



# Wisconsin Department of Transportation

February 2, 2016

**Division of Transportation Systems Development**

Bureau of Project Development  
 4802 Sheboygan Avenue, Rm 601  
 P O Box 7916  
 Madison, WI 53707-7916

Telephone: (608) 266-1631  
 Facsimile (FAX): (608) 266-8459

**NOTICE TO ALL CONTRACTORS:**

**Proposal #29: 9670-09-71, WISC 2015 644**  
**Marinette - Wausaukee**  
**Marinette - CTH G**  
**STH 180**  
**Marinette County**

**9670-10-71, WISC 2015 645**  
**Marinette - Wausaukee**  
**CTH G - Fisher Road**  
**STH 180**  
**Marinette County**

**Letting of February 9, 2016**

This is Addendum No. 01, which provides for the following:

**Special Provisions**

Revised Special Provisions	
Article No.	Description
6	Utilities.

Added Special Provisions	
Article No.	Description
35	Culvert Pipe Liners, 30-Inch, Item 520.9700.S.01; 87-Inch x 63-Inch, Item 520.9700.S.02; Cleaning Culvert Pipes for Liner Verification, Item 520.9750.S
36	Design Model Data

Deleted Special Provisions	
Article No.	Description
17	Timber Salvaging
29	Culvert Pipe Liners, 30-Inch, Item 520.9700.S.01; Cleaning Culvert Pipes for Liner Verifications, Item 520.9750.S

**Schedule of Items**

Revised Bid Item Quantities					
Bid Item	Item Description	Unit	Old Quantity	Revised Quantity	Proposal Total
305.0120	Base Aggregate Dense 1 ¼ - Inch	Ton	15,273	2,500	17,773
505.0400	Bar Steel Reinforcement HS Structures	LB	760	2,790	3,550
505.0600	Bar Steel Reinforcement HS Coated Structures	LB	3,550	-2,790	760

## Plan Sheets

Revised Plan Sheets	
Plan Sheet	Plan Sheet Title (brief description of changes to sheet)
55	Miscellaneous Quantities – added 2,500 tons undistributed Base Aggregate Dense 1 ¼ Inch
205	Structure C-38-639 Sheet 1 of 6 – modified bar steel quantities

The responsibility for notifying potential subcontractors and suppliers of these changes remains with the prime contractor.

Sincerely,

*Mike Coleman*

Proposal Development Specialist  
Proposal Management Section

**ADDENDUM NO. 01**  
**9670-09-71/9670-10-71**  
**February 2, 2016**

**Special Provisions**

**6. Utilities**

*Replace entire article language with the following:*

This contract comes under the provision of Administrative Rule Trans 220.

There are utility facilities within the construction limits of this project. Additional detailed information regarding the location of discontinued, relocated, and/or removed utility facilities is available in the work plan provided by each utility company. View these documents at the Regional Office during normal working hours.

Work around or remove and dispose of any discontinued utility conduits, cables, and pipes encountered during excavation. Any removal and disposal shall be incidental to common excavation, unless specified otherwise in this contract as a separate bid item.

When interpreting the term "working days" within the "Utilities" article of these special provisions (and only within this article), use the definition provided in Trans 220.03(20) of the Wisconsin Administrative Code rather than the definition provided in Section 101.3 of the State of Wisconsin Standard Specifications for Highway and Structure Construction.

Some of the utility work described below is dependent on prior work being performed by the contractor at a specific site. In such situations, provide a good faith notice to both the engineer and the affected utility of when the utility is to start work at the site. Unless specified otherwise in this article, provide this notice 14 to 16 calendar days in advance of when you anticipate the prior work being completed and provide a confirmation notice to the engineer and the utility 3 to 5 working days before the site will be ready for the utility to begin its work.

**9670-09-71**

**ANR Pipeline Company** has a 12-inch high pressure **gas** pipeline facility crossing at Station 212+25 with a casing vent on both sides. No conflicts are anticipated.

Notify ANR Pipeline Company 3 working days prior to performing construction activities within the limits of the crossing corridor.

Coordinate with Matt Hischke (715-758-3345, 715-460-4042, or [Matthew.Hischke@transcanada.com](mailto:Matthew.Hischke@transcanada.com)) during construction.

**ATC Management, Inc** has an overhead **electric** crossing at Station 206+00. No conflicts are anticipated.

Coordinate with Anthony Marciniak (262-506-6814, or [amarciniak@atcllc.com](mailto:amarciniak@atcllc.com)) during construction.

**CenturyLink** has buried fiber and coaxial **communication** facilities throughout the project limits.

CenturyLink will relocate its underground fiber and coaxial facilities on to Wisconsin Public Service Corporation electric poles throughout the project limits.

CenturyLink will install buried facilities crossing STH 180 at the following Stations:

- 141+00
- 393+00
- 437+00

CenturyLink will install buried facilities along the right of way line of Nettleton Road on the left side from Station 100+50 – 102+57.

CenturyLink will install buried facilities along the right of way line of Woodview Lane on the right side from Station 28+73 – 29+60.

CenturyLink will install buried facilities along the right of way line of STH 180 on the left side from Station 446+00 – 449+00.

CenturyLink will install buried facilities along the right of way line of CTH G on the left side from Station 32+10 – 34+00.

This work is anticipated to be completed by July 29, 2016. Completion date is contingent upon Wisconsin Public Service Corporation completing their pole relocations by June 1, 2016

Coordinate with Patrick Tracy (715-856-9138 or [patrick.tracy@centurylink.com](mailto:patrick.tracy@centurylink.com)) during construction.

**Time Warner Cable (TWC)** has underground **communication** facilities through the project limits.

TWC will install buried facilities along the right of way line of STH 180 on the left side from Station 125+77 – 126+50.

TWC will install buried facilities 2 feet west of the right of way line of STH 180 on the right side from Station 129+00 – 141+00.

TWC will install buried facilities 19 feet west of the right of way line of STH 180 on the right side from Station 141+00 – 142+25.

TWC will install buried facilities 2 feet west of the right of way line of STH 180 on the right side from Station 142+25 – 183+50.

TWC will install buried facilities 2 feet west of the existing buried gas main on the right side of STH 180 from Station 183+50 – 200+00.

TWC will install buried facilities 2 feet west of the right of way line of STH 180 on the right side from Station 200+00 – 209+25.

TWC will install buried facilities 4 feet west of the existing buried gas main on the right side of STH 180 from Station 209+25 – 215+00.

TWC will install buried facilities 2 feet west of the right of way line of STH 180 on the right side from Station 215+00 – 238+50.

TWC will install buried facilities 18 feet west of the right of way line of STH 180 on the right side from Station 238+50 – 242+00.

TWC will install buried facilities 12 feet west of the right of way line of STH 180 on the right side from Station 242+00 – 248+63.

TWC will install buried facilities 2 feet west the right of way line of STH 180 on the right side from Station 248+63 – 272+50.

TWC will install buried facilities 7 feet west of the right of way line of STH 180 on the right side from Station 272+50 – 286+50.

TWC will install buried facilities 1 foot west of the right of way line of STH 180 on the right side from Station 286+50 – 291+50.

TWC will install buried facilities along the right side of STH 180 from Station 291+50 – 296+25.

TWC will install buried facilities 2 feet west of the right of way line of STH 180 on the right side from Station 296+25 – 298+00.

TWC will install buried facilities 15 – 18 feet west of the right of way line of STH 180 on the right side from Station 298+00 – 305+75.

TWC will install buried facilities 2 feet west of the right of way line of STH 180 on the right side from Station 305+75 – 316+25.

TWC will install buried facilities 2 – 64 feet west of the right of way line of STH 180 on the right side from Station 316+25 – 323+50.

TWC will install buried facilities 2 feet west of the right of way line of STH 180 on the right side from Station 323+50 – 327+00.

TWC will install buried facilities 2 -26 feet west of the right of way line of STH 180 on the right side from Station 327+00 – 337+50.

TWC will install buried facilities 2 feet west of the right of way line of STH 180 on the right side from Station 337+50 – 346+00.

TWC will install buried facilities 2 – 32 feet west of the right of way line of STH 180 on the right side from Station 346+00 – 349+00.

TWC will install buried facilities 2 feet west of the right of way line of STH 180 on the right side from Station 349+00 – 395+00.

TWC will install buried facilities 2 – 16 feet west of the right of way line of STH 180 on the right side from Station 395+00 – 398+50.

TWC will install buried facilities 2 feet west of the right of way line of STH 180 on the right side from Station 398+50 – 408+00.

TWC will install buried facilities 2 – 27 feet west of the right of way line of STH 180 on the right side from Station 408+00 – 409+50.

TWC will install buried facilities 2 feet west of the right of way line of STH 180 on the right side from Station 409+50 – 416+00.

TWC will install buried facilities 2 – 28 feet west of the right of way line of STH 180 on the right side from Station 416+00 – 417+00.

TWC will install buried facilities 2 feet west of the right of way line of STH 180 on the right side from Station 417+00 – 419+25.

TWC will install buried facilities 2 feet west of the right of way line of STH 180 on the right side from Station 442+25 – 447+50.

TWC will installed buried facilities crossing STH 180 at the following Stations:

- 125+77, 54 inches below existing grade
- 189+90, 48 inches below existing grade
- 263+87, 60 inches below existing grade
- 268+43, 60 inches below existing grade
- 272+94, 60 inches below existing grade
- 276+89, 60 inches below existing grade
- 326+45, 42 inches below existing grade
- 354+53, 60 inches below existing grade
- 389+98, 84 inches below existing grade
- 444+95, 60 inches below existing grade

This work is anticipated to be completed by June 01, 2016.

Arrange for an observer to be on site during culvert placements by contacting Time Warner Cable 2 weeks prior to performing said placements.

Coordinate with Vince Albin (920-831-9249 or [vince.albin@twcable.com](mailto:vince.albin@twcable.com)) during construction.

**Wisconsin Public Service Corporation (WPSC)** has overhead and buried **electric** facilities throughout the project limits. WPSC will relocate and upgrade the overhead facilities within the project limits.

WPSC will lower the buried electric crossing at the following Stations:

- 127+00
- 132+00
- 261+00
- 317+00
- 371+50

WPSC will install buried electric facilities crossing STH 180 at the following Stations:

- 294+10
- 296+80
- 390+10
- 393+00
- 409+50

This work is anticipated to be completed by June 1, 2016.

Coordinate with Steve Van Campenhout (877-724-4296 or [svacampenhout@wisconsinpublicservice.com](mailto:svacampenhout@wisconsinpublicservice.com)) during construction.

**Wisconsin Public Service Corporation (WPSC)** has **gas** main facilities throughout the project limits.

WPSC will lower the gas main facilities crossing STH 180 at the following Stations:

- 140+00 – 144+00
- 159+00 – 161+00
- 175+00 – 182+00
- 210+00 – 211+00
- 262+00 – 265+00
- 292+00 – 293+00
- 329+00 – 332+00
- 335+00 – 337+00

- 345+00 – 354+00
- 361+00 – 364+00
- 369+00 – 372+00
- 378+00 – 379+00
- 386+00 – 287+00
- 389+00 – 294+00
- 400+00 – 411+00
- 418+00 – 420+00
- 424+00 – 425+00
- 429+00 – 430+00

This work is anticipated to be completed by January 1, 2016.

Coordinate with Howard Sorensen (906-863-4359, 715-923-6806, or [hjsorensen@wisconsinpublicservice.com](mailto:hjsorensen@wisconsinpublicservice.com)) during construction.

### **9670-10-71**

**CenturyLink** has underground **communication** facilities on the left side of STH 180 throughout the project limits.

CenturyLink will install a new underground facility on the left side of STH 180, 45 feet off the centerline from Station 474+50 – Station 479+75.

CenturyLink will discontinue in place the underground facility on the left side of STH 180 from Station 474+50 – Station 479+75.

CenturyLink will install a new underground facility on the left side of STH 180, 49 feet off the centerline from Station 546+74 – Station 550+35 at a depth of 10 feet below existing grade through the cut area for Twin Creek Road.

CenturyLink will install a new pedestal on the left side of STH 180, 49 feet off the centerline at Station 546+74.

CenturyLink will remove the existing pedestal on the left side of STH 180 at Station 548+52.

CenturyLink will lower the existing underground facility on the left side of STH 180 from Station 546+00 – Station 548+55 to a depth of 6 feet below existing grade.

CenturyLink will install a new underground facility on the left side of STH 180, 47 feet off the centerline from Station 546+74 – Station 547+50, continuing on the right side of Twin Creek Road, 2 feet inside the right right-of-way line from Station 59+35 – Station 56+50.

CenturyLink will install a new pedestal on the right side of Twin Creek Road, 2 feet inside the right right-of-way line at Station 56+50.

CenturyLink will discontinue in place the underground facilities on the left side of STH 180 from Station 546+74 – Station 550+75.

CenturyLink will discontinue in place the underground facility that crosses Twin Creek Road from Station 56+50 – Station 59+50.

CenturyLink has an existing underground fiber facility on the left side of STH 180, 47.5 feet off the centerline from Station 556+00 – Station 563+00. No conflict is anticipated.

CenturyLink has an existing underground facility on the left side of STH 180, 48 feet off the centerline from Station 561+10 – Station 563+00. No conflict is anticipated.

CenturyLink will install a new underground facility on the left side of STH 180, 49 feet off the centerline from Station 556+00 – 563+00.

CenturyLink will discontinue in place the underground facility on the left side of STH 180, 27 feet off the centerline from Station 556+00 – Station 563+00.

CenturyLink will relocate their pole on the right side of STH 180 at Station 562+50 northerly outside the slope intercepts.

CenturyLink has an existing underground fiber facility on the left side of STH 180, 49 feet off the centerline from Station 589+50 – Station 592+50. No conflict is anticipated.

CenturyLink will install a new underground facility on the left side of STH 180, 50 feet off the centerline from Station 589+50 – Station 592+50.

CenturyLink will discontinue in place both the underground facilities on the left side of STH 180, 24 feet off the centerline from Station 589+50 – Station 592+50.

CenturyLink will lower the existing underground facilities on the left side of STH 180 from Station 611+85 – Station 611+95 to a depth of 5 feet below existing grade. These facilities will remain under the culvert.

CenturyLink will lower the existing underground fiber facility on the left side of STH 180 from Station 632+50 – edge of asphalt on south side of Winesville Road to a depth of 6 feet below existing grade.

CenturyLink has an existing underground facility crossing at Station 637+50. No conflict is anticipated.

CenturyLink has an existing underground fiber facility at Stations 659+00 and 668+00 where riprap is to be installed. No conflict is anticipated.

CenturyLink will install a new underground facility on the left side of STH 180, 47 feet off the centerline from Station 723+26 – Station 726+81 to a depth of 10 feet below existing grade.

CenturyLink will install new pedestals on the left side of STH 180, 47 feet off the centerline at Station 723+26 and Station 726+81.

CenturyLink has existing underground facilities on the left side of STH 180 at Station 790+60 near the culvert, 41 feet and 48 feet off the centerline. No conflicts are anticipated.

CenturyLink will install a new underground facility on the right side of Park Place Drive starting at the existing pedestal at Station 131+05, 49 feet off the centerline and ending at Station 131+28, 30 feet off the centerline where a new pedestal will be placed.

CenturyLink will remove the existing pedestal on the right side of Park Place Drive at Station 131+24.

CenturyLink will install a new underground facility crossing STH 180 at Station 841+40, starting at the existing pedestal in the southwest quadrant of STH 180 and CTH X, ending at the existing pedestal in the southeast quadrant of STH 180 and Park Place Drive. Depth of new facility will be 6 feet below existing grade on the west side of STH 180 through cut area and maintain a 3 foot depth below existing grade at ditch bottoms.



CenturyLink will lower the existing underground fiber facility to a depth of 6 feet below existing grade starting on the right side of CTH X at Station 129+00, 33 feet off the centerline, continuing east to Station 129+53/841+50, continuing north to Station 842+00 on the left side of STH 180.

CenturyLink will lower the existing underground fiber facility on the left side of STH 180 from Station 843+50 – Station 844+50 to a depth of 6 feet below existing grade.

CenturyLink will discontinue in place the underground facility crossing STH 180 at Station 841+60, starting at the existing pedestal in the southwest quadrant of STH 180 and CTH X, ending at the existing pedestal in the southeast quadrant of STH 180 and Park Place Drive.

CenturyLink will install a new underground facility on the right side of Old Rail Road, 41 feet off the centerline from Station 138+65 – Station 140+00.

CenturyLink will discontinue in place the underground facility on the right side of Old Rail Road, 15 feet off the centerline from Station 138+65 – 140+00.

This work is anticipated to be completed prior to construction.

Coordinate with Patrick Tracy (715-856-9138, 715-927-0970, or [patrick.tracy@centurylink.com](mailto:patrick.tracy@centurylink.com)) during construction.

**Time Warner Cable** has underground **communication** facilities from the intersection of STH 180 and CTH G to 1,650 feet north of the intersection. No conflicts are anticipated.

Coordinate with Vince Albin (920-831-9249, 920-378-0444, or [vince.albin@twcable.com](mailto:vince.albin@twcable.com)) during construction.

**Wisconsin Public Service Corporation (WPSC)** has overhead and underground **electric** facilities throughout the project limits.

WPSC will install a new pole on the right side of STH 180, 45 feet off the centerline at Station 481+83.

WPSC will install a new pole on the right side of STH 180, 45 feet off the centerline at Station 482+53.

WPSC will remove the overhead crossing at Station 485+00.

WPSC will install a new pole on the left side of STH 180, 64 feet off the centerline at Station 548+73.

WPSC will install a new pole on the right side of Twin Creek Road, 39 feet off the centerline at Station 57+47.

WPSC will remove the existing pole on the right side of Twin Creek Road at Station 58+72.

WPSC will install a new anchor in the work zone to the existing pole on the left side of Twin Creek Road at Station 58+72. Work around new anchor.

Work around existing pole on the right side of STH 180, 45 feet off the centerline at Station 561+66.

Work around existing pole on the right side of Shady Lane, 24 feet off the centerline at Station 79+00.

Work around existing pole on the right side of Winesville Road, 27 feet off the centerline at Station 83+85.

WPSC will install a new pole on the right side of STH 180, 45 feet off the centerline at Station 659+44.

WPSC will relocate the existing pole on the left side of STH 180 at Station 661+35 to 50 feet off the centerline.

WPSC will relocate the existing pole on the left side of STH 180 at Station 661+72 to 72 feet off the centerline.

WPSC will remove the existing pole on the right side of Veriha Road, at Station 94+10.

Work around existing pole on the left side of Borderline Road, 19 feet off the centerline at Station 107+63.

Work around existing pole on the right side of STH 180, 39 feet off the centerline at Station 764+00.

Work around existing pole and anchor on the left side of STH 180, 83 feet off the centerline at Station 841+70.

Work around existing pole and anchor on the right side of Park Place Drive, 15 feet off the centerline at Station 131+35.

WPSC will remove the existing pole on the right side of STH 180, 41 feet off the centerline at Station 917+50.

WPSC will install a new pole on the right side of STH 180, 40 feet off the centerline at Station 918+00.

WPSC will install a new pole on the right side of STH 180, 45 feet off the centerline at Station 1015+00.

WPSC will lower the existing underground facility on the right side of Old Rail Road, 24 feet off the centerline at Station 139+00.

WPSC will install a new pole on the left side of STH 180, 49 feet off the centerline at Station 1158+00.

WPSC will install a new pole on the left side of STH 180, 45 feet off the centerline at Station 1266+60.

WPSC will install a new pole on the right side of Four Lakes Road, 43 feet off the centerline at Station 148+78.

WPSC will install a new pole on the right side of STH 180, 46 feet off the centerline at Station 1269+18.

WPSC will install a new pole on the on the right side of STH 180, 30 feet off the centerline at Station 1365+00.

WPSC will install a new pole on the right side of STH 180, 43 feet off the centerline at Station 1433+00.

WPSC will install a new pole on the right side of STH 180, 46 feet off the centerline at Station 1505+00.

WPSC will install a new pole on the right side of STH 180, 49 feet off the centerline at Station 1508+00.

WPSC will install a new pole on the right side of STH 180, 50 feet off the centerline at Station 1511+00.

This work is anticipated to be completed prior to construction.

Coordinate with Steve Van Campenhout (906-863-4358, 715-923-0583, or [SAVanCampenhout@wisconsinpublicservice.com](mailto:SAVanCampenhout@wisconsinpublicservice.com)) during construction.

**Wisconsin Public Service Corporation** has **gas** facilities on the right side of STH 180 from Station 449+00 – Station 718+00. No conflicts are anticipated.

Coordinate with Howard Sorensen (906-863-4359, 715-923-6806, or [hjsorensen@wisconsinpublicservice.com](mailto:hjsorensen@wisconsinpublicservice.com)) during construction.

17. Deleted

29. Deleted

35. **Culvert Pipe Liners, 30 -Inch, Item 520.9700.S.01.; 87-Inch x 63-Inch, Item 520.9700.S.02.; Cleaning Culvert Pipes for Liner Verification, Item 520.9750.S.**

**A Description**

This special provision describes providing and pressure grouting culvert pipe liners for circular culverts and pipe arch culverts.

**B Materials**

**B.1 General**

Provide flow calculations at the preconstruction conference. Use contractor-proposed liner properties, the Manning's coefficients listed on the department's approved products list, and base calculations on existing culvert sizes and liner sizes the plans show. Ensure that pipes when lined have a capacity within ±5% of the original full flow capacity of the pipe.

**B.2 30-Inch Pipe Liner**

Use liners with a Manning's coefficient value published on the department's approved products list. Upon delivery provide manufacturer certificates of compliance certifying that the liners conform to the following:

Pipe Type	ASTM Designation	ASTM D3350 Resin
<b>High Density Polyethylene (HDPE)</b> Profile Wall Pipe Solid Wall Pipe	F894	345463C
	F714	345463C
<b>Polyvinylchloride (PVC)</b>	F949	---

**B.3 87-Inch x 63-Inch Pipe Arch Liner**

Provide pipe arch liner 87-Inch x 63-Inch with a corrugated steel outer shell and a smooth interior liner providing a Manning roughness coefficient "n" of 0.012 or less. Smooth interior liner shall consist of 18 gauge steel. Outer shell shall consist of 12 gauge steel and shall have 3-inch x 1-inch corrugations. Furnish pipe material from galvanized steel meeting the requirements of AASHTO M218 and ASTM A 929. Before fabrication, coat the sheets on both sides with polymer protective coating grade 250/250 according to AASHTO M 246.

Pipe shall meet the requirements of AASHTO M 245, ASTM A762, and ASTM A 760.

Factory install 2-inch grout ports in the pipe wall spaced every 10 feet along the length of the pipe. Position grout ports such that grouting occurs in stages, each stage allows for the grouting of 1/3 of the pipe.

Grout ports shall be welded with a coupling. Plugs shall be inserted into group ports after grouting is complete.

Factory install ports in the top of the pipe to allow for the insertion of vertical jacks hold liner down and prevent floating during grouting. Spacing of ports to be determined by the manufacturer.

#### **B.4 Grout**

Provide grout consisting of:

- One part of type I or II portland cement
- Three parts sand conforming to standard spec 501.2.5.
- Water to achieve required fluidity.

Alternatively the contractor may use an engineer-approved commercial cellular concrete grout conforming to the following:

Cement	ASTM C150	Type I or II
Density	ASTM C495 (no oven drying)	50 pcf min
Compressive Strength	ASTM C495	300 psi @ 28 day min 100 psi in 24 hours
Shrinkage	ASTM	1% by volume
Flow	ASTM C939	35 sec max

### **C Construction**

#### **C.1 General**

As soon as possible after contract execution, survey existing culvert pipes to determine which culverts need cleaning in order to verify the required liner diameter and length. Notify the engineer before cleaning to confirm payment under the Cleaning Culvert Pipes for Liner Verification bid item.

Pre-installation meeting: A mandatory pre-installation meeting shall be conducted with a representative of the pipe manufacturer, grout supplier, the contractor, and the department prior to the liner installation. Provide to the engineer a dewatering plan. Grouting is not allowed until the dewatering plan has been approved by the engineer in writing. Dewatering is incidental to the liner installation.

Coordinate with the engineer to field verify culvert diameter and length, shape, material, and condition before ordering the liners.

During all work stages, including hauling, storing and installation, avoid damage to the polymer coating. Store polymer coated pipe arch liner on padded supports and protect them from other objects placed against them by using padding at all touch points. Use padded slings and other devices to handle and install the polymer-coated objects. Repair damaged polymer coating with polymer coating similar to and compatible with the original coating, or with a tar base material or asphaltic mastic conforming to AASHTO M 243.

Before installing the liner, clean the pipe with high pressure water blasting and substantially dry. Remove all debris and other materials from the original pipe so that the inserted liner will not be resting on or against nor be irregularly support by such materials. Attachment of guide rails to the original pipe

will be allowed to help slide the liner into position. If used, guide rails shall be placed to allow grout to fill annular space under the liner.

Bulkhead the ends of the pipe prior to grouting. Remove bulkheads once grout has sufficiently hardened.

After the pipe arch liner is in place, use grout ports to fill the annular space between the original pipe and the pipe liner. Install vertical jacks along the length of the pipe per the manufacturer's recommendation to keep the pipe from floating during grouting.

### **C.2 Excavating and Cleaning**

Before inserting the liner, clean and dry the pipe. Excavate and pump as required to remove debris and other materials that would interfere with the placement or support of the inserted liner. Dispose of and replace unserviceable endwalls as the engineer directs.

### **C.3 Placing Liners**

Unload liners using slings and boom-type trucks or equivalents. Do not use chains or wire rope to handle liners and do not dump liners from the trucks when unloading.

Connect joints conforming to the manufacturer's recommendations.

### **C.4 Pressure Grouting**

After the liner is in place, fill the area between the original pipe and the liner completely with grout to provide uniform space between the liner and the original pipe. Block, grout in lifts, install vertical jacks, or otherwise secure liners to prevent floatation associated while grouting.

Use a grout plant that is capable of accurately measuring, proportioning, mixing, and discharging by volume and at discharge pressures the liner manufacturer recommends. Do not exceed manufacturer-specified maximum pressures. The contractor may place grout in lifts to prevent exceeding maximum allowable pressures.

### **C.4 Site Restoration**

Replace pipe sections damaged or collapsed during installation or grouting operations. Restore the grade to its original or improved cross section. Properly dispose of waste material.

### **D Measurement**

The department will measure the Culvert Pipe Liners and Pipe Arch Liners bid items by the linear foot measured in place for each culvert location, acceptably completed.

The department will measure Cleaning Culvert Pipes for Liner Verification as each culvert, acceptably cleaned. The department will only measure culverts the engineer approves for payment.

### **E Payment**

The department will pay for measured quantities at the contract unit price under the following bid item:

ITEM NUMBER	DESCRIPTION	UNIT
520.9700.S.01	Culvert Pipe Liners 30-Inch	LF
520.9700.S.02	Culvert Pipe Liners 87-Inch x 63-Inch	LF
520.9750.S	Cleaning Culvert Pipes for Liner Verification	EACH

Payment for the Culvert Pipe Liners and Pipe Arch Liner bid items is full compensation for providing pipe liners; for excavation and pumping; for cleaning the existing pipe before liner installation; for pressure grouting; for replacing contractor-damaged pipe and endwalls; and for restoring the grade and disposing of waste materials.

The department will pay the contractor \$150 per cubic yard for grout required in excess of 110 percent of the theoretical quantity required to fill the space between the inside diameter of the existing pipe and the outside diameter of the liner.

Payment for Cleaning Culvert Pipes for Liner Verification is full compensation for cleaning required to verify liner length and diameter; for excavation and pumping; and for disposing of waste material.

The department will pay separately for replacing unserviceable endwalls not rendered unserviceable by contractor operations under the appropriate contract endwall bid item, or absent the appropriate item as extra work.

### **36. Design Model Data**

The department will provide design model data for projects 9670-09-71 & 9670-10-71. The data provided is for the bidder's general knowledge only and is not a part of the contract. The department assumes no responsibility for discrepancies between the data provided and the contract documents.

The department will provide design model data before the project let date within 5 business days of a contractor request submitted by email to Ken Baierl at [kenneth.baierl@dot.wi.gov](mailto:kenneth.baierl@dot.wi.gov).

The design model data consists of the following:

1. Field Control data, LandXML v1.2 file
2. Reference line alignments and proposed profile information, LandXML v1.2 file
3. Surface models in LandXML v1.2, and in AutoCAD DWG files containing 3D face objects representing surface TIN triangles of surface models as follows:
  - a. Existing ground surface
  - b. Ultimate top surface
    - i. Top of topsoil outside the roadway subgrade shoulder points extended to the slope intercepts.
    - ii. Top of shoulder and top of pavement within the roadway subgrade.
  - c. Ultimate datum surface
    - i. Top of topsoil outside the roadway subgrade shoulder points extended to the slope intercepts.
    - ii. Subgrade surface within the roadway subgrade shoulder points.
  - d. Ultimate top of subbase surface
  - e. Ultimate base course surface
4. Right of Way in LandXML v1.2 files right of way and easement line as alignments.
5. Slope stake report
6. Proposed surface model longitudinal breaklines, 3D in AutoCAD DWG file
7. Surface Model outer boundaries, 3D in AutoCAD DWG file
8. Superelevation transition information in a comma separated value (csv) text file.
9. Proposed roadway features, 2D in AutoCAD DWG files
10. Existing topographic mapping, 2D in AutoCAD DWG files
11. Metadata information

### **Schedule of Items**

Attached, dated February 2, 2016, are the revised Schedule of Items Pages 2 and 4.

### **Plan Sheets**

The following 8½ x 11-inch sheets are attached and made part of the plans for this proposal:  
Revised: 55 and 205

END OF ADDENDUM

Addendum No. 01  
 ID 9670-09-71  
 Revised Sheet 55  
 February 2, 2016

**OBLITERATING OLD ROAD**

STATION	TO	STATION	LOCATION	STA
100+38	-	101+40	NETTLETON RD (E)	1.8
198+72	-	199+12	OAK RD	0.4
199+43	-	199+60	OAK RD	0.2
<b>TOTAL</b>				<b>2.4</b>

NOTE: STATIONING LISTED FOR THIS ITEM IS ALONG PROPOSED ALIGNMENTS.  
 OBLITERATION QUANTITY IS ESTIMATED OFF THE OLD ROADWAY ALIGNMENT.

**BASE AGGREGATE DENSE 3/4-INCH**

STATION	TO	STATION	LOCATION	TON	REMARKS
305.0110					
108+55 (BK)	-	105+00 (AH)	STH 180	2,502	SHOULDERS
108+55 (BK)	-	105+00 (AH)	STH 180	58	DRIVEWAYS (APPROX 3 LOCATIONS)
105+00 (AH)	-	179+23	STH 180	4,792	SHOULDERS
105+00 (AH)	-	179+23	STH 180	440	DRIVEWAYS (APPROX 22 LOCATIONS)
179+23	-	206+30	STH 180	1,711	SHOULDERS
179+23	-	206+30	STH 180	55	DRIVEWAYS (APPROX 4 LOCATIONS)
206+30	-	244+89	STH 180	2,362	SHOULDERS
206+30	-	244+89	STH 180	211	DRIVEWAYS (APPROX 12 LOCATIONS)
244+89	-	265+92	STH 180	1,269	SHOULDERS
244+89	-	265+92	STH 180	110	DRIVEWAYS (APPROX 5 LOCATIONS)
265+92	-	346+25	STH 180	5,173	SHOULDERS
265+92	-	346+25	STH 180	470	DRIVEWAYS (APPROX 26 LOCATIONS)
346+25	-	355+48	STH 180	551	SHOULDERS
346+25	-	355+48	STH 180	63	DRIVEWAYS (APPROX 3 LOCATIONS)
355+48	-	378+96	STH 180	1,421	SHOULDERS
355+48	-	378+96	STH 180	80	DRIVEWAYS (APPROX 4 LOCATIONS)
378+96	-	449+00	STH 180	4,439	SHOULDERS
378+96	-	449+00	STH 180	624	DRIVEWAYS (APPROX 29 LOCATIONS)
108+55 (BK)	-	449+00	SIDEROADS	1,291	SHOULDERS
108+55 (BK)	-	449+00	SIDEROADS	37	DRIVEWAYS (APPROX 2 LOCATIONS)
<b>TOTAL</b>				<b>27,659</b>	

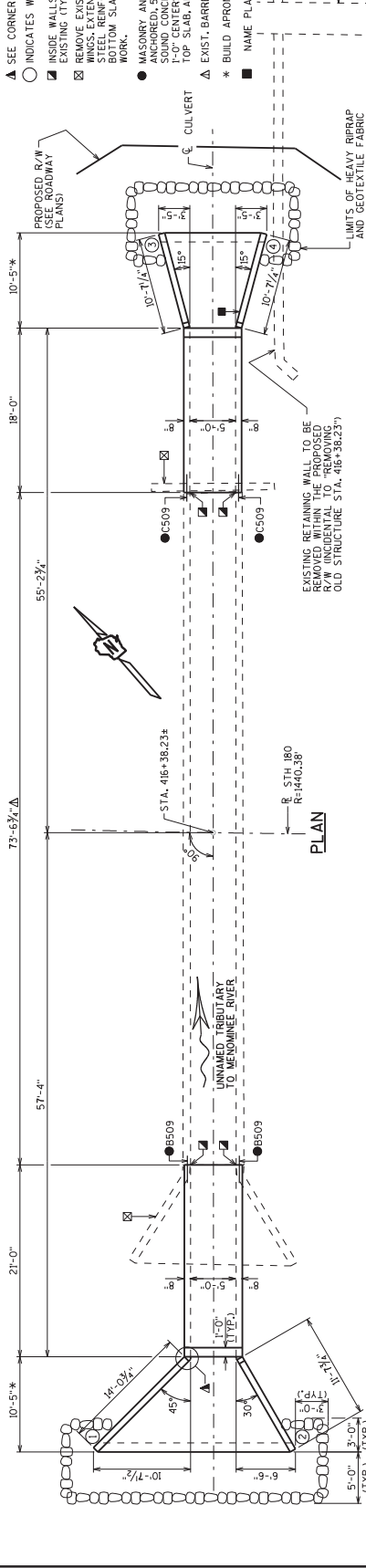
**FINISHING ROADWAY**

STATION	TO	STATION	LOCATION	EACH
108+55 (BK)	-	449+00	STH 180	1
<b>TOTAL</b>				<b>1</b>

**BASE AGGREGATE DENSE 1 1/4-INCH**

STATION	TO	STATION	LOCATION	TON	REMARKS
305.0120					
128+47 (BK)	-	106+99 (AH)	STH 180	68	BASE FOR ASPHALT PAST 17 RT
129+49 (BK)	-	106+39 (AH)	STH 180	103	BASE FOR ASPHALT PAST 17 LT
105+99 (AH)	-	110+99 (AH)	STH 180	36	ADDITNL BASE FOR SE CORRECTION
114+44 (AH)	-	119+34 (AH)	STH 180	66	ADDITNL BASE FOR SE CORRECTION
134+40	-	136+60	STH 180	137	CURB BASE
155+25	-	163+37	STH 180	34	ADDITNL BASE FOR SE CORRECTION
239+50	-	242+50	STH 180	412	SCHOOL BUS PULLOVER LANE, LT. & RT
249+59	-	254+68	STH 180	32	ADDITNL BASE FOR SE CORRECTION
309+77	-	316+77	STH 180	70	ADDITNL BASE FOR SE CORRECTION
363+12	-	369+01	STH 180	92	ADDITNL BASE FOR SE CORRECTION
367+95	-	370+95	STH 180	206	SCHOOL BUS PULLOVER LANE, LT
380+50	-	383+50	STH 180	206	SCHOOL BUS PULLOVER LANE, RT
392+93	-	397+40	STH 180	36	ADDITNL BASE FOR SE CORRECTION
406+53	-	410+90	STH 180	88	ADDITNL BASE FOR SE CORRECTION
416+11	-	429+53	STH 180	64	ADDITNL BASE FOR SE CORRECTION
441+74	-	449+00	STH 180	658	BYPASS LANE, RT
446+17	-	449+00	STH 180	248	SB RIGHT TURN LANE
108+55 (BK)	-	449+00 (AH)	STH 180	2,500	UNDISTRIBUTED FOR ROADWAY
108+55 (BK)	-	449+00 (AH)	STH 180	2,420	6" ASPH DWY BASE (APPROX 110 LOCATIONS)
8+35	-	9+83	SEQUIN RD	377	
15+17	-	16+27	RIVER OAKS DR	324	
18+69	-	19+83	POPPLE RD	318	
98+25	-	99+83	NETTLETON RD (W)	394	
100+17	-	102+57	NETTLETON RD (E)	520	
24+52	-	24+83	EVANCHECK LN	70	
28+73	-	29+83	WOODVIEW LN	308	
197+50	-	199+83	OAK RD	526	
32+10	-	35+00	CTHG	660	
<b>TOTAL</b>				<b>10,973</b>	

NOTE: STRUCTURE BACKFILL REQUIRED BEHIND ALL WING WALLS.



Addendum No. 01  
ID 9670-09-71  
Revised Sheet 205  
February 2, 2016

- LIST OF DRAWINGS**
1. LAYOUT
  2. INLET EXTENSION
  3. OUTLET EXTENSION
  4. APRON DETAILS
  5. DETAILS
  6. SUBSURFACE EXPLORATION

STRUCTURE DESIGN CONTACTS:

NICK RICE 16081 266-5092  
ARON BOK 16081 261-0261

NO.	DATE	CHANGED BAR	STEEL QUANTITY	NAR	BY
1/14					

Prepared by **WISDOT**  
BUREAU OF STRUCTURES  
10/1/15

ACCEPTED: *William C. Duda*  
CHIEF STRUCTURES DESIGN ENGINEER DATE

STRUCTURE C-38-639

5TH IBO OVER UNNAMED TRB. TO MEMORIEE RIVER

DESIGN SPEC. MARINETTE TOWNSHIP PORTERFIELD COUNTY

DESIGNED: NAR (C.D.) DRAWN: NAR (C.D.) CHECKED: NAR (C.D.)

LAYOUT SHEET 1 OF 6  
205

**GENERAL NOTES**

DRAWINGS SHALL NOT BE SCALED.  
BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2" CLEAR UNLESS SHOWN OR NOTED OTHERWISE.  
THE UPPER LIMITS OF EXCAVATION FOR STRUCTURES CULVERTS SHALL BE BACKFILLED WITH STRUCTURE TYPE HR (TYP.) ON TOP SLAB OVER ALL CONSTRUCTION JOINTS AND EXTEND DOWN TO BOTTOM OF OUTSIDE WALLS.  
THE CONCRETE IN THE CUTOFF WALLS MAY BE PLACED UNDERWATER IF THE EXCAVATION CANNOT BE DEMATERED.  
PLACE A 8" MINIMUM WIDE SHEET OF RUBBERIZED MEMBRANE WATERPROOFING ON TOP SLAB OVER ALL CONSTRUCTION JOINTS AND EXTEND DOWN TO BOTTOM OF OUTSIDE WALLS.  
THE CONTRACTOR MAY FURNISH A PRECAST CONCRETE BOX CULVERT IN THE SHOP DRAWINGS BY THE STRUCTURES DESIGN SECTION. THE PRECAST CONCRETE BOX CULVERT SHALL CONFORM TO PRECAST DETAILS ON CHAPTER 36. STANDARDS OF THE CURRENT WISC. DOT BRIDGE MANUAL. QUANTITIES AND PRICES BID FOR THE ITEMS LISTED IN THE "TOTAL ESTIMATED QUANTITIES".  
CONTRACTOR SHALL SELECT TO SUBSTITUTE #1 OR #2 CONCRETE COARSE AGGREGATE, SELECT CRUSHED MATERIAL OR OTHER GRANULAR MATERIALS FOR USE IN THE CONSTRUCTION PLATFORM FOR THE BOX. THE CONTRACTOR IS RESPONSIBLE FOR BASE STABILITY WITH ANY SUBSTITUTED MATERIAL.

**TOTAL ESTIMATED QUANTITIES**

ITEMS	QTY	UNIT	PRICE	AMOUNT
REMOVING OLD STRUCTURE STA. 416+38.23	1	LS		
EXCAVATION FOR STRUCTURES CULVERTS C-38-639	250	CY		
BACKFILL STRUCTURE	30	CY		
BREAKER RUN	43	EACH		
MASONRY ANCHORS TYPE S 5/8-INCH	3,550	LB		
CONCRETE MASONRY CULVERTS	38	CY		
BAR STEEL REINFORCEMENT HS STRUCTURES	760	LB		
BAR STEEL REINFORCEMENT HS COATED STRUCTURES	20	CY		
RUBBERIZED MEMBRANE WATERPROOFING	65	SY		
RIPPAP HEAVY				
GEOTEXTILE FABRIC TYPE C				
GEOTEXTILE FABRIC TYPE HR				
NON-BID ITEMS				
FILLER	3/4"	SIZE		

**DESIGN DATA**

LIVE LOAD: DESIGN LOADING: HL-93  
OPERATING RATING FACTOR: RF=1.05  
WISCONSIN STANDARD PERMIT VEHICLE (MS-SPV): 255 (KIPS)  
EARTHLOAD: DESIGNED FOR 11.0 FT. OF FILL.

MATERIAL PROPERTIES:  
CONCRETE MASONRY GRADE A-F-A  $f'_c = 3500$  P.S.I.  
HIGH STRENGTH BAR STEEL REINFORCEMENT -  $f_y = 60000$  P.S.I.

**TRAFFIC VOLUME**

5TH IBO  
A.D. = 4,800 (2033)  
R.D.S. = 50 W.P.H.

**HYDRAULIC DATA**  
100 YEAR FREQUENCY  
0.00 = 100 C.F.S.  
2 YEAR FREQUENCY  
0.2 = 30 C.F.S.  
HW = EL. 615.48  
OVERTOPPING ROWWAY = N/A



## SCHEDULE OF ITEMS

REVISED:

CONTRACT:  
20160209029PROJECT(S):  
9670-09-71  
9670-10-71FEDERAL ID(S):  
WISC 2015644  
WISC 2015645

CONTRACTOR : \_\_\_\_\_

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE		BID AMOUNT	
			DOLLARS	CTS	DOLLARS	CTS
0100	206.2000 Excavation for Structures Culverts (structure) 01. C-38-639	LUMP	LUMP			.
0110	208.1100 Select Borrow	838.000 CY	.		.	.
0120	210.0100 Backfill Structure	250.000 CY	.		.	.
0130	211.0400 Prepare Foundation for Asphaltic Shoulders	755.000 STA	.		.	.
0140	213.0100 Finishing Roadway (project) 01. 9670-09-71	1.000 EACH	.		.	.
0150	213.0100 Finishing Roadway (project) 02. 9670-10-71	1.000 EACH	.		.	.
0160	214.0100 Obliterating Old Road	11.200 STA	.		.	.
0170	305.0110 Base Aggregate Dense 3/4-Inch	44,435.000 TON	.		.	.
0180	305.0120 Base Aggregate Dense 1 1/4-Inch	17,773.000 TON	.		.	.
0190	305.0500 Shaping Shoulders	751.000 STA	.		.	.
0200	311.0110 Breaker Run	680.000 TON	.		.	.

## SCHEDULE OF ITEMS

REVISED:

CONTRACT:  
20160209029PROJECT(S):  
9670-09-71  
9670-10-71FEDERAL ID(S):  
WISC 2015644  
WISC 2015645

CONTRACTOR : \_\_\_\_\_

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE		BID AMOUNT	
			DOLLARS	CTS	DOLLARS	CTS
0310	460.4110.S Reheating HMA Pavement Longitudinal Joints	152,892.000 LF	.		.	
0320	465.0110 Asphaltic Surface Patching	140.000 TON	.		.	
0330	465.0120 Asphaltic Surface Driveways and Field Entrances	1,483.000 TON	.		.	
0340	465.0315 Asphaltic Flumes	274.000 SY	.		.	
0350	465.0425 Asphaltic Shoulder Rumble Strips 2-Lane Rural	102,203.000 LF	.		.	
0360	465.0475 Asphalt Center Line Rumble Strips 2-Lane Rural	52,231.000 LF	.		.	
0370	502.6105 Masonry Anchors Type S 5/8-Inch	43.000 EACH	.		.	
0380	504.0100 Concrete Masonry Culverts	38.000 CY	.		.	
0390	505.0400 Bar Steel Reinforcement HS Structures	3,550.000 LB	.		.	
0400	505.0600 Bar Steel Reinforcement HS Coated Structures	760.000 LB	.		.	
0410	516.0500 Rubberized Membrane Waterproofing	18.000 SY	.		.	