Wisconsin Department of Transportation

Division of Transportation Systems Development
Bureau of Project Development
4822 Madison Yards Way, 4th Floor South
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Telephone: (608) 266-1631
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April 24, 2019

NOTICE TO ALL CONTRACTORS:

Proposal #17: 2070-03-71, WISC 2019 288
W LAYTON AVENUE
S 27TH STREET TO S HOWELL AVE
LOCAL STREET
MILWAUKEE COUNTY

Letting of May 14, 2019

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

Special Provisions:

Revised Special Provisions	
Article No.	Description
49	Luminaire Architectural LED 3, Item SPV.0060.304
53	Luminaire Utility LED 1, Item SPV.0060.309

Added Special Provisions	
Article No.	Description
73	Pole Type 21 Aluminum with Transformer Base
74	Pole Type 21 Aluminum with Transformer Base Spare

Deleted Special Provisions	
Article No.	Description
52	Pole Type 21 with Transformer Base
57	Pole Type 21 Spare with Transformer Base

Schedule of Items:

Revised Bid Item Quantities					
Bid Item	Item Description	Unit	Old Quantity	Revised Quantity	Proposal Total
SPV.0060.314	Street Lighting Single Bracket Arm 8' Spare	EACH	31	-25	6

Added Bid Item Quantities					
Bid Item	Item Description	Unit	Old Quantity	Revised Quantity	Proposal Total
416.0620	Drilled Dowel Bars	EACH	0	48	48
SPV.0060.316	Pole Type 21 Aluminum with Transformer Base	EACH	0	82	82
SPV.0060.317	Pole Type 21 Aluminum with Transformer Base Spare	EACH	0	10	10

Deleted Bid Item Quantities					
Bid Item	Item Description	Unit	Old Quantity	Revised Quantity	Proposal Total
SPV.0060.308	Pole Type 21 with Transformer Base	EACH	82	-82	0
SPV.0060.313	Pole Type 21 with Transformer Base Spare	EACH	10	-10	0

Plan Sheets:

Revised Plan Sheets	
Plan Sheet	Plan Sheet Title (brief description of changes to sheet)
21	Construction Details (revised detail named Finished Full Walk Terrace STA 68+78.9 to STA 69+81.5 to correct callout 5” CONC. WALK. Revised detail named Finished Full Walk Terrace STA 68+78.9 to STA 69+81.5 to correct callout CONCRETE CURB & GUTTER 31-INCH STA 68+50 TO STA 70+50. Revised detail named Finished Full Walk Terrace STA 68+78.9 to STA 69+81.5 to delete 1’ dimension. Revised detail named Finished Full Walk Terrace STA 68+78.9 to STA 69+81.5 to add tie bars. Revised detail named Finished Full Walk Terrace STA 68+98.2 to STA 69+73.8 to correct callout 5” CONC. WALK. Revised detail named Finished Full Walk Terrace STA 68+98.2 to STA 69+73.8 to correct callout CONCRETE CURB & GUTTER 19-INCH STA 68+50 TO STA 70+50. Revised detail named Finished Full Walk Terrace STA 68+98.2 to STA 69+73.8 to add tie bars. Revised detail named Finished Full Walk Terrace STA 68+98.2 to STA 69+73.8 to delete 1’ dimension.
70	Plan Details (revised construction joints at STA 68+50 to add drilled dowel bars along joints. Revised construction joints at STA 70+50 to add drilled dowel bars along joints. Revised concrete pavement plan layout to add note for contractor to see standard detail drawings for Urban Doweled Concrete Pavement. Revised concrete pavement plan layout to add note for contractor to see standard detail drawings for Concrete Pavement Longitudinal Joints and Ties. Revised Curve Data A Data table for revised name showing curve along westbound line (N). Revised Curve Data B Data table for revised name showing curve along westbound line (S). Revised Curve Data C Data table for revised name showing curve along eastbound line (N). Revised Curve Data D Data table for revised name showing curve along eastbound line (S))
209	Street Lighting Details (revised detail named TYPICAL CONDUIT INSTALLATION FROM PULL BOX TO POLE & 4” X 4” WIRING PEDESTAL to revise metal wiring pedestal 4” X 4” X 36” back panel for detail of approximate area of access hole)
217	Street Lighting Details (revised detail named TYPE 21 POLE PROFILE WITH LUMINAIRES to allow all details to be visible. Revised detail named Metal Wiring Pedestal 4” X 4” X 36” to revise back panel for detail of approximate area of access hole
249	Miscellaneous Quantities (revised quantity sheet to correct name for item SPV.0060.305 STREET LIGHTING SINGLE BRACKET ARM 8’. Revised quantity sheet to correct name for item SPV.0060.306 STREET LIGHTING DOUBLE BRACKET ARM 8’. Revised quantity name to correct name for item SPV.0060.308 POLE TYPE 21 ALUMINUM WITH TRANSFORMER BASE)

250	Miscellaneous Quantities (revised quantity sheet to revised quantity and name for item SPV.0060.314 STREET LIGHTING SINGLE BRACKET ARM 8’ SPARE. Revised quantity sheet to correct name for item SPV.0060.313 POLE TYPE 21 ALUMINUM WITH TRANSFORMER BASE SPARE. Revised quantity sheet to correct name for item SPV.0060.315 STREET LIGHTING DOUBLE BRACKET ARM 8’ SPARE)
256	Miscellaneous Quantities (revised quantity sheet to add additional item DRILLED DOWEL BARS at STA 68+50 and STA 70+50)
285	Plan (revised legend item to correct details of concrete pavement)

Added Plan Sheets	
Plan Sheet	Plan Sheet Title (brief description of why sheet was added)
323A	SDD – Urban Dowelled Concrete Pavement

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

Sincerely,

Mike Coleman

Proposal Development Specialist
Proposal Management Section

ADDENDUM NO. 01

2070-03-71

April 24, 2019

Special Provisions

49. Luminaire Architectural LED 3, Item SPV.0060.304.

Add the following line after the **B Materials** Warranty: *section line ii:*

iii. If the failure rate is greater than or equal to 0.5% of the purchased quantity, the manufacturer is to hire a licensed electrical contractor to replace all the defective units in the field within the 10 year warranty period. Contact street lighting field office at 414-286-3015 to arrange the repairs/replacements.

52. DELETED

53. Luminaire Utility LED 1, Item SPV.0060.309.

Delete the section **B Materials** *and replace with the following:*

B Materials

Luminaire Utility LED 1

Leotek CV1-H-30K-2R-GY-060-PCR7-RWG-BBL-WL-SC-SP2L0, Philips RoadStar GPLS-32L530WW-G2-R2M-UNV-DMG-GY3, or approved equal.

Technical Specifications: All features below shall be incorporated into the equipment and all items shall be furnished and installed into a complete unit ready for operation.

Type: The LED luminaires purchased under this contract will be of Philips Roadstar GPLS series, Leotek CV1 series, or approved equal with the above order number. The luminaires shall be designed so it can efficiently produce uniform illumination in accordance with I.E.S. Type II light distribution and/or the I.E.S. Type III light distribution according to the lighting plan.

Housings: The housing and door shall be rugged, high quality, cast aluminum for maximum strength, durability and lasting beauty. All castings shall be free from pits, blowholes, or other irregularities. All edges are to be free from burrs.

1. Housing: The housing shall have an integral leveling pad or other suitable means for quick, easy and proper positioning of the luminaire.
2. Door: The door shall be hinged and easily opened for routine maintenance. All component parts shall be easily accessible with the lower housing opened. Tool-less entry is required.
3. Leveling: A Bubble level is to be located inside the electrical compartment for easy leveling at installation.
4. Hinges: Hinges shall be so constructed and designed to accurately position the door and assure a positive locking with the housing. The hinges shall be provided with a safety catch to prevent the accidental disengagement of the door during servicing.
5. Finish: The entire housing shall be polyester powder-coated for durability and corrosion resistance. Rigorous five-stage pre-treating and painting process shall yields a finish that achieves a scribe

creepage rating of 8 (per ASTM D1654) after over 5000 hours exposure to salt fog chamber (operated per ASTM B117)

6. Color: The luminaire shall be grey in color unless otherwise specified.
7. Label: There shall be a **NEMA label '1LED2'** clearly visible at 30 feet height attached to the door of the luminaire.
8. In addition, the luminaire complete model number and manufacturing date shall be indicated inside the housing.

Led/Optical Assembly:

Optical Assembly: The fixture optical assembly shall be NEMA IP66 rated for dust and water resistant and ANSI 3G rated vibration resistant for reliable lighting.
The color temperature is to be 3,000K CCT.

Power Supply:
The Electronic driver must have an expected life of 100,000 hours at a 25°C ambient.
It is to be rated at 240 volts, 60Hz. A driver with multiple input voltages can be supplied as long as it can operate at 240 volts.

Surge Protection:

A surge protector which provides a **minimum of 20kV/10kA protection** as per IEEE/ANSI C62.41 Category C is to be included. There shall be a visual indicator showing the surge protector is operational.

Terminal Block: A heavy duty terminal block shall be provided which will accept wire sizes up to #6 A.W.G. The terminal block shall be compatible with either aluminum or copper wire.

Mounting: Mast arm mount is adjustable for arms from 1-1/4" to 2" (1-5/8" to 2-3/8" O.D.) diameter. Provide a 4 bolt clamping mechanism with 3G vibration rating per ANSI C136.

Hardware: All nuts, bolts, latches, etc. furnished with the luminaire shall be fabricated from stainless steel or non-ferrous materials.

Photocontrol: There is to be no photocell supplied.

Warranty: The contractor and/or the manufacturer warrants that goods sold hereunder will be merchantable quality, will conform to applicable specifications, drawings designs, samples or descriptions, will be free from defects in material and workmanship and will be fit for the particular purpose intended by City of Milwaukee.

i. This warranty will remain in effect for ten (10) years from date of acceptance.

ii. Under this provision, the contractor and/or manufacturer agrees to repair or replace within a reasonable time, any part, feature or product found to be defective during the warranty period at no cost to the City.

iii. If the failure rate is greater than or equal to 0.5% of the purchased quantity, the manufacturer is to hire a licensed electrical contractor to replace all the defective units in the field within the 10 years warranty period. Contact street lighting field office @ 414-286-3015 to arrange the repair/replacement.

57. DELETED

73. Pole Type 21 Aluminum with Transformer Base, Item SPV.0060.316.

A Description

This special provision describes furnishing and installing Poles Type 21 with transformer base at the locations shown on the plans.

B Materials

All features below shall be incorporated in the assembly and all items furnished and installed into a complete unit ready for use.

Design: The bolt down aluminum street light pole shall be extruded, manufactured and finished by a single corporate entity. Minor deviations on the assembly that will not affect the strength, appearance, vertical and horizontal stability of the pole will be permitted, but all such deviations shall be approved by Street Lighting Engineer from City of Milwaukee DPW-Infrastructure Services Division.

Shaft: The pole shaft shall be manufactured from conically spun tapered 6063-T4 aluminum alloy (heat treated to T-6 condition after welding) meeting the provisions of ASTM B221 with a minimum wall thickness of 0.25" for either the single arm or the double arm application. The pole is to be round and tapered. The finish of the pole shaft is to be satin brushed finish. The assembly shall be complete with tapered aluminum shaft fitted with circumferentially welded anchor base at the top and bottom of the base, mounting surface cover plate and all necessary hardware.

The anchor base shall be fabricated from 256 or A356 alloy.

The top end of the aluminum shaft shall include a 3 ½" outside diameter X 12" aluminum tenon to accommodate a single or twin decorative tubular arm assembly as shown on the plan drawings. The exposed tenon welds shall be ground flush with the pole top creating a seamless transition.

The pole shafts shall be fitted with an externally reinforced, weather rated GFCI 120 Volt receptacle capable of accommodating an in-use receptacle cover.

A plaque with the pole number as shown on the plans shall be affixed onto the pole shaft.
Banner arm: All pole shaft shall be built as tenon mount unit and designed to be equipped with two sets of detachable, pole matching color, schedule 80 aluminum spring loaded banner arms. The banner arms are designed to be bolted into the pole at 90 ° and 270 ° perpendicular with the curb. The bolt holes shall be covered with weather resistant plug. The banner arms are part of the material to be installed.

Base Cover: Four cast aluminum bolt-on nut covers shall be provided to cover the bolts securing the pole assembly onto the transformer base. The bolt-on nut covers shall be secured with 1/4"-20 stainless steel tamper proof screws. The inside of the base cover shall be coated with a corrosion inhibiting finish.

Transformer Base: The pole assembly will be installed on a 17" frangible transformer base with mounting hardware. The transformer base is to be manufactured from cast aluminum (356-T6 alloy or equivalent) and a 9 ¾" bottom width X 9 ¼" top width base door is to be provided for cable connection inside the transformer base. The door is to be secured with ¼"-20 X 1" LG stainless steel tamper proof screws.

A weather resistant label with words:

"City of Milwaukee Street Lighting
Call (414) 286-3015 for service"

shall be affixed onto the transformer base door.

LOADING AND STABILITY: The poles furnished under this specification shall support brackets as shown on drawing QTA2733 with two 30 pound fixtures of EPA of 1 mounted on top of the pole. In addition, the poles shall support double banners at street and house side of the pole, with 2' X 5' banners at height above finish

grade as shown on the plans. All pole design shall meet the 2013 AASHTO specifications for these poles as defined in their STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES AND TRAFFIC SIGNALS. The manufacturer shall submit engineering calculations for lighting poles to show that maximum stress and deflections do not exceed specified performance requirements under full design loading, as well as other certified reports and data which indicate that the poles meet all load requirements, within 30 days of the bid award. Engineering calculations shall be prepared and sealed by an engineer licensed in the State of Wisconsin.

The entire horizontal and vertical “wind sail” area of the pole assembly subject to wind load including arm and luminaire shall be designed to withstand the AASHTO standard specifications from above, for wind load requirements for a 90 MPH wind load with gust factor computed per section 3.8.5.and height and exposure factors from table.

WELDING: All welding shall be according to the applicable ASME Standards.

ACCESSORIES: All accessories (hand hole cover and base cover) are to be installed on the pole unless specified. Accessories supplied under separate cover will cause the bid to either be rejected or penalized.

C Construction

The bolt down pole is to be set as illustrated in the plan with stainless steel locknut and washer for leveling. No other method of setting poles is acceptable. The poles should be parallel and perpendicular to the horizon once set.

Pole is to be wired as shown on the plans. A riser cables in pole shall be 30 feet in length and cut from copper 2#12 UF with ground cable (double run for pole with double fixtures). One wire shall be black, the other shall be white, and the ground can be either bare or green. All splicing is to be done inside the hand hole. The ground wires shall be spliced inside the hand hole and grounded to the housing of each fixture. The cable shall conform to NEC Article 340. The riser cable shall be continuous without splices. The electrical system in use utilizes a full system ground. The neutral is not to be grounded at any point.

D Measurement

The department will measure Pole Type 21 with Transformer Base by each pole and base, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.316	Pole Type 21 Aluminum with Transformer Base	EACH

Payment is full compensation for the pole, riser cable or cables, and all connections. This bid price also includes for furnishing labor, equipment, coordination and all materials and incidentals necessary to complete the work.

74. Pole Type 21 Aluminum with Transformer Base Spare, Item SPV.0060.317.

A Description

This special provision describes furnishing bolt down aluminum pole 29’ with transformer base at the locations shown on the plans.

Contractor is responsible to provide ten Bolt Down Aluminum pole 29’ with Transformer Base to Street Lighting Department for replacement part purpose. Contact Jill Kramer at (414) 286-5947 for delivery information.

B Materials

All features below shall be incorporated in the assembly and all items.

Design: The bolt down aluminum street light pole shall be extruded, manufactured and finished by a single corporate entity. Minor deviations on the assembly that will not affect the strength, appearance, vertical and horizontal stability of the pole will be permitted, but all such deviations shall be approved by Street Lighting Engineer from City of Milwaukee DPW-Infrastructure Services Division.

Shaft: The pole shaft shall be manufactured from conically spun tapered 6063-T4 aluminum alloy (heat treated to T-6 condition after welding) meeting the provisions of ASTM B221 with a minimum wall thickness of 0.25" for either the single arm or the double arm application. The pole is to be round and tapered. The finish of the pole shaft is to be satin brushed finish. The assembly shall be complete with tapered aluminum shaft fitted with circumferentially welded anchor base at the top and bottom of the base, mounting surface cover plate and all necessary hardware.

The anchor base shall be fabricated from 256 or A356 alloy.

The top end of the aluminum shaft shall include a 3 ½" outside diameter X 12" aluminum tenon to accommodate a single or twin decorative tubular arm assembly as shown on the plan drawings. The exposed tenon welds shall be ground flush with the pole top creating a seamless transition.

The pole shafts shall be fitted with an externally reinforced, weather rated GFCI 120 Volt receptacle capable of accommodating an in-use receptacle cover.

A plaque with the pole number as shown on the plans shall be affixed onto the pole shaft.

Banner arm: All pole shaft shall be built as tenon mount unit and designed to be equipped with two sets of detachable, pole matching color, schedule 80 aluminum spring loaded banner arms. The banner arms are designed to be bolted into the pole at 90 ° and 270 ° perpendicular with the curb. The bolt holes shall be covered with weather resistant plug. The banner arms are part of the material to be installed.

Base Cover: Four cast aluminum bolt-on nut covers shall be provided to cover the bolts securing the pole assembly onto the transformer base. The bolt-on nut covers shall be secured with 1/4"-20 stainless steel tamper proof screws. The inside of the base cover shall be coated with a corrosion inhibiting finish.

Transformer Base: The pole assembly will be installed on a 17" frangible transformer base with mounting hardware. The transformer base is to be manufactured from cast aluminum (356-T6 alloy or equivalent) and a 9 ¾" bottom width X 9 ¼" top width base door is to be provided for cable connection inside the transformer base. The door is to be secured with ¼"-20 X 1" LG stainless steel tamper proof screws.

A weather resistant label with words:

"City of Milwaukee Street Lighting Call (414) 286-3015 for service"

shall be affixed onto the transformer base door.

Loading and Stability: The poles furnished under this specification shall support brackets as shown on drawing QTA2733 with two 30 pound fixtures of EPA of 1 mounted on top of the pole. In addition, the poles shall support double banners at street and house side of the pole, with 2' X 5' banners at height above finish grade as shown on the plans. All pole design shall meet the 2013 AASHTO specifications for these poles as defined in their STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS
FOR HIGHWAY SIGNS, LUMINAIRES AND TRAFFIC SIGNALS. The manufacturer shall submit engineering calculations for lighting poles to show that maximum stress and deflections do not exceed specified performance requirements under full design loading, as well as other certified reports and data which indicate that the poles meet all load requirements, within 30 days of the bid award. Engineering calculations shall be prepared and sealed by an engineer licensed in the State of Wisconsin.

The entire horizontal and vertical "wind sail" area of the pole assembly subject to wind load including arm and luminaire shall be designed to withstand the AASHTO standard specifications from above, for wind load requirements for a 90 MPH wind load with gust factor computed per section 3.8.5.and height and exposure factors from table.

Welding: All welding shall be according to the applicable ASME Standards.

Accessories: All accessories (hand hole cover and base cover) are to be installed on the pole unless specified. Accessories supplied under separate cover will cause the bid to either be rejected or penalized.

C Construction

None.

D Measurement

The department will measure Pole Type 21 Spare with Transformer Base by each unit, acceptably delivered.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.317	Pole Type 21 Aluminim with Transformer Base Spare	EACH

Payment is full compensation for furnishing all materials.

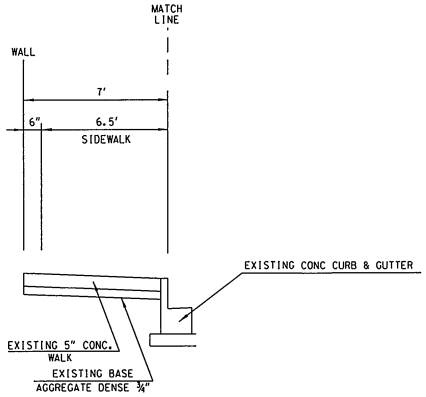
Schedule of Items

Attached, dated April 24, 2019, are the revised Schedule of Items Pages 10 – 12.

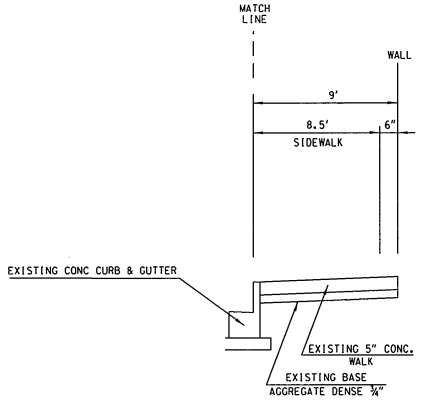
Plan Sheets

The following 8½ x 11-inch sheets are attached and made part of the plans for this proposal:
Revised: 21, 70, 209, 217, 249, 250, 256 and 285.
Added: 323A

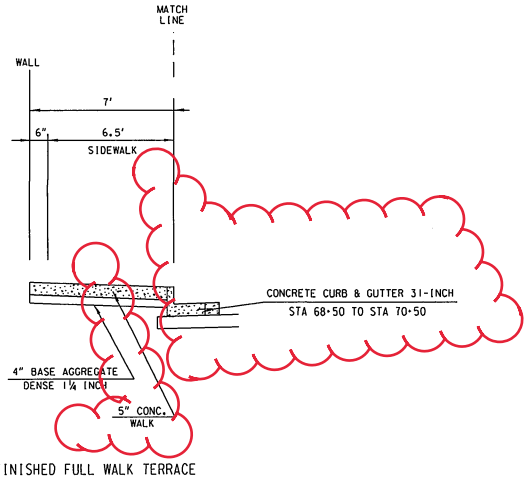
END OF ADDENDUM



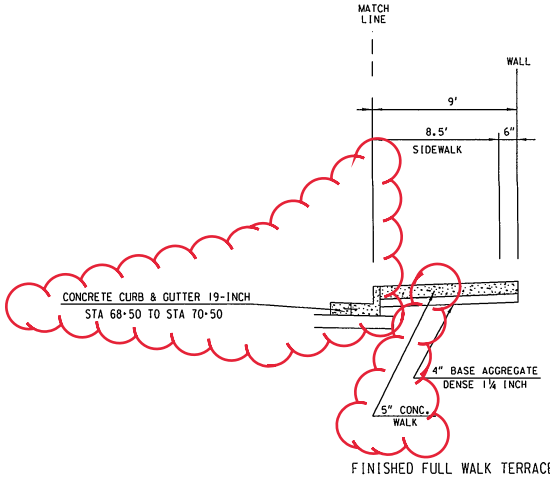
EXISTING FULL WALK TERRACE
STA 68+78.9 TO STA 69+81.5



EXISTING FULL WALK TERRACE
STA 68+98.2 TO STA 69+73.8



FINISHED FULL WALK TERRACE
STA 68+78.9 TO STA 69+81.5



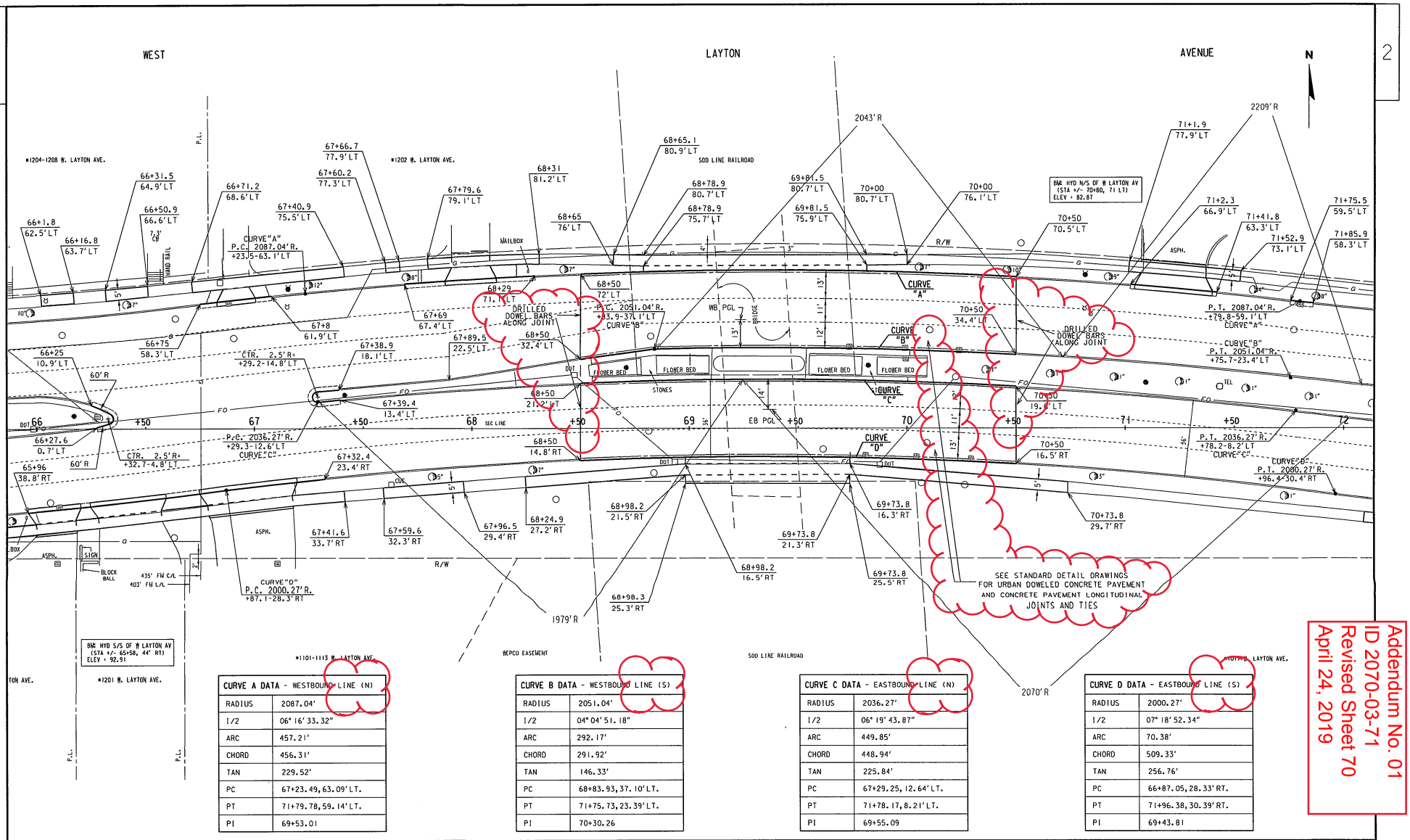
FINISHED FULL WALK TERRACE
STA 68+98.2 TO STA 69+73.8

Addendum No. 01
ID 2070-03-71
Revised Sheet 21
April 24 2019

STATE PROJECT NUMBER 2070-03-71	HWY: LOCAL STREET	COUNTY: MILWAUKEE	CONSTRUCTION DETAILS	SCALE FEET	SHEET NO: 21	E

FILE NAME: W:\SPR\LAYTON_27TH TO HOWELL\ADDENDUM\CONDET 4-16-19.DGN

REVISED DATE: 04-17-2019 BY HD



CURVE A DATA - WESTBOUND LINE (N)	
RADIUS	2087.04'
I/2	06° 16' 33.32"
ARC	457.21'
CHORD	456.31'
TAN	229.52'
PC	67+23.49, 63.09' LT.
PT	71+79.78, 59.14' LT.
PI	69+53.01

CURVE B DATA - WESTBOUND LINE (S)	
RADIUS	2051.04'
I/2	04° 04' 51.18"
ARC	292.17'
CHORD	291.92'
TAN	146.33'
PC	68+83.93, 37.10' LT.
PT	71+75.73, 23.39' LT.
PI	70+30.26

CURVE C DATA - EASTBOUND LINE (N)	
RADIUS	2036.27'
I/2	06° 19' 43.87"
ARC	449.85'
CHORD	448.94'
TAN	225.84'
PC	67+29.25, 12.64' LT.
PT	71+78.17, 8.21' LT.
PI	69+55.09

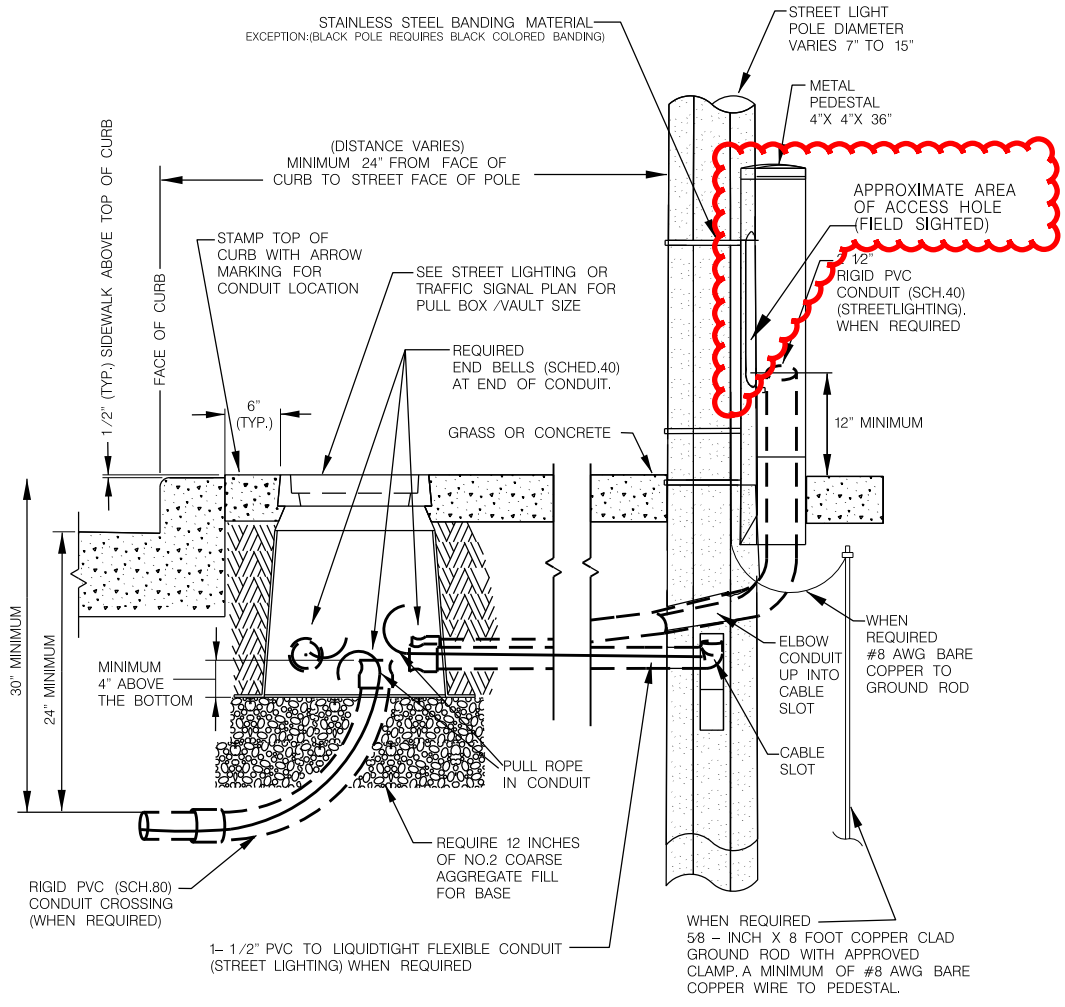
CURVE D DATA - EASTBOUND LINE (S)	
RADIUS	2000.27'
I/2	07° 18' 52.34"
ARC	70.38'
CHORD	509.33'
TAN	256.76'
PC	66+87.05, 28.33' RT.
PT	71+96.38, 30.39' RT.
PI	69+43.81

Addendum No. 01
ID 2070-03-71
Revised Sheet 70
April 24, 2019

STATE PROJECT NUMBER 2070-03-71 - -	HWY: LOCAL STREET	COUNTY: MILWAUKEE	PLAN DETAIL	SCALE FEET 0 40	SHEET NO: 70	E

FILENAME: W:\SPR\LAYTON_27TH TO HOWELL\ADDENDUM\PDET 66-72 4-17-19.DGN

REVISED DATE: 04-17-2019 BY HD



108A

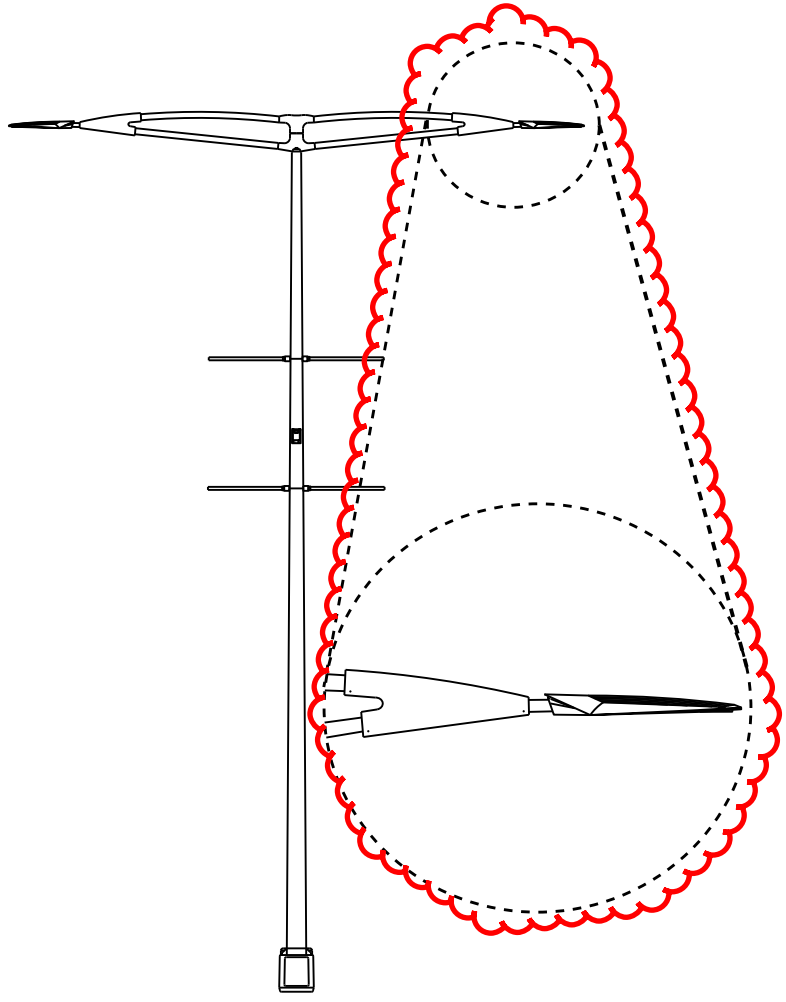
DETAIL VERSION
TYPICAL CONDUIT INSTALLATION FROM PULL BOX TO POLE & 4"X4" WIRING PEDESTAL

ANY DEVIATIONS FROM DETAIL WILL REQUIRE PERMISSION FROM STREET LIGHTING FORCES. CONTACT DISPATCHER AT (414) 286-5944 FOR THE APPROPRIATE SHOP SUPERVISOR.

NOT TO SCALE

Addendum No. 01
ID 2070-03-71
Revised Sheet 209
April 24, 2019

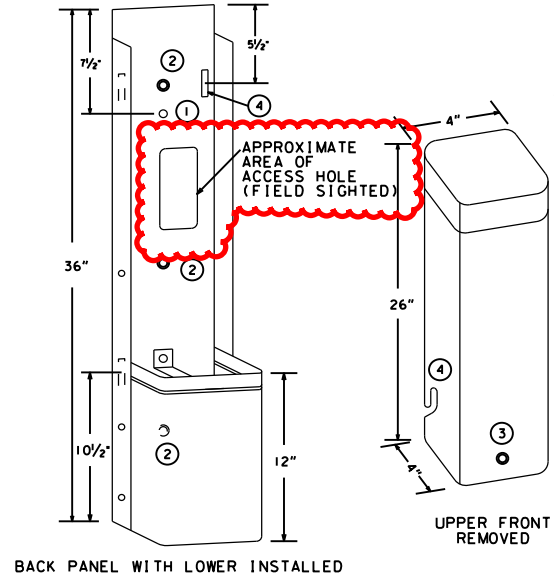
2

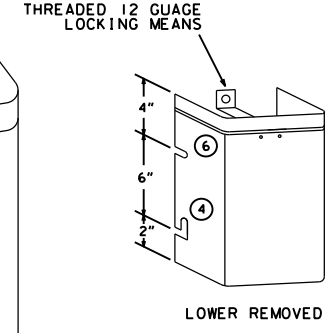


TYPE 21 POLE PROFILE WITH LUMINAIRES

NOTES:

1. STAINLESS 1/4 X 20 X 1" CARRIAGE BOLT FOR GROUNDING IN BACK PANEL 1/2" DIA. AREA FREE OF PAINT AROUND BOLT.
2. EXTERNAL DIMPLES TO PROVIDE BACK PANEL CLEARANCE TO POLE FOR OPENING AND CLOSING UPPER PANEL.
3. RECESSED CUP PREMITS RECESSING 5/16 HEX HEAD LOCKING BOLT. THIS BOLT FITS PRESENT CITY OF MILWAUKEE TOOLING, LOCKING BOLT IS HELD IN PLACE WITH RETAINING RING. THIS BOLT MAY BE REPLACED BY A SECURITY BOLT IF DESIRED.
4. 1/4 X 1-1/4" SLOT (4) FOR BANDING ACCESS.
5. DOGLEG SLOT PREVENTS PULLING COVER OUTWARD WHILE LOCKED.
6. HORIZONITAL SLOT PREVENTS PULLING COVER UPWARD WHILE LOCKED.
7. SHOULDER RIVETS PROVIDE FOR SECURITY IN UNIT WHEN USED IN CONJUNCTION WITH ITEMS 5 & 6.





NOT TO SCALE

METAL WIRING PEDESTAL 4" X 4" X 36"

Addendum No. 01
ID 2070-03-71
Revised Sheet 217
April 24, 2019

SHEET 13 OF 13

PROJECT NO: 2070–03–71	HWY: W. LAYTON AVE.	COUNTY: MILWAUKEE	STREET LIGHTING DETAILS	SHEET 217	E

STREET LIGHTING ITEMS

CATEGORY 0010

	652.0230 CONDUIT RIGID NONMETALLIC SCHEDULE 40 2 1/2-INCH	652.0235* CONDUIT RIGID NONMETALLIC SCHEDULE 40 3-INCH	652.0615* CONDUIT SPECIAL 3-INCH	655.0305 CABLE TYPE UF 2#12 AWG GROUNDED	657.0808 LUMINAIRE ARMS STEEL 8-FOOT
W. LAYTON AVE.	LF	LF	LF	LF	EACH
PROJECT TOTAL	2,080	10,770	4,250	5,740	13

	SPV.0060.304 LUMINAIRE ARCHITECTURAL LED 3	SPV.0060.305 STREET LIGHTING SINGLE BRACKET ARM 8'	SPV.0060.306 STREET LIGHTING DOUBLE BRACKET ARM 8'	SPV.0060.307 CONCRETE LIGHT BASES TYPE 21	SPV.0060.308 POLE TYPE 21 ALUMINUM WITH TRANSFORMER BASE	SPV.0060.309 LUMINAIRE UTILITY LED 1	SPV.0060.310 METAL WIRING PEDESTAL 4-INCH x4-INCH x36-INCH	SPV.0060.311 METERED OUTLET SERVICE PEDESTAL 100A - 120/240V
W. LAYTON AVE.	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH
PROJECT TOTAL	173	12	70	82	82	9	8	1

	SPV.0060.301* PULL BOXES 17-INCH x30-INCH x24-INCH	SPV.0060.302 PULL BOXES 13-INCH x24-INCH x24-INCH	SPV.0060.303 REMOVE LUMINAIRE
W. LAYTON AVE.	EACH	EACH	EACH
PROJECT TOTAL	1	106	17

	SPV.0090.301 ELECTRICAL CABLE TYPE 3#8/1#8 LTP	SPV.0090.302 ELECTRICAL CABLE TYPE 3#6/1#8 LTP	SPV.0090.303 ELECTRICAL CABLE TYPE 3#4/1#8 LTP	SPV.0090.304 ELECTRICAL CABLE TYPE 3#2/1#8 LTP	SPV.0090.305 LIQUID TIGHT FLEXIBLE NONMETALLIC CONDUIT
W. LAYTON AVE.	LF	LF	LF	LF	LF
PROJECT TOTAL	15,330	3,090	4,700	12,850	200

* ADDITIONAL QUANTITIES FOUND ELSEWHERE

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April 24, 2019

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STREET LIGHTING SPARES ITEMS

CATEGORY 0020

	SPV.0060.312	SPV.0060.313	SPV.0060.314	SPV.0060.315
	LUMINAIRE ARCHITECTURAL LED 3	POLE TYPE 21 ALUMINUM WITH TRANSFORMER BASE	STREET LIGHTING SINGLE BRACKET ARM 8'	STREET LIGHTING DOUBLE BRACKET ARM 8'
	SPARE	SPARE	SPARE	SPARE
W. LAYTON AVE.	EACH	EACH	EACH	EACH
PROJECT TOTAL	18	10	6	7

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PAVEMENT RELATED CONSTRUCTION ITEMS

2070-03-71

	CONCRETE PAVEMENT 10-INCH		CONCRETE DRIVEWAY 8-INCH		CONCRETE DRIVEWAY 7-INCH HES		CONCRETE DRIVEWAY 8-INCH HES		DRILLED DOWEL BARS		TACK COAT		HMA PAVEMENT 3 MT 58-28 S		HMA PAVEMENT 4 MT 58-28 S	
ITEM NO.	415.0100		416.0180		416.0270		416.0280		416.0620		455.0605		460.6223		460.6224	
UNIT PAY	SY		SY		SY		SY		EACH		GAL		TON		TON	
CATEGORY	0010		0010		0010		0010		0010		0010		0010		0010	
LOCATION (STA TO STA)	LEFT	RIGHT	LEFT	RIGHT	LEFT	RIGHT	LEFT	RIGHT	LEFT	RIGHT	LEFT	RIGHT	LEFT	RIGHT	LEFT	RIGHT
10+00 TO 12+00	–	–	–	–	–	–	–	30	–	–	20	20	245	280	160	185
12+00 TO 18+00	70	70	–	–	–	10	100	30	–	–	70	70	362	380	268	281
18+00 TO 24+00	50	70	–	–	–	10	–	–	–	–	70	70	345	345	255	255
24+00 TO 30+00	40	70	–	–	10	10	20	–	–	–	60	70	334	339	247	251
30+00 TO 35+00	60	–	–	–	40	–	30	–	–	–	50	60	270	288	200	213
35+00 TO 41+00	70	70	–	–	–	–	70	–	–	–	60	50	293	259	217	191
54+00 TO 60+00	–	–	–	–	–	–	–	–	–	–	120	120	69	69	51	51
60+00 TO 66+00	130	130	–	–	–	–	340	130	–	–	70	70	368	368	271	272
66+00 TO 72+00	1,250	270	–	–	–	–	70	100	24	24	40	30	213	144	162	106
72+00 TO 78+00	70	70	20	–	–	–	60	190	–	–	40	60	362	311	268	230
78+00 TO 84+00	–	70	20	–	–	–	60	130	–	–	70	60	351	322	259	238
84+00 TO 90+00	70	150	50	–	–	–	–	40	–	–	80	90	431	437	328	323
90+00 TO 96+00	70	70	–	–	–	–	210	170	–	–	70	70	355	343	271	255
96+00 TO 102+00	–	–	–	–	–	–	–	250	–	–	70	70	338	332	263	251
102+00 TO 108+00	70	70	–	–	–	–	240	160	–	–	70	60	343	321	267	242
108+00 TO 114+00	–	–	–	–	–	–	40	120	–	–	20	20	113	118	88	89
SUBTOTALS	**1,950**	**1,110**	**90**	**0**	**50**	**30**	**1,240**	**1,350**	**24**	**24**	**980**	**990**	**4,791**	**4,654**	**3,573**	**3,432**
GRAND TOTALS	**3,060**		**90**		**80**		**2,590**		**48**		**1,970**		**9,445**		**7,005**	

PAVEMENT RELATED SPECIAL CONSTRUCTION ITEMS

2070-03-71

	CONCRETE DRIVEWAY 7-INCH SHES		CONCRETE DRIVEWAY 8-INCH SHES	
ITEM NO.	SPV.0180.001		SPV.0180.002	
UNIT PAY	SY		SY	
CATEGORY	0010		0010	
LOCATION (STA TO STA)	LEFT	RIGHT	LEFT	RIGHT
10+00 TO 12+00	–	–	–	–
12+00 TO 18+00	–	–	–	–
18+00 TO 24+00	–	–	–	–
24+00 TO 30+00	–	–	–	–
30+00 TO 35+00	–	–	–	–
35+00 TO 41+00	–	–	–	–
54+00 TO 60+00	–	–	–	–
60+00 TO 66+00	–	–	–	–
66+00 TO 72+00	–	10	–	20
72+00 TO 78+00	–	–	–	–
78+00 TO 84+00	–	–	–	–
84+00 TO 90+00	–	–	–	–
90+00 TO 96+00	–	–	–	–
96+00 TO 102+00	–	–	10	–
102+00 TO 108+00	–	–	–	–
108+00 TO 114+00	–	–	–	20
SUBTOTALS	**0**	**10**	**10**	**40**
GRAND TOTALS	**10**		**50**	

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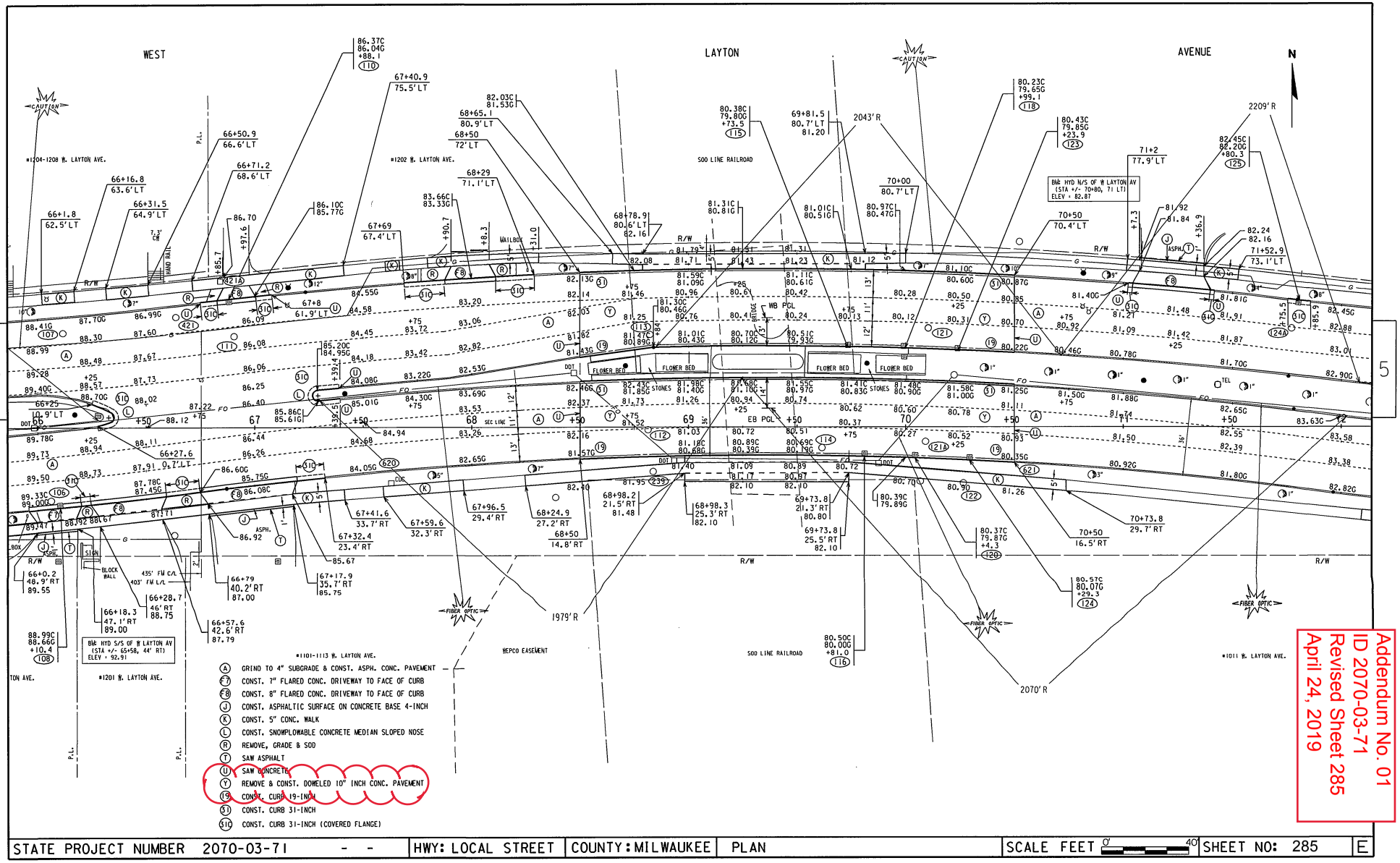

STATE PROJECT NUMBER 2070-03-71 - -	HWY: LOCAL STREET	COUNTY: MILWAUKEE	PLAN	SCALE FEET 0' 40	SHEET NO: 285	E

FILENAME: W:\SPR\LAYTON_27TH TO HOWELL\ADDENDUM\66-72 4-16-19.DGN

REVISED DATE: 04-16-2019 BY PRM

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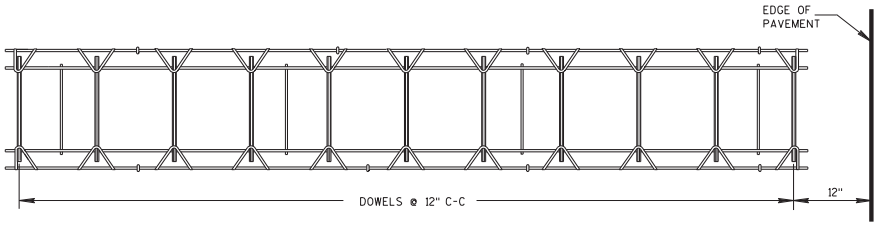
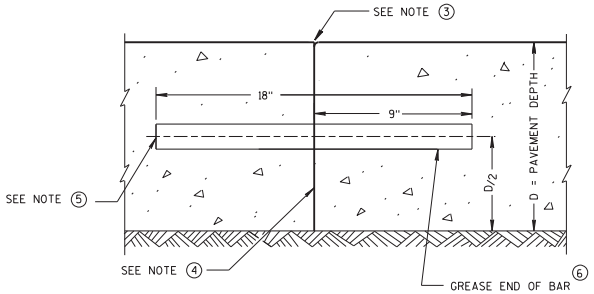


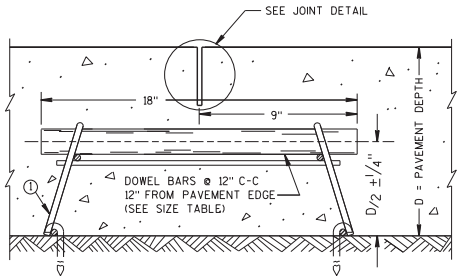
PLAN VIEW

SIDE VIEW

CONTRACTION JOINT DOWEL ASSEMBLY ①



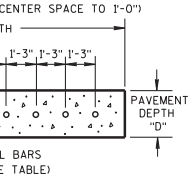
TRANSVERSE CONSTRUCTION JOINT



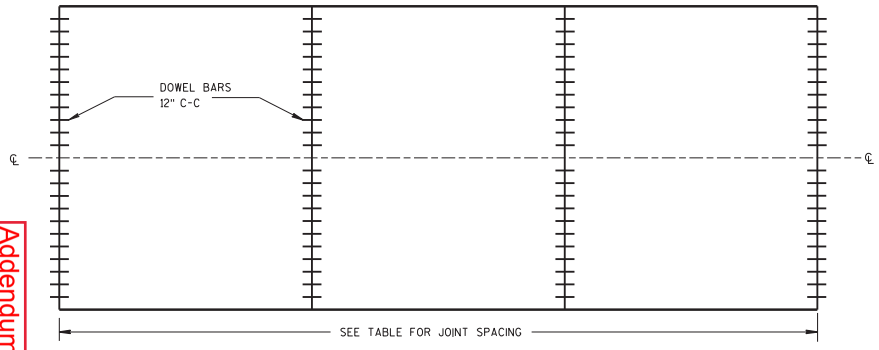
DOWELED CONTRACTION JOINT

PAVEMENT DEPTH, DOWEL BAR SIZE AND JOINT SPACING TABLE

PAVEMENT DEPTH (D)	DOWEL BAR DIAMETER	CONTRACTION JOINT SPACING
5 ½", 6", 6 ½"	NONE	12'
7", 7 ½"	1"	14'
8", 8 ½"	1 ¼"	15'
9", 9 ½"	1 ¼"	15'
10" & ABOVE	1 ½"	15'



DRILLED DOWEL BAR CONSTRUCTION JOINT ⑦



CONTRACTION JOINT LOCATIONS

GENERAL NOTES

CONTRACTION JOINTS

CONSTRUCT TRANSVERSE CONTRACTION JOINTS NORMAL TO THE CENTERLINE. SHOW THE LOCATION OF CONTRACTION JOINTS THROUGH INTERSECTIONS ON THE PLANS OR AS DIRECTED BY THE ENGINEER.

INSTALL DOWEL BARS PARALLEL TO THE PAVEMENT CENTERLINE AND PAVEMENT SURFACE.

FOR PAVEMENT SLABS OF VARYING WIDTHS, LOCATE THE OUTER MOST DOWEL BAR SO THAT THE CENTER OF THE BAR IS A MINIMUM OF 6 INCHES AND A MAXIMUM OF 18 INCHES FROM THE LONGITUDINAL JOINT AND THE FREE EDGE OF PAVEMENT.

CONSTRUCTION JOINTS

LOCATE CONSTRUCTION JOINTS A MINIMUM OF 6 FEET FROM THE NEAREST CONTRACTION JOINT AND ALIGN PARALLEL TO CONTRACTION JOINTS.

① OBTAIN THE ENGINEER'S APPROVAL FOR THE USE OF ALTERNATIVE DESIGNS OF THE DOWEL ASSEMBLY. USE MECHANICAL DOWEL BAR INSERTERS OR DOWEL ASSEMBLIES WHEN CONSTRUCTING CONTRACTION JOINTS.

② SECURE BASKETS WITH ANCHORS TO HOLD DOWEL BARS IN THE CORRECT POSITION AND ALIGNMENT. TYPE, LOCATION, NUMBER AND LENGTH OF ANCHORS ARE DEPENDENT UPON FIELD CONDITIONS.

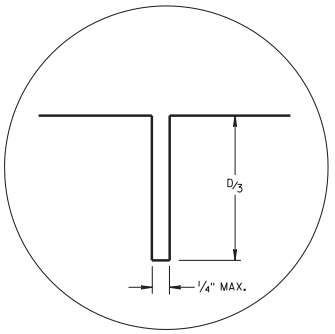
③ FORM OR SAW CONSTRUCTION JOINTS. PROVIDE A ¼-INCH RADIUS AT FORMED JOINTS.

④ PROVIDE A SMOOTH VERTICAL FACE FOR THE ENTIRE DEPTH OF THE PAVEMENT WHEN FORMING CONSTRUCTION JOINTS.

⑤ INSTALL DOWEL BARS AT CONSTRUCTION JOINTS BY FORMING OR DRILLING. INSTALL FORMED DOWEL BARS 12 INCHES C-C AND 12 INCHES FROM PAVEMENT EDGE. REMOVE EXCESS CONCRETE FROM THE FREE END OF THE DOWEL BAR IF DOWEL BARS ARE FORMED THROUGH A HEADER BOARD. INSTALL DRILLED DOWEL BARS ACCORDING TO *DRILLED DOWEL BAR CONSTRUCTION JOINT* DETAIL.

⑥ APPLY A THIN UNIFORM COATING OF SURFACE TREATMENT TO THE FREE END OF DOWEL BARS TO PREVENT BONDING.

⑦ ANCHOR DOWEL BARS INTO DRILLED HOLES WITH AN EPOXY. MAXIMUM DRILLED HOLE SIZE IS ⅛-INCH GREATER THAN DOWEL BAR DIAMETER, 9 INCHES IN LENGTH.



JOINT DETAIL

Addendum No. 01
ID 2070-03-71
Added Sheet 323A
April 24, 2019

URBAN DOWELED CONCRETE PAVEMENT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
March 2018 — DATE
/S/ Peter Kemp, P.E. — PAVEMENT SUPERVISOR
FHWA

Proposal ID: 20190514017 Project(s): 2070-03-71

Federal ID(s): WISC 2019288

SECTION: 0001 Contract Items

Alt Set ID: Alt Mbr ID:

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0280	SPV.0060 Special 307. Concrete Light Bases Type 21	82.000 EACH	_____.____	_____.____
0284	SPV.0060 Special 309. Luminaire Utility LED 1	9.000 EACH	_____.____	_____.____
0286	SPV.0060 Special 310. Metal Wiring Pedestal 4-Inch x 4-Inch x 36-Inch	8.000 EACH	_____.____	_____.____
0288	SPV.0060 Special 311. Metered Outlet Service Pedestal 100A-120/240V	1.000 EACH	_____.____	_____.____
0290	SPV.0060 Special 312. Luminaire Architectural LED 3 Spare	18.000 EACH	_____.____	_____.____
0294	SPV.0060 Special 314. Street Lighting Single Bracket Arm 8' Spare	6.000 EACH	_____.____	_____.____
0296	SPV.0060 Special 315. Street Lighting Double Bracket Arm 8' Spare	7.000 EACH	_____.____	_____.____
0298	SPV.0060 Special 401. Adjusting CUC Manhole Covers	23.000 EACH	_____.____	_____.____
0300	SPV.0060 Special 402. Installing Conduit Into Existing Manhole	3.000 EACH	_____.____	_____.____
0302	SPV.0090 Special 001. Construction Staking Concrete Sidewalk	13,100.000 LF	_____.____	_____.____
0304	SPV.0090 Special 002. Construction Staking Upper Layer	15,770.000 LF	_____.____	_____.____
0306	SPV.0090 Special 003. Construction Staking Lower Layer	15,770.000 LF	_____.____	_____.____
0308	SPV.0090 Special 004. Marking Line Epoxy 6-Inch	12,400.000 LF	_____.____	_____.____

Proposal ID: 20190514017 Project(s): 2070-03-71

Federal ID(s): WISC 2019288

SECTION: 0001 Contract Items

Alt Set ID: Alt Mbr ID:

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0310	SPV.0090 Special 005. Marking Crosswalk Preformed Plastic 12-Inch	2,200.000 LF	_____.____	_____.____
0312	SPV.0090 Special 006. Culvert Overhead Joint Repair	90.000 LF	_____.____	_____.____
0314	SPV.0090 Special 007. Marking Line Preformed Plastic 24-Inch	855.000 LF	_____.____	_____.____
0316	SPV.0090 Special 008. Joint & Crack Repair	1,000.000 LF	_____.____	_____.____
0318	SPV.0090 Special 301. Electrical Cable Type 3#8/1#8 XLP	15,330.000 LF	_____.____	_____.____
0320	SPV.0090 Special 302. Electrical Cable Type 3#6/1#8 XLP	3,090.000 LF	_____.____	_____.____
0322	SPV.0090 Special 303. Electrical Cable Type 3#4/1#8 XLP	4,700.000 LF	_____.____	_____.____
0324	SPV.0090 Special 304. Electrical Cable Type 3#2/1#8 XLP	12,850.000 LF	_____.____	_____.____
0326	SPV.0090 Special 305. 1 1/2" Liquid Tight Flexible Nonmetallic Conduit Type-B	200.000 LF	_____.____	_____.____
0328	SPV.0090 Special 401. 2-Duct Conduit, Cement Encased, 4-inch rigid Nonmetallic Conduit DB-60	209.000 LF	_____.____	_____.____
0330	SPV.0165 Special 001.Skid/Slip Resistant Green Thermoplastic Integrated Bike Lane Panel	115.000 SF	_____.____	_____.____
0332	SPV.0180 Special 001. Concrete Driveway SHES 7-Inch	10.000 SY	_____.____	_____.____
0334	SPV.0180 Special 002. Concrete Driveway SHES 8-Inch	50.000 SY	_____.____	_____.____

Proposal ID: 20190514017 Project(s): 2070-03-71

Federal ID(s): WISC 2019288

SECTION: 0001 Contract Items

Alt Set ID: Alt Mbr ID:

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0336	SPV.0195 Special 001. Excavation, Hauling, and Disposal of Lead Contaminated Soil	152.000 TON	_____.____	_____.____
0338	SPV.0195 Special 002. Excavation, Hauling, and Disposal of CVOC Contaminated Soil	237.000 TON	_____.____	_____.____
0340	416.0620 Drilled Dowel Bars	48.000 EACH	_____.____	_____.____
0342	SPV.0060 Special 316. Pole Type 21 Aluminum with Transformer Base	82.000 EACH	_____.____	_____.____
0344	SPV.0060 Special 317. Pole Type 21 Aluminum with Transformer Base Spare	10.000 EACH	_____.____	_____.____
	Section: 0001		Total:	_____.____

Total Bid: _____.____