Wisconsin Department of Transportation

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

February 25, 2015

NOTICE TO ALL CONTRACTORS:

Proposal #19: **1110-10-71, WISC 2015 129**
Waupun – Rosendale
Neitman Rd – ½ Mi N Willow Creek Rd
STH 26
Fond du Lac County

1114-09-71, WISC 2015 130
Waupun - Rosendale
Cattaraugus Dr – STH 23
STH 26
Fond du Lac County

1114-10-71, WISC 2015 131
Rosendale – North County Line
STH 23 – CTH FF
STH 26
Fond du Lac County

Letting of March 10, 2015

This is Addendum No. 1, which provides for the following:

Special Provisions

Revised Special Provisions	
Article No.	Description
3	Prosecution and Progress
4	Traffic
5	Holiday Work Restrictions

Added Special Provisions	
Article No.	Description
47	Hot Mix Asphalt Test Strip, Item SPV.0105.01
48	High Recycle HMA Pavement Type E-10, Item SPV.0195.03
Appendix A	Test Procedures for High Recycle HMA Pavement Type E-10

Schedule of Items

Revised Bid Item Quantities – ID 1110-10-71					
Bid Item	Item Description	Unit	Old Quantity	Revised Quantity	Proposal Total
606.0100	Riprap Light	CY	20	25	25
646.0406	Pavement Marking Same Day Epoxy 4-Inch	LF	0	6,930	157,930

Revised Bid Item Quantities – ID 1114-09-71					
Bid Item	Item Description	Unit	Old Quantity	Revised Quantity	Proposal Total
455.0105	Asphaltic Material PG 58-28	TON	4,290	3,660	7,260
460.1110	HMA Pavement Type E-10	TON	79,060	66,400	133,470
643.0300	Traffic Control Drums	DAYS	34,500	35,250	74,850
643.0900	Traffic Control Signs	DAYS	7,200	7,500	17,670
646.0406	Pavement Marking Same Day Epoxy 4-Inch	LF	4,070	85,290	157,930
SPV.0195.02	QMP Base Aggregate Dense 1 ¼-Inch Compaction	TON	0	11,950	34,830

Revised Bid Item Quantities – ID 1114-10-71					
Bid Item	Item Description	Unit	Old Quantity	Revised Quantity	Proposal Total
643.0300	Traffic Control Drums	DAYS	31,200	31,800	74,850
643.0900	Traffic Control Signs	DAYS	8,970	9,240	17,670
646.0406	Pavement Marking Same Day Epoxy 4-Inch	LF	4,110	65,710	157,930
SPV.0195.02	QMP Base Aggregate Dense 1 ¼-Inch Compaction	TON	0	7,480	34,830

Added Bid Item Quantities – ID 1114-09-71					
Bid Item	Item Description	Unit	Old Quantity	Revised Quantity	Proposal Total
SPV.0105.01	Hot Mix Asphalt Test Strip	LS	0	1	1
SPV.0195.03	High Recycle HMA Pavement Type E-10	TON	0	12,660	12,660

Plan Sheets

Revised Plan Sheets	
Plan Sheet	Plan Sheet Title (brief description of changes to sheet)
10	Proposed Typical Sections – Changed HMA layer thicknesses and note use of High Recycle HMA Pavement Type E-10 from STA 380+00 to STA 485+00
11	Proposed Typical Sections – Changed HMA layer thicknesses
12	Proposed Typical Sections – Change HMA layer thicknesses
13	Proposed Typical Sections – Change HMA layer thicknesses
14	Proposed Typical Sections – Change HMA layer thicknesses
110	Miscellaneous Quantities—Revised QMP Base Aggregate Dense 1 ¼-Inch Compaction quantities to be used for all Base Aggregate Dense 1 /4-Inch
111	Miscellaneous Quantities—Revised HMA pavement quantities to incorporate use of High Recycle HMA Pavement Type E-10
132	Miscellaneous Quantities—Revised quantities for Traffic Control Drums and Traffic Control Signs
139	Miscellaneous Quantities—Revised quantities for Pavement Marking Same Day Epoxy 4-Inch

Other

Revise the contract time for completion from September 3, 2015 to September 18, 2015.

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. 1

PROJECT ID 1110-10-71, 1114-09-71, and 1114-10-71

February 25, 2015

Special Provisions

3. Prosecution and Progress.

Delete the entire Prosecution and Progress article and replace with the following:

Provide the start date to the engineer in writing within a month after executing the contract but at least 14 calendar days before the preconstruction conference. Upon approval, the engineer will issue the notice to proceed within ten calendar days before the approved start date.

To revise the start date, submit a written request to the engineer at least two weeks before the intended start date. 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.

The contract time for completion is based on an expedited work schedule and may require extraordinary forces and equipment.

The completion of grading and HMA paving prior to suspension of operations in the fall of 2015 is based on the expedited work schedule and may require extraordinary forces and equipment.

Perform all work within the Village of Rosendale between June 15, 2015 and September 3, 2015, which is outside of the school year.

Maintain access to the driveway at STA 132+38 LT until the landowner has constructed a new access onto Willow Creek Road. The new driveway will be constructed by June 1, 2015.

Complete construction operations on STH 26 to the stage necessary to reopen it to through traffic prior to 12:01 AM September 4, 2015. Do not reopen until completing the following work: removals, clearing, grubbing, common excavation, grading, shaping shoulders, HMA pavement, concrete pavement, vehicle classification site, sidewalk, curb and gutter, culvert pipes, storm sewer, beam guard, centerline pavement marking, and permanent signing.

Replace standard spec 108.10.2.2(1) as follows:

(1) The engineer will award a time extension for severe weather on calendar day and completion date contracts. Submit a request for severe weather days if the number of adverse weather days, as defined in standard spec 101.3, exceeds the anticipated number of adverse weather days tabulated below.

Total Anticipated Adverse Weather Days for Each Calendar Month

Mar	31	Aug	6
April	8	Sept	4
May	7	Oct	5
June	7	Nov 1 through 15	2
July	6	Nov 16 through 30	15

Supplement standard spec 108.11 as follows:

If the contractor fails to complete the work necessary to reopen STH 26 to through traffic prior to 12:01 AM September 4, 2015, the department will assess the contractor $10,000 in interim liquidated damages for each calendar day that the roadway remains closed after 12:01 AM, September 4,

2015. An entire calendar day will be charged for any period of time within a calendar day that the road remains closed beyond 12:01 AM.

If contract time expires prior to completing all work specified in the contract, additional liquidated damages will be affixed according to standard spec 108.11.

4. Traffic.

Replace paragraph 1 with the following:

Close STH 26 to through traffic. A detour utilizing USH 151 and USH 41 will be provided under this contract. Reopen STH 26 to through traffic prior to 12:01 AM September 4, 2015.

5. Holiday Work Restrictions.

Add the following paragraphs:

Do not perform work on, nor haul materials of any kind along or across any portion of the highway carrying STH 26 traffic, and entirely clear the traveled way and shoulders of such portions of the highway of equipment, barricades, signs, lights, and any other material that might impede the free flow of traffic during the following holiday periods:

- From noon Friday, September 4, 2015 to 6:00 AM Tuesday, September 8, 2015;
- Green Bay Packers home games after September 4, 2015: From five hours prior to game until five hours after the game.

47. Hot Mix Asphalt Test Strip, Item SPV.0105.01.

A Description

This item is intended to compensate the contractor for the construction of the test strip. Payment for HMA mixture placed on the project as part of the test strip will be compensated by the High Recycle HMA Pavement Type E-10 SPV bid item.

This special provision describes the Hot Mix Asphalt (HMA) testing and tolerances required for an HMA Test Strip. An HMA Test Strip is required for projects greater than 5000 tons or more. Each mix type (i.e. E-10 19.0mm mix) within that project, which requires greater than 3000 tons or more, will be subject to an HMA Test Strip, unless a previous HMA Test Strip was successfully passed within the same paving season.

B (Vacant)

C Construction

C.1 On-site Test Strip
Notify the department at least 48 hours in advance of construction of the test strip. On the first day of production of each new mix design requiring a test strip, produce up to a maximum of 600 ton of HMA and cease production until the required testing is completed. Test strips shall be located in a section of the roadway to allow a representative (i.e. not a ramp or shoulder etc.) rolling pattern. The contractor is allowed up to 1 on-site test strip per mix type. Any additional test strips needed per mix type will be off-site.

C.1.2 Off-Site Test Strip
The construction of an off-site test strip is at the contractor's convenience and will not be compensated by this bid item. Notify the department at least 48 hours in advance of construction of

the test strip, as the department must be present for the test strip to be valid. The location of the off-site test strip will be mutually agreed upon by the contractor and department. Off-site is defined as not within the limits of the current WisDOT project. The chosen off-site location may be on a non-WisDOT project and shall be located in a section of the roadway to allow a representative rolling pattern. Produce a minimum of 300 tons of the mix design requiring a test strip.

C.2.1 Required Plant Tests
Volumetric and Performance samples shall be taken after 150 tons. All material must be sampled from the same truck at the plant. All test reports shall be submitted to WisDOT upon completion, and approved before paving commences.

C.2.1.1 Volumetric Tests
Air Voids and VMA shall be determined for acceptance. Acceptable tolerance for Air Voids will be +/- 1.3 % from the established mix design Air Void target. Acceptable tolerance for VMA is -0.5% from the minimum requirement for the mix design nominal maximum aggregate size. An extracted AC content and Gradation are additionally required for information only.

C.2.1.2. Performance Tests
Hamburg and Disk-Shaped Compact Tension Tester (DCT) and mixture resultant PG grading are required for acceptance. Semi-Circular Bend Test (SCB) is additionally required for information only. Perform testing for the Hamburg, DCT and SCB according to the WisDOT Modified Testing Procedures found in Appendix A and referenced in the High Recycle HMA Pavement Type E-10 SPV article. Testing for the mixture resultant PG grading shall be according to AASHTO R 29 and M 320. All performance testing shall be done in accordance with the procedures

C.2.2 Required Field Tests
One density lot, inclusive of 2 sublots shall be tested within 200 feet, ahead and behind, of the truck sampled for Air Voids, Gradation and AC. If the shoulder and mainline are paved integrally, the density lot shall include the mainline and shoulder sublots. The average density of this lot will exceed the minimum required density in standard spec 460.3.3.1. All test reports will be submitted to the department upon completion, and before paving commences.

C.3 Acceptance
The test strip is accepted if the required Volumetric, Performance and Density results meet the tolerances specified above. At that time, production may continue.

C.3.1 Failure
If the test strip does not meet the tolerances for Volumetric, Performance and Density required above, the test strip is considered non-conforming for that mix type. A second test strip for that mix type must be conducted off-site. No more on-site test strips for that mix type will be allowed due to change in plant or source.

D Measurement
The department will measure Hot Mix Asphalt Test Strip as a lump sum unit of work, acceptably completed as passing the required Air Void, VMA, Density, Hamburg Wheel and DCT tests for an On-Site Test Strip only.

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0105.01	Hot Mix Asphalt Test Strip	LS

Payment is full compensation for preparing the foundation; for furnishing, preparing, hauling, mixing, placing and compacting mixture; for plant, volumetric, performance and field testing of mixture, aggregate, RAM and binder materials.

48. High Recycle HMA Pavement Type E-10, Item SPV.0195.03.

A Description

This SPV describes the use of above 25% recycled materials in HMA. The use of recycled materials in excess of 25% binder replacement as described in section 460.2.5 below is required in the 19mm lower layers on STH 26 from Station 380+00 to Station 485+00. The modifications to the AASHTO/ASTM performance testing specifications described in section 460.2.7 of this SPV article are found in Appendix A.

This special provision describes High Recycle HMA mixture design, providing and maintaining a quality management program for High Recycle HMA mixtures, and constructing High Recycle HMA pavement. Unless specifically indicated otherwise, references within this SPV to HMA also applies to High Recycle HMA and High Recycle WMA.

Perform work according to standard spec 460 and as hereinafter modified.

B Materials

Delete standard spec 460.2.1 General and replace with the following:

(1) Furnish a homogeneous mixture of coarse aggregate, fine aggregate, mineral filler if required, SMA stabilizer if required, RAS material if used, RAP material, warm mix asphalt additive or process if used, rejuvenator and asphaltic material.

Delete Table 460-1 and replace with the following:

TABLE 460-1 AGGREGATE GRADATION MASTER RANGE AND VMA REQUIREMENTS

SIEVE	PERCENTS PASSING DESIGNATED SIEVES						
	NOMINAL SIZE						
	37.5 mm	25.0 mm	19.0 mm	12.5 mm	9.5 mm	SMA 12.5 mm	SMA 9.5 mm
50.0-mm	100						
37.5-mm	90 –100	100					
25.0-mm	90 max	90 -100	100				
19.0-mm	___	90 max	90 -100	100		100	
12.5-mm	___	___	90 max	90 -100	100	90 - 97	100
9.5-mm	___	___	___	90 max	90 -100	58 - 72	90 - 100
4.75-mm	___	___	___	___	90 max	25 - 35	35 - 45
2.36-mm	15 – 41	19 - 45	23 - 49	28 - 58	20 - 65	15 - 25	18 - 28
75-µm	0 – 6.0	1.0 - 7.0	2.0 - 8.0	2.0 - 10.0	2.0 - 10.0	8.0 - 12.0	10.0 - 14.0
% MINIMUM VMA	11.0	12.0	13.0	14.0[1]	15.0[2]	16.0	17.0

[1] For E-0.3, E-1 and E-3 mix designs, the % minimum VMA is 14.5

[2] For E-0.3, E-1 and E-3 mix designs, the % minimum VMA is 15.5

Delete standard spec 460.2.3 Asphaltic Binders with the following:

(1) The department will designate the grade of asphaltic binder in the contract. The contractor may use virgin binder, modified binder, a blend of virgin binder and binder recovered from recycled asphaltic materials (RAM), or a blend of modified and RAM recovered binder. The blended virgin and

recovered binders may contain rejuvenators, added at the manufacturers recommended doses, and recorded in the mix design as described in 460.2.7 of this SPV article.

Delete standard spec 460.2.4.4 Warm Mix Asphalt Additive or Process and replace with the following Warm Mix Asphalt Additive or Process and Rejuvenators:

(1) Use additives or processes from the department's approved products list. Follow supplier or manufacturer recommendations for additives and processes when producing WMA mixtures or mixtures using rejuvenators, and document the amount to be used of such materials in the Mix Design as described in 460.2.7 of this SPV article.

Delete standard spec 460.2.5 Recycled Asphaltic Materials and replace with the following Recycled Asphaltic Materials (RAM):

(1) The contractor may use recycled asphaltic materials from FRAP, RAP, and RAS in HMA mixtures. Stockpile recycled materials separately from virgin materials and list each as individual JMF components.

(2) Control recycled materials used in HMA by evaluating the percent binder replacement, the ratio of recycled binder to the total binder. The amount of virgin binder replaced shall conform to the following:

MAXIMUM ALLOWABLE PERCENT BINDER REPLACEMENT

RECYCLED ASPHALTIC MATERIAL	LOWER LAYERS	UPPER LAYER
RAS if used alone	25	20[2]
Any blend of RAM [3] (from more than 1 source)	50[1]	40[1,2]

[1] When used in combination the RAS component cannot exceed 5 percent of the total weight of the aggregate blend.

[2] For RAS only and any combination RAM with a percent binder replacement greater than 25%, Virgin binder grades used to produce these mixes will be adjusted as follows:

Plan Specified Binder Grade	Supplied Virgin Binder Grade
PG 58-28	PG 52-34 or 46-34

This virgin binder grade adjustment may be waived if the contractor furnishes test results indicating that the resultant binder meets the grade of the contract originally specified as referenced in 460.2.7 of this SPV article.

[3] RAM refers to any blend of recycled materials from more than one source, including FRAP, RAP or RAS and in any combination. It could be from all RAP/FRAP sources, or may include RAS material in addition to one or more sources of RAP.

Delete standard spec 460.2.6 Recovered Asphaltic Binders and replace with the following:

(1) Establish the percent of recovered asphaltic binder from FRAP, RAP, and RAS for the mixture design according to AASHTO T164 using the appropriate dust correction procedure. If production test results indicate a change in the percent of recovered asphaltic binder, the contractor or the engineer may request a change in the design recovered asphaltic binder. Provide the department with at least two recent extraction samples supporting that change. Ensure that those samples were prepared according to CMM 8-65 by a WisDOT or AMRL qualified laboratory.

Delete standard spec 460.2.7 HMA Mixture Design and replace with the following:

(1) For each HMA mixture type used under the contract, develop and submit an asphaltic mixture design according to the department's test method number 1559 as described in CMM 8-66 and conforming to the requirements of table 460-1 and table 460-2. The values listed are design limits;

production values may exceed those limits. The department will review mixture designs and report the results of that review to the designer according to the department's test method number 1559.

(2) For each HMA mixture type used under the contract, asphalt mixture performance testing, recovered binder testing, and data analysis is required as follows:

a. Hamburg Wheel Tracking in accordance to AASHTO T 324 and meeting the requirements in the included attached procedure.

b. DCT in accordance with ASTM D7313 and meeting the requirements in the included, attached procedure:

c. Semi-Circular Bend (SCB) Intermediate Temperature Testing in accordance with AASHTO TP 105-7 (modified per Louisiana DOT) meeting the following requirements:

    1. Long term conditioning of the mix as described in AASHTO R30, Section 7.3
    2. Perform the test at 25C.

d. The blend of virgin and RAM extracted and recovered resultant binder shall meet the following requirements:

    1. Mixture sample will be compacted in 115 mm high specimens will be made to target 6.5% air voids, with all specimens within +/-0.5%.
    2. Long term conditioning of the specimen as described in AASHTO R30, Section 7.3.
    3. Extract, test and report the true, continuous PG grade for high, intermediate and low temperature values per AASHTO R29 without RTFOT or PAV aging,
    4. Meet the contract specified low temperature binder grade per AASHTO M320
    5. The difference between the s-critical temperature (ScT) and m-critical temperature (McT) values is less than 5C.
    6. Ensure that the resultant asphalt binder conforms to the contract specifications

e. Provide at least 8 (4 at 61mm and 4 at 115mm at 6.5% ± 0.5% Va) pucks to the Department Bureau of Technical Services for verification of Hamburg, DCT and SCB. Also provide 25 pound samples of each aggregate and RAM material to the department for verification of mix design values. Only 5 pounds of RAS will need to be submitted to the department.

TABLE 460-2 MIXTURE REQUIREMENTS

Mixture type	E - 0.3	E - 1	E - 3	E - 10	E - 30	E - 30x	SMA
ESALs x 10^6 (20 yr design life)	< 0.3	0.3 - < 1	1 - < 3	3 - < 10	10 - < 30	>= 30	___
LA Wear (AASHTO T96)							
100 revolutions(max % loss)	13	13	13	13	13	13	13
500 revolutions(max % loss)	50	50	45	45	45	45	40
Soundness (AASHTO T104) (sodium sulfate, max % loss)	12	12	12	12	12	12	12
Freeze/Thaw (AASHTO T103) (specified counties, max % loss)	18	18	18	18	18	18	18
Fractured Faces (ASTM 5821) (one face/2 face, % by count)	60 / __	65 / __	75 / 60	85 / 80	98 / 90	100/100	100/90
Flat & Elongated (ASTM D4791) (max %, by weight)	5 (5:1 ratio)	5 (5:1 ratio)	5 (5:1 ratio)	5 (5:1 ratio)	5 (5:1 ratio)	5 (5:1 ratio)	20 (3:1ratio)
Fine Aggregate Angularity (AASHTO T304, method A, min)	40	40	43	45	45	45	45
Sand Equivalency (AASHTO T176, min)	40	40	40	45	45	50	50
Gyratory Compaction							
Gyrations for N_{ini}	6	7	7	8	8	9	8
Gyrations for N_{des}	40	60	75	100	100	125	65
Gyrations for N_{max}	60	75	115	160	160	205	160
Air Voids, $\%V_a$ ($\%G_{mm}$ N_{des})	3.5 (96.5)	3.5 (96.5)	3.5 (96.5)	3.5 (96.5)	3.5 (96.5)	3.5 (96.5)	3.5 (96.5)
% G_{mm} N_{ini}	<= 91.5[1]	<= 90.5[1]	<= 89.0[1]	<= 89.0	<= 89.0	<= 89.0	___
% G_{mm} N_{max}	<= 98.0	<= 98.0	<= 98.0	<= 98.0	<= 98.0	<= 98.0	___
Dust to Binder Ratio (% passing 0.075/P_{be})	0.6 - 1.6	0.6 - 1.6	0.6 - 1.6	0.6 - 1.6	0.6 - 1.6	0.6 - 1.6	1.2 - 2.0
Voids filled with Binder (VFB or VFA, %)	68 - 80[4] [5]	65 - 78[4]	65 – 75[3][4]	65 - 75[3] [4]	65 - 75[3] [4]	65 - 75[3] [4]	70 - 80
Tensile Strength Ratio (TSR) (ASTM 4867)	0.75	0.75	0.75	0.75	0.75	0.75	0.75
Draindown at Production Temperature (%)	___	___	___	___	___	___	0.30

[1] The percent maximum density at initial compaction is only a guideline.

[3] For 9.5mm and 12.5mm nominal maximum size mixtures, the specified VFB range is 70 - 76%.

[4] For 37.5mm nominal maximum size mixes, the specified VFB lower limit is 67%.

[5] For 25.0mm nominal maximum size mixes, the specified VFB lower limit is 67%.

Add the following to standard spec 460.2.8.1 General:

460.2.8.1.1 Recycled Asphalt Material (RAM) Stockpile Production

(1)Provide a High Recycle Production Quality Control Plan to the engineer outlining RAM component stockpile monitoring, sampling and testing.
The Quality Control Plan must list the lab extracted AC correction factor if applicable.

460.2.8.1.1.1 Recycled Asphalt Shingle (RAS) Stockpile Production

(1)Test RAS material once every 250 tons during stockpile production using the procedures defined in CMM 8-36. If using an existing stockpile, test the stockpile using HTCP approved procedures, with at least 1 test per 250 tons of material in the stockpile. At least of 80% of the individual tests must meet the following requirements, with a minimum of 5 tests during stockpile production and/or existing stockpile.

- 100% of the material must pass the 3/8" sieve
- 93 % of the material must pass the #4 sieve
- Deleterious material must be less than 1% of the R4 material, by weight
- P200 material must be within 2.0% of the stockpile average
- Asphalt Content must be within 2.0% of the stockpile average
- A split sample of each production test will be retained as per CMM 8-36, retaining samples for 14 days.
-

460.2.8.1.1.2 Recycled Asphalt Pavement (RAP/FRAP) Stockpile Production

(1)Test RAP/FRAP material once every 2,000 tons during stockpile production using the procedure in CMM 8-36 up to 5 tests. If using an existing stockpile, test the stockpile using HTCP approved procedures, with at least 1 test per 2000 tons of material in the stockpile. Once 5 tests are obtained, test every 4,000 tons, with a minimum of one test per day during stockpile production. A minimum of 5 tests are needed during stockpile production. At least 80% of the individual tests must meet the following requirements, with a minimum of 5 tests during stockpile production. P200 material must be within 2.0% of the stockpile average

- Asphalt Content must be within 0.75% of the stockpile average
- A split sample of each production test will be retained as per CMM 8-36, retaining samples for 14 days.

Delete standard spec 460.2.8.2.1.3 Required Sampling and Testing and replace with the following:

460.2.8.2.1.3 Required Sampling and Testing

460.2.8.2.1.3.1 Contractor Mixture Volumetric Testing QC

(1)Furnish and maintain a laboratory at the plant site fully equipped for performing contractor QC testing. Have the laboratory on-site and operational before beginning mixture production.

(2)Obtain random samples and perform tests according to CMM 8-36. Obtain HMA mixture samples from trucks at the plant. Perform tests the same day taking the sample. Mixture will be produced the same day as placement, the material is not allowed to be produced and stored in a silo overnight and/or a period of greater than 5 hours.

(3)Retain the split portion of the contractor HMA mixture and blended aggregate samples for 14 calendar days at the laboratory site in a dry, protected area. The engineer may decrease this 14-day retention period. At project completion the contractor may dispose of remaining samples if the engineer approves.

(4)Use the test methods identified below, or other methods the engineer approves, to perform the following tests at a frequency greater than or equal to that indicated:

Blended aggregate gradations:

Drum plants:

- Field extraction by department test method number 1560.
- Belt samples, optional for virgin mixtures, obtained from stopped belt or from the belt discharge using an engineer-approved sampling device and performed according to AASHTO T11 and T27.

Batch plants:

- Field extraction by department test method number 1560.

(5)Asphalt content (AC) in percent:

1. AC by calculated inventory & recycled content. (Note: current procedure)
2. Extracted AC Content per day (Ignition, Centrifuge, Reflux or Vacuum)
   - Randomly select one sample per day from the random QC lot
   - Document method used and any correction factors used.
   - Department and contractor testing must be within 0.3% after applying the correction factor(s) indicated in the Quality Plan.

Bulk specific gravity of the compacted mixture according to AASHTO T166.

Maximum specific gravity according to AASHTO T209.

Air voids (V_a) by calculation according to AASHTO T269.

VMA by calculation according to AASHTO R35.

(6)Test each design mixture at a frequency at or above the following:

TOTAL DAILY PLANT PRODUCTION FOR DEPARTMENT CONTRACTS in tons	SAMPLES PER DAY[1]
50 to 600	1
601 to 1500	2
1501 to 2700	3
2701 to 4200	4
greater than 4200	see footnote[2]

[1] Frequencies are for planned production. If production is other than planned, conform to CMM 8-36.

[2]Add a random sample for each additional 1500 tons or fraction of 1500 tons.

460.2.8.2.1.3.2 Contractor Mixture Performance Testing QC

(1)Mixture production shall be sampled within the first 600 tons on the first day of production and the following performance testing will be conducted:

-Hamburg Wheel Tracking as identified in 460.2.7HMA Mix Design of this SPV article
-Stripping Inflection Point (SIP) analysis as identified in 460.2.7HMA Mix Design of this SPV article
-DCT as identified in 460.2.7 HMA Mix Design of this SPV article
-Semi Circular Bend (SCB) as identified in 460.2.7 HMA Mix Design of this SPV article
-Mixture resultant binder PG as identified in 460.2.7 HMA Mix Design of this SPV article

(2)Retain (250) lbs. split portion of the contractor HMA mixture QC sample for the engineer to conduct QV mixture performance testing. The startup testing will be conducted as a split test, with both the Contractor and the state each running the above described tests on samples obtained at the same time.

(3)Mixture production shall be sampled randomly once every 10,000 tons produced and the following performance testing will be conducted:

-Hamburg Wheel Tracking as identified in 460.2.7 HMA Mix Design and modified by WisDOT of this SPV article
-Stripping Inflection Point (SIP) analysis as identified in 460.2.7 HMA Mix Design of this SPV article
-DCT as identified in 460.2.7 HMA Mix Design and modified by WisDOT of this SPV article
-Semi Circular Bend (SCB) as identified in 460.2.7HMA Mix Design of this SPV article
-Mixture resultant binder PG grading as identified in 460.2.7 HMA Mix Design of this SPV article

(4)Retain (250) lbs. split portion of the contractor HMA mixture QC sample for the engineer to conduct QV mixture performance testing. The department QV tests come from separate, random samples, obtained once for each 10,000 Ton increments during production. The testing at startup does not qualify as the random sample for the first 10,000 ton increment.

(5)If any above QC test is in non-conformance, contact the Bureau of Technical Services immediately to determine a course of action.

Delete standard spec 460.2.8.2.1.4.2 Control Charts and replace with the following:

(1)Maintain standardized control charts at the laboratory. Record contractor test results on the charts the same day as testing. Post CA test results on the charts as data becomes available. Record data on the standardized control charts as follows:

-Blended aggregate gradation tests in percent passing. Of the following, plot those sieves the design specifications require: 37.5-mm, 25.0-mm, 19.0-mm, 12.5-mm, 9.5-mm, 2.36-mm, and 75-µm
-Asphalt material content in percent (calculated inventory & recycled content)
-Asphalt material content in percent (extraction)
-Air voids in percent.
-VMA in percent.
-Dust to Binder Ratio (Calculated using Extracted asphalt content (Pbe))

(2)Plot both the individual test point and the running average of the last 4 data points on each chart. Show QC data in black with the running average in red and CA data in blue. Draw the warning limits with a dashed green line and the JMF limits with a dashed red line. The contractor may use computer generated black-and-white printouts with a legend that clearly identifies the specified color coded components.

Delete standard spec 460.2.8.2.1.5 Control Limits and replace with the following:

(1)Conform to the following control limits for the JMF and warning limits based on a running average of the last 4 data points:

ITEM	JMF LIMITS	WARNING LIMITS
Percent passing given sieve:		
37.5-mm	+/- 6.0	+/- 4.5
25.0-mm	+/- 6.0	+/- 4.5
19.0-mm	+/- 5.5	+/- 4.0

12.5-mm	+/- 5.5	+/- 4.0
9.5-mm	+/- 5.5	+/- 4.0
2.36-mm	+/- 5.0	+/- 4.0
75-µm	+/- 2.0	+/- 1.5
Asphaltic content in percent (extraction)	-0.4	-0.3
Air voids in percent	+/- 1.3	+/- 1.0
VMA in percent[1]	- 0.5	- 0.2
Dust/Binder Ratio (%Pbe)	1.6 (maximum)	

[1] VMA limits based on minimum requirement for mix design nominal maximum aggregate size in Table 460-1.

(2)Warning bands are defined as the area between the JMF limits and the warning limits.

Delete standard spec 460.2.8.2.1.7 Corrective Action paragraph (2) and paragraph (6) and replace with the following:

(2)Notify the engineer if running average values exceed the warning limits. If two consecutive running average values exceed the warning limits, stop production and make adjustments. Do not restart production until after notifying the engineer of the adjustments made. Do not calculate a new running average until the fourth test after the required production stop. Notify the Bureau of Technical Services, Materials Lab if the Dust to Binder Ratio exceeds 1.6 on any test to determine corrective action. Stop production until a solution is agreed upon.

(6)The department will reduce payment for nonconforming QMP HMA mixtures, starting from the stop point to the point when the running average is back inside the warning limits, as follows:

PAYMENT FOR MIXTURE[1] [2]

ITEM	PRODUCED WITHIN WARNING BANDS	PRODUCED OUTSIDE JMF LIMITS
Gradation	90%	75%
Asphalt Content (Binder Inventory)	85%	75%
Air Voids	70%	50%
VMA	90%	75%

[1] For projects or plants where the total production of each mixture design requires less than 4 tests refer to CMM 8-36.

[2] Payment is in percent of the contract unit price for the bid items. The department will reduce pay based on the nonconforming property with lowest percent pay. The asphaltic material quantity is based on the JMF asphalt content. The department will administer pay reduction under the Nonconforming QMP Asphaltic Material and the Nonconforming QMP HMA Mixture administrative items.

Delete standard spec 460.2.8.3.1.4 Department Verification Testing Requirements and replace with the following:

460.2.8.3.1.4 Department Verification Testing Requirements
460.2.8.3.1.4.1 Department Volumetric Verification Testing Requirements

(1)HTCP certified department personnel will obtain random samples by directly supervising HTCP certified contractor personnel sampling from trucks at the plant. The department will sample according to CMM 8-36. Sample size must be adequate to run the appropriate required tests in addition to one set of duplicate tests that may be required for dispute resolution. The engineer will split the sample for testing and retain the remaining portion for additional testing if needed.

(2)The department will verify product quality using the test methods enumerated here in 460.2.8.3.1.4.1(2), other engineer-approved methods, or other methods the industry and department HMA technical team recognizes. The department will identify test methods before construction starts and use only those methods during production of that material unless the engineer and contractor mutually agree otherwise.

(3)The department will perform all testing conforming to the following standards:

Bulk specific gravity (G_{mb}) of the compacted mixture according to AASHTO T166.

Maximum specific gravity (G_{mm}) according to AASHTO T209.

Air voids (V_a) by calculation according to AASHTO T269.

VMA by calculation according to AASHTO R35.

(4)The department will randomly test each design mixture at the following minimum frequency:

FOR TONNAGES TOTALING:

Less than 501 tons ..... no tests required

From 501 to 5,000 tons ..... one test

More than 5,000 tons .....add one test for each additional 5,000-ton increment

460.2.8.3.1.4.2 Department (Bureau of Technical Services) Verification Performance Testing Requirements

(1)HTCP certified department personnel will obtain random samples by directly supervising HTCP certified contractor personnel sampling from trucks at the plant. Retain (250) lbs. split portion of the contractor MA mixture QC sample for the engineer to conduct QV mixture performance testing. The startup testing will be conducted as a split test, with both the Contractor and the state each running the performance tests described below on samples obtained at the same time.
Mixture production shall be sampled randomly once every 10,000 tons produced and the following performance testing will be conducted:

-Hamburg Wheel Tracking as identified in 460.2.7 HMA Mix Design and modified by WisDOT of this SPV article

-Stripping Inflection Point (SIP) analysis as identified in 460.2.7 HMA Mix Design of this SPV article

-DCT as identified in 460.2.7 HMA Mix Designand modified by WisDOT of this SPV article

-Semi Circular Bend (SCB) as identified in 460.2.7 HMA Mix Design of this SPV article

-Mixture resultant binder PG grading as identified in 460.2.7 HMA Mix Design in this article

(2)The testing at startup does not qualify as the random sample for the first 10,000 ton increment.

(3)The department also perform volumetric testing conforming to the following standards:

Bulk specific gravity (G_{mb}) of the compacted mixture according to AASHTO T166.

Maximum specific gravity (G_{mm}) according to AASHTO T209.

Air voids (V_a) by calculation according to AASHTO T269.

VMA by calculation according to AASHTO R35.

(4)If any of the QV tests are in non-conformance, the Bureau of Technical Services will determine the next course of action.

Delete standard spec 460.2.8.3.1.6 Acceptable Verification Parameters paragraph (1) and replace with the following:

(1)The engineer will provide test results to the contractor within 2 mixture-production days after obtaining the sample. The quality of the product is acceptably verified if it meets the following limits:

- Va is within a range of 2.2 to 4.8 percent.
- VMA is within minus 0.5 of the minimum requirement for the mix design nominal maximum aggregate size.

C (Vacant)

D Measurement

The department will measure High Recycle HMA Pavement Type E-10 acceptably completed by the ton as specified in standard spec 450.4.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0195.03	High Recycle HMA Pavement Type E-10	Ton

Payment for High Recycle HMA Pavement Type E-10 is full compensation for providing HMA mixture designs; for preparing foundation; for furnishing, preparing, hauling, mixing, placing, and compacting mixture; for QMP testing and aggregate source testing; for PG graded binder, for asphalt binder from recycled sources, and for warm mix asphalt additives or processes.

Appendix A

TEST Procedures for High Recycle HMA Pavement Type E-10.

The following are included as incidental to the High Recycle HMA Pavement Type E-10 SPV:

- WisDOT Modified Test Procedure for ASTM D7313-07
- WisDOT Modified Test Procedure for AASHTO T324-11
- Evaluation of Asphalt Mixture Crack Propagation using the Semi-Circular Bend Test (SCB) AASHTO Designation X XXX-XX

<u>WisDOT Modified Test Procedure</u>

ASTM D 7313-07

Standard Test Method for
Determining Fracture Energy of Asphalt-Aggregate Mixtures Using the Disk-Shaped Compact Tension Geometry

Effective Date: January 16, 2014

All changes to the above referenced ASTM procedure are noted below:

4. Significance and Use

4.1 *Replace the second sentence with following:*

The test method is valid for specimens that are tested at -10°C ± 0.5°C warmer than the WisDOT plan specified lower temperature grade. A passing sample (see section 8.4) is also acceptable for all warmer temperature grades (i.e. a sample that passes at -18°C is also acceptable at -12°C)

Plan Grade	DCT Testing Temperature
PG XX-22	-12°C
PG XX-28	-18°C
PG XX-34	-24°C

New Paragraph:
Two specimens are required for a valid test. The average of the two specimens will determine if the material is acceptable.

6. Test Specimens

6.1 *Replace 6.1 with the following:*

6.1.1 *Mix Design Material Specimen Preparation* - All samples created for Mix Design shall follow AASHTO R30, Standard Practice for Mixture Conditioning of Hot Mix Asphalt, for long term aging. Samples shall be compacted using a gyratory compactor to 6.5% ± 0.5 Air Voids for a 3.5% JMF Mix Design, and 7.0% ± 0.5 Air Voids for a 4.0% JMF Mix Design. Two DCT samples shall be cut from the same gyratory specimen. Test specimen shall have a saw cut on both faces.

6.1.2 *Production Material Specimen Preparation* - All samples created from production material shall follow AASHTO R30, Standard Practice for Mixture Conditioning of Hot Mix Asphalt, for long term aging. Samples shall be compacted using a gyratory compactor to 6.5% ± 0.5 Air Voids. Two DCT samples shall be cut from the same gyratory specimen. Test specimen shall have a saw cut on both faces.

6.1.3.*Core Specimen Preparation* - Cores shall be sampled from the pavement at the same offset using a 6 inch inner diameter core bit. Sample two cores for DCT. If no Gmm is available to determine density, sample two additional cores and test according to ASTM D2726. If a core is greater than 50mm thick, cut excess thickness from the top and bottom of the core. If there is only enough room to cut from one edge, cut from the top of the core.

7. Procedure

7.1 *Replace 7.1 with the following:*

7.1 *Conditioning* - The specimens shall be placed in a standard freezer for a minimum of 8 hours and a maximum of 12 hours at -12°C ± 5°C. After the initial conditioning, the specimen shall be placed into the DCT chamber for 1.5 hours ±0.5 hours at the standard testing temperature.

8. Interpretation of Fracture Energy

8.4 *Add paragraph 8.4:*

8.4 *Target* – The required minimum for acceptance is 400 J/m^2.

10. Precision and Bias

10.1 *Replace 10.1 with the following:*

10.1 *Precision* – The within-laboratory repeatability standard deviation is 78.5 J/m^2. If the two test specimens are out of the 78.5 J/m^2 tolerance, run two more test specimens and throw out the highest and lowest, averaging the middle two.

WisDOT Modified Test Procedure

AASHTO T 324-11

Standard Test Method for
Hamburg Wheel-Track Testing of Compacted Hot Mix Asphalt (HMA)

Effective Date: January 16, 2014

All changes to the above referenced AASHTO procedure are noted below:

6. Specimen Preparation

6.2 *Laboratory Produced HMA*

6.2.4 *Replace 6.2.4 with the following:*
All samples created in the lab, including mix design and production, shall follow AASHTO R30, Standard Practice for Mixture Conditioning of Hot Mix Asphalt, for long term aging.

6.4 *Field-Produced HMA – Field Compacted (Core/Slab Specimen)*

6.4.1 *Replace the second sentence of 6.4.1 with the following:*
Cutting Field Cores or Field Slab Specimen – Cores shall be sampled from the pavement at the same offset using a 6 inch inner diameter core bit. Sample two cores for Hamburg. If no Gmm is available to determine density, sample two additional cores and test according to ASTM D2726.

7. Determining Air Void Content

7.3 *Replace 7.3 with the following:*
Determine the air void content of the specimens in accordance with T 269. The specimen shall be compacted using a gyratory compactor to 6.5% ± 0.5 Air Voids for a 3.5% JMF Mix Design, and 7.0% ± 0.5 Air Voids for a 4.0% JMF Mix Design.

8. Procedure

8.2 *Replace the second sentence of 8.2 with the following:*
SGC Cylindrical and Field Core Specimen Mounting – Insert the cut specimens into the high-density polyethylene molds with the non-sawed surface up.

8.6.1 *Replace 8.6.1 with the following:*
Test temperature is 50°C.

9. Calculations

9.3 *Add section 9.3.*

9.3.1 *Stripping Inflection Point (SIP)* – SIP must be less than 2.

9.3.2 Number of Passes and *Maximum Rut Depth* – The test shall be conducted for the plan specified Binder Grade.

Asphalt Binder Grade	Number of Passes	Maximum Rut Depth (inches)
PG 76-XX	20,000	0.50
PG 70-XX	15,000	0.50
PG 64-XX	10,000	0.50
PG 58-XX	5,000	0.50

Evaluation of Asphalt Mixture Crack Propagation using the Semi-Circular Bend Test (SCB)
AASHTO Designation X XXX-XX

1. SCOPE

1.1. This test method covers procedures for the preparation, testing, and measurement of fracture failure of semi-circular asphalt mixtures of specimens loaded monotonically.

1.2. This standard may involve hazardous material, operations, and equipment. This standard does not purport to address all safety problems associated with its use. It is the responsibility of the user of this procedure to establish appropriate safety and health practices and to determine the applicability of regulatory limitations prior to use.

2. REFERENCED DOCUMENTS

2.1. AASHTO STANDARDS

PP 2, Practice for Mixture conditioning of Hot Mix Asphalt (HMA)

T 67, Standard Practices for Load Verification of Testing Machines

T 166, Bulk Specific Gravity of Compacted Hot Mix Asphalt Using Saturated Surface-Dry Specimens

T 168, Sampling Bituminous Paving Mixtures

T 209, Theoretical Maximum Specific Gravity and Density of Hot Mix Asphalt (HMA)

T 269, Percent Air Voids in Compacted Dense and Open Bituminous Paving Mixtures

T 312, Preparing and Determining the Density of Hot Mix Asphalt (HMA) Specimens by Means of the Superpave Gyratory Compactor

3. SUMMARY OF TEST METHOD

3.1. A semi-circular specimen is loaded monotonically until fracture failure. The load and deformation are continuously recorded and the critical strain energy rate, J_C, is determined.

4. SIGNIFICANCE AND USE

4.1. The critical strain energy rate is used to compare the fracture properties of asphalt mixtures with different binder types.

4.2. This fundamental engineering property can be used as a performance indicator of fracture resistance based on fracture mechanics, the critical strain energy release rate, also known as J_C value.

5. APPARATUS

5.1. Load Test System- A load test system consisting of a testing machine, environmental chamber, and data acquisition system. The test system shall meet the minimum requirements specified below.

5.2. Testing Machine- The testing machine should be a closed loop system capable of applying a 4.5kN load monotonically under a constant cross-head deformation rate of 0.5 mm/min in a three point bend load configuration.

5.3. Environmental Chamber- A chamber for controlling the test specimen at the desired temperature is required. The environmental chamber shall be capable of controlling the temperature of the specimen at 25°C to an accuracy of +/- 1ºC.

5.4. Measurement System- The system shall include a data acquisition system comprising analog to digital conversion and/or digital input for storage and analysis on a computer. The system shall be capable of measuring and recording the time history of the applied load for the time duration required by this test method. The system shall be capable of measuring the load and resulting deformations with a resolution of 0.5 percent.

5.4.1. Load- The load shall be measured with an electronic load cell having adequate capacity for the anticipated load requirements. The load cell shall be calibrated in accordance with AASHTO T67.

5.4.2. Axial Deformations- Axial deformations shall be measured with linear variable differential transformers (LVDT).

5.4.3. Temperature- Temperature shall be measured with Resistance Temperature Detectors (RTD) accurate to within +/- 1ºC

5.5. Gyratory Compactor- A gyratory compactor and associated equipment for preparing laboratory specimens in accordance with AASHTO T 312 shall be used.

5.6. Saw- The saw shall be capable of producing three different notch sizes ranging from 0 – 50 mm. The width of the saw blade shall be 3.0mm.

5.7. Loading Frame- The loading frame shall consist of a loading rod and two sample support rods. The schematic of the test apparatus is shown in Figure x (need permission from ATM). The diameters of the loading and supports rods shall be 25.4 mm and the anvil span shall be 127.0 mm.

6. TEST SPECIMENS

6.1. Semi- circular bend testing may be performed on field cores or laboratory prepared test specimens.

6.2. Specimen Size- The test specimen shall be 150mm diameter and 57 mm thick.

6.2.1. The semi-circular shaped specimens are prepared by slicing the 150mm by 57mm specimen along its central axis into two equal semi-circular samples

6.2.2. Field cores can also be used if pavement is at least 57 mm.

6.3. Notching- A vertical notch is introduced along the symmetrical axis of each semi- circular specimen. The three nominal notch sizes are 25.4 mm, 31.8 mm, and 38.1 mm. The notch depth tolerance is ± 1.0 mm. The width of the notch shall be 3.0 ± 0.5mm

6.4. Prepare four test specimens at the target air void content ±0.5%.

6.5. Aging- Laboratory-prepared mixtures shall be temperature-conditioned in accordance with the oven conditioning procedure outlined in AASHTO PP2. Field mixtures need not be aged prior to testing.

6.6. Air Void Content- Prepare four test specimens at the target air void content ±0.5%.

6.7. Replicates- Four specimen should be tested at each at each notch depth (25.4-, 31.8-, and 38.1-mm).

7. PROCEDURE

7.1. Place the specimen on the bottom support, ensuring the support is centered and level (as shown in Figure 1), in the environmental chamber and allow it to stabilize to 25ºC. A dummy specimen with a temperature sensor mounted to its center can be monitored to determine when the specimen reaches 25ºC. In the absence of a dummy specimen, a minimum of 0.5 hours from room temperature is the required temperature equilibrium time.

7.2. After temperature equilibrium is reached, apply a preload of 10 lb to specimen to ensure the sample is seated properly. After ensuring the sample is level, release the load.

7.3. Begin to apply load to specimen in displacement control at a rate of 0.5 mm/min ensuring that time, force, and displacement are being collected and recorded. During the test have the load versus displacement plot visible, paying close attention to the peak load. Test may be terminated 120 seconds after peak load is reached.

8. CALCULATIONS

8.1. The critical value of J-integral (Jc) is determined using the following equation:

$$J_c = -\left(\frac{1}{b}\right)\frac{dU}{da}$$

where:
b = sample thickness
a = notch depth
U = strain energy to failure.

8.1.1. Strain energy to failure, U is the area under the loading portion of the load vs. deflection curves, up to the maximum load measured for each notch depth (shown in Figure 2).

8.2. The specimens are randomly clustered into 4 groups of three (one specimen at each notch depth within the grouping) before testing. Each cluster of three notch depths may be analyzed individually. The three values of U (one at each notch depth) are plotted versus their respective notch depths. The data is then modeled with a linear regression line.(shown in Figure 3). The slope of the linear regression line represents the strain energy release rate.

8.3. The critical value of J-integral (Jc) then computed by dividing the slope of the linear regression line (dU/da) by the specimen thickness, b.

9. REPORT

9.1. *The report shall include the following parameters*:

9.1.1 Asphalt Mixture Type;

9.1.2 Test Temperature, °C;

9.1.3 Specimen Air Voids, %;

9.1.4 Jc per Notch Depth, kJ/m^2;

9.1.5 Coefficient of Determination, R^2;

9.1.6 Mean Jc Value, kJ/m^2;

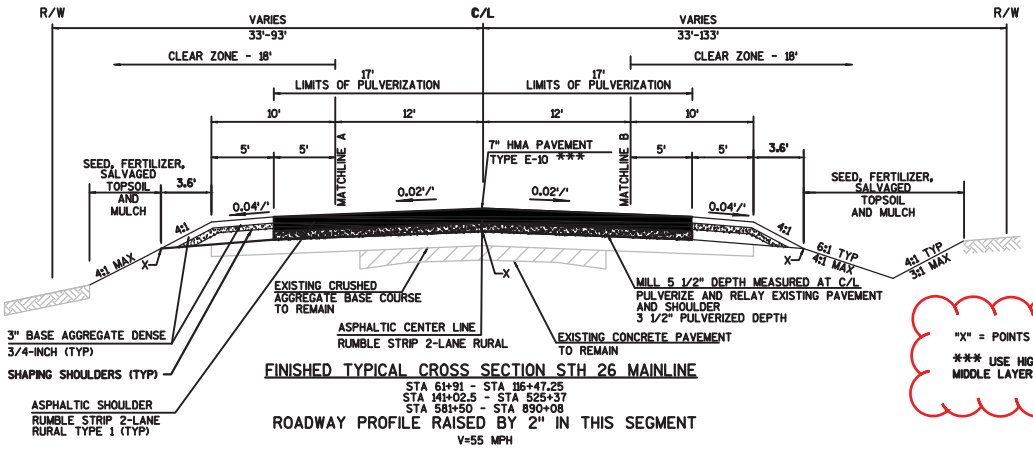
9.1.7 Standard Deviation of Jc;

9.1.8 Coefficient of Variation, %.

Schedule of Items
Attached, dated February 25, 2015, are the revised Schedule of Items Pages 6, 12, 18 – 20, and 24.

Plan Sheets
The following 8½ x 11-inch sheets are attached and made part of the plans for this proposal:
Revised: 10, 11, 12, 13, 14, 110, 111, 132, and 139.

END OF ADDENDUM



FINISHED TYPICAL CROSS SECTION STH 26 MAINLINE

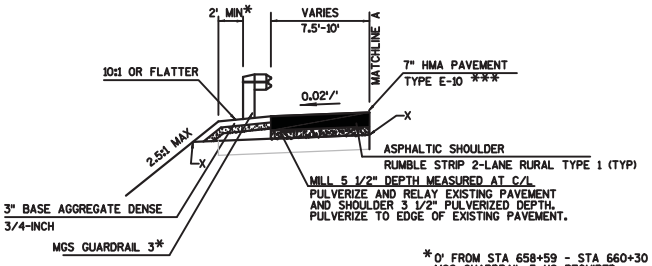
STA 61+91 - STA 116+47.25
STA 141+02.5 - STA 525+37
STA 581+50 - STA 890+08

ROADWAY PROFILE RAISED BY 2" IN THIS SEGMENT

V=55 MPH

"X" = POINTS REFERRED TO ON CROSS SECTIONS

*** USE HIGH RECYCLE HMA PAVEMENT TYPE E-10 IN LOWER AND MIDDLE LAYERS FROM STA 380+00 TO STA 485+00

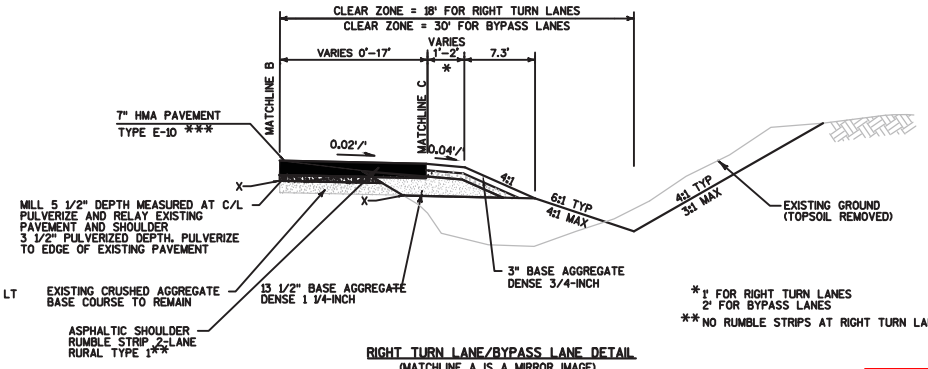


BEAM GUARD DETAIL

(MATCHLINE B IS A MIRROR IMAGE)
STA 100+40 - STA 104+32 LT
STA 101+21 - STA 103+47 RT
STA 205+27 - STA 209+29 RT
STA 206+40 - STA 209+40 LT
STA 327+71 - STA 330+94 RT
STA 327+84 - STA 331+57 LT
STA 414+26 - STA 418+26 RT
STA 414+52 - STA 418+02 LT
STA 594+35 - STA 600+04 LT
STA 595+36 - STA 600+67 RT
STA 655+49 - STA 661+10 LT
STA 655+74 - STA 659+44 RT

V=55 MPH

*0' FROM STA 658+59 - STA 660+30 LT
MGS GUARDRAIL 3 HS REQUIRED



*1' FOR RIGHT TURN LANES
2' FOR BYPASS LANES

**NO RUMBLE STRIPS AT RIGHT TURN LANES

RIGHT TURN LANE/BYPASS LANE DETAIL

(MATCHLINE A IS A MIRROR IMAGE)

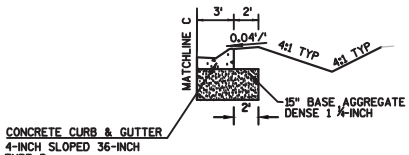
SOUTH PROJECT	NORTH PROJECT
STA 96+15 - STA 100+03 RT	STA 581+50 - STA 584+05 LT
STA 96+48 - STA 102+40 LT	STA 625+99 - STA 636+15 LT
STA 141+65 - STA 150+01 RT	STA 775+26 - STA 783+21 LT
STA 227+43 - STA 232+84 RT	STA 775+52 - STA 778+99 RT
STA 234+31 - STA 239+68 LT	STA 788+46 - STA 796+41 RT
STA 360+96 - STA 365+83 RT	STA 793+24 - STA 796+59 LT
STA 367+38 - STA 372+26 LT	STA 809+08 - STA 812+58 LT
STA 441+49 - STA 445+36 RT	
STA 446+78 - STA 450+65 LT	
STA 508+45 - STA 521+01 LT	

V=55 MPH

HMA PAVEMENT SHALL BE CONSTRUCTED WITH THE FOLLOWING LAYERS AND GRADATIONS
TYPE E-10

THICKNESS	LAYERS	NOM MAX SIZE GRADATION	ASPHALTIC MATERIAL
7"	ONE 1 3/4" UPPER LAYER	12.5mm	PG58-28
	ONE 2 1/4" MIDDLE LAYER***	19.0mm	PG58-28
	ONE 3" LOWER LAYER***	19.0mm	PG58-28

*** USE HIGH RECYCLE HMA PAVEMENT TYPE E-10 IN LOWER AND MIDDLE LAYERS FROM STA 380+00 TO STA 485+00

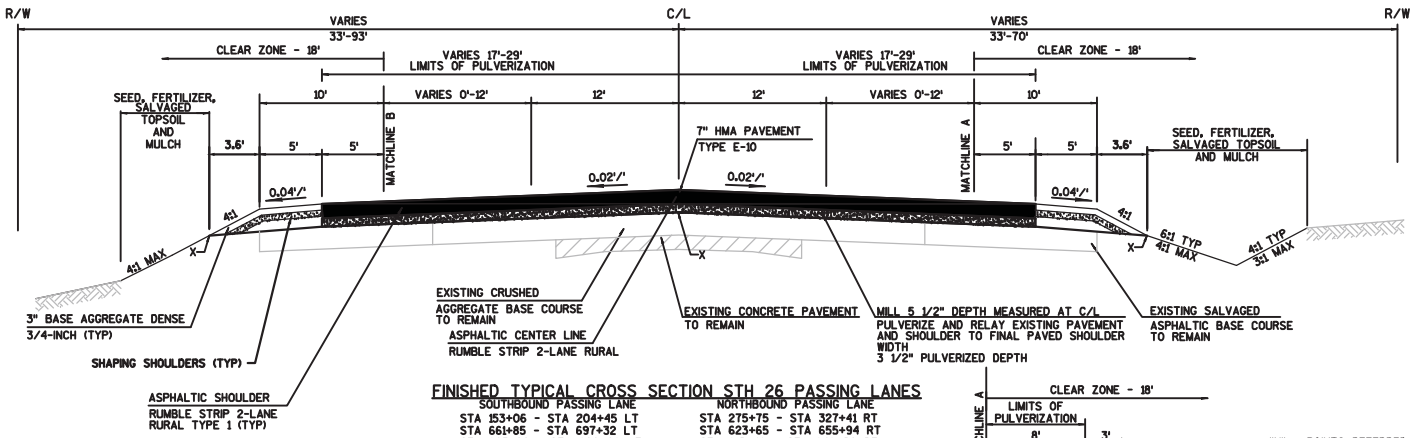


CONCRETE CURB & GUTTER

STA 231+32 - STA 232+84 RT

Addendum No. 1
IDs 1110-10-71,
1114-09-71 & 1114-10-71
Revised Sheet 10
February 25, 2015

PROJECT NO:1110-10-71, 1114-09-71, 1114-10-71	HWY: STH 26	COUNTY: FOND DU LAC	TYPICAL SECTIONS	SHEET 10	E



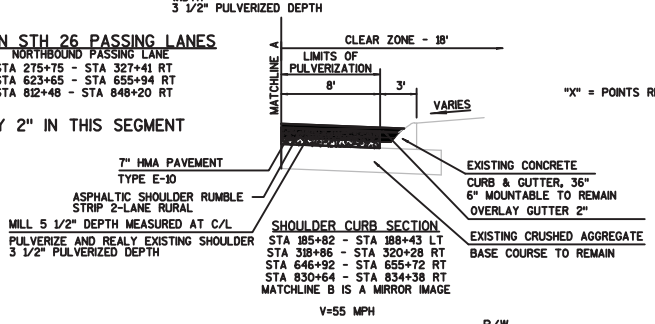
FINISHED TYPICAL CROSS SECTION STH 26 PASSING LANES

SOUTHBOUND PASSING LANE	NORTHBOUND PASSING LANE
STA 153+06 - STA 204+45 LT	STA 275+75 - STA 327+41 RT
STA 661+85 - STA 697+32 LT	STA 623+65 - STA 655+94 RT
STA 863+26 - STA 890+08 LT	STA 812+48 - STA 848+20 RT

ROADWAY PROFILE RAISED BY 2" IN THIS SEGMENT

V=55 MPH

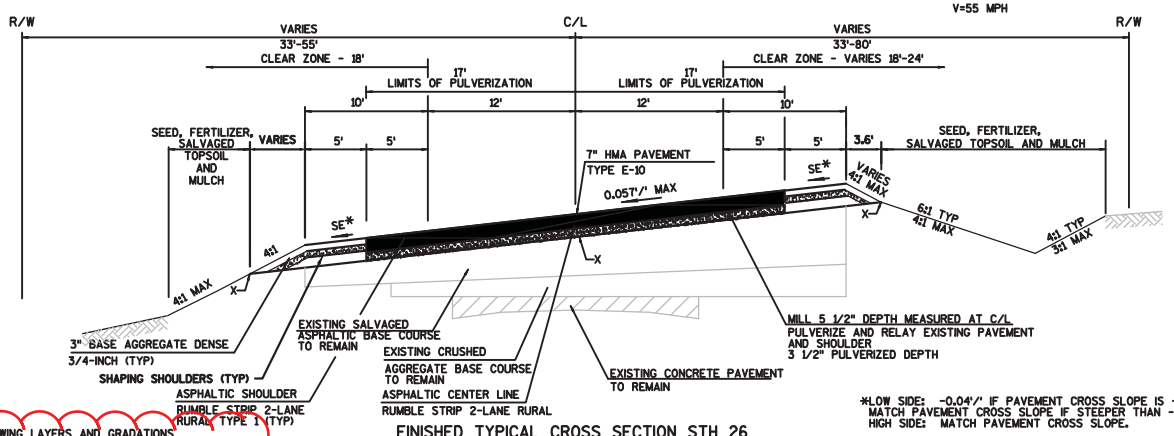
"X" = POINTS REFERRED TO ON CROSS SECTIONS



SHOULDER CURB SECTION

STA 185+82 - STA 188+43 LT
STA 318+86 - STA 320+28 RT
STA 646+92 - STA 655+72 RT
STA 830+64 - STA 834+38 RT
MATCHLINE B IS A MIRROR IMAGE

V=55 MPH



*LOW SIDE: -0.04'/' IF PAVEMENT CROSS SLOPE IS -0.04'/' OR FLATTER. MATCH PAVEMENT CROSS SLOPE IF STEEPER THAN -0.04'/'. HIGH SIDE: MATCH PAVEMENT CROSS SLOPE.

FINISHED TYPICAL CROSS SECTION STH 26

SUPERELEVATED SECTIONS

ROADWAY PROFILE RAISED BY 2" IN THIS SEGMENT

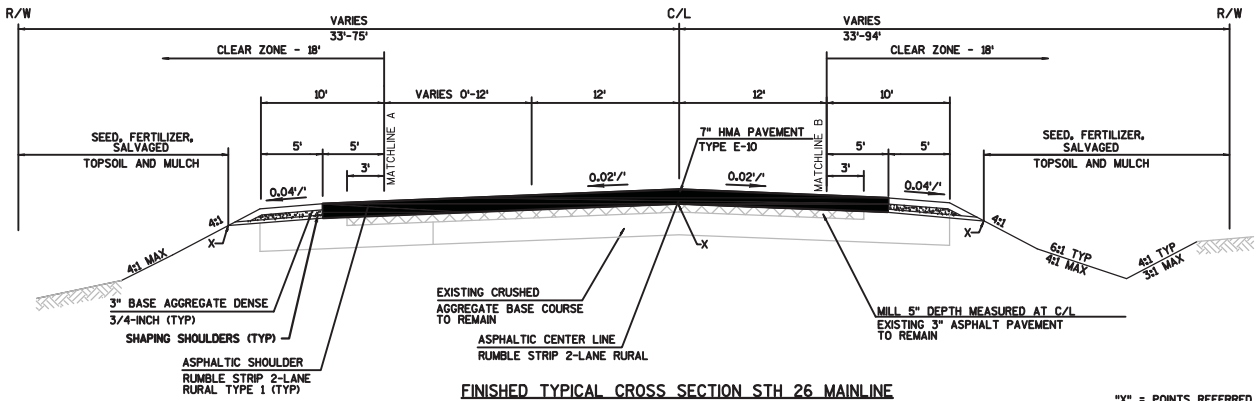
V=55 MPH

HMA PAVEMENT SHALL BE CONSTRUCTED WITH THE FOLLOWING LAYERS AND GRADATIONS
TYPE E-10

THICKNESS	LAYERS	NOM MAX SIZE GRADATION	ASPHALTIC MATERIAL
7"	ONE 1 3/4" UPPER LAYER	12.5mm	PG58-28
	ONE 2 1/4" MIDDLE LAYER	19.0mm	PG58-28
	ONE 3" LOWER LAYER	19.0mm	PG58-28

Addendum No. 1
IDs 1110-10-71, 1114-09-71 & 1114-10-71
Revised Sheet 11
February 25, 2015

PROJECT NO:1110-10-71, 1114-09-71, 1114-10-71	HWY: STH 26	COUNTY: FOND DU LAC	TYPICAL SECTIONS	SHEET 11	E



FINISHED TYPICAL CROSS SECTION STH 26 MAINLINE

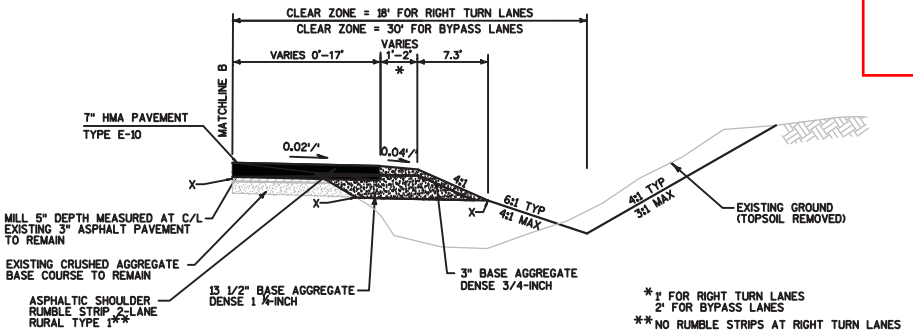
STA 890+08 - STA 909+53

(SOUTHBOUND PASSING LANE - STA 890+08 - STA 901+62, LT)

ROADWAY PROFILE RAISED BY 2" IN THIS SEGMENT

V=55 MPH

"X" = POINTS REFERRED TO ON CROSS SECTIONS



RIGHT TURN LANE/BYPASS LANE DETAIL

(MATCHLINE A IS A MIRROR IMAGE)

STA 900+98 - STA 908+31 RT

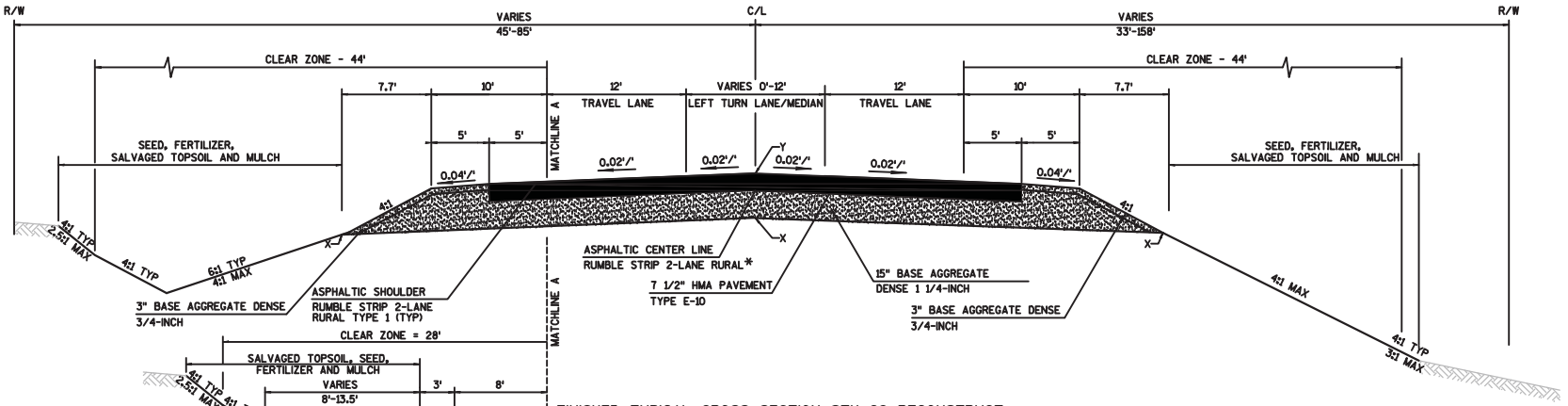
STA 904+67 - STA 909+53 LT

V=55 MPH

HMA PAVEMENT SHALL BE CONSTRUCTED WITH THE FOLLOWING LAYERS AND GRADATIONS
TYPE E-10

THICKNESS	LAYERS	NOM MAX SIZE GRADATION	ASPHALTIC MATERIAL
7"	ONE 1 3/4" UPPER LAYER ONE 2 1/4" MIDDLE LAYER ONE 3" LOWER LAYER	12.5mm 19.0mm 19.0mm	PG58-28 PG58-28 PG58-28

Addendum No. 1
IDs 1110-10-71,
1114-09-71 & 1114-10-71
Revised Sheet 12
February 25, 2015



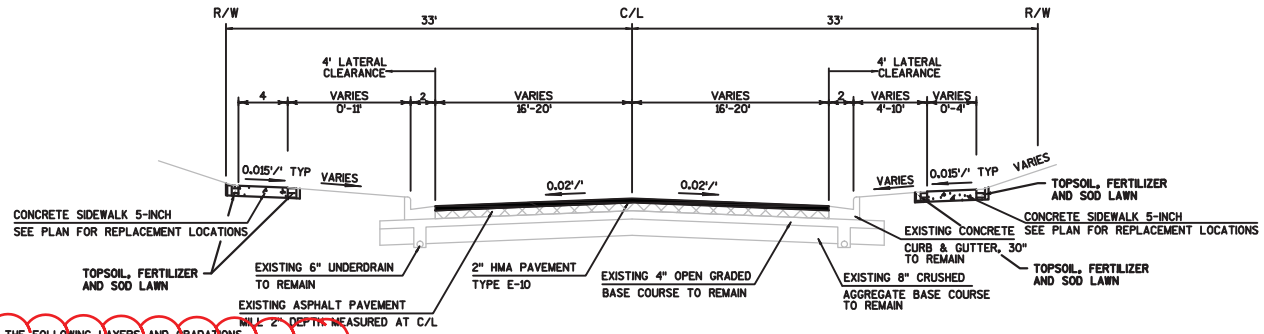
FINISHED TYPICAL CROSS SECTION STH 26 RECONSTRUCT

STA 116+47.25 - STA 141+02.5
V=60 MPH

SHOULDER CURB SECTION

STA 119+42 - STA 124+58
V=60 MPH

*NO RUMBLE STRIPS AT LEFT TURN LANE/MEDIAN
"X" = POINTS REFERRED TO ON CROSS SECTIONS
"Y" = POINTS REFERRED TO ON PROFILE



FINISHED TYPICAL CROSS SECTION STH 26 URBAN

STA 525+37 - STA 548+30
STA 555+91 - STA 581+50

ROADWAY PROFILE UNCHANGED IN THIS SEGMENT
V=30 MPH

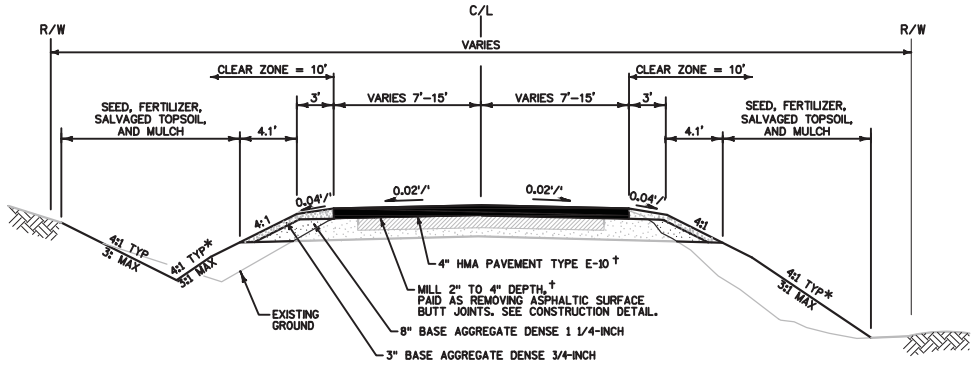
HMA PAVEMENT SHALL BE CONSTRUCTED WITH THE FOLLOWING LAYERS AND GRADATIONS
TYPE E-10

THICKNESS	LAYERS	NOM MAX SIZE GRADATION	ASPHALTIC MATERIAL
2"	ONE 2" UPPER LAYER	12.5mm	PG64-28
7 1/2"	ONE 1 3/4" UPPER LAYER ONE 2 1/4" MIDDLE LAYER ONE 3 1/2" LOWER LAYER	12.5mm 19.0mm 19.0mm	PG58-28 PG58-28 PG58-28

Addendum No. 1
IDs 1110-10-71,
1114-09-71 & 1114-10-71
Revised Sheet 13
February 25, 2015

PROJECT NO:1110-10-71, 1114-09-71, 1114-10-71 HWY: STH 26	COUNTY: FOND DU LAC	TYPICAL SECTIONS	SHEET 13	E

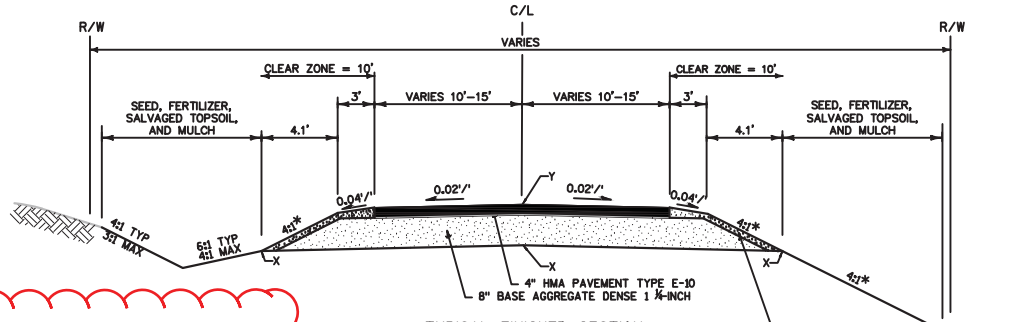
FILE NAME : K:\1112710\CADD\CIVIL3D\1114097\SHEETSPLAN\020302_TS-PR.DWG PLOT DATE : 11/5/2013 3:47 PM PLOT BY : GUILLAMA, TINA R. PLOT NAME : ----------



TYPICAL FINISHED SECTION - RURAL SIDE ROADS
BEYOND END OF FARTHEST RADIUS

NEITMAN RD
CTH TC
HOLLANDER DR
CTH T
BELL SCHOOL RD
FOREST AVE
TRIPLE KAY RD
MARCHANT DR
ROSE-ELD RD †
FREMONT RD
PIERSTORFF RD
GRIFFITH DR
WHITEMARSH DR
OLDEN RD
FRANK RD

*6:1 MAX WITHIN CLEAR ZONE OF STH 26
† 2" MILL AND OVERLAY ONLY AT ROSE-ELD RD
"X" = POINTS REFERRED TO ON CROSS SECTIONS
"Y" = POINTS REFERRED TO ON PROFILE



TYPICAL FINISHED SECTION
RECONSTRUCTED SIDE ROADS

WILLOW CREEK RD
HICKORY RD
SEILER RD
CTH FF

HMA PAVEMENT SHALL BE CONSTRUCTED WITH THE FOLLOWING LAYERS AND GRADATIONS
TYPE E-10

THICKNESS	LAYERS	NOM MAX SIZE GRADATION	ASPHALTIC MATERIAL
4"	ONE 1 3/4" UPPER LAYER ONE 2 1/4" LOWER LAYER	12.5mm 12.5mm	PG58-28 PG58-28

Addendum No. 1
IDs 1110-10-71,
1114-09-71 & 1114-10-71
Revised Sheet 14
February 25, 2015

BASE COURSE ITEMS

LOCATION	305.0110 BASE AGGREGATE DENSE 3/4-INCH TON	305.0120 BASE AGGREGATE DENSE 1 1/4-INCH TON	SPV.0195.02 QMP BASE AGGREGATE DENSE 1 1/4-INCH COMPACTION TON
I.D. 1110-10-71			
116+47 - 141+03	2,000	15,400	15,400
SUBTOTAL	2,000	15,400	15,400
I.D. 1114-09-71			
50+00 - 110+00	2,050	1,300	1,300
110+00 - 116+47	220	220	220
141+03 - 170+00	1,000	810	810
170+00 - 230+00	1,950	1,750	1,750
230+00 - 290+00	2,100	1,200	1,200
290+00 - 350+00	2,000	3,700	3,700
350+00 - 410+00	2,100	1,400	1,400
410+00 - 470+00	2,050	1,350	1,350
470+00 - 553+13	1,900	220	220
SUBTOTAL	15,370	11,950	11,950
I.D. 1114-10-71			
555+91 - 615+00	1,100	670	670
615+00 - 675+00	1,900	580	580
675+00 - 735+00	2,050	2,350	2,350
735+00 - 795+00	2,100	1,800	1,800
795+00 - 855+00	2,000	380	380
855+00 - 909+53	2,150	1,700	1,700
SUBTOTAL	11,300	7,480	7,480
TOTALS	**28,670**	**34,830**	**34,830**

SHAPING SHOULDERS

LOCATION			305.0500 STA
I.D. 1114-09-71			
61+91	96+48	LT	35
61+91	96+53	RT	35
102+09	116+06	RT	14
102+39	116+06	LT	14
141+03	206+31	LT	66
150+01	206+32	RT	57
208+61	227+75	RT	20
208+61	232+19	LT	24
234+96	309+75	RT	75
239+31	294+00	LT	55
302+00	365+31	LT	64
312+25	361+33	RT	50
367+91	441+86	RT	74
371+89	444+70	LT	73
447+44	511+65	RT	65
450+28	525+37	LT	76
512+65	517+00	RT	5
517+86	525+37	RT	8
SUBTOTAL			810
I.D. 1114-10-71			
581+50	631+97	RT	51
584+05	629+50	LT	46
633+27	657+52	RT	25
634+83	657+52	LT	23
657+91	775+26	LT	118
657+91	775+49	RT	118
781+14	788+45	RT	8
783+22	790+97	LT	8
796+42	807+46	RT	12
796+58	806+75	LT	11
810+94	883+30	RT	73
812+58	902+61	LT	91
886+44	900+99	RT	15
908+19	909+53	RT	2
909+12	909+53	LT	1
SUBTOTAL			602
TOTAL			**1,412**

PULVERIZE AND RELAY

LOCATION	325.0100 PULVERIZE AND RELAY SY	SPV.0180.01 QMP PULVERIZE AND RELAY COMPACTION SY
I.D. 1114-09-71		
50+00 - 61+91	--	--
61+91 - 110+00	18,900	18,900
110+00 - 116+47	2,500	2,500
141+03 - 170+00	13,600	13,600
170+00 - 230+00	27,300	27,300
230+00 - 290+00	25,800	25,800
290+00 - 350+00	27,600	27,600
350+00 - 410+00	23,600	23,600
410+00 - 470+00	23,700	23,700
470+00 - 525+37	22,900	22,900
525+37 - 548+30	--	--
SUBTOTAL	185,900	185,900
I.D. 1114-10-71		
555+91 - 581+50	--	--
581+50 - 615+00	12,800	12,800
615+00 - 675+00	29,200	29,200
675+00 - 735+00	25,600	25,600
735+00 - 795+00	24,100	24,100
795+00 - 855+00	27,600	27,600
855+00 - 890+08	16,800	16,800
890+08 - 909+53	--	--
SUBTOTAL	136,100	136,100
TOTAL	**322,000**	**322,000**

DRILLED TIE BARS

LOCATION	416.0610 EACH
I.D. 1114-09-71	
549+84 - 550+03 RT	10
550+17 - 550+37 RT	10
550+75 - 551+45 RT	25
553+13 LT	15
SUBTOTAL	60
I.D. 1114-10-71	
WISCONSIN STREET	16
E MIDWAY STREET	12
W MIDWAY STREET	12
NORTH STREET	8
ROSE ELD ROAD	8
SUBTOTAL	56
TOTAL	**116**

DRILLED DOWEL BARS

LOCATION	416.0620 EACH
I.D. 1114-09-71	
549+84 - 550+03 LT/RT	50
550+17 - 550+37 RT	30
TOTAL	80

ALL ITEMS CATEGORY 0010 UNLESS NOTED

Addendum No. 1
IDs 1110-10-71,
1114-09-71 & 1114-10-71
Revised Sheet 110
February 25, 2015

Addendum No. 1
IDs 1110-10-71,
1114-09-71 & 1114-10-71
Revised Sheet 111
February 25, 2015

CONCRETE DRIVEWAY 6-INCH

LOCATION	416.0160 SY
I.D. 1114-09-71	
85+85 RT	30
550+75 - 551+45 RT	50
TOTAL	**80**

CONCRETE PAVEMENT REPAIR AND REPLACEMENT

LOCATION	* 416.1710 REPAIR SY	416.1720 REPLACEMENT SY
I.D. 1114-09-71		
549+84 - 550+03 LT/RT	--	65
550+17 - 550+37 RT	--	45
551+25 RT	3	--
553+15 LT	3	--
TOTAL	**6**	**110**

* USED FOR AREA AROUND INLET ADJUSTMENT

ASPHALTIC SURFACE PATCHING

LOCATION	465.0110 ASPHALTIC SURFACE PATCHING TON
I.D. 1114-09-71	
MANHOLE ADJUSTMENTS	19
SUBTOTAL	19
I.D. 1114-10-71	
MANHOLE ADJUSTMENTS	26
C&G REPLACEMENTS	35
SUBTOTAL	61
TOTAL	**80**

HMA COLD WEATHER PAVING

LOCATION	460.4000 TON
I.D. 1114-09-71	3,000
I.D. 1114-10-71	2,400
TOTAL	**5,400**

HOT MIX ASPHALT TEST STRIP

LOCATION	SPV.0105.01 LS
I.D. 1114-09-71	1
TOTAL	1

HMA PAVEMENT ITEMS

LOCATION	455.0105 ASPHALTIC MATERIAL PG58-28 TON	455.0120 ASPHALTIC MATERIAL PG64-28 TON	455.0605 TACK COAT GAL	460.1110 HMA PAVEMENT TYPE E-10 TON	SPV.0195.01 HIGH RECYCLE HMA PAVEMENT TYPE E-10 TON
I.D. 1110-10-71					
116+47 - 141+03	300	--	1,810	5,400	--
SUBTOTAL	300	0	1,810	5,400	0
I.D. 1114-09-71					
50+00 - 61+91	40	--	490	700	--
61+91 - 110+00	450	--	2,790	8,030	--
110+00 - 116+47	60	--	340	980	--
141+03 - 170+00	320	--	1,960	5,650	--
170+00 - 230+00	620	--	3,870	11,140	--
230+00 - 290+00	600	--	3,790	10,910	--
290+00 - 350+00	610	--	3,870	11,110	--
350+00 - 380+00	310	--	1,945	5,600	--
380+00 - 410+00	70	--	1,585	1,140	3,420
410+00 - 470+00	150	--	3,550	2,680	7,530
470+00 - 485+00	40	--	790	570	1,710
485+00 - 525+37	390	--	2,410	6,920	--
525+37 - 548+30	--	53	590	970	--
SUBTOTAL	3,660	53	27,980	66,400	12,660
I.D. 1114-10-71					
555+91 - 581+50	--	72	790	1,310	--
581+50 - 615+00	290	--	1,860	5,350	--
615+00 - 675+00	660	--	4,180	12,000	--
675+00 - 735+00	560	--	3,570	10,260	--
735+00 - 795+00	570	--	3,640	10,450	--
795+00 - 855+00	640	--	4,090	11,700	--
855+00 - 890+08	380	--	2,400	6,900	--
890+08 - 909+53	200	--	1,530	3,700	--
SUBTOTAL	3,300	72	22,060	61,670	0
TOTALS	**7,260**	**125**	**51,850**	**133,470**	**12,660**

ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES

LOCATION	465.0120 TON
I.D. 1110-10-71	
116+47 - 141+03	20
SUBTOTAL	20
I.D. 1114-09-71	
50+00 - 110+00	40
110+00 - 116+47	6
141+03 - 170+00	60
170+00 - 230+00	25
230+00 - 290+00	45
290+00 - 350+00	55
350+00 - 410+00	40
410+00 - 470+00	60
470+00 - 548+30	25
SUBTOTAL	356
I.D. 1114-10-71	
555+91 - 615+00	30
615+00 - 675+00	35
675+00 - 735+00	55
735+00 - 795+00	60
795+00 - 855+00	65
855+00 - 909+53	25
SUBTOTAL	270
TOTAL	**646**

ASPHALTIC FLUMES

LOCATION	465.0315 SY
I.D. 1110-10-71	
119+44 LT	9
WILLOW CREEK ROAD	20
SUBTOTAL	20
I.D. 1114-09-71	
NEITMAN ROAD	9
CTH TC	55
CTH T	45
FOREST AVENUE	45
TRIPLE KAY ROAD	20
MARCHANT ROAD	20
SUBTOTAL	194
I.D. 1114-10-71	
ROSE ELD ROAD	15
FREMONT ROAD	30
E OLDEN ROAD	30
W OLDEN ROAD	40
HICKORY ROAD	20
SEILER ROAD	20
FRANK ROAD	20
CTH FF	30
SUBTOTAL	205
TOTAL	**419**

ALL ITEMS CATEGORY 0010 UNLESS NOTED

3

3

TRAFFIC CONTROL ITEMS

LOCATION	* ESTIMATED DURATION DAYS	643.0100 TRAFFIC CONTROL (PROJECT) EACH	* APPROX NUMBER OF DRUMS EACH	** 643.0300 TRAFFIC CONTROL DRUMS DAYS	* APPROX NUMBER OF BARRICADES TYPE II EACH	643.0410 BARRICADES TYPE II DAYS	* APPROX NUMBER OF BARRICADES TYPE III EACH	*** 643.0420 BARRICADES TYPE III DAYS	* APPROX NUMBER OF WARNING LIGHTS TYPE A EACH	*** 643.0705 WARNING LIGHTS TYPE A DAYS	* APPROX NUMBER OF WARNING LIGHTS TYPE C EACH	643.0715 WARNING LIGHTS TYPE C DAYS	* APPROX NUMBER OF SIGNS EACH	** 643.0900 SIGNS DAYS
I.D. 1110-10-71	150	1	50	7,800	---	---	15	2,250	18	2,700	---	---	6	930
I.D. 1114-09-71	150	1	230	35,250	---	---	37	5,550	74	11,100	21	3,150	48	7,500
I.D. 1114-10-71	150	1	240	31,800	40	1,200	31	4,650	102	10,500	40	1,200	79	9,240
TOTALS		**3**		**74,850**		**1,200**		**12,450**		**24,300**		**4,350**		**17,670**

* FOR INFORMATION PURPOSES ONLY. SIDEWALK CLOSURE ESTIMATED AT 30 DAYS.
** INCLUDES UNDISTRIBUTED QUANTITIES AND ROADWAY FINISHING QUANTITIES TO BE USED DURING PAVEMENT MARKING, RUMBLE STRIPS, AND SHOULDERING AFTER OPENING STH 26 TO THROUGH TRAFFIC.
*** ADDITIONAL QUANTITIES LISTED ELSEWHERE.

Addendum No. 1
IDs 1110-10-71,
1114-09-71 & 1114-10-71
Revised Sheet 132
February 25, 2015

ALL ITEMS CATEGORY 0010 UNLESS NOTED

Addendum No. 1
IDs 1110-10-71,
1114-09-71 & 1114-10-71
Revised Sheet 139
February 25, 2015

3

3

PAVEMENT MARKING

LOCATION	646.0106 EPOXY 4-INCH YELLOW LF	SPV.0090.02 GROOVED WET REFLECTIVE EPOXY 4-INCH WHITE LF	646.0126 EPOXY 8-INCH WHITE LF	646.0406 SAME DAY EPOXY 4-INCH YELLOW LF	647.0156 ARROWS EPOXY TYPE 1 EACH	647.0356 WORDS EPOXY EACH	647.0726 DIAGONAL EPOXY 12-INCH LF	647.0766 CROSSWALK EPOXY 6-INCH LF	647.0796 CROSSWALK EPOXY 24-INCH LF	647.0803 AERIAL ENFORCEMENT BARS 24-INCH EPOXY LF	647.0856 CONCRETE CORRUGATED MEDIAN EPOXY SF	648.0100 LOCATING NO PASSING ZONES MI
I.D. 1110-10-71												
116+47 - 141+03	6,930	4,790	655	6,930	4	3	125	--	--	--	--	0.47
SUBTOTAL	6,930	4,790	655	6,930	4	3	125	0	0	0	0	0.47
I.D. 1114-09-71												
50+00 - 110+00	12,250	11,900	245	12,250	--	--	305	--	--	--	1,040	1.14
110+00 - 116+47	1,300	1,300	--	1,300	--	--	--	--	--	--	--	0.12
141+03 - 170+00	5,800	7,040	--	5,800	--	--	--	--	--	24	--	0.55
170+00 - 230+00	12,000	15,100	70	12,000	--	--	--	--	--	36	--	1.14
230+00 - 290+00	11,850	12,850	635	11,850	--	--	--	--	--	--	--	1.14
290+00 - 350+00	9,730	15,100	--	9,730	--	--	--	--	--	--	--	1.14
350+00 - 410+00	8,980	11,750	600	8,980	--	--	--	--	--	--	--	1.14
410+00 - 470+00	10,250	11,750	400	10,250	--	--	--	--	--	--	--	1.14
470+00 - 530+00	9,060	11,100	--	9,990	--	--	--	--	--	--	--	1.14
530+00 - 548+30	700	--	--	3,140	--	--	120	--	--	--	380	0.35
SUBTOTAL	81,920	97,890	1,950	85,290	0	0	425	0	0	60	1,420	9.00
I.D. 1114-10-71												
555+91 - 615+00	4,350	6,910	360	8,460	--	--	30	330	290	--	--	1.12
615+00 - 675+00	12,000	14,950	--	12,000	--	--	--	--	--	--	--	1.14
675+00 - 735+00	11,850	14,000	--	11,850	--	--	--	--	--	--	--	1.14
735+00 - 795+00	10,850	12,250	380	10,850	--	--	--	--	--	--	--	1.14
795+00 - 855+00	11,850	14,550	225	11,850	--	--	--	--	--	--	--	1.14
855+00 - 909+53	10,700	14,000	300	10,700	--	--	--	--	--	--	--	1.03
SUBTOTAL	61,600	76,660	1,265	65,710	0	0	30	330	290	0	0	6.71
TOTALS	**150,450**	**179,340**	**3,870**	**157,930**	**4**	**3**	**580**	**330**	**290**	**60**	**1,420**	**16.18**

ALL ITEMS CATEGORY 0010 UNLESS NOTED

CONTRACT: 20150310019

PROJECT(S): 1110-10-71, 1114-09-71, 1114-10-71

FEDERAL ID(S): WISC 2015129, WISC 2015130, WISC 2015131

CONTRACTOR :_____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
0480	416.0160 Concrete Driveway 6-Inch	80.000 SY		.		.
0490	416.0610 Drilled Tie Bars	116.000 EACH		.		.
0500	416.0620 Drilled Dowel Bars	80.000 EACH		.		.
0510	416.1710 Concrete Pavement Repair	6.000 SY		.		.
0520	416.1720 Concrete Pavement Replacement	110.000 SY		.		.
0530	440.4410.S Incentive IRI Ride	73,820.000 DOL	1.00000		73820.00	
0540	455.0105 Asphaltic Material PG58-28	7,260.000 TON		.		.
0550	455.0120 Asphaltic Material PG64-28	125.000 TON		.		.
0560	455.0605 Tack Coat	51,850.000 GAL		.		.
0570	460.1110 HMA Pavement Type E-10	133,470.000 TON		.		.

CONTRACT: 20150310019

PROJECT(S): 1110-10-71, 1114-09-71, 1114-10-71

FEDERAL ID(S): WISC 2015129, WISC 2015130, WISC 2015131

CONTRACTOR :_____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
1040	601.0553 Concrete Curb & Gutter 4-Inch Sloped 36-Inch Type D	3,410.000 LF		.		.
1050	601.0600 Concrete Curb Pedestrian	65.000 LF		.		.
1060	602.0410 Concrete Sidewalk 5-Inch	1,705.000 SF		.		.
1070	602.0505 Curb Ramp Detectable Warning Field Yellow	112.000 SF		.		.
1080	606.0100 Riprap Light	25.000 CY		.		.
1090	606.0200 Riprap Medium	135.000 CY		.		.
1100	608.0318 Storm Sewer Pipe Reinforced Concrete Class III 18-Inch	291.000 LF		.		.
1110	609.0124 Relaid Storm Sewer 24-Inch	184.000 LF		.		.
1120	609.0130 Relaid Storm Sewer 30-Inch	8.000 LF		.		.
1130	609.0136 Relaid Storm Sewer 36-Inch	24.000 LF		.		.

CONTRACT: 20150310019

PROJECT(S): 1110-10-71, 1114-09-71, 1114-10-71

FEDERAL ID(S): WISC 2015129, WISC 2015130, WISC 2015131

CONTRACTOR :_____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
1640	638.2602 Removing Signs Type II	266.000 EACH		.		.
1650	638.3000 Removing Small Sign Supports	269.000 EACH		.		.
1660	642.5401 Field Office Type D	1.000 EACH		.		.
1670	643.0100 Traffic Control (project) 01. 1110-10-71	1.000 EACH		.		.
1680	643.0100 Traffic Control (project) 02. 1114-09-71	1.000 EACH		.		.
1690	643.0100 Traffic Control (project) 03. 1114-10-71	1.000 EACH		.		.
1700	643.0300 Traffic Control Drums	74,850.000 DAY		.		.
1710	643.0410 Traffic Control Barricades Type II	1,200.000 DAY		.		.
1720	643.0420 Traffic Control Barricades Type III	13,050.000 DAY		.		.
1730	643.0705 Traffic Control Warning Lights Type A	25,500.000 DAY		.		.

CONTRACT: 20150310019

PROJECT(S): 1110-10-71, 1114-09-71, 1114-10-71

FEDERAL ID(S): WISC 2015129, WISC 2015130, WISC 2015131

CONTRACTOR :_____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
1740	643.0715 Traffic Control Warning Lights Type C	4,350.000 DAY		.		.
1750	643.0900 Traffic Control Signs	17,670.000 DAY		.		.
1760	643.0910 Traffic Control Covering Signs Type I	8.000 EACH		.		.
1770	643.0920 Traffic Control Covering Signs Type II	20.000 EACH		.		.
1780	643.1000 Traffic Control Signs Fixed Message	165.750 SF		.		.
1790	643.1050 Traffic Control Signs PCMS	78.000 DAY		.		.
1800	643.2000 Traffic Control Detour (project) 01. Id 1110-10-71, 1114-09-71, 1114-10-7	1.000 EACH		.		.
1810	643.3000 Traffic Control Detour Signs	39,150.000 DAY		.		.
1820	645.0120 Geotextile Fabric Type HR	271.000 SY		.		.
1830	645.0130 Geotextile Fabric Type R	75.000 SY		.		.

CONTRACT: 20150310019

PROJECT(S): 1110-10-71, 1114-09-71, 1114-10-71

FEDERAL ID(S): WISC 2015129, WISC 2015130, WISC 2015131

CONTRACTOR :_____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
1840	646.0106 Pavement Marking Epoxy 4-Inch	150,450.000 LF		.		.
1850	646.0126 Pavement Marking Epoxy 8-Inch	3,870.000 LF		.		.
1860	646.0406 Pavement Marking Same Day Epoxy 4-Inch	157,930.000 LF		.		.
1870	647.0156 Pavement Marking Arrows Epoxy Type 1	4.000 EACH		.		.
1880	647.0356 Pavement Marking Words Epoxy	3.000 EACH		.		.
1890	647.0726 Pavement Marking Diagonal Epoxy 12-Inch	580.000 LF		.		.
1900	647.0766 Pavement Marking Crosswalk Epoxy 6-Inch	330.000 LF		.		.
1910	647.0796 Pavement Marking Crosswalk Epoxy 24-Inch	290.000 LF		.		.
1920	647.0803 Pavement Marking Aerial Enforcement Bars Epoxy 24-Inch	60.000 LF		.		.
1930	647.0856 Pavement Marking Concrete Corrugated Median Epoxy	1,420.000 SF		.		.

CONTRACT: 20150310019

PROJECT(S): 1110-10-71, 1114-09-71, 1114-10-71

FEDERAL ID(S): WISC 2015129, WISC 2015130, WISC 2015131

CONTRACTOR :_____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
2220	SPV.0195 Special 01. Exc, Hauling, And Disp Of Cont. Soil And Mngmt Of Contaminated Grndwtr	100.000 TON		.		.
2230	SPV.0195 Special 02. Qmp Base Aggregate Dense 1 1/4-Inch Compaction	34,830.000 TON		.		.
2240	SPV.0105 Special 01. Hot Mix Asphalt Test Strip	LUMP	LUMP			.
2250	SPV.0195 Special 03. High Recycle HMA Pavement Type E-10	12,660.000 TON		.		.
	SECTION 0001 TOTAL					.
	TOTAL BID					.