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CIVIL WEST CONSTRUCTION

VOLUME 11 **STATIONS**

THE PROPOSED SOUTHWEST LRT PROJECT IS NOT FINAL BUT IS STILL UNDER ENVIRONMENTAL REVIEW AND THE PROJECT IS SUBJECT TO CHANGE. THESE PLANS ARE NOT FINAL. THE COUNCIL. THROUGH THE DEVELOPMENT OF THESE PLANS, DOES NOT INTEND THAT THEY WILL PREJUDICE OR COMPROMISE ANY STATE OR FEDERAL ENVIRONMENTAL REVIEW OR OTHER LEGAL REQUIREMENTS. THESE PLANS DO NOT LIMIT THE PROJECT DESIGN ALTERNATIVES OR MITIGATIVE MEASURES THAT THE COUNCIL MAY UNDERTAKE IF THE PROPOSED SWLRT

PROJECT PROCEEDS TO CONSTRUCTION.

THE COUNCIL WILL NOT TAKE FINAL ACTION ON THIS MATTER UNLESS THE COUNCIL PROCEEDS WITH THE PROJECT AFTER THE FTA'S RECORD OF DECISION AND THE COUNCIL'S DETERMINATION OF ADEQUACY.

THIS RECORD MAY CONTAIN SENSITIVE SECURITY INFORMATION THAT IS CONTROLLED UNDER 49 CFR PARTS 15 WARNING: AND 1520. NO PART OF THIS RECORD MAY BE DISCLOSED TO PERSONS WITHOUT A "NEED TO KNOW", AS DEFINED IN 49 CFR PARTS 15 AND 1520. EXCEPT WITH THE WRITTEN PERMISSION OF THE ADMINISTRATOR OF THE TRANSPORTATION SECURITY ADMINISTRATION OR THE SECRETARY OF TRANSPORTATION. UNAUTHORIZED RELEASE MAY RESULT IN CIVIL PENALTY OR OTHER ACTION. FOR U.S. GOVERNMENT AGENCIES, PUBLIC DISCLOSURE IS GOVERNED BY 5 U.S.C. 552 AND 49 CFR PARTS 15 AND 1520.

60% SUBMISSION DATE: 09/28/15

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9 10	W0-PLM-DTL-001	STATIONS PLUMBING STMBOLS AND ABBREVIATIONS		69	W2-CWS-STR-PLN-101 W2-CWS-STR-PLN-110	EAST PARTIAL FOUNDATION PLAN			132	W3-OPS-ELE-SCH-461	COMMUNICATIONS CONDUIT SCHEDULE (2 OF 2)	
10	W0-ELE-GEN-001	ELECTRICAL SYMBOLS AND ABBREVIATIONS (1 OF 2)		70	W2-CWS-STR-PLN-111	MIDDLE PARTIAL FOUNDATION PLAN			133	W3-OPS-ELE-SCH-503	ELECTRICAL CONDUIT AND WIRE SCHEDULE	
12	W0-ELE-GEN-002	ELECTRICAL SYMBOLS AND ABBREVIATIONS (2 OF 2)		71	W2-CWS-STR-PLN-112	WEST PARTIAL FOUNDATION PLAN			134	W3-OPS-ELE-SCH-504	ELECTRICAL PANELBOARD SCHEDULES	
13	W0-ELE-SCH-501	ELECTRICAL LUMINAIRE SCHEDULE (1 OF 3)		72	W2-CWS-STR-PLN-150	LOWER ROOF FRAMING PLANS						
14	W0-ELE-SCH-502	ELECTRICAL LUMINAIRE SCHEDULE (2 OF 3)		73	W2-CWS-STR-PLN-151	UPPER ROOF FRAMING PLANS					SHADY OAK STATION	
15	W0-ELE-SCH-503	ELECTRICAL LUMINAIRE SCHEDULE (3 OF 3)		74	W2-CWS-STR-ELV-201	ELEVATIONS – FRAMING			135	W3-SHD-ARC-COD-010	CODE SUMMARY/ FINISH SCHEDULE	
16	W0-ELE-DTL-603	ELECTRICAL DETAILS 1 OF 4		75	W2-CWS-STR-ELV-210	EAST PARTIAL ELEVATIONS – FRAMING			136	W3-SHD-ARC-PLN-101	PLATFORM PLAN	
17	W0-ELE-DTL-604	ELECTRICAL DETAILS 2 OF 4		76	W2-CWS-STR-ELV-211	MIDDLE PARTIAL ELEVATIONS – FRAMING			137	W3-SHD-ARC-PLN-110	WEST PARTIAL PLATFORM PLAN	
18	W0-ELE-DTL-605	ELECTRICAL DETAILS 3 OF 4		77	W2-CWS-STR-ELV-212	WEST PARTIAL ELEVATIONS - FRAMING			138	W3-SHD-ARC-PLN-111	MIDDLE PARTIAL PLATFORM PLAN	
19	W0-ELE-DTL-606	ELECTRICAL DETAILS 4 OF 4		78	W2-CWS-STR-SCT-300	TYPICAL PLATFORM SECTION			139	W3-SHD-ARC-PLN-112	EAST PARTIAL PLATFORM PLAN	
		SOUTHWEST STATION		70		EAST AND MIDDLE PARTIAL UNDERFLOOR PLUMBING			140	W3-SHD-ARC-PLN-150	LOWER ROOF PLANS	
		SOUTHWEST STATION		79	W2-CWS-PLM-PLN-100	PLAN			141	W3-SHD-ARC-PLN-151	UPPER ROOF PLANS	
		(NOT INCLUDED IN 60% SUBMISSION)		80	W2-CWS-PLM-PLN-101	WEST PARTIAL UNDERFLOOR PLUMBING PLAN			142	W3-SHD-ARC-RCP-180	REFLECTED CEILING PLANS	
		TOWN CENTER STATION (DEFERRED)		81	W2-CWS-PLM-PLN-110	EAST AND MIDDLE PARTIAL PLUMBING PLAN			143	W3-SHD-ARC-RCP-181	REFLECTED CEILING PLANS	
		, , , , , , , , , , , , , , , , , , ,		82	W2-CWS-PLM-PLN-111	WEST PARTIAL PLUMBING PLAN AND RISER DIAGRAM	S		144	W3-SHD-ARC-ELV-200	ELEVATIONS	
		(NOT INCLUDED IN PROJECT)		83	W2-CWS-ELE-PLN-201	ELECTRICAL GROUNDING PLAN			145	W3-SHD-ARC-ELV-210	WEST PARTIAL ELEVATIONS	
		GOLDEN TRIANGLE STATION		84	W2-CWS-ELE-PLN-202	ELECTRICAL GROUNDING ELEVATION			146	W3-SHD-ARC-ELV-211	MIDDLE PARTIAL ELEVATIONS	
		GOEDEN TRIANGLE STATION		85	W2-CWS-ELE-PLN-301	ELECTRICAL UNDERSLAB CONDUIT PLAN (1 OF 2)			147	W3-SHD-ARC-ELV-212	EAST PARTIAL ELEVATIONS	
20	W2-GLT-ARC-COD-010	CODE SUMMARY/ FINISH SCHEDULE		86	W2-CWS-ELE-PLN-302	ELECTRICAL UNDERSLAB CONDUIT PLAN (2 OF 2)			148	W3-SHD-ARC-SCT-300	TYPICAL PLATFORM SECTION	
21	W2-GLT-ARC-PLN-101	PLATFORM PLAN		87	W2-CWS-ELE-PLN-303	ELECTRICAL CANOPY PLAN - TRACK 1 SIDE			149	W3-SHD-STR-PLN-101	PLATFORM PLAN	
22	W2-GLT-ARC-PLN-110	SOUTH PARTIAL PLATFORM PLAN		88	W2-CWS-ELE-PLN-304	ELECTRICAL CANOPY PLAN - TRACK 2 SIDE			150	W3-SHD-STR-PLN-110	WEST PARTIAL FOUNDATION PLAN	
23	W2-GLT-ARC-PLN-111	MIDDLE PARTIAL PLATFORM PLAN		89	W2-CWS-ELE-PLN-411	COMMUNICATIONS UNDERSLAB CONDUIT PLAN			151	W3-SHD-STR-PLN-111	MIDDLE PARTIAL FOUNDATION PLAN	
24	W2-GLT-ARC-PLN-112	NORTH PARTIAL PLATFORM PLAN				(1 OF 2)			152	W3-SHD-STR-PLN-112	EAST PARTIAL FOUNDATION PLAN	
25	W2-GLT-ARC-PLN-150	ROOF PLANS		90	W2-CWS-ELE-PLN-412	COMMUNICATIONS UNDERSLAB CONDUIT PLAN			153	W3-SHD-STR-PLN-150	LOWER ROOF FRAMING PLANS	
26	W2-GLT-ARC-RCP-180	REFLECTED CEILING PLANS				(2 OF 2)			154	W3-SHD-STR-PLN-151	UPPER ROOF FRAMING PLANS	
27	W2-GLT-ARC-ELV-200			91	W2-CWS-ELE-PLN-421	COMMUNICATIONS CANOPY PLAN - TRACK 1 SIDE			155	W3-SHD-STR-ELV-201	ELEVATIONS - FRAMING	
28	W2-GLT-ARC-ELV-210			92	W2-CWS-ELE-PLN-422	COMMUNICATIONS CANOPY PLAN - TRACK 2 SIDE			156	W3-SHD-STR-ELV-210	WEST PARTIAL ELEVATIONS FRAMING	
29	W2-GLT-ARC-ELV-211			93 94	W2-CWS-ELE-PLN-461	COMMUNICATIONS CONDUIT SCHEDULE (1 OF 2)			157 158	W3-SHD-STR-ELV-211	MIDDLE PARTIAL ELEVATIONS – FRAMING EAST PARTIAL ELEVATIONS – FRAMING	
30 31	W2-GLT-ARC-ELV-212 W2-GLT-ARC-SCT-300	NORTH PARTIAL ELEVATIONS TYPICAL PLATFORM SECTION		94	W2-CWS-ELE-PLN-462 W2-CWS-ELE-PLN-503	COMMUNICATIONS CONDUIT SCHEDULE (2 OF 2)			158	W3-SHD-STR-ELV-212 W3-SHD-STR-SCT-300	TYPICAL PLATFORM SECTION	
32	W2-GLT-ARC-3CT-300	PLATFORM PLAN		96	W2-CWS-ELE-PLN-503	ELECTRICAL CONDOIT AND WIRE SCHEDULE			159	W3-3HD-3TR-3CT-300		
33	W2-GLT-STR-PLN-101	SOUTH PARTIAL FOUNDATION PLAN		90	W2-CW3-ELE-FLN-304	ELECTRICAL PANELBOARD SCHEDULES			160	W3-SHD-PLM-PLN-100	WEST AND MIDDLE PARTIAL UNDERFLOOR PLUMBING	
34	W2-GLT-STR-PLN-111	MIDDLE PARTIAL FOUNDATION PLAN				OPUS STATION			161	W3-SHD-PLM-PLN-101	EAST PARTIAL UNDERFLOOR PLUMBING PLAN	
35	W2-GLT-STR-PLN-112	NORTH PARTIAL FOUNDATION PLAN		97	W3-OPS-ARC-COD-010	CODE SUMMARY/ FINISH SCHEDULE			161	W3-SHD-PLM-PLN-110	WEST AND MIDDLE PARTIAL PLUMBING PLAN	
36	W2-GLT-STR-PLN-150	ROOF FRAMING PLANS		98	W3-OPS-ARC-PLN-101	PLATFORM PLAN			163	W3-SHD-PLM-PLN-111	EAST PARTIAL PLUMBING PLAN AND RISER DIAGRAM	3
37	W2-GLT-STR-ELV-201	ELEVATIONS – FRAMING		99	W3-OPS-ARC-PLN-110	SOUTH PARTIAL PLATFORM PLAN			166	W3-SHD-ELE-PLN-301	ELECTRICAL UNDERSLAB CONDUIT PLAN (1 OF 2)	
38	W2-GLT-STR-ELV-210	SOUTH PARTIAL ELEVATIONS – FRAMING		100	W3-OPS-ARC-PLN-111	MIDDLE PARTIAL PLATFORM PLAN			165	W3-SHD-ELE-PLN-302	ELECTRICAL UNDERSLAB CONDUIT PLAN (2 OF 2)	
39	W2-GLT-STR-ELV-211	MIDDLE PARTIAL ELEVATIONS - FRAMING		101	W3-OPS-ARC-PLN-112	NORTH PARTIAL PLATFORM PLAN			166	W3-SHD-ELE-PLN-303	ELECTRICAL CANOPY PLAN - TRACK 1 SIDE	
40	W2-GLT-STR-ELV-212	NORTH PARTIAL ELEVATIONS FRAMING		102	W3-OPS-ARC-PLN-150	ROOF PLANS			167	W3-SHD-ELE-PLN-304	ELECTRICAL CANOPY PLAN - TRACK 2 SIDE	
41	W2-GLT-STR-SCT-300	TYPICAL PLATFORM SECTION		103	W3-OPS-ARC-RCP-180	REFLECTED CEILING PLANS			169		COMMUNICATIONS UNDERSLAB CONDUIT PLAN	
40		SOUTH AND MIDDLE PARTIAL UNDERFLOOR PLUMBING		104	W3-OPS-ARC-ELV-200	ELEVATIONS			168	W3-SHD-ELE-PLN-411	(1 OF 2)	
42	W2-GLT-PLM-PLN-100	PLAN		105	W3-OPS-ARC-ELV-210	SOUTH PARTIAL ELEVATIONS			160		COMMUNICATIONS UNDERSLAB CONDUIT PLAN	
43	W2-GLT-PLM-PLN-101	NORTH PARTIAL UNDERFLOOR PLUMBING PLAN		106	W3-OPS-ARC-ELV-211	MIDDLE PARTIAL ELEVATIONS			169	W3-SHD-ELE-PLN-412	(2 OF 2)	
44	W2-GLT-PLM-PLN-110	SOUTH AND MIDDLE PARTIAL PLUMBING PLAN		107	W3-OPS-ARC-ELV-212	NORTH PARTIAL ELEVATIONS			170	W3-SHD-ELE-PLN-421	COMMUNICATIONS CANOPY PLAN - TRACK 1 SIDE	
45	W2-GLT-PLM-PLN-111	NORTH PARTIAL PLUMBING PLAN & RISER DIAGRAMS		108	W3-OPS-ARC-SCT-300	TYPICAL PLATFORM SECTION			171	W3-SHD-ELE-PLN-422	COMMUNICATIONS CANOPY PLAN - TRACK 2 SIDE	
46	W2-GLT-ELE-PLN-301	ELECTRICAL UNDERSLAB CONDUIT PLAN (1 OF 2)		109	W3-OPS-STR-PLN-101	PLATFORM PLAN			172	W3-SHD-ELE-PLN-461	COMMUNICATIONS CONDUIT SCHEDULE (1 OF 2)	
47	W2-GLT-ELE-PLN-302	ELECTRICAL UNDERSLAB CONDUIT PLAN (2 OF 2)		110	W3-OPS-STR-PLN-110	SOUTH PARTIAL FOUNDATION PLAN			173	W3-SHD-ELE-PLN-462	COMMUNICATIONS CONDUIT SCHEDULE (2 OF 2)	
48	W2-GLT-ELE-PLN-303	ELECTRICAL CANOPY PLAN		111	W3-OPS-STR-PLN-111	MIDDLE PARTIAL FOUNDATION PLAN						
49	W2-GLT-ELE-PLN-411	COMMUNICATIONS UNDERSLAB CONDUIT PLAN		112	W3-OPS-STR-PLN-112	NORTH PARTIAL FOUNDATION PLAN		ļ	1			
		(1 OF 2)		113	W3-OPS-STR-PLN-150	ROOF FRAMING PLANS		ļ	1			
50	W2-GLT-ELE-PLN-412	COMMUNICATIONS UNDERSLAB CONDUIT PLAN		114	W3-OPS-STR-ELV-201	ELEVATIONS – FRAMING		↓	1			
		(2 OF 2)		115	W3-OPS-STR-ELV-210	SOUTH PARTIAL ELEVATIONS – FRAMING			1			
51	W2-GLT-ELE-PLN-421			116	W3-OPS-STR-ELV-211	MIDDLE PARTIAL ELEVATIONS - FRAMING	_	<u>↓</u>	4			
52	W2-GLT-ELE-PLN-461	COMMUNICATIONS CONDUIT SCHEDULE (1 OF 2)		117	W3-OPS-STR-ELV-212	NORTH PARTIAL ELEVATIONS FRAMING		<u>↓</u>	1			
53	W2-GLT-ELE-PLN-462	COMMUNICATIONS CONDUIT SCHEDULE (2 OF 2)	+ + +	118	W3-OPS-STR-SCT-300			+	1			
		CITY WEST STATION		119	W3-OPS-PLM-PLN-100	SOUTH AND MIDDLE PARTIAL UNDERFLOOR PLUMBING	<u>ا</u> د					
54	W2-CWS-ARC-COD-010	CODE SUMMARY/ FINISH SCHEDULE	+ + I	120	W3-OPS-PLM-PLN-101	NORTH PARTIAL UNDERFLOOR PLUMBING PLAN		+	1			
55	W2-CWS-ARC-PLN-101	PLATFORM PLAN		120	W3-OPS-PLM-PLN-101	SOUTH AND MIDDLE PARTIAL PLUMBING PLAN		+ +	1			
56	W2-CWS-ARC-PLN-110	EAST PARTIAL PLATFORM PLAN				NORTH PARTIAL PLUMBING PLAN AND RISER			1			
57	W2-CWS-ARC-PLN-111	MIDDLE PARTIAL PLATFORM PLAN	+ + + 1	122	W3-OPS-PLM-PLN-111	DIAGRAMS			I			
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											STATIONS	n
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60% SUBMISSION - 09/28/15

DISCIPLINE:

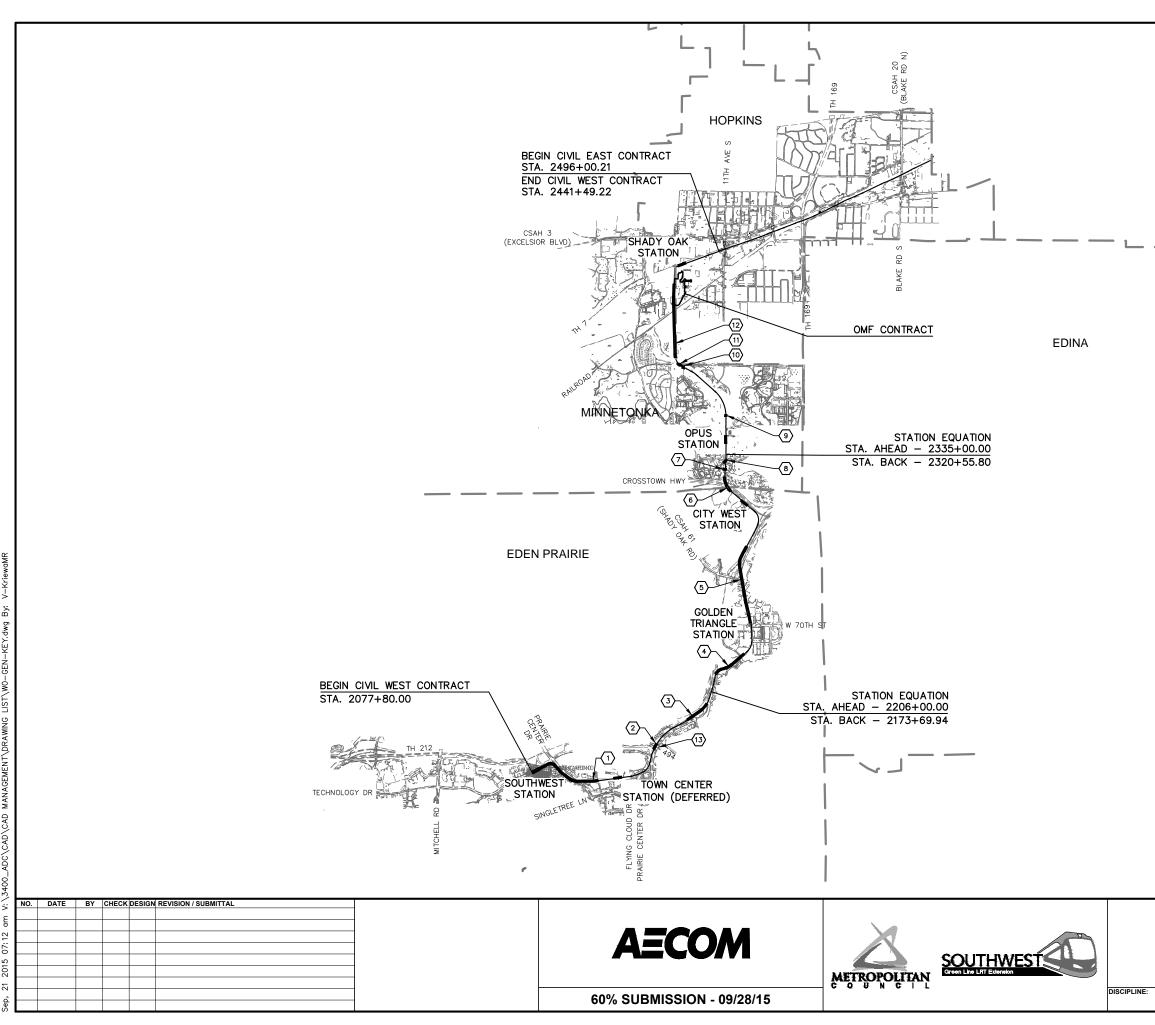
METROPOLITAN

STATIONS **VOLUME INDEX OF PLAN SHEETS**

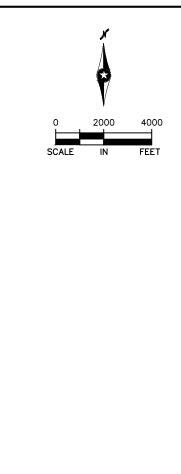
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GENERAL

SHEET NAME:



GENERAL 3 KEY MAP				
BA - BID ALTERNATE CIVIL WEST - VOLUME 11 GENERAL KEY MAP	~	PRAIRIE CENTER DRIVE BRIDGE I-494 BRIDGE VALLEY VIEW RD BRIDGE NINE MILE CREEK BRIDGE TH 212 / SHADY OAK ROAD BRIDGE HWY 62 TUNNEL PEDESTRIAN UNDERPASS #2 PEDESTRIAN UNDERPASS #1 PEDESTRIAN UNDERPASS #5	NUMBEI 27C06 27W32 27R33 27C07 27R34 27W33 27J63 27J63 27J62 R0715	3
CIVIL WEST - VOLUME 11 GENERAL 3 KEY MAP	1993	SMETANA ROAD BRIDGE MINNETONKA / HOPKINS LRT BRIDGE	27C09 R0686	BA
GENERAL 3 KEY MAP	CI			SHEE
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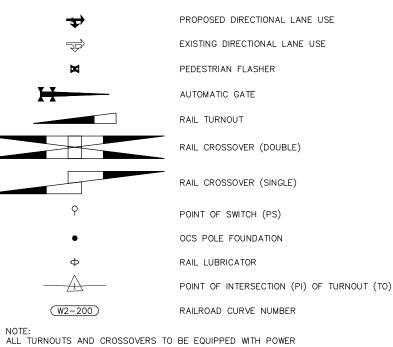
TRACK LINETYPES

ROADWAY &
TRACK 🖗 (LRT)
TRACK € (FRT)
RETAINING WALL
BALLAST CURB
TUNNEL WALL
xx FENCE
EX ROW
PROP TCE
PROP PE
ID INTRUSION DETECTION

CIVIL LINETYPES

	- ROADWAY 🖟
	• TRACK € (LRT)
	- TRACK Q (FRT)
	RETAINING WALL
	BALLAST CURB
	- TUNNEL WALL
	CONCRETE CURB AND GUTTER
	- TRAIL
	- SIDEWALK
	- DRIVEWAY
	- BRIDGE
	- SAWCUT
xxx	- FENCE
¥¥	- DELINEATED WETLAND
_ · · · · ·	- WATER EDGE
	- EX ROW
	PROP ROW
	- PROP TCE
	PROP PE
	CROSSWALK
_	STOP BAR
	MEDIAN NOSE

TRACK SYMBOLS



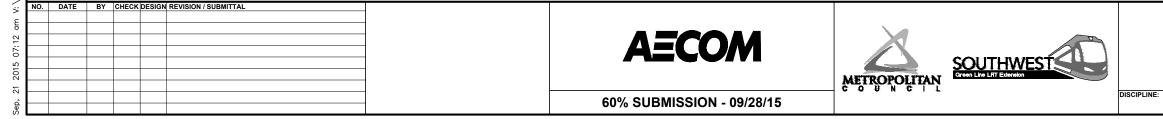
SWITCH MACHINES AND SWITCH HEATERS

CIVIL SYMBOLS

 \boxtimes

	ACCESSIBLE PEDESTRIAN CURB RAMP (DESIGN VARIES)
\Rightarrow	PROPOSED DIRECTIONAL LANE USE
र्यन्ट	EXISTING DIRECTIONAL LANE USE
1	AUTOMATIC GATE
<u>6</u> .	HANDICAP PARKING STALL
00000000000000000000000000000000000000	TACTILE WARNING STRIP
	TPSS BUILDING (TPSS-SW###)

SIGNAL OR INTERMEDIATE OR PLATFORM OR XING OR TUNNEL HOUSE OR ANY COMBINATION OF THESE



SURVEY NOTES

- 1. THE HORIZONTAL DATUM OF THIS MAP IS BASED ON THE HENNEPIN COUNTY COORDINATE SYSTEM WHICH IS RELATED TO THE MINNESOTA STATE PLANE COORDINATE SYSTEM NAD 83 (2007) ADJUSTMENT SOUTH ZONE.
- THE PLANIMETRIC FEATURES SHOWN ON THIS MAP ARE AS PREPARED BY AERO-METRIC, INC. FROM AERIAL DATA AND IMAGERY COLLECTED IN APRIL 2012, AS SUPPLEMENTED BY FIELD SURVEYS COMPLETED BY RANI ENGINEERING.
- HORIZONTAL POSITIONAL ACCURACY: USING THE NATIONAL STANDARD FOR SPATIAL DATA ACCURACY, THE DATA SET TESTED 0.14 FEET HORIZONTAL ACCURACY AT A 95% CONFIDENCE LEVEL.
- VERTICAL POSITIONAL ACCURACY: USING THE NATIONAL STANDARD FOR SPATIAL DATA ACCURACY, THE DATA SET TESTED 0.10 FEET VERTICAL ACCURACY AT 95% CONFIDENCE LEVEL.

CIVIL WES	Γ - VOLUME 11	SHEET			
GEI	NERAL	4			
LEGEND AND ABBREVIATIONS SHEET 1					
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ABBREVIATIONS

AD	ALGEBRAIC DIFFERENCE
AVE	AVENUE
BGN	BEGIN
BP BVCE	BEGINNING POINT BEGINNING VERTICAL CURVE ELEVATION
BVCS	BEGINNING VERTICAL CURVE STATION
BLVD	BOULEVARD
BNSF	BURLINGTON NORTHERN SANTA FE RAILWAY
C&G	CURB AND GUTTER
С.	CENTERLINE
CIR	
CP CPRAIL	CANADIAN PACIFIC CANADIAN PACIFIC RAILWAY
CS	CURVE TO SPIRAL
CSAH	COUNTY STATE AID HIGHWAY
D&U	DRAINAGE AND UTILITY
DF	DIRECT FIXATION
DR	DRIVE
DTL	DETAIL
DWY E	DRIVEWAY EAST
Ea	ACTUAL SUPERELEVATION (INCHES)
EB	EAST BOUND
EL or ELEV	ELEVATION
EP	END POINT
ESMT	
Eu	UNBALANCED SUPERELEVATION (INCHES)
EVCE EVCS	ENDING VERTICAL CURVE ELEVATION ENDING VERTICAL CURVE STATION
EX	EXISTING
HCRRA	HENNEPIN COUNTY REGIONAL RAILROAD AUTHORITY
LH	LEFT HAND
LN	LANE
LRT	LIGHT RAIL TRANSIT
Lc	CURVE LENGTH (FEET)
L _s MIN	SPIRAL LENGTH (FEET) MINIMUM
MPH	MILES PER HOUR
MPLS	CITY OF MINNEAPOLIS
MPRB	MINNEAPOLIS PARK AND RECREATION BOARD
N	NORTH
NB	NORTH BOUND NOT IN CONTRACT
NIC NO	NUMBER
OMF	OPERATIONS AND MAINTENANCE FACILITY
OCS	OVERHEAD CONTACT SYSTEM
ОН	OVERHEAD
PC	POINT OF CURVE
PE	PERMANENT EASEMENT
PITO PKWY	POINT OF INTERSECTION OF TURNOUT PARKWAY
POT	POINT ON TANGENT
PROP	PROPOSED
PS	POINT OF SWITCH
PT	POINT OF TANGENT
PVI	POINT OF VERTICAL INTERSECTION
R RD	RADIUS (FEET) ROAD
RL	RAIL LUBRICATOR
r	RATE OF CHANGE VERTICAL CURVE
RH	RIGHT HAND
ROW	RIGHT OF WAY
S	SOUTH
SB SC	SOUTH BOUND SPIRAL TO CURVE
SIG-COMM	SIGNAL COMMUNICATION
ST	STREET
ST	SPIRAL TO TANGENT
STA	STATION
TCE	TEMPORARY CONSTRUCTION EASEMENT
TH THRU	TRUNK HIGHWAY THROUGH
TOR	TOP OF RAIL
TPSS	TRACTION POWER SUBSTATION
TRK	TRACK
TS	TANGENT TO SPIRAL
TYP	TYPICAL UNDERGROUND
UG V	DESIGN VELOCITY (MPH)
VC	VERTICAL CURVE
Ŵ	WEST
WB	WEST BOUND

TRAIL INDEX

ABBREVIATED NAME	FULL NAME / LOCATION
TRAIL 1	UNDER RED CIRCLE DR, LRT, AND YELLOW CIRCLE DR
TRAIL 2	FROM TRAIL 1 TO GREEN CIRCLE DR
TRAIL 3	OPUS STATION ACCESS FROM BREN RD E
TRAIL 4	FROM BREN RD W TO TRAIL 5
TRAIL 5	FROM OPUS STATION TO GREEN CIRCLE DR
TRAIL 6	FROM TRAIL 5 TO SMETANA RD
CEDAR LAKE TRAIL	CEDAR LAKE LRT REGIONAL TRAIL/FROM SHADY OAK STATION TO 11TH AVE
CEDAR LAKE TRAIL	CEDAR LAKE LRT REGIONAL TRAIL/WEST OF EXCELSIOR
CEDAR LAKE TRAIL	CEDAR LAKE LRT REGIONAL LRT TRAIL/BETWEEN EXCELSIOR AND KENILWORTH TRAIL CONNECTION
MIDTOWN GREENWAY	MIDTOWN GREENWAY/EAST OF KENILWORTH TRAIL CONNECTION
TRAIL A	KENILWORTH TRAIL (SECONDARY)/BETWEEN CEDAR-ISLES CHANNEL AND 21ST STREET STATION
TRAIL B	KENILWORTH TRAIL (SECONDARY)/BETWEEN 21ST STREET STATION AND PENN STATION
TRAIL B	CEDAR LAKE TRAIL (SECONDARY)/EAST OF PENN STATION
TRAIL C	10' CONNECTOR TRAIL FROM CEDAR LAKE LRT REGIONAL TRAIL TO TYLER AVE.
TRAIL D	10' CONNECTOR TRAIL/BELTLINE STATION TO CEDAR LAKE LRT REGIONAL TRAIL
KENILWORTH TRAIL	KENILWORTH TRAIL (MAIN)/W LAKE ST TO PENN STATION
CEDAR LAKE TRAIL	CEDAR LAKE TRAIL (MAIN)/PENN STATION TO TH 394
TRAIL E	KENILWORTH TRAIL (SECONDARY)/EAST OF W LAKE ST
TRAIL F	KENILWORTH TRAIL (SECONDARY)/WEST OF CEDAR LAKE PKWY
TRAIL G	KENILWORTH TRAIL (SECONDARY)/WEST OF PENN STATION
TRAIL G	CEDAR LAKE TRAIL (SECONDARY)/EAST OF PENN STATION
TRAIL H	10' CONNECTOR TRAIL/EAST OF PENN STATION TO KENWOOD PKWY
TRAIL I	NOT USED
CEDAR LAKE TRAIL	CEDAR LAKE TRAIL (MAIN)/AT-GRADE CROSSING AT PENN STATION
TRAIL J	CEDAR LAKE TRAIL (SECONDARY)/NORTHWEST OF PENN STATION
TRAIL K	CEDAR LAKE TRAIL (SECONDARY)/NORTHWEST OF PENN STATION
TRAIL L	CEDAR LAKE TRAIL (SECONDARY)/EAST OF PENN STATION
TRAIL M	NOT USED
TRAIL N	8' CONNECTOR TRAIL FROM CEDAR LAKE TRAIL TO EDGEBROOOK DRIVE
TRAIL O	8' CONNECTOR TRAIL FROM CEDAR LAKE TRAIL TO W LAKE STREET
TRAIL P	8' CONNECTOR TRAIL FROM CEDAR LAKE TRAIL TO LOUISIANA AVE
TRAIL Q	10' CONNECTOR TRAIL FROM CEDAR LAKE TRAIL TO TH 7 SERVICE ROAD
TRAIL R	20' CONDECTOR TRAIL FROM VAN WHITE STATION TO CEDAR LAKE TRAIL
TRAIL S	NOT USED
TRAIL T	8' CONNECTOR TRAIL FROM VAN WHITE STATION TO VAN WHITE MEMORIAL BLVD
TRAIL U	10' TRAIL PARALLEL TO CEDAR LAKE PKWY
LUCE LINE TRAIL	LUCE LINE REGIONAL TRAIL/ON BRIDGE OVER LIGHT RAIL
TRAIL V TRAIL W	CONNECTOR TRAIL TO LUCE LINE REGIONAL TRAIL WEST OF LIGHT RAIL CONNECTOR TRAIL TO LUCE LINE REGIONAL TRAIL WEST OF LIGHT RAIL
	CONNECTOR TRAIL TO LOCE LINE REGIONAL TRAIL WEST OF LIGHT RAIL

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CIVIL WEST	Γ - VOLUME 11	SHEET
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GENERAL	SHEET NAME: W0-GEN-NTS - 002	173
	GEI LEGEND AND SH	CIVIL WEST - VOLUME 11 GENERAL LEGEND AND ABBREVIATIONS SHEET 2 GENERAL WO-GEN-NTS - 002

© 町℃の下#	AT BASELINE CENTERLINE DIAMETER PLATE POUND/ NUMBER	ELEV EMR ENCL ENGR(IN ENT EP
A/C ACS AD ADA ADDL	AIR CONDITIONING ACCESS AREA DRAIN AMERICANS WITH DISABILITIES ACT ADDITIONAL	EQ EQUIP ETL EXIST EXT
ADJ AESS AFF	ADJACENT ARCHITECTURALLY EXPOSED STRUCT STL ABOVE FINISH FLOOR ALLIMINIUM	FC FCO FF

ARCHITECT(URAL) AUTOMATIC TRANSFER SWITCH

ARCHITECTURAL WOVEN MESH

ALUMINUM

ANCILLARY

ANODIZED

AVENUE

BATTERY

BOARD

BASELINE

BUILDING

BLOCK(ING) BOULEVARD

BOUNDARY

BETWEEN

CABINET

CCTV CAMERA

CAST IRON

CENTERLINE

CEILING

COUNTY

COLUMN

CONCRETE

CONSTANT

CEMENT(ITIOUS)

CAST IN PLACE

CONTROL JOINT

COMMUNICATION(S)

CONSTRUCTION JOINT

CONTINUE(OUS)

COORDINATE

COUNTERSUNK

CERAMIC TILE

COATING

CLEAR CONCRETE MASONARY UNIT

BRICK

BENCH MARK

BASE OF/ BOTTOM OF

COUNCIL AUTHORIZED REPRESENTATIVE

ANTENNA(E) APPROXIMATE

ELEV EMR ENCL ENGR(ING) ENT EQ EQUIP ETL EXIST EXT	ELEVATOR/ ELEVATION ELEVATOR MACHINE ROOM ENCLOSURE ENGINEER(ING) ENTRANCE/ ENTRY EDEN PRAIRIE EQUIPMENT EQUIPMENT EMERGENCY TELEPHONE EXISTING EXTERIOR
FC	FACE
FCO	FLOOR CLEANOUT
FF	FINISHED FLOOR
FIN	FINISH
FIXT	FIXTURE
FL	FLOOR
FLASH	FLASHING
FLUOR	FLUORESCENT
FO	FACE/ FRONT OF
FRP	FIBERGLASS REINFORCED PANEL
FT	FOOT/ FEET
FTG	FOOTING
FUTR	FUTURE
GA	GAUGE
GALV	GALVANIZED
GC	GENERAL CONTRACTOR
GL	GLASS/ GLAZING
GPM	GALLONS PER MINUTE
GR	GRADE
GS	GROUND SURFACE
GYP	GYPSUM
H	HIGH
HH	HAND HOLE
HSS	HOLLOW STRUCTURAL SECTION
HT	HEIGHT
HDWR	HARDWARE
HM	HOLLOW METAL
HORIZ	HORIZONTAL
HP	HIGH PERFORMANCE
HOP	HOPKINS
HR	HOUR
HTR	HEATER
HVAC	HEATING, VENTLATION AND AIR CONDITIONING
ID	IDENTIFICATION/INSIDE DIAMETER
IN	INCH(ES)
INCL	INCLUDING
INF	INFILL
INSUL	INSULATION
INT	INTERIOR
INV	INVERT
J-BOX	JUNCTION BOX
JT	JOINT
LDR	LEADER
LG	LONG
LLH	LONG LEG HORIZONTAL
LLV	LONG LEG VERTICAL
LOC	LOCATION
LVR(S)	LOUVER(S)
MACH	MACHINE
MAINT	MAINTENANCE
MAS	MASONRY
MAT	MATERIAL
MAX	MAXIMUM
MCP	METAL CEILING PANEL
MECH	MECHANICAL
MED	MEDIUM
MEMB	MEMBRANE
MFR	MANUFACTURER(ED)
MH	MANHOLE
MID	MIDULE
MIN	MINIMUM

MISC MN MO MPLS MT MTD MTKA MTL N/A	MASONRY OPENING MINNEAPOLIS METRO TRANSIT MOUNT(ED)	SWLRT SYS T TEMP T/E TH THRES THRU T.O. TOW
N/A NIC NO NOM NTS	NORTH NORTH NOT IN CONTRACT NUMBER NOMINAL NOT TO SCALE	TPSS TUNN TVM TYP UNO
OC OCS OH OMF OPER OPNO OPP		VERT VMS VS SYMB(
PRE-	PERPENDICULAR PLATE PLUMBING PLYWOOD S) PANEL(S) ST/PC FAB PRE-FABRICATED	
PSI PT PTD PVC PROF	,	A300- SWC
QTY R RAD REF REINF REQD REQS REV RM RO ROW RVS RWL	REQUIRED	
S SCHE SCC SF SHTH SIG SIM SLP SLNT SHT SK SPEC SPKR SPO SQ SS ST STA STD	STATION COMMUNICATION CABINET STATION ELECTRICAL CABINET SQUARE FEET IG SHEATHING SIGNAL SIMILAR ST. LOUIS PARK SEALANT SHEET SKYLIGHT SPECIFICATION R SPEAKER SOUTHWEST PROJECT OFFICE SQUARE STAINLESS STEEL STREET STATION STANDARD	XX RAIL PNL
STL STOR STRU SUSP SVV	ICT STRUCTURE(AL)	

SECTION NUMBER

SHEET NUMBER

DRAWING CODE

DETAIL NUMBER

SHEET NUMBER

DRAWING CODE

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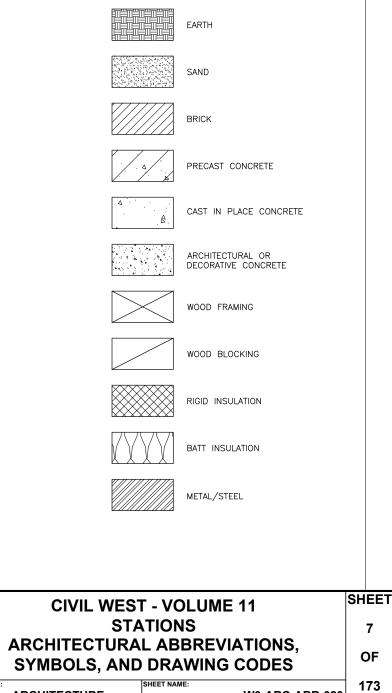
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ANT APPROX

HT RAIL TRANSIT	W/ W/O WCO WP WD WD	WITH WITHOUT WEST/WIDTH WALL CLEANOUT WORKING POINT WOOD WINDOW
ION	DRAW	ING CODES
	SWS TCT GLT CWS OPS SHD	SOUTHWEST STATION TOWN CENTER STATION (DEFERRED) GOLDEN TRIANGLE STATION CITY WEST STATION OPUS STATION SHADY OAK STATION



ARCHITECTURE

W0-ARC-ABR-020

1. CODES AND SPECIFICATIONS

- 2015 MINNESOTA STATE BUILDING CODE.
 AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC)
- "SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS" (AISC-360-10). 3. AMERICAN CONCRETE INSTITUTE (ACI) "BUILDING CODE
- REQUIREMENTS FOR REINFORCED CONCRETE" (ACI 318–11). 4. AMERICAN SOCIETY OF CIVIL ENGINEERS (ASCE) "MINIMUM DESIGN LOADS FOR BUILDINGS AND OTHER STRUCTURES" ASCE 7–10.

2. GENERAL

- CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS, ELEVATIONS AND DIMENSIONS. CHANCES REQUIRED DUE TO EXISTING CONDITIONS SHALL BE SUBJECT TO A/E APPROVAL PRIOR TO ANY CONSTRUCTION.
- CONTRACTOR SHALL SUBMIT ALL REQUIRED SHOP DRAWINGS FOR APPROVAL PRIOR TO FABRICATION OR DELIVERY OF MATERIALS TO THE SITE.
- NOTES, TYPICAL DETAILS AND SCHEDULES APPLY TO ALL STRUCTURAL WORK UNLESS NOTED OTHERWISE. FOR CONDITIONS NOT SPECIFICALLY SHOWN, PROVIDE DETAILS OF A SIMILAR NATURE. VERIFY APPLICABILITY BY SUBMITTING SHOP DRAWINGS.
- 4. STRUCTURAL DRAWINGS SHALL BE USED IN CONJUNCTION WITH THE SPECIFICATIONS, CIVIL, ARCHITECTURAL, ELECTRICAL AND MECHANICAL DRAWINGS. IF THERE IS A DISCREPANCY BETWEEN DRAWINGS AND SPECIFICATIONS, IT IS THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY THE C.A.R. PRIOR TO PERFORMING WORK.
- AT ALL TIMES THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR THE CONDITIONS OF THE JOB SITE INCLUDING SAFETY OF PERSONS AND PROPERTY. THE ENGINEER'S PRESENCE OR REVIEW OF WORK DOES NOT INCLUDE THE ADEQUACY OF THE CONTRACTOR'S MEANS OR METHODS OF CONSTRUCTION.
- 6. THE CONTRACTOR SHALL PROVIDE ALL NECESSARY SUPPORT, BRACING, SHORING, ETC. OF BOTH EXISTING AND NEW CONSTRUCTION, INCLUDING UTILITIES, AS WILL BE REQUIRED FOR THE SAFE INSTALLATION OF NEW CONSTRUCTION AND THE COMPLETE PROTECTION OF PUBLIC, WORKMEN AND PROPERTY. TOTAL RESPONSIBILITY IN THIS REGARD SHALL REST WITH THE CONTRACTOR.

3. FOUNDATION

- 1. ALL FOOTINGS SHALL BEAR ON ENGINEERED FILL HAVING A MINIMUM BEARING CAPACITY OF 2.500 PSF.
- MINIMUM FROST DEPTH AND FOOTING DEPTH SHALL BE 3'-6" FEET BELOW FINISHED GRADE. FOR ISOLATED FOOTINGS ONLY.

4. CONCRETE

- ALL CONCRETE SHALL CONFORM TO CURRENT EDITION OF THE BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE ACI 318–11.
- CONCRETE FOR FOOTINGS, PIERS, WALLS BEAMS AND SLAB ON GRADE SHALL BE STONE CONCRETE AND HAVE A MINIMUM COMPRESSIVE STRENGTH OF 4000 PSI AT 28 DAYS.
 CONSTRUCTION JOINTS SHALL BE PROVIDED AS INDICATED ON
- THE DRAWINGS OR AS APPROVED BY THE ENGINEER. 4. SIZE OF CONCRETE PLACEMENT SHALL NOT EXCEED THE
- FOLLOWING, UNLESS OTHERWISE NOTED: SLABS ON GRADE: PLACE IN LONG STRIPS AS SHOWN ON THE DRAWINGS. WALL SECTIONS: 40'-0" IN LENGTH BUT NOT FURTHER THAN 15 FEET FROM ANY CORNERS.
- SURFACE OF ALL CONSTRUCTION JOINTS SHALL BE ROUGHENED BEFORE CONCRETE SETS. CONCRETE SURFACE SHALL BE PREPARED BEFORE A NEW POUR AS SPECIFIED IN THE "ACI MANUAL OF CONCRETE INSPECTION" SP-2.
- 6. SLEEVES, MECHANICAL OPENINGS, CONDUITS, PIPES, RECESSES, DEPRESSIONS, CURBS AND ALL EMBEDDED ITEMS SHALL BE PROVIDED FOR AS SHOWN ON THE ARCHITECTURAL AND MECHANICAL DRAWINGS AND AS REQUIRED BY EQUIPMENT MANUFACTURERS. MINIMUM CONCRETE BETWEEN SLEEVES SHALL BE 6 INCHES.
- NOT ALL ITEMS EMBEDDED IN CONCRETE ARE INDICATED ON THE STRUCTURAL DRAWINGS. SEE ARCHITECTURAL WITH MECHANICAL, PLUMBING AND ELECTRICAL DRAWINGS FOR ADDITIONAL EMBEDDED ITEMS.

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- 8. CONCRETE FLOORS SHALL BE CONSTRUCTED TO THE FLATNESS TOLLERANCES INDICATED IN SPECIFICATIONS.
- 5. REINFORCING STEEL
- ALL REINFORCING STEEL SHALL CONFORM TO THE CURRENT ASTM SPECIFICATIONS A-615 GRADE 60 UNLESS OTHERWISE NOTED ON THE DRAWINGS.
- REINFORCEMENT DETAILS SHALL CONFORM TO THE MANUAL OF STANDARDS FOR DETAILING OF CONCRETE REINFORCEMENT ACI 315
- REINFORCEMENT SHALL BE CONTINUOUS THROUGH ALL CONSTRUCTION JOINTS UNLESS OTHERWISE INDICATED ON THE DRAWINGS.
- ALL BARS SHALL BE CONTINUOUS UNLESS NOTED OTHERWISE. BARS SHALL BE RUN CONTINUOUSLY AROUND CORNERS AND LAPPED IF NECESSARY AND HOOKED AT DISCONTINUOUS FNDS
- ALL STEEL WELDED FABRIC SHALL CONFORM TO ASTM A-185, WITH MINIMUM ULTIMATE TENSILE STRENGTH OF 70,000 PSI.
- 6. REINFORCING BARS SHALL BE SECURELY HELD IN PROPER POSITION WHILE PLACING CONCRETE. REBAR SPLICE LENGTH SHALL CONFORM TO THE LATEST EDITION OF BUILDING CODE REQUIREMENTS, FOR REINFORCED CONCRETE, ACI 318. SPLICE ALL REBARS AWAY FROM THE TENSION ZONE. TOP BARS SHALL BE SPLICED AT MIDSPANS AND BOTTOM BARS OVER SUPPORTS U.O.N.
- REINFORCEMENT IN ALL SLABS-ON-GRADE SHALL NOT BE CONTINUOUS THROUGH EXPANSION AND ISOLATION JOINTS. AT THE CONTRACTION OR CONSTRUCTION JOINTS ONLY ALTERNATE BARS SHALL BE CONTINUOUS.
- ALL REINFORCEMENT INCLUDING WELDED WIRE MESH IN SLABS ON GRADE SHALL BE SUPPORTED TO PREVENT DISPLACEMENT BY CONSTRUCTION LOADS OR PLACING OF CONCRETE. SUPPORT REINFORCEMENT ON CONCRETE BLOCKS 4" SQUARE HAVING COMPRESSIVE STRENGTH EQUAL TO THAT OF THE SLAB.
- 9. THE CONTRACTOR SHALL VERIFY THE DIMENSIONS AND LOCATIONS OF ALL OPENINGS, PIPE SLEEVES, ETC. AS REQUIRED BY ALL TRADES, BEFORE THE CONCRETE IS POURED, THE CONTRACTOR SHALL CONSULT MECHANICAL AND ELECTRICAL DRAWINGS, AS WELL AS THE STRUCTURAL DRAWINGS FOR THR LOCATION, NUMBER, AND SIZE OF ALL OPENINGS, SLEEVES, ETC. HOWEVER, OPENINGS NOT SHOWN ON THE STRUCTURAL DRAWINGS, SHALL BE INSTALLED ONLY AFTER APPROVAL BY THE STRUCTURAL ENGINEER IS OBTAINED.
- 6. STRUCTURAL STEEL
- 1. UNLESS OTHERWISE NOTED, STRUCTURAL STEEL SHAPES SHALL CONFORM TO THE FOLLOWING SPECIFICATIONS:
 - i. WIDE FLANGES, A.S.T.M. 992
 - ii. CHANNELS, A.S.T.M. A-36 iii. STRUCTURAL TUBES, A.S.T.M. A-500 (Gr. B)
- iv. PLATES, A.S.T.M. A-36
 2. FABRICATION AND ERECTION OF STRUCTURAL STEEL SHALL CONFORM TO THE AISC SPECIFICATION FOR DESIGN.
- ANCHOR RODS SHALL CONFORM TO A.S.T.M. A-307.
 TEMPLATES SHALL BE PROVIDED FOR ALL ANCHOR RODS
- CAST IN PLACE. 5. HIGH STRENGTH BOLTS SHALL CONFORM TO A.S.T.M.
- A-325. NON-HIGH STRENGTH BOLTS SHALL CONFORM TO A-325. NON-HIGH STRENGTH BOLTS SHALL CONFORM TO A.S.T.M. A-307. WASHERS SHALL CONFORM TO A.S.T.M. F-436 AND NUTS TO A.S.T.M. A-583.
 ALL AVAILABLE STRENGTHS FOR BOLTS SHALL BE THOSE
- ALL AVAILABLE STRENGTHS FOR BOLTS SHALL BE THOSE GIVEN IN THE AISC SPECIFICATIONS.
 STRUCTURAL STEEL CONNECTIONS SHALL BE OF THE
- THOU STILL STILL OWNER TO A STALL BE TYPES SHOWN ON THE DRAWINGS AND SHALL BE DESIGNED FOR THE CAPACITIES AND REQUIREMENTS SHOWN. CONTRACTOR SHALL SUBMIT TO A/E FOR APPROVAL, DESIGN CALCULATIONS AND DETAILS OF ALL CONNECTIONS, REPAIRED, SIGNED AND SEALED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF MN.
 A MINIMUM OF TWO (2) BOLTS SHALL BE PROVIDED IN
- EACH CONNECTION. 9. ALL STEEL SURFACES NOT SHOP PRIMED SHALL BE FIELD PRIMED OR TOUCHED-UP PRIMED. EXCEPT AS MODIFIED BY THE SPECIFICATIONS.
- GALVANIZING WHEN REQUIRED AS CALLED ON PLANS SHALL BE HOT-DIP GALVANIZNING IN ACCORDANCE WITH A.S.T.M. A-123 & A-155.
- 11. CONTRACTOR SHALL SUBMIT, FOR REVIEW, STRUCTURAL STEEL SHOP DRAWINGS PREPARED BY AN AISC CERTIFIED FABRICATOR.

- 7. WELDING
- WELDING OF STRUCTURAL STEEL SHALL CONFORM TO THE STRUCTURAL WELDING CODE AWS D1.1. ELECTRODES SHALL BE E70XX, LOW HYDROGEN.
- 2. ALL FILLET WELD SIZES NOT SHOWN ON THE DRAWING SHALL NOT BE LESS THAN THE MINIMUM SIZE AS PER AISC SPECIFICATIONS.
- ALL WELDING SHALL BE PERFORMED BY AN AWS CERTIFIED WELDER AND SHALL BE SUBJECT TO QUALITY CONTROL INSPECTION AS REQUIRED BY THE STATE OF MINNESOTA BUILDING CODE.

<u>8. GROUT</u>

- 1. UNLESS OTHERWISE NOTED ON THE DRAWINGS, GROUT SHALL BE CEMENTITIOUS GROUT CONFORMING TO SPECIFICATIONS.
- 2. FOR ANCHOR BOLTS AND DOWELS, USE EPOXY GROUT, SUCH AS MASTER BUILDERS, INC. BRUTEM AB OR EQUAL.
- 3. GROUT SHALL BE INSTALLED FOLLOWING MANUFACTURER'S INSTRUCTIONS.

9. DESIGN LOADS

1.	STATION PLA	TFORMS ROOF	
LIVE LOAD (PSF)	125	35	
SNOW LOAD (PSF)	-	35	
STRUCTURE DEAD LOAD (PSF)	VARIES	S.W.	
SUPERIMPOSED DEAD LOAD (PSF)	-	10	

NOTE: STEEL SELF WEIGHT WILL BE CALCULATED IN STRUCTURAL ANALYSIS PROGRAM

2. ROOF SNOW LOAD: GROUND SNOW LOAD: Pg = 50 PSF

SNOW EXPOSURE FACTOR: Ce = 0.9SNOW IMPORTANCE FACTOR: I = 1.0THERMAL FACTOR: Ct = 1.2FLAT ROOF SNOW LOAD: Pf = 35 PSF

SNOW DRIFT HAS BEEN CONSIDERED WHERE APPLICABLE. 3. WIND LOADS:

RISK CATEGORY: II

ULTIMATE DESIGN WIND SPEED: 115 MPH WIND EXPOSURE CATEGORY: B INTERNAL PRESSURE COEFFICIENT: 0.18 COMPONENTS & CLADDING MINIMUM PRESSURE: 20 PSF

- 4. SEISMIC LOADS: SEISMIC USE GROUP 1 SPECTRAL RESPONSE COEFFICIENTS: SDS = 0.064g, SD1 = .0438g SITE CLASS: D BASIC SEISMIC-FORCE-RESISTING SYSTEM: ORDINARY STEEL MOMENT FRAMES DESIGN BASE SHEAR: 0.018W SEISMIC DESIGN CATEGORY A MODIFICATION FACTOR, R = 3.5
- 5. DEFLECTION CRITERIA:
- ALLOWABLE DESIGN FLOOR DEFLECTIONS ARE AS FOLLOWS: DL+LL = L/240 LL = L/360 TYPICAL LL+SDL = L/600 OR 3/8" CMU SUPPORTING SPANDREL BEAMS
- 6. BUILDING ALLOWABLE LATERAL DRIFT = L/400





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INE: STRUCTURES	SHEET NAME: W0-STR-GEN-001	173

PIPING SYMBOLS

FIRE PROTECTION WATER SERVICE
FIRE SPRINKLER
SANITARY WASTE (BELOW GRADE)
SANITARY WASTE (ABOVE GRADE)
STORM DRAIN (BELOW GRADE)
RAINWATER CONDUCTOR/LEADER OR STORM DRAIN (ABOVE GRADE)
CONDENSATE DRAIN
DRAIN
PUMPED DRAIN
ABOVE FLOOR VENT
VENT
DOMESTIC WATER
COLD WATER
HOT WATER
RECIRCULATING HOT WATER
TEMPERED WATER
REFRIGERANT LIQUID
REFRIGERANT SUCTION
REFRIGERANT HOT GAS

VALVES FITTINGS APPURTENANCES

					UNION
		' ' ⊳∕—			SHUT OFF VALVE
					GATE VALVE
		Ā_			OUTSIDE STEM YOKE VALVE
					CHECK VALVE
					BALANCING VALVE
					SOLENOID VALVE
					2 WAY CONTROL VALVE
					3 WAY CONTROL VALVE
					THERMOSTATIC MIXING VALVE
		ė—			PRESSURE REGULATING VALVE
		۶P			WATER REGULATING VALVE
					BALL VALVE
		۲ <u>۲</u>			BUTTERFLY VALVE
	Ŷ				TEMPERATURE PRESSURE RELIEF VALVE
	$-\bowtie$				BACKFLOW PREVENTER
					REDUCED PRESSURE BACKFLOW PREVENTER
		-X			PIPE ANCHOR
					PIPE GUIDE
		_			FLOW MEASURING STATION
					STRAINER
	NZ				FLEXIBLE PIPE CONNECTOR
	K	<u>-</u> XXXX			FLEXIBLE FIPE CONNECTOR
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Q	PRESSURE GAUGE
ļ	
	THERMOMETER
\bowtie	FLOOR SINK
\otimes	AREA DRAIN, FLOOR DRAIN, ROOF DRAIN
со ।	CEILING WALL CLEANOUT
	FLOOR CLEANOUT
C	CAPPED PIPE
\longrightarrow	DIRECTION OF FLOW
J	TOP TAKE OFF
0	RISER
C	BOTTOM TAKE OFF
\longrightarrow	PIPE DROP
$c \rightarrow$	PIPE RISE
	TRENCH DRAIN

CODE MANUALS AND STANDARDS AS THEY APPLY

- AMERICAN NATIONAL STANDARD INSTITUE (ANSI);
- AMERICAN SOCIETY OF HEATING, REFRIGERATION AND AIR CONDITIONING ENGINEERS (ASHRAE); AMERICAN SOCIETY OF MECHANICAL ENGINEERS (ASME); 3. AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM) PUBLICAITONS; CITY CODES; 5 COUNTY ORDINANCES; COUNTY ORDINANCES;
 INTERNATIONAL ELECTROTECHNICAL COMMISSION (IEC) STANDARDS;
 INTERNATIONAL BUILDING CODE (IBC) PUBLICATIONS;
 INSTITUTE OF ELECTRICAL AND ELECTRONIC ENGINEERS (IEEE), ADDITIONAL ELECTRICAL SAFETY CODE (NESC) STANDARDS;
 INTERNATIONAL ORGANIZATION FOR STANDARDIZATION (ISO);
 MINNESOTA STATE BUILDING CODE (MSBC);
 MINNESOTA PLUMBING CODE 2012;
 MINDESOTA PLUMBING CODE 2015;
- 13. MINNESOTA MECHANICAL CODE 2015;
- MINNESOTA ENERGY CODE 2015;
 NATIONAL ELECTRICAL CODE (NEC);
 NATIONAL ELECTRICAL MANUFACTURES ASSOCIATIONS (NEMA)
- STANDARDS;
- 17. NATIONAL FIRE PROTECTION ASSOCIATION (NFPA) PUBLICATIONS

ABBREVIATIONS						
ABV	ABOVE	FT	FOOT OR FE			
AC	AIR CONDITIONING	FUT	FUTURE			
ACU	AIR CONDITIONING UNIT	GA	GAUGE GAG			
AFC	ABOVE FINISHED CEILING	GEN	GENERAL			
AFF	ABOVE FINISHED FLOOR	GFCI	GROUND-FA			
AHU	AIR HANDLING UNIT	GPM	GALLONS PE			
APPROX	APPROXIMATE	GR	GRADE GRO			
ARCH	ARCHITECT ARCHITECTURAL	н	HIGH, HEIGH			
BFF	BELOW FINISHED FLOOR	HC	HEATING CC			
BFV	BUTTERFLY VALVE	HORIZ	HORIZONTA			
BG	BELOW GRADE	ID	INSIDE DIME			
BHP	BRAKE HORSEPOWER	IBS	IN BEAM SPA			
BEL, BLW	BELOW	IJS	IN JOIST SPA			
BOD	BOTTOM OF DUCT ELEVATION A F F	ΙE	INVERT ELE			
BOP	BOTTOM OF PIPE ELEVATION A F F	L AV	LAVATORY			
BOT	BOTTOM	LB	POUND			
CA	COMPRESSED AIR	LF	LINEAL FEET			
СС	COOLING COIL	LG	LONG OR LE			
CFH	CUBIC FEET PER HOUR	MAX	MAXIMUM			
CFM	CUBIC FEET PER MINUTE	MBH	1000 BTU PE			
CI	CAST IRON	MFG	MANUFACTU			
CL	CENTER LINE	MIN	MINIMUM			
CLG	CEILING	MS	MOP SINK			
CPRSR	COMPRESSOR	MTR	MOTORIZED			
COND	CONDENSATE	Ν	NORTH			
CONN	CONNECTION	NO.	NUMBER			
CONSTR	CONSTRUCTION	NTS	NOT TO SCA			
CONT	CONTINUED, CONTINUOUS	OA	OUTSIDE AIF			
CONTR	CONTRACTOR	O.C.	ON CENTER			
COOL	COOLING	OD	OUTSIDE DI			
CU	CONDENSING UNIT	OPNG	OPENING			
CW	COLD WATER	ORD	OVERFLOW			
DR	DRAIN	Р	PUMP, PUMP			
DT	DRIP TRAP	PD	PRESSURE I			
DEMO	DEMOLITION	PRV	PRESSURE I			
D	DIAMETER	PSI	POUNDS PE			

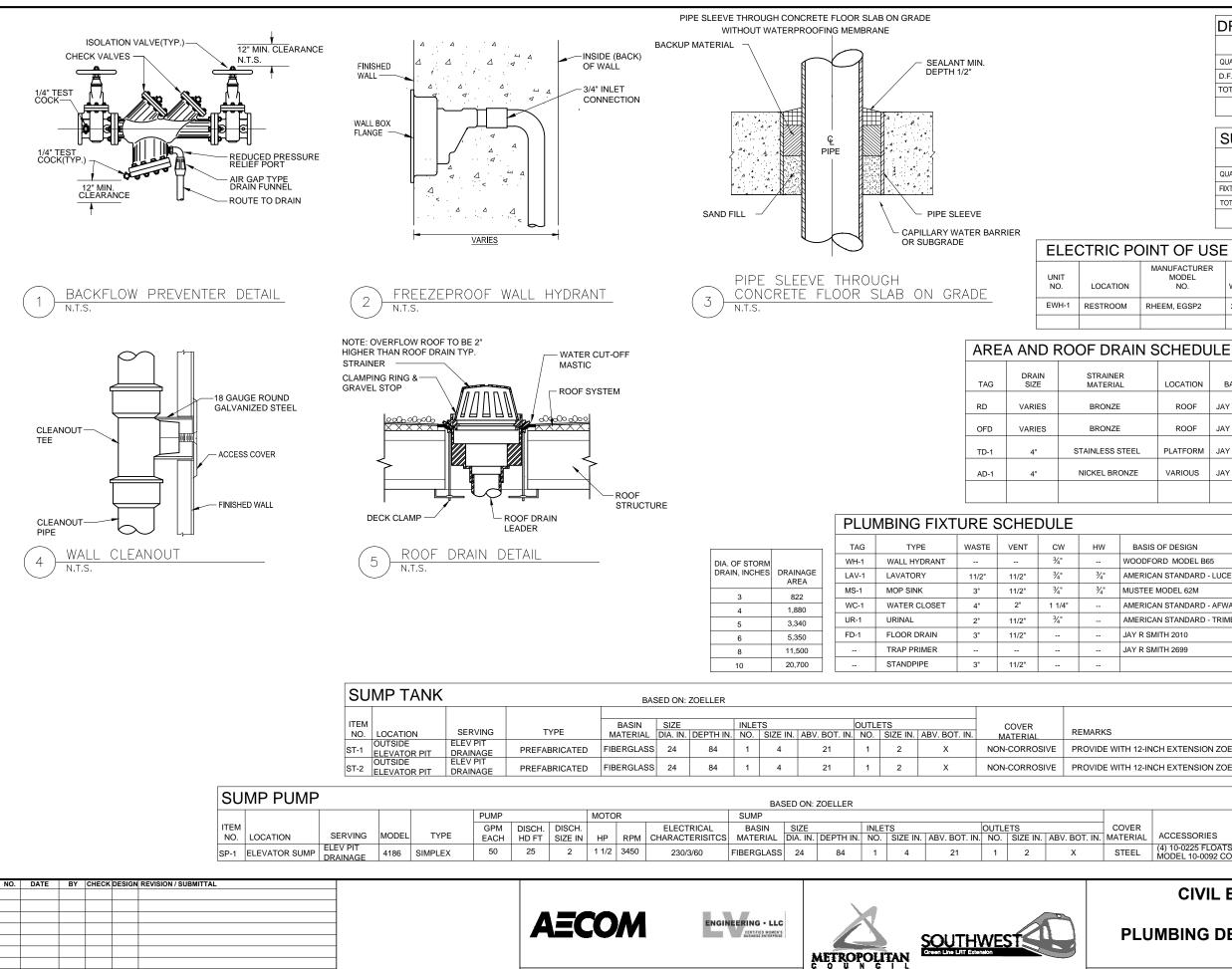
CW	COLD WATER	ORD	OVERFLOW
DR	DRAIN	Р	PUMP, PUM
DT	DRIP TRAP	PD	PRESSURE
DEMO	DEMOLITION	PRV	PRESSURE
D	DIAMETER	PSI	POUNDS PE
DN	DOWN	PSIG	PSI GAUGE
E	EAST	PVC	POLYVINYL
EA	EACH	RA	RETURN AIF
ELEC	ELECTRIC	RAD	RADIATOR,
EL	ELEVATION	RCVR	RECEIVER
ENCL	ENCLOSURE	RET	RETURN
EWH	ELECTRIC WATER HEATER	RD	ROOF DRAII
EXP T	EXPANSION TANK	RECIRC	RECIRCULA
EXP	EXPANSION	REQD	REQUIRED
EXST	EXISTING	RHW	RECIRCULA
FD	FLOOR DRAIN	RL	REFRIGERA
F.F. EL	FINISHED FLOOR ELEVATION	RND	ROUND
FLR	FLOOR	RPM	REVOLUTIO
FPM	FEET PER MINUTE	RWL	RAIN WATER

FIBERGLASS REINFORCED PIPE

FRP

ш,	_											
Ñ	NO.	DATE	BY	CHECK	DESIGN	REVISION / SUBMITTAL						
Ε							-					
с С							-					
I: 08							-	AECOM	ENGINEERING . LLC			
5 01							-		CERTIFIED WOMEN'S BUSINESS ENTERPRISE		SOLITUM/EST	PL
2015							1				Green Line LAT Extension	
21 2										METROPOLITAN		
							1	60% SUBMISSIO	NI 00/29/45			DISCIPLIN
Sep							1		- U3/20/15			

	SHEET NAM	E: W0-PLM-GEN-001	173				
		D ABBREVIATIONS	OF				
ST	ATION	S	9				
CIVIL WEST - VOLUME 11							
ONS PER MINUTE ER LEADER							
ANT LIQUID							
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IN							
IR , RADIUS							
ER SQUARE INCH							
REGULATING VALVE							
DIFFERENCE							
MPED	W /O	WITHOUT					
V ROOF DRAIN	W/	WITH					
	WT	WEIGHT					
DIMENSION	WH	WATER CLOSET					
R	WC	WATER CLOSET					
ALE IR	W	WEST					
ALE	VFD VTR	VARIABLE FREQUENCY DRIVE VENT THUR ROOF					
	VERT						
D, MOTOR	V	VENT					
	UR	URINAL					
	UG	UNDERGROUND					
TURER	UF	UNDERFLOOR					
PER HOUR	TYP	TYPICAL					
	T STAT	THERMOSTAT					
ENGTH	T & P	TEMPERATURE AND PRESSURE					
ET	TOP	TOP OF PIPE ELEVATION A F F					
	TOD	TOP OF DUCT ELEVATION A F F					
-	то	TAKE OFF, TOP OF					
EVATION	THRU	THROUGH					
PACE	XFR	TRANSFER					
IENSION PACE	TD TEMP	TEMPERATURE DIFF AND TRENCH DRAII TEMPERATURE	•				
	T		.				
COIL	SYS	SYSTEM					
GHT	STD	STANDARD					
OUND	ST	SUMP TANK					
PER MINUTE	SS	STAINLESS STEEL					
AULT CIRCUIT INTERRUPTER	SQ	SQUARE					
	SPEC	SPECIFICATION					
GE	SPLY	SUPPLY					
	SP	SUMP PUMP					
EET	S	SOUTH					



60% SUBMISSION - 09/28/15

DISCIPLINE:

DRAINAGE FIXTURE UNITS								
LAV TOILET MOP SINK FD U								
QUANTITY	1	1	1	1	1			
D.F.U.	1	6	3	4	6			
TOTAL D.F.U. 1 6 3 4 6								
TOTAL DRAINAGE FIXTURE UNITS: 20 D F U								

TOTAL DRAINAGE FIXTURE UNITS:	20	D.F.I	J
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SUPPLY FIXTURE UNITS								
LAV TOILET SINK WH URINA								
QUANTITY	1	1	1	1	1			
FIXTURE UNIT	1.5 1.5	10	1.5 1.5	5	6			
TOTAL FIXTURE UNITS	1	10	1	5	6			
TOTAL DEMAND: CW = 23 F.U. ; HW = 3 F.U.								

ELECTRIC POINT OF USE WATER HEATER MANUFACTURER ELECTRICAL

	MODEL		TANK	-	-		REMARKS	
ION	NO.	WATTS		VOLTS	PH	FULL LOAD AMPS		
OM	RHEEM, EGSP2	2000	6	120	1	16.7	5 GAL ACCEPTABLE	

LOCATION	BASIS OF DESIGN	REMARKS
ROOF	JAY R SMITH MODEL 1310	
ROOF	JAY R SMITH MODEL 1310	
PLATFORM	JAY R SMITH MODEL 9814	6" WIDE, PRECAST POLYMER CONCRETE TRENCH. PROVIDE WITH HEEL PROOF GRATES.
VARIOUS	JAY R SMITH MODEL 2010	ROUND NICKEL BRONZE STRAINER
	ROOF ROOF PLATFORM	ROOF JAY R SMITH MODEL 1310 ROOF JAY R SMITH MODEL 1310 PLATFORM JAY R SMITH MODEL 9814

BASIS OF DESIGN	REMARKS
WOODFORD MODEL B65	
AMERICAN STANDARD - LUCERNE	WALL HUNG; AMERICAN STANDARD RELIANT FAUCET
MUSTEE MODEL 62M	FLOOR MOUNT, 24x24x8 1/4"; CHICAGO FAUCET 835-CP
AMERICAN STANDARD - AFWALL	WALL HUNG; SLOAN 110-111 FLUSHOMETER
AMERICAN STANDARD - TRIMBROOK	WALL HUNG; SLOAN ROYAL 186 FLUSHOMETER
JAY R SMITH 2010	ROUND NICKEL BRONZE STRAINER
JAY R SMITH 2699	
	6" PIPE; 24" LONG CONNECTED TO 3" TRAP AND DRAIN

PROVIDE WITH 12-INCH EXTENSION ZOELLER AND A-PAK II ALARM SYSTEM ZOELLER MODEL 10-0126.

PROVIDE WITH 12-INCH EXTENSION ZOELLER AND A-PAK II ALARM SYSTEM ZOELLER MODEL 10-0126

COVER ATERIAL	ACCESSORIES	REMARKS
STEEL	(4) 10-0225 FLOATS, HIGH WATER ALARM MODEL 10-0092 CONTROL PANEL	(2) ELECTRICAL CIRCUITS

SHEET **CIVIL EAST - VOLUME 11 STATIONS** 10 PLUMBING DETAILS AND SCHEDULES OF

PLUMBING

SHEET NAME

W0-PLM-DTL-001

173

1 1			1		% SUBMISSION - 09/28/15			DISCIPLINE:		SHEET NAME:
						METROPOLITAN SOUTHW	/EST		NBOLS AI	ND ABBREVIATIONS 1 OF 2
				Δ = (COM <u>MP Consultants</u>	X			EL	ECTRICAL
		RETURN, NORMALLY OPEN			ENCLOSURE		SS	STAINLESS STEEL		
		PUSHBUTTON, MOMENTARY CONTACT, SPRING RETURN, NORMALLY CLOSED PUSHBUTTON, MOMENTARY CONTACT, SPRING			TEMPERATURE INDICATES LIMITS OF EQUIPMENT OR WIRING	-	SEC SER SH SN	SECONDS OR SECONDARY STATION ELECTRICAL ROOM SHIELDED OR SHEET SOLID NEUTRAL		
— (*	-	* SC - SURGE CAPACITOR PF - POWER FACTOR CORRECTION CAPACITOR	- <u>~</u>		NORMALLY CLOSED, OPENS ON RISING TEMPERATURE		REC SC SCR	RECEPTACLE SURGE CAPACITOR STATION COMMUNICATIONS RC	юм	EXCEPT RECEPTACLES IN OFFICES OR AREAS WITH HUNG CEILINGS, WHICH SHALL BE MOUNTED 1'-6" ABOVE FINISHED FLOOR UNLESS OTHERWISE NOTED.
5	 	MOTOR, NUMERAL INDICATES HORSEPOWER	- <u>~</u> 5~-		NORMALLY OPEN, CLOSES ON DROPPING TEMPERATURE		PT PVC QTY	POTENTIAL TRANSFORMER POLYVINYL CHLORIDE QUANTITY		 SWITCHES SHALL BE MOUNTED 4'-0" ABOVE FINISHED FLOOR UNLESS OTHERWISE NOTED. RECEPTACLES SHALL BE MOUNTED 4'-0" ABOVE FINISHED FLOOR UNLESS OTHERWISE NOTED,
- ~		UNIT HEATER - STEAM OR WATER HEATING COIL AND	-~ <u>~</u> ~	T OR *	NORMALLY OPEN, CLOSES ON RISING TEMPERATURE		PH PHASE P,POL POLE	PHASE	THE BA MUST E	THE BASIC SEQUENCE AND METHOD OF CONTROL MUST BE MAINTAINED AS INDICATED ON THE DRAWINGS AND/OR SPECIFICATIONS.
5KW		UNIT HEATER - ELECTRIC HEATING COIL AND FAN	-0+0-	TS OR	DE-ENERGIZED TEMPERATURE SWITCH OR THERMOSTAT	-	NO NOM NTS OL	NORMALLY OPEN OR NUMBER NOMINAL NOT TO SCALE OVERLOAD		ARRANGEMENT BASED UPON SELECTED STANDARD COMPONENTS OF ELECTRICAL EQUIPMENT. MODIFICATIONS ACCEPTABLE TO THE CAR MAY BE MADE BY THE CONTRACTOR TO ACCOMODATE EQUIPMENT ACTUALLY PURCHASED
		SOURCE 100A INDICATES CONTINUOUS CURRENT RATING	-~~~		DE-ENERGIZED NCTC-NORMALLY CLOSED, TIMED CLOSING WHEN		MTD MTS NC	MOUNTED MANUAL TRANSFER SWITCH NORMALLY CLOSED		OF WIRES REQUIRED. 3. THE WIRING DIAGRAMS, QUANTITY AND SIZE OF WIRES AND CONDUIT REPRESENT A SUGGESTED WIRES AND CONDUIT REPRESENT A SUGGESTED
100A MTS	_	MANUAL TRANSFER SWITCH NO. 1 (MTS-1) "N" INDICATES NORMAL SOURCE "S" INDICATES STANDBY	- <u>oto</u> -		NCTO-NORMALLY CLOSED, TIMED OPENING WHEN ENERGIZED NOTO-NORMALLY OPEN. TIMED OPENING WHEN		MFR MH MTG	MANUFACTURER MANHOLE MOUNTING		 EXPOSED IN UNFINISHED AREAS. CONCEALED ABOVE HUNG CEILINGS AND IN WALLS IN FINISHED AREAS. NO. 12 COPPER (MIN.) TYPE "THWN/THHN" NO.
\bigcirc	G	GENERATOR RECEPTACLE OR GENERATOR, RATINGS AND CONNECTIONS AS NOTED	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~		NOTC-NORMALLY OPEN, TIMED CLOSING WHEN ENERGIZED		LGTS LP MCC	LIGHTS LIGHTING PANEL MOTOR CONTROL CENTER		AND SHALL BE: 2.1. 1" (MIN.) CONDUIT RUN
× TO 120	_	POTENTIAL TRANSFORMER * QUANTITY V = PRIMARY VOLTAGE		_	RANGE AS NOTED SETPOINT AS NOTED TDE-TIME DELAY AFTER ENERGIZATION-ON DELAY TDD-TIME DELAY AFTER DE-ENERGIZATION-OFF DELAY		INST KSK LA	INSTANTANEOUS KIOSK LIGHTNING ARRESTER		 CONDUIT AND WIRE (NOT SHOWN) FOR FIXTURES, SWITCHES AND/OR RECEPTACLES SHALL BE FURNISHED AND INSTALLED BY THE CONTRACTOR
*	_	CURRENT TRANSFORMER * QUANTITY A = PRIMARY AMPERES		_	CONTROL RELAY COIL, NUMBER AS INDICATED	-	HT HTR HZ	HEIGHT HEATER HERTZ		 HOMERUNS SHOWN CONCEALED SHALL BE INDICATIVE OF ENTIRE CIRCUIT INSTALLATION. TH SAME SHALL APPLY FOR HOMERUNS SHOWN EXPOSED. REFER TO SPECIFICATIONS FOR MATERIALS AND INSTALLATION REQUIREMENTS.
m		ISOLATION TRANSFORMERS SHALL HAVE A K-20 RATING			CONTACT, NORMALLY CLOSED (NC)	-	GRS HH HPB	GALVANIZED RIGID STEEL HANDHOLE HEATER PUSH BUTTON		NOTES 1. HOMERUNS SHOWN CONCEALED SHALL BE
ulu	T	SERVICING ADMINISTRATIVE AND LABORATORY SPACES SHALL HAVE A K FACTOR OF 13. ALL OTHER DRY TYPE TRANSFORMERS SHALL HAVE A K-4 RATING.			CONTACT, NORMALLY OPEN (NO)		G,GRD GF	GROUND GROUND FAULT INTERRUPTER		
TO 20/208Y 80 KVA		TRANSFORMER, RATINGS AND CONNECTIONS AS NOTED. UNLESS OTHERWISE NOTED ON THE SINGLE LINE DIAGRAMS ALL DRY TYPE TRANSFORMERS			STRIP HEATER OR HEATING ELEMENT	1	GEC GEN	GROUNDING ELECTRODE CONE GENERATOR	DUCTOR	
480∨ △					HEAT TRACE CABLE	-	FU GCP	FUSE GENERATOR CONTROL PANEL		
-~~r-	\square_2^P	MANUAL MOTOR STARTER WITH THERMAL OVERLOAD HEATER "P" INDICATES WITH PILOT LIGHT "2" INDICATES TWO POLE		•	GROUND OR GROUND ROD	_	EM FBO FO	EMERGENCY FURNISHED BY OTHERS FIBER OPTIC		
*		EXAMPLE 15		_	LIGHTNING ARRESTER	_	EC ELEC ELEV	EMPTY CONDUIT ELECTRICAL ELEVATION		
	* F	FUSIBLE DISCONNECT SWITCH, 600 VOLT, 3 POLE, AMPERE RATING AND FUSE SIZE AS NOTED AMPERE RATING NOTED IF OTHER THAN 30A FUSE RATING		_	PILOT LIGHT, PUSH-TO-TEST TYPE, COLOR AS NOTED ABOVE		CU DC DI DN	COPPER DIRECT CURRENT DOOR INTERLOCK DOWN		
 /*	*	NON-FUSIBLE DISCONNECT SWITCH, 600 VOLT, 3 POLE AMPERE RATING NOTED IF OTHER THAN 30A			B - BLUE W - WHITE A - AMBER	_	CPT CR CS CT	CONTROL POWER TRANSFORM CONTROL RELAY CONTROL SWITCH CURRENT TRANSFORMER	ER	WPWEATHERPROOFXFMRTRANSFORMER
र्डु ।		RVNR - REDUCED VOLTAGE REVERSING 2S1W - TWO SPEED, ONE WINDING 2S2W - TWO SPEED, TWO WINDING			PILOT LIGHT, COLOR AS NOTED R - RED G - GREEN		CAR CB CKT	COUNCIL AUTHORIZED REPRES CIRCUIT BREAKER CIRCUIT	ENTATIVE	V VOLTS W WIRE
		COMBINATION MOTOR CIRCUIT PROTECTOR AND MAGNETIC MOTOR STARTER, FULL VOLTAGE NON-REVERSING UNLESS OTHERWISE NOTED: * FVR - FULL VOLTAGE REVERSING			DAMPER MOTOR	-	AWG C	AMERICAN WIRE GAUGE CONDUIT		TW TWISTED TYP TYPICAL UG UNDERGROUND
		BREAKER, 3 POLE UNLESS OTHERWISE NOTED			CONDUCTORS ELECTRICALLY CONNECTED	-	A,AMP AUTO AUX	AMPERE AUTOMATIC AUXILIARY		TEL TELEPHONE TO TIME DELAY ON OPENING TVM TICKET VENDING MACHINE
	СВ	LOW VOLTAGE AIR OR MOLDED CASE CIRCUIT			CONDUCTORS OR CONDUITS CROSSING PATHS BUT	-	AC AFF AFG	ALTERNATING CORRENT ABOVE FINISHED FLOOR ABOVE FINISHED GRADE		SWGRSWITCHGEARTCTIME DELAY ON CLOSING
ONELINE OR CONTROL	PLAN	DESCRIPTION	ONELINE OR CONTROL	PLAN	DESCRIPTION			ECTRICAL ABBREVIATI	ONS	ELEC ABBREVIATIONS CONT.

SYMBOL	DESCRIPTION
^A ³ b	LED, COMPACT FLUORESCENT OR H.I.D. TYPE LUMINAIRE "A" - LUMINAIRE TYPE "b" - CONTROLLED BY SWITCH "b" "3" - CIRCUIT NUMBER
A a b	LED OR FLUORESCENT TYPE LUMINAIRE, NOTATIONS SAME AS ABOVE
A H b	WALL OUTLET AND LED, COMPACT FLUORESCENT OR H.I.D. TYPE LUMINAIRE, NOTATIONS SAME AS ABOVE
A	EMERGENCY LIGHTING BATTERY UNIT WITH TWO LAMP HEADS "A" - LUMINAIRE TYPE
\otimes	CEILING MOUNTED EXIT SIGN
⊦⊗ł	WALL OUTLET EXIT SIGN. ARROW INDICATES DIRECTION OF EGRESS
E	REMOTE EMERGENCY CEILING LUMINAIRE
ΗĒ	REMOTE EMERGENCY WALL LUMINAIRE
•	POLE MOUNTED LUMINAIRE "A" - LUMINAIRE TYPE "1" - CIRCUIT NUMBER
	BRANCH CIRCUIT CONDUIT WITH 2 NO. 12 AWG BRANCH CIRCUIT CONDUCTORS AND 1 NO. 12 AWG GROUND CONDUCTOR INSTALLED EXPOSED. FOR MINIMUM SIZE CONDUIT PERMITTED REFER TO THE SPECIFICATIONS.
	BRANCH CIRCUIT CONDUIT WITH 2 NO. 12 AWG BRANCH CIRCUIT CONDUCTORS AND 1 NO. 12 AWG GROUND CONDUCTOR INSTALLED CONCEALED. FOR MINIMUM SIZE CONDUIT PERMITTED REFER TO THE SPECIFICATIONS.
0	BRANCH CIRCUIT CONDUIT INSTALLED EXPOSED TURNING UP. CONDUIT TO CONTAIN 2 NO. 12 AWG BRANCH CIRCUIT CONDUCTORS AND 1 NO. 12 AWG GROUND CONDUCTOR. FOR MINIMUM SIZE CONDUIT PERMITTED REFER TO THE SPECIFICATIONS.
•	BRANCH CIRCUIT CONDUIT INSTALLED EXPOSED TURNING DOWN. CONDUIT TO CONTAIN 2 NO. 12 AWG BRANCH CIRCUIT CONDUCTORS AND 1 NO. 12 AWG GROUND CONDUCTOR. FOR MINIMUM SIZE CONDUIT PERMITTED REFER TO THE SPECIFICATIONS.
0	BRANCH CIRCUIT CONDUIT INSTALLED CONCEALED TURNING UP. CONDUIT TO CONTAIN 2 NO. 12 AWG BRANCH CIRCUIT CONDUCTORS AND 1 NO. 12 AWG GROUND CONDUCTOR. FOR MINIMUM SIZE CONDUIT PERMITTED REFER TO THE SPECIFICATIONS.
•	BRANCH CIRCUIT CONDUIT INSTALLED CONCEALED TURNING DOWN. CONDUIT TO CONTAIN 2 NO. 12 AWG BRANCH CIRCUIT CONDUCTORS AND 1 NO. 12 AWG GROUND CONDUCTOR. FOR MINIMUM SIZE CONDUIT PERMITTED REFER TO THE SPECIFICATIONS.
	CONDUIT STUBBED OUT AND CAPPED
2(3"C., 3#3/0 & 1#2 GRD.)	DENOTES A QUANTITY OF TWO (2) 3-INCH CONDUITS EACH CONTAINING THREE NO. 3/0 AWG CONDUCTORS AND 1 NO. 2 AWG GROUND CONDUCTOR
\sim	FLEXIBLE METAL CONDUIT "WHIP" FOR RECESSED LIGHTING FIXTURES AND LIQUID TIGHT MOTOR CONNECTIONS

SYMBOL	DESCRIPTION					
LP-1	HOMERUN, CIRCUITS 1 AND 3 RUN TO PANEL LP-1					
	HOMERUN TO EMERGENCY BATTERY UNIT BU-1					
─── TM	HOMERUN TO TELEPHONE BACKBOARD					
2-2/C#16TS	DENOTES A QUANTITY OF TWO INSTRUMENT CABLES. EACH CABLE TO CONSIST OF TWO NO. 16 AWG CONDUCTORS TWISTED TOGETHER AND COVERED WITH A METALLIC SHIELD AND AN OVERALL PROTECTIVE JACKET. REFER TO THE SPECIFICATIONS FOR THE EXACT CABLE TO BE PROVIDED.					
2-3/C#16TS	SAME AS ABOVE EXCEPT CABLE TO CONSIST OF THREE NO. 16 AWG CONDUCTORS TWISTED, SHIELDED AND COVERED WITH AN OVERALL PROTECTIVE JACKET. REFER TO THE SPECIFICATIONS FOR THE EXACT CABLE TO BE PROVIDED.					
3(4"C)	THREE 4-INCH CONDUITS					
'+'	"T" FITTING IN CONDUIT					
\$ь	SINGLE POLE SWITCH "b" INDICATES SWITCHLEG SHALL CONTROL LIGHT FIXTURES WITH "b" DESIGNATION					
\$ ^M	SINGLE POLE, DOUBLE THROW MOMENTARY CONTACT SWITCH, CENTER OFF					
\$ ^P	SINGLE POLE SWITCH AND PILOT LIGHT					
D	DIMMER LIGHTING CONTROL SWITCH					
С	LIGHTING CONTACTOR WITH NUMBER OF POLES AS INDICATED					
ТМ	TIME SWITCH					
OR LP-** (LP-**)	LIGHTING PANELBOARD					
OR DP-** (DP-**)	DISTRIBUTION PANELBOARD					
* 4	DUPLEX RECEPTACLE, 20A, 120V, 2P, 3W * C - MOUNTED ABOVE COUNTER-TOP GF - GROUND FAULT INTERRUPTER TYPE WP - WEATHERPROOF T - TRANSIENT VOLTAGE SURGE SUPPRESSOR 4 - CIRCUIT NUMBER					
Ø-	20A, 240V, 2P, 3W, RECEPTACLE					
JJ	JUNCTION BOX					
Р	PULL BOX					
os	OCCUPANCY SENSOR					
PC	PHOTOCELL					
НН	HANDHOLE					

SYMBOL	DESCRIPTION	SYMBOL
DAMP	INDICATES THAT ALL ELECTRICAL EQUIPMENT AND MATERIALS INSTALLED WITHIN THE ROOM OR AREA IN WHICH THIS NOTATION APPEARS SHALL BE OF NEMA 12 CONSTRUCTION (OR GASKETED AND SUITABLE FOR USE IN A DAMP LOCATION WHERE NEMA STANDARDS DO NOT APPLY) UNLESS OTHERWISE NOTED.	С Т К К
WET	INDICATES THAT ALL ELECTRICAL EQUIPMENT AND MATERIALS INSTALLED WITHIN THE ROOM OR AREA IN WHICH THIS NOTATION APPEARS SHALL BE OF NEMA 4 CONSTRUCTION (OR GASKETED AND SUITABLE FOR USE IN A WET LOCATION WHERE NEMA STANDARDS DO NOT APPLY) UNLESS OTHERWISE NOTED.	▽
CORROSIVE	INDICATES THAT ALL ELECTRICAL EQUIPMENT AND MATERIALS INSTALLED WITHIN THE ROOM OR AREA IN WHICH THIS NOTATION APPEARS SHALL BE OF NEMA 4X CONSTRUCTION (OR CORROSION RESISTANT CONSTRUCTION SUITABLE FOR USE IN A CORROSIVE LOCATION WHERE NEMA STANDARDS DO NOT APPLY) UNLESS OTHERWISE NOTED.	
	FIRE ALARM SYSTEMS	S
() ^{R/C} 200	FIRE ALARM HEAT DETECTOR 135°F FIXED TEMPERATURE UNLESS OTHERWISE NOTED. "200" DENOTES 200°F TYPE, "R" DENOTES FIXED TEMPERATURE RATE-OF-RISE TYPE.	
(2) I	FIRE ALARM SMOKE DETECTOR PHOTOCELL TYPE UNLESS OTHERWISE NOTED. "I" DENOTES IONIZATION TYPE.	
8	FIRE ALARM DUCT SMOKE DETECTOR	
FACP	FIRE ALARM CONTROL PANEL	SA
FA	REMOTE FIRE ALARM ANNUNCIATOR PANEL	DS
F	FIRE ALARM MASTER BOX	K>-
F	FIRE ALARM HORN, MOUNT UP 7'-6"	
F	FIRE ALARM STROBE, MOUNT UP 6'-8"	
F	FIRE ALARM HORN AND STROBE LIGHT COMBINATION, MOUNT UP 6'-8"	
	FIRE ALARM MANUAL PULL STATION, MOUNT UP 4'-0"	
FO	FIRE ALARM BELL	
I P	WEATHERPROOF HI-INTENSITY FIRE ALARM STROBE LIGHT	

NO.	DATE	В	Y CHE	CK DE	SIGN	REVISION / SUBMITTAL					
								M-P Consultants			
							AECOM	CONSULTING ENGINEERING MINNEAPOLIS K MINNESOTA			
								MINNEAPOLIS K MINNESOTA		SOUTHWEST	
									METROPOLITAN	Green Line LRT Extension	
									METROPOLITAN	\mathbf{O}	
							60% SUBMIS	SION - 09/28/15			DISCIPLINE
							00% SUBIVIS	SICIN - 09/20/15			

DESCRIPTION

COMMUNICATIONS SYSTEMS

TELEPHONE HANDSET, DESK TYPE K = KEY SYSTEM

TELEPHONE HANDSET, WALL TYPE K = KEY SYSTEM

PAGE/PARTY TELEPHONE HANDSET, DESK TYPE

PAGE/PARTY TELEPHONE HANDSET, WALL TYPE (MOUNT UP 4'-6")

PAGING SPEAKER, WALL MOUNTED "H1, H2" DENOTES HORN TYPE "W" DENOTES WIDE ANGLE TYPE

PAGING SPEAKER, WALL MOUNTED, BI-DIRECTIONAL H = HORN TYPE

PAGING SPEAKER, FLUSH MOUNTED CEILING TYPE

PAGING SPEAKER, SURFACE MOUNTED CEILING TYPE

REMOTE WALL MOUNTED VOLUME CONTROL FOR CEILING SPEAKER (MOUNT UP 5'-0")

PAGING SPEAKER AMPLIFIER ASSEMBLY

TELEPHONE CABINET OR BACKBOARD AS NOTED

DATA INPUT/OUTPUT CABLE OUTLET "P" DENOTES PROCESS COMPUTER SYSTEM

SECURITY SYSTEMS

SECURITY ALARM PANEL

SECURITY ALARM DOOR SWITCH

SECURITY ALARM KEY PAD

SECURITY SYSTEM CARD ACCESS READER

SECURITY ALARM MOTION DETECTOR

CLOSED CIRCUIT TV CAMERA

	CIVIL WEST	Γ - VOLUME 11	SHEET
	ELEC	TRICAL	12
		ABBREVIATIONS OF 2	OF
E:		SHEET NAME:	173
	ELECTRICAL	W0-ELE-GEN-002	

		M	LUMI	NAIRE	TWHLED-30C-1000-4K-T3M-MVOLT-PE-DBLXD	GASKETED. ZINK-INFUSED SUPER DURABLE TGIC THERMOSET POWDER COAT FINISH.	DISTRIBUTION	SCHEDULE		1000mA	SURFACE	BLACK				
	1	LU	MIN	IAIR	E SCHEDULE		-									
0.	DATE	BY	CHECK	DESIGN	REVISION / SUBMITTAL	-										
						-							N -			
						-				MP Co	nsultants					
						-		AEC		CONSULT	ING ENGINE OLIS≮MINN	ERING				
							—			MINNEAP	OLIS WINN	ESOTA		SOUTHWEST		
													METROPOLITAN	Green Line LRT Extension	>	
						_							METROPOLITAN		-	DISCIPL
						-		60%	SUBMIS	SION - 0	9/28/15				1	DISCIPL

TYPE	DESCRIPTION	MANUFACTURER	HOUSING	OPTICS	VOLTAGE	LAMP TYPE	DRIVER	MOUNTING	FINISH
A	SINGLE HEAD POLE MOUNTED LUMINAIRE	PHILIPS GARDCO ECOFORM ECF-1-3-75LA-4853-CW-UNV-BLP-	ONE PIECE DIE CAST ALUMINUM HOUSING, ONE PIECE DIE CAST DOOR FRAME, ELECTROSTATICALLY APPLIED POWDER COAT FINISH, IP66 RATED, 120-277V	TYPE III DISTRIBUTION	SEE PANELBOARD SCHEDULE	LED/COOL	530mA	20' POLE	BLACK
В	SINGLE HEAD POLE MOUNTED LUMINAIRE	PHILIPS GARDCO ECOFORM ECF-1-4-55LA-3253-CW-UNV-BLP-	ONE PIECE DIE CAST ALUMINUM HOUSING, ONE PIECE DIE CAST DOOR FRAME, ELECTROSTATCALLY APPLIED POWDER COAT FINSH, IP66 RATED, 120-277V	TYPE IV DISTRIBUTION	SEE PANELBOARD SCHEDULE	LED/COOL WHITE, 5823 LUMENS	530mA	20' POLE	BLACK
С	SINGLE HEAD POLE MOUNTED LUMINAIRE	PHILIPS GARDCO ECOFORM ECF-1-2-55LA-3253-CW-UNV-BLP-	ONE PIECE DIE CAST ALUMINUM HOUSING, ONE PIECE DIE CAST DOOR FRAME, ELECTROSTATICALLY APPLIED POWDER COAT FINSH, IP66 RATED, 120-277V	TYPE II DISTRIBUTION	SEE PANELBOARD SCHEDULE	LED/COOL WHITE, 5994 LUMENS	530mA	15' POLE	BLACK
D	SINGLE HEAD POLE MOUNTED LUMINAIRE	PHILIPS GARDCO ECOFORM ECF-1-4-75LA-4853-CW-UNV-BLP-	ONE PIECE DIE CAST ALUMINUM HOUSING, ONE PIECE DIE CAST DOOR FRAME, ELECTROSTATICALLY APPLIED POWDER COAT FINISH, IP66 RATED, 120-277V	TYPE N DISTRIBUTION	SEE PANELBOARD SCHEDULE	LED/COOL WHITE, 8646 LUMENS	530mA	20' POLE	BLACK
E	SINGLE HEAD UTILITY POLE MOUNTED LUMINAIRE	PHILIPS GARDCO ECOFORM EC-1-2-100LA-4853-CW-UNV-BLP-	ONE PIECE DIE CAST ALUMINUM HOUSING, ONE PIECE DIE CAST DOOR FRAME, ELECTROSTATICALLY APPLIED POWDER COAT FNISH, IP66 RATED, 120-277V	TYPE II DISTRIBUTION	SEE PANELBOARD SCHEDULE	LED, COOL WHITE, 11896 LUMENS	530mA	20' POLE	BLACK
F	SINGLE HEAD POLE MOUNTED LUMINAIRE	PHILIPS GARDCO ECOFORM ECF-1-4-160LA-481A-CW-UNV-BLP-	ONE PIECE DIE CAST ALUMINUM HOUSING, ONE PIECE DIE CAST DOOR FRAME, ELECTROSTATCALLY APPLIED POWDER COAT FINSH, IP66 RATED, 120-277V	TYPE IV DISTRIBUTION	SEE PANELBOARD SCHEDULE	LED/COOL WHITE, 14955 LUMENS	1050mA	20' POLE	BLACK
G1	SINGLE HEAD POLE MOUNTED LUMINAIRE	PHILIPS GARDCO ECOFORM ECF-1-4-100LA-6453-CW-UNV-BLP-	ONE PIECE DIE CAST ALUMINUM HOUSING, ONE PIECE DIE CAST DOOR FRAME, ELECTROSTATCALLY APPLIED POWDER COAT FINSH, IP66 RATED, 120-277V	TYPE IV DISTRIBUTION	SEE PANELBOARD SCHEDULE	LED/COOL WHITE, 11558 LUMENS	530mA	20' POLE	BLACK
G2	SINGLE HEAD POLE MOUNTED LUMINAIRE	PHILIPS GARDCO ECOFORM ECF-1-4-100LA-6453-CW-UNV-BLP-	ONE PIECE DIE CAST ALUMINUM HOUSING, ONE PIECE DIE CAST DOOR FRAME, ELECTROSTATICALLY APPLIED POWDER COAT FINISH, IP66 RATED, 120-277V	TYPE IV DISTRIBUTION	SEE PANELBOARD SCHEDULE	LED/COOL WHITE, 11558 LUMENS	530mA	15' POLE	BLACK
Н	SINGLE HEAD POLE MOUNTED LUMINAIRE	PHILIPS GARDCO ECOFORM ECF-1-2-70LA-3270-CW-UNV-BLP-	ONE PIECE DIE CAST ALUMINUM HOUSING, ONE PIECE DIE CAST DOOR FRAME, ELECTROSTATICALLYAPPLIED POWDER COAT FINISH, IP66 RATED, 120-277V	TYPE II DISTRIBUTION	SEE PANELBOARD SCHEDULE	LED/COOL WHITE, 7385 LUMENS	700mA	15' POLE	BLACK
I	SINGLE HEAD POLE MOUNTED LUMINAIRE	PHILIPS GARDCO ECOFORM ECF-1-4-70LA-3270-CW-UNV-BLP-	ONE PIECE DIE CAST ALUMINUM HOUSING, ONE PIECE DIE CAST DOOR FRAME, ELECTROSTATCALLYAPPLIED POWDER COAT FINSH, IP66 RATED, 120-277V	TYPE IV DISTRIBUTION	SEE PANELBOARD SCHEDULE	LED/COOL WHITE, 7293 LUMENS	700mA	15' POLE	BLACK
J	SINGLE HEAD POLE MOUNTED LUMINAIRE	PHILIPS GARDCO ECOFORM ECF-1-3-100LA-6453-CW-UNV-BLP-	ONE PIECE DIE CAST ALUMINUM HOUSING, ONE PIECE DIE CAST DOOR FRAME, ELECTROSTATICALLY APPLIED POWDER COAT FINISH, IP66 RATED, 120-277V	TYPE III DISTRIBUTION	SEE PANELBOARD SCHEDULE	LED/COOL WHITE, 11700 LUMENS	530mA	20' POLE	BLACK
к	TWIN HEAD POLE MOUNTED LUMINAIRE	PHILIPS GARDCO ECOFORM ECF-2@90-4-100LA-6453-CW-UNV-BLP-	ONE PIECE DIE CAST ALUMINUM HOUSING, ONE PIECE DIE CAST DOOR FRAME, ELECTROSTATICALLY APPLIED POWDER COAT FNISH, IP66 RATED, 120-277V	TYPE IV DISTRIBUTION	SEE PANELBOARD SCHEDULE	LED/COOL WHITE, 11558 LUMENS EACH	530mA	20' POLE	BLACK
L	TWIN HEAD POLE MOUNTED LUMINAIRE	PHILIPS GARDCO ECOFORM ECF-2@180-4-160LA-481A-CW-UNV-BLP-	ONE PIECE DIE CAST ALUMINUM HOUSING, ONE PIECE DIE CAST DOOR FRAME, ELECTROSTATICALLY APPLIED POWDER COAT FNISH, IP66 RATED, 120-277V	TYPE IV DISTRIBUTION	SEE PANELBOARD SCHEDULE	LED/COOL WHITE, 14955 LUMENS EACH	1050mA	20' POLE	BLACK
М	WALLPACK LUMINAIRE	LITHONIA TWH LED TWHLED-30C-1000-4K-T3M-MVOLT-PE-DBLXD	DIE CAST ALUMINUM HOUSING HAS AN IMPACT-RESISTANT, TEMPERED GLASS LENS THAT IS FULLY GASKETED. ZINK-INFUSED SUPER DURABLE TGIC THERMOSET POWDER COAT FINISH.	TYPE III MEDIUM DISTRIBUTION	SEE PANELBOARD SCHEDULE	LED/COOL WHITE, 6391 LUMENS	1000mA	SURFACE	BLACK

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1 LUMINAIRE SCHEDULE

TYPE	DESCRIPTION	MANUFACTURER	HOUSING	OPTIC S	VOLTAGE	LAMP TYPE	DRIVER	MOUNTING	FINISH
N	SINGLE HEAD POLE MOUNTED LUMINAIRE	PHILIPS GARDCO ECOFORM ECF-1-5-160LA-481A-CW-UNV-BLP-	ONE PIECE DIE CAST ALUMINUM HOUSING, ONE PIECE DIE CAST DOOR FRAME, ELECTROSTATICALLY APPLIED POWDER COAT FINISH, IP66 RATED, 120-277V	TYPE V DISTRIBUTION	SEE PANELBOARD SCHEDULE	LED/COOL WHITE, 14465 LUMENS	1050mA	20' POLE	BLACK
0	POST TOP POLE MOUNTED LUMINAIRE	HOLOPHANE PTUE-70-4K-AS-P3-B-S	CAST ALUMINUM HOUSING, ASYMMETRIC POLYCARBONATE REFRACTOR, GASKETED, 4000K, SPIKE FINIAL, SUPFITTER, 120-277V	TYPE V DISTRIBUTION	SEE PANELBOARD SCHEDULE	LED/COOL WHITE, 5183 LUMENS	350mA	15' POLE	BLACK
Ρ			NOT USED						BLACK
Q	POST TOP POLE MOUNTED LUMINAIRE	HOLOPHANE PTUE-70-4K-AS-P3-B-S	CAST ALUMINUM HOUSING, ASYMMETRIC POLYCARBONATE REFRACTOR, GASKETED, 4000K, SPIKE FINIAL, SLIPFITTER, 120-277V	TYPE II DISTRIBUTION	SEE PANELBOARD SCHEDULE	LED/COOL WHITE, 5427 LUMENS	530mA	15' POLE	BLACK
R	POST TOP POLE MOUNTED LUMINAIRE	HOLOPHANE PTUE-70-4K-AS-P3-B-S	CAST ALUMINUM HOUSING, ASYMMETRIC POLYCARBONATE REFRACTOR, GASKETED, 4000K, SPIKE FINIAL, SLIPFITTER, 120-277V	TYPE IV DISTRIBUTION	SEE PANELBOARD SCHEDULE	LED/COOL WHITE, 5736 LUMENS	530mA	15' POLE	BLACK
S	TWIN HEAD POLE MOUNTED LUMINAIRE	PHILIPS GARDCO ECOFORM ECF-2@90-4-55LA-3253-CW-UNV-BLP-	ONE PIECE DIE CAST ALUMINUM HOUSING, ONE PIECE DIE CAST DOOR FRAME, ELECTROSTATICALLY APPLIED POWDER COAT FINISH, IP66 RATED, 120-277V	TYPE IV DISTRIBUTION	SEE PANELBOARD SCHEDULE	LED/COOL WHITE, 5823 LUMENS EACH	530mA	15' POLE	BLACK
Т	TWN HEAD POLE MOUNTED LUMINAIRE	PHILIPS GARDCO ECOFORM ECF-2@90-2-55LA-3253-CW-UNV-BLP-	ONE PIECE DIE CAST ALUMINUM HOUSING, ONE PIECE DIE CAST DOOR FRAME, ELECTROSTATICALLY APPLIED POWDER COAT FINSH, IP66 RATED, 120-277V	TYPE II DISTRIBUTION	SEE PANELBOARD SCHEDULE	LED/COOL WHITE, 5994 LUMENS EACH	530mA	15' POLE	BLACK
U	SINGLE HEAD POLE MOUNTED LUMINARE	PHILIPS GARDCO ECOFORM ECF-1-105LA-4870-CW-UNV-BLP-	ONE PIECE DIE CAST ALUMINUM HOUSING, ONE PIECE DIE CAST DOOR FRAME, ELECTROSTATICALLY APPLIED POWDER COAT FINISH, IP66 RATED, 120-277V	TYPE V DISTRIBUTION	SEE PANELBOARD SCHEDULE	LED/COOL WHITE, 10494 LUMENS	700mA	20' POLE	BLACK
V	SINGLE HEAD POLE MOUNTED LUMINAIRE			TYPE II DISTRIBUTION	SEE PANELBOARD SCHEDULE	250W HIGH PRESSURE SODIUM	N/A	20' POLE	BLACK
W	TWIN HEAD POLE MOUNTED LUMINAIRE	PHILIPS GARDCO ECOFORM ECF-2@90-3-70LA-3270-CW-UNV-BLP-	ONE PIECE DIE CAST ALUMINUM HOUSING, ONE PIECE DIE CAST DOOR FRAME, ELECTROSTATICALLY APPLIED POWDER COAT FINISH, IP66 RATED, 120-277V	TYPE III DISTRIBUTION	SEE PANELBOARD SCHEDULE	LED/COOL WHITE, 7576 LUMENS	700mA	15' POLE	BLACK
Y	Wallpack Luminaire			UP AND DOWN DISTRIBUTION	SEE PANELBOARD SCHEDULE	LED		WALL	BLACK
Z	WALLPACK LUMINAIRE			DOWN DISTRIBUTION	SEE PANELBOARD SCHEDULE	LED		WALL	BLACK
A1	RECESSED CAN LUMINAIRE			WIDE DISTRIBUTION	SEE PANELBOARD SCHEDULE	LED		RECESSED	WHITE TRIM

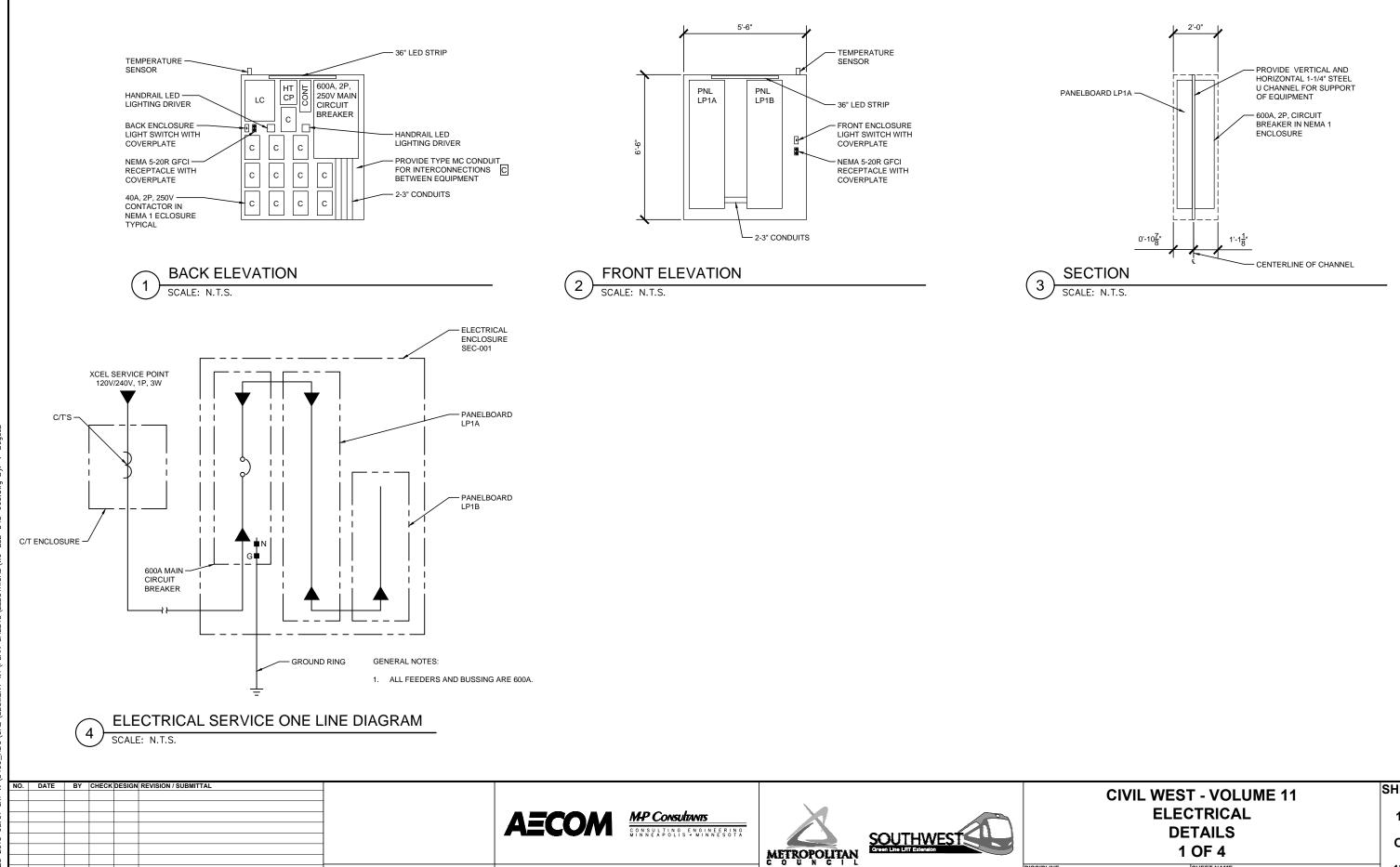
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IE:	ELECTRICAL	SHEET NAME: W0-ELE-SCH-502	173

TYPE	DESCRIPTION	MANUFACTURER	HOUSING	OPTICS	VOLTAGE	LAMP TYPE	DRIVER	MOUNTING	FINISH
B1	WALLPACK LUMINAIRE			up and down Distribution	SEE PANELBOARD SCHEDULE	LED		WALL	ALUMINUM
C1	LINEAR LUMINAIRE			N/A	SEE PANELBOARD SCHEDULE	LED		SURFACE	WHITE
D1	LINEAR LUMINAIRE			N/A	SEE PANELBOARD SCHEDULE	LED		RECESSED	WHITE TRIM
E1	2X2 LUMINAIRE			N/A	SEE PANELBOARD SCHEDULE	LED		RECESSED	WHITE TRIM
F1	HANDRAIL LED	WAGNER LUMENRAIL LED LULS40K20120TS-12		N/A	SEE PANELBOARD SCHEDULE	LED		HANDRAIL	N/A

1) LUMINAIRE SCHEDULE

NO.	DATE	BY	CHECK	DESIGN	N REVISION / SUBMITTAL						
								M-P Consultants			
							AECOM	CONSULTING ENGINEERING MINNEAPOLIS ≪ MINNESOTA			
								MINNEAPOLIS K MINNESOTA		SOUTHWEST	
									METROBOLITANI	Green Line LRT Extension	
									METROPOLITAN		
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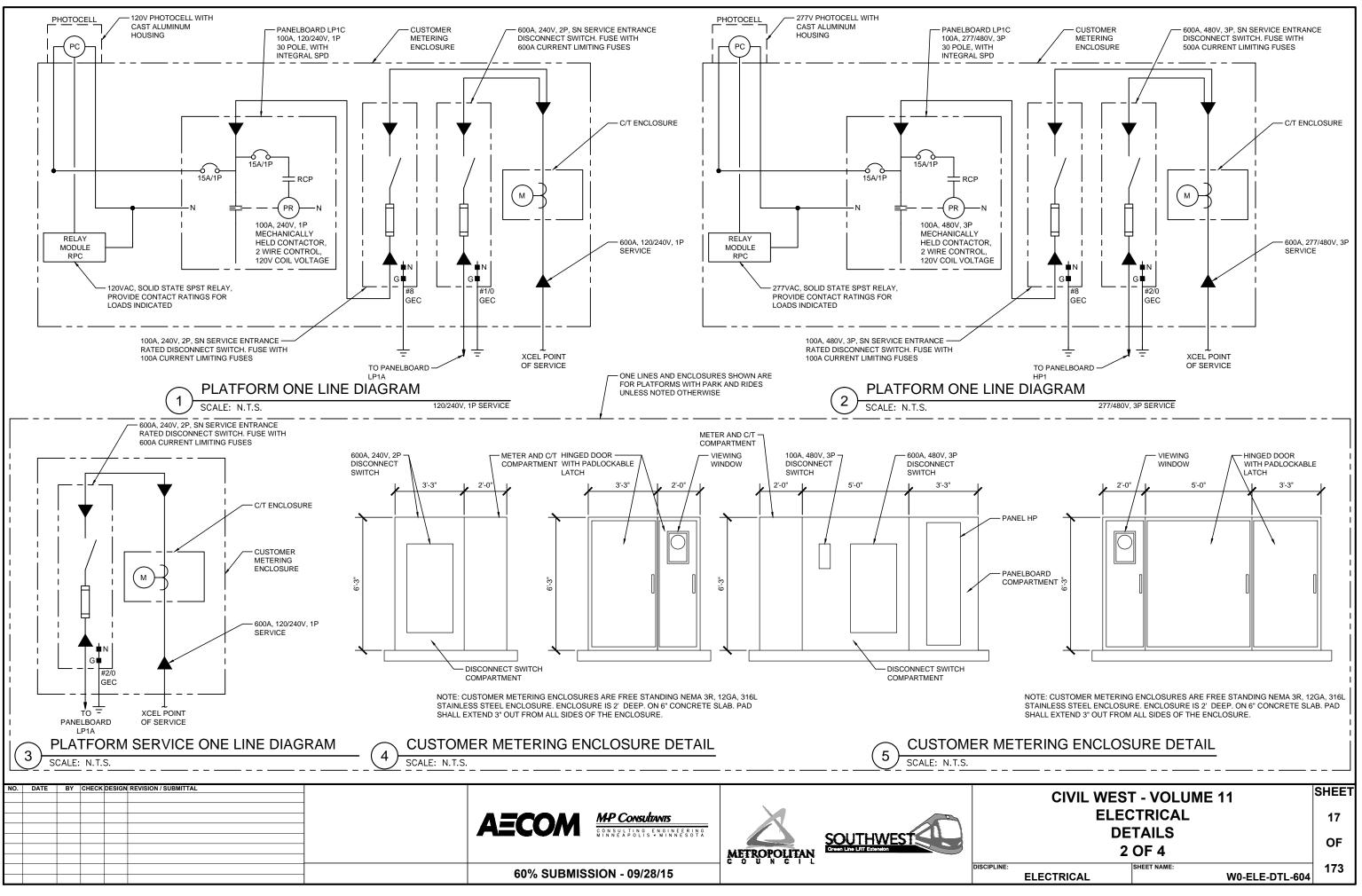


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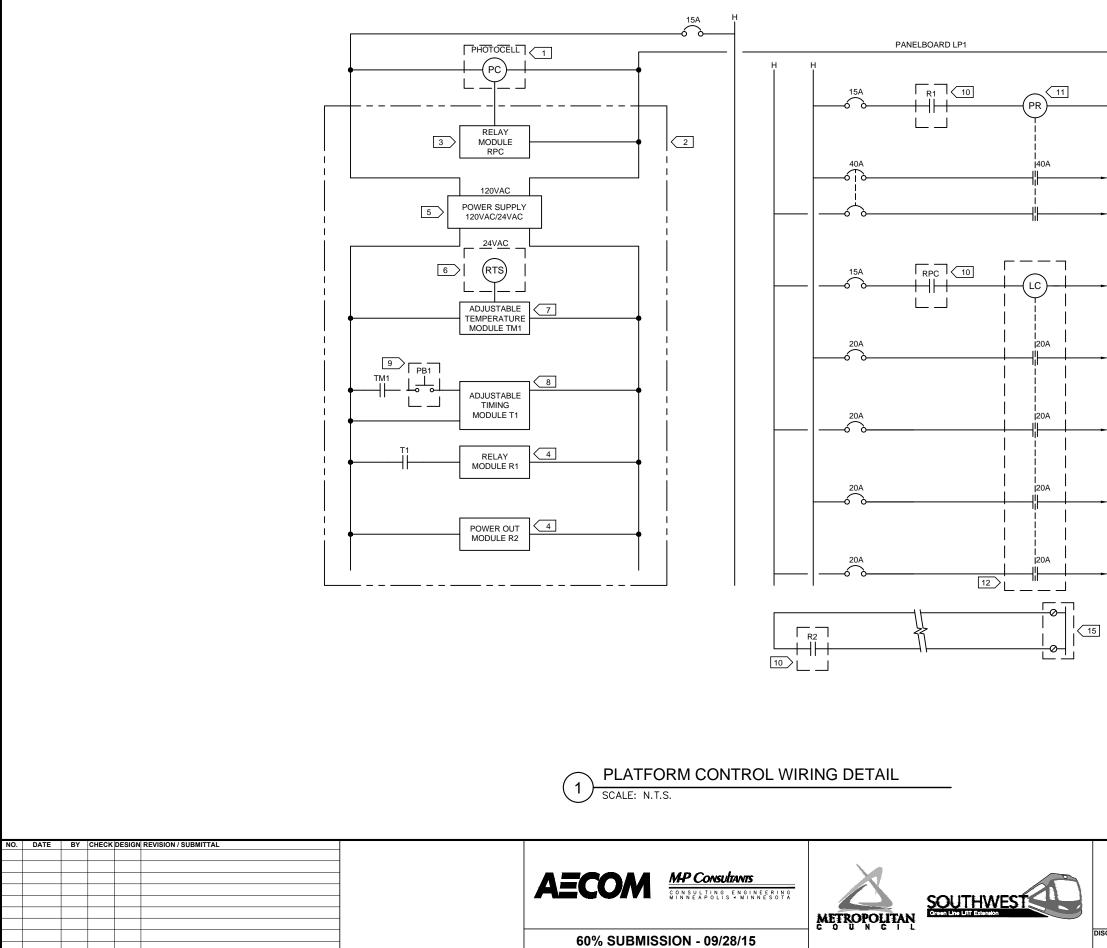
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DISCIPLINE

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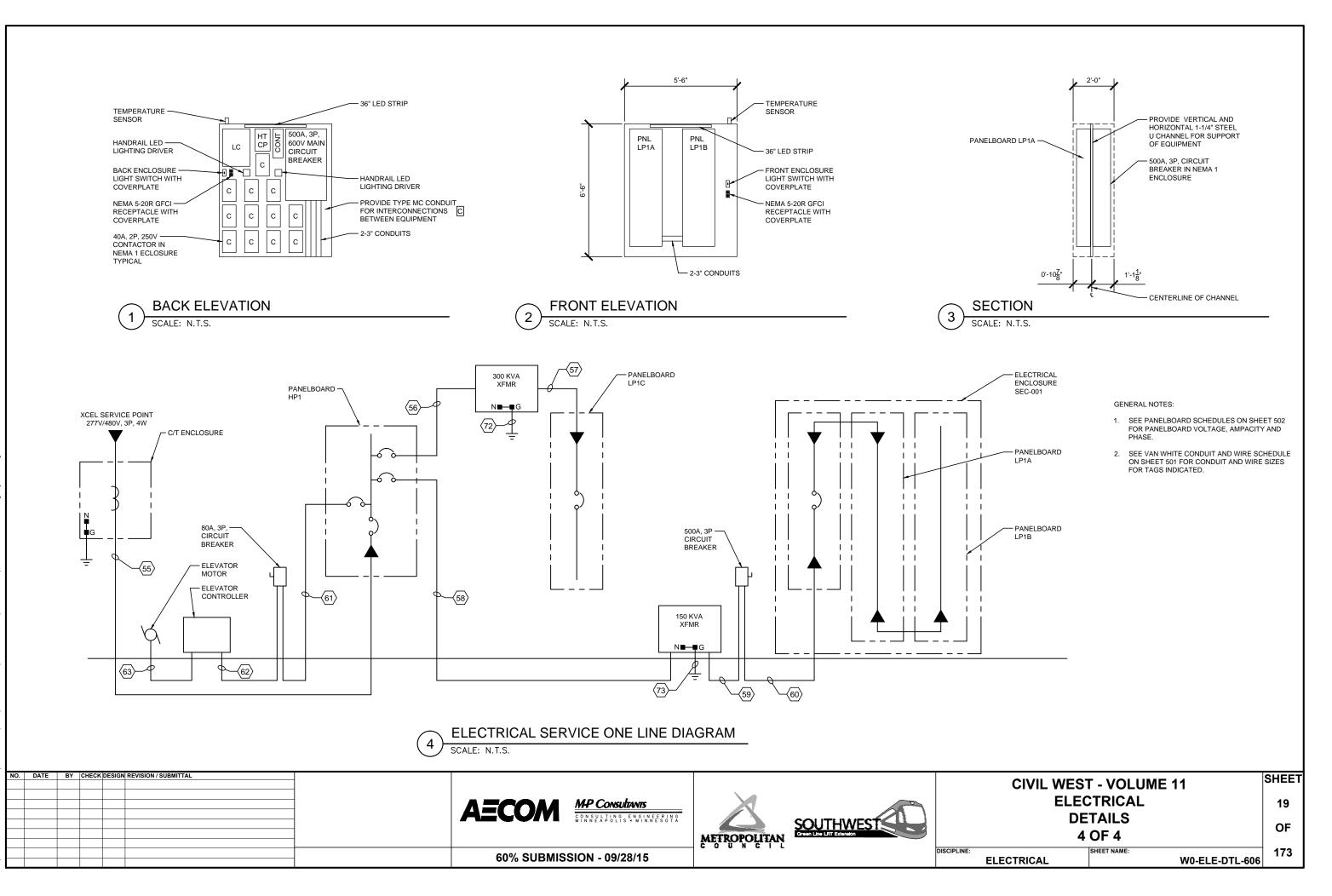
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DISCIPLINE

	ΚE	NOTES:
	1.	PHOTOCELL WITH CAST ALUMINUM HOUSING, REMOTE MOUNT AT LOCATION WITH MINIMAL NIGHT LIGHTING.
	2.	DIN RAIL MOUNTED MODULES. LOCATED IN THE ELECTRICAL ENCLOSURE.
	3.	SOLID STATE SPST RELAY, 120VAC INPUT/OUTPUT. PROVIDE CONTACT RATINGS FOR LOADS INDICATED.
	4.	SOLID STATE SPST RELAY, 24VAC INPUT/OUTPUT. PROVIDE CONTACT RATINGS FOR LOADS INDICATED.
	5.	SOLID STATE POWER SUPPLY, 120VAC IN 24VAC OUT.
	6.	HERMETICALLY SEALED TEMPERATURE SENSOR. MOUNT ON TOP OF ENCLOSURE. PROVIDE PROTECTIVE METAL HOUSING.
	7.	SOLID STATE ADJUSTABLE TEMPERATURE MODULE. PROVIDE WITH BRACKET AND SOCKET FOR DIN RAIL MOUNTING.
	8.	SOLID STATE, DELAYED TIME, TIMER. PROVIDE TOTAL OF 12 TIMERS.
14	9.	16MM 5/8" ANTI-VANDAL MOMENTARY STAINLESS STEEL METAL PUSH BUTTON SWITCH WITH SCREW TERMINALS. MOUNT IN PASSENGER SHELTER COLUMN WITH STAINLESS STEEL COVERPLATE. PROVIDE TOTAL OF 12 PUSH BUTTONS AND COVERPLATES.
14	10.	CONTACTS LOCATED AT DIN RAIL MOUNTED RELAY MODULES.
	11.	40A, 2P, 250V MECHANICALLY HELD, LATCHING TYPE, 2 WIRE CONTROL, NEMA 1 ENCLOSURE, PANEL MOUNTED CONTACTOR. PROVIDE TOTAL OF 12 CONTACTORS.
14	12.	20A, 4 POLE, 250V MECHANICALLY HELD, LATCHING TYPE, 2 WIRE CONTROL, NEMA 1 ENCLOSURE, PANEL MOUNTED LIGHTING CONTACTOR.
	13.	TO RADIANT HEATERS.
14	14.	TO LUMINAIRES.
	15.	TO SCADA TERMINALS ON PLC. LOCATED IN COMMUNICATIONS CABINET SCC-001, VERIFY TERMINALS.
14		

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	DETAILS 3 OF 4						
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CODE SUMMARY - CENTER PLATFORM GOLDEN TRIANGLE STATION

CODE REFERENCES

MINNESOTA STATE BUILDING CODE 2015 NFPA 130 – STANDARD FOR FIXED GUIDEWAY TRANSIT 2014 AND PASSENGER RAIL SYSTEMS

IBC REVIEW

A. DESCRIPTION LOCATION: EDEN PRAIRIE, MN

THE LIGHT RAIL TRANSIT STATION IS A PARTIALLY CANOPIED PLATFORM AREA. IT CONSISTS OF A PLATFORM 270' LONG BY 21'-4" ACCESSED BY A SLOPED WALK AT EACH END OF PLATFORM. PLATFORM IS OPEN TO EXTERIOR ON ALL FOUR SIDES.

TYPICAL PLATFORM AREA: 5760 SQUARE FEET (GROSS AREA) 5420 SQUARE FEET (NET AREA AFTER STRUCTURAL ELEMENTS, FIXTURES AND PERMANENTLY INSTALLED FURNISHINGS ARE REMOVED)

CANOPY COVERAGE AREA AT PLATFORM: = 3904 SQUARE FEET 1952 SQUARE FEET (1 @ 96'-0" X 20'-4") SOUTH CANOPY 1952 SQUARE FEET (1 @ 96'-0" X 20'-4") NORTH CANOPY

B. <u>OCCUPANCY CLASSIFICATION</u> (IBC 2015 SECTION 303.1)

WAITING AREAS IN TRANSPORTATION TERMINALS: GROUP 'A' DIVISION 3 (15 S.F. PER PERSON)

C. OCCUPANCY SEPARATIONS

NONE ARE REQUIRED

D. <u>TYPE OF CONSTRUCTION</u> (IBC 2015 TABLE 601)

TYPE IIB CONSTRUCTION

E. ALLOWABLE BUILDING AREA AND BUILDING HEIGHT (IBC 2015 TABLE 503)

2 STORIES AT 9,500 SQUARE FEET PER STORY

F. IBC EXITING SUMMARY

NO. OF OCCUPANTS = 5420 S.F. / 15 S.F./OCC = 361 REQUIRED EGRESS WIDTH = 361 \times 0.2 = 72" (PER 1005.3.2) WIDTH PROVIDED = 2 RAMPS AT 145" = 290" 2 MEANS OF EGRESS PROVIDED

PLATFORM COLOR AND						PLATFORM	COLOR AND F	INISH SCHED	ULE			
FINISH SCHEDULE	TYPE	STATION	STRUCTURAL STEEL PAINT COLOR	PLATFORM CONC COLOR	PLATFORM CONC FINISH	CONC WALL COLOR	CONC WALL FINISH	RAILING INFILL MATERIAL	ALUM WDW FRAME FINISH	EXTERIOR LINEAR METAL CEILING SOFFIT AND FASCIA FINISH	ALUM COMP CANOPY SOFFIT AND FASCIA COLOR	TRANSLUCENT PLASTIC PANEL
	CENTER	GOLDEN TRIANGLE STATION	PPG 517-4 GRAY STONE	CEMSTONE SPLIT ROCK	TBD	CEMSTONE SPLIT ROCK	TBD	SS CABLE	CLEAR ANODIZED	HUNTER DOUGLAS WOODWRIGHT 8449 WINDJAMMER TEAK	CUSTOM COLOR TO MATCH PPG 232-7 RUM RUNNER	
SEE STATION SPECIFICATIONS FOR MATERIAL IDENTIFICATION				•	•					•		

O. DATE	BY CHECK DESIGN RE	EVISION / SUBMITTAL	AECOM	
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NFPA 130 EXITING SUMMARY

FURTHER ANALYSIS REQUIRED

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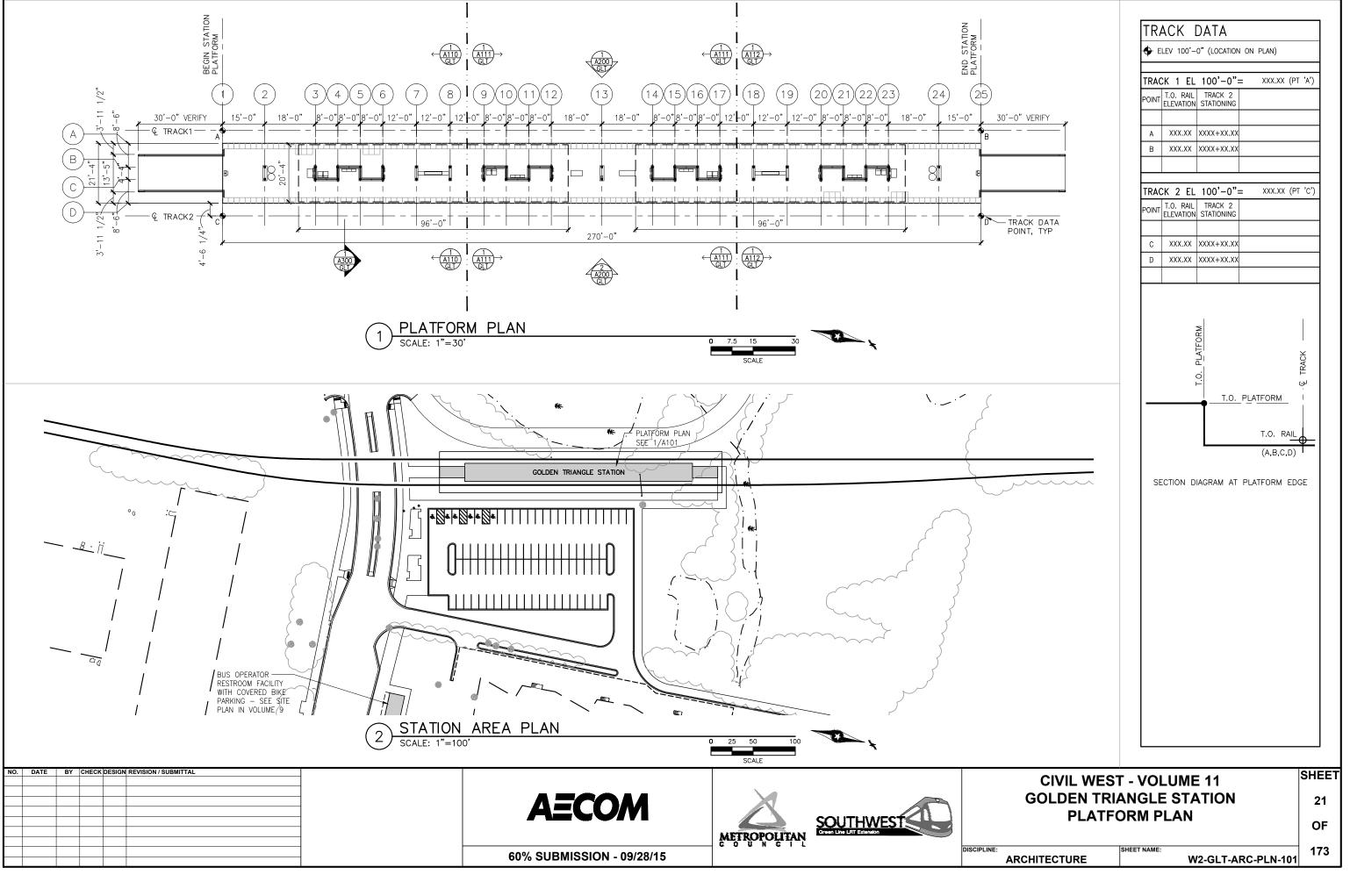
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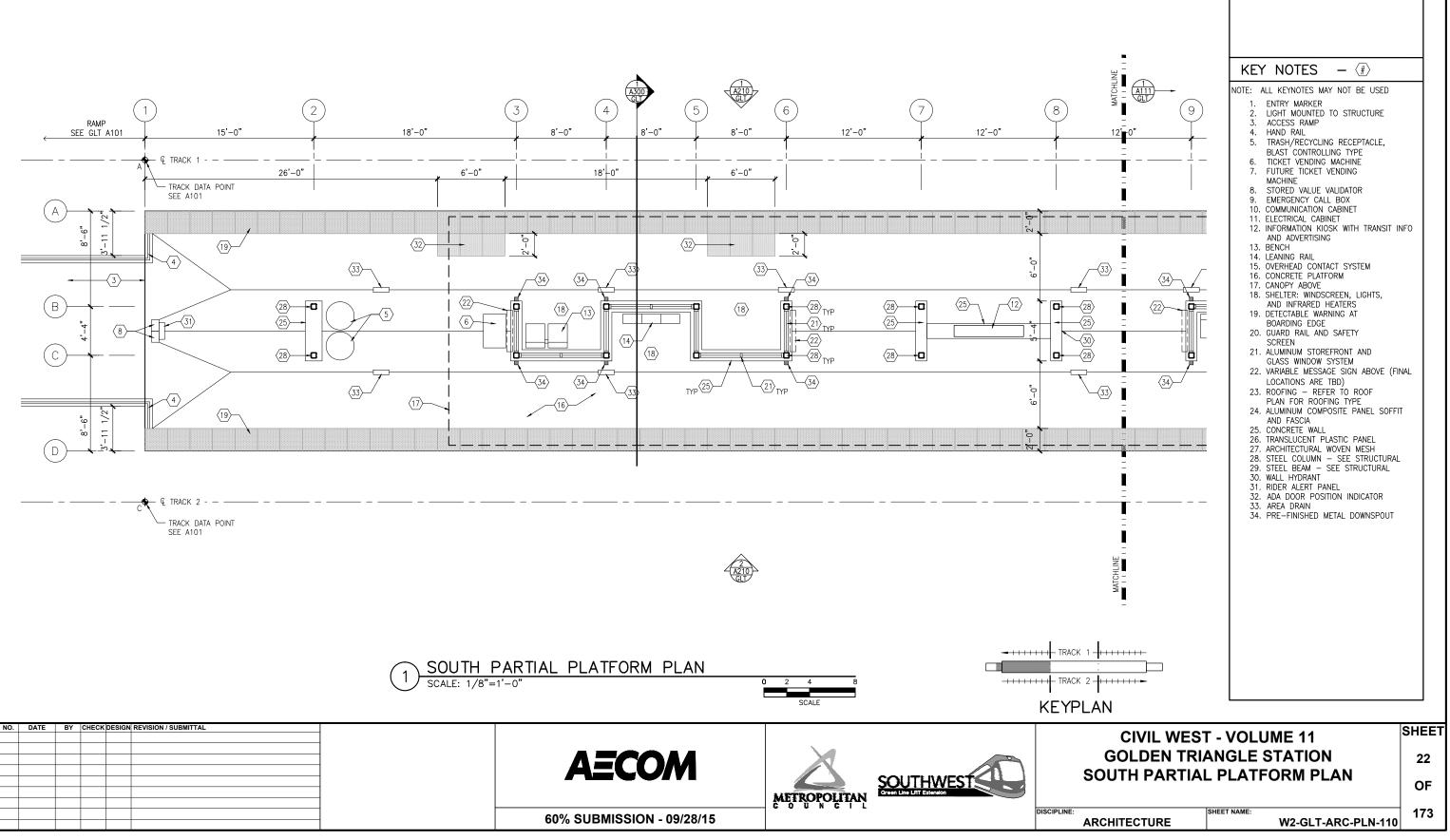
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CIVIL WEST - VOLUME 11 GOLDEN TRIANGLE STATION CODE SUMMARY / FINISH SCHEDULE SHEET 20

OF

173



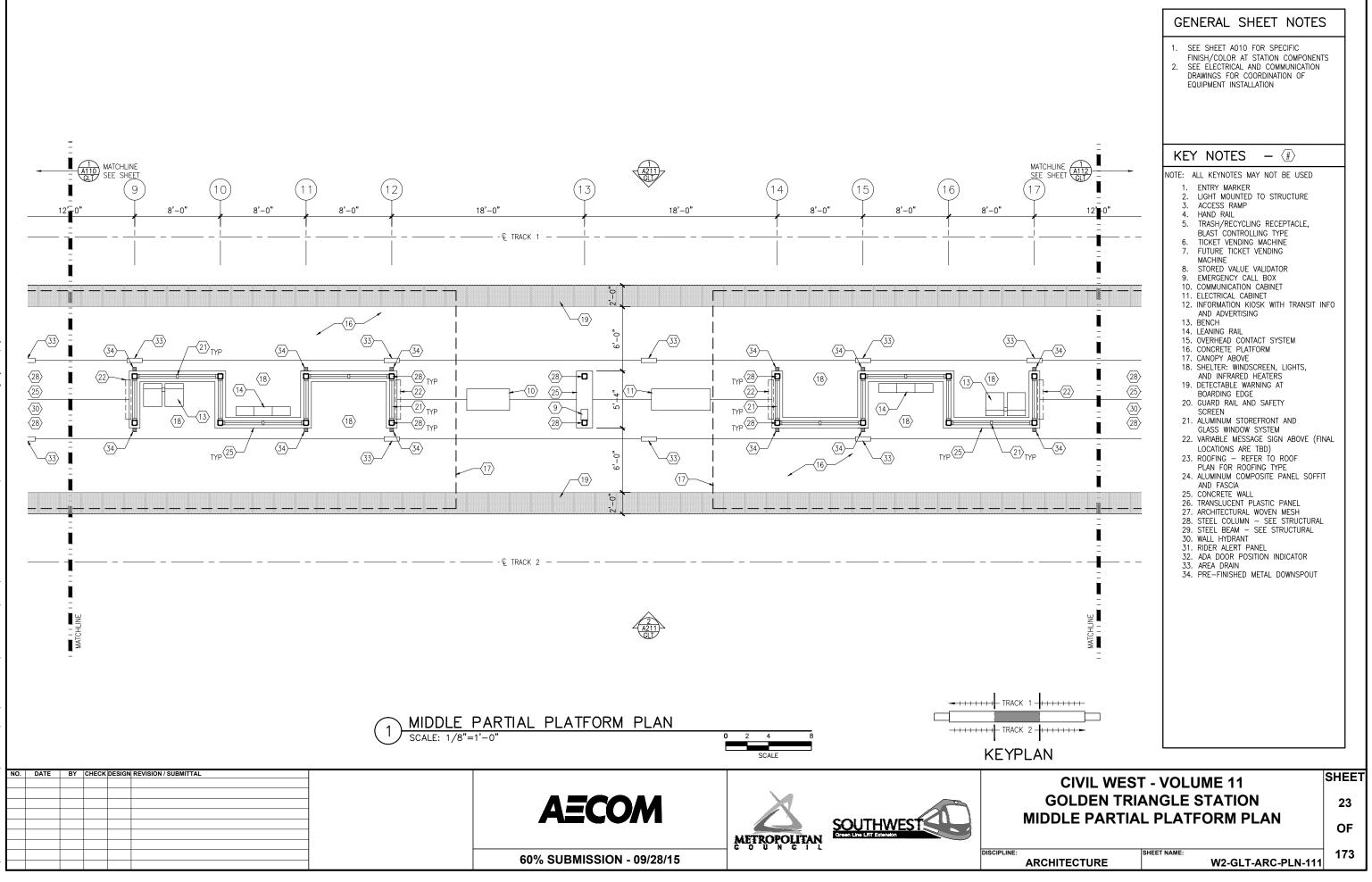


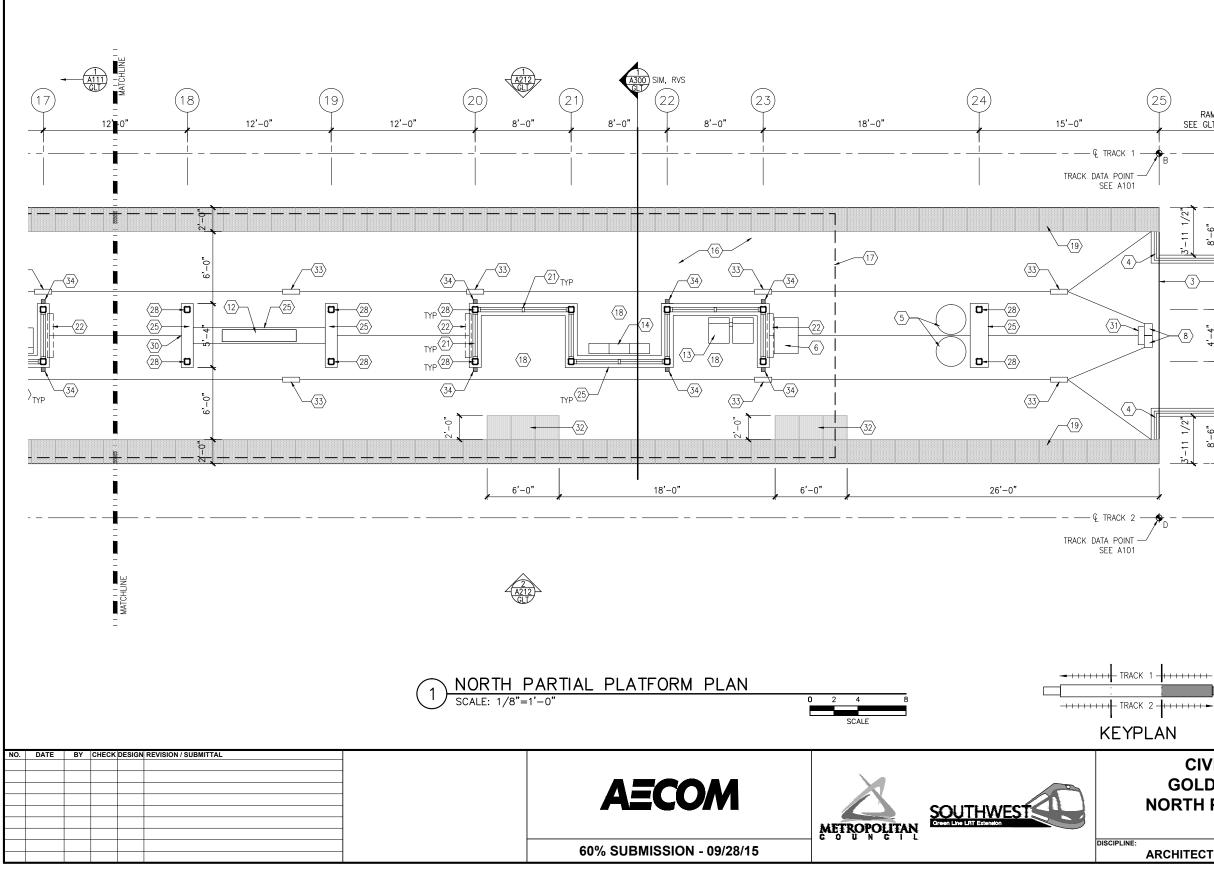
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	ARCHITECTURE	

GENERAL SHEET NOTES

FINISH/COLOR AT STATION COMPONENTS 2. SEE ELECTRICAL AND COMMUNICATION DRAWINGS FOR COORDINATION OF EQUIPMENT INSTALLATION

1. SEE SHEET A010 FOR SPECIFIC

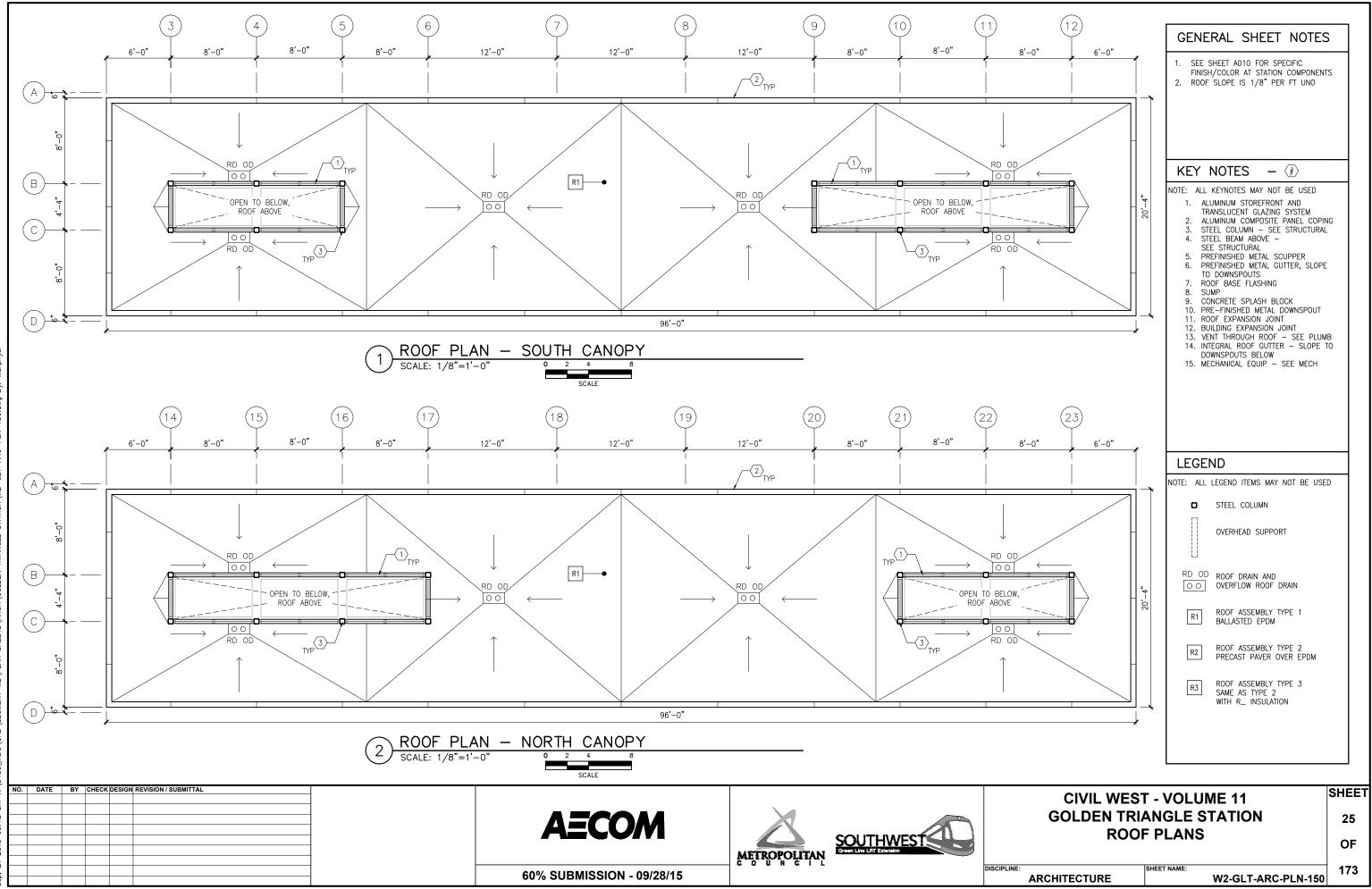


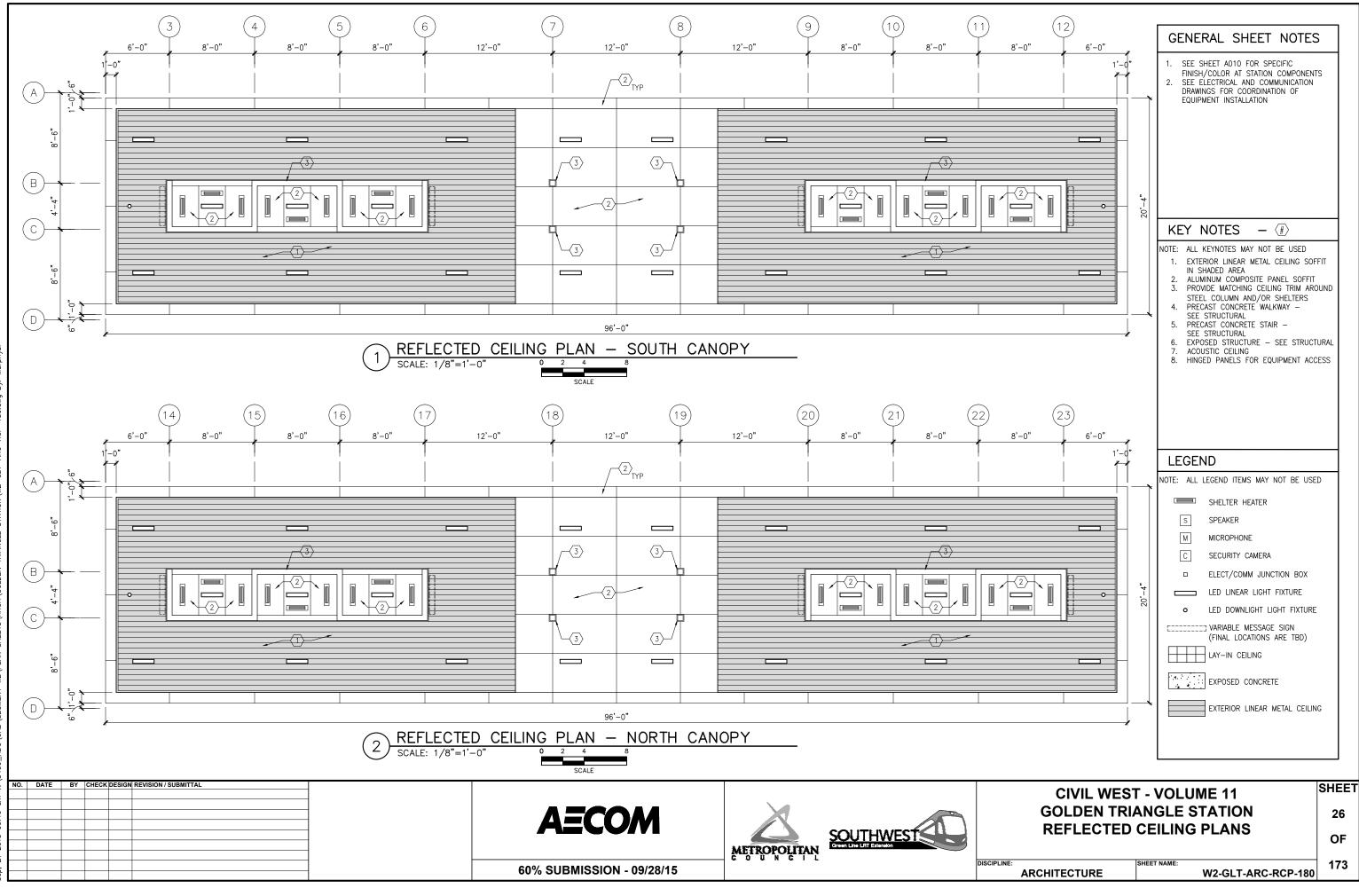


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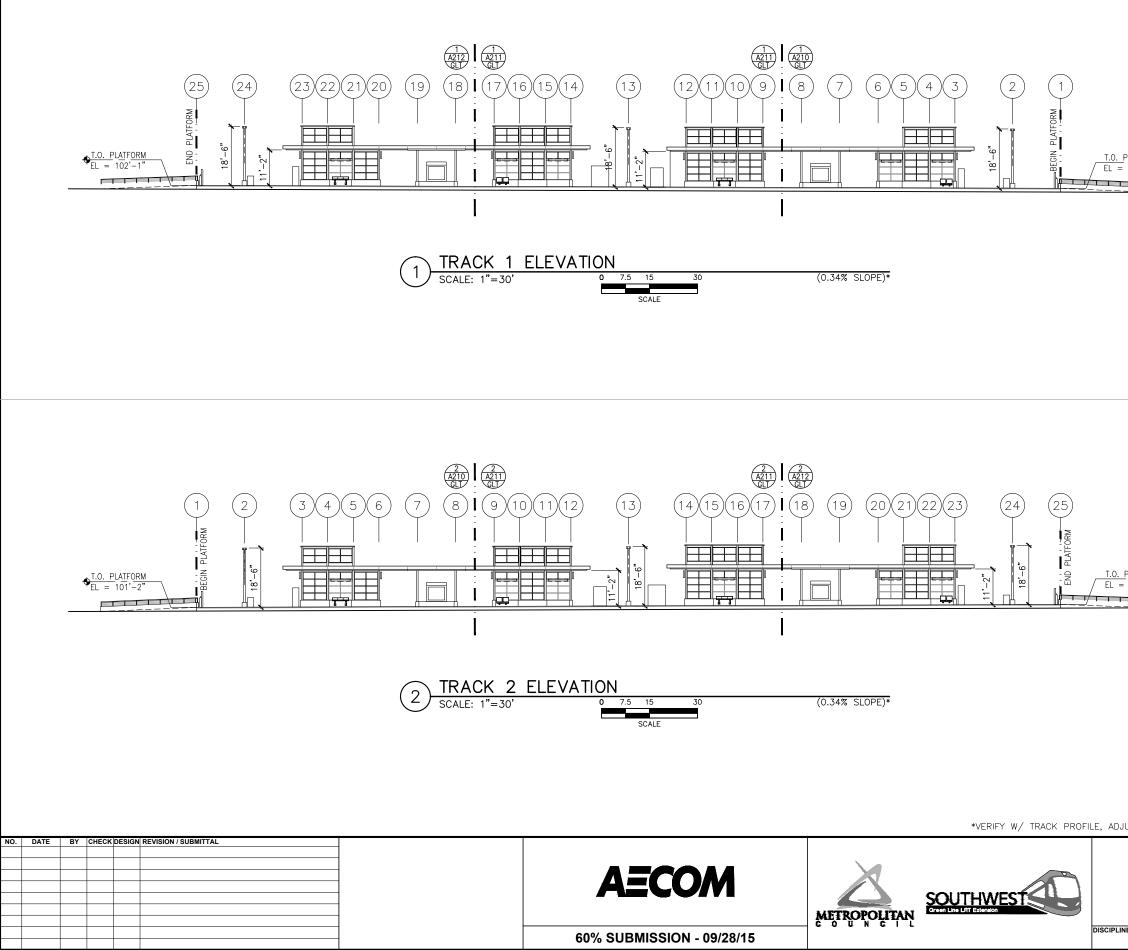
1. SEE SHEET A010 FOR SPECIFIC FINISH/COLOR AT STATION COMPONENTS 2. SEE ELECTRICAL AND COMMUNICATION DRAWINGS FOR COORDINATION OF EQUIPMENT INSTALLATION KEY NOTES – (#) NOTE: ALL KEYNOTES MAY NOT BE USED ENTRY MARKER LIGHT MOUNTED TO STRUCTURE RAMP ACCESS RAMP SEE GLT A101 4. HAND RAIL 5. TRASH/RECYCLING RECEPTACLE, BLAST CONTROLLING TYPE
TICKET VENDING MACHINE
FUTURE TICKET VENDING MACHINE 8. STORED VALUE VALIDATOR EMERGENCY CALL BOX 10. COMMUNICATION CABINET 1/2 ELECTRICAL CABINET
 INFORMATION KIOSK WITH TRANSIT INFO AND ADVERTISING ", "P 3'-11 13. BENCH 14. LEANING RAIL 15. OVERHEAD CONTACT SYSTEM 16. CONCRETE PLATFORM 3 CANOPY ABOVE
 SHELTER: WINDSCREEN, LIGHTS, AND INFRARED HEATERS B 19. DETECTABLE WARNING AT BOARDING EDGE $\langle 8 \rangle$ 20. GUARD RAIL AND SAFETY SCREEN 21. ALUMINUM STOREFRONT AND C GLASS WINDOW SYSTEM 22. VARIABLE MESSAGE SIGN ABOVE (FINAL LOCATIONS ARE TBD) 23. ROOFING - REFER TO ROOF PLAN FOR ROOFING TYPE 24. ALUMINUM COMPOSITE PANEL SOFFIT 3'-11 1/2" ۔ 9 AND FASCIA 25. CONCRETE WALL ò 23. CONCRETE WALL 26. TRANSLUCENT PLASTIC PANEL 27. ARCHITECTURAL WOVEN MESH 28. STEEL COLUMN – SEE STRUCTURAL 29. STEEL BEAM – SEE STRUCTURAL Ľ 30. WALL HYDRANT 31. RIDER ALERT PANEL 32. ADA DOOR POSITION INDICATOR 33. AREA DRAIN 34. PRE-FINISHED METAL DOWNSPOUT KEYPLAN SHEET **CIVIL WEST - VOLUME 11 GOLDEN TRIANGLE STATION** 24 NORTH PARTIAL PLATFORM PLAN OF 173

GENERAL SHEET NOTES

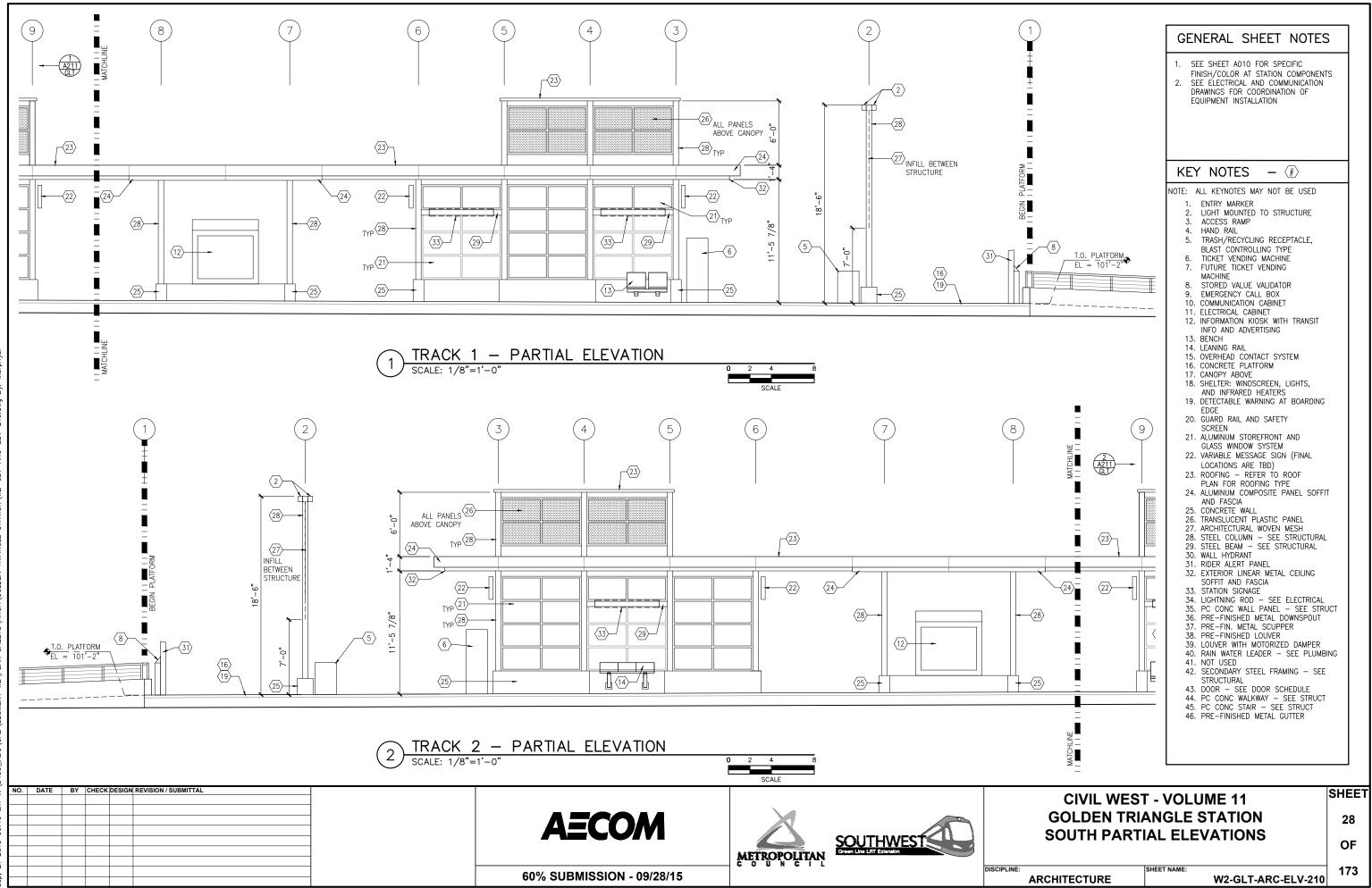


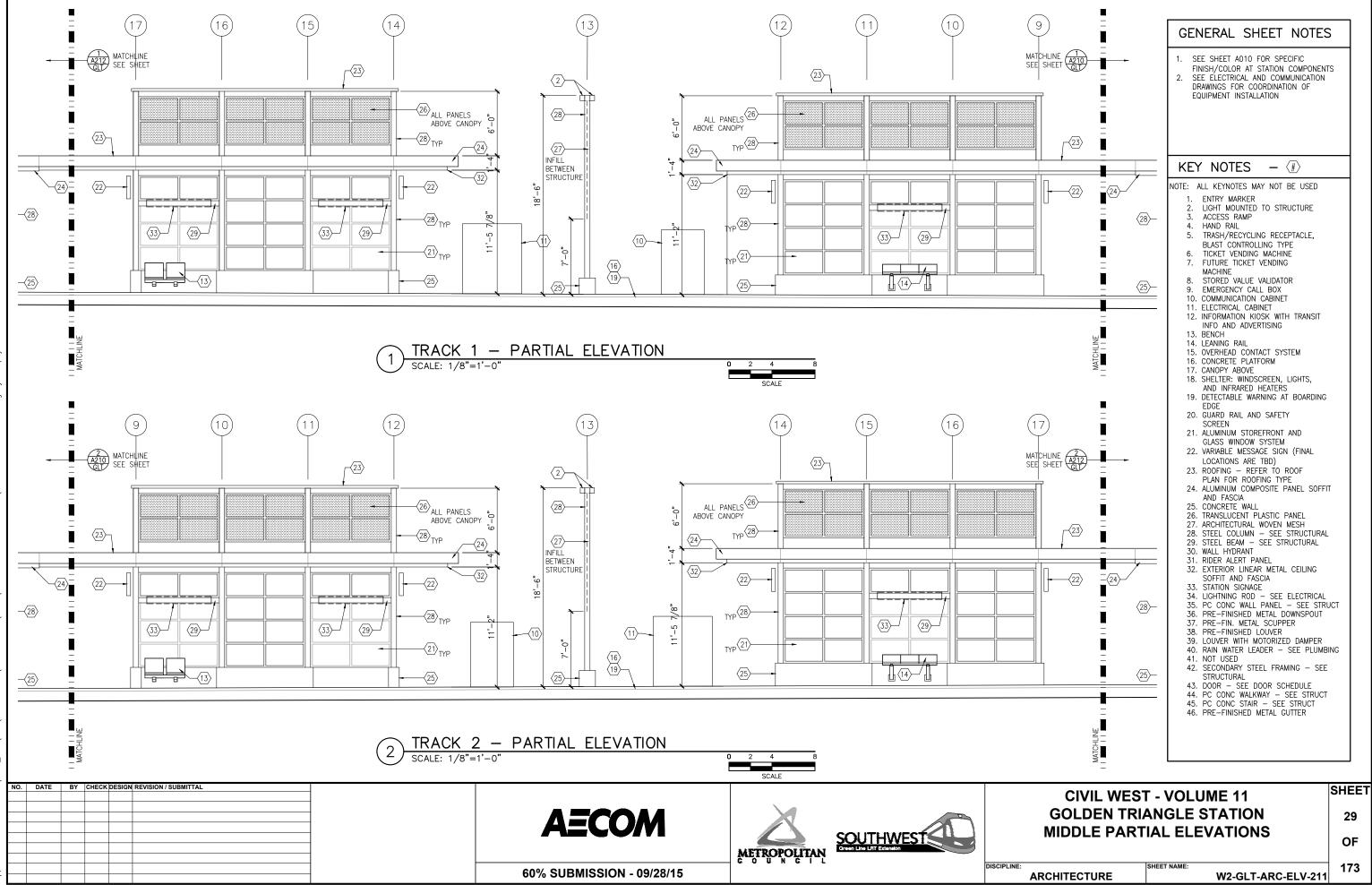


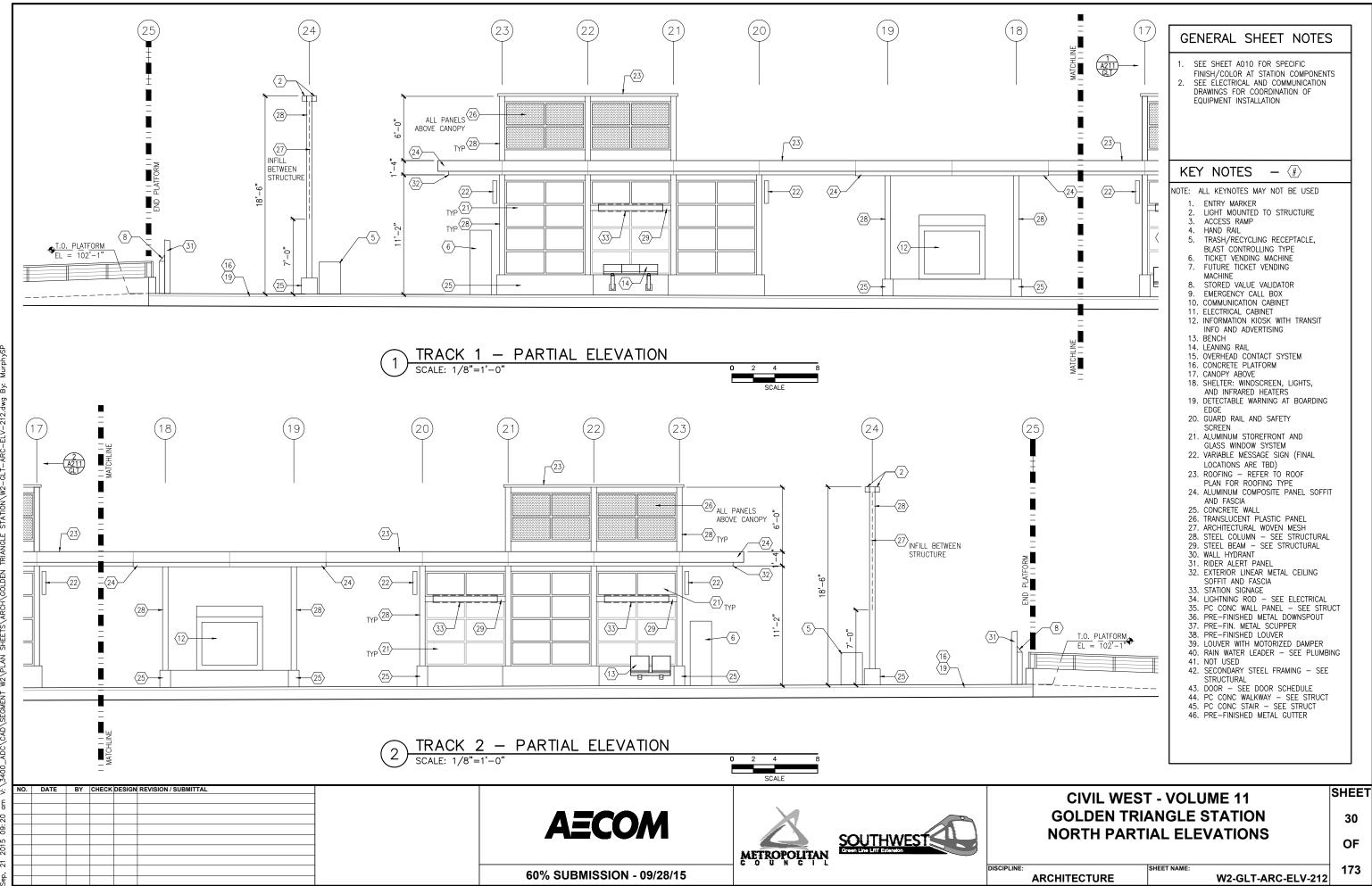
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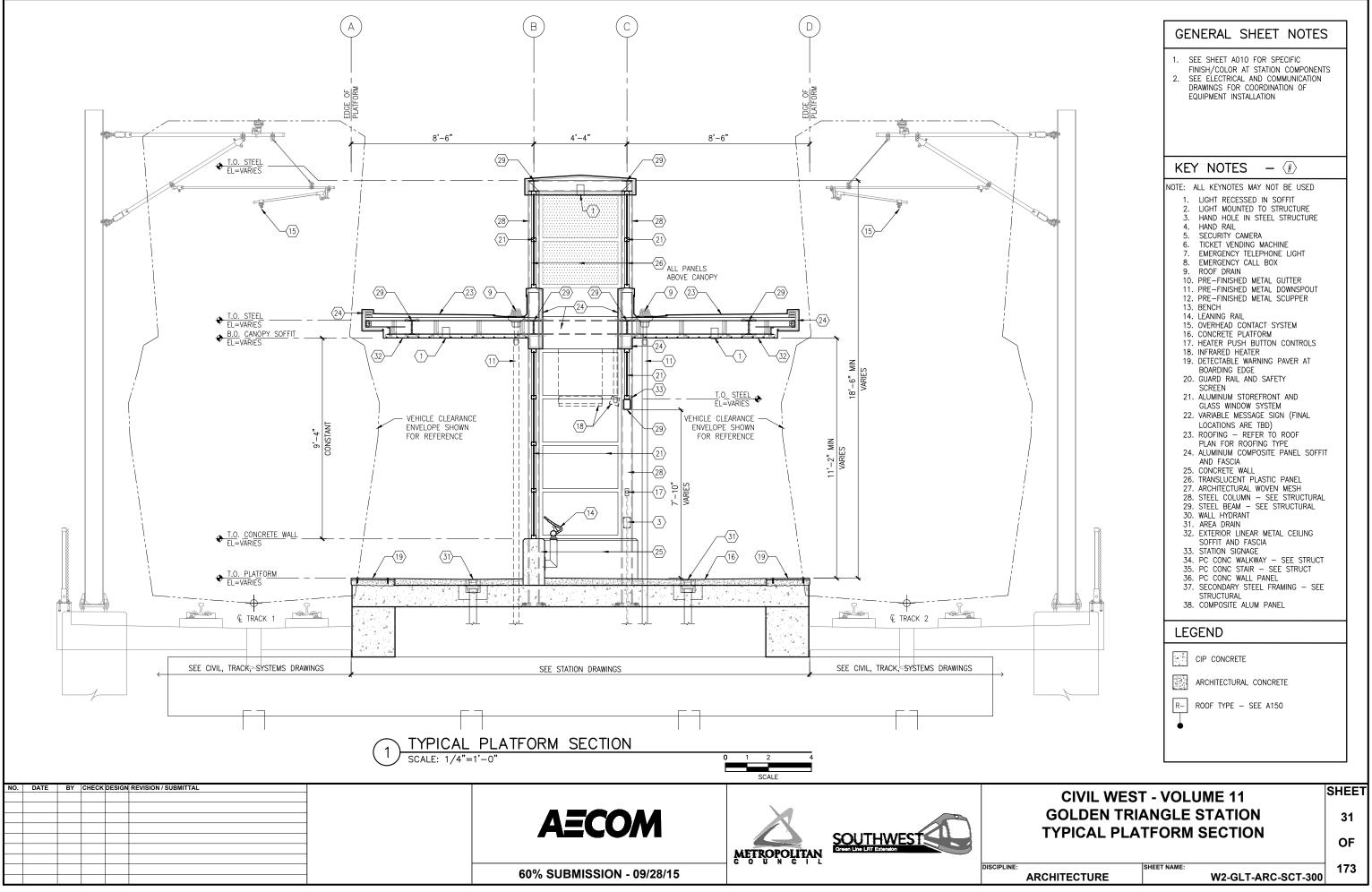


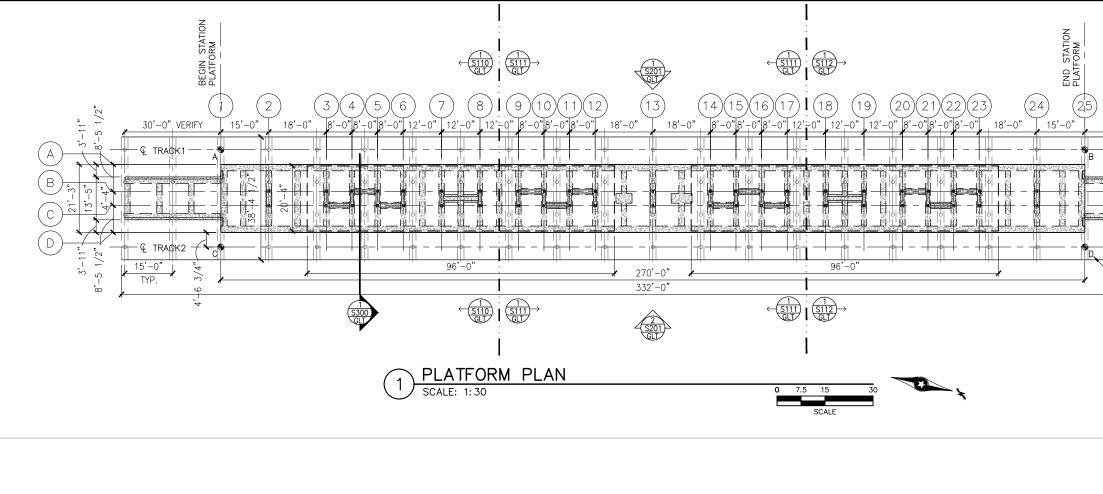
	GENERAL SHEET NOTES	
	 SEE SHEET A010 FOR SPECIFIC FINISH/COLOR AT STATION COMPONENTS SEE ELECTRICAL AND COMMUNICATION DRAWINGS FOR COORDINATION OF EQUIPMENT INSTALLATION 	5
PLATFORM 101'-2"		
PLATFORM 102'-1"		
UST ELEVATIONS ACCORDINGLY		
		SHEET
GOLDEN TRI	ANGLE STATION	27
ELEV	ATIONS	OF
	SHEET NAME: W2-GLT-ARC-ELV-200	173







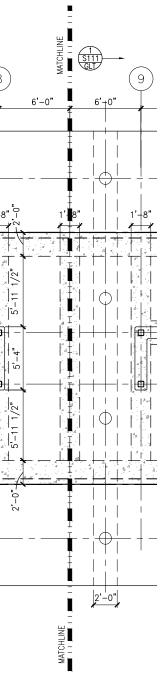




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ep,							60% SUBMISSION - 09/28/15	

	TR				
	⊕ E	LEV 100'-	0" (LOCATION O	N PLAN)	_
	TRAC	CK 1 EL	100'-0"=	XXX.XX (PT	'A')
30'-0", VERIFY	POINT	T.O. RAIL ELEVATION	TRACK 2 STATIONING		
	A		XXXX+XX.XX		
	В	XXX.XX	XXXX+XX.XX		
	TRAC		100'-0"=	XXX.XX (PT	'C')
	POINT	T.O. RAIL ELEVATION	TRACK 2 STATIONING		
POINT, TYP	C D	XXX.XX XXX.XX	XXXX+XX.XX XXXX+XX.XX		
,		^^^^	^^^^		
CIVIL WEST GOLDEN TRIA PLATFO	- VOI	LUME	IAGRAM AT PL	ATFORM T.O. RAIL (A,B,C,D)	
	SHEET NAME:		2-GLT-STF	2-PI N-101	173
STRUCTURES		•	12-0L1-31P		

S210 GLI (5)2 4 8 6 RAMP SEE GLT S101 7'-0" 8'-0" 9'-0" 9'-0" 8'-0" 8'-0" 6'+0" 6'-0" 6'-0" 6'-0" 8'+0" 10'-0" ¦'−0" € TRACK \Rightarrow 1/2" 1'-8" 1'-8" 1'-8" * 1'−8" ≰___⊀ 1'-8" 1'-8" 1'-8" * * 0 * + * 1+1 * * 4 44 4.4 4 1'-8" * + * 1/2 4 4 <u>ل</u> $|\bigcirc|$ $\| \frown$ 4.... ÷. 4 I (B) ₩Ď hai -0-1/2" 1.1 2'-0" TYP. 4 -(tc 10, ⋕₽ 中 ţΦ Ð . 4. 1 Φı $|\bigcirc|$ $| \bigcirc | |$ 4 ŧΦI * 4 1/2 4 F EI 4 ĥ 4 4 5 4 4 4 금요한 4 D 1/2" - I ò $\frac{1}{1}$ ţ¢ TRACK 2 fΨ TRACK DATA POINT, TYP - REFER TO S101 1 1 2'-0" 2'-0" 2'-0" 2'-0" 2'-0" 2'-0" 15'-0" TYP. 2 5210 GLT SOUTH PARTIAL FOUNDATION PLAN SCALE: 1/8"=1'-0" 1 0 2 4 SCALE DATE BY CHECK DESIGN REVISION / SUBMITTAL NO. AECOM METROPOLITAN DISCIPLINE: 60% SUBMISSION - 09/28/15



CIVIL WEST - VOLUME 11 GOLDEN TRIANGLE STATION SOUTH PARTIAL FOUNDATION PLAN

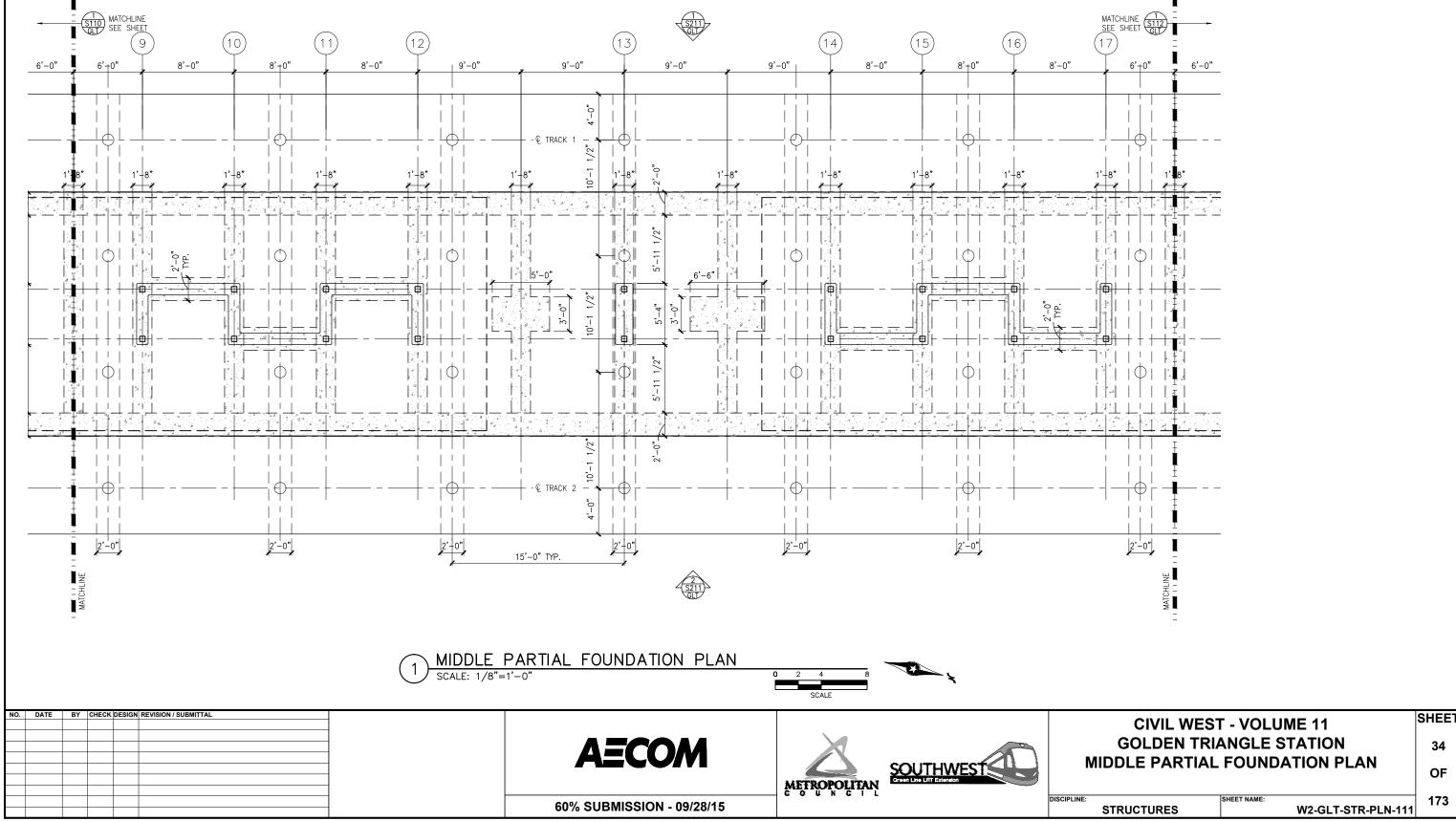
SHEET 33

STRUCTURES

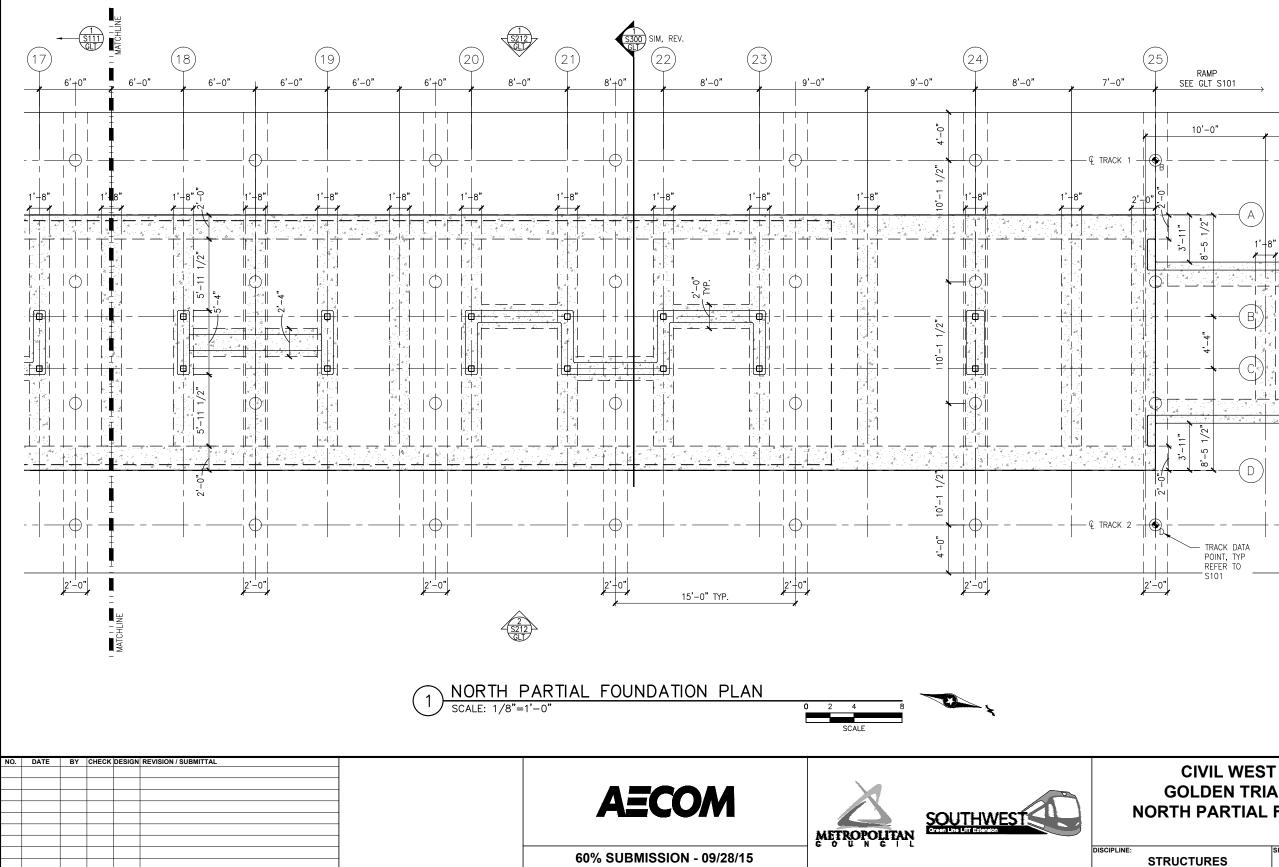
SHEET NAME

W2-GLT-STR-PLN-110

OF 173 В. GLT-STR-PLN-111.dwg Ie\CAD\STR\W2 ÷



GOLDEN TRI	ANGLE STATION FOUNDATION PLAN	SHEET 34 OF
STRUCTURES	SHEET NAME: W2-GLT-STR-PLN-111	173



1)

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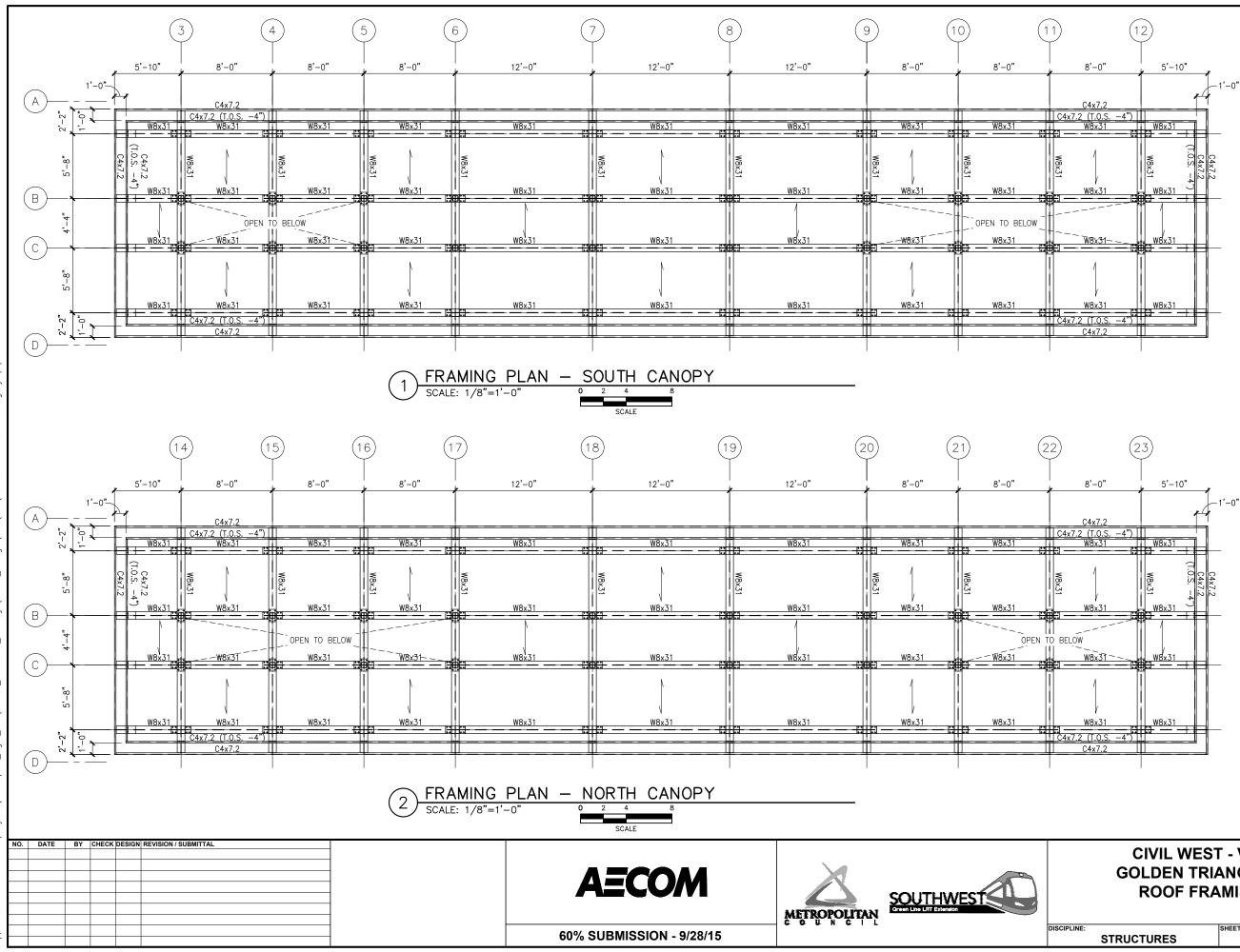
gwb

CIVIL WEST - VOLUME 11	SHEET
GOLDEN TRIANGLE STATION	35
NORTH PARTIAL FOUNDATION PLAN	OF

173

SHEET NAME

W2-GLT-STR-PLN-112



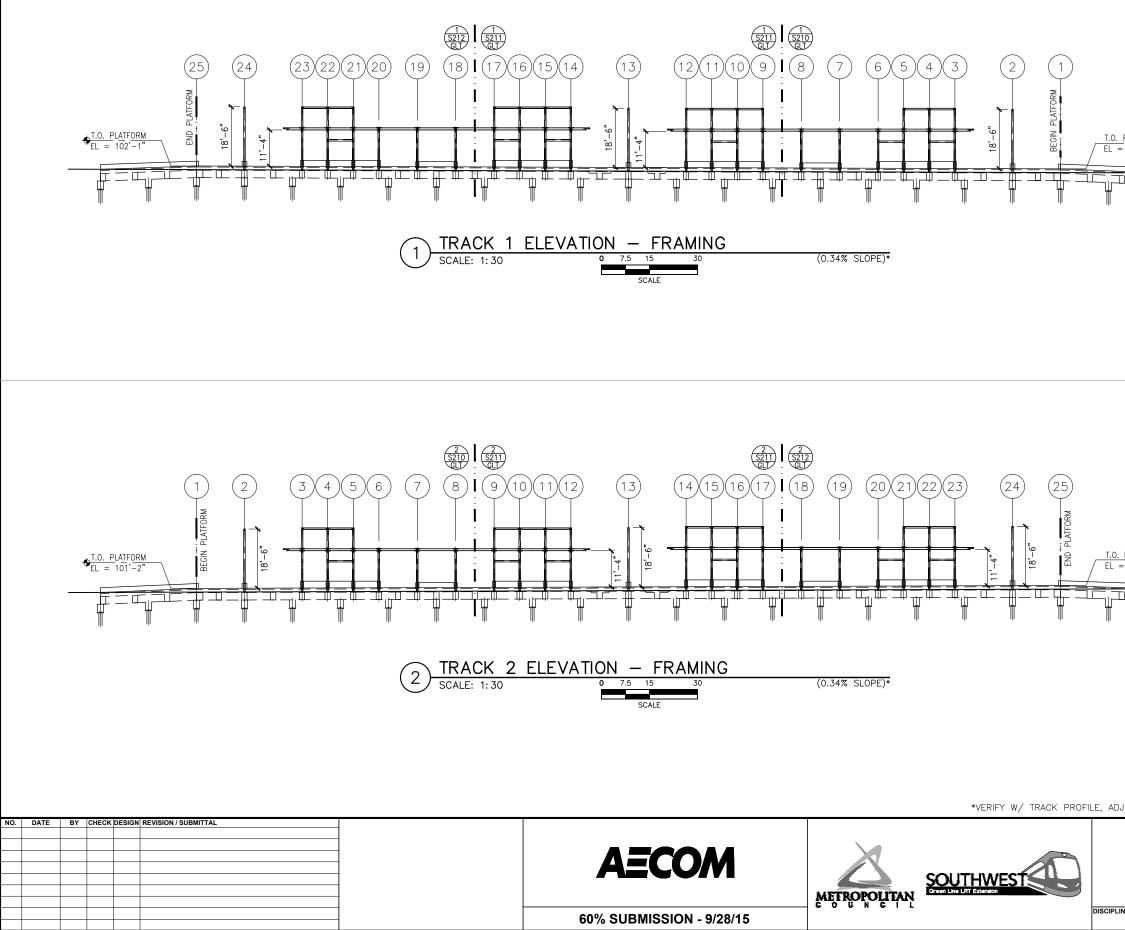
CIVIL WEST - VOLUME 11	
GOLDEN TRIANGLE STATION	
ROOF FRAMING PLANS	

SHEET 36

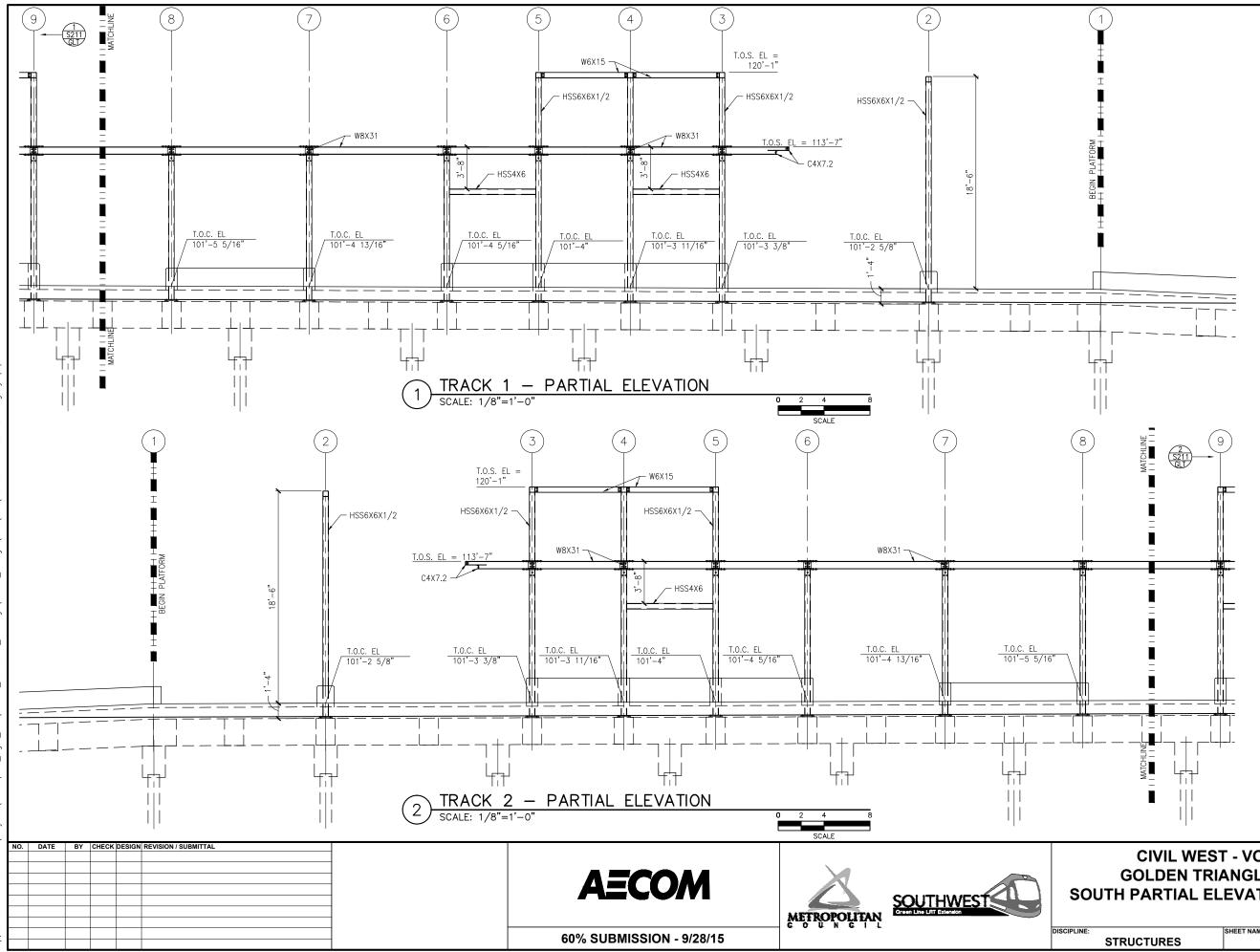
SHEET NAME

W2-GLT-STR-PLN-150

OF 173



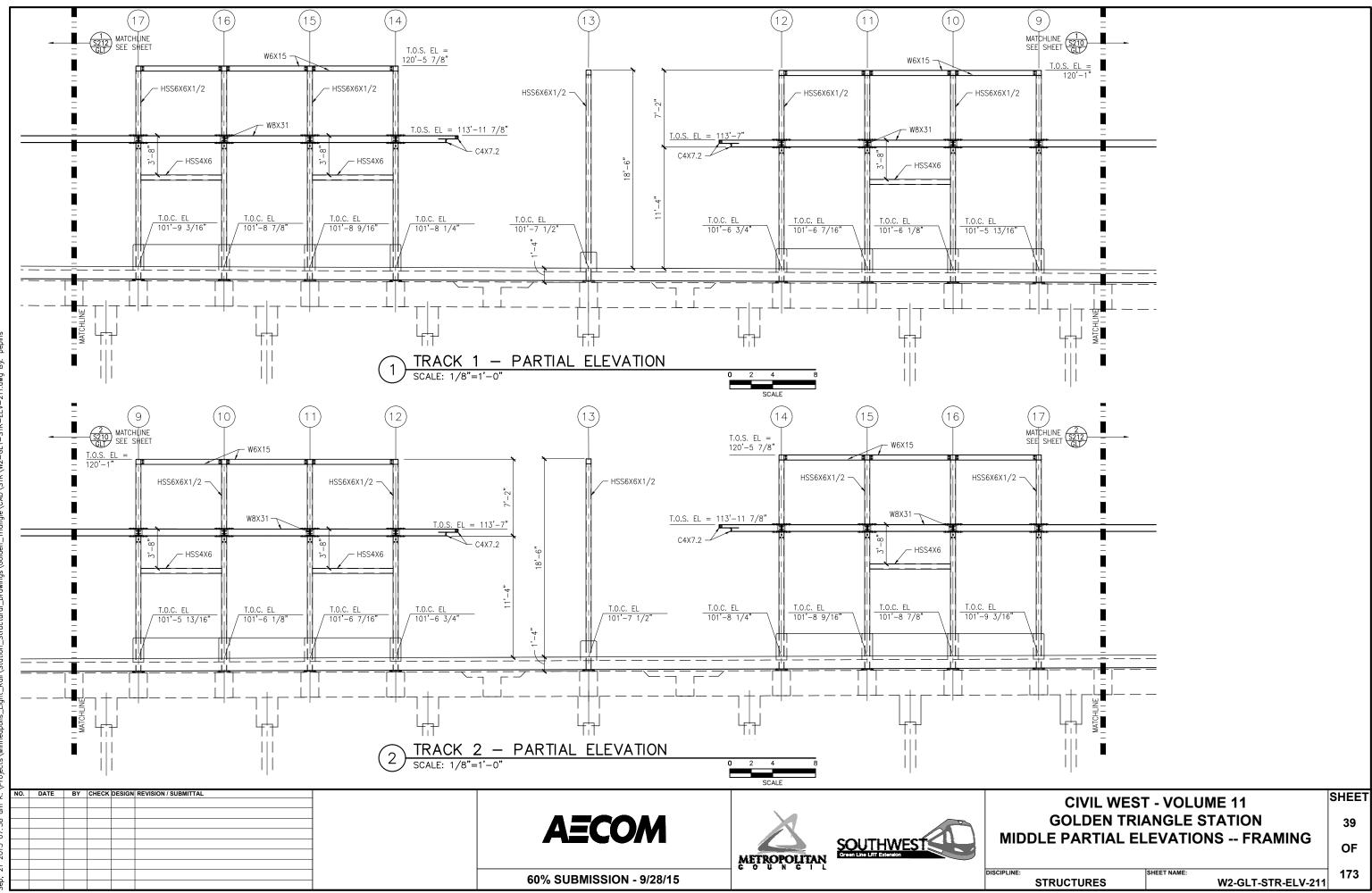
PLATFORM 101'-2"		
PLATFORM 102'-1" ◆		
GOLDEN TRI	T - VOLUME 11 ANGLE STATION NS FRAMING	SHEET 37 OF
STRUCTURES	SHEET NAME: W2-GLT-STR-ELV-201	173

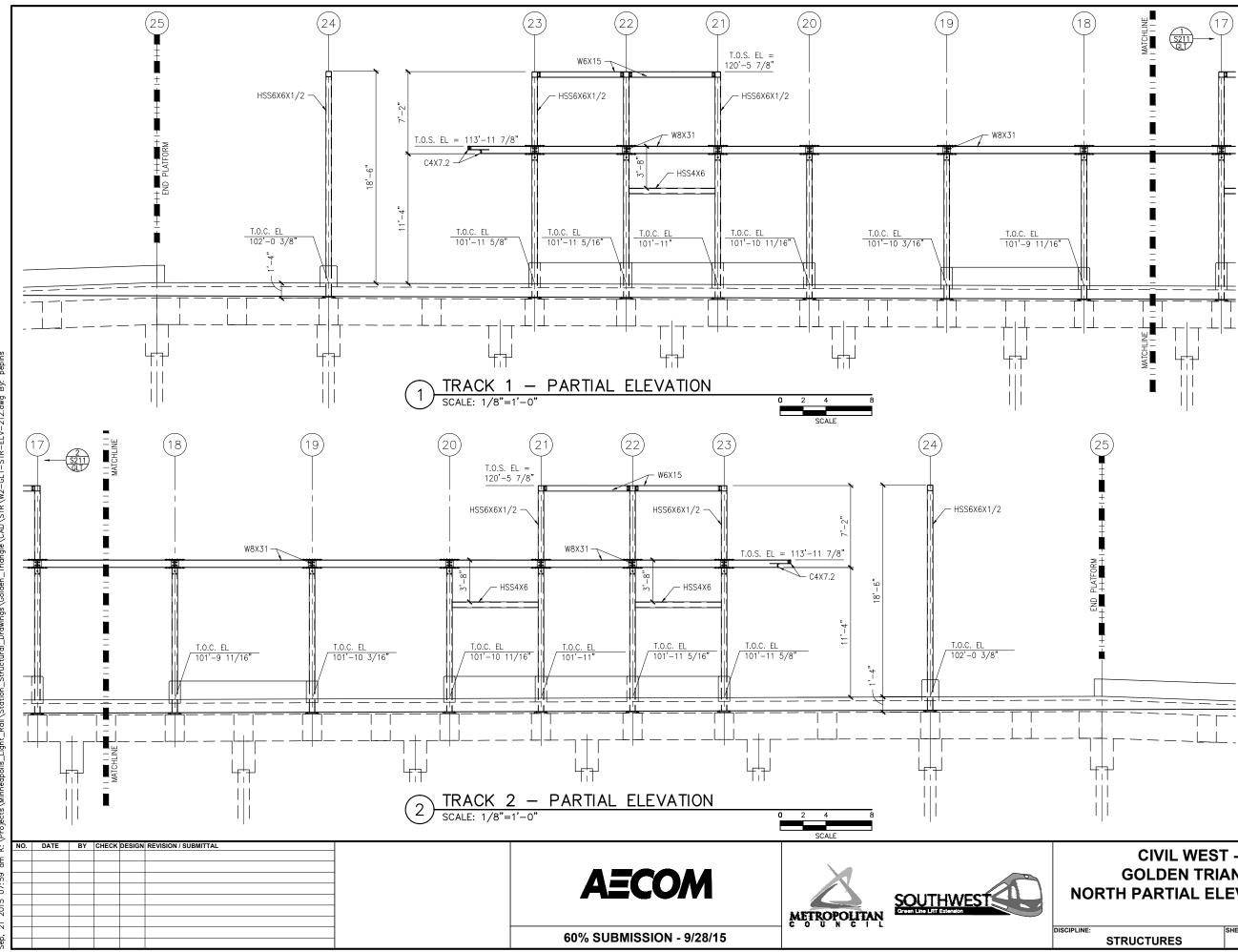


W2-GLT-STR-ELV-210

38 OF 173

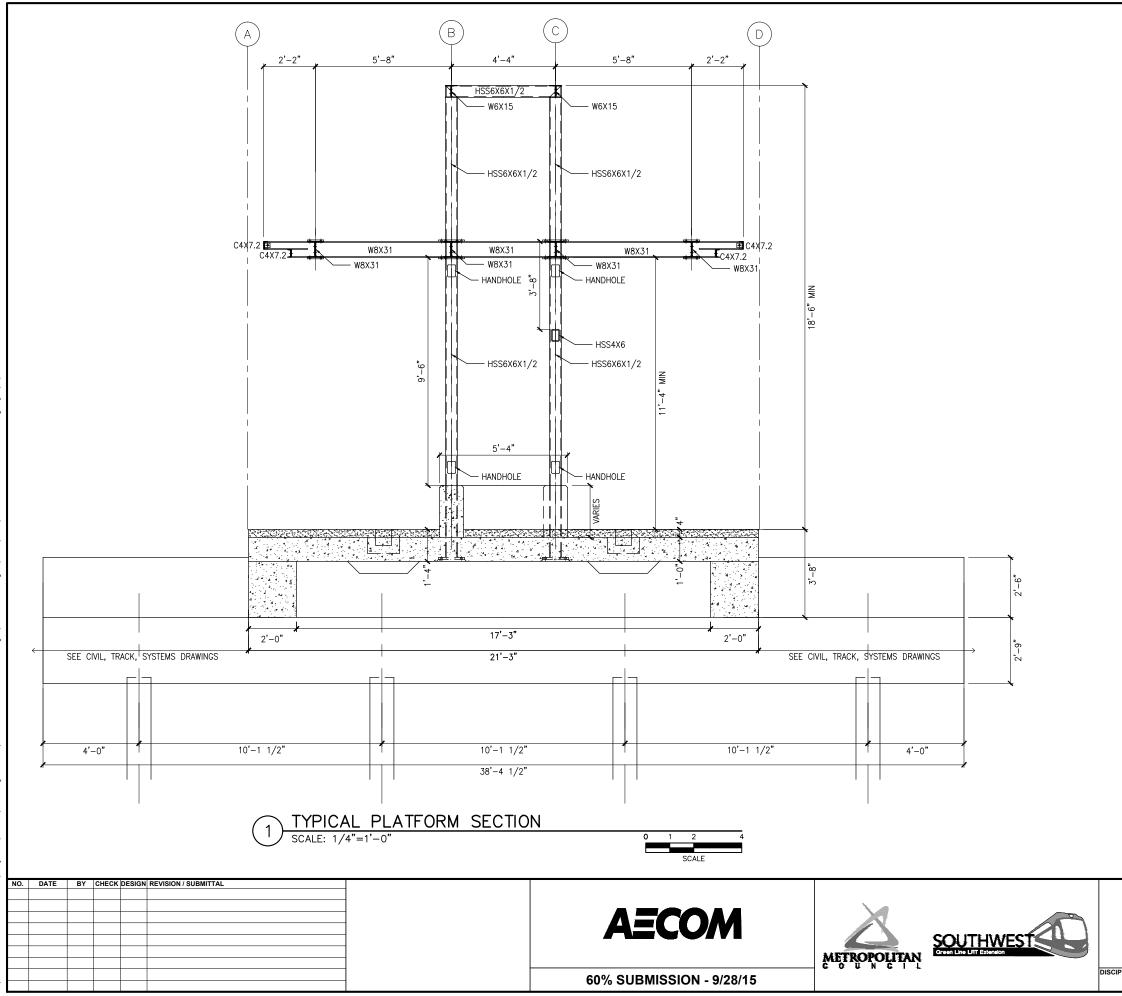
SHEET **CIVIL WEST - VOLUME 11 GOLDEN TRIANGLE STATION SOUTH PARTIAL ELEVATIONS -- FRAMING**





OF

SHEET **CIVIL WEST - VOLUME 11 GOLDEN TRIANGLE STATION** 40 **NORTH PARTIAL ELEVATIONS -- FRAMING** HEET NAM 173 W2-GLT-STR-ELV-212



DISCIPLINE:

STRUCTURES

SHEET NAME

CIVIL WEST - VOLUME 11 GOLDEN TRIANGLE STATION

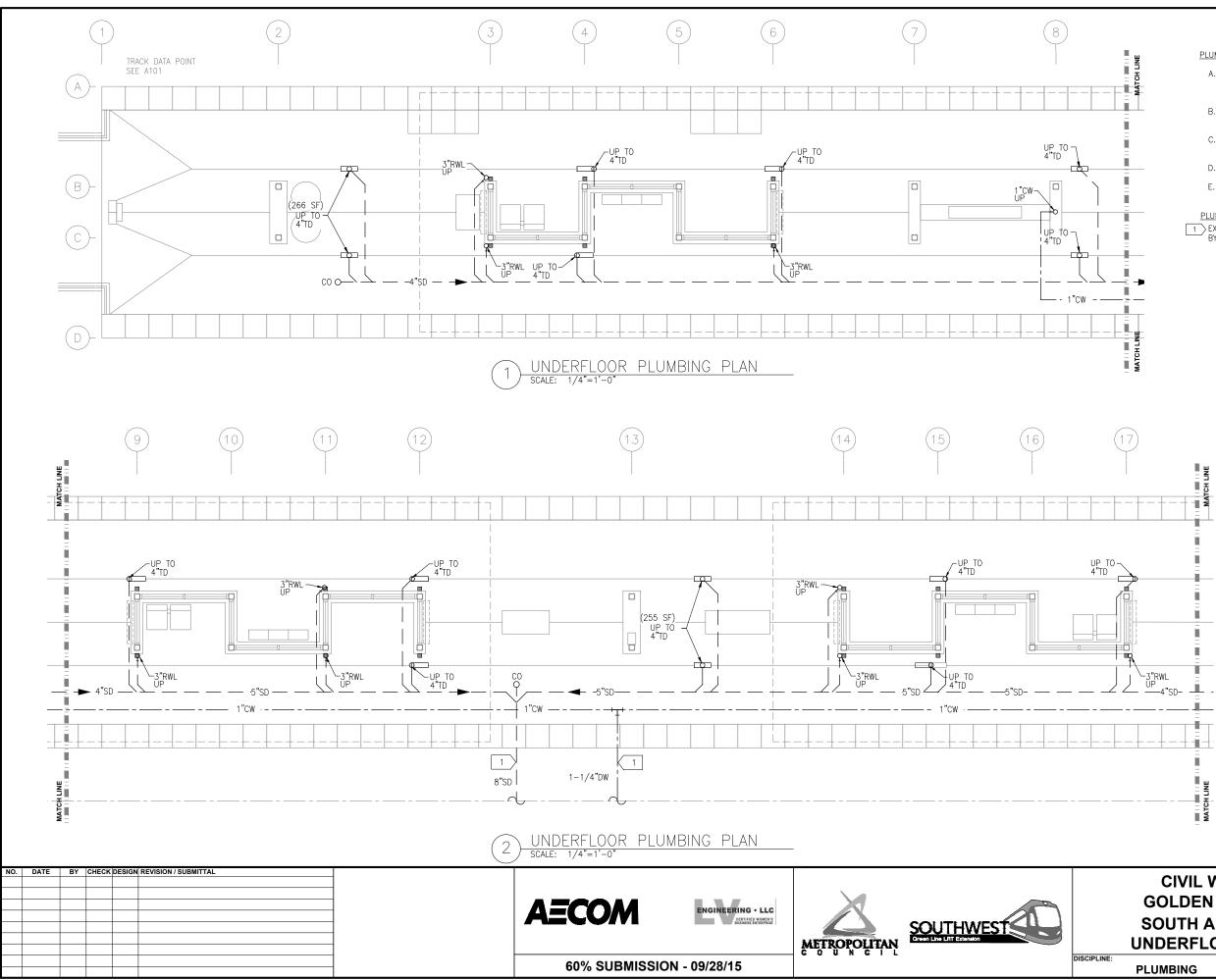
TYPICAL PLATFORM SECTION

W2-GLT-STR-SCT-300

41

SHEET

OF 173



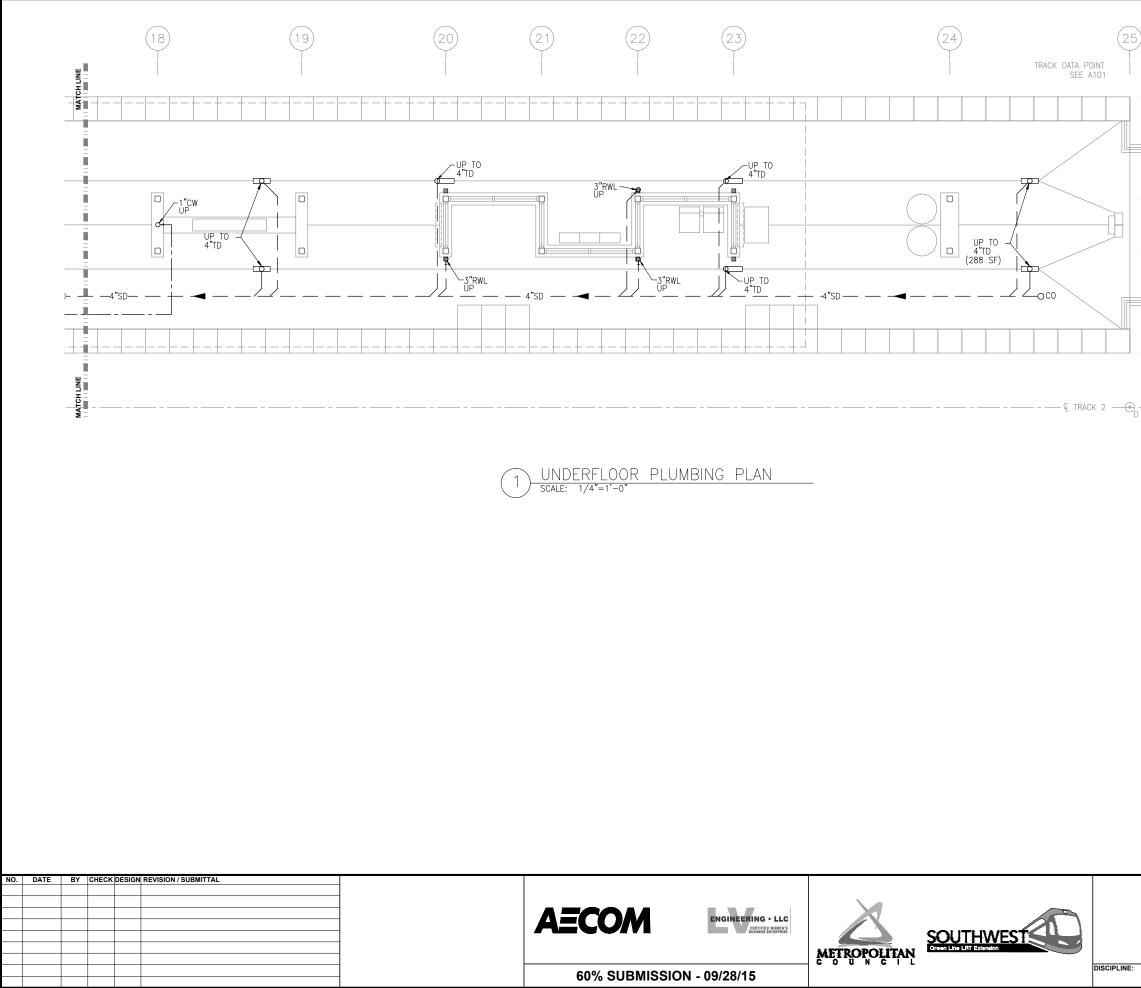
PLUMBING GENERAL NOTES

- A. CONTRACTOR SHALL VERIFY ALL DIMENSIONS. ANY DISCREPENCIES BETWEEN DRAWINGS AND FIELD CONDITIONS SHALL BE REPORTED TO THE ARCHITECT DRIDG TO PROCEEDING WITH WORK
- PRIOR TO PROCEEDING WITH WORK.
 B. HEAT TRACING ALONG ALL GUTTERS, AROUND ALL ROOF DRAINS, AND ALL RAIN LEADERS SHALL BE BY ELECTRICAL DIVISION.
- C. MAINTAIN CODE REQUIRED DISTANCE BETWEEN UNDERGROUND SANITARY AND UNDERGROUND POTABLE WATER.
- D. REFER TO ARCHITECTURAL DRAWINGS FOR CEILING HEIGHTS AND LAYOUT. E. REFER TO ARCHITECTURAL DRAWINGS AND
- SPECIFICATIONS FOR STORM DOWNSPOUT MATERIAL.

PLUMBING KEY NOTES:

 Image: Strenge with the strenge withe strenge withe strenge with the strenge with the strenge with the

	CIVIL WES	Γ - VOLUME 11	SHEET						
	GOLDEN TRIANGLE STATION								
	SOUTH AND MIDDLE PARTIAL								
	UNDERFLOOR PLUMBING PLAN								
:		SHEET NAME:	173						
	PLUMBING	W2-GLT-PLM-PLN-100							



PLUMBING GENERAL NOTES

-(A)

-(в)

-(C)

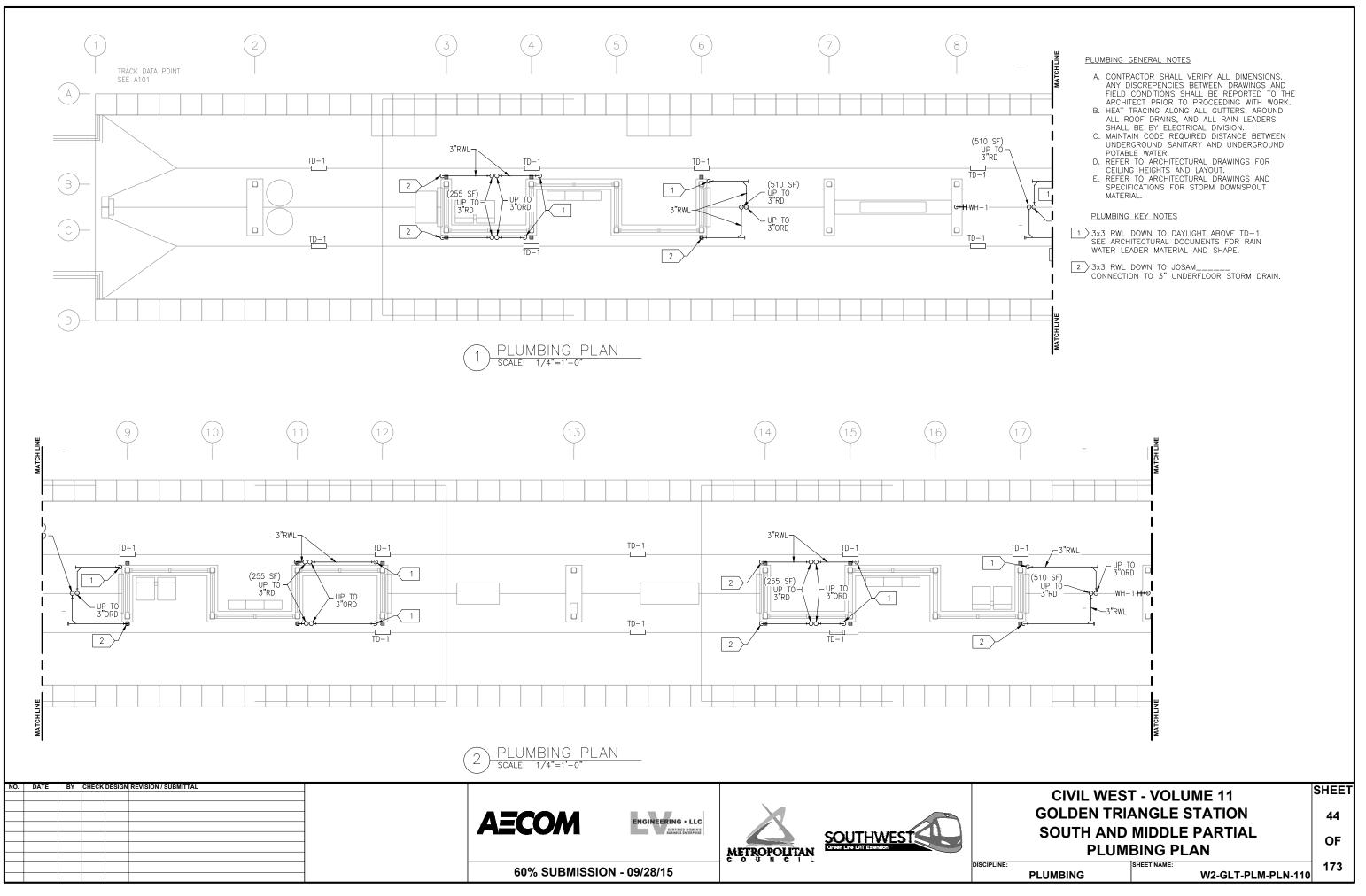
-(D

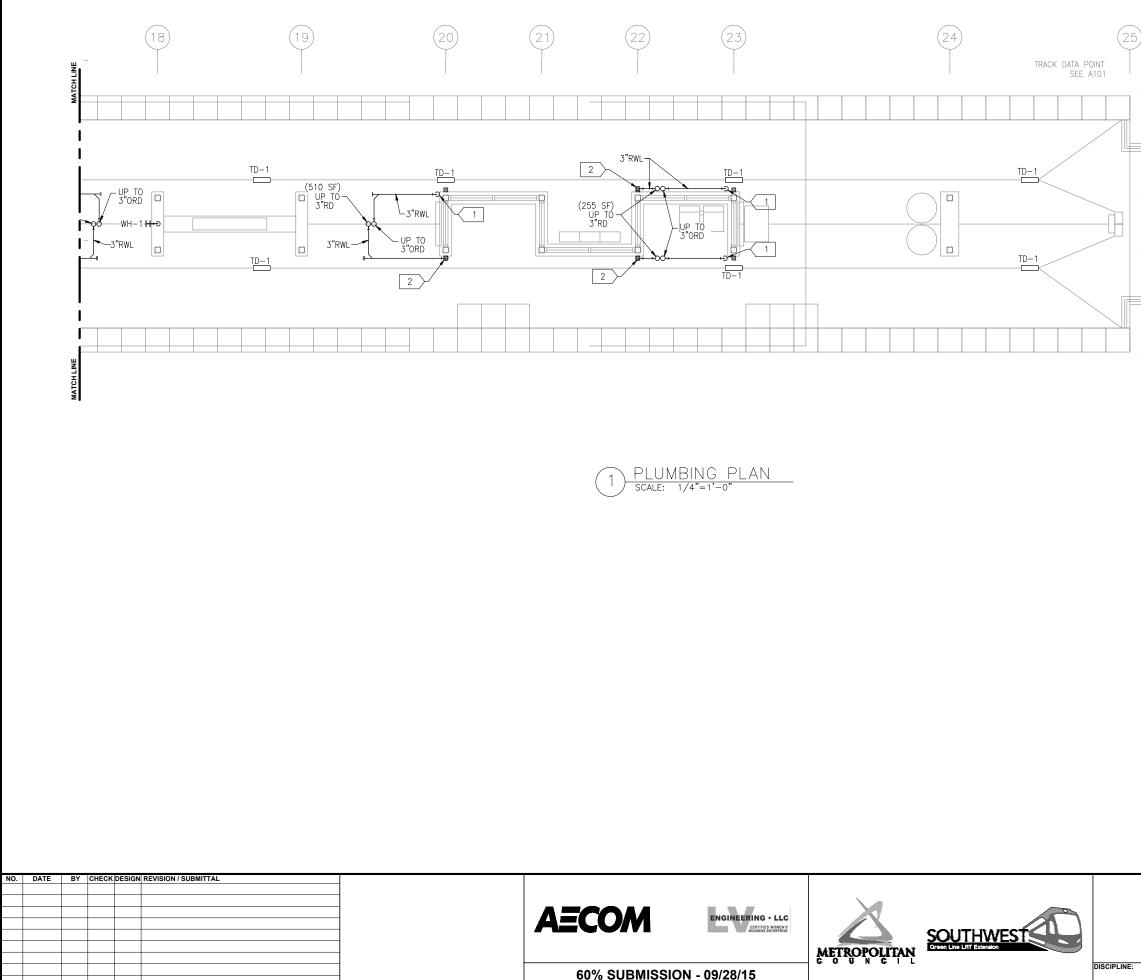
- A. CONTRACTOR SHALL VERIFY ALL DIMENSIONS. ANY DISCREPENCIES BETWEEN DRAWINGS AND FIELD CONDITIONS SHALL BE REPORTED TO THE ARCHITECT PRIOR TO PROCEEDING WITH WORK.
 B. HEAT TRACING ALONG ALL GUTTERS, AROUND ALL DROVE DRAINS AND AND AND FEED SCIALL BE DRAWN
- ROOF DRAINS, AND ALL RAIN LEADERS SHALL BE BY ELECTRICAL DIVISION.
 MAINTAIN CODE REQUIRED DISTANCE BETWEEN
- UNDERGROUND SANITARY AND UNDERGROUND POTABLE WATER.
- D. REFER TO ARCHITECTURAL DRAWINGS FOR CEILING
- HEIGHTS AND LAYOUT.
 E. REFER TO ARCHITECTURAL DRAWINGS AND SPECIFICATIONS FOR STORM DOWNSPOUT MATERIAL.

PLUMBING KEY NOTES:

T EXTEND WATER AND STORM OUTSIDE GUIDEWAY. CONNECTION BY OUTDOOR UTILITY CONTRACTOR.

SHEET **CIVIL WEST - VOLUME 11 GOLDEN TRIANGLE STATION** 43 NORTH PARTIAL UNDERFLOOR OF PLUMBING PLAN SHEET NAME: 173 W2-GLT-PLM-PLN-101 PLUMBING





PLUMBING GENERAL NOTES

-(A)

-(в)

-(C]

-(D

- A. CONTRACTOR SHALL VERIFY ALL DIMENSIONS. ANY DISCREPENCIES BETWEEN DRAWINGS AND FIELD CONDITIONS SHALL BE REPORTED TO THE ARCHITECT PRIOR TO PROCEEDING WITH WORK.
- B. HEAT TRACING ALONG ALL GUTTERS, AROUND ALL ROOF DRAINS, AND ALL RAIN LEADERS SHALL BE BY ELECTRICAL DIVISION.
 C. MAINTAIN CODE REQUIRED DISTANCE BETWEEN
- UNDERGROUND SANITARY AND UNDERGROUND POTABLE WATER. D. REFER TO ARCHITECTURAL DRAWINGS FOR
- CEILING HEIGHTS AND LAYOUT. E. REFER TO ARCHITECTURAL DRAWINGS AND SPECIFICATIONS FOR STORM DOWNSPOUT MATERIAL.

PLUMBING KEY NOTES

- 1
 3x3
 RWL DOWN TO DAYLIGHT ABOVE TD-1.

 SEE
 ARCHITECTURAL DOCUMENTS FOR RAIN
 WATER LEADER MATERIAL AND SHAPE.
- 2 3x3 RWL DOWN TO JOSAM_____ CONNECTION TO 3" UNDERFLOOR STORM DRAIN.

CIVIL WEST - VOLUME 11 GOLDEN TRIANGLE STATION NORTH PARTIAL PLUMBING PLAN AND RISER DIAGRAMS SHEET NAME:

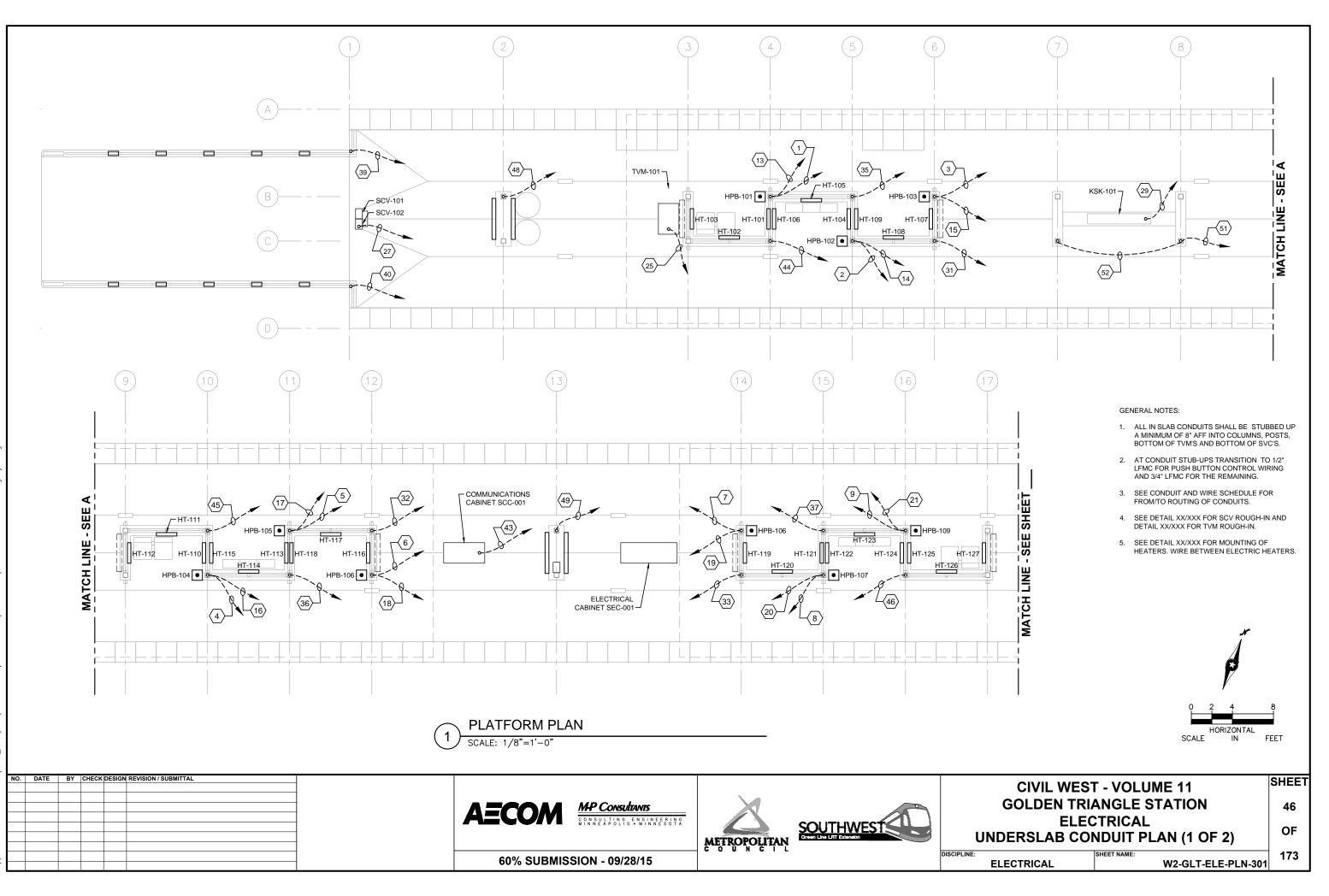
PLUMBING

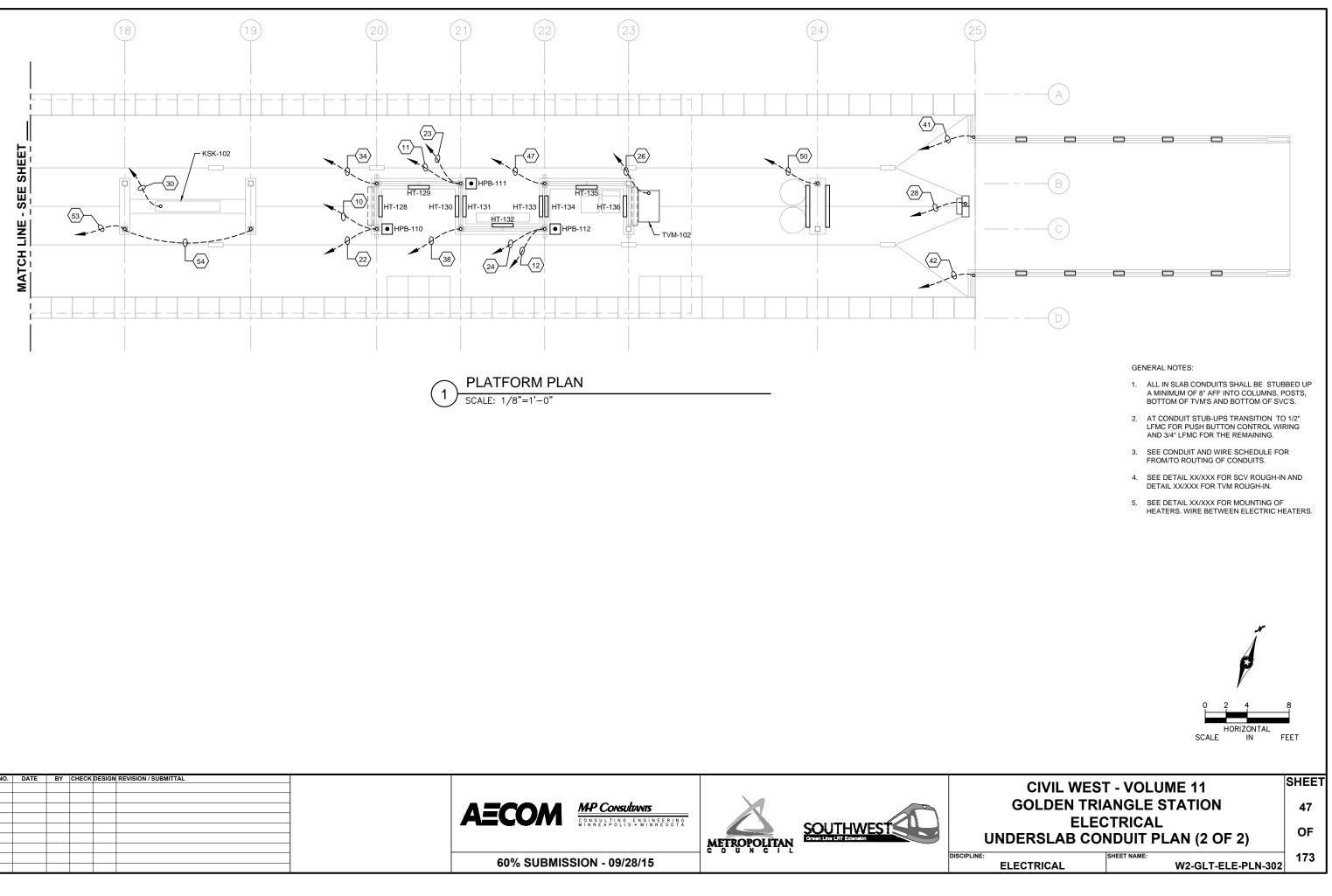
W2-GLT-PLM-PLN-111

SHEET

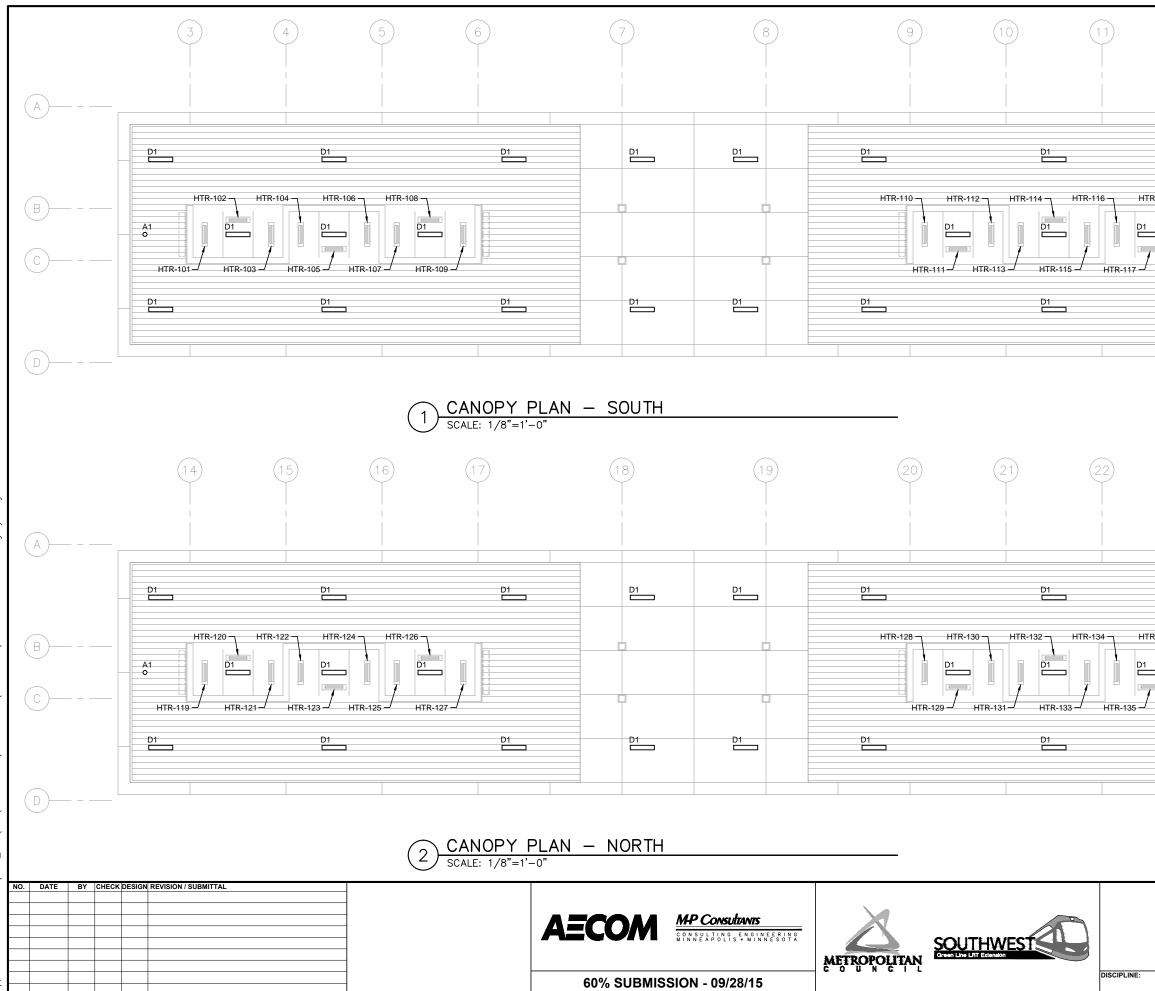
45 OF

173



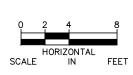


NO.	DATE	BY	CHECH	DESIGN	REVISION / SUBMITTAL						
								MP Consultants	X		
						1	AECOM				
								CONSULTING ENGINEERING MINNEAPOLIS K MINNESOTA		SOUTHWEST	
										Green Line LRT Extension	
						1			METROPOLITAN		
			1			1			- & U U N & I L		DISCIPI
							60% SUBMIS	SION - 09/28/15			
				1							

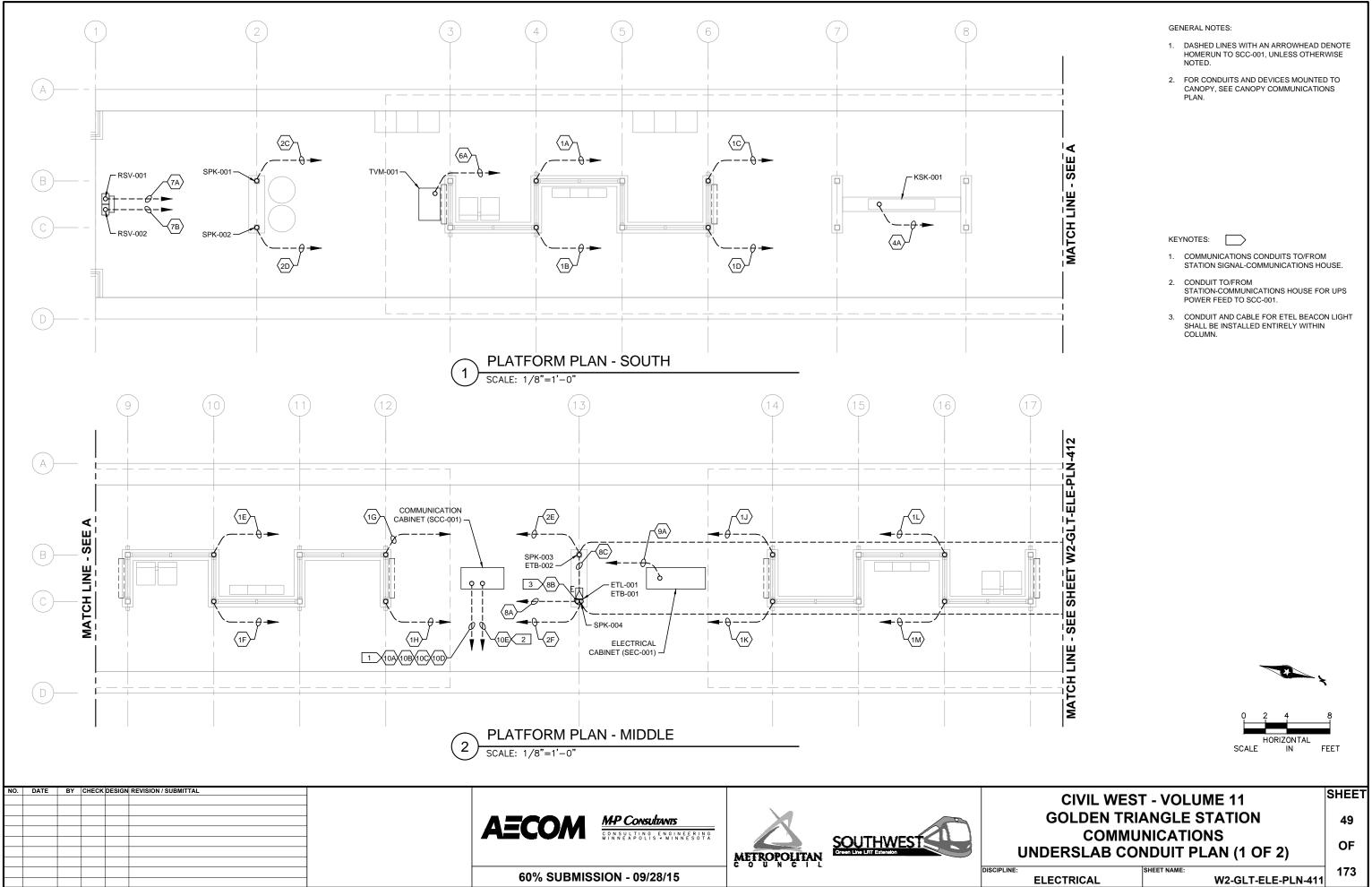


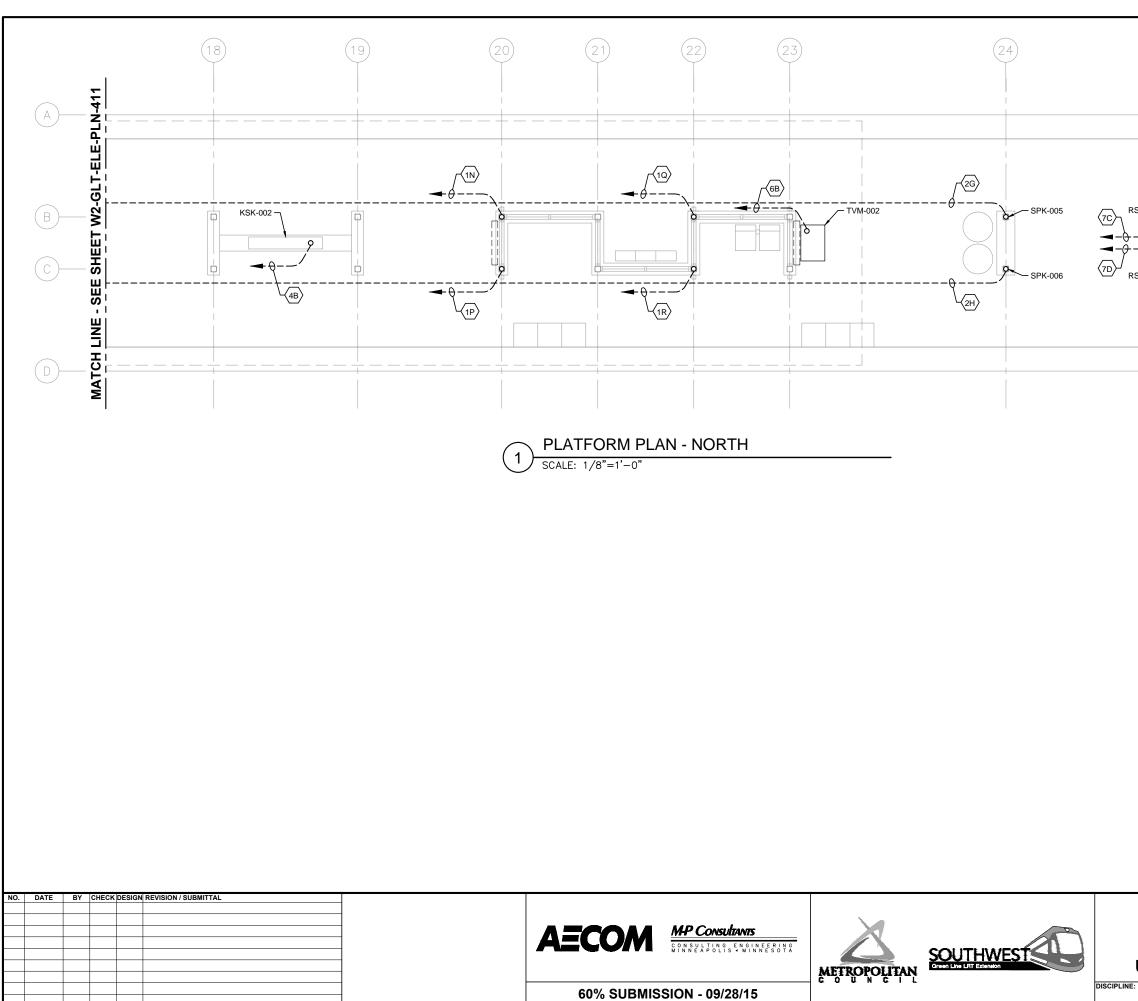
iep. 25 2015 07:55 am V:\3400_ADC\CAD\SEGMENT W2\PLAN SHEETS\ELECTRICAL\W2-GLT-ELE-PLN-303.dwg By: Ferg

GENERAL NOTES: 1. PROVIDE HEAT TRACE IN GUTTERS, DOWN SPOUTS AND RAIN CONDUCTORS. D1 HTR-118 D1 A1 0 KEYNOTES: 1. D1 D1 HTR-136 A1 0 D1 D1



CIVIL WEST - VOLUME 11						
GOLDEN TRIANGLE STATION						
ELECTRICAL						
CANOPY PLAN						
ELECTRICAL	SHEET NAME: W2-GLT-ELE-PLN-303	173				





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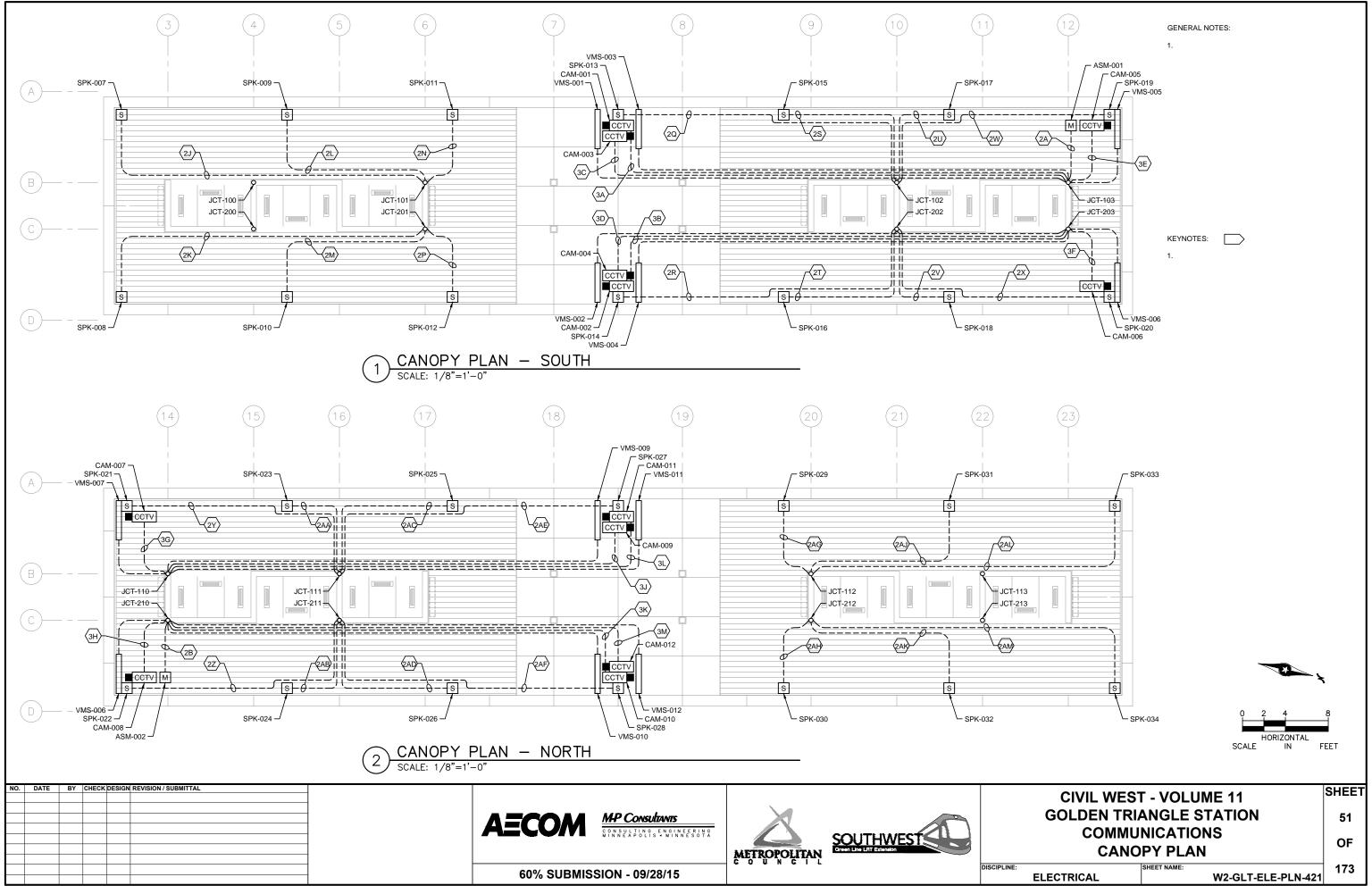
(25)	GENERAL NOTES:	
	 DASHED LINES WITH AN ARROWHEA HOMERUN TO SCC-001, UNLESS OTH NOTED. 	
	 FOR CONDUITS AND DEVICES MOUN CANOPY, SEE CANOPY COMMUNICA PLAN. 	
	_	
	KEYNOTES:	
		*
	0 2 4	8
	HORIZONTAL SCALE IN	FEET
		SHEET
CIVIL WEST - GOLDEN TRIAN	GLE STATION	50
COMMUNIC UNDERSLAB COND		OF
	NAME	- 4=0

SHEET NAME:

ELECTRICAL

173

W2-GLT-ELE-PLN-412



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NO.	DATE	BY	CHECK	DESIGN	REVISION / SUBMITTAL						
]	AECOM	M-P Consultants			
							ALUM	CONSULTING ENGINEERING MINNEAPOLIS ≮ MINNESOTA			
]		MINNEAPOLIS K MINNESOTA		SOUTHWEST S	
]			METROPOLITANI	Green Line LRT Extension	
]			METROPOLITAN		
							60% SUBMIS	SION - 09/28/15			DISCIPLINE
							00 % 30 BIVIIS	310IN - 09/20/13			



CONDUIT NO.	DEVICE ID	DESCRIPTION/USE	FROM	то	CONDUIT SIZE
10A	GLT -CON-0001	S/C HOUSE TO SCC-001	S/C MANHOLE	GLT -SCC-001	3"
10B	GLT -CON-0002	S/C HOUSE TO SCC-001	S/C MANHOLE	GLT -SCC-001	3"
10C	GLT -CON-0003	S/C HOUSE TO SCC-001	S/C MANHOLE	GLT -SCC-001	3"
10D	GLT -CON-0004	S/C HOUSE TO SCC-001	S/C MANHOLE	GLT -SCC-001	3"
10E	GLT -CON-0005	UPS POWER FEED: SCH TO SCC	GLT -SCH-001	GLT -SCC-001	3"
1A	GLT -CON-0101	SCC TO JUNCTION 100	GLT -SCC-001	GLT -JCT-100	2"
1B	GLT -CON-0102	SCC TO JUNCTION 200	GLT -SCC-001	GLT -JCT-200	2"
1C	GLT -CON-0103	SCC TO JUNCTION 101	GLT -SCC-001	GLT -JCT-101	2"
1D	GLT -CON-0104	SCC TO JUNCTION 201	GLT -SCC-001	GLT -JCT-201	2"
1E	GLT -CON-0105	SCC TO JUNCTION 110	GLT -SCC-001	GLT -JCT-110	2"
1F	GLT -CON-0106	SCC TO JUNCTION 210	GLT -SCC-001	GLT -JCT-210	2"
1G	GLT -CON-0107	SCC TO JUNCTION 111	GLT -SCC-001	GLT -JCT-111	2"
1H	GLT -CON-0107	SCC TO JUNCTION 211	GLT -SCC-001	GLT -JCT-211	2"
1J	GLT -CON-0108	SCC TO JUNCTION 112	GLT -SCC-001	GLT -JCT-112	2"
1K	GLT -CON-0109	SCC TO JUNCTION 212	GLT -SCC-001	GLT -JCT-212	2"
1L	GLT -CON-0110	SCC TO JUNCTION 113	GLT -SCC-001	GLT -JCT-113	2"
1M	GLT -CON-0110	SCC TO JUNCTION 213	GLT -SCC-001	GLT -JCT-213	2"
1N	GLT -CON-0111	SCC TO JUNCTION 120	GLT -SCC-001	GLT -JCT-120	2"
1P	GLT -CON-0112	SCC TO JUNCTION 220	GLT -SCC-001	GLT -JCT-220	2"
1Q	GLT -CON-0113	SCC TO JUNCTION 121	GLT -SCC-001	GLT -JCT-121	2"
1R	GLT -CON-0114	SCC TO JUNCTION 221	GLT -SCC-001	GLT -JCT-221	2"
2A	GLT -CON-0201	MICROPHONE 1 - NOISE SENSING	GLT -JCT-111	GLT -ASM-001	1"
2B	GLT -CON-0202	MICROPHONE 2 - NOISE SENSING	GLT -JCT-211	GLT -ASM-002	1"
2C	GLT -CON-0203	SPEAKER 1 - POLE	GLT -SPK-003	GLT -SPK-001	1-1/2"
2D	GLT -CON-0204	SPEAKER 2 - POLE	GLT -SPK-004	GLT -SPK-002	1-1/2"
2E	GLT -CON-0205	SPEAKER 3 - POLE	GLT -SCC-001	GLT -SPK-003	1-1/2"
2F	GLT -CON-0206	SPEAKER 4 - POLE	GLT -SCC-001	GLT -SPK-004	1-1/2"
2G	GLT -CON-0207	SPEAKER 5 - POLE	GLT -SCC-001	GLT -SPK-005	1-1/2"
2H	GLT -CON-0208	SPEAKER 6 - POLE	GLT -SCC-001	GLT -SPK-006	1-1/2"
2J	GLT -CON-0209	SPEAKER 7 - POLE	GLT -SPK-005	GLT -SPK-007	1-1/2"
2K	GLT -CON-0210	SPEAKER 8 - POLE	GLT -SPK-006	GLT -SPK-008	1-1/2"
2L	GLT -CON-0211	SPEAKER 9 - CANOPY	GLT -JCT-100	GLT -SPK-009	1"
2M	GLT -CON-0212	SPEAKER 10 - CANOPY	GLT -JCT-200	GLT -SPK-010	1"
2N	GLT -CON-0213	SPEAKER 11 - CANOPY	GLT -JCT-100	GLT -SPK-011	1"
2P	GLT -CON-0214	SPEAKER 12 - CANOPY	GLT -JCT-200	GLT -SPK-012	1"
2Q	GLT -CON-0215	SPEAKER 13 - CANOPY	GLT -JCT-100	GLT -SPK-013	1"
2R	GLT -CON-0216	SPEAKER 14 - CANOPY	GLT -JCT-200	GLT -SPK-014	1"
28	GLT -CON-0217	SPEAKER 15 - CANOPY	GLT -JCT-110	GLT -SPK-015	1"
2T	GLT -CON-0218	SPEAKER 16 - CANOPY	GLT -JCT-210	GLT -SPK-016	1"
20	GLT -CON-0219	SPEAKER 17 - CANOPY	GLT -JCT-110	GLT -SPK-017	1"
2V	GLT -CON-0220	SPEAKER 18 - CANOPY	GLT -JCT-210	GLT -SPK-018	1"
2W	GLT -CON-0221	SPEAKER 19 - CANOPY	GLT -JCT-110	GLT -SPK-019	1"
2X	GLT -CON-0222	SPEAKER 20 - CANOPY	GLT -JCT-210	GLT -SPK-020	1"
2Y	GLT -CON-0223	SPEAKER 21 - CANOPY	GLT -JCT-112	GLT -SPK-021	1"
2Z	GLT -CON-0224	SPEAKER 22 - CANOPY	GLT -JCT-212	GLT -SPK-022	1"
2AA	GLT -CON-0225	SPEAKER 23 - CANOPY	GLT -JCT-112	GLT -SPK-023	1"
2AB	GLT -CON-0226	SPEAKER 24 - CANOPY	GLT -JCT-212	GLT -SPK-024	1"

	CIVIL WEST	Γ - VOLUME 11	SHEET							
	GOLDEN TRIANGLE STATION									
	COMMUNICATIONS									
	CONDUIT SCHEDULE (1 OF 2)									
E:	ELECTRICAL	SHEET NAME: W2-GLT-ELE-SCH-461	173							

	OLI OONOLLI		501 112	021 0111 020	
2AD	GLT -CON-0228	SPEAKER 26 - CANOPY	GLT -JCT-212	GLT -SPK-026	1"
2AE	GLT -CON-0229	SPEAKER 27 - CANOPY	GLT -JCT-121	GLT -SPK-027	1"
2AF	GLT -CON-0230	SPEAKER 28 - CANOPY	GLT -JCT-221	GLT -SPK-028	1"
2AG	GLT -CON-0231	SPEAKER 29 - CANOPY	GLT -JCT-121	GLT -SPK-029	1"
2AH	GLT -CON-0232	SPEAKER 30 - CANOPY	GLT -JCT-221	GLT -SPK-030	1"
2AJ	GLT -CON-0233	SPEAKER 31 - CANOPY	GLT -JCT-121	GLT -SPK-031	1"
2AK	GLT -CON-0234	SPEAKER 32 - CANOPY	GLT -JCT-221	GLT -SPK-032	1"
3A	GLT -CON-0301	CAMERA 1	GLT -JCT-101	GLT CAM-001	1"
3B	GLT -CON-0302	CAMERA 2	GLT -JCT-201	GLT CAM-002	1"
3C	GLT -CON-0303	CAMERA 3	GLT -JCT-101	GLT CAM-003	1"
3D	GLT -CON-0304	CAMERA 4	GLT -JCT-201	GLT CAM-004	1"
3E	GLT -CON-0305	CAMERA 5	GLT -JCT-111	GLT CAM-005	1"
3F	GLT -CON-0306	CAMERA 6	GLT -JCT-211	GLT CAM-006	1"
3G	GLT -CON-0307	CAMERA 7	GLT -JCT-111	GLT CAM-007	1"
3H	GLT -CON-0308	CAMERA 8	GLT -JCT-211	GLT CAM-008	1"
ЗJ	GLT -CON-0309	CAMERA 9	GLT -JCT-120	GLT CAM-009	1"
3K	GLT -CON-0310	CAMERA 10	GLT -JCT-220	GLT CAM-010	1"
3L	GLT -CON-0311	CAMERA 11	GLT -JCT-120	GLT CAM-011	1"
3M	GLT -CON-0312	CAMERA 12	GLT -JCT-220	GLT CAM-012	1"
4A	GLT -CON-0401	KIOSK 1 (F)	GLT -SCC-001	GLT -KSK-001	2"
4B	GLT -CON-0402	KIOSK 2 (F)	GLT -SCC-001	GLT -KSK-002	2"
5A	GLT -CON-0501	VMS 1	GLT -JCT-101	GLT -VMS-001	1"
5B	GLT -CON-0502	VMS 2	GLT -JCT-201	GLT -VMS-002	1"
5C	GLT -CON-0503	VMS 3	GLT -JCT-101	GLT -VMS-003	1"
5D	GLT -CON-0504	VMS 4	GLT -JCT-201	GLT -VMS-004	1"
5E	GLT -CON-0505	VMS 5	GLT -JCT-111	GLT -VMS-005	1"
5F	GLT -CON-0506	VMS 6	GLT -JCT-211	GLT -VMS-006	1"
5G	GLT -CON-0507	VMS 7	GLT -JCT-111	GLT -VMS-007	1"
5H	GLT -CON-0508	VMS 8	GLT -JCT-211	GLT -VMS-008	1"
5J	GLT -CON-0509	VMS 9	GLT -JCT-120	GLT -VMS-009	1"
5K	GLT -CON-0510	VMS 10	GLT -JCT-220	GLT -VMS-010	1"
5L	GLT -CON-0511	VMS 11	GLT -JCT-120	GLT -VMS-011	1"
5M	GLT -CON-0512	VMS 12	GLT -JCT-220	GLT -VMS-012	1"
6A	GLT -CON-0601	TVM 1	GLT -SCC-001	GLT -TVM-001	2"
6B	GLT -CON-0602	TVM 2	GLT -SCC-001	GLT -TVM-002	2"
7A	GLT -CON-0701	VALIDATOR 1	GLT -SCC-001	GLT -RSV-001	1-1/2"
7B	GLT -CON-0702	VALIDATOR 2	GLT -SCC-001	GLT -RSV-002	1-1/2"
7C	GLT -CON-0703	VALIDATOR 3	GLT -SCC-001	GLT -RSV-003	1-1/2"
7D	GLT -CON-0704	VALIDATOR 4	GLT -SCC-001	GLT -RSV-004	1-1/2"
8A	GLT -CON-0801	EMERGENCY TELEPHONE 1 - PHONE	GLT -SCC-001	GLT -ETL-001	1-1/2"
8B	GLT -CON-0802	EMERGENCY TELEPHONE 1 - BEACON LIGHT 1	GLT -ETL-001	GLT -ETB-001	1"
8C	GLT -CON-0803	EMERGENCY TELEPHONE 1 - BEACON LIGHT 2	GLT -ETL-001	GLT -ETB-002	1"
9A	GLT -CON-0901	STATION ELECTRICAL CABINET	GLT -SCC-001	GLT -SEC-001	2"

FROM

GLT -JCT-112

то

GLT -SPK-025

CONDUIT SIZE

1"

DESCRIPTION/USE

SPEAKER 25 - CANOPY

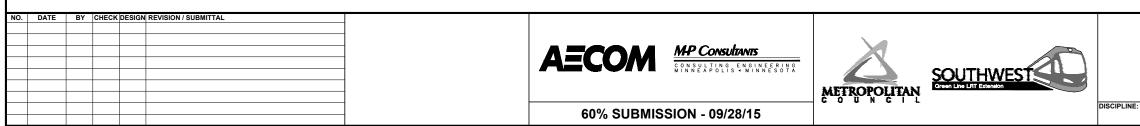
DEVICE ID

GLT -CON-0227

CONDUIT NO.

2AC

COMMUNICATIONS CONDUIT SCHEDULE



CIVIL WEST - VOLUME 11	HEET							
GOLDEN TRIANGLE STATION								
COMMUNICATIONS	OF							
CONDUIT SCHEDULE (2 OF 2)								
ELECTRICAL W2-GLT-ELE-SCH-462	173							

CODE SUMMARY - CENTER PLATFORM CITY WEST STATION

CODE REFERENCES

MINNESOTA STATE BUILDING CODE 2015 NFPA 130 – STANDARD FOR FIXED GUIDEWAY TRANSIT 2014 AND PASSENGER RAIL SYSTEMS

IBC REVIEW

A. <u>DESCRIPTION</u> LOCATION: EDEN PRAIRIE, MN

THE LIGHT RAIL TRANSIT STATION IS A PARTIALLY CANOPIED PLATFORM AREA. IT CONSISTS OF A PLATFORM 270' LONG BY 21'-4" ACCESSED BY A SLOPED WALK AT EACH END OF PLATFORM. PLATFORM IS OPEN TO EXTERIOR ON ALL FOUR SIDES.

TYPICAL PLATFORM AREA: 5760 SQUARE FEET (GROSS AREA) 5416 SQUARE FEET (NET AREA AFTER STRUCTURAL ELEMENTS, FIXTURES AND PERMANENTLY INSTALLED FURNISHINGS ARE REMOVED)

CANOPY COVERAGE AREA AT PLATFORM: = 3169 SQUARE FEET 731 SQUARE FEET (LOWER @ 36'-8" X 13'-8" AND UPPER @ 34'-6" X 6'-8") WEST CANOPY 1707 SQUARE FEET (LOWER @ 84'-8" X 13'-8" AND UPPER @ 82'-6" X 6'-8") MIDDLE CANOPY 731 SQUARE FEET (LOWER @ 36'-8" X 13'-8" AND UPPER @ 34'-6" X 6'-8") EAST CANOPY

B. <u>OCCUPANCY CLASSIFICATION</u> (IBC 2015 SECTION 303.1)

WAITING AREAS IN TRANSPORTATION TERMINALS: GROUP 'A' DIVISION 3 (15 S.F. PER PERSON)

C. OCCUPANCY SEPARATIONS

NONE ARE REQUIRED

D. <u>TYPE OF CONSTRUCTION</u> (IBC 2015 TABLE 601)

TYPE IIB CONSTRUCTION

E. ALLOWABLE BUILDING AREA AND BUILDING HEIGHT (IBC 2015 TABLE 503)

2 STORIES AT 9,500 SQUARE FEET PER STORY

F. IBC EXITING SUMMARY

NO. OF OCCUPANTS = 5420 S.F. / 15 S.F./OCC = 361 REQUIRED EGRESS WIDTH = 361 X 0.2 = 72" (PER 1005.3.2) WIDTH PROVIDED = 2 RAMPS AT 145" = 290" 2 MEANS OF EGRESS PROVIDED

PLATFORM COLOR AND						PLATFORM	COLOR AND FI	NISH SCHED	DULE			
FINISH SCHEDULE	TYPE	STATION	STRUCTURAL STEEL PAINT COLOR	PLATFORM CONC COLOR	PLATFORM CONC FINISH	CONC WALL COLOR	CONC WALL FINISH	RAILING INFILL MATERIAL	ALUM WDW FRAME FINISH	EXTERIOR LINEAR METAL CEILING SOFFIT AND FASCIA FINISH	ALUM COMP CANOPY SOFFIT AND FASCIA COLOR	ARCH WOVEN MESH
SEE STATION SPECIFICATIONS FOR MATERIAL IDENTIFICATION	CENTER	CITY WEST STATION	PPG 518-6 KNIGHT'S ARMOR	CEMSTONE SPLIT ROCK	TBD	CEMSTONE SPLIT ROCK	TBD	SS CABLE	CLEAR ANODIZED	HUNTER DOUGLAS WOODWRIGHT 8438 DARK OAK	ALUCOBOND WEST PEWTER MICA COOL	TBD

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NFPA 130 EXITING SUMMARY

FURTHER ANALYSIS REQUIRED

ARCHITECTURE	

W2-CWS-ARC-COD-010

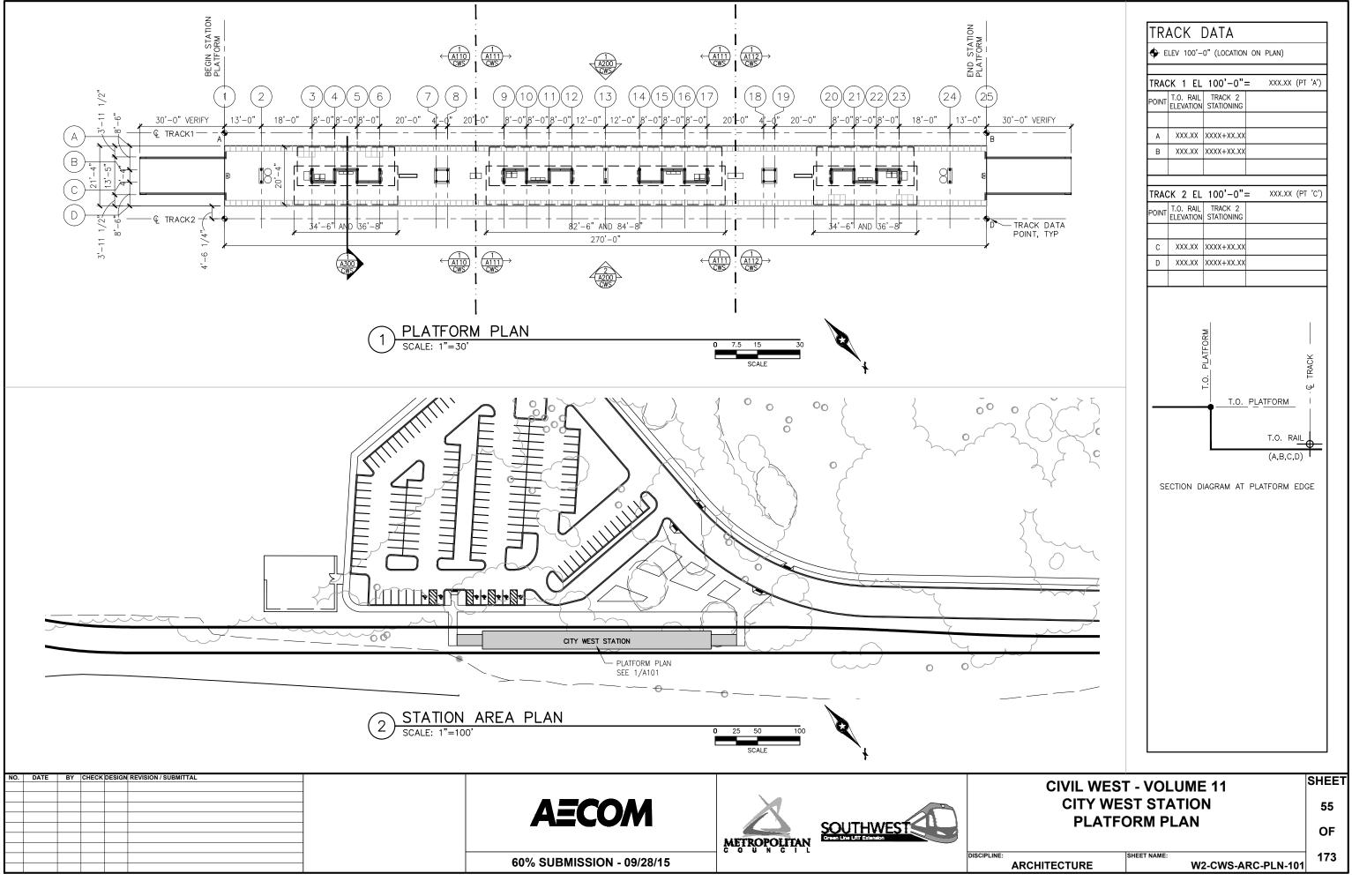
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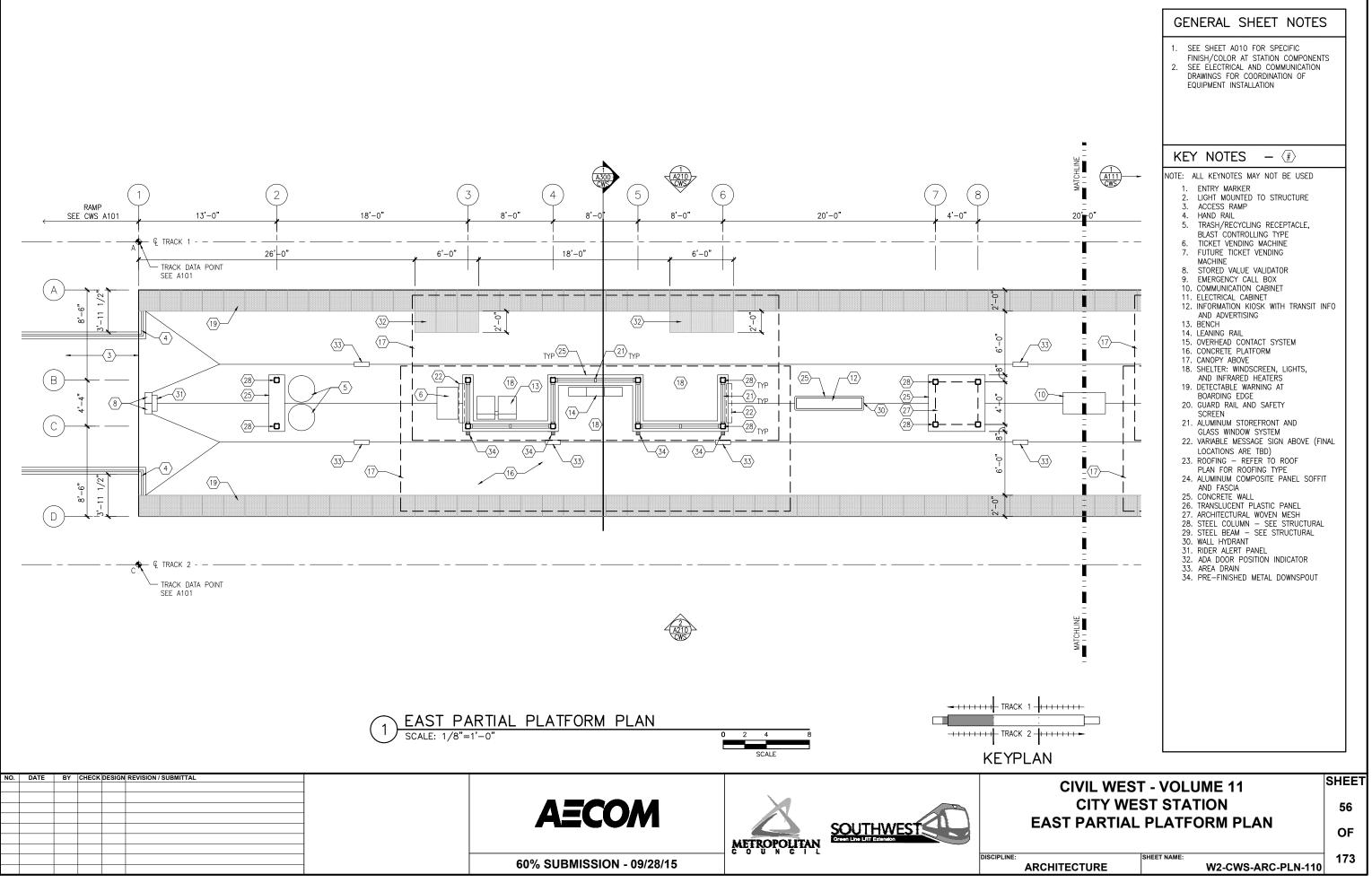
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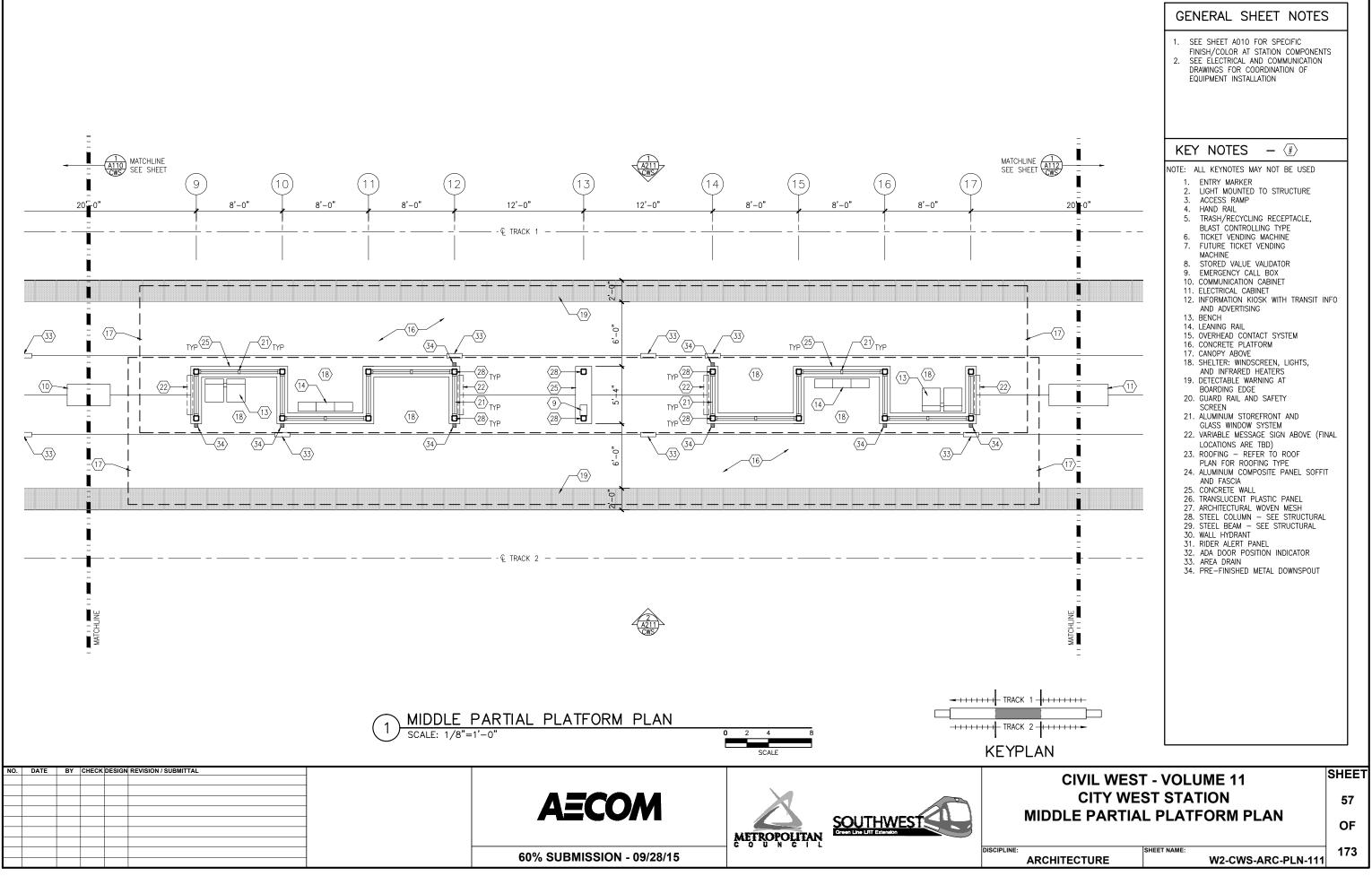
CIVIL WEST - VOLUME 11 CITY WEST STATION CODE SUMMARY / FINISH SCHEDULE

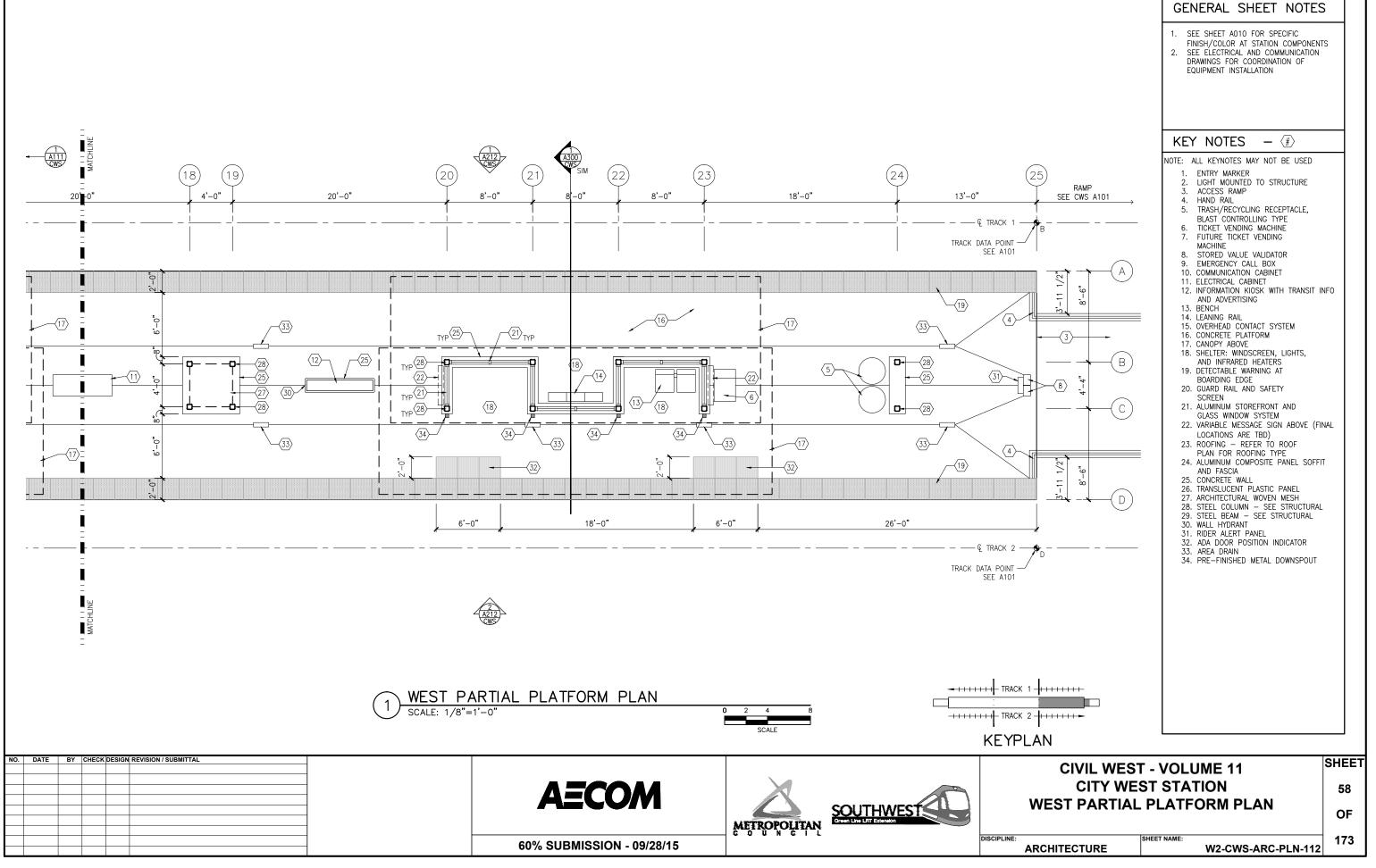
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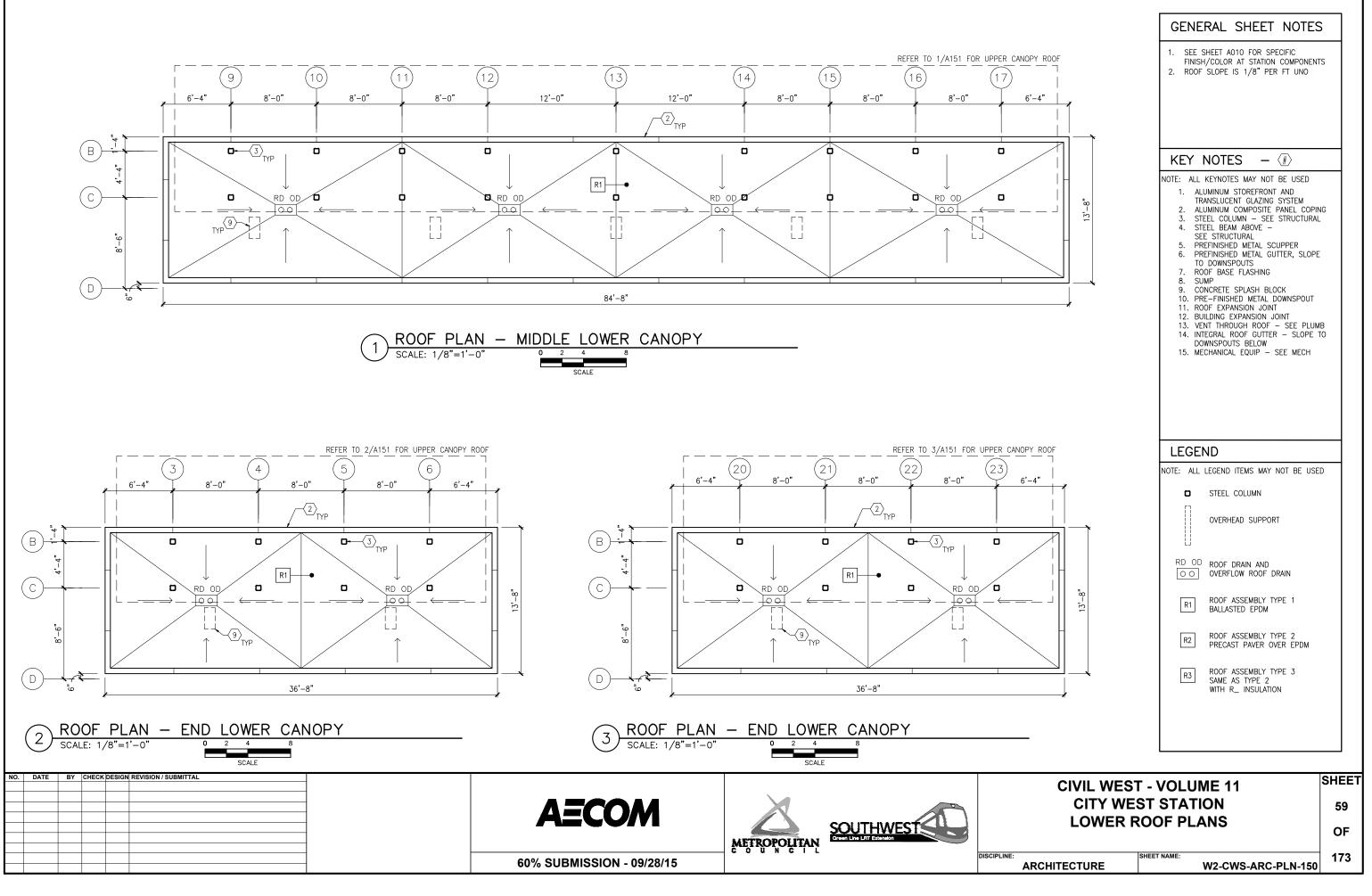


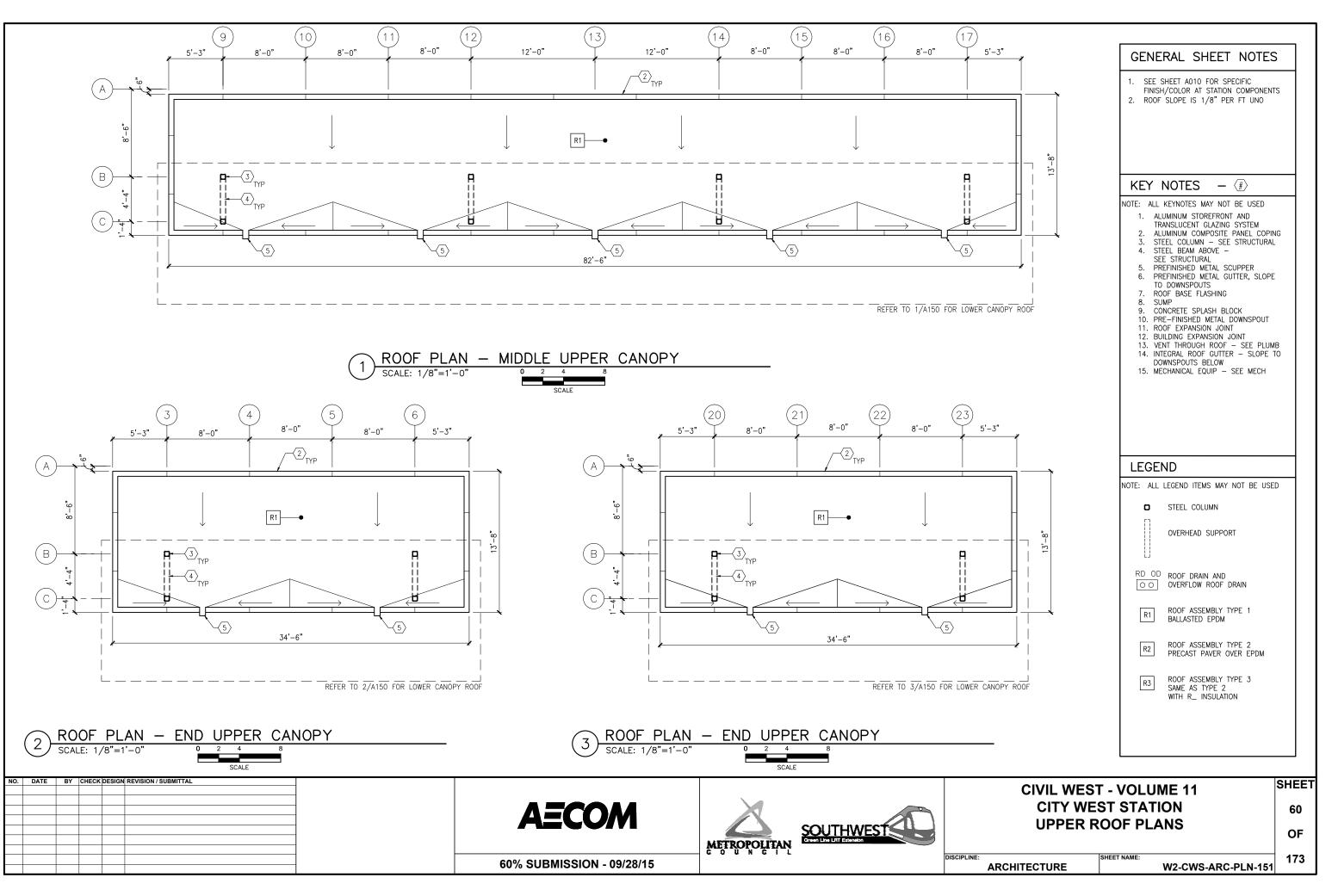


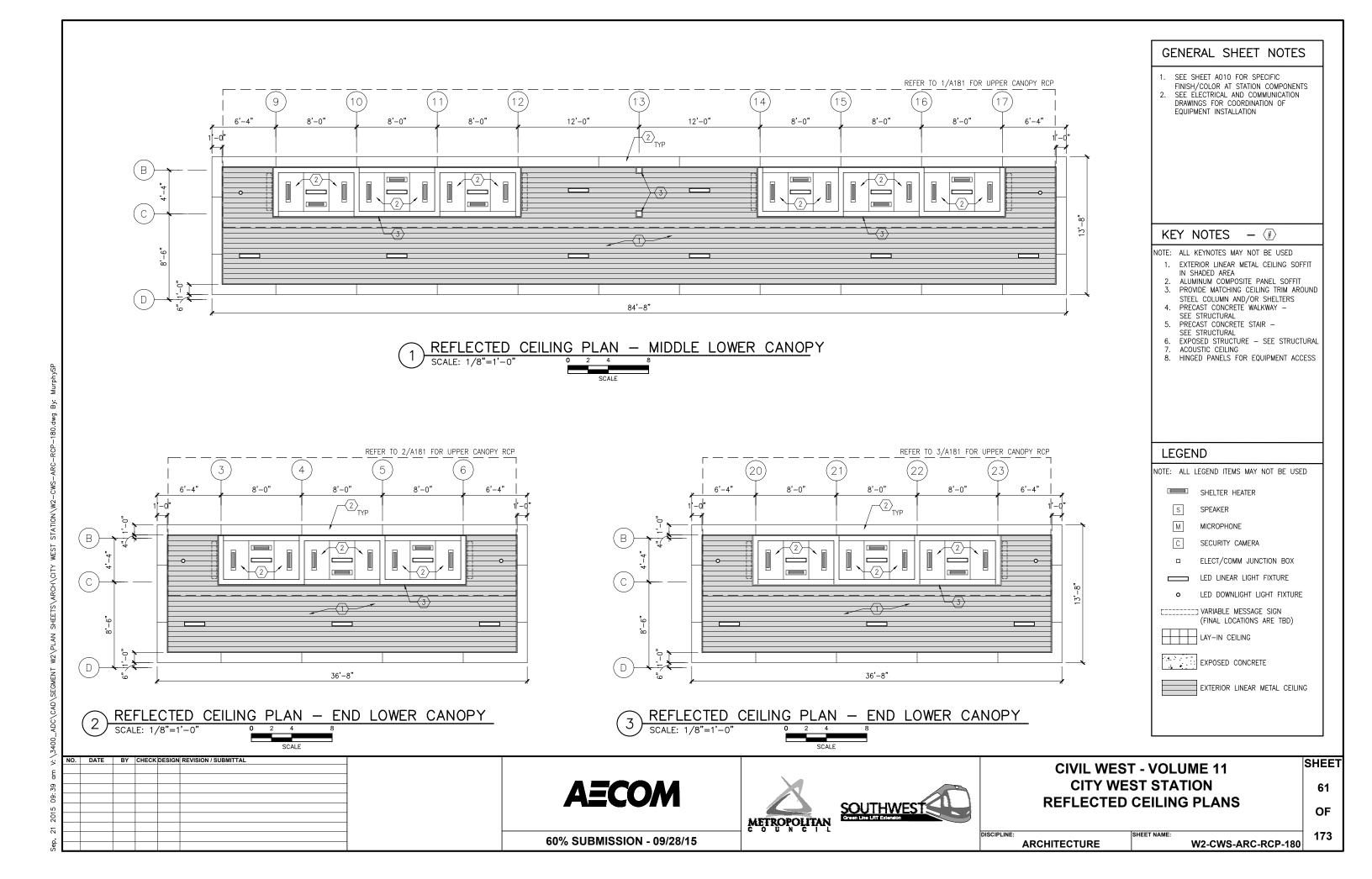


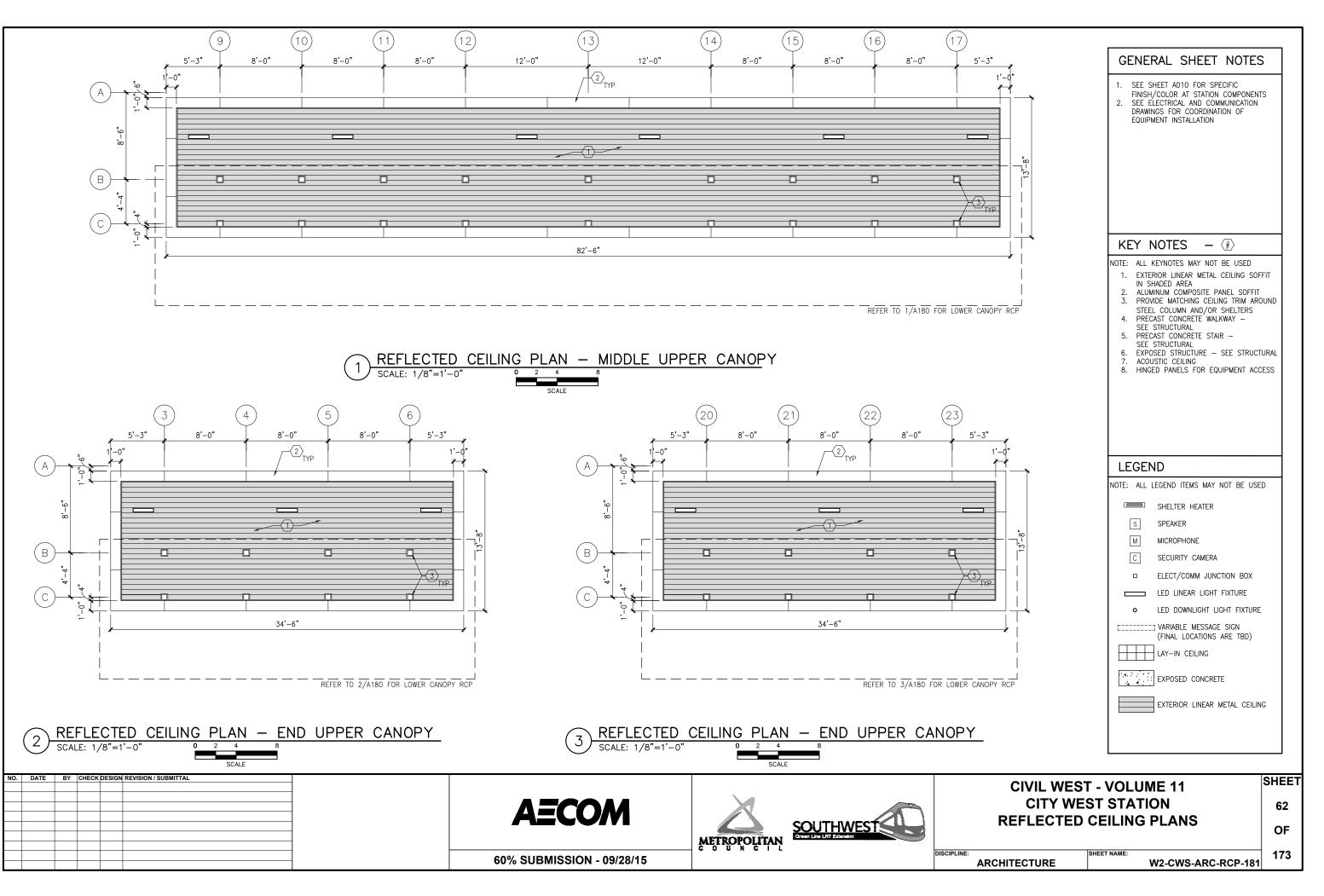


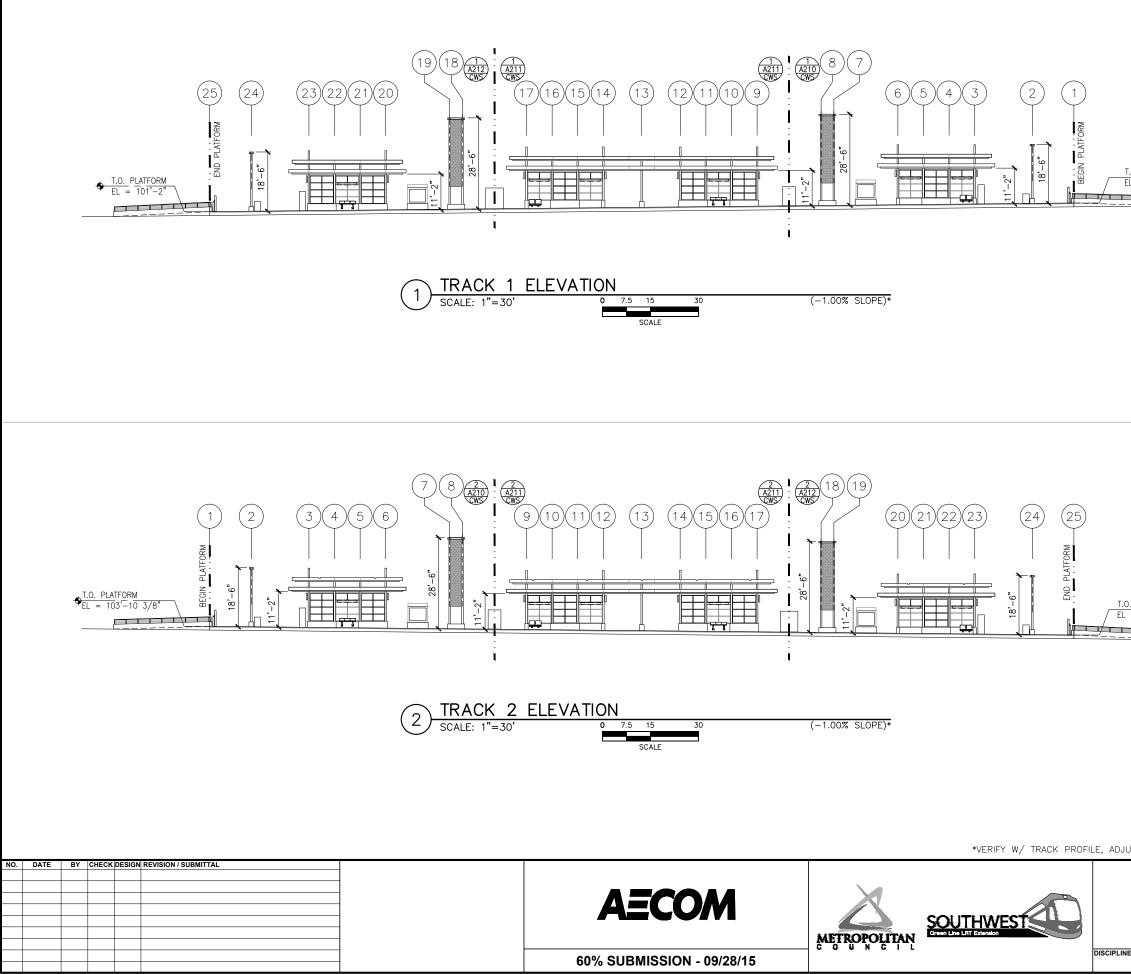
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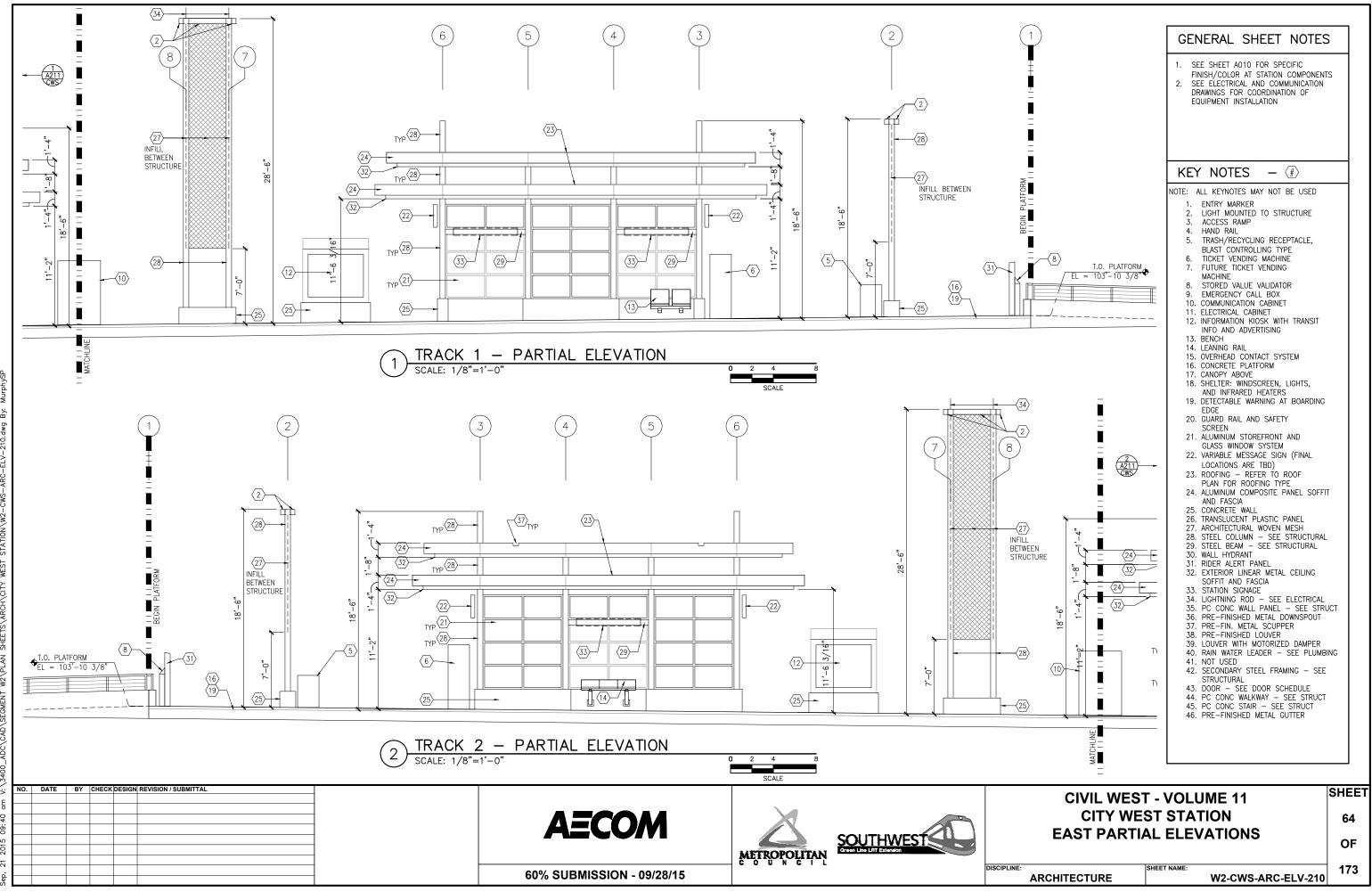




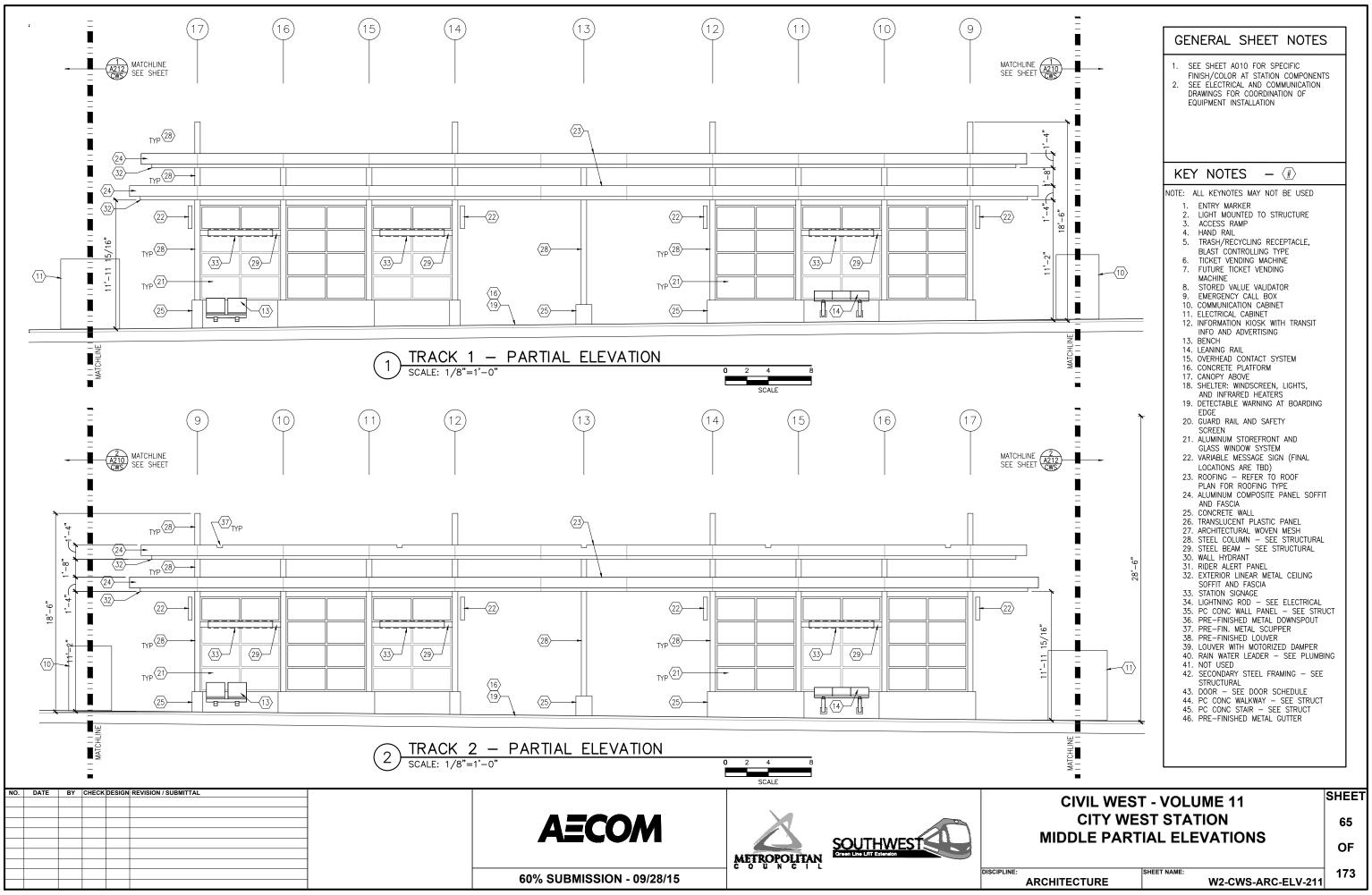




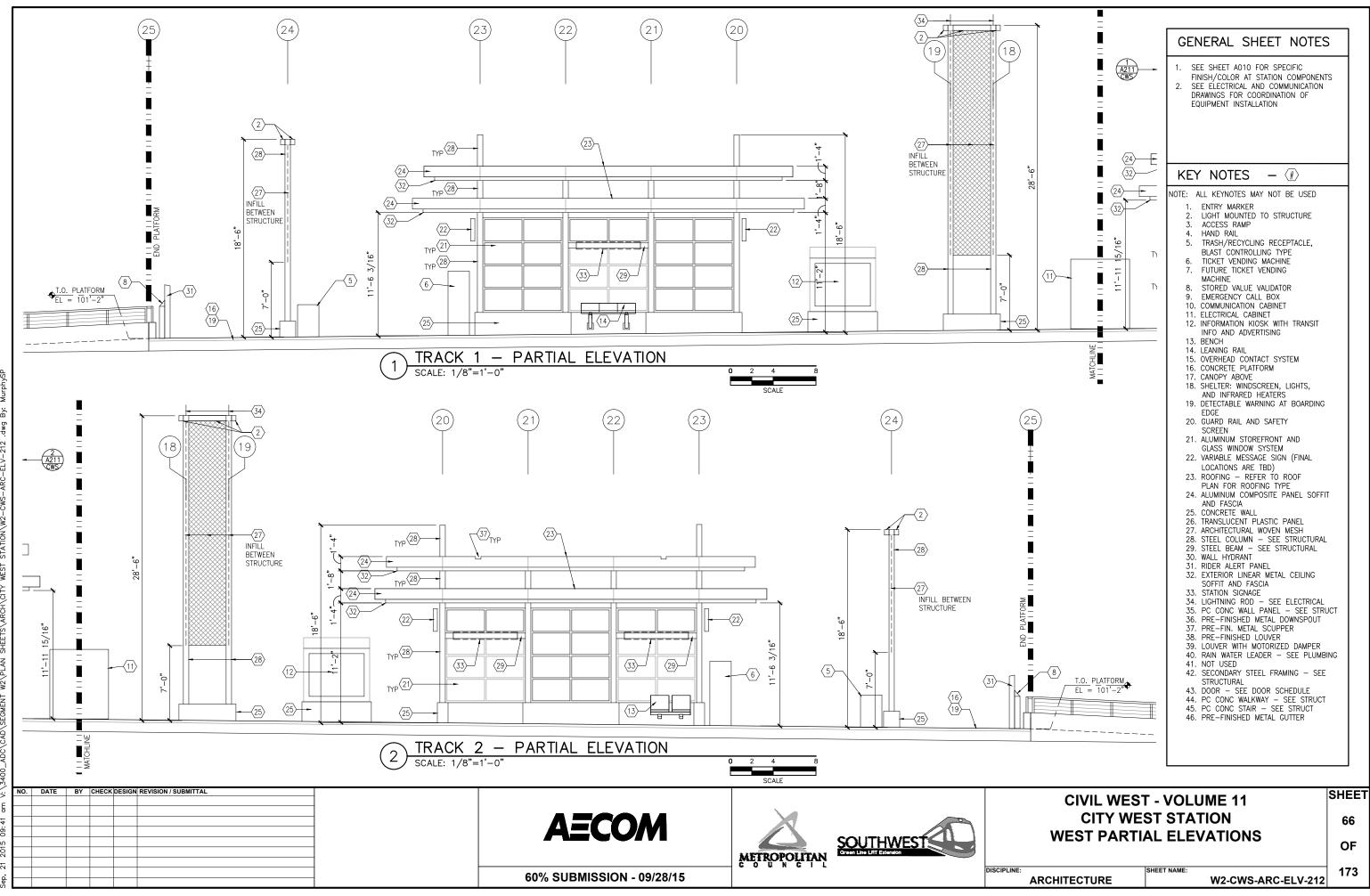
	GENERAL SHEET NOTES	5
	SEE SHEET A010 FOR SPECIFIC FINISH/COLOR AT STATION COMPONENT SEE ELECTRICAL AND COMMUNICATION DRAWINGS FOR COORDINATION OF EQUIPMENT INSTALLATION	S
T.O. PLATFORM EL = 103'-10 3/8"		
0. PLATFORM - = 101'-2"		
JUST ELEVATIONS ACCORDINGLY		
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	ST STATION /ATIONS	63
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	SHEET NAME: W2-CWS-ARC-ELV-200	173



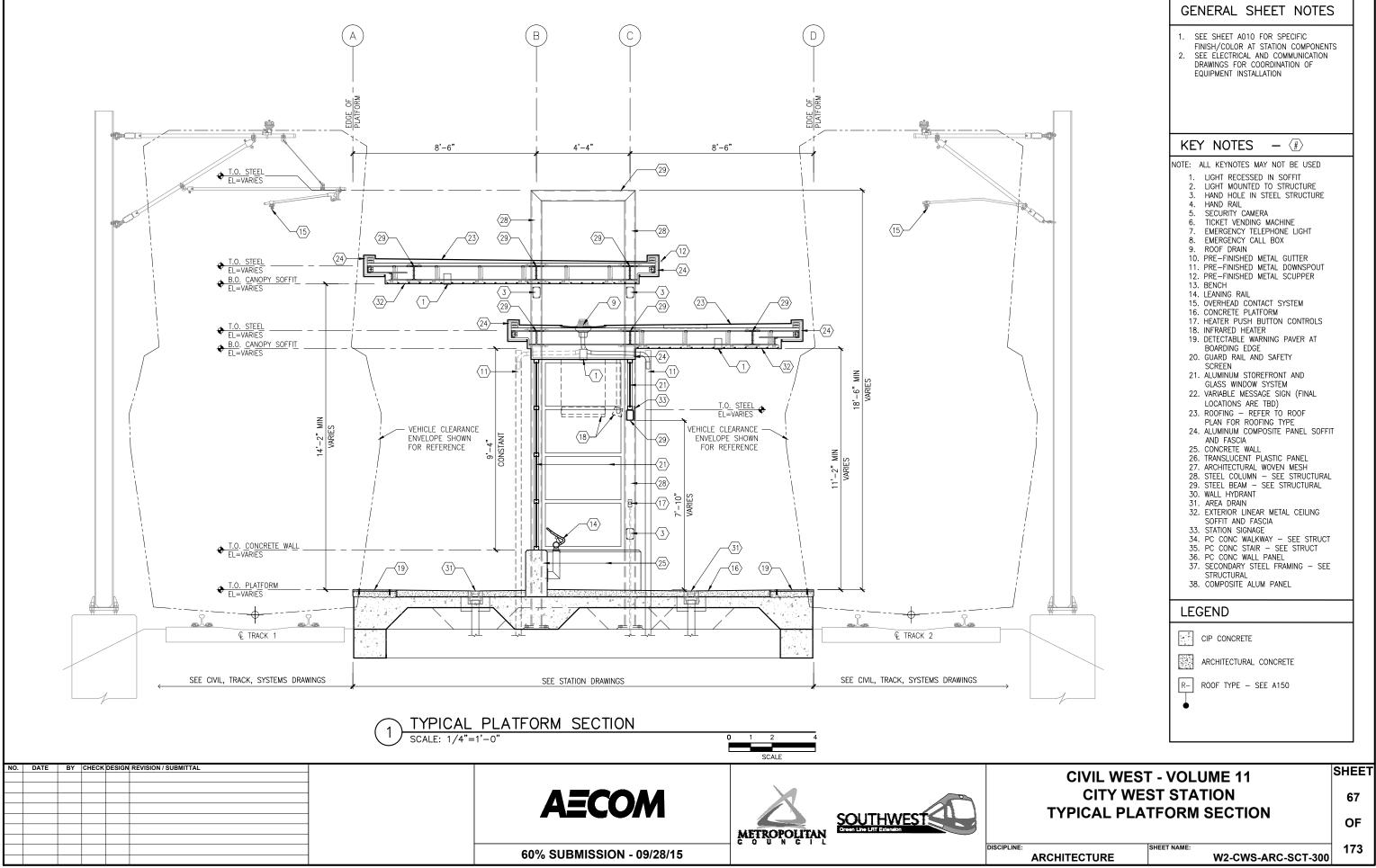
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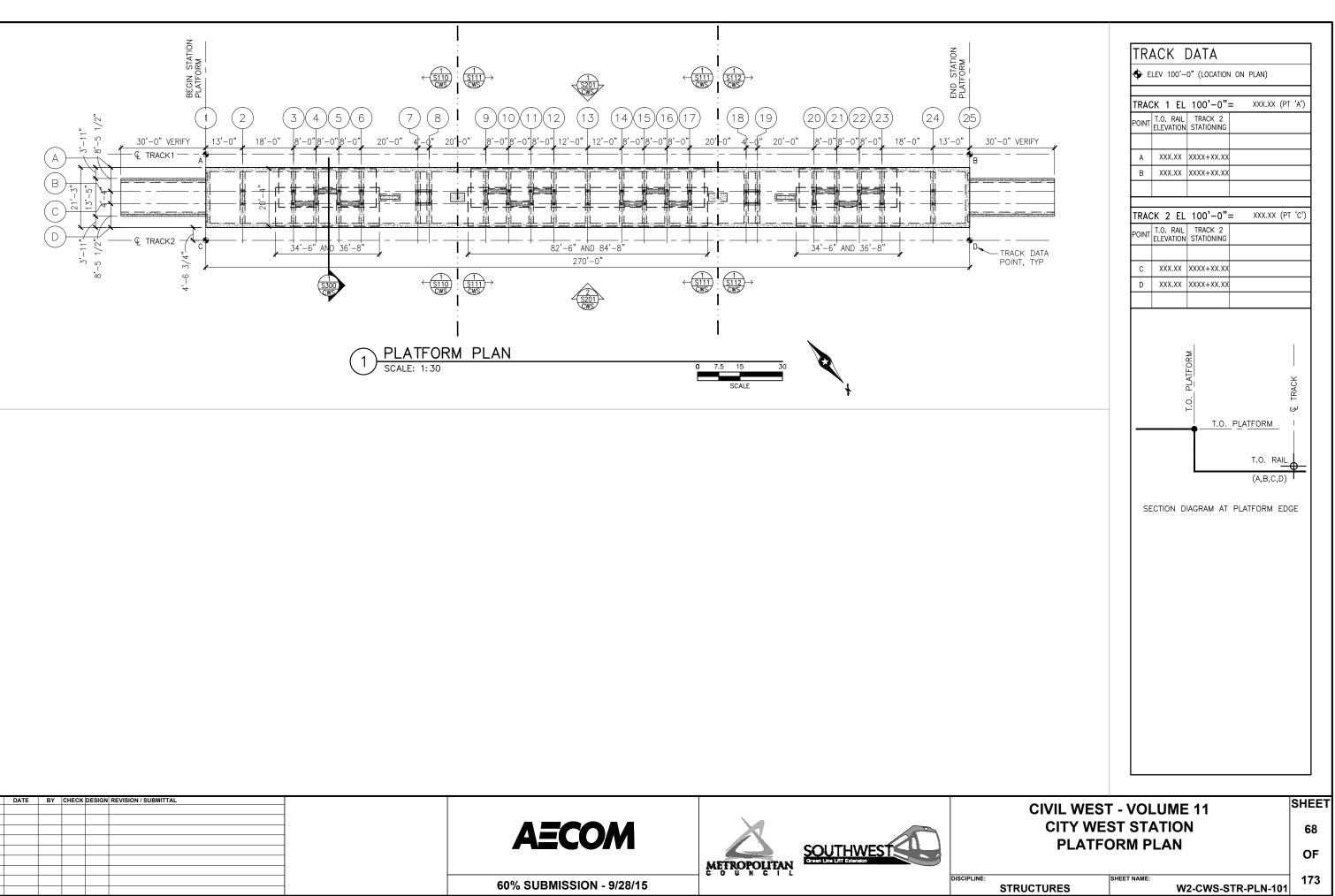


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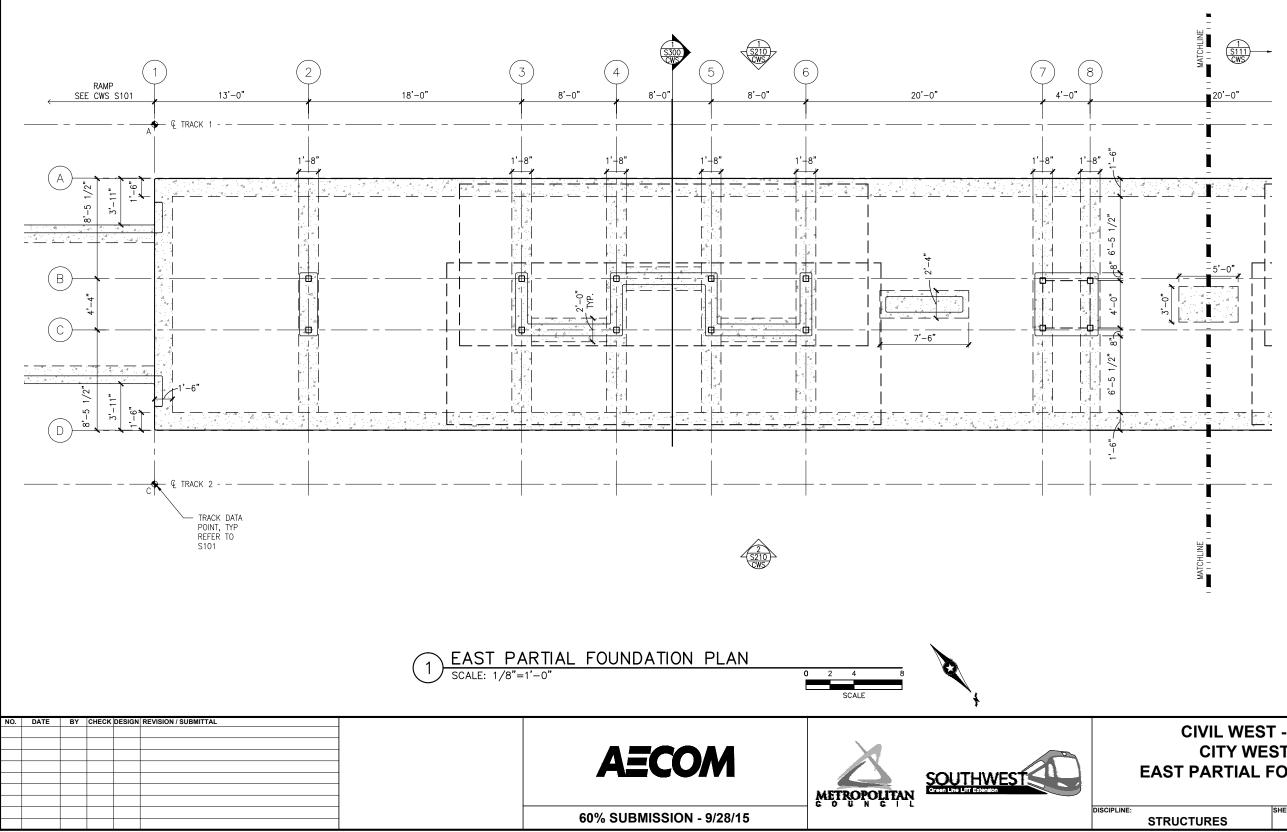


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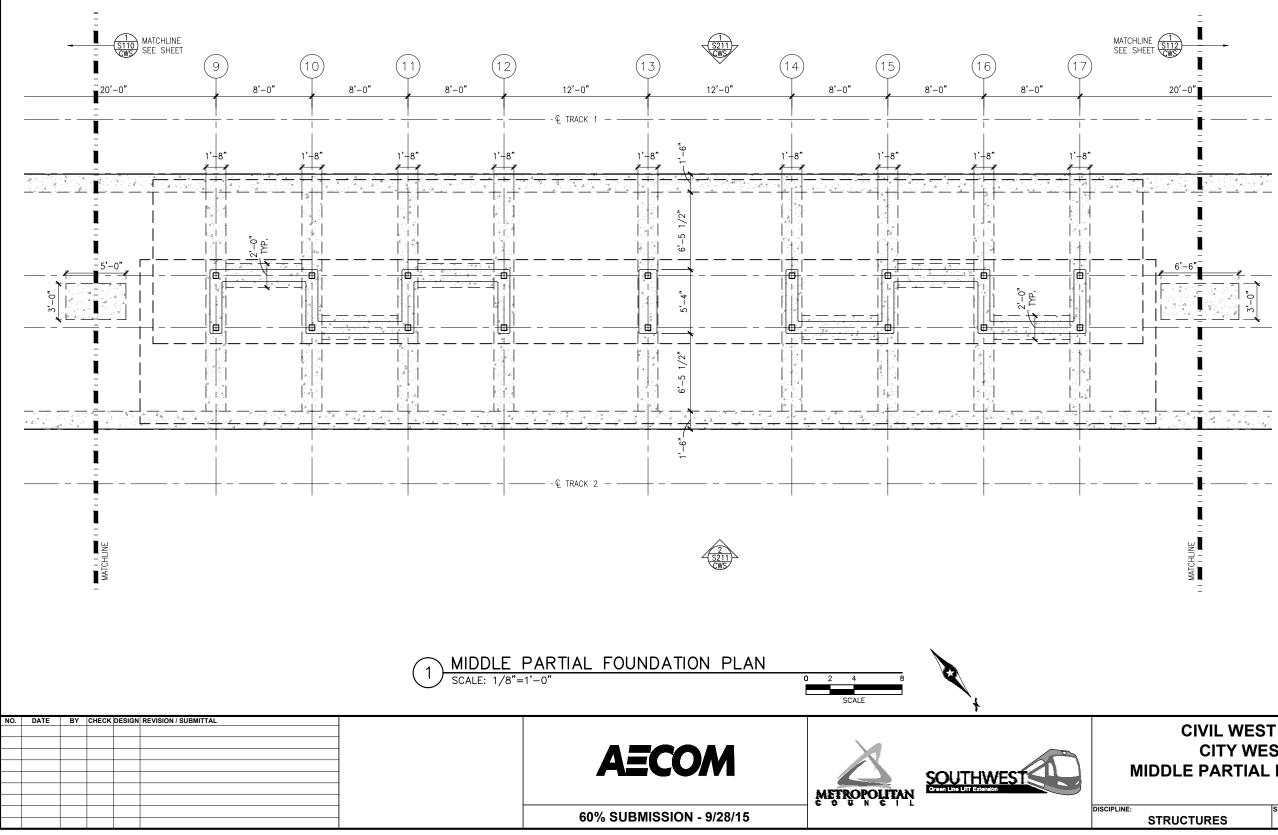
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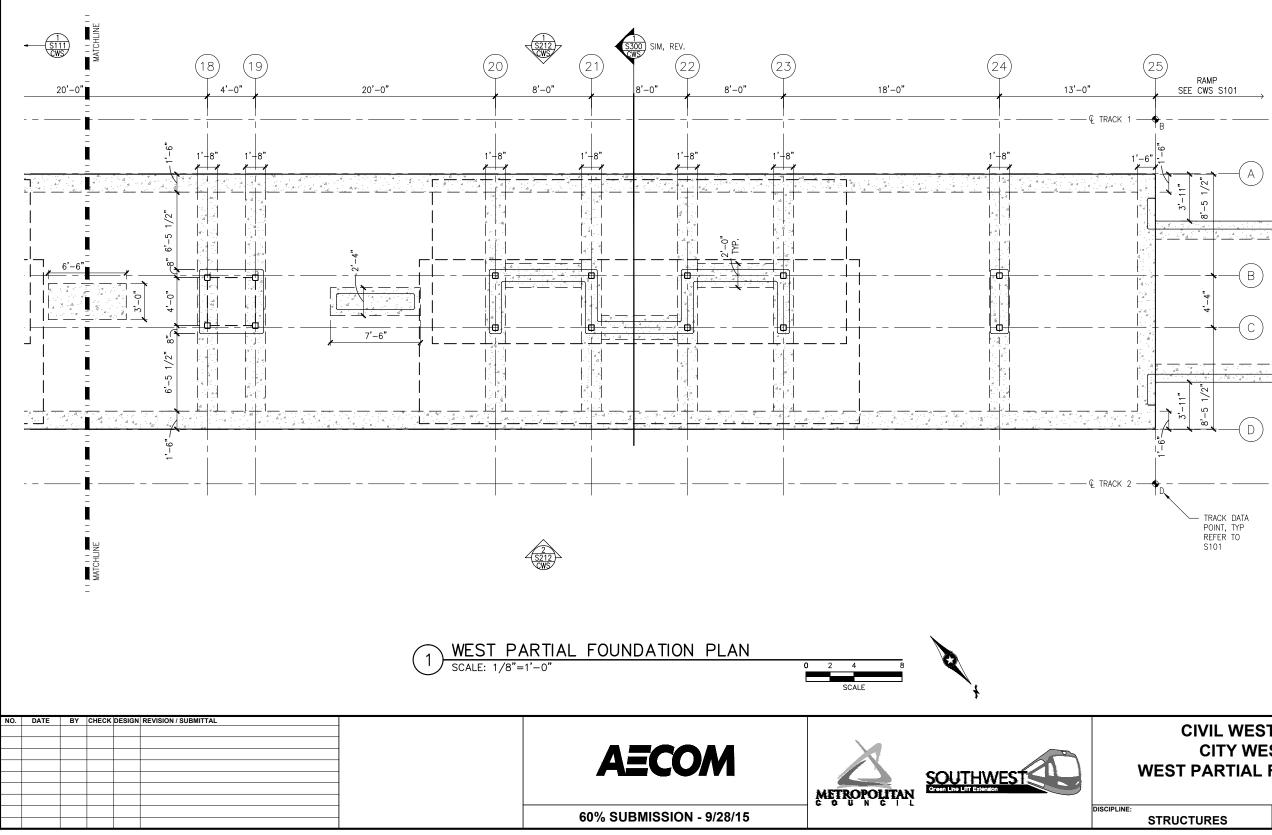
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CIVIL WEST - VOLUME 11		
CITY WEST STATION		
EAST PARTIAL FOUNDATION PLAN		
STRUCTURES	SHEET NAME: W2-CWS-STR-PLN-110	173

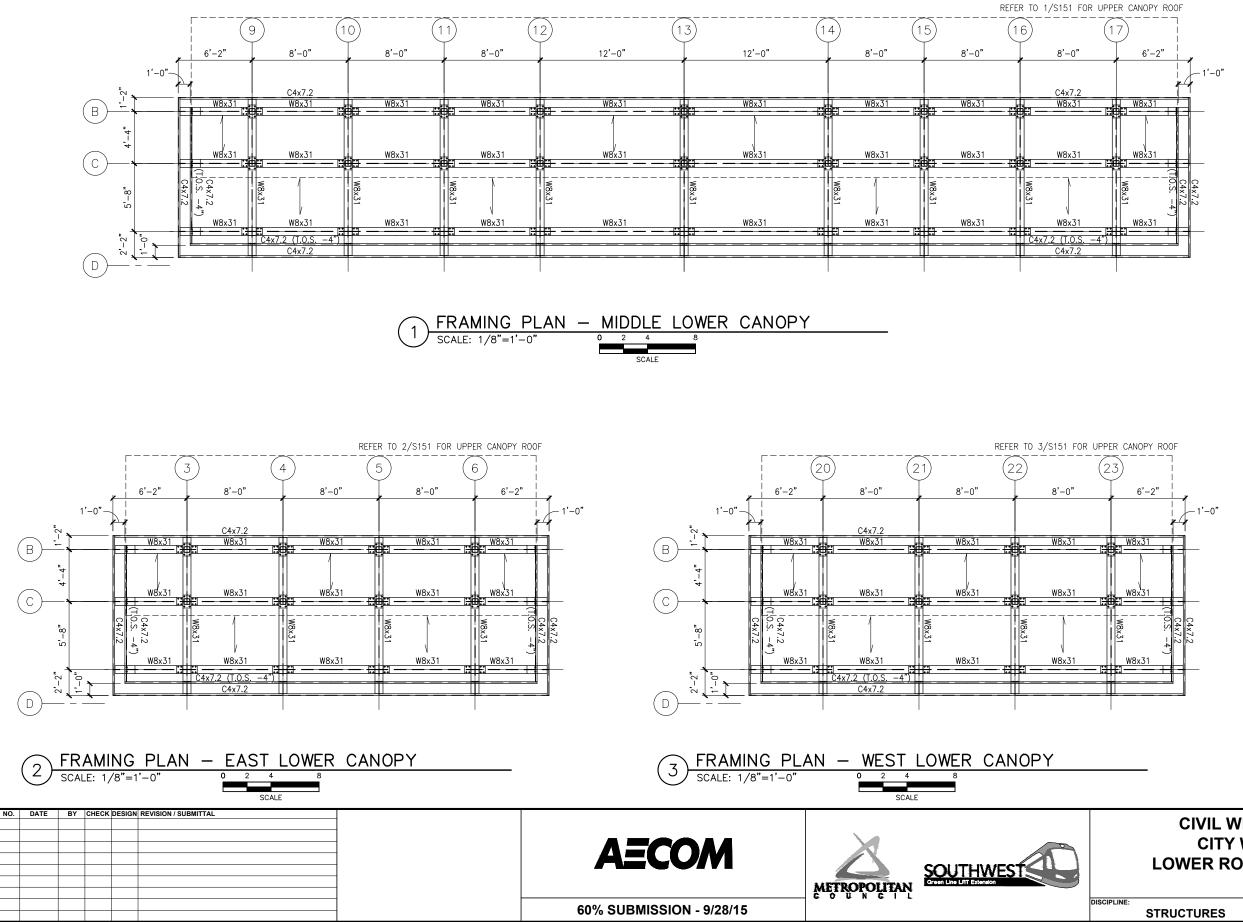


CIVIL WEST - VOLUME 11		
CITY WES	T STATION	70
MIDDLE PARTIAL F	FOUNDATION PLAN	OF
	HEET NAME: W2-CWS-STR-PLN-111	173

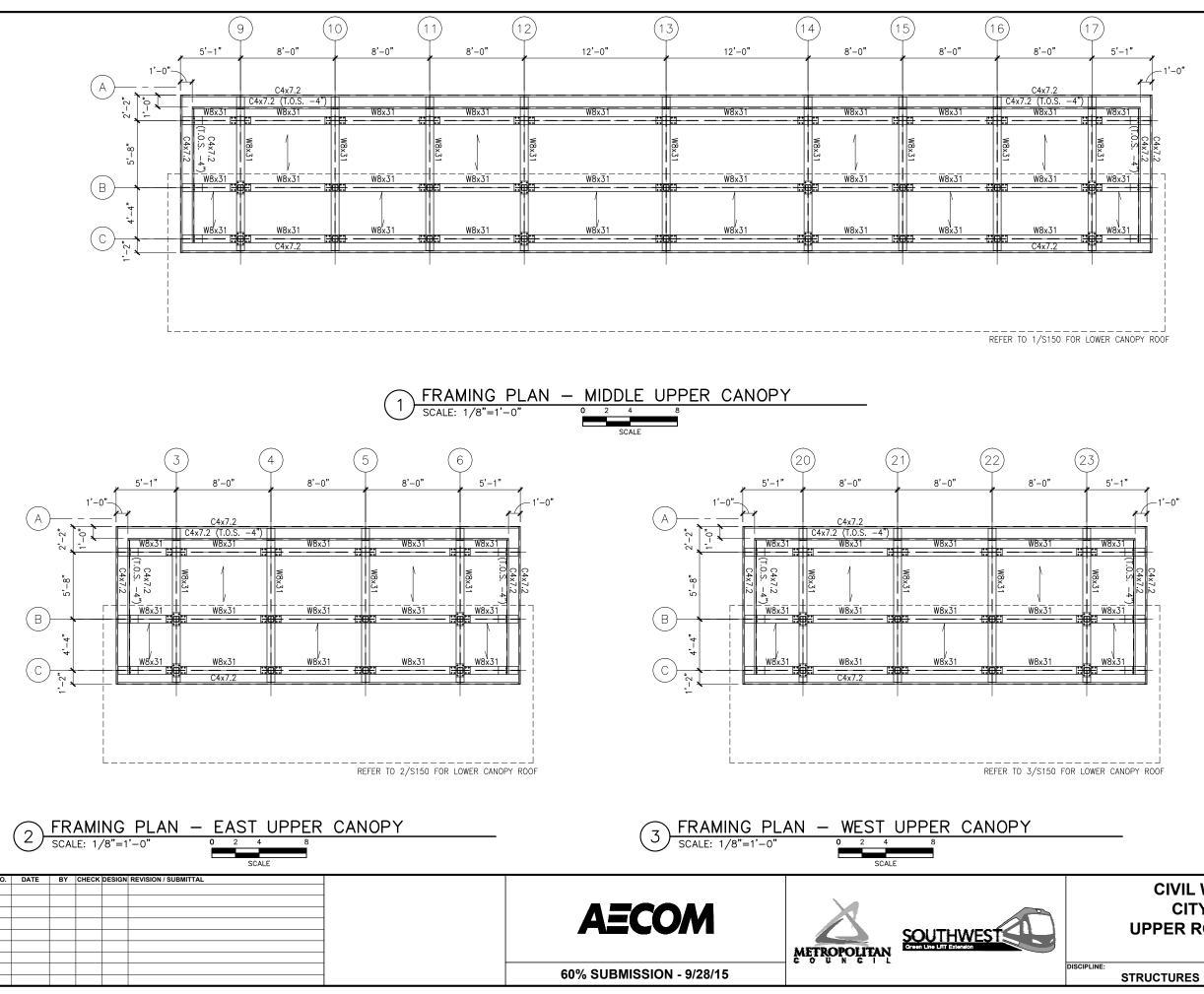


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CIVIL WEST - VOLUME 11		
CITY WEST STATION		
WEST PARTIAL FOUNDATION PLAN		
	SHEET NAME:	173
STRUCTURES	W2-CWS-STR-PLN-112	

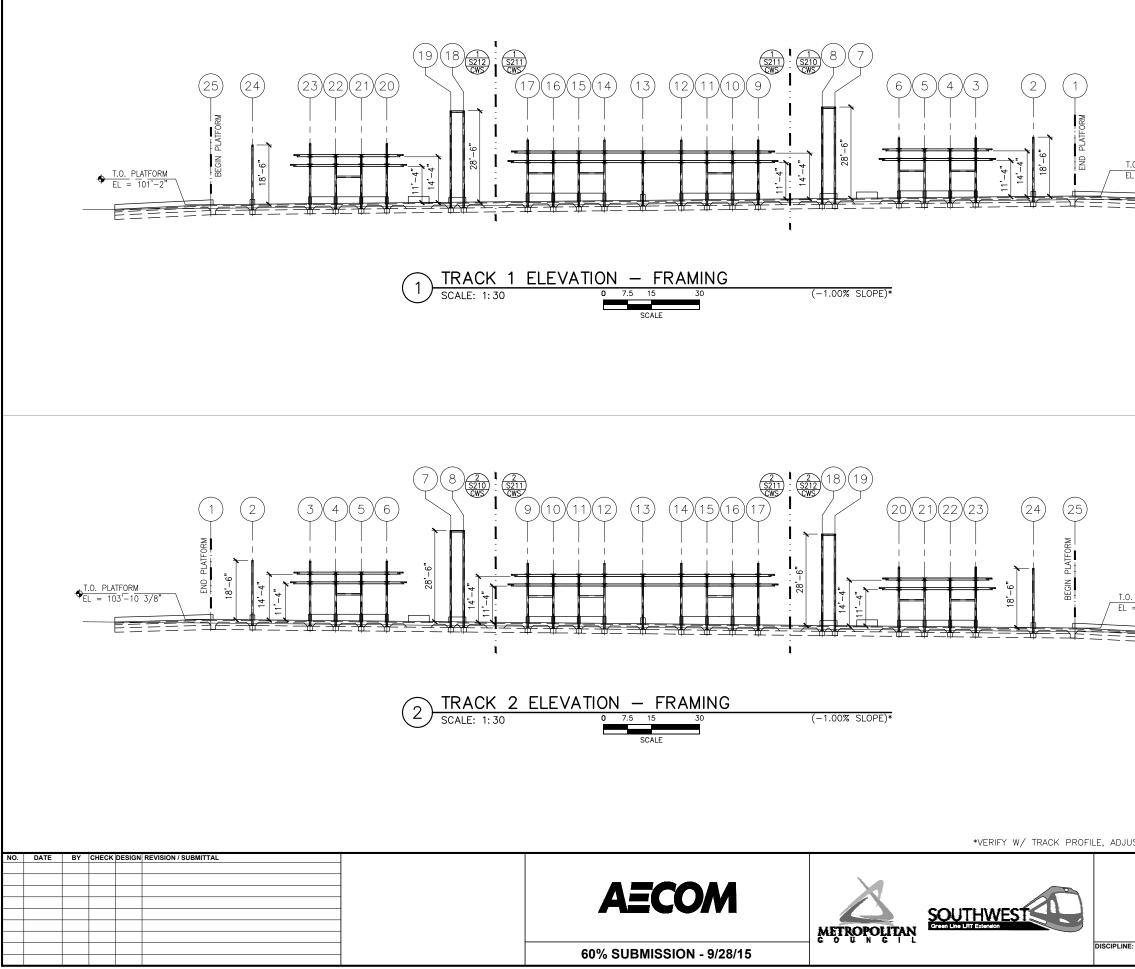


CIVIL WEST - VOLUME 11 CITY WEST STATION LOWER ROOF FRAMING PLANS		
STRUCTURES	SHEET NAME: W2-CWS-STR-PLN-150	173



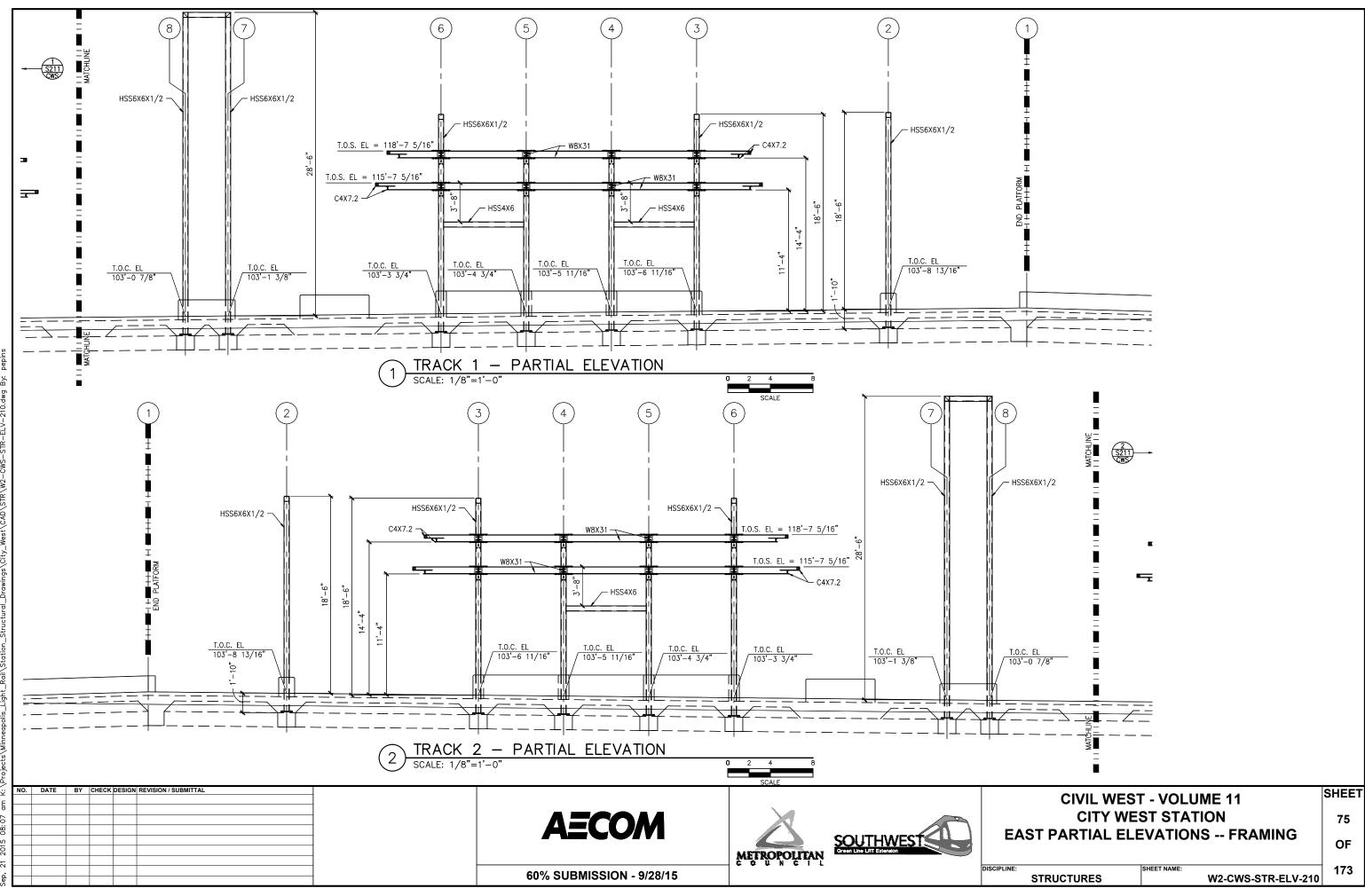
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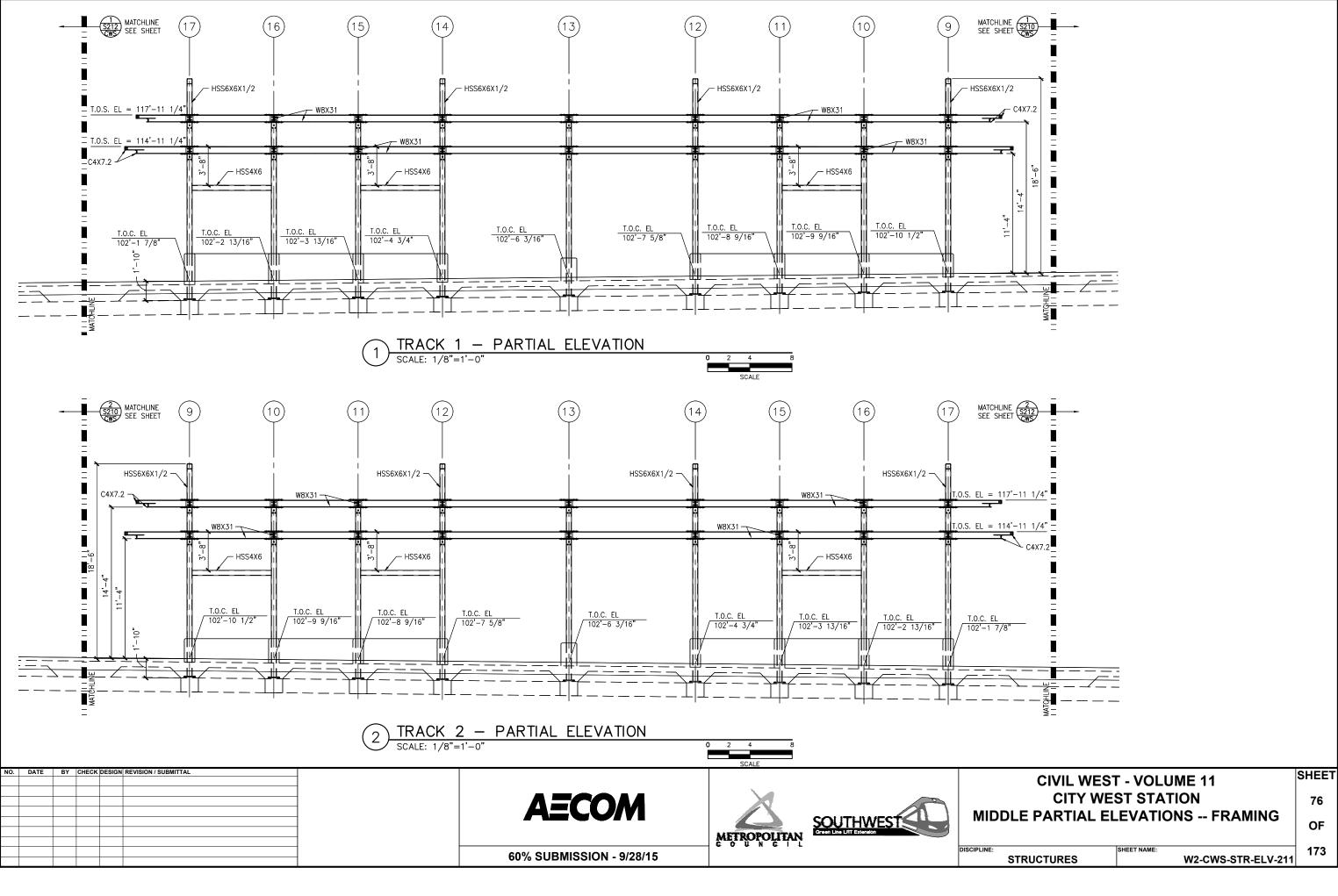
CIVIL WEST - VOLUME 11		SHEET
CITY WEST STATION		
UPPER ROOF FRAMING PLANS		
	SHEET NAME:	470
STRUCTURES	W2-CWS-STR-PLN-151	173

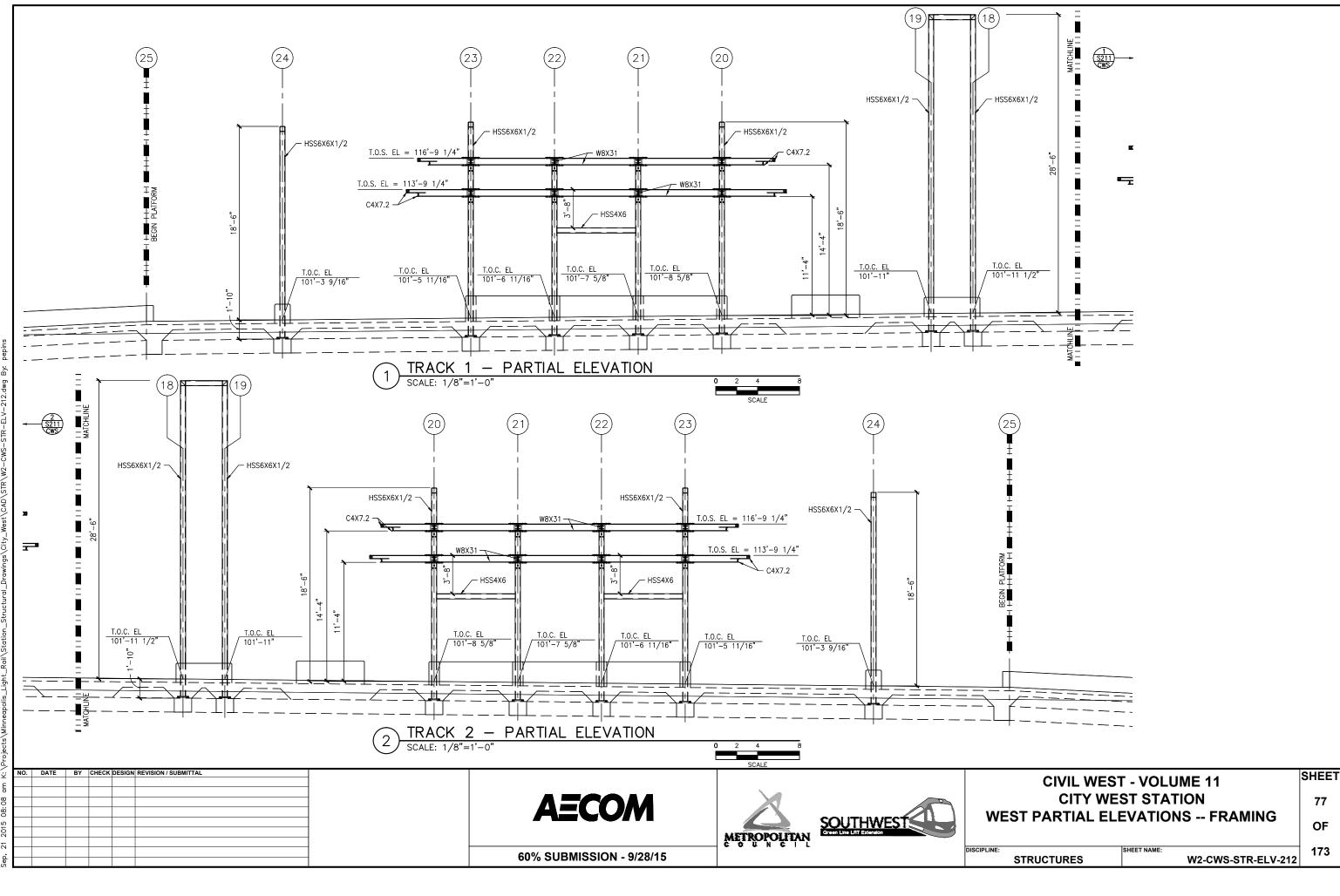


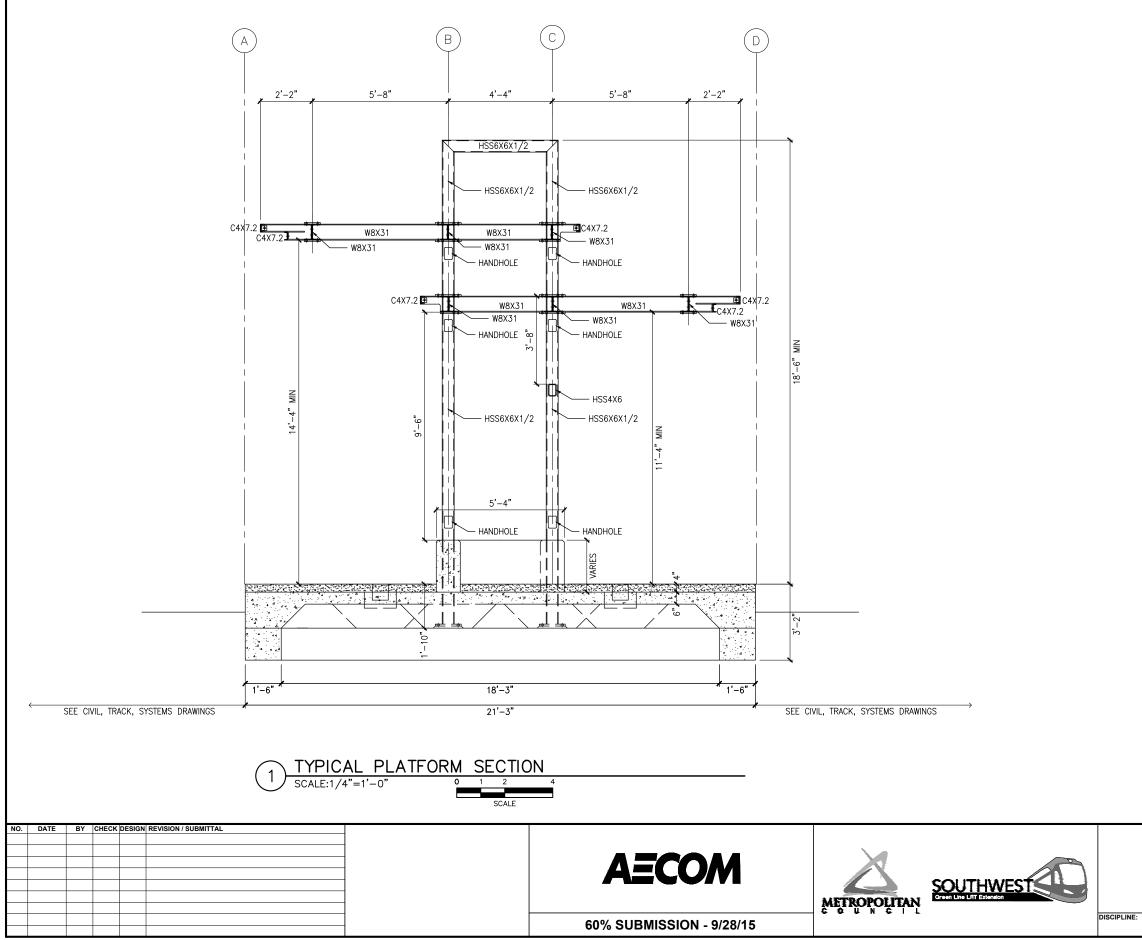
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ELEVATIONS FRAMING					
	SHEET NAME: W2-CWS-STR-ELV-201	173			

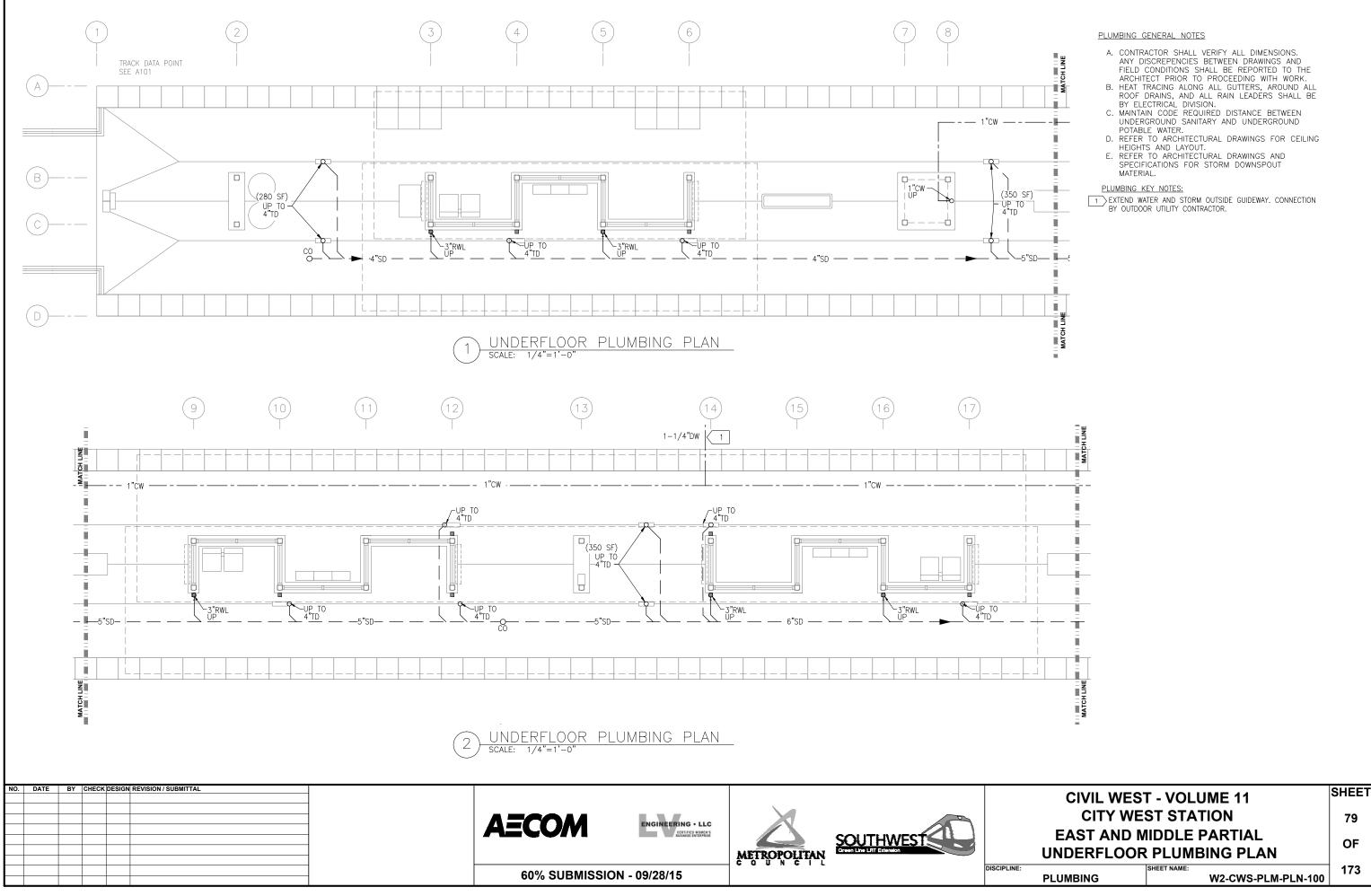


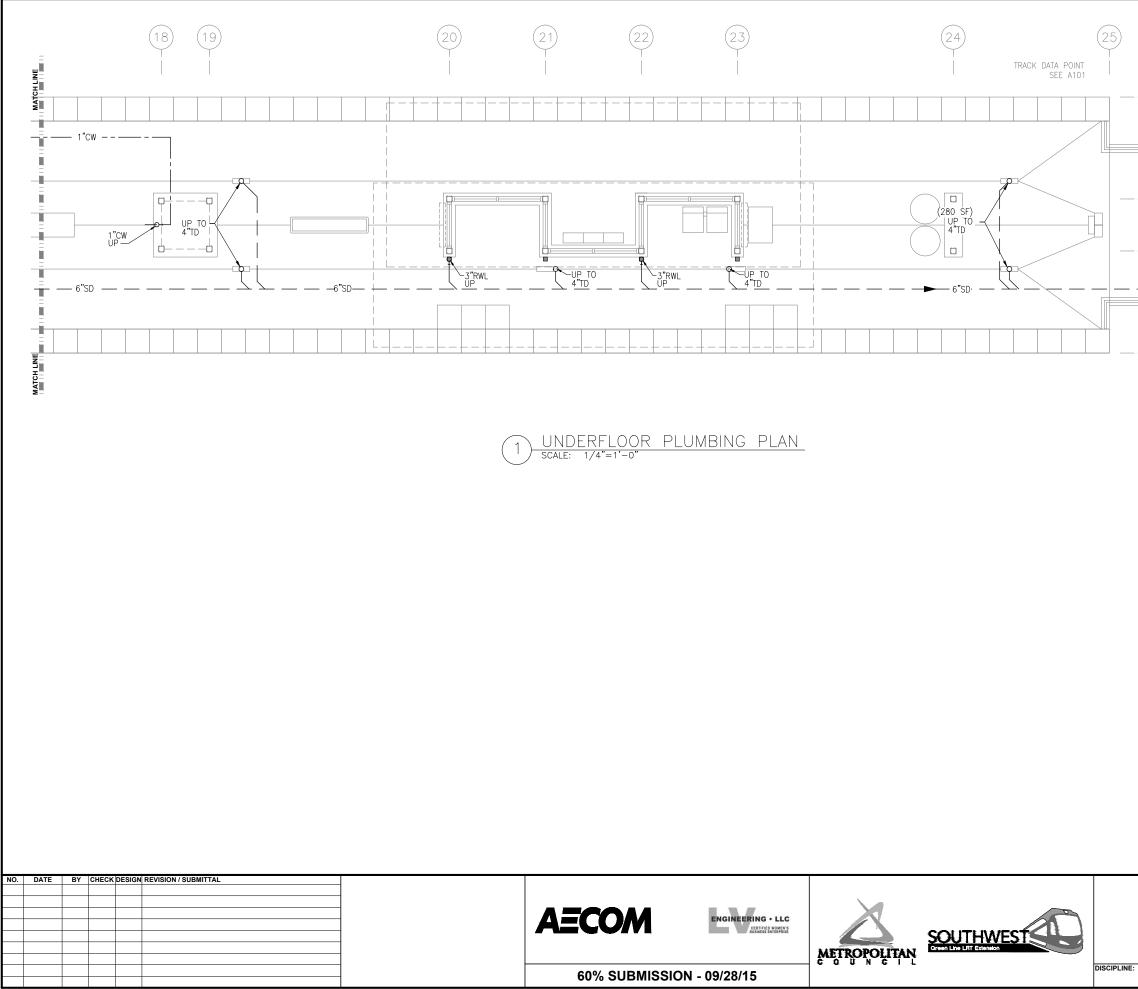






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TYPICAL PLATFORM SECTION			
STRUCTURES	SHEET NAME: W2-CWS-STR-SCT-300	173	





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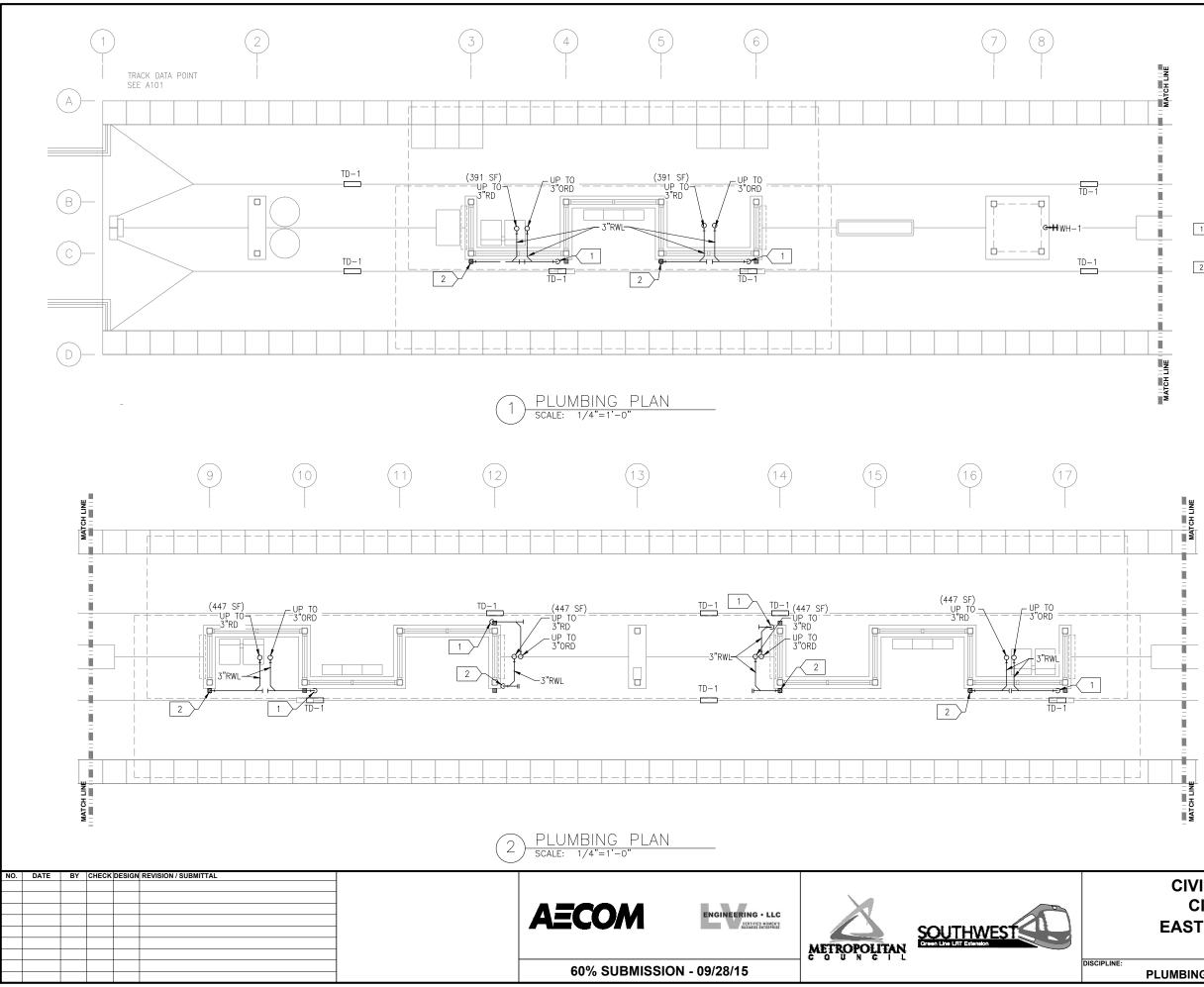
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	 UMBING GENERAL NOTES A. CONTRACTOR SHALL VERIFY A ANY DISCREPENCIES BETWEEN FIELD CONDITIONS SHALL BE ARCHITECT PRIOR TO PROCED B. HEAT TRACING ALONG ALL G ROOF DRAINS, AND ALL RAIN BY ELECTRICAL DIVISION. C. MAINTAIN CODE REQUIRED DIS UNDERGROUND SANITARY AND POTABLE WATER. D. REFER TO ARCHITECTURAL DF SPECIFICATIONS FOR STORM MATERIAL. LUMBING KEY NOTES: EXTEND WATER AND STORM OUTSIDE BY OUTDOOR UTILITY CONTRACTOR. 	N DRAWINGS AND REPORTED TO THE EDING WITH WORK. JTTERS, AROUND ALL I LEADERS SHALL BE STANCE BETWEEN D UNDERGROUND RAWINGS FOR CEILING RAWINGS AND DOWNSPOUT

CIVIL WEST - VOLUME 11
CITY WEST STATION
WEST PARTIAL UNDERFLOOR
PLUMBING PLAN
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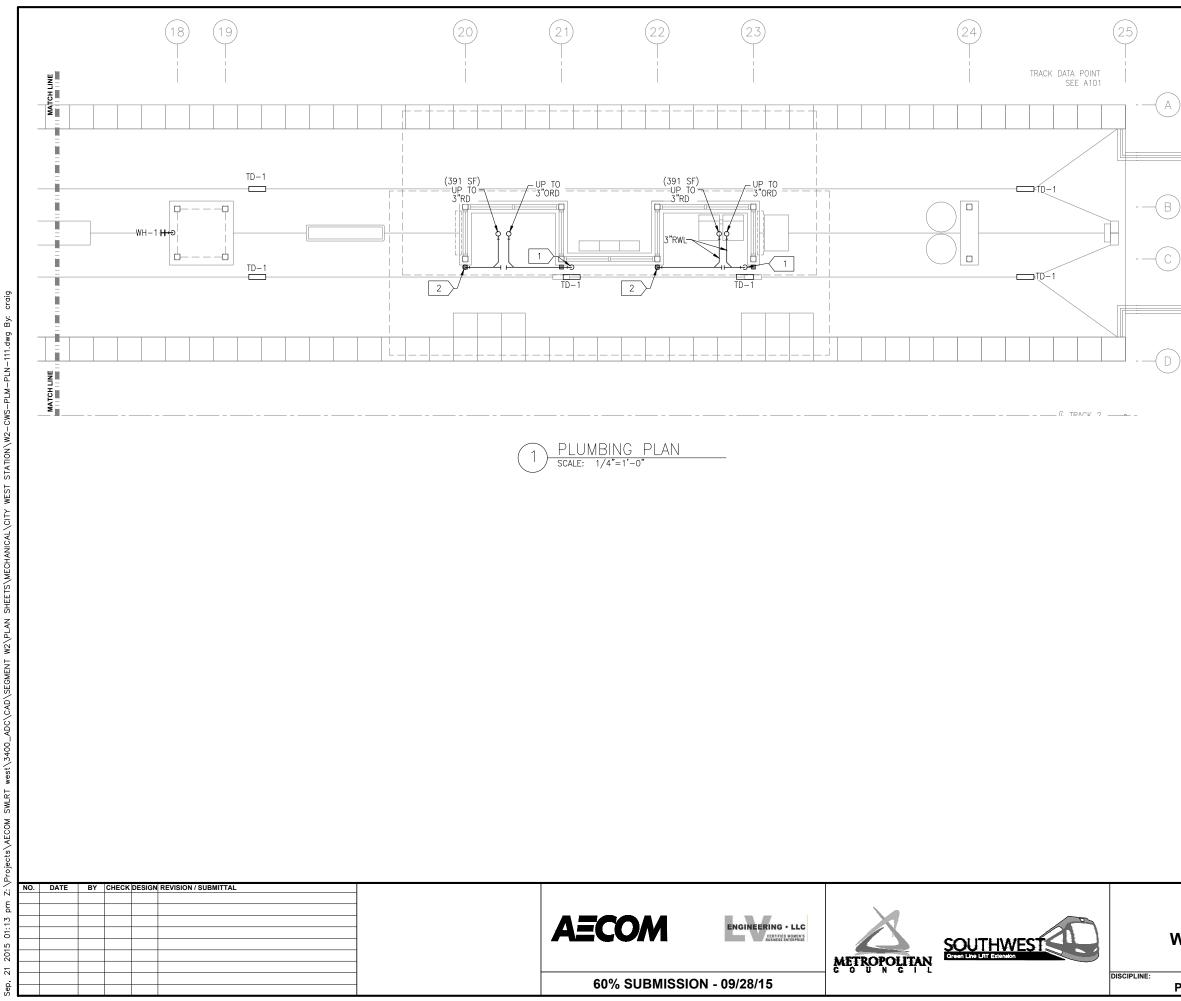


- A. CONTRACTOR SHALL VERIFY ALL DIMENSIONS. ANY DISCREPENCIES BETWEEN DRAWINGS AND FIELD CONDITIONS SHALL BE REPORTED TO THE ARCHITECT PRIOR TO PROCEEDING WITH WORK.
- B. HEAT TRACING ALONG ALL GUTTERS, AROUND ALL ROOF DRAINS, AND ALL RAIN LEADERS SHALL BE BY ELECTRICAL DIVISION.
- C. MAINTAIN CODE REQUIRED DISTANCE BETWEEN UNDERGROUND SANITARY AND UNDERGROUND POTABLE WATER
- D. REFER TO ARCHITECTURAL DRAWINGS FOR CEILING
- HEIGHTS AND LAYOUT.
 E. REFER TO ARCHITECTURAL DRAWINGS AND SPECIFICATIONS FOR STORM DOWNSPOUT MATERIAL.

PLUMBING KEY NOTES

- 3x3 RWL DOWN TO DAYLIGHT ABOVE TD-1. SEE ARCHITECTURAL DOCUMENTS FOR RAIN WATER LEADER MATERIAL AND SHAPE.
- 2 3x3 RWL DOWN TO JOSAM_____ CONNECTION TO 3" UNDERFLOOR STORM DRAIN.

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CITY WEST STATION				
EAST AND MIDDLE PARTIAL PLUMBING PLAN				
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PLUMBING GENERAL NOTES

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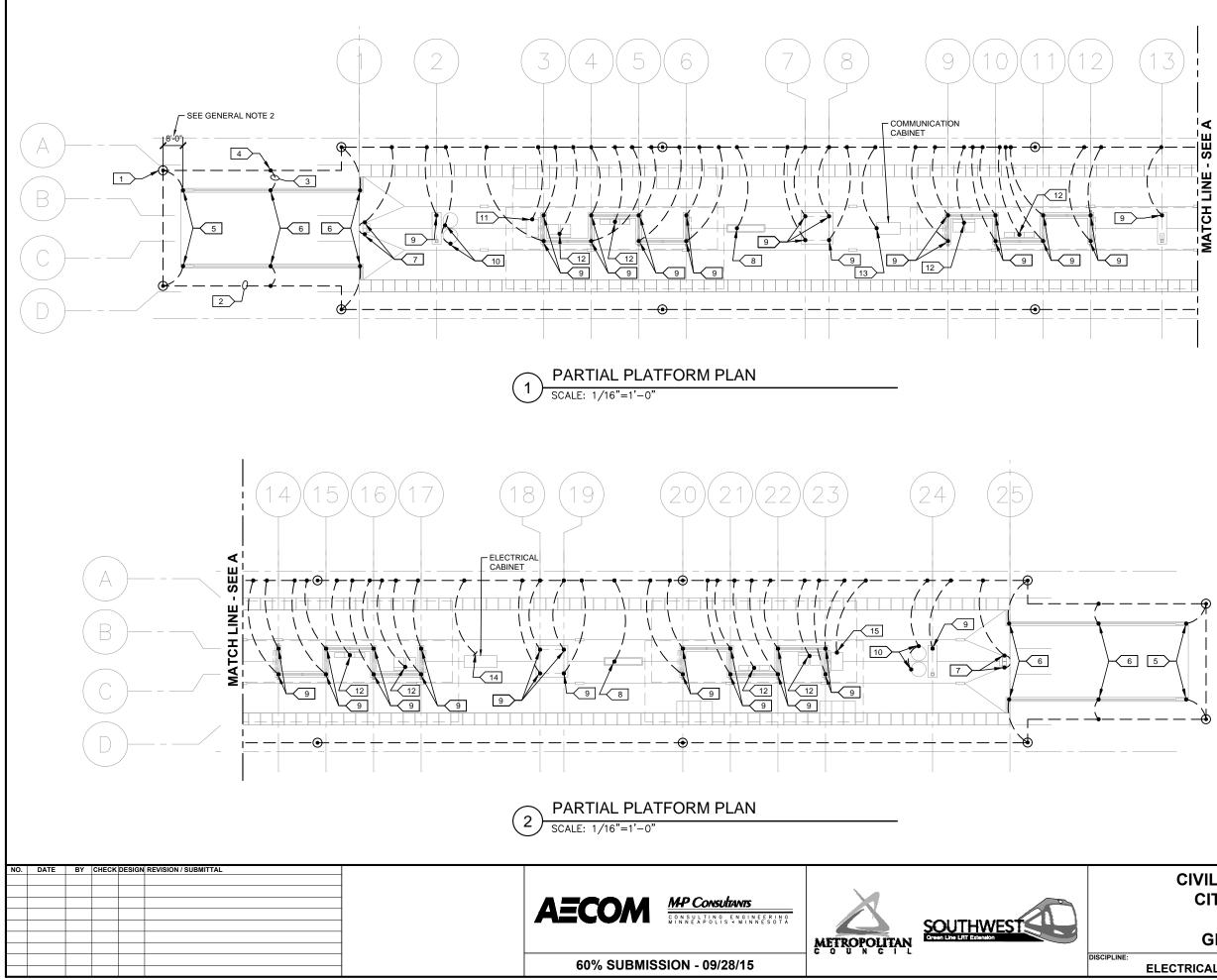
- A. CONTRACTOR SHALL VERIFY ALL DIMENSIONS. ANY DISCREPENCIES BETWEEN DRAWINGS AND FIELD CONDITIONS SHALL BE REPORTED TO THE ARCHITECT PRIOR TO PROCEEDING WITH WORK.
- B. HEAT TRACING ALLONG ALL GUTTERS, AROUND ALL ROOF DRAINS, AND ALL RAIN LEADERS SHALL BE BY ELECTRICAL DIVISION.
- C. MAINTAIN CODE REQUIRED DISTANCE BETWEEN UNDERGROUND SANITARY AND UNDERGROUND POTABLE WATER
- D. REFER TO ARCHITECTURAL DRAWINGS FOR CEILING
- HEIGHTS AND LAYOUT.
 E. REFER TO ARCHITECTURAL DRAWINGS AND SPECIFICATIONS FOR STORM DOWNSPOUT MATERIAL.

PLUMBING KEY NOTES

1 3x3 RWL DOWN TO DAYLIGHT ABOVE TD-1. SEE ARCHITECTURAL DOCUMENTS FOR RAIN WATER LEADER MATERIAL AND SHAPE.

2 3x3 RWL DOWN TO JOSAM_____ CONNECTION TO 3" UNDERFLOOR STORM DRAIN.

SHEET **CIVIL WEST - VOLUME 11 CITY WEST STATION** 82 WEST PARTIAL PLUMBING PLAN OF AND RISER DIAGRAMS SHEET NAME: 173 W2-CWS-PLM-PLN-111 PLUMBING



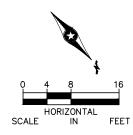
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KEYNOTES:

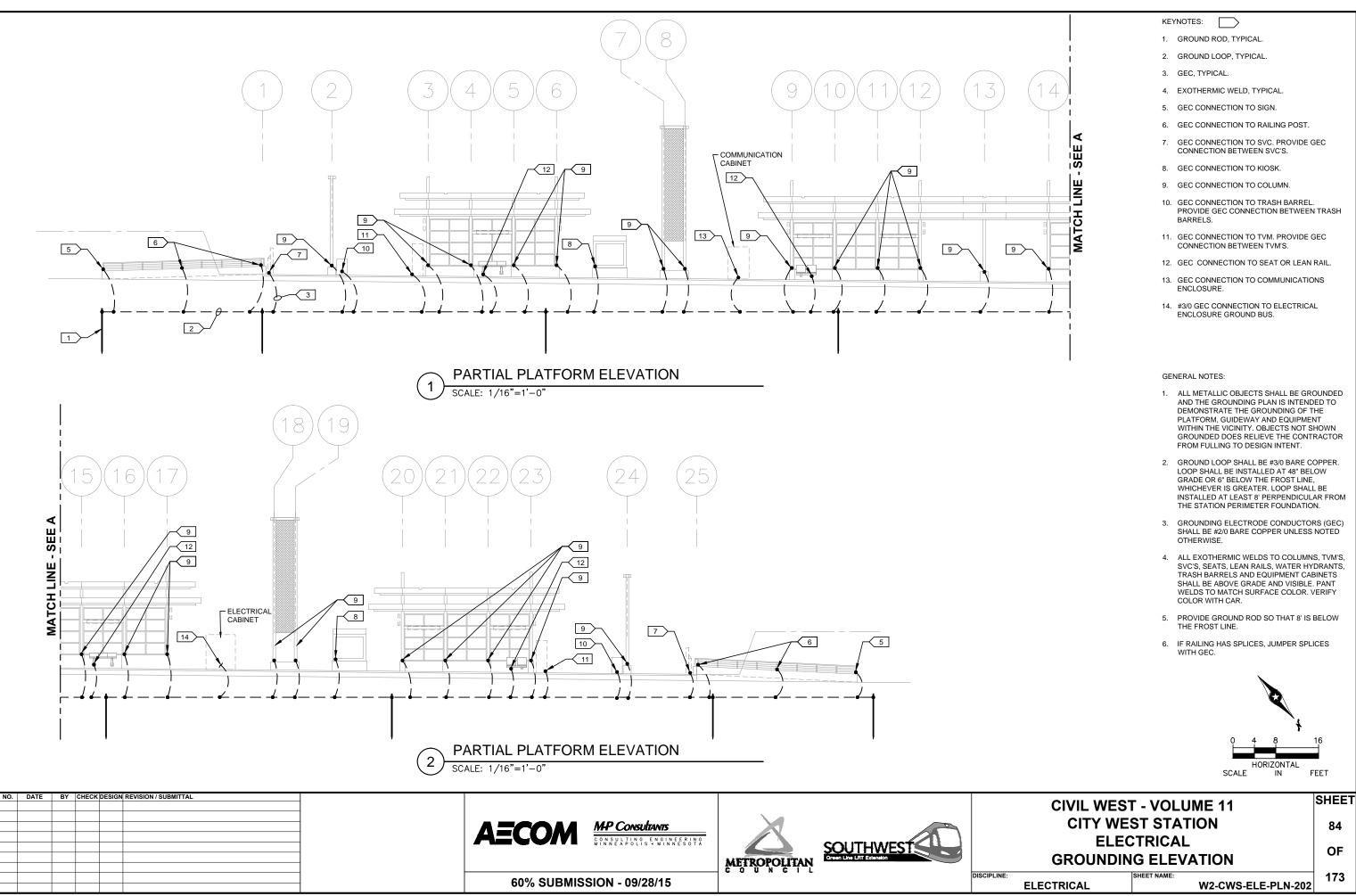
- 1. GROUND ROD, TYPICAL.
- 2. GROUND LOOP, TYPICAL.
- 3. GEC, TYPICAL.
- 4. EXOTHERMIC WELD, TYPICAL.
- 5. GEC CONNECTION TO SIGN.
- 6. GEC CONNECTION TO RAILING POST.
- 7. GEC CONNECTION TO SVC. PROVIDE GEC CONNECTION BETWEEN SVC'S.
- 8. GEC CONNECTION TO KIOSK.
- 9. GEC CONNECTION TO COLUMN.
- 10. GEC CONNECTION TO TRASH BARREL. PROVIDE GEC CONNECTION BETWEEN TRASH BARRELS.
- 11. GEC CONNECTION TO TVM. PROVIDE GEC CONNECTION BETWEEN TVM'S.
- 12. GEC CONNECTION TO SEAT OR LEAN RAIL.
- 13. GEC CONNECTION TO COMMUNICATIONS ENCLOSURE.
- 14. #3/0 GEC CONNECTION TO ELECTRICAL ENCLOSURE GROUND BUS.

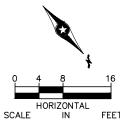
GENERAL NOTES:

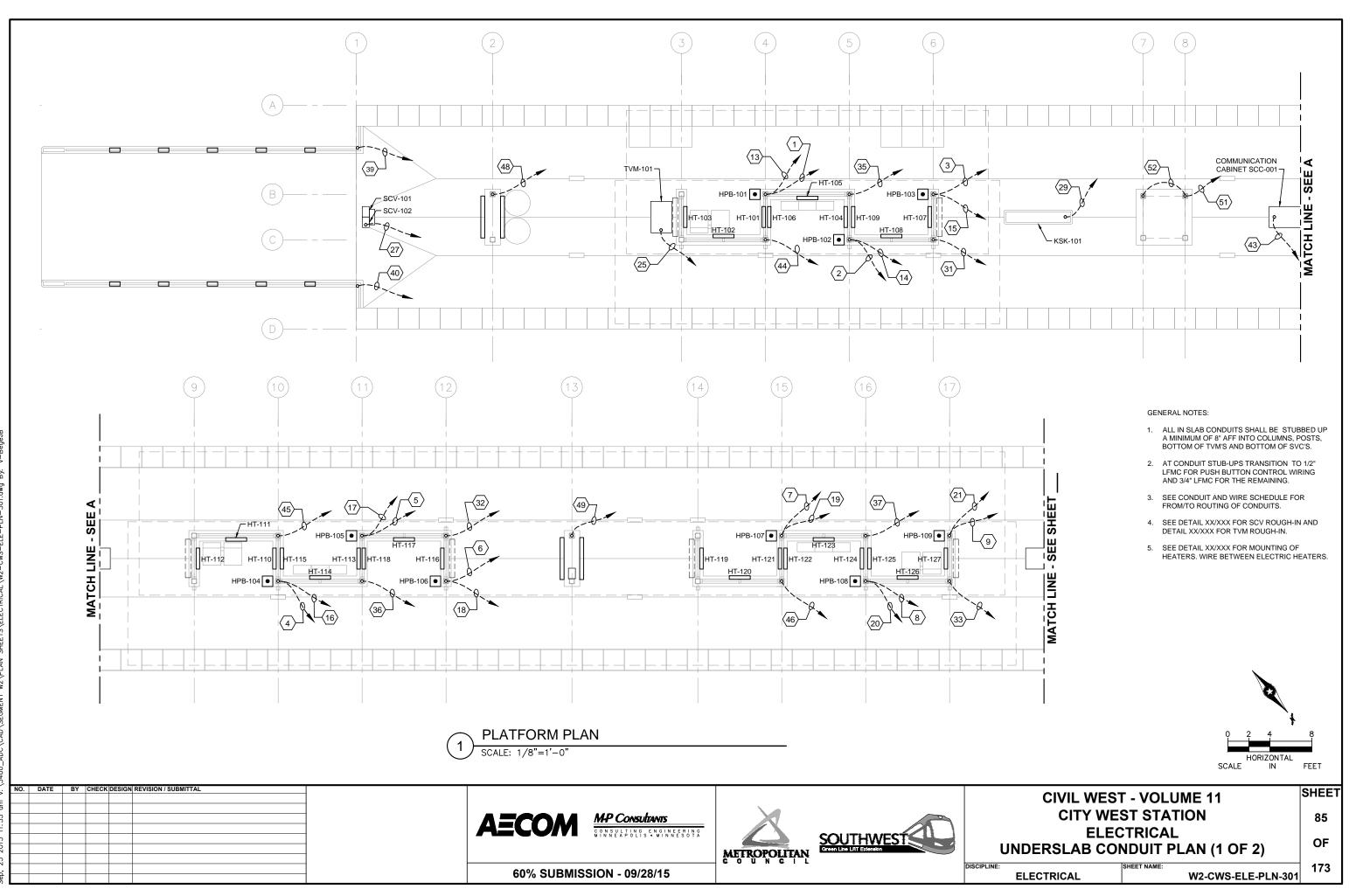
- 1. ALL METALLIC OBJECTS SHALL BE GROUNDED AND THE GROUNDING PLAN IS INTENDED TO DEMONSTRATE THE GROUNDING OF THE PLATFORM, GUIDEWAY AND EQUIPMENT WITHIN THE VICINITY. OBJECTS NOT SHOWN GROUNDED DOES RELIEVE THE CONTRACTOR FROM FULLING TO DESIGN INTENT.
- 2. GROUND LOOP SHALL BE #3/0 BARE COPPER. LOOP SHALL BE INSTALLED AT 48" BELOW GRADE OR 6" BELOW THE FROST LINE, WHICHEVER IS GREATER. LOOP SHALL BE INSTALLED AT LEAST 8" PERPENDICULAR FROM THE STATION PERIMETER FOUNDATION.
- GROUNDING ELECTRODE CONDUCTORS (GEC) SHALL BE #2/0 BARE COPPER UNLESS NOTED OTHERWISE.
- ALL EXOTHERMIC WELDS TO COLUMNS, TVM'S, SVC'S, SEATS, LEAN RAILS, WATER HYDRANTS, TRASH BARRELS AND EQUIPMENT CABINETS SHALL BE ABOVE GRADE AND VISIBLE. PANT WELDS TO MATCH SURFACE COLOR. VERIFY COLOR WITH CAR.
- 5. PROVIDE GROUND ROD SO THAT 8' IS BELOW THE FROST LINE.
- 6. IF RAILING HAS SPLICES, JUMPER SPLICES WITH GEC.



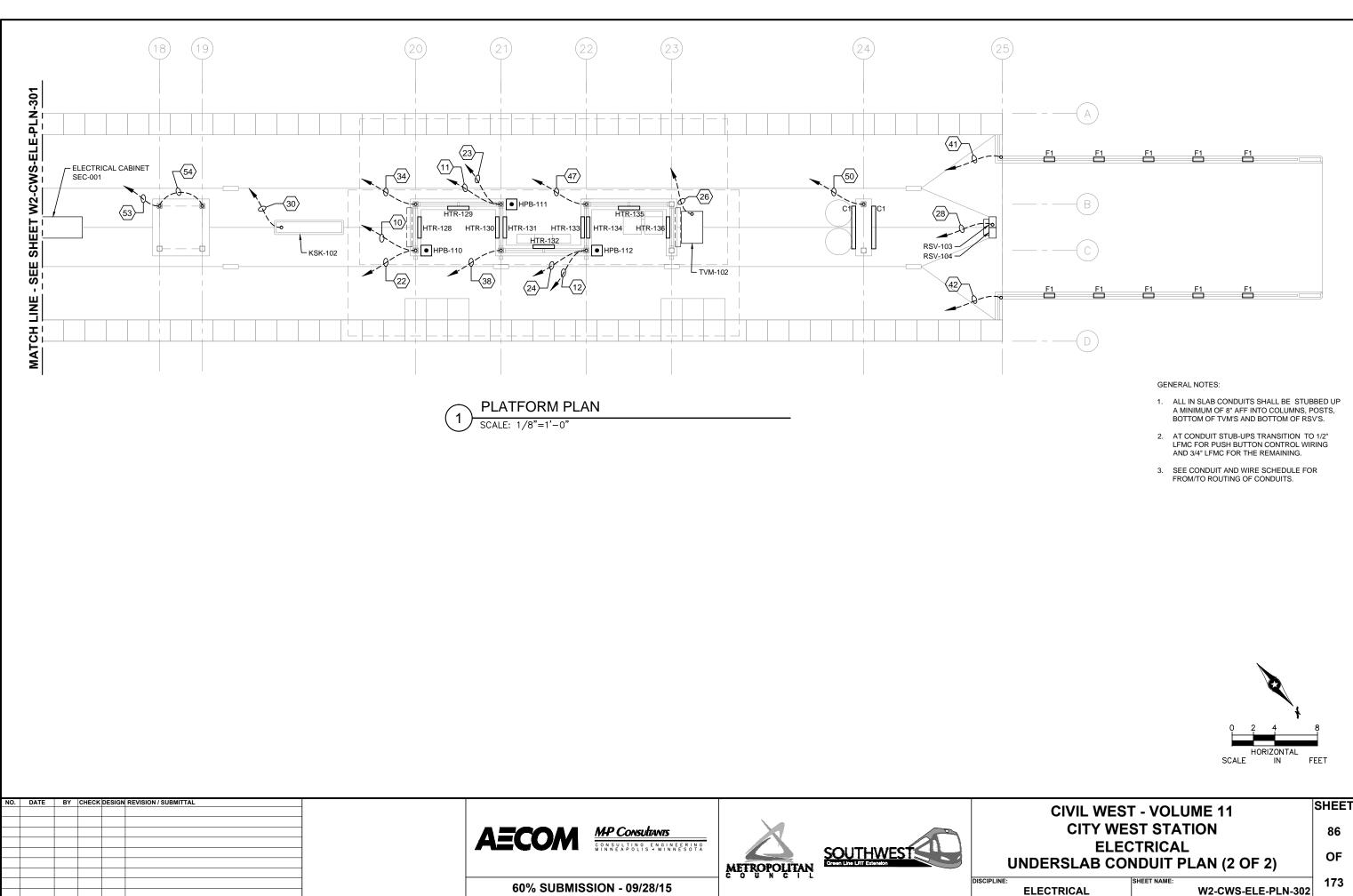
CITY WEST STATION ELECTRICAL GROUNDING PLAN E: ISHEET NAME: 11	CIVIL WEST - VOLUME 11					
GROUNDING PLAN	CITY WEST STATION					
GROUNDING PLAN						
IE: SHEET NAME: 1	GROUNDING PLAN					
ELECTRICAL W2-CWS-ELE-PLN-201		LE-PLN-201 173				

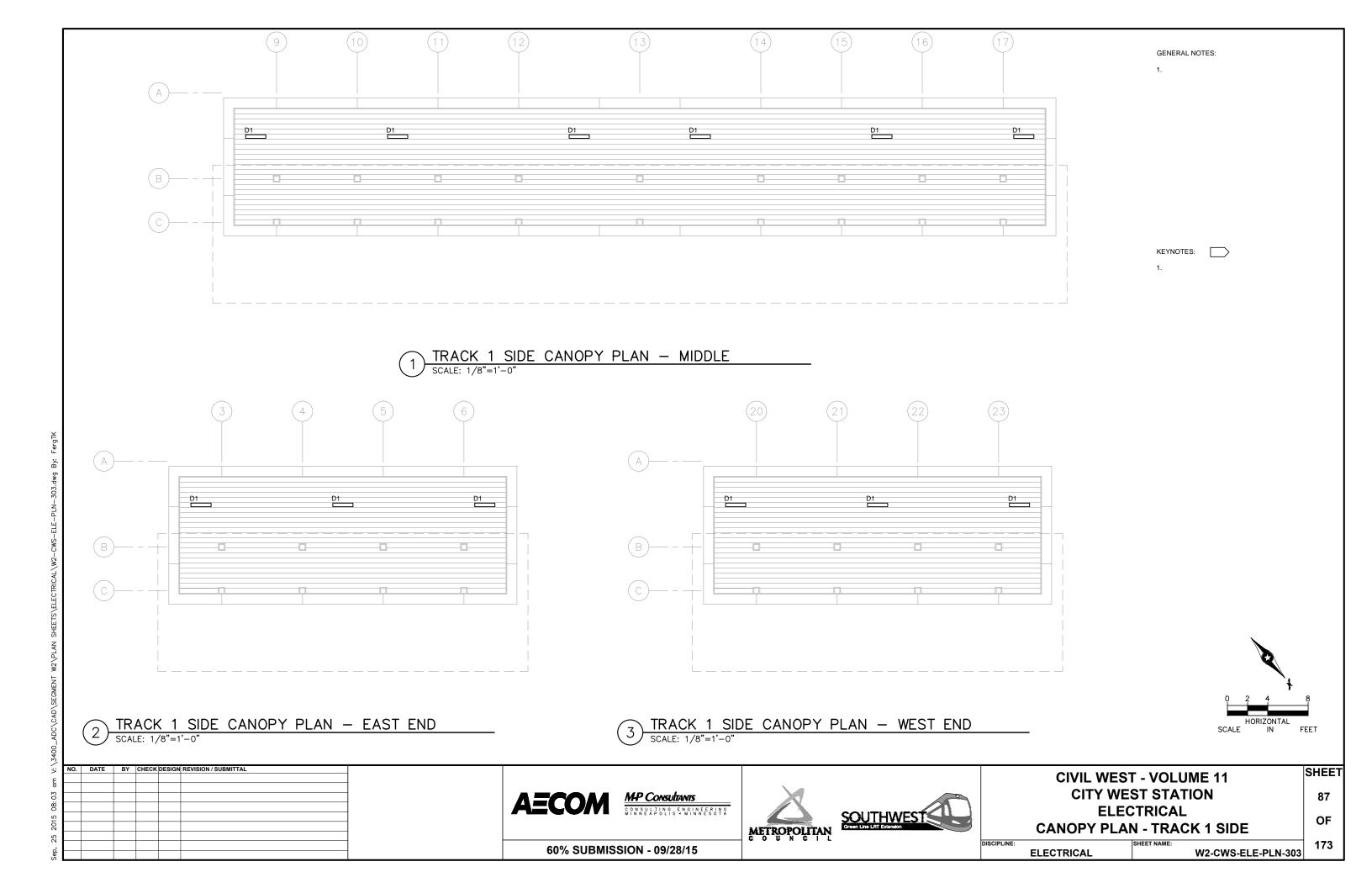


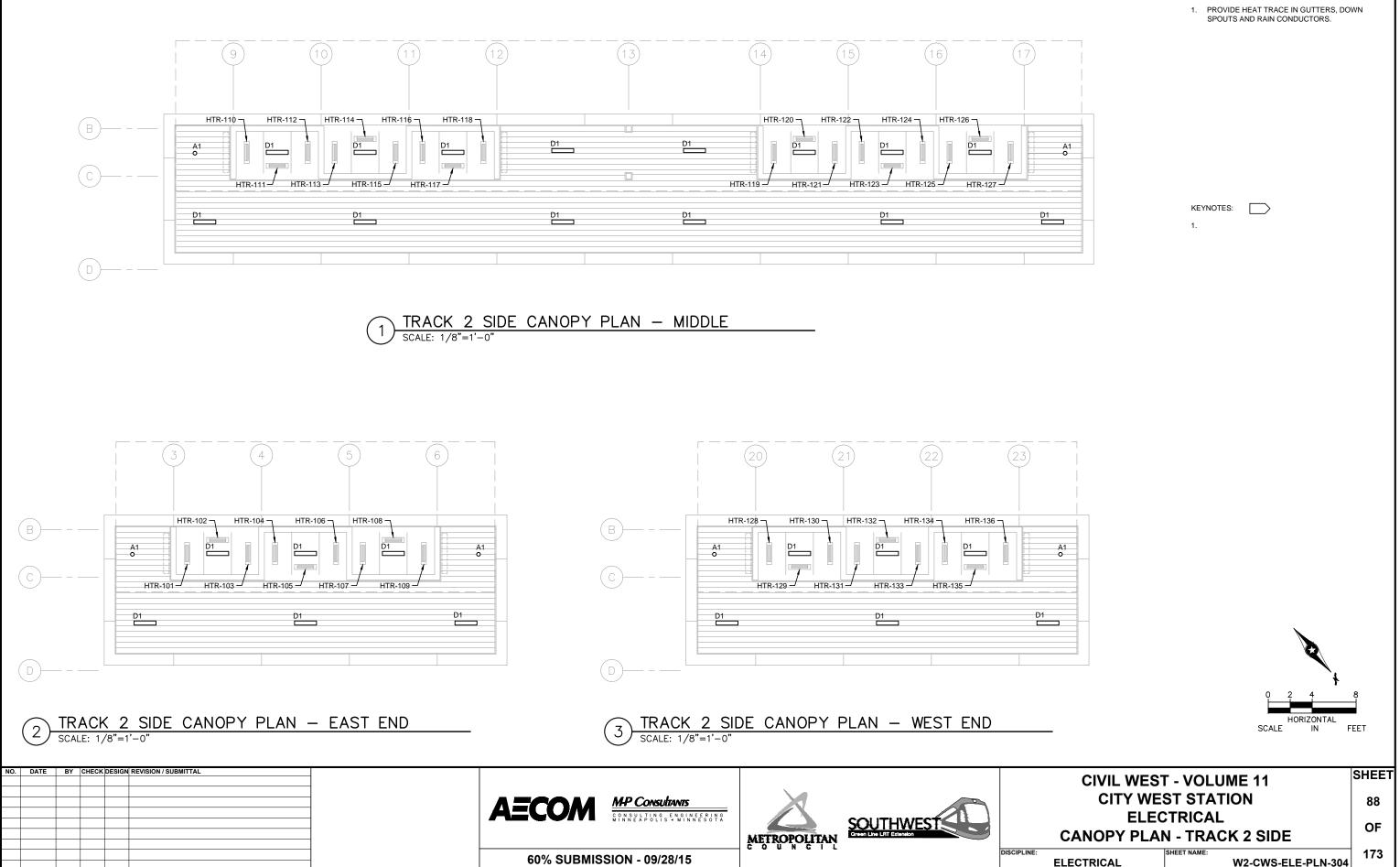




סה מאנה 11.66 ממי על 2000, מהמליכימו) כרכערעד שמלימן און פעוברדגילון המדמוראון שמי משני רו ר' מין אימי מיים מי



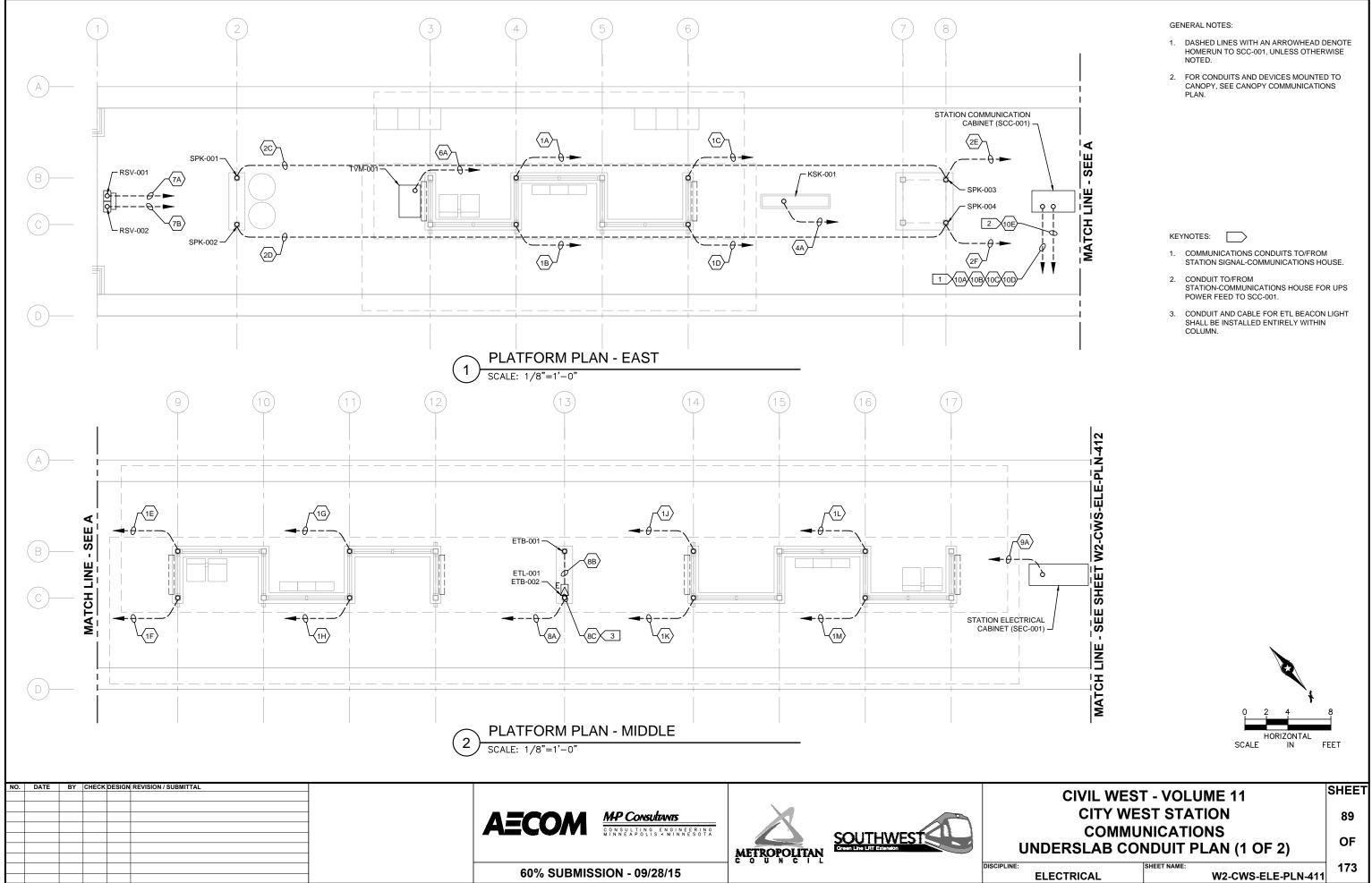




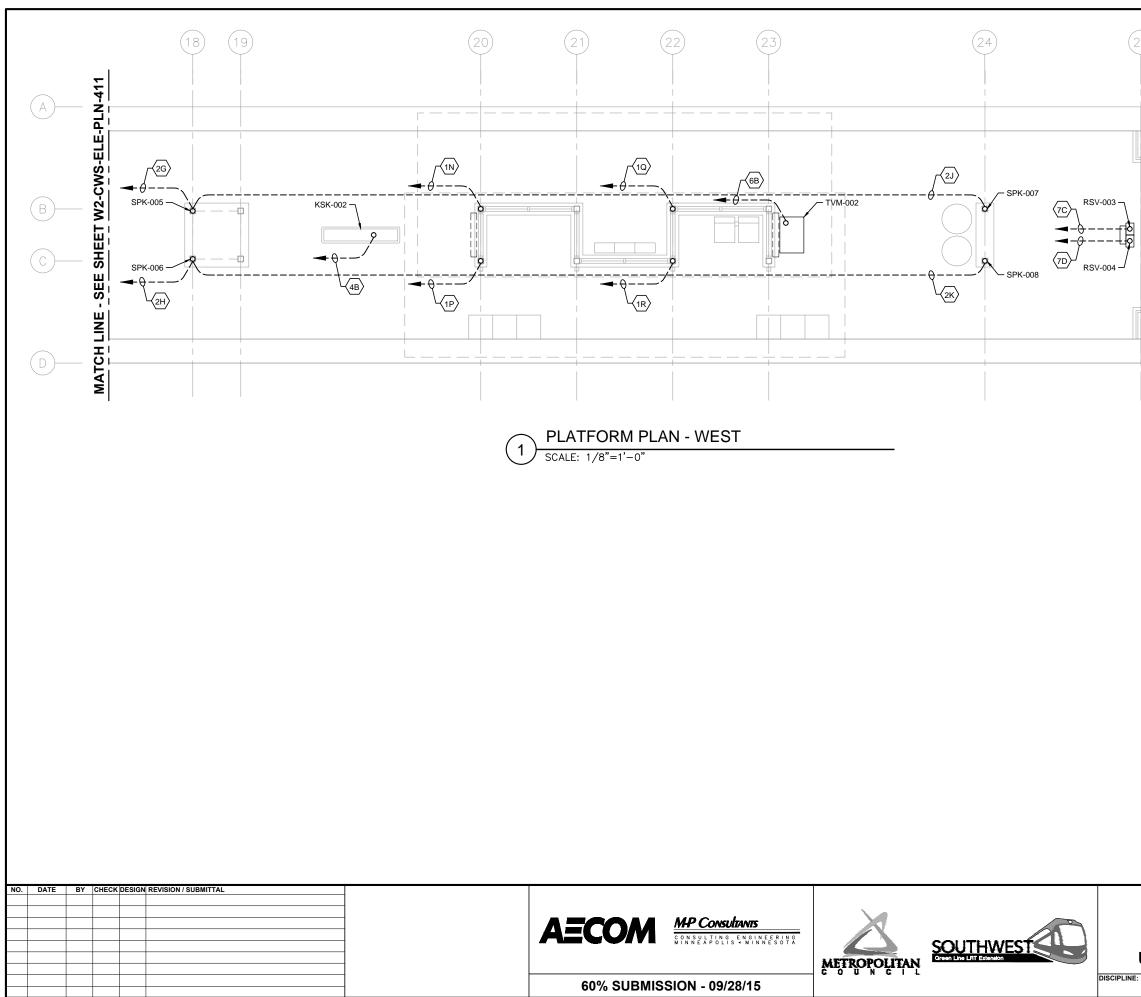
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GENERAL NOTES:

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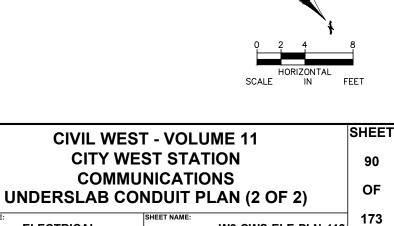


GENERAL NOTES:

- 1. DASHED LINES WITH AN ARROWHEAD DENOTE HOMERUN TO SCC-001, UNLESS OTHERWISE NOTED.
- 2. FOR CONDUITS AND DEVICES MOUNTED TO CANOPY, SEE CANOPY COMMUNICATIONS PLAN.

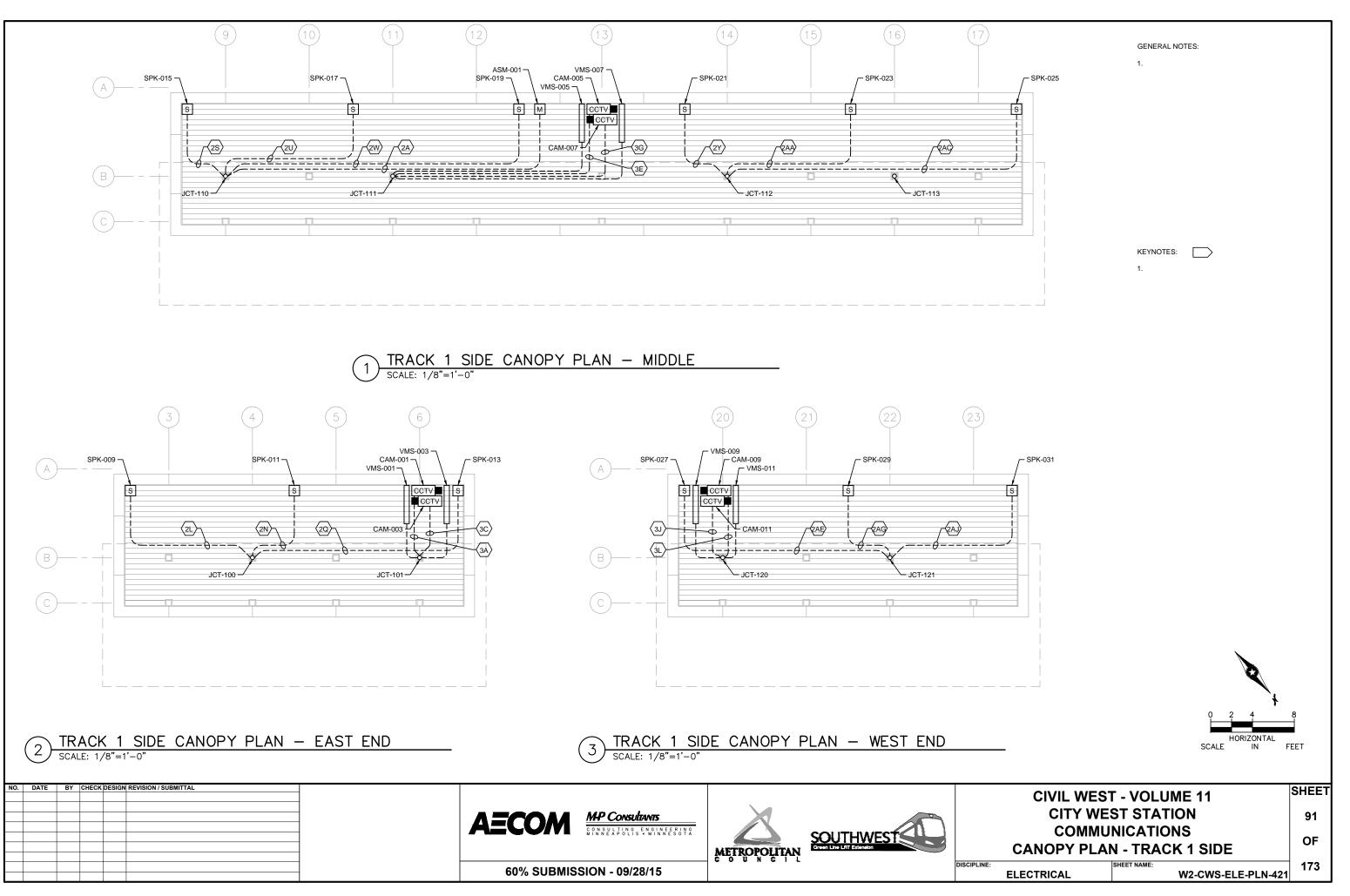
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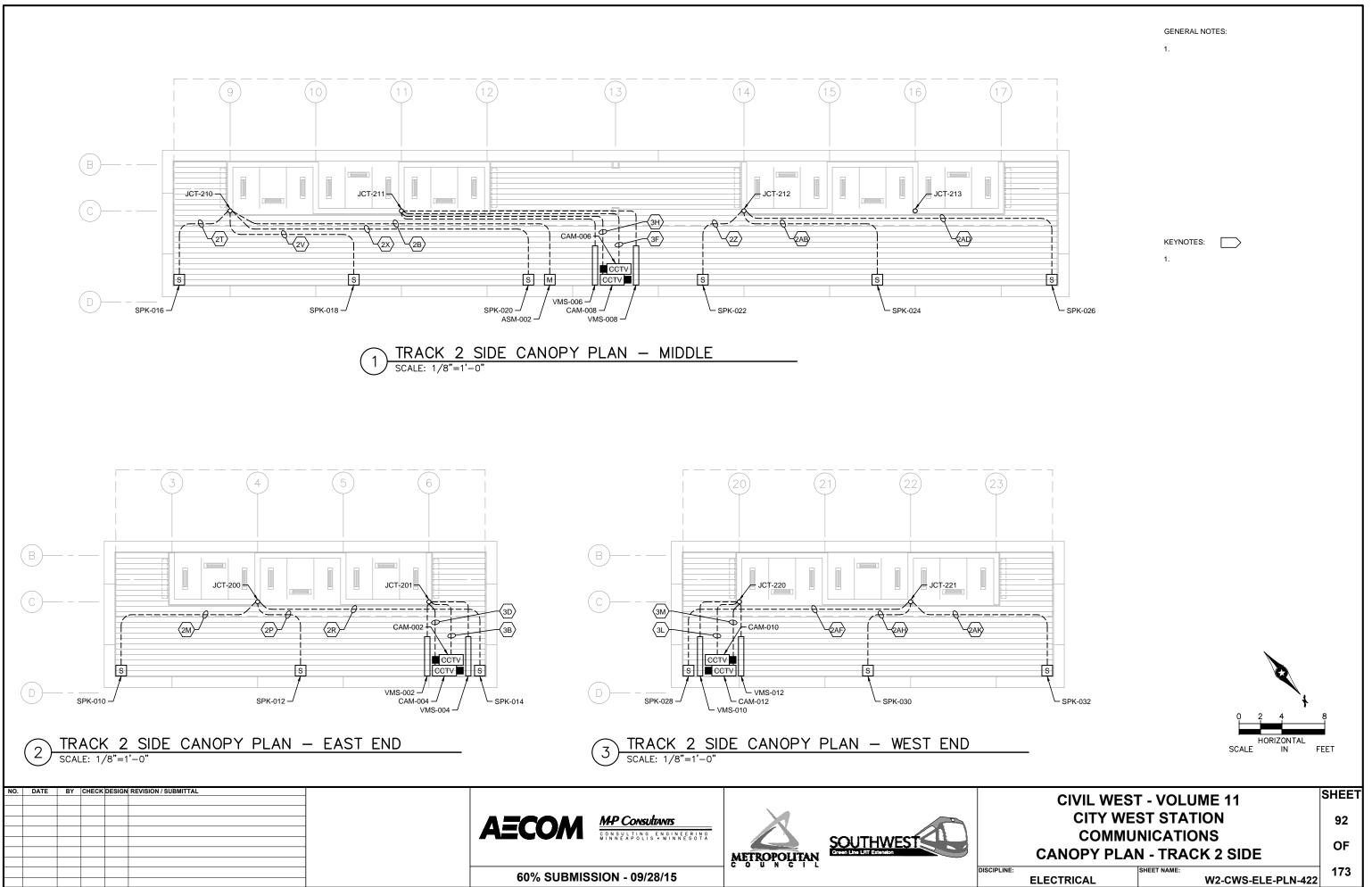


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W2-CWS-ELE-PLN-412



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								SICIN - 03/20/15			

COMMUNICATIONS CONDUIT SCHEDULE

CONDUIT NO.	DEVICE ID	DESCRIPTION/USE	FROM	то	CONDUIT SIZE
10A	CWS -CON-0001	S/C HOUSE TO SCC-001	S/C MANHOLE	CWS -SCC-001	3"
10B	CWS -CON-0002	S/C HOUSE TO SCC-001	S/C MANHOLE	CWS -SCC-001	3"
10C	CWS -CON-0003	S/C HOUSE TO SCC-001	S/C MANHOLE	CWS -SCC-001	3"
10D	CWS -CON-0004	S/C HOUSE TO SCC-001	S/C MANHOLE	CWS -SCC-001	3"
10E	CWS -CON-0005	UPS POWER FEED: SCH TO SCC	CWS -SCH-001	CWS -SCC-001	3"
1A	CWS -CON-0101	SCC TO JUNCTION 100	CWS -SCC-001	CWS -JCT-100	2"
1B	CWS -CON-0102	SCC TO JUNCTION 200	CWS -SCC-001	CWS -JCT-200	2"
1C	CWS -CON-0103	SCC TO JUNCTION 101	CWS -SCC-001	CWS -JCT-101	2"
1D	CWS -CON-0104	SCC TO JUNCTION 201	CWS -SCC-001	CWS -JCT-201	2"
1E	CWS -CON-0105	SCC TO JUNCTION 110	CWS -SCC-001	CWS -JCT-110	2"
1F	CWS -CON-0106	SCC TO JUNCTION 210	CWS -SCC-001	CWS -JCT-210	2"
1G	CWS -CON-0107	SCC TO JUNCTION 111	CWS -SCC-001	CWS -JCT-111	2"
1H	CWS -CON-0107	SCC TO JUNCTION 211	CWS -SCC-001	CWS -JCT-211	2"
1J	CWS -CON-0108	SCC TO JUNCTION 112	CWS -SCC-001	CWS -JCT-112	2"
1K	CWS -CON-0109	SCC TO JUNCTION 212	CWS -SCC-001	CWS -JCT-212	2"
1L	CWS -CON-0110	SCC TO JUNCTION 113	CWS -SCC-001	CWS -JCT-113	2"
1M	CWS -CON-0110	SCC TO JUNCTION 213	CWS -SCC-001	CWS -JCT-213	2"
1N	CWS -CON-0111	SCC TO JUNCTION 120	CWS -SCC-001	CWS -JCT-120	2"
1P	CWS -CON-0112	SCC TO JUNCTION 121	CWS -SCC-001	CWS -JCT-220	2"
1Q	CWS -CON-0113	SCC TO JUNCTION 220	CWS -SCC-001	CWS -JCT-121	2"
1R	CWS -CON-0114	SCC TO JUNCTION 221	CWS -SCC-001	CWS -JCT-221	2"
2A	CWS -CON-0201	MICROPHONE 1 - NOISE SENSING	CWS -JCT-111	CWS -ASM-001	1"
2B	CWS -CON-0202	MICROPHONE 2 - NOISE SENSING	CWS -JCT-211	CWS -ASM-002	1"
2C	CWS -CON-0203	SPEAKER 1 - POLE	CWS -SPK-003	CWS -SPK-001	1-1/2"
2D	CWS -CON-0204	SPEAKER 2 - POLE	CWS -SPK-004	CWS -SPK-002	1-1/2"
2E	CWS -CON-0205	SPEAKER 3 - POLE	CWS -SCC-001	CWS -SPK-003	1-1/2"
2F	CWS -CON-0206	SPEAKER 4 - POLE	CWS -SCC-001	CWS -SPK-004	1-1/2"
2G	CWS -CON-0207	SPEAKER 5 - POLE	CWS -SCC-001	CWS -SPK-005	1-1/2"
2H	CWS -CON-0208	SPEAKER 6 - POLE	CWS -SCC-001	CWS -SPK-006	1-1/2"
2J	CWS -CON-0209	SPEAKER 7 - POLE	CWS -SPK-005	CWS -SPK-007	1-1/2"
2K	CWS -CON-0210	SPEAKER 8 - POLE	CWS -SPK-006	CWS -SPK-008	1-1/2"
21	CWS -CON-0211	SPEAKER 9 - CANOPY	CWS -JCT-100	CWS -SPK-009	1"
2M	CWS -CON-0212	SPEAKER 10 - CANOPY	CWS -JCT-200	CWS -SPK-010	1"
2N	CWS -CON-0213	SPEAKER 11 - CANOPY	CWS -JCT-100	CWS -SPK-011	1"
2P	CWS -CON-0214	SPEAKER 12 - CANOPY	CWS -JCT-200	CWS -SPK-012	1"
2Q	CWS -CON-0215	SPEAKER 13 - CANOPY	CWS -JCT-100	CWS -SPK-013	1"
2R	CWS -CON-0216	SPEAKER 14 - CANOPY	CWS -JCT-200	CWS -SPK-014	1"
25	CWS -CON-0217	SPEAKER 15 - CANOPY	CWS -JCT-110	CWS -SPK-015	1"
2T	CWS -CON-0218	SPEAKER 16 - CANOPY	CWS -JCT-210	CWS -SPK-016	1"
20	CWS -CON-0219	SPEAKER 17 - CANOPY	CWS -JCT-110	CWS -SPK-017	1"
2V	CWS -CON-0220	SPEAKER 18 - CANOPY	CWS -JCT-210	CWS -SPK-018	1"
2W	CWS -CON-0221	SPEAKER 19 - CANOPY	CWS -JCT-110	CWS -SPK-019	1"
2X	CWS -CON-0222	SPEAKER 20 - CANOPY	CWS -JCT-210	CWS -SPK-020	1"
2Y	CWS -CON-0222	SPEAKER 21 - CANOPY	CWS -JCT-112	CWS -SPK-021	1"
2T	CWS -CON-0223	SPEAKER 22 - CANOPY	CWS -JCT-212	CWS -SPK-022	1"
22	CWS -CON-0225	SPEAKER 23 - CANOPY	CWS -JCT-112	CWS -SPK-023	1"
2AB	CWS -CON-0225	SPEAKER 24 - CANOPY	CWS -JCT-212	CWS -SPK-023	1"

CIVIL WEST - VOLUME 11	SHEET			
CITY WEST STATION				
COMMUNICATIONS CONDUIT SCHEDULE (1 OF 2)				
ELECTRICAL SHEET NAME: W2-CWS-ELE-SCH-461	173			

NO.	DATE	BY	CHECK	DESIGN	REVISION / SUBMITTAL						
						1		M-P Consultants		D	
							AECOM				
								CONSULTING ENGINEERING MINNEAPOLIS KMINNESOTA			
		<u> </u>				1				Green Line LRT Extension	
						-			METROPOLITAN		
		1				1					DISCIPLINE
						4	60% SUBMIS	SION - 09/28/15			

CONDUIT SIZE

то

2AC	CWS -CON-0227	SPEAKER 25 - CANOPY	CWS -JCT-112	CWS -SPK-025	1"
2AD	CWS -CON-0228	SPEAKER 26 - CANOPY	CWS -JCT-212	CWS -SPK-026	1"
2AE	CWS -CON-0229	SPEAKER 27 - CANOPY	CWS -JCT-121	CWS -SPK-027	1"
2AF	CWS -CON-0230	SPEAKER 28 - CANOPY	CWS -JCT-221	CWS -SPK-028	1"
2AG	CWS -CON-0231	SPEAKER 29 - CANOPY	CWS -JCT-121	CWS -SPK-029	1"
2AH	CWS -CON-0232	SPEAKER 30 - CANOPY	CWS -JCT-221	CWS -SPK-030	1"
2AJ	CWS -CON-0233	SPEAKER 31 - CANOPY	CWS -JCT-121	CWS -SPK-031	1"
2AK	CWS -CON-0234	SPEAKER 32 - CANOPY	CWS -JCT-221	CWS -SPK-032	1"
3A	CWS -CON-0301	CAMERA 1	CWS -JCT-101	CWS CAM-001	1"
3B	CWS -CON-0302	CAMERA 2	CWS -JCT-201	CWS CAM-002	1"
3C	CWS -CON-0303	CAMERA 3	CWS -JCT-101	CWS CAM-003	1"
3D	CWS -CON-0304	CAMERA 4	CWS -JCT-201	CWS CAM-004	1"
3E	CWS -CON-0305	CAMERA 5	CWS -JCT-111	CWS CAM-005	1"
3F	CWS -CON-0306	CAMERA 6	CWS -JCT-211	CWS CAM-006	1"
3G	CWS -CON-0307	CAMERA 7	CWS -JCT-111	CWS CAM-007	1"
3H	CWS -CON-0308	CAMERA 8	CWS -JCT-211	CWS CAM-008	1"
3J	CWS -CON-0309	CAMERA 9	CWS -JCT-120	CWS CAM-009	1"
3K	CWS -CON-0310	CAMERA 10	CWS -JCT-220	CWS CAM-010	1"
3L	CWS -CON-0311	CAMERA 11	CWS -JCT-120	CWS CAM-011	1"
3M	CWS -CON-0312	CAMERA 12	CWS -JCT-220	CWS CAM-012	1"
4A	CWS -CON-0401	KIOSK1 (F)	CWS -SCC-001	CWS -KSK-001	2"
4B	CWS -CON-0402	KIOSK 2 (F)	CWS -SCC-001	CWS -KSK-002	2"
5A	CWS -CON-0501	VMS 1	CWS -JCT-101	CWS -VMS-001	1"
5B	CWS -CON-0502	VMS 2	CWS -JCT-201	CWS -VMS-002	1"
5C	CWS -CON-0503	VMS 3	CWS -JCT-101	CWS -VMS-003	1"
5D	CWS -CON-0504	VMS 4	CWS -JCT-201	CWS -VMS-004	1"
5E	CWS -CON-0505	VMS 5	CWS -JCT-111	CWS -VMS-005	1"
5F	CWS -CON-0506	VMS 6	CWS -JCT-211	CWS -VMS-006	1"
5G	CWS -CON-0507	VMS 7	CWS -JCT-111	CWS -VMS-007	1"
5H	CWS -CON-0508	VMS 8	CWS -JCT-211	CWS -VMS-008	1"
5J	CWS -CON-0509	VMS 9	CWS -JCT-120	CWS -VMS-009	1"
5K	CWS -CON-0510	VMS 10	CWS -JCT-220	CWS -VMS-010	1"
5L	CWS -CON-0511	VMS 11	CWS -JCT-120	CWS -VMS-011	1"
5M	CWS -CON-0512	VMS 12	CWS -JCT-220	CWS -VMS-012	1"
6A	CWS -CON-0601	TVM 1	CWS -SCC-001	CWS -TVM-001	2"
6B	CWS -CON-0602	TVM 2	CWS -SCC-001	CWS -TVM-002	2"
7A	CWS -CON-0701	VALIDATOR 1	CWS -SCC-001	CWS -RSV-001	1-1/2"
7B	CWS -CON-0702	VALIDATOR 2	CWS -SCC-001	CWS -RSV-002	1-1/2"
7C	CWS -CON-0703	VALIDATOR 3	CWS -SCC-001	CWS -RSV-003	1-1/2"
7D	CWS -CON-0704	VALIDATOR 4	CWS -SCC-001	CWS -RSV-004	1-1/2"
8A	CWS -CON-0801	EMERGENCY TELEPHONE 1 - PHONE	CWS -SCC-001	CWS -ETL-001	1-1/2"
8B	CWS -CON-0802	EMERGENCY TELEPHONE 1 - BEACON LIGHT 1	CWS -ETL-001	CWS -ETB-001	1"
8C	CWS -CON-0803	EMERGENCY TELEPHONE 1 - BEACON LIGHT 2	CWS -ETL-001	CWS -ETB-002	1"
9A	CWS -CON-0901	STATION ELECTRICAL CABINET	CWS -SCC-001	CWS -SEC-001	2"

FROM

DESCRIPTION/USE

COMMUNICATIONS CONDUIT SCHEDULE

CONDUIT NO.

DEVICE ID

CIVIL WEST - VOLUME 11					
CITY WE	ST STATION	94			
COMMUNICATIONS CONDUIT SCHEDULE (2 OF 2)					
	SHEET NAME: W2-CWS-ELE-SCH-462	173			

NO.	DATE	BY	CHECK	DESIGN	REVISION / SUBMITTAL						
								MP Consultants			
							AECOM				
								CONSULTING ENGINEERING MINNEAPOLIS⊀MINNESOTA		COUTINATET	
										SOUTHWEST	
									METROPOLITANI	Green Line LRT Extension	
									METROPOLITAN		
						1					DISCIPLIN
							60% SUBMIS	SION - 09/28/15			

CONDUIT NUMBER	SIZE	WIRE	FROM	то	REMARKS	NOTES
						NOTES
1	1" 1"	2#8, 1#10G	HEATERS HTR-101, 102, 103	LP1A LP1A	POWER TO HEATERS	
	1"	2#8, 1#10G	HEATERS HTR-104, 105, 106		POWER TO HEATERS	
3	-	2#8, 1#10G	HEATERS HTR-107, 108, 109	LP1A	POWER TO HEATERS	
4	1"	2#8, 1#10G	HEATERS HTR-110, 111, 112	LP1A	POWER TO HEATERS	
5	1"	2#8, 1#10G	HEATERS HTR-113, 114, 115	LP1A	POWER TO HEATERS	
6	1"	2#8, 1#10G	HEATERS HTR-116, 117, 118	LP1A	POWER TO HEATERS	
7	1"	2#8, 1#10G	HEATERS HTR-119, 120, 121	LP1A	POWER TO HEATERS	
8	1"	2#8, 1#10G	HEATERS HTR-122, 123, 124	LP1A	POWER TO HEATERS	
9	1"	2#8, 1#10G	HEATERS HTR-125, 126, 127	LP1A	POWER TO HEATERS	
10	1"	2#8, 1#10G	HEATERS HTR-128, 129, 130	LP1A	POWER TO HEATERS	
11	1"	2#8, 1#10G	HEATERS HTR-131, 132, 133	LP1A	POWER TO HEATERS	
12	1"	2#8, 1#10G	HEATERS HTR-134, 135, 136	LP1A	POWER TO HEATERS	
13	1"	2#14, 1#14G	HPB-101	OFF DELAY TIME CIRCUIT	CONTROL FOR HEATERS	
14	1"	2#14, 1#14G	HPB-102	OFF DELAY TIME CIRCUIT	CONTROL FOR HEATERS	
15	1"	2#14, 1#14G	HPB-103	OFF DELAY TIME CIRCUIT	CONTROL FOR HEATERS	
16	1"	2#14, 1#14G	HPB-104	OFF DELAY TIME CIRCUIT	CONTROL FOR HEATERS	
17	1"	2#14, 1#14G	HPB-105	OFF DELAY TIME CIRCUIT	CONTROL FOR HEATERS	
18	1"	2#14, 1#14G	HPB-106	OFF DELAY TIME CIRCUIT	CONTROL FOR HEATERS	
19	1"	2#14, 1#14G	HPB-107	OFF DELAY TIME CIRCUIT	CONTROL FOR HEATERS	
20	1"	2#14, 1#14G	HPB-108	OFF DELAY TIME CIRCUIT	CONTROL FOR HEATERS	
21	1"	2#14, 1#14G	HPB-109	OFF DELAY TIME CIRCUIT	CONTROL FOR HEATERS	_
22	1"	2#14, 1#14G	HPB-110	OFF DELAY TIME CIRCUIT	CONTROL FOR HEATERS	
23	1"	2#14, 1#14G	HPB-111	OFF DELAY TIME CIRCUIT	CONTROL FOR HEATERS	
23	1"	2#14, 1#14G	HPB-112	OFF DELAY TIME CIRCUIT	CONTROL FOR HEATERS	
24	1"	4#10, 2#10G	TVM-101, TVM-102	LP1A	POWER TO TVMs	
26	1"	2#10, 1#10G	TVM-101, 10/02	LP 1A	POWER TO TVM	
	1"	2#10, 1#10G		LP IA		
27	-		RSV-101, RSV-102		POWER TO RSVs	
28	1"	4#12, 2#12G	RSV-103, RSV-104	LP1A	POWER TO RSVs	
29	1"	2#12, 1#12G	KSK-101	LP1B	POWER TO KIOSK	
30	1"	2#12, 1#12G	KSK-102	LP1B	POWER TO KIOSK	
31	1"	2#12, 1#12G	CANOPY LUMINAIRES	LP1A	POWER TO LUMINAIRES	
32	1"	2#12, 1#12G	CANOPY LUMINAIRES	LP1A	POWER TO LUMINAIRES	
33	1"	2#12, 1#12G	CANOPY LUMINAIRES	LP1A	POWER TO LUMINAIRES	
34	1"	2#12, 1#12G	CANOPY LUMINAIRES	LP1A	POWER TO LUMINAIRES	
35	1"	2#10, 1#10G	HEAT TAPE	HTCP	POWER TO HEAT TAPE	2, 3
36	1"	2#10, 1#10G	HEAT TAPE	HTCP	POWER TO HEAT TAPE	2, 3
37	1"	2#10, 1#10G	HEAT TAPE	HTCP	POWER TO HEAT TAPE	2, 3
38	1"	2#10, 1#10G	HEAT TAPE	HTCP	POWER TO HEAT TAPE	2, 3
39	1"	2#10, 1#10G	RAMP RAILING LUMINAIRE	RAMP RAILING LUMINAIRE DRIVER	POWER TO RAMP RAILING LUMINAIRE	1
40	1"	2#10, 1#10G	RAMP RAILING LUMINAIRE	RAMP RAILING LUMINAIRE DRIVER	POWER TO RAMP RAILING LUMINAIRE	1
41	1"	2#10, 1#10G	RAMP RAILING LUMINAIRE	RAMP RAILING LUMINAIRE DRIVER	POWER TO RAMP RAILING LUMINAIRE	1
42	1"	2#10, 1#10G	RAMP RAILING LUMINAIRE	RAMP RAILING LUMINAIRE DRIVER	POWER TO RAMP RAILING LUMINAIRE	1
43	1"	4#10, 1#10G	COMMUNICATIONS CABINET SCC-001	LP1B	POWER TO COMMUNICATIONS CABINET	
44	1"	4#12, 2#12G	VMSs	LP1B	POWER TO VMS	
45	1"	4#12, 2#12G	VMSs	LP1B	POWER TO VMS	
46	1"	4#12, 2#12G	VMSs	LP1B	POWER TO VMS	
47	1"	4#12, 2#12G	VMSs	LP1B	POWER TO VMS	
48	1"	2#10, 1#10G	POLE LUMINAIRES	LP1A	POWER TO POLE LUMINAIRES	
49	1"	2#10, 1#10G	POLE LUMINAIRES	LP1A	POWER TO POLE LUMINAIRES	
50	1"	2#10, 1#10G	POLE LUMINAIRES	LP1A	POWER TO POLE LUMINAIRES	
51	1"	2#10, 1#10G	POLE LUMINAIRES	LP1A	POWER TO POLE LUMINAIRES	
52	1"	2#10, 1#10G	POLE LUMINAIRES	POLE LUMINAIRES	POWER TO POLE LUMINAIRES	
53	1"	2#10, 1#10G	POLE LUMINAIRES	LP1A	POWER TO POLE LUMINAIRES	
54	1"	2#10, 1#10G	POLE LUMINAIRES	POLE LUMINAIRES	POWER TO POLE LUMINAIRES	
55						

(1) ELECTRICAL CONDUIT & CABLE SCHEDULE

	CIVIL WEST	- VOLUME 11	SHEET			
		ST STATION	95			
	ELECTRICAL					
		WIRE SCHEDULE	OF			
NE:	ELECTRICAL	SHEET NAME: W2-CWS-ELE-SCH-503	173			

600 AMP B 240 VOLTS MLO kVA	AMPS/POLES	СКТ	3	PHASE WIRE 60H		c.		POLES	
MLO		СКТ	3			CI			
		СКТ	_	WIDE COL		21	JRFACE	MOUNTED	
kVA		СКТ		WIRE OUP	z		10	KAIC	
			AØ	BØ	СКТ	AMPS/POLES	kVA	DESCRIPTION	
		1	Х		2	30/2	2.4	HT-119, 120, 121	
	60/2	3		X	4	30/2	2.4	111-113, 120, 121	
2.4	30/2	5	X		6	30/2	2.4	HT-122, 123, 124	
2.4	50/2	7		X	8	50/2	2.4	111-122, 123, 124	
2.4	30/2	9	Х		10	30/2	2.4	HT-125, 126, 127	
2.4	50/2	11		X	12	50/2	2.4	111-123, 120, 127	
2.4	30/2	13	X		14	30/2	2.4	HT-128, 129, 130	
2.4	50/2	15		X	16	50/2	2.4		
2.4	30/2	17	Х		18	30/2	2.4	HT-131, 132, 133	
2.4	50/2	19		X	20	30/2	2.4	111-151, 152, 155	
2.4	30/2	21	X		22	30/2	2.4	HT-134, 135, 136	
2.4	50/2	23		X	24	50/2	2.4	111-134, 133, 130	
2.4	30/2	25	X		26	30/1	1.6	TVM-101	
2.4	50/2	27		X	28	30/1	1.6	TVM-102	
2.7	30/2	29	X		30	30/1	1.6	TVM-103	
2.7	50/2	31		X	32	20/1	0.3	RSV-101	
1.0	30/2	33	Х		34	20/1	0.3	RSV-102	
1.0	50/2	35		X	36	20/1	0.3	RSV-103	
1.0	30/2	37	Х		38	20/1	0.3	RSV-104	
1.0	50/2	39		X	40			SPACE	
		41	Х		42			SPACE	
		kVA	43.3	39.4	kVA			kVA	
	A	MPS	360.8	327.9	AM	S	3.7	FEED THROUGH LUGS LP1B	
	2.4 2.4 2.4 2.4 2.4 2.4 2.4 2.4 2.4 2.4 2.4 2.4 2.4 2.4 2.4 2.4 2.4 2.4 2.4 2.4 2.4 2.4 2.4 2.4 2.4 2.4 2.7 1.0 1.0	2.4 30/2 2.4 30/2 2.4 30/2 2.4 30/2 2.4 30/2 2.4 30/2 2.4 30/2 2.4 30/2 2.4 30/2 2.4 30/2 2.4 30/2 2.4 30/2 2.4 30/2 2.4 30/2 2.4 30/2 1.0 30/2 1.0 30/2 1.0 30/2	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	$ \begin{array}{c c c c c c c c c c c c c c c c c c c $					

1 PANELBOARD SCHEDULE LP1A

			P/	ANELB	OARD LP	1B				
600	AMP B	US RATING						30	POLES	
120/240	VOLTS				1 PHASE		SURFACE MOUNTED 2 <u>10</u> KAIC			
	MLO				3 WIRE 601	lz				
DESCRIPTION	kVA	AMPS/POLES	СКТ	AØ	BØ	СКТ	AMPS/POLES	kVA	DESCRIPTION	
SEC-001	0.5	20/1	1	Х		2	20/1	1.0	SHELTER LUMINAIRES	
HTG AND LTG CONTROL SYSTEM	0.2	15/1	3		X	4	20/1	1.0	SHELTER LUMINAIRES	
RAILING LUMINAIRE DRIVERS	1.0	20/1	5	х		6	20/1	1.0	SHELTER LUMINAIRES	
/MS-101	0.3	20/1	7		Х	8	20/1	1.0	SHELTER LUMINAIRES	
/MS-102	0.3	20/1	9	Х		10	20/1	0.3	VMS-105	
VMS-103	0.3	20/1	11		X	12	20/1	0.3	VMS-106	
VMS-104	0.3	20/1	13	Х		14	20/1	0.3	VMS-107	
KSK-101	0.3	20/1	15		Х	16	20/1	0.3	VMS-108	
KSK-102	0.3	20/1	17	Х		18	20/1	1.0	POLE LUMINARIES	
SPARE		20/1	19		X	20	20/1		SPARE	
SPARE		20/1	21	Х		22			SPACE	
SPACE			23		X	24			SPACE	
SPACE			25	х		26			SPACE	
SPACE			27		Х	28			SPACE	
SPACE			29	Х		30			SPACE	
			kVA	6.0	3.7	kVA				
		A	MPS			AMP	S		1	



NO. DATE	BY CHECK DESIGN REVISION / SUBMITTAL	AECOM MP Consultants		
		60% SUBMISSION - 09/28/15	JISI UN GIL	ISCIPLIN

	CIVIL WES	Γ - VOLUME 11	SHEET				
	CITY WEST STATION						
	ELECTRICAL						
	PANELBOARD SCHEDULES						
NE:	ELECTRICAL	SHEET NAME: W2-CWS-ELE-SCH-504	173				

CODE SUMMARY - CENTER PLATFORM OPUS STATION

CODE REFERENCES

MINNESOTA STATE BUILDING CODE 2015 NFPA 130 – STANDARD FOR FIXED GUIDEWAY TRANSIT 2014 AND PASSENGER RAIL SYSTEMS

IBC REVIEW

A. DESCRIPTION LOCATION: MINNETONKA, MN

THE LIGHT RAIL TRANSIT STATION IS A PARTIALLY CANOPIED PLATFORM AREA. IT CONSISTS OF A PLATFORM 270' LONG BY 21'-4" ACCESSED BY A SLOPED WALK AT EACH END OF PLATFORM. PLATFORM IS OPEN TO EXTERIOR ON ALL FOUR SIDES.

TYPICAL PLATFORM AREA: 5760 SQUARE FEET (GROSS AREA) 5416 SQUARE FEET (NET AREA AFTER STRUCTURAL ELEMENTS, FIXTURES AND PERMANENTLY INSTALLED FURNISHINGS ARE REMOVED)

CANOPY COVERAGE AREA AT PLATFORM: = 3172 SQUARE FEET 732 SQUARE FEET (1 @ 36'-0" X 20'-4") SOUTH CANOPY 1708 SQUARE FEET (1 @ 84'-0" X 20'-4") MIDDLE CANOPY 732 SQUARE FEET (1 @ 36'-0" X 20'-4") NORTH CANOPY

B. <u>OCCUPANCY CLASSIFICATION</u> (IBC 2015 SECTION 303.1)

WAITING AREAS IN TRANSPORTATION TERMINALS: GROUP 'A' DIVISION 3 (15 S.F. PER PERSON)

C. OCCUPANCY SEPARATIONS

NONE ARE REQUIRED

D. <u>TYPE OF CONSTRUCTION</u> (IBC 2015 TABLE 601)

TYPE IIB CONSTRUCTION

E. ALLOWABLE BUILDING AREA AND BUILDING HEIGHT (IBC 2015 TABLE 503)

2 STORIES AT 9,500 SQUARE FEET PER STORY

F. IBC EXITING SUMMARY

NO. OF OCCUPANTS = 5420 S.F. / 15 S.F./OCC = 361 REQUIRED EGRESS WIDTH = 361 X 0.2 = 72" (PER 1005.3.2) WIDTH PROVIDED = 2 RAMPS AT 145" = 290" 2 MEANS OF EGRESS PROVIDED

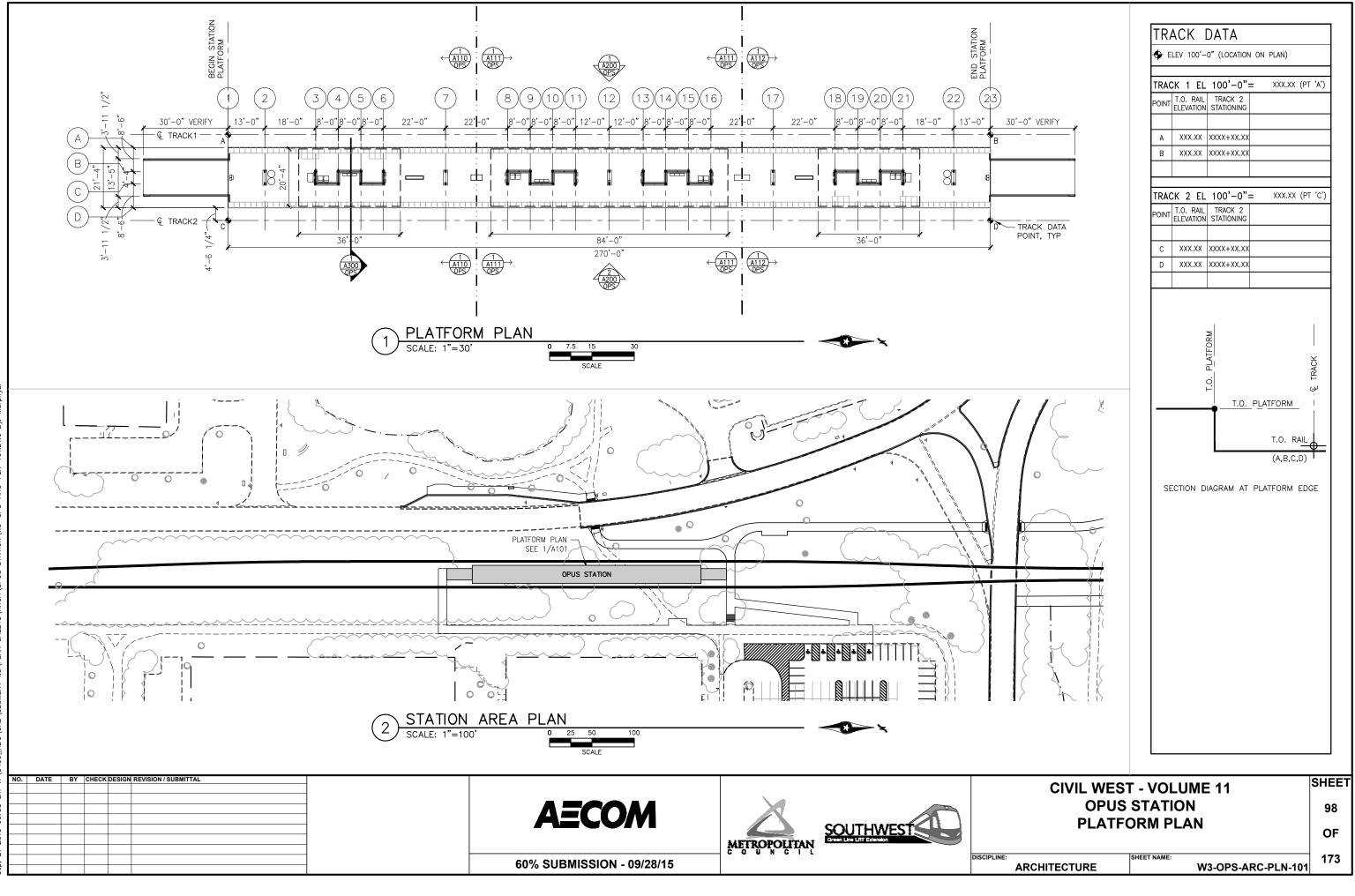
PLATFORM COLOR AND						PLATFORM	COLOR AND FI	NISH SCHEDU	JLE	
FINISH SCHEDULE	TYPE	STATION	STRUCTURAL STEEL PAINT COLOR	PLATFORM CONC COLOR	PLATFORM CONC FINISH	CONC WALL COLOR	CONC WALL FINISH	RAILING INFILL MATERIAL	ALUM WDW FRAME FINISH	ΕX
SEE STATION SPECIFICATIONS FOR MATERIAL IDENTIFICATION	CENTER	OPUS STATION	PPG 513–7 COFFEE BEAN	CEMSTONE MENDOTA BUFF	TBD	CEMSTONE MENDOTA BUFF	TBD	SS CABLE	DARK BRONZE ANODIZED	н

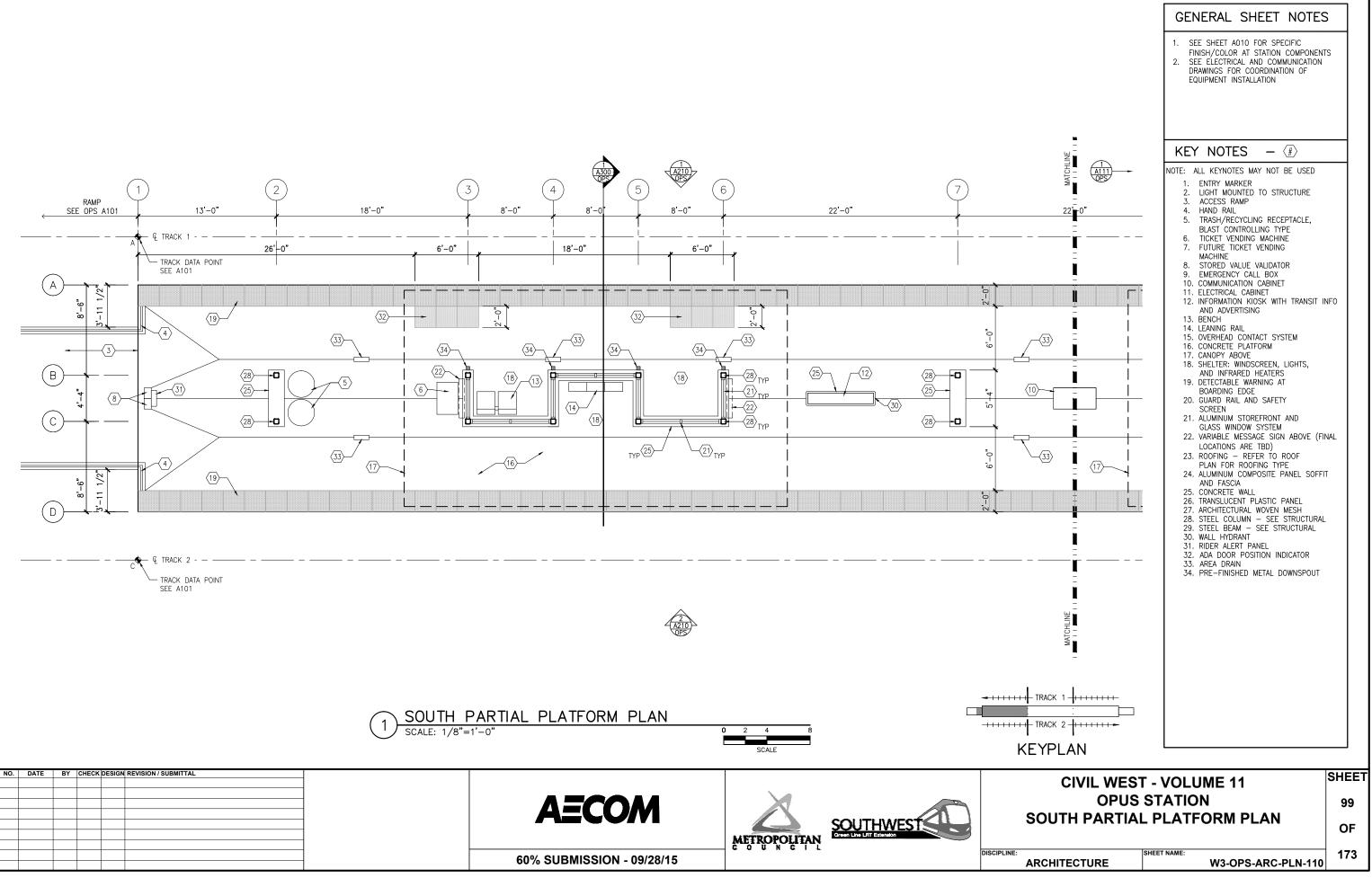
NO. DATE	BY CHECK DESIG	N REVISION / SUBMITTAL	AECOM	OPUS S	- VOLUME 11 STATION FINISH SCHEDULE	SHEET 97 OF
			60% SUBMISSION - 09/28/15	DISCIPLINE: ARCHITECTURE	HEET NAME: W3-OPS-ARC-COD-010	173

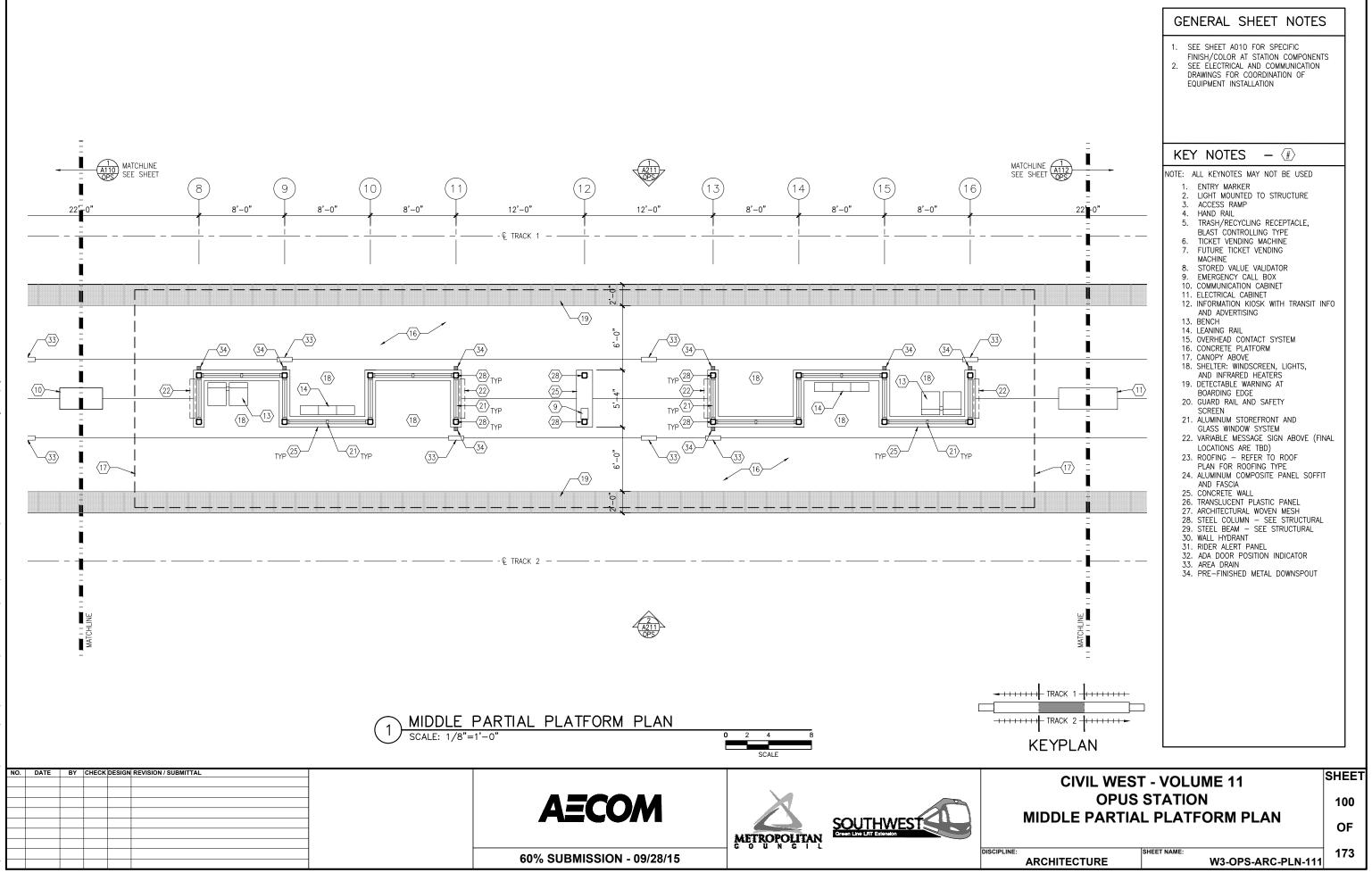
NFPA 130 EXITING SUMMARY

FURTHER ANALYSIS REQUIRED

XTERIOR LINEAR METAL CEILING	ALUM COMP CANOPY	ARCH WOVEN MESH
SOFFIT AND FASCIA FINISH	SOFFIT AND FASCIA COLOR	ARCH WOVEN MESH
HUNTER DOUGLAS WOODWRIGHT	ALUCOBOND GLADE GREEN	TBD
8438 DARK OAK	COOL	







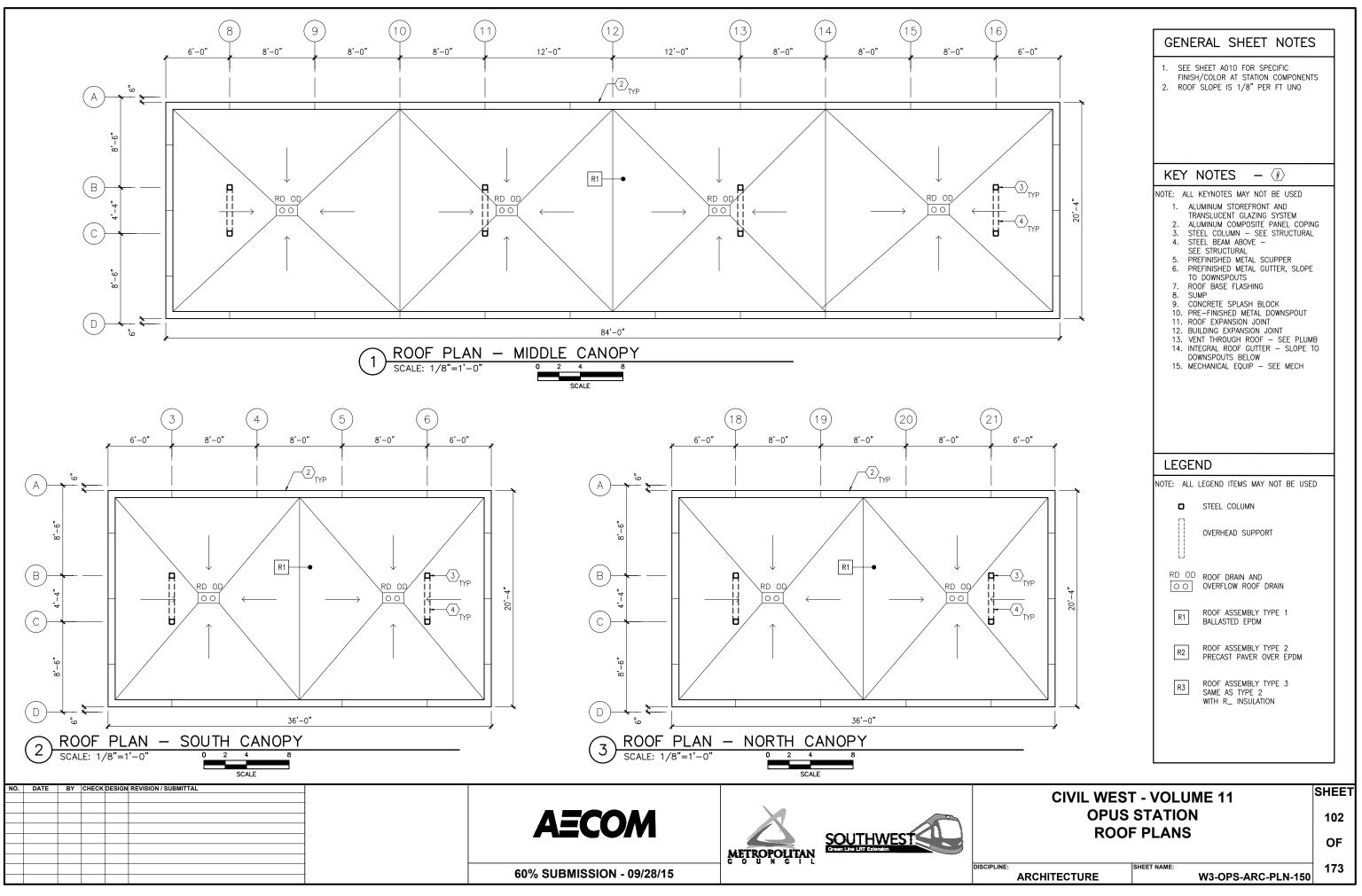
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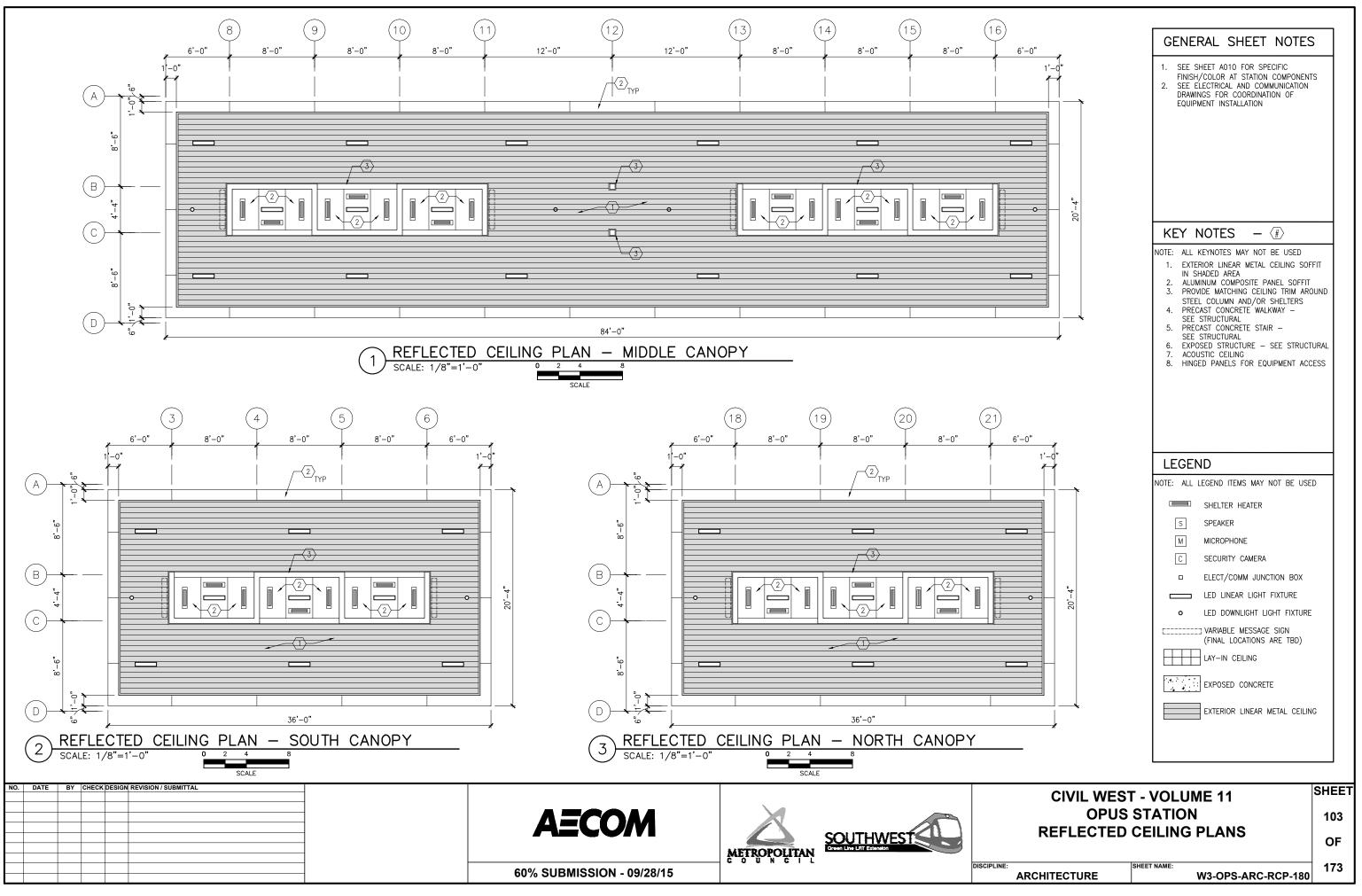
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A212 OPS A300 OPS SIM - (A111 OPS (18)(20)(17) (22)(19) (21 22'-0" 8'-0" 18'-0" 8'-0" 13'-0" -0' — € TRACK TRACK DATA POIN SEE A10 - 7 **`**0 -(19) 33> -(33) ⟨34⟩- $\langle 34 \rangle$ (34)- $\langle 34 \rangle$ $-28 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25 \\ -25$ **D-** <u>28</u> - <u>25</u> -{25} (12)-0--0-(5) 31 -{22} -(11) (14) $\langle 30 \rangle$ -{6> (18) (13) **D-** (28) **D-** (28) (18) TYP⁽²⁵⁾ 33> (17 ò - (32) °, -{19> (32 _ _ 18'-0" 6'-0" 6'-0" 26**'**-0" —— €_ TRACK TRACK DATA POIN SEE A10 2 A212 OPS Ψ MATCHLI -----NORTH PARTIAL PLATFORM PLAN SCALE: 1/8"=1'-0" _____ NO. DATE BY CHECK DESIGN REVISION / SUBMITTAL AECOM METROPOLITAN DISCIPLIN 60% SUBMISSION - 09/28/15

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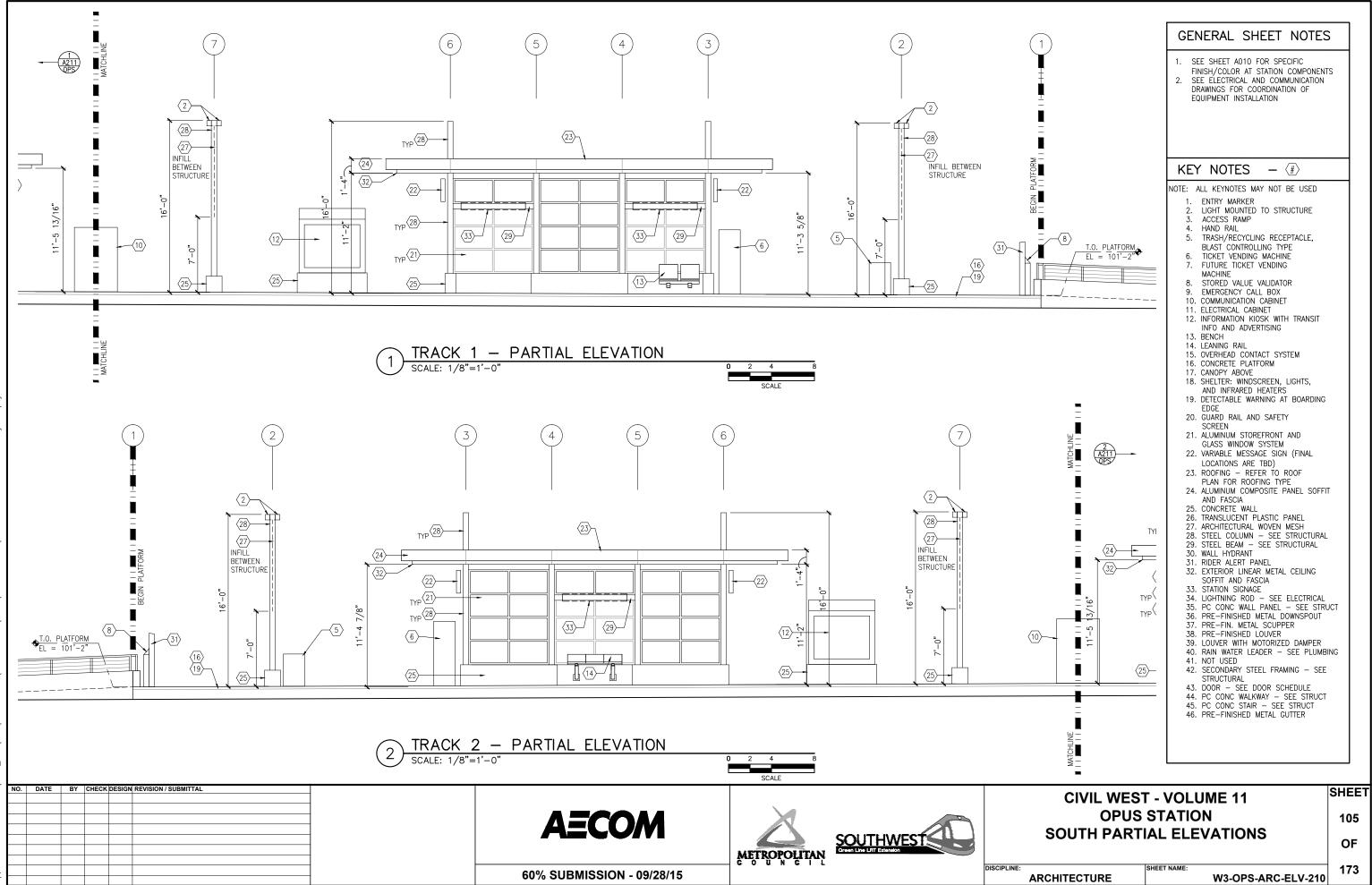
	GENERAL SHEET NOTES	\$ 		
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23 SEE OPS A101 1 B T B T B C A C A C C C C C C C C C C C C C	 KEY NOTES – (₽) NOTE: ALL KEYNOTES MAY NOT BE USED 1. ENTRY MARKER 2. LIGHT MOUNTED TO STRUCTURE 3. ACCESS RAMP 4. HAND RAIL 5. TRASH/RECYCLING RECEPTACLE, BLAST CONTROLLING TYPE 6. TICKET VENDING MACHINE 7. FUTURE TICKET VENDING MACHINE 8. STORED VALUE VALIDATOR 9. EMERGENCY CALL BOX 10. COMMUNICATION CABINET 11. ELECTRICAL CABINET 12. INFORMATION KIOSK WITH TRANSIT II AND ADVERTISING 13. BENCH 14. LEANING RAIL 15. OVERHEAD CONTACT SYSTEM 16. CONCRETE PLATFORM 17. CANOPY ABOVE 18. SHELTER: WINDSCREEN, LIGHTS, AND INFRARED HEATERS 19. DETECTABLE WARNING AT BOARDING EDGE 20. GUARD RAIL AND SAFETY SCREEN 21. ALUMINUM STOREFRONT AND GLASS WINDOW SYSTEM 22. VARIABLE MESSAGE SIGN ABOVE (FII LOCATIONS ARE TBD) 23. ROOFING - REFER TO ROOF PLAN FOR ROOFING TYPE 24. ALUMINUM COMPOSITE PANEL SOFFT AND FASCIA 25. CONCRETE WALL 26. TRANSLUCENT PLASTIC PANEL 27. ARCHITECTURAL WOVEN MESH 28. STEEL COLUMN - SEE STRUCTURAL 29. STEEL BEAM - SEE STRUCTURAL 20. WALL HYDRANT 31. RIDER ALERT PANEL 32. ADA DOOR POSITION INDICATOR 33. AREA DRAIN 34. PRE-FINISHED METAL DOWNSPOUT 	VAL T		
+++- TRACK 2 -+++++++				
KEYPLAN				
		SHEET		
CIVIL WEST - VOLUME 11 OPUS STATION				
NORTH PARTIAL PLATFORM PLAN				
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	SHEET NAME: W3-OPS-ARC-PLN-112	173		

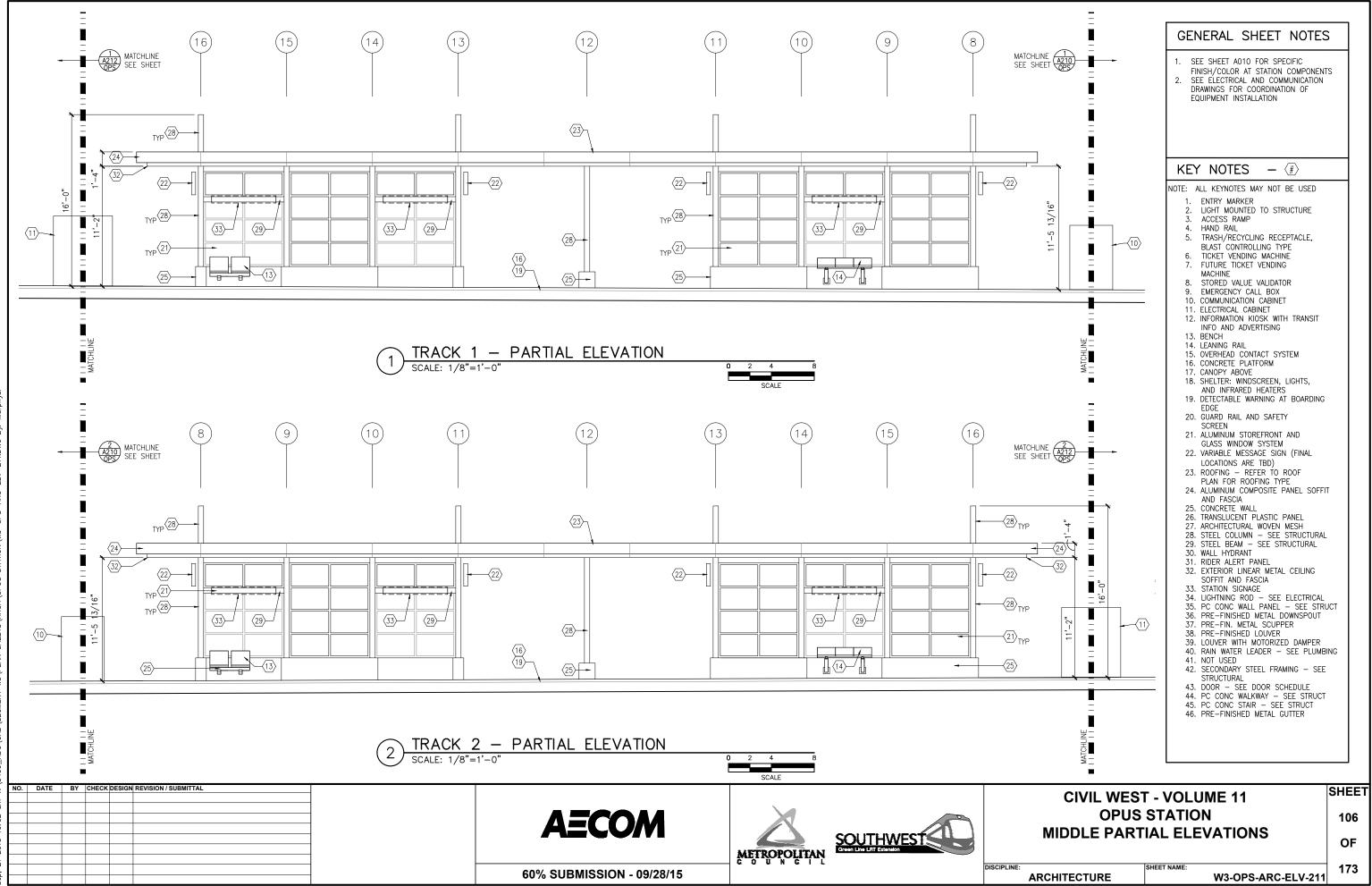




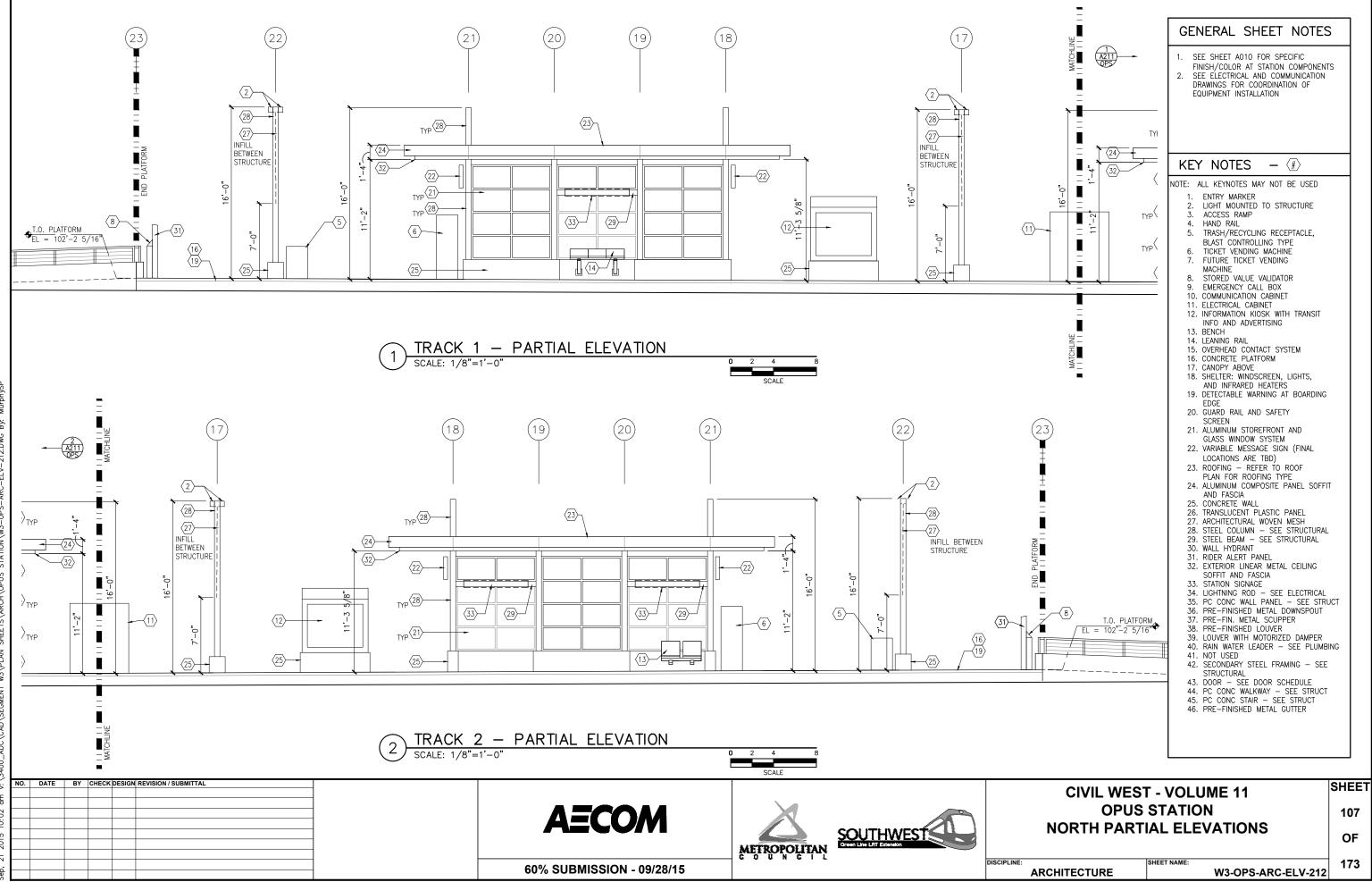


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ARCHITECTURE	W3-OPS-ARC-ELV-200	1/3	

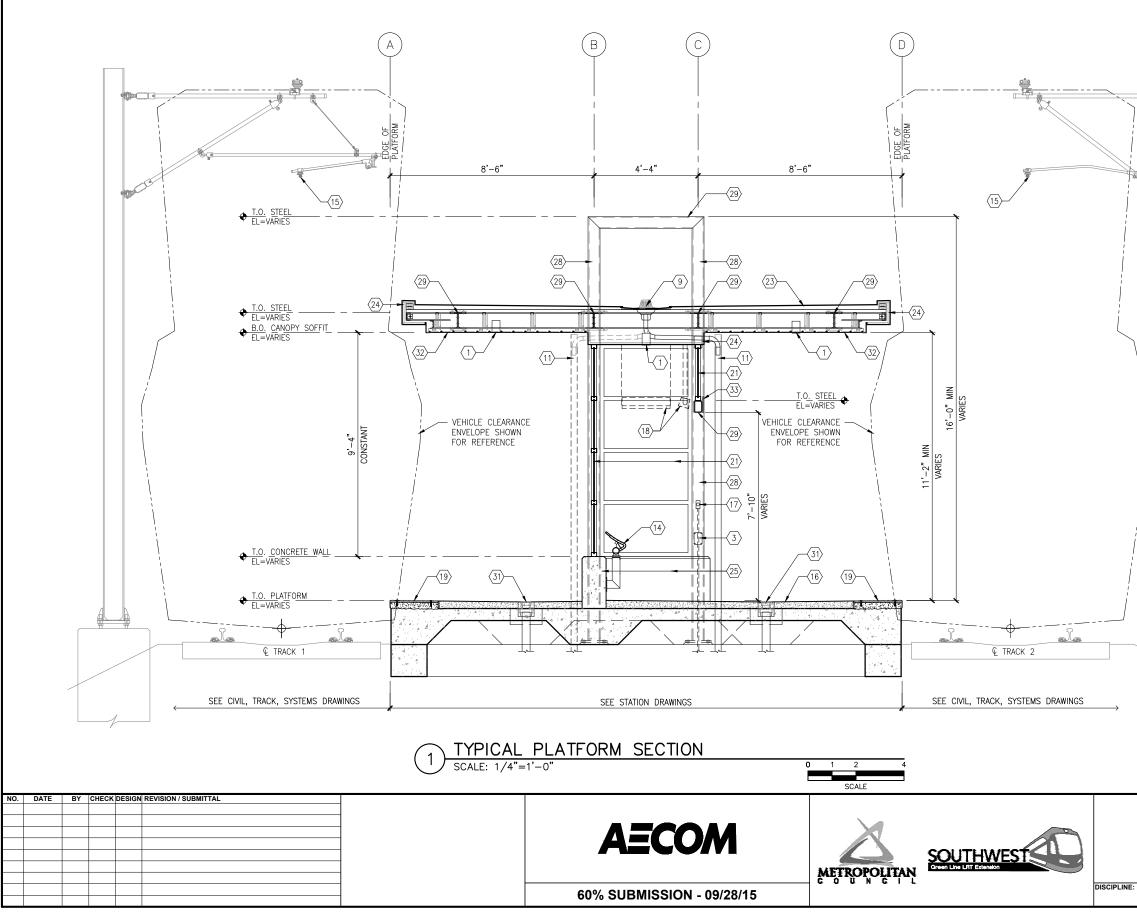




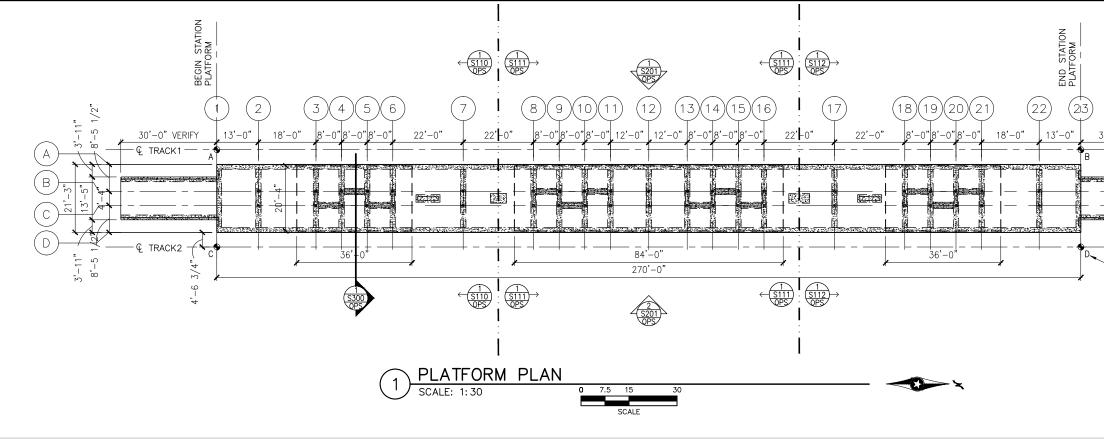
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	LEGEND			
	ARCHITECTURAL CONCRETE			
	R- ROOF TYPE - SEE A150			
CIVII WEST -	VOLUME 11	SHEET		
CIVIL WEST - VOLUME 11 OPUS STATION				
TYPICAL PLATFORM SECTION				
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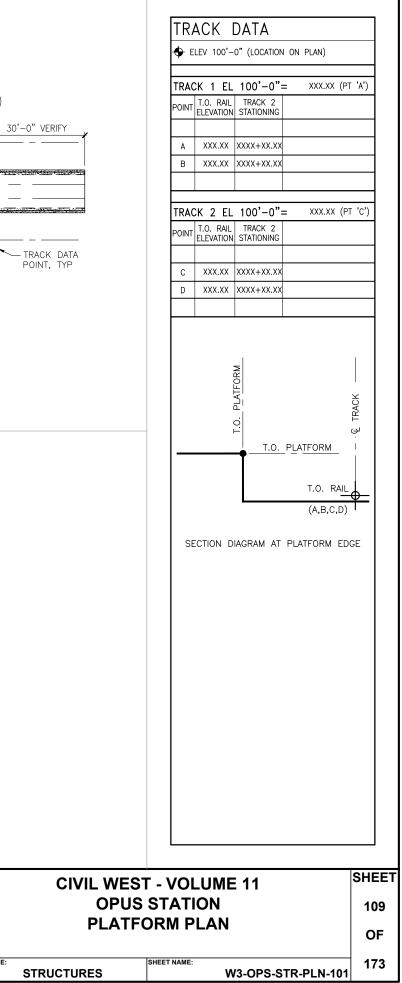
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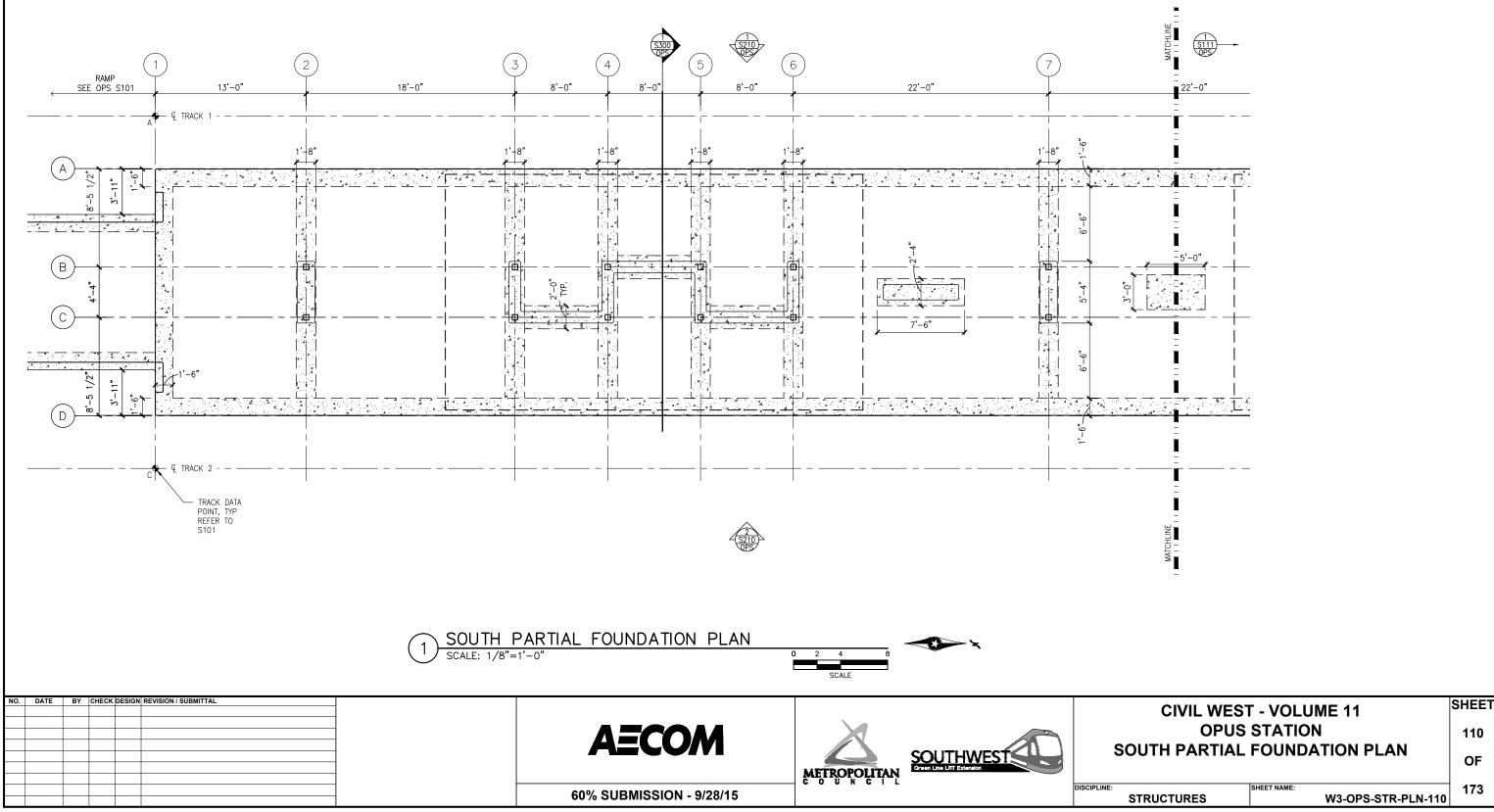
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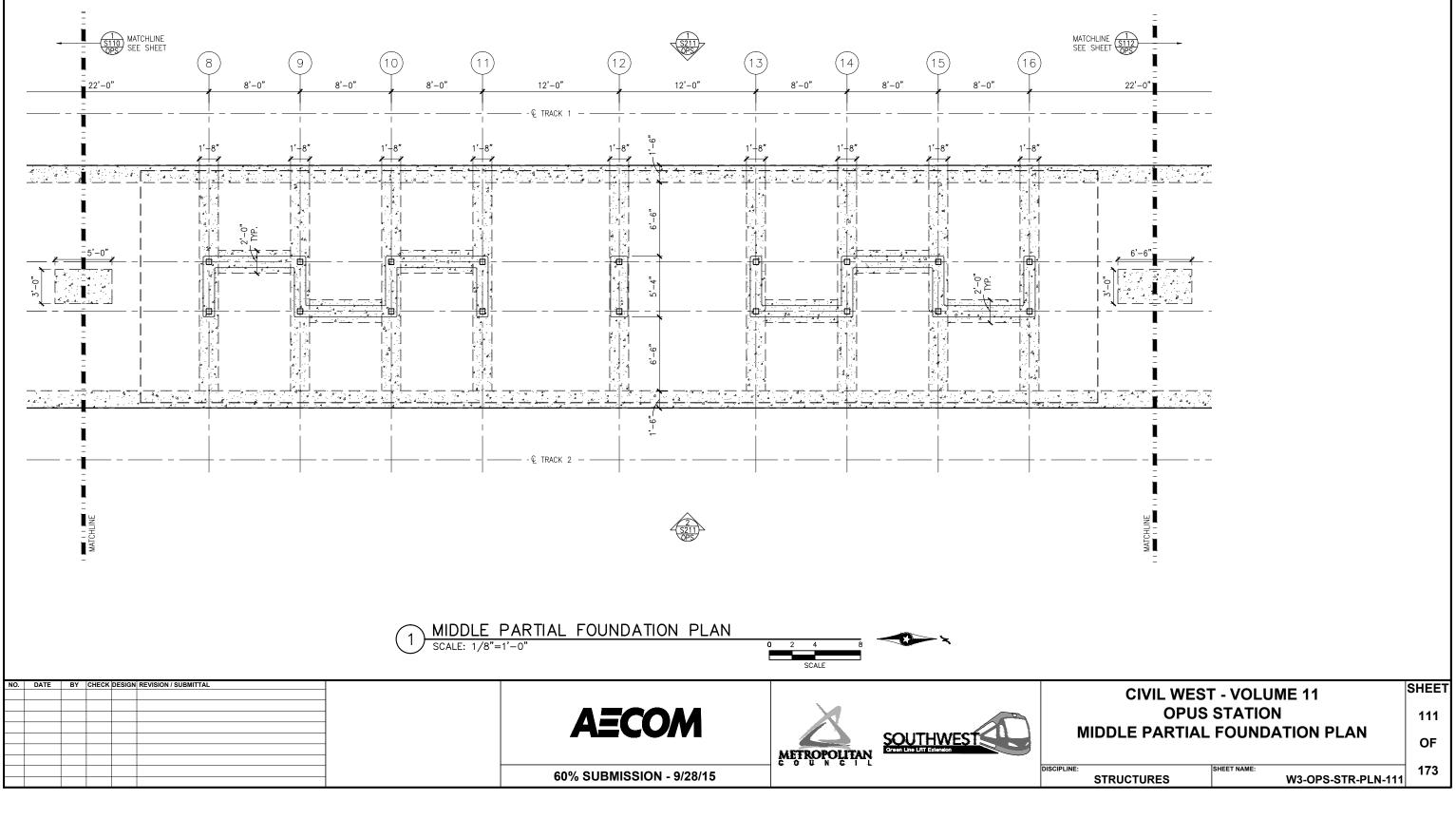
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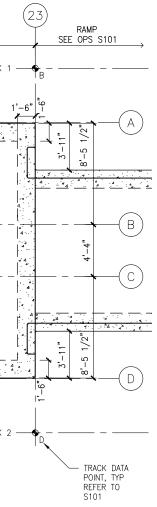
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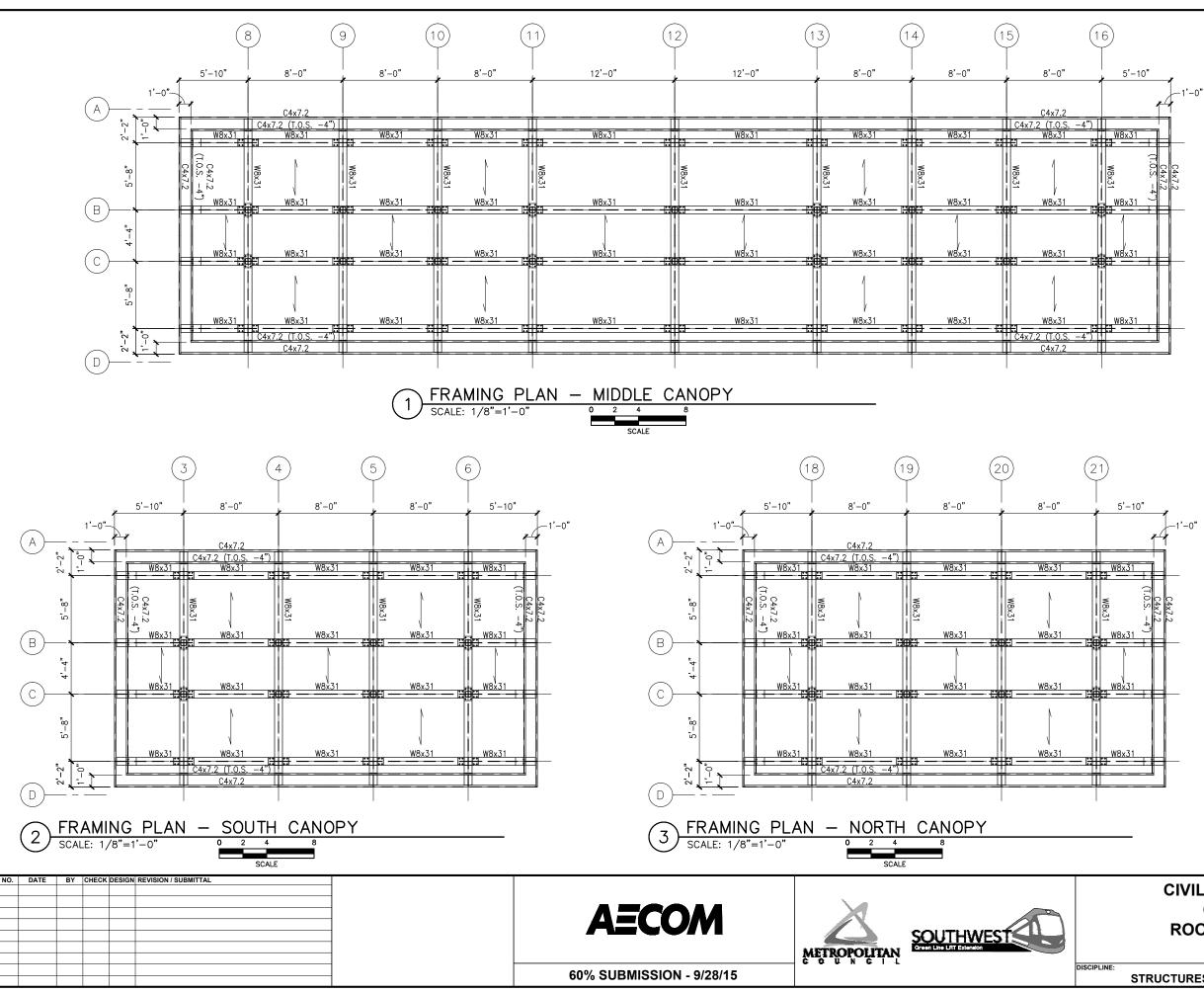
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CIVIL WEST - VOLUME 11				
OPUS STATION NORTH PARTIAL FOUNDATION PLAN				
STRUCTURES	W3-OPS-STR-PLN-112			



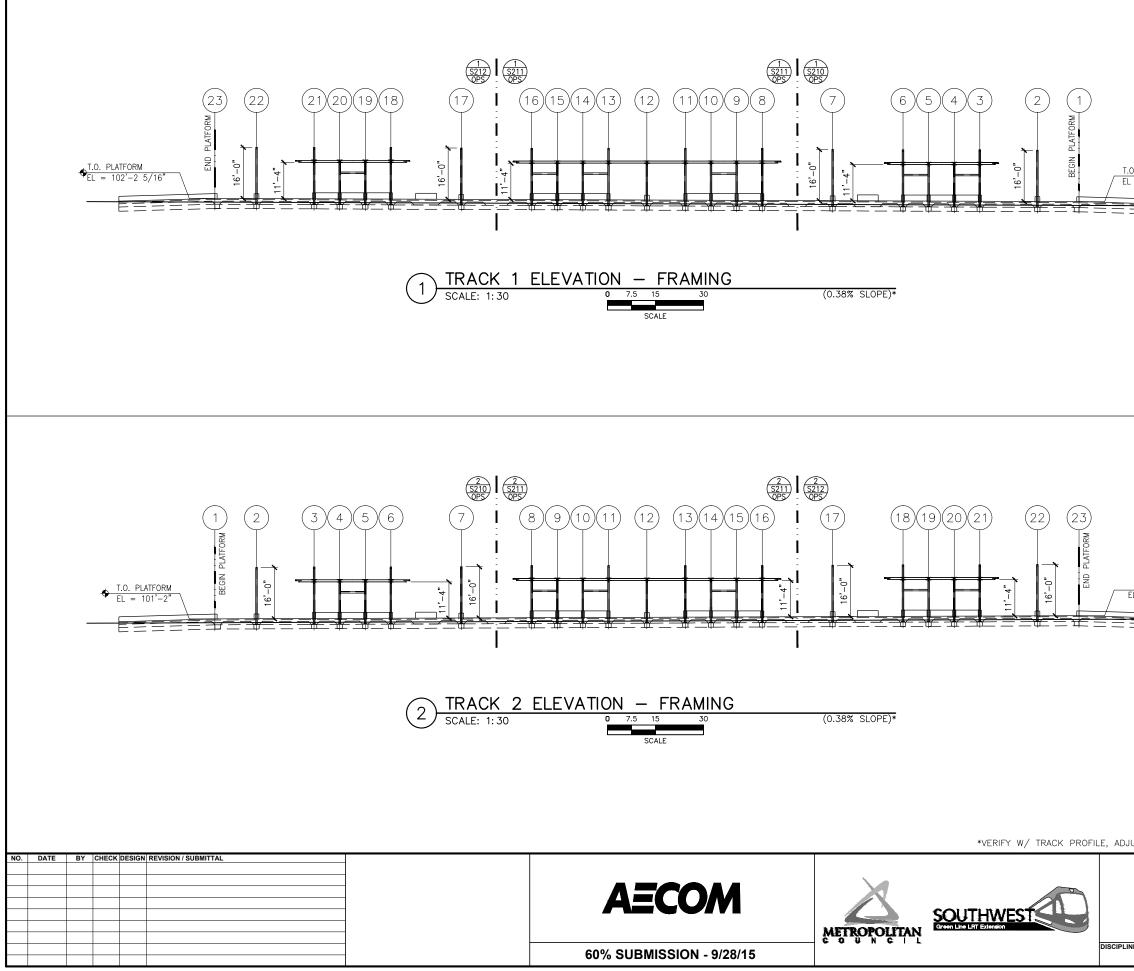
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	STRUCTURES	

173 W3-OPS-STR-PLN-150

CIVIL WEST - VOLUME 11 ON PLANS

SHEET 113

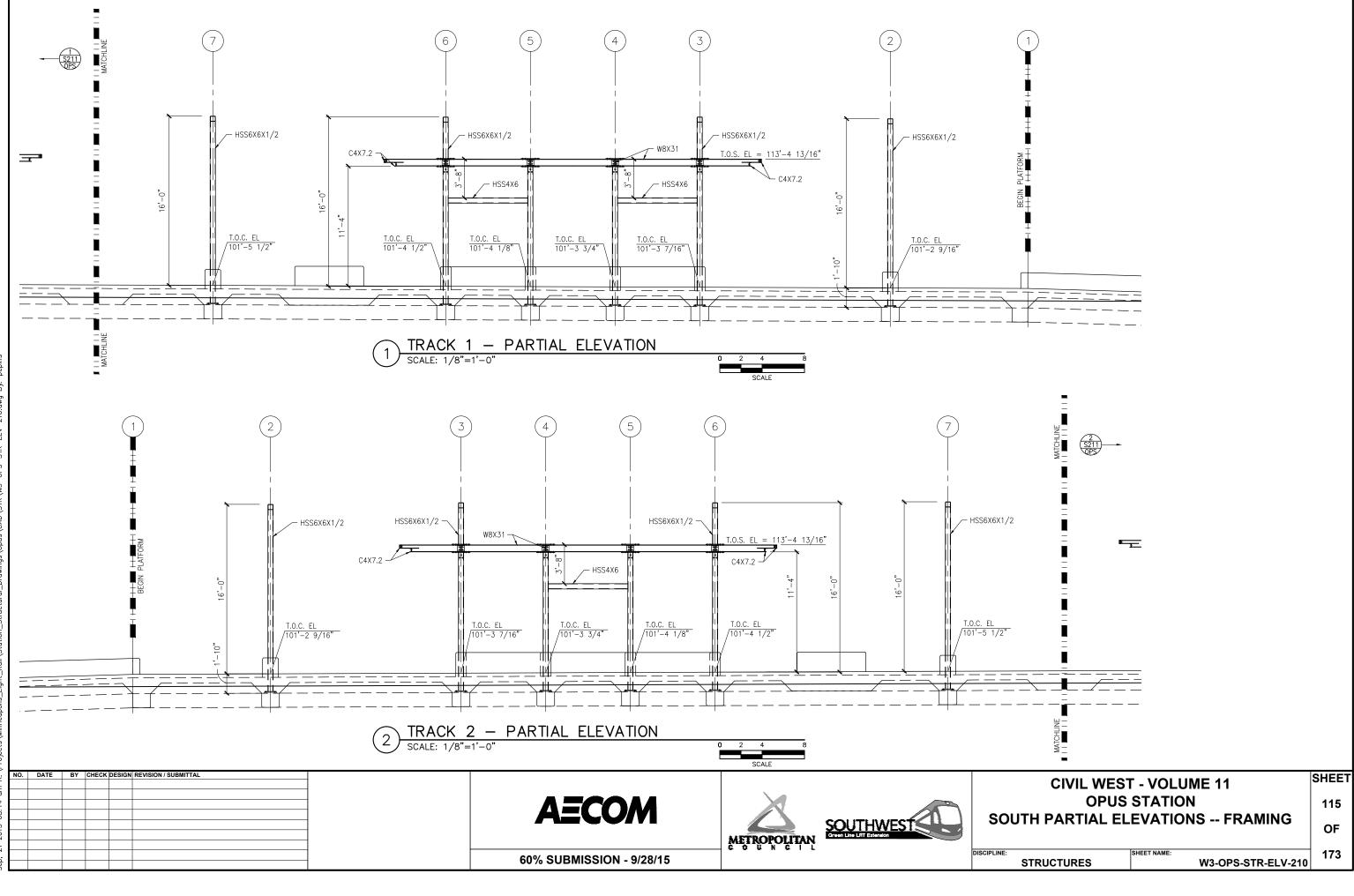
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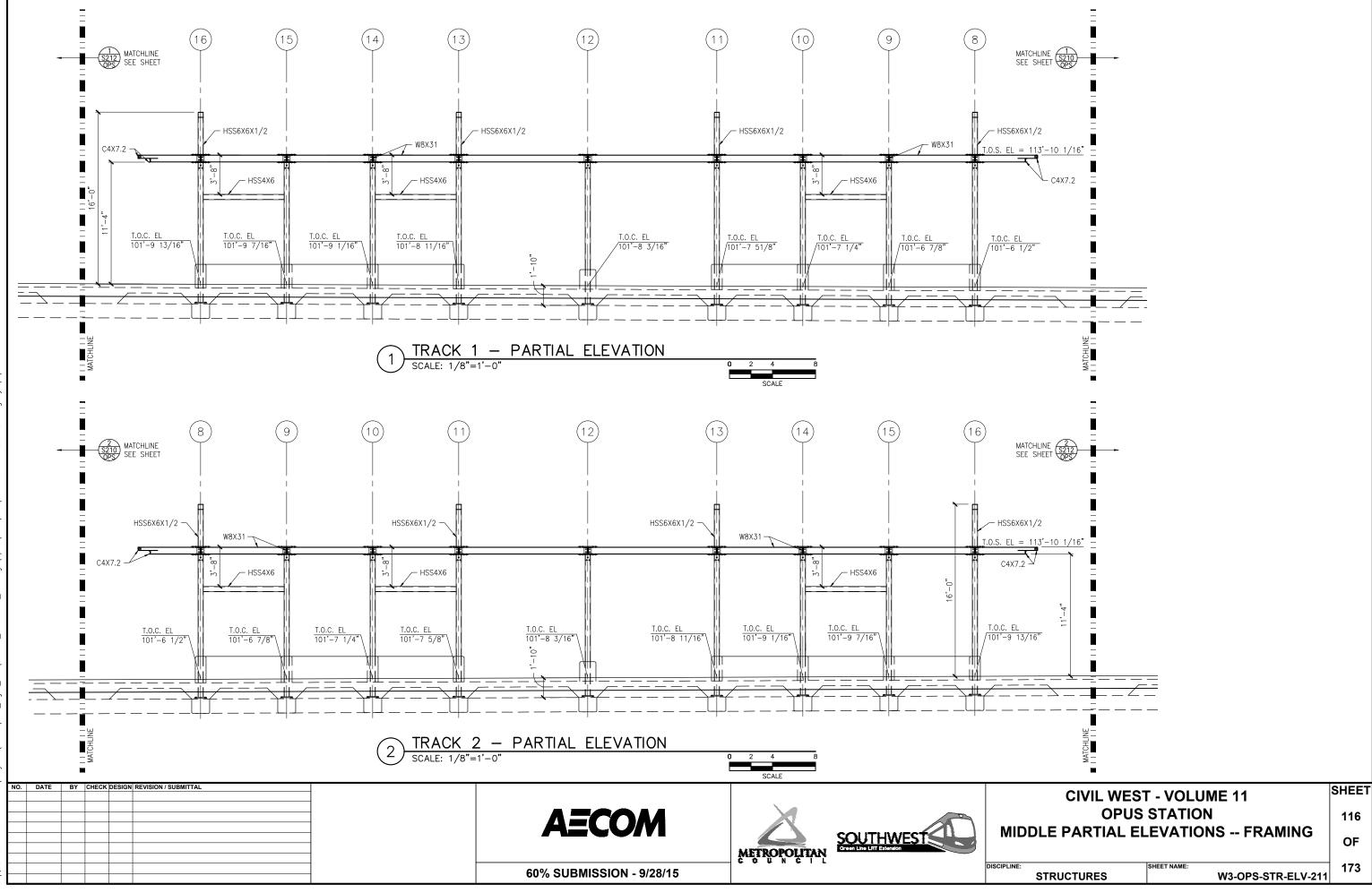


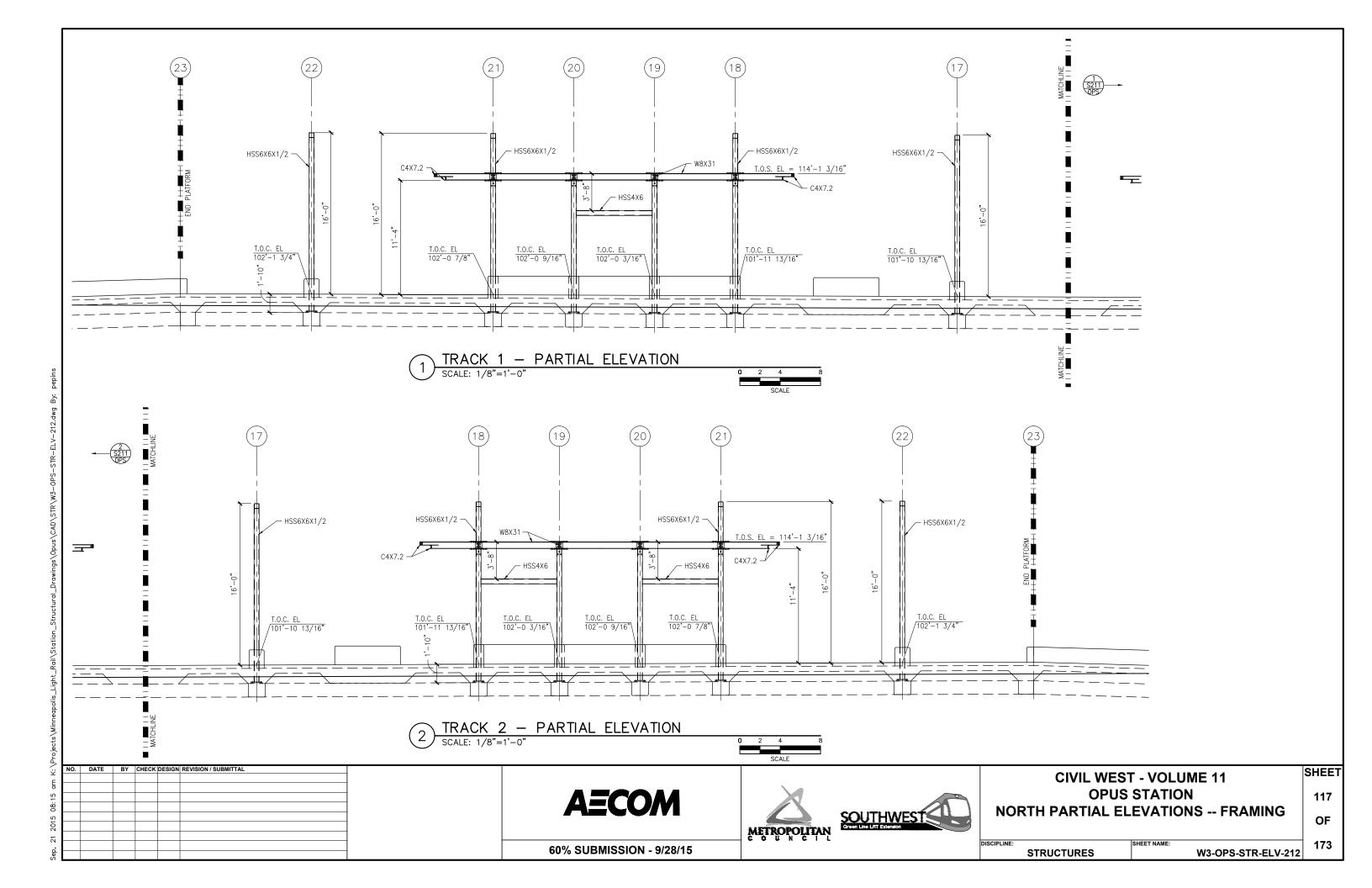
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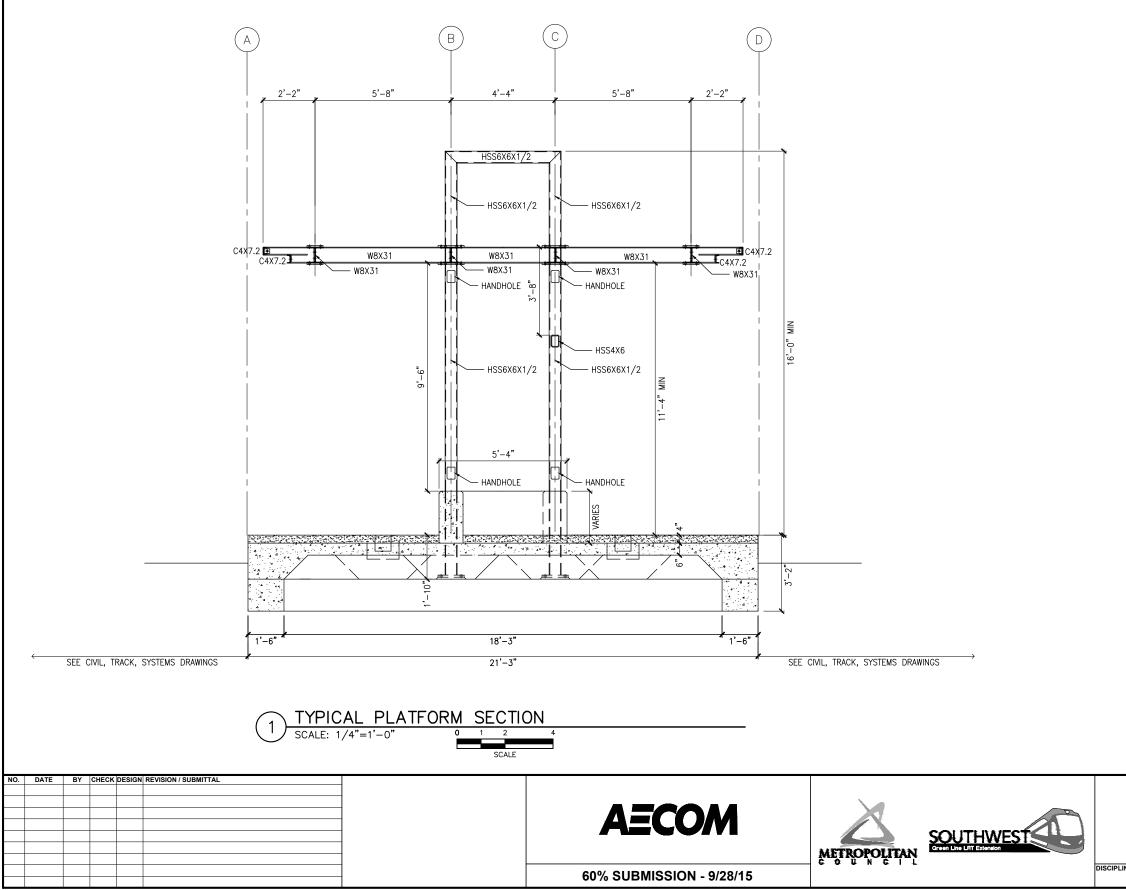
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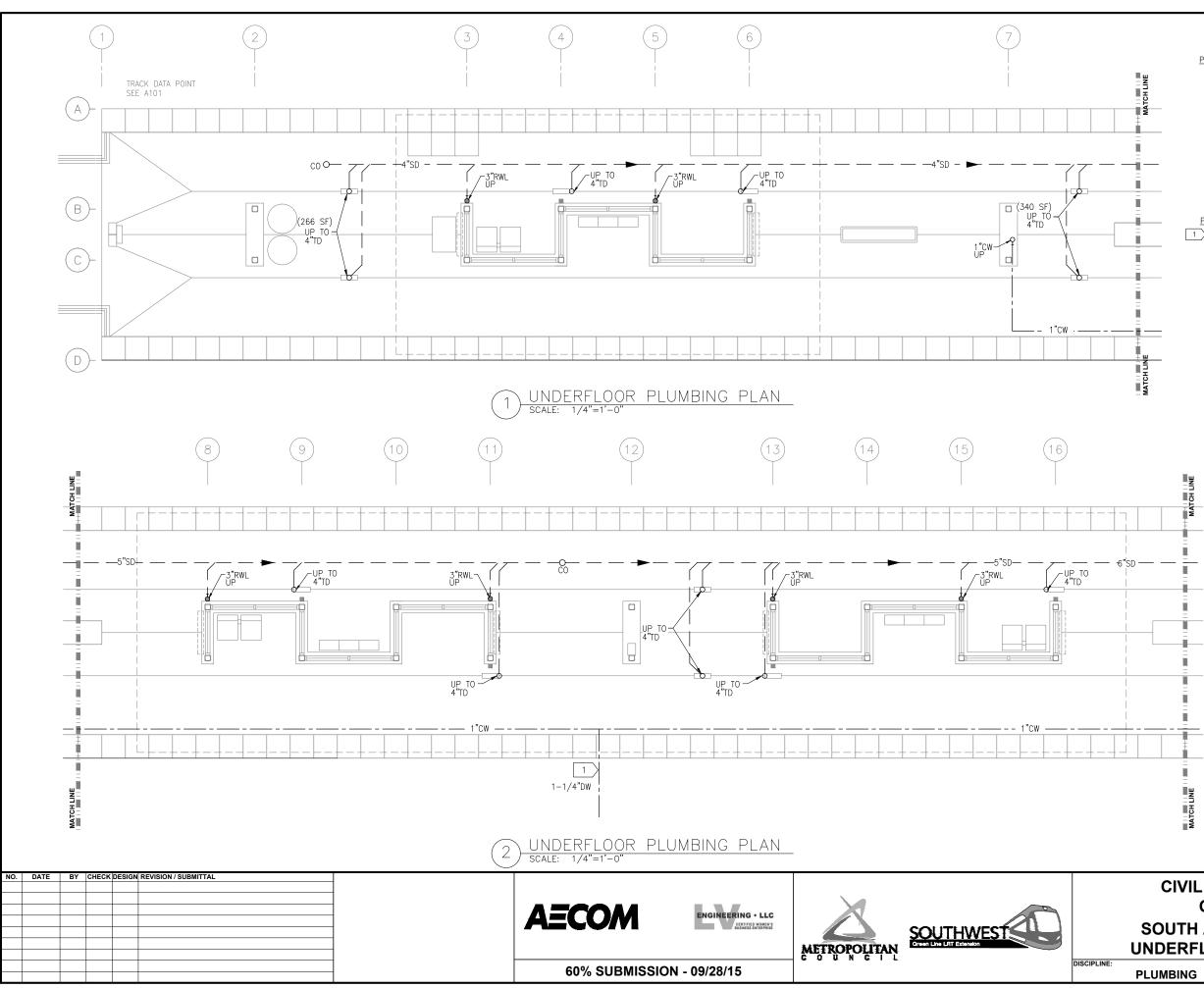








CIVIL WEST - VOLUME ²	11 SHEET
OPUS STATION TYPICAL PLATFORM SEC	118 FION
	OF 173
	OPS-STR-SCT-300





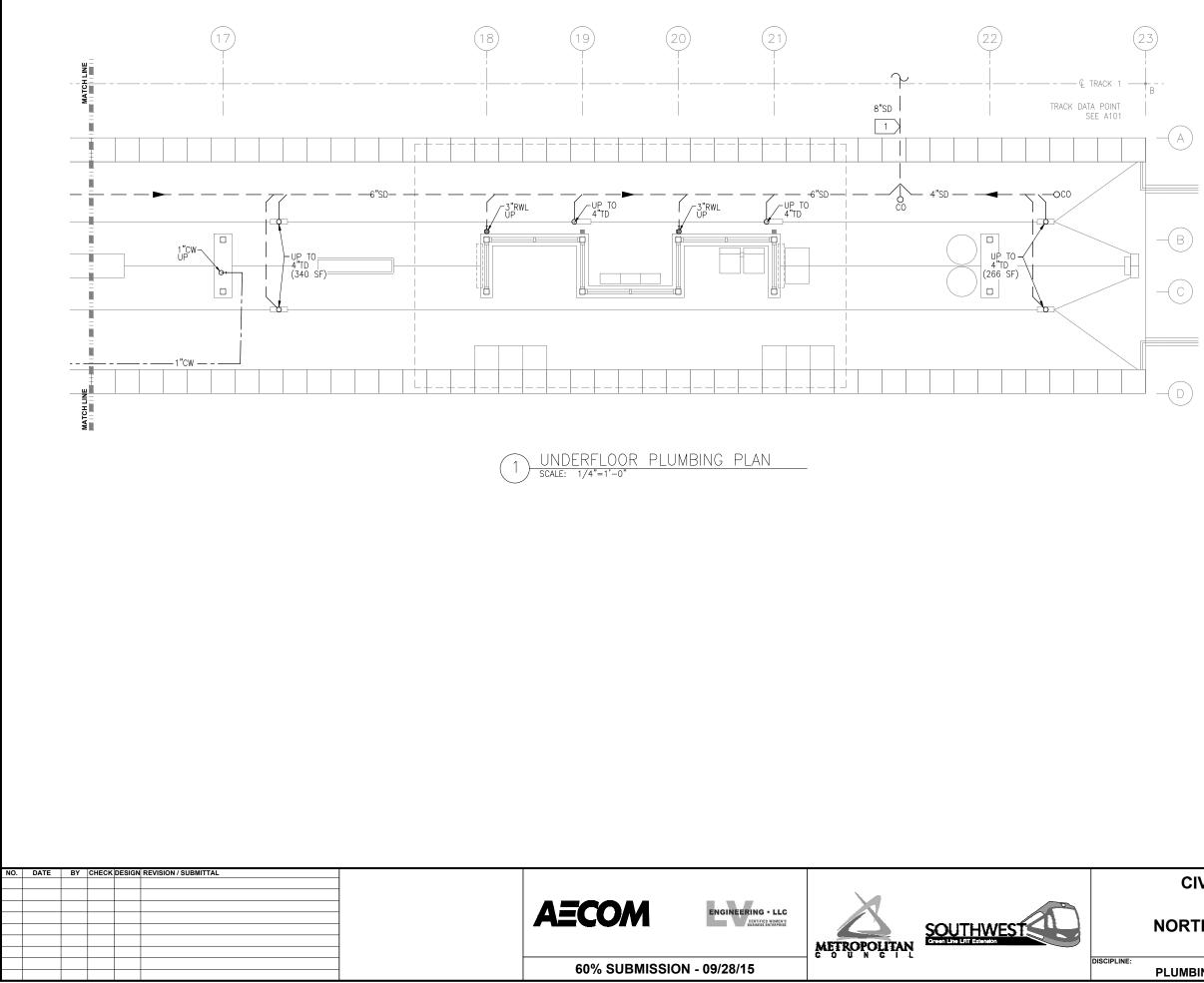
PLUMBING GENERAL NOTES

- A. CONTRACTOR SHALL VERIFY ALL DIMENSIONS. ANY DISCREPENCIES BETWEEN DRAWINGS AND FIELD CONDITIONS SHALL BE REPORTED TO THE ARCHITECT
- PRIOR TO PROCEEDING WITH WORK. B. HEAT TRACING ALONG ALL GUTTERS, AROUND ALL ROOF DRAINS, AND ALL RAIN LEADERS SHALL BE BY ELECTRICAL DIVISION.
- C. MAINTAIN CODE REQUIRED DISTANCE BETWEEN UNDERGROUND SANITARY AND UNDERGROUND POTABLE WATER.
- WAIER. D. REFER TO ARCHITECTURAL DRAWINGS FOR CEILING HEIGHTS AND LAYOUT. E. REFER TO ARCHITECTURAL DRAWINGS AND SPECIFICATIONS FOR STORM DOWNSPOUT MATERIAL.

PLUMBING KEY NOTES:

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CIVIL WEST - VOLUME 11					
OPUS STATION					
SOUTH AND MIDDLE PARTIAL					
UNDERFLOOR PLUMBING PLAN					
W3-OPS-PLM-PLN-100	173				
	- VOLUME 11 STATION IIDDLE PARTIAL PLUMBING PLAN				



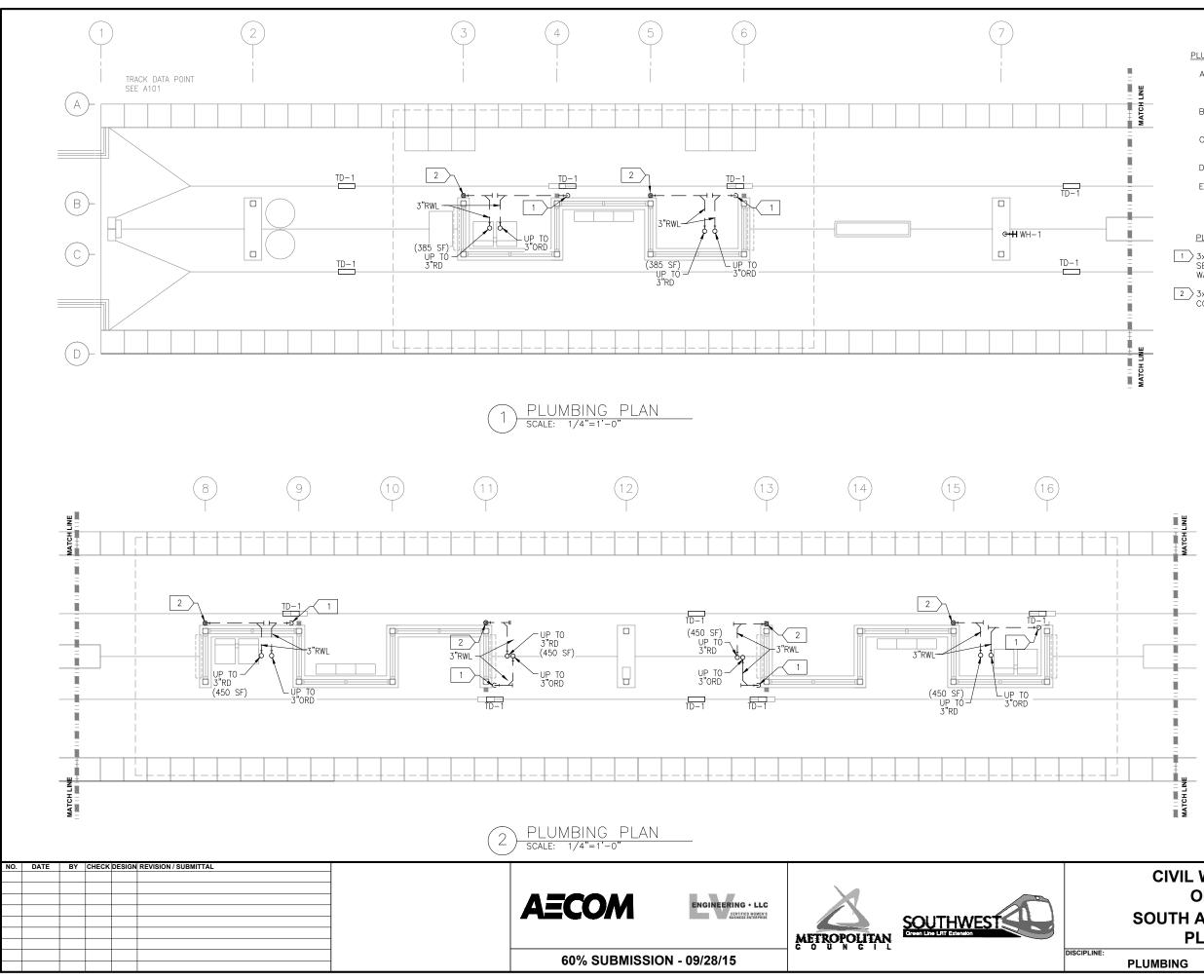
PLUMBING GENERAL NOTES

- A. CONTRACTOR SHALL VERIFY ALL DIMENSIONS. ANY DISCREPENCIES BETWEEN DRAWINGS AND FIELD CONDITIONS SHALL BE REPORTED TO THE ARCHITECT
- PRIOR TO PROCEEDING WITH WORK. B. HEAT TRACING ALONG ALL GUTTERS, AROUND ALL ROOF DRAINS, AND ALL RAIN LEADERS SHALL BE BY ELECTRICAL DIVISION.
- C. MAINTAIN CODE REQUIRED DISTANCE BETWEEN UNDERGROUND SANITARY AND UNDERGROUND POTABLE WATER.
- WATER. D. REFER TO ARCHITECTURAL DRAWINGS FOR CEILING HEIGHTS AND LAYOUT. E. REFER TO ARCHITECTURAL DRAWINGS AND SPECIFICATIONS FOR STORM DOWNSPOUT MATERIAL.

PLUMBING KEY NOTES:

EXTEND WATER AND STORM OUTSIDE GUIDEWAY. CONNECTION BY OUTDOOR UTILITY CONTRACTOR.

	CIVIL WEST - VOLUME 11					
	OPUS STATION					
NORTH PARTIAL UNDERFLOOR						
PLUMBING PLAN						
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PLUMBING GENERAL NOTES

- A. CONTRACTOR SHALL VERIFY ALL DIMENSIONS. ANY DISCREPENCIES BETWEEN DRAWINGS AND FIELD CONDITIONS SHALL BE REPORTED TO THE ARCHITECT PRIOR TO PROCEEDING WITH WORK.
 B. HEAT TRACING ALONG ALL GUTTERS, AROUND ALL ROOF DRAINS, AND ALL RAIN LEADERS SHALL BE BY ELECTRICAL DIVISION.
 MAINTAIN CODE REQUIRED DISTANCE RETWEEN
- C. MAINTAIN CODE REQUIRED DISTANCE BETWEEN UNDERGROUND SANITARY AND UNDERGROUND POTABLE WATER.
- D. REFER TO ARCHITECTURAL DRAWINGS FOR CELLING HEIGHTS AND LAYOUT. E. REFER TO ARCHITECTURAL DRAWINGS AND SPECIFICATIONS FOR STORM DOWNSPOUT
- MATERIAL.

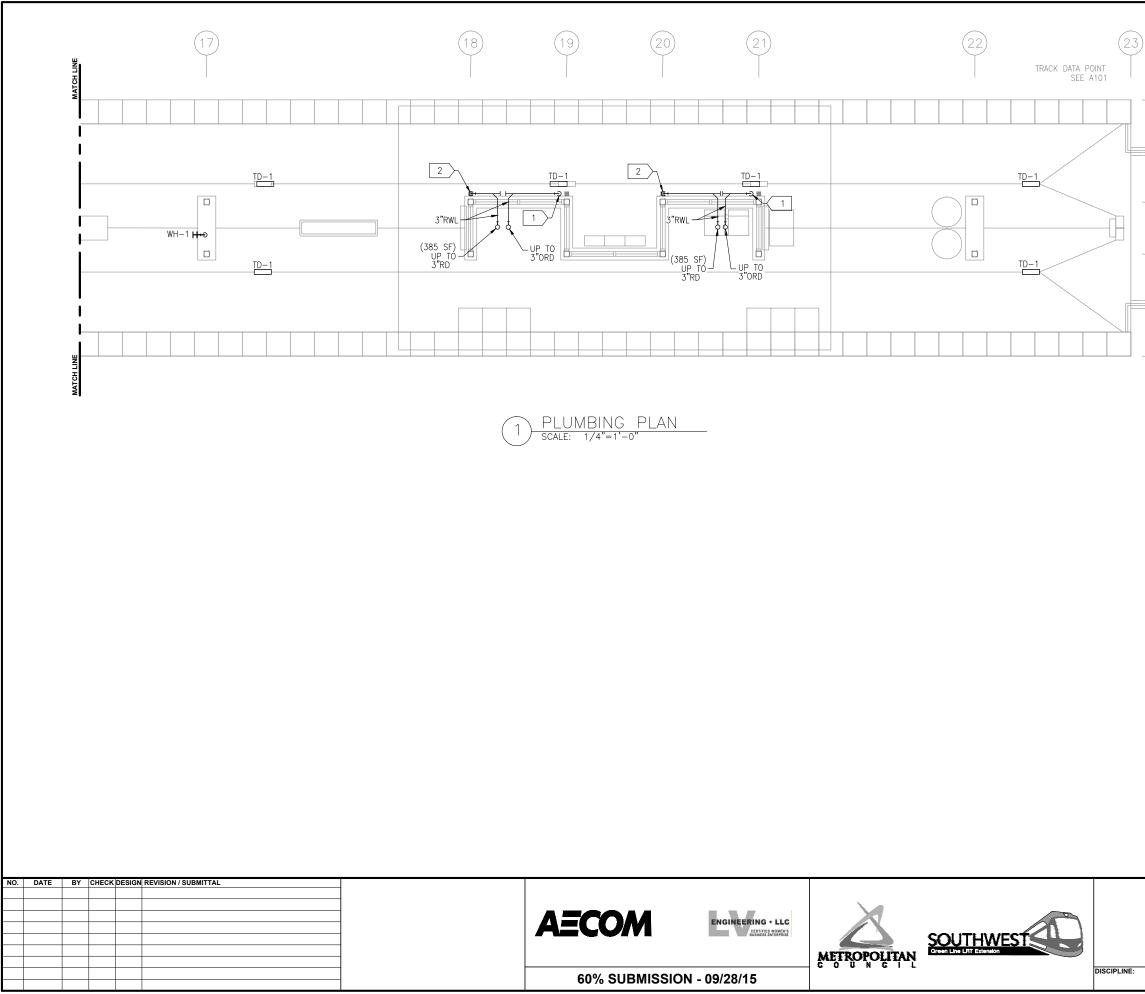
PLUMBING KEY NOTES

- 3x3
 RWL DOWN TO DAYLIGHT ABOVE TD-1.

 SEE
 ARCHITECTURAL DOCUMENTS FOR RAIN

 WATER
 LEADER
- 2 3x3 RWL DOWN TO JOSAM_____ CONNECTION TO 3" UNDERFLOOR STORM DRAIN.

CIVIL WEST - VOLUME 11				
OPUS STATION				
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PLUMBING GENERAL NOTES

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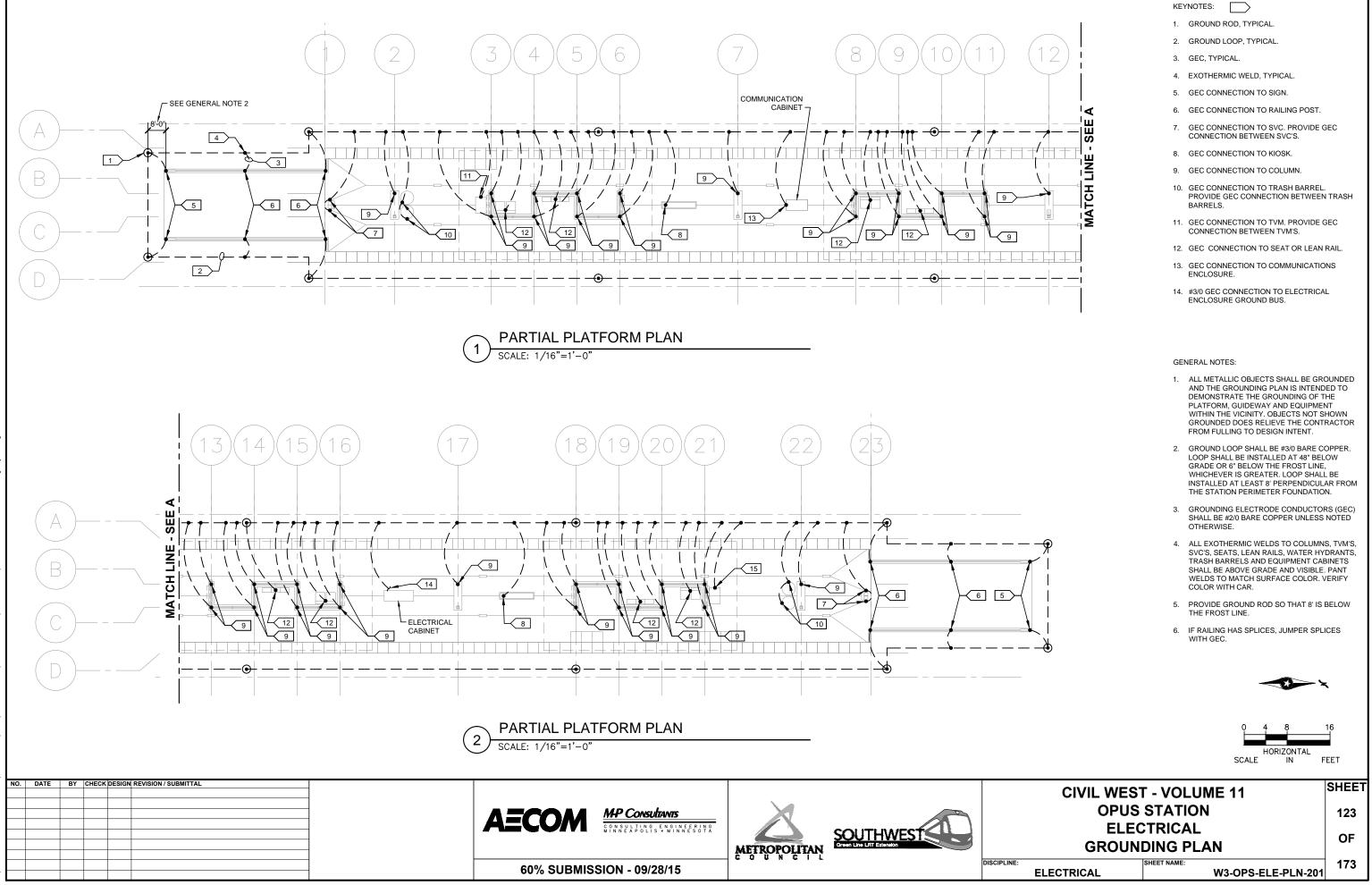
- A. CONTRACTOR SHALL VERIFY ALL DIMENSIONS. ANY DISCREPENCIES BETWEEN DRAWINGS AND FIELD CONDITIONS SHALL BE REPORTED TO THE ARCHITECT PRIOR TO PROCEEDING WITH WORK.
 B. HEAT TRACING ALONG ALL GUTTERS, AROUND ALL ROOF DRAINS, AND ALL RAIN LEADERS SHALL BE BY ELECTRICAL DIVISION.
 C. MAINTAIN CODE REQUIRED DISTANCE BETWEEN UNDERGROUND SANITARY AND UNDERGROUND POTABLE WATER.
- POTABLE WATER.
- POTABLE WATER.
 D. REFER TO ARCHITECTURAL DRAWINGS FOR CEILING HEIGHTS AND LAYOUT.
 E. REFER TO ARCHITECTURAL DRAWINGS AND SPECIFICATIONS FOR STORM DOWNSPOUT
- MATERIAL.

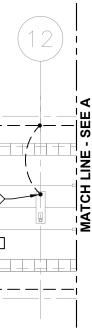
PLUMBING KEY NOTES

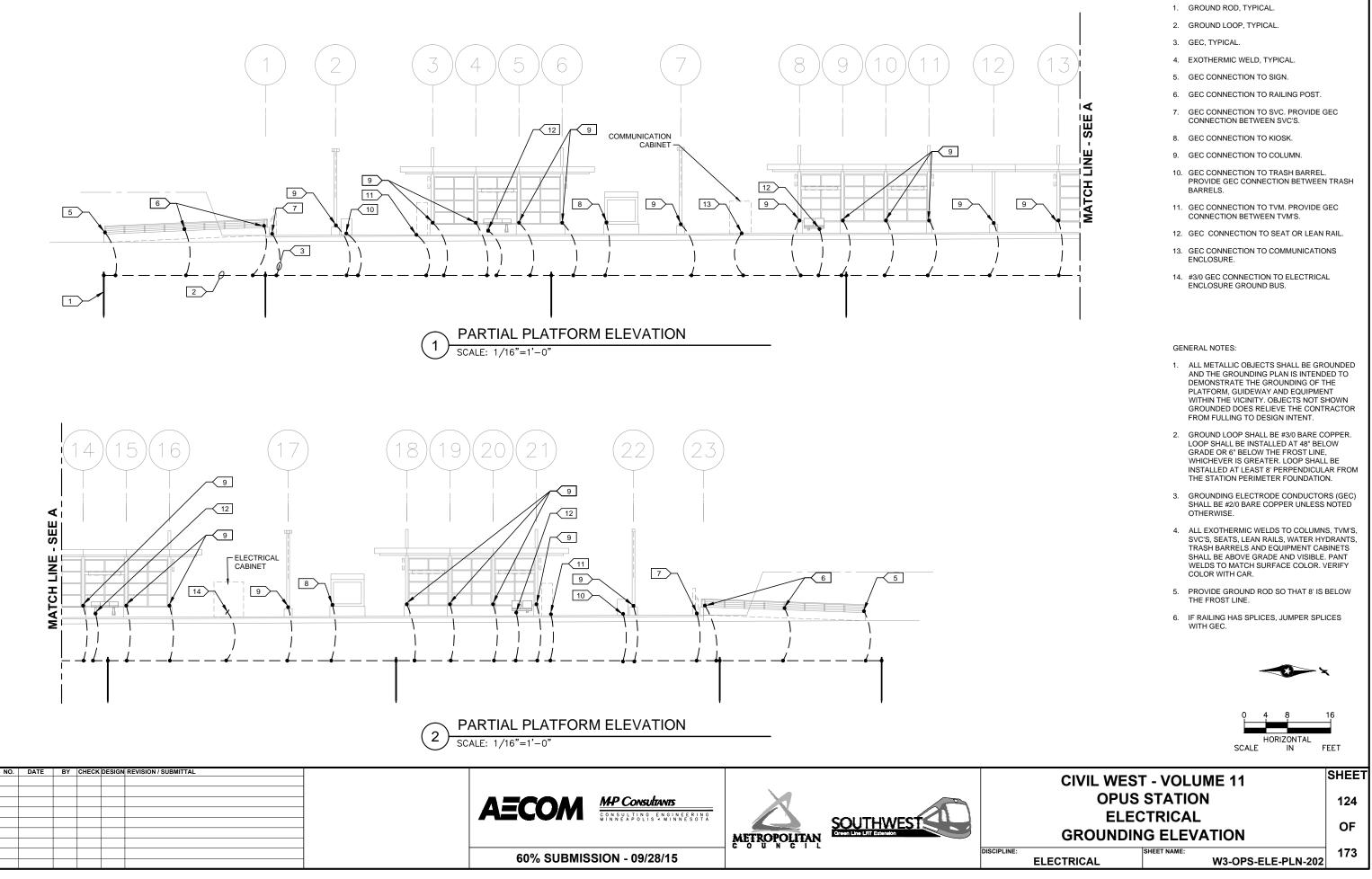
- 1
 3x3
 RWL DOWN TO DAYLIGHT ABOVE TD-1.

 SEE
 ARCHITECTURAL DOCUMENTS FOR RAIN
 WATER LEADER MATERIAL AND SHAPE.
- 2 3x3 RWL DOWN TO JOSAM_____ CONNECTION TO 3" UNDERFLOOR STORM DRAIN.

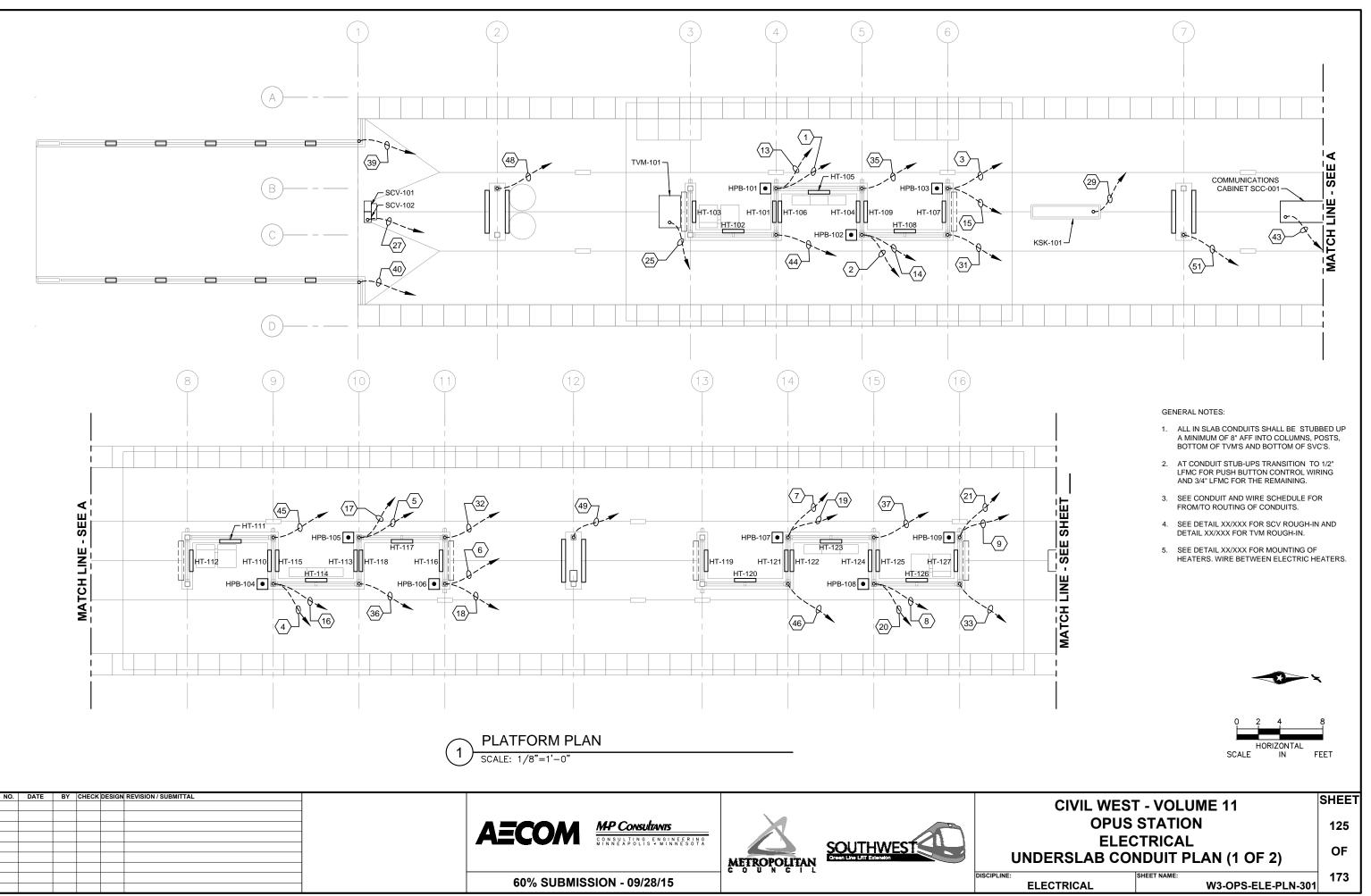
CIVIL WEST - VOLUME 11					
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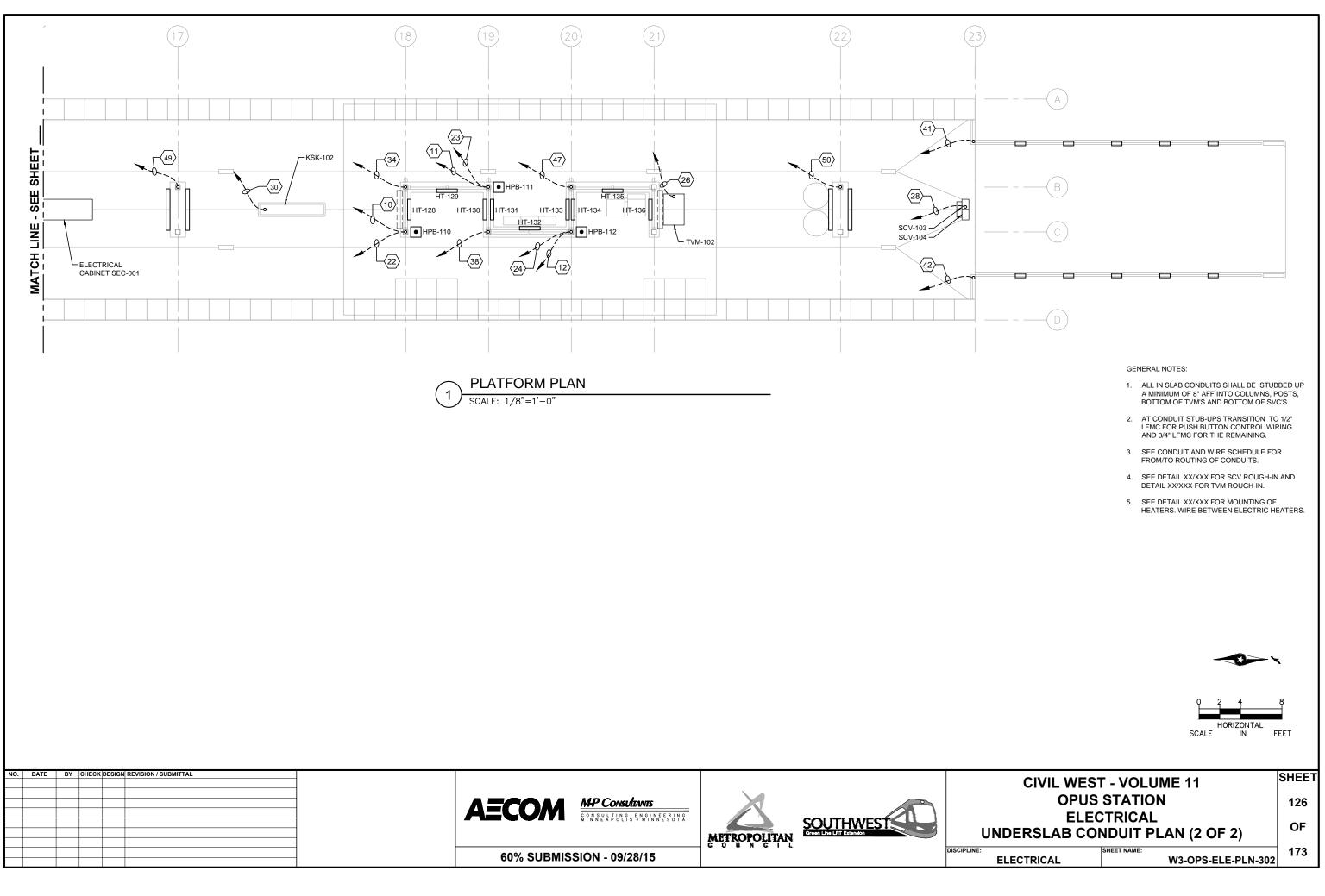




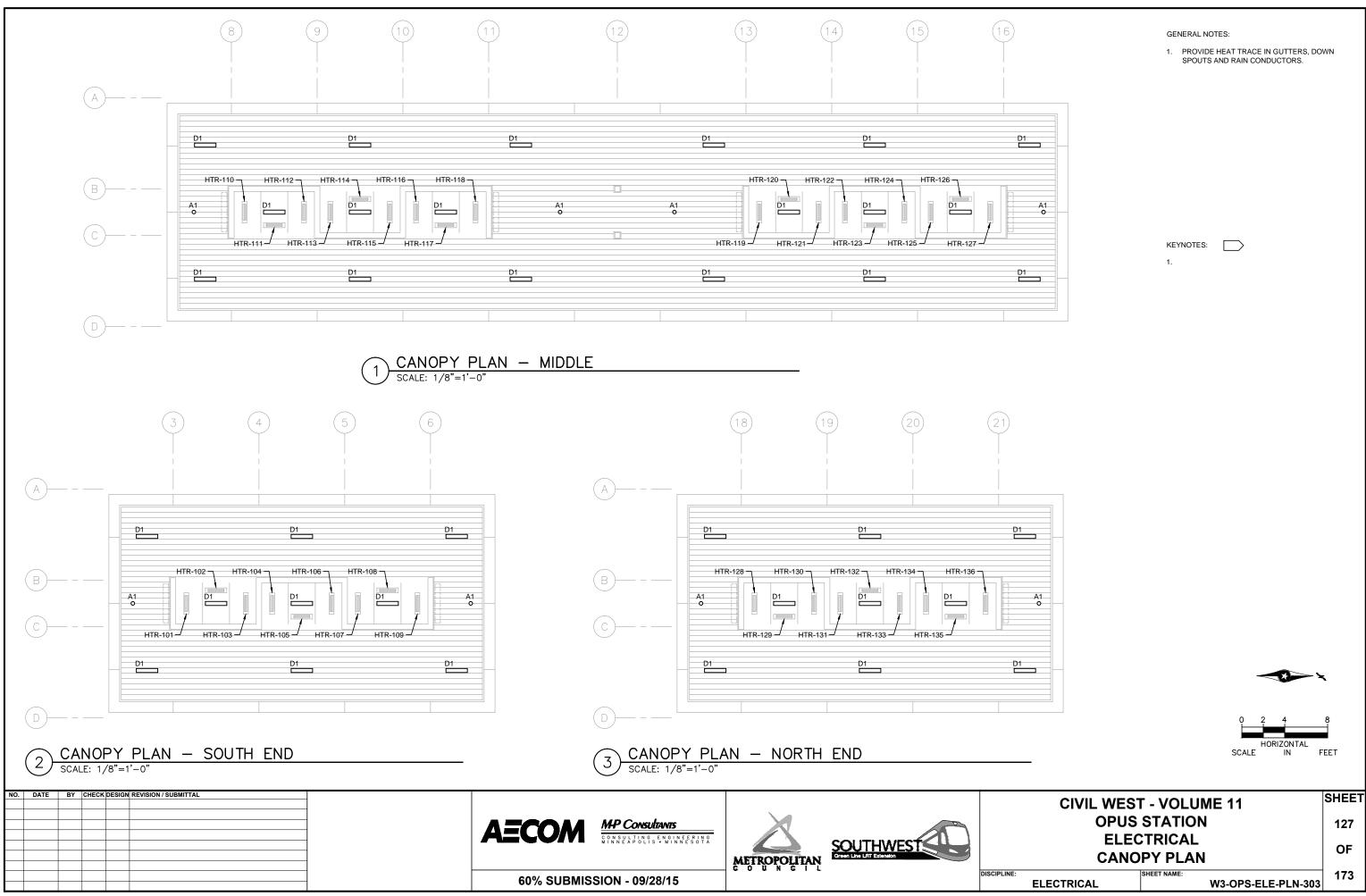


KEYNOTES:

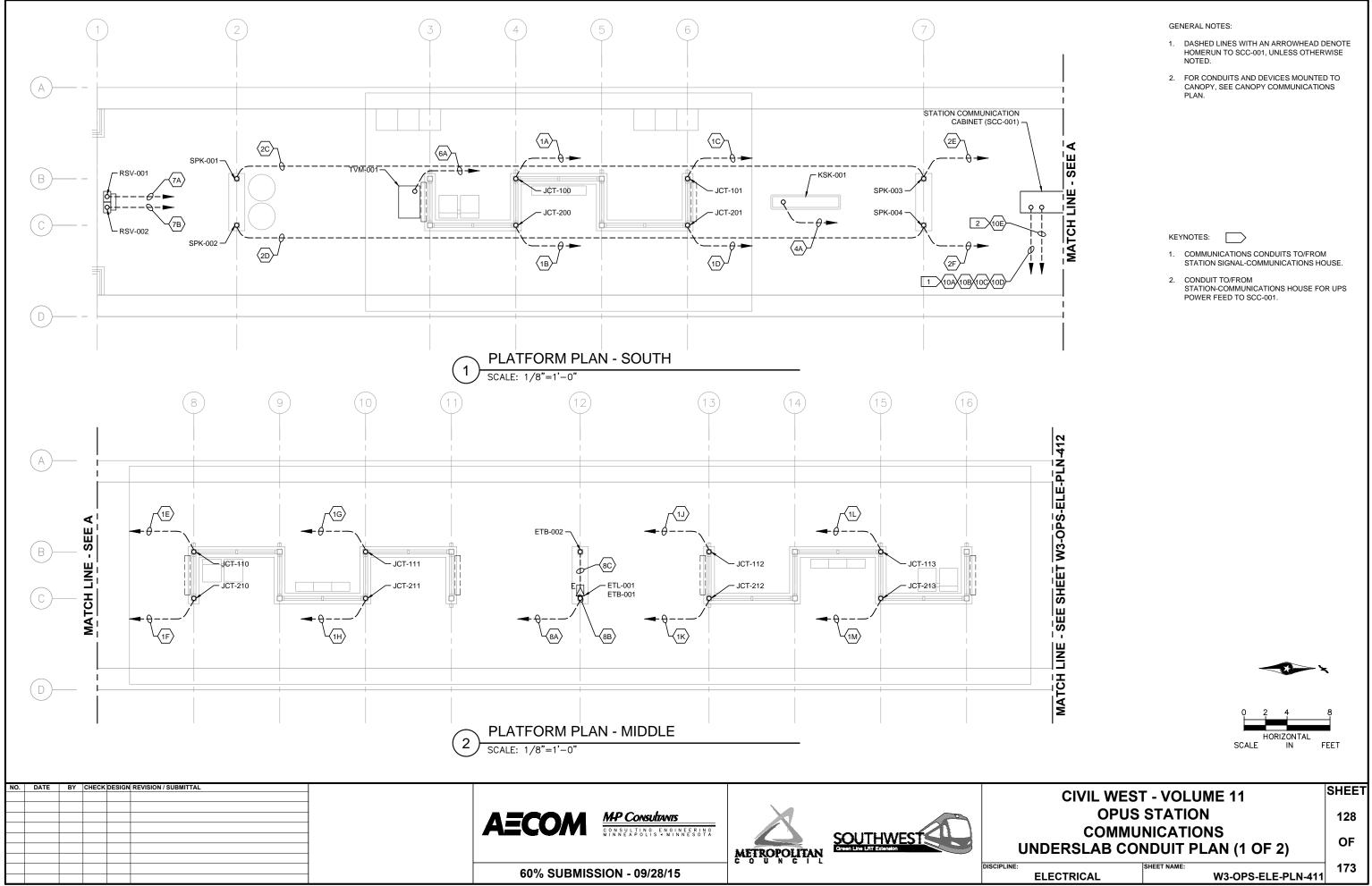




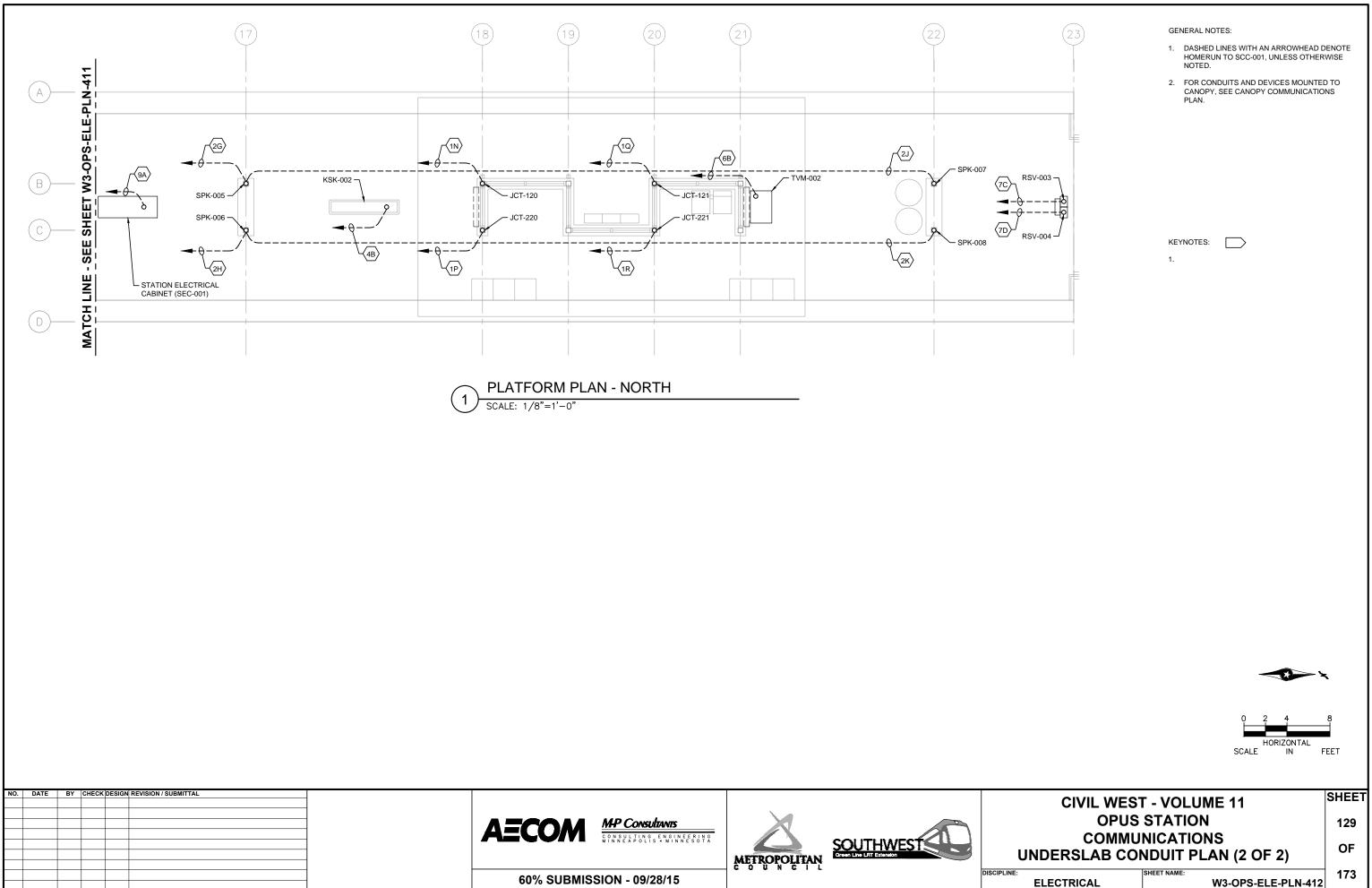
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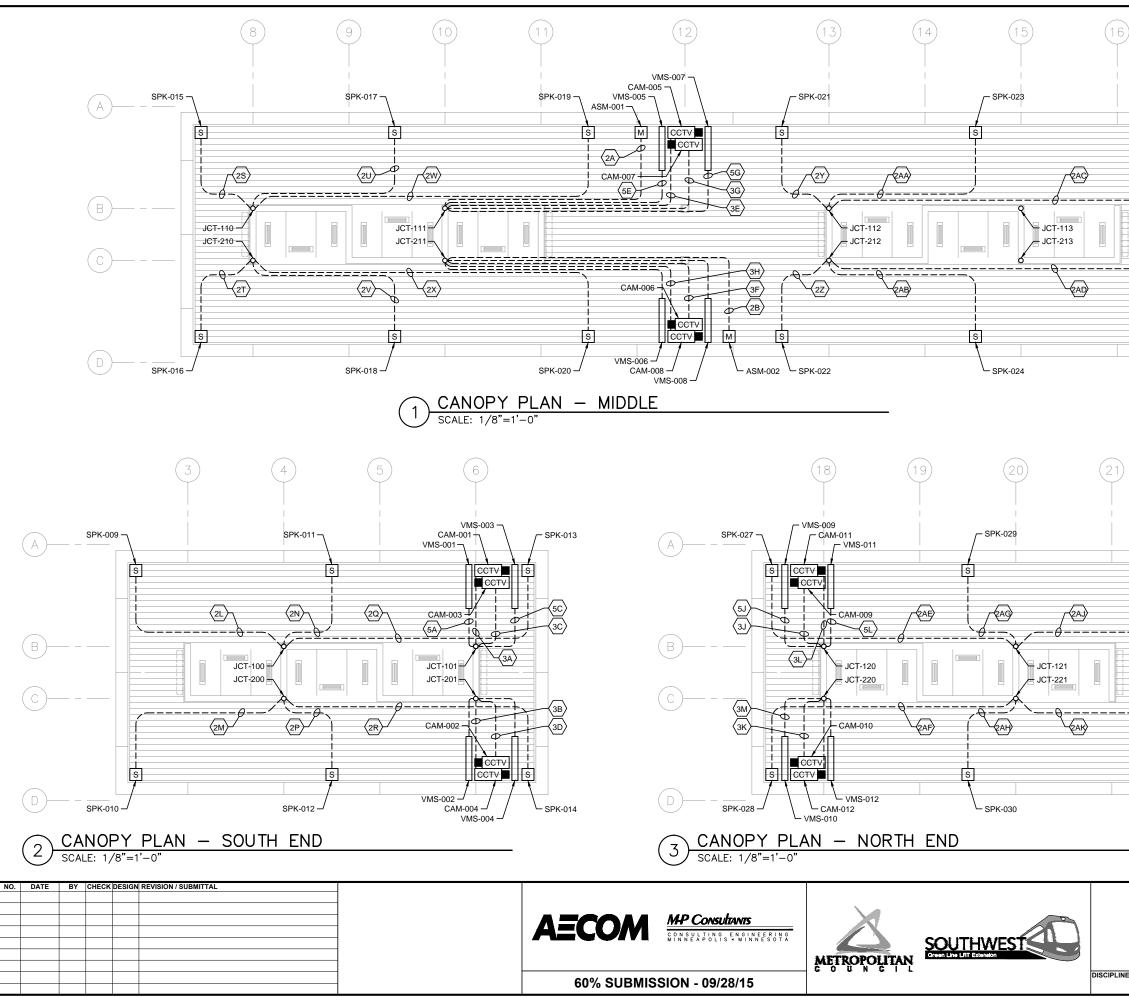


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		2AA	OPS -CON-0224	SPEAKER 22 - CANOP T SPEAKER 23 - CANOPY	OPS -JCT-212 OPS -JCT-112	0PS -SPK-022 0PS -SPK-023	1"		
	-	2 Y	OPS -CON-0223	SPEAKER 22 - CANOPY SPEAKER 22 - CANOPY	OPS -JCT-212	0PS -SPK-021 0PS -SPK-022	1"		
	-	2X 2Y	OPS -CON-0222 OPS -CON-0223	SPEAKER 20 - CANOPY SPEAKER 21 - CANOPY	OPS -JCT-210 OPS -JCT-112	OPS -SPK-020 OPS -SPK-021	1"		
	-	2W	OPS -CON-0221	SPEAKER 19 - CANOPY	OPS -JCT-110	OPS -SPK-019	1"		
	_	2V	OPS -CON-0220	SPEAKER 18 - CANOPY	OPS -JCT-210	OPS -SPK-018	1"		
	_	20	OPS -CON-0219	SPEAKER 17 - CANOPY	OPS -JCT-110	OPS -SPK-017	1"		
		2T	OPS -CON-0218	SPEAKER 16 - CANOPY	OPS -JCT-210	OPS -SPK-016	1"		
		2S	OPS -CON-0217	SPEAKER 15 - CANOPY	OPS -JCT-110	OPS -SPK-015	1"		
		2R	OPS -CON-0216	SPEAKER 14 - CANOPY	OPS -JCT-200	OPS -SPK-014	1"		
		2Q	OPS -CON-0215	SPEAKER 13 - CANOPY	OPS -JCT-100	OPS -SPK-013	1"		
		2P	OPS -CON-0214	SPEAKER 12 - CANOPY	OPS -JCT-200	OPS -SPK-012	1"		
		2N	OPS -CON-0213	SPEAKER 11 - CANOPY	OPS -JCT-100	OPS -SPK-011	1"		
		2M	OPS -CON-0212	SPEAKER 10 - CANOPY	OPS -JCT-200	OPS -SPK-010	1"		
		2L	OPS -CON-0211	SPEAKER 9 - CANOPY	OPS -JCT-100	OPS -SPK-009	1"		
		2K	OPS -CON-0210	SPEAKER 8 - POLE	OPS -SPK-006	OPS -SPK-008	1-1/2"		
		2J	OPS -CON-0209	SPEAKER 7 - POLE	OPS -SPK-005	OPS -SPK-007	1-1/2"		
		20 2H	OPS -CON-0208	SPEAKER 6 - POLE	OPS -SCC-001	OPS -SPK-006	1-1/2"		
		2G	OPS -CON-0207	SPEAKER 5 - POLE	OPS -SCC-001	OPS -SPK-005	1-1/2"		
		2L 2F	OPS -CON-0205	SPEAKER 4 - POLE	OPS -SCC-001	OPS -SPK-003	1-1/2"		
		2D 2E	OPS -CON-0204	SPEAKER 2 - POLE SPEAKER 3 - POLE	OPS -SPK-004 OPS -SCC-001	0PS -SPK-002 0PS -SPK-003	1-1/2"		
	-	2C 2D	OPS -CON-0203 OPS -CON-0204	SPEAKER 1 - POLE SPEAKER 2 - POLE	OPS -SPK-003 OPS -SPK-004	OPS -SPK-001 OPS -SPK-002	1-1/2" 1-1/2"		
		2B	OPS -CON-0202 OPS -CON-0203	MICROPHONE 2 - NOISE SENSING	OPS -JCT-211	OPS -ASM-002	1"		
		2A	OPS -CON-0201	MICROPHONE 1 - NOISE SENSING	OPS -JCT-111	OPS -ASM-001	1"		
		1R	OPS -CON-0114	SCC TO JUNCTION 221	OPS -SCC-001	OPS -JCT-221	2"		
	_	1Q	OPS -CON-0113	SCC TO JUNCTION 121	OPS -SCC-001	OPS -JCT-121	2"		
	_	1P	OPS -CON-0112	SCC TO JUNCTION 220	OPS -SCC-001	OPS -JCT-220	2"		
	_	1N	OPS -CON-0111	SCC TO JUNCTION 120	OPS -SCC-001	OPS -JCT-120	2"		
		1 M	OPS -CON-0110	SCC TO JUNCTION 213	OPS -SCC-001	OPS -JCT-213	2"		
		1L	OPS -CON-0110	SCC TO JUNCTION 113	OPS -SCC-001	OPS -JCT-113	2"		
		1K	OPS -CON-0109	SCC TO JUNCTION 212	OPS -SCC-001	OPS -JCT-212	2"		
		1J	OPS -CON-0108	SCC TO JUNCTION 112	OPS -SCC-001	OPS -JCT-112	2"		
		1H	OPS -CON-0107	SCC TO JUNCTION 211	OPS -SCC-001	OPS -JCT-211	2"		
		1G	OPS -CON-0107	SCC TO JUNCTION 111	OPS -SCC-001	OPS -JCT-111	2"		
		1F	OPS -CON-0106	SCC TO JUNCTION 210	OPS -SCC-001	OPS -JCT-210	2"		
		1E	OPS -CON-0105	SCC TO JUNCTION 110	OPS -SCC-001	OPS -JCT-110	2"		

FROM

S/C MANHOLE

S/C MANHOLE

S/C MANHOLE

S/C MANHOLE

OPS -SCH-001

OPS -SCC-001

OPS -SCC-001

OPS -SCC-001

OPS -SCC-001

TO

OPS -SCC-001

OPS -SCC-001

OPS -SCC-001

OPS -SCC-001

OPS -SCC-001

OPS -JCT-100

OPS -JCT-200

OPS -JCT-101

OPS -JCT-201

CONDUIT SIZE

3"

3"

3"

3"

3"

2"

2"

2"

2"

CONDUIT NO.

10A

10B

10C

10D

10E

1A

1B

1C

1D

DEVICE ID

OPS -CON-0001

OPS -CON-0002

OPS -CON-0003

OPS -CON-0004

OPS -CON-0005

OPS -CON-0101

OPS -CON-0102

OPS -CON-0103

OPS -CON-0104

DESCRIPTION/USE

S/C HOUSE TO SCC-001

S/C HOUSE TO SCC-001

S/C HOUSE TO SCC-001

S/C HOUSE TO SCC-001

UPS POWER FEED: SCH TO SCC

SCC TO JUNCTION 100

SCC TO JUNCTION 200

SCC TO JUNCTION 101

SCC TO JUNCTION 201

CIVIL WEST - VOLUME 11				
OPUS STATION				
COMMUNICATIONS CONDUIT SCHEDULE (1 OF 2)				
DISCIPLINE: SHEET NAME: ELECTRICAL W3-OPS-ELE-SCH-461	173			

NO.	DATE	BY	CHECK	DESIGN	REVISION / SUBMITTAL						
						1		MP Consultants			
						-	AECOM				
				-		-		CONSULTING ENGINEERING MINNEAPOLIS⊀MINNESOTA			
						4				SOUTHWEST	
									METROPOLITAN	Green Line LRT Extension	
											DISCIPL
						1	00% SUBINIS	SION - 09/28/15			

CONDUIT NO. DEVICE ID DESCRIPTION/USE		FROM	то	CONDUIT SIZE	
2AC	OPS -CON-0227	SPEAKER 25 - CANOPY	OPS -JCT-112	OPS -SPK-025	1"
2AD	OPS -CON-0228	SPEAKER 26 - CANOPY	OPS -JCT-212	OPS -SPK-026	1"
2AE	OPS -CON-0229	SPEAKER 27 - CANOPY	OPS -JCT-121	OPS -SPK-027	1"
2AF	OPS -CON-0230	SPEAKER 28 - CANOPY	OPS -JCT-221	OPS -SPK-028	1"
2AG	OPS -CON-0231	SPEAKER 29 - CANOPY	OPS -JCT-121	OPS -SPK-029	1"
2AH	OPS -CON-0232	SPEAKER 30 - CANOPY	OPS -JCT-221	OPS -SPK-030	1"
2AJ	OPS -CON-0233	SPEAKER 31 - CANOPY	OPS -JCT-121	OPS -SPK-031	1"
2AK	OPS -CON-0234	SPEAKER 32 - CANOPY	OPS -JCT-221	OPS -SPK-032	1"
3A	OPS -CON-0301	CAMERA 1	OPS -JCT-101	OPS CAM-001	1"
3B	OPS -CON-0302	CAMERA 2	OPS -JCT-201	OPS CAM-002	1"
3C	OPS -CON-0303	CAMERA 3	OPS -JCT-101	OPS CAM-003	1"
3D	OPS -CON-0304	CAMERA 4	OPS -JCT-201	OPS CAM-004	1"
3E	OPS -CON-0305	CAMERA 5	OPS -JCT-111	OPS CAM-005	1"
3F	OPS -CON-0306	CAMERA 6	OPS -JCT-211	OPS CAM-006	1"
3G	OPS -CON-0307	CAMERA 7	OPS -JCT-111	OPS CAM-007	1"
3H	OPS -CON-0308	CAMERA 8	OPS -JCT-211	OPS CAM-008	1"
3J	OPS -CON-0309	CAMERA 9	OPS -JCT-120	OPS CAM-009	1"
3K	OPS -CON-0310	CAMERA 10	OPS -JCT-220	OPS CAM-010	1"
3L	OPS -CON-0311	CAMERA 11	OPS -JCT-120	OPS CAM-011	1"
3M	OPS -CON-0312	CAMERA 12	OPS -JCT-220	OPS CAM-012	1"
4A	OPS -CON-0401	KIOSK 1 (F)	OPS -SCC-001	OPS -KSK-001	2"
4B	OPS -CON-0402	KIOSK2 (F)	OPS -SCC-001	OPS -KSK-002	2"
5A	OPS -CON-0501	VMS 1	OPS -JCT-101	OPS -VMS-001	1"
5B	OPS -CON-0502	VMS 2	OPS -JCT-201	OPS -VMS-002	1"
5C	OPS -CON-0503	VMS 3	OPS -JCT-101	OPS -VMS-003	1"
5D	OPS -CON-0504	VMS 4	OPS -JCT-201	OPS -VMS-004	1"
5E	OPS -CON-0505	VMS 5	OPS -JCT-111	OPS -VMS-005	1"
5F	OPS -CON-0506	VMS 6	OPS -JCT-211	OPS -VMS-006	1"
5G	OPS -CON-0507	VMS 7	OPS -JCT-111	OPS -VMS-007	1"
5H	OPS -CON-0508	VMS 8	OPS -JCT-211	OPS -VMS-008	1"
5J	OPS -CON-0509	VMS 9	OPS -JCT-120	OPS -VMS-009	1"
5K	OPS -CON-0510	VMS 10	OPS -JCT-220	OPS -VMS-010	1"
5L	OPS -CON-0511	VMS 11	OPS -JCT-120	OPS -VMS-011	1"
5M	OPS -CON-0512	VMS 12	OPS -JCT-220	OPS -VMS-012	1"
6A	OPS -CON-0601	TVM 1	OPS -SCC-001	OPS -TVM-001	2"
6B	OPS -CON-0602	TVM 2	OPS -SCC-001	OPS -TVM-002	2"
7A	OPS -CON-0701	VALIDATOR 1	OPS -SCC-001	OPS -RSV-001	1-1/2"
7B	OPS -CON-0702	VALIDATOR 2	OPS -SCC-001	OPS -RSV-002	1-1/2"
7C	OPS -CON-0703	VALIDATOR 3	OPS -SCC-001	OPS -RSV-003	1-1/2"
7D	OPS -CON-0704	VALIDATOR 4	OPS -SCC-001	OPS -RSV-004	1-1/2"
8A	OPS -CON-0801	EMERGENCY TELEPHONE 1 - PHONE	OPS -SCC-001	OPS -ETL-001	1-1/2"
8B	OPS -CON-0802	EMERGENCY TELEPHONE 1 - BEACON LIGHT 1	OPS -ETL-001	OPS -ETB-001	1"
8C	OPS -CON-0803	EMERGENCY TELEPHONE 1 - BEACON LIGHT 2	OPS -ETL-001	OPS -ETB-002	1"
9A	OPS -CON-0901	STATION ELECTRICAL CABINET	OPS -SCC-001	OPS -SEC-001	2"

COMMUNICATIONS CONDUIT SCHEDULE

CIVIL WEST - VOLUME 11								
OPUS STATION								
COMMUNICATIONS CONDUIT SCHEDULE (2 OF 2)								
PLINE:	ELECTRICAL	SHEET NAME: W3-OPS-ELE-SCH-462	173					

NO.	DATE	BY	CHECK	DESIGN	N REVISION / SUBMITTAL						
						1					
								M-P Consultants			
						•	AECOM				
								CON SULTING ENGINEERING MINNEAPOLIS ⊀ MINNESOTA			
										SOUTHWEST	
									METROPOLITANI	Green Line LRT Extension	
									METROPOLITAN		
						1					DISCIP
							60% SUBMIS	SION - 09/28/15			

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	0175	14/IDF	FROM	70	DEMADIZO	NOT
	SIZE	WIRE	FROM	то	REMARKS	NOTE
1	1"	2#8, 1#10G	HEATERS HTR-101, 102, 103	LP1A	POWER TO HEATERS	
2	1"	2#8, 1#10G	HEATERS HTR-104, 105, 106	LP1A	POWER TO HEATERS	
3	1"	2#8, 1#10G	HEATERS HTR-107, 108, 109	LP1A	POWER TO HEATERS	
4	1"	2#8, 1#10G	HEATERS HTR-110, 111, 112	LP1A	POWER TO HEATERS	
5	1"	2#8, 1#10G	HEATERS HTR-113, 114, 115	LP1A	POWER TO HEATERS	
6	1"	2#8, 1#10G	HEATERS HTR-116, 117, 118	LP1A	POWER TO HEATERS	
7	1"	2#8, 1#10G	HEATERS HTR-119, 120, 121	LP1A	POWER TO HEATERS	
8	1"	2#8, 1#10G	HEATERS HTR-122, 123, 124	LP1A	POWER TO HEATERS	
9	1"	2#8, 1#10G	HEATERS HTR-125, 126, 127	LP1A	POWER TO HEATERS	
10	1"	2#8, 1#10G	HEATERS HTR-128, 129, 130	LP1A	POWER TO HEATERS	
11	1"	2#8, 1#10G	HEATERS HTR-131, 132, 133	LP1A	POWER TO HEATERS	
12	1"	2#8, 1#10G	HEATERS HTR-134, 135, 136	LP1A	POWER TO HEATERS	
13	1"	2#14, 1#14G	HPB-101	OFF DELAY TIME CIRCUIT	CONTROL FOR HEATERS	
14	1"	2#14, 1#14G	HPB-102	OFF DELAY TIME CIRCUIT	CONTROL FOR HEATERS	
15	1"	2#14, 1#14G	HPB-103	OFF DELAY TIME CIRCUIT	CONTROL FOR HEATERS	
16	1"	2#14, 1#14G	HPB-104	OFF DELAY TIME CIRCUIT	CONTROL FOR HEATERS	
17	1"	2#14, 1#14G	HPB-105	OFF DELAY TIME CIRCUIT	CONTROL FOR HEATERS	
18	1"	2#14, 1#14G	HPB-106	OFF DELAY TIME CIRCUIT	CONTROL FOR HEATERS	
19	1"	2#14, 1#14G	HPB-107	OFF DELAY TIME CIRCUIT	CONTROL FOR HEATERS	
20	1"	2#14, 1#14G	HPB-108	OFF DELAY TIME CIRCUIT	CONTROL FOR HEATERS	
21	1"	2#14, 1#14G	HPB-109	OFF DELAY TIME CIRCUIT	CONTROL FOR HEATERS	
22	1"	2#14, 1#14G	HPB-110	OFF DELAY TIME CIRCUIT	CONTROL FOR HEATERS	
23	1"	2#14, 1#14G	HPB-111	OFF DELAY TIME CIRCUIT	CONTROL FOR HEATERS	
24	1"	2#14, 1#14G	HPB-112	OFF DELAY TIME CIRCUIT	CONTROL FOR HEATERS	
25	1"	4#10, 2#10G	TVM-101, TVM-102	LP1A	POWER TO TVMs	
26	1"	2#10, 1#10G	TVM-103	LP1A	POWER TO TVM	
27	1"	4#12, 2#12G	RSV-101, RSV-102	LP1A	POWER TO RSVs	
28	1"	4#12, 2#12G	RSV-103, RSV-102	LP1A	POWER TO RSV	
28	1"	2#12, 1#12G	KSK-101	LP1B	POWER TO KIOSK	
30	1"		THE STREET STREET	LP1B	POWER TO KIOSK	
	1"	2#12, 1#12G	KSK-102		The second s	
31	-	2#12, 1#12G	CANOPY LUMINAIRES	LP1A	POWER TO LUMINAIRES	
32	1"	2#12, 1#12G	CANOPY LUMINAIRES	LP1A	POWER TO LUMINAIRES	
33	1"	2#12, 1#12G	CANOPY LUMINAIRES	LP1A	POWER TO LUMINAIRES	
34	1"	2#12, 1#12G	CANOPY LUMINAIRES	LP1A	POWER TO LUMINAIRES	-
35	1"	2#10, 1#10G	HEAT TAPE	HTCP	POWER TO HEAT TAPE	2, 3
36	1"	2#10, 1#10G	HEAT TAPE	HTCP	POWER TO HEAT TAPE	2, 3
37	1"	2#10, 1#10G	HEAT TAPE	HTCP	POWER TO HEAT TAPE	2, 3
38	1"	2#10, 1#10G	HEAT TAPE	HTCP	POWER TO HEAT TAPE	2, 3
39	1"	2#10, 1#10G	RAMP RAILING LUMINAIRE	RAMP RAILING LUMINAIRE DRIVER	POWER TO RAMP RAILING LUMINAIRE	1
40	1"	2#10, 1#10G	RAMP RAILING LUMINAIRE	RAMP RAILING LUMINAIRE DRIVER	POWER TO RAMP RAILING LUMINAIRE	1
41	1"	2#10, 1#10G	RAMP RAILING LUMINAIRE	RAMP RAILING LUMINAIRE DRIVER	POWER TO RAMP RAILING LUMINAIRE	1
42	1" 1"	2#10, 1#10G	RAMP RAILING LUMINAI RE	RAMP RAILING LUMINAIRE DRIVER	POWER TO RAMP RAILING LUMINAIRE	1
43		4#10, 1#10G	COMMUNICATIONS CABINET SCC-001	LP1B	POWER TO COMMUNICATIONS CABINET	
44	1"	4#12, 2#12G	VMSs	LP1B	POWER TO VMS	
45	1"	4#12, 2#12G	VMSs	LP1B	POWER TO VMS	
46	1"	4#12, 2#12G	VMSs	LP1B	POWER TO VMS	_
47	1"	4#12, 2#12G	VMSs	LP1B	POWER TO VMS	_
48	1"	2#10, 2#10G	POLE LUMINAIRES	LP1A	POWER TO POLE LUMINAIRES	_
49	1"	2#10, 2#10G	POLE LUMINAIRES	LP1A	POWER TO POLE LUMINAIRES	_
50	1"	2#10, 2#10G	POLE LUMINAIRES	LP1A	POWER TO POLE LUMINAIRES	
51	1"	2#10, 2#10G	POLE LUMINAIRES	LP1A	POWER TO POLE LUMINAIRES	_
52						_
53						_
54 55						

ELECTRICAL CONDUIT & CABLE SCHEDULE (1)

	CIVIL WES	Γ - VOLUME 11	SHEET						
	OPUS STATION								
	ELECTRICAL								
	CONDUIT AND WIRE SCHEDULE								
NE:		SHEET NAME:	173						
	ELECTRICAL	W3-OPS-ELE-SCH-503							

			PA	NELBO	ARD LP:	1A			
	600 AMP B	US RATING						60	POLES
120	240 VOLTS			1	PHASE		S	JRFACE	MOUNTED
	MLO			3	WIRE 60H	z	10 KAIC		
DESCRIPTION	kVA	AMPS/POLES	СКТ	AØ	BØ	СКТ	AMPS/POLES	kVA	DESCRIPTION
SPD		60/2	1	Х		2	30/2	2.4	HT-119, 120, 121
		00/2	3		X	4	30/2	2.4	111-113, 120, 121
HT-101, 102, 103	2.4	30/2	5	X		6	30/2	2.4	HT-122, 123, 124
11-101, 102, 105	2.4	50/2	7		X	8	5072	2.4	111-122, 123, 124
HT-104, 105, 106	2.4	30/2	9	X		10	30/2	2.4	HT-125, 126, 127
11-104, 103, 100	2.4	50/2	11	_	Х	12	30/2	2.4	111-123, 120, 127
HT-107, 108, 109	2.4	4 30/2		X		14	30/2	2.4	HT-128, 129, 130
11-107, 108, 109	2.4	30/2	15		X	16	30/2	2.4	11-128, 129, 130
HT-110, 111 112	2.4	30/2	17	Х		18	30/2	2.4	HT-131, 132, 133
11-110, 111 112	2.4	50/2	19		X	20	30/2	2.4	111-131, 132, 133
HT-113, 114, 115	2.4	30/2	21	X		22	30/2	2.4	HT-134, 135, 136
ni-113, 114, 115	2.4	30/2	23		Х	24	30/2	2.4	HI-134, 135, 130
HT-116, 117, 118	2.4	30/2	25	X		26	30/1	1.6	TVM-101
11-110, 117, 118	2.4	30/2	27		X	28	30/1	1.6	TVM-102
5CC-001	2.7	30/2	29	Х		30	30/1	1.6	TVM-103
500-001	2.7	30/2	31		X	32	20/1	0.3	RSV-101
HTCP-101	1.0	30/2	33	X		34	20/1	0.3	RSV-102
HICP-101	1.0	50/2	35		X	36	20/1	0.3	RSV-103
HTCP-102	1.0	30/2	37	X		38	20/1	0.3	RSV-104
11CF-10Z	1.0	30/2	39		X	40			SPACE
SPACE			41	Х		42			SPACE
			kVA	43.3	39.4	kVA		6.0	kVA
		4	MPS	360.8	327.9	AMI	PS S	3.7	FEED THROUGH LUGS LP1B

(1) PANELBOARD SCHEDULE LP1A

			P/	NELB	OARD LP	1B				
60	AMP B	US RATING						30	POLES	
120/24	VOLTS				1 PHASE		SURFACE MOUNTED			
	MLO				3 WIRE 60H	z	10 KAIC			
DESCRIPTION	kVA	AMPS/POLES	СКТ	AØ	BØ	СКТ	AMPS/POLES	kVA	DESCRIPTION	
SEC-001	0.5	20/1	1	X		2	20/1	1.0	SHELTER LUMINAIRES	
HTG AND LTG CONTROL SYSTEM	0.2	15/1	3		X	4	20/1	1.0	SHELTER LUMINAIRES	
RAILING LUMINAIRE DRIVERS	1.0	20/1	5	X		6	20/1	1.0	SHELTER LUMINAIRES	
VMS-101	0.3	20/1	7		X	8	20/1	1.0	SHELTER LUMINAIRES	
VMS-102	0.3	20/1	9	X		10	20/1	0.3	VMS-105	
VMS-103	0.3	20/1	11		X	12	20/1	0.3	VMS-106	
VMS-104	0.3	20/1	13	X		14	20/1	0.3	VMS-107	
KSK-101	0.3	20/1	15		X	16	20/1	0.3	VMS-108	
KSK-102	0.3	20/1	17	X		18	20/1	1.0	POLE LUMINAIRES	
SPARE		20/1	19		X	20	20/1		SPARE	
SPARE		20/1	21	X		22			SPACE	
SPACE			23		Х	24			SPACE	
SPACE			25	X		26			SPACE	
SPACE			27		X	28			SPACE	
SPACE			29	X		30			SPACE	
			kVA	6.0	3.7	kVA				
		A	MPS			AM	s		1	



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ά ^ρ						60% SUBMISSION - 09/28/15	
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CIVIL WEST - VOLUME 11 OPUS STATION	HEET							
OPUS STATION								
OPUS STATION								
ELECTRICAL	OF							
PANELBOARD SCHEDULES								
ELECTRICAL SHEET NAME: W3-OPS-ELE-SCH-504	173							

CODE SUMMARY - CENTER PLATFORM SHADY OAK STATION

CODE REFERENCES

MINNESOTA STATE BUILDING CODE 2015 NFPA 130 – STANDARD FOR FIXED GUIDEWAY TRANSIT 2014 AND PASSENGER RAIL SYSTEMS

IBC REVIEW

A. <u>DESCRIPTION</u> LOCATION: HOPKINS, MN

THE LIGHT RAIL TRANSIT STATION IS A PARTIALLY CANOPIED PLATFORM AREA. IT CONSISTS OF A PLATFORM 270' LONG BY 21'-4" ACCESSED BY A SLOPED WALK AT EACH END OF PLATFORM. PLATFORM IS OPEN TO EXTERIOR ON ALL FOUR SIDES.

TYPICAL PLATFORM AREA: 5760 SQUARE FEET (GROSS AREA) 5416 SQUARE FEET (NET AREA AFTER STRUCTURAL ELEMENTS, FIXTURES AND PERMANENTLY INSTALLED FURNISHINGS ARE REMOVED)

CANOPY COVERAGE AREA AT PLATFORM: = 3169 SQUARE FEET 731 SQUARE FEET (LOWER @ 36'-8" X 13'-8" AND UPPER @ 34'-6" X 6'-8") WEST CANOPY 1707 SQUARE FEET (LOWER @ 84'-8" X 13'-8" AND UPPER @ 82'-6" X 6'-8") MIDDLE CANOPY 731 SQUARE FEET (LOWER @ 36'-8" X 13'-8" AND UPPER @ 34'-6" X 6'-8") EAST CANOPY

B. <u>OCCUPANCY CLASSIFICATION</u> (IBC 2015 SECTION 303.1)

WAITING AREAS IN TRANSPORTATION TERMINALS: GROUP 'A' DIVISION 3 (15 S.F. PER PERSON)

C. OCCUPANCY SEPARATIONS

NONE ARE REQUIRED

D. <u>TYPE OF CONSTRUCTION</u> (IBC 2015 TABLE 601)

TYPE IIB CONSTRUCTION

E. ALLOWABLE BUILDING AREA AND BUILDING HEIGHT (IBC 2015 TABLE 503)

2 STORIES AT 9,500 SQUARE FEET PER STORY

F. IBC EXITING SUMMARY

NO. OF OCCUPANTS = 5420 S.F. / 15 S.F./OCC = 361 REQUIRED EGRESS WIDTH = 361 X 0.2 = 72" (PER 1005.3.2) WIDTH PROVIDED = 2 RAMPS AT 145" = 290" 2 MEANS OF EGRESS PROVIDED

PLATFORM COLOR AND						PLATFORM	COLOR AND FI	NISH SCHED	ULE	
FINISH SCHEDULE	TYPE	STATION	STRUCTURAL STEEL PAINT COLOR	PLATFORM CONC COLOR	PLATFORM CONC FINISH	CONC WALL COLOR	CONC WALL FINISH	RAILING INFILL MATERIAL	ALUM WDW FRAME FINISH	E>
SEE STATION SPECIFICATIONS FOR MATERIAL IDENTIFICATION	CENTER	SHADY OAK STATION	PPG 517-5 PHOENIX FOSSIL	CEMSTONE SPLIT ROCK	TBD	CEMSTONE SPLIT ROCK	TBD	SS CABLE	CLEAR ANODIZED	н —

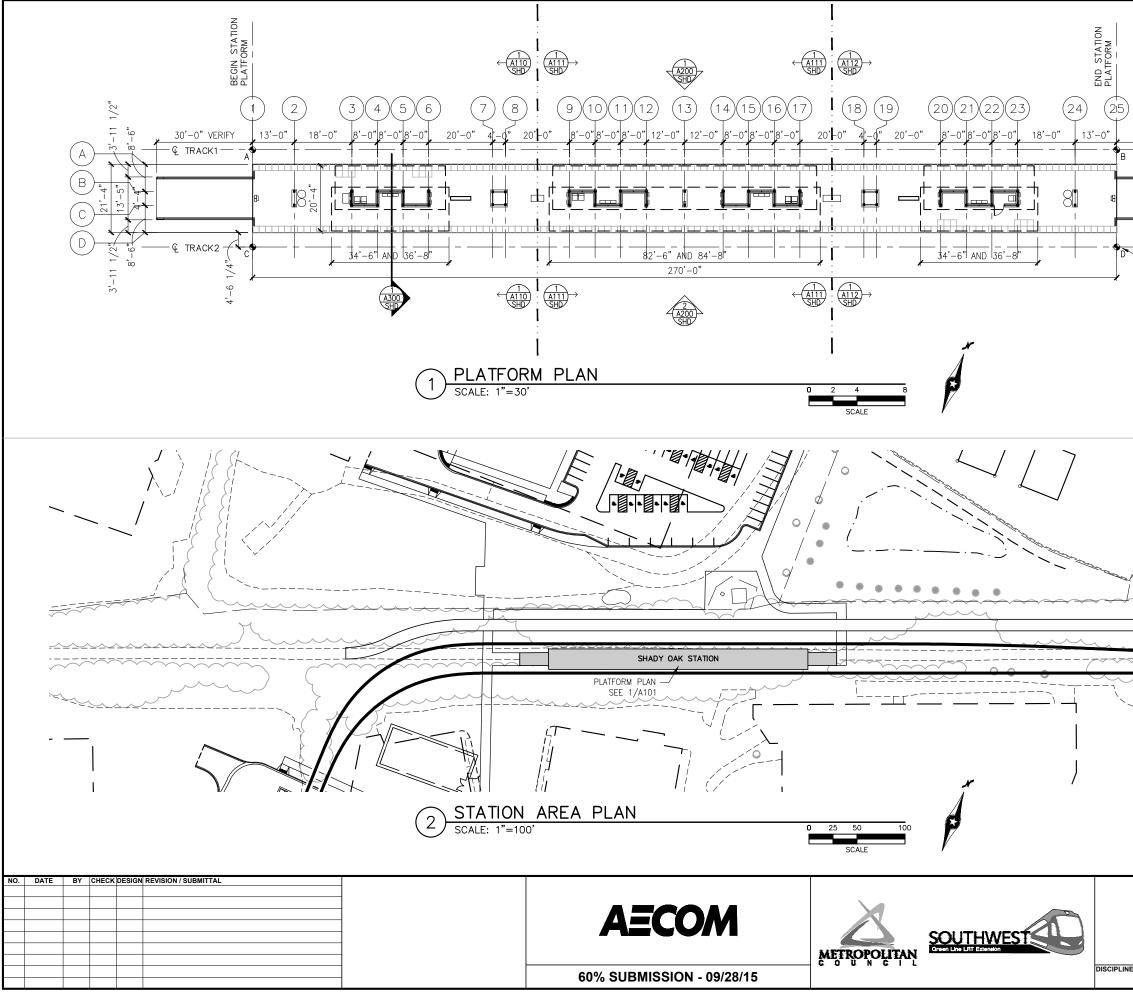
NO. DATE BY CHECK DESIGN REVISION / SUBMITTAL Image: Strategy of the strategy of	AECOM	METROPOLITAN	SOUTHWEST Green Line LAT Extension	
	60% SUBMISSION - 09/28/15			DISCIPLIN

NFPA 130 EXITING SUMMARY

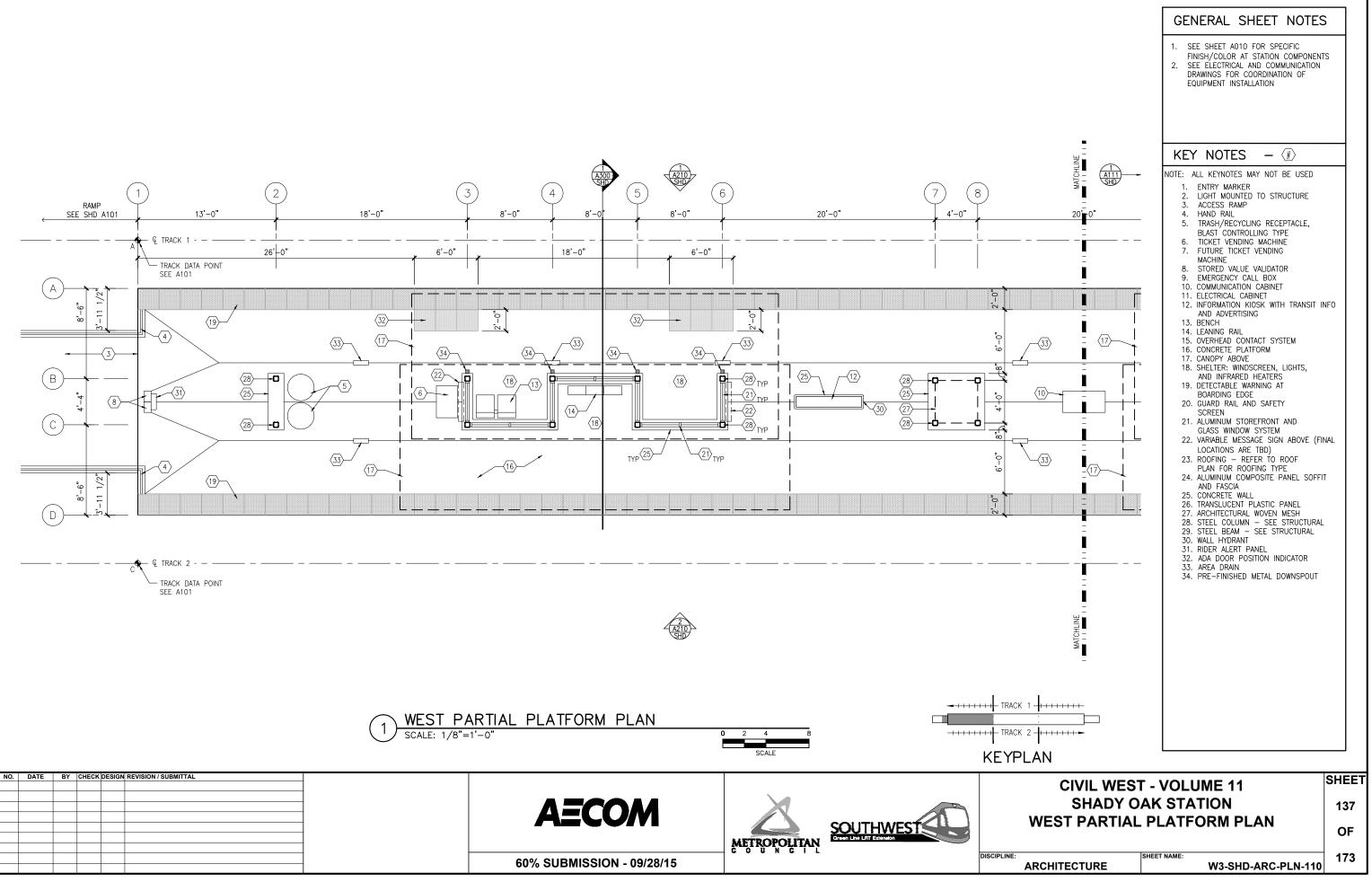
FURTHER ANALYSIS REQUIRED

CIVIL WEST - VOLUME 11 SHADY OAK STATION CODE SUMMARY / FINISH SCHEDULE					
			E:	SHEET NAME:	173
			ARCHITECTURE	W3-SHD-ARC-COD-010	•

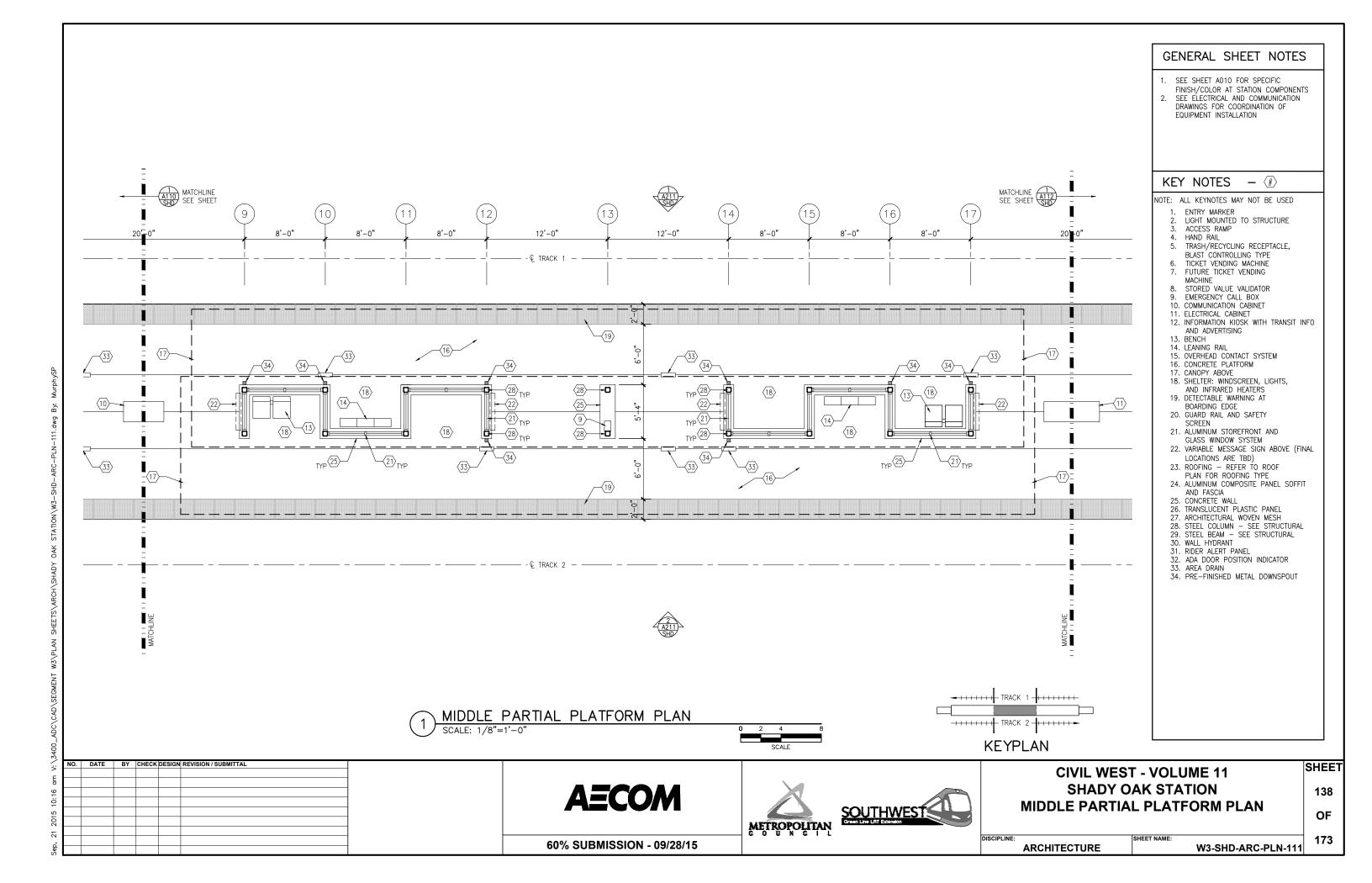
`				
I	=	EXTERIOR LINEAR METAL CEILING		ARCH WOVEN MESH
l	FINISH	SOFFIT AND FASCIA FINISH	SOFFIT AND FASCIA COLOR	ARCH WOVEN MESH
I	CLEAR ANODIZED	HUNTER DOUGLAS WOODWRIGHT	ALUCOBOND NATURAL	TBD
		8446 CLIPPER TEAK	GRAPHITE	

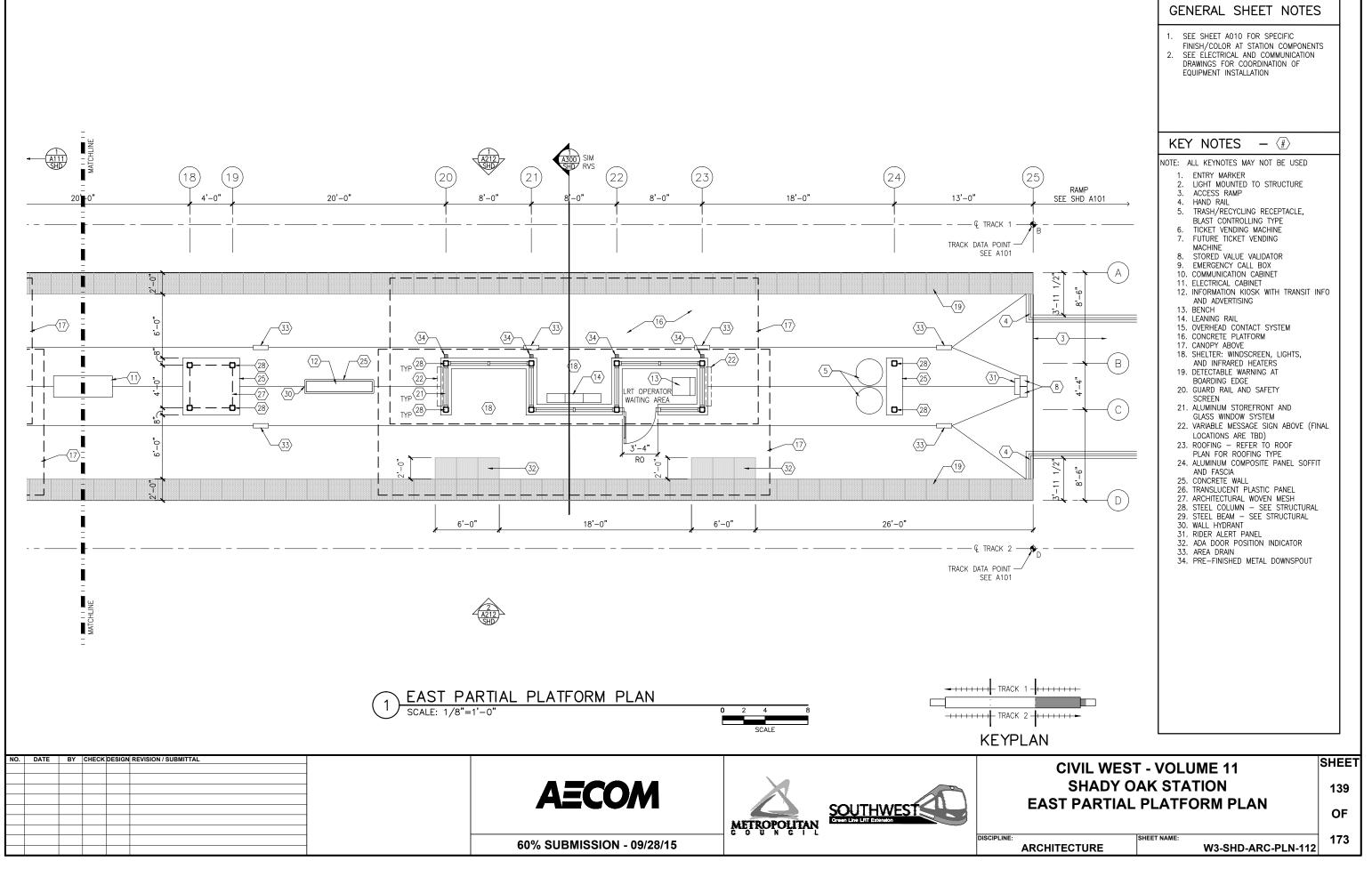


	SECTION DIAGRAM AT PLATFORM EDGE
	T.O. PLATFORM
TRACK DATA POINT, TYP	TRACK 2 EL 100'-0"= XXX.XX (PT 'C') POINT T.O. RAIL TRACK 2 ELEVATION STATIONING
30'-0" VERIFY	TRACK 1 EL 100'-0"= XXX.XX (PT 'A') POINT T.O. RAIL TRACK 2 POINT T.O. STATIONING



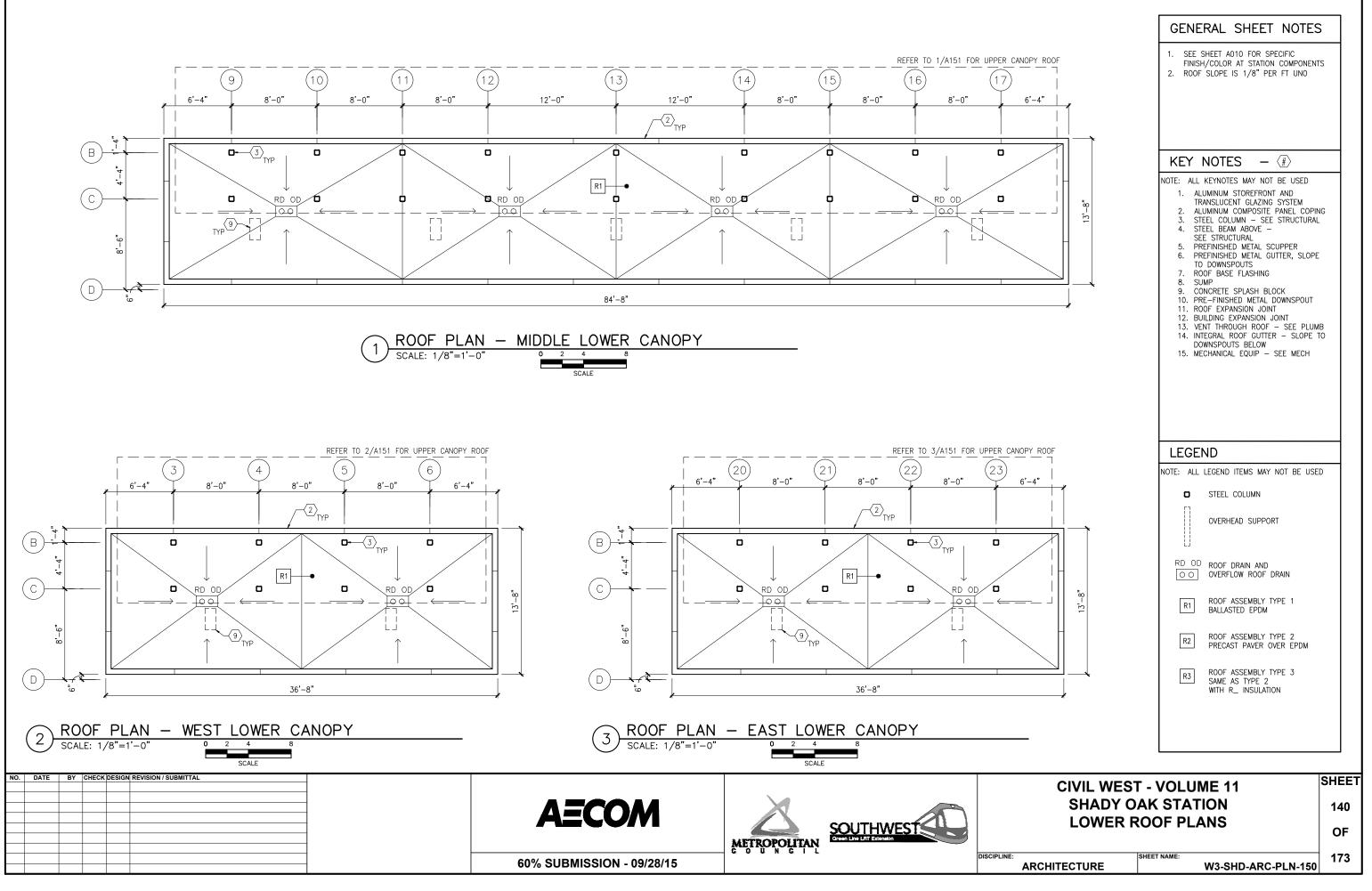
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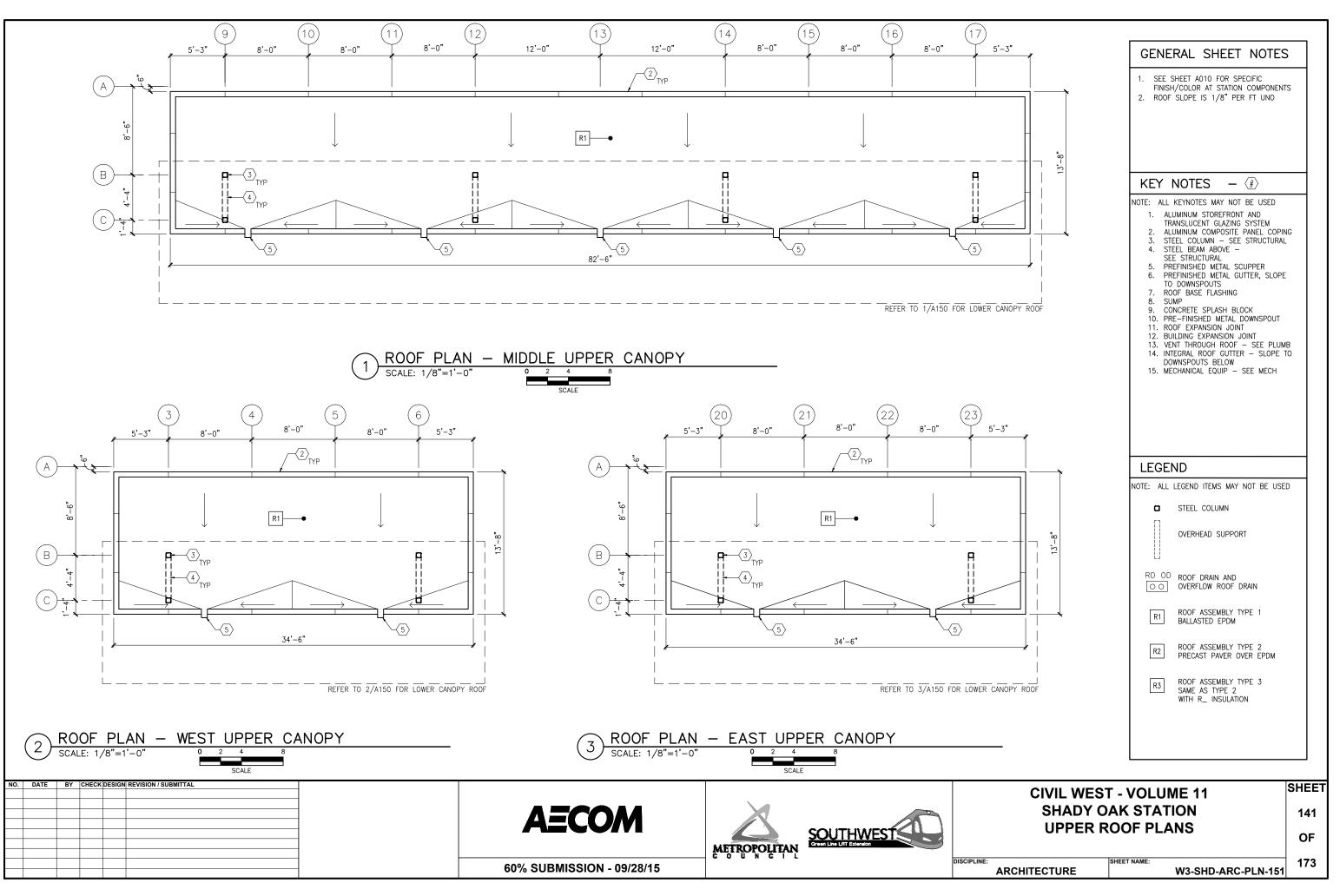


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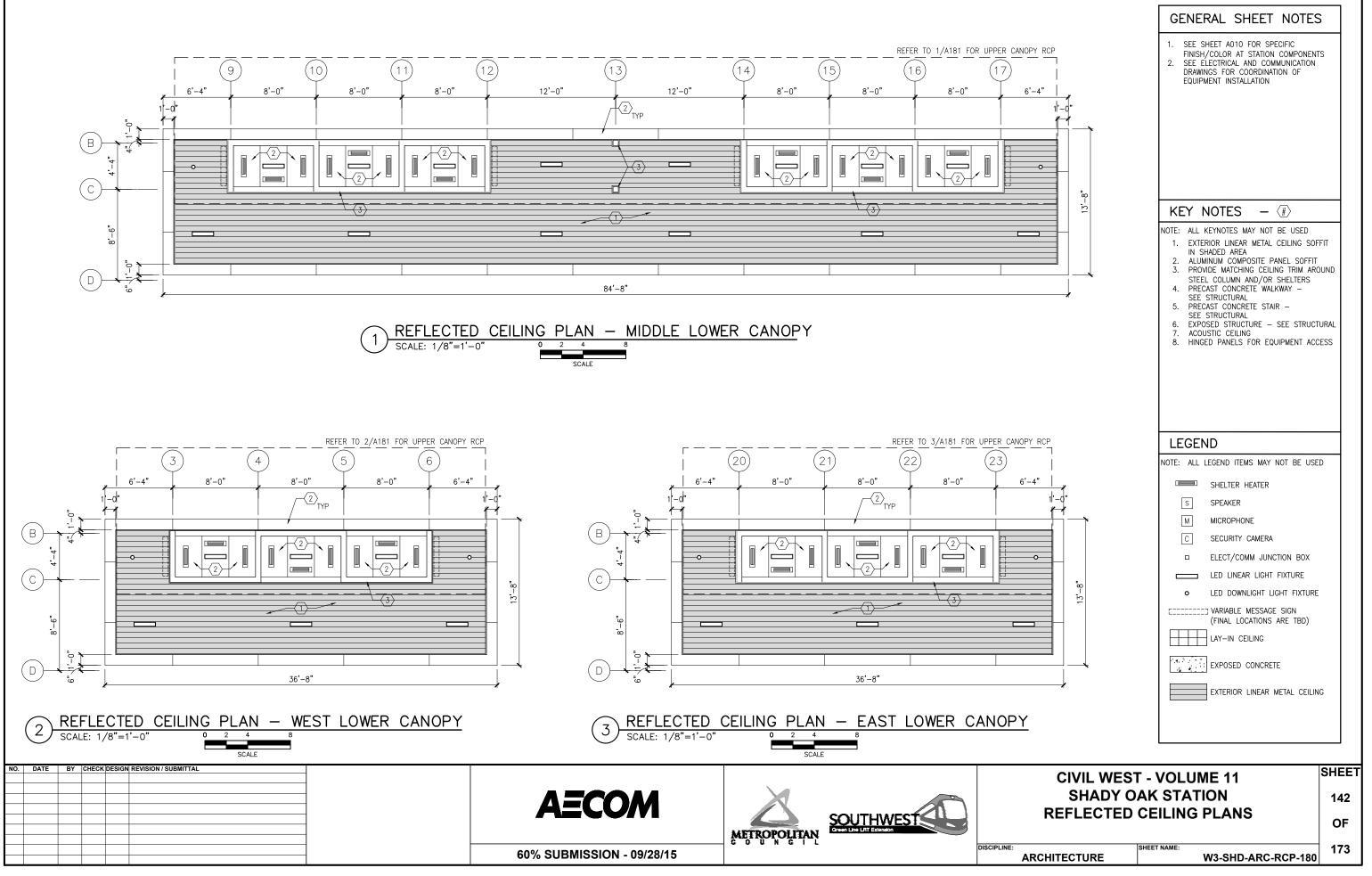
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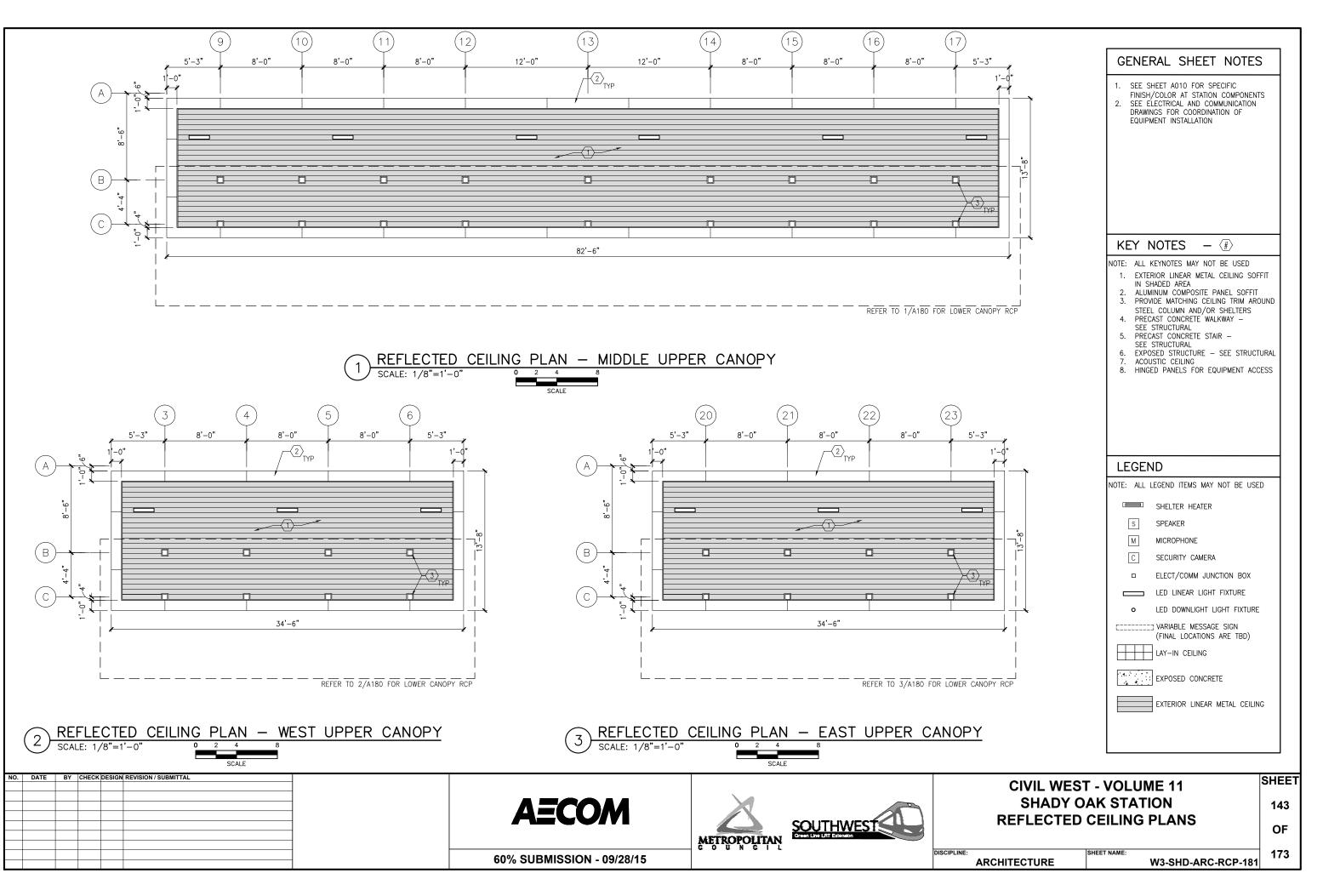


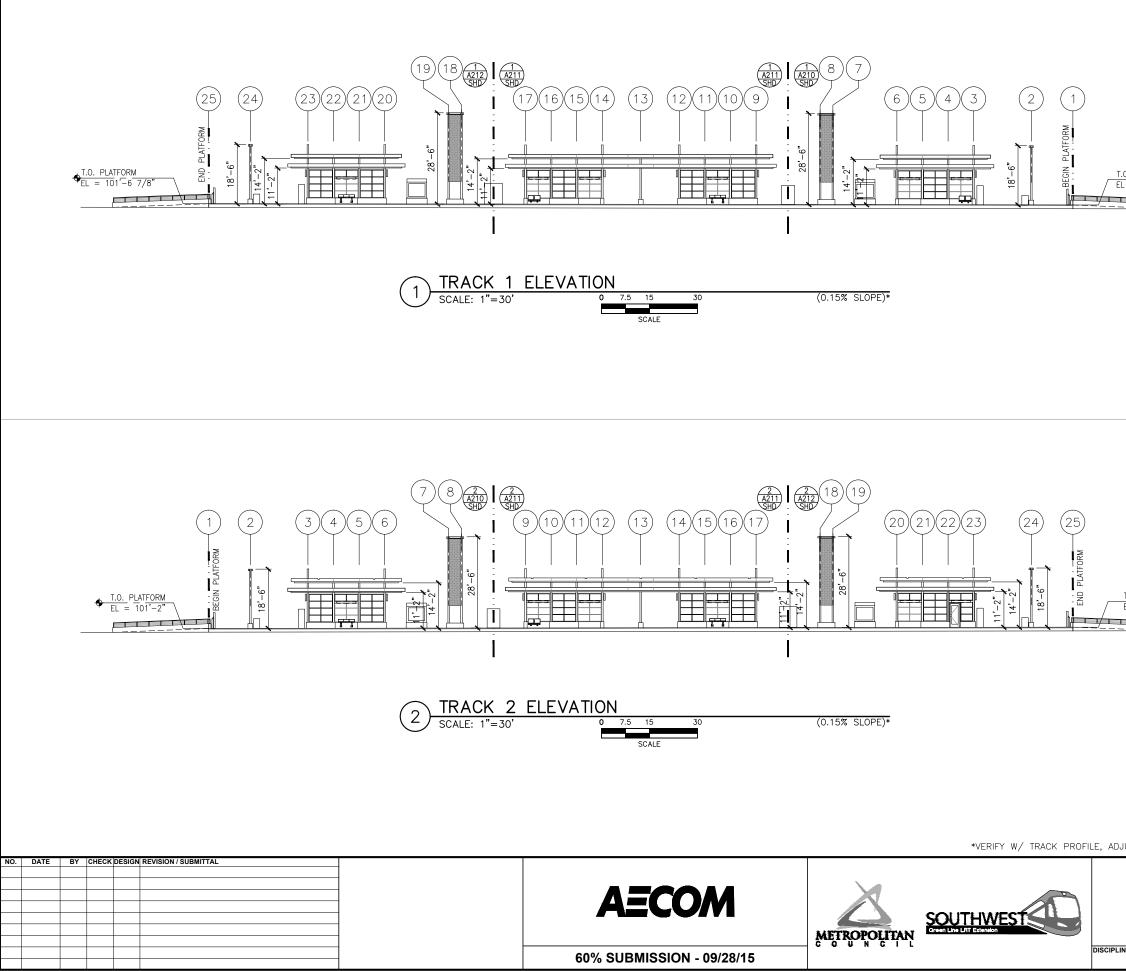
11 2015 10:17 am V:\3400_ADC\CAD\SEGMENT W3\PLAN SHEETS\ARCH\SHADY OAK STATION\W3-SHD-ARC-PLN-150.dv



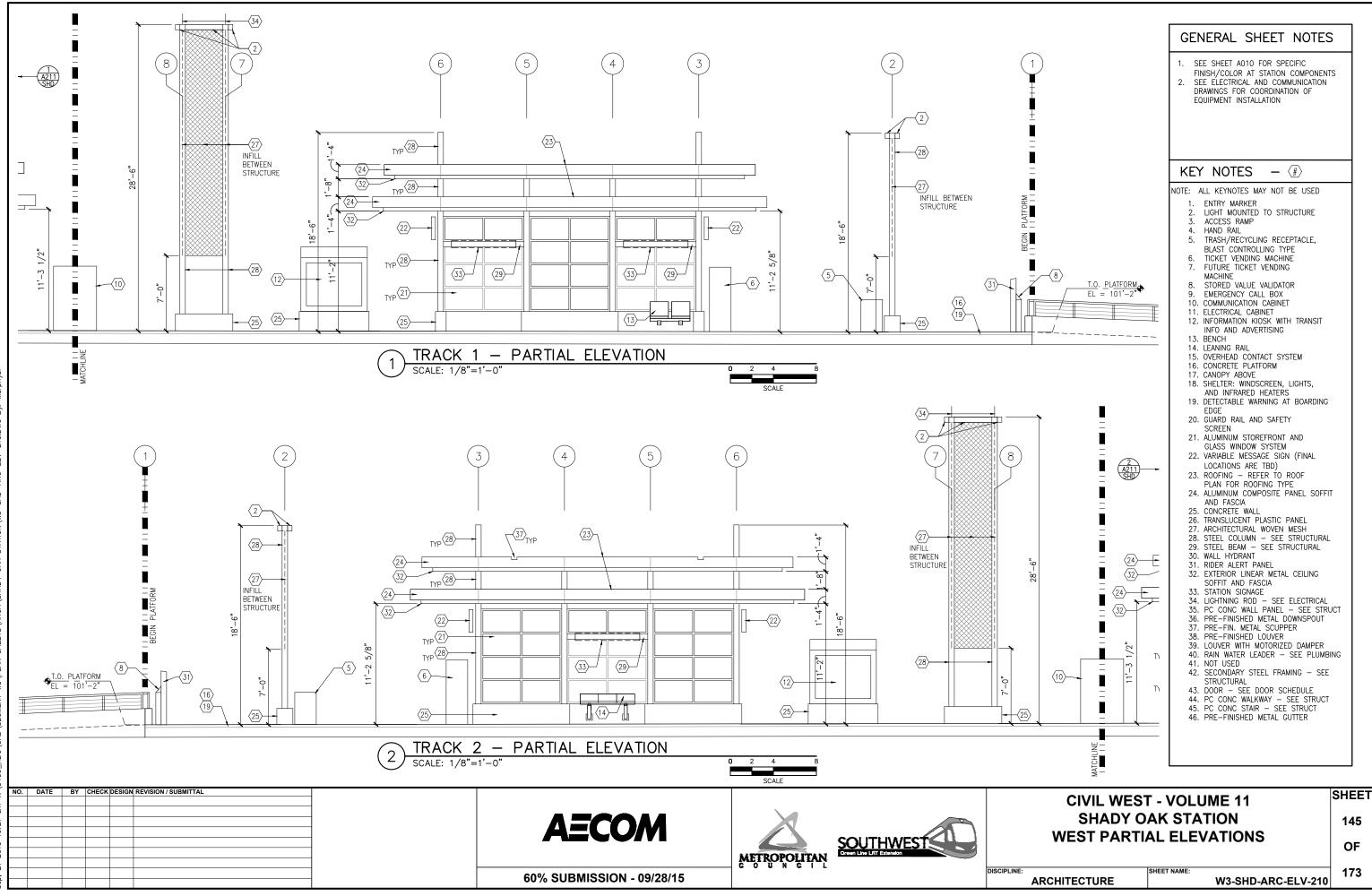
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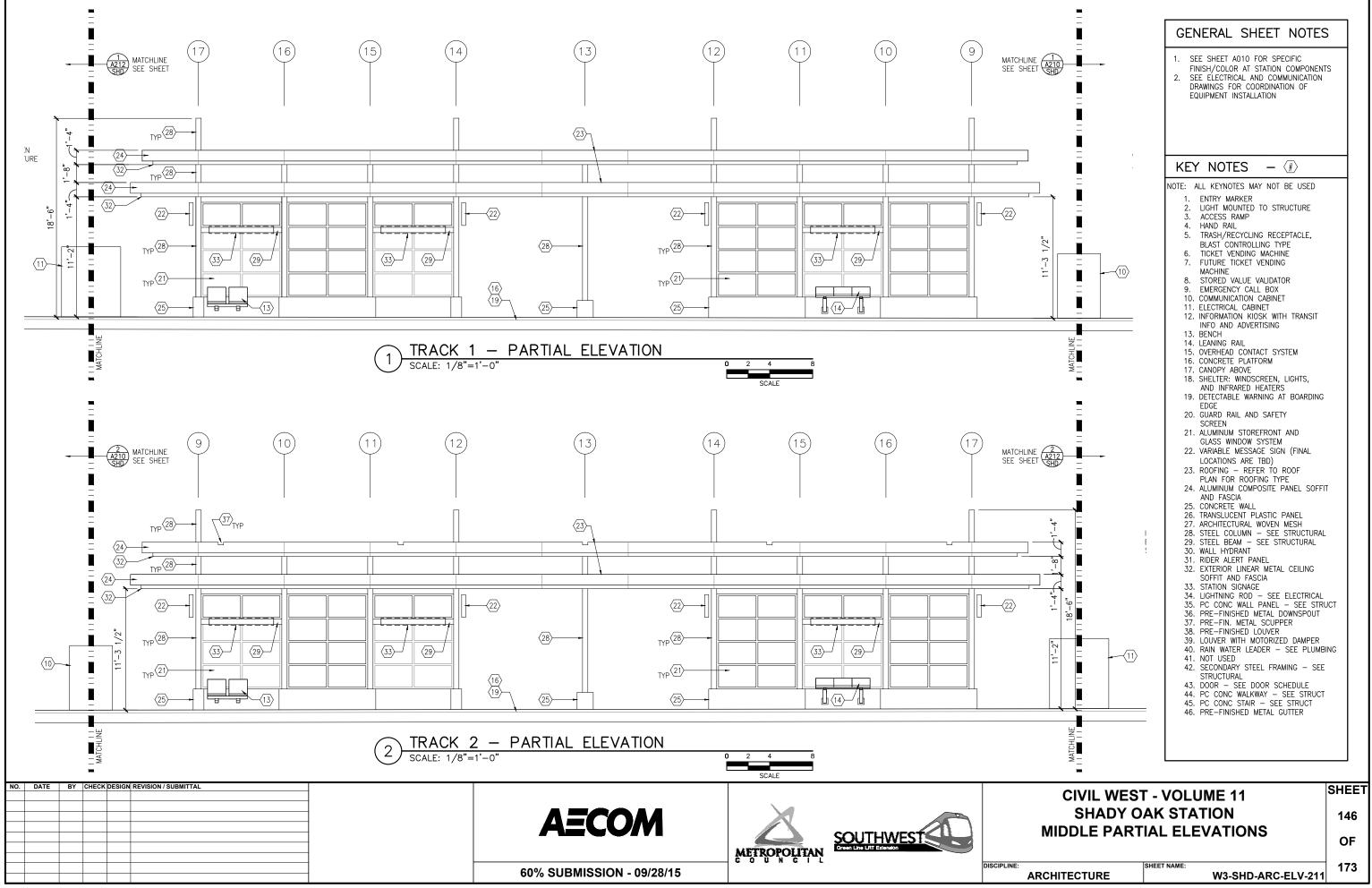


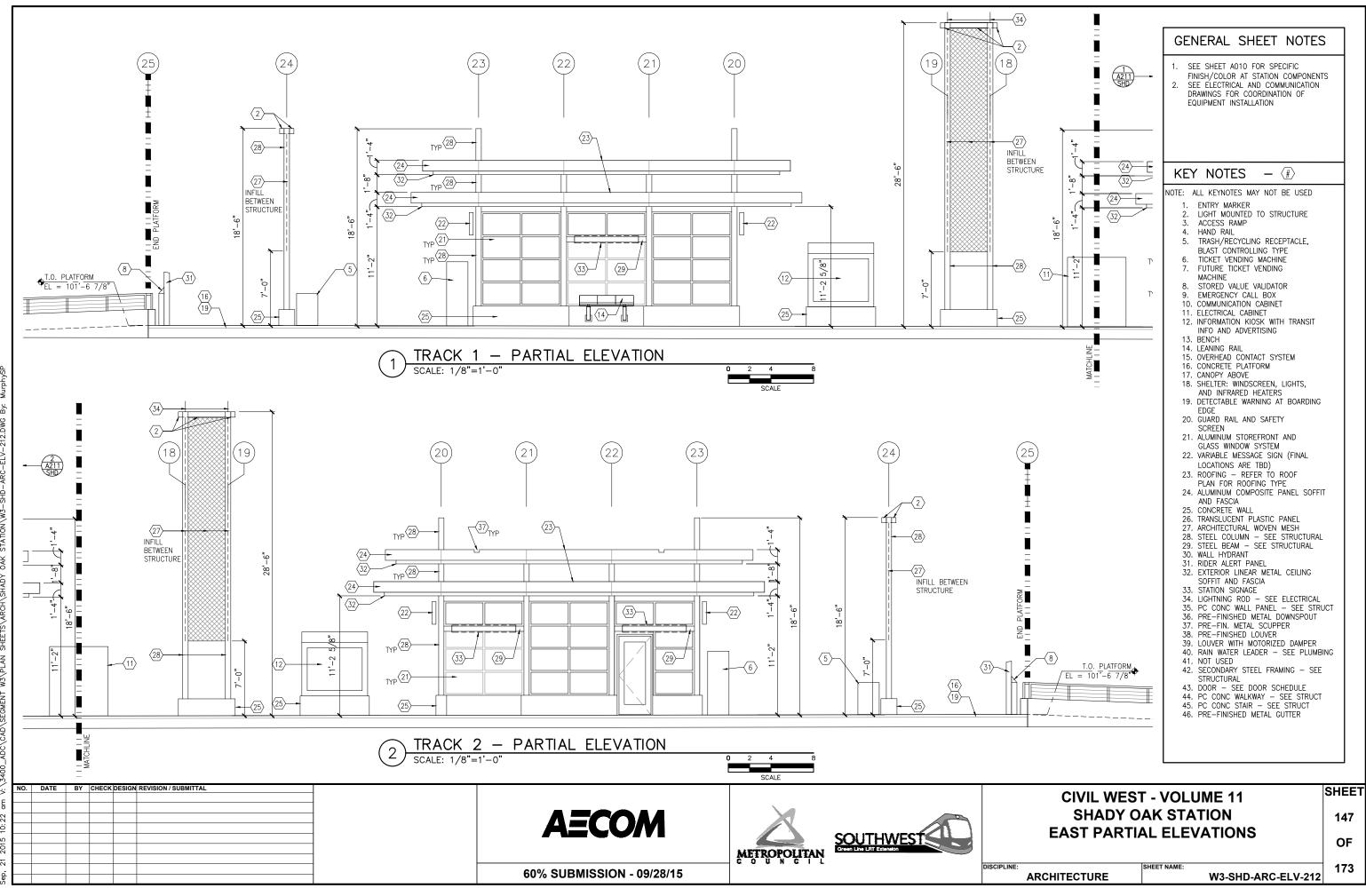


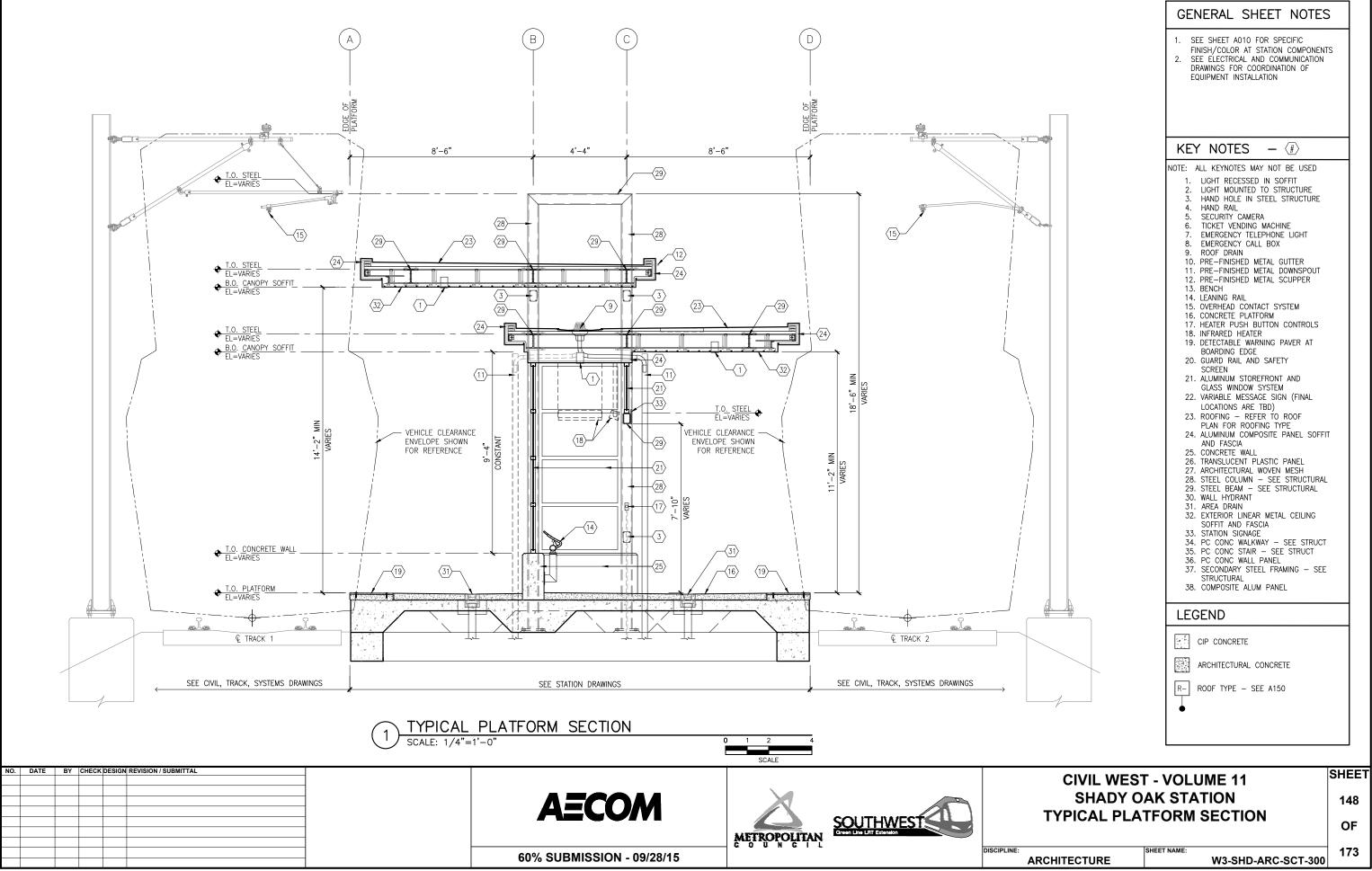


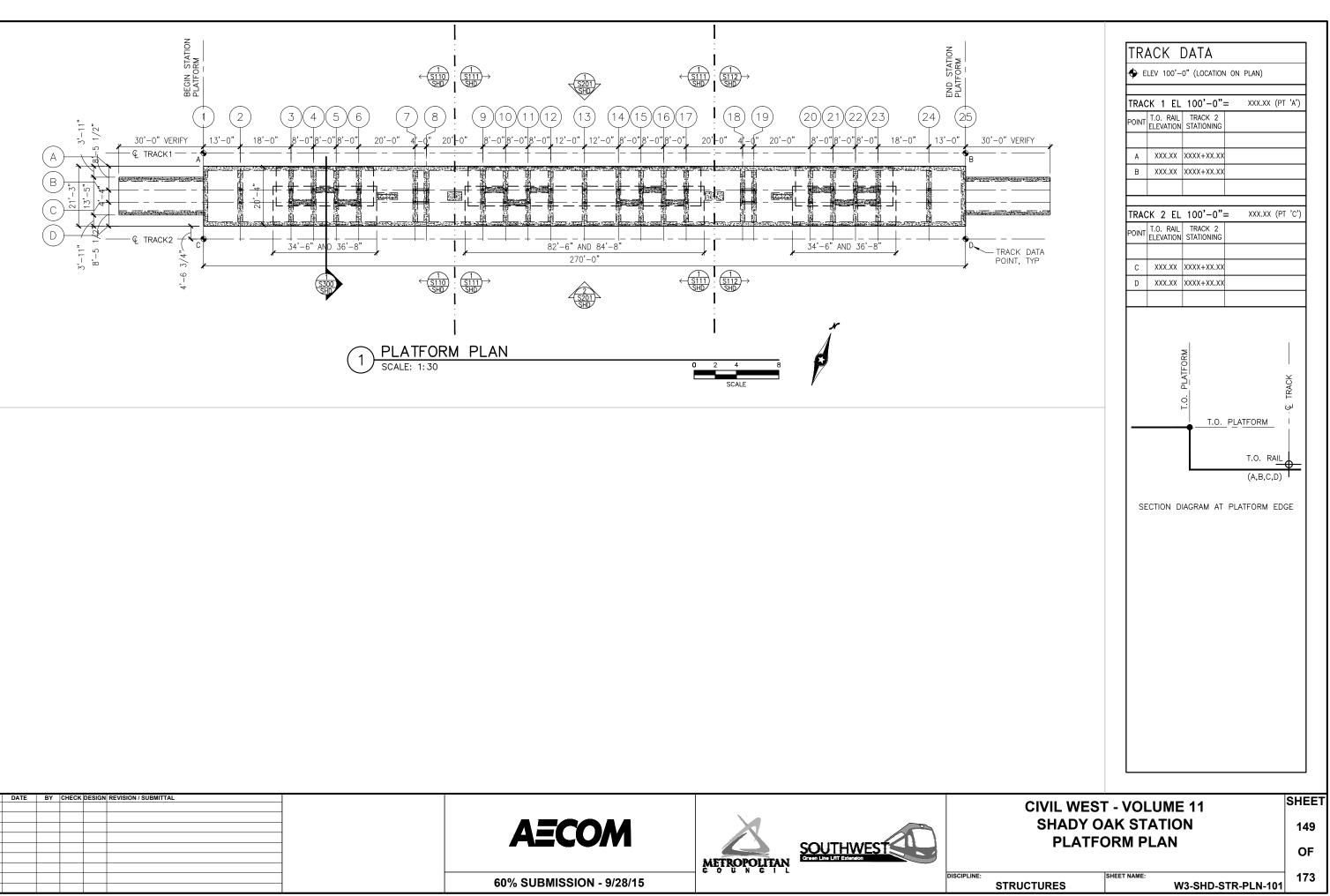
	1		
	GENERAL SHEET NOTES		
0. PLATFORM - = 101'-2"	SEE SHEET A010 FOR SPECIFIC FINISH/COLOR AT STATION COMPONENT: SEE ELECTRICAL AND COMMUNICATION DRAWINGS FOR COORDINATION OF EQUIPMENT INSTALLATION	S	
<u>T.O. PLATFORM</u> EL = 101'-6 7/8" ♥			
IUST ELEVATIONS ACCORDINGLY			
CIVIL WES	T - VOLUME 11	SHEET	
SHADY OAK STATION ELEVATIONS			



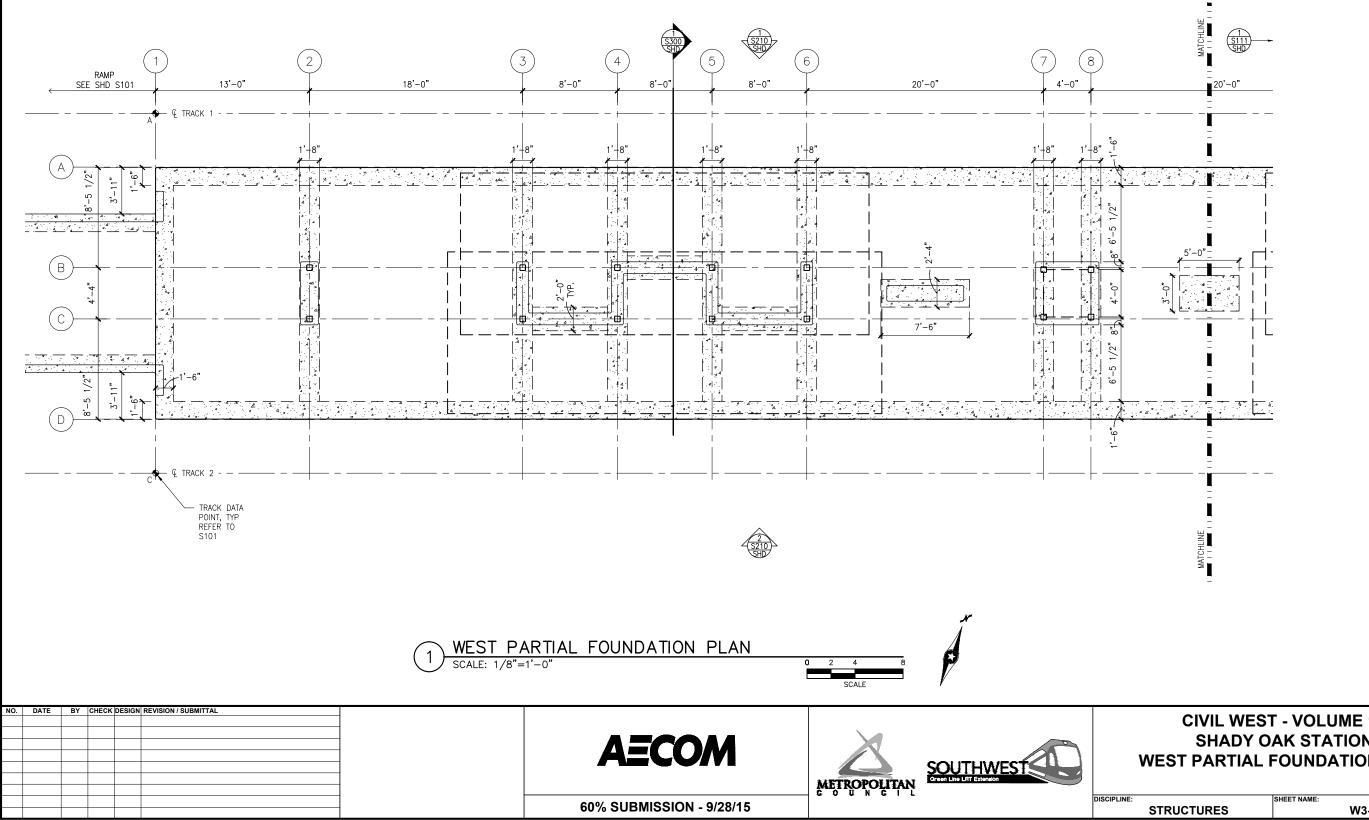






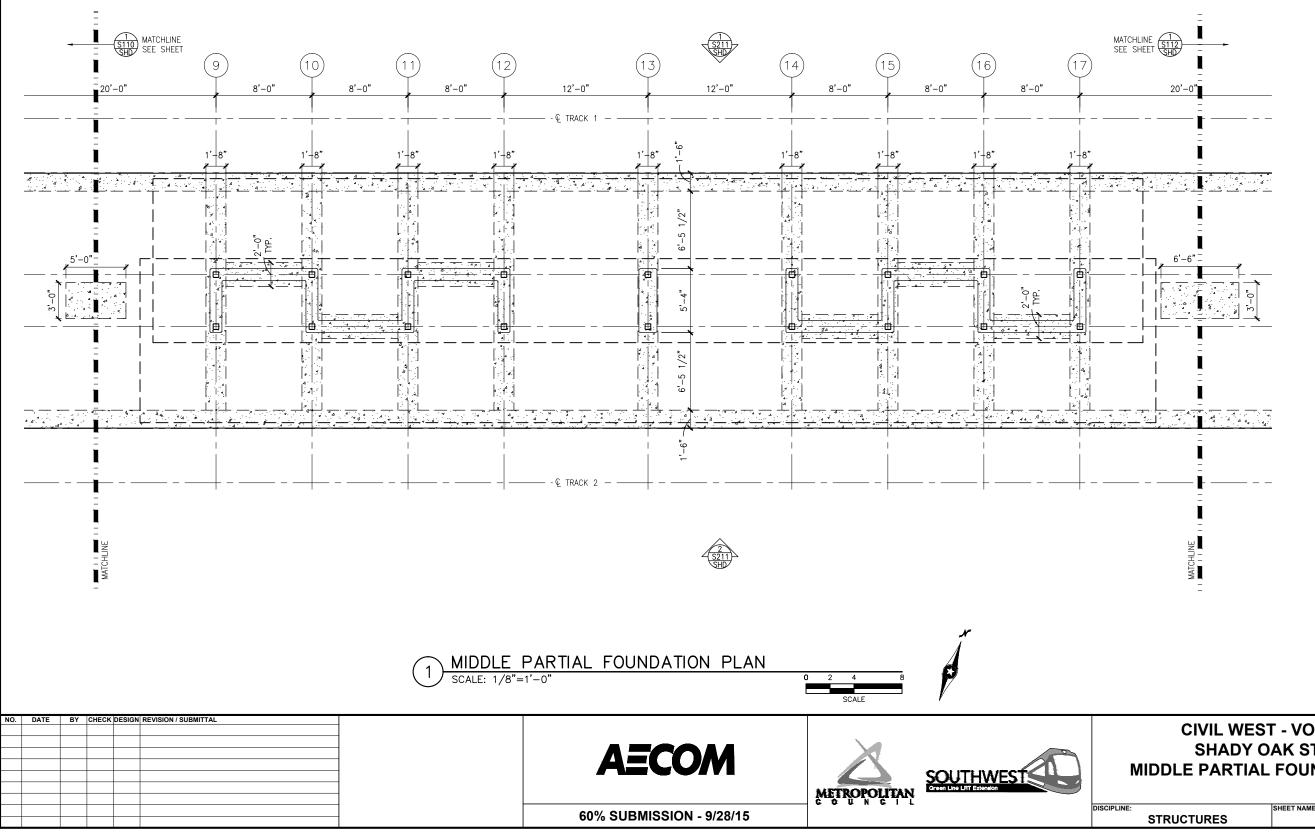


AECOM SOUTHWEST	AECOM SOUTHWEST		AECOM													
AECOM SOUTHWEST	AECOM SOUTHWEST	AECOM METROPOLITAN SOUTHWEST	AECOM	AECOM	9	NO	10.	D	ATE	BY	CHECK	DESIGN	REVISION / SUBMITTAL			
AECOM SOUTHWEST	AECOM SOUTHWEST				×											
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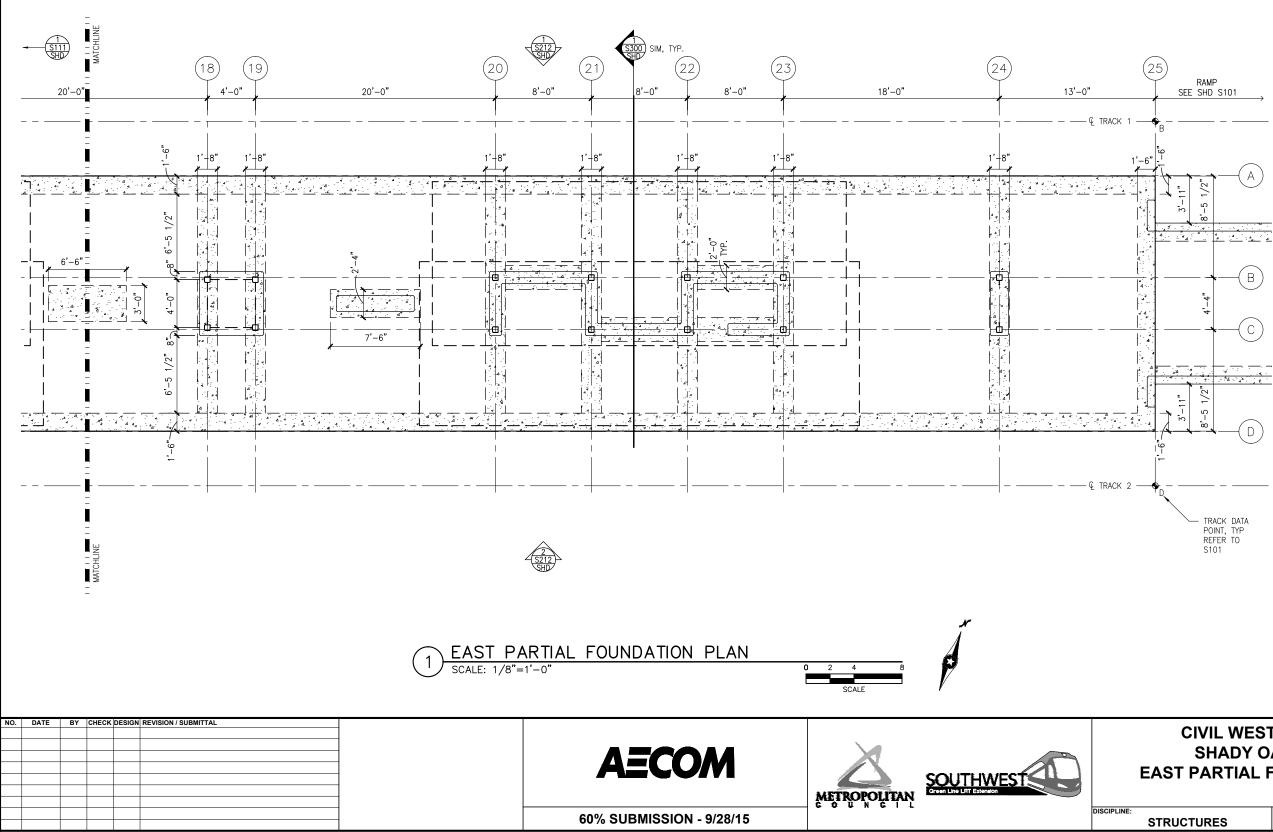
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CIVIL WEST - VOLUME 11					
SHADY OAK STATION					
WEST PARTIAL FOUNDATION PLAN					
STRUCTURES	SHEET NAME: W3-SHD-STR-PLN-110	173			



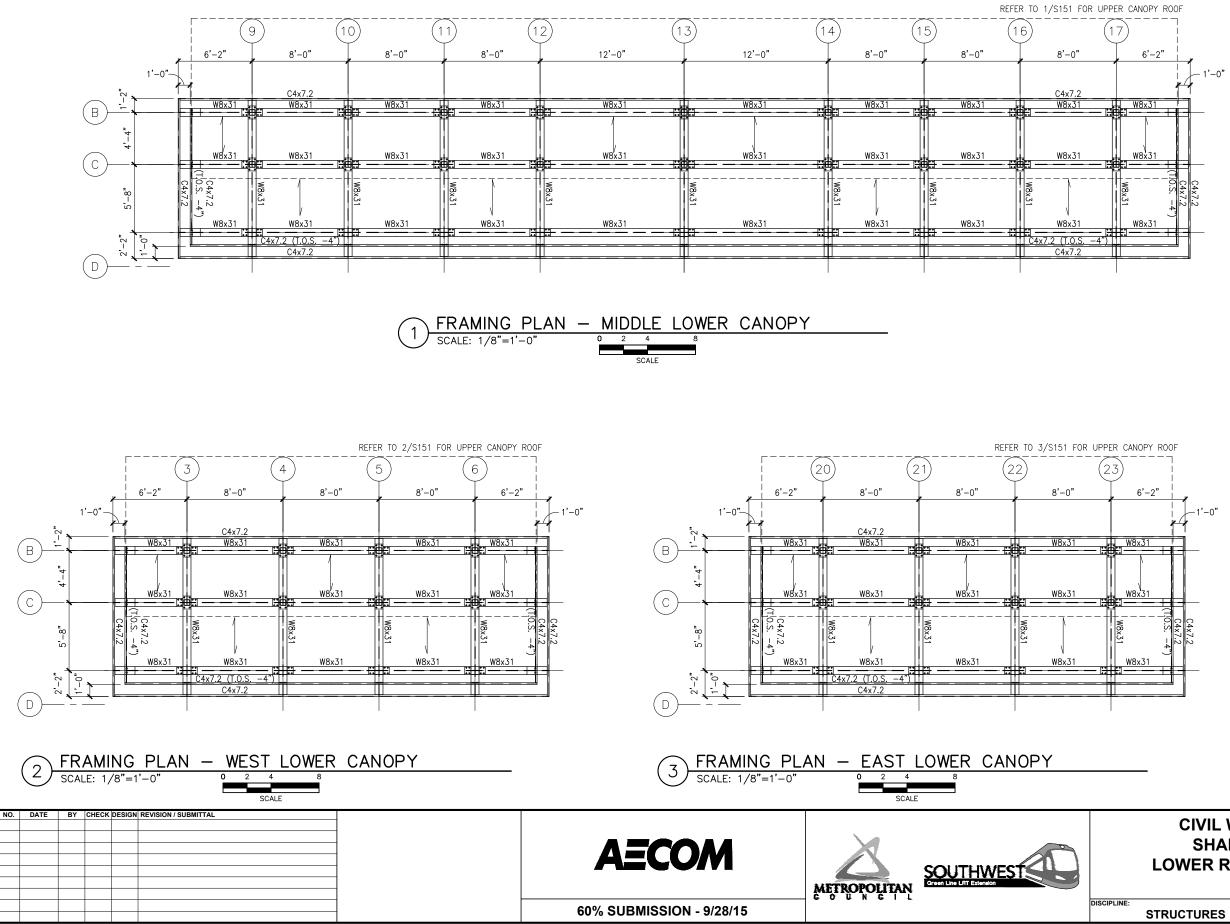
5 08:19 am K: \Projects\Minneapolis_Light_Rail\Station_Structural_Drawings\Shady_Oak\CAD\STR\W3-SHD-STR-PLN-

CIVIL WEST - VOLUME 11				
SHADY OAK STATION				
MIDDLE PARTIAL FOUNDATION PLAN				
STRUCTURES	SHEET NAME: W3-SHD-STR-PLN-111	173		

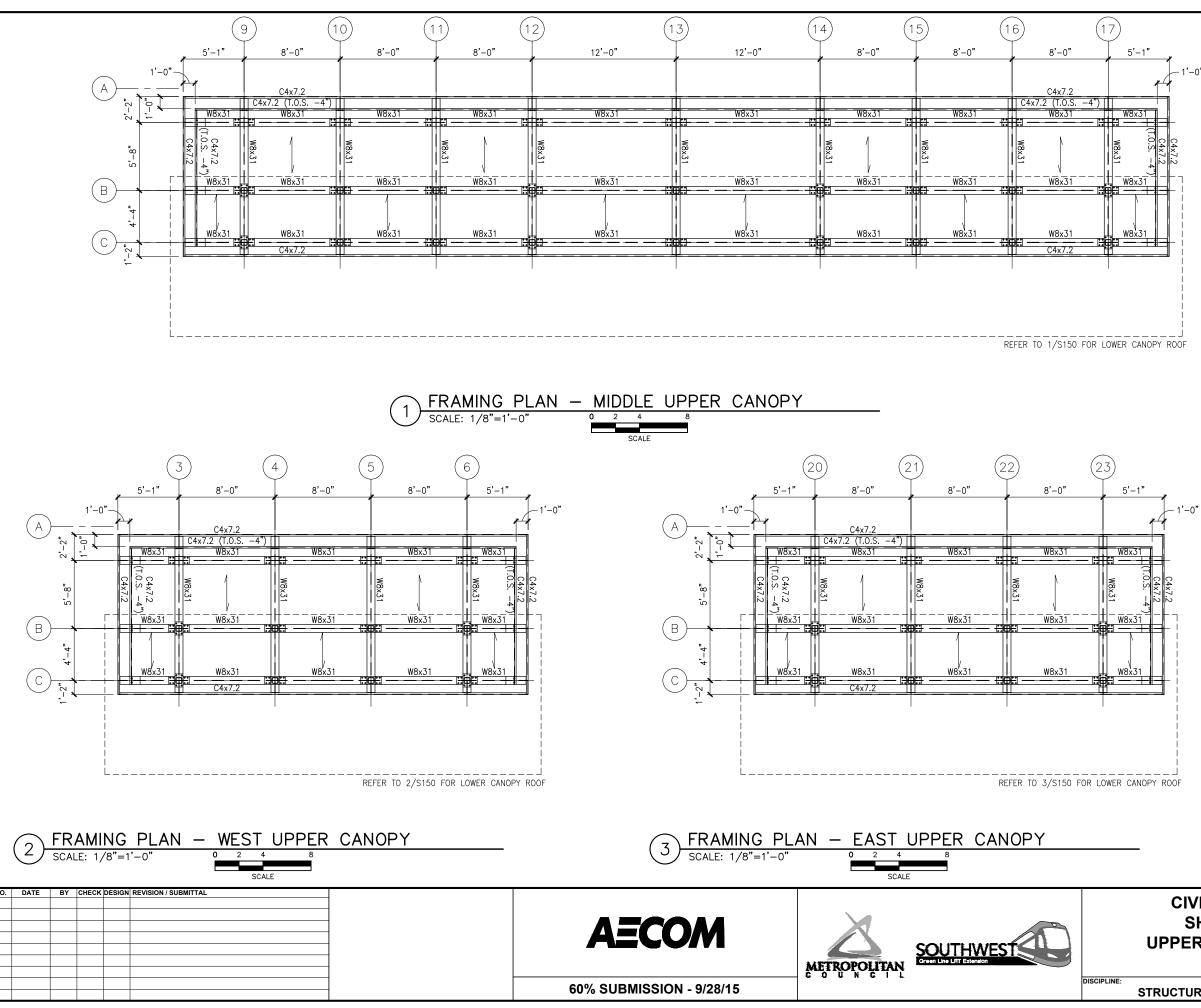


ē ž 12.dwg PLNίc. W3

CIVIL WEST - VOLUME 11				
SHADY OAK STATION				
EAST PARTIAL FOUNDATION PLAN				
STRUCTURES	HEET NAME: W3-SHD-STR-PLN-112	173		



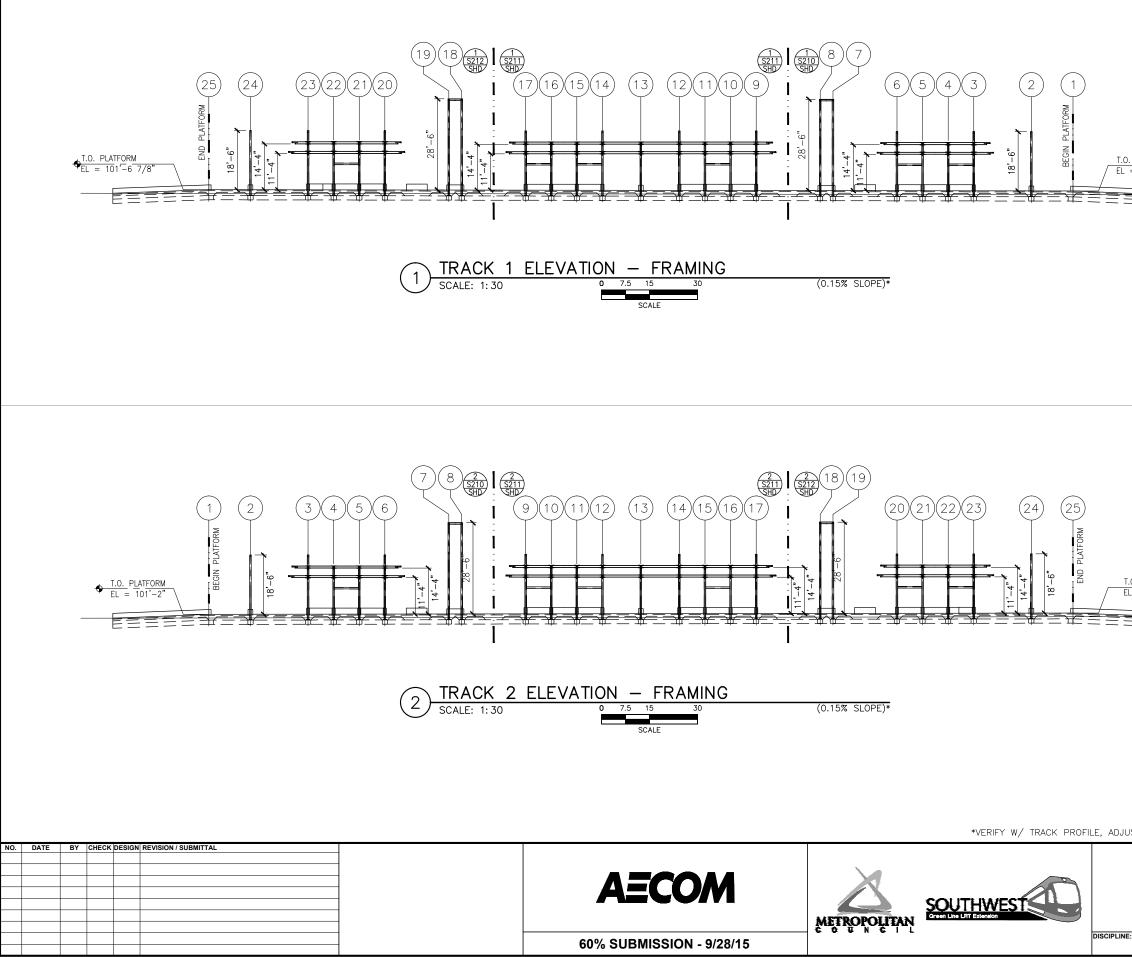
CIVIL WEST - VOLUME 11			
SHADY OAK STATION LOWER ROOF FRAMING PLANS			
	FRAMING PLANS	OF	
STRUCTURES	SHEET NAME: W3-SHD-STR-PLN-150	173	



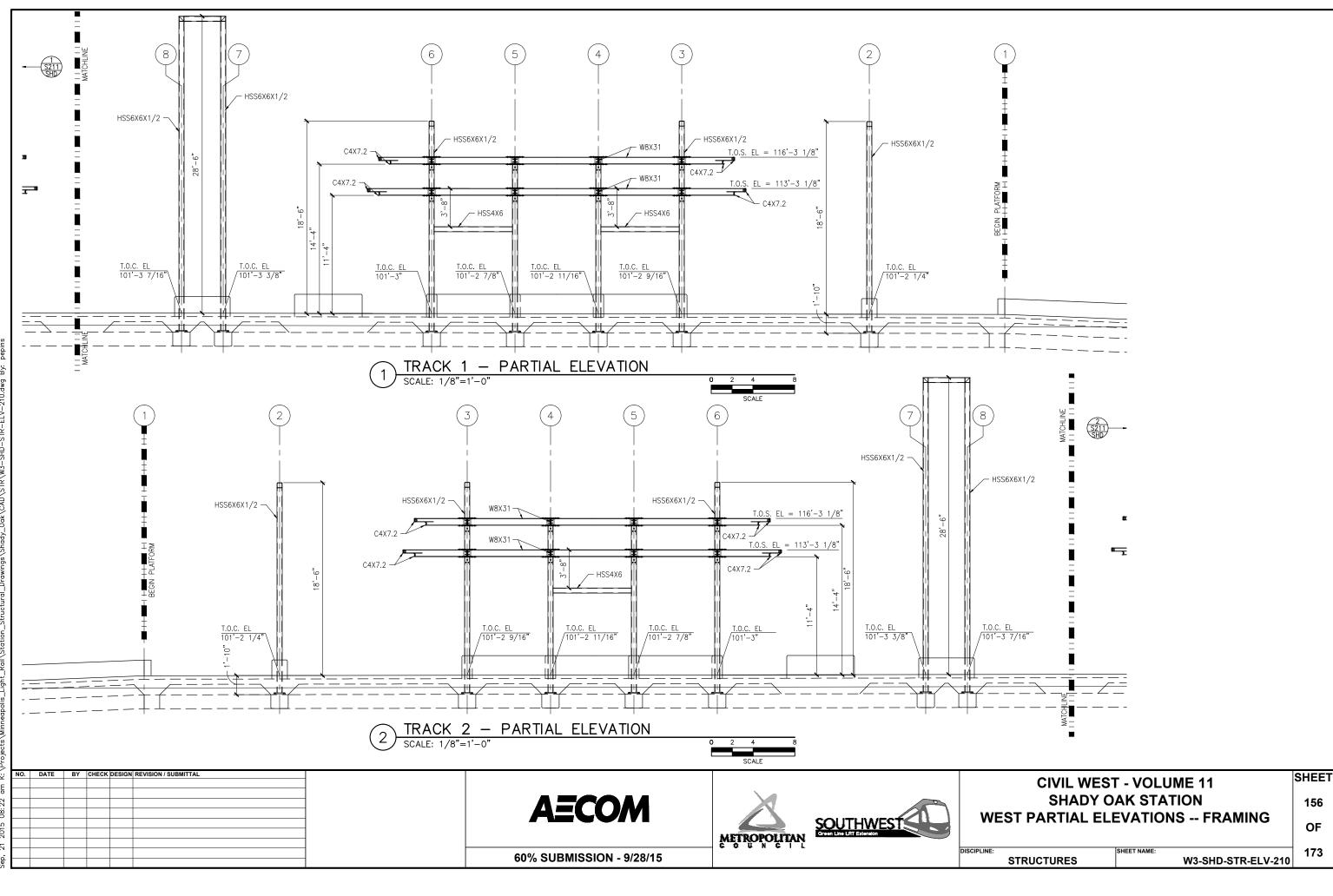
R/W3

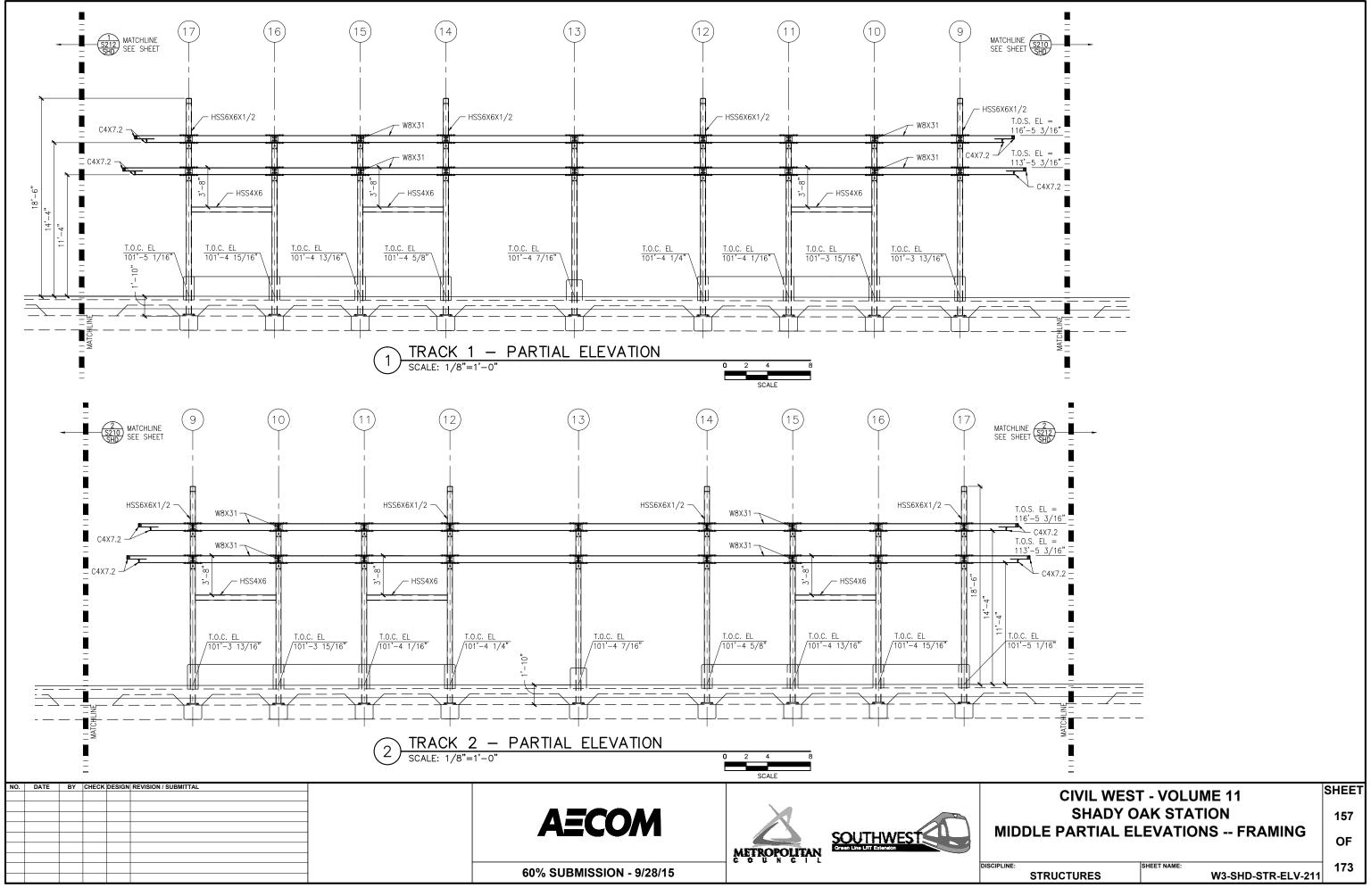
CIVIL WES	T - VOLUME 11	SHEET
SHADY OAK STATION UPPER ROOF FRAMING PLANS		
UPPER ROOF	FRAMING PLANS	OF
STRUCTURES	SHEET NAME: W3-SHD-STR-PLN-151	173

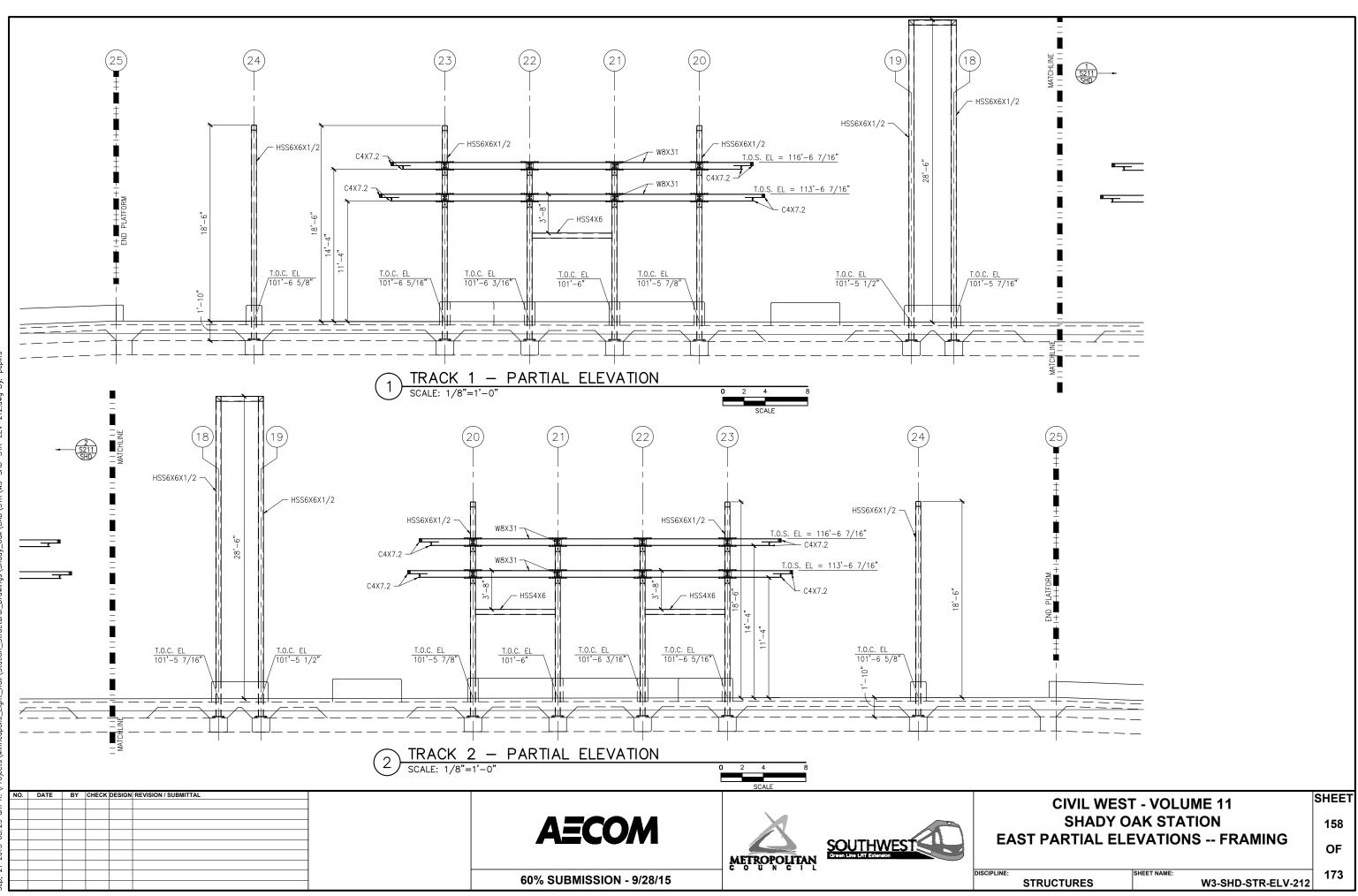
STRUCTURES

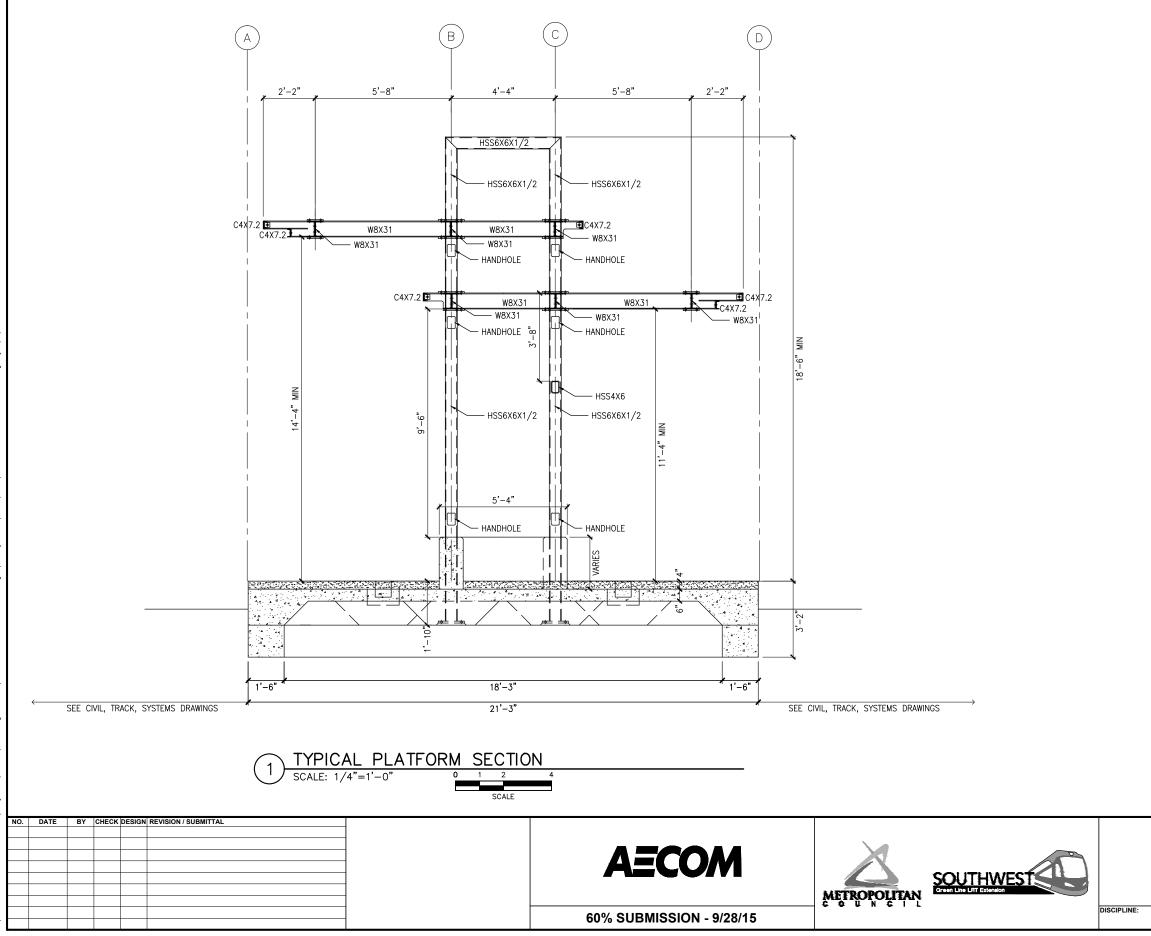


0. PLATFORM		
0. PLATFORM - = 101'-2"		
	-	
T.O. PLATFORM		
EL = 101' - 6 7/8"		
===		
==3		
UST ELEVATIONS ACCORDINGLY		
CIVIL WEST	Γ - VOLUME 11	SHEET
	AK STATION	4
		155
ELEVATION	NS FRAMING	OF
IE:	SHEET NAME:	173
STRUCTURES	W3-SHD-STR-FLV-201	

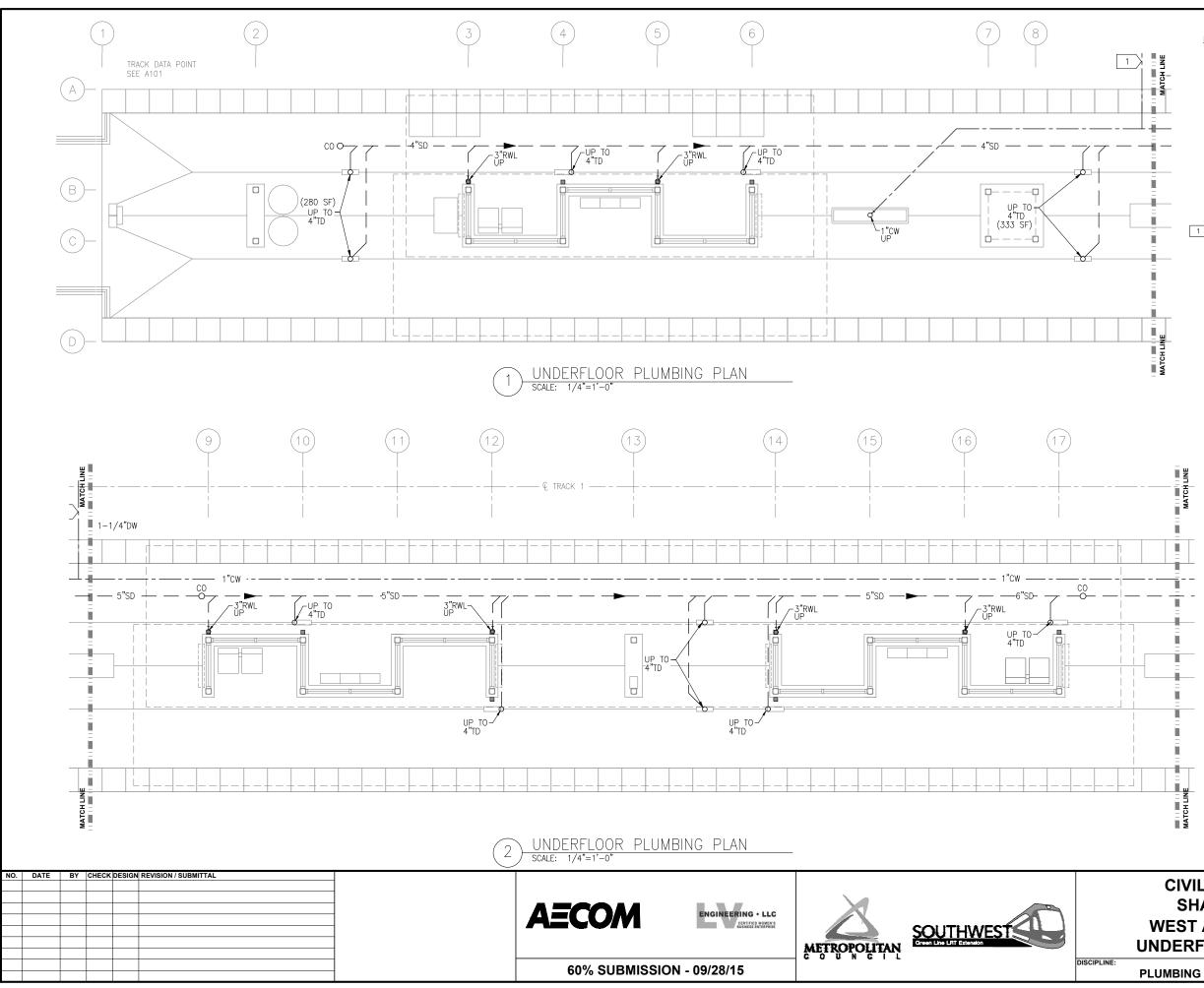




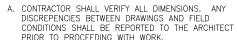




CIVIL WEST - VOLUME 11			
SHADY OAK STATION			
TYPICAL PLATFORM SECTION			
STRUCTURES	SHEET NAME: W3-SHD-STR-SCT-300	173	







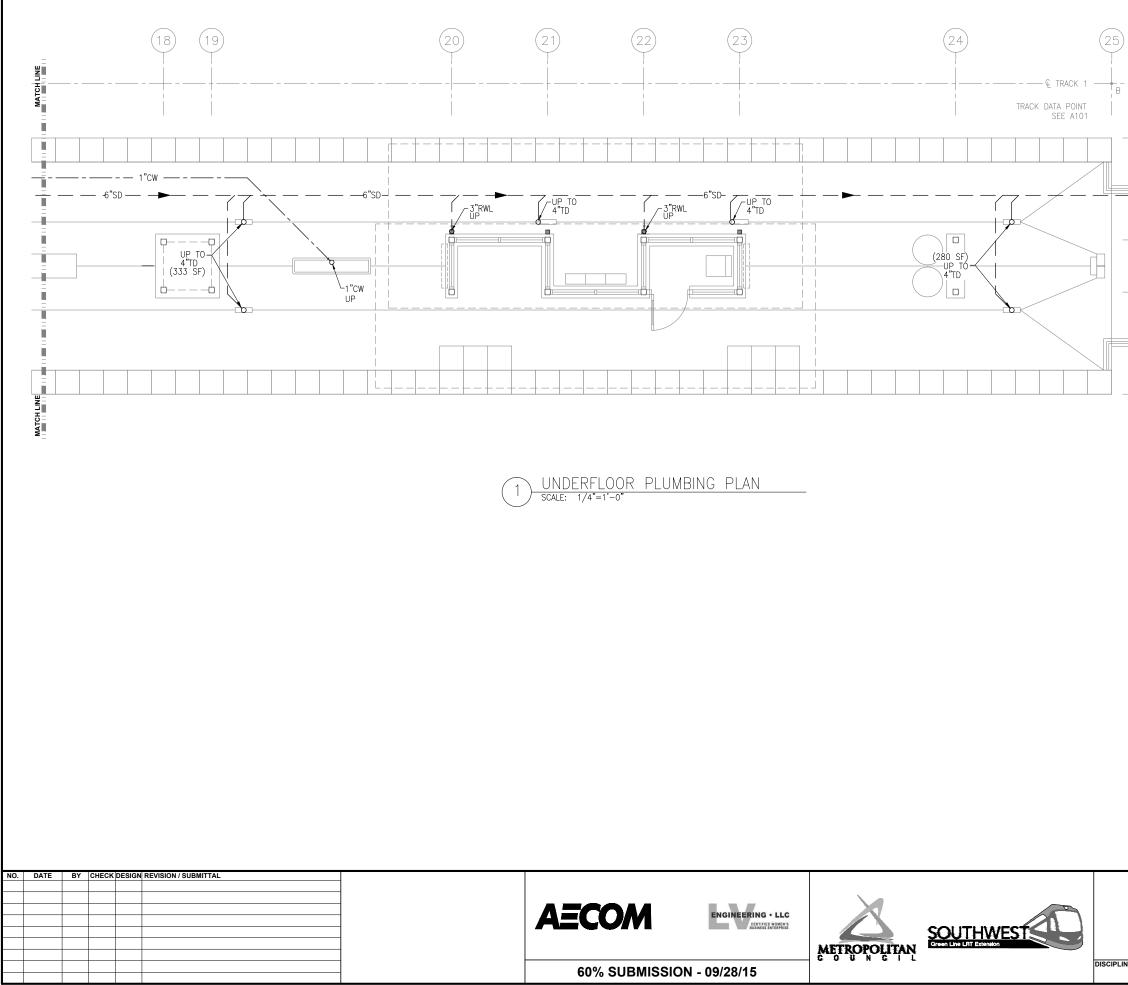
- PRIOR TO PROCEEDING WITH WORK. B. HEAT TRACING ALONG ALL GUTTERS, AROUND ALL ROOF DRAINS, AND ALL RAIN LEADERS SHALL BE BY ELECTRICAL DIVISION.
- C. MAINTAIN CODE REQUIRED DISTANCE BETWEEN UNDERGROUND SANITARY AND UNDERGROUND POTABLE WATER.
- D. REFER TO ARCHITECTURAL DRAWINGS FOR CEILING

HEIGHTS AND LAYOUT.
 E. REFER TO ARCHITECTURAL DRAWINGS AND SPECIFICATIONS FOR STORM DOWNSPOUT MATERIAL.

PLUMBING KEY NOTES:

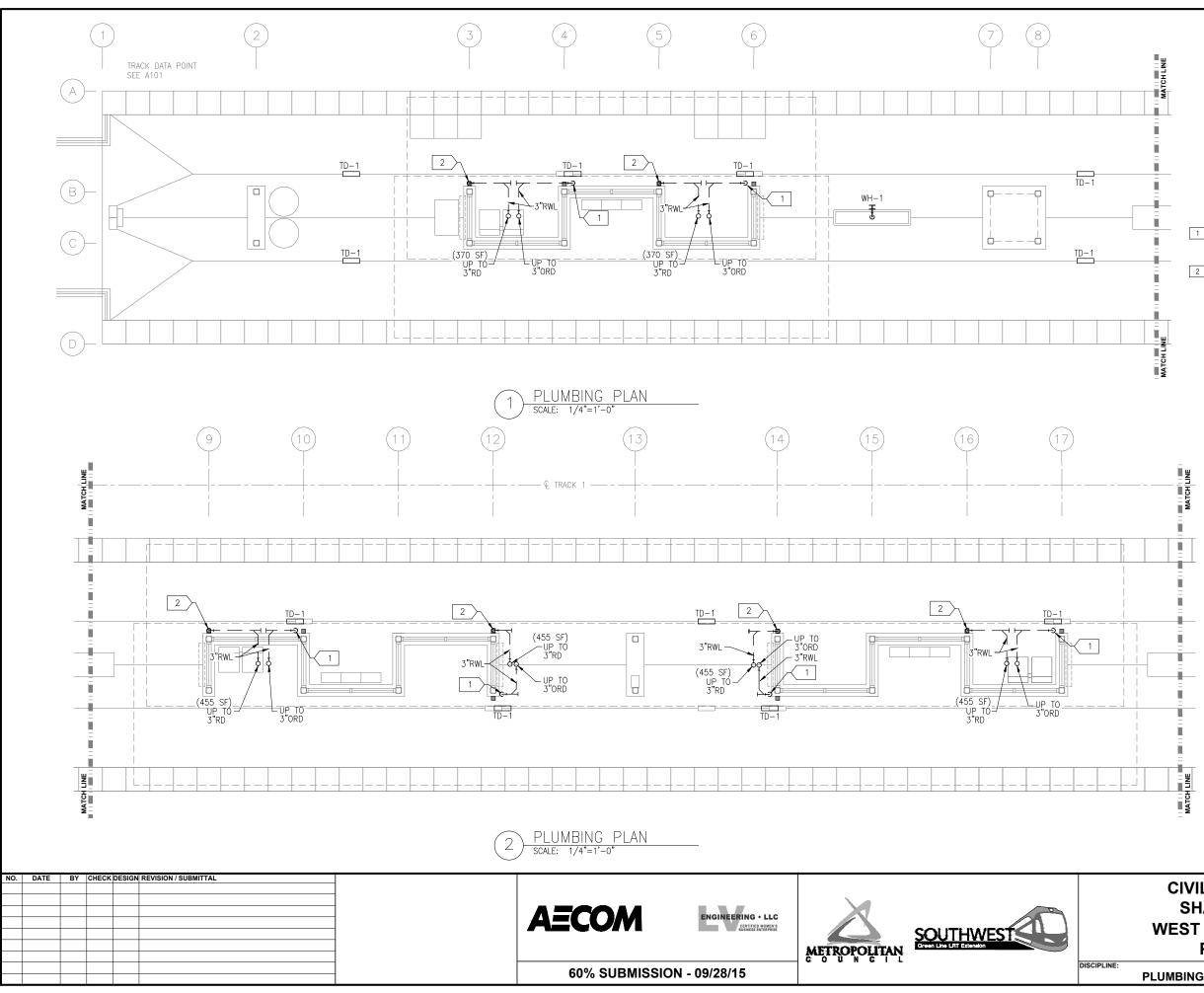
EXTEND WATER AND STORM OUTSIDE GUIDEWAY. CONNECTION BY OUTDOOR UTILITY CONTRACTOR.

	CIVIL WES	Γ - VOLUME 11	SHEET	
	SHADY OAK STATION			
	WEST AND MIDDLE PARTIAL			
	UNDERFLOOR PLUMBING PLAN			
E:		SHEET NAME:	173	
	PLUMBING	W3-SHD-PLM-PLN-100		



E E dwg 10 ZIA PLM-STA OAK 9

A I STSD T STSD STSD	
CIVIL WEST - VOLUME 11	SHEET
SHADY OAK STATION	161
EAST PARTIAL UNDERFLOOR	OF
PLUMBING PLAN	173



Z

PLUMBING GENERAL NOTES

- A. CONTRACTOR SHALL VERIFY ALL DIMENSIONS. ANY DISCREPENCIES BETWEEN DRAWINGS AND FIELD CONDITIONS SHALL BE REPORTED TO THE ARCHITECT PRIOR TO PROCEEDING WITH WORK.
- B. HEAT TRACING ALONG ALL GUTTERS, AROUND ALL ROOF DRAINS, AND ALL RAIN LEADERS SHALL BE BY ELECTRICAL DIVISION ELECTRICAL DIVISION.
- C. MAINTAIN CODE REQUIRED DISTANCE BETWEEN UNDERGROUND SANITARY AND UNDERGROUND POTABLE WATER.
- D. REFER TO ARCHITECTURAL DRAWINGS FOR CEILING
- HEIGHTS AND LAYOUT. E. REFER TO ARCHITECTURAL DRAWINGS AND SPECIFICATIONS FOR STORM DOWNSPOUT MATERIAL.

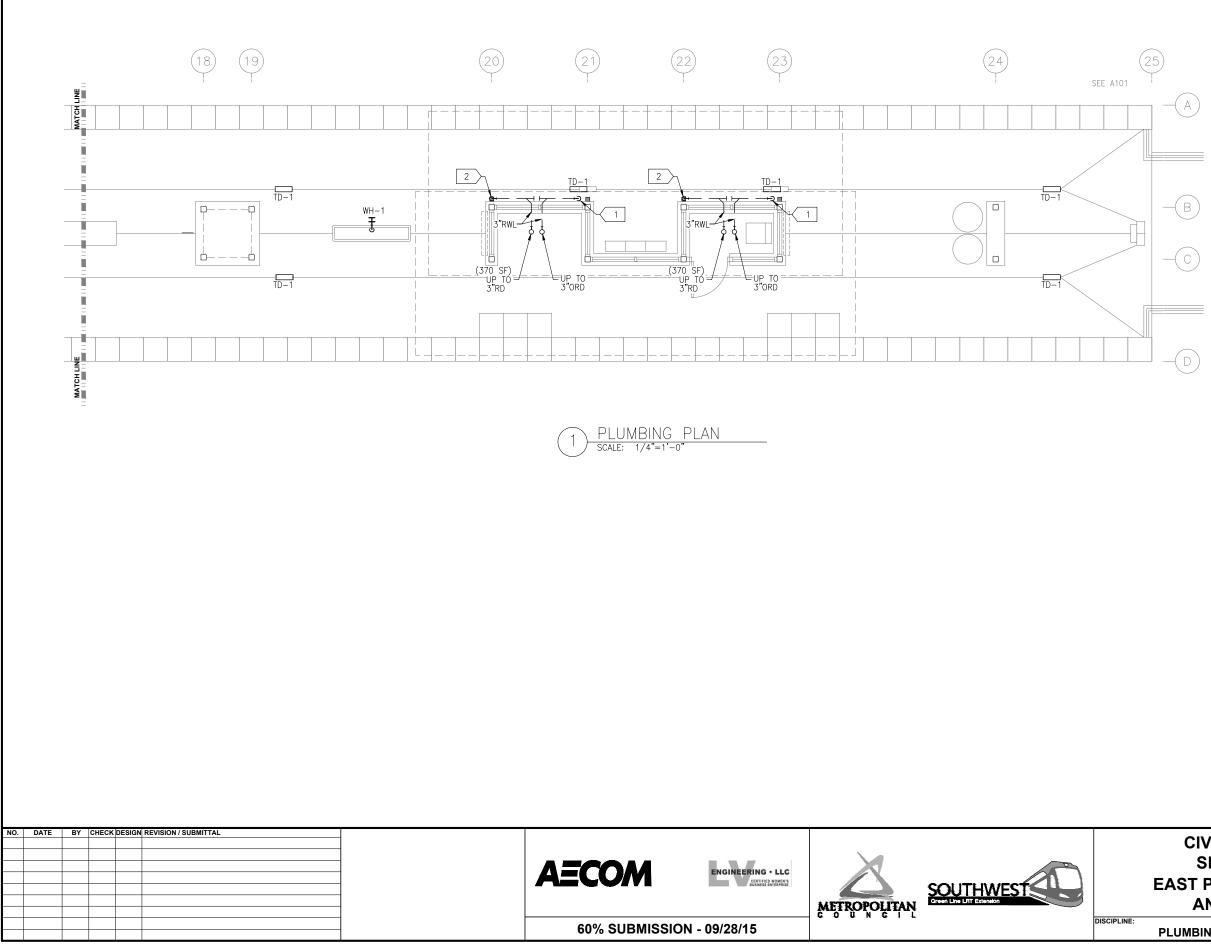
PLUMBING KEY NOTES

 1
 3x3 RWL DOWN TO DAYLIGHT ABOVE TD-1.

 SEE ARCHITECTURAL DOCUMENTS FOR RAIN
 WATER LEADER MATERIAL AND SHAPE.

2 3x3 RWL DOWN TO JOSAM_____ CONNECTION TO 3" UNDERFLOOR STORM DRAIN.

	CIVIL WEST - VOLUME 11				
	SHADY OAK STATION				
	WEST AND MIDDLE PARTIAL PLUMBING PLAN				
:	PLUMBING	SHEET NAME: W3-SHD-PLM-PLN-110	173		



NC TAT OAK ð AN ŝ í Ç

PLUMBING GENERAL NOTES

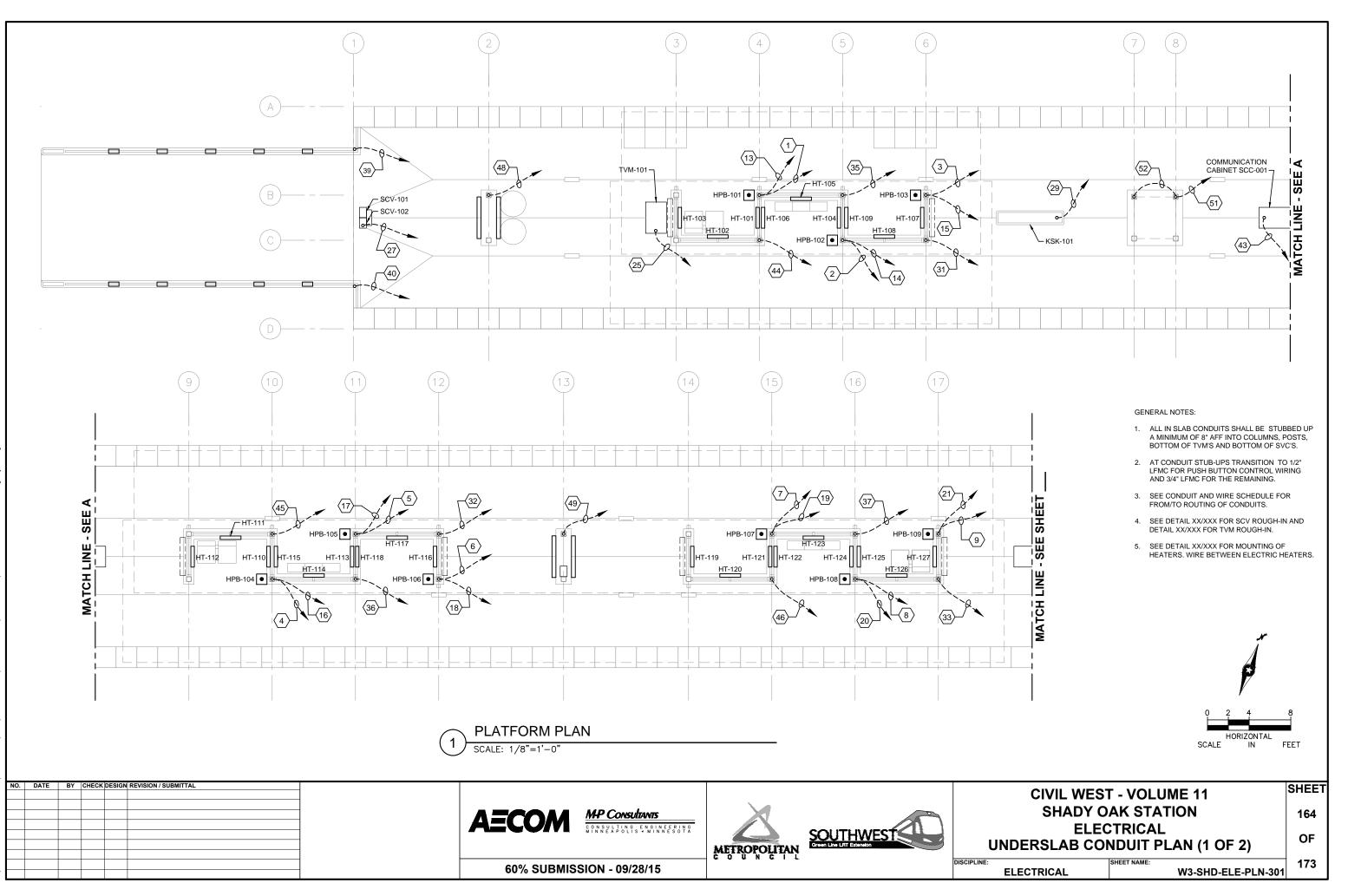
- A. CONTRACTOR SHALL VERIFY ALL DIMENSIONS. ANY DISCREPENCIES BETWEEN DRAWINGS AND FIELD CONDITIONS SHALL BE REPORTED TO THE ARCHITECT PRIOR TO PROCEEDING WITH WORK.
- B. HEAT TRACING ALONG ALL GUTTERS, AROUND ALL ROOF DRAINS, AND ALL RAIN LEADERS SHALL BE BY ELECTRICAL DIVISION. C. MAINTAIN CODE REQUIRED DISTANCE BETWEEN
- UNDERGROUND SANITARY AND UNDERGROUND POTABLE WATER.
- D. REFER TO ARCHITECTURAL DRAWINGS FOR CEILING
- HEIGHTS AND LAYOUT.
 E. REFER TO ARCHITECTURAL DRAWINGS AND SPECIFICATIONS FOR STORM DOWNSPOUT MATERIAL.

PLUMBING KEY NOTES

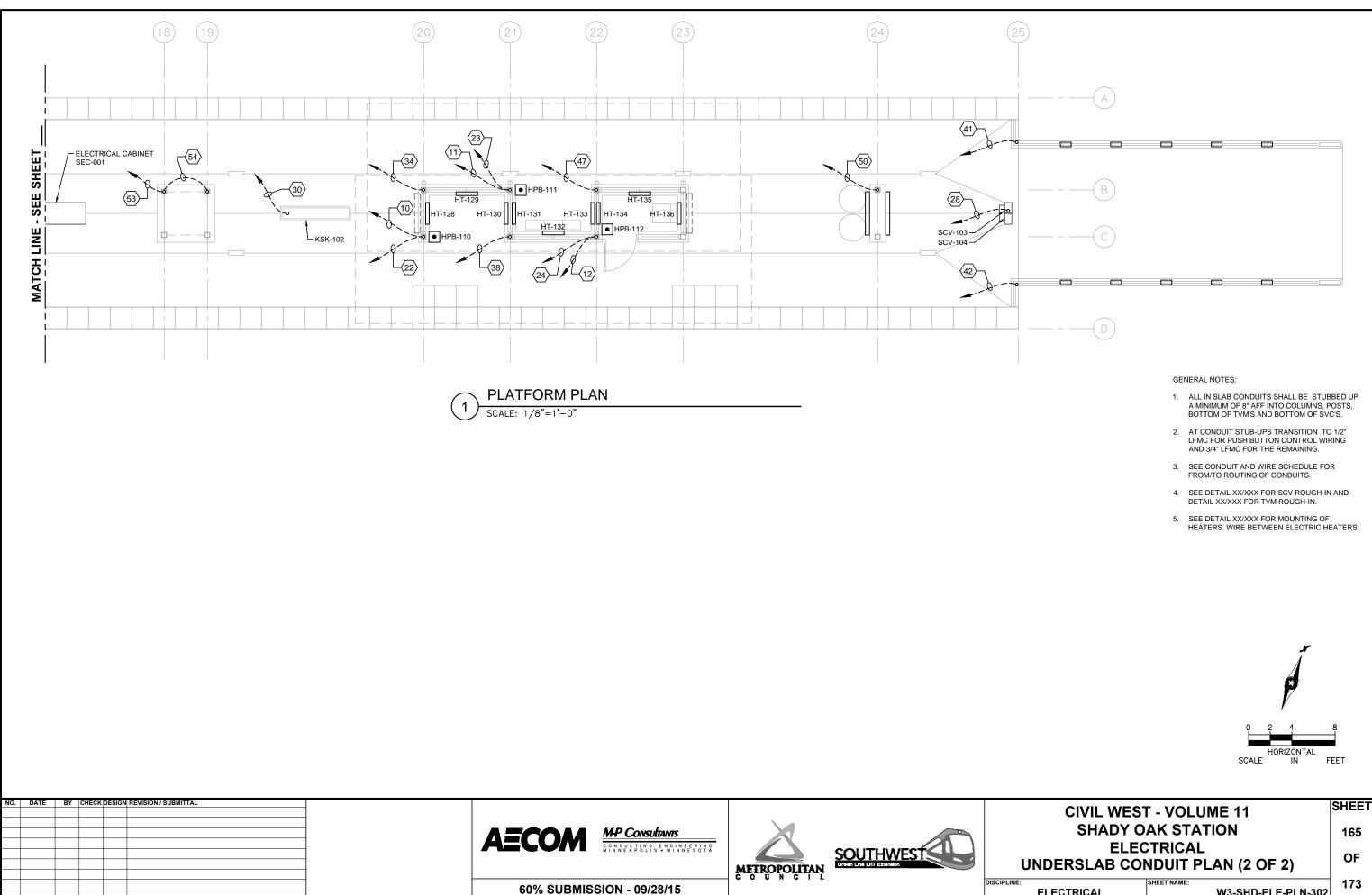
1 3x3 RWL DOWN TO DAYLIGHT ABOVE TD-1. SEE ARCHITECTURAL DOCUMENTS FOR RAIN WATER LEADER MATERIAL AND SHAPE.

- 2 3x3 RWL DOWN TO JOSAM_____ CONNECTION TO 3" UNDERFLOOR STORM DRAIN.

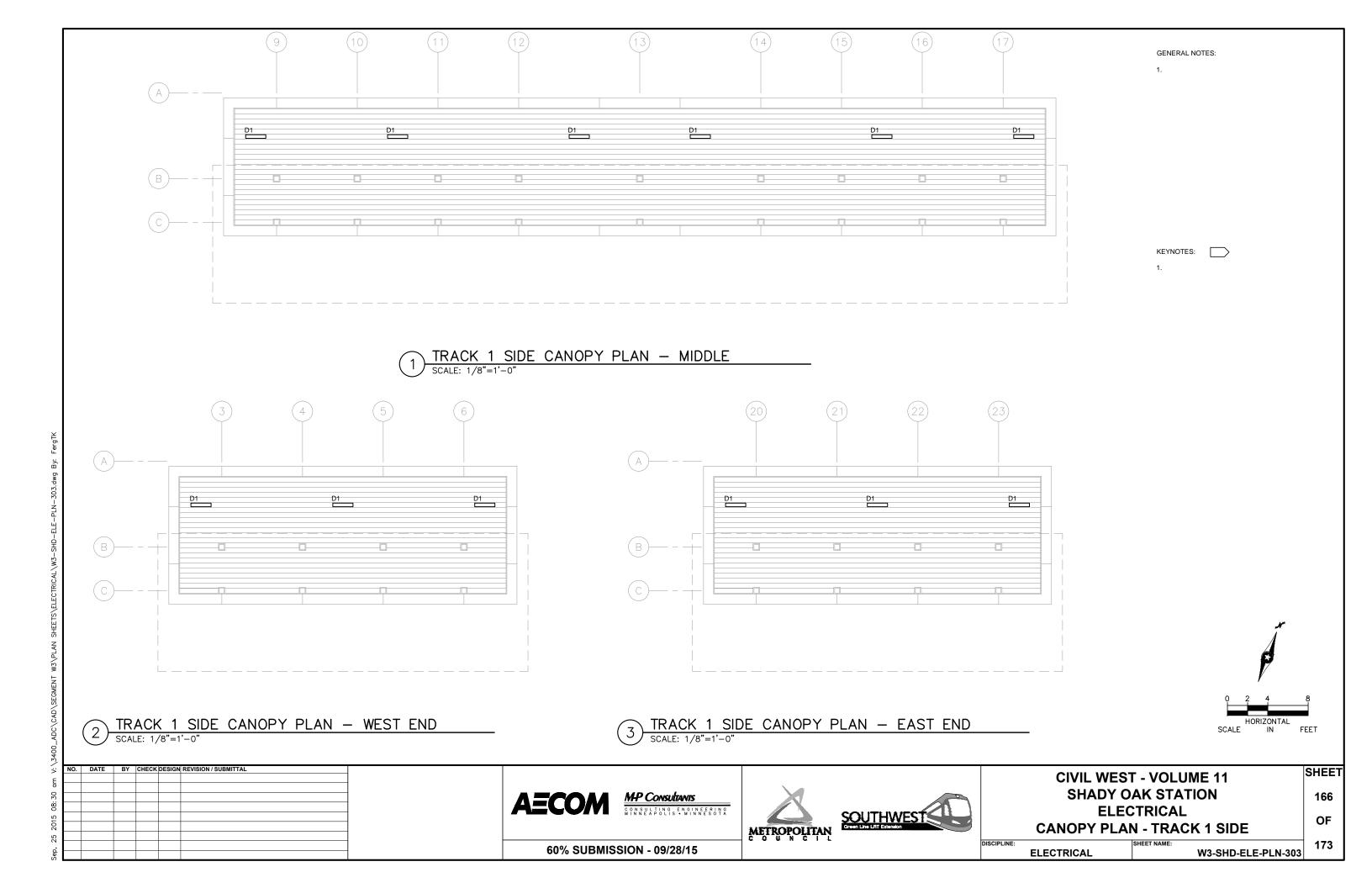
CIVIL WEST	- VOLUME 11	SHEET
SHADY O	AK STATION	163
EAST PARTIAL	PLUMBING PLAN	OF
AND RISE	R DIAGRAMS	01
	SHEET NAME:	173
PLUMBING	W3-SHD-PLM-PLN-111	

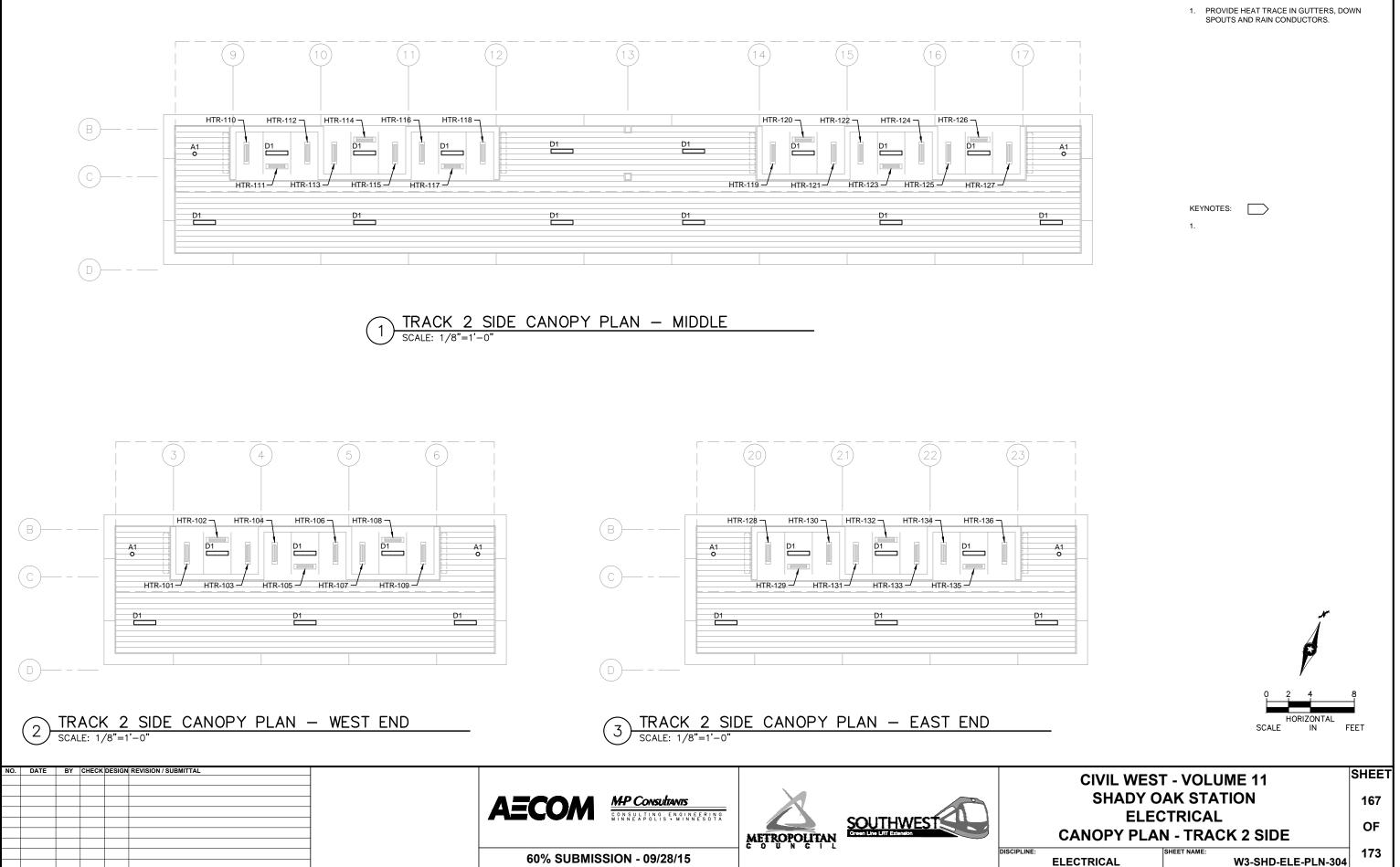


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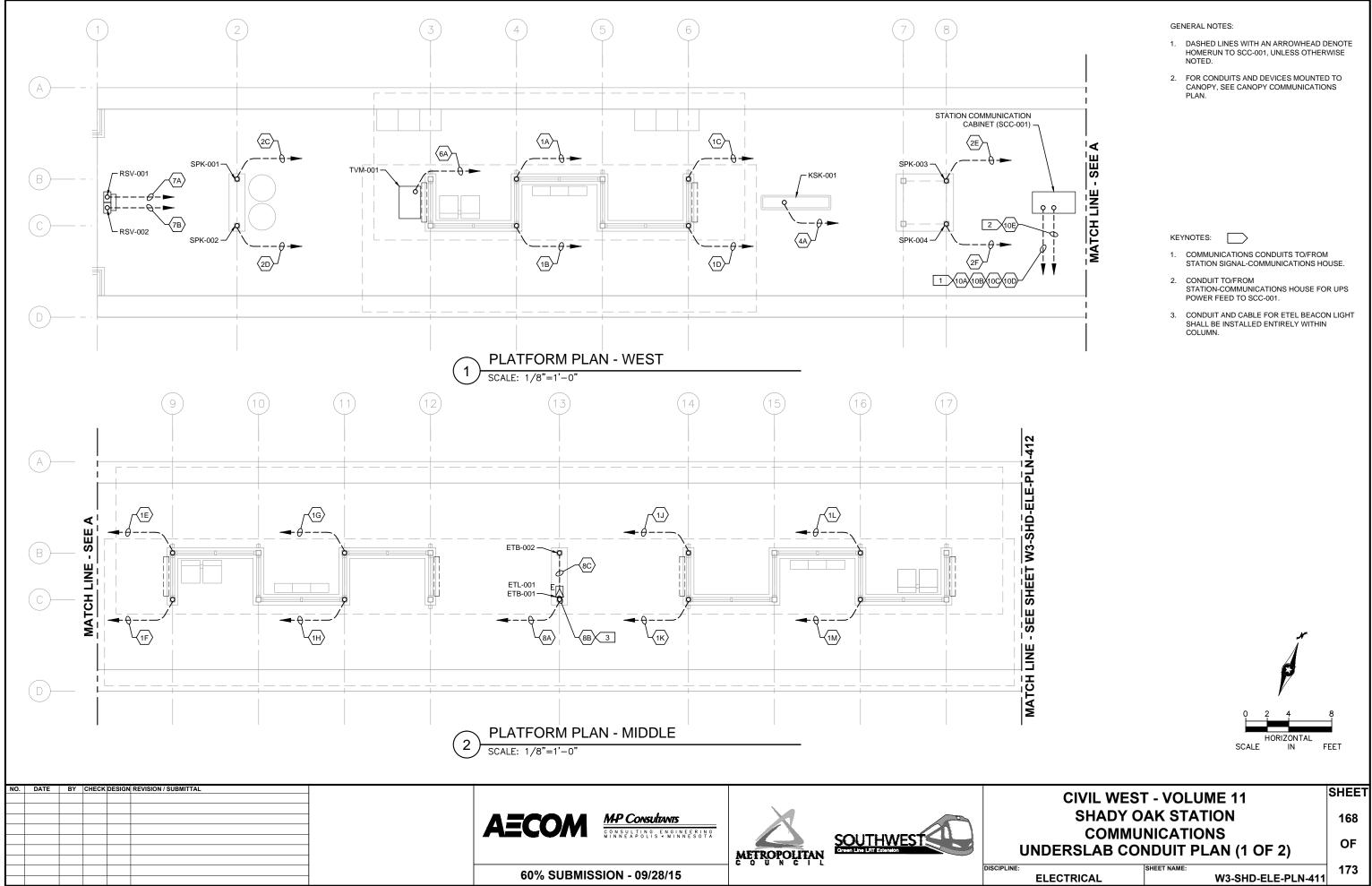


	P		
	0 2 4 HORIZONTAL SCALE IN F	8 	
CIVIL WEST - \	/OLUME 11	SHEET	
SHADY OAK	STATION	165	
		OF	
UNDERSLAB CONDU	· · · ·		
ELECTRICAL	W3-SHD-ELE-PLN-302	173	

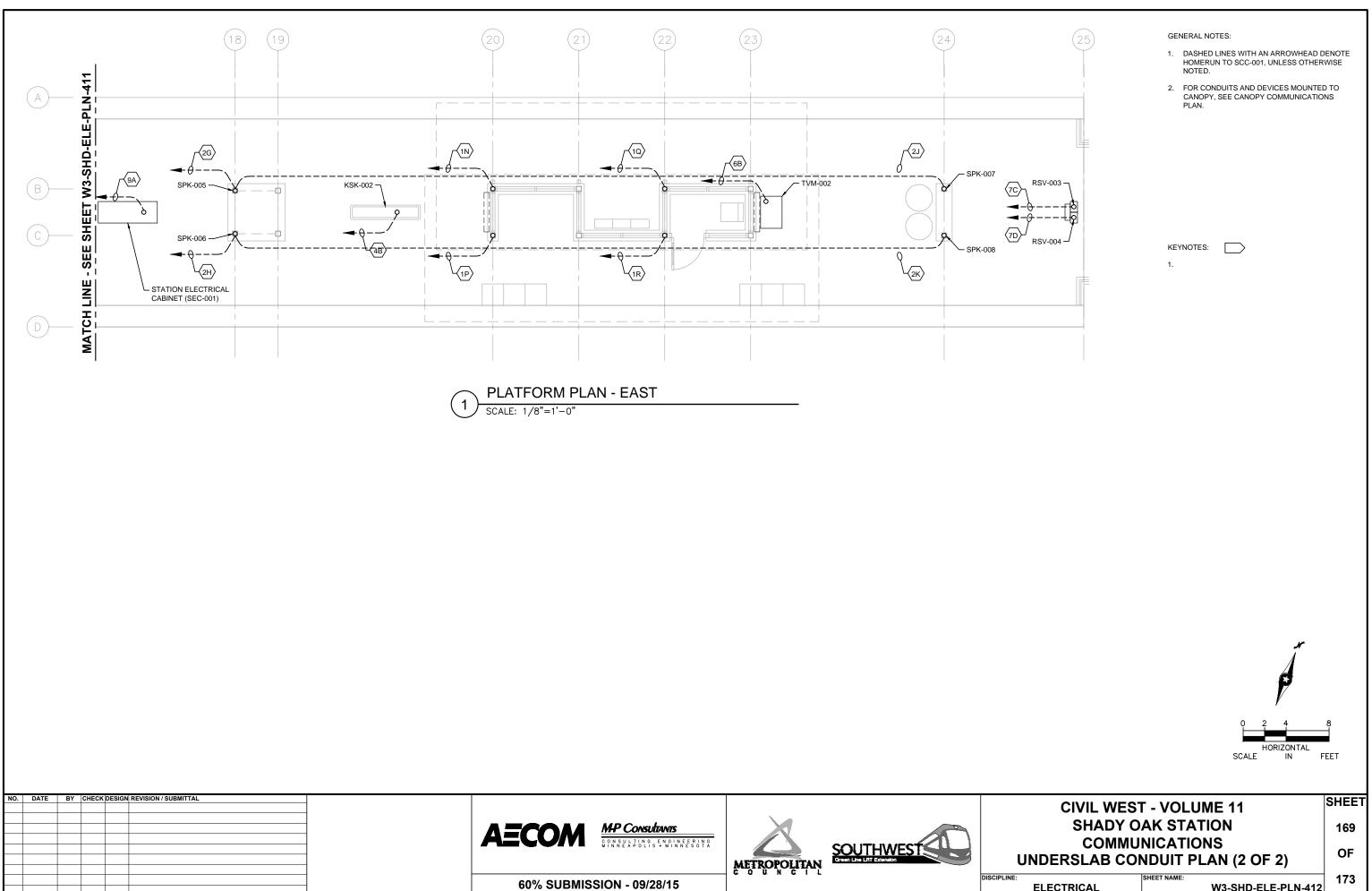




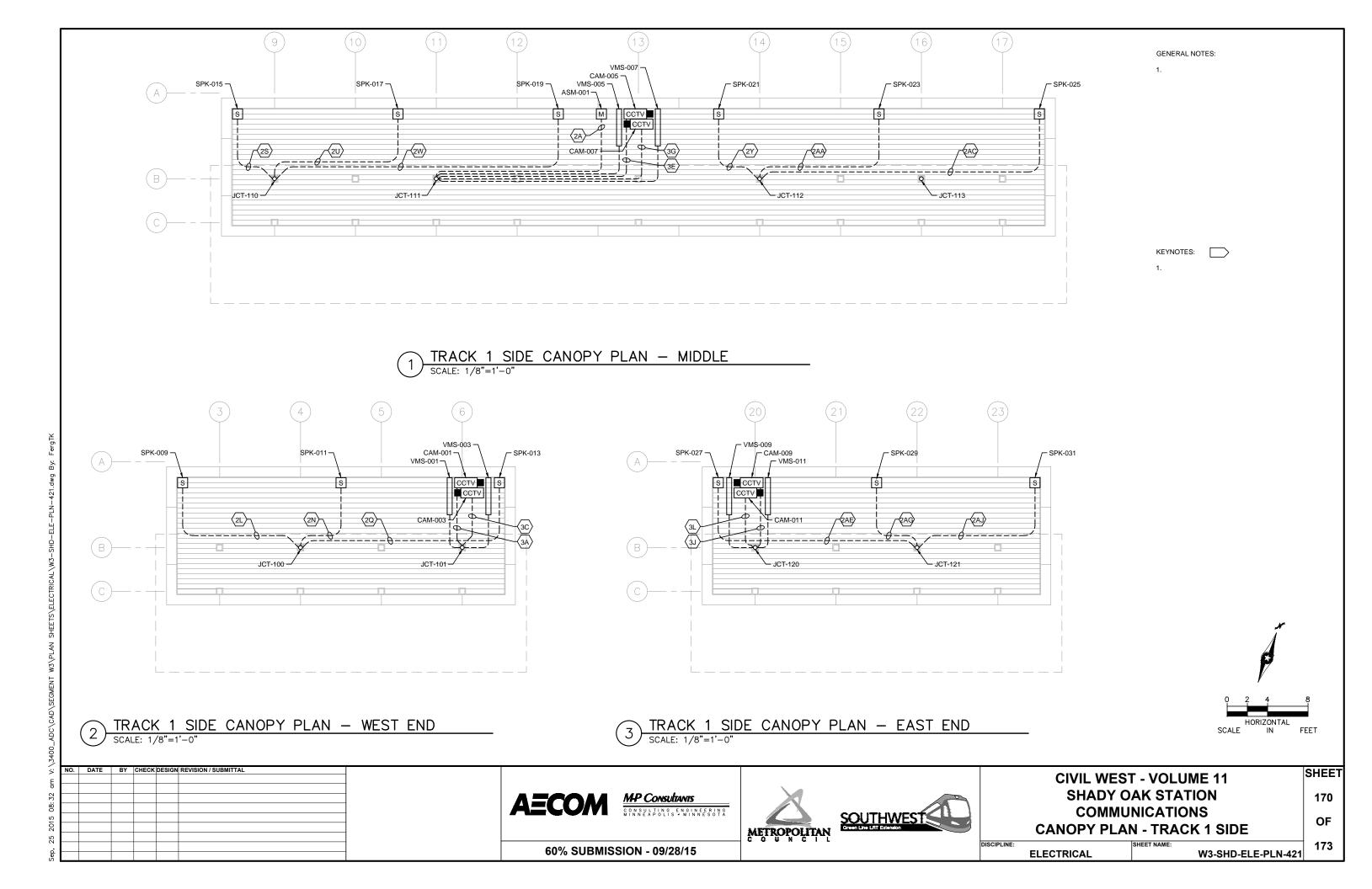
GENERAL NOTES:

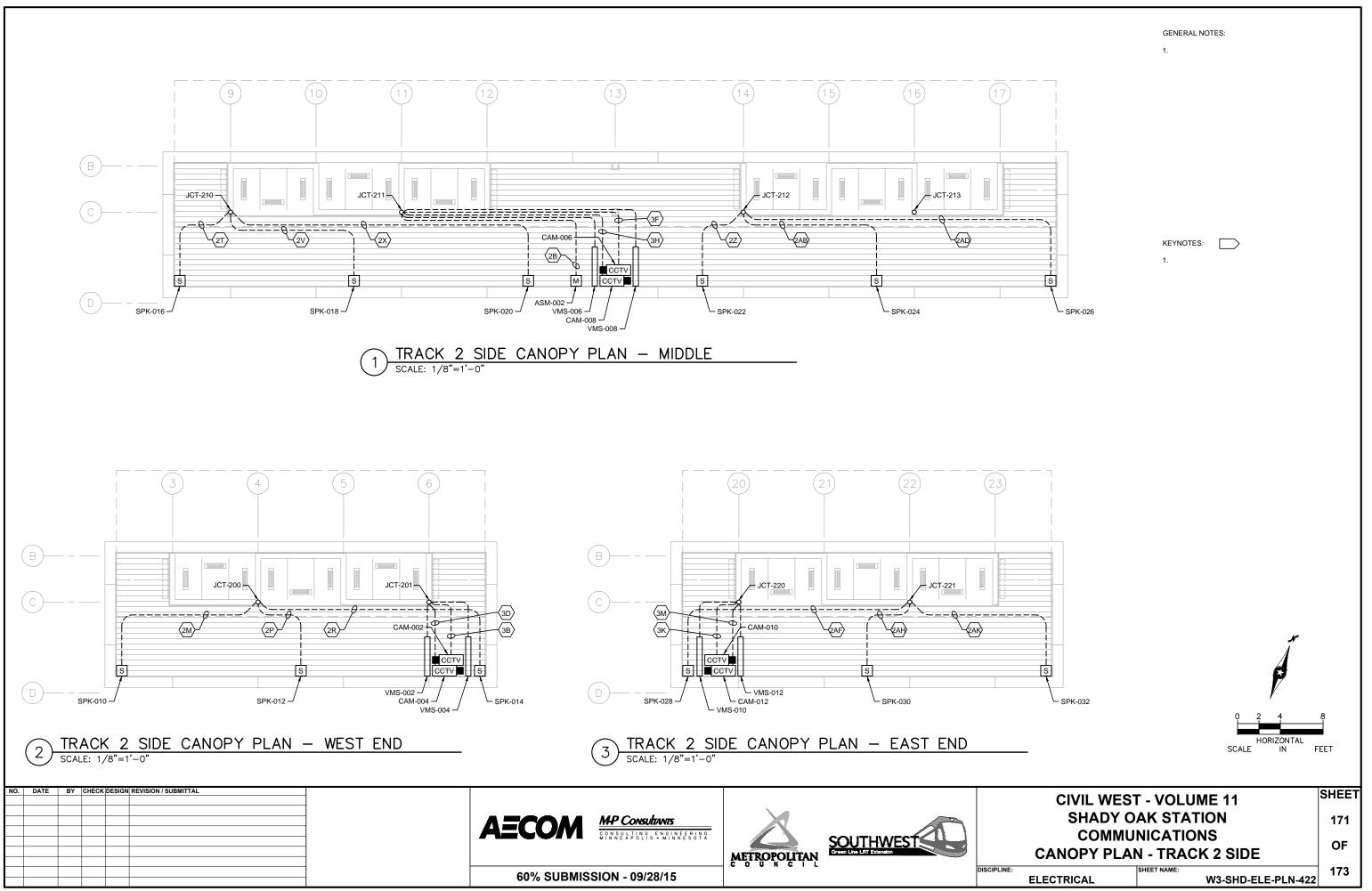


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CIVIL WEST - VOLUME 11			
SHADY O	AK STATION	169	
COMMUNICATIONS UNDERSLAB CONDUIT PLAN (2 OF 2)			
ELECTRICAL	SHEET NAME: W3-SHD-ELE-PLN-412	173	





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NO.	DATE	BY	CHECK	DESIGN	REVISION / SUBMITTAL						
						-					
							AECOM	M-P Consultants			
							ALCIN	CONSULTING ENGINEERING MINNEAPOLIS KMINNESOTA			
								MINNEAPOLIS « MINNESOTA		SOUTHWEST	
									METROPOLITAN	Green Line LRT Extension	
									METROPOLITAN		
							60% SUBMIS	SION - 09/28/15			DISCIPLIN
							00 / SUBINIS	SION - 09/28/15			

DNDUIT NO.	DEVICE ID	DESCRIPTION/USE	FROM	TO	CONDUIT SIZE
10A	SHD -CON-0001	S/C HOUSE TO SCC-001	S/C MANHOLE	SHD -SCC-001	3"
10B	SHD -CON-0002	S/C HOUSE TO SCC-001	S/C MANHOLE	SHD -SCC-001	3"
10C	SHD -CON-0003	S/C HOUSE TO SCC-001	S/C MANHOLE	SHD -SCC-001	3"
10D	SHD -CON-0004	S/C HOUSE TO SCC-001	S/C MANHOLE	SHD -SCC-001	3"
10E	SHD -CON-0005	UPS POWER FEED: SCH TO SCC	SHD -SCH-001	SHD -SCC-001	3"
1A	SHD -CON-0101	SCC TO JUNCTION 100	SHD -SCC-001	SHD -JCT-100	2"
1B	SHD -CON-0102	SCC TO JUNCTION 200	SHD -SCC-001	SHD -JCT-200	2"
1C	SHD -CON-0103	SCC TO JUNCTION 101	SHD -SCC-001	SHD -JCT-101	2"
1D	SHD -CON-0104	SCC TO JUNCTION 201	SHD -SCC-001	SHD -JCT-201	2"
1E	SHD -CON-0105	SCC TO JUNCTION 110	SHD -SCC-001	SHD -JCT-110	2"
1F	SHD -CON-0106	SCC TO JUNCTION 210	SHD -SCC-001	SHD -JCT-210	2"
1G	SHD -CON-0107	SCC TO JUNCTION 111	SHD -SCC-001	SHD -JCT-111	2"
1H	SHD -CON-0107	SCC TO JUNCTION 211	SHD -SCC-001	SHD -JCT-211	2"
1J	SHD -CON-0108	SCC TO JUNCTION 112	SHD -SCC-001	SHD -JCT-112	2"
1K	SHD -CON-0109	SCC TO JUNCTION 212	SHD -SCC-001	SHD -JCT-212	2"
1L	SHD -CON-0110	SCC TO JUNCTION 113	SHD -SCC-001	SHD -JCT-113	2"
1M	SHD -CON-0110	SCC TO JUNCTION 213	SHD -SCC-001	SHD -JCT-213	2"
1N	SHD -CON-0111	SCC TO JUNCTION 120	SHD -SCC-001	SHD -JCT-120	2"
1P	SHD -CON-0112	SCC TO JUNCTION 121	SHD -SCC-001	SHD -JCT-220	2"
1Q	SHD -CON-0113	SCC TO JUNCTION 220	SHD -SCC-001	SHD -JCT-121	2"
1R	SHD -CON-0114	SCC TO JUNCTION 221	SHD -SCC-001	SHD -JCT-221	2"
2A	SHD -CON-0201	MICROPHONE 1 - NOISE SENSING	SHD -JCT-111	SHD -ASM-001	1"
2B	SHD -CON-0202	MICROPHONE 2 - NOISE SENSING	SHD -JCT-211	SHD -ASM-002	1"
2C	SHD -CON-0203	SPEAKER 1 - POLE	SHD -SPK-003	SHD -SPK-001	1-1/2"
2D	SHD -CON-0204	SPEAKER 2 - POLE	SHD -SPK-004	SHD -SPK-002	1-1/2"
2E	SHD -CON-0205	SPEAKER 3 - POLE	SHD -SCC-001	SHD -SPK-003	1-1/2"
2F	SHD -CON-0206	SPEAKER 4 - POLE	SHD -SCC-001	SHD -SPK-004	1-1/2"
2G	SHD -CON-0207	SPEAKER 5 - POLE	SHD -SCC-001	SHD -SPK-005	1-1/2"
2H	SHD -CON-0208	SPEAKER 6 - POLE	SHD -SCC-001	SHD -SPK-006	1-1/2"
2J	SHD -CON-0209	SPEAKER 7 - POLE	SHD -SPK-005	SHD -SPK-007	1-1/2"
2K	SHD -CON-0210	SPEAKER 8 - POLE	SHD -SPK-006	SHD -SPK-008	1-1/2"
2L	SHD -CON-0211	SPEAKER 9 - CANOPY	SHD -JCT-100	SHD -SPK-009	1"
2M	SHD -CON-0212	SPEAKER 10 - CANOPY	SHD -JCT-200	SHD -SPK-010	1"
2N	SHD -CON-0213	SPEAKER 11 - CANOPY	SHD -JCT-100	SHD -SPK-011	1"
2P	SHD -CON-0214	SPEAKER 12 - CANOPY	SHD -JCT-200	SHD -SPK-012	1"
2Q	SHD -CON-0215	SPEAKER 13 - CANOPY	SHD -JCT-100	SHD -SPK-013	1"
2R	SHD -CON-0216	SPEAKER 14 - CANOPY	SHD -JCT-200	SHD -SPK-014	1"
25	SHD -CON-0217	SPEAKER 15 - CANOPY	SHD -JCT-110	SHD -SPK-015	1"
2T	SHD -CON-0218	SPEAKER 16 - CANOPY	SHD -JCT-210	SHD -SPK-016	1"
20	SHD -CON-0219	SPEAKER 17 - CANOPY	SHD -JCT-110	SHD -SPK-017	1"
2V	SHD -CON-0220	SPEAKER 18 - CANOPY	SHD -JCT-210	SHD -SPK-018	1"
2W	SHD -CON-0221	SPEAKER 19 - CANOPY	SHD -JCT-110	SHD -SPK-019	1"
2X	SHD -CON-0222	SPEAKER 20 - CANOPY	SHD -JCT-210	SHD -SPK-020	1"
2Y	SHD -CON-0223	SPEAKER 21 - CANOPY	SHD -JCT-112	SHD -SPK-021	1"
2Z	SHD -CON-0224	SPEAKER 22 - CANOPY	SHD -JCT-212	SHD -SPK-022	1"
2AA	SHD -CON-0225	SPEAKER 23 - CANOPY	SHD -JCT-112	SHD -SPK-023	1"
2AB	SHD -CON-0226	SPEAKER 24 - CANOPY	SHD -JCT-212	SHD -SPK-024	1"

COMMUNICATIONS CONDUIT SCHEDULE

(1)

	CIVIL WES	Γ - VOLUME 11	SHEET			
	SHADY OAK STATION					
	COMMUNICATIONS CONDUIT SCHEDULE (1 OF 2)					
NE:	ELECTRICAL	SHEET NAME: W3-SHD-ELE-SCH-461	173			

NO.	DATE	BY	CHECK	DESIGN	REVISION / SUBMITTAL						
]	AECOM	MP Consultants			
]	ALUM	CONSULTING ENGINEERING MINNEAPOLIS ⊀ MINNESOTA			
]		MINNEAPOLIS K MINNESOTA		SOUTHWEST	
						1			AUTTRODOL ITANI	SOUTHWEST Green Line LRT Extension	
						1			METROPOLITAN		
]	60% SUBMIS	SION - 09/28/15			DISCIPL
							60 % SUBINIS	SION - 09/20/15			

	COMMUNICATIONS CONDUIT SCHEDULE
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CONDUIT NO.	DEVICE ID	DESCRIPTION/USE	FROM	то	CONDUIT SIZ
2AC	SHD -CON-0227	SPEAKER 25 - CANOPY	SHD -JCT-112	SHD -SPK-025	1"
2AD	SHD -CON-0228	SPEAKER 26 - CANOPY	SHD -JCT-212	SHD -SPK-026	1"
2AE	SHD -CON-0229	SPEAKER 27 - CANOPY	SHD -JCT-121	SHD -SPK-027	1"
2AF	SHD -CON-0230	SPEAKER 28 - CANOPY	SHD -JCT-221	SHD -SPK-028	1"
2AG	SHD -CON-0231	SPEAKER 29 - CANOPY	SHD -JCT-121	SHD -SPK-029	1"
2AH	SHD -CON-0232	SPEAKER 30 - CANOPY	SHD -JCT-221	SHD -SPK-030	1"
2AJ	SHD -CON-0233	SPEAKER 31 - CANOPY	SHD -JCT-121	SHD -SPK-031	1"
2AK	SHD -CON-0234	SPEAKER 32 - CANOPY	SHD -JCT-221	SHD -SPK-032	1"
3A	SHD -CON-0301	CAMERA 1	SHD -JCT-101	SHD CAM-001	1"
3B	SHD -CON-0302	CAMERA 2	SHD -JCT-201	SHD CAM-002	1"
3C	SHD -CON-0303	CAMERA 3	SHD -JCT-101	SHD CAM-003	1"
3D	SHD -CON-0304	CAMERA 4	SHD -JCT-201	SHD CAM-004	1"
3E	SHD -CON-0305	CAMERA 5	SHD -JCT-111	SHD CAM-005	1"
3F	SHD -CON-0306	CAMERA 6	SHD -JCT-211	SHD CAM-006	1"
3G	SHD -CON-0307	CAMERA 7	SHD -JCT-111	SHD CAM-007	1"
3H	SHD -CON-0308	CAMERA 8	SHD -JCT-211	SHD CAM-008	1"
3J	SHD -CON-0309	CAMERA 9	SHD -JCT-120	SHD CAM-009	1"
ЗК	SHD -CON-0310	CAMERA 10	SHD -JCT-220	SHD CAM-010	1"
3L	SHD -CON-0311	CAMERA 11	SHD -JCT-120	SHD CAM-011	1"
3M	SHD -CON-0312	CAMERA 12	SHD -JCT-220	SHD CAM-012	1"
4A	SHD -CON-0401	KIOSK 1 (F)	SHD -SCC-001	SHD -KSK-001	2"
4B	SHD -CON-0402	KIOSK2 (F)	SHD -SCC-001	SHD -KSK-002	2"
5A	SHD -CON-0501	VMS 1	SHD -JCT-101	SHD -VMS-001	1"
5B	SHD -CON-0502	VMS 2	SHD -JCT-201	SHD -VMS-002	1"
5C	SHD -CON-0503	VMS 3	SHD -JCT-101	SHD -VMS-003	1"
5D	SHD -CON-0504	VMS 4	SHD -JCT-201	SHD -VMS-004	1"
5E	SHD -CON-0505	VMS 5	SHD -JCT-111	SHD -VMS-005	1"
5F	SHD -CON-0506	VMS 6	SHD -JCT-211	SHD -VMS-006	1"
5G	SHD -CON-0507	VMS 7	SHD -JCT-111	SHD -VMS-007	1"
5H	SHD -CON-0508	VMS 8	SHD -JCT-211	SHD -VMS-008	1"
5J	SHD -CON-0509	VMS 9	SHD -JCT-120	SHD -VMS-009	1"
5K	SHD -CON-0510	VMS 10	SHD -JCT-220	SHD -VMS-010	1"
5L	SHD -CON-0511	VMS 11	SHD -JCT-120	SHD -VMS-011	1"
5M	SHD -CON-0512	VMS 12	SHD -JCT-220	SHD -VMS-012	1"
6A	SHD -CON-0601	TVM 1	SHD -SCC-001	SHD -TVM-001	2"
6B	SHD -CON-0602	TVM 2	SHD -SCC-001	SHD -TVM-002	2"
7A	SHD -CON-0701	VALIDATOR 1	SHD -SCC-001	SHD -RSV-001	1-1/2"
7B	SHD -CON-0702	VALIDATOR 2	SHD -SCC-001	SHD -RSV-002	1-1/2"
70	SHD -CON-0703	VALIDATOR 3	SHD -SCC-001	SHD -RSV-003	1-1/2"
7D	SHD -CON-0704	VALIDATOR 4	SHD -SCC-001	SHD -RSV-004	1-1/2"
8A	SHD -CON-0801	EMERGENCY TELEPHONE 1 - PHONE	SHD -SCC-001	SHD -ETL-001	1-1/2"
8B	SHD -CON-0802	EMERGENCY TELEPHONE 1 - BEACON LIGHT 1	SHD -ETL-001	SHD -ETB-001	1"
80	SHD -CON-0803	EMERGENCY TELEPHONE 1 - BEACON LIGHT 2	SHD -ETL-001	SHD -ETB-002	1"
9A	SHD -CON-0901	STATION ELECTRICAL CABINET	SHD -SCC-001	SHD -SEC-001	2"

	CIVIL WES	T - VOLUME 11	SHEET				
	SHADY OAK STATION						
	COMMUNICATIONS CONDUIT SCHEDULE (2 OF 2)						
NE:	ELECTRICAL	SHEET NAME: W3-SHD-ELE-SCH-462	173				