

# **Request for Bid**

## **WATER ROAD SLOPE STABILIZATION**

**Deadline for Submittal: June 26, 2018 at 10:00 a.m.**

### **Project Description:**

The following Bid covers all associated cost included in the work as described:

Repair and stabilization of roadside bank and roadway of Water Street along Tittabawassee River north of Curtis Road. This Project includes earth excavation, hauling of materials, installation of storm sewer system, curb installation, guardrail installation, geosynthetic reinforced slope stabilization, HMA paving, and ditching. The Contractor will be responsible for all materials.

Work may begin within 5 days following award notification. **All work, excluding restoration and cleanup, shall be completed by August 1, 2018.** The entire project shall be completed on or before the final project completion date of October 1, 2018.

Contractor \_\_\_\_\_

Address \_\_\_\_\_

\_\_\_\_\_

Contact Name \_\_\_\_\_

Telephone \_\_\_\_\_ Fax \_\_\_\_\_

Email Address \_\_\_\_\_

### **Sealed Bids must be delivered to:**

Midland County Road Commission  
2334 North Meridian Road  
Sanford, Michigan 48657

Please fill out and include this sheet with your bid when submitted.

The right is reserved to reject any and all bids and any part of same, to waive irregularities in the bid procedure and to award, in the opinion of the Board, in the best interest of the Midland County Road Commission.

If you have any questions, please contact Russ Inman (MCRC) at 989-687-9060.

### **Total Bid Price**

**(Complete):** \_\_\_\_\_

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

## **Midland County Road Commission**

Sealed bids will be received at the office of the Board of Road Commissioners, County of Midland, at 2334 N. Meridian Road, Sanford, Michigan, 48657 until:

**DATE: Tuesday, June 26, 2018 at 10:00 AM**

for

**Item No. 1 – Water Road Slope Stabilization**

### **BID REQUIREMENTS:**

The undersigned has examined the location of the work described herein and is fully informed as to the nature of the work and conditions relating to its performance and understands the quantities shown.

The undersigned hereby proposes to furnish all necessary equipment, tools, apparatus, and other means of construction, do all of the work, furnish all materials except as otherwise specified herein; and to complete the work herein described in strict accordance with the plans and the requirements of these bid documents.

The undersigned further proposes to perform extra work that may be authorized by the Midland County Road Commission. Compensation for extra work will be made on the basis of an agreed upon unit price prior to performing the extra work.

### **SPECIFICATIONS:**

All materials, equipment, and construction methods used on the project shall be in accordance with the Michigan Department of Transportation (MDOT) 2012 Standard Specifications for Construction, supplemental specifications and Midland County Road Commission Special Provisions.

### **PROGRESS SCHEDULE:**

Begin all work after receiving notice of award of contract from the County within 5 days. Additional details and payment schedule are on the plans.

All work shall be done Monday through Saturday or as approved by the Engineer. No work shall be allowed on Sundays or Holidays without prior approval of the Engineer. Requests to vary from the above schedule must be made in writing 72 hours in advance. Night work will not be allowed.

All work, excluding restoration and cleanup, shall be completed by **August 1, 2018**. The entire project shall be completed on or before the final completion date of **October 1, 2018**.

Contractor is required to have a Preconstruction Meeting with Midland County Road Commission before any work begins.

### **MAINTAINING TRAFFIC:**

The roadway is closed. Contractor may move barricades to fit their operation.

## **Midland County Road Commission**

The furnishing, placement and maintaining of additional traffic control devices and traffic regulators will not be paid for separately but is considered included with payment for Water Road Slope Stabilization.

### **BID GUARANTEES:**

The undersigned agrees, if selected as successful bidder, to provide a certified or cashier's check, on an open solvent bank, or bid bond in the amount of not less than 5% payable to the Midland County Board of Road Commissioners or may elect to allow 5% retainage from each billing cycle. In either case the funds will be released within 30 days after final acceptance of project.

### **INSURANCE REQUIREMENTS:**

The successful bidder shall furnish proof of insurance prior to beginning work on the project(s). The following minimum requirements must be included on the certificate of insurance.

1. \$1,000,000 - General Aggregate – General Liability
2. \$1,000,000 – Personal Injury – General Liability
3. \$500,000 – Policy Limit – Worker's Compensation
4. \$100,000 – Each Accident – Worker's Compensation
5. \$1,000,000 – Automobile Liability – Combined single limit for each accident, bodily injury per accident, and property damage per accident, and in an amount not less than \$500,000 for bodily injury per person.

The additional insured information must also be included to read as follows:

"ADDITIONAL INSURED: The Board of County Road Commissioners for Midland County, the Midland County Road Commission, and its officers, agents, and employees".

### **DELAYED ACCEPTANCE, FINAL INSPECTION AND PAYMENT TO CONTRACTOR:**

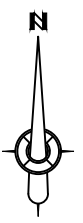
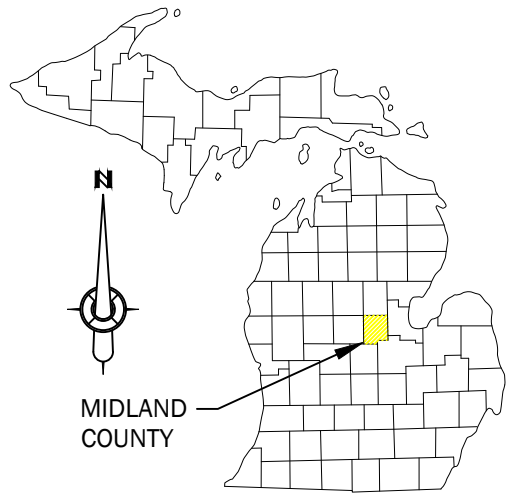
A minimum of 14 days after completion of Water Road Slope Stabilization, the Road Commission Engineer and Construction Supervisor (or designated representatives) will inspect the project with the Contractor. If deficiencies are found, corrective work is required. Complete all corrective work within seven working days of the inspection, or by an agreed upon date. All costs associated with completing this corrective work, to the satisfaction of the Road Commission, will be assumed by the Contractor.

Final acceptance shall not be granted until all materials and test results pertaining to the project are deemed to be satisfactory.

The Road Commission will pay the Contractor for the work performed on the project after the inspection is completed, corrective work is completed (if necessary), and the project is accepted by the Road Commission.

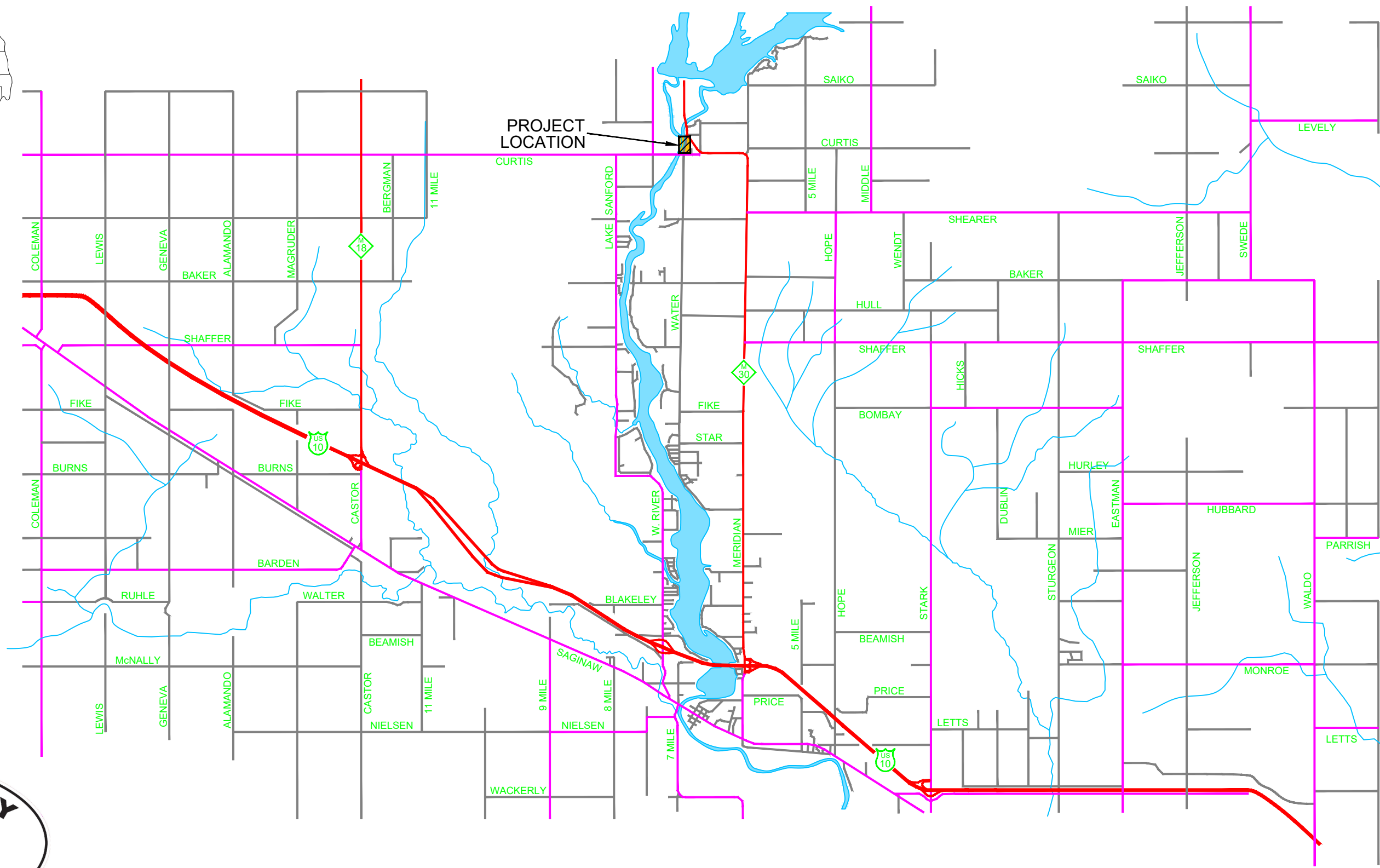
# 2018 FLOOD BANK SLIDE REPAIR - WATER STREET SLOPE RESTORATION

## MIDLAND COUNTY ROAD COMMISSION



MIDLAND  
COUNTY

AREA MAP  
NOT TO SCALE



LOCATION MAP

 PROJECT AREA

| PROJECT TO BE BID BY LUMP SUM                   |  |                                   |            |        |
|---|--|-----------------------------------|------------|--------|
| Estimated Quantities For Informational Use Only |  |                                   |            |        |
| Item No.  | Name                                     | Description                       | Unit       | Amount |
| 1   | Sand, Class III                          |                                   | Cyd        | 900    |
| 2   | Sand, Class II                           |                                   | Cyd        | 90     |
| 3   | Gabion Baskets                           |                                   | Each       | 60     |
| 4   | 12" Double wall plastic pipe             |                                   | Linear Ft. | 120    |
| 5   | 15" Double wall plastic pipe             |                                   | Linear Ft. | 105    |
| 8   | Manhole Structure                        |                                   | Each       | 2      |
| 9   | Catch Basin Structure                    |                                   | Each       | 1      |
| 10  | HMA, 13A                                 |                                   | Tons       | 100    |
| 11  | Profile Milling                          |                                   | Syd        | 180    |
| 12  | Riprap (3"x5")                           |                                   | Cyd        | 161    |
| 13  | MDOT Plain Rip Rap                       |                                   | Cyd        | 18     |
| 14  | High Strength Woven PolyPropylene Fabric |                                   | Syd        | 1120   |
| 15  | Aggregate Base, 6"                       |                                   | Cyd        | 50     |
| 16  | Shoulders, CL II, 4"                     |                                   | Sq. Yd     | 78     |
| 17  | Clay / Black Dirt                        |                                   | Cyd        | 190    |
| 18  | Ditching                                 |                                   | Linear Ft. | 120    |
| 19  | Curb and Gutter - F4                     |                                   | Linear Ft. | 120    |
| 20  | Guard Rail                               | B-Rail + 6' Posts + Block Spacers | Linear Ft. | 200    |
| 21  | Slope Restoration                        |                                   | Syd        | 650    |

PROGRESS CLAUSE

WATER STREET AT SHERMAN STREET IN EDENVILLE TOWNSHIP

After receiving Notice of Award, work may begin within **5 days** of award or on the date agreed upon with the Engineer. In no case, shall any work be commenced prior to receipt of formal notice of award by the Road Commission.

All contract work will be paid throughout the project based on the schedule below. All work excluding restoration and cleanup shall be completed by **August 1, 2018**. The entire project shall be completed on or before the final project completion date of **October 1, 2018**.

|  |     |
|--|-----|
| 1.) Contractor mobilized onto site       | 10% |
| 2.) Gabion baskets set in place          | 20% |
| 3.) Embankment complete                  | 20% |
| 4.) Road base, drainage, gravel complete | 20% |
| 5.) Road pavement complete               | 20% |
| 6.) Restoration / Cleanup                | 10% |

PROJECT NOTES

General Notes:

- Contractor will be responsible to repair all disturbed areas by seeding, fertilizing, and installing erosion control blankets where relevant.

Catch Basin structures will include the following details:

- Fernco Fittings or Equivalent alternative approved by MCRC.
- Precast concrete structures may be used instead of double wall plastic structures at the contractor's discretion.

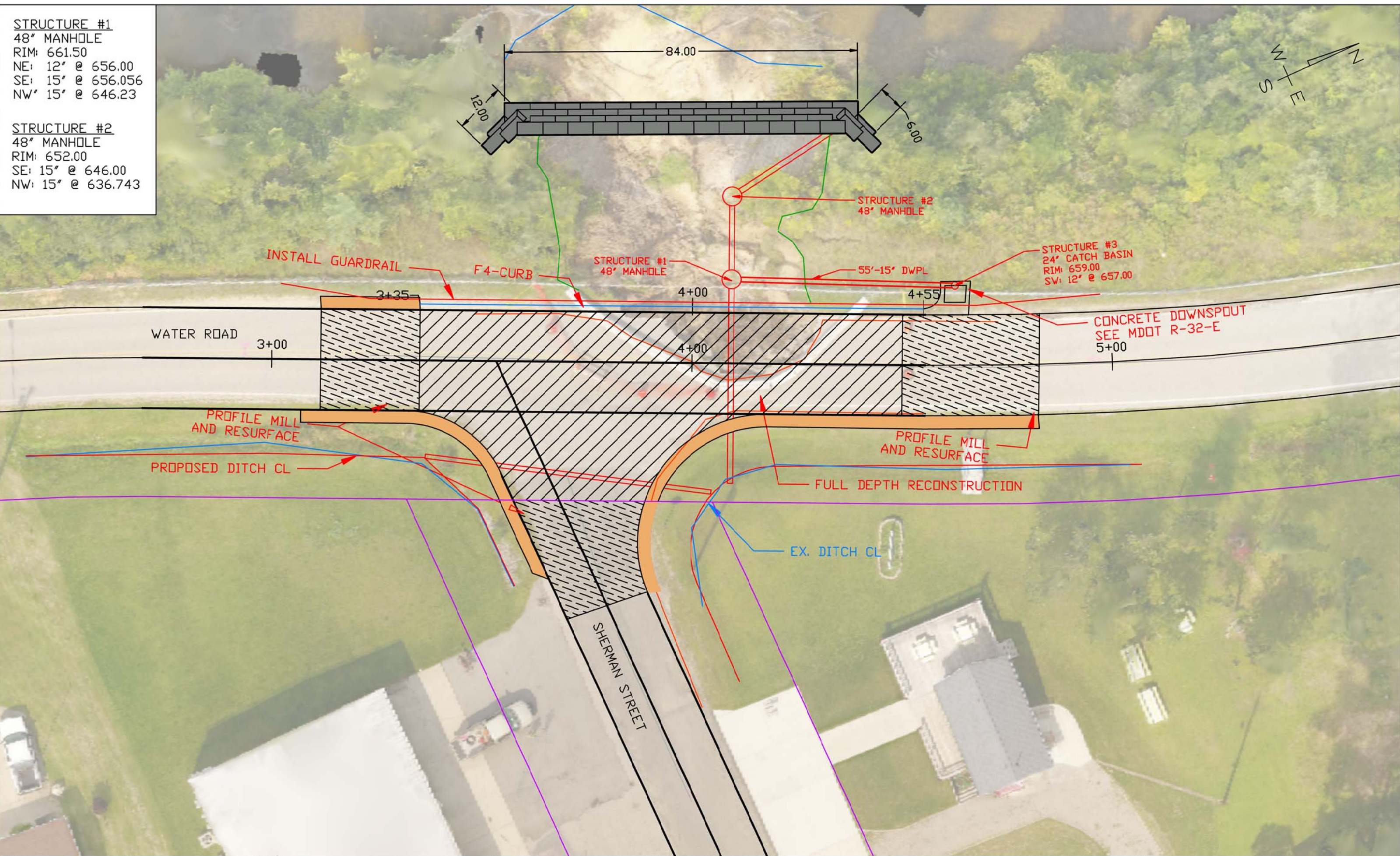
Manhole structures will include the following details:

- Fernco Fittings or Equivalent alternative approved by MCRC.
- Concrete base pad with a minimum thickness of 6" with 1' of room along outside of structure.
- Sump of manhole will be filled with at least 6" of concrete and leaving a minimum of 1.5' of sump in the structure.
- Precast concrete structures may be used instead of double wall plastic structures at the contractor's discretion.
- Storm outlet pipe is to be placed **through** the gabion baskets to the north of the island at the bottom of the 3<sup>rd</sup> row from the bottom.

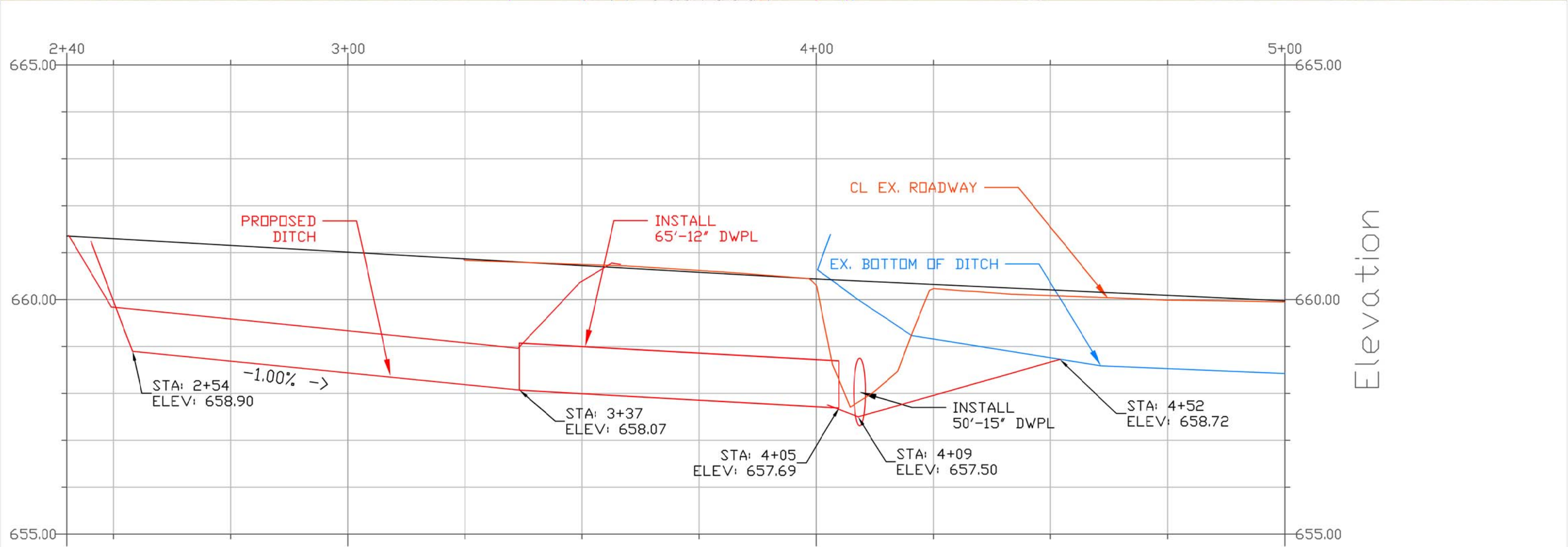
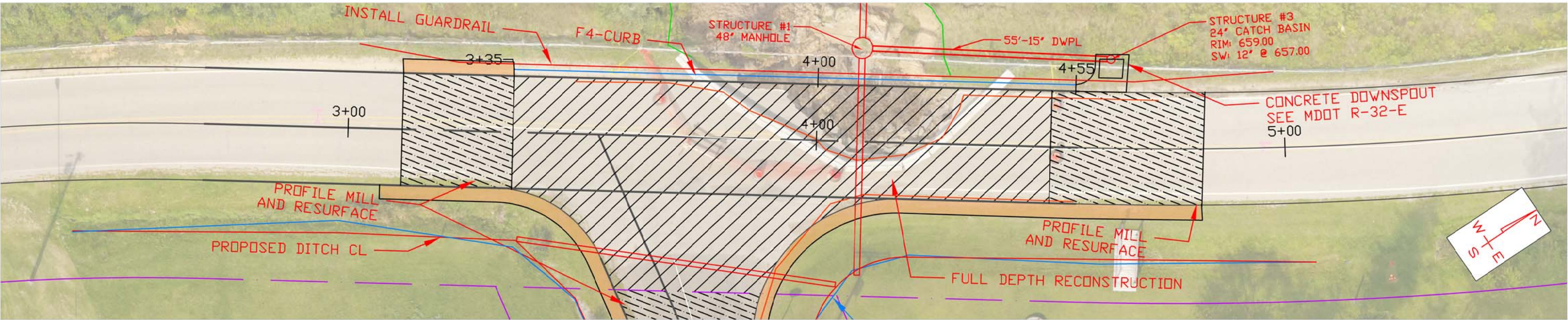


STRUCTURE #1  
48" MANHOLE  
RIM: 661.50  
NE: 12" @ 656.00  
SE: 15" @ 656.056  
NW: 15" @ 646.23

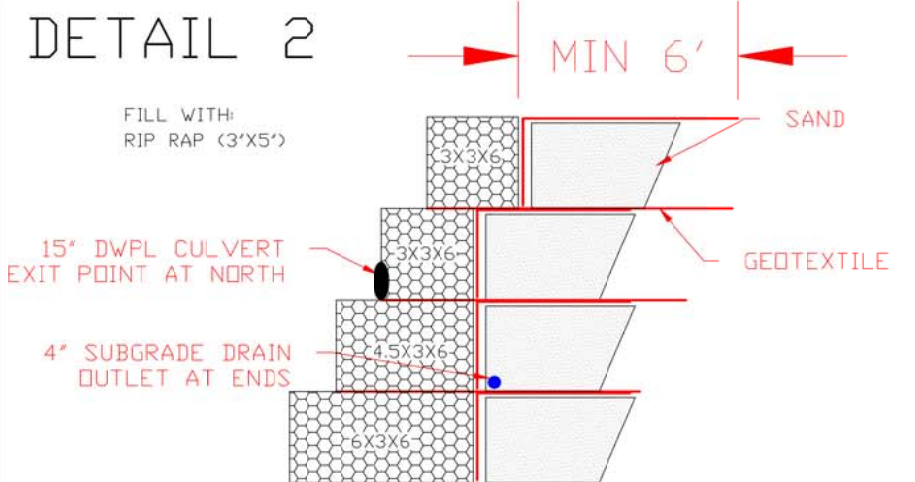
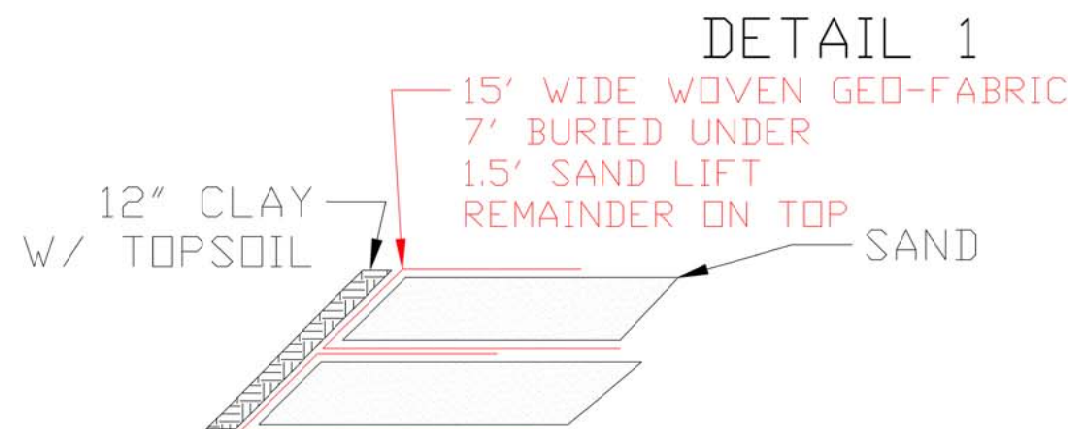
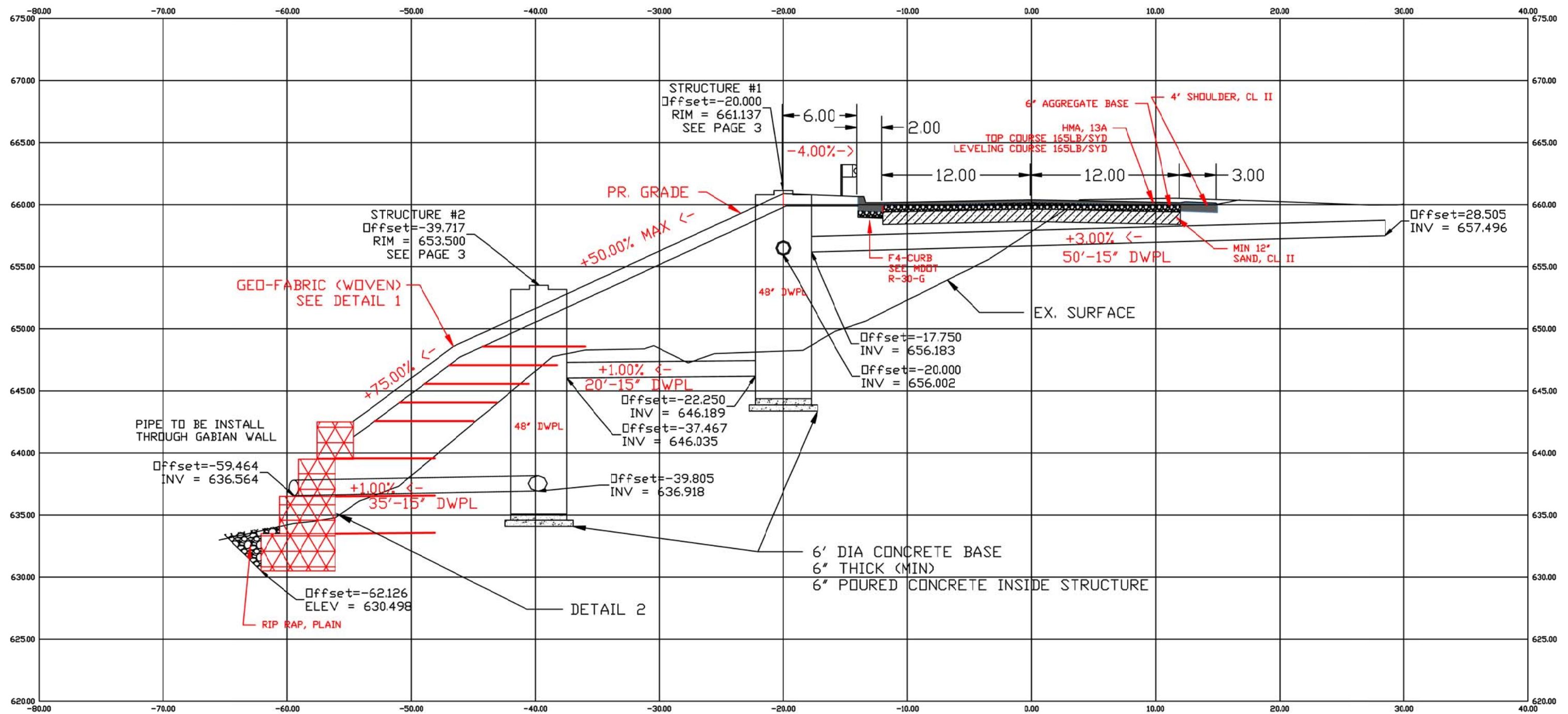
STRUCTURE #2  
48" MANHOLE  
RIM: 652.00  
SE: 15" @ 646.00  
NW: 15" @ 636.743













MIDLAND COUNTY ROAD  
COMMISSION  
SPECIAL PROVISION  
FOR  
**MARSHALL HOT MIX ASPHALT MIXTURE  
HMA (Type), MODIFIED**

MCRC:AB

1 of 2

2/1/2018

**a. Description.** Furnish hot mix asphalt (HMA) mixture, designed using Marshall Mixture Design Methods, in accordance with the standard specifications except as modified by this special provision.

**b. Mix Design.** Submit the mix design for evaluation in accordance with the Department's HMA Production Manual. Use a 50 blow Marshall hammer when compacting mixtures for developing Marshall mix designs.

**c. Recycled Mixtures.** Substituting reclaimed asphalt pavement (RAP) for a portion of the new material required to produce HMA mixture is allowed provided that the mixture is designed and produced to meet all criteria specified herein, unless otherwise prohibited. RAP materials must be in accordance with the standard specifications and **not to exceed a maximum of 15%.**

**d. Materials.** Table 1 provides the mix design criteria and volumetric properties. Table 2 provides the required aggregate properties. Use aggregates of the highest quality available to meet the minimum specifications. Use the mixture designation number shown in the contract item name when determining mix design properties from Tables 1 and 2. **Binder shall be Performance Grade 58-28** in accordance with section 904 of the 2012 Mdot Standard Specifications.

**e. 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**

HMA,(Type), Mod.....Ton

**Table 1: Mix Design Criteria and Volumetric Properties**

|   | Mixture No. |       |       |       |       |
|---|-------------|-------|-------|-------|-------|
|   | 2C          | 3C    | 4C    | 13A   | 36A   |
| Target Air Void, % (a)  | 3.00        | 4.00  | 4.00  | 4.00  | 4.00  |
| VMA (min) (b)   | 11.00       | 13.00 | 14.00 | 14.00 | 15.00 |
| VFA   | 65-78       | 65-78 | 65-78 | 65-78 | 65-78 |
| Fines to Binder Ratio (max) (c)   | 1.2         | 1.2   | 1.2   | 1.2   | 1.2   |
| Flow (0.01 inch)  | 8 -16       | 8 -16 | 8 -16 | 8 -16 | 8 -16 |
| Stability (min), lbs  | 1200        | 1200  | 1200  | 900   | 900   |
| a. Lower target air voids by 1.00% if used in a separate shoulder paving operation. Consider reducing air void targets to 3.00% for lower traffic volume roadways when designing 13A and 36A mixtures for local agency use.<br>b. VMA calculated using Gsb of the combined aggregates.<br>c. Ratio of the weight of aggregate passing the No. 200 sieve to total asphalt binder content by weight; including fines and binder contributed by RAP. |             |       |       |       |       |

**NOTE: Air Voids must meet (a.) from table above.**

**Table 2: Aggregate Properties**

|  | Mixture No.                                       |         |         |       |        |
|--|---|---------|---------|-------|--------|
|  | 2C  | 3C      | 4C      | 13A   | 36A    |
|  | Percent Passing Indicated Sieve or Property Limit |         |         |       |        |
| 1½ inch  | 100   |         |         |       |        |
| 1 inch   | 91-100  | 100     |         |       |        |
| ¾ inch   | 90 max.   | 91-100  | 100     | 100   |        |
| ½ inch   | 78 max.   | 90 max. | 91-100  | 75-95 | 100    |
| ⅜ inch   | 70 max.   | 77 max. | 90 max. | 60-90 | 92-100 |
| No. 4  | 52 max.   | 57 max. | 67 max. | 45-80 | 65-90  |
| No. 8  | 15-40   | 15-45   | 15-52   | 30-65 | 55-75  |
| No. 16   | 30 max.   | 33 max. | 37 max. | 20-50 |        |
| No. 30   | 22 max.   | 25 max. | 27 max. | 15-40 | 25-45  |
| No. 50   | 17 max.   | 19 max. | 20 max. | 10-25 |        |
| No. 100  | 15 max.   | 15 max. | 15 max. | 5-15  |        |
| No. 200  | 3-6   | 3-6     | 3-6     | 3-6   | 3-10   |
| Crushed (min), % (MTM 117)   | 90  | 90      | 90      | 25    | 60     |
| Soft Particle (max), % (a)   | 12.0  | 12.0    | 8.0     | 8.0   | 8.0    |
| Angularity Index (min) (b)   | 4.0   | 4.0     | 4.0     | 2.5   | 3.0    |
| L.A. Abrasion (max), % loss (c)  | 40  | 40      | 40      | 40    | 40     |
| Sand Ratio (max) (d)   | -   | -       | -       | 50    | 50     |
| <p>a. The sum of the shale, siltstone, structurally weak, and clay-ironstone particles must not exceed 8.0 percent for aggregates used in top course. The sum of the shale, siltstone, structurally weak, and clay-ironstone particles must not exceed 12.0 percent for aggregates used in base and leveling courses.</p> <p>b. The fine aggregate angularity of blended aggregates, determined by MTM 118, must meet the minimum requirement. In mixtures containing RAP, the required minimum fine aggregate angularity must be met by the virgin material. NAA fine aggregate angularity must be reported for information only and must include the fine material contributed by RAP if present in the mixture.</p> <p>c. Los Angeles abrasion maximum loss must be met for the composite mixture, however, each individual aggregate must be less than 50</p> <p>d. Sand ratio for 13A and 36A no more than 50% of the material passing the No. 4 sieve is allowed to pass the No. 30 Sieve.</p> |   |         |         |       |        |



MICHIGAN  
DEPARTMENT OF TRANSPORTATION

SPECIAL PROVISION  
FOR  
**SLOPE RESTORATION, NON-FREEWAY**

C&amp;T:DMG

1 of 3

C&amp;T:APPR:TWK:DBP:04-25-12

**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 and permanent turf reinforcement mat to those areas. Turf establishment must be in accordance with section 816 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 and application rates 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. The following materials must be used on this project:

1. Seeding mixture as called for on the plans
2. Fertilizer, Chemical Nutrient, Class A
3. Topsoil Surface, Furnished or Salvaged, 4 inch. Remove any stones greater than 1/2 inch in diameter or other debris from all topsoil.
4. Mulch and Mulch Anchoring, Mulch Blanket and High Velocity Mulch Blanket
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:

| <b>Property</b>                  | <b>Test Method</b> | <b>Requirement</b> |
|----------------------------------|--------------------|--------------------|
| Mass/Unit Area                   | ASTM D 6566        | 10 oz/syd          |
| Ultraviolet Stability @ 1000 hrs | ASTM D 4355        | 80 percent         |
| Tensile Strength (MD)            | ASTM D 6818        | 165 lbs/ft         |

Acceptance. Supply a Test Data Certification for the permanent TRM from one of the following manufacturers:

Recyclex - American Excelsior Co., Arlington, TX (800) 777-7645  
P300 - North American Green, Poseyville, IN (800) 772-2040  
Landlok 450 - Propex, Inc., Chattanooga, TN (800) 621-1273  
PP5-10 - Western Excelsior, Mancos, CO (800) 833-8573

**c. Construction.** Construction methods must be 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 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.

Shape, compact and assure all areas to be seeded are weed free prior to placing topsoil. Place topsoil to the minimum depth indicated above, to meet proposed finished grade. If the area being restored requires more than the minimum depth of topsoil to meet finished grade, this additional depth must be filled using topsoil or, at the Contractor's option, embankment. Furnishing and placing this additional material is included in this item of work.

Topsoil must be 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

Apply mulch at a rate of 2 tons per acre. Place Mulch Anchoring over the mulch at a rate specified in subsection 816.03.F of the Standard Specifications for Construction. Mulch Blanket and High Velocity Mulch Blanket must be placed in accordance with subsection 816.03.H of the Standard Specifications for Construction and as shown on Standard Plan R-100 Series.

Areas constructed with the TRM must be installed on prepared (seeded) grades as shown on the plans in strict accordance with the manufacturer's published installation guidelines. The top edge of the TRM must be anchored in a minimum 6 inch deep trench. Operation of equipment on the slope will not be allowed after placement of the TRM. No credit for splices, overlaps, tucks or wasted material will be made.

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. This replacement will be paid for as additional work using the applicable contract items.

If an area washes out for reasons attributable to the Contractor's activity or failure to take proper precautions, replacement will be at the Contractor's expense.

The Engineer will inspect the seeded turf to ensure the end product is well established, weed free, 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.

If weeds are determined by the Engineer to cover more than 10 percent of the total area of slope restoration, the Contractor must provide weed control in accordance with subsection 816.03.J of the Standard Specifications for Construction. Weed control will be at the Contractor's expense with no additional charges to the project.

**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    |
|-------------------------------|-------------|
| Slope Restoration, Type _____ | Square Yard |

1. Place **Slope Restoration, 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, Type A**



includes all labor, equipment and materials required to install Topsoil Surface, Furnished or Salvaged; Fertilizer, Chemical Nutrient, Class A; Seeding Mixture; and Mulch and Mulch Anchoring which will not be paid for separately but is included in the contract unit price for **Slope Restoration, Type A**.

2. Place **Slope Restoration, Type B** parallel (6 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, or as directed by the Engineer. **Slope Restoration, Type B** will be measured by area in square yards in place. **Slope Restoration, Type B** includes all labor, equipment and materials required to install Topsoil Surface, Furnished or Salvaged; Fertilizer, Chemical Nutrient, Class A; Seeding Mixture; and Mulch Blanket which will not be paid for separately but is included in the contract unit price for **Slope Restoration, Type B**.

3. Place **Slope Restoration, Type C** in areas that have a 1 on 2 slope, any ditch with a grade of 1.5 percent to 3 percent or as directed by the Engineer. **Slope Restoration, Type C** will be measured by area in square yards in place. **Slope Restoration, Type C** includes all labor, equipment and materials required to install Topsoil, Furnished or Salvaged; Fertilizer, Chemical Nutrient, Class A; Seeding Mixture; and High Velocity Mulch Blanket which will not be paid for separately but is included in the contract unit price for **Slope Restoration, Type C**.

4. Place **Slope Restoration, Type D** in areas that have a slope steeper than 1 on 2, any ditch with a grade steeper than 3 percent or as directed by the Engineer. **Slope Restoration, Type D** will be measured by area in square yards in place. **Slope Restoration, Type D** includes all labor, equipment and materials required to install Topsoil, Furnished or Salvaged; Fertilizer, Chemical Nutrient, Class A; Seeding Mixture; and TRM which will not be paid for separately but is included in the contract unit price for **Slope Restoration, Type D**.