

**ADDENDUM No. 1**  
**April 21, 2017**  
**MEADOWBROOK ROAD CULVERT REPLACEMENT**  
**0163-16-0060**  
**City of Novi**

To Prospective Bidders:

The following changes, additions, and/or clarifications to the Contract Documents shall be incorporated in said documents and shall be allowed for in the unit prices bid by the Contractor such that the unit prices indicated in the Bid Form shall represent the conditions as set forth in the Contract Documents and this addendum. The bidder shall acknowledge the receipt of this addendum in the bid form of BIDDING REQUIREMENTS, CONTRACT FORMS, AND CONTRACT CONDITIONS, Part 1, Page 16 of the contract documents and shall staple this addendum into the Contract Book.

**The Bidder shall also return, via facsimile or email to [jennifer.pringle@ohm-advisors.com](mailto:jennifer.pringle@ohm-advisors.com), the acknowledgment sheet located on page 7 of this addendum.**

This Addendum contains seven (7) total pages, including this cover page and Acknowledgement of Receipt of Addendum. A summary of the Addendum is as follows:

SECTION: Appendix A: City of Novi Soil Erosion and Sedimentation Control Permit

1. Add the attached City of Novi Soil Erosion & Sedimentation Control Permit PSE17-0014 to Appendix A (1 page).

SECTION: Appendix D: City of Novi Special Provision for Precast Concrete Wingwalls and Headwalls

1. Replace Appendix D its entirety with the attached City of Novi Special Provision for Precast Concrete Wingwalls and Headwalls (4 pages).

CLARIFICATION:

1. The connection to the 30 inch RCP storm sewer shall be made using a Large Diameter Coupling, Flexible PVC with stainless steel clamps, by Fernco or approved equal.



# SOIL EROSION & SEDIMENTATION CONTROL PERMIT

This permit must be posted at the project site

04/07/2017

04/07/2018

PSE17-0014

Date of Issuance

Date of Expiration

SE Permit Number

Under the provisions of the Sedimentation Control Ordinance(Chapter 29, Article II of the Novi Code), which includes Part 91 of Act 451 of the Public Acts of 1994, approval is hereby granted to the erosion and sediment control plan filed with this office for the following earth disruption:

**Parcel Number:** 50-88-88-888-888

**Project Name:** Meadowbrook Culvert Replacement

**Project Description:** Meadowbrook Road Culvert Replacement at Bishop Creek between 11-Mile Rd and Grand River Ave.

**Project Location:**

**On-site Responsible Person:**

**On-site Responsible Company:**

**Telephone:**

**Owner:** CITY OF NOVI

**Telephone:**

**Street Address:** 45175 W TEN MILE RD  
NOVI MI 48375

## GENERAL CONDITIONS:

In accordance with Rule 1709 promulgated under the authority of Part 91, Soil Erosion and Sedimentation Control, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended, and in addition to the information on the attached plan(s) and special conditions, the following general conditions apply to the earth change authorized by this permit:

1. Design, construct, and complete the earth change in a manner that limits the exposed area of disturbed land for the shortest period of time.
2. Remove sediment caused by accelerated soil erosion from runoff water before it leaves the site of the earth change.
3. Temporary or permanent control measures shall be designed and installed to convey water around, through, or from the earth change at a non-erosive velocity.
4. Install temporary soil erosion and sedimentation control measures before or upon commencement of the earth change activity and maintain the measures on a daily basis. Remove temporary soil erosion and sedimentation control measures after permanent soil erosion measures are in place and the area is stabilized. ("Stabilized" means the establishment of vegetation or the proper placement, grading, or covering of soil to ensure its resistance to soil erosion, sliding, or other earth movement.)
5. Complete permanent soil erosion control measures for the earth change within five calendar days after final grading or upon completion of the final earth change. If it is not possible to permanently stabilize the earth change, then maintain temporary soil erosion and sedimentation control measures until permanent soil erosion control measures are in place and the area is stabilized.

## SPECIFIC CONDITIONS AND CLARIFICATION:

This permit is issued in accordance with Chapter 29 of the Novi City Code. All restrictions and regulations apply.

1. This permit does not include or constitute a drainage review.
2. This permit does not waive the necessity for any other Federal, State, or local permits as may be applicable to the project.
3. This permit is subject to any changes deemed necessary by this office to insure that no sedimentation of off-site areas or waters of the state occurs.
4. The City of Novi may withhold the bond submitted for the project until final landscaping is complete and all temporary erosion/sedimentation control measures have been removed.
5. All erosion controls will be installed as shown on the plan according to the sequence of construction and maintained on a daily basis.
6. Once permanent measures have been implemented and the area is stabilized, remove temporary erosion/sedimentation control measures and vacuum all areas with accumulated sediments including, but not limited to, ditches, basins, etc.;
7. It is the responsibility of the developer to insure that all soil erosion control measures are installed and maintained;
8. The City of Novi or its agent shall inspect all soil erosion control measures. Upon their direction, additional measures shall be constructed or maintenance work shall be performed to assure erosion and sedimentation control.
9. Permittee shall notify the permitting agency within one week after completing the permitted activity or one week prior to the permit expiration date, whichever comes first.

## ADDITIONAL CONDITIONS:

APPROVED BY:

  
\_\_\_\_\_  
Charles Boulard  
Community Development Director  
City of Novi, Michigan

CITY OF NOVI  
SPECIAL PROVISION  
FOR  
**PRECAST CONCRETE WINGWALLS AND HEADWALLS**

OHM:AJR

1 of 4

4-20-2017

**A. Description** Design, manufacture, and install the precast headwalls and wingwalls. The work shall be done according to sections 406 and 706 of the Michigan Department of Transportation (MDOT) 2012 Standard Specifications for Construction, manufacturer's specifications and as specified herein.

**B. Materials** Use materials meeting the requirements shown in section 706.02 of the MDOT 2012 Standard Specifications for Construction.

**Form Liners.** Use smooth, custom formed elastomeric form liners to produce the following concrete textures. All pattern details and locations are detailed on the plans. The contractor is to select a form liner from the following list or equal subject to the approval of the owner.

Custom Rock Formliner – #1301 Random Running Bond 12”.

**Form Release Agents.** Use only form release agents that are compatible with the liners. Obtain written certification from the manufacturer that the product is compatible and is non-reacting and non-staining. Use a single product for the entire project.

**Coloring.** Use Sherwin Williams A-100 Exterior Latex Flat A6 Series material for coloring. Apply coloring and supporting materials according to manufacturer's recommendations. Coloring scheme shall match that of the Silver Lake Road bridge located 450 feet west of N Leroy Rd in Fenton, MI. Below is an photograph of the featured bridge for reference.



**Anti-Graffiti Coating.** Apply anti-graffiti coating to colored wall. Use Sherwin Williams Anti-Graffiti Coating 1K Siloxane Clear. Apply according to manufacturer's recommendations.

## C. Construction

1. **Design & Manufacture of Precast Units** Ensure a professional engineer, licensed in the state of Michigan, seals the design for the Precast Concrete Wing Walls, headwalls, and aprons. Certify the precast concrete wing wall design is in accordance with current AASHTO LRFD Specifications for HL-93 loading. Design the headwalls and wingwalls for all applicable loads including a vehicular live load surcharge adjacent to the walls. Design the headwall connections and wingwalls connections to resist sliding and overturning.

Use concrete with a compressive strength of at least 4000 psi. The concrete mix design is the responsibility of the precast manufacturer. Proportion and mix cement, aggregate, admixtures and water in a batch mixture producing a homogeneous concrete, meeting the stated strength requirements. Use a minimum cement content of 6 sacks (564 pounds) per cubic yard. The concrete must contain  $6.5 \pm 1.5$  percent entrained air. When type F or G admixtures are used the maximum air entrainment allowed is 8.5 percent.

Incorporate form liners on the streamside exposed faces of the wingwalls and headwall on the west end of the culvert only. Wingwalls on the east end of the culvert need not have form liners. The form liner layout must be such that the pattern in the wingwalls blends to the headwall without discontinuity. Form liner recess dimensions must be incorporated into the design and shop drawing submittal.

Locate form ties at the high point of the rustication (texturing) so they will be in the recess of the concrete. Use form ties designed so that all material can be disengaged and removed without spalling or damaging the concrete. Finish form tie holes according to subsection 706.03.R.1 of the Standard Specifications for Construction

Do not drill holes in the precast units.

All precast elements must meet the tolerances specified by the Designer in addition to the tolerances listed below:

1. Internal Dimensions – Manufacture such that the internal dimensions do not vary more than 2 inches from the design dimensions. Haunch dimensions must not vary by more than  $3/4$  inch from the dimensions shown on the shop drawings.
2. Slab and Wall Thickness – Manufacture such that the slab and wall thicknesses are not less than  $3/4$  inch from the dimensions shown on the shop drawings. A thickness greater than required will not be cause for rejection, unless, in the opinion of the Engineer, it prevents proper connection of the elements.
3. Position of Reinforcement – Manufacture such that the maximum variation in the position of the reinforcement is  $\pm 3/8$  inch. The concrete cover over the top slab reinforcement must not be less than 2 inches.

Repair precast elements as approved by the Engineer, due to imperfections in manufacture, handling damage, or construction. Repair at no additional payment

according to section 712 of the Standard Specifications. Repairs must be sound, properly finished and cured, and the repaired element must conform to the special provision. Possible causes for rejection include, but are not limited to, the following:

1. Fractures or cracks in the elements.
  2. Defects that indicate imperfect proportioning, mixing and/or forming.
  3. Honeycombed or open textured surfaces.
  4. Insufficient compressive strength of concrete.
  5. Out of tolerance dimensions.
  6. Low/high air content
  7. Exposed reinforcing steel.
2. **Shop Drawings For Precast Units.** Submit and prepare shop drawings according to section 406.03.B of the Standard Specifications. Do not begin fabrication until written approval of the shop drawings has been received from the Engineer.
  3. **Excavation and Culvert Bedding.** Perform earthwork according to section 401.03.C of the Standard Specifications.
  4. **Laying Units.** Lay and place units according to section 401.03.E of the Standard Specifications. Wingwalls, headwalls, and aprons shall be placed true to the lines and grades shown on the plans. Units shall be fully and closely jointed with full, firm bearing throughout.
  5. **Backfilling.** Backfill units according to section 401.03.G of the Standard Specifications. Place and compact backfill on opposite sides of the wingwalls at the same time.
  6. **Headwalls and Wingwalls.** Use precast headwalls and wingwalls.

Precast headwalls and wingwalls shall have a positive connection to the cast-in-place headwalls.

Treat all joints with a cold applied joint sealer covered with a 36-inch wide strip of geotextile blanket centered on the joint. Seal the joints water tight with Type R-2 mortar or as recommended by the manufacturer.

Apply coloring and anti-graffiti coating according to manufacturer's recommendations. These shall be applied on site.

The Contractor performing the coloring and coating must have a minimum 5 years experience in coloring and coating exterior concrete surfaces of bridges or culverts in the state of Michigan and must provide 5 project references for review.

7. **Water Control During Construction.** Dewater and maintain stream flow according to section 401.03.N of the Michigan Department of Transportation 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 contract item (pay item).

<b>Contract Item (Pay Item)</b>	<b>Pay Unit</b>
Precast Wing Walls and Headwalls .....	Lump Sum

Payment for **Precast Wing Walls and Headwalls** will be paid by a lump sum amount which includes all work to design, manufacture, deliver and install the precast wingwalls, headwalls, and aprons. This contract item includes all connections to headwalls, form liners, cold applied joint sealer, colorings and coatings, furnishing and dewatering and maintaining the stream flow during construction stages. Excavation and backfill will be paid for separately.

**ACKNOWLEDGEMENT of RECEIPT OF ADDENDUM**

**ATTENTION:**

Please complete this form and return immediately by facsimile to Orchard, Hiltz & McCliment, Inc. at 734-522-6427 or by email to [jennifer.pringle@ohm-advisors.com](mailto:jennifer.pringle@ohm-advisors.com)

Our firm: \_\_\_\_\_

has received from Orchard, Hiltz, & McCliment, Inc.

Addendum No. 1 for:  
**MEADOWBROOK ROAD CULVERT REPLACEMENT**  
City of Novi  
OHM Job No. 0163-16-0060

Today, \_\_\_\_\_ (date) at \_\_\_\_\_ (time) a.m. / p.m. (circle one)

Signature of receiver: \_\_\_\_\_

Printed name of receiver: \_\_\_\_\_

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

**End of Addendum No. 1**