



# Wisconsin Department of Transportation

June 06, 2016

**Division of Transportation Systems Development**

Bureau of Project Development  
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**NOTICE TO ALL CONTRACTORS:**

**Proposal #09: 2265-00-74, WISC 2016 222**  
**North 27th Street**  
**W. Highland Blvd. to W. Lisbon Ave.**  
**Local Street**  
**Milwaukee County**

**Letting of June 14, 2016**

This is Addendum No. 02, which provides for the following:

**Special Provisions**

Revised Special Provisions	
Article No.	Description
10	Utilities
23	Excavating, Hauling, and Disposal of Petroleum Contaminated Soil, Item 205.0501.S
70	Excavation, Hauling, and Disposal of Metals and VOC Contaminated Soil, Item SPV.0195.01

Added Special Provisions	
Article No.	Description
71	HMA Pavement 4 MT 58-28 S 3.0% Va Regression Special, Item SPV.0195.02

Deleted Special Provisions	
Article No.	Description
26	HMA Pavement 4 MT 58-28 S, Item 460.6224

**Schedule of Items**

Revised Bid Item Quantities					
Bid Item	Item Description	Unit	Old Quantity	Revised Quantity	Proposal Total
205.0501.S	Excavation, Hauling, and Disposal of Petroleum Contaminated Soil	Ton	50	-45	5
SPV.0195.01	Excavation, Hauling, and Disposal of Metals and VOC Contaminated Soil	Ton	88	23	111

<b>Added Bid Item Quantities</b>					
Bid Item	Item Description	Unit	Old Quantity	Revised Quantity	Proposal Total
SPV.0195.02	HMA Pavement 4MT 58-28 S 3.0% Va Regression Special	Ton	0	5,800	5,800

<b>Deleted Bid Item Quantities</b>					
Bid Item	Item Description	Unit	Old Quantity	Revised Quantity	Proposal Total
460.6224	HMA Pavement 4 MT 58-28 S	Ton	5800	-5,800	0

**Plan Sheets**

<b>Revised Plan Sheets</b>	
Plan Sheet	Plan Sheet Title (brief description of changes to sheet)
51-52	Revised storm sewer sheets to not show discontinued AT&T conduit conflicting with proposed catch basins
58	Revised Removals and Utility Plan to not show discontinued AT&T conduit conflicting with proposed catch basins
116	Revised HMA Pavement bid item name on Misc. Quantity sheet
121	Revised Excavation of Hazardous Materials quantities

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

Sincerely,

*Mike Coleman*

Proposal Development Specialist  
 Proposal Management Section

**ADDENDUM NO. 02**

**2265-00-74**

**June 06, 2016**

**Special Provisions**

**10. Utilities**

*Replace paragraphs four and five under section titled **AT&T Wisconsin** with the following:*

AT&T has conduit that crosses the new storm sewer at two locations where the depth of the conduit is unknown. AT&T will test hole these locations to determine if a conflict exists. If it is determined that the AT&T conduit is in conflict with the new storm sewer, it will be adjusted prior to construction. These two locations are as follows:

Station 28+20, 38' LT  
Station 46+24, 42' LT

**23. Excavating, Hauling, and Disposal of Petroleum Contaminated Soil, Item 205.0501.S.**

*Replace paragraph two under section titled **A.2 Notice to the Contractor – Contaminated Soil** with the following:*

- North 27th Street from Station 34+00 to 35+50, from the reference line to project limits right, from 7 feet below ground surfaces to at least 10 feet below ground surface. Soil contains PVOCs and must be managed. Approximately 3 cubic yards (approximately 5 tons at an estimated 1.7 tons per cubic yard) of soil will be excavated from this location.

*Replace Number four under role of the environmental consultant under section titled **A.3 Coordination** with the following:*

4. Obtaining the necessary approvals for disposal of contaminated soil from the landfill facility.

**26. DELETED.**

**70. Excavating, Hauling, and Disposal of Metals and VOC Contaminated Soil, Item SPV.0195.01.**

*Replace entire section titled **A.2 Notice to the Contractor – Contaminated Soil Location(s)** with the following:*

**A.2 Notice to the Contractor – Contaminated Soil Location(s)**

The department and others completed testing for soil contamination for locations within this project where excavation is required. Testing indicated that soil contaminated with metals and chlorinated VOCs are present at the following location where excavation is required, as shown on the plans where excavation is required:

- North 27th Street from Station 29+00 to 31+00, from the reference line to project limits right, from 0 feet below the ground surface to 10 feet below the ground surface. Soil contains lead, tetrachloroethene (PCE) and pieces of slag and must be managed. Approximately 22 cubic yards (approximately 38 tons at an estimated 1.7 tons per cubic yard) of soil will be excavated from this location.

- North 27th Street from Station 34+00 to 35+50, from the reference line to project limits left, from 0 feet below the ground surface to 6 feet below the ground surface. Soil contains lead and must be managed. Approximately 12 cubic yards (approximately 20 tons at an estimated 1.7 tons per cubic yard) of soil will be excavated from this location.
- North 27th Street from Station 37+00 to 38+50, from the reference line to project limits left, from 0 feet below the ground surface to 6 feet below the ground surface. Soil contains lead and must be managed. Approximately 6 cubic yards (approximately 10 tons at an estimated 1.7 tons per cubic yard) of soil will be excavated from this location.
- North 27th Street from Station 44+50 to 48+70, from the reference line to project limits left, from 0 feet below the ground surface to 3 feet below the ground surface. Soil contains pieces of slag and must be managed. Approximately 25 cubic yards (approximately 43 tons at an estimated 1.7 tons per cubic yard) of soil will be excavated from this location.

Directly load soil excavated by the project at the above location into trucks that will transport the soil to a WDNR-licensed landfill facility for disposal.

If contaminated soils are encountered elsewhere on the project, terminate excavation activities in the area and notify the engineer.

The excavation management plan for this project has been designed to minimize the offsite treatment or disposal of contaminated material. The excavation management plan, including these special provisions, has been developed in cooperation with the WDNR. The WDNR concurrence letter is on file at the Wisconsin Department of Transportation. For further information regarding previous investigation and remediation activities near this project contact:

Name: Mr. Todd Becker (DAAR Engineering, Inc.)  
 Address: 325 E. Chicago Street, Suite 500, Milwaukee, WI 53202  
 Phone: (414) 935-4359  
 Fax: (414) 225-9826  
 E-mail: [todd.becker@daarcorp.com](mailto:todd.becker@daarcorp.com)

**71. HMA Pavement 4 MT 58-28 S 3.0% Va Regression Special, Item SPV.0195.02.**

**A Description**

This special provision describes providing HMA pavement including the binder under a combined bid item along with air void regression as described here within.

Define gradations, traffic levels, and asphaltic binder designation levels as follows:

<u>GRADATIONS</u> (NMAAS)		<u>TRAFFIC VOLUME</u>		<u>DESIGNATION LEVEL</u>	
1	37.5 mm	LT	Low	S	Standard
2	25.0 mm	MT	Medium	H	Heavy
3	19.0 mm	HT	High	V	Very Heavy
4	12.5 mm			E	Extremely Heavy
5	9.5 mm				
6	4.75 mm				

Construct HMA pavement of the type the bid item indicates encoded as follows:



Conform to standard spec 460 as modified in this special provision.

**B Materials**

*Add the following to standard spec 460.2:*

Design mixtures conforming to tables 460-1 and 460-2 to 4.0% air voids to establish the aggregate structure.

Determine the target JMF Asphalt Binder content for production from the mix design data corresponding to 3.0% air voids (97% Gmm) target at Ndes. The air voids at the design number of gyrations, (Ndes) shall be achieved by the addition of liquid asphalt meeting the contract specifications.

Production shall conform to VMA and Dust to Binder Ratio requirements of table 460-1 and 460-2.

*Replace standard spec table 460-1 with the following to change the footnotes to refer to LT and MT mixes instead of E-0.3 and E-3 mixes:*

**TABLE 460-1 AGGREGATE GRADATION MASTER RANGE AND VMA REQUIREMENTS**

SIEVE	PERCENTS PASSING DESIGNATED SIEVES						
	NOMINAL SIZE						
	37.5 mm (#1)	25.0 mm (#2)	19.0 mm (#3)	12.5 mm (#4)	9.5 mm (#5)	SMA 12.5 mm (#4)	SMA 9.5 mm (#5)
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 <sup>[1]</sup>	15.0 <sup>[2]</sup>	16.0	17.0

<sup>[1]</sup> 14.5 for LT and MT mixes

<sup>[2]</sup> 15.5 for LT and MT mixes

*Replace standard spec table 460-2 with the following to switch from E mixes to LT, MT, and HT mixes; and change the tensile strength ratio requirements to 0.75 without antistripping additive and 0.80 with antistripping additive:*

**TABLE 460-2 MIXTURE REQUIREMENTS**

Mixture type	LT	MT	HT	SMA
ESALs x 106 (20 yr design life)	<2.0	2 - <8	>8	> 5 mil
LA Wear (AASHTO T96)				
100 revolutions(max % loss)	13	13	13	13
500 revolutions(max % loss)	50	45	45	40
Soundness (AASHTO T104) (sodium sulfate, max % loss)	12	12	12	12
Freeze/Thaw (AASHTO T103)	18	18	18	18

(specified counties, max % loss)				
Fractured Faces (ASTM 5821) (one face/2 face, % by count)	65/ ___	75 / 60	98 / 90	100/90
Flat & Elongated (ASTM D4791) (max %, by weight)	5 (5:1 ratio)	5 (5:1 ratio)	5 (5:1 ratio)	20 (3:1 ratio)
Fine Aggregate Angularity (AASHTO T304, method A, min)	40	43	45	45
Sand Equivalency (AASHTO T176, min)	40	40	45	50
Gyratory Compaction				
Gyrations for Nini	6	7	8	8
Gyrations for Ndes	40	75	100	65
Gyrations for Nmax	60	115	160	160
Air Voids, %Va (%Gmm Ndes)	4.0 (96.0)	4.0 (96.0)	4.0 (96.0)	4.0 (96.0)
% Gmm Nini	<= 91.5 <sup>[1]</sup>	<= 89.0 <sup>[1]</sup>	<= 89.0	___
% Gmm Nmax	<= 98.0	<= 98.0	<= 98.0	___
Dust to Binder Ratio <sup>[2]</sup> (% passing 0.075/Pbe)	0.6 - 1.2	0.6 - 1.2	0.6 - 1.2	1.2 - 2.0
Voids filled with Binder (VFB or VFA, %)	68 - 80 <sup>[4] [5]</sup>	65 – 75 <sup>[3] [4]</sup>	65 - 75 <sup>[3] [4]</sup>	70 - 80
Tensile Strength Ratio (TSR) (ASTM 4867)				
no antistripping additive	0.75	0.75	0.75	0.75
with antistripping additive	0.80	0.80	0.80	0.80
Draindown at Production Temperature (%)	___	___	___	0.30

<sup>[1]</sup> The percent maximum density at initial compaction is only a guideline.

<sup>[2]</sup> For a gradation that passes below the boundaries of the caution zone (ref. AASHTO MP3), the dust to binder ratio limits are 0.6 - 1.6.

<sup>[3]</sup> For #5 (9.5mm) and #4 (12.5 mm) nominal maximum size mixtures, the specified VFB range is 70 - 76%.

<sup>[4]</sup> For #2 (25.0mm) nominal maximum size mixes, the specified VFB lower limit is 67%.

<sup>[5]</sup> For #1 (37.5mm) nominal maximum size mixes, the specified VFB lower limit is 67%.

*Replace standard spec 460.2.8.2.1.7 paragraph six with the following to base payment adjustment on the combined bid item unit price:*

(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<sup>[1] [2]</sup>**

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

- <sup>[1]</sup> For projects or plants where the total production of each mixture design requires less than 4 tests refer to CMM 8-36.
- <sup>[2]</sup> Payment is in percent of the contract unit price for the HMA Pavement bid item. The department will reduce pay based on the nonconforming property with lowest percent pay. The department will administer pay reduction under the Nonconforming QMP HMA Mixture administrative item.

*Replace standard spec 465.2 with the following:*

(1) Under the Asphaltic Surface, Asphaltic Surface Detours, and Asphaltic Surface Patching bid items; submit a mix design. Furnish asphaltic mixture meeting the requirements specified for either type LT or MT mix under 460.2; except the engineer will not require the contractor to conform to the quality management program specified under 460.2.8.

(2) Under the other 465 bid items, the contractor need not submit a mix design. Furnish aggregates mixed with a type AC asphaltic material. Use coarse and fine mineral aggregates uniformly coated and mixed with the asphaltic material in an engineer-approved mixing plant. The contractor may include reclaimed asphaltic pavement materials in the mixture.

### C Construction

*Replace standard spec table 460-3 with the following to switch from E mixes to LT, MT, and HT mixes and to increase field density requirements by 1.5% when operating under this HMA Pavement 3.0% Va Regression SPV:*

**TABLE 460-3 MINIMUM REQUIRED DENSITY<sup>[1]</sup>**

LOCATION	LAYER	PERCENT OF TARGET MAXIMUM DENSITY		
		MIXTURE TYPE		
		LT AND MT	HT	SMA <sup>[5]</sup>
TRAFFIC LANES <sup>[2]</sup>	LOWER	93.0 <sup>[3]</sup>	93.0 <sup>[4]</sup>	—
	UPPER	93.0	93.0	—
SIDE ROADS, CROSSOVERS, TURN LANES, & RAMPS	LOWER	93.0 <sup>[3]</sup>	93.0 <sup>[4]</sup>	—
	UPPER	93.0	93.0	—
SHOULDERS & APPURTENANCES	LOWER	91.0	91.0	—
	UPPER	92.0	92.0	—

<sup>[1]</sup> The table values are for average lot density. If any individual density test result falls more than 3.0 percent below the minimum required target maximum density, the engineer may investigate the acceptability of that material.

<sup>[2]</sup> Includes parking lanes as determined by the engineer.

<sup>[3]</sup> Minimum reduced by 2.0 percent for a lower layer constructed directly on crushed aggregate or recycled base courses.

<sup>[4]</sup> Minimum reduced by 1.0 percent for a lower layer constructed directly on crushed aggregate or recycled base courses.

<sup>[5]</sup> The minimum required densities for SMA mixtures are determined according to CMM 8-15.

*Delete standard spec 460.2.8.2.1.5(1) 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
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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	- 0.3	- 0.2
Air voids in percent	+ 1.3/-1.0	+ 1.0/-0.7
VMA in percent <sup>(1)</sup>	- 0.5	- 0.2

<sup>(1)</sup> VMA limits based on minimum requirement for mix design nominal maximum aggregate size in [table 460-1](#).

*Delete standard spec 460.2.8.3.1.6(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 2.0 to 4.3 percent.
  - VMA is within minus 0.5 of the minimum requirement for the mix design nominal maximum aggregate size.

#### **D Measurement**

The department will measure HMA Pavement (type) 3.0% Va Regression Special conforming to standard spec 460.4.

#### **E Payment**

*Add the following to standard spec 460.5 to switch from E mixes to LT, MT, and HT mixes; to combine the pavement and binder bid items; and to specify a pay reduction for pavement placed with nonconforming binder:*

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0195.02	HMA Pavement 4 MT 58-28 S 3.0% Va Regression Special	TON

Payment is full compensation for providing HMA Pavement including asphaltic binder.

In addition to any pay adjustment under standard spec 460.2.8.2.1.7(6), the department will adjust pay for nonconforming binder under the Nonconforming QMP Asphaltic Material administrative item. The department will deduct 25 percent of the contract unit price of the HMA Pavement bid item per ton of pavement placed with nonconforming PG binder the engineer allows to remain in place.

*Delete standard spec 460.5.2.3(1) and replace with the following:*

(1) If the lot density is greater than the minimum specified in [table 460-3](#) and all individual air voids test results for that mixture placed during the same day are within 2.5 - 4.0 percent, the department will adjust pay for that lot as follows:



**INCENTIVE PAY ADJUSTMENT FOR HMA PAVEMENT DENSITY**

PERCENT LOT DENSITY ABOVE SPECIFIED MINIMUM PAY ADJUSTMENT PER TON<sup>[1]</sup>

From -0.4 to 1.0 inclusive	\$0
From 1.1 to 1.8 inclusive	\$0.40
More than 1.8	\$0.80

<sup>[1]</sup> The department will prorate the pay adjustment for a partial lot.

## APPENDIX A: Test Procedures for HMA Pavement 3% Va Regression SPV

Delete CMM 8-15.10.1 Target maximum Density and replace with the following:

For pavement density determination, the target value in lb/ft<sup>3</sup> (PCF) is established using the mixture maximum specific gravity ( $G_{mm}$ ). For the first day of a paving mixture design, the target maximum density will be the  $G_{mm}$  value corresponding to 3.0% air voids on the mix design multiplied by 62.24 lb/ft<sup>3</sup> (PCF). The target maximum density for all other days will be the four  $G_{mm}$  test running average value from the end of the previous days' production multiplied by 62.24 lb/ft<sup>3</sup> (PCF). If four tests have not been completed by the end of the first day, the average of the completed  $G_{mm}$  test values multiplied by 62.24 lb/ft<sup>3</sup> (PCF) will be used until a running average of 4 is established.

The following data must be recorded for each test on the worksheet for MRS entry

- Density standard and moisture standard
- Density count, moisture counts or contact and air gap counts
- Total wet density or bulk density
- % Compaction
- Manufacturer name and serial number
- Operators name
- Mix design number (WisDOT 250 ID) and daily Target max density target number ( $G_{mm} \times 62.24$  lb/ft<sup>3</sup>)

Delete CMM 8-15.15.2.1 Examples of Computing Incentive/Disincentive for Density and replace with the following:

### Example 1 (nominal tonnage lots):

HMA Pavement, Type 4 HT 58-34 S Lot 2R

Total HMA Tonnage for Project: 20,000 Tons

% Density of Target Maximum ( $G_{mm}$ ) = 90.4%

Required % Density of the  $G_{mm}$  = 93.0%

Lot Tonnage = 750

Contract Price per Ton = \$26.50

From Table 460-3 of this SPV.0195 and 460.5.2.2:

- Amount below Specified Minimum (Table 460-3 of this SPV) = 93.0 - 90.4 = 2.6
- Payment Factor (SS 460.5.2.2) = 70% (30% Credit to the Department)
- Credit to the Department (HMA Mix) = 30% x \$26.50/Ton x 750 Tons = \$5,962.50

If this were the only failing lot on the project, the final quantities on the estimate would be as shown in Table 3.

### Example 2 (nominal tonnage lots):

HMA Pavement, Type 4 HT 58-34 S Lot 3R

% Density of Target Maximum ( $G_{mm}$ ) = 94.6%

Required % Density of the  $G_{mm}$  = 93.0%

Lot Tonnage = 750

Air Voids for day = 2.9-3.2%

Payment Factor = 94.6 – 93.0 (Table 460-3)= 1.6

Adjusted Unit Price = \$0.40/Ton x 750 Tons (SS 460.5.2.3(1) of this SPV)= \$300

If this is the only lot with a higher density than required on the project, the final quantities on the estimate would be as shown in Table 3 below:

**Table 3 Estimate for Pay Adjustment for Incentive/Disincentive Density**

Bid Item	Description	Unit	Cost/Unit	Total Quantity	Total
460.7244	HMA Type 4 HT 58-34 S	TON	\$26.50	20,000	\$530,000.00
460.2000	Incentive Density HMA Pavement	DOL	\$1.00	300.00	\$300.00
804.2005	Disincentive Density HMA Pavement	DOL	\$1.00	-(5,962.5)	-\$5,962.50

Project Information for Examples 3 and 4 (daily tonnage lots & linear sublots):

A project begins at station 56+78 and ends at station 234+25. It is a 2-lane roadway with a shoulder on each side. The traffic lanes are 12 feet wide and the shoulders are 3 feet wide. Shown in the figure below is the eastbound traffic lane and shoulder for the length of the project. The contractor will be paving the shoulder integrally with the traffic lane. The pavement is a 2-inch overlay and the same HMA mix type is used on the entire project. The HMA mixture includes 5.5% asphaltic material. The bid price for the HMA pavement item is \$41.75 per ton. The specified target density for the traffic lane is 93.0%. The target density for the shoulder is 92.0%.

Day 1:

The contractor begins paving at station 56+78 and ends the day at station 102+97, a total length of 4,619 feet. A quantity of 677 tons was placed on the eastbound traffic lane, and 169 tons was placed on the integral shoulder.

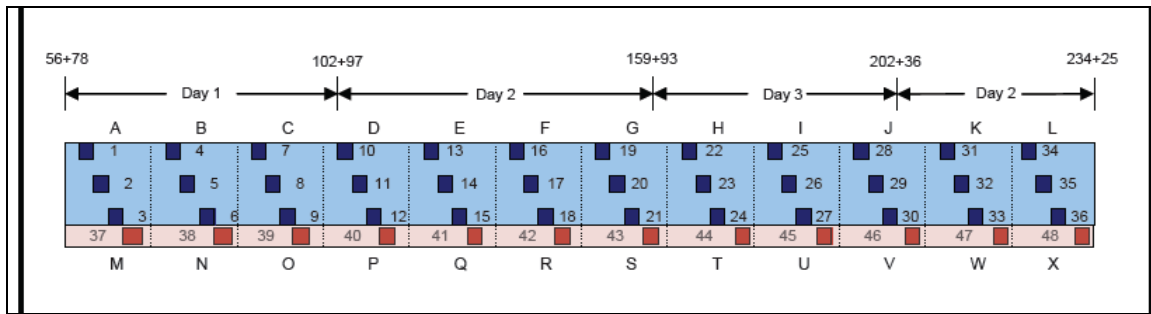
Day 2:

The contractor begins paving at station 102+97. Due to traffic staging requirements, the contractor stops paving at station 159+93, 5,696 feet, and begins paving again at station 202+36. They end the day at the end of the project, station 234+25, 3,189 additional feet. A quantity of 1303 tons was paved on the eastbound traffic lane, and 326 tons was placed on the integral shoulder.

Day 3:

The contractor begins paving at station 159+93 and ends the day at station 202+36, 4,243 feet. A total of 622 tons was placed on the eastbound traffic lane, and 156 tons was placed on the integral shoulder.

**Figure 6 Linear Sublot Example Project**



Example 3 (daily tonnage lot & linear sublots):

Use the example project information and the following test results from day 1. All of the day's air voids tests were acceptable. (Density Calculated off the PCF value, subplot is the average of the density %)

Sublot ID	Test ID	% Density	Sublot Avg % Density
A 56+78 to 71+78	1	93.8	94.1
	2	94.2	
	3	94.4	
B 71+78 to 86+78	4	94.1	94.5
	5	94.7	
	6	94.6	
C 86+78 to 101+78	7	93.6	94.1
	8	94.5	
	9	94.3	
M	37	93.2	93.2
N	38	94.2	94.2
O	39	93.0	93.0

1. Compute the average density for each traffic lane subplot and each shoulder subplot.

SOLUTION: See the results in the table above.

2. Compute the density incentive or disincentive for the day's paving.

SOLUTION:

- Traffic Lane:

The specified target density for the traffic lane is 93.0%. All of the subplot averages were no more than one percent below the target density, so all of the day's traffic lane test results are used to compute the daily lot density and the lot incentive pay.

- Lot density =  $(93.8 + 94.2 + 94.4 + 94.1 + 94.7 + 94.6 + 93.6 + 94.5 + 94.3) / 9$  tests = 94.2%

According to 460.5.2.3(1) of this SPV, this lot density is eligible for incentive pay of \$0.40 per ton. 677 tons of HMA was placed on the traffic lane on day 1, therefore the contractor receives \$270.80 density incentive for the day 1 traffic lane lot. This is for all of subplot A, B & C and the 119' in subplot D that did not reach the random number.

- Shoulder:

The minimum required density is 92.0%. All of the subplot averages were acceptable, so all of the day's shoulder tests are used to compute the shoulder lot density. The average of all the shoulder tests is 93.5%. According to the specification, this lot density is eligible for incentive pay of \$0.40 per ton. 169 tons of HMA was placed on the shoulder on day 1, therefore the contractor receives \$67.60 density incentive for the day 1 shoulder lot.

Example 4 (daily tonnage lot & linear sublots):

Use the example project information and the following test results from day 3. All of the day's air voids tests were acceptable.

Sublot ID	Test ID	% Density	Sublot Avg % Density
H 161+78 to 176+78	22	91.8	91.8
	23	91.9	
	24	91.7	
I 176+78 to 191+78	25	95.1	94.9
	26	94.8	
	27	94.9	
J 191+78 to 202+36	28	92.0	91.9
	29	91.8	
	30	91.9	
T	44	91.9	91.9
U	45	94.4	94.4
V	46	92.1	92.1

Compute the density incentive or disincentive for the day's paving.

SOLUTION:

1. Traffic Lane:

According to the specification, a minimum density of 93.0% is required for the traffic lane. When verifying whether or not the subplot densities meet the requirements, it is found that subplot H and

sublot J have average densities that are more than one percent below the required minimum. According to the specification, the quantity of HMA pavement placed this day in each of these sublots is subject to disincentive, and the day's test results within these sublots are not included when computing the incentive for the remainder of the lot.

2. Sublot H:

Day 3 began inside the limits of sublot G, at station 159+93, but beyond its random test location. The tests for sublot G represent material placed on day 2. The tests in sublot H represent the day 3 material from station 159+93 to 176+78, a total length of 1685 feet long (185' from sublot G, paved on day 3, and 1500' in sublot H) by 12 feet wide.

Quantity represented by tests in sublot H =

$$\frac{(1685' \times 12')}{(9 \text{ sf/sy})} \times \frac{(2 \text{ in.} \times 110 \text{ lb/sy/in})}{(2000 \text{ lb/ton})} = 247 \text{ tons}$$

According to the disincentive pay table in the specification, the quantities are subject to a pay factor equal to 95 percent of the contract price. This is equivalent to a 5 percent pay reduction.

Disincentive Density HMA Pavement = 247 tons x (\$41.75/ton x 0.05) = -\$515.61

3. Sublot I:

Quantity represented by tests in sublot I =

$$\frac{(1500' \times 12')}{(9 \text{ sf/sy})} \times \frac{(2 \text{ in.} \times 110 \text{ lb/sy/in})}{(2000 \text{ lb/ton})} = 220 \text{ tons}$$

According to the incentive pay table, 220 tons of the HMA pavement item are eligible for an incentive of \$0.80 per ton, or a total of \$176.00.

4. Sublot J:

Day 3 ended within the limits of sublot J, beyond its random test location. The day 3 quantity placed within sublot J, from station 191+78 to 202+36, at length of 1,058 feet, is represented by its tests. The day 2 quantity placed toward the end of sublot J is represented by the tests taken on day 2 within sublot K.

Quantity represented by tests in sublot J=

$$\frac{(1058' \times 12')}{(9 \text{ sf/sy})} \times \frac{(2 \text{ in.} \times 110 \text{ lb/sy/in})}{(2000 \text{ lb/ton})} = 155 \text{ tons}$$

According to the disincentive pay table in the specification, the quantities are subject to a pay factor equal to 95 percent of the contract price. This is equivalent to a 5 percent pay reduction.

Disincentive Density HMA Pavement = 155 tons x (\$41.75/ton x 0.05) = -\$323.56

5. Shoulder:

All of the day 3 shoulder sublots have acceptable density values, so we use all of the results to compute the day's shoulder lot density.

Day 3 shoulder lot density =  $(91.9 + 94.4 + 92.1) / 3 \text{ tests} = 92.8\%$

The lot density of 92.8% is not more than 1.0% above the required minimum of 92.0%, therefore the day 3 shoulder pavement does not receive any density incentive.

Day 3 Incentive/Disincentive Summary:

Incentive Density HMA Pavement (Lot I) = \$176.00

Disincentive Density HMA Pavement (Lot H) = -\$515.61

Disincentive Density HMA Pavement (Lot J) = -\$323.56

*Delete CMM 8-36.6.1 QC Tests and replace with the following:*

QC testing must be completed, and data posted, on the day the sample was taken or as approved by the engineer.

For administration of projects requiring only one, two, or three single tests per mix design, apply the following tolerances table for mixture evaluation:

- Va = 2.0 – 5.0%
- VMA = - 1.3 from required minimums for Table 460-1 as revised in STSP 460-025
- AC = within -0.1 of JMF Pb after regression

Delete CMM 8-36 Figure 8 HMA Verification Dispute Resolution Scenarios and replace with the following:

### HMA Verification Dispute Resolution Scenario Examples

NOTE: The following diagrams (A-H) represent standard scenarios. Specific project detail and troubleshooting activities may present cause for adjustment to this guidance

- = Testing performed by the Region
- = Testing performed by the Referee third party (BTS)
- = QC random production sample

Test Values	Tolerance between QC & QC-ret	Category
Gmm	0.00-0.015	=WBL
Gmm	0.016-0.020	=JMFL
Gmm	> 0.020	> JMFL
Gmb	0.00-0.020	=WBL
Gmb	0.021-0.025	=JMFL
Gmb	> 0.025	> JMFL

**Example A**

A1 QV (3-2+) A2 QV (3-2+)

Va=2.6  
Pass QV  
Va=1.8  
Fail  
Va=2.1 QV  
 OR  
Va=2.1  
Pass QV-ret  
Va=2.1  
Fail QV-ret

**END RESULT**

**A No Adjustment (NA)** QMP Controls  
 \*The Referee third party (BTS) test results determine the Pass/Fail status of the QV sample once it has gone into Dispute Resolution

**Example B**

QC 3-1 (400 tons, Va=2.3) — QC 3-2 (1500 tons, Va=2.6, tol=WBL) — QC 3-3 (2100 tons, Va=2.2, tol=WBL) — QC 4-1 (550 tons, Va=2.7, QC-ret)

QV (2100 tons, Va=1.4, Fail) / QV-ret (2100 tons, Va=1.4, Fail) — 50 ton

**END RESULT**

**B Isolated Area: Localized Problem**  
 Backward and forward comparison results meet WBL tolerances

Standard Tons (50 ton @ 50% pay)

**Example C**

QC 3-1 (400 tons, Va=2.3) — QC 3-2 (1500 tons, Va=2.6, tol=JMFL) — QC 3-3 (2100 tons, Va=2.2, tol=JMFL) — QC 4-1 (550 tons, Va=2.7, QC-ret)

QV (2100 tons, Va=1.4, Fail) / QV-ret (2100 tons, Va=1.4, Fail) — 1000 ton

**END RESULT**

**C Full QV Window**  
 Backward and forward comparison results exceed WBL tol but are within JMFL tol

Tonnages each side of QV point are affected between Forward and Backward QC-ret points (ex: 2500-1500 = 1000 ton @ 50% pay)

**Example D**

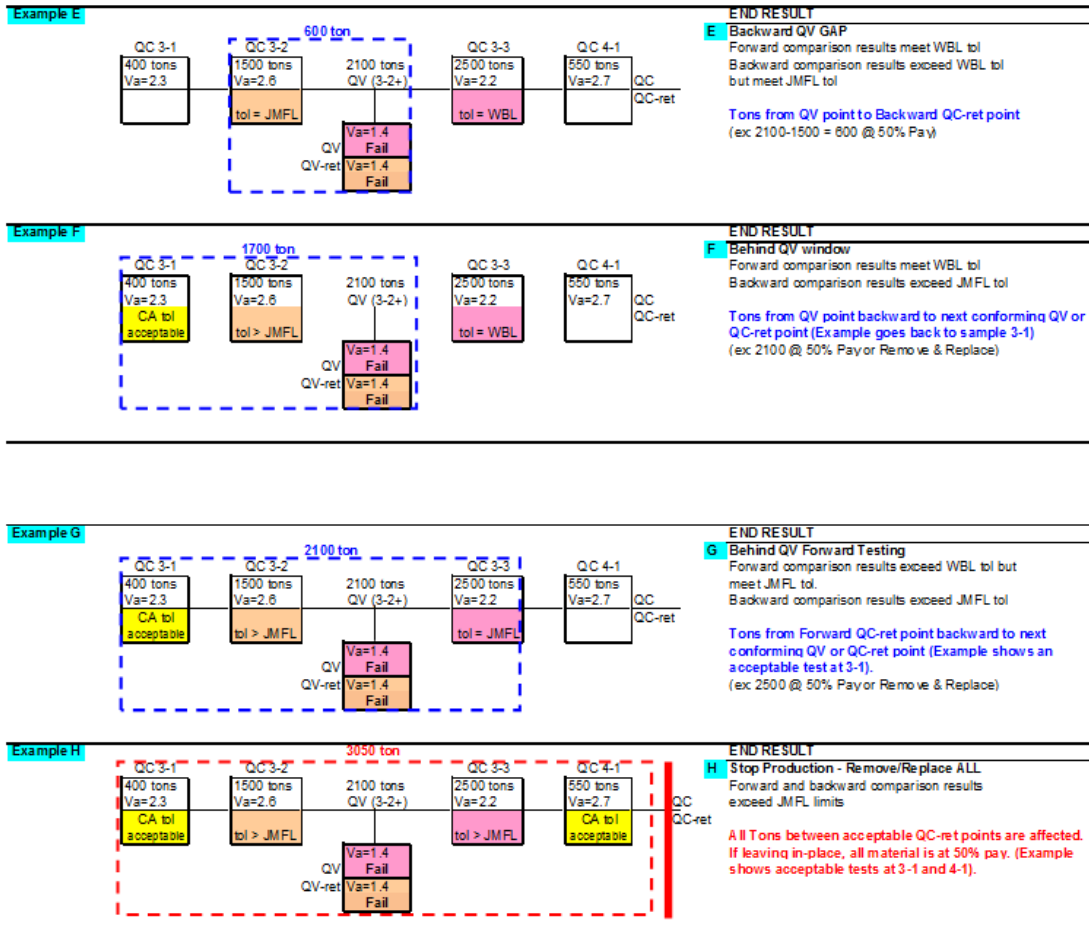
QC 3-1 (400 tons, Va=2.3) — QC 3-2 (1500 tons, Va=2.6, tol=WBL) — QC 3-3 (2100 tons, Va=2.2, tol=JMFL) — QC 4-1 (550 tons, Va=2.7, QC-ret)

QV (2100 tons, Va=1.4, Fail) / QV-ret (2100 tons, Va=1.4, Fail) — 400 ton

**END RESULT**

**D Forward QV GAP**  
 Backward comparison results meet WBL tol  
 Forward comparison results exceed WBL tol but meet JMFL tol

Tons from QV point to Forward QC-ret point (ex: 2500-2100 = 400 @ 50% Pay)



Delete CMM 8-66.2.2(3) and replace with the following:

3. Determine trial asphalt binder contents (estimated by experience or by calculation based on aggregate properties of trial blends).
  - Compact gyratory specimens using a minimum of 3 asphalt binder contents (0.5% increments) and covering a range to include the estimated optimum design binder content as well as 3.0% air voids. Use  $N_{des}$  for compaction effort.
  - Compare trial binder content results. The design binder content (by either graphing or interpolating the trial data results) is determined as that meeting requirements stated in [standard spec 460](#). The department will determine the optimum binder content corresponding to 3.0% air voids by linear regression of the trial gyratory specimens.



**Schedule of Items**

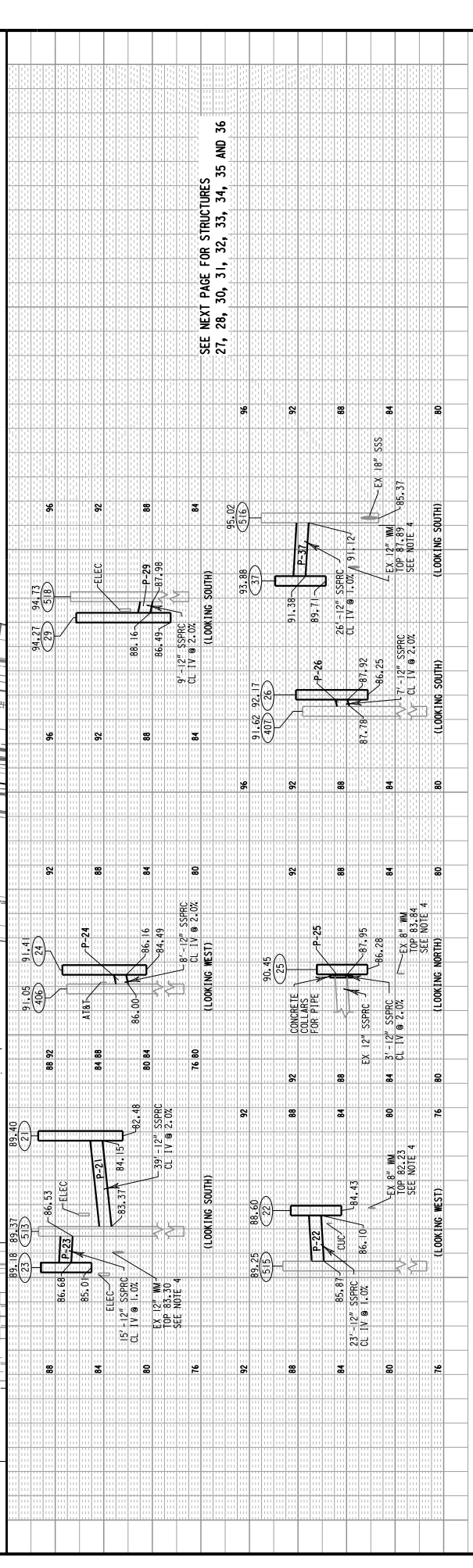
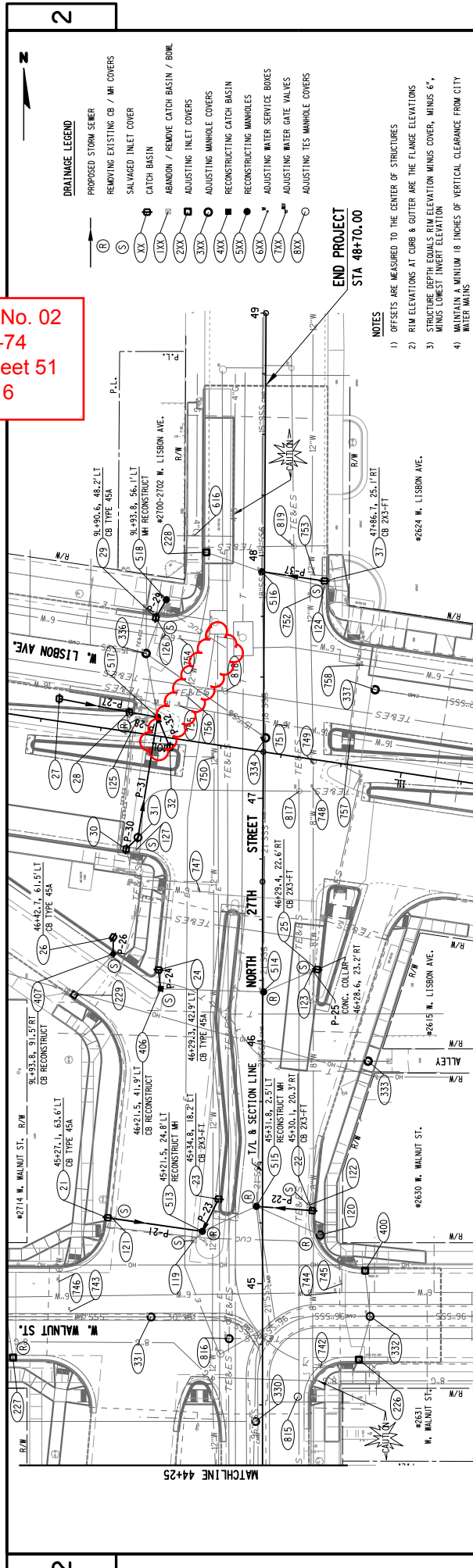
Attached, dated June 06, 2016 are the revised Schedule of Items Pages 1 – 14.

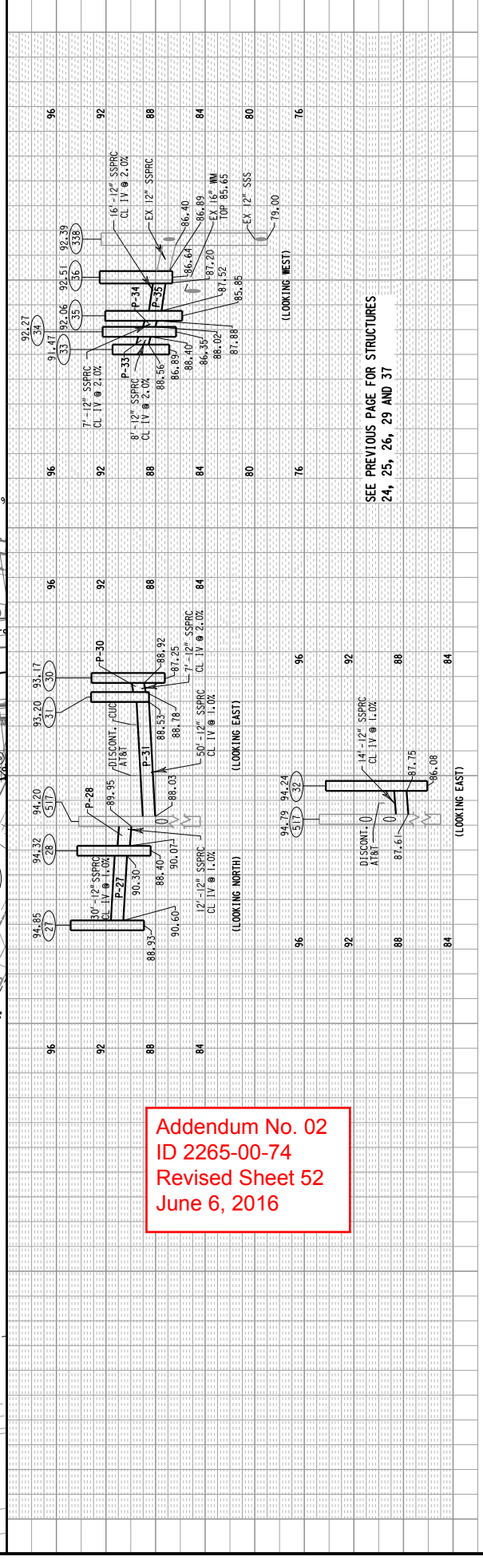
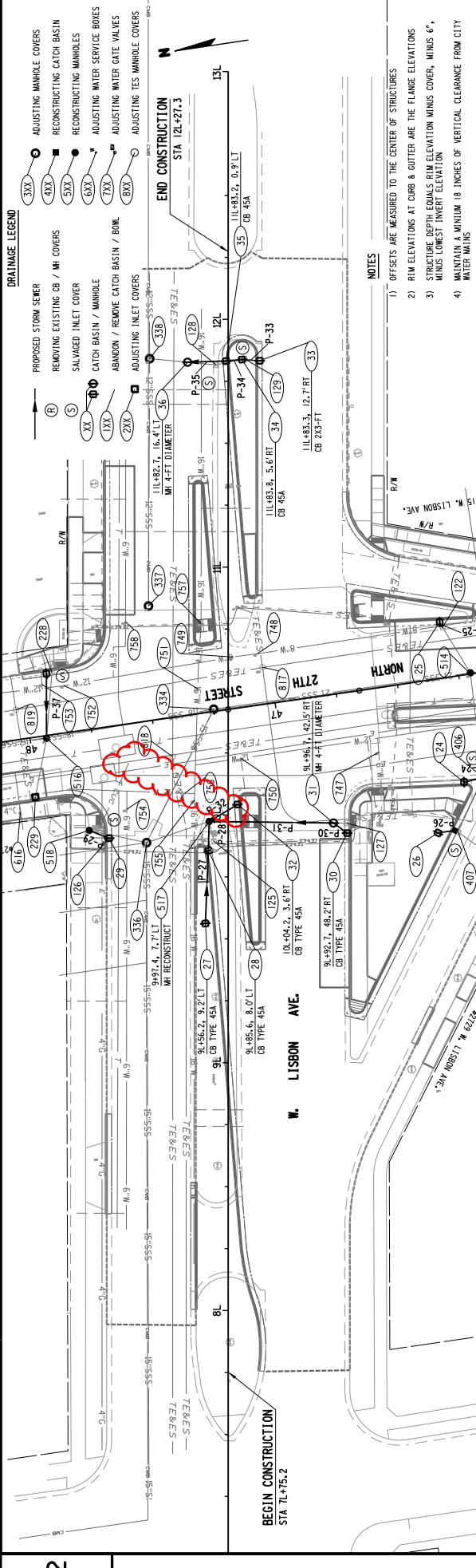
**Plan Sheets**

The following 8½ x 11-inch sheets are attached and made part of the plans for this proposal:  
Revised: 51, 52, 58, 116, and 121.

END OF ADDENDUM

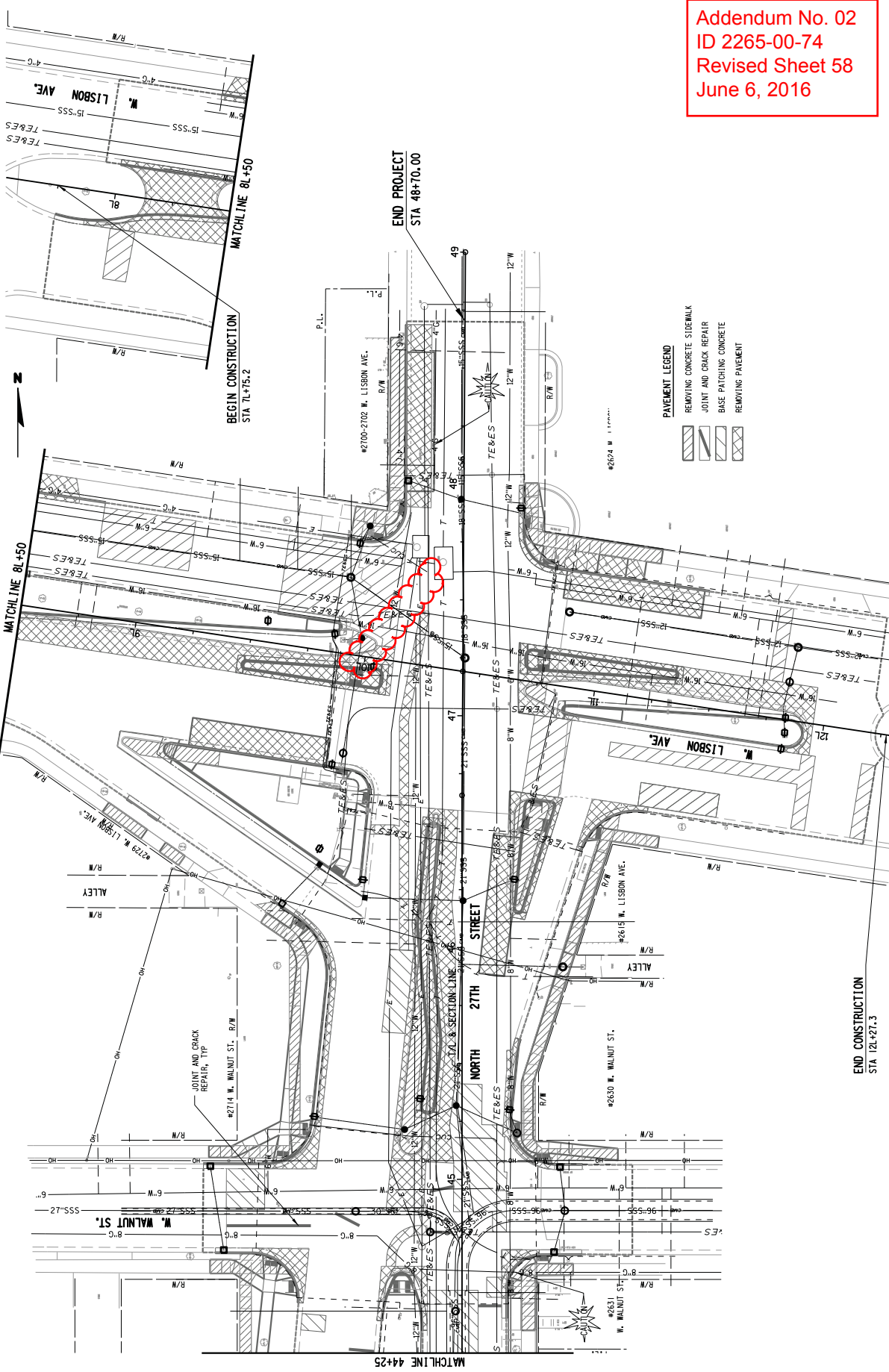
Addendum No. 02  
 ID 2265-00-74  
 Revised Sheet 51  
 June 6, 2016





Addendum No. 02  
 ID 2265-00-74  
 Revised Sheet 52  
 June 6, 2016

SEE PREVIOUS PAGE FOR STRUCTURES  
24, 25, 26, 29 AND 37



Addendum No. 02  
 ID 2265-00-74  
 Revised Sheet 58  
 June 6, 2016

**PAVEMENT LEGEND**

[Hatched Pattern]	REMOVING CONCRETE SIDEWALK
[Hatched Pattern]	JOINT AND CRACK REPAIR
[Hatched Pattern]	BASE PATCHING CONCRETE
[Hatched Pattern]	REMOVING PAVEMENT

Addendum No. 02  
ID 2265-00-74  
Revised Sheet 116  
June 6, 2016

EARTHWORK SUMMARY

CATEGORY	LOCATION	STATION TO STATION	(C) CUT EXCAVATION CY	(E) EBS EXCAVATION COMMON CY	(1) 205.0100 EXCAVATION COMMON CY	(3) 130% EXPANDED EBS BACKFILL CY	(4) MASS ORDINATE EXCESS (SHORTAGE) CY
0010	N. 27TH ST.	16+18 - 19+65	45	-	45	-	45
		19+65 - 24+77	92	-	92	-	92
		24+77 - 29+76	209	-	209	-	209
		29+76 - 34+87	135	-	135	-	135
0010	W. LISBON AVE.	34+87 - 39+87	122	-	122	-	122
		39+87 - 44+87	123	-	123	-	123
		44+87 - 48+70	255	-	255	-	255
		SUBTOTAL			980		980
0010	W. LISBON AVE.	7L+75 - 10L+12	418	-	418	-	418
		10L+67 - 12L+27	322	-	322	-	322
		SUBTOTAL			740		740
		TOTALS			1,720		1,720

NOTES

- EXCAVATION COMMON IS THE SUM OF THE CUT (C) AND EBS EXCAVATION (E).
- EBS EXCAVATION (E) TO BE BACKFILLED WITH CUT.
- EXPANDED EBS BACKFILL. THIS IS TO BE FILLED WITH AVAILABLE MATERIAL. EBS EXPANSION FACTOR 1.30.
- MASS ORDINATE = EXCAVATION COMMON (1) - EXPANDED EBS BACKFILL (3).

ASPHALT PAVEMENT ITEMS

CATEGORY	LOCATION	OFFSET	455.0605 TACK COAT GAL	460.2000 INCENTIVE DENSITY HMA PAVEMENT DOL	450.4000 HMA COL WEATHER PAVING TON	SPV.0195.02 HMA PAVEMENT 4" 58-28 S 3.0% VA REGRESSION SPECIAL TON	465.0120 ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES TON	465.0125 ASPHALTIC SURFACE TEMPORARY TON
0010	N. 27TH ST.	16+18 - 19+65	260	296	-	463	1	2
		19+65 - 24+77	400	454	-	710	-	2
		24+77 - 29+76	466	530	-	828	1	2
		29+76 - 34+87	497	563	-	883	1	4
0010	W. LISBON AVE.	34+87 - 39+87	460	524	-	819	-	2
		39+87 - 44+87	469	533	-	833	-	2
		44+87 - 48+70	282	321	-	502	-	2
		SUBTOTAL	2,834	3,222	0	5,037	3	16
0010	W. LISBON AVE.	7L+75 - 10L+12	242	298	466	466	-	2
		10L+67 - 12L+27	154	190	-	297	-	2
		SUBTOTAL	396	488	466	763	0	4
		TOTALS	3,230	3,710	466	5,800	3	20

MISCELLANEOUS QUANTITIES

STATE PROJECT NUMBER	2265-00-74	HWY: LOCAL	COUNTY: MILWAUKEE	FILE NAME : F:\BI-3393 N 27th St Milwaukee Design\03_Roads\cdh\0320T_mq.ppt
DATE	6/22/06 7:46 PM	DATE	6/22/06 7:46 PM	PLOT BY : ssook
SCALE	1"=40'	SCALE	1"=40'	PLOT NAME : 16302002.mq
SCALE	1"=40'	SCALE	1"=40'	PLOT SCALE : 1.000000:1.000000
SCALE	1"=40'	SCALE	1"=40'	SCALE

REMOVING SEWER ITEMS

CATEGORY	STRUCTURE FROM TO	STATION / OFFSET FROM TO	204.0245.01 REMOVING SEWER 8-INCH LF	204.0245.02 REMOVING STORM SEWER 12-INCH LF	204.0280 SEALING PIPES EACH	204.0291.S ABANDONING SEWER CY	REMARKS	
0010	N. 27TH STREET	100 - 516	19+23.4	74.1	LT - 19+65.3	45.6	LT	
		101 - 500	21+01.9	30.6	LT - 21+17.4	0.6	LT	
		102 - 501	24+26.5	25.5	LT - 24+19.7	25.7	LT	
		103 - 402	27+77.6	46.0	LT - 27+77.0	16.0	LT	
		104 - 502	28+32.2	36.0	LT - 28+29.2	0.5	RT	
		105 - 503	29+29.6	18.1	RT - 29+40.9	0.9	LT	
		107 - 404	30+83.8	18.1	RT - 31+08.0	36.0	LT	
		108 - 504	30+84.2	80.0	LT - 30+83.2	24.4	RT	
		109 - 506	34+40.6	18.3	RT - 34+39.3	24.0	RT	
		110 - 505	34+43.0	26.3	LT - 34+32.5	24.3	LT	
		111 - 505	34+47.0	43.7	LT - 34+32.5	24.3	LT	
		112 - CMB	37+94.6	15.9	LT -			
		113 - 508	39+29.3	46.0	LT - 39+51.9	24.6	LT	
		114 - 508	39+41.6	26.3	LT - 39+51.9	24.6	LT	
		115 - 507	39+47.3	18.1	RT - 39+51.6	24.0	RT	
		116 - 510	40+24.5	18.2	RT - 40+56.5	24.1	RT	
		117 - 509	40+45.2	38.4	LT - 40+55.9	24.9	LT	
		118 - 511	43+08.2	18.1	RT - 42+74.0	23.5	RT	
		119 - 512	45+17.8	28.2	LT - 45+21.5	24.8	LT	
		120 - 517	45+20.0	23.7	RT - 45+31.8	2.5	LT	
		121 - 515	45+26.6	61.5	LT - 45+21.5	24.8	LT	
		122 - 120	45+32.3	19.4	RT - 45+20.0	23.7	RT	
		124 - 518	47+87.5	24.9	RT - 47+93.4	1.1	LT	
		SUBTOTAL			463	27	4	8
0010	W. LISBON AVE.	125 - 514	9L+89.4	5.8	RT - 9L+97.4	7.7	LT	
		126 - 515	9L+90.6	48.1	LT - 9L+93.8	56.1	LT	
		127 - 514	9L+96.7	47.9	RT - 9L+97.4	7.7	LT	
		128 - 36	11L+81.6	4.9	LT - 11L+82.7	16.4	LT	
129 - 128	11L+84.1	6.6	RT - 11L+81.6	4.9	LT			
SUBTOTAL			117	0	0	0		
TOTALS			580	27	4	8		

Addendum No. 02  
ID 2265-00-74  
Revised Sheet 121  
June 6, 2016

RESTORATION ITEMS

CATEGORY	LOCATION	OFFSET	623.0200 DUST CONTROL SURFACE TREATMENT	624.0100 WATER	625.0100 TOPSOIL	629.0210 FERTILIZER	630.0130 SEEDING	631.1000 SOD
			SY	MICAL	SY	CWT	NO. 30 LB	LAWN SY
0010	N. 27TH ST.							
	16+18 - 19+65	LT/RT	227	.15	227	1	4	227
	19+65 - 24+77	LT/RT	457	.29	457	1	8	457
	24+77 - 29+76	LT/RT	461	.68	461	1	8	461
	29+76 - 34+87	LT/RT	632	.55	632	1	12	632
34+87 - 39+87	LT/RT	456	.43	456	1	8	456	
39+87 - 44+87	LT/RT	557	.40	557	1	11	557	
44+87 - 48+70	LT/RT	151	.88	151	1	3	151	
SUBTOTAL			2,942	3.4	2,942	7	55	2,942
0010	W. LISBON AVE.							
	7L+75 - 10L+12	LT/RT	415	1.09	415	1	7	415
	10L+67 - 12L+27	LT/RT	124	.66	124	1	2	124
SUBTOTAL			538	1.8	538	2	10	538
TOTALS			3,480	5.1	3,480	9	64	3,480

EROSION CONTROL MOBILIZATION ITEMS

CATEGORY	STAGE	LOCATION	628.1905 MOBILIZATION EROSION CONTROL EACH	628.1910 MOBILIZATION EMERGENCY EROSION CONTROL EACH
0010	ALL	N. 27TH ST.	4	6
	TOTALS		4	6

MOBILIZATION

CATEGORY	STAGE	LOCATION	619.1000 EACH
0010	ALL	N. 27TH ST.	1
	TOTAL		1

LANDMARK REFERENCE MONUMENTS

CATEGORY	LOCATION	OFFSET	621.0100 EACH
0010	N. 27TH ST.		
	20+00.00	0.00' ON T/L	1
	46+65.60	0.00' ON T/L	1
TOTALS			2

FIELD OFFICE TYPE C

CATEGORY	STAGE	LOCATION	642.5201 EACH
0010	ALL	N. 27TH ST.	1
	TOTAL		1

EXCAVATION OF CONTAMINATED SOILS

CATEGORY	STAGE	LOCATION	205.0501 S EXCAVATION, HAULING, AND DISPOSAL OF PETROLEUM CONTAMINATED SOIL	SPV.0195.01 EXCAVATION, HAULING, AND DISPOSAL OF METALS AND VOC CONTAMINATED SOIL
			TON	TON
0010	ALL	N. 27TH ST.		
		29+00 TO 31+00 RT	5	38
		34+00 TO 35+50 RT	..	..
		34+00 TO 35+50 LT	..	20
		37+00 TO 38+50 LT	..	10
	44+50 TO 48+70 LT	..	43	
TOTALS			5	111

INLET SCREENS TYPE M

CATEGORY	LOCATION	OFFSET	SPV.0060.08 EACH	
0010	N. 27TH ST.			
	16+18 - 19+65	LT/RT	8	
	19+65 - 24+77	LT/RT	9	
	24+77 - 29+76	LT/RT	11	
	29+76 - 34+87	LT/RT	9	
	34+87 - 39+87	LT/RT	9	
	39+87 - 44+87	LT/RT	12	
	44+87 - 48+70	LT/RT	10	
	SUBTOTAL			68
	0010	W. LISBON AVE.		
7L+75 - 10L+12		LT/RT	10	
10L+67 - 12L+27		LT/RT	4	
SUBTOTAL				14
TOTAL			82	

## SCHEDULE OF ITEMS

REVISED:

CONTRACT:  
20160614009PROJECT(S):  
2265-00-74FEDERAL ID(S):  
WISC 2016222

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

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE		BID AMOUNT	
			DOLLARS	CTS	DOLLARS	CTS

## SECTION 0001 Roadway Items

0010	201.0120 Clearing	87.000 ID	.	.	.	.
0020	201.0220 Grubbing	87.000 ID	.	.	.	.
0030	204.0100 Removing Pavement	3,670.000 SY	.	.	.	.
0040	204.0105 Removing Pavement Butt Joints	820.000 SY	.	.	.	.
0050	204.0120 Removing Asphaltic Surface Milling	10,620.000 SY	.	.	.	.
0060	204.0150 Removing Curb & Gutter	3,830.000 LF	.	.	.	.
0070	204.0155 Removing Concrete Sidewalk	3,710.000 SY	.	.	.	.
0080	204.0210 Removing Manholes	1.000 EACH	.	.	.	.
0090	204.0215 Removing Catch Basins	28.000 EACH	.	.	.	.
0100	204.0245 Removing Storm Sewer (size) 01. 8-Inch	580.000 LF	.	.	.	.

## SCHEDULE OF ITEMS

REVISED:

CONTRACT:  
20160614009PROJECT(S):  
2265-00-74FEDERAL ID(S):  
WISC 2016222

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

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE		BID AMOUNT	
			DOLLARS	CTS	DOLLARS	CTS
0110	204.0245 Removing Storm Sewer (size) 02. 12-Inch	27.000 LF	.	.	.	.
0120	204.0255 Abandoning Catch Basins	1.000 EACH	.	.	.	.
0130	204.0280 Sealing Pipes	4.000 EACH	.	.	.	.
0140	204.0291.S Abandoning Sewer	8.000 CY	.	.	.	.
0150	204.9060.S Removing (item description) 01. Catch Basin Curb Boxes	15.000 EACH	.	.	.	.
0160	204.9060.S Removing (item description) 02. Catch Basin Covers	27.000 EACH	.	.	.	.
0170	204.9060.S Removing (item description) 03. Manhole Covers	42.000 EACH	.	.	.	.
0180	205.0100 Excavation Common	1,720.000 CY	.	.	.	.
0190	205.0501.S Excavation, Hauling, and Disposal of Petroleum Contaminated Soil	5.000 TON	.	.	.	.
0200	213.0100 Finishing Roadway (project) 01. 2265-00-74	1.000 EACH	.	.	.	.
0210	305.0120 Base Aggregate Dense 1 1/4-Inch	1,200.000 TON	.	.	.	.



## SCHEDULE OF ITEMS

REVISED:

CONTRACT:  
20160614009PROJECT(S):  
2265-00-74FEDERAL ID(S):  
WISC 2016222

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

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE		BID AMOUNT	
			DOLLARS	CTS	DOLLARS	CTS
0220	320.0145 Concrete Base 8-Inch	2,610.000 SY	.	.	.	.
0230	390.0303 Base Patching Concrete	3,700.000 SY	.	.	.	.
0240	390.0403 Base Patching Concrete Shes	930.000 SY	.	.	.	.
0250	415.0080 Concrete Pavement 8-Inch	255.000 SY	.	.	.	.
0260	415.0090 Concrete Pavement 9-Inch	870.000 SY	.	.	.	.
0270	416.0170 Concrete Driveway 7-Inch	180.000 SY	.	.	.	.
0280	416.0270 Concrete Driveway HES 7-Inch	95.000 SY	.	.	.	.
0290	416.0610 Drilled Tie Bars	2,270.000 EACH	.	.	.	.
0300	455.0605 Tack Coat	3,230.000 GAL	.	.	.	.
0310	460.2000 Incentive Density HMA Pavement	3,710.000 DOL	1.00000	.	3710.00	.
0340	465.0120 Asphaltic Surface Driveways and Field Entrances	3.000 TON	.	.	.	.

## SCHEDULE OF ITEMS

REVISED:

CONTRACT:  
20160614009PROJECT(S):  
2265-00-74FEDERAL ID(S):  
WISC 2016222

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

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE		BID AMOUNT	
			DOLLARS	CTS	DOLLARS	CTS
0350	465.0125 Asphaltic Surface Temporary	20.000 TON	.		.	
0360	520.8000 Concrete Collars for Pipe	1.000 EACH	.		.	
0370	601.0331 Concrete Curb & Gutter 31-Inch	1,020.000 LF	.		.	
0380	601.0600 Concrete Curb Pedestrian	50.000 LF	.		.	
0390	602.0410 Concrete Sidewalk 5-Inch	32,700.000 SF	.		.	
0400	602.0420 Concrete Sidewalk 7-Inch	840.000 SF	.		.	
0410	602.0505 Curb Ramp Detectable Warning Field Yellow	780.000 SF	.		.	
0420	608.0412 Storm Sewer Pipe Reinforced Concrete Class IV 12-Inch	746.000 LF	.		.	
0430	611.0410 Reconstructing Catch Basins	8.000 EACH	.		.	
0440	611.0420 Reconstructing Manholes	18.000 EACH	.		.	
0450	611.1230 Catch Basins 2x3-FT	14.000 EACH	.		.	

## SCHEDULE OF ITEMS

REVISED:

CONTRACT:  
20160614009PROJECT(S):  
2265-00-74FEDERAL ID(S):  
WISC 2016222

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

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE		BID AMOUNT	
			DOLLARS	CTS	DOLLARS	CTS
0460	611.2004 Manholes 4-FT Diameter	2.000 EACH	.		.	
0470	611.8105 Adjusting Catch Basin Covers	30.000 EACH	.		.	
0480	611.8110 Adjusting Manhole Covers	37.000 EACH	.		.	
0490	611.8120.S Cover Plates Temporary	49.000 EACH	.		.	
0500	611.9710 Salvaged Inlet Covers	21.000 EACH	.		.	
0510	619.1000 Mobilization	1.000 EACH	.		.	
0520	620.0300 Concrete Median Sloped Nose	840.000 SF	.		.	
0530	621.0100 Landmark Reference Monuments	2.000 EACH	.		.	
0540	623.0200 Dust Control Surface Treatment	3,480.000 SY	.		.	
0550	624.0100 Water	5.100 MGAL	.		.	
0560	625.0100 Topsoil	3,480.000 SY	.		.	

## SCHEDULE OF ITEMS

REVISED:

CONTRACT:  
20160614009PROJECT(S):  
2265-00-74FEDERAL ID(S):  
WISC 2016222

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

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE		BID AMOUNT	
			DOLLARS	CTS	DOLLARS	CTS
0570	628.1905 Mobilizations Erosion Control	4.000 EACH	.	.	.	.
0580	628.1910 Mobilizations Emergency Erosion Control	6.000 EACH	.	.	.	.
0590	629.0210 Fertilizer Type B	9.000 CWT	.	.	.	.
0600	630.0130 Seeding Mixture No. 30	64.000 LB	.	.	.	.
0610	631.1000 Sod Lawn	3,480.000 SY	.	.	.	.
0620	642.5201 Field Office Type C	1.000 EACH	.	.	.	.
0630	643.0100 Traffic Control (project) 01. 2265-00-74	1.000 EACH	.	.	.	.
0640	643.0300 Traffic Control Drums	24,000.000 DAY	.	.	.	.
0650	643.0410 Traffic Control Barricades Type II	900.000 DAY	.	.	.	.
0660	643.0420 Traffic Control Barricades Type III	2,000.000 DAY	.	.	.	.
0670	643.0500 Traffic Control Flexible Tubular Marker Posts	1,030.000 EACH	.	.	.	.

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			DOLLARS	CTS	DOLLARS	CTS
0680	643.0600 Traffic Control Flexible Tubular Marker Bases	1,030.000 EACH	.	.	.	.
0690	643.0705 Traffic Control Warning Lights Type A	4,700.000 DAY	.	.	.	.
0700	643.0715 Traffic Control Warning Lights Type C	2,600.000 DAY	.	.	.	.
0710	643.0800 Traffic Control Arrow Boards	270.000 DAY	.	.	.	.
0720	643.0900 Traffic Control Signs	5,100.000 DAY	.	.	.	.
0730	644.1410.S Temporary Pedestrian Surface Asphalt	100.000 SF	.	.	.	.
0740	644.1601.S Temporary Curb Ramp	4.000 EACH	.	.	.	.
0750	646.0106 Pavement Marking Epoxy 4-Inch	6,240.000 LF	.	.	.	.
0760	646.0116 Pavement Marking Epoxy 6-Inch	6,030.000 LF	.	.	.	.
0770	647.0166 Pavement Marking Arrows Epoxy Type 2	7.000 EACH	.	.	.	.
0780	647.0206 Pavement Marking Arrows Bike Lane Epoxy	18.000 EACH	.	.	.	.

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			DOLLARS	CTS	DOLLARS	CTS
0790	647.0306 Pavement Marking Symbols Bike Lane Epoxy	18.000 EACH	.	.	.	.
0800	647.0356 Pavement Marking Words Epoxy	6.000 EACH	.	.	.	.
0810	647.0576 Pavement Marking Stop Line Epoxy 24-Inch	270.000 LF	.	.	.	.
0820	647.0776 Pavement Marking Crosswalk Epoxy 12-Inch	2,870.000 LF	.	.	.	.
0830	649.0400 Temporary Pavement Marking Removable Tape 4-Inch	620.000 LF	.	.	.	.
0840	650.4000 Construction Staking Storm Sewer	37.000 EACH	.	.	.	.
0850	650.5500 Construction Staking Curb Gutter and Curb & Gutter	6,420.000 LF	.	.	.	.
0860	650.7000 Construction Staking Concrete Pavement	860.000 LF	.	.	.	.
0870	650.8500 Construction Staking Electrical Installations (project) 01. 2265-00-74	LUMP	LUMP	.	.	.
0880	650.9910 Construction Staking Supplemental Control (project) 01. 2265-00-74	LUMP	LUMP	.	.	.

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LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE		BID AMOUNT	
			DOLLARS	CTS	DOLLARS	CTS
0890	652.0220 Conduit Rigid Nonmetallic Schedule 40 1 1/2-Inch	40.000 LF	.		.	
0900	652.0225 Conduit Rigid Nonmetallic Schedule 40 2-Inch	370.000 LF	.		.	
0910	652.0230 Conduit Rigid Nonmetallic Schedule 40 2 1/2-Inch	40.000 LF	.		.	
0920	652.0235 Conduit Rigid Nonmetallic Schedule 40 3-Inch	440.000 LF	.		.	
0930	652.0615 Conduit Special 3-Inch	1,600.000 LF	.		.	
0940	654.0110 Concrete Bases Type 10	4.000 EACH	.		.	
0950	690.0150 Sawing Asphalt	550.000 LF	.		.	
0960	690.0250 Sawing Concrete	17,920.000 LF	.		.	
0970	715.0415 Incentive Strength Concrete Pavement	500.000 DOL	1.00000		500.00	
0980	ASP.1T0A On-the-Job Training Apprentice at \$5.00/HR	300.000 HRS	5.00000		1500.00	
0990	ASP.1T0G On-the-Job Training Graduate at \$5. 00/HR	1,800.000 HRS	5.00000		9000.00	

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			DOLLARS	CTS	DOLLARS	CTS
1000	SPV.0060 Special 04. Inlet Cover Type 57	33.000 EACH	.	.	.	.
1010	SPV.0060 Special 05. Manhole Covers Type 58A	44.000 EACH	.	.	.	.
1020	SPV.0060 Special 06. Catch Basin Type 44B	1.000 EACH	.	.	.	.
1030	SPV.0060 Special 07. Catch Basin Type 45A	20.000 EACH	.	.	.	.
1040	SPV.0060 Special 08. Inlet Screens Type M	82.000 EACH	.	.	.	.
1050	SPV.0060 Special 09. Construction Staking Curb Ramp	87.000 EACH	.	.	.	.
1060	SPV.0060 Special 10. Utility Line Opening (ULO)	8.000 EACH	.	.	.	.
1070	SPV.0060 Special 11. Removing TES Manholes	8.000 EACH	.	.	.	.
1080	SPV.0060 Special 12. Adjusting TES Manhole Covers	12.000 EACH	.	.	.	.
1090	SPV.0060 Special 13. Rectangular Polymer Vault 13-Inch X 24-Inch X 18-Inch	14.000 EACH	.	.	.	.



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			DOLLARS	CTS	DOLLARS	CTS
1100	SPV.0060 Special 14. Rectangular Polymer Vault 17-Inch X 30-Inch X 18-Inch	10.000 EACH	.		.	
1110	SPV.0060 Special 15. Install Traffic Signal Base	11.000 EACH	.		.	
1120	SPV.0060 Special 16. Concrete Base Type 10 Special	4.000 EACH	.		.	
1130	SPV.0060 Special 17. Poles Type 10	4.000 EACH	.		.	
1140	SPV.0060 Special 18. Poles Type 12 Special	3.000 EACH	.		.	
1150	SPV.0060 Special 19. Poles Type 13 Special	1.000 EACH	.		.	
1160	SPV.0060 Special 20. Monotube Arms 20-Feet	2.000 EACH	.		.	
1170	SPV.0060 Special 21. Monotube Arms 25-Feet	2.000 EACH	.		.	
1180	SPV.0060 Special 22. Monotube Arms 35-Feet	2.000 EACH	.		.	
1190	SPV.0060 Special 23. Monotube Arms 40-Feet	2.000 EACH	.		.	

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			DOLLARS	CTS	DOLLARS	CTS
1200	SPV.0060 Special 24. Installing Conduit Into Existing Manholes	17.000 EACH	.		.	
1210	SPV.0060 Special 25. Manholes Type TES 4-FT Diameter Doghouse	8.000 EACH	.		.	
1220	SPV.0060 Special 26. Adjusting Water Service Boxes	17.000 EACH	.		.	
1230	SPV.0060 Special 27. Adjusting Water Gate Valves	58.000 EACH	.		.	
1240	SPV.0060 Special 28. Water Main Protection	19.000 EACH	.		.	
1250	SPV.0090 Special 01. Joint And Crack Repair	1,550.000 LF	.		.	
1260	SPV.0090 Special 02. Concrete Curb & Gutter Integral 31-Inch	755.000 LF	.		.	
1270	SPV.0090 Special 03. Concrete Curb & Gutter 31-Inch Special	5,020.000 LF	.		.	
1280	SPV.0090 Special 04. Concrete Curb & Gutter 6-Inch Sloped 31-Inch	95.000 LF	.		.	
1290	SPV.0090 Special 05. Construction Staking Asphalt Lower Layer	3,650.000 LF	.		.	
1300	SPV.0090 Special 06. Construction Staking Asphalt Upper Layer	3,650.000 LF	.		.	

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			DOLLARS	CTS	DOLLARS	CTS
1310	SPV.0090 Special 07. Construction Staking Sidewalk	4,950.000 LF	.	.	.	.
1320	SPV.0090 Special 08. 7-Duct Conduit Cement Encased 4-Inch Rigid Nonmetallic Conduit DB-60	245.000 LF	.	.	.	.
1330	SPV.0090 Special 09. 6-Duct Conduit Cement Encased 4-Inch Rigid Nonmetallic Conduit DB-60	2,550.000 LF	.	.	.	.
1340	SPV.0090 Special 10. 4-Duct Conduit Cement Encased 4-Inch Rigid Nonmetallic Conduit DB-60	140.000 LF	.	.	.	.
1350	SPV.0090 Special 11. 1-Duct Conduit Cement Encased 4-Inch Rigid Nonmetallic Conduit DB-60	88.000 LF	.	.	.	.
1360	SPV.0165 Special 01. Concrete Sidewalk HES 7-Inch	700.000 SF	.	.	.	.
1370	SPV.0180 Special 01. Joint Sealing	1,120.000 SY	.	.	.	.
1380	SPV.0195 Special 01. Excavation Hauling And Disposal Of Metals And VOC Contaminated Soil	111.000 TON	.	.	.	.
1390	450.4000 HMA Cold Weather Paving	466.000 TON	.	.	.	.

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LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE		BID AMOUNT	
			DOLLARS	CTS	DOLLARS	CTS
1400	SPV.0195 Special 02. HMA Pavement 4 MT 58-28 S 3.0% Va Regression Special	5,800.000 TON	.		.	
	SECTION 0001 TOTAL				.	
	TOTAL BID				.	