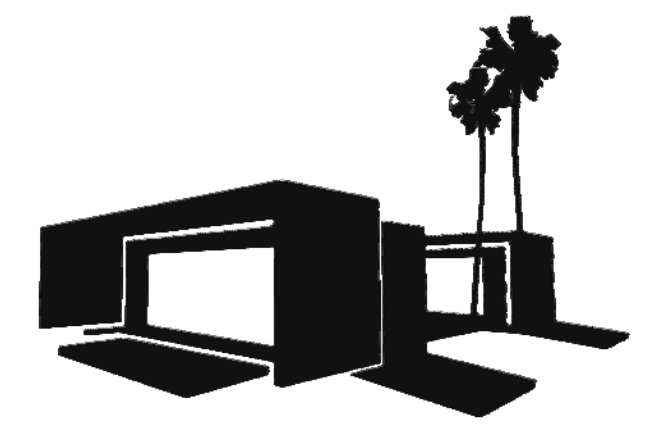




Southern California Institute of Architecture



Dynamic Augmented Living Environment

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BUILDING CONSTRUCTION
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LOS ANGELES, CA 90020
TEL: 213.388.9327

SUBMISSIONS:

DESIGN DOCUMENTATION SET	10/11/2012
CONSTRUCTION DOCUMENTATION SET	02/14/2013
AS-BUILT SET	08/22/2013

REVISIONS:

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COVER

G-000



SCI-ARC/CALTECH SOLAR DECATHLON 2013

PROJECT NAME:	DALE
LOCATION:	ORANGE COUNTY GREAT PARK, IRVINE, CA
OCCUPANCY:	R-RESIDENTIAL
CONSTRUCTION TYPE:	TYPE VA
BUILDING DESCRIPTION:	NEW SINGLE STORY 2 MODULE DWELLING
DESIGN TEAM:	SOUTHERN CALIFORNIA INSTITUTE OF ARCHITECTURE 960 EAST 3RD STREET LOS ANGELES, CA 90013 CALIFORNIA INSTITUTE OF TECHNOLOGY 1200 EAST CALIFORNIA BOULEVARD PASADENA, CA 91125

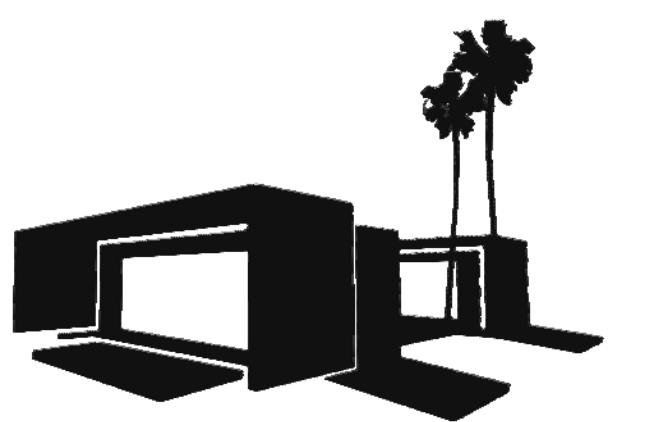
ARCHITECTURE DESIGN NARRATIVE

DALE, THE DYNAMIC AUGMENTED LIVING ENVIRONMENT WELCOMES THE U.S. DEPARTMENT OF ENERGY SOLAR DECATHLON 2013 TO SUNNY SOUTHERN CALIFORNIA. INSPIRED BY THE REGION'S WONDERFUL CLIMATE, DRAMATIC GEOGRAPHY, AND ADVENTUROUS LIFESTYLE, SCI-ARC/CALTECH'S NET-ZERO, RAIL-MOUNTED ACTIVE DWELLING SYSTEM CARRIES THE ARCHITECTURAL TRADITION OF THE ADOBE, BUNGALOW, AND CASE STUDY HOUSES INTO THE TWENTY-FIRST CENTURY. DEMONSTRATING ADVANCES IN SIZE VARIABILITY, CLIMATIC TUNING, LIVING FLEXIBILITY, AND ENERGY EFFICIENCY -- ALL MADE POSSIBLE BY ITS UNIQUE CAPABILITY TO MOVE -- DALE SITS SMALL BUT LIVES LARGE, REQUIRING LESS SPACE AND NO NET ENERGY CONSUMPTION. DALE USES TODAY'S SOLAR TECHNOLOGY TO MATCH THE UNSUSTAINABLY BLOATED LIFESTYLE CLAIMS OF THE CURRENT SUPERSIZED HOUSING TRENDS.

ENGINEERING DESIGN NARRATIVE

UNLIKE THE TYPICAL ENERGY-EFFICIENT HOME, WHICH RELIES ON PASSIVE SYSTEMS TO SAVE ENERGY, DALE UTILIZES ACTIVE MECHANICAL SYSTEMS THAT EMBODY OUR TEAM'S INGENUITY AND SHOWCASE A VARIETY OF ENERGY-SAVING INNOVATIONS. WITH ITS TILTED SOLAR PV ARRAY, DUCTLESS HVAC SYSTEM, SMART HOME CONTROL APPLICATION, AND MOVING MODULES AND CANOPIES, WE DESIGNED DALE TO BOAST A SOUTHERN CALIFORNIA PHILOSOPHY - BUY SMALL, LIVE LARGE - AND OUR ENGINEERED SYSTEMS REFLECT THIS IDEAL.

8/22/2013 3:35:22 PM



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**ABBREVIATIONS &
SHEET INDEX**

G-001

ABBREVIATIONS

AC	ALTERNATE CURRENT	H	HOT	TEMP.	TEMPERED
ACCES.	ACCESSORY	HD.	HEAD	THWN	THERMOPLASTIC HIGH WATER RESISTANT NYLON COATED
ACOUS.	ACOUSTIC(AL)	HDWD.	HARDWOOD	TL	THERMOCOUPLE DATA LOGGER
ADJ.	ADJUSTABLE	HDWE.	HARDWARE	TLT.	TOILET
AFCI	ARC FAULT CIRCUIT INTERRUPTER	HEX	HEAT EXCHANGER	T&G	TONQUE AND GROOVE
AFF	ABOVE FINISHED FLOOR	H.M.	HOLLOW METAL	TRTD.	TREATED
ALUM.	ALUMINUM	H.P.	HEAT PUMP	TS	TEMPERATURE SENSOR
ALT.	ALTERNATE	HT.	HEIGHT	TT-1	THERMAL STORAGE TANK
ANOD.	ANODIZED	HVAC	HEATING, VENTILATING, AND AIR CONDITIONING	TYP.	TYPICAL
ARCH.	ARCHITECT(URAL)	HW	HOT WATER	UNDRLAY.	UNDERLAYMENT
AUTO.	AUTOMATIC	IC	IMPACT INSULATION CLASS	UTIL.	UTILITY
AVG.	AVERAGE	INFO	INFOMATION	UNO	UNLESS OTHERWISE NOTED
AWG.	AMERICAN WIRE GAUGE	INSTRUM.	INSTRUMENT(ATION)	V	VALVE
&	AND	INSUL.	INSULATION	VEH.	VEHICLE
		INTLK.	INTERLOCK(ING)	VERT.	VERTICAL
		INT.	INTERIOR	VIF	VERIFY IN FIELD
		INFILTR.	INFILTRATION	VOC	VOLATILE ORGANIC COMPOUND
BD.	BOARD	K	KELVIN	W	WATTS
BLDG.	BUILDING	KIT.	KITCHEN	W/	WITH
BLKG	BLOCKING	KW	KILOWATT	W.C.	WATER CLOSET
BOLLD	BOLLARD	LAV.	LAVATORY	WD.	WOOD
BOT.	BOTTOM	LT.	LIGHT	W/DW	WINDOW
BRDLM	BROADLOOM	LVLG.	LEVELING	W/HF	WHOLE HOUSE FAN
B.U.	BUILT UP	LVR.	LOUVER	W/O	WITHOUT
		LX.	MAXIMUM	WR	WEATHER RESISTANT OUTLETS W/ WEATHER RESISTANT BUBBLE COVER
C	COLD	MAX.	MAXIMUM	WSP	WEST SUB PANEL
CAB.	CABINET	MFD.	MANUFACTURED	WT.	WEIGHT
CD	COMPRESSIBLE DUCT	MFR.	MANUFACTURER	WP.	WATER PROOF
CEM.	CEMENT(TIOUS)	MATL.	MATERIAL	WP	WATER PUMP
CER.	CERAMIC	MECH.	MECHANICAL		
CLG.	CEILING	MEMB.	MEMBRANE		
CMU	CONCRETE MASONRY UNIT	MEZZ.	MEZZANINE		
COL.	COLUMN EQ.	MIN.	MINIMUM		
COILG	COILING	MISC.	MISCELLANEOUS		
CONC.	CONCRETE	MILLWK.	MILLWORK		
CONSTR.	CONSTRUCTION	MP	MAIN PANEL		
CONN.	CONNECTION	MTL.	METAL		
CONT.	CONTINUOUS(ATION)	MOIST	MOISTURE		
CONTR.	CONTRACT(OR)	MPPT	MAXIMUM POWER POINT TRACKER		
COORD.	COORDINATE	MTD.	MOUNTED		
COV.	COVER	NTC	NOT IN CONTRACT		
CPT	CARPET	NO.	NUMBER		
CTR.	CENTER	NOTC	NORMAL OPERATING CELL TEMPERATURE		
OW	COLD WATER	NPT	NATIONAL PIPE THREAD		
		N.	NEW		
		NR	NPT REDUCER		
		NTS	NOT TO SCALE		
DBL	DOUBLE	ORNA.	ORNAMENTAL		
DC	DIRECT CURRENT	O/	OVER		
DEPT.	DEPARTMENT	OA.	OVERALL S.F.		
DTL.	DETAIL	OVFL.	OVERFLOW		
DHW	DOMESTIC HOT WATER	OVHD	OVERHEAD		
DIA.	DIAMETER	OC	ON CENTER		
DIFF.	DIFFUSER	OPNG.	OPENING		
DIM.	DIMENSION	OPP.	OPPOSITE		
DISP.	DISPENSER	OPR.	OPERABLE		
DN.	DOWN	PTN.	PARTITION		
S	DOLLAR (US CURRENCY)	FC	COPPER FITTING		
DR.	DOOR				
DRN.	DRAIN				
DS.	DOWNSPOUT				
DW	DRINKING WATER				
DWG.	DRAWING				
DWR.	DRAWER				
DWS	DRINKING WATER SUPPLY				
EA.	EACH				
EF.	EXHAUST FAN				
ELEV.	ELEVATION				
ELAST.	ELASTOMERIC				
ELEC.	ELECTRICAL				
EMBED	EMBEDD(ING)				
EMT	ELECTRICAL METALLIC TUBING				
EQ.	EQUAL				
EQUIP.	EQUIPMENT				
ERV	ENERGY RECOVERY VENTILATOR				
EXIST.	EXISTING				
EXP JT.	EXPANSION JOINT				
EXPS.	EXPOSE(D)				
EXT.	EXTERIOR				
FAB.	FABRICATION				
FOF	FACE OF FINISH				
FOS	FACE OF STUD				
FCU.	FAN COIL UNIT				
F.D.	FLOOR DRAIN				
F.E.	FIRE EXTINGUISHER				
FIN.	FINISH				
F.R.	FIRE RATING				
FXD.	FIXED				
FXTR.	FIXTURE				
FL.	FLOOR				
FL.	FLANGE				
FLR.	FLOORING				
FLASH.	FLASHING				
FLDG.	FOLDING.				
FT.	FOOT OR FEET				
FTG.	FOOTING				
FURN.	FURNITURE				
GAL.	GALLON				
GALV.	GALVANIZED GLASS				
GA	GAUGE				
GFCI	GROUND FAULT CIRCUIT INTERRUPTER				
GFRC	GLASS FIBER REINFORCED CONCRETE				
GFRC	GLASS FIBER REINFORCED GYPSUM				
GFRC	GLASS FIBER REINFORCED PLASTER				
GL.	GLASS				
GR.	GRADE(ING)				
GND.	GROUND				
GYP.	GYPSUM				

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H-101	LIQUID LOCATION AND SPILL CONTAINMENT, & SCHEDULE
S-001	DRAWING SYMBOLS, INDEX, ABBREVIATION
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S-003	GENERAL NOTES
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S-404	TRUSS DETAILS
S-405	TYPICAL DETAILS
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A-102	MODULE (B) FLOOR, CEILING, & ROOF PLAN
A-201	MODULE (A) EXTERIOR ELEVATIONS
A-202	MODULE (B) EXTERIOR ELEVATIONS
A-301	MODULE (A) SECTIONS
A-302	MODULE (B) SECTIONS
A-401	KITCHEN & SANDROOM ELEVATIONS
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A-501	WALL SECTION DETAILS
A-502	TRANSVERSE SECTION DETAILS
A-503	PLAN DETAILS
A-504	DOOR SCHEDULE
A-505	KITCHEN CABINETS DETAILS
A-506	KITCHEN CABINET DETAILS
F-101	FIRE SUPPRESSION & DETECTION
F-902	FIRE PROTECTION ISOMETRIC
P-101	WATER UTILITY UNIT
P-102	DOMESTIC WATER SUPPLY & WASTE PLAN
P-103	SOLAR THERMAL DISTRIBUTION PLAN
P-301	WATER SUPPLY & WASTE SECTIONS
P-401	MECHANICAL ROOM LAYOUT
P-601	DOMESTIC SUPPLY/WASTE SCHEMATIC & SCHEDULE
P-602	CABLE/HOSE CARRIER NARRATIVE & CALCULATIONS
P-901	PLUMBING SYSTEMS ISOMETRIC
M-101	MECHANICAL EQUIPMENT DISTRIBUTION PLAN
M-301	MECHANICAL SECTION, PLAN & ELEVATIONS
M-601	HVAC SCHEDULES & SCHEMATIC
M-901	HVAC ISOMETRIC
E-101	ELECTRICAL DISTRIBUTION PLANS
E-102	PV WIRING PLAN
E-103	HARDWIRED EQUIPMENT ELECTRICAL PLAN
E-601	ONE-LINE DIAGRAM
E-602	THREE-LINE PV DIAGRAM
E-603	ELECTRICAL CALCULATIONS & SCHEDULE
T-101	SAFETY EQUIPMENT PLAN & ELEVATIONS
T-102	SAFETY EQUIPMENT SCHEDULE
XA-001	CANOPY/PV OVERVIEW
XA-101	CANOPY/PV PLAN & SECTION
XA-501	CANOPY/PV DETAILS
XB-001	MOVABLE CABINETS OVERVIEW
XB-101	MOVABLE CABINET ELEVATIONS
XB-102	MURPHY BED ELEVATIONS & SECTIONS
XB-501	MOVABLE CABINET DETAILS
XB-502	MOVABLE CABINET DETAILS
XB-503	MOVABLE CABINET DETAILS
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XC-001	LANDSCAPE GENERAL OVERVIEW
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XD-103	VINYL SKIN TOP CAPS CUT SHEET
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O-102	WATER DELIVERY AND REMOVAL DIAGRAMS

Grand total: 84



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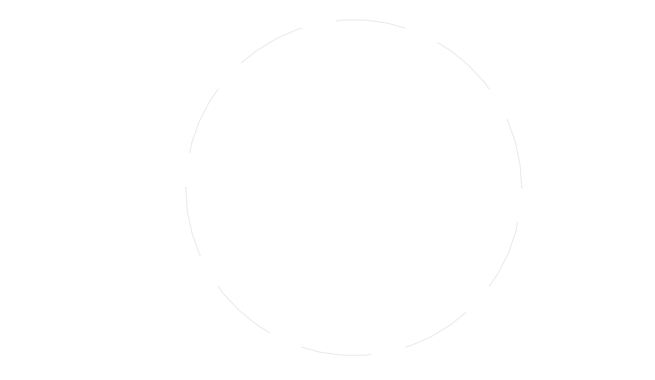
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SHEET TITLE

SYMBOLS LEGEND

G-002

GENERAL SHEET NOTES

REFERENCE KEYNOTES

SHEET KEYNOTES

MARK	DESCRIPTION
	2-WAY BALL VALVE
	DOMESTIC HOT WATER HEATER
	POTABLE COLD WATER
	POTABLE HOT WATER
	IN-LINE CIRCULATING PUMP
	MUNICIPAL WATER SUPPLY TANK
	PENDANT HEADSPRINKLERS
	RISER DN
	HEAT EXCHANGER
	MODULE SPLIT FITTING
	AIR ADMITANCE VALVE

MARK	DESCRIPTION
	LASER
	LIGHT CURTAIN
	PRESSURE SENSOR
	MODULE SEAL LIMIT SWITCH
	CANOPY LIMIT SWITCH
	DISTANCE LASER

MARK	DESCRIPTION
	DIMMER SWITCH
	LED EXTERIOR FLOOD LIGHT
	LED LIGHT POST
	MEDICINE CABINET SCONCE
	3" RECESSED DOWNLIGHT
	4" RECESSED DOWNLIGHT
	SIX BUTTON KEYPAD
	SWITCH
	OVER CABINET LED
	SHEAR WALL TASK
	SHEAR WALL AMBIENT
	T8 LIGHT FIXTURE
	UNDER CABINET LED
	UNDER MODULE LED
	SOLAR DECK LIGHT

MARK	DESCRIPTION
	3-WAY VALVE
	6-KEY SWITCH
	AFCI RECEPTACLE
	AFCI FLOOR MOUNTED RECEPTACLE
	APPLIANCES
	DC TO AC INVERTER
	DIMMER SWITCH
	ELECTRICAL METER
	ELECTRICAL SUBSTATION
	EXHAUST FAN
	GROUNDING ROD
	GFCI RECEPTACLE
	JUNCTION BOX
	LIGHT FIXTURE
	LOAD CENTER
	PHOTOVOLTAIC MODULE
	PV JUNCTION BOX
	SINGLE-POLE CIRCUIT BREAKER
	SMOKE DETECTOR
	TWO-POLE CIRCUIT BREAKER
	TAMPER RESISTANT 220V RECEPTACLE
	TAMPER RESISTANT 220V RECEPTACLE GFCI
	TAMPER RESISTANT QUADRAPLEX RECEPTACLE
	TAMPER RESISTANT DUPLEX RECEPTACLE
	TAMPER RESISTANT DUPLEX RECEPTACLE GFCI
	TAMPER RESISTANT WEATHER PROOF RECEPTACLE
	TAMPER RESISTANT SWITCHED QUADRAPLEX RECEPTACLE
	TAMPER RESISTANT QUADRAPLEX GFCI RECEPTACLE
	CEILING MOUNTED TAMPER RESISTANT DUPLEX RECEPTACLE

MARK	DESCRIPTION
	AREA TAG
	CALL OUT TAG
	CENTERLINE
	DOOR TAG
	STRUCTURAL GRID TAG
	REFERENCE KEYNOTE TAG
	ELEVATION MARKER
	NORTH ARROW
	REVISION TAG
	ROOM TAG
	SECTION TAG
	INTERIOR ELEVATION TAG
	EXTERIOR ELEVATION TAG
	SPOT ELEVATION
	WALL TAG
	WINDOW TAG
	SHEET KEYNOTE TAG
	GRAPHIC SCALE
	VIEW TITLE

MARK	DESCRIPTION
	EMERGENCY MEETING AREA
	EGRESS PATH
	FIRE EXTINGUISHER
	SMOKE DETECTOR

C4 DRAWING BLOCK TITLE
1 1/2" = 1'-0"

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**SITE
INFORMATION,
EGRESS, & ADA
ROUTE**

G-101

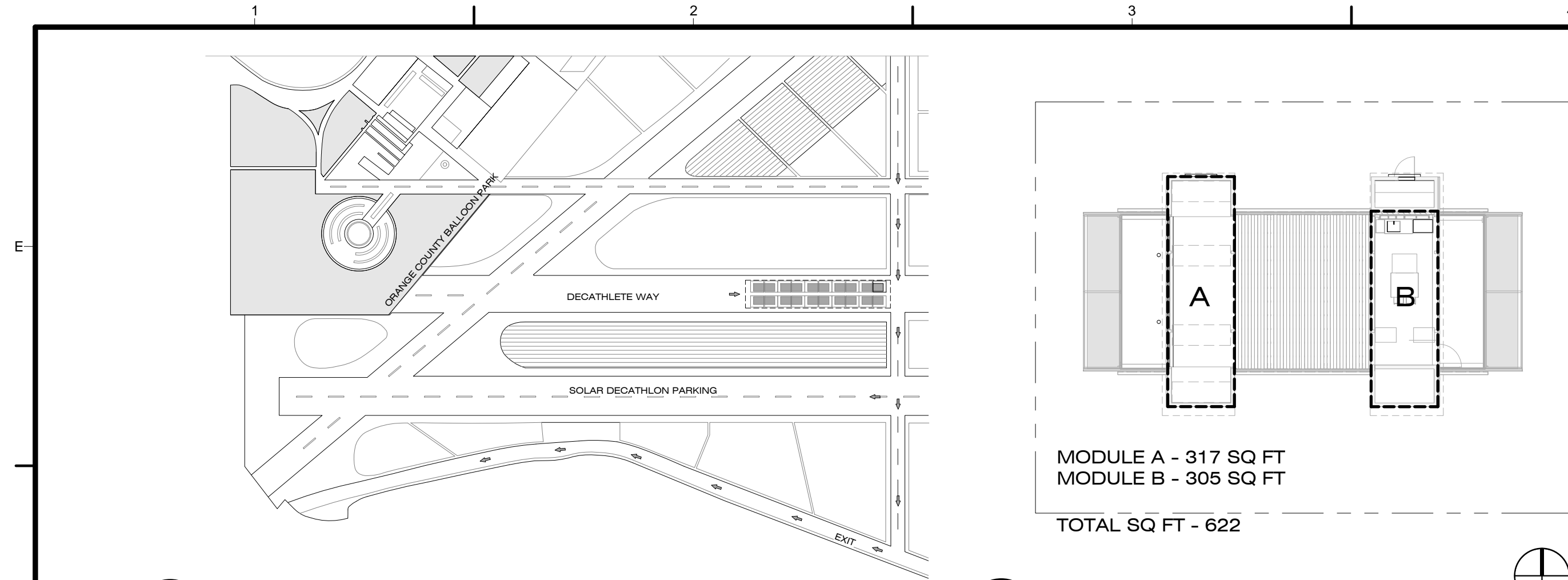
GENERAL SHEET NOTES

1. MODULE LOCATIONS VARY
2. LOCATION AND DATUM ON GRADE ARE APPROXIMATED, TO BE V.I.F.
3. REFER TO G-101 FOR SITE OPERATIONS
4. SQUARE FOOTAGE OF MECHANICAL ROOM NOT INCLUDED IN FINAL SQUARE FOOTAGE OF HOUSE PER ANSI REQUIREMENTS
5. ALL MEASUREMENTS ARE ROUNDED TO THE NEAREST WHOLE SQUARE FOOT IN ACCORDANCE WITH ANSI Z765-2003
6. REFER TO SHEET A-100 FOR GENERAL SITE PLAN & FLOOR LAYOUT
7. RAMP TO BE BUILT TO LONGER DIMENSION AND CUT TO FIT GRADE OF SITE; MAXIMUM SLOPE OF RAMP SHALL BE 1:12
8. REFER TO XC-001 FOR LANDSCAPE DECK & FOUNDATION IN REGARDS TO SLOPE OF SITE
9. HOUSE MOVEMENT NOT TO EXCEED EXTENTS OF SOLAR ENVELOPE CONSTRAINTS IMPLEMENTED BY COMPETITION ORGANIZERS
10. SEQUENCE OF HOUSE MOVEMENT DEMONSTRATION:
 - 1) HAVE SIGNAGE STATING THAT THE TOURS WILL BE BRIEFLY INTERRUPTED FOR HOUSE RE-CONFIGURATION AT A SPECIFIC TIME
 - 2) A DECATHLETE WOULD CUT OFF THE TOUR LINE AT THE WALKWAY AND NOTIFY ANY MORE PEOPLE JOINING THAT THEY WOULD HAVE TO WAIT FOR THE MOVEMENT
 - 3) AT THAT SPECIFIED TIME FOR MOVING, THE TOUR LINE WOULD BE STOPPED AND THE CURRENT TOURS WILL BE FINISHED
 - 4) ANY TEMPORARY HANDRAILS FOR THE TOUR ROUTES WOULD BE MOVED TO THE SIDE
 - 5) TEAM DECATHLETES AND/OR FACULTY/STAFF WOULD MOVE AND STAND TO OBSERVE THE AREAS WHERE THE MODULE WILL MOVE TO
 - 6) A TEAM DECATHLETE OR FACULTY/STAFF MEMBER WOULD USE THE CONTROL SYSTEM TO MOVE ONE OF THE MODULES, EITHER TO CLOSE THE HOUSE OR OPEN THE HOUSE, OR SIMPLY SHIFT THE LOCATION OF THE MODULE.
 - 7) THESE CONFIGURATIONS WOULD BE PRE-APPROVED AND ALL TOUR ROUTES, EGRESS METHODS, ETC. WOULD BE SHOWN
 - 8) IF AT ANY POINT ANYBODY/ANYTHING MOVES INTO THE LINE OF MOTION OF THE MODULES, THE OPERATOR WOULD STOP MOVEMENT (ASSUMING THAT THE SAFETY SYSTEM DOESN'T DETECT AND STOP FIRST)
 - 9) TEAM DECATHLETES OR FACULTY/STAFF WOULD MOVE THE TEMPORARY HANDRAILS INTO A NEW APPROPRIATE CONFIGURATION, ADJUSTING HEIGHT/LEVELING IF NECESSARY
 - 10) TOUR CONTINUES

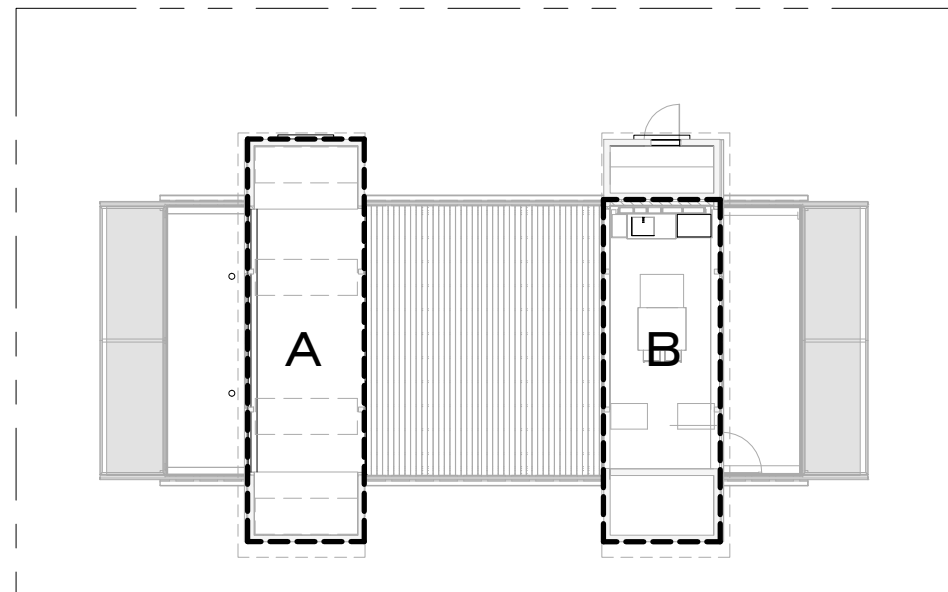
REFERENCE KEYNOTES

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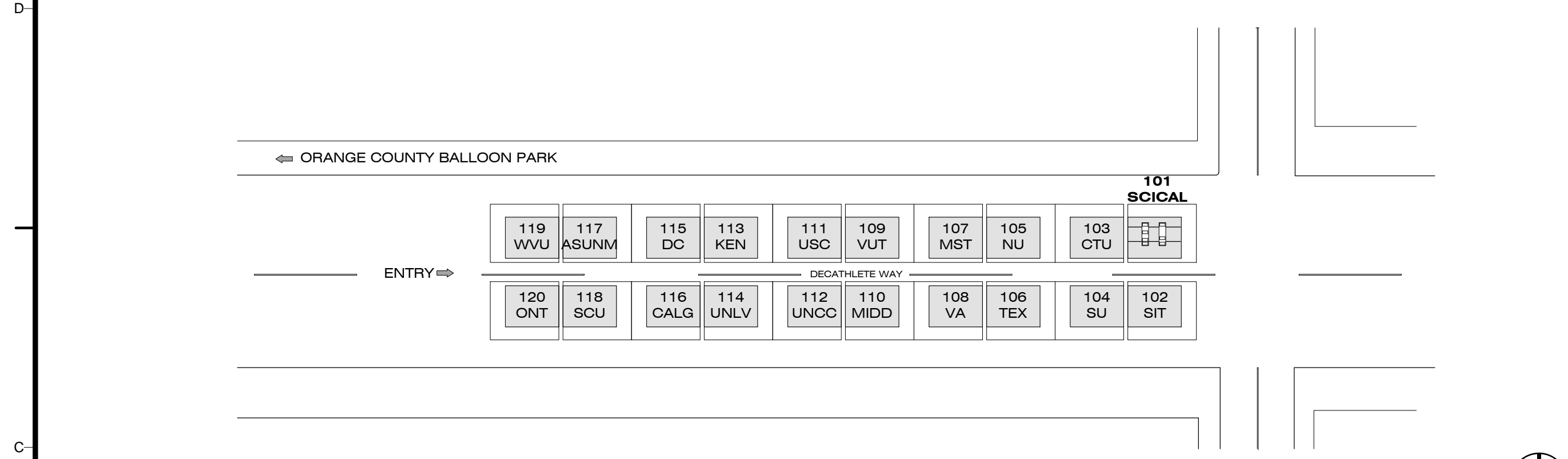
- G01 MODULE A - BEDS, COUCH, AND OFFICE DESK TO REMAIN IN OPEN POSITION DURING PUBLIC TOUR ROUTES
- G02 TERMINAL BOX LOCATED IN MECHANICAL ROOM
- G03 KITCHEN TABLE AND CHAIRS TO BE IN STATIONARY POSITION DURING ALL PUBLIC TOURS
- G04 TEMPORARY REMOVABLE ADA RAMPS TO REMAIN IN FIXED POSITION - HANDRAILS TO BE REMOVED PRIOR TO DEMONSTRATION OF HOUSE MOVEMENT
- G05 MOUNTED PRESENTATION BOARDS FOR PUBLIC TOUR EXHIBIT



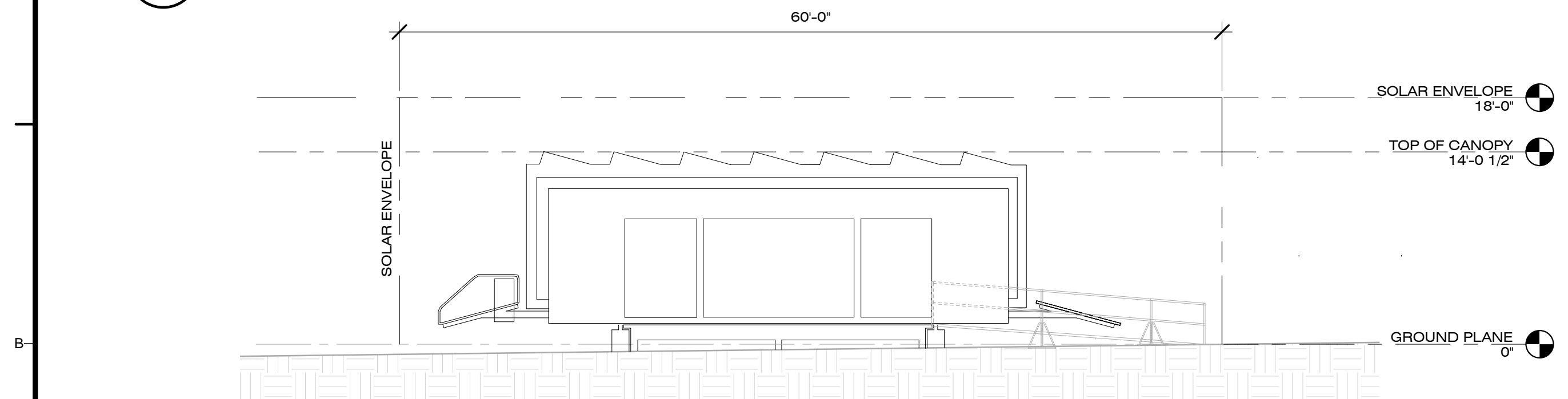
D1 VICINITY PLAN
1 : 10000



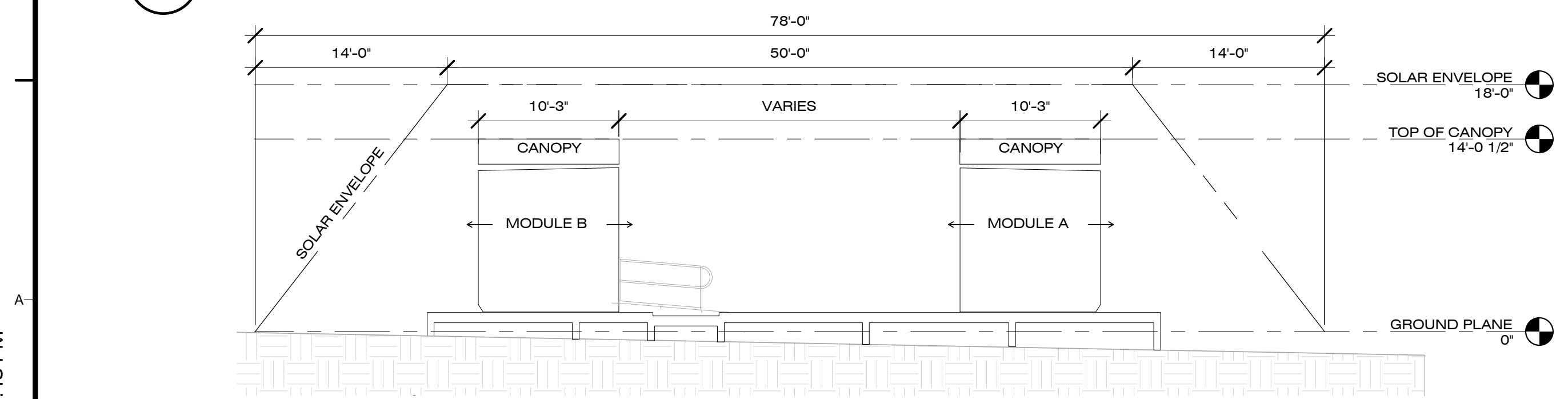
D3 FINISHED SQUARE FOOTAGE
1/16" = 1'-0"



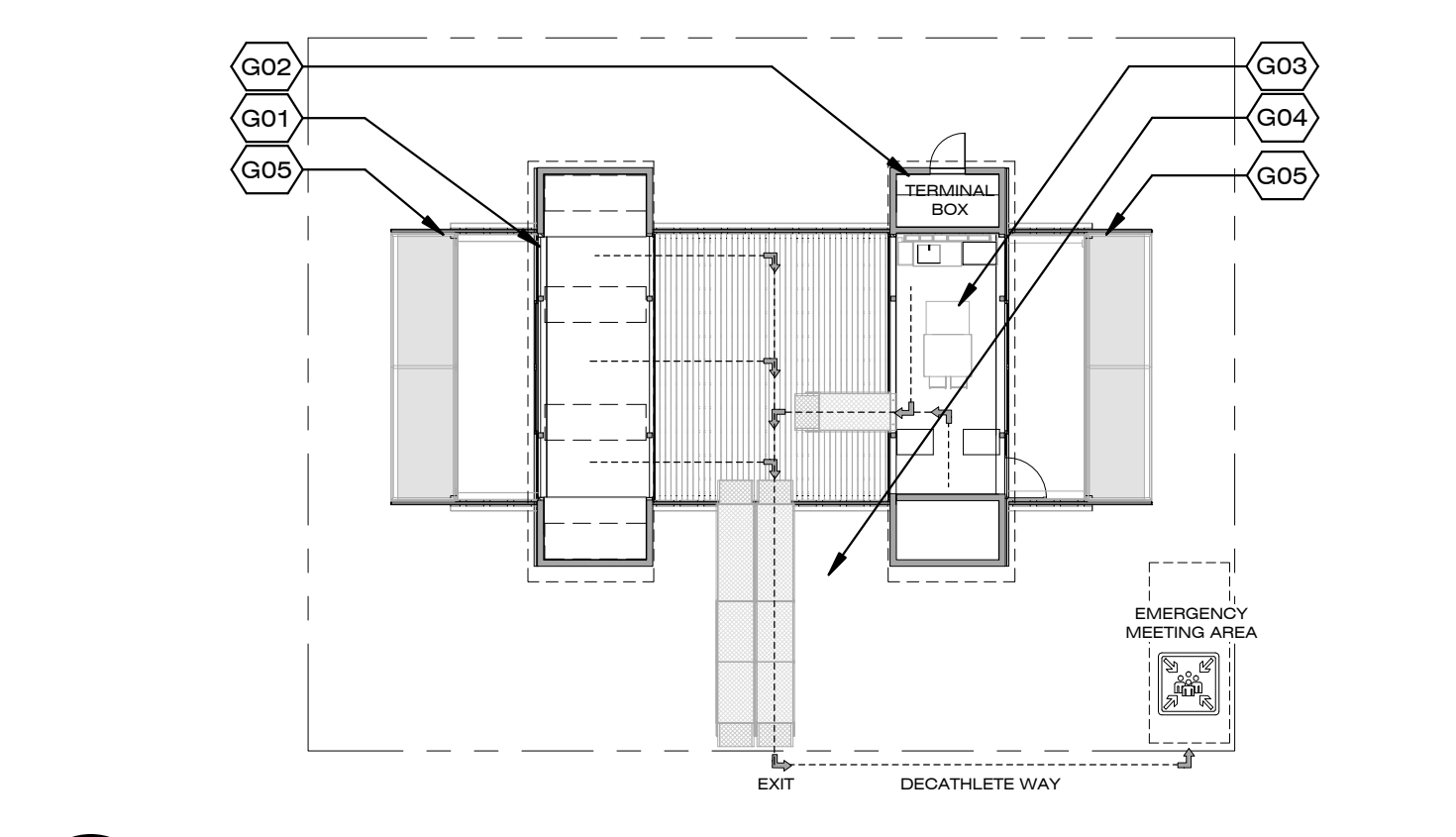
C1 SITE MAP
1" = 160'-0"



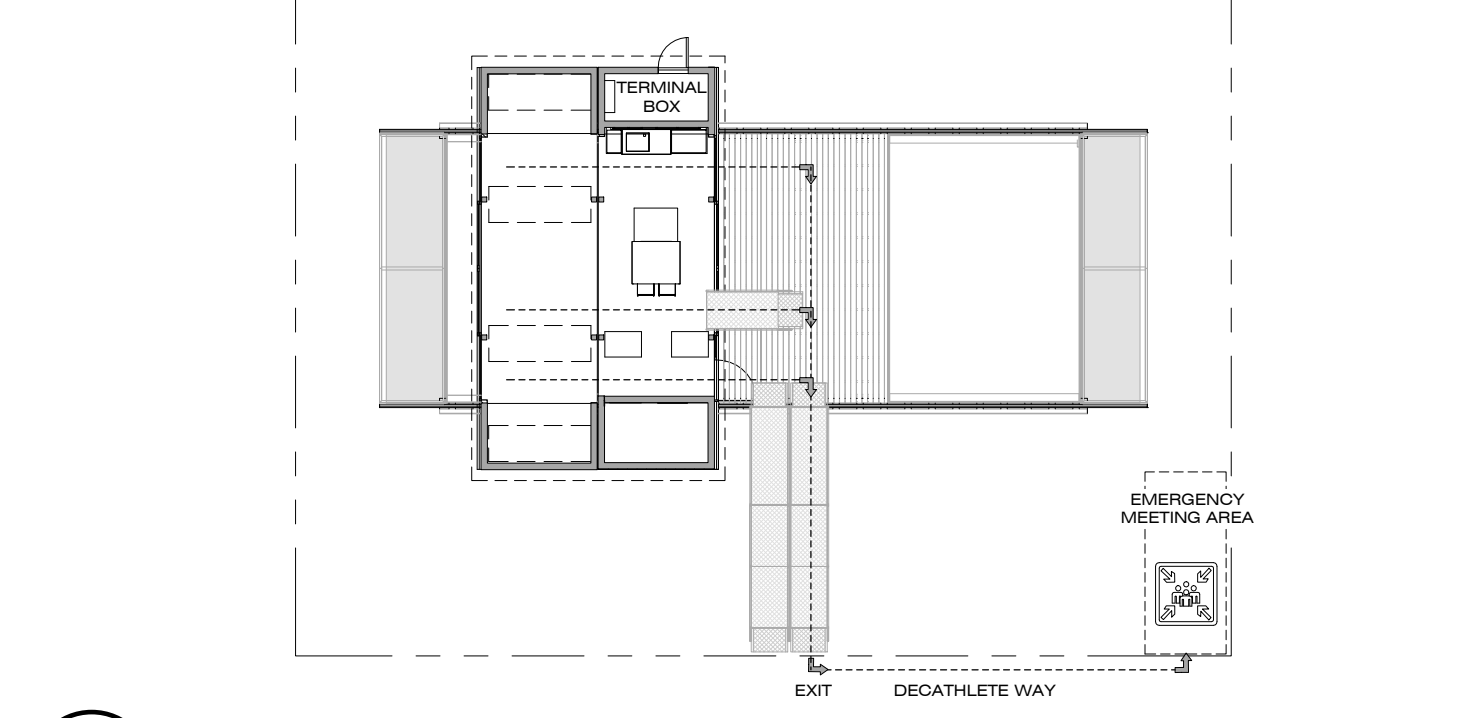
B1 SITE SECTION - WEST ELEVATION
1/8" = 1'-0"



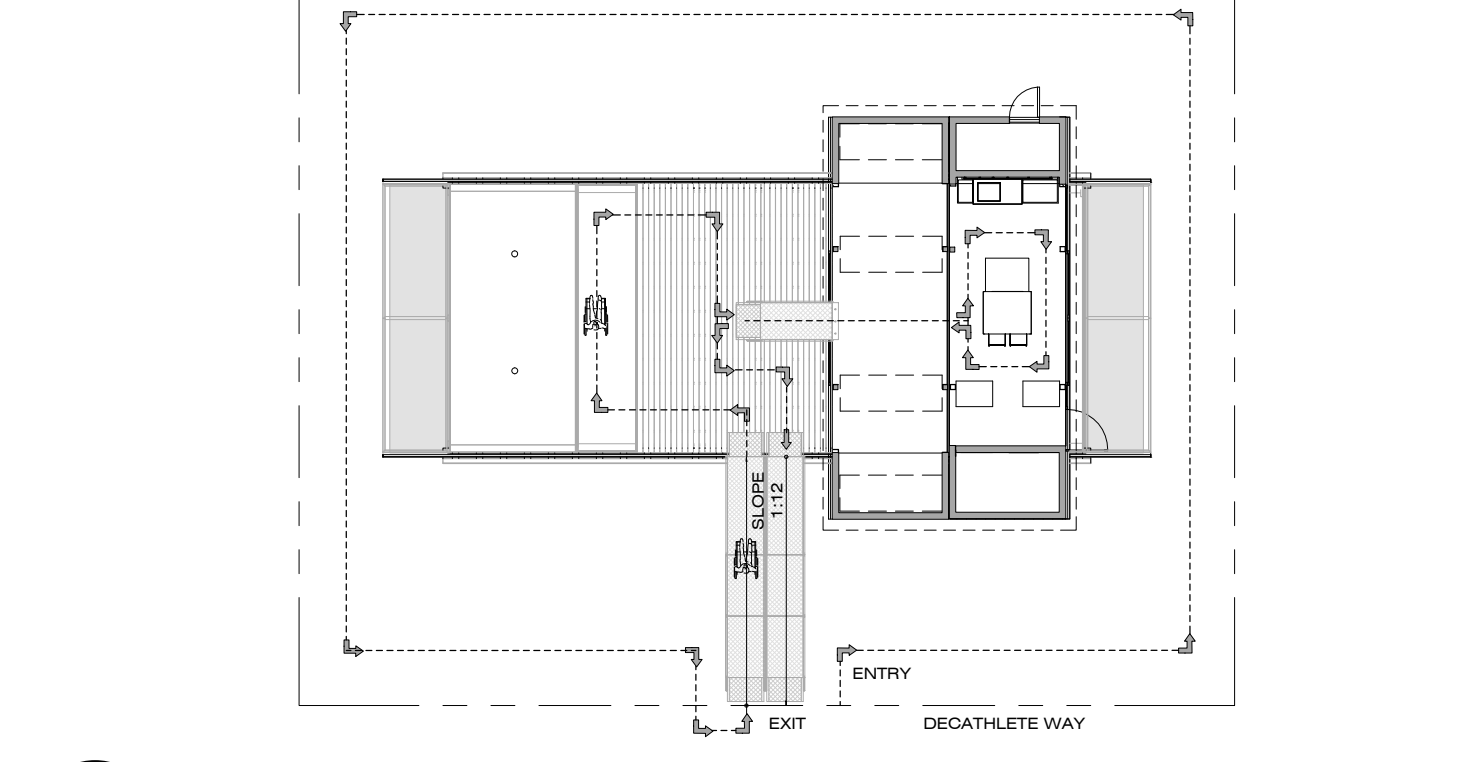
A1 SITE SECTION - SOUTH ELEVATION
1/8" = 1'-0"



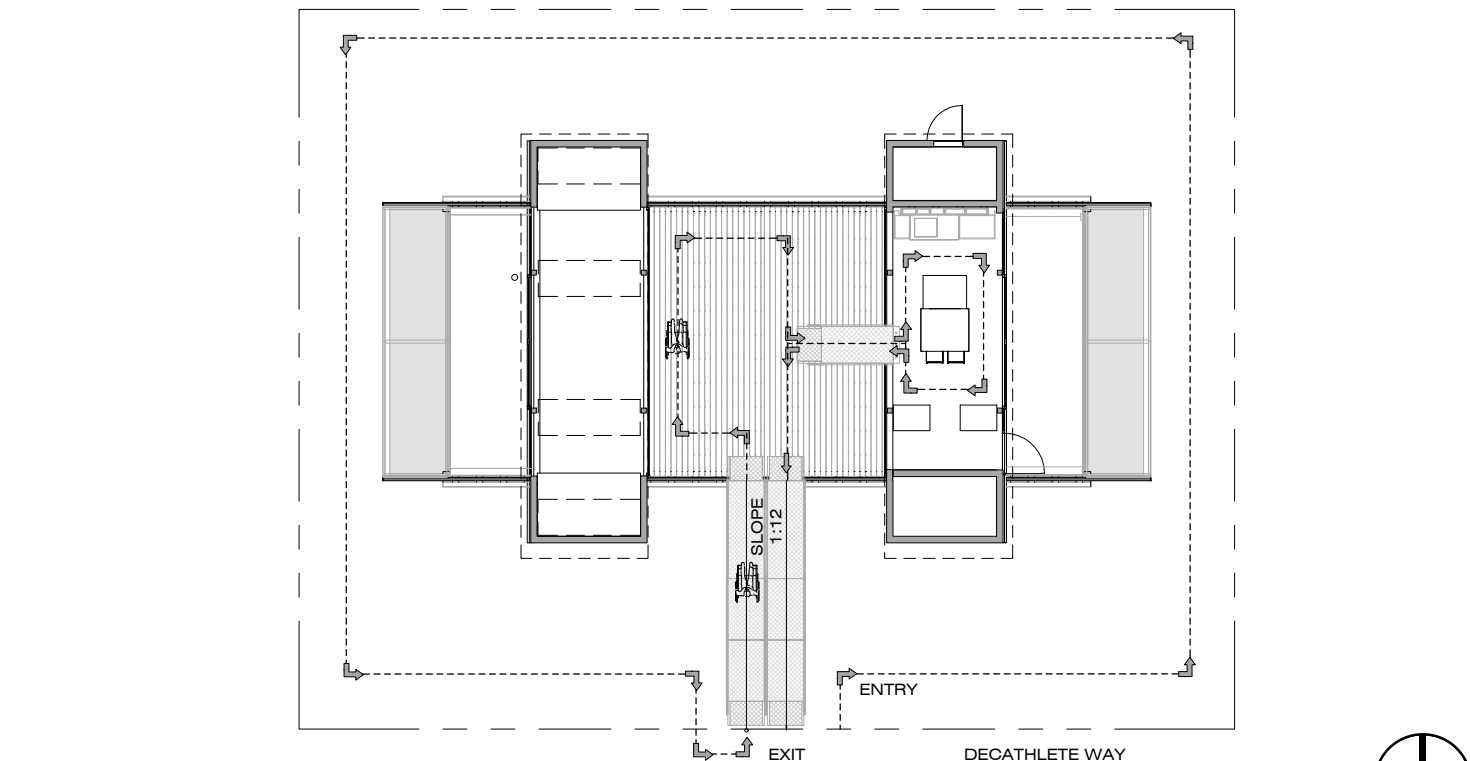
D4 EGRESS PLAN (OPEN MODULES)
1/16" = 1'-0"



C4 EGRESS PLAN (CLOSED MODULES)
1/16" = 1'-0"



B4 ADA PLAN & TOUR ROUTE (CLOSED MODULES)
1/16" = 1'-0"



A4 ADA PLAN & TOUR ROUTE (OPEN MODULES)
1/16" = 1'-0"

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SHEET TITLE

LIQUID LOCATION AND SPILL CONTAINMENT, & SCHEDULE

H-101

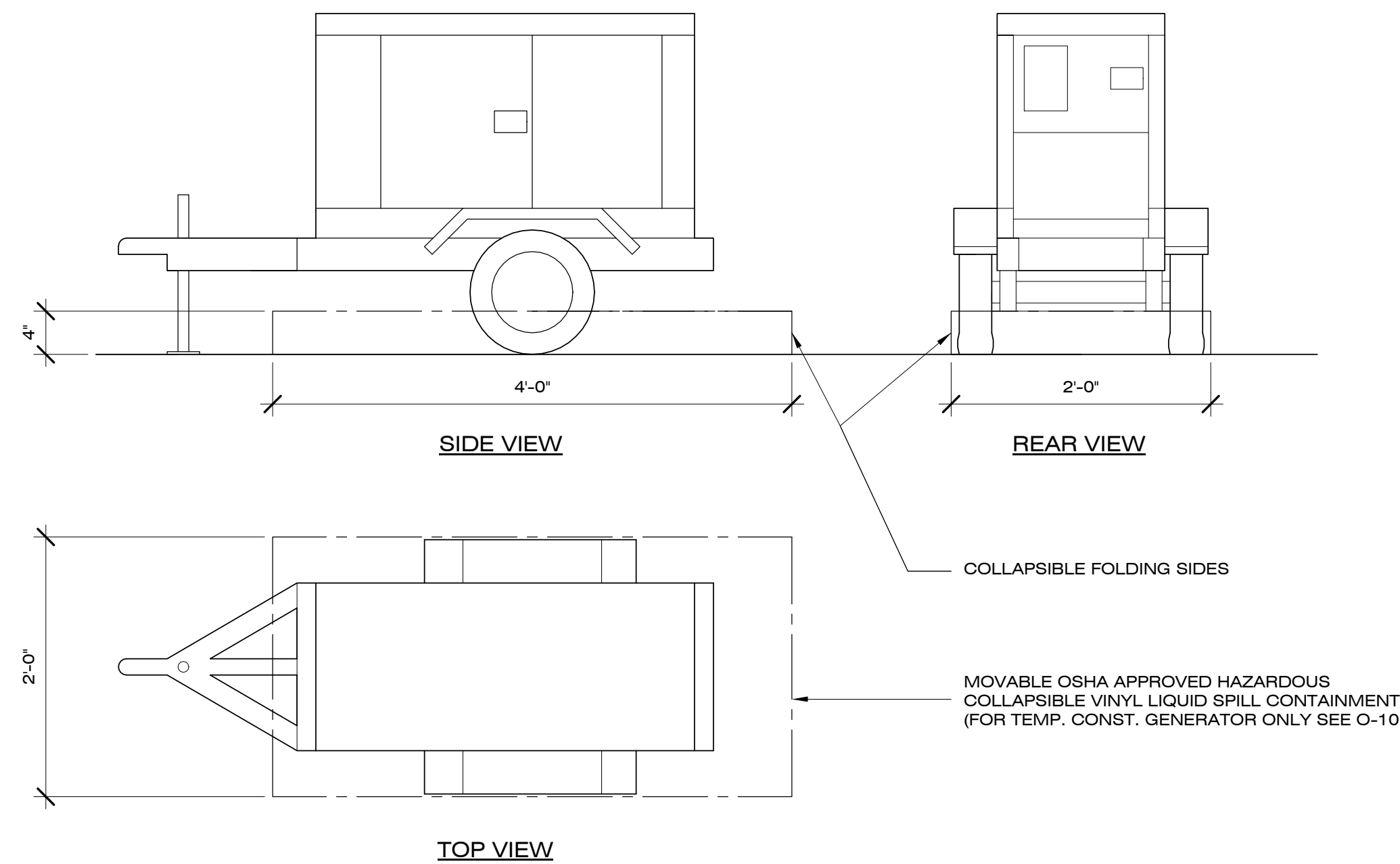
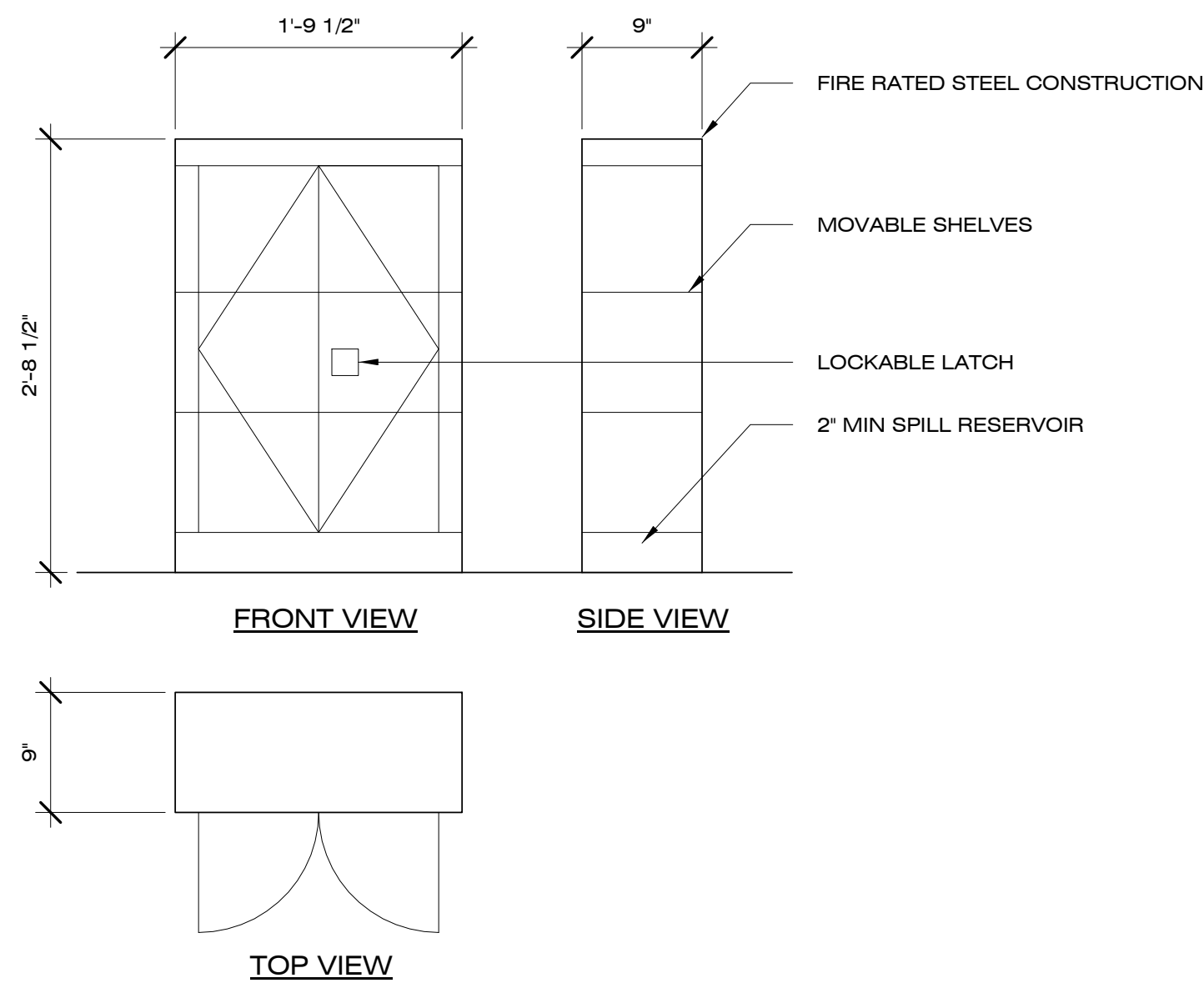
GENERAL SHEET NOTES

- 1 ALL HAZARDOUS LIQUID CONTAINMENT & CABINETS SHALL BE OSHA AND NFPA APPROVED
- 2 FIRE EXTINGUISHERS SHALL BE INSTALLED AS PER CABINETS SHALL BE OSHA AND NFPA APPROVED
- 3 ALL FUELS ARE TO BE PROPERLY STORED & LABELED IN OSHA & NFPA APPROVED CONTAINER
- 4 ALL HAZARDOUS LIQUID SHALL HAVE A MSDS SHEET AVAILABLE ON SITE

REFERENCE KEYNOTES

SHEET KEYNOTES

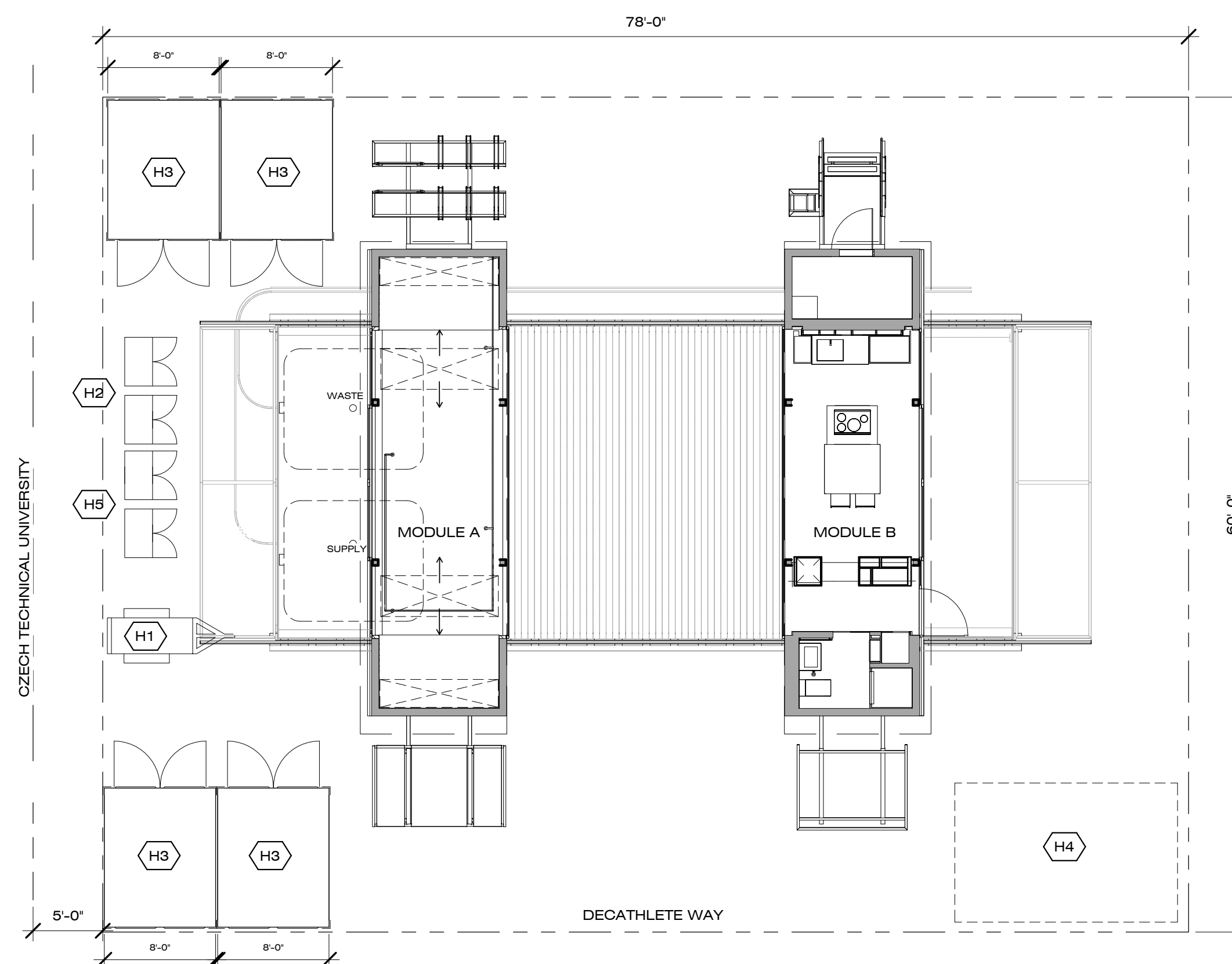
- H1 TEMP CONSTRUCTION GENERATOR AT FULL LOAD NOT TO EXCEED 60 DB @ 50' OPERATIONS & REFUELING OF GENERATOR LIMITED TO HOURS ESTABLISHED BY ORGANIZERS
- H2 MOVABLE OSHA APPROVED HAZARDOUS COLLAPSIBLE LIQUIDS SPILL CONTAINMENT (FOR TEMP. CONST. GENERATOR DWG O-101)
- H3 TEMP. 8X10' METAL SHIPPING CONTAINERS (FOR CONST. DURATION ONLY DWG-101)
- H4 CHECK IN, BREAK, & MEETING AREA
- H5 MOVABLE OSHA APPROVED CONTAINERS TO STORE PPE, FIRST AID, INFO, TOOL STORAGE, & POWER STATION



C1 HAZARDOUS LIQUID CONTAINMENT
1/2" = 1'-0"
0 1' 2' 4'

C4 GENERATOR SPILL CONTAINMENT
1/2" = 1'-0"
0 1' 2' 4'

HAZARDOUS LIQUID SCHEDULE		
LIQUID	USE	LOCATION/STORAGE
DIESEL	TEMP POWER FUEL	GENERATOR/HAZARDOUS LIQUID CABINET #1
CONST. ADHESIVES	CONSTRUCTION	VARIOUS/HAZARDOUS LIQUID CABINET #2
CLEANING SOLVENTS	CLEANING	VARIOUS/HAZARDOUS LIQUID CABINET #3
TBD	TBD	TBD/HAZARDOUS LIQUID CABINET #4 (IF NEEDED)



A4 HAZARDOUS LIQUID & SPILL CONTAINMENT PLAN
1/8" = 1'-0"
0 4' 8' 16'

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REVISIONS PER STRUCTURAL - 03/29/2013	

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DRAWING
SYMBOLS, INDEX,
ABBREVIATION

S-001

DRAWING INDEX

REVISIONS PER STRUCTURAL - 03/29/2013
 CONSTRUCTION DOCUMENTATION SET 02/14/2013
 DESIGN DOCUMENTATION SET 10/11/2012

• • •	S-001	DRAWING INDEX, SYMBOLS, ABBREVIATIONS
• • •	S-002	GENERAL NOTES
• • •	S-003	GENERAL NOTES
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• • •	S-201	FLOOR FRAMING PLAN
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• • •	S-301	TRUSS ELEVATIONS
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• • •	S-303	SLIDER FRAME PLAN
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• • •	S-405	TYPICAL DETAILS
• • •	S-406	SOLAR THERMAL EXTENSIONS

SYMBOLS LEGEND

- DENOTES SPAN DIRECTION OF METAL DECK
- DENOTES NEW STEEL MEMBER
- DENOTES NEW OPEN WEB JOIST
- DENOTES NEW OPENING
- DENOTES COMPLETE PENETRATION WELD.
- DENOTES PARTIAL PENETRATION WELD. PROPORTIONED TO RESISTIVE SPECIFIED FORCE.
- DENOTES MOMENT CONNECTION U.O.N. DETAIL CONNECTION FOR FULL MOMENT CAPACITY OF BEAM.
- DENOTES 'NEW'
- DENOTES 'EXISTING'
- DENOTES CAMBER OF FLOOR MEMBERS.
- DENOTES NUMBER OF SHEAR STUDS, EQUALLY SPACED.
- DENOTES STEP IN CONTINUOUS FOOTING
- DENOTES TENSION, DENOTES COMPRESSION, DENOTES TENSION OR COMPRESSION.
- DENOTES SHEAR FORCE (KIPS).
- DENOTES AXIAL FORCE (KIPS), DENOTES MOMENT (k-ft).

- GENERAL
- WELDING AWS
- STEEL AISC AND SEE ARCHITECTURAL SYMBOLS
- CONCRETE ACI AND SEE ARCHITECTURAL SYMBOLS
- MASONRY SEE ARCHITECTURAL SYMBOLS
- WOOD SEE ARCHITECTURAL SYMBOLS
- SYMBOLS AND ABBREVIATIONS FOR CONCRETE (as per ACI)
- # TO INDICATE SIZE OF DEFORMED BAR
- PLAIN ROUNDS, AS SPIRALS
- SPACING CENTER TO CENTER
- @ OR AT
- DIRECTION IN WHICH BARS EXTEND
- LIMITS OF AREA COVERED BY BARS

ABBREVIATIONS

ADDITIONAL	ADD.	LENGTH	LGTH.
ALTERNATE	ALT.	LIGHT	LT.
AMERICAN CONCRETE INSTITUTE	ACI	LONG	LG.
AMERICAN INSTITUTE OF ARCHITECTS	AIA	LONGITUDINAL	LONGIT.
AMERICAN INSTITUTE OF STEEL CONSTRUCTION	AISC	LONG LEG BACK TO BACK	LLBB
AMERICAN IRON AND STEEL INSTITUTE	AISI	LONG LEG HORIZONTAL	LLH
AMERICAN SOCIETY FOR TESTING AND MATERIALS	ASTM	LONG LEG VERTICAL	LLV
AMERICAN NATIONAL STANDARDS INSTITUTE	ANSI	LOW POINT	LP
AMERICAN WELDING SOCIETY	AWS		
ANCHOR	ANC.	MACHINE BOLT	MB
ANCHOR BOLT	AB	MANUFACTURER	MFR.
ANGLE	L	MATERIAL	MATL.
APPROXIMATE	APPROX.	MAXIMUM	MAX.
ARCHITECT OR ARCHITECTURAL	ARCH.	MECHANICAL	MECH.
		MEDIUM	MED.
BASE PLATE	BP	METAL	MET.
BEAM	BM.	MEZZANINE	MEZZ.
BEARING	BRG.	MINIMUM	MIN.
BLOCKING	BLKG.	MISCELLANEOUS	MISC.
BOTTOM	BOT.		
BOTTOM OF DECK	B.O.D.	NEAR FACE	NF
BOUNDARY NAIL	B.N.	NEARSIDE	NS
BUILDING	BLDG.	NEW	(N)
		NOMINAL	NOM.
CARRIED COLUMN	CC	NORTH	N
CEILING	CLG.	NOT TO SCALE	NTS
CENTER	CEN.	NUMBER	NO.
CENTER LINE	CL		
CENTER TO CENTER	CTOC	ON CENTER	O.C.
CHANNEL	C	OPENING	OPNG.
CLEAR	CLR.	OPPOSITE	OPP.
COLUMN	COL.	ORIGINAL	ORIG.
COMPLETE JOINT PENETRATION	CJP	OUTSIDE DIAMETER	OD
CONCRETE	CONC.	OUTSIDE FACE	OF
CONCRETE MASONRY UNITS	CMU		
CONNECTION	CONN.	PENNYWEIGHT (NAILS, ETC.)	d
CONSTRUCTION	CONST.	PERPENDICULAR	PERP.
CONTINUOUS	CONT.	PLATE	PL
CONTROL OR Construction JOINT	CJ	PLYWOOD	PLYWD.
CUBIC FOOT	CF	POST TENSIONED	PT
CUBIC YARD	CY	POINT	PT
		POUND	LB
DETAIL	DET.	POUNDS PER CUBIC FOOT	PCF
DIAGONAL	DIAG.	POUNDS PER LINEAR FEET	PLF
DIAMETER	DIA.	POUNDS PER SQUARE FOOT	PSF
DIMENSIONS	DIMS.	POUNDS PER SQUARE INCH	PSI
DITTO	DO	PROJECT	PROJ.
DOUBLE ANGLE	2L		
DOUGLAS FIR	DF	QUARTER	QTR.
DOWEL	DWL.		
DOWELS	DWLS.	RADIUS	R
DRAWING	DWG.	REFERENCE	REF.
		REINFORCE, REINFORCED	REIN F.
EACH	EA	REINFORCEMENT, OR REINFORCING	
EACH FACE	EF	REQUIRED	REQD.
EACH WAY	EW	REVISE OR REVISION	REV.
EAST	E	ROOF	RF.
EDGE NAIL	E.N.		
ELEVATION	EL	SCHEDULE	SCHED.
EMBEDMENT	EMBED.	SECTION	SECT.
ENGINEER	ENGR.	SHEET	SHT.
ENGINEERING	ENGRG.	SHORT SLOTTED HOLE	SSH.
EQUAL	EQ.	SIMILAR	SIM.
EQUIPMENT	EQUIP.	SKETCH	SK
ESCALATOR	ESC.	SUP CRITICAL	SC
EXISTING	EXIST.	SOUTH	S
EXISTING	(E)	SPECIFICATIONS	SPECS.
EXPANSION JOINT	EJ	SQUARE	SQ.
		STAGGERED	STAGG.
FAR FACE	FF	STANDARD	STD.
FAR SIDE	FS	STIFFENER	STIFF.
FEET OR FOOT	FT.	STIRRUP	STIR.
FINISH	FIN.	STEEL	STL
FLOOR	FLR.	STRUCTURAL	STRUCT.
FLOOR DRAIN	FD	STRUT FORCE	SF
FOOTING	FTG.	SYMMETRICAL	SYMM.
FOUNDATION	FDN.		
FRAMING	FRMG.	THICK	THK.
		THROUGH	THRU
GAGE OR GAUGE	GA.	TOP AND BOTTOM	TANDB
GALVANIZE	GALV.	TOP OF	T.O.
GENERAL	GEN.	TOP OF CONCRETE FOUNDATION	T.O.F.
GLUED LAMINATED BEAM	GLB.	TOP OF SLAB	T.O.SL.
GRADE	GR.	TOP OF STEEL	T.O.S.
GROUND	GRND.	TOP OF WALL	T.O.W.
		TOTAL	TOT.
HEIGHT	HGT.	TRANSVERSE	TRANS.
HEXAGON	HEX.	TYPICAL	TYP.
HORIZONTAL	HORIZ.		
HIGHPOINT	HP	UNLESS OTHERWISE NOTED	U.O.N.
STANDARD I BEAM	S	VERIFY IN THE FIELD	VIF
INCHES	IN.	VERTICAL	VERT.
INCLUDE OR INCLUDED	INCL.	VOLUME	VOL.
INFORMATION	INFO.		
INSIDE DIAMETER	ID	WEIGHT	WT.
INSIDE FACE	IF	WELOED WIRE FABRIC	WWF
		WEST	W
JOINT	JT.	WIDE FLANGE	WF
		WITHOUT	WO
KIP (1,000 LBS.)	K	WORK POINT	WP
		YARD	YD.



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GENERAL NOTES

S-002

GENERAL NOTES

I-GENERAL

- ALL WORK SHALL CONFORM TO THE MINIMUM STANDARDS OF THE FOLLOWING CODES: THE 2010 EDITION OF THE CALIFORNIA BUILDING CODE (CBC), AND OTHER REGULATING AGENCIES WHICH HAVE AUTHORITY OVER ANY PORTION OF THE WORK, AND THOSE CODES AND STANDARDS LISTED IN THESE NOTES AND IN THE PROJECT SPECIFICATIONS.
- STRUCTURAL DRAWINGS SHALL BE USED IN CONJUNCTION WITH THE SPECIFICATIONS, ARCHITECTURAL AND MECHANICAL DRAWINGS. IF THERE IS A DISCREPANCY BETWEEN DRAWINGS IT IS THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY THE ENGINEER PRIOR TO PERFORMING WORK.
- NOTES, TYPICAL DETAILS AND SCHEDULES APPLY TO ALL STRUCTURAL WORK UNLESS OTHERWISE NOTED. FOR CONDITIONS NOT SPECIFICALLY SHOWN, PROVIDE DETAILS OF A SIMILAR NATURE. VERIFY APPLICABILITY BY SUBMITTING SHOP DRAWINGS FOR REVIEW.
- DO NOT SCALE DRAWINGS TO OBTAIN DIMENSIONAL INFORMATION.
- THE CONTRACT STRUCTURAL DRAWINGS AND SPECIFICATIONS REPRESENT THE FINISHED STRUCTURE. THEY DO NOT INDICATE THE METHOD OF CONSTRUCTION OR THE SCOPE OF CONTRACT.
- AT ALL TIMES THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR THE CONDITIONS OF THE JOB SITE INCLUDING SAFETY OF PERSONS AND PROPERTY. THE ARCHITECT'S OR ENGINEER'S PRESENCE OR REVIEW OF WORK DOES NOT INCLUDE THE ADEQUACY OF THE CONTRACTOR'S MEANS OR METHODS OF CONSTRUCTION.
- SHORING, BRACING AND PROTECTION OF EXISTING AND ADJACENT STRUCTURES DURING CONSTRUCTION IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR. PROTECT AND MAINTAIN THE INTEGRITY OF ADJACENT STREETS, BUILDINGS AND STRUCTURES.
- ALL EXISTING DIMENSIONS AND LOCATIONS OF EXISTING STRUCTURES SHOWN ON THE DRAWINGS SHALL BE VERIFIED BY FIELD MEASUREMENTS, ANY DISCREPANCIES SHALL BE REPORTED TO THE ENGINEER.
- DRAWINGS HAVE BEEN PREPARED BASED ON AVAILABLE KNOWLEDGE OF EXISTING CONDITIONS. IF, DURING DEMOLITION, EXCAVATION OR CONSTRUCTION, ACTUAL CONDITIONS ARE DISCOVERED TO DIFFER FROM THOSE INDICATED ON DRAWINGS, ENGINEER SHALL BE NOTIFIED.
- SEE THE ARCHITECTURAL DRAWINGS FOR THE FOLLOWING:
 - SIZE AND LOCATION OF DOOR AND WINDOW OPENINGS.
 - SIZES AND LOCATIONS OF INTERIOR AND EXTERIOR NON-BEARING PARTITIONS.
 - SIZES AND LOCATIONS OF CONCRETE CURBS, FLOOR DRAINS, SLOPES, DEPRESSED AREAS, CHANGES IN LEVEL, CHAMFERS, GROOVES, INSERTS, ETC.
 - SIZE AND LOCATION OF FLOOR AND ROOF OPENINGS.
 - FLOOR AND ROOF FINISHES.
 - STAIR FRAMING AND DETAILS.
 - DIMENSIONS NOT SHOWN ON THE STRUCTURAL DRAWINGS.
 - CEILING ASSEMBLIES.
 - EXTERIOR WALL ASSEMBLIES.
 - WATER / DAMP PROOFING AND FIRE PROOFING DETAILS AND REQUIREMENTS.
- SEE MECHANICAL, PLUMBING, AND ELECTRICAL DRAWINGS FOR THE FOLLOWING:
 - PIPES, SLEEVES, HANGERS, TRENCHES, WALL FLOOR AND ROOF OPENINGS
 - DUCT PENETRATION ETC., EXCEPT AS SHOWN OR NOTED.
 - ELECTRICAL CONDUIT RUNS, BOXES, OUTLETS IN WALLS AND SLABS.
 - CONCRETE INSERTS FOR ELECTRICAL, MECHANICAL OR PLUMBING FIXTURES.
 - SIZE AND LOCATION OF MACHINE OR EQUIPMENT BASES, ANCHOR BOLTS FOR MOUNTS.
- NOTIFY THE STRUCTURAL ENGINEER WHEN DRAWINGS BY OTHERS SHOW OPENINGS, POCKETS, ETC., NOT SHOWN ON THE STRUCTURAL DRAWINGS, BUT WHICH ARE LOCATED IN THE STRUCTURAL MEMBERS.
- CONSTRUCTION MATERIALS SHALL BE SPREAD OUT WHEN PLACED ON FRAMED FLOORS OR ROOFS. THE CONSTRUCTION MATERIAL LOAD SHALL NOT EXCEED THE DESIGN LIVE LOAD PER SQUARE FOOT. PROVIDE ADEQUATE SHORING AND/OR BRACING WHERE STRUCTURE HAS NOT ATTAINED DESIGN STRENGTH.
- DESIGN LIVE LOADS:

LIVE LOADS:

 - ROOF: 20 PSF
 - FLOOR: 50 PSF
 - DECKS: 100 PSF

SEISMIC LOADS:

 - THE MAPPED SPECTRA ACCELERATION: Ss = 1.44g
 - THE MAPPED SPECTRA ACCELERATION: S1 = 0.51g
 - IMPORTANCE FACTOR I = 1.0
 - SITE CLASS: D
 - SEISMIC DESIGN CATEGORY: D

WIND LOADS:

 - BASIC WIND SPEED = 85 MPH (3 SECOND GUST)
 - EXPOSURE C
 - IMPORTANCE FACTOR I = 1.0

SNOW LOAD:

 - GROUND SNOW LOADS = N/A

II - REVIEW OF SPECIALTY ITEMS AND PRE-ENGINEERED ELEMENTS

- SPECIALTY ITEMS, PRE-ENGINEERED COMPONENTS, AND DESIGN / BUILD ELEMENTS ARE THOSE ITEMS WHICH ARE SPECIFIED IN THE CONSTRUCTION DOCUMENTS BUT WHICH REQUIRE DESIGN BY THE MANUFACTURER, SUPPLIER, OR INSTALLER.
- SUBMITTAL SHALL INCLUDE:
 - CALCULATIONS, PREPARED BY A LICENSED ENGINEER LAWFULLY ELIGIBLE TO DESIGN THE ELEMENT OR COMPONENT (THE SPECIALLY ENGINEER) SEALED IN ACCORDANCE WITH STATE LAW.
 - A DIAGRAM SHOWING LOAD MAGNITUDES AND LOCATIONS, SEPARATED INTO DEAD, LIVE, WIND AND/OR SEISMIC COMPONENTS - THAT ARE APPLIED TO THE PRIMARY STRUCTURE, PREPARED BY THE SPECIALLY ENGINEER AND SEALED IN ACCORDANCE WITH STATE LAW.
 - ERECTION OR DESIGN DRAWINGS AS NECESSARY TO DESCRIBE THE SYSTEM OR COMPONENT AND ITS CONNECTION TO THE PRIMARY STRUCTURE WITH THE SPECIALTY ENGINEER'S SHOP DRAWING STAMP OR SEAL, AS IS APPROPRIATE, THE SHOP DRAWING STAMP OF THE ENGINEER, IF ANY, RESPONSIBLE FOR SPECIFYING THE ITEM, AND THE ARCHITECT'S STAMP INDICATING HIS REVIEW.
- SUBMIT ONE (1) REPRODUCIBLE COPY, ONE (1) SET SEALED COPY FOR THE STRUCTURAL ENGINEER OF RECORD'S FILE, AND ADDITIONAL COPIES AS IS NECESSARY FOR THE BUILDING DEPARTMENT. SUBMITTAL CONTAINING EXCEPTIONS, CORRECTIONS, OR OTHER REVIEW COMMENTS ARE NOT ACCEPTABLE FOR SUBMITTAL TO THE BUILDING DEPARTMENT.
- THE STRUCTURAL ENGINEER OF RECORD'S REVIEW IS STRICTLY LIMITED TO THE FOLLOWING DETERMINATIONS:
 - NECESSARY APPROVALS HAVE BEEN OBTAINED.
 - THE DRAWINGS AND CALCULATIONS ARE PROPERLY SEALED.
 - THE LOAD CRITERIA IS CONSISTENT WITH THE CONTRACT DOCUMENTS AND INTERNATIONAL BUILDING CODE REQUIREMENTS.
 - THE CONNECTIONS TO THE PRIMARY STRUCTURE ARE CONSISTENT WITH THE PRIMARY DESIGN.
 - THE BASE STRUCTURE IS CAPABLE OF SUPPORTING THE IMPOSED LOADS.
- THE STRUCTURAL ENGINEER OF RECORD WILL RELY UPON THE SPECIALTY ENGINEER'S SEAL AS CERTIFICATION THAT THE ITEMS DESIGNED BY THE SPECIALTY ENGINEER CONFORM TO THE CRITERIA SET FORTH IN THE CONTRACT DOCUMENTS AND APPLICABLE CODES AND STANDARDS INCORPORATED THERE IN BY REFERENCE.
- IF THE LOADS IMPOSED ON THE STRUCTURE EXCEED THE LOAD ALLOWANCE PROVIDED BY THE STRUCTURAL ENGINEER OF RECORD THE SUBMITTAL WILL BE REJECTED. ONLY AT THE CLIENT'S WRITTEN DIRECTION WILL MODIFICATIONS TO THE BASE STRUCTURE TO ACCOMMODATE THE SPECIALTY ITEMS BE MADE BY THE ENGINEER OF RECORD.

III - QUALITY ASSURANCE AND SPECIAL INSPECTIONS

- OWNER WILL ENGAGE AN INDEPENDENT TESTING AGENCY TO PERFORM THE FOLLOWING INSPECTION AND TESTING IN ACCORDANCE WITH THE REQUIREMENTS OF CBC SECTION 1704, 1707, AND 1709, AS THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE ADEQUATE PRIOR NOTICE FOR COMPLETION OF SUCH.
- SPECIAL INSPECTION SHALL BE REQUIRED FOR THE FOLLOWING TYPES OF WORK:
 - PLACEMENT OF REINFORCING STEEL.
 - FIELD WELDING
 - HIGH STRENGTH BOLTING
 - ANCHOR STUDS
 - EXPANSION TYPE ANCHOR BOLTS
- TEN (10) PERCENT OF DRILLED-IN, EPOXY OR GROUT SET ANCHORS SHALL BE PROOF TESTED TO TWO (2) TIMES ALLOWABLE TENSION. NOTIFY ARCHITECT/ STRUCTURAL ENGINEER OF ANY FAILURE SO ADDITIONAL TESTING OF ADJACENT ANCHORS CAN BE DIRECTED.
- QUALITY ASSURANCE PLAN SHALL BE PROVIDED IN ACCORDANCE WITH CBC SECTION 1705.

IV - FOUNDATION

- FOOTINGS ARE DESIGNED BASED ON AN ALLOWABLE SOIL PRESSURE OF 1500 PSF.
- CONTRACTOR SHALL PROVIDE FOR PROPER DEWATERING OF EXCAVATIONS FROM SURFACE WATER, GROUND WATER, SEEPAGE.
- CONTRACTOR SHALL PROVIDE FOR THE DESIGN AND INSTALLATION OF ALL CRIBBING, SHEATHING AND SHORING REQUIRED TO SAFELY AND ADEQUATELY RETAIN THE EARTH BANKS AND ANY EXISTING STRUCTURE.
- EXCAVATIONS FOR FOOTINGS SHALL BE APPROVED BY THE GEOTECHNICAL ENGINEER PRIOR TO PLACING THE CONCRETE AND REINFORCING. THE CONTRACTOR SHALL NOTIFY THE GEOTECHNICAL ENGINEER WHEN THE EXCAVATIONS ARE READY FOR INSPECTION. THE GEOTECHNICAL ENGINEER SHALL SUBMIT A LETTER OF COMPLIANCE TO THE OWNER.
- ALL EXCAVATIONS SHALL BE PROPERLY BACKFILLED. DO NOT PLACE BACK FILL BEHIND RETAINING WALLS BEFORE CONCRETE OR MASONRY HAS ATTAINED FULL DESIGN STRENGTH. CONTRACTOR SHALL BRACE OR PROTECT ALL BUILDING AND PIT WALLS BELOW GRADE FROM LATERAL LOADS UNTIL ATTACHING FLOORS ARE COMPLETELY IN PLACE AND HAVE ATTAINED FULL DESIGN STRENGTH. CONTRACTOR SHALL PROVIDE FOR DESIGN, PERMITS AND INSTALLATION OF SUCH BRACING AND PROTECTION.
- FOOTINGS SHALL BE PLACED AND ESTIMATED ACCORDING TO DEPTHS SHOWN ON THE DRAWINGS. SHOULD SOIL ENCOUNTERED AT THESE DEPTHS NOT BE APPROVED BY THE GEOTECHNICAL ENGINEER, FOOTING ELEVATIONS OR FOOTING DESIGNS WILL BE ALTERED BY CHANGE ORDER.
- FOOTING BACKFIELD AND UTILITY TRENCH BACKFIELD WITHIN THE BUILDING PERIMETER SHALL BE MECHANICALLY COMPACTED IN LAYERS, TO THE APPROVAL OF THE GEOTECHNICAL ENGINEER. FLOODING WILL NOT BE PERMITTED.
- ALL ABANDONED FOOTINGS, UTILITIES, ETC., THAT INTERFERE WITH THE NEW CONSTRUCTION SHALL BE REMOVED.
- ALL EARTHWORK, COMPACTION AND SUB-GRADE MATERIAL FOR SLAB ON GRADE SHALL BE DONE IN ACCORDANCE WITH THE GEOTECHNICAL REPORT.

V - CONCRETE

- ALL PHASES OF WORK PERTAINING TO THE CONCRETE CONSTRUCTION SHALL CONFORM TO THE 'BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE', ACI 318, AND THE 'SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS', ACI 301, LATEST EDITIONS, WITH MODIFICATIONS AS NOTED ON THE DESIGN DRAWINGS OR SPECIFICATIONS.
- CONCRETE MIXES SHALL BE DESIGNED BY A QUALIFIED TESTING LABORATORY AND SHALL BEAR THE WET SEAL OF A CIVIL ENGINEER LICENSED IN THE STATE OF THE PROJECT FOR REVIEW BY THE STRUCTURAL ENGINEER. THE MIX DESIGNS SHALL STATE THE PROJECT NAME AND THE INTENDED USAGE OF THE CONCRETE.
- SCHEDULE OF STRUCTURAL CONCRETE 28-DAY STRENGTHS AND TYPES: (2500 PSI USED FOR STRUCTURAL CALCULATIONS)

LOCATIONS IN STRUCTURE	STRENGTH (PSI)	TYPE
- FOOTINGS	4500	HARD ROCK
- SLAB ON GRADE	4500	HARD ROCK
- PORTLAND CEMENT SHALL CONFORM TO ASTM C150, TYPE V WITH A MAXIMUM WATER CEMENT RATIO OF 0.45.
- CONCRETE MIXES MAY CONTAIN FLY ASH. THE FLY ASH SHALL CONFORM TO ASTM C818 CLASS F AND THE LOSS OF IGNITION SHALL BE LIMITED TO 2%. THE WEIGHT OF FLYASH SHALL NOT EXCEED 15% OF THE CEMENT WEIGHT. THE CONTRACTOR SHALL SUBMIT ALL CERTIFICATES SHOWING THE FLY ASH CONFORMS TO THE ABOVE CRITERIA.
- AGGREGATE FOR HARD ROCK CONCRETE SHALL CONFORM TO ALL REQUIREMENTS AND TESTS OF ASTM C33 AND PROJECT SPECIFICATIONS. EXCEPTIONS MAY BE USED ONLY WITH PERMISSION OF THE STRUCTURAL ENGINEER.
- AGGREGATE FOR LIGHTWEIGHT CONCRETE SHALL CONFORM TO ASTM C330 AND PROJECT SPECIFICATIONS. LIGHTWEIGHT CONCRETE MIX DESIGN SHALL BE TESTED PRIOR TO APPROVAL. FOR SHRINKAGE IN ACCORDANCE WITH ASTM C157. SHRINKAGE SHALL NOT EXCEED 0.0005 INCHES/INCH.
- CONCRETE MIXING OPERATIONS, ETC. SHALL CONFORM TO ASTM C-94.
- FORMS FOR CONCRETE SHALL BE LAID OUT AND CONSTRUCTED TO PROVIDE THE SPECIFIED CAMBERS SHOWN ON THE DRAWINGS.
- DRY PACK OR GROUT UNDER BASEPLATES, SILL PLATES, ETC., SHALL BE 5000 PSI MINIMUM AT 28 DAYS.
- PLACEMENT OF CONCRETE SHALL CONFORM TO ACI STANDARD 304 AND PROJECT SPECIFICATIONS. SANDBLAST ALL CONCRETE SURFACES AGAINST WHICH CONCRETE IS TO BE PLACED.
- REINFORCING STEEL SHALL HAVE A MINIMUM CLEAR COVER AS FOLLOWS, U.O.N. IN DRAWINGS:
 - CONCRETE POURED AGAINST EARTH..... 3"
 - CONCRETE EXPOSED TO EARTH OR WEATHER:
 - #5 OR SMALLER..... 1-1/2"
 - #6 OR LARGER..... 2"
 - CONCRETE NOT EXPOSED TO WEATHER OR IN CONTACT WITH GROUND:
 - COLUMNS (TIES AND MAIN REINFORCING)..... 1-1/2"
 - BEAMS (STIRRUPS AND MAIN REINFORCING)..... 1-1/2"
 - SLABS, WALLS, JOISTS #11 OR SMALLER..... 3/4"
 - SLABS, WALLS, JOISTS #14 OR #18 BARS..... 1-1/2"

CLEAR COVER SHALL BE CLEARLY SHOWN ON ALL REBAR SHOP DRAWINGS.
- ALL REINFORCEMENT, ANCHOR BOLTS AND OTHER CONCRETE INSERTS SHALL BE SECURELY HELD IN POSITION WHILE PLACING CONCRETE. IF NECESSARY, ADDITIONAL BARS SHALL BE PROVIDED BY THE CONTRACTOR TO FURNISH SUPPORT.
- THE CONTRACTOR SHALL VERIFY THE DIMENSIONS AND LOCATIONS OF ALL OPENINGS, PIPE SLEEVES, ETC. AS REQUIRED BY ALL TRADES, BEFORE THE CONCRETE IS POURED. THE CONTRACTOR SHALL CONSULT THE ARCHITECTURAL, MECHANICAL, AND ELECTRICAL DRAWINGS, AS WELL AS THE STRUCTURAL DRAWINGS FOR THE LOCATION, NUMBER, AND SIZE OF ALL OPENINGS, SLEEVES, ETC. HOWEVER, OPENINGS NOT SHOWN ON THE STRUCTURAL DRAWINGS SHALL BE INSTALLED ONLY AFTER APPROVAL BY THE STRUCTURAL ENGINEER IS OBTAINED.
- CONDUIT OR PIPE SIZE (O.D.) SHALL NOT EXCEED 30% OF SLAB THICKNESS AND SHALL BE PLACED BETWEEN THE TOP AND BOTTOM REINFORCING, UNLESS SPECIFICALLY DETAILED OTHERWISE. CONCENTRATIONS OF CONDUITS OR PIPES SHALL BE AVOIDED EXCEPT WHERE DETAILED OPENING ARE PROVIDED.
- MODULUS OF ELASTICITY OF CONCRETE, WHEN TESTED IN ACCORDANCE WITH ASTM C-460, SHALL BE AT LEAST THE VALUE GIVEN BY THE EQUATIONS IN SECTION 8.5.1 OF ACI 318 FOR THE SPECIFIED 28-DAY STRENGTH.
- LOCATION OF ALL CONSTRUCTION JOINTS NOT SHOWN ON DRAWINGS SHALL BE SUBMITTED TO ENGINEER FOR APPROVAL PRIOR TO DETAILING OF REINFORCING. ALL CONSTRUCTION JOINTS TO BE CLEARLY SHOWN IN REBAR DETAIL DRAWINGS. ENGINEER MAY REQUIRE ADDITIONAL REINFORCING AT CONSTRUCTION JOINTS.

VI - REINFORCING STEEL (FOR CONCRETE AND MASONRY)

- ALL REINFORCING STEEL SHALL BE DETAILED AND PLACED IN CONFORMANCE WITH THE 'BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE' (ACI 318) AND THE 'MANUAL OF STANDARD PRACTICE FOR REINFORCED CONCRETE CONSTRUCTION' BY CRSI AND WCRSI, AS MODIFIED BY THE PROJECT DRAWINGS AND SPECIFICATIONS.
- DEFORMED REINFORCING BARS SHALL CONFORM TO THE REQUIREMENTS OF ASTM A615 GRADE 60, UNLESS NOTED OTHERWISE.
- FOR A615 REINFORCEMENT:
 - THE ACTUAL YIELD STRENGTH BASED ON MILL TESTS SHALL NOT EXCEED THE SPECIFIED YIELD STRENGTH BY MORE THAN 18000 PSI (RETESTS SHALL NOT EXCEED THIS VALUE BY MORE THAN AN ADDITIONAL 3000 PSI)
 - THE RATIO OF THE ACTUAL ULTIMATE TENSILE STRESS TO THE ACTUAL YIELD STRENGTH IS NOT LESS THAN 1.25.
- WELDING OF REINFORCING SHALL BE WITH LOW HYDROGEN ELECTRODES IN CONFORMANCE WITH RECOMMENDED PRACTICES FOR WELDING REINFORCING STEEL, ETC., AMERICAN WELDING SOCIETY, AWS D1.4.
- ALL REINFORCING BAR BENDS SHALL BE MADE COLD.
- WELDED WIRE FABRIC SHALL CONFORM TO ASTM A185.
- MINIMUM LAP OF WELDED WIRE FABRIC SHALL BE 6 INCHES OR ONE FULL MESH AND ONE HALF, WHICH EVER IS GREATER.
- DOWELS BETWEEN FOOTINGS AND WALLS OR COLUMNS SHALL BE THE SAME GRADE, SIZE, SPACING AND NUMBER AS THE SPECIFIED VERTICAL REINFORCING, U.N.O.
- ALL BARS SHALL BE MARKED SO THEIR IDENTIFICATION CAN BE MADE WHEN THE FINAL IN-PLACE INSPECTION OCCURS.
- SUBMIT SHOP DRAWINGS OF REINFORCING STEEL FOR INFORMATION ONLY. ANY PROPOSED CHANGES TO REINFORCING STEEL, SUCH AS SIZE, LOCATION AND SPACING DIFFERENT FROM THAT SHOWN ON THE CONTRACT DOCUMENTS SHALL BE BROUGHT TO THE STRUCTURAL ENGINEER'S ATTENTION THROUGH THE RFI PROCESS AND APPROVED PRIOR TO CONSTRUCTION. THE REBAR SHOP DRAWINGS SHALL NOT REPLACE DESIGN DOCUMENTS FOR CONSTRUCTION OR FIELD INSPECTIONS.

VII - WOOD

- FRAMING LUMBER:
 - SHALL BE DOUGLAS FIR LARCH NO. 2 GRADE FOR 2X AND 4X FRAMING UNLESS OTHERWISE NOTED.
 - SHALL BE DOUGLAS FIR LARCH NO.1 GRADE FOR 5X FRAMING AND LARGER UNLESS OTHERWISE NOTED.
- ALL BOLTS SHALL CONFORM TO ASTM A307. BOLT HOLES SHALL BE 1/16 IN. MAXIMUM LARGER THAN THE BOLT SIZE. RETIGHTEN ALL NUTS PRIOR TO CLOSING IN.
- STANDARD CUT WASHERS SHALL BE USED UNDER BOLT HEADS AND NUTS AGAINST WOOD. U.O.N. PLATE WASHERS ARE REQUIRED AT SHEAR WALLS, SEE SCHEDULE.
- ALL SILLS OR PLATES RESTING ON CONCRETE OR MASONRY SHALL BE PRESSURE TREATED DOUGLAS FIR. (1) BOLT SHALL BE LOCATED NOT MORE THAN 12 INCHES OR LESS THAN 4 INCHES FROM EACH END OF A PLATE, OR FROM A NOTCH GREATER THAN 1/2 WIDTH OF THE PLATE.
- DO NOT NOTCH JOISTS, RAFTERS OR BEAMS, EXCEPT WHERE SHOWN IN DETAILS. OBTAIN ENGINEERS' APPROVAL FOR ANY HOLES OR NOTCHES NOT DETAILED. HOLES THROUGH SILLS, PLATES, STUDS AND DOUBLE PLATES IN INTERIOR, BEARING AND SHEAR WALLS SHALL NOT EXCEED 1/3 THE PLATE WIDTH. USE BORED HOLES LOCATED IN THE CENTER OF THE STUD OR PLATE.
- WHERE POST ALIGN BETWEEN THE 2ND FLOOR AND THE 1ST FLOOR, ADD THE LARGER POST BETWEEN FLOOR SHEATHING AND 1ST FLOOR TOP PLATE.
- CONNECTION HARDWARE SHALL BE SIMPSON STRONG-TIE OR EQUAL, MUST BE I.C.B.O. APPROVED. INSTALL PER MANUFACTURER'S SPECIFICATIONS AND RECOMMENDATIONS.
- FASTENING SCHEDULE PER THE LATEST EDITION OF THE CALIFORNIA BUILDING CODE, TABLE 2304.9.1, U.O.N.
- 16d SINKERS NOTED IN THESE DRAWINGS MAY BE REPLACED WITH 0.131 x 31/4 GUN NAILS PER THE FOLLOWING TABLES:

# OF 16d SINKERS	1	2	3	4	5	6	7	8	9	10	11	12
# OF 0.131x3 1/4 GUN NAILS	2	3	4	5	6	7	8	9	11	12	13	14

SPACING OF 16d SINKERS	2" O.C	4" O.C	6" O.C	8" O.C	10" O.C	12" O.C
SPACING OF 0.131x3 1/4 GUN NAILS	1 1/2" O.C	3 1/2" O.C	5" O.C	7" O.C	8 1/2" O.C	10 1/2" O.C

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GENERAL NOTES

S-003

GENERAL NOTES

VIII - MANUFACTURED BEAMS

1. GLUED LAMINATED BEAMS (GLB)
 - GLUE LAMINATED BEAMS SHALL BE DOUGLAS FIR, COMBINATION 24F-V4 FOR SIMPLE SPANS AND 24F-V8 FOR CONTINUOUS SPANS OR SPANS WITH CANTILEVERS IN ACCORDANCE WITH SECTION 2303 OF THE CBC AND WITH AITC 117. USE EXTERIOR TYPE ADHESIVES UNLESS OTHERWISE NOTED.
 - ALL BEAMS SHALL BE FABRICATED USING EXTERIOR GLUE FABRICATION AND HANDLING PER LATEST AITC AND WCCA STANDARDS. BEAMS TO BEAR GRADE STAMP AND AITC STAMP AND CERTIFICATE.
 - MOISTURE CONTENT SHALL BE LIMITED TO A MAXIMUM OF 12%.
 - ALL GLULAM BEAMS SHALL HAVE STANDARD CAMBER, U.N.O. ON PLANS.
2. LAMINATED STRAND LUMBER (1.3E OR 1.5E LSL)
 - LSL BEAMS SHALL BE TIMBERSTRAND LSL BY WEYERHAEUSER OR ICBO APPROVED EQUAL AND HAVE THE FOLLOWING MINIMUM PROPERTIES:
 - 1) FOR E = 1,300,000 psi, Fb = 1700 psi, Fv = 400 psi
Fc (Perpendicular) = 680 psi, Fc (Parallel) = 1400 psi
 - 2) FOR E = 1,550,000 psi, Fb = 2325 psi, Fv = 310 psi
Fc (Perpendicular) = 800 psi, Fc (Parallel) = 2050 psi
3. LAMINATED VENEER LUMBER (LVL)
 - LVL BEAMS SHALL BE MICROLAM LVL BY WEYERHAEUSER OR ICBO APPROVED EQUAL AND HAVE THE FOLLOWING MINIMUM PROPERTIES:
 - 1) E = 1,900,000 psi, Fb = 2600 psi, Fv = 285 psi
Fc (Perpendicular) = 750 psi, Fc (Parallel) = 2510 psi
 - MULTIPLE-PLY LVL BEAMS SHALL BE NAILED TOGETHER AS FOLLOWS:
 - 1) PROVIDE (2) ROWS OF 16d SINKERS AT 12" O.C. FOR BEAMS < 11 7/8" DEEP
 - 2) PROVIDE (3) ROWS OF 16d SINKERS AT 12" O.C. FOR BEAMS > 11 7/8" DEEP.
4. PARALLEL STRAND LUMBER (PSL)
 - PSL BEAMS SHALL BE PARALLAM PSL BY WEYERHAEUSER OR ICBO APPROVED EQUAL AND HAVE THE FOLLOWING MINIMUM PROPERTIES:
 - 1) E = 2,000,000 psi, Fb = 2900 psi, Fv = 290 psi
Fc (Perpendicular) = 750 psi, Fc (Parallel) = 2900 psi

IX - STRUCTURAL SHEATHING

1. PLYWOOD SHALL BE CDX SHEATHING INTERIOR TYPE BONDED WITH EXTERIOR GLUE (C-D EXPOSURE I) AND SHALL BEAR THE STAMP OF AN APPROVED TESTING AND GRADING AGENCY.
2. PLYWOOD SHALL BE OF EXTERIOR TYPE WHEN USED AS THE EXPOSED FINISH AND PERMANENTLY EXPOSED TO OUTDOOR APPLICATIONS.
3. PLYWOOD SHALL CONSIST OF A MINIMUM OF (3) PLYS FOR 3/8" SHEATHING AND LARGER AND MINIMUM OF (4) PLYS FOR 1/2" SHEATHING AND LARGER, AS INDICATED BY THE STRUCTURAL DRAWINGS.
4. LAY PLYWOOD WITH FACE GRAIN AWAY FROM SUPPORTING MEMBERS AND PERPENDICULAR TO SUPPORTS, U.O.N. ALL PLYWOOD JOINTS SHALL BE STAGGERED.
5. PLYWOOD SHALL BE INSTALLED WITH PANELS NOT LESS THAN 4 FEET BY 8 FEET. AT BOUNDARIES AND CHANGES IN FRAMING, UNSUPPORTED EDGES SHALL BE BLOCKED WHERE SHEET DIMENSIONS ARE LESS THAN 24 INCHES.
6. ORIENTED STRAND BOARD (O.S.B.) WITH EQUIVALENT PROPERTIES MAY REPLACE PLYWOOD, AS INDICATED BY THE STRUCTURAL DRAWINGS.
7. NAILS OR APPROVED CONNECTIONS SHALL BE DRIVEN SO THAT THE HEAD OR CROWN IS FLUSH WITH THE SURFACE OF THE PLYWOOD. ADJACENT NAILS SHALL BE STAGGERED AND SHALL NOT BE LESS THAN 3/8" FROM PLYWOOD EDGES.

X - STRUCTURAL STEEL

1. STRUCTURAL STEEL SHALL BE DETAILED, FABRICATED AND ERECTED IN ACCORDANCE WITH THE AISC SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS' (LATEST EDITION AND SUPPLEMENTS).
2. STRUCTURAL STEEL SHALL CONFORM TO THE ASTM DESIGNATION A992, GR50, EXCEPT ANGLES, PLATE SAND BARS WHICH SHALL CONFORM TO ASTM DESIGNATION A36, UNLESS NOTED OTHERWISE.
3. PIPE COLUMNS SHALL CONFORM TO ASTM DESIGNATION A53 GRADE 'B'. ALL STEEL TUBES SHALL CONFORM TO ASTM A500 GRADE 'B' COLD FORMED TUBES WITH FY = 46 KSI.
4. BOLTS SHALL CONFORM TO ASTM A325N, EXCEPT ANCHOR BOLTS WHICH SHALL CONFORM TO ASTM A307, GRADE 'A', UNLESS NOTED OTHERWISE.
5. THE STRUCTURAL STEEL FABRICATOR SHALL FURNISH SHOP DRAWINGS OF ALL STRUCTURAL STEEL, FOR ARCHITECT'S REVIEW BEFORE FABRICATION.
6. BOLT HOLES IN STEEL SHALL BE 1/16 INCH LARGER THAN NOMINAL SIZE OF BOLT USED, EXCEPT ANCHOR BOLT HOLES.
7. STRUCTURAL STEEL SURFACES THAT ARE NOT EXPOSED TO WEATHER SHALL BE LEFT UNPAINTED. SEE ARCHITECTURAL DRAWINGS FOR ANY ADDITIONAL REQUIREMENTS.
8. ALL WELDS SHALL BE IN ACCORDANCE TO THE WELDING PROCEDURE SPECIFICATION REQUIRED BY AWS D1.1-98. ELECTRODES SHALL HAVE A MINIMUM TENSILE STRENGTH OF 70 KSI.
9. ALL COMPLETE JOINT PENETRATION (CJP) GROOVE WELDS SHALL BE MADE USING A FILLER METAL THAT HAS A MINIMUM CVN TOUGHNESS OF 20 FT-LBS AT -20 DEGREES FAHRENHEIT. FULL ULTRASONIC INSPECTION SHALL BE PROVIDED ON ALL CJP WELDS CONTAINED IN JOINTS AND SPLICES.
10. WELD LENGTHS CALLED FOR ON PLANS ARE THE NET EFFECTIVE LENGTH REQUIRED. WELD SIZE SHALL BE AISC MINIMUM UNLESS A LARGER SIZE IS NOTED.
11. WELDING TESTS AND INSPECTIONS, SEE SPECIFICATIONS.
12. ANCHOR STUDS, SHEAR STUDS, AND DEFORMED ANCHORS:
 - SHALL BE MANUFACTURED BY NELSON STUD WELDING CO. OR EQUAL.
 - HEADED STUDS (SHEAR AND ANCHOR) SHALL BE MADE OF MATERIAL CONFORMING TO ASTM A108.
 - DEFORMED ANCHORS SHALL BE MADE OF MATERIAL CONFORMING TO ASTM A496.
 - STUDS AND ANCHORS SHALL BE WELDED ACCORDING TO MANUFACTURER'S RECOMMENDATIONS. MANUAL ARC (STICK) WELDING OF HEADED STUDS AND/OR DEFORMED ANCHORS IS NOT ALLOWED: PARAGRAPHS 7.5.5 TO 7.5.5.6 INCLUSIVE, OF THE AWS D1.1, ARE DELETED.
13. EXCEPT AS SUBSEQUENTLY NOTED, HIGH STRENGTH BOLTS NEED NOT BE TIGHTENED BEYOND THE SNUG-TIGHT CONDITION, AS DEFINED IN SECTION 8.1 OF THE SPECIFICATIONS FOR STRUCTURAL JOINTS USING ASTM A325 OR A490 BOLTS. FOR CONNECTIONS SUBJECT TO DIRECT TENSION, CONNECTIONS FOR BRACED FRAMES, AND OTHER CONNECTIONS SHOWN OR NOTED ON THE PLANS AS SC (SLIP CRITICAL) OR FULLY TENSIONED, BOLTS SHALL BE TIGHTENED BY ONE OF THE METHODS DESCRIBED IN SECTION 8.2 AND TO THE MINIMUM TENSION SPECIFIED IN TABLE 8.1.
14. ALL STRUCTURAL STEEL AND MISCELLANEOUS METAL EXPOSED TO WEATHER SHALL BE HOT DIPPED GALVANIZED AFTER FABRICATION.
15. UNLESS OTHERWISE SHOWN ON DRAWINGS, SIZE OF WELDS SHALL NOT BE SMALLER THAN 1/4".
16. FABRICATION AND ERECTION CONSIDERATIONS - THE FOLLOWING ITEMS WILL BE DEFINED AT A PRE-DETAILING CONFERENCE WITH THE STEEL CONTRACTOR:
 - STEEL COLUMN LENGTH ADJUSTMENT FOR ELASTIC SHORTENING EFFECTS.
 - STEEL TRUSS CAMBERING.
 - ELEMENTS AFFECTED BY STEEL ERECTION PROCEDURE, SUCH AS MEMBER SIZES, CONNECTIONS, SPLICES, BASE PLATES, ANCHOR BOLTS, ROCK ANCHORS, ETC.
 - ERECTION PROCEDURES AND SEQUENCES WITH REGARD TO TEMPERATURE EFFECTS.
17. THE CONTRACTOR SHALL PROVIDE, AT NO ADDITIONAL COST, ALL ADDITIONAL STEEL, SHORING, CONNECTIONS, GUYING, ETC. REQUIRED FOR ERECTION.
18. MEMBERS MAY ONLY BE SPICED WHERE SPECIFICALLY DETAILED ON ACCEPTED SHOP DRAWINGS.
19. FIELD CUTTING OF STRUCTURAL STEEL IS NOT PERMITTED EXCEPT WITH THE PRIOR APPROVAL OF THE ENGINEER.

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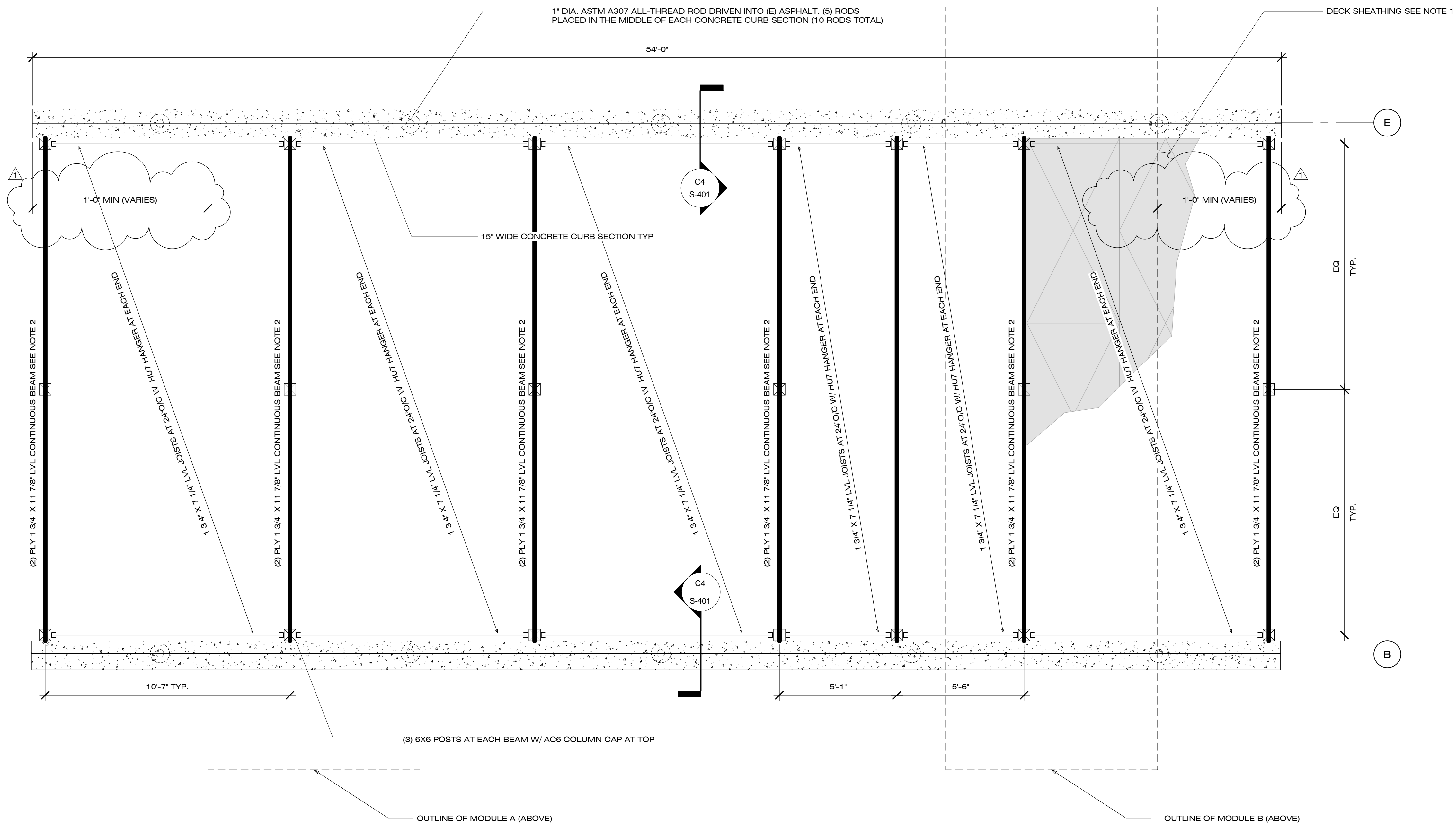
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FOUNDATION PLAN

S-101

FOUNDATION PLAN NOTES:

- FLOOR SHEATHING SHALL BE 1" (SEE DETAIL D1/S405 FOR ADDITIONAL INFORMATION) TONGUE AND GROOVE STRUCTURAL PLYWOOD WITH A SPAN RATING OF 48/24. WOOD GLUE ALL CONTACT SURFACES AND NAIL WITH 10d SCREW NAILS AT 4" O.C. AT ALL BOUNDARIES AND SUPPORTED EDGES AND 4" O.C. FIELD NAILING. ALL UNSUPPORTED EDGES SHALL BE BLOCKED (SEE DETAIL D1/S-405 FOR ADDITIONAL INFORMATION)
- STITCH NAIL LVL TOGETHER WITH (3) ROWS OF 10d SINKERS STAGGERED AT 6" O/C



A1 FOUNDATION PLAN

3/8" = 1'-0"



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SHEET TITLE

FLOOR FRAMING PLAN

S-201

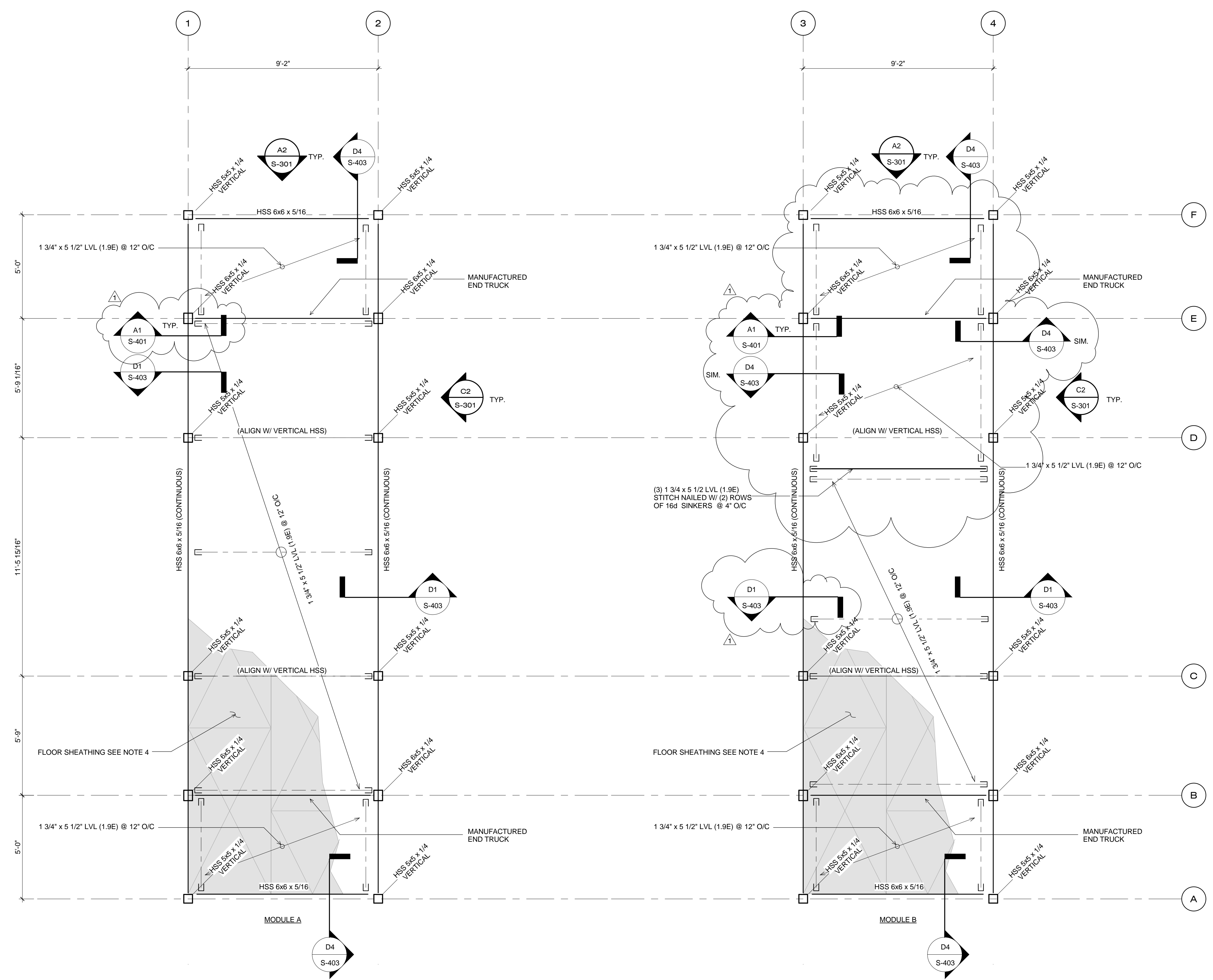
FLOOR FRAMING PLAN NOTES:

- TOP OF STEEL BEAMS SHALL BE 1'-6 1/4" UNLESS OTHERWISE NOTED IN PARENTHESIS (XX'-XX")
- ALL EXTERIOR AND INTERIOR WALLS AND SHEWALLS TO BE 2X6 AT 16" O.C. DOUGLAS FIR LARCH #2 GRADE, U.O.N.
- ROOF SHEATHING SHALL BE 15/32" STRUCTURAL 1 PLYWOOD WITH A SPAN RATING OF 32/16. NAILS SHALL BE 10d COMMON NAILS AT 6" O.C. AT ALL BOUNDARIES AND SUPPORTED EDGES AND 12" O.C. FIELD NAILING. ALL UNSUPPORTED EDGES SHALL BE BLOCKED (SEE DETAIL D1/S-405 FOR ADDITIONAL INFORMATION)
- FLOOR SHEATHING SHALL BE 1/2" (SEE DETAIL D1/S-405 FOR ADDITIONAL INFORMATION) TONGUE AND GROOVE STRUCTURAL 1 PLYWOOD WITH A SPAN RATING OF 48/24. WOOD GLUE ALL CONTACT SURFACES AND NAIL WITH 10d SCREW NAILS AT 4" O.C. AT ALL BOUNDARIES AND SUPPORTED EDGES AND 4" O.C. FIELD NAILING. ALL UNSUPPORTED EDGES SHALL BE BLOCKED (SEE DETAIL D1/S-405 FOR ADDITIONAL INFORMATION)
- TRIMMER AND KING STUD SCHEDULE

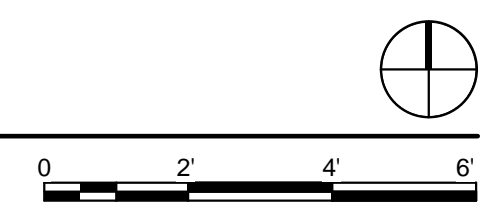
OPENING SPAN (L)	TRIMMERS	KING STUDS
L < 5'-0"	2	2
5'-0" < L < 10'-0"	2	2
10'-0" < L < 15'-0"	2	3

JOIST/BEAM	HANGER	NAILING
1 3/4" X 5 1/2" LVL (1.9E)	HU1.81/5	FACE: (12) 10d x 1 1/2 JOIST: (4) 10d x 1 1/2
TJI PRO 230	BA2.37/16	TOP FLANGES: (10) 10d x 1 1/2 JOISTS: (6) 10d x 1 1/2
(3) 1 3/4" X 5 1/2" LVL (1.9E)	HU68 MAX	FACE: (14) 10d x 1 1/2 JOIST: (6) 16d

REFERENCE DETAIL A1/S-406 FOR SOLAR THERMAL EXTENSION



A1 FLOOR FRAMING PLAN
3/8" = 1'-0"



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SHEET TITLE

ROOF FRAMING PLAN

S-202

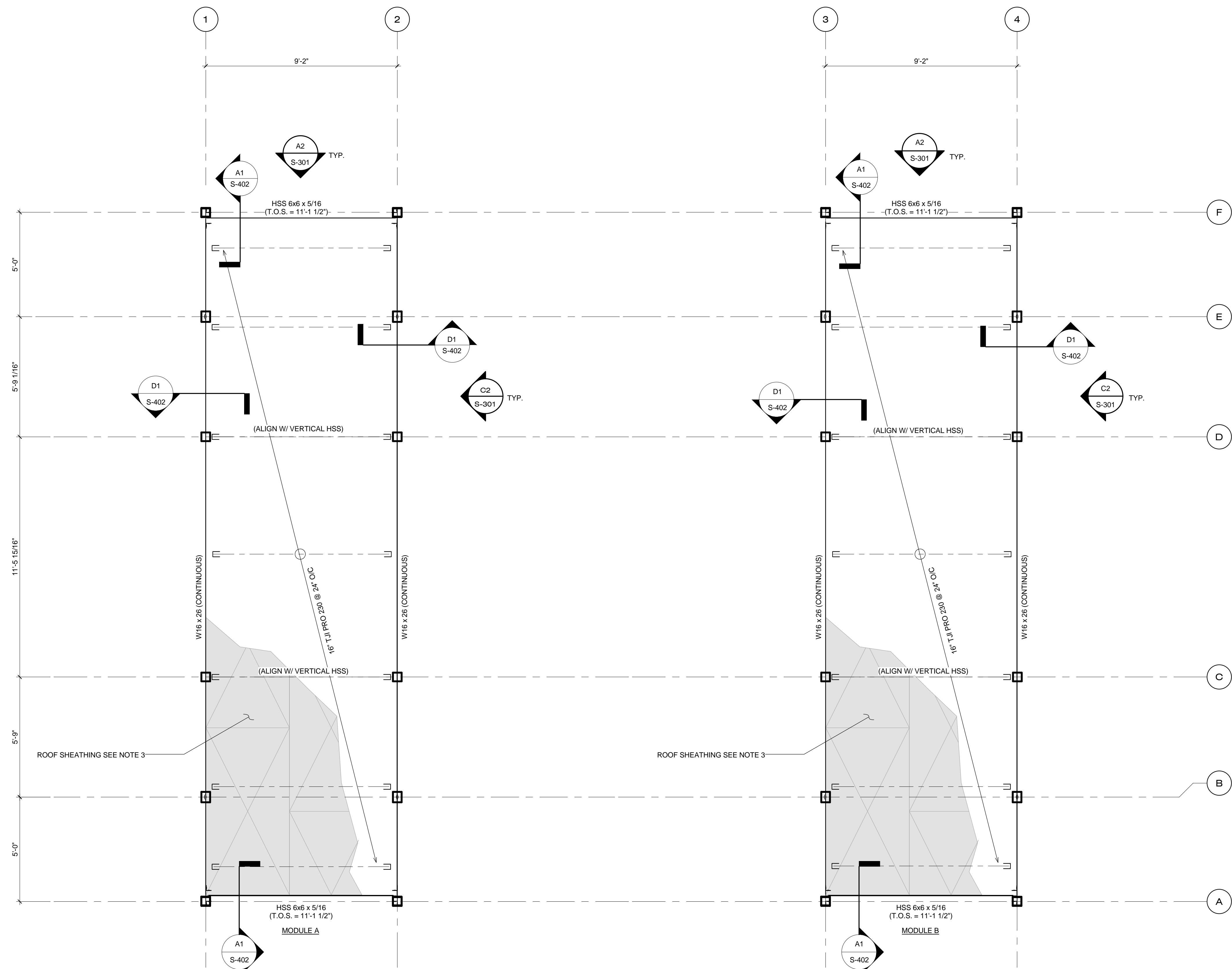
ROOF FRAMING PLAN NOTES:

- TOP OF STEEL BEAMS SHALL BE 10'-11 1/2" UNLESS OTHERWISE NOTED IN PARENTHESIS (XX'-XX")
- ALL EXTERIOR AND INTERIOR WALLS AND SHEAR WALLS TO BE 2X6 AT 16" O.C. DOUGLAS FIR LARCH #2 GRADE, U.O.N.
- ROOF SHEATHING SHALL BE 15/32" STRUCTURAL I PLYWOOD WITH A SPAN RATING OF 32/16. NAILS SHALL BE 10d COMMON NAILS AT 6" O.C. AT ALL BOUNDARIES AND SUPPORTED EDGES AND 12" O.C. FIELD NAILING. ALL UNSUPPORTED EDGES SHALL BE BLOCKED (SEE DETAIL D1/S405 FOR ADDITIONAL INFORMATION)
- FLOOR SHEATHING SHALL BE 1/2" TONGUE AND GROOVE STRUCTURAL I PLYWOOD WITH A SPAN RATING OF 48/24. WOOD GLUE ALL CONTACT SURFACES AND NAIL WITH 10d SCREW NAILS AT 4" O.C. AT ALL BOUNDARIES AND SUPPORTED EDGES AND 4" O.C. FIELD NAILING. ALL UNSUPPORTED EDGES SHALL BE BLOCKED (SEE DETAIL D1/S405 FOR ADDITIONAL INFORMATION)
- TRIMMER AND KING STUD SCHEDULE

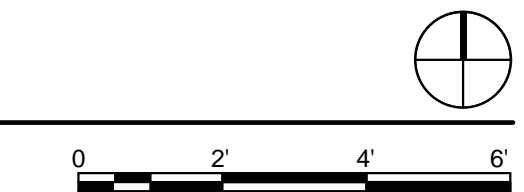
OPENING SPAN (L)	TRIMMERS	KING STUDS
L < 5'-0"	2	2
5'-0" < L < 10'-0"	2	2
10'-0" < L < 15'-0"	2	3
- HANGER SCHEDULE

JOIST/BEAM	HANGER	NAILING
1 3/4" X 5 1/2" LVL (1.9E)	HU1.81/5	FACE: (12) 10d x 1 1/2 JOIST: (4) 10d x 1 1/2
TJI PRO 230	BA2.37/16	TOP FLANGES: (10) 10d x 1 1/2 JOISTS: (6) 10d x 1 1/2
(3) 1 3/4" X 5 1/2" LVL (1.9E)	HU68 MAX	FACE: (14) 10d x 1 1/2 JOIST: (6) 16d
- REFERENCE DETAIL A1/S-405 FOR CEILING CONSTRUCTION
- SEE SHEET S-303 FOR SLIDER FRAME PLAN

SLIDER CANOPY AND LOUVERS MUST BE CLOSED IN HIGH WINDS



A1 ROOF FRAMING PLANS
3/8" = 1'-0"



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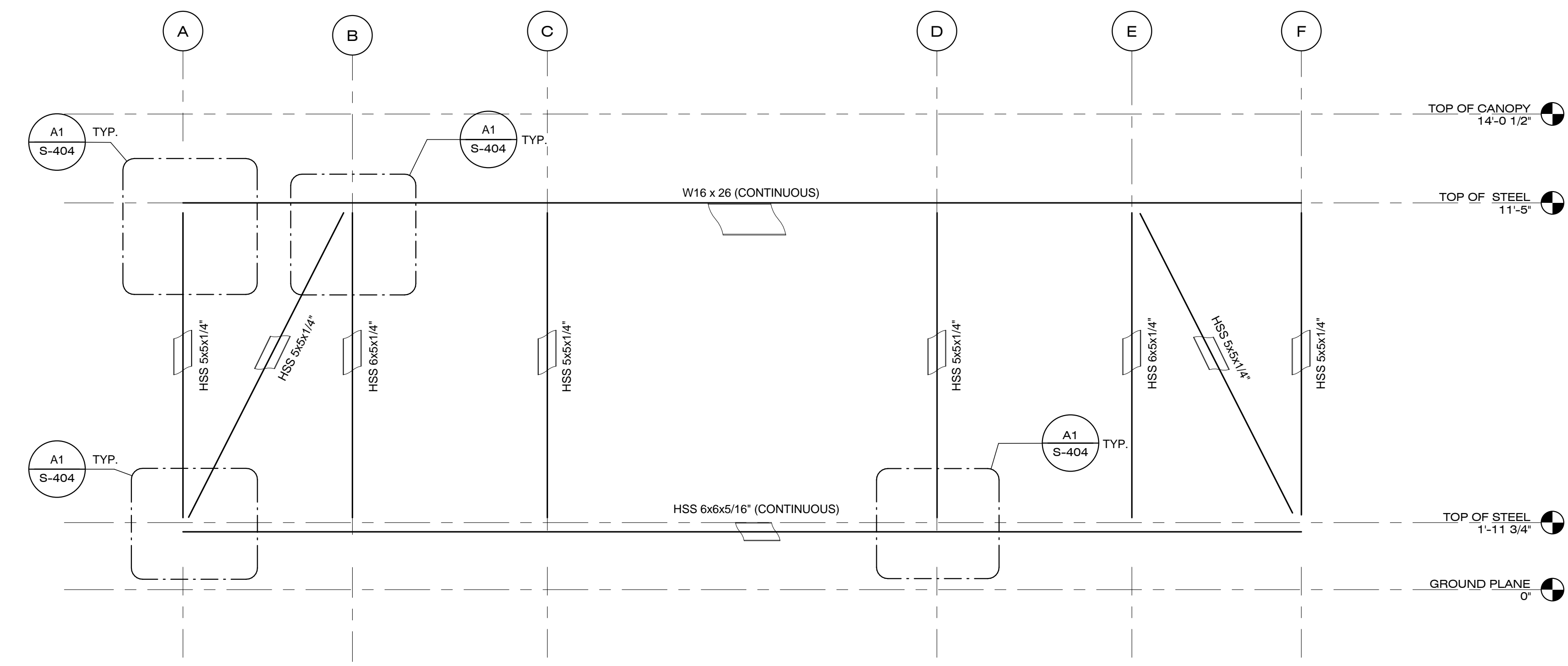
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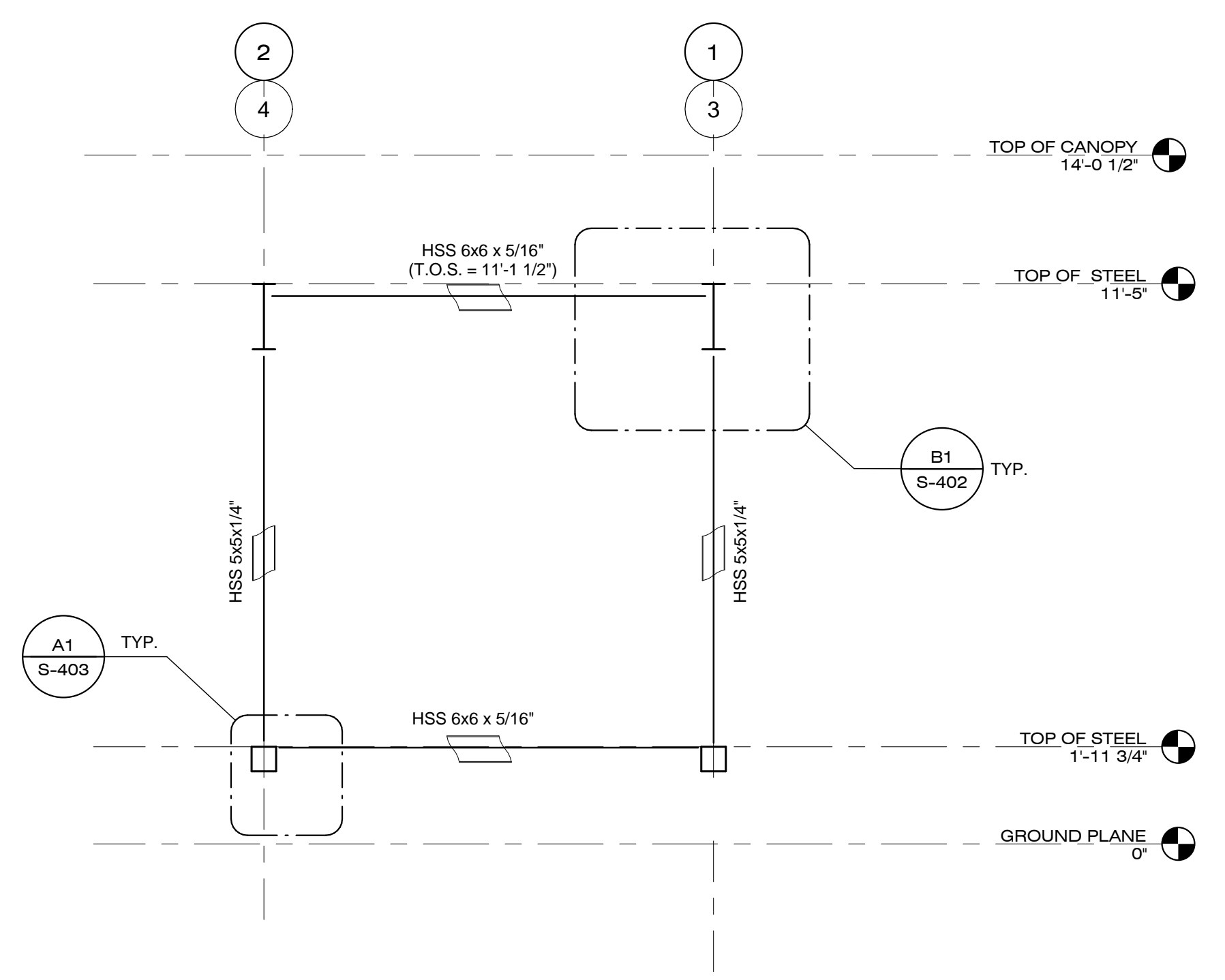
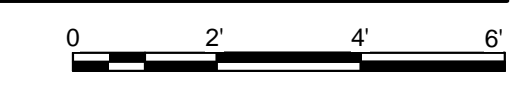
SHEET TITLE

TRUSS
ELEVATIONS

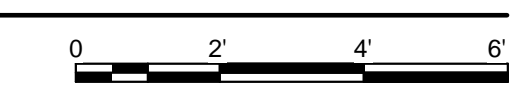
S-301



C2 STRUCTURE EAST ELEVATION (GRIDLINE 1, 2, 3, 4)
3/8" = 1'-0"



A2 STRUCTURE NORTH ELEVATION (GRIDLINE A & F)
3/8" = 1'-0"



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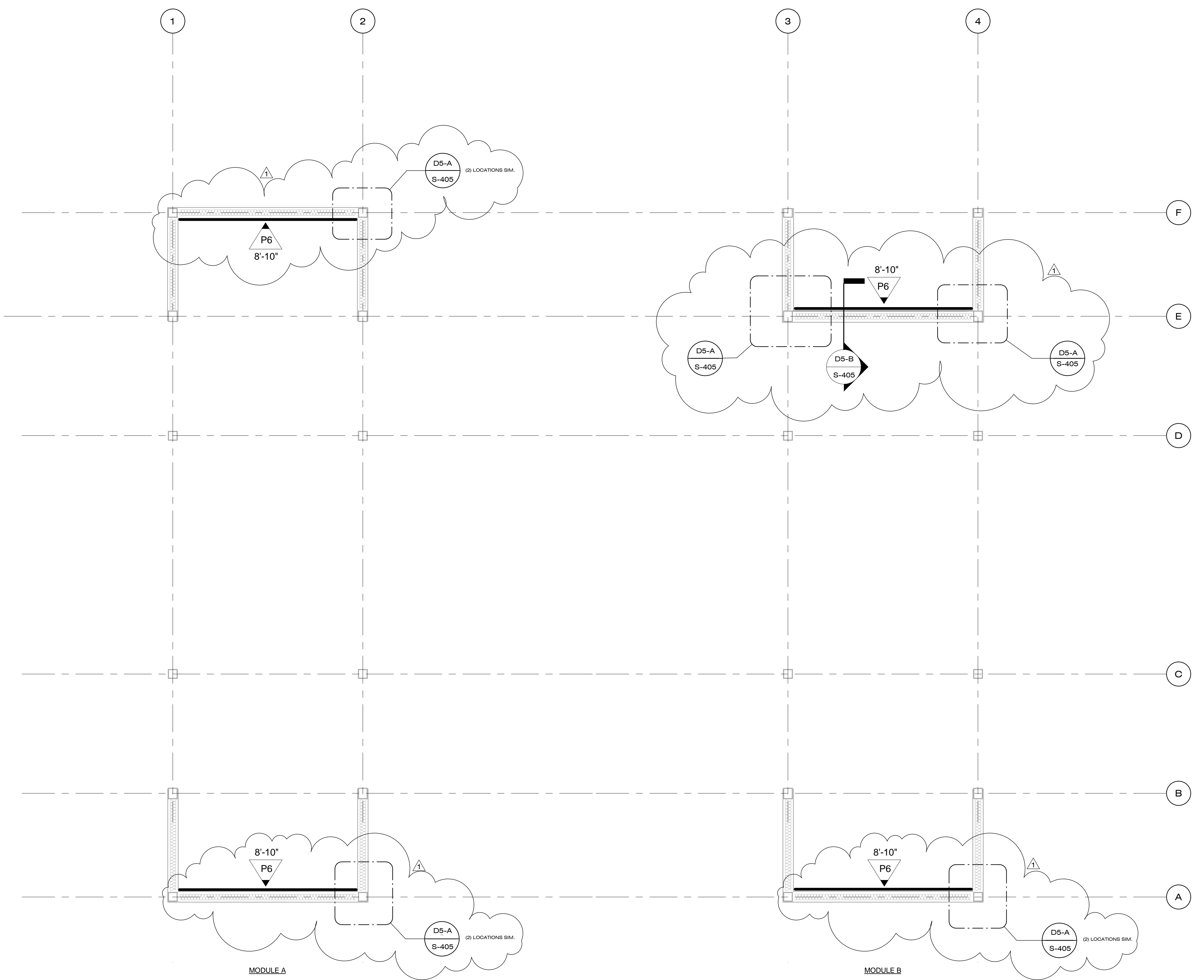
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**SHEAR WALL
PLANS**

S-302

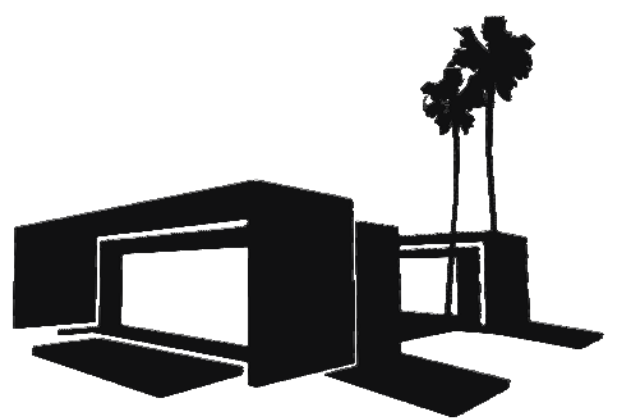
SHEAR WALL PLAN NOTES:

- WHERE WALL SHEATHING IS NOT SPECIFICALLY NOTED ON DRAWINGS, P6 WALL SHEATHING MAY BE USED
- SEE DETAIL A3/S-405 FOR SHEAR WALL CONSTRUCTION



A1 SHEAR WALL PLAN
3/8" = 1'-0"

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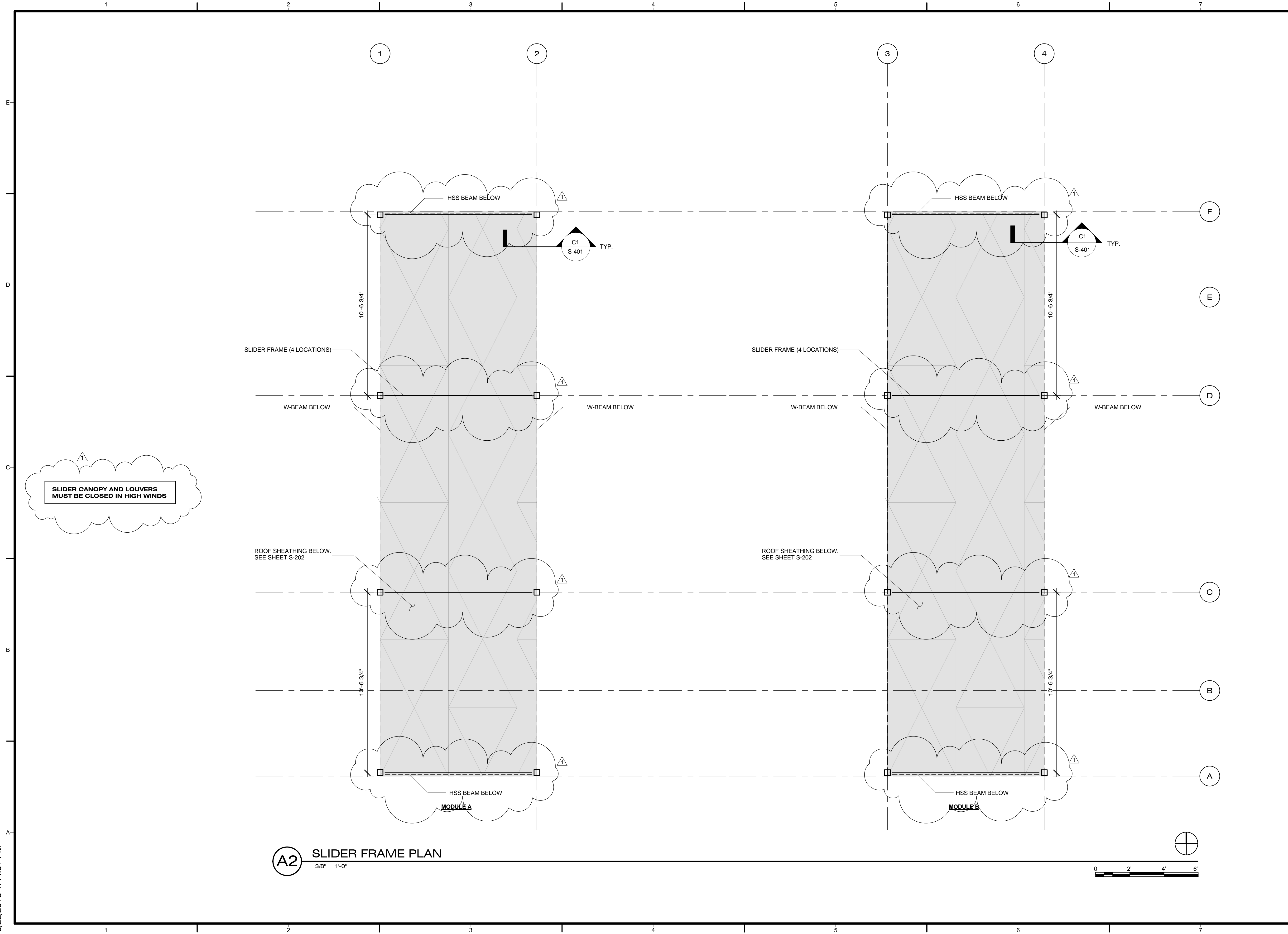
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SLIDER FRAME
PLAN

S-303



A2 SLIDER FRAME PLAN
3/8" = 1'-0"

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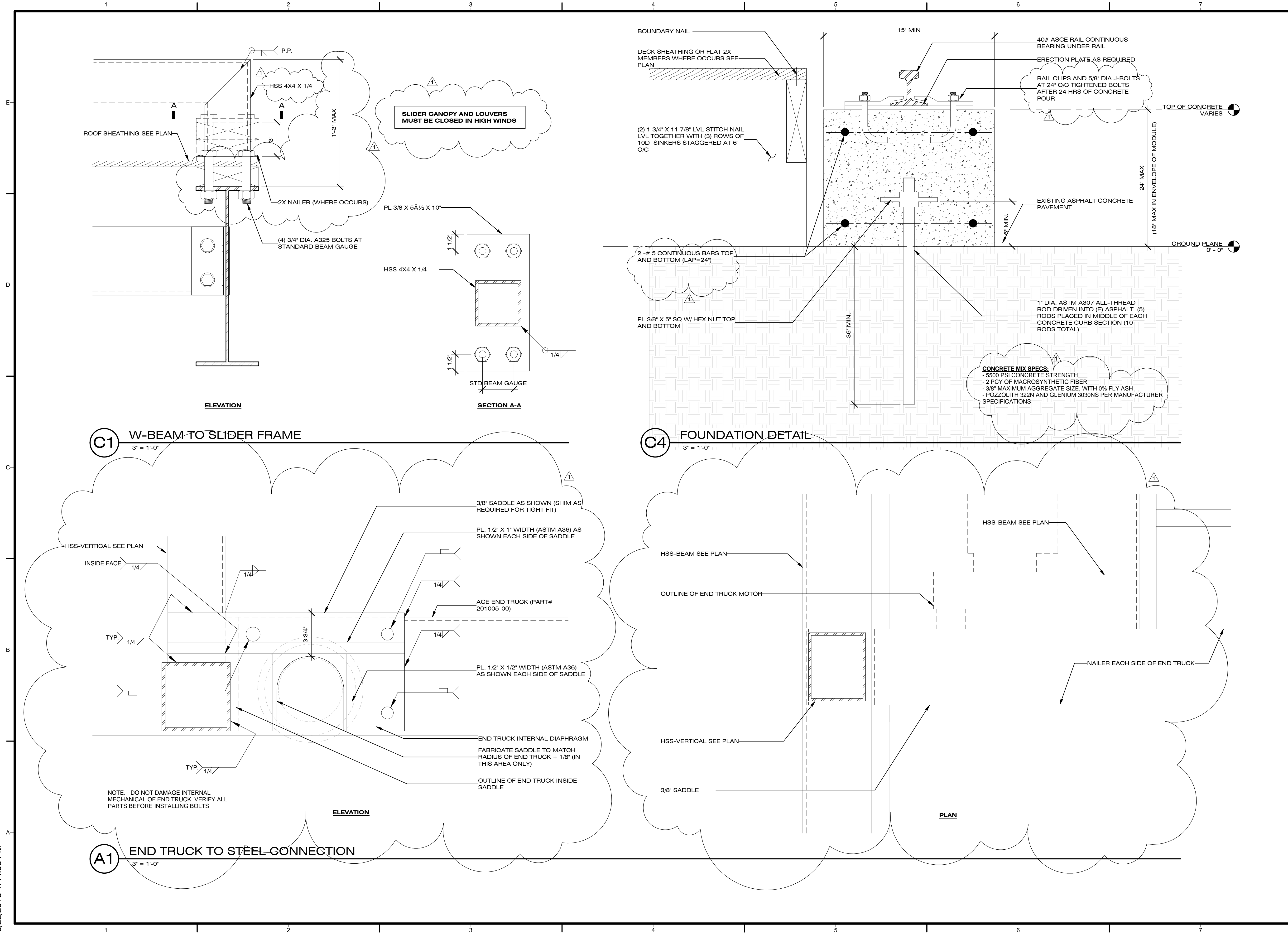
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FOUNDATION &
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S-401



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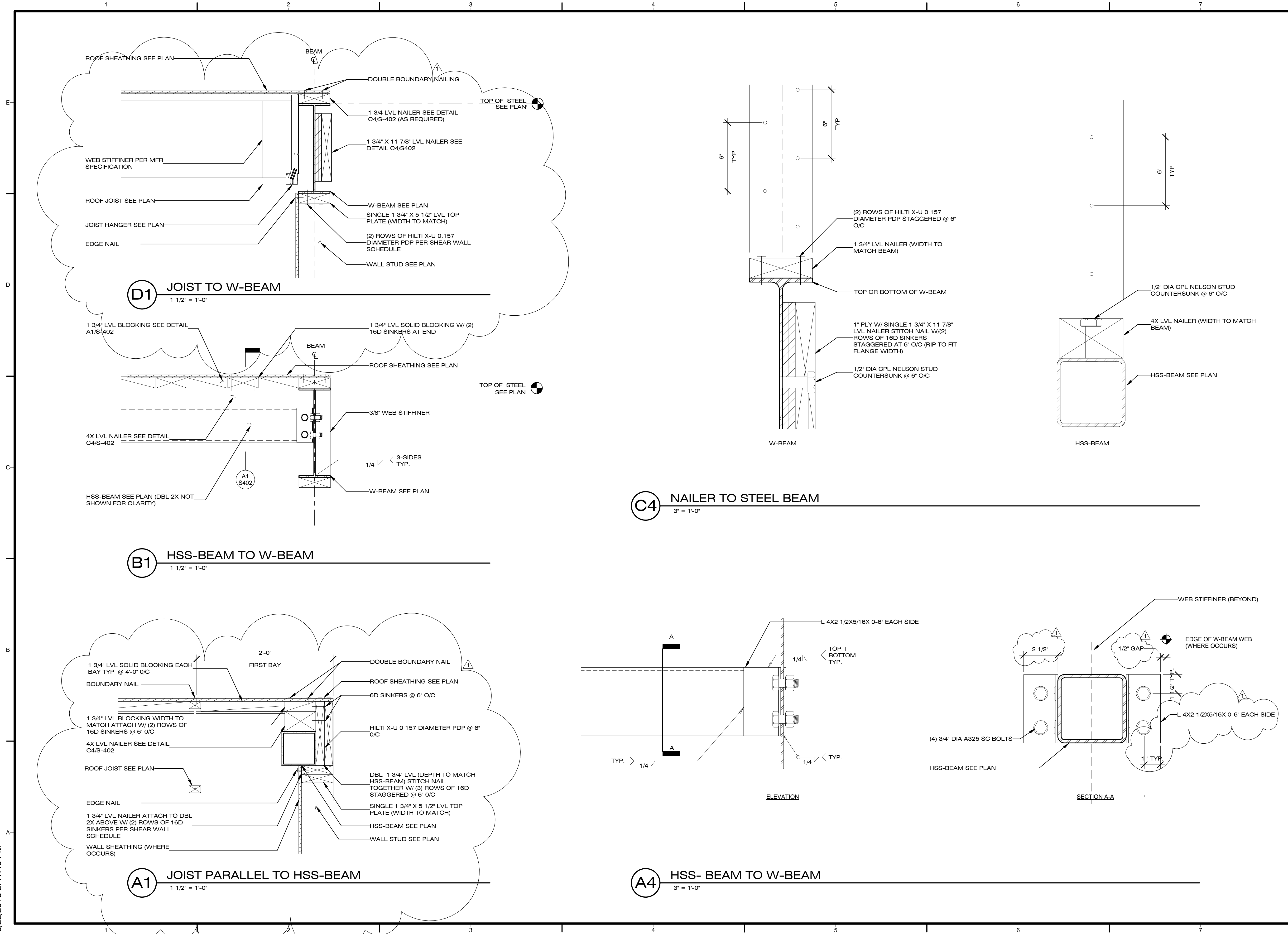
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SHEET TITLE

ROOF DETAILS

S-402



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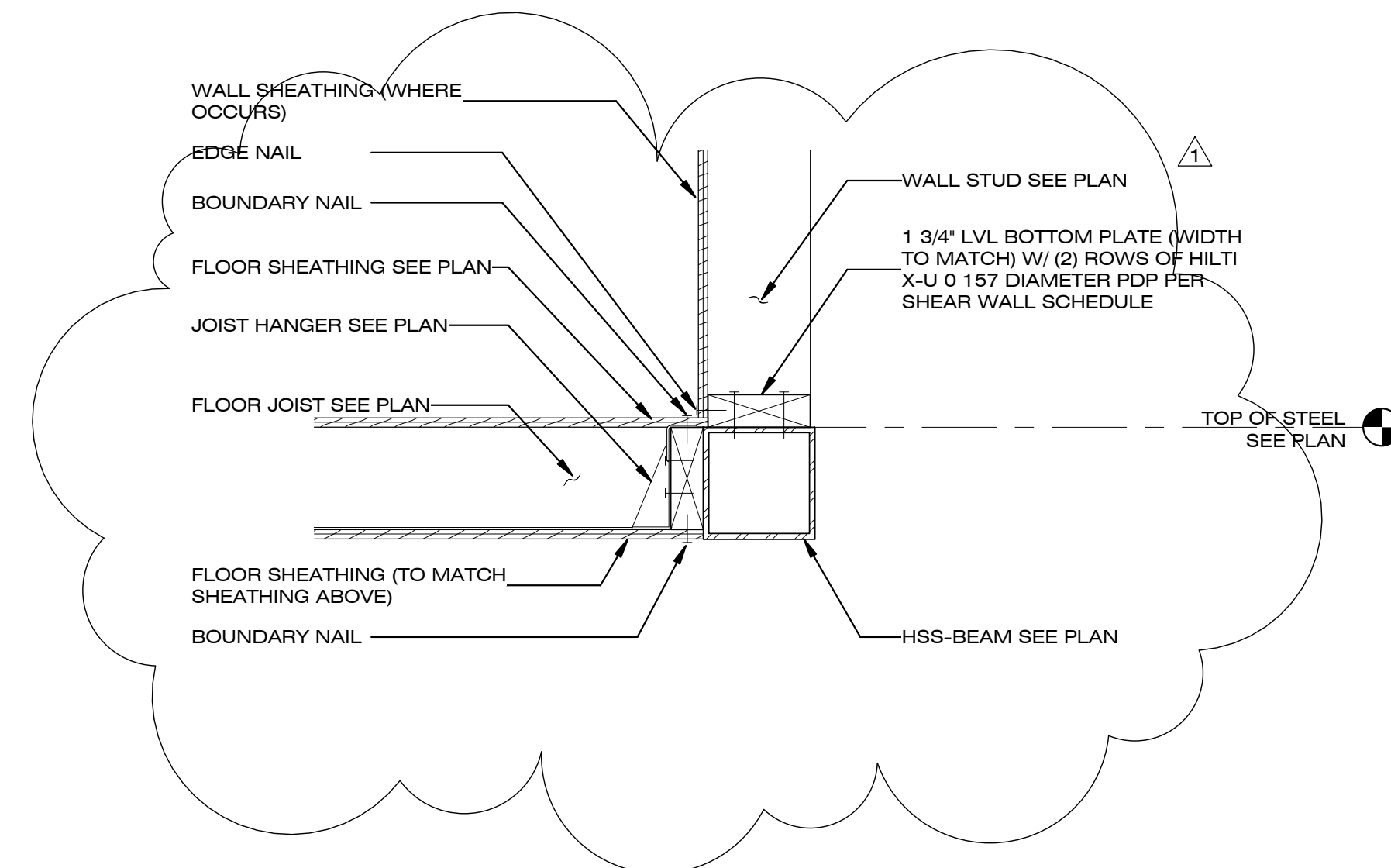
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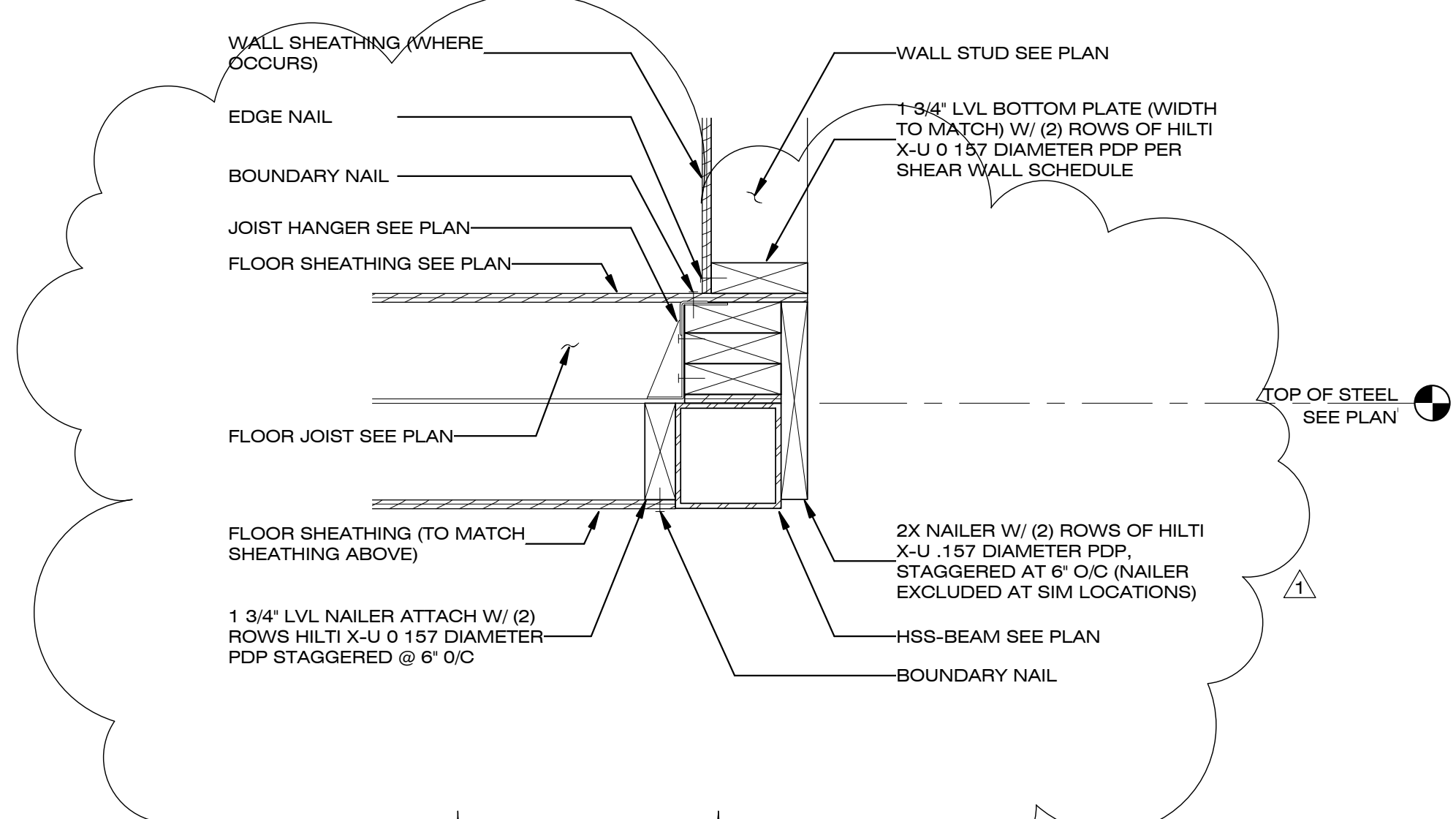
SHEET TITLE

FLOOR DETAILS

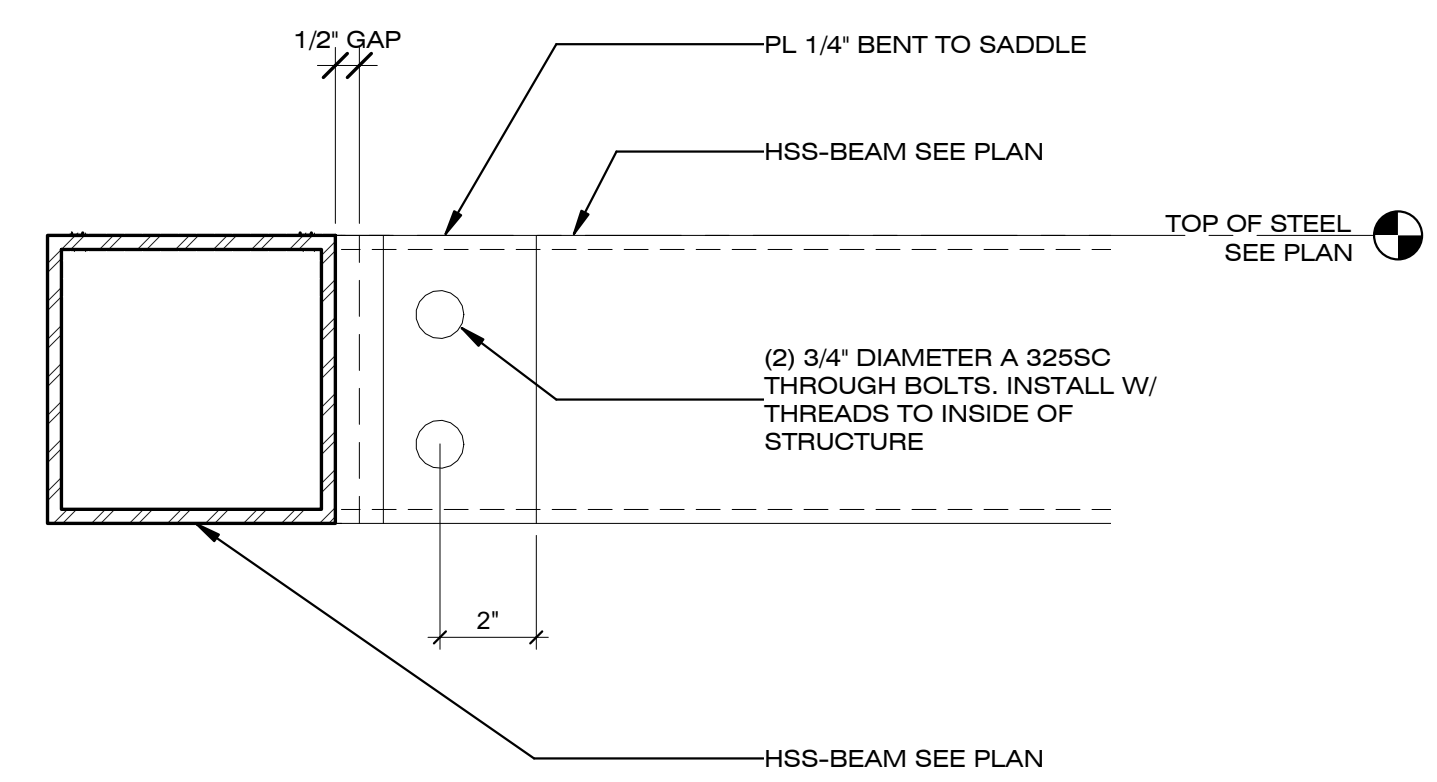
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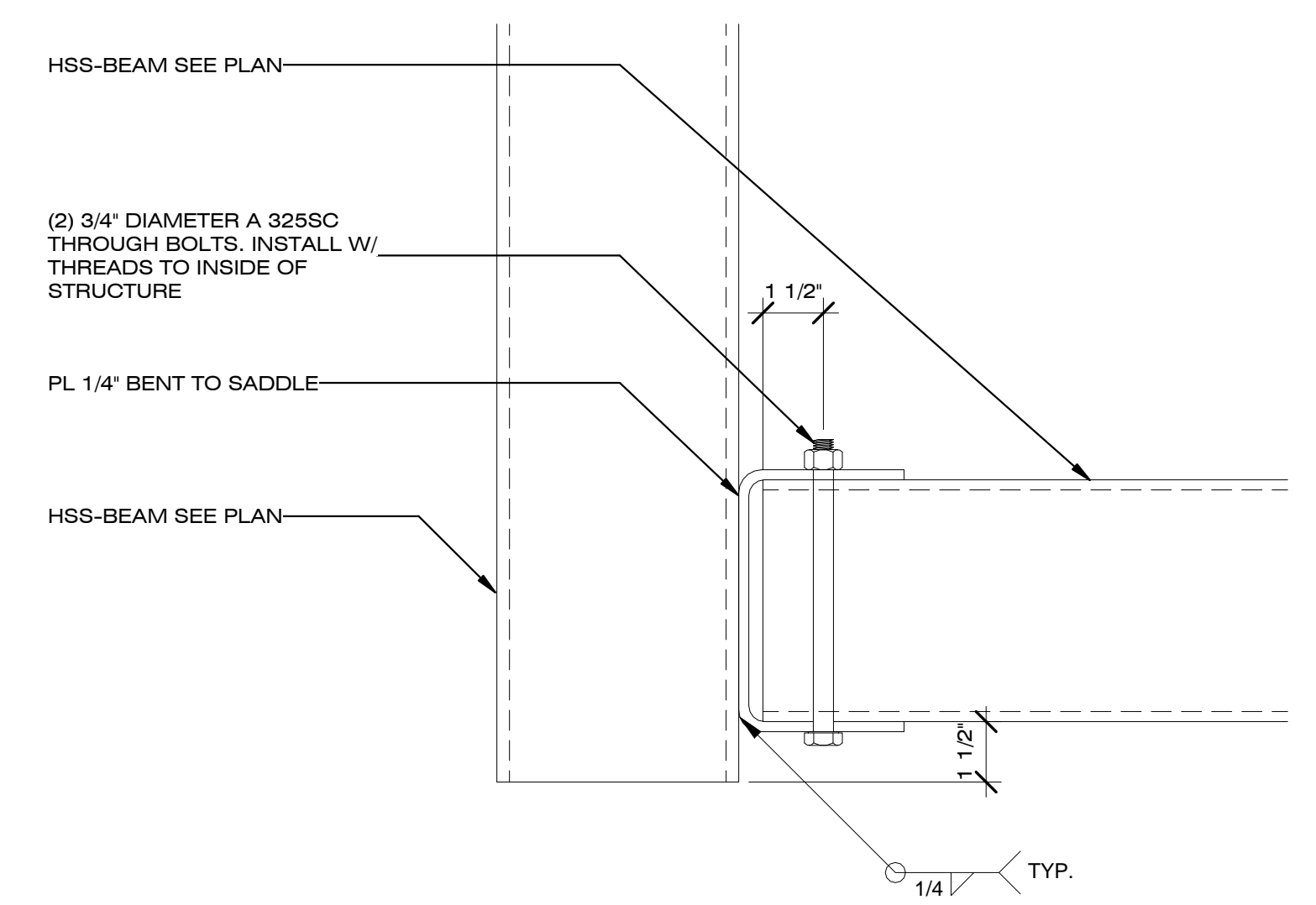
D1 JOIST PERPENDICULAR TO HSS-BEAM
1 1/2" = 1'-0"



D4 JOISTS PARALLEL TO HSS-BEAM
1 1/2" = 1'-0"



A1 HSS-BEAM TO HSS-BEAM
3" = 1'-0"



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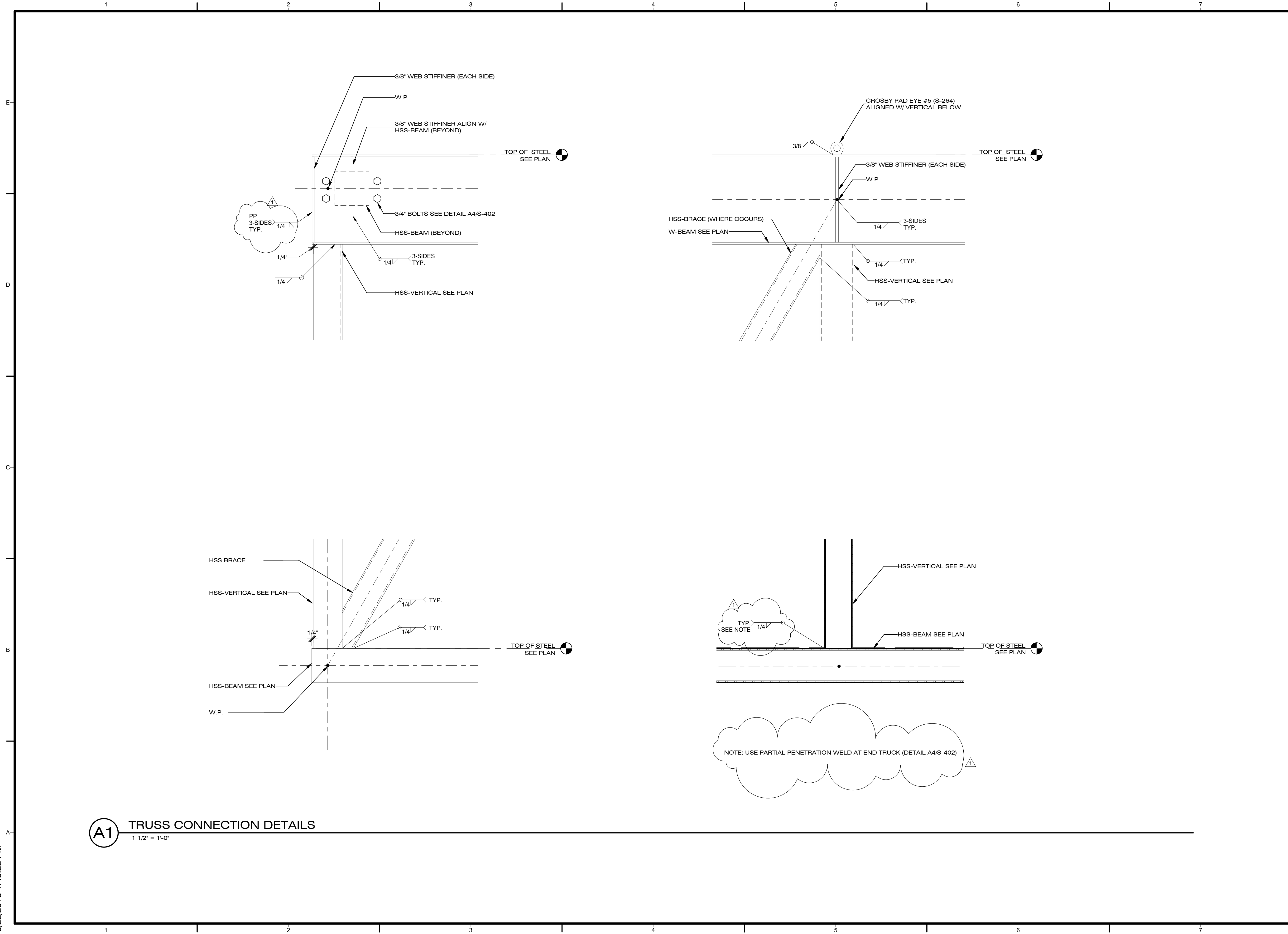
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TRUSS DETAILS

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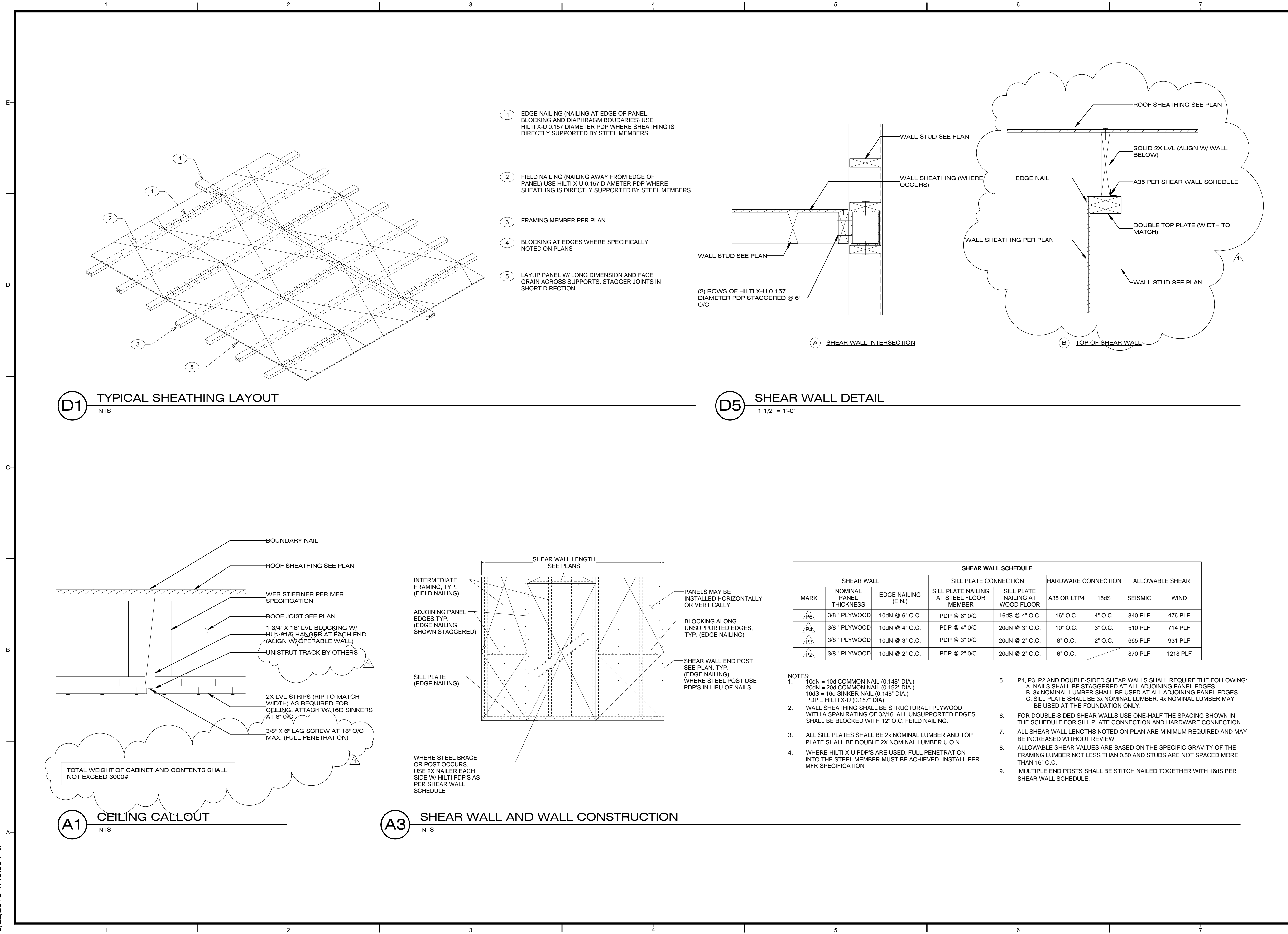
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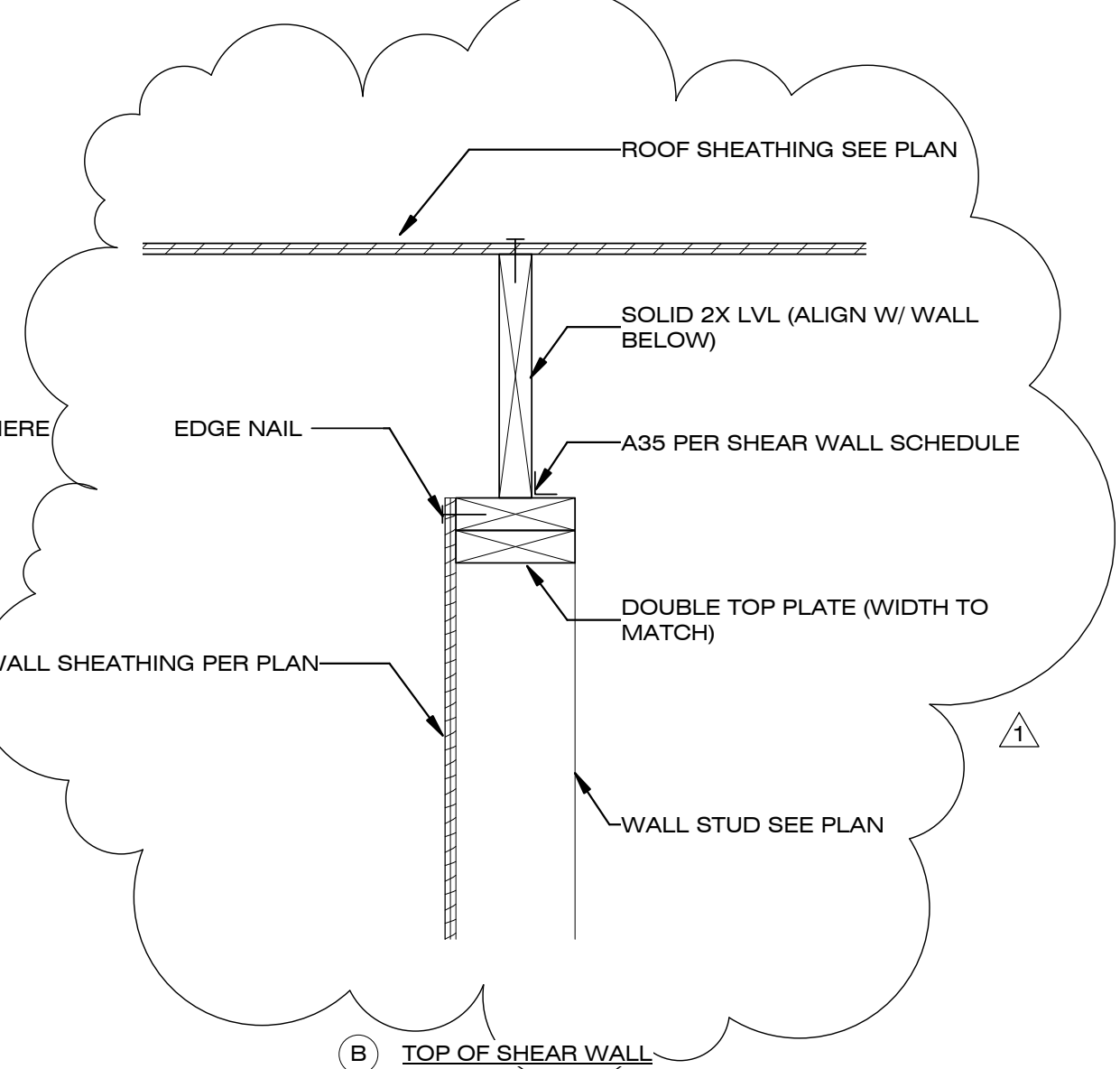
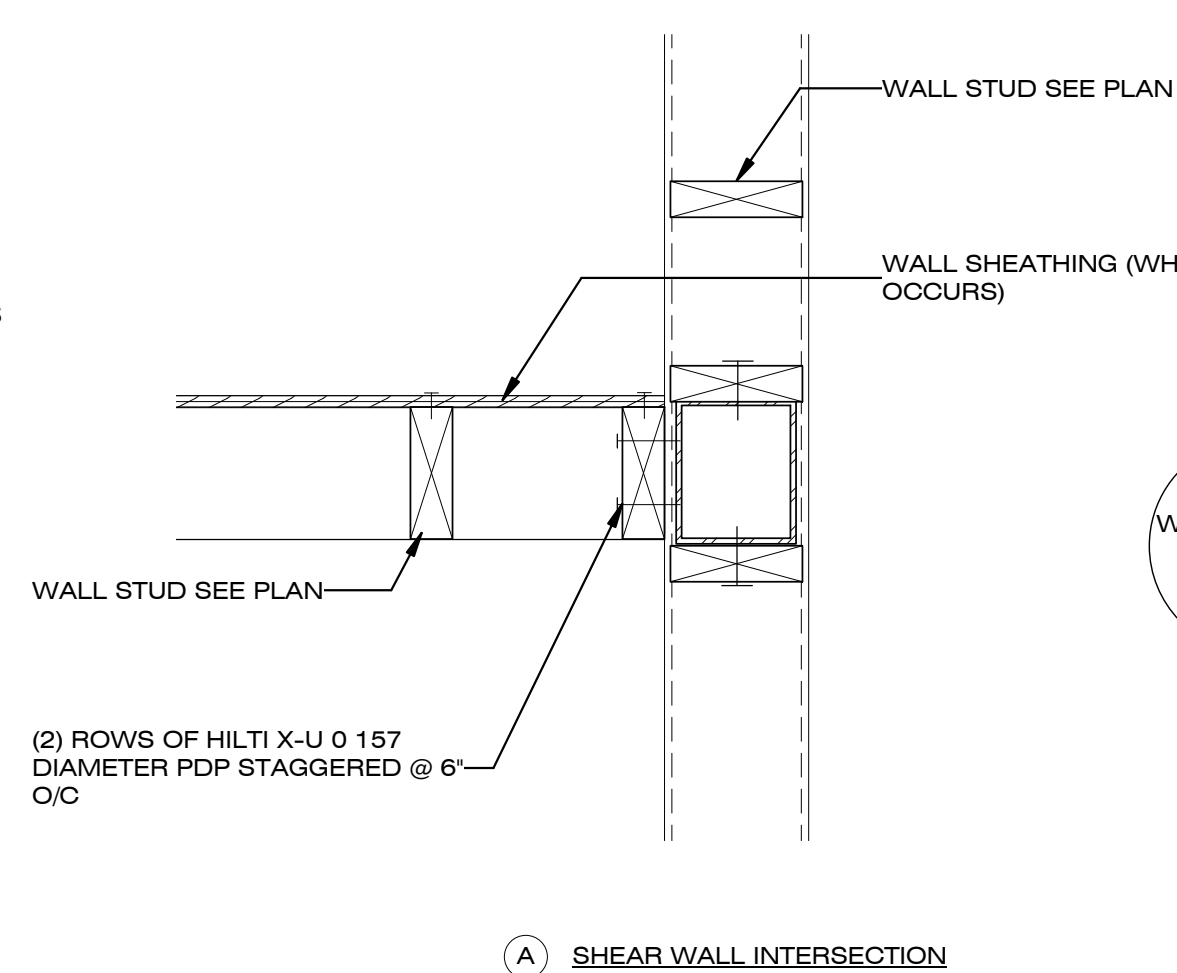
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TYPICAL DETAILS

S-405

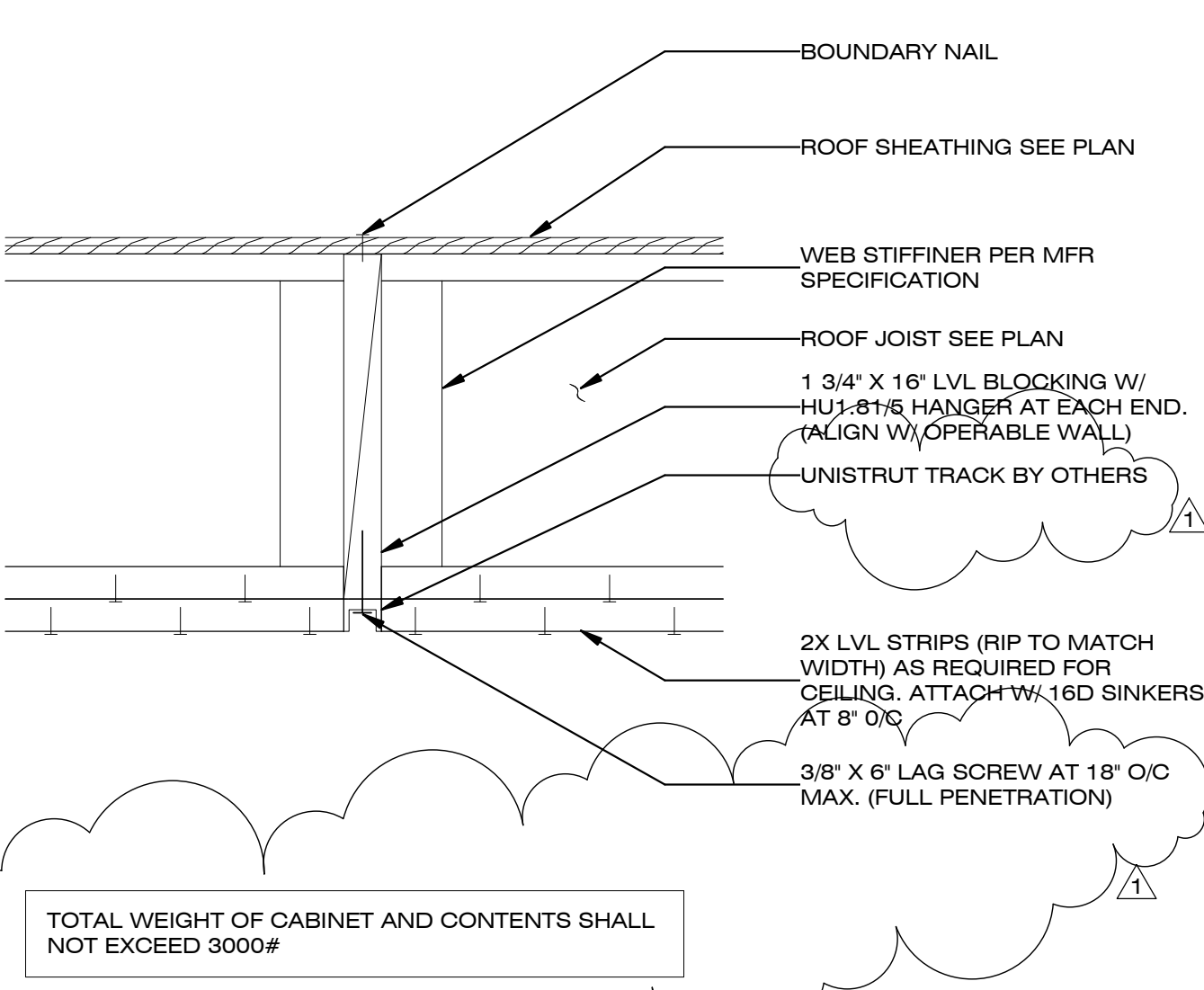


- 1 EDGE NAILING (NAILING AT EDGE OF PANEL, BLOCKING AND DIAPHRAGM BOUNDARIES) USE HILTI X-U 0.157 DIAMETER PDP WHERE SHEATHING IS DIRECTLY SUPPORTED BY STEEL MEMBERS
- 2 FIELD NAILING (NAILING AWAY FROM EDGE OF PANEL) USE HILTI X-U 0.157 DIAMETER PDP WHERE SHEATHING IS DIRECTLY SUPPORTED BY STEEL MEMBERS
- 3 FRAMING MEMBER PER PLAN
- 4 BLOCKING AT EDGES WHERE SPECIFICALLY NOTED ON PLANS
- 5 LAYUP PANEL W/ LONG DIMENSION AND FACE GRAIN ACROSS SUPPORTS. STAGGER JOINTS IN SHORT DIRECTION

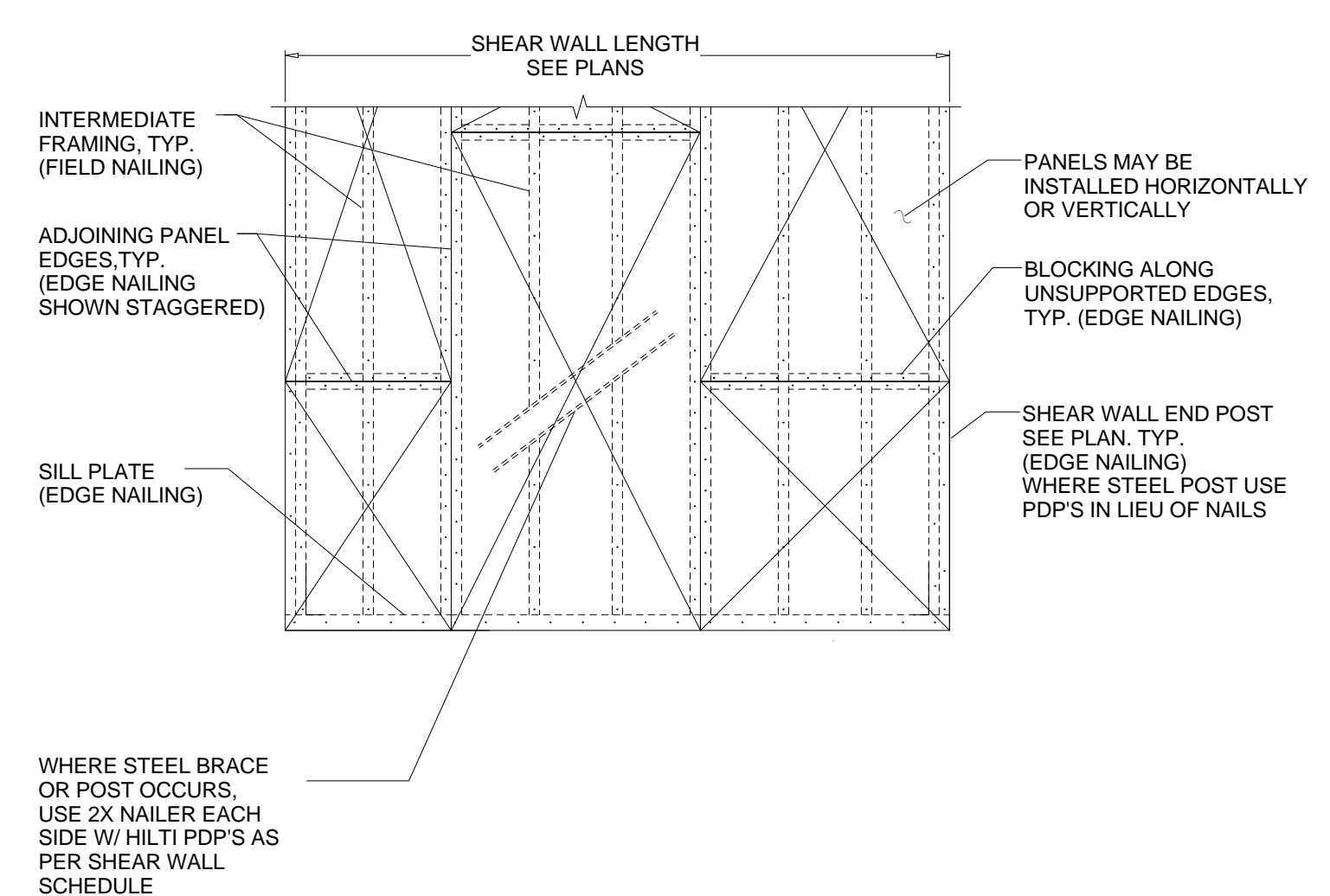


D1 TYPICAL SHEATHING LAYOUT
NTS

D5 SHEAR WALL DETAIL
1 1/2" = 1'-0"



A1 CEILING CALLOUT
NTS



A3 SHEAR WALL AND WALL CONSTRUCTION
NTS

SHEAR WALL SCHEDULE								
SHEAR WALL			SILL PLATE CONNECTION		HARDWARE CONNECTION		ALLOWABLE SHEAR	
MARK	NOMINAL PANEL THICKNESS	EDGE NAILING (E.N.)	SILL PLATE NAILING AT STEEL FLOOR MEMBER	SILL PLATE NAILING AT WOOD FLOOR	A35 OR LTP4	16dS	SEISMIC	WIND
△/P ₀	3/8" PLYWOOD	10dN @ 6" O.C.	PDP @ 6" O/C	16dS @ 4" O.C.	16" O.C.	4" O.C.	340 PLF	476 PLF
△/P ₄	3/8" PLYWOOD	10dN @ 4" O.C.	PDP @ 4" O/C	20dN @ 3" O.C.	10" O.C.	3" O.C.	510 PLF	714 PLF
△/P ₃	3/8" PLYWOOD	10dN @ 3" O.C.	PDP @ 3" O/C	20dN @ 2" O.C.	8" O.C.	2" O.C.	665 PLF	931 PLF
△/P ₂	3/8" PLYWOOD	10dN @ 2" O.C.	PDP @ 2" O/C	20dN @ 2" O.C.	6" O.C.		870 PLF	1218 PLF

- NOTES:
1. 10dN = 10d COMMON NAIL (0.148" DIA.)
20dN = 20d COMMON NAIL (0.192" DIA.)
16dS = 16d SINKER NAIL (0.148" DIA.)
PDP = HILTI X-U (0.157" DIA.)
 2. WALL SHEATHING SHALL BE STRUCTURAL I PLYWOOD WITH A SPAN RATING OF 32/16. ALL UNSUPPORTED EDGES SHALL BE BLOCKED WITH 12" O.C. FIELD NAILING.
 3. ALL SILL PLATES SHALL BE 2x NOMINAL LUMBER AND TOP PLATE SHALL BE DOUBLE 2x NOMINAL LUMBER U.O.N.
 4. WHERE HILTI X-U PDP'S ARE USED, FULL PENETRATION INTO THE STEEL MEMBER MUST BE ACHIEVED- INSTALL PER MFR SPECIFICATION
 5. P4, P3, P2 AND DOUBLE-SIDED SHEAR WALLS SHALL REQUIRE THE FOLLOWING:
A. NAILS SHALL BE STAGGERED AT ALL ADJOINING PANEL EDGES.
B. 3x NOMINAL LUMBER SHALL BE USED AT ALL ADJOINING PANEL EDGES.
C. SILL PLATE SHALL BE 3x NOMINAL LUMBER. 4x NOMINAL LUMBER MAY BE USED AT THE FOUNDATION ONLY.
 6. FOR DOUBLE-SIDED SHEAR WALLS USE ONE-HALF THE SPACING SHOWN IN THE SCHEDULE FOR SILL PLATE CONNECTION AND HARDWARE CONNECTION
 7. ALL SHEAR WALL LENGTHS NOTED ON PLAN ARE MINIMUM REQUIRED AND MAY BE INCREASED WITHOUT REVIEW.
 8. ALLOWABLE SHEAR VALUES ARE BASED ON THE SPECIFIC GRAVITY OF THE FRAMING LUMBER NOT LESS THAN 0.50 AND STUDS ARE NOT SPACED MORE THAN 16" O.C.
 9. MULTIPLE END POSTS SHALL BE STITCH NAILED TOGETHER WITH 16dS PER SHEAR WALL SCHEDULE.

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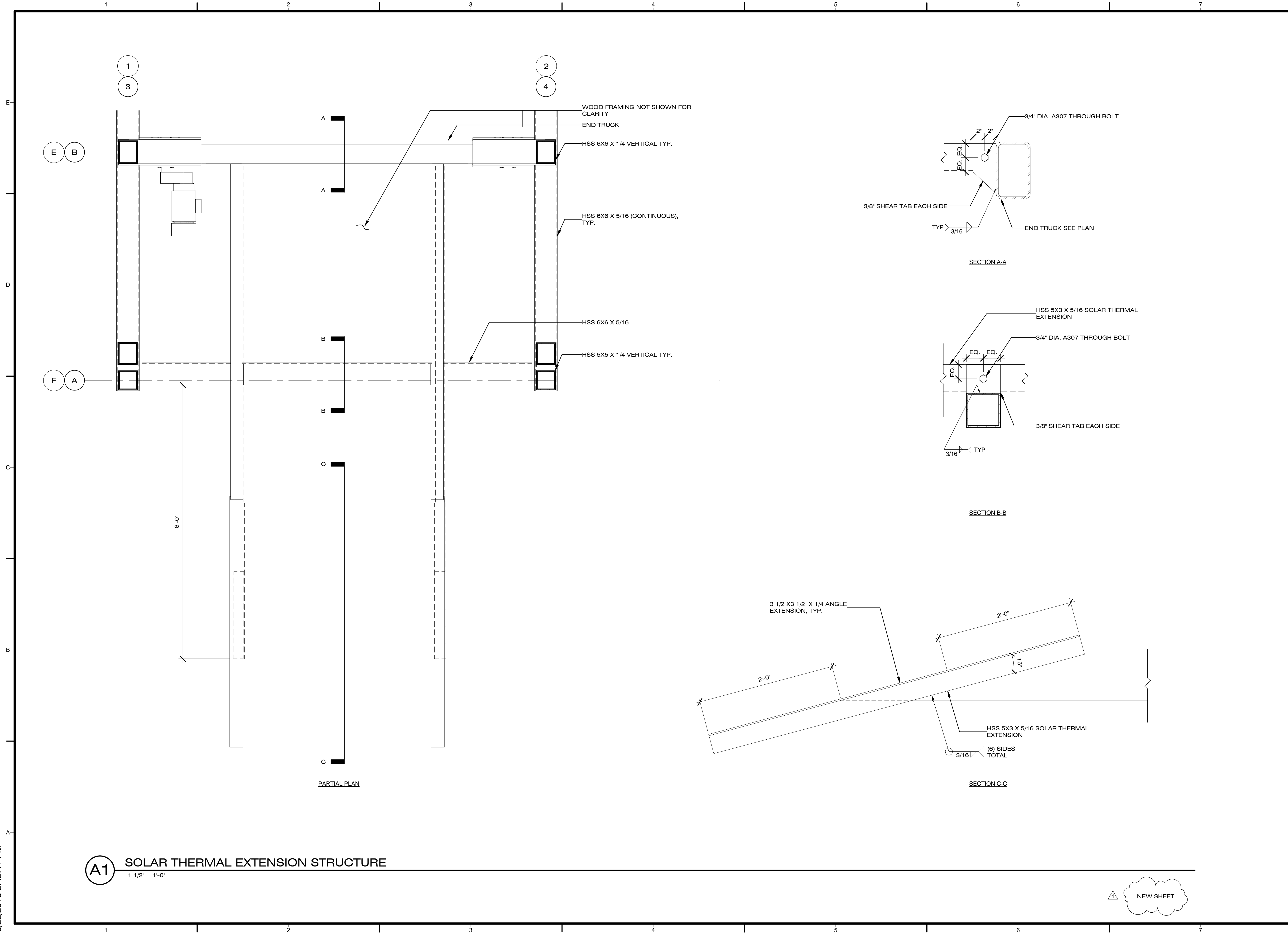
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SHEET TITLE

SOLAR THERMAL
EXTENSION

S-406



A1 SOLAR THERMAL EXTENSION STRUCTURE
1 1/2" = 1'-0"

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TEL: 213.388.9327

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REVISIONS:

DATE: 08.22.2013

LOT NUMBER: #101

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SHEET TITLE

GENERAL FLOOR PLAN

A-100

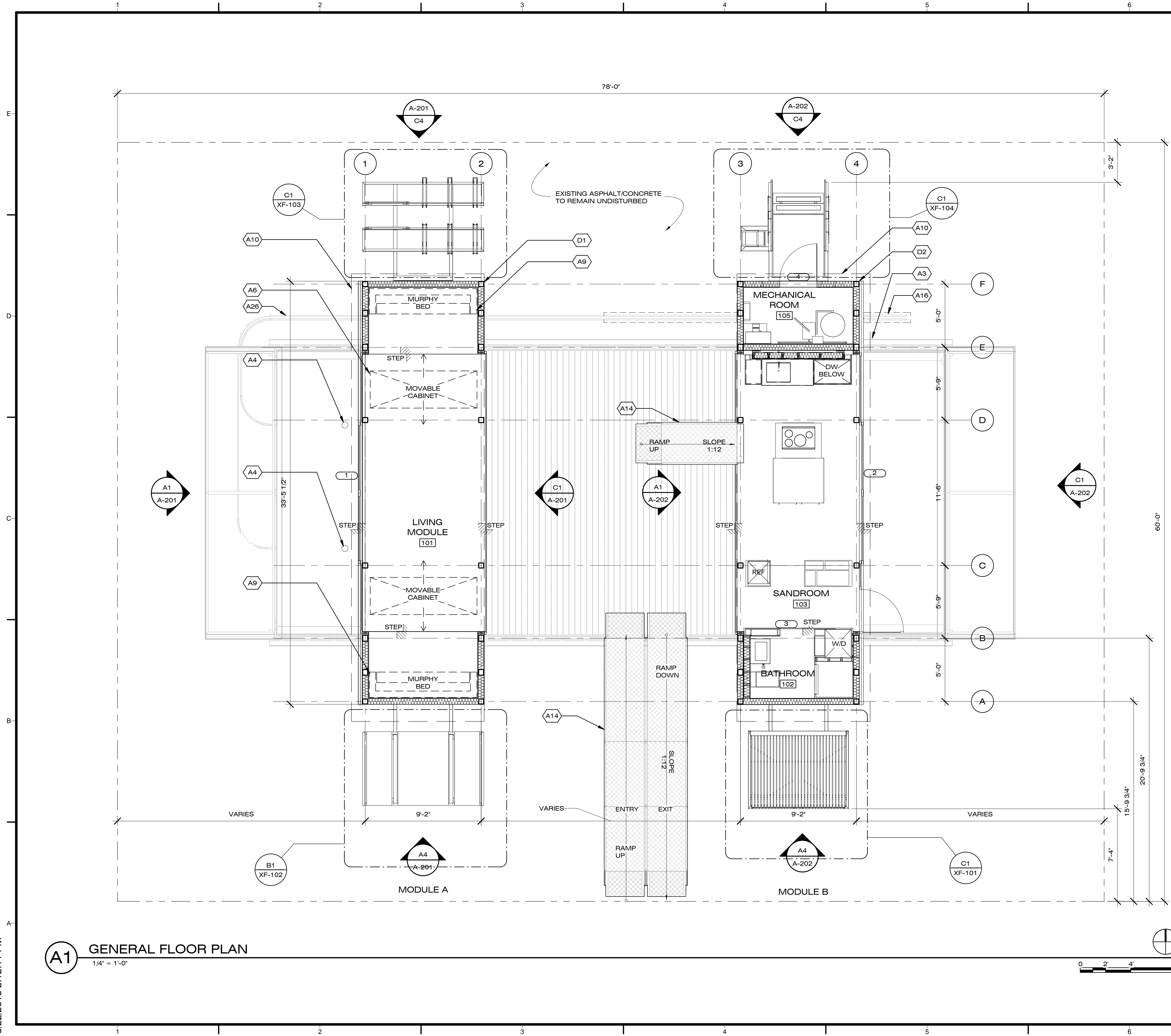
GENERAL SHEET NOTES

1. MODULE LOCATIONS VARY
2. LOCATION AND DATUM ON GRADE ARE APPROXIMATE. TO BE V. I. F.
3. ALL RAMPS ARE TEMPORARY ADA RAMPS FOR EXHIBITION ONLY

REFERENCE KEYNOTES

SHEET KEYNOTES

- A3 LANDSCAPE DECK SEE XC-001
- A4 WATER BLADDER TANKS LOCATION BENEATH LANDSCAPE DECK SEE P-101
- A6 MOVABLE CABINET DOTTED FOR CLARITY SEE XB-001
- A9 MURPHY BED SEE XB-102
- A10 CANOPY SHOWN DOTTED FOR CLARITY SEE XA-001
- A14 TEMPORARY RAMP FOR ADA ACCESS
- A16 CABLE/HOSE CARRIER DOTTED FOR CLARITY SEE XE-001
- A26 MODULE A 317 SF
- D1 MODULE B 305 SF
- D2



A1 GENERAL FLOOR PLAN
1/4" = 1'-0"

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SHEET TITLE

MODULE (A)
FLOOR, CEILING, &
ROOF PLAN

A-101

GENERAL SHEET NOTES

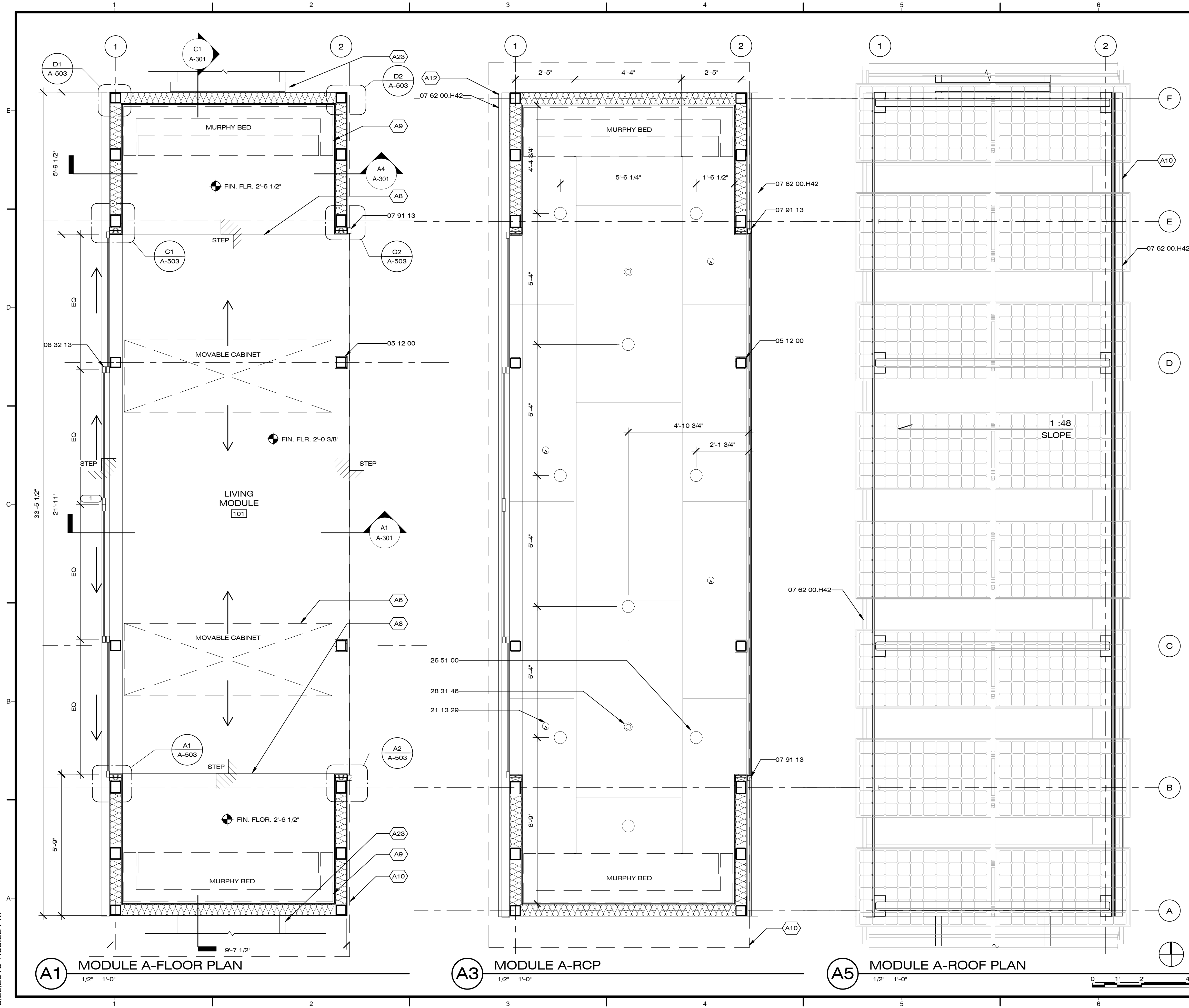
- RCP TO REFLECT CEILING MOUNTED LIGHT FIXTURES ONLY. FOR COMPLETE LIGHTING PLAN REFER TO E-101
- RCP TO LOCATE SMOKE DETECTORS ONLY. FOR COMPLETE FIRE SUPPRESSION SYSTEMS REFER TO F-101
- EXTERIOR MULTI-USE PLATFORMS NOT SHOWN. FOR COMPLETE OVERVIEW REFER TO XF-001

REFERENCE KEYNOTES

05 12 00	STRUCTURAL STEEL FRAMING
07 62 00.H42	GUTTER
07 91 13	COMPRESSION SEALS
08 32 13	SLIDING ALUMINUM-FRAMED GLASS DOORS
21 13 29	TYCO LF1I CONCEALED SPRINKLER
26 51 00	INTERIOR LIGHTING
28 31 46	SMOKE DETECTOR

SHEET KEYNOTES

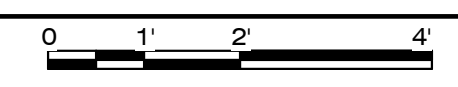
A6	MOVABLE CABINET DOTTED FOR CLARITY SEE XB-001
A7	CRANE PICK POINTS - SEE STRUCTURE.
A8	INTERIOR STEP SEE A301 & A302
A9	MURPHY BED SEE XB-102
A10	CANOPY SHOWN DOTTED FOR CLARITY SEE XA-001
A12	LOCATION OF STOP IN HEADER TRACK ABOVE
A23	EXTERIOR MULTI-USE PLATFORMS SEE XF-001



A1 MODULE A-FLOOR PLAN
1/2" = 1'-0"

A3 MODULE A-RCP
1/2" = 1'-0"

A5 MODULE A-ROOF PLAN
1/2" = 1'-0"



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SHEET TITLE

**MODULE (B)
FLOOR, CEILING, &
ROOF PLAN**

A-102

GENERAL SHEET NOTES

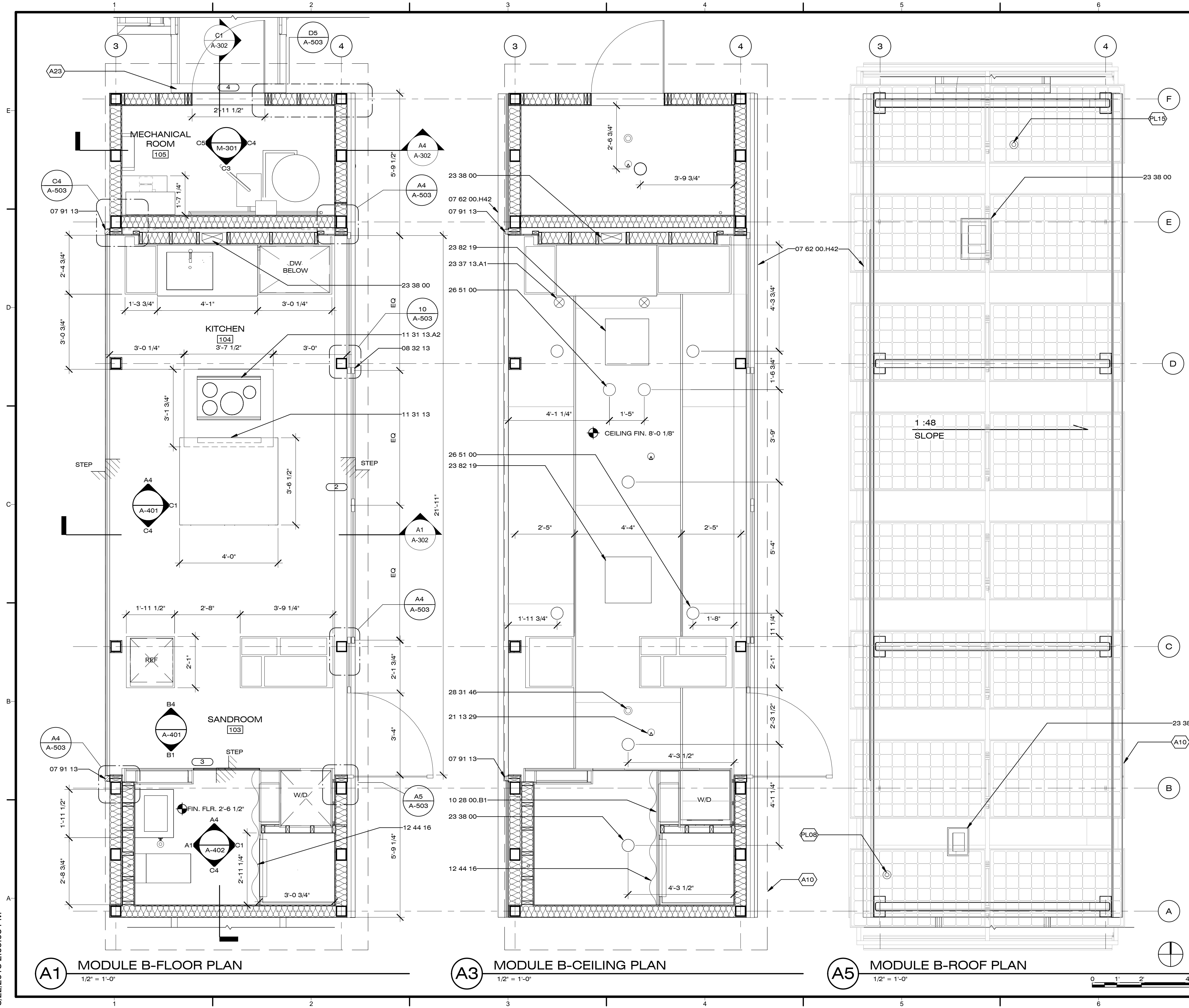
- RCP TO REFLECT CEILING MOUNTED LIGHT FIXTURES ONLY. FOR COMPLETE LIGHTING PLAN REFER TO E-101
- RCP TO LOCATE SMOKE DETECTORS ONLY. FOR COMPLETE FIRE SUPPRESSION SYSTEMS REFER TO F-101
- EXTERIOR MULTI-USE PLATFORMS NOT SHOWN. FOR COMPLETE OVERVIEW REFER TO XF-001

REFERENCE KEYNOTES

07 62 00.H42	GUTTER
07 91 13	COMPRESSION SEALS
08 32 13	SLIDING ALUMINUM-FRAMED GLASS DOORS
10 28 00.B1	SHOWER CURTAIN ROD
11 31 13	DOWNDRAFT FAN
11 31 13.A2	COOKTOP
12 44 16	SHOWER CURTAINS
21 13 29	TYCO LFII CONCEALED SPRINKLER
23 37 13.A1	DIFFUSER
23 38 00	VENTILATION HOODS
23 82 19	MITSUBISHI INDOOR CASSETTE UNIT
26 51 00	INTERIOR LIGHTING
28 31 46	SMOKE DETECTOR

SHEET KEYNOTES

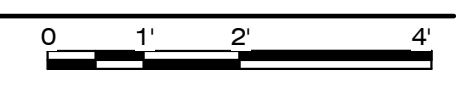
A10	CANOPY SHOWN DOTTED FOR CLARITY SEE XA-001
A23	EXTERIOR MULTI-USE PLATFORMS SEE XF-001
PL08	MACERATOR VENT
PL15	WASTE BASIN VENT



A1 MODULE B-FLOOR PLAN
1/2" = 1'-0"

A3 MODULE B-CEILING PLAN
1/2" = 1'-0"

A5 MODULE B-ROOF PLAN
1/2" = 1'-0"



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SHEET TITLE

**MODULE (A)
EXTERIOR
ELEVATIONS**

A-201

GENERAL SHEET NOTES

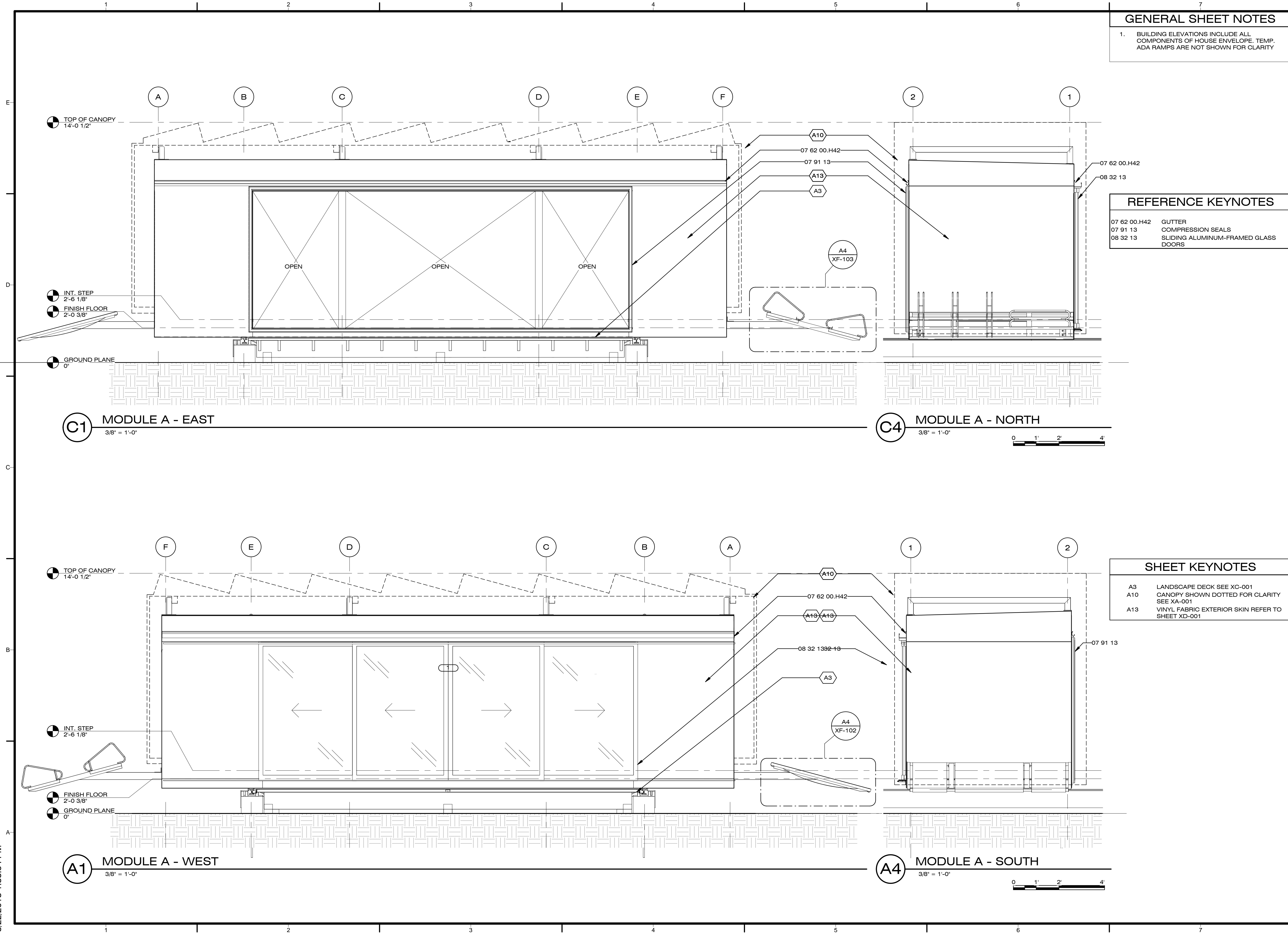
- BUILDING ELEVATIONS INCLUDE ALL COMPONENTS OF HOUSE ENVELOPE. TEMP. ADA RAMPS ARE NOT SHOWN FOR CLARITY

REFERENCE KEYNOTES

07 62 00.H42	GUTTER
07 91 13	COMPRESSION SEALS
08 32 13	SLIDING ALUMINUM-FRAMED GLASS DOORS

SHEET KEYNOTES

A3	LANDSCAPE DECK SEE XC-001
A10	CANOPY SHOWN DOTTED FOR CLARITY SEE XA-001
A13	VINYL FABRIC EXTERIOR SKIN REFER TO SHEET XD-001



C1 MODULE A - EAST
3/8" = 1'-0"

C4 MODULE A - NORTH
3/8" = 1'-0"

A1 MODULE A - WEST
3/8" = 1'-0"

A4 MODULE A - SOUTH
3/8" = 1'-0"

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SHEET TITLE

**MODULE (B)
EXTERIOR
ELEVATIONS**

A-202

GENERAL SHEET NOTES

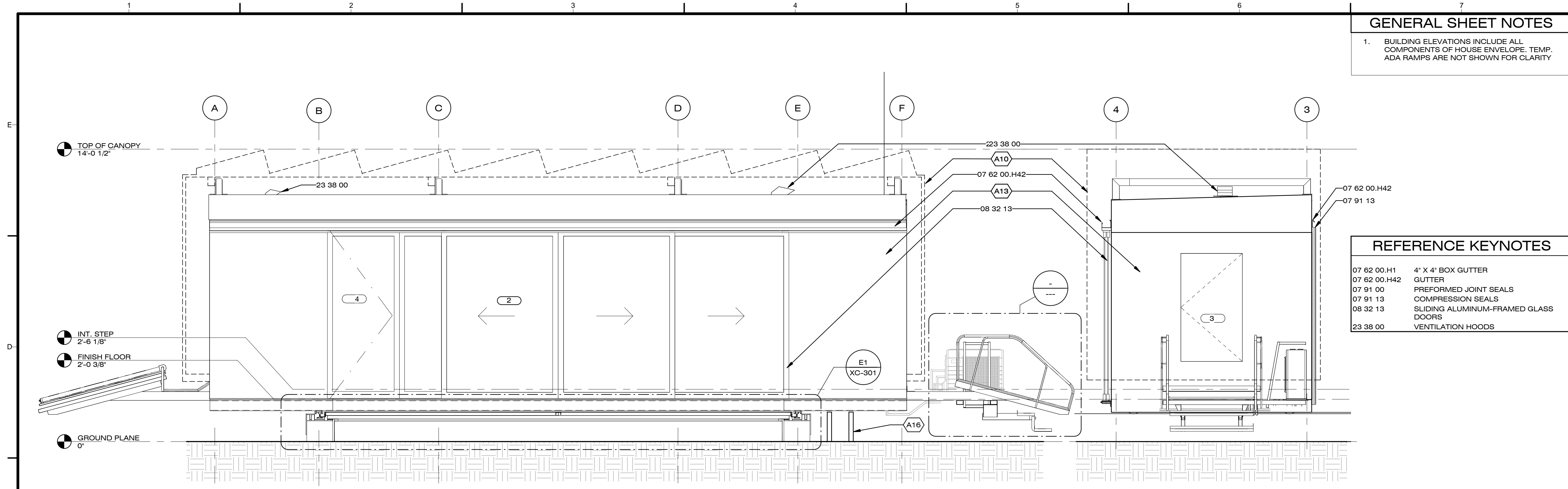
- BUILDING ELEVATIONS INCLUDE ALL COMPONENTS OF HOUSE ENVELOPE. TEMP. ADA RAMPS ARE NOT SHOWN FOR CLARITY

REFERENCE KEYNOTES

07 62 00.H1	4" X 4" BOX GUTTER
07 62 00.H42	GUTTER
07 91 00	PREFORMED JOINT SEALS
07 91 13	COMPRESSION SEALS
08 32 13	SLIDING ALUMINUM-FRAMED GLASS DOORS
23 38 00	VENTILATION HOODS

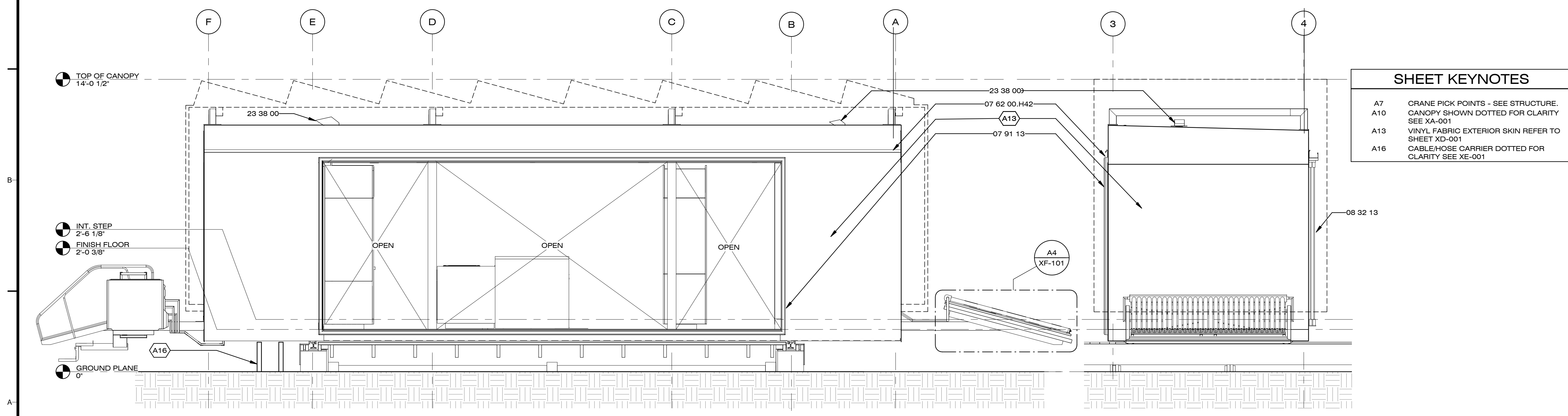
SHEET KEYNOTES

A7	CRANE PICK POINTS - SEE STRUCTURE. CANOPY SHOWN DOTTED FOR CLARITY SEE XA-001
A10	VINYL FABRIC EXTERIOR SKIN REFER TO SHEET XD-001
A13	CABLE/HOSE CARRIER DOTTED FOR CLARITY SEE XE-001



C1 MODULE B - EAST
3/8" = 1'-0"

C4 MODULE B - NORTH
3/8" = 1'-0"



A1 MODULE B - WEST
3/8" = 1'-0"

A4 MODULE B - SOUTH
3/8" = 1'-0"

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SHEET TITLE

MODULE (A)
SECTIONS

A-301

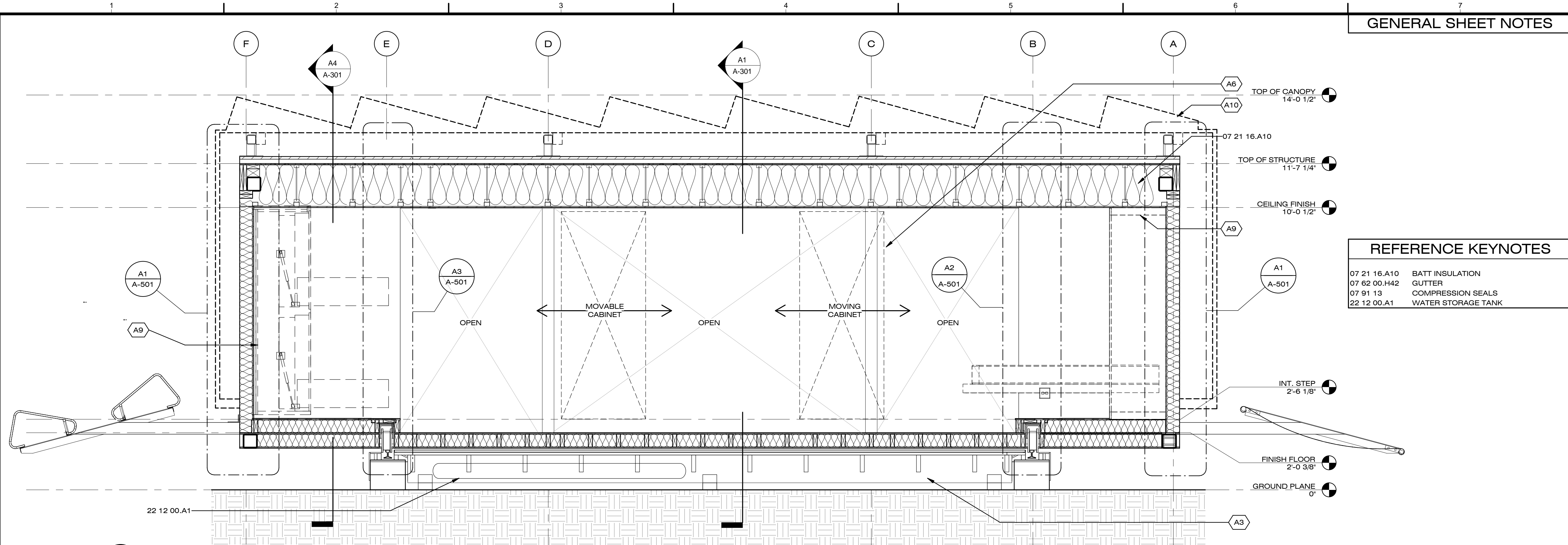
GENERAL SHEET NOTES

REFERENCE KEYNOTES

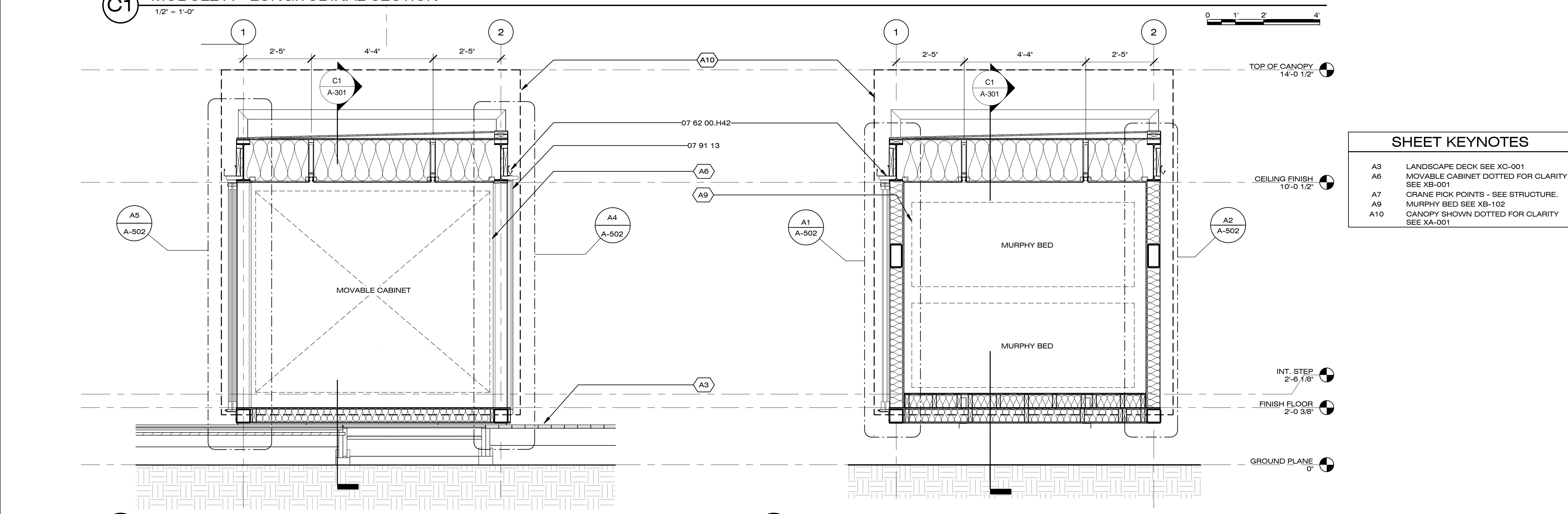
07 21 16.A10	BATT INSULATION
07 62 00.H42	GUTTER
07 91 13	COMPRESSION SEALS
22 12 00.A1	WATER STORAGE TANK

SHEET KEYNOTES

A3	LANDSCAPE DECK SEE XC-001
A6	MOVABLE CABINET DOTTED FOR CLARITY SEE XB-001
A7	CRANE PICK POINTS - SEE STRUCTURE.
A9	MURPHY BED SEE XB-102
A10	CANOPY SHOWN DOTTED FOR CLARITY SEE XA-001



C1 MODULE A - LONGITUDINAL SECTION
1/2" = 1'-0"



A1 MODULE A - TRANSVERSE SECTION
1/2" = 1'-0"

A4 MODULE A - INTERIOR STEP SECTION
1/2" = 1'-0"

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SHEET TITLE

**MODULE (B)
SECTIONS**

A-302

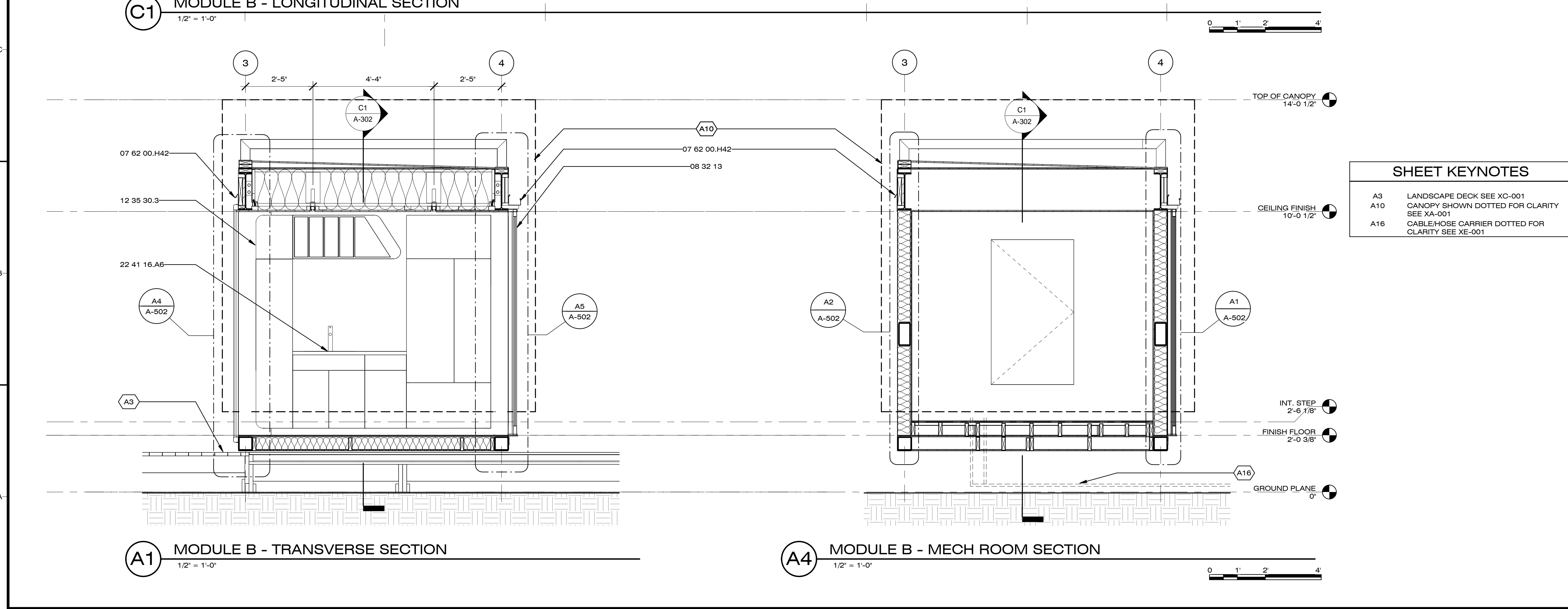
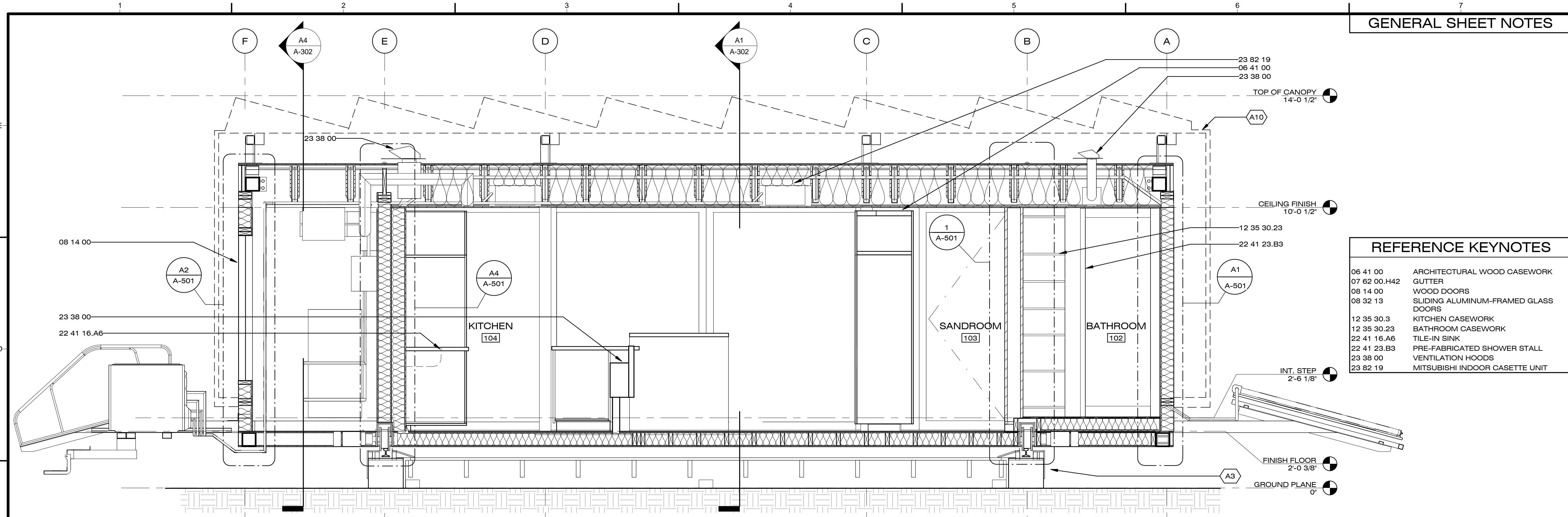
GENERAL SHEET NOTES

REFERENCE KEYNOTES

06 41 00	ARCHITECTURAL WOOD CASEWORK
07 62 00.H42	GUTTER
08 14 00	WOOD DOORS
08 32 13	SLIDING ALUMINUM-FRAMED GLASS DOORS
12 35 30.3	KITCHEN CASEWORK
12 35 30.23	BATHROOM CASEWORK
22 41 16.A6	TILE-IN SINK
22 41 23.B3	PRE-FABRICATED SHOWER STALL
23 38 00	VENTILATION HOODS
23 82 19	MITSUBISHI INDOOR CASSETTE UNIT

SHEET KEYNOTES

A3	LANDSCAPE DECK SEE XC-001
A10	CANOPY SHOWN DOTTED FOR CLARITY SEE XA-001
A16	CABLE/HOSE CARRIER DOTTED FOR CLARITY SEE XE-001



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SHEET TITLE

KITCHEN & SANDROOM ELEVATIONS

A-401

GENERAL SHEET NOTES

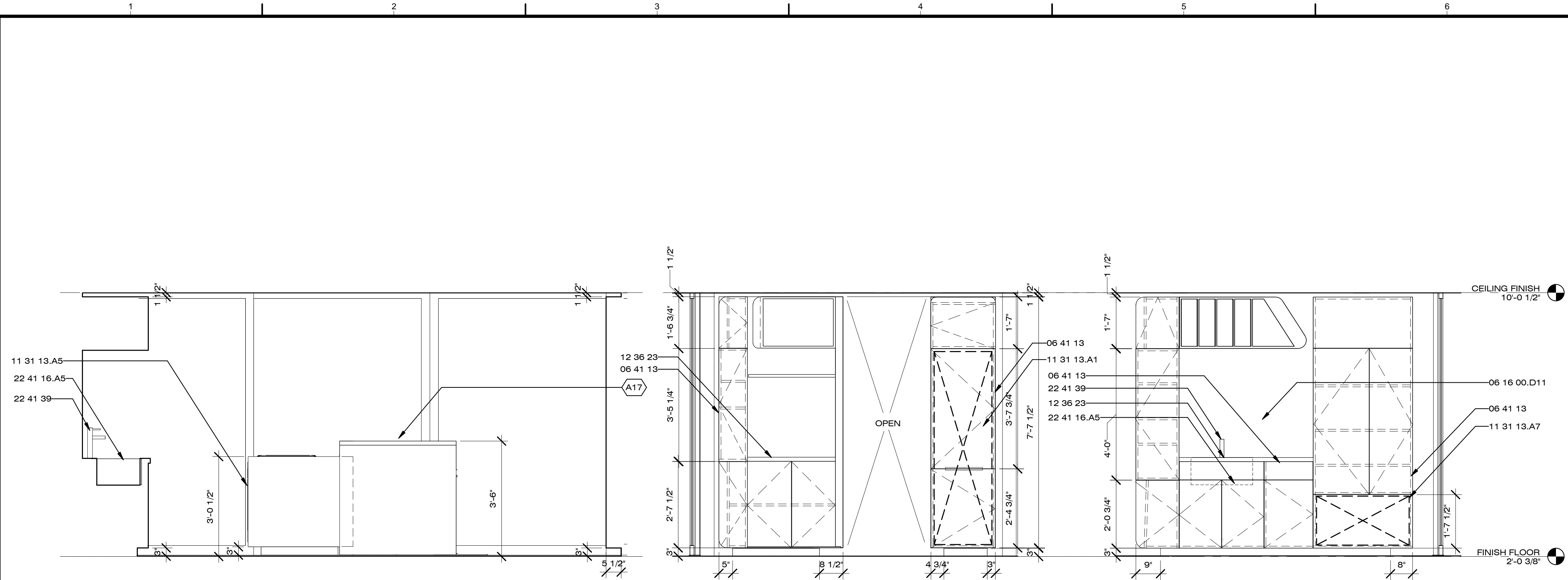
- FOR KITCHEN CABINET DETAILS, SEE SHEET A-505, A-506
- ALL DOORS TO REMAIN FIXED DURING PUBLIC HOURS
- FOR FIXTURE DETAILS, REFER TO PROJECT MANUAL

REFERENCE KEYNOTES

06 16 00.D6	1/2" PLYWOOD
06 16 00.D11	3/4" PLYWOOD
06 41 13	WOOD-VENEER-FACED ARCHITECTURAL CABINETS
09 77 23	FABRIC-WRAPPED PANELS
10 28 23.13	BUILT-IN IRONING BOARDS
11 31 13.A1	REFRIGERATOR
11 31 13.A5	OVEN
11 31 13.A7	DISHWASHER
11 31 23.A1	CLOTHES WASHER
11 31 23.A2	CLOTHES DRYER
12 36 23	PLASTIC COUNTERTOPS
22 41 16.A5	UNDER COUNTER SINK
22 41 39	RESIDENTIAL FAUCETS, SUPPLIES AND TRIM

SHEET KEYNOTES

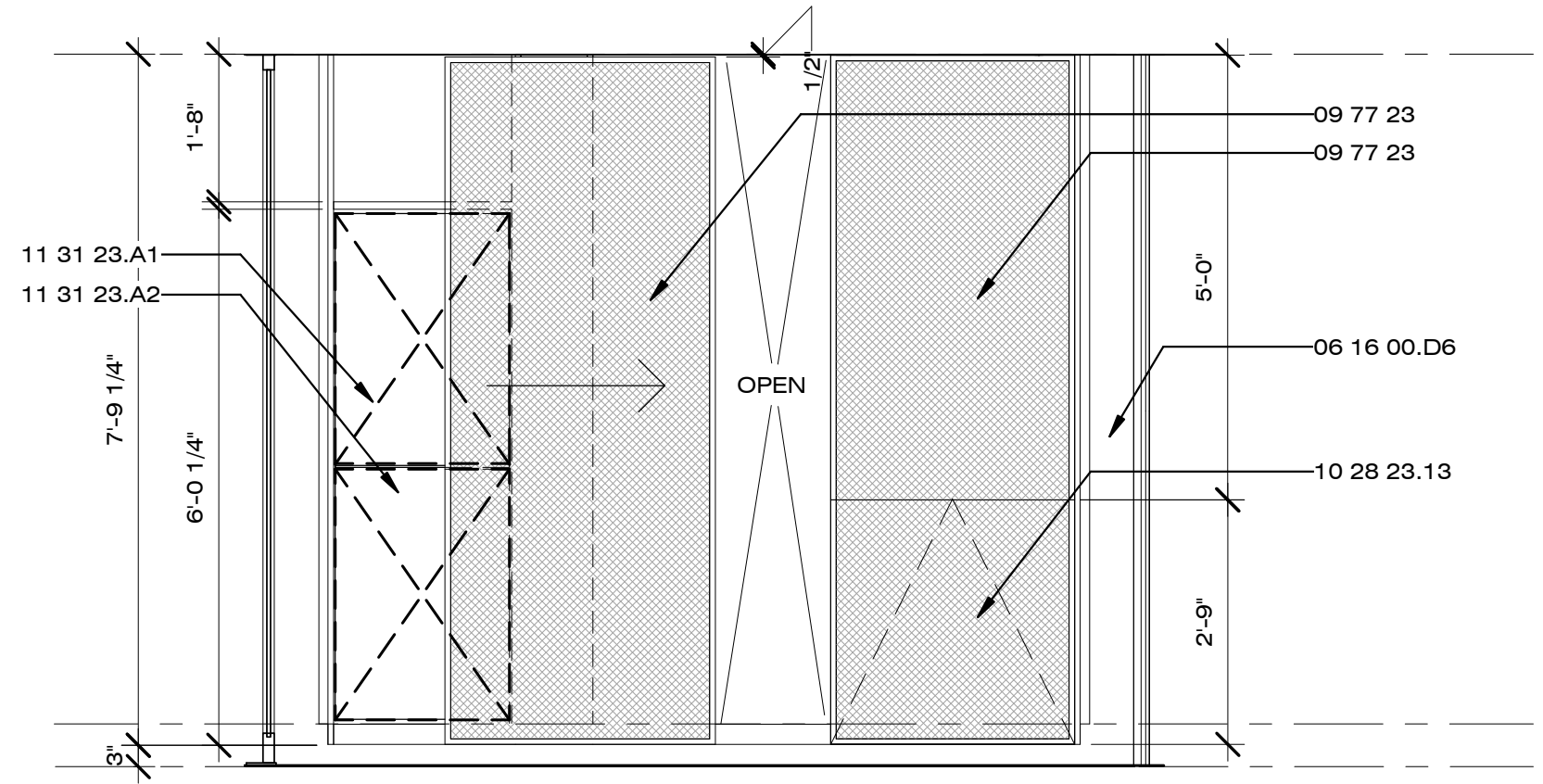
A17	MOBILE DINING TABLE
A25	MIRROR



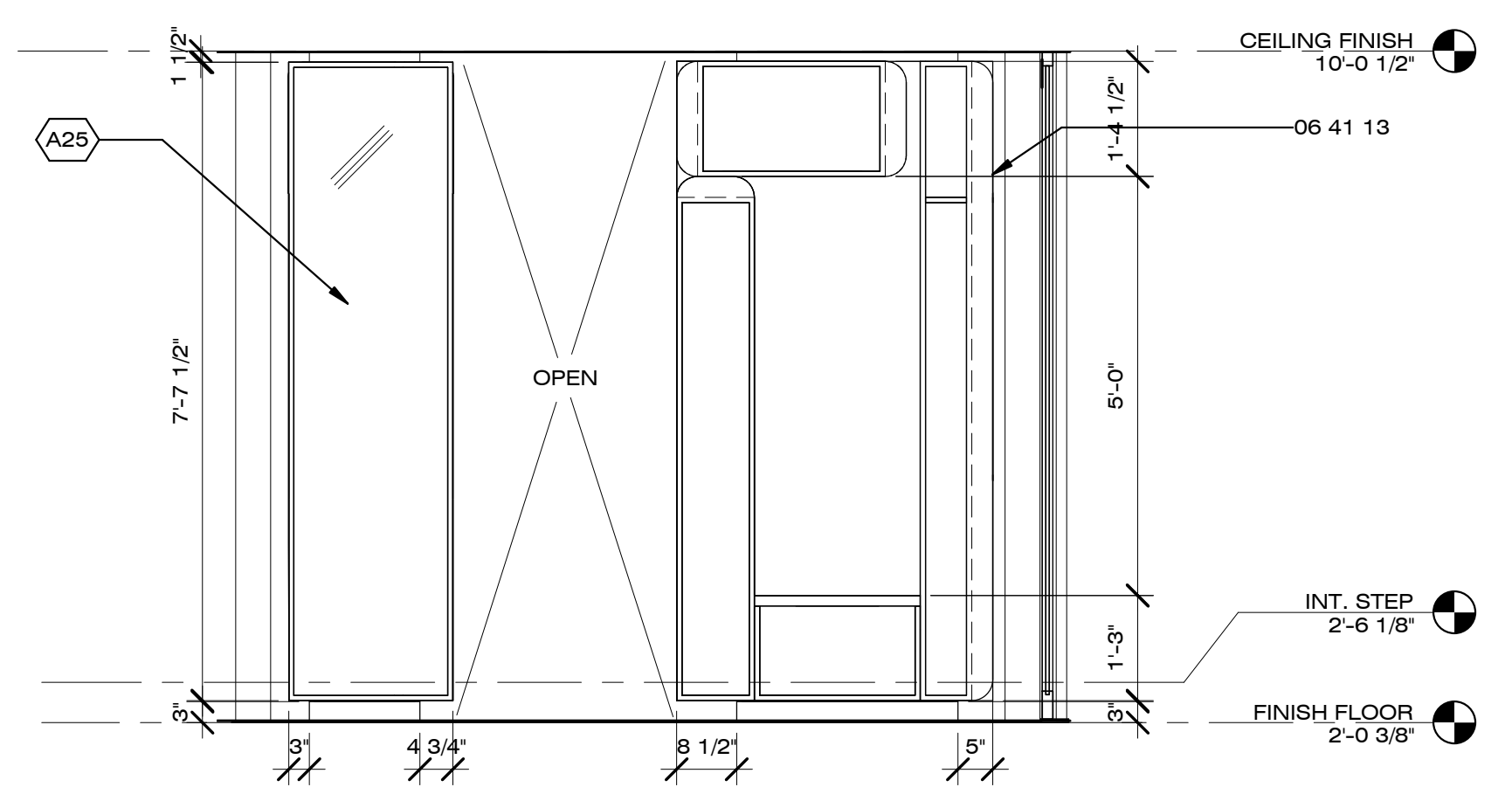
C1 KITCHEN EAST ELEVATION
1/2" = 1'-0"

C4 KITCHEN SOUTH ELEVATION
1/2" = 1'-0"

A4 KITCHEN NORTH ELEVATION
1/2" = 1'-0"



B1 SANDROOM SOUTH ELEVATION
1/2" = 1'-0"



B4 SANDROOM NORTH ELEVATION
1/2" = 1'-0"



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SHEET TITLE

BATHROOM ELEVATIONS

A-402

GENERAL SHEET NOTES

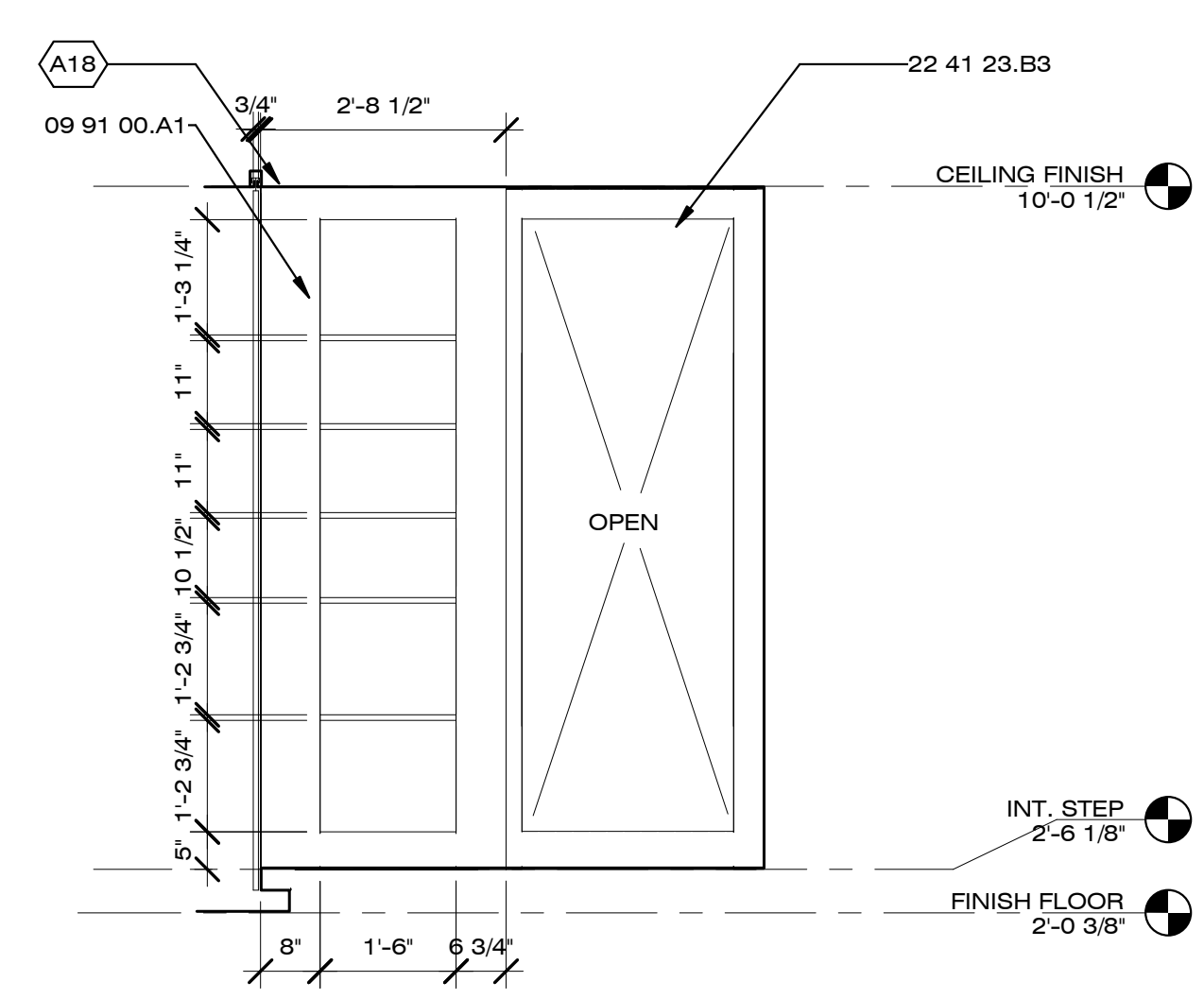
- ALL DOORS TO REMAIN IN FIXED POSITION DURING PUBLIC HOURS
- FOR FIXTURE DETAILS, REFER TO PROJECT MANUAL

REFERENCE KEYNOTES

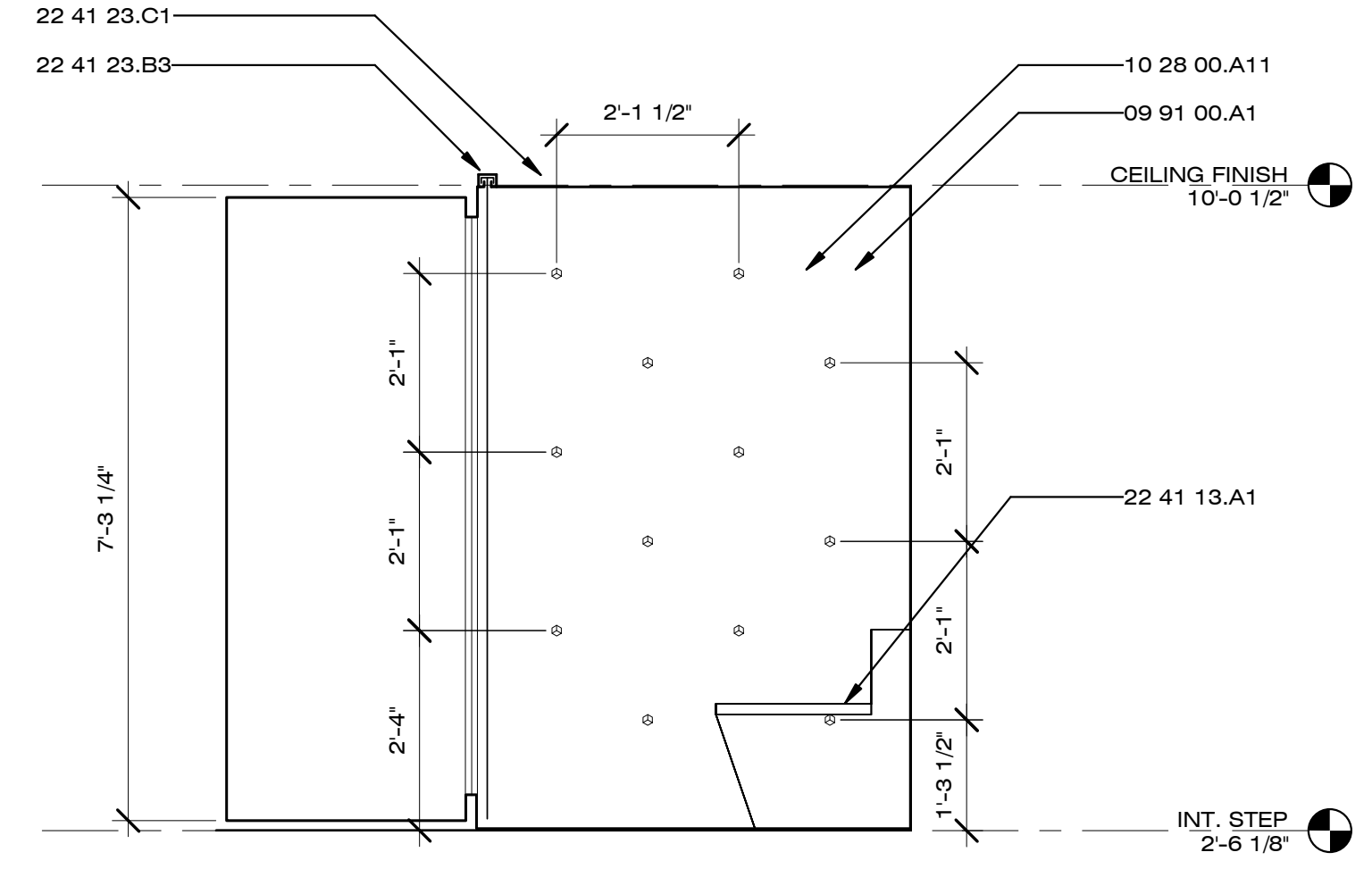
09 74 13	WOOD WALL COVERINGS
09 91 00.A1	PAINT FINISH
10 28 00	TOILET, BATH, AND LAUNDRY ACCESSORIES
10 28 00.A2	TOILET TISSUE DISPENSER
10 28 00.A7	MEDICINE CABINET
10 28 00.A11	COAT HOOK
10 28 00.A13	SHELF
22 41 13.A1	WATER CLOSET
22 41 16.A7	WALL MOUNT SINK
22 41 23.B3	PRE-FABRICATED SHOWER STALL
22 41 23.C1	SHOWER DOOR
26 51 00	INTERIOR LIGHTING

SHEET KEYNOTES

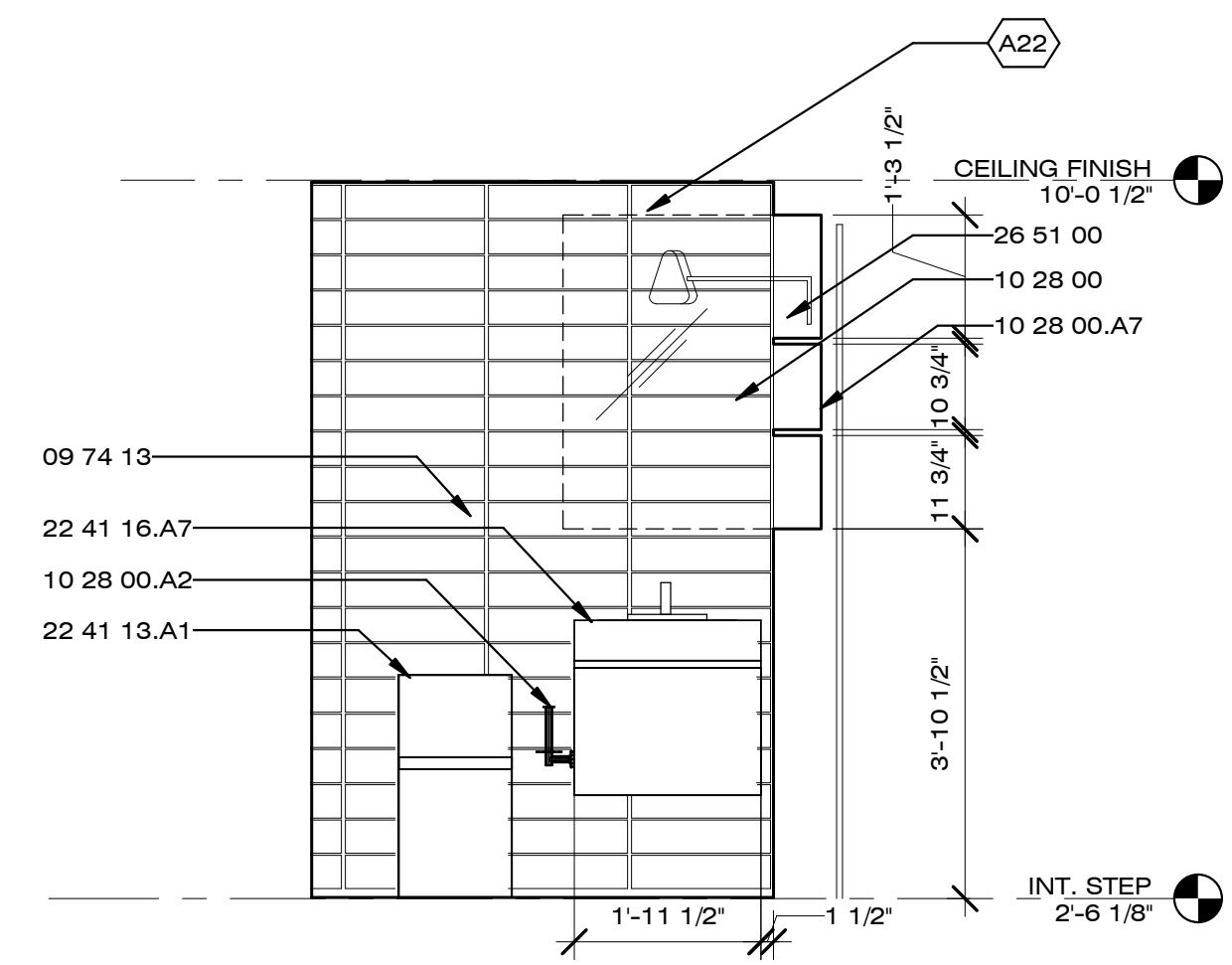
A18	BATHROOM SLIDING DOOR REFER TO DOOR SCHEDULE ON A-506
A22	MEDICINE CABINET DOOR W/ INSIDE MIRROR



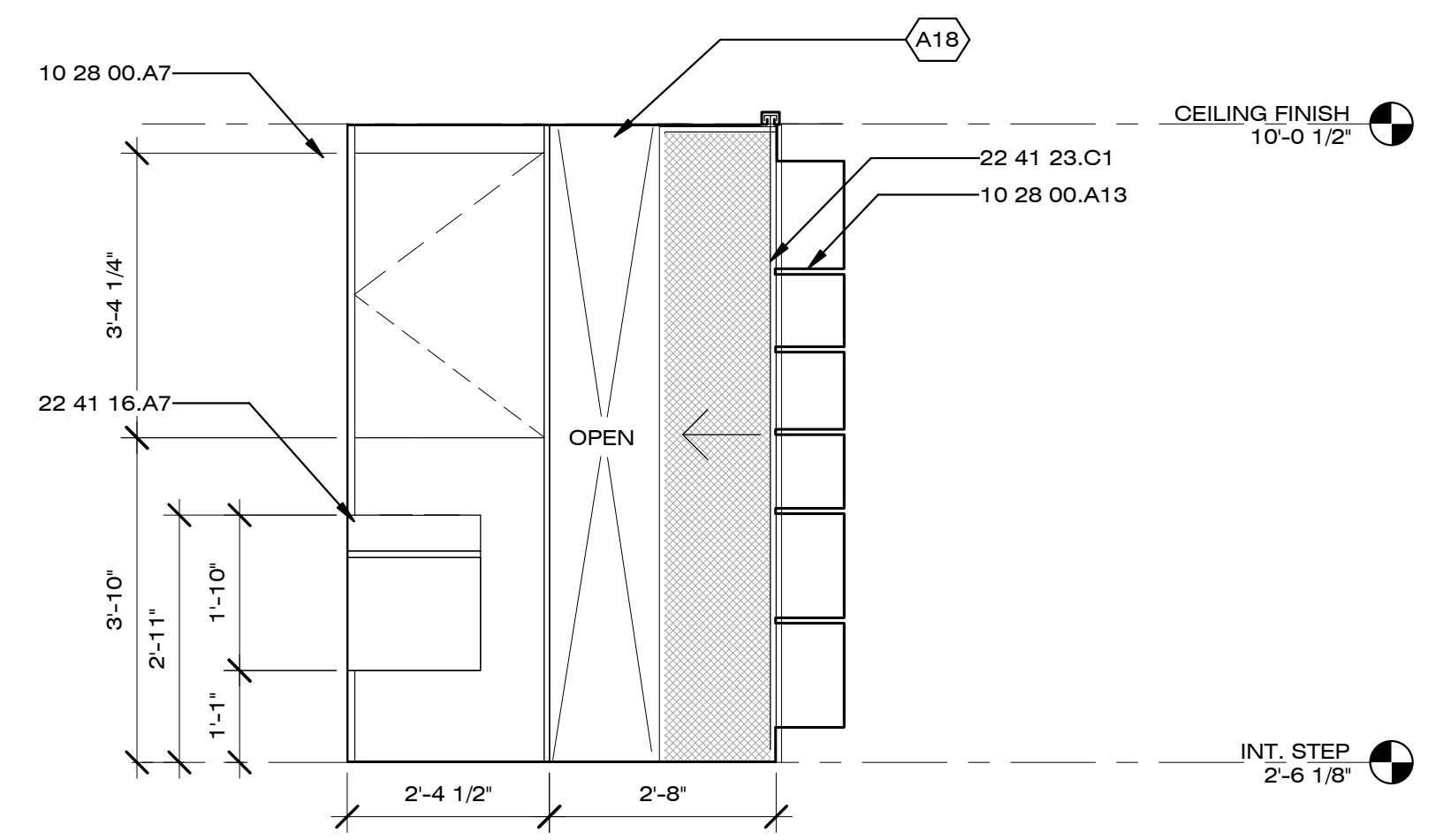
C1 BATHROOM EAST ELEVATION
1/2" = 1'-0"



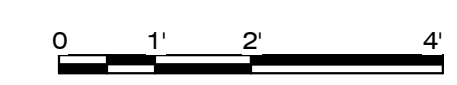
C4 BATHROOM SOUTH ELEVATION
1/2" = 1'-0"



A1 BATHROOM WEST ELEVATION
1/2" = 1'-0"



A4 BATHROOM NORTH ELEVATION
1/2" = 1'-0"



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SHEET TITLE

WALL SECTION DETAILS

A-501

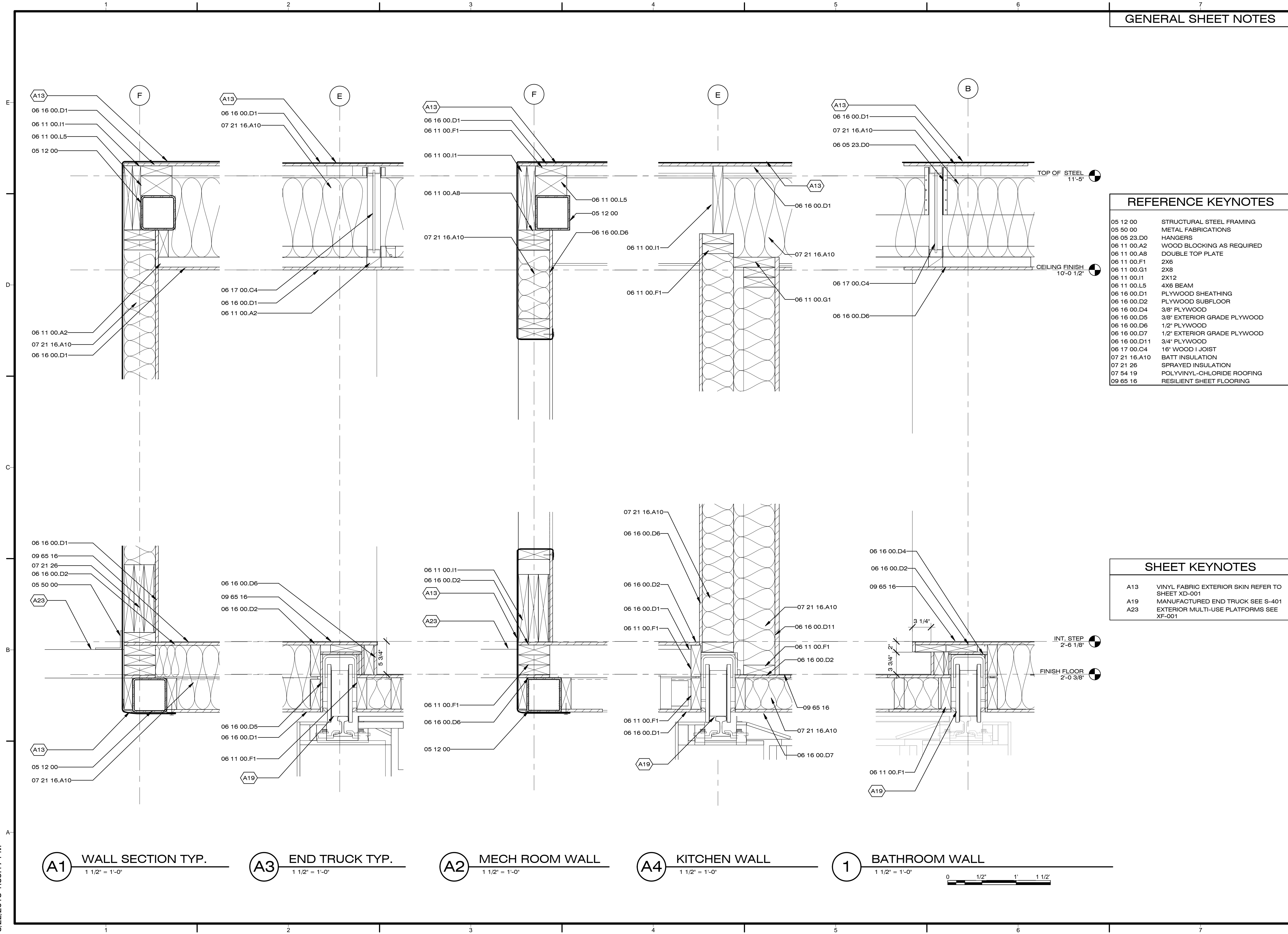
GENERAL SHEET NOTES

REFERENCE KEYNOTES

05 12 00	STRUCTURAL STEEL FRAMING
05 50 00	METAL FABRICATIONS
06 05 23.D0	HANGERS
06 11 00.A2	WOOD BLOCKING AS REQUIRED
06 11 00.A8	DOUBLE TOP PLATE
06 11 00.F1	2X6
06 11 00.G1	2X8
06 11 00.I1	2X12
06 11 00.L5	4X6 BEAM
06 16 00.D1	PLYWOOD SHEATHING
06 16 00.D2	PLYWOOD SUBFLOOR
06 16 00.D4	3/8" PLYWOOD
06 16 00.D5	3/8" EXTERIOR GRADE PLYWOOD
06 16 00.D6	1/2" PLYWOOD
06 16 00.D7	1/2" EXTERIOR GRADE PLYWOOD
06 16 00.D11	3/4" PLYWOOD
06 17 00.C4	16" WOOD I JOIST
07 21 16.A10	BATT INSULATION
07 21 26	SPRAYED INSULATION
07 54 19	POLYVINYL-CHLORIDE ROOFING
09 65 16	RESILIENT SHEET FLOORING

SHEET KEYNOTES

A13	VINYL FABRIC EXTERIOR SKIN REFER TO SHEET XD-001
A19	MANUFACTURED END TRUCK SEE S-401
A23	EXTERIOR MULTI-USE PLATFORMS SEE XF-001



A1 WALL SECTION TYP.
1 1/2" = 1'-0"

A3 END TRUCK TYP.
1 1/2" = 1'-0"

A2 MECH ROOM WALL
1 1/2" = 1'-0"

A4 KITCHEN WALL
1 1/2" = 1'-0"

1 BATHROOM WALL
1 1/2" = 1'-0"



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SHEET TITLE

TRANSVERSE SECTION DETAILS

A-502

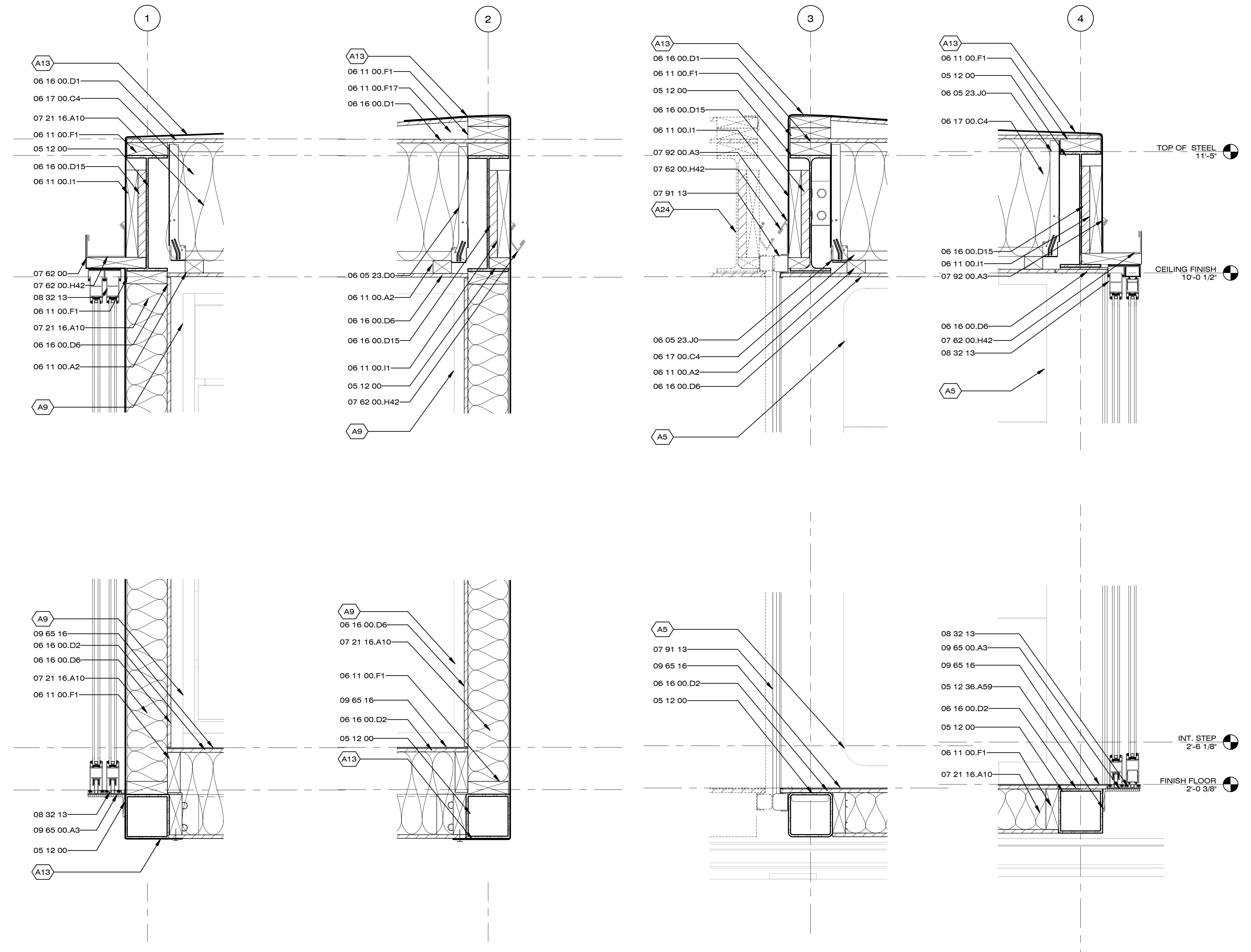
GENERAL SHEET NOTES

REFERENCE KEYNOTES

05 12 00	STRUCTURAL STEEL FRAMING
05 12 36.A59	L5X3.5X0.25
06 05 23.D0	HANGERS
06 05 23.J0	HANGERS
06 11 00.A2	WOOD BLOCKING AS REQUIRED
06 11 00.F1	2X6
06 11 00.F17	2X6 RAFTERS
06 11 00.I1	2X12
06 16 00.D1	PLYWOOD SHEATHING
06 16 00.D2	PLYWOOD SUBFLOOR
06 16 00.D6	1/2" PLYWOOD
06 16 00.D15	1 1/8" PLYWOOD
06 17 00.C4	16" WOOD JOIST
07 21 16.A10	BATT INSULATION
07 62 00	SHEET METAL FLASHING AND TRIM
07 62 00.H42	GUTTER
07 91 13	COMPRESSION SEALS
07 92 00.A3	SILICONE CAULKING
08 32 13	SLIDING ALUMINUM-FRAMED GLASS DOORS
09 65 00.A3	RUBBER FLOORING
09 65 16	RESILIENT SHEET FLOORING

SHEET KEYNOTES

A5	FIXED CABINET DETAIL REFER TO SHEET A-401
A9	MURPHY BED SEE XB-102
A13	VINYL FABRIC EXTERIOR SKIN REFER TO SHEET XD-001
A24	ADJACENT MODULE DASHED TO SHOW GASKET/GUTTER CONNECTION INTERFACE



A1 INT. STEP DOOR TYP.
1 1/2" = 1'-0"

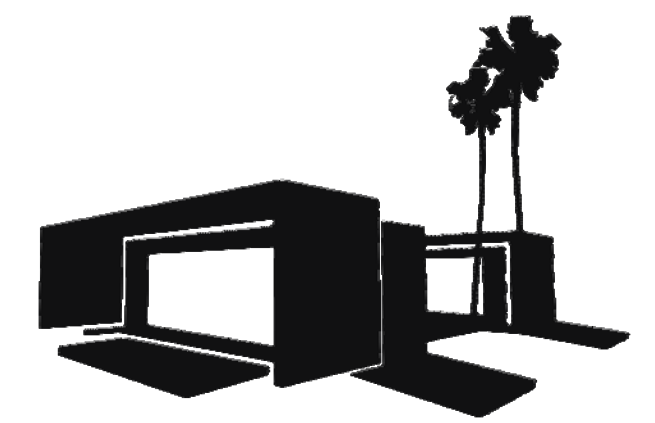
A2 INT. STEP GASKET TYP.
1 1/2" = 1'-0"

A4 GASKET TYP.
1 1/2" = 1'-0"

A5 DOOR TYP.
1 1/2" = 1'-0"



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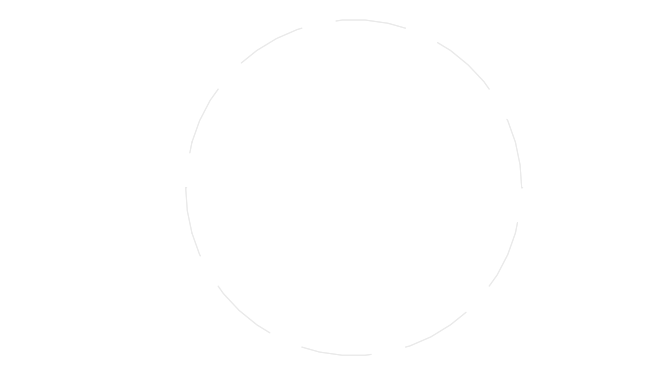
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PLAN DETAILS
A-503

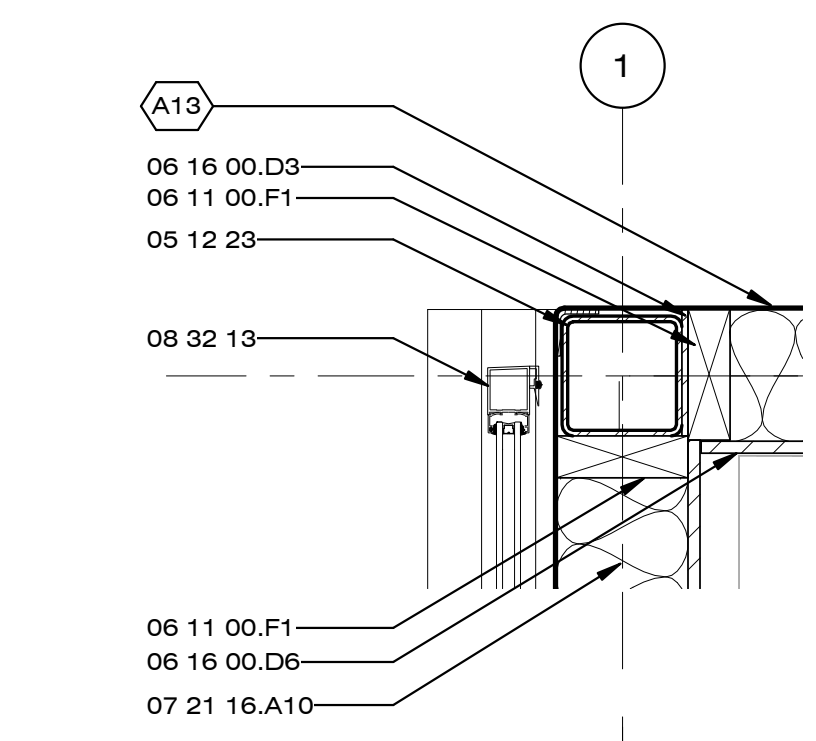
GENERAL SHEET NOTES

REFERENCE KEYNOTES

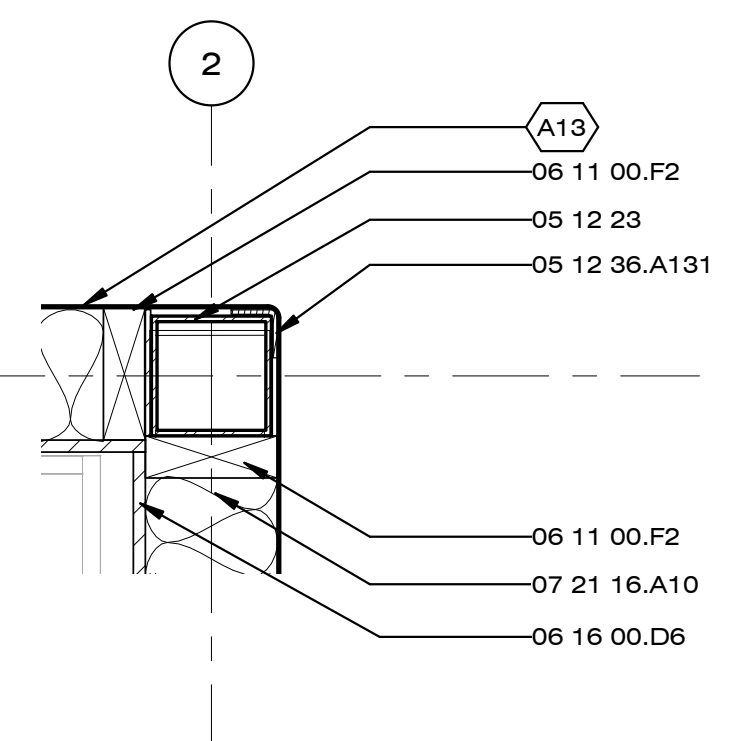
05 12 00	STRUCTURAL STEEL FRAMING
05 12 23	STRUCTURAL STEEL FOR BUILDINGS
05 12 36.A131	L2X2X0.125
05 14 00	STRUCTURAL ALUMINUM FRAMING
06 11 00.C1	2X3
06 11 00.F1	2X6
06 11 00.F2	2X6 FRAMING
06 16 00.D3	1/4" PLYWOOD
06 16 00.D6	1/2" PLYWOOD
06 16 00.D11	3/4" PLYWOOD
07 21 16.A10	BATT INSULATION
07 91 13	COMPRESSION SEALS
08 32 13	SLIDING ALUMINUM-FRAMED GLASS DOORS
09 65 16	RESILIENT SHEET FLOORING
11 31 23.A1	CLOTHES WASHER

SHEET KEYNOTES

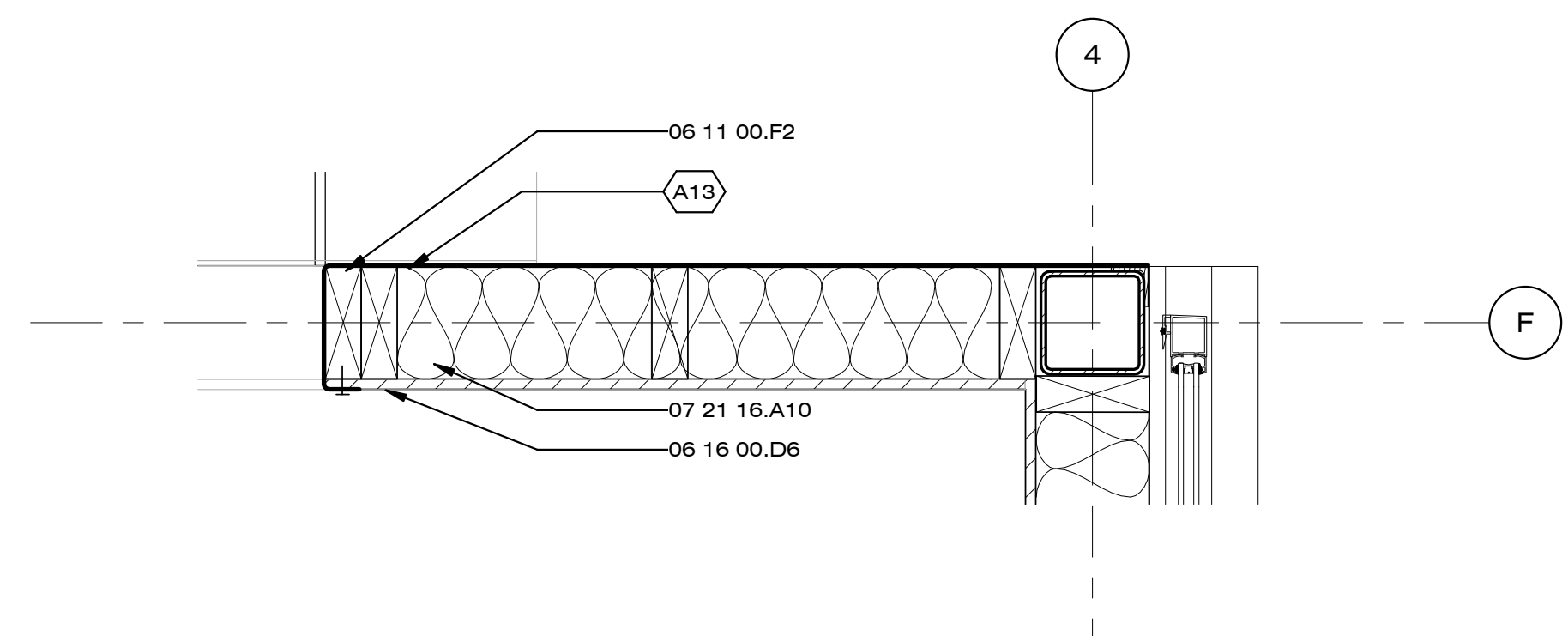
A13	VINYL FABRIC EXTERIOR SKIN REFER TO SHEET XD-001
A24	ADJACENT MODULE DASHED TO SHOW GASKET/GUTTER CONNECTION INTERFACE



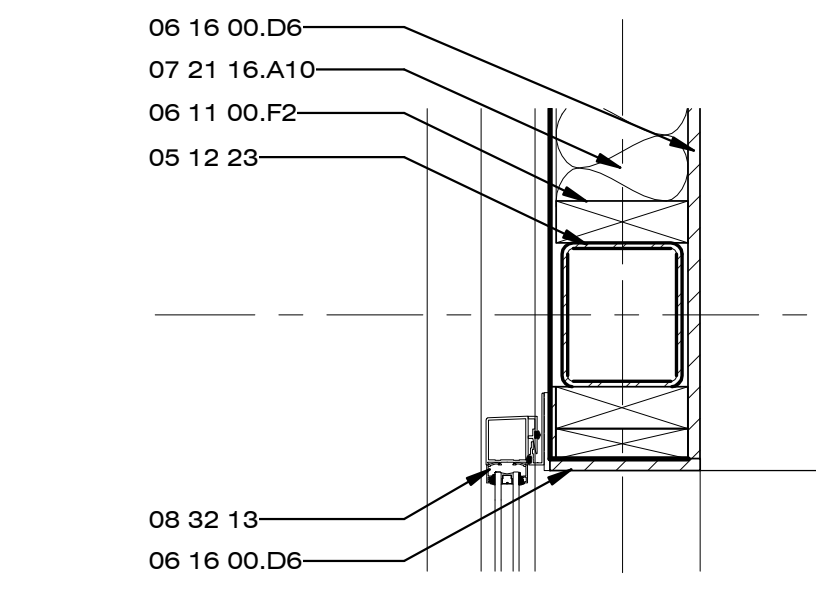
D1 TYP. OUTER CORNER
 1 1/2" = 1'-0"



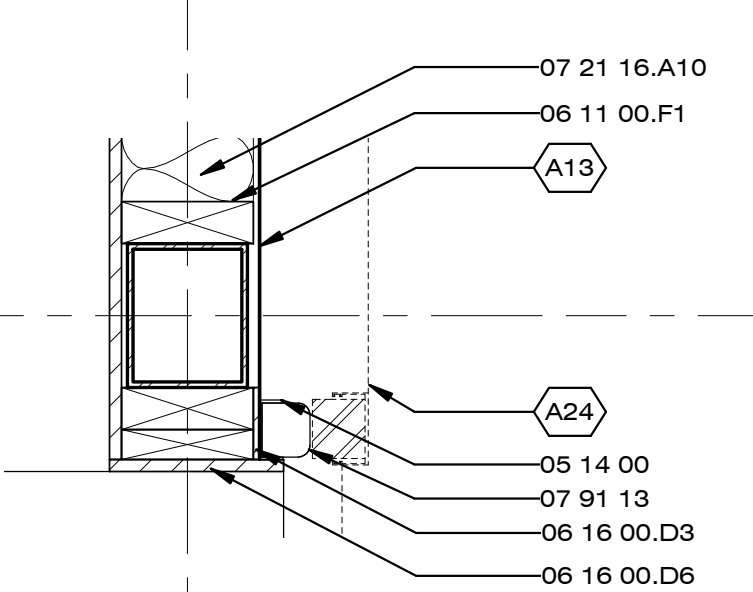
D2 TYP. INNER CORNER
 1 1/2" = 1'-0"



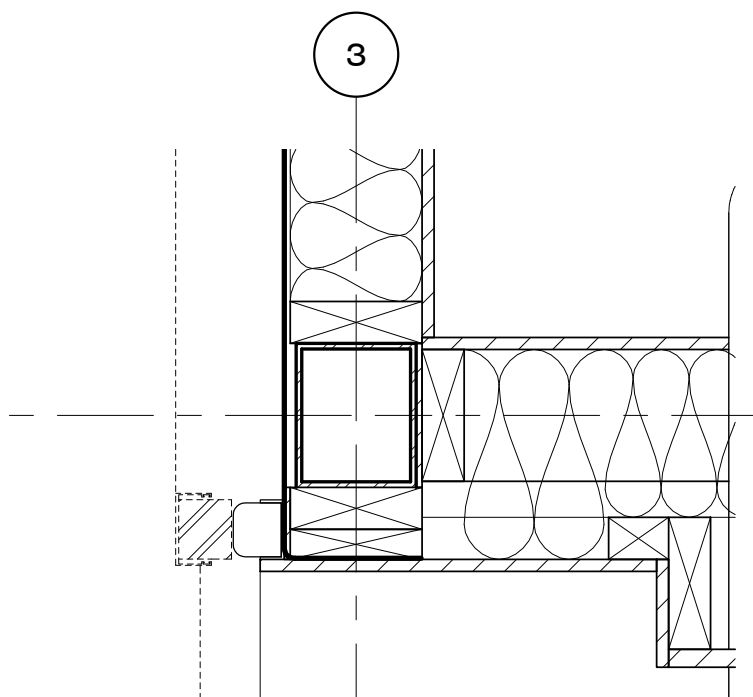
D5 MECH ROOM DOOR JAMB
 1 1/2" = 1'-0"



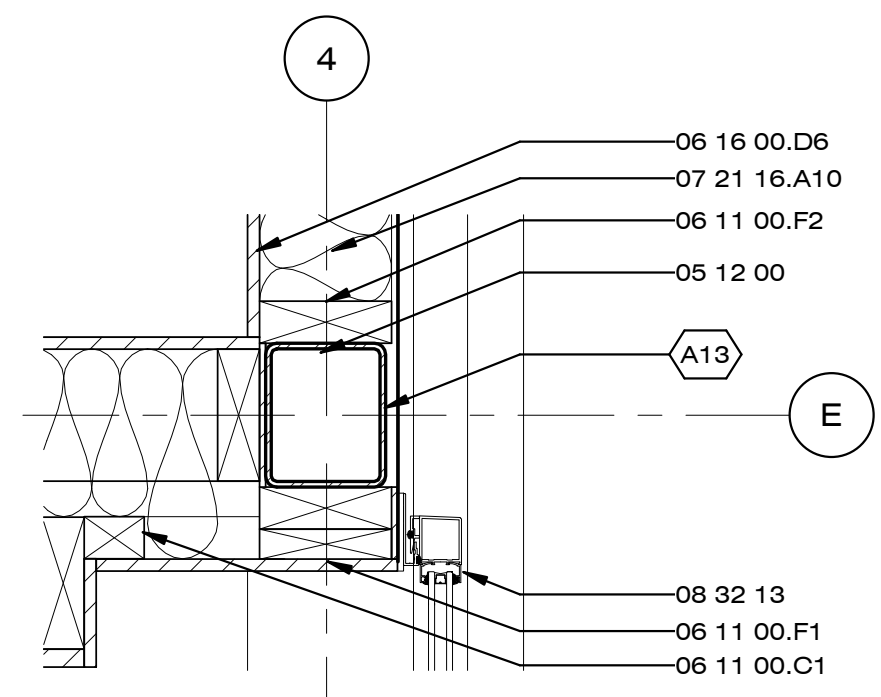
C1 MODULE A - NORTH INTERLOCKER
 1 1/2" = 1'-0"



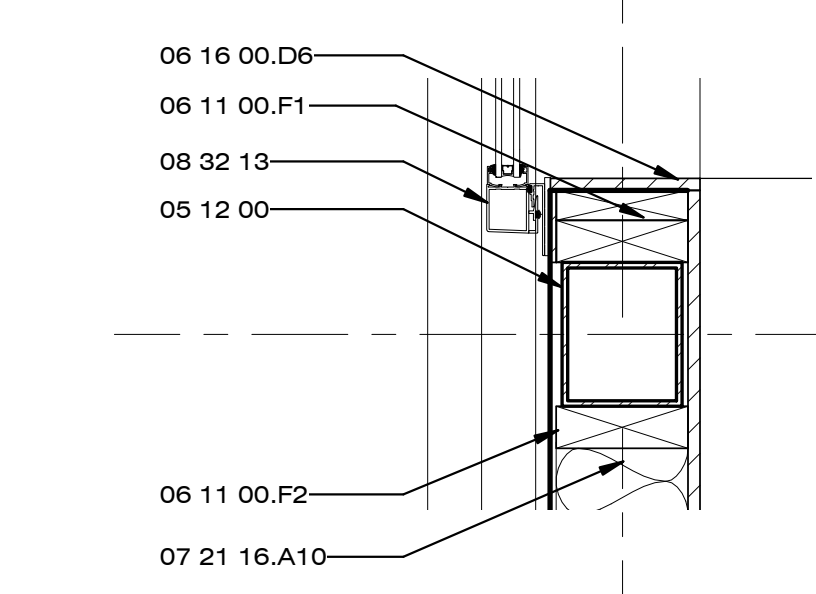
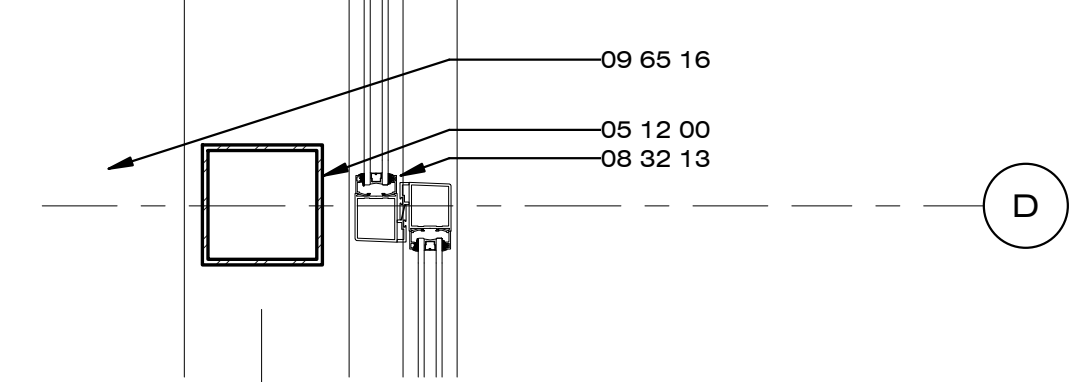
C2 MODULE A - NORTH GASKET
 1 1/2" = 1'-0"



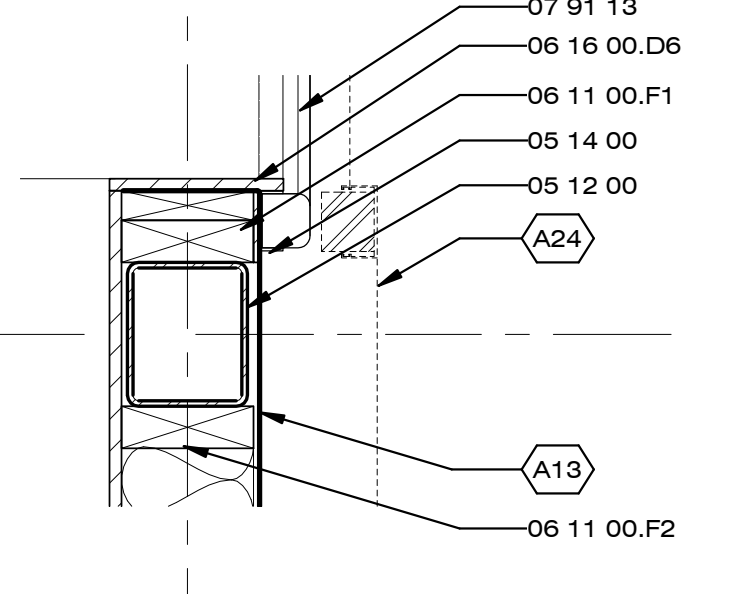
C4 MODULE B - NORTH GASKET
 1 1/2" = 1'-0"



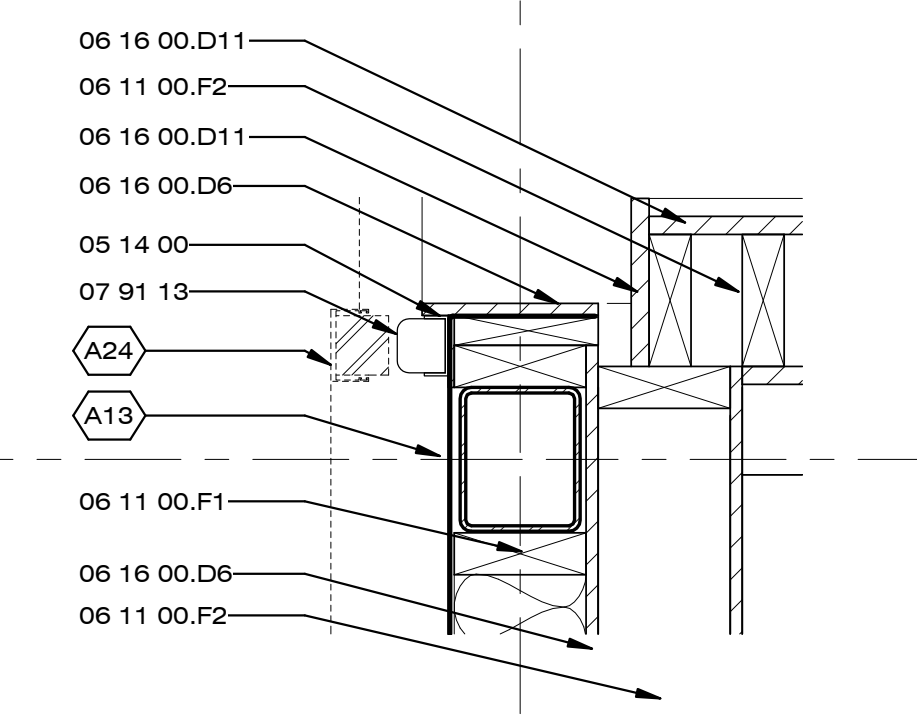
C5 MODULE B NORTH INTERLOCKER
 1 1/2" = 1'-0"



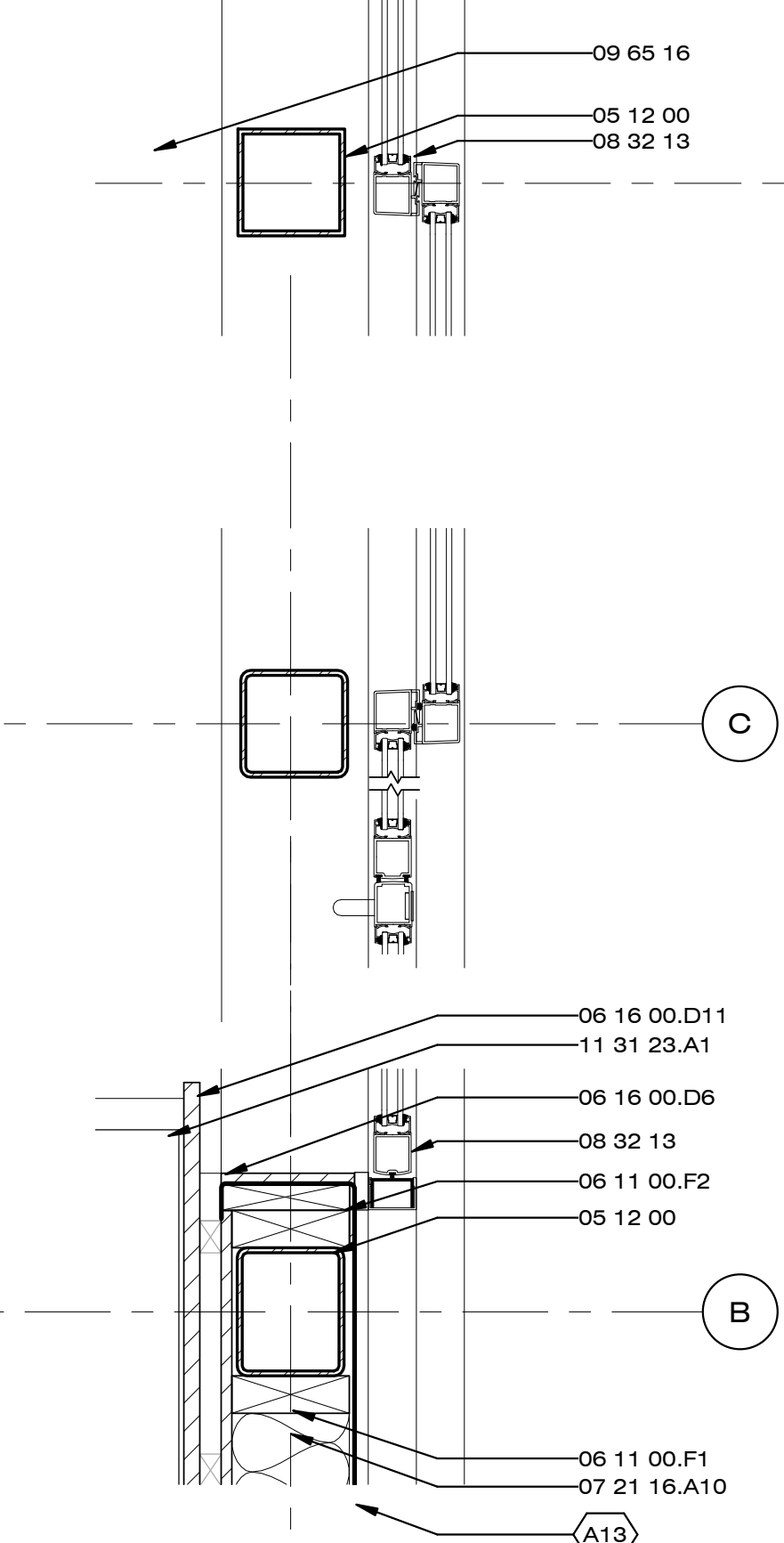
A1 MODULE A - SOUTH INTERLOCKER
 1 1/2" = 1'-0"



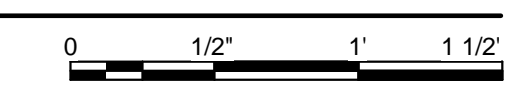
A2 MODULE A - SOUTH GASKET
 1 1/2" = 1'-0"



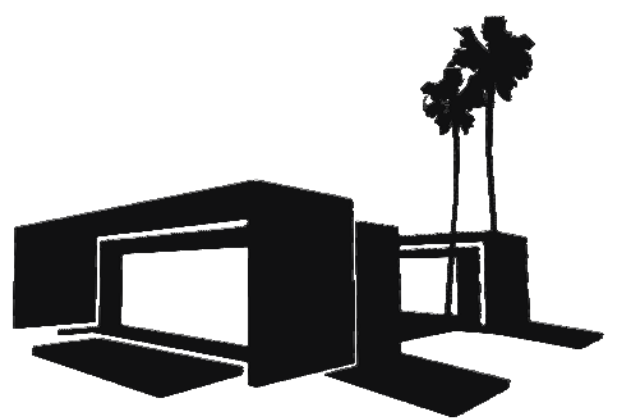
A4 MODULE B GASKET DETAIL
 1 1/2" = 1'-0"



A5 MODULE B SLIDER DETAIL
 1 1/2" = 1'-0"



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DOOR SCHEDULE

A-504

GENERAL SHEET NOTES

REFERENCE KEYNOTES

SHEET KEYNOTES

DOOR SCHEDULE

MARK	DR TYPE	DR SIZE	MANUFACTURER	MODEL	FRAME TYPE	FIRE RATING	DETAILS			DESCRIPTION	FINISH		
							HEAD	JAMB	SILL		DOOR	FRAME	COMPONENTS
1	ENTRY/LIVING	21' 11"W x 8' H	ARCADIA DOOR	ULT-5820	ALUMINUM		A-501	A-502	A-501	ULT-5820 SERIES (THERMAL/NON-THERMAL) MULTI-SLIDING DOORS	GLASS	ALUMINUM	ALUMINUM
2	ENTRY/LIVING/EGRESS	21' 11"W x 8' H	ARCADIA DOOR	ULT-5820 & MS362	ALUMINUM		A-501	A-502	A-501	ULT-5820 SERIES (THERMAL/NON-THERMAL) MULTI-SLIDING DOORS & MS362 WITH 1/4" GLASS SWINGING DOOR	GLASS	ALUMINUM	ALUMINUM
3	BATH ROOM DOOR	2' 8"W x 7' 4"H	NA	NA	WOOD		NA	NA	NA	1/2" PLY WOOD	WOOD	WOOD	WOOD
4	MECHANICAL ROOM DOOR	2' 11-1/2" W x 5' 2-1/4" H	NA	NA	WOOD		NA	NA	NA	1/2" PLY WOOD	WOOD	WOOD	WOOD

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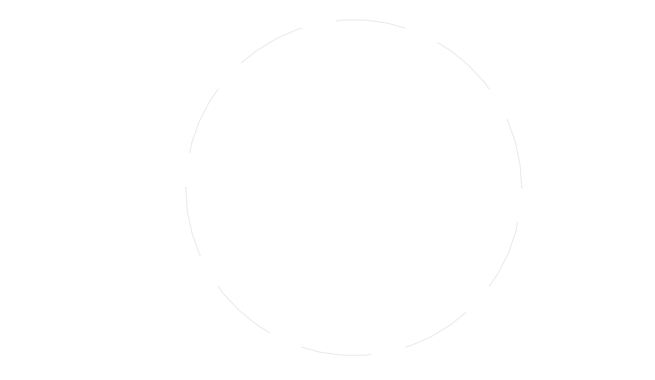
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SHEET TITLE

KITCHEN
CABINETS DETAILS

A-505

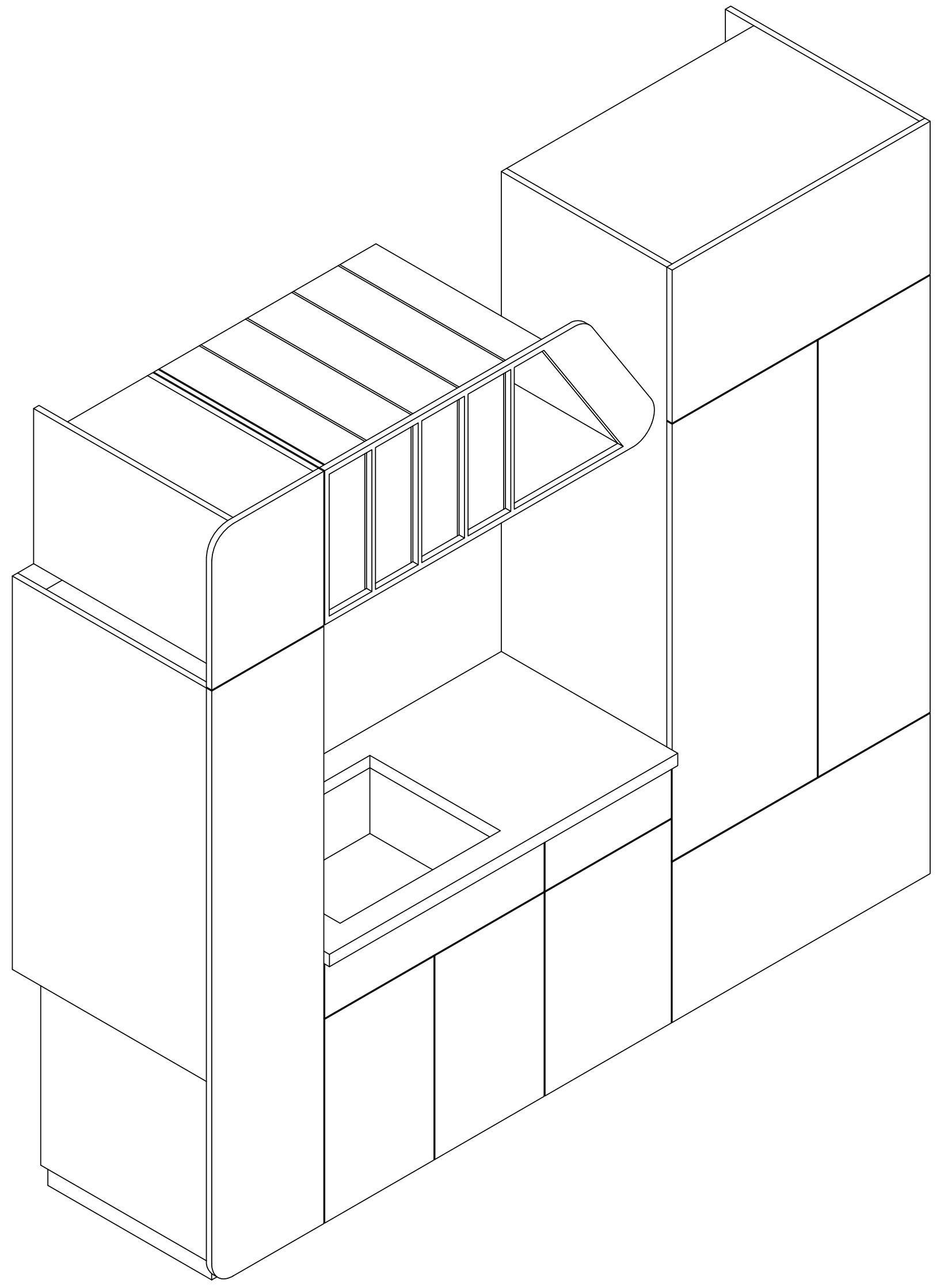
GENERAL SHEET NOTES

- ALL KITCHEN CABINETS TO BE MADE OF HORIZONTAL GRAIN MAPLE VENEER WITH 3/4" PLYWOOD CORE

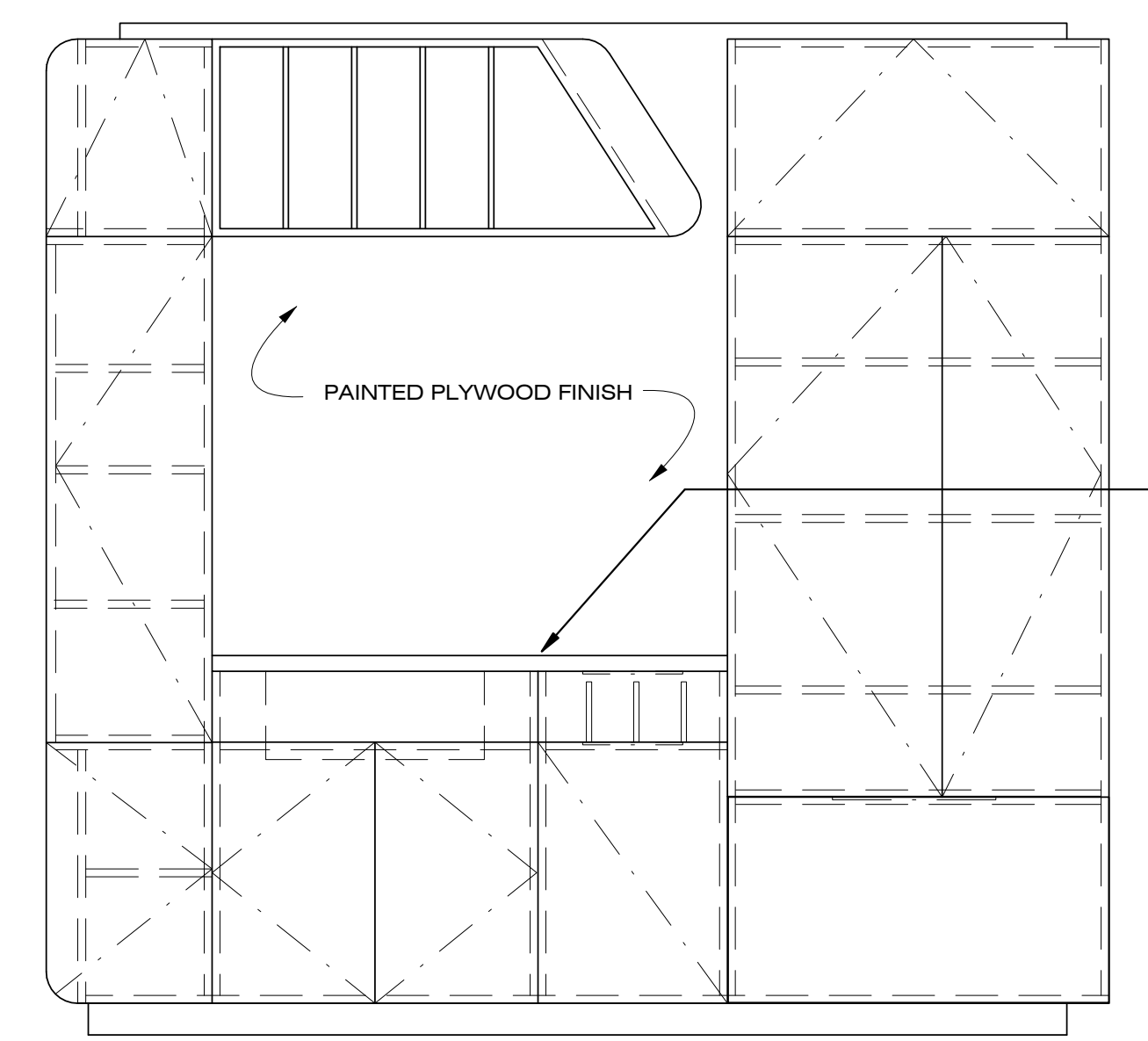
REFERENCE KEYNOTES

- | | |
|----------|---------------------|
| 12 36 23 | PLASTIC COUNTERTOPS |
|----------|---------------------|

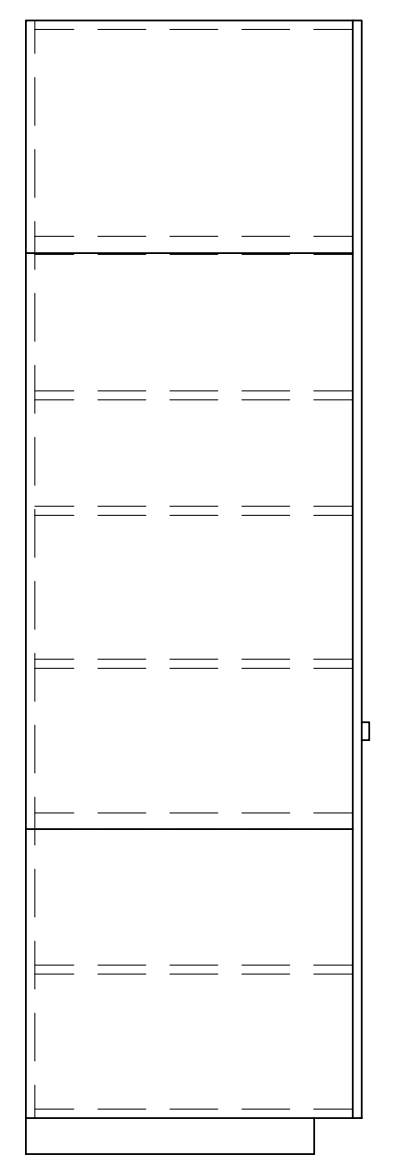
SHEET KEYNOTES



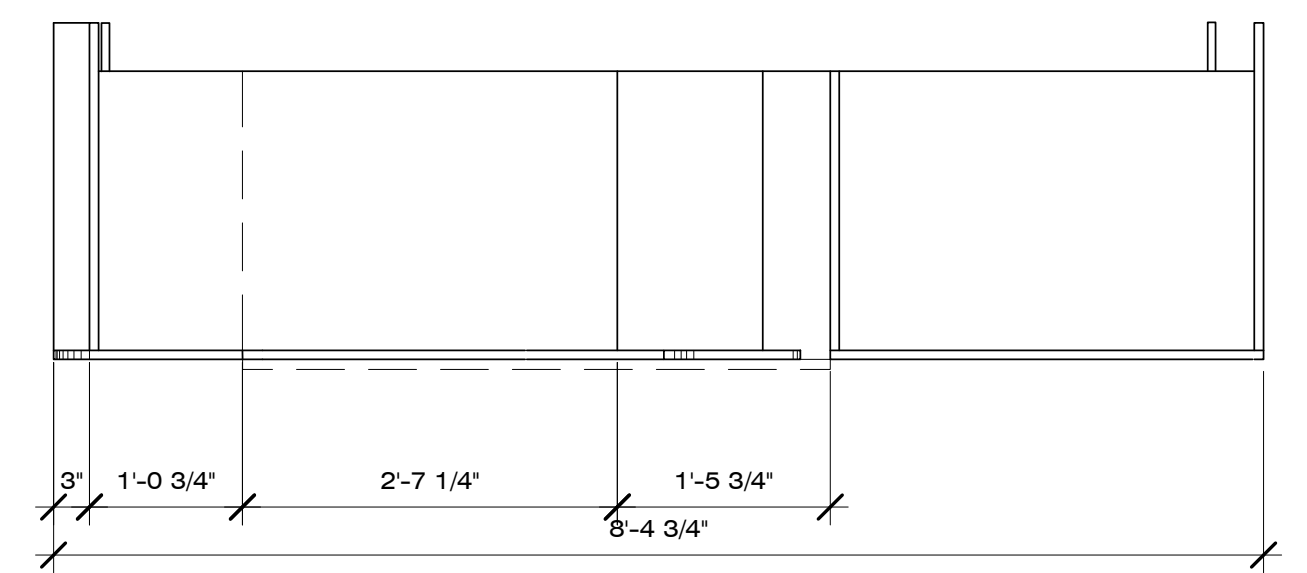
AXON



FRONT ELEVATION



SIDE ELEVATION



PLAN

A1 KITCHEN SINK & DISHWASHER CABINET DETAILS
3/4" = 1'-0"



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- ALL KITCHEN CABINETS TO BE MADE OF HORIZONTAL GRAIN MAPLE VENEER WITH 3/4" MDF CORE

REFERENCE KEYNOTES

12 36 23	PLASTIC COUNTERTOPS
----------	---------------------

SHEET KEYNOTES

E08	ROCKWELL C600 CONTROL PANEL
-----	-----------------------------

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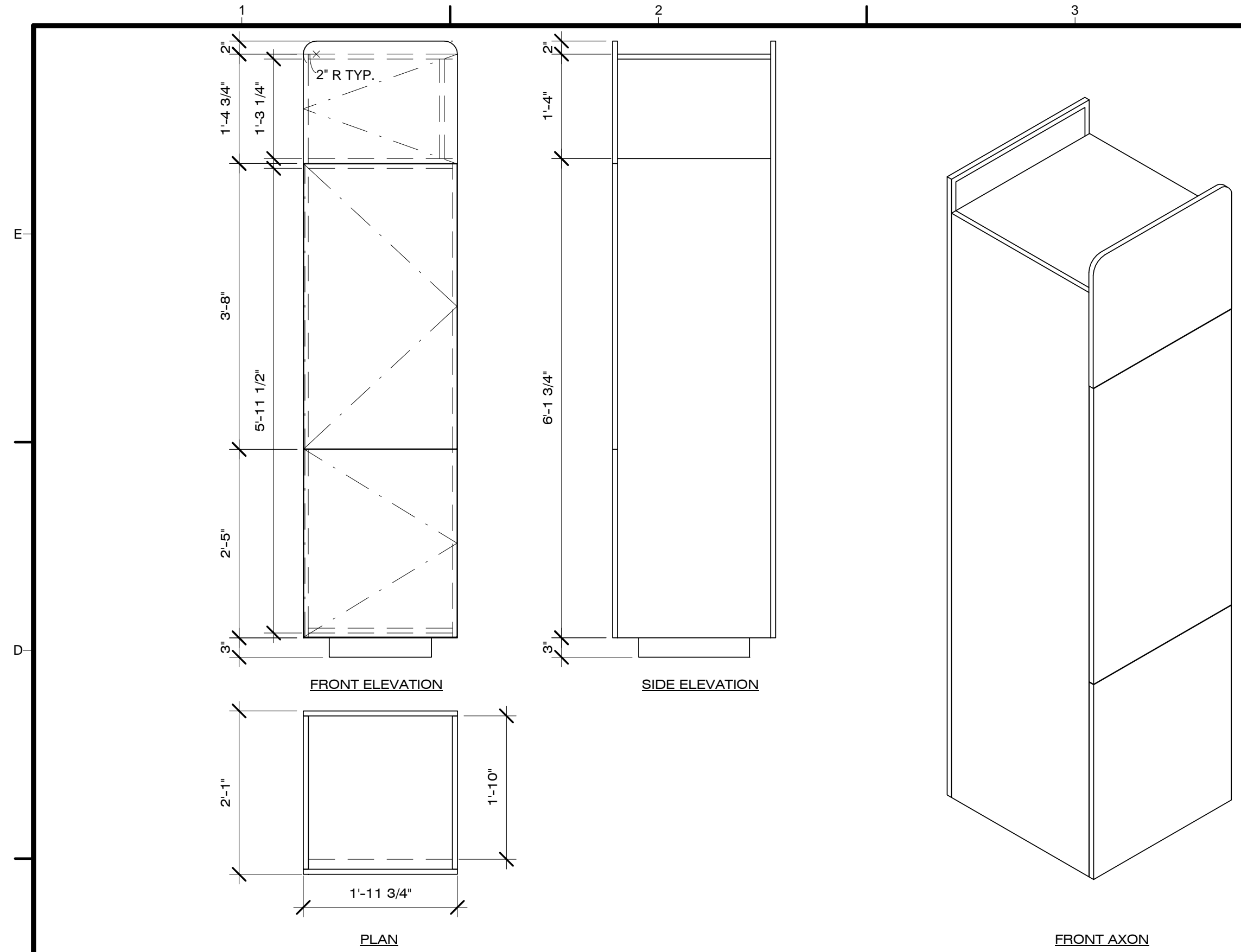
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SHEET TITLE

**KITCHEN CABINET
DETAILS**

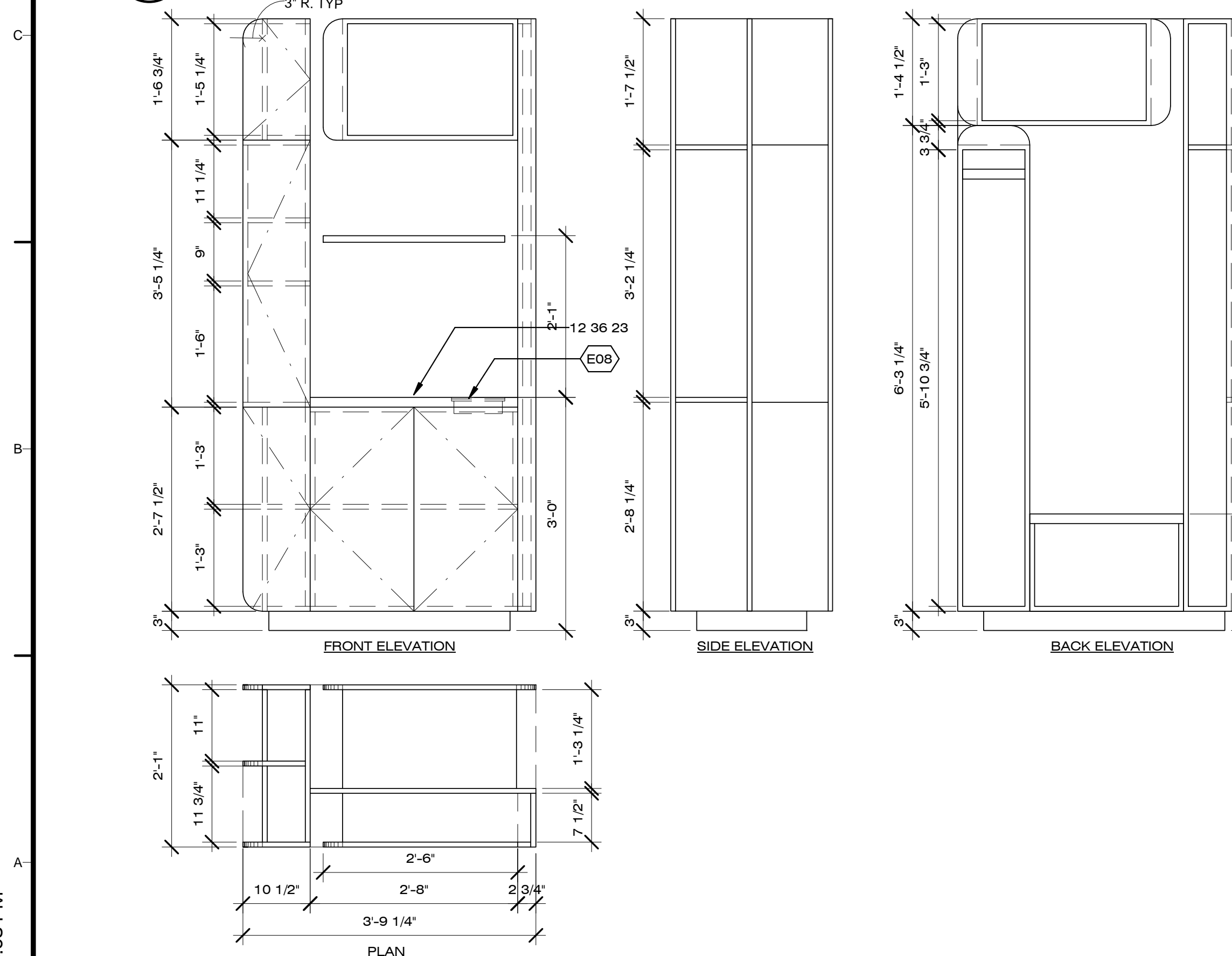
A-506



FRONT AXON

C1 REFRIGERATOR CABINETS

3/4" = 1'-0"

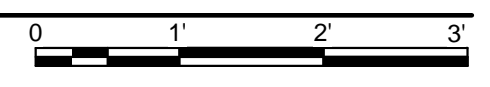


FRONT AXON

BACK AXON

A1 WINE RACK PANTRY & SANDROOM CABINETS

3/4" = 1'-0"



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FIRE SUPPRESSION & DETECTION

F-101

GENERAL SHEET NOTES

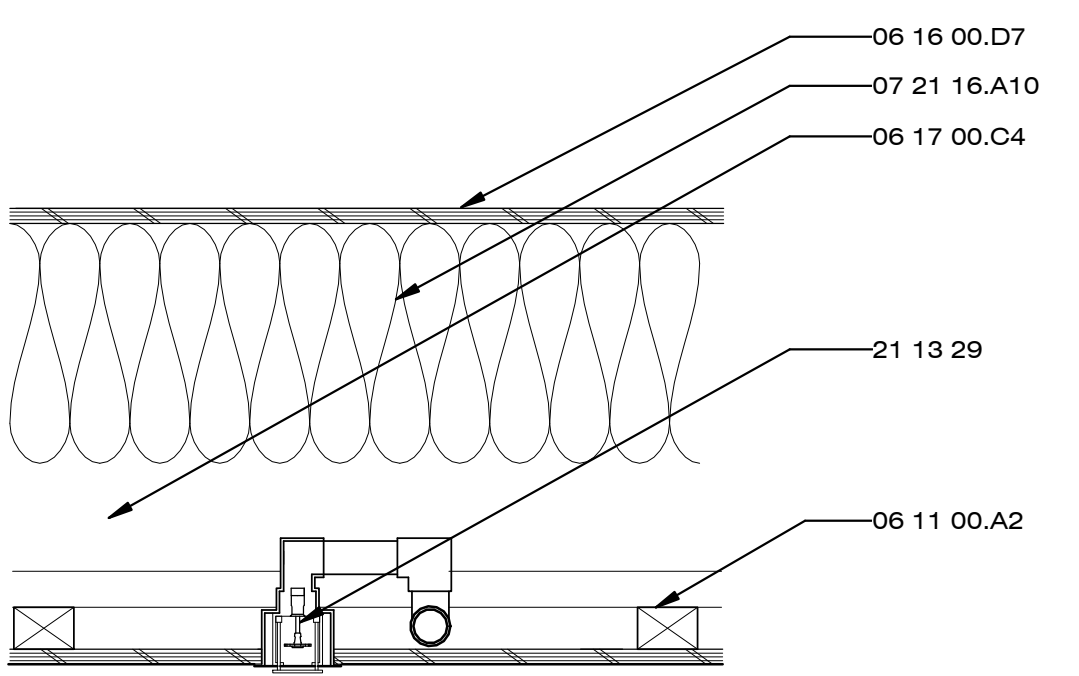
1. FIRE SPRINKLERS HAVE BEEN LOCATED SO THAT IN ALL POSSIBLE CONFIGURATIONS OF MOVABLE CABINETS, NO AREAS SHALL BE UNPROTECTED BY SPRINKLERS
2. SMOKE DETECTORS ARE WIRED BY A 3RD CONDUCTOR WITHIN EACH MODULE, BUT EACH MODULE'S SET OF DETECTORS IS INDEPENDENT
3. SMOKE DETECTORS AND ALARMS SHALL BE ABLE TO CONNECT WIRELESSLY FOR FIRE PROTECTION PRESSURE CALCULATIONS. REFER TO SHEET P-602
4. REFER TO SHEET XE-001 FOR CABLE/HOSE CARRIER DETAILS

REFERENCE KEYNOTES

06 11 00.A2	WOOD BLOCKING AS REQUIRED
06 16 00.D7	1/2" EXTERIOR GRADE PLYWOOD
06 17 00.C4	16" WOOD I JOIST
07 21 16.A10	BATT INSULATION
21 13 29	TYCO LFII CONCEALED SPRINKLER
22 11 23	BOOSTER PUMP
28 31 46	SMOKE DETECTOR

SHEET KEYNOTES

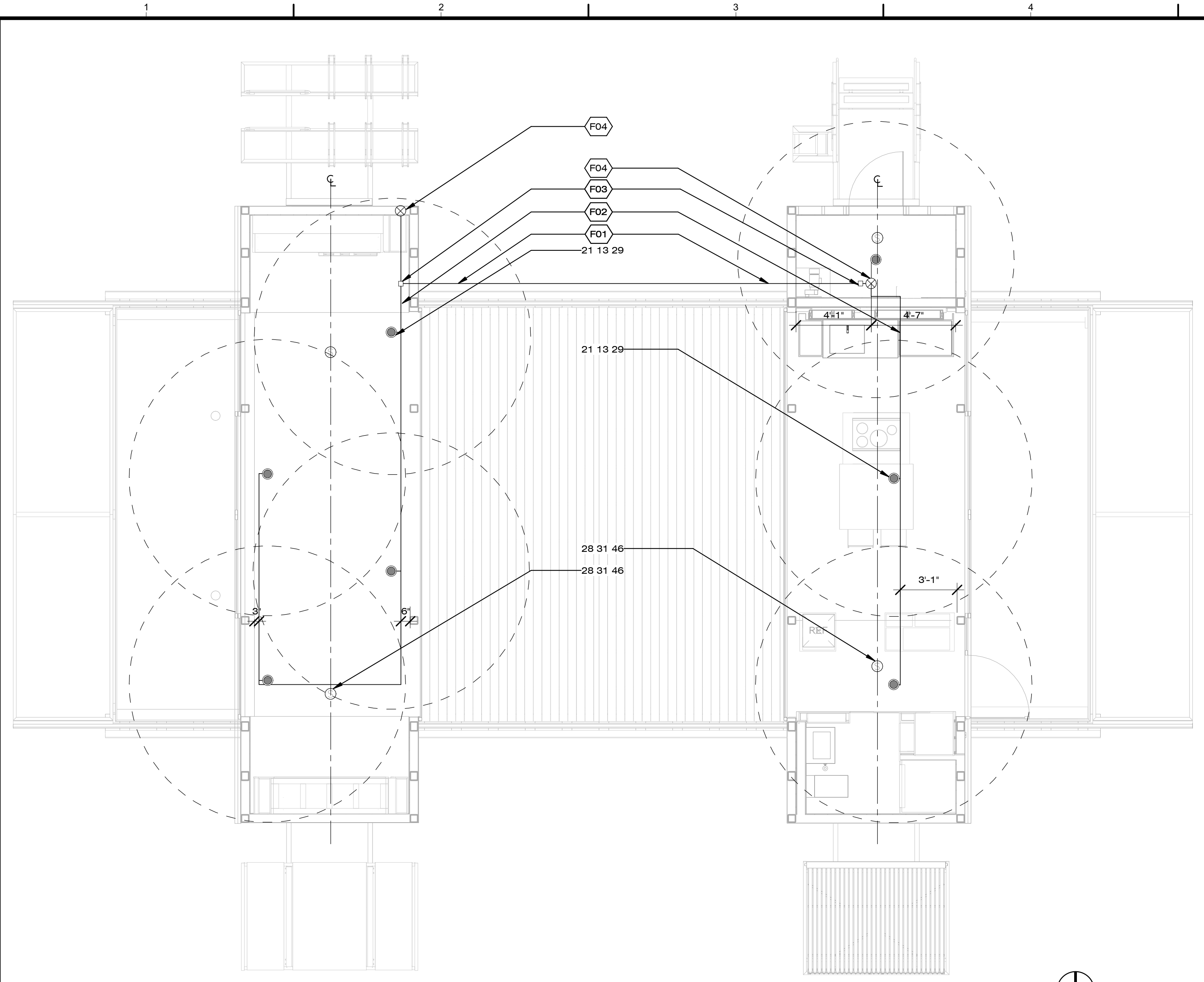
F01	1" DIA FLEX SPRINKLER SUPPLY HOSE
F02	1" DIA CPVC SPRINKLER SUPPLY
F03	GROOVE COUPLINGS FOR SYSTEM DISASSEMBLY
F04	1" RISER DN.



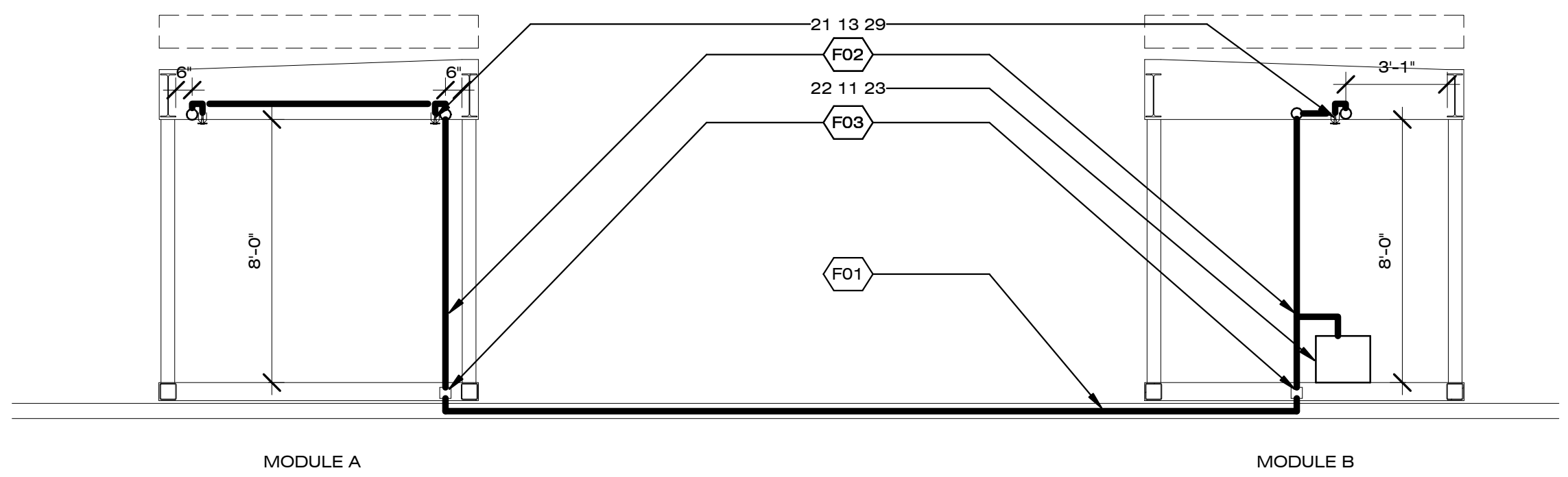
C5 TYP. SPRINKLER DETAIL
1 1/2" = 1'-0"
0 1/2' 1' 1 1/2'

SYMBOLS LEGEND

- SMOKE DETECTOR
- PENDANT HEAD SPRINKLERS



C1 FIRE PROTECTION & SUPPRESSION PLAN
1/4" = 1'-0"



A1 FIRE SUPPRESSION TRANSVERSE SECTION
1/4" = 1'-0"
0 2' 4' 8'

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SHEET TITLE

FIRE PROTECTION ISOMETRIC

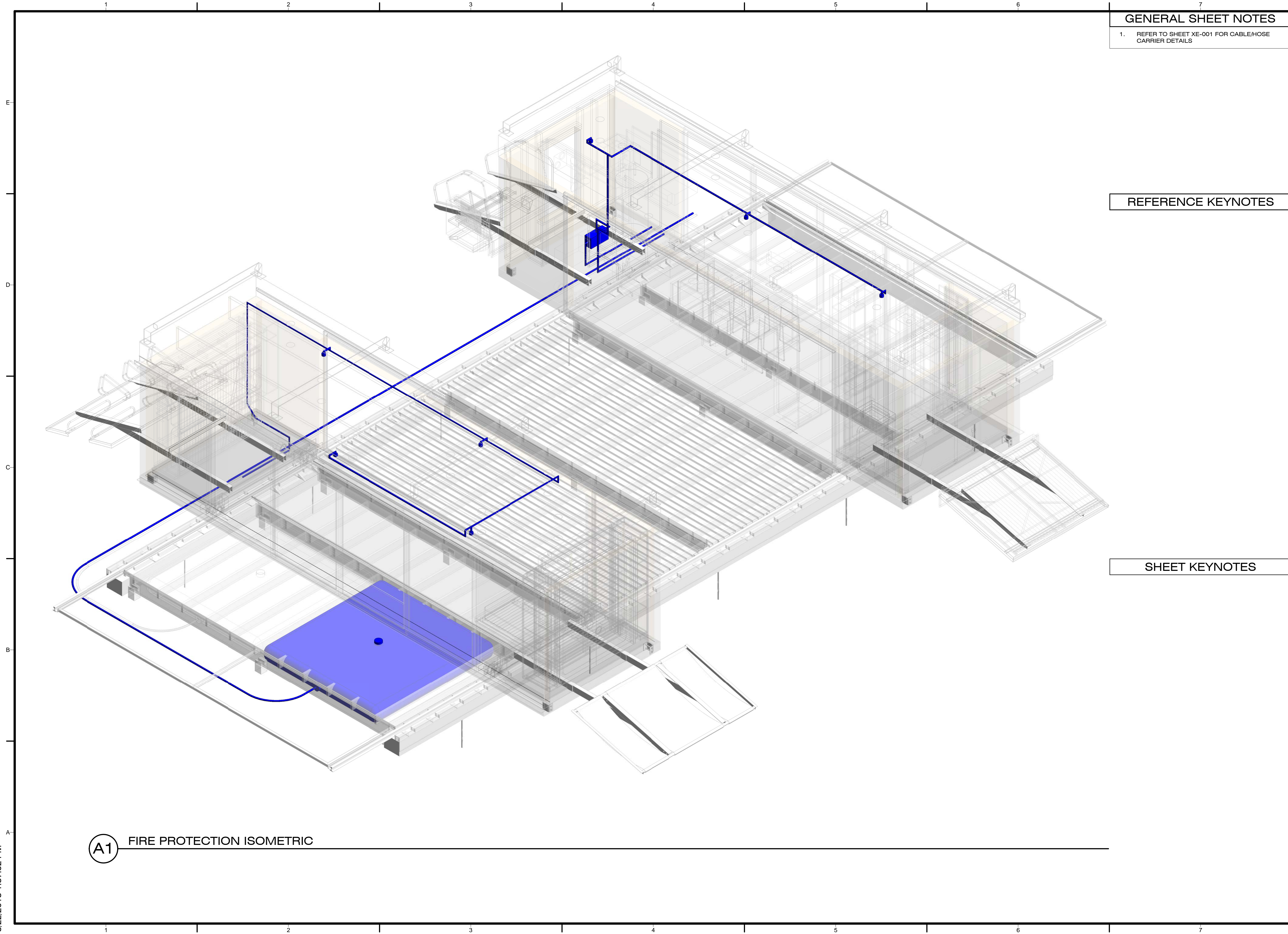
F-902

GENERAL SHEET NOTES

- REFER TO SHEET XE-001 FOR CABLE/HOSE CARRIER DETAILS

REFERENCE KEYNOTES

SHEET KEYNOTES



A1 FIRE PROTECTION ISOMETRIC

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SHEET TITLE

WATER UTILITY UNIT

P-101

GENERAL SHEET NOTES

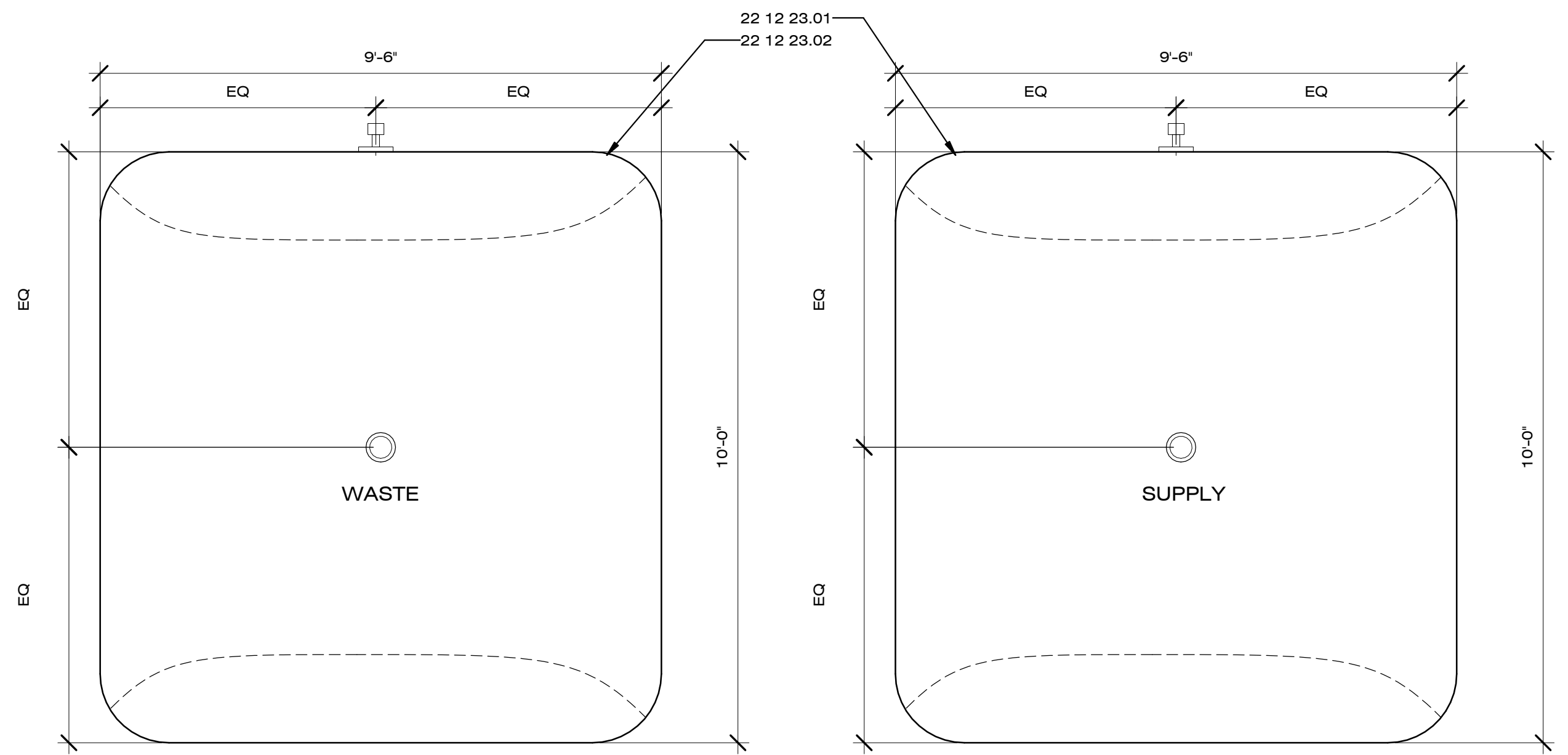
- REFER TO SHEET XC-001 FOR LANDSCAPE DECK DETAILS
- REFER TO SHEET XE-001 FOR CABLE/HOSE CARRIER DETAILS

REFERENCE KEYNOTES

22 12 23.01	WATER SUPPLY BLADDER
22 12 23.02	WASTEWATER STORAGE BLADDER

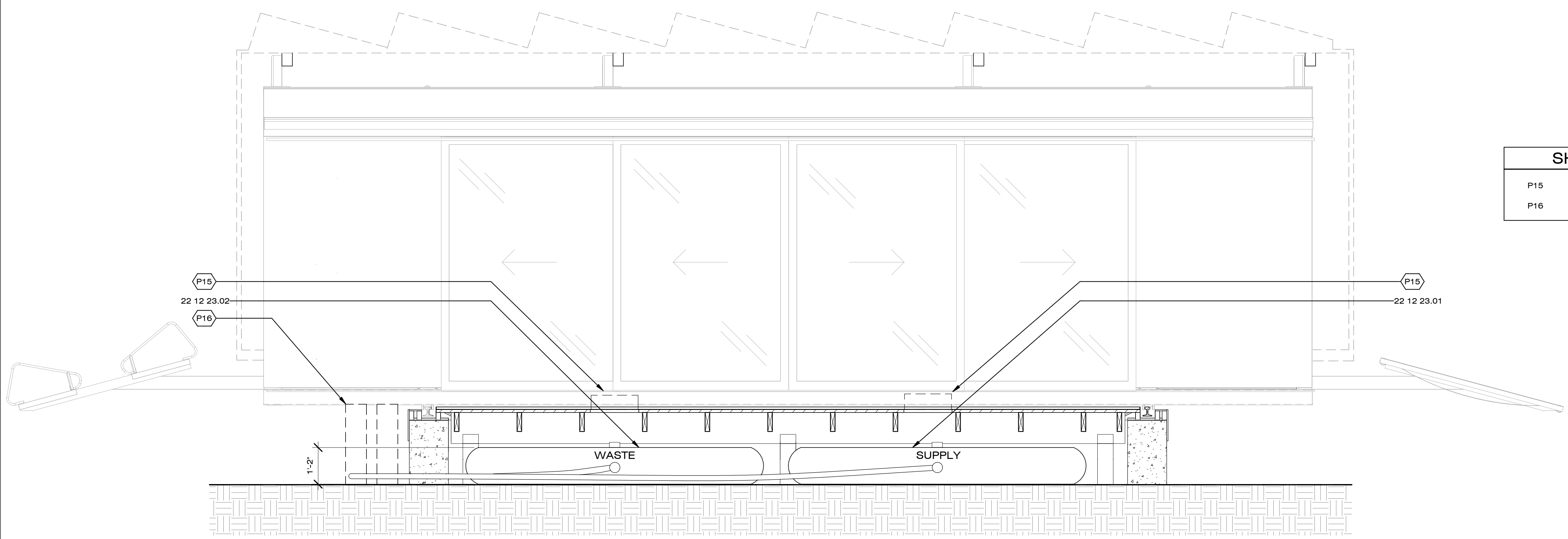
SHEET KEYNOTES

P15	REMOVABLE HATCH FOR WATER BLADDER ACCESSIBILITY
P16	CABLE/HOSE CARRIER SHOWN DASHED FOR CLARITY



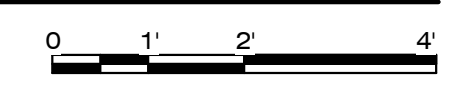
C2 WATER BLADDER OVERHEAD PLAN

1/2" = 1'-0"



A1 WATER BLADDER LONGITUDINAL SECTION

1/2" = 1'-0"



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SHEET TITLE

DOMESTIC WATER SUPPLY & WASTE PLAN

P-102

GENERAL SHEET NOTES

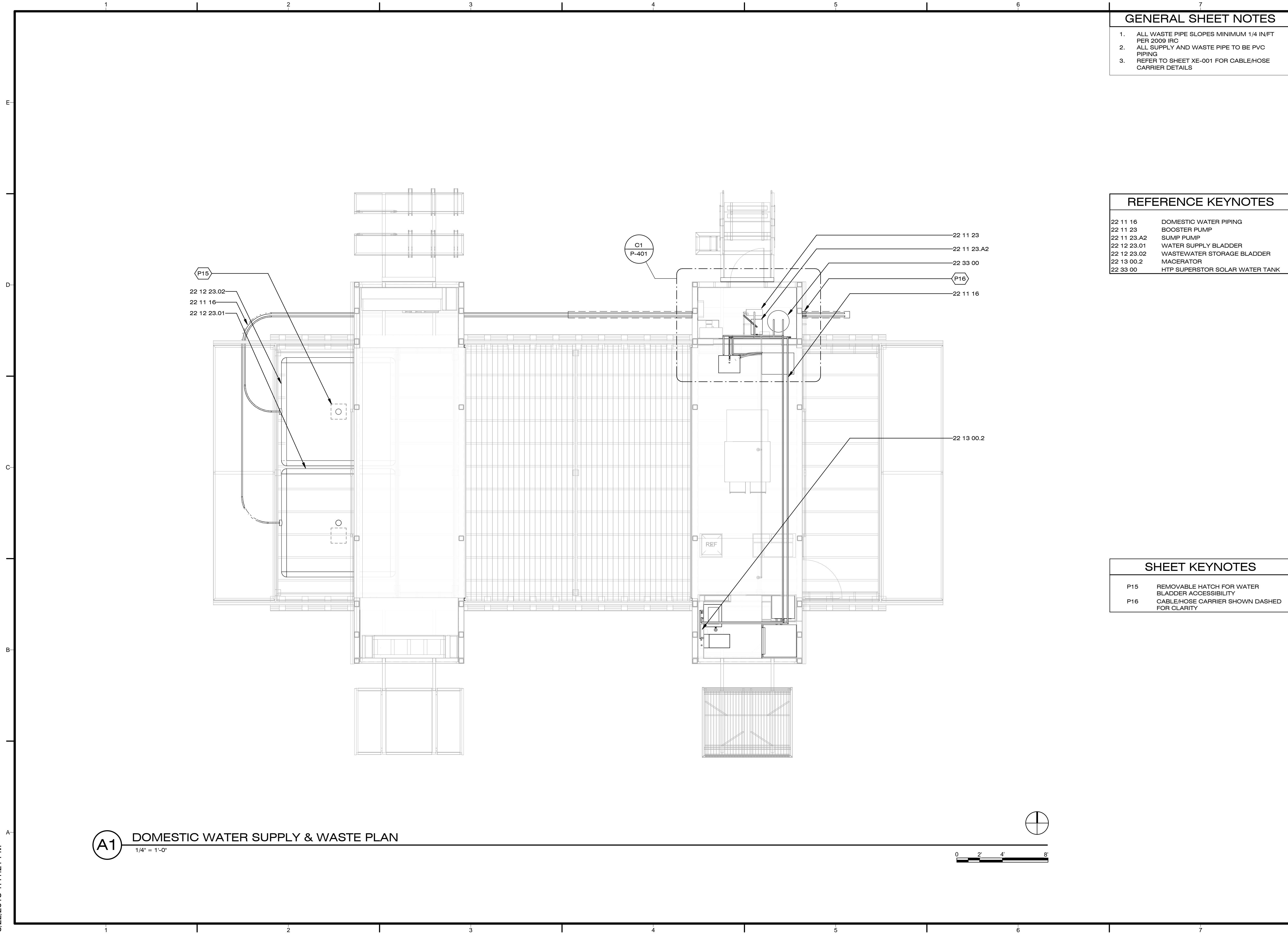
1. ALL WASTE PIPE SLOPES MINIMUM 1/4 IN/FT PER 2009 IRC
2. ALL SUPPLY AND WASTE PIPE TO BE PVC PIPING
3. REFER TO SHEET XE-001 FOR CABLE-HOSE CARRIER DETAILS

REFERENCE KEYNOTES

22 11 16	DOMESTIC WATER PIPING
22 11 23	BOOSTER PUMP
22 11 23.A2	SUMP PUMP
22 12 23.01	WATER SUPPLY BLADDER
22 12 23.02	WASTEWATER STORAGE BLADDER
22 13 00.2	MACERATOR
22 33 00	HTP SUPERSTOR SOLAR WATER TANK

SHEET KEYNOTES

P15	REMOVABLE HATCH FOR WATER BLADDER ACCESSIBILITY
P16	CABLE/HOSE CARRIER SHOWN DASHED FOR CLARITY



A1 DOMESTIC WATER SUPPLY & WASTE PLAN
1/4" = 1'-0"

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SHEET TITLE

SOLAR THERMAL DISTRIBUTION PLAN

P-103

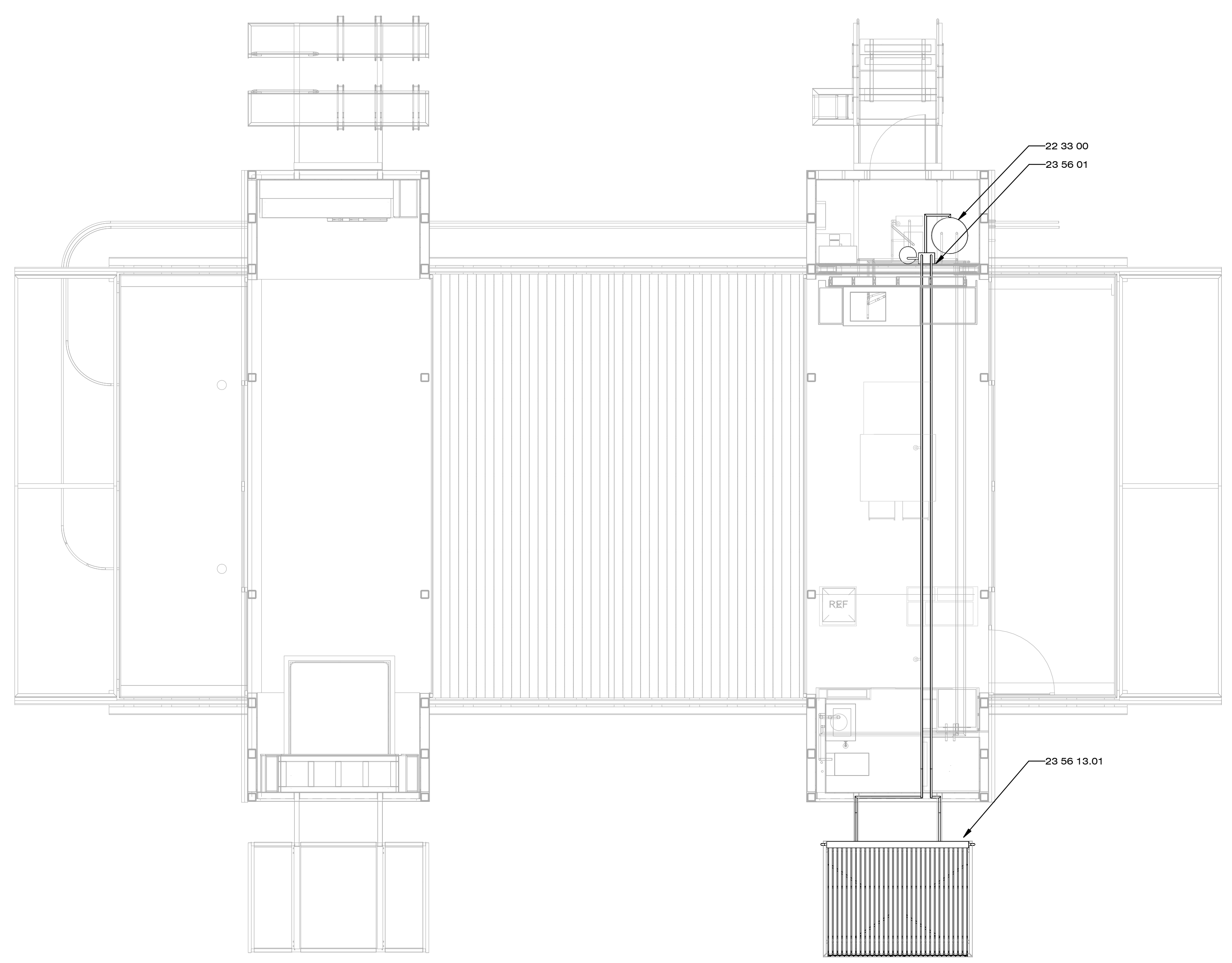
GENERAL SHEET NOTES

- 1/2" DIA. COPPER PIPING FOR SOLAR GLYCOL LOOP

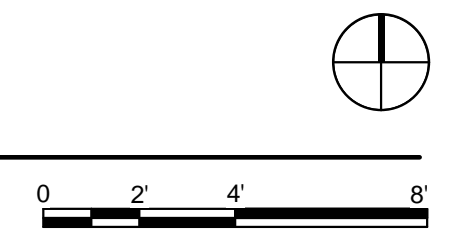
REFERENCE KEYNOTES

22 33 00	HTP SUPERSTOR SOLAR WATER TANK
23 56 01	SOLAR PUMP STATION
23 56 13.01	SOLAR THERMAL COLLECTORS

SHEET KEYNOTES



A1 SOLAR THERMAL DISTRIBUTION PLAN
1/4" = 1'-0"



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SHEET TITLE

WATER SUPPLY & WASTE SECTIONS

P-301

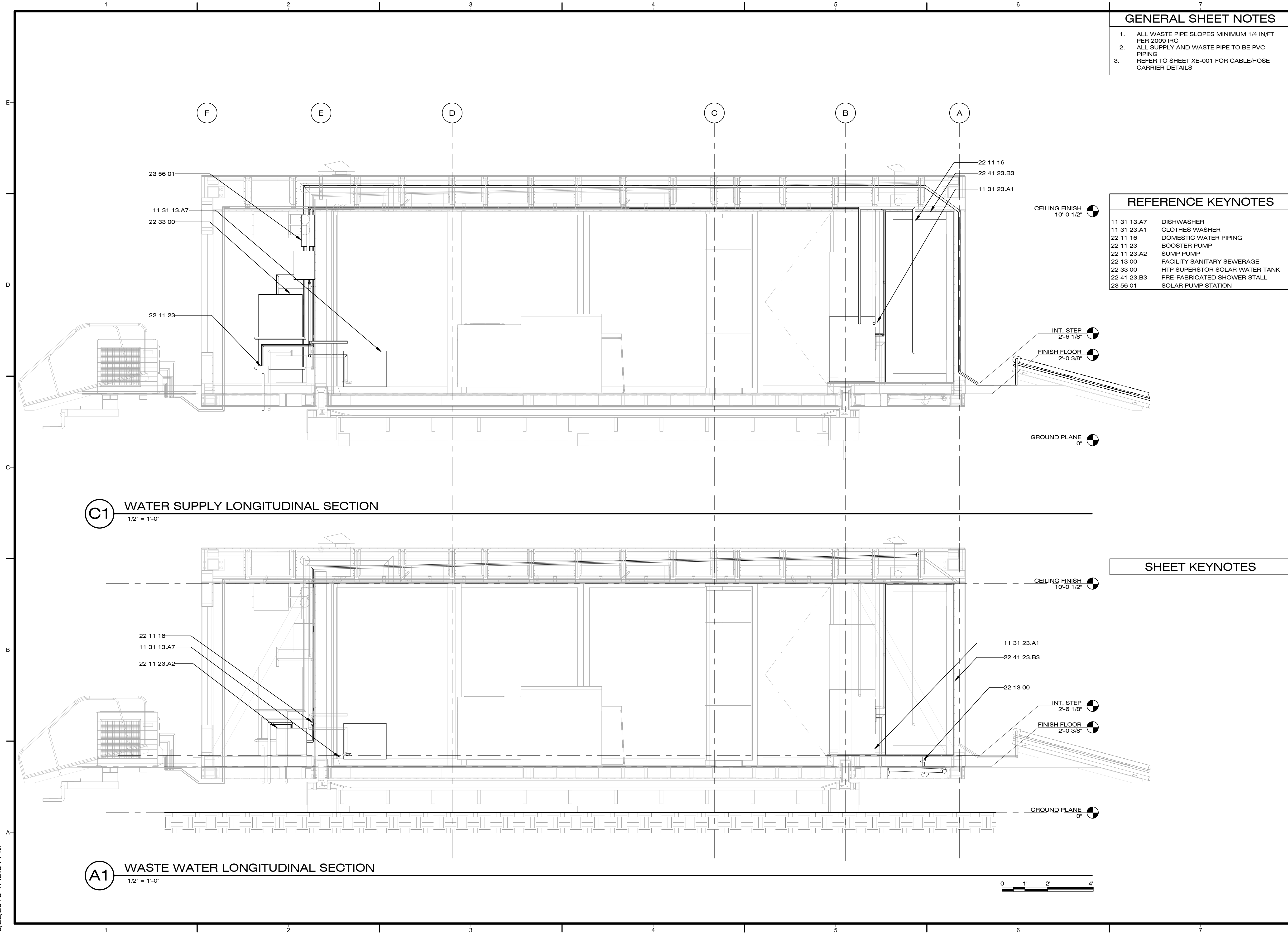
GENERAL SHEET NOTES

1. ALL WASTE PIPE SLOPES MINIMUM 1/4 IN/FT PER 2009 IRC
2. ALL SUPPLY AND WASTE PIPE TO BE PVC PIPING
3. REFER TO SHEET XE-001 FOR CABLE-HOSE CARRIER DETAILS

REFERENCE KEYNOTES

- | | |
|-------------|--------------------------------|
| 11 31 13.A7 | DISHWASHER |
| 11 31 23.A1 | CLOTHES WASHER |
| 22 11 16 | DOMESTIC WATER PIPING |
| 22 11 23 | BOOSTER PUMP |
| 22 11 23.A2 | SUMP PUMP |
| 22 13 00 | FACILITY SANITARY SEWERAGE |
| 22 33 00 | HTP SUPERSTOR SOLAR WATER TANK |
| 22 41 23.B3 | PRE-FABRICATED SHOWER STALL |
| 23 56 01 | SOLAR PUMP STATION |

SHEET KEYNOTES



C1 WATER SUPPLY LONGITUDINAL SECTION
1/2" = 1'-0"

A1 WASTE WATER LONGITUDINAL SECTION
1/2" = 1'-0"

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SHEET TITLE

MECHANICAL ROOM LAYOUT

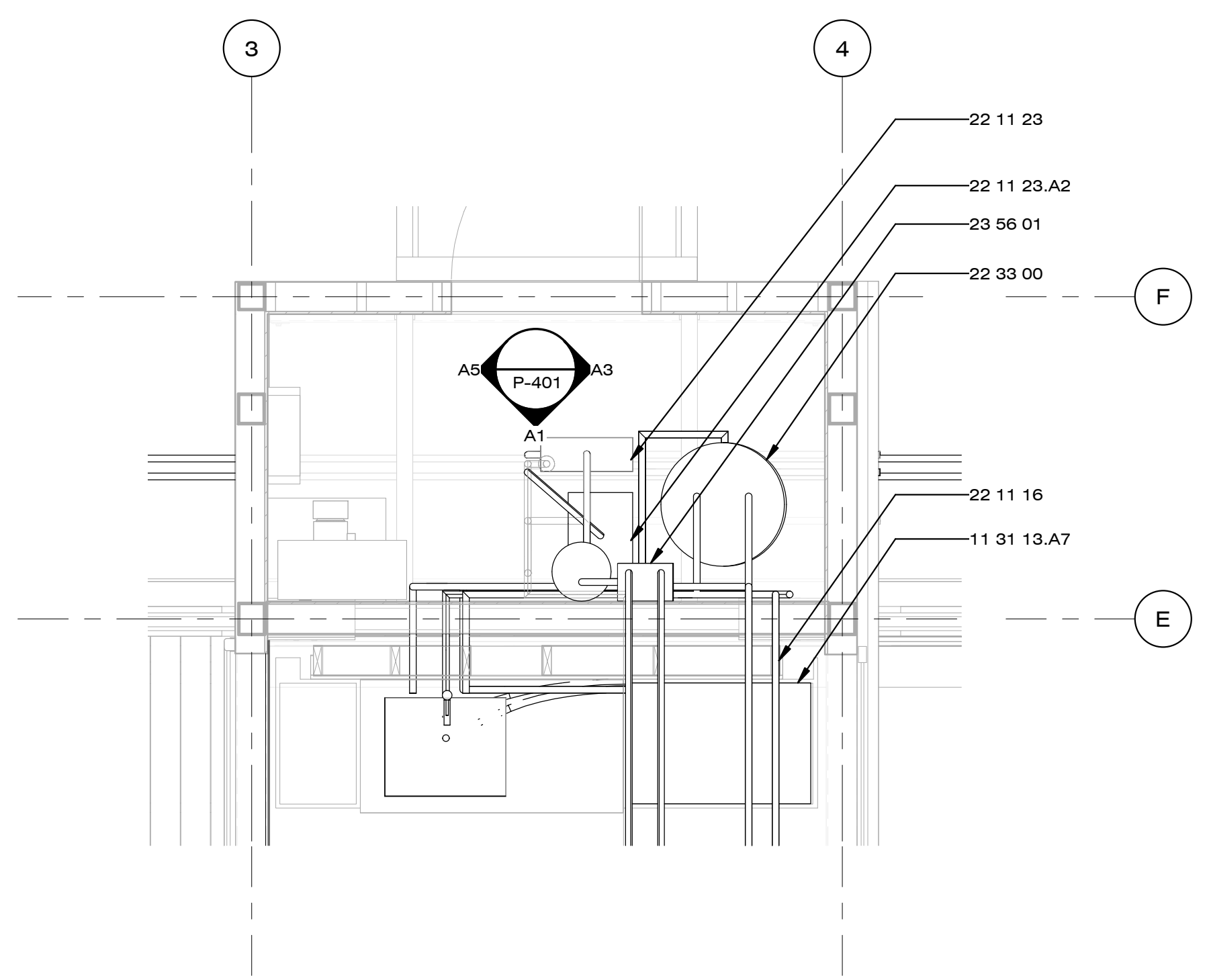
P-401

GENERAL SHEET NOTES

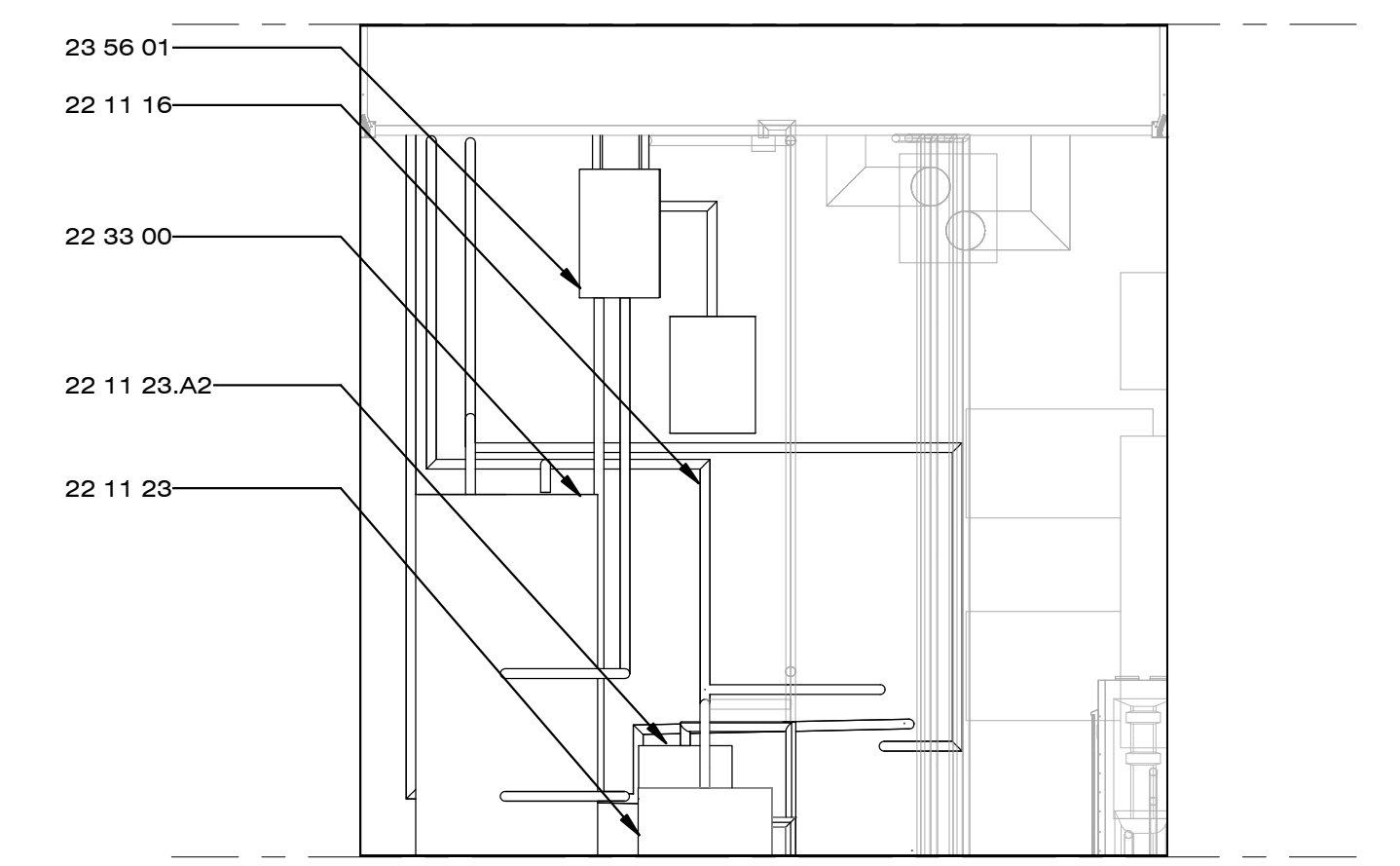
REFERENCE KEYNOTES

11 31 13.A7	DISHWASHER
22 11 16	DOMESTIC WATER PIPING
22 11 23	BOOSTER PUMP
22 11 23.A2	SUMP PUMP
22 33 00	HTP SUPERSTOR SOLAR WATER TANK
23 56 01	SOLAR PUMP STATION

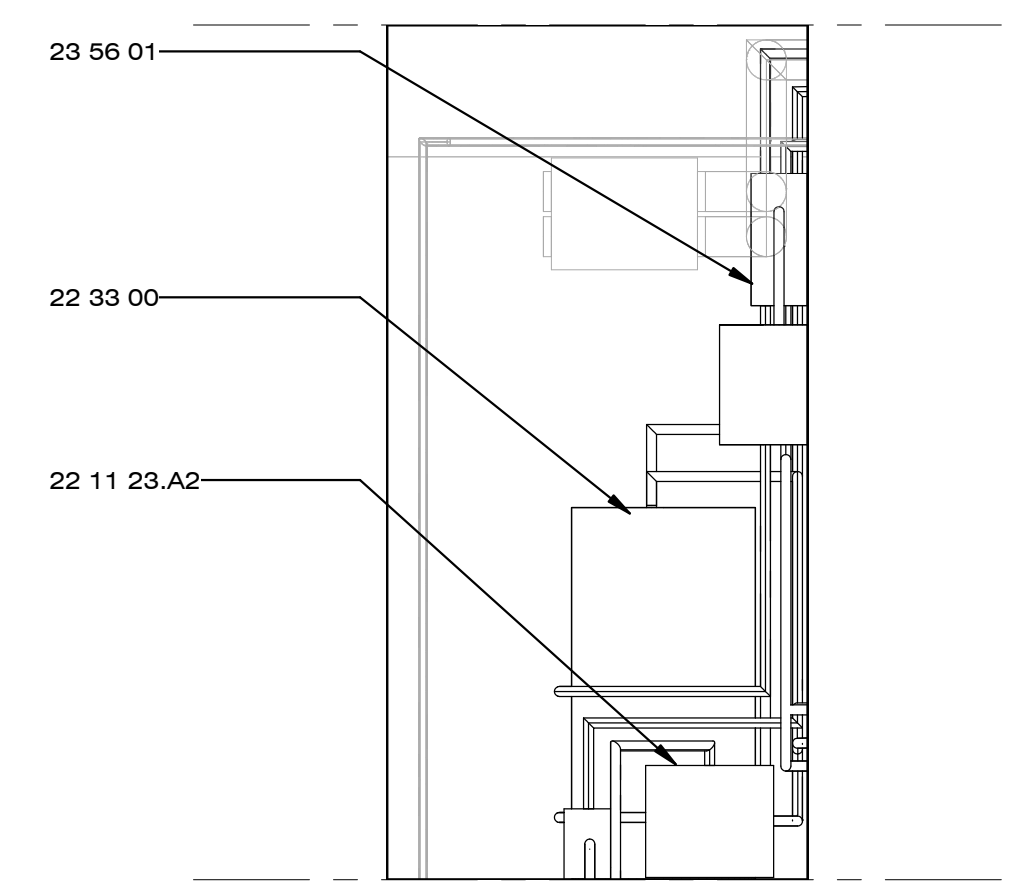
SHEET KEYNOTES



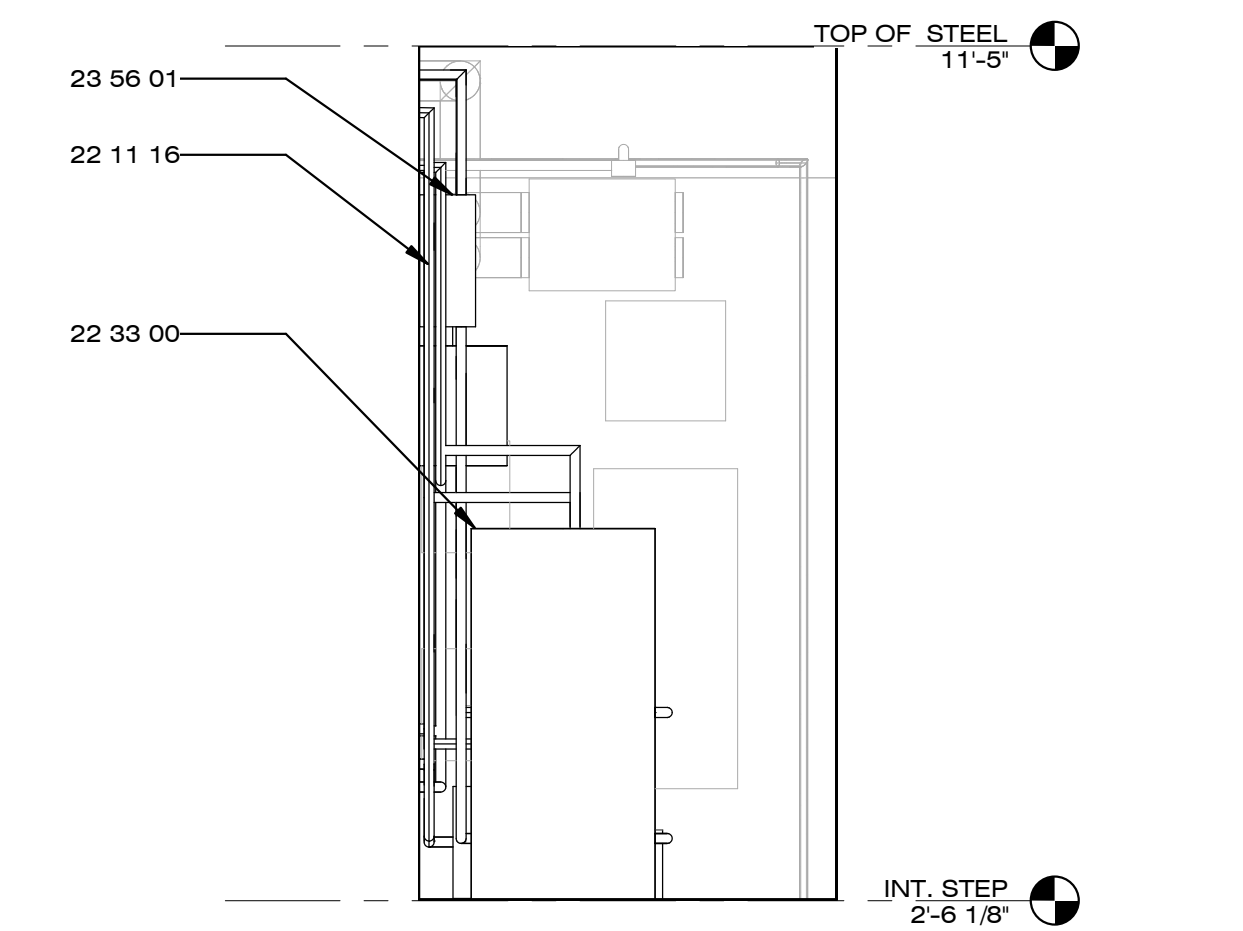
C1 MECHANICAL ROOM LAYOUT
1/2" = 1'-0"
0 1' 2' 4'



A1 MECH ROOM SOUTH ELEVATION
1/2" = 1'-0"



A3 MECH ROOM EAST ELEVATION
1/2" = 1'-0"



A5 MECH ROOM WEST ELEVATION
1/2" = 1'-0"
0 1' 2' 4'

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GENERAL SHEET NOTES

REFERENCE KEYNOTES

SHEET KEYNOTES

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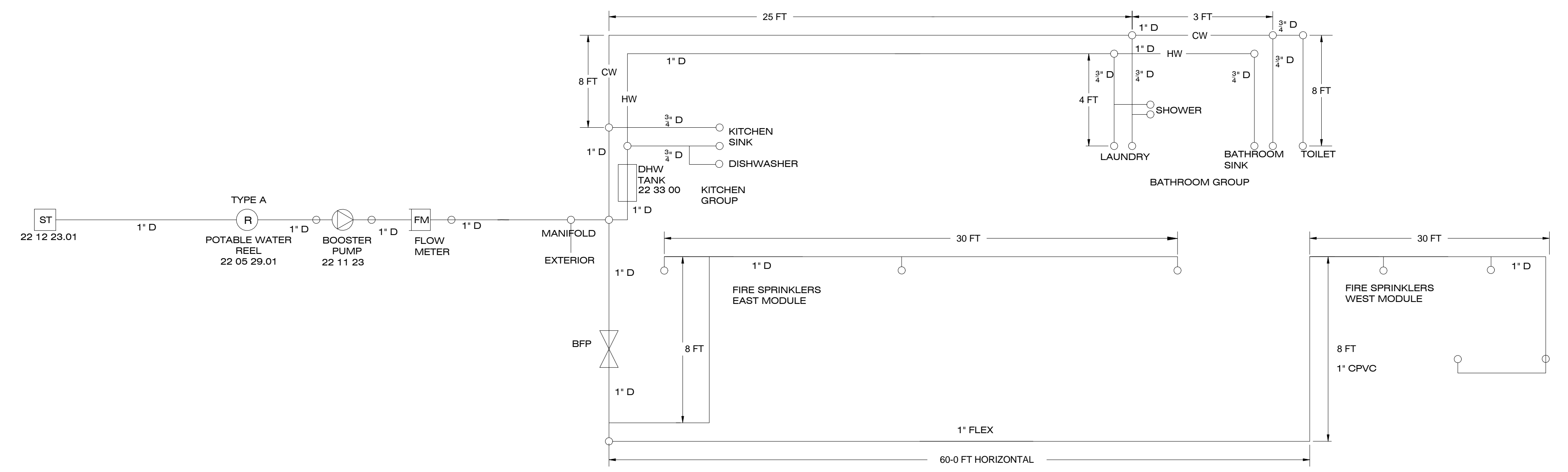
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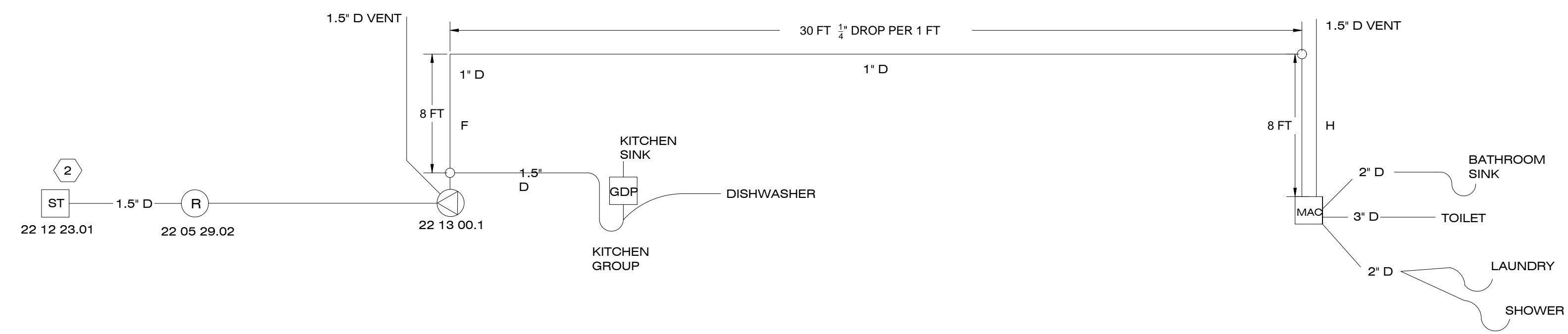
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SHEET TITLE

**DOMESTIC
SUPPLY/WASTE
SCHEMATIC &
SCHEDULE
P-601**



C1 WATER SUPPLY SCHEMATIC
NTS



A1 WASTE WATER SCHEMATIC
NTS

SYMBOLS

- 2-WAY BALL VALVE
- DOMESTIC HOT WATER HEATER
- POTABLE COLD WATER
- POTABLE HOT WATER
- IN-LINE CIRCULATING PUMP
- MUNICIPAL WATER SUPPLY TANK
- PENDANT HEADSPRINKLERS
- HEAT EXCHANGER
- MODULE SPLIT FITTING
- AIR ADMITTANCE VALVE

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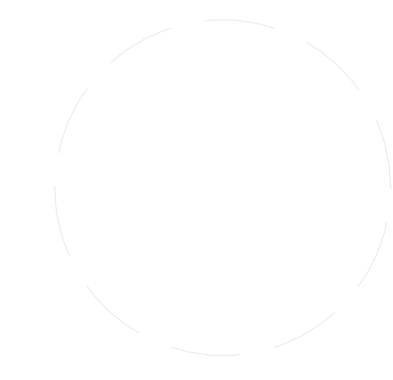
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SHEET TITLE

CABLE/HOSE CARRIER
CARRIER
NARRATIVE &
CALCULATIONS
P-602

GENERAL SHEET NOTES

- 1. PRESSURE CALCULATIONS INCLUDE FIRE PROTECTION ANALYSIS.

REFERENCE KEYNOTES

POTABLE WATER NOTES
PUMP PRESSURE 67 PSI
WASTEWATER PUMP RATED FOR 19FT HEAD

WASTEWATER PRESSURE CALCULATIONS:

SUMP PUMP SHALL BE RATED TO HANDLE MACERATED MATERIALS, 1" OUTLET BASED ON 15 GPM REQUIREMENT

PUMP RATING:	15 GAL/MIN	19 FT HEAD
STATIC HEAD	0 FT HEAD	
GATE VALVE HEAD LOSS	1.1 FT HEAD	
GATE VALVE HEAD LOSS	1.1 FT HEAD	
ELBOW HEAD LOSS	4.0 FT HEAD	
PIPE FRICTION HEAD LOSS	11.11 FT HEAD/75 FT PIPE	
TOTAL HEAD	17.31 FT HEAD	

LEFTOVER HEAD 1.7 FT HEAD

FIRE SPRINKLER PRESSURE CALCULATION:

NEED AT LEAST 7 PSI AT SPRINKLER HEADS AND A FLOW RATE OF 26 GPM
FIRE SPRINKLERS ARE THE FARTHEST FROM THE SOURCE

NO DATA AVAILABLE FROM HOSE COMPANY
ASSUME 180 DEGREE BEND IS MOST "BENT" AND HAS THE HIGHEST PRESSURE LOSS
LOSS PER 180 DEGREE ARC WITH A 6" RADIUS AND 1" PIPE IS DETERMINED BY:

26 GPM
REYNOLDS NUMBER = 721604, WHICH IS TURBULENT FLOW
ROUGHNESS 0.03 IN (CONSERVATIVE ESTIMATE FOR WORN PIPE)
PRESSURE DROP FOR BEND IS 0.49 PSI

Psup	67	PSI
PLmeter	-5	PSI
PLd	-8	PSI FROM BACKFLOW PREVENTER
PLd	-0.49	PSI FROM BEND
PLe	-3.44	PSI FROM ELEVATION CHANGE
Pi	43.07	RESIDUAL PRESSURE AT SPRINKLERS
MAX RUN	316	FT (BASED ON TABLE P2904.6.2(7) OF THE 2012 IRC
RUN IS <100 FT, SO THERE IS SUFFICIENT PRESSURE		

AS WITH ANY MECHANICAL SYSTEM, PROPER MAINTENANCE IS ESSENTIAL. THE CABLE AND HOSE CARRIERS THAT COMPRISE THE MOVING COMPONENTS OF THE ELECTRICAL AND PLUMBING SYSTEMS, WILL REQUIRE PROPER MAINTENANCE IN ORDER TO FUNCTION PROPERLY AND SAFELY SERVE THE OCCUPANTS OVER THE LIFESPAN OF THE BUILDING. THE FOLLOWING IS A SCHEDULE OF MAINTENANCE FOR EACH OF THE COMPONENTS THAT NEED PERIODIC INSPECTION AND POSSIBLE REPLACEMENT:

CABLE/HOSE CARRIER:

3 MONTHS:

- 1.) INSPECT ALL HOSES (FULL LENGTH) FOR SIGNS OF WEAR. INSPECT FOR SIGNS OF CRACKING, TEARS, PUNCTURES, EXCESSIVE ABRASION, DEFORMATION, OR OTHER SIGNS OF EXCESSIVE WEAR. REPLACE HOSES IF ANY OF THE SIGNS ABOVE ARE EVIDENT.
- 2.) INSPECT ALL CABLE CARRIERS FOR CRACKING OR EXCESSIVE WEAR. INSPECT FOR SIGNS OF CRACKING, CORROSION, PITTING, LOOSE FITTINGS, EXCESSIVE WEAR, OR DAMAGE. IF ANY OF THE ABOVE SIGNS ARE PRESENT, CONSULT CABLE/HOSE CARRIER INSTALLATION/MAINTENANCE MANUAL AND EXPLODED DRAWINGS/PARTS REFERENCE FOR APPROPRIATE ACTION/REPLACEMENT PARTS.

12 MONTHS:

- 1.) INSPECT ALL HOSES (FULL LENGTH) FOR SIGNS OF WEAR. INSPECT FOR SIGNS OF CRACKING, TEARS, PUNCTURES, EXCESSIVE ABRASION, DEFORMATION, OR OTHER SIGNS OF EXCESSIVE WEAR. REPLACE HOSES IF ANY OF THE SIGNS ABOVE ARE EVIDENT. REPLACE ANY HOSES THAT HAVE NOT BEEN REPLACED WITHIN A 12 MONTH PERIOD.
- 2.) INSPECT ALL CABLE CARRIERS FOR CRACKING OR EXCESSIVE WEAR. INSPECT FOR SIGNS OF CRACKING, CORROSION, PITTING, LOOSE FITTINGS, EXCESSIVE WEAR, OR DAMAGE. IF ANY OF THE ABOVE SIGNS ARE PRESENT, CONSULT CABLE/HOSE CARRIER INSTALLATION/MAINTENANCE MANUAL AND EXPLODED DRAWINGS/PARTS REFERENCE FOR APPROPRIATE ACTION/REPLACEMENT PARTS. REPLACE ALL LINKS THAT HAVE NOT BEEN REPLACED WITHIN A 36 MONTH PERIOD.

B1 CABLE/HOSE CARRIER MAINTENANCE SCHEDULE
NTS

B4 CABLE/HOSE CARRIER CALCULATIONS
NTS

SHEET KEYNOTES



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**PLUMBING
SYSTEMS
ISOMETRIC**

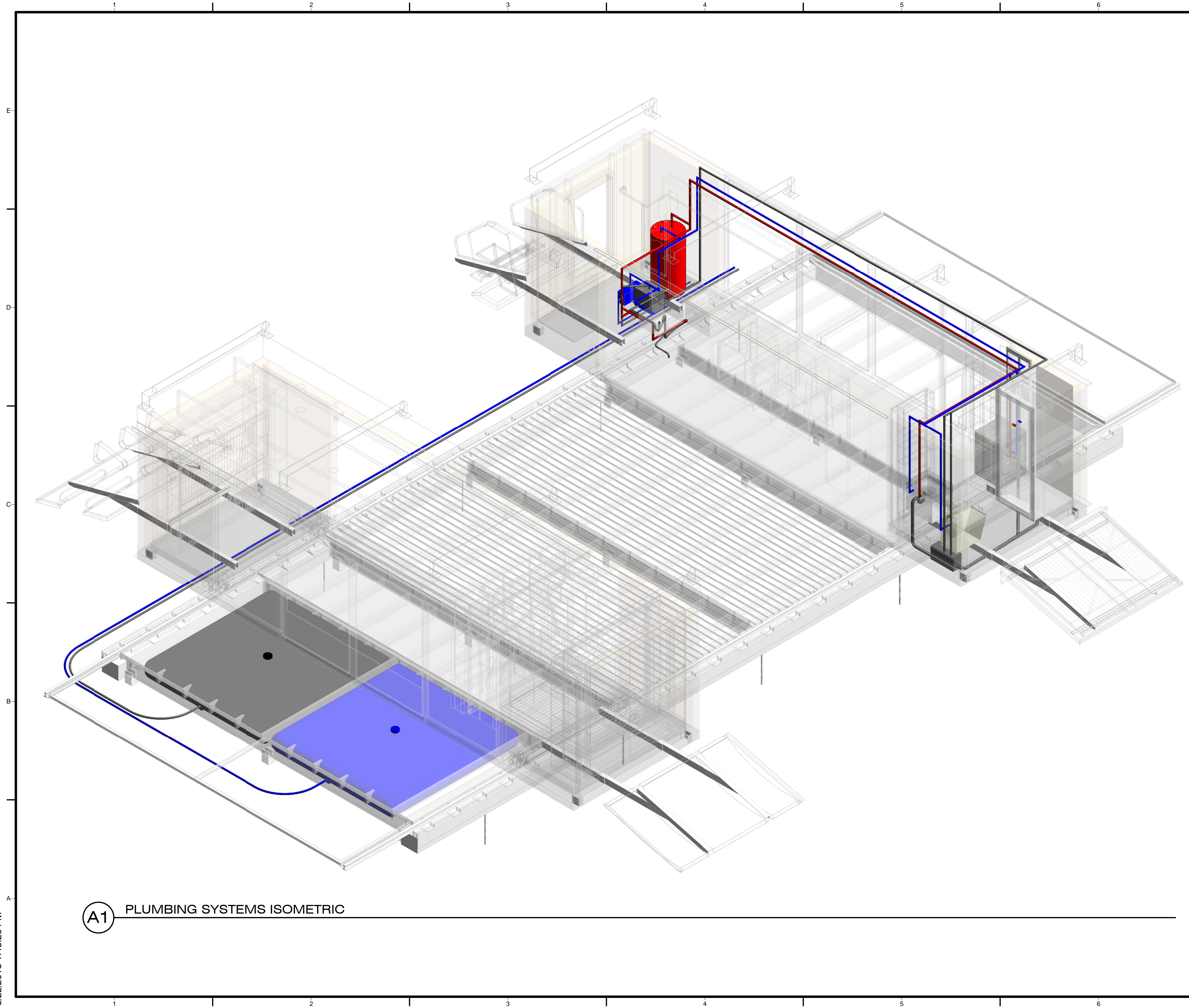
P-901

GENERAL SHEET NOTES

1. ALL WASTE PIPE SLOPES MINIMUM 1/4 IN/FT PER 2009 IRC
2. ALL SUPPLY AND WASTE PIPE TO BE PVC PIPING
3. REFER TO SHEET XE-001 FOR CABLE-HOSE CARRIER DETAILS
4. MACERATOR SHALL BE USED TO MOVE WASTEWATER TO THE SUMP TANK
5. MACERATOR SHALL BE ON ITS OWN DEDICATED CIRCUIT

REFERENCE KEYNOTES

SHEET KEYNOTES



(A1) PLUMBING SYSTEMS ISOMETRIC

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SHEET TITLE

**MECHANICAL
EQUIPMENT
DISTRIBUTION
PLAN**

M-101

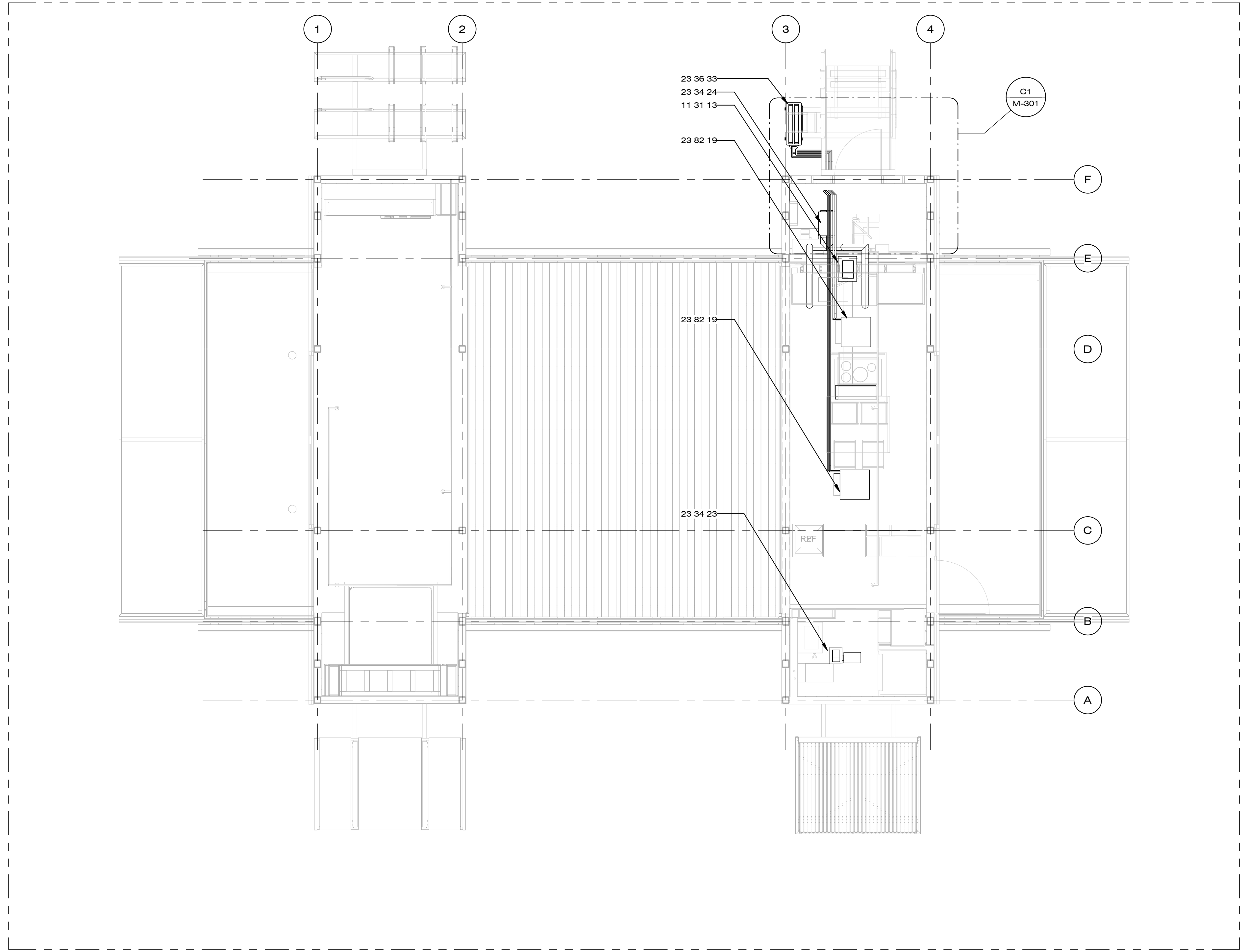
GENERAL SHEET NOTES

- HVAC SYSTEM TO OPERATE ONLY WHEN MODULES ARE CLOSED AND HOUSE IS SEALED

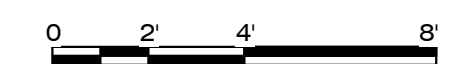
REFERENCE KEYNOTES

11 31 13	DOWNDRAFT FAN
23 34 23	PANASONIC BATHROOM FAN
23 34 24	AIR EXCHANGE VENTILATOR FAN
23 36 33	MITSUBISHI OUTDOOR UNIT
23 82 19	MITSUBISHI INDOOR CASSETTE UNIT

SHEET KEYNOTES



A1 MECHANICAL DISTRIBUTION PLAN
1/4" = 1'-0"



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MECHANICAL SECTION, PLAN & ELEVATIONS

M-301

GENERAL SHEET NOTES

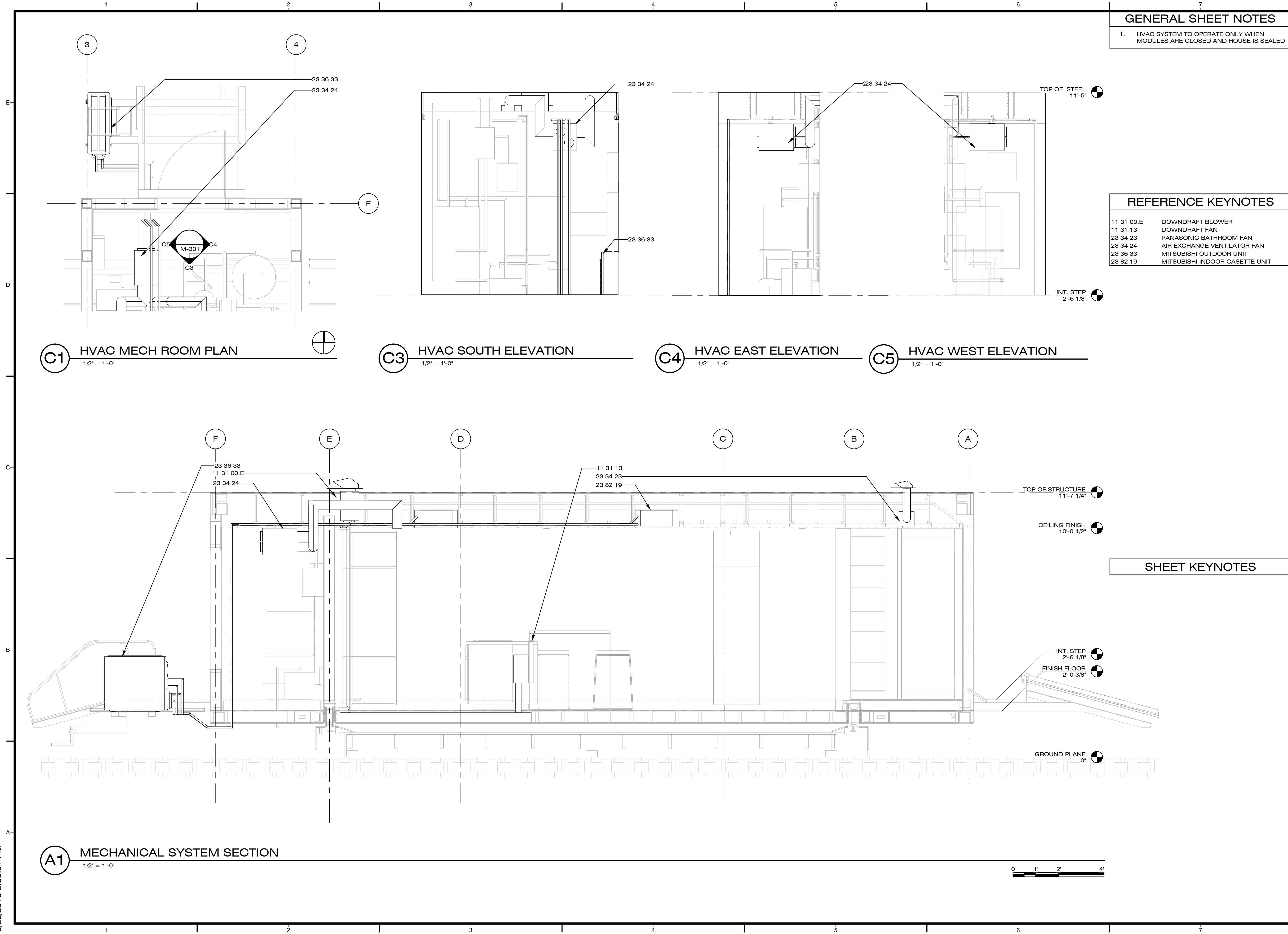
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REFERENCE KEYNOTES

11 31 00.E	DOWNDRAFT BLOWER
11 31 13	DOWNDRAFT FAN
23 34 23	PANASONIC BATHROOM FAN
23 34 24	AIR EXCHANGE VENTILATOR FAN
23 36 33	MITSUBISHI OUTDOOR UNIT
23 82 19	MITSUBISHI INDOOR CASSETTE UNIT

SHEET KEYNOTES

INT. STEP	2'-6 1/8"
FINISH FLOOR	2'-0 3/8"



C1 HVAC MECH ROOM PLAN
1/2" = 1'-0"

C3 HVAC SOUTH ELEVATION
1/2" = 1'-0"

C4 HVAC EAST ELEVATION
1/2" = 1'-0"

C5 HVAC WEST ELEVATION
1/2" = 1'-0"

A1 MECHANICAL SYSTEM SECTION
1/2" = 1'-0"

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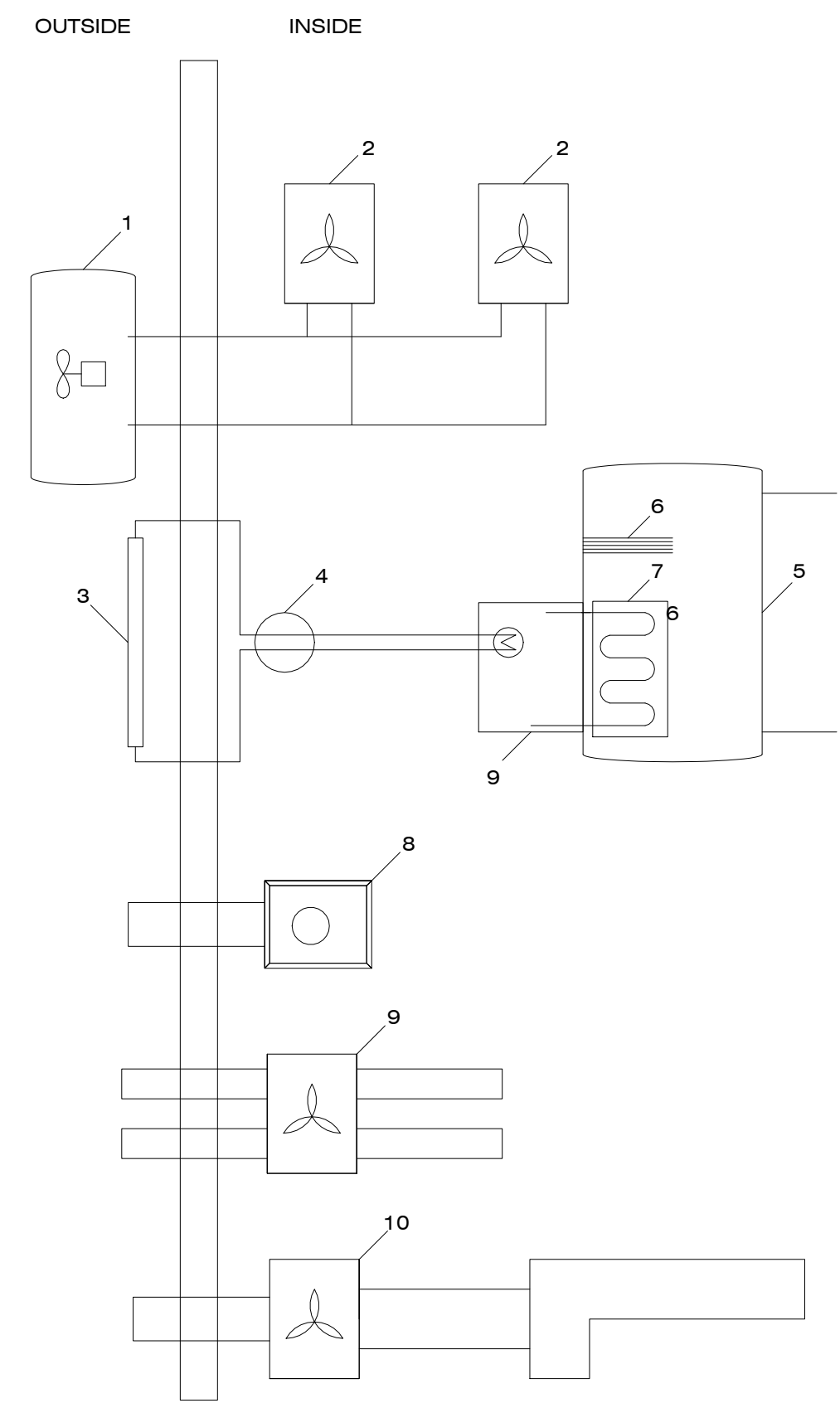
HVAC SCHEDULES & SCHEMATIC

M-601

GENERAL SHEET NOTES

REFERENCE KEYNOTES

SHEET KEYNOTES

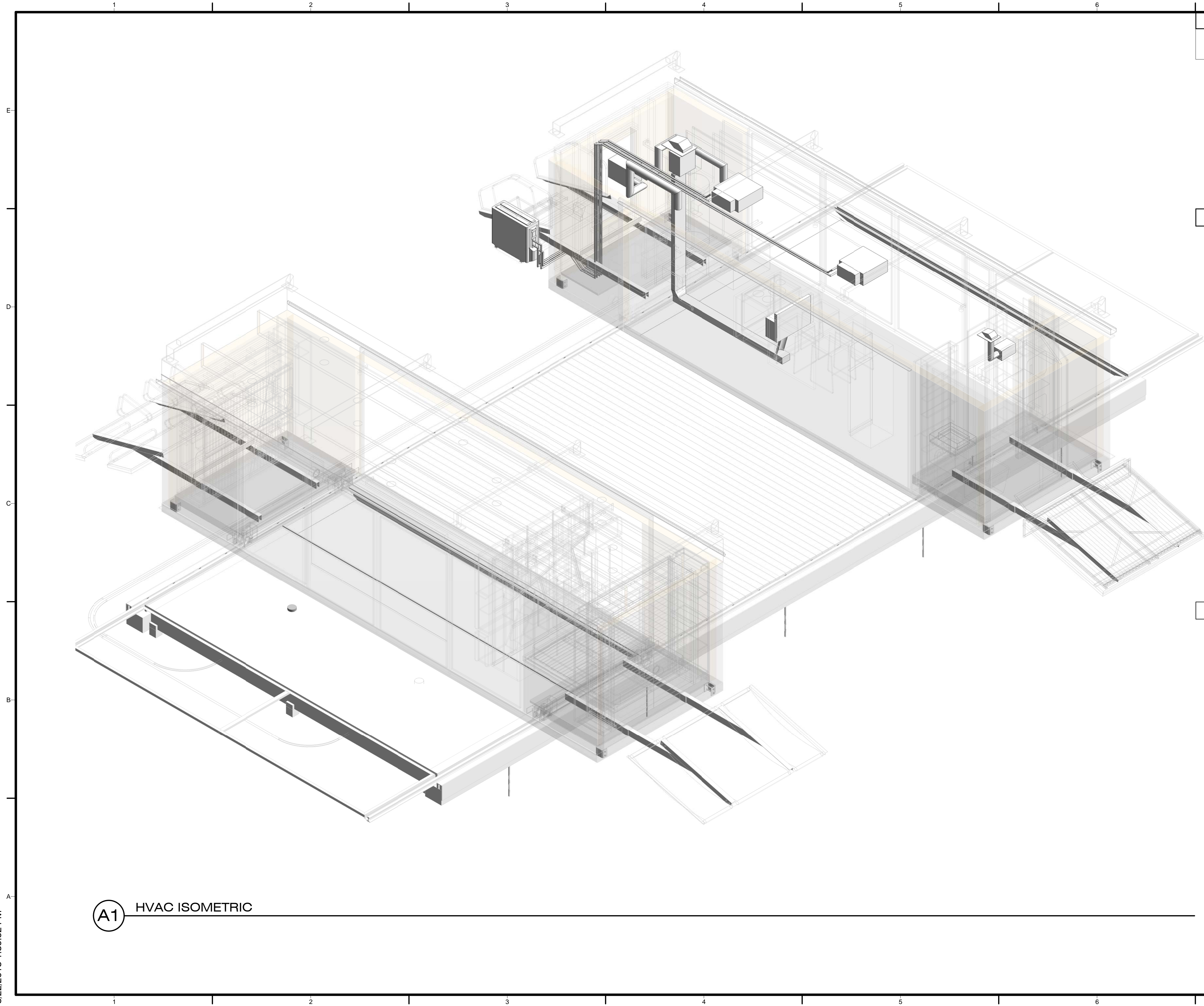


- 1 - OUTDOOR UNIT - 23.36.33
- 2 - CASSETTE - 23.82.19
- 3 - SOLAR THERMAL COLLECTOR
- 4 - PUMP STATION
- 5 - HOT WATER TANK - 23.33.00
- 6 - BOOSTER HEATER
- 7 - HEAT EXCHANGE SPIRAL
- 8 - BATHROOM FAN - 23.34.23
- 9 - 4" EXHAUST FLEX DUCT
- 9 - AEV - 23.34.24
- 5" INTAKE/EXHAUST DUCTS
- DOWNDRAFT AND BLOWER - 11.31.00.E
- 6" EXHAUST
- MISC CONNECTORS

MECHANICAL EQUIPMENT SCHEDULE			
MECHANICAL EQUIPMENT	PART NUMBER	REFERENCE NO.	COUNT
mitsubishi heat pump	MXZ-2B20NA	236333	1
MITSUBISHI CEILING CASSETTE	SLZ-KA09NA	238219	2
FREEHOTWATER HOT WATER TANK	FHWST1007	223300	
PANASONIC BATHROOM FAN	FV-08VRL1	233423	1
DOWNDRAFT FAN		113113	1
DUCT 10" X 3 1/4" TO 6" DIA			1
DUCT 10" X 3 1/4"			7' 8 3/4"
DUCT 7" X 5"			8' 6"
DUCT 6" TRANSITION			7'
DUCT TERMINATION 4"			1
DUCT TERMINATION 6"			1
EXHAUST DUCT 6" DIA			1'
COPPER REFRIGERANT LINE 3/8"			45'
COPPER REFRIGERANT LINE 1/4"			45'
FLEX DUCT 5"			40'
SOLAR THERMAL WATER LINE 1" SS			90'

B1 HVAC SCHEMATIC
NTS

B4 HVAC SCHEDULE
NTS

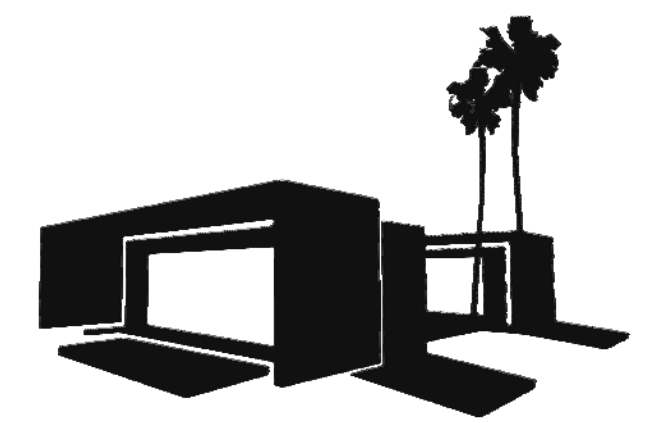


GENERAL SHEET NOTES

1. MODULE LOCATIONS VARY
2. HVAC SYSTEM TO OPERATE ONLY WHEN MODULES ARE CLOSED AND HOUSE IS SEALED

REFERENCE KEYNOTES

SHEET KEYNOTES



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HVAC ISOMETRIC

M-901

A1 HVAC ISOMETRIC

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ELECTRICAL DISTRIBUTION PLANS

E-101

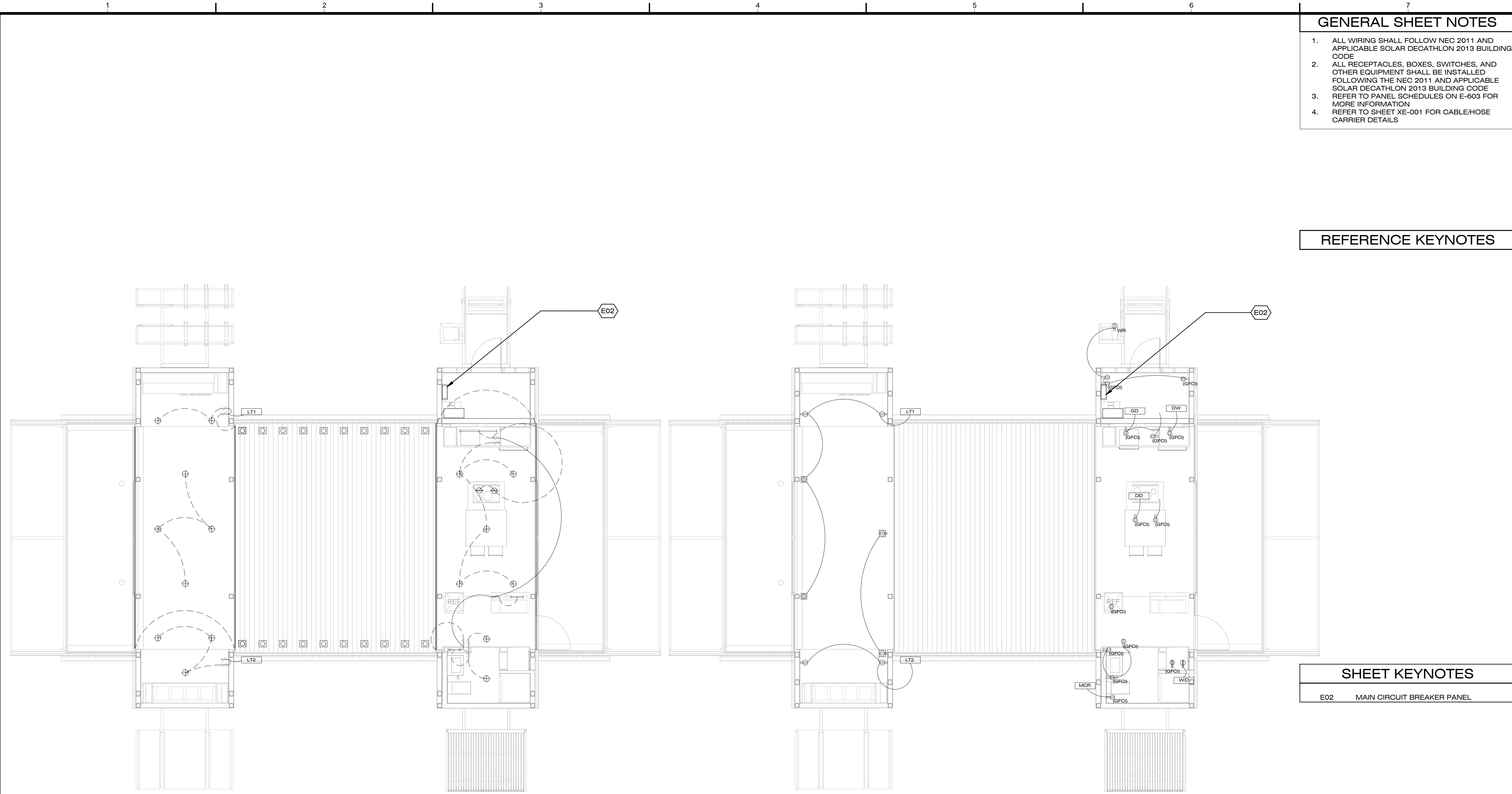
GENERAL SHEET NOTES

1. ALL WIRING SHALL FOLLOW NEC 2011 AND APPLICABLE SOLAR DECATHLON 2013 BUILDING CODE
2. ALL RECEPTACLES, BOXES, SWITCHES, AND OTHER EQUIPMENT SHALL BE INSTALLED FOLLOWING THE NEC 2011 AND APPLICABLE SOLAR DECATHLON 2013 BUILDING CODE
3. REFER TO PANEL SCHEDULES ON E-603 FOR MORE INFORMATION
4. REFER TO SHEET XE-001 FOR CABLE/HOSE CARRIER DETAILS

REFERENCE KEYNOTES

SHEET KEYNOTES

E02 MAIN CIRCUIT BREAKER PANEL



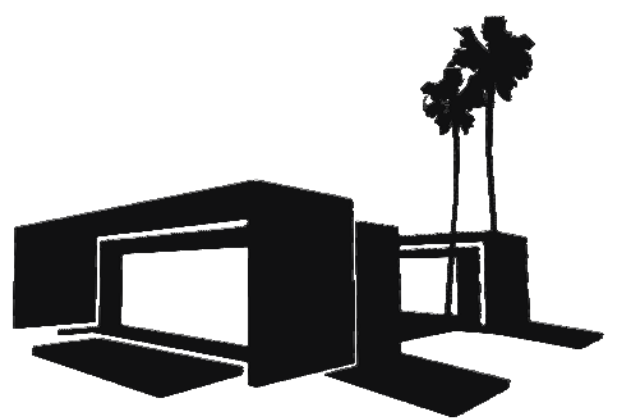
B1 LIGHTING DISTRIBUTION PLAN
3/16" = 1'-0"

B4 OUTLET DISTRIBUTION PLAN
3/16" = 1'-0"

SYMBOLS LEGEND

⊕	4" RECESSED DOWNLIGHT	⊕	TAMPER RESISTANT DUPLEX RECEPTACLE	LT1	LIGHT #1
⊕	SWITCH	⊕ _{WR}	TAMPER RESISTANT WEATHER PROOF RECEPTACLE	LT2	LIGHT #2
—	UNDER MODULE LED	⊕ _(GFCI)	TAMPER RESISTANT DUPLEX RECEPTACLE GFCI	MCR	MACERATOR
—	UNDER CABINET LED	⊕	TAMPER RESISTANT 220V RECEPTACLE	W/D	WASHER/DRYER
⊕	MEDICINE CABINET SCNCE	⊕ _(GFCI)	TAMPER RESISTANT 220V RECEPTACLE GFCI	DD	DOWNDRAFT
⊕	3" RECESSED DOWNLIGHT	⊕	AFCI FLOOR MOUNTED RECEPTACLE	DW	DISHWASHER
⊕	SOLAR DECK LIGHT	⊕	CEILING MOUNTED TAMPER RESISTANT DUPLEX RECEPTACLE	GD	GARBAGE DISPOSAL

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PV WIRING PLAN

E-102

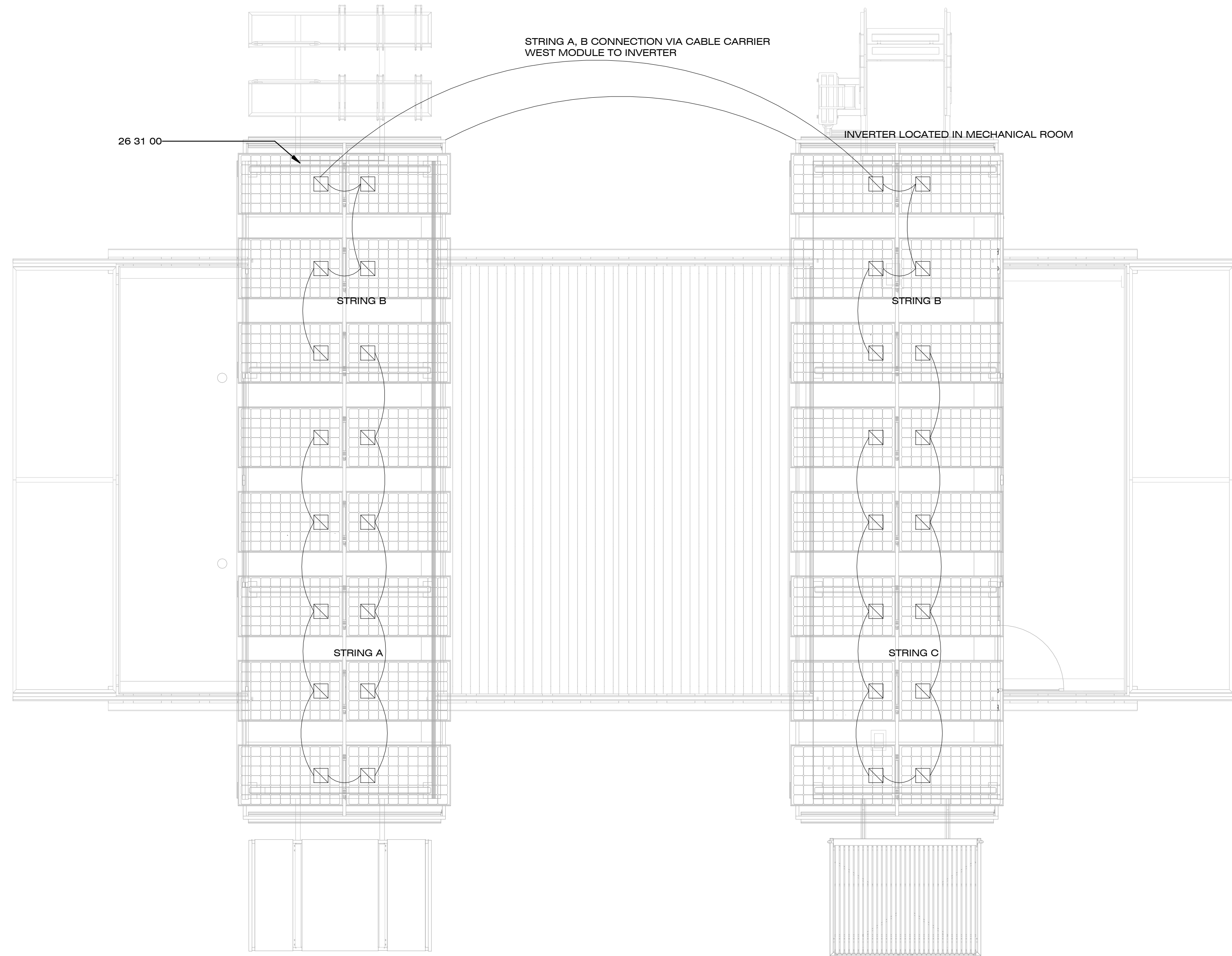
GENERAL SHEET NOTES

1. ENPHASE CABLE TO BE USED FOR ALL CONNECTIONS BETWEEN ENPHASE INVERTER AND RACK JUNCTION BOX
2. REFER TO SHEET A-101 FOR UTILITY CONNECTION POINT LOCATION
3. REFER TO SHEET XA-001 FOR CANOPY CABLE CARRIER DETAILS

REFERENCE KEYNOTES

26 31 00 PHOTOVOLTAIC COLLECTORS

SHEET KEYNOTES



B1 PV WIRING DIAGRAM
1/4" = 1'-0"

SYMBOLS LEGEND

TIGO MM-ES50

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**HARDWIRED
EQUIPMENT
ELECTRICAL PLAN**
E-103

GENERAL SHEET NOTES

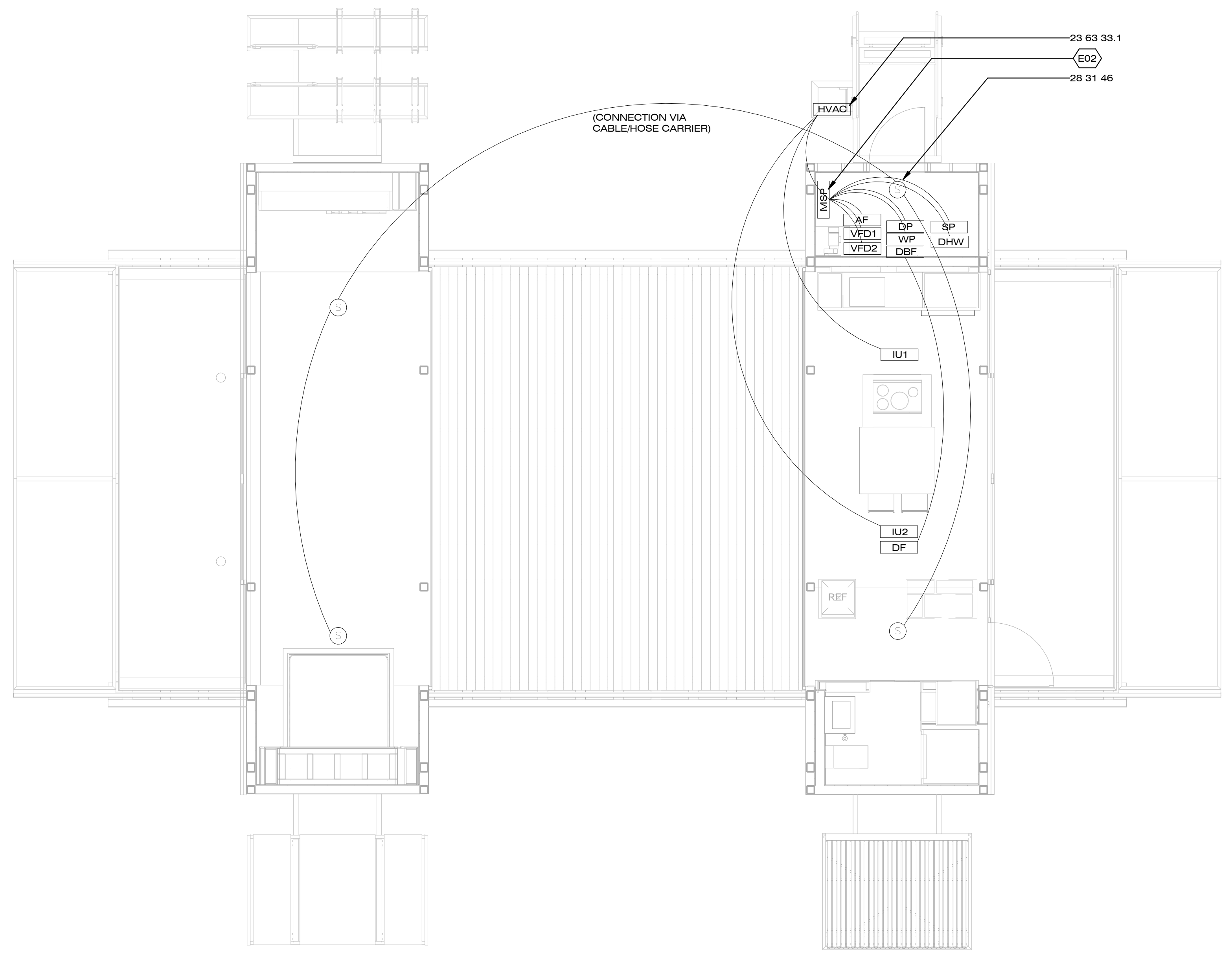
- REFER TO SHEET XE-001 FOR CABLE/HOSE CARRIER DETAILS

REFERENCE KEYNOTES

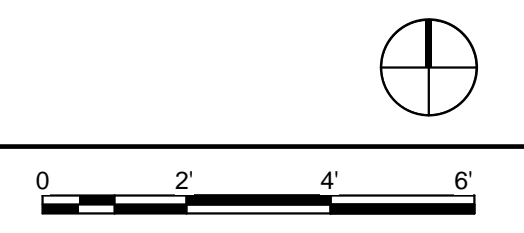
23 63 33.1	MITSUBISHI HEAT PUMP
28 31 46	SMOKE DETECTOR

SHEET KEYNOTES

E02	MAIN CIRCUIT BREAKER PANEL
-----	----------------------------



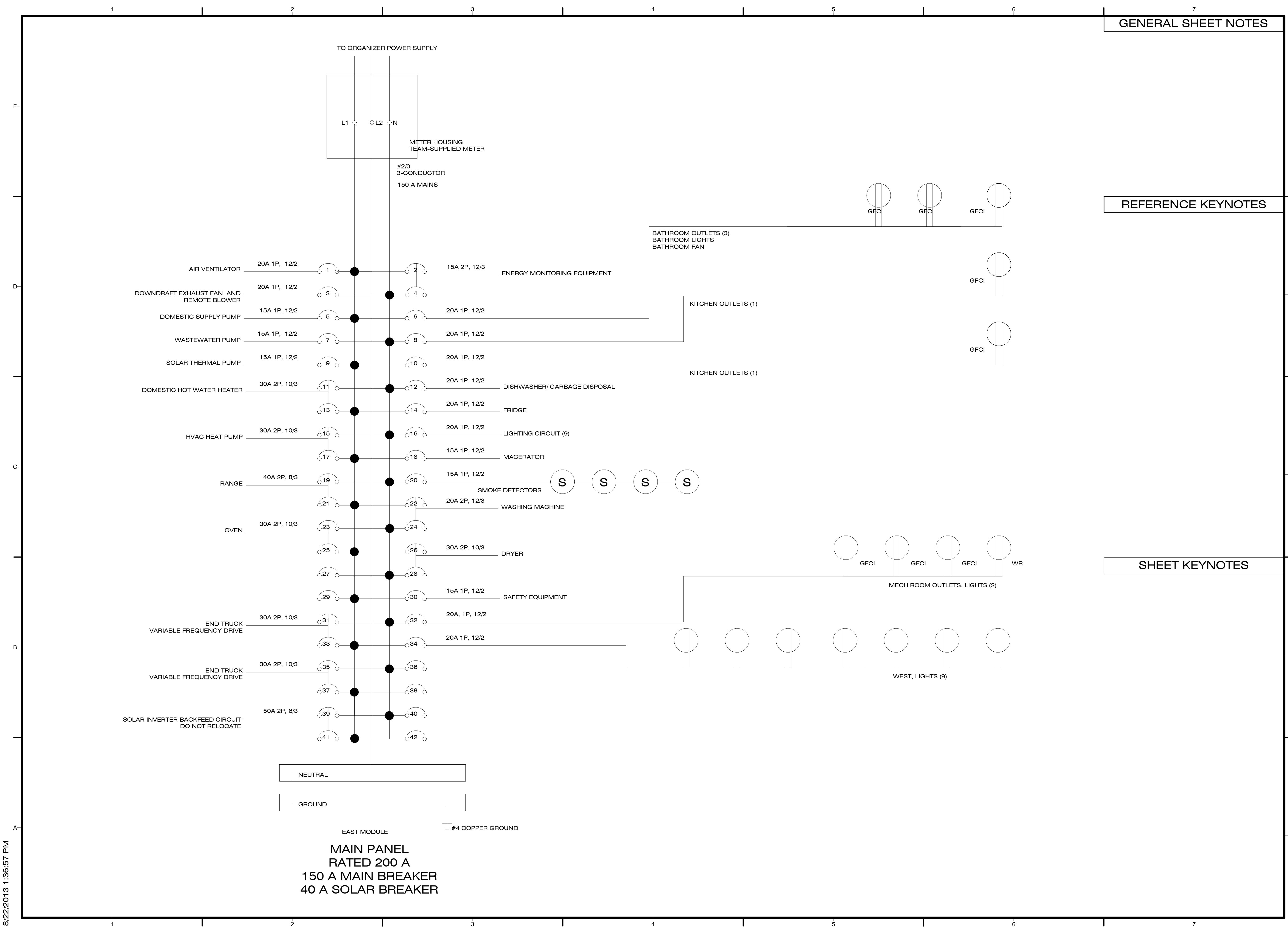
B1 HARDWIRED EQUIPMENT ELECTRICAL PLAN
1/4" = 1'-0"



SYMBOLS LEGEND

SMOKE DETECTOR	WP WASTE PUMP
HVAC HEAT PUMP HVAC	DP DOMESTIC PUMP
MSP MAIN SERVICE PANEL	AF AIR EXCHANGE VENTILATOR FAN
IU1 INDOOR UNIT #1	DHW DOMESTIC HOT WATER TANK
IU2 INDOOR UNIT #2	SP SOLAR PUMP STATION
VFD1 MOTOR VARIABLE FREQUENCY DRIVE #1	DF DOWNDRAFT
VFD2 MOTOR VARIABLE FREQUENCY DRIVE #2	DBF DOWNDRAFT REMOTE BLOWER

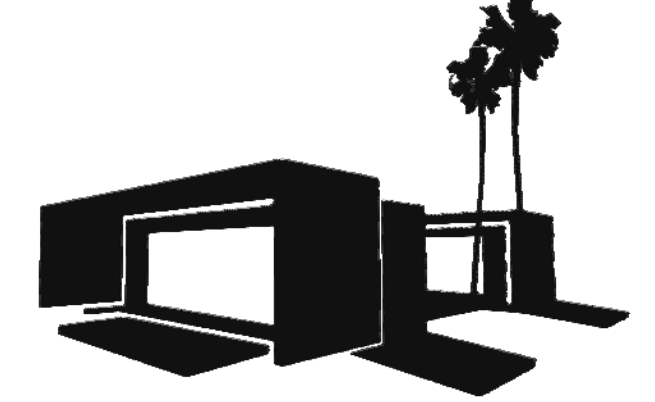
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GENERAL SHEET NOTES

REFERENCE KEYNOTES

SHEET KEYNOTES



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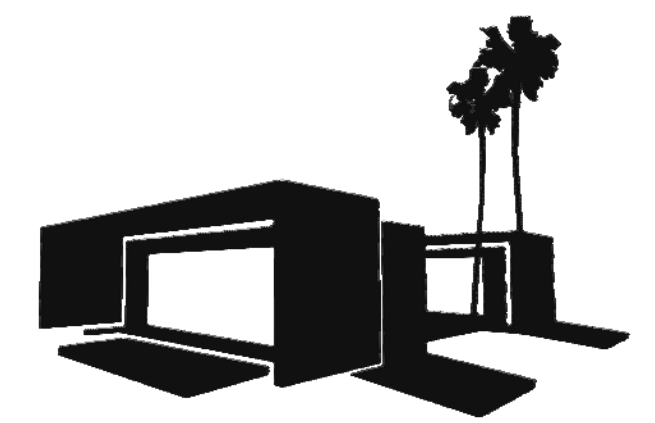
SHEET TITLE

ONE-LINE
DIAGRAM

E-601

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GENERAL SHEET NOTES



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THREE-LINE PV DIAGRAM

E-602

REFERENCE KEYNOTES

SHEET KEYNOTES

PHOTOVOLTAIC ARRAYS STRINGS 1,2,3
 10 OR 11 HANWHA SOLAR SF160-24-M190 MODULES PER STRING
 ATTACHED BY MC-4 CABLE TO TIGO MM-ES50 UNITS
 ISC 5.7 A
 VOC 54.5 V
 NOMINAL POWER 1900-2090 W PER STRING

AWG #10 SO
 IN FREE AIR
 POSITIVE = BLACK
 NEGATIVE = BLACK WITH WHITE STRIPES
 GROUND = BARE

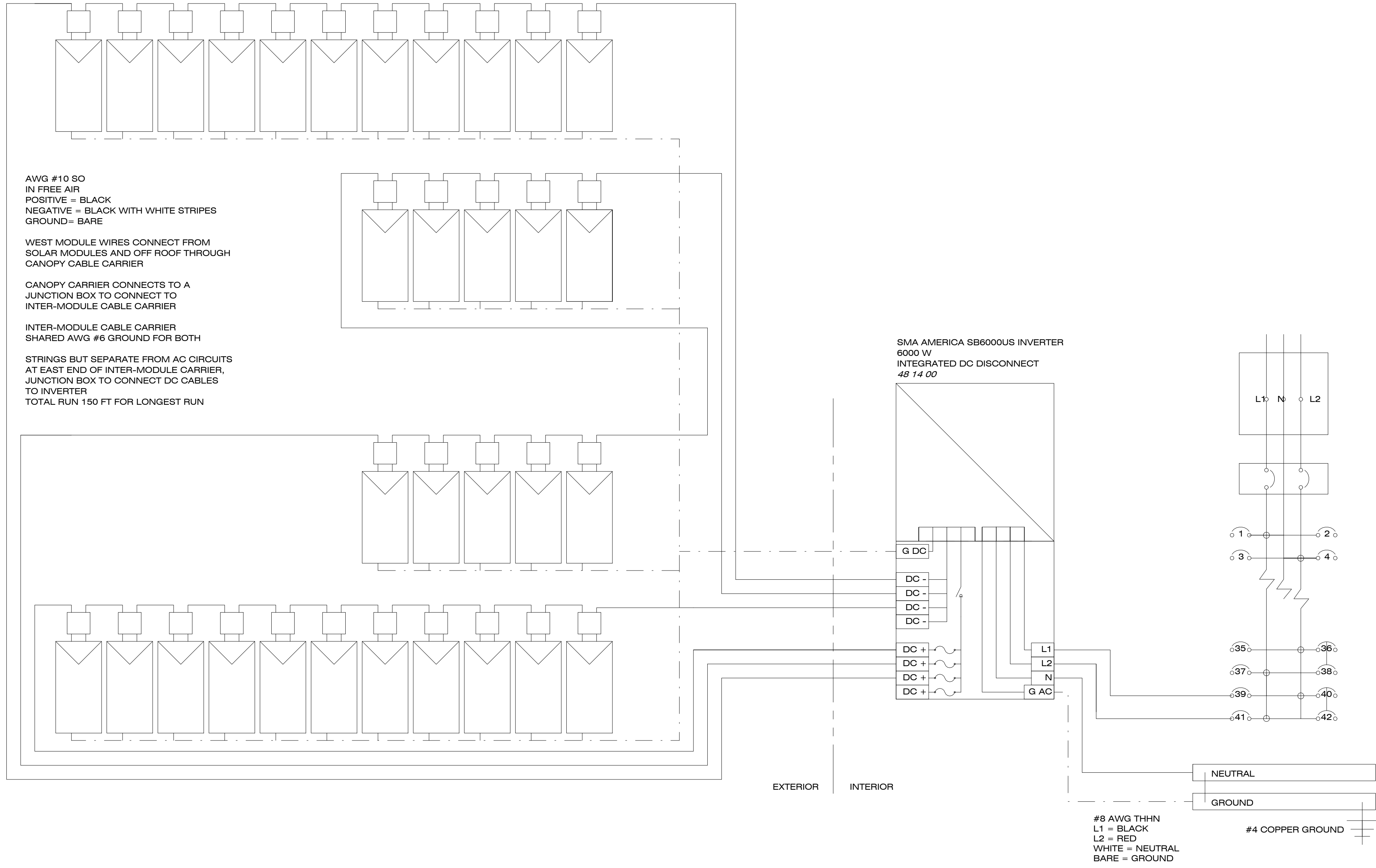
WEST MODULE WIRES CONNECT FROM SOLAR MODULES AND OFF ROOF THROUGH CANOPY CABLE CARRIER

CANOPY CARRIER CONNECTS TO A JUNCTION BOX TO CONNECT TO INTER-MODULE CABLE CARRIER

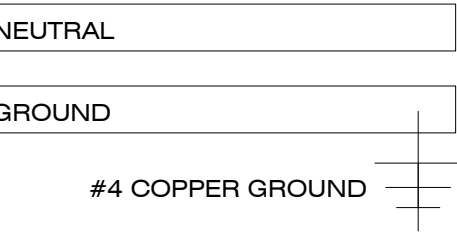
INTER-MODULE CABLE CARRIER SHARED AWG #6 GROUND FOR BOTH

STRINGS BUT SEPARATE FROM AC CIRCUITS AT EAST END OF INTER-MODULE CARRIER, JUNCTION BOX TO CONNECT DC CABLES TO INVERTER
 TOTAL RUN 150 FT FOR LONGEST RUN

SMA AMERICA SB6000US INVERTER
 6000 W
 INTEGRATED DC DISCONNECT
 48 14 00



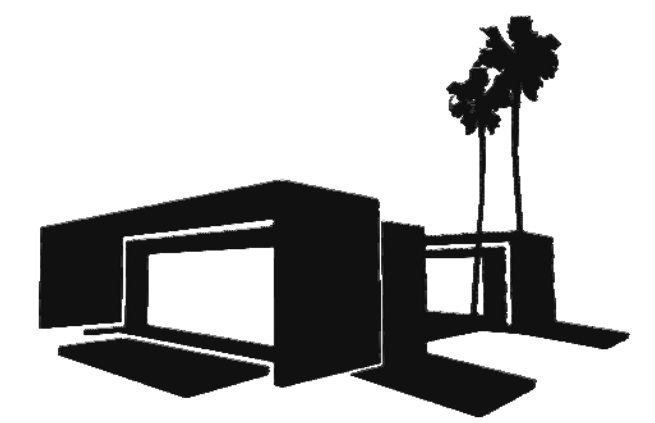
#8 AWG THHN
 L1 = BLACK
 L2 = RED
 WHITE = NEUTRAL
 BARE = GROUND



MODULE OUTPUT:	HANWHA SOLARONE SF-160-M190 MODULES	TIGO MODULE MAXIMIZER	SMA AMERICA SB7000US INVERTER
STRING VOC*1.14 = 357.5 V DC STRING ISC*1.56 = 8.86 A STRING VMP = 250.6 V DC STRING IMP = 5.33 A TIGO OUTPUT TIGO STRING VOC*1.14 = 357.5 V DC TIGO STRING ISC*1.56 = 8.86 A TIGO STRING IMP = 5.33 A MAX CURRENT INPUT TO INVERTER 5.33 A *4 = 21.32 A INVERTER OUTPUT CURRENT IMP*1.25 = 31.25 A	AWG #10 STC NOCT* PMP 190 W 137 W VMP 35.8 V 32.2 V IMP 5.33 A 4.26 VOC 44.8 V 41.2 V ISC 5.78 A 4.68 A TEMPERATURE COEFFICIENTS PMPP -0.44%/K V -0.33%/K I -0.03%/K MAXIMUM SYSTEM VOLTAGE 600 V SERIES FUSE RATING 10 A *NOCT: 45 °C, 800W/M ² , 1 M/S WIND SPEED	TIGO MM-ES50 MAXIMUM VOC 52V VMP RANGE: 16-48 V MAXIMUM IMP: 9.5 A MAXIMUM ISC: 10 A MAXIMUM OUTPUT POWER 300W MAXIMUM ISC 9.5A	SUNNY BOY SB6000US MAX INPUT CURRENT 20 A/36 A COMBINED MAX INPUT VOLTAGE 600 V STRING FUSE RATING 15 A START VOLTAGE 300 V MPPT VOLTAGE RANGE 250 - 480 V MAX OUTPUT CURRENT 25 A OUTPUT VOLTAGE 240 V

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GENERAL SHEET NOTES



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 U.S. DEPARTMENT OF ENERGY
 SOLAR DECATHLON 2013
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SHEET TITLE

ELECTRICAL CALCULATIONS & SCHEDULE

E-603

#	DESCRIPTION	BREAKER SIZE	AWG	TYPE	LOAD	#	DESCRIPTION	BREAKER SIZE	AWG	TYPE	LOAD
1	AIR VENTILATOR	15/1	12		84	A	2	ENERGY MONITORING	15/2	14	12
3	DOWNDRAFT EXHAUST	15/1	12		1200	B	4	ENERGY MONITORING			
5	WATER SUPPLY PUMP	15/1	12		1500	A	6	BATHROOM OUTLETS	20/1	12	400
7	WASTEWATER PUMP	15/1	12		92	B	8	KITCHEN OUTLETS 1	20/1	12	180
9	SOLAR THERMAL PUMP	15/1	12		690	A	10	KITCHEN OUTLETS 2	20/1	12	180
11	WATER HEATER	30/2	10		1440	B	12	DISHWASHER/GARBAGE DISPOSAL	20/1	12	1440
13	WATER HEATER					A	14	FRIDGE	20/1	12	1200
15	HEAT PUMP	30/2	10		4296	B	16	LIGHTING CIRCUIT	20/1	12	AFCI 1920
17	HEAT PUMP					A	18	MACERATOR	15/1	12	1500
19	RANGE	40/2	8		7680	B	20	SMOKE DETECTORS	15/1	12	100
21	RANGE					A	22	WASHING MACHINE	20/2	12	2300
23	OVEN	30/2	10		3600	B	24	WASHING MACHINE			
25	OVEN					A	26	DRYER	20/2	12	2800
27						B	28	DRYER			
29						A	30	SAFETY EQUIPMENT	15/1	12	240
31	VFD-WEST	30/2	10		1757	B	32	MECH ROOM OUTLETS	20/1	12	1920
33	VFD-WEST					A	34	EAST OUTLETS, LIGHTS	20/1	12	AFCI 1920
35	VFD-EAST	30/2	10		1757	B	36				
37	VFD-EAST					A	38				
39	SOLAR	20/2	12		6960	B	40				
41	SOLAR					A	42				

PV MODULE AND INVERTER COMPATABILITY

VOC AT HIGH TEMP	44.8 V * (1-0.0033 * (85 C - 25 C)) * 10 = 359 V	>	SMA SB6000 US STARTUP VOLTAGE	300 V
VOC AT LOW TEMP	44.8 V * (1-0.0033 * (-7.2 C - 25 C)) * 11 = 545 V	<	SMA SB6000 US MAXIMUM INPUT VOLTAGE	600 V
VMP AT HIGH TEMP	35.8 V * (1-0.0033 * (85 C - 25 C)) * 10 = 287 V	>	SMA SB6000 US MINIMUM PPT VOLTAGE	250 V
VMP AT LOW TEMP	35.8 V * (1-0.0033 * (-7.2 C - 25 C)) * 11 = 435 V	<	SMA SB6000 US MAXIMUM PPT VOLTAGE	480 V
ISC AT HIGH TEMP	5.78 V * (1+0.0003 * (85 C - 25 C)) = 5.88 A	<	SMA SB6000 US MAXIMUM INPUT AMPERAGE	20 A

SERVICE FEEDER CALCS
 MAIN SERVICE PANEL

GENERAL LIGHTING	646 SQFT X 3 VA/SQFT	1938	VA
GENERAL LIGHTING			
SMALL APPLIANCE BRANCH CIRCUITS			
SMALL APPLIANCE BRANCH CIRCUIT	2 X 1500 VA	3000	VA
LAUNDRY	1 X 1500 VA	1500	VA
SUBTOTAL		4500	VA
APPLIANCES			
ELECTRIC COOKTOP		7680	VA
ELECTRIC OVEN		7200	VA
FRIDGE		1200	VA
DISHWASHER		1440	VA
RANGE HOOD		520	VA
HOT WATER HEATER		1380	VA
CLOTHES DRYER		2880	VA
SUBTOTAL		22300	VA
ADDITIONAL MOTORS			
END TRUCKS		3367	VA
BATHROOM FAN		39	VA
SOLAR PUMP STATION		92	VA
WATER BOOSTER PUMP	12.5 A STARTUP @ 120 V	1500	VA
MACERATOR		600	VA
SUBTOTAL		5215	VA
HEATING AND AIR CONDITIONING LOAD			
HEAT PUMP COMPRESSOR		2360	VA
TOTAL LOAD			
GENERAL LIGHTING		1938	VA
SMALL APPLIANCE BRANCH CIRCUITS		4500	VA
APPLIANCES		22300	VA
ADDITIONAL MOTORS		5215	VA
GENERAL LOADS TOTAL		34336	VA
GENERAL LOAD WITH DERATE FACTOR	10 kVA @ 100% + REMAINDER @ 40%	19734	VA
HEATING AND AIR CONDITIONING LOAD		2360	VA
TOTAL LOAD		22094	VA
SERVICE SIZE		92	A
MINIMUM SERVICE SIZE		125	A
SOLAR DECATHLON SERVICE SIZE		150	A
FEEDER CABLE SIZE		#2/0	AWG
NEUTRAL CONDUCTOR			
FOR 3-WIRE 2-PHASE SYSTEMS, THE MAXIMUM UNBALANCED LOAD SHALL BE THE MAXIMUM NET CALCULATED LOAD BETWEEN THE NEUTRAL CONDUCTOR AND ANY ONE UNGROUNDED CONDUCTOR MULTIPLIED BY 140 PERCENT			
MAX LOAD A		18393	VA
MAX LOAD B		17531	VA
NEUTRAL LOAD	18393 * 1.4	25750	VA
		107	A
NEUTRAL CABLE SIZE		#2/0	AWG

1 - SOLAR - WEST PANELS TO INVERTER VIA CABLE CARRIER		3 - INVERTER TO MAIN BREAKER PANEL		5- MAIN BREAKER PANEL TO MICROGRID - CABLE CARRIER	
WIRE SIZE	AWG #10/3	WIRE SIZE	AWG #8/3	WIRE SIZE	AWG 2/0
WIRE TYPE	SO	WIRE TYPE	NM-B	WIRE TYPE	SO
CURRENT CARRYING CONDUCTORS	3	CURRENT CARRYING CONDUCTORS	3	CURRENT CARRYING CONDUCTORS	3 INDIVIDUAL
TEMPERATURE RATING	90 C	TEMPERATURE RATING	90 C	TEMPERATURE RATING	90 C
CONDUCTOR MATERIAL	COPPER	CONDUCTOR MATERIAL	COPPER	CONDUCTOR MATERIAL	COPPER
CONDUIT TYPE	OPEN AIR	CONDUIT TYPE	NONE	CONDUIT TYPE	OPEN AIR
CONDUIT SIZE	NONE	CONDUIT SIZE	NONE	CONDUIT SIZE	NONE
ALLOWABLE AMPACITY	30 A	ALLOWABLE AMPACITY	40 A	ALLOWABLE AMPACITY	195
AMBIENT TEMPERATURE DERATE FACTOR (42 C)	0.95	AMBIENT TEMPERATURE DERATE FACTOR (42 C)	0.95	AMBIENT TEMPERATURE DERATE FACTOR (42 C)	0.95
ADJUSTED ALLOWABLE AMPACITY	28.5 A	ADJUSTED ALLOWABLE AMPACITY	38 A	ADJUSTED ALLOWABLE AMPACITY	185.25 A
MAX STRING OUTPUT	5.88 A < 19 A			MAX LOAD	150 A < 185.25
2 SOLAR - EAST PANELS TO INVERTER		4 - GENERAL WEST CIRCUITS TO MAIN PANEL VIA CARRIER		6 - GENERAL BRANCH CIRCUITS	
WIRE SIZE	AWG #12/3	WIRE SIZE	AWG #12/2	WIRE SIZE	VARIOUS
WIRE TYPE	SO	WIRE TYPE	SO	WIRE TYPE	THHN
CURRENT CARRYING CONDUCTORS	3	CURRENT CARRYING CONDUCTORS	3-4	CURRENT CARRYING CONDUCTORS	2-3
TEMPERATURE RATING	90 C	TEMPERATURE RATING	90 C	TEMPERATURE RATING	90 C
CONDUCTOR MATERIAL	COPPER	CONDUCTOR MATERIAL	COPPER	CONDUCTOR MATERIAL	COPPER
CONDUIT TYPE	OPEN AIR	CONDUIT TYPE	NONE	CONDUIT TYPE	ROMEX
CONDUIT SIZE	NONE	CONDUIT SIZE	NONE	CONDUIT SIZE	VARIOUS
ALLOWABLE AMPACITY	20 A	ALLOWABLE AMPACITY	20 A	ALLOWABLE AMPACITY	VARIOUS
AMBIENT TEMPERATURE DERATE FACTOR (42 C)	0.95	AMBIENT TEMPERATURE DERATE FACTOR (42 C)	0.95		
ADJUSTED ALLOWABLE AMPACITY	19 A	ADJUSTED ALLOWABLE AMPACITY	19 A		
MAX STRING OUTPUT					

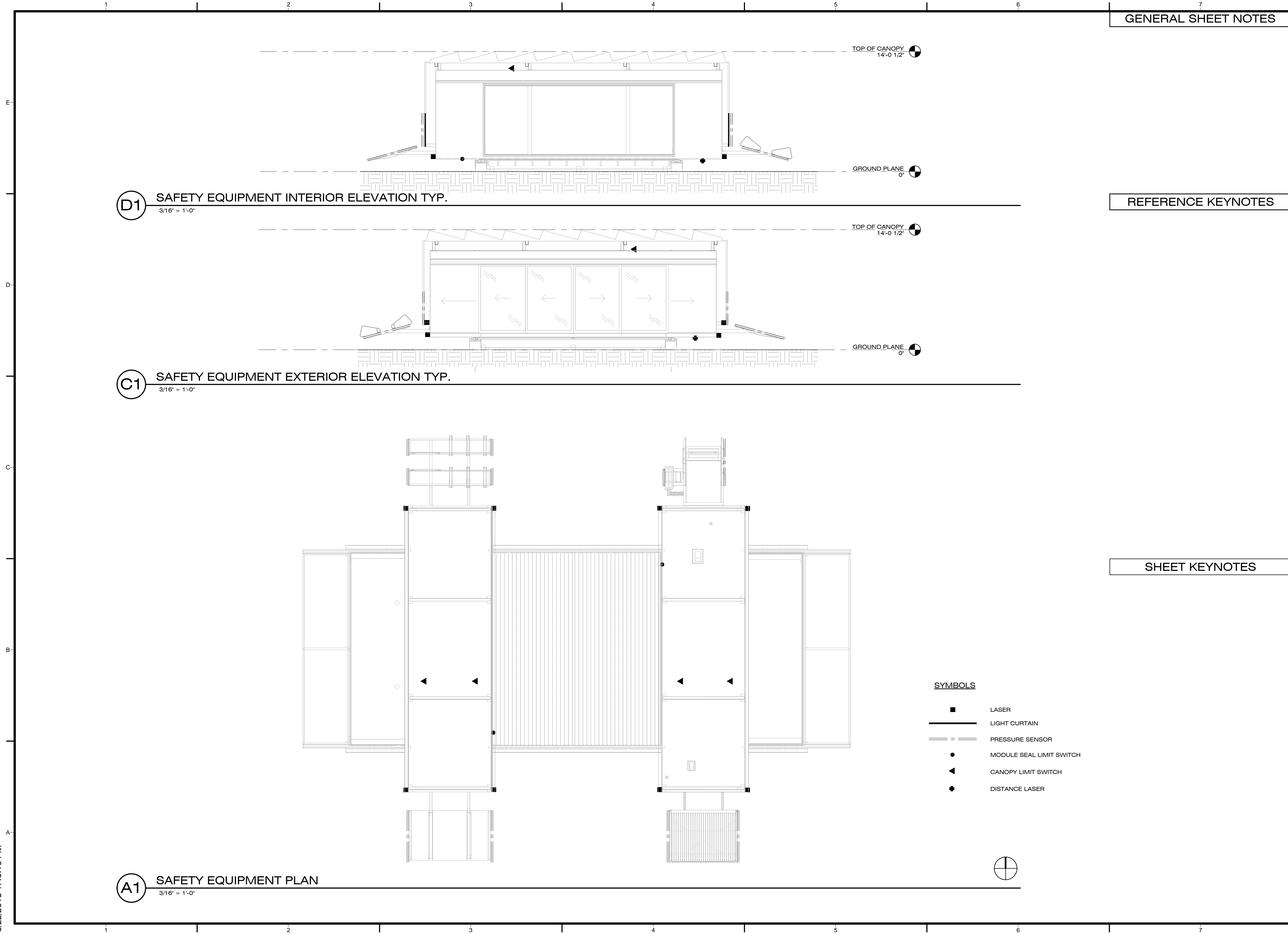
B1 ELECTRICAL CALCS
 NTS

LIGHTING FIXTURE SCHEDULE

MARK	DESCRIPTION	MANUFACTURER	MODEL	LAMP	COMMENTS	COUNT
1	CEILING LIGHT			A-19		17
2	TASK LIGHT			LED		17
3	VANITY LIGHT					17
4	33'-5" LED STRIP				MOUNTED TO EXTERIOR WALL	17
5	8'-0" LED STRIP				KITCHEN CABINET	17

A1 LIGHTING FIXTURE SCHEDULE
 NTS

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D1 SAFETY EQUIPMENT INTERIOR ELEVATION TYP.
3/16" = 1'-0"

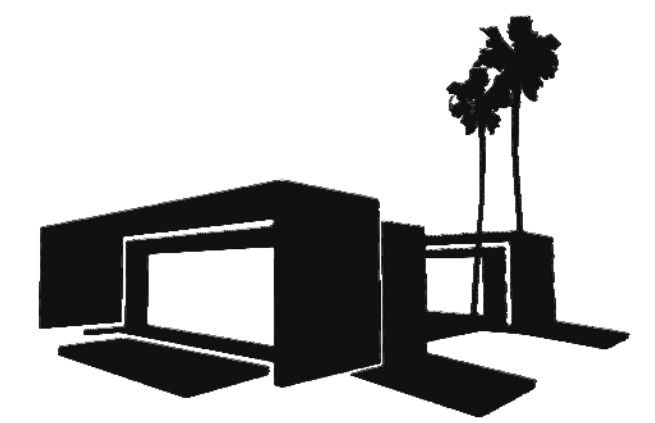
C1 SAFETY EQUIPMENT EXTERIOR ELEVATION TYP.
3/16" = 1'-0"

A1 SAFETY EQUIPMENT PLAN
3/16" = 1'-0"

GENERAL SHEET NOTES

REFERENCE KEYNOTES

SHEET KEYNOTES



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SAFETY EQUIPMENT PLAN & ELEVATIONS
T-101

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SAFETY EQUIPMENT SCHEDULE

T-102

GENERAL SHEET NOTES

REFERENCE KEYNOTES

SHEET KEYNOTES

SAFETY EQUIPMENT PER MODULE			
DESCRIPTION	QTY.	MANUFACTURER	NOTES
SAFETY EDGE - CANOPY EDGES	4	ALLEN BRADLEY	TRIGGER EMERGENCY STOP ON CONTACT
SAFETY EDGE - MULTI-USE PLATFORMS	4	ALLEN BRADLEY	TRIGGER EMERGENCY STOP ON CONTACT
AREA ACCESS CONTROL SENSOR	3	ALLEN BRADLEY	TRIGGER EMERGENCY STOP ON BEAM INTERRUPTION
CANOPY LIMIT SWITCH	2	ALLEN BRADLEY	IGNORE LIGHT CURTAIN SIGNAL WHEN BLOCKED BY MODULE
SAFETY LIGHT CURTAIN	1	ALLEN BRADLEY	TRIGGER EMERGENCY STOP ON BEAM INTERRUPTION
POSITIONING EQUIPMENT PER MODULE			
DESCRIPTION	QTY.	MANUFACTURER	NOTES
SEAL LIMIT SWITCH	1	ALLEN BRADLEY	ENSURES MODULES CLOSE UNTIL PROPER SEAL FORMS
LASER DISTANCE SENSOR	2	ALLEN BRADLEY	MEASURE POSITION OF MODULE W.R.T. TRACK AND OTHER MODULE

OTHER MOVEMENT EQUIPMENT PER MODULE (NOT SHOWN)			
DESCRIPTION	QTY.	MANUFACTURER	NOTES
SAFETY RELAY	2	ALLEN BRADLEY	EFFECTS EMERGENCY STOP WHEN SAFETY SENSORS TRIGGERED
SENSING EDGE CONTROLLER	1	ALLEN BRADLEY	EFFECTS EMERGENCY STOP WHEN SENSING EDGES TRIGGERED
THREE PHASE DRIVE - END TRUCKS	1	MAGNETEK	CONTROLS END TRUCK SPEED AND DIRECTION
SINGLE PHASE DRIVE - CANOPY MOTORS	1	ALLEN BRADLEY	CONTROLS CANOPY MOTOR SPEED AND DIRECTION
OTHER MOVEMENT EQUIPMENT PER SYSTEM (NOT SHOWN)			
DESCRIPTION	QTY.	MANUFACTURER	NOTES
LIMIT SWITCH - ENDS OF TRACK	2	ALLEN BRADLEY	PREVENTS MODULES FROM DRIVING OFF ENDS OF TRACK
PROGRAMMABLE LOGIC CONTROLLER	1	ALLEN BRADLEY	TAKES USER INPUT FROM TOUCHSCREEN PANEL AND EFFECTS MOVEMENT
TOUCHSCREEN PANEL	1	ALLEN BRADLEY	FEEDS USER INPUT TO PROGRAMMABLE LOGIC CONTROLLER

B1 SAFETY EQUIPMENT SCHEDULE
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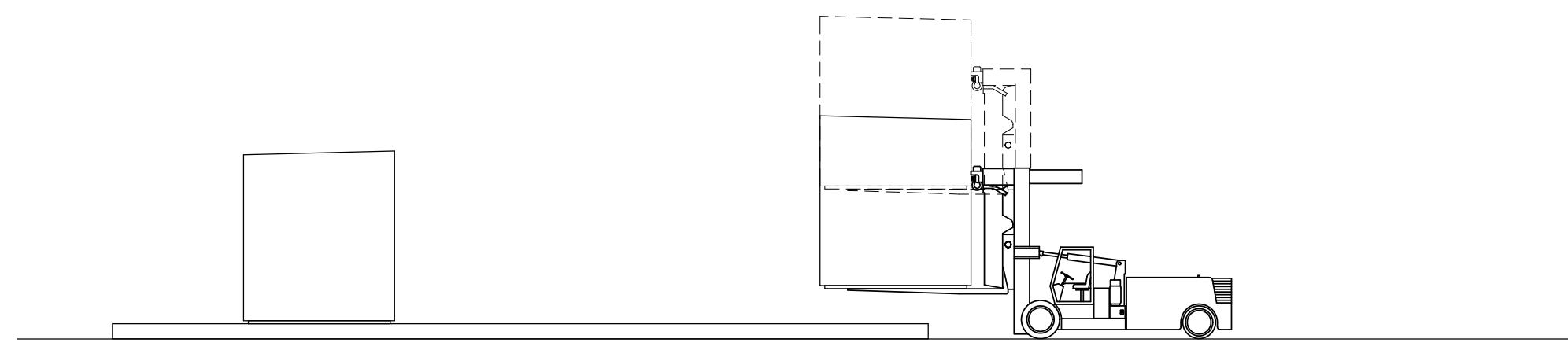
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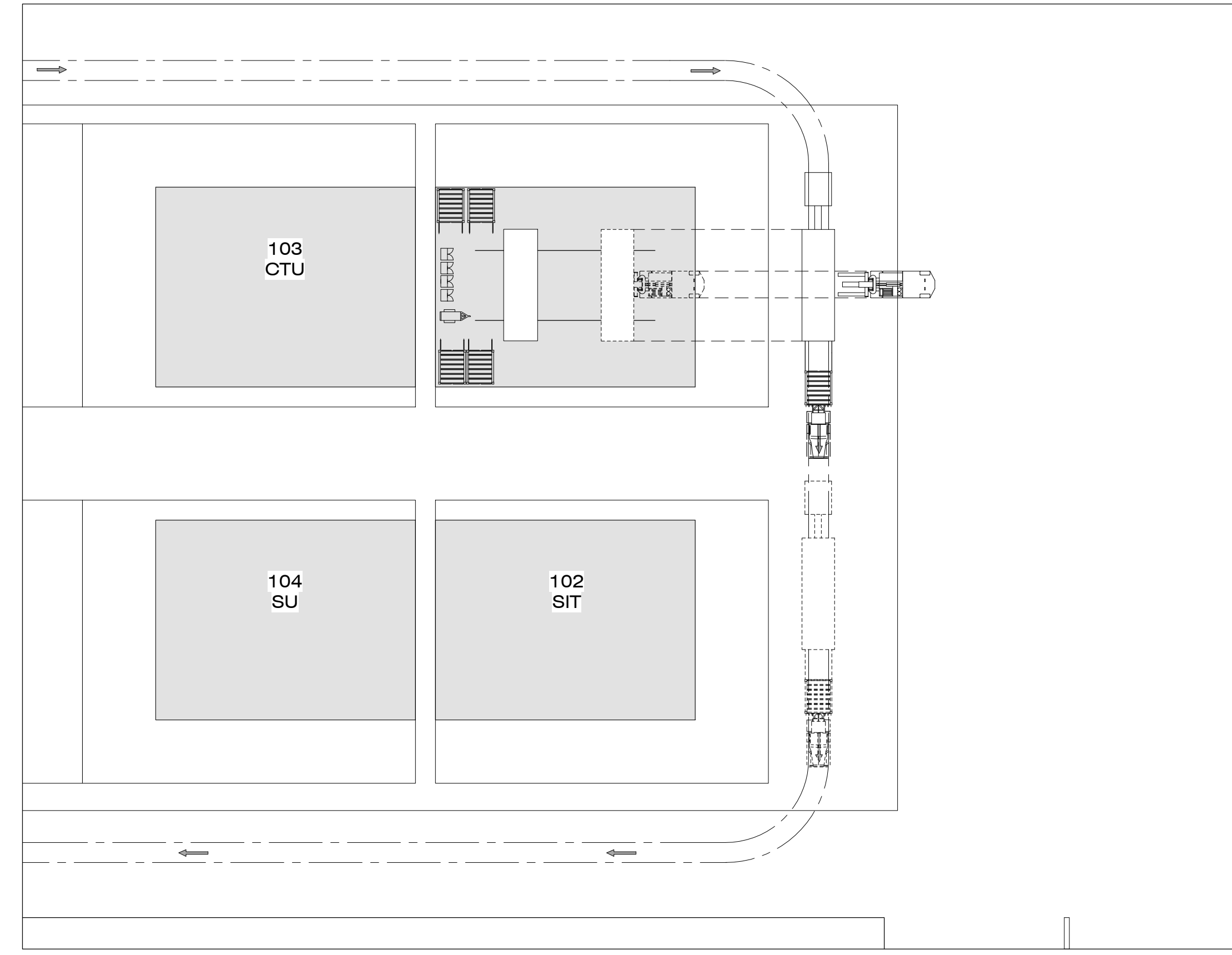
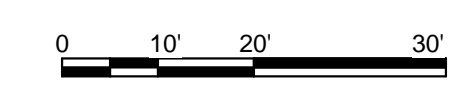
- 1 TEMP. GENERATOR (REFER TO H-101 FOR SPILL CONTAINMENT DETAILS)
GENERATOR NOISE AT FULL LOAD NOT TO EXCEED 60dB @ 50' VIF
OPERATIONS AND REFUELING OF GENERATOR LIMITED TO APPROVED TIME BY ORGANIZERS

REFERENCE KEYNOTES

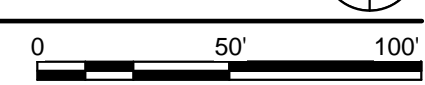
- ASSEMBLY SEQUENCE**
- 1 ARRIVAL OF ALL RENTAL EQUIPMENT
 - 2 ARRIVAL OF STORAGE UNITS, GENERATOR, SPILL CONTAINERS, TOOLS, EQUIPMENT
 - 3 ARRIVAL AND ASSEMBLY OF CONCRETE CURBS, RAILS, DECKING, LANDSCAPE MATERIALS, WATER BLADDERS
 - 4 ARRIVAL OF CRANE, MODULES, AND PV RACKS
 - 5 ARRIVAL OF ELECTRIC CAR
- DISASSEMBLY SEQUENCE**
- 1 REMOVAL OF ELECTRIC CAR
 - 2 REMOVAL OF MODULES AND PV RACKS
 - 3 REMOVAL OF RAILS, DECKING, LANDSCAPE, WATER BLADDERS
 - 4 DEMO AND REMOVAL OF CONCRETE
 - 5 REMOVAL OF STORAGE UNITS, GENERATOR, SPILL CONTAINERS, TOOLS, EQUIPMENT
 - 6 REMOVAL OF REMAINING RENTAL EQUIPMENT
 - 7 OVERALL CLEANUP



C4 VERSALIFT ELEVATION
1" = 10'-0"

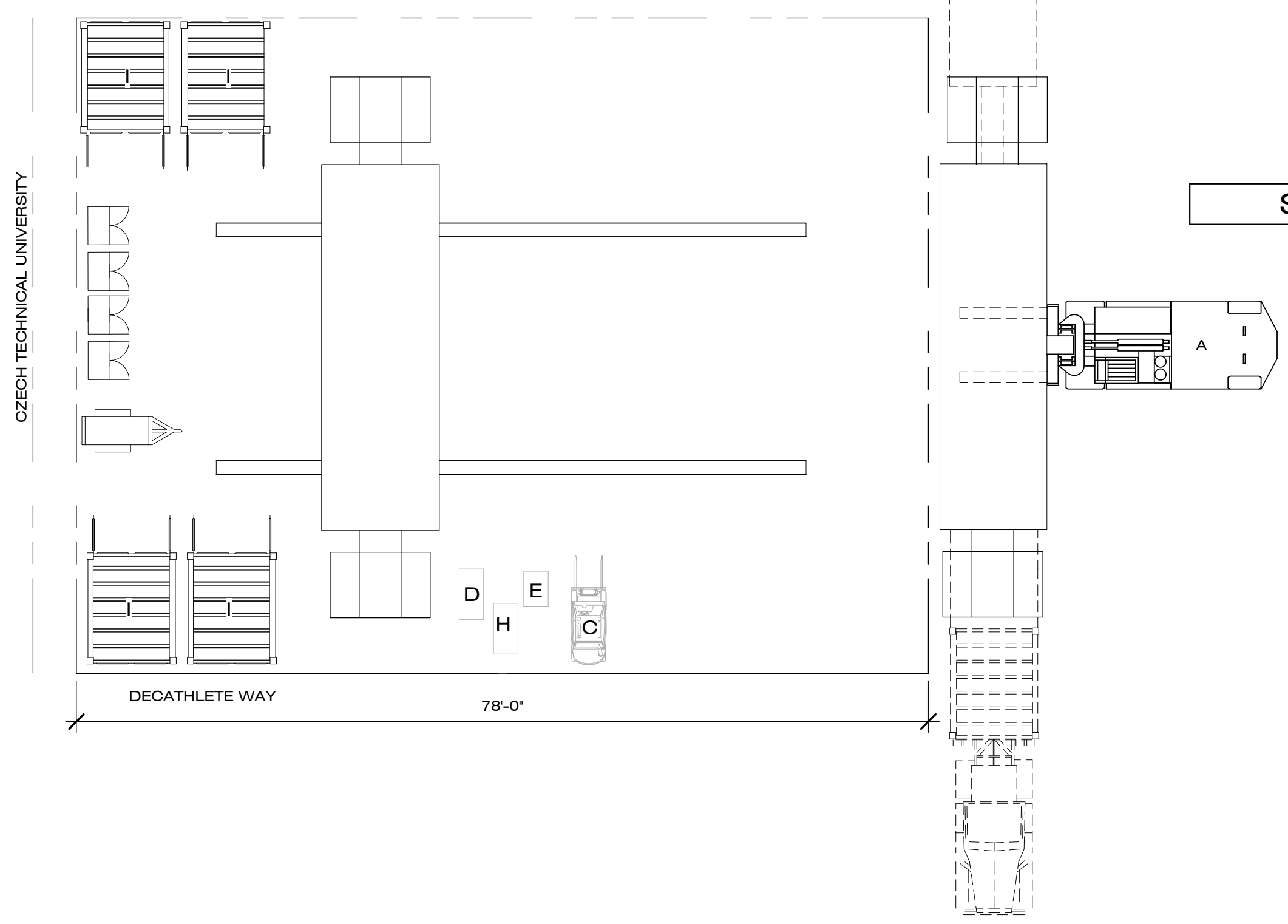


C1 OPERATION SITE EQUIPMENT & TRUCK ROUTE
1/32" = 1'-0"

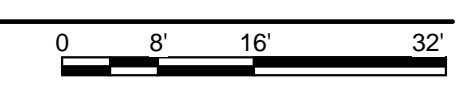


PLAN NO.	PROJECT MANUAL MASTER FORMAT	ARTICLE NAME	PART NUMBER	ARTICLE MANUFACTURER	ARTICLE NUMBER	SIZE			QTY	NOTES	
						L	W	H			
A	O-101	DIV 34	60 TON FORK LIFT	100/140 SERIES	VERSALIFT	101-001	-	-	-	1	
B	O-101	DIV 34	ARTICULATING BOOM LIFT 40 FT REACH	Z-40/23N	GENIE	102-001	-	59'	78'	1	UP&OVERH21'3" PLATFORM CAPACITY500lbs
C	O-101	DIV 34	4-5 TON FORK-LIFT	V200 SERIES	GENIE	102-001	-	58.5'	163'	1	FREE LIFT HEIGHT 150/5.9
C	O-101	DIV 34	PORTABLE HALIDE WORK LIGHT	20330	ALLMAND	101-004	2'	2'	12'	4	1000WATT
D	O-101	DIV 34	COMPRESSOR	-	-	101-003	2'	3'	3'	1	WILL SATISFY NPS NOISE REG.
E	O-101	DIV 34	LASER LEVEL	LL300	SPECTRA	101-005	1'	1'	1'	1	-
F	O-101	DIV 34	STEP DECK TRAILER	-	-	101-002	64'	11.5'	13.5'	4	38FT LOWER DECK 10FT UPPER DECK
G	O-101	DIV 34	GENERATOR	DCA25USI	WHISPERWATT	101-007	70"	31"	50"	1	
I	O-101	DIV 34	10' CONTAINER	MM-10	MOBILE MINI	101-008	10'	8.5'	8.5'	8	

D5 EQUIPMENT SCHEDULE
NTS



A4 VERSALIFT PICKS
3/32" = 1'-0"



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OPERATIONAL EQUIPMENT & ARRIVAL SEQUENCE
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WATER DELIVERY AND REMOVAL DIAGRAMS

O-102

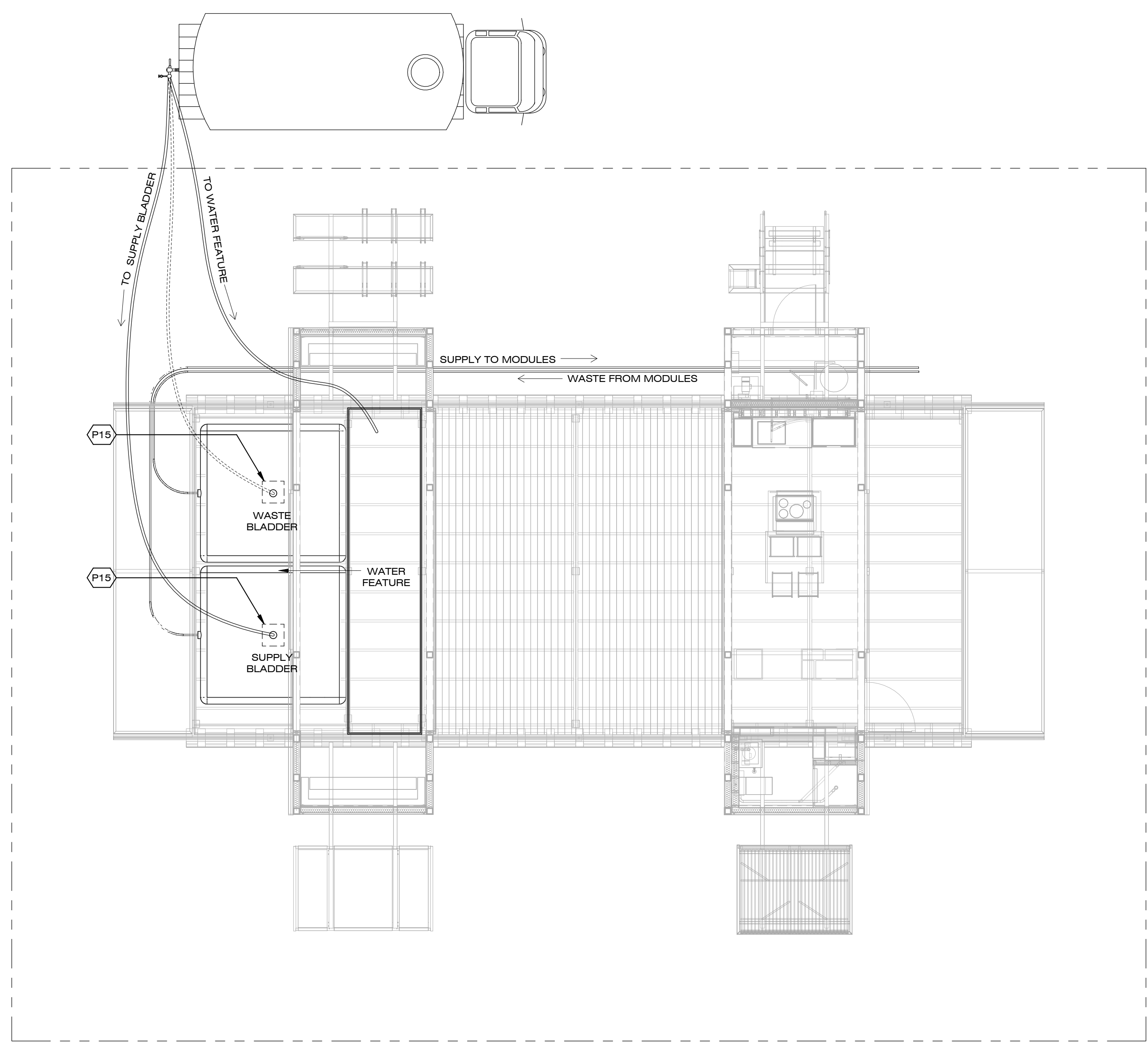
GENERAL SHEET NOTES

1. WATER BLADDER TANKS LOCATED UNDER DECKING FILLED BEFORE INSTALL OF LANDSCAPE - SEE SHEET P-103
2. WATER BLADDER ARE FULLY SHADED FROM DIRECT SOLAR RADIATION BETWEEN 9AM AND 5PM PDT BETWEEN 8AM AND 4PM SOLAR TIME ON OCTOBER
3. WATER BLADDER ARE 800 GALLON POTABLE CISTERN BLADDER TANKS WITH GROUND LINERS. POLYESTER 3.0 OZ/YD2 WITH 300 PSI MIN. HYDROSTATIC RESISTANCE
4. WATER DELIVERY SEQUENCE:
- WATER TRUCK WILL APPROACH FROM WEST TO PUMP THE REQUESTED 800 GALLONS INTO OUR FULLY ENCLOSED, SHADED WATER BLADDER
- OUR TEAM WILL PROVIDE SIX MEMBERS TO BE ON HAND IN AIDING WITH THIS PROCESS
5. WATER REMOVAL SEQUENCE:
- WASTE TRUCK WILL APPROACH FROM WEST TO REMOVE WASTE WATER AND REMAINING WATER IN SUPPLY BLADDER
- OUR TEAM WILL PROVIDE SIX MEMBERS TO BE ON HAND IN AIDING WITH THIS PROCESS
- ANY REMAINING WATER WILL BE REMOVED FROM THE SITE BY OUR TEAM
6. AMOUNT OF WATER REQUESTED FOR SUPPLY:
- 800 GALLONS
AMOUNT OF WATER REQUESTED FOR WATER FEATURE:
- 185 GALLONS
TOTAL AMOUNT OF REQUESTED WATER:
- 985 GALLONS

REFERENCE KEYNOTES

SHEET KEYNOTES

P15	REMOVABLE HATCH FOR WATER BLADDER ACCESSIBILITY
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A1 WATER SUPPLY AND WASTE REMOVAL PLAN
3/16" = 1'-0"

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CANOPY/PV OVERVIEW

XA-001

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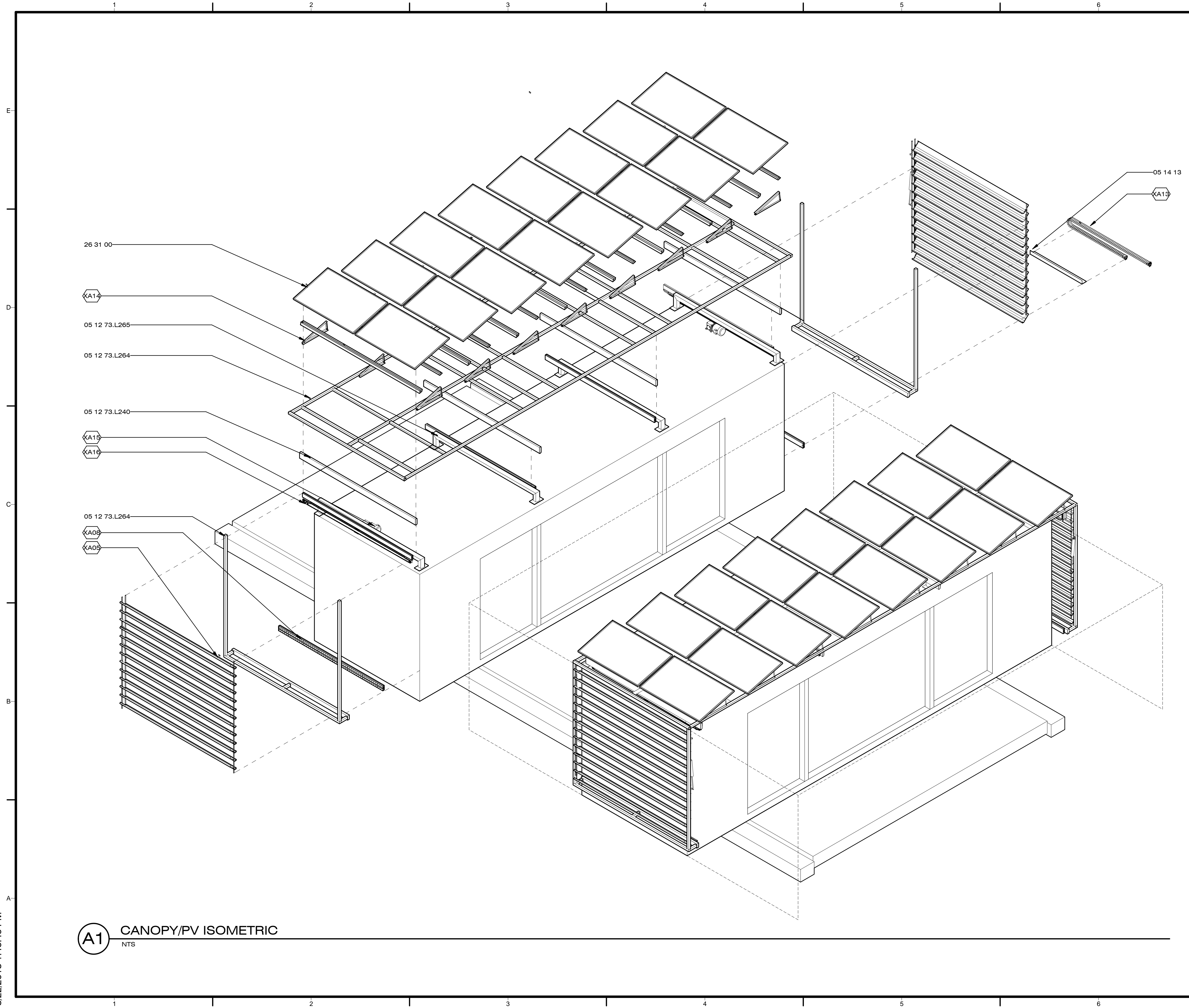
- 1 APOLLO OPENING ROOF SYSTEM IS MOUNTED TO A TS 2X2 FRAME AND BOLTED TO MOVABLE PV ASSEMBLY AND UNISTRUT TROLLY SYSTEM TO MOVE IN CONCEPT WITH PV FRAME ON ROOF.
- 2 THE HANWHA PV SYSTEM IS MOUNTED TO ALUMINUM ANGLE AZIMUTH FRAME AND MOUNTED TO TS 2X2 RAILS. THIS HAPPENS ON FULL EXTENSION BALL BEARING SLIDERS ON A TS 2X4 FRAME THAT IS BOLTED THROUGH THE VINYL ROOFING AND THE STRUCTURES STEEL FRAME.
- 3 THE PV AND LOUVRE ASSEMBLY TRAVELS ON FULL EXTENSION DRAWER SLIDES TO PROVIDE 10' OF SHADING TO EITHER SIDE OF THE MODULE.

REFERENCE KEYNOTES

05 12 73.L240	TS6X2X0.25
05 12 73.L264	TS2X2X0.125
05 12 73.L265	TS4X4X0.25
05 14 13	ARCHITECTURALLY-EXPOSED STRUCTURAL ALUMINUM FRAMING PHOTOVOLTAIC COLLECTORS
26 31 00	

SHEET KEYNOTES

XA05	APOLLO LOUVRE SYSTEM
XA08	DUAL BALL BEARING SLIDER 1.9"X4.2"
XA13	GORTRAC CABLE CARRIER 260529C N3-BD
XA14	SNAP N RACK PV HARDWARE
XA15	BALDOR VEM3538 1/2 HP MOTOR
XA16	CHAIN AND SPROCKET



A1 CANOPY/PV ISOMETRIC
NTS

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SHEET TITLE

CANOPY/PV PLAN & SECTION

XA-101

GENERAL SHEET NOTES

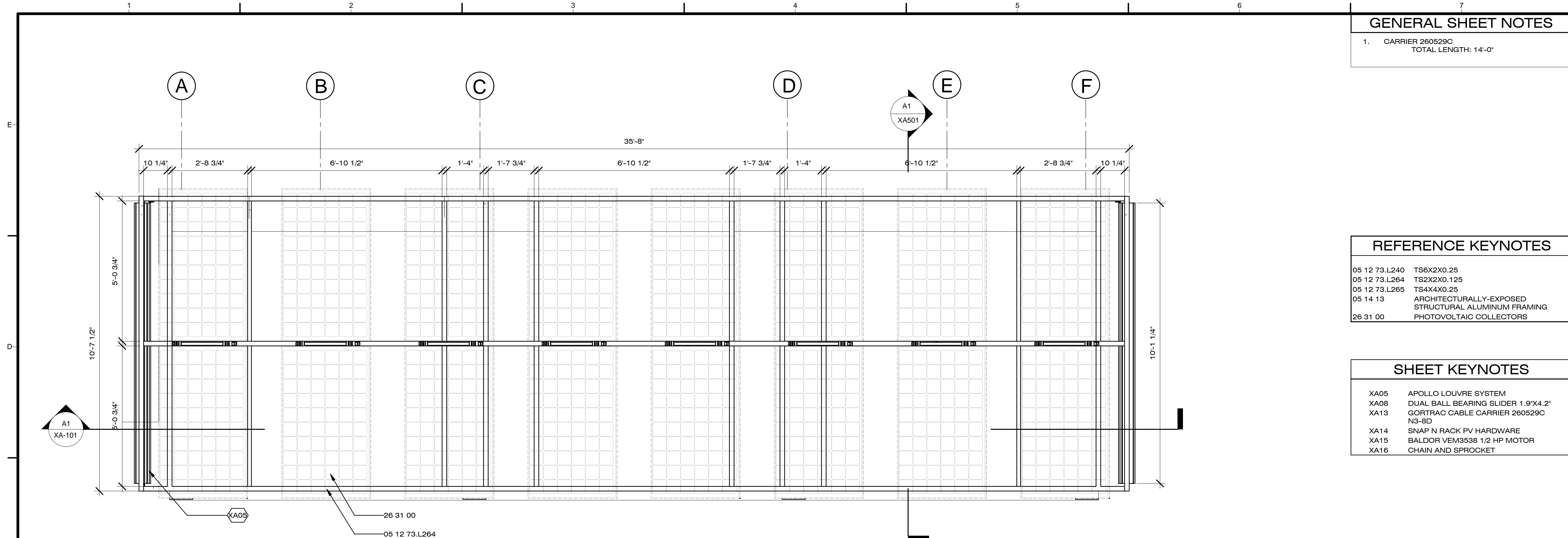
- CARRIER 260529C
TOTAL LENGTH: 14'-0"

REFERENCE KEYNOTES

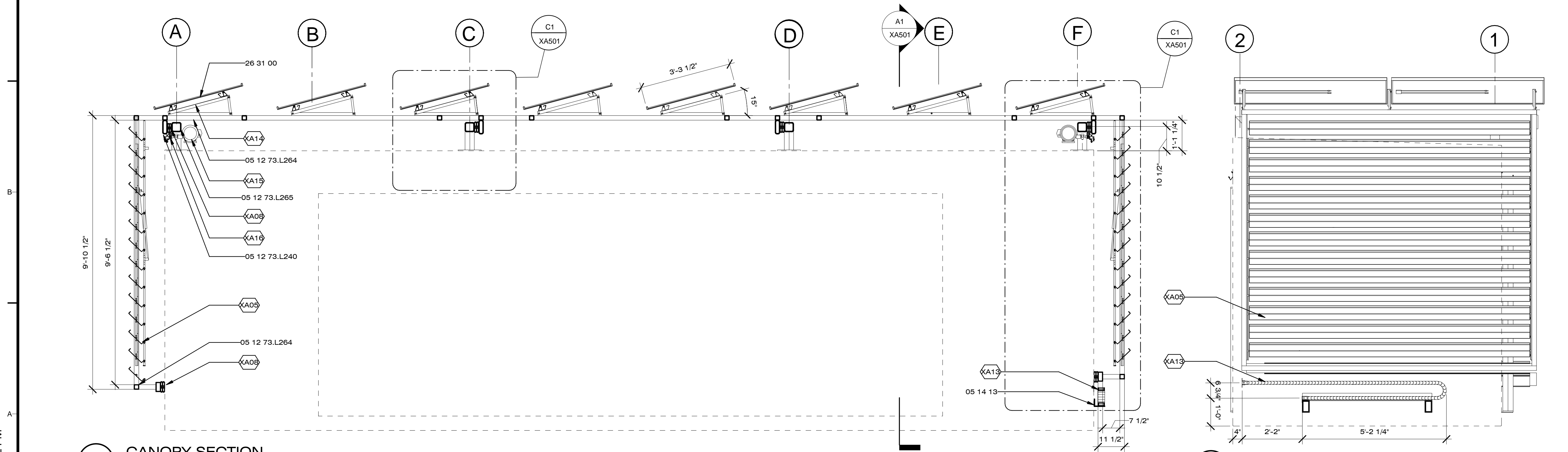
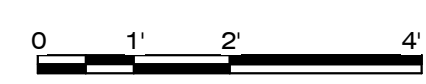
05 12 73.L240	TS6X2X0.25
05 12 73.L264	TS2X2X0.125
05 12 73.L265	TS4X4X0.25
05 14 13	ARCHITECTURALLY-EXPOSED STRUCTURAL ALUMINUM FRAMING
26 31 00	PHOTOVOLTAIC COLLECTORS

SHEET KEYNOTES

XA05	APOLLO LOUVRE SYSTEM
XA08	DUAL BALL BEARING SLIDER 1.9"x4.2"
XA13	GORTRAC CABLE CARRIER 260529C N3-8D
XA14	SNAP N RACK PV HARDWARE
XA15	BALDOR VEM3538 1/2 HP MOTOR
XA16	CHAIN AND SPROCKET



C1 CANOPY PLAN
1/2" = 1'-0"



A1 CANOPY SECTION
1/2" = 1'-0"

A6 NORTH ELEVATION
1/2" = 1'-0"



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SHEET TITLE

CANOPY/PV
DETAILS

XA-501

GENERAL SHEET NOTES

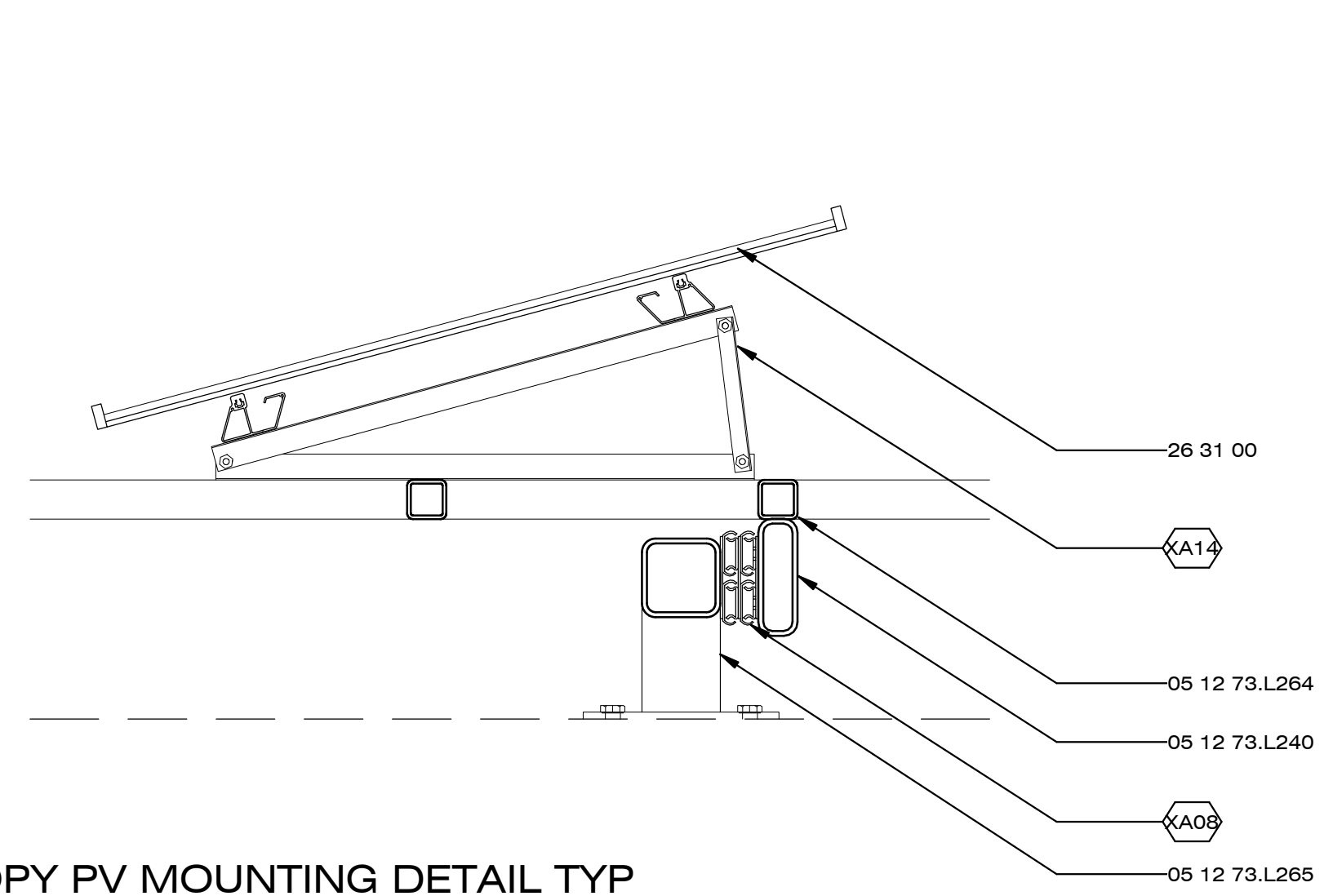
- EXTERIOR CANOPY DOTTED FOR CLARITY, SEE XAXXX

REFERENCE KEYNOTES

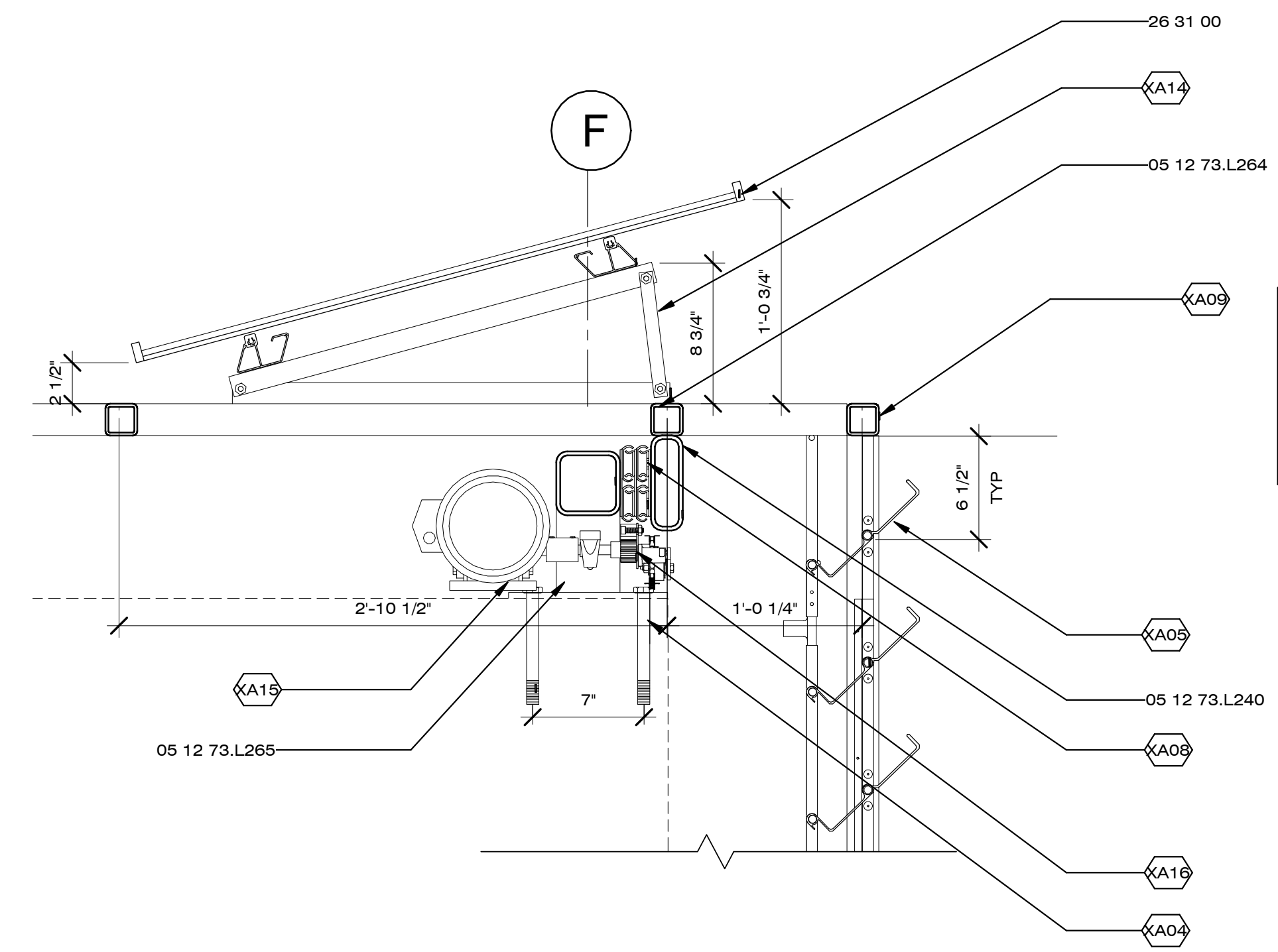
05 12 73.L240	TS6X2X0.25
05 12 73.L264	TS2X2X0.125
05 12 73.L265	TS4X4X0.25
05 14 13	ARCHITECTURALLY-EXPOSED STRUCTURAL ALUMINUM FRAMING
26 31 00	PHOTOVOLTAIC COLLECTORS

SHEET KEYNOTES

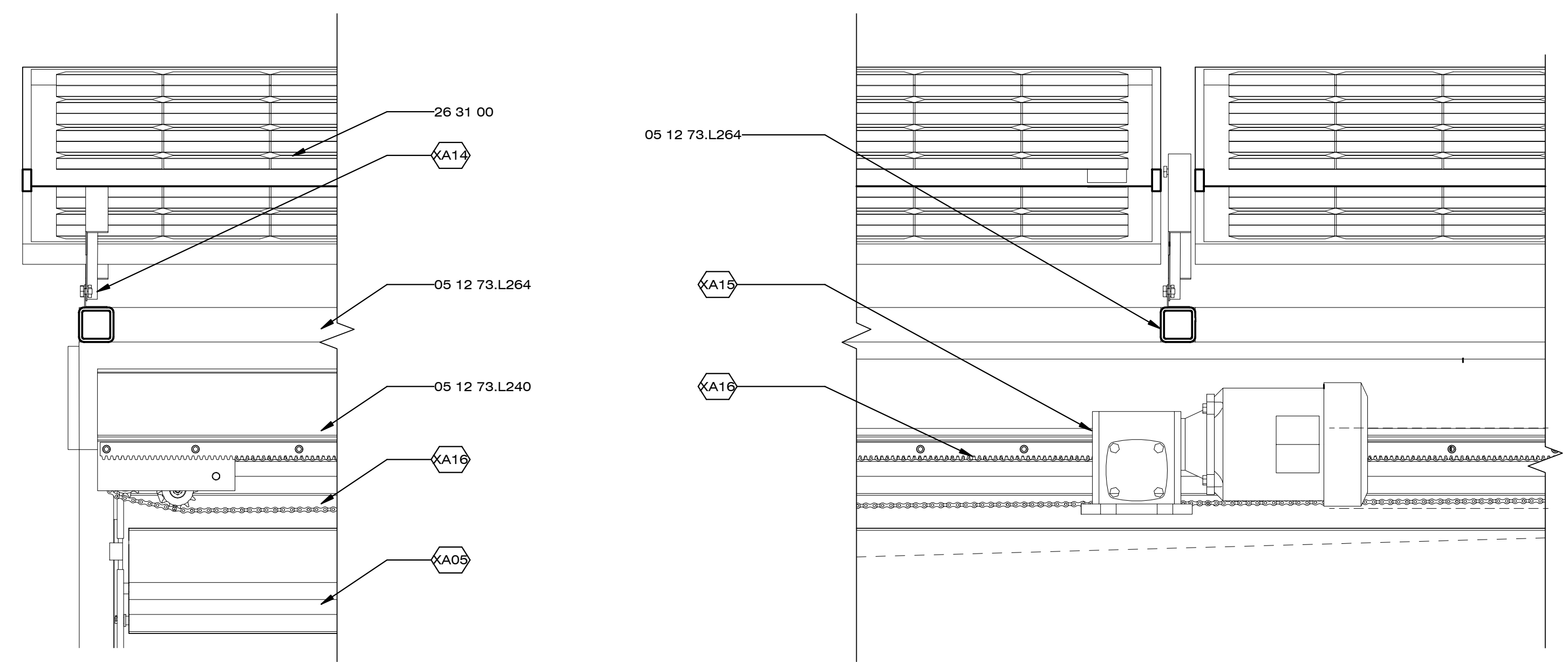
XA04	3/4" A325 BOLT AND NUT
XA05	APOLLO LOUVRE SYSTEM
XA08	DUAL BALL BEARING SLIDER 1.9"X4.2"
XA09	TS 2X2
XA13	GORTRAC CABLE CARRIER 260529C N3-8D
XA14	SNAP N RACK PV HARDWARE
XA15	BALDOR VEM3538 1/2 HP MOTOR
XA16	CHAIN AND SPROCKET



C1 CANOPY PV MOUNTING DETAIL TYP
1 1/2" = 1'-0"



B4 CANOPY CORNER DETAIL TYP.
1 1/2" = 1'-0"



A1 CANOPY TRANSVERSE SECTION
1" = 1'-0"

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SHEET TITLE

MOVABLE
CABINETS
OVERVIEW

XB-001

GENERAL SHEET NOTES

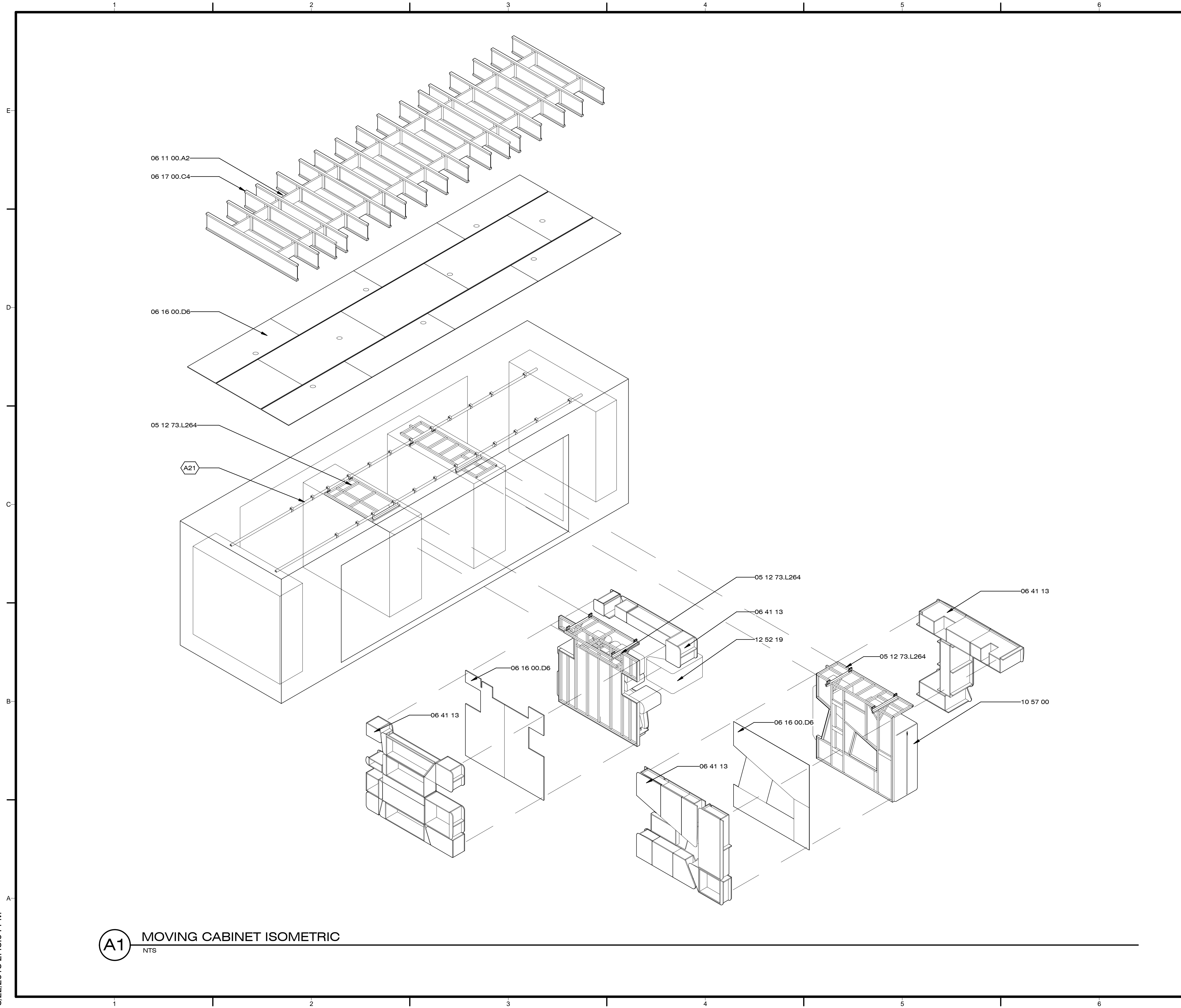
1. FLEXIBLE CABINET BASED PROGRAM SYSTEM, HUNG FROM UNI STRUCT TRACK AND TROLLEY, MOUNTED TO ROOF JOIST, TRANSLATES N-S TO PROVIDE MULTIPLE DISCRETE PROGRAM - SUPPORTED AREAS.
2. MOVING PROGRAM CABINETS CAN BE DOCKED AT EITHER END OF MODULE TO PROVIDE LARGE UNDIVIDED SPACE IN CENTER OF MODULE. MOVABLE CABINETS CONSTRUCTED IN COMBINATION OF CUSTOM - FRAMING (TO PROVIDE HANGING STRUCTURE AND TRACK SYSTEM) AND OFF - THE - SHELF CABINET COMPONENTS (IKEA OR EQ.)

REFERENCE KEYNOTES

05 12 73.L264	TS2X2X0.125
06 11 00.A2	WOOD BLOCKING AS REQUIRED
06 16 00.D6	1/2" PLYWOOD
06 17 00.C4	16" WOOD I JOIST
06 41 13	WOOD-VENEER-FACED ARCHITECTURAL CABINETS
10 57 00	WARDROBE AND CLOSET SPECIALTIES
12 52 19	UPHOLSTERED SEATING

SHEET KEYNOTES

A21	UNISTRUT CONSTRUCTION SEE SHEET S-405
-----	---------------------------------------



A1 MOVING CABINET ISOMETRIC
NTS

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SHEET TITLE

MOVABLE
CABINET
ELEVATIONS

XB-101

GENERAL SHEET NOTES

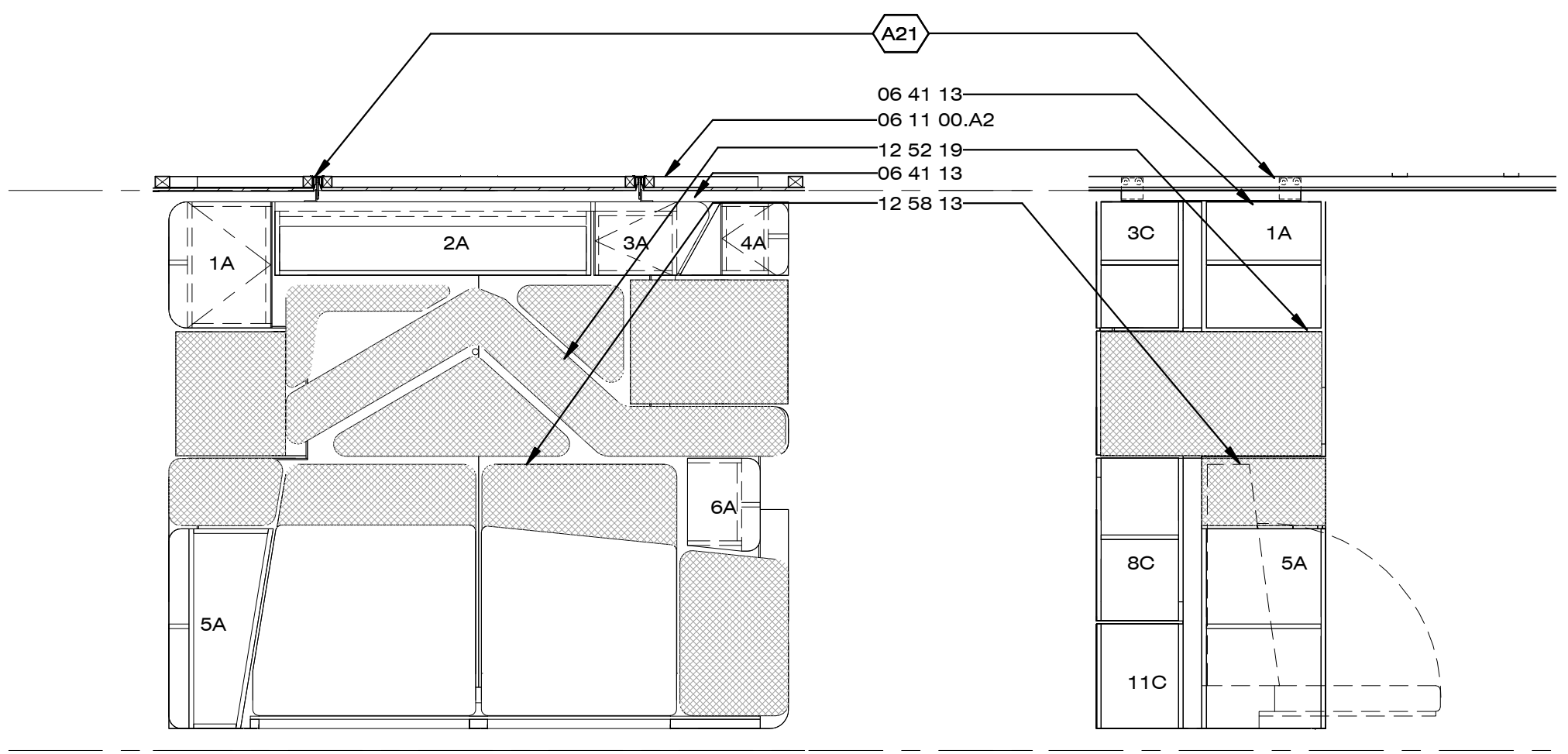
- CABINET MOVEMENT TO BE DEMONSTRATED DURING PUBLIC TOURS BY TEAM DECATHLETES ONLY
- FOR CABINET DETAILS, SEE SHEET XB-501, XB-502, XB-503

REFERENCE KEYNOTES

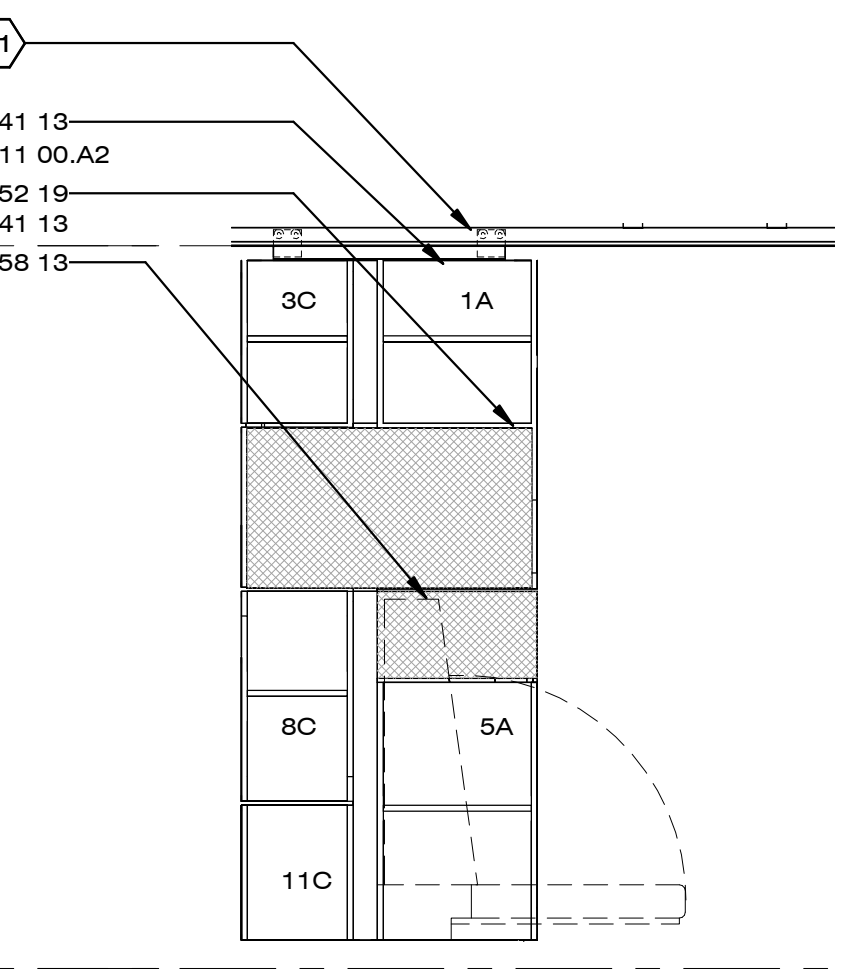
06 11 00.A2	WOOD BLOCKING AS REQUIRED
06 41 13	WOOD-VENEER-FACED ARCHITECTURAL CABINETS
10 57 00	WARDROBE AND CLOSET SPECIALTIES
11 52 00	AUDIO-VISUAL EQUIPMENT
12 51 83	CUSTOM OFFICE FURNITURE
12 52 19	UPHOLSTERED SEATING
12 58 13	COUCHES AND LOVESEATS

SHEET KEYNOTES

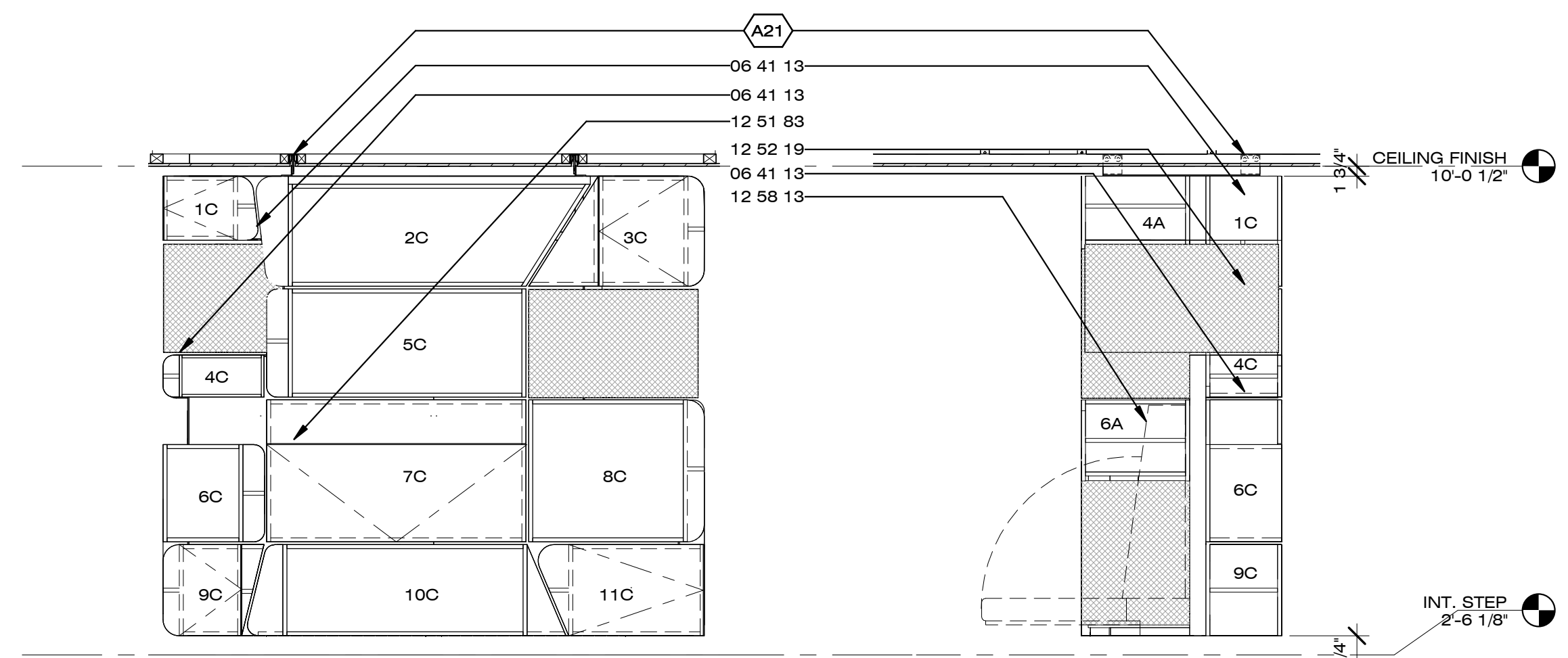
A21	UNISTRUT CONSTRUCTION SEE SHEET S-405
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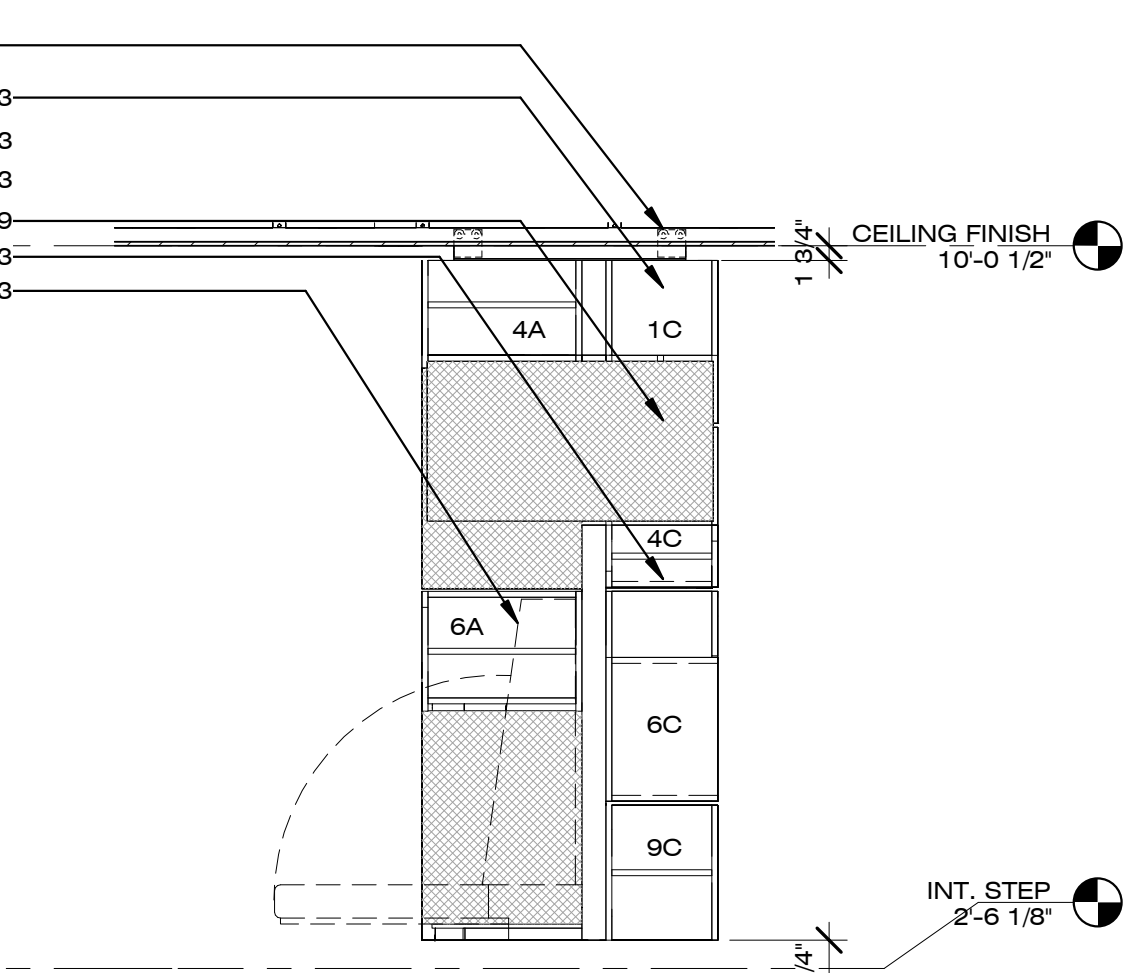
C1 LIVING ROOM NORTH ELEVATION
1/2" = 1'-0"



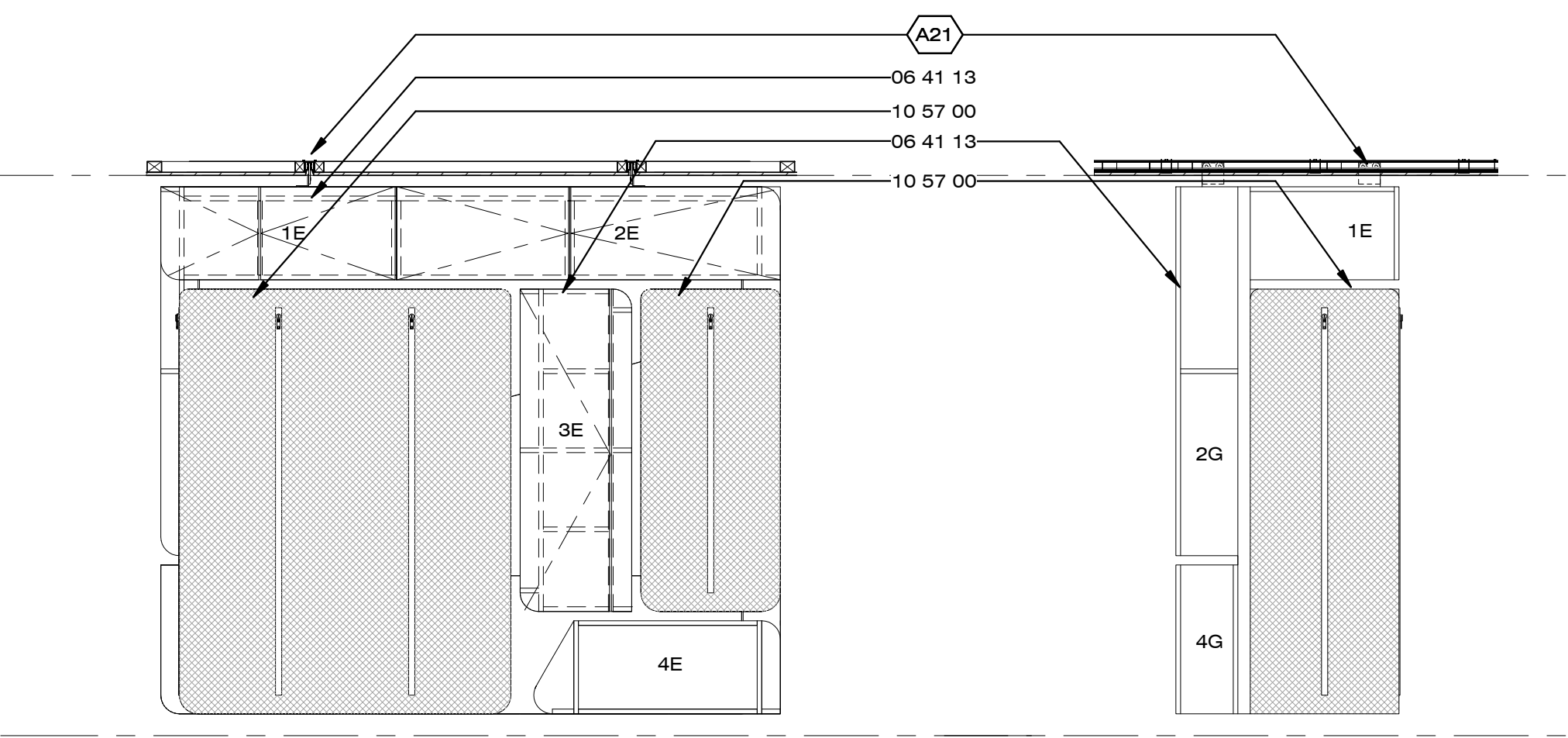
C2 LIVING ROOM CABINET EAST
1/2" = 1'-0"



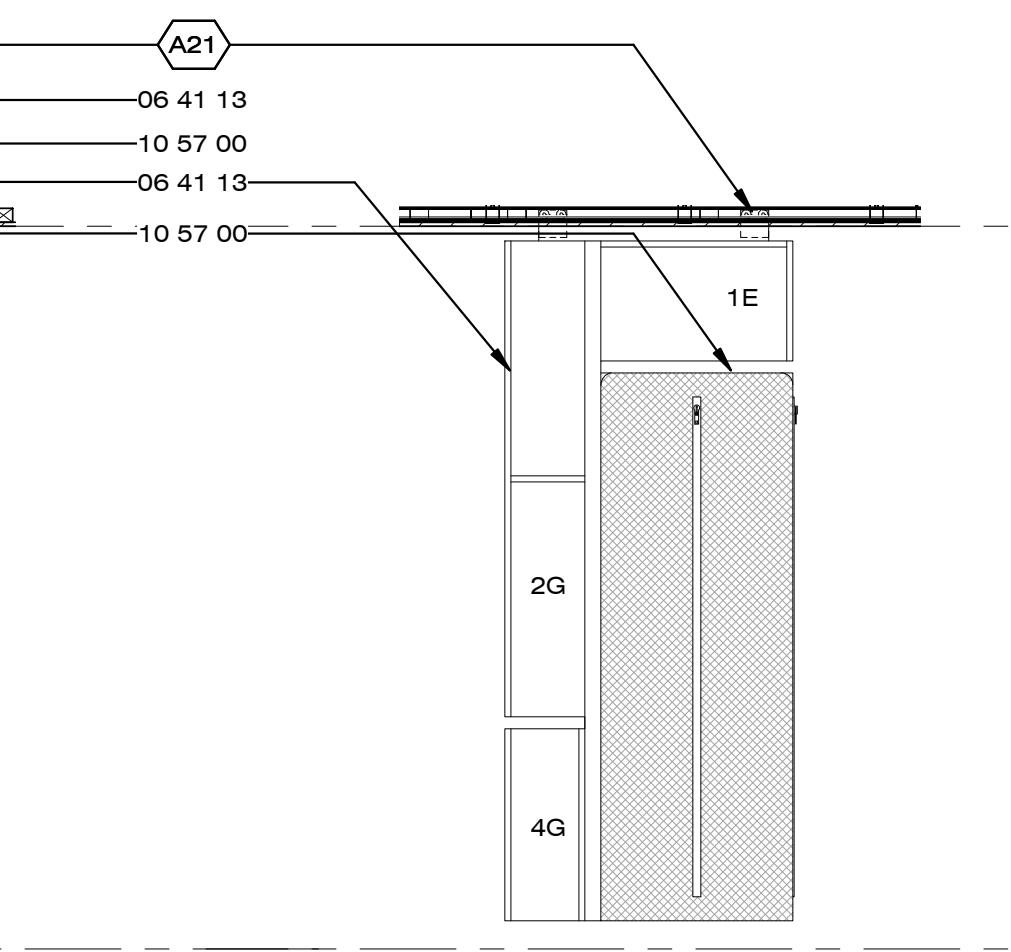
C4 HOME OFFICE SOUTH ELEVATION
1/2" = 1'-0"



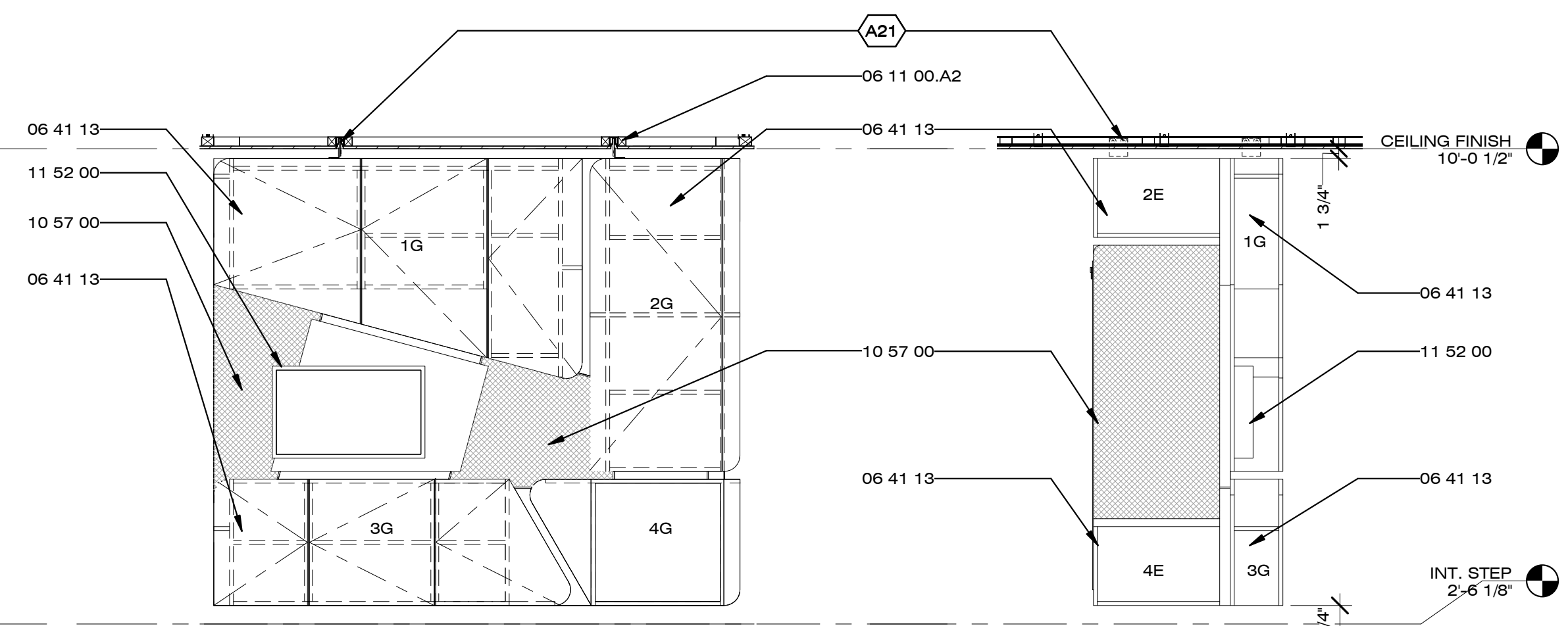
C5 HOME OFFICE CABINET WEST
1/2" = 1'-0"



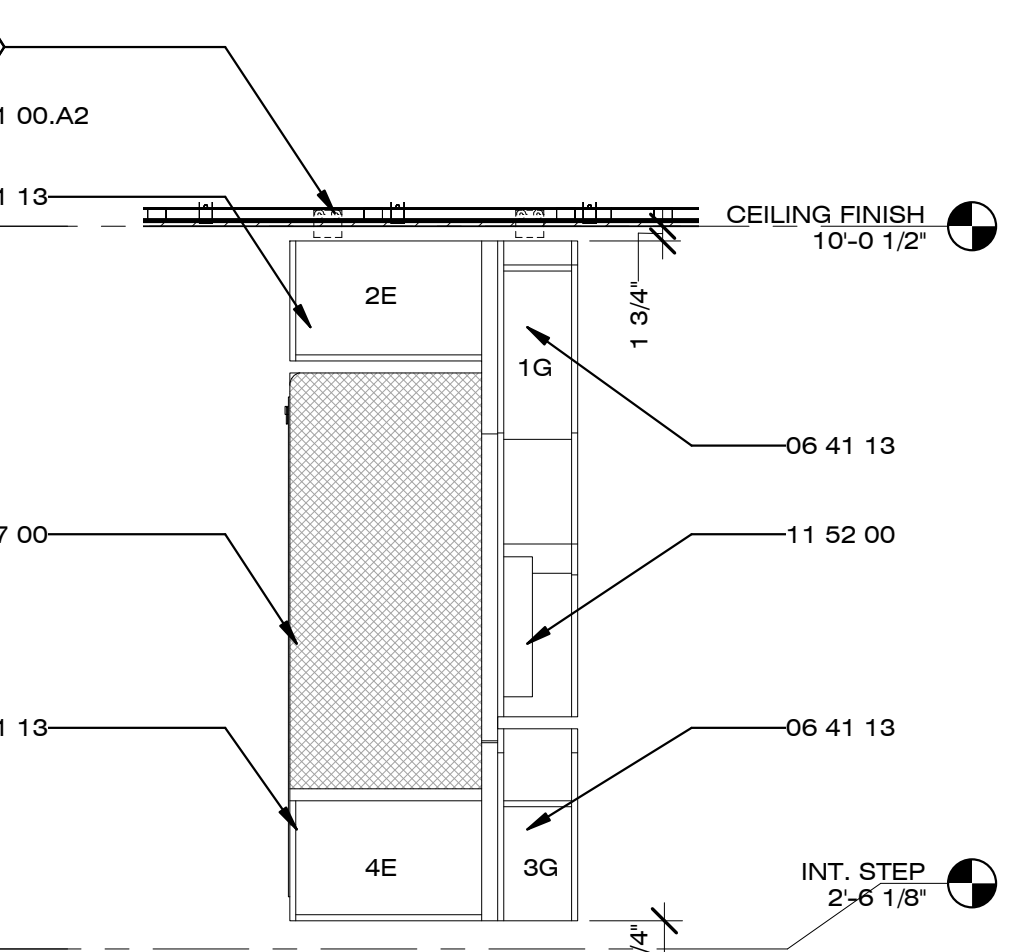
A1 BEDROOM CLOSET ELEVATION
1/2" = 1'-0"



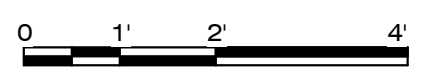
A2 HOME ENTERTAINMENT CABINET EAST
1/2" = 1'-0"



A4 HOME ENTERTAINMENT ELEVATION
1/2" = 1'-0"



A5 BEDROOM CABINET WEST
1/2" = 1'-0"



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SHEET TITLE

MURPHY BED
ELEVATIONS &
SECTIONS

XB-102

GENERAL SHEET NOTES

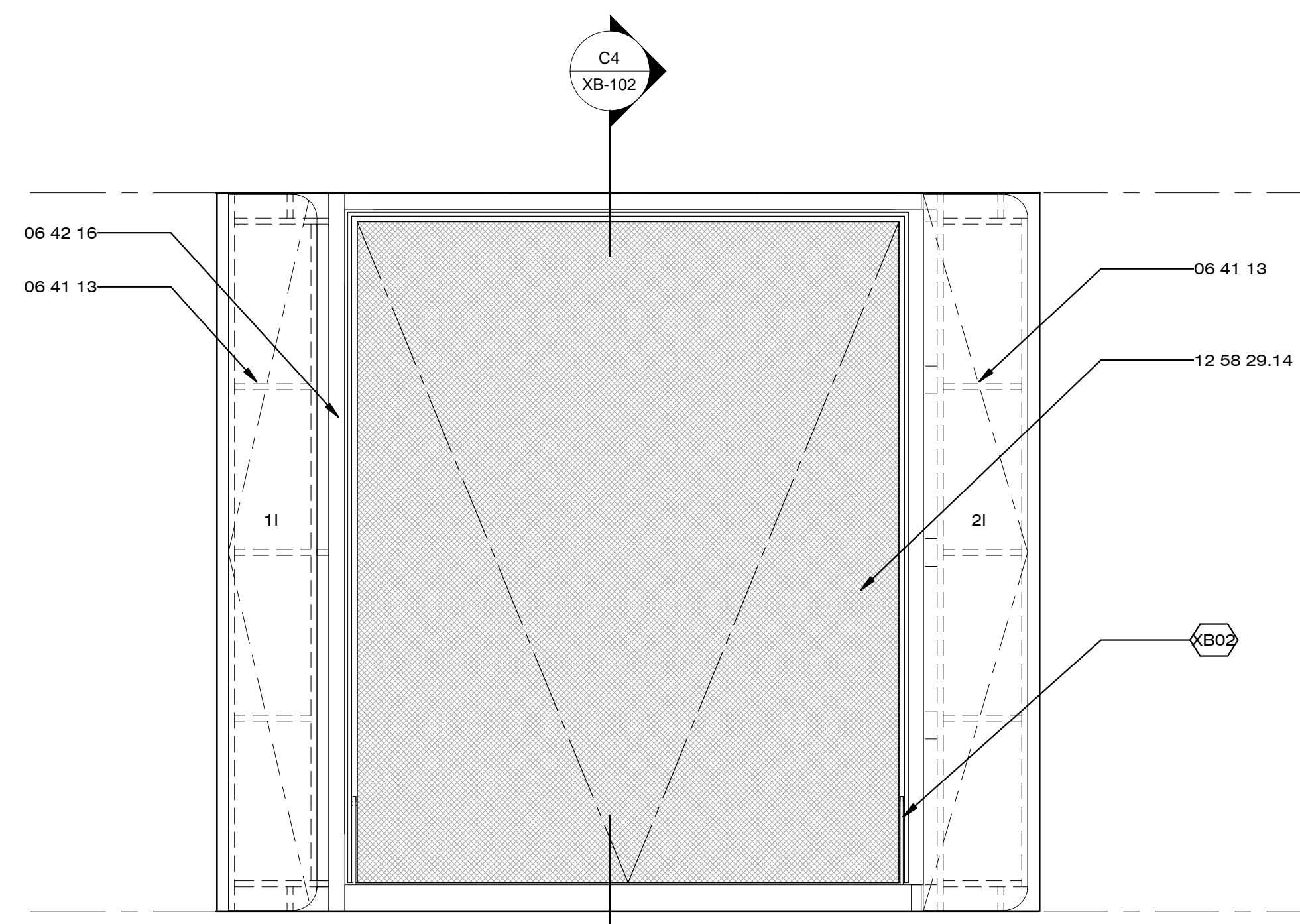
- MURPHY BED MOVEMENT TO BE DEMONSTRATED DURING PUBLIC TOURS BY TEAM DECATHLETES ONLY
- FOR MURPHY BED CABINET DETAILS, SEE SHEET XB-504
- FOR MURPHY BED SPECS, REFER TO PROJECT MANUAL

REFERENCE KEYNOTES

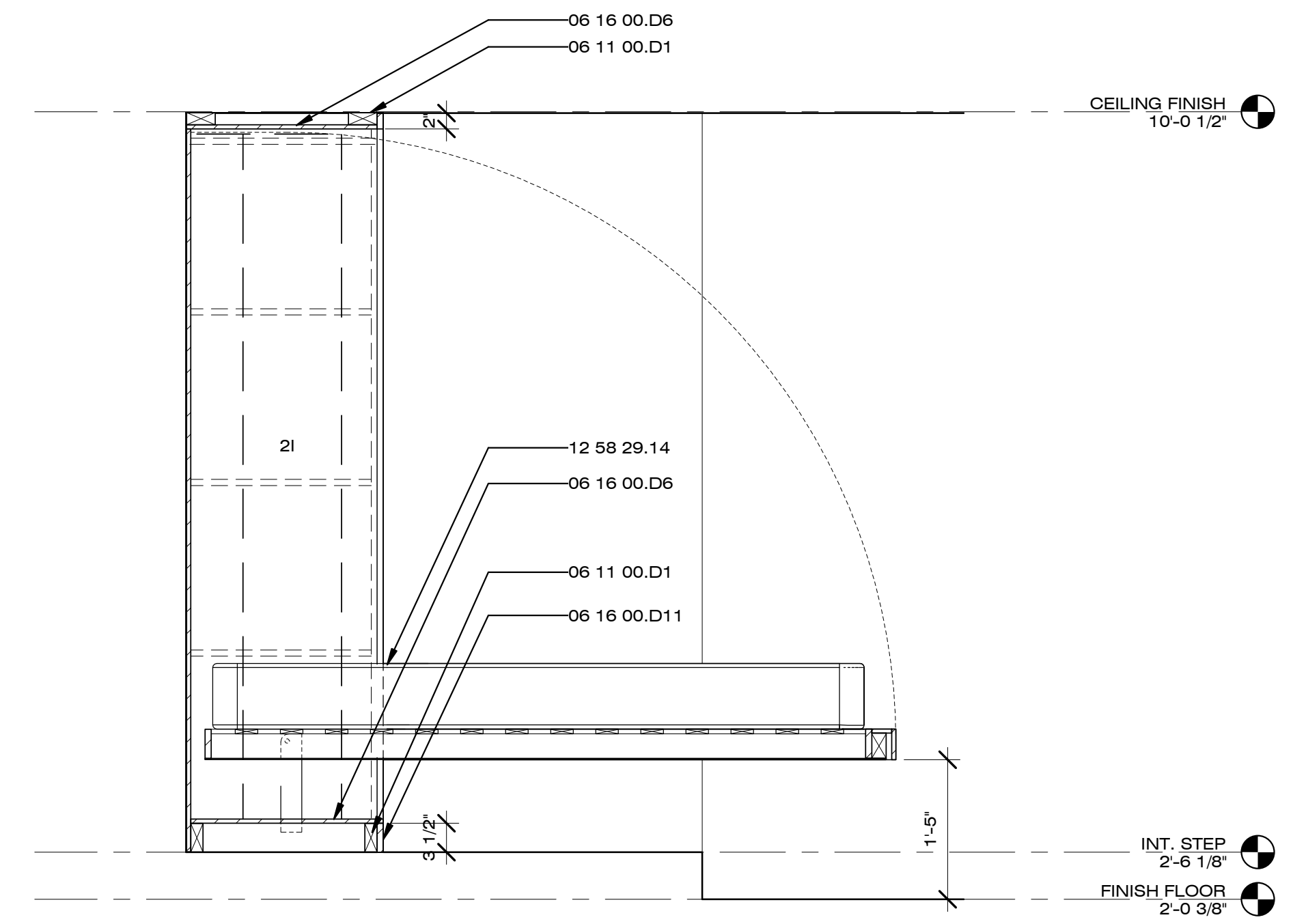
06 11 00.D1	2X4
06 16 00.D6	1/2" PLYWOOD
06 16 00.D11	3/4" PLYWOOD
06 41 13	WOOD-VENEER-FACED ARCHITECTURAL CABINETS
06 42 16	WOOD-VENEER PANELING
12 58 29.14	MURPHY BED
12 58 29.15	MURPHY BUNK BED

SHEET KEYNOTES

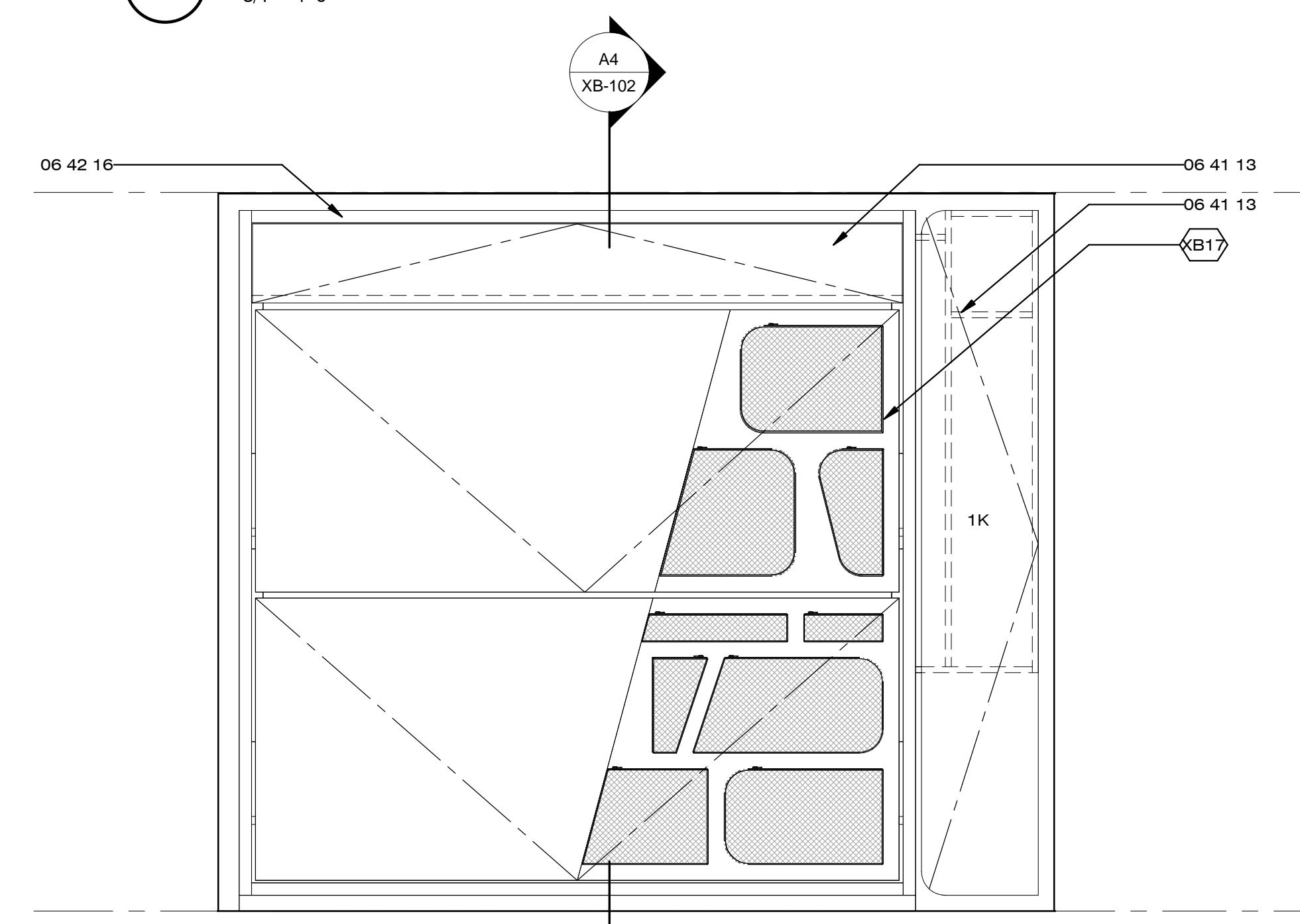
XB01	MURPHY BED PISTON
XB02	MURPHY BED PIVOT
XB17	FABRIC STORAGE COMPARTMENTS



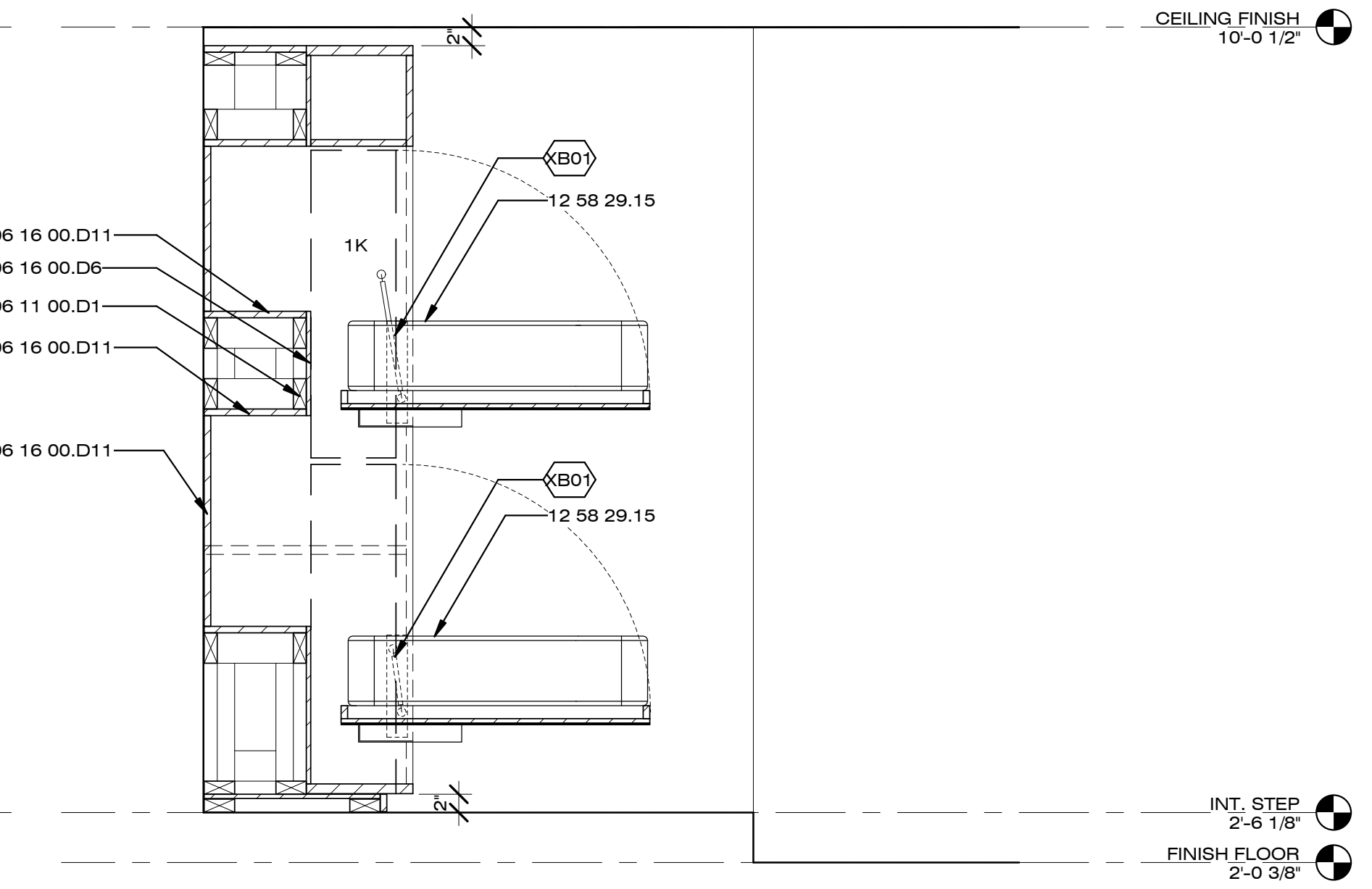
C1 MASTER MURPHY BED ELEVATION
3/4" = 1'-0"



C4 MASTER MURPHY BED SECTION
3/4" = 1'-0"



A1 GUEST MURPHY BED ELEVATION
3/4" = 1'-0"



A4 GUEST MURPHY BED SECTION
3/4" = 1'-0"



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MOVABLE
CABINET DETAILS

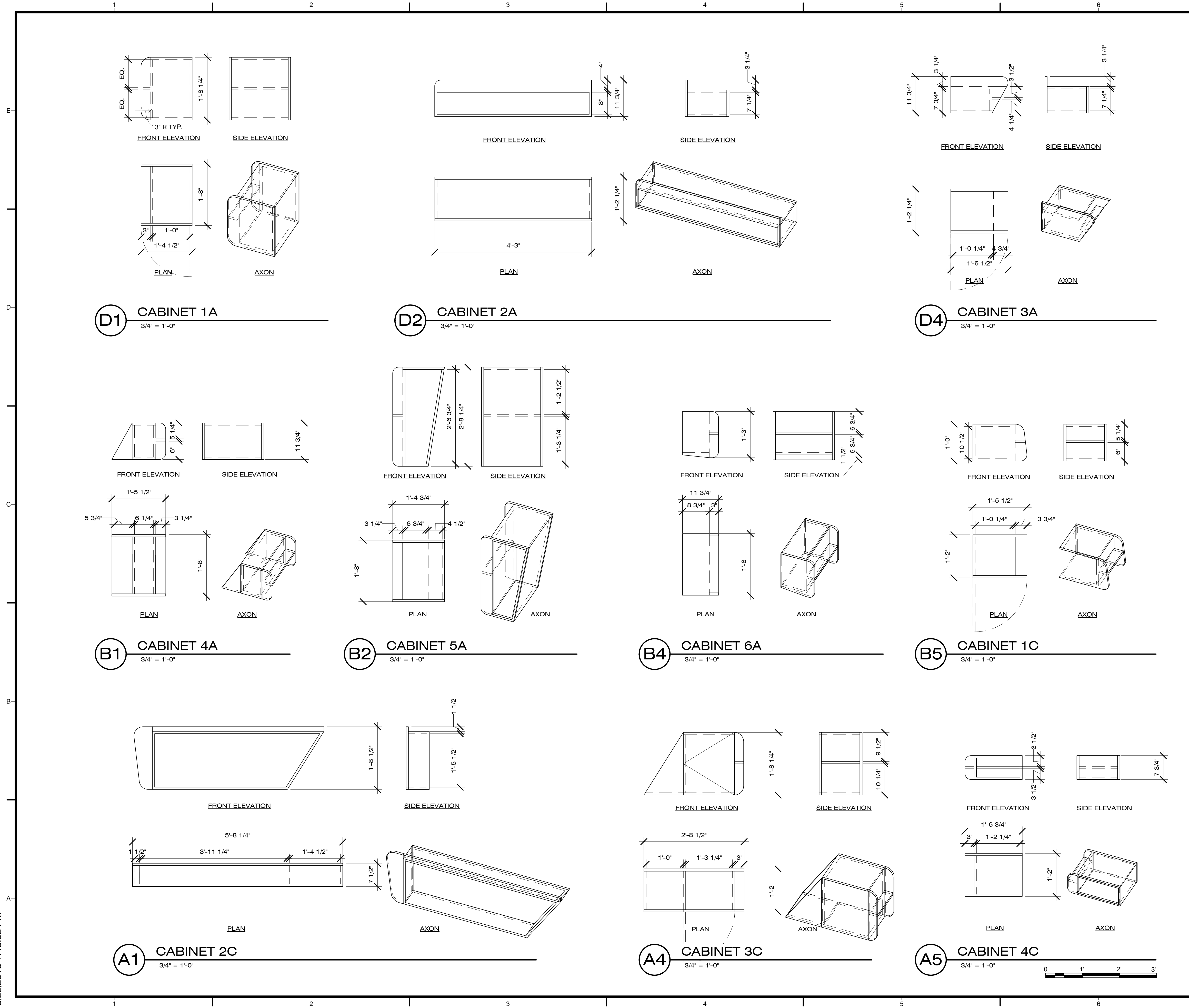
XB-501

GENERAL SHEET NOTES

- ALL MOVABLE CABINETS TO BE MADE OF HORIZONTAL GRAIN MAPLE VENEER WITH 3/4" PLYWOOD CORE

REFERENCE KEYNOTES

SHEET KEYNOTES



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SHEET TITLE

**MOVABLE
CABINET DETAILS**

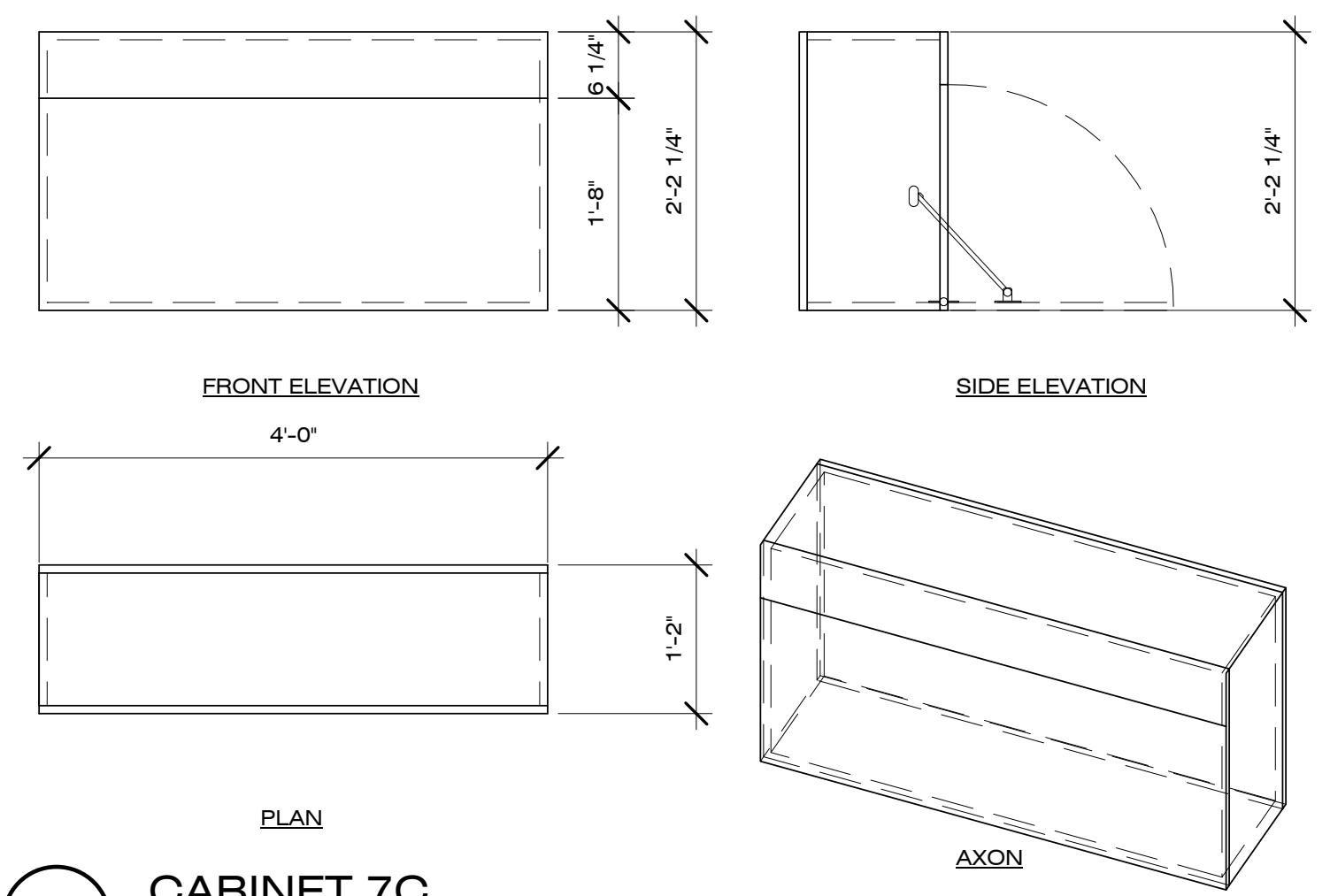
XB-502

GENERAL SHEET NOTES

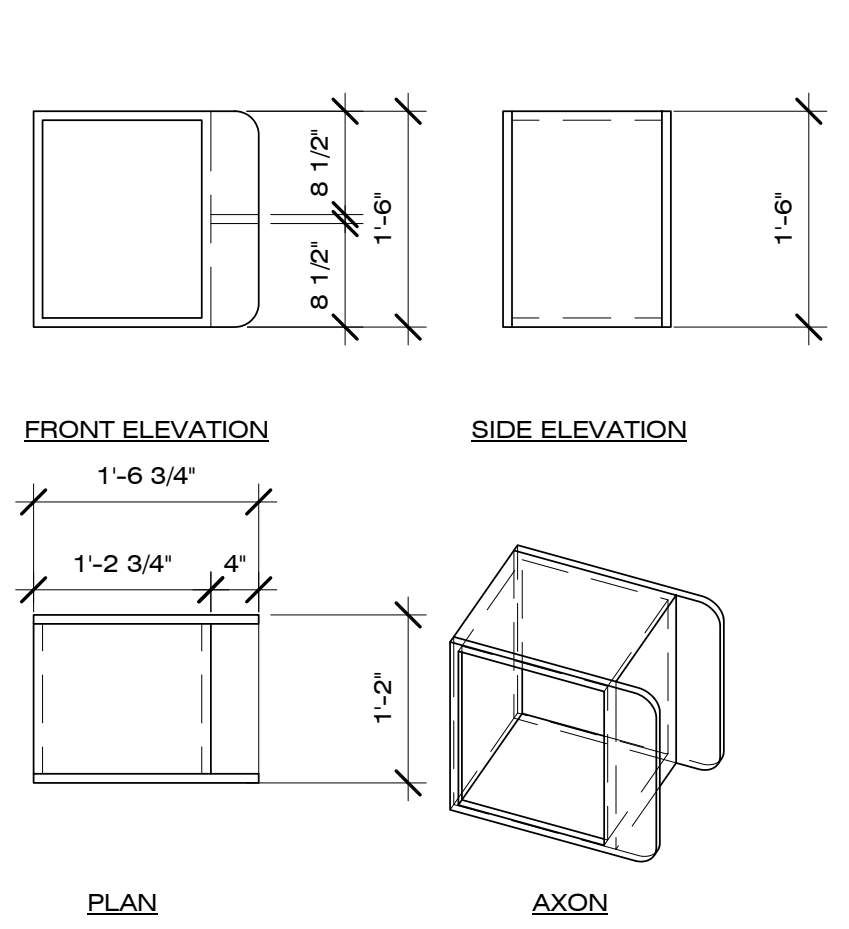
- ALL MOVABLE CABINETS TO BE MADE OF HORIZONTAL GRAIN MAPLE VENEER WITH 3/4" PLYWOOD CORE

REFERENCE KEYNOTES

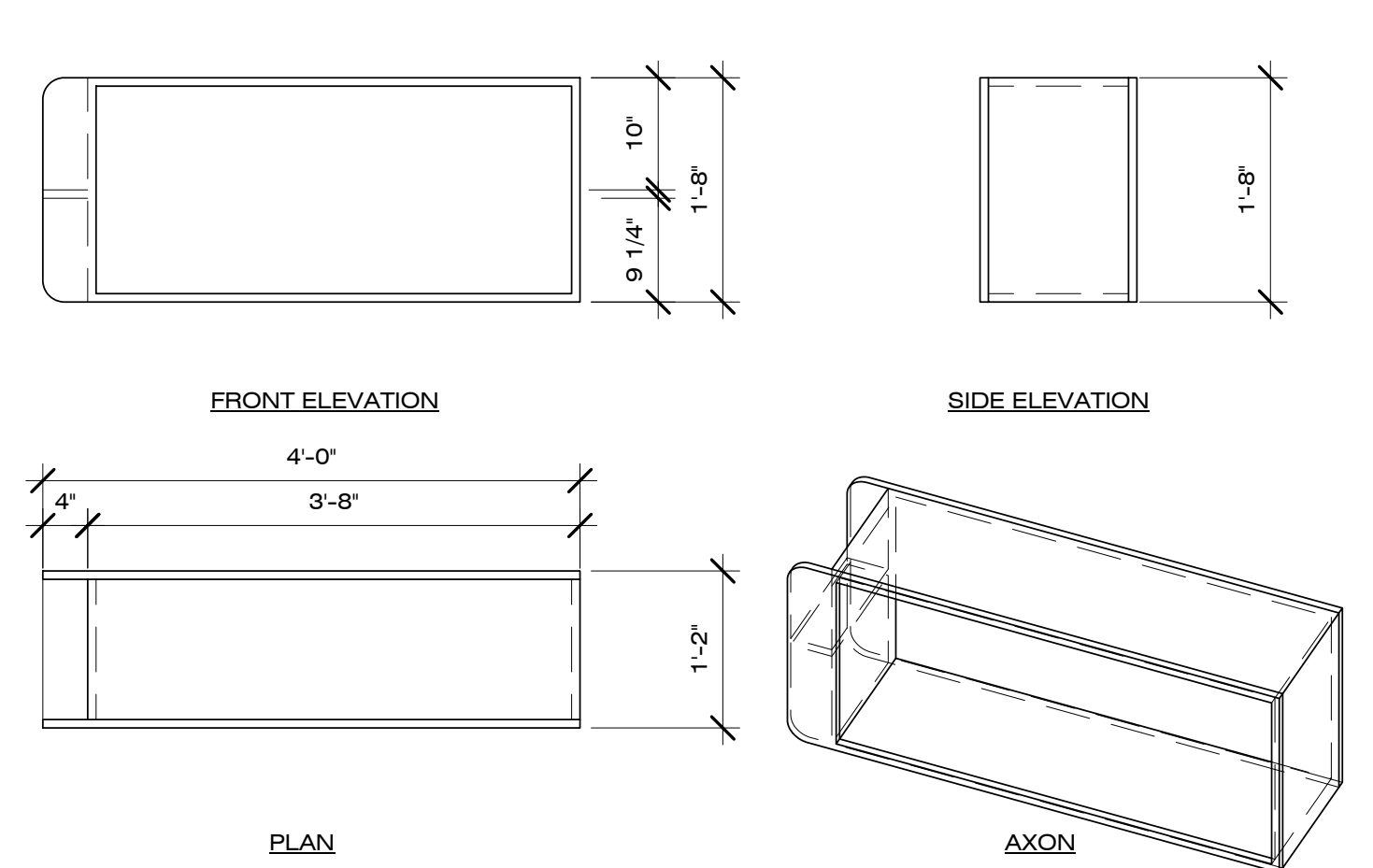
SHEET KEYNOTES



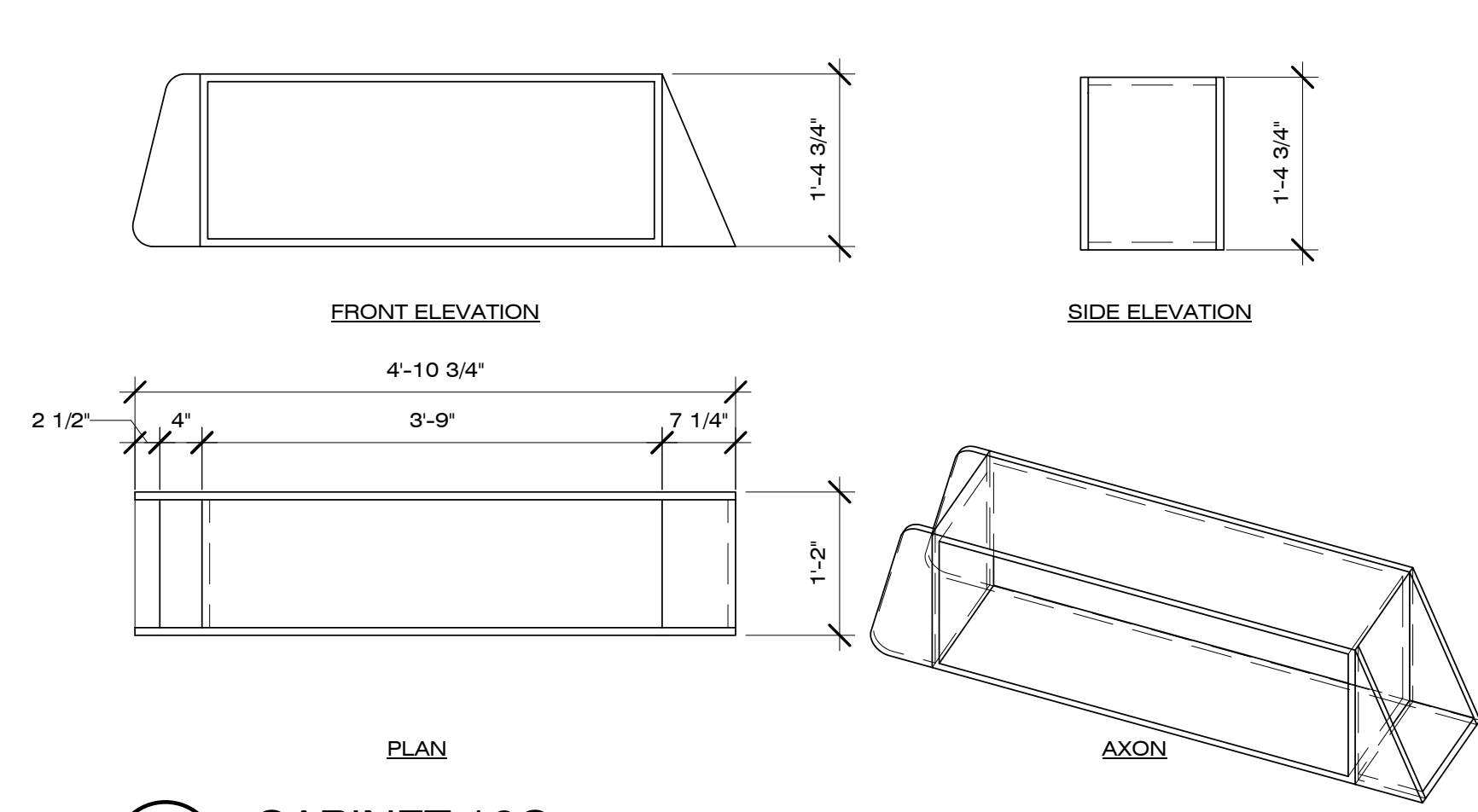
D4 CABINET 7C
3/4" = 1'-0"



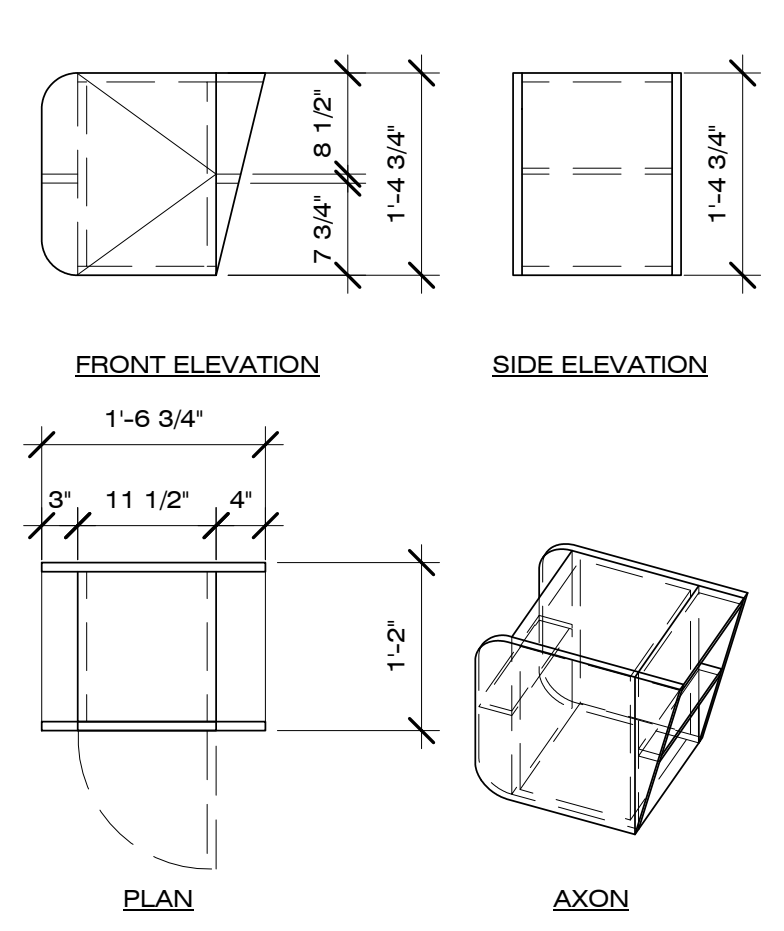
D3 CABINET 6C
3/4" = 1'-0"



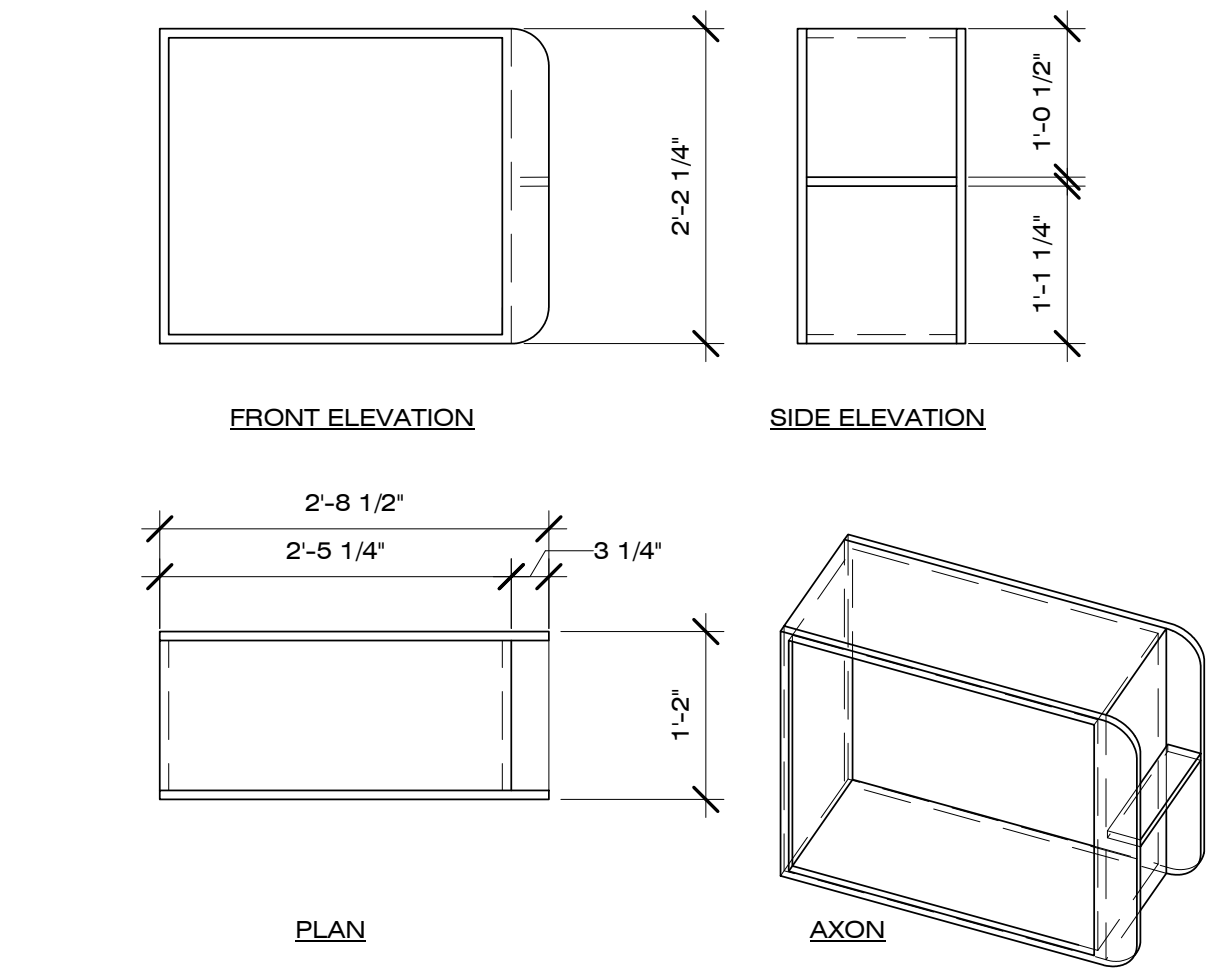
D1 CABINET 5C
3/4" = 1'-0"



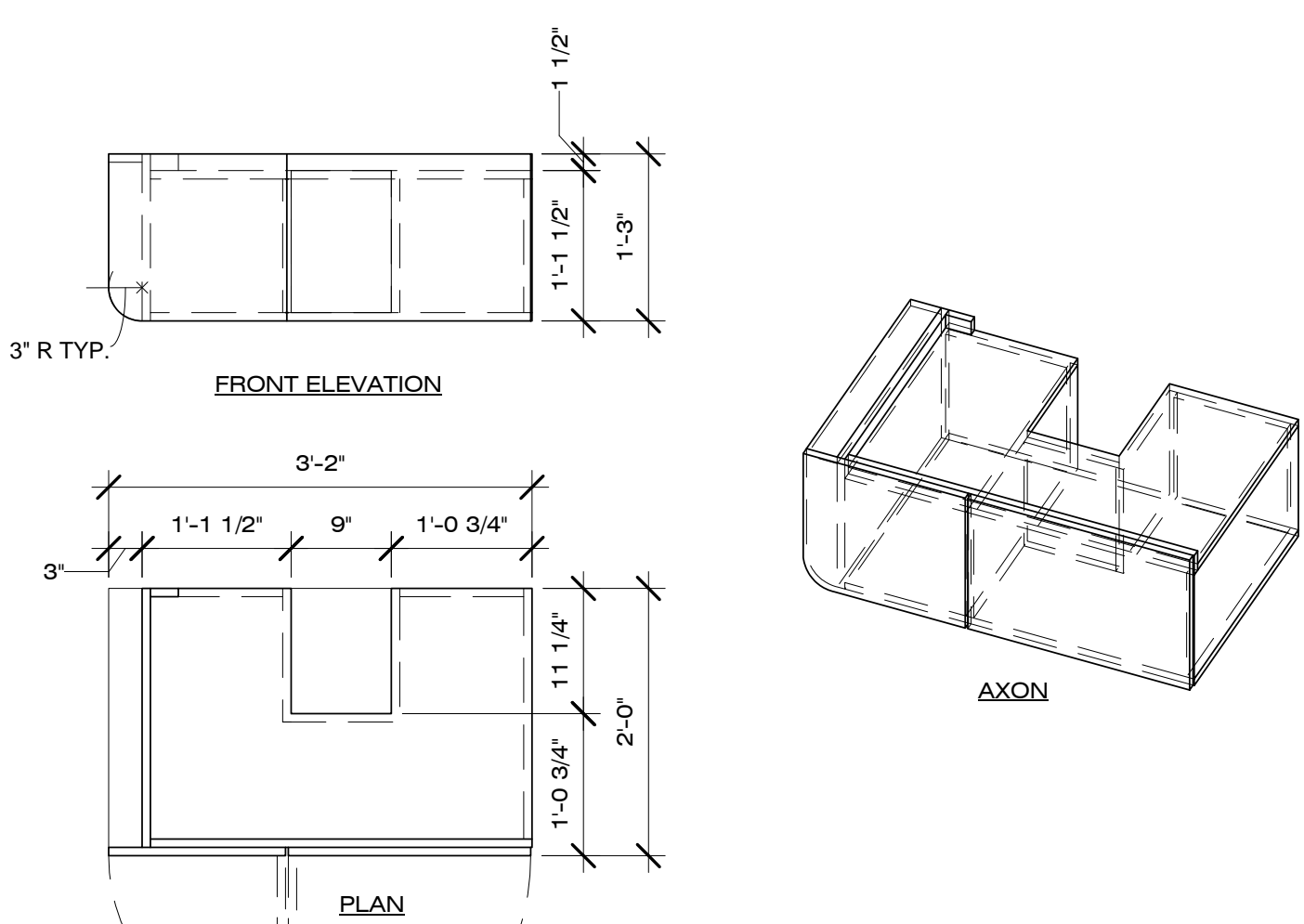
B4 CABINET 10C
3/4" = 1'-0"



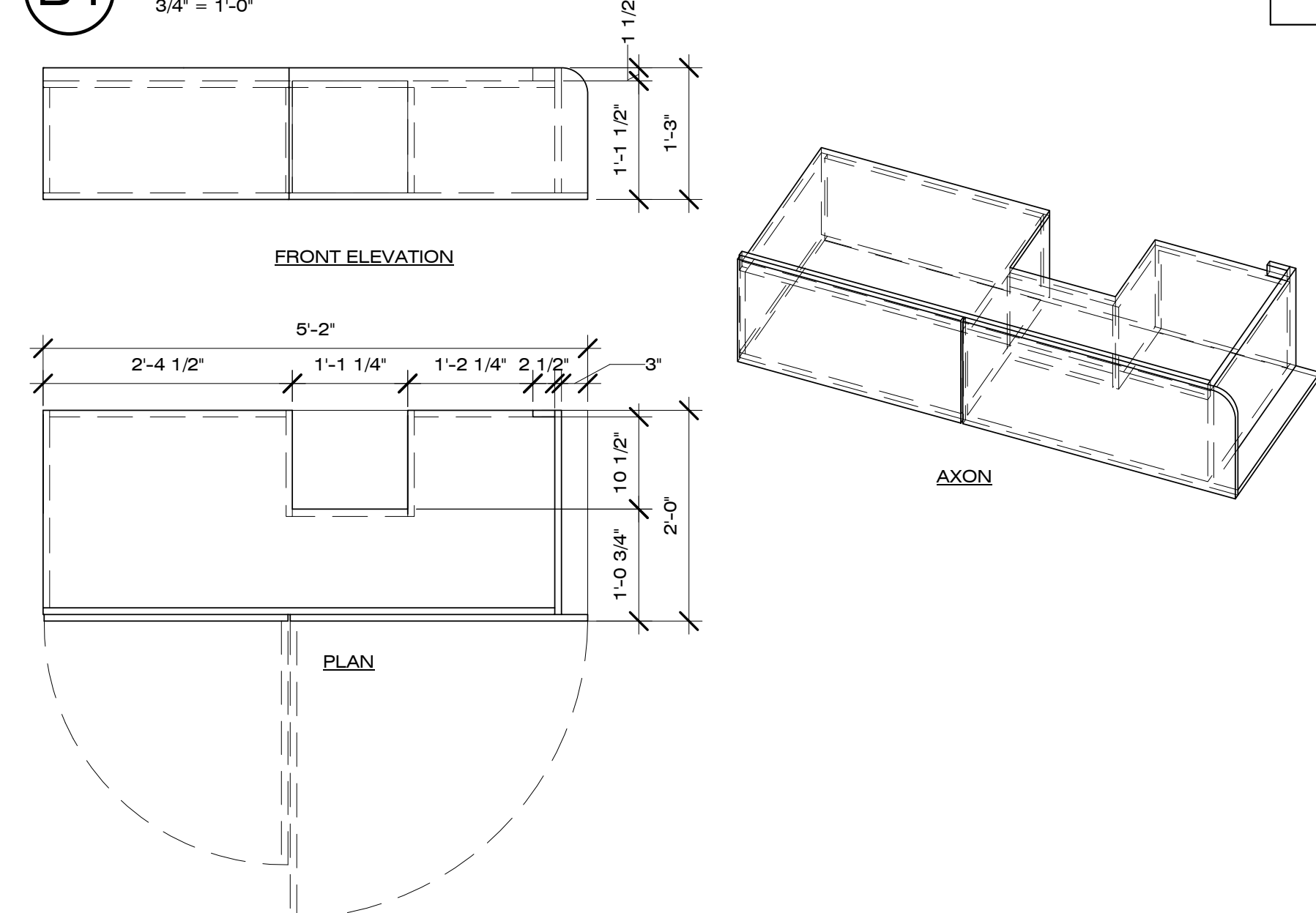
B3 CABINET 9C
3/4" = 1'-0"



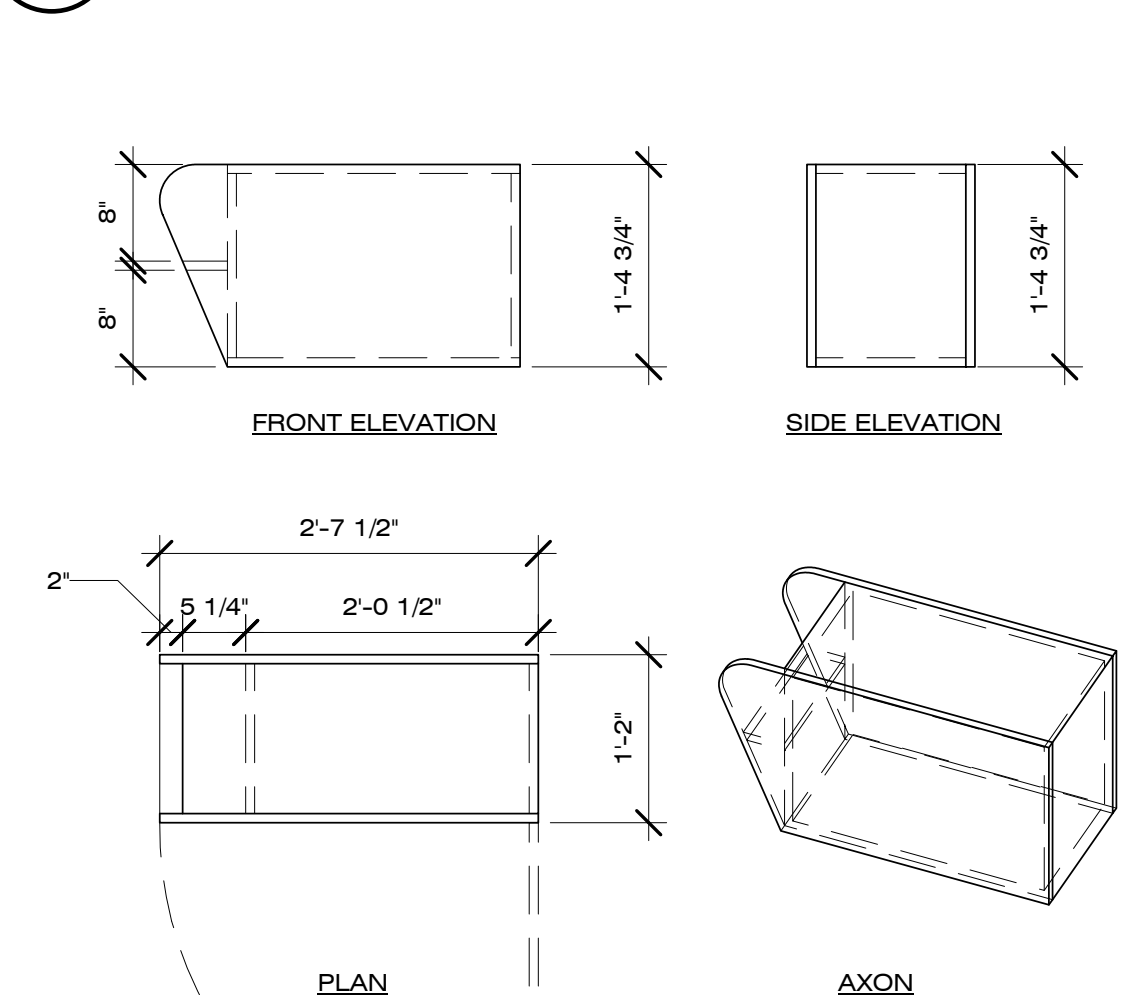
B1 CABINET 8C
3/4" = 1'-0"



A2 CABINET 1E
3/4" = 1'-0"



A4 CABINET 2E
3/4" = 1'-0"



A1 CABINET 11C
3/4" = 1'-0"

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SHEET TITLE

MOVABLE
CABINET DETAILS

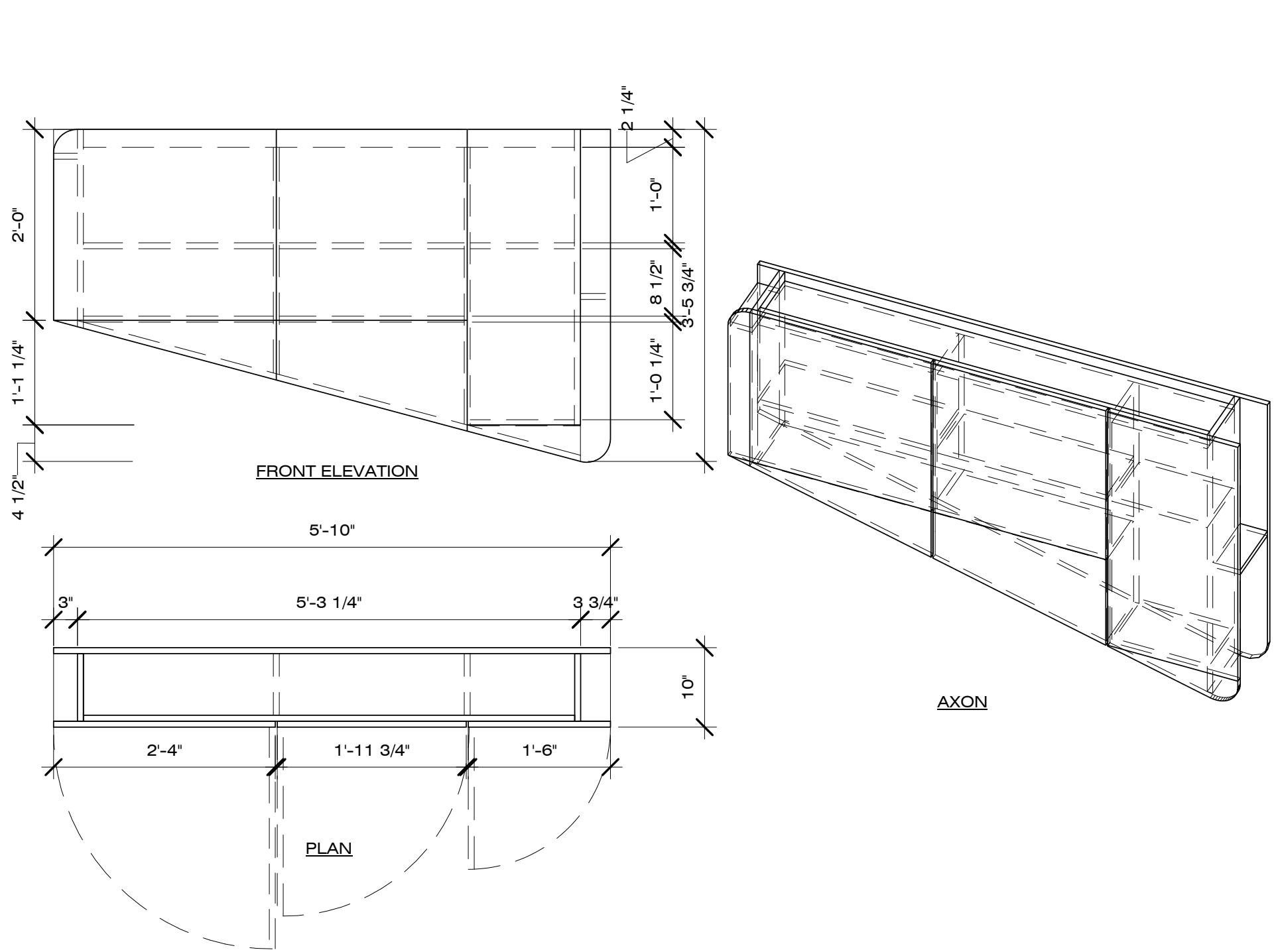
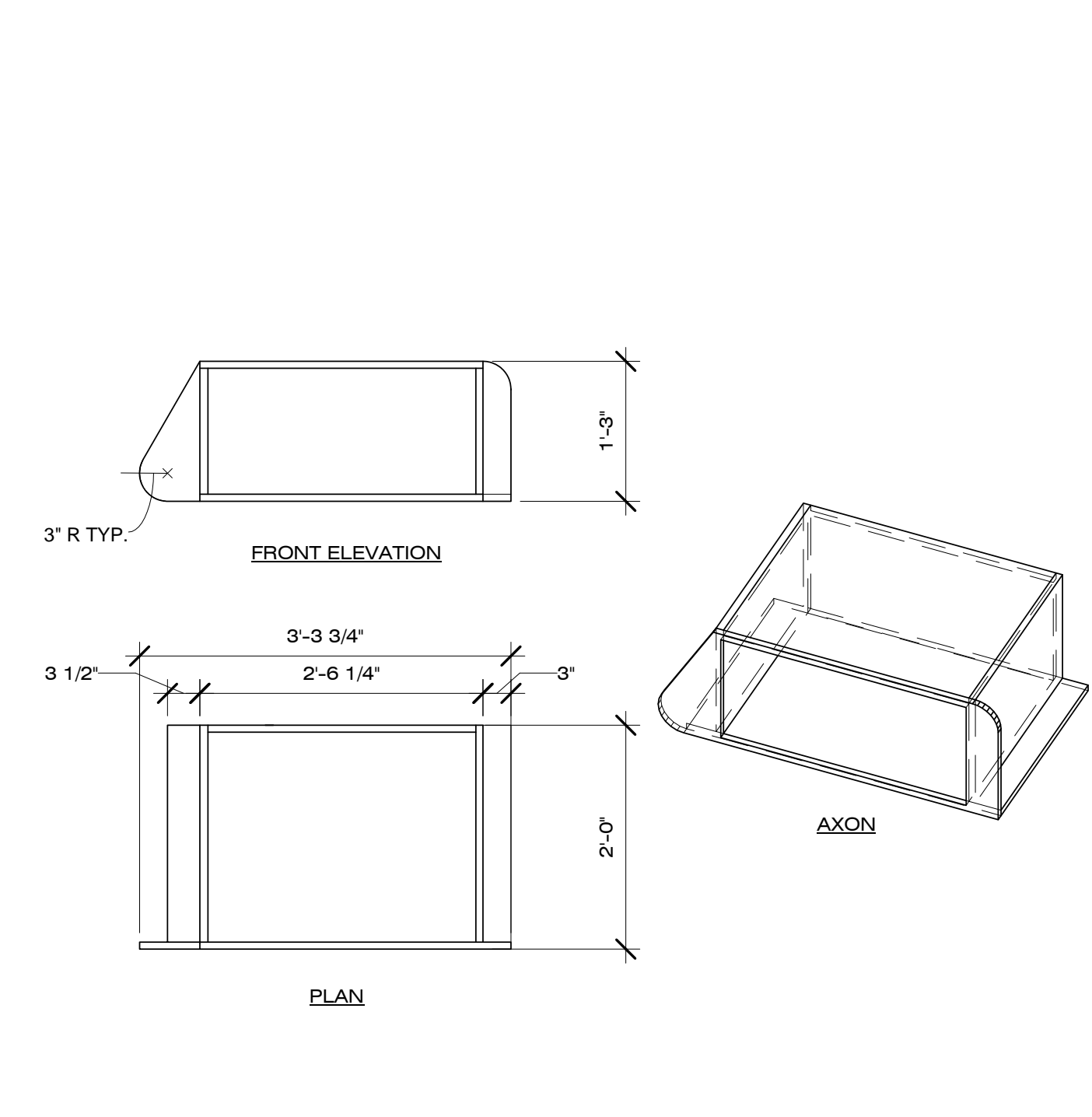
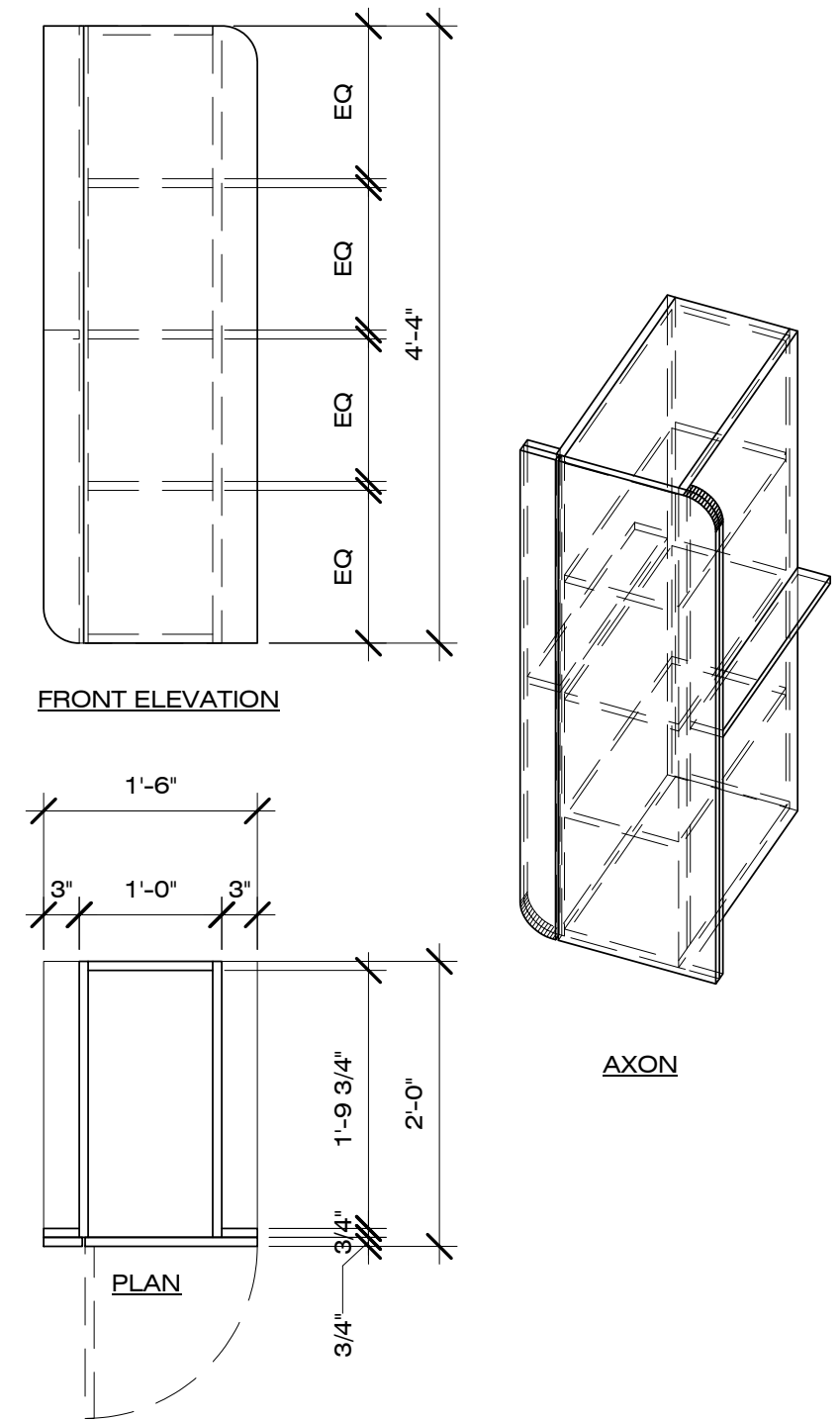
XB-503

GENERAL SHEET NOTES

- ALL MOVABLE CABINETS TO BE MADE OF HORIZONTAL GRAIN MAPLE VENEER WITH 3/4" PLYWOOD CORE

REFERENCE KEYNOTES

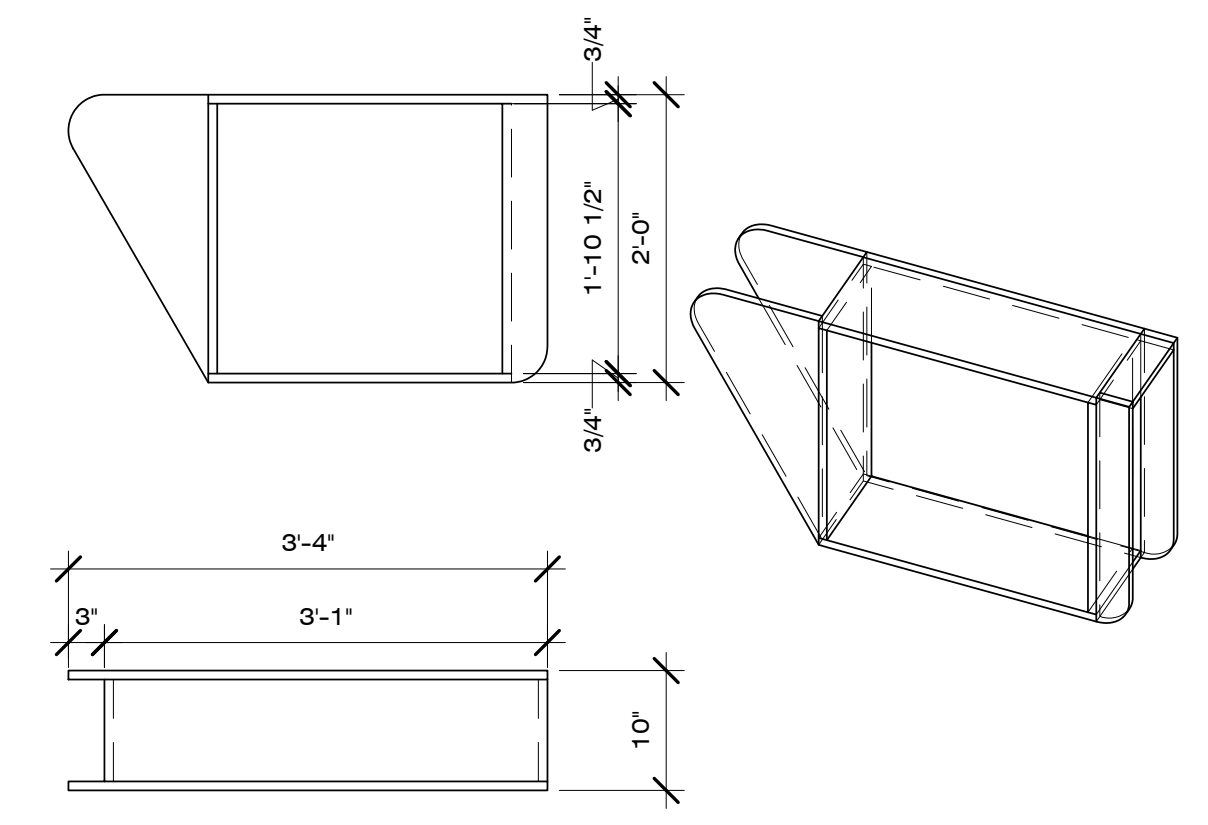
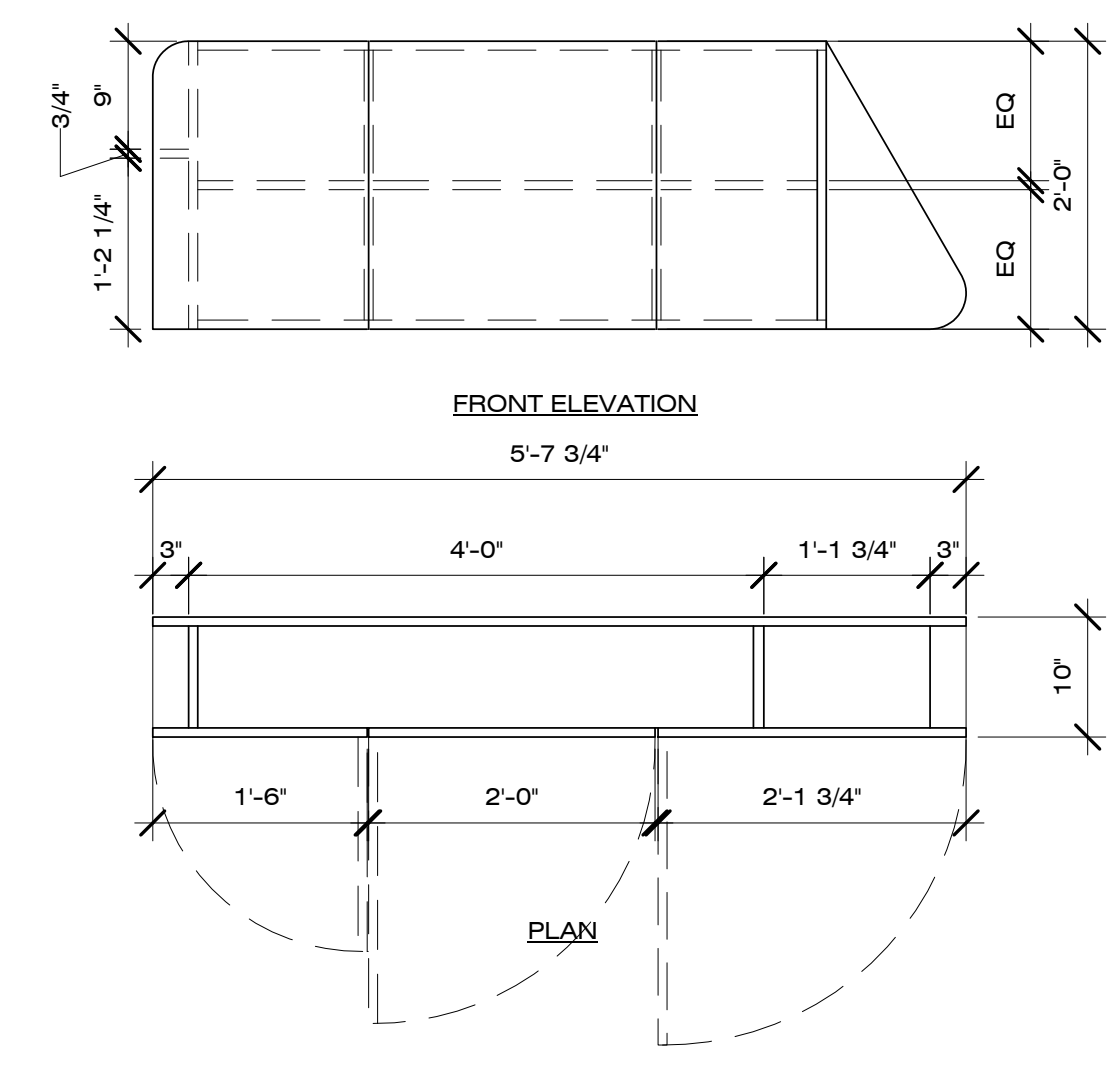
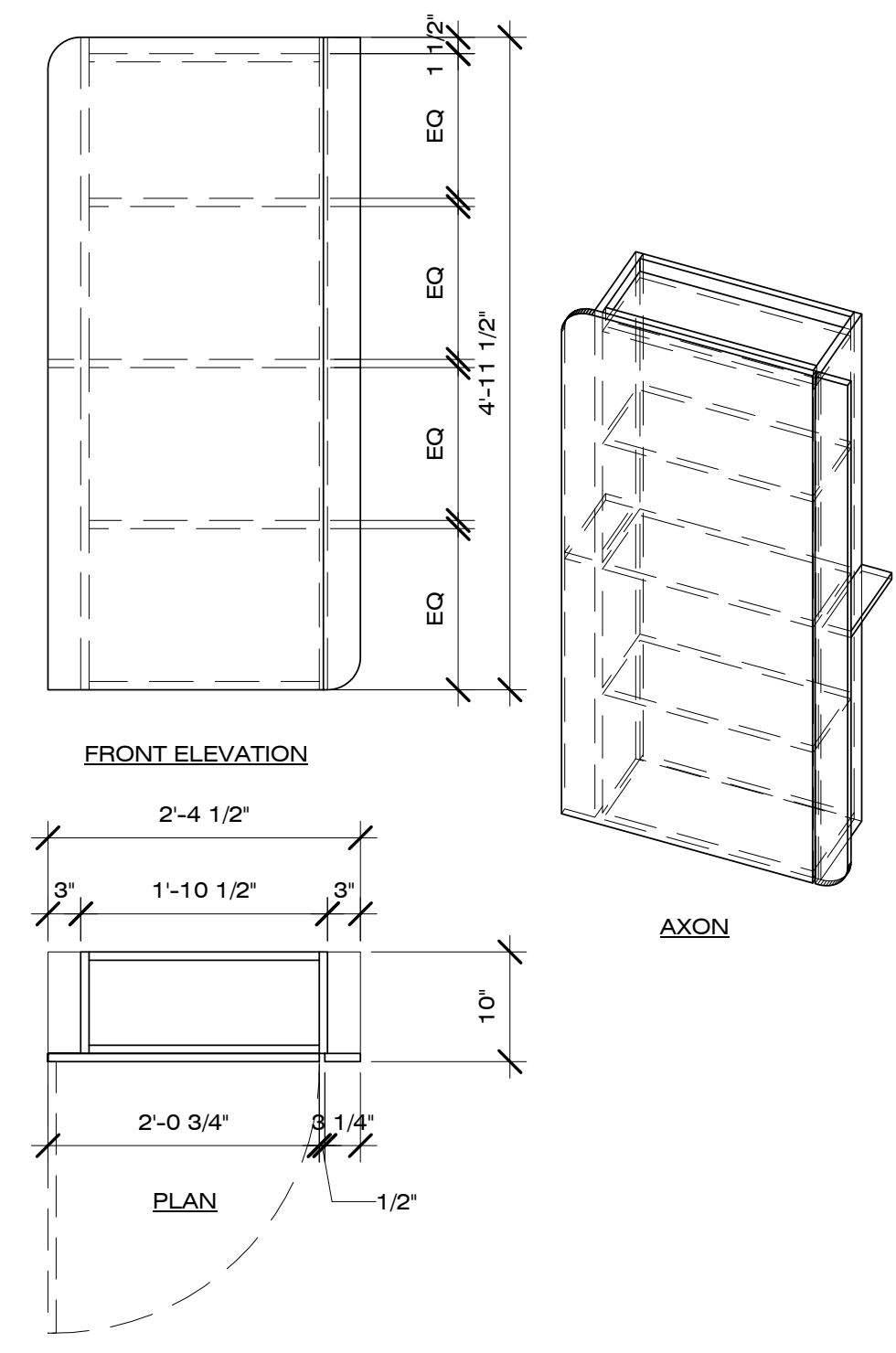
SHEET KEYNOTES



C1 CABINET 3E
3/4" = 1'-0"

C2 CABINET 4E
3/4" = 1'-0"

C4 CABINET 1G
3/4" = 1'-0"



A1 CABINET 2G
3/4" = 1'-0"

A2 CABINET 3G
3/4" = 1'-0"

A5 CABINET 4G
3/4" = 1'-0"



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SHEET TITLE

MURPHY BED
CABINET DETAILS

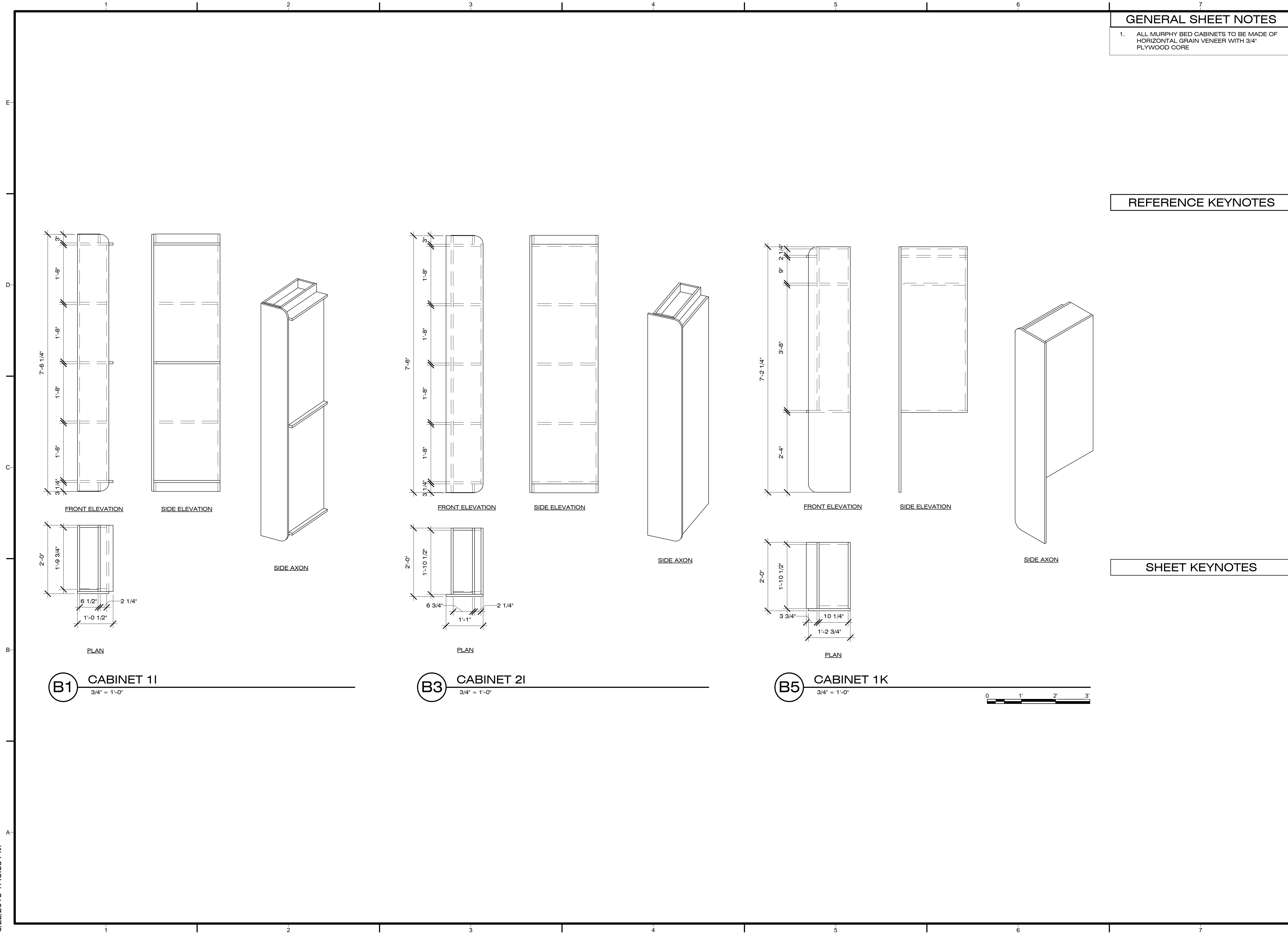
XB-504

GENERAL SHEET NOTES

- ALL MURPHY BED CABINETS TO BE MADE OF HORIZONTAL GRAIN VENEER WITH 3/4" PLYWOOD CORE

REFERENCE KEYNOTES

SHEET KEYNOTES



B1 CABINET 1I
3/4" = 1'-0"

B3 CABINET 2I
3/4" = 1'-0"

B5 CABINET 1K
3/4" = 1'-0"



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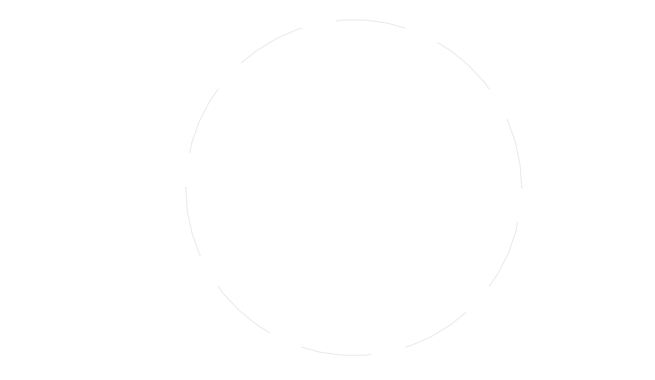
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SHEET TITLE

LANDSCAPE
GENERAL
OVERVIEW

XC-001

GENERAL SHEET NOTES

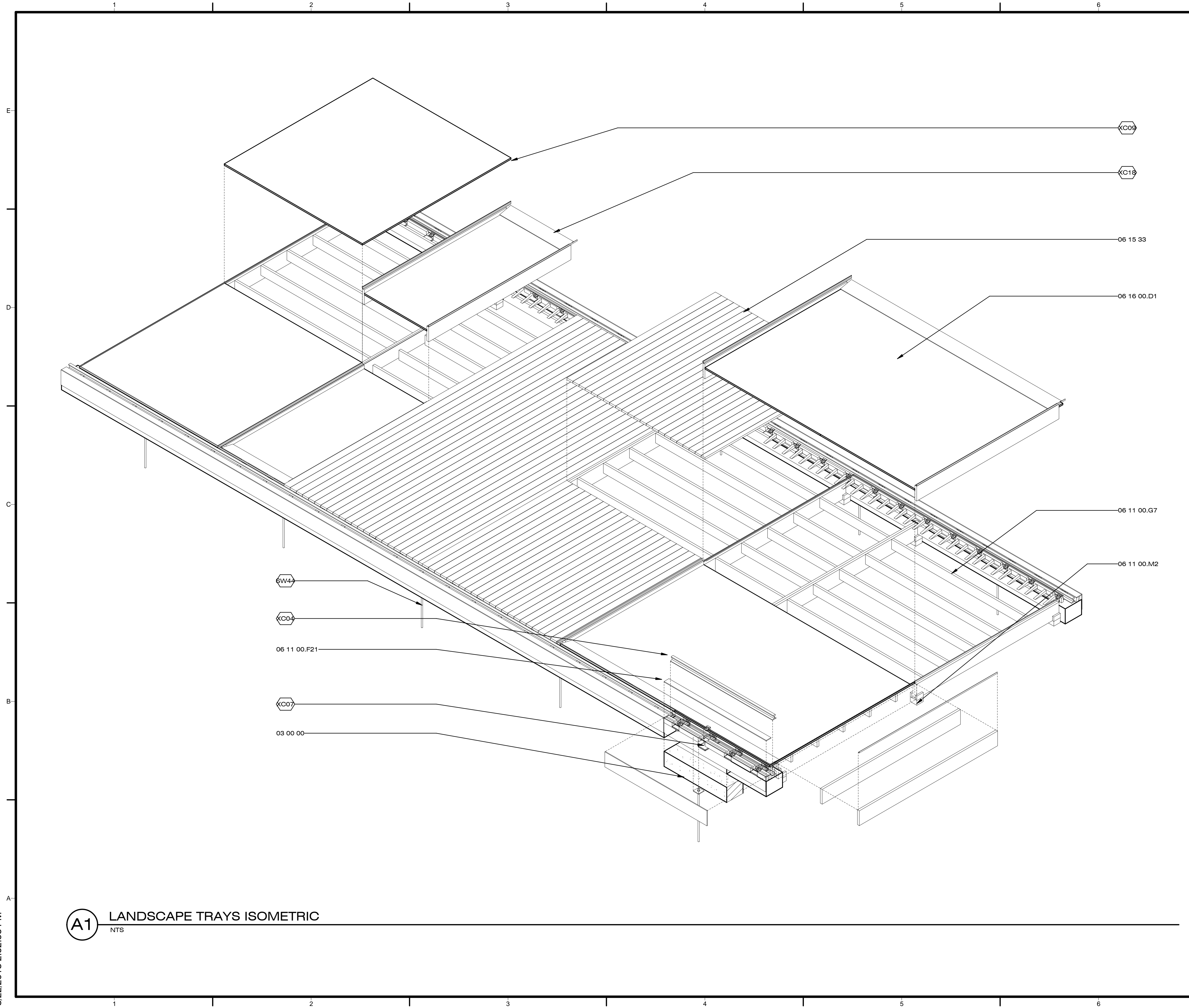
- ADAPTIVE POURED IN PLACE QUICKSETTING CONCRETE RAIL FOUNDATION SYSTEM COMPOSED OF PRE-ASSEMBLED RAILCLIPS AND ANCHORS, HEIGHT ADJUSTABLE SLIP-FORM/ 2X AND PLYWOOD BOXES, DEPTH WOOD FILLER MATERIAL TO ALLOW RAPID ASSEMBLY ON UNEVEN TERRAIN.
- PALLETIZED LANDSCAPE SYSTEM OF 2X WOOD FRAMING SPANNING BETWEEN FOUNDATION AND RAIL CONSTRUCTION INCLUDING SECTION OF WOOD DECKING, TURF, WATER, AND SAND.

REFERENCE KEYNOTES

03 00 00	CONCRETE
06 11 00.F21	2X6 FASCIA
06 11 00.G7	2X8 JOISTS @ 24" O.C.
06 11 00.M2	6X6 POST
06 15 33	WOOD PATIO DECKING
06 16 00.D1	PLYWOOD SHEATHING

SHEET KEYNOTES

SW44	1" DIA. ASTM A307 ALL-THREAD ROD DRIVEN INTO (E) ASPHALT. (5) RODS PLACED IN MIDDLE OF EACH CONCRETE CURB SECTION (10 RODS TOTAL)
XC04	40 LB ASCM RAIL
XC07	J HOOK ENCASED IN 6" MIN CONCRETE
XC09	DECOMPOSED GRANITE
XC18	ANGLED PLYWOOD PITCH FOR PLATFORM BED



(A1) LANDSCAPE TRAYS ISOMETRIC
NTS

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GENERAL SHEET NOTES

- FOR STRUCTURAL FOUNDATION & DECKING DETAILS, SEE SHEET S-101, S-401
- MODULE MOVEMENT RESTRICTED TO CONCRETE BEAM - NOT PERMITTED TO MOVE OVER EXTENDED PRINTED GRAPHICS SECTIONS

REFERENCE KEYNOTES

06 11 00.M2 6X6 POST

SHEET KEYNOTES

G06	SITE BOUNDARY
P15	REMOVABLE HATCH FOR WATER BLADDER ACCESSIBILITY
XC08	GANTREX SOLE PLATE ASSEMBLY
XC17	STEEL LEVELING JACK
XC18	ANGLED PLYWOOD PITCH FOR PLATFORM BED
XC20	BEAM LOC. SHOWN DOTTED BELOW
XC21	JOIST LOC. SHOWN DOTTED BELOW

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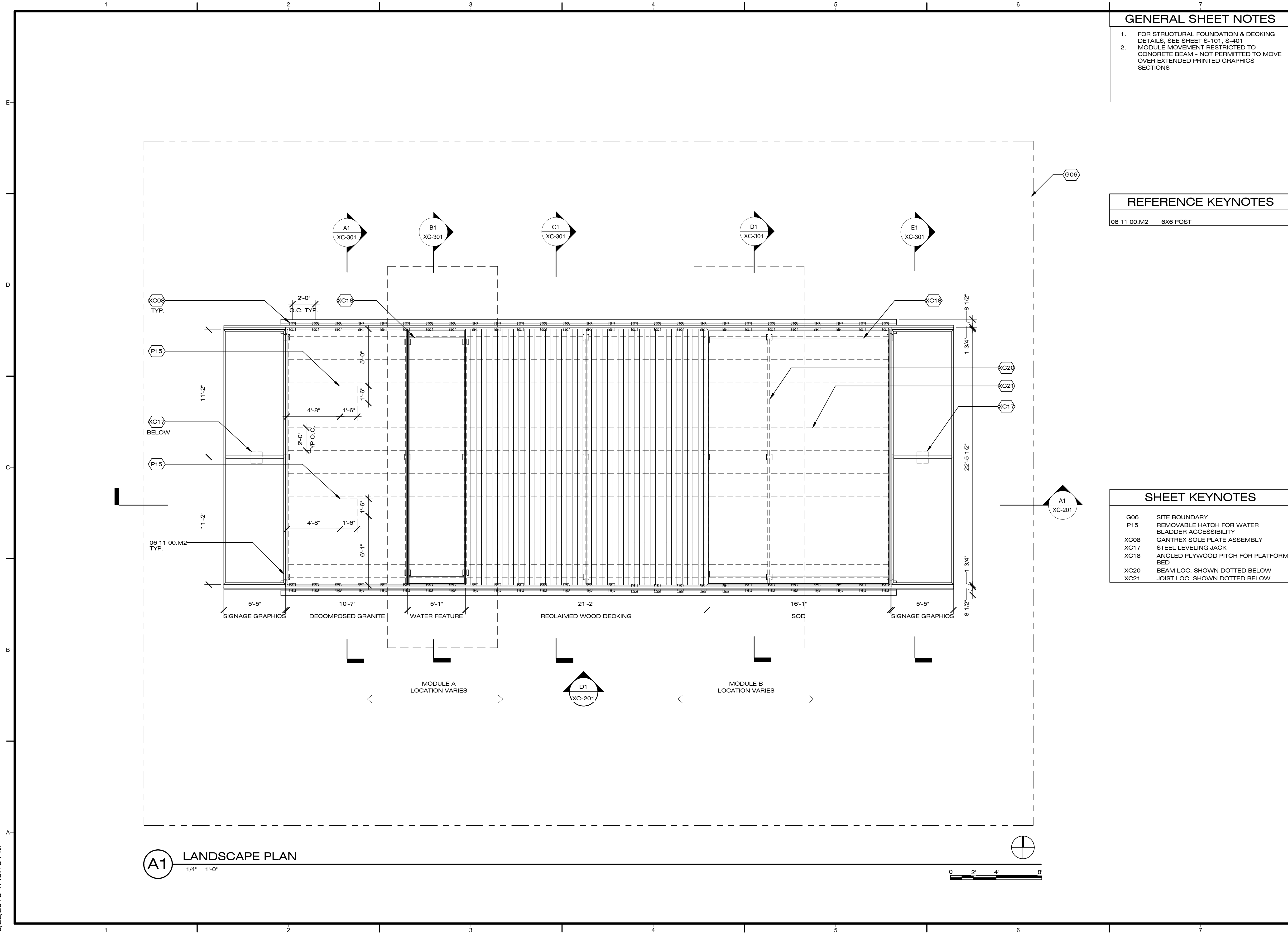
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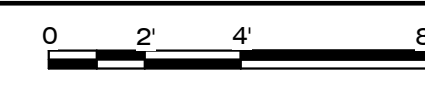
SHEET TITLE

LANDSCAPE PLAN

XC-101



A1 LANDSCAPE PLAN
1/4" = 1'-0"



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- CHANGE IN GRADE APPROXIMATE - TO BE V.I.F.
- MODULE MOVEMENT RESTRICTED TO CONCRETE BEAM - NOT PERMITTED TO MOVE OVER EXTENDED PRINTED GRAPHICS SECTIONS

REFERENCE KEYNOTES

05 05 23.F2	1/2" CARRIAGE BOLT
06 05 23.J0	HANGERS
06 11 00.A2	WOOD BLOCKING AS REQUIRED
06 11 00.I1	2X12
06 11 00.M2	6X6 POST
06 15 33	WOOD PATIO DECKING
06 16 00.D15	1 1/8" PLYWOOD
06 51 14	1"X1" PLASTIC ANGLE
22 12 23.01	WATER SUPPLY BLADDER
31 05 13	SOILS FOR EARTHWORK

SHEET KEYNOTES

P15	REMOVABLE HATCH FOR WATER BLADDER ACCESSIBILITY
SW44	1" DIA. ASTM A307 ALL-THREAD ROD DRIVEN INTO (E) ASPHALT. (5) RODS PLACED IN MIDDLE OF EACH CONCRETE CURB SECTION (10 RODS TOTAL)
XC09	DECOMPOSED GRANITE
XC11	VINYL WATER FEATURE LINER
XC17	STEEL LEVELING JACK
XC22	STRETCHED VINYL OVER STL. FRAME

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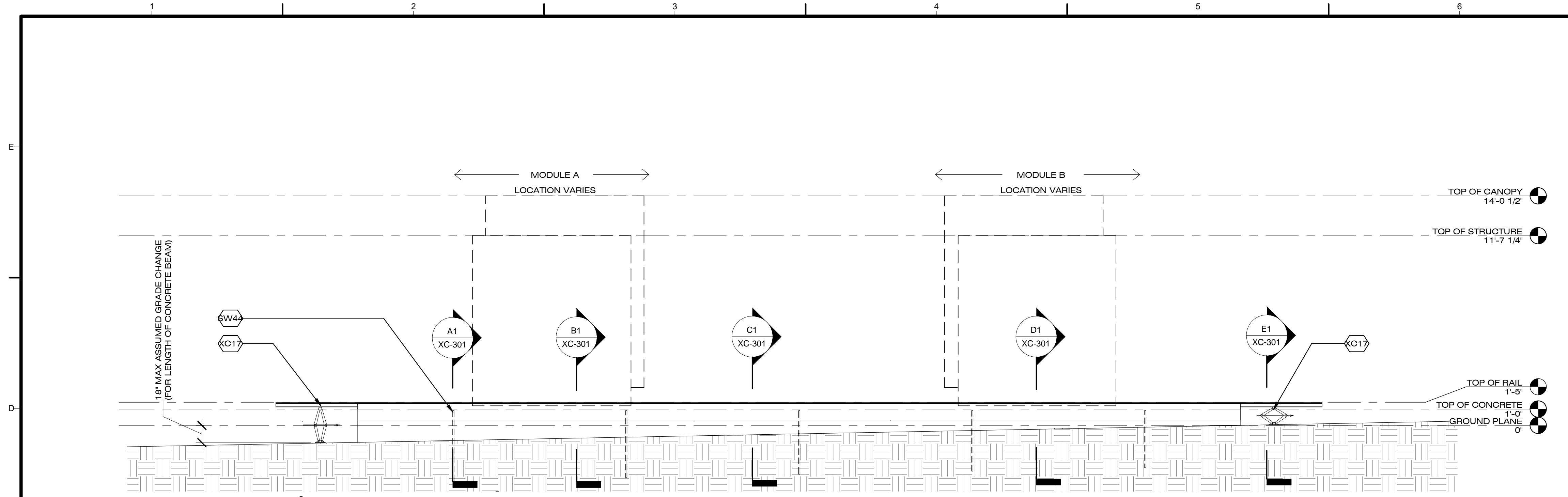
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SHEET TITLE

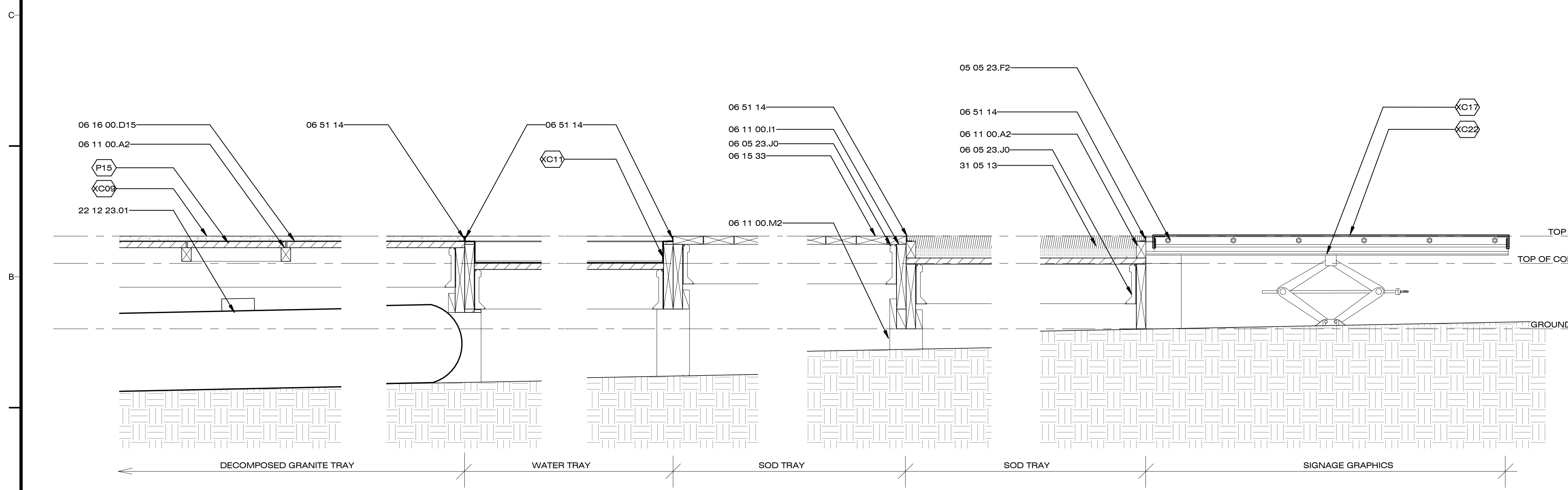
LANDSCAPE ELEVATION AND LONGITUDINAL SECTION

XC-201



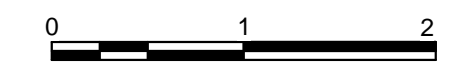
D1 LANDSCAPE NORTH ELEVATION

1/4" = 1'-0"



A1 LANDSCAPE LONGITUDINAL SECTION

1" = 1'-0"



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SHEET TITLE

LANDSCAPE SECTIONS

XC-301

GENERAL SHEET NOTES

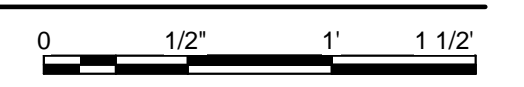
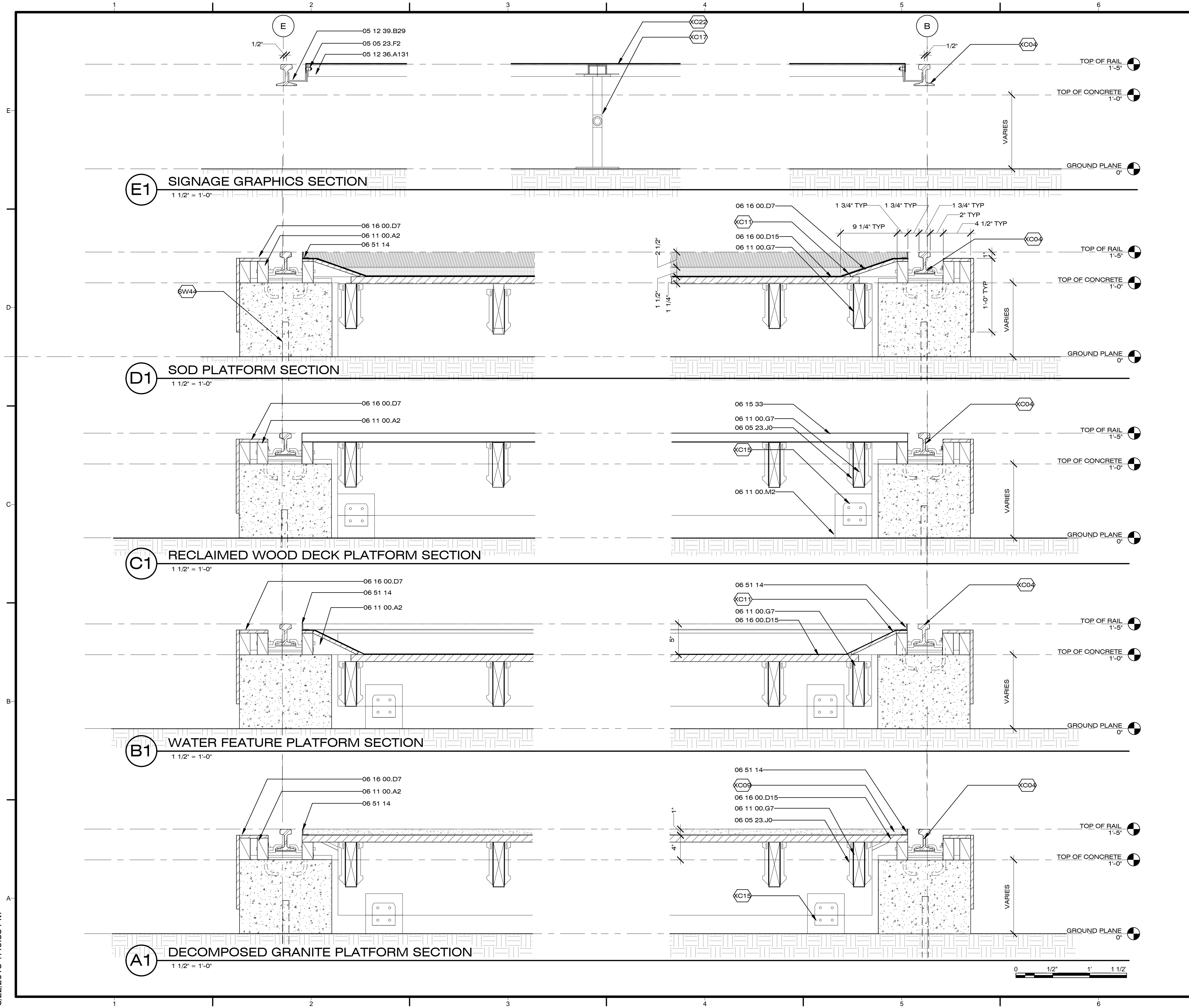
- FOR STRUCTURAL FOUNDATION & DECKING DETAILS, SEE SHEET S-101, S-401
- CHANGE IN GRADE APPROXIMATE - TO BE V.I.F.

REFERENCE KEYNOTES

05 05 23.F2	1/2" CARRIAGE BOLT
05 12 36.A131	L2X2X0.125
05 12 39.B29	C3X4.1
06 05 23.J0	HANGERS
06 11 00.A2	WOOD BLOCKING AS REQUIRED
06 11 00.G7	2X8 JOISTS @ 24" O.C.
06 11 00.M2	6X6 POST
06 15 33	WOOD PATIO DECKING
06 16 00.D7	1/2" EXTERIOR GRADE PLYWOOD
06 16 00.D15	1 1/8" PLYWOOD
06 51 14	1"X1" PLASTIC ANGLE

SHEET KEYNOTES

SW44	1" DIA. ASTM A307 ALL-THREAD ROD DRIVEN INTO (E) ASPHALT. (5) RODS PLACED IN MIDDLE OF EACH CONCRETE CURB SECTION (10 RODS TOTAL)
XC04	40 LB ASCM RAIL
XC09	DECOMPOSED GRANITE
XC11	VINYL WATER FEATURE LINER
XC15	SIMPSON HTC4
XC17	STEEL LEVELING JACK
XC22	STRETCHED VINYL OVER STL. FRAME



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SHEET TITLE

VINYL SKIN OVERVIEW

XD-001

GENERAL SHEET NOTES

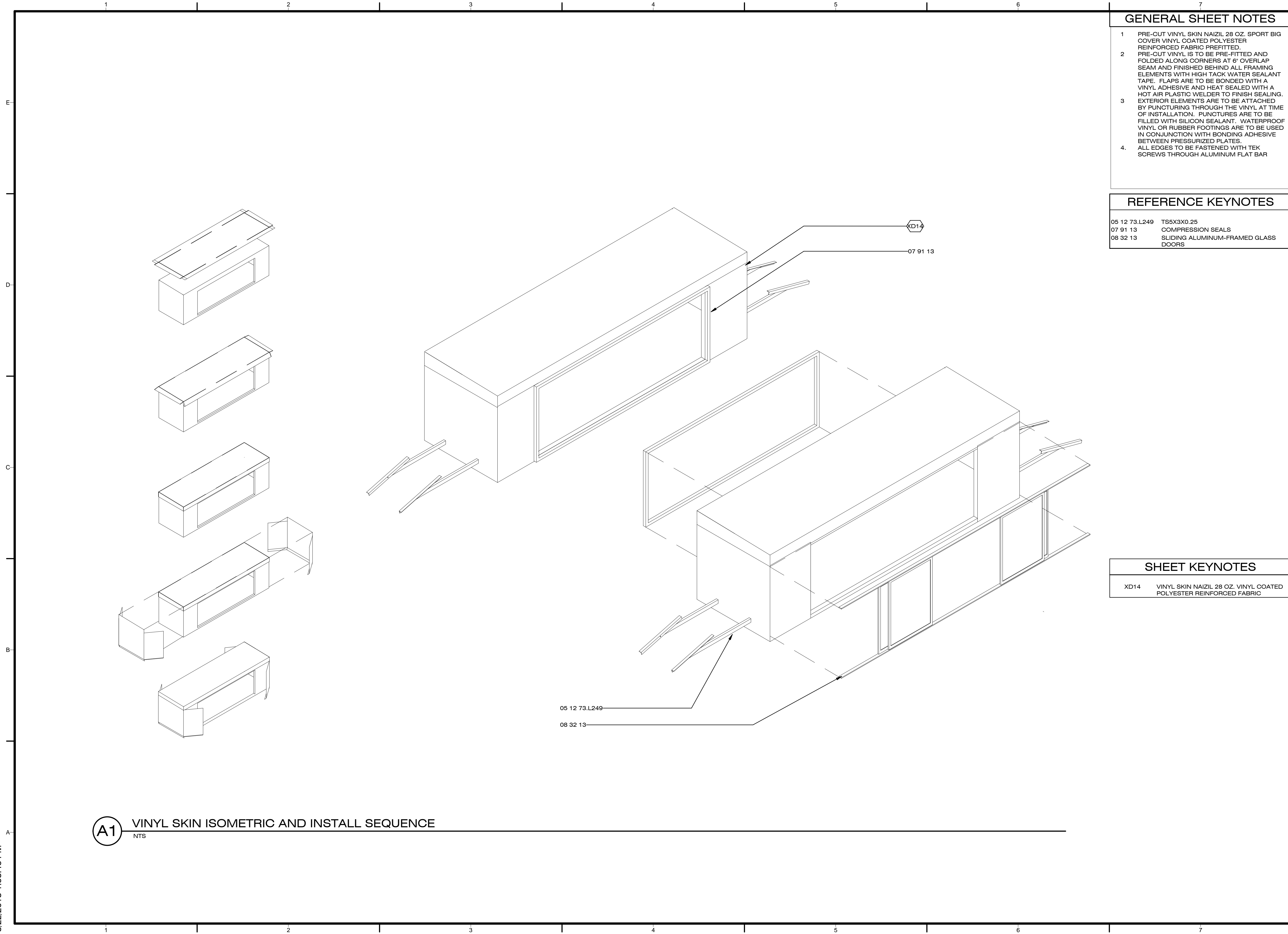
- 1 PRE-CUT VINYL SKIN NAIZIL 28 OZ. SPORT BIG COVER VINYL COATED POLYESTER REINFORCED FABRIC PREFITTED.
- 2 PRE-CUT VINYL IS TO BE PRE-FITTED AND FOLDED ALONG CORNERS AT 6" OVERLAP SEAM AND FINISHED BEHIND ALL FRAMING ELEMENTS WITH HIGH TACK WATER SEALANT TAPE. FLAPS ARE TO BE BONDED WITH A VINYL ADHESIVE AND HEAT SEALED WITH A HOT AIR PLASTIC WELDER TO FINISH SEALING. EXTERIOR ELEMENTS ARE TO BE ATTACHED BY PUNCTURING THROUGH THE VINYL AT TIME OF INSTALLATION. PUNCTURES ARE TO BE FILLED WITH SILICON SEALANT. WATERPROOF VINYL OR RUBBER FOOTINGS ARE TO BE USED IN CONJUNCTION WITH BONDING ADHESIVE BETWEEN PRESSURIZED PLATES.
- 3 ALL EDGES TO BE FASTENED WITH TEK SCREWS THROUGH ALUMINUM FLAT BAR

REFERENCE KEYNOTES

05 12 73.L249	TS5X3X0.25
07 91 13	COMPRESSION SEALS
08 32 13	SLIDING ALUMINUM-FRAMED GLASS DOORS

SHEET KEYNOTES

XD14	VINYL SKIN NAIZIL 28 OZ. VINYL COATED POLYESTER REINFORCED FABRIC
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(A1) VINYL SKIN ISOMETRIC AND INSTALL SEQUENCE
NTS

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REFERENCE KEYNOTES

SHEET KEYNOTES

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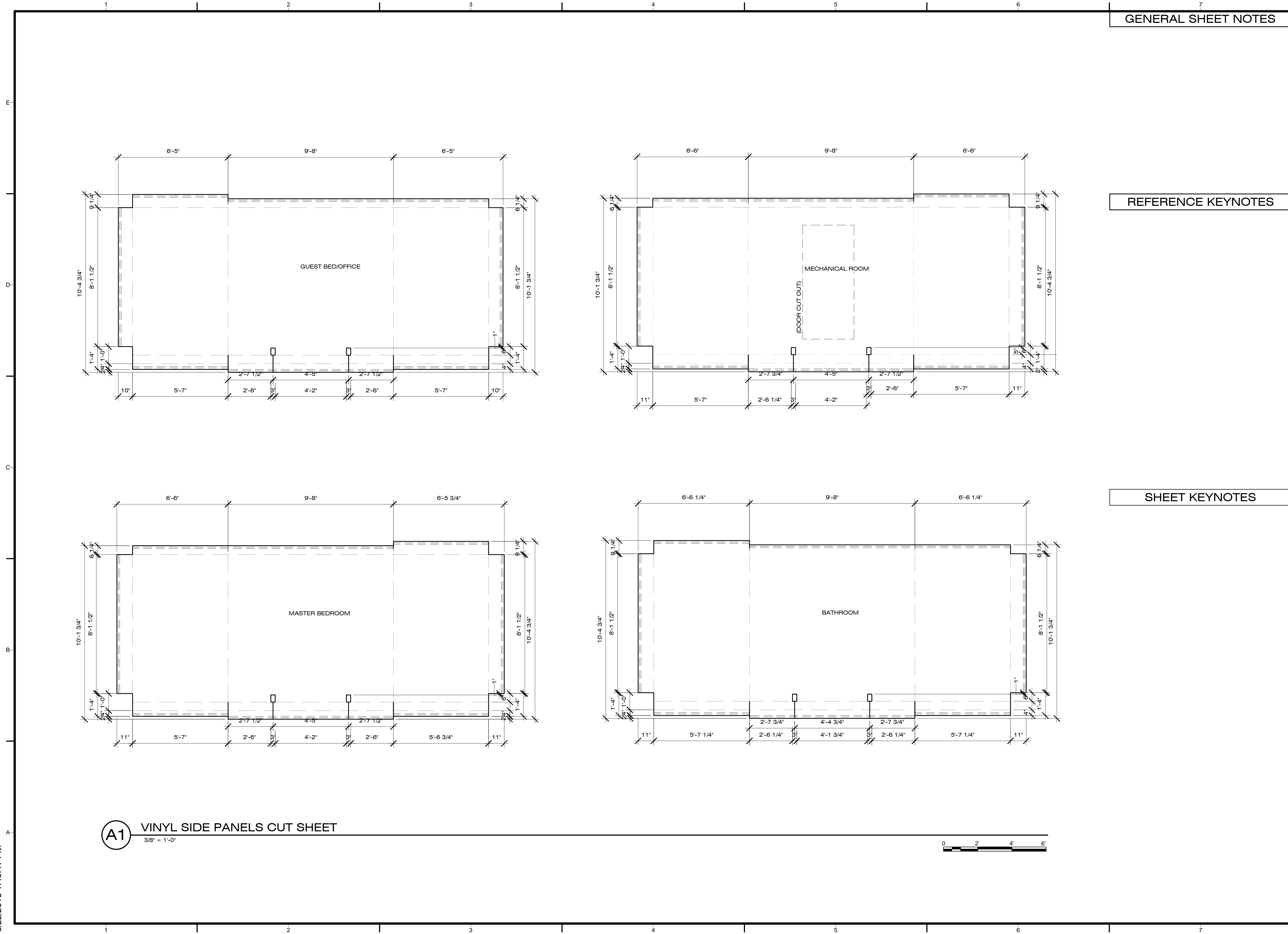
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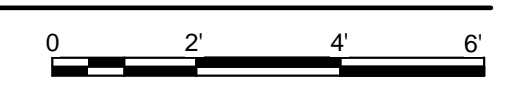
SHEET TITLE

VINYL SKIN SIDE
PANELS CUT
SHEET

XD-102



A1 VINYL SIDE PANELS CUT SHEET
3/8" = 1'-0"



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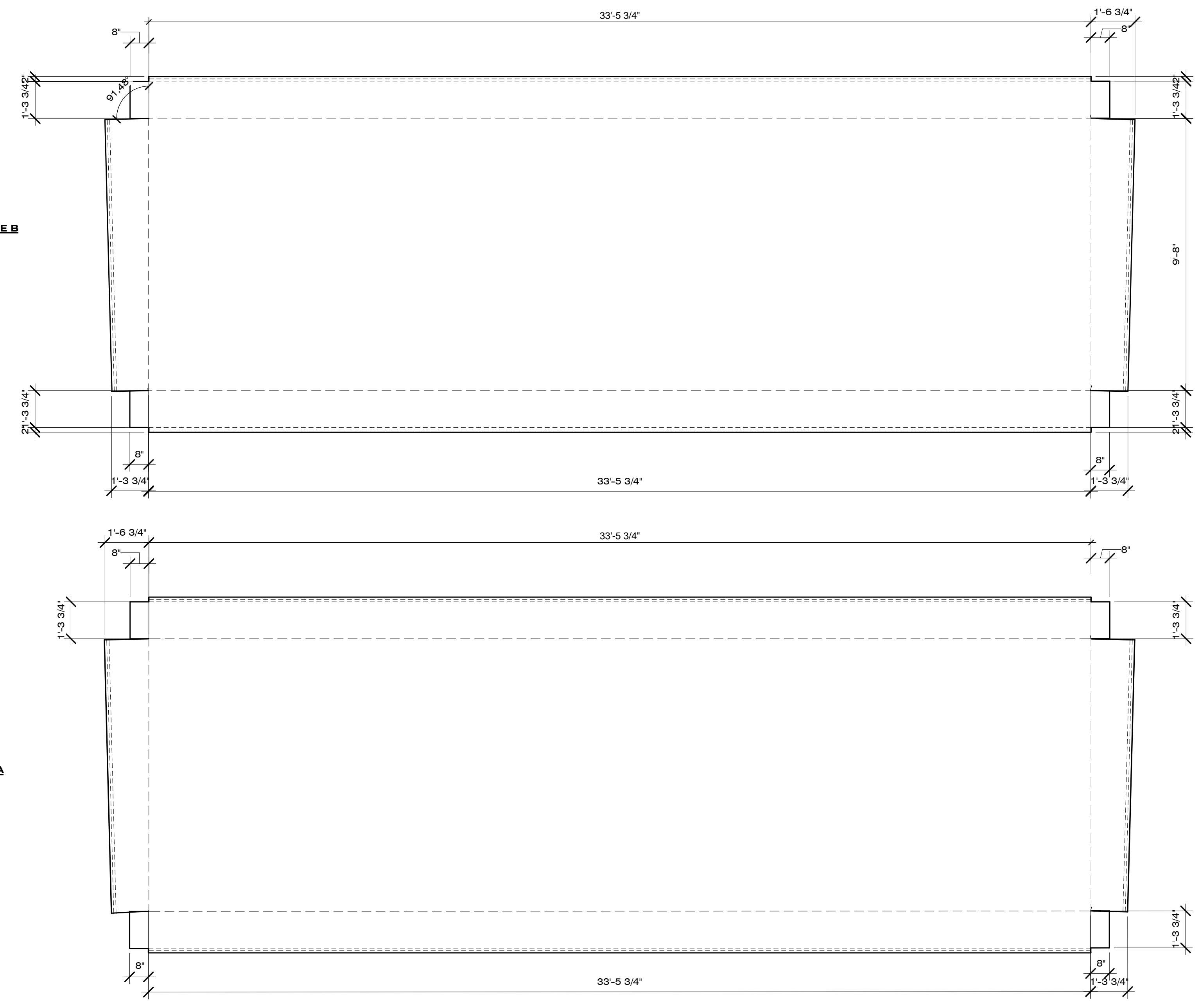
VINYL SKIN TOP
CAPS CUT SHEET

XD-103

GENERAL SHEET NOTES

REFERENCE KEYNOTES

SHEET KEYNOTES



A1 VINYL TOP CAPS CUT SHEET
3/8" = 1'-0"



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SHEET TITLE

VINYL SKIN DETAILS

XD-501

GENERAL SHEET NOTES

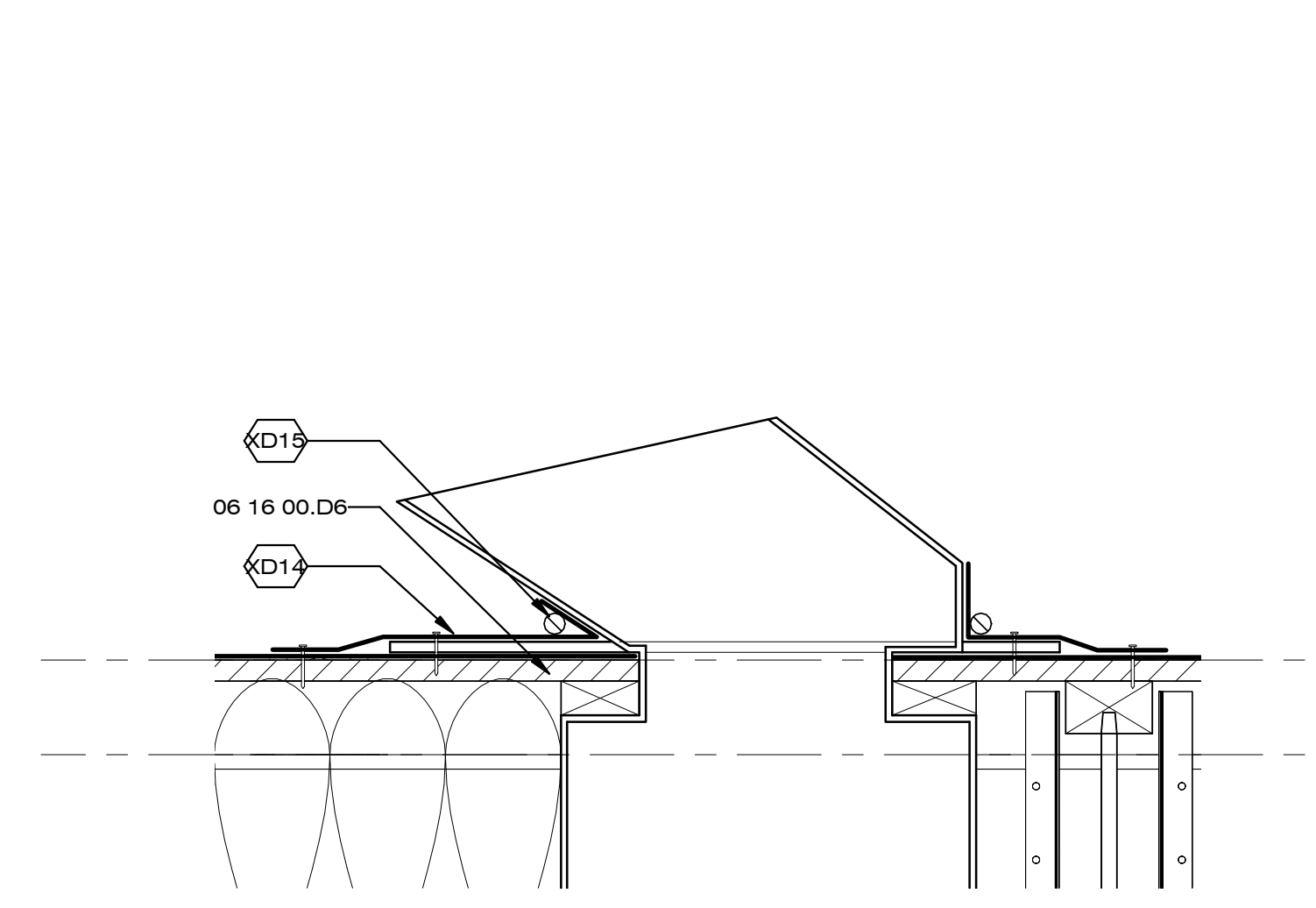
- EXTERIOR ELEMENTS ARE TO BE ATTACHED BY PUNCTURING THROUGH THE VINYL AT TIME OF INSTALLATION. PUNCTURES ARE TO BE FILLED WITH SILICON SEALANT. WATERPROOF VINYL OR RUBBER FOOTINGS ARE TO BE USED IN CONJUNCTION WITH BONDING ADHESIVE BETWEEN PRESSURIZED PLATES. FOR ARCHITECTURAL WALL SECTION DETAILS, SEE SHEET A-501
- 1/2" PLASTIC ANGLES AND NEOPRENE GASKETS TO PROVIDE COMPRESSION SEAL FOR VINYL AROUND PENETRATIONS. ALL PENETRATION EDGES TO BE FILLED WITH SILICON SEALANT.

REFERENCE KEYNOTES

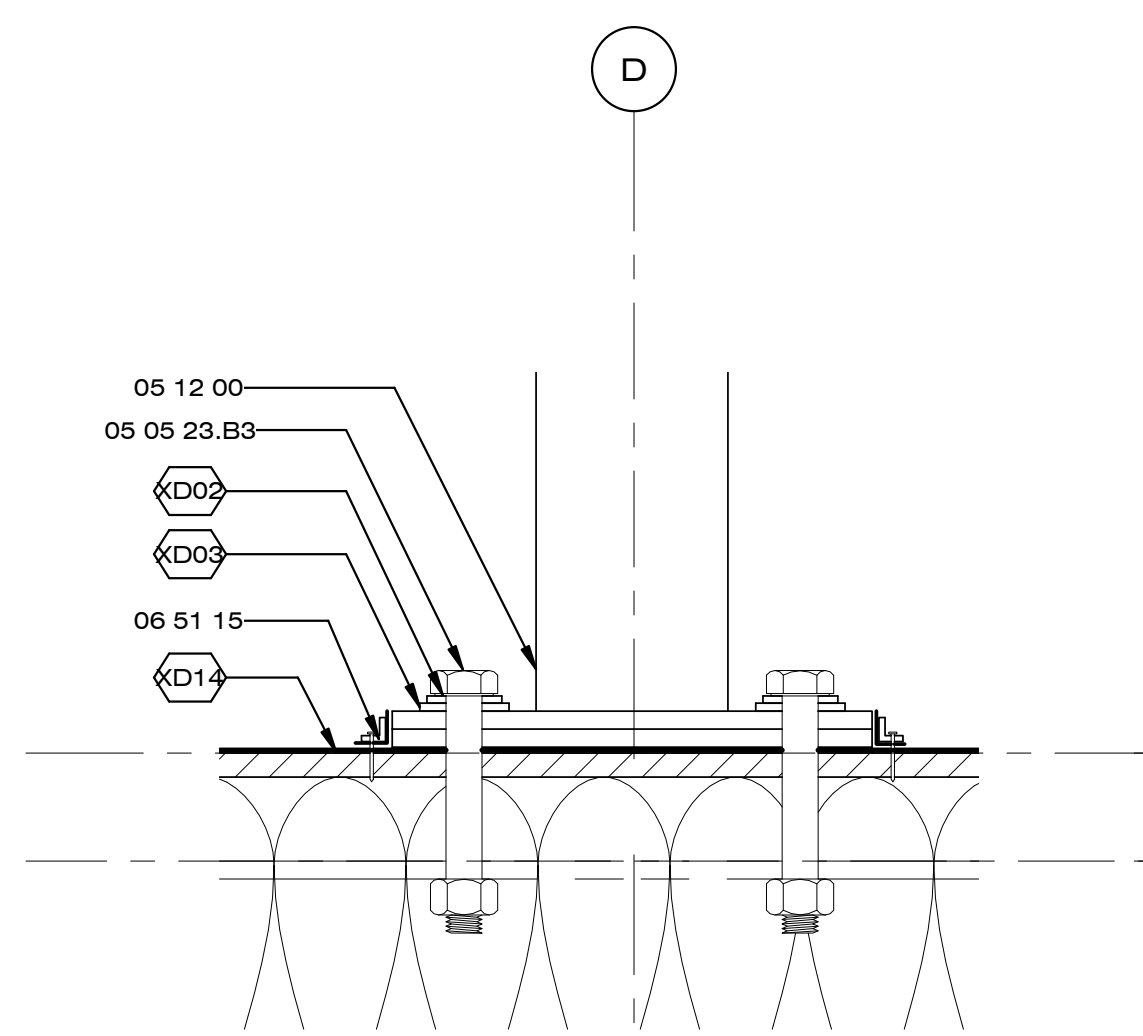
05 05 23.B3	3/4" A325 BOLT
05 12 00	STRUCTURAL STEEL FRAMING
05 12 36.A131	L2X2X0.125
06 16 00.D6	1/2" PLYWOOD
06 51 15	1/2" X 1/2" PLASTIC ANGLE
07 62 00	SHEET METAL FLASHING AND TRIM
07 62 00.H42	GUTTER
07 92 00.A2	SILICONE SEALANT
23 56 13.01	SOLAR THERMAL COLLECTORS

SHEET KEYNOTES

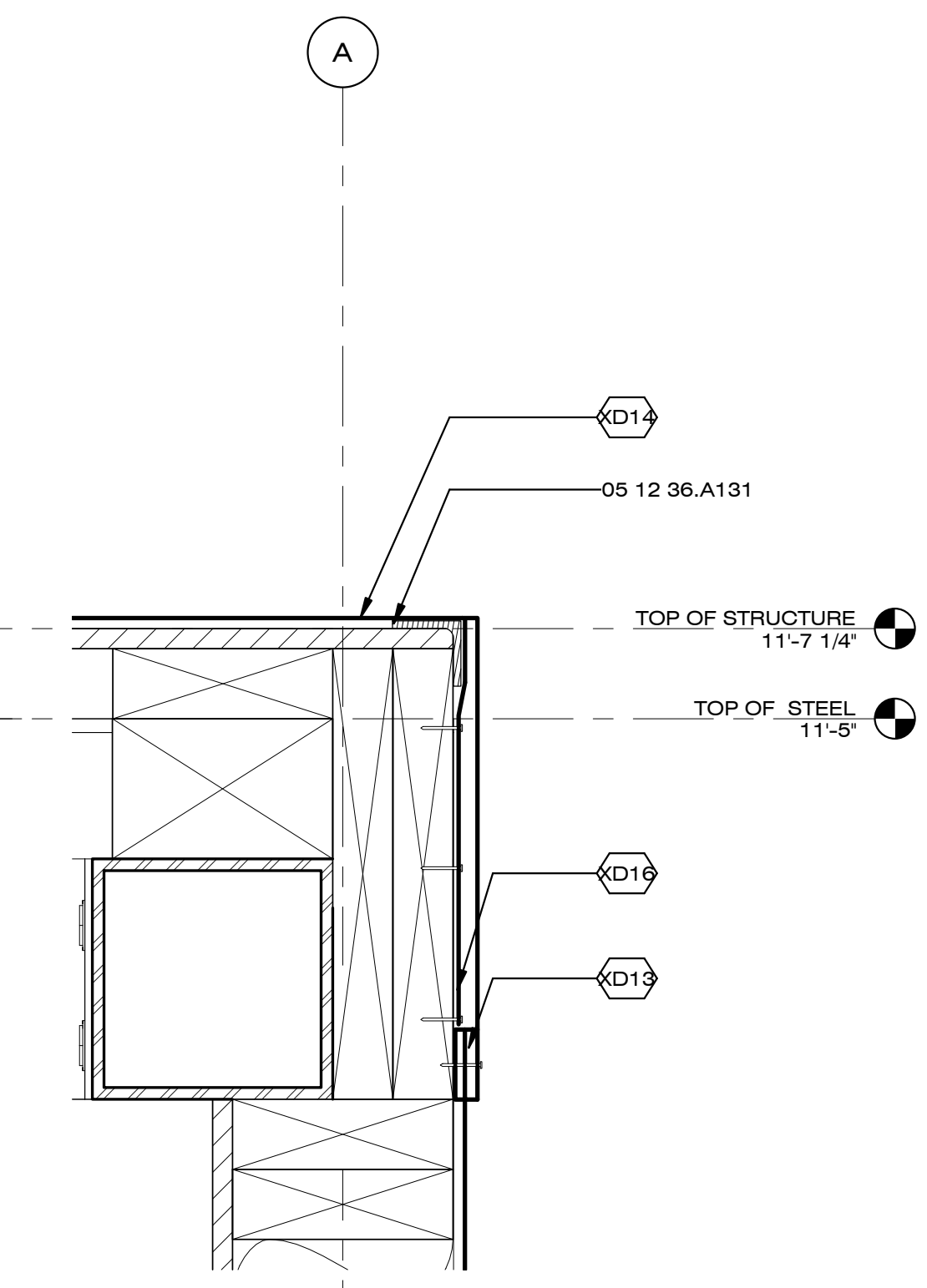
A23	EXTERIOR MULTI-USE PLATFORMS SEE XF-001
XD02	3/4" F436 STRUCTURAL WASHERS
XD03	1/2" X 2 1/4" O.D. X 3/16" THK. GALVANIZED DOCK WASHER
XD13	TENSIONING ALUMINUM FLAT BAR
XD14	VINYL SKIN NAIZIL 28 OZ. VINYL COATED POLYESTER REINFORCED FABRIC
XD15	NEOPRENE GASKET
XD16	ADJACENT VINYL TAB TUCKED BEHIND



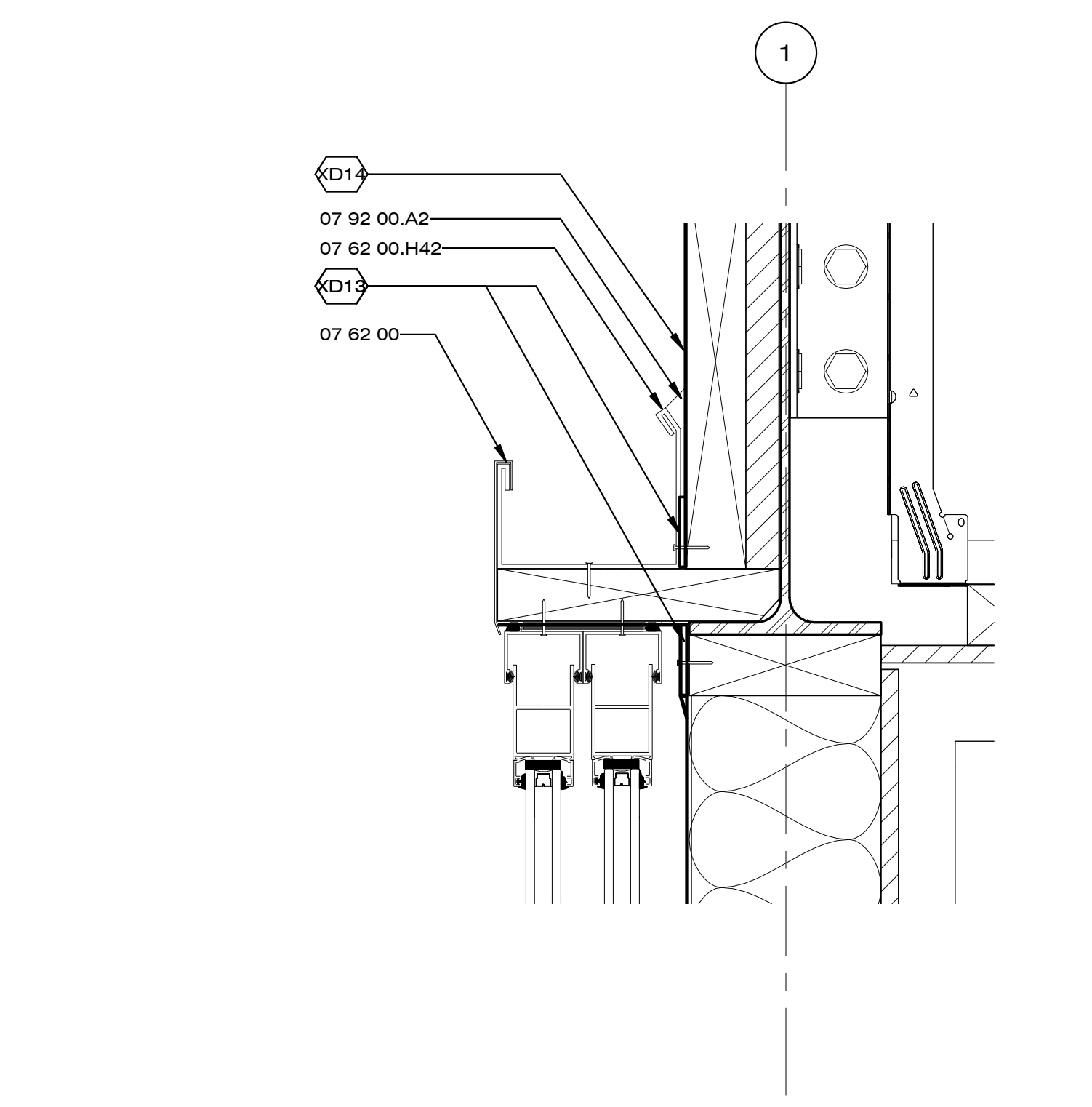
D1 VINYL ROOF PENETRATION DETAIL TYP.
3" = 1'-0"



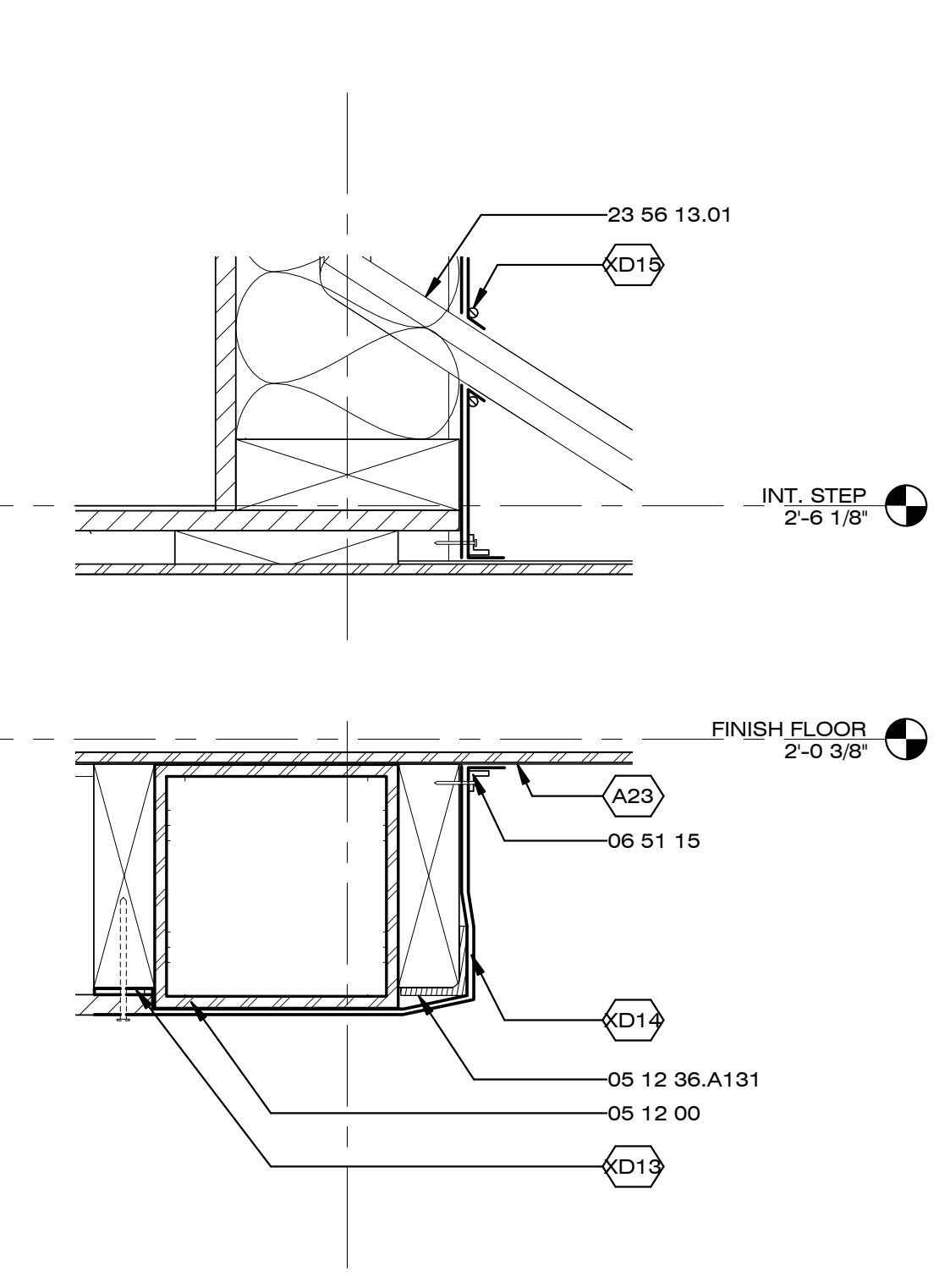
D3 VINYL CANOPY STEEL DETAIL TYP.
3" = 1'-0"



C4 VINYL ROOF CORNER DETAIL TYP.
3" = 1'-0"



A1 VINYL DOOR TRACK/HEADER DETAIL TYP.
3" = 1'-0"



A4 VINYL EXTERIOR STEEL DETAIL TYP.
3" = 1'-0"

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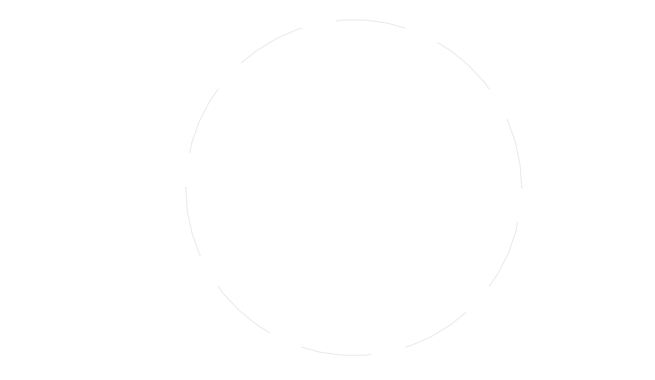
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SHEET TITLE

CABLE/HOSE CARRIER OVERVIEW

XE-001

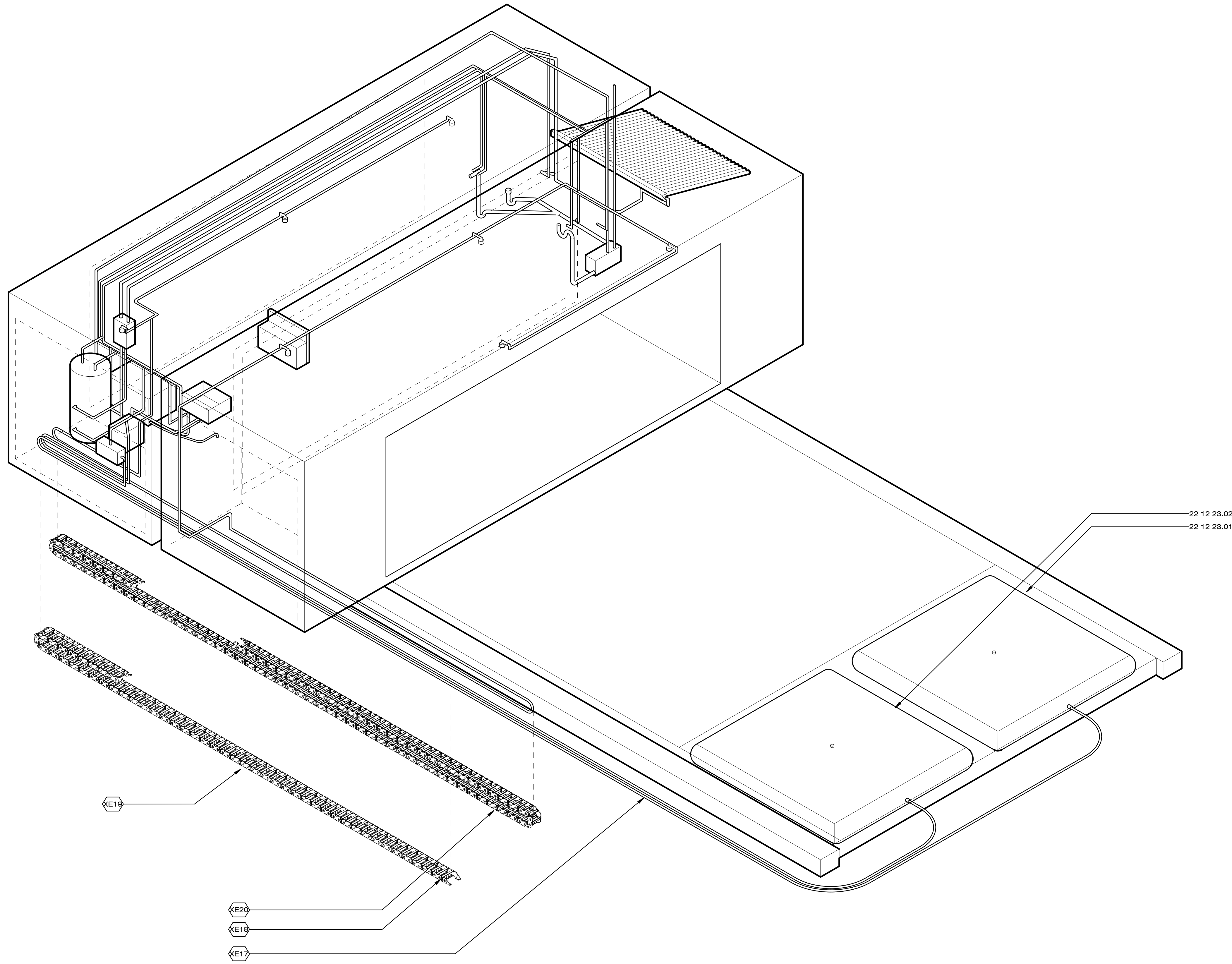
GENERAL SHEET NOTES

REFERENCE KEYNOTES

22 12 23.01	WATER SUPPLY BLADDER
22 12 23.02	WASTEWATER STORAGE BLADDER

SHEET KEYNOTES

XE17	TYP. FLEX CABLE/HOSE
XE18	CABLE/HOSE CARRIER TO GROUND LOC.
XE19	GORTRAC CABLE CARRIER 260529A TS-110
XE20	GORTRAC CABLE CARRIER 260529B TS-110



A1 CABLE/HOSE CARRIERS ISOMETRIC
3/8" = 1'-0"

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GENERAL SHEET NOTES

1. DIMENSIONS ARE APPROX - TO BE V.I.F.
2. FOR MECH ROOM LAYOUT DETAILS, SEE P-401
3. CONNECTION FROM FLEX HOSE TO CPVC LOCATED INSIDE MECH ROOM
4. CARRIER 260529A:
TOTAL LENGTH: 33'-6"
CARRIER 260529B:
TOTAL LENGTH : 59'-6"

REFERENCE KEYNOTES

- | | |
|-------------|--------------|
| 06 11 00.F1 | 2X6 |
| 06 16 00.D6 | 1/2" PLYWOOD |

SHEET KEYNOTES

- | | |
|------|---|
| A10 | CANOPY SHOWN DOTTED FOR CLARITY SEE XA-001 |
| XE17 | TYP. FLEX CABLE/HOSE |
| XE18 | CABLE/HOSE CARRIER TO GROUND LOC. |
| XE19 | GORTRAC CABLE CARRIER 260529A TS-110 |
| XE20 | GORTRAC CABLE CARRIER 260529B TS-110 |
| XE21 | OUTLINE OF ENDTRUCK HATCH |
| XE22 | PRIMARY CARRIER FLOOR PENETRATION LOC. |
| XE23 | MODULE A TO MODULE B CARRIER FLOOR PENETRATION LOC. |

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CABLE/HOSE CARRIER DETAILS

XE-101

D1 CABLE/HOSE CARRIER PLAN
1/4" = 1'-0"

C1 CABLE/HOSE CARRIER SITE SECTION
1/4" = 1'-0"

A1 CARRIER TO MECH ROOM PENETRATION PLAN
1" = 1'-0"

A3 CARRIER TO MECH ROOM SECTION 1
1 1/2" = 1'-0"

A5 CARRIER TO MECH ROOM SECTION 2
1 1/2" = 1'-0"

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SHEET TITLE

MULTI-USE PLATFORMS OVERVIEW

XF-001

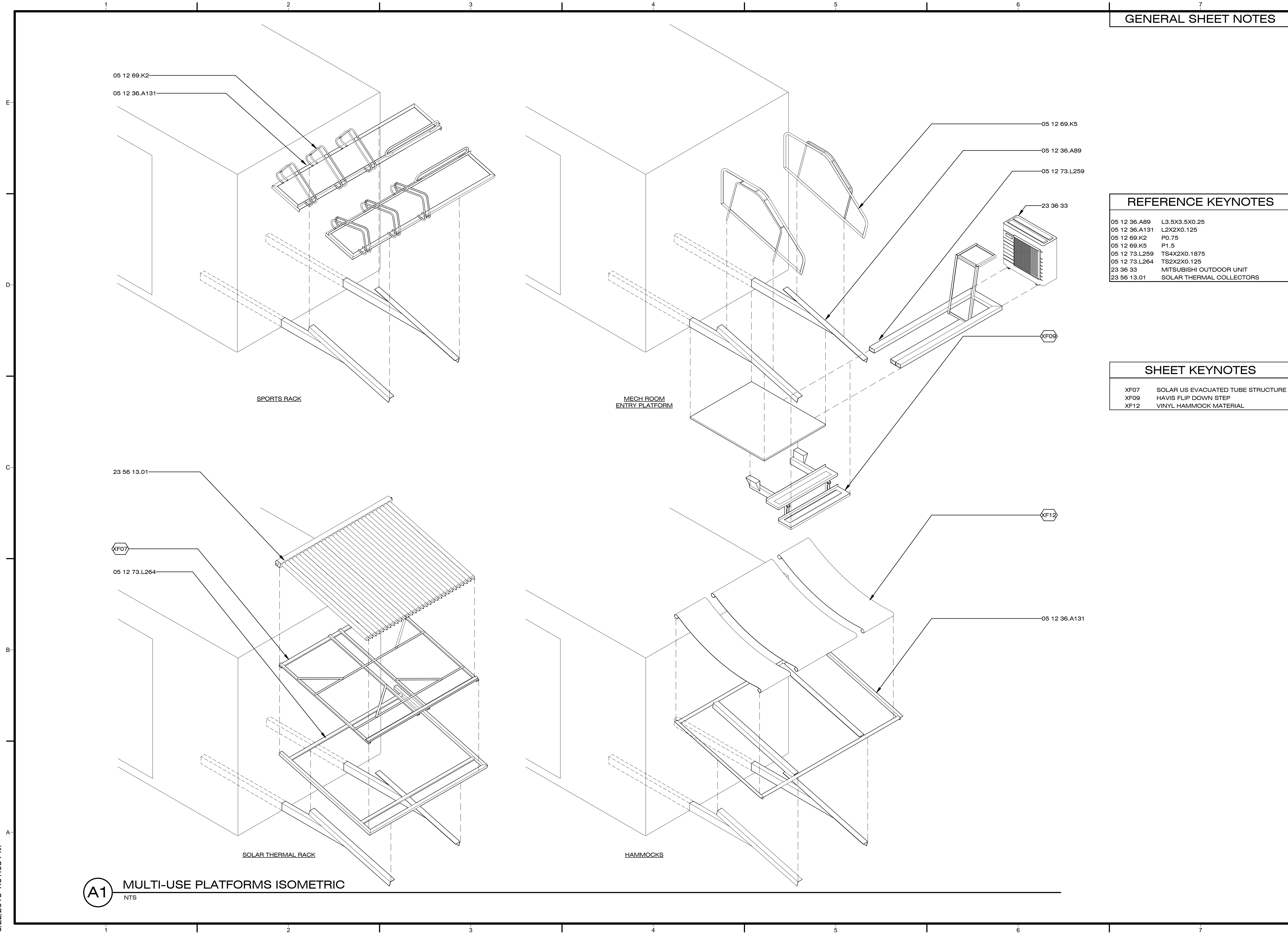
GENERAL SHEET NOTES

REFERENCE KEYNOTES

05 12 36.A89	L3.5X3.5X0.25
05 12 36.A131	L2X2X0.125
05 12 69.K2	P0.75
05 12 69.K5	P1.5
05 12 73.L259	TS4X2X0.1875
05 12 73.L264	TS2X2X0.125
23 36 33	MITSUBISHI OUTDOOR UNIT
23 56 13.01	SOLAR THERMAL COLLECTORS

SHEET KEYNOTES

XF07	SOLAR US EVACUATED TUBE STRUCTURE
XF09	HAVIS FLIP DOWN STEP
XF12	VINYL HAMMOCK MATERIAL



A1 MULTI-USE PLATFORMS ISOMETRIC
NTS

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GENERAL SHEET NOTES

REFERENCE KEYNOTES

05 05 23.F2	1/2" CARRIAGE BOLT
05 12 36.A89	L3.5X3.5X0.25
05 12 39.B30	C2X1X0.125
05 12 73.L264	TS2X2X0.125
23 56 13	HEATING SOLAR COLLECTORS
23 56 13.01	SOLAR THERMAL COLLECTORS

SHEET KEYNOTES

XF07	SOLAR US EVACUATED TUBE STRUCTURE
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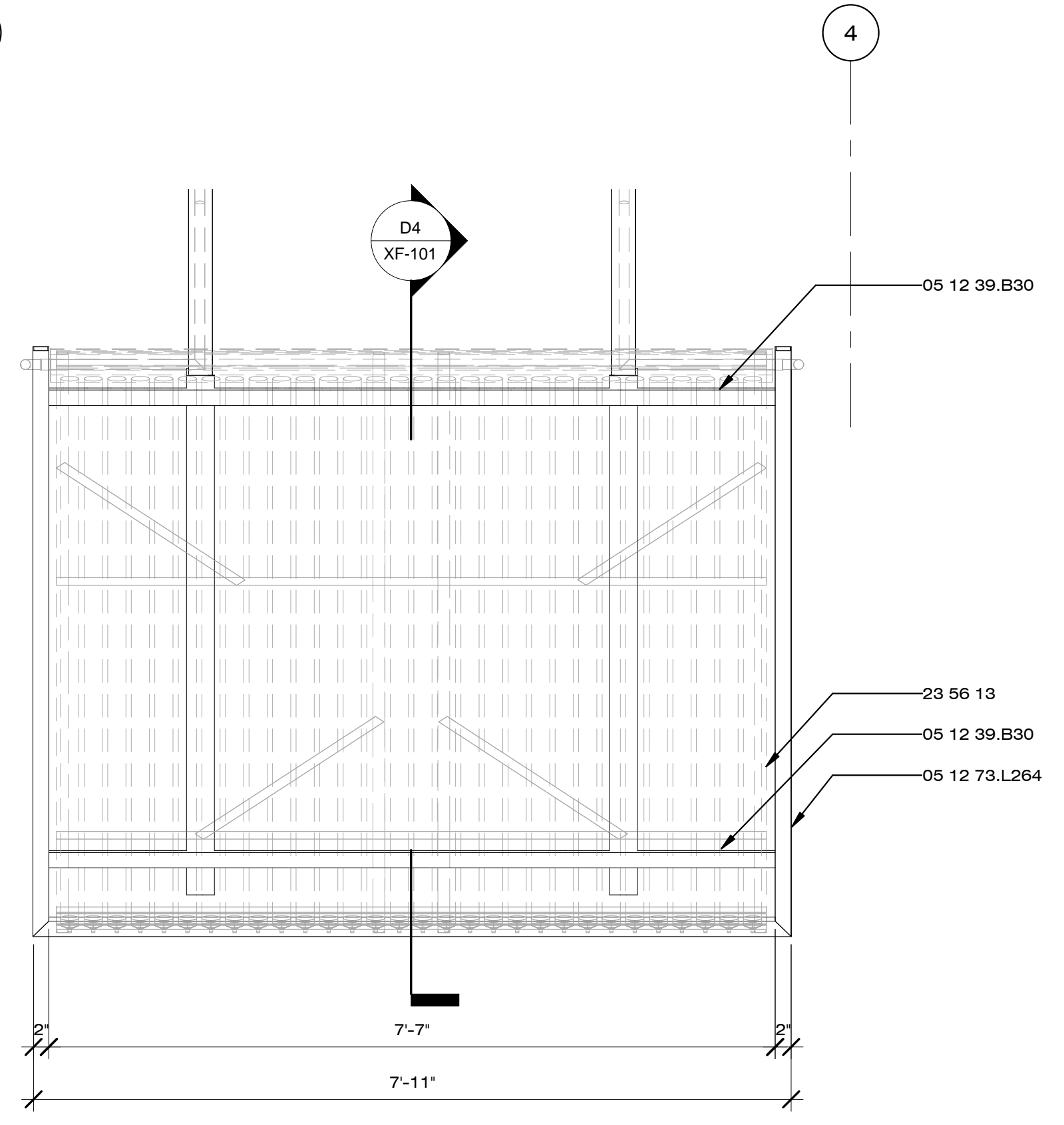
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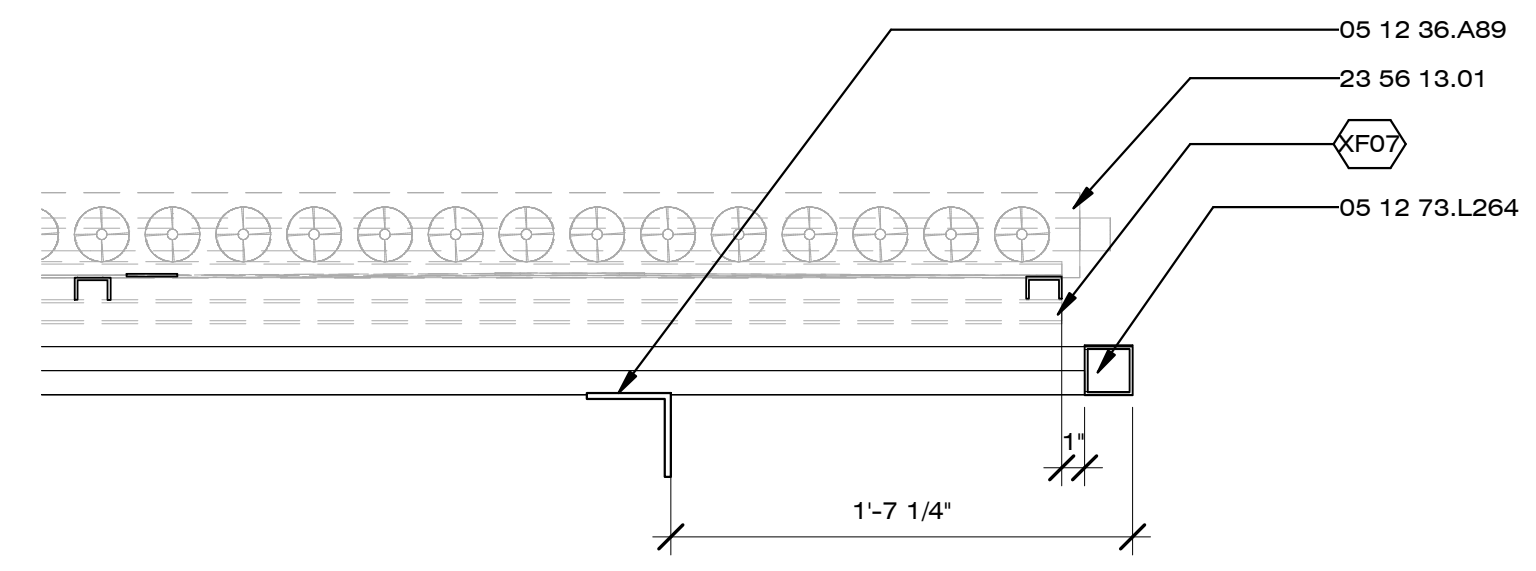
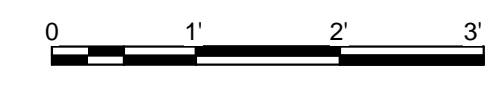
SHEET TITLE

SOLAR THERMAL RACK

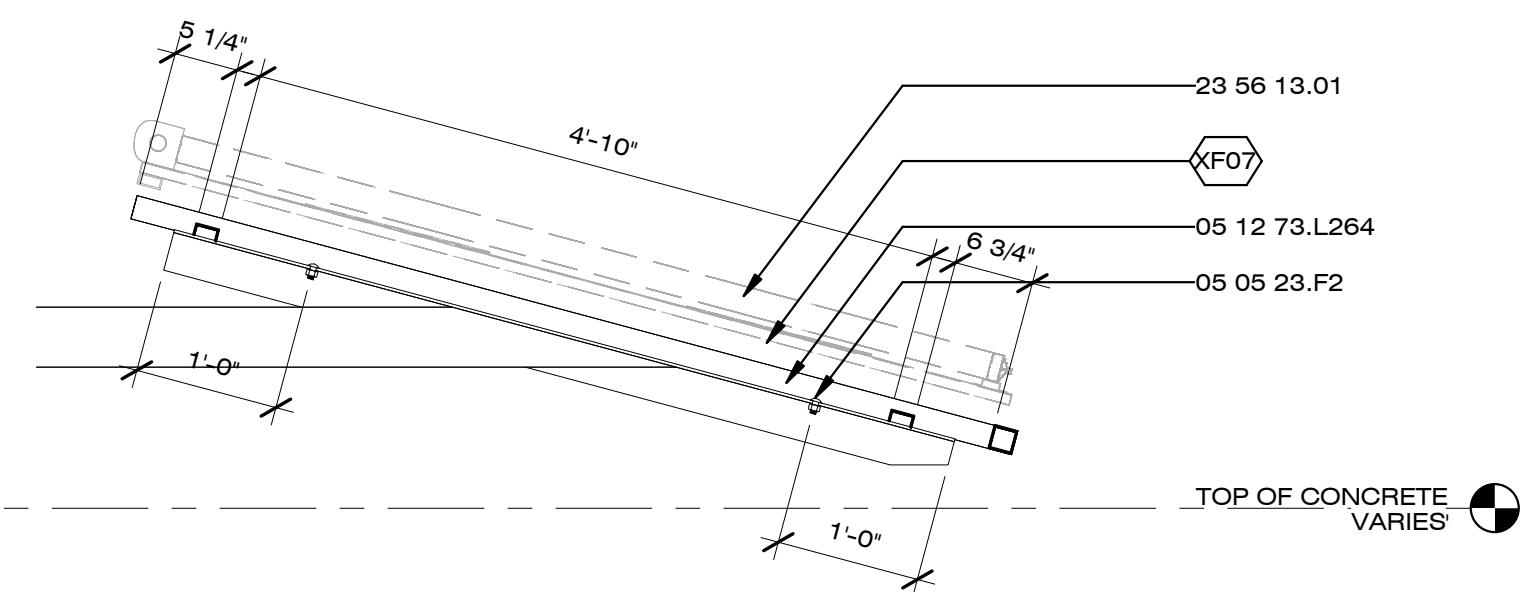
XF-101



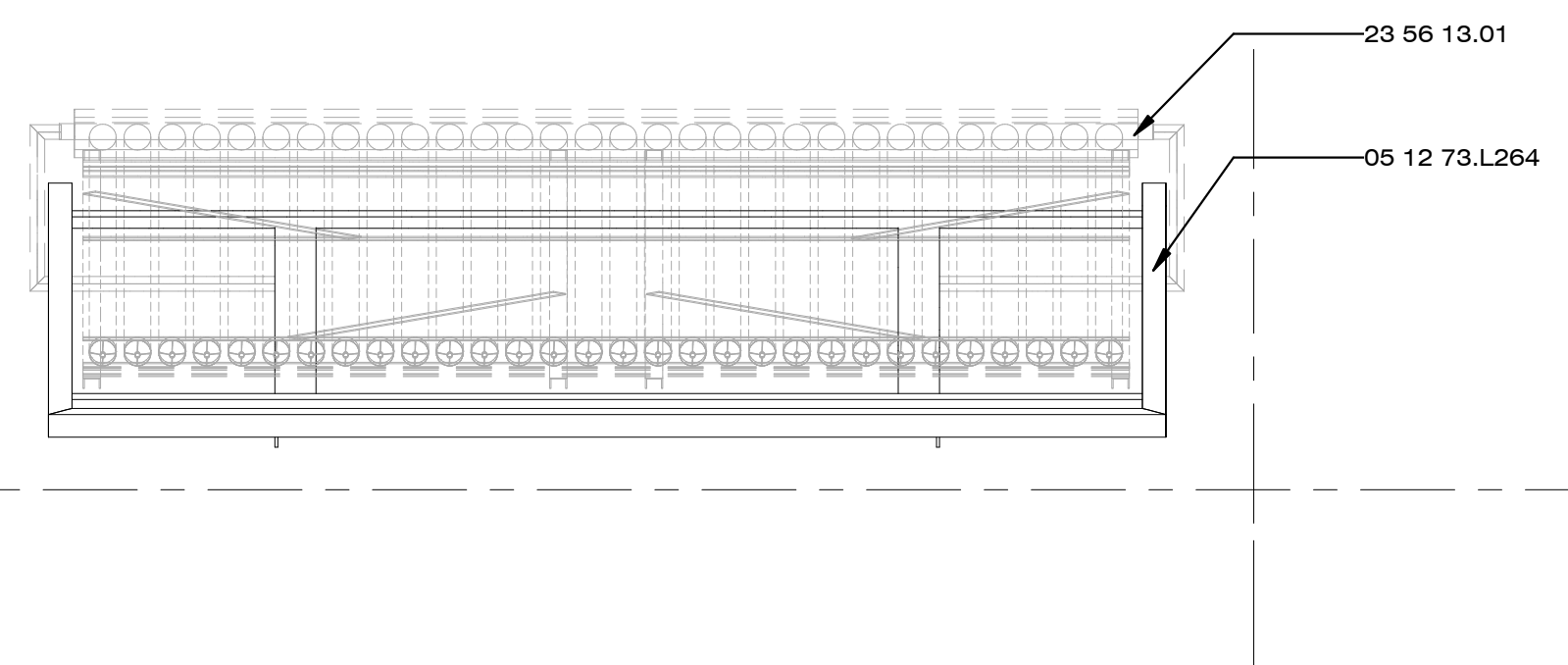
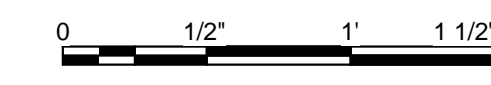
C1 SOLAR THERMAL RACK PLAN
3/4" = 1'-0"



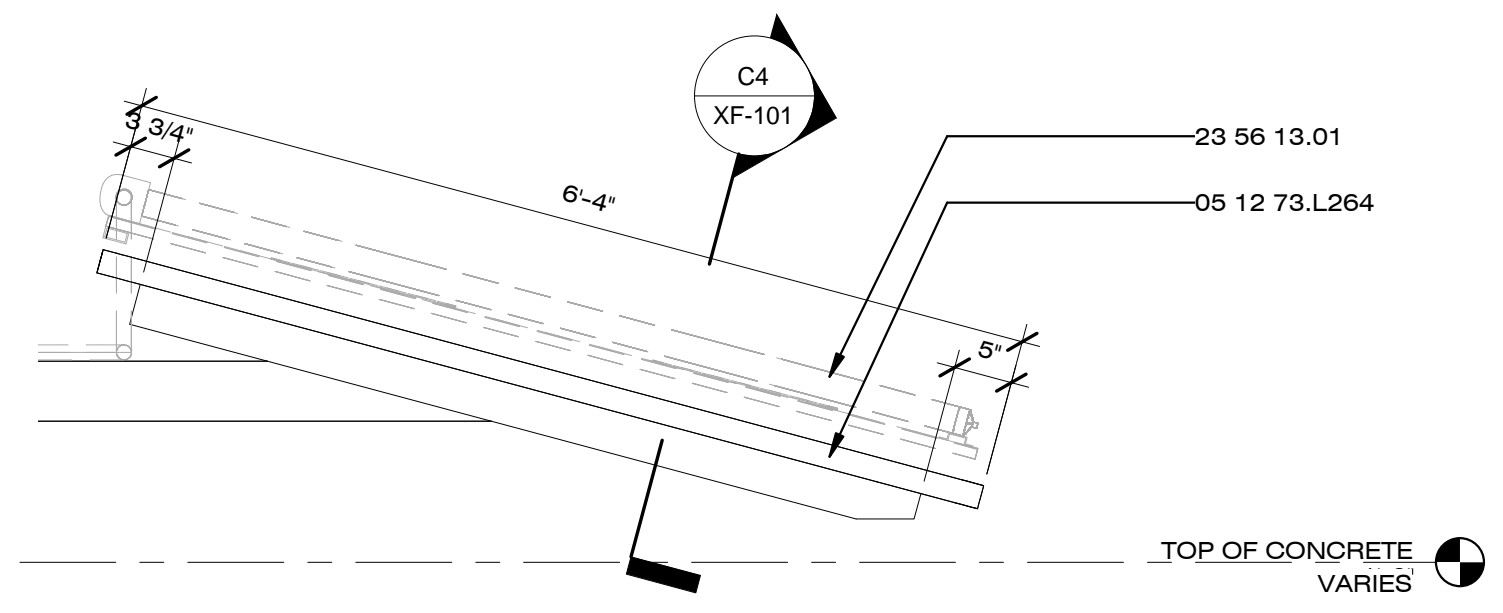
C4 SOLAR THERMAL RACK TRANSVERSE SECTION
1 1/2" = 1'-0"



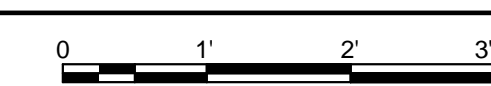
D4 SOLAR THERMAL RACK LONGITUDINAL SECTION
3/4" = 1'-0"



A1 SOLAR THERMAL RACK NORTH ELEVATION
3/4" = 1'-0"



A4 SOLAR THERMAL RACK EAST ELEVATION
3/4" = 1'-0"



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GENERAL SHEET NOTES

REFERENCE KEYNOTES

05 05 23.F2	1/2" CARRIAGE BOLT
05 12 36.A89	L3.5X3.5X0.25
05 12 36.A131	L2X2X0.125
05 12 69.K6	P2
05 12 73.L249	TS5X3X0.25

SHEET KEYNOTES

XF12	VINYL HAMMOCK MATERIAL
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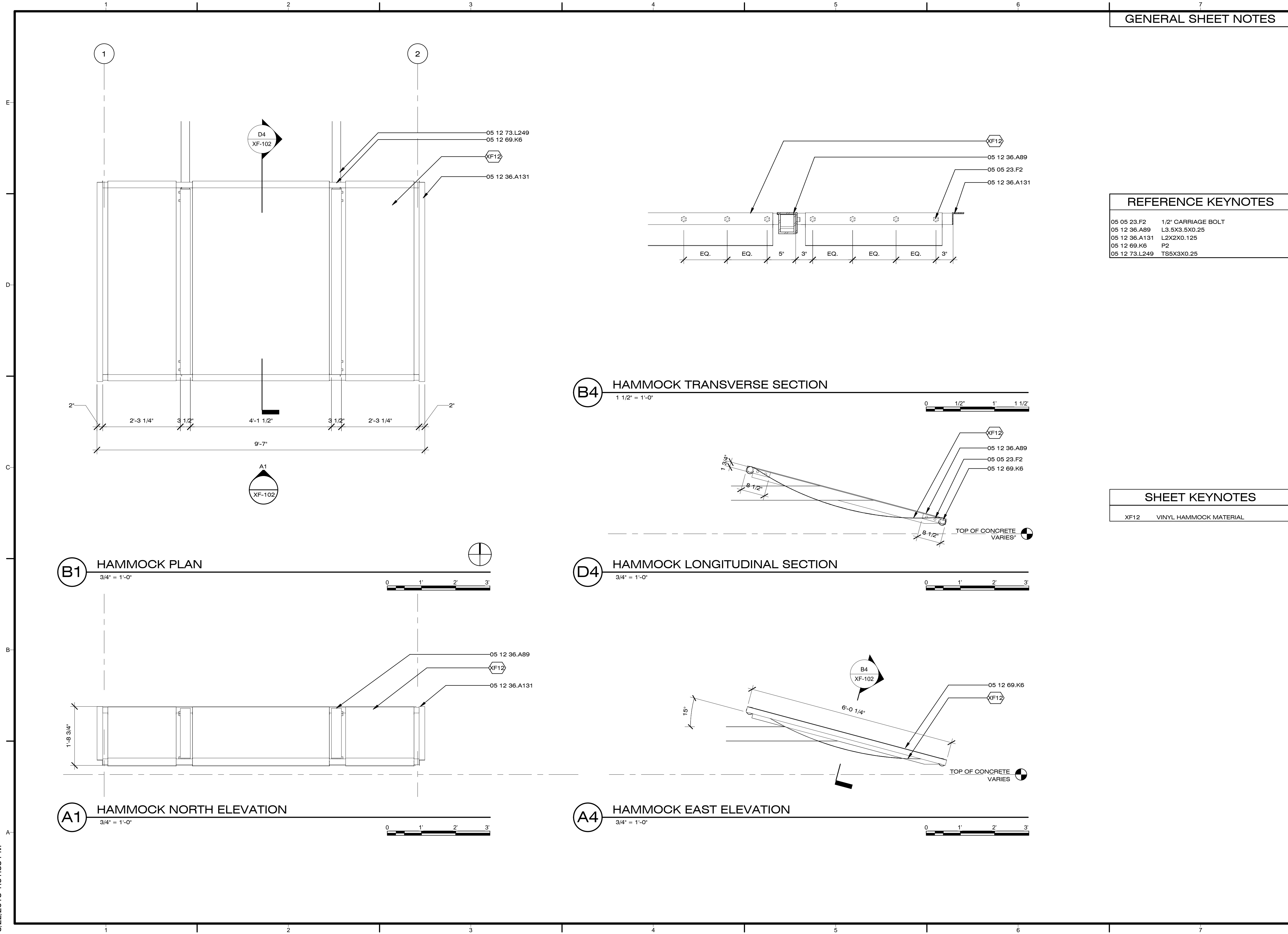
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SHEET TITLE

HAMMOCK

XF-102



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GENERAL SHEET NOTES

REFERENCE KEYNOTES

05 05 23.F2	1/2" CARRIAGE BOLT
05 12 36.A89	L3.5X3.5X0.25
05 12 36.A131	L2X2X0.125
05 12 69.K2	P0.75
05 12 69.K3	P1

SHEET KEYNOTES

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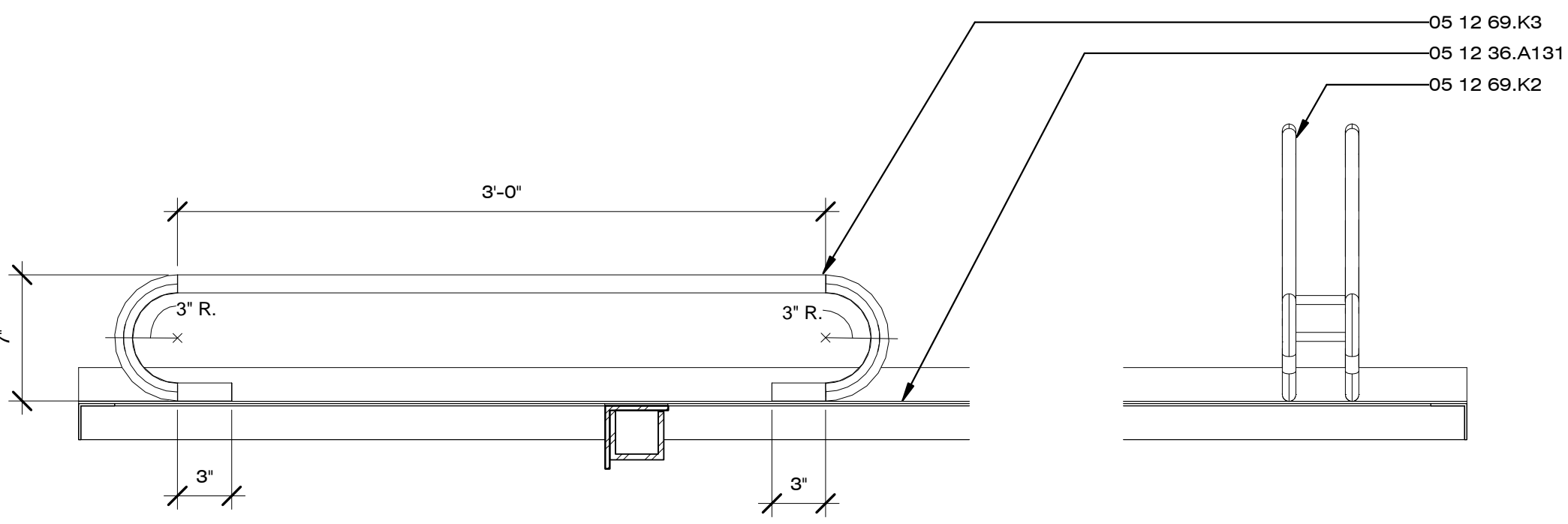
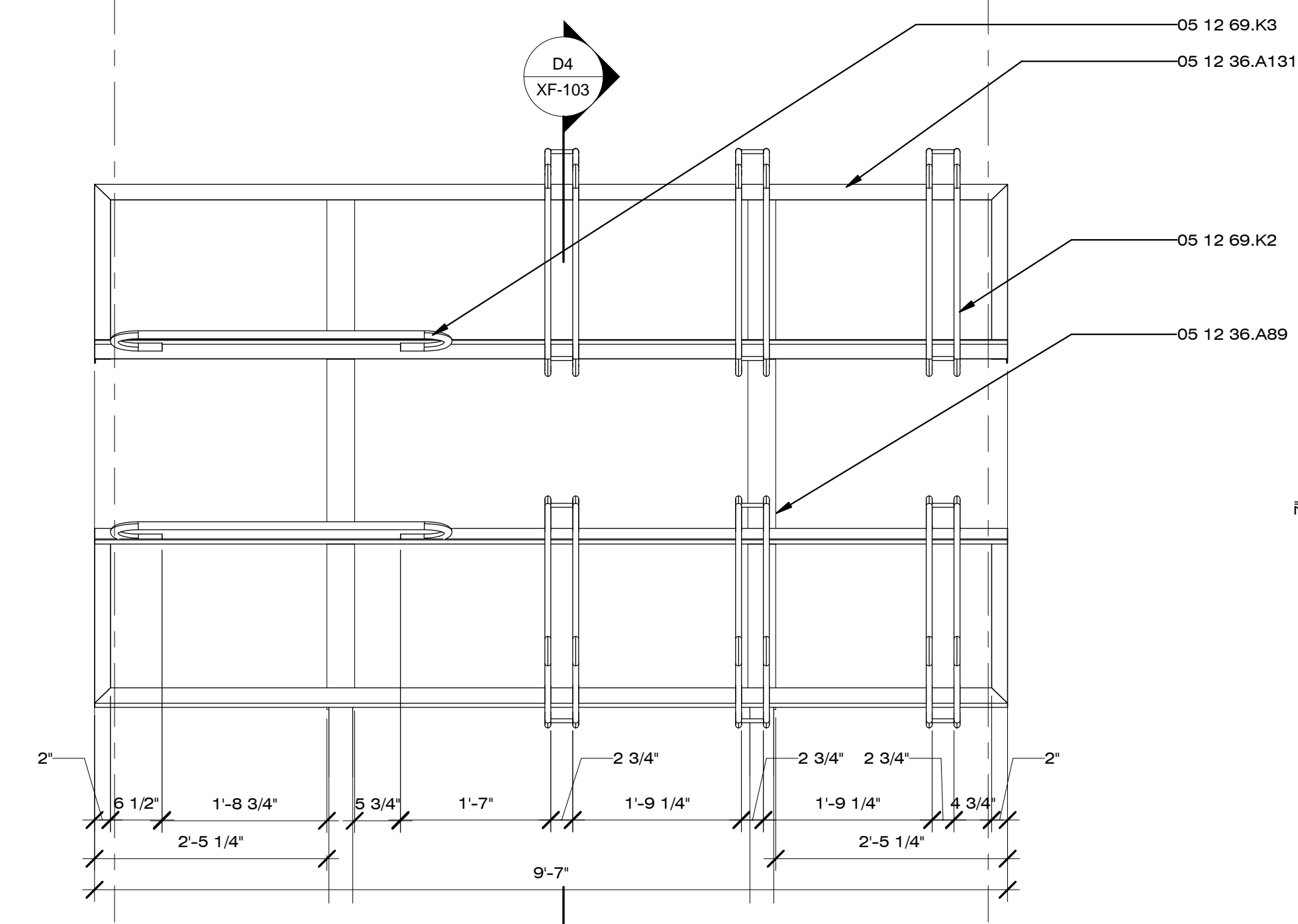
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SPORTS RACK

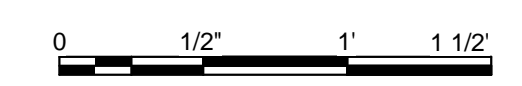
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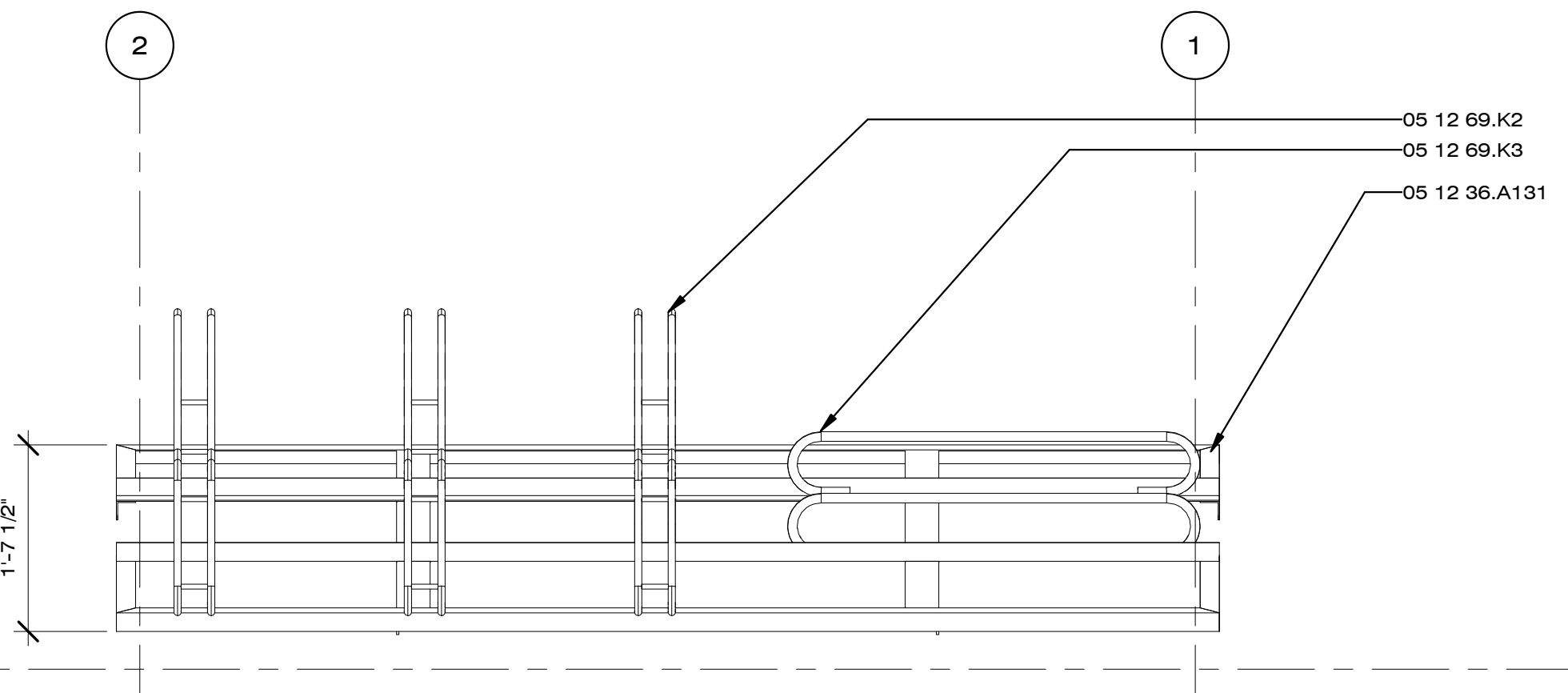
1 2



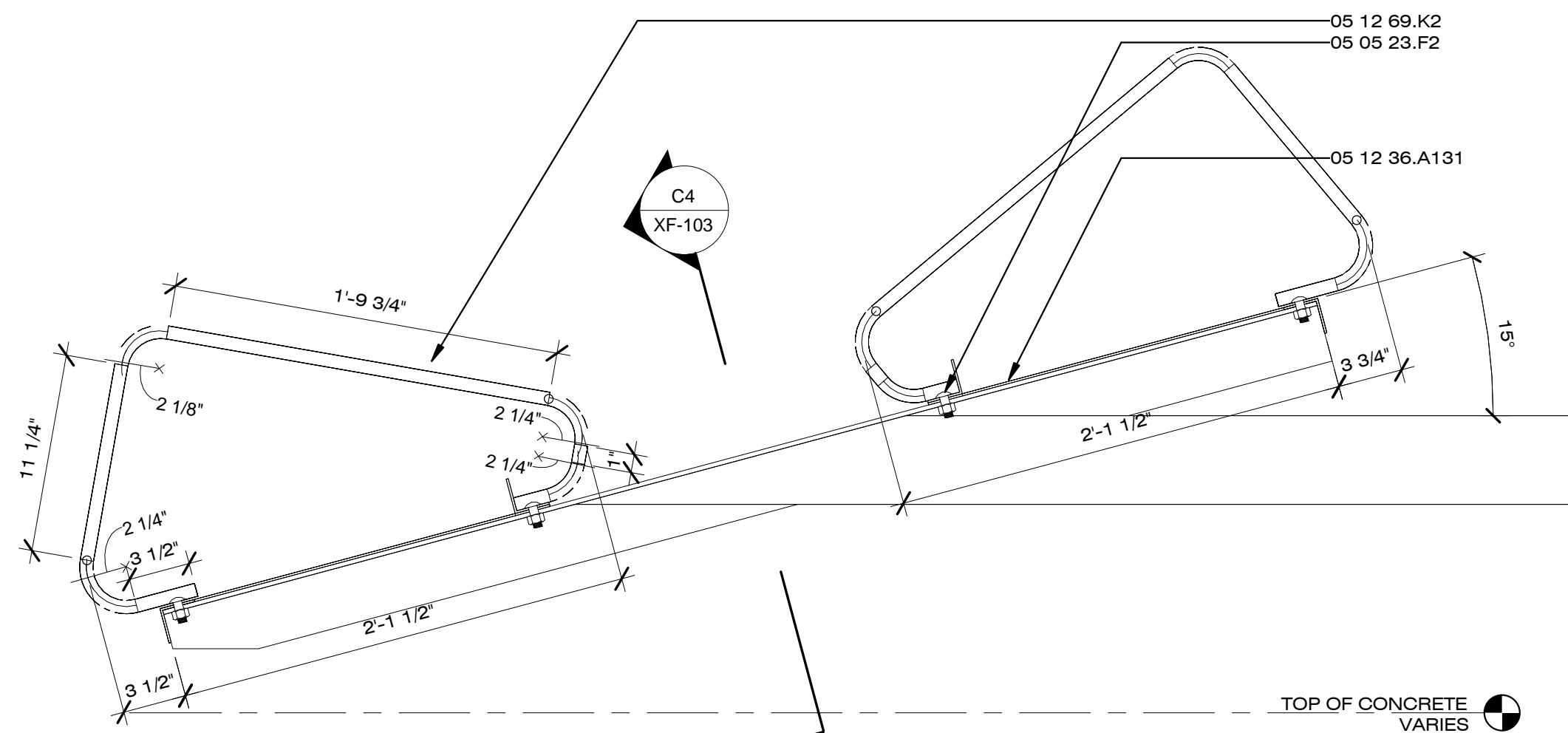
C4 SPORTS RACK TRANSVERSE SECTION
1 1/2" = 1'-0"



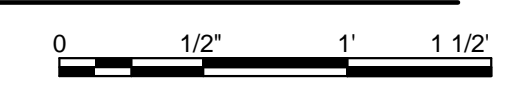
C1 SPORTS RACK PLAN
3/4" = 1'-0"



A1 SPORTS RACK SOUTH ELEVATION
3/4" = 1'-0"



D4 SPORTS RACK LONGITUDINAL SECTION
1 1/2" = 1'-0"



TOP OF CONCRETE VARIES

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E
D
C
B
A



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GENERAL SHEET NOTES

REFERENCE KEYNOTES

05 12 36.A25	L7X4X0.375
05 12 36.A89	L3.5X3.5X0.25
05 12 36.A137	L1.25X1.25X0.1875
05 12 36.A138	L1.125X1.125X0.125
05 12 39.B30	C2X1X0.125
05 12 69.K2	P0.75
05 12 69.K5	P1.5
05 12 73.L249	TS5X3X0.25
05 12 73.L258	TS4X2X0.25
05 12 73.L259	TS4X2X0.1875
05 53 00	METAL GRATINGS

SHEET KEYNOTES

XF09	HAVIS FLIP DOWN STEP
------	----------------------

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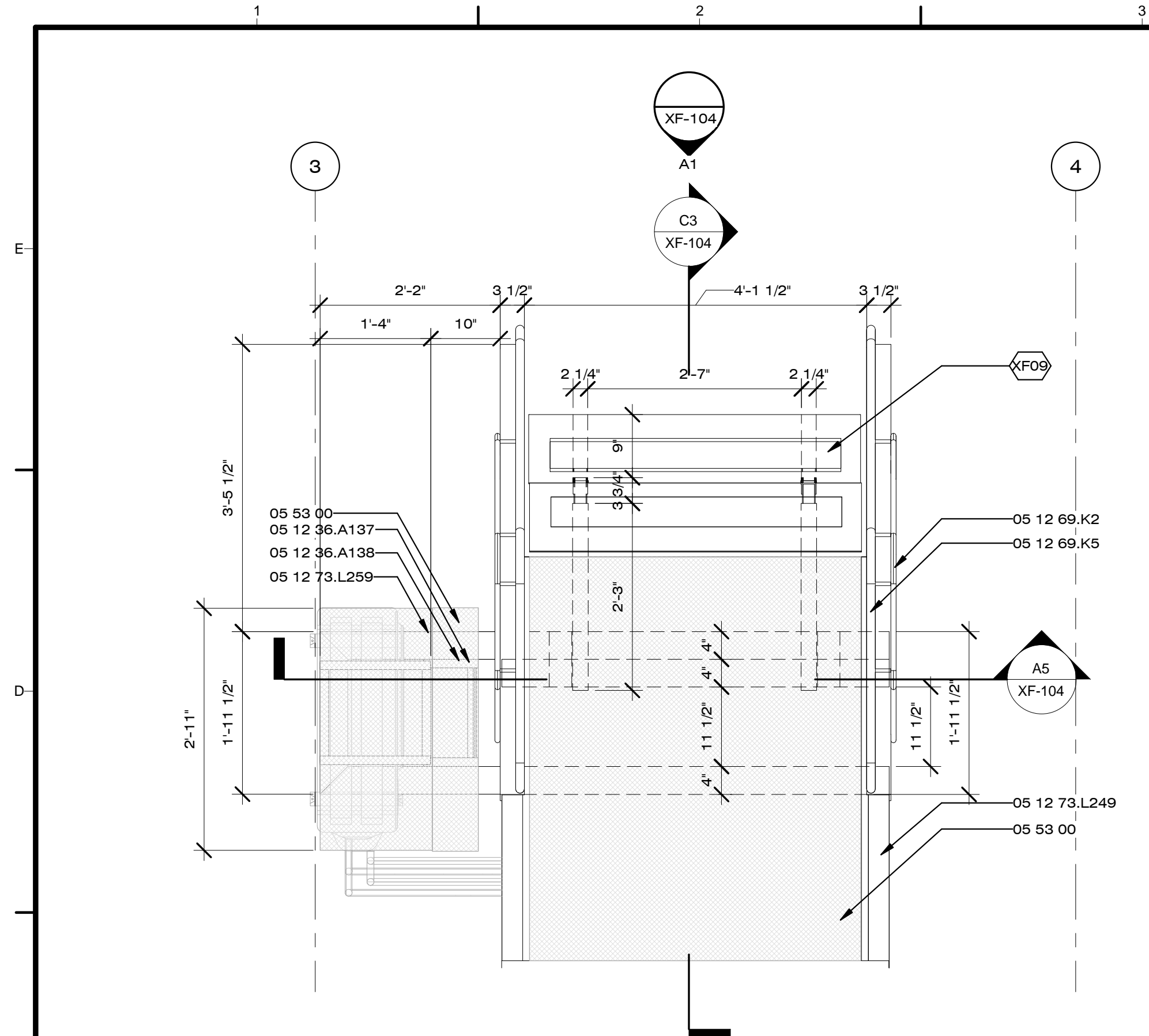
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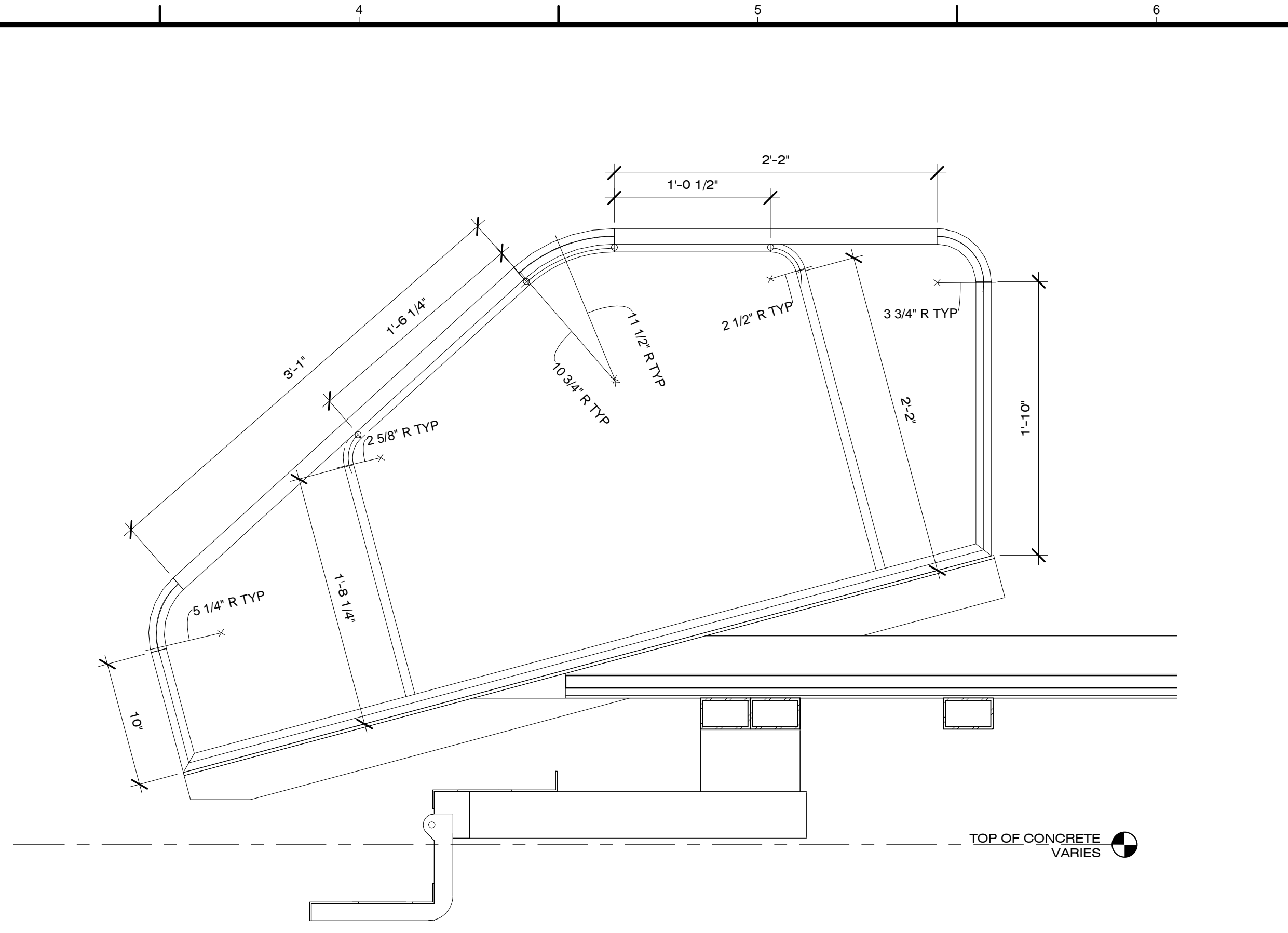
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**MECH ROOM
ENTRY PLATFORM**

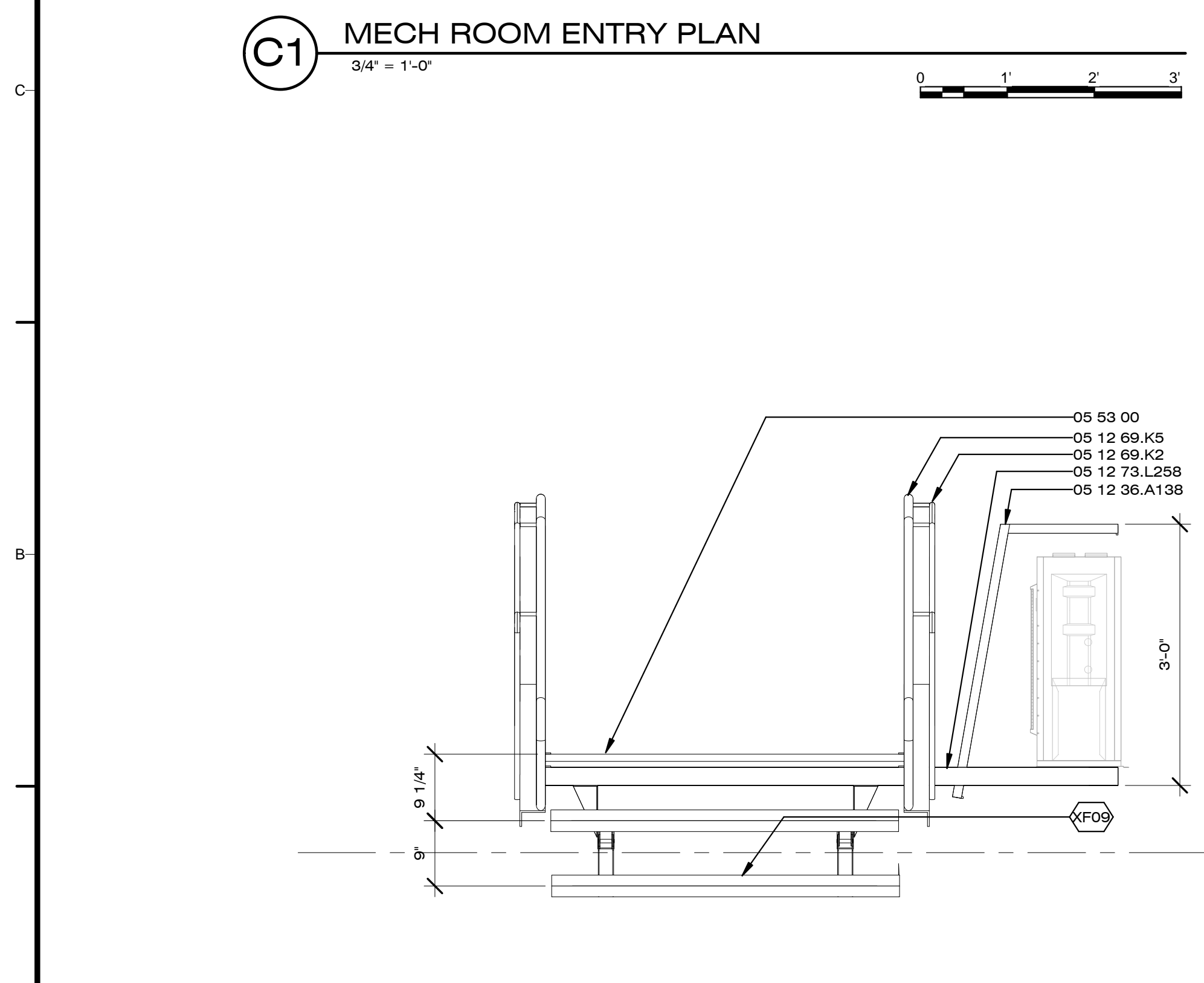
XF-104



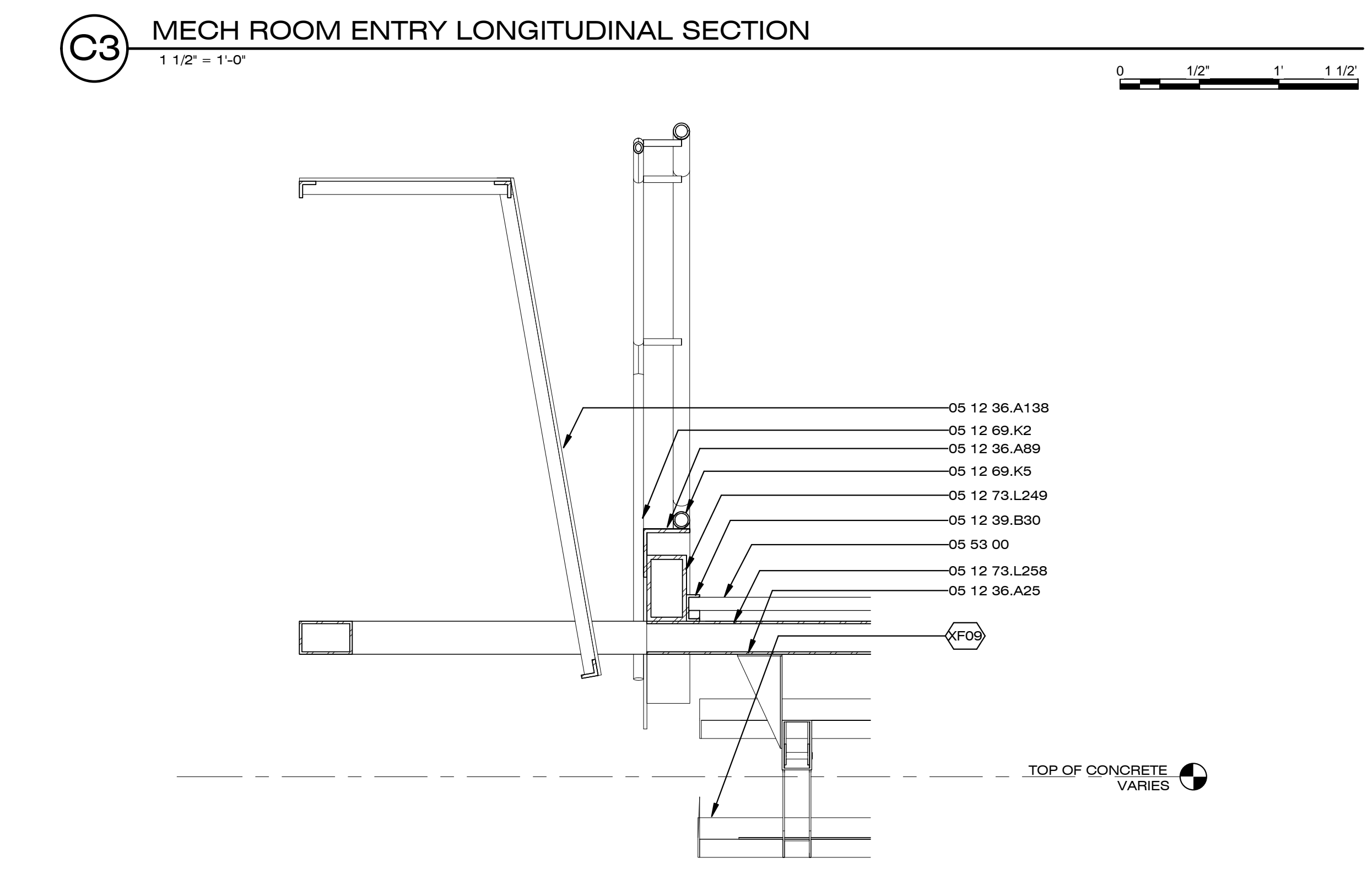
C1 MECH ROOM ENTRY PLAN
3/4" = 1'-0"
0 1' 2' 3'



C3 MECH ROOM ENTRY LONGITUDINAL SECTION
1 1/2" = 1'-0"
0 1/2' 1' 1 1/2'



A1 MECH ROOM ENTRY SOUTH ELEVATION
3/4" = 1'-0"
0 1' 2' 3'



A5 MECH ROOM ENTRY TRANSVERSE SECTION
1 1/2" = 1'-0"
0 1/2' 1' 1 1/2'

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