



MONROE COUNTY  
**R O A D**  
COMMISSION

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840 S. Telegraph Road • Monroe, Michigan 48161 • Phone: (734) 240-5102 • Fax: (734) 240-5101

**PROPOSAL**

**FOR**

**LAPLAISANCE ROAD DRAINAGE IMPROVEMENTS**

**MONROE TOWNSHIP, MICHIGAN**

**BID OPENING:**

Wednesday, January 4, 2017 at 10:00 a.m.

BOARD OF COUNTY ROAD COMMISSIONERS  
OF THE COUNTY OF MONROE

Paul Iacoangeli, Chairman  
Dan Minton, Vice Chairman  
Bruce R. Stammer, Jr., Member  
Stephen J. Pace, Member  
Charles A. Londo, Member

**MCRC Project # 460-012-179007**

**MONROE COUNTY ROAD COMMISSION  
INVITATION TO BID**

Sealed bids will be received by the Board of County Road Commissioners of the County of Monroe until **10:00 a.m.** local time on **Wednesday, January 4, 2017** at their office located at 840 South Telegraph Road, Monroe, Michigan, 48161 for the following:

- LaPlaisance Road Drainage Improvements
- 3,000 Gallon Asphalt Distributor Mounted on Truck Chassis

Bids will be publicly opened and read aloud by the Bid Committee at 10:00 a.m. Proposals may be downloaded from the Road Commission's website at [www.mcrc-mi.org/bids.html](http://www.mcrc-mi.org/bids.html).

BOARD OF COUNTY ROAD COMMISSIONERS  
OF THE COUNTY OF MONROE, MICHIGAN

**MONROE COUNTY ROAD COMMISSION  
PROPOSAL  
LAPLAISANCE ROAD DRAINAGE IMPROVEMENTS**

TO: The Board of County Road Commissioners of the County of Monroe, Michigan

FOR: 0.13 miles of clearing, excavation and storm sewer in the Norfolk Southern Railway right-of-way at LaPlaisance Road in Monroe Township, Monroe County, Michigan

Ladies and Gentlemen:

The undersigned bidder hereby affirms that:

1. The proposal is in all respects fair and without any collusion or fraud.
2. The undersigned have examined the site of the proposed project and have made a personal investigation and estimate of quantities.
3. The undersigned will contract to furnish all labor, equipment, tools, material and traffic control devices necessary at the unit prices stated on the attached bid forms and to complete the work in the time specified to the satisfaction of the Board of County Road Commissioners of the County of Monroe, Michigan.

Company: \_\_\_\_\_

Address: \_\_\_\_\_

City, State, ZIP: \_\_\_\_\_

Telephone: \_\_\_\_\_

By: \_\_\_\_\_

Title: \_\_\_\_\_

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

Notes:

1. If the bidder is a partnership, each member must sign the proposal.
2. Corporations must execute the proposal by duly authorized officers in accordance with the Articles of Incorporation.

INSTRUCTIONS TO BIDDERS  
and  
GENERAL CONDITIONS

The Michigan Department of Transportation 2012 Standard Specifications for Construction are incorporated as part of these bidding documents and shall govern except as provided in the Invitation to Bid, Instructions to Bidders and General Conditions, and Proposal. Reference to the Department or Commission in the Michigan Department of Transportation 2012 Standard Specifications for Construction shall for this project mean the Board of County Road Commissioners of the County of Monroe, hereinafter referred to as "Board", unless otherwise specified.

OWNER

The owner of the project is the Board of County Road Commissioners of the County of Monroe, also referred to as the "Board."

ENGINEER

The Engineer is the County Highway Engineer or the individual assigned by the County Highway Engineer to be in charge of the Contract. The person assigned as the Engineer may be an employee of the Board, a consultant or an outside contractor hired by the Board.

BIDDER

The Bidder is one who submits a signed bid with the required documentation directly to the Board at the time and place specified.

BID FORMS

Sealed proposals must be submitted on the bid forms furnished by the Board. The proposal shall be submitted in its entirety (pages 1 through 11) with no modifications or changes except as authorized by an addendum and with no pages removed. All proposals must be filled out in ink or typewritten and shall be legibly signed, giving the complete name and address of the Bidder.

All bids must be in a sealed envelope and clearly marked "**Bid for LaPlaisance Road Drainage Improvements.**"

BIDDER'S SURETY

A bid surety will not be required for this contract.

INTERPRETATION AND ADDENDA

All questions about the meaning or intent of the Bidding Documents are to be directed to the Engineer. Interpretation or clarification considered necessary by the Engineer to such questions will be issued by Addenda delivered to all parties recorded by the Engineer as having received the Bidding Documents. Questions received less than seven days prior to the date for opening the bids may not be answered. Only questions answered by formal written Addenda are binding. Oral and other interpretations or clarifications will be without legal effect.

OPENING OF BIDS

Bids will be received by the Board at 840 S. Telegraph Road, Monroe, Michigan, 48161 until **10:00 a.m.** local time on **Wednesday, January 4, 2017** at which time they will be publicly opened and read aloud.

REJECTION OF BIDS

The Board reserves the right to reject any or all bids, including without limitation the right to reject any or all nonconforming, nonresponsive, unbalanced, or conditional bids and to reject the bid of any Bidder if the Board believes that it would not be in the best interest of the project to make an award to that Bidder, whether because the bid is not responsive or if the Bidder is unqualified or of doubtful financial ability or fails to meet any pertinent standards or criteria established by the Board. The Board also reserves the right to waive all informalities in any bid should it be deemed in the best interest of the Road Commission to do so. Discrepancies between the multiplication of units of work and the unit prices will be resolved in favor of the unit price. Discrepancies between the indicated sum of any column of figures and the correct

sum will be resolved in favor of the correct sum. Discrepancies between words and figures will be resolved in favor of words.

#### TITLE VI ASSURANCE

The Monroe County Road Commission, in accordance with Title VI of the Civil Rights Act of 1964 (78 Stat. 252, 42 USC 2000d to 2000d-4) and Title 49, Code of Federal Regulations, Part 21, as they may be amended from time to time, hereby notifies all bidders that it assures that in any contract entered into pursuant to this advertisement, minority business enterprises will be afforded full opportunity to submit bids in response to this invitation and will not be discriminated against on the grounds of race, color, national origin, gender, age, or disability in consideration for an award.

#### PROHIBITION OF DISCRIMINATION

In accordance with Act No. 453, Public Acts of 1976, the Contractor and subcontractors hereby agree not to discriminate against an employee or applicant for employment with respect to hire, tenure, terms, conditions, or privileges of employment, or a matter directly or indirectly related to employment, because of race, color, religion, national origin, age, sex, height, weight, or marital status. Further, in accordance with Act No. 220, Public Acts of 1976 as amended by Act No. 478, Public Acts of 1980, the Contractor and subcontractors hereby agree not to discriminate against an employee or applicant for employment tenure, terms, conditions, or privileges of employment, or a matter directly or indirectly related to employment, because of a disability that is unrelated to the individual's ability to perform the duties of a particular job or position. A breach of the above covenants shall be regarded as a material breach of this contract.

#### CONTRACT EXECUTION

The Bidder to whom the Contract is awarded shall, within ten (10) calendar days after notice of award, enter into a written contract with the Board and furnish proof of insurance as hereinafter specified. Failure to execute the contract or furnish satisfactory proof of insurance will be considered cause for annulment of award.

#### PERFORMANCE AND LIEN BONDS

Performance and lien bonds will not be required for this contract.

#### INCREASED OR DECREASED QUANTITIES

The Board reserves the right to increase or decrease quantities from those originally estimated and such changes will be paid for at the unit price bid so long as the total contract amount is not changed more than ten (10) percent. Changes in excess of that amount will be individually negotiated.

#### PROGRESS SCHEDULE

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

The low Bidder for the work covered by this proposal will be required to meet with the Board's representative to review the Contractor's proposed work schedule. The schedule for this meeting will be set within one (1) week after the low bidder is determined.

The Board's representative will arrange the time and place for the meeting.

#### TIME OF COMPLETION

All contract work shall be completed on or before **September 1, 2017**.

#### FAILURE TO COMPLETE ON TIME

Liquidated damages in the amount of **\$200** per day will be assessed for each calendar day that the work remains incomplete beyond the completion date.

#### PAYMENTS TO CONTRACTOR

Payments will be made to the Contractor on a monthly basis. The Board will make a partial payment to the Contractor on the basis of an estimate, prepared by the Engineer, of the work performed on the project during the preceding period less a five percent (5%) retainer.

### FINAL INSPECTION, ACCEPTANCE AND FINAL PAYMENT

The Engineer will make a final inspection of all work included in the contract, and notify the Contractor of defects to be remedied prior to final acceptance. The Contractor is required to provide unconditional waivers of lien from all sub-contractors and suppliers before preparing a final estimate. Upon satisfactory completion of the work by the Contractor, a final estimate will be prepared. Payment for all work completed and accepted, less previous payments, will be made within thirty (30) days of final acceptance.

### DISPUTES

The County Highway Engineer's written decision on any question arising under the contract between the Board and Contractor shall be final and binding upon both the Board and the Contractor in the absence of fraud, bad faith, or abuse of discretion.

### ARBITRATION

All claims, disputes and other matters in question between the Board and the Contractor arising out of, or relating to, the Contract Documents or the breach thereof (except for claims which have been waived by the making or acceptance of final payment) will be decided by arbitration in accordance with the Construction Industry Arbitration Rules of the American Arbitration Association then obtaining subject to the limitations of this section. This agreement so to arbitrate and any other agreement or consent to arbitrate entered into in accordance herewith will be specifically enforceable under the prevailing laws of any court having jurisdiction.

No demand for arbitration of any claim, dispute or other matter that is required to be referred to Engineer initially for decision will be made until the earlier of (a) the date on which Engineer has rendered a decision or (b) the tenth day after the parties have presented their evidence to Engineer if a written decision has not been rendered by Engineer before that date. No demand for arbitration of any such claim, dispute or other matter will be made later than thirty (30) days after the date on which Engineer has rendered a written decision in respect thereof; and the failure to demand arbitration within said thirty (30) days' period shall result in Engineer's decision being final and binding upon Board and Contractor. If Engineer renders a decision after arbitration proceedings have been initiated, such decision may be entered as evidence but will not supersede the arbitration proceedings, except where the decision is acceptable to the parties concerned. No demand for arbitration of any written decision of Engineer will be made later than ten (10) days after the party making such demand has delivered written notice of intention to appeal.

Notice of the demand for arbitration will be filed in writing with the other party to the Agreement and with the American Arbitration Association, and a copy will be sent to Engineer for information. The demand for arbitration will be made within the thirty-day (30) or ten-day (10) period specified above as applicable, and in all other cases within a reasonable time after the claim, dispute or other matter in question has arisen, and in no event shall any such demand be made after the date when institution of legal or equitable proceedings based on such claim, dispute or other matter in question would be barred by the applicable statute of limitations.

No arbitration arising out of or relating to the Contract Documents shall include by consolidation, joinder or in any other manner any other person or entity who is not a party of this contract unless:

- a) the inclusion of such other person or entity is necessary if complete relief is to be afforded among those who are already parties to the arbitration;
- b) such other person or entity is substantially involved in a question of law or fact which is common to those who are already parties to the arbitration and which will arise in such proceedings, and;
- c) the written consent of the other person or entity sought to be included and of Board and Contractor has been obtained for such inclusion, which consent shall make specific reference to this paragraph; but no such consent shall constitute consent to arbitration of any dispute not specifically described in such consent or to arbitration with any party not specifically identified in such consent.

Notwithstanding the above paragraph, if a claim, dispute or other matter in question between Board and Contractor involves the Work of a Subcontractor, either Board or Contractor may join such Subcontractor as a party to the arbitration between Board and Contractor hereunder. Contractor shall include in all subcontracts a specific provision whereby the Subcontractor consents to being joined in arbitration between Board and Contractor involving the Work of such Subcontractor. Nothing in this paragraph nor in the provision of such subcontract consenting to joinder shall create any claim, right or cause of action in favor of Subcontractor and against Board or Board's Consultants that does not otherwise exist.

The award rendered by the arbitrators will be final, judgment may be entered upon it in any court having jurisdiction thereof, and it will not be subject to modification or appeal.

#### ASSIGNMENT CLAUSE

The contract between the Board and the Contractor may not be assigned to a third party without the written consent of the Board.

#### TAXES

The Contractor shall include, and will be deemed to have included, in its base bid and contract price all applicable Michigan Sales and Use taxes which have been enacted into law as of the date the bid is submitted.

#### BOARD RESPONSIBILITY

The Board shall not supervise, direct or have control or authority over, nor be responsible for, the Contractor's means, methods, techniques, sequences or procedures of construction or the safety precautions and programs incident thereto, or for any failure of Contractor to comply with laws and regulations applicable to the furnishing or performance of the work unless otherwise specified in the Special Provisions. The Board will not be responsible for the Contractor's failure to perform or furnish the work in accordance with the Contract Documents.

#### INDEMNIFICATION, DAMAGE LIABILITY AND INSURANCE

- A. Indemnification. The Contractor must hold harmless, indemnify, defend and represent the Board and its officers, agents and employees against any and all claims for bodily injury or property damage, or any other claim arising out of performance of the work on this contract. The Contractor will not be responsible for claims that result from the sole negligence or willful acts of said indemnitee.
- B. Workers' Compensation Insurance. The Contractor must carry the necessary Workers' Compensation Insurance and submit a certification that it carries Workers' Compensation to the Board.
- C. Bodily Injury and Property Damage. The Contractor must carry adequate insurance, satisfactory to the Board, to afford protection against all claims for damage to public or private property and injuries to persons arising out of performance of the work. Copies of completed certificates must be submitted to the Board.

- 1. General Liability, Bodily Injury and Property Damage. The Contractor must provide the following minimum limits of property damage and bodily injury liability:

Bodily Injury and Property Damage Liability:

|                 |             |
|-----------------|-------------|
| Each Occurrence | \$1,000,000 |
| Aggregate       | \$2,000,000 |

- 2. Automobile Liability, Bodily Injury and Property Damage. The Contractor must provide the following minimum limits of property damage and bodily injury liability:

Bodily Injury Liability:

|                 |             |
|-----------------|-------------|
| Each Person     | \$500,000   |
| Each Occurrence | \$1,000,000 |

Property Damage Liability:  
 Each Occurrence \$1,000,000

Combined Single Limit for Bodily Injury and Property Damage Liability:  
 Each Occurrence \$2,000,000

3. Umbrella Policy. The Contractor may meet the requirements of above minimum limits of bodily injury and property damage liability through an umbrella policy.
- D. Additional Insured. The Bodily Injury and Property Damage Policy must include the following endorsements, verbatim:
- “Additional Insured: The Board of County Road Commissioners of the County of Monroe, the Monroe County Road Commission and its officers, agents and employees; Ash Township and its officers, agents and employees; and Hennessey Engineers, Inc. and its officers, agents and employees.
- “Provide written notice ten (10) days prior to cancellation, expiration, termination or reduction in coverage for nonpayment of the premium and written notice thirty (30) days prior to cancellation, expiration, termination or reduction in coverage for all other reasons.”
- E. Per Project Aggregate. The Bodily Injury and Property Damage Policy must be endorsed with an endorsement that provides the General Aggregate Limit to each designated construction project.
  - F. Notice. The Contractor must ensure that all insurance policies and binders include an endorsement by which the insurer agrees to notify the Department in writing at least 30 days before there is a cancellation or material change in coverage. The Contractor must stop operations if any insurance is canceled or reduced, and must not resume operations until new issuance is in force.
  - G. Reports. The Contractor or insurance carrier shall report to the Board any claims received, inspections made and the disposition of claims. The Board will withhold final payment release until either the Contractor pays the claim or until final disposition of the claim by the Contractor’s insurance company has been received by the Board.

**MAINTENANCE OF TRAFFIC**

Maintain traffic in accordance with the Michigan Manual of Uniform Traffic Devices (MMUTCD) 2011 Edition (as revised), Sections 104.11, 812 and 922 of the Michigan Department of Transportation 2012 Standard Specifications for Construction, as applicable, and as herein stated and as directed by the Engineer.

The Contractor shall erect two “Road Work Ahead” signs on LaPlaisance Road and one “Road Work Ahead” sign on eastbound Dunbar west of LaPlaisance Road prior to the start of construction.

The estimated temporary signing quantities are as follows:

| Sign          | Description     | Size      | Estimated Quantity | Area per Sign (Sft) | Type B Area (Sft) |
|---------------|-----------------|-----------|--------------------|---------------------|-------------------|
| W20-1         | Road Work Ahead | 48" x 48" | 3                  | 16                  | 48                |
| <b>Totals</b> |                 |           |                    |                     | <b>48</b>         |



## SPECIFICATIONS

All work and materials shall be in accordance with the Michigan Department of Transportation 2012 Standard Specifications for Construction. Within these specifications all references to the Michigan Department of Transportation shall mean the Board.

## RAILROAD COORDINATION

The Contractor shall obtain railroad protective liability insurance in accordance with Norfolk Southern Railway Company's Special Provisions for Protection of Railway Interests included in the proposal. The Contractor shall not begin work on the project until written approval is received of the required insurance policies and provides proof to the Engineer. All costs incurred by the Contractor in purchasing, securing, obtaining and complying with Norfolk Southern's insurance requirements shall be included by the Contractor in the unit prices bid for other items of work.

The Monroe County Road Commission will apply for and obtain a permit from Norfolk Southern Railway for work within the railroad right-of-way.

Contact shall be made with Norfolk Southern Railway's track supervisor before work is to commence. The Contractor shall request railroad flag persons from Norfolk Southern a minimum of thirty (30) days in advance of the drainage improvements work to determine the railroad flagging protection requirements.

Track Supervisor: Matthew White  
Phone: 517-581-5316  
Email: [Matthew.White2@nscorp.com](mailto:Matthew.White2@nscorp.com)

The Monroe County Road Commission will pay Norfolk Southern the cost for up to three (3) days' worth of traffic regulators, watchpersons, and other protective services and devices furnished by Norfolk Southern and made necessary in the judgment of the representative of the Norfolk Southern because of the Contractor's operation adjacent to the tracks. The Contractor will pay to Norfolk Southern the cost of all railroad protective services in excess of three (3) days. All such protection costs shall be included by the Contractor in the unit prices bid for other items of work.

## UTILITY COORDINATION

For the protection of underground utilities, the Contractor shall notify "MISS DIG" at 1-800-482-7171 or 811, a minimum of three working days, excluding weekends or holidays, prior to excavating and otherwise fully comply with the provisions of Act 53 of 1974 and as amended. MISS DIG members will thus be routinely notified. This does not relieve the Contractor of the responsibility of notifying utility owners who may not be part of the MISS DIG system.

The Contractor shall conduct operations in such a manner as to insure that those utilities not requiring relocation will not be disturbed

## COMMUNICATIONS

Any questions regarding this bid shall be directed to the person listed below:

Name: Scott Assenmacher  
Phone: 734-240-5143  
Email: [sassenmacher@mcrc-mi.org](mailto:sassenmacher@mcrc-mi.org)

**MONROE COUNTY ROAD COMMISSION  
UNIT PRICE CONTRACT  
LAPLAISANCE ROAD DRAINAGE IMPROVEMENTS**

TO: Board of County Road Commissioners of Monroe County, Michigan

The undersigned, having full knowledge of the proposal and specifications for the **LaPlaisance Road Drainage Improvements** including Bidders' Addenda \_\_\_\_\_ and the conditions of these Contract Documents, hereby agrees to furnish all labor, equipment, materials, transportation and incidentals necessary to perform the Work as specified in the Instructions to Bidders and General Provisions at the unit price named below:

| Item Code        | Item Description                    | Estimated Quantity | Unit | Unit Price | Bid Amount |
|------------------|-------------------------------------|--------------------|------|------------|------------|
| 1500001          | Mobilization, Max \$5,000.00        | 1.00               | LSUM | \$         | \$         |
| 2017002          | Clearing, Special                   | 6.70               | Sta  | \$         | \$         |
| 2050016          | Excavation, Earth                   | 120.00             | Cyd  | \$         | \$         |
| 4020722          | Sewer, CI II, 18 inch, Tr Det A     | 74.00              | Ft   | \$         | \$         |
| 4020751          | Sewer, CI II, 18 inch, Tr Det B     | 30.00              | Ft   | \$         | \$         |
| 4027001          | Sewer, HP Storm, 18 inch, Tr Det A  | 582.00             | Ft   | \$         | \$         |
| 4030010          | Dr Structure Cover, Type B          | 2.00               | Ea   | \$         | \$         |
| 4030210          | Dr Structure, 48 inch dia           | 2.00               | Ea   | \$         | \$         |
| 8120350          | Sign, Type B, Temp, Prismatic, Furn | 48.00              | Sft  | \$         | \$         |
| 8120351          | Sign, Type B, Temp, Prismatic, Oper | 48.00              | Sft  | \$         | \$         |
| <b>Bid Total</b> |                                     |                    |      |            | <b>\$</b>  |

**Contractor Signature:** \_\_\_\_\_

**Printed Name and Title:** \_\_\_\_\_

Quantities are not guaranteed. Final payment will be based on actual quantities.

Bidder agrees that the work will be completed and ready for final payment in accordance with the General Conditions. Work on the **LaPlaisance Road Drainage Improvements** is to be completed by **September 1, 2017** as detailed in the Time of Completion section above.

Bidder accepts the provisions of the Agreement as to liquidated damages in the event of failure to complete the work on time.

Communications concerning this Bid shall be addressed to the Bidder's representative.

Name of Representative: \_\_\_\_\_

Company: \_\_\_\_\_

Address: \_\_\_\_\_

City, State, ZIP: \_\_\_\_\_

Telephone Number: \_\_\_\_\_

Fax Number: \_\_\_\_\_

E-Mail Address: \_\_\_\_\_

The terms used in this Bid, which are defined in subsection 101.03 of the Michigan Department of Transportation 2012 Standard Specifications of the Construction, have the meanings assigned to them in the Standard Specifications for Construction.

SUBMITTED on: \_\_\_\_\_, 2017

If Bidder is:

An Individual

By: \_\_\_\_\_ (SEAL)  
Individual's Name

Doing Business As: \_\_\_\_\_

Business Address: \_\_\_\_\_  
\_\_\_\_\_

Phone No: \_\_\_\_\_

A Partnership

By: \_\_\_\_\_ (SEAL)  
Firm Name

\_\_\_\_\_  
General Partner

Business Address: \_\_\_\_\_  
\_\_\_\_\_

Phone No.: \_\_\_\_\_

A Corporation

By: \_\_\_\_\_ (Corporate SEAL)  
Company Name

\_\_\_\_\_  
State of Incorporation

By: \_\_\_\_\_  
Name of Person Authorized to Sign

\_\_\_\_\_  
Title

Business Address: \_\_\_\_\_

\_\_\_\_\_

Phone No.: \_\_\_\_\_

A Joint Venture

By: \_\_\_\_\_  
Name

Business Address: \_\_\_\_\_

\_\_\_\_\_

Phone No.: \_\_\_\_\_

By: \_\_\_\_\_  
Name

Business Address: \_\_\_\_\_

\_\_\_\_\_

Phone No.: \_\_\_\_\_

(Each joint venture must sign. The manner of signing for each individual, partnership and corporation that is a party to the joint venture should be in the manner indicated above.)

MONROE COUNTY ROAD COMMISSION

SPECIAL PROVISION  
FOR  
**CLEARING, SPECIAL**

MCRC:RB

1 of 1

12-13-16

**a. Description.** This work consists of removing trees, stumps, brush, shrubs, roots, logs and other vegetation with the clearing limits as required for the drainage improvements shown on the plans. This work also includes relocating railroad ties within the clearing limits to other locations within the railroad right-of-way.

**b. Materials.** None specified.

**c. Construction.** Cut, remove and dispose of trees, stumps, brush, shrubs, roots, logs and other vegetation in accordance with subsection 201 of the 2012 Michigan Department of Transportation Standard Specifications for Construction.

Relocate railroad ties within the clearing limits to other locations within the railroad right-of-way as directed by the Engineer.

**d. Measurement and Payment.** The completed work as described will be paid for at the contract unit price for the following pay item:

| <b>Contract Item (Pay Item)</b> | <b>Pay Unit</b> |
|---------------------------------|-----------------|
| Clearing, Special.....          | Lump Sum        |

The unit price for **Clearing, Special** includes the cost of the following:

1. Removing and disposing of trees, regardless of tree diameter;
2. Removing and disposing of existing stumps, regardless of size;
3. Removing and disposing of brush, shrubs, roots, logs and other vegetation within the clearing limits; and
4. Relocating railroad ties within the clearing limits to other locations within the railroad right-of-way.

Removal of debris within the clearing limits that requires disposal at a Type II landfill will be paid for separately as extra work.

MONROE COUNTY ROAD COMMISSION

SPECIAL PROVISION  
FOR  
**HP STORM SEWER**

MCRC:RB

1 of 1

12-16-16

**a. Description.** This work consists of constructing storm sewers with HP Storm pipe manufactured by Advanced Drainage Systems, Inc.

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

1. The pipe shall be HP Storm manufactured by Advanced Drainage Systems, Inc. The pipe shall be joined with integral bell and spigot joints meeting the requirements of ASTM F2881.
2. Pipe bedding and backfill to one foot above the top of the pipe shall be Granular Material, CI IIIA in accordance with Standard Plan R-83-C.
3. Trench backfill above the pipe for trench detail A shall be suitable material excavated from the sewer trench in accordance with Standard Plan R-83-C.
4. Trench backfill above the pipe for trench detail B shall be Granular Material, Class III in accordance with Standard Plan R-83-C.

**c. Construction.** Construct the storm sewer in accordance with subsection 402.03 of the Michigan Department of Transportation 2012 Standard Specifications for Construction.

**d. Measurement and Payment.** The completed work as described will be paid for at the contract unit price for the following pay item:

| <b>Contract Item (Pay Item)</b>        | <b>Pay Unit</b> |
|--|-----------------|
| Sewer, HP Storm, __ inch, Tr Det _____ | Foot            |

The Engineer will measure **Sewer, HP Storm** of the size and trench detail required, in place from center to center of manholes, catch basins or inlets. The unit price for **Sewer, HP Storm** includes the cost excavation and backfill.

## E. Norfolk Southern – Special Provisions for Protection of Railway Interests

### 1. AUTHORITY OF RAILROAD ENGINEER AND SPONSOR ENGINEER:

Norfolk Southern Railway Company, hereinafter referred to as "Railroad", and their authorized representative shall have final authority in all matters affecting the safe maintenance of railroad traffic including the adequacy of the foundations and structures supporting the railroad tracks. For Public Projects impacting the Railroad, the Railroad's Public Projects Engineer, hereinafter referred to as "Railroad Engineer", will serve as the authorized representative of the Railroad.

The authorized representative of the Project Sponsor ("Sponsor"), hereinafter referred to as the "Sponsor's Engineer", shall have authority over all other matters as prescribed herein and in the Project Specifications.

The Sponsor's Prime Contractor, hereinafter referred to as "Contractor" shall be responsible for completing any and all work in accordance with the terms prescribed herein and in the Project Specifications. These terms and conditions are subject to change without notice, from time to time in the sole discretion of the Railroad. Contractor must request from Railroad and follow the latest version of these provisions prior to commencing work.

### 2. NOTICE OF STARTING WORK:

- A. The Contractor shall not commence any work on railroad rights-of-way until he has complied with the following conditions:
  1. Signed and received a fully executed copy of the required Norfolk Southern Contractor Right of Entry Agreement.
  2. Given the Railroad written notice in electronic format to the Railroad Engineer, with copy to the Sponsor's Engineer who has been designated to be in charge of the work, at least ten days in advance of the date he proposes to begin work on Railroad rights-of-way.
  3. Obtained written approval from the Railroad of Railroad Protective Liability Insurance coverage as required by paragraph 14 herein. It should be noted that the Railroad does not accept notation of Railroad Protective insurance on a certificate of liability insurance form or Binders as Railroad must have the full original countersigned policy. Further, please note that mere receipt of the policy is not the only issue but review for compliance. Due to the number of projects system-wide, it typically takes a minimum of 30-45 days for the Railroad to review.
  4. Obtained Railroad's Flagging Services as required by paragraph 7 herein.
  5. Obtained written authorization from the Railroad to begin work on Railroad's rights-of-way, such authorization to include an outline of specific conditions with which he must comply.
  6. Furnished a schedule for all work within the Railroad's rights-of-way as required by paragraph 7.B.1.



- B. The Railroad's written authorization to proceed with the work shall include the names, addresses, and telephone numbers of the Railroad's representatives who are to be notified as hereinafter required. Where more than one representative is designated, the area of responsibility of each representative shall be specified.
3. INTERFERENCE WITH RAILROAD OPERATIONS:
- A. The Contractor shall so arrange and conduct his work that there will be no interference with Railroad's operations, including train, signal, telephone and telegraphic services, or damage to the property of the Railroad or to poles, wires, and other facilities of tenants on the rights-of-way of the Railroad. Whenever work is liable to affect the operations or safety of trains, the method of doing such work shall first be submitted to the Railroad Engineer for approval, but such approval shall not relieve the Contractor from liability. Any work to be performed by the Contractor which requires flagging service or inspection service shall be deferred by the Contractor until the flagging service or inspection service required by the Railroad is available at the job site.
  - B. Whenever work within Railroad's rights-of-way is of such a nature that impediment to Railroad's operations such as use of runaround tracks or necessity for reduced speed is unavoidable, the Contractor shall schedule and conduct his operations so that such impediment is reduced to the absolute minimum.
  - C. Should conditions arising from, or in connection with the work, require that immediate and unusual provisions be made to protect operations and property of the Railroad, the Contractor shall make such provisions. If in the judgment of the Railroad Engineer, or in his absence, the Railroad's Division Engineer, such provisions is insufficient, either may require or provide such provisions as he deems necessary. In any event, such unusual provisions shall be at the Contractor's expense and without cost to the Railroad or the Sponsor.
  - D. "One Call" Services do not locate buried Railroad utilities. The contractor shall contact the Railroad's representative 2 days in advance of work at those places where excavation, pile driving, or heavy loads may damage the Railroad's underground facilities. Upon request from the Contractor or Sponsor, Railroad forces will locate and paint mark or flag the Railroad's underground facilities. The Contractor shall avoid excavation or other disturbances of these facilities. If disturbance or excavation is required near a buried Railroad facility, the contractor shall coordinate with the Railroad to have the facility potholed manually with careful hand excavation. The facility shall be protected by the Contractor during the course of the disturbance under the supervision and direction of the Railroad's representative.
4. TRACK CLEARANCES:
- A. The minimum track clearances to be maintained by the Contractor during construction are shown on the Project Plans. If temporary clearances are not shown on the project plans, the following criteria shall govern the use of falsework and formwork above or adjacent to operated tracks.
    - 1. A minimum vertical clearance of 22'-0" above top of highest rail shall be maintained at all times.
    - 2. A minimum horizontal clearance of 13'-0" from centerline of tangent track or 14'-0" from centerline of curved track shall be maintained at all times. Additional horizontal

clearance may be required in special cases to be safe for operating conditions. This additional clearance will be as determined by the Railroad Engineer.

3. All proposed temporary clearances which are less than those listed above must be submitted to Railroad Engineer for approval prior to construction and must also be authorized by the regulatory body of the State if less than the legally prescribed clearances.
  4. The temporary clearance requirements noted above shall also apply to all other physical obstructions including, but not limited to: stockpiled materials, parked equipment, placement or driving of piles, and bracing or other construction supports.
- B. Before undertaking any work within Railroad right-of-way, and before placing any obstruction over any track, the Contractor shall:
1. Notify the Railroad's representative at least 72 hours in advance of the work.
  2. Receive assurance from the Railroad's representative that arrangements have been made for flagging service as may be necessary.
  3. Receive permission from the Railroad's representative to proceed with the work.
  4. Ascertain that the Sponsor's Engineer has received copies of notice to the Railroad and of the Railroad's response thereto.

5. CONSTRUCTION PROCEDURES:

A. General:

1. Construction work and operations by the Contractor on Railroad property shall be:
  - a. Subject to the inspection and approval of the Railroad Engineer or their designated Construction Engineering Representative.
  - b. In accordance with the Railroad's written outline of specific conditions.
  - c. In accordance with the Railroad's general rules, regulations and requirements including those relating to safety, fall protection and personal protective equipment.
  - d. In accordance with these Special Provisions.
2. Submittal Requirements
  - a. The Contractor shall submit all construction related correspondence and submittals electronically to the Railroad Engineer.
  - b. The Contractor shall allow for 30 days for the Railroad's review and response.
  - c. All work in the vicinity of the Railroad's property that has the potential to affect the Railroad's train operations or disturb the Railroad's Property must be submitted and approved by the Railroad prior to work being performed.

- d. All submittals and calculations must be signed and sealed by a registered engineer licensed in the state of the project work.
- e. All submittals shall first be approved by the Sponsor’s Engineer and the Railroad Engineer, but such approval shall not relieve the Contractor from liability.
- f. For all construction projects, the following submittals, but not limited to those listed below, shall be provided for review and approval when applicable:
  - (1) General Means and Methods
  - (2) Ballast Protection
  - (3) Construction Excavation & Shoring
  - (4) Pipe, Culvert, & Tunnel Installations
  - (5) Demolition Procedure
  - (6) Erection & Hoisting Procedure
  - (7) Debris Shielding or Containment
  - (8) Blasting
  - (9) Formwork for the bridge deck, diaphragms, overhang brackets, and protective platforms
  - (10) Bent Cap Falsework. A lift plan will be required if the contractor want to move the falsework over the tracks.
- g. For Undergrade Bridges (Bridges carrying the Railroad) the following submittals in addition to those listed above shall be provided for review and approval:
  - (1) Shop Drawings
  - (2) Bearing Shop Drawings and Material Certifications
  - (3) Concrete Mix Design
  - (4) Structural Steel, Rebar, and/or Strand Certifications
  - (5) 28 day Cylinder Test for Concrete Strength
  - (6) Waterproofing Material Certification
  - (7) Test Reports for Fracture Critical Members
  - (8) Foundation Construction Reports

Fabrication may not begin until the Railroad has approved the required shop drawings.

- h. The Contractor shall include in all submissions a detailed narrative indicating the progression of work with the anticipated timeframe to complete each task. Work will not be permitted to commence until the Contractor has provided the Railroad with a satisfactory plan that the project will be undertaken without scheduling, performance or safety related issues. Submission shall also provide a listing of the anticipated equipment to be used, the location of all equipment to be used and insure a contingency plan of action is in place should a primary piece of equipment malfunction.

**B. Ballast Protection**

- 1. The Contractor shall submit the proposed ballast protection system detailing the specific filter fabric and anchorage system to be used during all construction activities.

2. The ballast protection is to extend 25' beyond the proposed limit of work, be installed at the start of the project and be continuously maintained to prevent all contaminants from entering the ballast section of all tracks for the entire duration of the project.
- C. Excavation:
1. The subgrade of an operated track shall be maintained with edge of berm at least 10'-0" from centerline of track and not more than 24-inches below top of rail. Contractor will not be required to make existing section meet this specification if substandard, in which case existing section will be maintained.
  2. Additionally, the Railroad will require the installation of an OSHA approved handrail and orange construction safety fencing for all excavations of the Railroad right-of-way.
- D. Excavation for Structures and Shoring Protection:
1. The Contractor will be required to take special precaution and care in connection with excavating and shoring pits, and in driving piles or sheeting for footings adjacent to tracks to provide adequate lateral support for the tracks and the loads which they carry, without disturbance of track alignment and surface, and to avoid obstructing track clearances with working equipment, tools or other material.
  2. All plans and calculations for shoring shall be prepared, signed, and sealed by a Registered Professional Engineer licensed in the state of the proposed project, in accordance with Norfolk Southern's Overhead Grade Separation Design Criteria, subsection H.1.6.E-Construction Excavation (Refer to Norfolk Southern Public Projects Manual Appendix H). The Registered Professional Engineer will be responsible for the accuracy for all controlling dimensions as well as the selection of soil design values which will accurately reflect the actual field conditions.
  3. The Contractor shall provide a detailed installation and removal plan of the shoring components. Any component that will be installed via the use of a crane or any other lifting device shall be subject to the guidelines outlined in section 5.G of these provisions.
  4. The Contractor shall be required to survey the track(s) and Railroad embankment and provide a cross section of the proposed excavation in relation to the tracks.
  5. Calculations for the proposed shoring should include deflection calculations. The maximum deflection for excavations within 18'-0" of the centerline of the nearest track shall be 3/8". For all other cases, the max deflection shall not exceed 1/2".
  6. Additionally, the Railroad will require the installation of an OSHA approved handrail and orange construction safety fencing for all excavations of the Railroad right-of-way.
  7. The front face of shoring located to the closest NS track for all shoring set-ups located in Zone 2 as shown on NS Typical Drawing No. 4 – Shoring Requirements (Appendix I) shall remain in place and be cut off 2'-0" below the final ground elevation. The remaining shoring in Zone 2 and all shoring in Zone 1 may be removed and all voids must be backfilled with flowable fill.

E. Pipe, Culvert, & Tunnel Installations

1. Pipe, Culvert, & Tunnel Installations shall be in accordance with the appropriate Norfolk Southern Design Specification as noted below:
  - a. For Open Cut Method refer to Norfolk Southern Public Projects Manual Appendix H.4.6.
  - b. For Jack and Bore Method refer to Norfolk Southern Public Projects Manual Appendix H.4.7.
  - c. For Tunneling Method refer to Norfolk Southern Public Projects Manual Appendix H.4.8.
2. The installation methods provided are for pipes carrying storm water or open flow runoff. All other closed pipeline systems shall be installed in accordance Norfolk Southern's Pipe and Wire Program and the NSCE-8

F. Demolition Procedures

1. General

- a. Demolition plans are required for all spans over the track(s), for all spans adjacent to the track(s), if located on (or partially on) Railroad right-of-way; and in all situations where cranes will be situated on, over, or adjacent to Railroad right-of-way and within a distance of the boom length plus 15'-0" from the centerline of track.
- b. Railroad tracks and other Railroad property must be protected from damage during the procedure.
- c. A pre-demolition meeting shall be conducted with the Sponsor, the Railroad Engineer or their representative, and the key Contractor's personnel prior to the start of the demolition procedure.
- d. The Railroad Engineer or his designated representative must be present at the site during the entire demolition procedure period.
- e. Existing, obsolete, bridge piers shall be removed to a sufficient depth below grade to enable restoration of the existing/proposed track ditch, but in no case less than 2'-0" below final grade.

2. Submittal Requirements

- a. In addition to the submittal requirements outlined in Section 5.A.2 of these provisions, the Contractor shall submit the following for approval by the Railroad Engineer:
  - (1) A plan showing the location of cranes, horizontally and vertically, operating radii, with delivery or disposal locations shown. The location of all tracks and other Railroad facilities as well as all obstructions such as wire lines, poles, adjacent structures, etc. must also be shown.

- (2) Rating sheets showing cranes or lifting devices to be adequate for 150% of the actual weight of the pick, including all rigging components. A complete set of crane charts, including crane, counterweight, and boom nomenclature is to be submitted. Safety factors that may have been "built-in" to the crane charts are not to be considered when determining the 150% factor of safety.
- (3) Plans and computations showing the weight of the pick must be submitted. Calculations shall be made from plans of the existing structure showing complete and sufficient details with supporting data for the demolition the structure. If plans do not exist, lifting weights must be calculated from field measurements. The field measurements are to be made under the supervision of the Registered Professional Engineer submitting the procedure and calculations.
- (4) The Contractor shall provide a sketch of all rigging components from the crane's hook block to the beam. Catalog cuts or information sheets of all rigging components with their lifting capacities shall be provided. All rigging must be adequate for 150% of the actual weight of the pick. Safety factors that may have been "built-in" to the rating charts are not to be considered when determining the 150% factor of safety. All rigging components shall be clearly identified and tagged with their rated lifting capacities. The position of the rigging in the field shall not differ from what is shown on the final plan without prior review from the Sponsor and the Railroad.
- (5) A complete demolition procedure, including the order of lifts, time required for each lift, and any repositioning or re-hitching of the crane or cranes.
- (6) Design and supporting calculations for the temporary support of components, including but not limited to the stability of the superstructure during the temporary condition, temporary girder tie-downs and falsework.

### 3. Overhead Demolition Debris Shield

- a. The demolition debris shield shall be installed prior to the demolition of the bridge deck or other relevant portions of the superstructure over the track area to catch all falling debris.
- b. The demolition debris shield shall provide a minimum vertical clearance as specified in Section 4.A.1 of these provisions or maintain the existing vertical clearance if the existing clearance is less than that specified in Section 4.A.1.
- c. The Contractor shall include the demolition debris shield installation/removal means and methods as part of the proposed Demolition procedure submission.
- d. The Contractor shall submit the demolition debris shield design and supporting calculations for approval by the Railroad Engineer.

- e. The demolition debris shield shall have a minimum design load of 50 pounds per square foot plus the weight of the equipment, debris, personnel, and other loads to be carried.
- f. The Contractor shall include the proposed bridge deck removal procedure in its demolition means and methods and shall verify that the size and quantity of the demolition debris generated by the procedure does not exceed the shield design loads.
- g. The Contractor shall clean the demolition debris shield daily or more frequently as dictated either by the approved design parameters or as directed by the Railroad Engineer.

4. Vertical Demolition Debris Shield

- a. A vertical demolition debris shield may be required for substructure removals in close proximity to the Railroad's track and other facilities, as determined by the Railroad Engineer.

G. Erection & Hoisting Procedures

1. General

- a. Erection plans are required for all spans over the track(s), for all spans adjacent to the track(s), if located on (or partially on) Railroad right-of-way; and in all situations where cranes will be situated on, over, or adjacent to Railroad right-of-way and within a distance of the boom length plus 15'-0" from the centerline of track.
- b. Railroad tracks and other Railroad property must be protected from damage during the erection procedure.
- c. A pre-erection meeting shall be conducted with the Sponsor, the Railroad Engineer or their representative, and the key Contractor's personnel prior to the start of the erection procedure.
- d. The Railroad Engineer or his designated representative must be present at the site during the entire erection procedure period.
- e. For field splices located over Railroad property, a minimum of 50% of the holes for each connection shall be filled with bolts or pins prior to releasing the crane. A minimum of 50% of the holes filled shall be filled with bolts. All bolts must be appropriately tightened. Any changes to previously approved field splice locations must be submitted to the Railroad for review and approval. Refer to Norfolk Southern's Overhead Grade Separation Design Criteria for additional splice details (Norfolk Southern Public Projects Manual Appendix H.1, Section 4.A.3.).

2. Submittal Requirements

- a. In addition the submittal requirements outlined in Section 5.A.2 of these provisions, the Contractor shall submit the following for approval by the Railroad Engineer:
- (1) As-built beam seat elevations - All as-built bridge seats and top of rail elevations shall be furnished to the Railroad Engineer for review and verification at least 30 days in advance of the erection, to ensure that minimum vertical clearances as approved in the plans will be achieved.
  - (2) A plan showing the location of cranes, horizontally and vertically, operating radii, with delivery or staging locations shown. The location of all tracks and other Railroad facilities as well as all obstructions such as wire lines, poles, adjacent structures, etc. must also be shown.
  - (3) Rating sheets showing cranes or lifting devices to be adequate for 150% of the actual weight of the pick, including all rigging components. A complete set of crane charts, including crane, counterweight, and boom nomenclature is to be submitted. Safety factors that may have been "built-in" to the crane charts are not to be considered when determining the 150% factor of safety.
  - (4) Plans and computations showing the weight of the pick must be submitted. Calculations shall be made from plans of the proposed structure showing complete and sufficient details with supporting data for the erection of the structure. If plans do not exist, lifting weights must be calculated from field measurements. The field measurements are to be made under the supervision of the Registered Professional Engineer submitting the procedure and calculations.
  - (5) The Contractor shall provide a sketch of all rigging components from the crane's hook block to the beam. Catalog cuts or information sheets of all rigging components with their lifting capacities shall be provided. All rigging must be adequate for 150% of the actual weight of the pick. Safety factors that may have been "built-in" to the rating charts are not to be considered when determining the 150% factor of safety. All rigging components shall be clearly identified and tagged with their rated lifting capacities. The position of the rigging in the field shall not differ from what is shown on the final plan without prior review from the Sponsor and the Railroad.
  - (6) A complete erection procedure, including the order of lifts, time required for each lift, and any repositioning or re-hitching of the crane or cranes.
  - (7) Design and supporting calculations for the temporary support of components, including but not limited to temporary girder tie-downs and falsework.



H. Blasting:

1. The Contractor shall obtain advance approval of the Railroad Engineer and the Sponsor Engineer for use of explosives on or adjacent to Railroad property. The request for permission to use explosives shall include a detailed blasting plan. If permission for use of explosives is granted, the Contractor will be required to comply with the following:
  - a. Blasting shall be done with light charges under the direct supervision of a responsible officer or employee of the Contractor and a licensed blaster.
  - b. Electric detonating fuses shall not be used because of the possibility of premature explosions resulting from operation of two-way radios.
  - c. No blasting shall be done without the presence of the Railroad Engineer or his authorized representative. At least 72 hours advance notice to the person designated in the Railroad's notice of authorization to proceed (see paragraph 2.B) will be required to arrange for the presence of an authorized Railroad representative and such flagging as the Railroad may require.
  - d. Have at the job site adequate equipment, labor and materials and allow sufficient time to clean up debris resulting from the blasting without delay to trains, as well as correcting at his expense any track misalignment or other damage to Railroad property resulting from the blasting as directed by the Railway's authorized representative. If his actions result in delay of trains, the Contractor shall bear the entire cost thereof.
  - e. The blasting Contractor shall have a copy of the approved blasting plan on hand while on the site.
  - f. Explosive materials or loaded holes shall not be left unattended at the blast site.
  - g. A seismograph shall be placed on the track shoulder adjacent to each blast which will govern the peak particle velocity of two inches per second. Measurement shall also be taken on the ground adjacent to structures as designated by a qualified and independent blasting consultant. The Railroad reserves the option to direct the placement of additional seismographs at structures or other locations of concern, without regard to scaled distance.
  - h. After each blast, the blasting Contractor shall provide a copy of their drill log and blast report, which includes number of holes, depth of holes, number of decks, type and pounds of explosives used per deck.
  - i. The Railroad may require top of rail elevations and track centers taken before, during and after the blasting and excavation operation to check for any track misalignment resulting from the Contractor's activities.

2. The Railroad representative will:
  - a. Determine approximate location of trains and advise the Contractor the appropriate amount of time available for the blasting operation and clean up.
  - b. Have the authority to order discontinuance of blasting if, in his opinion, blasting is too hazardous or is not in accord with these special provisions.
3. The Contractor must hire, at no expense to the Railroad, a qualified and independent blasting consultant to oversee the use of explosives. The blasting consultant will:
  - a. Review the Contractor's proposed drilling and loading patterns, and with the blasting consultant's personnel and instruments, monitor the blasting operations.
  - b. Confirm that the minimum amounts of explosives are used to remove the rock.
  - c. Be empowered to intercede if he concludes that the Contractor's blasting operations are endangering the Railway.
  - d. Submit a letter acknowledging that he has been engaged to oversee the entire blasting operation and that he approves of the blasting plan.
  - e. Furnish copies of all vibration readings to the Railroad representative immediately after each blast. The representative will sign and date the seismograph tapes after each shot to verify the readings are for that specific shot.
  - f. Advise the Railroad representative as to the safety of the operation and notify him of any modifications to the blasting operation as the work progresses.
4. The request for permission to use explosives on the Railroad's Right-of-Way shall include a blasting proposal providing the following details:
  - a. A drawing which shows the proposed blasting area, location of nearest hole and distance to Railway structures, all with reference to the centerline of track.
  - b. Hole diameter.
  - c. Hole spacing and pattern.
  - d. Maximum depth of hole.
  - e. Maximum number of decks per hole.
  - f. Maximum pounds of explosives per hole.
  - g. Maximum pounds of explosives per delay.
  - h. Maximum number of holes per detonation.

- i. Type of detonator and explosives to be used. (Electronic detonating devices will not be permitted). Diameter of explosives if different from hole diameter.
- j. Approximate dates and time of day when the explosives are to be detonated.
- k. Type of flyrock protection.
- l. Type and patterns of audible warning and all clear signals to be used before and after each blast.
- m. A copy of the blasting license and qualifications of the person directly in charge of the blasting operation, including their name, address and telephone number.
- n. A copy of the Authority's permit granting permission to blast on the site.
- o. A letter from the blasting consultant acknowledging that he has been engaged to oversee the entire blasting operation and that he approves of the blasting plan.
- p. In addition to the insurance requirements outlined in Paragraph 14 of these Provisions, A certificate of insurance from the Contractor's insurer stating the amount of coverage for XCU (Explosive Collapse and Underground Hazard) insurance and that XCU Insurance is in force for this project.
- q. A copy of the borings and Geotechnical information or report.

I. Track Monitoring

- 1. At the direction of the Railroad Engineer, any activity that has the potential to disturb the Railroad track structure may require the Contractor to submit a detailed track monitoring program for approval by the Railroad Engineer.
- 2. The program shall specify the survey locations, the distance between the location points, and frequency of monitoring before, during, and after construction. Railroad reserves the right to modify the survey locations and monitoring frequency as necessary during the project.
- 3. The survey data shall be collected in accordance with the approved frequency and immediately furnished to the Railroad Engineer for analysis.
- 4. If any movement has occurred as determined by the Railroad Engineer, the Railroad will be immediately notified. Railroad, at its sole discretion, shall have the right to immediately require all Contractor operations to be ceased and determine what corrective action is required. Any corrective action required by the Railroad or performed by the Railroad including the monitoring of corrective action of the Contractor will be at project expense.

J. Maintenance of Railroad Facilities:

- 1. The Contractor will be required to maintain all ditches and drainage structures free of silt or other obstructions which may result from his operations and provide and maintain any erosion control measures as required. The Contractor will promptly

repair eroded areas within Railroad rights-of-way and repair any other damage to the property of the Railroad or its tenants.

2. If, in the course of construction, it may be necessary to block a ditch, pipe or other drainage facility, temporary pipes, ditches or other drainage facilities shall be installed to maintain adequate drainage, as approved by the Railroad Engineer. Upon completion of the work, the temporary facilities shall be removed and the permanent facilities restored.
3. All such maintenance and repair of damages due to the Contractor's operations shall be done at the Contractor's expense.

K. Storage of Materials and Equipment:

1. Materials and equipment shall not be stored where they will interfere with Railroad operations, nor on the rights-of-way of the Railroad without first having obtained permission from the Railroad Engineer, and such permission will be with the understanding that the Railroad will not be liable for damage to such material and equipment from any cause and that the Railroad Engineer may move or require the Contractor to move, at the Contractor's expense, such material and equipment.
2. All grading or construction machinery that is left parked near the track unattended by a watchman shall be effectively immobilized so that it cannot be moved by unauthorized persons. The Contractor shall protect, defend, indemnify and save Railroad, and any associated, controlled or affiliated corporation, harmless from and against all losses, costs, expenses, claim or liability for loss or damage to property or the loss of life or personal injury, arising out of or incident to the Contractor's failure to immobilize grading or construction machinery.

L. Cleanup:

1. Upon completion of the work, the Contractor shall remove from within the limits of the Railroad rights-of-way, all machinery, equipment, surplus materials, falsework, rubbish or temporary buildings of the Contractor, and leave said rights-of-way in a neat condition satisfactory to the Railroad Engineer or his authorized representative.

6. DAMAGES:

- A. The Contractor shall assume all liability for any and all damages to his work, employees, servants, equipment and materials caused by Railroad traffic.
- B. Any cost incurred by the Railroad for repairing damages to its property or to property of its tenants, caused by or resulting from the operations of the Contractor, shall be paid directly to the Railroad by the Contractor.

7. FLAGGING SERVICES:

A. Requirements:

1. Flagging services will not be provided until the Contractor's insurance has been reviewed & approved by the Railroad.

2. Under the terms of the agreement between the Sponsor and the Railroad, the Railroad has sole authority to determine the need for flagging required to protect its operations. In general, the requirements of such services will be whenever the Contractor's personnel or equipment are or are likely to be, working on the Railroad's right-of-way, or across, over, adjacent to, or under a track, or when such work has disturbed or is likely to disturb a Railroad structure or the Railroad roadbed or surface and alignment of any track to such extent that the movement of trains must be controlled by flagging.
3. Normally, the Railroad will assign one flagman to a project; but in some cases, more than one may be necessary, such as yard limits where three (3) flagmen may be required. However, if the Contractor works within distances that violate instructions given by the Railroad's authorized representative or performs work that has not been scheduled with the Railroad's authorized representative, a flagman or flagmen may be required full time until the project has been completed.
4. For Projects exceeding 30 days of construction, Contractor shall provide the flagmen a small work area with a desk/counter and chair within the field/site trailer, including the use of bathroom facilities, where the flagman can check in/out with the Project, as well as to the flagman's home terminal. The work area should provide access to two (2) electrical outlets for recharging radio(s), and a laptop computer; and have the ability to print off needed documentation and orders as needed at the field/site trailer. This should aid in maximizing the flagman's time and efficiency on the Project.

B. Scheduling and Notification:

1. The Contractor's work requiring Railroad flagging should be scheduled to limit the presence of a flagman at the site to a maximum of 50 hours per week. The Contractor shall receive Railroad approval of work schedules requiring a flagman's presence in excess of 40 hours per week.
2. Not later than the time that approval is initially requested to begin work on Railroad right-of-way, Contractor shall furnish to the Railroad and the Sponsor a schedule for all work required to complete the portion of the project within Railroad right-of-way and arrange for a job site meeting between the Contractor, the Sponsor, and the Railroad's authorized representative. Flagman or Flagmen may not be provided until the job site meeting has been conducted and the Contractor's work scheduled.
3. The Contractor will be required to give the Railroad representative at least 10 working days of advance written notice of intent to begin work within Railroad right-of-way in accordance with this special provision. Once begun, when such work is then suspended at any time, or for any reason, the Contractor will be required to give the Railroad representative at least 3 working days of advance notice before resuming work on Railroad right-of-way. Such notices shall include sufficient details of the proposed work to enable the Railroad representative to determine if flagging will be required. If such notice is in writing, the Contractor shall furnish the Engineer a copy; if notice is given verbally, it shall be confirmed in writing with copy to the Engineer. If flagging is required, no work shall be undertaken until the flagman, or flagmen are present at the job site. It may take up to 30 days to obtain flagging initially from the Railroad. When flagging begins, the flagman is usually assigned by the Railroad to work at the project site on a continual basis until no longer

needed and cannot be called for on a spot basis. If flagging becomes unnecessary and is suspended, it may take up to 30 days to again obtain from the Railroad. Due to Railroad labor agreements, it is necessary to give 5 working days notice before flagging service may be discontinued and responsibility for payment stopped.

4. If, after the flagman is assigned to the project site, an emergency arises that requires the flagman's presence elsewhere, then the Contractor shall delay work on Railroad right-of-way until such time as the flagman is again available. Any additional costs resulting from such delay shall be borne by the Contractor and not the Sponsor or Railroad.

C. Payment:

1. The Sponsor will be responsible for paying the Railroad directly for any and all costs of flagging which may be required to accomplish the construction.
2. The estimated cost of flagging is the current rate per day based on a 10-hour work day. This cost includes the base pay for the flagman, overhead, and includes a per diem charge for travel expenses, meals and lodging. The charge to the Sponsor by the Railroad will be the actual cost based on the rate of pay for the Railroad's employees who are available for flagging service at the time the service is required.
3. Work by a flagman in excess of 8 hours per day or 40 hours per week, but not more than 12 hours a day will result in overtime pay at 1 and 1/2 times the appropriate rate. Work by a flagman in excess of 12 hours per day will result in overtime at 2 times the appropriate rate. If work is performed on a holiday, the flagging rate is 2 and 1/2 times the normal rate.
4. Railroad work involved in preparing and handling bills will also be charged to the Sponsor. Charges to the Sponsor by the Railroad shall be in accordance with applicable provisions of Subchapter B, Part 140, Subpart I and Subchapter G, Part 646, Subpart B of the Federal-Aid Policy Guide issued by the Federal Highway Administration on December 9, 1991, including all current amendments. Flagging costs are subject to change. The above estimates of flagging costs are provided for information only and are not binding in any way.

D. Verification:

1. Railroad's flagman will electronically enter flagging time via Railroad's electronic billing system. Any complaints concerning flagging must be resolved in a timely manner. If the need for flagging is questioned, please contact the Railroad Engineer. All verbal complaints will be confirmed in writing by the Contractor within 5 working days with a copy to the Sponsor's Engineer. Address all written correspondence electronically to Railroad Engineer.
2. The Railroad flagman assigned to the project will be responsible for notifying the Sponsor Engineer upon arrival at the job site on the first day (or as soon thereafter as possible) that flagging services begin and on the last day that he performs such services for each separate period that services are provided. The Sponsor's Engineer will document such notification in the project records. When requested, the Sponsor's Engineer will also sign the flagman's diary showing daily time spent and activity at the project site.

8. HAUL ACROSS RAILROAD TRACK:

- A. Where the plans show or imply that materials of any nature must be hauled across Railroad's track, unless the plans clearly show that the Sponsor has included arrangements for such haul in its agreement with the Railroad, the Contractor will be required to make all necessary arrangements with the Railroad regarding means of transporting such materials across the Railroad's track. The Contractor or Sponsor will be required to bear all costs incidental to such crossings whether services are performed by his own forces or by Railroad personnel.
- B. No crossing may be established for use of the Contractor for transporting materials or equipment across the tracks of the Railroad unless specific authority for its installation, maintenance, necessary watching and flagging thereof and removal, until a temporary private crossing agreement has been executed between the Contractor and Railroad. The approval process for an agreement normally takes 90 days.

9. WORK FOR THE BENEFIT OF THE CONTRACTOR:

- A. All temporary or permanent changes in wire lines or other facilities which are considered necessary to the project are shown on the plans; included in the force account agreement between the Sponsor and the Railroad or will be covered by appropriate revisions to same which will be initiated and approved by the Sponsor and/or the Railroad.
- B. Should the Contractor desire any changes in addition to the above, then he shall make separate arrangements with the Railroad for same to be accomplished at the Contractor's expense.

10. COOPERATION AND DELAYS:

- A. It shall be the Contractor's responsibility to arrange a schedule with the Railroad for accomplishing stage construction involving work by the Railroad or tenants of the Railroad. In arranging his schedule he shall ascertain, from the Railroad, the lead time required for assembling crews and materials and shall make due allowance therefore.
- B. No charge or claim of the Contractor against either the Sponsor or the Railroad will be allowed for hindrance or delay on account of railroad traffic; any work done by the Railroad or other delay incident to or necessary for safe maintenance of railroad traffic or for any delays due to compliance with these special provisions.

11. TRAINMAN'S WALKWAYS:

- A. Along the outer side of each exterior track of multiple operated track, and on each side of single operated track, an unobstructed continuous space suitable for trainman's use in walking along trains, extending to a line not less than 10 feet from centerline of track, shall be maintained. Any temporary impediments to walkways and track drainage encroachments or obstructions allowed during work hours while Railroad's protective service is provided shall be removed before the close of each work day. If there is any excavation near the walkway, a handrail, with 10'-0" minimum clearance from centerline of track, shall be placed and must conform to AREMA and/or FRA standards.

12. GUIDELINES FOR PERSONNEL ON RAILROAD RIGHT-OF-WAY:

- A. The Contractor and/or the Sponsor's personnel authorized to perform work on Railroad's property as specified in Section 2 above are not required to complete Norfolk Southern Roadway Worker Protection Training; However the Contractor and the Sponsor's personnel must be familiar with Norfolk Southern's standard operating rules and guidelines, should conduct themselves accordingly, and may be removed from the property for failure to follow these guidelines.
  - B. All persons shall wear hard hats. Appropriate eye and hearing protection must be used. Working in shorts is prohibited. Shirts must cover shoulders, back and abdomen. Working in tennis or jogging shoes, sandals, boots with high heels, cowboy and other slip-on type boots is prohibited. Hard-sole, lace-up footwear, zippered boots or boots cinched up with straps which fit snugly about the ankle are adequate. Wearing of safety boots is strongly recommended. In the vicinity of at-grade crossings, it is strongly recommended that reflective vests be worn.
  - C. No one is allowed within 25' of the centerline of track without specific authorization from the flagman.
  - D. All persons working near track while train is passing are to lookout for dragging bands, chains and protruding or shifted cargo.
  - E. No one is allowed to cross tracks without specific authorization from the flagman.
  - F. All welders and cutting torches working within 25' of track must stop when train is passing.
  - G. No steel tape or chain will be allowed to cross or touch rails without permission from the Railroad.
13. GUIDELINES FOR EQUIPMENT ON RAILROAD RIGHT-OF-WAY:
- A. No crane or boom equipment will be allowed to set up to work or park within boom distance plus 15' of centerline of track without specific permission from Railroad official and flagman.
  - B. No crane or boom equipment will be allowed to foul track or lift a load over the track without flag protection and track time.
  - C. All employees will stay with their machines when crane or boom equipment is pointed toward track.
  - D. All cranes and boom equipment under load will stop work while train is passing (including pile driving).
  - E. Swinging loads must be secured to prevent movement while train is passing.
  - F. No loads will be suspended above a moving train.
  - G. No equipment will be allowed within 25' of centerline of track without specific authorization of the flagman.
  - H. Trucks, tractors or any equipment will not touch ballast line without specific permission from Railroad official and flagman. Orange construction fencing may be required as directed.



- I. No equipment or load movement within 25' or above a standing train or Railroad equipment without specific authorization of the flagman.
- J. All operating equipment within 25' of track must halt operations when a train is passing. All other operating equipment may be halted by the flagman if the flagman views the operation to be dangerous to the passing train.
- K. All equipment, loads and cables are prohibited from touching rails.
- L. While clearing and grubbing, no vegetation will be removed from Railroad embankment with heavy equipment without specific permission from the Railroad Engineer and flagman.
- M. No equipment or materials will be parked or stored on Railroad's property unless specific authorization is granted from the Railroad Engineer.
- N. All unattended equipment that is left parked on Railroad property shall be effectively immobilized so that it cannot be moved by unauthorized persons.
- O. All cranes and boom equipment will be turned away from track after each work day or whenever unattended by an operator.
- P. Prior to performing any crane operations, the Contractor shall establish a single point of contact for the Railroad flagman to remain in communication with at all times. Person must also be in direct contact with the individual(s) directing the crane operation(s).

14. INSURANCE:

- A. In addition to any other forms of insurance or bonds required under the terms of the contract and specifications, the Prime Contractor will be required to carry insurance of the following kinds and amounts:
  - 1. a. Commercial General Liability Insurance having a combined single limit of not less than \$2,000,000 per occurrence for all loss, damage, cost and expense, including attorneys' fees, arising out of bodily injury liability and property damage liability during the policy period. Said policy shall include explosion, collapse, and underground hazard (XCU) coverage, shall be endorsed to name Railroad specified in item A.2.c. below both as the certificate holder and as an additional insured, and shall include a severability of interests provision.
  - b. Automobile Liability Insurance with a combined single limit of not less than \$1,000,000 each occurrence for injury to or death of persons and damage to or loss or destruction of property. Said policy or policies shall be endorsed to name Railroad specified in item A.2.c. below both as the certificate holder and as an additional insured and shall include a severability of interests provision.
- 2. Railroad Protective Liability Insurance having a combined single limit of not less than \$2,000,000 each occurrence and \$6,000,000 in the aggregate applying separately to each annual period. If the project involves track over which passenger trains operate, the insurance limits required are not less than a combined single limit of \$5,000,000 each occurrence and \$10,000,000 in the aggregate applying separately to each annual period. Said policy shall provide coverage for all loss, damage or expense arising from

bodily injury and property damage liability, and physical damage to property attributed to acts or omissions at the job site.

The standards for the Railroad Protective Liability Insurance are as follows:

- a. The insurer must be rated A- or better by A.M. Best Railroad, Inc.  
**NOTE: NS does not accept from insurers Chartis (AIG or Affiliated Company including Lexington Insurance Company), Hudson Group or Liberty or Affiliated Company.**

- b. The policy must be written using one of the following combinations of Insurance Services Office ("ISO") Railroad Protective Liability Insurance Form Numbers:

- (1) CG 00 35 01 96 and CG 28 31 10 93; or
- (2) CG 00 35 07 98 and CG 28 31 07 98; or
- (3) CG 00 35 10 01; or
- (4) CG 00 35 12 04; or
- (5) CG 00 35 12 07; or
- (6) CG 00 35 04 13.

- c. The named insured shall read:

(As named in the Project Agreement with Project Sponsor)  
Three Commercial Place  
Norfolk, Virginia 23510-2191  
Attn: S. W. Dickerson Risk Management

**(NOTE: Railroad does not share coverage on RRPL with any other entity on this policy)**

- d. The description of operations must appear on the Declarations, must match the project description in this agreement, and must include the appropriate Sponsor project and contract identification numbers.
- e. The job location must appear on the Declarations and must include the city, state, and appropriate highway name/number. **NOTE: Do not include any references to milepost, valuation station, or mile marker on the insurance policy.**
- f. The name and address of the prime Contractor must appear on the Declarations.
- g. The name and address of the Sponsor must be identified on the Declarations as the "Involved Governmental Authority or Other Contracting Party."
- h. Endorsements/forms that are required are:

- (1) Physical Damage to Property Amendment
- (2) Terrorism Risk Insurance Act (TRIA) coverage must be included

- i. Other endorsements/forms that will be accepted are:
  - (1) Broad Form Nuclear Exclusion – Form IL 00 21
  - (2) 30-day Advance Notice of Non-renewal or cancellation
  - (3) Required State Cancellation Endorsement
  - (4) Quick Reference or Index Form CL/IL 240
  
- j. Endorsements/forms that are NOT acceptable are:
  - (1) Any Pollution Exclusion Endorsement except CG 28 31
  - (2) Any Punitive or Exemplary Damages Exclusion
  - (3) Known injury or Damage Exclusion form CG 00 59
  - (4) Any Common Policy Conditions form
  - (5) An Endorsement that limits or excludes Professional Liability coverage
  - (6) A Non-Cumulation of Liability or Pyramiding of Limits Endorsement
  - (7) An Endorsement that excludes TRIA coverage
  - (8) A Sole Agent Endorsement
  - (9) Any type of deductible endorsement or amendment
  - (10) Any other endorsement/form not specifically authorized in item no. 2.h above.
  
- B. If any part of the work is sublet, similar insurance, and evidence thereof as specified in A.1 above, shall be provided by or on behalf of the subcontractor to cover its operations on Railroad’s right of way.
  
- C. All insurance required under the preceding subsection A shall be underwritten by insurers and be of such form and content, as may be acceptable to the Company. Prior to entry on Railroad right-of-way, the original Railroad Protective Liability Insurance Policy shall be submitted by the Prime Contractor to the Department at the address below for its review and transmittal to the Railroad. In addition, certificates of insurance evidencing the Prime Contractor’s and any subcontractors’ Commercial General Liability Insurance shall be issued to the Railroad and the Department at the addresses below, and forwarded to the Department for its review and transmittal to the Railroad. The certificates of insurance shall state that the insurance coverage will not be suspended, voided, canceled, or reduced in coverage or limits without (30) days advance written notice to Railroad and the Department. No work will be permitted by Railroad on its right-of-way until it has reviewed and approved the evidence of insurance required herein.

SPONSOR:

RAILROAD:

Risk Management  
Norfolk Southern Railway Company  
Three Commercial Place  
Norfolk, Virginia 23510-2191

- D. The insurance required herein shall in no way serve to limit the liability of Sponsor or its Contractors under the terms of this agreement.
  
- E. Insurance Submission Procedures



1. Railroad will only accept initial insurance submissions via US Mail or Overnight carrier to the address noted in C above. Railroad will NOT accept initial insurance submissions via email or faxes. Please provide point of contact information with the submission including a phone number and email address.
2. Railroad requires the following two (2) forms of insurance in the initial insurance submission to be submitted under a cover letter providing details of the project and contact information:
  - a. The full original or certified true countersigned copy of the railroad protective liability insurance policy in its entirety inclusive of all declarations, schedule of forms and endorsements along with the policy forms and endorsements.
  - b. The Contractor's commercial general, automobile, and workers' compensation liability insurance certificate of liability insurance evidencing a combined single limit of a minimum of \$2M per occurrence of general and \$1M per occurrence of automobile liability insurance naming Norfolk Southern Railway Company, Three Commercial Place, Norfolk, VA 23510 as the certificate holder and as an additional insured on both the general and automobile liability insurance policy.
3. It should be noted that the Railroad does not accept notation of Railroad Protective insurance on a certificate of liability insurance form or Binders as Railroad must have the full original countersigned policy. Further, please note that mere receipt of the policy is not the only issue but review for compliance. Due to the number of projects system-wide, it typically takes a minimum of 30-45 days for the Railroad to review.

15. FAILURE TO COMPLY:

- A. In the event the Contractor violates or fails to comply with any of the requirements of these Special Provisions:
  1. The Railroad Engineer may require that the Contractor vacate Railroad property.
  2. The Sponsor's Engineer may withhold all monies due the Contractor on monthly statements.
- B. Any such orders shall remain in effect until the Contractor has remedied the situation to the satisfaction of the Railroad Engineer and the Sponsor's Engineer.

16. PAYMENT FOR COST OF COMPLIANCE:

- A. No separate payment will be made for any extra cost incurred on account of compliance with these special provisions. All such costs shall be included in prices bid for other items of the work as specified in the payment items.

17. PROJECT INFORMATION

- A. Date: \_\_\_\_\_
- B. NS File No.: \_\_\_\_\_
- C. NS Milepost: \_\_\_\_\_
- D. Sponsor's Project No.: \_\_\_\_\_

MONROE COUNTY ROAD COMMISSION  
 IN COOPERATION WITH  
 NORFOLK SOUTHERN RAILWAY

PLANS OF PROPOSED  
**LAPLAISANCE ROAD DRAINAGE IMPROVEMENTS**

MONROE CHARTER TOWNSHIP, MONROE COUNTY



AS CONSTRUCTED INFORMATION

TYPE OF PROJECT: DRAINAGE  
 MCRC PROJECT NO.: 460-012-179007  
 PROJECT START DATE: \_\_\_\_\_  
 INTERSECTION EQUATION: NOT APPLICABLE  
 PROJECT COMPLETION DATE: \_\_\_\_\_  
 PRIME CONTRACTOR: \_\_\_\_\_  
 FINAL CONST. CONTRACT AMT.: \$ \_\_\_\_\_

FILLED IN UPON PROJECT COMPLETION

THE IMPROVEMENTS COVERED BY THESE PLANS SHALL BE DONE IN ACCORDANCE WITH THE MICHIGAN DEPARTMENT OF TRANSPORTATION 2012 STANDARD SPECIFICATIONS FOR CONSTRUCTION AND THE 2011 MICHIGAN MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS.

FOR PROTECTION OF UNDERGROUND UTILITIES AND IN CONFORMANCE WITH PUBLIC ACT 53, 1974, THE CONTRACTOR SHALL DIAL 1-800-482-7171 A MINIMUM OF THREE FULL WORKING DAYS, EXCLUDING SATURDAYS, SUNDAYS, AND HOLIDAYS PRIOR TO BEGINNING EACH EXCAVATION IN AREAS WHERE PUBLIC UTILITIES HAVE NOT BEEN PREVIOUSLY LOCATED. MEMBERS WILL THUS BE ROUTINELY NOTIFIED. THIS DOES NOT RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY OF NOTIFYING UTILITY OWNERS WHO MAY NOT BE A PART OF THE "MISS DIG" ALERT SYSTEM.

PROJECT INDEX

| SHEET DESCRIPTION    | SHEET NO. |
|----------------------|-----------|
| TITLE SHEET          | 1         |
| PLAN & CROSS SECTION | 2         |
| LOG OF PROJECT       | 3-5       |

2017 CONTRACT FOR:

0.13 MILES OF CLEARING, EXCAVATION, AND STORM SEWER IN THE NORFOLK SOUTHERN RAILWAY RIGHT-OF-WAY AT LAPLAISANCE ROAD, MONROE CHARTER TOWNSHIP, MONROE COUNTY

APPROVAL

12/21/16

SCOTT F. ASSENMACHER, P.E. COUNTY HIGHWAY ENGINEER  
 MONROE COUNTY ROAD COMMISSION  
 REG. NO.: 48016

DATE

LAPLAISANCE ROAD  
 DRAINAGE IMPROVEMENTS

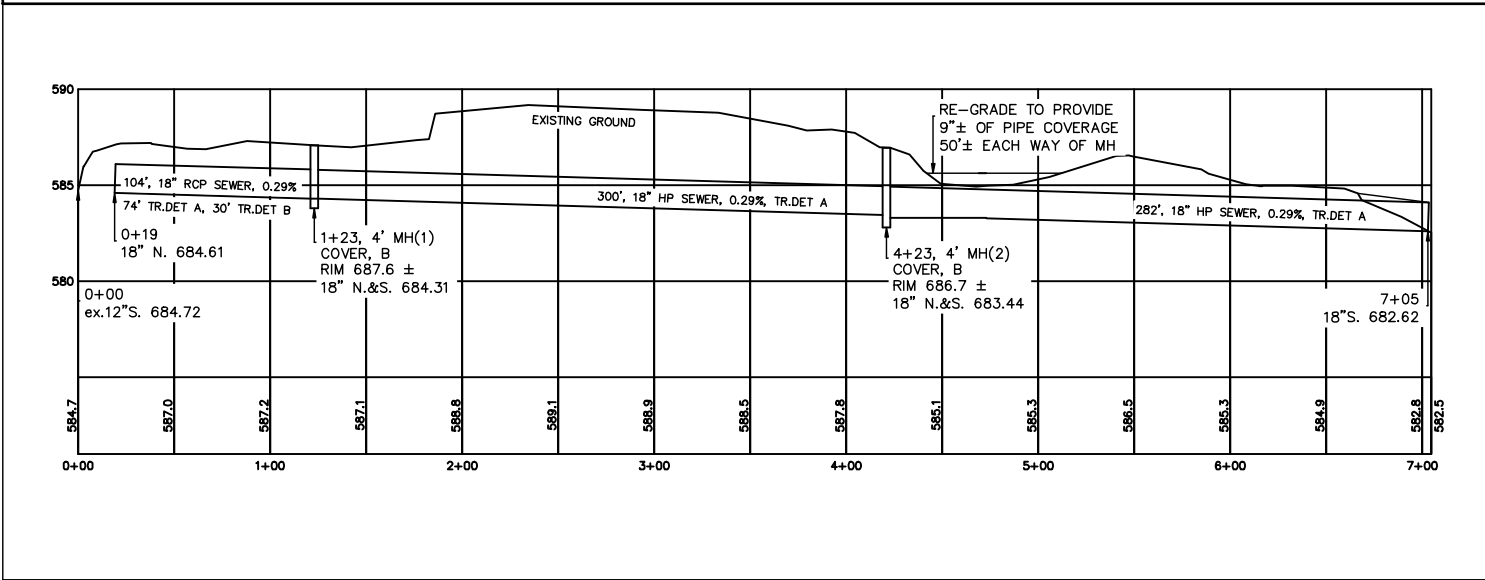
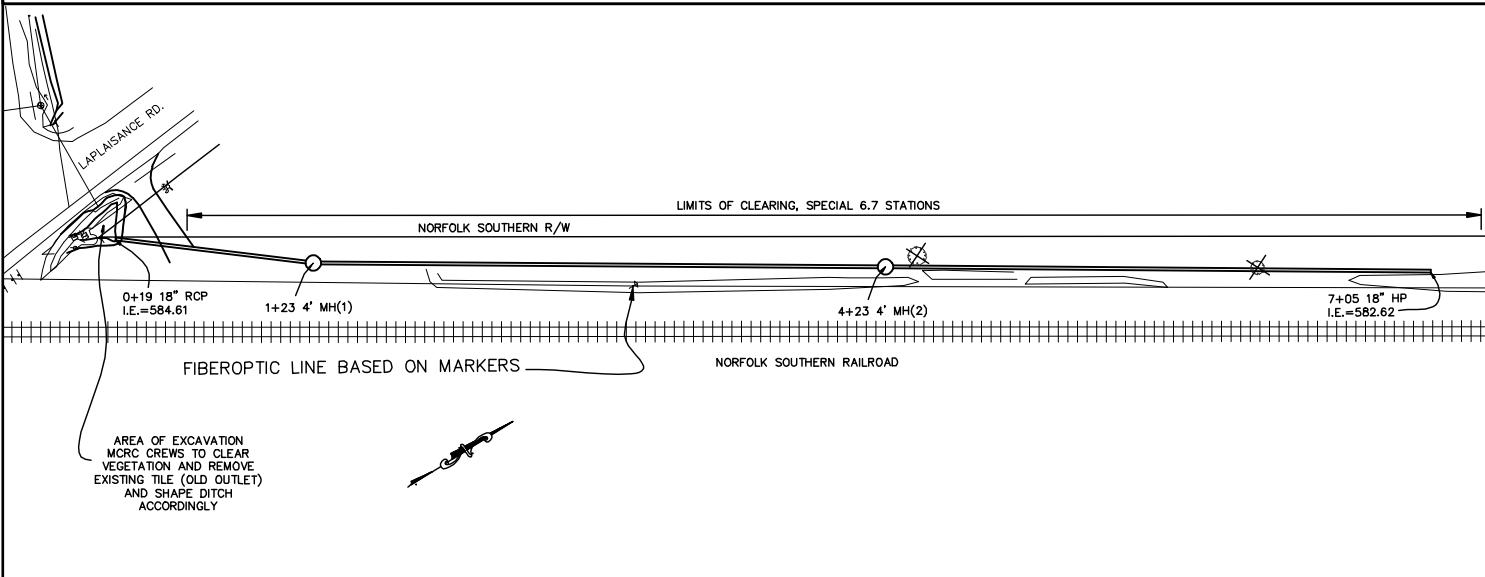
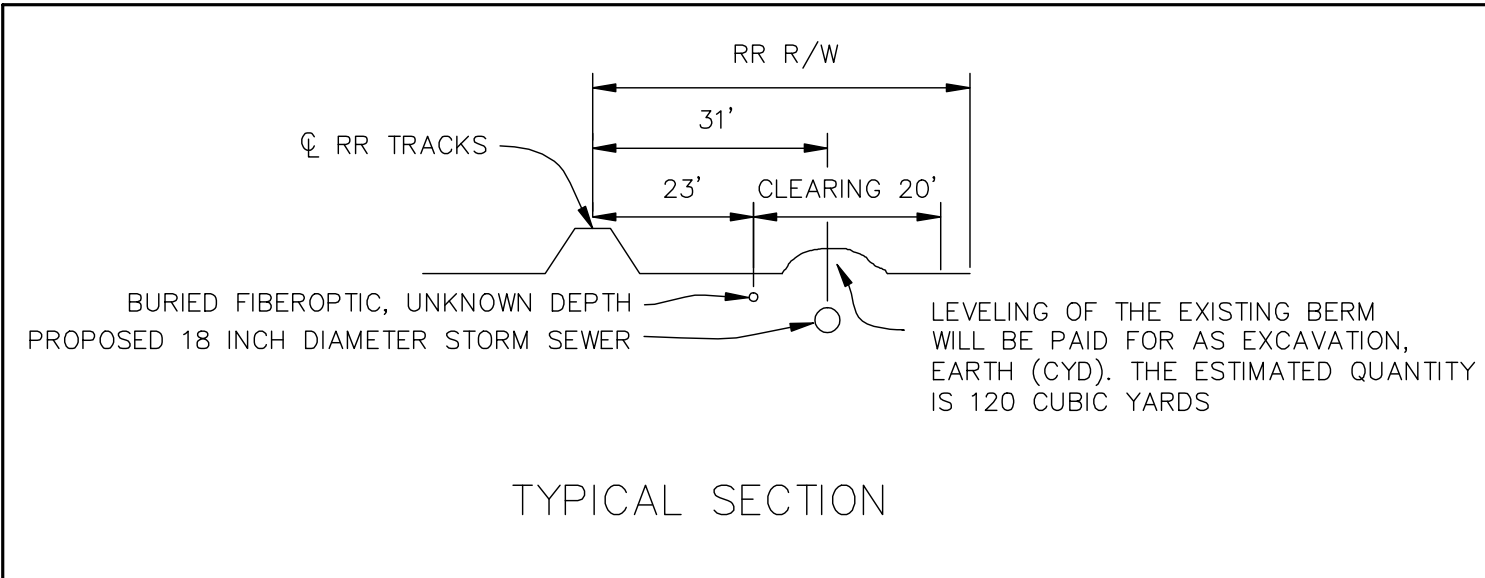
TITLE SHEET  
 460-012-179007

|            |          |
|------------|----------|
| DRAWN BY   | DATE:    |
| RB         | 12/5/16  |
| CHECKED BY | DATE:    |
| MS         | 12/19/16 |
| SCALE      | SHEET:   |
| N/A        | 1/5      |



MONROE COUNTY  
**ROAD  
 COMMISSION**

840 S TELEGRAPH ROAD MONROE MI 48161 (734) 240-5102



LAPLAISANCE ROAD  
DRAINAGE IMPROVEMENTS  
PLAN, PROFILE, & CROSS SECTION  
460-012-179007

|                  |                   |
|------------------|-------------------|
| DRAWN BY<br>RB   | DATE:<br>12/5/16  |
| CHECKED BY<br>MS | DATE:<br>12/19/16 |
| SCALE<br>N/A     | SHEET:<br>2/5     |



MONROE COUNTY ROAD COMMISSION

**LOG OF PROJECT  
LAPLAISANCE ROAD DRAINAGE IMPROVEMENTS AT DUNBAR ROAD  
MCRC PROJECT # 460-012-179007**

MCRC:RB

3 of 5

12-16-16

**LOCATION**

The project is located on LaPlaisance Road at the intersection of Dunbar Road in Monroe Charter Township. The proposed drainage improvements are located within the right-of-way of Norfolk Southern Railway.

**DESCRIPTION OF WORK**

This project consists of installing 104 feet of 18 inch diameter reinforced concrete pipe from an open ditch area through a Norfolk Southern Railway equipment staging area and installing 582 feet of 18 inch diameter high-performance polypropylene pipe (HP Storm) which outlets to an existing ditch along the west side of the Norfolk Southern Railway's right-of-way.

**ITEMS OF WORK**

Following is a description of the items of work on the project.

**Mobilization, Max. \$5,000.00 (Lump Sum)**

The Mobilization, Max \_\_\_ item of work shall be in accordance with section 105 of the Michigan Department of Transportation 2012 Standard Specifications for Construction. If the Contractor submits a bid that exceeds the maximum bid amount, the Road Commission will use the maximum bid amount as the Contractor's lump sum bid amount and will correct the total bid amount to reflect the maximum bid amount.

**Clearing, Special (Station)**

The Clearing, Special item of work will be used to remove existing trees, stumps, brush and other vegetation within the limits of the proposed drainage improvements as shown on the plans. The work shall be performed in accordance with section 201 of the Michigan Department of Transportation 2012 Standard Specifications for Construction and the special provision included in the proposal.

**Excavation, Earth (Cubic Yard)**

The Excavation, Earth item of work will be us to level an existing earth berm in Norfolk Southern's right-of-way as needed to install the proposed storm sewer. The work shall be performed in accordance with section 201 of the Michigan Department of Transportation 2012 Standard Specifications for Construction and the special provision included in the proposal.

**Sewer, CI II, 18 inch, Tr Det A (Foot) and Sewer, CI II, 18 inch, Tr Det B (Foot)**

The Sewer, CI II, 18 inch, Tr Det A and Sewer, CI II, 18 inch, Tr Det B items of work will be used to install 18 inch diameter reinforced concrete pipe as shown on the plans. The work shall be performed in accordance with section 402 of the Michigan Department of Transportation 2012 Standard Specifications for Construction.

**Sewer, HP Storm 18 inch, Tr Det A (Foot)**

The Sewer, HP Storm, 18 inch, Tr Det A item of work will be used to install 18 inch diameter HP Storm pipe as shown on the plans. The work shall be performed in accordance with section 402 of the Michigan Department of Transportation 2012 Standard Specifications for Construction and the special provision included in the proposal.

**Dr Structure, 48 inch dia (Each)**

The Dr Structure, 48 inch dia item of work will be used to install two 48 inch diameter manholes as shown on the plans. The work shall be performed in accordance with section 403 of the Michigan Department of Transportation 2012 Standard Specifications for Construction.

**Dr Structure Cover, Type B (Each)**

The Dr Structure Cover, Type B item of work will be used to install East Jordan Iron Works 1045 frames with Type B vented covers on the drainage structures. The work shall be performed in accordance with section 403 of the Michigan Department of Transportation 2012 Standard Specifications for Construction.

**Sign, Type B, Temp, Prismatic, Furn (Each) and Sign, Type B, Temp, Prismatic, Oper (Each)**

The Sign, Type B, Temp, Prismatic, Furn and Sign, Type B, Temp, Prismatic, Oper items of work will be used to furnish, install and maintain three (3) Road Work Ahead signs on northbound LaPlaisance Road, southbound LaPlaisance Road and eastbound Dunbar Road.

**ESTIMATED QUANTITIES**

Following is an estimate of the quantities for the drainage improvements shown on the plans. Final payment will be based on the actual quantities of work completed.

| <b>Item Code</b> | <b>Item Description</b>             | <b>Estimated Quantity</b> | <b>Unit</b> |
|------------------|-------------------------------------|---------------------------|-------------|
| 1500001          | Mobilization, Max. \$5,000.00       | 1.00                      | LSUM        |
| 2017002          | Clearing, Special                   | 6.70                      | Sta         |
| 2050016          | Excavation, Earth                   | 120.00                    | Cyd         |
| 4020722          | Sewer, CI II, Tr Det A              | 74.00                     | Ft          |
| 4020751          | Sewer, CI II, Tr Det B              | 30.00                     | Ft          |
| 4027001          | Sewer, HP Storm, Tr Det A           | 582.00                    | Ft          |
| 4030010          | Dr Structure, 48 inch dia           | 2.00                      | Ea          |
| 4030210          | Dr Structure Cover, Type B          | 2.00                      | Ea          |
| 8120350          | Sign, Type B, Temp, Prismatic, Furn | 48.00                     | Sft         |
| 8120351          | Sign, Type B, Temp, Prismatic, Oper | 48.00                     | Sft         |



**CONSTRUCTION STAKING**

Construction staking for the proposed drainage improvements will be provided by the Monroe County Road Commission.

**RAILROAD PERMIT**

The Monroe County Road Commission will apply for and obtain a permit from Norfolk Southern Railway for work within the railroad right-of-way.

**RAILROAD INSURANCE**

The Contractor shall obtain railroad protective liability insurance in accordance with Norfolk Southern Railway Company's Special Provisions for Protection of Railway Interests included in the proposal. The Contractor shall not begin work on the project until written approval is received of the required insurance policies and provides proof to the Engineer. All costs incurred by the Contractor in purchasing, securing, obtaining and complying with Norfolk Southern's insurance requirements shall be included by the Contractor in the unit prices bid for other items of work.

**RAILROAD INSPECTION AND FLAGGING**

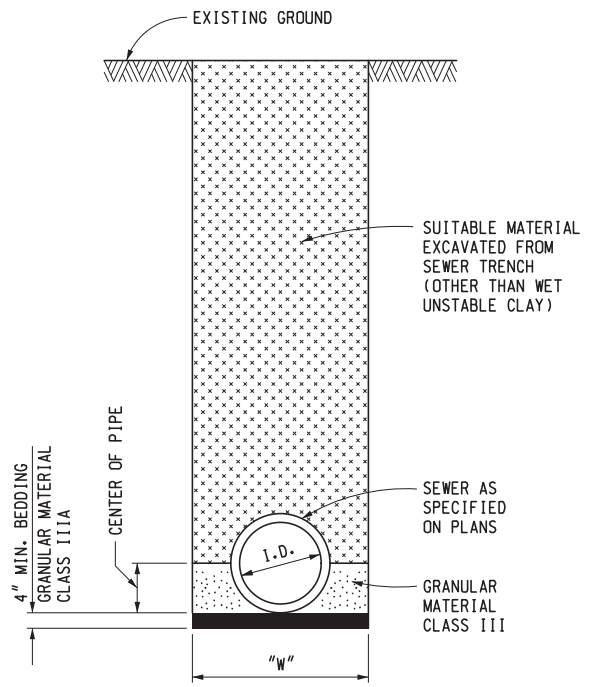
The Contractor shall request railroad flag persons from Norfolk Southern a minimum of thirty (30) days in advance of the drainage improvements work to determine the railroad flagging protection requirements.

Track Supervisor: Matthew White  
Phone: 517-581-5316  
Email: [Matthew.White2@nscorp.com](mailto:Matthew.White2@nscorp.com)

The Monroe County Road Commission will pay Norfolk Southern the cost for up to three (3) days' worth of traffic regulators, watchpersons, and other protective services and devices furnished by Norfolk Southern and made necessary in the judgment of the representative of the Norfolk Southern because of the Contractor's operation adjacent to the tracks. The Contractor will pay to Norfolk Southern the cost of all railroad protective services in excess of three (3) days. All such protection costs shall be included by the Contractor in the unit prices bid for other items of work.

**UNDERGROUND UTILITIES**

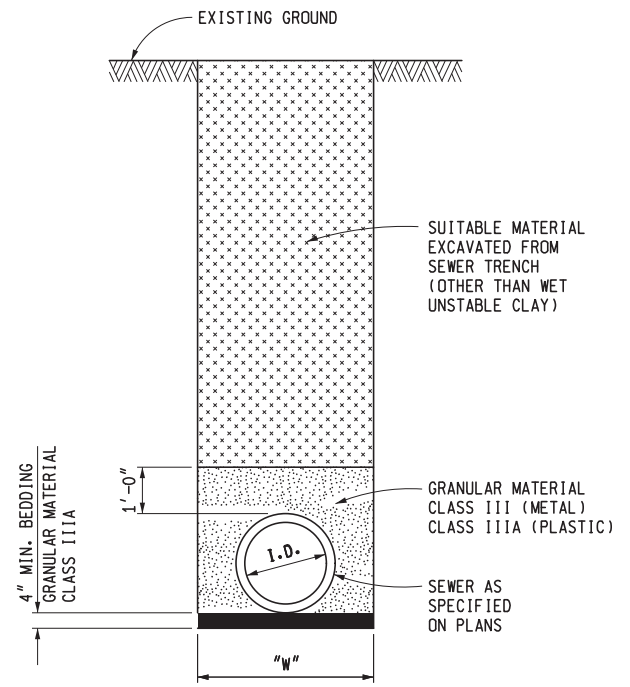
For the protection of underground utilities, the Contractor shall notify "Miss Dig" by phone at 811 or 800-482-7171 a minimum of three (3) full working days, excluding weekends and holidays, prior to beginning excavation in areas where public utilities have not been previously located in accordance with Public Act 53 of 1974.



**SEWER NOT UNDER ROADBED  
CONCRETE**

NOTE: FOR "W" SEE NOTES ON SHEET 5

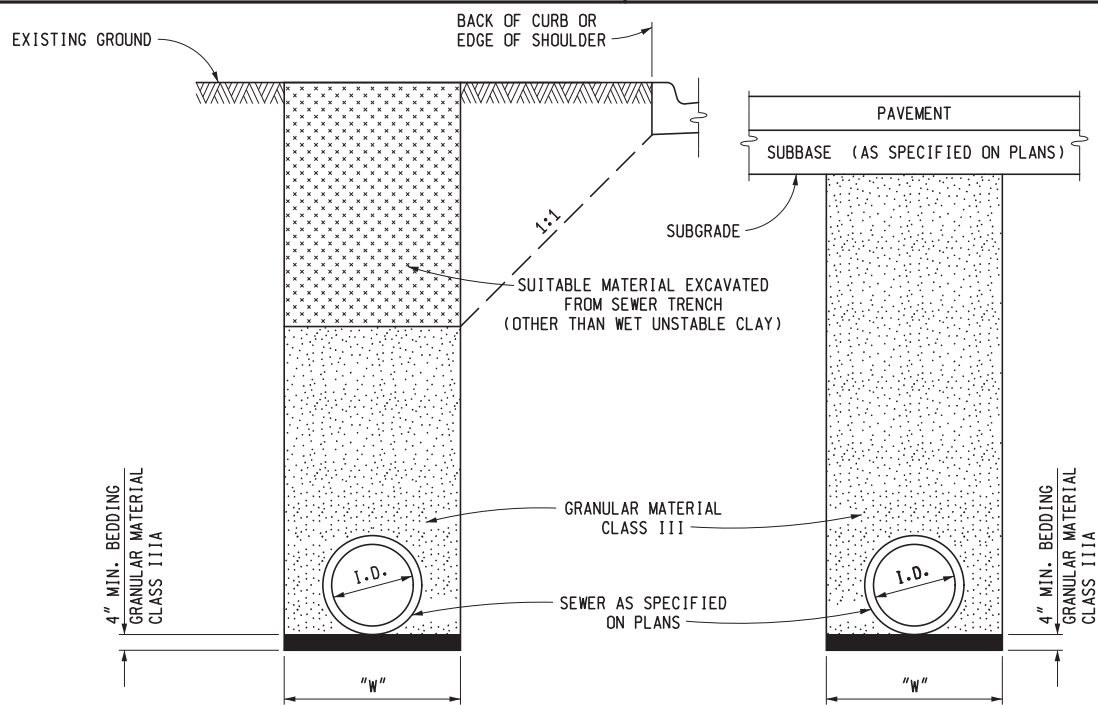
**A1**



**SEWER NOT UNDER ROADBED  
METAL & PLASTIC**

NOTE: FOR "W" SEE NOTES ON SHEET 5

**A2**



**SEWER UNDER ROADBED OR  
WITHIN INFLUENCE OF ROADBED  
CONCRETE & METAL PIPE**

**B1**



DEPARTMENT DIRECTOR  
Kirk T. Steudle

MICHIGAN DEPARTMENT OF TRANSPORTATION  
BUREAU OF DEVELOPMENT STANDARD PLAN FOR

PREPARED  
BY  
DESIGN DIVISION

APPROVED BY: \_\_\_\_\_  
DIRECTOR, BUREAU OF FIELD SERVICES

**UTILITY TRENCHES**

DRAWN BY: B.L.T.

APPROVED BY: \_\_\_\_\_  
DIRECTOR, BUREAU OF DEVELOPMENT

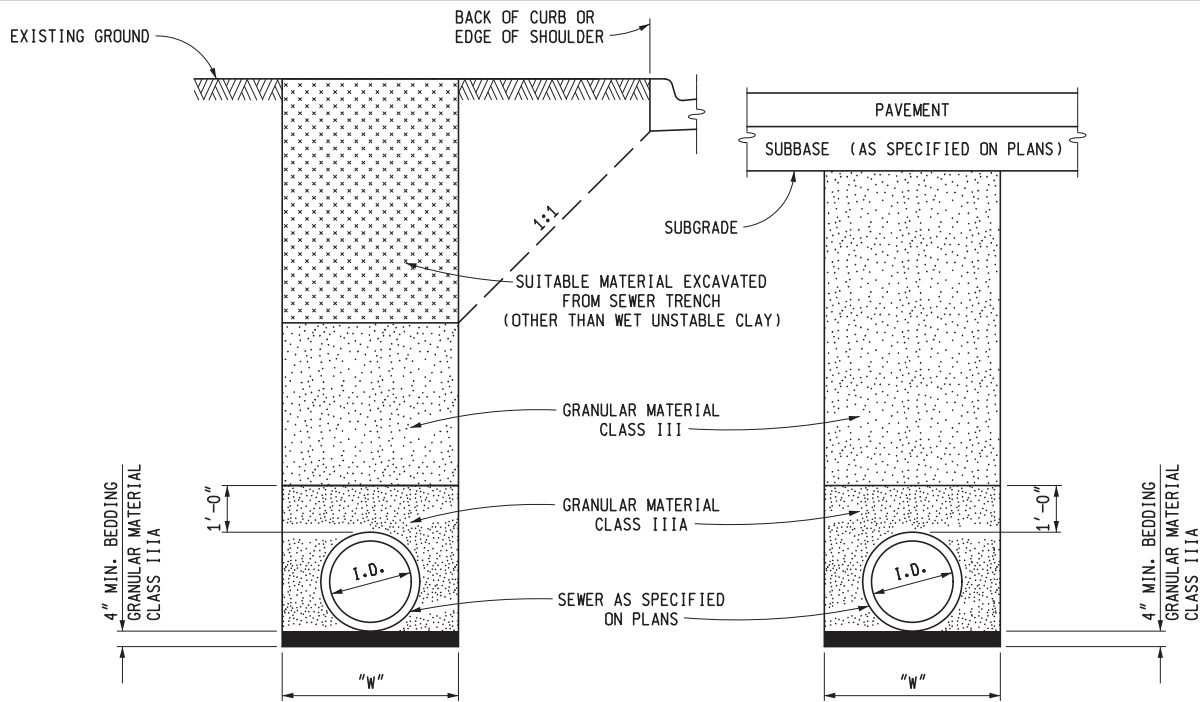
CHECKED BY: W.K.P.

F.H.W.A. APPROVAL

2-8-2016  
PLAN DATE

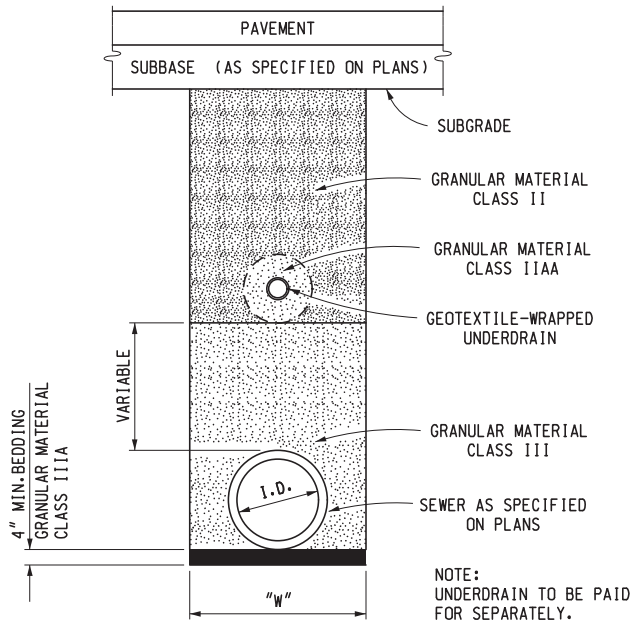
**R-83-C**

SHEET  
1 OF 5



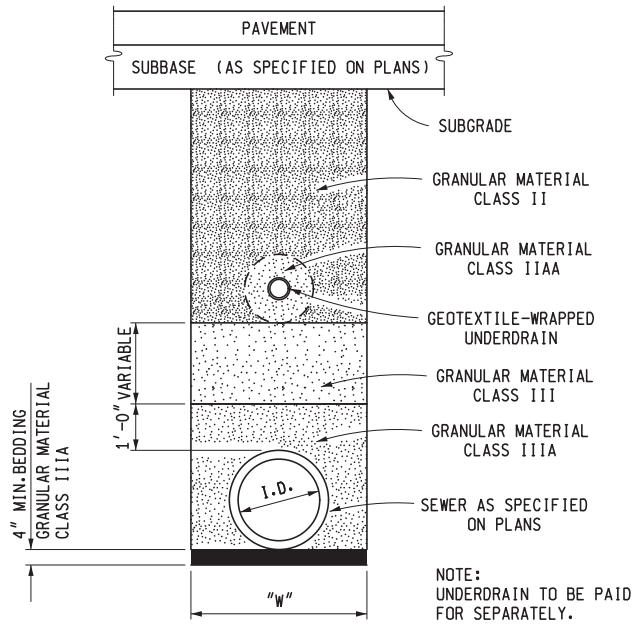
**SEWER UNDER ROADBED OR  
WITHIN INFLUENCE OF ROADBED  
PLASTIC PIPE**

**B2**



**SEWER WITH UNDERDRAIN UNDER ROADBED  
CONCRETE & METAL PIPE**

**C1**



**SEWER WITH UNDERDRAIN UNDER ROADBED  
PLASTIC PIPE**

**C2**

MICHIGAN DEPARTMENT OF TRANSPORTATION  
BUREAU OF DEVELOPMENT STANDARD PLAN FOR

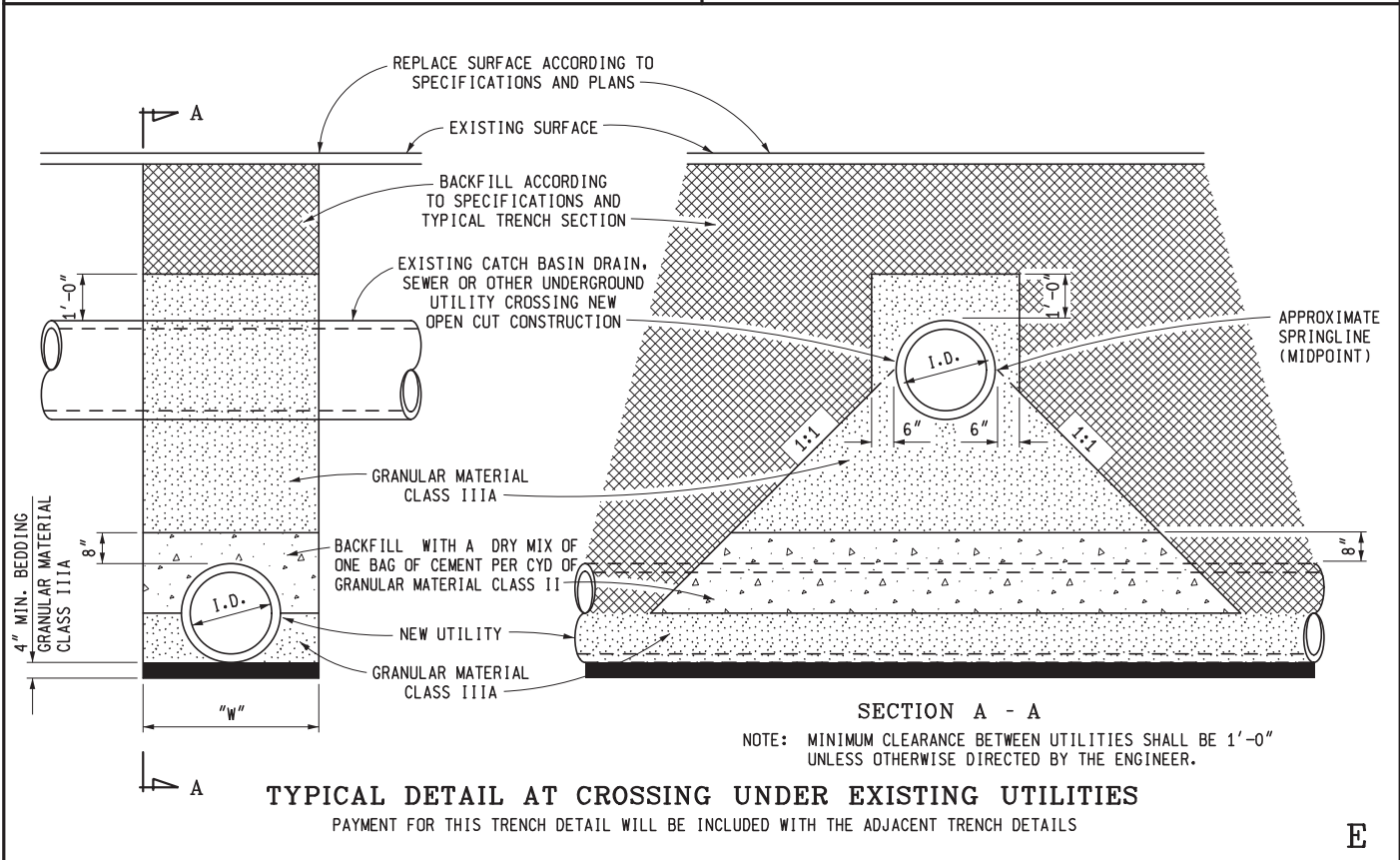
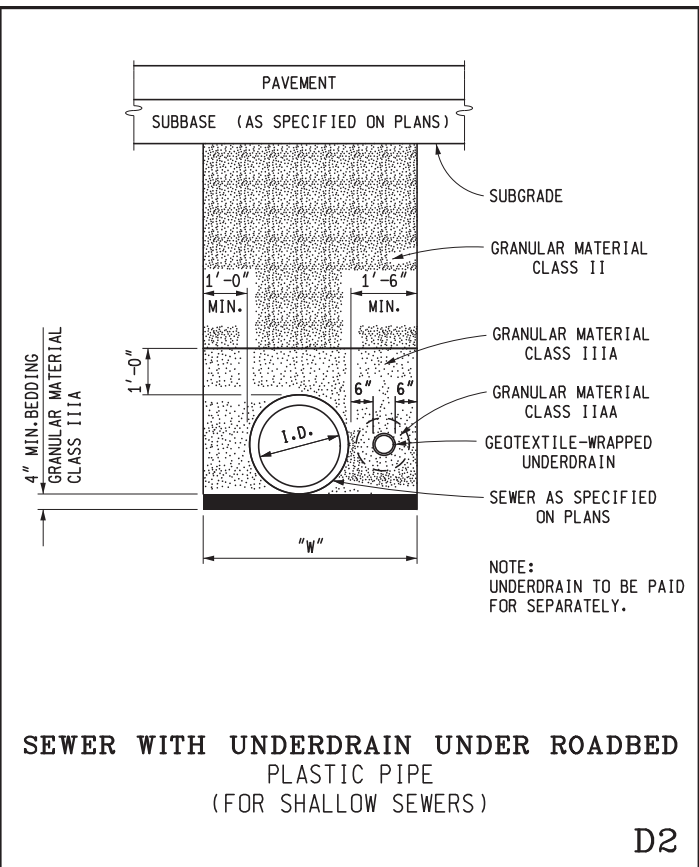
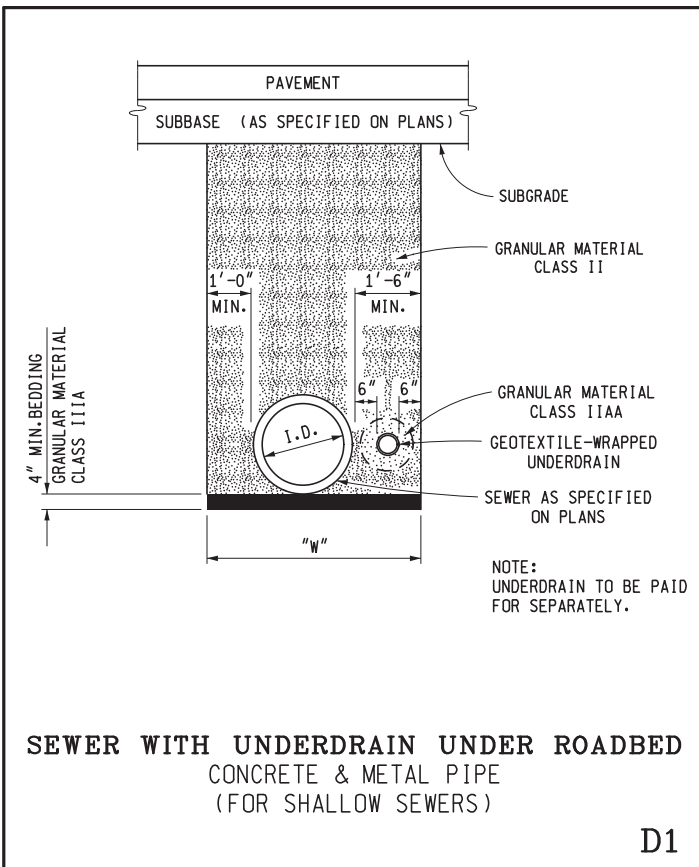
**UTILITY TRENCHES**

F.H.W.A. APPROVAL

2-8-2016  
PLAN DATE

**R-83-C**

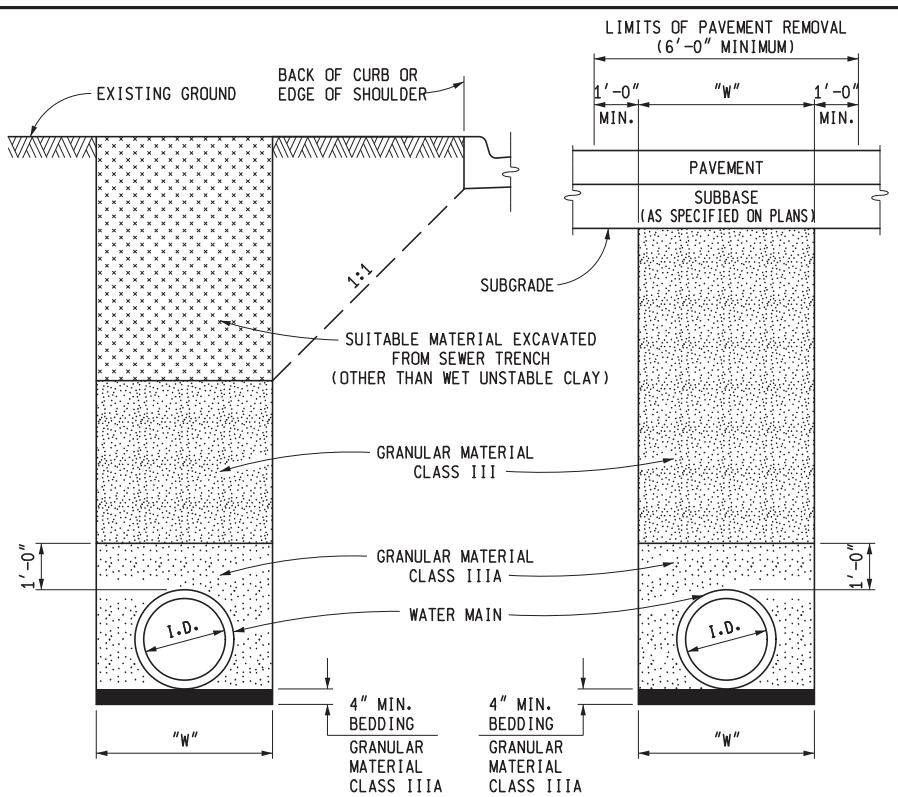
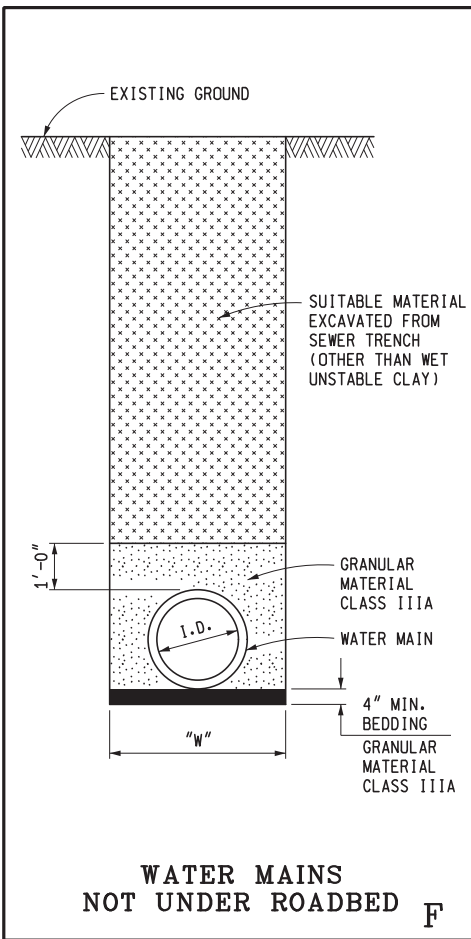
SHEET  
2 OF 5



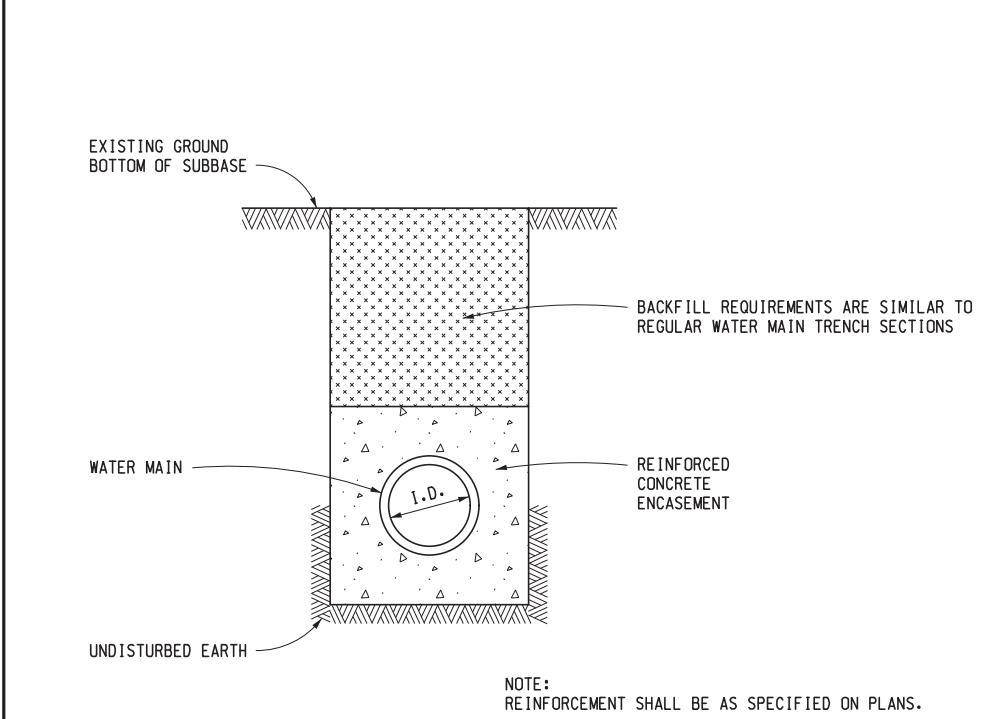
MICHIGAN DEPARTMENT OF TRANSPORTATION  
BUREAU OF DEVELOPMENT STANDARD PLAN FOR

**UTILITY TRENCHES**

|                   |                       |        |                 |
|-------------------|-----------------------|--------|-----------------|
| F.H.W.A. APPROVAL | 2-8-2016<br>PLAN DATE | R-83-C | SHEET<br>3 OF 5 |
|-------------------|-----------------------|--------|-----------------|



NOTE: WHEN WATER MAIN IS PLACED IN PROPOSED ROADBED AREA, IT SHALL BE BACKFILLED WITH SELECTED EXCAVATION MATERIAL ABOVE FUTURE SUBGRADE TO EXISTING GROUND LINE.



NOTE: REINFORCEMENT SHALL BE AS SPECIFIED ON PLANS.

| REQUIRED ENCASEMENT SIZE FOR RESPECTIVE PIPE SIZES |                                  |
|--|----------------------------------|
| DIAMETER OF PIPE                                   | ENCASEMENT SIZE AND TRENCH WIDTH |
| 6" - 12"   | 3'-0"                            |
| 16"  | 3'-6"                            |
| 24"  | 4'-6"                            |
| 30"  | 5'-0"                            |
| 36"  | 5'-6"                            |
| 42"  | 6'-0"                            |
| 48"  | 7'-0"                            |
| 54"  | 7'-6"                            |
| 60"  | 8'-0"                            |
| 66"  | 8'-6"                            |
| 72"  | 9'-0"                            |

MICHIGAN DEPARTMENT OF TRANSPORTATION  
BUREAU OF DEVELOPMENT STANDARD PLAN FOR

**UTILITY TRENCHES**

