



**ADDENDUM NO. 4
CITY OF PEORIA
RESERVOIR BOULEVARD ADA IMPROVEMENTS
AUGUST 23, 2024**

Re: Addendum for Bid Package, **Reservoir Boulevard Ada Improvements**, Peoria, IL

The following shall be considered part of the Contract Documents for the subject project and shall apply to all construction there under.

This Addendum modifies the specifications and quantity of SOLAR-POWERED FLASHING BEACON ASSEMBLY (COMPLETE).

Specifications

1. Updated Page 3 of the table of contents to add line item for SOLAR-POWERED FLASHING BEACON ASSEMBLY (COMPLETE).
2. Page 15 (Proposal Bid Form) of the Specifications has been updated to reflect the change for pay item X0326899 SOLAR-POWERED FLASHING BEACON ASSEMBLY (COMPLETE).
3. Replace previous special provisions for SOLAR-POWERED FLASHING BEACON ASSEMBLY (COMPLETE) and replace with attached pages 67-69. Page 70 is removed and not replaced.

Plan

1. Replace Sheets 3, 7, and 9 of the plan set with the attached sheets addressing an additional SOLAR-POWERED FLASHING BEACON ASSEMBLY (COMPLETE).

Sincerely,

A handwritten signature in black ink that reads "Andrea Klopfenstein".

Andrea Klopfenstein, P.E.

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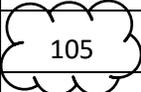
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PROPOSAL BID FORM

Item	Description	Quantity	Unit	Unit Price	Amount
42400100	PORTLAND CEMENT CONCRETE SIDEWALK, 4 INCH	644	SQ FT		
42400300	PORTLAND CEMENT CONCRETE SIDEWALK, 6 INCH	202	SQ FT		
42400800	DETECTABLE WARNINGS	24	SQ FT		
44000100	PAVEMENT REMOVAL 	 105	SQ YD		
44000157	HOT-MIX ASPHALT SURFACE REMOVAL, 4"	957	SQ YD		
44000500	COMBINATION CONCRETE CURB AND GUTTER REMOVAL	409	FOOT		
44000600	SIDEWALK REMOVAL	687	SQ FT		
60260100	INLETS TO BE ADJUSTED	2	EACH		
60604400	COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.18	462	FOOT		
60618300	CONCRETE MEDIAN SURFACE, 4 INCH	126	SQ FT		
67100100	MOBILIZATION	1	L SUM		
X0326899	SOLAR-POWERED FLASHING BEACON ASSEMBLY (COMPLETE)	 3	EACH		
X7010216	TRAFFIC CONTROL AND PROTECTION, (SPECIAL)	1	L SUM		
Z0013798	CONSTRUCTION LAYOUT	1	L SUM		
Z0024475	TUBULAR MARKERS	6	EACH		
Total Base Bid Amount					

in writing _____

SOLAR-POWERED FLASHING BEACON ASSEMBLY (COMPLETE)

Description:

This work shall be performed in accordance with the applicable portions of Sections 702, 720, 801, 806, 875 and 888 of the Standard Specifications insofar as applicable, and the latest edition of the MUTCD except as modified herein.

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This work shall consist of furnishing and installing three Rectangular Rapid Flashing Beacons (RRFB) for one crosswalk location; power supply; traffic signal posts; foundations; pedestrian push buttons; warning signs and plaques; controller and cabinet; and wireless communication equipment as shown on the plans and/or as specified by the Engineer. All equipment and hardware required to mount the RRFB and associated equipment to the assembly shall be included in the unit cost of this item.

All components shall be manufactured and assembled as a complete system and consist of the following:

1. Rectangular Rapid Flashing Beacon

Each RRFB assembly shall satisfy the FHWA Interim Approval for Optional Use of Pedestrian Actuated Rectangular Rapid Flashing Beacons at Uncontrolled Marked Crosswalks (IA-21), dated March 20, 2018, and all subsequent FHWA Official Interpretation Letters and the 2009 edition of the Manual of Uniform Traffic Control Devices (MUTCD), including the unit size, mounting location, flash rate, and operational parameters unless modified herein by this special provision. The RRFB assembly shall be programmable to allow the City Public Works Department to set the duration of the flashing beacon display based on the crossing time requirements established in the MUTCD. The Contractor shall furnish and install two direction RRFB units with far side indicator light mounted to the sign structure as indicated on the plans. The RRFB shall be rated for Class I light intensity output according to the Society of Automotive Engineers (SAE) Standard J595 with a 15 year life expectancy. The minimum size of the LED beacon shall be approximately 7.25 inches x 3 inches. The RRFB shall be able to be seen at least 1,000 feet in advance of the crossing during the day. During the night time hours, the RRFB shall be equipped with an automatic dimming feature. The RRFB shall have an operating temperature meeting NEMA specifications.

2. Power Supply

The installation shall consist of a solar powered power supply.

The solar power supply shall be easy to install, fully self-contained weather, corrosion, and vandal-resistant, with a UV-resistant solar panel. The solar power supply shall be power autonomous without need of an external power supply. The batteries shall be sealed, maintenance free, and field-replaceable independently of other components. The battery pack shall have a minimum rated lifespan of three years.

The power supply system shall have the capacity to operate the RRFB for 30 days at a normal use of 400 activations of 30 seconds per day without solar charging. The RRFB shall have an automatic light control

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to provide useful light during extreme conditions that prevent charging over an extended period of time. The manufacturer shall provide documentation for each installation consisting of solar power calculations to verify load, duty cycle and battery capacity based on location.

The solar panel shall be installed at the highest point on the assembly structure, or as directed by the Engineer, and away from the travelled way. The solar panel shall be installed at an angle specified by the manufacturer facing the equator (due south) with a full unobstructed solar exposure for optimum performance of the system, or as recommended by the manufacturer and directed by the Engineer. If batteries are to be installed in a separate cabinet, the cabinet shall be a minimum of seven feet above the ground and located on the post as to be not over the sidewalk, bike path or trail.

3. Controller

The RRFB controller shall meet the requirements of Section 858 of the "Standard Specifications" except where modified herein:

- a. Controller to Controller Communication: At each location all installed RRFB assemblies shall communicate wirelessly using an unlicensed radio band so as to simultaneously commence operation of their alternating rapid flashing indications and cease operation simultaneously. The communication equipment shall comply with FCC requirements and the vendor representative shall field test the equipment prior to placing the units in operation to demonstrate the RRFBs ability to achieve proper operation under the requirements of FHWA Memorandum IA-21 and all subsequent interpretation letters. Up to 10 optional RF channels shall be available to allow multiple RRFB Systems to operate within close proximity of each other.
- b. Timing: The controller shall provide the full programmed timing upon all push button activations. Additionally, the controller shall have the capability to cause manual activation of RRFB system for the duration of school crossing times when a crossing guard is present.
- c. The Controller shall be reconfigurable if future MUTCD or State guidelines specify a different flash pattern.
- d. The controller shall be housed in a NEMA 3R rated aluminum enclosure, intended for indoor or outdoor use, primarily to provide a degree of protection against corrosion, windblown dust and rain, splashing water, hose-directed water, and damage from ice formation.

4. Traffic Signal Post:

The traffic signal post shall meet the requirements of Section 875 of the "Standard Specifications" for traffic signal post (not painted black) with height as specified on the plans.

5. Foundation:

The traffic signal post foundation shall be a Traffic Signal Concrete Foundation Type A. The foundation shall meet the requirements of Section 878 of the "Standard Specifications"

6. Pedestrian Push Button:

- a. The pedestrian push button shall meet the requirements of Section 888 of the "Standard Specifications".
- b. The Push Button shall be an Accessible Pedestrian Signals (APS) push button, ADA compliant, NEMA rated, ultra-durable long-life button and shall operate in compliance with the latest Public Right-of-Way Accessibility Guidelines (PROWAG).

7. Signs:

Each RRFB assembly shall include two crossing signs (W11-2) 36 inch x 36 inch dimension, two diagonal downward pointing arrow (W16-7P) plaques 24 inch x 12 inch dimension, and a R10-25 9 inch x 12 inch dimension, mounted as part of or above the pedestrian push button. The W-series sign panels shall be type AZ high intensity prismatic sheeting meeting the requirements of Section 1091 of the "Standard Specifications". The R-series signs shall be manufactured with type AP sheeting meeting the requirements of Section 1091 of the "Standard Specifications" and shall be vandal resistant. All signs shall meet the latest requirements of the MUTCD. The signs shall have brackets and sign channels which are equal to and completely interchangeable with those used by the highway jurisdiction's maintenance agency.

All materials shall be warranted for three years from date of acceptance or turn on by the Owner.

The SOLAR-POWERED FLASHING BEACON ASSEMBLY (COMPLETE) shall be installed strictly according to the manufacturer's recommendations, the applicable portions of the "Standard Specifications" as modified herein, as shown on the Plans, and/or as directed by the Engineer.

The final elevation and location of the beacons shall be approved by the Engineer prior to the Contractor beginning work.

Basis of Payment: This work will be paid for at the contract unit price per each for SOLAR-POWERED FLASHING BEACON ASSEMBLY (COMPLETE), which price shall include all labor, equipment and materials, and incidental expenses necessary to furnish the components, signs, posts, foundations, hardware, cables, connectors, and brackets necessary for installation of each sign assembly.



Foundations:

24" diameter concrete foundations shall be constructed in accordance with the foundation detail in the plans.

Signs:

Each post shall have a R10-25 sign, pedestrian crossing sign (W11-2, 30" x 30") with flashing LEDs in the border and a diagonal arrow plaque (W16-7L or W16-7R, 24" x 12") mounted on both sides of the post facing traffic.

Documentation:

Each system shall come with a complete installation and user's guide. Minimum information to be covered shall be as follows:

1. Description of all the system components and their basic function.
2. Installation of a typical system including sections specifically covering pole installation, all aspects of installation of the solar power system and LED lamp installation.
3. Troubleshooting and maintenance of the system.
4. Complete appendices on all of the components used in the system
5. Quick start timer programming instructions.
6. Complete drawings or illustrations throughout to support and clarify the text.
7. Phone/FAX numbers for technical support of the system.

Method of Measurement:

This work will be measured for payment for Each sign assembly installed.

Basis of Payment:

This work will be paid for at the contract unit price per Each for SOLAR-POWERED FLASHING BEACON ASSEMBLY (COMPLETE), which price shall include all labor, equipment, materials, and incidental expenses necessary to furnish the components, signs, posts, foundations, hardware, cables, connectors, and brackets necessary for installation of each sign assembly.

SODDING COMPLETE

This work shall include placing topsoil, fertilizer and salt tolerant sod adjacent to the edge of new sidewalk and new HMA & PCC driveway pavements. This work shall be done in accordance with Sections 211, 250, and 251 of the Standard Specifications except for the following revisions:

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SUMMARY OF QUANTITIES

CODE NO.	DESCRIPTION	UNIT	TOTAL QUANTITY	
			CONSTRUCTION TYPE 0021	ALTERNATE
20200100	EARTH EXCAVATION	CU YD	100	
25200100	SODDING	SQ YD	99	
28000500	INLET AND PIPE PROTECTION	EACH	2	
35101400	AGGREGATE BASE COURSE, TYPE B	TON	54	
35400200	PORTLAND CEMENT CONCRETE BASE COURSE WIDENING 7"	SQ YD	55	
40600295	POLYMERIZED BITUMINOUS MATERIALS (TACK COAT)	POUND	651	
40600982	HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT	SQ YD	93	
40603090	HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N50	TON	135	
40604050	HOT-MIX ASPHALT SURFACE COURSE, IL-9.5, MIX "C", N50	TON	81	
42400100	PORTLAND CEMENT CONCRETE SIDEWALK 4 INCH	SQ FT	644	
42400300	PORTLAND CEMENT CONCRETE SIDEWALK 6 INCH	SQ FT	202	
42400800	DETECTABLE WARNINGS	SQ FT	24	
44000100	PAVEMENT REMOVAL	SQ YD	105	
44000165	HOT-MIX ASPHALT SURFACE REMOVAL, 4"	SQ YD	957	
44000500	COMBINATION CURB AND GUTTER REMOVAL	FOOT	409	
44000600	SIDEWALK REMOVAL	SQ FT	687	
60260100	INLETS TO BE ADJUSTED	EACH	2	
60604400	COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.18	FOOT	462	
60618300	CONCRETE MEDIAN SURFACE, 4 INCH	SQ FT	126	
67100100	MOBILIZATION	L SUM	1	
78009004	MODIFIED URETHANE PAVEMENT MARKING - LINE 4"	FOOT		919
78009024	MODIFIED URETHANE PAVEMENT MARKING - LINE 24"	FOOT		56
X0326899	SOLAR-POWERED FLASHING BEACON ASSEMBLY (COMPLETE)	EACH	3	
X7010216	TRAFFIC CONTROL AND PROTECTION, (SPECIAL)	L SUM	1	
Z0013798	CONSTRUCTION LAYOUT	L SUM	1	
Z0024476	TUBULAR MARKER	EACH	6	



REVISOR: 8/23/2024



DESIGNED	EAA	DATE	07-30-24
DRAWN	EAA		
CHECKED	ML		
PROJECT #:	5111.04		

RESERVOIR BLVD ADA IMPROVEMENTS



SUMMARY OF QUANTITIES

SHEET 3 OF 36

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PORTLAND CEMENT CONCRETE SIDEWALK & DETECTABLE WARNINGS							
LOCATION				35101400	42400100	42400300	42400800
STATION	TO	STATION	SIDE	AGGREGATE BASE COURSE, TYPE B	PORTLAND CEMENT CONCRETE SIDEWALK 4 INCH	PORTLAND CEMENT CONCRETE SIDEWALK 6 INCH	DETECTABLE WARNINGS
				TON	SQ FT	SQ FT	SQ FT
RESERVOIR BLVD							
102+34.1	TO	102+50.4	LT	5.0		202.0	
102+71.3	TO	103+28.3	RT	9.3	372.0		12.0
102+71.4	TO	103+11.4	LT	6.8	272.0		12.0
TOTAL				21.1	644.0	202.0	24.0
USE				22	644	202	24

MODIFIED URETHANE PAVEMENT MARKING							
LOCATION				78009004		78009024	
STATION	TO	STATION	SIDE	LINE 4"		LINE 24"	
				SOLID		SKIP DASH	SOLID
				EDGE LINE	MEDIAN EDGE LINE	LANE LINE	CROSSWALK
				WHITE	YELLOW	YELLOW	WHITE
FOOT							
RESERVOIR BLVD							
101+63.3	TO	103+67.8	RT	204.8	204.6	50.0	28.0
101+63.3	TO	103+67.8	LT	204.3	204.4	50.0	28.0
TOTAL				409.1	409.1	100.0	56.0
USE				919		56	

SOLAR-POWERED FLASHING BEACON ASSEMBLY (COMPLETE)			
LOCATION			X0326899
STATION	OFFSET	SIDE	EACH
RESERVOIR BLVD			
102+83.6	25.0'	RT	1
102+85.8	0'	CL	1
102+98.7	25.0'	LT	1
TOTAL			3
USE			3

TUBULAR MARKERS			
LOCATION			Z0024475
STATION	TO	STATION	EACH
RESERVOIR BLVD			
102+78.4	TO	102+84.4	3
102+98.3	TO	103+04.3	3
TOTAL			6
USE			6

CONCRETE MEDIAN SURFACE, 4 INCH				
LOCATION				60618300
STATION	TO	STATION	SIDE	SQ FT
RESERVOIR BLVD				
102+76.4	TO	103+06.4	LT & RT	125.3
TOTAL				125.3
USE				126

PAVEMENT									
LOCATION				35400200	40600295	40600982	40603090	40604050	
STATION	TO	STATION	SIDE	PORTLAND CEMENT CONCRETE BASE COURSE WIDENING 7"	POLYMERIZED BITUMINOUS MATERIALS (TACK COAT)	HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT	HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N50	HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N50	
				SQ YD	POUND	SQ YD	TON	TON	
RESERVOIR BLVD									
101+63.3	TO	103+67.8	LT & RT	45.4	650.10	92.22	134.84	80.90	
102+75.4	TO	103+07.4	LT & RT	9.56					
TOTAL				54.9	650.1	92.2	134.8	80.9	
USE				55	651	93	135	81	

REVISD 8/23/2024



DESIGNED EAA DATE - 07-30-24
 DRAWN EAA
 CHECKED ML
 PROJECT #: 5111.04

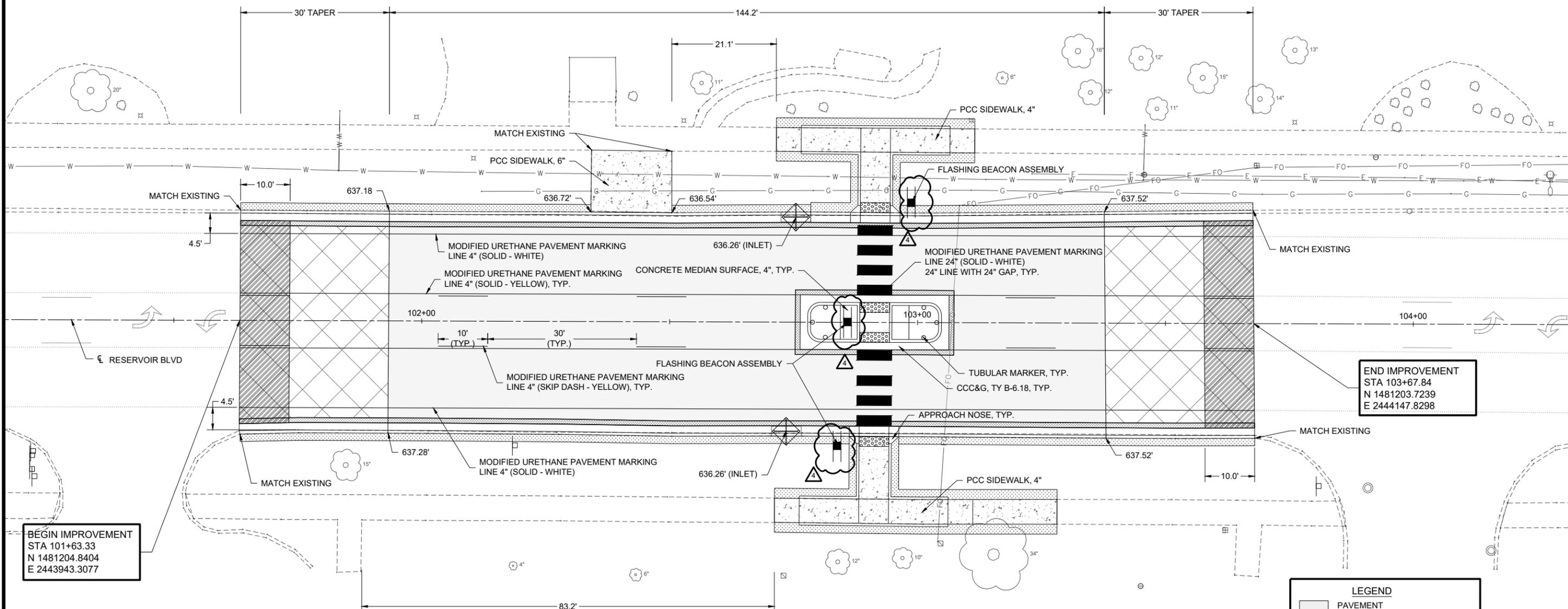
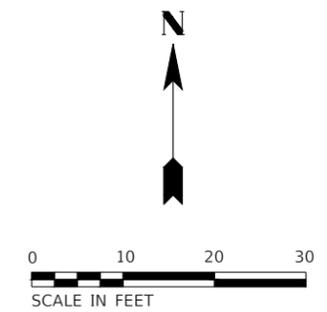
RESERVOIR BLVD ADA
 IMPROVEMENTS



SCHEDULE OF QUANTITIES (2 OF 2)

SHEET
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END IMPROVEMENT
 STA 103+67.84
 N 1481203.7239
 E 2444147.8298

NOTE:
 ALL ELEVATIONS SHOWN ARE BACK OF CURB ELEVATIONS.

REVISOR: 4
 DATE: 8/23/2024

LEGEND	
	PAVEMENT
	PCC SIDEWALK
	PCC BASE COURSE WIDENING
	SODDING
	TRANSITION AREA
	BUTT JOINT
	DETECTABLE WARNING
	SOLAR-POWERED FLASHING BEACON ASSEMBLY (COMPLETE)
	INLET AND PIPE PROTECTION



DESIGNED	EAA	DATE	07-30-24
DRAWN	EAA		
CHECKED	ML		
PROJECT #:	5111.04		

RESERVOIR BLVD ADA
 IMPROVEMENTS



PLAN

SHEET
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