

MICHIGAN
DEPARTMENT OF TRANSPORTATION

SPECIAL PROVISION
FOR
EROSION CONTROL, INLET PROTECTION, FABRIC DROP

COS:DMG

1 of 2

APPR:TWK:CP:03-11-20
FHWA:APPR:03-13-20

a. Description. This work consists of furnishing and installing acceptable alternatives to inlet protection devices (devices) listed in the *Soil Erosion and Sedimentation Control Manual* when the pay item Erosion Control, Inlet Protection, Fabric Drop is included in the contract.

This work consists of furnishing, installing, maintaining, disposing of collected material and removing devices at the locations shown on the plans or as directed by the Engineer.

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 Geo Components.
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.
5. Flexstorm Catch-It and Flexstorm Pure used with filter bag types FX, FX+, FXO, PC, PC+ or IL.

Ensure provided devices are sized appropriately for the drainage structures in which they will be installed.

c. Construction. Install, maintain and remove the devices in accordance with the manufacturer's guidelines. Remove material collected by the devices in accordance with the manufacturer's guidelines or as directed by the Engineer.

Dispose of collected material in accordance with subsection 205.03.P of the Standard Specifications for Construction. Those devices that are no longer needed and have been removed may be reused elsewhere on the project as approved by the Engineer.

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 Unit
Erosion Control, Inlet Protection, Fabric Drop.....	Each

Erosion Control, Inlet Protection, Fabric Drop will be paid for as one each for each time the alternate device listed herein is installed, maintained, and removed at a separate location within the project limits.

MICHIGAN
DEPARTMENT OF TRANSPORTATION

SPECIAL PROVISION
FOR
**MAINTENANCE GRAVEL, DRIVEWAY MAINTENANCE, AND INTERSECTION
MAINTENANCE MEASUREMENT AND PAYMENT**

CFS:MJE

1 of 1

APPR:DMG:LLR:11-17-23

FHWA:APPR:11-21-23

Delete subsections 306.04.B and 306.04.C, on pages 3-24 and 3-25 of the Standard Specifications for Construction, in their entirety and replace with the following:

- B. Maintenance Gravel.** The Engineer will measure **Maintenance Gravel, LM** based on hauling unit dimensions and load count before placement and compaction.

The Engineer will measure **Maintenance Gravel** in tons by the scale weight of the material. The Engineer will perform moisture tests at the start of weighing operations and if construction operations, weather conditions, or other causes may change the moisture content of the material. If tests indicate a moisture content greater than 8%, the Engineer will deduct the weight of the excess moisture from the scale weight of the maintenance gravel until moisture tests indicate the moisture content is no greater than 8%.

The Engineer will determine the moisture content and pay weights as specified in section 109.

The unit price for **Maintenance Gravel** and **Maintenance Gravel, LM** includes the cost of furnishing the aggregate and constructing, maintaining, and removing the aggregate surface.

- C. Driveway Maintenance, Commercial; Driveway Maintenance, Residential and Intersection Maintenance** includes material, construction, grading, maintenance, removal, replacement, and disposal of the aggregate surface. These items will be paid for once per location regardless of the number of times the aggregate surface is placed, maintained, removed, or replaced.

Intersection Maintenance will be paid for separately for each approach of the highway, street, or alley that joins or crosses the roadway.

MICHIGAN
DEPARTMENT OF TRANSPORTATION

SPECIAL PROVISION
FOR
RECYCLED HOT MIX ASPHALT MIXTURE ON LOCAL AGENCY PROJECTS

CFS:KPK

1 of 2

APPR:JWB:CJB:02-26-20
FHWA:APPR:03-02-20

Add the following subsection to subsection 501.02.A.2 of the Standard Specifications for Construction.

- c. **Reclaimed Asphalt Pavement (RAP) and Binder Grade Selection.** The method for determining the binder grade in HMA mixtures incorporating RAP is divided into three categories designated Tier 1, Tier 2 and Tier 3. Each tier has a range of percentages that represent the contribution of the RAP binder toward the total binder, by weight. The tiers identified below apply to HMA mixtures with the following exception: Superpave mixture types EML, EML High Stress, EMH, EMH High Stress, and EH, EH High Stress used as leveling or top course must be limited to a maximum of 27 percent RAP binder by weight of the total binder in the mixture.

Recycled materials may be used as a substitute for a portion of the new materials required to produce HMA mixtures in accordance with contract.

- **Tier 1 (0% to 17% RAP binder by weight of the total binder in the mixture).** No binder grade adjustment is made to compensate for the stiffness of the asphalt binder in RAP.
- **Tier 2 (18% to 27% RAP binder by weight of the total binder in the mixture).** For all mixtures no binder grade change will occur in Tier 2 for all shoulder and temporary road mixtures.

Ensure the required asphalt binder grade is at least one grade lower for the low temperature than the design binder grade required for the specified project mixture type. Lowering the high temperature of the binder one grade is optional. For example, if the design binder grade for the mixture type is PG 58-22, the required grade for the binder in the HMA mixture containing RAP would be a PG 52-28 or a PG 58-28.

For Marshall Mixes, no binder grade change will be required when Average Daily Traffic (ADT) is above 7000 or Commercial Average Daily Traffic (CADT) is above 700. No binder grade change will occur for EL mixtures used as leveling or top course.

The asphalt binder grade can also be selected using a blending chart for high and low temperatures. Supply the blending chart and the RAP test data used in determining the binder selection according to *AASHTO M323*.

- **Tier 3 ($\geq 28\%$ RAP binder by weight of the total binder in the mixture).** The binder grade for the asphalt binder is selected using a blending chart for high and low temperatures per *AASHTO M323*. Supply the blending chart and the RAP test data

used in determining the binder selection.

MICHIGAN
DEPARTMENT OF TRANSPORTATION

SPECIAL PROVISION
FOR
FLEXIBLE DELINEATORS

PMK:MKB

1 of 2

APPR:AJU:MWB:11-09-23
FHWA APPR:11-20-23

a. Description. This work consists of furnishing and installing rebounding ground-mounted and/or surface-mounted flexible delineators with reflective sheeting in accordance with the standard specifications, the contract, and this special provision.

b. Materials.

1. Ground-Mounted. Select one of the below products or a Department approved equal. Ensure the overall product is impact resistant and capable of returning to its original upright position after being impacted by a vehicle. The anchor system must consist of 2-inch perforated square tubing 24 inches in length that allows for replacement of the post without impacting the anchor.

Shur-Flex Driveable Delineator – Shur-Tite Products
Safe-Hit SQR-LOC Flexible Delineator – Valtir

The selected post must have a height of 48 inches. Ensure the color of the post and the sign sheeting applied to the flexible post are the color of the pavement marking line the delineator is supplementing. Ensure the reflective sheeting is *ASTM Type XI* sheeting with a minimum area of 27 square inches. Sheeting is required on both sides of the post on undivided roadways.

2. Surface-Mounted. Select products from the Qualified Products List (919.03D) with a height as specified in the contract. Ensure the color of the post and the sign sheeting applied to the flexible post are the color of the pavement marking line the delineator is supplementing. Ensure the reflective sheeting has a minimum total area of 27 square inches. Sheeting is required to be visible on all sides of the post that face approaching traffic.

c. Construction. Install flexible delineator posts with the required anchoring accessories, in accordance with section 810 of the Standard Specifications for Construction and the post manufacturer's directions. Do not bend or damage the posts. Install the flexible post plumb such that its reflective sheeting will be perpendicular or radial to oncoming traffic. Replace posts or sheeting damaged during installation at no additional cost to the contract.

Mount reflective sheeting as shown on the Standard Plan R-127 Series.

Prior to applying reflective sheeting to flexible delineator posts, the application area of the post must be flame treated. Flame treating may be accomplished with either hand-held torches or commercially available flame treaters, through the following steps:

1. Ensure the area to be flame treated is clean and free of dirt and oils.

2. Adjust the torch or flame treater to produce a highly oxygenated blue flame. A poorly oxygenated (yellow) flame will not effectively treat the surface.

3. Expose the application area of the post to the blue flame with one-quarter to two inches of separation, moving over the application area at a speed of greater than or equal to one inch per second.

4. Ensure proper distance and duration are determined for any given substrate or device and should adhere to the post manufacturer’s recommendations. A surface that is properly flame treated will not be exposed to a significant rise in temperature. Improper flame treating operations that overheat the plastic may soften or deform the substrate.

d. Measurement and Payment. The completed work, as described, will be measured and paid for at the contract unit price using the following pay items:

Pay Item	Pay Unit
Post, Flexible, Delineator, Ground Mtd	Each
Post, Flexible, Delineator, Surface Mtd, __ inch	Each

The above pay items include all costs for the post, reflective sheeting, layout, and installation.

MICHIGAN
DEPARTMENT OF TRANSPORTATION

SPECIAL PROVISION
FOR
TEMPORARY PEDESTRIAN TYPE II BARRICADE

COS:CRB

1 of 2

APPR:CAL:CT:03-01-21
APPR:FHWA:03-08-21

a. Description. This work consists of delivering, 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 accessible 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 D4956, Type IV* sheeting.

c. Construction. Construct the temporary pedestrian Type II barricade in accordance with the manufacturer's recommendations, 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 in accordance with 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 temporary 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 temporary 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 Unit
Pedestrian Type II Barricade, Temp	Each

Pedestrian Type II Barricade, Temp, includes delivering, installing, maintaining, relocating, and removing one barricade section that is at least 43 inches wide. Additional payment will not be made if wider sections are provided. Payment will be made on delivery for the quantity delivered to the project site, up to planned quantity. Any amount delivered exceeding plan quantity will not be paid unless approved by the Engineer. This includes all rails, supports, ballast, hinge points, reflective sheeting, and miscellaneous hardware needed to install and maintain a barricade section.

MICHIGAN
DEPARTMENT OF TRANSPORTATION

SPECIAL PROVISION
FOR
LANDSCAPE PLANTS SOURCE LIST

RSD:JLB

1 of 1

APPR:MRB:JN:04-09-20
FHWA APPR:04-13-20

a. Description. This work consists of submitting a Landscape Plants Source list to the Engineer at the preconstruction meeting.

b. Materials. Provide a Landscape Plants Source list to the Engineer that identifies each plant by species, size, origin and quantity specified on the project. The list will be reviewed at the preconstruction meeting. Nursery stock must come from nurseries located in Zone 4 or Zone 5 of the 2012 USDA Hardiness Zone Map for landscaping in Michigan's lower peninsula. Nursery stock for landscaping in Michigan's upper peninsula must come from nurseries located in Zone 3 or Zone 4. Nurseries located in Zone 6 of the upper Great Lakes region will be allowed as follows:

1. Located at or north of latitude 40 degrees North.
2. Zone 6b will only include nurseries located in counties that border the Great Lakes.
3. Zone 6 plants will not be accepted for use in the upper peninsula nor in the lower peninsula counties north of US-10 except for those counties bordering Lake Michigan.

Submit requests for plant substitutions to the Engineer at the preconstruction meeting. All substitution requests must be reviewed and approved by the Engineer and Landscape Architect.

c. Construction. None Specified.

d. Measurement and Payment. The completed work, as described, will not be paid for separately, but will be included in the plant material pay items.

MICHIGAN
DEPARTMENT OF TRANSPORTATION

SPECIAL PROVISION
FOR
LANDSCAPING

RSD:JN

1 of 1

APPR:NJM:DBP:12-08-23
FHWA:APPR:12-12-23

Make the following changes to section 815 of the Standard Specifications for Construction.

Delete subsection 815.03.B, on page 8-135 of the Standard Specifications for Construction, in its entirety and replace with the following:

- B. **Site Preparation.** Excavate holes from the center of staked location. Excavate the hole to a width which is a minimum of twice the diameter of the root ball. Place the root ball on undisturbed soil.

Backfill the planting holes with prepared soil the same day they are dug.

After backfilling is complete, place 4 inches of shredded bark mulch unless otherwise shown on plans.

Delete subsection 815.03.F.5, on page 8-137 of the Standard Specifications for Construction, in its entirety.

Delete subsection 815.04.B, on page 8-141 of the Standard Specifications for Construction, in its entirety and replace with the following:

- B. **Site Preparation.** The unit price for **Site Preparation, Max (dollar)** includes the cost of digging holes, providing prepared soil, backfilling holes, disposing of excess excavated material, shredded bark mulch, and bracing and guying.

MICHIGAN
DEPARTMENT OF TRANSPORTATION

SPECIAL PROVISION
FOR
DELINEATOR HARDWARE

PMK:MKB

1 of 1

APPR:MWB:DBP:11-09-23
FHWA:APPR:11-20-23

Delete subsection 919.03.C on page 9-163 of the Standard Specifications for Construction in its entirety and replace it with the following:

- C. **Mounting Hardware.** Mounting hardware for aluminum reflectors must consist of a bolt system.

Bolts must be stainless steel and accompanied by a locknut to produce a vandal-resistant attachment. A nylon washer is also required to be placed between the bolt head and/or locknut and the face of the reflector to protect the sign sheeting.

Ensure that the system has a large enough diameter that it will not be subject to pulling through the holes in the delineator reflectors or posts.

Alternative fastening systems may be approved by the Engineer provided they form a vandal-resistant attachment.

CITY OF KALAMAZOO

SPECIAL PROVISION

FOR

PAVT, REM, MODIFIED

Wightman/PAD

1 of 1

08/08/2023

a. Description. This work consists of removing HMA, concrete, bricks and masonry and any other common pavement material or combination of materials, except sand and gravel, regardless of thickness, reinforcement, and overlays.

b. Materials. None Specified

c. Construction Methods. Remove pavement to an existing joint or sawed joint. Saw cut pavement full depth in a straight neat line as directed by the Engineer. Do not use a crane and ball pavement breaker. Do not disturb remaining pavement. Assume ownership of removed materials and dispose of according to subsection 205.03P.

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:

Contract Item (Pay Item)	Unit
Pavt, Rem, Modified.....	Square Yard

The limits of **Pavt, Rem, Modified** will be established as noted on the plans or at the discretion of the Engineer. The unit price includes all labor, equipment, and materials to saw cut, remove, haul and dispose of the pavement.

CITY OF KALAMAZOO

SPECIAL PROVISION

FOR

MACHINE GRADING, MODIFIED

Wightman/PAD

1 of 1

10/18/2023

a. Description

The work of Machine Grading, Modified will consist of all excavation regardless of depth from the roadbed and all intersecting roadways, and the furnishing and placing of borrow. The CONTRACTOR will conduct their work in such a manner so no excavations are left open overnight. If this is not possible, the CONTRACTOR shall provide and install a temporary fence to protect the excavation at their own expense. Machine Grading, Modified will apply to the sections of this project as shown on the plans where a new pavement section is being constructed. The CONTRACTOR will regrade all drives and intersecting roadways within the ROW or area of designated grading limits to match proposed road elevations, included in the item for Machine Grading, Modified.

b. Construction

Machine Grading, Modified will include all necessary removal regardless of depth, scarifying, plowing, discing, moving, loading, hauling, shaping and compacting the earth to develop the cross section shown on the plans.

Grading will be performed to the bottom of sand subbase grade as shown on the plans.

The roadbed will be finished to grade with a blade grader or equivalent equipment. All intersections, approaches, entrances, and driveways will be graded as shown or as directed as a part of this item. If additional earth is required to complete the full section, the CONTRACTOR will obtain the required Class II materials to be included in the item of Machine Grading, Modified. All excess excavated materials will be disposed of by the CONTRACTOR. The following quantities are provided for informational purposes only.

c. Measurement and Payment

Machine Grading, Modified will be measured along the project centerline and includes both sides of the pavement. No additional measurement will be made for intersecting streets and drives. Machine Grading, Modified will only be measured for payment at locations where shown on the plans. The following quantities are provided for informational purposes only.

Excavation, Earth – 4,750 Cyd (Estimated Qty.)

Embankment, CIP – 3,850 Cyd (Estimated Qty.)

Machine Grading, Modified will be paid for by the station, which price will be payment in full for all work specified herein.

Pay Item

Pay Unit

Machine Grading, Modified

Station

CITY OF KALAMAZOO

SPECIAL PROVISION

FOR

AGGREGATE BASE, _INCH, MODIFIED

Wightman/PAD

1 of 1

08/08/2023

a. Description. This work consists of constructing an aggregate base course on a prepared subbase or subgrade as shown on the plans or as directed by the Engineer. The aggregate base course shall be in accordance with Section 302 and 902 of the Standard Specifications, except as specified herein.

b. Materials. The material for Aggregate Base, _inch, Modified (thickness as specified) shall be MDOT 21AA Gravel.

c. Construction Methods. None Specified.

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:

Contract Item (Pay Item)	Unit
Aggregate Base, _ inch, Modified.....	Square Yard

CITY OF KALAMAZOO

SPECIAL PROVISION

FOR

DR STRUCTURE COVER, ADJ, CASE 1, MODIFIED

Wightman/PAD

1 of 2

08/08/2023

a. Description. This work consists of removing and replacing existing City of Kalamazoo owned manhole structure covers during HMA surface operations with City of Kalamazoo standard covers. This operation uses the Mr. Manhole™, Manhole Leveling System, or equivalent. Section references are to the current version of the MDOT Standard Specifications for Construction.

b. Materials. Provide materials in accordance with the following:

Cover and Casting: Supply the City of Kalamazoo standard design cover and casting for Sanitary and Storm sewer meeting the requirements of Section 908 and special provision for “Dr Structure Cover, Type __, Modified”.

Concrete: Use Grade P-NC concrete meeting the requirements of Section 1006.

Mortar Type R-2: Use mortar meeting the requirement of Section 1005.

HMA: Use HMA mixtures as specified in the special provisions.

c. Construction Methods. Remove existing pavement around the drainage structure using the Mr. Manhole™ or equivalent system. Remove the existing drainage structure in a manner to avoid roadway materials from entering the manhole structure. Salvage existing manhole covers and castings if in good condition; otherwise replace the casting and cover. If pickup is needed, notify the Engineer when manhole cover and casting are ready for pickup. Place a steel plate over the manhole structure and fill in the resulting void with the HMA mixture or material approved by the Engineer. Record the location of each structure and use a locating system or GPS record of each structure for finding it following final paving.

Prior to paving, ensure that locations of structures are confirmed & recorded, and any markers or caps used are in place to easily identify and find each structure after final paving. Upon completion of final paving, cut out and remove the pavement around the structure using the Mr. Manhole™ or equivalent system. Avoid roadway materials from entering the manhole structure. Remove the plate and locator cap. Set the new structure cover in a full bed of mortar or using custom adjusting rings built for this purpose. Adjust in accordance with manufacturer's instructions, MDOT Standard Specifications, and best practices. Set the structure cover level with the roadway (nominal offset = 0", maximum offset = +/- 1/8"). Fill in resulting void with concrete meeting the requirements of Section 1006. Assume ownership of excess removed materials and dispose of according to subsection 205.03P.

Any material entering the Sewer system must be removed promptly. If the contractor neglects to remove the material within 7 days for storm or 24 hours for sanitary after receiving written notification from the Engineer, the Engineer may proceed with the removal. The Engineer will deduct the cost of the removal from the monies that are or may become due to the contractor.

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:

Contract Item (Pay Item)	Unit
Dr Structure Cover, Adj, Case 1, Modified	Each

The unit price for **Dr Structure Cover, Adj, Case 1, Modified** includes all labor, equipment, and material to remove the existing pavement, install the new cover and casting, and place the concrete collar.

CITY OF KALAMAZOO
SPECIAL PROVISION
FOR
DR STRUCTURE COVER, TYPE __, MODIFIED

Wightman/PAD

1 of 1

08/09/2023

a. Description. This work consists of furnishing, placing and adjusting to final grade City of Kalamazoo owned sanitary and storm sewer structure covers during construction operations in accordance with Section 403 of the 2020 MDOT Standard Specifications for Construction.

b. Materials. Provide materials in accordance with the following:

Cover and Casting: Supply a Dr Structure Cover, Type __, Modified in accordance with City of Kalamazoo Specifications for Sanitary and Storm sewer meeting the requirements of Section 908 of the MDOT Standard Specifications for Construction.

Cover B (Storm Sewer) - shall consist of an EJIW 1045ZPT (bolted) frame with a 1040A (non-bolted) **Non-Vented** Cover with 2 inch "STORM SEWER" lettering or approved equal.

Cover Q (Sanitary Sewer) – shall consist of an EJIW 1045ZPT (bolted) frame with a 1040A (non-vented) Cover with 2 inch "SANITARY SEWER" lettering or approved equal.

c. Construction Methods. See the special provision for "Dr Structure Cover, Adj, Case 1, Modified for construction methods.

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:

Contract Item (Pay Item)	Unit
Dr Structure Cover, Type __, Modified	Each

The unit price for **Dr Structure Cover, Type __, Modified** includes supplying the new cover and adjustment rings to be placed and adjusted per the special provision for "Dr Structure Cover, Adj, Case 1, Modified.

CITY OF KALAMAZOO
SPECIAL PROVISION
FOR
HMA APPLICATION ESTIMATE

1 of 1

Wightman/PAD

11/29/2022

a. Description. This work shall be done in accordance with Division 5 of the 2020 MDOT Standard Specifications for Construction except as herein specified. The Local Agency representative will perform density testing.

b. Materials. The HMA application estimate is as follows:

T-1. HMA, 5EML (TOP) shall have a yield of 165 pounds per square yard, AWI shall be 260-min.

L-1. HMA, 4EML (LEVELING) shall have a yield of 220 pounds per square yard

B-1. HMA, 3EML (BASE) shall have a yield of 330 pounds per square yard

T-2. HMA, 4EML (TOP) shall have a yield of 220 pounds per square yard, AWI shall be 260-min

L-2. HMA, 3EML (LEVELING) shall have a yield of 330 pounds per square yard

Asphalt binder shall be PG 64-28 for all mix designs.

HMA, Approach shall be HMA, 4EML (leveling) applied at 165 or 220 pounds per square yard and HMA, 5EML (top) applied at 165 pounds per square yard with an AWI of 260 or other mix as approved by the Engineer in writing prior to placement.

Hand Patching shall be HMA, 5EML or other mix as approved by the Engineer in writing before placement. The maximum application rate for 5EML is 220 pounds per square yard. Install Hand Patching in multiple lifts if necessary.

Target air voids shall be designed for 4.0% and field regressed to 3.0% for all HMA mixes.

Aggregate Wear Index for the HMA, 5EML (Top) shall be 260 minimum.

HMA Bond Coat shall be type SS – 1h and be applied at the rate of 0.05 to 0.15 gal/syd per manufacturer's recommendation.

RAP shall not exceed Tier 1 limits as specified in the *MDOT Special Provision for Recycled Hot Mix Asphalt Mixture on Local Agency Projects* included in this proposal.

c. Construction Methods. Construction of HMA pavements, shoulders, and approaches shall be in accordance with Subsection 501.03 of the 2020 MDOT Standard Specifications for Construction. Tapered overlapping longitudinal joints will not be allowed in the top course of the HMA surface. Tapered overlapping longitudinal joints are restricted to base and leveling courses only. Joints in the various courses shall be staggered by a minimum of 6 inches with the joints in the top course placed immediately adjacent to the proposed lane lines.

d. Measurement and Payment. Measurement and payment shall be at the contract unit price per ton.

CITY OF KALAMAZOO

SPECIAL PROVISION

FOR

DECORATIVE CONCRETE PAVEMENT

Wightman/PAD

1 of 3

11/29/2023

a. Description. This work consists of constructing **herringbone** pattern stamped decorative Portland cement concrete pavement at the locations specified on the plans. Complete this work in accordance with the standard specifications, except as modified herein.

b. Submittals. Submit a plan showing the types and locations of joints, reinforcement, and sequence of construction. Submit a report detailing the concrete mix designs to be used, including manufacturers and/or suppliers of mixture components. Submit technical data sheets for a single manufacturer’s complete system for products and/or materials including admixtures, colorants, curing compounds, decorative concrete sealer, dry-shake finish materials, imprinting tools, and any other products requested by the Engineer. Submit Test Data Certification with test results conducted by an independent testing laboratory within the past 24 months reporting that the coloring pigment conforms to the general requirements of *ASTM C979/C979M*. Obtain approval from the Engineer prior to beginning work.

c. Certification. Provide proof of MCA Decorative Concrete Certification or proven equivalent manufacturer training and certification for placing decorative concrete, to the Engineer.

d. Materials. Use a single manufacturer’s complete system for products and/or materials.

1. Concrete Colorant. Use complete pigment system including integral colorants, dry shake colorants, and/or release hardeners from one of the following manufacturers, or other sources as approved by the Engineer.

Brickform.....	989-792-9009
Decorative Concrete Resources	866-792-9000
Increte Systems.....	800-752-4626
L.M. Scofield Co.	586-292-1492
Prism Pigments	888-440-4250
Proline Concrete Tools.....	800-795-4750

A. Concrete Integral Color. Use Brickform Signature Integral Color: Red Barn, #P1840 pre-weighed and packaged coloring pigment in either powder, granular, or liquid form. Ensure that materials comply with *ASTM C979/C979M* standards for integrally colored concrete.

B. Release Agent. Use Brickform Standard Color: Dark Gray, #100 dry-shake powder to facilitate release of imprinting tools as manufactured by Brickform, Prism Pigments, or approved equal.

2. Curing Compound. Do not use standard curing compounds on decorative concrete. Instead use a surface sealer as listed in subsection d.3 of this special provision.

3. Surface Sealer. Use a Type I, Class A solvent acrylic sealer in accordance with the requirements of *ASTM C1315* from the approved list below, or other as approved by the Engineer.

- A. Brickform.
 - Safety-Seal MS-5.
 - B. ChemMasters.
 - Certi-Vex AC 1315 solvent base sealer.
4. Slip resistant additive. Mix slip resistant additive with the sealer in accordance with the manufacturer's recommendations.
- A. Increte.
 - Shur-Grip.
 - B. ChemMasters.
 - Slip Stop.
 - C. H & C.
 - SharkGrip.

e. Equipment. To impart desired texture, use high-quality resilient mats reproduced from castings of natural materials and providing uniform control of joint depth. Use tools capable of producing the pattern(s) shown on the plans and/or as required by the Engineer. Use imprinting tool(s) from the approved manufacturer and pattern list below, or present a substitute mat design, manufacturer, or pattern to the Engineer for approval:

Concrete Stamp. Concrete Stamp to be Brickform Herringbone Used Brick, FM-500 s/o, 25.25" x 36.5", or approved equal. Stamp described as A weatherworn brick surface with an uneven texture and rounded broken edges. Matching skin / touch-up wheel: Used Brick / FM-6540. Joint size 1/4" – 1/2" wide, 1/4" deep. Stone size 3 3/4" wide, 7 1/2" long

f. Field-Constructed Mock-up. Prior to installation of colored concrete and/or stamped concrete paving work, construct mock-up panels in place to verify color and texture selections and processes for qualities of appearance, materials, and construction. Build mock-ups to comply with the following requirements:

1. Size. Cast a minimum 8 foot by 8 foot mock-up to demonstrate typical joints, surface finish, texture, color, and standard of workmanship.
2. Acceptance. If Engineer determines that mock-up does not meet requirements, demolish, and remove it from the site, and cast another until the mock-up is accepted. All costs associated with mock-ups in addition to the first will be borne by the Contractor.
3. Use. Keep accepted mock-up undisturbed during construction as a standard for comparison to completed paving. Undamaged mock-up may be incorporated into the work or demolished and removed from the site when directed by the Engineer.

g. Construction. Construct pavement in accordance with section 602 of the Standard

Specifications for Construction.

1. Preparation. Carefully lay out the locations of forms and joints, taking into consideration the orientation of the pattern as shown on the plans, intended aesthetics, and construction sequence.

2. Integral Color. Comply with the color manufacturer's published recommendations and instructions for mix designs, admixtures, concrete temperature, mixing, installing, finishing, and curing. Coordinate stamped colored concrete to ensure consistency in color, texture, and quality.

3. Release Agent. Apply powder release agent per manufacturer guidelines at the minimum rate required to cover the previously colored surface. "Liquid Antique" agent can be used as a substitute for the dry release agent. If clear liquid release agent is to be used, apply per manufacturer guidelines. Colored powder release agent can be mixed with clear liquid and sprayed on the surface only after the imprinting has been completed, to create an accent coloring.

4. Imprint Pattern. Comply with tool manufacturer's standards and MCA practices. Lay out to proper alignment and imprint to a consistent depth while concrete is plastic. Do not allow the surface to crust over or harden before stamping. Hand-tool in areas where using imprinting tools is not practical.

5. Removal of Excess Release Agent. Wash off excess release agent with normal water pressure prior to joints being cut. Remove a minimum of 80 percent of the release agent. Temperature conditions will dictate the timing of release agent removal. Dispose of any excess release agent in compliance with local regulations.

Acid washing of decorative surface may be required to achieve the desired finish as directed by the Engineer. A minimum of 36 hours after placement, apply a solution of 1 part muriatic acid to 30 parts potable water to the surface of the pavement and lightly scrub with a straw broom. Wash the surface until proper color has been achieved and then flush thoroughly.

6. Sealing Decorative Surface. Seal the surface with approved sealer in accordance with the manufacturer's recommendations. Refer to subsection d.3. of this special provision for approved products and to the manufacturer's technical data sheets for proper installation procedures, including moisture content restrictions at time of application.

h. Measurement and Payment. The completed work, as described, will be measured and paid for at the contract unit price using the following pay items:

Pay Item	Pay Unit
Conc Pavt, Decorative, Nonreinf, 4 inch	Square Yard

Conc Pavt, Decorative, Nonreinf, 4 inch includes coloring, mixing, hauling, placement, strikeoff, finishing, texturing, stamping, curing [and jointing]. **Conc Pavt, Decorative, Nonreinf, 4 inch** will be measured and paid for by area in square yards based on plan quantities.

CITY OF KALAMAZOO

SPECIAL PROVISION

FOR

Perimeter Lit Type III Signs

Wightman/PAD

1 of 2

11/29/2023

a. Description. This work consists of furnishing and installing a permanently powered perimeter lit sign in accordance with Sections 810 and 820 of the 2020 MDOT Standard Specifications for Construction and as modified herein.

As applicable, this work includes installation of the sign, radio, antenna, control box, mounting hardware, push-button activation and all associated material required to complete the work.

b. Materials. Provide materials in accordance with sections 918, 919, and 921 of the Standard Specifications for Construction and the following requirements of this special provision:

1. LED Perimeter Sign. Provide an LED Perimeter Sign meeting the following requirements:

A. Furnish a Type IIIA sign, with the indicated legend, in accordance with Section 810 of the Standard Specifications for Construction and the MMUTCD.

B. Furnish a solid-state controller which is user programmable and provides an MMUTCD compliant flash pattern. Include the necessary provisions to operate the controller and LED sign from a permanent 120 vac source.

C. Provide a NEMA 4X rated housing for all components

D. LED lighting shall be High Power Luxeon 1-Watt with 100,000 hour life expectancy and shall be amber in color.

E. Base sign shall be yellow-green in color

F. 900 Mhz radios capable of synchronizing activation across all perimeter lit signs at the cross-walk.

G. Perimeter Lit Sign shall be a Blinkersign by Tapco, Trafficalm Basic Flashing Sign System by Trafficalm, or approved equal.

c. Construction. Complete this work in accordance with sections 819, 820, and 919 of the Standard Specifications for Construction, per the plans, and this special provision.

1. Sign legend shall be as specified on the plans in accordance with the MMUTCD.
2. Mount the Perimeter Lit Sign to the support as indicated on the plans using *AISI 300* series stainless steel hardware and in accordance with manufacturer recommendations.
3. Configure operation as directed by the Engineer
4. Furnish all warranty and instructional documentation and conduct training on operation and maintenance with City Staff.
5. Obtain shop drawing approval from the Engineer prior to installation of units.

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 Unit
Sign, Type III, Perimeter Lighted, (<u>Sign Legend</u>) (LED)	Each

The unit price for Sign, Type III, Perimeter Lighted, (Sign Legend) (LED) includes furnishing, installing, and configuring the specified illuminated sign, controller. Electrical service, post, pushbutton, foundation, and additional signs shall be paid separately.

CITY OF KALAMAZOO

SPECIAL PROVISION

FOR

WATERBORNE PERMANENT PAVEMENT MARKINGS

1 of 1

Wightman/PAD

10/26/2023

a. Description

This work consists of providing all labor, material, and equipment necessary to prepare pavement surfaces and apply retroreflective permanent waterborne pavement markings. Ensure preparation of pavement surfaces and application of materials is in accordance with this special provision, the contract, 2020 MDOT Standard Specifications for Construction, Michigan Manual on Uniform Traffic Control Devices, manufacturer's recommendations, and as directed by the Engineer.

b. Material

Provide material for waterborne pavement markings and glass beads in accordance with section 920 of the 2020 MDOT Standard specifications for Construction and from the Qualified Product List.

c. Construction

Install retroreflective permanent waterborne pavement markings of the type indicated at the specified locations or at the direction of the Engineer in accordance with section 811 of the 2020 MDOT Standard specifications for construction. Legends and symbols shall be of the appropriate shape and dimensions as provided for in the most recent edition of the Michigan Manual on Uniform Traffic Control Devices.

d. Measurement and Payment

The completed work as described will be measured and paid for at the contract price using the following pay items:

<u>Pay Item</u>	<u>Pay Unit</u>
Pavt Mrkg, Waterborne, ___ inch, (type)	Foot
Pavt Mrkg, Waterborne, (legend/symbol)	Each
Pavt Mrkg, Waterborne, ___ inch, Cross Hatching, (color)	Foot
Pavt Mrkg, Waterborne, ___ inch, Dotted Thru Guide Line, (color)	Foot
Pavt Mrkg, Waterborne, ___ inch, Solid Turning Guideline, (color)	Foot

Removing curing compound, removing existing pavement marking, or recessing pavement markings required for the work in this special provision will be paid for separately under the respective pay items.

CITY OF KALAMAZOO

SPECIAL PROVISION

FOR

CONDUIT, __INCH, INNERDUCT

1 of 1

Wightman/PAD

11/30/2023

a. Description

This work shall include all labor, materials and equipment necessary to install the conduit of the diameter specified as shown on the plans, inside an existing conduit, as directed by the Engineer in the field, and as specified herein. All work shall be coordinated with the contact shown on the plans for each utility, or their designated representative. All work shall be performed in accordance with Section 818 of the MDOT 2020 Standard Specifications for Construction and as specified herein.

b. Materials

All pipe materials shall be schedule 40 PVC conduit, with a nylon cord line, minimum 1/8" diameter, to allow a cable pulling rope to be pulled through the duct. Conduit materials shall meet the requirements of section 918 of the MDOT 2020 Standard Specifications for Construction. All ends of conduit must be sealed and marked. All conduit interiors shall be clean and dry upon completion.

c. Construction

The conduits shall be installed in accordance with Section 819 of the 2012 Standard Specifications for Construction. All conduits shall be installed inside existing conduits as shown on the plans or as directed by the Engineer.

d. Measurement and Payment

The Contractor will be paid the unit price bid for each foot of the conduit actually installed and will be payment in full for all labor, materials, and equipment required for complete installation.

Pay Item

Pay Unit

Conduit, 1 ¼ inch, Innerduct

Foot

CITY OF KALAMAZOO

SPECIAL PROVISION

FOR

CONDUIT, DB, 1, 2 INCH

Wightman/PAD

1 of 1

11/29/2023

a. Description. This work consists of furnishing and installing direct burial conduit in accordance with section 818 and 918 of the 2020 MDOT Standard Specifications for constructions and as modified herein.

b. Materials. Conduit and fittings shall be schedule 40 PVC in accordance with subsection 918.01 of the 2020 MDOT Standard Specifications for Construction.

c. Construction Methods. Install conduit in accordance with subsection 818.03.A of the 2020 MDOT Standard Specifications for Construction.

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:

Contract Item (Pay Item)	Unit
Conduit, DB, 1, 2 inch.....	Foot

The unit price for Conduit, DB, 1, 2 inch includes the cost of installing the conduit shown on the plans and marking tape.

CITY OF KALAMAZOO
SPECIAL PROVISION
FOR
GATE BOX, ADJUST, CASE 1, MODIFIED

Wightman/PAD

1 of 1

10/27/2023

a. Description

This work consists of adjusting gate boxes in accordance with Subsection 403.03C and 823.03 of the 2020 MDOT Standard Specifications for Construction.

b. Materials

Use MDOT P-NC Concrete with no fly ash and coarse aggregate 6AA meeting the requirements of section 1006.

c. Construction

Adjust gate box according to subsection 823.03 and place a concrete collar around the adjusted structure. The concrete shall be uniformly placed around the valve box to a depth specified by the Engineer with the top of the concrete flush with the top of the final course of HMA. Concrete collar thickness shall be 6-inches minimum.

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:

<u>Pay Item</u>	<u>Pay Unit</u>
Gate Box, Adjust, Case 1, Modified	Each

The Unit price for Gate Box, Adjust, Case 1, Modified Refers to structures located in hard surfaced travel areas, and the unit price includes saw cutting using the Mr. Manhole Method or other City approved method; removing and replacing existing pavement, curb, or curb and gutter; adjusting the water shutoff or gate box to final grade, and placing the concrete collar.

CITY OF KALAMAZOO
SPECIAL PROVISION
FOR
GATE BOX, RECONSTRUCT, MODIFIED

Wightman/PAD

1 of 2

10/27/2023

a. Description

This work consists of furnishing and placing a gate box centered, plumbed, and adjusted to the required pavement grade over the existing gate valve.

b. Materials

Valve boxes and vaults shall be supplied new by the Contractor. No second hand or salvaged material shall be allowed or supplied. All supplied products shall be “**Buy American**” unless otherwise specified and comply with the conditions of this section.

Valve Boxes and Vaults

Gate Valve Box or 2 inch Service Box – the valve box shall be of adjustable length screw type for 5-foot depth of cover. The valve box shall be a malleable iron casting conforming to subsection 908.03 of the 2020 Michigan Department of Transportation Standard Specifications for Construction. This valve box shall either be a two or three piece screw type and the cover shall be inscribed with the word “water.” Valve box 8550 Series (two piece) or 8560 Series (three piece) manufactured by EJ, 4905 size no. 22 manufactured by Bingham & Taylor, or approved equal.

Gate Valve Box extensions shall be cast iron and manufactured by EJ or Bingham & Taylor, capable of being mounted directly to the gate valve box.

Concrete

Use MDOT Grade P-NC concrete with no fly ash and coarse aggregate 6AA meeting the requirements of Section 601.

Masonry Unit

Use Masonry units meeting the requirement of Section 913.

Granular Material Class II

Use Granular Material Class II meeting the requirements of Section 902.

c. Construction

Adjust and reconstruct water shutoffs or valve boxes to the final grade or as approved by the Engineer or authorized representative. Replace shutoff or gate box materials damaged during adjustment or reconstruction, as determined by the Engineer, or authorized representative, at no additional cost to the City of Kalamazoo.

Remove pavement around the existing gate box and remove gate box in accordance with Section 204. Salvage existing gate box and place in a secure location for pick up and notify the Engineer when all gate boxes are ready for pick up. Place four (4) evenly spaced masonry units around gate valve ensuring the gate box rests on the masonry units and not the valve. Install gate box level and plumb. Backfill in accordance with Subsection 204.03 ensuring the gate box does not shift during backfilling. Adjust cover to final grade after placement of final road surface and hold in place with a concrete collar uniformly placed around the gate box to a depth of 6-inches minimum or as instructed by the Engineer with the top of the concrete flush with the top of the final road surface.

Valve Boxes

1. Place valve boxes plumb over the operating nut of the valve, with the box cover flush with the pavement, or as approved by the Engineer or authorized representative. Provide firm support for valve boxes using concrete bricks.
2. Valve boxes shall be installed, centered and plumbed over the operating nut of the valve. The area around the valve box shall be back-filled with Granular Material Class II placed in layers not to exceed 12 inches, and thoroughly compacted to the required density. The Contractor shall take due care to prevent the box from shifting during backfilling operations. The tops of the valve boxes shall be flush with the established pavement or ground surface.

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:

<u>Pay Item</u>	<u>Pay Unit</u>
Gate Box, Reconstruct, Modified	Each

The unit price for Gate Box, Reconstruct, Modified includes all labor, equipment, and materials to remove the existing pavement and backfill, and install the gate box, backfill and compact, and place the concrete collar.

MICHIGAN
DEPARTMENT OF TRANSPORTATION

SPECIAL PROVISION
FOR
CURB PAINTING

PMK:MKB

1 of 1

APPR:MWB:JLB:05-06-20

a. Description. This work consists of preparing the curb surface and applying pavement marking material to the top and/or face of the curb.

b. Materials. Select pavement marking material from the Qualified Products Lists, 811.03.

c. Construction. Prepare the curb surface as recommended by the manufacturer and apply pavement marking material to the top and/or face of curb as specified on the project plans or as directed by the Engineer. Remove curing compound on new concrete curbs. Complete the work in accordance with this special provision, the project plans, the standard specifications, and as directed by the Engineer.

Apply pavement marking material uniformly at the rates shown in Table 811-1 of the Standard Specifications for Construction. For materials not shown on this chart, use the specifications shown in the separate special provision for the material to be used, or the manufacturer's recommendations. Ensure curb markings are retro-reflective and have no visible drips.

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 Unit
Pavt Mrkg, (Material), __ inch, (color), Curb Painting.....	Foot

All curing compound removal required by this special provision will be paid for as Rem Curing Compound, for Spec Mrkg in accordance with section 811 of the Standard Specifications for Construction.

CITY OF KALAMAZOO
NOTICE TO BIDDERS
UTILITY COORDINATION

Wightman/PAD

1 of 2

11/29/2023

The Contractor shall cooperate and coordinate construction activities with the owners of utilities as stated in section 104.08 of the 2020 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 2020 MDOT Standard Specifications for Construction. Contractor delay claims resulting from a utility, will be determined based upon Section 109.05 of the 2020 MDOT Standard Specifications for Construction.

For protection of underground utilities in conformance with Public Act 53, the Contractor shall dial 1-800-482-7171 or 811 a minimum of three (3) full working days, excluding Saturdays, Sundays and holidays, prior to beginning each excavation in areas where public utilities have not been previously located. Members will thus be routinely notified. This does not relieve the Contractor of the responsibility of notifying utility owners who may not be a part of the "MISS dig" alert system.

PUBLIC UTILITIES

The following Public Utilities have facilities located within the right-of-way.

- Cable:
- Charter Communications, 4176 Commercial Avenue
Portage, MI 49002
(269) 459-8746, Mr. Bryan Longcore
Bryan.Longcore2@Charter.com
 - Comcast Cable Communications, 25626 Telegraph Road
Southfield, MI 480234
(734) 359-1669, Mr. Jeff Dobies
Jeff_Dobies@Cable.Comcast.Com
- Electric:
- Consumers Energy, 2500 East Cork Street
Kalamazoo, MI 49001
(269) 337-2245, Mr. Andre Taylor
andre.taylor@cmsenergy.com
 - Consumers Energy, 2500 East Cork Street
Kalamazoo, MI 49001
(269) 337-2245, Mr. Ryan Walcott
ryan.walcott@cmsenergy.com
- Gas:
- Consumers Energy, 2500 East Cork Street
Kalamazoo, MI 49001
(269) 337-2366, Mr. Tyler Lawrence
Tyler.Lawrence@cmsenergy.com
- Telephone:
- AT&T, 2919 Millcork Street
Kalamazoo, MI 49001
(269) 823-3339, Mr. Phil Bardocz
Philip.D.Bardocz@att.com

Fiber Optic: City of Kalamazoo, 415 Stockbridge Avenue
Kalamazoo, MI 49001
(269) 337-8601, Mr. Ron Ridenour
ridenourr@kalamazoocity.org

Lumen, 19675 West 10 Mile Road
Southfield, MI 48075
(517) 812-2592, Mr. Dave Huckfeldt
Dave.Huckfeldt@Lumen.com

Midwest Communications, 60590 Decatur Road
Cassopolis, MI 49031
(269) 963-7173, Mr. Larry Powell
LarryMCS@Voyager.net

Zayo Fiber/MCI Fiber
George Huss
(443) 403-2023
George.Huss@Zayo.com

Traffic: City of Kalamazoo, 415 Stockbridge Avenue
Kalamazoo, MI 49001
(269) 337-8612, Mr Dennis Randolph, P.E., P.T.O.E.
randolphd@kalamazoocity.org

Water: City of Kalamazoo, 415 Stockbridge Avenue
Kalamazoo, MI 49001
(269) 491-3882, Mr. Eric Sajtar
sajtare@kalamazoocity.org

Sewer: City of Kalamazoo, 1415 North Harrison Street
Kalamazoo, MI 49007
(269) 337-8551, Mr. Sohil Manjiyani
manjiyanis@kalamazoocity.org

Public Works: City of Kalamazoo, 415 Stockbridge Avenue
Kalamazoo, MI 49001
(269) 337-8601, Mr. Anthony Ladd
ladda@kalamazoocity.org

The owners of existing service facilities that are within grading or structure limits will move them to locations designated by the Engineer or will remove them entirely from the highway right-of-way. Owners of the Public Utilities will not be required by the City to move additional poles or structures in order to facilitate the operation of construction equipment unless it is determined by the Engineer that such poles or structures constitute a hazard to the public or are extraordinarily dangerous to the Contractor's operations.

No additional compensation will be paid to the CONTRACTOR for delays due to material shortages or other reasons beyond the control of the City of Kalamazoo, or for delays on construction due to the encountering of existing utilities that are, or are not, shown on the plans.

Work stoppages by employees of utility companies which results in a delay of utility revisions on any portion of this project may be considered the basis for a claim for an extension of time for completion but will not be considered the basis for a claim for extra compensation or an adjustment in contract unit prices.

MICHIGAN
DEPARTMENT OF TRANSPORTATION

SPECIAL PROVISION
FOR
SLOPE RESTORATION, NON-FREEWAY

RSD:NJM

1 of 5

APPR:DMG:JJG:04-05-23

a. Description. This work consists of preparing all lawns and slopes on non-freeway projects designated for slope restoration on the plans or as directed by the Engineer and applying topsoil, fertilizer, seed, mulch with mulch anchor, mulch blanket, high velocity mulch blanket, permanent turf reinforcement mat (TRM), bonded fiber matrix (BFM), or modified mulch blanket to those areas. Ensure turf establishment is in accordance with section 816 and 917 of the Standard Specifications for Construction and Standard Plan R-100 Series, except as modified herein or otherwise directed by the Engineer.

b. Materials. The materials, application rates, and construction methods specified in sections 816 and 917 of the Standard Specifications for Construction apply unless modified by this special provision or otherwise directed by the Engineer. Furnish the following materials on this project:

1. Seeding mixture as called for on the plans.
2. Chemical fertilizer nutrient, Class A.
3. Topsoil. The following percentages of furnished and salvaged topsoil are estimated for this project and provided for informational purposes only.

Topsoil Furnished: 30 percent

Topsoil Salvaged: 70 percent

4. Mulching material.
5. Permanent Turf Reinforcement Mat (TRM) must be 100 percent synthetic and consist of 100 percent ultraviolet (UV) stabilized polyolefin fibers sewn between two layers of black UV stabilized polypropylene netting with polyolefin thread. The TRM must meet the following "minimum average roll value" requirements:

<u>Property</u>	<u>Test Method</u>	<u>Requirement</u>
Mass/Unit Area	ASTM D6566	10 oz/syd
UV Stability @ 1000 hrs	ASTM D4355/D4355M	80 percent
Tensile Strength (MD)	ASTM D6818	165 lbs/ft

Acceptance. Supply a general certification for the permanent TRM from one of the following manufacturers or approved equal:

Recyclex TRM	American Excelsior Co., Arlington, TX	(800) 777-7645
P300 TRM	North American Green, Poseyville, IN	(800) 772-2040
Landlok 450 TRM	Propex, Inc., Chattanooga, TN	(800) 621-1273

Excel PP5-10 TRM	Western Excelsior, Evansville, IN	(866) 540-9810
Vmax P550 TRM	North American Green, Poseyville, IN	(800) 772-2040

6. Bonded Fiber Matrix (BFM). Furnish a product from the list below or an approved equal.

Soil Guard	Mat Inc., Floodwood, MN	(888) 477-3028
HydroStraw BFM	HydroStraw, LLC, Rockford, WA	(800) 545-1755
HydraMax	North American Green, Poseyville, IN	(800) 772-2040
Bindex BFM	American Excelsior Co., Arlington, TX	(800) 777-7645
ProMatrix EFM	Profile Products LLC, Buffalo Grove, IN	(800) 508-8681

If multiple grades of the selected product are available, use the grade appropriate for the application as approved by the Engineer.

Approved equal BFM must consist of long strand, virgin wood fibers (90 percent by weight) bound together by a pre-blended, high-strength polymer adhesive (10 percent by weight). The virgin wood fibers will be thermally refined from clean whole wood chips. Ensure the organic binders are a high-viscosity colloidal polysaccharide tackifier with activating agents to render the resulting matrix insoluble upon drying.

7. Modified Mulch Blanket. Where modified mulch blanket is required, provide an excelsior mulch blanket free of chemical additives. Ensure the netting thread is 100 percent biodegradable and manufactured with non-plastic materials such as jute, sisal, or coir fiber. Degradable, photodegradable, UV-degradable, oxo-degradable, or oxo-biodegradable plastic netting including polypropylene, nylon, polyethylene, and polyester is not an acceptable alternative. All netting materials must have a loose weave design with movable junctions between the machine and cross-machine direction twines that move independently and reduce the potential for wildlife entanglement.

For Slope Restoration, Non-Freeway, Type F, provide a single net modified mulch blanket from the list below or an approved equal.

Premier Straw Single Net FibreNet	American Excelsior Co.	(800) 777-7645
Curlex NetFree 100% Biodegradable	American Excelsior Co.	(800) 777-7645
ECS-1B Biodegradable Single Straw	East Coast Erosion Control	(800) 582-4005
S1000BD Single Net	Enviroscape ECM, Ltd.	(888) 550-1999
Excel SR-1 All Natural	Western Excelsior Corp.	(866) 540-9810

For Slope Restoration, Non-Freeway, Type G, provide a double net modified mulch blanket from the list below or an approved equal.

Premier Straw Double Net FibreNet	American Excelsior Co.	(800) 777-7645
Curlex II FibreNet	American Excelsior Co.	(800) 777-7645
ECX-2B Double Net Biodegradable	East Coast Erosion Control	(800) 582-4005
S2000BD Double Net	Enviroscape ECM, Ltd.	(888) 550-1999
Excel R-2 All Natural	Western Excelsior Corp.	(866) 540-9810

c. Construction. Ensure construction methods are in accordance with subsection 816.03 of the 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 frames

specified in subsection 208.03 of the Standard Specifications for Construction. It may be necessary, as directed by the Engineer, to place materials by hand.

Shape, compact, and ensure all areas to be seeded are weed-free prior to placing topsoil. Place topsoil to the minimum depth as detailed herein and in accordance with the plans and standard specifications to meet proposed finished grade. If the area being restored requires more than the minimum depth of topsoil to meet finished grade, fill this additional depth using topsoil or, at the Contractor's option, embankment. Furnishing and placing this additional material is included in this item of work.

Ensure topsoil is weed and weed seed free and friable prior to placing seed. Remove any stones greater than 1/2-inch in diameter or other debris. Apply seed mixture and fertilizer to prepared soil surface. Incorporate seed into top 1/2-inch of topsoil.

Spread mulch at a rate of two tons per acre. If the Engineer allows dormant seeding spread mulch at a rate of 3 tons per acre. Place mulch anchoring over the mulch at a rate in accordance with subsection 816.03.F of the Standard Specifications for Construction. Place mulch blanket and high-velocity mulch blanket in accordance with subsection 816.03.G of the Standard Specifications for Construction and Standard Plan R-100 Series.

Install areas constructed with the TRM on prepared (seeded) grades as shown on the plans in accordance with the manufacturer's published installation guidelines. Anchor the top edge of the TRM in a minimum six-inch deep trench. Operation of equipment on the slope is prohibited after placement of the TRM. No credit for splices, overlaps, tucks, or wasted material will be made.

Mix the BFM and organic binders thoroughly at a rate of 40 pounds for each 100 gallons of water or as otherwise recommended by the manufacturer. Hydraulically apply the BFM slurry in successive layers, from two or more directions, to fully cover 100 percent of the soil surface. Ensure the minimum application rate is at least 3000 pounds of BFM for each acre or otherwise apply in accordance with the manufacturer's recommendations as appropriate depending on site conditions.

Do not apply BFM on saturated soils or immediately before, during, or after rainfall.

Install modified mulch blanket in accordance with the manufacturer's published guidelines and as directed by the Engineer.

If an area washes out after this work has been properly completed and approved by the Engineer, make the required corrections to prevent future washouts and replace the topsoil, fertilizer, seed, and mulch treatment. This replacement will be paid for as additional work using the applicable pay items.

If an area washes out for reasons attributable to the Contractor's activity or failure to take proper precautions, replacement will be at no cost to the contract.

The Engineer will inspect the seeded turf to ensure it is well-established, in a vigorous growing condition, and contains the species called for in the seeding mixture.

If the seeded turf is not well-established at the end of the first growing season, the Contractor is responsible to re-seed until the turf is well established and approved by the Engineer.

Provide weed control, if weeds are determined by the Engineer to cover more than 10 percent of the total area of slope restoration, in accordance with subsection 816.03.I of the Standard Specifications for Construction. Weed control will be at no additional cost to the contract.

d. Measurement and Payment. The completed work, as described, will be measured and paid for at the contract unit price using the following pay items:

Pay Item	Pay Unit
Slope Restoration, Non-Freeway, Type ____	Square Yard

1. Place **Slope Restoration, Non-Freeway, Type A** in all areas not described in the other types of slope restoration and will be measured by area in square yards in place. **Slope Restoration, Non-Freeway, Type A** includes installing Topsoil Surface, Furn, LM or Topsoil Surface, Salv, 4 inch; Fertilizer, Chemical Nutrient, Class A; seeding mixture; Mulch; and Mulch Anchoring.

2. Place **Slope Restoration, Non-Freeway, Type B** parallel (8 feet minimum) to the edge of the roadway, in areas that have a 1 on 3 slope and in any ditch with a grade less than 1.5 percent, as shown on the plans, or as directed by the Engineer. **Slope Restoration, Non-Freeway, Type B** will be measured by area in square yards in place. **Slope Restoration, Non-Freeway, Type B** includes installing Topsoil Surface, Furn, LM or Topsoil Surface, Salv, 4 inch; Fertilizer, Chemical Nutrient, Class A; seeding mixture; and Mulch Blanket.

3. Place **Slope Restoration, Non-Freeway, Type C** in areas that have a 1 on 2 slope, any ditch with a grade of 1.5 percent to 3 percent as shown on the plans, or as directed by the Engineer. **Slope Restoration, Non-Freeway, Type C** will be measured by area in square yards in place. **Slope Restoration, Non-Freeway, Type C** includes installing Topsoil Surface, Furn, LM or Topsoil Surface, Salv, 4 inch; Fertilizer, Chemical Nutrient, Class A; seeding mixture; and Mulch Blanket, High Velocity.

4. Place **Slope Restoration, Non-Freeway, Type D** in areas that have a slope steeper than 1 on 2, any ditch with a grade steeper than 3 percent as shown on the plans, or as directed by the Engineer. **Slope Restoration, Non-Freeway, Type D** will be measured by area in square yards in place. **Slope Restoration, Non-Freeway, Type D** includes installing Topsoil Surface, Furn, LM or Topsoil Surface, Salv, 4 inch; Fertilizer, Chemical Nutrient, Class A; seeding mixture; and Turf Reinforcement Mat.

5. Place **Slope Restoration, Non-Freeway, Type E** as shown on the plans, or as directed by the Engineer and measured by area in square yards in place. **Slope Restoration, Non-Freeway, Type E** includes installing Topsoil Surface, Furn, LM or Topsoil Surface, Salv, 4 inch; Fertilizer, Chemical Nutrient, Class A; seeding mixture; and Bonded Fiber Matrix.

6. Place **Slope Restoration, Non-Freeway, Type F** parallel (8 feet minimum) to the edge of the roadway, in areas that have a 1 on 3 slope and in any ditch with a grade less than 1.5 percent. **Slope Restoration, Non-Freeway, Type F** includes installing Topsoil Surface, Furn, LM or Topsoil Surface, Salv, 4 inch; Fertilizer, Chemical Nutrient, Class A; seeding mixture; and single net modified Mulch Blanket.

7. Place **Slope Restoration, Non-Freeway, Type G** in areas that have a 1 on 2 slope and in any ditch with a grade of 1.5 percent to 3 percent. **Slope Restoration, Non-Freeway,**

Type G includes installing Topsoil Surface, Furn, LM or Topsoil Surface, Salv, 4 inch; Fertilizer, Chemical Nutrient, Class A; seeding mixture; and double net modified Mulch Blanket.

CITY OF KALAMAZOO

SPECIAL PROVISION

FOR

MAINTAINING TRAFFIC

Wightman/PAD

1 of 7

02/19/2024

a. Description. This work consists of all labor, materials, and equipment required for maintaining traffic in accordance with this special provision for storm sewer improvements, road reconstruction and conversion from one-way to two-way traffic on Michikal Street in the City of Kalamazoo, Kalamazoo County.

b. General. Maintain traffic according to Sections 104.11, 812 and 922 of the Michigan Department of Transportation *2020 Standard Specifications for Construction*, the Michigan Manual of Uniform Traffic Control Devices (MMUTCD), including any Supplemental Specifications, and as specified herein.

1. The Contractor shall notify the Engineer, the City of Kalamazoo, local police department, local fire department, and other emergency response units a **minimum of 10 business days** prior to the implementation of any detours, road closures, bridge closures, ramp closures or lane closures, and major traffic shifts.
2. Coordinate operations with Contractors performing work on other projects within or adjacent to the Construction Influence Area (CIA) as described below. The Contract Maintenance Agency will coordinate their operations with the Engineer to minimize the interference with the Contractor. No additional payment will be made to the Contractor for the joint use of the traffic control items.
3. During all times of construction, access to local businesses and drives for emergency vehicles shall be maintained by the Contractor until the project is completed unless a temporary closure is approved in writing by the Engineer. This work will not be considered for additional payment but shall be included in the payment for Minor Traf Devices.
4. The Contractor shall conduct their work in such a manner so no excavations are left open overnight. If this is not possible, the Contractor shall provide and install a temporary fence to protect the excavation at their own expense. Whenever possible, the Contractor shall use a trench box and backfill all excavations and/or trenches and cover or protect the trench box at the end of each work day. No excavations and/or trenches are to be left open overnight unless a full closure is in place. Payment for this work shall be included in Minor Traf Devices.
5. Coordinate all lane or road closures with Kalamazoo Metro Transit to maintain access or provide alternate access for any bus stops within the CIA.

6. The Contractor shall coordinate all signal modifications, temporary signals, signal bagging and un-bagging and traffic shifts with the City of Kalamazoo Traffic Engineer so that appropriate signal timing and camera adjustments can be completed. The Contractor shall notify the City of Kalamazoo a **minimum of 10 business days** prior to implementing traffic shifts requiring traffic signal modifications.

c. Relations and Responsibility to the Public.

1. Notification shall be provided to residents/businesses directly affected by the proposed work via door hanger notices no less than 72 hours before the portion of the road where their property is located is planned to receive work. The Contractor will provide a pre-printed door hanger to carry the Contractor's message to the residents/businesses. Message content must be approved by the Engineer prior to printing and distribution. The responsibility for filling out the door hangers and distributing them will be the Contractor's. Payment for this work will be paid separately, but payment will be included in the item for Minor Traf Devices. No work shall be performed in each section of the project prior to the affected residents/businesses have been notified via distribution of door hangers.
2. 24 hours before every construction operation that will substantially affect a resident or business adjacent to the project site, (such as driveway closures, mailbox relocation, etc.) the Contractor will notify affected residents or businesses. The Contractor shall assist the Engineer and/or Owner in coordinating work and mitigating impacts to the extent possible while maintaining construction schedules.

d. Construction Influence Area (CIA). The CIA includes the right-of-way of the following roadways, within the approximate limits described below:

1. Michikal Street from the W Main Street / W Michigan Avenue / Michikal Street intersection to the W Kalamazoo Avenue / N Westendge Avenue / Michikal Street intersection.
2. N Westnedge Avenue from Willard Street to Eleanor Street.
3. W Kalamazoo Avenue from N Park Street to Greenwich Place.
4. W Main Street from Woodward Avenue to the W Main Street, W Michigan Avenue / Michikal Street intersection.
5. W Michigan Avenue from W South Street to Allen Blvd.
6. In addition, the CIA shall include the rights-of-way of any intersecting roads adjacent to the work zone for a distance of approximately 500 feet in advance of the roads listed above. The roads include:

Elm Street, Academy Street, Elm Crossover, Allen Blvd., Elm Place, Eleanor Street, Old Orchard Place.
7. Include in the CIA shall include the rights-of-way of any intersecting roads and ramps adjacent to the work zone for the distance noted in the signing standards.
8. Include in the CIA the rights-of-way of any signed detour routes.

e. Traffic Restrictions.

1. No work shall be performed during the Memorial Day, Independence Day, Labor Day holiday periods, as defined by the Engineer.
2. All work shall be done between the hours of 7 a.m. to 7 p.m. (Monday – Saturday) unless otherwise specified herein. Work done outside of the times specified herein will be at the discretion of the Engineer and any additional cost for maintaining traffic shall be borne by the Contractor.
3. No work shall be done on Sunday unless otherwise specified herein or approved by the Engineer in writing. The Contractor shall request permission to work no later than 12:00 p.m. the Wednesday prior to the weekend they are requesting to work.
4. The arrow board, signs, and channelizing tapers for any flag control operations shall be placed at locations approved by the Engineer for adequate visibility to oncoming traffic.
5. The minimum lane width throughout the CIA shall be 10 feet.
6. Maintain access to commercial and residential properties at all times. Part-width driveway construction will be required. All driveway closures must be approved by the Engineer. Where a driveway is closed or partially closed, the adjacent driveway must remain open to traffic. The Contractor shall coordinate their work with the impacted property owners and give a minimum of 3 days' notice prior to closing a driveway.
7. Utilize intermediate traffic regulators during the reconstruction of driveways with commercial traffic. The cost of all required traffic regulators is included in the payment for Traffic Regulator Control.
8. Maintain access for pedestrians to all commercial and residential properties.
9. Cover all existing regulatory, warning, and construction signs that are not applicable during construction.
10. The Contractor must submit a work zone traffic control plan to the Engineer in accordance with section 104 of the 2020 MDOT Standard Specifications for Construction. The Engineer will have seven (7) calendar days to review the plan for acceptance or provide comments for plan revisions required to obtain acceptance. At a minimum, the plan shall include the proposed ingress/egress locations for construction equipment and vehicles, traffic control devices that will be utilized to warn the motoring public of ingress/egress locations, and measures that will be taken to ensure compliance with the plan as specified herein. No work shall begin prior to acceptance of the work zone traffic control plan. Additional time required to obtain an accepted work zone traffic control plan shall not be cause for delay or impact claims. All costs associated with obtaining an acceptable plan, providing and executing all parts of the accepted plan including required traffic control devices, or resolving an incomplete or unacceptable plan shall be borne by the Contractor.
11. The Contractor shall comply with local noise ordinances, which are available on the City of Kalamazoo's website, except for any night work specified herein.

f. Traffic Control. The traffic control required by this Special Provision for work on Michikal Street and adjacent roadways is to erect and maintain signs for through traffic when specified. Maintain local traffic as provided herein. An alternate traffic control plan may be used by the Contractor, subject to review and approval by both the Engineer and the City of Kalamazoo. The Contractor shall provide access to all properties within the Construction Zone for the duration of the project.

The traffic control described in this special provision is depicted on sheets C025 – C027 of the plans. The pedestrian detour described in this special provision is depicted on sheet C028 of the plans.

Michikal Street will be closed to all traffic during all contract work for this project. Implement two (2) detour routes for Michikal Street as depicted on sheet C025 of the plans. The first detour route will be for southbound traffic on N Westnedge Avenue and westbound traffic on Kalamazoo Avenue. This detour route will utilize Kalamazoo Avenue, Douglas Avenue and W Main Street. As part of the Michikal Street closure, northbound traffic on W Michigan Avenue will not be permitted to use Allen Boulevard, Elm Place, Elm Crossover or Elm Street to access the Stuart neighborhood. The second detour route for this traffic movement using W Michigan Avenue, N Park Street and W Kalamazoo Avenue. Both detour routes are to be maintained for the duration of the project. The contractor shall maintain local access to Old Orchard Place and Elm Place.

Once all contract work for this project is complete and accepted by the Engineer and the City of Kalamazoo, temporary traffic control measures shall be left in place as shown on the proposed pavement marking and permanent signing plan, depicted on sheet C022 (Base Bid) and C023 (Alternate A) of the plans. Northbound traffic will not be permitted on Michikal Street after construction is completed. Michikal Street will be open to two (2) lanes of southbound traffic.

g. Pedestrian or Non-Motorized Facilities.

1. Maintain all facilities in accordance with *The Americans with Disability Act (ADA)* requirements. Provide facilities equivalent to or better than the route a person would have encountered prior to construction activities.
2. Close and detour any sidewalk ramps and crosswalk areas to pedestrian traffic that are impacted by the work as described below. Cover pedestrian signal heads when the crosswalk or ramp is affected.
3. Keep sidewalk areas clear of any equipment or materials at all times the sidewalks are open to pedestrian traffic.

The existing HMA shared use path along the easterly side of Michikal Street will be closed and removed during construction. Close the existing path at the intersection of Michikal Street and N Westnedge Avenue and at the intersection of W Main Street / W Michigan Avenue / Michikal Street. Implement a detour route using the north side of W Michigan Avenue and the west side of N Westnedge Avenue. Furnish, erect and maintain temporary signage and pedestrian barricades for this detour route as shown on sheet C028 of the plans.

h. Traffic Control Devices

1. *General.* Conform all traffic control devices and their usage to Part 6 of the Michigan Manual on Uniform Traffic Control Devices (MMUTCD). This document can be found at the following website:
<http://mdotjboss.state.mi.us/TSSD/tssdHome.htm>

- a. During construction, maintain access to all business and residential drives.

2. Temporary Signs

- a. Place temporary sign spacing and taper lengths as shown on the attached Typical 101-GEN-SPACING-CHARTS.
 - b. Utilize MDOT Typical 102-GEN-NOTES if called for on the MDOT Maintaining Traffic Typicals included in the Special Provision.
 - c. Utilize signs identified in the MDOT Maintaining Traffic Typical 103-GEN-SIGN unless otherwise specified on the plans or in this Special Provision.
 - d. Place temporary advance signing treatment and signing for lane closures and lane shifts on the project as shown on the attached MDOT Typical 123-NFW-1LC-(R).
 - e. Place temporary concrete barriers on the project as shown on the attached MDOT Standard Plan R-126-I.
 - f. Fabricate all temporary signs with legends and symbols flush to the sign's face and do not extend beyond the sign borders or edges.
 - g. Mount all temporary signs that will be in place for more than 14 days on driven posts.
 - h. When a portable construction sign is no longer applicable, remove it or lay the sign down with legs pointed in the same direction as traffic flow, with its feet off and laid flat.

3. Temporary Pavement Markings

- a. Temporary pavement markings consist of the following:

Pavt Mrkg, Wet Reflective, Type NR, Paint, 4 inch, White, Temp
Pavt Mrkg, Wet Reflective, Type NR, Paint, 4 inch, Yellow, Temp
Pavt Mrkg, Wet Reflective, Type R, Tape, 4 inch, White, Temp
Pavt Mrkg, Wet Reflective, Type R, Tape, 4 inch, White, Temp
Pavt Mrkg, Type NR, Paint, 24 inch, Stop Bar
Pavt Mrkg, Type NR, Paint, Lt Turn Arrow
Pavt Mrkg, Type NR, Paint, Rt Turn Arrow
Pavt Mrkg, Type NR, Paint, Thru Arrow

- b. **Pavt Mrkg, Wet Reflective, Type NR, Paint, 4 inch, _____, Temp** and **Pavt Mrkg, Type NR, Paint _____** shall be placed on pavement areas that **will** be removed or covered during construction for interim traffic control at locations specified by the Engineer.
 - c. **Pavt Mrkg, Wet Reflective, Type R, Tape, 4 inch, _____, Temp** shall be placed on pavement areas that **will not** be removed or covered during construction for interim traffic control at locations specified by the Engineer.
4. Channelizing Devices
- a. Channelizing devices required shall be **Channelizing Device, 42 inch, Flourescent, Furn.**
5. Plastic Drums
- a. Plastic Drums required shall be **Plastic Drum, Flourescent, Furn.**
6. Lighted Arrows
- a. **Lighted Arrow, Type C, Furn** shall be used whenever closing a traffic lane or shoulder and as called for on the traffic control plans.
 - b. The quantity of channelizing devices required for the lighted arrows are already included in the quantity for **Channelizing Device, 42 inch, Flourescent, Furn.**
7. Portable Changeable Message Sign
- a. PCMS shall be furnished to the site 2 weeks prior to commencement of construction at locations agreed upon by the Engineer.
 - b. Contractor shall verify the message with the Engineer and change as directed per current operations in a timely manner.
 - i. Acceptable Messages:
 - 1. Michikal Street Closed Beginning X-XX-XX
 - 2. Road Closed Ahead Michikal Street
 - c. The quantity of channelizing devices required for the message boards are already included in the quantity for **Channelizing Device, 42 inch, Flourescent, Furn.**
8. Permanent Pavement Markings.
- a. Permanent pavement markings consist of the following:
 - Pavt Mrkg, Waterborne, 6 inch, White**
 - Pavt Mrkg, Waterborne, 6 inch, Yellow**
 - Pavt Mrkg, Waterborne, For On-Street Parking, 4 inch, White**
 - Pavt Mrkg, Waterborne, 12 inch, Cross Hatching, White**
 - Pavt Mrkg, Waterborne, 12 inch, Cross Hatching, Yellow**
 - Pavt Mrkg, Waterborne, 24 inch, Stop Bar**

Pavt Mrkg, Waterborne, 12 inch, Yellow, Curb Painting
Pavt Mrkg, Waterborne, Accessible Sym

- b. Fabricate all pavement markings per MDOT Pavement Marking Standards and Special Details PAVE-900 through PAVE-985.
9. Permanent Signs.
- a. Fabricate and place permanent signs according to the current editions of the Michigan Manual on Uniform Traffic Control Devices (MMUTCD), Standard Highway Signs manual and sign support typicals, published by the Michigan Department of Transportation.
 - b. Mount all permanent signs at a 7-foot bottom height.
 - c. Fabricate all new permanent signs with high intensity reflective sheeting.
 - d. Install all permanent signs as shown on the permanent signing plans or specifications prior to opening roadways to traffic.
 - e. Replace signs requiring relocation, due to Contractor convenience or damage, at locations determined by the Engineer at the Contractor's expense.

i. Measurement and Payment. Maintain traffic according to sections 812 and 922 of the 2020 Standard Specifications for Construction. Estimated quantities for maintaining traffic on this project are based on the suggested sequence of operations contained in the staging plans and described in this special provision. Payments for these devices are in accordance with the 2020 Standard Specifications for Construction unless otherwise specified.

PROGRESS CLAUSE

1 of 1

Wightman/PAD

2/26/2024

The Engineer anticipates that construction can begin no earlier than 10 calendar days after award or as directed by the Engineer.

In no case shall any work be commenced prior to receipt of formal notice of award by the City.

The Contractor shall prepare and submit a complete, detailed, signed critical path Progress Schedule with their bid.

The contractor shall have 120 calendar days from closing Michikal Street to traffic to reach open to traffic (Paved HMA top course, permanent signs, and pavement markings).

The project shall be open to traffic on or before:

November 1, 2024

All Contract work shall be complete on or before:

May 1, 2025

Unless specific pay items are provided in the contract, any extra costs incurred by the Contractor due to cold-weather protection and winter grading will not be paid for separately but will be included in the payment of other pay items in the contract.

After award and prior to the start of work, the Contractor must attend a preconstruction meeting with the Engineer. The Engineer will determine the day, time and place for the preconstruction meeting. The meeting will be conducted after project award and may be rescheduled if there are delays in the award of the project.

The named subcontractor(s) for Designated and/or Specialty Items, as shown in the Proposal, should attend the preconstruction meeting if such items materially affect the work schedule.

Failure by the Contractor to meet interim completion, open to traffic, and/or final completion dates will result in the assessment of liquidated damages in accordance with subsection 108.10 of the 2020 MDOT Standard Specifications for Construction.