

**GENERAL NOTES**  
DRAWINGS SHALL NOT BE SCALED.

THE PLAN QUANTITY FOR THE BID ITEM "WALL MODULAR BLOCK GRAVITY LANDSCAPE PORTAGE ROAD" IS BASED ON A WALL HEIGHT MEASURED FROM THE TOP OF WALL TO A CONSTANT DEPTH OF 1'-6" FT BELOW FINISHED GRADE. SEE "MISCELLANEOUS QUANTITIES" FOR WALL MODULAR BLOCK LANDSCAPE QUANTITY.

EXCAVATION FOR WALL IS INCLUDED WITH BID ITEM "WALL MODULAR BLOCK GRAVITY LANDSCAPE PORTAGE ROAD."

ALL DIMENSIONS ARE ALONG THE FRONT FACE OF THE WALL, UNLESS OTHERWISE SHOWN.

**DESIGN DATA**  
PROVIDE COMPLETE DESIGN, PLANS, DETAILS, SPECIFICATIONS, AND SHOP DRAWINGS FOR THE RETAINING WALLS IN ACCORDANCE WITH THE SPECIAL PROVISIONS. THE RETAINING WALL MANUFACTURER SHALL PROVIDE TECHNICAL ASSISTANCE TO THE CONTRACTOR DURING CONSTRUCTION. THE COST OF FURNISHING THESE ITEMS SHALL BE INCLUDED IN THE BID ITEM "WALL MODULAR BLOCK GRAVITY LANDSCAPE".

A GEOTECHNICAL INVESTIGATION HAS NOT BEEN COMPLETED FOR THIS WALL. SOIL PARAMETERS ARE PROVIDED ON THE WALL DETAILS SHEET.

PLANS, ELEVATIONS AND DETAILS SHOWN ON THIS DRAWING ARE INTENDED TO INDICATE WALL LOCATIONS, LENGTHS, HEIGHTS, AND DETAILS COMMON TO THE WALL SYSTEM SELECTED. VERIFY THAT THE WALL SYSTEM SELECTED WILL CONFORM TO THE REQUIRED ALIGNMENTS AND DETAILS.

THE RETAINING WALL IS TO BE DESIGNED USING THE ELEVATIONS GIVEN ON THIS SHEET.

DESIGN FOR RETAINING WALL TO PROVIDE FOR FINISHED GRADE SLOPED BEHIND WALL AS SHOWN.

DESIGN RETAINING WALL FOR A LIVE LOAD SURCHARGE OF 100 PSF.

THE MAXIMUM VALUE OF THE ANGLE OF INTERNAL FRICTION OF THE WALL BACKFILL MATERIAL SHALL BE ASSUMED TO BE 30° WITHOUT CERTIFIED TEST VALUES.

**LEGEND**  
F.F. = FRONT FACE

R/W = RIGHT OF WAY

**NOTE**  
SEE WALL DETAILS ON WALL DETAILS SHEET.

REVISED 11/15/23 CTL

CTL	11/15/23	PLAN REVISION 6	Scale: N/A
D.C.	2/16/23	PLAN REVISION 1	
DATE		REVISION	
BY			
Designed By: str/mvc		Date: 2023-11-15	
60631225P			

60631225P  
 PORTAGE ROAD CONSTRUCTION DETAILS  
 BUS RAPID TRANSIT  
 CITY OF MADISON  
 CITY OF MADISON, DANE COUNTY, WI  
 CONTRACT NO: 60631225C

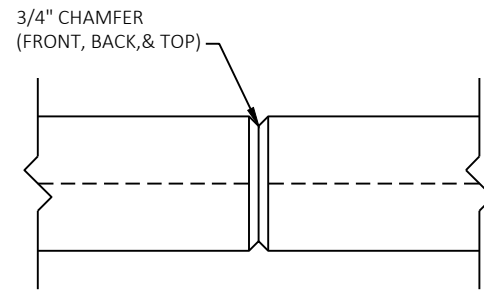


60631225P  
CD-15A

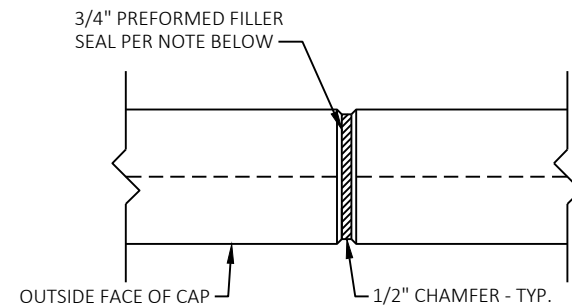
**SOIL PARAMETERS**

STRATUM LOCATIONS & SOIL DESCRIPTIONS	TOTAL UNIT WEIGHT	FRICTION ANGLE (DEGREES)	COHESION (PSF)
GRANULAR BACKFILL (REINFORCING ZONE OR BACKFILL)	120	30	0
GRANULAR RETAINED SOIL *	120	30	0

\*DESIGN WALL FOR THESE VALUES

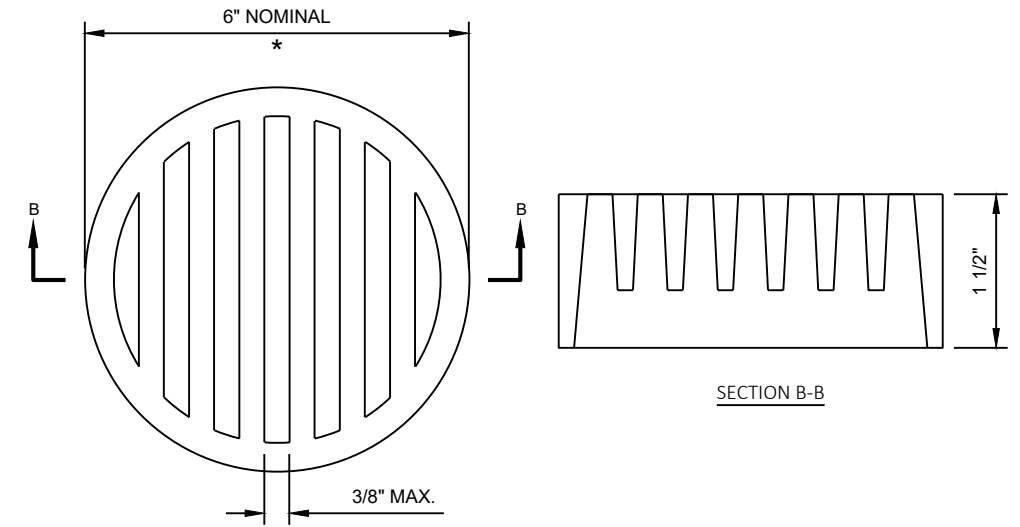


**COPING CONTRACTION JOINT**  
DO NOT RUN BAR STEEL THRU JOINT MAX. SPACING OF JOINT = 10'.



**WALL CAP EXPANSION JOINT**  
DO NOT RUN BAR STEEL THRU JOINT MAX. SPACING OF JOINT = 30'.

NOTE:  
SEAL ALL EXPOSED HORIZ. & VERT. SURFACES OF FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD 1/8" BELOW SURFACE OF CONCRETE).

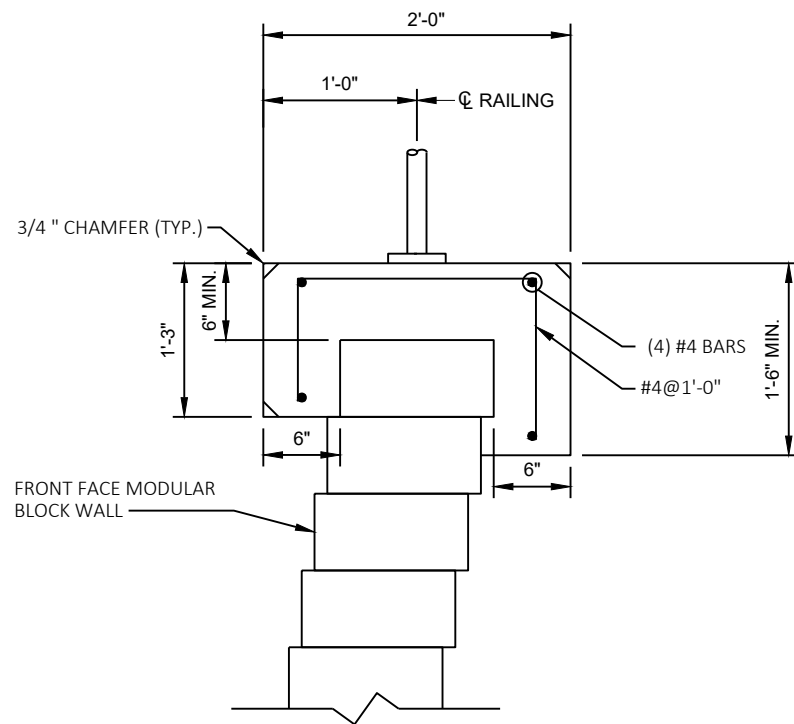


NOTES:  
\* DIMENSIONS ARE APPROXIMATE. THE GRATE IS SIZED TO FIT INTO A PIPE COUPLING. ORIENT SO SLOTS ARE VERTICAL.

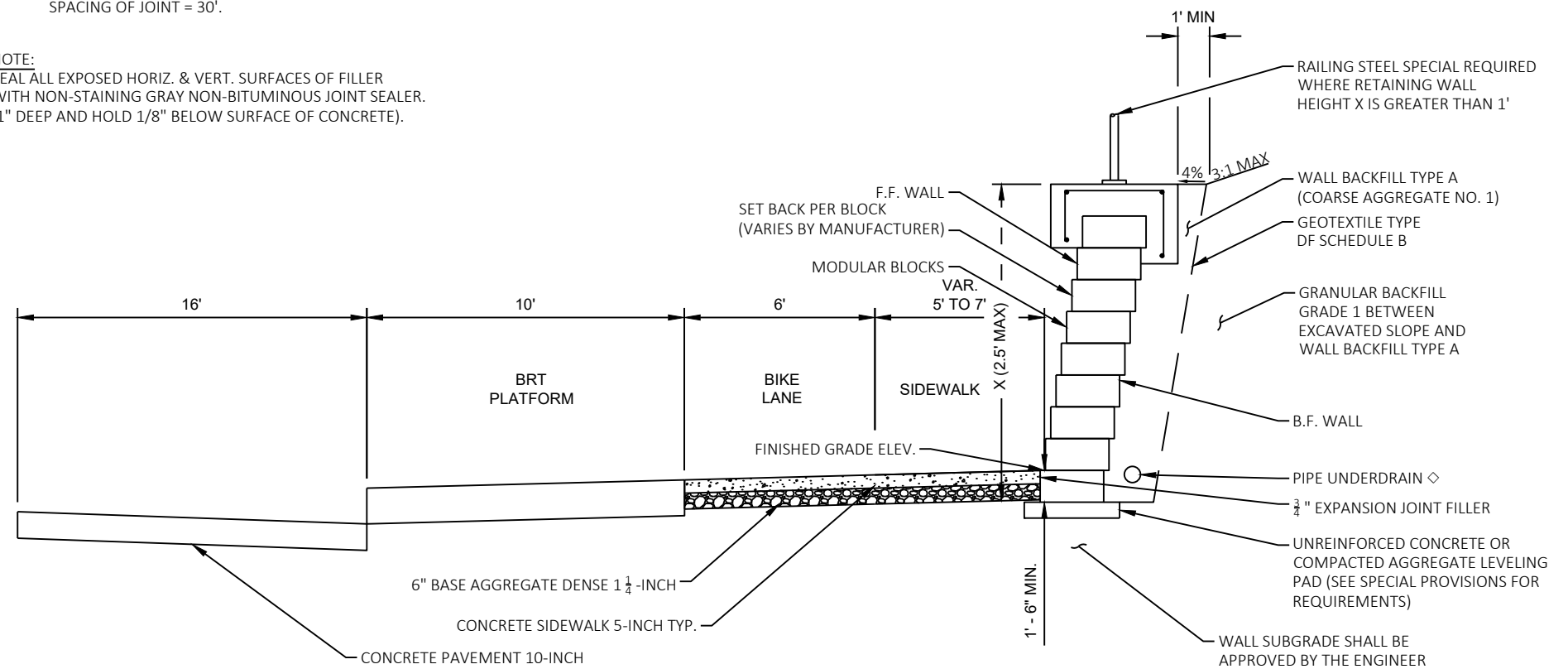
THE RODENT SHIELD, PIPE COUPLING AND ATTACHMENT SCREWS SHALL BE INCLUDED WITH BID ITEM "WALL MODULAR BLOCK GRAVITY LANDSCAPE."

THE RODENT SHIELD SHALL BE A PVC GRATE SIMILAR TO THIS DETAIL. THE GRATE IS COMMERCIALY AVAILABLE AS A FLOOR STRAINER. A PIPE COUPLING IS REQUIRED FOR THE ATTACHMENT OF THIS SHIELD TO THE EXPOSED END OF THE UNDERDRAIN. THE SHIELD SHALL BE FASTENED TO THE PIPE COUPLING WITH TWO OR MORE NO. 10 X 1-INCH STAINLESS STEEL SHEET METAL SCREWS.

**RODENT SHIELD DETAIL**



**CAST-IN-PLACE CONCRETE COPING**



**WALL MODULAR BLOCK GRAVITY LANDSCAPE INDEPENDENCE LANE**

**LEGEND**  
◇ PIPE UNDERDRAIN WRAPPED (6-INCH). SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. PROVIDE RODENT SHIELD AT ENDS OF PIPE UNDERDRAIN. PIPE UNDERDRAIN IS INCLUDED IN BID ITEM "WALL MODULAR BLOCK GRAVITY LANDSCAPE."

REVISED 11/15/23 CTL

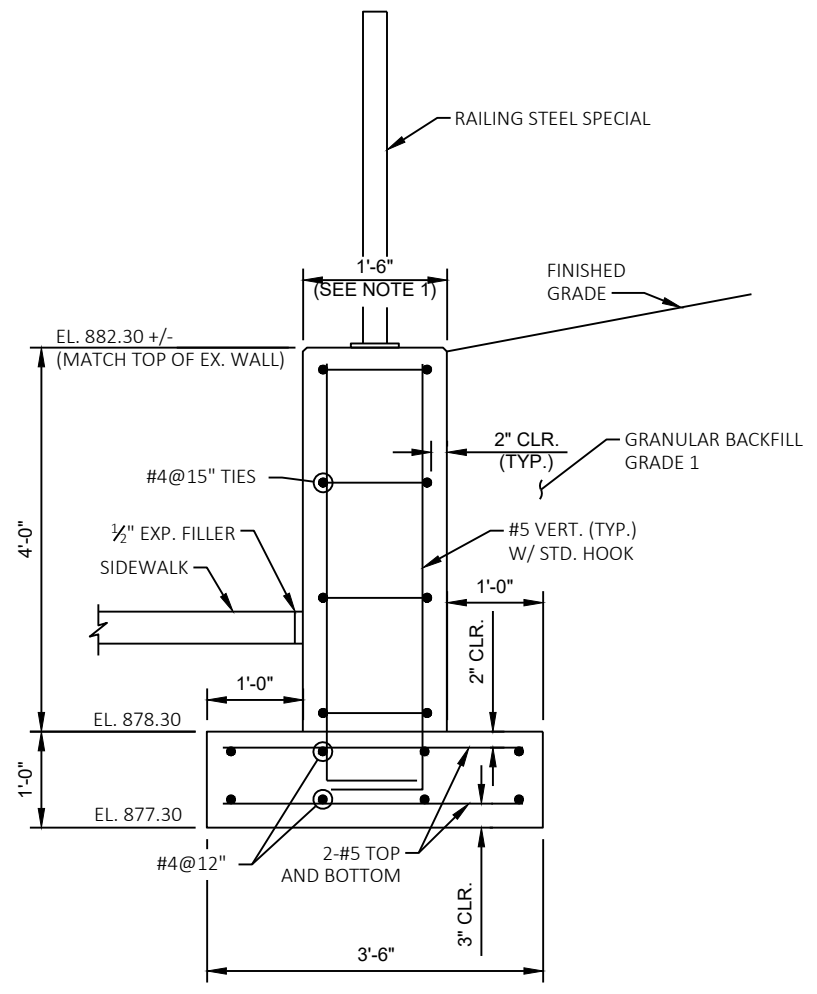
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PLAN REVISION 6	REVISION	2023-11-15	N/A
11/15/23	CTL	DATE	BY

60631225P  
CITY OF MADISON, DANE COUNTY, WI  
CONTRACT NO: 60631225C  
INDEPENDENCE LANE CONSTRUCTION DETAILS  
BUS RAPID TRANSIT  
CITY OF MADISON



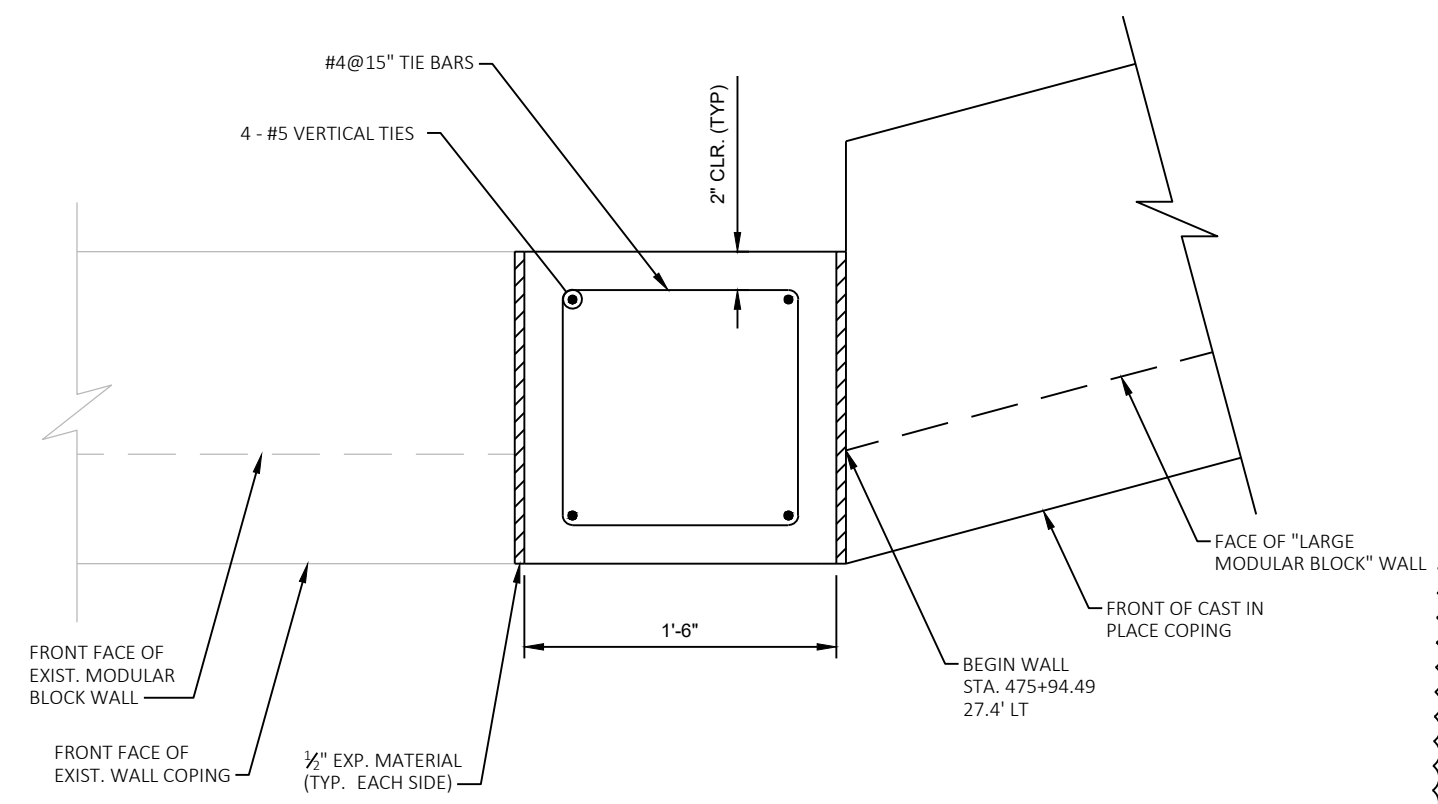
60631225P  
CD-16

LAYOUT NAME - 02.004-CD  
LAST PLOT DATE - 2023-11-15



**WALL PILASTER DETAIL**

- NOTES:
1. ADJUST PILASTER TOP ELEVATION AND DEPTH AS NEEDED TO MATCH EXISTING ADJACENT WALL CONCRETE COPING.
  2. USE CARE TO PROTECT EXISTING WALL DURING CONSTRUCTION OF ADJACENT PILASTER. REMOVE, CUT AND REINSTALL EXISTING MODULAR BLOCKS AS NECESSARY TO CONSTRUCT TIGHT AGAINST NEW PILASTER.



**CAST IN PLACE CONCRETE PILASTER PLAN**

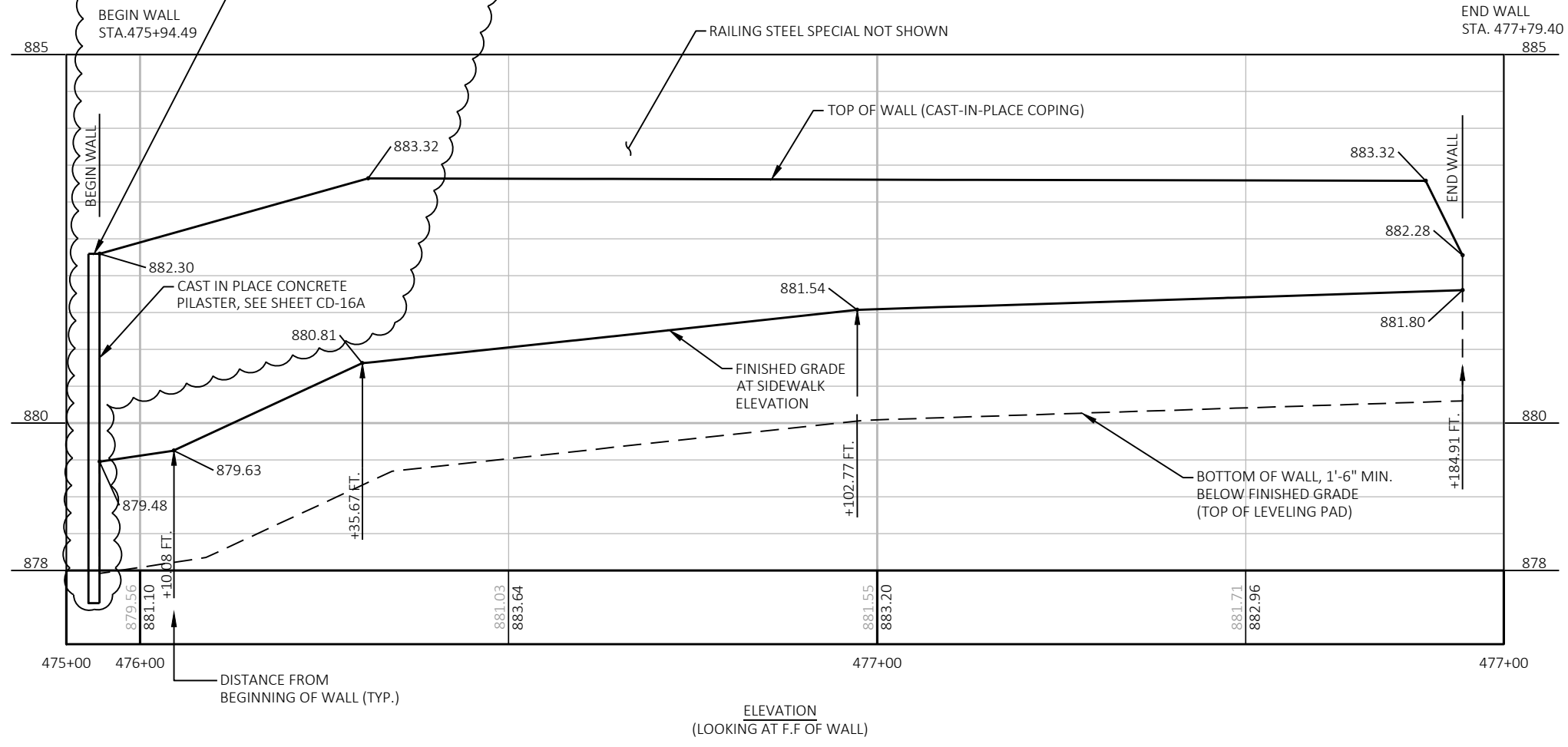
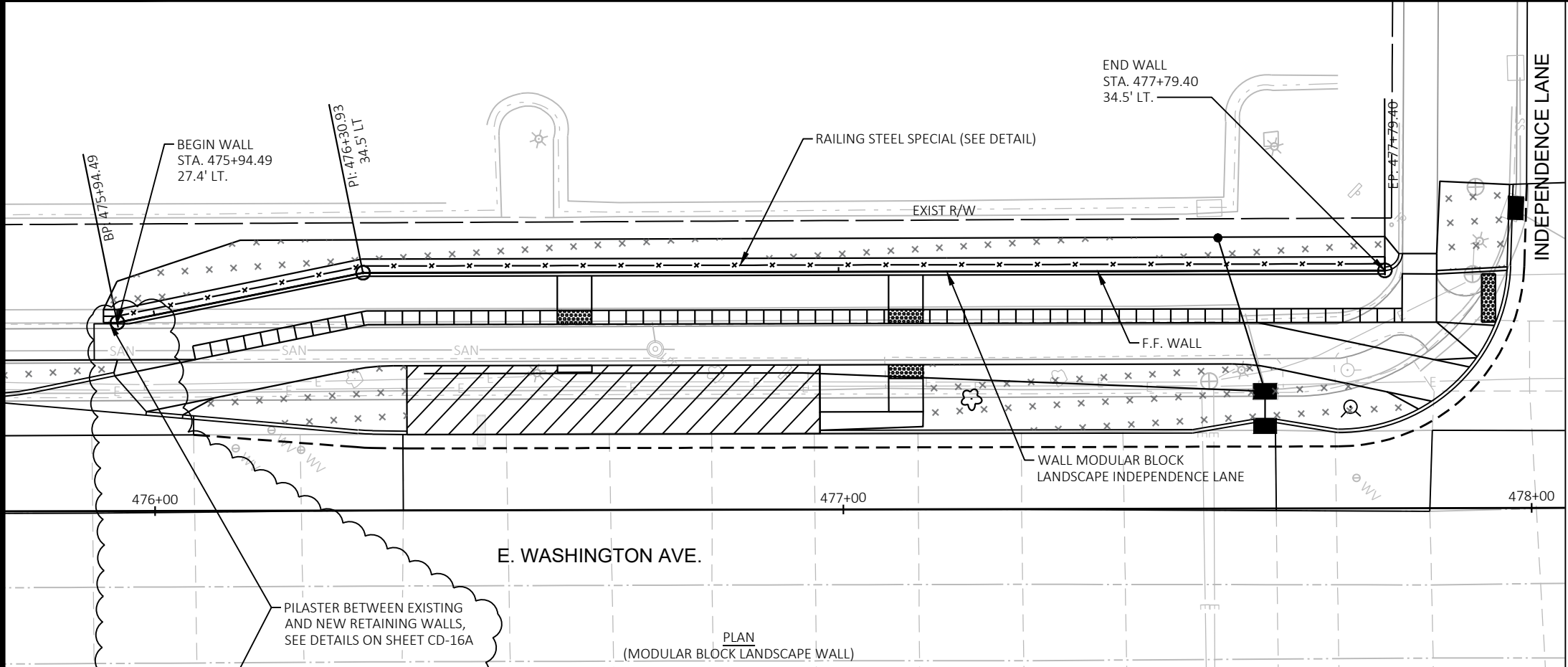
REVISED 11/15/23 CTL

MARK	DESIGNED BY: STMMW	DATE	SCALE
60631225P	60631225P	2023-11-15	N/A
PLAN REVISION 6	REVISION	11/15/23	CTL

60631225P  
 INDEPENDENCE LANE CONSTRUCTION DETAILS  
 CITY OF MADISON, DANE COUNTY, WI  
 BUS RAPID TRANSIT  
 CITY OF MADISON  
 CONTRACT NO: 60631225C



60631225P  
 CD-16A



GENERAL NOTES  
DRAWINGS ARE NOT SCALED.

THE PLAN QUANTITY FOR THE BID ITEM "WALL MODULAR BLOCK LANDSCAPE INDEPENDENCE LANE" IS BASED ON A WALL HEIGHT MEASURED FROM THE TOP OF WALL TO A CONSTANT DEPTH OF 1'-6" FT BELOW FINISHED GRADE. SEE "MISCELLANEOUS QUANTITIES" FOR WALL MODULAR BLOCK LANDSCAPE QUANTITY.

EXCAVATION FOR WALL IS INCLUDED WITH BID ITEM "WALL MODULAR BLOCK LANDSCAPE INDEPENDENCE LANE."

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DESIGN DATA  
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A GEOTECHNICAL INVESTIGATION HAS NOT BEEN COMPLETED FOR THIS WALL. SOIL PARAMETERS ARE PROVIDED ON NEXT SHEET.

PLANS, ELEVATIONS AND DETAILS SHOWN ON THIS DRAWING ARE INTENDED TO INDICATE WALL LOCATIONS, LENGTHS, HEIGHTS, AND DETAILS COMMON TO THE WALL SYSTEM SELECTED. VERIFY THAT THE WALL SYSTEM SELECTED WILL CONFORM TO THE REQUIRED ALIGNMENTS AND DETAILS.

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LEGEND

F.F. = FRONT FACE

R/W = RIGHT OF WAY

NOTE

SEE WALL DETAILS ON FOLLOWING SHEET.

CTL	11/15/23	Scale: N/A
D.C.	2/16/23	
DATE		
BY		
MARK		
DESIGNED BY: stwmd	DATE: 2023-11-16	
60631225P		

60631225P  
CITY OF MADISON, DANE COUNTY, WI  
CONTRACT NO: 60631225C

INDEPENDENCE LANE CONSTRUCTION DETAILS  
BUS RAPID TRANSIT  
CITY OF MADISON



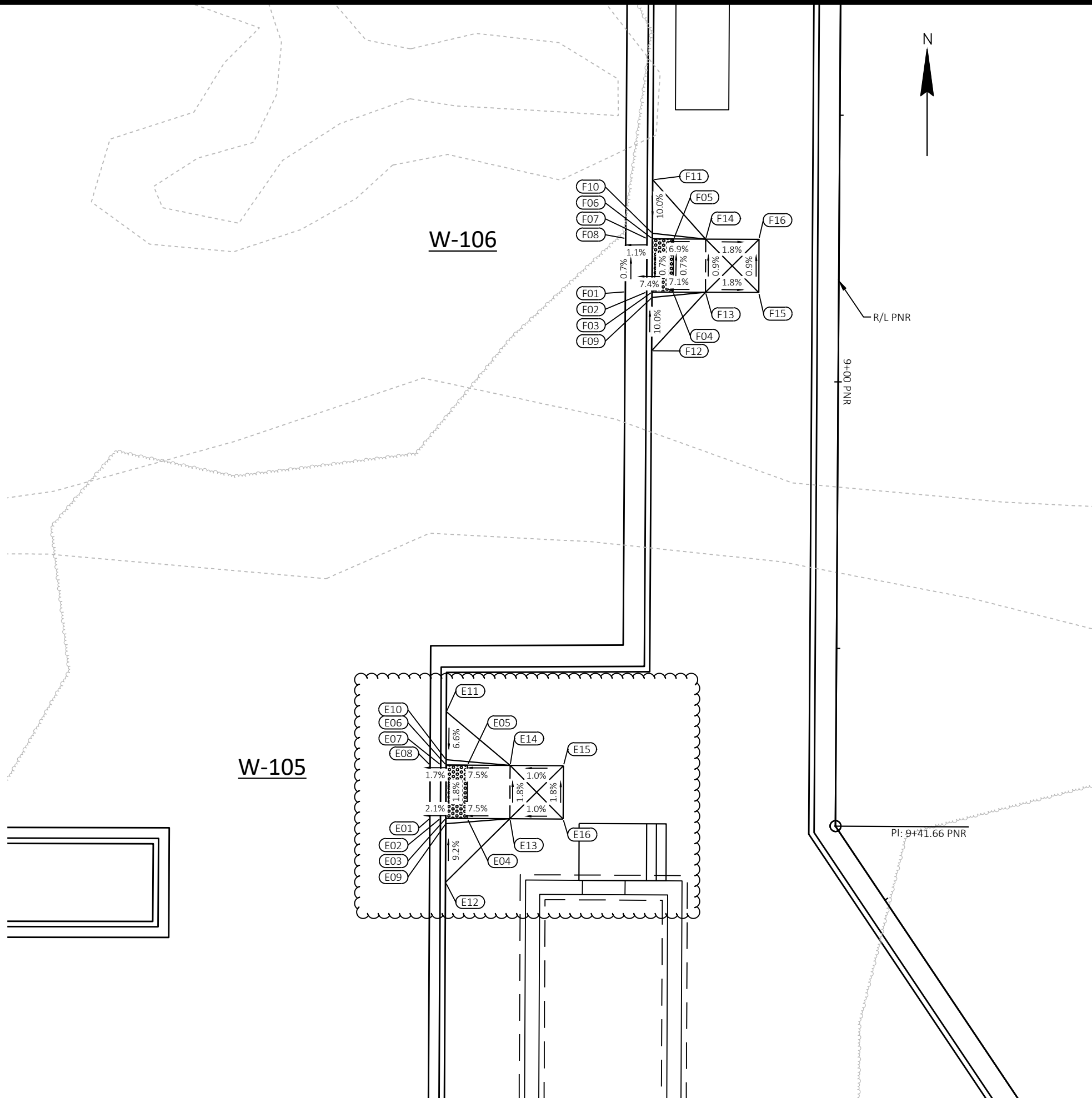
60631225P  
CD-16B

REVISED 11/15/23 CTL



E						
POINT NUMBER	STATION	OFFSET	Y COORDS	X COORDS	ELEVATION	COMMENT
E01	9+41.16	38.03' RT	476571.77	782657.58	1074.87	FLANGE
E02	9+41.16	37.03' RT	476571.76	782658.58	1074.89	FLOW LINE
E03	9+41.16	36.53' RT	476571.76	782659.08	1074.93	BOC
E04	9+41.16	34.53' RT	476571.75	782661.08	1075.08	FOW
E05	9+36.16	34.54' RT	476576.75	782661.10	1074.99	FOW
E06	9+36.16	36.54' RT	476576.76	782659.10	1074.84	BOC
E07	9+36.16	37.04' RT	476576.76	782658.60	1074.80	FLOW LINE
E08	9+36.16	38.04' RT	476576.77	782657.60	1074.78	FLANGE
E09	9+41.66	36.53' RT	476571.26	782659.07	1074.97	BOC
E10	9+35.66	36.54' RT	476577.26	782659.10	1074.87	BOC
E11	9+31.16	36.54' RT	476581.76	782659.13	1075.17	BOC
E12	9+41.66	36.93' RT	476565.76	782659.05	1075.48	BOC
E13	9+41.15	30.53' RT	476571.73	782665.08	1075.38	BOW
E14	9+36.15	30.54' RT	476576.73	782665.10	1075.29	BOW
E15	9+36.15	25.54' RT	476576.70	782670.10	1075.34	MATCH
E16	9+41.15	25.53' RT	476571.70	782670.08	1075.43	MATCH

F						
POINT NUMBER	STATION	OFFSET	Y COORDS	X COORDS	ELEVATION	COMMENT
F01	8+91.68	20.00' RT	476621.14	782675.91	1074.39	FLANGE
F02	8+91.68	18.00' RT	476621.13	782677.91	1074.41	FLOW LINE
F03	8+91.68	17.50' RT	476621.12	782678.41	1074.45	BOC
F04	8+91.68	15.53' RT	476621.10	782680.38	1074.59	FOW
F05	8+86.68	15.50' RT	476626.10	782680.44	1074.55	FOW
F06	8+86.68	17.50' RT	476626.12	782678.44	1074.41	BOC
F07	8+86.68	18.00' RT	476626.13	782677.94	1074.38	FLOW LINE
F08	8+86.68	20.00' RT	476626.14	782675.94	1074.35	FLANGE
F09	8+92.18	17.50' RT	476620.62	782678.40	1074.45	BOC
F10	8+86.18	17.50' RT	476626.62	782678.44	1074.41	BOC
F11	8+81.16	17.50' RT	476631.64	782678.47	1074.84	BOC
F12	8+97.18	17.50' RT	476615.62	782678.37	1074.95	BOC
F13	8+91.67	12.49' RT	476621.10	782683.42	1074.80	MATCH
F14	8+86.69	12.50' RT	476626.08	782683.44	1074.76	MATCH
F15	8+91.66	7.51' RT	476621.08	782688.40	1074.71	MATCH
F16	8+86.68	7.51' RT	476626.06	782688.43	1074.67	MATCH



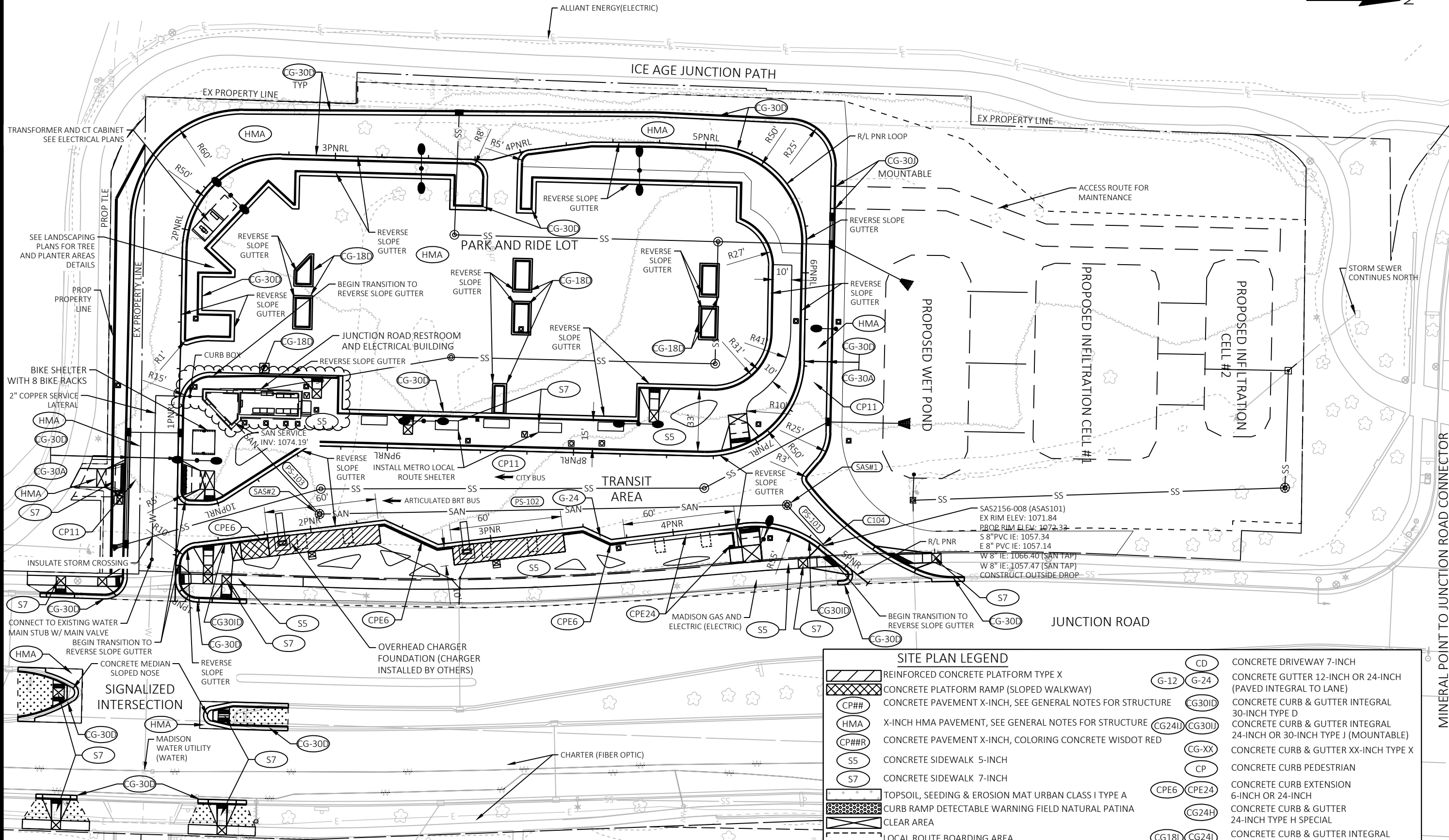
REVISED 10/5/2023 ADT

60631225P	PLAN REVISION 6 10/5/23 ADT	Scale: 1 IN=10 FT
CURB RAMP DETAILS: JUNCTION ROAD	PLAN REVISION 1 11/10/22 MTD	
BUS RAPID TRANSIT	REVISION DATE BY	
CITY OF MADISON	Designed By: AECOM 60631225P	
60631225P		
CR7-W		

CITY OF MADISON, DANE COUNTY, WI  
CONTRACT NO: 60631225C

CITY OF MADISON WISCONSIN

FILE NAME : C:\P\WORKING\AECOM\_DS20\_NA\_2019\ANDREW.TIMCO@AECOM.COM\DM586348\021310-CR-DWG  
LAYOUT NAME - EF  
LAST PLOT DATE - 2023-10-09



SITE PLAN LEGEND	
	REINFORCED CONCRETE PLATFORM TYPE X
	CONCRETE PLATFORM RAMP (SLOPED WALKWAY)
	CONCRETE PAVEMENT X-INCH, SEE GENERAL NOTES FOR STRUCTURE
	X-INCH HMA PAVEMENT, SEE GENERAL NOTES FOR STRUCTURE
	CONCRETE PAVEMENT X-INCH, COLORING CONCRETE WISDOT RED
	CONCRETE SIDEWALK 5-INCH
	CONCRETE SIDEWALK 7-INCH
	TOPSOIL, SEEDING & EROSION MAT URBAN CLASS I TYPE A
	CURB RAMP DETECTABLE WARNING FIELD NATURAL PATINA
	CLEAR AREA
	LOCAL ROUTE BOARDING AREA
	CONCRETE SIDEWALK X-INCH, STAMPING COLORED CONCRETE
	TREES
	TREE PROTECTION
	← PLANT SYMBOL
	← QUANTITY
	CONCRETE DRIVEWAY 7-INCH
	CONCRETE GUTTER 12-INCH OR 24-INCH (PAVED INTEGRAL TO LANE)
	CONCRETE CURB & GUTTER INTEGRAL 30-INCH TYPE D
	CONCRETE CURB & GUTTER INTEGRAL 24-INCH OR 30-INCH TYPE J (MOUNTABLE)
	CONCRETE CURB & GUTTER XX-INCH TYPE X
	CONCRETE CURB PEDESTRIAN
	CONCRETE CURB EXTENSION 6-INCH OR 24-INCH
	CONCRETE CURB & GUTTER 24-INCH TYPE H SPECIAL
	CONCRETE CURB & GUTTER INTEGRAL 18-INCH OR 24-INCH SPECIAL
	BIKE RACK (MOUNTED TO CONCRETE)
	SEE STORM SEWER SCHEDULE

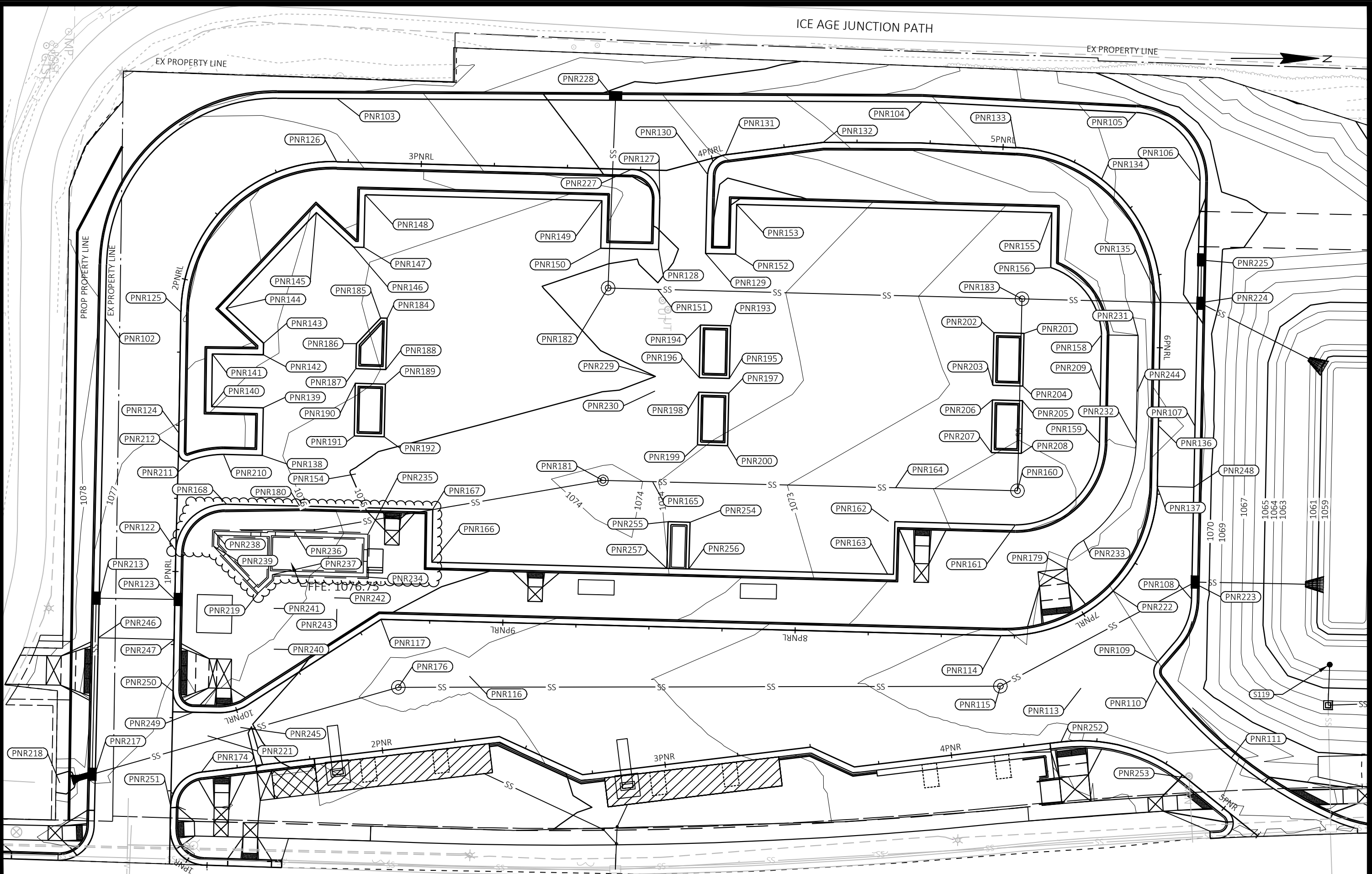
PLAN REVISION 6	10/5/23	ADT
PLAN REVISION 5	8/9/23	ADT
PLAN REVISION 3 & PLAN REVISION 4	05/30/23	VTC
ADDENDUM 4 & PLAN REVISION 1	01/30/23	VTC
REVISION	DATE	BY
MARK	DESIGNED BY: AECOM	DATE: 2023-10-17
		Scale: 1 IN=50 FT

60631225P  
 CITY OF MADISON, DANE COUNTY, WI  
 CONTRACT NO: 60631225C  
 MINERAL POINT TO JUNCTION ROAD CONNECTOR  
 SITE PLAN: WESTERN TERMINAL  
 BUS RAPID TRANSIT  
 CITY OF MADISON



60631225P  
 P-0W






ICE AGE JUNCTION PATH

EX PROPERTY LINE

EX PROPERTY LINE

PROP PROPERTY LINE

EX PROPERTY LINE

JUNCTION ROAD  
 REVISED 10/5/2023 ADT

MARK	REVISION	DATE	BY
PLAN REVISION 6	ADT	10/5/23	
PLAN REVISION 5	VTC	08/09/23	
PLAN REVISION 4	VTC	05/30/23	
PLAN REVISION 1 & PLAN REVISION 3	ADT	4/19/23	

Designed By: AECOM/Date: 2023-10-17  
 Scale: 1 IN=30 FT  
 60631225P

60631225P  
 CITY OF MADISON  
 BUS RAPID TRANSIT  
 GRADING AND DRAINAGE PLAN: WESTERN TERMINAL  
 CITY OF MADISON, DANE COUNTY, WI  
 CONTRACT NO: 60631225C



60631225P  
 G-OWD

Western Terminal Grading						
POINT NUMBER	STATION	OFFSET	ELEVATION	Y COORDS	X COORDS	COMMENT
PNR102	1+86.05	25.78' LT	1077.60	476474.71	782594.64	FLANGE
PNR103	2+70.79	21.55' LT	1076.76	476552.44	782517.94	FLANGE
PNR104	4+71.81	14.00' LT	1072.11	476752.44	782515.07	FLANGE
PNR105	5+32.99	25.38' LT	1070.63	476825.69	782517.21	FLANGE
PNR106	5+54.74	24.97' LT	1070.15	476848.02	782540.21	FLANGE
PNR107	6+26.61	12.54' LT	1070.90	476848.01	782624.00	FLANGE
PNR108	6+75.27	22.93' LT	1070.34	476848.00	782683.07	FLANGE
PNR109	6+91.45	28.22' LT	1071.01	476836.74	782704.93	FLANGE
PNR110	6+94.04	32.98' LT	1071.16	476836.66	782711.22	FLANGE
PNR111	6+92.28	69.55' LT	1072.05	476862.69	782737.14	FLANGE
PNR113	7+09.58	22.50' LT	1071.63	476810.93	782714.19	EL
PNR114	7+29.49	0.00'	1071.87	476783.20	782696.91	FLANGE
PNR115	7+29.38	17.28' LT	1071.31	476783.24	782714.19	EL
PNR116	9+11.00	18.51' LT	1073.88	476601.58	782714.30	EL
PNR117	9+41.66	0.00'	1074.47	476571.04	782695.60	FLANGE
PNR122	1+06.91	0.12' RT	1076.15	476500.52	782673.72	FLANGE
PNR123	0+90.44	0.03' LT	1076.04	476500.38	782690.19	FLANGE
PNR124	1+47.38	0.00'	1076.89	476500.59	782633.25	FLANGE
PNR125	1+88.76	0.00'	1077.96	476500.47	782591.86	FLANGE
PNR126	2+71.09	0.01' RT	1077.19	476552.75	782539.50	FLANGE
PNR127	3+81.88	9.94' RT	1074.73	476663.47	782550.11	FLANGE
PNR128	3+81.92	27.13' RT	1075.18	476663.41	782567.31	FLANGE
PNR129	3+89.57	30.88' RT	1074.73	476679.50	782568.32	FLANGE
PNR130	3+97.15	4.94' RT	1074.23	476679.66	782541.30	FLANGE
PNR131	4+04.75	0.00'	1073.97	476685.60	782534.46	FLANGE
PNR132	4+38.40	0.00'	1073.17	476718.89	782529.55	FLANGE
PNR133	5+04.43	0.00'	1071.73	476784.91	782530.02	FLANGE
PNR134	5+36.09	0.00'	1071.13	476814.36	782540.24	FLANGE
PNR135	5+84.47	0.00'	1070.34	476835.38	782581.89	FLANGE
PNR136	6+26.61	0.00'	1071.22	476835.47	782624.02	FLANGE
PNR137	6+47.49	0.00'	1070.73	476835.52	782644.91	FLANGE
PNR138	1+40.44	28.68' RT	1076.34	476529.29	782640.36	FLANGE
PNR139	1+56.46	28.76' RT	1076.53	476529.33	782624.08	FLANGE
PNR140	1+56.54	11.08' RT	1077.04	476511.65	782624.05	FLANGE
PNR141	1+74.53	11.00' RT	1077.58	476511.52	782606.07	FLANGE
PNR142	1+74.60	28.42' RT	1077.08	476528.94	782605.94	FLANGE
PNR143	1+78.52	28.49' RT	1077.13	476528.99	782602.02	FLANGE
PNR144	1+90.72	15.45' RT	1077.64	476515.95	782590.38	FLANGE
PNR145	2+61.33	16.91' RT	1076.93	476546.11	782556.98	FLANGE
PNR146	2+77.60	29.03' RT	1076.33	476559.09	782568.57	FLANGE
PNR147	2+81.15	29.00' RT	1076.20	476562.64	782568.55	FLANGE
PNR148	2+81.06	11.00' RT	1076.83	476562.66	782550.55	FLANGE
PNR149	3+62.10	10.95' RT	1075.79	476643.70	782551.01	FLANGE
PNR150	3+62.11	27.18' RT	1075.22	476643.60	782567.23	FLANGE
PNR151	3+81.94	40.73' RT	1074.96	476663.35	782580.90	EL
PNR152	3+99.43	33.71' RT	1074.50	476689.75	782568.33	FLANGE
PNR153	4+06.42	17.31' RT	1074.96	476689.79	782551.34	FLANGE
PNR154	9+41.66	50.44' RT	1074.91	476561.54	782646.06	EL

Western Terminal Grading						
POINT NUMBER	STATION	OFFSET	ELEVATION	Y COORDS	X COORDS	COMMENT
PNR155	5+25.86	18.81' RT	1072.84	476797.56	782552.00	FLANGE
PNR156	5+49.91	33.92' RT	1072.60	476797.59	782570.82	FLANGE
PNR158	5+96.02	20.00' RT	1072.72	476815.40	782593.48	FLANGE
PNR159	6+32.95	20.05' RT	1072.45	476815.44	782630.41	FLANGE
PNR160	6+74.09	47.18' RT	1071.43	476787.72	782647.27	EL
PNR161	7+15.60	37.47' RT	1071.52	476787.27	782658.94	FLANGE
PNR162	7+68.93	38.01' RT	1072.39	476743.99	782658.66	FLANGE
PNR163	7+68.90	20.00' RT	1072.48	476743.92	782676.67	FLANGE
PNR164	7+66.93	49.62' RT	1072.26	476746.06	782647.05	EL
PNR165	8+50.04	49.51' RT	1074.05	476662.95	782646.65	EL
PNR166	9+24.81	20.00' RT	1074.62	476588.01	782675.70	FLANGE
PNR167	9+24.98	38.05' RT	1074.54	476587.95	782657.66	FLANGE
PNR168	1+23.41	16.98' RT	1076.23	476517.48	782657.31	FLANGE
PNR174	0+31.60	10.24' RT	1075.42	476510.65	782749.04	FLANGE
PNR176	9+49.25	22.72' LT	1073.64	476577.37	782718.70	EL
PNR179	6+95.51	16.06' RT	1071.94	476805.19	782673.57	BOW
PNR180	1+23.45	41.98' RT	1076.08	476542.48	782657.43	FLANGE
PNR181	8+67.10	49.47' RT	1073.80	476645.90	782646.59	EL
PNR182	3+64.94	40.74' RT	1074.71	476646.35	782580.81	EL
PNR183	5+80.83	47.41' RT	1072.22	476787.97	782581.67	EL
PNR184	2+89.74	53.00' RT	1075.80	476571.07	782592.61	FLANGE
PNR185	2+87.50	53.01' RT	1075.84	476568.84	782592.60	FLANGE
PNR186	1+78.94	60.23' RT	1076.18	476560.74	782601.51	FLANGE
PNR187	1+70.37	60.16' RT	1076.26	476560.68	782610.09	FLANGE
PNR188	1+70.27	70.44' RT	1075.98	476570.97	782610.15	FLANGE
PNR189	1+65.28	70.37' RT	1075.90	476570.91	782615.15	FLANGE
PNR190	1+65.37	60.08' RT	1076.18	476560.62	782615.08	FLANGE
PNR191	1+47.37	60.01' RT	1075.45	476560.60	782633.09	FLANGE
PNR192	9+41.66	62.46' RT	1075.18	476570.88	782633.15	FLANGE
PNR193	3+91.50	56.95' RT	1074.44	476688.51	782592.85	FLANGE
PNR194	3+83.89	54.11' RT	1074.66	476678.22	782592.79	FLANGE
PNR195	3+86.53	74.25' RT	1074.51	476688.49	782610.85	FLANGE
PNR196	3+83.89	71.73' RT	1074.71	476678.20	782610.79	FLANGE
PNR197	3+85.05	79.02' RT	1074.43	476688.37	782615.85	FLANGE
PNR198	3+83.89	76.63' RT	1074.64	476678.08	782615.79	FLANGE
PNR199	8+35.01	62.47' RT	1074.08	476678.07	782633.79	FLANGE
PNR200	8+24.73	62.47' RT	1073.84	476688.35	782633.85	FLANGE
PNR201	5+95.93	46.53' RT	1072.35	476788.88	782593.45	FLANGE
PNR202	5+95.85	56.82' RT	1072.53	476778.59	782593.39	FLANGE
PNR203	6+13.85	56.87' RT	1072.71	476778.57	782611.39	FLANGE
PNR204	6+13.93	46.59' RT	1072.53	476788.85	782611.45	FLANGE
PNR205	6+18.93	46.62' RT	1072.45	476788.84	782616.45	FLANGE
PNR206	6+18.85	56.91' RT	1072.63	476778.55	782616.39	FLANGE
PNR207	6+36.85	56.96' RT	1072.04	476778.53	782634.39	FLANGE
PNR208	6+36.93	46.68' RT	1071.87	476788.81	782634.45	FLANGE
PNR209	6+15.17	20.01' RT	1072.82	476815.44	782612.63	FLANGE
PNR210	1+40.42	15.44' RT	1076.68	476516.05	782640.29	FLANGE
PNR211	1+38.04	4.12' RT	1076.63	476504.71	782642.61	FLANGE

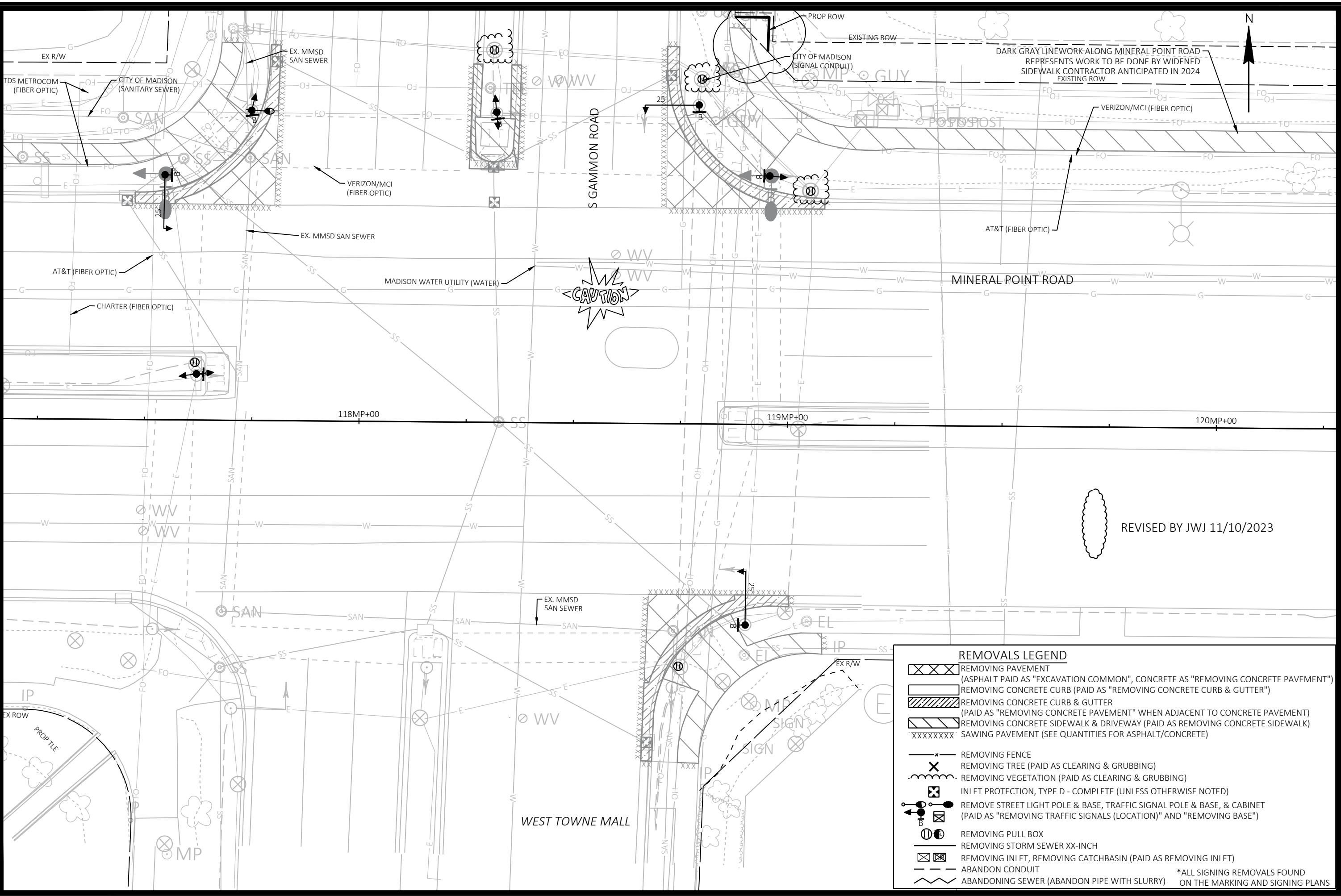
Western Terminal Grading						
POINT NUMBER	STATION	OFFSET	ELEVATION	Y COORDS	X COORDS	COMMENT
PNR212	1+40.80	0.00'	1076.70	476500.61	782639.82	FLANGE
PNR213	0+90.36	25.91' LT	1076.82	476474.51	782690.28	FLANGE
PNR217	0+30.43	26.00' LT	1076.10	476474.40	782750.15	FLANGE
PNR218	0+26.74	38.02' LT	1074.61	476462.37	782753.81	EL
PNR219	1+64.16	58.49' LT	1076.75	476528.83	782687.42	EL
PNR221	10+10.00	7.95' LT	1075.43	476512.40	782736.54	EL
PNR222	6+87.15	0.01' RT	1071.00	476821.10	782680.83	FLANGE
PNR223	6+71.67	19.82' LT	1070.19	476847.71	782677.11	FLANGE
PNR224	5+84.53	12.63' LT	1069.90	476848.02	782581.92	FLANGE
PNR225	5+72.78	14.34' LT	1069.80	476848.02	782567.08	FLANGE
PNR227	3+71.88	0.00' RT	1074.73	476653.54	782540.11	FLANGE
PNR228	3+65.82	23.50' LT	1074.44	476647.62	782516.57	FLANGE
PNR229	3+81.94	70.50' RT	1075.00	476663.17	782610.67	EL
PNR230	3+81.94	75.50' RT	1074.94	476663.14	782615.67	EL
PNR231	5+95.98	7.50' RT	1073.04	476827.90	782593.41	BOW
PNR232	6+32.88	7.42' RT	1073.00	476828.06	782630.31	BOW
PNR233	6+78.94	18.97' RT	1072.20	476810.69	782663.69	BOW
PNR234	9+41.66	15.27' RT	1075.29	476565.90	782681.22	EL
PNR235	9+41.66	29.49' RT	1075.59	476565.98	782666.55	EL
PNR236	1+14.44	40.53' RT	1076.75	476540.98	782666.43	EL
PNR237	9+64.70	32.93' RT	1076.46	476533.57	782681.06	EL
PNR238	1+14.07	12.86' RT	1076.75	476513.31	782666.63	EL
PNR239	1+08.98	12.87' RT	1076.75	476513.28	782671.72	EL
PNR240	1+67.08	38.80' LT	1075.82	476534.45	782706.51	EL
PNR241	1+68.71	52.66' LT	1076.59	476534.14	782692.56	EL
PNR242	1+89.67	53.75' LT	1075.55	476554.75	782688.57	EL
PNR243	1+90.25	49.97' LT	1075.40	476555.85	782692.23	EL
PNR244	6+15.26	7.53' RT	1073.14	476827.92	782612.69	BOW
PNR245	10+00.57	6.03' LT	1075.12	476523.54	782733.48	EL
PNR246	0+76.82	25.94' LT	1076.85	476474.48	782703.83	FLANGE
PNR247	0+76.72	0.00' RT	1076.16	476500.43	782703.90	FLANGE
PNR248	6+47.44	12.49' LT	1070.59	476848.01	782644.84	FLANGE
PNR249	10+14.94	0.00' RT	1075.70	476507.45	782728.60	FLANGE
PNR250	0+59.02	0.00' RT	1075.92	476500.44	782721.60	FLANGE
PNR251	0+19.75	0.00' RT	1075.60	476500.39	782760.88	FLANGE
PNR252	7+17.07	38.31' LT	1072.23	476804.35	782732.78	FLANGE
PNR253	6+99.47	66.01' LT	1072.21	476847.31	782744.18	FLANGE
PNR254	8+36.90	36.00' RT	1073.80	476676.02	782660.25	FLANGE
PNR255	8+44.40	36.00' RT	1073.97	476668.52	782660.20	FLANGE
PNR256	8+36.90	20.00' RT	1073.86	476675.92	782676.25	FLANGE
PNR257	8+44.40	20.00' RT	1074.01	476668.42	782676.20	FLANGE

GRADING AND DRAINAGE PLAN: WESTERN TERMINAL  
BUS RAPID TRANSIT  
CITY OF MADISON

60631225P  
CITY OF MADISON, DANE COUNTY, WI  
CONTRACT NO: 60631225C

PLAN REVISION 6 10/5/23 ADT  
PLAN REVISION 5 08/09/23 VTC  
PLAN REVISION 4 05/30/23 VTC





DARK GRAY LINework ALONG MINERAL POINT ROAD REPRESENTS WORK TO BE DONE BY WIDENED SIDEWALK CONTRACTOR ANTICIPATED IN 2024

CAUTION

REVISED BY JWJ 11/10/2023

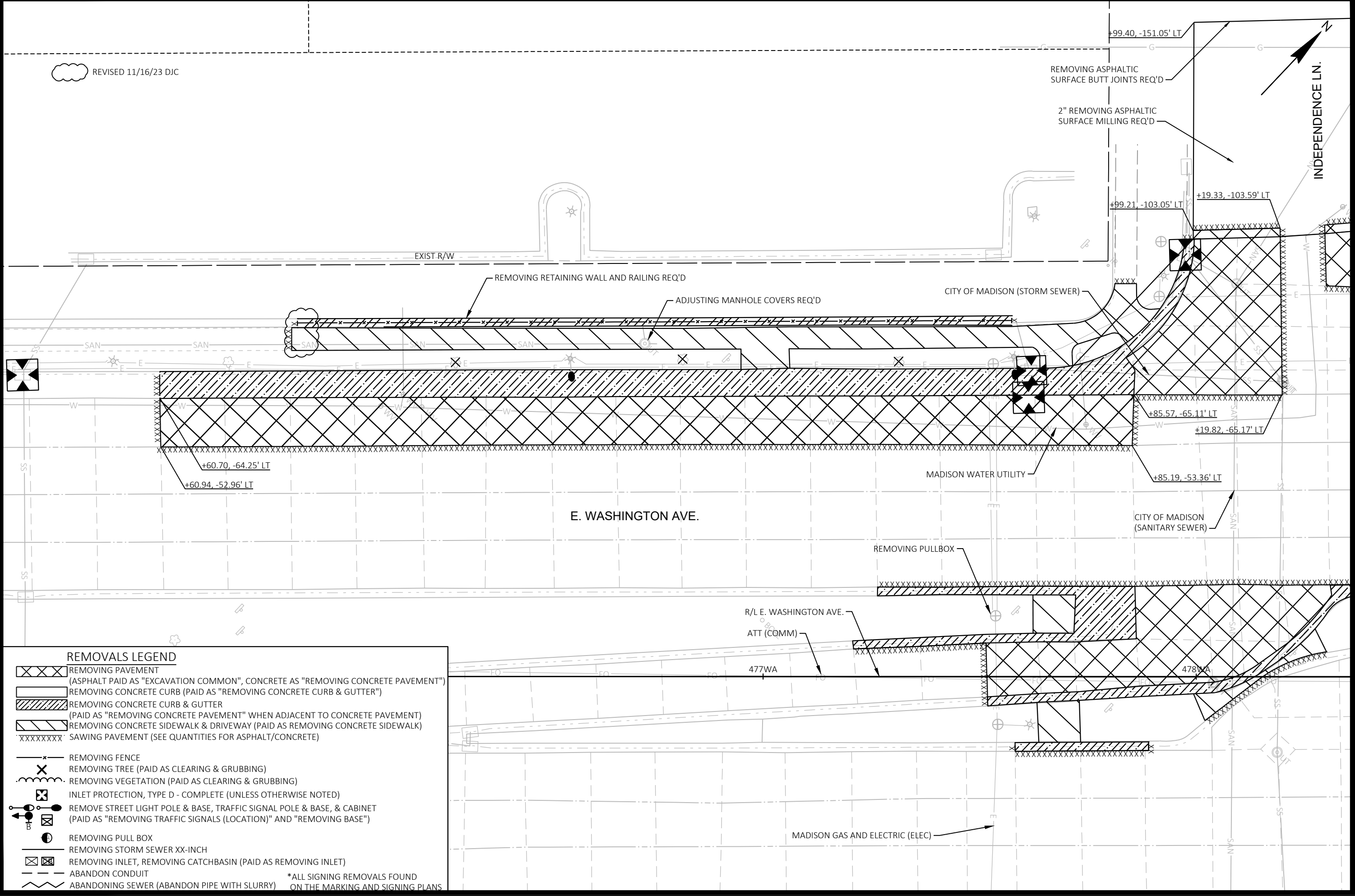
REMOVALS LEGEND	
	REMOVING PAVEMENT (ASPHALT PAID AS "EXCAVATION COMMON", CONCRETE AS "REMOVING CONCRETE PAVEMENT")
	REMOVING CONCRETE CURB (PAID AS "REMOVING CONCRETE CURB & GUTTER")
	REMOVING CONCRETE CURB & GUTTER (PAID AS "REMOVING CONCRETE PAVEMENT" WHEN ADJACENT TO CONCRETE PAVEMENT)
	REMOVING CONCRETE SIDEWALK & DRIVEWAY (PAID AS REMOVING CONCRETE SIDEWALK)
	SAWING PAVEMENT (SEE QUANTITIES FOR ASPHALT/CONCRETE)
	REMOVING FENCE
	REMOVING TREE (PAID AS CLEARING & GRUBBING)
	REMOVING VEGETATION (PAID AS CLEARING & GRUBBING)
	INLET PROTECTION, TYPE D - COMPLETE (UNLESS OTHERWISE NOTED)
	REMOVE STREET LIGHT POLE & BASE, TRAFFIC SIGNAL POLE & BASE, & CABINET (PAID AS "REMOVING TRAFFIC SIGNALS (LOCATION)" AND "REMOVING BASE")
	REMOVING PULL BOX
	REMOVING STORM SEWER XX-INCH
	REMOVING INLET, REMOVING CATCHBASIN (PAID AS REMOVING INLET)
	ABANDON CONDUIT
	ABANDONING SEWER (ABANDON PIPE WITH SLURRY)

\*ALL SIGNING REMOVALS FOUND ON THE MARKING AND SIGNING PLANS

MARK	DESIGNED BY: AECOM	DATE: 2023-11-10	SCALE: 1 IN=20 FT
PLAN REVISION 6	DATE	BY	
11/10/23			
<b>REMOVAL PLAN: MINERAL POINT ROAD AT GAMMON ROAD</b> <b>CITY OF MADISON, DANE COUNTY, WI</b> <b>BUS RAPID TRANSIT</b> <b>CITY OF MADISON</b>			
60631225P	60631225C		
60631225P	R4-W		



REVISED 11/16/23 DJC



REMOVALS LEGEND	
	REMOVING PAVEMENT (ASPHALT PAID AS "EXCAVATION COMMON", CONCRETE AS "REMOVING CONCRETE PAVEMENT")
	REMOVING CONCRETE CURB (PAID AS "REMOVING CONCRETE CURB & GUTTER")
	REMOVING CONCRETE CURB & GUTTER (PAID AS "REMOVING CONCRETE PAVEMENT" WHEN ADJACENT TO CONCRETE PAVEMENT)
	REMOVING CONCRETE SIDEWALK & DRIVEWAY (PAID AS REMOVING CONCRETE SIDEWALK)
	SAWING PAVEMENT (SEE QUANTITIES FOR ASPHALT/CONCRETE)
	REMOVING FENCE
	REMOVING TREE (PAID AS CLEARING & GRUBBING)
	REMOVING VEGETATION (PAID AS CLEARING & GRUBBING)
	INLET PROTECTION, TYPE D - COMPLETE (UNLESS OTHERWISE NOTED)
	REMOVE STREET LIGHT POLE & BASE, TRAFFIC SIGNAL POLE & BASE, & CABINET (PAID AS "REMOVING TRAFFIC SIGNALS (LOCATION)" AND "REMOVING BASE")
	REMOVING PULL BOX
	REMOVING STORM SEWER XX-INCH
	REMOVING INLET, REMOVING CATCHBASIN (PAID AS REMOVING INLET)
	ABANDON CONDUIT
	ABANDONING SEWER (ABANDON PIPE WITH SLURRY)

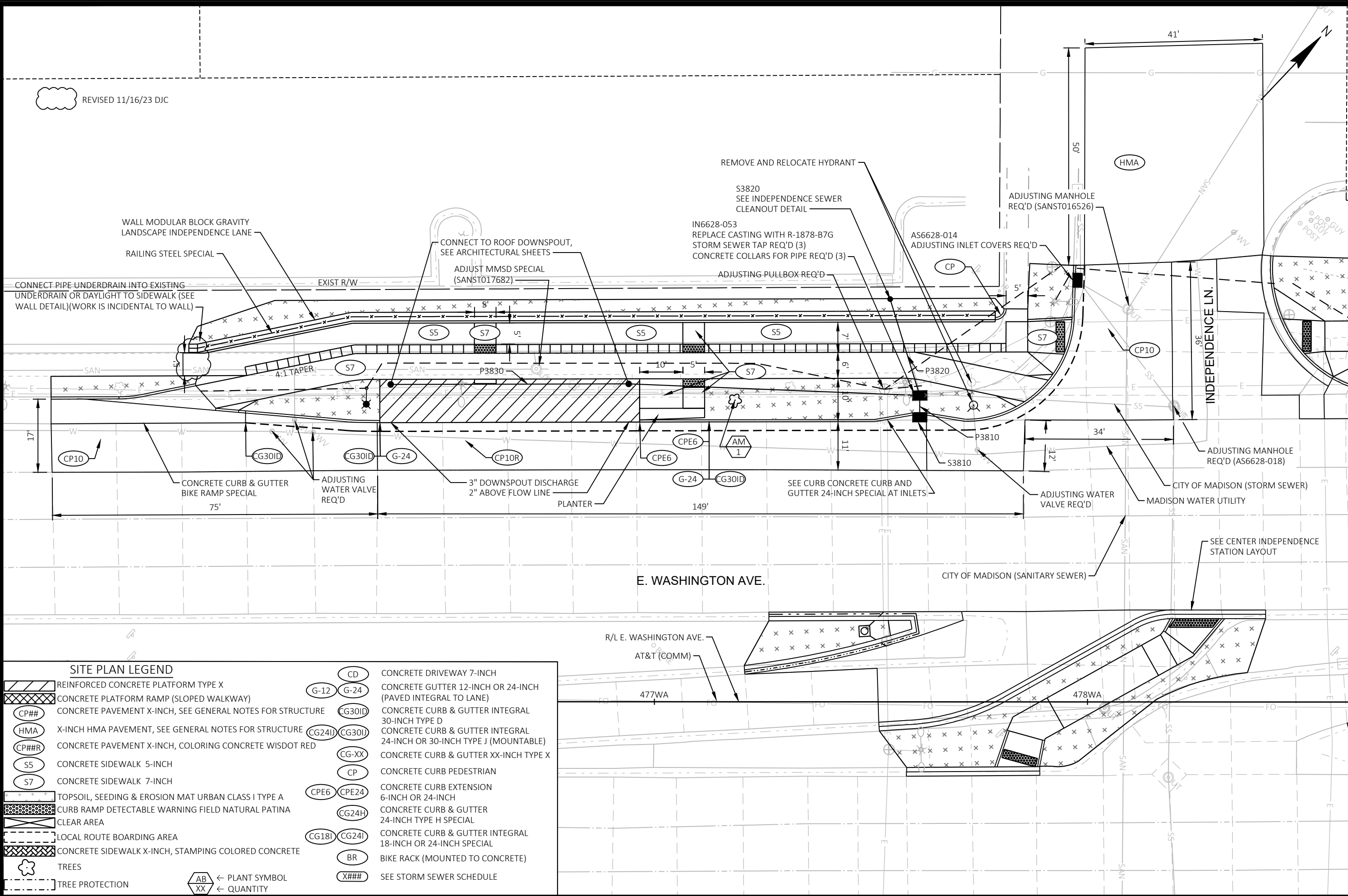
\*ALL SIGNING REMOVALS FOUND ON THE MARKING AND SIGNING PLANS

PLAN REVISION 6	DJC	11/16/23	DJC
ADDENDUM 3		11/2/22	DJC
REVISION		DATE	BY
MARK		2023-11-16	
Designed By: stmw Date: 2023-11-16			
60631225P			

REMOVAL PLAN: WB E. WASHINGTON AVENUE AT INDEPENDENCE LANE  
 BUS RAPID TRANSIT  
 CITY OF MADISON  
 60631225P  
 R25-E  
 CONTRACT NO: 60631225C  
 CITY OF MADISON, DANE COUNTY, WI  
 Scale: 1"=20 FT



REVISED 11/16/23 DJC



SITE PLAN LEGEND	
	REINFORCED CONCRETE PLATFORM TYPE X
	CONCRETE PLATFORM RAMP (SLOPED WALKWAY)
	CONCRETE PAVEMENT X-INCH, SEE GENERAL NOTES FOR STRUCTURE
	X-INCH HMA PAVEMENT, SEE GENERAL NOTES FOR STRUCTURE
	CONCRETE PAVEMENT X-INCH, COLORING CONCRETE WISDOT RED
	CONCRETE SIDEWALK 5-INCH
	CONCRETE SIDEWALK 7-INCH
	TOPSOIL, SEEDING & EROSION MAT URBAN CLASS I TYPE A
	CURB RAMP DETECTABLE WARNING FIELD NATURAL PATINA
	CLEAR AREA
	LOCAL ROUTE BOARDING AREA
	CONCRETE SIDEWALK X-INCH, STAMPING COLORED CONCRETE
	TREES
	TREE PROTECTION
	← PLANT SYMBOL
	← QUANTITY
	CONCRETE DRIVEWAY 7-INCH
	CONCRETE GUTTER 12-INCH OR 24-INCH (PAVED INTEGRAL TO LANE)
	CONCRETE CURB & GUTTER INTEGRAL 30-INCH TYPE D
	CONCRETE CURB & GUTTER INTEGRAL 24-INCH OR 30-INCH TYPE J (MOUNTABLE)
	CONCRETE CURB & GUTTER XX-INCH TYPE X
	CONCRETE CURB PEDESTRIAN
	CONCRETE CURB EXTENSION 6-INCH OR 24-INCH
	CONCRETE CURB & GUTTER 24-INCH TYPE H SPECIAL
	CONCRETE CURB & GUTTER INTEGRAL 18-INCH OR 24-INCH SPECIAL
	BIKE RACK (MOUNTED TO CONCRETE)
	SEE STORM SEWER SCHEDULE

MARK	REVISION	DATE	BY
3	PLAN REVISION 6	11/16/23	DJC
2	PLAN REVISION 4	4/19/23	CTL
1	ADDENDUM 3	11/22/22	DJC
	REVISION		

Designed By: STRAM/Date: 2023-11-16  
60631225P

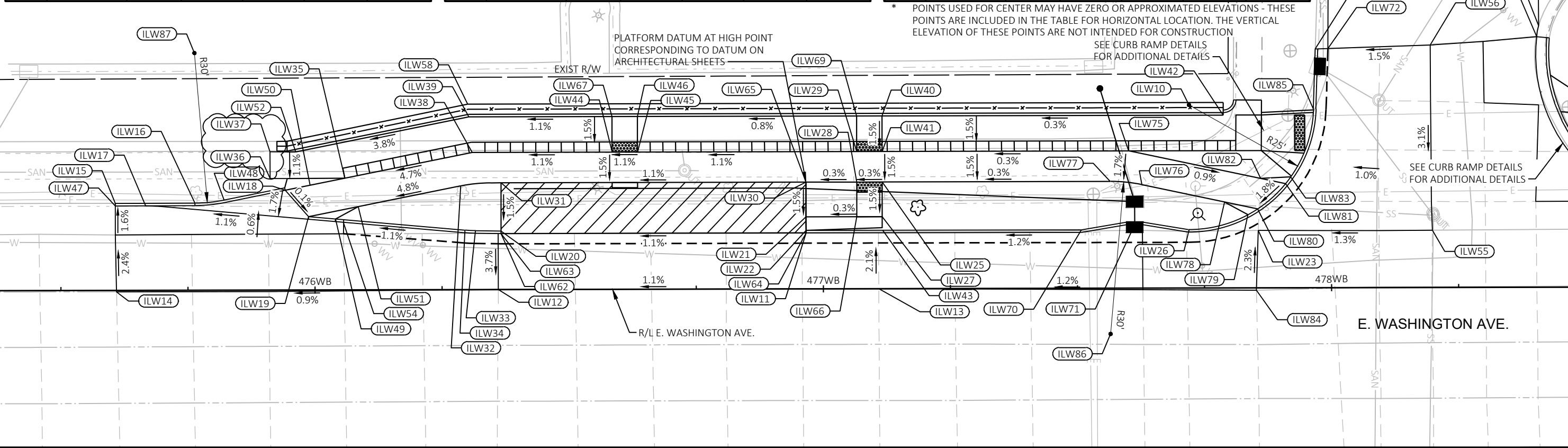
SITE PLAN: WB E. WASHINGTON AVENUE AT INDEPENDENCE LANE  
 CITY OF MADISON, DANE COUNTY, WI  
 BUS RAPID TRANSIT  
**CITY OF MADISON**  
 CONTRACT NO: 60631225C  
 60631225P  
 P25-E

STATION & OFFSET TABLE						
POINT	STATION	OFFSET	Y COORDS	X COORDS	ELEVATION	COMMENT
ILW10	477+72.01 WB	36.00' LT	502313.92	841337.88	0.00	RADIUS*
ILW11	476+96.63 WB	11.00' LT	502243.88	841300.42	880.06	FL
ILW12	476+36.07 WB	0.00' LT	502194.21	841264.08	879.63	MATCH
ILW13	477+10.91 WB	0.01' LT	502245.74	841318.35	880.44	MATCH
ILW14	475+60.94 WB	0.27' RT	502142.28	841209.78	878.93	MATCH
ILW15	475+60.72 WB	17.13' LT	502154.75	841197.64	878.98	BOC
ILW16	475+76.40 WB	17.16' LT	502165.57	841208.99	879.25	BOC
ILW17	475+66.70 WB	16.64' LT	502158.51	841202.31	878.64	FL
ILW18	475+94.18 WB	19.63' LT	502179.60	841220.18	879.02	EOP
ILW19	475+98.75 WB	14.42' LT	502178.98	841227.08	879.01	BOC
ILW20	476+36.62 WB	11.50' LT	502202.93	841256.56	879.91	BOC
ILW21	476+96.63 WB	14.17' LT	502246.18	841298.24	881.23	TOP
ILW22	476+96.63 WB	11.50' LT	502244.24	841300.08	882.16	BOC
ILW23	477+85.60 WB	11.30' LT	502305.36	841364.74	881.07	MATCH
ILW24	477+96.90 WB	46.98' LT	502339.01	841348.37	882.72	BOC
ILW25	477+11.63 WB	21.00' LT	502261.46	841304.42	881.38	FOW
ILW26	477+72.01 WB	11.50' LT	502296.15	841354.75	881.42	BOC
ILW27	477+11.63 WB	14.18' LT	502256.51	841309.11	881.28	BOW
ILW28	477+06.63 WB	21.00' LT	502258.02	841300.79	881.37	FOW
ILW29	477+06.63 WB	26.99' LT	502262.37	841296.66	881.46	FOW
ILW30	476+96.63 WB	21.00' LT	502251.13	841293.54	881.33	EOP
ILW31	476+36.63 WB	21.00' LT	502209.82	841250.03	880.69	EOP
ILW32	476+28.71 WB	20.42' LT	502203.95	841244.69	880.49	EOP
ILW33	476+31.58 WB	11.59' LT	502199.53	841252.85	879.86	BOC
ILW34	476+29.51 WB	11.70' LT	502198.18	841251.27	879.83	BOC

STATION & OFFSET TABLE						
POINT	STATION	OFFSET	Y COORDS	X COORDS	ELEVATION	COMMENT
ILW35	476+05.91 WB	21.98' LT	502189.38	841227.08	879.52	FOW
ILW36	475+91.20 WB	21.95' LT	502179.24	841216.43	879.39	MATCH
ILW37	475+91.20 WB	27.21' LT	502183.05	841212.80	879.45	MATCH
ILW38	476+30.97 WB	26.99' LT	502210.28	841241.80	880.72	EOP
ILW39	476+30.34 WB	34.00' LT	502214.92	841236.51	880.81	BOW
ILW40	477+11.63 WB	34.00' LT	502270.89	841295.47	881.58	BOW
ILW41	477+11.63 WB	26.99' LT	502265.81	841300.29	881.47	FOW
ILW42	477+78.76 WB	34.00' LT	502317.11	841344.15	881.80	BOW
ILW43	477+11.69 WB	11.50' LT	502254.62	841311.00	880.72	BOC
ILW44	476+58.50 WB	26.99' LT	502229.23	841261.76	881.01	FOW
ILW45	476+63.50 WB	26.99' LT	502232.67	841265.39	881.07	FOW
ILW46	476+63.50 WB	34.00' LT	502237.75	841260.56	881.17	BOW
ILW47	475+60.72 WB	16.63' LT	502154.39	841197.98	878.57	FL
ILW48	475+82.13 WB	17.73' LT	502169.93	841212.76	879.18	BOC
ILW49	476+04.05 WB	13.96' LT	502182.28	841231.25	879.55	BOC
ILW50	475+99.08 WB	20.61' LT	502183.69	841223.06	879.18	EOP
ILW51	476+08.52 WB	16.38' LT	502187.12	841232.82	879.49	EOP
ILW52	475+96.25 WB	27.18' LT	502186.51	841216.49	879.49	BOW
ILW54	476+05.60 WB	13.32' LT	502182.89	841232.81	879.07	FL
ILW55	478+19.85 WB	11.27' LT	502328.92	841389.60	881.53	MATCH
ILW56	478+19.51 WB	47.69' LT	502355.09	841364.28	882.65	MATCH
ILW58	476+30.09 WB	36.50' LT	502216.56	841234.61	883.32	MATCH
ILW62	476+36.63 WB	11.00' LT	502202.57	841256.91	879.41	FL
ILW63	476+36.63 WB	11.00' LT	502202.57	841256.91	880.54	TOP
ILW64	476+96.63 WB	11.00' LT	502243.88	841300.42	881.18	TOP

STATION & OFFSET TABLE						
POINT	STATION	OFFSET	Y COORDS	X COORDS	ELEVATION	COMMENT
ILW65	476+96.63 WB	21.00' LT	502251.13	841293.54	881.33	TOP
ILW66	477+06.62 WB	14.18' LT	502253.07	841305.49	881.27	FOW
ILW67	476+58.50 WB	34.00' LT	502234.31	841256.93	881.12	BOW
ILW69	477+06.63 WB	34.00' LT	502267.45	841291.84	881.56	BOW
ILW70	477+50.80 WB	11.50' LT	502281.54	841339.37	881.19	BOC
ILW71	477+61.30 WB	12.50' LT	502289.50	841346.29	880.61	BOC
ILW72	477+99.39 WB	47.05' LT	502340.78	841350.13	882.36	MATCH
ILW73	477+99.66 WB	97.22' LT	502377.35	841315.78	0.00	MATCH
ILW74	478+20.15 WB	97.70' LT	502391.80	841330.31	0.00	MATCH
ILW75	477+60.13 WB	26.99' LT	502299.20	841335.46	881.63	FOW
ILW76	477+62.71 WB	20.35' LT	502296.16	841341.91	881.52	FOW
ILW77	477+56.50 WB	21.00' LT	502292.36	841336.96	881.53	FOW
ILW78	477+78.99 WB	16.90' LT	502304.88	841356.09	881.44	FOW
ILW79	477+83.58 WB	14.40' LT	502306.22	841361.14	881.74	BOC
ILW80	477+85.48 WB	15.53' LT	502308.34	841361.74	881.20	BOC
ILW81	477+90.98 WB	20.50' LT	502315.74	841362.31	881.34	BOC
ILW82	477+86.09 WB	21.54' LT	502313.12	841358.05	881.42	BOC
ILW83	477+91.99 WB	21.82' LT	502317.39	841362.13	881.86	BOC
ILW84	477+85.20 WB	0.45' RT	502296.56	841372.54	881.34	MATCH
ILW85	477+96.50 WB	35.18' LT	502330.18	841356.21	882.13	BOC
ILW86	477+56.50 WB	9.00' RT	502270.60	841357.61	0.00	RADIUS*
ILW87	475+76.35 WB	46.66' LT	502186.93	841188.64	0.00	RADIUS*
ILW88	478+40.64 WB	98.17' LT	502406.26	841344.85	0.00	MATCH*
ILW89	478+40.47 WB	49.28' LT	502370.68	841378.39	882.91	MATCH
ILW90	478+40.85 WB	51.44' LT	502372.51	841377.18	883.03	MATCH

\* POINTS USED FOR CENTER MAY HAVE ZERO OR APPROXIMATED ELEVATIONS - THESE POINTS ARE INCLUDED IN THE TABLE FOR HORIZONTAL LOCATION. THE VERTICAL ELEVATION OF THESE POINTS ARE NOT INTENDED FOR CONSTRUCTION SEE CURB RAMP DETAILS FOR ADDITIONAL DETAILS

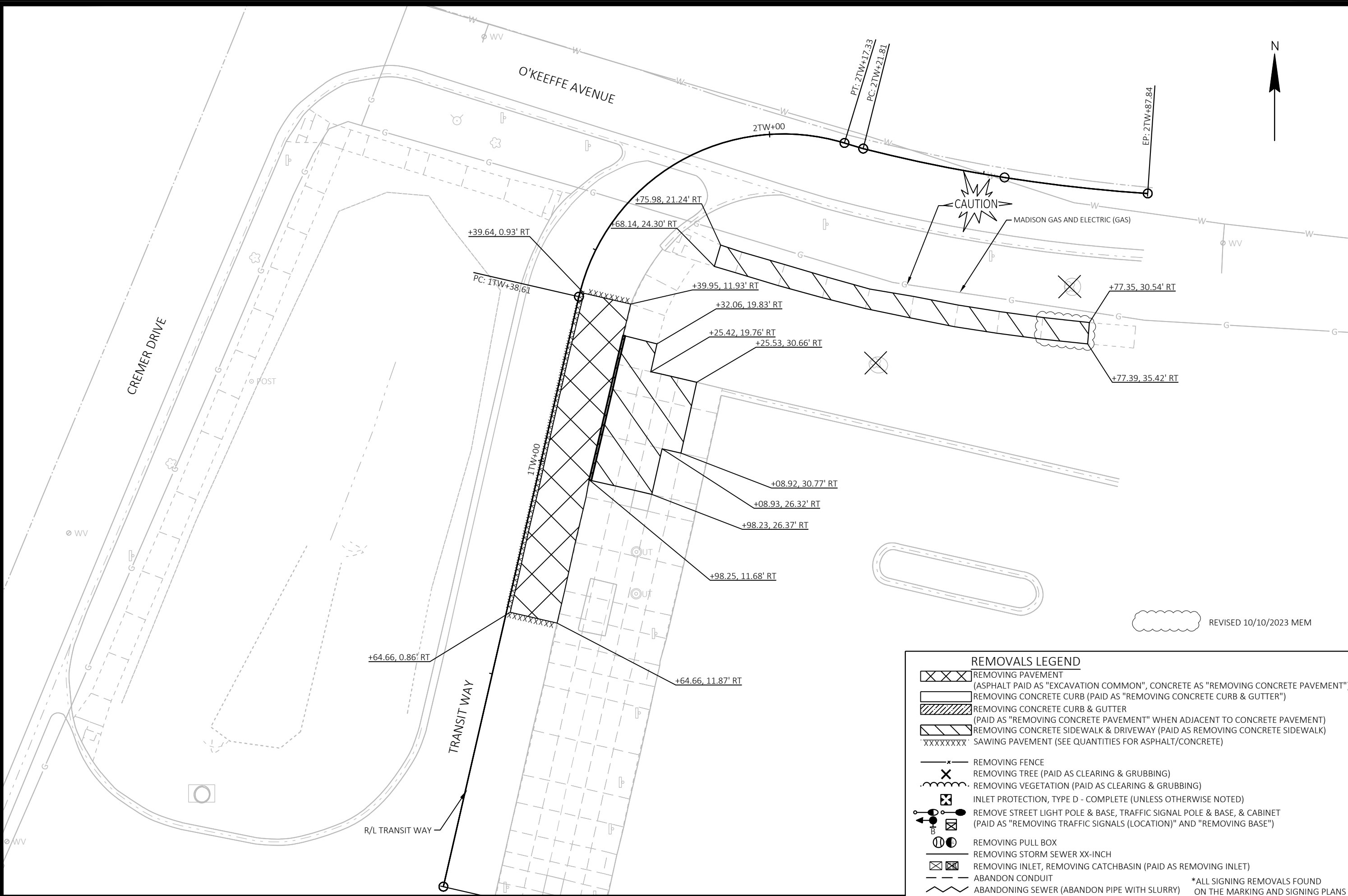


PLAN REVISION 6	DJC	11/16/23	DJC
ADDENDUM 3		11/22/23	DJC
REVISION		DATE	BY
MARK		DATE	BY
Designed By: stwmc Date: 2023-11-16 Scale: 1"=20 FT			
60631225P			
GRADING PLAN: WB E. WASHINGTON AVENUE AT INDEPENDENCE LANE			
CITY OF MADISON, DANE COUNTY, WI			
CONTRACT NO: 60631225C			
CITY OF MADISON			
60631225P			
G25-E			

FILE NAME: C:\P\WORKING\AECOM\_DS20\_NA\_2019\CO021426\0107215\050267\_PN.DWG  
LAYOUT NAME - 050267\_PN

LAST PLOT DATE - 2023-11-16





MARK	DESIGNED BY: AECOM	DATE: 2023-10-10	Scale: 1"=20 FT
PLAN REVISION 6	10/10/23	MEM	
PLAN REVISION 4	05/31/23	VTC	
REVISION			

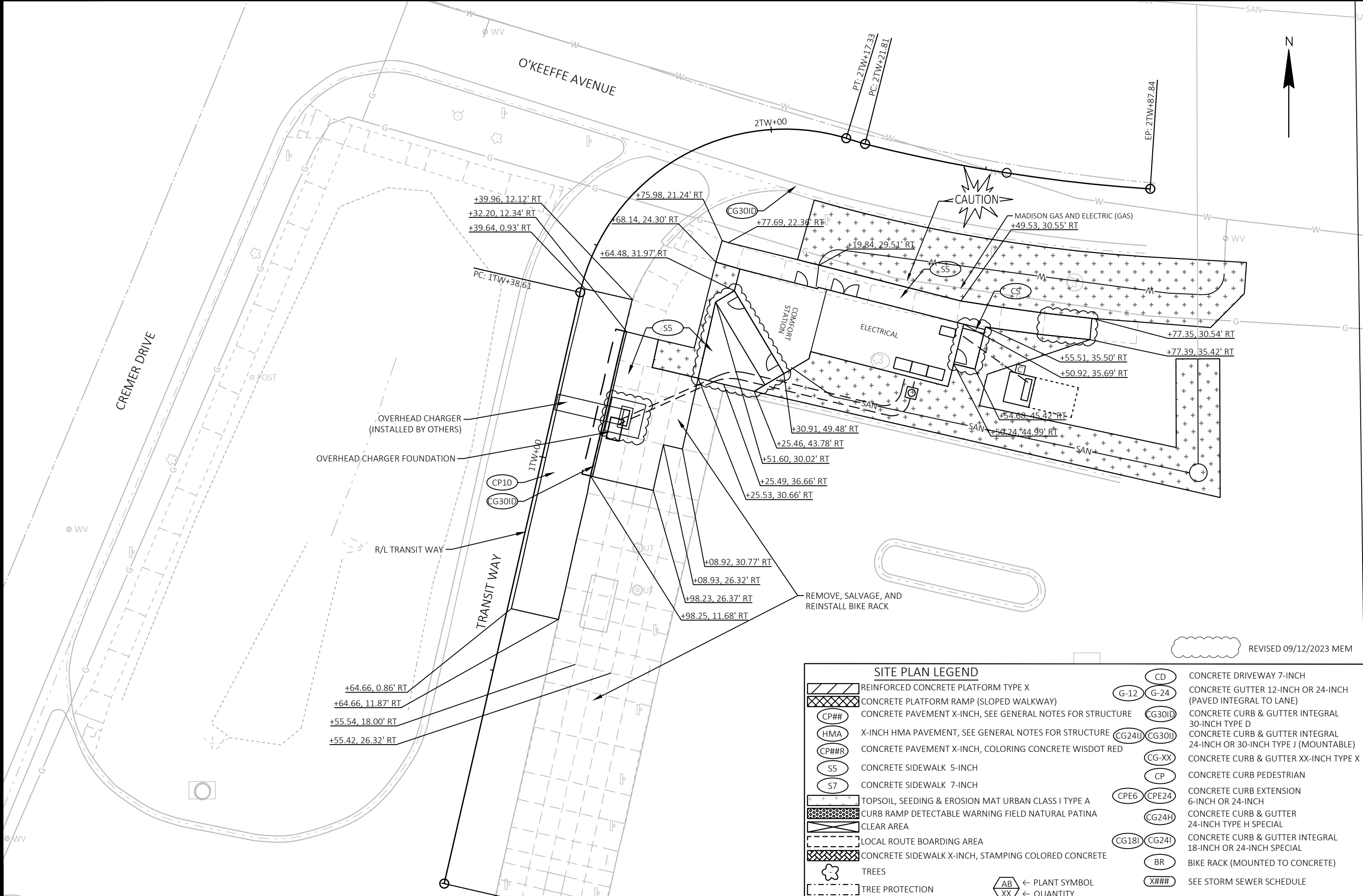
60631225P  
 CITY OF MADISON, DANE COUNTY, WI  
 CONTRACT NO: 60631225C  
 REMOVAL PLAN: SUN PRAIRIE PARK AND RIDE  
 BUS RAPID TRANSIT  
 CITY OF MADISON

60631225P  
 R36-E

REMOVALS LEGEND	
	REMOVING PAVEMENT (ASPHALT PAID AS "EXCAVATION COMMON", CONCRETE AS "REMOVING CONCRETE PAVEMENT")
	REMOVING CONCRETE CURB (PAID AS "REMOVING CONCRETE CURB & GUTTER")
	REMOVING CONCRETE CURB & GUTTER (PAID AS "REMOVING CONCRETE PAVEMENT" WHEN ADJACENT TO CONCRETE PAVEMENT)
	REMOVING CONCRETE SIDEWALK & DRIVEWAY (PAID AS REMOVING CONCRETE SIDEWALK)
	SAWING PAVEMENT (SEE QUANTITIES FOR ASPHALT/CONCRETE)
	REMOVING FENCE
	REMOVING TREE (PAID AS CLEARING & GRUBBING)
	REMOVING VEGETATION (PAID AS CLEARING & GRUBBING)
	INLET PROTECTION, TYPE D - COMPLETE (UNLESS OTHERWISE NOTED)
	REMOVE STREET LIGHT POLE & BASE, TRAFFIC SIGNAL POLE & BASE, & CABINET (PAID AS "REMOVING TRAFFIC SIGNALS (LOCATION)" AND "REMOVING BASE")
	REMOVING PULL BOX
	REMOVING STORM SEWER XX-INCH
	REMOVING INLET, REMOVING CATCHBASIN (PAID AS REMOVING INLET)
	ABANDON CONDUIT
	ABANDONING SEWER (ABANDON PIPE WITH SLURRY)

\*ALL SIGNING REMOVALS FOUND ON THE MARKING AND SIGNING PLANS

REVISED 10/10/2023 MEM



SITE PLAN LEGEND	
	REINFORCED CONCRETE PLATFORM TYPE X
	CONCRETE PLATFORM RAMP (SLOPED WALKWAY)
	CONCRETE PAVEMENT X-INCH, SEE GENERAL NOTES FOR STRUCTURE
	X-INCH HMA PAVEMENT, SEE GENERAL NOTES FOR STRUCTURE
	CONCRETE PAVEMENT X-INCH, COLORING CONCRETE WISDOT RED
	CONCRETE SIDEWALK 5-INCH
	CONCRETE SIDEWALK 7-INCH
	TOPSOIL, SEEDING & EROSION MAT URBAN CLASS I TYPE A
	CURB RAMP DETECTABLE WARNING FIELD NATURAL PATINA
	CLEAR AREA
	LOCAL ROUTE BOARDING AREA
	CONCRETE SIDEWALK X-INCH, STAMPING COLORED CONCRETE
	TREES
	TREE PROTECTION
	← PLANT SYMBOL
	← QUANTITY
	CONCRETE DRIVEWAY 7-INCH
	CONCRETE GUTTER 12-INCH OR 24-INCH (PAVED INTEGRAL TO LANE)
	CONCRETE CURB & GUTTER INTEGRAL 30-INCH TYPE D
	CONCRETE CURB & GUTTER INTEGRAL 24-INCH OR 30-INCH TYPE J (MOUNTABLE)
	CONCRETE CURB & GUTTER XX-INCH TYPE X
	CONCRETE CURB PEDESTRIAN
	CONCRETE CURB EXTENSION 6-INCH OR 24-INCH
	CONCRETE CURB & GUTTER 24-INCH TYPE H SPECIAL
	CONCRETE CURB & GUTTER INTEGRAL 18-INCH OR 24-INCH SPECIAL
	BIKE RACK (MOUNTED TO CONCRETE)
	SEE STORM SEWER SCHEDULE

REVISED 09/12/2023 MEM

MARK	DESIGNED BY: AECOM	DATE: 2023-11-15	SCALE: 1"=20 FT
PLAN REVISION 6	MEM	09/12/23	
PLAN REVISION 4	VTC	05/31/23	
REVISION			

**SITE PLAN: SUN PRAIRIE PARK AND RIDE**  
**BUS RAPID TRANSIT**  
**CITY OF MADISON**

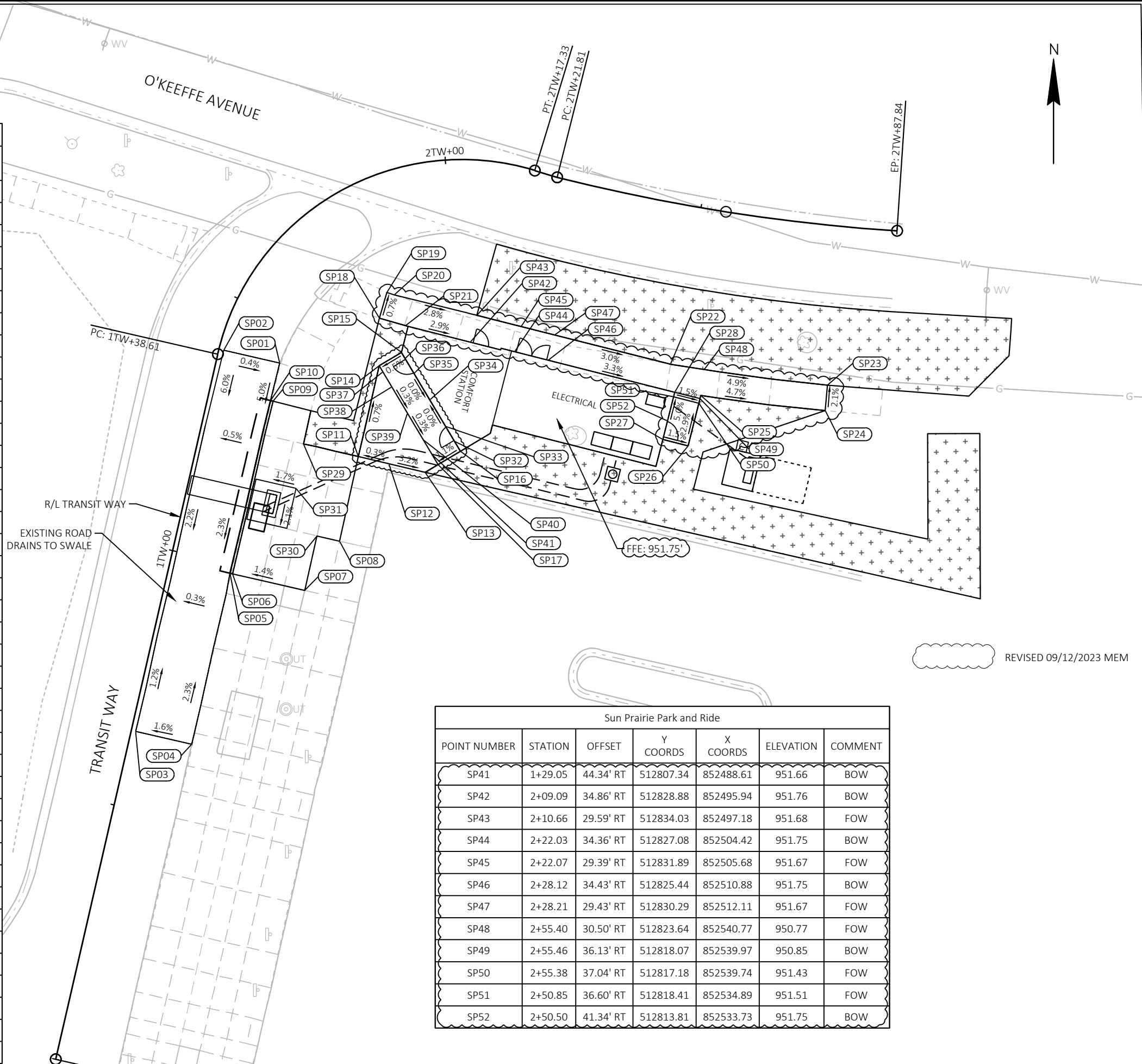
CITY OF MADISON, DANE COUNTY, WI  
 CONTRACT NO: 60631225C

60631225P  
 P36-E

FILE NAME: C:\P\WORKING\AECOM\_LDS20\_NA\_2019\MEGHAN.MCCARTHY\AECOM.COM\DM586348\050304B-PN.DWG  
 LAYOUT NAME - Plan 1 IN 20 FT  
 LAST PLOT DATE - 2023-11-15



Sun Prairie Park and Ride						
POINT NUMBER	STATION	OFFSET	Y COORDS	X COORDS	ELEVATION	COMMENT
SP01	1+39.95	11.93' RT	512824.89	852459.40	951.93	MATCH
SP02	1+39.64	0.93' RT	512827.36	852448.68	952.00	MATCH
SP03	0+64.66	0.86' RT	512754.32	852431.82	949.92	MATCH
SP04	0+64.66	11.87' RT	512751.86	852442.54	950.09	MATCH
SP05	0+98.25	11.68' RT	512784.63	852449.88	950.44	EOP
SP06	0+98.22	12.18' RT	512784.49	852450.36	951.02	BOC
SP07	0+98.23	26.37' RT	512781.32	852464.20	951.23	MATCH
SP08	1+08.92	30.77' RT	512790.76	852470.88	951.49	MATCH
SP09	1+32.20	12.34' RT	512817.58	852458.13	951.93	BOC
SP10	1+32.21	11.84' RT	512817.70	852457.65	951.56	EOP
SP11	1+25.53	30.66' RT	512806.97	852474.49	951.86	MATCH
SP12	1+25.49	36.66' RT	512805.58	852480.32	951.88	MATCH
SP13	1+25.47	43.79' RT	512803.97	852487.27	951.65	BOW
SP14	1+51.60	30.02' RT	512824.40	852478.51	951.74	BOW
SP15	1+64.48	31.98' RT	512826.93	852482.76	951.77	BOW
SP16	1+30.91	49.48' RT	512808.00	852494.04	951.71	BOW
SP17	1+27.45	45.87' RT	512805.44	852489.74	951.66	FOW
SP18	1+68.14	24.30' RT	512833.50	852478.52	952.20	BOW
SP19	1+75.98	21.24' RT	512838.42	852479.96	952.16	FOW
SP20	1+77.69	22.36' RT	512837.95	852481.34	952.13	FOW
SP21	1+74.90	28.52' RT	512832.03	852483.50	952.13	BOW
SP22	2+49.35	30.54' RT	512824.67	852534.30	950.98	FOW
SP23	2+77.35	30.54' RT	512820.64	852564.36	1899.73	MATCH
SP24	2+77.39	35.42' RT	512815.78	852563.94	949.70	MATCH
SP25	2+55.51	35.50' RT	512818.68	852540.12	950.84	BOW
SP26	2+54.68	45.42' RT	512809.03	852537.67	951.67	BOW
SP27	2+50.24	44.99' RT	512810.25	852532.83	951.75	BOW
SP28	2+50.92	35.69' RT	512819.30	852535.12	950.92	BOW
SP29	1+25.54	19.86' RT	512809.40	852463.97	951.74	BOW
SP30	1+08.93	26.32' RT	512791.76	852466.54	951.45	BOW
SP31	1+16.93	20.38' RT	512800.89	852462.54	951.52	BOW
SP32	1+32.51	47.95' RT	512809.89	852492.91	951.75	BOW
SP33	1+34.91	45.65' RT	512812.76	852491.20	951.75	BOW
SP34	1+42.79	41.55' RT	512817.82	852488.18	951.74	BOW
SP35	1+59.27	36.45' RT	512822.89	852485.17	951.75	BOW
SP36	1+63.29	33.30' RT	512825.75	852483.46	951.75	BOW
SP37	1+49.46	31.15' RT	512823.19	852479.16	951.72	BOW
SP38	1+43.24	33.82' RT	512820.33	852480.87	951.71	BOW
SP39	1+35.72	37.96' RT	512815.26	852483.89	951.69	BOW
SP40	1+31.46	42.04' RT	512810.20	852486.90	951.67	BOW



Sun Prairie Park and Ride						
POINT NUMBER	STATION	OFFSET	Y COORDS	X COORDS	ELEVATION	COMMENT
SP41	1+29.05	44.34' RT	512807.34	852488.61	951.66	BOW
SP42	2+09.09	34.86' RT	512828.88	852495.94	951.76	BOW
SP43	2+10.66	29.59' RT	512834.03	852497.18	951.68	FOW
SP44	2+22.03	34.36' RT	512827.08	852504.42	951.75	BOW
SP45	2+22.07	29.39' RT	512831.89	852505.68	951.67	FOW
SP46	2+28.12	34.43' RT	512825.44	852510.88	951.75	BOW
SP47	2+28.21	29.43' RT	512830.29	852512.11	951.67	FOW
SP48	2+55.40	30.50' RT	512823.64	852540.77	950.77	FOW
SP49	2+55.46	36.13' RT	512818.07	852539.97	950.85	BOW
SP50	2+55.38	37.04' RT	512817.18	852539.74	951.43	FOW
SP51	2+50.85	36.60' RT	512818.41	852534.89	951.51	FOW
SP52	2+50.50	41.34' RT	512813.81	852533.73	951.75	BOW

60631225P  
 CITY OF MADISON, DANE COUNTY, WI  
 CONTRACT NO: 60631225C

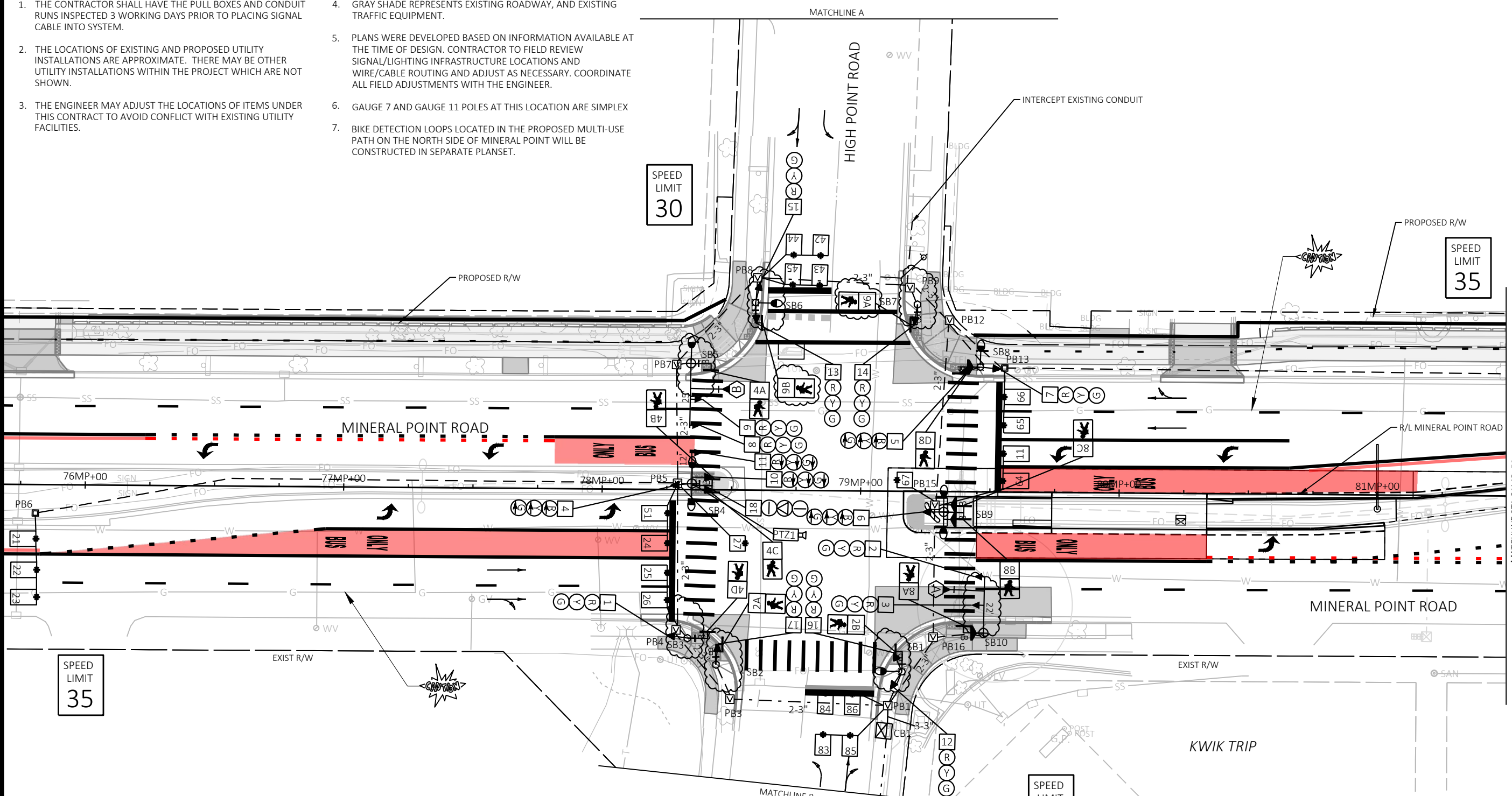
GRADING PLAN: SUN PRAIRIE PARK AND RIDE  
 BUS RAPID TRANSIT  
**CITY OF MADISON**

PLAN REVISION 6  
 REVISION DATE: 09/12/23 MEM  
 Scale: 1"=20 FT  
 Designed By: AECOM  
 60631225P

FILE NAME: C:\P\WORKING\AECOM\_DS20\_NA\_2019\MEGHAN.MCCARTHY@AECOM.COM\DM586348\050304C-GD.DWG  
 LAYOUT NAME - Plan 1 IN 20 FT  
 LAST PLOT DATE: 2023-11-16

CONSTRUCTION NOTES:

1. THE CONTRACTOR SHALL HAVE THE PULL BOXES AND CONDUIT RUNS INSPECTED 3 WORKING DAYS PRIOR TO PLACING SIGNAL CABLE INTO SYSTEM.
2. THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATIONS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT WHICH ARE NOT SHOWN.
3. THE ENGINEER MAY ADJUST THE LOCATIONS OF ITEMS UNDER THIS CONTRACT TO AVOID CONFLICT WITH EXISTING UTILITY FACILITIES.
4. GRAY SHADE REPRESENTS EXISTING ROADWAY, AND EXISTING TRAFFIC EQUIPMENT.
5. PLANS WERE DEVELOPED BASED ON INFORMATION AVAILABLE AT THE TIME OF DESIGN. CONTRACTOR TO FIELD REVIEW SIGNAL/LIGHTING INFRASTRUCTURE LOCATIONS AND WIRE/CABLE ROUTING AND ADJUST AS NECESSARY. COORDINATE ALL FIELD ADJUSTMENTS WITH THE ENGINEER.
6. GAUGE 7 AND GAUGE 11 POLES AT THIS LOCATION ARE SIMPLEX
7. BIKE DETECTION LOOPS LOCATED IN THE PROPOSED MULTI-USE PATH ON THE NORTH SIDE OF MINERAL POINT WILL BE CONSTRUCTED IN SEPARATE PLANSET.



SIGNAL PLAN LEGEND

	CONTROL CABINET		TRAFFIC SIGNAL HEAD
	CONCRETE BASE TYPE G, PEDESTAL BASE, POLE		BUS INDICATOR
	CONCRETE BASE TYPE LB-3, TRANSFORMER BASE, POLE, LUMINAIRE AND MOUNTING BRACKET, UNLESS OTHERWISE NOTED		DON'T WALK INDICATOR 16" WALK INDICATOR 16"
	CONCRETE BASE TYPE LB-8, TRANSFORMER BASE, POLE, TROMBONE ARM		EVP DETECTOR HEAD, AND EVP DESIGNATOR
	CONCRETE BASE TYPE 10, POLE, MONOTUBE ARM		ELECTRICAL PULL BOX TYPE 3
	CONCRETE BASE TYPE 13, POLE, MONOTUBE ARM		ELECTRICAL PULL BOX TYPE 5
	MONOTUBE BASE, POLE, X' ARM		ELECTRICAL PULL BOX TYPE 7
	NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED		PEDESTRIAN HEAD
	CONDUIT SPECIAL 3", UNLESS OTHERWISE NOTED		APS PUSH BUTTON/PUSH BUTTON
			LANE DESIGNATION FOR INFO ONLY

NOTE: OTHER LEGEND CELLS SHOWN ON TRAFFIC SIGNAL LEGEND SHEET

REVISED BY JWJ 11/10/2023

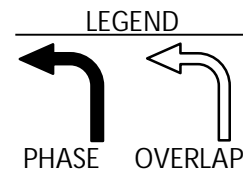
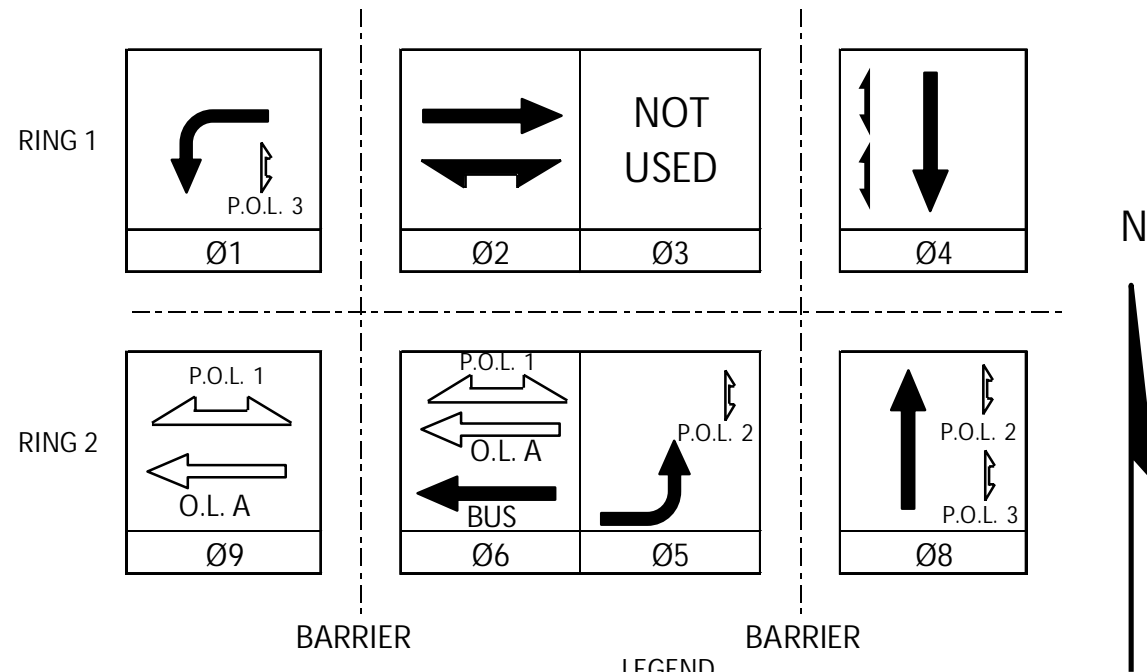
MARK	PLAN REVISION 6	DATE	11/10/23	BY	AE
Designed By: AECOM	REVISION	Date:	2023-11-10		
60631225P					Scale: 1 IN=40 FT

SIGNAL PLAN: MINERAL POINT ROAD AT HIGH POINT ROAD  
 BUS RAPID TRANSIT  
 CITY OF MADISON  
 60631225P  
 CONTRACT NO: 60631225C



60631225P  
 S-2G

	HEAD NUMBERS	FLASH
Ø1	10,11	R
Ø2	1,2,3	R
Ø3		
Ø4	15,16,17	R
Ø5	4,5,6	R
Ø6	18	R
Ø7		
Ø8	12,13,14	R
Ø2P	2A,2B	
Ø4P	4A,4B,4C,4D	
Ø6P		
Ø8P		
	OL ASSIGNMENTS	
OLA	7,8,9	6,9
POL1	9A,9B	9,6
POL2	8C,8D	5,8
POL3	8A,8B	8,1



CONTROLLER LOGIC

PHASE NUMBER	PHASE LOCKING	DUAL ENTRY W / Ø	PHASE RECALL	PHASE ACTIVE
1		9		X
2	X	6	MIN	X
3				
4		8		X
5		2		X
6	X	2	MIN	X
7				
8		4		X
9		1		X

EMERGENCY VEHICLE PREEMPTION SEQUENCE

EMERGENCY VEHICLE PREEMPTOR	A	B	C	D
MOVEMENT				
PHASE	2+5	6+1		

AFTER PREEMPTION SEQUENCE 2+5 OR 1+6, CONTROLLER SHALL RETURN TO PHASES 2+5.

DETECTOR LOGIC

DETECTOR INPUT	3	1	7	5	11	9	15	13
DETECTOR #(S)	11	22	24	26	41	43	45	51
PHASE CALLED	1	2	2	2	4	4	4	5
PHASE EXTENDED	1	2	2	2	4	4	4	5
DISCONNECT TIME								
CALLING DELAY								
EXTENSION STRETCH		X			X			
LOOP FUNCTION								

DETECTOR INPUT	19	17	23	21	27	25	31	29
DETECTOR #(S)	62	64	66	601	603	605	81	83
PHASE CALLED	6	6	6		6	6	8	8
PHASE EXTENDED	6	6	6		6	6	8	8
DISCONNECT TIME								
CALLING DELAY								
EXTENSION STRETCH	X					X	X	
LOOP FUNCTION				SYS				

DETECTOR INPUT	35	33	39	37	43	41	47	45
DETECTOR #(S)	85							
PHASE CALLED	8							
PHASE EXTENDED	8							
DISCONNECT TIME								
CALLING DELAY								
EXTENSION STRETCH								
LOOP FUNCTION								

DETECTOR INPUT	35	33	39	37	43	41	47	45
DETECTOR #(S)	85							
PHASE CALLED	8							
PHASE EXTENDED	8							
DISCONNECT TIME								
CALLING DELAY								
EXTENSION STRETCH								
LOOP FUNCTION								

DETECTOR INPUT	4	2	8	6	12	10	16	14
DETECTOR #(S)	21	23	25	27	42	44	401	61
PHASE CALLED	2	2	2		4	4	4	6
PHASE EXTENDED	2	2	2		4	4	4	6
DISCONNECT TIME								
CALLING DELAY								
EXTENSION STRETCH	X	X						X
LOOP FUNCTION								

DETECTOR INPUT	20	18	24	22	28	26	32	30
DETECTOR #(S)	63	65	67	602	604		82	84
PHASE CALLED	6	6			6		8	8
PHASE EXTENDED	6	6			6		8	8
DISCONNECT TIME								
CALLING DELAY								
EXTENSION STRETCH	X						X	
LOOP FUNCTION				SYS				

DETECTOR INPUT	36	34	40	38	44	42	48	46
DETECTOR #(S)	86							
PHASE CALLED	8							
PHASE EXTENDED	8							
DISCONNECT TIME								
CALLING DELAY								
EXTENSION STRETCH								
LOOP FUNCTION								

DETECTOR INPUT	36	34	40	38	44	42	48	46
DETECTOR #(S)	86							
PHASE CALLED	8							
PHASE EXTENDED	8							
DISCONNECT TIME								
CALLING DELAY								
EXTENSION STRETCH								
LOOP FUNCTION								

GENERAL NOTES:

- 1.
- 2.

MINERAL POINT ROAD AT HIGH POINT ROAD	
CITY OF MADISON	
DANE COUNTY	
SIGNAL NO:	CABINET TYPE: TS2
CONTROLLER TYPE: COBALT	
DATE: OCTOBER 2022	PAGE NUMBER: 3 OF 3

Mark	PLAN REVISION 6	10/23	AE	BY
Designed By: AECOM	REVISION	DATE		
60631225P				Scale: NTS

60631225P  
 SEQUENCE OF OPERATION: MINERAL POINT ROAD AT HIGH POINT ROAD  
 CITY OF MADISON, DANE COUNTY, WI  
 BUS RAPID TRANSIT  
 CONTRACT NO: 60631225C



60631225P  
 S-21

INTERSECTION: 60631225P  
MINERAL POINT RD & HIGH POINT RD

SIGNAL WIRE COLOR CODING	BLK-BLACK WHT-WHITE	RED-RED BLU-BLUE	GRN-GREEN ORG-ORANGE
--------------------------	------------------------	---------------------	-------------------------

DATE: Nov-23

CB1 TO SB1	AWG 14 # OF COND.	HEAD NO.	SIGNAL INDICATION WIRE COLOR										D/WALK	WALK	PED BUTTON	OTHER			
			RED	YELLOW	GREEN	<RED>	<YELLOW>	<FLASH YEL>	<GREEN>	" - "	" Δ "	"   "							
SB1	12	12	RED	ORG	GRN														
		16	RED/BLK	ORG/BLK	GRN/BLK														
		2B PB											BLK	BLU			WHT/BLK		
SB2	12	17	RED	ORG	GRN														
		2A																	
		PB											BLK	BLU			WHT/BLK		
SB3	12	1	RED	ORG	GRN														
		4D																	
		PB											BLK	BLU			WHT/BLK		
SB4	19	4				RED	ORG			GRN									
		10				RED/BLK	ORG/BLK			GRN/BLK									
		11				RED/BLK	ORG/BLK			GRN/BLK									
		18										RED/WHT	BLK/RED	GRN/WHT					
		4B													BLK	BLU			
		4C PB													BLU/BLK	BLU/WHT		WHT/BLK	
SB5	12	8	RED	ORG	GRN														
		9	RED	ORG	GRN														
		4A																	
		PB													BLK	BLU		WHT/BLK	
SB6	12	13	RED	ORG	GRN														
		15	RED/BLK	ORG/BLK	GRN/BLK														
		9B PB													BLU/BLK	BLK/WHT		WHT/BLK	
SB7	12	14	RED	ORG	GRN														
		9A PB																BLU/BLK	BLK/WHT
SB8	15	5				RED/BLK	ORG/BLK			GRN/BLK									
		7	RED	ORG	GRN														
		8D PB																BLK	BLU
SB9	12	6				RED	ORG			GRN									
		8B																	
		8C																	
		PB																	BLK
SB10	12	2	RED	ORG	GRN														
		3	RED	ORG	GRN														
		8A PB																	BLK

- NOTES:
- USE WHITE CONDUCTOR IN THE SIGNAL CABLE AS THE GROUNDED CONDUCTOR FOR ALL TRAFFIC SIGNAL INDICATIONS.
  - ENSURE THE GROUNDED CONDUCTOR IN THE FEEDER CABLE AND THE POLE CABLES ARE BOTH 18" LONGER THAN THE UNGROUNDED CONDUCTORS.
  - AT THE SIGNAL BASES, CONNECT ONE TERMINAL FROM THE PEDESTRIAN PUSH BUTTONS TO THE COLOR INDICATED IN THE CHART. CONNECT THE OTHER TERMINAL TO THE GROUNDED CONDUCTOR.

EQUIPMENT GROUNDING CONDUCTORS 10 AWG GRN XLP	
FROM	TO
CB1	SB1
SB1	SB2
SB2	SB3
SB3	SB4
SB4	SB5
SB5	SB6
SB6	SB7
SB7	SB8
SB8	SB9
SB9	SB10
SB10	CB1

LIGHTING UF 8 AWG W/ GROUND	
FROM	TO
CB1	SB1
SB1	SB4
SB4	SB5
CB1	SB9
SB9	SB8
SB8	SB6

EMERGENCY VEHICLE PREEMPTION WITH CONFIRMATION LIGHTS		
HEAD	FROM	TO
A	CB1	SB10
B	CB1	SB5

PTZ CAMERA		
HEAD	FROM	TO
PTZ1	CB1	SB4

REVISED BY JWJ 11/10/2023

Mark	DESIGNED BY: AECOM	DATE: 11/10/2023
REVISION	PLAN REVISION 6	DATE
Scale: NTS		

CABLE ROUTING SHEET: MINERAL POINT ROAD AND HIGH POINT ROAD  
 BUS RAPID TRANSIT  
 CITY OF MADISON  
 CONTRACT NO: 60631225C



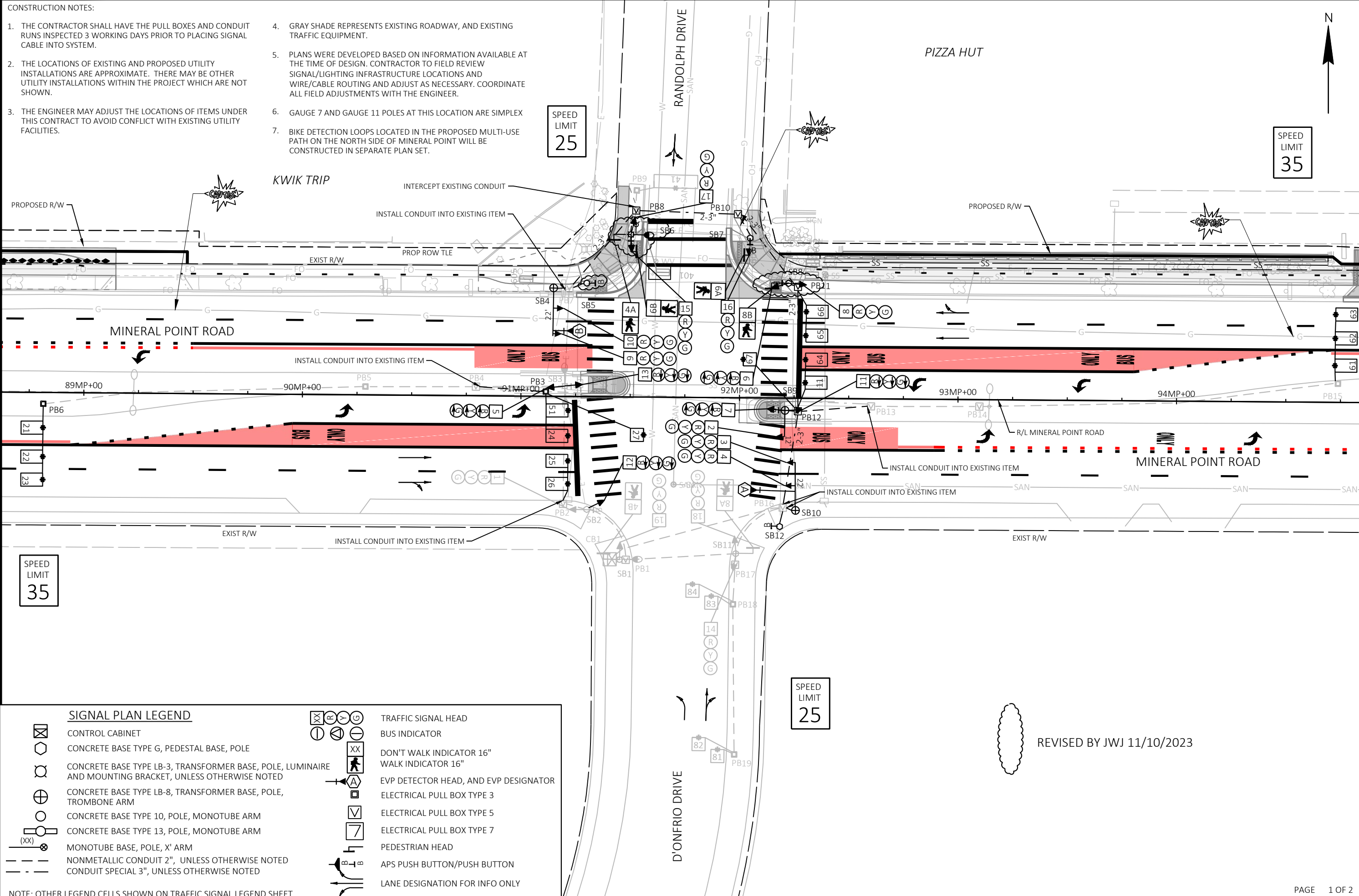
60631225P  
S-2J

FILE NAME: C:\OneDrive\AECOM\City of Madison\_BRT\_Quantities\Madison\_BRT\_MQ\_Plan\_Sheets.pptx LAST PLOT DATE: 11/10/2023



CONSTRUCTION NOTES:

1. THE CONTRACTOR SHALL HAVE THE PULL BOXES AND CONDUIT RUNS INSPECTED 3 WORKING DAYS PRIOR TO PLACING SIGNAL CABLE INTO SYSTEM.
2. THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATIONS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT WHICH ARE NOT SHOWN.
3. THE ENGINEER MAY ADJUST THE LOCATIONS OF ITEMS UNDER THIS CONTRACT TO AVOID CONFLICT WITH EXISTING UTILITY FACILITIES.
4. GRAY SHADE REPRESENTS EXISTING ROADWAY, AND EXISTING TRAFFIC EQUIPMENT.
5. PLANS WERE DEVELOPED BASED ON INFORMATION AVAILABLE AT THE TIME OF DESIGN. CONTRACTOR TO FIELD REVIEW SIGNAL/LIGHTING INFRASTRUCTURE LOCATIONS AND WIRE/CABLE ROUTING AND ADJUST AS NECESSARY. COORDINATE ALL FIELD ADJUSTMENTS WITH THE ENGINEER.
6. GAUGE 7 AND GAUGE 11 POLES AT THIS LOCATION ARE SIMPLEX
7. BIKE DETECTION LOOPS LOCATED IN THE PROPOSED MULTI-USE PATH ON THE NORTH SIDE OF MINERAL POINT WILL BE CONSTRUCTED IN SEPARATE PLAN SET.



SIGNAL PLAN LEGEND	
	CONTROL CABINET
	CONCRETE BASE TYPE G, PEDESTAL BASE, POLE
	CONCRETE BASE TYPE LB-3, TRANSFORMER BASE, POLE, LUMINAIRE AND MOUNTING BRACKET, UNLESS OTHERWISE NOTED
	CONCRETE BASE TYPE LB-8, TRANSFORMER BASE, POLE, TROMBONE ARM
	CONCRETE BASE TYPE 10, POLE, MONOTUBE ARM
	CONCRETE BASE TYPE 13, POLE, MONOTUBE ARM
	MONOTUBE BASE, POLE, X' ARM
	NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED
	CONDUIT SPECIAL 3", UNLESS OTHERWISE NOTED
	TRAFFIC SIGNAL HEAD
	BUS INDICATOR
	DON'T WALK INDICATOR 16"
	WALK INDICATOR 16"
	EVP DETECTOR HEAD, AND EVP DESIGNATOR
	ELECTRICAL PULL BOX TYPE 3
	ELECTRICAL PULL BOX TYPE 5
	ELECTRICAL PULL BOX TYPE 7
	PEDESTRIAN HEAD
	APS PUSH BUTTON/PUSH BUTTON
	LANE DESIGNATION FOR INFO ONLY

NOTE: OTHER LEGEND CELLS SHOWN ON TRAFFIC SIGNAL LEGEND SHEET

REVISED BY JWJ 11/10/2023

MARK	DESIGNED BY: AECOM	DATE: 2023-11-10	SCALE: 1 IN=40 FT
PLAN REVISION 6	REVISION	DATE	BY
11/10/23	AE		

SIGNAL PLAN: MINERAL POINT ROAD AT D'ONFRIO DRIVE/RANDOLPH DRIVE 60631225P

BUS RAPID TRANSIT CITY OF MADISON, DANE COUNTY, WI

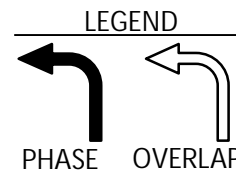
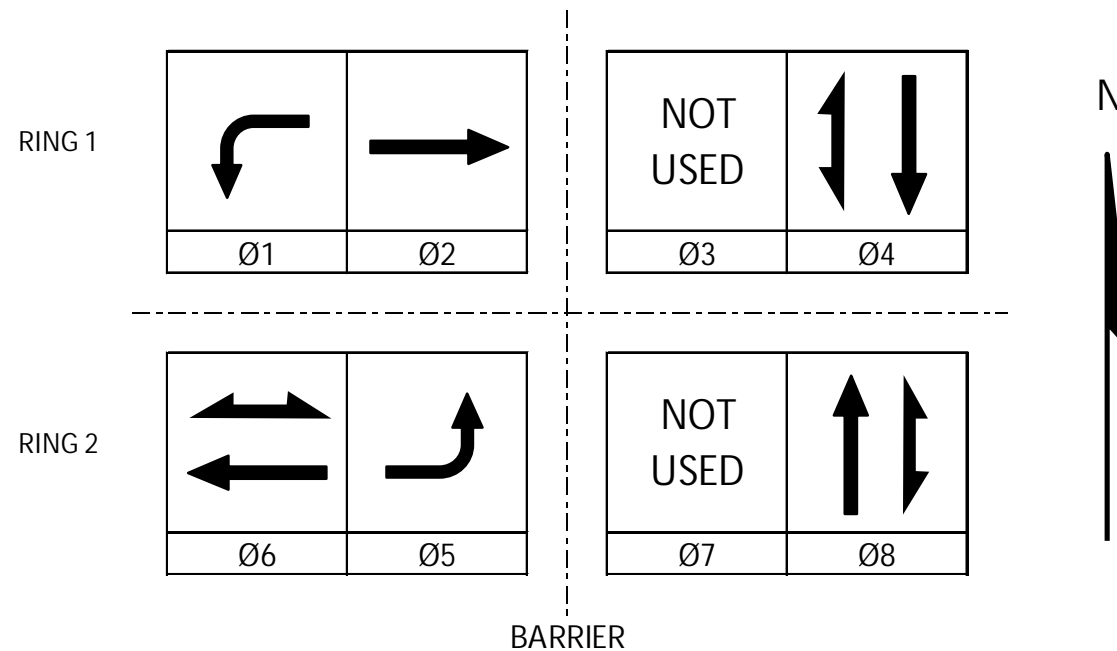
CITY OF MADISON CONTRACT NO: 60631225C

60631225P

S-3F



	HEAD NUMBERS	FLASH
Ø1	11,12,13	R
Ø2	1,2,3,4	R
Ø3		
Ø4	17,18,19	R
Ø5	5,6,7	R
Ø6	8,9,10	R
Ø7		
Ø8	14,15,16	R
Ø1P		
Ø4P	4A,4B	
Ø6P	6A,6B	
Ø8P	8A,8B	
OLE		
OLF		
OLG		
OLH		



CONTROLLER LOGIC

PHASE NUMBER	PHASE LOCKING	DUAL ENTRY W / Ø	PHASE RECALL	PHASE ACTIVE
1		6		X
2	X	6	MIN	X
3				
4		8		X
5		2		X
6	X	2	MIN	X
7				
8		4		X

EMERGENCY VEHICLE PREEMPTION SEQUENCE

EMERGENCY VEHICLE PREEMPTOR	A	B	C	D
MOVEMENT				
PHASE	2+5	6+1		

AFTER PREEMPTION SEQUENCE 2+5 OR 1+6, CONTROLLER SHALL RETURN TO PHASES 2+5.

TYPE OF INTERCONNECT/COMMUNICATION	
NONE	
CLOSED LOOP	
TWISTED PAIR	
FIBER OPTIC*	X
FIBER OPTIC (ETHERNET)	
RADIO	
CELL MODEM	

TYPE OF COORDINATION	
NONE	
TBC	X
TRAFFIC RESPONSIVE	
ADAPTIVE	
*LOCATION OF MASTER CONTROLLER NO:	S-
SIGNAL SYSTEM NO:	SS-

TYPE OF LIGHTING	
BY OTHER AGENCY	
IN TRAFFIC CABINET	X
IN SEPARATE DOT LIGHTING CABINET	

TYPE OF PRE-EMPT	
NONE	
RAILROAD	
EMERGENCY VEHICLE	X
GTT	
TOMAR	
HARDWIRE	
OTHER	
CONFIRMATION LIGHTS	
LIFT BRIDGE	
QUEUE DETECTION	

DETECTOR LOGIC

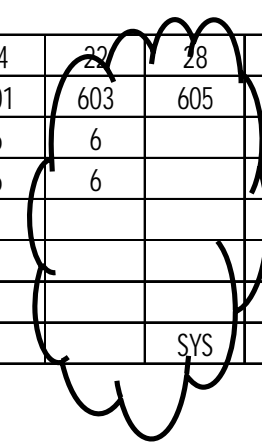
DETECTOR INPUT	3	1	7	5	11	9	15	13
DETECTOR #(S)	11	21	23	25	27	41	51	61
PHASE CALLED	1	2	2	2		4	5	6
PHASE EXTENDED	1	2	2	2		4	5	6
DISCONNECT TIME								
CALLING DELAY								
EXTENSION STRETCH								
LOOP FUNCTION								

DETECTOR INPUT	19	17	23	21	27	25	31	29
DETECTOR #(S)	63	65	67	602	604	81	83	
PHASE CALLED	6	6		6	6	8	8	
PHASE EXTENDED	6	6		6	6	8	8	
DISCONNECT TIME								
CALLING DELAY								
EXTENSION STRETCH								
LOOP FUNCTION								

- GENERAL NOTES:
- - 
  - 
  -

DETECTOR INPUT	4	2	8	6	12	10	16	14
DETECTOR #(S)		22	24	26	401		62	
PHASE CALLED		2	2	2	4		6	
PHASE EXTENDED		2	2	2	4		6	
DISCONNECT TIME								
CALLING DELAY								
EXTENSION STRETCH								
LOOP FUNCTION								

DETECTOR INPUT	20	18	24	22	28	26	32	30
DETECTOR #(S)	64	66	601	603	605	82	84	
PHASE CALLED	6	6	6	6		8	8	
PHASE EXTENDED	6	6	6	6		8	8	
DISCONNECT TIME								
CALLING DELAY								
EXTENSION STRETCH								
LOOP FUNCTION								

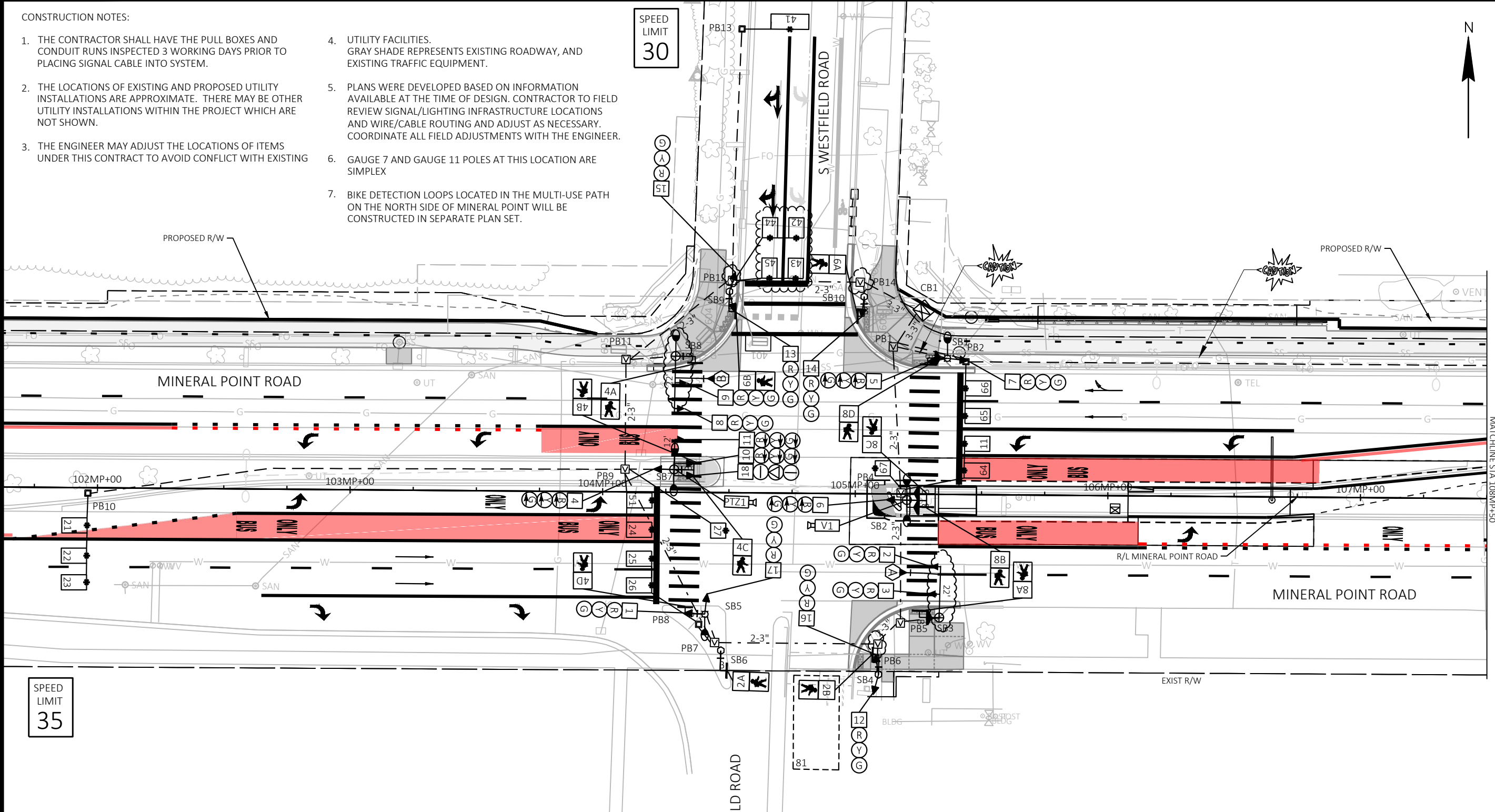


MINERAL POINT ROAD AT D'ONFRIO DRIVE	
CITY OF MADISON	
DANE COUNTY	
SIGNAL NO:	CABINET TYPE: TS2
CONTROLLER TYPE: ECONOLITE	
DATE: JULY 2022	PAGE NUMBER: 2 OF 2

SEQUENCE OF OPERATION: MINERAL POINT RD AT D'ONFRIO DR/RANDOLPH DR 60631225P  
 BUS RAPID TRANSIT CITY OF MADISON, DANE COUNTY, WI CONTRACT NO: 60631225C  
 Scale: NTS  
 10/3/23  
 DATE  
 BY  
 PLAN REVISION 6  
 REVISION  
 Date: 10/3/2023  
 Drawn: JWS  
 Checked: JWS  
 Designed By: AECOM  
 Mark: 60631225P  
 Scale: NTS  
 CITY OF MADISON WISCONSIN  
 60631225P  
 S-3G

CONSTRUCTION NOTES:

1. THE CONTRACTOR SHALL HAVE THE PULL BOXES AND CONDUIT RUNS INSPECTED 3 WORKING DAYS PRIOR TO PLACING SIGNAL CABLE INTO SYSTEM.
2. THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATIONS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT WHICH ARE NOT SHOWN.
3. THE ENGINEER MAY ADJUST THE LOCATIONS OF ITEMS UNDER THIS CONTRACT TO AVOID CONFLICT WITH EXISTING
4. UTILITY FACILITIES. GRAY SHADE REPRESENTS EXISTING ROADWAY, AND EXISTING TRAFFIC EQUIPMENT.
5. PLANS WERE DEVELOPED BASED ON INFORMATION AVAILABLE AT THE TIME OF DESIGN. CONTRACTOR TO FIELD REVIEW SIGNAL/LIGHTING INFRASTRUCTURE LOCATIONS AND WIRE/CABLE ROUTING AND ADJUST AS NECESSARY. COORDINATE ALL FIELD ADJUSTMENTS WITH THE ENGINEER.
6. GAUGE 7 AND GAUGE 11 POLES AT THIS LOCATION ARE SIMPLEX
7. BIKE DETECTION LOOPS LOCATED IN THE MULTI-USE PATH ON THE NORTH SIDE OF MINERAL POINT ROAD WILL BE CONSTRUCTED IN SEPARATE PLAN SET.



SPEED LIMIT 35

SPEED LIMIT 35

SPEED LIMIT 25

SIGNAL PLAN LEGEND

	CONTROL CABINET		TRAFFIC SIGNAL HEAD
	CONCRETE BASE TYPE G, PEDESTAL BASE, POLE		BUS INDICATOR
	CONCRETE BASE TYPE LB-3, TRANSFORMER BASE, POLE, LUMINAIRE AND MOUNTING BRACKET, UNLESS OTHERWISE NOTED		DON'T WALK INDICATOR 16" WALK INDICATOR 16"
	CONCRETE BASE TYPE LB-8, TRANSFORMER BASE, POLE, TROMBONE ARM		EVP DETECTOR HEAD, AND EVP DESIGNATOR
	CONCRETE BASE TYPE 10, POLE, MONOTUBE ARM		ELECTRICAL PULL BOX TYPE 3
	CONCRETE BASE TYPE 13, POLE, MONOTUBE ARM		ELECTRICAL PULL BOX TYPE 5
	MONOTUBE BASE, POLE, X' ARM		ELECTRICAL PULL BOX TYPE 7
	NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED		PEDESTRIAN HEAD
	CONDUIT SPECIAL 3", UNLESS OTHERWISE NOTED		APS PUSH BUTTON/PUSH BUTTON
			LANE DESIGNATION FOR INFO ONLY

NOTE: OTHER LEGEND CELLS SHOWN ON TRAFFIC SIGNAL LEGEND SHEET

MARK	DESIGNED BY: AECOM	DATE	BY
60631225P	JENNING	2023-10-30	AE
PLAN REVISION 6	REVISION		
10/30/23			
Scale: 1 IN=40 FT			

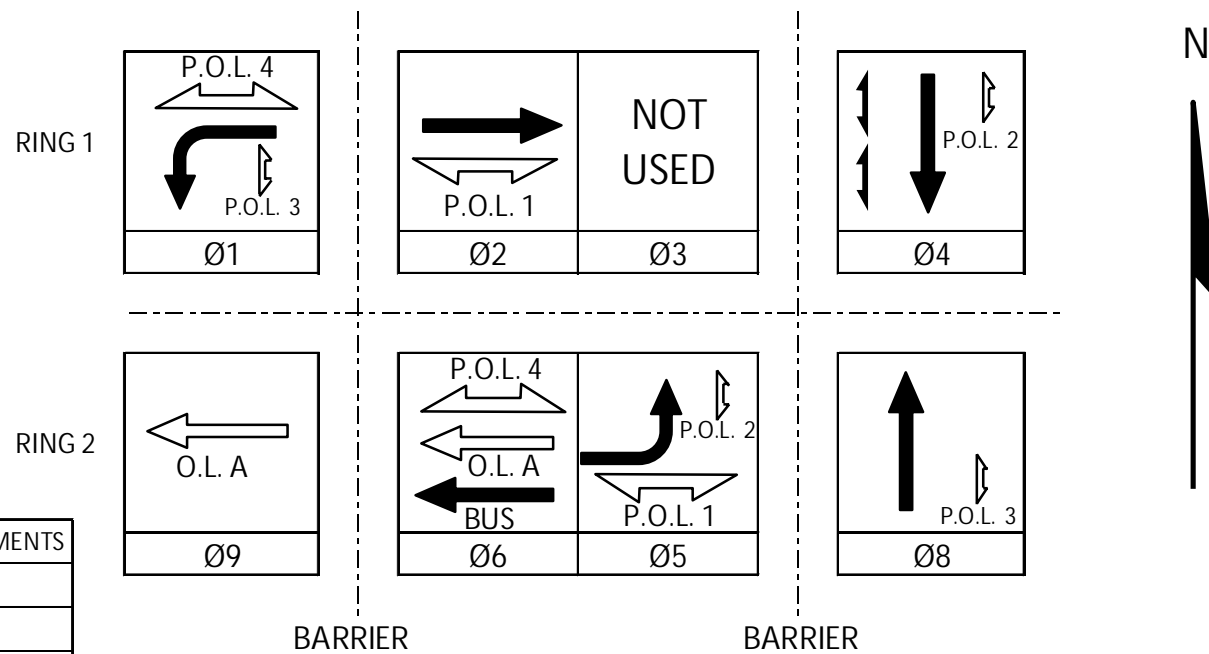
SIGNAL PLAN: MINERAL POINT ROAD AT WESTFIELD ROAD  
 BUS RAPID TRANSIT  
 CITY OF MADISON  
 60631225P  
 CONTRACT NO: 60631225C  
 CITY OF MADISON, DANE COUNTY, WI



60631225P  
 S-4F

REVISED BY JWJ 10/30/2023

HEAD NUMBERS	FLASH
Ø1	10,11
Ø2	1,2,3
Ø3	
Ø4	15,16,17
Ø5	4,5,6
Ø6	18
Ø7	
Ø8	12,13,14
Ø2P	
Ø4P	4A,4B,4C,4D
Ø6P	
Ø8P	
OL ASSIGNMENTS	
OLA	7,8,9
POL1	2A,2B
POL2	8C,8D
POL3	8A,8B
POL4	6A,6B



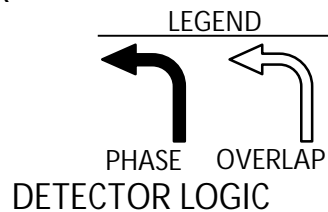
### CONTROLLER LOGIC

PHASE NUMBER	PHASE LOCKING	DUAL ENTRY W / Ø	PHASE RECALL	PHASE ACTIVE
1		9		X
2	X	6	MIN	X
3				
4		8		X
5		2		X
6	X	2	MIN	X
7				
8		4		X
9		1		X

### EMERGENCY VEHICLE PREEMPTION SEQUENCE

EMERGENCY VEHICLE PREEMPTOR	A	B	C	D
MOVEMENT				
PHASE	2+5	6+1		

AFTER PREEMPTION SEQUENCE 1+6 OR 2+5, CONTROLLER SHALL RETURN TO PHASES 2+5.



### TYPE OF INTERCONNECT/COMMUNICATION

NONE	
CLOSED LOOP	
TWISTED PAIR	
FIBER OPTIC*	X
FIBER OPTIC (ETHERNET)	
RADIO	
CELL MODEM	

### TYPE OF COORDINATION

NONE	
TBC	X
TRAFFIC RESPONSIVE	
ADAPTIVE	
*LOCATION OF MASTER CONTROLLER NO:	S-
SIGNAL SYSTEM NO:	SS-

### TYPE OF LIGHTING

BY OTHER AGENCY	
IN TRAFFIC CABINET	
IN SEPARATE LIGHTING CABINET	X

### TYPE OF PRE-EMPT

NONE	
RAILROAD	
EMERGENCY VEHICLE	
GTT	X
TOMAR	
HARDWARE	
OTHER	
CONFIRMATION LIGHTS	
LIFT BRIDGE	
QUEUE DETECTION	

DETECTOR INPUT	3	1	7	5	11	9	15	13
DETECTOR #(S)	11	22	24	26	41	43	45	51
PHASE CALLED	1	2	2	2	4	4	4	5
PHASE EXTENDED	1	2	2	2	4	4	4	5
DISCONNECT TIME								
CALLING DELAY								
EXTENSION STRETCH		X			X	X		
LOOP FUNCTION								

DETECTOR INPUT	4	2	8	6	12	10	16	14
DETECTOR #(S)	21	23	25	27	42	44	401	61
PHASE CALLED	2	2	2		4	4	4	6
PHASE EXTENDED	2	2	2		4	4	4	6
DISCONNECT TIME								
CALLING DELAY								
EXTENSION STRETCH	X	X						X
LOOP FUNCTION								

19	17	23	21	27	25	31	29
62	64	66	601	603	605		
6	6	6		6	6		
6	6	6		6	6		
X							
			SYS				

20	18	24	22	28	26	32	30
63	65	67	602	604			
6	6			6			
6	6			6			
X							
			SYS				

35	33	39	37	43	41	47	45
V81							
8							
8							

36	34	40	38	44	42	48	46

DETECTOR INPUT	
DETECTOR #(S)	
PHASE CALLED	
PHASE EXTENDED	
DISCONNECT TIME	
CALLING DELAY	
EXTENSION STRETCH	
LOOP FUNCTION	

DETECTOR INPUT	
DETECTOR #(S)	
PHASE CALLED	
PHASE EXTENDED	
DISCONNECT TIME	
CALLING DELAY	
EXTENSION STRETCH	
LOOP FUNCTION	

### GENERAL NOTES:

1.

2.

EB MINERAL POINT ROAD AT WESTFIELD ROAD	
CITY OF MADISON	
DANE COUNTY	
SIGNAL NO:	CABINET TYPE: TS2-
	CONTROLLER TYPE: COBALT
DATE: OCTOBER 2022	PAGE NUMBER: 3 OF 3

PLAN REVISION	REVISION	DATE	BY
60631225P		11/10/2023	AE

60631225P  
CITY OF MADISON, DANE COUNTY, WI  
CONTRACT NO: 60631225C

SEQUENCE OF OPERATION: MINERAL POINT ROAD AT WESTFIELD ROAD  
BUS RAPID TRANSIT

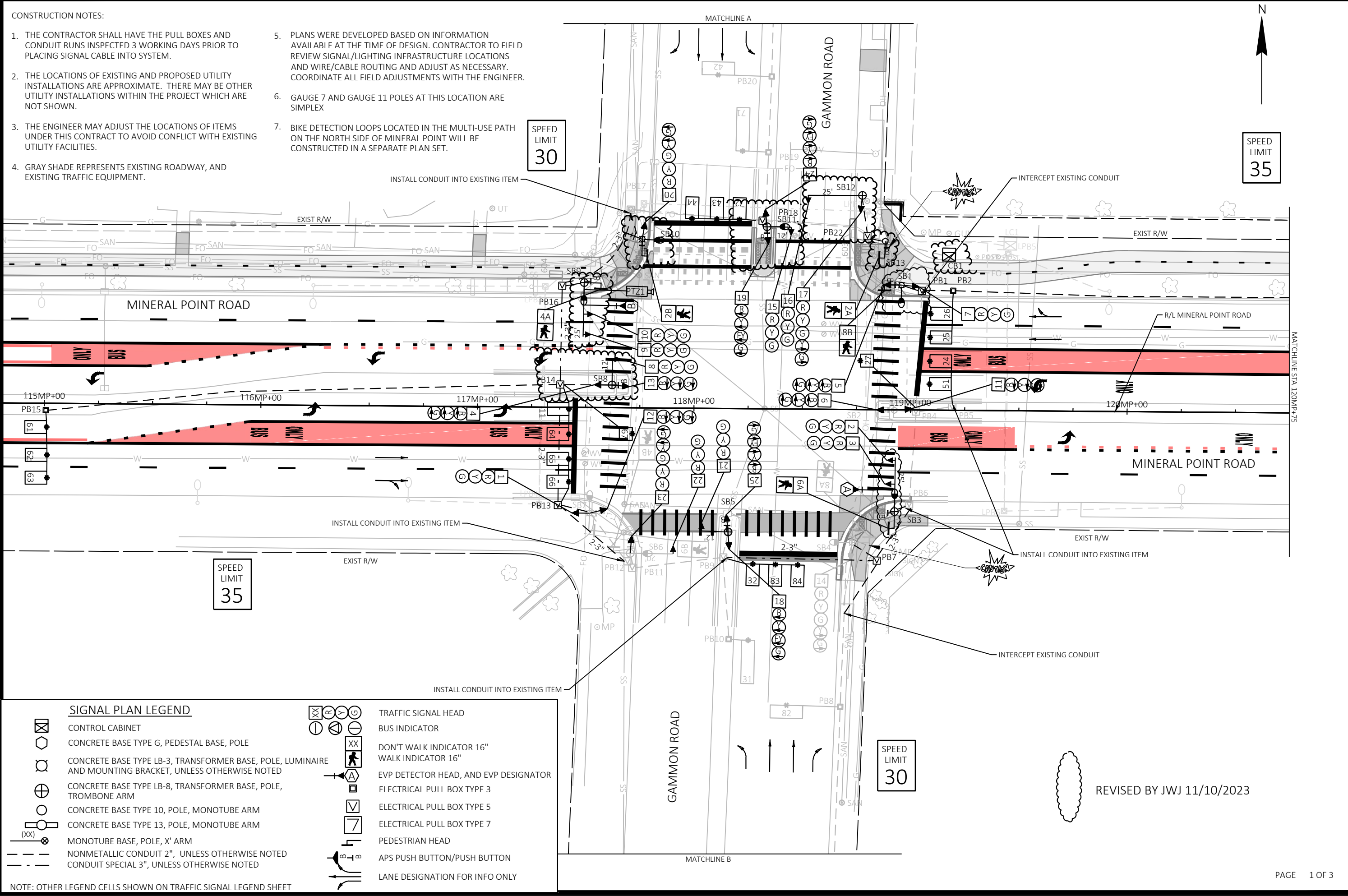


60631225P

S-4H

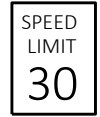
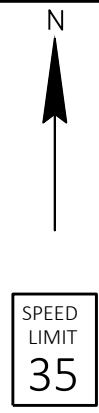
CONSTRUCTION NOTES:

1. THE CONTRACTOR SHALL HAVE THE PULL BOXES AND CONDUIT RUNS INSPECTED 3 WORKING DAYS PRIOR TO PLACING SIGNAL CABLE INTO SYSTEM.
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4. GRAY SHADE REPRESENTS EXISTING ROADWAY, AND EXISTING TRAFFIC EQUIPMENT.
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6. GAUGE 7 AND GAUGE 11 POLES AT THIS LOCATION ARE SIMPLEX
7. BIKE DETECTION LOOPS LOCATED IN THE MULTI-USE PATH ON THE NORTH SIDE OF MINERAL POINT ROAD WILL BE CONSTRUCTED IN A SEPARATE PLAN SET.



SIGNAL PLAN LEGEND	
	CONTROL CABINET
	CONCRETE BASE TYPE G, PEDESTAL BASE, POLE
	CONCRETE BASE TYPE LB-3, TRANSFORMER BASE, POLE, LUMINAIRE AND MOUNTING BRACKET, UNLESS OTHERWISE NOTED
	CONCRETE BASE TYPE LB-8, TRANSFORMER BASE, POLE, TROMBONE ARM
	CONCRETE BASE TYPE 10, POLE, MONOTUBE ARM
	CONCRETE BASE TYPE 13, POLE, MONOTUBE ARM
	MONOTUBE BASE, POLE, X' ARM
	NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED
	CONDUIT SPECIAL 3", UNLESS OTHERWISE NOTED
	TRAFFIC SIGNAL HEAD
	BUS INDICATOR
	DON'T WALK INDICATOR 16" WALK INDICATOR 16"
	EVP DETECTOR HEAD, AND EVP DESIGNATOR
	ELECTRICAL PULL BOX TYPE 3
	ELECTRICAL PULL BOX TYPE 5
	ELECTRICAL PULL BOX TYPE 7
	PEDESTRIAN HEAD
	APS PUSH BUTTON/PUSH BUTTON
	LANE DESIGNATION FOR INFO ONLY

NOTE: OTHER LEGEND CELLS SHOWN ON TRAFFIC SIGNAL LEGEND SHEET



REVISED BY JWJ 11/10/2023

MARK	DESIGNED BY: AECOM	DATE: 2023-11-10	SCALE: 1 IN=40 FT
PLAN REVISION 6	REVISION		
11/10/23	AE		

60631225P  
 CITY OF MADISON, DANE COUNTY, WI  
 CONTRACT NO: 60631225C  
 SIGNAL PLAN: MINERAL POINT ROAD AT GAMMON ROAD  
 BUS RAPID TRANSIT  
 CITY OF MADISON  
 60631225P  
 S-5F



PROJECT ID: 60631225P  
 INTERSECTION: MINERAL POINT RD & GAMMON RD

SIGNAL WIRE COLOR CODING	BLK-BLACK	RED-RED	GRN-GREEN
	WHT-WHITE	BLU-BLUE	ORG-ORANGE

DATE: Nov-22

CB1 TO	AWG 14 # OF COND.	HEAD NO.	SIGNAL INDICATION WIRE COLOR										PED BUTTON	OTHER		
			RED	YELLOW	GREEN	<RED>	<YELLOW>	<FLASH YEL>	<GREEN>	" - "	" Δ "	" I "			D/WALK	WALK
SB1	12	5														
		7	RED	ORG	GRN	RED/BLK	ORG/BLK									
		8B PB										BLK	BLU			WHT/BLK
SB2	EXISTING	6	MATCH EXISTING													
		11	MATCH EXISTING													
		PB	EXISTING													
SB3	12	2	RED	ORG	GRN											
		3	RED	ORG	GRN											
		6A										BLK	BLU			
		PB														WHT/BLK
SB4	EXISTING	14	EXISTING													
		8A	EXISTING													
		PB	EXISTING													
SB5	15	18				RED/BLK	ORG/BLK	BLU/BLK	GRN/BLK							
		21	RED	ORG	GRN											
		25				RED/WHT	BLK	BLU	GRN/WHT							
		PB														WHT/BLK
SB6	12	22	RED	ORG	GRN											
		23	RED	ORG	GRN		BLK		BLU							
		6B	EXISTING													
		PB	EXISTING													
SB7	12	1	RED	ORG	GRN											
		12				RED/BLK	ORG/BLK		GRN/BLK							
		4B	EXISTING													
		PB	EXISTING													
SB8	15	4				RED/BLK	ORG/BLK		GRN/BLK							
		8	RED	ORG	GRN											
		13				BLU	BLU/BLK		BLK/WHT							
		PB														WHT/BLK
SB9	12	9	RED	ORG	GRN											
		10	RED	ORG	GRN											
		4A PB									BLK	BLU				WHT/BLK
SB10	12	20	RED	ORG	GRN		ORG/BLK		GRN/BLK							
		2B									BLK	BLU				
		PB														WHT/BLK
SB11	15	15	RED	ORG	GRN											
		19				RED/BLK	ORG/BLK	BLU/BLK	GRN/BLK							
		24 PB				RED/WHT	BLK	BLU	GRN/WHT							WHT/BLK
SB12	7	16	RED	ORG	GRN											
		17	RED	ORG	GRN			BLK		WHT/BLK						
SB13	7	2A											BLK	BLU		
		PB														WHT/BLK

EQUIPMENT GROUNDING CONDUCTORS 10 AWG GRN XLP	
FROM	TO
CB1	SB1
SB1	SB2
SB2	SB3
SB3	SB4
SB4	SB5
SB5	SB6
SB6	SB7
SB7	SB8
SB8	SB9
SB9	SB10
SB10	SB11
SB11	SB12
SB12	CB1

- NOTES:
- USE WHITE CONDUCTOR IN THE SIGNAL CABLE AS THE GROUNDED CONDUCTOR FOR ALL TRAFFIC SIGNAL INDICATIONS.
  - ENSURE THE GROUNDED CONDUCTOR IN THE FEEDER CABLE AND THE POLE CABLES ARE BOTH 18" LONGER THAN THE UNGROUNDED CONDUCTORS.
  - AT THE SIGNAL BASES, CONNECT ONE TERMINAL FROM THE PEDESTRIAN PUSH BUTTONS TO THE COLOR INDICATED IN THE CHART. CONNECT THE OTHER TERMINAL TO THE GROUNDED CONDUCTOR.
  - RECONNECT THE GROUNDING CONDUCTORS WHEREVER THE CIRCUIT HAS BEEN INTERRUPTED TO ENSURE THE GROUNDING CIRCUIT IS COMPLETE.

LIGHTING UF 8 AWG W/ GROUND	
FROM	TO
CB1	SB1
SB1	SB3
SB3	SB4
CB1	SB11
SB11	SB10
SB10	SB9
SB9	SB7

EMERGENCY VEHICLE PREEMPTION WITH CONFIRMATION LIGHTS		
HEAD	FROM	TO
A	CB1	SB3
B	CB1	SB9

WIRELESS ANTENNA	
FROM	TO
CB1	SB10

Mark	DESIGNED BY: AECOM	DATE: 11/10/2023
REVISION	PLAN REVISION 6	DATE: 11/10/23
Scale: NTS		

60631225P  
 CITY OF MADISON, DANE COUNTY, WI  
 CONTRACT NO: 60631225C  
 CABLE ROUTING: MINERAL POINT ROAD AT GAMMON ROAD  
 BUS RAPID TRANSIT  
 CITY OF MADISON



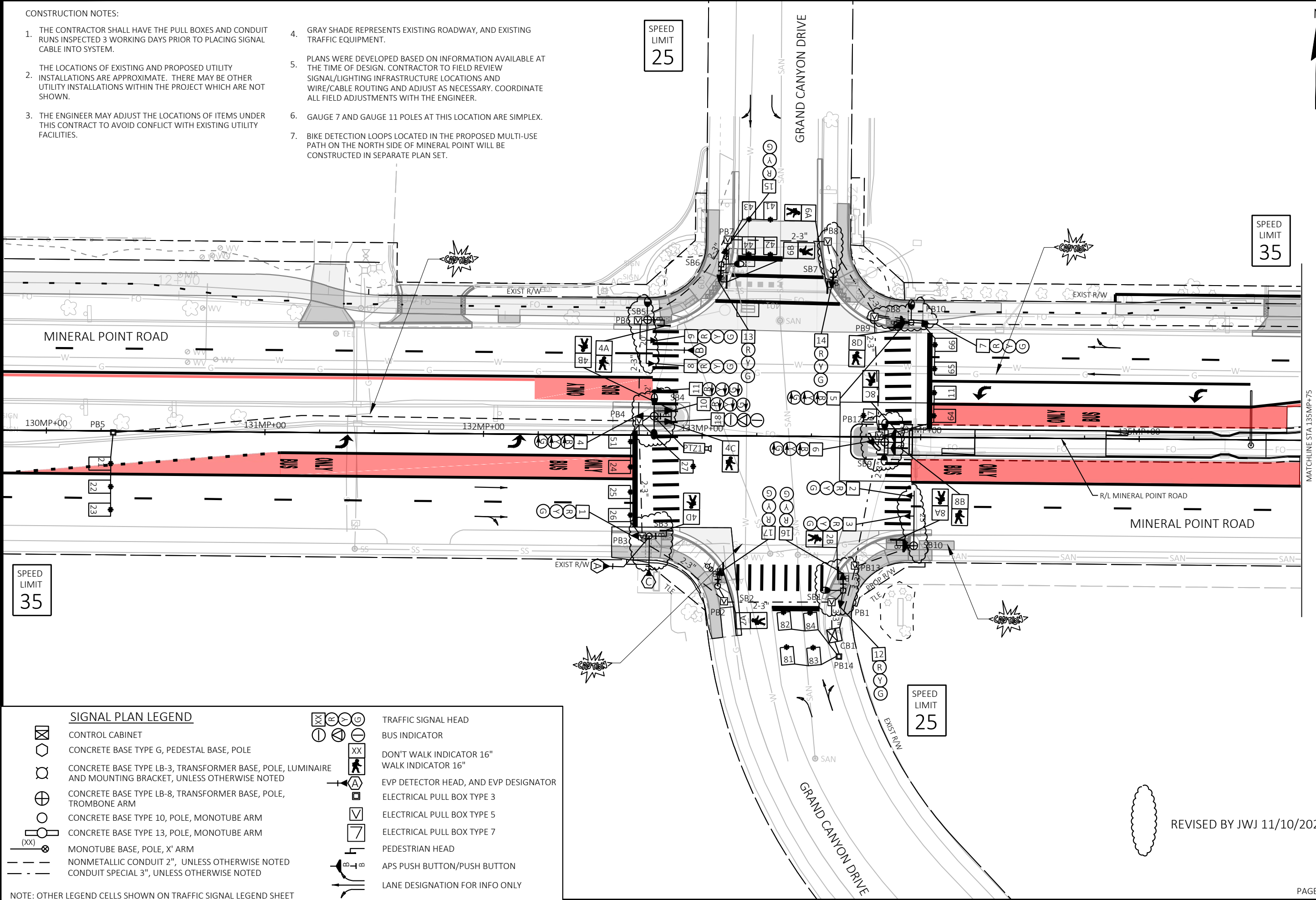
60631225P

S-51



CONSTRUCTION NOTES:

1. THE CONTRACTOR SHALL HAVE THE PULL BOXES AND CONDUIT RUNS INSPECTED 3 WORKING DAYS PRIOR TO PLACING SIGNAL CABLE INTO SYSTEM.
2. THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATIONS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT WHICH ARE NOT SHOWN.
3. THE ENGINEER MAY ADJUST THE LOCATIONS OF ITEMS UNDER THIS CONTRACT TO AVOID CONFLICT WITH EXISTING UTILITY FACILITIES.
4. GRAY SHADE REPRESENTS EXISTING ROADWAY, AND EXISTING TRAFFIC EQUIPMENT.
5. PLANS WERE DEVELOPED BASED ON INFORMATION AVAILABLE AT THE TIME OF DESIGN. CONTRACTOR TO FIELD REVIEW SIGNAL/LIGHTING INFRASTRUCTURE LOCATIONS AND WIRE/CABLE ROUTING AND ADJUST AS NECESSARY. COORDINATE ALL FIELD ADJUSTMENTS WITH THE ENGINEER.
6. GAUGE 7 AND GAUGE 11 POLES AT THIS LOCATION ARE SIMPLEX.
7. BIKE DETECTION LOOPS LOCATED IN THE PROPOSED MULTI-USE PATH ON THE NORTH SIDE OF MINERAL POINT WILL BE CONSTRUCTED IN SEPARATE PLAN SET.



SPEED LIMIT 35

SPEED LIMIT 25

SPEED LIMIT 35

SPEED LIMIT 25

SIGNAL PLAN LEGEND

	CONTROL CABINET		TRAFFIC SIGNAL HEAD
	CONCRETE BASE TYPE G, PEDESTAL BASE, POLE		BUS INDICATOR
	CONCRETE BASE TYPE LB-3, TRANSFORMER BASE, POLE, LUMINAIRE AND MOUNTING BRACKET, UNLESS OTHERWISE NOTED		DON'T WALK INDICATOR 16" WALK INDICATOR 16"
	CONCRETE BASE TYPE LB-8, TRANSFORMER BASE, POLE, TROMBONE ARM		EVP DETECTOR HEAD, AND EVP DESIGNATOR
	CONCRETE BASE TYPE 10, POLE, MONOTUBE ARM		ELECTRICAL PULL BOX TYPE 3
	CONCRETE BASE TYPE 13, POLE, MONOTUBE ARM		ELECTRICAL PULL BOX TYPE 5
	MONOTUBE BASE, POLE, X' ARM		ELECTRICAL PULL BOX TYPE 7
	NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED		PEDESTRIAN HEAD
	CONDUIT SPECIAL 3", UNLESS OTHERWISE NOTED		APS PUSH BUTTON/PUSH BUTTON
			LANE DESIGNATION FOR INFO ONLY

NOTE: OTHER LEGEND CELLS SHOWN ON TRAFFIC SIGNAL LEGEND SHEET

REVISED BY JWJ 11/10/2023

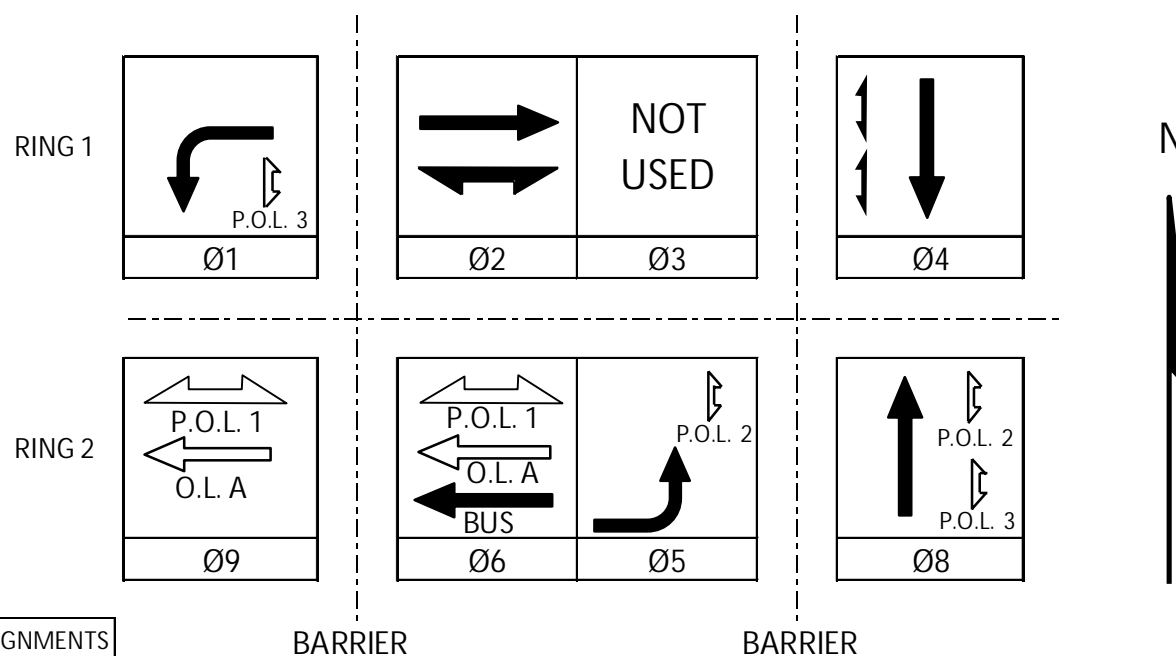
MARK	AE	PLAN REVISION 6	11/10/23	DATE	BY
60631225P					

60631225P  
CITY OF MADISON, DANE COUNTY, WI  
CONTRACT NO: 60631225C

SIGNAL PLAN: MINERAL POINT ROAD AT GRAND CANYON DRIVE  
BUS RAPID TRANSIT  
CITY OF MADISON

60631225P  
S-6H

	HEAD NUMBERS	FLASH
Ø1	10,11	R
Ø2	1,2,3	R
Ø3		
Ø4	15,16,17	R
Ø5	4,5,6	R
Ø6	18	R
Ø7		
Ø8	12,13,14	R
Ø2P	2A,2B	
Ø4P	4A,4B,4C,4D	
Ø6P		
Ø8P	8A,8B,8C,8D	
OLA	7,8,9	OL ASSIGNMENTS
POL1	6A, 6B	6,9
POL2	8C,8D	5,8
POL3	8A,8B	8,1



**CONTROLLER LOGIC**

PHASE NUMBER	PHASE LOCKING	DUAL ENTRY W / Ø	PHASE RECALL	PHASE ACTIVE
1		9		X
2	X	6	MIN	X
3				
4		8		X
5		2		X
6	X	2	MIN	X
7				
8		4		X
9		1		X

**EMERGENCY VEHICLE PREEMPTION SEQUENCE**

EMERGENCY VEHICLE PREEMPTOR	A	B	C	D
MOVEMENT				
PHASE	2+5	6+1	4+8	

AFTER PREEMPTION SEQUENCE 2+5 OR 1+6, CONTROLLER SHALL RETURN TO PHASES 2+6.  
 AFTER PREEMPTION SEQUENCE 4+8, CONTROLLER SHALL RETURN TO PHASES 4+8.

**DETECTOR LOGIC**

DETECTOR INPUT	3	1	7	5	11	9	15	13
DETECTOR #(S)	11	22	24	26	41	43	401	51
PHASE CALLED	1	2	2	2	4	4	4	5
PHASE EXTENDED	1	2	2	2	4	4	4	5
DISCONNECT TIME								
CALLING DELAY								
EXTENSION STRETCH		X						
LOOP FUNCTION								

DETECTOR INPUT	4	2	8	6	12	10	16	14
DETECTOR #(S)	21	23	25	27	42	44		
PHASE CALLED	2	2	2		4	4		
PHASE EXTENDED	2	2	2		4	4		
DISCONNECT TIME								
CALLING DELAY								
EXTENSION STRETCH	X	X						
LOOP FUNCTION								

DETECTOR INPUT	19	17	23	21	27	25	31	29
DETECTOR #(S)	61	63	65	67	602	601	81	83
PHASE CALLED	6	6	6		6	6	8	8
PHASE EXTENDED	6	6	6		6	6	8	8
DISCONNECT TIME								
CALLING DELAY								
EXTENSION STRETCH	X	X						
LOOP FUNCTION								

DETECTOR INPUT	20	18	24	22	28	26	32	30
DETECTOR #(S)	62	64	66	601	603	602	82	84
PHASE CALLED	6	6	6		6	6	8	8
PHASE EXTENDED	6	6	6		6	6	8	8
DISCONNECT TIME								
CALLING DELAY								
EXTENSION STRETCH	X							
LOOP FUNCTION				SYS				

TYPE OF INTERCONNECT/COMMUNICATION	
NONE	
CLOSED LOOP	
TWISTED PAIR	
FIBER OPTIC*	X
FIBER OPTIC (ETHERNET)	
RADIO	
CELL MODEM	

TYPE OF COORDINATION	
NONE	
TBC	X
TRAFFIC RESPONSIVE	
ADAPTIVE	
*LOCATION OF MASTER CONTROLLER NO:	S-
SIGNAL SYSTEM NO:	SS-

TYPE OF LIGHTING	
BY OTHER AGENCY	
IN TRAFFIC CABINET	X
IN SEPARATE DOT LIGHTING CABINET	

TYPE OF PRE-EMPT	
NONE	
RAILROAD	
EMERGENCY VEHICLE	X
GTT	
TOMAR	
HARDWARE	
OTHER	
CONFIRMATION LIGHTS	
LIFT BRIDGE	
QUEUE DETECTION	

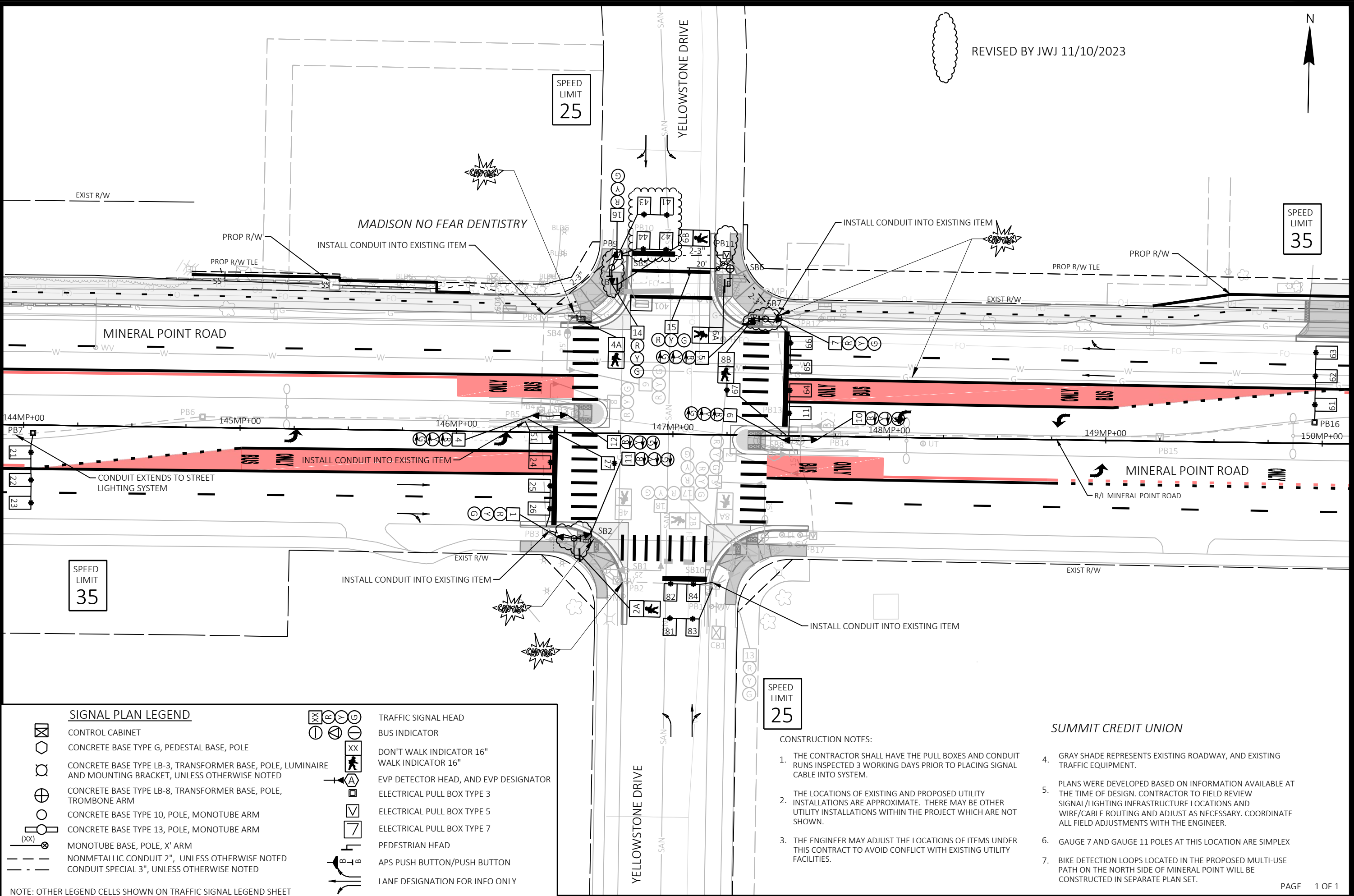
**GENERAL NOTES:**

- 
- 
- 
- 

MINERAL POINT ROAD AT GRAND CANYON DRIVE	
CITY OF MADISON	
DANE COUNTY	
SIGNAL NO:	CABINET TYPE: TS2
CONTROLLER TYPE: COBALT	
DATE:	OCTOBER 2022 PAGE NUMBER: 3 OF 3

SEQUENCE OF OPERATION: MINERAL POINT ROAD AT GRAND CANYON DRIVE  
 BUS RAPID TRANSIT  
 CITY OF MADISON  
 CONTRACT NO: 60631225C  
 60631225P  
 CITY OF MADISON, DANE COUNTY, WI  
 PLAN REVISION 6  
 REVISION  
 DATE  
 BY  
 Scale: NTS  
 11/1/2023  
 Date  
 11/1/2023  
 Designed By: AECOM  
 60631225P

REVISED BY JWJ 11/10/2023



**SIGNAL PLAN LEGEND**

- CONTROL CABINET
- CONCRETE BASE TYPE G, PEDESTAL BASE, POLE
- CONCRETE BASE TYPE LB-3, TRANSFORMER BASE, POLE, LUMINAIRE AND MOUNTING BRACKET, UNLESS OTHERWISE NOTED
- CONCRETE BASE TYPE LB-8, TRANSFORMER BASE, POLE, TROMBONE ARM
- CONCRETE BASE TYPE 10, POLE, MONOTUBE ARM
- CONCRETE BASE TYPE 13, POLE, MONOTUBE ARM
- MONOTUBE BASE, POLE, X' ARM
- NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED
- CONDUIT SPECIAL 3", UNLESS OTHERWISE NOTED

- TRAFFIC SIGNAL HEAD
- BUS INDICATOR
- DON'T WALK INDICATOR 16"
- WALK INDICATOR 16"
- EVP DETECTOR HEAD, AND EVP DESIGNATOR
- ELECTRICAL PULL BOX TYPE 3
- ELECTRICAL PULL BOX TYPE 5
- ELECTRICAL PULL BOX TYPE 7
- PEDESTRIAN HEAD
- APS PUSH BUTTON/PUSH BUTTON
- LANE DESIGNATION FOR INFO ONLY

NOTE: OTHER LEGEND CELLS SHOWN ON TRAFFIC SIGNAL LEGEND SHEET

SPEED LIMIT 25

- CONSTRUCTION NOTES:**
1. THE CONTRACTOR SHALL HAVE THE PULL BOXES AND CONDUIT RUNS INSPECTED 3 WORKING DAYS PRIOR TO PLACING SIGNAL CABLE INTO SYSTEM.
  2. THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATIONS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT WHICH ARE NOT SHOWN.
  3. THE ENGINEER MAY ADJUST THE LOCATIONS OF ITEMS UNDER THIS CONTRACT TO AVOID CONFLICT WITH EXISTING UTILITY FACILITIES.

**SUMMIT CREDIT UNION**

4. GRAY SHADE REPRESENTS EXISTING ROADWAY, AND EXISTING TRAFFIC EQUIPMENT.
5. PLANS WERE DEVELOPED BASED ON INFORMATION AVAILABLE AT THE TIME OF DESIGN. CONTRACTOR TO FIELD REVIEW SIGNAL/LIGHTING INFRASTRUCTURE LOCATIONS AND WIRE/CABLE ROUTING AND ADJUST AS NECESSARY. COORDINATE ALL FIELD ADJUSTMENTS WITH THE ENGINEER.
6. GAUGE 7 AND GAUGE 11 POLES AT THIS LOCATION ARE SIMPLE
7. BIKE DETECTION LOOPS LOCATED IN THE PROPOSED MULTI-USE PATH ON THE NORTH SIDE OF MINERAL POINT WILL BE CONSTRUCTED IN SEPARATE PLAN SET.

MARK	DESIGNED BY: AECOM	DATE	BY
PLAN REVISION 6	REVISION	11/10/23	AE
60631225P	Date: 2023-11-10		
Scale: 1 IN=40 FT			

SIGNAL PLAN: MINERAL POINT ROAD AT YELLOWSTONE DRIVE  
 BUS RAPID TRANSIT  
 CITY OF MADISON

60631225P  
 CITY OF MADISON, DANE COUNTY, WI  
 CONTRACT NO: 60631225C

60631225P  
 S-7F



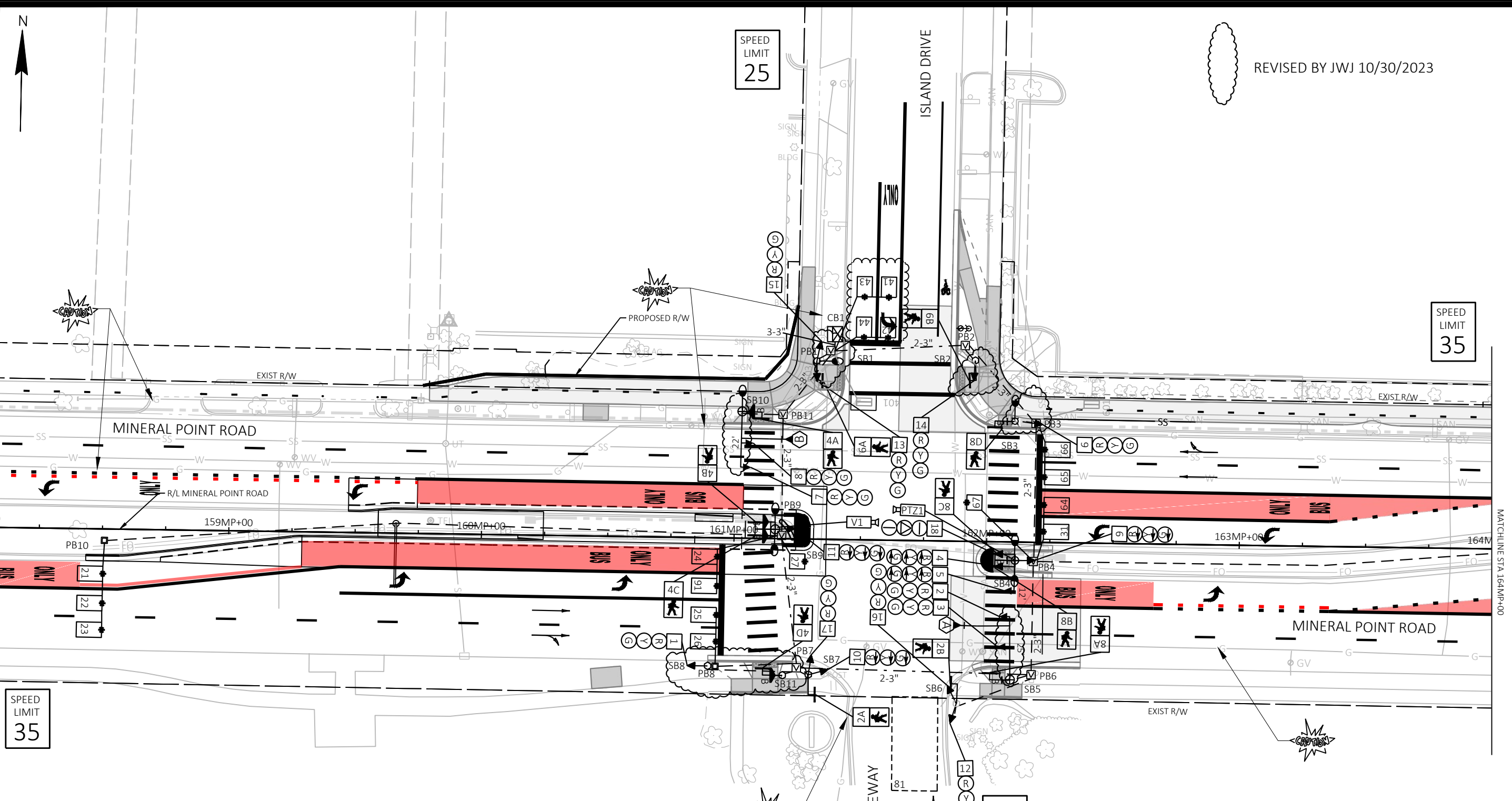




REVISED BY JWJ 10/30/2023

SPEED LIMIT 25

SPEED LIMIT 35



SPEED LIMIT 35

SPEED LIMIT 25

**SIGNAL PLAN LEGEND**

	CONTROL CABINET		TRAFFIC SIGNAL HEAD
	CONCRETE BASE TYPE G, PEDESTAL BASE, POLE		BUS INDICATOR
	CONCRETE BASE TYPE LB-3, TRANSFORMER BASE, POLE, LUMINAIRE AND MOUNTING BRACKET, UNLESS OTHERWISE NOTED		DON'T WALK INDICATOR 16" WALK INDICATOR 16"
	CONCRETE BASE TYPE LB-8, TRANSFORMER BASE, POLE, TROMBONE ARM		EVP DETECTOR HEAD, AND EVP DESIGNATOR
	CONCRETE BASE TYPE 10, POLE, MONOTUBE ARM		ELECTRICAL PULL BOX TYPE 3
	CONCRETE BASE TYPE 13, POLE, MONOTUBE ARM		ELECTRICAL PULL BOX TYPE 5
	MONOTUBE BASE, POLE, X' ARM		ELECTRICAL PULL BOX TYPE 7
	NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED		PEDESTRIAN HEAD
	CONDUIT SPECIAL 3", UNLESS OTHERWISE NOTED		APS PUSH BUTTON/PUSH BUTTON
			LANE DESIGNATION FOR INFO ONLY

NOTE: OTHER LEGEND CELLS SHOWN ON TRAFFIC SIGNAL LEGEND SHEET

**CONSTRUCTION NOTES:**

1. THE CONTRACTOR SHALL HAVE THE PULL BOXES AND CONDUIT RUNS INSPECTED 3 WORKING DAYS PRIOR TO PLACING SIGNAL CABLE INTO SYSTEM.
2. THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATIONS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT WHICH ARE NOT SHOWN.
3. THE ENGINEER MAY ADJUST THE LOCATIONS OF ITEMS UNDER THIS CONTRACT TO AVOID CONFLICT WITH EXISTING UTILITY FACILITIES.
4. GRAY SHADE REPRESENTS EXISTING ROADWAY, AND EXISTING TRAFFIC EQUIPMENT.
5. SB6 IS TO BE REUSED FROM EXISTING. NO NEW R/W IS BEING ACQUIRED IN SOUTHEAST QUADRANT.
6. PLANS WERE DEVELOPED BASED ON INFORMATION AVAILABLE AT THE TIME OF DESIGN. CONTRACTOR TO FIELD REVIEW SIGNAL/LIGHTING INFRASTRUCTURE LOCATIONS AND WIRE/CABLE ROUTING AND ADJUST AS NECESSARY. COORDINATE ALL FIELD ADJUSTMENTS WITH THE ENGINEER.
7. GAUGE 7 AND GAUGE 11 POLES AT THIS LOCATION ARE SIMPLEX
8. BIKE DETECTION LOOPS LOCATED IN THE PROPOSED MULTI-USE PATH ON THE NORTH SIDE OF MINERAL POINT WILL BE CONSTRUCTED IN SEPARATE PLAN SET.

MARK	DESIGNED BY: AECOM	DATE: 2023-10-30	Scale: 1 IN=40 FT
PLAN REVISION 6	REVISION	DATE: 10/30/23	AE
			BY

60631225P  
 CITY OF MADISON  
 BUS RAPID TRANSIT  
 SIGNAL PLAN: MINERAL POINT ROAD AT ISLAND DRIVE  
 CITY OF MADISON, DANE COUNTY, WI  
 CONTRACT NO: 60631225C



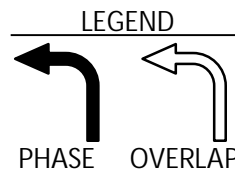
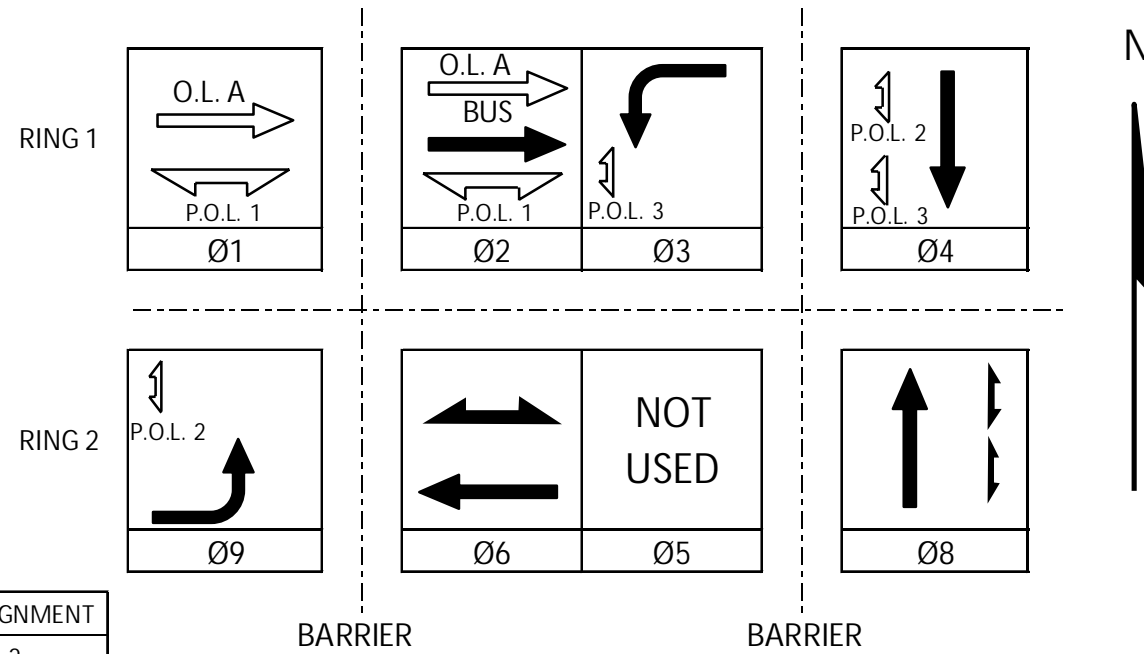
60631225P

S-8H

HEAD NUMBERS	FLASH
Ø1	
Ø2	18
Ø3	9,10,11
Ø4	15,16,17
Ø5	
Ø6	6,7,8
Ø7	
Ø8	12,13,14
Ø9	4,5
Ø2P	
Ø4P	
Ø6P	6A,6B
Ø8P	8A,8B,8C,8D
OLA	1,2,3
POL1	2A,2B
POL2	4A,4B
POL3	4C,4D

OL ASSIGNMENT
1,2
1,2
4,9
3,4



DETECTOR LOGIC

DETECTOR INPUT	3	1	7	5	11	9	15	13
DETECTOR #(S)	21	23	25	27	31	41	43	401
PHASE CALLED	2	2	2		3	4	4	4
PHASE EXTENDED	2	2	2		3	4	4	4
DISCONNECT TIME								
CALLING DELAY								
EXTENSION STRETCH								
LOOP FUNCTION								

DETECTOR INPUT	4	2	8	6	12	10	16	14
DETECTOR #(S)	22	24	26			42	44	
PHASE CALLED	2	2	2			4	4	
PHASE EXTENDED	2	2	2			4	4	
DISCONNECT TIME								
CALLING DELAY								
EXTENSION STRETCH								
LOOP FUNCTION								

19	17	23	21	27	25	31	29
61	63	65	67	601	603		91
6	6	6		6	6		9
6	6	6		6	6		9

20	18	24	22	28	26	32	30
62	64	66		602			
6	6	6		6			
6	6	6		6			

35	33	39	37	43	41	47	45
81V							
8							
8							

36	34	40	38	44	42	48	46

CONTROLLER LOGIC

PHASE NUMBER	PHASE LOCKING	DUAL ENTRY W / Ø	PHASE RECALL	PHASE ACTIVE
1		9		X
2	X	6	MIN	X
3		6		X
4		8		X
5				
6	X	2	MIN	X
7				
8		4		X
9		1		X

EMERGENCY VEHICLE PREEMPTION SEQUENCE

EMERGENCY VEHICLE PREEMPTOR	A	B	C	D
MOVEMENT				
PHASE	2+9	6+3		

AFTER PREEMPTION SEQUENCE 2+9 OR 6+3, CONTROLLER SHALL RETURN TO PHASES 2+9.

TYPE OF INTERCONNECT/COMMUNICATION	
NONE	
CLOSED LOOP	
TWISTED PAIR	
FIBER OPTIC*	X
FIBER OPTIC (ETHERNET)	
RADIO	
CELL MODEM	

TYPE OF COORDINATION	
NONE	
TBC	X
TRAFFIC RESPONSIVE	
ADAPTIVE	
*LOCATION OF MASTER CONTROLLER NO:	S-
SIGNAL SYSTEM NO:	SS-

TYPE OF LIGHTING	
BY OTHER AGENCY	
IN TRAFFIC CABINET	X
IN SEPARATE DOT LIGHTING CABINET	

TYPE OF PRE-EMPT	
NONE	
RAILROAD	
EMERGENCY VEHICLE	
GTT	X
TOMAR	
HARDWIRE	
OTHER	
CONFIRMATION LIGHTS	
LIFT BRIDGE	
QUEUE DETECTION	

GENERAL NOTES:

- 
- 

MINERAL POINT ROAD AT ISLAND DRIVE	
CITY OF MADISON	
DANE COUNTY	
SIGNAL NO:	CABINET TYPE: TS2
CONTROLLER TYPE: COBALT	
DATE:	OCTOBER 2022
PAGE NUMBER:	3 OF 3

60631225P  
 CITY OF MADISON, DANE COUNTY, WI  
 CONTRACT NO: 60631225C  
 BUS RAPID TRANSIT  
 SEQUENCE OF OPERATION: MINERAL POINT ROAD AT ISLAND DRIVE  
 Scale: NTS  
 10/3/23  
 PLAN REVISION 6  
 REVISION DATE  
 11/10/2023  
 Mark  
 Designed By: AECOM  
 60631225P



60631225P  
S-8J

PROJECT ID: 60631225P  
 INTERSECTION: MINERAL POINT RD & ISLAND DR

SIGNAL WIRE COLOR CODING	BLK-BLACK WHT-WHITE	RED-RED BLU-BLUE	GRN-GREEN ORG-ORANGE
--------------------------	------------------------	---------------------	-------------------------

DATE: Nov-23

CB1 TO	AWG 14 # OF COND.	HEAD NO.	SIGNAL INDICATION WIRE COLOR										PED BUTTON	OTHER			
			RED	YELLOW	GREEN	<RED>	<YELLOW>	<FLASH YEL>	<GREEN>	" - "	" Δ "	" I "			D/WALK	WALK	
SB1	12	13	RED	ORG	GRN												
		15	RED/BLK	ORG/BLK	GRN/BLK												
		6A										BLK	BLU				
SB2	7	14	RED	ORG	GRN												
		6B										BLK	BLU				
SB3	12	6	RED	ORG	GRN												
		8D															
		PB												WHT/BLK			
SB4	19	4				RED	ORG		GRN								
		5				RED	ORG		GRN								
		9				RED/BLK	ORG/BLK		GRN/BLK								
		18								RED/WHT	BLK/RED	GRN/WHT					
		8B											BLK	BLU			
SB5	12	2	RED	ORG	GRN												
		3	RED	ORG	GRN												
		8A											BLK	BLU			
		PB													WHT/BLK		
SB6	12	12	RED	ORG	GRN												
		16	RED/BLK	ORG/BLK	GRN/BLK												
		2B											BLK	BLU			
SB7	12	10				RED/BLK	ORG/BLK		GRN/BLK								
		17	RED	ORG	GRN												
		2A											BLK	BLU			
SB8	7	1	RED	ORG	GRN												
SB9	12	11				RED	ORG		GRN								
		4B											BLK	BLU			
		4C											BLK/WHT	BLU/BLK			
		PB													WHT/BLK		
		PB													RED/BLK		
SB10	12	7	RED	ORG	GRN												
		8	RED	ORG	GRN												
		4A											BLK	BLU			
		PB													WHT/BLK		
SB11	7	4D															
		PB													WHT/BLK		

- NOTES:
- USE WHITE CONDUCTOR IN THE SIGNAL CABLE AS THE GROUNDED CONDUCTOR FOR ALL TRAFFIC SIGNAL INDICATIONS.
  - ENSURE THE GROUNDED CONDUCTOR IN THE FEEDER CABLE AND THE POLE CABLES ARE BOTH 18" LONGER THAN THE UNGROUNDED CONDUCTORS.
  - AT THE SIGNAL BASES, CONNECT ONE TERMINAL FROM THE PEDESTRIAN PUSH BUTTONS TO THE COLOR INDICATED IN THE CHART. CONNECT THE OTHER TERMINAL TO THE GROUNDED CONDUCTOR.

EQUIPMENT GROUNDING CONDUCTORS 10 AWG GRN XLP	
FROM	TO
CB1	SB1
SB1	SB2
SB2	SB3
SB3	SB4
SB4	SB5
SB5	SB6
SB6	SB7
SB7	SB11
SB11	SB8
SB8	SB9
SB9	SB10
SB10	CB1

LIGHTING UF 8 AWG W/ GROUND	
FROM	TO
CB1	SB1
SB1	SB3
SB3	SB4
CB1	SB10
SB10	SB9

EMERGENCY VEHICLE PREEMPTION WITH CONFIRMATION LIGHTS		
HEAD	FROM	TO
A	CB1	SB5
B	CB1	SB10

PTZ CAMERA		
HEAD	FROM	TO
PTZ1	CB1	SB4

VIDEO DETECTION		
HEAD	FROM	TO
V1	CB1	SB9

60631225P  
 CITY OF MADISON, DANE COUNTY, WI  
 CONTRACT NO: 60631225C  
 CABLE ROUTING: MINERAL POINT AT ISLAND DRIVE  
 BUS RAPID TRANSIT  
 CITY OF MADISON  
 PLAN REVISION 6  
 DATE 11/10/23  
 REVISION  
 DATE 11/10/2023  
 Scale: NTS  
 Mark  
 Designed By: AECOM  
 60631225P  
 FILE NAME: C:\OneDrive\AECOM\City of Madison BRT Quantities - Cost Quantities\Madison BRT MQ Plan Sheets.pptx  
 LAST PLOT DATE: 11/10/2023  
 60631225P  
 S-8K  
 REVISED BY JWJ 11/10/2023





CONSTRUCTION NOTES:

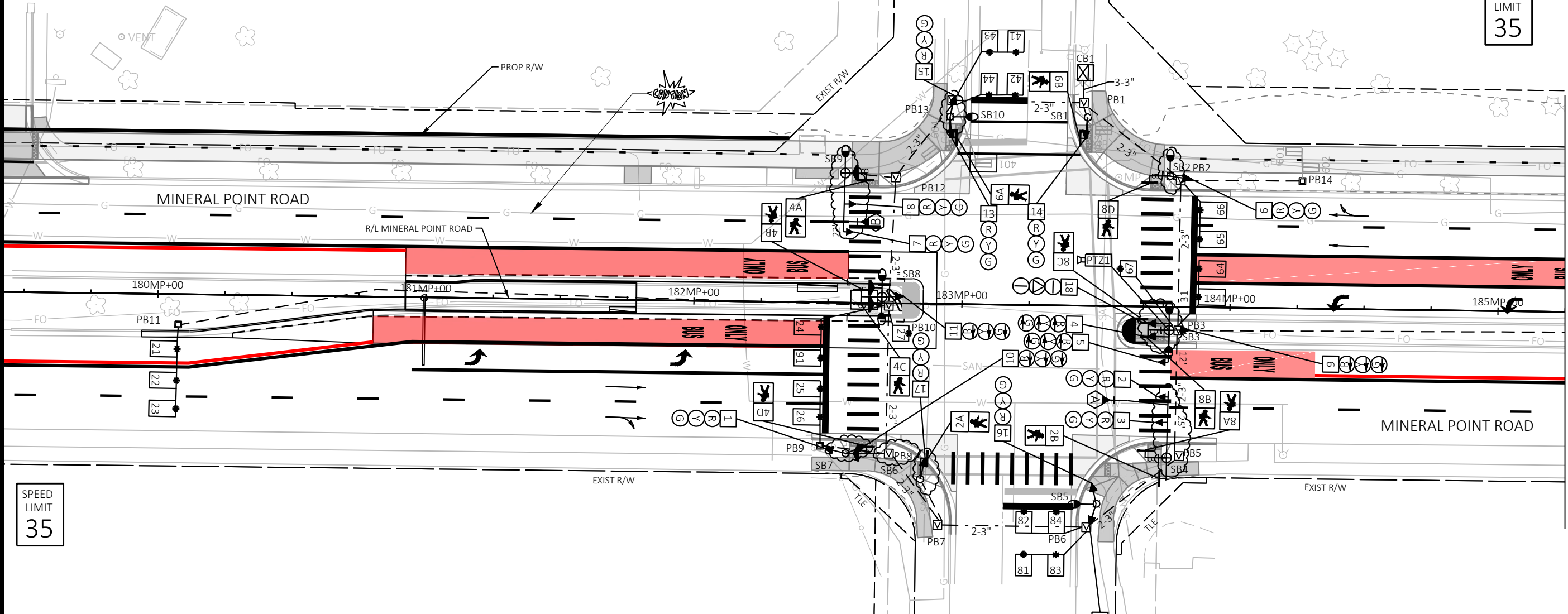
1. THE CONTRACTOR SHALL HAVE THE PULL BOXES AND CONDUIT RUNS INSPECTED 3 WORKING DAYS PRIOR TO PLACING SIGNAL CABLE INTO SYSTEM.
2. THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATIONS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT WHICH ARE NOT SHOWN.
3. THE ENGINEER MAY ADJUST THE LOCATIONS OF ITEMS UNDER THIS CONTRACT TO AVOID CONFLICT WITH EXISTING UTILITY FACILITIES.
4. GRAY SHADE REPRESENTS EXISTING ROADWAY, AND EXISTING TRAFFIC EQUIPMENT.
5. PLANS WERE DEVELOPED BASED ON INFORMATION AVAILABLE AT THE TIME OF DESIGN. CONTRACTOR TO FIELD REVIEW SIGNAL/LIGHTING INFRASTRUCTURE LOCATIONS AND WIRE/CABLE ROUTING AND ADJUST AS NECESSARY. COORDINATE ALL FIELD ADJUSTMENTS WITH THE ENGINEER.
6. GAUGE 7 AND GAUGE 11 POLES AT THIS LOCATION ARE SIMPLEX
7. BIKE DETECTION LOOPS LOCATED IN THE PROPOSED MULTI-USE PATH ON THE NORTH SIDE OF MINERAL POINT WILL BE CONSTRUCTED IN SEPARATE PLAN SET.

SPEED LIMIT 30

SPEED LIMIT 35

SPEED LIMIT 35

SPEED LIMIT 30



SIGNAL PLAN LEGEND

	CONTROL CABINET		TRAFFIC SIGNAL HEAD
	CONCRETE BASE TYPE G, PEDESTAL BASE, POLE		BUS INDICATOR
	CONCRETE BASE TYPE LB-3, TRANSFORMER BASE, POLE, LUMINAIRE AND MOUNTING BRACKET, UNLESS OTHERWISE NOTED		DON'T WALK INDICATOR 16" WALK INDICATOR 16"
	CONCRETE BASE TYPE LB-8, TRANSFORMER BASE, POLE, TROMBONE ARM		EVP DETECTOR HEAD, AND EVP DESIGNATOR
	CONCRETE BASE TYPE 10, POLE, MONOTUBE ARM		ELECTRICAL PULL BOX TYPE 3
	CONCRETE BASE TYPE 13, POLE, MONOTUBE ARM		ELECTRICAL PULL BOX TYPE 5
	MONOTUBE BASE, POLE, X' ARM		ELECTRICAL PULL BOX TYPE 7
	NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED		PEDESTRIAN HEAD
	CONDUIT SPECIAL 3", UNLESS OTHERWISE NOTED		APS PUSH BUTTON/PUSH BUTTON
			LANE DESIGNATION FOR INFO ONLY

NOTE: OTHER LEGEND CELLS SHOWN ON TRAFFIC SIGNAL LEGEND SHEET

REVISED BY JWJ 11/10/2023

MARK	DESIGNED BY: AECOM	DATE	BY
60631225P	JENNING	2023-11-10	AE
PLAN REVISION 6	REVISION	DATE	BY
11/10/23		11/10/23	AE

60631225P

CITY OF MADISON

SIGNAL PLAN: MINERAL POINT ROAD AT S ROSA ROAD

BUS RAPID TRANSIT

CITY OF MADISON WISCONSIN

60631225P

S-9F

CONTRACT NO: 60631225C

CITY OF MADISON, DANE COUNTY, WI

REVISOR: JAMES JENNING

DATE: 11/10/2023

SCALE: 1"=40' FT

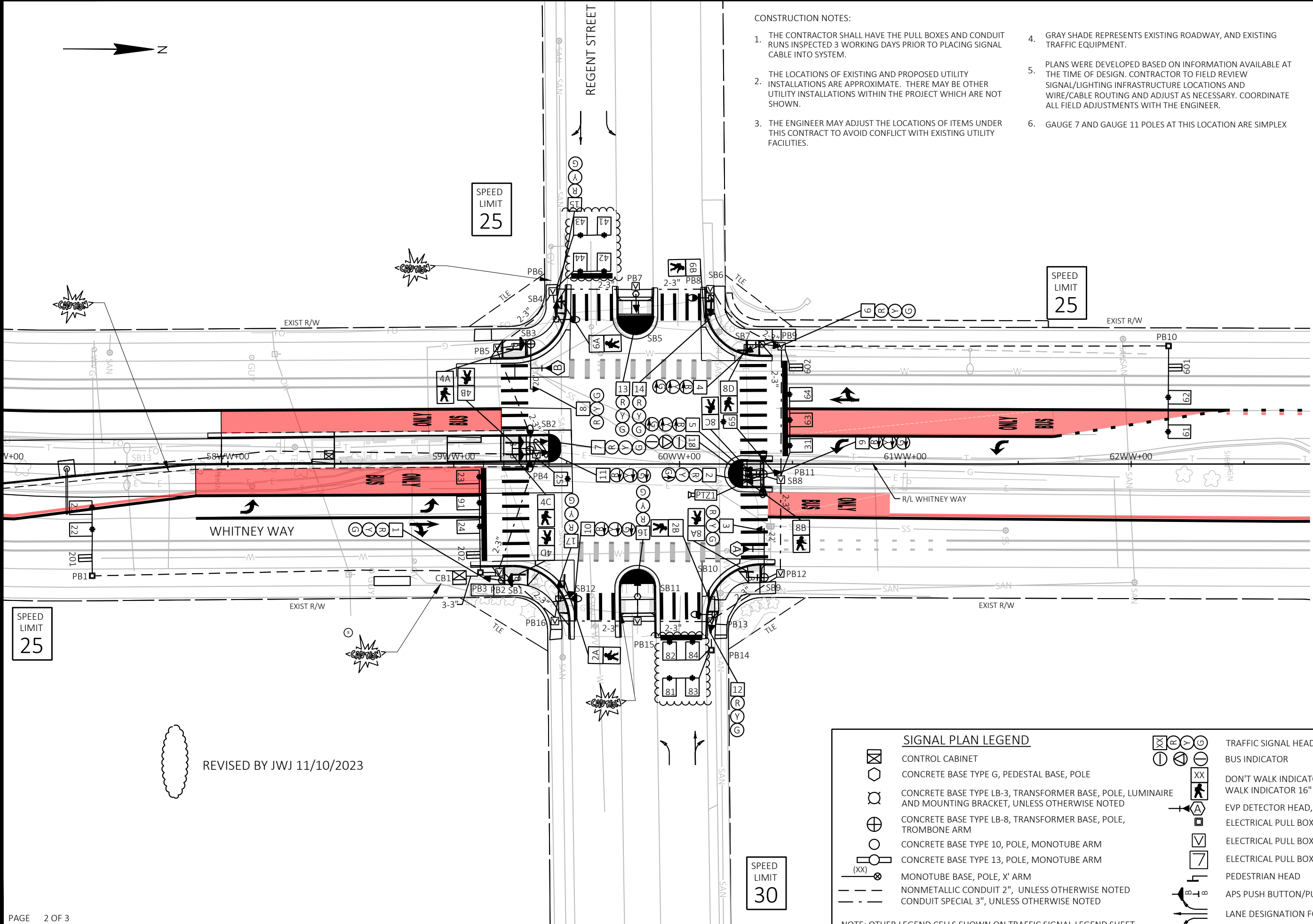
FILE NAME: C:\P\WORKING\AECOM\_DS20\_NA\_2019\JAMES.JENNING@AECOM.COM\DM586348\024209-SP.DWG

LAYOUT NAME: Plan 1 IN 40 FT 01

LAST PLOT DATE: 2023-11-10

CONSTRUCTION NOTES:

1. THE CONTRACTOR SHALL HAVE THE PULL BOXES AND CONDUIT RUNS INSPECTED 3 WORKING DAYS PRIOR TO PLACING SIGNAL CABLE INTO SYSTEM.
2. THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATIONS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT WHICH ARE NOT SHOWN.
3. THE ENGINEER MAY ADJUST THE LOCATIONS OF ITEMS UNDER THIS CONTRACT TO AVOID CONFLICT WITH EXISTING UTILITY FACILITIES.
4. GRAY SHADE REPRESENTS EXISTING ROADWAY, AND EXISTING TRAFFIC EQUIPMENT.
5. PLANS WERE DEVELOPED BASED ON INFORMATION AVAILABLE AT THE TIME OF DESIGN. CONTRACTOR TO FIELD REVIEW SIGNAL/LIGHTING INFRASTRUCTURE LOCATIONS AND WIRE/CABLE ROUTING AND ADJUST AS NECESSARY. COORDINATE ALL FIELD ADJUSTMENTS WITH THE ENGINEER.
6. GAUGE 7 AND GAUGE 11 POLES AT THIS LOCATION ARE SIMPLEX



REVISED BY JWJ 11/10/2023

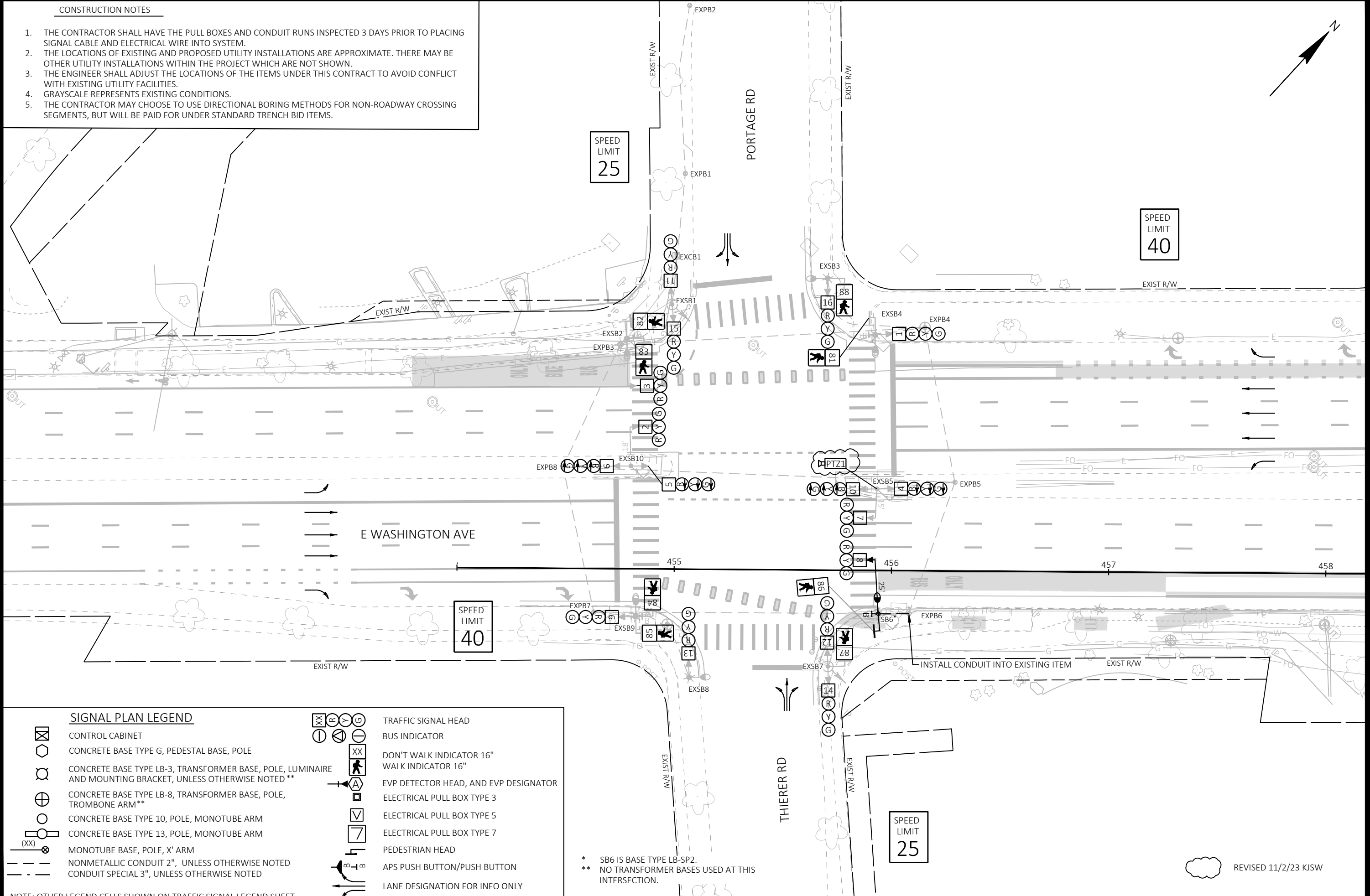
SIGNAL PLAN LEGEND	
	CONTROL CABINET
	CONCRETE BASE TYPE G, PEDESTAL BASE, POLE
	CONCRETE BASE TYPE LB-3, TRANSFORMER BASE, POLE, LUMINAIRE AND MOUNTING BRACKET, UNLESS OTHERWISE NOTED
	CONCRETE BASE TYPE LB-8, TRANSFORMER BASE, POLE, TROMBONE ARM
	CONCRETE BASE TYPE 10, POLE, MONOTUBE ARM
	CONCRETE BASE TYPE 13, POLE, MONOTUBE ARM
	MONOTUBE BASE, POLE, X' ARM
	NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED
	CONDUIT SPECIAL 3", UNLESS OTHERWISE NOTED
	TRAFFIC SIGNAL HEAD
	BUS INDICATOR
	DON'T WALK INDICATOR 16"
	WALK INDICATOR 16"
	EVP DETECTOR HEAD, AND EVP DESIGNATOR
	ELECTRICAL PULL BOX TYPE 3
	ELECTRICAL PULL BOX TYPE 5
	ELECTRICAL PULL BOX TYPE 7
	PEDESTRIAN HEAD
	APS PUSH BUTTON/PUSH BUTTON
	LANE DESIGNATION FOR INFO ONLY

NOTE: OTHER LEGEND CELLS SHOWN ON TRAFFIC SIGNAL LEGEND SHEET

MARK	DESIGNED BY: AECOM	DATE	BY
60631225P	JENNING	2023-11-10	AE
PLAN REVISION 6	REVISION	DATE	BY
11/10/23	11/10/23	11/10/23	AE
Scale: 1 IN=40 FT			
CITY OF MADISON			
SIGNAL PLAN: WHITNEY WAY AT REGENT STREET			
BUS RAPID TRANSIT			
CITY OF MADISON			
CONTRACT NO: 60631225C			
60631225P			
S-11H			

**CONSTRUCTION NOTES**

1. THE CONTRACTOR SHALL HAVE THE PULL BOXES AND CONDUIT RUNS INSPECTED 3 DAYS PRIOR TO PLACING SIGNAL CABLE AND ELECTRICAL WIRE INTO SYSTEM.
2. THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATIONS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT WHICH ARE NOT SHOWN.
3. THE ENGINEER SHALL ADJUST THE LOCATIONS OF THE ITEMS UNDER THIS CONTRACT TO AVOID CONFLICT WITH EXISTING UTILITY FACILITIES.
4. GRAYSCALE REPRESENTS EXISTING CONDITIONS.
5. THE CONTRACTOR MAY CHOOSE TO USE DIRECTIONAL BORING METHODS FOR NON-ROADWAY CROSSING SEGMENTS, BUT WILL BE PAID FOR UNDER STANDARD TRENCH BID ITEMS.



**SIGNAL PLAN LEGEND**

- |  |   |  |                                       |
|--|---|--|---------------------------------------|
|  | CONTROL CABINET   |  | TRAFFIC SIGNAL HEAD                   |
|  | CONCRETE BASE TYPE G, PEDESTAL BASE, POLE   |  | BUS INDICATOR                         |
|  | CONCRETE BASE TYPE LB-3, TRANSFORMER BASE, POLE, LUMINAIRE AND MOUNTING BRACKET, UNLESS OTHERWISE NOTED** |  | DON'T WALK INDICATOR 16"              |
|  | CONCRETE BASE TYPE LB-8, TRANSFORMER BASE, POLE, TROMBONE ARM**   |  | WALK INDICATOR 16"                    |
|  | CONCRETE BASE TYPE 10, POLE, MONOTUBE ARM   |  | EVP DETECTOR HEAD, AND EVP DESIGNATOR |
|  | CONCRETE BASE TYPE 13, POLE, MONOTUBE ARM   |  | ELECTRICAL PULL BOX TYPE 3            |
|  | MONOTUBE BASE, POLE, X' ARM   |  | ELECTRICAL PULL BOX TYPE 5            |
|  | NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED  |  | ELECTRICAL PULL BOX TYPE 7            |
|  | CONDUIT SPECIAL 3", UNLESS OTHERWISE NOTED  |  | PEDESTRIAN HEAD                       |
|  |   |  | APS PUSH BUTTON/PUSH BUTTON           |
|  |   |  | LANE DESIGNATION FOR INFO ONLY        |

NOTE: OTHER LEGEND CELLS SHOWN ON TRAFFIC SIGNAL LEGEND SHEET

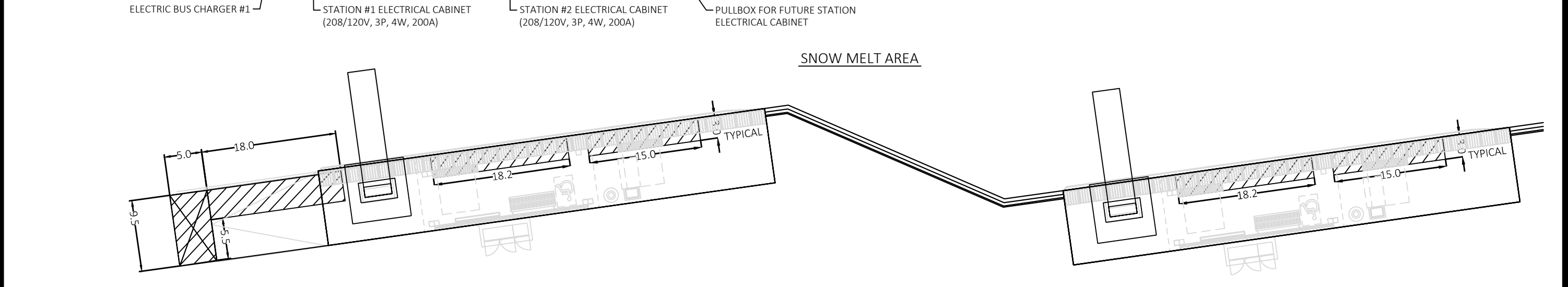
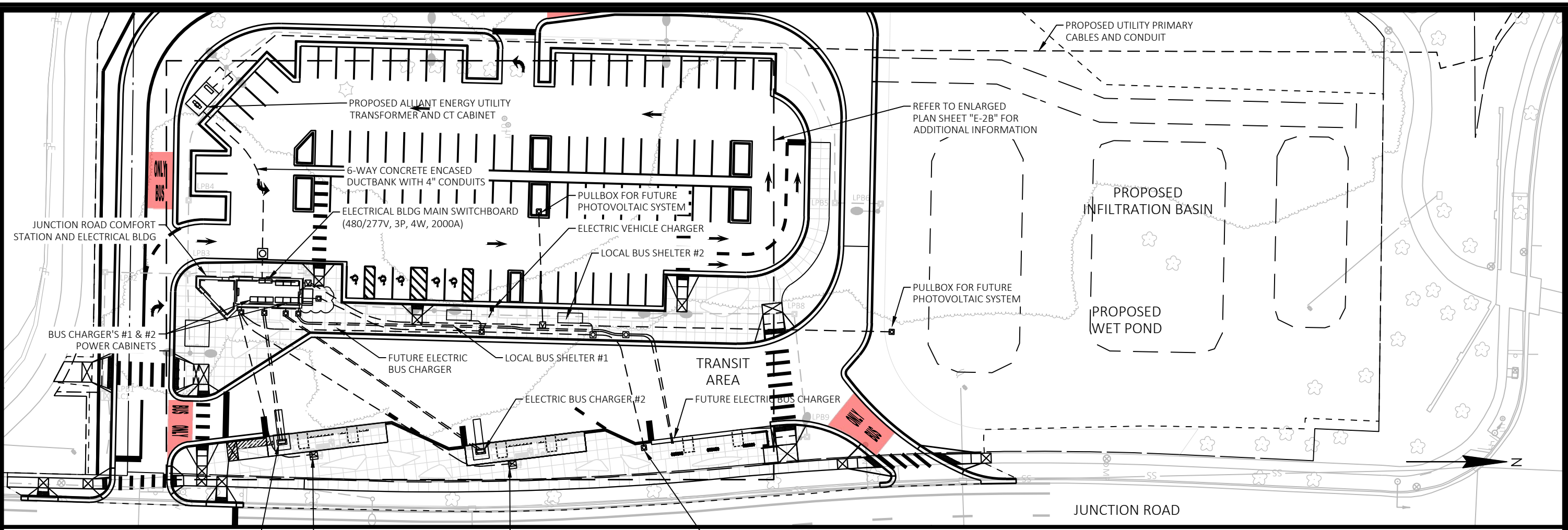
\* SB6 IS BASE TYPE LB-SP2.  
 \*\* NO TRANSFORMER BASES USED AT THIS INTERSECTION.

REVISED 11/2/23 KJSW

MARK	DESIGNED BY: STRAM/DATE: 2023-11-02	SCALE: CUSTOM
PLAN REVISION 6	REVISION	
11/2/23 KJSW	DATE	BY

60631225P  
 SIGNAL PLAN: E WASHINGTON AVENUE AT PORTAGE ROAD  
 CITY OF MADISON, DANE COUNTY, WI  
 BUS RAPID TRANSIT  
**CITY OF MADISON**  
 CONTRACT NO: 60631225C  
 60631225P  
**S-30A**



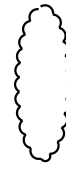


**ELECTRICAL PLAN LEGEND**

- NONMETALLIC CONDUIT 3", UNLESS OTHERWISE NOTED
- - - CONDUIT SPECIAL 3", UNLESS OTHERWISE NOTED
- ELECTRICAL PULL BOX TYPE 1
- ▣ ELECTRICAL PULL BOX TYPE 5
- ▨ SNOW MELT AREA
- ⊠ ELECTRICAL SERVICE METER BREAKER PEDESTAL
- ⊞ ELECTRICAL SERVICE BREAKER DISCONNECT BOX
- ELECTRICAL SERVICE CT CABINET
- ⊠ PLATFORM ELECTRICAL CABINET

- NOTES:**
1. COORDINATE EXACT METER BREAKER PEDESTAL AND CT CABINET LOCATION WITH UTILITY.
  2. SNOW MELT SHALL BE OFFSET 1' FROM ALL OBSTRUCTIONS.
  3. SNOW MELT SECTIONS ON THE BRT PLATFORM SHALL EXTEND 3' FROM EDGE OF PLATFORM.
  4. LOCATE SNOW MELT AROUND PEDESTRIAN HANDRAIL ANCHORAGE.

SCALE 10:1



REVISED BY RJS 10/06/2023

PLAN REVISION 6	RJS	10/06/23	RJS
PLAN REVISION 4	RJS	6/20/23	RJS
REVISION	DATE	BY	BY
Designed By: AECOM/Date: 2023-10-17			
60631225P			

ELECTRICAL PLAN: WESTERN TERMINAL - JUNCTION ROAD  
 BUS RAPID TRANSIT  
 CITY OF MADISON  
 60631225P  
 CONTRACT NO: 60631225C  
 CITY OF MADISON, DANE COUNTY, WI  
 Scale: 1 IN=50 FT



**ELECTRICAL SITE NOTES:**

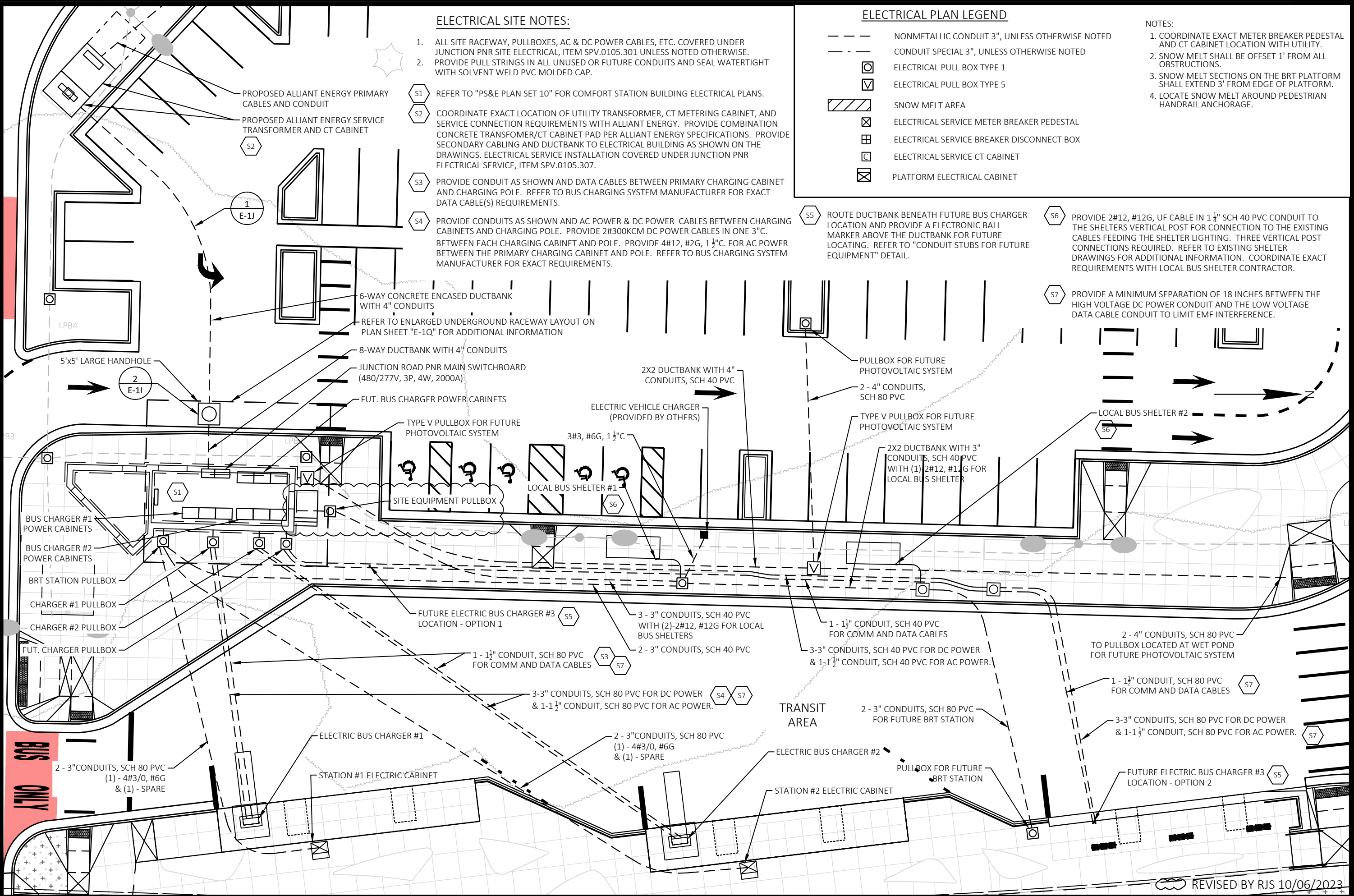
- ALL SITE RACEWAY, PULLBOXES, AC & DC POWER CABLES, ETC. COVERED UNDER JUNCTION PNR SITE ELECTRICAL, ITEM SPV.0105.301 UNLESS NOTED OTHERWISE. PROVIDE PULL STRINGS IN ALL UNUSED OR FUTURE CONDUITS AND SEAL WATERTIGHT WITH SOLVENT WELD PVC MOLDED CAP.
- REFER TO "PS&E PLAN SET 10" FOR COMFORT STATION BUILDING ELECTRICAL PLANS.
- COORDINATE EXACT LOCATION OF UTILITY TRANSFORMER, CT METERING CABINET, AND SERVICE CONNECTION REQUIREMENTS WITH ALLIANT ENERGY. PROVIDE COMBINATION CONCRETE TRANSFORMER/CT CABINET PAD PER ALLIANT ENERGY SPECIFICATIONS. PROVIDE SECONDARY CABLING AND DUCTBANK TO ELECTRICAL BUILDING AS SHOWN ON THE DRAWINGS. ELECTRICAL SERVICE INSTALLATION COVERED UNDER JUNCTION PNR ELECTRICAL SERVICE, ITEM SPV.0105.307.
- PROVIDE CONDUIT AS SHOWN AND DATA CABLES BETWEEN PRIMARY CHARGING CABINET AND CHARGING POLE. REFER TO BUS CHARGING SYSTEM MANUFACTURER FOR EXACT DATA CABLE(S) REQUIREMENTS.
- PROVIDE CONDUITS AS SHOWN AND AC POWER & DC POWER CABLES BETWEEN CHARGING CABINETS AND CHARGING POLE. PROVIDE 4#12, #2G, 1 1/2" C. FOR AC POWER BETWEEN THE PRIMARY CHARGING CABINET AND POLE. REFER TO BUS CHARGING SYSTEM MANUFACTURER FOR EXACT REQUIREMENTS.

**ELECTRICAL PLAN LEGEND**

- NONMETALLIC CONDUIT 3", UNLESS OTHERWISE NOTED
- - - CONDUIT SPECIAL 3", UNLESS OTHERWISE NOTED
- ELECTRICAL PULL BOX TYPE 1
- ELECTRICAL PULL BOX TYPE 5
- ▨ SNOW MELT AREA
- ⊗ ELECTRICAL SERVICE METER BREAKER PEDESTAL
- ⊕ ELECTRICAL SERVICE BREAKER DISCONNECT BOX
- ELECTRICAL SERVICE CT CABINET
- ⊗ PLATFORM ELECTRICAL CABINET

**NOTES:**

- COORDINATE EXACT METER BREAKER PEDESTAL AND CT CABINET LOCATION WITH UTILITY.
- SNOW MELT SHALL BE OFFSET 1' FROM ALL OBSTRUCTIONS.
- SNOW MELT SECTIONS ON THE BRT PLATFORM SHALL EXTEND 3' FROM EDGE OF PLATFORM.
- LOCATE SNOW MELT AROUND PEDESTRIAN HANDRAIL ANCHORAGE.



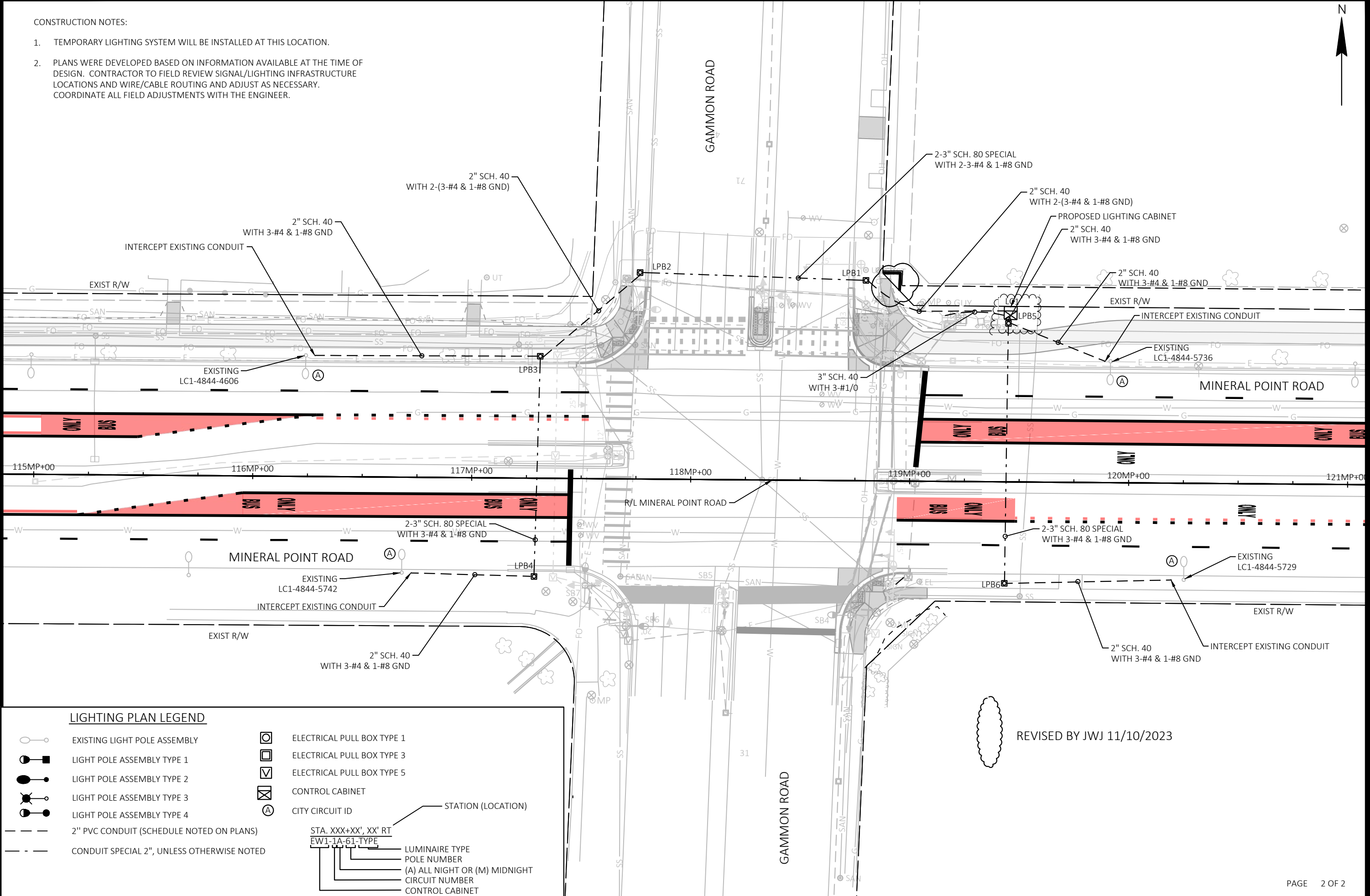
MARK	REVISION	DATE	BY
	PLAN REVISION 6	10/06/23	RJS
	PLAN REVISION 5	8/04/23	RJS
	PLAN REVISION 4	6/20/23	RJS

60631225P  
 CITY OF MADISON, DANE COUNTY, WI  
 CONTRACT NO: 60631225C  
 ELECTRICAL PLAN: WESTERN TERMINAL  
 BUS RAPID TRANSIT  
 CITY OF MADISON  
 60631225P  
 E-2B

REVISED BY RJS 10/06/2023

CONSTRUCTION NOTES:

- TEMPORARY LIGHTING SYSTEM WILL BE INSTALLED AT THIS LOCATION.
- PLANS WERE DEVELOPED BASED ON INFORMATION AVAILABLE AT THE TIME OF DESIGN. CONTRACTOR TO FIELD REVIEW SIGNAL/LIGHTING INFRASTRUCTURE LOCATIONS AND WIRE/CABLE ROUTING AND ADJUST AS NECESSARY. COORDINATE ALL FIELD ADJUSTMENTS WITH THE ENGINEER.



**LIGHTING PLAN LEGEND**

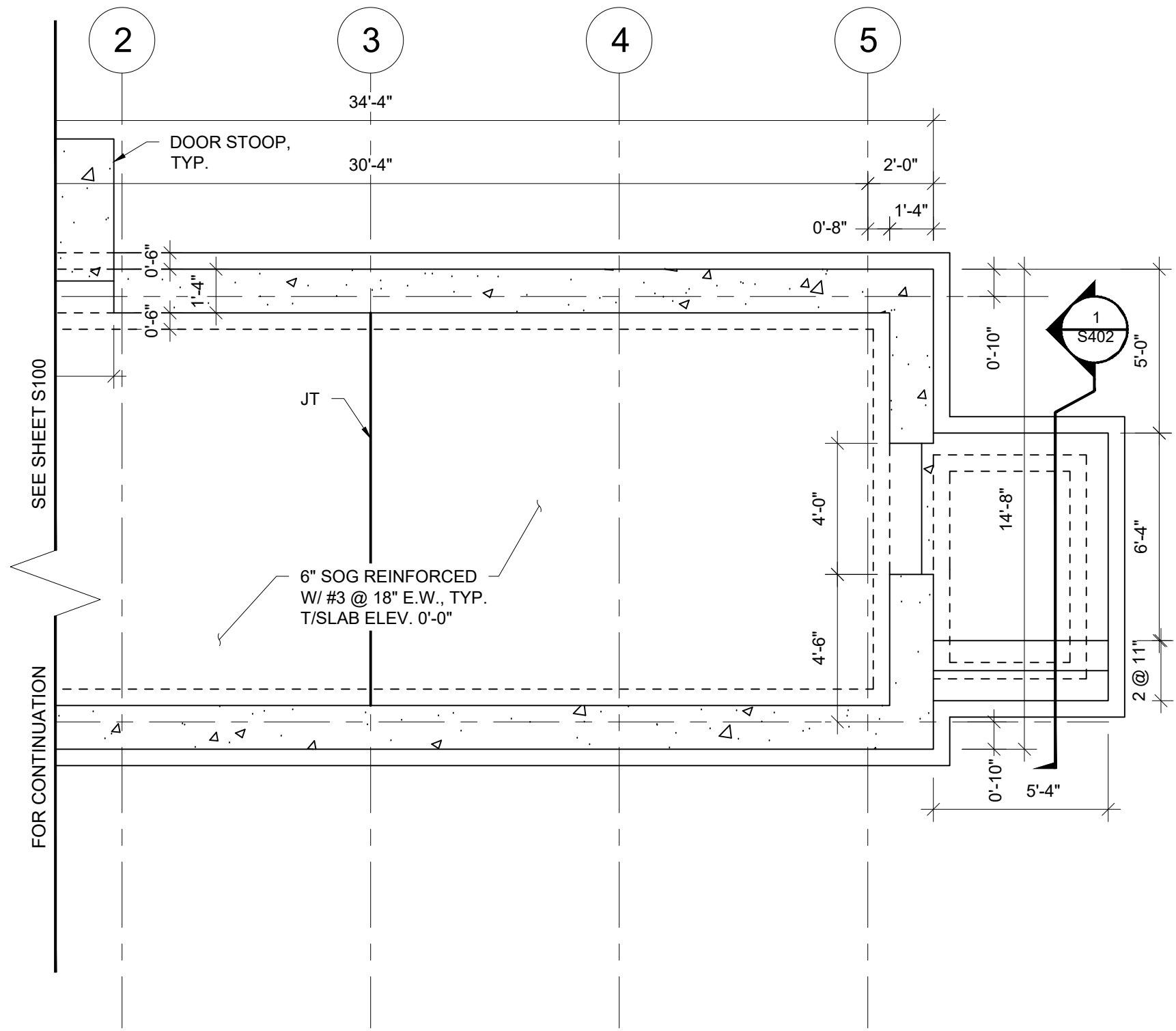
- |  |  |  |                               |
|--|--|--|-------------------------------|
|  | EXISTING LIGHT POLE ASSEMBLY               |  | ELECTRICAL PULL BOX TYPE 1    |
|  | LIGHT POLE ASSEMBLY TYPE 1                 |  | ELECTRICAL PULL BOX TYPE 3    |
|  | LIGHT POLE ASSEMBLY TYPE 2                 |  | ELECTRICAL PULL BOX TYPE 5    |
|  | LIGHT POLE ASSEMBLY TYPE 3                 |  | CONTROL CABINET               |
|  | LIGHT POLE ASSEMBLY TYPE 4                 |  | CITY CIRCUIT ID               |
|  | 2" PVC CONDUIT (SCHEDULE NOTED ON PLANS)   |  | STATION (LOCATION)            |
|  | CONDUIT SPECIAL 2", UNLESS OTHERWISE NOTED |  | LUMINAIRE TYPE                |
|  |  |  | POLE NUMBER                   |
|  |  |  | (A) ALL NIGHT OR (M) MIDNIGHT |
|  |  |  | CIRCUIT NUMBER                |
|  |  |  | CONTROL CABINET               |

REVISED BY JWJ 11/10/2023

MARK	PLAN REVISION 6	DATE	BY
60631225P	REVISION	11/10/23	AE
Designed By: AECOM	Date: 2023-11-10	Scale: 1 IN=40 FT	

LIGHTING PLAN: EB MINERAL POINT ROAD AT GAMMON ROAD  
 CITY OF MADISON, DANE COUNTY, WI  
 BUS RAPID TRANSIT  
 CITY OF MADISON  
 CONTRACT NO: 60631225C

60631225P  
L-6B



**FOUNDATION AND FLOOR PLAN WITH ADDED STAIR**

1/4" = 1'-0"

NEW SHEET ADDED



BUS RAPID TRANSIT  
CITY OF MADISON

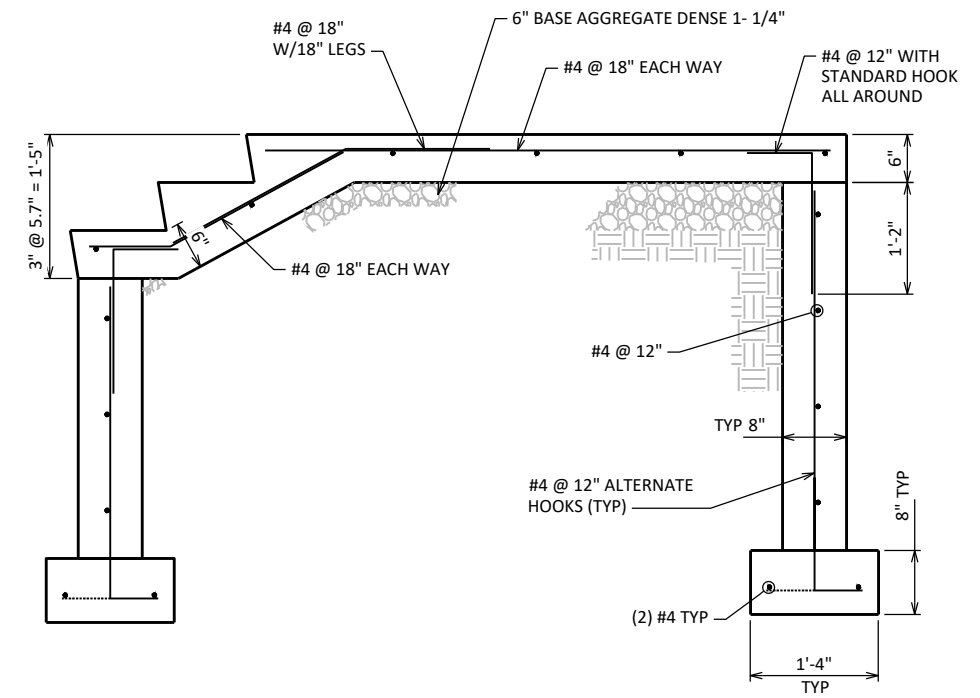
60631225P  
CITY OF MADISON, DANE COUNTY, WI  
CONTRACT NO: 60631225C

MARK	REVISION	DATE	BY
1	PLAN REVISIONS 6	10/23/23	DAA

60631225P

S100A





**1** **DETAIL AT STAIR**  
 1/2" = 1'-0"

NEW SHEET ADDED

MARK	REVISION	DATE	BY
1	PLAN REVISION 6	10/23/23	DAA

60631225P  
 CITY OF MADISON, DANE COUNTY, WI  
 CONTRACT NO: 60631225C



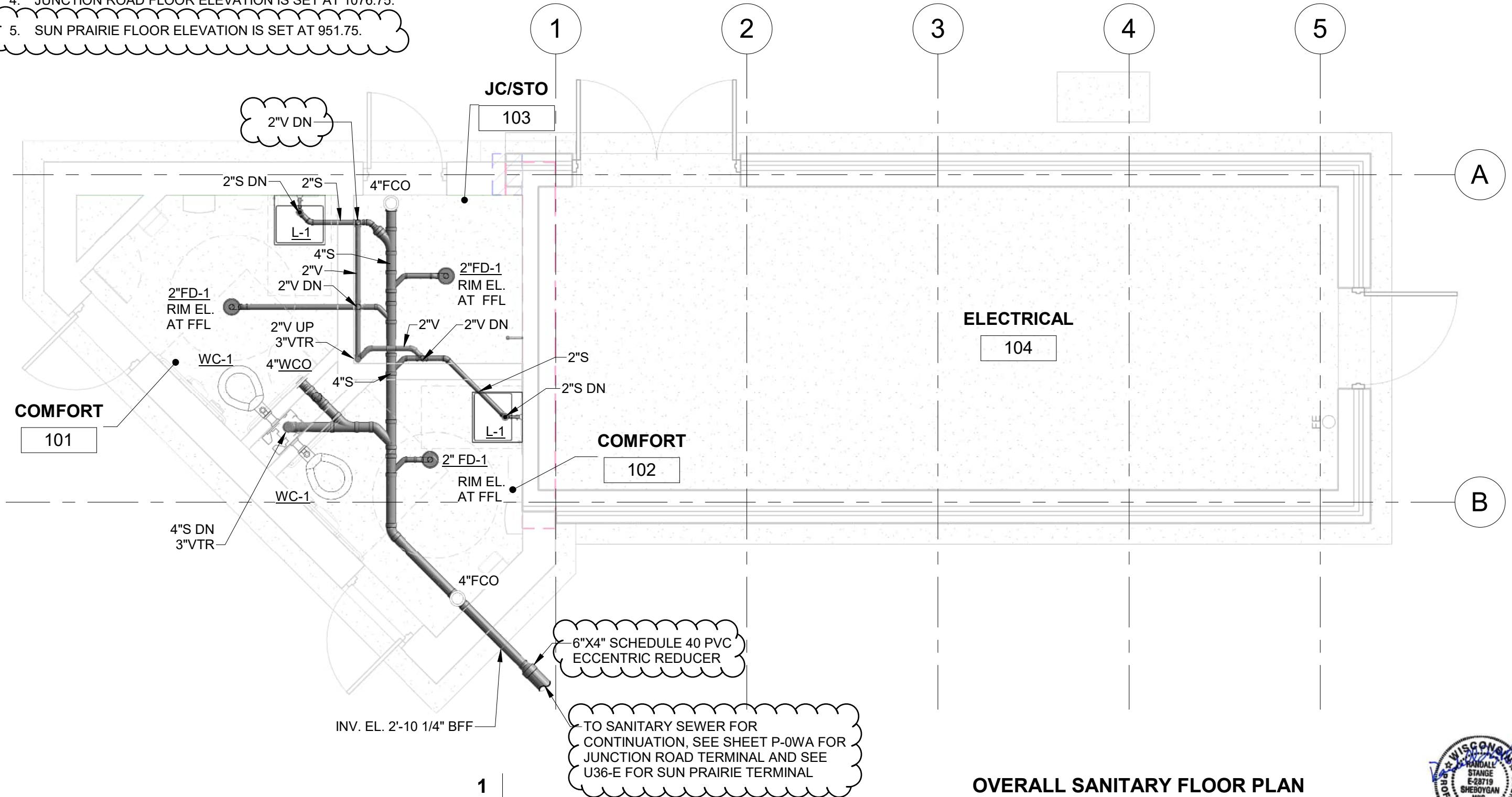
60631225P

S402



# GENERAL NOTES

- BURIED PIPING AND ON-SITE INTERIOR WORK BY THE CONTRACTOR AS NECESSARY TO COMPLETE THE UTILITY SERVICE CONNECTIONS AND PROVIDE A FULLY FUNCTIONAL INSTALLATION.
- PIPING SHOWN IS BELOW THE SLAB AND NOT AT CEILING LEVEL COMFORT (101 & 102) ROOM AND JC/STORAGE (103) ROOM.
- WORK SHOWN IS FOR THE JUNCTION ROAD TERMINAL. ROUTE SUN PRAIRIE SITE SANITARY SEWER AND STORM WATER PER LOCAL SITE CONDITIONS.
- JUNCTION ROAD FLOOR ELEVATION IS SET AT 1076.75.
- SUN PRAIRIE FLOOR ELEVATION IS SET AT 951.75.



## OVERALL SANITARY FLOOR PLAN

Scale: 1/4" = 1'-0"



MARK	REVISION	DATE	BY
PLAN REVISION 6	TLC	11.17.23	
ADDENDUM 3	JAR	11.8.22	
DESIGNED BY:			
Scale:			

60631225P  
 OVERALL SANITARY/VENT FLOOR PLAN  
 CITY OF MADISON, DANE COUNTY, WI  
 BUS RAPID TRANSIT  
 CITY OF MADISON  
 CONTRACT NO: 60631225C



P001

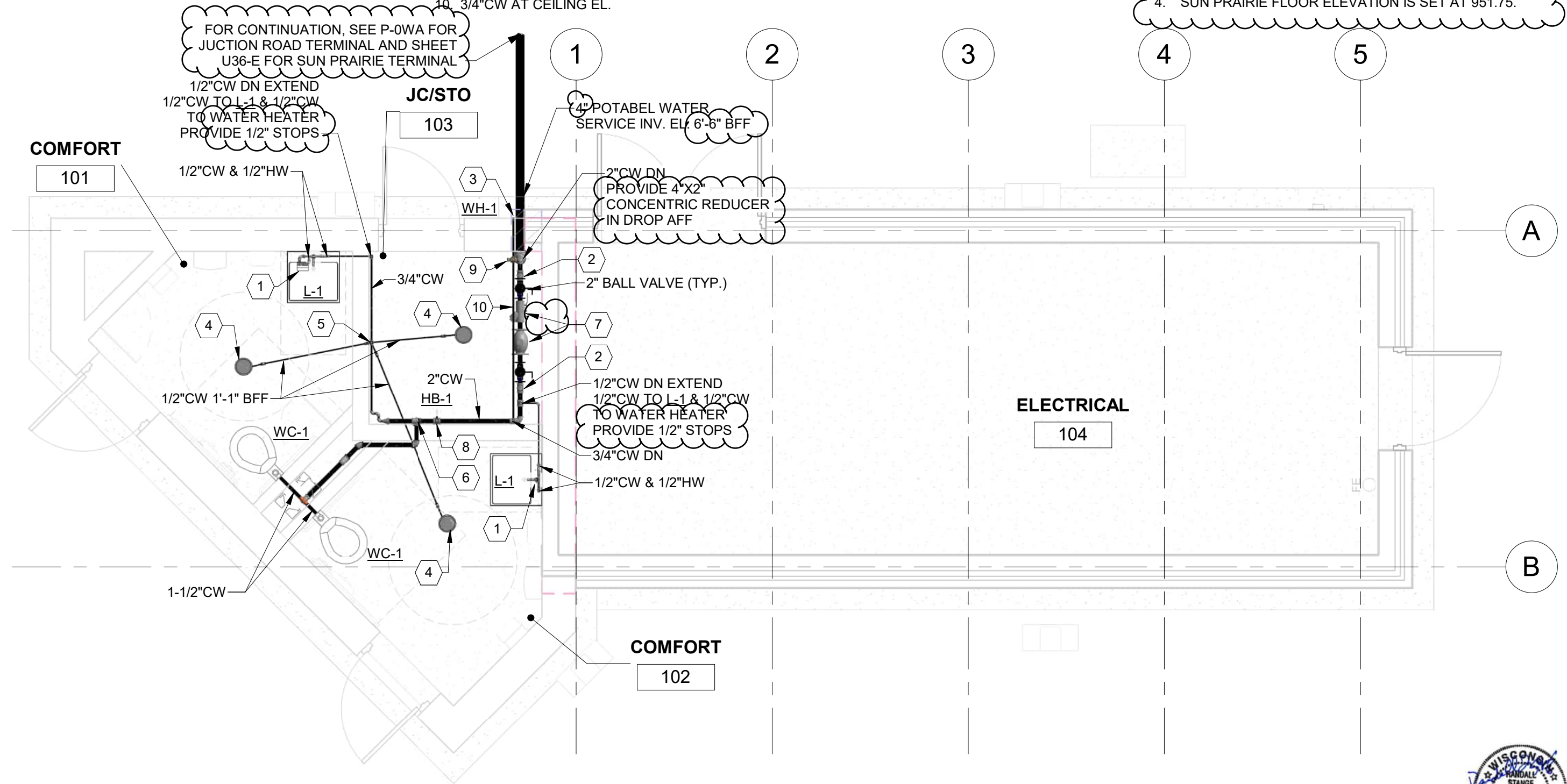


# KEY NOTES

- EEMAX ACCUMIX II AM004120T ELECTRIC TANKLESS WATER HEATER TO BE INSTALLED UNDERNEATH LAVATORY.
- PROVIDE 2" CW BYPASS WITH 2" BALL VALVE.
- WOODFORD MODEL B67 BOX TYPE BACKFLOW PROTECTED FREEZELESS WALL HYDRANT TO BE INSTALLED ON EXTERIOR OF BUILDING. CONNECT WITH 3/4" FEMALE HOSE THREAD.
- FLOOR DRAINS TO BE INSTALLED WITH PRECISION PLUMBING PRODUCTS TRAP PRIMER TO ENSURE TRAP REMAINS SEALED.
- 1/2" CW DN TO ELECTRONIC TRAP SEAL PRIMER VALVE, MIFAB MODEL MI-300-500-DU-120VAC OR EQUAL, PROVIDE 120VAC 3-PRONG POWER PLUG, EXTEND 1/2" COPPER TUBING, TYPE K, TO EACH FLOOR DRAIN TRAP PRIMER CONNECTION.
- 2" CW DN WITH 2" BALL VALVE IN DROP, EXTEND 2" CW BFF OVER TO WATER CLOSETS.
- 2" WATER METER WITH STRAINER,  $\pm$  EL. 4'-0" AFF.
- 3/4" CW DN TO HB-1, PROVIDE 3/4" BALL VALVE IN DROP.
- 3/4" CW DN TO WH-1, PROVIDE 3/4" BALL VALVE IN DROP.
- 3/4" CW AT CEILING EL.

# GENERAL NOTES

- PLUMBING FIXTURES AND PIPING TO BE FURNISHED AND INSTALLED AS PART OF THE RESTROOM FACILITY.
- WORK SHOWN IS FOR THE JUNCTION ROAD TERMINAL. ROUTE SUN PRAIRIE SITE SANITARY SEWER AND STORM WATER PER LOCAL SITE CONDITIONS.
- JUNCTION ROAD FLOOR ELEVATION IS SET AT 1076.75.
- SUN PRAIRIE FLOOR ELEVATION IS SET AT 951.75.



**OVERALL WATER FLOOR PLAN**

Scale: 1/4" = 1'-0"

PLAN REVISION 6	TLC	11.17.23	DATE	BY
ADDENDUM 3	JAR	11.8.22	DATE	BY
REVISION	MARK	Date: 2022-03-08	Scale: --	

60631225P  
 CITY OF MADISON, DANE COUNTY, WI  
 CONTRACT NO: 60631225C  
 OVERALL WATER FLOOR PLAN  
 BUS RAPID TRANSIT  
 CITY OF MADISON



P002

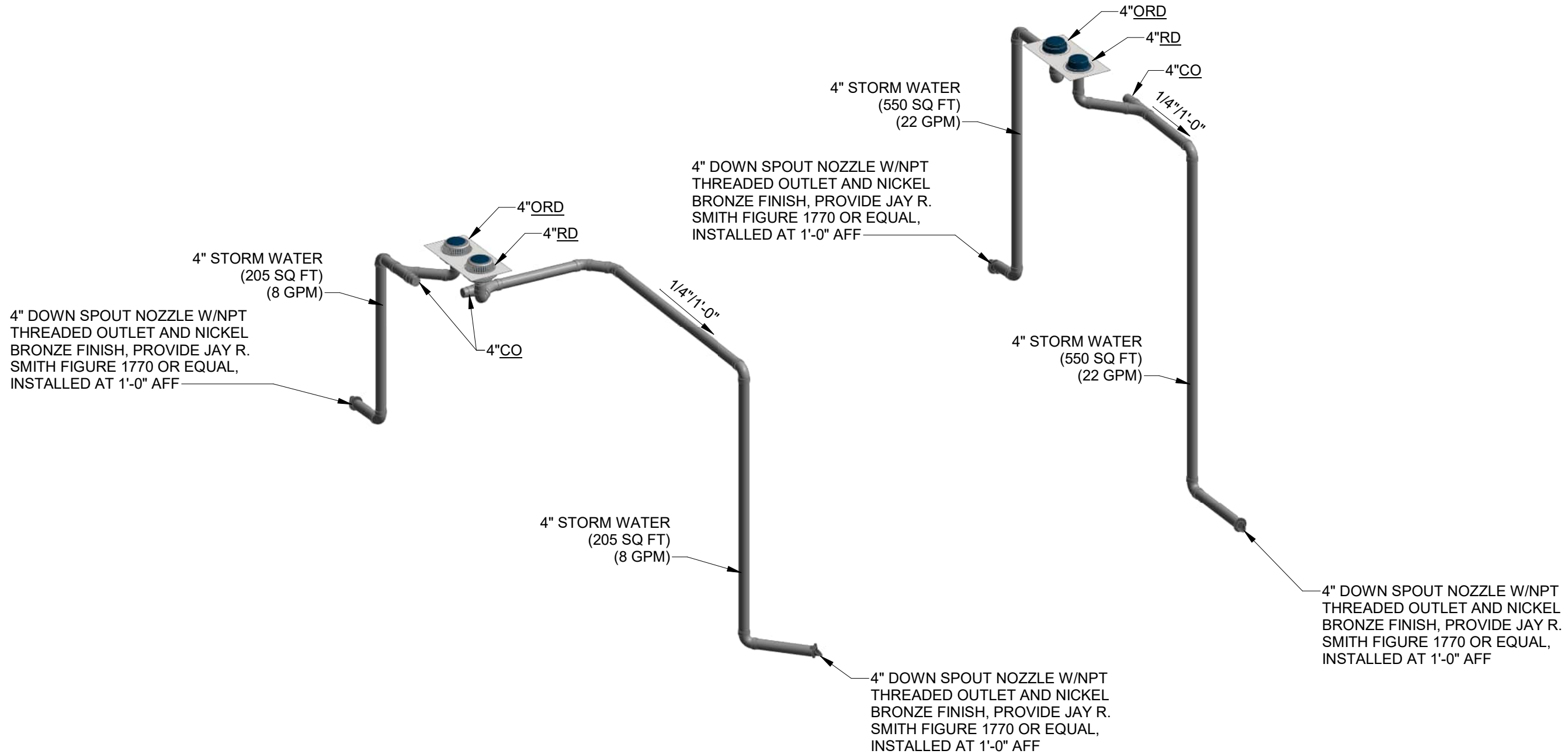






# GENERAL NOTES

1. WORK SHOWN IS FOR THE SUN PRAIRIE TERMINAL.



1 PLUMBING STORM WATER ISOMETRIC

MARK	DESIGNED BY	DATE	BY
PLAN REVISION 6	11.17.23	TLC	
REVISION	2022-03-08	DATE	Scale: ---

60631225P  
 CITY OF MADISON, DANE COUNTY, WI  
 CONTRACT NO: 60631225C

PLUMBING STORM WATER ISOMETRIC  
 BUS RAPID TRANSIT  
 CITY OF MADISON



JUNCTION ROAD

SCC Code	ITEM NUMBER	DESCRIPTION	UNITS	QUANTITY
40.01	201.0115	Clearing	ACRE	2.56
40.01	201.0120	Clearing	ID	4.00
40.01	201.0215	Grubbing	ACRE	2.56
40.01	201.0220	Grubbing	ID	4.00
40.01	204.0150	Removing Curb & Gutter	LF	370.00
40.01	204.0155	Removing Concrete Sidewalk	SY	310.00
40.01	204.0170	Removing Fence	LF	480.00
40.02	204.0245.03	Removing Storm Sewer - 18 inch	LF	11.00
40.02	204.0245.07	Removing Storm Sewer - 21 inch	LF	38.00
40.02	204.0250	Abandoning Manholes	EACH	2.00
40.01	205.0100	Excavation Common	CY	7073.00
40.02	208.1100	Select Borrow	CY	825.00
10.02	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	3880.00
20.01	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	40.00
40.02	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	260.00
40.07	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	2010.00
10.02	305.0130	Base Aggregate Dense 3-Inch	TON	4270.00
20.01	305.0130	Base Aggregate Dense 3-Inch	TON	50.00
40.07	305.0130	Base Aggregate Dense 3-Inch	TON	1920.00
10.02	415.0110	Concrete Pavement 11-Inch	SY	2020.00
40.07	415.4100	Concrete Pavement Joint Filling	SY	2272.00
40.07	455.0605	Tack Coat	GAL	710.00
40.07	460.2000	Incentive Density HMA Pavement	DOL	1170.00
10.02	460.6223	HMA Pavement 3 MT 58-28 S	TON	700.00
10.02	460.6224	HMA Pavement 4 MT 58-28 S	TON	810.00
40.07	460.6224	HMA Pavement 4 MT 58-28 S	TON	320.00
40.02	520.1018	Apron Endwalls for Culvert Pipe 18-Inch	EACH	2.00
40.02	520.8000	Concrete Collars for Pipe	EACH	4.00
40.02	521.3112	Culvert Pipe Corrugated Steel 12-Inch	LF	12.00
40.07	601.0205	Concrete Gutter 24-Inch	LF	280.00
40.07	601.0407	Concrete Curb & Gutter 18-Inch Type D	LF	424.00
40.07	601.0411	Concrete Curb & Gutter 30-Inch Type D	LF	2366.00
40.07	601.0415	Concrete Curb & Gutter 6-Inch Sloped 30-Inch Type J	LF	10.00
40.07	601.0452	Concrete Curb & Gutter Integral 30-Inch Type D	LF	140.00
40.06	602.0410	Concrete Sidewalk 5-Inch	SF	15300.00
40.06	602.0420	Concrete Sidewalk 7-Inch	SF	1940.00
40.06	602.0515	Curb Ramp Detectable Warning Field Natural Patina	SF	320.00
40.07	602.1500	Concrete Steps	SF	44.00
40.02	606.0100	Riprap Light	CY	6.00
40.02	606.0200	Riprap Medium	CY	4.00
40.02	608.0312	Storm Sewer Pipe Reinforced Concrete Class III 12-Inch	LF	390.00
40.02	608.0315	Storm Sewer Pipe Reinforced Concrete Class III 15-Inch	LF	142.00
40.02	608.0318	Storm Sewer Pipe Reinforced Concrete Class III 18-Inch	LF	216.00
40.02	608.0324	Storm Sewer Pipe Reinforced Concrete Class III 24-Inch	LF	105.00
40.02	608.3018	Storm Sewer Pipe Class III-A 18-Inch	LF	263.00
40.02	611.0535	Manhole Covers Type J-Special	EACH	1.00
40.02	611.0612	Inlet Covers Type C	EACH	6.00
40.02	611.0624	Inlet Covers Type H	EACH	1.00

11/9/23	ALM	PLAN REVISION 6
8/29/23	ALM	PLAN REVISION 5
4/24/23	ALM	PLAN REVISION 3
3/10/23	ALM	PLAN REVISION 1
DATE	BY	REVISION
11/9/2023		Scale: NTS
Mark	Designed By: AECOM	60631225P

60631225P  
 CITY OF MADISON, DANE COUNTY, WI  
 CONTRACT NO: 60631225C  
 MISCELLANEOUS QUANTITIES  
 BUS RAPID TRANSIT  
 CITY OF MADISON



60631225P

MQ-1

REVISED 11/9/23 ALM

C:\OneDrive\AECOM\Cy of Madison BRT Quantities - Cost Quantities\Madison BRT MQ Plan Sheets.pptx  
 LAST PLOT DATE - 11/9/2023  
 FILE NAME

JUNCTION ROAD

SCC Code	ITEM NUMBER	DESCRIPTION	UNITS	QUANTITY
40.06	SPV.0060.504.07	Trees (Exclamation London Planetree, B&B, 2-IN)	EACH	5.00
40.06	SPV.0060.504.08	Trees (Swamp White Oak, B&B, 2-IN)	EACH	4.00
40.06	SPV.0060.504.09	Trees (Chinquapin Oak, B&B, 2-IN)	EACH	3.00
40.06	SPV.0060.504.11	Trees (American Sentry Linden, B&B, 2-IN)	EACH	2.00
40.06	SPV.0060.504.14	Trees (New Horizon Elm, B&B, 2-IN)	EACH	3.00
40.06	SPV.0060.504.15	Trees ('Autumn Brilliance' Apple Serviceberry, B&B, 2-IN)	EACH	3.00
40.06	SPV.0060.504.16	Trees (Flowering Crabapple, B&B, 2-IN)	EACH	3.00
40.06	SPV.0060.504.17	Trees (Prairie Fire Crabapple, B&B, 2-IN)	EACH	2.00
40.06	SPV.0060.504.18	Trees (Japanese Tree Lilac, B&B, 2-IN)	EACH	3.00
40.06	SPV.0060.506.01	Shrubs (Arctic Fire Red-Osier Dogwood, Potted, 1 GAL)	EACH	17.00
40.06	SPV.0060.506.02	Shrubs (Sea Green Juniper, Potted, 1 GAL)	EACH	20.00
40.06	SPV.0060.506.03	Shrubs (June Grass, Potted, 1 GAL)	EACH	43.00
40.06	SPV.0060.506.04	Shrubs (Creeping Siberian Cypress, Potted, 1 GAL)	EACH	97.00
40.06	SPV.0060.506.05	Shrubs (Calamint, Potted, 1 GAL)	EACH	59.00
40.06	SPV.0060.506.06	Shrubs (Gro-Low Fragrant Sumac, Potted, 1 GAL)	EACH	108.00
40.06	SPV.0060.507.01	Perennials & Native Grasses (Butterfly Milkweed, Potted, 1 GAL)	EACH	42.00
40.06	SPV.0060.507.02	Perennials & Native Grasses (Sand Coreopsis, Potted, 1 GAL)	EACH	71.00
40.06	SPV.0060.507.03	Perennials & Native Grasses (Purple Prairie Clover, Potted, 1 GAL)	EACH	31.00
40.06	SPV.0060.507.04	Perennials & Native Grasses (Purple Coneflower, Potted, 1 GAL)	EACH	55.00
40.06	SPV.0060.507.05	Perennials & Native Grasses (Blazing Star, Potted, 1 GAL)	EACH	29.00
40.06	SPV.0060.507.06	Perennials & Native Grasses (Dwarf Fountain Grass, Potted, 1 GAL)	EACH	14.00
40.06	SPV.0060.507.07	Perennials & Native Grasses (Blue False Indigo, Potted, 1 GAL)	EACH	24.00
40.06	SPV.0060.507.08	Perennials & Native Grasses (Black-eyed Susan, Potted, 1 GAL)	EACH	83.00
40.06	SPV.0060.507.09	Perennials & Native Grasses (Little Bluestem, Potted, 1 GAL)	EACH	41.00
40.06	SPV.0060.507.10	Perennials & Native Grasses (Autumn Joy Sedum, Potted, 1 GAL)	EACH	32.00
40.06	SPV.0060.507.11	Perennials & Native Grasses (Prairie Dropseed, Potted, 1 GAL)	EACH	14.00
40.06	SPV.0060.508	Plug Mix	EACH	7608.00
40.02	SPV.0060.604	Storm Cleanout	EACH	1.00
40.02	SPV.0060.610	4' Dia. Sanitary Sewer Access Structure (SAS)	EACH	2.00
40.02	SPV.0060.613	Adjust Water Valve	EACH	1.00
40.02	SPV.0060.618	Sanitary Sewer Tap	EACH	1.00
40.02	SPV.0060.619	Adjust Manhole Cover Special	EACH	1.00
40.02	SPV.0060.631	Furnish & Install Insulation	EACH	1.00
40.02	SPV.0060.632	Furnish & Install 2-Inch Service Lateral	EACH	1.00
40.06	SPV.0085.501	Seeding	LB	32.00
40.06	SPV.0085.502	Stormwater Management Seeding	LB	14.00
40.07	SPV.0090.001	Concrete Curb & Gutter 30-Inch Type A Special	LF	640.00
40.06	SPV.0090.006	Concrete Curb Extension 6-Inch	LF	78.00
40.06	SPV.0090.007	Concrete Curb Extension 24-Inch	LF	70.00
40.07	SPV.0090.011	Docking Guide Strip	LF	200.00
40.06	SPV.0090.401	Pedestrian Handrail	LF	130.00
40.02	SPV.0090.604	8-Inch Sanitary Sewer Pipe	LF	281.00
40.02	SPV.0090.610	Select Fill for Sanitary Sewer	LF	348.00
40.02	SPV.0090.611	6-Inch Sanitary Sewer Lateral	LF	67.00
20.01	SPV.0105.301	Junction PNR Site Electrical	LS	1.00
20.01	SPV.0105.307	Junction PNR Electrical Service	LS	1.00
40.06	SPV.0165.401	Concrete Sloped Walkway	SF	130.00
40.02	SPV.0200.601	Construct Outside Drop 8-Inch	VF	9.00

11/9/23	ALM
8/18/23	ALM
4/24/23	ALM
3/10/23	ALM
DATE	BY
REVISION	
Mark	
Designed By: AECCM	Date: 1/19/2023
60631225P	Scale: NTS

60631225P  
 MISCELLANEOUS QUANTITIES  
 CITY OF MADISON, DANE COUNTY, WI  
 BUS RAPID TRANSIT  
 CONTRACT NO: 60631225C  
 CITY OF MADISON



60631225P

MQ-3

REVISED 11/9/23 ALM

FILE NAME: C:\OneDrive\AECCM\Cy of Madison BRT Quantities - Cost Quantities\Madison BRT MQ Plan Sheets.pptx  
 LAST PLOT DATE: 11/9/2023



STATION LOCATION: EAST WASHINGTON AVENUE AT INDEPENDENCE LANE WB

SCC CODE	ITEM NUMBER	DESCRIPTION	UNITS	QUANTITY
40.01	201.0120	Clearing	ID	13
40.01	201.0220	Grubbing	ID	13
40.01	204.0100	Removing Concrete Pavement	SY	760
40.01	204.0115	Removing Asphaltic Surface Butt Joints	SY	9
40.01	204.0120	Removing Asphaltic Surface Milling	SY	220
40.01	204.0150	Removing Curb & Gutter	LF	330
40.01	204.0155	Removing Concrete Sidewalk	SY	190
40.01	204.0195	Removing Concrete Bases	EACH	2
40.01	204.9090.S.01	Removing Retaining Wall and Railing	LF	160
40.01	205.0100	Excavation Common	CY	170
40.01	208.0100	Borrow	CY	79
20.01	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	22
40.06	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	140
40.07	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	13
40.07	305.0130	Base Aggregate Dense 3-Inch	TON	37
10.02	405.0100	Coloring Concrete WisDOT Red	CY	35
40.07	405.1000	Stamping Colored Concrete	CY	2
10.02	415.0100	Concrete Pavement 10-Inch	SY	120
40.07	415.0100	Concrete Pavement 10-Inch	SY	250
10.02	415.4100	Concrete Pavement Joint Filling	SY	350
40.07	415.4100	Concrete Pavement Joint Filling	SY	320
10.02	416.0610	Drilled Tie Bars	EACH	217
10.02	416.0620	Drilled Dowel Bars	EACH	141
40.07	455.0605	Tack Coat	GAL	16
40.07	460.2000	Incentive Density HMA Pavement	DOL	20
40.07	460.5224	HMA Pavement 4 LT 58-28 S	TON	25
40.02	520.8000	Concrete Collars for Pipe	EACH	3
40.07	601.0205	Concrete Gutter 24-Inch	LF	75
40.07	601.0409	Concrete Curb & Gutter 30-Inch Type A	LF	43
40.07	601.0452	Concrete Curb & Gutter Integral 30-Inch Type D	LF	170
40.07	601.0600	Concrete Curb Pedestrian	LF	40
40.06	602.0410	Concrete Sidewalk 5-Inch	SF	1480
40.06	602.0420	Concrete Sidewalk 7-Inch	SF	2370
40.06	602.0515	Curb Ramp Detectable Warning Field Natural Patina	SF	110
40.02	608.0312	Storm Sewer Pipe Reinforced Concrete Class III 12-Inch	LF	5
40.02	611.0535	Manhole Covers Type J-Special	EACH	1
40.02	611.3230	Inlets 2x3-FT	EACH	1
40.02	611.8110	Adjusting Manhole Covers	EACH	2
40.02	611.8115	Adjusting Inlet Covers	EACH	1
40.02	611.9710	Salvaged Inlet Covers	EACH	1
40.07	620.0300	Concrete Median Sloped Nose	SF	43
10.02	624.0100	Water	MGAL	1
20.01	624.0100	Water	MGAL	0.4
40.06	624.0100	Water	MGAL	3
40.06	625.0105	Topsoil	CY	75
40.08	628.1905	Mobilizations Erosion Control	EACH	1
40.08	628.1910	Mobilizations Emergency Erosion Control	EACH	1
40.06	628.2006	Erosion Mat Urban Class I Type A	SY	450
40.06	628.6505	Soil Stabilizer Type A	ACRE	0.1
40.02	628.7015	Inlet Protection Type C	EACH	11
40.06	629.0210	Fertilizer Type B	CWT	0.3
40.06	630.0500	Seed Water	MGAL	11
40.07	650.7000	Construction Staking Concrete Pavement	LF	370
40.06	650.9000	Construction Staking Curb Ramps	EACH	7
20.01	652.0235	Conduit Rigid Nonmetallic Schedule 40 3-Inch	LF	19

STATION LOCATION: EAST WASHINGTON AVENUE AT INDEPENDENCE LANE WB CONTINUED

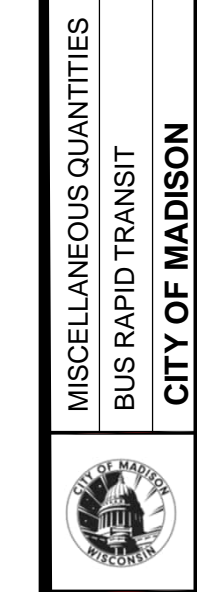
SCC CODE	ITEM NUMBER	DESCRIPTION	UNITS	QUANTITY
20.01	652.0615	Conduit Special 3-Inch	LF	176
20.01	656.0500.335	Electrical Service Breaker Disconnect Box (Independence WB)	LS	1
40.01	690.0150	Sawing Asphalt	LF	15
40.01	690.0250	Sawing Concrete	LF	780
40.06	SPV.0060.001	Construction Staking Sidewalk	EACH	1
40.06	SPV.0060.002	Concrete Curb & Gutter Bike Ramp Special	EACH	1
20.01	SPV.0060.201	Install Electrical Pull Box Type I	EACH	1
40.01	SPV.0060.243	Removing Street Lighting Assembly	EACH	2
20.01	SPV.0060.301	Platform Electrical Cabinet	EACH	1
20.01	SPV.0060.302	Platform Communication Cabinet	EACH	1
20.01	SPV.0060.303	Snow Melt System Shelter Type A1	EACH	1
20.01	SPV.0060.316	Shelter Photovoltaic System	EACH	1
20.01	SPV.0060.401	Reinforced Concrete Platform Type A1	EACH	1
20.01	SPV.0060.417	Platform Shelter Type A1	EACH	1
40.07	SPV.0060.451	Wall Pilaster	EACH	1
40.06	SPV.0060.504.02	Trees (Autumn Blaze Freeman Maple, B&B, 2-IN)	EACH	1
40.06	SPV.0060.504.05	Trees (Kentucky Coffee Tree, B&B, 2-IN)	EACH	2
40.06	SPV.0060.504.06	Trees (Skyline Thornless Honey Locust, B&B, 2-IN)	EACH	1
40.06	SPV.0060.504.08	Trees (Swamp White Oak, B&B, 2-IN)	EACH	2
40.06	SPV.0060.504.09	Trees (Chinquapin Oak, B&B, 2-IN)	EACH	2
40.06	SPV.0060.504.11	Trees (American Sentry Linden, B&B, 2-IN)	EACH	3
40.06	SPV.0060.504.13	Trees (Princeton Elm, B&B, 2-IN)	EACH	2
40.06	SPV.0060.504.15	Trees ('Autumn Brilliance' Apple Serviceberry, B&B, 2-IN)	EACH	1
40.06	SPV.0060.507.01	Perennials & Native Grasses (Butterfly Milkweed, Potted, 1 GAL)	EACH	3
40.06	SPV.0060.507.02	Perennials & Native Grasses (Sand Coreopsis, Potted, 1 GAL)	EACH	3
40.06	SPV.0060.507.03	Perennials & Native Grasses (Purple Prairie Clover, Potted, 1 GAL)	EACH	4
40.06	SPV.0060.507.04	Perennials & Native Grasses (Purple Coneflower, Potted, 1 GAL)	EACH	3
40.06	SPV.0060.507.05	Perennials & Native Grasses (Blazing Star, Potted, 1 GAL)	EACH	7
40.06	SPV.0060.507.08	Perennials & Native Grasses (Black-eyed Susan, Potted, 1 GAL)	EACH	6
40.06	SPV.0060.507.11	Perennials & Native Grasses (Prairie Dropseed, Potted, 1 GAL)	EACH	2
40.06	SPV.0060.507.12	Perennials & Native Grasses (Canada Anemone, Potted, 1 GAL)	EACH	3
40.06	SPV.0060.507.13	Perennials & Native Grasses (Sky Blue Aster, Potted, 1 GAL)	EACH	3
40.06	SPV.0060.507.14	Perennials & Native Grasses (Prairie Smoke, Potted, 1 GAL)	EACH	6
40.06	SPV.0060.507.15	Perennials & Native Grasses (June Grass, Potted, 1 GAL)	EACH	4
40.06	SPV.0060.507.16	Perennials & Native Grasses (Jacob's Ladder, Potted, 1 GAL)	EACH	6
40.02	SPV.0060.606	Storm Sewer Tap	EACH	3
40.02	SPV.0060.611	Inlet Cover R-1878-B7G	EACH	1
40.02	SPV.0060.613	Adjust Water Valve	EACH	4
40.02	SPV.0060.621	Sewer Cleanout	EACH	1
40.07	SPV.0060.633	Adjust MMSD Special	EACH	1
40.06	SPV.0085.501	Seeding	LB	8
40.07	SPV.0090.003	Concrete Curb & Gutter 24-Inch Type H Special	LF	240
40.07	SPV.0090.006	Concrete Curb Extension 6-Inch	LF	15
40.07	SPV.0090.011	Docking Guide Strip	LF	80
20.01	SPV.0090.302	Electrical Wire Lighting 4/0 AWG	LF	642
40.07	SPV.0090.402	Railing Steel Special	LF	185
40.02	SPV.0090.602	PVC Pipe 8-inch	LF	120
40.02	SPV.0090.612	PVC Pipe 12-inch	LF	23

 REVISED 11/17/2023 DJC

11/17/2023	DJC	
6/20/2023	DJC	
4/26/2023	ALM	
2/22/2023	DJC	
12/15/2022	CTL	
11/12/2022	DJC	
	BY	

60631225P  
 CITY OF MADISON, DANE COUNTY, WI  
 CONTRACT NO: 60631225C

MISCELLANEOUS QUANTITIES  
 BUS RAPID TRANSIT  
 CITY OF MADISON



60631225P  
 MQ22-E

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 LAST PLOT DATE - 11/17/2023  
 FILE NAME

SUN PRAIRIE PARK AND RIDE

SCC Code	ITEM NUMBER	DESCRIPTION	UNITS	QUANTITY
40.01	201.0105	Clearing	STA	1.00
40.01	201.0120	Clearing	ID	6.00
40.01	201.0205	Grubbing	STA	1.00
40.01	201.0220	Grubbing	ID	6.00
40.01	204.0150	Removing Curb & Gutter	LF	34.00
40.01	204.0155	Removing Concrete Sidewalk	SY	104.00
40.01	205.0100	Excavation Common	CY	56.00
40.06	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	15.00
40.07	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	34.00
40.07	305.0130	Base Aggregate Dense 3-Inch	TON	37.00
40.07	415.0100	Concrete Pavement 10-Inch	SY	91.00
40.07	415.4100	Concrete Pavement Joint Filling	SY	100.00
40.02	520.8000	Concrete Collars for Pipe	EACH	1.00
40.06	601.0411	Concrete Curb & Gutter 30-Inch Type D	LF	34.00
40.06	602.0410	Concrete Sidewalk 5-Inch	SF	1249.00
40.07	602.1500	Concrete Steps	SF	4.00
40.02	611.0535	Manhole Covers Type J-Special	EACH	1.00
40.06	624.0100	Water	MGAL	1.70
40.06	625.0100	Topsoil	SY	324.00
40.06	628.2006	Erosion Mat Urban Class I Type A	SY	324.00
40.06	628.6505	Soil Stabilizer Type A	ACRE	0.07
40.06	629.0210	Fertilizer Type B	CWT	0.18
40.06	630.0500	Seed Water	MGAL	7.30
40.07	650.7000	Construction Staking Concrete Pavement	LF	75.00
40.01	690.0150	Sawing Asphalt	LF	97.00
40.07	715.0720	Incentive Compressive Strength Concrete Pavement	DOL	27.00
30.01	SPV.0060.416	Overhead Charger Foundation	EACH	1.00
30.01	SPV.0060.449	Sun Prairie Restroom and Electrical Building	EACH	1.00
40.01	SPV.0060.450	Remove, Salvage, and Reinstall Bike Rack	EACH	5.00
40.02	SPV.0060.610	4' Dia. Sanitary Sewer Access Structure (SAS)	EACH	1.00
40.02	SPV.0060.631	Furnish & Install Insulation	EACH	1.00
40.02	SPV.0060.632	Furnish & Install 2-Inch Service Lateral	EACH	1.00
40.06	SPV.0085.501	Seeding	LB	5.80
40.02	SPV.0090.610	Select Fill for Sanitary Sewer	LF	119.00
40.02	SPV.0090.611	6-Inch Sanitary Sewer Lateral	LF	119.00
20.01	SPV.0105.303	Sun Prairie PNR Site Electrical	LS	1.00
20.01	SPV.0105.308	Sun Prairie PNR Electrical Service	LS	1.00

11/20/23	ALM
07/10/23	ALM
11/29/22	ALM
11/07/22	ALM
DATE	BY

60631225P  
 CITY OF MADISON, DANE COUNTY, WI  
 CONTRACT NO: 60631225C

MISCELLANEOUS QUANTITIES  
 BUS RAPID TRANSIT  
 CITY OF MADISON



60631225P

MQ-42

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 LAST PLOT DATE - 11/20/2023

**PULL BOXES**

PULL BOX NO.	LOCATION	SPV.0060.202	SPV.0060.203
		INSTALL ELECTRICAL PULL BOX TYPE III EACH	INSTALL ELECTRICAL PULL BOX TYPE V EACH
PB1	79+12, 83' RT		1
PB2	78+96, 245' RT	1	
PB3	78+51, 81' RT		1
PB4	78+39, 55' RT		1
PB5	78+29, 2' LT		1
PB6	75+81, 11' RT	1	
PB7	78+28, 48' LT		1
PB8	78+60, 82' LT		1
PB9	79+18, 79' LT		1
PB12	79+34, 66' LT		1
PB13	79+55, 48' LT	1	
PB14	82+7, 47' LT	1	
PB15	79+29, 5' RT		1
PB16	79+29, 56' RT		1
TOTAL		4	10

**TRAFFIC SIGNAL CABLE AND ELECTRICAL WIRE**

LOC.	TO	LOC.	655.0230 CABLE TRAFFIC SIGNAL 5-14 AWG L.F.	655.0240 CABLE TRAFFIC SIGNAL 7-14 AWG L.F.	655.0260 CABLE TRAFFIC SIGNAL 12-14 AWG L.F.	655.0270 CABLE TRAFFIC SIGNAL 15-14 AWG L.F.	655.0280 CABLE TRAFFIC SIGNAL 19-14 AWG L.F.	655.0325 CABLE TYPE UF 2-8 AWG GROUNDED L.F.	655.0515 ELECTRICAL WIRE TRAFFIC SIGNALS 10 AWG L.F.	SPV.0090.202 ELECTRICAL WIRE LIGHTING 14-3 UF GROUNDED L.F.
CB1	SB1				54			54	54	
CB1	SB2				129					
CB1	SB3				169					
CB1	SB4						240			
CB1	SB5				301					
CB1	SB6				358					
CB1	SB7				281					
CB1	SB8					261				
CB1	SB9				106			106		
CB1	SB10				54				54	
SB1	SB2								131	
SB2	SB3								94	
SB3	SB4								106	
SB4	SB5							96	96	
SB5	SB6								103	
SB6	SB7								118	
SB7	SB8								89	
SB8	SB9							139	139	
SB9	SB10								110	
SB1	SB4							243		
SB8	SB6							165		
SB1	HEAD 12		59							
SB1	HEAD 16		19							
SB1	HEAD 2B		15							
SB1	LUMINAIRE									126
SB2	HEAD 17		19							
SB2	HEAD 2A		15							
SB3	HEAD 1		19							
SB3	HEAD 4D		15							
SB4	HEAD 4		19							
SB4	HEAD 10		19							
SB4	HEAD 11		41							
SB4	HEAD 18		19							
SB4	LUMINAIRE									252
SB4	HEAD 4B		15							
SB4	HEAD 4C		15							
SB5	HEAD 8		48							
SB5	HEAD 9		40							
SB5	HEAD 4A		15							
SB6	HEAD 9B		15							
SB5	LUMINAIRE									114
SB6	HEAD 13		19							
SB6	HEAD 15		19							
SB6	LUMINAIRE									126
SB7	HEAD 14		19							
SB8	HEAD 5		19							
SB8	HEAD 7		19							
SB8	HEAD 8D		15							
SB7	HEAD 9A		15							
SB8	LUMINAIRE									114
SB9	HEAD 6		19							
SB9	HEAD 8C		15							
SB9	HEAD 8B		15							
SB9	LUMINAIRE									252
SB10	HEAD 2		48							
SB10	HEAD 3		37							
SB10	HEAD 8A		15							
TOTAL			681	0	1452	261	240	803	1094	984

**CONCRETE BASES**

SIGNAL BASE NO.	LOCATION	SPV.0060.204	SPV.0060.205	SPV.0060.206	SPV.0060.207
		CONCRETE BASES TYPE G EACH	CONCRETE BASES TYPE LB-3 EACH	CONCRETE BASES TYPE LB-8 EACH	CONCRETE BASE TYPE P EACH
CB1	79+9, 93' RT				1
SB1	79+16, 70' RT		1		
SB2	78+45, 68' RT	1			
SB3	78+33, 57' RT	1			
SB4	78+65, 2' LT			1	
SB5	78+34, 49' LT			1	
SB6	78+59, 73' LT		1		
SB7	79+21, 72' LT	1			
SB8	79+46, 46' LT		1		
SB9	79+32, 8' RT			1	
SB10	79+48, 55' RT			1	
TOTAL		3	3	4	1

MISCELLANEOUS QUANTITIES: MINERAL POINT AND HIGH POINT ROAD  
 BUS RAPID TRANSIT  
 CITY OF MADISON  
 CONTRACT NO: 60631225C  
 60631225P  
 MQ-6S  
 9/21/2023  
 REVISION 6  
 DATE  
 Scale: NTS  
 10/23/2023  
 Designed By: AECOM  
 90631225P

REVISED BY JWJ 9/21/2023



TRAFFIC DETECTOR LOOPS

\*\*\*

LOOP NO.	HOME RUN PB	** LOCATION	SIZE (FT)		NO. OF TURNS	652.0900 LOOP DETECTOR		SPV.0090.201 LOOP DETECTOR		SPV.0090.202 ELECTRICAL WIRE	
			X	(FT)		SLOTS L.F.	LEAD-IN CABLE SPECIAL L.F.	LIGHTING 14-3 UF GROUNDED L.F.			
11	PB15	79+55, 15' LT	6	X 10	3	70		140		120	
21	PB6	75+81, 21' RT	6	X 10	5	39		419		58	
22	PB6	75+81, 33' RT	6	X 10	5	61		419		102	
23	PB6	75+82, 44' RT	6	X 10	5	62		419		104	
24	PB5	78+25, 21' RT	6	X 10	3	53		168		86	
25	PB4	78+25, 32' RT	6	X 10	3	52		114		84	
26	PB4	78+25, 43' RT	6	X 10	3	41		114		62	
27	PB5	78+56, 21' RT	6	X 6	3	52		140		92	
41	PB11	EXISTING	15	X 6	3	-		-		72	
42	PB8	78+84, 91' LT	6	X 10	4	57		251		94	
43	PB8	78+84, 79' LT	6	X 10	4	54		251		88	
44	PB8	78+73, 91' LT	6	X 10	4	46		251		72	
45	PB8	78+73, 80' LT	6	X 10	4	44		251		68	
51	PB5	78+25, 9' RT	6	X 10	3	69		140		44	
61	PB14	81+97, 14' LT	6	X 10	5	60		455		44	
62	PB14	81+97, 27' LT	6	X 10	5	49		455		100	
63	PB14	81+97, 38' LT	6	X 10	5	38		455		78	
64	PB15	79+55, 4' LT	6	X 10	3	-		102		56	
65	PB13	79+55, 26' LT	6	X 10	5	52		201		98	
66	PB13	79+55, 37' LT	6	X 10	5	41		201		84	
67	PB15	79+14, 4' LT	6	X 6	3	-		102		54	
81	PB2	78+68, 242' RT	6	X 10	3	57		162		44	
82	PB2	78+80, 243' RT	6	X 10	3	45		162		94	
83	PB1	78+86, 94' RT	6	X 10	3	59		19		70	
84	PB1	78+87, 78' RT	6	X 10	3	56		19		98	
85	PB1	78+97, 95' RT	6	X 10	3	48		19		92	
86	PB1	78+98, 79' RT	6	X 10	3	44		19		76	
<b>TOTAL</b>						<b>1249</b>	<b>5448</b>	<b>2134</b>			

\*\*\* FOR NO. OF TURNS 3, CONNECT ONLY 3 WIRES OF UF CABLE. FOR LOCATIONS OF NO. TURNS 4 OR 5 CONNECT ALL 4 WIRES

\*\* LOCATION IS TO FRONT CENTER OF DETECTOR LOOP

**INSTALL PTZ CAMERA**

** LOCATION	SPV.0060.272 INSTALL PTZ CAMERA EACH
SB4	1
<b>TOTAL</b>	<b>1</b>

PLAN REVISION 6	AE	10/23/2023
PLAN REVISION 3	AE	4/13/2023
REVISION	DATE	BY
Designed By: AECOM	Date:	Scale: NTS
60631225P	10/23/2023	

MISCELLANEOUS QUANTITIES: MINERAL POINT AND HIGH POINT ROAD  
 BUS RAPID TRANSIT  
 CITY OF MADISON  
 CONTRACT NO: 60631225C



60631225P

MQ-7S

TRAFFIC SIGNAL EQUIPMENT

SIG. BASE NO.	SPV.0060.273 INSTALL PEDESTAL BASES EACH	SPV.0060.274 INSTALL TRANSFORMER BASE BREAKAWAY 11 1/2-INCH BOLT CIRCLE EACH	SPV.0060.209 INSTALL POLES 20-FOOT 7 GAUGE EACH	SPV.0060.210 INSTALL POLES 30-FOOT 7 GAUGE SINGLE MOUNT EACH	SPV.0060.211 INSTALL POLES 30-FOOT 7 GAUGE TWIN MOUNT EACH	SPV.0060.212 INSTALL POLES 30-FOOT 11 GAUGE SINGLE MOUNT EACH	SPV.0060.277 INSTALL TRAFFIC SIGNAL STANDARDS ALUMINUM 13-FT EACH	SPV.0060.265 INSTALL TRAFFIC SIGNAL TROMBONE ARM 12-FOOT EACH	SPV.0060.218 INSTALL TRAFFIC SIGNAL TROMBONE ARM 22-FOOT EACH	SPV.0060.219 INSTALL TRAFFIC SIGNAL TROMBONE ARM 25-FOOT EACH	SPV.0060.279 INSTALL PEDESTRIAN PUSH BUTTONS EACH	SPV.0060.228 INSTALL PLATFORM APS SYSTEM 4 PUSH BUTTONS EACH	FOR INFORMATIONAL PURPOSE ONLY APS PUSH BUTTON EACH	SPV.0060.232 INSTALL LED LUMINAIRE AND MOUNTING BRACKET TYPE I EACH	SPV.0060.233 INSTALL LED LUMINAIRE AND MOUNTING BRACKET TYPE II EACH	SPV.0060.234 INSTALL LED LUMINAIRE AND MOUNTING BRACKET TYPE III EACH
SB1		1				1					1				1	
SB2	1						1				1					
SB3	1						1				1					
SB4		1			1			1			1					2
SB5		1		1						1	1			1		
SB6		1				1					1				1	
SB7	1						1				1					
SB8		1				1							1	1		
SB9		1			1								2			2
SB10		1		1					1				1			
CB1												1				
TOTAL	3	7	1	1	2	3	3	1	1	1	7	1	4	2	2	4

TRAFFIC SIGNAL FACES

SIG. HEAD NO.	SIG. BASE NO.	SPV.0060.220 INSTALL TRAFFIC SIGNAL HEADS 12-INCH 3-SECTION EACH	SPV.0060.224 INSTALL TRAFFIC SIGNAL HEADS 16-INCH PEDESTRIAN WITH COUNTDOWN EACH	SPV.0060.223 INSTALL TRAFFIC SIGNAL HEADS 12-INCH 3-SECTION TRANSIT EACH	SPV.0060.225 INSTALL BACKPLATES SIGNAL FACES 3-SECTION 12-INCH EACH
1	SB3	1			1
2	SB10	1			1
3	SB10	1			1
4	SB4	1			1
5	SB8	1			1
6	SB9	1			1
7	SB8	1			1
8	SB5	1			1
9	SB5	1			1
10	SB4	1			1
11	SB4	1			1
12	SB1	1			1
13	SB6	1			1
14	SB7	1			1
15	SB6	1			1
16	SB1	1			1
17	SB2	1			1
18	SB4			1	1
2A	SB2		1		
2B	SB1		1		
4A	SB5		1		
4B	SB4		1		
4C	SB4		1		
4D	SB3		1		
9A	SB7		1		
9B	SB6		1		
8A	SB10		1		
8B	SB9		1		
8C	SB9		1		
8D	SB8		1		
TOTAL		17	12	1	18

TRAFFIC SIGNAL CABINET

** LOCATION	SPV.0060.229 INSTALL NEMA TS2 TYPE 1 TRAFFIC CONTROLLER CABINET EACH	SPV.0060.231 OPTICAL SIGNAL PREEMPT SYSTEM EACH
Mineral Point Road & High Point Road	1	1
TOTAL	1	1

SIGNAL MOUNTING HARDWARE

** LOCATION	SPV.0105.262 INSTALL SIGNAL MOUNTING HARDWARE L.S.
Mineral Point Road & High Point Road	1
TOTAL	1

ELECTRICAL SERVICE

CABINET NO.	** LOCATION	SPV.0105.292 INSTALL ELECTRICAL SERVICE METER BREAKER PEDESTAL L.S.
CB1	Mineral Point Road & High Point Road	1
TOTAL		1

9/21/2023	AE	BY
PLAN REVISION 6	REVISION	Date: 10/23/2023
Mark	Designed By: AECOM	Scale: NTS
90631225P		

60631225P  
CITY OF MADISON, DANE COUNTY, WI  
CONTRACT NO: 60631225C

MISCELLANEOUS QUANTITIES: MINERAL POINT AND HIGH POINT ROAD  
BUS RAPID TRANSIT  
CITY OF MADISON



60631225P  
MQ-8S

C:\OneDrive\AECOM\City of Madison BRT Quantities - Cost Quantities\Madison BRT MQ Plan Sheets.pptx  
LAST PLOT DATE: 10/23/2023  
FILE NAME:

**REMOVING TRAFFIC SIGNALS**

** LOCATION	SPV.0105.213 REMOVING TRAFFIC SIGNALS L.S.
Mineral Point Road & Randolph Drive	1
<b>TOTAL</b>	<b>1</b>

**REMOVING PULL BOXES**

PULL BOX NO.	LOCATION	653.0905 REMOVING PULL BOXES EACH
EXPB1	EXISTING	1
EXPB2	EXISTING	1
<b>TOTAL</b>		<b>2</b>

**TEMPORARY TRAFFIC SIGNALS**

** LOCATION	SPV.0105.202 TEMPORARY TRAFFIC SIGNAL L.S.
Mineral Point Road & Randolph Drive	1
<b>TOTAL</b>	<b>1</b>

**PULL BOXES**

PULL BOX NO.	LOCATION	SPV.0060.202 INSTALL ELECTRICAL PULL BOX TYPE III	SPV.0060.203 INSTALL ELECTRICAL PULL BOX TYPE V
		EACH	EACH
PB3	91+11, 2' LT	1	
PB6	88+81, 6' LT	1	
PB8	91+53, 73' LT		1
PB10	91+99, 84' LT		1
PB11	92+27, 51' LT		1
PB12	92+27, 6' RT		1
<b>TOTAL</b>		<b>2</b>	<b>4</b>

**CONCRETE BASES**

SIGNAL BASE NO.	LOCATION	SPV.0060.204 CONCRETE BASES TYPE G	SPV.0060.205 CONCRETE BASES TYPE LB-3	SPV.0060.206 CONCRETE BASES TYPE LB-8
		EACH	EACH	EACH
SB4	91+15, 50' LT			1
SB5	91+30, 52' LT	1		
SB6	91+50, 74' LT		1	
SB7	92+4, 73' LT	1		
SB8	92+22, 53' LT	1		
SB9	92+21, 6' RT			1
SB10	92+26, 51' RT			1
SB12	92+19, 59' RT	1		
<b>TOTAL</b>		<b>4</b>	<b>1</b>	<b>3</b>

**TRAFFIC SIGNAL CABLE AND ELECTRICAL WIRE**

LOC.	TO	LOC.	655.0230 CABLE TRAFFIC SIGNAL 5-14 AWG L.F.	655.0240 CABLE TRAFFIC SIGNAL 7-14 AWG L.F.	655.0260 CABLE TRAFFIC SIGNAL 12-14 AWG L.F.	655.0270 CABLE TRAFFIC SIGNAL 15-14 AWG L.F.	655.0325 CABLE TYPE UF 2-8 AWG GROUNDED L.F.	655.0515 ELECTRICAL WIRE TRAFFIC SIGNALS 10 AWG L.F.	SPV.0090.202 ELECTRICAL WIRE LIGHTING 14-3 UF GROUNDED L.F.
CB1		SB2			86				
CB1		SB3			157				
CB1		SB4		220					
CB1		SB5		222					
CB1		SB6				285			
CB1		SB7			313				
CB1		SB8			247				
CB1		SB9				178			
CB1		SB10		132					
CB1		SB12		135					
SB3		SB4						77	
SB4		SB5						44	
SB5		SB6						81	
SB6		SB7						112	
SB7		SB8						100	
SB8		SB9						109	
SB9		SB10						96	
SB10		SB12						41	
SB12		SB11						67	
SB3		SB6					127		
SB2		HEAD 12	19						
SB3		HEAD 5	19						
SB3		HEAD 13	19						
SB4		HEAD 9	47						
SB4		HEAD 10	35						
SB6		HEAD 15	15						
SB6		HEAD 17	19						
SB6		HEAD 4A	15						
SB6		HEAD 6B	15						
SB6		LUMINAIRE							126
SB7		HEAD 16	19						
SB7		HEAD 6A	15						
SB8		HEAD 6	19						
SB8		HEAD 8	19						
SB8		HEAD 8B	15						
SB9		HEAD 2	41						
SB9		HEAD 7	19						
SB9		HEAD 11	19						
SB10		HEAD 3	48						
SB10		HEAD 4	38						
<b>TOTAL</b>			<b>455</b>	<b>709</b>	<b>803</b>	<b>463</b>	<b>127</b>	<b>727</b>	<b>126</b>

**REMOVING CONCRETE BASES**

SIGNAL BASE NO.	LOCATION	204.0195 REMOVING CONCRETE BASES EACH
EXSB1	EXISTING	1
EXSB2	EXISTING	1
EXSB3	EXISTING	1
EXSB4	EXISTING	1
EXSB5	EXISTING	1
EXSB6	EXISTING	1
<b>TOTAL</b>	<b>TOTAL</b>	<b>6</b>

**CONDUIT**

LOC.	TO	LOC.	652.0225 CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH	652.0235 CONDUIT RIGID NONMETALLIC SCHEDULE 40 3-INCH	652.0615 CONDUIT SPECIAL 3-INCH
			LF	LF	LF
PB3		PB4	33		
PB7		SB4	8		
PB7		SB5	12		
PB7		PB8		94	
PB8		SB6	13		
PB8		PB9	1		
PB8		PB10			94
PB10		SB7	13		
PB10		PB11		88	
PB11		SB8	6		
PB11		PB12			114
PB12		SB9	7		
PB12		PB13	35		
PB12		PB16			90
PB16		SB10	7		
PB16		SB12	9		
<b>TOTAL</b>			<b>144</b>	<b>182</b>	<b>298</b>

Mark  
Designed By: AECOM  
90631225P

PLAN REVISION 6  
REVISION  
Date: 10/23/2023

9/22/2023  
DATE  
Scale: NTS

MISCELLANEOUS QUANTITIES: MINERAL POINT AND RANDOLPH DRIVE

BUS RAPID TRANSIT

CITY OF MADISON

CITY OF MADISON, DANE COUNTY, WI

CONTRACT NO: 60631225C



60631225P

MQ-9S



TRAFFIC DETECTOR LOOPS

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LOOP NO.	HOME RUN PB	** LOCATION (FT)	SIZE X (FT)	NO. OF TURNS	652.0900 LOOP DETECTOR		SPV.0090.201 LOOP DETECTOR		SPV.0090.202 ELECTRICAL WIRE LIGHTING 14-3 UF GROUNDED	
					SLOTS L.F.	LEAD-IN CABLE SPECIAL L.F.	L.F.	L.F.		
11	PB12	92+30, 7' LT	6 X 10	4	43		136		66	
21	PB6	88+81, 19, RT	6 X 10	4	40		350		60	
22	PB6	88+81, 29' RT	6 X 10	4	54		350		88	
23	PB6	88+81, 40' RT	6 X 10	4	64		350		108	
24	PB3	91+22, 18' RT	6 X 10	3	50		183		80	
25	PB2	91+22, 29' RT	6 X 10	3	39		58		58	
26	PB2	91+22, 40' RT	6 X 10	3	50		58		80	
27	PB3	91+56, 17' RT	6 X 6	3	66		183		120	
41	PB9	EXISTING	6 X 10	4	-		-		-	
51	PB3	91+22, 6' RT	6 X 10	3	38		183		56	
61	PB15	94+72, 18' LT	6 X 10	4	38		384		56	
62	PB15	94+72, 29' LT	6 X 10	4	50		384		80	
63	PB15	94+73, 40' LT	6 X 10	4	61		384		102	
64	PB12	92+30, 18' LT	6 X 10	3	54		136		88	
65	PB11	92+30, 29' LT	6 X 10	3	53		193		86	
66	PB11	92+30, 40' LT	6 X 10	3	42		193		64	
67	PB12	92+2, 18' LT	6 X 6	3	53		136		94	
81	PB19	EXISTING	6 X 6	4	-		-		-	
82	PB19	EXISTING	6 X 6	4	-		-		-	
83	PB18	EXISTING	6 X 6	4	-		-		-	
84	PB18	EXISTING	6 X 6	3	-		-		-	
TOTAL					795		3661		1286	

\*\*\* FOR NO. OF TURNS 3, CONNECT ONLY 3 WIRES OF UF CABLE. FOR LOCATIONS OF NO. TURNS 4 OR 5 CONNECT ALL 4 WIRES  
 \*\* LOCATION IS TO FRONT CENTER OF DETECTOR LOOP

INSTALL CONDUIT INTO EXISTING ITEM

PULL BOX NO.	LOCATION	652.0700.S INSTALL CONDUIT INTO EXISTING ITEM	
		NO.	EACH
PB2	EXISTING	1	
PB4	EXISTING	1	
PB7	EXISTING	3	
PB13	EXISTING	1	
PB15	EXISTING	1	
PB16	EXISTING	3	
TOTAL		10	

SIGNAL MOUNTING HARDWARE

** LOCATION	SPV.0105.263 INSTALL SIGNAL MOUNTING HARDWARE L.S.	
	NO.	EACH
Mineral Point Road & Randolph Drive	1	
TOTAL		1

TRAFFIC SIGNAL CABINET

** LOCATION	SPV.0060.231 OPTICAL SIGNAL PREEMPT SYSTEM EACH	
Mineral Point Road & Randolph Drive	1	
TOTAL		1

TRAFFIC SIGNAL FACES

SIG. HEAD NO.	SIG. BASE NO.	SPV.0060.220	SPV.0060.224	SPV.0060.225
		INSTALL TRAFFIC SIGNAL HEADS 12-INCH 3-SECTION EACH	INSTALL TRAFFIC SIGNAL HEADS 16-INCH PEDESTRIAN WITH COUNTDOWN EACH	INSTALL BACKPLATES SIGNAL FACES 3-SECTION 12-INCH EACH
2	SB9	1		1
3	SB10	1		1
4	SB10	1		1
5	SB3	1		1
6	SB8	1		1
7	SB9	1		1
8	SB8	1		1
9	SB4	1		1
10	SB4	1		1
11	SB9	1		1
12	SB2	1		1
13	SB3	1		1
15	SB6	1		1
16	SB7	1		1
17	SB6	1		1
4A	SB6		1	
8B	SB8		1	
6A	SB7		1	
6B	SB6		1	
TOTAL		15	4	15

10/23/2023	AE	BY
4/13/2023	AE	DATE
REVISION	Scale: NTS	
Mark	Designed By: AECOM	
90631225P		

MISCELLANEOUS QUANTITIES: MINERAL POINT AND RANDOLPH DRIVE  
 BUS RAPID TRANSIT  
 CITY OF MADISON  
 CONTRACT NO: 60631225C



60631225P  
 MQ-10S

ELECTRICAL SERVICE		
CABINET NO.	** LOCATION	SPV.0105.293 INSTALL ELECTRICAL SERVICE METER BREAKER PEDESTAL L.S.
CB1	Mineral Point Road & Westfield Road	1
TOTAL		1

REMOVING TRAFFIC SIGNALS		
** LOCATION	SPV.0105.214 REMOVING TRAFFIC SIGNALS L.S.	
Mineral Point Road & Westfield Road	1	
TOTAL		1

TEMPORARY TRAFFIC SIGNALS		
** LOCATION	SPV.0105.203 TEMPORARY TRAFFIC SIGNAL L.S.	
Mineral Point Road & Westfield Road	1	
TOTAL		1

REMOVING PULL BOXES		
PULL BOX NO.	LOCATION	653.0905 REMOVING PULL BOXES EACH
EXPB1	EXISTING	1
EXPB2	EXISTING	1
EXPB3	EXISTING	1
EXPB4	EXISTING	1
EXPB5	EXISTING	1
EXPB6	EXISTING	1
EXPB7	EXISTING	1
EXPB8	EXISTING	1
EXPB9	EXISTING	1
TOTAL		9

CONDUIT					
LOC.	TO	LOC.	652.0225 CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH LF	652.0235 CONDUIT RIGID NONMETALLIC SCHEDULE 40 3-INCH LF	652.0615 CONDUIT SPECIAL 3-INCH LF
CB1		PB1		54	
PB1		SB1	21		
PB1		PB2	29		
PB2		PB3	245		
PB1		PB4			106
PB4		SB2	4		
PB4		PB5			102
PB5		SB3	16		
PB5		PB6		30	
PB6		SB4	12		
PB6		PB7			68
PB7		SB5	12		
PB7		SB6	4		
PB7		PB8	10		
PB7		PB9			158
PB9		SB7	21		
PB9		PB10	214		
PB9		PB11			88
PB11		SB8	17		
PB11		PB12		106	
PB12		SB9	5		
PB12		PB13	100		
PB12		PB14			104
PB14		SB10	6		
PB14		CB1		75	
TOTAL			716	265	626

PULL BOXES			
PULL BOX NO.	LOCATION	SPV.0060.202 INSTALL ELECTRICAL PULL BOX TYPE III EACH	SPV.0060.203 INSTALL ELECTRICAL PULL BOX TYPE V EACH
PB1	105+15, 58' LT		1
PB2	105+43, 53' LT	1	
PB3	107+85, 53' LT	1	
PB4	105+18, 1' LT		1
PB5	105+18, 50' RT		1
PB6	105+9, 59' RT		1
PB7	104+45, 59' RT		1
PB8	104+38, 52' RT	1	
PB9	104+11, 9' LT		1
PB10	101+96, 2' RT	1	
PB11	104+11, 52' LT		1
PB12	104+51, 84' LT		1
PB13	104+54, 184' LT	1	
PB14	105+1, 84' LT		1
TOTAL		5	9

REMOVING CONCRETE BASES		
SIGNAL BASE NO.	LOCATION	204.0195 REMOVING CONCRETE BASES EACH
EXSB1	EXISTING	1
EXSB2	EXISTING	1
EXSB3	EXISTING	1
EXSB4	EXISTING	1
EXSB5	EXISTING	1
EXSB6	EXISTING	1
EXSB7	EXISTING	1
EXSB8	EXISTING	1
EXSB9	EXISTING	1
EXSB10	EXISTING	1
EXSB11	EXISTING	1
EXCB1	EXISTING	1
TOTAL		12

SIGNAL MOUNTING HARDWARE		
** LOCATION	SPV.0105.264 INSTALL SIGNAL MOUNTING HARDWARE L.S.	
Mineral Point Road & Westfield Road	1	
TOTAL		1

INSTALL PTZ CAMERA		
** LOCATION	SPV.0060.272 INSTALL PTZ CAMERA EACH	
SB7	1	
TOTAL		1

MISCELLANEOUS QUANTITIES: MINERAL POINT AND WESTFIELD ROAD  
 BUS RAPID TRANSIT  
 CITY OF MADISON  
 CONTRACT NO: 60631225C  
 60631225P  
 MQ-12S  
 Scale: NTS  
 Date: 10/23/2023  
 Designed By: AECOM  
 90631225P  
 Mark  
 REVISION  
 PLAN REVISION 6  
 9/28/2023  
 AE  
 BY

TRAFFIC DETECTOR LOOPS

***										
SPV.0090.202 ELECTRICAL WIRE LIGHTING 14-3 UF GROUNDED										
652.0900 LOOP DETECTOR										
SPV.0090.201 LOOP DETECTOR LEAD-IN CABLE SPECIAL										
LOOP NO.	HOME RUN PB	** LOCATION	SIZE (FT)	X	NO. OF TURNS	SLOTS L.F.	LEAD-IN CABLE L.F.	SPECIAL	GROUNDED	L.F.
11	PB4	105+43, 20' LT	6	X	10	3	69	81		118
21	PB10	101+96, 15' RT	6	X	10	4	44	385		68
22	PB10	101+96, 27' RT	6	X	10	4	54	385		88
23	PB10	101+96, 37' RT	6	X	10	4	65	385		110
24	PB9	104+20, 15' RT	6	X	10	3	54	170		88
25	PB8	104+20, 26' RT	6	X	10	3	65	221		110
26	PB8	104+20, 37' RT	6	X	10	3	65	221		90
27	PB9	104+49, 15' RT	6	X	6	3	47	221		112
41	PB13	104+73, 184' LT	15	X	6	3	54	190		78
42	PB12	104+76, 101' LT	6	X	10	3	61	85		102
43	PB12	104+76, 85' LT	6	X	10	3	54	85		88
44	PB12	104+65, 101' LT	6	X	10	3	51	85		82
45	PB12	104+65, 85' LT	6	X	10	3	45	85		70
51	PB9	104+20, 3' RT	6	X	10	3	42	170		64
61	PB3	107+84, 21' LT	6	X	10	4	61	291		102
62	PB3	107+84, 32' LT	6	X	10	4	50	291		80
63	PB3	107+85, 43' LT	6	X	10	4	39	291		58
64	PB4	105+43, 10' LT	6	X	10	3	-	81		96
65	PB2	105+43, 31' LT	6	X	10	3	40	49		60
66	PB2	105+43, 42' LT	6	X	10	3	51	49		82
67	PB4	105+8, 10' LT	6	X	6	3	-	81		54

TOTAL 1011 3902 1800

\*\*\* FOR NO. OF TURNS 3, CONNECT ONLY 3 WIRES OF UF CABLE. FOR LOCATIONS OF NO. TURNS 4 OR 5 CONNECT ALL 4 WIRES  
 \*\* LOCATION IS TO FRONT CENTER OF DETECTOR LOOP

TRAFFIC SIGNAL CABINET

** LOCATION	SPV.0060.229 INSTALL NEMA TS2 TYPE 1 TRAFFIC CONTROLLER CABINET EACH	SPV.0060.231 OPTICAL SIGNAL PREEMPT SYSTEM EACH	SPV.0105.254 INSTALL GRIDSMA RT DETECTION SYSTEM LS
Mineral Point Road & Westfield Road	1	1	1
TOTAL	1	1	1

CONCRETE BASES

SIGNAL BASE NO.	LOCATION	SPV.0060.204 CONCRETE BASES TYPE G EACH	SPV.0060.205 CONCRETE BASES TYPE LB-3 EACH	SPV.0060.206 CONCRETE BASES TYPE LB-8 EACH	SPV.0060.207 CONCRETE BASE TYPE P EACH
CB1	105+25, 72' LT				1
SB1	105+36, 54' LT		1		
SB2	105+20, 2' RT			1	
SB3	105+34, 49' RT			1	
SB4	105+10, 72' RT	1			
SB5	104+41, 48' RT		1		
SB6	104+47, 63' RT	1			
SB7	104+29, 9' LT			1	
SB8	104+28, 54' LT			1	
SB9	104+50, 80' LT	1			
SB10	105+3, 78' LT	1			
TOTAL		4	2	4	1

TRAFFIC SIGNAL EQUIPMENT

SIG. BASE NO.	SPV.0060.273 INSTALL PEDESTAL BASES EACH	SPV.0060.274 INSTALL TRANSFORMER BASE BREAKAWAY 11 1/2-INCH BOLT CIRCLE EACH	SPV.0060.209 INSTALL POLES 20-FOOT 7 GAUGE EACH	SPV.0060.210 INSTALL POLES 30-FOOT 7 GAUGE SINGLE MOUNT EACH	SPV.0060.211 INSTALL POLES 30-FOOT 7 GAUGE TWIN MOUNT EACH	SPV.0060.212 INSTALL POLES 30-FOOT 11 GAUGE SINGLE MOUNT EACH	SPV.0060.277 INSTALL TRAFFIC SIGNAL STANDARDS ALUMINUM 13-FT EACH	SPV.0060.280 INSTALL TRAFFIC SIGNAL STANDARDS ALUMINUM 10-FT EACH	SPV.0060.265 INSTALL TRAFFIC SIGNAL TROMBONE ARM 12-FOOT EACH	SPV.0060.218 INSTALL TRAFFIC SIGNAL TROMBONE ARM 22-FOOT EACH	SPV.0060.279 INSTALL PEDESTRIAN PUSH BUTTONS EACH	SPV.0060.228 INSTALL PLATFORM APS SYSTEM 4 PUSH BUTTONS EACH	FOR INFORMATIONAL PURPOSE ONLY APS PUSH BUTTON EACH	SPV.0060.232 INSTALL LED LUMINAIRE AND MOUNTING BRACKET TYPE I EACH	SPV.0060.233 INSTALL LED LUMINAIRE AND MOUNTING BRACKET TYPE II EACH	SPV.0060.234 INSTALL LED LUMINAIRE AND MOUNTING BRACKET TYPE III EACH
SB1		1				1							1			
SB2		1			1								2			
SB3		1	1						1				1			
SB4	1						1				1					
SB5		1				1				1					1	
SB6	1							1			1					
SB7		1			1				1							2
SB8		1		1						1			1			
SB9	1						1				1					
SB10	1						1				1					
CB1												1				
TOTAL	4	6	1	1	2	2	3	1	1	2	7	1	4	2	1	4

60631225P  
 CITY OF MADISON, DANE COUNTY, WI  
 CONTRACT NO: 60631225C  
 MISCELLANEOUS QUANTITIES: MINERAL POINT AND WESTFIELD ROAD  
 BUS RAPID TRANSIT  
 CITY OF MADISON  
 60631225P  
 MQ-14S  
 REVISOR: JWW 9/28/2023



**REMOVING TRAFFIC SIGNALS**

** LOCATION	SPV.0105.215 REMOVING TRAFFIC SIGNALS L.S.
Mineral Point Road & Gammon Road	1
<b>TOTAL</b>	<b>1</b>

**SIGNAL MOUNTING HARDWARE**

** LOCATION	SPV.0105.265 INSTALL SIGNAL MOUNTING HARDWARE L.S.
Mineral Point Road & Gammon Road	1
<b>TOTAL</b>	<b>1</b>

**TRAFFIC SIGNAL CABLE AND ELECTRICAL WIRE**

LOC.	TO	LOC.	655.0230 CABLE TRAFFIC SIGNAL 5-14 AWG L.F.	655.0240 CABLE TRAFFIC SIGNAL 7-14 AWG L.F.	655.0260 CABLE TRAFFIC SIGNAL 12-14 AWG L.F.	655.0270 CABLE TRAFFIC SIGNAL 15-14 AWG L.F.	655.0325 CABLE TYPE UF 2-8 AWG GROUNDED L.F.	655.0515 ELECTRICAL WIRE TRAFFIC SIGNALS 10 AWG L.F.	SPV.0090.202 ELECTRICAL WIRE LIGHTING 14-3 UF GROUNDED L.F.
CB1	SB1				59		59	59	
CB1	SB3				186				
CB1	SB5					321			
CB1	SB6				359				
CB1	SB7				399				
CB1	SB8					364			
CB1	SB9				284				
CB1	SB10				221				
CB1	SB11						135	135	
CB1	SB12			71					
CB1	SB13			84					84
SB1	SB2								118
SB2	SB3								103
SB3	SB4						93		93
SB4	SB5								138
SB5	SB6								101
SB6	SB7								107
SB7	SB8								125
SB8	SB9								111
SB9	SB10						115		115
SB10	SB11								120
SB11	SB12								112
SB12	SB13								53
SB1	SB3								
SB11	SB10							169	
SB7	SB9							120	
SB1	HEAD 5	19						182	
SB1	HEAD 7	19							
SB1	HEAD 8B	15							
SB1	LUMINAIRE								126
SB2	HEAD 6	19							
SB2	HEAD 11	19							
SB3	HEAD 2	51							
SB3	HEAD 3	40							
SB3	HEAD 6A	15							
SB3	LUMINAIRE								126
SB5	HEAD 18		22						
SB5	HEAD 21	38							
SB5	HEAD 25		22						
SB6	HEAD 22	46							
SB6	HEAD 23		23						
SB7	HEAD 1	19							
SB7	HEAD 12	19							
SB8	HEAD 4	19							
SB8	HEAD 8	41							
SB8	HEAD 13	19							
SB9	HEAD 9	49							
SB9	HEAD 10	40							
SB9	HEAD 4A	15							
SB9	LUMINAIRE								126
SB10	HEAD 20		23						
SB10	HEAD 2B	15							
SB10	LUMINAIRE								126
SB11	HEAD 15	38							
SB11	HEAD 19		22						
SB11	HEAD 24		22						
SB11	LUMINAIRE								126
SB12	HEAD 16	51							
SB12	HEAD 17		23						
SB13	HEAD 2A	15							
<b>TOTAL</b>			621	312	1508	820	873	1439	630

**REMOVING CONCRETE BASES**

SIGNAL BASE NO.	LOCATION	204.0195 REMOVING CONCRETE BASES EACH
EXSB1	EXISTING	1
EXSB2	EXISTING	1
EXSB3	EXISTING	1
EXSB4	EXISTING	1
EXSB5	EXISTING	1
EXSB6	EXISTING	1
EXSB7	EXISTING	1
<b>TOTAL</b>	<b>TOTAL</b>	<b>7</b>

**PULL BOXES**

PULL BOX NO.	LOCATION	SPV.0060.202 ELECTRICAL PULL BOX TYPE III EACH	SPV.0060.203 ELECTRICAL PULL BOX TYPE V EACH
PB1	199+5, 55' LT		1
PB2	119+19,55' LT	1	
PB3	121+51, 54' LT	1	
PB7	118+85, 70' RT		1
PB13	117+37, 45' RT		1
PB14	117+38, 11' LT		1
PB15	115+1, 3' RT	1	
PB16	117+39, 56' LT		1
PB18	118+31, 87' LT		1
PB22	118+79, 80' LT		1
<b>TOTAL</b>	<b>TOTAL</b>	<b>3</b>	<b>7</b>

**INSTALL CONDUIT INTO EXISTING ITEM**

PULL BOX NO.	LOCATION	652.0700.S INSTALL CONDUIT INTO EXISTING ITEM EACH
PB5	EXISTING	1
PB6	EXISTING	1
PB9	EXISTING	1
PB12	EXISTING	1
PB17	EXISTING	1
<b>TOTAL</b>	<b>TOTAL</b>	<b>5</b>

**CONCRETE BASES**

SIGNAL BASE NO.	LOCATION	SPV.0060.204 CONCRETE BASES TYPE G EACH	SPV.0060.205 CONCRETE BASES TYPE LB-3 EACH	SPV.0060.206 CONCRETE BASES TYPE LB-8 EACH	SPV.0060.207 CONCRETE BASES TYPE P EACH
CB1	119+17, 71' LT				1
SB1	118+95, 58' LT		1		
SB3	118+93, 47' RT			1	
SB5	118+16, 57' RT			1	
SB8	117+62, 10' LT			1	
SB9	117+49, 58' LT			1	
SB10	117+75, 78' LT		1		
SB11	118+33, 84' LT			1	
SB12	118+77, 99' LT			1	
SB13	118+88, 78' LT	1			
<b>TOTAL</b>	<b>TOTAL</b>	<b>1</b>	<b>2</b>	<b>6</b>	<b>1</b>

MISCELLANEOUS QUANTITIES: MINERAL POINT AND GAMMON ROAD  
 BUS RAPID TRANSIT  
 CITY OF MADISON  
 60631225P  
 CONTRACT NO: 60631225C  
 10/10/2023  
 PLAN REVISION 6  
 REVISION  
 DATE  
 11/10/2023  
 Scale: NTS  
 Mark  
 Designed By: AECCM  
 60631225P

REVISED BY JWJ 10/10/2023

TRAFFIC DETECTOR LOOPS

LOOP NO.	HOME RUN PB	** LOCATION	SIZE		NO. OF TURNS	SPV.0090.201 LOOP DETECTOR LEAD IN CABLE	
			(FT)	X (FT)		L.F.	
11	PB14	117+42, 1' RT	6	X 10	4		254
21	PB3	121+50, 23' LT	6	X 10	4		274
22	PB3	121+51, 34' LT	6	X 10	4		274
23	PB3	121+51, 45' LT	6	X 10	4		274
24	PB5	119+9, 23' LT	6	X 10	3		102
25	PB2	119+9, 34' LT	6	X 10	3		43
26	PB2	119+9, 44' LT	6	X 10	3		43
27	PB4	118+77, 23' LT	6	X 6	3		102
31	PB10	EXISTING	6	X 20	3		-
32	PB9	118+28, 72' RT	6	X 10	3		228
41	PB21	EXISTING	20	X 6	5		-
42	PB20	EXISTING	15	X 6	5		-
43	PB18	118+10, 87' LT	20	X 6	5		97
44	PB18	117+98, 88' LT	15	X 6	5		97
51	PB5	119+9, 12' LT	6	X 10	3		102
61	PB15	115+1, 13' RT	6	X 10	5		492
62	PB15	115+1, 24' RT	6	X 10	5		492
63	PB15	115+1, 34' RT	6	X 10	5		492
64	PB14	117+42, 12' RT	6	X 10	4		254
65	PB13	117+42, 24' RT	6	X 10	4		311
66	PB13	117+42, 34' RT	6	X 10	4		311
67	PB14	117+72, 12' RT	6	X 6	4		254
71	PB19	EXISTING	6	X 20	5		-
72	PB18	118+20, 87' LT	6	X 10	3		97
81	PB8	EXISTING	20	X 6	5		-
82	PB8	EXISTING	15	X 6	5		-
83	PB9	118+38, 72' RT	6	X 10	5		172
84	PB9	118+48, 72' RT	6	X 10	5		172
TOTAL							4937

\*\*\* FOR NO. OF TURNS 3, CONNECT ONLY 3 WIRES OF UF CABLE. FOR LOCATIONS OF NO. TURNS 4 OR  
 \*\* LOCATION IS TO FRONT CENTER OF DETECTOR LOOP

CONDUIT

LOC.	TO LOC.	652.0225	652.0235	652.0615
		CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH LF	CONDUIT RIGID NONMETALLIC SCHEDULE 40 3-INCH LF	CONDUIT SPECIAL 3-INCH LF
PB1	SB1	12		
PB1	PB2	15		
PB2	PB3	232		
PB6	SB3	9		
PB6	PB7		62	
PB7	SB4	15		
PB7	PB8	29		
PB7	PB9			142
PB12	PB13		84	
PB13	SB7	16		
PB13	PB14			112
PB14	SB8	24		
PB14	PB15	239		
PB14	PB16			94
PB16	SB9	11		
PB16	PB17		104	
PB17	SB10	13		
PB18	SB11	4		
PB22	SB12	19		
PB22	SB13	9		
TOTAL		647	250	348

AE	10/20/2023
AE	4/13/2023
REVISION	DATE
PLAN REVISION 6	11/10/2023
PLAN REVISION 3	
REVISION	
Scale: NTS	
Mark	
Designed By: AECCM	
60631225P	

60631225P  
 MISCELLANEOUS QUANTITIES: MINERAL POINT AND GAMMON ROAD  
 CITY OF MADISON, DANE COUNTY, WI  
 BUS RAPID TRANSIT  
 CONTRACT NO: 60631225C  
 CITY OF MADISON



60631225P  
 MQ-16S

C:\OneDrive\AECCM\City of Madison BRT Quantities - Cost Quantities\Madison BRT MQ Plan Sheets.pptx  
 LAST PLOT DATE: 11/10/2023  
 FILE NAME:

REVISED BY JWJ 10/20/2023

**TRAFFIC SIGNAL CABINET**

** LOCATION	SPV.0060.229 NEMA TS2 TYPE 1 TRAFFIC CONTROLLER CABINET EACH	SPV.0060.260 SALVAGE AND REINSTALL EVP DETECTOR EACH	SPV.0060.263 SALVAGE AND REINSTALL WIRELESS ANTENNA EACH	SPV.0060.266 SALVAGE AND REINSTALL PTZ CAMERA EACH	SPV.0060.267 INSTALL EVP DETECTOR EACH
SB10			1		
SB9				1	
SB9		1			
SB3					1
CB1	1				
<b>TOTAL</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>

**TEMPORARY TRAFFIC SIGNALS**

** LOCATION	SPV.0105.204 TEMPORARY TRAFFIC SIGNAL L.S.
Mineral Point Road & Gammon Road	1
<b>TOTAL</b>	<b>1</b>

**REMOVING PULL BOXES**

PULL BOX NO.	LOCATION	653.0905 REMOVING PULL BOXES EACH
EXPB1	EXISTING	1
EXPB2	EXISTING	1
EXPB3	EXISTING	1
EXPB4	EXISTING	1
EXPB5	EXISTING	1
<b>TOTAL</b>		<b>5</b>

**TRAFFIC SIGNAL FACES**

SIG. HEAD NO.	SIG. BASE NO.	SPV.0060.220 INSTALL TRAFFIC SIGNAL HEADS 12-INCH 3-SECTION EACH	SPV.0060.221 TRAFFIC SIGNAL HEADS 12-INCH 4-SECTION EACH	SPV.0060.222 TRAFFIC SIGNAL HEADS 12-INCH 5-SECTION EACH	SPV.0060.224 INSTALL TRAFFIC SIGNAL HEADS 16-INCH PEDESTRIAN WITH COUNTDOWN EACH	SPV.0060.225 INSTALL BACKPLATES SIGNAL FACES 3-SECTION 12-INCH EACH	SPV.0060.226 BACKPLATES SIGNAL FACES 4-SECTION 12-INCH EACH	SPV.0060.227 INSTALL BACKPLATES SIGNAL FACES 5-SECTION 12-INCH EACH
1	SB7	1				1		
2	SB3	1				1		
3	SB3	1				1		
4	SB8	1				1		
5	SB1	1				1		
6	SB2	1				1		
7	SB1	1				1		
8	SB8	1				1		
9	SB9	1				1		
10	SB9	1				1		
11	SB2	1				1		
12	SB7	1				1		
13	SB8	1				1		
15	SB11	1				1		
16	SB12	1				1		
17	SB12			1				1
18	SB5		1				1	
19	SB11		1				1	
20	SB10			1				1
21	SB5	1				1		
22	SB6	1				1		
23	SB6			1				1
24	SB11		1				1	
25	SB5		1				1	
2A	SB13				1			
2B	SB10				1			
4A	SB9				1			
6A	SB3				1			
8B	SB1				1			
<b>TOTAL</b>		<b>17</b>	<b>4</b>	<b>3</b>	<b>5</b>	<b>17</b>	<b>4</b>	<b>3</b>

**TRAFFIC SIGNAL EQUIPMENT**

SIG. BASE NO.	SPV.0060.273 INSTALL PEDESTAL BASES EACH	SPV.0060.274 INSTALL TRANSFORMER BASE BREAKAWAY 11 1/2-INCH BOLT CIRCLE EACH	SPV.0060.209 INSTALL POLES 20-FOOT 7 GAUGE EACH	SPV.0060.210 INSTALL POLES 30-FOOT 7 GAUGE SINGLE MOUNT EACH	SPV.0060.212 INSTALL POLES 30-FOOT 11 GAUGE SINGLE MOUNT EACH	SPV.0060.280 INSTALL TRAFFIC SIGNAL STANDARDS ALUMINUM 10-FT EACH	SPV.0060.265 INSTALL TRAFFIC SIGNAL TROMBONE ARM 12-FOOT EACH	SPV.0060.219 INSTALL TRAFFIC SIGNAL TROMBONE ARM 25-FOOT EACH	SPV.0060.279 INSTALL PEDESTRIAN PUSH BUTTONS EACH	SPV.0060.234 INSTALL LED LUMINAIRE AND MOUNTING BRACKET TYPE III EACH
SB1		1			1				1	1
SB3		1		1				1	1	1
SB5		1	1				1		1	
SB8		1	1				1		1	
SB9		1		1					1	
SB10		1			1				1	1
SB11		1		1			1		1	1
SB12		1	1					1		
SB13	1					1			1	
<b>TOTAL</b>	<b>1</b>	<b>8</b>	<b>3</b>	<b>3</b>	<b>2</b>	<b>1</b>	<b>3</b>	<b>3</b>	<b>8</b>	<b>5</b>

11/10/2023	AE	BY
PLAN REVISION 6	REVISION	DATE
Mark	Designed By: AECOM	Scale: NTS
	Date: 11/10/2023	

MISCELLANEOUS QUANTITIES: MINERAL POINT AND GAMMON ROAD  
 BUS RAPID TRANSIT  
 CITY OF MADISON  
 CONTRACT NO: 60631225C



60631225P  
 MQ-17S



**REMOVING TRAFFIC SIGNALS**

** LOCATION	SPV.0105.216 REMOVING TRAFFIC SIGNALS L.S.
Mineral Point Road & Grand Canyon Drive	1
<b>TOTAL</b>	<b>1</b>

**TRAFFIC SIGNAL CABINET**

** LOCATION	SPV.0060.229 INSTALL NEMA TS2 TYPE 1 TRAFFIC CONTROLLER CABINET EACH	SPV.0060.235 OPTICAL SIGNAL PREEMPT EACH	SPV.0060.267 INSTALL EVP DETECTOR EACH
Mineral Point Road & Grand Canyon Drive	1	1	1
<b>TOTAL</b>	<b>1</b>	<b>1</b>	<b>1</b>

**INSTALL PTZ CAMERA**

** LOCATION	SPV.0060.272 INSTALL PTZ CAMERA EACH
SB4	1
<b>TOTAL</b>	<b>1</b>

**REMOVING PULL BOXES**

PULL BOX NO.	LOCATION	653.0905 REMOVING PULL BOXES EACH
EXPB1	EXISTING	1
EXPB2	EXISTING	1
EXPB3	EXISTING	1
EXPB4	EXISTING	1
EXPB5	EXISTING	1
EXPB6	EXISTING	1
EXPB7	EXISTING	1
EXPB8	EXISTING	1
<b>TOTAL</b>		<b>8</b>

**REMOVING CONCRETE BASES**

SIGNAL BASE NO.	LOCATION	204.0195 REMOVING CONCRETE BASES EACH
EXSB1	EXISTING	1
EXSB2	EXISTING	1
EXSB3	EXISTING	1
EXSB4	EXISTING	1
EXSB5	EXISTING	1
EXSB6	EXISTING	1
EXSB7	EXISTING	1
EXSB8	EXISTING	1
EXSB9	EXISTING	1
EXSB10	EXISTING	1
EXCB1	EXISTING	1
<b>TOTAL</b>		<b>11</b>

**CONDUIT**

LOC.	TO	LOC.	652.0225 CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH LF	652.0235 CONDUIT RIGID NONMETALLIC SCHEDULE 40 3-INCH LF	652.0335 CONDUIT RIGID NONMETALLIC SCHEDULE 80 3-INCH LF	652.0615 CONDUIT SPECIAL 3-INCH LF
CB1		PB1		48		
PB1		SB1	9			
PB1		PB2				100
PB2		SB2	9			
PB2		PB3		100		
PB3		SB3	6			
PB3		PB4				108
PB4		SB4	7			
PB4		PB5	242			
PB4		PB6				110
PB6		SB5	4			
PB6		PB7		112		
PB7		SB6	6			
PB7		PB8			92	
PB8		SB7	15			
PB8		PB9		82		
PB9		SB8	20			
PB9		PB10	23			
PB10		PB11	232			
PB9		PB12				110
PB12		SB9	4			
PB12		PB13				122
PB13		SB10	30			
PB13		CB1		70		
CB1		PB14	11			
<b>TOTAL</b>			<b>618</b>	<b>412</b>	<b>92</b>	<b>550</b>

**CONCRETE BASES**

SIGNAL BASE NO.	LOCATION	SPV.0060.204 CONCRETE BASES TYPE G EACH	SPV.0060.205 CONCRETE BASES TYPE LB-3 EACH	SPV.0060.206 CONCRETE BASES TYPE LB-8 EACH	SPV.0060.207 CONCRETE BASE TYPE P EACH
CB1	133+60, 91' RT				1
SB1	133+65' 70' RT		1		
SB2	133+8, 69' RT	1			
SB3	132+76, 46' RT	1			
SB4	132+78, 9' LT			1	
SB5	132+75, 53' LT			1	
SB6	133+8, 78' LT		1		
SB7	133+60, 76' LT	1			
SB8	133+99, 52' LT		1		
SB9	133+84, 2' RT			1	
SB10	133+97, 50' RT			1	
<b>TOTAL</b>		<b>3</b>	<b>3</b>	<b>4</b>	<b>1</b>

**PULL BOXES**

PULL BOX NO.	LOCATION	SPV.0060.202 INSTALL ELECTRICAL PULL BOX TYPE III EACH	SPV.0060.203 INSTALL ELECTRICAL PULL BOX TYPE V EACH
PB1	133+60, 76' RT		1
PB2	133+11, 76' RT		1
PB3	132+73, 46' RT		1
PB4	132+72, 6' LT		1
PB5	130+31, 1' RT	1	
PB6	132+70, 53' LT		1
PB7	133+11, 90' LT		1
PB8	133+57, 89' LT		1
PB9	133+78, 55' LT		1
PB10	134+1, 52' LT	1	
PB11	136+33, 52' LT	1	
PB12	133+82, 1' LT		1
PB13	133+70, 59' RT		1
PB14	133+63, 101' RT	1	
<b>TOTAL</b>		<b>4</b>	<b>10</b>

**TEMPORARY TRAFFIC SIGNALS**

** LOCATION	SPV.0105.205 TEMPORARY TRAFFIC SIGNAL L.S.
Mineral Point Road & Grand Canyon	1
<b>TOTAL</b>	<b>1</b>

REVISED BY JWJ 9/28/2023  
REVISED BY JWJ 1/27/2023

MISCELLANEOUS QUANTITIES: MINERAL POINT AND GRAND CANYON  
 BUS RAPID TRANSIT  
 CITY OF MADISON  
 60631225P  
 CITY OF MADISON, DANE COUNTY, WI  
 CONTRACT NO: 60631225C



60631225P  
MQ-18S

TRAFFIC SIGNAL CABLE AND ELECTRICAL WIRE

LOC.	TO	LOC.	655.0230 CABLE TRAFFIC SIGNAL 5-14 AWG L.F.	655.0260 CABLE TRAFFIC SIGNAL 12-14 AWG L.F.	655.0280 CABLE TRAFFIC SIGNAL 19-14 AWG L.F.	655.0325 CABLE TYPE UF 2-8 AWG GROUNDED L.F.	655.0515 ELECTRICAL WIRE TRAFFIC SIGNALS 10 AWG L.F.	SPV.0090.202 ELECTRICAL WIRE LIGHTING 14-3 UF GROUNDED L.F.
CB1	SB1			52		52	52	
CB1	SB2			116				
CB1	SB3			178				
CB1	SB4				247	247		
CB1	SB5			306				
CB1	SB6			335				
CB1	SB7			278				
CB1	SB8			222				
CB1	SB9			140				
CB1	SB10			90			90	
SB1	SB2						105	
SB2	SB3						102	
SB3	SB4						107	
SB4	SB5				97	97		
SB5	SB6				107	107		
SB6	SB7						111	
SB7	SB8						112	
SB8	SB9				113	113		
SB9	SB10						114	
SB1	SB9				151			
SB1	HEAD 12		19					
SB1	HEAD 16		19					
SB1	HEAD 2B		15					
SB1	LUMINAIRE						126	
SB2	HEAD 17		19					
SB2	HEAD 2A		15					
SB3	HEAD 1		19					
SB3	HEAD 4D		15					
SB4	HEAD 4		19					
SB4	HEAD 10		19					
SB4	HEAD 11		41					
SB4	HEAD 18		19					
SB4	HEAD 4B		15					
SB4	HEAD 4C		15					
SB4	LUMINAIRE						252	
SB5	HEAD 8		46					
SB5	HEAD 9		36					
SB5	HEAD 4A		15					
SB5	LUMINAIRE						114	
SB6	HEAD 13		19					
SB6	HEAD 15		19					
SB6	HEAD 6B		15					
SB6	LUMINAIRE						126	
SB7	HEAD 14		19					
SB7	HEAD 6A		15					
SB8	HEAD 5		19					
SB8	HEAD 7		19					
SB8	HEAD 8D		15					
SB8	LUMINAIRE						114	
SB9	HEAD 6		19					
SB9	HEAD 8B		15					
SB9	HEAD 8C		15					
SB9	LUMINAIRE						252	
SB10	HEAD 2		46					
SB10	HEAD 3		37					
SB10	HEAD 8A		15					
TOTAL			633	1717	247	767	1110	984

TRAFFIC SIGNAL FACES

SIG. HEAD NO.	SIG. BASE NO.	SPV.0060.220 INSTALL TRAFFIC SIGNAL HEADS 12-INCH 3-SECTION EACH	SPV.0060.223 INSTALL TRAFFIC SIGNAL HEADS 12-INCH 3-SECTION TRANSIT EACH	SPV.0060.224 INSTALL TRAFFIC SIGNAL HEADS 16-INCH PEDESTRIAN WITH COUNTDOWN EACH	SPV.0060.225 INSTALL BACKPLATES SIGNAL FACES 3-SECTION 12-INCH EACH
1	SB3	1			1
2	SB10	1			1
3	SB10	1			1
4	SB4	1			1
5	SB8	1			1
6	SB9	1			1
7	SB8	1			1
8	SB5	1			1
9	SB5	1			1
10	SB4	1			1
11	SB4	1			1
12	SB1	1			1
13	SB6	1			1
14	SB7	1			1
15	SB6	1			1
16	SB1	1			1
17	SB2	1			1
18	SB4		1		1
2A	SB2			1	
2B	SB1			1	
4A	SB5			1	
4B	SB4			1	
4C	SB4			1	
4D	SB3			1	
6A	SB7			1	
6B	SB6			1	
8A	SB10			1	
8B	SB9			1	
8C	SB9			1	
8D	SB8			1	
TOTAL		17	1	12	18

SIGNAL MOUNTING HARDWARE

** LOCATION	SPV.0105.266 INSTALL SIGNAL MOUNTING HARDWARE L.S.
Mineral Point Road & Grand Canyon Drive	1
TOTAL	1

ELECTRICAL SERVICE

CABINET NO.	** LOCATION	SPV.0105.295 INSTALL ELECTRICAL SERVICE METER BREAKER PEDESTAL L.S.
CB1	Mineral Point Road & Grand Canyon Drive	1
TOTAL		1

REVISOR: J. W. J. 9/28/2023

MISCELLANEOUS QUANTITIES: MINERAL POINT AND GRAND CANYON  
 BUS RAPID TRANSIT  
 CITY OF MADISON  
 60631225P  
 CITY OF MADISON, DANE COUNTY, WI  
 CONTRACT NO: 60631225C  
 9/28/2023  
 POST LET REVISION 6  
 REVISION  
 DATE  
 Scale: NTS  
 9/28/2023  
 Mark  
 Designed By: AECOM  
 9/28/2023

**TRAFFIC SIGNAL EQUIPMENT**

SIG. BASE NO.	SPV.0060.273 INSTALL PEDESTAL BASES EACH	SPV.0060.274 INSTALL TRANSFORMER BASE BREAKAWAY 11 1/2-INCH BOLT CIRCLE EACH	SPV.0060.209 INSTALL POLES 20-FOOT 7 GAUGE EACH	SPV.0060.277 INSTALL TRAFFIC SIGNAL STANDARDS ALUMINUM 13-FT EACH	SPV.0060.217 INSTALL TRAFFIC SIGNAL TROMBONE ARM 20-FOOT EACH	SPV.0060.279 INSTALL PEDESTRIAN PUSH BUTTONS EACH
SB2	1			1		1
SB5	1			1		1
SB6		1	1		1	1
SB7	1			1		1
<b>TOTAL</b>	<b>3</b>	<b>1</b>	<b>1</b>	<b>3</b>	<b>1</b>	<b>4</b>

**REMOVING TRAFFIC SIGNALS**

** LOCATION	SPV.0105.217 REMOVING TRAFFIC SIGNALS L.S.
Mineral Point Road & Yellowstone Drive	1
<b>TOTAL</b>	<b>1</b>

**PULL BOXES**

PULL BOX NO.	LOCATION	SPV.0060.202 INSTALL ELECTRICAL PULL BOX TYPE III EACH	SPV.0060.203 INSTALL ELECTRICAL PULL BOX TYPE V EACH
PB7	144+4, 4' RT	1	
PB9	146+73, 83' LT		1
PB11	147+24, 83' LT		1
PB16	149+96, 10' LT	1	
<b>TOTAL</b>		<b>2</b>	<b>2</b>

**TRAFFIC SIGNAL CABLE AND ELECTRICAL WIRE**

LOC.	TO	LOC.	655.0230 CABLE TRAFFIC SIGNAL 5-14 AWG L.F.	655.0260 CABLE TRAFFIC SIGNAL 12-14 AWG L.F.	655.0515 ELECTRICAL WIRE TRAFFIC SIGNALS 10 AWG L.F.
CB1	SB2			180	
CB1	SB4			305	
CB1	SB5			370	
CB1	SB6			309	
CB1	SB7			252	
SB1	SB2				102
SB2	SB3				114
SB4	SB5				103
SB5	SB6				104
SB6	SB7				94
SB7	SB8				105
SB2	HEAD 1		19		
SB2	HEAD 11		19		
SB2	HEAD 2A		15		
SB3	HEAD 4		19		
SB3	HEAD 12		19		
SB4	HEAD 4A		15		
SB5	HEAD 14		19		
SB5	HEAD 16		19		
SB5	HEAD 6B		15		
SB6	HEAD 15		41		
SB6	HEAD 6A		15		
SB7	HEAD 5		19		
SB7	HEAD 7		19		
SB7	HEAD 8B		15		
SB8	HEAD 6		19		
SB8	HEAD 10		19		
<b>TOTAL</b>			<b>306</b>	<b>1416</b>	<b>622</b>

**TRAFFIC SIGNAL FACES**

SIG. HEAD NO.	SIG. BASE NO.	SPV.0060.220 INSTALL TRAFFIC SIGNAL HEADS 12-INCH 3-SECTION EACH	SPV.0060.224 INSTALL TRAFFIC SIGNAL HEADS 16-INCH PEDESTRIAN WITH COUNTDOWN EACH	SPV.0060.225 INSTALL BACKPLATES SIGNAL FACES 3-SECTION 12-INCH EACH
1	SB2	1		1
4	SB3	1		1
5	SB7	1		1
6	SB8	1		1
7	SB7	1		1
10	SB8	1		1
11	SB2	1		1
12	SB3	1		1
14	SB5	1		1
15	SB6	1		1
16	SB5	1		1
2A	SB2		1	
4A	SB4		1	
6A	SB6		1	
6B	SB5		1	
8B	SB7		1	
<b>TOTAL</b>		<b>11</b>	<b>5</b>	<b>11</b>

**CONDUIT**

LOC.	TO	LOC.	652.0225 CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH LF	652.0235 CONDUIT RIGID NONMETALLIC SCHEDULE 40 3-INCH LF	652.0615 CONDUIT SPECIAL 3-INCH LF
PB3	SB2		15		
PB8	PB9			92	
PB9	SB5		7		
PB9	PB10		4		
PB9	PB11				100
PB11	SB6		8		
PB12	SB7		6		
PB9	PB10		5		
PB11	PB12			84	
<b>TOTAL</b>			<b>45</b>	<b>176</b>	<b>100</b>

**CONCRETE BASES**

SIGNAL BASE NO.	LOCATION	SPV.0060.204 CONCRETE BASES TYPE G EACH	SPV.0060.206 CONCRETE BASES TYPE LB-8 EACH
SB2	146+52, 47' RT	1	
SB5	146+71, 76' LT	1	
SB6	147+25, 77' LT		1
SB7	147+45, 54' LT	1	
<b>TOTAL</b>		<b>3</b>	<b>1</b>

**REMOVING CONCRETE BASES**

SIGNAL BASE NO.	LOCATION	204.0195 REMOVING CONCRETE BASES EACH
EXSB2	EXISTING	1
EXSB5	EXISTING	1
EXSB6	EXISTING	1
EXSB7	EXISTING	1
<b>TOTAL</b>		<b>4</b>

REVISED BY JWJ 11/10/2023

MISCELLANEOUS QUANTITIES: MINERAL POINT AND YELLOWSTONE DRIVE  
 BUS RAPID TRANSIT  
 CITY OF MADISON  
 CONTRACT NO: 60631225C



60631225P  
MQ-21S



**TRAFFIC DETECTOR LOOPS**

**\*\*\***

LOOP NO.	HOME RUN PB	** LOCATION	SIZE (FT)	X	NO. OF TURNS	652.0900 LOOP DETECTOR		SPV.0090.201 LOOP DETECTOR		SPV.0090.202 ELECTRICAL WIRE	
						SLOTS L.F.	LEAD-IN CABLE SPECIAL L.F.	LIGHTING 14-3 UF GROUNDED L.F.			
11	PB13	147+54, 10' LT	6	X	10	3	42	127	64		
21	PB7	144+4, 15' RT	6	X	10	5	41	409	62		
22	PB7	144+4, 25' RT	6	X	10	5	51	409	82		
23	PB7	144+4, 36' RT	6	X	10	5	62	409	104		
24	PB5	146+44, 14' RT	6	X	10	3	50	182	80		
25	PB3	146+44, 25' RT	6	X	10	3	50	117	80		
26	PB3	146+44, 35' RT	6	X	10	3	40	117	60		
27	PB5	146+73, 14' RT	6	X	6	3	64	182	116		
41	PB9	146+96, 101' LT	6	X	10	5	70	269	120		
42	PB9	146+96, 85' LT	6	X	10	5	56	269	92		
43	PB9	146+82, 101' LT	6	X	10	5	60	269	100		
44	PB9	146+85, 85' LT	6	X	10	5	45	269	70		
51	PB5	146+44, 2' RT	6	X	10	3	38	182	56		
61	PB16	149+96, 20' LT	6	X	10	4	40	370	60		
62	PB16	149+96, 31' LT	6	X	10	4	51	370	82		
63	PB16	149+96, 42' LT	6	X	10	4	62	370	104		
64	PB13	147+54, 21' LT	6	X	10	3	52	127	84		
65	PB12	147+64, 32' LT	6	X	10	3	53	182	86		
66	PB12	147+54, 43' LT	6	X	10	3	42	182	64		
67	PB13	147+25, 21' LT	6	X	6	3	54	127	96		
81	PB1	147+00, 85' RT	6	X	10	3	60	30	100		
82	PB1	147+00, 69' RT	6	X	10	3	51	30	82		
83	PB1	147+10, 85' RT	6	X	10	3	49	30	78		
84	PB1	147+10, 85' RT	6	X	10	3	40	30	60		
<b>TOTAL</b>							1223	5058	1982		

\*\*\* FOR NO. OF TURNS 3, CONNECT ONLY 3 WIRES OF UF CABLE. FOR LOCATIONS OF NO. TURNS 4 OR 5 CONNECT ALL 4 WIRES  
 \*\* LOCATION IS TO FRONT CENTER OF DETECTOR LOOP

**SIGNAL MOUNTING HARDWARE**

** LOCATION	SPV.0105.267 INSTALL SIGNAL MOUNTING HARDWARE L.S.
Mineral Point Road & Yellowstone Drive	1
<b>TOTAL</b>	<b>1</b>

**REMOVING PULL BOXES**

PULL BOX NO.	LOCATION	653.0905 REMOVING PULL BOXES EACH
EXPB1	EXISTING	1
EXPB2	EXISTING	1
<b>TOTAL</b>		<b>2</b>

**INSTALL CONDUIT INTO EXISTING ITEM**

PULL BOX NO.	LOCATION	652.0700.S INSTALL CONDUIT INTO EXISTING ITEM EACH
PB1	EXISTING	1
PB3	EXISTING	1
PB5	EXISTING	1
PB8	EXISTING	1
PB10	EXISTING	1
PB12	EXISTING	1
<b>TOTAL</b>		<b>6</b>

**TEMPORARY TRAFFIC SIGNALS**

** LOCATION	SPV.0105.206 TEMPORARY TRAFFIC SIGNAL L.S.
Mineral Point Road & Yellowstone Drive	1
<b>TOTAL</b>	<b>1</b>

PLAN REVISION 6	AE	10/23/2023
PLAN REVISION 3	AE	4/17/2023
REVISION	DATE	Scale: NTS
Mark	Designed By: AECOM	Date: 11/10/2023
	90631225P	

MISCELLANEOUS QUANTITIES: MINERAL POINT AND YELLOWSTONE DRIVE  
 BUS RAPID TRANSIT  
 CITY OF MADISON  
 CONTRACT NO: 60631225C



60631225P  
 MQ-22S

**SIGNAL MOUNTING HARDWARE**

** LOCATION	SPV.0105.268 INSTALL SIGNAL MOUNTING HARDWARE L.S.
Mineral Point Road & Island Drive	1
<b>TOTAL</b>	<b>1</b>

**INSTALL PTZ CAMERA**

** LOCATION	SPV.0060.272 INSTALL PTZ CAMERA EACH
SB4	1
<b>TOTAL</b>	<b>1</b>

**REMOVING TRAFFIC SIGNALS**

** LOCATION	SPV.0105.218 REMOVING TRAFFIC SIGNALS L.S.
Mineral Point Road & Island Drive	1
<b>TOTAL</b>	<b>1</b>

**TEMPORARY TRAFFIC SIGNALS**

** LOCATION	SPV.0105.207 TEMPORARY TRAFFIC SIGNAL L.S.
Mineral Point Road & Island Drive	1
<b>TOTAL</b>	<b>1</b>

**REMOVING PULL BOXES**

PULL BOX NO.	LOCATION	653.0905 REMOVING PULL BOXES EACH
EXPB1	EXISTING	1
EXPB2	EXISTING	1
EXPB3	EXISTING	1
EXPB4	EXISTING	1
EXPB5	EXISTING	1
<b>TOTAL</b>		<b>5</b>

**REMOVING CONCRETE BASES**

SIGNAL BASE NO.	LOCATION	204.0195 REMOVING CONCRETE BASES EACH
EXSB1	EXISTING	1
EXSB2	EXISTING	1
EXSB3	EXISTING	1
EXSB4	EXISTING	1
EXSB5	EXISTING	1
EXSB6	EXISTING	1
EXSB7	EXISTING	1
EXSB8	EXISTING	1
EXSB9	EXISTING	1
EXSB10	EXISTING	1
EXCB1	EXISTING	1
<b>TOTAL</b>		<b>11</b>

**CONDUIT**

LOC.	TO	LOC.	652.0225 CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH LF	652.0235 CONDUIT RIGID NONMETALLIC SCHEDULE 40 3-INCH LF	652.0615 CONDUIT SPECIAL 3-INCH LF
CB1		PB1		21	
PB1		SB1	5		
PB1		PB2			110
PB2		SB2	8		
PB2		PB3		76	
PB3		SB3	9		
PB3		PB4			112
PB4		SB4	8		
PB4		PB5	242		
PB4		PB6		90	
PB6		SB5	8		
PB6		PB7			200
PB6		SB6	32		
PB7		SB7	12		
PB7		SB8	35		
PB7		SB11	6		
PB7		PB8	28		
PB7		PB9			106
PB9		SB9	4		
PB9		PB10	267		
PB9		PB11			96
PB11		SB10	17		
PB11		PB1		64	
<b>TOTAL</b>			<b>681</b>	<b>251</b>	<b>624</b>

**PULL BOXES**

PULL BOX NO.	LOCATION	SPV.0060.202 INSTALL ELECTRICAL PULL BOX TYPE III EACH	SPV.0060.203 INSTALL ELECTRICAL PULL BOX TYPE V EACH
PB1	161+37,75' LT		1
PB2	161+90,78' LT		1
PB3	162+19,47' LT		1
PB4	162+19,8' RT		1
PB5	164+61,3' LT	1	
PB6	162+19,52' RT		1
PB7	161+25,51' RT		1
PB8	160+93,51' RT	1	
PB9	161+19,1' LT		1
PB10	158+51,8' RT	1	
PB11	161+19,49' LT		1
<b>TOTAL</b>		<b>3</b>	<b>8</b>

**CONCRETE BASES**

SIGNAL BASE NO.	LOCATION	SPV.0060.204 CONCRETE BASES TYPE G EACH	SPV.0060.205 CONCRETE BASES TYPE LB-3 EACH	SPV.0060.206 CONCRETE BASES TYPE LB-8 EACH	SPV.0060.207 CONCRETE BASE TYPE P EACH
CB1	161+40,81' LT				1
SB1	161+32,71' LT		1		
SB2	161+95,72' LT	1			
SB3	162+10,48' LT		1		
SB4	162+11,7' RT			1	
SB5	162+10,55' RT			1	
SB6	161+89,64' RT	Keep old base			
SB7	161+30,54' RT	1			
SB8	160+90,51' RT	1			
SB9	161+16,4' LT			1	
SB10	161+3,50' LT			1	
SB11	161+20,54' RT	1			
<b>TOTAL</b>		<b>4</b>	<b>2</b>	<b>4</b>	<b>1</b>

**ELECTRICAL SERVICE**

CABINET NO.	** LOCATION	SPV.0105.296 INSTALL ELECTRICAL SERVICE METER BREAKER PEDESTAL L.S.
CB1	Mineral Point Road & Island Drive	1
<b>TOTAL</b>		<b>1</b>

REVISOR: Jwj  
DATE: 9/29/2023

Mark	9/29/23	AE	BY
Designed By: AECOM	PLAN REVISION 6	REVISION	DATE
60631225P			Scale: NTS

60631225P  
MISCELLANEOUS QUANTITIES: MINERAL POINT AND ISLAND DRIVE  
CITY OF MADISON, DANE COUNTY, WI  
BUS RAPID TRANSIT  
CONTRACT NO: 60631225C  
CITY OF MADISON



60631225P

MQ-23S

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LAST PLOT DATE: 10/23/2023  
FILE NAME:

TRAFFIC SIGNAL CABLE AND ELECTRICAL WIRE

LOC.	TO	LOC.	655.0230 CABLE TRAFFIC SIGNAL 5-14 AWG	655.0240 CABLE TRAFFIC SIGNAL 7-14 AWG	655.0260 CABLE TRAFFIC SIGNAL 12-14 AWG	655.0280 CABLE TRAFFIC SIGNAL 19-14 AWG	655.0325 CABLE TYPE UF 2-8 AWG GROUNDED	655.0515 ELECTRICAL WIRE TRAFFIC SIGNALS 10 AWG	SPV.0090.202 ELECTRICAL WIRE LIGHTING 14-3 UF GROUNDED
CB1		SB1			40		40	40	
CB1		SB2		107					
CB1		SB3			165				
CB1		SB4				234			
CB1		SB5			294				
CB1		SB6			328				
CB1		SB7			224				
CB1		SB8			247				
CB1		SB9			146				
CB1		SB10			98	98	98		
CB1		SB11			220				
SB1		SB2					102		
SB2		SB3					91		
SB3		SB4				111	111		
SB4		SB5					102		
SB5		SB6					66		
SB6		SB7					182		
SB7		SB8					66		
SB8		SB11					68		
SB11		SB9					104		
SB9		SB10				109	109		
SB1		SB3				160			
SB1		HEAD 13	19						
SB1		HEAD 15	19						
SB1		HEAD 6A	15						
SB1		LUMINAIRE						126	
SB2		HEAD 14	19						
SB2		HEAD 6B	15						
SB3		HEAD 6	19						
SB3		HEAD 8D	15						
SB3		LUMINAIRE						114	
SB4		HEAD 4	19						
SB4		HEAD 5	41						
SB4		HEAD 9	19						
SB4		HEAD 18	19						
SB4		HEAD 8B	15						
SB4		HEAD 8C	15						
SB4		LUMINAIRE						252	
SB5		HEAD 2	51						
SB5		HEAD 3	40						
SB5		HEAD 8A	15						
SB6		HEAD 12	19						
SB6		HEAD 16	19						
SB6		HEAD 2B	15						
SB7		HEAD 10	19						
SB7		HEAD 17	19						
SB7		HEAD 2A	15						
SB8		HEAD 1	19						
SB11		HEAD 4D	15						
SB9		HEAD 11	19						
SB9		HEAD 4B	15						
SB9		HEAD 4C	15						
SB9		LUMINAIRE						252	
SB10		HEAD 7	48						
SB10		HEAD 8	39						
SB10		HEAD 4A	15						
SB10		LUMINAIRE						114	
TOTAL			646	107	1762	234	518	1139	858

TRAFFIC SIGNAL FACES

SIG. HEAD NO.	SIG. BASE NO.	SPV.0060.220 INSTALL TRAFFIC SIGNAL HEADS 12-INCH 3-SECTION EACH	SPV.0060.224 INSTALL TRAFFIC SIGNAL HEADS 16-INCH PEDESTRIAN WITH COUNTDOWN EACH	SPV.0060.223 INSTALL TRAFFIC SIGNAL HEADS 12-INCH 3-SECTION TRANSIT EACH	SPV.0060.225 INSTALL BACKPLATES SIGNAL FACES 3-SECTION 12-INCH EACH
1	SB8	1			1
2	SB5	1			1
3	SB5	1			1
4	SB4	1			1
5	SB4	1			1
6	SB3	1			1
7	SB10	1			1
8	SB10	1			1
9	SB4	1			1
10	SB7	1			1
11	SB9	1			1
12	SB6	1			1
13	SB1	1			1
14	SB2	1			1
15	SB1	1			1
16	SB6	1			1
17	SB7	1			1
18	SB4			1	1
2A	SB7		1		
2B	SB6		1		
4A	SB10		1		
4B	SB9		1		
4C	SB9		1		
4D	SB11		1		
6A	SB1		1		
6B	SB2		1		
8A	SB5		1		
8B	SB4		1		
8C	SB4		1		
8D	SB3		1		
TOTAL		17	12	1	18

TRAFFIC SIGNAL CABINET

LOCATION	SPV.0060.229 INSTALL NEMA TS2 TYPE 1 TRAFFIC CONTROLLER CABINET EACH	SPV.0060.231 OPTICAL SIGNAL PREEMPT SYSTEM EACH	SPV.0105.255 INSTALL GRIDSMART DETECTION SYSTEM LS
Mineral Point Road & Island Drive	1	1	1
TOTAL	1	1	1

REVISED BY JWJ 9/29/2023

60631225P  
 MISCELLANEOUS QUANTITIES: MINERAL POINT AND ISLAND DRIVE  
 CITY OF MADISON, DANE COUNTY, WI  
 BUS RAPID TRANSIT  
 CONTRACT NO: 60631225C  
 CITY OF MADISON  
 60631225P  
 MQ-24S  
 REVISION 6  
 9/29/2023  
 PLAN REVISION 6  
 REVISION  
 DATE  
 10/23/2023  
 Scale: NTS  
 Designed By: AECOM  
 60631225P

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 LAST PLOT DATE: 10/23/2023  
 FILE NAME:

TRAFFIC DETECTOR LOOPS

\*\*\*

LOOP NO.	HOME RUN PB	** LOCATION	SIZE (FT)	X	NO. OF TURNS	ELECTRICAL WIRE			
						652.0900 LOOP DETECTOR SLOTS L.F.	SPV.0090.201 LOOP DETECTOR LEAD-IN CABLE SPECIAL L.F.	SPV.0090.202 ELECTRICAL WIRE LIGHTING 14-3 UF GROUNDED L.F.	
21	PB10	158+50, 19' RT	6	X	10	4	40	366	60
22	PB10	158+50, 29' RT	6	X	10	4	51	366	82
23	PB10	158+50, 40' RT	6	X	10	4	61	366	102
24	PB9	160+93, 8' RT	6	X	10	3	-	97	98
25	PB8	160+93, 31' RT	6	X	10	3	50	175	80
26	PB8	160+93, 41' RT	6	X	10	3	39	175	58
27	PB9	161+28, 9' RT	6	X	6	3	-	97	52
<hr/>									
31	PB4	162+22, 4' LT	6	X	10	3	42	160	64
<hr/>									
41	PB1	161+60, 96' LT	6	X	10	3	60	16	100
42	PB1	161+60, 80' LT	6	X	10	3	54	16	88
43	PB1	161+50, 96' LT	6	X	10	3	50	16	80
44	PB1	161+50, 80' LT	6	X	10	3	50	16	66
<hr/>									
61	PB5	164+61, 15' LT	6	X	10	5	41	404	62
62	PB5	164+61, 26' LT	6	X	10	5	52	404	84
63	PB5	164+61, 37' LT	6	X	10	5	63	404	106
64	PB4	162+22, 15' LT	6	X	10	3	52	160	84
65	PB3	162+23, 26' LT	6	X	10	3	51	106	82
66	PB3	162+23, 37' LT	6	X	10	3	40	106	60
67	PB4	161+92, 15' LT	6	X	6	3	53	160	94
<hr/>									
91	PB9	160+93, 19' RT	6	X	10	3	70	97	120
<hr/>									
TOTAL							919	3707	1622

\*\*\* FOR NO. OF TURNS 3, CONNECT ONLY 3 WIRES OF UF CABLE. FOR LOCATIONS OF NO. TURNS 4 OR 5 CONNECT ALL 4 WIRES  
 \*\* LOCATION IS TO FRONT CENTER OF DETECTOR LOOP

TRAFFIC SIGNAL EQUIPMENT

SIG. BASE NO.	SPV.0060.273 INSTALL PEDESTAL BASES EACH	SPV.0060.274 INSTALL TRANSFORMER BASE BREAKAWAY 11 1/2-INCH BOLT CIRCLE EACH	SPV.0060.209 INSTALL POLES 20-FOOT 7 GAUGE SINGLE MOUNT EACH	SPV.0060.210 INSTALL POLES 30-FOOT 7 GAUGE TWIN MOUNT EACH	SPV.0060.211 INSTALL POLES 30-FOOT 7 GAUGE SINGLE MOUNT EACH	SPV.0060.212 INSTALL POLES 30-FOOT 11 GAUGE SINGLE MOUNT EACH	SPV.0060.277 INSTALL TRAFFIC SIGNAL STANDARDS ALUMINUM 13-FT EACH	SPV.0060.280 INSTALL TRAFFIC SIGNAL STANDARDS ALUMINUM 10-FT EACH	SPV.0060.265 INSTALL TRAFFIC SIGNAL TROMBONE ARM 12-FOOT EACH	SPV.0060.218 INSTALL TRAFFIC SIGNAL TROMBONE ARM 22-FOOT EACH	SPV.0060.219 INSTALL TRAFFIC SIGNAL TROMBONE ARM 25-FOOT EACH	SPV.0060.279 INSTALL PEDESTRIAN PUSH BUTTONS EACH	SPV.0060.228 INSTALL PLATFORM APS SYSTEM 4 PUSH BUTTONS EACH	FOR INFORMATIONAL PURPOSE ONLY APS PUSH BUTTON EACH	SPV.0060.232 INSTALL LED LUMINAIRE AND MOUNTING BRACKET TYPE I EACH	SPV.0060.233 INSTALL LED LUMINAIRE AND MOUNTING BRACKET TYPE II EACH	SPV.0060.234 INSTALL LED LUMINAIRE AND MOUNTING BRACKET TYPE III EACH
SB1		1				1										1	
SB2	1						1										
SB3		1				1						1			1		
SB4		1			1				1			1					2
SB5		1	1								1	1					
SB6	1						1										
SB7	1						1										
SB8	1						1										
SB9		1			1									2			2
SB10		1		1					1					1	1		
SB11		1						1						1			
CB1													1				
TOTAL	5	6	1	1	2	2	4	1	1	1	1	3	1	4	2	1	4

Mark	9/29/2023	AE	BY
Designed By: AECOM	REVISION	DATE	Scale: NTS
60631225P	1/19/2023		

MISCELLANEOUS QUANTITIES: MINERAL POINT AND ISLAND DRIVE  
 CITY OF MADISON, DANE COUNTY, WI  
 CONTRACT NO: 60631225C



60631225P

MQ-25S

REVISED BY JWJ 9/29/2023



ELECTRICAL SERVICE

SPV.0105.297  
INSTALL ELECTRICAL  
SERVICE METER  
BREAKER  
PEDESTAL  
L.S.

CABINET NO.	** LOCATION	PEDESTAL L.S.
CB1	Mineral Point Road & Rosa Road	1
TOTAL		1

REMOVING TRAFFIC SIGNALS

SPV.0105.219  
REMOVING TRAFFIC  
SIGNALS  
L.S.

** LOCATION	L.S.	
Mineral Point Road & Rosa Road	1	
TOTAL		1

SIGNAL MOUNTING HARDWARE

SPV.0105.269  
INSTALL SIGNAL  
MOUNTING  
HARDWARE  
L.S.

** LOCATION	L.S.	
Mineral Point Road & Rosa Road	1	
TOTAL		1

REMOVING PULL BOXES

PULL BOX NO.	LOCATION	653.0905 REMOVING PULL BOXES EACH
EXPB1	EXISTING	1
EXPB2	EXISTING	1
EXPB3	EXISTING	1
EXPB4	EXISTING	1
EXPB5	EXISTING	1
EXPB6	EXISTING	1
TOTAL		6

REMOVING CONCRETE BASES

SIGNAL BASE NO.	LOCATION	204.0195 REMOVING CONCRETE BASES EACH
EXSB1	EXISTING	1
EXSB2	EXISTING	1
EXSB3	EXISTING	1
EXSB4	EXISTING	1
EXSB5	EXISTING	1
EXSB6	EXISTING	1
EXSB7	EXISTING	1
EXSB8	EXISTING	1
EXSB9	EXISTING	1
EXSB10	EXISTING	1
EXCB1	EXISTING	1
TOTAL		11

CONCRETE BASES

SIGNAL BASE NO.	LOCATION	CONCRETE BASES TYPE G EACH	CONCRETE BASES TYPE LB-3 EACH	CONCRETE BASES TYPE LB-8 EACH	CONCRETE BASES TYPE P EACH
CB1	183+44, 87' LT				1
SB1	183+46, 70' LT	1			
SB2	183+77, 49' LT		1		
SB3	183+77, 9' RT			1	
SB4	183+77, 56' RT			1	
SB5	183+31, 74' RT		1		
SB6	182+85, 65' RT	1			
SB7	182+56, 56' RT	1			
SB8	182+70, 2' LT			1	
SB9	182+56, 48' LT			1	
SB10	182+95, 70' LT		1		
TOTAL		3	3	4	1

CONDUIT

LOC.	TO LOC.	652.0225 CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH LF	652.0235 CONDUIT RIGID NONMETALLIC SCHEDULE 40 3-INCH LF	652.0615 CONDUIT SPECIAL 3-INCH LF
CB1	PB1		39	
PB1	SB1	6		
PB1	PB2		96	
PB2	SB2	5		
PB2	PB3			112
PB3	SB3	6		
PB3	PB4	247		
PB3	PB5			94
PB5	SB4	5		
PB5	PB6		86	
PB6	SB5	10		
PB6	PB7			108
PB7	SB6	19		
PB7	PB8		72	
PB8	SB7	16		
PB8	PB9	25		
PB8	PB10			110
PB10	SB8	5		
PB10	PB11	267		
PB10	PB12			96
PB12	SB9	19		
PB12	PB13		74	
PB13	SB10	5		
PB13	PB1			100
PB14	PB2	46		
TOTAL		681	367	620

PULL BOXES

PULL BOX NO.	LOCATION	SPV.0060.202 ELECTRICAL PULL BOX TYPE III EACH	SPV.0060.203 ELECTRICAL PULL BOX TYPE V EACH
PB1	183+44, 76' LT		1
PB2	183+80, 47' LT		1
PB3	183+81, 9' RT		1
PB4	186+26, 3' LT	1	
PB5	183+82, 56' RT		1
PB6	183+48, 83' RT		1
PB7	182+91, 82' LT		1
PB8	182+73, 56' RT		1
PB9	182+48, 53' RT	1	
PB10	182+73, 1' RT		1
PB11	180+8, 11' RT	1	
PB12	182+75, 47' LT		1
PB13	182+96, 76' LT		1
PB14	184+26, 48' LT	1	
TOTAL		4	10

TEMPORARY TRAFFIC SIGNALS

** LOCATION	SPV.0105.208 TEMPORARY TRAFFIC SIGNAL L.S.	
Mineral Point Road & Rosa Road	1	
TOTAL		1

REVISED BY JWJ 11/10/2023

60631225P  
 MISCELLANEOUS QUANTITIES: MINERAL POINT AND ROSA ROAD  
 CITY OF MADISON, DANE COUNTY, WI  
 BUS RAPID TRANSIT  
 CONTRACT NO: 60631225C



60631225P  
MQ-26S

TRAFFIC SIGNAL CABLE AND ELECTRICAL WIRE

LOC.	TO	LOC.	655.0230 CABLE TRAFFIC SIGNAL 5-14 AWG	655.0240 CABLE TRAFFIC SIGNAL 7-14 AWG	655.0260 CABLE TRAFFIC SIGNAL 12-14 AWG	655.0280 CABLE TRAFFIC SIGNAL 19-14 AWG	655.0325 CABLE TYPE UF 2-8 AWG GROUNDED	655.0515 ELECTRICAL WIRE TRAFFIC SIGNALS 10 AWG	SPV.0090.202 ELECTRICAL WIRE LIGHTING 14-3 UF GROUNDED
LOC.	TO	LOC.	L.F.	L.F.	L.F.	L.F.	L.F.	L.F.	L.F.
CB1	SB1			46				46	
CB1	SB2				105		105		
CB1	SB3					177			
CB1	SB4				240				
CB1	SB5				302				
CB1	SB6		354						
CB1	SB7				303				
CB1	SB8				223				
CB1	SB9				174				
CB1	SB10				110		110		
SB1	SB2						105	98	
SB2	SB3							105	
SB3	SB4							97	
SB4	SB5							96	
SB5	SB6							122	
SB6	SB7							108	
SB7	SB8							115	
SB8	SB9						111	111	
SB9	SB10						101	101	
SB3	SB5						159		
SB1	HEAD 14		19						
SB1	HEAD 6B		15						
SB2	HEAD 6		19						
SB2	HEAD 8D		15						
SB2	LUMINAIRE								114
SB3	HEAD 4		19						
SB3	HEAD 5		41						
SB3	HEAD 9		19						
SB3	HEAD 18		19						
SB3	HEAD 8B		15						
SB3	HEAD 8C		15						
SB3	LUMINAIRE								252
SB4	HEAD 2		48						
SB4	HEAD 3		40						
SB4	HEAD 8A		15						
SB4	HEAD 2B		15						
SB5	HEAD 12		19						
SB5	HEAD 16		19						
SB5	LUMINAIRE								126
SB6	HEAD 17		19						
SB6	HEAD 2A		15						
SB7	HEAD 1		19						
SB7	HEAD 10		19						
SB7	HEAD 4D		15						
SB8	HEAD 11		19						
SB8	HEAD 4B		15						
SB8	HEAD 4C		15						
SB8	LUMINAIRE								252
SB9	HEAD 7		48						
SB9	HEAD 8		38						
SB9	HEAD 4A		15						
SB9	LUMINAIRE								114
SB10	HEAD 13		19						
SB10	HEAD 15		19						
SB10	HEAD 6A		15						
SB10	LUMINAIRE								126
<b>TOTAL</b>			<b>642</b>	<b>400</b>	<b>1457</b>	<b>177</b>	<b>691</b>	<b>1109</b>	<b>984</b>

TRAFFIC SIGNAL FACES

SIG. HEAD NO.	SIG. BASE NO.	SPV.0060.220 INSTALL TRAFFIC SIGNAL HEADS 12-INCH 3-SECTION EACH	SPV.0060.223 INSTALL TRAFFIC SIGNAL HEADS 12-INCH 3-SECTION TRANSIT EACH	SPV.0060.224 INSTALL TRAFFIC SIGNAL HEADS 16-INCH PEDESTRIAN WITH COUNTDOWN EACH	SPV.0060.225 INSTALL BACKPLATES SIGNAL FACES 3-SECTION 12-INCH EACH
1	SB7	1			1
2	SB4	1			1
3	SB4	1			1
4	SB3	1			1
5	SB3	1			1
6	SB2	1			1
7	SB9	1			1
8	SB9	1			1
9	SB3	1			1
10	SB7	1			1
11	SB8	1			1
12	SB5	1			1
13	SB10	1			1
14	SB1	1			1
15	SB10	1			1
16	SB5	1			1
17	SB6	1			1
18	SB3		1		1
2A	SB6			1	
2B	SB4			1	
4A	SB9			1	
4B	SB8			1	
4C	SB8			1	
4D	SB7			1	
6A	SB10			1	
6B	SB1			1	
8A	SB4			1	
8B	SB3			1	
8C	SB3			1	
8D	SB2			1	
<b>TOTAL</b>		<b>17</b>	<b>1</b>	<b>12</b>	<b>18</b>

REVISED BY JWJ 9/29/2023

60631225P  
 MISCELLANEOUS QUANTITIES: MINERAL POINT AND ROSA ROAD  
 CITY OF MADISON, DANE COUNTY, WI  
 BUS RAPID TRANSIT  
 CITY OF MADISON  
 CONTRACT NO: 60631225C  
 9/29/2023  
 Scale: NTS  
 9/29/2023  
 AE  
 BY  
 DATE  
 PLAN REVISION 6  
 REVISION  
 Date  
 9/29/2023  
 Mark  
 Designed By: AECOM  
 9/29/2023  
 60631225P  
 C:\OneDrive\AECOM\City of Madison BRT Quantities - Cost Quantities\Madison BRT MQ Plan Sheets.pptx  
 LAST PLOT DATE: 9/29/2023  
 CITY OF MADISON  
 WISCONSIN  
 60631225P  
 MQ-27S

TRAFFIC DETECTOR LOOPS

\*\*\*

LOOP NO.	HOME RUN PB	** LOCATION	SIZE (FT)	X	(FT)	NO. OF TURNS	652.0900 LOOP DETECTOR		SPV.0090.201 LOOP DETECTOR		SPV.0090.202 ELECTRICAL WIRE	
							SLOTS L.F.	LEAD-IN CABLE SPECIAL L.F.	LIGHTING 14-3 UF GROUNDED L.F.	SPV.0090.209 SAWED IN BICYCLE LOOP DETECTION L.F.		
21	PB1	57+40, 19' RT	6	X	10	3	60	171	100	-		
22	PB1	57+40, 29' RT	6	X	10	3	47	171	74	-		
23	PB3	59+11, 6' RT	6	X	10	3	-	33	124	-		
24	PB3	59+11, 28' RT	6	X	10	3	50	33	80	-		
25	PB4	59+50, 7' RT	6	X	6	3	-	80	60	-		
201	PB1	57+40, 42' RT	6	X	3	3	-	-	-	23		
202	PB3	59+12, 40' RT	6	X	3	3	-	-	-	25		
31	PB11	60+49, 8' LT	6	X	10	3	45	206	70	-		
41	PB6	59+67, 101' LT	6	X	10	3	66	168	112	-		
42	PB6	59+67, 85' LT	6	X	10	3	53	168	86	-		
43	PB6	59+56, 101' LT	6	X	10	3	56	168	92	-		
44	PB6	59+56, 85' LT	6	X	10	3	43	168	66	-		
61	PB10	62+16, 14' LT	6	X	10	5	67	439	114	-		
62	PB10	62+16, 30' LT	6	X	10	5	52	439	84	-		
63	PB11	60+49, 19' LT	6	X	10	3	57	208	94	-		
64	PB11	60+49, 31' LT	6	X	10	3	68	208	116	-		
65	PB11	60+20, 19' LT	6	X	6	4	54	208	96	-		
601	PB10	62+17, 43' LT	6	X	3	3	-	-	-	27		
602	PB9	60+49, 43' LT	6	X	3	3	-	-	-	27		
81	PB14	59+96, 95' RT	6	X	10	3	50	141	80	-		
82	PB14	59+96, 79' RT	6	X	10	3	49	141	78	-		
83	PB14	60+6, 95' RT	6	X	10	3	39	141	58	-		
84	PB14	60+6, 79' RT	6	X	10	3	39	141	58	-		
91	PB3	59+11, 17' RT	6	X	10	3	59	33	98	-		
TOTAL							954	3465	1740	102		

\*\*\* FOR NO. OF TURNS 3, CONNECT ONLY 3 WIRES OF UF CABLE. FOR LOCATIONS OF NO. TURNS 4 OR 5 CONNECT ALL 4 WIRES  
 \*\* LOCATION IS TO FRONT CENTER OF DETECTOR LOOP

TRAFFIC SIGNAL EQUIPMENT

SIG. BASE NO.	SPV.0060.273 INSTALL PEDESTAL BASES EACH	SPV.0060.274 INSTALL TRANSFORMER BASE BREAKAWAY 11 1/2-INCH BOLT CIRCLE EACH	SPV.0060.209 INSTALL POLES 20-FOOT 7 GAUGE EACH	SPV.0060.211 INSTALL POLES 30-FOOT 7 GAUGE TWIN MOUNT EACH	SPV.0060.212 INSTALL POLES 30-FOOT 11 GAUGE SINGLE MOUNT EACH	SPV.0060.277 INSTALL TRAFFIC SIGNAL STANDARDS ALUMINUM 13-FT EACH	SPV.0060.217 INSTALL TRAFFIC SIGNAL TROMBONE ARM 20-FOOT EACH	SPV.0060.218 INSTALL TRAFFIC SIGNAL TROMBONE ARM 22-FOOT EACH	SPV.0060.279 INSTALL PEDESTRIAN PUSH BUTTONS EACH	SPV.0060.228 INSTALL PLATFORM APS SYSTEM 4 PUSH BUTTONS EACH	FOR INFORMATIONAL PURPOSE ONLY APS PUSH BUTTON EACH	SPV.0060.233 INSTALL LED LUMINAIRE AND MOUNTING BRACKET TYPE II EACH	SPV.0060.234 INSTALL LED LUMINAIRE AND MOUNTING BRACKET TYPE III EACH
SB1	1					1					1		
SB2		1		1							2		2
SB3		1	1				1				1		
SB4		1			1							1	
SB5	1					1							
SB6		1			1							1	
SB7	1					1				1			
SB8		1		1						1			2
SB9		1	1					1	1				
SB10		1			1							1	
SB11	1					1							
SB12		1			1							1	
CB1										1			
TOTAL	4	8	2	2	4	4	1	1	3	1	4	4	4

AE	10/26/2023
AE	4/17/2023
BY	DATE
Scale: NTS	
PLAN REVISION 6	
PLAN REVISION 3	
REVISION	Date: 10/26/2023
Mark	Designed By: AECOM
90631225P	

MISCELLANEOUS QUANTITIES: WHITNEY WAY AND REGENT STREET  
 60631225P  
 CITY OF MADISON, DANE COUNTY, WI  
 BUS RAPID TRANSIT  
 CONTRACT NO: 60631225C



60631225P  
 MQ-32S

REVISED BY JWJ 10/26/2023

**INSTALL CONDUIT INTO EXISTING ITEM**

652.0700.S  
INSTALL CONDUIT  
INTO EXISTING  
ITEM

LOCATION	ITEM EACH
High Point	2
Randolph	2
Westfield	2
Rosa	1
Eau Claire	3
Campus Drive	2
Campus Mall	1
<b>TOTAL</b>	<b>13</b>

**TEMPORARY LIGHTING**

SPV.0105.256  
TEMPORARY  
STREET LIGHTING

LOCATION	L.S.
Project	1
<b>TOTAL</b>	<b>1</b>

**LIGHTING CONTROL CABINET**

SPV.0060.264  
INSTALL  
LIGHTING  
CONTROL  
CABINET

LIGHTING BASE NO.	** LOCATION	CABINET EACH
LC1	JUNCTION	1
LC1	GAMMON	1
LC1	ISLAND	1
LC1	SEGOE	1
<b>TOTAL</b>		<b>4</b>

**PULL BOXES**

SPV.0060.201  
ELECTRICAL  
PULL BOX  
TYPE I

SECTION	PULL BOX NO.	LOCATION	EACH
Junction	LPB1	0+58, 32' LT	1
	LPB2	1+15, 32' LT	1
	LPB3	1+15, 08' RT	1
	LPB4	1+52, 08' RT	1
	LPB5	6+26, 05' RT	1
	LPB6	6+26, 18' LT	1
	LPB7	1+17, 68' RT	1
	LPB8	6+93, 07' RT	1
	LPB9	7+10, 50' LT	1
	LPB10	0+09, 107' LT	1
Gammon	LPB1	118+79, 92' LT	1
	LPB2	117+76, 94' LT	1
	LPB3	117+31, 56' LT	1
	LPB4	117+29, 45' RT	1
	LPB5	119+45, 72' LT	1
	LPB6	119+44, 46' RT	1
Eau Claire	LPB1	12+47, 29' LT	1
Segoe	LPB1	30+18, 21' LT	1
	LPB2	30+18, 27' RT	1
Campus Drive	LPB1	416+47, 46' RT	1
	LPB2	417+91, 50' RT	1
Orchard	LPB1	813+55, 38' LT	1
Campus Mall	LPB1	833+36, 34' LT	1
	LPB2	834+25, 39' LT	1
<b>TOTAL</b>			<b>24</b>

**REMOVE AND SALVAGE LIGHTING**

204.0195  
REMOVING  
CONCRETE BASES

SPV.0060.243  
REMOVING STREET  
LIGHTING ASSEMBLY

NO. EXISTING	LOCATION	EACH	EACH
	Grand Canyon	2	2
	Island	2	2
	Rosa	1	1
	Eau Claire	1	1
	Segoe	1	1
	Campus Drive	4	4
	Campus Mall	1	1
<b>TOTAL</b>		<b>12</b>	<b>12</b>

**CONCRETE BASES**

SPV.0060.205  
CONCRETE  
BASES  
TYPE LB-3

SPV.0060.206  
CONCRETE  
BASES  
TYPE LB-8

SPV.0060.207  
CONCRETE  
BASE  
TYPE P

SECTION	LIGHTING BASE NO.	LOCATION	EACH	EACH	EACH
Junction	1	2+33, 13' RT	1		
	2	3+47, 6' RT	1		
	3	4+64, 15' RT	1		
	4	6+30, 17' LT	1		
	5	0+76, 10' RT	1		
	6	8+77, 16 RT	1		
	7	7+69, 16' RT	1		
	8	7+12, 50' LT	1		
	LC1	0+54, 31' LT			1
	Gammon	LC1	119+45, 76' LT		
Grand Canyon	762	135+57, 2' RT	1		
Island	LC1	161+38, 93' LT			1
Rosa	838	181+16, 01' LT	1		
Eau Claire	1454	12+47, 29' LT	1		
Segoe	LC1	12+47, 29' LT			1
Campus Drive	57053	417+92, 47' RT	1		
	6612	416+47, 42' RT	1		
	6611	414+84, 41' RT	1		
	6608	412+91, 38' RT	1		
Campus Mall	DMS1	413+25, 38' RT		1	
	52624	836+03, 33' LT	1		
<b>TOTAL</b>			<b>16</b>	<b>1</b>	<b>4</b>

10/3/2023	AE	Scale: NTS
8/8/2023	AE	
1/27/2023	AE	
	REVISION	
	Mark	
	Designed By: AECOM	
	90631225P	

60631225P  
 CITY OF MADISON, DANE COUNTY, WI  
 CONTRACT NO: 60631225C  
 MISCELLANEOUS QUANTITIES: WEST LIGHTING  
 BUS RAPID TRANSIT  
 CITY OF MADISON



60631225P

MQ-1L



LIGHTING CONDUIT & ELECTRICAL WIRE

SECTION	LOC.	TO	LOC.	LINEAR DISTANCE	NUMBER OF CONDUITS	652.0225	652.0235	652.0325	652.0335	652.0605	652.0615	IN CONDUIT RUN		IN LIGHT POLE		SPV.0090.202	655.0620	655.0630	655.0645
						CONDUIT RIGID NONMETALLIC SCHEDULE 40	CONDUIT RIGID NONMETALLIC SCHEDULE 40	CONDUIT RIGID NONMETALLIC SCHEDULE 80	CONDUIT RIGID NONMETALLIC SCHEDULE 80	CONDUIT SPECIAL	CONDUIT SPECIAL	WIRE SLACK LF	NUMBER OF WIRES (INCLUDING GROUND WIRE)	LENGTH OF WIRE IN POLE	NUMBER OF WIRES (INCLUDING GROUND WIRE)	ELECTRICAL WIRE LIGHTING 14-3 UF GROUNDED EACH	ELECTRICAL WIRE 8 AWG LIGHTING L.F.	ELECTRICAL WIRE 4 AWG LIGHTING L.F.	ELECTRICAL WIRE 1/0 AWG LIGHTING L.F.
						2-INCH L.F.	3-INCH L.F.	2-INCH L.F.	3-INCH L.F.	2-INCH L.F.	3-INCH L.F.								
Junction																			
METER	LC1			22	1	22	-	-	-	-	-	11	3			-	-	99	-
LC1	LPB1			5	2	-	10	-	-	-	-	23	16			-	112	336	-
LPB1	LPB2			58	2	-	116	-	-	-	-	30	16			-	352	1056	-
LPB2	LPB3			41	2	-	-	-	82	-	-	30	16			-	284	852	-
LPB3	5			40	1	40	-	-	-	-	-	18	16	70	1	70	232	696	-
LPB3	LPB4			37	1	-	-	37	-	-	-	30	8			-	134	402	-
LPB4	1			71	1	71	-	-	-	-	-	18	8	70	1	70	178	534	-
1	2			107	1	107	-	-	-	-	-	6	8	70	1	70	226	678	-
2	3			117	1	-	-	117	-	-	-	6	8	70	1	70	246	738	-
3	LPB5			145	1	145	-	-	-	-	-	18	4			-	163	489	-
LPB5	LPB6			22	1	-	-	22	-	-	-	30	4			-	52	156	-
LPB6	4			4	1	4	-	-	-	-	-	18	7	70	1	70	22	132	-
LPB3	LPB7			58	1	58	-	-	-	-	-	6	8			-	128	384	-
LPB7	6			78	1	78	-	-	-	-	-	18	8	70	1	70	192	576	-
6	7			110	1	110	-	-	-	-	-	6	8	70	1	70	232	696	-
7	LPB8			68	1	68	-	-	-	-	-	18	4			-	86	258	-
LPB8	LPB9			62	1	-	-	62	-	-	-	30	4			-	92	276	-
LPB9	8			4	1	4	-	-	-	-	-	18	4	70	1	70	22	66	-
2134	LPB10			157	1	5	-	-	-	-	-	21	4			-	178	534	-
LPB10	2130			209	1	-	-	-	-	181	-	18	4			-	227	681	-
2141	2139			386	1	-	-	-	-	215	-	6	4			-	392	1176	-
SECTION SUBTOTAL						712	126	238	82	396	0					560	3550	10815	0
High Point																			
490	PB			98	1	98	-	-	-	-	-	18	12			-	348	1044	-
PB	PB			100	2	-	-	-	-	-	200	30	-			-	-	-	-
PB	487			197	1	197	-	-	-	-	-	18	-			-	-	-	-
PB	1689			325	1	23	-	-	-	-	-	60	4			-	385	1155	-
PB	1687			453	1	10	-	-	-	-	-	45	4			-	498	1494	-
PB	1688			466	1	10	-	-	-	-	-	60	4			-	526	1578	-
SECTION SUBTOTAL						338	0	0	0	0	200					0	1757	5271	0
Randolph																			
482	PB4			40	1	0	-	-	-	-	-	18	4			-	58	174	-
PB4	PB13			180	2	-	-	-	-	-	360	30	4			-	210	630	-
PB13	PB14			50	1	0	-	-	-	-	-	30	4			-	80	240	-
PB14	478			5	1	0	-	-	-	-	-	18	4			-	23	69	-
482	PB7			45	1	0	-	-	-	-	-	18	4			-	63	189	-
PB7	PB8			41	1	0	-	-	-	-	-	18	4			-	59	177	-
PB8	4618			13	1	0	-	-	-	-	-	18	4			-	31	93	-
SECTION SUBTOTAL						0	0	0	0	0	360					0	524	1572	0
Westfield																			
476	PB			151	1	151	-	-	-	-	-	18	4			-	169	507	-
PB	55621			370	1	41	-	-	-	-	-	48	4			-	418	1254	-
PB	PB			106	2	-	-	-	-	-	212	18	-			-	-	-	-
PB	4610			86	1	86	-	-	-	-	-	-	-			-	-	-	-
SECTION SUBTOTAL						278	0	0	0	0	212					0	587	1761	0
Gammon																			
LC1	LPB5			4	1	4	-	-	-	-	-	23	4			-	27	81	-
LPB5	5736			50	1	47	-	-	-	-	-	18	4			-	68	204	-
LPB5	LPB6			119	2	-	-	-	-	-	238	30	4			-	149	447	-
LPB6	5729			79	1	75	-	-	-	-	-	18	4			-	97	291	-
LC1	LPB1			71	1	71	-	-	-	-	-	23	8			-	188	564	-
LPB1	LPB2			135	2	-	-	-	-	-	202	30	8			-	330	990	-
LPB2	LPB3			114	1	58	-	-	-	-	-	30	8			-	288	864	-
LPB3	4606			105	1	101	-	-	-	-	-	18	4			-	123	369	-
LPB3	LPB4			98	2	-	-	-	-	-	196	30	4			-	128	384	-
LPB4	5742			59	1	55	-	-	-	-	-	18	4			-	77	231	-
LC1	METER			30	1	30	-	-	-	-	-	11	3			-	-	123	-
SECTION SUBTOTAL						441	0	0	0	0	636					0	1475	4548	0
Grand Canyon																			
PB	PB			103	2	-	-	-	-	-	206	-	-			-	-	-	-
PB	762			176	1	176	-	-	-	-	-	-	-			-	-	-	-
762	EX POLE			166	1	5	-	-	-	-	-	6	-	42	1	42	-	-	-
SECTION SUBTOTAL						181	0	0	0	0	206					42	0	0	0

(CONTINUED ON NEXT PAGE)

11/10/2023	AE
08/2023	AE
	BY
PLAN REVISION 6	DATE
PLAN REVISION 5	DATE
REVISION	DATE
Scale: NTS	
Designed By: AECCM	Date: 11/10/2023
Mark	90631225P

60631225P  
 CITY OF MADISON, DANE COUNTY, WI  
 CONTRACT NO: 60631225C

MISCELLANEOUS QUANTITIES: WEST LIGHTING  
 BUS RAMP TRANSIT  
 CITY OF MADISON



60631225P

MQ-2L

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REVISED BY JWJ 11/10/2023

LIGHTING CONDUIT & ELECTRICAL WIRE (CONTINUED)

SECTION	LOC.	TO LOC.	LINEAR DISTANCE	NUMBER OF CONDUITS	652.0225	652.0235	652.0325	652.0335	652.0605	652.0615	IN CONDUIT RUN		IN LIGHT POLE		SPV.0090.202	655.0620	655.0630	655.0645	
					CONDUIT RIGID NONMETALLIC SCHEDULE 40	CONDUIT RIGID NONMETALLIC SCHEDULE 40	CONDUIT RIGID NONMETALLIC SCHEDULE 80	CONDUIT RIGID NONMETALLIC SCHEDULE 80	CONDUIT SPECIAL 2-INCH L.F.	CONDUIT SPECIAL 3-INCH L.F.	WIRE SLACK LF	NUMBER OF WIRES (INCLUDING GROUND WIRE)	LENGTH OF WIRE IN POLE	NUMBER OF WIRES (INCLUDING GROUND WIRE)	ELECTRICAL WIRE LIGHTING 14-3 UF GROUNDED EACH	ELECTRICAL WIRE LIGHTING 8 AWG L.F.	ELECTRICAL WIRE LIGHTING 4 AWG L.F.	ELECTRICAL WIRE LIGHTING 1/0 AWG L.F.	
<b>Island</b>																			
	LC1	PB1	21	1	-	21	-	-	-	-	23	8	-	-	-	88	264	-	
	PB1	PB11	31	-	-	-	-	-	-	-	30	4	-	-	-	61	183	-	
	PB1	PB9	47	-	-	-	-	-	-	-	30	4	-	-	-	77	231	-	
	PB9	181	162	1	152	-	-	-	-	-	18	4	-	-	-	180	540	-	
	PB1	PB2	50	-	-	-	-	-	-	-	30	4	-	-	-	80	240	-	
	PB2	PB3	43	-	-	-	-	-	-	-	30	4	-	-	-	73	219	-	
	PB3	PB4	54	-	-	-	-	-	-	-	30	4	-	-	-	84	252	-	
	PB4	180	103	1	13	-	-	-	-	-	18	4	-	-	-	121	363	-	
	PB4	PB9	101	2	-	-	-	-	-	202	-	-	-	-	-	-	-	-	
	METER	LC1	8	1	8	-	-	-	-	-	11	3	-	-	-	-	57	-	
	SECTION SUBTOTAL					173	21	0	0	0	202				0	764	2349	0	
<b>Rosa</b>																			
	EXPL839	838	175	1	10	-	-	-	-	-	18	-	42	1	42	-	-	-	
	838	PB10	155	1	155	-	-	-	-	-	18	4	-	-	-	173	519	-	
	PB10	PB3	104	2	-	-	-	-	-	208	30	4	-	-	-	134	402	-	
	PB3	837	128	1	128	-	-	-	-	-	18	4	-	-	-	146	438	-	
	SECTION SUBTOTAL					293	0	0	0	0	208				42	453	1359	0	
<b>Eau Claire</b>																			
	1452	LPB2	5	1	-	-	-	-	-	-	18	4	-	-	-	23	69	-	
	LBP2	LBP3	37	1	-	-	-	-	-	-	30	4	-	-	-	67	201	-	
	LPB3	1454	82	1	82	-	-	-	-	-	18	4	42	1	42	100	300	-	
	1454	1458	306	1	124	-	-	-	-	-	6	4	-	-	-	312	936	-	
	1459	LPB4	4	1	-	-	-	-	-	-	18	4	-	-	-	22	66	-	
	LPB4	LPB1	35	2	-	-	-	-	-	70	30	4	-	-	-	65	195	-	
	LPB1	1455	223	1	223	-	-	-	-	-	18	4	-	-	-	241	723	-	
	SECTION SUBTOTAL					429	0	0	0	0	70				42	830	2490	0	
<b>Segoe</b>																			
	METER	LC1	18	1	18	-	-	-	-	-	-	3	-	-	-	-	54	-	
	LC1	LPB1	25	1	-	-	-	-	-	25	23	4	-	-	-	48	144	-	
	LC1	LPB1	24	1	24	-	-	-	-	-	-	4	-	-	-	24	72	-	
	LPB1	1468	127	1	5	-	-	-	-	-	18	4	-	-	-	145	435	-	
	LPB1	LPB2	50	2	-	-	-	-	-	100	30	4	-	-	-	80	240	-	
	LPB2	1466	296	1	-	-	-	-	-	5	18	4	-	-	-	314	942	-	
	SECTION SUBTOTAL					47	0	0	0	0	130	89	23	0	0	611	1887	0	
<b>Campus Drive</b>																			
	SB5	PB5	5	1	-	-	-	-	-	-	18	4	-	-	-	23	69	-	
	PB5	LPB2	136	1	138	-	-	-	-	-	30	4	-	-	-	166	498	-	
	LPB2	57053	136	1	6	-	-	-	-	-	18	8	42	1	42	308	924	-	
	LPB2	LPB1	140	1	139	-	-	-	-	-	30	4	-	-	-	170	510	-	
	LPB1	6612	140	1	6	-	-	-	-	-	18	8	42	1	42	316	948	-	
	LPB1	6611	156	1	169	-	-	-	-	-	18	4	42	1	42	174	522	-	
	6611	6608	187	1	175	-	-	-	-	-	6	-	-	-	-	-	-	-	
	6608	6607	200	1	5	-	-	-	-	-	6	-	42	1	42	-	-	-	
	EXPB	DMS1	5	1	5	-	-	-	-	-	18	-	50	1	50	-	-	-	
	SECTION SUBTOTAL					643	0	0	0	0	0				218	1157	3471	0	
<b>Orchard</b>																			
	2307	PB3	38	1	0	-	-	-	-	-	18	4	-	-	-	56	168	-	
	PB3	LBP1	95	1	95	-	-	-	-	-	18	4	-	-	-	113	339	-	
	LPB1	2308	27	1	18	-	-	-	-	-	18	8	-	-	-	90	270	-	
	LPB1	2309	152	1	20	-	-	-	-	-	18	4	-	-	-	170	510	-	
	SECTION SUBTOTAL					133	0	0	0	0	0				0	429	1287	0	
<b>Campus Mall</b>																			
	1959	LPB1	110	1	-	-	-	-	-	-	18	4	-	-	-	128	384	-	
	LPB1	LPB2	92	1	92	-	-	-	-	-	30	4	-	-	-	122	366	-	
	LPB2	EX COMB POLE	12	1	10	-	-	-	-	-	18	4	-	-	-	30	90	-	
	EX COMB POLE	52624	104	1	102	-	-	-	-	-	6	4	42	1	42	110	330	-	
	52624	52623	96	1	5	-	-	-	-	-	6	4	-	-	-	102	306	-	
	SECTION SUBTOTAL					209	0	0	0	0	0				42	492	1476	0	
<b>TOTAL</b>						3877	147	238	82	396	2224				946	12629	38286	0	

60631225P  
 MISCELLANEOUS QUANTITIES: WEST LIGHTING  
 CITY OF MADISON, DANE COUNTY, WI  
 BUS RAPID TRANSIT  
 CITY OF MADISON  
 CONTRACT NO: 60631225C  
 10/3/2023  
 PLAN REVISION 6  
 8/8/2023  
 PLAN REVISION 5  
 1/27/2023  
 PLAN REVISION 1  
 REVISION  
 Date: 11/10/2023  
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 90631225P  
 Mark  
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 60631225P  
 MQ-3L

REVISED BY JWJ 10/3/2023

**STREET LIGHTING EQUIPMENT**

SECTION	LTG. BASE NO.	SPV.0060.274 INSTALL TRANSFORMER BASES BREAKAWAY 11 1/2-INCH BOLT CIRCLE EACH	SPV.0060.212 INSTALL POLES 30-FOOT 11 GAUGE SINGLE MOUNT EACH	SPV.0060.213 INSTALL POLES 30-FOOT 11 GAUGE TWIN MOUNT EACH	SPV.0060.233 INSTALL LED LUMINAIRE AND MOUNTING BRACKET TYPE II EACH	SPV.0060.234 INSTALL LED LUMINAIRE AND MOUNTING BRACKET TYPE III EACH	SPV.0060.235 INSTALL LED LUMINAIRE AND MOUNTING BRACKET TYPE IV EACH	SPV.0060.236 INSTALL LED LUMINAIRE AND MOUNTING BRACKET TYPE V EACH	SPV.0060.245 INSTALL LED LUMINAIRE AND MOUNTING BRACKET TYPE A EACH	SPV.0060.241 INSTALL LED LUMINAIRE AND MOUNTING BRACKET TYPE D EACH	SPV.0060.283 SALVAGE AND REINSTALL DMS SIGN ASSEMBLY EACH
Junction	1	1		1					1	1	
	2	1		1					2		
	3	1		1					2		
	4	1	1						1		
	5	1		1					1	1	
	6	1		1						2	
	7	1		1						2	
	8	1	1							1	
Grand Canyon	762	1		1		2					
Rosa	838	1		1		2					
Eau Claire	1454	1	1		1						
Campus Drive	6612	1	1				1				
	6611	1	1				1				
	6608	1	1				1				
	57053	1	1				1				
	DMS1										1
Campus Mall	52624	1	1					1			
	<b>TOTAL</b>	<b>16</b>	<b>8</b>	<b>8</b>	<b>1</b>	<b>4</b>	<b>4</b>	<b>1</b>	<b>7</b>	<b>7</b>	<b>1</b>

10/2/2023	AE
8/8/2023	AE
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