

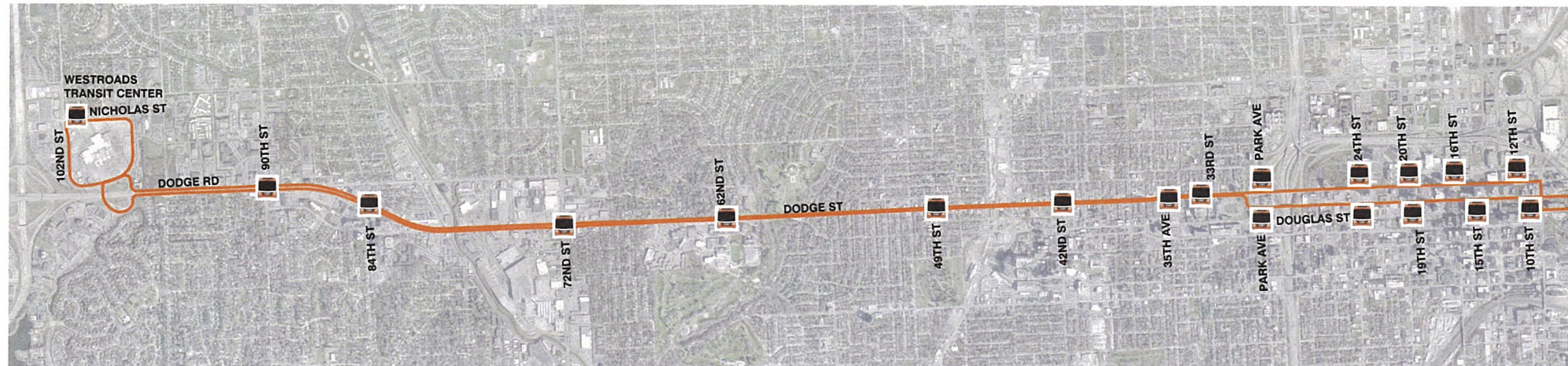


NE-79-X001

OMAHA RAPID BUS TRANSIT
STATION CANOPY PACKAGE

INDEX OF SHEETS

- 1 COVER SHEET
- 2 - 3 SUBMITTAL COORDINATION SHEETS
- 4 ABBREVIATIONS AND SYMBOLS
- 5 - 7 CIVIL DETAILS (FOR REFERENCE ONLY)
- 8 - 18 STRUCTURAL (FOUNDATIONS AND SEAT WALLS FOR REFERENCE ONLY)
- 19 - 30 ARCHITECTURAL
- 31 - 38 ELECTRICAL



PROJECT INFORMATION

OPW _____ N/A _____

ORBT DODGE RAPID BUS TRANSIT _____ N/A _____

PROJECT NAME _____ SUBDIVISION NAME _____

WEST DODGE ROAD/DODGE STREET OMAHA NE. 68114

ADDRESS _____ CITY _____ STATE _____ ZIP CODE _____

CITY COUNCIL RESOLUTION NUMBER GRANTING PROJECT APPROVAL _____ CITY COUNCIL ORDINANCE NUMBER GRANTING PROJECT APPROVAL _____ CITY COUNCIL RESOLUTION/ORDINANCE APPROVAL DATE _____

PROJECT DESCRIPTION

THE PROJECT INCLUDES THE FURNISHING AND INSTALLATION OF STATION CANOPIES. THIS PROJECT ALSO INCLUDES THE INSTALLATION OF SOME OWNER-FURNISHED ITEMS. COORDINATED WORK OUTSIDE OF THIS CONTRACT INCLUDES REMOVAL AND REPLACEMENT OF PAVEMENT, SIDEWALK, CURB AND GUTTER, AND PEDESTRIAN RAMPS WITHIN THE VICINITY OF CONSTRUCTION OF THE RAPID BUS STATIONS.

APPLICANT

CURT SIMON
METRO TRANSIT
2222 CUMING STREET
OMAHA, NE 68102

csimon@metro.com

DESIGNER

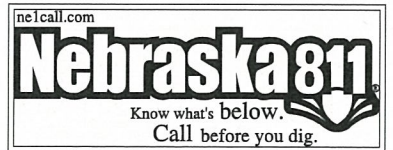
BILL CROWLEY, P.E.
AECOM
12120 SHAMROCK PLZ, STE 100
OMAHA, NEBRASKA 68154
PH: 330-329-4248
william.crowley@aecom.com

INSPECTOR

TBD

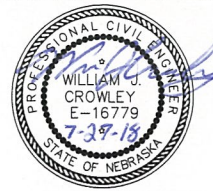
CONTRACTOR

TBD



NOTE:
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COORDINATING PROFESSIONAL



OPW 53347

NE-79-X001

DESIGNED BY: AECOM _____ DATE _____ DRAWN BY: AECOM/LAD _____

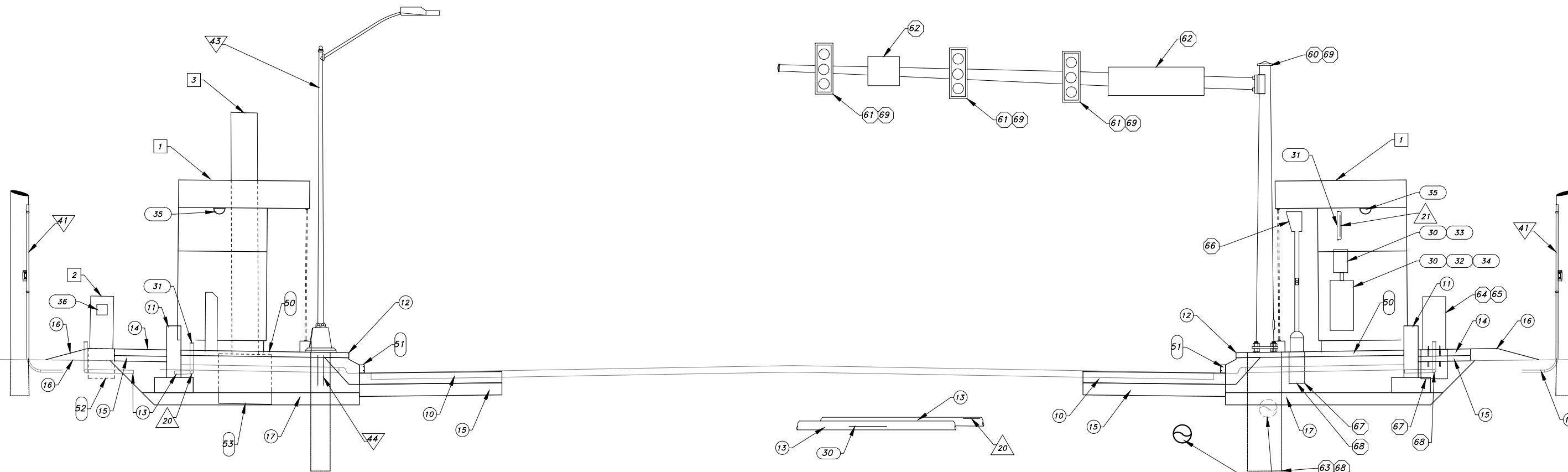
DESIGN ENGINEER: B. CROWLEY _____ DATE _____ SURVEYED: R.W. _____

METRO: _____ DATE _____ FIELD BOOK NO. _____

REV. NO.	REVISION/ISSUE	INITIALS	REVISION DATE
**			
**			
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SENT: M.U.D. RECEIVED: _____	SENT: O.P.P.D. RECEIVED: _____	SENT: TELE. RECEIVED: _____	SENT: CABLE RECEIVED: _____
1/4 SECTION		SCALE: NONE	SHEET 1 OF 38

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 DATE PLOTTED: 7/20/2018 10:42 AM DRAWN BY: jacobson, jart PLOT SCALE: 1:2



TYPICAL SECTION - WORK ITEM LEGEND

- STATION**
- 1** SHELTER BUILDING: ALL SHELTER BUILDING WORK SHOWN IN THE CONTRACT DOCUMENTS IS TO BE FURNISHED AND INSTALLED BY THIS CONTRACTOR EXCEPT AS NOTED BELOW:
- a. COMPONENTS WHICH ARE FURNISHED AND INSTALLED BY SHELTER MANUFACTURER INCLUDE.
 - i. FABRICATED STRUCTURAL STEEL COLUMNS, ROOF BEAMS, BRACKETS, AND EDGE BEAMS.
 - ii. FASCIAS WITH GUTTER AND RECESSED LIGHTING.
 - iii. DOWNSPOUTS
 - iv. ROOF GLAZING AND WIND SCREENS.
 - v. WALL PACK LIGHTING, CUSTOM LUMINAIRES, AND LIGHTS ON STATION NAME SIGN.
 - vi. STATION NAME SIGNS ON SIGNAGE PILLAR/CANOPY, DECALS ON THE WIND SCREENS, AND ALUMINUM LOGOS ON THE CANOPY AND SIGNAGE PILLAR.
 - vii. TRASH RECEPTACLES
 - viii. EMERGENCY PHONES
 - ix. BENCHES
 - b. ANCHOR BOLTS FOR THE SHELTER BUILDING AND WIND SCREENS ARE FURNISHED BY SHELTER MANUFACTURER AND INSTALLED BY ROADWAY CONTRACTORS.
 - c. WIRING FROM POWER/COMMUNICATION CABINET TO EACH CANOPY FEATURE FOR POWER DISTRIBUTION AND DATA IS FURNISHED BY THE ROADWAY CONTRACTOR AND IS INSTALLED BY SHELTER MANUFACTURER.
 - d. TICKET VENDING MACHINES, DIGITAL INFORMATION KIOSKS, DIGITAL SLOT SIGNS, CAMERAS, WIRELESS ROUTERS, SWITCHES AND SERVERS ARE OWNER-FURNISHED AND INSTALLED BY SHELTER MANUFACTURER.

- 2** POWER/ COMMUNICATION CABINET (PCC)
- 3** SIGNAGE PILLAR

ROADWAY/SITWORK (BY ROADWAY CONTRACTORS)	ELECTRICAL (BY SHELTER MANUFACTURER)	COMMUNICATION (BY SHELTER MANUFACTURER)	ELECTRICAL (BY ROADWAY CONTRACTORS)	FOUNDATION (BY ROADWAY CONTRACTORS)	TRAFFIC (BY ROADWAY CONTRACTORS)
10 CONC PAVEMENT, 11 INCH	20 ELECTRICAL WIRING FROM PCC TO FEATURES	30 COMMUNICATION WIRING & SWITCHES	40 ELECTRICAL WIRING TO PCC	50 REINFORCED CONCRETE PLATFORM	60 TRAFFIC SIGNAL POLE AND MAST ARM(S)
11 SEAT WALL	21 STATION WIRING AND GROUNDS	31 STATION WIRING	41 STATION POWER DROP	51 DOCKING GUIDE STRIP	61 TRAFFIC SIGNAL HEAD
12 HARDSCAPE		32 EMERGENCY PHONE	42 NOT USED	52 PCC FOUNDATION	62 TRAFFIC SIGNAGE
13 UNDERGROUND CONDUIT (PWR. AND COM.)		33 NEXT BUS SIGN OWNER-FURNISHED AND CONTRACTOR-INSTALLED	43 REMOVE LIGHT POLE	53 SIGNAGE PILLAR FOUNDATION	63 TRAFFIC POLE FOUNDATION(S) AND GROUNDS
14 SIDE WALK, CONC		34 FARE VENDING AND FARE VALIDATOR (FUTURE) OWNER-FURNISHED AND CONTRACTOR-INSTALLED	44 REMOVE AND RECONSTRUCT LIGHT POLE WIRING		64 CONTROLLER(S), TRANSIT PRIORITY, TIMING, AND TESTING
15 SUBGRADE PREPARATION		35 CCTV CAMERA OWNER-FURNISHED AND CONTRACTOR-INSTALLED			65 DETECTOR(S)
16 EMBANKMENT		36 WIRELESS ROUTER OWNER-FURNISHED AND CONTRACTOR-INSTALLED			66 PEDESTRIAN HEAD
17 STRUCTURAL FILL					67 SIGNAL EQUIPMENT FOUNDATION(S) AND GROUNDS
18 UNDERGROUND UTILITY RELOCATIONS (SEWER & WATER)					68 SIGNAL CONDUIT, WIRING, POWER AND CONNECTIONS
					69 MAINTAIN TRAFFIC SIGNALS DURING CONSTRUCTION

**SUBMITTAL COORDINATION
COORD-001**

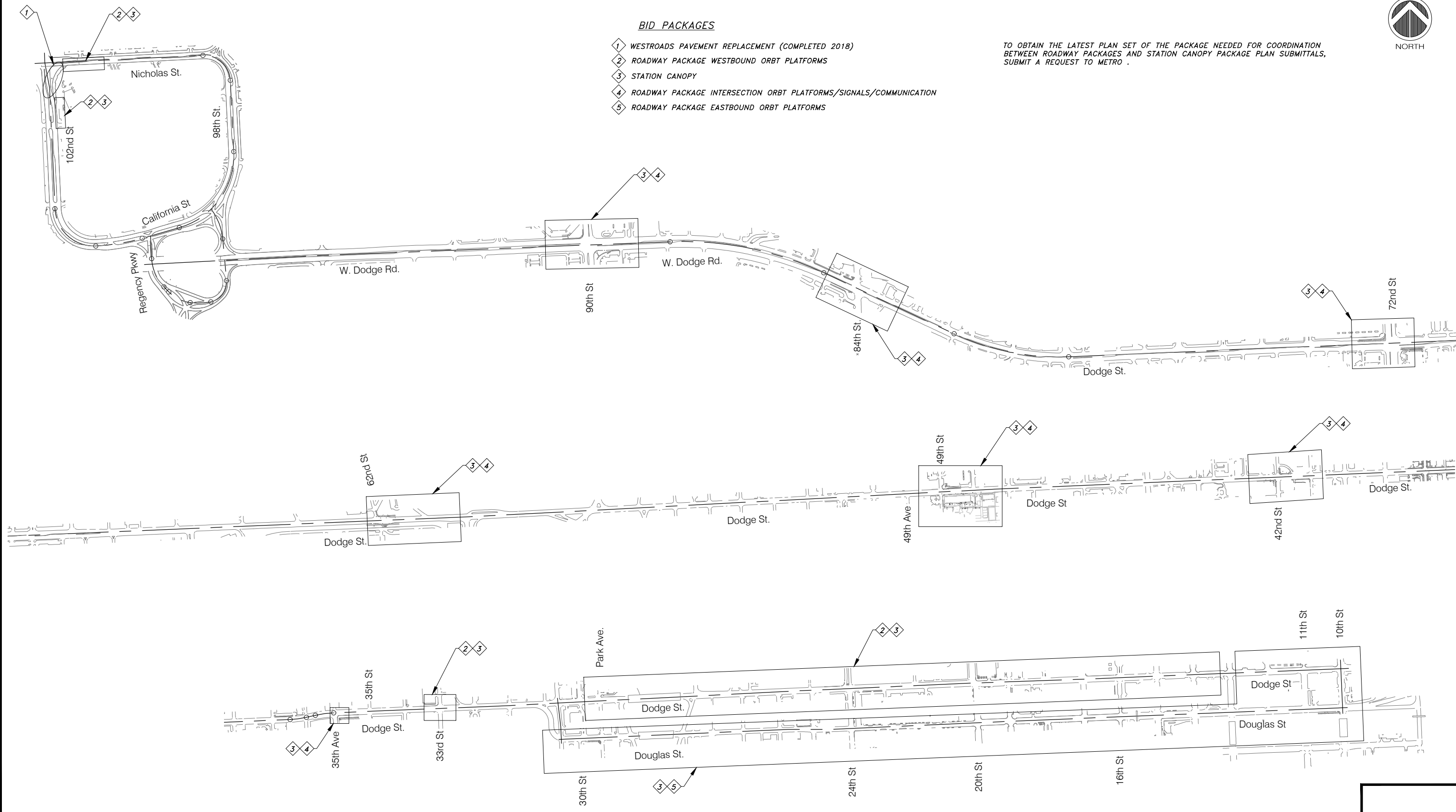
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BID PACKAGES

- 1 WESTROADS PAVEMENT REPLACEMENT (COMPLETED 2018)
- 2 ROADWAY PACKAGE WESTBOUND ORBT PLATFORMS
- 3 STATION CANOPY
- 4 ROADWAY PACKAGE INTERSECTION ORBT PLATFORMS/SIGNALS/COMMUNICATION
- 5 ROADWAY PACKAGE EASTBOUND ORBT PLATFORMS

TO OBTAIN THE LATEST PLAN SET OF THE PACKAGE NEEDED FOR COORDINATION BETWEEN ROADWAY PACKAGES AND STATION CANOPY PACKAGE PLAN SUBMITTALS, SUBMIT A REQUEST TO METRO .



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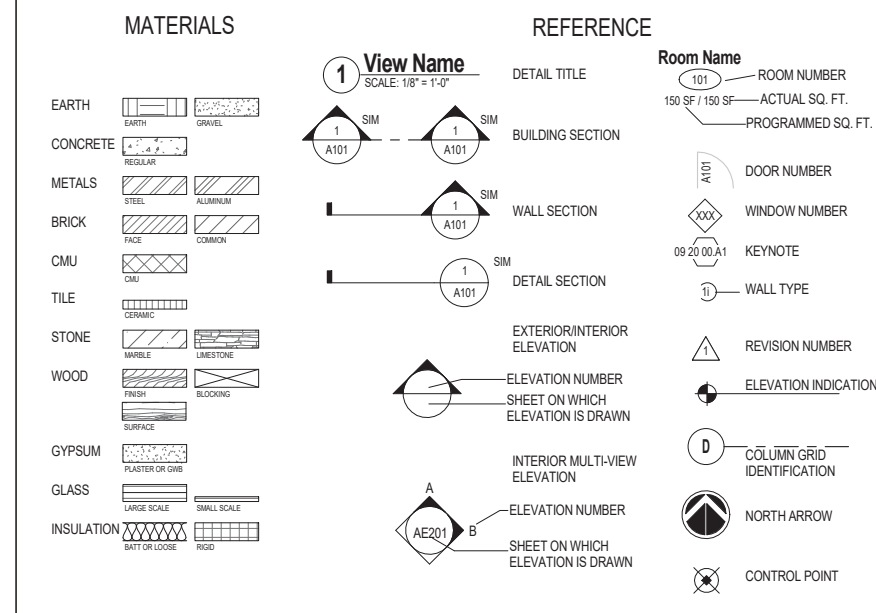
**SUBMITTAL COORDINATION
COORD-002**

	CLIENT			NE-79-X001 OPW 53347	SHEET 3 / 38
	2222 CUMING STREET OMAHA, NEBRASKA 68102 (402) 341-0800				

SHEET INDEX

GENERAL G1002	SHEET INDEX, ABBREVIATIONS AND GENERAL SYMBOLS
CIVIL C501 C502 C503	CIVIL DETAILS CIVIL DETAILS CIVIL DETAILS
STRUCTURAL S001 S002 S101 S102 S103 S104 S105 S111 S301 S302 S311	STRUCTURAL GENERAL NOTES STRUCTURAL GENERAL NOTES PLATFORM A AND A1 FOUNDATION PLANS PLATFORM A2 FOUNDATION PLANS PLATFORM A3 AND A4 FOUNDATION PLANS PLATFORM B FOUNDATION PLAN PLATFORM B2 FOUNDATION PLANS PLATFORM TYPE 'A' AND TYPE 'B' ROOF FRAMING PLAN FOUNDATION SECTIONS FOUNDATION SECTIONS FRAMING SECTIONS
ARCHITECTURAL AE100 AE100.1 AE101 AE102 AE103 AE201 AE202 AE203 AE301 AE401 AE450 AE500	PLATFORM SERIES - A PLATFORM SERIES - B PLATFORM A AND A1 PLANS, ROOF PLAN, CEILING PLAN PLATFORM A2, A3 AND A4 PLANS PLATFORM B AND B2 PLANS, ROOF PLAN AND CEILING PLAN PLATFORM ELEVATIONS PLATFORM ELEVATIONS PLATFORM ELEVATIONS PLATFORM SECTIONS PLAN DETAILS AND WALL SECTIONS DETAILS SIGNAGE
ELECTRICAL E001 E111 E112 E113 E114 E501 E502 E601	ELECTRICAL SYMBOL LEGEND POWER & SYSTEMS PLAN TYPE A POWER & SYSTEMS PLAN TYPE B LIGHTING PLAN POWER & SYSTEMS PLAN - SUBFED STATION (NO PCC) ELECTRICAL DETAILS SNOW MELT SYSTEM DETAILS ELECTRICAL SCHEDULES

GENERAL SYMBOLS



ABBREVIATIONS

A	AIR CONDITIONING	CMU	CONCRETE MASONRY UNIT	EXIST	EXISTING	HVAC	HEATING, VENTILATING AND AIR CONDITIONING	MH	MANHOLE	PRV	PRESSURE REGULATING VALVE	SW	SWITCH
A/C	ANCHOR BOLT / AIR BLENDER	CO	CLEANOUT / CARBON MONOXIDE	EXP	EXPOSED	HW	HOT WATER	MIN	MINIMUM	PSF	POUNDS PER SQUARE FOOT	SWGR	SWITCHGEAR
AB	ACRYLONITRILE-BUTADIENE-STYRENE	CO2	CARBON DIOXIDE	EXPN	EXPANSION	HWC	HOT WATER CIRCULATING	MLO	MAIN LUGS ONLY	PSI	POUNDS PER SQUARE INCH	SYM	SYMMETRICAL
ABS	ALTERNATING CURRENT / AIR COMPRESSOR	COL	COLUMN	EXT	EXTERIOR	HZ	HERTZ	MM	MILLIMETER	PT	POINT OF TANGENCY	T	TREAD
AC	ASBESTOS CEMENT PIPE	COMB	COMBINATION / COMBINE	F	FIRE MAIN	I	INCH	MO	MASONRY OPENING	PVC	POINT OF VERTICAL CURVATURE	T	TREAD
ACP	AIR CONDITIONING UNIT	COMP	COMPRESSIBLE	FA	FIRE ALARM	IA	INSTRUMENT AIR	MP	METAL PANEL	PVCL	POLYVINYL CHLORIDE	T&B	TOP AND BOTTOM
ACU	AREA DRAIN	CONN	CONNECTION	FCU	FAN COIL UNIT	IC	INTERCOM	MTD	MOUNTED	PVI	POINT OF VERTICAL INTERSECTION	T&G	TONGUE AND GROOVE
AD	AMERICANS WITH DISABILITIES ACT	CONSTR	CONSTRUCTION	FD	FLOOR DRAIN / FIRE DAMPER	ID	INSIDE DIAMETER	MTG	MOUNTING	PVT	POINT OF VERTICAL TANGENCY	TC	TOP OF CURB
ADA	ADJACENT / ADJUSTABLE	CONT	CONTINUOUS / CONTINUATION	FD / SD	COMBINATION FIRE AND SMOKE DAMPER	IE	INVERT ELEVATION	MULL	MULLION	Q	QUARRY TILE	TE	TOP ELEVATION
ADJ	ACCESS DOOR	CONTR	CONTRACTOR	FDC	FIRE DEPARTMENT CONNECTION	IF	INSIDE FACE	MV	MEDICAL VACUUM	QT	QUARRY TILE	TEL	TELEPHONE
ADR	ABOVE FINISH FLOOR	CP	CEMENT PIPE	FDN	FOUNDATION	IN	INSULATION	N	NITROGEN	R	RADIUS / REGISTER	TEMP	TEMPERATURE
AFF	AUTHORITY HAVING JURISDICTION	CPT	CARPET	FDR	FEEDER	INT	INTERIOR	N	NITROUS OXIDE	RA	RETURN AIR	TERR	TERRAZZO
AHU	AIR HANDLING UNIT	CSF	CUBIC FEET PER SECOND	FE	FIRE EXTINGUISHER	J	JOINT	N2O	NATIONAL ELECTRICAL CODE	RB	RESILIENT BASE	TLT	TOILET
AL	ALUMINUM	CT	CERAMIC TILE / COOLING TOWER	FEC	FIRE EXTINGUISHER CABINET	JAN	JANITOR	NEC	NATIONAL FIRE PROTECTION	RC	REFLECTED CEILING PLAN	TOPO	TOPOGRAPHY
ALT	ALTERNATE	CTR	CENTER	FH	FIRE HYDRANT	JB	JUNCTION BOX	NFPA	NOT IN CONTRACT	RD	ROOF DRAIN	TOS	TOP OF STEEL
APC	ACOUSTICAL PANEL CEILING	CJ	CONDENSING UNIT	FHC	FIRE HOSE CABINET	JP	JOCKEY PUMP	NIC	NUMBER	REF	REFERENCE	TOW	TOP OF WALL
APPROX	APPROXIMATELY	CUH	CABINET UNIT HEATER	FIN	FINISH	JST	JOIST	NO	NOMINAL	REFL	REFLECTED	TP	TOP OF PAVEMENT
APT	APARTMENT	CUYD	CUBIC YARD	FIX	FIXTURE	JT	JOINT	NOM	NOT TO SCALE	REG	REGISTER	TRANS	TRANSVERSE
ARCH	ARCHITECT(URAL)	CW	COLD WATER	FL	FLOOR	K	KEY	NTS	NOT TO SCALE	REINF	REINFORCED	TVM	TICKET VENDING MACHINE
ASPH	ASPHALT	D	DRAIN / DIFFUSER	FM	FORCE MAIN / FACTORY MUTUAL	KC MIL	THOUSAND CIRCULAR MILS	O	OFFSET	REQD	REQUIRED	TYP	TYPICAL
ATB	ACOUSTICAL TILE CEILING	DA	DENTAL AIR	FP	FIREPROOFING / FIRE PUMP	KCJ	KEYED CONSTRUCTION JOINT	OIS	OUTSIDE AIR	REV	REVERSE / REVISION	U	UNIT
ATC	AIR TRANSFER DUCT	DBL	DOUBLE	PPM	FEET PER MINUTE	KIT	KITCHEN	OA	OPPOSED BLADE DAMPER	RF	RETURN FAN	UC	UNDERCUT
ATU	AIR TERMINAL UNIT	DEPR	DEPRESSED	FR	FIRE RATED	KPA	KILOPASCALS	OB	ON CENTER	RGS	RIGID GALVANIZED STEEL	UG	UNDERGROUND
AUX	AUXILIARY	FRP	FIBERGLASS REINFORCED PLASTIC	FS	FLOW SWITCH	KS	KITCHEN SINK	OC	OUTSIDE DIAMETER	RH	ROOF HOOD / RELATIVE HUMIDITY / REHEAT	UH	UNIT HEATER
AVG	AVERAGE	FS	FIBERGLASS REINFORCED PLASTIC	FT	FEET	KV	KILOVOLT	OD	OUTSIDE FACE	REH	REHEAT	UR	URINAL
AZ	AZIMUTH	FTG	FOOTING	FVC	FIRE VALVE CABINET	KVA	KILOVOLT AMPERE	OF	OWNER PROVIDED CONTRACTOR INSTALLED	RHC	REHEAT COIL	UV	UNIT VENTILATOR
B	BALLED AND BURLAPPED	G	GAS / GRILLE	D	DIA	KW	KILOWATTS	OPCI	OPENING	RM	ROOM	V	VOLT
BB	BOARD	G	GAGE	DIAG	DIAGONAL	L	LITER	OPNG	OPPOSITE	RO	ROUGH OPENING	VAV	VARIABLE AIR VOLUME
BDD	BACK DRAFT DAMPER	GA	GALVANIZED	DIP	DIFFUSER	LA	LABORATORY AIR	OPP	OXYGEN	ROW	RIGHT OF WAY	VB	VINYL BASE
BE	BOTTOM ELEVATION	LAM	LAMINATE	DISC	DISCONNECT	LAB	LABORATORY	OX	OUNCE	S	STAIR / STAIN / SURFACE / SANITARY	VC	VERTICAL CURVE
BL	BUILDING LINE	LAV	LAVATORY	DISP	DISPENSER	LAM	LAMINATE	OZ	OUNCE	SA	SUPPLY AIR / SOUND ATTENUATOR	VCP	VITRIFIED CLAY PIPE
BLDG	BUILDING	LBS	POUNDS	DISC	DISCONNECT	LAV	LAVATORY	P	PAINT / PUMP / PENDANT	SAN	SANITARY	VCT	VINYL COMPOSITION TILE
BLKG	BLOCKING	LF	LINEAR FEET	GEN	GENERATOR	LBS	POUNDS	PA	PASCAL	SCH	SCHEDULE	VERT	VERTICAL
BM	BENCH MARK / BEAM	LN	LINEAR	GBD	GRAVITY BACKDRAFT DAMPER	LF	LINEAR FEET	PART	PARTITION	SD	SMOKE DAMPER / SUB DRAIN	VEST	VESTIBULE
BR	BARE ROOT	LL	LIVE LOAD	GEN	GENERATOR	LL	LIVE LOAD	PAVT	PAVEMENT	SECT	SECTION	VFD	VARIABLE FREQUENCY DRIVE
BRG	BEARING	LLH	LONG LEG HORIZONTAL	GFR	GLASS FIBER REINFORCED CONCRETE	LLH	LONG LEG HORIZONTAL	PC	POINT OF CURVATURE	SF	SUPPLY FAN	VTR	VENT THROUGH ROOF
BTU	BRITISH THERMAL UNIT	LLV	LONG LEG VERTICAL	GL	GLASS	LLV	LONG LEG VERTICAL	PCF	POUNDS PER CUBIC FOOT	SHT	SHEET	W	W
BTUH	BRITISH THERMAL UNIT PER HOUR	LMJ	LIGHTWEIGHT MASONRY UNITS	DN	DOWN	LMJ	LIGHTWEIGHT MASONRY UNITS	PED	PEDESTAL	SIM	SIMILAR	W	WATT / WATER
C	CENTER TO CENTER	LONG	LONGITUDINAL	DO	DITTO	LONG	LONGITUDINAL	PERP	PERPENDICULAR	SOG	SLAB-ON-GRADE	W	WITH
C/C	CENTER TO CENTER	GRADE	GRADE	DPR	DAMPER	GRADE	GRADE	PHC	PREHEAT COIL	SP	SUMP PUMP	W/O	WITHOUT
CAB	CABINET	GR	GRAVITY ROOF VENTILATOR	DS	DOWNSPOUT	GR	GRAVITY ROOF VENTILATOR	PHVAC	PLUMBING, HEATING, VENTILATING AND AIR CONDITIONING	SPEC	SPECIFICATIONS	WAGD	WASTE ANESTHESIA GAS DISPOSAL
CAB	CIRCUIT BREAKER / CATCH BASIN	GRV	GRAVITY ROOF VENTILATOR	DV	DENTAL VACUUM	GRV	GRAVITY ROOF VENTILATOR	PI	POINT OF INTERSECTION	SQ	SQUARE	WC	WATER CLOSET
CB	COOLING UNIT	GWB	GYPSUM WALLBOARD	DWG	DRAWING	GWB	GYPSUM WALLBOARD	PIV	POST INDICATOR VALVE	SS	SERVICE SINK / STORM SEWER	WD	WOOD
CC	COVER ELEVATION	GYP	DOMESTIC WATER PUMP	DWL	DOWEL	GYP	DOMESTIC WATER PUMP	PKG	PARKING	SSO	STORM SEWER OVERFLOW	WDW	WINDOW
CE	CEMENT	H	HOSE BIBB	DWP	DOMESTIC WATER PUMP	H	HOSE BIBB	PL	PLASTIC LAMINATE / PROPERTY LINE / PLATE	SSTL	STAINLESS STEEL	WH	WATER HEATER / WALL HYDRANT
CEM	CUBIC FEET PER MINUTE	HB	HOSE BIBB	E	EACH / EXHAUST AIR	HB	HOSE BIBB	PLAS	PLASTER	STA	STATION	WP	WEATHERPROOF
CG	CORNER GUARD	HC	HEATING COIL	EA	EACH FACE / EXHAUST FAN	HC	HEATING COIL	PLB	PLUMBING	STD	STANDARD	WPPFG	WATERPROOFING
CH	CHILLER	HDNR	HARDENER	EJ	EXPANSION JOINT	HDNR	HARDENER	PLF	POUNDS PER LINEAR FOOT	STE	STANDARD TAPERED END	WS	WATER STOP
CI	CURB INLET / CAST IRON	HDW	HARDWARE	EL	ELEVATION	HDW	HARDWARE	PLF	PLYWOOD	STIFF	STIFFENER	WT	WEIGHT
CIP	CAST IRON PIPE	HDWD	HARDWOOD	ELEC	ELECTRIC(AL)	HDWD	HARDWOOD	PLYWD	PLYWOOD	STIR	STIRRUP	WWF	WELDED WIRE FABRIC
CJ	CONTROL JOINT OR CONTRACTION JOINT	HK1E	HOOK ONE END	ELEV	ELEVATOR	HK1E	HOOK ONE END	PNL	PANEL	STL	STEEL	X	X
CKT	CIRCUIT	HK2E	HOOK TWO ENDS	EMBED	EMBEDMENT	HK2E	HOOK TWO ENDS	PR	PAIR	STR	STRUCTURAL	XFMR	TRANSFORMER
CL	CENTER LINE	HM	HOLLOW METAL	EMD	ESTIMATED MAXIMUM DEMAND	HM	HOLLOW METAL	PROJ	PROJECTION	SUSP	SUSPENDED	Y	YARD
CLG	CEILING	HORIZ	HORIZONTAL	EMT	ELECTRICAL METAL TUBING	HORIZ	HORIZONTAL					YH	YARD HYDRANT
CLO	CLOSET	HP	HORSEPOWER	EQ	EQUAL	HP	HORSEPOWER						
CLR	CLEAR	HPT	HIGH POINT	EQUIP	EQUIPMENT	HPT	HIGH POINT						
CM	CENTIMETER	HR	HOUR	ET	EXPANSION TANK	HR	HOUR						
CMH	CUBIC METER PER HOUR	HS	HIGH STRENGTH	EVAC	MEDICAL GAS EVACUATION	HS	HIGH STRENGTH						
CMP	CORRUGATED METAL PIPE	HT	HEIGHT	EW	EACH WAY	HT	HEIGHT						
CMT	CERAMIC MOSAIC TILE	HTG	HEATING	EWC	ELECTRICAL WATER COOLER	HTG	HEATING						
		HTR	HEATER	EWH	ELECTRICAL WATER HEATER	HTR	HEATER						
		EXH	EXHAUST	EXH	EXHAUST	EXH	EXHAUST						

GENERAL NOTES

- SITE WORK INCLUDING BUT NOT LIMITED TO CONCRETE WORK, SITE UTILITIES, ETC... TO BE PROVIDED IN OTHER SUBMITTALS. SEE SHEET COORD-001 FOR FURTHER DESCRIPTION OF WORK INCLUDED IN STATION CANOPY PACKAGE. SEE COORD-002 FOR SUBMITTALS INFORMATION. SEE STRUCTURAL FOR ANCHOR BOLT COORDINATION. SEE ELECTRICAL AND STRUCTURAL FOR STUBBED UP CONDUIT COORDINATION.
- ALL METAL PANELS NOTED AS REMOVABLE SHALL BE TAMPER PROOF AND ONLY REMOVABLE BY THE OWNER WITH A SPECIAL TOOL OR APPROVED OTHER MEANS.
- SEAL ALL PENETRATIONS IN METAL PANELS WATER TIGHT.

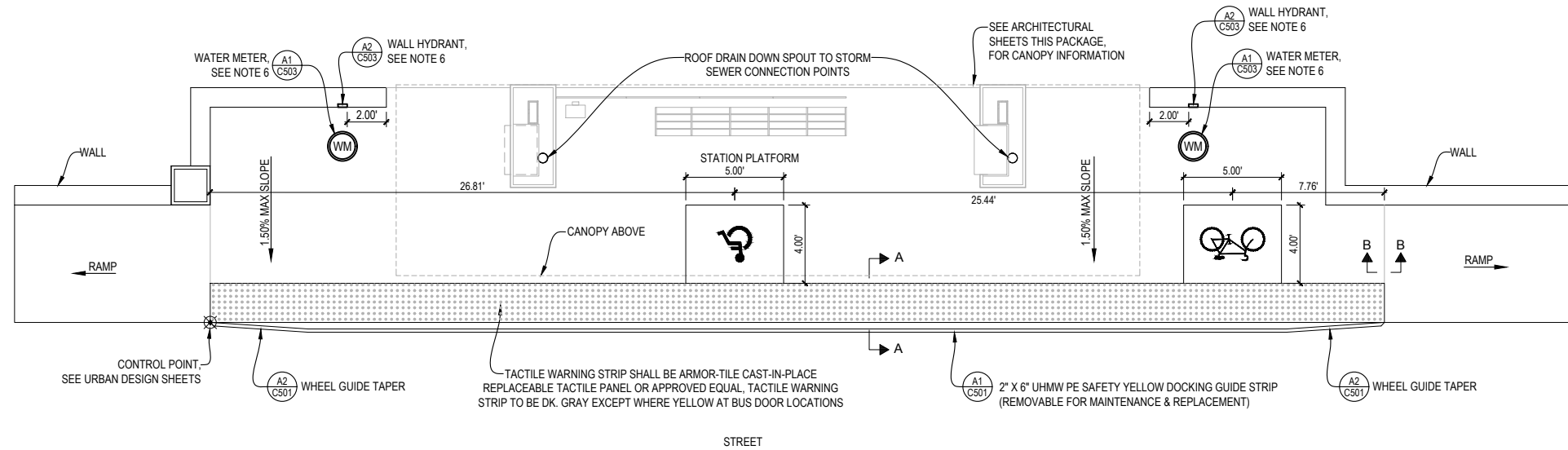
SHEET INDEX, ABBREVIATIONS AND GENERAL SYMBOLS G1002



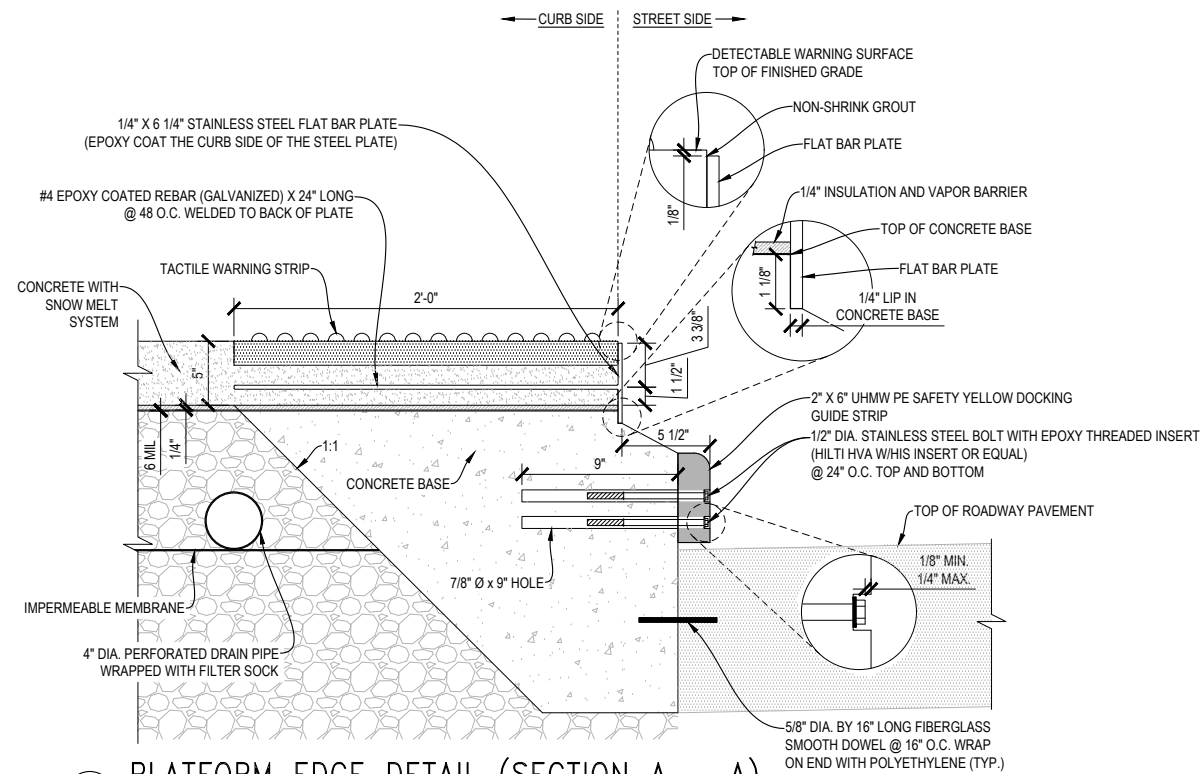
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	2222 CUMING STREET OMAHA, NEBRASKA 68102 (402) 341-0800			12120 SHAMROCK PLZ, STE 100 OMAHA, NEBRASKA 68154		8600 INDIAN HILLS DRIVE OMAHA, NE 68114-4039	NE-79-X001 OPW 53347	4 / 38
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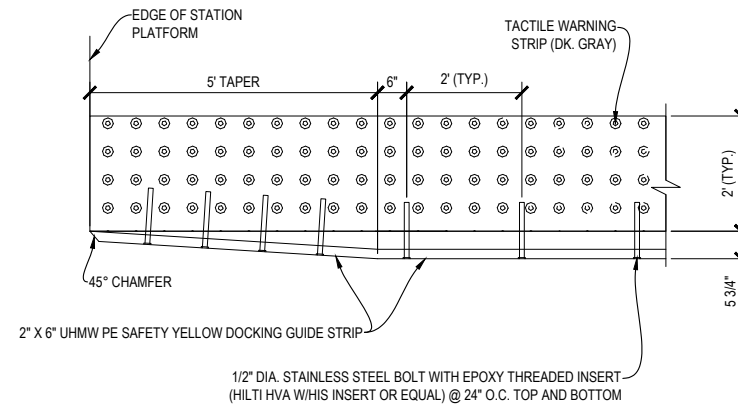
- NOTES:
1. STATION TYPES VARY BY LOCATION. SEE CONSTRUCTION SHEETS. TYPICAL ALL STATIONS.
 2. REFER TO URBAN DESIGN SHEETS WITHIN ROADWAY PACKAGES 2, 4, & 5 FOR GRADES.
 3. REFER TO PLAN AND PROFILE SHEETS FOR UTILITIES.
 4. RAMP AND WALL CONDITIONS VARY. SEE CONSTRUCTION SHEETS. TYPICAL ALL STATIONS.
 5. REFER TO ARCHITECTURE SHEETS FOR ROOF DRAIN CONNECTION POINT.
 6. WATER METERS AND WALL HYDRANTS ARE SHOWN IN PREFERRED LOCATIONS FOR REFERENCE ONLY. CONTRACTOR SHALL INSTALL ONE METER AND ONE WALL HYDRANT PER STATION. REFER TO CONSTRUCTION DRAWINGS FOR ACTUAL LOCATION.
 7. ACCESSIBLE BOARDING AREA SYMBOL AND BIKE BOARDING AREA SYMBOL TO BE TILCO VANGUARD MM8 STENCILS OR APPROVED EQUAL. USE THE INTERNATIONAL SYMBOL OF ACCESSIBILITY FOR GRAPHIC. FOR THE BIKE GRAPHIC, USE THE STANDARD SYMBOL FROM THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.



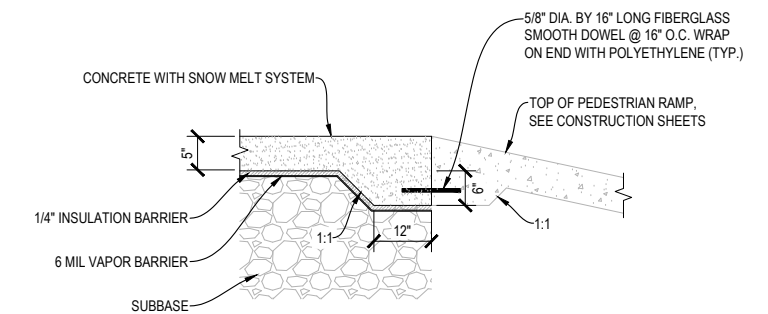
B1 TYPICAL STATION PLATFORM
SCALE: 1" = 4'-0"



A1 PLATFORM EDGE DETAIL (SECTION A - A)
SCALE: NTS



A2 WHEEL GUIDE TAPER DETAIL
SCALE: NTS



A3 DOWEL DETAIL (SECTION B - B)
SCALE: NTS

**CIVIL DETAILS
C501**

FOR INFORMATION ONLY

CLIENT

metro 2222 CUMING STREET
OMAHA, NEBRASKA 68102
(402) 341-0800

ORBT
OMAHA RAPID BUS TRANSIT

AECOM
12120 SHAMROCK PLZ, STE 100
OMAHA, NEBRASKA 68154



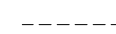
LEO A DALY
002-10178-000
8600 INDIAN HILLS DRIVE
OMAHA, NE 68114-4039

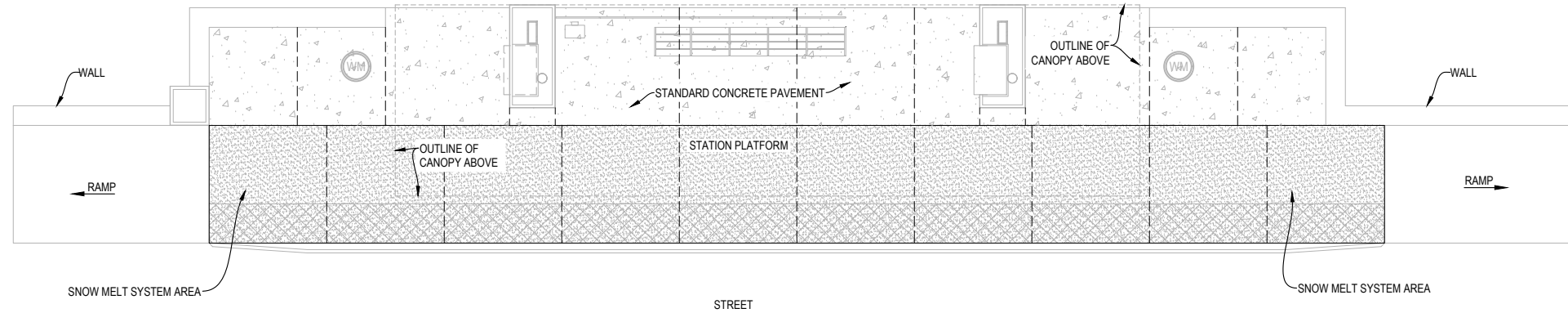
NE-79-X001
OPW 53347

NOTES:

1. SNOW MELT SYSTEM SHALL BE PLACED UNDER THE ENTIRE LENGTH OF THE TACTILE WARNING STRIP.
2. SEE ELECTRICAL PLANS FOR ELECTRICAL ELEMENT OF SNOW MELT SYSTEM.
3. COORDINATE INSTALLATION OF SNOW MELT SYSTEM WITH THE SNOW MELT SYSTEM DESIGNER.

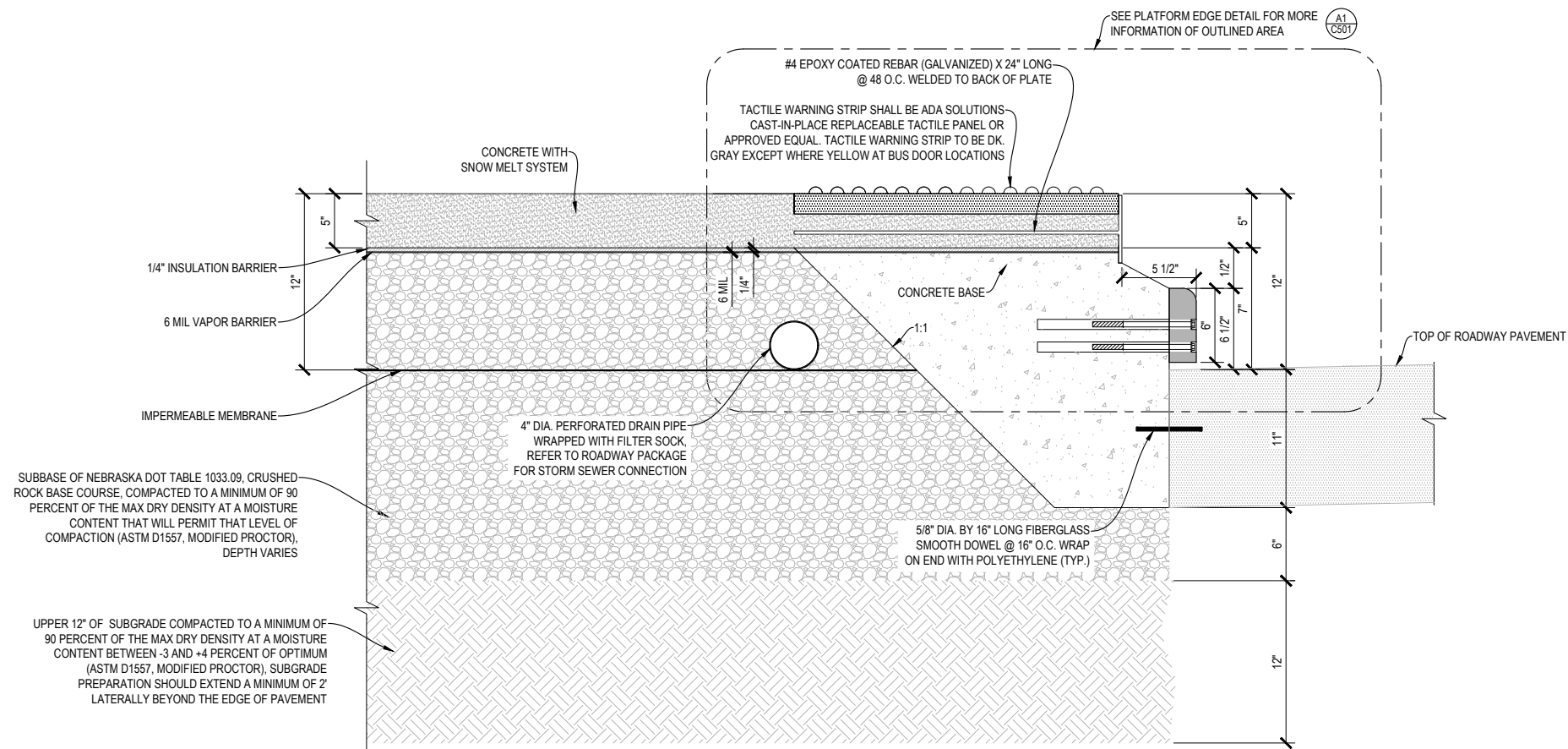
PAVEMENT LEGEND

-  5' THICK CONCRETE PAVEMENT
-  5' THICK CONCRETE PAVEMENT WITH SNOW MELT SYSTEM
-  CONTRACTION JOINT



B1 AREA OF CONCRETE WITH SNOW MELT SYSTEM

SCALE: 1" = 4'-0"



A1 SNOW MELT SYSTEM DETAIL

SCALE: NTS

**CIVIL DETAILS
C502**

FOR INFORMATION ONLY

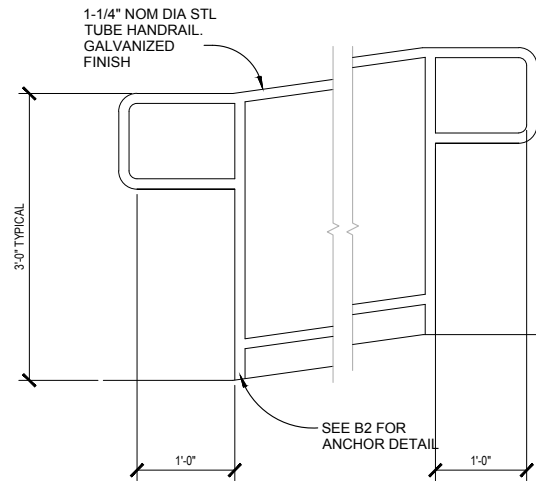
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 OMAHA, NEBRASKA 68102
 (402) 341-0800

 **ORBT**
 OMAHA RAPID BUS TRANSIT

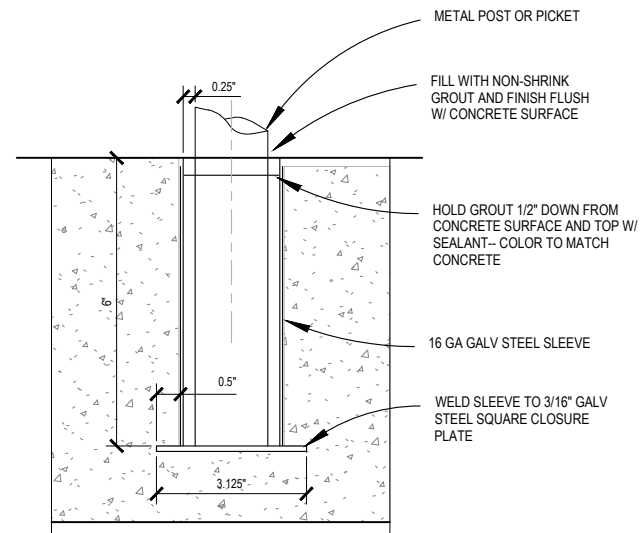
AECOM
 12120 SHAMROCK PLZ, STE 100
 OMAHA, NEBRASKA 68154

LEO A DALY
 002-10178-000
 8600 INDIAN HILLS DRIVE
 OMAHA, NE 68114-4039

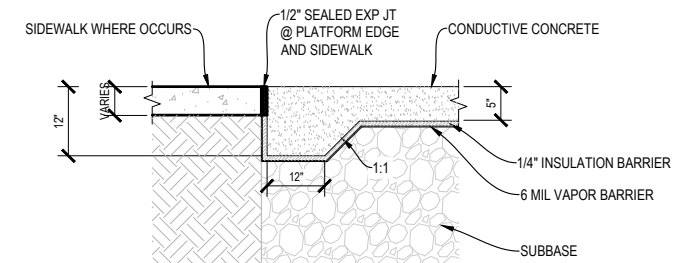
NE-79-X001
 OPW 53347



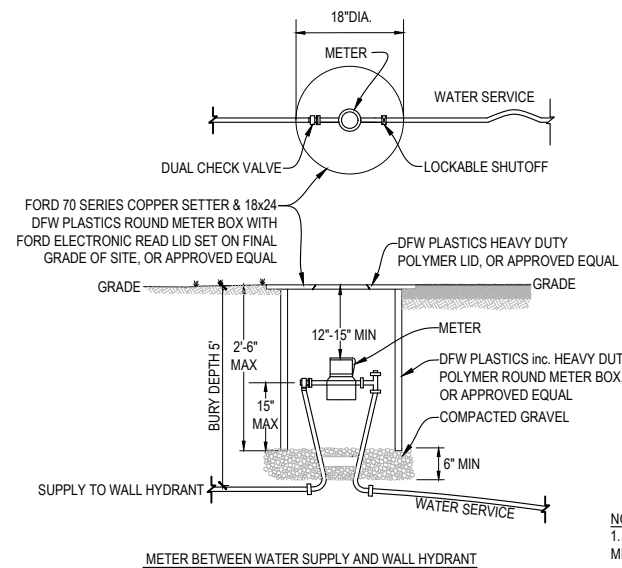
B1 ELEVATION – HANDRAIL
SCALE: NTS



B2 RAILING ANCHOR DETAIL
SCALE: NTS



B3 TURN DOWN CURB @ REAR OF PLATFORM AND NO SCREEN WALL
SCALE: NTS



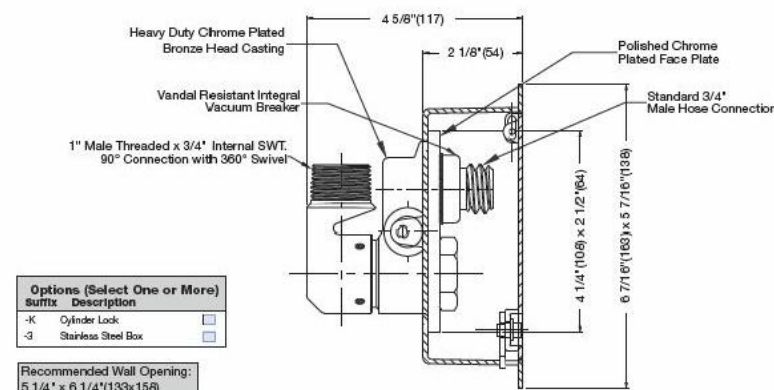
NOTES:
1. WATER LINE TYPE AND CONNECTIONS SHALL MEET METROPOLITAN UTILITIES DISTRICT (M.U.D.) SPECIFICATIONS.
2. CONTRACTOR TO COORDINATE WATER METER INSTALLATION WITH M.U.D.

A1 WATER METER
SCALE: NTS

HY-450
Moderate Climate Narrow Wall Hydrant w/NB Box

Specification

Watts HY-450 concealed moderate climate anti-siphon narrow wall hydrant with nickel bronze box, chrome plated face, integral vacuum breaker, 3/4" hose connection, 360 degree swivel pipe connection with 3/4" female / 1" male threads. Bronze head, seat casting, internal working parts, and loose key. Complies with ASSE 1019-2004, UPC/IAPMO Listed. Max. operating pressure 125 psi.



Options (Select One or More)	
Suffix	Description
-K	Cylinder Lock
-S	Stainless Steel Box

Recommended Wall Opening:
5 1/4" x 6 1/4" (133x158)

NOTES:
1. CONTRACTOR SHALL INSTALL WATTS HY-450 WALL HYDRANT OR APPROVED EQUAL.

A2 WALL HYDRANT
SCALE: NTS

CIVIL DETAILS
C503

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1. APPLICABLE BUILDING CODE AND SELECT REFERENCED STANDARDS

INTERNATIONAL BUILDING CODE, 2006 WITH OMAHA CODE AMENDMENTS
 ACI 318-05 BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE
 AISC 360-05 SPECIFICATIONS FOR STRUCTURAL STEEL BUILDINGS
 ASCE 7-05 MINIMUM DESIGN LOADS FOR BUILDING AND OTHER STRUCTURES INCLUDING SUPPLEMENT NO. 1 AND 2, EXCLUDING CHAPTER 14 AND APPENDIX 11A
 AWS D1.1-04 STRUCTURAL WELDING CODE - STEEL
 AWS D1.3-08 STRUCTURAL WELDING CODE - SHEET STEEL
 AWS D1.4-98 STRUCTURAL WELDING CODE - REINFORCING STEEL
 AISC 303-10 CODE OF STANDARD PRACTICE FOR STRUCTURAL STEEL BUILDING AND BRIDGES
 ACI 301-10 CODE OF STANDARD PRACTICE FOR REINFORCED CONCRETE BUILDINGS

OTHER SELECT REFERENCED STANDARDS MAY BE INDICATED ELSEWHERE IN THE CONTRACT DOCUMENTS, AS APPLICABLE.

2. INTERPRETATION OF CONFLICTS

SHOULD CONFLICTS OCCUR IN THE CONTRACT DOCUMENTS, THE CONTRACTOR SHALL REQUEST INTERPRETATION BEFORE PROCEEDING WITH THE ASSOCIATED WORK. ALL SUCH REQUESTS SHALL FIRST BE PRECEDED BY A DILIGENT INVESTIGATION INTO THE CONTRACT DOCUMENTS. EVIDENCE OF SUCH INVESTIGATION SHALL BE CONTAINED IN ALL REQUESTS FOR INTERPRETATION SUBMITTED.

IF THE CONTRACTOR FAILS TO MAKE SUCH A REQUEST, THE CONTRACTOR IS EXPECTED TO COMPLETE THE WORK AS INDICATED IN THE CONTRACT DOCUMENTS. SHOULD CONFLICTS OCCUR IN OR BETWEEN DRAWINGS AND SPECIFICATIONS, THE CONTRACTOR SHALL ESTIMATE THE COST OF THE WORK BASED ON THE MORE EXPENSIVE WAY OF DOING THE WORK UNLESS HAVING ASKED FOR, AND OBTAINED, WRITTEN DECISION BEFORE SUBMISSION OF PROPOSAL AS TO WHICH METHOD OR MATERIALS WILL BE REQUIRED.

3. STRUCTURAL MEMBERS HAVE BEEN DESIGNED TO ACCOMMODATE THE FOLLOWINGS LOADS:

A. FLOOR LIVE LOADS

THE "TYPICAL MINIMUM LIVE LOAD USED FOR DESIGN" INDICATED BELOW WAS USED FOR ALL OCCUPANCY OR USE TYPES, EXCEPT THOSE WHERE THE "CODE-SPECIFIED MINIMUM LIVE LOADS" ARE GREATER, IN WHICH CASE THE ASSOCIATED LIVE LOAD INDICATED IN THE TABLE WAS USED FOR DESIGN. SEE ARCHITECTURAL, MECHANICAL, AND ELECTRICAL DRAWINGS FOR THE DEFINITION OF SPACES.

TYPICAL MINIMUM LIVE LOAD USED FOR DESIGN - SEE TABLE BELOW

TABLE 010000-1 - CODE-SPECIFIED MINIMUM LIVE LOADS		
OCCUPANCY	UNIFORMLY DISTRIBUTED LOAD (PSF)	CONCENTRATED LOAD * (LBS)
SIDEWALKS	250	8000

* UNLESS OTHERWISE INDICATED, THE CONCENTRATED LOAD INDICATED WAS DISTRIBUTED OVER AN AREA OF 4.5 INCHES BY 4.5 INCHES (20.25 SQUARE INCHES), AND LOCATED AS TO PROVIDE THE MAXIMUM LOAD EFFECTS IN THE STRUCTURAL MEMBERS.

B. ROOF LIVE LOADS
 25 PSF MINIMUM ROOF LIVE LOAD

C. LIVE LOAD REDUCTIONS HAVE NOT BEEN APPLIED.

D. ROOF SNOW LOADS, APPLIED IN ACCORDANCE WITH THE BUILDING CODE INDICATED HEREIN.
 GROUND SNOW LOAD, P_g = 25 PSF
 FLAT ROOF SNOW LOAD, P_f = 21 PSF
 SNOW EXPOSURE FACTOR, C_e = 1.0
 SNOW IMPORTANCE FACTOR, I = 1.0
 THERMAL FACTOR, C_t = 1.2

PARTIAL, UNBALANCED, AND DRIFT SNOW LOADING HAVE BEEN APPLIED AS REQUIRED FOR DESIGNS INDICATED HEREIN.

SNOW LOADS ARE NOT REDUCIBLE.

E. WIND LOADS. APPLIED IN ACCORDANCE WITH THE BUILDING CODE INDICATED HEREIN.
 BASIC WIND SPEED, V = 90 MPH
 WIND IMPORTANCE FACTOR, I = 1.0
 OCCUPANCY CATEGORY = II
 WIND EXPOSURE = "C"
 INTERNAL PRESSURE COEFFICIENT, G_{pi} = +/- 0.55

F. COMPONENTS AND CLADDING WIND LOADS:

TABLE 010000-2 - WIND LOAD SCHEDULE				
TABLE 010000-2 - WIND LOADS *(PSF) FOR COMPONENTS AND CLADDING, LOW-RISE BUILDING				
SURFACE	AREA	EFFECTIVE WIND AREA **		
		AEFF < 10 SF	10 SF ≤ AEFF < 100 SF	AEFF > 100 SF
ROOF INTERIOR ZONES	TYPICAL UNO	+12.73 / -23.22	LINEAR INTERPOLATION PERMITTED	+11.24 / -21.72
ROOF END ZONES	WITHIN 3 FEET OF EDGES	+12.73 / -35.20	LINEAR INTERPOLATION PERMITTED	+11.24 / -24.72
ROOF CORNER ZONES	WITHIN 3 FEET OF CORNERS	+12.73 / -50.18	LINEAR INTERPOLATION PERMITTED	+11.24 / -24.72
		AEFF < 10 SF	10 SF ≤ AEFF < 500 SF	AEFF > 500 SF
ROOF INTERIOR ZONES	TYPICAL UNO	+23.22 / -24.72	LINEAR INTERPOLATION PERMITTED	+18.73 / -20.22
WALLS END ZONES	WITHIN 3 FEET OF EDGES	+23.22 / -29.21	LINEAR INTERPOLATION PERMITTED	+18.73 / -20.22

* PRESSURES SHOWN ARE APPLIED NORMAL TO THE SURFACE. PLUS AND MINUS SIGNS SIGNIFY PRESSURES ACTING TOWARD AND AWAY FROM THE SURFACES, RESPECTIVELY.

** SEE ASCE 7 FOR DEFINITION. FOR EFFECTIVE WIND AREAS BETWEEN THOSE GIVEN, VALUES MAY BE LINEARLY INTERPOLATED. OTHERWISE USE VALUES ASSOCIATED WITH THE LOWER EFFECTIVE WIND AREA.

G. SEISMIC LOADS. APPLIED IN ACCORDANCE WITH THE BUILDING CODE INDICATED HEREIN.

SEISMIC IMPORTANCE FACTOR, I_e = 1.0
 OCCUPANCY CATEGORY = II
 MAPPED SPECTRAL RESPONSE ACCELERATIONS
 -SHORT PERIOD, S_s = 0.127
 -ONE-SECOND PERIOD, S₁ = 0.042
 SPECTRAL RESPONSE COEFFICIENTS
 -SHORT PERIOD, S_{ds} = 0.135
 -ONE-SECOND PERIOD, S_{d1} = 0.067
 SEISMIC DESIGN CATEGORY, SDC = B
 BASIC SEISMIC-FORCE-RESISTING SYSTEM(S) = ORDINARY CANTILEVERED COLUMN MOMENT FRAMES
 DESIGN BASE SHEAR, V = 1.07 KIPS
 SEISMIC RESPONSE COEFFICIENT(S), C_s = 0.108
 RESPONSE MODIFICATION FACTOR, R = 1.25
 LONG-PERIOD TRANSITION = 12 SEC PERIOD, T_L
 ANALYSIS PROCEDURE USED : EQUIVALENT LATERAL FORCE PROCEDURE
 SITE CLASS: D

4. DESIGN ITEMS DELEGATED TO THE CONTRACTOR
 THE CONTRACTOR IS RESPONSIBLE FOR THE DESIGN OF THE FOLLOWING ITEMS. DESIGNS SHALL SATISFY THE REQUIREMENTS OF THE CONTRACT DOCUMENTS.

A. HANDRAILS AND GUARDRAILS

5. CONTRACTOR RESPONSIBILITIES

A. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS (INCLUDING FIELD VERIFICATIONS OF EXISTING CONDITIONS AND DIMENSIONS) BEFORE STARTING WORK OR FABRICATING ANY REINFORCING STEEL, OR STRUCTURAL STEEL. THE (ARCHITECT) (OWNER) SHALL BE NOTIFIED OF ANY DISCREPANCIES FOUND.

B. SEE ARCHITECTURAL, MECHANICAL AND ELECTRICAL DRAWINGS FOR SIZE AND LOCATION OF WALL, ROOF, AND FLOOR OPENINGS AND SLEEVES, AND CONCRETE PADS UNDER EQUIPMENT. THE CONTRACTOR SHALL VERIFY EXACT SIZE AND LOCATION WITH EQUIPMENT FURNISHED. OPENINGS IN STRUCTURE TO BE HANDED AS FOLLOWS:

OPENINGS THROUGH METAL ROOF DECK, WHICH MEASURE 6" OR LESS IN ALL DIRECTIONS, MAY BE CUT.

FOR OPENINGS THROUGH METAL DECK WHICH MEASURE BETWEEN 6" AND 13", SEE B4/S311

C. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE ADEQUATE SHORING AND BRACING OF THE STRUCTURE (NEW AND/OR EXISTING) FOR ALL LOADS THAT MAY BE IMPOSED DURING CONSTRUCTION.

D. THE DIAPHRAGM PROVIDED BY THE METAL ROOF DECK IS REQUIRED TO BRACE THE COLUMNS AND COMPLETE THE LATERAL LOAD RESISTING SYSTEM OF THE STRUCTURE. THE CONTRACTOR SHALL PROVIDE LATERAL BRACING AS REQUIRED DURING CONSTRUCTION UNTIL THE METAL ROOF DECK HAS BEEN CONSTRUCTED.

E. ALL COLUMNS SHALL BE CENTERED ON GRID LINES UNLESS NOTED OTHERWISE.

F. ALL COLUMN FOOTINGS SHALL BE CENTERED ON COLUMNS UNLESS NOTED OTHERWISE.

G. ALL WALL FOOTINGS SHALL BE CENTERED ON WALLS UNLESS NOTED OTHERWISE.

H. CONTRACTOR SHALL ENSURE NO STRUCTURAL MEMBERS OR ELEMENTS ARE DAMAGED OR ALTERED UNLESS SO INDICATED BY THE STRUCTURAL ENGINEER. ANY SUCH DAMAGE THAT DOES OCCUR SHALL BE BROUGHT TO THE ATTENTION OF THE STRUCTURAL ENGINEER AND SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.

6. PROVISIONS FOR FUTURE EXPANSION
 A. NO PROVISIONS FOR FUTURE EXPANSION HAVE BEEN MADE IN THE STRUCTURAL SYSTEMS.

014000 - QUALITY REQUIREMENTS

1. SPECIAL INSPECTIONS AND STRUCTURAL TESTING [AND STRUCTURAL OBSERVATIONS] SHALL BE PERFORMED PER CHAPTER 17 OF IBC, THE CONTRACT DOCUMENTS, AND THE STATEMENT OF SPECIAL INSPECTIONS WHICH IS INCLUDED IN THE CONTRACT DOCUMENTS.

033000 - CAST-IN-PLACE CONCRETE (REINFORCED)

1. ALL STRUCTURAL CONCRETE SHALL BE DESIGNED FOR A 28-DAY COMPRESSIVE STRENGTH OF: f_c EQUALS 5000 PSI (NORMAL WEIGHT) FOUNDATIONS, FOUNDATION WALLS, AND STATION WALLS

2. ALL REINFORCING STEEL SHALL BE DEFORMED, NEW, AND CONFORM TO ASTM A615 GRADE 60 (DEFORMED BARS).

3. ALL PLAIN WELDED WIRE REINFORCEMENT SHALL BE NEW AND CONFORM TO ASTM A185.

4. ALL DEFORMED WELDED WIRE REINFORCEMENT SHALL BE NEW AND CONFORM TO ASTM A497.

5. CONCRETE PROTECTIVE COVERING FOR REINFORCEMENT AT SURFACES NOT EXPOSED DIRECTLY TO WEATHER OR WEATHER SHALL BE 3/4" FOR SLABS, JOISTS, AND WALLS AND 1 1/2" FOR BEAM STIRRUPS AND COLUMN TIES OR STRAPS, UNLESS DETAILED OTHERWISE.

6. CONCRETE PROTECTIVE COVERING FOR REINFORCEMENT AT SURFACES WHICH WILL BE EXPOSED TO THE WEATHER OR BE IN CONTACT WITH EARTH (BUT NOT CAST AGAINST) SHALL BE 2" FOR BARS LARGER THAN #5 AND 1 1/2" FOR #5 BARS OR SMALLER, PROVIDE 3" COVER FOR REINFORCEMENT CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH, UNLESS DETAILED OTHERWISE.

7. PROVIDE 3/4-INCH CHAMFER ON ALL EXPOSED CONCRETE CORNERS (UNLESS NOTED OTHERWISE).

8. FORMWORK SHALL BE ADJUSTED BEFORE AND AFTER CONCRETE PLACING OPERATIONS (PRIOR TO INITIAL SET) TO COMPENSATE FOR FORMWORK DEFLECTION, IN ADDITION TO ANY CAMBER SPECIFIED ON THE DRAWINGS.

9. PROVIDE EXTERIOR CORNER BARS SAME SIZE AND SPACING AS HORIZONTAL REINFORCING AT ALL CONCRETE WALLS AND FOOTINGS - LAP AS PER TABLE BELOW

10. PROVIDE LAP SPLICES IN CONFORMANCE WITH TABLE 033000-1, UNLESS OTHERWISE INDICATED. FOLLOW RESTRICTIONS ON LOCATIONS OF SPLICES AS INDICATED IN DETAILS, NOTES, OR SPECIFICATIONS.

TABLE 033000-1 - LAP SPLICE LENGTHS (GRADE 60 BARS, NORMAL WEIGHT CONCRETE)

BAR SIZE	f _c =3500 psi		f _c =4000 psi		f _c =4500 psi		f _c =5000 psi	
	TOP BARS	OTHER BARS	TOP BARS	OTHER BARS	TOP BARS	OTHER BARS	TOP BARS	OTHER BARS
#3	2'-2"	1'-8"	2'-0"	1'-7"	1'-11"	1'-6"	1'-10"	1'-5"
#4	2'-11"	2'-3"	2'-8"	2'-1"	2'-6"	2'-0"	2'-5"	1'-10"
#5	3'-8"	2'-9"	3'-4"	2'-7"	3'-2"	2'-5"	3'-0"	2'-4"
#6	4'-4"	3'-4"	4'-0"	3'-1"	3'-10"	2'-9"	3'-7"	2'-9"
#7	6'-3"	4'-10"	5'-10"	4'-6"	5'-6"	4'-3"	5'-3"	4'-1"
#8	7'-2"	5'-7"	6'-8"	5'-2"	6'-4"	4'-11"	6'-0"	4'-7"
#9	8'-1"	6'-3"	7'-7"	5'-10"	7'-2"	5'-6"	6'-9"	5'-3"
#10	9'-1"	7'-0"	8'-6"	6'-7"	8'-0"	6'-2"	7'-7"	5'-10"
#11	10'-1"	7'-10"	9'-5"	7'-3"	8'-11"	6'-10"	8'-5"	6'-6"

033000 - LAP SPLICE LENGTHS NOTES

1. TOP BARS ARE HORIZONTAL BARS WITH MORE THAN 12" OF CONCRETE CAST BELOW BARS.
 2. FOR LIGHT WEIGHT CONCRETE, MULTIPLY LENGTH BY 1.13.
 3. FOR GRADE 75 BARS (IF APPLICABLE), MULTIPLY LENGTH BY 1.25.
 4. TABULATED VALUES ARE FOR UNCOATED OR ZINC-COATED (GALVANIZED) BARS. FOR EPOXY COATED BARS, MULTIPLY LENGTH BY 1.5.
 5. IF CONCRETE COVER IS LESS THAN 1.0 x db, BUT C.C. SPACING IS LESS THAN 3.0 x db, MULTIPLY LENGTH BY 1.5. (db = BAR DIAMETER)

11. WHERE REINFORCING STEEL IN TENSION IS REQUIRED TO BE MECHANICALLY SPLICED, MECHANICAL SPLICE SHALL BE DESIGNED FOR 125% OF THE SPECIFIED YIELD STRENGTH OF THE LARGER BAR BEING SPLICED.

12. NO PENETRATIONS (SUCH AS PIPE SLEEVES, ELECTRICAL CONDUITS, ETC.) THROUGH ANY STRUCTURAL MEMBER SHALL BE MADE WITHOUT APPROVAL BY THE STRUCTURAL ENGINEER UNLESS INDICATED ON DRAWINGS.

13. BEAM REINFORCING SHALL CONFORM TO THE REQUIREMENTS OF ACI 318-LATEST EDITION, SECTIONS 7.13.2.2 AND 7.13.2.3, REQUIREMENTS FOR STRUCTURAL INTEGRITY.

14. NON-CONTINUOUS ENDS OF TOP BARS IN BEAMS AND SLABS SHALL TERMINATE WITH A STANDARD 90-DEGREE OR 180-DEGREE HOOK, UNLESS DETAILED OTHERWISE.

15. ANY CONDUIT (PLASTIC OR METAL) EMBEDDED IN THE STRUCTURE SHALL BE APPROVED BY THE STRUCTURAL ENGINEER OF RECORD PRIOR TO PLACEMENT. PROVISIONS OF ACI 318-05 SECTION 6.3 SHALL BE FOLLOWED.

A. EMBEDDED CONDUIT OR PIPE MAY BE PLASTIC OR STEEL. EMBEDDED ITEMS MAY NOT BE ALUMINUM.

B. NO CONDUIT OR PIPE SHALL HAVE AN OUTSIDE DIAMETER LARGER THAN 1/3 THE OVERALL THICKNESS OF SLAB OR WALL IN WHICH THEY ARE EMBEDDED. IF CONDUITS CROSS, THE MAXIMUM DIAMETER OF EACH CONDUIT SHALL BE NO GREATER THAN 3/4"

C. CONDUIT AND PIPE SHALL HAVE A MINIMUM SPACING OF THREE DIAMETERS OR WIDTHS ON CENTER.

D. CONCRETE COVER FOR PIPES, CONDUITS, AND FITTINGS SHALL BE A MINIMUM 1-1/2" FOR CONCRETE EXPOSED TO EARTH OR WEATHER, 3/4" FOR CONCRETE NOT EXPOSED TO WEATHER OR IN CONTACT WITH GROUND.

E. CONDUIT AND PIPING SHALL BE FABRICATED AND INSTALLED SO THERE IS NO CONTACT, INTERRUPTION, OR DISPLACEMENT OF REINFORCEMENT FROM ITS PROPER LOCATION.

053100 - STEEL DECKING

1. DESIGN AND CONSTRUCTION OF STEEL ROOF DECK SHALL CONFORM TO ANSI/SDI-RD1.0.
 2. STEEL DECKING SHALL BE DESIGNED FOR THE FOLLOWING MINIMUM YIELD STRENGTHS:

F_y = 33 ksi (STEEL ROOF DECK)

3. ALL METAL DECKING SHALL BE GALVANIZED PER THE SPECIFICATIONS.
 4. STEEL ROOF DECK (TYPE "1") SHALL BE 1-1/2 INCH, 20 GAUGE TYPE "B" WIDE RIB METAL DECK HAVING THE FOLLOWING MINIMUM SECTION PROPERTIES:

I_p = 0.201 IN⁴/FT
 I_n = 0.222 IN⁴/FT
 S_p = 0.234 IN³/FT
 S_n = 0.247 IN³/FT
 p = FOR POSITIVE BENDING
 n = FOR NEGATIVE BENDING

ATTACH STEEL ROOF DECK USING THE FOLLOWING FASTENER PATTERN TO ACHIEVE A DIAPHRAGM CAPACITY OF 255 PLF:

36/4 AT ENDS AND INTERMEDIATE SUPPORTS (5/8" WELD OR EQUIV.)
 4 SIDE LAP FASTENERS EQUALLY SPACED PER SPAN (#10 TEK SCREW OR EQUIV.)

5. METAL DECK SHALL BE CONTINUOUS OVER A MINIMUM OF 3 SPANS, UNO.
 6. STEEL ROOF DECK SHALL BE ANCHORED TO ROOF TO RESIST A GROSS UPLIFT LOAD AS INDICATED IN SECTION 010000.
 7. PROVIDE ADDITIONAL ANGLES TO SUPPORT DECKING AT AREAS WHERE DECK IS CUT FOR COLUMNS OR OTHER PENETRATIONS TO PREVENT WEAKENED AREAS IN DECKING.

THESE GENERAL NOTES ARE ORGANIZED BY THE SPECIFICATION NUMBER MOST CLOSELY ASSOCIATED WITH THE INFORMATION, ALTHOUGH SOME UNIQUE NUMBERS HAD TO BE ASSIGNED TO SECTIONS NOT INCLUDED IN THE SPECIFICATIONS. THESE STRUCTURAL GENERAL NOTES APPLY TO ALL WORK, NOT JUST FOR WORK WITHIN THE SECTION NUMBER INDICATED. ALSO REFER TO SPECIFICATIONS FOR ADDITIONAL INFORMATION.

STRUCTURAL GENERAL NOTES
 S001



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	2222 CUMING STREET OMAHA, NEBRASKA 68102 (402) 341-0800					

316000 - GENERAL FOUNDATIONS

1. A FOUNDATION INVESTIGATION WAS MADE BY THIELE GEOTECH INC. DATED MARCH 27, 2018. THIS REPORT IS INCLUDED FOR INFORMATION WITHIN SECTION 003132, OF THE SPECIFICATIN "GEOTECHNICAL REPORT".
2. BACKFILLING AGAINST WALLS AND GRADE BEAMS SHALL NOT BE DONE UNTIL CONCRETE HAS ATTAINED SUFFICIENT STRENGTH AND WALLS ARE PROPERLY SHORED OR BRACED. WHERE BACKFILL IS REQUIRED ON BOTH SIDES OF WALLS, BACKFILL BOTH SIDES SIMULTANEOUSLY.
3. WHERE WALLS ARE SUPPORTED BY CONCRETE SLABS, SLABS SHALL HAVE CURED A MINIMUM 7 DAYS BEFORE BACKFILLING.

316100 - SPREAD FOOTINGS

1. ALL FOOTINGS SHALL BEAR ON NEW STRUCTURAL FILL. BOTTOM OF ALL EXTERIOR FOOTINGS SHALL BE AT LEAST 3'-6" BELOW FINISHED GRADE. ELEVATIONS OF BOTTOM OF ALL FOOTINGS HAVE BEEN ESTIMATED BASED ON AVAILABLE INFORMATION AND SHALL NOT BE CONSTRUED AS WAIVING ANY OF THE MINIMUM REQUIREMENTS ON THESE DRAWINGS AND IN THE SPECIFICATIONS. ALL FOOTING EXCAVATIONS SHALL BE INSPECTED AND APPROVED BY THE SPECIAL INSPECTOR PRIOR TO CONSTRUCTION OF THE FOOTINGS.
2. ALLOWABLE SOIL BEARING PRESSURE:
REFER TO THE TABLE BELOW SHOWING THE ALLOWABLE BEARING PRESSURES AND ASSOCIATED SUBGRADE MODULUS FOR THE STATION LOCATIONS (DEAD LOAD PLUS FULL LIVE LOAD)

STATION BEARING CAPACITIES AND MODULUS OF SUBGRADE		
STATION LOCATION	BEARING CAPACITY (PSF)	MODULUS OF SUBGRADE, K (PCI)
12TH AND DODGE (WB)	2,000	115
16TH AND DODGE (WB)	2,000	115
20TH AND DODGE (WB)	2,000	115
24TH AND DODGE (WB)	2,000	115
PARK AVENUE AND DODGE (WB)	2,000	115
33RD AND DODGE (WB)	1,750	110
35TH AND DODGE (EB)	1,750	110
42ND AND DODGE (WB)	2,000	115
42ND AND DODGE (EB)	1,500	100
49TH AND DODGE (WB)	1,750	110
49TH AND DODGE (EB)	1,500	100
62ND AND DODGE (WB)	2,500	130
62ND AND DODGE (EB)	2,000	115
72ND AND DODGE (WB)	2,000	115
72ND AND DODGE (EB)	2,500	130
84TH AND DODGE (WB)	1,500	100
84TH AND DODGE (EB)	2,000	115
90TH AND DODGE (WB)	2,000	115
90TH AND DODGE (EB)	2,000	115
WESTROADS (EB)	2,000	115
10TH AND DOUGLAS (EB)	2,000	115
15TH AND DOUGLAS (EB)	2,000	115
19TH AND DOUGLAS (EB)	1,750	110
24TH AND DOUGLAS (EB)	2,500	130
30TH AND DOUGLAS (EB)	3,000	150

RETAINING WALLS = MAXIMUM TOE PRESSURE SHALL BE APPLICABLE TO THE TABLE ABOVE
INFORMATION PRESENTED IN TABLE ABOVE IS SUBJECT TO CHANGE BASED ON FINAL PLATFORM LOCATIONS.

3. ALLOWABLE FOUNDATION BASE ADHESION = 500 PSF.
4. ALLOWABLE PASSIVE SOIL PRESSURE FOR SLIDING RESISTANCE: 250 PCF EQUIVALENT FLUID PRESSURE

TABLE 033000-2 - STRAIGHT BAR EMBEDMENT LENGTHS (GRADE 60 BARS, NORMAL WEIGHT CONCRETE)

BAR SIZE	f _c = 3000 psi		f _c = 3500 psi		f _c = 4000 psi		f _c = 4500 psi		f _c = 5000 psi	
	TOP BARS	OTHER BARS	TOP BARS	OTHER BARS	TOP BARS	OTHER BARS	TOP BARS	OTHER BARS	TOP BARS	OTHER BARS
#3	1'-10"	1'-5"	1'-8"	1'-4"	1'-7"	1'-3"	1'-6"	1'-2"	1'-5"	1'-1"
#4	2'-5"	1'-10"	2'-3"	1'-8"	2'-1"	1'-7"	2'-0"	1'-6"	1'-10"	1'-5"
#5	3'-0"	2'-4"	2'-9"	2'-2"	2'-7"	2'-0"	2'-5"	1'-11"	2'-4"	1'-10"
#6	3'-7"	2'-9"	3'-4"	2'-7"	3'-1"	2'-5"	2'-11"	2'-3"	2'-9"	2'-2"
#7	5'-3"	4'-0"	4'-10"	3'-8"	4'-6"	3'-6"	4'-3"	3'-3"	4'-1"	3'-1"
#8	6'-0"	4'-7"	5'-7"	4'-3"	5'-2"	4'-0"	4'-11"	3'-9"	4'-7"	3'-7"
#9	6'-9"	5'-2"	6'-3"	4'-9"	5'-10"	4'-6"	5'-6"	4'-3"	5'-3"	4'-0"
#10	7'-7"	5'-10"	7'-0"	5'-5"	6'-5"	5'-1"	6'-2"	4'-9"	5'-10"	4'-6"
#11	8'-5"	6'-6"	7'-10"	6'-0"	7'-3"	5'-7"	6'-10"	5'-4"	6'-6"	5'-0"

TABLE 033000-2 - STRAIGHT BAR EMBEDMENT LENGTHS NOTES

1. SEE TABLE 033000-1 FOR LAP SPLICE LENGTH REQUIREMENTS.
2. TOP BARS ARE HORIZONTAL BARS WITH MORE THAN 12" OR CONCRETE CAST BELOW BARS.
3. TABULATED VALUES ARE FOR UNCOATED OR ZINC-COATED (GALVANIZED) BARS. FOR EPOXY COATED BARS, MULTIPLY LENGTH BY 1.5.
4. IF CONCRETE COVER IS LESS THAN 1.0 x db OR C-C SPACING IS LESS THAN 3.0 x db, MULTIPLY LENGTH BY 1.5 (db = BAR DIAMETER)

TABLE 033000-3 - STANDARD HOOK EMBEDMENT LENGTHS (GRADE 60 BARS, NORMAL WEIGHT CONCRETE)

BAR SIZE	f _c = 3000 psi	f _c = 3500 psi	f _c = 4000 psi	f _c = 4500 psi	f _c = 5000 psi
#3	0'-9"	0'-8"	0'-7"	0'-7"	0'-7"
#4	0'-11"	0'-10"	0'-10"	0'-9"	0'-9"
#5	1'-2"	1'-1"	1'-0"	0'-11"	0'-11"
#6	1'-5"	1'-4"	1'-3"	1'-2"	1'-1"
#7	1'-7"	1'-6"	1'-5"	1'-4"	1'-3"
#8	1'-10"	1'-8"	1'-7"	1'-6"	1'-5"
#9	2'-1"	1'-9"	1'-10"	1'-8"	1'-7"
#10	2'-4"	2'-2"	2'-0"	1'-11"	1'-10"
#11	2'-7"	2'-5"	2'-3"	2'-1"	2'-0"


TABLE 033000-3 - STANDARD HOOK EMBEDMENT NOTES

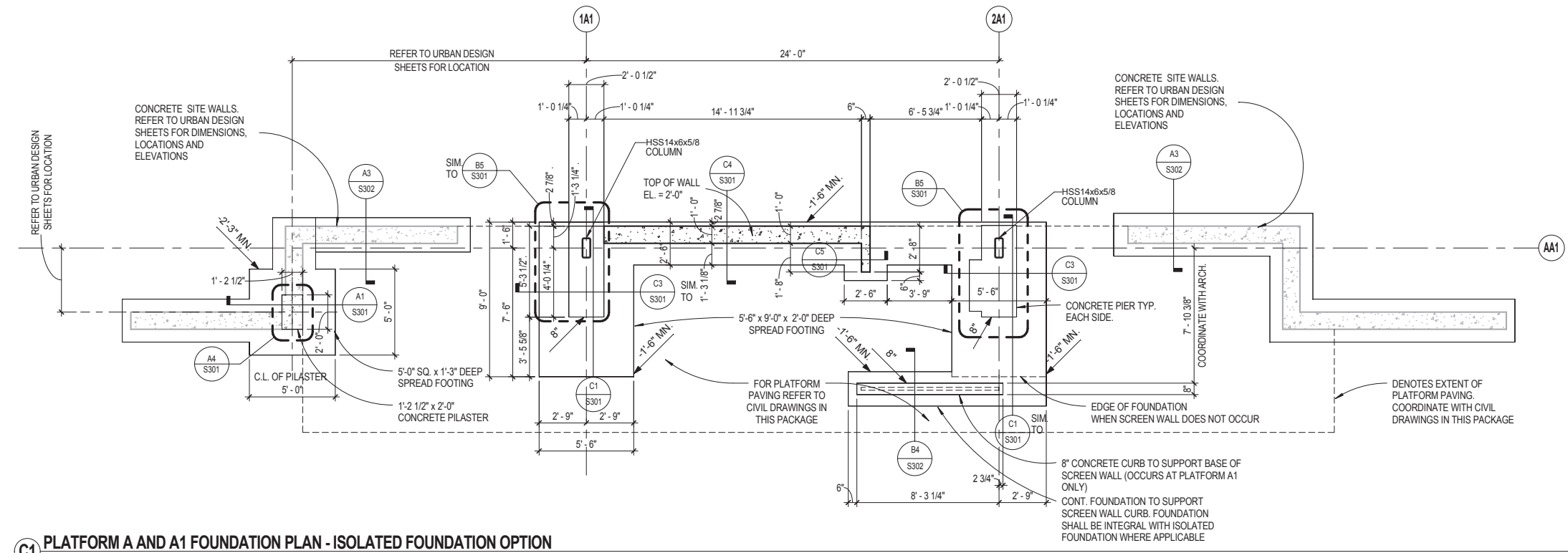
1. TABLE APPLIES TO STANDARD 90-DEGREE HOOKS AND STANDARD 180-DEGREE HOOKS.
2. SEE DIAGRAM 033000-1. OTHER DETAILS MAY ALSO INDICATE EMBED REQUIREMENTS.
3. TABULATED VALUES ARE FOR UNCOATED OR ZINC-COATED (GALVANIZED) BARS. FOR EPOXY BARS, MULTIPLY LENGTH BY 1.2.
4. IF CONCRETE SIDE COVER (NORMAL TO PLANE OF HOOKS) IS NOT LESS THAN 2 1/2 INCHES, AND FOR 90-DEGREE HOOKS WITH COVER ON THE BAR EXTENSION BEYOND THE HOOK NOT LESS THAN 2 INCHES, THE LENGTH MAY BE MULTIPLIED BY 0.7.

**STRUCTURAL GENERAL NOTES
S002**

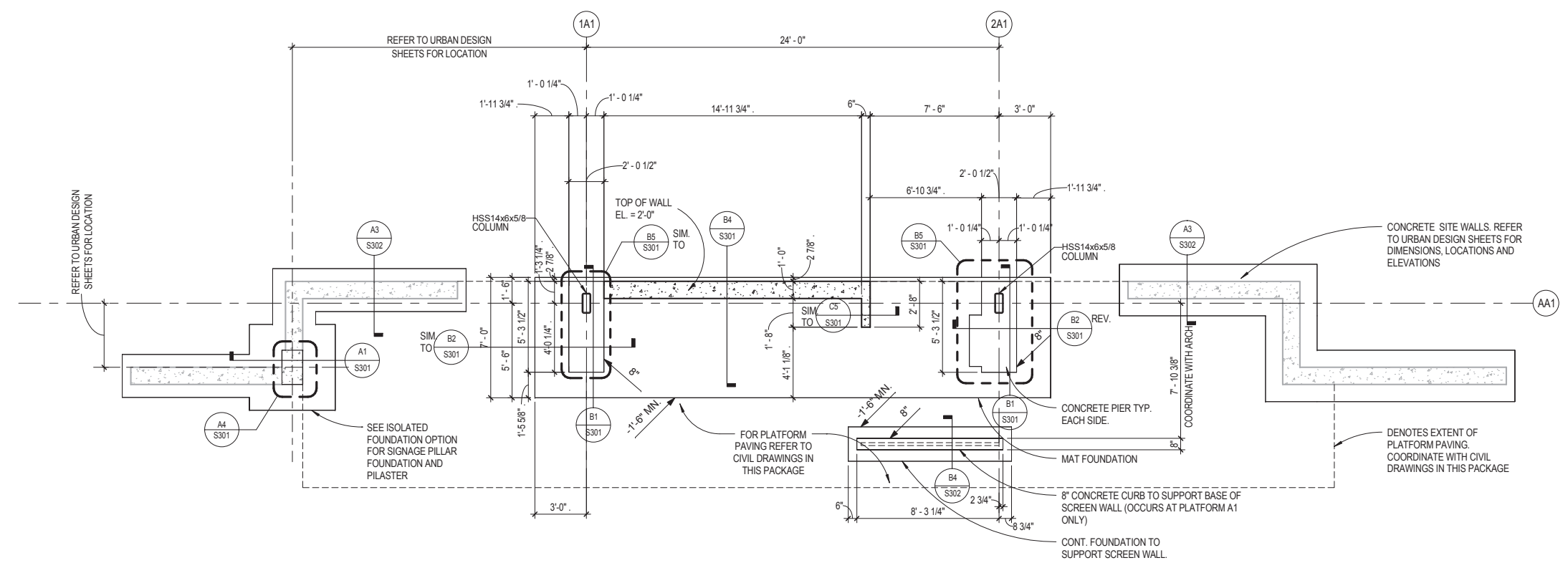
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	CLIENT				NE-79-X001 OPW 53347	9 / 38
	2222 CUMING STREET OMAHA, NEBRASKA 68102 (402) 341-0800					

- FOUNDATION PLAN NOTES:**
- FOR STRUCTURAL GENERAL NOTES - SEE SHEETS S001 (8/38) AND S002 (9/38).
 - INDICATES EL. FROM PLATFORM ELEVATION
 - FOR OVER EXCAVATION INFORMATION REFER TO DETAIL 
 - MAT FOUNDATION OR ISOLATED FOUNDATION MAY BE USED AT CONTRACTORS OPTION AT EACH STATION LOCATION
 - REFER TO THE URBAN DESIGN SHEETS FOR PLATFORM ELEVATIONS



C1 PLATFORM A AND A1 FOUNDATION PLAN - ISOLATED FOUNDATION OPTION
SCALE: 1/4" = 1'-0"



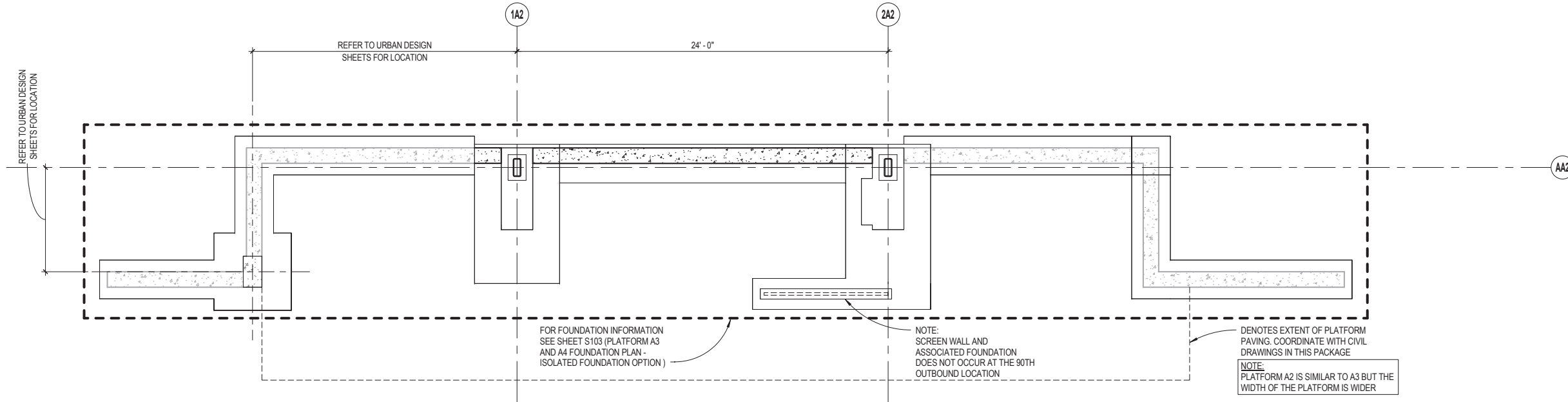
A1 PLATFORM A AND A1 FOUNDATION PLAN - MAT FOUNDATION OPTION
SCALE: 1/4" = 1'-0"

**PLATFORM A AND A1 FOUNDATION PLANS
S101**

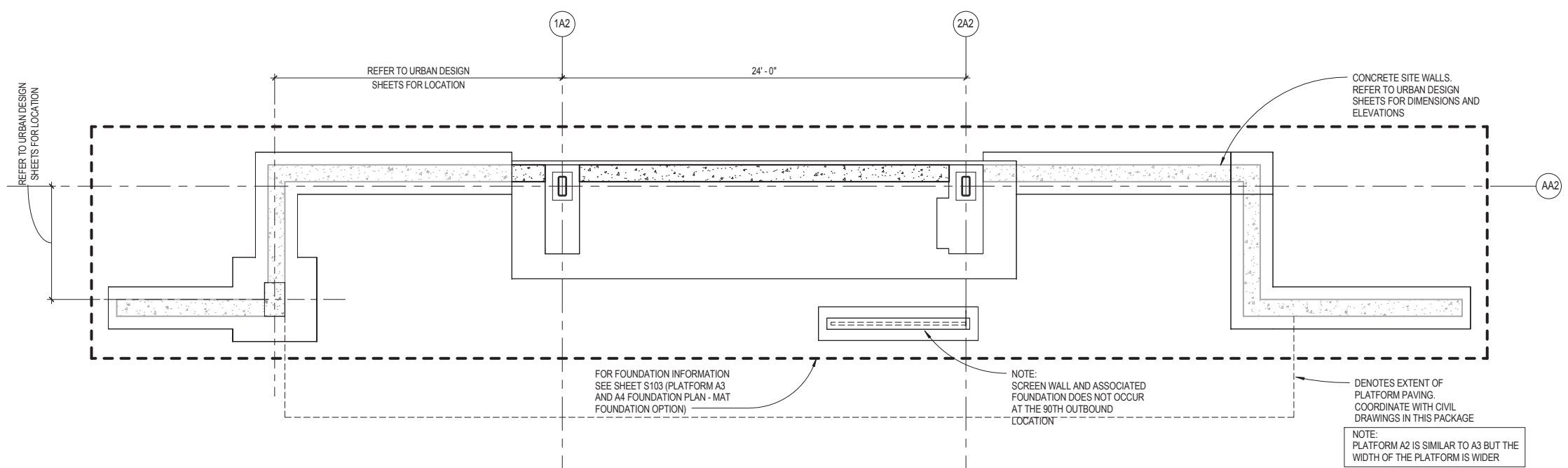
FOR INFORMATION ONLY

	CLIENT 2222 CUMING STREET OMAHA, NEBRASKA 68102 (402) 341-0800				NE-79-X001 OPW 53347	10 38
	12120 SHAMROCK PLZ, STE 100 OMAHA, NEBRASKA 68154					

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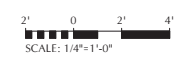


C1 PLATFORM A2 FOUNDATION PLAN - ISOLATED FOUNDATION OPTION
SCALE: 1/4" = 1'-0"



A1 PLATFORM A2 FOUNDATION PLAN - MAT FOUNDATION OPTION
SCALE: 1/4" = 1'-0"

- FOUNDATION PLAN NOTES:**
- FOR STRUCTURAL GENERAL NOTES - SEE SHEETS S001 (8/38) AND S002 (9/38).
 - INDICATES EL. FROM PLATFORM ELEVATION
 - FOR OVER EXCAVATION INFORMATION REFER TO DETAIL
 - MAT FOUNDATION OR ISOLATED FOUNDATION MAY BE USED AT CONTRACTORS OPTION AT EACH STATION LOCATION
 - REFER TO THE URBAN DESIGN SHEETS FOR PLATFORM ELEVATIONS

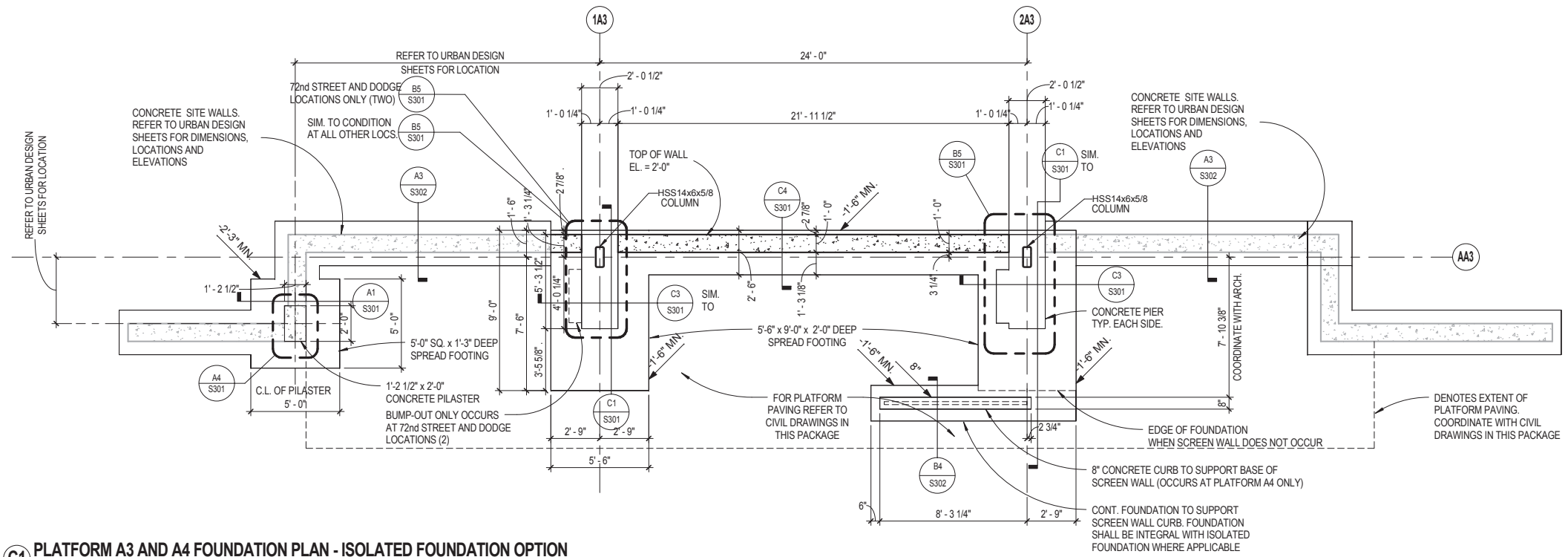


**PLATFORM A2 FOUNDATION PLANS
S102**

FOR INFORMATION ONLY

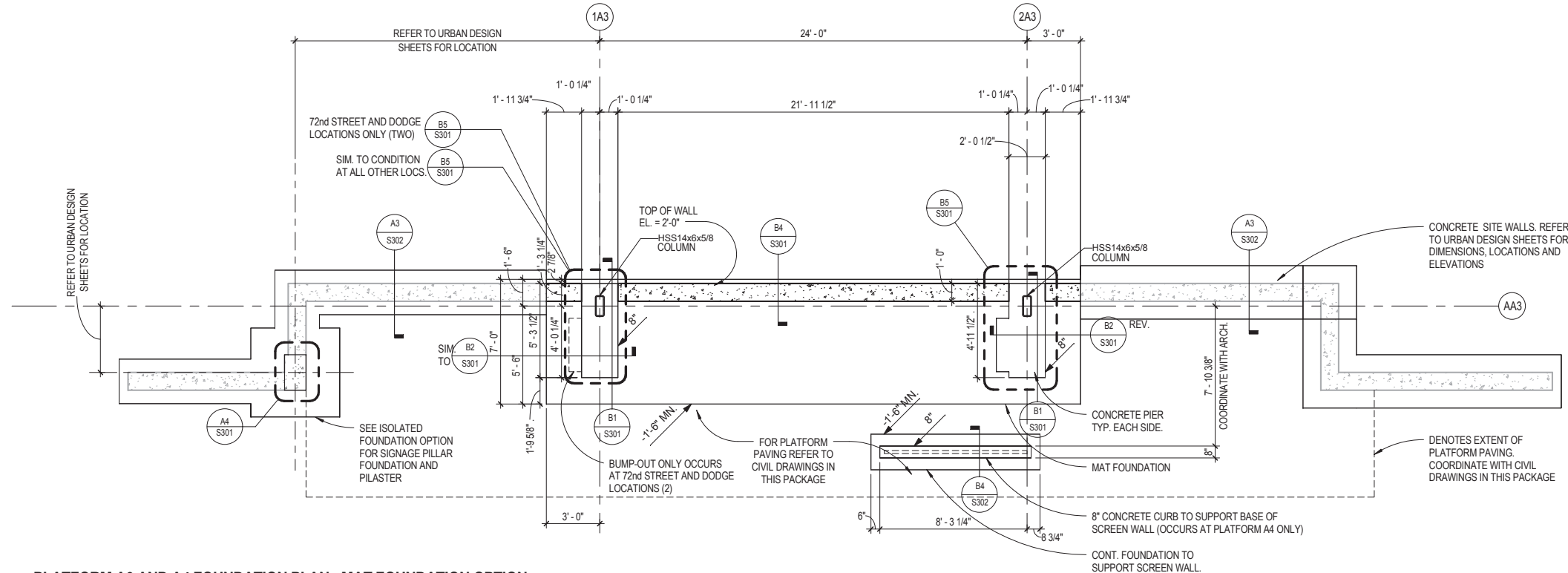
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C1 PLATFORM A3 AND A4 FOUNDATION PLAN - ISOLATED FOUNDATION OPTION
SCALE: 1/4" = 1'-0"

- FOUNDATION PLAN NOTES:**
1. FOR STRUCTURAL GENERAL NOTES - SEE SHEETS S001 (8/38) AND S002 (9/38).
 2. $\frac{5}{8}$ INDICATES EL. FROM PLATFORM ELEVATION
 3. FOR OVER EXCAVATION INFORMATION REFER TO DETAIL $\frac{A1}{S302}$
 4. MAT FOUNDATION OR ISOLATED FOUNDATION MAY BE USED AT CONTRACTORS OPTION AT EACH STATION LOCATION
 5. REFER TO THE URBAN DESIGN SHEETS FOR PLATFORM ELEVATIONS



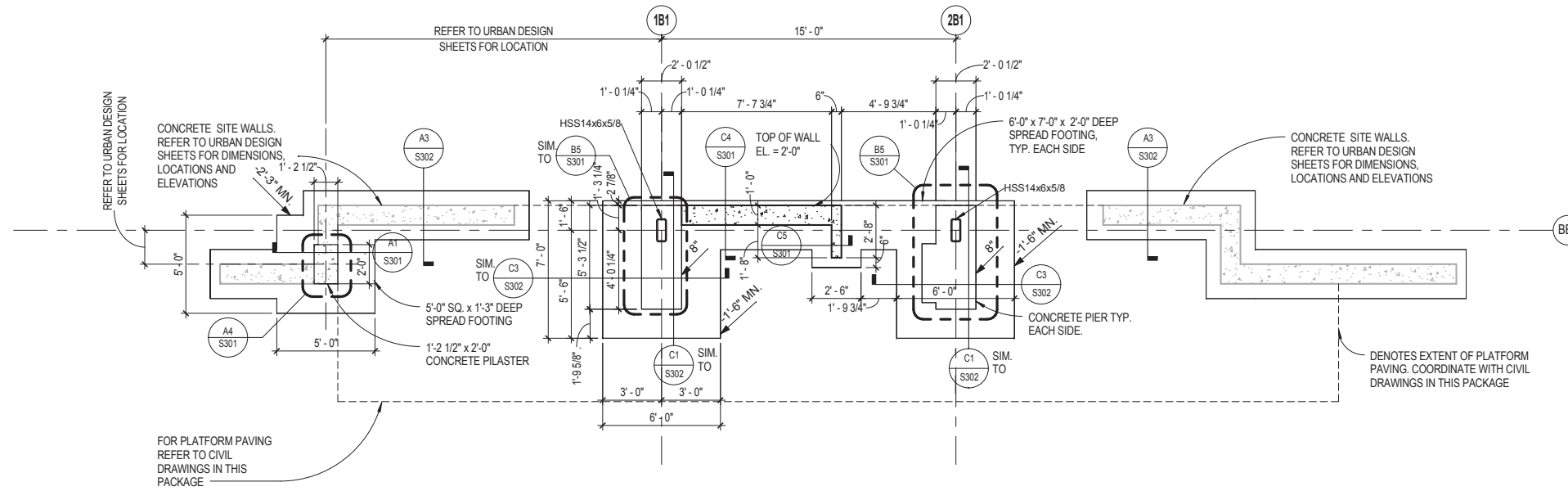
A1 PLATFORM A3 AND A4 FOUNDATION PLAN - MAT FOUNDATION OPTION
SCALE: 1/4" = 1'-0"

PLATFORM A3 AND A4 FOUNDATION PLANS
S103

FOR INFORMATION ONLY

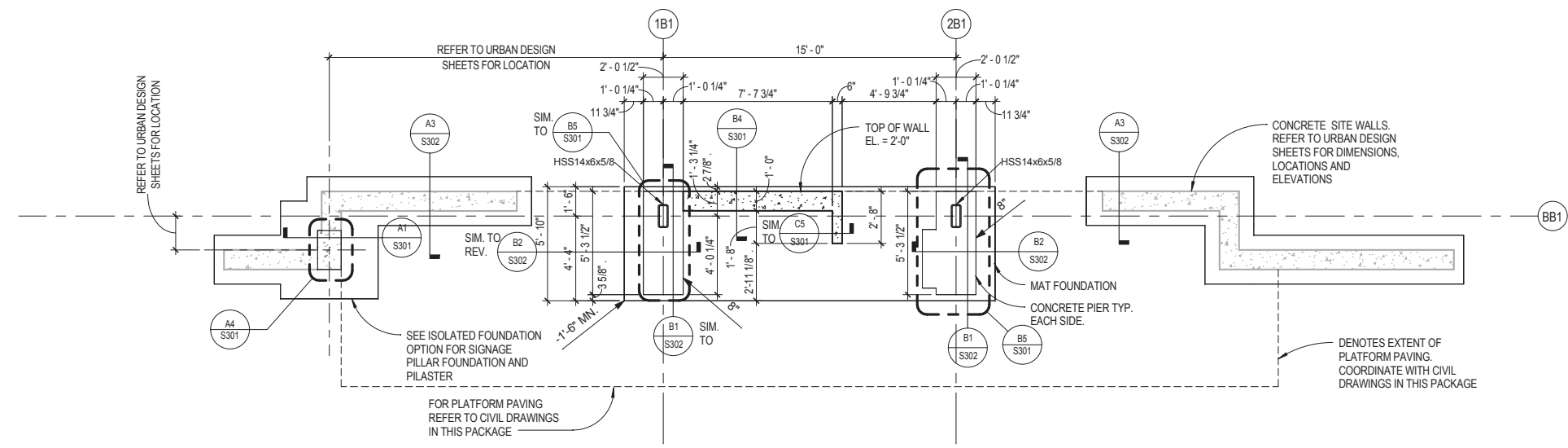
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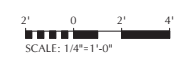


- FOUNDATION PLAN NOTES:**
1. FOR STRUCTURAL GENERAL NOTES - SEE SHEETS S001 (8/38) AND S002 (9/38).
 2. INDICATES EL. FROM PLATFORM ELEVATION
 3. FOR OVER EXCAVATION INFORMATION REFER TO DETAIL
 4. MAT FOUNDATION OR ISOLATED FOUNDATION MAY BE USED AT CONTRACTORS OPTION AT EACH STATION LOCATION
 5. REFER TO THE URBAN DESIGN SHEETS FOR PLATFORM ELEVATIONS

C1 PLATFORM B FOUNDATION PLAN - ISOLATED FOUNDATION OPTION
SCALE: 1/4" = 1'-0"



A1 PLATFORM B FOUNDATION PLAN - MAT FOUNDATION OPTION
SCALE: 1/4" = 1'-0"





PLATFORM B FOUNDATION PLAN
S104

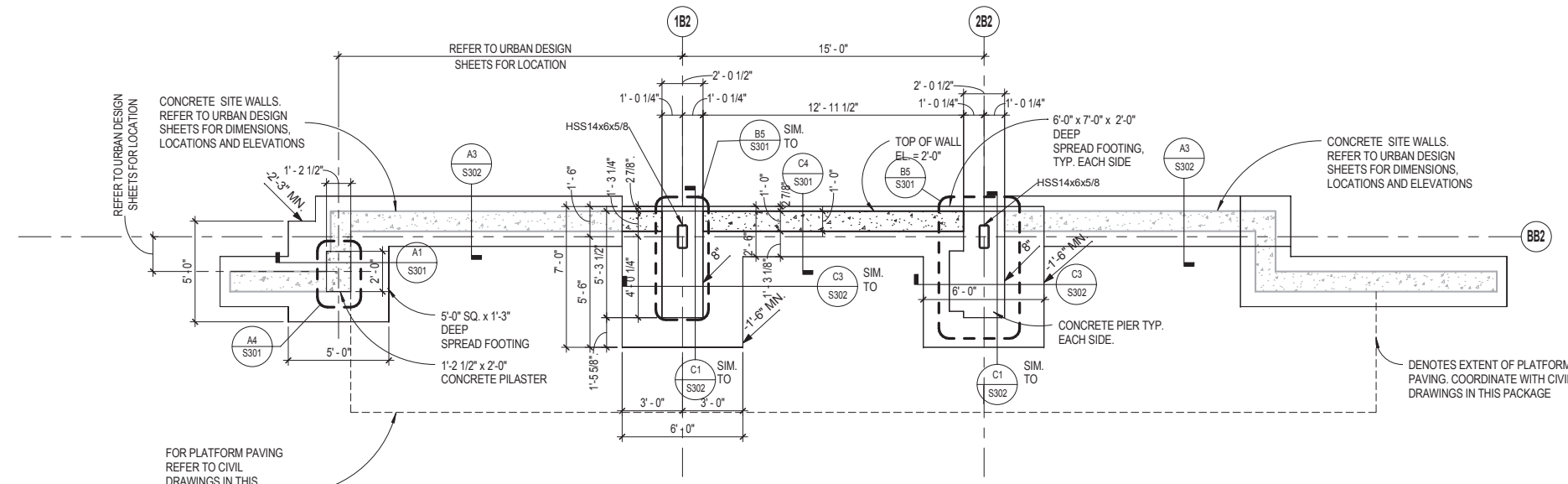
FOR INFORMATION ONLY

	CLIENT					13 38
	2222 CUMING STREET OMAHA, NEBRASKA 68102 (402) 341-0800					

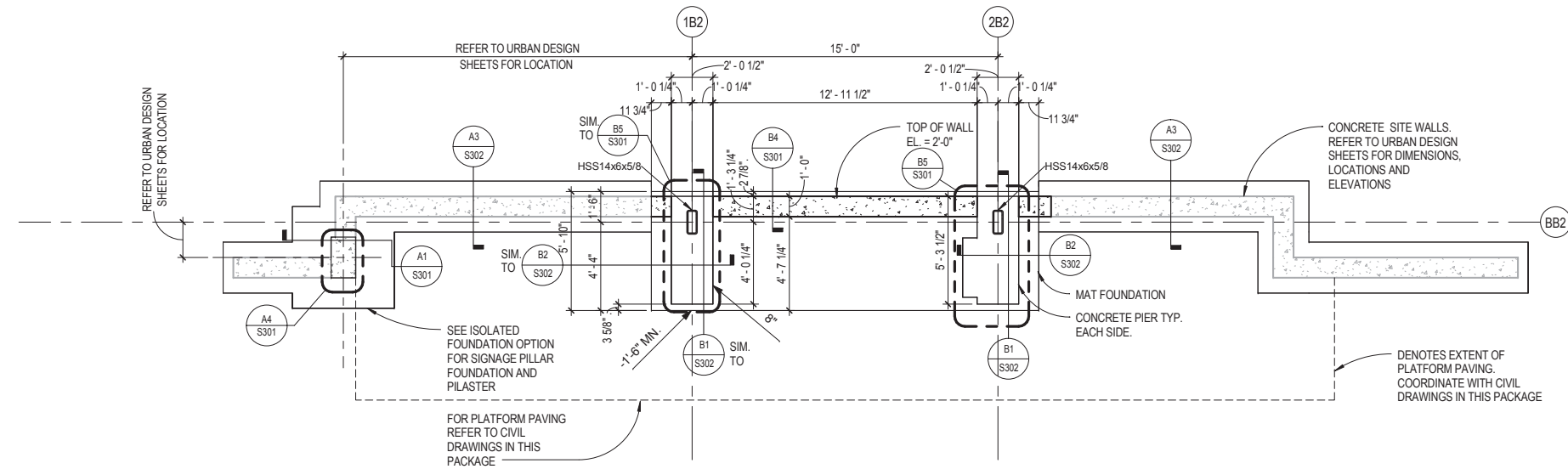
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FOUNDATION PLAN NOTES:

1. FOR STRUCTURAL GENERAL NOTES - SEE SHEETS S001 (8/38) AND S002 (9/38).
2.  INDICATES EL. FROM PLATFORM ELEVATION
3. FOR OVER EXCAVATION INFORMATION REFER TO DETAIL 
4. MAT FOUNDATION OR ISOLATED FOUNDATION MAY BE USED AT CONTRACTORS OPTION AT EACH STATION LOCATION
5. REFER TO THE URBAN DESIGN SHEETS FOR PLATFORM ELEVATIONS



C1 PLATFORM B2 FOUNDATION PLAN - ISOLATED FOUNDATION PLAN
SCALE: 1/4" = 1'-0"



A1 PLATFORM B2 FOUNDATION PLAN - MAT FOUNDATION OPTION
SCALE: 1/4" = 1'-0"

PLATFORM B2 FOUNDATION PLANS
S105

FOR INFORMATION ONLY

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 2222 CUMING STREET
 OMAHA, NEBRASKA 68102
 (402) 341-0800

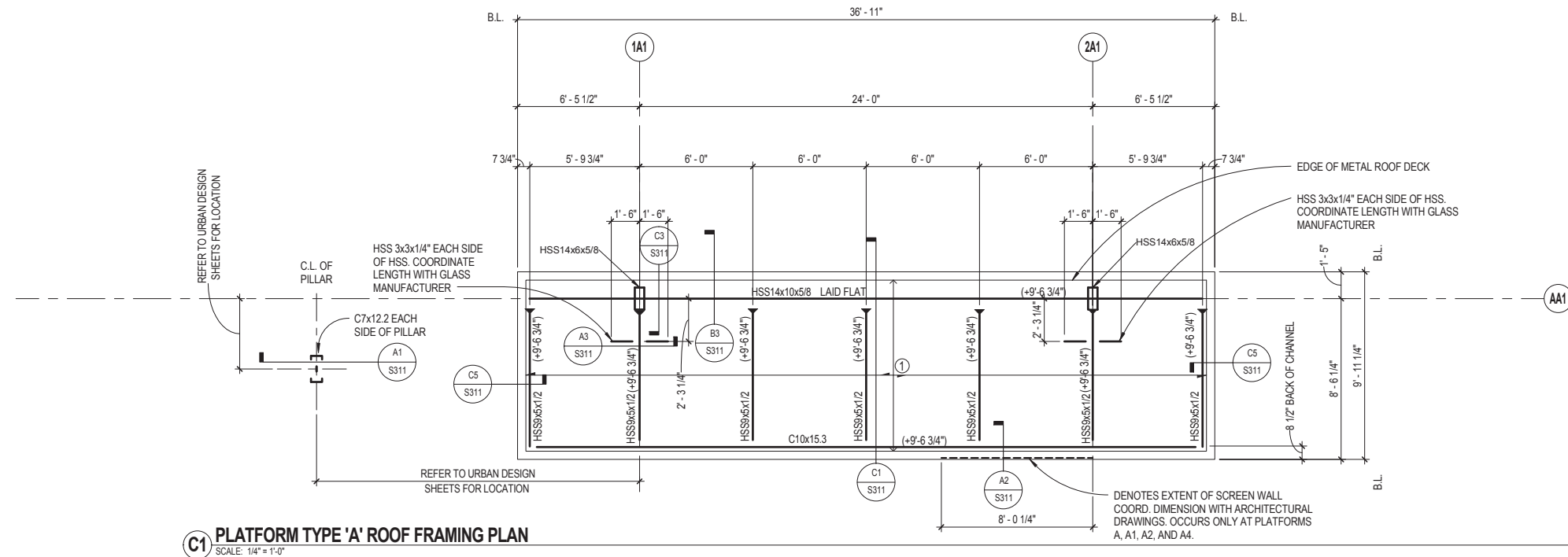
 ORBT
OMAHA RAPID RAIL TRANSIT

AECOM
 12120 SHAMROCK PLZ, STE 100
 OMAHA, NEBRASKA 68154

LEO A DAILY
 002-10178-000
 8600 INDIAN HILLS DRIVE
 OMAHA, NE 68114-4039

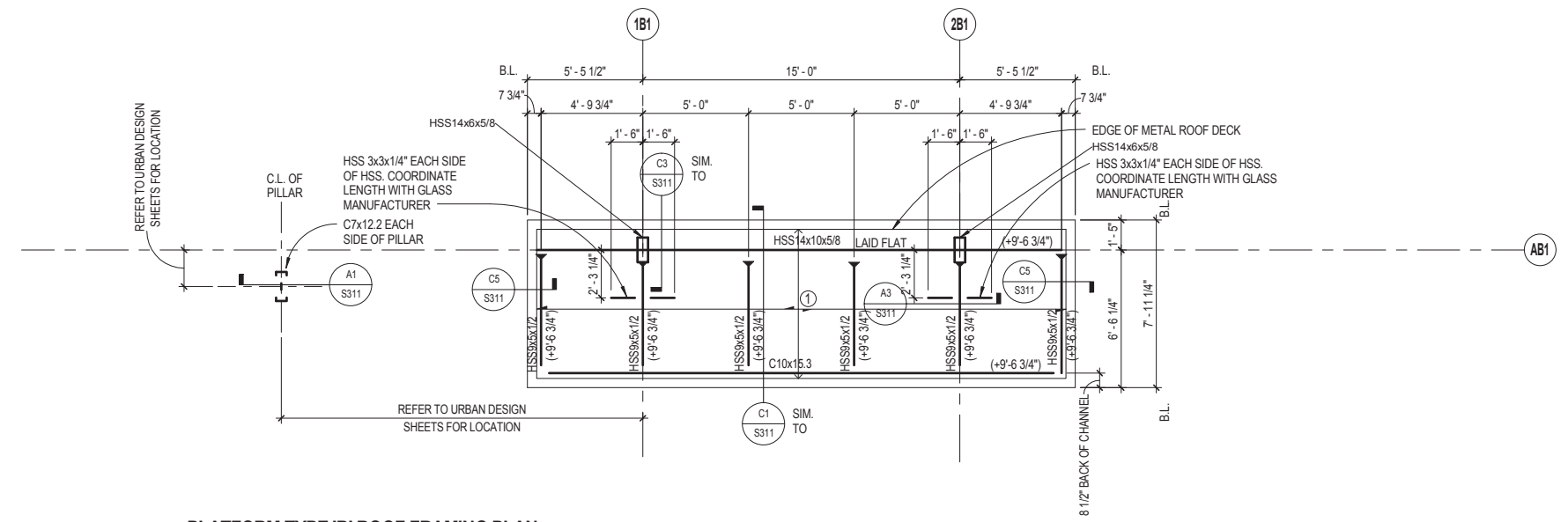
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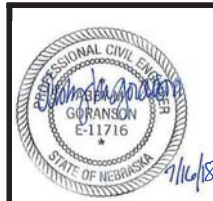
C1 PLATFORM TYPE 'A' ROOF FRAMING PLAN
SCALE: 1/4" = 1'-0"

- ROOF FRAMING PLAN NOTES:**
1. FOR STRUCTURAL GENERAL NOTES - SEE SHEETS S001 (8/38) AND S002 (9/38).
 2. (+9'-6 3/4") INDICATES TOP OF STEEL EL. FROM PLATFORM LEVEL
 3. INDICATES MOMENT CONNECTION - SEE
 4. INDICATES 1/2" METAL ROOF DECK
 5. OPEN ENDS OF HSS MEMBERS SHALL HAVE 1/4" WELDED CAP PLATES TYPICAL
 6. ALL STEEL MEMBERS SHALL BE GALVANIZED



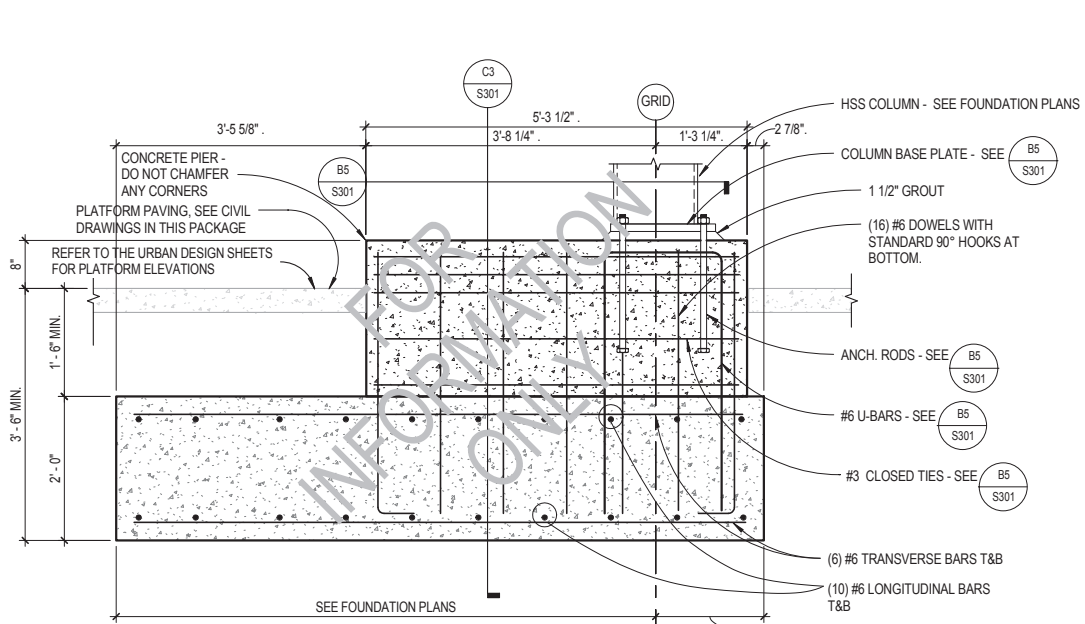
A1 PLATFORM TYPE 'B' ROOF FRAMING PLAN
SCALE: 1/4" = 1'-0"

PLATFORM TYPE 'A' AND TYPE 'B' ROOF FRAMING PLAN
S111

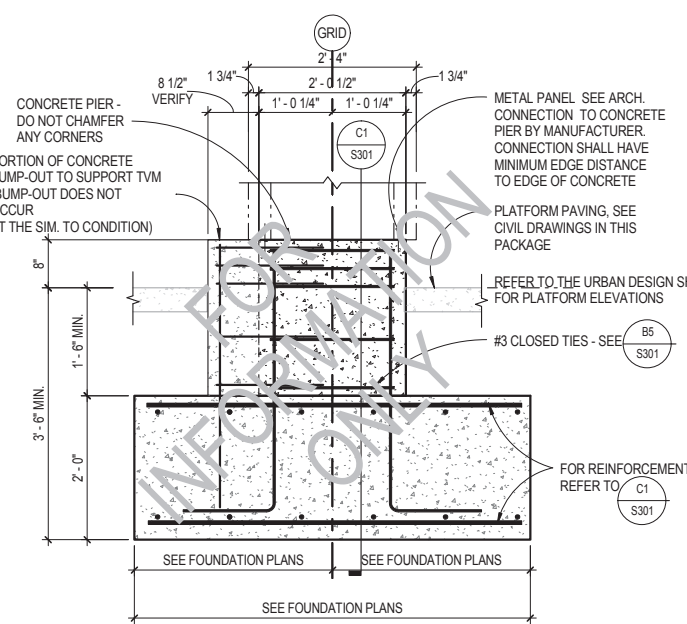


	CLIENT					15 / 38
	2222 CUMING STREET OMAHA, NEBRASKA 68102 (402) 341-0800					

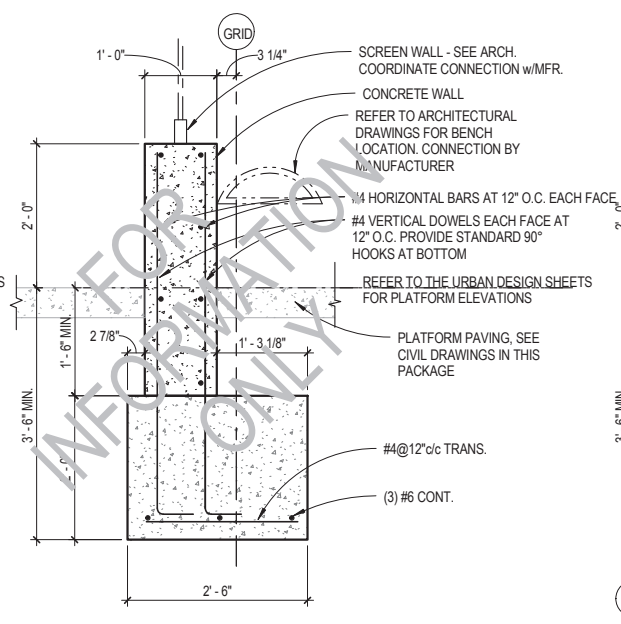
C1 ISOLATED FOUNDATION SECTION - PLATFORM A
SCALE: 3/4" = 1'-0"



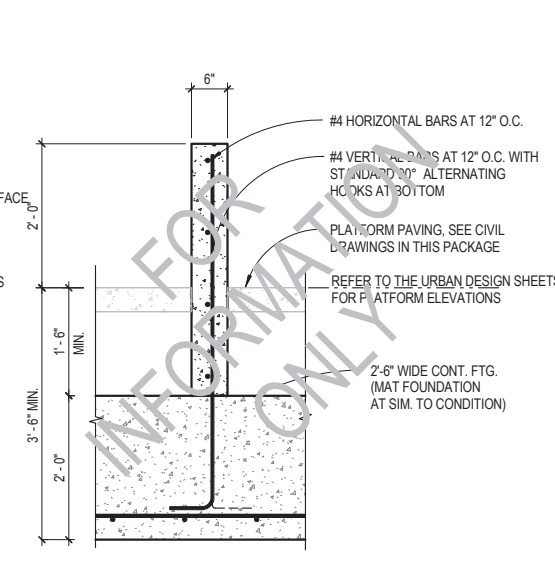
C3 ISOLATED FOUNDATION CROSS SECTION - PLATFORM A
SCALE: 3/4" = 1'-0"



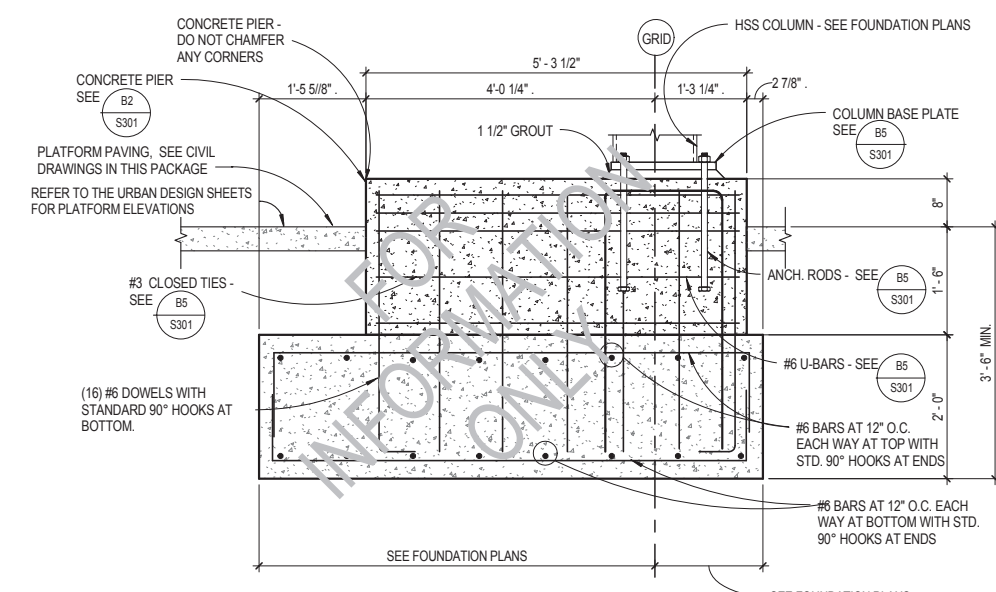
C4 FOUNDATION AT SCREEN WALL
SCALE: 3/4" = 1'-0"



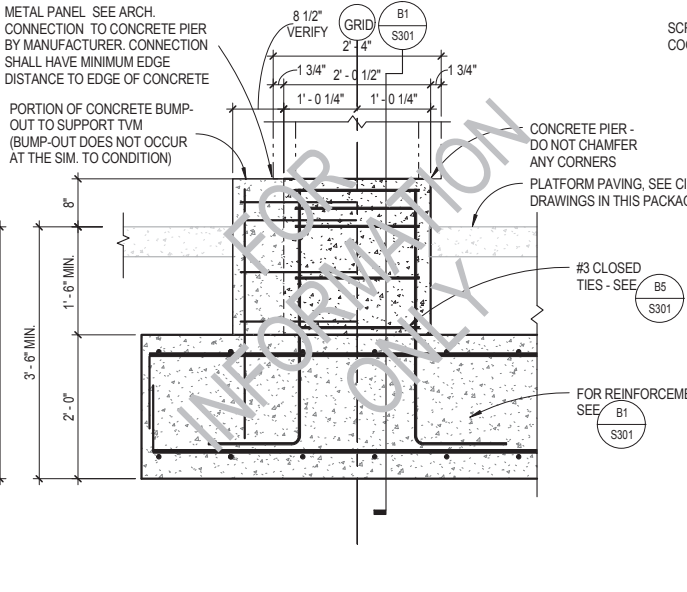
C5 SECTION AT CONC. WALL
SCALE: 3/4" = 1'-0"



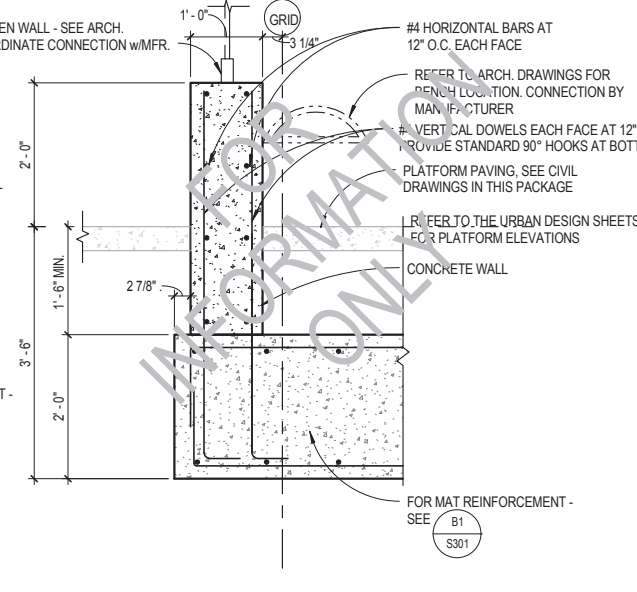
B1 MAT FOUNDATION SECTION - PLATFORM A
SCALE: 3/4" = 1'-0"



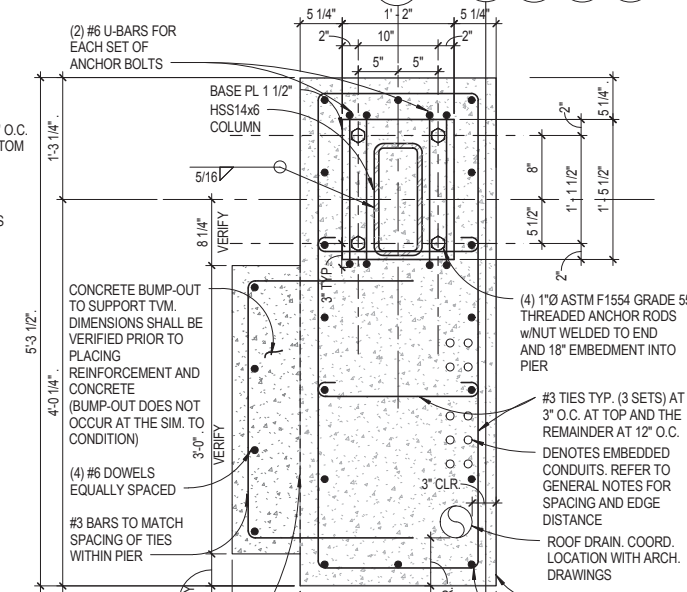
B2 MAT FOUNDATION CROSS SECTION - PLATFORM A
SCALE: 3/4" = 1'-0"



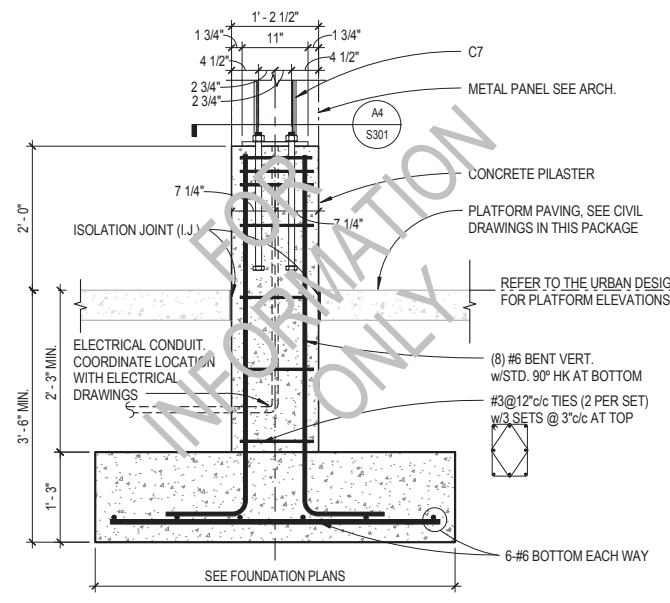
B4 SCREEN WALL AT MAT FOUNDATION
SCALE: 3/4" = 1'-0"



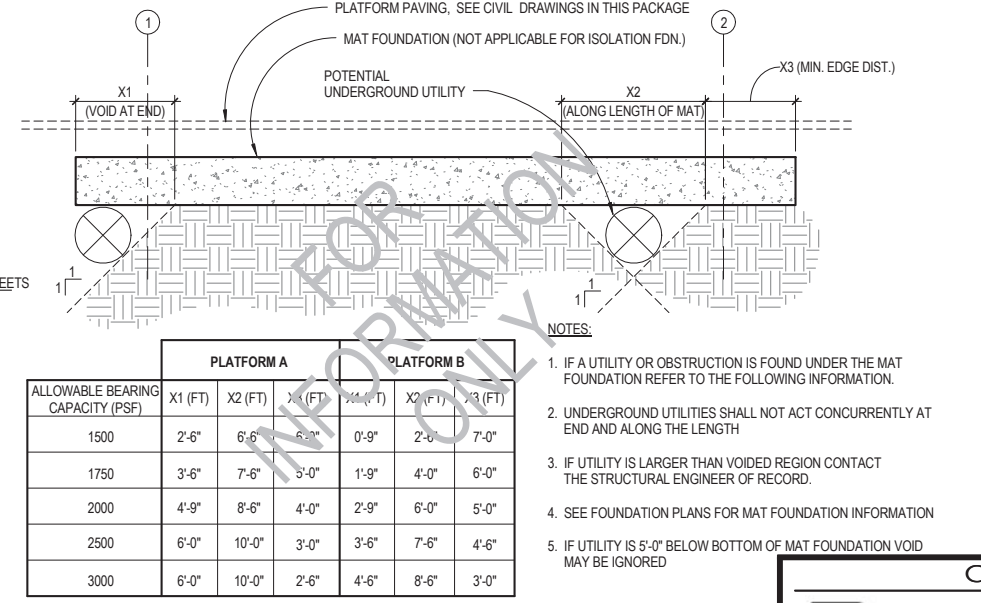
B5 CONCRETE PIER DETAIL
SCALE: 1" = 1'-0"



A1 SIGNAGE PILLAR FOUNDATION
SCALE: 3/4" = 1'-0"



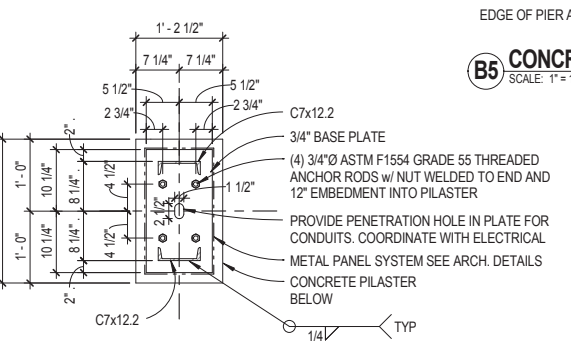
A2 ALLOWABLE MAT FOUNDATION VOIDS
SCALE: 1/4" = 1'-0"



ALLOWABLE BEARING CAPACITY (PSF)	PLATFORM A			PLATFORM B		
	X1 (FT)	X2 (FT)	X3 (FT)	X1 (FT)	X2 (FT)	X3 (FT)
1500	2'-6"	6'-6"	6'-3"	0'-9"	2'-0"	7'-0"
1750	3'-6"	7'-6"	3'-0"	1'-9"	4'-0"	6'-0"
2000	4'-9"	8'-6"	4'-0"	2'-9"	6'-0"	5'-0"
2500	6'-0"	10'-0"	3'-0"	3'-6"	7'-6"	4'-6"
3000	6'-0"	10'-0"	2'-6"	4'-6"	8'-6"	3'-0"

- NOTES:
- IF A UTILITY OR OBSTRUCTION IS FOUND UNDER THE MAT FOUNDATION REFER TO THE FOLLOWING INFORMATION.
 - UNDERGROUND UTILITIES SHALL NOT ACT CONCURRENTLY AT END AND ALONG THE LENGTH
 - IF UTILITY IS LARGER THAN VOIDED REGION CONTACT THE STRUCTURAL ENGINEER OF RECORD.
 - SEE FOUNDATION PLANS FOR MAT FOUNDATION INFORMATION
 - IF UTILITY IS 5'-0" BELOW BOTTOM OF MAT FOUNDATION VOID MAY BE IGNORED

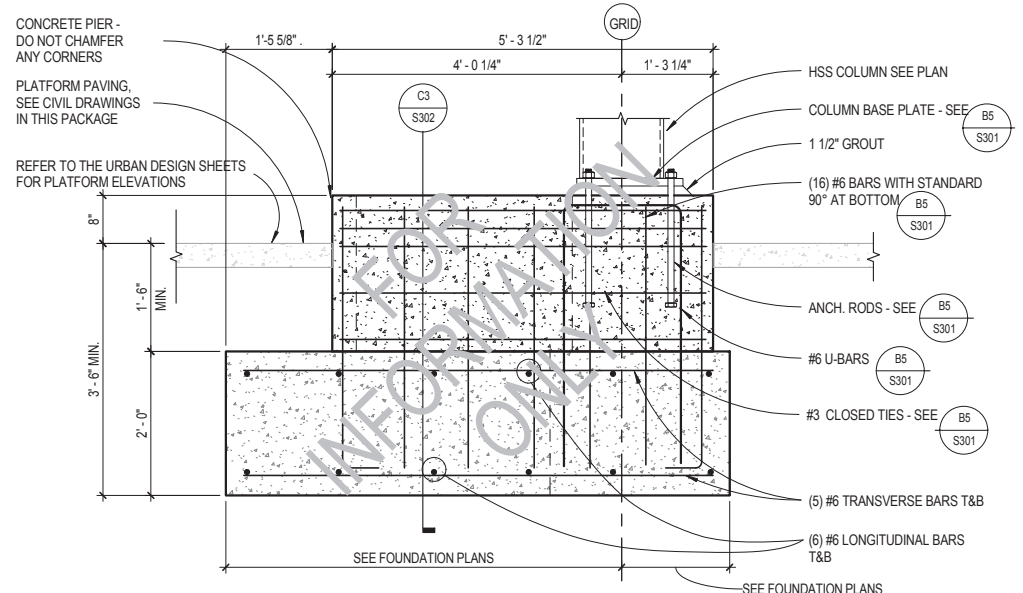
A4 SIGNAGE PILLAR BASE PLATE DETAIL
SCALE: 3/4" = 1'-0"



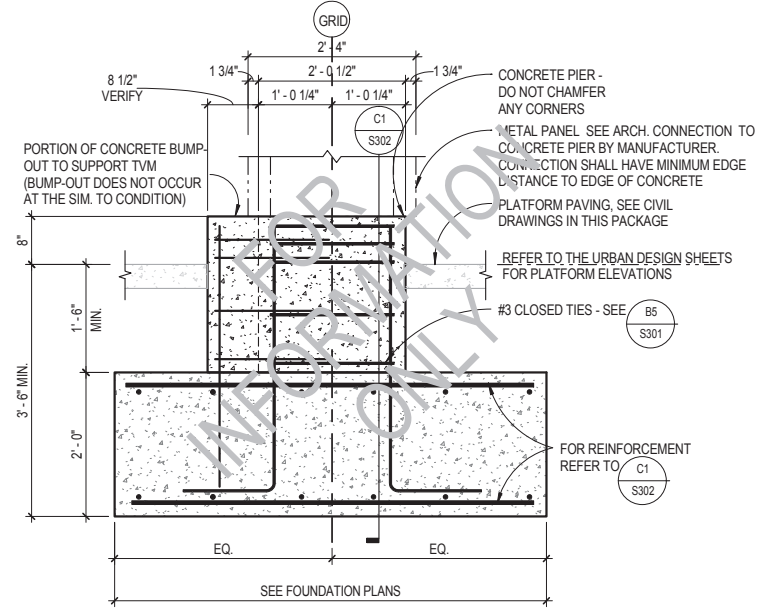
FOUNDATION SECTIONS S301



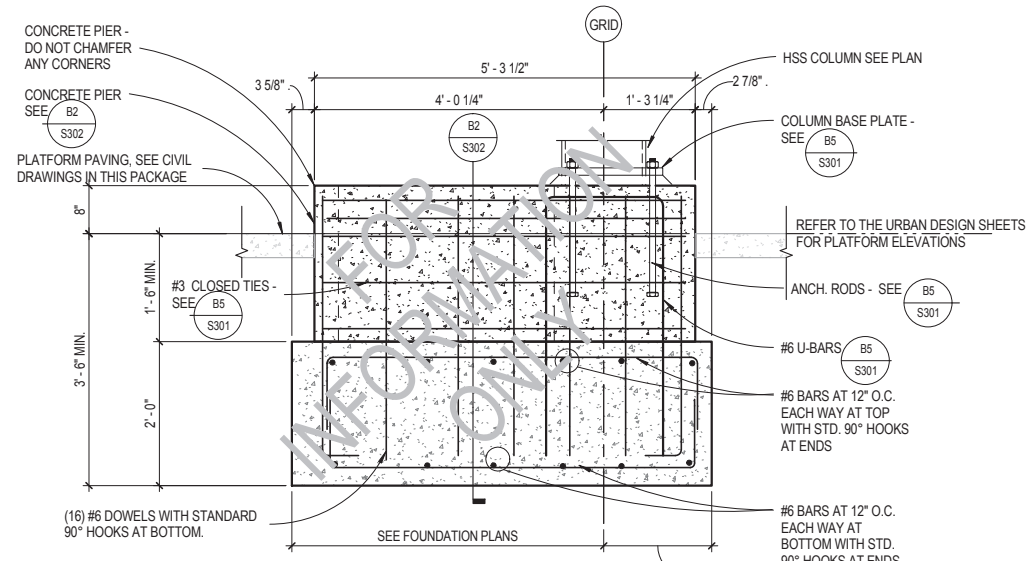
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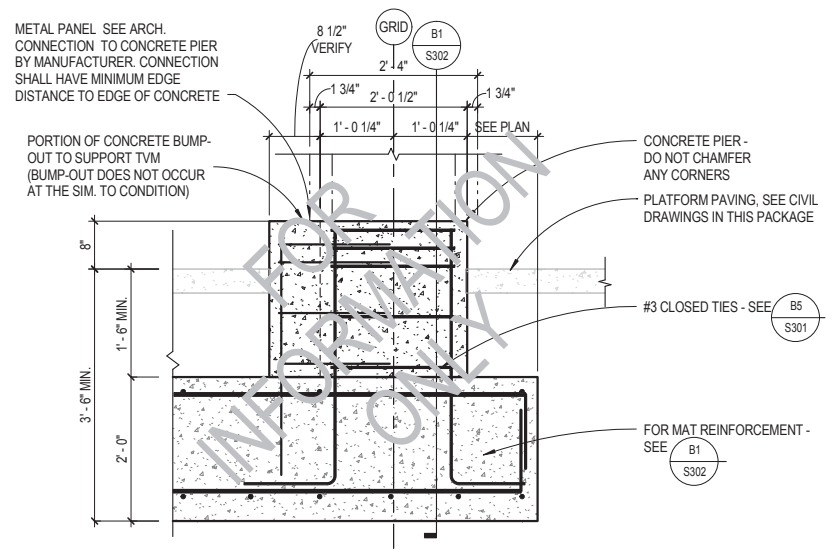
C1 ISOLATED FOUNDATION SECTION - PLATFORM B
SCALE: 3/4" = 1'-0"



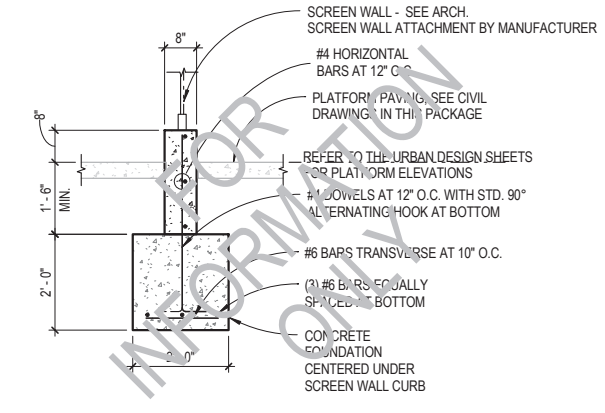
C3 ISOLATED FOUNDATION CROSS SECTION - PLATFORM B
SCALE: 3/4" = 1'-0"



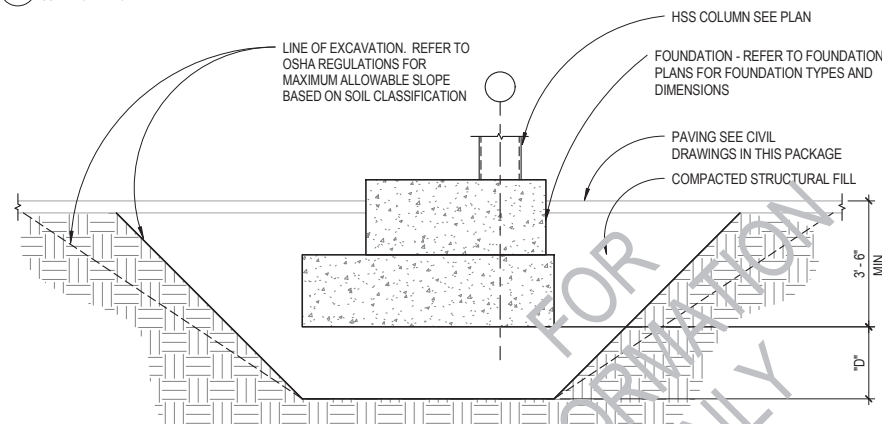
B1 MAT FOUNDATION SECTION - PLATFORM B
SCALE: 3/4" = 1'-0"



B2 MAT FOUNDATION CROSS SECTION - PLATFORM B
SCALE: 3/4" = 1'-0"



B4 SECTION THROUGH SCREEN WALL CURB
SCALE: 1/2" = 1'-0"



NOTE:
REFER TO INFORMATION IN THIS DETAIL FOR LOCATIONS THAT REQUIRE OVER EXCAVATION. THE DEPTH "D" OF EXCAVATION SHALL BE DETERMINED FROM INFORMATION IN THIS DETAIL AND COORDINATED WITH THE GEOTECHNICAL REPORT. UPON OVER EXCAVATION STRUCTURAL FILL SHALL BE PLACED AND COMPACTED PER THE GEOTECHNICAL REPORT PRIOR TO PLACEMENT OF CONCRETE FOUNDATION.

A1 OVEREXCAVATION DETAIL
SCALE: NONE

STATION LOCATIONS REQUIRING OVER EXCAVATION

20TH AND DODGE
REMOVE CONCRETE RUBBLE AND UNDERCUT THE FOUNDATIONS A MINIMUM OF 2'-0" BELOW THE BEARING SURFACE. THE UNDERCUT SHOULD ALSO EXTEND Laterally ONE FOOT FOR EVERY FOOT OF VERTICAL UNDERCUT AND BE REPLACED WITH CLEAN SOIL. IF RUBBLE IS STILL ENCOUNTERED FURTHER UNDERCUTTING SHALL BE COMPLETED TILL CLEAN SOILS ARE REACHED.

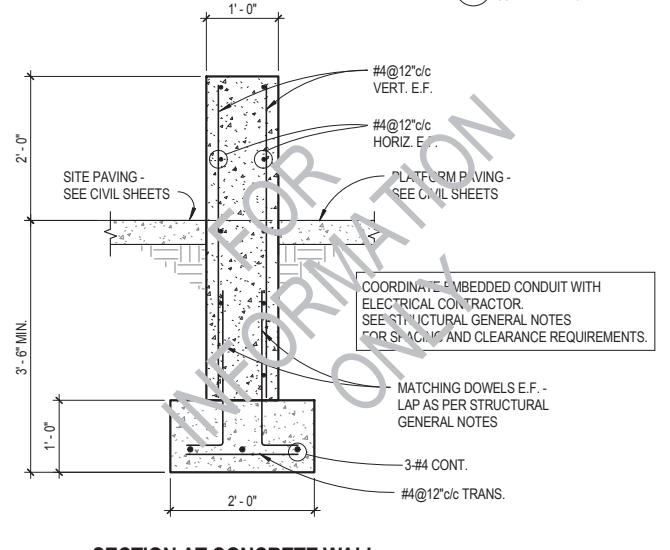
24TH AND DODGE
REMOVE SOFT MAN-PLACED FILL AND UNDERCUT THE FOUNDATION A MINIMUM OF 2'-0" BELOW THE BEARING SURFACE. THE UNDERCUT SHOULD ALSO EXTEND Laterally ONE FOOT FOR EVERY FOOT OF VERTICAL UNDERCUT AND RECOMPACTED AS STRUCTURAL FILL.

PARK AVE AND DODGE
REMOVE SOFT MAN-PLACED FILL AND UNDERCUT THE FOUNDATION A MINIMUM OF 2'-0" BELOW THE BEARING SURFACE. IF COARSE GRAINED DEPOSITS ARE ENCOUNTERED AT THE BASE OF THE UNDERCUT SHOULD BE OVER EXCAVATED DOWN TO FINE GRAINED SOILS. COARSE GRAINED MATERIALS SHALL BE REMOVED AND REPLACED WITH STRUCTURAL FILL.

90TH AND DODGE
REMOVE SOFT SOILS AND UNDERCUT THE FOUNDATION A MINIMUM OF 2'-0" BELOW THE BEARING SURFACE. THE UNDERCUT SHOULD ALSO EXTEND Laterally ONE FOOT FOR EVERY FOOT OF VERTICAL UNDERCUT. THE UNDERCUT MATERIAL SHOULD BE MOISTURE CONDITIONED AND RECOMPACTED AS STRUCTURAL FILL.

24TH AND DOUGLAS
IF SOFT MAN-PLACED FILL IS ENCOUNTERED AT THE BEARING SURFACE THE SOILS SHALL BE UNDERCUT AND RECOMPACTED

30TH AND DOUGLAS
REMOVE FAT CLAYS AND UNDERCUT THE FOUNDATIONS A MINIMUM OF 1'-6" BELOW THE BEARING SURFACE. THE UNDERCUT MATERIAL SHALL BE REMOVED AND REPLACED WITH A LOW-VOLUME CHANGE STRUCTURAL FILL.



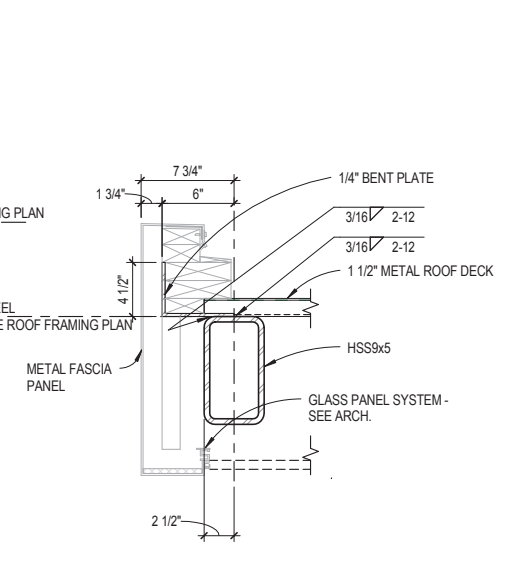
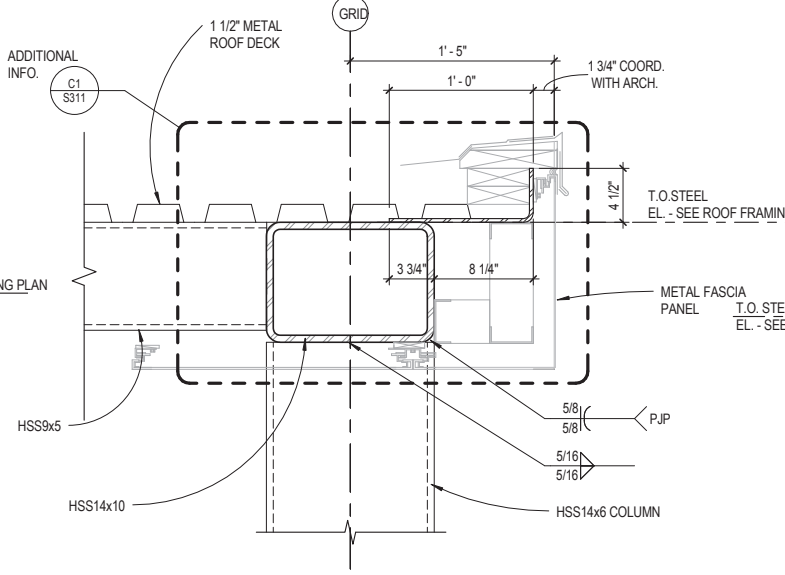
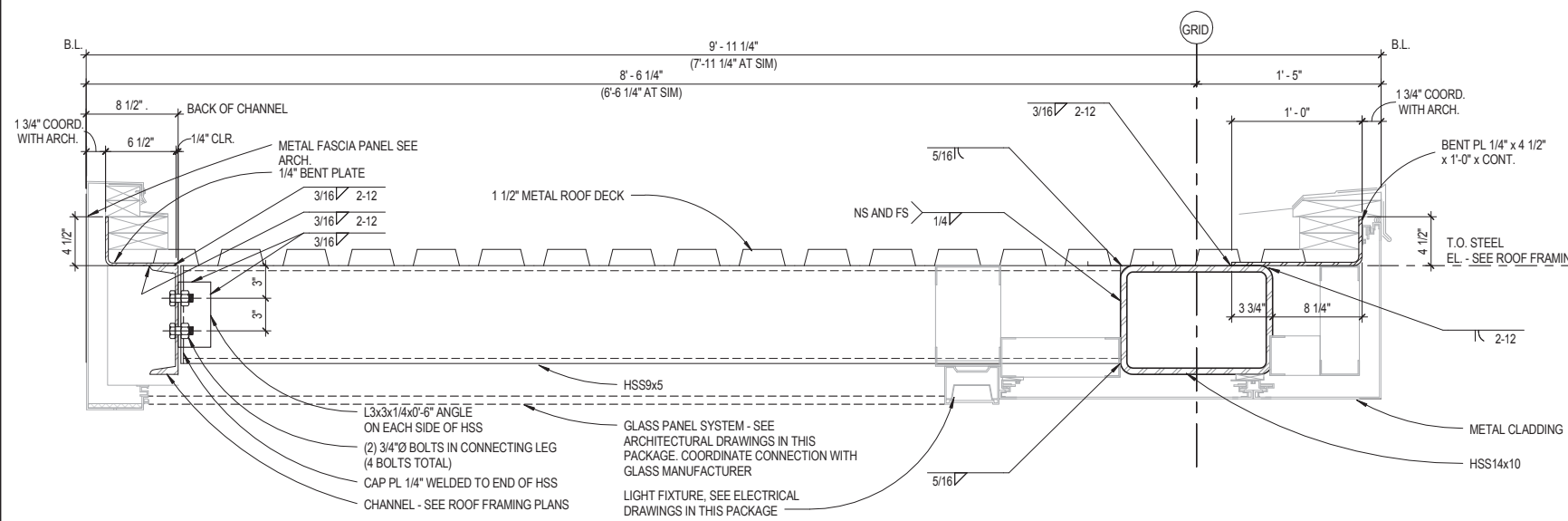
A3 SECTION AT CONCRETE WALL
SCALE: 3/4" = 1'-0"

FOUNDATION SECTIONS S302



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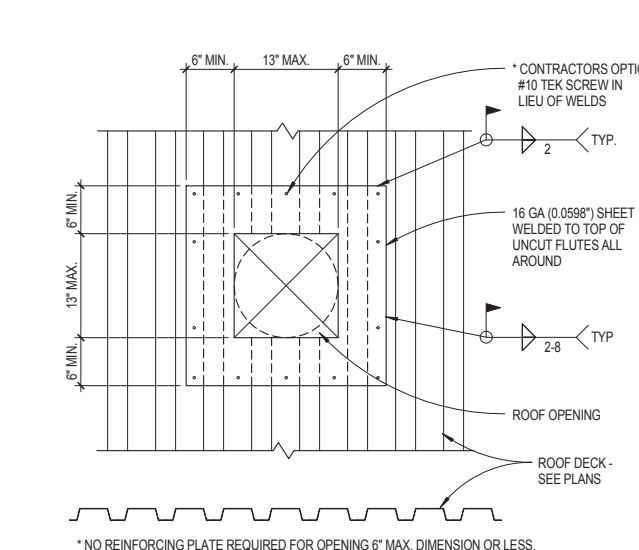
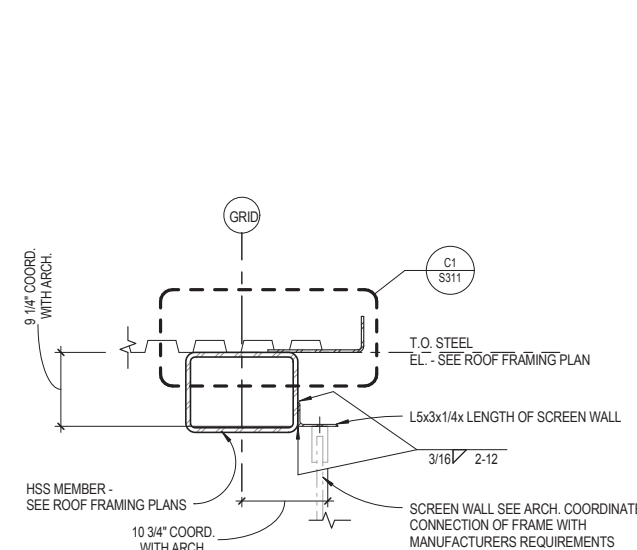
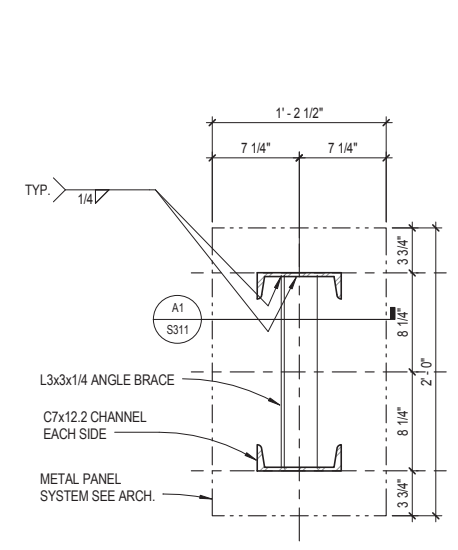
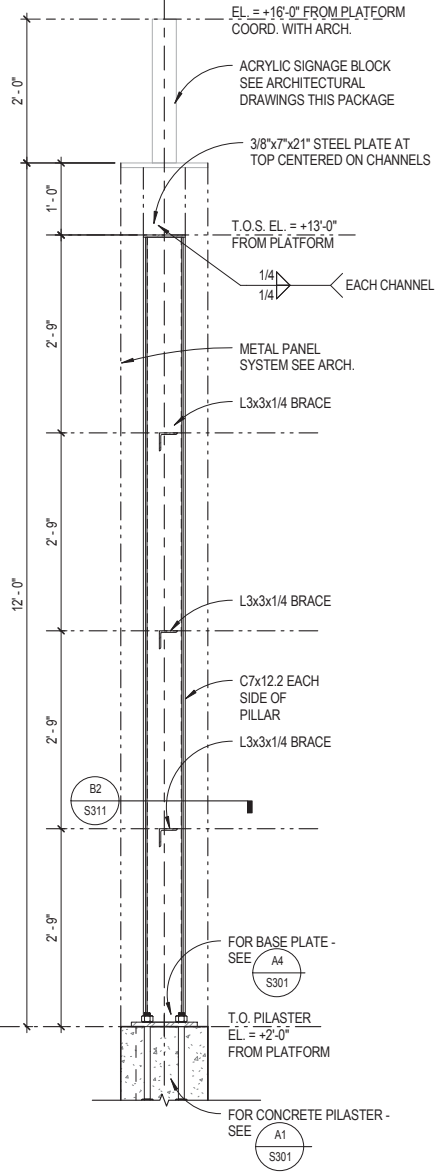
	CLIENT 2222 CUMING STREET OMAHA, NEBRASKA 68102 (402) 341-0800				NE-79-X001 OPW 53347	17 38
	12120 SHAMROCK PLZ, STE 100 OMAHA, NEBRASKA 68154					



C1 CROSS-SECTION THRU ROOF FRAMING
SCALE: 1 1/2" = 1'-0"

C3 FRAMING SECTION AT TOP OF COLUMN
SCALE: 1 1/2" = 1'-0"

C5 BEAM EDGE DETAIL
SCALE: 1 1/2" = 1'-0"

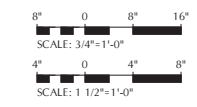


A1 FRAMING SECTION AT SIGNAGE PILLAR
SCALE: 3/4" = 1'-0"

A2 SCREEN WALL TO CHANNEL CONNECTION
SCALE: 3/4" = 1'-0"

A3 HSS GLASS SUPPORT CONNECTION
SCALE: 3/4" = 1'-0"

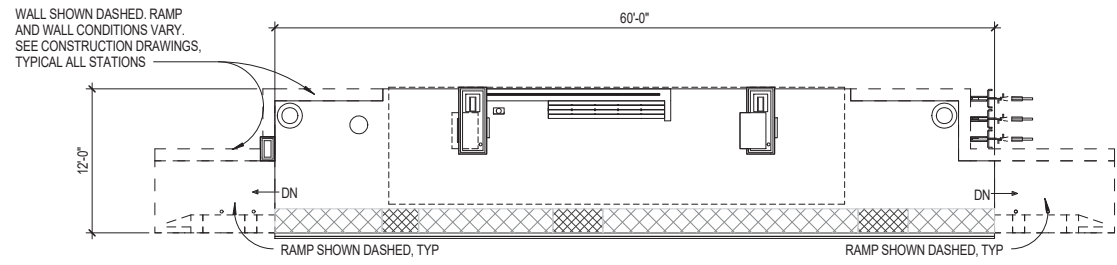
B4 ROOF DECK OPENINGS
SCALE: 1" = 1'-0"



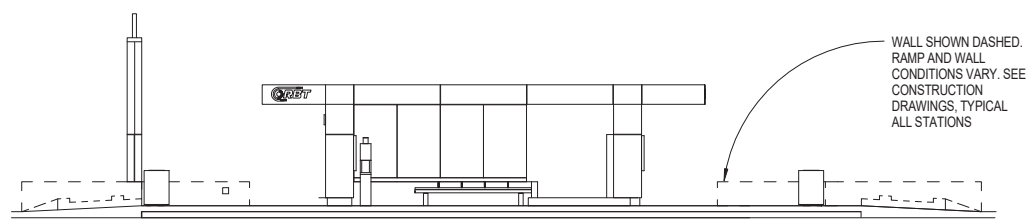
**FRAMING SECTIONS
S311**

	CLIENT				NE-79-X001 OPW 53347	18 38
	2222 CUMING STREET OMAHA, NEBRASKA 68102 (402) 341-0800					

7/16/2018 11:18:11 PM C:\Users\jwhite\Documents\Autodesk\Revit\2016\Projects\BRT-002-Struct\jwhite.rvt

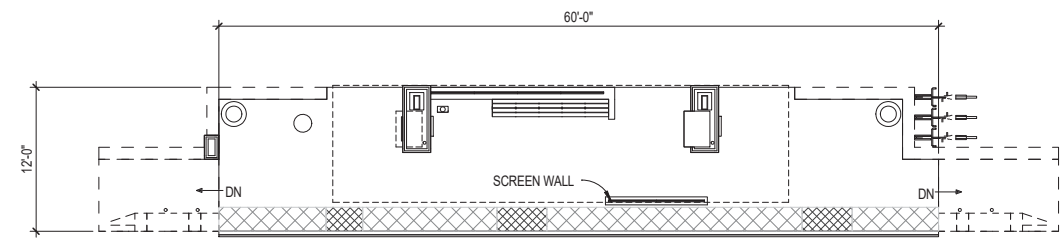


E1 LARGE PLATFORM TYPE - A
SCALE: 1/8" = 1'-0"

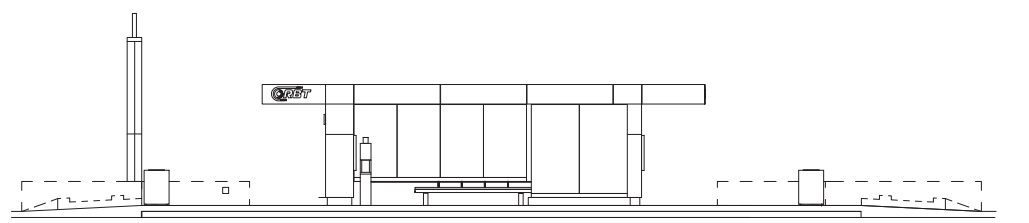


E3 ELEVATION LARGE PLATFORM TYPE - A
SCALE: 1/8" = 1'-0"

PLATFORM TYPE - A:
PLATFORM SIZE: 60'-0"L x 12'-0"W
CANOPY SIZE: 36'-11"L x 9'-11"W

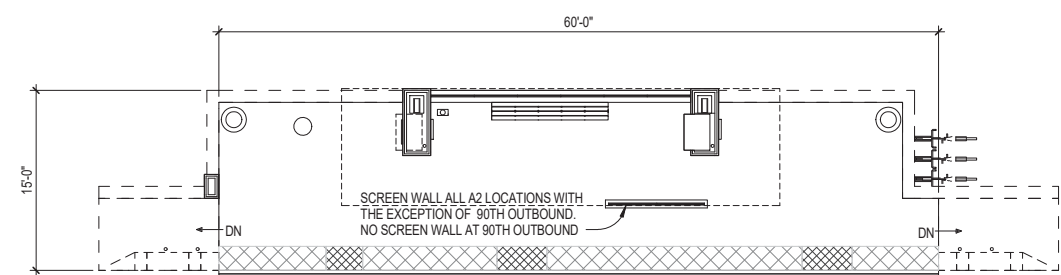


D1 LARGE PLATFORM TYPE - A1
SCALE: 1/8" = 1'-0"

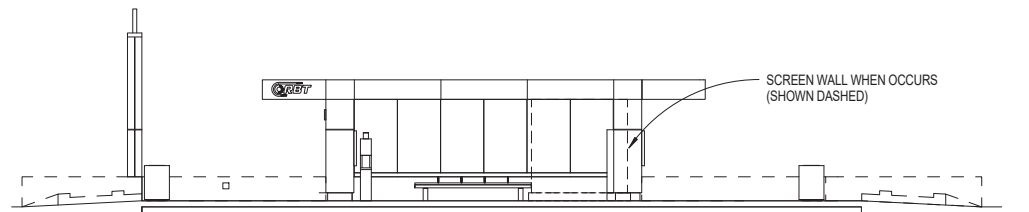


D3 ELEVATION LARGE PLATFORM TYPE - A1
SCALE: 1/8" = 1'-0"

PLATFORM TYPE - A1:
PLATFORM SIZE: 60'-0"L x 12'-0"W
CANOPY SIZE: 36'-11"L x 9'-11"W

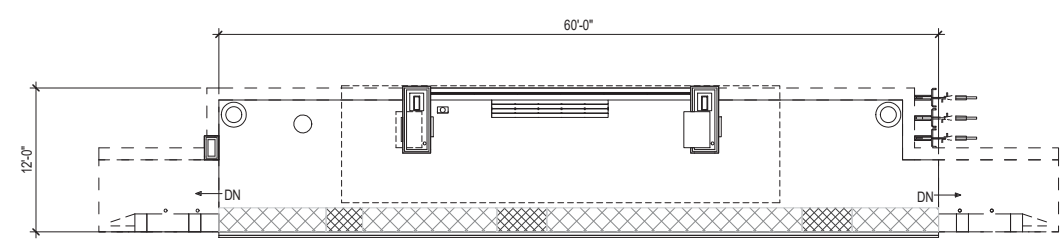


C1 LARGE PLATFORM TYPE - A2
SCALE: 1/8" = 1'-0"

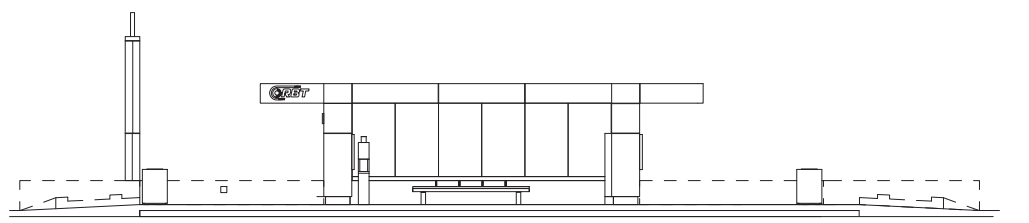


C3 ELEVATION LARGE PLATFORM TYPE - A2
SCALE: 1/8" = 1'-0"

PLATFORM TYPE - A2:
PLATFORM SIZE: 60'-0"L x 15'-0"W
CANOPY SIZE: 36'-11"L x 9'-11"W

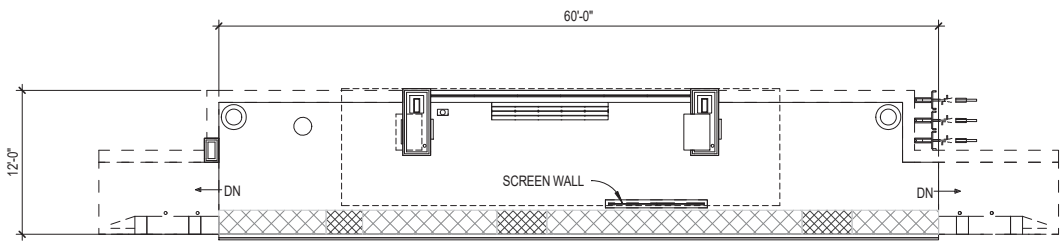


B1 LARGE PLATFORM TYPE - A3
SCALE: 1/8" = 1'-0"

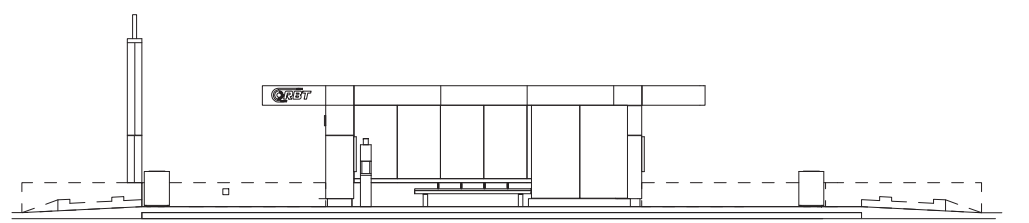


B3 ELEVATION LARGE PLATFORM TYPE - A3
SCALE: 1/8" = 1'-0"

PLATFORM TYPE - A3:
PLATFORM SIZE: 60'-0"L x 12'-0"W
CANOPY SIZE: 36'-11"L x 9'-11"W



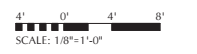
A1 LARGE PLATFORM TYPE - A4
SCALE: 1/8" = 1'-0"



A3 ELEVATION LARGE PLATFORM TYPE - A4
SCALE: 1/8" = 1'-0"

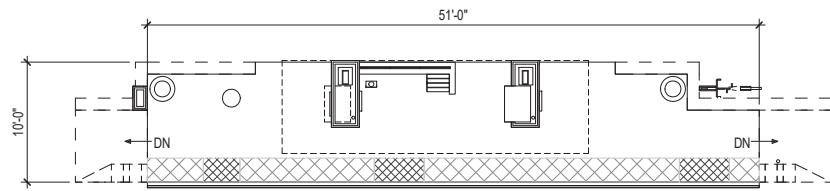
PLATFORM TYPE - A4:
PLATFORM SIZE: 60'-0"L x 12'-0"W
CANOPY SIZE: 36'-11"L x 9'-11"W

**PLATFORM SERIES - A
AE100**

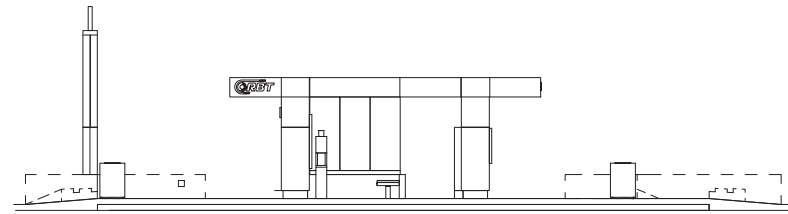


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	CLIENT					19 / 38
	2222 CUMING STREET OMAHA, NEBRASKA 68102 (402) 341-0800					

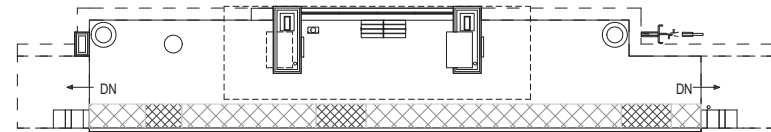


E1 SMALL PLATFORM TYPE - B
SCALE: 1/8" = 1'-0"

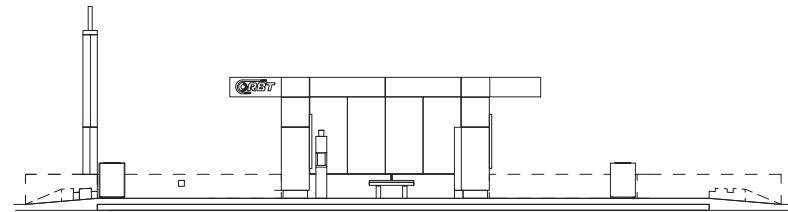


E3 ELEVATION SMALL PLATFORM TYPE - B
SCALE: 1/8" = 1'-0"

PLATFORM TYPE - B:
 PLATFORM SIZE: 51'-0"L x 10'-0"W
 CANOPY SIZE: 25'-11"L x 7'-11"W

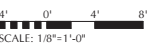


C1 SMALL PLATFORM TYPE - B2
SCALE: 1/8" = 1'-0"



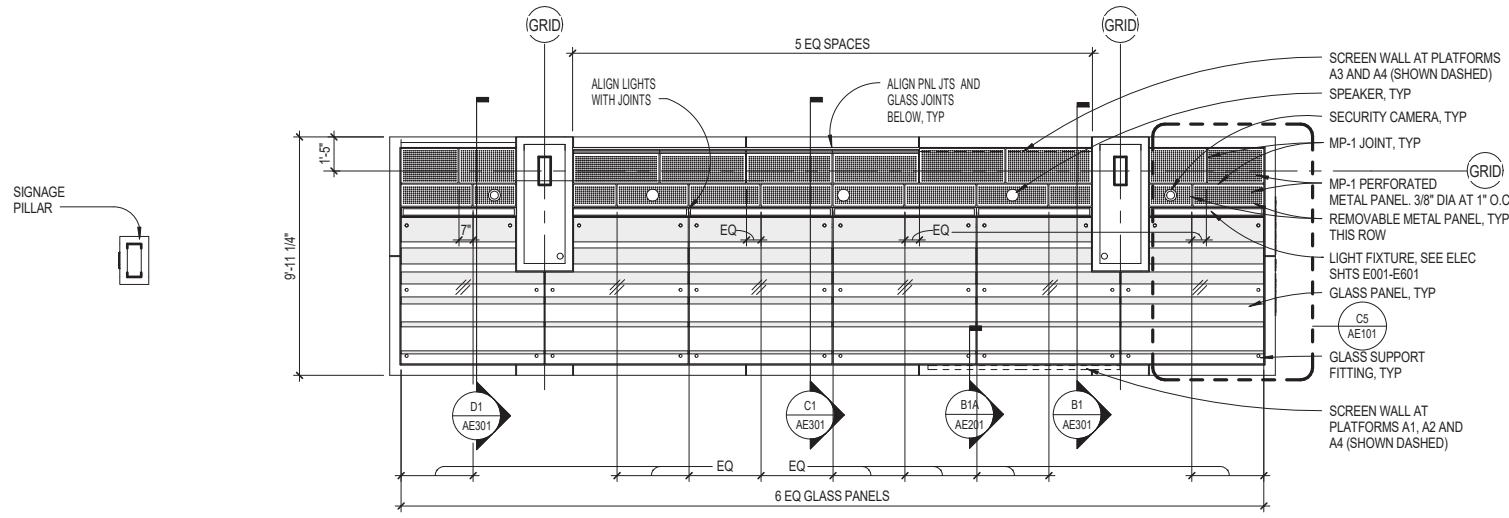
C3 ELEVATION SMALL PLATFORM TYPE - B2
SCALE: 1/8" = 1'-0"

PLATFORM TYPE - B2:
 PLATFORM SIZE: 51'-0"L x 10'-0"W
 CANOPY SIZE: 25'-11L x 7'-11"W

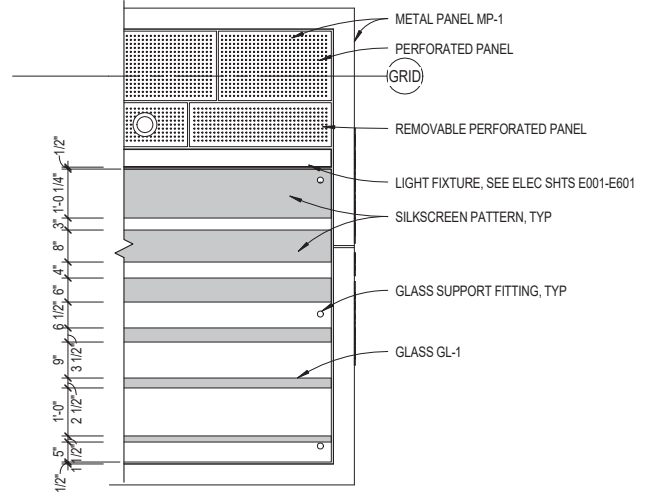


PLATFORM SERIES - B
AE100.1

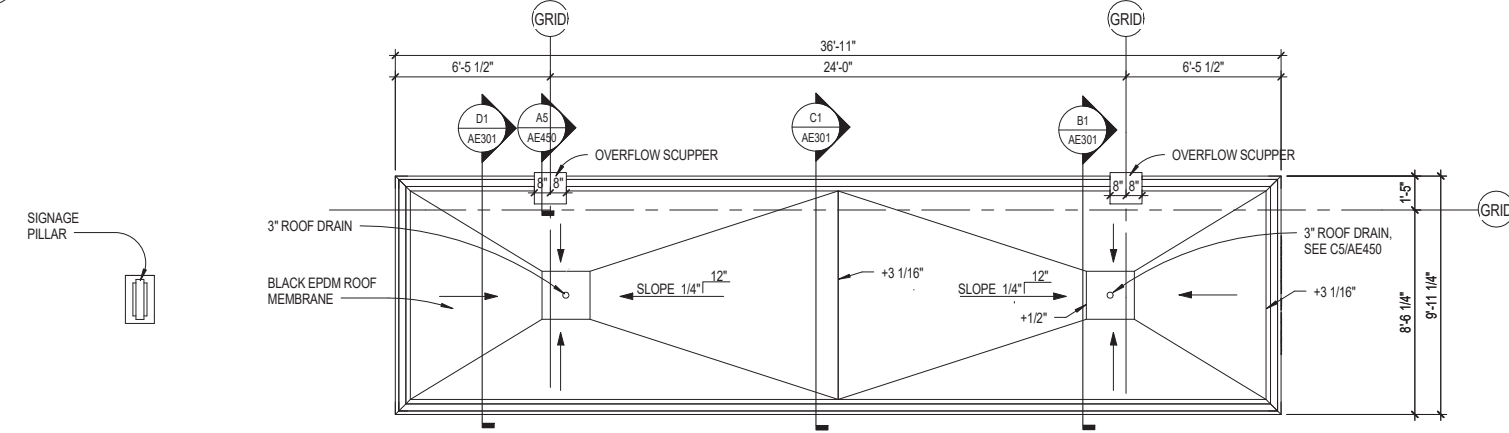
<p>CLIENT</p>  <p>2222 CUMING STREET OMAHA, NEBRASKA 68102 (402) 341-0800</p>	 <p>OMAHA RAPID BUS TRANSIT</p>	<p>AECOM</p> <p>12120 SHAMROCK PLZ, STE 100 OMAHA, NEBRASKA 68154</p>	<p>LEO A DAILY</p> <p>002-10178-000 8600 INDIAN HILLS DRIVE OMAHA, NE 68114-4039</p>	<p>NE-79-X001 OPW 53347</p>	<p>20 / 38</p>
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C2 CEILING PLAN PLATFORMS A, A1, A2, A3 AND A4
SCALE: 1/4" = 1'-0"

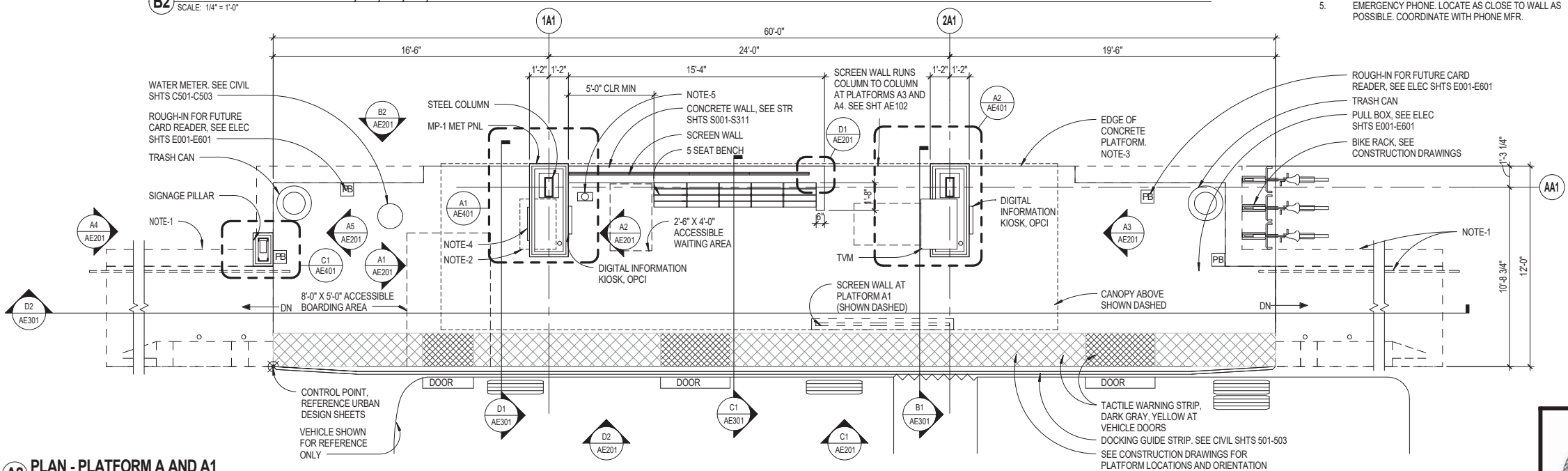


C5 RCP DETAIL PLATFORM A, A1, A2, A3 AND A4
SCALE: 1/2" = 1'-0"

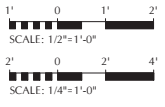


B2 ROOF PLAN - PLATFORM A, A1, A2, A3, AND A4
SCALE: 1/4" = 1'-0"

- SHEET NOTES:**
1. CONCRETE WALL, RAMP, BOLLARD AND HANDRAIL WHEN OCCURS (SHOWN DASHED), LAYOUTS VARY. SEE CONSTRUCTION DRAWINGS, TYP ALL LOCATIONS.
 2. PROVIDE ELECTRICAL ROUGH-IN FOR FUTURE TVM. FUTURE TVM NIC. SEE ELEC SHTS E001-E601.
 3. STEP WHEN OCCURS. SEE CONSTRUCTION DRAWINGS FOR LOCATIONS AND EXTENT. AT STEP PROVIDE AND INSTALL 2" WIDE, BLACK ANTI-SLIP ABRASIVE TAPE MEETING ADA AND OSHA STANDARDS. TAPE TO BE 3M SERIES 600 OR EQUAL.
 4. DIGITAL SLOT SIGN OPCI CENTERED ABOVE TVM OR FUTURE TVM WHERE OCCURS.
 5. EMERGENCY PHONE. LOCATE AS CLOSE TO WALL AS POSSIBLE. COORDINATE WITH PHONE MFR.



A2 PLAN - PLATFORM A AND A1
SCALE: 1/4" = 1'-0"



**PLATFORM A AND A1 PLANS, ROOF PLAN, CEILING PLAN
AE101**

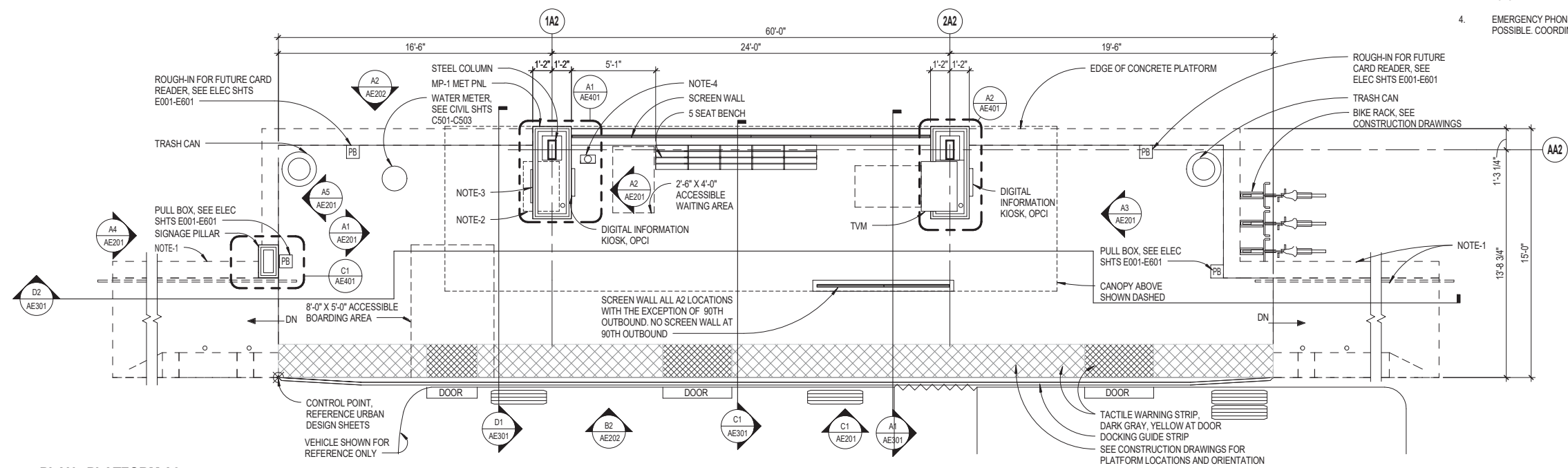


	CLIENT					21 / 38
	2222 CUMING STREET OMAHA, NEBRASKA 68102 (402) 341-0800					

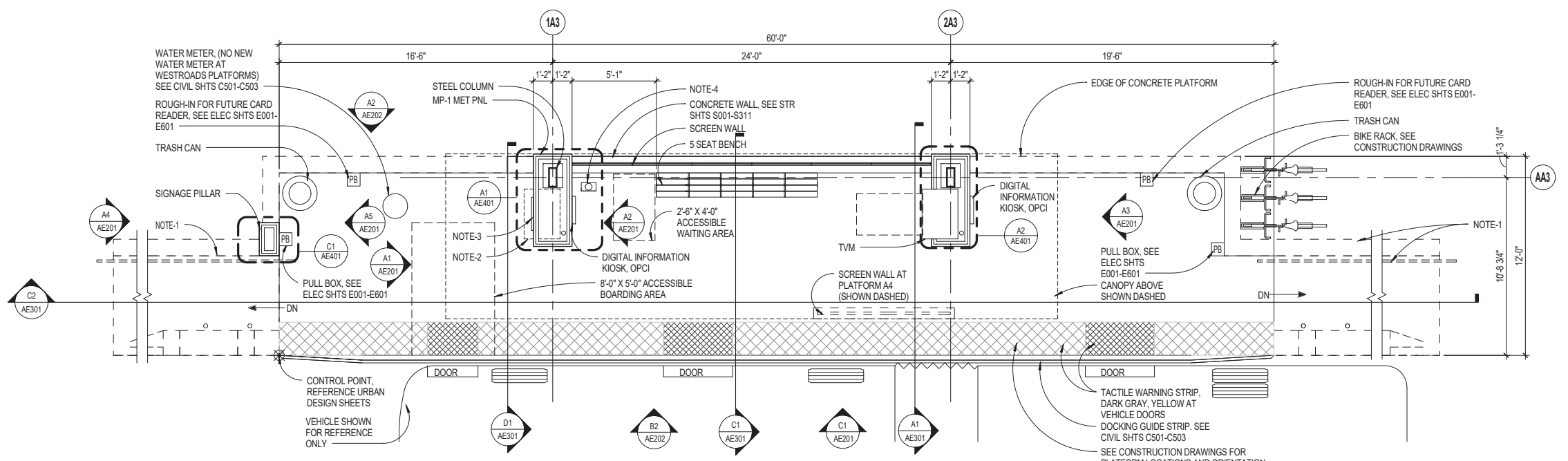
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SHEET NOTES:

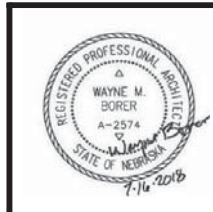
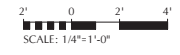
1. CONCRETE WALL, RAMP, BOLLARD AND HANDRAIL WHEN OCCURS (SHOWN DASHED). LAYOUTS VARY. SEE CONSTRUCTION DRAWINGS, TYP ALL LOCATIONS.
2. INSTALL TVM OPCI AT LEFT COLUMN AT THE 72ND STREET PLATFORMS. PROVIDE ELECTRICAL ROUGH-IN FOR FUTURE TVM OTHER LOCATIONS. FUTURE TVM NIC. SEE ELECTRICAL SHEETS E001-E601.
3. DIGITAL SLOT SIGN OPCI CENTERED ABOVE TVM OR FUTURE TVM WHERE OCCURS.
4. EMERGENCY PHONE. LOCATE AS CLOSE TO WALL AS POSSIBLE. COORDINATE WITH PHONE MANUFACTURER.



B2 PLAN - PLATFORM A2
SCALE: 1/4" = 1'-0"



A2 PLAN - PLATFORMS A3 AND A4
SCALE: 1/4" = 1'-0"

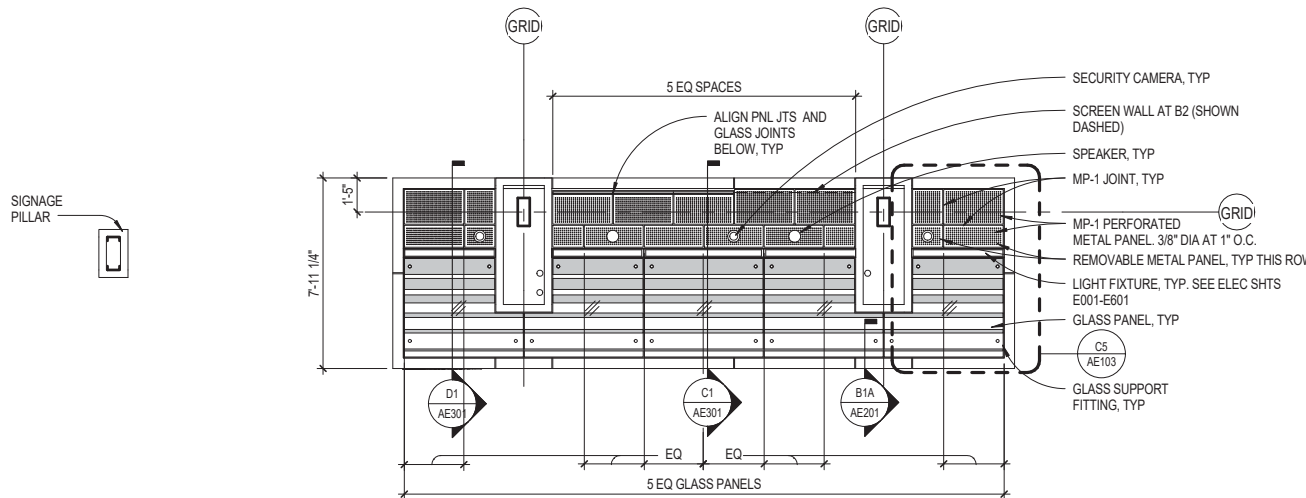


PLATFORM A2, A3 AND A4 PLANS
AE102

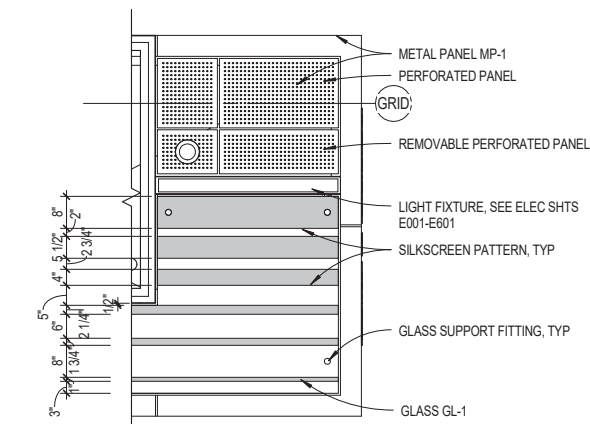
	CLIENT					22 / 38
	2222 CUMING STREET OMAHA, NEBRASKA 68102 (402) 341-0800					

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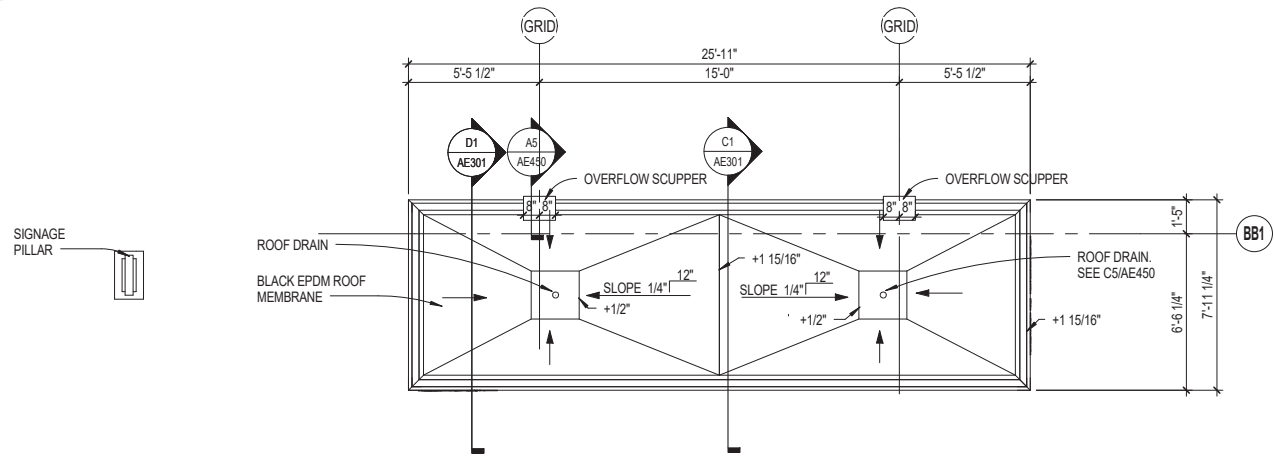
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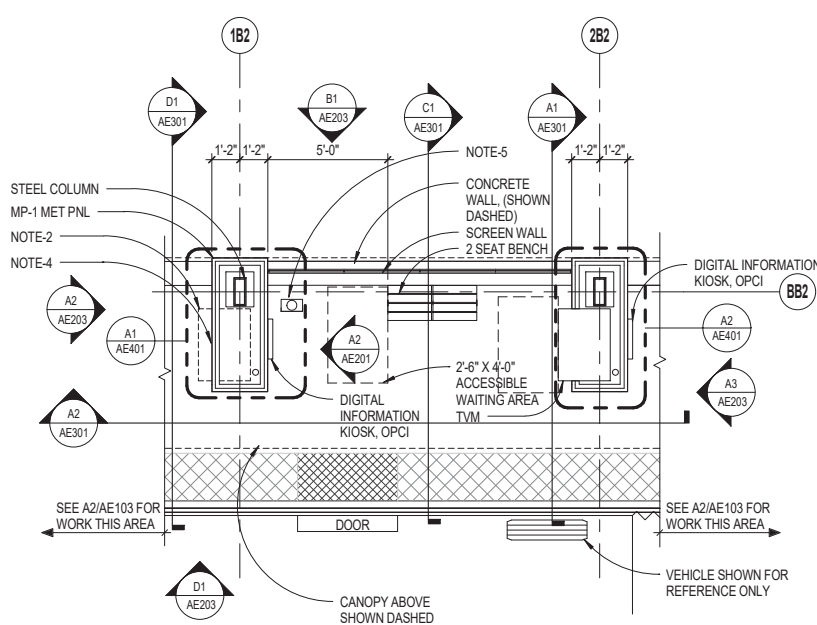
C2 CEILING PLAN PLATFORMS B AND B2
SCALE: 1/4" = 1'-0"



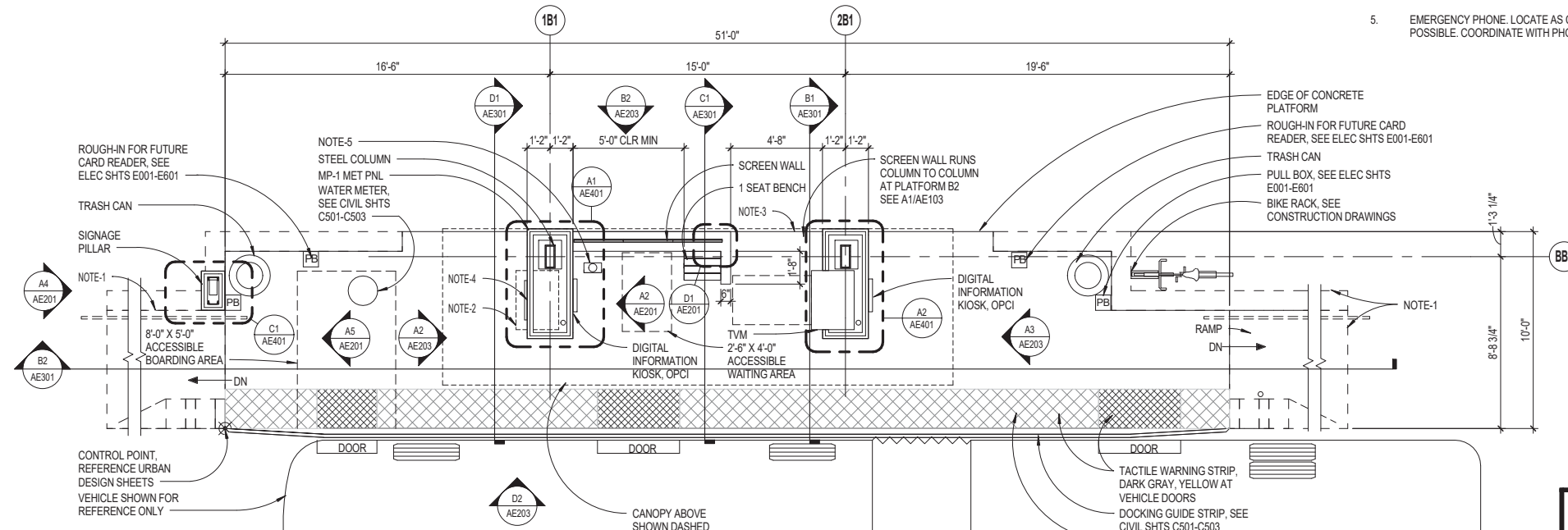
C5 CEILING PLAN DETAIL PLATFORM B AND B2
SCALE: 1/2" = 1'-0"



B2 ROOF PLAN - PLATFORM B AND B2
SCALE: 1/4" = 1'-0"

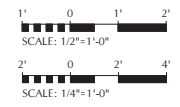


A1 PLAN - PLATFORM B2
SCALE: 1/4" = 1'-0"



A2 PLAN - PLATFORM B
SCALE: 1/4" = 1'-0"

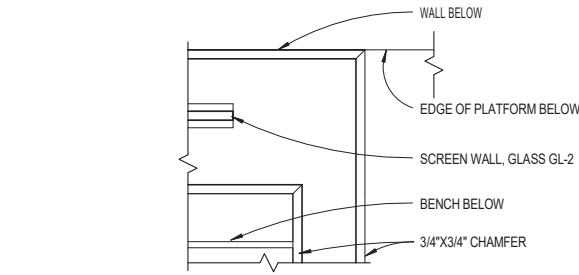
- SHEET NOTES:**
1. CONCRETE WALL, RAMP, BOLLARD AND HANDRAIL WHEN OCCURS (SHOWN DASHED), LAYOUTS VARY. SEE CONSTRUCTION DRAWINGS, TYP ALL LOCATIONS.
 2. PROVIDE ELECTRICAL ROUGH-IN FOR FUTURE TVM. FUTURE TVM NIC. SEE ELECTRICAL SHEETS E001-E601.
 3. STEP WHEN OCCURS. SEE CONSTRUCTION DRAWINGS FOR LOCATIONS AND EXTENT. AT STEP PROVIDE AND INSTALL 2" WIDE, BLACK, SOLID ANTI-SLIP ABRASIVE TAPE MEETING ADA AND OSHA STANDARDS. TAPE TO BE 3M 600 SERIES OR EQUAL.
 4. DIGITAL SLOT OPC SIGN CENTERED ABOVE FUTURE TVM.
 5. EMERGENCY PHONE LOCATE AS CLOSE TO WALL AS POSSIBLE. COORDINATE WITH PHONE MFR.



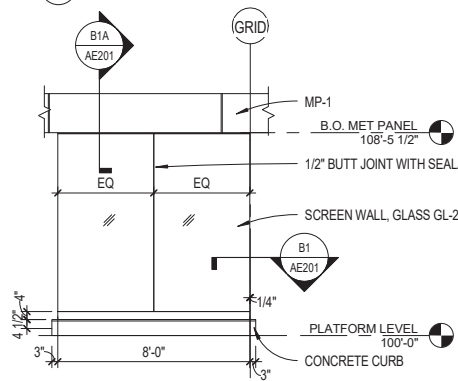
**PLATFORM B AND B2 PLANS, ROOF PLAN AND CEILING PLAN
AE103**



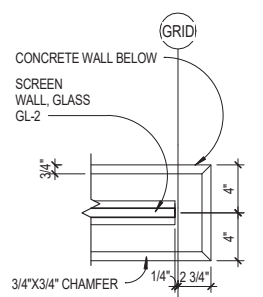
	CLIENT					23 / 38
	2222 CUMING STREET OMAHA, NEBRASKA 68102 (402) 341-0800					



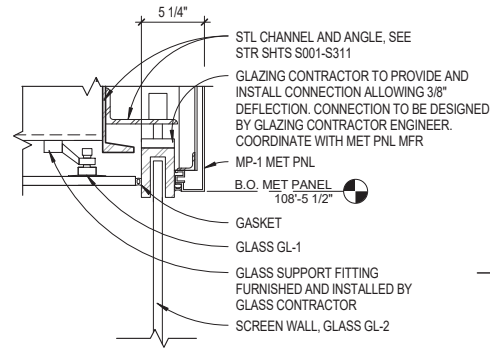
D1 JAMB AT SCREEN WALL
SCALE: 1 1/2" = 1'-0"



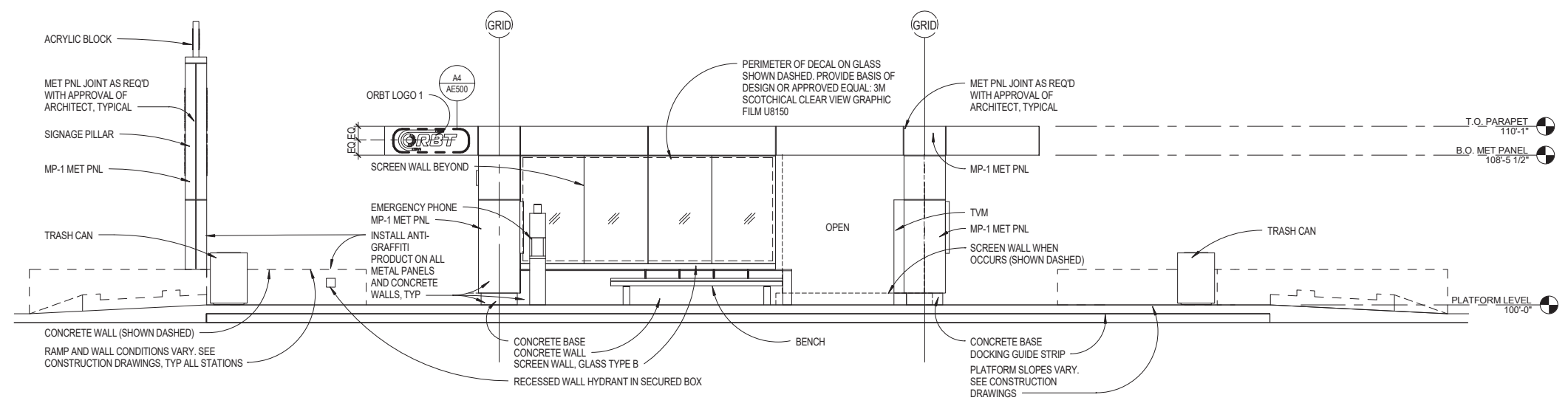
C1 SCREEN WALL
SCALE: 1/4" = 1'-0"



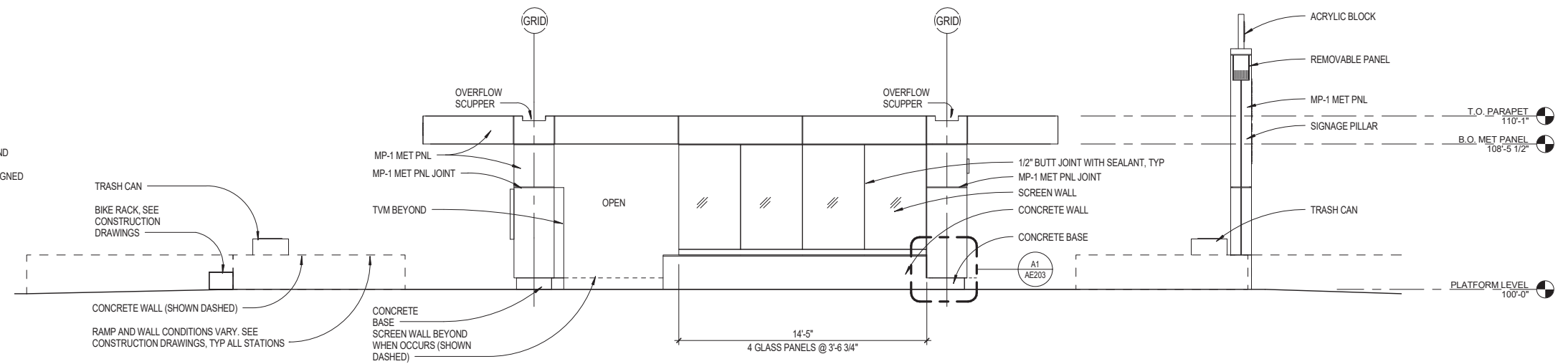
B1 SCREEN WALL JAMB
SCALE: 1 1/2" = 1'-0"



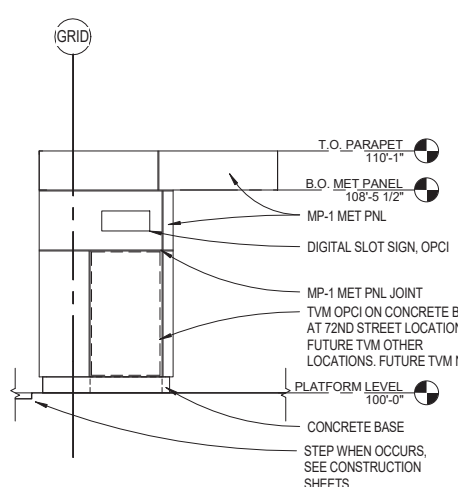
B1A SCREEN WALL HEAD
SCALE: 1 1/2" = 1'-0"



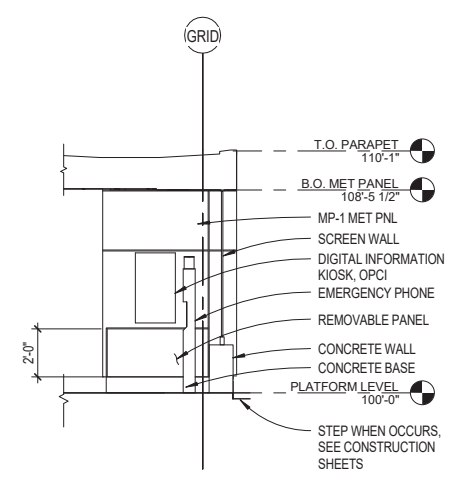
D2 FRONT ELEVATION - PLATFORMS A AND A1
SCALE: 1/4" = 1'-0"



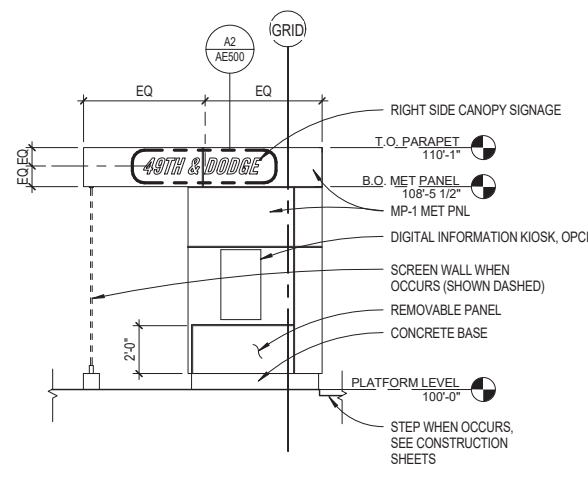
B2 BACK ELEVATION - PLATFORM A AND A1
SCALE: 1/4" = 1'-0"



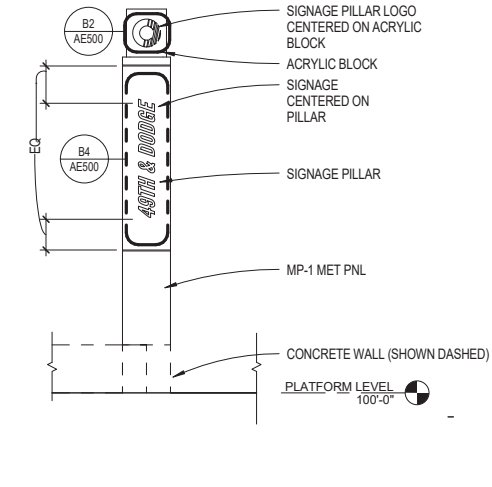
A1 LEFT SIDE CANOPY ELEVATION
SCALE: 1/4" = 1'-0"



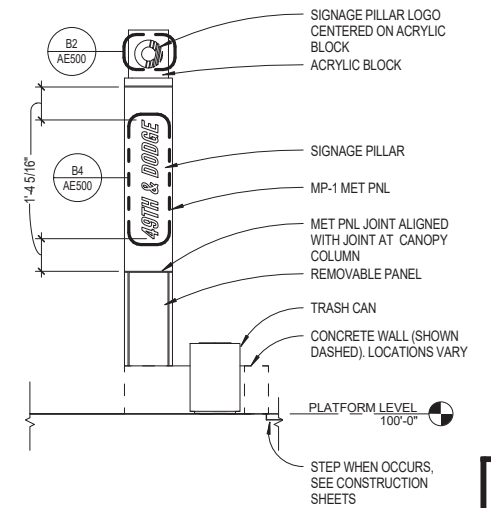
A2 COLUMN ELEVATION
SCALE: 1/4" = 1'-0"



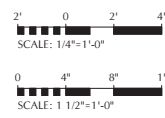
A3 RIGHT SIDE CANOPY ELEVATION
SCALE: 1/4" = 1'-0"



A4 LEFT SIDE SIGNAGE PILLAR ELEVATION
SCALE: 1/4" = 1'-0"



A5 RIGHT SIDE SIGNAGE PILLAR ELEVATION
SCALE: 1/4" = 1'-0"



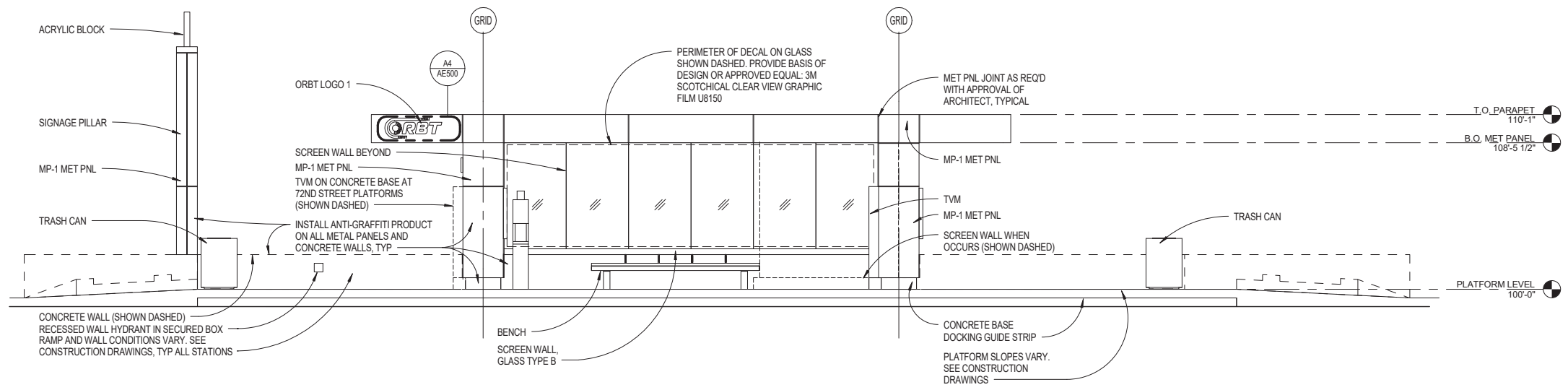
**PLATFORM ELEVATIONS
AE201**



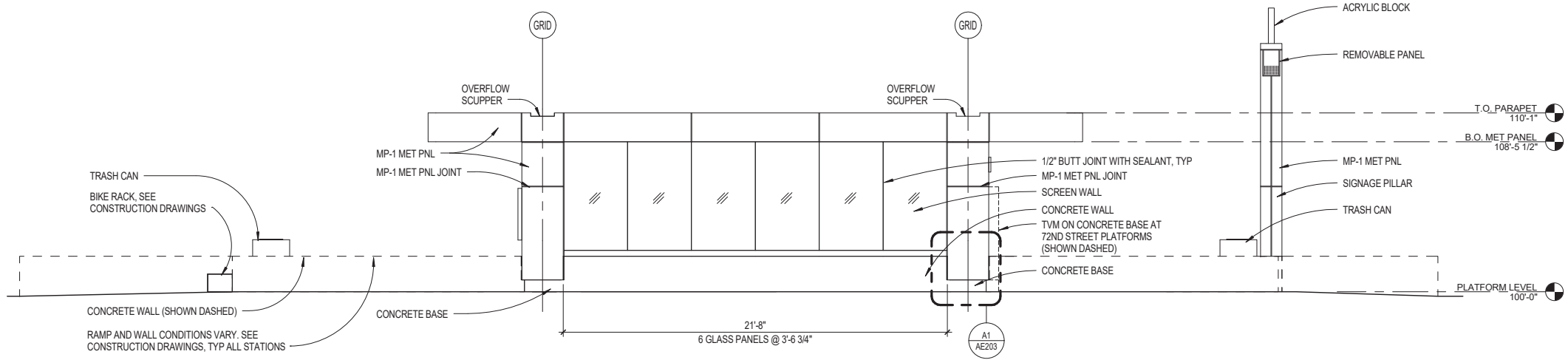
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	CLIENT					24 / 38
	2222 CUMING STREET OMAHA, NEBRASKA 68102 (402) 341-0800					

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B2 FRONT ELEVATION - PLATFORMS A2, A3 AND A4
SCALE: 1/4" = 1'-0"



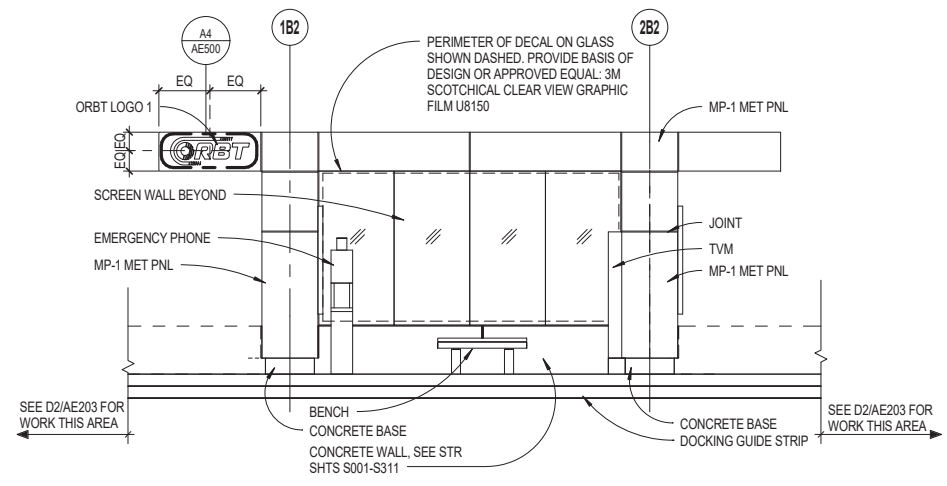
A2 BACK ELEVATION - PLATAFORMS A2, A3 AND A4
SCALE: 1/4" = 1'-0"

2" 0 2" 4"
SCALE: 1/4" = 1'-0"

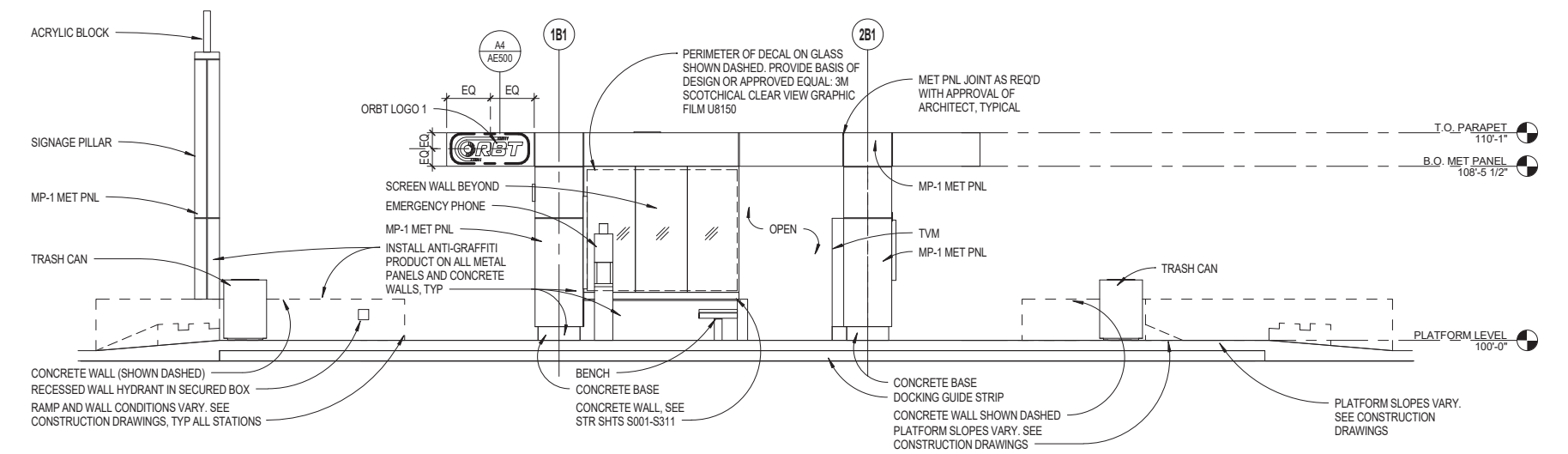
**PLATFORM ELEVATIONS
AE202**



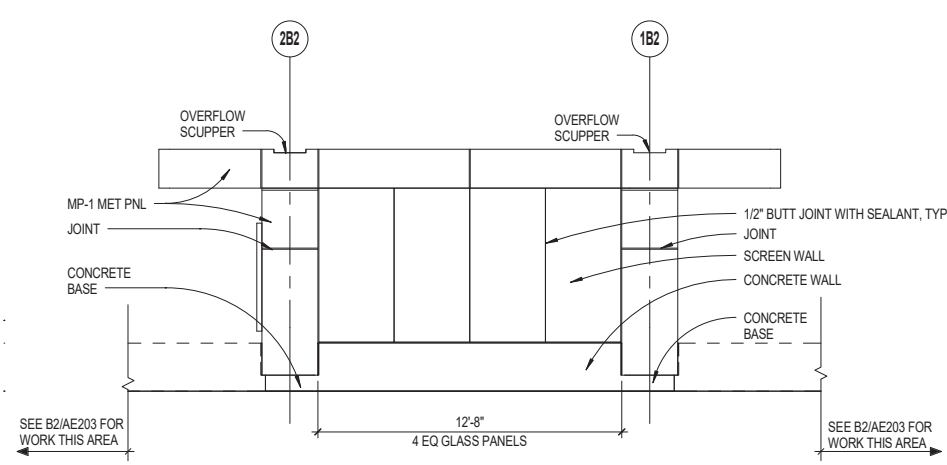
	CLIENT					25 / 38
	2222 CUMING STREET OMAHA, NEBRASKA 68102 (402) 341-0800					



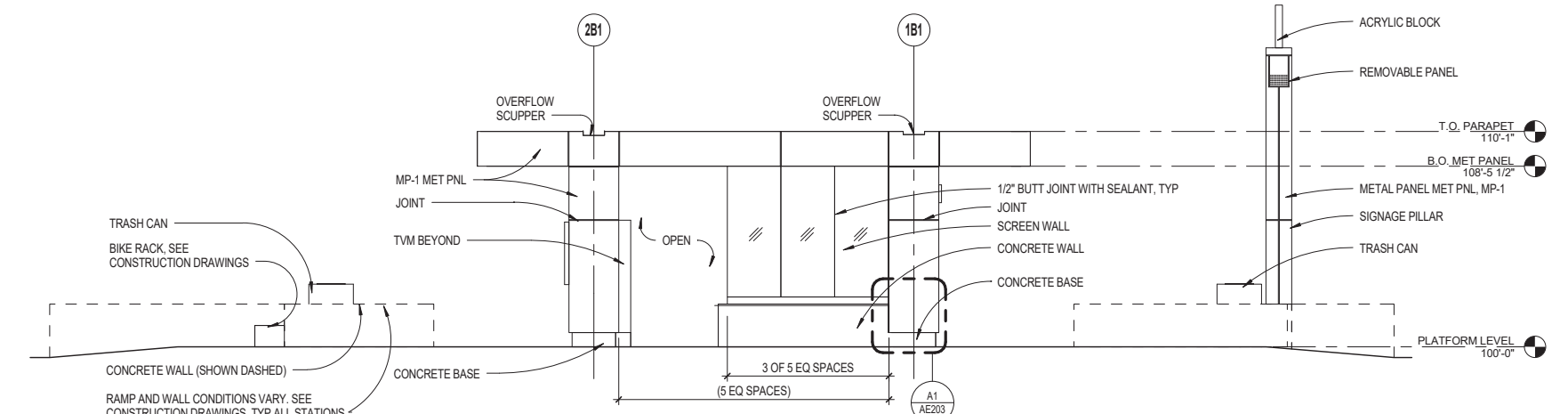
D1 FRONT ELEVATION - PLATFORM B2
SCALE: 1/4" = 1'-0"



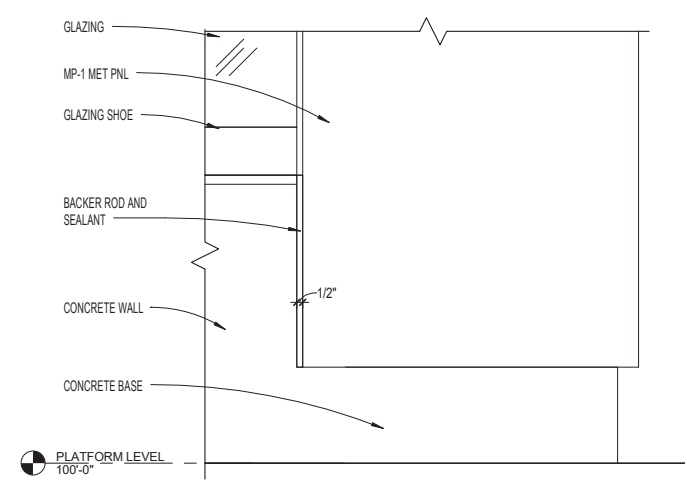
D2 FRONT ELEVATION - PLATFORM B
SCALE: 1/4" = 1'-0"



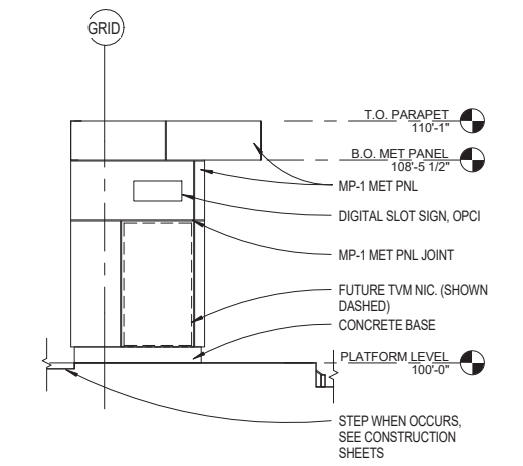
B1 BACK ELEVATION - PLATFORM B2
SCALE: 1/4" = 1'-0"



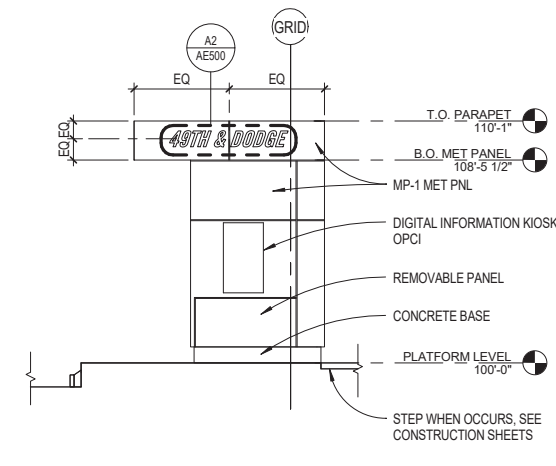
B2 BACK ELEVATION - PLATFORM B
SCALE: 1/4" = 1'-0"



A1 BACK ELEVATION - DETAIL
SCALE: 1 1/2" = 1'-0"

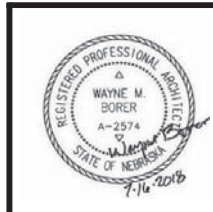


A2 LEFT SIDE CANOPY ELEVATION PLATFORMS B AND B2
SCALE: 1/4" = 1'-0"



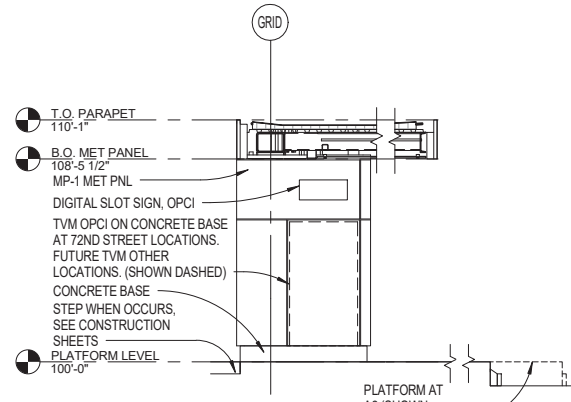
A3 RIGHT SIDE CANOPY ELEVATION PLATFORMS B AND B2
SCALE: 1/4" = 1'-0"

**PLATFORM ELEVATIONS
AE203**

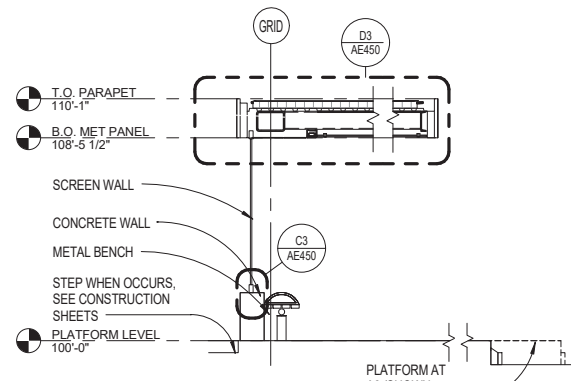


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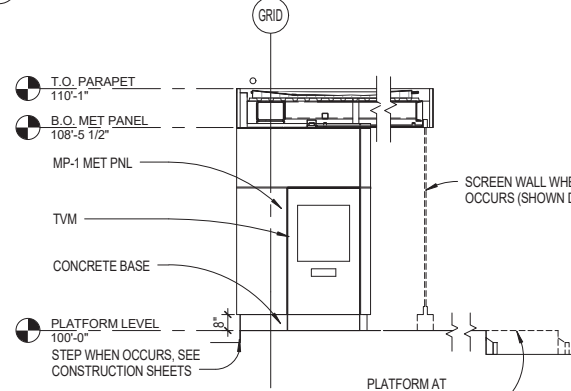
	CLIENT					26 / 38
	2222 CUMING STREET OMAHA, NEBRASKA 68102 (402) 341-0800					



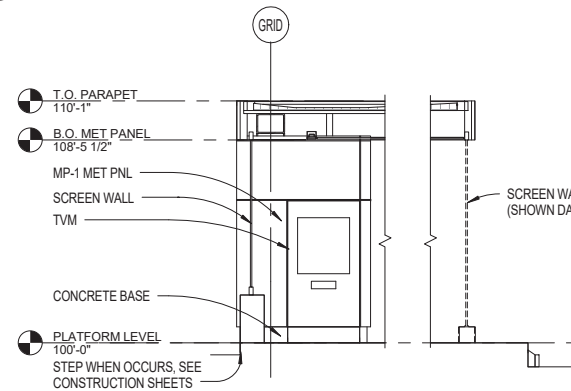
D1 SECTION @ LEFT COLUMN
SCALE: 1/4" = 1'-0"



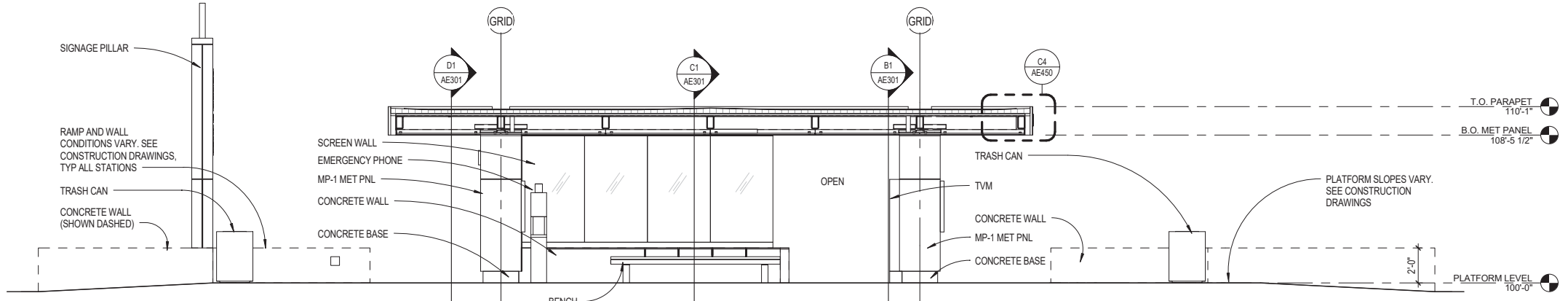
C1 SECTION @ BENCH
SCALE: 1/4" = 1'-0"



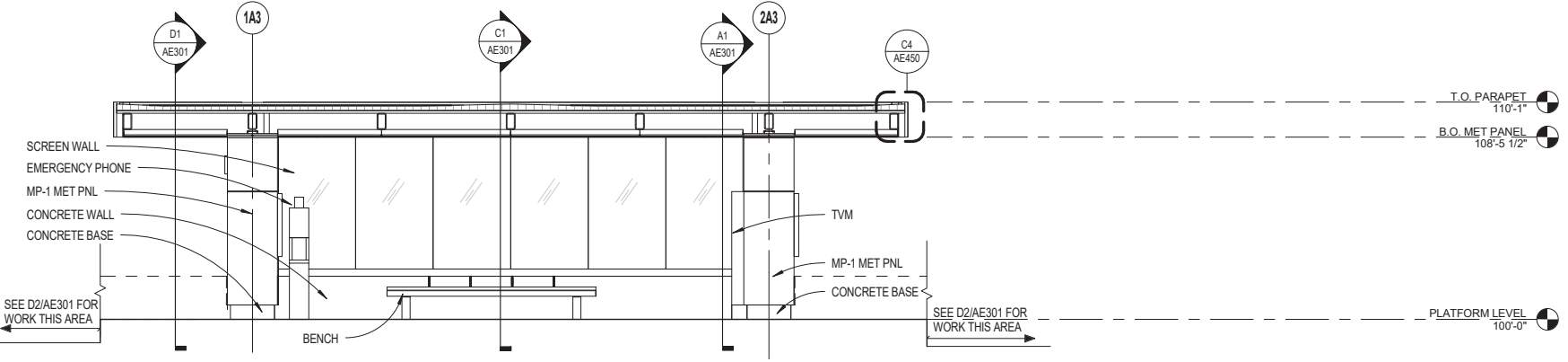
B1 SECTION @ TVM
SCALE: 1/4" = 1'-0"



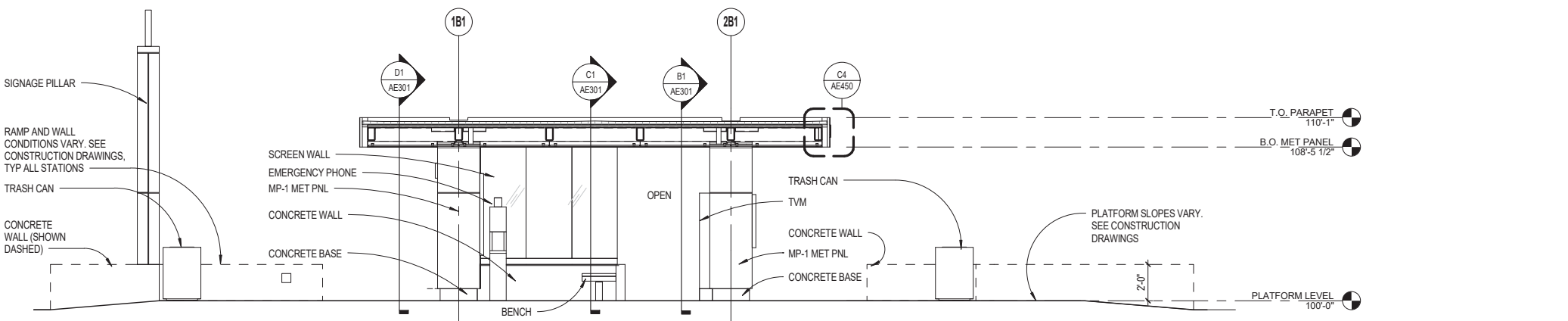
A1 SECTION @ TVM PLATFORMS A3, A4 AND B2
SCALE: 1/4" = 1'-0"



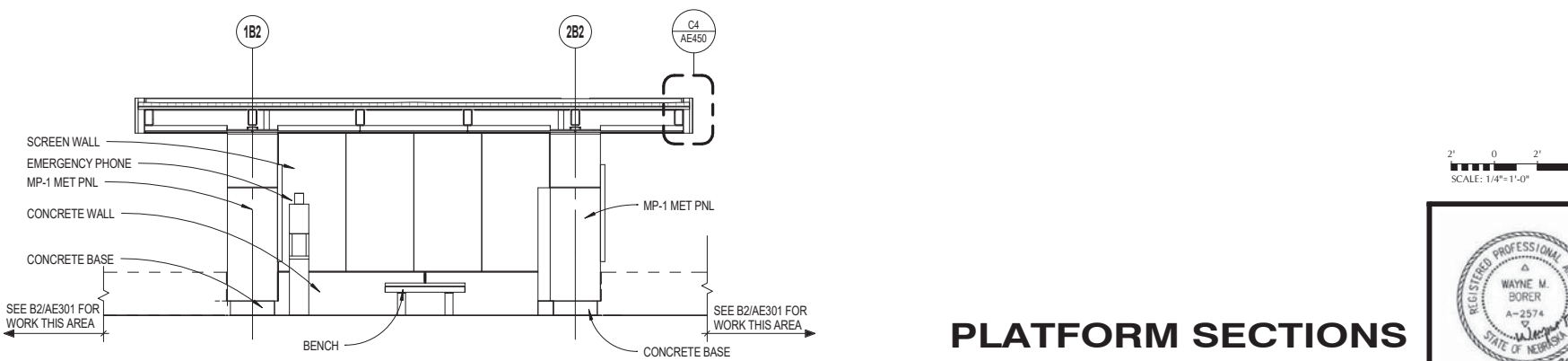
D2 LONGITUDINAL SECTION A, A1 AND A2
SCALE: 1/4" = 1'-0"



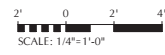
C2 LONGITUDINAL SECTION A3 AND A4
SCALE: 1/4" = 1'-0"



B2 LONGITUDINAL SECTION B AND B1
SCALE: 1/4" = 1'-0"



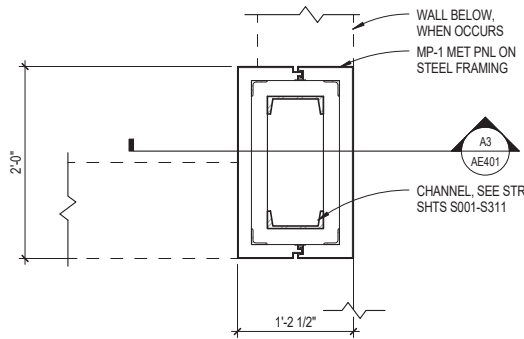
A2 LONGITUDINAL SECTION B2
SCALE: 1/4" = 1'-0"



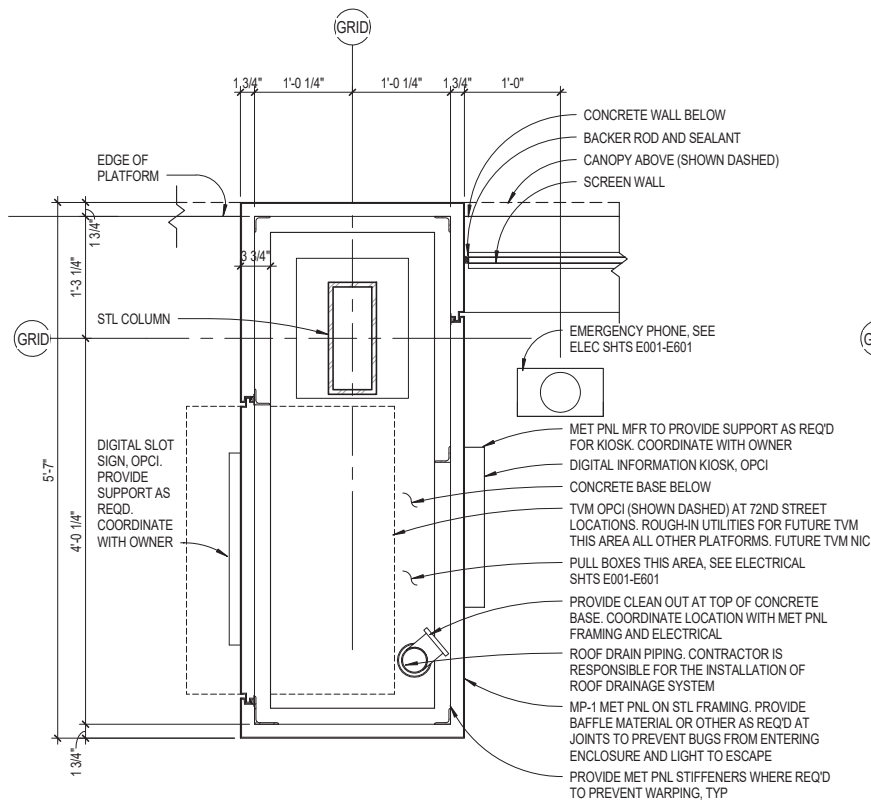
**PLATFORM SECTIONS
AE301**

	CLIENT				NE-79-X001 OPW 53347	27 38
	2222 CUMING STREET OMAHA, NEBRASKA 68102 (402) 341-0800					

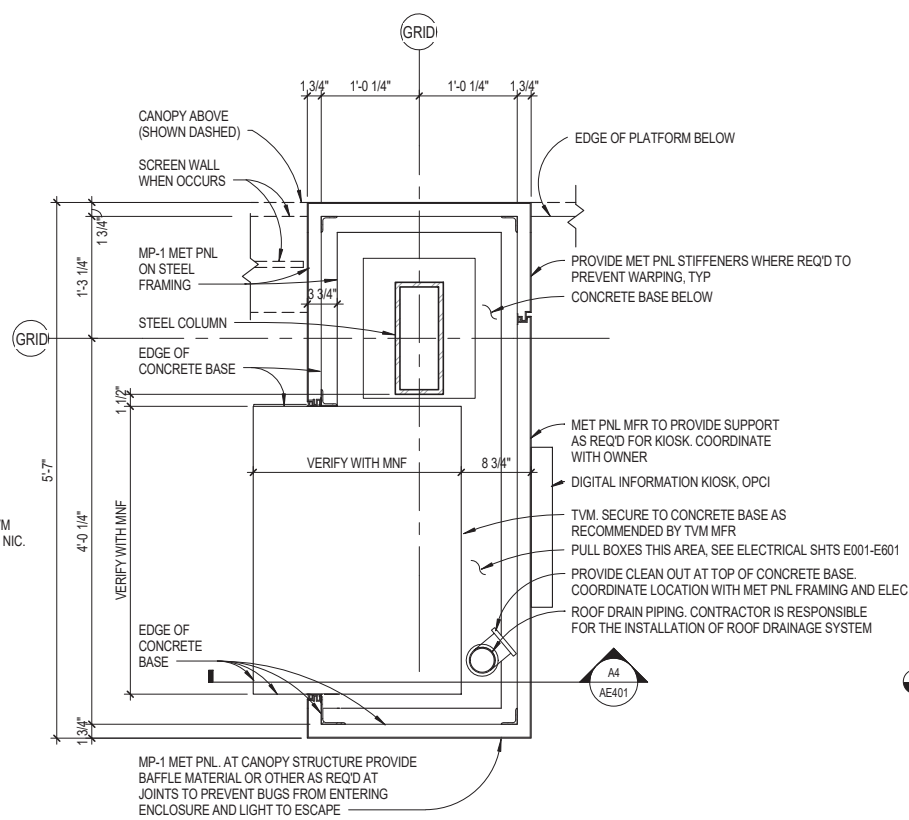
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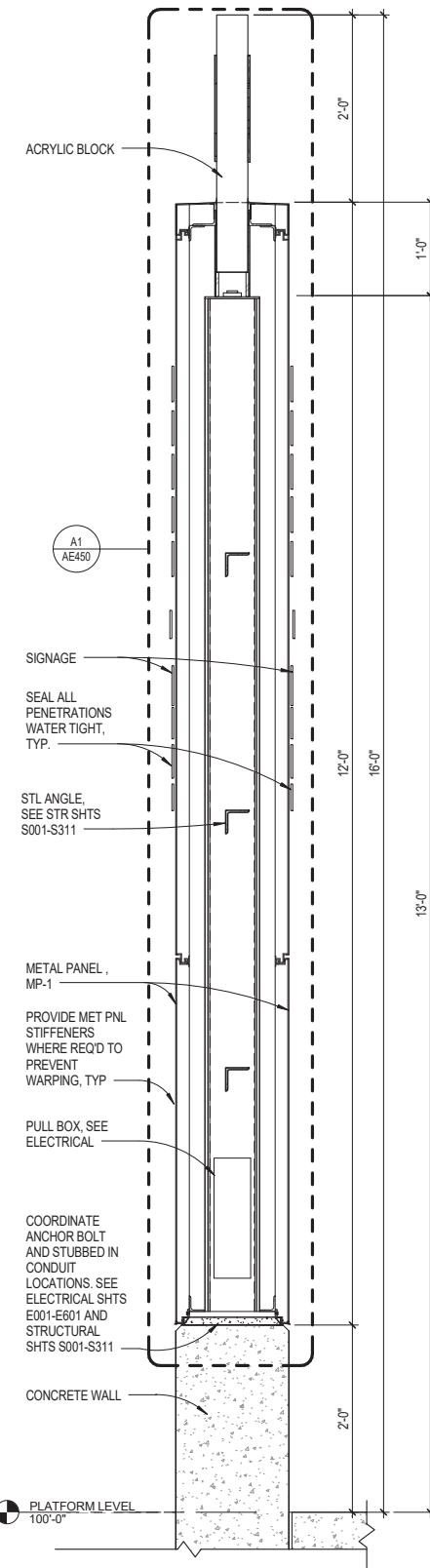
C1 ENLARGED PLAN AT SIGNAGE PILLAR
SCALE: 1" = 1'-0"



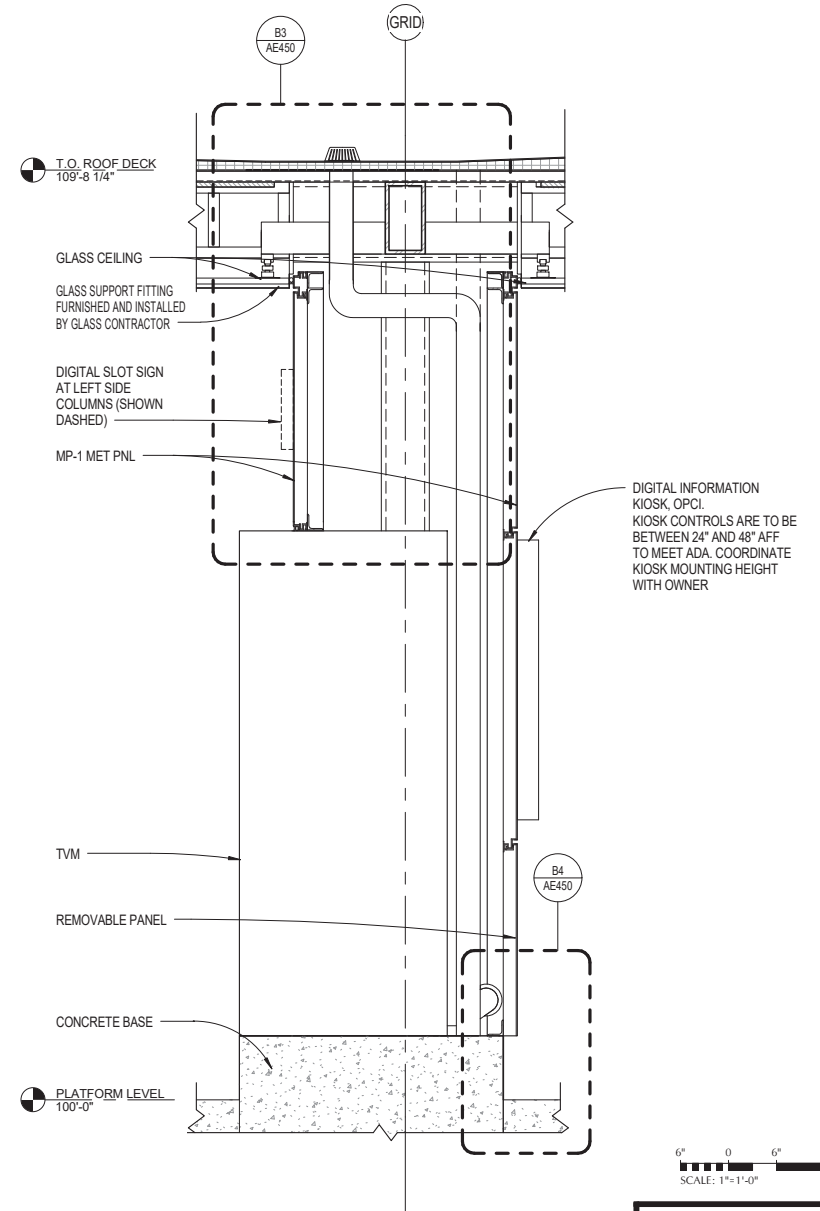
A1 LEFT COLUMN PLAN
SCALE: 1" = 1'-0"



A2 RIGHT COLUMN PLAN
SCALE: 1" = 1'-0"



A3 SECTION AT SIGNAGE PILLAR
SCALE: 1" = 1'-0"



A4 SECTION @ RIGHT COLUMN
SCALE: 1" = 1'-0"

**PLAN DETAILS AND WALL SECTIONS
AE401**

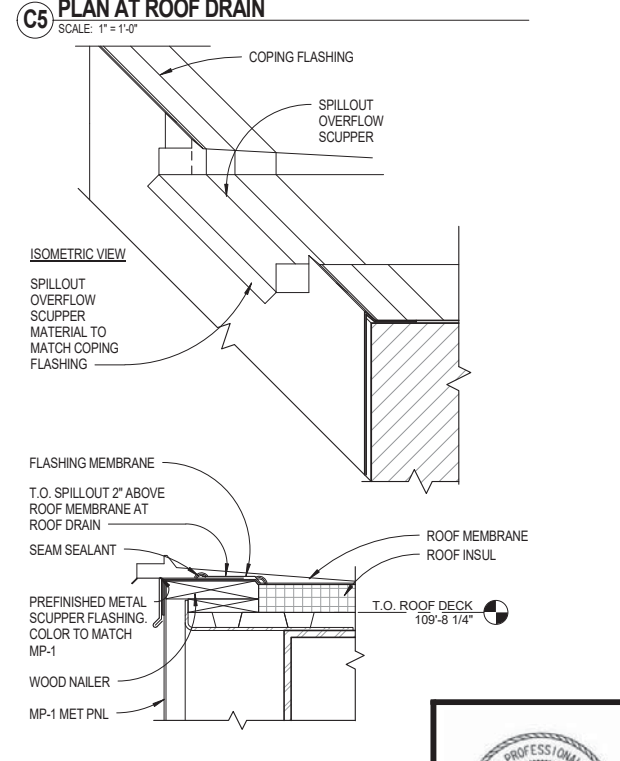
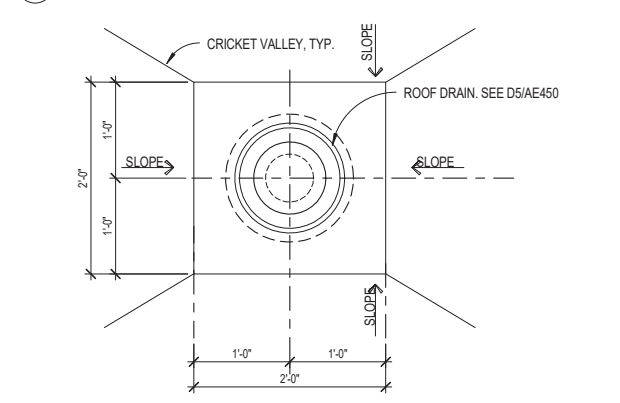
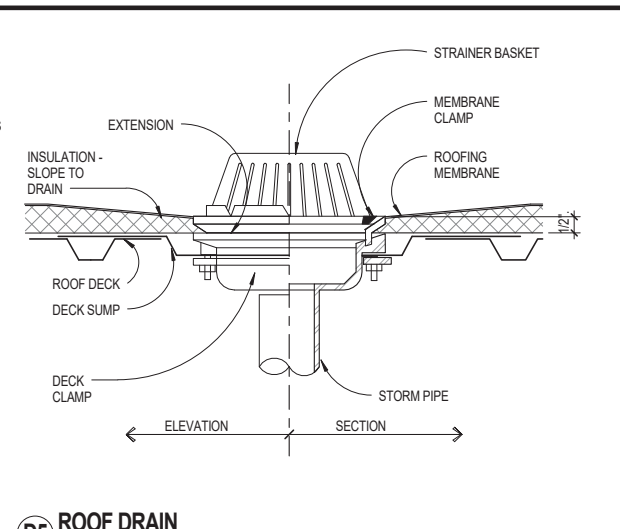
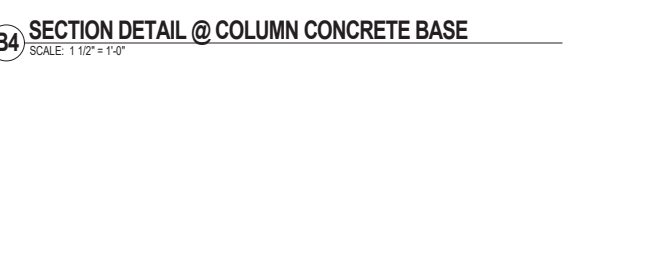
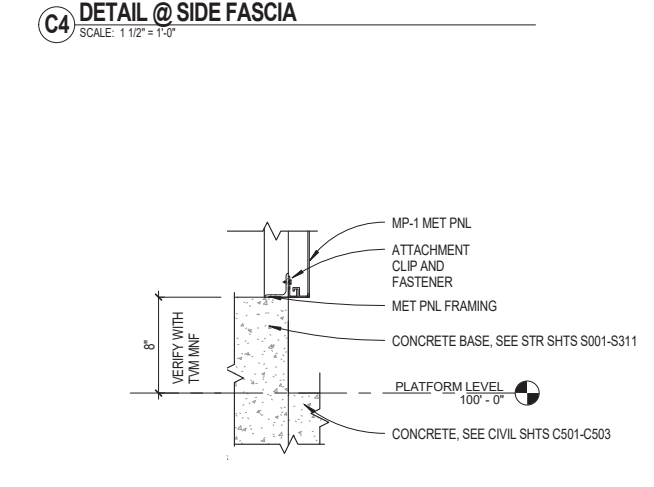
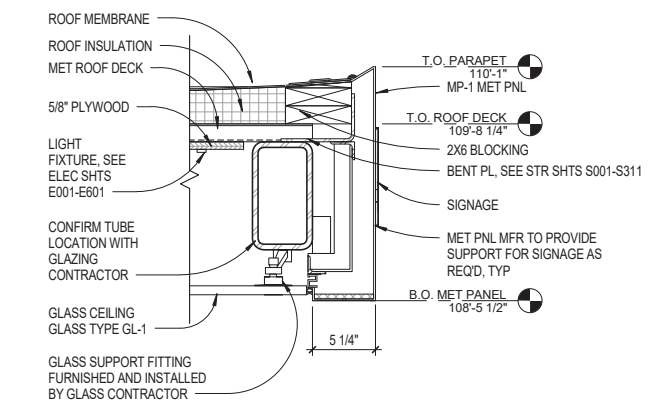
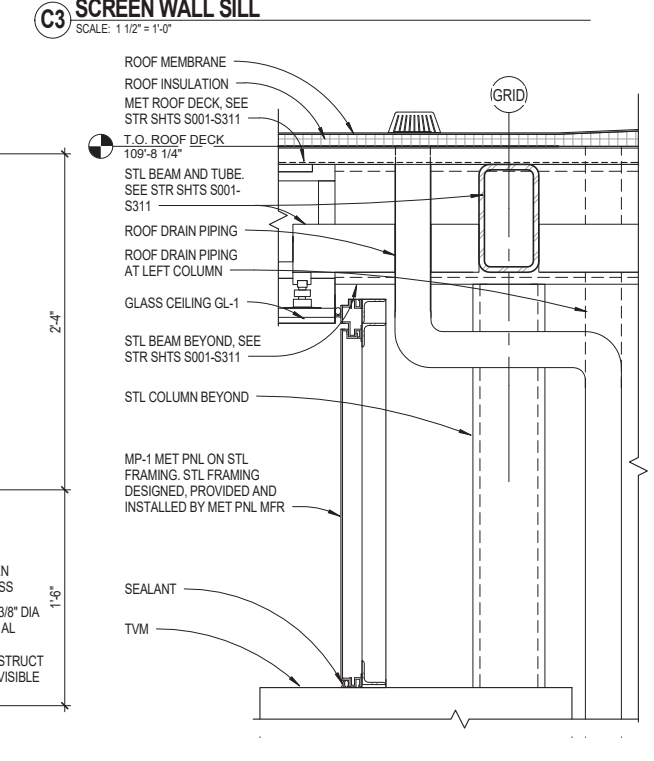
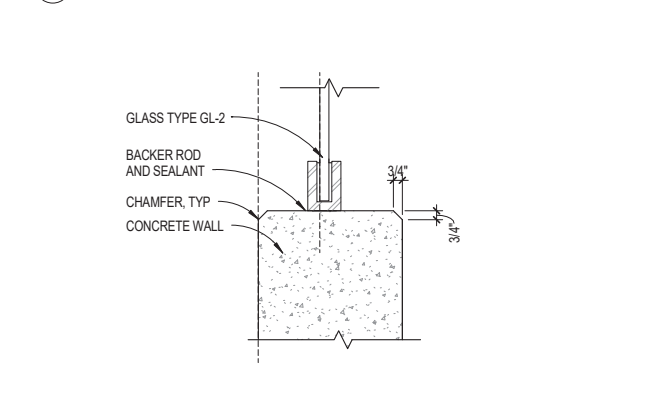
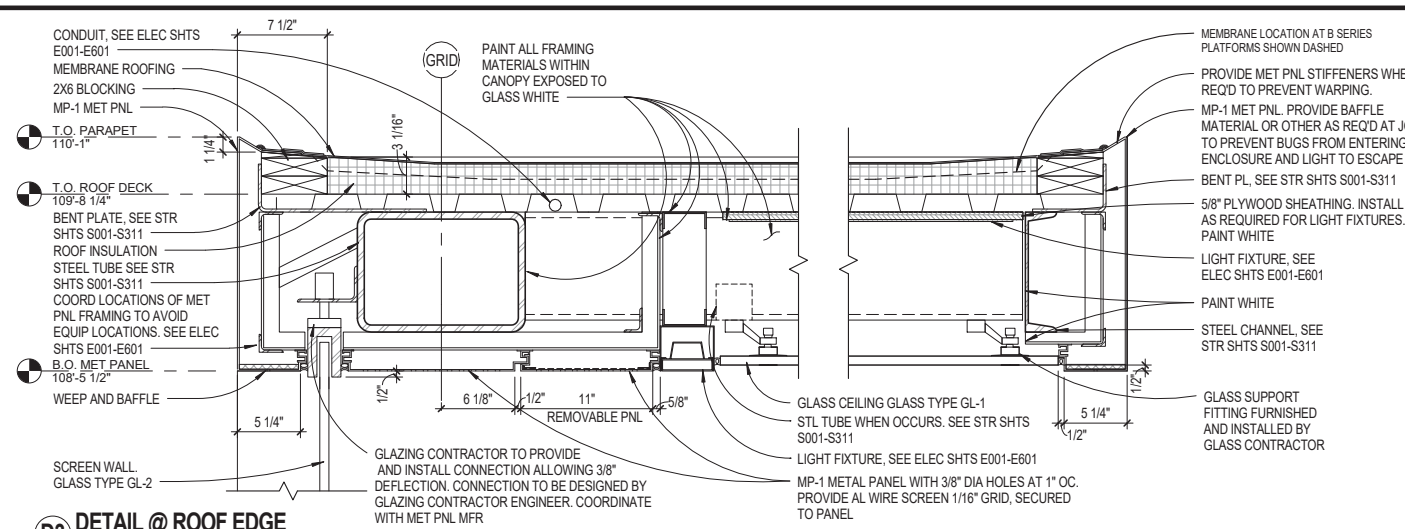
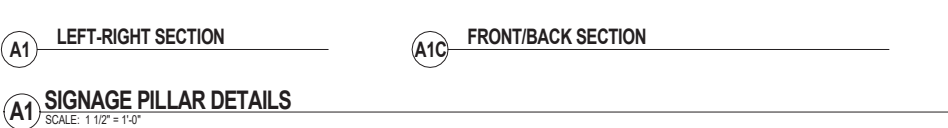
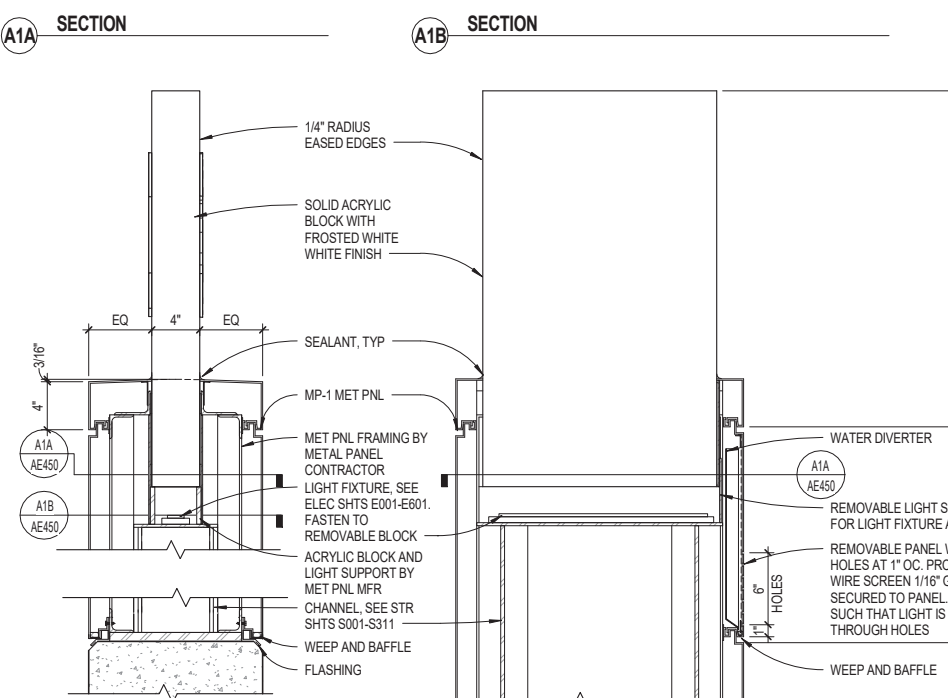
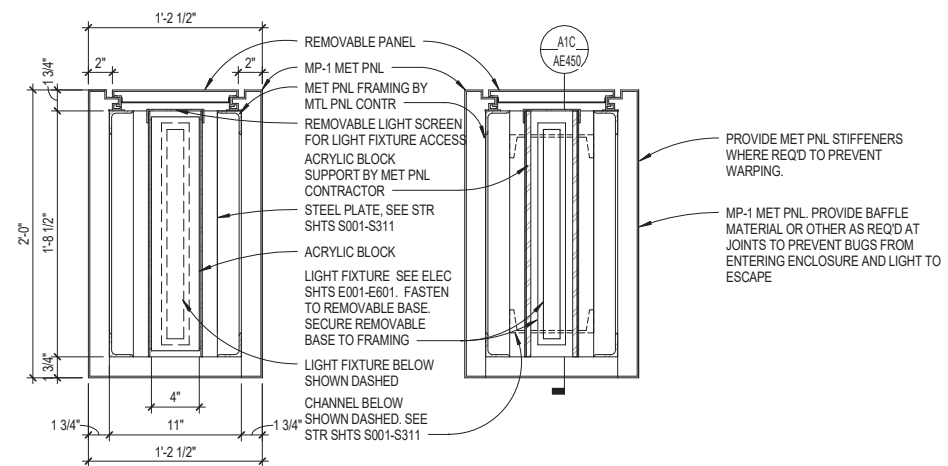
6" 0 6" 1"
SCALE: 1" = 1'-0"



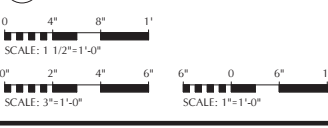
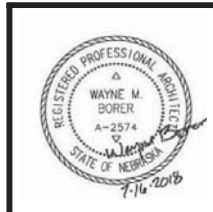
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	CLIENT 2222 CUMING STREET OMAHA, NEBRASKA 68102 (402) 341-0800				NE-79-X001 OPW 53347	28 / 38
	12120 SHAMROCK PLZ, STE 100 OMAHA, NEBRASKA 68154					

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DETAILS AE450

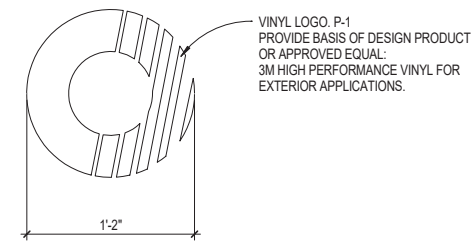


	CLIENT 2222 CUMING STREET OMAHA, NEBRASKA 68102 (402) 341-0800					29 / 38
	12120 SHAMROCK PLZ, STE 100 OMAHA, NEBRASKA 68154					

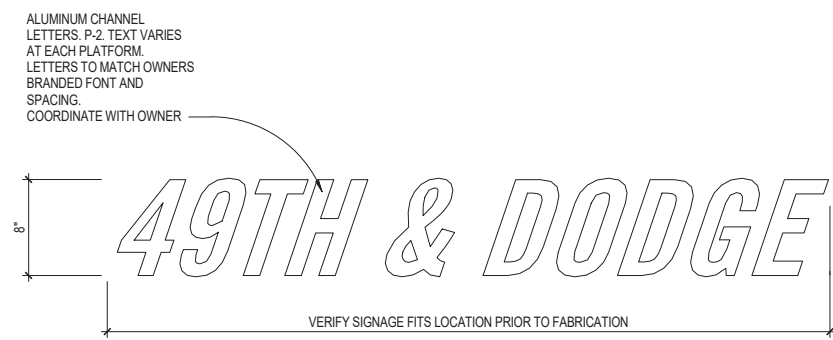
PMS 158		PMS 7540	
C 00	C 41	C 41	C 41
M 62	M 28	M 28	M 28
Y 95	Y 22	Y 22	Y 22
K 00	K 70	K 70	K 70
R 232	R 75	R 75	R 75
G 119	G 79	G 79	G 79
B 34	B 84	B 84	B 84

#E87722	#4B4F54		
P-1 (ORBT ORANGE)	P-2 (ORBT GRAY)	P-3 (AL PANEL COLOR)	P-4 (WHITE)
SEE ABOVE	SEE ABOVE	SEE METAL WALL PANEL SPECIFICATION	PRATT AND LAMBERT 33-1 DESIGNER WHITE

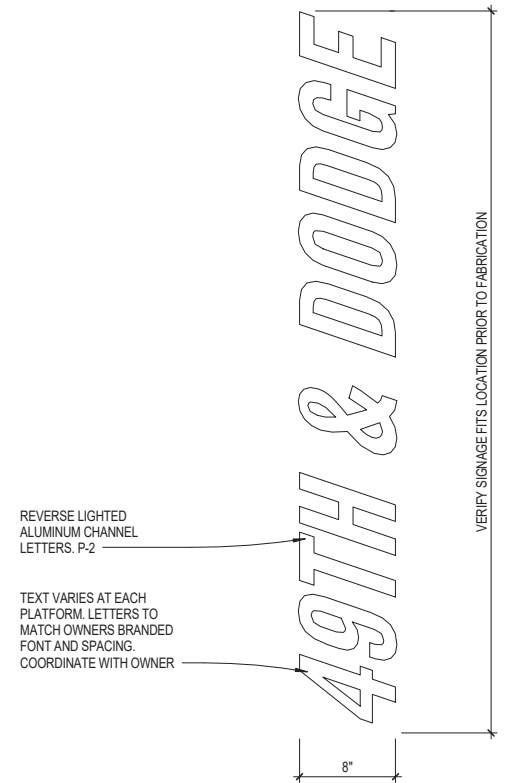
C2 COLOR SCHEDULE
SCALE: 1 1/2" = 1'-0"



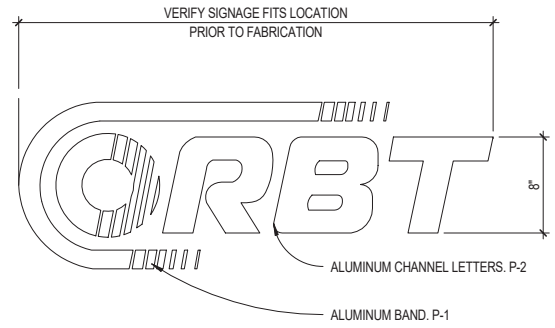
B2 SIGNAGE PILLAR LOGO
SCALE: 1 1/2" = 1'-0"



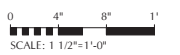
A2 RIGHT SIDE CANOPY SIGNAGE
SCALE: 1 1/2" = 1'-0"



B4 LEFT SIDE PILLAR SIGNAGE
SCALE: 1 1/2" = 1'-0"



A4 FRONT CANOPY LOGO
SCALE: 1 1/2" = 1'-0"



**SIGNAGE
AE500**

	CLIENT 2222 CUMING STREET OMAHA, NEBRASKA 68102 (402) 341-0800				NE-79-X001 OPW 53347	30 / 38
	12120 SHAMROCK PLZ, STE 100 OMAHA, NEBRASKA 68154					

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ELECTRICAL SYMBOLS

SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
	DUPLEX RECEPTACLE 125V		DOWNLIGHT - LETTER INDICATES FIXTURE TYPE. SOLID SHADING INDICATES FIXTURE IS ON EMERGENCY. 'NL' INDICATES UNSWITCHED NIGHT LIGHT
	SPECIAL RECEPTACLE AS NOTED		DIRECTIONAL DOWNLIGHT (WALLWASHER / ACCENT) - LETTER INDICATES FIXTURE TYPE
	DOUBLE DUPLEX RECEPTACLE 125V		SQUARE DOWNLIGHT - LETTER INDICATES FIXTURE TYPE
	DUPLEX RECEPTACLE - ONE SIDE SWITCHED		DECORATIVE FIXTURE - LETTER INDICATES FIXTURE TYPE
	DUPLEX RECEPTACLE - EMERGENCY BRANCH		RECESSED TROFFER (2X4, 1X4, 2X2) - LETTER INDICATES FIXTURE TYPE. SHADING INDICATES FIXTURE IS ON EMERGENCY
	DUPLEX RECEPTACLE - COMBINATION		STRIP OR INDUSTRIAL FIXTURE - LETTER INDICATES FIXTURE TYPE
	CEILING DUPLEX RECEPTACLE		WALL MOUNT FIXTURE - LETTER INDICATES FIXTURE TYPE
	FLOOR DUPLEX RECEPTACLE		ADJUSTABLE WALL MOUNT FIXTURE - LETTER INDICATES FIXTURE TYPE
	MULTI-OUTLET ASSEMBLY		LINEAR WALL MOUNT FIXTURE - LETTER INDICATES FIXTURE TYPE
	JUNCTION BOX WALL		LINEAR FIXTURE - LETTER INDICATES FIXTURE TYPE
	JUNCTION BOX CEILING		LINEAR PENDANT FIXTURE - LETTER INDICATES FIXTURE TYPE
	WALL CLOCK OUTLET		UNDERCABINET FIXTURE - LETTER INDICATES FIXTURE TYPE
	WALL CLOCK HANGER OUTLET		COVE FIXTURE - LETTER INDICATES FIXTURE TYPE
	LIGHTING & APPLIANCE PANELBOARD		SINGLE POLE SWITCH
	TELEPHONE CABINET		DOUBLE POLE SWITCH
	DISTRIBUTION PANELBOARD		3-WAY SWITCH
	TRANSFORMER - VOLTAGE AS INDICATED		4-WAY SWITCH
	PULL BOX - SIZE AS INDICATED		DIMMER SWITCH
	AUTOMATIC TRANSFER SWITCH		MOMENTARY CONTACT SWITCH
	SURGE PROTECTION DEVICE		PHOTOCCELL
	VARIABLE FREQUENCY DRIVE		TIME SWITCH
	MOTOR		OCCUPANCY SENSOR - SEE OCCUPANCY SENSOR SCHEDULE
	SINGLE PHASE MANUAL MOTOR STARTER		SUBSCRIPT "NL" ADDED TO LIGHTING FIXTURE INDICATES UNSWITCHED NIGHT LIGHT
	MOTOR CONTROL PUSHBUTTON STATION		SUBSCRIPT "C" ADDED TO ANY SYMBOL INDICATES CEILING MOUNTED
	DISCONNECT SWITCH NON-FUSED UNLESS OTHERWISE NOTED		SUBSCRIPT "E" ADDED TO ANY SYMBOL INDICATES EMERGENCY
	MAGNETIC STARTER		SUBSCRIPT "F" ADDED TO ANY SYMBOL INDICATES FLUSH FLOOR INSTALLATION
	COMBINATION MAGNETIC STARTER WITH FUSED DISCONNECT UNLESS OTHERWISE NOTED		SUBSCRIPT "K" ADDED TO ANY SYMBOL INDICATES KEY OPERATED
	AMBER STROBE LIGHT		SUBSCRIPT "P" ADDED TO ANY SYMBOL INDICATES PILOT LIGHT
	KEYED TEST SWITCH		SUBSCRIPT "T" ADDED TO ANY SYMBOL INDICATES TAMPER-RESISTANT
	BRANCH CIRCUIT: 2 WIRES PLUS GROUND UNLESS OTHERWISE NOTED		SUBSCRIPT "EX" ADDED TO ANY SYMBOL INDICATES EXPLOSION, PROOF OF CLASS GROUP AND DIVISION AS NOTED
	HOME RUN TO PANEL - NO. OF CIRCUITS INDICATED BY NO. OF ARROWS		SUBSCRIPT "FA" ADDED TO ANY SYMBOL INDICATES UNIT IS CONNECTED TO FIRE ALARM SYSTEM
	CIRCUIT DOWN		SUBSCRIPT "FP" ADDED TO ANY SYMBOL INDICATES PEDESTAL MOUNTED
	CIRCUIT UP		SUBSCRIPT "IG" ADDED TO ANY SYMBOL INDICATES ISOLATED GROUND RECEPTACLE
	TELECOMMUNICATIONS OUTLET, "X" INDICATES QUANTITY OF DATA JACKS TO BE PROVIDED		SUBSCRIPT "RT" ADDED TO ANY SYMBOL INDICATES RAINIGHT, NEMA TYPE 3 OR EQUIVALENT
	VOICE/DATA OUTLET, "X" INDICATES QUANTITY OF DATA AND/OR VOICE JACKS TO BE PROVIDED		SUBSCRIPT "SP" ADDED TO ANY SYMBOL INDICATES SURGE, PROTECTED TYPE RECEPTACLE - SINEWAVE TRACKING (UL1449)
	WALL PHONE OUTLET		SUBSCRIPT "WP" ADDED TO ANY SYMBOL INDICATES WEATHERPROOF, WHILE-IN-USE NEMA TYPE 4 OR EQUIVALENT
	CEILING MOUNTED OUTLET		SUBSCRIPT "GFI" ADDED TO ANY SYMBOL INDICATES GROUND FAULT INTERRUPTER
	FLOOR MOUNTED OUTLET		WALL INTERCOM OUTLET
	SECURITY DOOR SWITCH		CABLE TRAY - TYPE/SIZE AS INDICATED ON PLANS
	CARD READER		PUSHBUTTON
	KEY PAD		
	MOTION SENSOR		
	CCTV CAMERA		
	CEILING SPEAKER		
	WALL SPEAKER		
	WALL MICROPHONE OUTLET		
	WALL TELEVISION OUTLET		
	WALL VOLUME CONTROL		

ONE-LINE SYMBOL LEGEND

	ENGINE GENERATOR SET
	CURRENT TRANSFORMERS
	POTENTIAL TRANSFORMERS
	AMMETER AND PHASE SELECTOR SWITCH
	VOLTMETER AND PHASE SELECTOR SWITCH
	DRAW OUT CIRCUIT BREAKER
	MOLDED CASE CIRCUIT BREAKER (MCCB) 3P EXCEPT AS NOTED "ST" AT BREAKER SYMBOL INDICATES SHUNT TRIP
	MOTOR - HORSEPOWER AS INDICATED
	3 POLE COMBINATION CIRCUIT BREAKER AND MOTOR STARTER # INDICATES NEMA STARTER SIZE
	FUSES
	DRY-TYPE TRANSFORMER, UNLESS OTHERWISE NOTED
	BRANCH CIRCUIT PANELBOARD
	DIGITAL METER
	DISCONNECT SWITCH - NON FUSED, UNLESS OTHERWISE NOTED
	KIRK KEY INTERLOCK
	PRE-WIRED CONTROL PANEL
	SURGE PROTECTION DEVICE
	FEEDER NUMBER - 3 WIRE
	FEEDER NUMBER - 4 WIRE

ELECTRICAL SYMBOL LEGEND NOTES

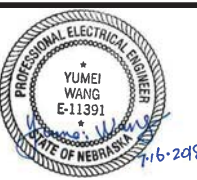
- ALL MOUNTING DIMENSIONS GIVEN ARE TO THE CENTERLINE (CL) OF THE DEVICE ABOVE FINISHED FLOOR (AFF) OR ABOVE FINISHED GRADE (AFG) UNLESS OTHERWISE NOTED.
- WALL MOUNTED LIGHTING FIXTURES SHALL BE MOUNTED AS INDICATED ON THE DRAWINGS.

ELECTRICAL GENERAL NOTES

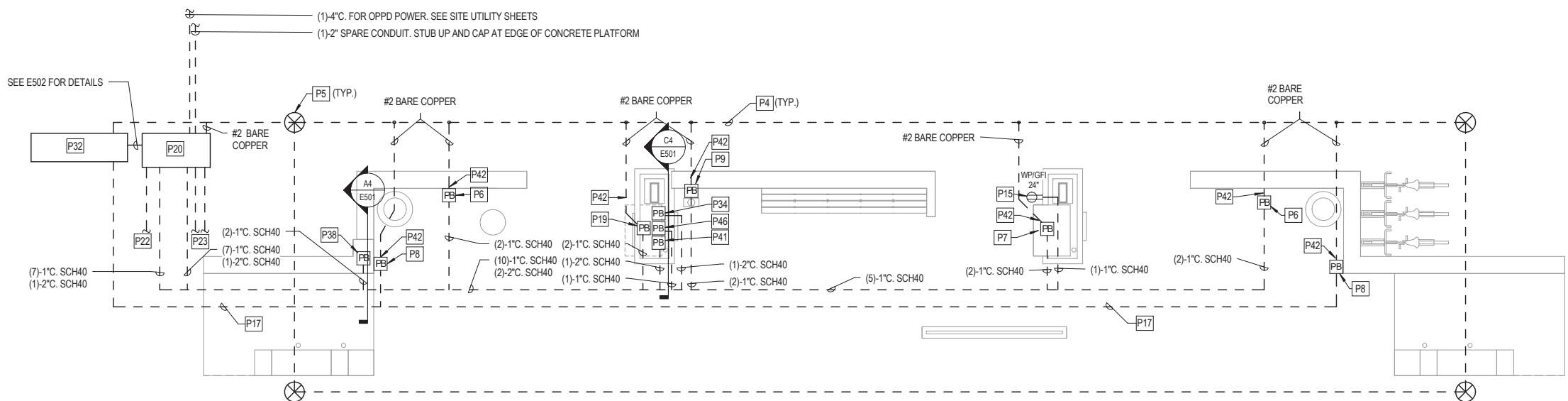
- ALL ELECTRICAL WORK SHALL BE INSTALLED IN STRICT ACCORDANCE WITH THE APPLICABLE EDITIONS OF THE NATIONAL ELECTRICAL CODE, THE STATE BUILDING CODE, AND ANY OTHER LOCAL, STATE, OR FEDERAL CODES, ORDINANCES, OR AUTHORITY INTERPRETATIONS THAT MAY APPLY. A CERTIFICATE OF FINAL ELECTRICAL INSPECTION SHALL BE OBTAINED BY THE CONTRACTOR AT THE COMPLETION OF THE WORK AND PRESENTED TO BOTH THE OWNER AND THE A/E.
- THE CONTRACTOR SHALL FURNISH AND INSTALL COMPLETE AND SATISFACTORILY OPERATING SYSTEMS AS INDICATED ON THE CONTRACT DOCUMENTS. IT IS NOTED THAT THE DRAWINGS ARE DIAGRAMMATIC AND INDICATE GENERAL ARRANGEMENTS OF SYSTEMS AND WORK. CIRCUIT NUMBERS, INTERCONNECTIONS, HOME RUNS, AND SWITCH LEGS HAVE BEEN SHOWN, AND THE CONTRACTOR SHALL FURNISH AND INSTALL CONDUIT AND WIRING AS REQUIRED TO ACCOMPLISH THE FUNCTIONS INDICATED. SPECIAL SYSTEMS DEVICES (COMMUNICATIONS, SECURITY, ETC.) HAVE BEEN SHOWN AND THE CONTRACTOR SHALL FURNISH AND INSTALL THE REQUIRED QUANTITIES AND TYPES OF CABLES, CONDUCTORS, RACEWAYS, REMOTE POWER SUPPLIES AND CONNECTIONS, SHIELDING REQUIREMENTS, ETC., AS REQUIRED BY THE SYSTEM MANUFACTURER, THE SPECIFICATIONS, AND ANY APPLICABLE CODES.
- THE CONTRACTOR SHALL COORDINATE THE ELECTRICAL WORK WITH THE WORK OF ALL OTHER TRADES SO AS TO AVOID CONFLICTS. RESOLVE ALL CONFLICTS THROUGH THE A/E PRIOR TO ROUGH-IN. FAILURE TO PROVIDE SUCH COORDINATION PRIOR TO WORK BEING INSTALLED SHALL NOT BE CAUSE FOR ADDITIONAL COMPENSATION TO THE CONTRACTOR, AND MAY RESULT IN REJECTION OF THE WORK. IT IS THE CONTRACTORS' RESPONSIBILITY TO COORDINATE SUBSTITUTIONS WITH OTHER TRADES.
- ALL MATERIALS SHALL BE NEW, SHALL BE SUITABLE FOR THE APPLICATION INTENDED, AND SHALL BEAR LABELS OR MARKINGS INDICATING THIRD PARTY TESTING LABORATORY LISTINGS ACCEPTABLE TO THE AUTHORITY HAVING JURISDICTION UNLESS OTHERWISE NOTED.
- VERIFY LOCATIONS OF LIGHTING FIXTURES WITH ARCHITECTURAL REFLECTED CEILING PLANS AND THE PLANS OF ALL OTHER TRADES.
- ALL WIRING FOR POWER AND LIGHTING SYSTEMS SHALL BE INSTALLED IN METALLIC RACEWAY SYSTEMS UNLESS OTHERWISE NOTED. ALL CONDUCTORS SHALL BE COPPER, SHALL BE #12AWG MINIMUM, AND SHALL HAVE 600V TYPE THHN/THWN INSULATION, UNLESS OTHERWISE NOTED. ALL RACEWAYS AND CIRCUITS SHALL INCLUDE INSULATED GROUND CONDUCTORS SIZED AS INDICATED OR AS REQUIRED BY THE NEC. MINIMUM RACEWAY SIZE SHALL BE 3/4" UNLESS OTHERWISE NOTED.
- RACEWAYS SHALL NOT CONTAIN MORE THAN THREE PHASE CONDUCTORS, THREE NEUTRALS, AND ONE GROUND CONDUCTOR, UNLESS OTHERWISE NOTED. CONTRACTOR SHALL PROVIDE SEPARATE NEUTRALS FOR ALL 20A/1P CIRCUIT BREAKERS. PROVIDING MULTI-POLE CIRCUIT BREAKERS IN CONJUNCTION WITH SHARED NEUTRALS IN A MULTI-WIRE CIRCUIT IN ACCORDANCE WITH NEC 210.4 SHALL BE APPROVED BY THE ENGINEER. ALL CONNECTIONS FOR ELECTRICALLY POWERED EQUIPMENT, INCLUDING BUT NOT LIMITED TO MECHANICAL AND OWNER SUPPLIED EQUIPMENT, SHALL BE FURNISHED AND INSTALLED. WHERE NOT INDICATED AS BEING PROVIDED WITH THE EQUIPMENT, ALL REQUIRED DISCONNECTING MEANS SHALL BE FURNISHED AND INSTALLED AS A PART OF THE ELECTRICAL WORK. COORDINATE LOCATIONS OF DISCONNECTING AND CONTROLLING MEANS WITH EQUIPMENT TO MAINTAIN CODE AND INSTALLATION REQUIREMENTS. DEDICATED WORKING SPACE FOR MOTOR CONTROLLERS AND SAFETY SWITCHES SHALL BE PER NEC 110.26 REQUIREMENTS.
- PROVIDE PULL AND JUNCTION BOXES AS REQUIRED TO MEET CODE AND INSTALLATION REQUIREMENTS. PULL AND JUNCTION BOXES SHALL BE CONCEALED IN FINISHED SPACES AND LOCATIONS SHALL BE COORDINATED WITH THE WORK OF ALL OTHER TRADES SO AS TO AVOID CONFLICTS.
- ALL CONDUCTORS SHALL BE IDENTIFIED AT EACH JUNCTION BOX, OUTLET BOX, CABINET, PULL BOX, ETC., WITH VINYL SELF-ADHESIVE TAGS INDICATING PANEL AND CIRCUIT NUMBER, CONTROL WIRE IDENTIFICATION NUMBER, OR OTHER APPROPRIATE INFORMATION. ALL PULL AND JUNCTION BOXES SHALL BE LABELED AS TO FUNCTION. ALL EQUIPMENT SHALL BE SECURELY FASTENED BY MEANS OF ANCHORS, RODS, HANGERS, SUPPORTS, GUIDES, SWAY BRACES, ETC., TO MAINTAIN ALIGNMENT AND PREVENT EQUIPMENT MOVEMENT.
- ALL PENETRATIONS OF FIRE OR SMOKE RATED CONSTRUCTION SHALL BE SEALED WITH FIRESTOPPING MATERIALS APPROVED AND LISTED FOR THE RATING OF THE CONSTRUCTION TO BE PENETRATED. PROVIDE DOCUMENTATION ON ALL SUCH PENETRATION SEALING SYSTEMS FOR VERIFICATION OF PROPER INSTALLATION. ALL PENETRATIONS OF ROOFS, EXTERIOR WALLS, FOUNDATIONS, OR OTHER WATER OR MOISTURE PROOF CONSTRUCTION SHALL BE SEALED WITH APPROPRIATE SEALING FITTINGS OR SEALED CONSTRUCTION TO PREVENT THE INTRODUCTION OF MOISTURE.
- WHERE EMPTY RACEWAYS ARE INSTALLED, THEY SHALL BE LABELED AT BOTH ENDS AND FITTED WITH NYLON PULLSTRINGS FOR FUTURE USE.
- TO PREVENT PERSONNEL INJURY AND POTENTIAL SYSTEM FAILURE, ELECTRICAL WORK SHALL BE PERFORMED ON DE-ENERGIZED SYSTEMS ONLY. WHERE WORK ON EXISTING SYSTEMS WILL REQUIRE INTERRUPTION OF ELECTRICAL SERVICE, THEN TEMPORARY PROVISIONS ACCEPTABLE TO THE OWNER FOR TEMPORARY POWER SHALL BE UTILIZED UNTIL THE WORK IS COMPLETE. PROVIDE ARC FLASH LABELS FOR ALL SWITCHBOARDS, PANELBOARDS, AND MOTOR CONTROL CENTERS.
- WHERE 20A, 120V LIGHTING AND POWER CIRCUIT LENGTHS EXCEED 100 FEET, PROVIDE #10 PHASE AND NEUTRAL CONDUCTORS WITH #10 GND IN MIN. 3/4" CONDUIT.
- IF THE CONTRACTOR SUBSTITUTES EQUIPMENT WITH DIFFERENT CHARACTERISTICS THAN WHAT IS SPECIFIED, INCLUDING ELECTRICAL CHARACTERISTICS, IT IS THE CONTRACTORS RESPONSIBILITY TO COORDINATE THESE DIFFERENCES WITH OTHER TRADES.
- DEVICE BOXES SHALL BE MOUNTED FLUSH IN WALLS UNLESS OTHERWISE NOTED OR REQUIRED. FLUSH SHALL BE DEFINED AS EVEN WITH THE FACE OF THE WALL, OR RECESSED NO MORE THAN 1/16". J-BOXES INSTALLED WITH PLASTER RINGS TO BE FLUSH WITH WALL. EXAMPLE: WALLS WITH 5/8" THICK SHEET ROCK REQUIRES 3/4" PLASTER RING. PROVIDE PLASTER RINGS AS REQUIRED FOR VARYING WALL THICKNESS COVERINGS. J-BOXES TO BE SUPPORTED WITH STUD-TO-STUD BACK BOX BRACING.
- WALL BOXES FOR SINGLE AND TWO-GANG SWITCHES, CONVENIENCE OUTLETS, SHALL BE 4" SQUARE. TELECOMMUNICATION OR DATA WALL BOXES SHALL BE 4-11/16" SQUARE BY 2-1/8" DEEP. WALLS WITH 5/8 THICK SHEET ROCK REQUIRE 3/4" PLASTER RING. PROVIDE SINGLE OR DOUBLE GANG PLASTER RINGS OF CORRECT DEPTH FOR WALL CONSTRUCTION FOR VARYING WALL THICKNESS COVERINGS. J-BOXES TO BE SUPPORTED WITH STUD-TO-STUD BACK BOX BRACING. SECTIONAL OR MULTI-GANG BOXES WITH APPROPRIATE PLASTER RINGS SHALL BE USED FOR MULTI-GANG APPLICATIONS.

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ELECTRICAL SYMBOL LEGEND E001



	CLIENT					
	2222 CUMING STREET OMAHA, NEBRASKA 68102 (402) 341-0800					



GENERAL NOTES

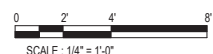
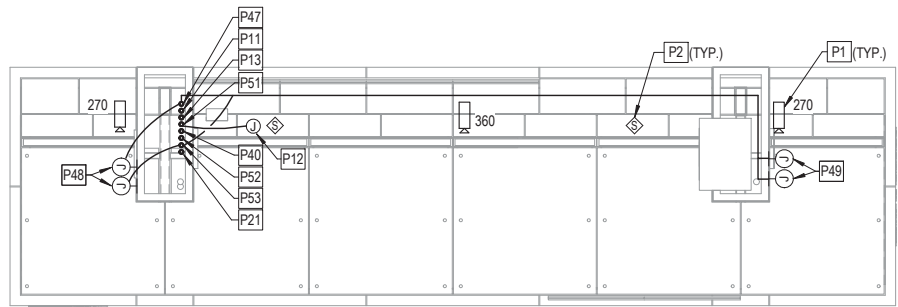
1. CCTV CAMERAS WILL BE FURNISHED BY OTHERS AND INSTALLED BY THE CONTRACTOR
2. ALL CONDUITS SHALL BE ROUTED BACK TO THE POWER AND COMMUNICATIONS CABINET. SEE SITE INFRASTRUCTURE PLANS (BY OTHERS) FOR EXACT LOCATION. MAINTAIN A MINIMUM OF 6" SPACING BETWEEN DATA AND POWER CONDUITS.
3. CONDUIT SHALL NOT BE ROUTED IN SNOW MELT AREA AND SHALL BE ROUTED NOT LESS THAN 6" BELOW SNOW MELT SYSTEM WHERE NEEDED. COORDINATE EXACT DEPTH IN FIELD.
4. NUMBER OF CONDUITS SHOWN FOR REFERENCE ONLY. MULTIPLE BRANCH CIRCUITS IN ONE CONDUIT ARE ALLOWED. FIELD COORDINATE REQUIRED QUANTITY TO COMPLY WITH NEC REQUIREMENTS. INTERFACE BETWEEN CANOPY PULLBOXES AND PLATFORM CONDUITS SHALL BE COORDINATED IN FIELD WITH OTHER TRADES.
5. ALL CABLING IN CANOPY SHALL BE ROUTED IN CONDUIT. COORDINATE EXACT LOCATIONS OF CONDUIT IN FIELD. MAINTAIN A MINIMUM OF 6" SPACING BETWEEN DATA AND POWER CONDUITS.
6. CONTRACTOR SHALL COORDINATE IN FIELD FOR EXACT REQUIREMENTS FOR OWNER FURNISHED EQUIPMENT.
7. ALL POWER AND COMMUNICATIONS CABLES SHALL BE EXTERIOR RATED.
8. SEE PANEL SCHEDULES ON SHEET E501 FOR HOME RUN AND CIRCUITING INFORMATION.
9. CAT. 6 CABLES SHALL BE CONTINUOUS FROM THE PATCH PANEL IN THE PCC TO ALL DEVICES AND OUTLETS. COIL ENOUGH CABLING IN PULLBOXES WHERE FUTURE CONNECTIONS TO EQUIPMENT OR DEVICES ARE NEEDED.
10. WHERE UNDERGROUND CONDUITS ARE ROUTED UNDER DRIVEWAYS AND TRAFFIC AREAS PROVIDE SCHEDULE 80 PVC CONDUITS.
11. CONTRACTOR SHALL COORDINATE IN FIELD WITH EXISTING UTILITY TYPE AND LOCATION IN THE STATION AREA. NEW UTILITY RUNS SHALL BE LOWERED TO AVOID CONFLICT WITH EXISTING UTILITIES. PROTECT EXISTING UTILITIES DURING CONSTRUCTION.
12. POWER BRANCH CIRCUITS SHALL BE MINIMUM #10AWG.
13. ALL PULLBOXES AND PENETRATIONS THROUGH SNOW MELT AREA SHALL COMPLY WITH SNOW MELT SYSTEM REQUIREMENTS.

KEYED SHEET NOTES

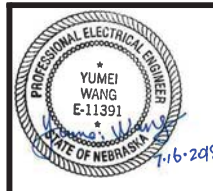
- P1 CCTV CAMERA MOUNTED ON CEILING WITH CAMERA LENS BELOW LOWEST PART OF THE CANOPY.
- P2 PAGING SPEAKER FLUSH WITH CEILING.
- P4 GROUND RING. #2 BARE COPPER BURIED 30" BELOW GRADE. MINIMUM 2' FROM FOUNDATION.
- P5 GROUND ROD. 3/4"x10' LONG COPPER CLAD WITH COLDWELD CONNECTION.
- P6 PULLBOX FLUSH WITH FINISHED GRADE FOR POWER AND DATA CONNECTION TO FUTURE TICKET VALIDATION MACHINE. COORDINATE EXACT LOCATION IN FIELD. PROVIDE BARRIER BETWEEN DATA AND POWER CABLES.
- P7 PULLBOX FLUSH WITH FINISHED GRADE FOR DATA AND POWER CONNECTION TO TICKET VENDING MACHINE. COORDINATE EXACT LOCATION IN FIELD. PROVIDE BARRIER BETWEEN DATA AND POWER CABLES.
- P8 12' X 24" PULLBOX FLUSH WITH FINISHED GRADE FOR FUSE BLOCK AND CONNECTORS. SEE SNOW MELT SYSTEM DESIGN FOR DETAILS. SNOW MELT SYSTEM DESIGN BY OTHERS.
- P9 PULLBOX FLUSH WITH FINISHED GRADE FOR DATA AND POWER CONNECTION TO EMERGENCY PHONE PEDESTAL. COORDINATE EXACT LOCATION IN FIELD. SEE ARCHITECTURAL SPECIFICATIONS FOR DETAILS. PROVIDE BARRIER BETWEEN POWER AND DATA CABLES. (1) CAT 6 FOR VOICE AND (1) FOR CAMERA.
- P11 (1)-1" CONDUIT FOR LIGHTING CIRCUITS FROM PULLBOX TO CANOPY. COORDINATE EXACT LOCATION IN FIELD. SEE C4/E501 FOR DETAILS.
- P12 J-BOX ABOVE CEILING FOR POWER CONNECTION TO FUTURE RADIANT HEATER.
- P13 (1)-1" CONDUIT FROM PULLBOX TO CANOPY FOR POWER TO HEAT TAPE ON ROOF DRAIN PIPING. COORDINATE EXACT LOCATION IN FIELD.
- P15 PROVIDE LOCKABLE BOX. COORDINATE EXACT LOCATION IN FIELD.
- P17 SEE E502 FOR DETAILS.
- P19 CONDUIT STUB AND PULLBOX FOR FUTURE TICKET VENDING MACHINE. PROVIDE BARRIER BETWEEN POWER AND DATA CABLES. COORDINATE EXACT LOCATION IN FIELD.
- P20 POWER AND COMMUNICATIONS CABINET. SEE SHEET E501 FOR DETAIL. SEE SITE SHEETS FOR EXACT LOCATIONS FOR EACH STATION.
- P21 (1)-2" CONDUIT FROM PULLBOX TO CANOPY FOR CAT 6 CABLES TO CCTV CAMERAS, SPEAKERS, AND DATA CONNECTION TO BUS INDICATOR. ROUTE CAT 6 CABLES BACK TO PCC.
- P22 (1)-3" UNDERGROUND CONDUIT FOR COMMUNICATIONS CABLES TO SUBFD STATIONS (WHERE THERE ARE TWO STATIONS PAIRED TOGETHER WITH ONE PCC). SEE SITE SHEETS FOR EXACT LOCATIONS.
- P23 (2)-3" UNDERGROUND CONDUITS FOR POWER FEEDERS TO SUBFD STATIONS (WHERE THERE ARE TWO STATIONS PAIRED TOGETHER WITH ONE PCC). SEE SHEET E114 FOR DETAILS.
- P32 SNOW MELT SYSTEM EQUIPMENT CABINET. SEE SHEET E502 FOR DETAILS. SEE SITE DRAWINGS FOR EXACT LOCATION.
- P34 PULLBOX MOUNTED ON UNISTRUT FOR POWER CONNECTION TO LIGHTING CIRCUITS, FUTURE RADIANT HEATER, MESSAGE BOARD, DIGITAL KIOSK, DIGITAL SLOT SIGN AND HEAT TAPE FOR DRAIN PIPES IN CANOPY. SEE C4/E501 FOR DETAILS.
- P37 (1)-1" CONDUIT FOR DATA CONNECTION FROM MESSAGE BOARD TO LIGHTING CONTROLLER. COORDINATE EXACT LOCATION IN FIELD. COORDINATE EXACT CABLE AND INTERFACE REQUIRED. SEE A4/E501.
- P38 PULLBOX FOR POWER CONNECTION TO SIGNAGE AND LIGHTING ON SIGNAGE PILLAR. COORDINATE EXACT LOCATION AND CONNECTION IN FIELD. SEE A4/E501 FOR ROUGH IN INFORMATION.
- P40 (1)-1" CONDUIT FROM PULLBOX TO CANOPY FOR POWER CONNECTION TO MESSENGER BOARD. SEE C4/E501 FOR DETAIL. COORDINATE EXACT LOCATION IN FIELD.
- P41 PULLBOX MOUNTED ON UNISTRUT FOR DATA CABLES TO CCTV CAMERAS, SPEAKERS AND BUS INDICATOR. SEE C4/E501 FOR DETAILS.
- P42 BOND TO EQUIPMENT. COORDINATE EXACT REQUIREMENTS IN FIELD.
- P43 DMX POWER SUPPLY AND CONTROLLER QTRAN QOM-eLED-DMX OR APPROVED EQUAL. MOUNT VERTICALLY ON UNISTRUT BEHIND REMOVABLE PANEL FOR ACCESSIBILITY. SEE A4/E501. COORDINATE EXACT LOCATION AND REQUIREMENTS IN FIELD. PROVIDE DATA CONNECTION TO MESSAGE BOARD. PROVIDE ALL NECESSARY COMPONENTS AND CONNECTORS FOR PROPER SYSTEM OPERATION AND CONTROL.
- P46 PULLBOX MOUNTED ON UNISTRUT FOR DATA AND POWER CONNECTION TO DIGITAL KIOSK, DIGITAL SLOT SIGN AND MESSAGE BOARD. SEE C4/E501 FOR DETAILS.
- P47 (1)-1" CONDUIT FROM PULLBOX TO CANOPY FOR POWER CONNECTION TO DIGITAL SIGNAGE AND DIGITAL KIOSK. SEE C4/E501 FOR DETAIL. COORDINATE EXACT LOCATION IN FIELD.
- P48 J-BOX FOR POWER AND DATA CONNECTION TO DIGITAL SLOT SIGN. COORDINATE EXACT LOCATION IN FIELD.
- P49 J-BOX FOR POWER AND DATA CONNECTION TO DIGITAL KIOSK. COORDINATE EXACT LOCATION IN FIELD.
- P51 (1)-1" CONDUIT FROM PULLBOX TO CANOPY FOR POWER CONNECTION TO FUTURE RADIANT HEATER. SEE C4/E501 FOR DETAIL. COORDINATE EXACT LOCATION IN FIELD.
- P52 (1)-1" CONDUIT FROM PULLBOX TO CANOPY FOR DATA CONNECTION TO MESSENGER BOARD. SEE C4/E501 FOR DETAIL. COORDINATE EXACT LOCATION IN FIELD.
- P53 (1)-1" CONDUIT FROM PULLBOX TO CANOPY FOR POWER CONNECTION TO DIGITAL SIGNAGE AND DIGITAL KIOSK. SEE C4/E501 FOR DETAIL. COORDINATE EXACT LOCATION IN FIELD.

C1 POWER & SYSTEMS PLAN TYPE A - LARGE (OTHERS SIMILAR)
SCALE: 1/4" = 1'-0"

A1 POWER & SYSTEMS CEILING PLAN TYPE A - LARGE (OTHERS SIMILAR)
SCALE: 1/4" = 1'-0"



**POWER & SYSTEMS PLAN TYPE A
E111**



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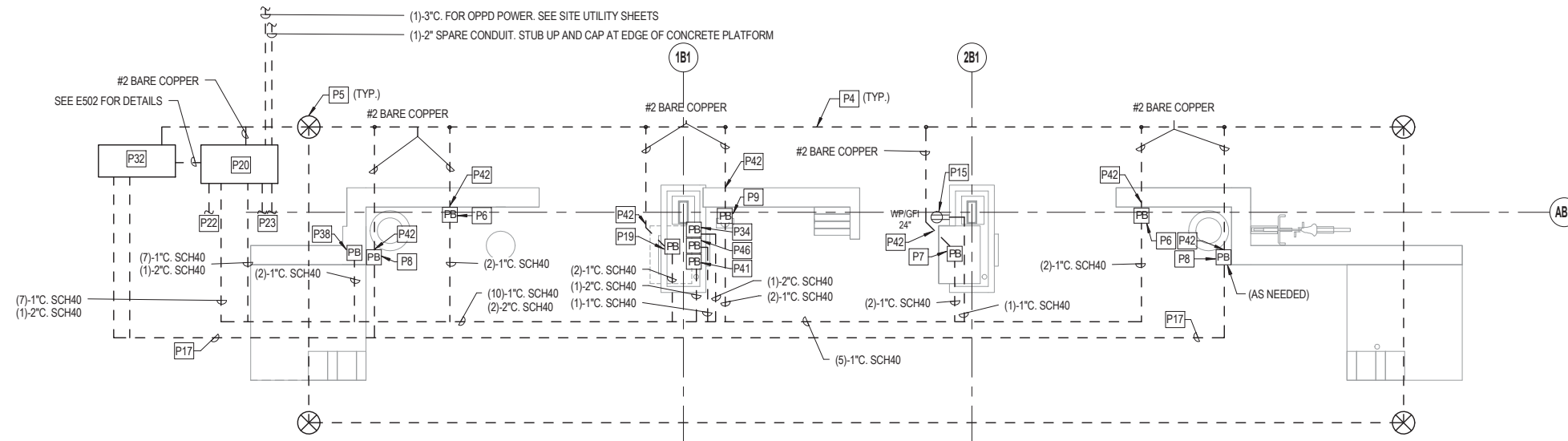
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GENERAL NOTES

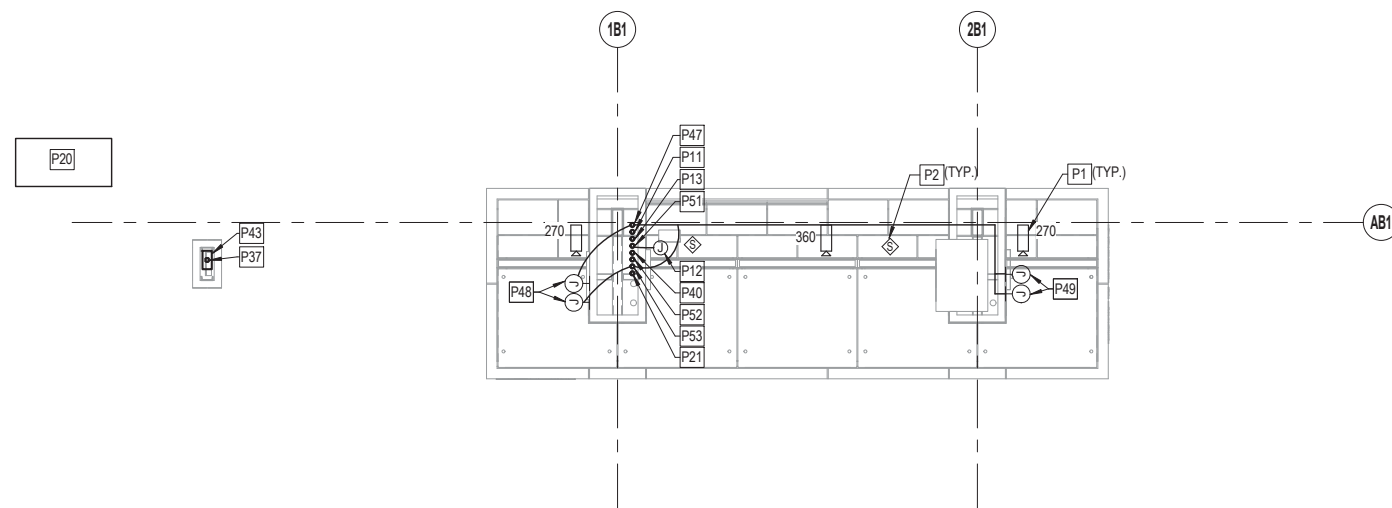
- CCTV CAMERAS WILL BE FURNISHED BY OTHERS AND INSTALLED BY THE CONTRACTOR
- ALL CONDUITS SHALL BE ROUTED BACK TO THE POWER AND COMMUNICATIONS CABINET. SEE SITE INFRASTRUCTURE PLANS (BY OTHERS) FOR EXACT LOCATION. MAINTAIN A MINIMUM OF 6" SPACING BETWEEN DATA AND POWER CONDUITS.
- CONDUIT SHALL NOT BE ROUTED IN SNOW MELT AREA AND SHALL BE ROUTED NOT LESS THAN 6" BELOW SNOW MELT SYSTEM WHERE NEEDED. COORDINATE EXACT DEPTH IN FIELD.
- NUMBER OF CONDUITS SHOWN FOR REFERENCE ONLY. MULTIPLE BRANCH CIRCUITS IN ONE CONDUIT ARE ALLOWED. FIELD COORDINATE REQUIRED QUANTITY TO COMPLY WITH NEC REQUIREMENTS. INTERFACE BETWEEN CANOPY PULLBOXES AND PLATFORM CONDUITS SHALL BE COORDINATED IN FIELD WITH OTHER TRADES.
- ALL CABLING IN CANOPY SHALL BE ROUTED IN CONDUIT. COORDINATE EXACT LOCATIONS OF CONDUIT IN FIELD. MAINTAIN A MINIMUM OF 6" SPACING BETWEEN DATA AND POWER CONDUITS.
- CONTRACTOR SHALL COORDINATE IN FIELD FOR EXACT REQUIREMENTS FOR OWNER FURNISHED EQUIPMENT.
- ALL POWER AND COMMUNICATIONS CABLES SHALL BE EXTERIOR RATED.
- SEE PANEL SCHEDULES ON SHEET E601 FOR HOME RUN AND CIRCUITING INFORMATION.
- CAT. 6 CABLES SHALL BE CONTINUOUS FROM THE PATCH PANEL IN THE PCC TO ALL DEVICES AND OUTLETS. COIL ENOUGH CABLING IN PULLBOXES WHERE FUTURE CONNECTIONS TO EQUIPMENT OR DEVICES ARE NEEDED.
- WHERE UNDERGROUND CONDUITS ARE ROUTED UNDER DRIVEWAYS AND TRAFFIC AREAS PROVIDE SCHEDULE 80 PVC CONDUITS.
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KEYED SHEET NOTES

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- P2 PAGING SPEAKER FLUSH WITH CEILING.
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- P8 12" X 24" PULLBOX FLUSH WITH FINISHED GRADE FOR FUSE BLOCK AND CONNECTORS. SEE SNOW MELT SYSTEM DESIGN FOR DETAILS. SNOW MELT SYSTEM DESIGN BY OTHERS.
- P9 PULLBOX FLUSH WITH FINISHED GRADE FOR DATA AND POWER CONNECTION TO EMERGENCY PHONE PEDESTAL. COORDINATE EXACT LOCATION IN FIELD. SEE ARCHITECTURAL SPECIFICATIONS FOR DETAILS. PROVIDE BARRIER BETWEEN POWER AND DATA CABLES. (1) CAT 6 FOR VOICE AND (1) FOR CAMERA.
- P11 (1)-1" CONDUIT FOR LIGHTING CIRCUITS FROM PULLBOX TO CANOPY. COORDINATE EXACT LOCATION IN FIELD. SEE C4/E501 FOR DETAILS.
- P12 J-BOX ABOVE CEILING FOR POWER CONNECTION TO FUTURE RADIANT HEATER.
- P13 (1)-1" CONDUIT FROM PULLBOX TO CANOPY FOR POWER TO HEAT TAPE ON ROOF DRAIN PIPING. COORDINATE EXACT LOCATION IN FIELD.
- P15 PROVIDE LOCKABLE BOX. COORDINATE EXACT LOCATION IN FIELD.
- P17 SEE E502 FOR DETAILS.
- P19 CONDUIT STUB AND PULLBOX FOR FUTURE TICKET VENDING MACHINE. PROVIDE BARRIER BETWEEN POWER AND DATA CABLES. COORDINATE EXACT LOCATION IN FIELD.
- P20 POWER AND COMMUNICATIONS CABINET. SEE SHEET E501 FOR DETAIL. SEE SITE SHEETS FOR EXACT LOCATIONS FOR EACH STATION.
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- P22 (1)-3" UNDERGROUND CONDUIT FOR COMMUNICATIONS CABLES TO SUBFED STATIONS (WHERE THERE ARE TWO STATIONS PAIRED TOGETHER WITH ONE PCC). SEE SITE SHEETS FOR EXACT LOCATIONS.
- P23 (2)-3" UNDERGROUND CONDUITS FOR POWER FEEDERS TO SUBFED STATIONS (WHERE THERE ARE TWO STATIONS PAIRED TOGETHER WITH ONE PCC). SEE SHEET E114 FOR DETAILS.
- P32 SNOW MELT SYSTEM EQUIPMENT CABINET. SEE SHEET E502 FOR DETAILS. SEE SITE DRAWINGS FOR EXACT LOCATION.
- P34 PULLBOX MOUNTED ON UNISTRUT FOR POWER CONNECTION TO LIGHTING CIRCUITS. FUTURE RADIANT HEATER, MESSAGE BOARD, DIGITAL KIOSK, DIGITAL SLOT SIGN AND HEAT TAPE FOR DRAIN PIPES IN CANOPY. SEE C4/E501 FOR DETAILS.
- P37 (1)-1" CONDUIT FOR DATA CONNECTION FROM MESSAGE BOARD TO LIGHTING CONTROLLER. COORDINATE EXACT LOCATION IN FIELD. COORDINATE EXACT CABLE AND INTERFACE REQUIRED. SEE A4/E501.
- P38 PULLBOX FOR POWER CONNECTION TO SIGNAGE AND LIGHTING ON SIGNAGE PILLAR. COORDINATE EXACT LOCATION AND CONNECTION IN FIELD. SEE A4/E501 FOR ROUGH IN INFORMATION.
- P40 (1)-1" CONDUIT FROM PULLBOX TO CANOPY FOR POWER CONNECTION TO MESSENGER BOARD. SEE C4/E501 FOR DETAIL. COORDINATE EXACT LOCATION IN FIELD.
- P41 PULLBOX MOUNTED ON UNISTRUT FOR DATA CABLES TO CCTV CAMERAS, SPEAKERS AND BUS INDICATOR. SEE C4/E501 FOR DETAILS. BOND TO EQUIPMENT. COORDINATE EXACT REQUIREMENTS IN FIELD.
- P42 DMX POWER SUPPLY AND CONTROLLER QTRAN QOM-4LED-DMX OR APPROVED EQUAL. MOUNT VERTICALLY ON UNISTRUT BEHIND REMOVABLE PANEL FOR ACCESSIBILITY. SEE A4/E501. COORDINATE EXACT LOCATION AND REQUIREMENTS IN FIELD. PROVIDE DATA CONNECTION TO MESSAGE BOARD. PROVIDE ALL NECESSARY COMPONENTS AND CONNECTORS FOR PROPER SYSTEM OPERATION AND CONTROL.
- P46 PULLBOX MOUNTED ON UNISTRUT FOR DATA AND POWER CONNECTION TO DIGITAL KIOSK, DIGITAL SLOT SIGN AND MESSAGE BOARD. SEE C4/E501 FOR DETAILS.
- P47 (1)-1" CONDUIT FROM PULLBOX TO CANOPY FOR POWER CONNECTION TO DIGITAL SIGNAGE AND DIGITAL KIOSK. SEE C4/E501 FOR DETAIL. COORDINATE EXACT LOCATION IN FIELD.
- P48 J-BOX FOR POWER AND DATA CONNECTION TO DIGITAL SLOT SIGN. COORDINATE EXACT LOCATION IN FIELD.
- P49 J-BOX FOR POWER AND DATA CONNECTION TO DIGITAL KIOSK. COORDINATE EXACT LOCATION IN FIELD.
- P51 (1)-1" CONDUIT FROM PULLBOX TO CANOPY FOR POWER CONNECTION TO FUTURE RADIANT HEATER. SEE C4/E501 FOR DETAIL. COORDINATE EXACT LOCATION IN FIELD.
- P52 (1)-1" CONDUIT FROM PULLBOX TO CANOPY FOR DATA CONNECTION TO MESSENGER BOARD. SEE C4/E501 FOR DETAIL. COORDINATE EXACT LOCATION IN FIELD.
- P53 (1)-1" CONDUIT FROM PULLBOX TO CANOPY FOR POWER CONNECTION TO DIGITAL SIGNAGE AND DIGITAL KIOSK. SEE C4/E501 FOR DETAIL. COORDINATE EXACT LOCATION IN FIELD.



C1 POWER & SYSTEMS PLAN TYPE B - SMALL (OTHERS SIMILAR)
SCALE: 1/4" = 1'-0"



A1 POWER & SYSTEMS CEILING PLAN TYPE B - SMALL (OTHERS SIMILAR)
SCALE: 1/4" = 1'-0"

0 2' 4' 8'
SCALE: 1/4" = 1'-0"

POWER & SYSTEMS PLAN TYPE B E112

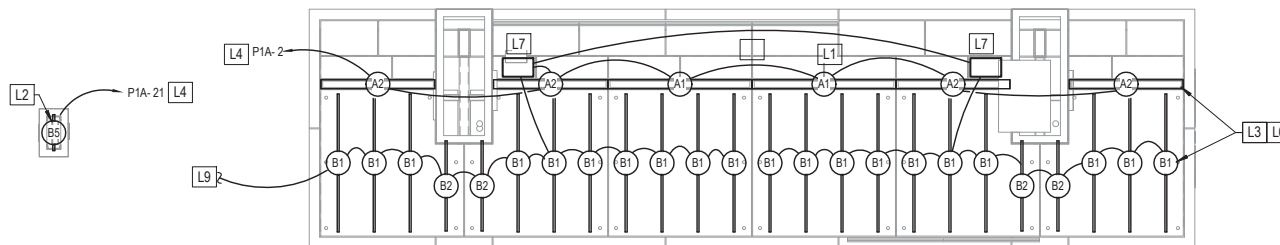


GENERAL NOTES

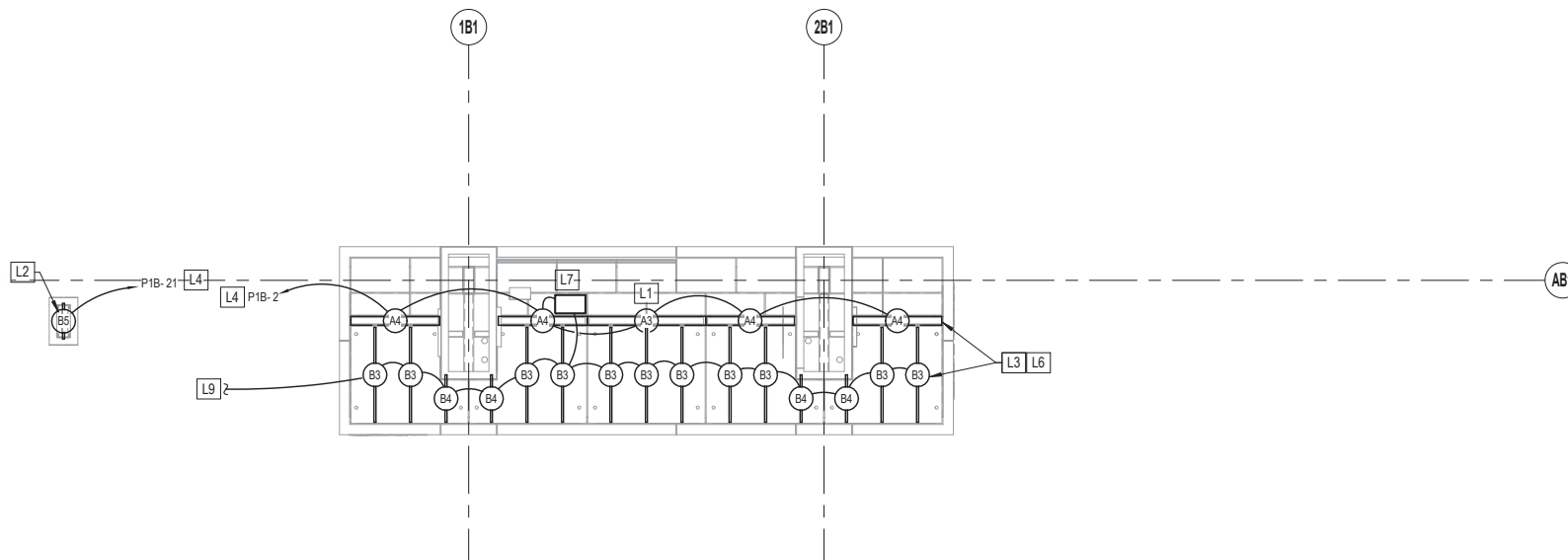
1. ALL ELECTRICAL FIXTURES, CONTROLS, AND CABLES SHALL BE SUITABLE FOR OUTDOOR APPLICATION AND WET LOCATION RATED.
2. ALL CABLES IN THE CANOPY SHALL BE ROUTED IN CONDUIT. COORDINATE EXACT LOCATIONS OF CONDUIT IN FIELD.

KEYED SHEET NOTES

- L1 CANOPY LIGHTING WILL BE CONTROLLED BY PHOTOCELL AND TIME CLOCK IN PCC.
- L2 SEE D3/AE450 FOR MOUNTING DETAILS. LIGHT TO BE CONTROLLED VIA MESSAGE BOARD COORDINATE WITH
- L3 SEE D3/AE450 FOR MOUNTING DETAIL.
- L4 TO PANEL VIA LIGHTING CONTACTOR (SEE A2/E501).
- L6 LIGHTING FIXTURE AND CONTROL MODULES SHALL BE FURNISHED AND INSTALLED BY CANOPY VENDOR FOR PRE-FABRICATED CANOPIES. FIELD CONNECTION BOX AND TERMINALS SHALL BE PROVIDED BY THE CANOPY VENDOR.
- L7 DMX POWER SUPPLY AND CONTROLLER QTRAN QOM-eLED+DMX OR APPROVED EQUAL. SURFACE MOUNTED IN CANOPY ABOVE REMOVABLE PANEL FOR ACCESSIBILITY. COORDINATE EXACT LOCATION AND REQUIREMENTS IN FIELD. PROVIDE ALL NECESSARY COMPONENTS AND CONNECTORS FOR PROPER SYSTEM OPERATION AND CONTROL.
- L9 POWER CIRCUIT TO SIGNAGE PILLAR SIGNAGE LIGHTING. SEE A4/E501 FOR DETAILS.



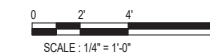
C1 LIGHTING PLAN TYPE A - LARGE (OTHERS SIMILAR)
SCALE: 1/4" = 1'-0"



b1 LIGHTING PLAN TYPE B - SMALL (OTHERS SIMILAR)
SCALE: 1/4" = 1'-0"

LIGHTING FIXTURE SCHEDULE

FIXTURE TYPE	DESCRIPTION	MANUFACTURER	MODEL	LAMP				VOLTAGE	MOUNTING	COMMENTS	
				NO.	WATTS	TYPE	CCT				CRI
A1	RECESSED LINEAR LED - 6"	LUMENWERX	VIAWETS-PYC-LED-90-500-35-6"-120-D1-1-GSM-EF-W		33 W	LED	3500 K	90	120 V	RECESSED	OR APPROVED EQUAL
A2	RECESSED LINEAR LED - 4'-9"	LUMENWERX	VIAWETS-PYC-LED-90-500-35-4'9"-120-D1-1-GSM-EF-W		26 W	LED	3500 K	90	120 V	RECESSED	OR APPROVED EQUAL
A3	RECESSED LINEAR LED - 5"	LUMENWERX	VIAWETS-PYC-LED-90-500-35-5"-120-D1-1-GSM-EF-W		28 W	LED	3500 K	90	120 V	RECESSED	OR APPROVED EQUAL
A4	RECESSED LINEAR LED - 3'-9"	LUMENWERX	VIAWETS-PYC-LED-90-500-35-3'9"-120-D1-1-GSM-EF-W		21 W	LED	3500 K	90	120 V	RECESSED	OR APPROVED EQUAL
B1	WET LISTED LED RGBW TAPE LIGHT - 5'-9"	Q TRAN	IQ65-MW-30-90-3.5-5'9"		20 W	LED	3000 K		120 V	SURFACE	OR APPROVED EQUAL
B2	WET LISTED LED RGBW TAPE LIGHT - 3'-9"	Q TRAN	IQ65-MW-30-90-3.5-3'9"		13 W	LED	3000 K		120 V	SURFACE	OR APPROVED EQUAL
B3	WET LISTED LED RGBW TAPE LIGHT - 4'	Q TRAN	IQ65-MW-30-90-3.5-4'		14 W	LED	3000 K		120 V	SURFACE	OR APPROVED EQUAL
B4	WET LISTED LED RGBW TAPE LIGHT - 2'	Q TRAN	IQ65-MW-30-90-3.5-2'		7 W	LED	3000 K		120 V	SURFACE	OR APPROVED EQUAL
B5	WET LISTED LED RGBW TAPE LIGHT - 2'	Q TRAN	IQ65-MW-30-90-6.0-1.5'		9 W	LED	3000 K		120 V	SURFACE	OR APPROVED EQUAL



LIGHTING PLAN E113



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CLIENT
 2222 CUMING STREET
 OMAHA, NEBRASKA 68102
 (402) 341-0800

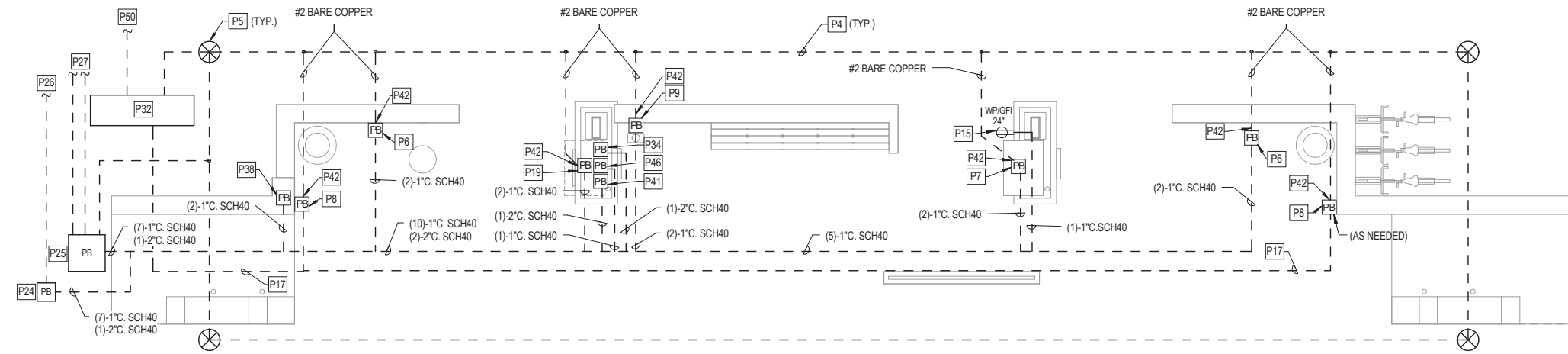
 ORBT
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AECOM
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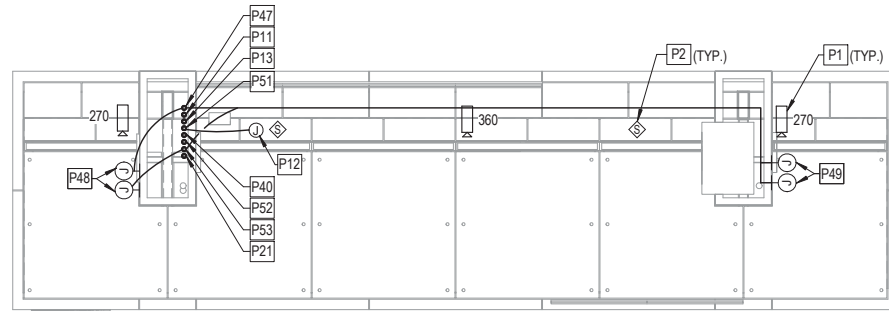
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 8600 INDIAN HILLS DRIVE
 OMAHA, NE 68114-4039

NE-79-X001
 OPW 53347

34 / 38



C1 POWER & SYSTEMS PLAN - SUBFED STATION
SCALE: 1/4" = 1'-0"



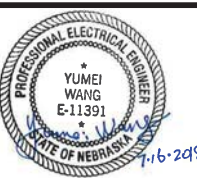
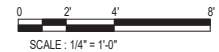
A1 POWER & SYSTEMS CEILING PLAN - SUBFED STATION
SCALE: 1/4" = 1'-0"

GENERAL NOTES

1. CCTV CAMERAS WILL BE FURNISHED BY OTHERS AND INSTALLED BY THE CONTRACTOR
2. ALL CONDUITS SHALL BE ROUTED BACK TO THE POWER AND COMMUNICATIONS CABINET. SEE SITE INFRASTRUCTURE PLANS (BY OTHERS) FOR EXACT LOCATION. MAINTAIN A MINIMUM OF 6" SPACING BETWEEN DATA AND POWER CONDUITS.
3. CONDUIT SHALL NOT BE ROUTED IN SNOW MELT AREA AND SHALL BE ROUTED NOT LESS THAN 6" BELOW SNOW MELT SYSTEM WHERE NEEDED. COORDINATE EXACT DEPTH IN FIELD.
4. NUMBER OF CONDUITS SHOWN FOR REFERENCE ONLY. MULTIPLE BRANCH CIRCUITS IN ONE CONDUIT ARE ALLOWED. FIELD COORDINATE REQUIRED QUANTITY TO COMPLY WITH NEC REQUIREMENTS. INTERFACE BETWEEN CANOPY PULLBOXES AND PLATFORM CONDUITS SHALL BE COORDINATED IN FIELD WITH OTHER TRADES.
5. ALL CABLING IN CANOPY SHALL BE ROUTED IN CONDUIT. COORDINATE EXACT LOCATIONS OF CONDUIT IN FIELD. MAINTAIN A MINIMUM OF 6" SPACING BETWEEN DATA AND POWER CONDUITS.
6. CONTRACTOR SHALL COORDINATE IN FIELD FOR EXACT REQUIREMENTS FOR OWNER FURNISHED EQUIPMENT.
7. ALL POWER AND COMMUNICATIONS CABLES SHALL BE EXTERIOR RATED.
8. CONDUIT SHALL NOT BE ROUTED IN CONDUCTIVE CONCRETE AREA.
9. BRANCH FEEDERS SHALL BE #8AWG MINIMUM. PROVIDE SAME SIZE GROUNDING CONDUCTORS.
10. SEE PANEL SCHEDULES ON SHEET E601 FOR HOME RUN AND CIRCUITING INFORMATION.
11. CAT 6 CABLES SHALL BE CONTINUOUS FROM THE PATCH PANEL IN THE PCC TO ALL DEVICES AND OUTLETS. COIL ENOUGH CABLING IN PULLBOXES WHERE FUTURE CONNECTIONS TO EQUIPMENT OR DEVICES ARE NEEDED.
12. WHERE UNDERGROUND CONDUITS ARE ROUTED UNDER DRIVEWAYS AND TRAFFIC AREAS PROVIDE SCHEDULE 80 PVC CONDUITS.
13. CONTRACTOR SHALL COORDINATE IN FIELD WITH EXISTING UTILITY TYPE AND LOCATION IN THE STATION AREA. NEW UTILITY RUNS SHALL BE LOWERED TO AVOID CONFLICT WITH EXISTING UTILITIES. PROTECT EXISTING UTILITIES DURING CONSTRUCTION.
14. ALL PULLBOXES AND PENETRATIONS THROUGH SNOW MELT AREA SHALL COMPLY WITH SNOW MELT SYSTEM REQUIREMENTS.

KEYED SHEET NOTES

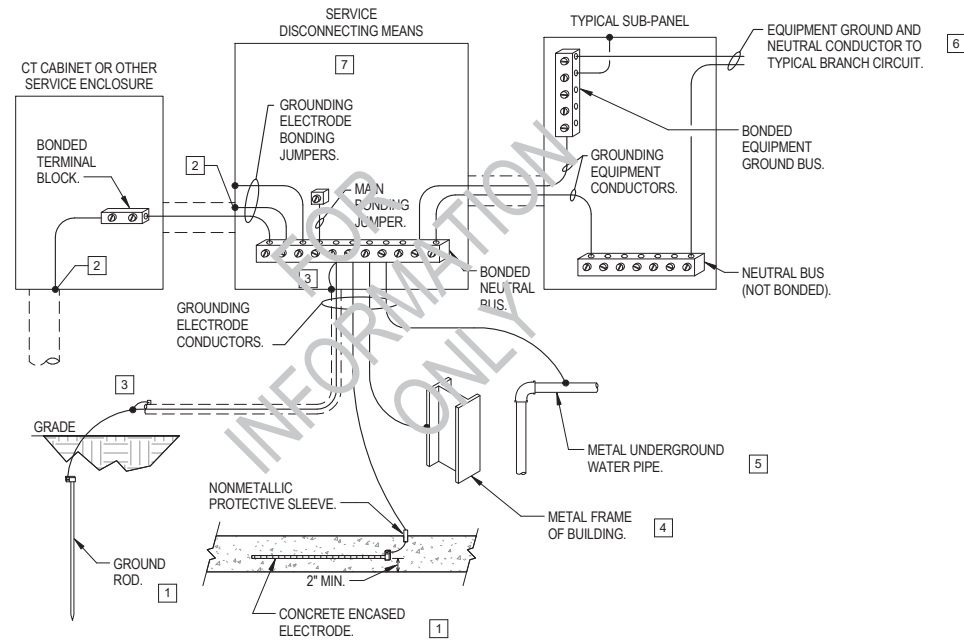
- P1 CCTV CAMERA MOUNTED ON CEILING WITH CAMERA LENS BELOW LOWEST PART OF THE CANOPY.
- P2 PAGING SPEAKER FLUSH WITH CEILING.
- P4 GROUND RING. #2 BARE COPPER BURIED 30" BELOW GRADE. MINIMUM 2' FROM FOUNDATION.
- P5 GROUND ROD, 3/4"x10' LONG COPPER CLAD WITH COLDWELD CONNECTION.
- P6 PULLBOX FLUSH WITH FINISHED GRADE FOR POWER AND DATA CONNECTION TO FUTURE TICKET VALIDATION MACHINE. COORDINATE EXACT LOCATION IN FIELD. PROVIDE BARRIER BETWEEN DATA AND POWER CABLES.
- P7 PULLBOX FLUSH WITH FINISHED GRADE FOR DATA AND POWER CONNECTION TO TICKET VENDING MACHINE. COORDINATE EXACT LOCATION IN FIELD. PROVIDE BARRIER BETWEEN DATA AND POWER CABLES.
- P8 12" X 24" PULLBOX FLUSH WITH FINISHED GRADE FOR FUSE BLOCK AND CONNECTORS. SEE SNOW MELT SYSTEM DESIGN FOR DETAILS. SNOW MELT SYSTEM DESIGN BY OTHERS.
- P9 PULLBOX FLUSH WITH FINISHED GRADE FOR DATA AND POWER CONNECTION TO EMERGENCY PHONE PEDESTAL. COORDINATE EXACT LOCATION IN FIELD. SEE ARCHITECTURAL SPECIFICATIONS FOR DETAILS. PROVIDE BARRIER BETWEEN POWER AND DATA CABLES. (1) CAT 6 FOR VOICE AND (1) FOR CAMERA.
- P11 (1)-1" CONDUIT FOR LIGHTING CIRCUITS FROM PULLBOX TO CANOPY. COORDINATE EXACT LOCATION IN FIELD. SEE C4/E501 FOR DETAILS.
- P12 J-BOX ABOVE CEILING FOR POWER CONNECTION TO FUTURE RADIANT HEATER.
- P13 (1)-1" CONDUIT FROM PULLBOX TO CANOPY FOR POWER TO HEAT TAPE ON ROOF DRAIN PIPING. COORDINATE EXACT LOCATION IN FIELD.
- P15 PROVIDE LOCKABLE BOX. COORDINATE EXACT LOCATION IN FIELD.
- P17 SEE E502 FOR DETAILS.
- P19 CONDUIT STUB AND PULLBOX FOR FUTURE TICKET VENDING MACHINE. PROVIDE BARRIER BETWEEN POWER AND DATA CABLES. COORDINATE EXACT LOCATION IN FIELD.
- P21 (1)-2" CONDUIT FROM PULLBOX TO CANOPY FOR CAT 6 CABLES TO CCTV CAMERAS, SPEAKERS, AND DATA CONNECTION TO BUS INDICATOR. ROUTE CAT 6 CABLES BACK TO PCC.
- P24 12" X 12" PULLBOX FOR COMMUNICATIONS CABLES FROM PCC PANEL TO THE SUBFED STATION. COORDINATE EXACT LOCATION WITH OTHER TRADES.
- P25 24" X 24" PULLBOX FOR POWER CABLES FROM PCC PANEL TO THE SUBFED STATION. COORDINATE EXACT LOCATION WITH OTHER TRADES.
- P26 (1)-3" CONDUIT FOR COMMUNICATIONS CABLES FROM PCC CABINET. BORE UNDER STREET. COMMUNICATIONS AND POWER CONDUITS SHALL MAINTAIN A 12" SEPARATION.
- P27 (2)-3" CONDUITS FOR POWER CABLES FROM PCC TO THE SUBFED STATION. BORE UNDER STREET. COMMUNICATIONS AND POWER CONDUITS SHALL MAINTAIN A 12" SEPARATION.
- P32 SNOW MELT SYSTEM EQUIPMENT CABINET. SEE SHEET E502 FOR DETAILS. SEE SITE DRAWINGS FOR EXACT LOCATION.
- P34 PULLBOX MOUNTED ON UNISTRUT FOR POWER CONNECTION TO LIGHTING CIRCUITS. FUTURE RADIANT HEATER, MESSAGE BOARD, DIGITAL KIOSK, DIGITAL SLOT SIGN AND HEAT TAPE FOR DRAIN PIPES IN CANOPY. SEE C4/E501 FOR DETAILS.
- P37 (1)-1" CONDUIT FOR DATA CONNECTION FROM MESSAGE BOARD TO LIGHTING CONTROLLER. COORDINATE EXACT LOCATION IN FIELD. COORDINATE EXACT CABLE AND INTERFACE REQUIRED. SEE A4/E501.
- P38 PULLBOX FOR POWER CONNECTION TO SIGNAGE AND LIGHTING ON SIGNAGE PILLAR. COORDINATE EXACT LOCATION AND CONNECTION IN FIELD. SEE A4/E501 FOR ROUGH IN INFORMATION.
- P40 (1)-1" CONDUIT FROM PULLBOX TO CANOPY FOR POWER CONNECTION TO MESSENGER BOARD. SEE C4/E501 FOR DETAIL. COORDINATE EXACT LOCATION IN FIELD.
- P41 PULLBOX MOUNTED ON UNISTRUT FOR DATA CABLES TO CCTV CAMERAS, SPEAKERS AND BUS INDICATOR. SEE C4/E501 FOR DETAILS.
- P42 BOND TO EQUIPMENT. COORDINATE EXACT REQUIREMENTS IN FIELD.
- P43 DMX POWER SUPPLY AND CONTROLLER QTRAN QOM-6LED+DMX OR APPROVED EQUAL. MOUNT VERTICALLY ON UNISTRUT BEHIND REMOVABLE PANEL FOR ACCESSIBILITY. SEE A4/E501. COORDINATE EXACT LOCATION AND REQUIREMENTS IN FIELD. PROVIDE DATA CONNECTION TO MESSAGE BOARD. PROVIDE ALL NECESSARY COMPONENTS AND CONNECTORS FOR PROPER SYSTEM OPERATION AND CONTROL.
- P46 PULLBOX MOUNTED ON UNISTRUT FOR DATA AND POWER CONNECTION TO DIGITAL KIOSK, DIGITAL SLOT SIGN AND MESSAGE BOARD. SEE C4/E501 FOR DETAILS.
- P47 (1)-1" CONDUIT FROM PULLBOX TO CANOPY FOR POWER CONNECTION TO DIGITAL SIGNAGE AND DIGITAL KIOSK. SEE C4/E501 FOR DETAIL. COORDINATE EXACT LOCATION IN FIELD.
- P48 J-BOX FOR POWER AND DATA CONNECTION TO DIGITAL SLOT SIGN. COORDINATE EXACT LOCATION IN FIELD.
- P49 J-BOX FOR POWER AND DATA CONNECTION TO DIGITAL KIOSK. COORDINATE EXACT LOCATION IN FIELD.
- P50 UNDERGROUND CONDUITS FOR POWER FROM PCC TO SNOW MELT SYSTEM TRANSFORMERS. COORDINATE EXACT LOCATION IN FIELD. SEE E502 FOR DETAILS.
- P51 (1)-1" CONDUIT FROM PULLBOX TO CANOPY FOR POWER CONNECTION TO FUTURE RADIANT HEATER. SEE C4/E501 FOR DETAIL. COORDINATE EXACT LOCATION IN FIELD.
- P52 (1)-1" CONDUIT FROM PULLBOX TO CANOPY FOR DATA CONNECTION TO MESSENGER BOARD. SEE C4/E501 FOR DETAIL. COORDINATE EXACT LOCATION IN FIELD.
- P53 (1)-1" CONDUIT FROM PULLBOX TO CANOPY FOR POWER CONNECTION TO DIGITAL SIGNAGE AND DIGITAL KIOSK. SEE C4/E501 FOR DETAIL. COORDINATE EXACT LOCATION IN FIELD.



POWER & SYSTEMS PLAN - SUBFED STATION (NO PCC)
E114

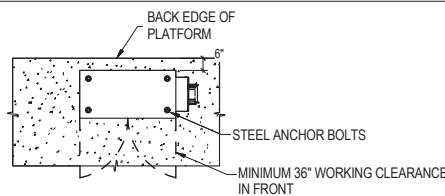
	CLIENT					
	2222 CUMING STREET OMAHA, NEBRASKA 68102 (402) 341-0800					

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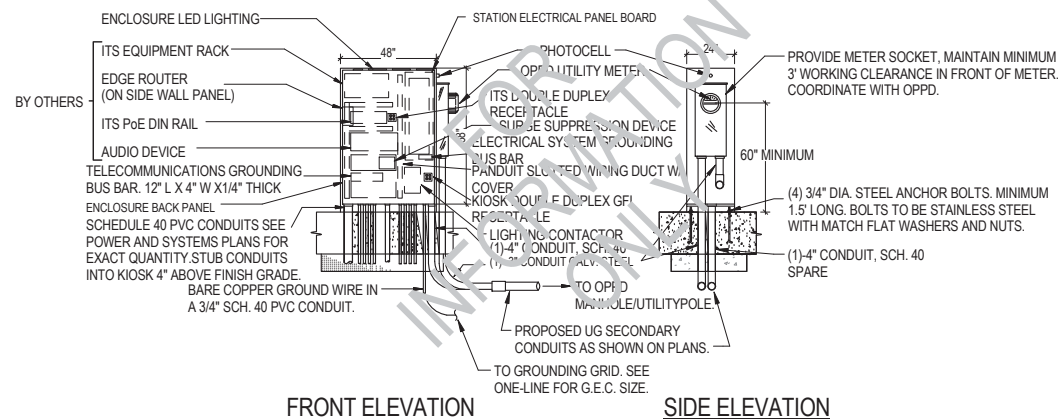


- 1 PROVIDE SUPPLEMENTAL GROUNDING ELECTRODE PER NFPA 70: NATIONAL ELECTRICAL CODE (NEC) AND BOND ALL AVAILABLE GROUNDING ELECTRODES IN THE BUILDING OR STRUCTURE TO FORM THE GROUNDING ELECTRODE SYSTEM PER NEC. THIS SUPPLEMENTAL ELECTRODE SHALL INCLUDE EITHER A 10'-0" x 3/4" COPPER CLAD GROUND ROD FOR AN EXTERIOR MAIN SERVICE ENTRANCE DISCONNECT, OR A MINIMUM OF 20 FEET OF 1/2" OR LARGER CONCRETE ENCASED REBAR FOR AN INTERIOR MAIN SERVICE DISCONNECT. IF THE REBAR BEING USED IN THE FOOTING IS SMALLER THAN 1/2", THEN USE 20' OF BARE SOLID #4 AWG COPPER CONDUCTOR OR 20' GROUND ROD AND BOND TO THE REBAR WITH STEEL TIE WRAPS. IN REMODEL PROJECTS THAT WILL NOT HAVE NEW FOOTINGS INSTALLED, THIS SUPPLEMENTAL ELECTRODE SHALL BE IN THE FORM OF A 10'-0" x 3/4" COPPER CLAD GROUND ROD INSTALLED PER CURRENT NEC REQUIREMENTS.
- 2 ALL METAL CONDUITS ENCLOSING ANY SERVICE CONDUCTORS SHALL BE FITTED WITH A "BONDING BUSHING". SIZE THE JUMPER PER NEC.
- 3 ALL METAL CONDUITS ENCLOSING ANY GROUNDING ELECTRODE CONDUCTOR SHALL BE FITTED WITH A "BONDING BUSHING" AT EACH END. SIZE THE JUMPER PER NEC.
- 4 IF STRUCTURAL STEEL MEMBER IS AVAILABLE, BOND IT TO THE SERVICE USING A UL LISTED IRREVERSIBLE CLAMP OR WELDED LUG.
- 5 CONNECTIONS TO THE METAL WATER PIPE SHALL BE LOCATED WITHIN THE FIRST 5 FEET OF POINT OF ENTRANCE OF THE INTERIOR METAL WATER PIPE, IF AVAILABLE ON THE PREMISES.
- 6 ALL BRANCH CIRCUIT AND FEEDER CONDUITS ARE TO HAVE AN INSULATED EQUIPMENT GROUNDING CONDUCTOR REGARDLESS OF THE CONDUIT MATERIAL.
- 7 WHEN THE SERVICE CONSISTS OF MULTIPLE DISCONNECTING MEANS IN SEPARATE ENCLOSURES, CONNECT A TAP CONDUCTOR FROM THE MAIN GROUNDING ELECTRODE CONDUCTOR TO EACH DISCONNECTING MEANS. SIZE THIS TAP BASED ON THE LARGEST SERVICE CONDUCTOR IN THAT SERVICE DISCONNECT ENCLOSURE.

B1 MAIN SERVICE GROUNDING ELECTRODE SYSTEM PER NEC
SCALE: NTS



PLAN VIEW



FRONT ELEVATION

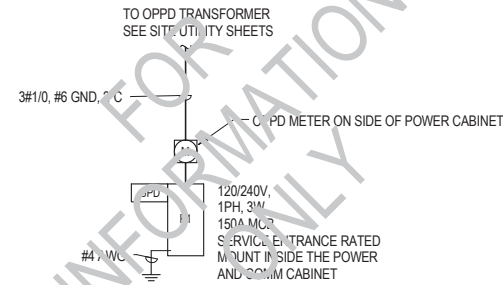
SIDE ELEVATION

NOTE:

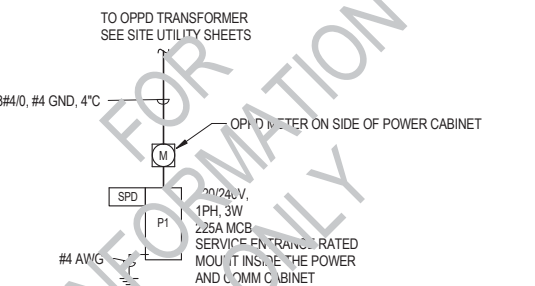
1. AVAILABLE SPACE IN ENCLOSURE IS MINIMAL. ENCLOSURE ELECTRICAL EQUIPMENT LAYOUT BASED ON THE FOLLOWING MANUFACTURERS. IF OTHER MANUFACTURERS ARE USED, ELECTRICAL CONTRACTOR SHALL COORDINATE TO ENSURE ALL EQUIPMENT WILL FIT IN SPACE PROVIDED. ADJUST CABINET HEIGHT AS NEEDED FOR ALL EQUIPMENT.
2. PANEL BOARD: SQUARE D "NO." 30, SQUARE "14" WIDE, NEMA 1 ENCLOSURE. FOR DOUBLE STATIONS, PANELS SHALL BE 42 SPACES.
3. LIGHTING CONTACTOR: SQUARE D "LXG" 30A, NEMA 1 ENCLOSURE.
4. SURGE PROTECTION DEVICE: LIEBERT "LPL", 100KA.
5. SNOWMELT SYSTEM.
6. PANDUIT WIRING DUCT.
7. CABINET ENCLOSURE SHALL BE NEMA 4X RATED.
8. PROVIDE LOCKABLE DOOR ON CABINET.

A1 POWER AND COMM CABINET DETAIL (PCC)
SCALE: NTS

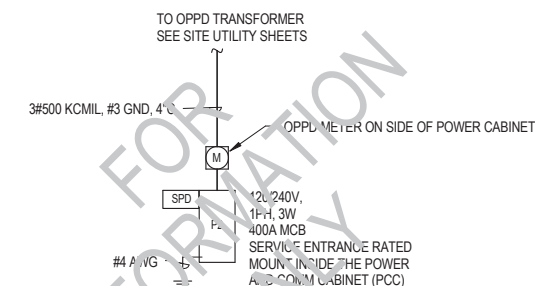
D2 POWER ONE LINE DIAGRAM - SINGLE STATION (150A)
SCALE: 12" = 1'-0"



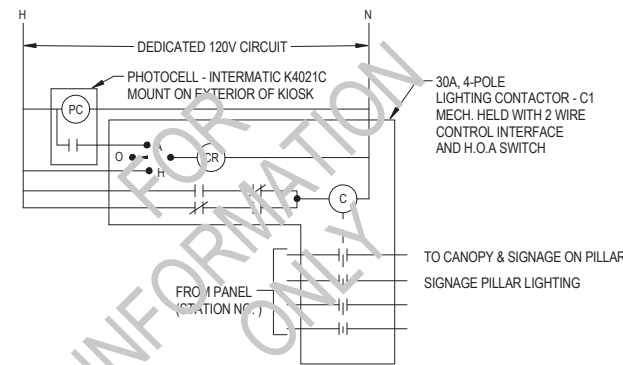
C2 POWER ONE LINE DIAGRAM - SINGLE STATION (225A)
SCALE: NTS



B2 POWER ONE LINE DIAGRAM - DUAL STATION
SCALE: NTS

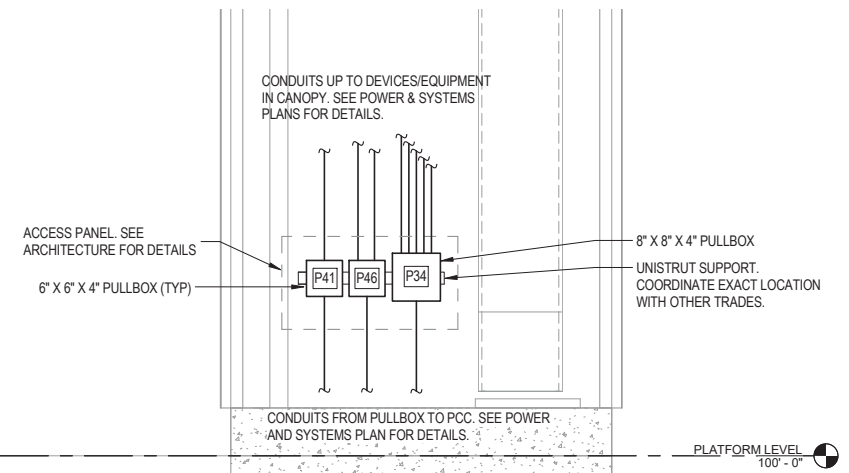


A2 LIGHTING CONTROL CONTACTOR DIAGRAM
SCALE: NTS



KEYED SHEET NOTES

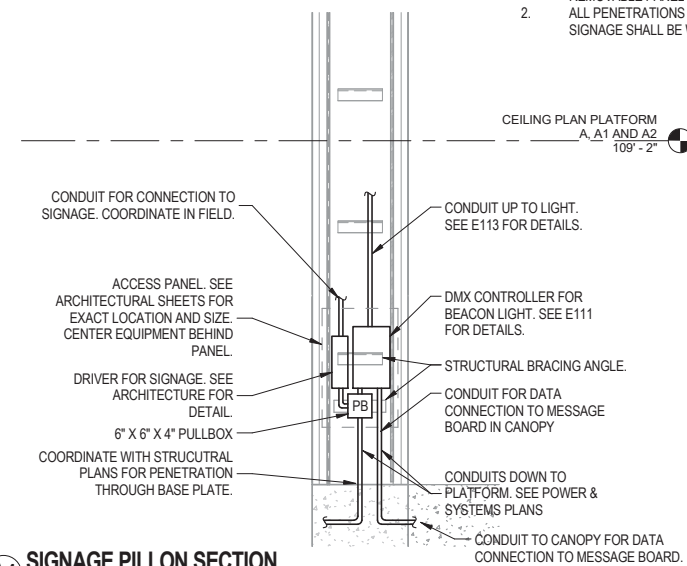
- P34 PULLBOX MOUNTED ON UNISTRUT FOR POWER CONNECTION TO LIGHTING CIRCUITS, FUTURE RADIANT HEATER, MESSAGE BOARD, DIGITAL KIOSK, DIGITAL SLOT SIGN AND HEAT TAPE FOR DRAIN PIPES IN CANOPY. SEE C4/E501 FOR DETAILS.
- P41 PULLBOX MOUNTED ON UNISTRUT FOR DATA CABLES TO CCTV CAMERAS, SPEAKERS AND BUS INDICATOR. SEE C4/E501 FOR DETAILS.
- P46 PULLBOX MOUNTED ON UNISTRUT FOR DATA AND POWER CONNECTION TO DIGITAL KIOSK, DIGITAL SLOT SIGN AND MESSAGE BOARD. SEE C4/E501 FOR DETAILS.



C4 COLUMN SECTION
SCALE: NTS

GENERAL NOTES:

1. MOUNT EQUIPMENT CENTERED BEHIND ACCESS PANEL ON STRUCTURAL BRACING ANGLES. SEE ARCHITECTURAL SHEETS FOR REMOVABLE PANEL LOCATION.
2. ALL PENETRATIONS THROUGH PANEL FOR SIGNAGE SHALL BE WATER TIGHT.



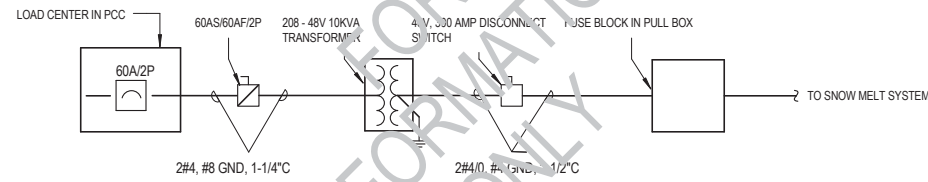
A4 SIGNAGE PILLON SECTION
SCALE: NTS

ELECTRICAL DETAILS
E501

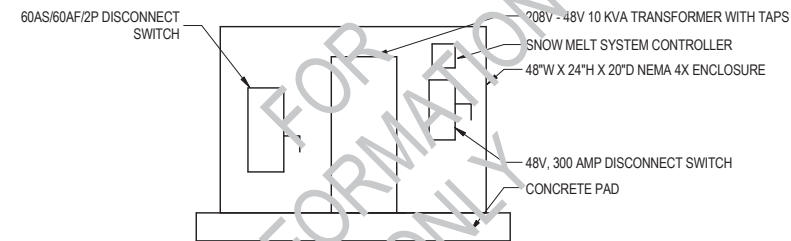


GENERAL NOTES

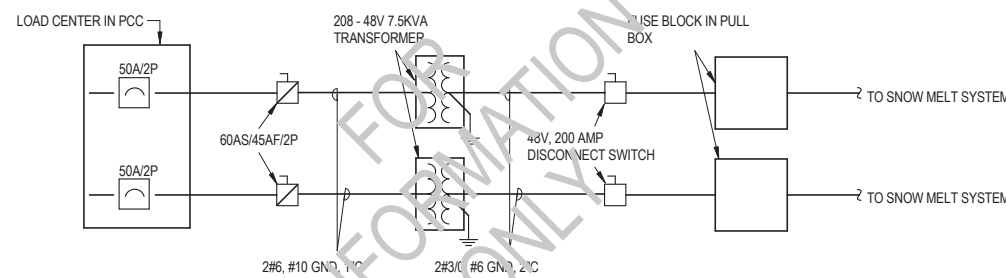
1. COORDINATE WITH SNOW MELT SYSTEM DESIGNER FOR EXACT REQUIREMENTS FOR SYSTEM EQUIPMENT SIZES.
2. COORDINATE EXACT FEEDER SIZE WITH SNOW MELT CONSULTANT. PROVIDE LARGER SIZE CONDUCTORS AND CONDUITS WHERE REQUIRED TO COMPENSATE FOR VOLTAGE DROP. PROVIDE FEEDER ADAPTER WHERE REQUIRED.
3. ALL EQUIPMENT AND FEEDERS SHOWN ARE FOR REFERENCE ONLY. CONTRACTOR TO COORDINATE WITH SNOW MELT SYSTEM DESIGNER FOR EXACT REQUIREMENTS.



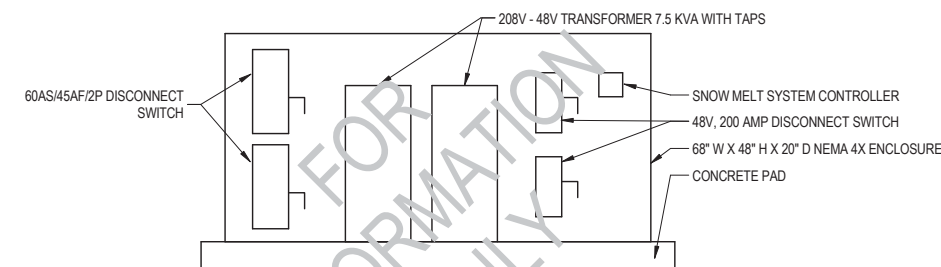
D1 SNOW MELT SYSTEM POWER WIRING DIAGRAM (1-10KVA TRANSFORMER)
SCALE: NTS



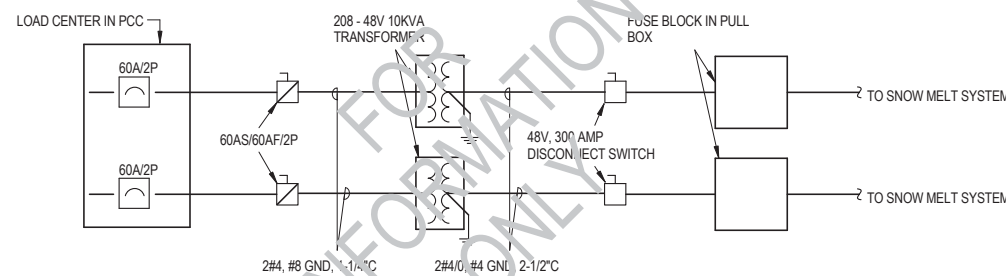
D3 SNOW MELT POWER TRANSFORMER ENCLOSURE (1-10KVA TRANSFORMER)
SCALE: NTS



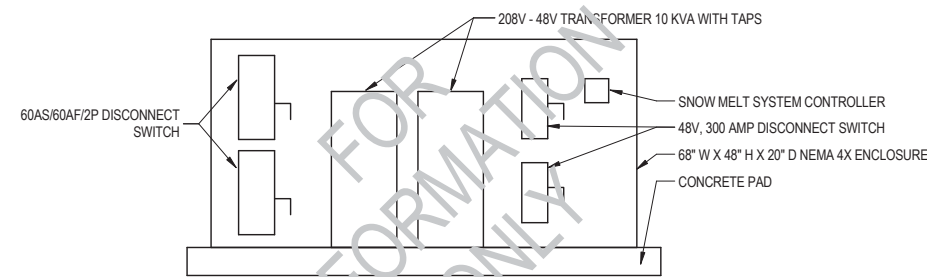
C1 SNOW MELT SYSTEM POWER WIRING DIAGRAM (2-7.5KVA TRANSFORMERS)
SCALE: NTS



C3 SNOW MELT POWER TRANSFORMER ENCLOSURE (2-7.5KVA TRANSFORMERS)
SCALE: NTS

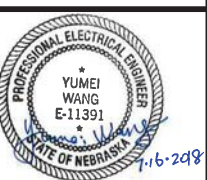


B1 SNOW MELT SYSTEM POWER WIRING DIAGRAM (2-10KVA TRANSFORMERS)
SCALE: NTS



B3 SNOW MELT POWER TRANSFORMER ENCLOSURE (2-10KVA TRANSFORMERS)
SCALE: NTS

**SNOW MELT SYSTEM DETAILS
E502**



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PANEL NO. P1A

MAINS TYPE: MCB TYPE: LIGHTING & APPLIANCE LOCATION: SURFACE
 MAIN BREAKER SIZE: 150A PHASE BUS RATING: 150A MOUNTING: SURFACE
 SERVICE VOLTAGE: 120/208 Single, 1-PHASE, 3-WIRE NEUTRAL BUS RATING: 150A FED FROM ID: TRANSFORMER
 AIC RATING: 42KAIC

NOTES:
 SINGLE STATION TYPE A (WESTROADS STATION, OTHER STATIONS SIMILAR, SEE STATION LOAD/PANEL TYPE SCHEDULE FOR EXACT PANEL SIZE AT EACH STATION)

LOAD DESCRIPTION	BKR	P	CKT NO.	A (VA)	B (VA)	CKT NO.	P	BKR	LOAD DESCRIPTION	
RECEPTACLE	20	1	1	180	280	2	1	20	LIGHTING/BACKLIGHTING	
TVM - FUTURE (FEEDER: (2)#10,#10GND)	30	1	3		2800	600	4	1	BUS INDICATOR LIGHT	
RADIANT HEATER - FUTURE (FEEDER: (2)#10,#10GND)	30	2	5	3000	100	6	1	20	MESSAGE BOARD	
			7		3000	900	8	1	20	EMERGENCY PHONE
SNOW MELTING SYSTEM (GFPE) (FEEDER: (2)#6,#10GND)	60	2	9	2374	2800	10	1	30	TVM (FEEDER: (2)#10,#10GND)	
			11		2374	1400	12	1	20	TICKET VALIDATION - FUTURE
SNOW MELTING SYSTEM (GFPE) (FEEDER: (2)#6,#10GND)	60	2	13	2374	600	14	1	20	HEAT TAPE FOR ROOF DRAIN PIPING (GFPE)	
			15		2374	1400	16	1	20	TICKET VALIDATION - FUTURE
ITS RECEPTACLE	20	1	17	360		18	2	30	SPD	
LIGHTING CONTROLLER	20	1	19		100	20				
PILON LIGHTING	20	1	21	5	0	22	1	20	SPARE	
DIGITAL SIGNAGE	20	1	23		360	0	24	1	20	SPARE
SPARE	20	1	25		0	26	1	20	SPARE	
SPARE	20	1	27		0	0	28	1	20	SPARE
SPARE	20	1	29		0	0	30	1	20	SPARE
Total Load:				12415.00 VA	15208.00 VA					
Total Amps:				119.4 A	142.7 A					

PANEL NO. P2A

MAINS TYPE: MCB TYPE: LIGHTING & APPLIANCE LOCATION: SURFACE
 MAIN BREAKER SIZE: 400A PHASE BUS RATING: 400A MOUNTING: SURFACE
 SERVICE VOLTAGE: 120/208 Single, 1-PHASE, 3-WIRE NEUTRAL BUS RATING: 400A FED FROM ID: TRANSFORMER
 AIC RATING: 42KAIC

NOTES:
 DUAL STATION TYPE A (62ND STATIONS, OTHER STATIONS SIMILAR, SEE STATION LOAD/PANEL TYPE SCHEDULE FOR EXACT PANEL SIZE AT EACH STATION)

LOAD DESCRIPTION	BKR	P	CKT NO.	A (VA)	B (VA)	CKT NO.	P	BKR	LOAD DESCRIPTION	
RECEPTACLE (1ST STATION)	20	1	1	180	1142	2	1	20	LIGHTING (1ST STATION)	
TVM - FUTURE (1ST STATION) (FEEDER: (2)#10,#10GND)	30	1	3		2800	600	4	1	BUS INDICATOR LIGHT (1ST STATION)	
RADIANT HEATER - FUTURE (1ST STATION) (FEEDER: (2)#10,#10GND)	30	2	5	3000	100	6	1	20	MESSAGE BOARD (1ST STATION)	
			7		3000	900	8	1	20	EMERGENCY PHONE (1ST STATION)
RECEPTACLE (2ND STATION) (FEEDER: (2)#8,#8GND)	20	1	9	180	2800	10	1	30	TVM (1ST STATION) (FEEDER: (2)#10,#10GND)	
TVM - FUTURE (2ND STATION) (FEEDER: (2)#6,#6GND)	30	1	11		2800	12	1	20	TICKET VALIDATION - FUTURE (1ST STATION)	
RADIANT HEATER - FUTURE (2ND STATION) (FEEDER: (2)#6,#6GND)	30	2	13	2374	600	14	1	20	HEAT TAPE (1ST STATION) (GFPE)	
			15		2374	1400	16	1	20	TICKET VALIDATION - FUTURE (1ST STATION)
ITS RECEPTACLE	20	1	17	360		18	1	20	LIGHTING (2ND STATION) (FEEDER: (2)#8,#8GND)	
SNOW MELTING SYSTEM (1ST STATION) (GFPE) (FEEDER: (2)#6,#6GND)	60	2	19	2220	100	20	1	20	BUS INDICATOR (2ND STATION) (FEEDER: (2)#8,#8GND)	
SNOW MELTING SYSTEM (2ND STATION) (GFPE) (FEEDER: (2)#6,#6 GND)	60	2	21	2220	600	22	1	20	MESSAGE BOARD (2ND STATION) (FEEDER: (2)#8,#8GND)	
			23		2220	900	24	1	20	EMERGENCY PHONE (2ND STATION) (FEEDER: (2)#8,#8GND)
SNOW MELTING SYSTEM (2ND STATION) (GFPE) (FEEDER: (2)#6,#6GND)	60	2	25	2220	2800	26	1	30	TVM (2ND STATION) (FEEDER: (2)#6,#6GND)	
SNOW MELTING SYSTEM (2ND STATION) (GFPE) (FEEDER: (2)#6,#6 GND)	60	2	27		2100	1400	28	1	20	TICKET VALIDATION (2ND STATION) (FEEDER: (2)#8,#8GND)
			29		2100	600	30	1	20	HEAT TAPE (2ND STATION) (GFPE) (FEEDER: (2)#8,#8GND)
SNOW MELTING SYSTEM (2ND STATION) (GFGE) (FEEDER: (2)#6,#6 GND)	60	2	31		2100	1400	32	1	TICKET VALIDATION (2ND STATION) (FEEDER: (2)#8,#8GND)	
LIGHITNG CONTROLLER	20	1	33	2100	0	34	2	30	SPD	
			35		100	0	36			
DIGITAL SIGNAGE (1ST STATION)	20	1	37	360	0	38	1	20	SPARE	
DIGITAL SIGNAGE (2ND STATION) (FEEDER: (2)#8,#8GND)	20	1	39		360	0	40	1	20	SPARE
SPARE	20	1	41		0	0	42	1	20	SPARE
Total Load:				25004.00 VA	29100.00 VA					
Total Amps:				240.4 A	274.6 A					

GENERAL NOTES

- PANEL BOARD INFORMATION SHOWN IS FOR TYPICAL TYPE A AND B STATIONS. CONTRACTOR TO COORDINATE WITH SITE CIVIL SHEETS FOR QUANTITY OF PANELBOARDS REQUIRED.
- SNOW MELT LOAD INFORMATION SHOWN IS FOR REFERENCE ONLY. SEE SHEET E502 AND COORDINATE WITH SNOW MELT DESIGNER FOR EXACT REQUIREMENTS.

PANEL NO. P1B

MAINS TYPE: MCB TYPE: LIGHTING & APPLIANCE LOCATION: SURFACE
 MAIN BREAKER SIZE: 150A PHASE BUS RATING: 150A MOUNTING: SURFACE
 SERVICE VOLTAGE: 120/208 Single, 1-PHASE, 3-WIRE NEUTRAL BUS RATING: 150A FED FROM ID: TRANSFORMER
 AIC RATING: 42KAIC

NOTES:
 SINGLE STATION TYPE B (24TH WB STATION, OTHER STATIONS SIMILAR, SEE STATION LOAD/PANEL TYPE SCHEDULE FOR EXACT PANEL SIZE AT EACH STATION)

LOAD DESCRIPTION	BKR	P	CKT NO.	A (VA)	B (VA)	CKT NO.	P	BKR	LOAD DESCRIPTION	
RECEPTACLE	20	1	1	180	280	2	1	20	LIGHTING/BACKLIGHTING	
TVM - FUTURE (FEEDER: (2)#10,#10GND)	30	1	3		2800	600	4	1	BUS INDICATOR LIGHT	
RADIANT HEATER - FUTURE (FEEDER: (2)#10,#10GND)	30	2	5	3000	100	6	1	20	MESSAGE BOARD	
			7		3000	800	8	1	20	EMERGENCY PHONE
SNOW MELTING SYSTEM (GFPE) (FEEDER: 2#6, #10GND)	50	2	9	2070	2800	10	1	30	TVM (FEEDER: (2)#10,#10GND)	
			11		2070	1400	12	1	20	TICKET VALIDATION - FUTURE
SNOW MELTING SYSTEM (GFPE) (FEEDER: 2#6, #10GND)	50	2	13	2070	600	14	1	20	HEAT TAPE FOR ROOF DRAIN PIPING (GFPE)	
			15		2070	1400	16	1	20	TICKET VALIDATION - FUTURE
ITS RECEPTACLE	20	1	17	360		18	2	30	SPD	
LIGHTING CONTROLLER	20	1	19		100	20				
PILON LIGHTING	20	1	21	5	0	22	1	20	SPARE	
DIGITAL SIGNAGE	20	1	23		360	0	24	1	20	SPARE
SPARE	20	1	25		0	0	26	1	20	SPARE
SPARE	20	1	27		0	0	28	1	20	SPARE
SPARE	20	1	29		0	0	30	1	20	SPARE
Total Load:				11476.50 VA	14600.00 VA					
Total Amps:				110.4 A	136.4 A					

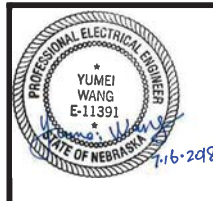
STATION LOAD/PANEL TYPE SCHEDULE

STATION	SNOW MELT LOAD (KVA)	TOTAL LOAD (KVA)	TOTAL CURRENT (A)	SERVICE VOLTAGE	PANEL TYPE AND SIZE (A)	COMMENTS
WESTROADS	11.9	27	143	120/208V, 1P, 3W	P1A - 150A	
90TH WB	9.3	25	133	120/208V, 1P, 3W	P1A - 150A	
90TH EB	9.2	23	122	120/208V, 1P, 3W	P1B - 150A	
84TH WB	9.4	23	122	120/208V, 1P, 3W	P1B - 150A	
84TH EB	14.8	20	154	120/208V, 1P, 3W	P1A - 225A	
72ND WB	10.2	16	137	120/208V, 1P, 3W	P1A - 150A	
72ND EB	8.3	25	130	120/208V, 1P, 3W	P1A - 150A	
62ND WB	11.1	52	277	120/208V, 1P, 3W	P2A - 400A	ONE PCC FOR BOTH STATIONS
62ND EB	10.6					
49TH WB	11.3	53	280	120/208V, 1P, 3W	P2A - 400A	ONE PCC FOR BOTH STATIONS
49TH EB	11.3					
42ND WB	11.3	27	142	120/208V, 1P, 3W	P1A - 150A	
42ND EB	9.4	16	135	120/208V, 1P, 3W	P1A - 150A	
35TH EB	10.8	25	139	120/208V, 1P, 3W	P1A - 150A	
33RD WB	9.4	25	134	120/208V, 1P, 3W	P1A - 150A	
PARK AVE WB	16.5	28	146	120/208V, 1P, 3W	P1B - 225A	
PARK AVE EB	10.5	26	138	120/208V, 1P, 3W	P1A - 150A	
24TH WB	10.4	26	125	120/208V, 1P, 3W	P1B - 150A	
24TH EB	10.5	26	138	120/208V, 1P, 3W	P1A - 150A	
20TH WB	16.5	28	146	120/208V, 1P, 3W	P1B - 225A	
19TH EB	10.5	26	138	120/208V, 1P, 3W	P1A - 150A	
16TH WB	8.7	25	131	120/208V, 1P, 3W	P1A - 150A	
15TH EB	10.5	26	138	120/208V, 1P, 3W	P1A - 150A	
12TH WB	9.0	25	132	120/208V, 1P, 3W	P1A - 150A	
10TH EB	10.5	26	138	120/208V, 1P, 3W	P1A - 150A	

SNOW MELT LOAD FOR REFERENCE ONLY. COORDINATE WITH SYSTEM DESIGNER FOR EXACT LOAD INFORMATION.

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ELECTRICAL SCHEDULES E601



CLIENT 2222 CUMING STREET OMAHA, NEBRASKA 68102 (402) 341-0800	ORBT OMAHA RAPID BUS TRANSIT	AECOM 12120 SHAMROCK PLZ, STE 100 OMAHA, NEBRASKA 68154	LEO A DAILY 8600 INDIAN HILLS DRIVE OMAHA, NE 68114-4039	NE-79-X001 OPW 53347	38 / 38
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