CITY OF Grand Junction COLORADO

Purchasing Division

ADDENDUM NO. 3

DATE: **April 15, 2019**
FROM: **City of Grand Junction Purchasing Division**
TO: **All Offerors**
RE: **Riverside Park Improvements and Bike Path IFB-4621-19-DH**

Offerors responding to the above referenced solicitation are hereby instructed that the requirements have been clarified, modified, superseded and supplemented as to this date as hereinafter described.

Please make note of the following clarifications:

1. **The Responses Due Date and Time have been changed to April 22, 2019 prior to 3:30pm.**

2. The IFB Tentative Time Schedule has been modified as follows:

IFB TENTATIVE TIME SCHEDULE:

Invitation for Bids available	March 13, 2019
Mandatory Pre-Bid Meeting	March 28, 2019
Inquiry deadline, no questions after this date	April 3, 2019
Addendum Posted	April 9, 2019
Submittal deadline for proposals	April 22, 2019
City Council or Board of Commissioners Approval	May 15, 2019
Notice of Award & Contract execution	May 16, 2019
Bonding & Insurance Cert due	May 21, 2019
Preconstruction meeting	TBD
Work begins no later than	TBD
Final Completion	120 Calendar Days From Notice to Proceed
Holidays:	May 27, 2019 (Memorial Day) July 4, 2019 (Independence Day)

3. See the attached Bid Schedule with the following revisions:
   - Item No. 2 has been revised to [12” Storm Drain Pipe (C-900 PVC)]
   - Item No. 5 has been revised to [18” Storm Drain Pipe (RCP)]
   - Item No. 33 has been revised to reflect “SF” as the pay unit.
   - Item No. 42 has been revised to [Luminaire LED (Pedestrian) to include foundation]

- Item No. 43 has been added as [Luminaire LED (Street) to include foundation]
- Item No. 44 has been added as [Electrical Pull Box (Type 1) (11”x18”x12”)]
- Item No. 45 has been added as [Electrical Panel Pedestal (Complete in Place) to include appurtenances]
- Item No. 46 has been added as [Wiring (Complete in Place)]
- Item No. 47 has been added as [Trenching for Site Electrical (Pedestrian & Street light circuits) – approx. 1,685 LF with (2)-2” Schedule 80 PVC conduits. (Refer to Utility Detail Sheet E11).]

  Contractor shall utilize the attached updated Price Bid Schedule when submitting their bid response.

4. See attached the revised Site Lighting/Electrical Plan set.

The original solicitation for the project noted above is amended as noted.

All other conditions of subject remain the same.

Respectfully,

Duane Hoff Jr., Senior Buyer
City of Grand Junction, Colorado

Bid Schedule: Riverside Park Improvements and Bike Path (Addendum #3)

Item No.	CDOT, City Ref.	Description	Quantity	Units	Unit Price	Total Price
1	108.2	6" Storm Drain Pipe (C-900 PVC)	132.	LF	$ _____	$ _____
2	108.2	12" Storm Drain Pipe (C-900 PVC)	380.	LF	$ _____	$ _____
3	108.2	12" Storm Drain Pipe (RCP)	26.	LF	$ _____	$ _____
4	108.2	18" Storm Drain Pipe (C-900 PVC)	15.	LF	$ _____	$ _____
5	108.2	18" Storm Drain Pipe (RCP)	40.	LF	$ _____	$ _____
5	108.5	Manhole Barrel Section (D>5')(48" I.D.)	3.	VLF	$ _____	$ _____
6	108.5	Storm Sewer Basic Manhole (48" I.D.)	2.	EA	$ _____	$ _____
7	108.5	ADS Inlets or engineer approved	3.	EA	$ _____	$ _____
8	108.6	Special Small Storm Drain Area Inlet (see plan details)	1.	EA	$ _____	$ _____
9	108.6	Large Area Inlet (24"x36")	7.	EA	$ _____	$ _____
10	202	Removal of Asphalt (full depth)	6,825.	SY	$ _____	$ _____
11	202	Removal of Concrete (all concrete features noted as being removed on the plans)	285.	SY	$ _____	$ _____
12	202	Removal of Ground Sign-Contractor Shall Remove Sign and Post and Return to The Traffic Department at City Shops. Contractor to Provide Temporary Stop Signs, and Regulatory Signs Per the M.U.T.C.D.	11.	EA	$ _____	$ _____
13	108.7	Granular Stabilization Material (Type B)	100.	TON	$ _____	$ _____
14	203	Excavation	2,100.	CY	$ _____	$ _____
15	208	Erosion Control (Complete in Place)	Lump	SUM	- - -	$ _____
16	208	Stabilized Construction Entrance	2.	EA	$ _____	$ _____
17	209	Dust Abatement	90.	DAYS	$ _____	$ _____
18	210	Adjust MH Rim to Finished Grade	15.	EA	$ _____	$ _____
19	210	Replace Vertical Curb Intlet Frame and Grate with Area Inlet Frame and Grate and adjust to Final Grade	1.	SY	$ _____	$ _____
20	304	Subgrade Stabilization - Aggregate Base Course (Class 3) (12" Thick)	400.	SY	$ _____	$ _____
21	304	Aggregate Base Course Shoulder (Class 6) (4" Thick)	610.	SY	$ _____	$ _____

Bid Schedule: Riverside Park Improvements and Bike Path (Addendum #3)

Item No.	CDOT, City Ref.	Description	Quantity	Units	Unit Price	Total Price
22	306	Reconditioning (12" Deep)	3,100.	SY	$ _____	$ _____
23	304	Aggregate Base Course (below HMA) (Class 6) (13" Thick)	1,800.	SY	$ _____	$ _____
24	401	Hot Mix Asphalt (5" thick) (Grading SX 75, Binder Grade 64-22)	500.	TON	$ _____	$ _____
25	420	Geosynthetics - Mirafi RS580i or approved equal	400.	SY	$ _____	$ _____
26	608	Concrete Curb and Gutter (2' Wide) to include 6" of Class 6 Aggregate Base Course.	900.	LF	$ _____	$ _____
27	608	Concrete Curb and Gutter (1.5' Wide) to include 6" of Class 6 Aggregate Base Course.	800.	LF	$ _____	$ _____
28	608	Concrete Sidewalk (6" Thick) to include 6" of Class 6 Aggregate Base Course.	3,111.	SY	$ _____	$ _____
29	608	Concrete Pavement (Parking & Alley) (8" Thick) to include 6" of Class 6 Aggregate Base Course.	900.	SY	$ _____	$ _____
30	608	Concrete Driveway Section (8" thick) includes 6" CL6 ABC	100.	SY	$ _____	$ _____
31	608	Concrete Corner Fillet to include 6" of Class 6 Aggregate Base Course.	15.	SY	$ _____	$ _____
32	608	Concrete Curb Ramp to include 6" of Class 6 Aggregate Base Course.	28.	SY	$ _____	$ _____
33	608	Post Tension Basketball Court Concrete Slab (45' x 75') to include all appurtenances. Contractor to provide shop drawing stamped by Professional Engineer	3,375.	SF	$ _____	$ _____
34	608	Detectable Warning (Cast Iron, Wet Set) (2'x2)	9.	EA	$ _____	$ _____
35	620	Sanitary Facility	1.	EA	$ _____	$ _____
36	625	Construction Surveying	Lump	SUM	- - -	$ _____
37	626	Mobilization	Lump	SUM	- - -	$ _____
38	627	Preformed Thermoplastic Pavement Marking (4" White Solid)	660.	LF	$ _____	$ _____
39	627	Preformed Thermoplastic Pavement Marking (Handicap Symbol)	4.	EA	$ _____	$ _____
40	630	Traffic Control (Complete In Place)	Lump	SUM	- - -	$ _____
41	630	Traffic Control Plan	Lump	SUM	- - -	$ _____

Bid Schedule: Riverside Park Improvements and Bike Path (Addendum #3)

Item No.	CDOT, City Ref.	Description	Quantity	Units	Unit Price	Total Price
42	Elec	Luminaire LED (Pedestrian) to include foundation.	17.	EA	$ _____	$ _____
43	Elec	Luminaire LED (Street) to include foundation.	1.	EA	$ _____	$ _____
44	Elec	Electrical Pull Box (Type I)(11" x 18" x 12")	18.	EA	$ _____	$ _____
45	Elec	Electrical Panel Pedestal (Complete in Place) to include appurtenances.	1.	EA	$ _____	$ _____
46	Elec	Wiring (Complete in Place)	Lump	SUM	- - -	$ _____
47	Elec	Trenching for Site Electrical (Pedestrian & Street lt. circuits) - approx. 1,685 LF with (2)-2" Schedule 80 PVC conduits. (Refer to Utility Detail Sheet E11)	Lump	SUM	- - -	$ _____
MCR		Minor Contract Revisions	- - -	- - -	- - -	$ 40,000.00

Bid Amount: **$** _____

Bid Amount:

_____ **dollars**

Contractor Name:
Contractor Address:
Contractor Phone #:

STREET LIGHTING GENERAL NOTES:

1. THIS PROJECT WILL BE BID FOR THE INSTALLATION OF THE PEDESTRIAN, AND STREET LIGHTING. BASE PROJECT: COMPLETE THE MAIN PATH PEDESTRIAN LIGHTING ALONG RIVERSIDE PARK TRAIL.

2. THIS PROJECT CONSISTS OF WORK TO INSTALL ALL WIRING, CONDUIT, PULL BOXES, AND POWER PANEL. REFERENCE SCHEDULE OF LIGHTING DEVICES AND SUMMARY OF QUANTITIES DRAWING E2.

3. TYPES "5A & 5B" LIGHT STANDARD & LUMINARIES (PEDESTRIAN AND STREET LIGHT), SHALL INCLUDE THE FOLLOWING ITEMS FROM VISUAL INTEREST LIGHTING LOCATED AT 3444 BRIGHTON BLVD, DENVER, CO 80216, 303.861.8448.

4. TYPE "5A" PHILLIP GARDCO GL13-2-70LA-6435-NW-UNV-BLP-LF , PROVIDE COLLISION BREAK AWAY CONNECTORS. FIXTURE TO BE 15' ABOVE FINISHED GRADE TO BOTTOM OF LIGHT. POLE - #401-4011-15-AB BK BREAKAWAY COUPLINGS(GARDCO, LYTEP)

5. TYPE "5B" PHILLIP GARDCO GL18-1-2-230LA-9680-NW-UNV-BLP-LF-PC-RPA2, PROVIDE COLLISION BREAK AWAY CONNECTORS. FIXTURE TO BE 27' ABOVE FINISHED GRADE TO BOTTOM OF LIGHT. POLE - #G18 BLP 401-5011-27-D1-AB-TBK(GARDCO BLACK) BAC-.75-SET(GARDCO,LYTEP) MOUNTING TO 5" ROUND STRAIGHT POLE.

6. PROVIDE ONE NEW MILL BANK PANEL (PP1, 240V, 1PH, 3W 100A , #CP3B1121 3A10CSXC1 LOCATED AS SHOWN IN DRAWINGS.

7. ALL PEDESTRIAN LIGHTING FIXTURES(TYPE "5A") INSTALLED ON THE PROJECT WILL BE CONTROLLED WITH A ELECTRICAL CONTRACTOR SUPPLIED PHOTO CELL TO BE LOCATED IN EACH NEW MILBANK POWER PEDESTALS IN SWITCHED SECTION OF PANEL. ORIENT PANEL PHOTOCELL WINDOW SO THAT PHOTOCELL WILL BE ORIENTED TO NORTH, TYPICAL.

8. ALL STREET LIGHTING FIXTURES(TYPE "5B") WILL EACH BE ORDERED WITH THEIR OWN PHOTOCELL INSTALLED IN THE FIXTURE, AND POWERED WITH NEW 240 VOLT 1-PHASE MILBANK POWER PEDESTAL ON UN-SWITCHED SECTION.

9. ELEVATIONS SHOWN IN THE SCHEDULE OF LIGHTING DEVICES ON THE PLANS SHEETS REPRESENT THE DESIGN FINISHED GRADE OR THE EXISTING GROUND FINISHED GRADE. THESE ELEVATIONS DO NOT INDICATE THE TOP ELEVATION OF THE LUMINARIES (PEDESTRIAN) FOUNDATION. PEDESTRIAN LIGHTING FOUNDATIONS SHALL BE CONSTRUCTED PER THE MANUFACTURERS RECOMMENDATIONS.

10. PULL BOXES FOR LIGHT STANDARD (PEDESTRIAN AND STREET) WILL BE TYPE 1 CDOT PULL BOXES 11"X18"X12".

11. PULL BOXES WILL BE INSTALLED IN GRADES WITHOUT CONCRETE WHERE POSSIBLE.

12. ALL ELECTRICAL CONDUIT SHALL BE SCHEDULE 80 PVC UNLESS NOTED OTHERWISE, TYPICAL.

13. UNLESS OTHERWISE NOTED, THE WORK DESCRIBED ON THE PLANS SHALL INCLUDE PROVIDING ALL LABOR AND MATERIALS NECESSARY FOR A COMPLETE AND OPERATIONAL ELECTRICAL SYSTEM. FURNISH ALL REQUIRED ITEMS WHETHER SUCH ARE SPECIFICALLY SHOWN OR NOT.

14. INFORMATION SHOWN ON DRAWINGS IS DIAGRAMMATIC ONLY AND SHALL NOT BE SCALED. OBTAIN VERIFY EXACT LOCATIONS, MEASUREMENTS, LEVELS, SPACE REQUIREMENTS, POTENTIAL CONFLICTS AMONG TRADES AND FOR ADJUSTING THE WORK REQUIRED BY THE ACTUAL CONDITIONS OF THE PROJECT. CONTRACTOR IS RESPONSIBLE FOR LOCATING ALL UNDER GROUND OBSTRUCTIONS AND MAKING ALLOWANCES FOR FIELD ADJUSTMENT OF LOCATION OF LUMINARIES TO AVOID SHUT DOWN OF ANY SERVICES OR SYSTEMS THAT ARE TO REMAIN.

15. BEFORE SUBMITTING THE BID ELECTRICAL CONTRACTOR SHALL VISIT AND EXAMINE THE PREMISES AND/OR JOB SITE SO AS TO ASCERTAIN THE EXISTING CONDITIONS IN WHICH THE CONTRACTOR WILL BE OBLIGED TO OPERATE IN PERFORMING HIS PART OF THE CONTRACT TO ANTICIPATE ANY POSSIBLE SPACE RESTRICTIONS OR CONSTRAINTS THAT COULD AFFECT THE TIMELY COMPLETION OF THE ELECTRICAL WORK IN ACCORDANCE WITH THE INTENT OF THE SPECIFICATIONS AND DRAWINGS. THE ELECTRICAL CONTRACTOR SHALL REPORT TO THE THE PROJECT ENGINEER OR GENERAL CONTRACTOR ANY CONDITIONS THAT MIGHT PREVENT THE SPECIFIED ELECTRICAL WORK FROM BEING PERFORMED IN THE MANNER INTENDED. NO CONSIDERATION OR ALLOWANCE WILL BE GRANTED TO THE ELECTRICAL CONTRACTOR FOR FAILURE TO VISIT THE PROJECT SITE, OR FOR ANY ALLEGED MISUNDERSTANDING OF THE MATERIALS TO BE FURNISHED OR WORK TO BE DONE..

16. THE ELECTRICAL CONTRACTOR SHALL EXAMINE THE DRAWINGS OF ALL TRADES WHOSE WORK RELATES TO OR IS DEPENDENT ON ELECTRICAL WORK TO BECOME FULLY INFORMED OF THE EXTENT AND CHARACTER OF THEIR SPECIFIED WORK AND BE ABLE TO COORDINATE WITH OTHER TRADES WHILE AVOIDING POSSIBLE INTERFERENCE WITH THE ELECTRICAL WORK.

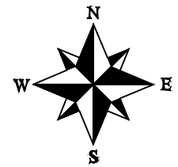
17. THE CONTRACTOR SHALL USE CONDUIT PLUGS AND SEALING PLUGS FOR SEALING ALL EMPTY CONDUITS AND CONDUITS OCCUPIED WITH CABLING, RESPECTIVELY, INSTALLED UNDER THIS CONTRACT. CONDUIT PLUGS SHALL BE MANUFACTURED FROM HIGH-IMPACT PLASTIC COMPONENTS, COMBINED WITH DURABLE ELASTIC GASKETS. THEY SHALL BE CORROSION PROOF AND APPROPRIATE FOR USE AS EITHER A LONG-TERM OR TEMPORARY SEAL. CONDUIT PLUGS SHALL BE REMOVABLE AND REUSABLE. THEY SHALL BE BOTH WATERTIGHT AND AIRTIGHT TO PREVENT THE FLOW OF WATER AND BUILDUP OF SEDIMENTATION WITHIN THE CONDUIT. EACH CONDUIT PLUG SHALL BE EQUIPPED WITH A ROPE TIE DEVICE TO ALLOW THE SECURING OF PULL ROPE TO THE PLUG'S BACK COMPRESSION PLATE. THE CONTRACTOR SHALL ATTACH THE PULL ROPE TO THE BACK COMPRESSION PLATE OF THE PLUG AND STORE EXCESS SLACK PULL ROPE BEHIND THE PLUG WITHIN THE CONDUIT FOR FUTURE USE.

PP1-X ELECTRICAL CIRCUIT NUMBER (REFER TO PANEL SCHEDULES)

UB □ HEAVY DUTY, TRAFFIC RATED, FLUSH-TO-GRADE POLYMER CONCRETE SPLICE BOX WITH HEAVY DUTY, TRAFFIC RATED, BOLTED COVER. 11"X18"X12" TYPE 1.

UNDER GROUND BURIED RACEWAY (2#6 THWN CU AND 1#8 GND) IN 2" PVC CONDUIT (UNLESS NOTED OTHERWISE ON PLANS) IN 24" DEEP TRENCH, BURY AND COMPACTED BACKFILL TO CITY STANDARDS.

INSTALL SINGLE ARM PEDESTRIAN STANDARD OR STREET STANDARD AS SPECIFIED.



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DESCRIPTION	DATE
REVISION △	–
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DRAWN BY AJM DATE 4-9-2019
DESIGNED BY AJM DATE 4-9-2019
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APPROVED BY BH DATE 4-9-2019

CITY OF Grand Junction COLORADO

PUBLIC WORKS
ENGINEERING DIVISION

RIVERSIDE PARK TRAIL
COVER SHEET PLAN

Schedule of Lighting Devices

						See note 2	
DESCRIPTION				LUMINAIRE LED PEDESTRIAN (70 WATT) TYPE SA	FOUNDATION SPECIAL	LUMINAIRE LED STREET (250 WATT) TYPE SB	NOTES
				EACH	EACH	EACH	
SHEET NO.	TYPE	NORTH	EAST	PLAN	PLAN	PLAN	
E3	SA-1	34158.99	87634.41	1	1		1
E3	SA-2	34248.46	87605.09	1	1		1
E3	SA-3	34332.72	87588.72	1	1		1
E3	SA-4	34399.76	87530.57	1	1		1
E3	SA-5	34472.89	87506.97	1	1		1
E4	SA-6	34557.03	87469.87	1	1		1
E4	SA-7	34628.95	87421.71	1	1		1
E4	SA-8	34718.71	87414.34	1	1		1
E4	SA-9	34835.72	87365.53	1	1		1
E5	SA-10	34875.72	87279.17	1	1		1
E5	SA-11	34924.78	87221.43	1	1		1
E5	SA-12	35009.87	87181.83	1	1		1
E5	SA-13	35085.85	87138.97	1	1		1
E6	SA-14	35172.22	87113.89	1	1		1
E6	SA-15	35225.92	87067.47	1	1		1
E6	SA-16	35287.22	87039.87	1	1		1
E6	SA-17	35375.56	87005.13	1	1		1
E4	SB-1	34780.69	87417.10		1	1	2
TABLE TOTALS				17	18	1	

SCHEDULE OF LIGHTING DEVICES NOTES:

1. FOUNDATION TOP HEIGHT EQUAL TO ADJACENT SIDEWALK
2. FOUNDATION TOP HEIGHT AT 2'6" AS SHOWN IN DETAIL.

Tabulation of Approximate Quantities(BASE PROJECT)

ITEM NO.	REF. NO.	CONSTRUCTION NOTE DESCRIPTION	QUANTITY	UNIT	NOTES
1		2 INCH ELECTRICAL CONDUIT (PLASTIC)	1685	LF	
2		TYPE ONE PULL BOX	18	EA	
3		WIRING	1	LS	
4		LIGHT STANDARD AND LUMINAIRE (STREET)	1	EA	
5		LIGHT STANDARD AND LUMINAIRE (PEDESTRIAN)	17	EA	
6		LIGHT STANDARD FOUNDATION (SPECIAL)	18	EA	
		LIGHTING CONTROL CENTER (SPECIAL)	1	EA	
SUMMARY NOTES:					

STREET LIGHTING GENERAL NOTES:

1. EACH LIGHT TO HAVE A PULL BOX "UB", REFERENCE ELECTRICAL SHEETS.

COLORADO REGISTERED JOEL M. HANSEN 37580 4-9-19 PROFESSIONAL ENGINEER

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PO 3211 GRAND JCT., CO 81502
EMAIL: joelm@ACMengrs.com

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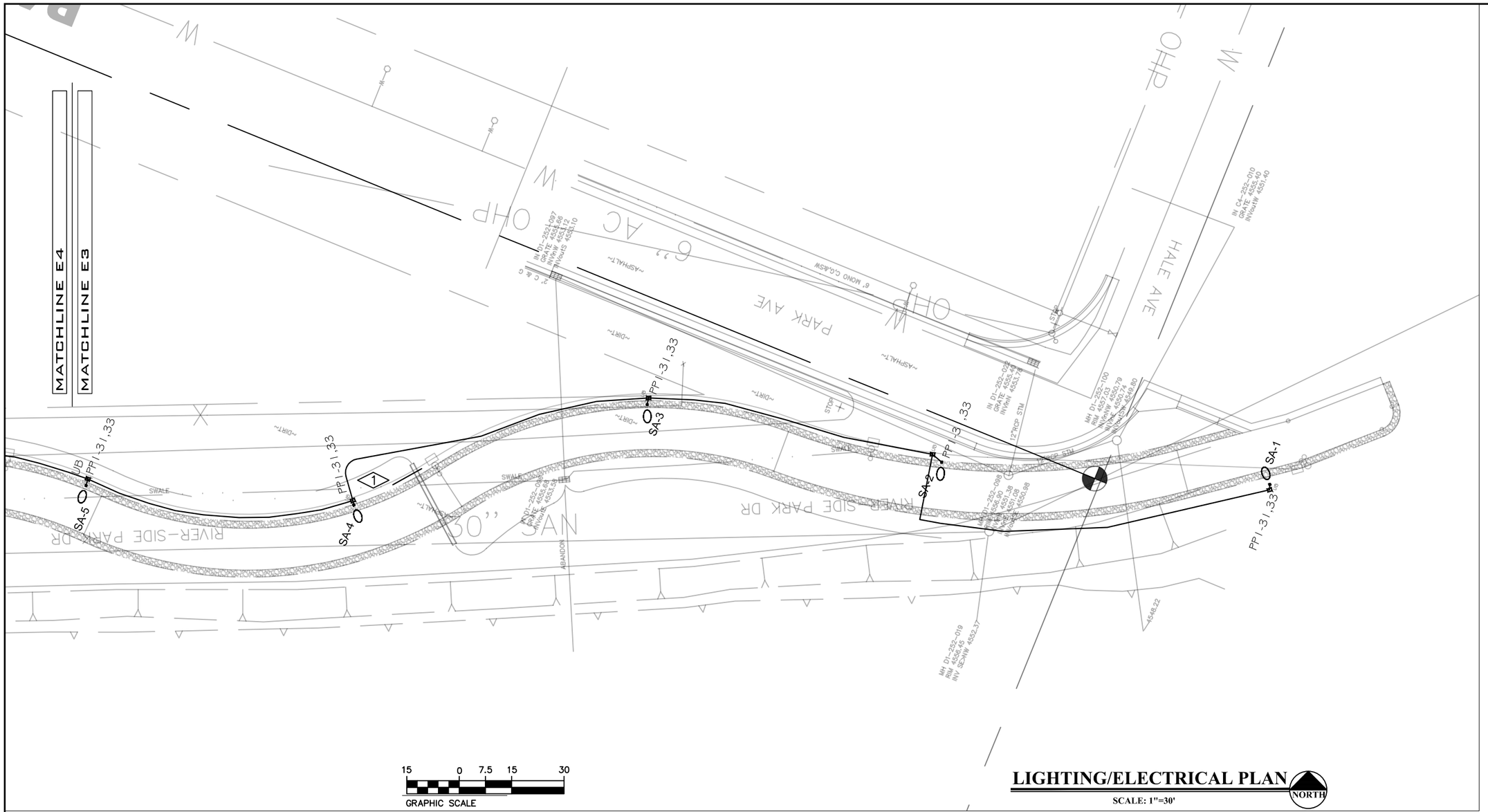
CITY OF Grand Junction COLORADO

PUBLIC WORKS
ENGINEERING DIVISION

RIVERSIDE PARK TRAIL
LIGHTING SCHEDULES

MATCHLINE E4

MATCHLINE E3



15 0 7.5 15 30

GRAPHIC SCALE

LIGHTING/ELECTRICAL PLAN

SCALE: 1"=30'

NORTH

FLAG NOTES:

1 ROUTE CONDUIT AROUND SWALE AND CASING PIPE.

GENERAL NOTES:

1. POWER CIRCUIT AS SHOWN ON DRAWING, TYPICAL.
2. LIGHT TO BE ORIENTED TO BE PERPENDICULAR TO ROADWAY AND SHINE ON ROADWAY, TYPICAL.
3. PROVIDE 2-#6 THWN + #8GND IN 2" PVC SCHEDULE 80 CONDUIT BETWEEN PULL BOXES UNLESS SHOWN OTHERWISE, TYPICAL.

COLORADO REGISTERED JOEL M. PAINTER 37580 4-9-19 PROFESSIONAL ENGINEER

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CITY OF Grand Junction COLORADO

PUBLIC WORKS
ENGINEERING DIVISION

RIVERSIDE PARK TRAIL
COMPOSITE UTILITY PLAN

EXISTING POLE MOUNTED XFMR
240/120V 1-PHASE BY XCEL ENERGY

1

PP1

MATCHLINE E5

MATCHLINE E4

MATCHLINE E4

MATCHLINE E3

6" SAN

30" SAN

SB-1
PP1 -5.7

UB PP1 -3.1.33
SA-9

UB PP1 -3.1.33
SA-8

UB PP1 -3.1.33
SA-7

UB PP1 -3.1.33
SA-6

UB PP1 -3.1.33
SA-5

CABLE N POST FENCE

SWALE

ROCK POCKET

RIVER-SIDE PARK DR

MH DL-265-018
RIM 4556.97
INV SE&NW 4551.66

15 0 7.5 15 30
GRAPHIC SCALE

LIGHTING/ELECTRICAL PLAN

SCALE: 1"=30'

NORTH

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FLAG NOTES:

<1> COORDINATE CONNECTIONS TO EXISTING POLE MOUNTED TRANSFORMER, METER AND PEDESTAL PANEL WITH XCEL ENERGY PRIOR TO ROUGH-IN. RETURN EXISTING BIKE PATH TO AS NEW CONDITION AFTER TRENCHING.

COLORADO REGISTERED
JOEL M. MARKS
37580
4-9-19
PROFESSIONAL ENGINEER

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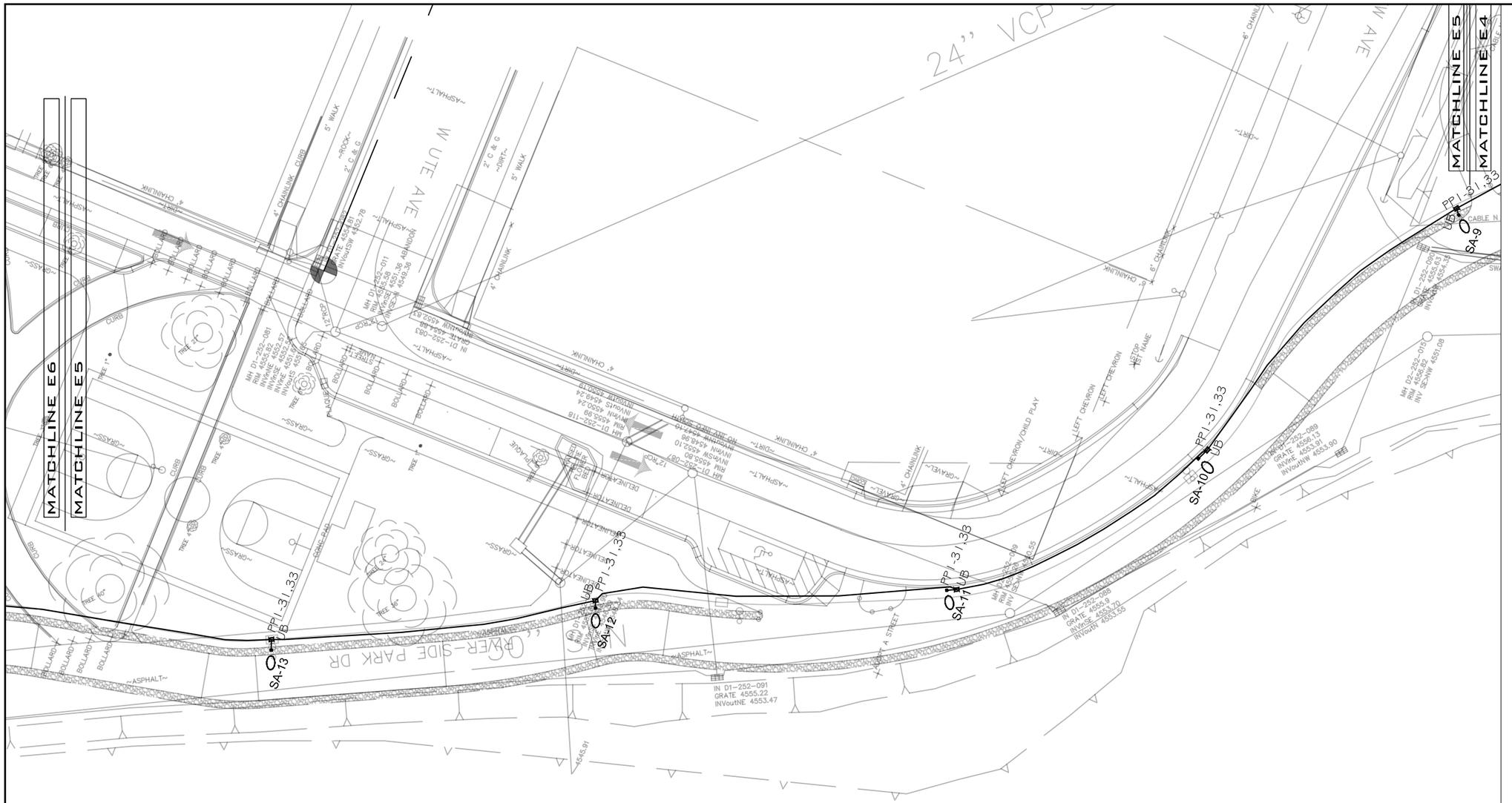
RIVERSIDE PARK TRAIL
COMPOSITE UTILITY PLAN



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LIGHTING/ELECTRICAL PLAN

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COLORADO REGISTERED JOEL M. MARKEY 37580 4-9-19 PROFESSIONAL ENGINEER

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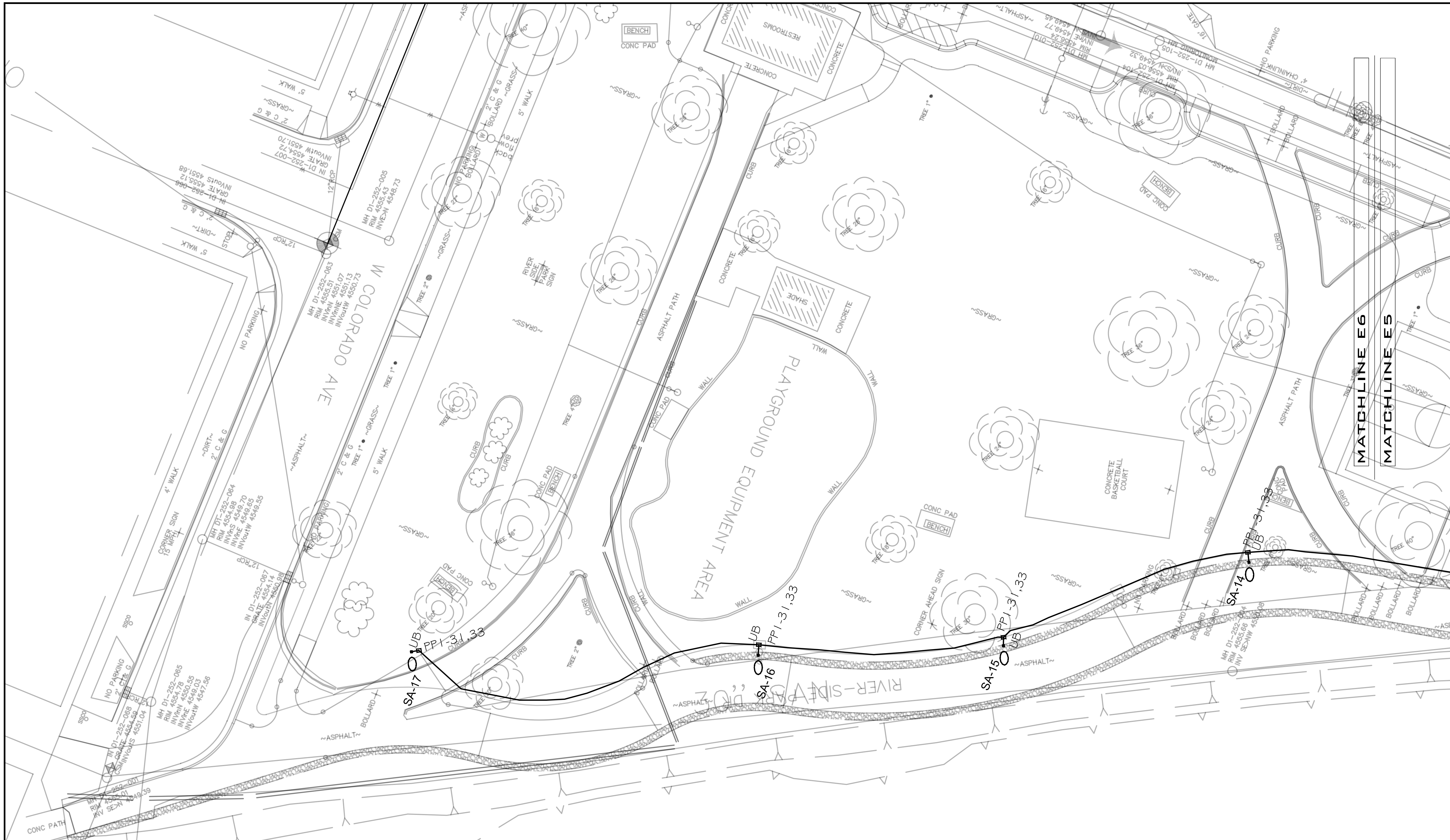
ENGINEERING DIVISION

RIVERSIDE PARK TRAIL
COMPOSITE UTILITY PLAN



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COLORADO REGISTERED PROFESSIONAL ENGINEER
JOEL MARTINEZ
37580
4-9-19

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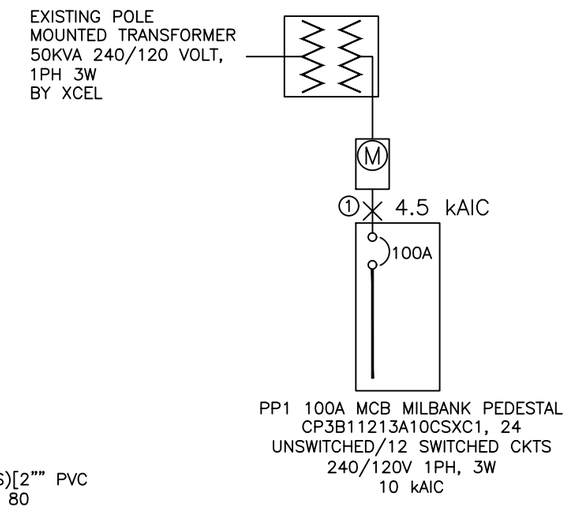
RIVERSIDE PARK TRAIL
COMPOSITE UTILITY PLAN



A/1 ONE–LINE DIAGRAM

NOT TO SCALE

GENERAL NOTES:

1. IN AS MUCH AS DESIGN REQUIRES THAT CERTAIN ASSUMPTIONS BE MADE REGARDING EXISTING CONDITIONS, AND BECAUSE SOME OF THESE ASSUMPTIONS CANNOT BE VERIFIED. FIELD COORDINATION DURING CONSTRUCTION SERVICES IS IMPERATIVE. CONTRACTORS BIDDING THIS WORK MUST MAKE REASONABLE ALLOWANCES FOR UNFORESEEN CONTINGENCIES.
2. THE SERVING ELECTRICAL ASSOCIATION SHALL ADVISE THE OWNER/ENGINEER PRIOR TO SERVICE MODIFICATION REQUIRING COST TO THE OWNER.
3. REFERENCE CIVIL, LANDSCAPE AND IRRIGATION DRAWING PLANS FOR COORDINATION AND LOCATION OF ALL UNDER GROUND SYSTEMS.
4. ALL WORK SHALL BE COORDINATED WITH OTHER TRADES AS REQUIRED: REFERENCE CIVIL LANDSCAPE AND IRRIGATION DRAWINGS.
5. ALL WIRING IS SHOWN DIAGRAMMATICALLY ON DRAWINGS, FIELD VERIFY ALL CONDITIONS PRIOR TO ROUGH-IN.
6. ALL ELECTRICAL WORK SHALL COMPLY WITH THE LATEST EDITION OF NATIONAL ELECTRICAL CODE AND ALL APPLICABLE LOCAL CODES.
7. ALL WIRE TO BE #6 UNLESS NOTED OTHERWISE.
8. CONDUCTOR COUNT IS SHOWN FOR REFERENCE ONLY. CONTRACTOR SHALL ENSURE THAT ANY AND ALL DEVICES AND EQUIPMENT ARE CIRCUITED PROPERLY. CONTRACTOR SHALL ENSURE THAT NO EQUIPMENT OR DEVICES ARE COMBINED OTHER THAN WHAT IS DEPICTED.
9. FIELD VERIFY ALL DIMENSIONS, DO NOT SCALE DRAWINGS.
10. COORDINATE INSTALLATION OF METER AND ELECTRICAL REQUIREMENTS WITH XCEL ENERGY.
11. PEDESTAL MUST MEET ALL XCEL ENERGY REQUIREMENTS I.E. COLD SEQUENCE PADLOCK SLIP LATCH ON METER COVER, HOLD OPEN BAR ON METER HOOD.

COLORADO REGISTERED JOEL J. MARTINEZ 37580 4-9-19 PROFESSIONAL ENGINEER

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RIVERSIDE PARK TRAIL
ONE–LINE DIAGRAMS

Panel Schedule PP1

Circuit Information::	**Protection Information::**	**Conductor Information::**	Calculated Kaic: 4.5
Circuits: 12 UNSWITCHED/12 SWITCHED	Frame Size: 100A	Conductor: 3	
Voltage: 120 / 240	Load (A): 21	Neutral: 3	
System: 1Ø,	NEMA: Type 3R	Ground: 1-2 ga.	
Hertz: 60	OCPD Size: 100A	Insulation: THWN	
	10 Kaic	Material: Copper	
UN-SWITCHED CIRCUIT DIRECTORY		Raceway: 2 in. - PVC SCHED 80	

	Load Description	OCPD	Load - kVA			Load - kVA		OCPD	Load Description	
Ct#	**BØ**	**Size / Ø**	**AØ**	**BØ**	**L**	**BØ**	**AØ**	**Size / Ø**	**BØ**	**Ct#**
1	MAIN	100A /2			L1		0.18	15A /2	CONTROL POWER	2
3	---				L2	0.18	0.3	60A /2	SWITCHED LC CONTROL	4
5	STREET LIGHTS	20A/2	0.1152		L1	0.3			---	6
7	---	20A/2		0.1152	L2					8
9	SPARE(FUTURE)	20A/2			L1			20A/1	SPARE(FUTURE)	10
11	SPARE(FUTURE)	20A/2			L2			20A/1	SPARE(FUTURE)	12

SWITCHED CIRCUIT DIRECTORY

	Load Description	OCPD	Load - kVA			Load - kVA		OCPD	Load Description	
Ct#	**BØ**	**Size / Ø**	**AØ**	**BØ**	**L**	**BØ**	**AØ**	**Size / Ø**	**BØ**	**Ct#**
13	PATHWAY LIGHTS	20A /2	0.8568		L1			20A /2	SPARE(FUTURE)	14
15	---			0.8568	L2				---	16
17	SPARE(FUTURE)	20A /2			L1				SPARE(FUTURE)	18
19	---				L2					20
21					L1					22
23					L2					24
	Phase Totals - kVA:		0.972	0.972		0.48	0.3			

Load Totals	Amps:	kVA:	
	7.6	2.724	

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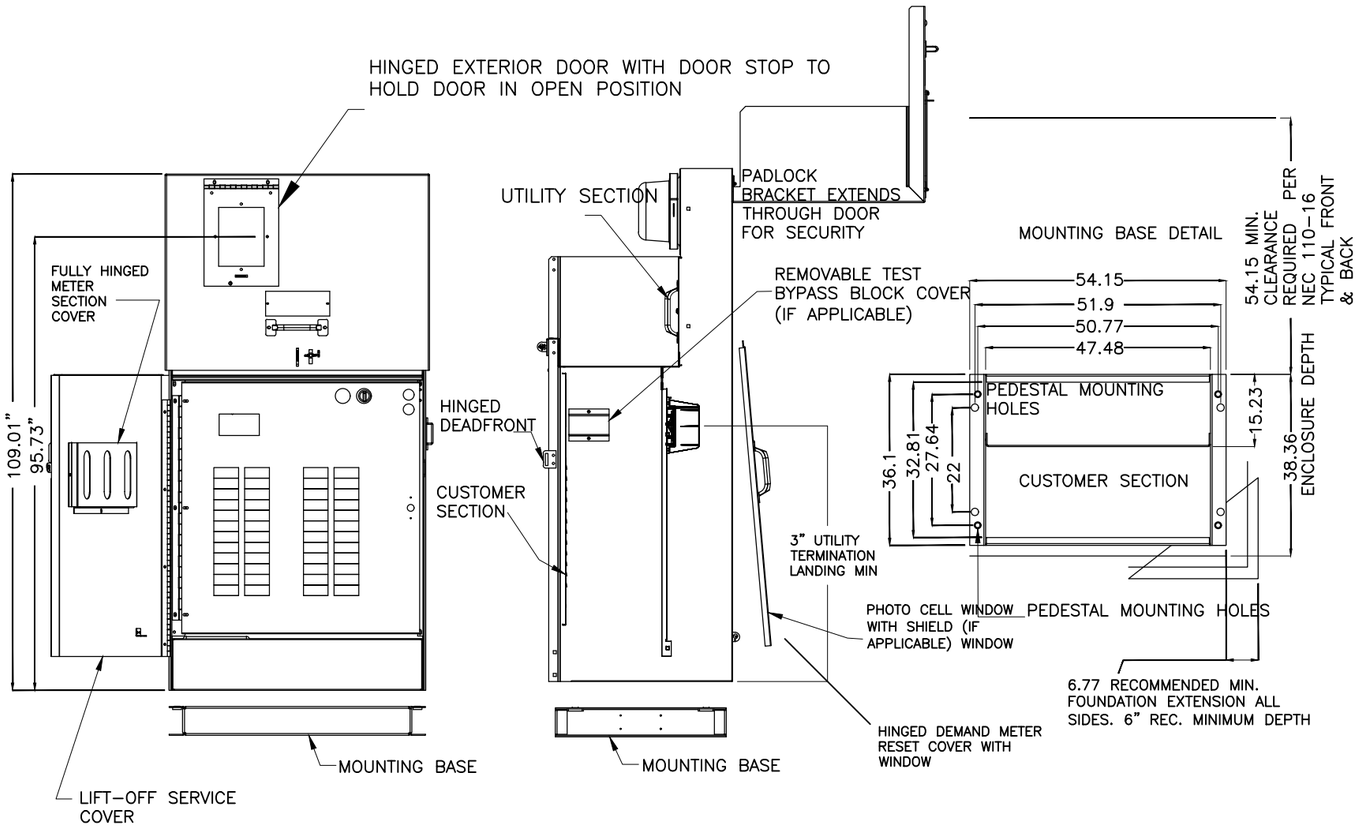
ENGINEERING DIVISION

RIVERSIDE PARK TRAIL
PANEL SCHEDULES

24" COMMERCIAL PEDESTAL



B/1 **TYPICAL 1-PHASE POWER PEDESTAL/LIGHTING CONTROL CENTER PLAN**

NOT TO SCALE

NOTES

1. COORDINATE EXACT INSTALATION REQUIREMENTS WITH PROVIDER PRIOR TO ROUGH-IN OR TRENCHING.CONTROL CABINET SHALL BE U/L LISTED "INDUSTRIAL CONTROL PANEL" PER UL 508.
2. CONSTRUCTION SHALL BE NEMA 3R. 12 GA. A60 STEEL POWDER COATED MINT GREEN WITH PHOTO ELECTRIC CELL IN SERVICE CABINET. ELECTRICAL CONTRACTOR TO PROVIDE PHOTOCELL.
3. VOLTAGE RATINGS OF SERVICE EQUIPMENT SHALL CONFORM TO THE SERVICE VOLTAGES INDICATED ON THE PLANS.
4. SERVICE EQUIPMENT ENCLOSURE AND METERING EQUIPMENT SHALL MEET THE REQUIREMENTS OF THE SERVING UTILITY. WHEN THE SERVING UTILITY PROVIDES BOTH METERED AND UNMETERED CIRCUITS, A SEPARATE BUS SHALL BE PROVIDED FOR EACH CIRCUIT. THE METER AREA SHALL HAVE A SEALING, LOCKABLE, RAIN TIGHT COVER THAT CAN BE REMOVED WITHOUT THE USE OF TOOLS.
5. SERVICE EQUIPMENT SHALL BE FACTORY WIRED AND CONFORM TO NEMA STANDARDS.
6. THE EXTERIOR DOOR SHALL HAVE PROVISIONS FOR PADLOCKING. THE PADLOCK HOLE SHALL BE A MINIMUM DIAMETER OF 11mm.
7. ALL TERMINALS FOR INCOMING SERVICE CONDUCTORS SHALL BE COMPATIBLE WITH EITHER COPPER OR ALUMINUM CONDUCTORS SIZED TO SUIT THE CONDUCTORS SHOWN ON THE PLAN. TERMINAL LUGS SHALL BE COPPER OR TIN-PLATED ALUMINUM. SOLID NEUTRAL TERMINAL STRIP SHALL BE RATED 200A UNLESS OTHERWISE SPECIFIED AND FOR USE WITH COPPER OR ALUMINUM CONDUCTORS. THE TERMINAL SHOULD INCLUDE BUT NOT BE LIMITED TO:
   A) INCOMING TERMINALS (LANDING LUGS)
   B) NEUTRAL LUGS
   C) SOLID NEUTRAL TERMINAL STRIP.
   D) TERMINAL STRIPS FOR CONDUCTORS WITHIN THE ENCLOSURE.
8. CIRCUIT BREAKER SPACES (20mm NOMINAL) SHALL BE PROVIDED FOR BRANCH CIRCUITS. CIRCUIT BREAKER INTERIORS SHALL BE COPPER. INTERIORS SHALL ACCEPT PLUG-IN OR CABLE-IN/ CABLE-OUT CIRCUIT BREAKERS.
9. PLUG-IN CIRCUIT BREAKERS MAY BE MOUNTED IN THE VERTICAL OR HORIZONTAL POSITION. CABLE-IN/ CABLE-OUT CIRCUIT BREAKERS SHALL BE MOUNTED IN THE VERTICAL POSITION.
10. FASTENERS ON THE EXTERIOR OF THE ENCLOSURE SHALL BE VANDAL RESISTANT AND SHALL NOT BE REMOVABLE FROM THE EXTERIOR. ALL NUTS, BOLTS, SCREWS, WASHERS, AND HINGES SHALL BE STAINLESS STEEL.
11. PHENOLIC NAME PLATES SHALL BE PROVIDED AS REQUIRED.
12. A PLASTIC COVERED WIRING DIAGRAM SHALL BE ATTACHED TO THE INSIDE OF THE FRONT DOOR.
13. FOUNDATION SHALL EXTEND 50mm MINIMUM BEYOND EDGE OF ENCLOSURE.
14. PANEL WILL ADHERE TO XCEL ENERGY REQUIREMENT FOR COLD SEQUENCE DISCONNECTION.

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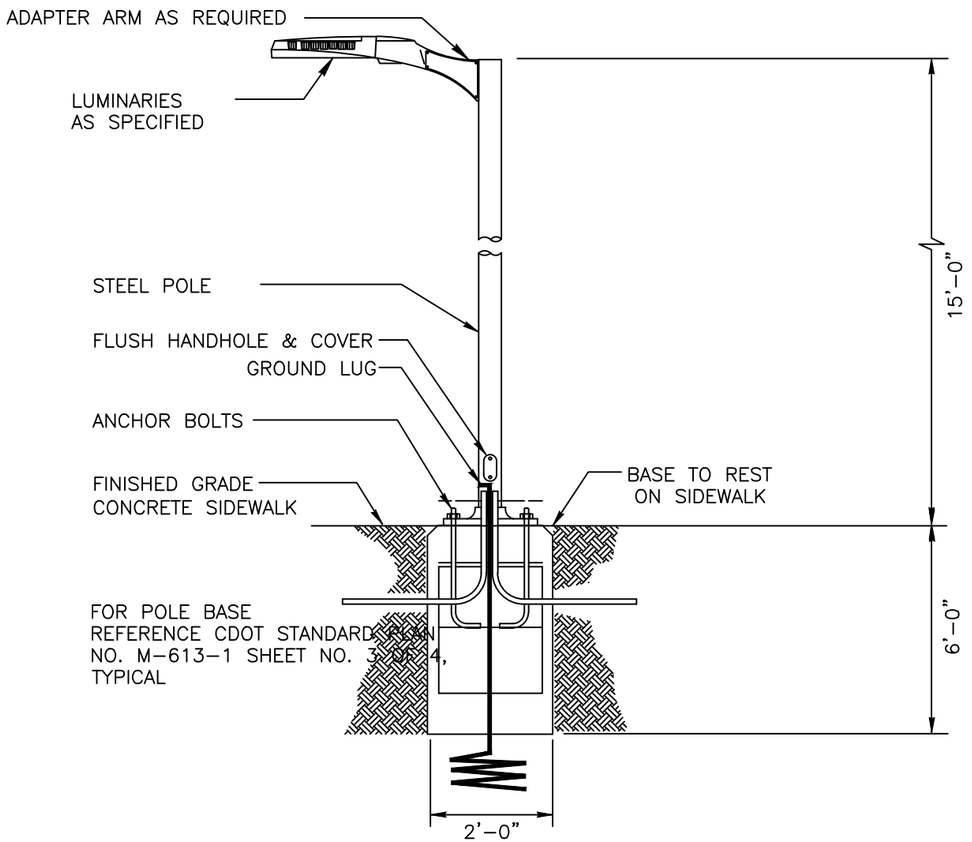
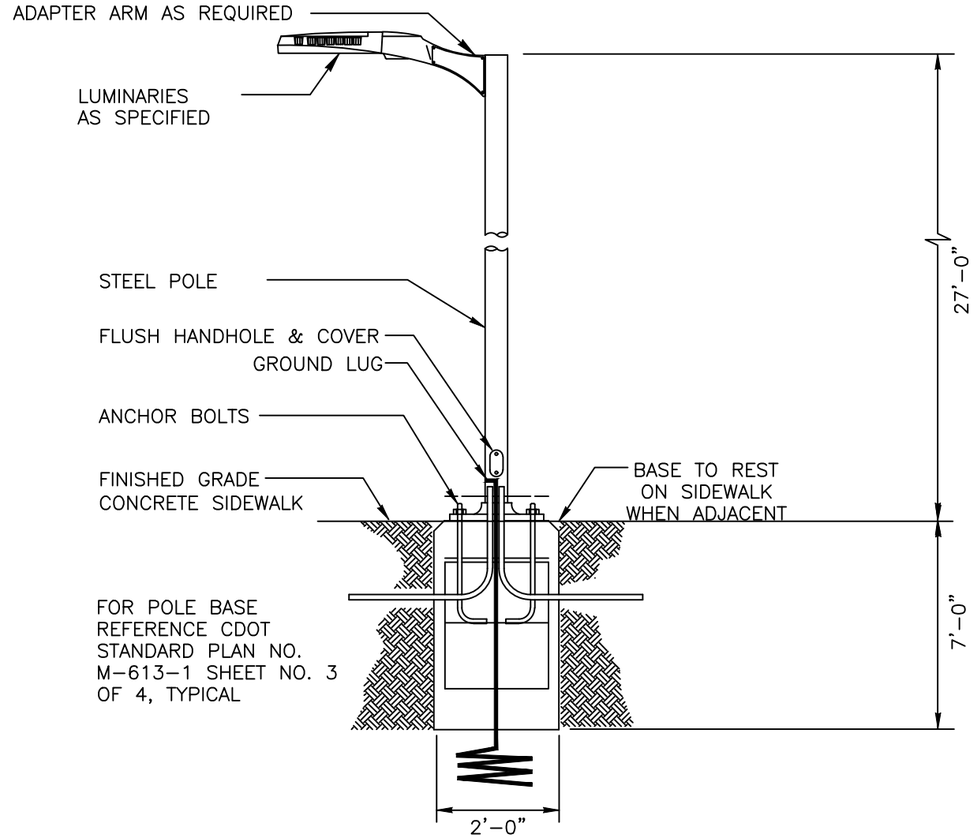
RIVERSIDE PARK TRAIL
PEDESTAL DETAILS



TYPICAL SA LIGHT DETAIL

NOT TO SCALE



TYPICAL SB LIGHT DETAIL

NOT TO SCALE

GENERAL NOTES:

1. ELECTRICAL CONTRACTOR TO ORDER ALL REQUIRED HARDWARE FOR MOUNTING OF EACH LUMINARIES.
2. VERIFY THE BURY DEPTH AND DIAMETER OF THE SONOTUBE FOR POLE LUMINARIES WITH THE CIVIL ENGINEER PRIOR TO PURCHASING THE EQUIPMENT. DEPTH WILL DEPEND ON SOIL CONDITIONS. TYPICAL CONCRETE DEPTH IS SHOWN IN DETAIL. VERIFY DEPTH WITH CIVIL ENGINEER.
3. ELECTRICAL CONTRACTOR TO VERIFY THAT ALL FIXTURES TO COMPLY WITH LIGHT TRESPASS AND AND DARK SKY CODES.
4. NOTIFY ENGINEER OF ANY OBSTRUCTIONS TO POLE PLACEMENT IMMEDIATELY BEFORE PROCEEDING.
5. VERIFY REQUIRED VOLTAGE OF FOR EACH LUMINARIES WITH AVAILABLE VOLTAGES PRIOR TO ORDERING.
6. REFERENCE CDOT STANDARD PLAN NO. M-613-1 SHEET NO. 3 OF 4, TYPICAL

LUMINAIRE SCHEDULE

TYPE	MANUFACTURER / MODEL NUMBER	APPROVAL	VOLTAGE / MOUNTING / # OF LAMPS	BALLAST / LAMPE TYPE / LAMP CAT. #	DESCRIPTION
SA	PHILIPS GARDCO GL13-2-70LA-6435-NW-UNV-BLP-LF	OWNER REQUESTED	UNV POLE 1	ELECTRONIC LED 50 W	PEDESTRIAN LUMINAIRE, ARM MOUNTED, LED, CUTOFF, ORDER ROUND STEEL POLE SO THAT LAMP HEIGHT IS 15' AFG MEASURED AT BOTTOM OF LUMINAIRE. COLOR OF POLE AND ARM TO MATCH, BOTH BLACK. POLE#401-4011-15-AB BK BREAKAWAY COUPLINGS(GARDCO, LYTEP)
SB	PHILIPS GARDCO GL18-1-2-230LA-9680-NW-UNV-BLP-LF-PC-RPA2	OWNER REQUESTED	UNV POLE 1	ELECTRONIC LED 230 W	STREET SIDE LUMINAIRE, ARM MOUNTED, LED, CUTOFF. ROUND STEEL POLE TO BE 27' SO THAT TOTAL HEIGHT AFG TO BOTTOM OF FIXTURE IS 27' . COLOR OF POLE AND ARM TO MATCH, BOTH BLACK. POLE #G18 BLP 401-5011-27-D1-AB-TBK(GARDCO BLACK) BAC-.75-SET(GARDCO,LYTEP) MOUNTING TO 5" ROUND STRAIGHT POLE.

COLORADO REGISTERED JOEL M. MARSH 37580 4-9-19 PROFESSIONAL ENGINEER

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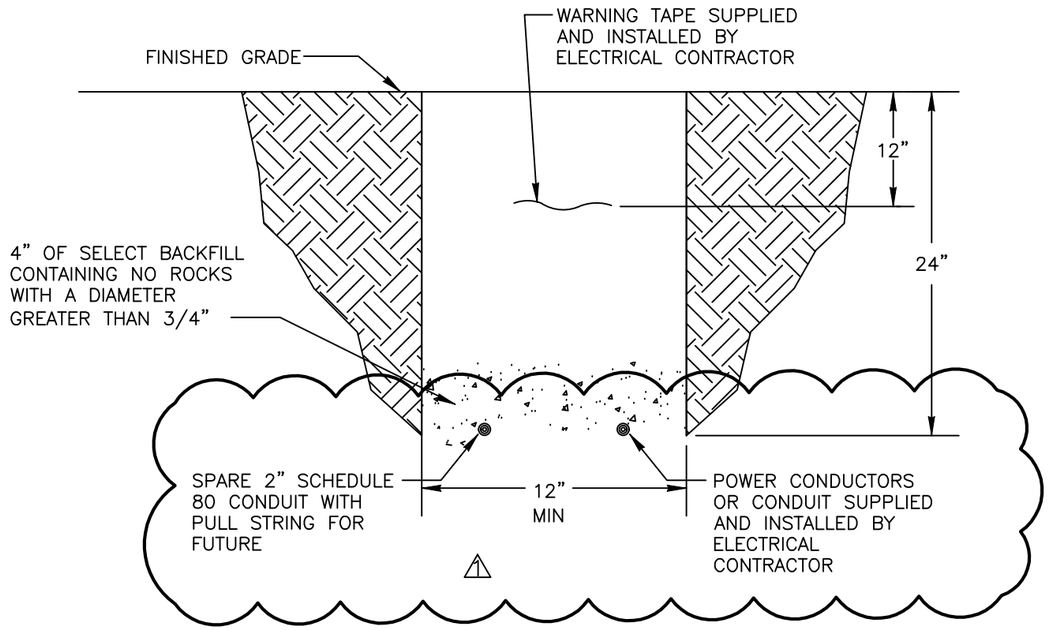
RIVERSIDE PARK TRAIL
LIGHTING DETAILS



TYPICAL SECONDARY ELECTRICAL TRENCH DETAIL

NOT TO SCALE

GENERAL NOTES:

1. TRENCH WIDTH WILL BE 12".
2. STEEL GAS PIPE OR STEEL DUCT IS NOT ALLOWED IN TRENCH CONSTRUCTION.
3. WHERE UNDERGROUND UTILITIES CROSS OR ENCROACH INTO CITY STREETS THEY SHALL BE INSTALLED TO A DEPTH PROVIDING 3' MINIMUM COVER BELOW FINISHED GRADE.
4. PROVIDE 2–#6 THWN + #8GND IN 2" PVC SCHEDULE 80 CONDUIT BETWEEN PULL BOXES UNLESS SHOWN OTHERWISE, TYPICAL. (1)
5. PROVIDE PULL STRING AND CAPS FOR SPARE CONDUITS.

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DESCRIPTION	DATE
REVISION 1 CLARIFIED WIRE SIZE AND TRENCH	4–15–19
REVISION 2	
REVISION 3	
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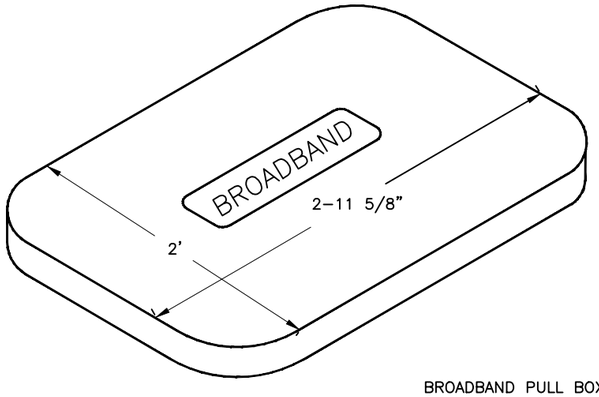
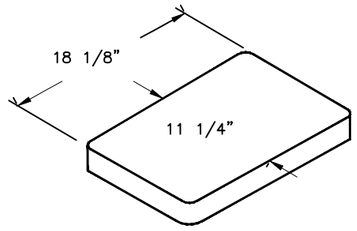
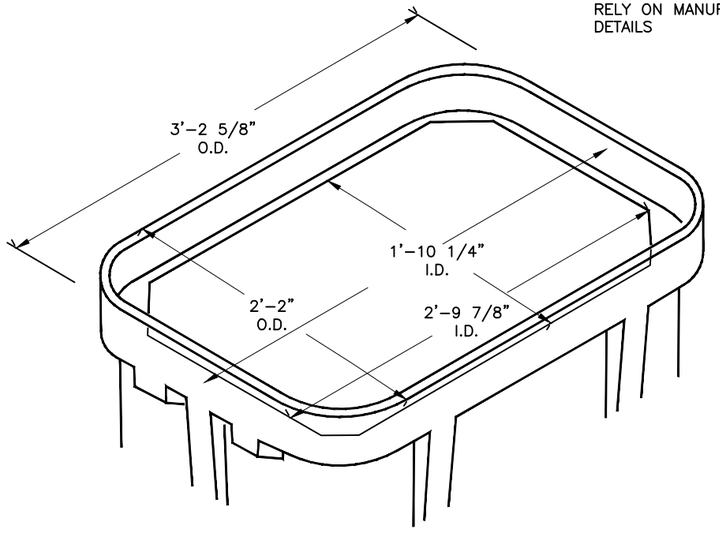
RIVERSIDE PARK TRAIL
UTILITY DETAILS DETAILS



COVER

BROADBAND PULL BOX (HUBBEL QUAZITE BOX) (BOX PART NO PG2436BA30) COVER PART NO PG2436HA00) OR ENGINEER APPROVED EQUAL DIMENSIONS SHOWN HERE FOR LAYOUT AND PLANNING PURPOSES. CONTRACTOR SHALL RELY ON MANUFACTURER DETAILS

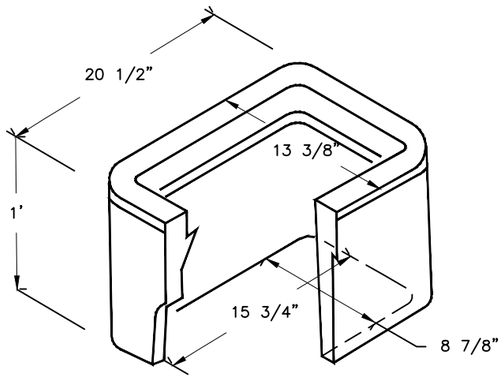




BOX

BROADBAND PULL BOX

DIMENSIONS SHOWN HERE FOR LAYOUT AND PLANNING PURPOSES. CONTRACTOR SHALL RELY ON MANUFACTURER DETAILS



STREET LIGHT AND PEDESTRIAN LIGHT PULL BOX

DIMENSIONS SHOWN HERE FOR LAYOUT AND PLANNING PURPOSES. CONTRACTOR SHALL RELY ON MANUFACTURER DETAILS

GENERAL NOTES:

1. PULL BOXES, PULL BOX COVERS AND EXTENSIONS SHALL BE MADE OF FIBERGLASS REINFORCED POLYMER CONCRETE. PULL BOXES SHALL BE VERIFIED BY 3RD PARTY NATIONALLY RECOGNIZED INDEPENDENT TESTING LABORATORY AS MEETING ALL TEST PROVISIONS OF THE LATEST ANSI/SCTE 77 SPECIFICATION FOR UNDERGROUND ENCLOSURE INTEGRITY, TIER 22 RATING. CERTIFICATION DOCUMENTS SHALL BE SUBMITTED WITH MATERIALS SUBMITTALS. THE PULL BOX SHALL HAVE A DETACHABLE COVER WITH A SKID RESISTANT SURFACE AND HAVE THE WORDS ELECTRICAL CAST INTO THE SURFACE. FAINTING THE WORDS SHALL NOT BE ACCEPTED. MARKINGS SHOWING THE TIER 22 RATING MUST BE LABELED OR STENCILED ON THE INSIDE AND OUTSIDE OF THE BOX AND THE ON UNDER SIDE OF THE COVER. THE COVER SHALL BE ATTACHED TO THE PULL BOX BODY BY MEANS OF A MINIMUM 3/8–7 UNIFIED NATIONAL COURSE (UNC) STAINLESS STEEL PENTA HEAD BOLTS SHALL HAVE TWO LIFT SLOTS TO AIDE IN THE REMOVAL OF THE LID.

2. PULL SLOTS SHALL BE RATED FOR A MINIMUM PULL OUT OF 3,000 POUNDS. MAGNESIUM CHLORIDE TESTS SHOULD BE PERFORMED IN ACCORDANCE WITH THE LATEST ANSI/SCTE 77 SPECIFICATION FOR UNDERGROUND ENCLOSURE INTEGRITY, TIER 22 RATING.

TYPICAL PULLBOX DETAIL

NOT TO SCALE

COLORADO REGISTERED JOEL M. HANSEN 37580 4-9-19 PROFESSIONAL ENGINEER

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UTILITY DETAILS DETAILS