**Special Provisions**

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STSP’S Revised November 30, 2016

**SPECIAL PROVISIONS**

1. General.

Perform the work under this construction contract for Project 4530-06-72, USH 45-ECL, Long Lake Box Culvert, Fond Du Lac County, Wisconsin as the plans show and execute the work as specified in the State of Wisconsin, Department of Transportation, Standard Specifications for Highway and Structure Construction, 2017 Edition, as published by the department, and these special provisions.

If all or a portion of the plans and special provisions are developed in the SI metric system and the schedule of prices is developed in the US standard measure system, the department will pay for the work as bid in the US standard system.

100-005 (20161130)

1. Scope of Work.

The work under this contract shall consist of grading, base aggregate dense, HMA pavement, remove small pipe culverts, Structure C-20-162, stream restoration and all incidental items necessary to complete the work as shown on the plans and included in the proposal and contract.

104-005 (20090901)

1. Prosecution and Progress.

Begin work within ten calendar days after the engineer issues a written notice to do so.

Provide the time frame for construction of the project within the 2017 construction season to the engineer in writing within a month after executing the contract but at least 14 calendar days before the preconstruction conference. Assure that the time frame is consistent with the contract completion time. Upon approval, the engineer will issue the notice to proceed within ten calendar days before the beginning of the approved time frame.

To revise the time frame, submit a written request to the engineer at least two weeks before the beginning of the intended time frame. The engineer will approve or deny that request based on the conditions cited in the request and its effect on the department’s scheduled resources.

1. Traffic.

STH 67 will be closed to through traffic during construction operations under this contract. A detour route will start at the intersection of STH 67 & CTH F, continue along CTH F, CTH A, and STH 67 and tie back into the intersection of STH 67 & CTH G / CTH B will be signed and marked as part of this contract.

**Wisconsin Lane Closure System Advance Notification**

Provide the following advance notification to the engineer for incorporation into the Wisconsin Lane Closure System (LCS).

**TABLE 108-1 CLOSURE TYPE AND REQUIRED MINIMUM ADVANCE NOTIFICATION**

|  |  |
| --- | --- |
| Closure type with height, weight, or width restrictions (available width, all lanes in one direction < 16’) | MINIMUM NOTIFICATION |
| Lane and shoulder closures | 7 calendar days |
| Full roadway closures | 7 calendar days |
| Ramp closures | 7 calendar days |
| Detours | 7 calendar days |
|  | |
| Closure type without height, weight, or width restrictions (available width, all lanes in one direction ≥16’) | MINIMUM NOTIFICATION |
| Lane and shoulder closures | 3 business days |
| Ramp closures | 3 business days |
| Modifying all closure types | 3 business days |

Discuss LCS completion dates and provide changes in the schedule to the engineer at weekly project meetings in order to manage closures nearing their completion date.

stp-108-057 (20161130)

1. Utilities.

There are utility facilities within the construction limits of this project. Coordinate construction activities with a call to Diggers Hotline or a direct call to the utilities for the underground facilities in the area, as required per statutes. Take all required precautions when working within 18-inches of underground utilities. Use caution to maintain the integrity of underground utilities and maintain OSHA code clearances from overhead facilities at all times.

Additional detailed information regarding the location of utility facilities is available at the region WisDOT office during normal working hours.

**Alliant Energy (electricity) -** has an overhead facility along the left project limits.

Alliant Energy overhead facility will remain in place during construction. Coordinate dates and duration to de-energize the overhead facility.

Contact Alliant Energy 5 working days prior to de-energize the line the first time, then contact Alliant Energy 3 working days prior to de-energize the line for subsequent work. The line cannot be de-energized for a period longer than 4 consecutive days nor can it be de-energized Friday, Saturday or Sunday from mid-May through early-September.

The field contact for this project is Lisa Klemme, (920) 322-6651, (608) 219-1502 mobile, [lisaklemme@alliantenergy.com](mailto:lisaklemme@alliantenergy.com).

**Frontier Communications of WI LLC (communication line) -** has an overhead facility along the left project limits. No conflicts are anticipated with this project.

The field contact for this project is Ryan Osness, (920) 893-7455, (920) 246-3530 mobile, [ryan.d.osness@ftr.com](mailto:ryan.d.osness@ftr.com).

**Wisconsin Public Service Corporation (gas/petroleum) -** has an underground facility along the left project limits and an underground facility crossing at approximate station 1846+85.

Wisconsin Public Service Corporation will place a new 2 inch gas line beginning at station 1846+25 LT and ending at station 1848+10 LT. A new service crossing will be installed at station 1856+65. The existing gas lines will be discontinued in place. This work has an anticipated start date of April 01, 2017 with an estimated 4 working days.

The field contact for this project is Mike Lowther, (920) 849-7903, (920) 946-3198 mobile, [mllowther@wisconsinpublicservice.com](mailto:mllowther@wisconsinpublicservice.com).

1. Information to Bidders, U.S. Army Corps of Engineers Non-Reporting Permit

This project falls under the non-reporting permit from the US Army Corps of Engineers. Comply with the requirements of the permit in addition to requirements of the special provisions.

1. Environmental Protection

**Fish Spawning**

There shall be no instream disturbance of Tributary to Long Lake as a result of construction activity under or for this contract, from March 1 to May 15 both dates inclusive, in order to avoid adverse impacts upon the spawning of rare fish.

Any change to this limitation will require submitting a written request by the contractor to the engineer, subsequent review and concurrence by the Department of Natural Resources in the request, and final approval by the engineer. The approval will include all conditions to the request as mutually agreed upon by WisDOT and DNR.

Fish (20090901)

**Northern Long-eared Bat** (*Myotis septentrionalis*)

Northern Long-eared Bats (NLEB) have the potential to inhabit the project limits because they roost in trees. Roosts may not have been observed on this project, but conditions to support the species exist. The species and all active roosts are protected by the Federal Endangered Species Act. If an individual bat or active roost is encountered during construction operations, stop work and notify the engineer and the WisDOT Regional Environmental Coordinator (REC).

The department has contracted with others to cut all trees for this project prior to construction. Remove any downed trees and grub the stumps and any remaining vegetation within the identified grubbing limits.

If additional trees need to be removed, no clearing shall occur without prior approval from the engineer, following coordination with the WisDOT REC. Additional tree removal beyond the area originally specified will require consultation with the United States Fish and Wildlife Service (USFWS) and may require a bat presence/absence survey. Notify the engineer if additional clearing cannot be avoided to begin coordination with the WisDOT REC. The WisDOT REC will initiate consultation with the USFWS and determine if a survey is necessary.

Submit a schedule and description of clearing operations with the ECIP 14 days prior to any clearing operations. The department will determine, based on schedule and scope of work, what additional erosion control measures shall be implemented prior to the start of clearing operations, and list those additional measures in the approval letter for the ECIP.

1. Environmental Protection, By-Pass Pumping

*Supplement subsection 107.18 of the standard specifications as follows:*

If by-pass pumping is required, the means and methods proposed to be used during construction shall be submitted for approval as part of the Erosion Control Implementation Plan for each location it is required. The submittal shall include how the intake will be managed to not cause an increase in the background level turbidity during pumping; equipment pumping rate capabilities; discharge energy dissipation; and erosion controls. For by-pass pumping that will extend beyond one working day, the submittal should also include how the work zone will be managed and protected should the pump fail; be shut down due to unacceptable water quality; or storm water flows exceed the pumping rate of equipment. After setup of the approved by-pass pumping operation, the contractor shall demonstrate that the means and methods will pump the water at an acceptable water quality prior to starting work that necessitates the by-pass pumping. The cost of all work and materials associated with by-pass pumping is incidental to the bid items the work is associated with. Erosion control devices beyond the discharge energy dissipation point will be paid for at the contract unit prices for the items that are included in the plan.

(NER 11-0711)

1. Environmental Protection, Dewatering

*Supplement subsection 107.18 of the standard specifications as follows:*

If dewatering is required, treat the water to remove suspended sediments by filtration, settlement or other appropriate best management practice prior to discharge. The means and methods proposed to be used during construction shall be submitted for approval as part of the Erosion Control Implementation Plan for dewatering at each location it is required. The submittal shall also include the details of how the intake will be managed to not cause an increase in the background level turbidity prior to treatment and any additional erosion controls necessary to prevent sediments from reaching the project limits or wetlands and waterways. Guidance on dewatering can be found on the Wisconsin Department of Natural Resources website located in the Storm Water Construction Technical Standards, Dewatering Code #1061, “Dewatering”. This document can be found at the WisDNR website: <http://dnr.wi.gov/topic/stormwater/standards/const_standards.html>

The cost of all work and materials associated with water treatment and/or dewatering is incidental to the bid items the work is associated.

(NER12-1010)

1. Erosion Control Structures.

Within seven calendar days after the commencement of work on the culvert walls, place all permanent erosion control devices, including riprap, erosion mat, ditch checks, seed, fertilizer, mulch, soil stabilizer, or any other item required by the contract or deemed necessary by the engineer. These devices shall be in place on both sides of the roadway, from the waterway to a point 10-feet from the back of the culvert wing walls. Within said limits, place these devices to a height equivalent to the calculated water elevation resulting from a storm that occurs on the average of once every two years (Q2) as shown on the plan, or as directed by the engineer. Prior to initial construction operations, place turbidity barriers, silt screens, and other temporary erosion control measures as shown on the plans, and remove them after the permanent erosion control devices are in place unless directed otherwise by the engineer.

In the event that construction activity does not disturb the existing ground below the Q2 elevation, the above timing requirements for permanent erosion control shall be waived.

107-070 (20030820)

1. Erosion Control.

*Supplement standard spec 107.20 with the following:*

Attend a Pre-ECIP meeting to review erosion control for the project. The meeting will be organized by the WisDOT project engineer.

*Delete the last sentence of standard spec 107.20(7) and replace it with the following:*

Provide the permanent erosion control measures immediately after performing grading operation , unless temporary erosion control measures are specified or authorized by the engineer.

1. Cofferdams

*Supplement standard spec 206.3.3 with the following:*

Provide riprap underlain by the appropriate geotextile fabric at the upstream side of the cofferdam to prevent streambed scour. The bypass pump intake must be able to screen aquatic life from the pump. Establish the pumping rate to maintain the normal water level immediately upstream of the pumping.

1. QMP Base Aggregate.

**A Description**

**A.1 General**

(1) This special provision describes contractor quality control (QC) sampling and testing for base aggregates, documenting those test results, and documenting related production and placement process changes. This special provision also describes department quality verification (QV), independent assurance (IA), and dispute resolution.

(2) Conform to standard spec 301, standard spec 305, and standard spec 310 as modified here in this special provision. Apply this special provision to material placed under all of the Base Aggregate Dense and Base Aggregate Open Graded bid items, except do not apply this special provision to material classified as reclaimed asphaltic pavement placed under the Base Aggregate Dense bid items.

(3) Do not apply this special provision to material placed and paid for under the Aggregate Detours, Breaker Run, Select Crushed, Pit Run, Subbase, or Riprap bid items.

(4) Provide and maintain a quality control program, defined as all activities related to and documentation of the following:

1. Production and placement control and inspection.

2. Material sampling and testing.

(5) Chapter 8 of the department’s construction and materials manual (CMM) provides additional detailed guidance for QMP work and describes required sampling and testing procedures. The contractor may obtain the CMM from the department’s web site at:

<http://wisconsindot.gov/Pages/doing-bus/eng-consultants/cnslt-rsrces/rdwy/default.aspx>

**A.2 Small Quantities**

(1) The department defines a small quantity, for each individual Base Aggregate bid item, as a contract quantity of 9000 tons or less of material as shown in the schedule of items under that bid item.

(2) The requirements under this special provision apply equally to a small quantity for an individual bid item except as follows:

**A.2.1 Quality Control Plan**

(1) Submit an abbreviated quality control plan consisting of the following:

1. Organizational chart including names, telephone numbers, current certification(s) with HTCP number(s) and expiration date(s), and roles and responsibilities of all persons involved in the quality control program for material under affected bid items.

**A.2.2 Contractor Testing**

1.

|  |  |
| --- | --- |
| **Contract Quantity** | **Minimum Required Testing per source** |
| ≤ 6000 tons | One stockpile test prior to placement, and two production or one loadout test. |
| > 6000 tons and ≤ 9000 tons | One stockpile and Three placement tests[3] [4] [5] |

[1] Submit production test results to the engineer for review prior to incorporating the material into the work. Production test results are valid for a period of 3 years.

[2] If the actual quantity overruns 6,000 tons, on the next day of placement perform one randomly selected placement test for each 3000 tons, or fraction of 3000 tons, of overrun.

[3] If the actual quantity overruns 9000 tons, on the next day of placement perform one randomly selected placement test for each 3000 tons, or fraction of 3000 tons, of overrun.

[4] For 3-inch material or lift thickness of 3-inch or less, obtain samples at load-out.

[5] Divide the aggregate into uniformly sized sublots for testing

2. Stockpile testing for concrete pavement recycled in place will be sampled on the first day of production.

3. Until a four point running average is established, individual placement tests will be used for acceptance. Submit aggregate load-out and placement test results to the engineer within one business day of obtaining the sample. Assure that all properties are within the limits specified for each test.

4. Material represented by a sublot with any property outside the specification limits is nonconforming. The department may reject material or otherwise determine the final disposition of nonconforming material as specified in standard spec 106.5.

**A.2.3 Department Testing**

(1) The department will perform testing as specified in B.8 except as follows:

* Department stockpile verification testing prior to placement is optional for contract quantities of 500 tons or less.

**B Materials**

**B.1 Quality Control Plan**

(1) Submit a comprehensive written quality control plan to the engineer at or before the pre‑construction meeting. Do not place base before the engineer reviews and comments on the plan. Construct the project as that plan provides.

(2) Do not change the quality control plan without the engineer’s review. Update the plan with changes as they become effective. Provide a current copy of the plan to the engineer and post in each of the contractor’s laboratories as changes are adopted. Ensure that the plan provides the following elements:

1. An organizational chart with names, telephone numbers, current certifications and/or titles, and roles and responsibilities of QC personnel.

2. The process used to disseminate QC information and corrective action efforts to the appropriate persons. Include a list of recipients, the communication means that will be used, and action time frames.

3. A list of source and processing locations, section and quarter descriptions, for all aggregate materials requiring QC testing.

4. Test results for wear, sodium sulfate soundness, freeze/thaw soundness, and plasticity index of all aggregates requiring QC testing. Obtain this information from the region materials unit or from the engineer.

5. Descriptions of stockpiling and hauling methods.

6. Locations of the QC laboratory, retained sample storage, and where control charts and other documentation is posted.

7. An outline for resolving a process control problem. Include responsible personnel, required documentation, and appropriate communication steps.

**B.2 Personnel**

(1) Have personnel certified under the department’s highway technician certification program (HTCP) perform sampling, testing, and documentation as follows:

|  |  |
| --- | --- |
| **Required Certification Level:** | **Sampling or Testing Roles:** |
| Transportation Materials Sampling Technician (TMS)  Aggregate Technician I (AGGTEC-I)  Aggregate Assistant Certified Technician (ACT-AGG) | Aggregate Sampling[1] |
| Aggregate Technician I (AGGTEC-I)  Aggregate Assistant Certified Technician (ACT-AGG) | Aggregate Gradation Testing, Aggregate Fractured Particle Testing, Aggregate Liquid Limit and Plasticity Index Testing |

[1] Plant personnel under the direct observation of an aggregate technician certified at level one or higher may operate equipment to obtain samples.

(2) A certified technician must coordinate and take responsibility for the work an ACT performs. Have a certified technician ensure that all sampling and testing is performed correctly, analyze test results, and post resulting data. No more than one ACT can work under a single certified technician.

**B.3 Laboratory**

(1) Perform QC testing at a department-qualified laboratory. Obtain information on the Wisconsin laboratory qualification program from:

Materials Management Section

3502 Kinsman Blvd.

Madison, WI 53704

Telephone: (608) 246-5388

<http://wisconsindot.gov/Pages/doing-bus/eng-consultants/cnslt-rsrces/tools/appr-prod/qual-labs.aspx>

**B.4 Quality Control Documentation**

**B.4.1 General**

(1) Submit base aggregate placement documentation to the engineer within 10 business days after completing base placement. Ensure that the submittal is complete, neatly organized, and includes applicable project records and control charts.

**B.4.2 Records**

(1) Document all placement observations, inspection records, and control adjustments daily in a permanent field record. Also include all test results in the project records. Provide test results to the engineer within one business day after obtaining a sample. Post or distribute tabulated results using a method mutually agreeable to the engineer and contractor.

**B.4.3 Control Charts**

(1) Plot gradation and fracture on the appropriate control chart as soon as test results are available. Format control charts according to CMM 8.30. Include the project number on base placement control charts. Maintain separate control charts for each base aggregate size, source or classification, and type.

(2) Provide control charts to the engineer within one business day after obtaining a sample. Post or distribute charts using a method mutually agreeable to the engineer and contractor. Update control charts daily to include the following:

1. Contractor individual QC tests.

2. Department QV tests.

3. Department IA tests.

4. Four-point running average of the QC tests.

(3) Except as specified under B.8.2.1 for nonconforming QV placement tests, include only QC placement tests in the running average. The contractor may plot process control or informational tests on control charts, but do not include these tests, conforming QV tests, or IA tests in the running average.

**B.5 Contractor Testing**

(1) Test gradation, fracture, liquid limit and plasticity index during placement for each base aggregate size, source or classification, and type.

(2) Perform one stockpile test from each source prior to placement.

(3) Test gradation once per 3000 tons of material placed or fraction thereof. Determine random sample locations and provide those sample locations to the engineer. Obtain samples after the material has been bladed, mixed, and shaped but before compacting; except collect 3‑inch samples or lift thickness of 3-inch or less from the stockpile at load‑out. Do not sample from material used to maintain local traffic or from areas of temporary base that will not have an overlying pavement. On days when placing only material used to maintain local traffic or only temporary base that will not have an overlying pavement, no placement testing is required.

(4) Split each contractor QC sample and identify it according to CMM 8.30. Retain the split for seven calendar days in a dry, protected location. If requested for department comparison testing, deliver the split to the engineer within one business day.

(5) The engineer may require additional sampling and testing to evaluate suspect material or the technician’s sampling and testing procedures.

(6) Test fracture for each gradation test until the fracture running average is above the lower warning limit. Subsequently, the contractor may reduce the frequency to one test per 10 gradation tests if the fracture running average remains above the warning limit.

(7) Test the liquid limit and plasticity index for the first gradation test. Subsequently, test the liquid limit and plasticity index a minimum of once per 10 gradation tests.

**B.6 Test Methods**

**B.6.1 Gradation**

(1) Test gradation using a washed analysis conforming to the following as modified in CMM 8.60:

Gradation AASHTO T 27

Material finer than the No. 200 sieve AASHTO T 11

(2) For 3-inch base, if 3 consecutive running average points for the percent passing the No. 200 sieve are 8.5 percent or less, the contractor may use an unwashed analysis. Wash at least one sample out of 10. If a single running average for the percent passing the No. 200 sieve exceeds 8.5 percent, resume washed analyses until 3 consecutive running average points are again 8.5 percent passing or less.

(3) Maintain a separate control chart for each sieve size specified in standard spec 305 or standard spec 310 for each base aggregate size, source or classification, and type. Set control and warning limits based on the standard specification gradation limits as follows:

1. Control limits are at the upper and lower specification limits.

2. There are no upper warning limits for sieves allowing 100 percent passing and no lower control limits for sieves allowing 0 percent passing.

3. Dense graded warning limits, except for the No. 200 sieve, are 2 percent within the upper and lower control limits. Warning limits for the No. 200 sieve are set 0.5 percent within the upper and lower control limits.

4. Open graded warning limits for the 1-inch, 3/8-inch, and No. 4 sieves are 2 percent within the upper and lower control limits. Upper warning limits for the No. 10, No. 40, and No. 200 sieves are 1 percent inside the upper control limit.

**B.6.2 Fracture**

(1) Test fracture conforming to CMM 8.60. The engineer will waive fractured particle testing on quarried stone.

(2) Maintain a separate fracture control chart for each base aggregate size, source or classification, and type. Set the lower control limit at the contract specification limit, either specified in another special provision or in table 301-2 of standard spec 301.2.4.5. Set the lower warning limit 2 percent above the lower control limit. There are no upper limits.

**B.6.3 Liquid Limit and Plasticity**

(1) Test the liquid limit and plasticity according to AASHTO T 89 and T 90.

(2) Ensure the material conforms to the limits specified in standard spec table 301-2.

**B.7 Corrective Action**

**B.7.1 General**

(1) Consider corrective action when the running average trends toward a warning limit. Take corrective action if an individual test exceeds the contract specification limit. Document all corrective actions both in the project records and on the appropriate control chart.

**B.7.2 Placement Corrective Action**

(1) Do not blend additional material on the roadbed to correct gradation problems.

(2) Notify the engineer whenever the running average exceeds a warning limit. When two consecutive running averages exceed a warning limit, the engineer and contractor will discuss appropriate corrective action. Perform the engineer’s recommended corrective action and increase the testing frequency as follows:

1. For gradation, increase the QC testing frequency to at least one randomly sampled test per 1000 tons placed.

2. For fracture, increase the QC testing frequency to at least one test per gradation test.

(3) If corrective action improves the property in question such that the running average after four additional tests is within the warning limits, the contractor may return to the testing frequency specified in B.5.3. If corrective action does not improve the property in question such that the running average after four additional individual tests is still in the warning band, repeat the steps outlined above starting with engineer notification.

(4) If the running average exceeds a control limit, material starting from the first running average exceeding the control limit and ending at the first subsequent running average inside the control limit is nonconforming and subject to pay reduction.

(5) For individual test results significantly outside the control limits, notify the engineer, stop placing base, and suspend other activities that may affect the area in question. The engineer and contractor will jointly review data, data reduction, and data analysis; evaluate sampling and testing procedures; and perform additional testing as required to determine the extent of potentially unacceptable material. The engineer may direct the contractor to remove and replace that material. Individual test results are significantly outside the control limits if meeting one or more of the following criteria:

1. A gradation control limit for the No. 200 sieve is exceeded by more than 3.0 percent.

2. A gradation control limit for any sieve, except the No. 200, is exceeded by more than 5.0 percent.

3. The fracture control limit is exceeded by more than 10.0 percent.

**B.8 Department Testing**

**B.8.1 General**

(1) The department will conduct verification testing to validate the quality of the product and independent assurance testing to evaluate the sampling and testing. The department will provide the contractor with a listing of names and telephone numbers of all QV and IA personnel for the project, and provide test results to the contractor within two business days after the department obtains the sample.

**B.8.2 Verification Testing**

**B.8.2.1 General**

(1) The department will have an HTCP technician, or ACT working under a certified technician, perform QV sampling and testing. Department verification testing personnel must meet the same certification level requirements specified in B.2 for contractor testing personnel for each test result being verified. The department will notify the contractor before sampling so the contractor can observe QV sampling.

(2) The department will conduct QV tests of each base aggregate size, source or classification, and type during placement conforming to the following:

1. Perform one stockpile test from each source prior to placement.

2. At least one random test per 30,000 tons, or fraction of 30,000 tons, placed.

(3) The department will sample randomly, at locations independent of the contractor’s QC work, collecting one sample at each QV location. The department will collect QV samples after the material has been bladed, mixed, and shaped but before compacting; except, for 3-inch aggregates or for a lift thickness of 3-inch or less, the department will collect samples at load-out. The department will split each sample, test half for QV, and retain half.

(4) The department will conduct QV tests in a separate laboratory and with separate equipment from the contractor’s QC tests. The department will use the same methods specified for QC testing.

(5) The department will assess QV results by comparing to the appropriate specification limits. If QV test results conform to the specification, the department will take no further action. If QV test results are nonconforming, add the QV to the QC test results as if it were an additional QC test.

**B.8.3 Independent Assurance**

(1) Independence assurance is unbiased testing the department performs to evaluate the department’s QV and the contractor’s QC sampling and testing including personnel qualifications, procedures, and equipment. The department will perform an IA review according to the department’s independent assurance program. That review may include one or more of the following:

1. Split sample testing.

2. Proficiency sample testing.

3. Witnessing sampling and testing.

4. Test equipment calibration checks.

5. Reviewing required worksheets and control charts.

6. Requesting that testing personnel perform additional sampling and testing.

(2) If the department identifies a deficiency, and after further investigation confirms it, correct that deficiency. If the contractor does not correct or fails to cooperate in resolving identified deficiencies, the engineer may suspend placement until action is taken. Resolve disputes as specified in B.9.

**B.9 Dispute Resolution**

(1) The engineer and contractor should make every effort to avoid conflict. If a dispute between some aspect of the contractor’s and the engineer’s testing program does occur, seek a solution mutually agreeable to the project personnel. The department and contractor may review the data, examine data reduction and analysis methods, evaluate sampling and testing procedures, and perform additional testing. Use ASTM E 178 to evaluate potential statistically outlying data.

(2) Production test results, and results from other process control testing, may be considered when resolving a dispute.

(3) If the project personnel cannot resolve a dispute, and the dispute affects payment or could result in incorporating non-conforming product, the department will use third party testing to resolve the dispute. The department’s central office laboratory, or a mutually agreed on independent testing laboratory, will provide this testing. The engineer and contractor will abide by the results of the third party tests. The party in error will pay service charges incurred for testing by an independent laboratory. The department may use third party test results to evaluate the quality of questionable materials and determine the appropriate payment. The department may reject material or otherwise determine the final disposition of nonconforming material as specified in standard spec 106.5.

**C (Vacant)**

**D (Vacant)**

**E Payment**

(1) Costs for all sampling, testing, and documentation required under this special provision are incidental to this work. If the contractor fails to perform the work required under this special provision, the department may reduce the contractor’s pay. The department will administer pay reduction under the non-performance of QMP administrative item.

(2) For material represented by a running average exceeding a control limit, the department will reduce pay according to CMM 8-10.6.2 for the affected Base Aggregate bid items listed in subsection A. The department will administer pay reduction under the Nonconforming QMP Base Aggregate Gradation or Nonconforming QMP Base Aggregate Fracture Administrative items. The department will determine the quantity of nonconforming material as specified in B.7.2.

stp-301-010 (20161130)

1. Architectural Surface Treatment C-20-162, Item 517.1050.S.

**A Description**

Construct a concrete masonry architectural surface treatment on the exposed concrete surfaces of the structure, as detailed in the plans and as hereinafter provided.

**B Materials**

Use form liners that attach easily to the forming system, and do not compress more than ¼-inch when poured at a rate of 10 vertical feet/hour.

Use a release agent that is compatible with the form liner and coloring materials.

Wall ties shall have set “break-backs” at a minimum of ¾-inches from the finished concrete surface.

**C Construction**

**C.1 Equipment**

Equipment and tools necessary for performing all parts of the work shall be satisfactory as to design, capacity, and mechanical condition for the purposes intended. Repair, improve, replace, or supplement all equipment that is not maintained in full working order, or which is proven inadequate to obtain the results prescribed.

**C.2 Form Liner Preparation**

Clean the form liner prior to each pour and ensure that it is free of any build-up. Visually inspect each liner for blemishes or tears, and repair if necessary per manufacturer’s recommendations.

Apply form release per manufacturer’s recommendations.

**C.3 Form Liner Attachment**

Place adjacent liners less than ¼-inch from each other, attach liner securely to forms in accordance to the manufacturer’s recommendations, and coordinate wall ties with form liner and form manufacturer, e.g., diameter, size, and frequency.

**C.4 Surface Finishing**

Ensure that the textured surface is free of laitance; sandblasting is not permitted.

Grind or fill pouring blemishes.

**D Measurement**

The department will measure Architectural Surface Treatment (Structure) in area by the square foot of architectural surface acceptably completed.

**E Payment**

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

|  |  |  |
| --- | --- | --- |
| ITEM NUMBER | DESCRIPTION | UNIT |
| 517.1050.S | Architectural Surface Treatment C-20-162 | SF |

Payment is full compensation for producing the proposed architectural surface treatment including: preparing the foundation; finishing and protecting the surface treatment; and for properly disposing of surplus material.

stp-517-150 (20110615)

1. Riprap

*Delete Section 606.2.1(3) from the Standard Specification and replace with the following:*

The contractor may not substitute waste concrete slabs for stone.

1. Temporary Ditch Checks

*Delete standard spec 628.3.14(2) and replace it with the following:*

Construct temporary ditch checks using a manufactured alternative from the PAL and that is approved by the engineer. Place temporary ditch checks between the edge of the creek and the proposed wetland grading area, as shown in the plans and in the temporary ditch check detail, or as the engineer directs prior to beginning work on the proposed wetland grading area.

1. Seismograph, Item 999.1000.S.

**A Description**

This special provision describes furnishing a seismograph(s) and employing trained operators to monitor construction-induced vibrations on buildings/structures, and submittal of all required documentation.

**B Material**

Use seismographs conforming to Wisconsin Department of Safety and Professional Services (SPS) 307.43, Wisconsin Administrative Code that are continuous data recorders supplied with all the accessories necessary for making vibration and noise monitoring observations.

**C Construction**

Conduct monitoring procedures conforming to SPS 307.44 and as follows: Take seismograph readings prior to construction activities to establish an ambient or background index.

During construction, place seismograph to monitor all vibration-inducing construction activities or as directed by the engineer. At a minimum utilize one seismograph. If more than one major construction activity per day is taking place, multiple seismographs may be required. Place the seismograph on a stable surface within 3 feet of the building/structure nearest to the construction operation. Provide data recorded for each vibration occurrence to the engineer which includes the following:

1. Identification of vibration monitoring instrument used.
2. Description of equipment used by the contractor.
3. Name of qualified observer and interpreter.
4. Distance and direction of recording station from the vibration area.
5. Type of ground at recording station and material on which the instrument is sitting.
6. Peak particle velocity and principal frequency in each component.
7. A dated and signed copy of records of seismograph readings.
8. A comparison of measured seismograph readings to maximum allowable readings identified in SPS 307.43 or as specified in this special provision.

If construction activities generate ground vibration in excess of the peak particle velocity limits as shown in SPS 307.44, stop the construction operation in progress and implement alternate construction methods to produce results within the allowable peak particle velocity limits.

**D Measurement**

The department will measure Seismograph as a single complete lump sum unit of work, acceptably completed.

**E Payment**

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

|  |  |  |
| --- | --- | --- |
| ITEM NUMBER | DESCRIPTION | UNIT |
| 999.1000.S | Seismograph | LS |

Payment is full compensation for furnishing and operating a seismograph(s), any operator(s), and for producing documentation reports

stp-999-005 (20161130)

1. Removing Old Structure Over Waterway Station 1+95, Item 203.0500.S.

Conform to standard spec 203 as modified in this special provision.

*Add the following to standard spec 203:*

**203.3.6 Removals Over Waterways and Wetlands**

**203.3.6.1 Removing Old Structure Over Waterway**

(1) Remove the existing structure over the Tributary to Long Lakeconforming to the contractor’s approved structure removal and clean-up plan. Remove all reinforcing steel, all concrete, and all other debris that falls into the waterway or wetland. Remove large pieces of the structure within 36 hours. The contractor may leave limited amounts of small concrete pieces scattered over the waterway floor or wetland only if the engineer allows.

(2) Submit a structure removal and clean-up plan as part of the erosion control implementation plan required under standard spec 107.20. Do not start work under the structure removal and clean-up plan without the department’s written approval of the plan. Include the following information in the structure removal and clean-up plan:

1. Methods and schedule to remove the structure.
2. Methods to control potentially harmful environmental impacts.
3. Methods for removing piers and abutments. If blasting in water, include restrictions that regulatory agencies and the contract require.
4. Methods for cleaning the waterway or wetlands.

(3) If stockpiling spoil material, place it on an upland site an adequate distance from the waterway, wetland, or any open water created by excavation. Install silt fence between the spoil pile and the waterway, wetland, or excavation site.

*Add the following Removing Old Structure bid item to standard spec 203.5.1:*

|  |  |  |
| --- | --- | --- |
| ITEM NUMBER | DESCRIPTION | UNIT |
| 203.0500.S | Removing Old Structure Over Waterway Station 1+95 | LS |

stp-203-015 (20090105)

1. Removing Pipe Culvert Headwall, Item 204.9060.S.01

**A  Description**

This special provision describes removing pipe culvert headwall in accordance to the pertinent provisions of standard spec 204 and as hereinafter provided.

**B  (Vacant)**

**C  (Vacant)**

**D  Measurement**

The department will measure Removing Pipe Culvert Headwall as the existing inlet concrete and stone headwall acceptably completed.

**E  Payment**

*Add the following to standard spec 204.5:*

|  |  |  |
| --- | --- | --- |
| ITEM NUMBER | DESCRIPTION | UNIT |
| 204.9060.S.01 | Removing Pipe Culvert Headwall | EACH |

204-025 (20150630)

1. Removing Pipe Culvert Concrete Wingwall, Item 204.9060.S.02

**A  Description**

This special provision describes removing pipe culvert concrete wingwall in accordance to the pertinent provisions of standard spec 204 and as hereinafter provided.

**B  (Vacant)**

**C  (Vacant)**

**D  Measurement**

The department will measure Removing Concrete Pipe Culvert End Walls as all concrete at the outlet of the existing pipe culverts acceptably completed.

**E  Payment**

*Add the following to standard spec 204.5:*

|  |  |  |
| --- | --- | --- |
| ITEM NUMBER | DESCRIPTION | UNIT |
| 204.9060.S.02 | Removing Pipe Culvert Concrete Wingwall | EACH |

204-025 (20150630)

1. Crack and Damage Survey, Item 999.1500.S.

**A Description**

This special provision describes conducting a crack and damage survey of the residences and business located at

Michael T. Samens

N4097 State Road 67, Campbellsport WI

Thomas and Rachel Gahan

N44101 State Road 67, Campbellsport WI

This Crack and Damage Survey shall consist of two parts. The first part, performed prior to construction activities, shall include a visual inspection, photographs, and a written report describing the existing defects in the building(s) being inspected. The second part, performed after the construction activities, shall also include a visual inspection, photographs, and written report describing any change in the building’s condition.

**B (Vacant)**

**C Construction**

Prior to any construction activities, thoroughly inspect the building structures for existing defects, including interior and exterior walls. Submit a written report of the inspector’s name, date of inspection, descriptions and locations of defects, and photographs. The intent of the written report and photographs is to procure a record of the general physical condition of the building’s interior and exterior walls and foundation. The report shall be typed on bond paper and be in text form.

The photographs shall be taken by a professional photographer capable of producing sharp, grain free, high-contrast colored pictures with good shadow details. The photographs shall be 3½ inch by 5 inch color prints, glossy, and mounted in protective storage pages with clear slip-in pockets and clear background. Each sheet shall hold four prints. The back of each photograph shall contain the following information:

ID

Building Location

View looking

Date

Photographer

Prior to the start of any construction activities pertinent to this survey, submit a copy of the written report and photographs to the engineer.

After the construction activities are complete, conduct another survey in the same manner, take photographs, and submit another written report to the engineer.

In lieu of photographs, a professional videographer may be hired to use a video camera capable of producing a video with the clarity required to perform this work.

**D Measurement**

The department will measure Crack and Damage Survey as single complete unit of work.

**E Payment**

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

|  |  |  |
| --- | --- | --- |
| ITEM NUMBER | DESCRIPTION | UNIT |
| 999.1500.S | Crack and Damage Survey | LS |

Payment is full compensation for providing the before and after written reports, and for photographs or video.

stp-999-010 (20130615)

1. Streambed Material, Item SPV.0035.01

**A Description**

This section describes the materials needed and the construction process for the relocated stream bed.

**B Materials**

Streambed Material shall consist of a layer of topsoil covered with a blend of Cobble Stone and Sand.

Cobble Stone shall consist of field stone screened from Pit Run Material that is generally less than 16 inches. Any rock larger than the layer thickness may be removed and used for the Native Round Field Stone Item or placed at the outside 2 feet of the Streambed Section to form the stream bank as directed by the engineer. If all stones larger than layer thickness can’t be utilized, as directed by the engineer on site, they shall be returned to their source. The name and location of the source of material for the Cobble Stone shall be submitted with the ECIP. The Engineer will inspect the material and approve the material based on visual inspection.

Topsoil must conform to Section 625 of the Standard Specifications

Sand shall be from a local source or screened from Pit Run Material in general conformance with Fine Aggregate Section 501.2.5.3 of the Standard Specifications. The name and location of the source of material for the Sand shall be submitted with the ECIP. The Engineer will inspect the material and approve the material based on visual inspection.

**C Construction**

Loosely place 3 inches of topsoil in the proposed excavation to the elevation shown in the plans and cross sections. Place the Cobble Stone material over the Topsoil. Larger rocks shall be moved to the outside of the Streambed Material Section as directed by the engineer. Seat the cobblestone into the topsoil by tamping, using hydraulic excavating equipment to press the cobblestone into place or by utilizing the weight of the construction equipment. Grade the material to reflect the proposed cross sections, plan and profile, and grading planalong the stream bed. Spread a layer of fine aggregate on the stream bed and flush it into the Cobble Stone material by utilizing water from the existing stream or other process acceptable to the engineer. Continue until the sand fills in the voids in the rock as depicted in the construction detail as directed by the engineer.

Follow this same process when placing the light riprap and streambed material in the culvert.

Provide information on the means and methods to place and flush Streambed Material as part of the ECIP for approval to minimize impact to the environment. Do not release the water used for flushing directly into the lake. Submit information for dewatering wash water per article ### Environmental Protection Dewatering.

**D Measurement**

The department will measure Streambed Material by the cubic yard acceptable completed.

**E Payment**

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

|  |  |  |
| --- | --- | --- |
| ITEM NUMBER | DESCRIPTION | UNIT |
| SPV.0035.01 | Streambed Materials | CY |

Payment for Streambed Materials is full compensation for providing Cobble Stone,   
Sand, Topsoil, hauling, placing, shaping and flushing the streambed materials, and dewatering the washout water.

1. Installing Fish Passage Monitoring Antennae, SPV.0060.03

**A Description**

This section describes requirements for installing the fish passage monitoring antennae into the streambed at the locations shown on the plans or as directed by the engineer.

**B Materials**

B.1 Fish Passage Antennae

Fish Passage Antennae shall be provided by others. The antennae are installed inside stiff plastic tubing approximately 2-inches in diameter, and are 10-feet long by 3-feet high.

B.2 Wood Posts

Wood posts shall be 4” x 4” x 7‘untreated white oak posts. The posts shall be 4 sides surfaced and either beam and stringer grade or structural joist and plank grade material with a minimum stress grade rating of 1200 fb at 19 percent maximum moisture content.

**C Construction**

Place the Fish Passage Monitoring Antennae in the stream at the locations shown on the plans or as directed by the Engineer. Locate the lower section of the antennae as shown on the plans. Place a wood post at each side of the antennae and attach the antennae to the wood post using plastic zip ties. Do not bury the antennae into the bed material.

**D Measurement**

The department will measure Installing Fish Passage Monitoring Antennae by the unit.

**E Payment**

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

ITEM NUMBER DESCRIPTION UNIT

SPV.0060.03 Installing Fish Passage Monitoring Antennae EA

Payment for Installing Fish Passage Monitoring Antennae is full compensation for installing the Fish Passage Monitoring Antennae. The wood posts and zip ties are incidental to the completion of the work.

1. Rock Weir Structure, SPV.0090.01

**A Description**

This section describes the construction of the Rock Weir Structures in the stream bed.

**B Materials**

The rock for weirs shall range in size from 5-inches to 9-inches for the longest dimension.

The stones shall be durable and of suitable quality to assure permanence in the Wisconsin climate. The rock shall be sound and dense, free from cracks, seams and other defects that would tend to increase deterioration from weathering, freezing and thawing, or other natural causes. The rock shall be angular to sub-rounded in shape, and shall be approved by the engineer prior to placement.

**C Construction**

Place the rock weir stones according to the plan, and only at the direction of the engineer. Do not dump the rock in place.

The smaller material may be incorporated into the bank key.

Embed the stones around the scour pool into the stream bed to a depth of 0.5 feet below the depth of the scour pool. This may require an additional course of rock in that area.

**D Measurement**

The department will measure Rock Weir Structures by the linear foot.

**E Payment**

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

|  |  |  |
| --- | --- | --- |
| ITEM NUMBER | DESCRIPTION | UNIT |
| SPV.0090.01 | Rock Weir Structure | LF |

Payment for Rock Weir Structure is full compensation for providing, hauling, placing, and embedding the Rock Weir Structure.

1. Salvaged Limestone Blocks, SPV.0105.01

**A Description**

**B Materials**

**C Construction**

**D Measurement**

**E Payment**

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

|  |  |  |
| --- | --- | --- |
| ITEM NUMBER | DESCRIPTION | UNIT |
| SPV.0105.01 | Salvaged Limestone Blocks | LS |

Payment for Salvaged Limestone is full compensation for

1. Septic Tank Crack and Damage Survey, SPV.0105.02

**A Description**

**B Materials**

**C Construction**

**D Measurement**

**E Payment**

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

|  |  |  |
| --- | --- | --- |
| ITEM NUMBER | DESCRIPTION | UNIT |
| SPV.0105.02 | Septic Tank Crack and Damage Survey | LS |

Payment for Septic Tank Crack and Damage Survey is full compensation for

1. Placing Limestone Blocks, SPV.0165.01

**A Description**

**B Materials**

**C Construction**

**D Measurement**

The department will measure Placing Limestone Blocks by the square foot.

**E Payment**

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

|  |  |  |
| --- | --- | --- |
| ITEM NUMBER | DESCRIPTION | UNIT |
| SPV.0165.01 | Placing Limestone Blocks | SF |

Payment for Placing Limestone Blocks is full compensation for