension of time stipulated in the Contract for completion of the work will be made if and as the Supervising Professional may deem proper under any of the following circumstances:

- (1) When work under an extra work order is added to the work under this Contract;
- (2) When the work is suspended as provided in Section 20;
- (3) When the work of the Contractor is delayed on account of conditions which could not have been foreseen, or which were beyond the control of the Contractor, and which were not the result of its fault or negligence;
- (4) Delays in the progress of the work caused by any act or neglect of the City or of its employees or by other Contractors employed by the City;
- (5) Delay due to an act of Government;
- (6) Delay by the Supervising Professional in the furnishing of plans and necessary information;
- (7) Other cause which in the opinion of the Supervising Professional entitles the Contractor to an extension of time.

The Contractor shall notify the Supervising Professional within 7 days of an occurrence or conditions which, in the Contractor's opinion, entitle it to an extension of time. The notice shall be in writing and submitted in ample time to permit full investigation and evaluation of the Contractor's claim. The Supervising Professional shall acknowledge receipt of the Contractor's notice within 7 days of its receipt. Failure to timely provide the written notice shall constitute a waiver by the Contractor of any claim.

In situations where an extension of time in contract completion is appropriate under this or any other section of the contract, the Contractor understands and agrees that the only available adjustment for events that cause any delays in contract completion shall be extension of the required time for contract completion and that there shall be no adjustments in the money due the Contractor on account of the delay.

#### Section 15 - Claims for Extra Cost

If the Contractor claims that any instructions by drawings or other media issued after the date of the Contract involved extra cost under this Contract, it shall give the Supervising Professional written notice within 7 days after the receipt of the instructions, and in any event before proceeding to execute the work, except in emergency endangering life or property. The procedure shall then be as provided for Changes in the Work-Section I3. No claim shall be valid unless so made.

If the Supervising Professional orders, in writing, the performance of any work not covered by the contract documents, and for which no item of work is provided in the Contract, and for which no unit price or lump sum basis can be agreed upon, then the extra work shall be done on a Cost-Plus-Percentage basis of payment as follows:

- (1) The Contractor shall be reimbursed for all reasonable costs incurred in doing the work, and shall receive an additional payment of 15% of all the reasonable costs to cover both its indirect overhead costs and profit;
- (2) The term "Cost" shall cover all payroll charges for employees and supervision required under the specific order, together with all worker's compensation, Social Security, pension and retirement allowances and social insurance, or other regular payroll charges on same; the cost of all material and supplies required of either temporary or permanent character; rental of all power-driven equipment at agreed upon rates, together with cost of fuel and supply charges for the equipment; and any costs incurred by the Contractor as a direct result of executing the order, if approved by the Supervising Professional;
- (3) If the extra is performed under subcontract, the subcontractor shall be allowed to compute its charges as described above. The Contractor shall be permitted to add an additional charge of 5% percent to that of the subcontractor for the Contractor's supervision and contractual responsibility;
- (4) The quantities and items of work done each day shall be submitted to the Supervising Professional in a satisfactory form on the succeeding day, and shall be approved by the Supervising Professional and the Contractor or adjusted at once;
- (5) Payments of all charges for work under this Section in any one month shall be made along with normal progress payments. Retainage shall be in accordance with Progress Payments-Section 16.

No additional compensation will be provided for additional equipment, materials, personnel, overtime or special charges required to perform the work within the time requirements of the Contract.

When extra work is required and no suitable price for machinery and equipment can be determined in accordance with this Section, the hourly rate paid shall be 1/40 of the basic weekly rate listed in the Rental Rate Blue Book published by Dataquest Incorporated and applicable to the time period the equipment was first used for the extra work. The hourly rate will be deemed to include all costs of operation such as bucket or blade, fuel, maintenance, "regional factors", insurance, taxes, and the like, but not the costs of the operator.

## **Section 16 - Progress Payments**

The Contractor shall submit each month, or at longer intervals, if it so desires, an invoice covering work performed for which it believes payment, under the Contract terms, is due. The submission shall be to the City's Finance Department - Accounting Division. The Supervising Professional will, within 10 days following submission of the invoice, prepare a certificate for payment for the work in an amount to be determined by the Supervising Professional as fairly representing the acceptable work performed during the period covered by the Contractor's invoice. To insure the proper performance of this Contract, the City will retain a percentage of the estimate in accordance with Act 524, Public Acts of 1980. The City will then, following the receipt of the Supervising Professional's Certificate, make payment to the Contractor as soon as feasible, which is anticipated will be within 15 days.

An allowance may be made in progress payments if substantial quantities of permanent material have been delivered to the site but not incorporated in the completed work if the Contractor, in the opinion of the Supervising Professional, is diligently pursuing the work under this Contract. Such materials shall be properly stored and adequately protected. Allowance in the estimate shall be at the invoice price value of the items. Notwithstanding any payment of any allowance, all risk of loss due to vandalism or any damages to the stored materials remains with the Contractor.

In the case of Contracts which include only the Furnishing and Delivering of Equipment, the payments shall be; 60% of the Contract Sum upon the delivery of all equipment to be furnished, or in the case of delivery of a usable portion of the equipment in advance of the total equipment delivery, 60% of the estimated value of the portion of the equipment may be paid upon its delivery in advance of the time of the remainder of the equipment to be furnished; 30% of the Contract Sum upon completion of erection of all equipment furnished, but not later than 60 days after the date of delivery of all of the equipment to be furnished; and payment of the final 10% on final completion of erection, testing and acceptance of all the equipment to be furnished; but not later than 180 days after the date of delivery of all of the equipment to be furnished, unless testing has been completed and shows the equipment to be unacceptable.

With each invoice for periodic payment, the Contractor shall enclose a Contractor's Declaration - Section 43, and an updated project schedule per Order of Completion - Section 2.

#### **Section 17 - Deductions for Uncorrected Work**

If the Supervising Professional decides it is inexpedient to correct work that has been damaged or that was not done in accordance with the Contract, an equitable deduction from the Contract price shall be made.

# **Section 18 - Correction of Work Before Final Payment**

The Contractor shall promptly remove from the premises all materials condemned by the Supervising Professional as failing to meet Contract requirements, whether incorporated in the work or not, and the Contractor shall promptly replace and re-execute the work in accordance with the Contract and without expense to the City and shall bear the expense of making good all work of other contractors destroyed or damaged by the removal or replacement.

If the Contractor does not remove the condemned work and materials within I0 days after written notice, the City may remove them and, if the removed material has value, may store the material

at the expense of the Contractor. If the Contractor does not pay the expense of the removal within 10 days thereafter, the City may, upon 10 days written notice, sell the removed materials at auction or private sale and shall pay to the Contractor the net proceeds, after deducting all costs and expenses that should have been borne by the Contractor. If the removed material has no value, the Contractor must pay the City the expenses for disposal within 10 days of invoice for the disposal costs.

The inspection or lack of inspection of any material or work pertaining to this Contract shall not relieve the Contractor of its obligation to fulfill this Contract and defective work shall be made good. Unsuitable materials may be rejected by the Supervising Professional notwithstanding that the work and materials have been previously overlooked by the Supervising Professional and accepted or estimated for payment or paid for. If the work or any part shall be found defective at any time before the final acceptance of the whole work, the Contractor shall forthwith make good the defect in a manner satisfactory to the Supervising Professional. The judgment and the decision of the Supervising Professional as to whether the materials supplied and the work done under this Contract comply with the requirements of the Contract shall be conclusive and final.

## **Section 19 - Acceptance and Final Payment**

Upon receipt of written notice that the work is ready for final inspection and acceptance, the Supervising Professional will promptly make the inspection. When the Supervising Professional finds the work acceptable under the Contract and the Contract fully performed, the Supervising Professional will promptly sign and issue a final certificate stating that the work required by this Contract has been completed and is accepted by the City under the terms and conditions of the Contract. The entire balance found to be due the Contractor, including the retained percentage, shall be paid to the Contractor by the City within 30 days after the date of the final certificate.

Before issuance of final certificates, the Contractor shall file with the City:

- (1) The consent of the surety to payment of the final estimate;
- (2) The Contractor's Affidavit in the form required by Section 44.

In case the Affidavit or consent is not furnished, the City may retain out of any amount due the Contractor, sums sufficient to cover all lienable claims.

The making and acceptance of the final payment shall constitute a waiver of all claims by the City except those arising from:

- (1) unsettled liens;
- (2) faulty work appearing within 12 months after final payment;
- (3) hidden defects in meeting the requirements of the plans and specifications;
- (4) manufacturer's quarantees.

It shall also constitute a waiver of all claims by the Contractor, except those previously made and still unsettled.

## **Section 20 - Suspension of Work**

The City may at any time suspend the work, or any part by giving 5 days notice to the Contractor in writing. The work shall be resumed by the Contractor within 10 days after the date fixed in the

written notice from the City to the Contractor to do so. The City shall reimburse the Contractor for expense incurred by the Contractor in connection with the work under this Contract as a result of the suspension.

If the work, or any part, shall be stopped by the notice in writing, and if the City does not give notice in writing to the Contractor to resume work at a date within 90 days of the date fixed in the written notice to suspend, then the Contractor may abandon that portion of the work suspended and will be entitled to the estimates and payments for all work done on the portions abandoned, if any, plus 10% of the value of the work abandoned, to compensate for loss of overhead, plant expense, and anticipated profit.

## Section 21 - Delays and the City's Right to Terminate Contract

If the Contractor refuses or fails to prosecute the work, or any separate part of it, with the diligence required to insure completion, ready for operation, within the allowable number of consecutive calendar days specified plus extensions, or fails to complete the work within the required time, the City may, by written notice to the Contractor, terminate its right to proceed with the work or any part of the work as to which there has been delay. After providing the notice the City may take over the work and prosecute it to completion, by contract or otherwise, and the Contractor and its sureties shall be liable to the City for any excess cost to the City. If the Contractor's right to proceed is terminated, the City may take possession of and utilize in completing the work, any materials, appliances and plant as may be on the site of the work and useful for completing the work. The right of the Contractor to proceed shall not be terminated or the Contractor charged with liquidated damages where an extension of time is granted under Extension of Time - Section 14.

If the Contractor is adjudged a bankrupt, or if it makes a general assignment for the benefit of creditors, or if a receiver is appointed on account of its insolvency, or if it persistently or repeatedly refuses or fails except in cases for which extension of time is provided, to supply enough properly skilled workers or proper materials, or if it fails to make prompt payments to subcontractors or for material or labor, or persistently disregards laws, ordinances or the instructions of the Supervising Professional, or otherwise is guilty of a substantial violation of any provision of the Contract, then the City, upon the certificate of the Supervising Professional that sufficient cause exists to justify such action, may, without prejudice to any other right or remedy and after giving the Contractor 3 days written notice, terminate this Contract. The City may then take possession of the premises and of all materials, tools and appliances thereon and without prejudice to any other remedy it may have, make good the deficiencies or finish the work by whatever method it may deem expedient, and deduct the cost from the payment due the Contractor. The Contractor shall not be entitled to receive any further payment until the work is finished. If the expense of finishing the work, including compensation for additional managerial and administrative services exceeds the unpaid balance of the Contract Sum, the Contractor and its surety are liable to the City for any excess cost incurred. The expense incurred by the City, and the damage incurred through the Contractor's default, shall be certified by the Supervising Professional.

## **Section 22 - Contractor's Right to Terminate Contract**

If the work should be stopped under an order of any court, or other public authority, for a period of 3 months, through no act or fault of the Contractor or of anyone employed by it, then the Contractor may, upon 7 days written notice to the City, terminate this Contract and recover from the City payment for all acceptable work executed plus reasonable profit.

### Section 23 - City's Right To Do Work

If the Contractor should neglect to prosecute the work properly or fail to perform any provision of this Contract, the City, 3 days after giving written notice to the Contractor and its surety may, without prejudice to any other remedy the City may have, make good the deficiencies and may deduct the cost from the payment due to the Contractor.

### **Section 24 - Removal of Equipment and Supplies**

In case of termination of this Contract before completion, from any or no cause, the Contractor, if notified to do so by the City, shall promptly remove any part or all of its equipment and supplies from the property of the City, failing which the City shall have the right to remove the equipment and supplies at the expense of the Contractor.

The removed equipment and supplies may be stored by the City and, if all costs of removal and storage are not paid by the Contractor within 10 days of invoicing, the City upon 10 days written notice may sell the equipment and supplies at auction or private sale, and shall pay the Contractor the net proceeds after deducting all costs and expenses that should have been borne by the Contractor and after deducting all amounts claimed due by any lien holder of the equipment or supplies.

## **Section 25 - Responsibility for Work and Warranties**

The Contractor assumes full responsibility for any and all materials and equipment used in the construction of the work and may not make claims against the City for damages to materials and equipment from any cause except negligence or willful act of the City. Until its final acceptance, the Contractor shall be responsible for damage to or destruction of the project (except for any part covered by Partial Completion and Acceptance - Section 26). The Contractor shall make good all work damaged or destroyed before acceptance. All risk of loss remains with the Contractor until final acceptance of the work (Section 19) or partial acceptance (Section 26). The Contractor is advised to investigate obtaining its own builders risk insurance.

The Contractor shall guarantee the quality of the work for a period of one year. The Contractor shall also unconditionally guarantee the quality of all equipment and materials that are furnished and installed under the contract for a period of one year. At the end of one year after the Contractor's receipt of final payment, the complete work, including equipment and materials furnished and installed under the contract, shall be inspected by the Contractor and the Supervising Professional. Any defects shall be corrected by the Contractor at its expense as soon as practicable but in all cases within 60 days. Any defects that are identified prior to the end of one year shall also be inspected by the Contractor and the Supervising Professional and shall be corrected by the Contractor at its expense as soon as practicable but in all cases within 60 days. The Contractor shall assign all manufacturer or material supplier warranties to the City prior to final payment. The assignment shall not relieve the Contractor of its obligations under this paragraph to correct defects.

## **Section 26 - Partial Completion and Acceptance**

If at any time prior to the issuance of the final certificate referred to in Acceptance and Final Payment - Section 19, any portion of the permanent construction has been satisfactorily completed, and if the Supervising Professional determines that portion of the permanent construction is not required for the operations of the Contractor but is needed by the City, the Supervising Professional shall issue to the Contractor a certificate of partial completion, and immediately the City may take over and use the portion of the permanent construction described in the certificate, and exclude the Contractor from that portion.

The issuance of a certificate of partial completion shall not constitute an extension of the Contractor's time to complete the portion of the permanent construction to which it relates if the Contractor has failed to complete it in accordance with the terms of this Contract. The issuance of the certificate shall not release the Contractor or its sureties from any obligations under this Contract including bonds.

If prior use increases the cost of, or delays the work, the Contractor shall be entitled to extra compensation, or extension of time, or both, as the Supervising Professional may determine.

## Section 27 - Payments Withheld Prior to Final Acceptance of Work

The City may withhold or, on account of subsequently discovered evidence, nullify the whole or part of any certificate to the extent reasonably appropriate to protect the City from loss on account of:

- (1) Defective work not remedied;
- (2) Claims filed or reasonable evidence indicating probable filing of claims by other parties against the Contractor;
- (3) Failure of the Contractor to make payments properly to subcontractors or for material or labor:
- (4) Damage to another Contractor.

When the above grounds are removed or the Contractor provides a Surety Bond satisfactory to the City which will protect the City in the amount withheld, payment shall be made for amounts withheld under this section.

### **Section 28 - Contractor's Insurance**

(1) The Contractor shall procure and maintain during the life of this Contract, including the guarantee period and during any warranty work, such insurance policies, including those set forth below, as will protect itself and the City from all claims for bodily injuries, death or property damage that may arise under this Contract; whether the act(s) or omission(s) giving rise to the claim were made by the Contractor, any subcontractor, or anyone employed by them directly or indirectly. Prior to commencement of any work under this contract, Contractor shall provide to the City documentation satisfactory to the City, through City-approved means (currently myCOI), demonstrating it has obtained the required policies and endorsements. The certificates of insurance endorsements and/or copies of

policy language shall document that the Contractor satisfies the following minimum requirements. Contractor shall add registration@mycoitracking.com to its safe sender's list so that it will receive necessary communication from myCOI. When requested, Contractor shall provide the same documentation for its subcontractor(s) (if any).

#### Required insurance policies include:

(a) Worker's Compensation Insurance in accordance with all applicable state and federal statutes. Further, Employers Liability Coverage shall be obtained in the following minimum amounts:

```
Bodily Injury by Accident - $500,000 each accident
Bodily Injury by Disease - $500,000 each employee
Bodily Injury by Disease - $500,000 each policy limit
```

(b) Commercial General Liability Insurance equivalent to, as a minimum, Insurance Services Office form CG 00 01 04 13 or current equivalent. The City of Ann Arbor shall be named as an additional insured. There shall be no added exclusions or limiting endorsements specifically for the following coverages: Products and Completed Operations, Explosion, Collapse and Underground coverage or Pollution. Further there shall be no added exclusions or limiting endorsements that diminish the City's protections as an additional insured under the policy. The following minimum limits of liability are required:

\$1,000,000	Each occurrence as respect Bodily Injury Liability or Property
	Damage Liability, or both combined.
\$2,000,000	Per Project General Aggregate
\$1,000,000	Personal and Advertising Injury
\$2,000,000	Products and Completed Operations Aggregate, which,
	notwithstanding anything to the contrary herein, shall be
	maintained for three years from the date the Project is completed.

- (c) Motor Vehicle Liability Insurance, including Michigan No-Fault Coverages, equivalent to, as a minimum, Insurance Services Office form CA 00 01 10 13 or current equivalent. Coverage shall include all owned vehicles, all non-owned vehicles and all hired vehicles. The City of Ann Arbor shall be named as an additional insured. There shall be no added exclusions or limiting endorsements that diminish the City's protections as an additional insured under the policy. Further, the limits of liability shall be \$1,000,000 for each occurrence as respects Bodily Injury Liability or Property Damage Liability, or both combined.
- (d) Umbrella/Excess Liability Insurance shall be provided to apply excess of the Commercial General Liability, Employers Liability and the Motor Vehicle coverage enumerated above, for each occurrence and for aggregate in the amount of \$1,000,000.
- (2) Insurance required under subsection (1)(b) and (1)(c) above shall be considered primary as respects any other valid or collectible insurance that the City may possess, including any self-insured retentions the City may have; and any other insurance the City does possess shall be considered excess insurance only and shall not be required to contribute

- with this insurance. Further, the Contractor agrees to waive any right of recovery by its insurer against the City for any insurance listed herein.
- (3) Insurance companies and policy forms are subject to approval of the City Attorney, which approval shall not be unreasonably withheld. Documentation must provide and demonstrate an unconditional and un-qualified 30-day written notice of cancellation in favor of the City of Ann Arbor. Further, the documentation must explicitly state the following: (a) the policy number(s); name of insurance company(s); name and address of the agent(s) or authorized representative(s); name(s), email address(es), and address of insured; project name; policy expiration date; and specific coverage amounts; (b) any deductibles or self-insured retentions which may be approved by the City, in its sole discretion; (c) that the policy conforms to the requirements specified Contractor shall furnish the City with satisfactory certificates of insurance and endorsements prior to commencement of any work. Upon request, the Contractor shall provide within 30 days a copy of the policy(ies) and all required endorsements to the City. If any of the above coverages expire by their terms during the term of this Contract, the Contractor shall deliver proof of renewal and/or new policies and endorsements to the Administering Service Area/Unit at least ten days prior to the expiration date.
  - (4) Any Insurance provider of Contractor shall be authorized to do business in the State of Michigan and shall carry and maintain a minimum rating assigned by A.M. Best & Company's Key Rating Guide of "A-" Overall and a minimum Financial Size Category of "V". Insurance policies and certificates issued by non-authorized insurance companies are not acceptable unless approved in writing by the City.
  - (5) City reserves the right to require additional coverage and/or coverage amounts as may be included from time to time in the Detailed Specifications for the Project.
- (6) The provisions of General Condition 28 shall survive the expiration or earlier termination of this contract for any reason.

# **Section 29 - Surety Bonds**

Bonds will be required from the successful bidder as follows:

- (1) A Performance Bond to the City of Ann Arbor for the amount of the bid(s) accepted;
- (2) A Labor and Material Bond to the City of Ann Arbor for the amount of the bid(s) accepted.

Bonds shall be executed on forms supplied by the City in a manner and by a Surety Company authorized to transact business in Michigan and satisfactory to the City Attorney.

# **Section 30 - Damage Claims**

The Contractor shall be held responsible for all damages to property of the City or others, caused by or resulting from the negligence of the Contractor, its employees, or agents during the progress of or connected with the prosecution of the work, whether within the limits of the work or elsewhere. The Contractor must restore all property injured including sidewalks, curbing, sodding, pipes, conduit, sewers or other public or private property to not less than its original condition with new work.

## Section 31 - Refusal to Obey Instructions

If the Contractor refuses to obey the instructions of the Supervising Professional, the Supervising Professional shall withdraw inspection from the work, and no payments will be made for work performed thereafter nor may work be performed thereafter until the Supervising Professional shall have again authorized the work to proceed.

### Section 32 - Assignment

Neither party to the Contract shall assign the Contract without the written consent of the other. The Contractor may assign any monies due to it to a third party acceptable to the City.

## **Section 33 - Rights of Various Interests**

Whenever work being done by the City's forces or by other contractors is contiguous to work covered by this Contract, the respective rights of the various interests involved shall be established by the Supervising Professional, to secure the completion of the various portions of the work in general harmony.

The Contractor is responsible to coordinate all aspects of the work, including coordination of, and with, utility companies and other contractors whose work impacts this project.

#### Section 34 - Subcontracts

The Contractor shall not award any work to any subcontractor without prior written approval of the City. The approval will not be given until the Contractor submits to the City a written statement concerning the proposed award to the subcontractor. The statement shall contain all information the City may require.

The Contractor shall be as fully responsible to the City for the acts and omissions of its subcontractors, and of persons either directly or indirectly employed by them, as it is for the acts and omissions of persons directly employed by it.

The Contractor shall cause appropriate provisions to be inserted in all subcontracts relative to the work to bind subcontractors to the Contractor by the terms of the General Conditions and all other contract documents applicable to the work of the subcontractors and to give the Contractor the same power to terminate any subcontract that the City may exercise over the Contractor under any provision of the contract documents.

Nothing contained in the contract documents shall create any contractual relation between any subcontractor and the City.

## **Section 35 - Supervising Professional's Status**

The Supervising Professional has the right to inspect any or all work. The Supervising Professional has authority to stop the work whenever stoppage may be appropriate to insure the proper execution of the Contract. The Supervising Professional has the authority to reject all work and materials which do not conform to the Contract and to decide questions which arise in the execution of the work.

The Supervising Professional shall make all measurements and determinations of quantities. Those measurements and determinations are final and conclusive between the parties.

### **Section 36 - Supervising Professional's Decisions**

The Supervising Professional shall, within a reasonable time after their presentation to the Supervising Professional, make decisions in writing on all claims of the City or the Contractor and on all other matters relating to the execution and progress of the work or the interpretation of the contract documents.

### **Section 37 - Storing Materials and Supplies**

Materials and supplies may be stored at the site of the work at locations agreeable to the City unless specific exception is listed elsewhere in these documents. Ample way for foot traffic and drainage must be provided, and gutters must, at all times, be kept free from obstruction. Traffic on streets shall be interfered with as little as possible. The Contractor may not enter or occupy with agents, employees, tools, or material any private property without first obtaining written permission from its owner. A copy of the permission shall be furnished to the Supervising Professional.

#### Section 38 - Lands for Work

The Contractor shall provide, at its own expense and without liability to the City, any additional land access that may be required for temporary construction facilities or for storage of materials.

# **Section 39 - Cleaning Up**

The Contractor shall, as directed by the Supervising Professional, remove at its own expense from the City's property and from all public and private property all temporary structures, rubbish and waste materials resulting from its operations unless otherwise specifically approved, in writing, by the Supervising Professional.

# Section 40 - Salvage

The Supervising Professional may designate for salvage any materials from existing structures or underground services. Materials so designated remain City property and shall be transported or stored at a location as the Supervising Professional may direct.

### Section 41 - Night, Saturday or Sunday Work

No night or Sunday work (without prior written City approval) will be permitted except in the case of an emergency and then only to the extent absolutely necessary. The City may allow night work which, in the opinion of the Supervising Professional, can be satisfactorily performed at night. Night work is any work between 8:00 p.m. and 7:00 a.m. No Saturday work will be permitted unless the Contractor gives the Supervising Professional at least 48 hours but not more than 5 days notice of the Contractor's intention to work the upcoming Saturday.

#### Section 42 - Sales Taxes

Under State law the City is exempt from the assessment of State Sales Tax on its direct purchases. Contractors who acquire materials, equipment, supplies, etc. for incorporation in City projects are not likewise exempt. State Law shall prevail. The Bidder shall familiarize itself with the State Law and prepare its Bid accordingly. No extra payment will be allowed under this Contract for failure of the Contractor to make proper allowance in this bid for taxes it must pay.

# Section 43

# **CONTRACTOR'S DECLARATION**

I hereby declare that I have not, during th	e period	, 20, to	, 20
, performed any work, furnished any mate	· · · · · · · · · · · · · · · · · · ·	•	<b>3</b> '
done anything in addition to the regular ite			
titled, f			
compensation or extension of time from	•	•	
compensation or extension of time as s			
declare that I have paid all payroll obligation the above period and that all invoices relative			•
this declaration have been paid in full exc		ived more man	30 days prior to
and decidration have been paid in fair exc	opt do notod bolow.		
There is/is not (Contractor please circle o	ne and strike one as app	ropriate) an item	nized statement
attached regarding a request for additional		• ,	
Contractor	Dete	_	
Contractor	Date		
Ву			
(Signature)			
(0.9.12121.0)			
Its			
(Title of Office)			

Past due invoices, if any, are listed below.

# Section 44

# **CONTRACTOR'S AFFIDAVIT**

The undersigned Contractor,	,	represents that on	
20, it was awarded a contract by the terms and conditions of a Contract till	City of Ann Arbor, M	lichigan to	under
the terms and conditions of a Contract til	tled		The Contractor
represents that all work has now been ac	complished and the	Contract is comple	ete.
·	•	•	
The Contractor warrants and certifies that	all of its indebtedne	ss arising by reaso	n of the Contract
has been fully paid or satisfactorily secur	red; and that all clai	ms from subcontra	ctors and others
for labor and material used in accomplish	ning the project, as	well as all other cla	aims arising from
the performance of the Contract, have to	peen fully paid or s	atisfactorily settled	. The Contractor
agrees that, if any claim should hereafte		ıme responsibility f	or it immediately
upon request to do so by the City of Ann	Arbor.		
The Contractor, for valuable consideration			•
any and all claims or right of lien which the		, ,	
premises for labor and material used in the	ie project owned by	the City of Ann An	JOI .
This affidavit is freely and voluntarily give	n with full knowleda	e of the facts	
This amadvic is neerly and voluntarily give	ii wiiii idii kilowlodg	o or the lacto.	
Contractor	Date		
By(Signature)			
(Signature)			
Its			
(Title of Office)			
(The of Office)			
Subscribed and sworn to before me, on the	his day of	. 20	
, <u> </u>	County, M	 1ichigan	
Notary Public			
County, MI			
My commission expires on:			

#### **STANDARD SPECIFICATIONS**

Perform all work under this contract in accordance with the Michigan Department of Transportation (MDOT) 2012 Standard Specifications for Construction. Perform all work under this Contract not included in these Standard Specifications in accordance with the City of Ann Arbor Detailed Specifications, MDOT Supplemental Specifications, and MDOT Special Provisions included in the Contract document. Any reference to the Michigan Department of Transportation (the "Department") in the above Standard Specifications, Supplemental Specifications, and Special Provisions shall also mean the City of Ann Arbor.

The Michigan Department of Transportation 2012 Standard Specification for Construction are available for download at the following web link:

https://mdotjboss.state.mi.us/SpecProv/specBookHome.htm

## **DETAILED SPECIFICATIONS**

# DETAILED SPECIFICATION FOR CERTIFIED PAYROLL COMPLIANCE AND REPORTING

AA:MGN/DD 1 of 2 03/10/18

a. **Description.** This specification covers all administrative requirements, payroll reporting procedures to be followed by Contractors performing work on City-sponsored public improvements projects, and all other miscellaneous and incidental costs associated with complying with the applicable sections of the City of Ann Arbor Code of Ordinances with regard to payment of prevailing wages and its Prevailing Wage Compliance policy.

The intent of this specification is **not** to include the actual labor costs associated with the payment of prevailing wages as required. Properly incorporate those costs in all other contract items of work bid for the project.

**b. General.** The Contractor will comply with all applicable sections of Federal and State prevailing wage laws, duly promulgated regulations, the City of Ann Arbor Code of Ordinances, and its Prevailing Wage Compliance Policy as defined within the contract documents. The Contractor shall provide the required certified payrolls, city-required declarations, and reports requested elsewhere in the contract documents within the timeline(s) stipulated therein.

The Contractor shall also provide corrected copies of any submitted documents found to contain errors, omissions, inconsistencies, or other defects that render the report invalid. Provide the corrected copies when requested by the Supervising Professional.

The Contractor shall also attend any required meetings as needed to fully discuss and ensure compliance with the contract requirements regarding prevailing wage compliance. The Contractor shall require all employees engaged in on-site work to participate in, provide the requested information to the extent practicable, and cooperate in the interview process. The City of Ann Arbor will provided the needed language interpreters in order to perform wage rate interviews or other field investigations as needed.

Submit certified payrolls on City-provided forms or forms used by the Contractor, as long as the Contractor forms contain all required payroll information. If the Contractor elects to provide its own forms, the Supervising Professional shall approve of their use prior to the beginning of onsite work.

c. Unbalanced Bidding. The City of Ann Arbor will examine the submitted cost for this item of work prior to contract award. If the City determines, in its sole discretion that the costs bid by the Contractor for complying with the contract requirements are not reasonable, accurately reported or contain discrepancies, the City reserves the right to request additional documentation that fully supports and justifies the price as bid. Should the submitted information not be determined to be reasonable or justify the costs, the City reserves the right to pursue award of the contract to the second low bidder without penalty or prejudice to any other remedies that it may have or may elect to exercise with respect to the original low-bidder.

The City will not extend the contract completion date as a result of its investigation of the as-bid amount for this item of work, even if the anticipated contract award date must be adjusted. The only exception will be if the Contractor adequately demonstrates that their costs were appropriate and justifiable. In such case, the City will adjust the contract completion date by the number of

calendar days commensurate with the length of its investigation if it cannot meet the published Notice to Proceed date of the work. The City will not allow adjustments to contract unit prices for all other items of work due to the adjustment of contract completion date.

**d. Measurement and Payment.** Measure and pay for the completed work, as described, at the contract unit price using the following pay item:

Pay Item Pay Unit

Certified Payroll Compliance and Reporting ......Lump Sum

Measure **Certified Payroll Compliance and Reporting** by the unit lump sum and pay for it at the contract unit price, which price includes costs for all supervisory, accounting, and administrative labor, and equipment and materials necessary to complete the work of monitoring, performing and maintaining compliance with the tasks required of this Detailed Specification.

Measurement will be on a pro rata basis at the time of each progress payment, and based on the ratio of work completed during the payment period and the total contract amount. When all of the work of this Contract is complete, the measurement of this item shall be 1.0 Lump Sum, less any deductions incurred for inadequate performance as described herein. This amount will not increase for any reason, including extensions of time, extras, and/or additional work.

# DETAILED SPECIFICATION FOR MATERIAL AND SUPPLY SUBMITTALS AND CERTIFICATIONS

AA:DAD 1 of 1 02/27/19

**a. Description.** This work includes submittal to the Engineer by the Contractor and its Subcontractors and prior to commencement of work; Michigan Department of Transportation Form 0501 (attached) showing all materials and supplies proposed for use on the project, and any product data information requested by the Engineer. It also includes furnishing certifications to the Engineer for review and approval a minimum of three business days prior to any scheduled delivery, installation, and/or construction of the same. The manufacturer or supplier shall certify the following materials and supplies are compliant with the contract specifications unless otherwise directed by the Engineer:

Cement and lime

Aggregates

Admixtures and curing materials for concrete

Asphaltic materials

Steel reinforcement

Structural steel

Fencing materials

Miscellaneous metal products

Drainage products

Geosynthetics

Timber and lumber

Masonry units

Joint and waterproofing materials

Bridge coating systems

Erosion and sedimentation control materials

Turf and landscaping materials

Electrical and lighting materials

Permanent traffic sign and support materials

Permanent paving marking materials

Permanent traffic signal materials

Temporary traffic control materials

Sanitary sewer materials

Water main materials

- b. Materials. None specified.
- **c.** Construction. Not specified.
- **d. Measurement and Payment.** Costs for this work will not be paid for separately, but shall be included in the Contract pay Item "General Conditions, Max \$ ".

# DETAILED SPECIFICATION FOR GENERAL CONDITIONS

AA:DAD 1 of 2 03/11/19

- **a. Description.** This item comprises all work described and required by the plans and specifications at each project location for which the contract contains no item(s) of work, including but not limited to the following:
  - Scheduling, coordination, and organization of all work, subcontractors, suppliers, testing, inspection, surveying, and staking.
  - Coordination of, and cooperation with, other contractors, agencies, departments, and utilities.
  - Protection and maintenance of utilities.
  - Maintaining drainage.
  - Furnishing, placement, and grading of maintenance gravel to construct any temporary driveways, sidewalks and/or sidewalk ramps necessary for construction of the proposed work.
  - Maintaining driveways drive openings, sidewalks, bike paths, mail deliveries, and solid waste/recycle pick-ups. This includes the placement and maintenance of gravel in driveway openings as directed by the Engineer.
  - Storing all materials and equipment off lawn areas.
  - Temporary relocation and final replacement/re-setting of mailboxes.
  - Coordination efforts to furnish various HMA mixtures as directed by the Engineer
  - Coordination efforts to furnish and operate various-size vehicles/equipment as directed by the Engineer
  - Furnishing and operating vacuum-type street cleaning equipment a minimum of once per week or more frequently as directed by the Engineer
  - Protecting all sewers, and drainage and utility structures including manholes, gate
    wells, valve boxes, inlet structures, roadside ditches, and culverts from damage and
    contamination by debris and construction materials. Keeping structures and culverts
    clean of construction debris and properly covered/protected at all times during the
    construction. Immediately cleaning any structures, sewers, culverts and/or roadside
    ditches contaminated with construction debris resulting from Contractor operations
    and/or work activities.
  - Disposing of excavated materials and debris The Contractor shall dispose of, at the Contractor's expense, all excavated material. The Engineer will not pay for any costs associated with this work separately.
  - Furnishing and operating vacuum-type utility structure cleaning equipment
  - Furnishing and operating both vibratory plate and pneumatic-type ("pogo-stick") compactors
  - Furnishing and operating a backhoe during all work activities

- Furnishing and operating a jackhammer and air compressor during all work activities
- Noise and dust control
- Mobilization(s) and demobilization(s).
- Furnishing submittals and certifications for materials and supplies.
- All miscellaneous and incidental items such as overhead, insurance, and permit fees.
- Meeting all requirements relating to Debarment Certification, Davis Bacon Act, and Disadvantaged Business Enterprise, and providing the necessary documentation.

The Appendix of the contract documents provides data pertaining to existing soil borings to assist the Engineer and Contractor with determining the soil conditions within the construction area. The City in no way guarantees existing conditions to be the same as shown in the data. The Contractor is solely responsible for any/all conclusions it may draw from the data.

Quantities as given are approximate and are estimates for bidding purposes. The City does not guarantee their totals and they may vary by any amount. While it is the City's intent to complete the project substantially as drawn and specified herein, quantities may be changed or reduced to zero for cost savings or other reasons. The City reserves the right to change the quantities; however, the City will not allow the Contractor to adjust unit price(s) due to such change.

- b. Materials. None Specified.
- c. Construction. Not specified.
- **d. Measurement and Payment.** Measure and pay for the completed work, as described, at the contract unit price using the following pay item:

Pay Item

General Conditions, Max \$\_\_\_\_\_Lump Sum

Measure **General Conditions, Max \$\_\_\_** by the unit lump sum and pay for it at the contract unit price, which price includes costs for all labor, equipment and materials necessary to complete the work.

The Contractor is fully responsible for all direct and/or indirect damages to property caused by unclean or damaged sewers or structures resulting from its operations and/or work activities including any/all cost associated with such damages.

Measurement will be on a pro rata basis at the time of each progress payment, and based on the ratio of work completed during the payment period and the total contract amount. When all of the work of this Contract is complete, the measurement of this item shall be 1.0 Lump Sum, less any deductions incurred for inadequate performance as described herein. This amount will not increase for any reason, including extensions of time, extras, and/or additional work.

# DETAILED SPECIFICATION FOR VACUUM TYPE CLEANING EQUIPMENT

AA:DAD 1 of 1 02/25/18

- **a. Description**. This work includes furnishing and operating throughout the construction period, vacuum type street cleaning and utility structure cleaning equipment (Vac-All, Vactor, etc.) approved by the Engineer, as and when directed by the Engineer for dust control, for dirt/debris control, and for street cleaning immediately prior to paving, and for street and utility structure cleaning after any and all paving.
  - **b.** Materials. None specified.
- **c.** Construction. The Contractor shall furnish and operate throughout the construction period, vacuum type street cleaning and utility structure cleaning equipment (Vac-All, Vactor, etc.) approved by the Engineer. When directed by the Engineer, the Contract shall use this equipment to control dust, dirt, and other debris within the project limits and beyond as required, to clean streets surfaces immediately prior to placing HMA pavement mixtures, and for street and utility structure cleaning after any and all paving. The cleaning equipment shall be of sufficient power to remove dust, dirt, and debris from the pavement and from utility structures in and adjacent to the construction area.
- **d. Measurement and Payment.** The Engineer will not pay for the work required of this detailed specification separately. The Contractor shall be include it in the contract unit price bid for the pay Item **General Conditions, Maximum, \$\_\_\_**.

# DETAILED SPECIFICATION FOR PROJECT SCHEDULE

AA:DAD/NSH 1 of 3 04/26/2023

Complete the entirety of work under this Contract in accordance with, and subject to, the scheduling requirements as outlined below, and all other requirements of the Contract Documents.

Organize, coordinate and diligently execute the work at the locations shown in the plans included herein. It is the City's expectation that approximately 75% of the work will be completed in 2023, with the balance of the work to be completed in 2024. A specific calendar/schedule for completing this work will be negotiated with the Contractor upon award of the project.

For the purpose of this Contract, the "Start of Work" definition is the date when the temporary "No-Parking" signs become effective and all required temporary traffic control and SESC measures are in place and ready for use. The City will consider individual streets phases to be open to traffic once they have met the "Approved for Traffic" requirements defined in subsection 107.21 of the Michigan Department of Transportation 2012 Standard Specifications for Construction. Within 10 days of opening the street to traffic the Contractor shall complete all work, which includes, but is not limited to, placement of permanent pavement markings, minor slope restoration, clean-up, street cleaning, underground utility and utility structure cleaning (minor street phases), the removal of all temporary traffic control and SESC devices and temporary "No Parking" signs, and other necessary work and as directed by the Engineer. Failure to complete work in a timely manner may result in the suspension of active project work or a delay in starting subsequently planned project work.

No work shall be performed during Holiday weekends as follows, unless approved in advance by the Engineer:

- Fourth of July, from 3:00 p.m. Monday July 3, 2023, through 7:00 a.m. Wednesday July 5, 2023
- <u>Labor Day</u>, from 3:00 p.m. Friday September 1, 2023 through 7:00 a.m. Tuesday September 5, 2023

No work shall be performed during University of Michigan home football games (see following dates) unless approved in advance by the Engineer:

- <u>September 2, 2023</u>
- September 9, 2023
- September 16, 2023
- <u>September 23, 2023</u>
- October 14, 2023
- November 4, 2023
- November 25, 2023

The Engineer shall limit the Contractor's work operations to the number of streets that, in its opinion, is reasonable to allow for proper and thorough inspection, and to limit traffic control and/or safety concerns. The Contractor shall not have no more than four (4) operations occurring simultaneously at all locations during any work day.

The City expects to furnish the Contractor with two (2) copies of the Contract, for its execution, on or before **May 23**, **2023**. The Contractor shall properly execute both copies of the Contract and return them, with the required Bonds and Insurance documentation, to the City by **June 6**, **2023**. The Contractor shall not begin the work before the applicable date(s) as described herein without approval from the Project Engineer, and in no case before the receipt of the fully executed Contract and Notice to Proceed.

By no later than **June 9, 2023**, the Contractor shall submit a detailed schedule of work (progress schedule) for the Engineer's review and approval. The progress schedule must fully comply with the scheduling requirements contained on the Schedule of Streets. The schedule shall clearly indicate, in detail, the start and the finish date of each work task on each street. The Contractor shall update the approved progress schedule each week and present it to the Engineer at the weekly progress meeting and must consult with the Engineer for review and approval of any proposed deviations from the most current, approved, schedule.

The Contractor shall begin the work of this project on or after **June 20, 2023**, and only upon receipt of the fully executed Contract, Notice to Proceed and approved Progress Schedule. The City will consider granting appropriate time extensions should delays prevent the Contractor from starting work on this date.

Complete the entire project on or before **June 30, 2024**. Completion of the project means all locations shown on the Schedule of Streets are complete and ready for use in accordance with the "Completion of Work" as defined above.

Failure to open to traffic or complete all work as specified within the times specified, including time extensions granted thereto as determined by the Engineer, shall entitle the City to deduct dollar amounts specified in the Schedule of Streets as "Liquidated Damages" from the payments due the Contractor. Liquidated damages of **\$1,500 per calendar day** will be assessed per street for any streets not completed within XX days of the Start of Work date.

Time is of the essence in the performance of the work of this contract. The Contractor is expected to mobilize sufficient personnel and equipment and work throughout all authorized hours to complete the project by the intermediate (location specific) and final completion dates. Should the Contractor demonstrate that they must work on some Sundays in order to maintain the project schedule, they may do so between the hours of 9:00 a.m. and 5:00 p.m. with prior approval from the City. There will be no additional compensation due to the Contractor for work performed on Sundays. Any requests to work Sundays must be made to the Engineer no later than the prior Thursday.

The Engineer may delay or stop the work due to threatening weather conditions. No compensation shall be due the Contractor for unused materials or downtime due to rain, or the threat of rain. The Contractor is solely responsible for repairing all damages to the work and to the site, including any City infrastructure, and any adjacent properties resulting from its decision to work in the rain.

The Contractor shall not work in the dark except as approved by the Engineer and shall provide lighting for night work as detailed elsewhere in this contract. The Engineer may stop the work or may require the Contractor to defer certain work to another day, if, in the Engineer's opinion, the Contractor cannot be complete the work within the remaining daylight hours, or if inadequate daylight is present to properly perform or inspect the work. No compensation shall be due to the Contractor for unused materials or downtime, when the Engineer directs work stoppage for reasons due to darkness and/or inadequate remaining daylight. The Contractor is solely responsible for repairing all damages to the work and to the site, including any City infrastructure, and any adjacent properties, which result from working in the dark.

Assessment of Liquidated Damages will occur until the required work is complete in the current construction season. If, with the Engineer's approval, work on any individual street extends beyond seasonal limitations, the assessment of Liquidated Damages will discontinue until the work resumes in the following construction season.

If the construction contract is not complete within the specified period(s) including any extensions of time granted thereto, at the sole discretion of the City of Ann Arbor it may terminate the Contract. Should this occur no additional compensation will be due to the Contractor, and the Contractor may be forbidden to bid on future City of Ann Arbor projects for a period of at least three (3) years. If the Engineer elects to terminate the Contract, payment for contract items with a Lump Sum unit price will be up to a maximum amount equal to the percentage of the contract work that is complete at the time of termination.

The City's decision to delete streets, add streets, change the construction limits on streets, or, the City's contribution to a delay of the construction on <u>any one street</u> shall not entitle the Contractor to receive additional compensation for work on any <u>other street(s)</u> or <u>phase(s)</u>, nor shall it relieve the Contractor of any responsibilities for completion of work on any <u>other street(s)</u> or <u>phase(s)</u>.

Include any/all efforts to organize, coordinate, and schedule the project work in the contract unit price bid for the pay item **General Conditions**, **Max** \$\_\_\_.

# DETAILED SPECIFICATION FOR MAXIMUM UNIT WEIGHT

AA:DAD 1 of 1 03/10/18

Determination of the maximum dry density per cubic foot (lbs/ft<sup>3</sup>) will be using test method AASHTO T-180 unless otherwise directed by the Engineer. Use the determined value(s) as the maximum unit weight when measuring the in place compaction or density of soils unless such value(s) are determined by an alternate test method as directed by the Engineer.

# DETAILED SPECIFICATION FOR VERTICAL EXPLORATORY EXCAVATION

AA:DAD 1 of 2 03/10/18

**a. Description.** The use of this detailed specification is to compensate the Contractor to locate underground infrastructure, such as culverts, sewers, utilities, and/or to expose the existing pavement section. Use must only be as directed and approved by the Engineer. This detailed specification is not to compensate the Contractor for the responsibilities in subsection 107.12 of the Standard Specifications for Construction.

This work consists of conducting a vertical exploratory investigation to expose an existing culvert, sewer, utility/utility service, or the existing pavement section in order to verify the location, condition, size, material, alignment and/or composition; allowing the Engineer to document the necessary information; and backfilling the excavation. It includes providing necessary lane, shoulder and/or sidewalk closures required to perform the work.

The intent of "Exploratory Excavation" is <u>not</u> to provide a means for the Contractor to locate each existing utility throughout the project, but for those that appear to be in conflict with the proposed work and their location is unclear or unknown. The Contractor is responsible for "using reasonable care to establish the precise location of the underground facilities in advance of construction" (Public Act 174 of 2013 - Miss Dig Law) as a part of the overall project contract.

- **b. Materials.** Use Granular Material Class III in accordance with section 902 of the Standard Specifications for Construction for backfill. Use material removed during exploratory investigation for backfill only if approved by of the Engineer.
- **c.** Construction. The owner of any sewer or utility to be exposed will not take the facilities out of service during the exploratory investigation. Contact utility owners in accordance with subsection 107.12 of the Standard Specifications for Construction.

Establish necessary lane, shoulder and/or sidewalk closures required to perform work.

Advance the exploratory excavation using vacuum excavation, hand digging, conventional machine excavation, or a combination thereof subject to approval of the Engineer. Allow the Engineer access to document the necessary information. If the technique used to advance the excavation causes any damage to the existing facilities, immediately contact the utility owner and cease all work until Engineer approves of an alternate method.

Take care to protect the exposed culvert, sewer or utility from damage during construction. Repair or replace culvert, sewer or utility, damaged during exploratory excavation, in accordance with the standard specifications and as approved by the Engineer.

Obtain the Engineer's approval before backfilling the excavation. Complete backfilling no later than 24 hours after approval. Backfill in accordance with subsection 204.03.C of the Standard Specifications for Construction. Dispose of excess material in accordance with the standard specifications.

The Contractor is responsible for all costs associated with the repair work and out of service time of all broken or damaged existing culverts, sewers or utilities resulting from any action by the Contractor. If the exploratory investigation results in damage to utilities, contact the owner of such utility to coordinate the repair.

**d. Measurement and Payment.** Measure and pay for the completed work, as described, at the contract unit price for the following pay item:

Pay Item	<u>Pay Unit</u>
Exploratory Excavation, Vertical	Foot

Measure **Exploratory Investigation, Vertical** by the foot from top of existing grade vertically to the bottom of the excavation for a 4-foot maximum diameter hole, or as approved by the Engineer. Measure and pay for the excavated depth of each 4-foot maximum diameter hole separately. One paid excavation may be include multiple utility verifications if the utilities are close in proximity.

**Exploratory Investigation, Vertical** includes all cost for labor, equipment and materials necessary to complete the work, including all costs associated with repair or replacement resulting from the Contractor's activities.

### DETAILED SPECIFICATION FOR GRADING SIDEWALKS, SIDEWALK RAMPS, AND DRIVEWAYS

AA:DAD 1 of 2 03/23/20

- **a. Description.** Remove miscellaneous structures and materials, and complete all earthwork required to construct new and replacement sidewalks, sidewalk ramps and driveway approaches to the lines and grades shown on the plans and/or as directed by the Engineer. Complete this work according to the Michigan Department of Transportation (MDOT) 2012 Standard Specifications for Construction, this detailed specification, and as directed by the Engineer.
- **b. Materials.** Provide materials in accordance with subsection 205.02 of the MDOT 2012 Standard Specifications for Construction as necessary to achieve the required cross section(s). The Contractor may use excavated material, if suitable, as embankment with approval by the Engineer.
- **c.** Construction. Complete this work, as applicable, according to subsection 205.03 of the MDOT 2012 Standard Specifications for Construction. Grading for sidewalks, sidewalk ramps and driveway approaches includes, but is not limited to, the following work:
  - 1. Stripping and stockpiling topsoil for use in turf establishment as approved.
  - 2. Removing rocks or boulders less than 0.5 cubic yards in volume.
  - 3. Excavating material to a depth necessary for construction.
  - 4. Disposing of excess and unsuitable material according to section 205 of the MDOT 2012 Standards Specifications for Construction.
  - 5. Shaping, grading, and compacting the subgrade to proposed grades to prepare it for embankment, subbase or aggregate base bedding materials or for an aggregate surface course.
  - 6. Furnishing and placing embankment material to the grades necessary for construction.
  - 7. Shaping, grading, and compacting embankment to proposed grades to prepare it for subbase or aggregate base bedding materials or for an aggregate surface course.
  - 8. Matching new sidewalk, sidewalk ramp, and driveway approach grades with existing grades as required.
- **d. Measurement and Payment.** Measure and pay for the completed work, as described, at the contract unit price using the following pay items:

Pay Item	Pay Unit
Grading, Driveway Approach	Square Yard
Grading, Sidewalk	Square Yard
Grading, Sidewalk Ramp	Square Yard

Measure **Grading, Driveway Approach**; **Grading, Sidewalk**; and **Grading, Sidewalk Ramp** areas in place by the unit square yard and pay for them at their respective contract unit prices, which prices include the costs for all labor, equipment and materials necessary to complete the work.

# DETAILED SPECIFICATION FOR MACHINE GRADING

AA:DAD 1 of 5 03/11/19

- **a. Description.** This work consists of constructing earth grades by excavating, cutting, filling, trimming, and grading, and maintaining the work in a finished condition until such time of acceptance by the Engineer. Complete machine grading in accordance with section 205 of the Michigan Department of Transportation (MDOT) 2012 Standard Specifications for Construction as shown on the plans, and as specified herein with the exception that subgrade undercutting, which if included in the Contract the Engineer will pay for separately. Machine grading includes all the work described herein, and as directed by Engineer.
- **b. Materials.** Use materials meeting the requirements specified in subsection 205.02 of the MDOT 2012 Standard Specifications for Construction.
- **c. Construction.** Use construction methods meeting the requirements specified in subsection 205.03 of the MDOT 2012 Standard Specifications for Construction, except as specified herein.
  - 1. Soils Information Soil information provided as part of the contract documents is for informational purposes only and shall not relieve the Contractor of the responsibility of investigating all local conditions before bidding.

#### 2. General Provisions:

- A. Grade around mailboxes, trees, light poles, power poles, and the like, which are to remain in place. The Contractor is responsible for any damage caused to such structures.
- B. Maintain the work in a finished condition until acceptance by the Engineer.
- 3. Pavement Sawcutting The work includes the full-depth saw cutting of pavement at the construction limits, and elsewhere as required.
- 4. Clearing, and Removal of Trees and Vegetation Remove and properly dispose of offsite all vegetation; brush; roots; and trees and stumps less than 6 inch in diameter, as shown on the plans, and as directed by the Engineer and as required to complete the project.
- 5. Removal and Salvaging of Topsoil Perform the removal, salvaging and stockpiling of topsoil, and all related work in accordance with subsection 205.03.A.1 of the MDOT 2012 Standard Specifications for Construction.
- 6. Miscellaneous Removals The removal of HMA, aggregate, and/or concrete materials from around manholes, structures, and utility covers, and the removal of HMA curbing, HMA driveway wedges, HMA surface on existing curb and gutter, and HMA surfaces required for removal in other miscellaneous areas. It also includes the removal of any surface feature located within the grading limits requiring removal and for which there is no specific pay item established in the Contract.
- 7. Protection of the Grade Keep work well drained at all times. Undercut and backfill any

foundation, pathway or roadway embankment or subgrade damaged by rain, as directed by the Engineer.

The Contractor is responsible for maintaining the foundation, pathway or roadway embankment, and subgrade.

Do not use rubber-tired equipment on the foundation, pathway or roadway embankment, or subgrade, when its use causes, in the opinion of the Engineer, unnecessary damage to the foundation, road embankment or subgrade. Conduct operations and provide the necessary equipment to ensure the satisfactory completion of the work without damaging the foundation, pathway or roadway embankment or subgrade. This may require the transporting and movement of materials over additional distances.

At various times throughout the work, the Engineer may direct the Contractor to use smaller and/or lighter equipment, and to defer certain work tasks, in order to protect the grade and/or adjacent areas. The Engineer will not grant an extension of time or any additional compensation for the use of smaller equipment, lighter equipment, or work task deferral.

- 8. Removal of Cable, Conduits and Pipe Remove, and properly dispose of off-site, all abandoned cables, conduit, and pipe encountered at, or above the bottom of any earthwork excavation or undercut. Where the inverts of existing conduits or pipe are less than 16 inches below the bottom of any earth excavation or undercutting, remove the conduits and/or pipe and fill void with an Engineer approved material. Compact fill material to 95% of its maximum unit weight in lifts not exceeding 12 inches.
- 9. Foundation Preparation The pathway or roadway "foundation" definition is the original or established earth subgrade of the pathway or roadway upon which the Contractor will place embankment material. Complete foundation work in accordance with subsection 205.03.A of the MDOT 2012 Standard Specifications for Construction as shown on the plans, and as specified herein.

Compact foundation to 95% of its maximum unit weight, as measured by the AASHTO T-180 method, to a depth of at least 10 inches. If this is not achievable, in the opinion of the Engineer, perform "Subgrade Undercutting, Type \_\_\_" or "Subgrade Manipulation" as described herein, on the foundation.

- 10. Pathway or Roadway Embankment Construction The pathway or roadway "embankment" definition is the construction of earth on the prepared foundation to form the subgrade. Complete pathway or roadway embankment in accordance with subsection 205.03 H of the MDOT 2012 Standard Specifications for Construction as shown on the plans, and as specified herein. Compact pathway or roadway embankment to a minimum of 95% of its maximum unit weight, as measured by the AASHTO T-180 method.
- 11. Subgrade Construction The pathway or roadway "subgrade" definition is the final earth grade that extends from grading limit to grading limit. Construct the subgrade by performing earth excavation and embankment work in accordance with subsection 205.03.G and subsection 205.03 H of the MDOT, respectively, of the 2012 Standard Specifications for Construction, as shown on the plans, and as specified herein.

Construct the subgrade to the contours and cross-sections shown on the plans, as specified herein, and as directed by the Engineer. To achieve this, the work will include, but not be

#### limited to:

- A. Removal and disposal off-site of any surplus or unsuitable materials.
- B. Furnishing from off-site any additional Engineer approved fill materials necessary.
- C. Moving existing and/or furnished materials longitudinally and transversely as necessary.
- D. Cutting, placing, compacting, and trimming existing and/or furnished materials to construct the pathway or roadway embankment and subgrade to the specified tolerances.
- E. Stockpiling, and moving again, any excavated materials requiring delayed placement due to construction staging.

Grade the earth subgrade to accommodate all pathway or roadway subbases and aggregate bases; all infiltration trench, bioswale and adjacent planting bed materials; curb and gutter, driveways, sidewalks, and other structures; infiltration trench and bioswale planting mixes, and topsoil; and any other features that the subgrade supports.

Prepare the subgrade to ensure uniform support for the pavement structure. Place the finished subgrade to within 1 inch below and ¾ inch above plan grade. Variations within this tolerance will be gradual.

Compact subgrade to a minimum of 95% of its maximum unit weight, as measured by the AASHTO T-180 method, to a depth of 10 inches. If this is not achievable, in the opinion of the Engineer, perform "Subgrade Undercutting, Type \_\_\_" or "Subgrade Manipulation" as described herein, on the foundation.

Use equipment and methods of construction best suited, in the opinion of the Engineer, to perform the earthwork operations and meet the project requirements. The use of various equipment and methods of construction are subject to the approval of the Engineer. The Engineer may disallow the use of certain equipment and methods of construction and require the use of other equipment and/or methods of construction.

- 13. Test Rolling Test-roll the foundation and/or subgrade with a pneumatic tired roller with a suitable body for ballast loading and a variable gross load capacity between 25 and 40 tons. Instead of this test roller, with the approval of the Engineer, the Contractor may use a fully loaded single axle or tandem axle dump truck.
- 14. Subgrade Undercutting Perform "subgrade undercutting" on the foundation or subgrade in accordance with section 205.03.E of the MDOT 2012 Standard Specifications for Construction, as shown on the plans, as specified herein, and as directed by the Engineer.
- 15. Subgrade Manipulation Perform "subgrade manipulation" on the foundation or subgrade in accordance with section 205.03.F of the MDOT 2012 Standard Specifications for Construction, as shown on the plans, as specified herein, and as directed by the Engineer.

Where required, perform subgrade manipulation on the foundation or subgrade soils by thoroughly scarifying, blending, and mixing to a depth of 12 inches. Accomplish this work by means of a large diameter disc, motor grader, or other equipment approved by the

Engineer. Upon manipulation of the foundation or subgrade to the satisfaction of the Engineer and allow it dry, and compact the soil to 95% of its maximum dry density as measured by the AASHTO T-180 method. The time required for drying the soil will not be a basis for an extension of time.

- 16. Rock Excavation Remove of rocks and boulders, concrete and masonry. Perform rock excavation in accordance with section 205.03.B of the MDOT 2012 Standard Specifications for Construction, as shown on the plans, and as directed by the Engineer.
- 17. Lowering Structures Prior to cutting the subgrade, remove structure covers, lower the structures to a point between 8 inches and 12 inches below the proposed subgrade, and cover the structures with a steel plate. Do not raise structures prior to placing pathway or roadway embankment.

Use steel plates for covering structure openings conforming to the plan detail and of sufficient thickness to carry any/all traffic loads, and prevent the infiltration of debris into the structures. Peg and properly place plates to prevent movement under all traffic.

Lower valve boxes to a point between 8 inches and 12 inches below the proposed subgrade. Do not raise valve boxes prior to placing pathway or roadway embankment.

Backfill the voids in the grade above the steel plates used for structure lowering and valve box lowering, and compact it to 95% of its maximum dry density, with an Engineer approved coarse aggregate.

Coordinate the lowering of any private and/or non-city owned utility structure with the private utility company/owner.

- 18. Structure Covers As directed by the Engineer and within two days of their removal, the stockpile on-site, in a location that is mutually agreeable to the Engineer and Contractor, the existing structure covers. City of Ann Arbor forces will pick-up the structure covers at a time that is convenient to them and mutually agreeable to the Contractor. Provide equipment and personnel to load the castings on City vehicle(s) for removal from the site by the City forces.
- 19. Structure and Sewer Cleanliness Protect all sewers, and structures, including manholes, gate wells, valve boxes, inlet structures and curbs from damage and contamination by debris and construction materials. Maintain structures clean of construction debris and properly cover them at all times during the construction. The Contractor will immediately clean any structures and/or sewers contaminated with construction debris.
- 20. Tree Trimming The Contractor shall coordinate with the City of Ann Arbor Public Works to schedule trimming of trees by City forces or an authorized subcontractor.
- **d. Measurement and Payment.** Measure and pay for the completed work, as described, at the contract unit price using the following pay item:

Measure **Machine Grading, Special** area by the unit square yard and pay for it at the contract unit price, which price includes costs for all labor, equipment and materials necessary to complete the work.

Due to the project nature there is a likely probability that some or all of the excavated material may not be suitable for use fill material. Consequently, there may be imbalances between the amount of earth excavation available for reuse as embankment, and the amount of embankment needed for the construction activities shown on the plans, or as directed by the Engineer. The unit price bid for this work includes the costs to address this probable imbalance and to furnish, stockpile and rehandle, place, and compact any Engineer approved material necessary to complete the work of constructing the embankment and subgrade to the cross sections shown on the plans.

The described work for **Machine Grading, Modified** includes the removal and offsite disposal of any surplus or unsuitable materials and the furnishing from off-site any additional Engineer approved fill materials necessary to construct the embankment and subgrade to the contours and cross-sections shown on the plans.

The Contractor, at its sole expense, will remedy, as directed by the Engineer, any damage to the foundation, pathway, or roadway embankment or subgrade caused by traffic or its operations.

The Engineer will not pay for separately the removal of conduit or pipe, or any of the work, described in this section.

The Engineer will not pay additional compensation or allow extensions of contract time for additional measures required to protect the grade as specified.

**Machine Grading, Modified** includes costs for all labor, equipment and materials necessary to complete any subgrade undercutting and/or subgrade manipulation unless the Contract includes separate pay items for this work.

Rock excavation will apply only to removal of rocks and boulders, concrete and masonry less than ½ cubic yard in volume. Measure boulders individually and compute the volume from the average dimension measured in three directions. If included in Contract, the Engineer will pay for the quantity exceeding ½ cubic yard in volume as **Rock Excavation**, otherwise it will pay for as extra work.

The Contractor is responsible for all direct and indirect damages caused by unclean or damaged sewers or structures resulting from its work or operations.

The Engineer will not pay additional compensation or allow extensions of contract time for tree trimming measures and coordination of this work with City forces.

# DETAILED SPECIFICATION FOR SOIL EROSION AND SEDIMENTATION CONTROL – INLET FILTER

AA:DAD 1 of 1 03/11/18

- **a. Description.** This work consists of installing and maintaining inlet filters, as shown on the plans, in accordance with section 208 of the Michigan Department of Transportation (MDOT) 2012 Standard Specifications for Construction and. Install filters in existing and proposed inlets to restrict and minimize amounts of sediment entering into the storm sewer system and water courses. The related work includes the installation, maintenance and removal of the filter cloth, cleaning as required during the performance of the project work, removing and disposing of accumulated sediment, and replacement of filters if required by the Engineer to provide a properly working inlet filter and a well-drained site.
  - **b. Materials.** The following devices are approved for use as acceptable alternatives:
    - 1. Siltsack Type B, Regular Flow, by ACF Environmental, Inc.
    - 2. Inlet Pro Sediment Bag, Standard Flow, with optional foam deflector by Hanes GeoComponents.
    - 3. Dandy Curb Bag, Dandy Bag, Dandy Curb Sack, Dandy Sack, or Dandy Pop by Dandy Products, Inc.
    - 4. Basin Bag, Regular Flow by CSI Geoturf.

The Contractor shall submit product data sheets and a sample of the filter material used for inlet filters to the Engineer for approval prior to ordering materials.

- **c.** Construction. The Contractor shall install, maintain, clean, and re-install and/or replace inlet filters in accordance with the manufacturer's specifications and as directed by the Engineer. The Contractor shall dispose of debris off-site.
- **d. Measurement and Payment.** Measure and pay for the completed work, as described, at the contract unit price for the following pay item:

Pay Item	<u>Pay Unit</u>
Erosion Control. Inlet Filter	Each

Measure **Erosion Control, Inlet Filter** individually in place by unit each and pay for it at the contract unit price, which price includes all costs for labor, equipment and materials necessary to furnish, install, maintain, clean and remove the inlet filter, and to re-install and/or replace the inlet filter as needed.

# DETAILED SPECIFICATION FOR AGGREGATE BASE

AA:DAD 1 of 1 03/05/20

- **a. Description.** This work consists of constructing an aggregate base course on a surface approved by the Engineer using only crushed limestone. The aggregate base shall be in accordance with section 302 of the 2012 Michigan Department of Transportation (MDOT) Standard Specifications for Construction, except as herein modified:
- **b. Material.** Provide aggregate material meeting the requirements for Class 21AA dense-graded aggregate as specified in section 902 of the MDOT 2012 Standard Specifications for Construction. The ONLY permitted material shall be crushed limestone unless otherwise approved by the Engineer.
- **c.** Construction. Construct aggregate base course in accordance with subsection 302.03 of the 2012 MDOT Standard Specifications for Construction. Deliver Class 21AA dense-graded aggregate to the job site in a thoroughly blended condition and handle in such a manner that there will be no mixing of underlying soil with the base aggregate.
- **d. Measurement and Payment.** Measure and pay for the completed work, as described, at the contract unit prices using the following pay items:

<u>Pay item</u>	Pay Unit
Aggregate Base, Modified	Ton
Aggregate Base, 8 inch, Modified	Square Yard
Aggregate Base, 12 inch, Modified	Square Yard

Measure **Aggregate Base, Modified** weight by the unit ton and pay for it at contract unit price, which price includes costs for all labor, equipment and materials necessary to complete the work. Load weight tickets from a certified scale and accepted at the job site by the City's agent will the basis for measurement.

Measure Aggregate Base, 8 inch, Modified and Aggregate Base, 12 inch, Modified compacted in place area respectively by the unit square yard and pay for them at their respective contract unit prices, which prices include costs for all labor, equipment and materials necessary to complete the work.

Weigh any/all unused/waste material on a certified scale to determine quantity(s), unless the Engineer approves an alternate method to arrive at these amount(s). Provide load weight tickets to the City's agent for any/all unused/waste material.

# DETAILED SPECIFICATION FOR STRUCTURAL GEOGRID

OHM:BA/AA:DAD 1 of 3 4/26/2023

- **a. Description.** This work consists of placing structural geogrid as shown in the plans, and as directed by the Engineer. Perform work in accordance with section 308 of the 2012 Michigan Department of Transportation (MDOT) Standard Specifications for Construction, except as herein provided.
- b. Material. Furnish geogrid manufactured with high profile rectangular shaped ribs oriented radially in three or more directions to form uniform triangular shaped apertures having significant dimensional stability through all ribs and junctions of the geogrid structure to maintain reinforcement and aggregate confinement capabilities under repeated dynamic loads throughout the pavement life cycle. Furnish geogrid material resistant to ultraviolet degradation, all forms of biological and chemical degradation, and physical damage normally encountered in earth and road construction activities. Furnish geogrid having three-dimensional ribs with a depth to width ratio of at least 1.0 to optimize aggregate interlock, and the physical and geometric properties specified in Table 1 below for the designated 'Type' of geogrid material shown on the plans.

**Table 1. Geogrid Properties** 

	Test Method	TYPE			
Property		Subbase	Subgrade	Base	High Performance (HP) Base
Aperture (Aggregate) Size		Small (Fine)	Large (V. Coarse)	Standard	Standard
Nominal Pitch <sup>(2)</sup> , mm		33	60	40	40
Junction Efficiency <sup>(3)</sup> , %	ASTM D6637- 10 D7737-11	93	93	93	93
Aperture Stability <sup>(4)</sup> , kg-cm/deg @ 5.0 kg-cm	GRI-GG9 (Modified)	-	3.0	3.0	3.6
Radial Stiffness at Low Strain <sup>(5)</sup> , kN/m @ 0.5% Strain	ASTM D6637- 10	200	350	225	300
Isotropic Stiffness Ratio <sup>(6)</sup>		-	0.6		
Overall Flexural Rigidity, mg-cm	ASTM D7748- 12	0.5x10 <sup>6</sup>	2.0x10 <sup>6</sup>		
Chemical Resistance <sup>(7)</sup>	EPA 9090	100%	100%	100%	100%
Resistance to Ultra-Violet Light and Weathering <sup>(8)</sup>	ASTM D4355- 05	70%	70%	70%	70%

- 1. Unless indicated otherwise, values shown are minimum average roll values (MARVs) determined in accordance with ASTM D4759-02. Brief descriptions of test procedures are given in the following notes.
- 2. Height of (triangular) aperture, measured node axis to rib.
- 3. Load transfer capability expressed as a percentage of ultimate tensile strength.
- 4. In-plane torsional rigidity measured by applying a moment to the central junction of a 225mm x 225mm specimen restrained at its perimeter.
- 5. Radial stiffness is determined from tensile stiffness measured in any in-plane axis from testing.

- 6. The ratio between the minimum and maximum observed values of radial stiffness at 0.5% strain, measured on rib and midway between rib directions.
- 7. Resistance to loss of load capacity or structural integrity when subjected to immersion testing in chemically aggressive environments.
- 8. Resistance to loss of load capacity or structural integrity when subjected to 500 hours of ultraviolet light and aggressive weathering.

Submit representative geogrid product sample, product data sheet, and the manufacturer's published installation guidelines. Basis for acceptance will be on a general certification, along with a certificate of analysis that confirms the geogrid material supplied meets the requirements of Table 1. The Engineer may sample and test material shipped to the project to verify certification documents.

The Engineer may consider alternate geogrid materials if they meet or exceed the project design intent. The Engineer must pre-approve alternate materials in writing by the Engineer prior to installation. Submit performance test data for evaluation at least two weeks prior to the anticipated shipment to the project. The Engineer will accept in-air laboratory testing alone for performance testing. Where applicable, calibrate the alternate geogrid material to the selected pavement design methodology furnish verification. The Engineer retains the sole discretion to approve alternate materials based on the submittal. Rejection of alternate material submittals shall not be the basis for any claim for additional compensation nor extension of time.

**c. Construction.** Protect stored materials from exposure to mud, wet concrete, epoxy or other deleterious materials. Store at temperatures above -20°F (-29°C). Lay flat or stand on end rolled materials. Do not store geogrid materials exposed to direct sunlight for extended periods as recommended by the manufacturer. The Engineer will reject geogrid materials with damage or manufacturing defects.

Prepare all areas immediately beneath the geogrid installation area per the plans and pertinent specifications. Install geogrid according to the manufacturer's recommendations. Place geogrid required only for immediately pending work to prevent undue exposure or damage to the geogrid, not to exceed 3 calendar days. After placing a layer of geogrid, use approved suitable means to anchor the geogrid in position until the subsequent backfill layer can be placed. Overlap adjacent rolls of geogrid as directed to maintain at least 1 ft overlap after backfill placement (larger overlaps may be necessary on softer subgrade soils).

Do not operate equipment directly on the geogrid. Place backfill outward from road embankment centerline, pushing a sufficient aggregate surcharge to assist in tensioning the geogrid without creating excessive wrinkles or damage. Do not operate tracked equipment on less than 6 inches of loose aggregate. Avoid sudden braking and sharp turning movements to prevent damage to the geogrid. Grade and compact cover aggregate according to the plans and relevant contract item specifications.

**d. Measurement and Payment.** Measure and pay for the completed work, as described, at the contract unit price using the following pay item:

Pay Item	<u>Pay Unit</u>
Structural Geogrid (Type)	Sguare Yard

Measure **Structural Geogrid (Type)** in place area by the unit square yard and pay for it at contract unit price, which price includes costs for all labor, equipment and materials necessary to complete

the work including placement and anchoring, hand work necessary to establish grades, splicing, and repairing protective coatings. The Engineer will make no allowance for overlap, splices, or material cut off or wasted.

### DETAILED SPECIFICATION FOR DRAINAGE AND UTILITY STRUCTURE RECONSTRUCTION

AA:DAD 1 of 3 03/05/20

- **a. Description.** This work consists of reconstructing drainage and utility structures in accordance with section 403 of the Michigan Department of Transportation (MDOT) 2012 Standard Specifications for Construction, as shown on the plans, as directed by the Engineer, and as specified herein.
- **b. Materials.** Provide materials in accordance with subsection 403.02 of the MDOT 2012 Standard Specifications for Construction except as specified herein.

Construct drainage structures of precast or cast in place reinforced concrete sections, or concrete masonry units. Construct all sanitary sewer manholes and gate wells (water main valve manholes) of precast reinforced concrete sections.

Use precast reinforced concrete bases, bottom sections, manhole risers, grade adjustment rings, concentric cones, eccentric cones, and flat slab tops conforming to the requirements of ASTM C 478. Joints on precast manholes used on all sanitary sewers will meet ASTM C 443, rubber Oring gasket.

Use concrete masonry units conforming to the requirements for concrete masonry units for catch basins and manholes, ASTM C 139.

Use concrete brick conforming to the requirements for concrete building brick, ASTM C 55, Grade N-1.

Plastic coated manhole steps will be injection molded of copolymer, polypropylene, encapsulating a ½-inch grade 60 steel reinforcing bar. Plastic-coated manhole steps will meet the performance test described in ASTM C-478, Paragraph II, and have an impact resistance of 300 ft-lbs, with only minor deflection and no cracking or breaking. The steps will resist pull out forces of 1500 lbs.

**c.** Construction. Use construction methods for reconstructing drainage structures, where directed by the Engineer, conforming to subsection 403.03 of the MDOT 2012 Standard Specifications for Construction except as specified herein.

Excavate to the depth and width required to permit the construction of the required base. The excavation width will be greater than the base. Trim the bottom of the excavation to a uniform horizontal bed and completely dewater before placing any structure components.

Use concrete block construction only for storm sewer manholes and inlets and construct these structures to the size and dimensions shown on the plans. Use clean masonry block units, place them in a full bed of mortar, and thoroughly bond them together in place by completely filling the vertical end grooves with mortar to interlock them with the adjacent blocks. The mortar beds and joints will not exceed 3/4 inch thickness. Completely fill vertical joints and fill joints on the inside face of the structure by rubbing them full of mortar and striking them smooth as construction proceeds vertically. Place and strike smooth a 1/2" thick mortar coat on the entire outside face of

the structure. Heat all masonry materials, sand, and water to over 50<sup>o</sup> F during freezing weather and cover and protect the completed work from damage by freezing.

Construct circular precast manhole sections in accordance with the details as shown on the plans. Construct manhole stack units on level poured-in-place bases, precast concrete bases, or precast concrete bottom sections.

Construct precast cone sections in accordance with the details as shown on the plans. These units will be eccentric for all manholes, precast or block. Top all structures with a minimum of one and a maximum of three adjustment courses. Adjustment courses will be 2 inches in height and constructed using bricks or precast adjustment rings.

Construct manholes, inlets, gate wells, and other structures within 2-1/2 inches of plumb.

Frames and cover castings will be set in full mortar beds and pointed on the structure interior to a smooth, brushed finish. The covers will be set flush with sidewalk, roadway pavement, or ground surfaces. Notify the Engineer prior to the final paving to allow inspection of the final casting adjustments for all utility structures. In gravel streets, set covers six to eight inches below finished gravel surface.

Extend sewer pipes into structures a minimum of 1/2 inch and a maximum of 3 inches.

Finish flow channels for sewer structures in accordance with the details as shown on the plans. Screed and float all flow channels to a smooth, uniform surface and troweled to a hard surface finish.

Furnish and place stubs for future sewer connections as shown on the plans and as directed by the Engineer. Properly support and brace connections when they are not resting on original ground so that any settlement will not disturb the connection. Stubs will consist of one length of sewer pipe, of the size indicated on the plans, with a watertight plug.

Keep the excavation in a dry condition.

#### **Sealing Manhole Cone/Chimney Interface Area:**

Place an epoxy or urethane sealing product at the junction of the drainage structure cone/chimney interface as detailed on the plans or as directed by the Engineer. Use only products approved by the Engineer and manufactured by one of the suppliers listed below:

NPR-3501 Neopoxy (epoxy) manufactured by NeoPoxy International, 27057 Industrial Boulevard, Hayward, CA 94545, Phone 510.782.1290, Fax 510.782.1292 (www.NeoPoxy.us)

EasySeal SG (urethane) manufactured by Cretex Specialty Products, N16 W23390 Stone Ridge Drive, Suite A, Waukesha WI 53188, Phone 800 345 3764, Fax 262.542.0301 (www.cretexseals.com)

Flex-Seal (urethane) manufactured by Sealing Systems, Inc, 9350 County Road 19, Loretto, MN 55357, Phone 800-478-2054, Fax 763-478-8868 (www.ssisealingsystems.com)

For the purposes of this work, the definition of the manhole chimney is the masonry units sitting atop the pre-cast concrete or manhole block corbel or cone sections and extending up to the bottom of the drainage structure cover. Apply sealant to the entire chimney section. Thoroughly clean the chimney section as detailed in the installation instructions of the sealant manufacturer. Apply all products in strict accordance with the recommendations and installation requirements of the manufacturer. The Engineer will approve the chosen sealing product prior to commencement of the work.

**d. Measurement and Payment.** Measure and pay for the completed work, as described, at the contract unit price for the following pay item:

Pay Item	Pay Unit
Structure, Reconstruct	Each

Measure **Structure**, **Reconstruct** in place by unit each and pay for it at the contract unit price, which price includes all costs for labor, equipment and materials to complete the work. It also includes any/all costs necessary for dewatering and adjustments required to accommodate field conditions encountered during construction.

#### CITY OF ANN ARBOR DETAILED SPECIFICATION FOR

#### STRUCTURE COVER ADJUSTMENTS

TCA/AMW/CAE 1 of 3 4/26/23

#### **Description**

This work shall consist of adjusting, replacing, and pointing structures, handholes, private utility boxes, valve wells or boxes, and monument boxes of concrete and concrete block masonry; the replacing, salvaging and transporting of existing metal covers, and/or castings; including all excavation, backfilling, patching and the removal and proper disposal off-site of all excavated material and debris, as shown on the plans and in accordance with Division 4 of the 2012 MDOT Standard Specifications for Construction and the City of Ann Arbor Public Services Department Standard Specifications, except as modified herein.

#### **Materials**

Materials shall meet the requirements of divisions 400 and 600 of the 2012 edition of the MDOT Standard Specifications, except that concrete shall be MDOT P-NC per Section 600 of the 2012 MDOT Standard Specifications.

#### Construction

A new frame (casting) shall be included in the cost of the work. The cover may be reused as directed by the Engineer. If the Engineer directs for a cover to be replaced, it shall be paid for as "Structure Cover". All City of Ann Arbor castings and covers not being reused shall be delivered to the City Utilities Department yard at 4251 Stone School Road (Wheeler Center) at the Contractor's expense.

Materials shall be stored by the Contractor at locations arranged by the Contractor, subject to the approval of the Engineer. The Contractor shall not store materials or equipment, including metal castings and steel plates, on any lawn area.

Hidden, or unknown utility structures may be encountered during the work. It is the Contractor's responsibility to inform the respective utility owner(s) of such findings. In such instances, the City may direct the Contractor to adjust the structure(s) to grade. This work will be paid as "Adjust Structure Cover".

The pointing of structures is included in all adjustments.

A thermoplastic concrete form may be used for a cast-in-place concrete structure riser/collar, as approved by the Engineer.

This item includes the final adjustment of castings of any type (including drop inlets) to their respective finished elevations, up or down. All materials required to make the adjustments shall be included in this item of work. All underground structure covers shall be adjusted such that their finished surface elevation is within ¼-inch of the finished surface sections, grades, slopes, and elevations, as shown on the Plans, and as directed by the Engineer. The work shall be verified by the use of a 10-foot straight-edge placed parallel with the pavement centerline. Structures not meeting the ¼-inch tolerance shall be readjusted and finish patched, as directed by the Engineer, at the Contractor's expense.

#### CITY OF ANN ARBOR DETAILED SPECIFICATION FOR

#### STRUCTURE COVER ADJUSTMENTS

TCA/AMW/CAE 2 of 3 4/26/23

The Contractor shall coordinate with the Engineer and applicable non-City utilities for manholes and valves adjustments during this project.

All structure covers, utility covers, valve boxes or monument boxes shall be backfilled with MDOT 4500 concrete from the depth of excavation necessary for adjustment, up to an elevation 2-inches below the top flange of the adjusted casting, as shown on the Plans. This work shall be included in the respective items of work, and will not be paid for separately.

#### Round Concrete Collar

Contractor may use a skid-steer with attached hydraulically mechanical circular core saw system to saw pavement full depth and adjust the casting, as approved by the Engineer. In which case, all structure covers, utility covers, valve boxes or monument boxes shall be backfilled with MDOT 4500 concrete from the depth of excavation necessary for adjustment, up to grade, such that their finished surface elevation is within 1/4-inch of the finished surface sections, grades, slopes, and elevations, as shown on the Plans, and as directed by the Engineer.

The collar shall be round, with the structure cover centered in the collar. The diameter of the collar must be no more than 4 feet, except where approved by the Engineer. Four (4) joints shall be tooled in a cross pattern. The Engineer may also require the concrete collar to be treated with black color hardener.

#### **Lowering Structures**

Prior to cutting the subgrade, or Machine grading aggregate base, the Contractor shall remove structure covers, lower the structures by removing the frame and chimney, adjustment rings, to a point between 8 inches and 12 inches below the proposed grade, and cover the structures with a steel plate. Structures shall not be raised prior to placing roadway embankment.

The steel plates for covering structure openings shall conform to the plan detail, be pegged and properly placed to prevent their movement under all traffic, be thick enough to carry all traffic, and prevent the infiltration of debris into the structures.

The Contractor shall lower valve boxes to a point between 8 inches and 12 inches below the proposed grade. Valve boxes shall not be raised prior to placing roadway embankment.

The void in the grade above the steel plates used for structure lowerings and valve box lowerings shall be backfilled, and compacted to 95% of its maximum dry density, with an Engineer approved coarse aggregate.

The Contractor shall coordinate the lowering of private utility structures with the private utility companies.

This item includes the final adjustment of existing structure frame and covers, up or down, to their finished elevations. This also includes the replacement of the top half of the water boxes and monument boxes where required and shall be included in this item of work.

### CITY OF ANN ARBOR DETAILED SPECIFICATION FOR

#### STRUCTURE COVER ADJUSTMENTS

TCA/AMW/CAE 3 of 3 4/26/23

Gate valve box tops and covers shall be reused, except when broken or directed by the Engineer. New tops and covers will be provided by the City.

Frame and covers for monument boxes will be provided by the City.

The Contractor shall transport new castings and covers to the site from the City Utilities Department yard at 4251 Stone School Road (Wheeler Center).

Any City casting and/or cover not being reused on the project shall be delivered to the Wheeler Center at the Contractor's expense.

#### **Measurement and Payment**

The completed work, as described, will be measured and paid for at the approved price for the following pay item:

Contract Item (Pay Item)	<u>Pay Unit</u>
Adjust Structure Cover	Each
Adjust Monument Box or Gate Valve Box	

The approved price for this item shall include all labor, material, and equipment costs required to complete the work as specified herein.

# CITY OF ANN ARBOR DETAILED SPECIFICATION FOR STRUCTURE COVERS

TCA 1 of 2 4/26/23

#### **Description**

This work shall consist of replacing and furnishing frames and covers for utility (storm, sanitary, and water) structures as shown on the plans and as directed by the Engineer, in accordance with Section 403 of the 2020 MDOT Standard Specifications for Construction and the City of Ann Arbor Public Services Department Standard Specifications, except as modified herein.

#### **Materials**

Provide materials meeting the requirements of subsection 403.02 and section 908 of the MDOT 2020 Standard Specifications. Provide frames and covers conforming to the model(s) shown in the table below, or equivalent approved by the Engineer.

Type of Casting	Use	EJ No.
Frame and Cover	Sanitary	1040AGS
Manhole Frame and Cover	Storm and Water	1040 w/ Type A Cover Type M1
Curb Inlet/Catch Basin Frame and Cover	Barrier curb & gutter	7045Z w/ 7045M1 Sinusoidal Grate
Curb Inlet/ Double Catch Basin Frame and Cover	Low point Barrier curb and gutter	7034Z w/7030 M2 Cubic Grate
Curb Inlet/Catch Basin Frame and Cover	Mountable curb & gutter	7065 w/ 7045M1 Sinusoidal Grate
Flat Inlet Frame and Cover	Driveway	5000 w/ Type M2 Sinusoidal Grate
Inlet/Catch Basin Frame and Cover	Beehive	1040Z O2 6" Tall, Black coated
Valve Box and Cover	Water Valve	8560 Screw Type 3 Piece Valve Box Set D

Frames and covers shall have machined bearing surfaces and City of Ann Arbor custom logo. Each cover shall have the word "SANITARY", "STORM", "WATER".

# CITY OF ANN ARBOR DETAILED SPECIFICATION FOR STRUCTURE COVERS

TCA 2 of 2 4/26/23

#### **Construction**

All work shall be performed in accordance with subsection 403.03 of the MDOT 2020 Standard Specifications.

The Contractor shall store materials on site and/or at locations arranged by the Contractor, subject to the approval of the Engineer. The Contractor shall not store materials or equipment, including metal castings and steel plates, on any lawn areas.

#### **Measurement and Payment**

The completed work as measured shall be paid at the Contract unit price for the following Contract items (pay items):

Contract Item (Pay Item)	<u>Pay Unit</u>
Structure Covers	Each

Payment for this item of work shall include all labor, materials and equipment needed to furnish and install the structure cover.

Payment for the frame shall be paid for as part of "Adjust Structure Cover".

Payment for a gate-valve box includes the cover and is included in the appropriate gate-valve box item.

## DETAILED SPECIFICATION FOR SUBGRADE UNDERDRAIN

AA:DAD 1 of 2 03/11/19

- **a. Description.** The work consists of installing 6-inch geotextile-wrapped perforated or slotted underdrain whether or not shown on the plans in accordance with section 404 of the Michigan Department of Transportation (MDOT) 2012 Standard Specifications for Construction, applicable standard or special details, as described herein, and as directed by the Engineer.
- **b. Material.** Provide materials meeting the requirements specified in subsection 404.02 of the MDOT 2012 Standard Specifications for Construction, and as specified herein:

Fine Aggregate, 2NS	902
Underdrain Pipe, Perforated or Slotted	909.07.B

Geotextile (Filter Fabric) – Use approved geotextile fabric for encasing the pipe such as nylon, polypropylene, fiberglass, or polyester and that is either woven, heat bonded, knitted or of continuous fibers. In a loose unstrained condition, knitted polyester fabrics will weigh at least 3.0 ounces per square yard and all other geotextiles will weigh at least 3.5 ounces per square yard. The fabric will be strong and tough and have porosity such that the fabric will retain soil particles larger than 0.106 mm (No. 140 sieve) and will pass aggregate particles finer than 0.025mm. Store and handle geotextiles carefully and in accordance with the manufacturer's recommendations and do not expose them to heat or direct sunlight to such extent as to significantly affect its strength or toughness. Do not use torn or punctured geotextiles.

- **c. Construction Methods.** Install geotextile-wrapped underdrain for subgrade drainage as shown on the plans and as specified in subsection 404.03 of the MDOT 2012 Standard Specifications for Construction, with the following exceptions and additions:
  - 1. Construct the trench to a minimum width of 18 inches and the install the underdrain at the line grade and depth as indicated on the plans. Maintain line and grade by means of a laser. The Engineer will not set line, grade or provide staking.
  - 2. Backfill trench with 2NS Fine Aggregate compacted to 95% of its maximum unit weight. Place the first lift of backfill material at a maximum thickness of 6 inches. Place second and subsequent lifts, or portions thereof, at a maximum thickness of 12 inches up to an elevation level with the bottom of the existing aggregate base course, or as directed by the Engineer.
  - 3. Close off upgrade ends of the pipe with suitable plugs to prevent entrance of any material. Manufacture and install all couplings, tees and other fittings to prevent infiltration of any material. If during the course of construction, the Contractor encounters existing underdrains or other drains, plug their ends to the satisfaction of the Engineer such that material cannot enter the pipe(s).
  - 4. Tap downgrade ends of the pipe into existing or new drainage structures. However, it may be necessary to tap underdrain into either existing or new storm sewer, or into existing or new inlet leads as directed by the Engineer.

- 5. Construct trench bottom and edge drain to the percent of grade indicated on the plans or as determined by the Engineer, with the minimum percent of grade being 0.5%. In addition, construct the underdrain to have a minimum cover, from top of pipe to finished pavement grade, of 36 inches.
- 6. During the construction of underdrain runs, it may be necessary to terminate construction due to conflicts with buried obstructions or at such time when restricted by the minimum cover requirements. The Engineer will review conflicts on a case-by-case basis and make a decision on whether to continue installing pipe or terminate runs prematurely. The Engineer will not allow adjustment to the contract unit price or additional payments for changes in the contract quantity due to Engineer directed field changes associated with buried obstructions encountered during construction or other reasons.
- 7. Completely cover and secure the geotextile material to the pipe.
- **d. Measurement and Payment.** Measure and pay for the completed work, as described, at the contract unit price for the following pay item:

Pay Item	Pay Unit
Underdrain, Subgrade, 6 inch, Special	Foot

Measure **Underdrain, Subgrade, 6 inch, Special** length in place by the unit foot and pay for it at the contract unit price, which price includes all cost for labor, equipment and materials necessary to complete the work.

The unit price includes the cost to furnish and install the 6-inch perforated or slotted pipe with geotextile wrap in addition to required pipe fittings and/or plugs. It also includes furnishing and placing and compacting 2NS granular bedding and trench backfill material, taps to new and existing drainage structures and storm sewers or inlet leads, all excavation, final trimming required to meet the dimensions of the typical and specific cross-sections, and the disposal of all surplus excavated materials.

## DETAILED SPECIFICATION FOR COLD MILLING FOR CONCRETE CURB AND GUTTER REVEAL

AA:DAD 1 of 1 03/04/20

- **a. Description.** This work consists of cold milling existing concrete curb and gutter areas overlaid with HMA material to reveal the edge-of-metal of the curb and gutter in accordance with section 501 of the Michigan Department of Transportation 2012 Standard Specifications for Construction, as directed by the Engineer, and as described herein.
  - b. Materials. None specified.
- **c.** Construction. Perform localized cold milling along the concrete gutter pan overlaid with HMA to reveal the edge-of-metal of the existing concrete curb and gutter. Perform this work in accordance with subsection 501.03 of the MDOT 2012 Standard Specifications for Construction, and as directed by the Engineer at the location designated by the Engineer. Perform subsequent handwork and/or necessary machine work to remove HMA overlay material from the gutter pan, and dispose of this material properly.
- **d. Measurement and Payment.** Measure and pay for the completed work, as described, at the contract unit price using the following pay item:

Pay Item	Pay Unit
Cold Milling for Concrete Curb and Gutter Reveal	Syc

Measure **Cold Milling for Concrete Curb and Gutter Reveal** weight by the unit ton and pay for it at the contract unit price, which price includes the cost for all labor, equipment and materials required to remove, load, haul, and dispose of the cold milled material, and cleaning the cold milled surface. The Engineer will not pay for material picked up by cleaning after cold milling.

#### DETAILED SPECIFICATION FOR HOT MIX ASPHALT (HMA) PAVING

AA:DAD 1 of 3 03/11/19

- **a. Description.** This work consists of constructing hot mix asphalt (HMA) pavement base, leveling, and top courses in accordance with section 501 of the Michigan Department of Transportation (MDOT) 2012 Standard Specifications for Construction, except as modified herein, and as directed by the Engineer.
  - b. Materials. None specified.

#### c. Construction.

1. Equipment: All equipment shall conform to subsection 501.03.A of the MDOT 2012 Standard Specifications for Construction, except as modified herein.

The Contractor shall have a 10-foot long straight edge, rubber-tired backhoe (Case 580 type, or equivalent), air-compressor with the ability to develop a minimum pressure of 100 pounds per square inch and continuous rated capacity of 150 cubic feet per minute of airflow, and jackhammer available during all paving operations. The Contractor shall be required to perform any miscellaneous cleaning, trimming, material removal, and other tasks as required by the Engineer in order to ensure the proper and orderly placement of all HMA materials on this project.

The Contractor shall provide sufficient rollers to achieve the specified asphalt densities.

At various times throughout the work, the Engineer may direct the Contractor to use smaller and/or lighter equipment, and to defer certain work tasks, in order to protect the grade and/or adjacent areas; including hauling units. The Contractor shall not be entitled to any additional compensation for the use of smaller equipment, lighter equipment, or work task deferral.

2. Cleaning and Bond Coat Application: Cleaning and bond coat application shall be performed in accordance with subsections 501.03.C and 501.03.D of the MDOT 2012 Standard Specifications for Construction, except as modified herein, and as directed by the Engineer.

The Contractor shall furnish and operate throughout the construction period, vacuum-type street cleaning and utility structure cleaning equipment (Vac-All, Vactor, etc.) approved by the Engineer, and when directed by the Engineer, for street cleaning immediately prior to, and for street and utility structure cleaning after any and all paving. The cleaning equipment shall be of sufficient power to remove dust, dirt, and debris from the pavement and from utility structures in and adjacent to the construction area. The Engineer shall approve the vac-all or similar equipment prior to beginning the work. The equipment used shall have an effective means for preventing any dust resulting from the operation from escaping into the air.

Apply bond coat at a rate of 0.10 gallons per square yard. Before placing the bond coat, the thoroughly clean the existing pavement surface. The Contractor shall also thoroughly clean

all joints, cracks, and edges to a minimum depth of one inch with compressed air, vac-all type equipment, or other approved mechanical or hand methods, to remove all dirt, debris, and all foreign material.

3. HMA Placement: Placement shall conform to subsection 501.03.F of the MDOT 2012 Standard Specifications for Construction, except as modified herein, and as directed by the Engineer.

HMA placement shall not commence until a "Permit to Place" (no additional costs are required to obtain this permit) has been issued in writing by the Engineer. The Engineer will issue a Permit to Place after approving the aggregate base course or the adjacent, underlying layer of pavement section.

The Engineer must approve the final structure adjustments prior to the issuance of the "Permit to Place" for the top course.

Place the top course with a ¼" lip along the edge of the curb and gutter/edge of metal.

All HMA thickness dimensions are compacted-in-place.

4. Paving Operation Scheduling: The Contractor shall schedule the paving operation to avoid leaving longitudinal cold joints "open" overnight.

In all cases, the Contractor shall pave the primary road's through-traffic lanes ("main line") first, from point-of-beginning to the point-of-ending. All other paving including, but not limited to; acceleration and deceleration lanes, intersection approaches, and center left-turn lanes shall be paved following completion of main line paving, unless authorized by the Engineer prior to the placement of any pavement.

5. Rate of Paver Operation: Maintain a paving machine rate of travel so that HMA placement and paving operation is continuous; resulting in no transverse cold joints. The rate of travel; however, shall never exceed 50 feet per minute.

The Contractor shall furnish and operate enough material, equipment, and hauling units to keep the paving machine(s) moving continuously at all times. Failure to do so shall be cause for the suspension of paving operations until the Contractor can demonstrate to the satisfaction of the Engineer that it has dedicated sufficient resources to perform the work in accordance with the project specifications.

6. Longitudinal and Transverse Joints: These joints shall conform to subsection 502.03.F of the MDOT 2012 Standard Specifications for Construction, and as specified herein.

For mainline HMA paving, the width of the mat for each pass of the paver shall be not less than 10.5 feet, or greater than 15 feet, except as noted in the plans and as directed by the Engineer. The Engineer will direct the layout of all HMA longitudinal joints during construction.

7. Feather Joints – shall be constructed so as to vary the thickness of the HMA from zero inches to the required paving thickness at the rate of approximately 1.5" over a

distance of 10 feet, or as directed by the Engineer. The Contractor shall rake the larger pieces of aggregate out of feather joints prior to compaction.

8. Butt Joints: Construction of butt joints, where directed by the Engineer, shall conform to subsections 501.03.C.3 and 501.03.C.4 of the MDOT 2012 Standard Specifications for Construction, except as modified herein.

When the Engineer specifies or directs placement of a butt joint, remove the existing HMA surface to the thickness of the proposed overlay, or full-depth, as directed by the Engineer, for the full width or length of the joint. The HMA material shall be saw cut to the directed depth along the pavement edge or removal line to prevent tearing of the pavement surface. Cut joints that will be exposed in the completed surface must be cut with a saw or a cold-milling machine or other methods approved by the Engineer. Joints that will be covered by HMA must be cut with a saw, a cold-milling machine, or other methods approved by the Engineer.

- 9. Rakers: The Contractor shall provide a minimum of two asphalt rakers during the placement of all wearing and leveling courses.
- 10. Faulty Mixtures: The Contractor and Engineer shall carefully observe the paving operation for signs of faulty mixtures. The Contractor, at its sole expense, shall remove or correct points of weakness in the surface prior to paving subsequent lifts of HMA material. Such corrective action may include the removal and replacement of thin or contaminated sections of pavement, segregated HMA, and any sections that are weak or unstable. Once the Contractor or his representative is notified by the Engineer that the material being placed is out of allowable tolerances, or that there is a problem with the paving operation, the Contractor shall stop the paving operation at once, and shall not be permitted to continue placing HMA material until again authorized by the Engineer. The Engineer will not pay for separately any costs associated with meeting the above requirements, and will include them in the HMA work item(s) the Contractor was performing at the time of discovery of the faulty mixture.
- **d. Measurement and Payment.** The contract includes no separate pay items for measurement and payment of the costs associated with meeting the requirements of this detailed specification. The Contractor shall include these costs in the unit prices bid for the HMA items in the contract.

The Contractor shall return any/all trucks to the plant with unused HMA remaining after the work is complete, and these trucks shall be re-weighed and the corrected weight slip provided to the Engineer. There will no payment any unused HMA material. All weight slips must include the type of mixture (codes are not acceptable), as well as vehicle number, gross weight, tare weight and net weight.

#### DETIALED SPECIFICATION FOR HMA, WEDGING, 36A

AA:DAD 1 of 1 03/23/20

- **a. Description.** This work consists of constructing hot mix asphalt (HMA) finish wedges at drive approaches, sidewalk ramps, and any other location(s) directed by the Engineer, and as described herein.
- **b. Materials.** Provide materials in accordance with section 501 of the Michigan Department of Transportation (MDOT) 2012 Standard Specifications for Construction. Use MDOT mixture HMA, 36A for this work, or an acceptable substitute approved by the Engineer.
- **c. Construction**. Perform work in accordance with section 501 of the MDOT 2012 Standard Specifications for Construction, and as directed by the Engineer.

#### Complete all finish wedging within two days of placing the top course pavement.

Have a 10-foot long straight-edge, backhoe, air-compressor and jackhammer available during all paving operations.

Use finish wedges to provide good vertical and horizontal transitions between old and new construction, to eliminate areas of standing water in the top coarse surface and to provide for positive drainage.

Construct joints by feathering the edges of all finish wedges (including the raking out of all large pieces of aggregate) to provide a high quality, smooth riding surface.

Clean the existing surface with compressed air and/or vacuum type street cleaning equipment prior to placement of wedging material.

Apply MDOT SS-1h bond coat on all asphalt and concrete surfaces within the wedging area at a rate between 0.05 and 0.10 gallons/square yard using a power distributor hand sprayer.

**d. Measurement and Payment.** Measure and pay for the completed work, as described, at the contract unit price for the following pay item:

Pay Item	<u>Pay Uni</u>
HMA, Wedging, 36A	Tor

Measure **HMA**, **Wedging**, **36A** by weight in tons of the material used to perform the work and pay for it at the contract unit price, which price includes all cost for labor, equipment and materials necessary to complete the work including providing, placing and compacting the HMA mixture.

Return any/all trucks to the plant with unused HMA remaining after the work is complete. Re-weigh these trucks and provide a weight slip for this material to the Engineer. There will be no payment for any unused HMA material. All weight slips must include the type of mixture (codes are not acceptable), as well as vehicle number, gross weight, tare weight and net weight.

## DETAILED SPECIFICATION FOR UNDERCUTTING

AA:DAD 1 of 2 03/23/20

- **a. Description.** This work includes the removal of existing unstable and/or unsuitable base, subbase and/or subgrade soil material(s) that may be susceptible to frost heaving or differential frost action in the areas and limits identified by the Engineer. It also includes installing stabilization geotextile and/or structural geogrid as necessary and backfilling to replace these material(s) and remedy the unstable soil conditions. Perform this work in accordance with section 205 of the Michigan Department of Transportation (MDOT) 2012 Standard Specifications for Construction, as directed by the Engineer, and as modified herein.
- **b. Materials.** Provide Granular Material Class II and 21AA dense-graded aggregate materials in accordance with those specified in section 902 of the MDOT 2012 Standard Specifications for Construction.

Provide Coarse Aggregate 3x1 in accordance with sections 902 and 916 the MDOT 2012 Standard Specifications for Construction, except as modified herein. Coarse crushed aggregate must consist of a well graded crushed natural aggregate ranging from one (1) inch to three (3) inch inches in size with no more than 7 percent by weight passing the No. 200 sieve. Coarse aggregate crushed content must be at least 95%.

Provide stabilization geotextile materials in accordance with section 910 of the MDOT 2012 Standard Specifications for Construction.

Provide structural geogrid materials in accordance with the Detailed Specification for Structural Geogrid.

**c. Construction.** Use construction methods as described in subsection 205.03.E of the Standard Specifications for Construction, and as directed by the Engineer.

After either removing the pavement, performing rough/finish grading, and/or at the time of proof rolling, the Engineer will inspect the grade to determine the need for, and the limits of, undercuts. Excavate to the required depth, trim, shape, and re-compact the undercut areas as directed by the Engineer. Properly dispose of all excess materials.

Backfill areas of Undercutting, Type IIA with class 21AA dense-graded aggregate, areas of Undercutting, Type IIB with Granular Material Class II, and areas Undercutting, Type IIC with Coarse Aggregate 3x1 unless directed otherwise by the Engineer.

Place stabilization geotextile and structural geogrid as directed by the Engineer in areas where subgrade soils require added stability. Place stabilization geotextile as directed by the Engineer in areas where is the potential of intermixing of dissimilar materials.

Place and compact the aggregate fill in maximum lifts of not more than 12 inches thick. At the discretion of the Engineer, aggregate fill lifts of up to 24 inches may be allowed based on the assessment of subgrade soil conditions.

Compact undercutting backfill material (>12 inches below the finish base grade) to not less than 95% of its maximum unit weight. Compact undercutting backfill material (≤12 inches below the finish base grade) to not less than 98% of its maximum unit weight. Determine the maximum unit weight of backfill materials using the AASHTO T-180 test.

The Engineer may elect to use one or more types of undercutting to address poor soil conditions identified in a specific area of the project.

**d. Measurement and Payment.** Measure and pay for the completed work, as described, at the contract unit prices using the following pay items:

Pay Item	<u>Pay Unit</u>
Undercutting, Type IIA	Cubic Yard
Undercutting, Type IIB	Cubic Yard
Undercutting, Type IIC	Cubic Yard

Measure Subgrade Undercutting, Type IIA, Subgrade Undercutting, Type IIB, and Subgrade Undercutting, Type IIC volumes in place by the unit cubic yard and pay for them at their respective contract unit prices, which prices include the costs for all labor, equipment and materials necessary to complete the work.

When one or more than types of undercutting are used to address poor soil conditions identified in a specific area of the project, each type will be measured and paid for separately.

Stabilization geotextile and structural geogrid will each be measured and paid for separately.

### DETIALED SPECIFICATION FOR REMOVING HOT MIX ASPHALT AROUND STRUCTURE COVERS

AA:DAD 1 of 1 02/25/18

**a. Description.** This work consists of removing hot mix asphalt (HMA) from around existing (not lowered) structure covers during the cold milling operations, as required and as herein provided, whether structures are shown or not shown on the plans. Covers include those used for storm, sanitary, and water structures, gate and monument boxes, and other private utility structures.

This item does not apply to locations (streets) where structures have been temporary lowered in advance of the cold milling operations.

- b. Materials. None specified.
- **c. Construction.** Remove HMA surface adjacent to structure covers to the same depth as the cold milled surface without the removal of the aggregate or concrete base. Complete work in accordance with subsections 204,03 and 501.03 of the Michigan Department of Transportation (MDOT) 2012 Standard Specifications for Construction, and as directed by the Engineer.

Remove HMA surface, any thickness, from around existing structure covers using a milling machine, and/or hand tools, or other means as approved by the Engineer. Repair or replacement of any structure covers damaged during this operation is the sole responsibility of the Contractor.

**d. Measurement and Payment.** Measure and pay for the completed work, as described, at the contract unit price for the following pay item:

Pay Item	Pay Unit
HMA Surface, Around Structure Cover, Rem	Each

Measure **HMA Surface, Around Structure Cover, Rem** individually in place by the unit each and pay for it at the contract unit price, which price includes all cost for labor, equipment and materials necessary to complete the work.

The number of castings within the milling limits shall constitute the final amount. Measurement shall take place with both the Engineer and the Contractor (or their agents) present.

### DETAILED SPECIFICATION FOR CONCRETE PLACEMENT AND PROTECTION

AA:DAD 1 of 2 02/28/19

- **a. Description.** This work consists of furnishing all labor, material, and equipment necessary to furnish, place, and protect all concrete material in accordance with the Michigan Department of Transportation (MDOT) 2012 Standard Specifications for Construction and the requirements of this detailed specification. These requirements do not apply to concrete bridge decks, unless otherwise noted.
- **b. Materials.** Use concrete meeting the requirements of sections 601 and 701 of the Michigan Department of Transportation (MDOT) 2012 Standard Specifications for Construction.

Propose specific concrete mix designs for the intended project purpose in accordance with the requirements of this detailed specification and other applicable detailed specifications and/or project requirements. The Engineer's acceptance of a mix design does not relieve the Contractor of its responsibility for the manufacture of the concrete mixture(s), the placement, or performance.

**c.** Construction. Perform all concrete placement operations in weather that is suitable for the successful placement and curing of the concrete materials. Do not place concrete during periods of active precipitation.

Complete all necessary formwork, base and/or sub-base preparation, and any other related items deemed necessary for the proper completion of the work. Do not commence with placement of concrete until the Engineer provides all needed approvals for placement. The Engineer's approval of the Contractor to place concrete shall not relieve the Contractor of its responsibility for the proper placement and protection of the concrete materials or its long-term performance.

During periods when precipitation is threatening, provide durable, plastic sheeting, approved by the Engineer, in sufficient quantity to cover and protect all freshly placed concrete and keep it from exposer to any precipitation. Arrange the placement of the plastic sheeting such that it does not mar the surface of any freshly placed concrete, and any/all seams in the plastic sheeting are watertight. Install adequate supports along and over the freshly placed concrete to prevent any contact between it and the plastic sheeting. Ensure placement of sufficient dams or barriers along the edges of freshly placed concrete to prevent erosion of the underlying materials or damage to the edges. All measures shall be effective.

Remove and replace any concrete damaged by precipitation. The Engineer will determine the extent of any damage and the limits of removal and replacement.

Place concrete only when the rate of surface evaporation at the site is less than 0.20 pounds per square foot per hour, according to figure 706-1 of the MDOT 2012 Standard Specifications for Construction. Provide approved equipment for determining the relative humidity and wind velocity at the site.

Perform the addition of water at the placement site in accordance with subsection 601.03.E.4 of the MDOT 2012 Standard Specifications for Construction. Do not add water to placed concrete in order to aid finishing.

Perform concrete curing in accordance with subsection 602.03.M of the MDOT 2012 Standard Specifications for Construction. Curing operations will take precedence over texturing operations and continued concrete placement. Apply curing compound to achieve uniform coverage over the entire surface. Place curing compound so that it is free of spots, blotches, and/or uncovered or non-uniformly covered areas. Should the Engineer determine that any such areas exist, it will direct the Contractor to re-apply curing compound immediately at no additional cost to the project.

Take all precautions when placing concrete to protect it from damage due to the elements. Do not place concrete during precipitation events.

Protect concrete from weather and temperature according to the requirements of subsection 602.03.T of the MDOT 2012 Standard Specifications for Construction. Do not place concrete when the temperature of the plastic concrete mixture is greater than 90° F. Cover concrete with insulated blankets, or using other means approved by the Engineer, to protect it from damage during low temperature conditions. Protect concrete until it has reached a compressive strength of at least 1000 psi, or as directed by the Engineer.

**d. Measurement and Payment.** The contract includes no separate pay items for measurement and payment of the costs associated with meeting the requirements of this detailed specification. Include these costs in the unit price bids for the concrete items in the contract.

Removal and replacement, as determined and directed by the Engineer, of any concrete damaged by precipitation or cold weather is at the expense of the Contractor.

#### **DETIALED SPECIFICATION** FOR FLOWABLE FILL

AA:DAD 1 of 2 02/24/18

- a. Description. This work consists of furnishing and placing flowable fill material as backfill between new and/or replacement curb and gutter and the existing pavement and at other miscellaneous locations as shown on the plans, and as directed by the Engineer.
- b. Materials. Provide flowable fill material, as directed by the Engineer, meeting one the following mixes:
  - 1. Portland cement, fly ash, and water.
  - 2. Portland cement, granular material, fly ash, and water.
  - 3. Fly ash, granular material, and water.

Provide materials in accordance with the following requirements:

		(3)Specific Gravity
Portland Cement	MDOT Section 901	3.15
Fly Ash	(1)ASTM C 6I8(I)	2.40
Granular Material, Cl II	(2)MDOT Section 902	2.60
Water	MDOT Section 911	1.00

Note: Reference to MDOT relates to applicable sections of the Michigan Department of Transportation 2012 Standard Specifications for Construction.

Acceptable mixtures for flowable fill are as follows:

FF Mix Number One - Cement Stabilized Fly Ash Mixture (Class F Fly Ash)

100 lbs/cvd Portland Cement Fly Ash (Class F) 2000 lbs/cvd Water Sufficient amounts to produce the desired flowability (approx. 80 gal/cyd)

2. FF Mix Number Two - Controlled Density Fill Mixture (Class F Fly Ash)

Portland Cement 50 lbs/cvd Fly Ash (Class F) 500 lbs/cyd Granular Material 2600 lbs/cvd Water Sufficient amounts to produce the

desired flowability (approx. 50 gal/cyd)

3. FF Mix Number Three - Controlled Density Fill Mixture (Class C Fly Ash)

Fly Ash (Class C) 300 lbs/cyd Granular Material 2600 lbs/cvd Water Sufficient amounts to produce the desired flowability (approx. 50 gal/cyd)

<sup>(1)</sup> Except there is no limit on the loss of ignition.

<sup>(2)</sup> Except that 100% shall pass 3/4-inch sieve.

<sup>(3)</sup>Specific gravity values used for mix proportions given. If material used differs from these values make appropriate adjustments as required to achieve an acceptable mixture.

c. Construction. Furnish and place flowable fill material as directed by the Engineer.

The Contractor shall provide all necessary materials and appurtenances to ensure proper placement of flowable fill. All flowable fill, after setting, should be capable of removal by conventional mechanical excavation methods.

**d. Measurement and Payment.** Measure and pay for the completed work, as described, at the contract unit price for the following pay item:

Pay Item	<u>Pay Unit</u>
Flowable Fill	Cubic Yard

Measure **Flowable Fill** volume in place by the unit cubic yard and pay for it at the contract unit price, which price includes the cost for all labor, equipment and materials necessary to complete the work.

The Engineer will not pay for any flowable fill used at the Contractor's option.

## DETAILED SPECIFICATION FOR CONCRETE CURB AND GUTTER, AND DRIVEWAY OPENINGS

AA:DAD 1 of 2 03/11/19

- **a. Description.** This work consists of constructing concrete curb and gutter, and concrete driveway openings at the locations shown on the plans in accordance with section 802 of the Michigan Department of Transportation (MDOT) 2012 Standard Specifications for Construction, applicable standard or special details, as directed by the Engineer, and as specified herein.
- **b. Materials.** Provide materials meeting the requirements specified in subsection 802.02 of the MDOT 2012 Standard Specifications for Construction and as specified herein.

Use concrete mixture Grade P-NC (658 pounds/cubic yard cement content) for Driveway Opening, Conc, Det M, Modified as specified in subsection 601.02 of the MDOT 2012 Standard Specifications.

Use either Grade P1 or S2 concrete for all other concrete curb and gutter specified herein. The Contractor may elect to add GGBFS to P1 mixtures in accordance with the requirements of the contract documents. The Engineer will not pay any additional amount for concrete mixtures containing GGBFS.

Provide concrete mixtures containing 6AA coarse aggregates that are either natural or limestone and meet the requirements of section 902 the MDOT 2012 Standard Specifications for Construction.

The Contractor is solely responsibility for providing specific concrete mix designs that meet the requirements of this detailed specification.

**c. Construction.** Use construction methods in accordance with subsection 802.03 of the MDOT 2012 Standard Specifications for Construction.

Place expansion joints of the thickness shown on the details or as directed by the Engineer.

**d. Measurement and Payment.** Measure and pay for the completed work, as described, at the respective contract unit prices using the following respective pay items:

Pay Item	Pay Unit
Curb and Gutter, Conc, Barrier	Foot
Curb and Gutter, Conc, Mountable	Foot
Driveway Opening, Conc, Det M, Modified	Foot

Measure **Curb and Gutter, Conc** and **Driveway Opening, Conc, Det M, Modified** lengths in place by the unit foot and pay for them at their respective contract unit prices, which prices include the costs for all labor, equipment and materials to complete the work.

Measurement in place by the unit foot and payment for concrete curb and gutter (without the curb face) at curb openings for sidewalk ramps will be at the contact unit price for **Curb and Gutter, Conc**.

Where the Engineer directs the use of high early strength concrete for pay items not specifically designated to use Grade P-NC concrete, it will pay separately for the additional cement. The Engineer will not pay for cement separately for pay items that designated to use Grade P-NC concrete.

#### DETAILED SPECIFICATION FOR DETECTABLE WARNING SURFACE

AA:DAD 1 of 2 03/11/19

- **a. Description.** This work consists of furnishing and installing cast in place detectable warning units in compliance to the Americans with Disabilities Act (ADA) Title 49 CFR Transportation, Part 37.9 Standards for Accessible Transportation Facilities, Appendix A, section 4.29.2 Detectable Warnings on Walking Surfaces. Complete work in accordance with the Detailed Specification for "Concrete Sidewalk, Sidewalk Ramps, and Driveway Approach", section 803 of the Michigan Department of Transportation (MODT) 2012 Standard Specifications for Construction, MDOT Standard Plan Series R-28, as indicated on the plans, and as modified herein.
- **b. Materials.** Use color Federal Number 22144 (frequently referred to as "Colonial Red" or "Brick Red") for detectable warning tiles.

The following apply to this detailed specification: American Society for Testing and Materials (ASTM) Test Methods B117, C1028, D543, D570, D638, D695, D790, D2486, D2565, D5420, and E84.

Provide detectable warning tiles meeting the following material properties, dimensions, and tolerances using the most current test methods:

- 1. Water Absorption: Not to exceed 0.35% when tested in accordance with ASTM-D570
- 2. Slip Resistance: 0.80 minimum combined wet/dry static coefficient of friction on top domes and field area, when tested in accordance with ASTM C1028.
- 3. Compressive Strength: 18,000 psi minimum, when tested in accordance with ASTM D695.
- 4. Tensile Strength: 10,000 psi minimum, when tested in accordance with ASTM D638.
- Flexural Strength: 24,000 psi minimum, when tested in accordance with ASTM D790.
- Chemical Stain Resistance: No reaction to 1% hydrochloric acid, urine, chewing gum, soap solution, motor oil, bleach, calcium chloride, when tested in accordance with ASTM D543 or D1308.
- 7. Wear Depth: 300 minimum, when tested in accordance with ASTM C501.
- 8. Flame Spread: 25 maximum, when tested in accordance with ASTM E84.
- 9. Gardner Impact: 50 in.-lbs. minimum, when tested in accordance with Geometry "GE" of ASTM D5420.
- 10. Accelerated Weathering of Tile when tested by ASTM-G155 or ASTM G151 shall exhibit the following result-∆E<6.0 as well as no deterioration, fading or chalking of surface when exposed to 3000 hours minimum exposure.
- 11. Wheel Loading: The cast in place tile shall be mounted on a concrete platform with a ½" airspace at the underside of the tile top plate then subjected to the specified maximum load of 10,400 lbs., corresponding to an 8,000 lb individual wheel load and a 30% impact factor. The tile shall exhibit no visible damage at the maximum load of 10,400 lbs using AASHTO-HB17 single sheet HS20-44 loading "Standard Specifications for Highways and Bridges."

12. Salt and Spray Performance of Tile and Adhesive System when tested to ASTM-B117 not to show any deterioration or other defects after 100 hours of exposure

Submit manufacturer's literature describing products, installation procedures and maintenance instructions. Provide cast-in-place detectable surface tiles and accessories as produced by a single manufacturer.

Samples for Verification Purposes: Submit two (2) tile samples minimum 6" x 8" of the kind proposed for use. Properly label samples to show the following information: Name of Project; Submitted by; Date of Submittal; Manufacture's Name; Catalog No.; and Date of Fabrication.

Material Test Reports: Submit current test reports from a qualified, independent, testing laboratory that verify materials proposed for use comply with requirements of this detailed specification. Use a certified and qualified independent testing laboratory to perform any/all other tests required by this detailed specification to ensure the proposed cast-in-place tactile warning system is compliant. All test reports submitted shall be certified by the testing laboratory and shall clearly state that all tests were completed within 5 years of the date of the submittal. The manufacturer shall certify in writing that the materials provided to the project are manufactured with the same materials and manufacturing procedures as those used in the materials on which the tests were performed.

**c. Construction.** Installer Qualifications: Engage an experienced installer who has successfully completed tile installations similar in material, design, and extent required for this project.

Follow manufacturer specifications for installation, except where they conflict with MDOT Standard Plan Series R-28, or other project requirements.

**d. Measurement and Payment.** Measure and pay for the completed work, as described, at the respective contract unit prices using the following respective pay items:

Pay Item	<u>Pay l</u>	<u>Jni</u>
Detectable Warning Surface.	Modified F	=00

Measure **Detectable Warning Surface**, **Modified** length in place by the unit foot and pay for it at the contract unit price, which price includes the costs for all labor, equipment and materials to complete the work.

#### DETIALED SPECIFICATION FOR SIDEWALK RETAINING WALLS

AA:DAD 1 of 4 02/26/18

- **a. Description.** This work consists of constructing concrete retaining walls adjacent to sidewalks in accordance with the requirements and special details included herein, and as directed by the Engineer.
- **b. Materials.** Provide concrete Grade P-NC, unless otherwise directed by the Engineer, meeting the requirements of subsection 602.03 of the Michigan Department of Transportation (MDOT) 2012 Standard Specifications for Construction.
- **c.** Construction. Construct retaining walls in accordance with special details includes herein. Curb face exposure shall be 6 inches to 36 inches.

The Contractor shall excavate, cut, remove stumps, remove brush, remove pavement, grade, and trim as needed and as directed, and shall furnish, place, grade, and compact any materials needed to perform the work.

Complete all subgrade work prior to placing concrete items, unless directed or approved by the Engineer.

At locations where the subgrade, subbase or base becomes either disturbed, saturated or otherwise damaged, and where directed by the Engineer, the Contractor shall remove a minimum 6-inch thick layer of the subgrade, subbase or base, and replace it with approved 21AA Aggregate material, compacted in place.

The Contractor shall coordinate with the City Forester prior to the removal of any tree roots 2 inches in diameter or greater.

The Contractor shall maintain on-site at all times, a sufficient quantity of adequate materials to protect concrete items. The Engineer may suspend or defer concrete placement if rain protection is not available. The Contractor shall not be entitled to any additional compensation due to work suspension or deferral resulting from a lack of adequate rain protection.

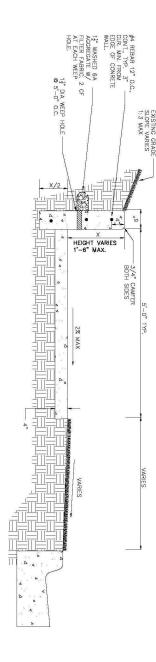
The Contractor is responsible for any damage to concrete items, including but not limited to vandalism; vehicular, pedestrian and/or miscellaneous structural damage; surface texture damage; and rain damage.

**d. Measurement and Payment.** Measure and pay for the completed work, as described, at the contract unit price using the following pay items:

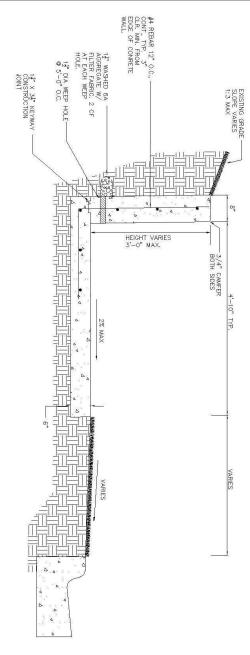
areas in place by the unit square foot and pay for them at their respective contract unit prices, which prices include the costs for all labor, equipment and materials necessary to complete the work.

The Engineer will pay for separately all sidewalk work performed adjacent to any retaining wall.

#### INTEGRAL SIDEWALK RETAINING WALL (6" – 18") DETAIL



#### INTEGRAL SIDEWALK RETAINING WALL (18"-36") DETAIL



### DETIALED SPECIFICATION FOR

#### REMOVAL AND REINSTALLATION OF CONCRETE OR CLAY BRICK PAVERS

AA:DAD 1 of 2 03/11/19

- **a. Description.** This work consists of removing, stockpiling and reinstalling concrete, clay, or other type material, brick sidewalk pavers. Furnish and install sand base, concrete base, fine aggregate leveling bed, fine aggregate joint filler, and any additional brick pavers as shown on the plans, and as directed by the Engineer.
- **b. Materials.** Provide base material, where required, meeting requirements for Class 21AA of dense-graded aggregate in accordance with section 902 of the Michigan Department of Transportation (MDOT) 2012 Standard Specifications for Construction and the Detailed Specification for Aggregate Base. Provide subbase material, where required, meeting requirements for Class II granular material in accordance with section 902 of the MDOT 2012 Standard Specifications for Construction.

Construct concrete base, where required, using Grade P1 or Grade P2 concrete in accordance with section 601 of the MDOT 2012 Standard Specifications for Construction.

Construct a fine aggregate leveling bed shall consisting of a 3:1 mix of 2NS fine aggregate (3 parts) and Type N masonry cement (1 part). Use 2MS fine aggregate as joint filler. Provide masonry cement and fine aggregate materials in accordance with sections 901 and 902, respectively, of the MDOT 2012 Standard Specifications for Construction.

Use additional brick pavers as required matching the material and color of the existing brick pavers in the areas adjoining the removal/replacement limits.

**c. Construction.** Remove and salvage existing pavers, remove any existing mortar or bituminous setting bed and concrete base, to the limits specified by the Engineer, down to the existing aggregate base. Where an existing base is not present, remove the subbase to a sufficient depth for construction of the proposed section as shown on the attached detail, or as directed by the Engineer. Store and protect salvaged pavers on-site in an area approved by the Engineer until they are ready for use.

Shape, grade, and compact the existing base materials, and construct the base to match the existing adjacent elevations.

Blend fine aggregate and mortar uniformly to create the leveling bed mix. Place leveling bed on aggregate base or existing concrete base to the depth shown on the Plans. Use control bars and/or guides to screed the fine aggregate leveling bed.

Match new/reinstalled brick pattern with that of the existing adjacent brickwork. Use string lines or other devices as necessary to insure straight joint lines and final surface elevations. Butt paving units tight to adjacent concrete paving and to each other. Protect newly laid pavers at all times by plywood panels on which workers stand. Use a plate vibratory compactor (minimum of 5,000lbs compaction force) and make a minimum of three (3) passes to set paving units in leveling course prior to filling joints. Protect pavers from chipping and cracking during compaction.

Spread fine aggregate joint filler over paver surface and broom into joints, and mist lightly with water to settle sand into joints. Allow to surface dry and repeat process, as required, to fill joints

completely. Remove excess sand upon completion.

Take any necessary precautions to prevent damage or theft to pavers during removal, salvage, and replacement. The Engineer will not pay additional compensation for the replacement of damaged or stolen pavers.

**d. Measurement and Payment.** Measure and pay for the completed work, as described, at the contract unit price using the following pay item:

Measure **Sidewalk**, **Conc or Clay Brick Pavers**, **Rem and Reinstall** area in place by the unit square foot and pay for it at the contract unit price, which price includes all cost for labor, equipment and materials necessary to complete the work.

### DETAILED SPECIFICATION FOR

#### CONCRETE SIDEWALK, SIDEWALK RAMP AND DRIVEWAY APPROACH

AA:DAD 1 of 2 03/11/19

- **a. Description.** This work consists of constructing concrete sidewalks, sidewalk ramps, or driveway approaches of the types as indicated on the plans in accordance with attached details, and as directed by the Engineer. All work shall be in accordance with sections 801 and/or 803 of the Michigan Department of Transportation (MDOT) 2012 Standard Specifications for Construction, and as specified herein.
- **b. Materials.** Provided materials meeting the requirements specified subsections 801.02 and/or 803.02 of the MDOT 2012 Standard Specifications for Construction and as specified herein.

Use concrete mixture Grade P-NC (658 pounds/cubic yard cement content) for driveway approaches as specified in subsection 601.02 of the MDOT 2012 Standard Specifications.

Use either Grade P1 or S2 concrete for all remaining items covered by this detailed specification. The Contractor may elect to add GGBFS to P1 mixtures in accordance with the requirements of the contract documents. The Engineer will not pay any additional amount for concrete mixtures containing GGBFS.

Provide concrete mixtures containing 6AA coarse aggregates that are either natural or limestone and meet the requirements of section 902 the MDOT 2012 Standard Specifications for Construction.

The Contractor is solely responsibility for providing specific concrete mix designs that meet the requirements of this detailed specification.

**c. Construction Methods.** Perform this work in accordance with subsections 801.03 and/or 803.03 of the MDOT 2012 Standard Specifications for Construction and as required herein. The Contractor is responsible to construct all sidewalks, sidewalk ramps, curbs, and all other concrete items within ADAAG and PROWAG compliance. Construct all sidewalk ramps in accordance with MDOT Standard Plan Series R-28.

Place any/all concrete on a minimum of 4 inches of Granular Material Class II compacted to 95% of its maximum dry density unless otherwise directed by the Engineer.

Prior to placing any concrete, the compact and trim the subgrade to the final elevation. If a cold joint is required, clean existing concrete with compressed air to expose the aggregate in the concrete.

Where indicated on the plans, horizontally saw cut curbs to provide openings for sidewalk ramps. The Engineer will define the extent of the saw cuts both horizontally and vertically.

Install all sidewalk ramps with detectable warning tiles. Reference the Detailed Specification for Detectable Warning Surface for additional requirements.

**d. Measurement and Payment.** Measure and pay for the completed work, as described, at the respective contract unit prices using the following respective pay items:

Pay Item	Pay Unit
Driveway, Nonreinf Conc, 6 inch, Modified	Square Yard
Driveway, Nonreinf Conc, 8 inch, Modified	Square Yard
Sidewalk, Conc, 4 inch, Modified	Square Foot
Sidewalk, Conc, 6 inch, Modified	Square Foot
Sidewalk, Conc, 8 inch, Modified	Square Foot
Sidewalk Ramp, Conc, 6 inch, Modified	Square Foot
Sidewalk Ramp, Conc, 8 inch, Modified	Square Foot

Measure **Driveway, Nonreinf Conc, \_ inch, Modified** areas in place by the unit square yard and pay for them at their respective contract unit prices, which prices include the costs for all labor, equipment and materials to complete the work.

Measure Sidewalk, Conc, \_ inch, Modified and Sidewalk Ramp, Conc, \_ inch, Modified areas in place by the unit square foot and pay for them at their respective contract unit prices, which prices include the costs for all labor, equipment and materials to complete the work.

Saw cutting is not a separate contract pay item, and payment for this work will be included in the appropriate item of work for which it applies. The Contractor shall include any/all costs for saw cutting to place concrete driveways, sidewalk and sidewalk ramps in the respective contract unit prices bid for **Driveway, Nonreinf Conc, \_ inch, Modified**; **Sidewalk, Conc, \_ inch, Modified**; and **Sidewalk Ramp, Conc, \_ inch, Modified**.

Where the Engineer directs the use of high early strength concrete for pay items not specifically designated to use Grade P-NC concrete, it will separately for the additional cement. The Engineer will not pay for cement separately for pay items that designated to use Grade P-NC concrete.

The pay items, **Granular Material Class II** and **Subbase, CIP**, are for the furnishing, placement, grading and compaction of bedding material respectively beneath replacement and new sidewalks and sidewalk ramps.

The pay items for **Grading, Driveway Approach**; **Grading, Sidewalk**; and **Grading, Sidewalk Ramp** respectively include earth excavation, furnishing and placement of embankment material, and preparing the grade for placement of Aggregate Base, Granular Material Class II or Subbase, CIP bedding material beneath replacement and new sidewalks and sidewalk ramps.

Measurement in place by the unit foot and payment for detectable warning tiles in sidewalk ramps will be at the contact unit price for **Detectable Warning Surface**, **Modified** in accordance with the Detailed Specification for Detectable Warning Surface.

### DETAILED SPECIFICATION FOR SHARED USE PATH GRADING

AA:DAD 1 of 2 03/23/20

- **a. Description.** This work consists of removing miscellaneous structures and materials, and completing all earthwork required to construct new and replacement asphalt paths to the lines and grades shown on the plans and/or as directed by the Engineer. Complete this work according to sections 205 and 806 Michigan Department of Transportation (MDOT) 2012 Standard Specifications for Construction, this detailed specification, and as directed by the Engineer.
- **b. Materials.** Provide Granular Material Class II and 21AA dense-graded aggregate materials in accordance with those specified in section 902 of the MDOT 2012 Standard Specifications for Construction as necessary to achieve the required cross section(s). The Contractor may use excavated material, if suitable, as embankment with approval by the Engineer.
- **c.** Construction. Complete this work, as applicable, according to subsections 205.03 and 806.03 of the MDOT 2012 Standard Specifications for Construction. Grading for shared use path includes, but is not limited to, the following work:
  - Stripping and stockpiling topsoil for use in turf establishment as approved.
  - 2. Removing rocks or boulders less than 0.5 cubic yards in volume.
  - 3. Excavating material to a depth necessary for construction.
  - 4. Required brushing and tree trimming and removal of materials resulting from this work.
  - 5. Removing and disposing of overburden vegetation and soils alongside the existing pathway edges prior to any crushing and shaping activities.
  - 6. Disposing of excess and unsuitable material according to section 205 of the MDOT 2012 Standards Specifications for Construction.
  - 7. Shaping, grading, and compacting the subgrade to proposed grades to prepare it for embankment or aggregate base bedding material.
  - 8. Furnishing and placing embankment material to the grades necessary for construction.
  - 9. Shaping, grading, and compacting embankment to proposed grades to prepare it for aggregate base bedding material.
  - 10. Matching new shared use path grades with existing or new grades as required.
- **d. Measurement and Payment.** Measure and pay for the completed work, as described, at the contract unit price using the following pay items:

 Measure **Shared use Path, Grading, Modified** area in place by the unit square yard and pay for it at the contract unit price, which price includes the costs for all labor, equipment and materials necessary to complete the work.

#### CITY OF ANN ARBOR

# DETIALED SPECIFICATION FOR HOT MIX ASPHALT (HMA) SHARED USE PATH WEDGING

AA:DAD 1 of 2 03/23/20

- **a. Description.** This work consists of constructing hot mix asphalt (HMA) wedging along shared use paths as directed by the Engineer, and as described herein.
- **b. Materials.** Provide materials in accordance with section 501 of the Michigan Department of Transportation (MDOT) 2012 Standard Specifications for Construction. Use HMA mixture shown in the Detailed Specification for Hot Mix Asphalt (HMA) Application Estimate included in the contract for this work, or an acceptable substitute approved by the Engineer.
- **c. Construction**. Perform work in accordance with section 501 of the MDOT 2012 Standard Specifications for Construction, and as directed by the Engineer.

Place wedging material in accordance with the application rate shown in the Detailed Specification for Hot Mix Asphalt (HMA) Application Estimate included in the contract.

Have a 10-foot long straight-edge, backhoe, air-compressor and jackhammer available during all paving operations for wedging work.

Use wedging to provide good vertical and horizontal transitions between old and new construction, eliminate areas of standing water in the wearing surface and provide for positive drainage, and to perform cross slope correction to achieve compliance with current standards.

Construct joints by feathering the edges of all wedging (including the raking out of all large pieces of aggregate) to provide a high quality, smooth riding surface.

Clean the existing surface with compressed air and/or vacuum type street cleaning equipment prior to placement of wedging material.

Apply MDOT SS-1h bond coat on all asphalt and concrete surfaces within the wedging area at a rate between 0.05 and 0.10 gallons/square yard as directed by the Engineer using a power distributor hand sprayer.

**d. Measurement and Payment.** Measure and pay for the completed work, as described, at the contract unit price for the following pay item:

Measure **Shared use Path, HMA, Wedging** by weight in tons of the material used to perform the work and pay for it at the contract unit price, which price includes all cost for labor, equipment and materials necessary to complete the work including providing, placing and compacting the HMA mixture.

Return any/all trucks to the plant with unused HMA remaining after the work is complete, and reweigh these trucks to obtain an accurate quantity of unused/waste material. Provide to the Engineer, a corrected or new weight ticket/slip that accounts for the unused material. There will be no payment for any unused HMA material. All weight tickets/slips must include the type of mixture (codes are not acceptable), as well as vehicle number, gross weight, tare weight, and net weight.

#### CITY OF ANN ARBOR

## DETAILED SPECIFICATION FOR TEMPORARY NO PARKING SIGNS

AA:DAD 1 of 1 03/11/19

- **a. Description.** This work consists of installing, maintaining and removing of "No Parking" signs and posts as outlined herein and as referenced on the plans. Install "No Parking" signs in accordance with the section 812 of the Michigan Department of Transportation (MDOT) 2012 Standard Specifications for Construction Standard Specifications and the 2011 Michigan Manual of Uniform Traffic Control Devices (MMUTCD).
- **b. Materials.** The City will furnish "No Parking" signs to the Contractor at no cost. The Contractor will furnish the sign support and mounting hardware materials in accordance with those specified in section 919 of the MDOT 2012 Standard Specifications for Construction.
- **c.** Construction. Place temporary "No Parking" signs prior to the commencement of any construction activity as directed by the Engineer. Obtain a permit for "Temporary Permission of Reserve Parking Lane for Work Related Purposes" from the City's Engineering Unit. Obtain this permit a minimum of five (5) business days prior to the posting of "No Parking" signs.

Securely bolt the signs to the sign supports as directed by the Engineer. Imbed all sign supports at least two feet into the ground, and ensure that installations are stable and safe. Provide a minimum six feet and maximum seven feet of clearance between the bottom of the installed sign and the ground. Place signs at intervals no greater than 75 feet, and as necessary to eliminate parking in the construction area.

Install temporary "No Parking" signs be in accordance with the permit, as as directed by the Engineer, and at least 48 hours prior to the proposed start-of-work/enforcement date. Cover temporary "No Parking" signs to allow for on-street parking until 48 to 24 hours prior to the start of the work. Cover temporary "No Parking" signs during non-working periods longer than 72 hours. Prior to beginning work and during construction, cover existing/permanent "No Parking" signs having messages that conflict with those that are temporary. Remove temporary "No Parking" signs and posts upon the completion of work at each location. Return signs to the City upon completion of all contract work, and/or when no longer needed.

**d. Measurement and Payment.** Measure and pay for the completed work, as described, at the contract unit price using the following pay item:

Pay Item

Temporary No Parking Sign ..... Each

Measure **Temporary No Parking Sign** individually in place by the unit each and pay for it at the contract unit price, which price includes all cost for labor, equipment and materials necessary to complete the work. Measurement will be for the maximum number of signs installed on a project location at any one time. The unit price also includes the removal and return of "No Parking" signs to the City upon completion of the project, and the covering of any existing/permanent "No Parking" signs.

The City will back charge the Contractor for replacement costs associated with damaged and/or unreturned signs.

#### CITY OF ANN ARBOR DETAILED SPECIFICATION FOR

### PROTECTING AND PRESERVING IRRIGATION SYSTEMS

1 of 2 4/26/23

#### **Description**

This work shall consist of all labor, materials, and equipment necessary to investigate, locate, save and protect from damage, ensure continued and proper operation during the performance of the project work, re-establish operation as necessary, and, upon completion of all project work, ensure that all existing sprinkler systems located within the project limits, or those affected by the project, are functioning in a satisfactory manner as determined by the Engineer.

#### **Materials**

None specified.

### Construction

The Contractor shall be aware that properties located within the project limits have underground sprinkler systems that irrigate both private property and portions of the public right-of-way. The irrigation systems have been installed by a variety of private installers and may utilize several different materials and/or suppliers of the various components. Portions of the existing irrigation systems have been installed under paved areas, extend into landscaped islands, or may be required to be located within such areas at the conclusion of the project's construction.

The Contractor shall perform the necessary investigations to determine the precise location of the irrigation systems and all affected components prior to the commencement of construction operations. The Contractor shall determine all impacts to the systems that will result pursuant to the project's construction and take all necessary actions to ensure that the sprinkler systems will remain functional during the project's construction. The Contractor shall re-establish the sprinkler systems in such a manner at appropriate intermediate and final project milestones that the original functionality of the system is maintained to the greatest extent possible.

The Contractor shall contact all property owners prior to the commencement of the work to determine the impacts to their irrigation systems and coordinate with them to ensure satisfactory operation of the irrigation systems during construction.

All work shall be approved by the Engineer and the affected property owner(s) at the conclusion of the project's work.

This is an allowance type item. This allowance is not for solving problems caused by the Contractor's neglect, errors, omissions, or other deeds of the Contractor's own fault. Protecting existing irrigation systems where it is not necessary to remove it to complete the work is included in the contract unit price for the pay item General Conditions, Max \$

The Contractor is required to present a detailed scope of work and detailed costs for any work contemplated under the irrigation system allowance to the Engineer. No work is to begin until scope and costs have been finalized and approved by the Engineer in writing.

Thereafter, if the approved price for this work is more or less than the allowance amount in the Contract, the Contract Price shall be adjusted accordingly by Change Order. The payment shall

### CITY OF ANN ARBOR DETAILED SPECIFICATION FOR

### PROTECTING AND PRESERVING IRRIGATION SYSTEMS

2 of 2 4/26/23

be made on the basis of the actual approved amount without additional charge or markups for overhead, insurances, bonds, or any other incidental expenses. The Contractor shall be responsible for all coordination involved and for the timely completion of the work to fit his/her schedule.

### **Measurement and Payment**

The completed work, as described, will be measured and paid for at the approved price for the following pay item:

Contract Item (Pay Item)	Pay Unit
Irrigation System, Protection and Maintenance, Allowance	Dollar

The approved price for this item shall include all labor, material, and equipment costs required to complete the work.

#### CITY OF ANN ARBOR

# DETAILED SPECIFICATION FOR SLOPE RESTORATION

AA:DAD 1 of 3 04/09/19

- **a. Description.** This work consists of preparing all manicured lawns and slopes on non-freeway projects designated for slope restoration on the plans or by the Engineer, and applying topsoil, fertilizer, seed, and mulch blankets to those areas. Turf establishment shall be in accordance with section 816 of the Michigan Department of Transportation (MDOT) 2012 Standard Specifications for Construction and Standard Plan Series R-100, except as modified herein or otherwise directed by the Engineer.
- **b. Materials.** The materials and application rates shall meet the requirements specified in subsection 816.02 and section 917 of the MDOT 2012 Standard Specifications for Construction and as specified herein unless otherwise directed by the Engineer.
  - 1. Topsoil Surface: Place 4 inches of topsoil in area disturbed areas designated for restoration. Topsoil shall be free of all stones one inch in diameter or greater.
  - 2. Turf Seed Mixture: Use seed mixture shown in table below. Seed shall be fresh, clean, dry, new-crop seed complying with the AOSA's "Rules for Testing Seed", tested for purity and germination tolerances.

Species/Variety	Mix Proportions	Purity	Germination
Species, rainely	(percent by weight)	(percent)	(percent)
Baron Kentucky Bluegrass	25	90	80
Kentucky Bluegrass 98/80	15	98	80
Park Kentucky Bluegrass	15	90	80
Omega III Perennial Ryegrass	20	98	90
Creeping Red Fescue	25	95	90

Maximum weed content shall be 0.30%.

- 3. Chemical Fertilizer Nutrient: Use Class A fertilizer.
- 4. 4. Mulch Blanket: Use excelsior mulch blanket free of chemical additives. The netting thread and anchoring devices must be 100 percent biodegradable. **Use no polypropylene or other non-biodegradable netting**. Provide wood or other biodegradable anchors, at least 6 inches in length, as approved by the Engineer. **Do not use steel wire staples or pins to anchor mulch blankets**.
- **c. Construction.** Construction methods shall be in accordance to subsections 816.03 and 817.03 of the MDOT 2012 Standard Specifications for Construction. Begin this work as soon as possible after final grading of the areas designated for slope restoration but no later than the maximum time limitations stated in subsection 208.03 of the Standard Specifications for Construction. It may be necessary, as directed by the Engineer, to place materials by hand.

Restore all areas as shown on the plans and others disturbed by the Contractor's activity(s) and as identified by the Engineer. Slope restoration includes furnishing and placing topsoil, applying seed and fertilizer, placing mulch blankets, and watering as necessary for the establishment of turf.

Prior to placing topsoil, grade, shape, compact and assure all areas to be seeded are weed free. Place topsoil to the minimum depth required, to meet proposed finished grade. Spread and rake topsoil to provide a uniform surface free of large clumps, rocks, brush, roots, or other

deleterious materials, as determined by the Engineer. Remove any stones greater than or equal to 1 inch in diameter. If the area designated for restoration requires more than the minimum depth of topsoil to meet finished grade, the additional depth must be filled using topsoil. Furnishing and placing this additional material is included in this item of work.

Place topsoil that is weed and weed seed free and friable prior to placing seed. Apply seed mixture and fertilizer to prepared soil surface. Incorporate seed into top ½ inch of topsoil.

Use mulch blanket on all areas designated for restoration unless otherwise directed by the Engineer. Install mulch blanket per the manufacturer's published instructions.

Protect and maintain restored areas to establish a uniform, dense, vigorous, and weed free turf without mounds and/or depressions. Begin maintenance immediately upon completion of restoration work and continue up to final acceptance. This includes, but is not limited to, deposition of additional topsoil, re-seeding, fertilizing, and placement of mulch blankets to address areas damaged by washouts and soil erosion, non-uniform germination and bare spots. It also includes any other work required to correct all settlement, erosion, germination, and establishment issues.

If areas washout and/or erode after completing the work and obtaining approval by the Engineer, make the required corrections to prevent future washouts and erosion and replace the topsoil, fertilizer, seed and mulch as required and directed by the Engineer.

Scattered bare spots in seeded areas will not be allowed over three (3) percent of the area nor greater than 6"x 6" in size.

If the Engineer determines weeds cover more than ten percent of the total area of slope restoration, the Contractor will provide weed control in accordance to subsection 816.03.J of the MDOT 2012 Standard Specifications for Construction.

Prior to acceptance, the Engineer will inspect the restored areas to ensure the turf is well established, weed free, in a vigorous growing condition, and contains the species called for in the seeding mixture. If areas do not promote growth, the Contractor will apply new seed, fertilizer and mulch blankets, and water as required.

Upon fulfillment of the above requirements, the Engineer will accept the slope restoration.

Unless otherwise approved by the Engineer, final acceptance will occur no sooner than October 10 of the same year for areas initially restored during the spring (April 15 - June 15) planting season; or, no sooner than June 15 of the following year for areas initially restored during the prior summer/fall (after June 15) planting season.

**d. Measurement and Payment.** Measure and pay for the completed work, as described, at the contract unit price using the following pay item:

Pay Item

Slope Restoration......Square Yard

Measure **Slope Restoration** area in place by the unit square yard and pay for it at the contract unit price, which price includes the costs for all labor, equipment and materials necessary to complete the work.

The Contractor will restore areas disturbed by its operations and not required by the Project at its own expense.

The Engineer will not pay for any labor, equipment and material costs for the Contractor to provide weed control.

The Contractor will repair and/or clean any damage or soiling to signs, fences, trees, pavements, structures, etc. at its own expense.

After initial placement of the slope restoration measures, the Engineer will certify for payment fifty (50) percent of the total quantity placed for each item. The Engineer will certify for payment the remaining fifty (50) percent of the total quantities upon full establishment and final acceptance of any restored area.

# MICHIGAN DEPARTMENT OF TRANSPORTATION

# SPECIAL PROVISION FOR TEMPORARY PEDESTRIAN TYPE II BARRICADE

OFS:RAL 1 of 2 APPR:CAL:CT:08-02-16

- **a. Description.** This work consists of furnishing, installing, maintaining, relocating, and removing a temporary pedestrian Type II barricade section as identified in the proposal or on the plans. Use temporary pedestrian Type II barricades to close non-motorized facilities including sidewalks, bicycle paths, pedestrian paths, and shared use paths that are not part of the roadway. One pedestrian Type II barricade is defined as a barricade section at least 43 inches wide, including all supports, ballast, and hardware.
- **b. Materials.** Provide a temporary pedestrian Type II barricade that meets the requirements of *National Cooperative Highway Research Program Report 350 (NCHRP 350)* or *Manual for Assessing Safety Hardware* (MASH), in addition to meeting the following requirements:
  - 1. Provide barricade sections at least 43 inches wide, designed to interconnect to ensure a continuous *Americans with Disabilities Act (ADA)* compliant tactile barrier. Ensure the connection includes provisions to accommodate non-linear alignment as well as variations in elevation at the installation area.
  - 2. Ensure the top surface of the barricade is designed to function as a hand-trailing edge, and has a height between 32 and 38 inches. Ensure the lower edge of the barricade is no more than 2 inches above the surface of the non-motorized facility. Ensure the top edge of the bottom rail of the barricade is a minimum of 8 inches above the surface of the non-motorized facility. The barricade may have a solid continuous face. Finally, all features on the front face of the barricade (the face in contact with pedestrians) must share a common vertical plane.
  - 3. Equip both sides of the barricade with bands of alternating 6-inch wide orange and white vertical stripes of reflective sheeting. Two bands of sheeting 6 inches tall and a minimum of 36 inches long containing at least two orange and two white stripes each are required. One band placed near the top and one near the bottom if the barricade section has a solid face. If the barricade consists of two rails, affix one band of sheeting to each rail. Ensure the stripes of reflective sheeting are aligned vertically. Ensure this sheeting meets or exceeds the requirements of *ASTM D 4956* Type IV sheeting.
- **c.** Construction. Construct the temporary pedestrian Type II barricade in accordance with the manufacturer's recommendations, Michigan Manual on Uniform Traffic Control Devices (MMUTCD), the plans, and the following requirements:
  - 1. Install the barricade as shown on the plans and as directed by the Engineer. Interconnect all barricade sections using hinge components if necessary to ensure a continuous detectable edge for the entire installation. Ensure the barricade is ballasted according to the manufacturer's recommendations to ensure stability during wind events and contact with pedestrians.

- 2. When the barricade is installed near motor vehicle traffic, ensure reflective sheeting is visible to motorists.
- 3. When pedestrian Type II barricades are used to close a non-motorized facility, ensure a sufficient number of barricade sections are used to block the entire width of the facility. The barricade may extend outside the edge of the non-motorized facility but must not be less than the full width of the facility.
- 4. If sections of multiple colored barriers are used (i.e. safety orange and white) install the sections such that the colors alternate to increase conspicuity.
- 5. Ensure pedestrian Type II barricades are not used to close a motor vehicle facility. Ensure these barricades are not used to guide pedestrian traffic on a motor vehicle facility in the presence of active traffic. This prohibition includes bicycle/shared use lanes or shoulders in the presence of active traffic.
- **d. Measurement and Payment.** The completed work, as described, will be measured and paid for at the contract unit price using the following pay item:

Pay Item	Pay Uni
Pedestrian Type II Barricade, 1	empEach

**Pedestrian Type II Barricade, Temp,** includes all labor, equipment, and materials to furnish, install, maintain, relocate, and remove one barricade section that is at least 43 inches wide. Additional payment will not be made if wider sections are provided. This includes all rails, supports, ballast, hinge points, reflective sheeting, and miscellaneous hardware needed to install and maintain a barricade section.

#### CITY OF ANN ARBOR

#### **NOTICE TO BIDDERS**

#### UTILITY COORDINATION

AA:DAD 1 of 1 03/05/19

The contractor shall cooperate and coordinate construction activities with the owners of utilities as stated in Section 104.08 of the 2012 Michigan Department of Transportation (MDOT) Standard Specifications for Construction. In addition, for the protection of underground utilities, the contractor shall follow the requirements in Section 107.12 of the 2012 MDOT Standard Specifications for Construction. Contractor delay claims, resulting from a utility, will be determined based upon Section 109.05.E of the 2012 MDOT Standard Specifications for Construction.

For protection of underground utilities and in conformance with Public Act 174 of 2013, the contractor shall dial 800-482-7171 or 811 a minimum of three (3) full working days, excluding Saturdays, Sundays, and holidays prior to beginning construction in areas where utilities have not been previously located. The "Miss Dig" alert system will then routinely notify members to locate and mark their facilities. This, however, does not relieve the contractor of the responsibility of notifying utility owners that may not be a part of the system.

There will be no requirement for owners of public or private utilities to move their facilities on or from within the street right-of-way if those facilities will not interfere with the proposed project work and they do not present a hazard to the public or an extraordinary hazard to the Contractor's operations.

The City will not require utilities owners to move additional poles or structures in order to facilitate the operation of construction equipment unless the Engineer determines that such poles or structures constitute a hazard to the public or are dangerous to the Contractor's operations.

Private utility owners will complete any/all necessary relocations prior to construction.

The following is a list of Private and Public Utilities that may or may not have facilities located within the Right-of-Way. This list is for informational purposes only and is not an exhaustive list of utilities located within the Right-of-Way.

**ATT** – Telecommunications/Fiber Optic 550 South Maple Road Ann Arbor, MI 48103 Contact: Jeff Lehman 734-996-5334

City of Ann Arbor – Water, Storm, Sanitary, Telecommunications/Fiber Optic W.R. Wheeler Service Center 4251 Stone School Road Ann Arbor, MI 48108 734 794-6351

Comcast – Telecommunications/Fiber Optic 27800 Franklin Road Southfield, MI 48034 Contact: Ron Sutherland 313-999-8300 DTE Energy – Electric & Street Lighting 8001 Haggerty Road Belleville, MI 48111 Contact (Electric): Anthony Ignasiak 734-397-44447 Contact (Lighting): Lance Alley 734-397-4188

**DTE Energy** – Gas 3150 E. Michigan Ave Ypsilanti Township, MI 48198 Contact: Robert Czapiewski 734-544-7818

MCI – Telecommunications/Fiber Optic 2800 North Glenfille Road Richardson, TX 75082 Contact: Dean Boyers 972-729-6016

# APPENDIX ATTACHMENT B GENERAL DECLARATIONS

City of Ann Arbor Guy C. Larcom Municipal Building Ann Arbor, Michigan 48107

#### Ladies and Gentlemen:

The undersigned, as Bidder, declares that this Bid is made in good faith, without fraud or collusion with any person or persons bidding on the same Contract; that this Bidder has carefully read and examined the bid documents, including City Nondiscrimination requirements and Declaration of Compliance Form, Living Wage requirements and Declaration of Compliance Form, Prevailing Wage requirements and Declaration of Compliance Form, Vendor Conflict of Interest Form, Notice of Pre-Bid Conference, General Information, Bid, Bid Forms, Contract, Bond Forms, General Conditions, Standard Specifications, Detailed Specifications, all Addenda, and the Plans (if applicable) and understands them. The Bidder declares that it conducted a full investigation at the site and of the work proposed and is fully informed as to the nature of the work and the conditions relating to the work's performance. The Bidder also declares that it has extensive experience in successfully completing projects similar to this one.

The Bidder acknowledges that it has not received or relied upon any representations or warrants of any nature whatsoever from the City of Ann Arbor, its agents or employees, and that this Bid is based solely upon the Bidder's own independent business judgment.

The undersigned proposes to perform all work shown on the plans or described in the bid documents, including any addenda issued, and to furnish all necessary machinery, tools, apparatus, and other means of construction to do all the work, furnish all the materials, and complete the work in strict accordance with all terms of the Contract of which this Bid is one part.

In accordance with these bid documents, and Addenda numbered \_\_\_\_\_, the undersigned, as Bidder, proposes to perform at the sites in and/or around Ann Arbor, Michigan, all the work included herein for the amounts set forth in the Bid Forms.

The Bidder declares that it has become fully familiar with the liquidated damage clauses for completion times and for compliance with City Code Chapter 112, understands and agrees that the liquidated damages are for the non-quantifiable aspects of non-compliance and do not cover actual damages that may be shown and agrees that if awarded the Contract, all liquidated damage clauses form part of the Contract.

The Bidder declares that it has become fully familiar with the provisions of Chapter 14, Section 1:320 (Prevailing wages) and Chapter 23 (Living Wage) of the Code of the City of Ann Arbor and that it understands and agrees to comply, to the extent applicable to employees providing services to the City under this Contract, with the wage and reporting requirements stated in the City Code provisions cited. Bidder certifies that the statements contained in the City Prevailing Wage and Living Wage Declaration of Compliance Forms are true and correct. Bidder further agrees that the cited provisions of Chapter 14 and Chapter 23 form a part of this Contract.

The Bidder declares that it has become familiar with the City Conflict of Interest Disclosure Form and certifies that the statement contained therein is true and correct.

The Bidder encloses a certified check or Bid Bond in the amount of 5% of the total of the Bid Price. The Bidder agrees both to contract for the work and to furnish the necessary Bonds and insurance documentation within 10 days after being notified of the acceptance of the Bid.

If this Bid is accepted by the City and the Bidder fails to contract and furnish the required Bonds and insurance documentation within 10 days after being notified of the acceptance of this Bid, then the Bidder shall be considered to have abandoned the Contract and the certified check or Bid Bond accompanying this Bid shall become due and payable to the City.

If the Bidder enters into the Contract in accordance with this Bid, or if this Bid is rejected, then the accompanying check or Bid Bond shall be returned to the Bidder.

In submitting this Bid, it is understood that the right is reserved by the City to accept any Bid, to reject any or all Bids, to waive irregularities and/or informalities in any Bid, and to make the award in any manner the City believes to be in its best interest.

\$	SIGNED THIS	DAY OF	, 202
Bidder's Name		Authorized S	ignature of Bidder
Official Address		(Print Name	of Signer Above)
Telephone Number		Email Addres	ss for Award Notice

# ATTACHMENT C LEGAL STATUS OF BIDDER

(The bidder shall fill out the appropriate form and strike out the other three.)

Bidder declares that it is:

* A corporation organized and doing bus	siness under the laws of the	State of								
, for whom		, bearing the office title								
of, whose signature is affixed to this Bid, is authorized to execute cont  NOTE: If not incorporated in Michigan, please attach the corporation's Certificate of Authority										
A limited liability company doing but whom bearing the twhose signature is affixed to this propout LLC.	usiness under the laws of title of	the State of,								
* A partnership, organized under the law of, whose members are each) (attach separate sheet if necessar	e (list all members and the s	and filed in the county treet and mailing address of								
* An individual, whose signature with ad <b>Authorized Official</b>	dress, is affixed to this Bid:	(initial here)								
	Date	, 202								
(Print) Name	Title									
Company:										
Address:										
Contact Phone ( )	Fax ( )									

# ATTACHMENT D PREVAILING WAGE DECLARATION OF COMPLIANCE

The "wage and employment requirements" of Section 1:320 of Chapter 14 of Title I of the Ann Arbor City Code mandates that the city not enter any contract, understanding or other arrangement for a public improvement for or on behalf of the city unless the contract provides that all craftsmen, mechanics and laborers employed directly on the site in connection with said improvements, including said employees of subcontractors, shall receive the prevailing wage for the corresponding classes of craftsmen, mechanics and laborers, as determined by statistics for the Ann Arbor area compiled by the United States Department of Labor. Where the contract and the Ann Arbor City Code are silent as to definitions of terms required in determining contract compliance with regard to prevailing wages, the definitions provided in the Davis-Bacon Act as amended (40 U.S.C. 278-a to 276-a-7) for the terms shall be used. Further, to the extent that any employees of the contractor providing services under this contract are not part of the class of craftsmen, mechanics and laborers who receive a prevailing wage in conformance with section 1:320 of Chapter 14 of Title I of the Code of the City of Ann Arbor, employees shall be paid a prescribed minimum level of compensation (i.e. Living Wage) for the time those employees perform work on the contract in conformance with section 1:815 of Chapter 23 of Title I of the Code of the City of Ann Arbor.

At the request of the city, any contractor or subcontractor shall provide satisfactory proof of compliance with this provision.

The Contractor agrees:

- (a) To pay each of its employees whose wage level is required to comply with federal, state or local prevailing wage law, for work covered or funded by this contract with the City,
- (b) To require each subcontractor performing work covered or funded by this contract with the City to pay each of its employees the applicable prescribed wage level under the conditions stated in subsection (a) or (b) above.
- (c) To provide to the City payroll records or other documentation within ten (10) business days from the receipt of a request by the City.
- (d) To permit access to work sites to City representatives for the purposes of monitoring compliance, and investigating complaints or non-compliance.

The undersigned states that he/she has the requisite authority to act on behalf of his/her employer in these matters and has offered to provide the services in accordance with the terms of the wage and employment provisions of the Chapter 14 of the Ann Arbor City Code. The undersigned certifies that he/she has read and is familiar with the terms of Section 1:320 of Chapter 14 of the Ann Arbor City Code and by executing this Declaration of Compliance obligates his/her employer and any subcontractor employed by it to perform work on the contract to the wage and employment requirements stated herein. The undersigned further acknowledges and agrees that if it is found to be in violation of the wage and employment requirements of Section 1:320 of the Chapter 14 of the Ann Arbor City Code it shall has be deemed a material breach of the terms of the contract and grounds for termination of same by the City.

Company Name	
Signature of Authorized Representative	Date
Print Name and Title	
Address, City, State, Zip	
Phone/Email address	

Questions about this form? Contact Procurement Office City of Ann Arbor Phone: 734/794-6500

9/25/15 Rev 0 PW

# <u>ATTACHMENT E</u> LIVING WAGE ORDINANCE DECLARATION OF COMPLIANCE

The Ann Arbor Living Wage Ordinance (Section 1:811-1:821 of Chapter 23 of Title I of the Code) requires that an employer who is (a) a contractor providing services to or for the City for a value greater than \$10,000 for any twelvemonth contract term, or (b) a recipient of federal, state, or local grant funding administered by the City for a value greater than \$10,000, or (c) a recipient of financial assistance awarded by the City for a value greater than \$10,000, shall pay its employees a prescribed minimum level of compensation (i.e., Living Wage) for the time those employees perform work on the contract or in connection with the grant or financial assistance. The Living Wage must be paid to these employees for the length of the contract/program.

Companies employing fewer than 5 persons and non-profits employing fewer than 10 persons are exempt from compliance with the

Living Wage	Ordinance. If this exemption applies to your company/	non-profit agency please check here [] No. of employees	<u>}</u>
The Contrac	ctor or Grantee agrees:		
(a)	prevailing wage law, for work covered or funded Living Wage. The current Living Wage is demployee health care (as defined in the Ors \$17.73/hour for those employers that do not protect that the Living Wage is adjusted and established.	evel is not required to comply with federal, state or lot by a contract with or grant from the City, no less than efined as \$15.90/hour for those employers that provide dinance at Section 1:815 Sec. 1 (a)), or no less the contract or Grantor understated annually on April 30 in accordance with the Ordinate the adjusted amount thereafter to be in compliance or	the vide han inds ince
	Check the applicable box b	elow which applies to your workforce	
	Employees who are assigned to any applicable living wage without health be	covered City contract/grant will be paid at or above enefits	the
	Employees who are assigned to any applicable living wage with health bene	covered City contract/grant will be paid at or above fits	the
(b)		ng the applicability of the Living Wage Ordinance in every sor other persons contracting for employment are work	
(c)	To provide to the City payroll records or othe receipt of a request by the City.	er documentation within ten (10) business days from	the
(d)	To permit access to work sites to City represe investigating complaints or non-compliance.	entatives for the purposes of monitoring compliance,	and
(e)	employee covered by the Living Wage Ordinan	ensation, wages, fringe benefits, or leave available to ace or any person contracted for employment and cove he living wage required by the Living Wage Ordinance	ered
has offered Wage Ordin Ordinance,	to provide the services or agrees to accept finan nance. The undersigned certifies that he/she ha obligates the Employer/Grantee to those terms a	y to act on behalf of his/her employer in these matters a cial assistance in accordance with the terms of the Liv- as read and is familiar with the terms of the Living Wand acknowledges that if his/her employer is found to be d termination of the awarded contract or grant of finan	ving age e in
Company Na	me	Street Address	
Signature of A	Authorized Representative Date	City, State, Zip	
Print Name a	nd Title	Phone/Email address	

# **Attachment F**

# CITY OF ANN ARBOR LIVING WAGE ORDINANCE

# RATE EFFECTIVE APRIL 30, 2023 - ENDING APRIL 29, 2024

\$15.90 per hour

**\$17.73** per hour

If the employer provides health care benefits\*

If the employer does **NOT** provide health care benefits\*

Employers providing services to or for the City of Ann Arbor or recipients of grants or financial assistance from the City of Ann Arbor for a value of more than \$10,000 in a twelve-month period of time must pay those employees performing work on a City of Ann Arbor contract or grant, the above living wage.

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# w. ENFORCEMENT

**X.** The City of Ann Arbor may recover back wages either administratively or through court action for the employees that have been underpaid in violation of the law. Persons denied payment of the living wage have the right to bring a civil action for damages in addition to any action taken by the City.

Violation of this Ordinance is punishable by fines of not more than \$500/violation plus costs, with each day being considered a separate violation. Additionally, the City of Ann Arbor has the right to modify, terminate, cancel or suspend a contract in the event of a violation of the Ordinance.

The Law Requires Employers to Display This Poster Where Employees Can Readily See It.

For Additional Information or to File a Complaint contact Colin Spencer at 734/794-6500 or cspencer@a2gov.org

<sup>\*</sup> Health Care benefits include those paid for by the employer or making an employer contribution toward the purchase of health care. The employee contribution must not exceed \$.50 an hour for an average work week; and the employer cost or contribution must equal no less than \$1/hr for the average work week.

#### **ATTACHEMENT G**



# Vendor Conflict of Interest Disclosure Form

All vendors interested in conducting business with the City of Ann Arbor must complete and return the Vendor Conflict of Interest Disclosure Form in order to be eligible to be awarded a contract. Please note that all vendors are subject to comply with the City of Ann Arbor's conflict of interest policies as stated within the certification section below.

If a vendor has a relationship with a City of Ann Arbor official or employee, an immediate family member of a City of Ann Arbor official or employee, the vendor shall disclose the information required below.

- No City official or employee or City employee's immediate family member has an ownership interest in vendor's company or is deriving personal financial gain from this contract.
- 2. No retired or separated City official or employee who has been retired or separated from the City for less than one (1) year has an ownership interest in vendor's Company.
- 3. No City employee is contemporaneously employed or prospectively to be employed with the vendor.
- Vendor hereby declares it has not and will not provide gifts or hospitality of any dollar value
  or any other gratuities to any City employee or elected official to obtain or maintain a
  contract.
- 5. Please note any exceptions below:

Conflict of Interest Disclosure*							
Name of City of Ann Arbor employees, elected officials or immediate family members with whom	( ) Relationship to employee						
there may be a potential conflict of interest.	( ) Interest in vendor's company     ( ) Other (please describe in box below)						
*Disclosing a potential conflict of interest does not disqual	ify vendors. In the event vendors do not disclose potential						

\*Disclosing a potential conflict of interest does not disqualify vendors. In the event vendors do not disclose potential conflicts of interest and they are detected by the City, vendor will be exempt from doing business with the City.

I certify that this Conflict of Interest D contents are true and correct to my ki certify on behalf of the Vendor by my s	nowledg	ge and	d belief and I have the authority to so				
Vendor Name			Vendor Phone Number				
Signature of Vendor Authorized Representative	Dat	te	Printed Name of Vendor Authorized Representative				

Questions about this form? Contact Procurement Office City of Ann Arbor Phone: 734/794-6500, procurement@a2gov.org

# **ATTACHMENT H**

#### **DECLARATION OF COMPLIANCE**

#### Non-Discrimination Ordinance

The "non discrimination by city contractors" provision of the City of Ann Arbor Non-Discrimination Ordinance (Ann Arbor City Code Chapter 112, Section 9:158) requires all contractors proposing to do business with the City to treat employees in a manner which provides equal employment opportunity and does not discriminate against any of their employees, any City employee working with them, or any applicant for employment on the basis of actual or perceived age, arrest record, color, disability, educational association, familial status, family responsibilities, gender expression, gender identity, genetic information, height, HIV status, marital status, national origin, political beliefs, race, religion, sex, sexual orientation, source of income, veteran status, victim of domestic violence or stalking, or weight. It also requires that the contractors include a similar provision in all subcontracts that they execute for City work or programs.

In addition the City Non-Discrimination Ordinance requires that all contractors proposing to do business with the City of Ann Arbor must satisfy the contract compliance administrative policy adopted by the City Administrator. A copy of that policy may be obtained from the Purchasing Manager

The Contractor agrees:

- (a) To comply with the terms of the City of Ann Arbor's Non-Discrimination Ordinance and contract compliance administrative policy, including but not limited to an acceptable affirmative action program if applicable.
- (b) To post the City of Ann Arbor's Non-Discrimination Ordinance Notice in every work place or other location in which employees or other persons are contracted to provide services under a contract with the City.
- (c) To provide documentation within the specified time frame in connection with any workforce verification, compliance review or complaint investigation.
- (d) To permit access to employees and work sites to City representatives for the purposes of monitoring compliance, or investigating complaints of non-compliance.

The undersigned states that he/she has the requisite authority to act on behalf of his/her employer in these matters and has offered to provide the services in accordance with the terms of the Ann Arbor Non-Discrimination Ordinance. The undersigned certifies that he/she has read and is familiar with the terms of the Non-Discrimination Ordinance, obligates the Contractor to those terms and acknowledges that if his/her employer is found to be in violation of Ordinance it may be subject to civil penalties and termination of the awarded contract.

Company Name	
<del></del>	
Signature of Authorized Representative	Date
Print Name and Title	
Address, City, State, Zip	
, ,, , ,	
Phone/Email Address	

Questions about the Notice or the City Administrative Policy, Please contact:

Procurement Office of the City of Ann Arbor

(734) 794-6500

2016 Rev 0 NDO-2

## **ATTACHMENT I**

# CITY OF ANN ARBOR NON-DISCRIMINATION ORDINANCE

Relevant provisions of Chapter 112, Nondiscrimination, of the Ann Arbor City Code are included below. You can review the entire ordinance at www.a2gov.org/humanrights.

Intent: It is the intent of the city that no individual be denied equal protection of the laws; nor shall any individual be denied the enjoyment of his or her civil or political rights or be discriminated against because of actual or perceived age, arrest record, color, disability, educational association, familial status, family responsibilities, gender expression, gender identity, genetic information, height, HIV status, marital status, national origin, political beliefs, race, religion, sex, sexual orientation, source of income, veteran status, victim of domestic violence or stalking, or weight.

<u>Discriminatory Employment Practices:</u> No person shall discriminate in the hire, employment, compensation, work classifications, conditions or terms, promotion or demotion, or termination of employment of any individual. No person shall discriminate in limiting membership, conditions of membership or termination of membership in any labor union or apprenticeship program.

<u>Discriminatory Effects:</u> No person shall adopt, enforce or employ any policy or requirement which has the effect of creating unequal opportunities according to actual or perceived age, arrest record, color, disability, educational association, familial status, family responsibilities, gender expression, gender identity, genetic information, height, HIV status, marital status, national origin, political beliefs, race, religion, sex, sexual orientation, source of income, veteran status, victim of domestic violence or stalking, or weight for an individual to obtain housing, employment or public accommodation, except for a bona fide business necessity. Such a necessity does not arise due to a mere inconvenience or because of suspected objection to such a person by neighbors, customers or other persons.

Nondiscrimination by City Contractors: All contractors proposing to do business with the City of Ann Arbor shall satisfy the contract compliance administrative policy adopted by the City Administrator in accordance with the guidelines of this section. All city contractors shall ensure that applicants are employed and that employees are treated during employment in a manner which provides equal employment opportunity and tends to eliminate inequality based upon any classification protected by this chapter. All contractors shall agree not to 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 any applicable protected classification. All contractors shall be required to post a copy of Ann Arbor's Non-Discrimination Ordinance at all work locations where its employees provide services under a contract with the city.

Complaint Procedure: If any individual believes there has been a violation of this chapter. he/she may file a complaint with the City's Human Rights Commission. The complaint must be filed within 180 calendar days from the date of the individual's knowledge of the allegedly discriminatory action or 180 calendar days from the date when the individual should have known of the allegedly discriminatory action. A complaint that is not filed within this timeframe cannot be considered by the Human Rights Commission. To file a first complete the complaint form, which complaint. www.a2gov.org/humanrights. Then submit it to the Human Rights Commission by e-mail (hrc@a2gov.org), by mail (Ann Arbor Human Rights Commission, PO Box 8647, Ann Arbor, MI 48107), or in person (City Clerk's Office). For further information, please call the commission at 734-794-6141 or e-mail the commission at hrc@a2gov.org.

<u>Private Actions For Damages or Injunctive Relief:</u> To the extent allowed by law, an individual who is the victim of discriminatory action in violation of this chapter may bring a civil action for appropriate injunctive relief or damages or both against the person(s) who acted in violation of this chapter.

Michigan Department Of Transportation CP-347 (04/10)

# MICHIGAN DEPARTMENT OF TRANSPORTATION CERTIFIED PAYROLL

#### COMPLETION OF CERTIFIED PAYROLL FORM FULFILLS THE MINIMUM MDOT PREVAILING WAGE REQUIREMENTS

(1) NAME OF CON	TRACTOR / SI	JBCONTRACTOR (CIRCLE ONE	)		(2) AI	DDRES	SS														
(3) PAYROLL NO.		(4) FOR WEEK ENDING			(5) F	PROJE	CT ANI	DLOCA	ATION									(6	) CONTRAC	TID	
(a)		(b)	(c)	_	(d) D/	Y AND	DATE	<u> </u>	<u> </u>	(e)	(f)	(g)	(h) GROSS	(i)			(j) DED	DUCTIONS			(k)
EMPLOYEE INF	FORMATION	WORK CLASSIFICATION	Hour Type	HOUR	RS WO	RKED:	ON PR	OJECT		TOTAL HOURS ON PROJECT	PROJECT RATE OF PAY			TOTAL WEEKLY HOURS WORKED ALL JOBS	FICA	FEDERAL	STATE		OTHER	TOTAL DEDUCT	TOTAL WEEKLY WAGES PAID FOR ALL JOBS
NAME:										0			\$0.00							\$0.00	\$0.00
ETH/GEN: NAME:	ID #:	GROUP/CLASS #:	s						_	0			\$0.00								
				_				_	_	0										\$0.00	\$0.00
ETH/GEN: NAME:	ID #:	GROUP/CLASS #:	s					$\vdash$	<del> </del>	0			\$0.00								
	.D. #		_	$\dashv$						0										\$0.00	\$0.00
NAME:	ID#:	GROUP/CLASS #:	s					$\vdash$	$\vdash$	0			\$0.00								
ETH/GEN:	ID #:	GROUP/CLASS #:	s							0										\$0.00	\$0.00
NAME:										0			\$0.00							\$0.00	\$0.00
ETH/GEN:	ID #:	GROUP/CLASS #:	s							0										ψ0.00	ψ0.00
TVAME:										0			\$0.00							\$0.00	\$0.00
ETH/GEN: NAME:	ID #:	GROUP/CLASS #:	s	4			-	┞	┞	0			\$0.00								
			┝	$\dashv$				├	<u> </u>	0										\$0.00	\$0.00
ETH/GEN: NAME:	ID#:	GROUP/CLASS #:	s	$\dashv$			<u>                                       </u>	$\vdash$	-	0			\$0.00								
ETH/GEN:	ID#:	GROUP/CLASS #:	s	+						0										\$0.00	\$0.00

Date	
(Name of Signatory Party)	(Title)
do hereby state:	
(1) That I pay or supervise the payment of the	a nercone amployed by
(1) That I pay or supervise the payment of the	, persons employed by
(Contractor or Sul	on the bcontractor)
,	; that during the payroll period commencing on the
(Building or Work)	
day of,, and	d ending the, day of,,
all persons employed on said project have been poeen or will be made either directly or indirectly to o	paid the full weekly wages earned, that no rebates have or on behalf of said
	from the full
(Contractor or S	
from the full wages earned by any person, other the	deductions have been made either directly or indirectly an permissible deductions as defined in Regulations, Part f Labor under the Copeland Act, as amended (48 Stat. 948, . § 3145), and described below:
correct and complete; that the wage rates for labor applicable wage rates contained in any wage classifications set forth therein for each laborer or recommendations. (3) That any apprentices employed in the apprenticeship program registered with a State Apprenticeship and Training, United States Departi	ntract required to be submitted for the above period are rers or mechanics contained therein are not less than the determination incorporated into the contract; that the mechanic conform with the work he performed.  e above period are duly registered in a bona fide apprenticeship agency recognized by the Bureau of ment of Labor, or if no such recognized agency exists in a ship and Training, United States Department of Labor.
(4) That:	
(a) WHERE FRINGE BENEFITS ARE PA	AID TO APPROVED PLANS, FUNDS, OR PROGRAMS
the above referenced payro	rly wage rates paid to each laborer or mechanic listed in oll, payments of fringe benefits as listed in the contract ide to appropriate programs for the benefit of such lin section 4(c) below.

(b) WHERE FRINGE BENEFITS ARE PAID IN CASH		
<b>-</b>	Each laborer or mechanic listed in the above referenced payroll has been paid as indicated on the payroll, an amount not less than the sum of the applicable basic hourly wage rate plus the amount of the required fringe benefits as listed in the contract, except as noted in section 4(c) below.	

#### (c) EXCEPTIONS

EXCEPTION (CRAFT)	EXPLANATION
REMARKS:	
NAME AND TITLE	SIGNATURE
THE WILLFUL FALSIFICATION OF ANY OF THE ABOV	F STATEMENTS MAY SUBJECT THE CONTRACTOR OR

THE WILLFUL FALSIFICATION OF ANY OF THE ABOVE STATEMENTS MAY SUBJECT THE CONTRACTOR OR SUBCONTRACTOR TO CIVIL OR CRIMINAL PROSECUTION. SEE SECTION 1001 OF TITLE 18 AND SECTION 231 OF TITLE 31 OF THE UNITED STATES CODE.