

***PROGRESS CLAUSE***

1 of 1

Wightman & Associates, Inc. /ORL

11/8/11

The CONTRACTOR shall start work within ten (10) days after receiving notice of award of contract or on or before the date designated as the starting date in the Detailed Progress Schedule. In no case shall the CONTRACTOR start work before receipt of a signed contract.

Project start date: April 23, 2012

Road closure shall begin no earlier than: May 1, 2012

Per MDEQ Permit no work shall take place in the river between: Oct 1 – Apr 30 each year

Road bed ready for paving: August 17, 2012

Road open no later than: August 31, 2012

Project completion date: September 28, 2012

The low bidder(s) for the work covered by this proposal will be required to meet with OWNER and OWNER's representatives to work out a detailed progress schedule. The schedule for this meeting will be set within one week after the low bidder is determined.

The named subcontractor(s) for Specialty and/or Designated Items (if such items are designated in the proposal) which materially affect the work schedule, shall also be present at the scheduled pre-construction meeting and they will be required to sign the Progress Schedule to indicate their approval of the scheduled dates of work set forth in the Progress Schedule.

The Cass County Road Commission will coordinate the time and place for the meeting.

The Progress Schedule shall include, as a minimum, the starting and completion dates for major items and where specified in the specification the date the project is to be opened to traffic as well as the final project completion date.

If the specification includes other controlling dates, these shall also be included in the Progress Schedule.

**CASS COUNTY ROAD COMMISSION**

**SPECIAL PROVISION**

**FOR**

**MAINTAINING TRAFFIC**

1 of 2

Wightman & Associates, Inc./ORL

11/8/11

**Description**

Local traffic shall be maintained by the CONTRACTOR to provide access to all residential driveways between the detour route and the bridge. The CONTRACTOR shall also maintain traffic for the detour route as shown on the detour drawing throughout the project in accordance with the requirements of Section 103.05 of the MDOT 2003 Standard Specifications for Construction. The CONTRACTOR is advised that the 2005 Edition of the Michigan Manual of Uniform Traffic Control devices is hereby established as governing all work in connection with traffic control devices, barricade lighting, etc., required on this project. The CONTRACTOR shall coordinate this work with other contractors performing work within the construction influence area or adjoining areas to avoid conflicts in the maintenance of traffic, construction signing and the orderly progress of work.

The CONTRACTOR shall furnish, erect, maintain and upon completion of the work, remove all traffic control devices and barricade lights within the construction influence area for the safety and protection of local traffic. This includes, but is not limited to, advance, regulatory and warning signs, barricades, channeling devices and all other traffic control devices required to maintain traffic as called for on the plans. Traffic regulators, where required by the ENGINEER, are included. The construction influence area (CIA) shall consist of the width of the project right-of-way from 150 ft. prior to the project P.O.B. to 150 ft. beyond the project P.O.E. and 150 ft. in all directions along all cross roads within the project limits.

Any necessary emergency traffic maintenance and control work performed by the OWNER will be billed against the CONTRACTOR.

Existing street name signs, stop signs and other existing traffic signs will be removed by the CONTRACTOR and reset by the CONTRACTOR where required. Any stop signs removed or damaged by the CONTRACTOR shall be immediately reset by the CONTRACTOR to protect the traveling public.

**Materials**

All traffic control devices and their usage shall be in accordance with provisions in the 2005 Edition of the Michigan Manual of Uniform Traffic Control Devices (MMUTCD). All construction signs, unless otherwise noted, shall be 48 inches x 48 inches, mounted at a bottom height of 5 ft. and placed as indicated on the plans. When signs are no longer applicable, they shall be removed or have their legend completely covered with plywood or approved equal. When signs are mounted on Type III Barricades, all signs shall be mounted above the Type III Barricade. Type III Barricades with 2 inch or greater boards will not be allowed. Reflectorized strips are required on both sides when barricades are facing traffic in both directions.

Channelizing devices shall be used to separate traffic from the work and if directed by the ENGINEER or shown in the plan sheets to separate opposing traffic lanes. Lighted plastic drums may be used during both day time and night time operations.

Plastic cones may be used as channelizing devices only during day light hours. If plastic cones are used, they shall be a minimum of 28 inches in height and placed as directed by the ENGINEER. Metal drums or metal barrels shall not be used as traffic control devices.

All signs, unless otherwise noted, shall be placed on 3 pound driven posts and each Type III Barricade (8 ft.) shall be weighted with a minimum of 12 sandbags each weighing 30 pounds.

Measurement and Payment

The completed work as measured will be paid for at the contract unit price for the following items:

<u>Pay Item</u>	<u>Pay Unit</u>
Barricade, Type III, High Intensity, Double Sided, Lighted, Furn	Each
Barricade, Type III, High Intensity, Double Sided, Lighted, Oper	Each
Sign, Type B, Temp, Furn	Square Foot
Sign, Type B, Temp, Oper	Square Foot
Pavt Mrkg, Waterborne, 4 Inch White	Foot
Pavt Mrkg, Waterborne, 4 Inch Yellow	Foot
Minor Traf Devices	Lump Sum
Flag Control	Lump Sum

Barricade, Type III, High Intensity, Double Sided, Lighted, Furn; Barricade, Type III, High Intensity, Double Sided, Lighted, Oper; Sign, Type B, Temp, Furn; Sign, Type B, Temp, Oper; Pavt Mrkg, Waterborne, 4 Inch White; Pavt Mrkg, Waterborne, 4 Inch Yellow; Minor Traf Devices; Flag Control pay items are provided wherever required to maintain traffic as specified herein and as directed by the ENGINEER. All other work of maintaining traffic shall be included in the above items which shall be considered payment in full for all materials, labor, and equipment necessary for construction.

**CASS COUNTY ROAD COMMISSION**

**SPECIAL PROVISION**

**FOR**

**PROJECT STAKING**

1 of 1

Wightman & Associates, Inc./ORL

8/28/06

**Intent**

The Owner's Engineer will provide contractor with a staked project centerline, bridge reference lines A & B and a project benchmark. Slope stakes will be provided at 50 ft intervals. Contractor shall be responsible for determination and layout of all other dimensions and elevations needed to construct the project.

Owner reserves the right to verify contractor's layout prior to placement of work items affected by the layout.

The work of Project Staking will not be paid for separately but is considered incidental to the project.

## *UTILITY COORDINATION*

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Wightman & Associates, Inc./ORL

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

Gas:	Semco Energy 1000 Bell Rd Niles, MI 49120 800-476-1441 x 5689 or 5692 Mr. Michael Kessler
Telephone:	Frontier Communications 601 N. US-131 Three Rivers, MI 49093 269-273-0346 Mr. Scott MacFarlane
Electric:	Midwest Energy Cooperative 901 E. State St. Cassopolis, MI 49031 (269) 445-1033 Mr. Mike Roush
Cable:	Comcast 1920 McKinley Ave. Mishawaka, IN 46545 847-789-1039 X71039 Mr. Jay Castello

**a. Description** - For protection of underground utilities and in conformance with Public Act 53, the CONTRACTOR shall dial 811 or (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 part of the "Miss Dig" alert system.

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

Semco Energy has underground facilities to relocate. All the utility relocation work is scheduled to be completed prior to the start of the project. Frontier has an overhead wire and a pole to temporarily relocate during construction. The CONTRACTOR shall coordinate his work with these utility companies.

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

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

**CASS COUNTY ROAD COMMISSION**

**SPECIAL PROVISION**

**FOR**

***MACHINE GRADING, SPECIAL***

1 of 2

Wightman & Associates, Inc./ORL

11/8/11

**Description**

The work of Machine Grading, Special shall consist of the following when required to complete the work within the grading limits of the project:

- Clearing, salvaging and stockpiling topsoil
- Removal of all trees and stumps under 6 inch
- Removal of all brush
- Removal of all gravel
- All saw cutting
- Removal and reinstallation of mailboxes
- The use of all suitable material in constructing the adjacent fills
- Furnishing and placing of borrow as required
- All required earth excavation, embankment and other earth moving operations necessary to develop the desired cross sections as shown.

Any additional Class II subbase required to replace unsuitable materials beneath the proposed cross-section limits shown and as directed by the ENGINEER in the field, will be paid for under Subgrade Undercutting, Type II. All topsoil removed shall be stockpiled and reused as Topsoil Surface, Salvaged, 3 inch.

Machine Grading, Special shall apply to all sections of the project from the POB to the POE within the right-of-way and designated grading limits.

**Construction Methods**

Machine Grading, Special shall include all necessary removal, scarifying, plowing, discing, moving, hauling, shaping, filling and compacting the earth to develop the required cross-sections shown on the plans.

The roadbed shall be finished to grade with a blade grader or equivalent equipment. All intersections, approaches, entrances and driveways, shall be graded as shown or directed as part of this item. If additional earth is required to complete the full section, the CONTRACTOR shall obtain the required Class II material from borrow at no additional cost.

All items included under Machine Grading, Special shall be constructed in accordance with the MDOT 2003 Standard Specification for Construction.

Measurement and Payment

Machine Grading, Special will be measured by station along the centerline of the project from the start of construction to the end of construction minus the bridge span. This single measurement is intended to cover everything included under this item for the entire project; therefore, no additional measurements will be made for number of sides, lanes, intersecting streets, drives or parkways.

Pay Item

Pay Unit

Machine Grading, Special

Station

Machine Grading, Special will be paid for by the station, as measured, which price shall be considered payment in full for all work specified herein.

Please note that any informational quantities shown on the plans are rough estimates only, provided for the CONTRACTOR's convenience, but included in the costs for this item.

**CASS COUNTY ROAD COMMISSION**

**SPECIAL PROVISION**

**FOR**

***HMA SURFACE, REM, MODIFIED***

1 of 1

Wightman & Associates, Inc./ORL

11/8/11

**Description**

The work of HMA Surface, Rem, Modified, shall be performed and paid for in accordance with Section 502 of the 2003 Edition of the Michigan Department of Transportation Standard Specifications for Construction, except as herein modified.

**HMA Surface Remove, Modified**

The CONTRACTOR will be paid under this item for removing HMA surface which does not have concrete pavement beneath it. This item includes removing the HMA pavement regardless of thickness but does not include removing any aggregate base material beneath. Saw cutting at removal limits shall be included as a part of this item. Aggregate base removal, where required, is included in the item of Machine Grading, Special. This item also includes any butt joints required for matching into existing HMA pavement, paid for by the square yard.

**Pay Item**

**Pay Unit**

HMA Surface, Rem, Modified

Square Yard

**CASS COUNTY ROAD COMMISSION**

**SPECIAL PROVISION**

**FOR**

**HMA APPLICATION ESTIMATE**

1 of 2

Wightman & Associates, Inc./ORL

11/8/11

The HMA, 13A, (Leveling) shall have a yield of 330 lbs/SYD.  
The HMA, 36A, (Top) shall have a yield of 165 lbs/SYD.

The Asphalt performance grade shall be PG-64-22.

Cleaning existing pavement shall be included in the respective HMA items. Bond Coat shall be SS-1h Bond Coat applied at the rate of 0.05 to 0.15 gallons/SYD to be included in the respective HMA items, as directed by the ENGINEER.

HMA approaches will not be a separate pay item on this project. All HMA material for this project will be paid for under their respective bid items.

***Rolling***

Number of Rollers Method shall apply as a minimum requirement for this project.

**The Nuclear Gage Method for testing compaction may be used at the discretion of the ENGINEER.**

Number of Rollers Required Based on Placement Rate:

<i>AVERAGE LAY DOWN RATE, SQUARE YARDS PER HOUR</i>	<i>NUMBER OF ROLLERS REQUIRED</i>	
	<i>COMPACTION ROLLERS</i>	<i>FINISH ROLLERS</i>
LESS THAN 840	1	*1
840 - 1,800	1	1
1,800 - 3,950	2	1
3,950 - 7,200	3	1

\*The compaction roller may be used as the finish roller also.

The Aggregate Wear Index (AWI) number required for the aggregate used in the production of the HMA used in the top course of the traveled way (shoulders included) on this project is shown in the table below.

HMA

*Minimum AWI  
Number*

36A, (Top)

260

Method of Measurement and Basis of Payment

The CONTRACTOR shall be responsible for the control of the HMA application rates for this project. The pay quantity for HMA on this project shall not exceed more than 5% of the theoretical yield for each course based upon the previously referenced yields and the actual areas paved. Quantities in excess of the above will not be considered for payment.

**CASS COUNTY ROAD COMMISSION**

**SPECIAL PROVISION**

**FOR**

**NAME PLATE, SPECIAL**

1 of 2

Wightman & Associates, Inc./ORL

11/8/11

**Description**

The Work of Name Plate, Special consists of furnishing and placing the name plate in the location and in accordance with the details shown on the plans and described in this special provision.

**Submittals**

CONTRACTOR shall submit shop drawings indicating size, profile, anchorage, etc. Final lettering on the name plate shall be approved by the Cass County Road Commission prior to casting.

**Materials**

Name plates shall be cast from bronze ingots (81% copper, 7% lead, 3% tin, 9% zinc) with polished letters and border. The plates shall be given two (2) coats of lacquer or other oxidation retardant.

**Type of Letters**

All lettering for name plates shall be Gothic Condensed Deep Block Type of Approximately the following proportions; (Height as shown on the plans):

Depth	3/32"
Face Thickness	1/16 of height

It is the intention that stock letters be used as furnished by the Manufacturer subject to the approval of the ENGINEER.

**Casting**

The castings shall be free from blow holes, porosity, hard spots, shrinkage defects or cracks, or other injurious defects and shall be smooth and well cleaned. The castings shall not be repaired, plugged, welded or "burned in", unless permission has been secured. This permission will be given only when the defects are such that after the approved repair, the appearance and strength of the casting has not been impaired. All castings shall be true to pattern, free from swells, etc. Wall thickness shall be uniform throughout the lot of castings and all cores shall be accurately set.

Measurement and Payment

The CONTRACTOR shall be paid his unit bid price for each item as shown below based on actual installed quantities.

Pay Item

Pay Unit

Name Plate, Special

Each

Name plate of the type specified will be measured as unit in place.

**CASS COUNTY ROAD COMMISSION**

**SPECIAL PROVISION**

**FOR**

**COFFERDAM, MODIFIED (B01 OF 14-01-26)**

1 of 1

Wightman & Associates, Inc./ORL

11/8/11

**Description**

The work of Cofferdam, Modified shall consist of the design, installation, and maintenance of a substantially water tight enclosure, which will permit construction of the sub-structure in the dry without damage to the work. A complete enclosure may or may not be necessary dependent upon topography and soil types. The work must be in accordance with the Department of Environmental Quality Permit and shall prevent erosion into any adjacent watercourse. The cofferdam limits as shown on the plans were used to determine plan quantities only. Per the MDOT 2003 Standard Specifications for Construction, Section 704 the design of the cofferdam and submittal of working drawings for review in accordance with Section 104.02 is the CONTRACTOR's responsibility.

The CONTRACTOR's cofferdam design including configuration, depth, and support should be based on the CONTRACTOR's construction methods, soils information, estimated water depth, location of battered piles, water control methods, utilities and other underground obstructions, and sound engineering practices. CONTRACTOR's design shall be sealed by a professional engineer licensed in the State of Michigan.

The following items Backfill, Structure, CIP (#2060002); Excavation, Fdn (#2060010); and Conc, Grade T (#7060004) will all be paid by the unit price bid based on original plan quantities. The item Cofferdam, Modified (B01 of 14-01-26) (#7047051) will be paid by the lump sum and shall include all cost for designing, installing, maintaining, and removing the designed cofferdams including any quantity changes in the above items paid by plan quantities.

**Pay Item**

**Pay Unit**

Cofferdam, Modified (B01 of 14-01-26)

Lump Sum

Cofferdam, Modified (B01 of 14-01-26) will be paid by the lump sum and shall be considered payment in full for all materials, labor, and equipment necessary for construction.

*CASS COUNTY ROAD COMMISSION*

*SPECIAL PROVISION*

*FOR*

*CONC AESTHETIC TREATMENT*

Wightman & Associates, Inc/ORL

1 of 2

11/8/11

*Description*

The work of Conc Aesthetic Treatment consist of constructing textured concrete surfaces on the exposed substructure faces and on the vertical concrete faces of the Bridge Railing Aesthetic Parapet Tube. Concrete texturing shall match the patterns specified on the plans and as described in this special provision. The limits for texturing concrete are shown on the plans.

*Materials*

Use materials meeting the following.

1. **Concrete Mix Design** - Use the same Grade of concrete for the textured portion as specified for the original element in Section 701 of the Standard Specifications for Construction. Do not use high range water reducing admixtures in the concrete mix. Use coarse aggregate and fine aggregate each produced from one source. Do not use slag course aggregate. If natural gravel is used, clay-ironstone particle content must not exceed 0.1 percent. Use only one brand and type of cement manufactured by one mill for all surface pours of a structure, unless authorized by the Engineer.
2. **Form Liners** - Use smooth, single use form liners to produce the required patterns. The substructure abutments and walls should have an "18 inch running bond" pattern of 4 ft x 1-1/2 ft cut stone blocks such as shown on the plans and offered by Karlson Forming Specialties Inc. or equal to obtain the desired concrete texture. The Aesthetic Parapet Rail should have a "Ledgestone" pattern of stacked random stone, similar to the stonework on the neighboring Pokagon buildings, such as shown on the plans and offered by Karlson Forming Specialties Inc. or equal to obtain the desired concrete texture.

Karlson Forming Specialties, Inc. P.O. Box 171 Amery, WI 54001; Phone 715-268-2505; Website: formliner.com

Prior to purchasing or placing any form liners, submit shop drawings to the Engineer for approval. Shop drawings must detail the form liner pattern and geometry; showing the complete pattern layout for the entire surface.

3. **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.

4. **Curing Compound** - Textured surfaces will not receive a protective color coating. Therefore use the same curing method and materials for these surfaces as specified for non-textured structural surfaces.

Construction Methods

1. **Placing Forms** – Carefully place form liner horizontal and vertical splices within the textured area to make the seams inconspicuous. Visible seams or conspicuous form marks will not be allowed. Bevel the top edge of the form liner at 45 degrees angle to produce a 3/4-inch bevel on the corners of the formed concrete. Configure the liner so that the contours do not cause the concrete to be locked into the liner.

Handle forms and form liners according to the manufacturer's recommendations for storage, fastening liners to the forms, and stripping the lined forms from the concrete.

Apply release agent according to the manufacturer's recommendations. Remove excess release agent to prevent staining of the concrete surface.

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.

Dimensions shown on plans must be adjusted for the additional depth of the form liners and the excess concrete required for creating the textured appearance. For example the 1 foot rail width with a 1-3/4 inch form liner on each side would be 1 ft 3-1/2 inches from face to face of forms.

Measurement and Payment

The completed work, as described above (including additional concrete), will be paid for at the contract unit price for the following contract items (pay items).

<u>Pay Item</u>	<u>Pay Unit</u>
Conc. Aesthetic Treatment	Lump Sum