

SURREY PARK WASHROOM

SURREY, BRITISH COLUMBIA



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BUILDING CODE ANALYSIS

BC BUILDING CODE 2018
BC PLUMBING CODE 2018
SURREY BUILDING BYLAW, 2012, NO. 17850

BUILDING AREA	11.6 m2
STORIES	1
HEIGHT	2,841 m
STREETS FACED	1
SPRINKLED	NO
DIV B PART 3	
OCCUPANCY CLASSIFICATION	A-2 OCCUPANCY
OCCUPANCY LOADING	
WATER CLOSET STALL	2
WASHSTATION	2
SERVICES ROOM (46 PER m2)	1
TOTAL	5
CONSTRUCTION TYPE	
COMBUSTIBLE	PER 3.2.2.28
FIRE ALARM	PER 3.2.4.2 - NOT REQUIRED
FIRE DEPARTMENT ACCESS	PER 3.2.5.4 (1) - NOT REQUIRED FOR BUILDING LESS THAN 600 m2 AND LESS THAN 3 STOREYS

PER 3.8.3.12 - UNIVERSAL WASHROOMS
AREA: 4m² WITH INSWINGING DOOR
MINIMUM WIDTH: 1800mm WITH INSWINGING DOOR
WATER CLOSET: 3.8.3.12.1(g)
GRAB BARS: CLAUSE 3.8.3.11.(1)(e) & (f)
LAVATORY & MIRROR: 3.8.3.15
URINALS: 3.8.3.14
COAT HOOK: 3.8.3.11.(1)(g)
PROVIDE LOCK OPERABLE WITH ONE HAND AND THAT CAN BE UNLOCKED FROM OUTSIDE
TOILET PAPER DISPENSOR: 3.8.3.11.(1)(h)

PART 10

PER ASHRAE 90.1 - 5.1.2.1 - BUILDING ENVELOPE REQUIREMENTS ARE ONLY SPECIFIED FOR CONDITIONED OR SEMIHEATED SPACES

CLIMATE ZONE 4C

SEMIHEATED SPACE: AN ENCLOSED SPACE WITHIN A BUILDING THAT IS HEATED BY A HEATING SYSTEM WHOSE OUTPUT CAPACITY IS GREATER THAN OR EQUAL TO 3.4 Btu/h² OF FLOOR AREA BUT IS NOT A CONDITIONED SPACE.

UNCONDITIONED SPACE: AN ENCLOSED SPACE WITHIN A BUILDING THAT IS NOT A CONDITIONED SPACE OR A SEMIHEATED SPACE.

DIV B PART 9

PER 9.32.2.2 - NATURAL VENTILATION
0.09m² [1SF] PER WATER CLOSET

PER 9.34.2.7 - LIGHTING FOR PUBLIC AREAS

STORAGE ROOMS: 50 lx min; 5 W/m² min
PUBLIC WATER CLOSET ROOMS: 100 lx min; 10 W/m² min

DIV B PART 7

PER DIV B APPENDIX TABLE C-2: RAINFALL INTENSITY (15 MIN RAIN):

SURREY - 88 AVE. & 156 ST.: 10 mm

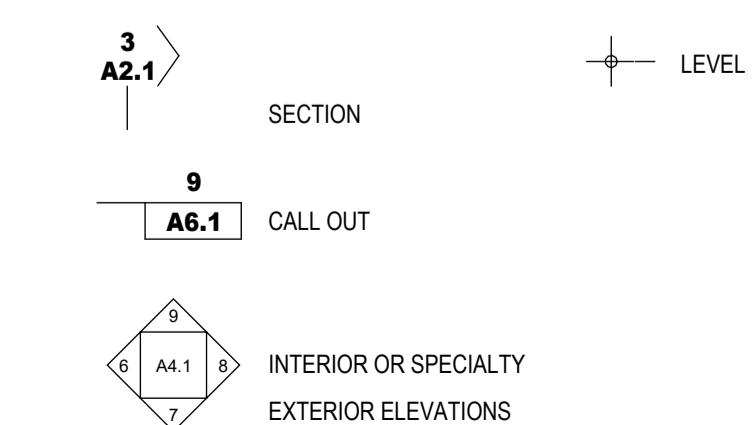
PER 2.4.10.4 - HYDRAULIC LOADS FROM ROOF OR PAVED SURFACES:

ALLOWABLE FOR 3 IN LEADER

ROOF AREA = 10 m²

10 mm x 10 m² = 100 L < 5000 L

SYMBOLS



ABBREVIATIONS

&	and	BD	board	DEMO	demolition	FCY	factory finish	HORIZ	horizontal	S	structural
L	angle	BLDG	building	DET	detail	FD	floor drain	MAX	maximum	SIM	similar
@	at	BLK	block or blocking	DIA	diameter	FDN	foundation	MTL	metal	SQ	square
C	centerline	BM	beam	DIM	dimension	FIN	finish	MIN	minimum, minute	STOR	storage
Ø	diameter	BO	bottom of	DN	down	FL	floor	NTS	not to scale	STRL	structural
d	penny	CEM	cement	DS	downspout	FO	frame opening	NIC	not in contract	SUSP	suspended
#	pound or number	CLG	ceiling	DWG	drawing	FOC	face of concrete	NTS	not to scale	S.V.	sheet vinyl
AB	anchor bolt	COL	column	EA	each	FOF	face of finish	(N)	new	T.O.	top of
ADDL	additional	CONST	construction	EL	elevation	FOS	face of stud	OC	on center	U.N.O.	unless noted otherwise
ADH	adhesive	CONT	continuous	ELEC	electrical	FT	feet	PL	plate	VAR	varies
ADJ	adjustable			EQ	equal	FURR	furring	PLYWD	plywood	VERT	vertical
AFF	above finished floor			EXT	exterior			PNT	paint	VIF	verification in field
APPROX	approximate			(E)	existing	GA	gauge or gage	PT	pressure treated	W	washer
ARCH	architectural					GALV	galvanized	RD	roof drain	W/	with
						GB	grab bar	RO	rough opening	WD	wood
						GL	glass or glazing				

MATERIALS/FINISH ABBREVIATIONS

CONC-1	03 30 00	SEALED, TROWEL FINISH
CONC-2	03 45 00	SEALED, TEXTURED FINISH
CONC-3	03 45 00	SEALED, SMOOTH FINISH
CONC-4	03 45 00	SEALED, EXPOSED AGGREGATE
MTL-1A	05 50 00	ALUMN, POWDER-COATED
MTL-2A	05 50 00	STEEL, POWDER-COATED
MTL-2B	05 50 00	STAINLESS STEEL
MTL-2C	05 50 00	STEEL, GALVANIZED & POWDER-COATED
MTL-2D	05 50 00	STAINLESS STEEL, POWDER COATED

NOTE: LEADERBOX, GATE, SERVICE DOOR PLATE, JAMB PLATE (AT GATE CLOSURE SIDE) AND LEADER BOX END PLATE ARE ALL BLACK STEEL (POWDER COATED), MTL-2A GUTTER, WELDPLATES, GATE TRACK, SKYLIGHT FRAME, WOOD DOOR WALL PLATES, KNIFE BLADES, FLASHING, GATE ROLLER GUIDE - ARE ALL STAINLESS STEEL, MTL-2B OR MTL-2D

LEADER PIPE AND ELBOWS ARE GALVANIZED PIPE, MTL-2C

GENERAL NOTES

- CONCRETE UNIT SHOULD BE PREPPED WITH OPENINGS AND RECESSES FOR MECHANICAL, ELECTRICAL, AND OTHER ACCESSORIES AND EQUIPMENT INSTALLED BY OTHERS AS PER THE CONTRACT DOCUMENTS.
- ALL DIMENSIONS ARE TO FACE OF WALL UNLESS NOTED OTHERWISE.
- PROVIDE BLOCKING FOR ALL WALL MOUNTED PANELS, EQUIPMENT, AND OTHER ACCESSORIES NOT FAST TO CONC.

REVISIONS:

△	DATE	DESCRIPTION

Surrey Park Washroom

Surrey, BC

JIM PROJECT NO.044.4

SCALE: 1 : 50

DRAWN BY: -

CHECKED BY: JFH

DATE: 11/25/19

ISSUE:

△	DATE	DESCRIPTION
1	22.05.10	Issue for Tender

TITLE SHEET

A0.0

ISSUE FOR TENDER - NOT FOR CONSTRUCTION

034500 ARCHITECTURAL PRECAST CONCRETE

QUALITY ASSURANCE

FABRICATOR QUALIFICATIONS: A FIRM THAT COMPLIES WITH THE FOLLOWING REQUIREMENTS AND IS EXPERIENCED IN PRODUCING ARCHITECTURAL PRECAST CONCRETE UNITS SIMILAR TO THOSE INDICATED FOR THIS PROJECT AND WITH A RECORD OF SUCCESSFUL IN-SERVICE PERFORMANCE.

- DELEGATED DESIGN: ASSUMES RESPONSIBILITY FOR ENGINEERING ARCHITECTURAL PRECAST CONCRETE UNITS TO COMPLY WITH PERFORMANCE REQUIREMENTS. THIS RESPONSIBILITY INCLUDES PREPARATION OF SHOP DRAWINGS AND COMPREHENSIVE ENGINEERING ANALYSIS BY A QUALIFIED PROFESSIONAL ENGINEER.

TESTING AGENCY QUALIFICATIONS: AN INDEPENDENT TESTING AGENCY QUALIFIED ACCORDING TO ASTM C 1077 AND ASTM E 329 TO CONDUCT THE TESTING INDICATED, AS DOCUMENTED ACCORDING TO ASTM E 548.

ALL CONCRETE WORK TO CONFORM WITH CAN/CSA 23.1 /A23.2, AND CSA-A23.3, AND CPCCI ARCHITECTURAL PRECAST CONCRETE WALLS: BEST PRACTICE GUIDE.

- DESIGN STANDARDS: CONCRETE DESIGNED TO MEET CSA A23.4 CLAUSE 16.2. CURE IN ACCORDANCE WITH CSA-A23.4.

STRUCTURAL PERFORMANCE:

- CALCULATE STRUCTURAL PROPERTIES OF COMPONENTS IN ACCORDANCE WITH CSA-A23.3 [AND CSA-A23.4].
- CONFORM TO APPLICABLE REQUIREMENTS OF BC BUILDING CODE, AND LOCAL AUTHORITIES HAVING JURISDICTION.
- DESIGN AND PROVIDE REINFORCEMENT, ANCHORS AND SUPPORTS AS REQUIRED BY CODES FOR THE CONSULTANT'S APPROVAL. SUBMIT RELEVANT DESIGN DATA PREPARED BY A QUALIFIED STRUCTURAL ENGINEER FOR APPROVAL IF SO REQUESTED BY THE CONSULTANT.

SUBMITTALS

DESIGN MIXES: FOR EACH CONCRETE MIX ALONG WITH COMPRESSIVE STRENGTH AND WATER-ABSORPTION TESTS.

- FOR RECYCLED CONTENT: INDICATE POSTCONSUMER AND PRECONSUMER RECYCLED CONTENT

SHOP (ERECTION) DRAWINGS: PREPARE AND SUBMIT SHOP DRAWINGS IN ACCORDANCE WITH THE GENERAL CONDITIONS OF THE CONTRACT, CSA-A23.3 AND CSA-A23.4, AND AS SPECIFIED BELOW.

- SUBMIT FULLY DETAILED AND DIMENSIONED DRAWINGS SHOWING METHOD OF FASTENING, INDICATE TYPE OF FINISH AND OTHER PERTINENT INFORMATION ON SHOP DRAWINGS.
- SHOW LOCATIONS OF INSERTS AND ANCHORS REQUIRED TO BE CAST IN PRECAST COMPONENTS FOR INTERFACE ELEMENTS.
- SHOW SYSTEM OF IDENTIFYING COMPONENTS FOR ERECTION PURPOSES ON SHOP DRAWINGS AND APPLY SIMILAR MARK ON COMPONENTS AT TIME OF MANUFACTURE.
- EACH DRAWING SUBMITTED SHALL BEAR STAMP AND SIGNATURE OF QUALIFIED PROFESSIONAL ENGINEER REGISTERED IN PROVINCE OF BRITISH COLUMBIA.
- DESIGN MODIFICATIONS:
 - IF DESIGN MODIFICATIONS ARE NECESSARY TO MEET THE PERFORMANCE REQUIREMENTS AND FIELD CONDITIONS, SUBMIT DESIGN CALCULATIONS AND DRAWINGS. DO NOT ADVERSELY AFFECT THE APPEARANCE, DURABILITY OR STRENGTH OF UNITS WHEN MODIFYING DETAILS OR MATERIALS AND MAINTAIN THE GENERAL DESIGN CONCEPT.
- COMPREHENSIVE ENGINEERING DESIGN CERTIFIED BY THE QUALIFIED PROFESSIONAL ENGINEER RESPONSIBLE FOR ITS PREPARATION REGISTERED IN THE STATE IN WHICH THE PROJECT IS LOCATED. SHOW GOVERNING PANEL TYPES, CONNECTIONS, AND TYPES OF REINFORCEMENT, INCLUDING SPECIAL REINFORCEMENT. COORDINATE THE LOCATION, TYPE, MAGNITUDE AND DIRECTION OF ALL IMPOSED LOADINGS FROM THE PRECAST SYSTEM TO THE BUILDING STRUCTURAL FRAME WITH THE ENGINEER OF RECORD.

RANGE SAMPLES: BEFORE PRODUCTION FABRICATION OF ARCHITECTURAL PRECAST CONCRETE UNITS, PRODUCE A MINIMUM OF THREE SAMPLES, APPROXIMATELY 16 SQUARE FEET IN SIZE, REPRESENTING ANTICIPATED RANGE OF COLOR AND TEXTURE ON PROJECT'S UNITS. FOLLOWING RANGE SAMPLE ACCEPTANCE BY THE ARCHITECT, MAINTAIN SAMPLES AT THE MANUFACTURER'S PLANT AS COLOR AND TEXTURE ACCEPTABILITY REFERENCE.

MATERIAL TEST REPORTS: FROM A QUALIFIED TESTING AGENCY INDICATING AND INTERPRETING TEST RESULTS OF THE FOLLOWING FOR COMPLIANCE WITH REQUIREMENTS INDICATED IN THIS SECTION AND:

- COMPRESSIVE AND FLEXURE STRENGTH: ASTM C39
- PERMEABILITY: ASTM C1202
- ACCELERATED MORTAR BAR TEST: ASTM C1260

EPOXY FLOOR COATING: ARIZONA POLYMER SEALER FOR THE CONCRETE FLOOR, ONCE COAT OF AP200 EPOXY PRIMER BASE AND ONE COAT OF AP501 POLY URATHANE SATIN TOP COAT. CLEAR FINISH

FINISHING FORMED SURFACES

UNSPECIFIED FINISH: PROVIDE FOLLOWING FINISHES AS APPLICABLE WHEN FINISH OF FORMED SURFACES IS NOT SPECIFICALLY INDICATED:

UNEXPOSED SURFACES:

- ROUGH FORM FINISH FOR CONCRETE NOT EXPOSED TO VIEW.
- SMOOTH FORM FINISH FOR CONCRETE TO RECEIVE MEMBRANE WATERPROOFING.

EXPOSED SURFACES:

- SMOOTH FORM FINISH FOR CONCRETE SURFACES EXPOSED TO VIEW SHALL CONSIST OF SQUARE EDGED SMOOTH PANELS OF PAPER FINISH PLYWOOD. PANELS SHALL BE MADE IN A TRUE PLANE, CLEAN, FREE OF HOLES, SURFACE MARKINGS, AND DEFECT.

EXPOSED FORM FINISHES: COORDINATE AS NECESSARY TO SECURE FORM CONSTRUCTION USING SMOOTH, HARD, UNIFORM SURFACES WITH NUMBER OF SEAMS KEPT TO A MINIMUM, UNIFORMLY SPACED IN AN ORDERLY PATTERN; PATCH TIE HOLES AND DEFECTS; COMPLETELY REMOVE FINS, BULDGES, LIPS AND STAINS. GRIND REPAIRS SMOOTH.

RELATED UNFORMED FINISH: STRIKE-OFF CONCRETE SMOOTH AND FINISH WITH USING TEXTURE MATCHING ADJACENT FORMED SURFACES AT TOPS OF WALLS, HORIZONTAL OFFSETS, AND SIMILAR UNFORMED SURFACES OCCURRING ADJACENT TO FORMED SURFACES; CONTINUE FINAL SURFACE TREATMENT OF FORMED SURFACES UNIFORMLY ACROSS ADJACENT UNFORMED SURFACES.

MOLD MATERIALS

MOLDS: RIGID, DIMENSIONALLY STABLE, NONABSORPTIVE MATERIAL, WARP AND BUCKLE FREE. THAT WILL PROVIDE CONTINUOUS AND TRUE PRECAST CONCRETE SURFACES WITHIN FABRICATION TOLERANCES INDICATED; NON-REACTIVE WITH CONCRETE AND SUITABLE FOR PRODUCING REQUIRED FINISHES.

- MOLD-RELEASE AGENT: COMMERCIALY PRODUCED LIQUID-RELEASE AGENT THAT WILL NOT BOND WITH, STAIN OR ADVERSELY AFFECT PRECAST CONCRETE SURFACES AND WILL NOT IMPAIR SUBSEQUENT SURFACE OR JOINT TREATMENTS OF PRECAST CONCRETE.
- EDGE AND CORNER TREATMENT: UNIFORMLY CHAMFERED UON.

FORM LINERS: UNITS OF FACE DESIGN, TEXTURE, ARRANGEMENT, AND CONFIGURATION INDICATED. PROVIDE SOLID BACKING AND FORM SUPPORTS TO ENSURE THAT FORM LINERS REMAIN IN PLACE DURING CONCRETE PLACEMENT. USE WITH MANUFACTURER'S RECOMMENDED LIQUID-RELEASE AGENT THAT WILL NOT BOND WITH, STAIN, OR ADVERSELY AFFECT PRECAST CONCRETE SURFACES AND WILL NOT IMPAIR SUBSEQUENT SURFACE OR JOINT TREATMENTS OF PRECAST CONCRETE.

REINFORCING MATERIALS

REINFORCING STEEL BARS: CSA-G30.18, DEFORMED STEEL, UNFINISHED STRENGTH AND SIZE COMMENSURATE WITH PRECAST UNIT DESIGN.

STEEL FIBERS: ASTM A-820 – TYPE AS REQUIRED TO MEET DESIGN CRITERIA.

ADDITION OF STAINLESS STEEL AND GALVANIZED REBAR AS REQUIRED BY STRUCTURAL ENGINEER

CONCRETE MATERIALS

PORTLAND CEMENT: CEMENT SHALL BE TYPE 10 PORTLAND CEMENT.

FOR SURFACES EXPOSED TO VIEW IN FINISHED STRUCTURE, USE GRAY OR WHITE DEPENDING ON THE COLORING OF CONCRETE, SAME TYPE, BRAND, AND MILL SOURCE THROUGHOUT THE PRECAST CONCRETE PRODUCTION.

RECYCLED CONCRETE AGGREGATES: AGGREGATES SHOULD INCLUDE RECYCLED AGGREGATES IN THE MIX DESIGN WHERE FEASIBLE. AGGREGATES CAN INCLUDE, BUT ARE NOT LIMITED TO, RECYCLED CONCRETE, CRUSHED GLASS, CRUMB RUBBER (TIRES), CERAMICS, AND SAWDUST. THE DESIGN MIXTURES SHOULD MEET THE STATED CRITERIA AND BE TESTED AS INDICATED INCLUDING STRENGTH AND WATER ABSORPTION CRITERIA. AGGREGATES SHOULD BE CLEAN AND FREE OF CONTAMINANTS.

SUPPLEMENTARY CEMENTITIOUS MATERIALS:

- USE FLY ASH, POZZOLAN, SLAG CEMENT, AND SILICA FUME/METAKAOLIN AS NEEDED TO REDUCE THE TOTAL AMOUNT OF PORTLAND CEMENT, WHICH WOULD OTHERWISE BE USED, BY NOT LESS THAN 40 PERCENT.
 - FLY ASH ADMIXTURE: ASTM C 618, CLASS C OR F WITH MAXIMUM LOSS ON IGNITION OF 3 PERCENT.
 - METAKAOLIN ADMIXTURE: ASTM C 618, CLASS N.
 - SILICA FUME ADMIXTURE: ASTM C 1240 WITH OPTIONAL CHEMICAL AND PHYSICAL REQUIREMENT.
 - GROUND GRANULATED BLAST-FURNACE SLAG: ASTM C989, GRADE 100 OR 120.

COLORING ADMIXTURE: ASTM C 979, SYNTHETIC OR NATURAL MINERAL-OXIDE PIGMENTS OR COLORED WATER-REDUCING ADMIXTURES. TEMPERATURE STABLE AND NON-FADING. COLOR TO BE DETERMINED BY ARCHITECT.

AIR ENTRAINMENT ADMIXTURE: CSA-A23.4

CHEMICAL ADMIXTURES: ASTM C 494/C494M

CONCRETE MIXES

DESIGN MIXES MAY BE PREPARED BY A QUALIFIED INDEPENDENT TESTING AGENCY OR BY QUALIFIED PRECAST PLANT PERSONNEL AT ARCHITECTURAL PRECAST CONCRETE FABRICATOR'S OPTION.

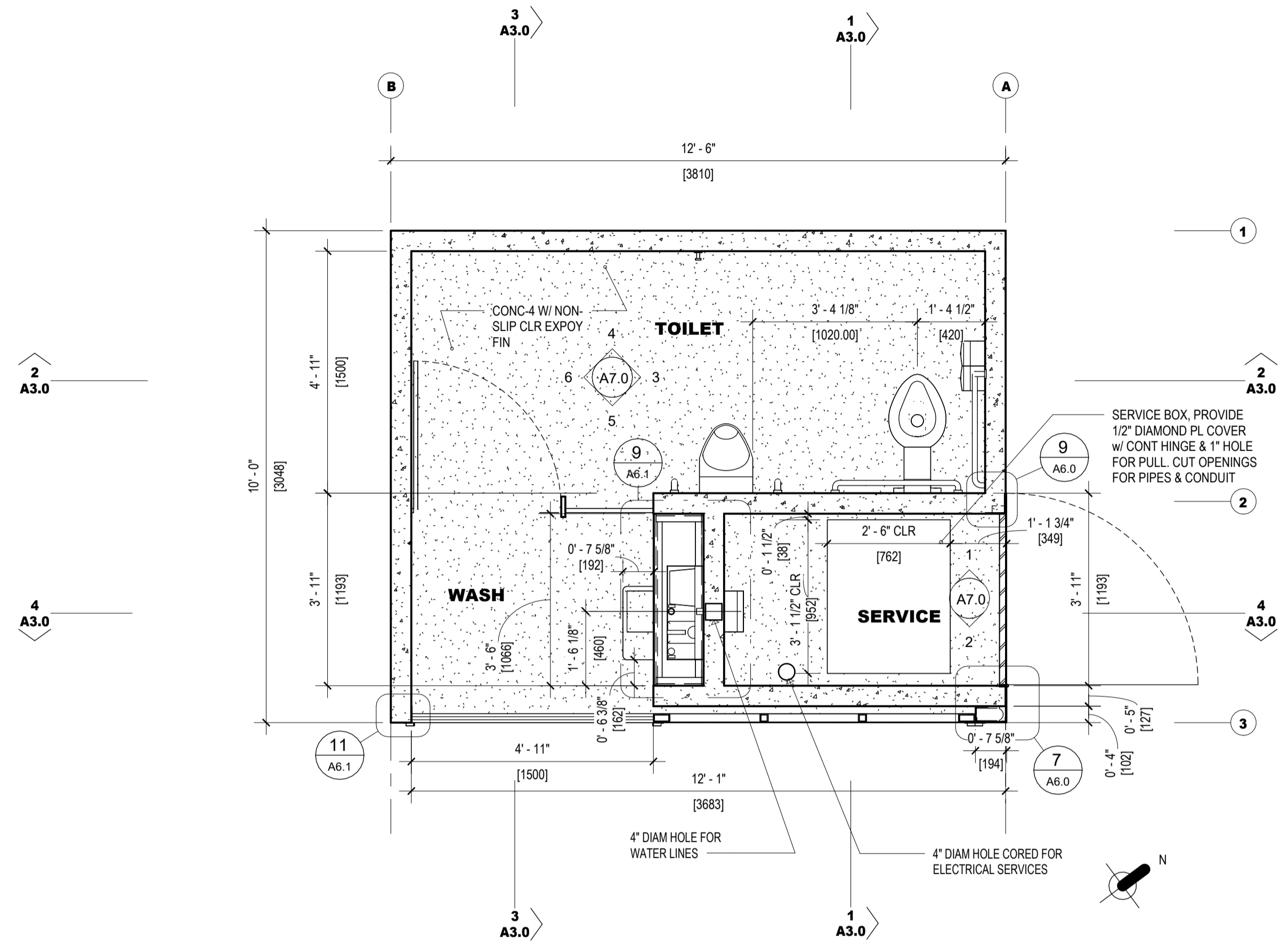
CONCRETE FACE AND BACKUP MIXES:

- WALLS: COMPRESSIVE STRENGTH (28 DAYS): 30 MPA.
- FOUNDATION/SLAB: COMPRESSIVE STRENGTH (28 DAYS): 25 MPA.
- ROOF & INTERIOR PANELS: COMPRESSIVE STRENGTH (28 DAYS): 160 MPA (23,200 PSI).

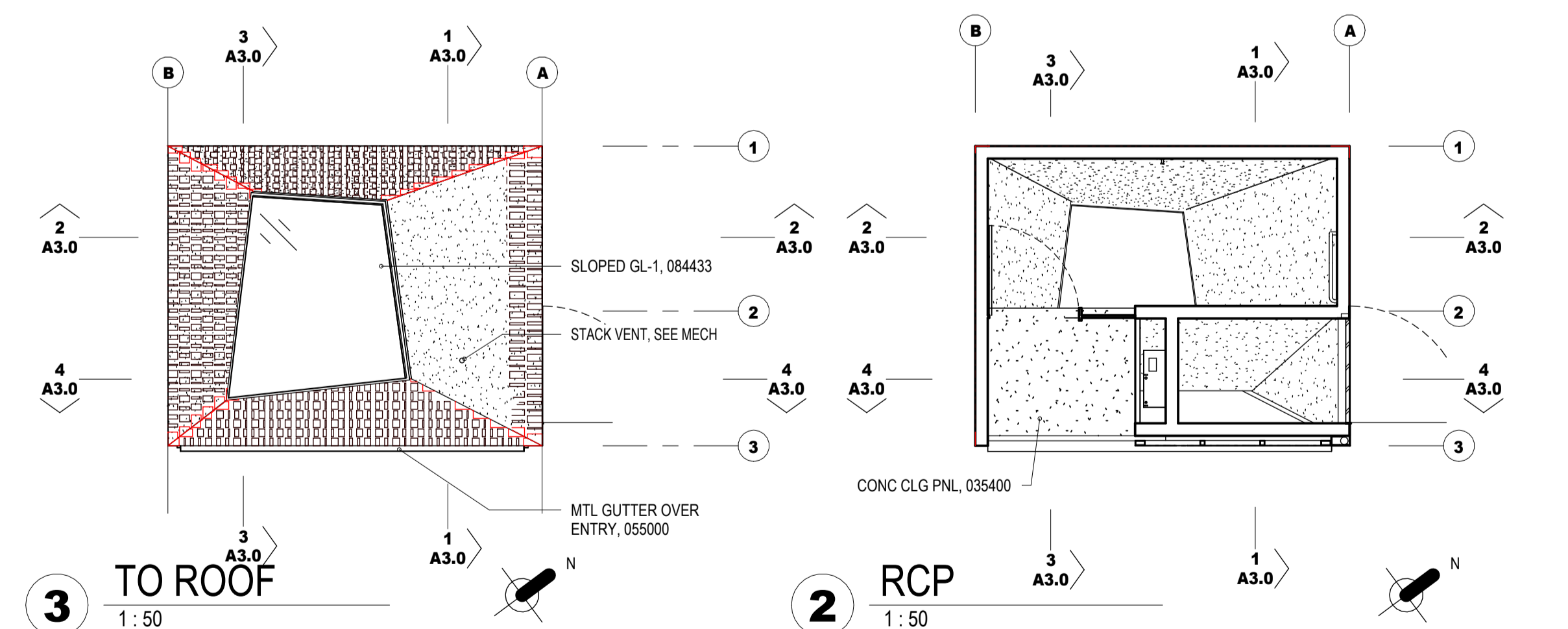
WATER ABSORPTION: 6 PERCENT BY WEIGHT OR 14 PERCENT BY VOLUME, TESTED ACCORDING TO PCI MNL 117.

FABRICATION

CONCRETE COUNTER - EASE ALL EXPOSED EDGES OF COUNTER TO 1/4" RADIUS. AVOID EXPOSING AGGREGATE WITH ANY GRINDING OR HONING



1 PLAN
1:25



3 TO ROOF
1:50

2 RCP
1:50

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△	DATE	DESCRIPTION

Surrey Park Washroom
Surrey, BC
JIM PROJECT NO.044.4

SCALE: As indicated
DRAWN BY: JFH
CHECKED BY: -
DATE: 05/10/18

ISSUE:

△	DATE	DESCRIPTION
1	22.05.10	Issue for Tender

PLANS
A1.0
ISSUE FOR TENDER - NOT FOR CONSTRUCTION

055000 METAL FABRICATIONS

SECTION 055000 - METAL FABRICATIONS

FASTENERS

GENERAL: UNLESS OTHERWISE INDICATED, PROVIDE TYPE 316 STAINLESS-STEEL FASTENERS FOR EXTERIOR USE AND ZINC PLATED FASTENERS WITH COATING COMPLYING WITH ASTM B 633 OR ASTM F 1941M, CLASS FE/ZN 5, AT EXTERIOR WALLS

CAST-IN-PLACE ANCHORS IN CONCRETE: EITHER THREADED TYPE OR WEDGE TYPE UNLESS OTHERWISE INDICATED; GALVANIZED FERROUS CASTINGS, EITHER ASTM A 47/A 47M MALLEABLE IRON OR ASTM A 27/A 27M CAST STEEL. PROVIDE BOLTS, WASHERS, AND SHIMS AS NEEDED, ALL HOT-DIP GALVANIZED PER ASTM F 2329, M.

POST-INSTALLED ANCHORS: TORQUE-CONTROLLED EXPANSION ANCHORS OR CHEMICAL ANCHORS.

MISCELLANEOUS MATERIALS

GALVANIZING REPAIR PAINT: HIGH-ZINC-DUST-CONTENT PAINT COMPLYING WITH SSPC-PAINT 20 AND COMPATIBLE WITH PAINTS SPECIFIED TO BE USED OVER IT.

NONSHRINK, NONMETALLIC GROUT: FACTORY-PACKAGED, NONSTAINING, NONCORROSIVE, NONGASEOUS GROUT COMPLYING WITH ASTM C 1107. PROVIDE GROUT SPECIFICALLY RECOMMENDED BY MANUFACTURER FOR INTERIOR AND EXTERIOR APPLICATIONS.

MISCELLANEOUS FRAMING AND SUPPORTS

GENERAL: PROVIDE STEEL FRAMING AND SUPPORTS NOT SPECIFIED IN OTHER SECTIONS AS NEEDED TO COMPLETE THE WORK.

FABRICATE UNITS FROM STEEL SHAPES, PLATES, AND BARS OF WELDED CONSTRUCTION UNLESS OTHERWISE INDICATED. FABRICATE TO SIZES, SHAPES, AND PROFILES INDICATED AND AS NECESSARY TO RECEIVE ADJACENT CONSTRUCTION.

GALVANIZE MISCELLANEOUS FRAMING AND SUPPORTS.

MISCELLANEOUS STEEL TRIM: UNLESS OTHERWISE INDICATED, FABRICATE UNITS FROM STEEL SHAPES, PLATES, AND BARS OF PROFILES SHOWN WITH CONTINUOUSLY WELDED JOINTS AND SMOOTH EXPOSED EDGES. MITER CORNERS AND USE CONCEALED FIELD SPLICES WHERE POSSIBLE.

STEEL WELD PLATES AND ANGLES: PROVIDE STAINLESS STEEL WELD PLATES AND ANGLES NOT SPECIFIED IN OTHER SECTIONS, FOR ITEMS SUPPORTED FROM CONCRETE CONSTRUCTION AS NEEDED TO COMPLETE THE WORK. PROVIDE EACH UNIT WITH NO FEWER THAN TWO INTEGRALLY WELDED STEEL STRAP ANCHORS FOR EMBEDDING IN CONCRETE.

DUPLEX HOT-DIP GALVANIZING FINISH: PROVIDE APPLICATOR'S STANDARD ENHANCED HOT-DIP GALVANIZING PROCESS COMPLYING WITH ASTM A 123 DESIGN AND FABRICATION REQUIREMENTS.

METAL FINISHES:

PRIMER: PROVIDE APPLICATOR'S STANDARD FACTORY-APPLIED PRIMER OVER HOT-DIP GALVANIZING, COMPATIBLE WITH COLORED FINISH COATINGS, OTHERWISE SEE SECTION 099000

FINISH COATINGS: SEE SECTION 099000

COLOR AND FINISH: AS APPROVED BY ARCHITECT.

076000 FLASHING AND SHEET METAL

SHEET METAL MATERIALS: STAINLESS STEEL SHEET: 0.60 MM BASE METAL THICKNESS, FINCH TO MATCH ADJACENT DECORATIVE METAL ASSEMBLIES.

ACCESSORIES

ISOLATION COATING: ALKALI RESISTANT BITUMINOUS PAINT.

UNDERLAY FOR METAL FLASHING: NO. 15 PERFORATED ASPHALT FELT TO CSA A123.3.

EALANTS: SECTION 07 92 00 - JOINT SEALANTS.

CLEATS: OF SAME MATERIAL, AND TEMPER AS SHEET METAL, MINIMUM 50 MM WIDE. THICKNESS SAME AS SHEET METAL BEING SECURED.

FASTENERS: OF SAME MATERIAL AS SHEET METAL. TO CSA B111, RING THREAD FLAT HEAD ROOFING NAILS OF LENGTH AND THICKNESS SUITABLE FOR METAL FLASHING APPLICATION.

WASHERS: OF SAME MATERIAL AS SHEET METAL, 1 MM THICK WITH RUBBER PACKINGS.

TOUCH-UP PAINT: AS RECOMMENDED BY PREFINISHED MATERIAL MANUFACTURER.

FABRICATION

FORM PIECES IN 2400 MM MAXIMUM LENGTHS. MAKE ALLOWANCE FOR EXPANSION AT JOINTS.

HEM EXPOSED EDGES ON UNDERSIDE 12 MM. MITRE AND SEAL CORNERS WITH SEALANT.

FORM SECTIONS SQUARE, TRUE AND ACCURATE TO SIZE. FREE FROM DISTORTION AND OTHER DEFECTS DETRIMENTAL TO APPEARANCE OR PERFORMANCE.

APPLY ISOLATION COATING TO METAL SURFACES TO BE EMBEDDED IN CONCRETE OR MORTAR.

INSTALLATION

INSTALL SHEET METAL WORK IN ACCORDANCE WITH CRCA FL SERIES DETAILS AND AS DETAILED.

USE CONCEALED FASTENINGS EXCEPT WHERE APPROVED BEFORE INSTALLATION.

PROVIDE UNDERLAY UNDER SHEET METAL. SECURE IN PLACE AND LAP JOINTS 100 MM.

LOCK END JOINTS AND CAULK WITH SEALANT.

084433 SLOPED GLAZING ASSEMBLIES

REFERENCES: AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM) - ASTM E1300 - DETERMINING LOAD RESISTANCE OF GLASS IN BUILDINGS.

GENERAL: INSTALLED GLAZING SYSTEMS SHALL WITHSTAND NORMAL THERMAL MOVEMENT AND WIND LOADS WITHOUT FAILURE, INCLUDING LOSS OR GLASS BREAKAGE ATTRIBUTABLE TO DEFECTIVE MANUFACTURE, FABRICATION, OR INSTALLATION; FAILURE OF SEALANTS REMAIN WATER-TIGHT AND AIR-TIGHT; DETERIORATION OF GLAZING MATERIALS; OR OTHER DEFECTS IN CONSTRUCTION.

DELEGATED DESIGN:

- DESIGN GLASS SUPPORT SYSTEMS ACCORDING TO ASTM E 1300 BY A QUALIFIED PROFESSIONAL ENGINEER, USING THE FOLLOWING DESIGN CRITERIA:
- DESIGN WIND PRESSURES: DETERMINE DESIGN WIND PRESSURES APPLICABLE TO PROJECT ACCORDING TO THE BUILDING CODES, BASED ON HEIGHTS ABOVE GRADE INDICATED ON DRAWINGS
 - WIND DESIGN DATA: AS PER BC BUILDING CODE
 - DESIGN SNOW LOADS: AS PER BC BUILDING CODE
 - STRUCTURAL SEALANT: CAPABLE OF WITHSTANDING TENSILE AND SHEAR STRESSES IMPOSED BY STRUCTURAL SEALANT-SLOPED GLAZING WITHOUT FAILING ADHESIVELY OR COHESIVELY.
 - ADHESIVE FAILURE OCCURS WHEN SEALANT PULLS AWAY FROM SUBSTRATE CLEARLY, LEAVING NO SEALANT MATERIAL BEHIND
 - COHESIVE FAILURE OCCURS WHEN SEALANT BREAKS OR TEARS WITHIN ITSELF BUT DOES NOT SEPARATE FROM EACH SUBSTRATE BECAUSE SEALANT-TO-SUBSTRATE BOND STRENGTH EXCEEDS SEALANT'S INTERNAL STRENGTH.
 - STRUCTURAL-SEALANT JOINTS:
 - DESIGNED TO PRODUCE TENSILE OR SHEAR STRESS OF LESS THAN 20 PSI (138 KPA).
 - DESIGN REVIEWED AND APPROVED BY STRUCTURAL-SEALANT MANUFACTURER.

SEALANTS: WEATHERSEAL JOINTS SHALL BE A DOW 795, NEUTRAL CURE MEDIUM MODULUS SILICONE SEALANT APPLIED IN ACCORDANCE WITH THE SEALANT MANUFACTURER'S INSTRUCTIONS. COLOR: AS SELECTED BY ARCHITECT.

STRUCTURAL SEALANT: ONE-COMPONENT, HIGH TENSILE STRENGTH, NEUTRAL-CURE, ELASTOMERIC SILICONE SEALANT AND ADHESIVE; DOW CORNING 995 SILICONE STRUCTURAL GLAZING SEALANT.

SEALANT BACKING: PROVIDE BACKING GREATER THAN JOINT OPENING BY 25 PERCENT MINIMUM COMPLYING WITH ASTM C1330 AS RECOMMENDED BY SEALANT MANUFACTURER.

BOND BREAKER TAPE: PROVIDE TAPE TO PREVENT ADHESION TO JOINT FILLERS OR JOINT SURFACES AT BACK OF JOINT AND ALLOW SEALANT MOVEMENT.

TYPE: POLYETHYLENE OR OTHER PLASTIC TAPE RECOMMENDED BY SEALANT MANUFACTURER.

SETTING BLOCKS SHALL BE AN EXTRUDED SILICONE, SILICONE COMPATIBLE RUBBER, SHORE A HARDNESS: 85 (+/-5), COLOR: AS SELECTED BY ARCHITECT.

MASKING TAPE: NON-STAINING, NON-ABSORBENT TYPE COMPATIBLE WITH SILICONE SEALANT AND ADJACENT SURFACES.

GLAZING TAPE SHALL BE A 3M VHB TAPE, APPLIED IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS.

087100 DOOR HARDWARE

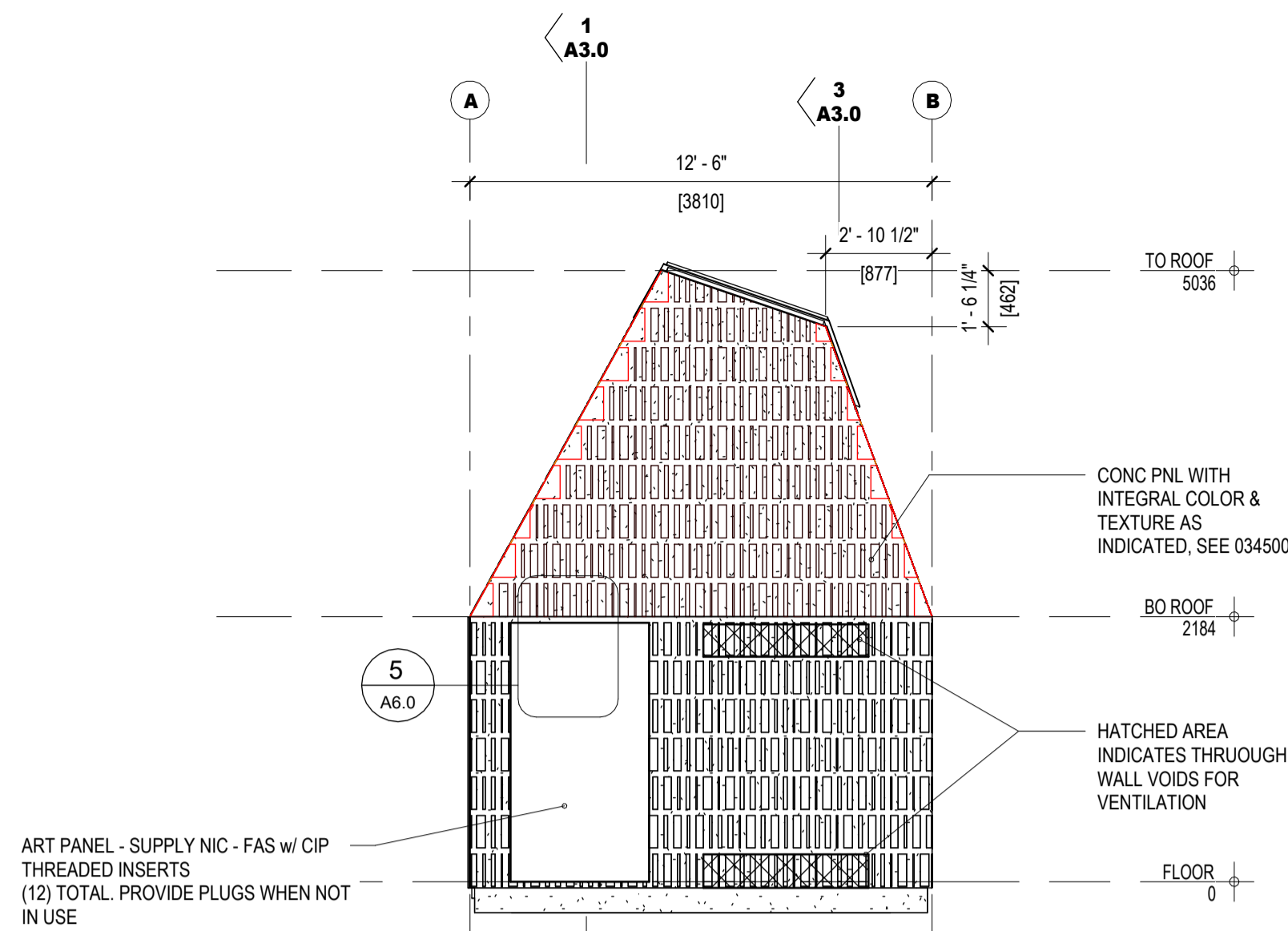
FABRICATION

MANUFACTURER'S NAMEPLATE: DO NOT PROVIDE PRODUCTS THAT HAVE MANUFACTURER'S NAME OR TRADE NAME DISPLAYED IN A VISIBLE LOCATION.

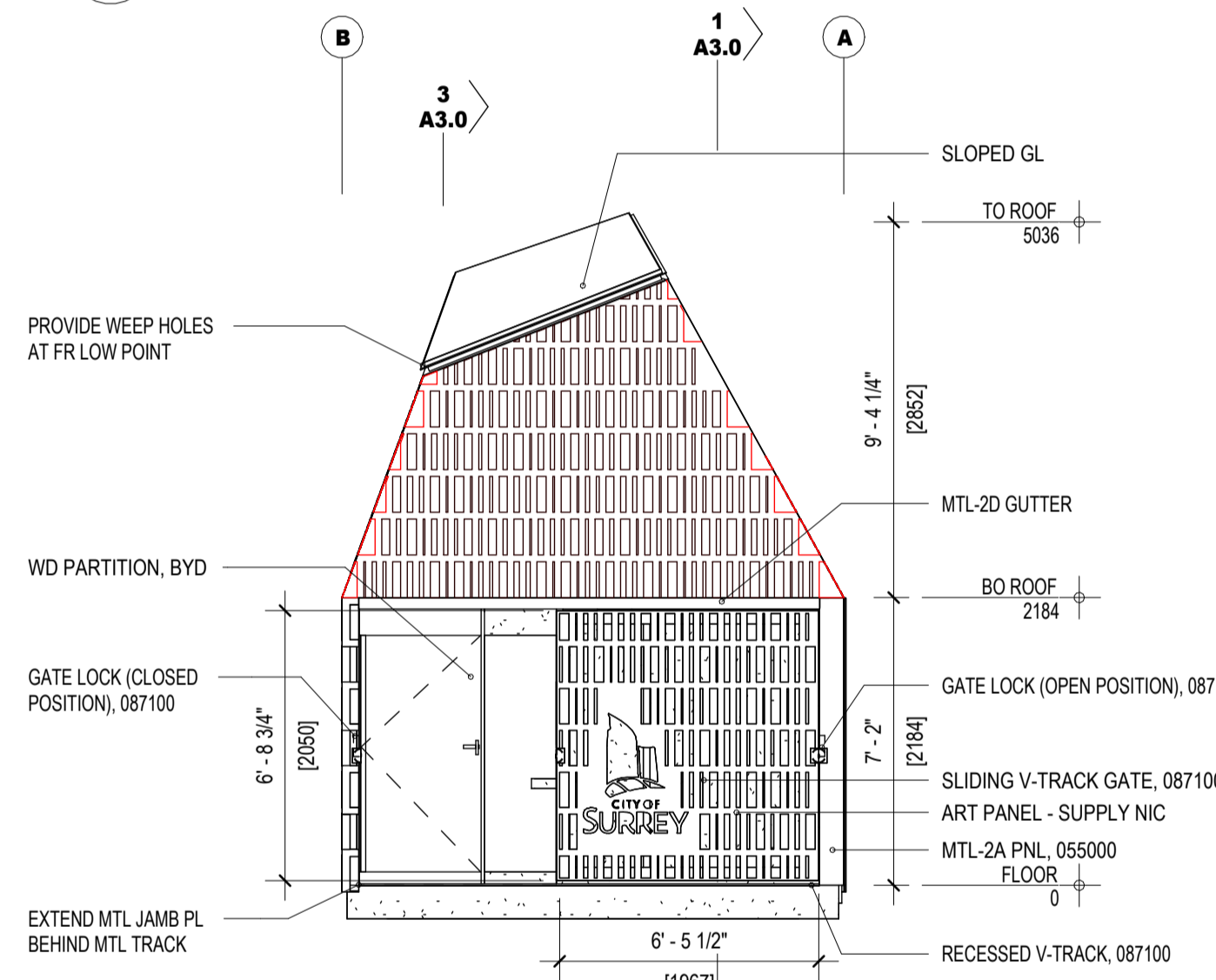
CONCEALED FASTENERS: FOR DOOR HARDWARE UNITS THAT ARE EXPOSED WHEN DOOR IS CLOSED, EXCEPT FOR UNITS ALREADY SPECIFIED WITH CONCEALED FASTENERS. DO NOT USE THROUGH BOLTS FOR INSTALLATION WHERE BOLT HEAD OR NUT ON OPPOSITE FACE IS EXPOSED UNLESS IT IS THE ONLY MEANS OF SECURELY ATTACHING THE DOOR HARDWARE.

DOOR HARDWARE SCHEDULE

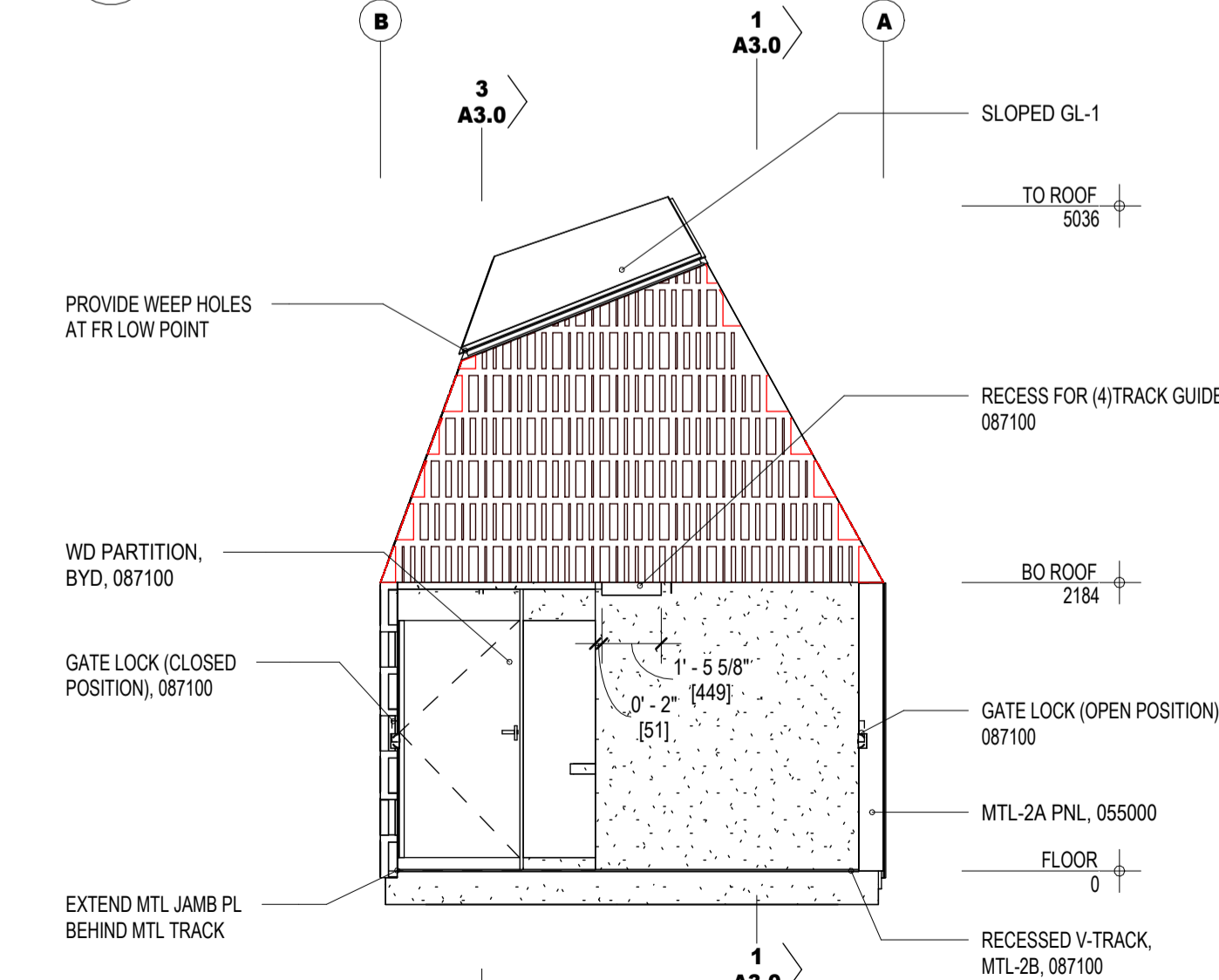
- SLIDING V-TRACK GATE
 - CUSTOM ALUMINUM GATE TRACK
 - (2) DURAGATE DGT-WHEEL-V4 V-GROOVE 4" WHEELS - HARDENED STEEL W/ GOLD ZINC COATING
 - (4) SINGLE UPPER GUIDE ROLLER SLIDING GATE SLIDE STABILIZERS ALINE 1-5/8
 - (2) KWIKSET WELD-ON DEADBOLT HOOK LOCK W/ SINGLE CYLINDER
- STORAGE DOOR
 - MONROE HEAVY DUTY PIANO HINGES NO HD18730072 - .187 IN GA, 3' OPEN WIDTH
 - (2) KWIKSET WELD-ON DEADBOLT HOOK LOCK W/ SINGLE CYLINDER
- TOILET PARTITION & DOOR
 - MATERIAL: ALUMINUM, CLR FIN
 - HINGES: (2) DIVERSIFIED CANADA SPRING HINGES 4-1/2"x4" SS
 - GRASPABLE PULL: PROVIDE ONE 140MM PULL ON EACH SIDE OF PARTITION DOOR.
 - LATCH: SLIDE LATCH WITH INDICATOR. PROVIDE UNITS THAT COMPLY WITH REGULATORY REQUIREMENTS FOR ACCESSIBILITY.
 - PARTITION BRACKETS: STAINLESS STEEL U OR WALL BRACKET W/ TAMPER RESISTENT SCREWS



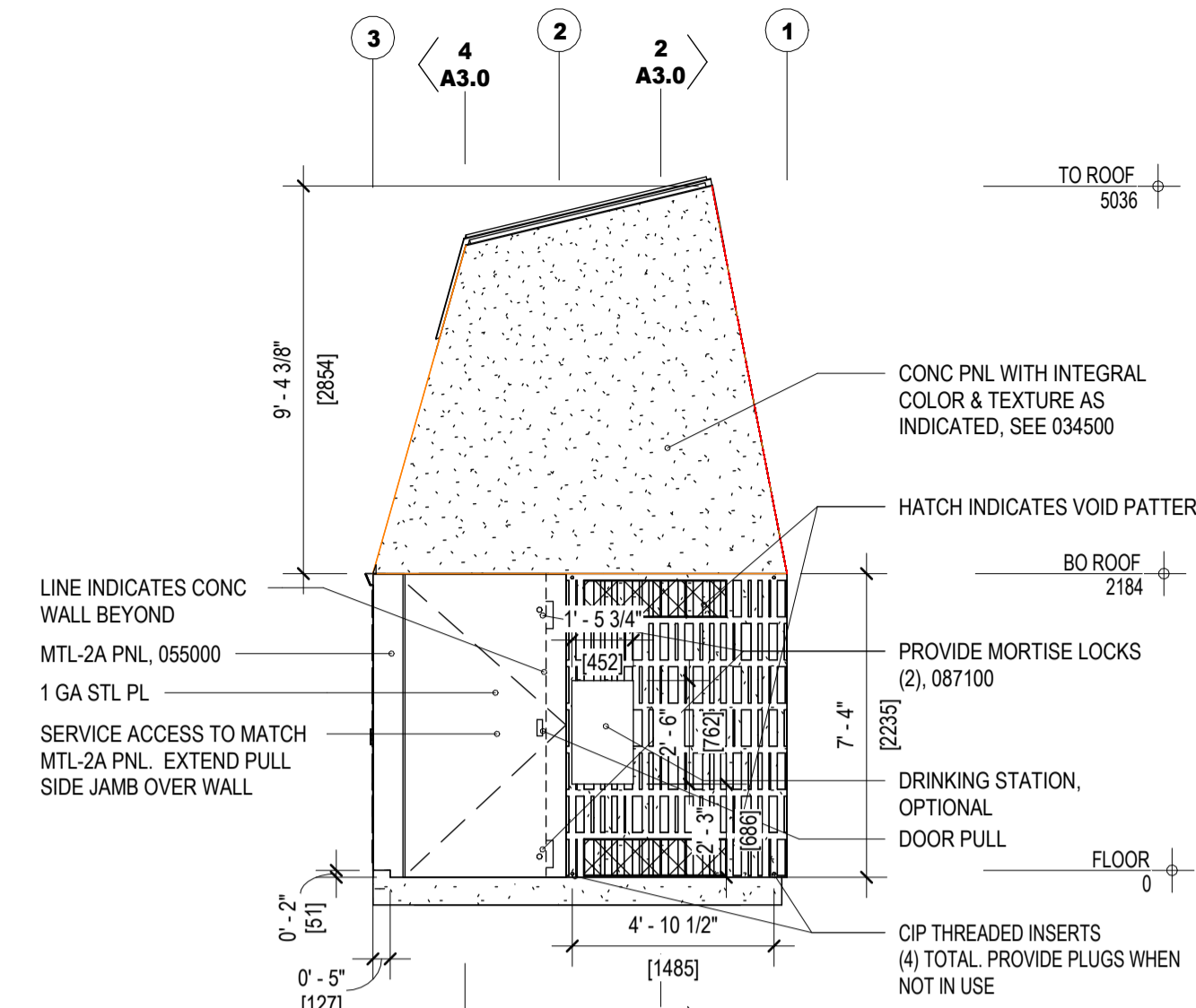
2 NORTH
1:50



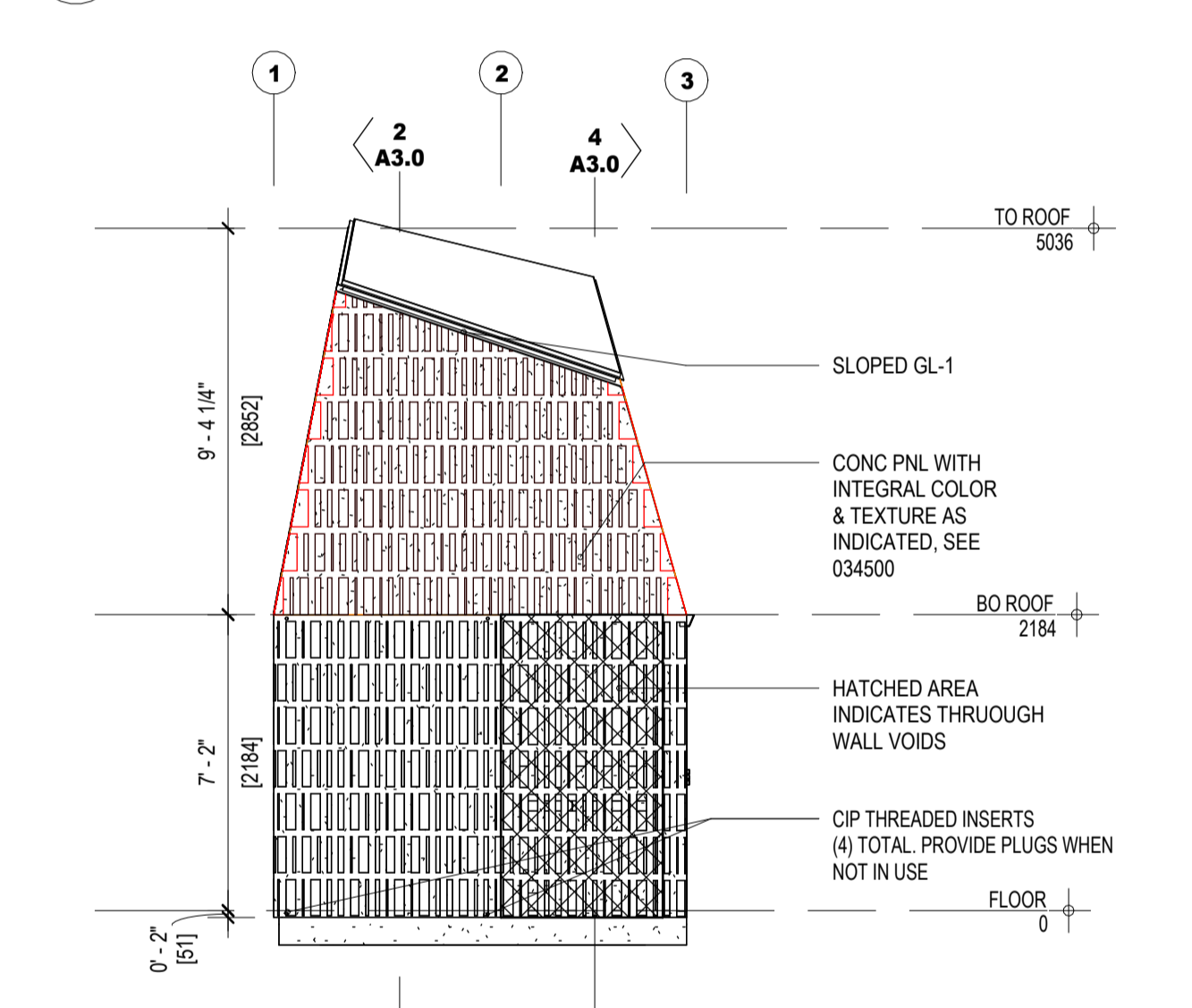
3 SOUTH
1:50



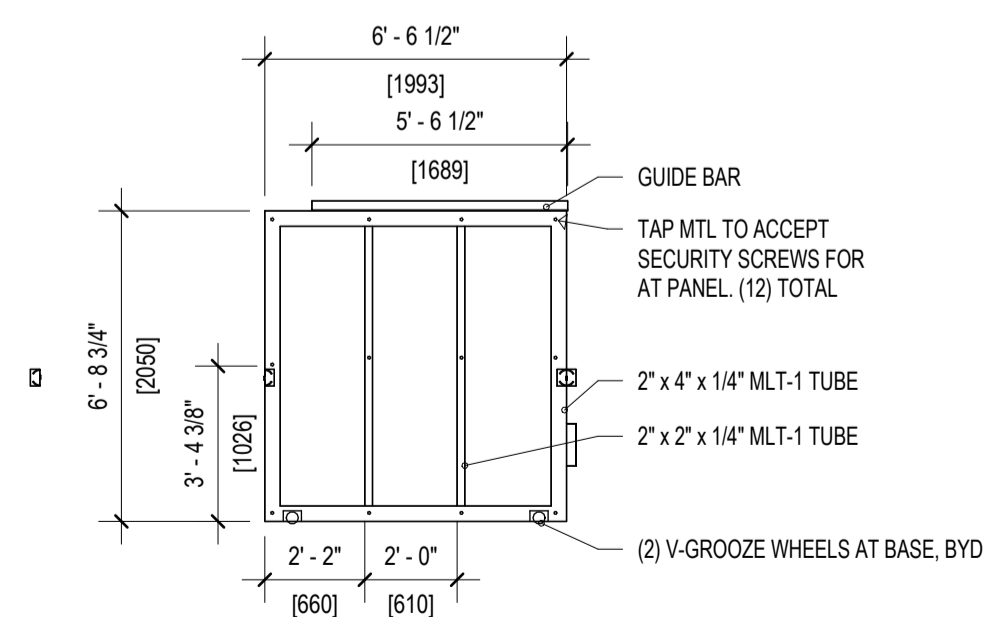
5 SOUTH w/o GATE
1:50



1 EAST
1:50



4 WEST
1:50



6 GATE FR
1:50

NOTE: LEADERBOX, GATE, SERVICE DOOR PLATE, JAMB PLATE (AT GATE CLOSURE SIDE) AND LEADER BOX END PLATE ARE ALL BLACK STEEL (POWDER COATED), MTL-2A

GUTTER, WELDPLATES, GATE TRACK, SKYLIGHT FRAME, PARTITION DOOR WALL PLATES, KNIFE BLADES, FLASHING, GATE ROLLER GUIDE - ARE ALL STAINLESS STEEL

LEADER PIPE AND ELBOWS ARE GALVANIZED PIPE. EXTEND THROUGH SLAB AND CONNECT TO STORM SYSTEM, SEE C-SERIES.

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REVISIONS:

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1	22.05.10	Issue for Tender

Surrey Park Washroom

Surrey, BC

JIM PROJECT NO.044.4

SCALE: 1:50

DRAWN BY: JFH

CHECKED BY: NA

DATE: 03/27/18

ISSUE:

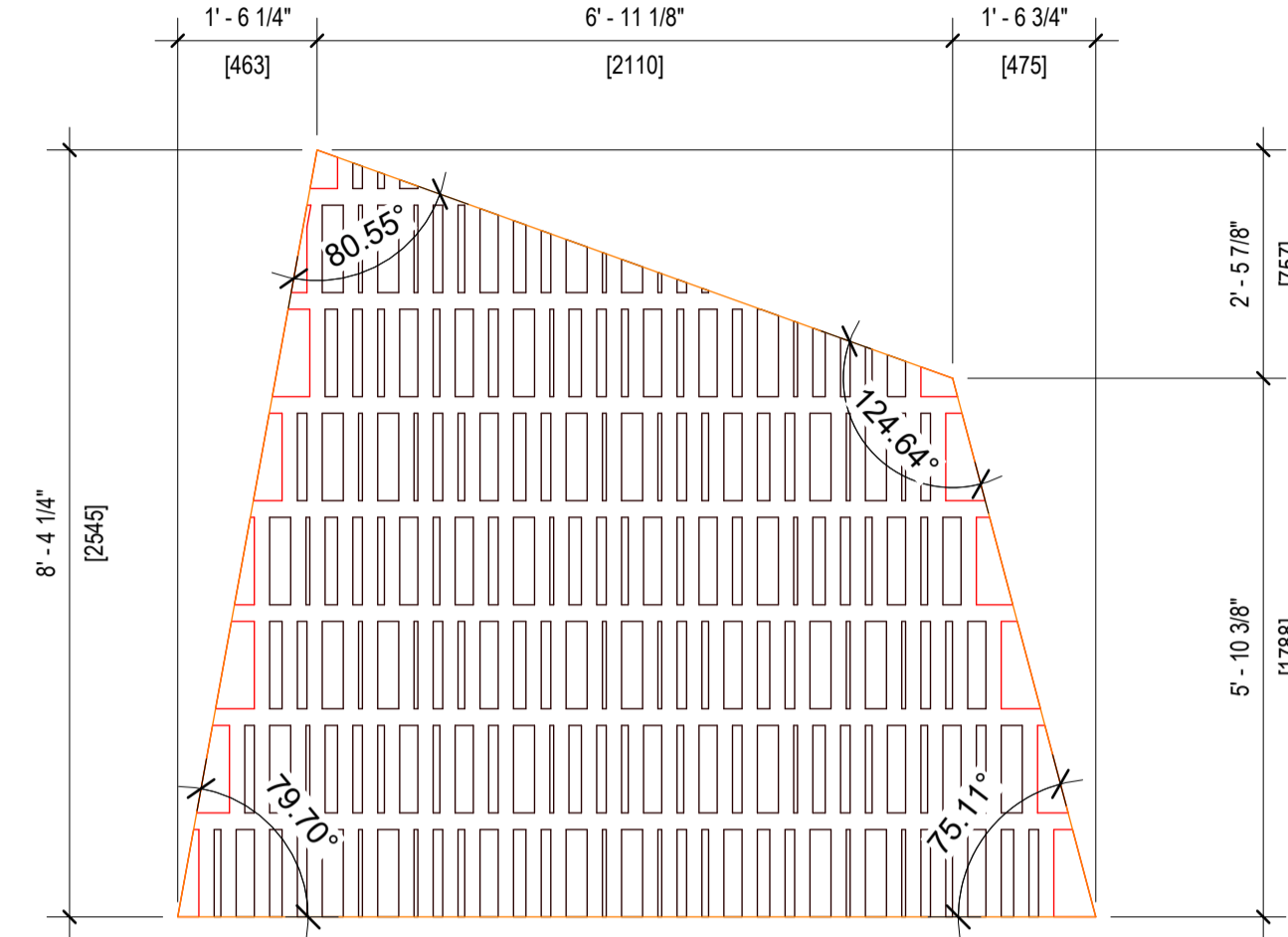
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1	22.05.10	Issue for Tender

ELEVATIONS

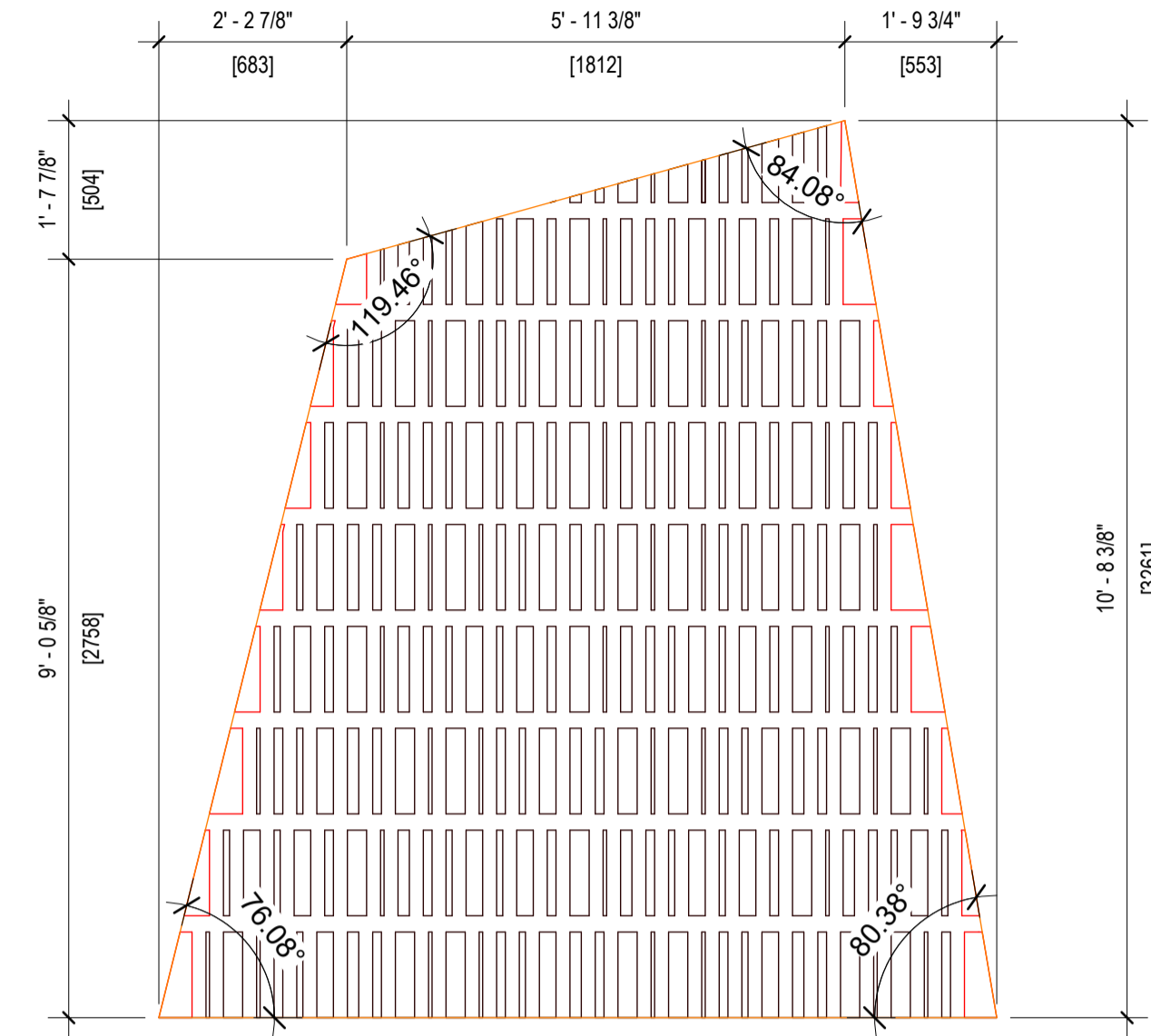
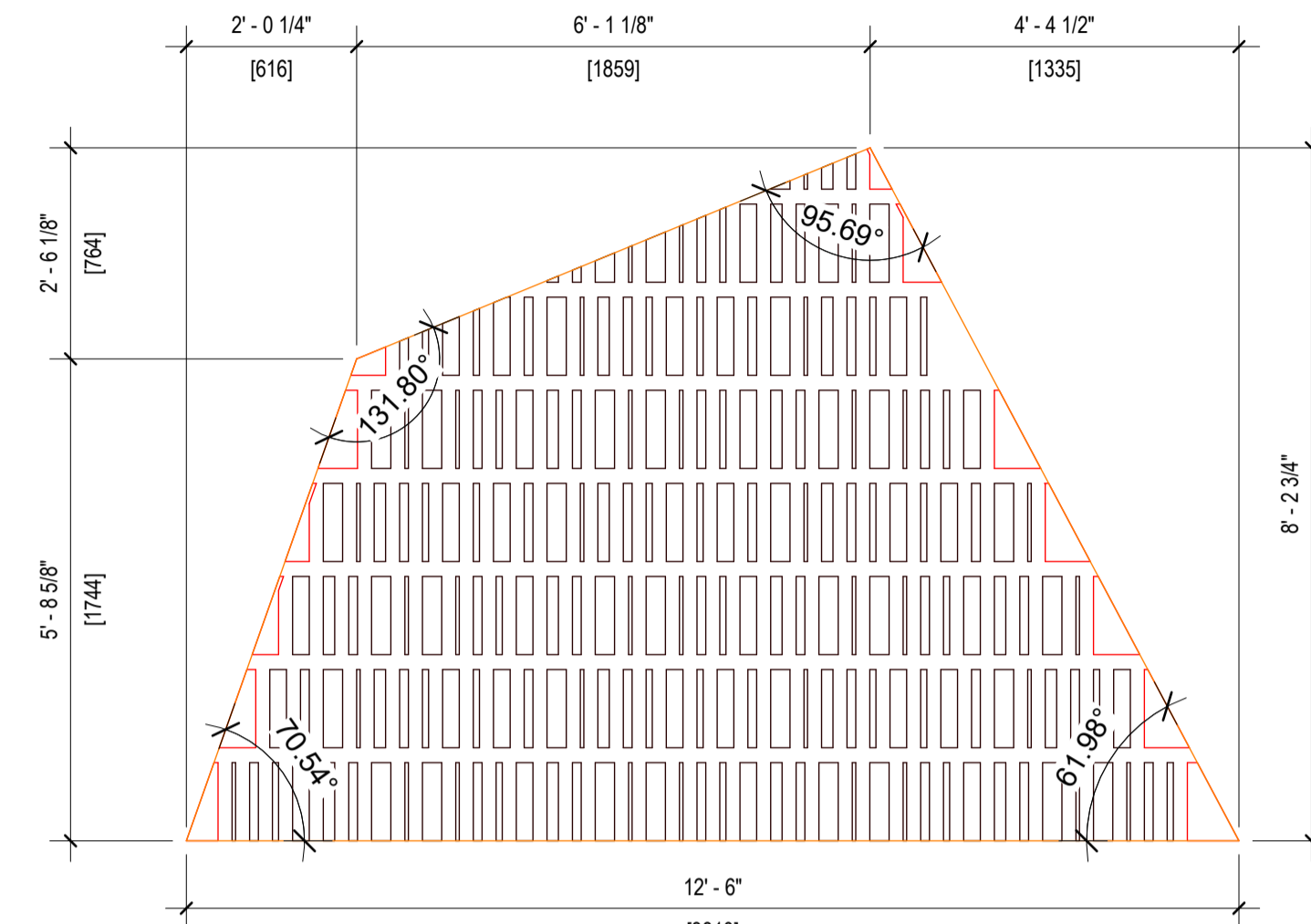
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ISSUE FOR TENDER - NOT FOR CONSTRUCTION

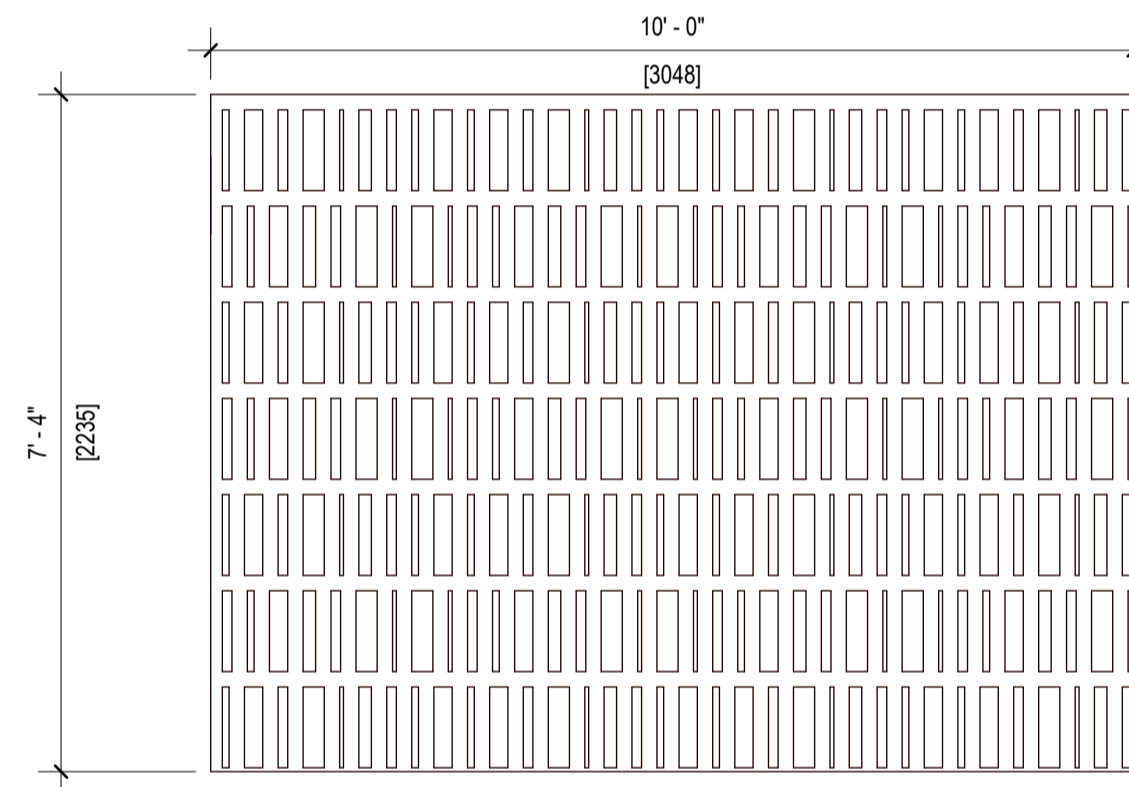
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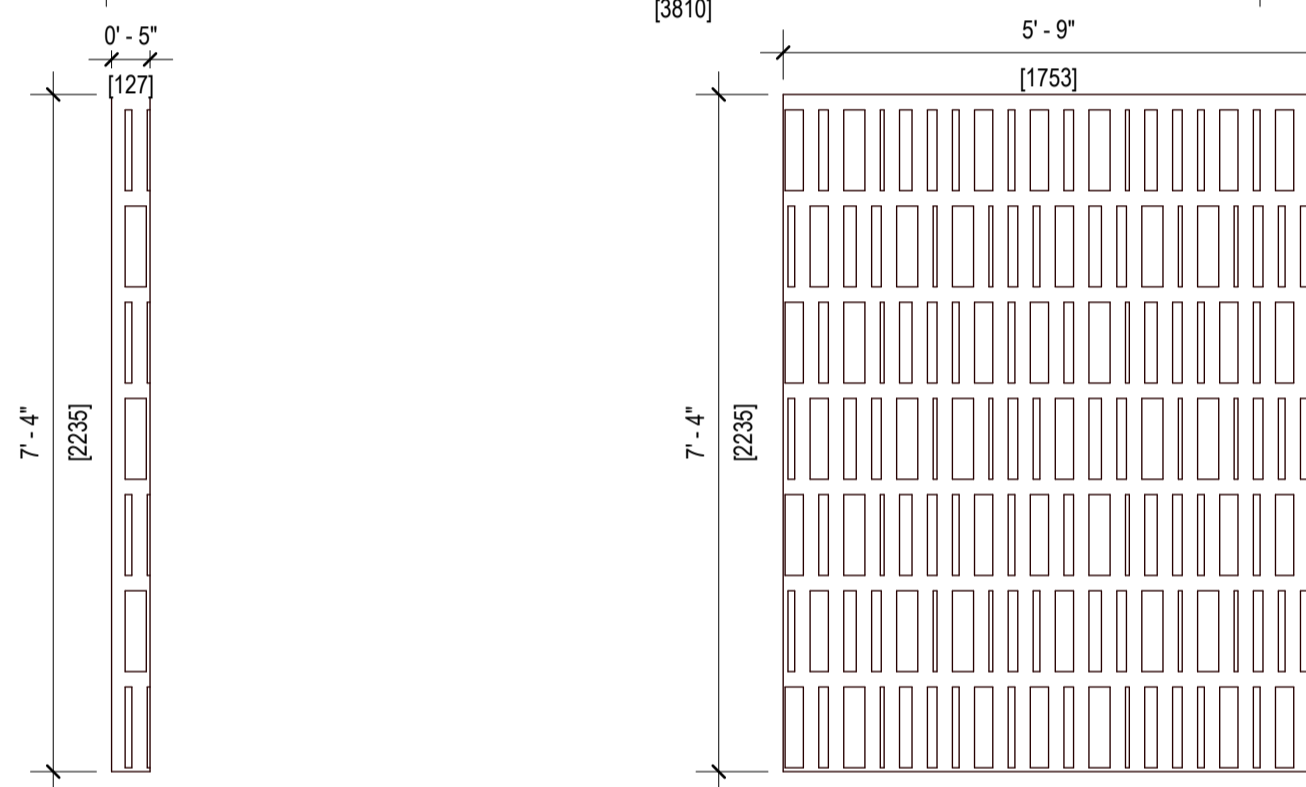
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E2

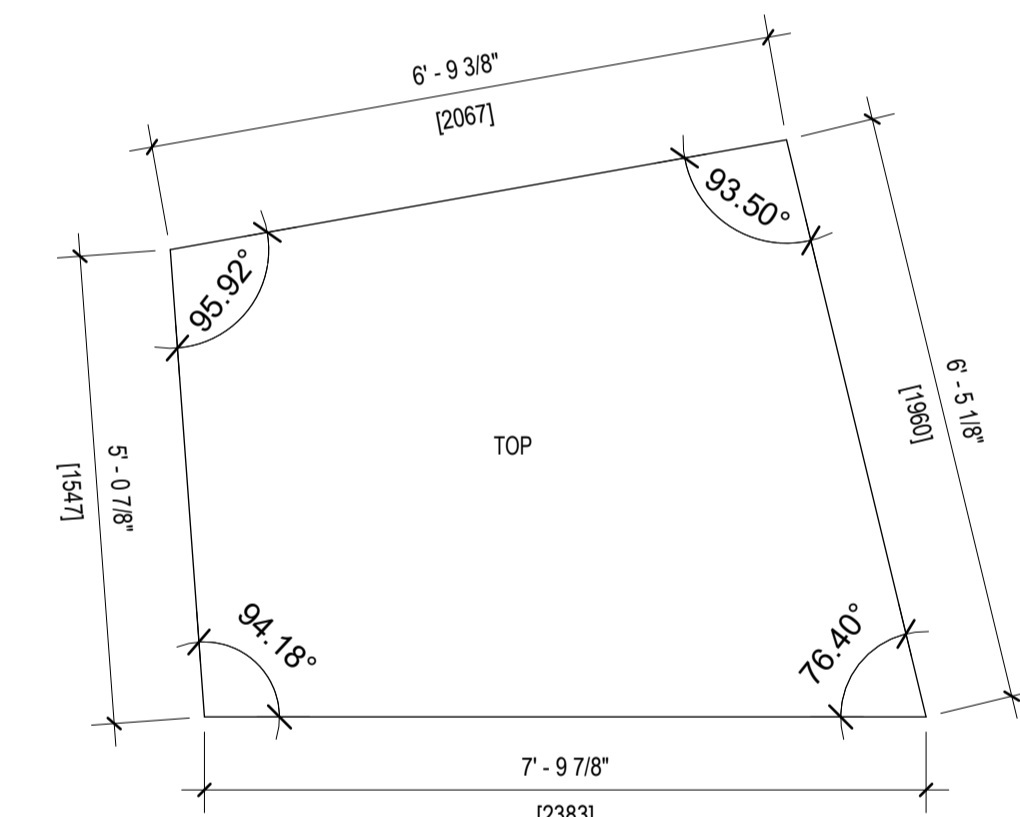


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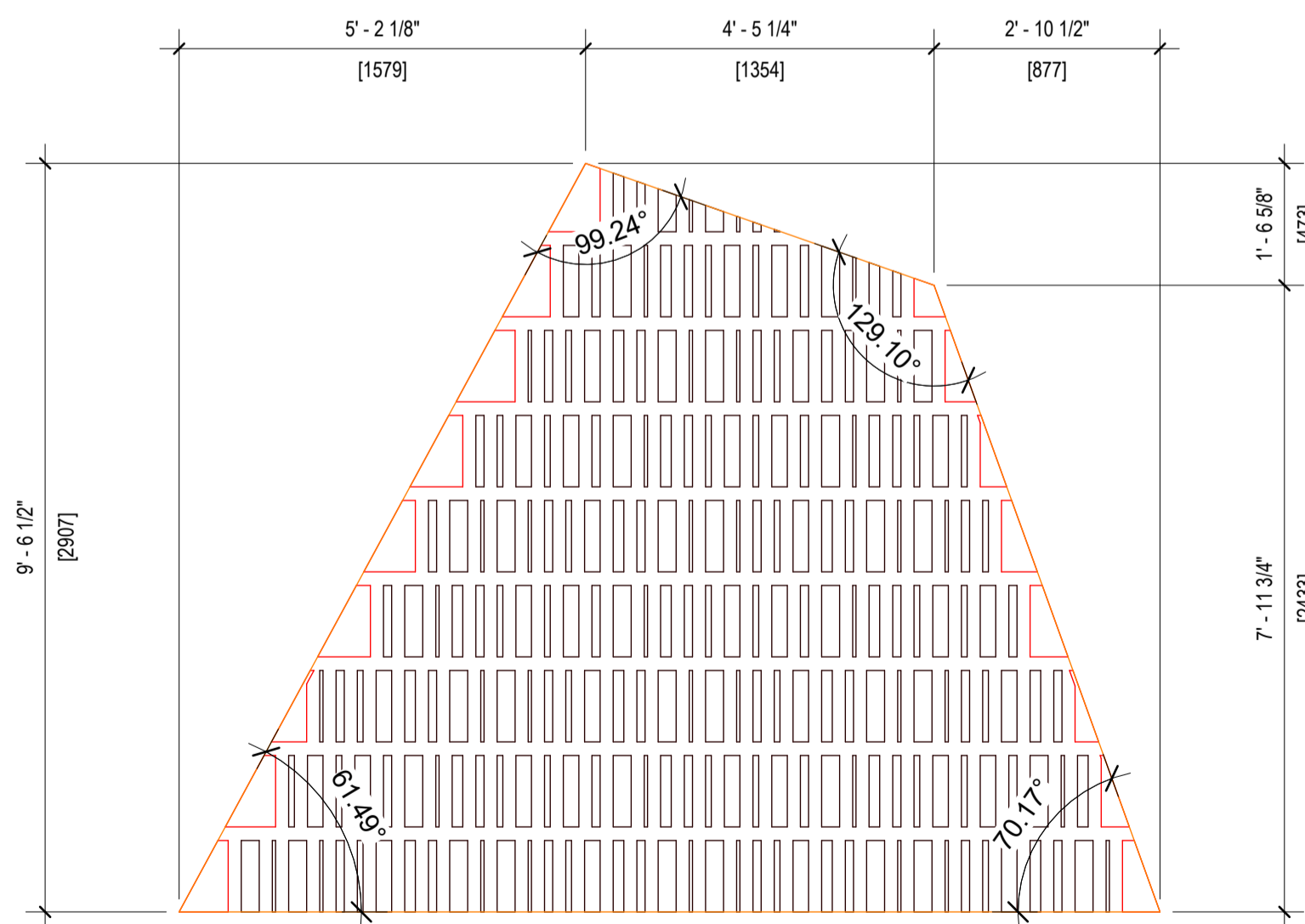
S1

E1

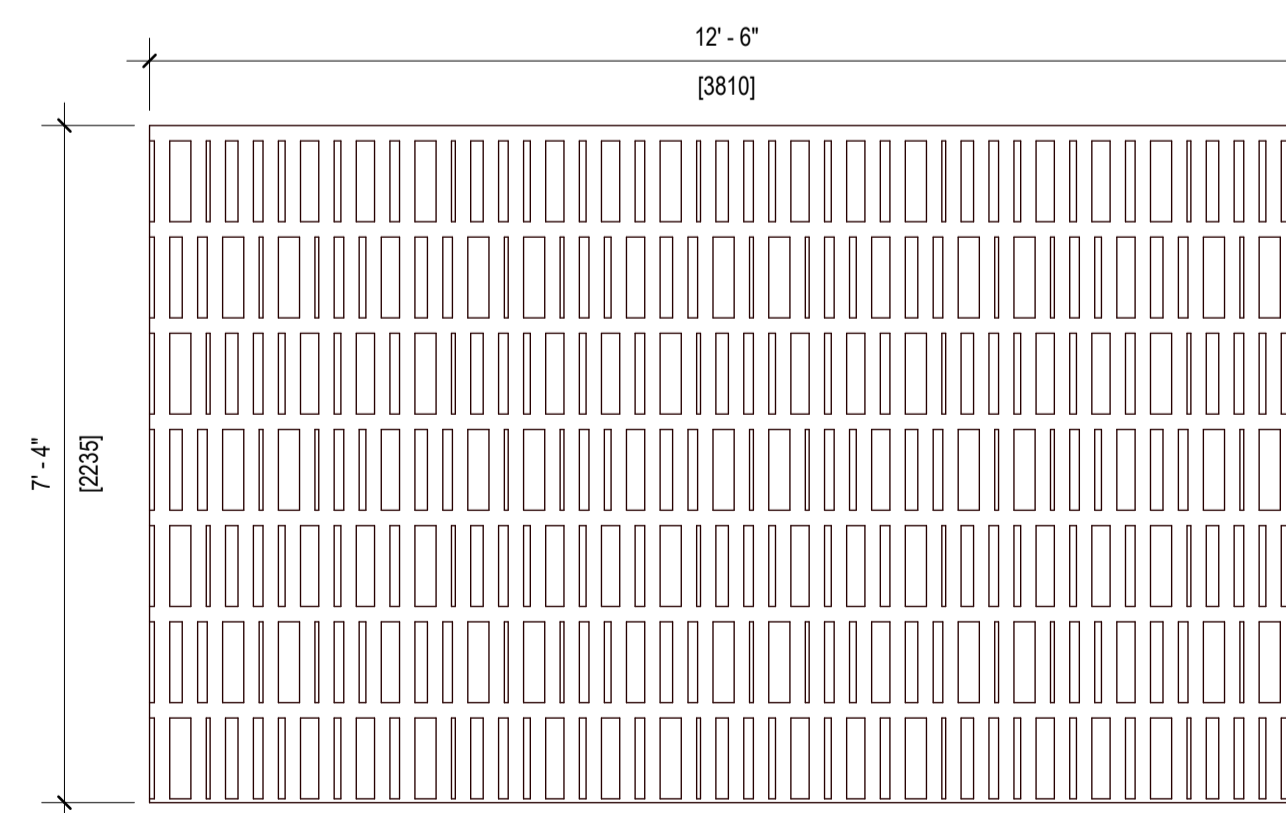


GL-1

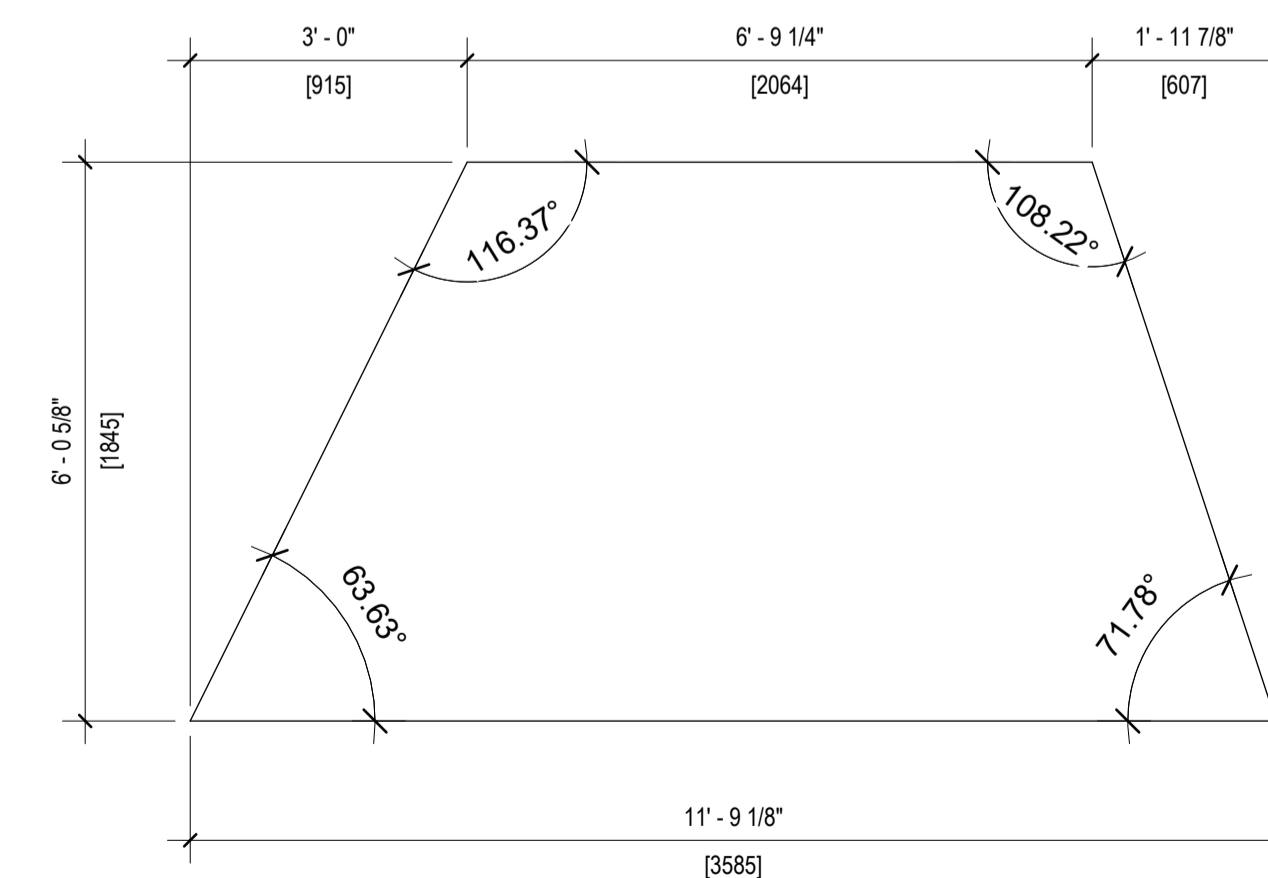
SUPPLIED BY OWNER, VFBM



N2



N1



SLOPED INT PNL

REVISIONS:

△	DATE	DESCRIPTION

Surrey Park Washroom
 Surrey, BC
 JIM PROJECT NO.044.4

SCALE: 1 : 25
DRAWN BY: JFH
CHECKED BY: JFH
DATE: 02/27/19

ISSUE:

△	DATE	DESCRIPTION
1	22.05.10	Issue for Tender

CONC PANEL LAYOUT

A2.1

ISSUE FOR TENDER - NOT FOR CONSTRUCTION

SECTION 099000 PAINTING AND COATING

SUMMARY

PAINT EXPOSED EXTERIOR AND INTERIOR SUBSTRATES, EXCEPT WHERE SCHEDULES INDICATE THAT A SURFACE OR MATERIAL IS NOT TO BE PAINTED OR IS TO REMAIN NATURAL. IF SCHEDULES DO NOT SPECIFICALLY MENTION AN ITEM OR A SURFACE, PAINT THE ITEM OR SURFACE THE SAME AS SIMILAR ADJACENT MATERIALS OR SURFACES WHETHER OR NOT SCHEDULES INDICATE COLORS. IF SCHEDULES DO NOT INDICATE COLOR OR FINISH, THE ARCHITECT WILL SELECT FROM STANDARD COLORS AND FINISHES AVAILABLE.

DO NOT PAINT PREFINISHED ITEMS, INTEGRALLY FINISHED SYSTEMS, FINISHED METAL SURFACES, OPERATING PARTS, AND LABELS, UNLESS OTHERWISE INDICATED.

- PREFINISHED ITEMS INCLUDE THE FOLLOWING SHOP- OR FACTORY-FINISHED COMPONENTS:
 - FINISHED SPECIALTY EQUIPMENT AND FURNISHINGS.
 - FINISHED MECHANICAL AND ELECTRICAL EQUIPMENT.
 - LIGHTING FIXTURES.
- FINISHED METAL SURFACES INCLUDE THE FOLLOWING:
 - STAINLESS STEEL.
 - WEATHERING STEEL.
 - BRONZE AND BRASS.

DEFINITIONS

- GLOSS LEVEL 1 (FLAT): NOT MORE THAN 5 UNITS AT 60 DEGREES AND 10 UNITS AT 85 DEGREES, ACCORDING TO ASTM D 523.
- GLOSS LEVEL 3 (EGGSHELL): 10 TO 25 UNITS AT 60 DEGREES AND 10 TO 35 UNITS AT 85 DEGREES, ACCORDING TO ASTM D 523.
- GLOSS LEVEL 5 (SEMI-GLOSS): 35 TO 70 UNITS AT 60 DEGREES, ACCORDING TO ASTM D 523.
- GLOSS LEVEL 6 (GLOSS): 70 TO 85 UNITS AT 60 DEGREES, ACCORDING TO ASTM D 523.

FIELD CONDITIONS

APPLY PAINTS ONLY WHEN TEMPERATURE OF SURFACES TO BE PAINTED AND AMBIENT AIR TEMPERATURES ARE BETWEEN 50 AND 95 DEG F (10 AND 35 DEG C).

DO NOT APPLY PAINTS IN SNOW, RAIN, FOG, OR MIST; WHEN RELATIVE HUMIDITY EXCEEDS 85 PERCENT; AT TEMPERATURES LESS THAN 5 DEG F (3 DEG C) ABOVE THE DEW POINT; OR TO DAMP OR WET SURFACES.

PAINT, GENERAL

MATERIAL QUALITY: UNLESS OTHERWISE INDICATED, PROVIDE MANUFACTURER'S BEST-QUALITY PAINT MATERIAL FOR EACH COATING TYPE.

- MATERIAL COMPATIBILITY:
 - PROVIDE MATERIALS FOR USE WITHIN EACH PAINT SYSTEM THAT ARE COMPATIBLE WITH ONE ANOTHER AND SUBSTRATES INDICATED, UNDER CONDITIONS OF SERVICE AND APPLICATION AS DEMONSTRATED BY MANUFACTURER, BASED ON TESTING AND FIELD EXPERIENCE.
 - FOR EACH COAT IN A PAINT SYSTEM, PROVIDE PRODUCTS RECOMMENDED IN WRITING BY MANUFACTURERS OF TOPCOAT FOR USE IN PAINT SYSTEM AND ON SUBSTRATE INDICATED.

VOC CONTENT: PRODUCTS SHALL COMPLY WITH VOC LIMITS OF AUTHORITIES HAVING JURISDICTION AND, FOR INTERIOR COATINGS APPLIED AT PROJECT SITE, THE FOLLOWING VOC LIMITS, EXCLUSIVE OF COLORANTS ADDED TO A TINT BASE, WHEN CALCULATED ACCORDING TO 40 CFR 59, SUBPART D (EPA METHOD 24).

- NONFLAT PAINTS AND COATINGS: 150 G/L
- PRIMERS, SEALERS, AND UNDERCOATERS: 200 G/L
- ANTI-CORROSIVE AND ANTI-RUST PAINTS APPLIED TO FERROUS METALS: 250 G/L, D.

COLORS: CUSTOM COLORS TO MATCH ARCHITECT'S SAMPLES.

- TED GLOSS, 95-850.

PREPARATION

COMPLY WITH MANUFACTURER'S WRITTEN INSTRUCTIONS AND RECOMMENDATIONS IN "MPI MANUAL" APPLICABLE TO SUBSTRATES AND PAINT SYSTEMS INDICATED.

REMOVE HARDWARE, COVERS, PLATES, AND SIMILAR ITEMS ALREADY IN PLACE THAT ARE REMOVABLE AND ARE NOT TO BE PAINTED. IF REMOVAL IS IMPRACTICAL OR IMPOSSIBLE BECAUSE OF SIZE OR WEIGHT OF ITEM, PROVIDE SURFACE-APPLIED PROTECTION BEFORE SURFACE PREPARATION AND PAINTING.

- AFTER COMPLETING PAINTING OPERATIONS, USE WORKERS SKILLED IN THE TRADES INVOLVED TO REINSTALL ITEMS THAT WERE REMOVED. REMOVE SURFACE-APPLIED PROTECTION.

CLEAN SUBSTRATES OF SUBSTANCES THAT COULD IMPAIR BOND OF PAINTS, INCLUDING DUST, DIRT, OIL, GREASE, AND INCOMPATIBLE PAINTS AND ENCAPSULANTS.

- REMOVE INCOMPATIBLE PRIMERS AND REPRIME SUBSTRATE WITH COMPATIBLE PRIMERS OR APPLY TIE COAT AS REQUIRED TO PRODUCE PAINT SYSTEMS INDICATED.

CONCRETE SUBSTRATES: REMOVE RELEASE AGENTS, CURING COMPOUNDS, EFFLORESCENCE, AND CHALK. DO NOT COAT SURFACES IF MOISTURE CONTENT OR ALKALINITY OF SURFACES TO BE COATED EXCEEDS THAT PERMITTED IN MANUFACTURER'S WRITTEN INSTRUCTIONS.

STEEL SUBSTRATES: REMOVE RUST, LOOSE MILL SCALE, AND SHOP PRIMER IF ANY. CLEAN USING METHODS RECOMMENDED IN WRITING BY PAINT MANUFACTURER BUT NOT LESS THAN SSPC-SP 6/NACE NO. 3 "COMMERCIAL BLAST CLEANING."

SHOP-PRIMED STEEL SUBSTRATES: CLEAN FIELD WELDS, BOLTED CONNECTIONS, AND ABRADED AREAS OF SHOP PAINT, AND PAINT EXPOSED AREAS WITH THE SAME MATERIAL AS USED FOR SHOP PRIMING TO COMPLY WITH SSPC-PA 1 FOR TOUCHING UP SHOP-PRIMED SURFACES.

- THE MAXIMUM TIME BETWEEN FINAL SURFACE PREPARATION AND PRIME COAT APPLICATION INSIDE THE FABRICATION SHOP SHALL BE 24 HOURS. STRUCTURAL STEEL SUBJECTED TO OUTDOOR EXPOSURE AFTER FINAL SURFACE PREPARATION SHALL BE PRIME COATED WITHIN 10 HOURS.
- ALL COATS OF THE COATING SYSTEM SHALL BE SHOP APPLIED.

GALVANIZED-METAL SUBSTRATES: REMOVE GREASE AND OIL RESIDUE FROM GALVANIZED SHEET METAL BY MECHANICAL METHODS TO PRODUCE CLEAN, LIGHTLY ETCHED SURFACES THAT PROMOTE ADHESION OF SUBSEQUENTLY APPLIED PAINTS.

PAINTING & COATING SCHEDULE

- CONCRETE SUBSTRATES EXCEPT FLR:
- WATERBASED URETHANE ANTI-GRAFFITI COATING SYSTEM:
 - PRIME COAT: SHERWIN WILLIAMS 2K WATERBASE URETHANE ANTI-GRAFFITI COATING - PART A - B65-195 - SATIN SERIES
 - TOPCOAT: SHERWIN WILLIAMS 2K WATERBASE URETHANE ANTI-GRAFFITI COATING - PART B - B65V195 - SATIN SERIES

- POWDER-COAT FINISH FOR ALUMINUM EXTRUDED ITEMS AAMA 2605 AND STEEL ITEMS FABRICATED FROM SHAPES AND PLATES:
- POWDER COATINGS, FLUOROPOLYMER, MEETING PERFORMANCE REQUIREMENTS OF AAMA 2605:
 - PRODUCT: PPG INDUSTRIES, INC., DURANAR POWDER COATING.
 - PENCIL HARDNESS, ASTM D 3363: F, MINIMUM.
 - SALT SPRAY RESISTANCE, ASTM G 85: 2,000 HOURS.
 - HUMIDITY RESISTANCE, ASTM D 2247: 4,000 HOURS.

- COLORS:
 - BASE: FIRE ENGINE RED 3930100 (TIGER)
 - CLEAR: CHRYSAL CLEAR COAT PFC 400 S9 (AXALTA)

SECTION 102813 - TOILET ACCESSORIES

MATERIALS

STAINLESS STEEL: ASTM A 666, TYPE 304, 0.031-INCH (0.8-MM) MINIMUM NOMINAL THICKNESS UNLESS OTHERWISE INDICATED.

GALVANIZED-STEEL MOUNTING DEVICES: ASTM A 153/A 153M, HOT-DIP GALVANIZED AFTER FABRICATION.

FASTENERS: SCREWS, BOLTS, AND OTHER DEVICES OF SAME MATERIAL AS ACCESSORY UNIT AND TAMPER-AND-THEFT RESISTANT WHERE EXPOSED, AND OF GALVANIZED STEEL WHERE CONCEALED.

ACCESSORIES

- TOILET TISSUE DISPENSOR (TTD):
- BASIS-OF-DESIGN PRODUCT: OWNERS STANDARD
 - MOUNTING: SURFACE MOUNTED.

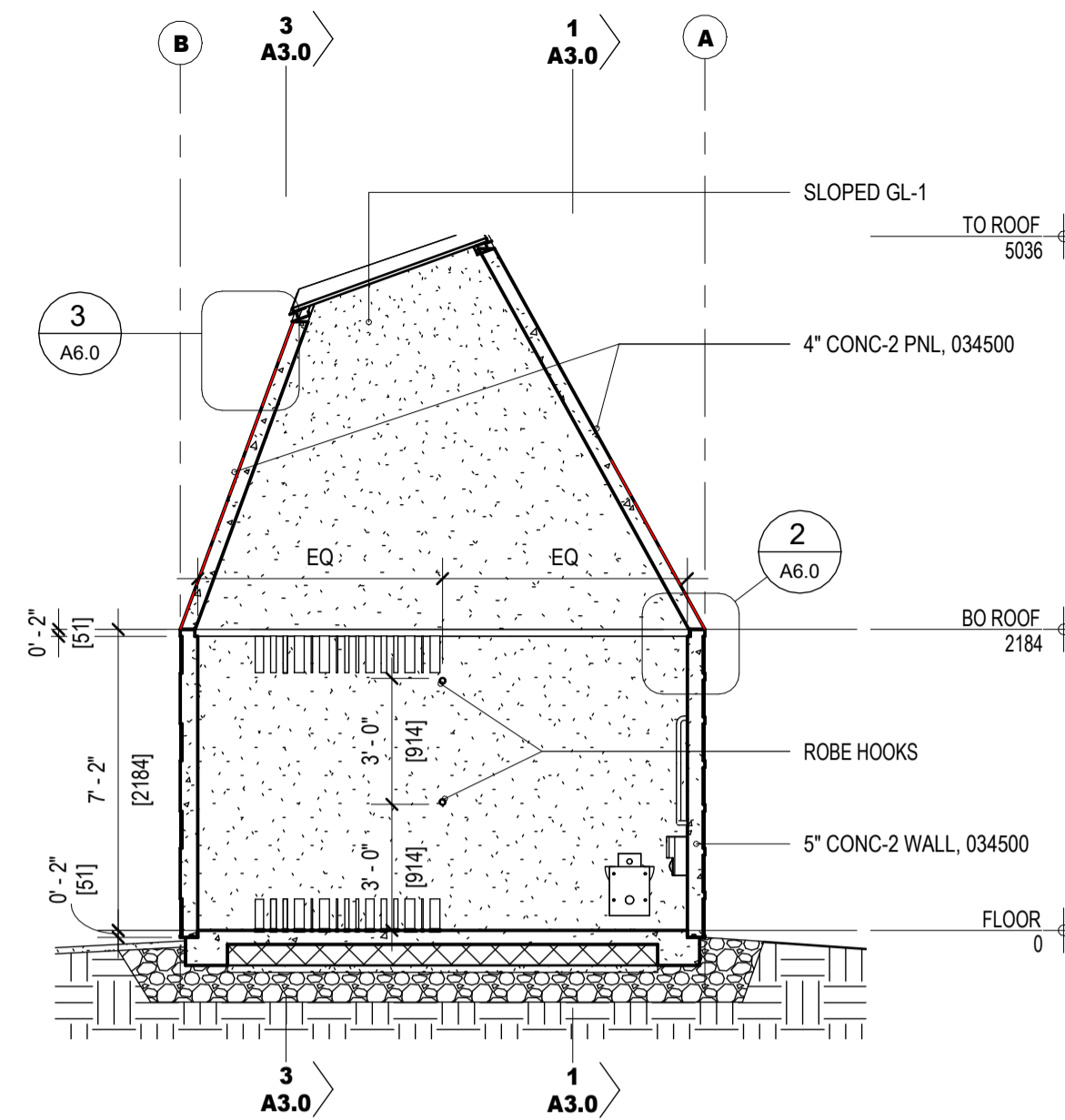
- GRAB BAR:
- BASIS-OF-DESIGN PRODUCT: GRAB BARS CANADA GBC-102 & GBC-307.
 - MOUNTING: FLANGES WITH CONCEALED FASTENERS.
 - MATERIAL: STAINLESS STEEL, 0.05 INCH (1.3 MM) THICK.
 - FINISH: KNURLED, NO. 4 FINISH (SATIN).
 - OUTSIDE DIAMETER: 1-1/4 INCHES (38 MM).
 - CONFIGURATION AND LENGTH: AS INDICATED ON DRAWINGS.

- ROBE HOOK:
- BASIS-OF-DESIGN PRODUCT: BOBRICK; B-233.
 - DESCRIPTION: SINGLE-PRONG UNIT; ALL-WELDED CONSTRUCTION; WITH 1-1/4-INCH (30-MM) SQUARE METAL PLATE WELDED TO ONE-PIECE BENT METAL MOUNTING STRAP WITH PREDRILLED HOLES FOR SURFACE MOUNTING.
 - MATERIAL AND FINISH: STAINLESS STEEL, NO. 4 FINISH (SATIN).

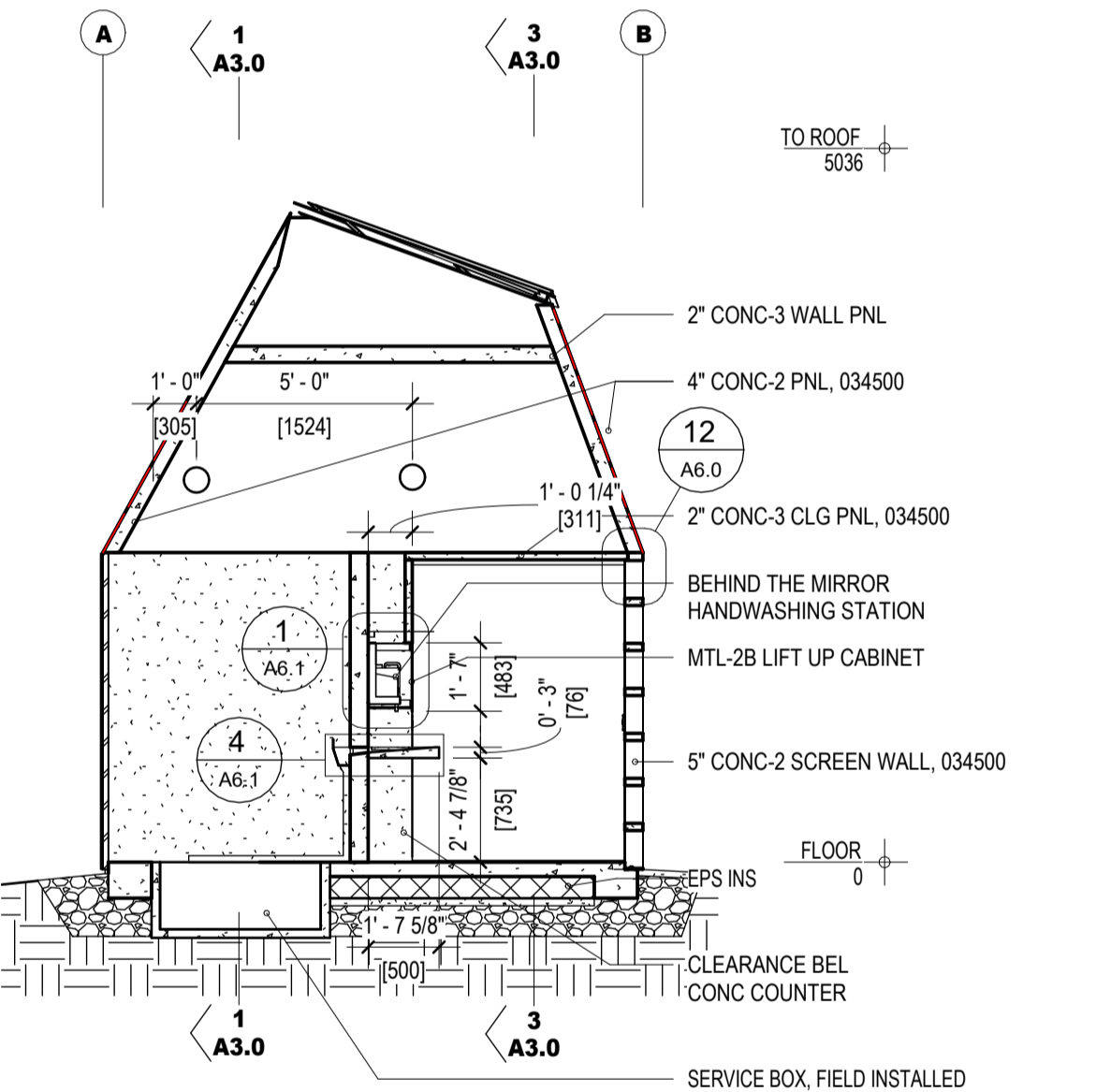
- MIRROR:
- ETCH SYMBOL INDICATORS FOR BEHIND THE MIRROR FUNCTIONS ON STAINLESS STEEL PANELS

INSTALLATION

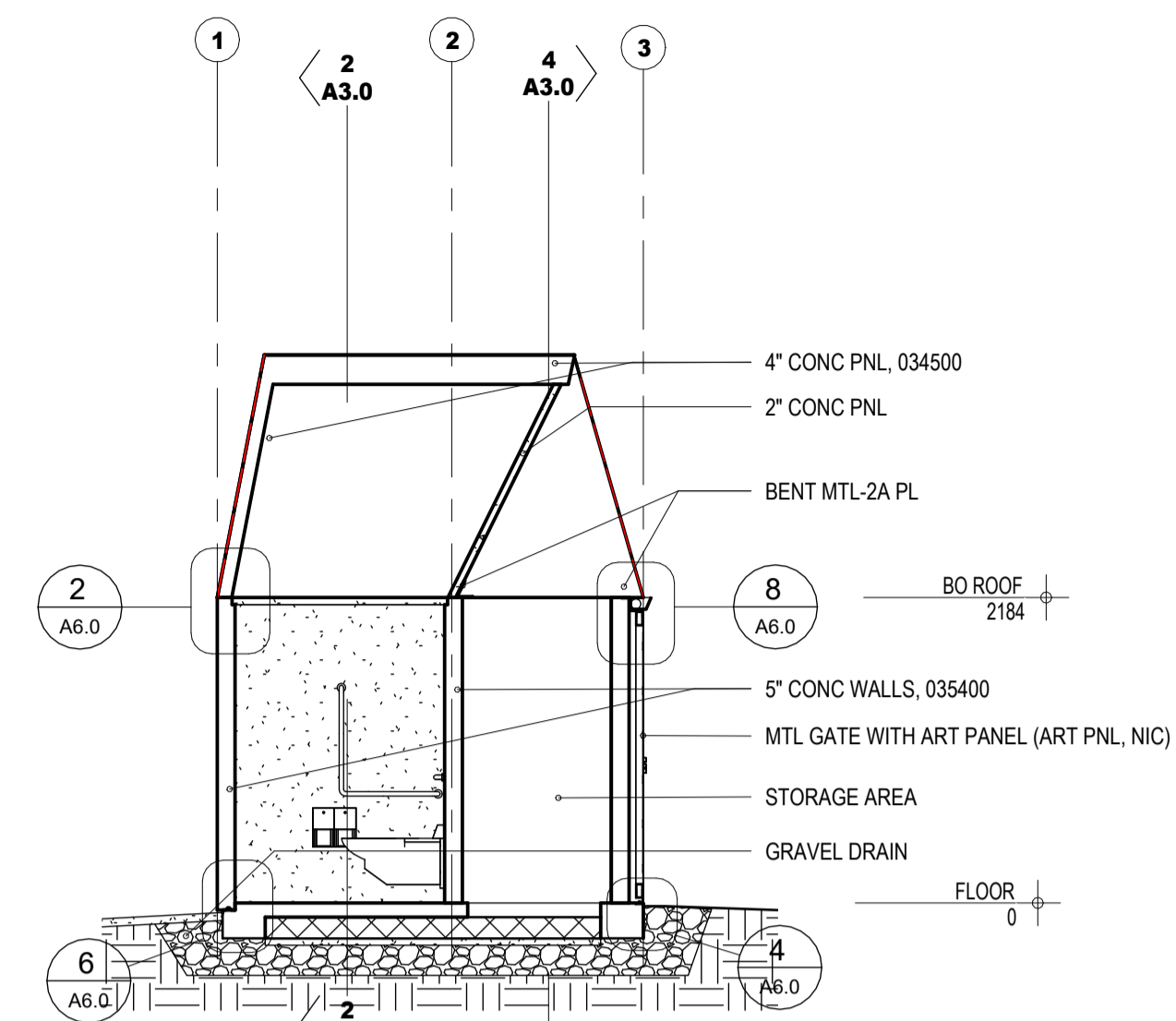
GRAB BARS: INSTALL TO WITHSTAND A DOWNWARD LOAD OF AT LEAST 1300 N, WHEN APPLIED VERTICALLY OR HORIZONTALLY.



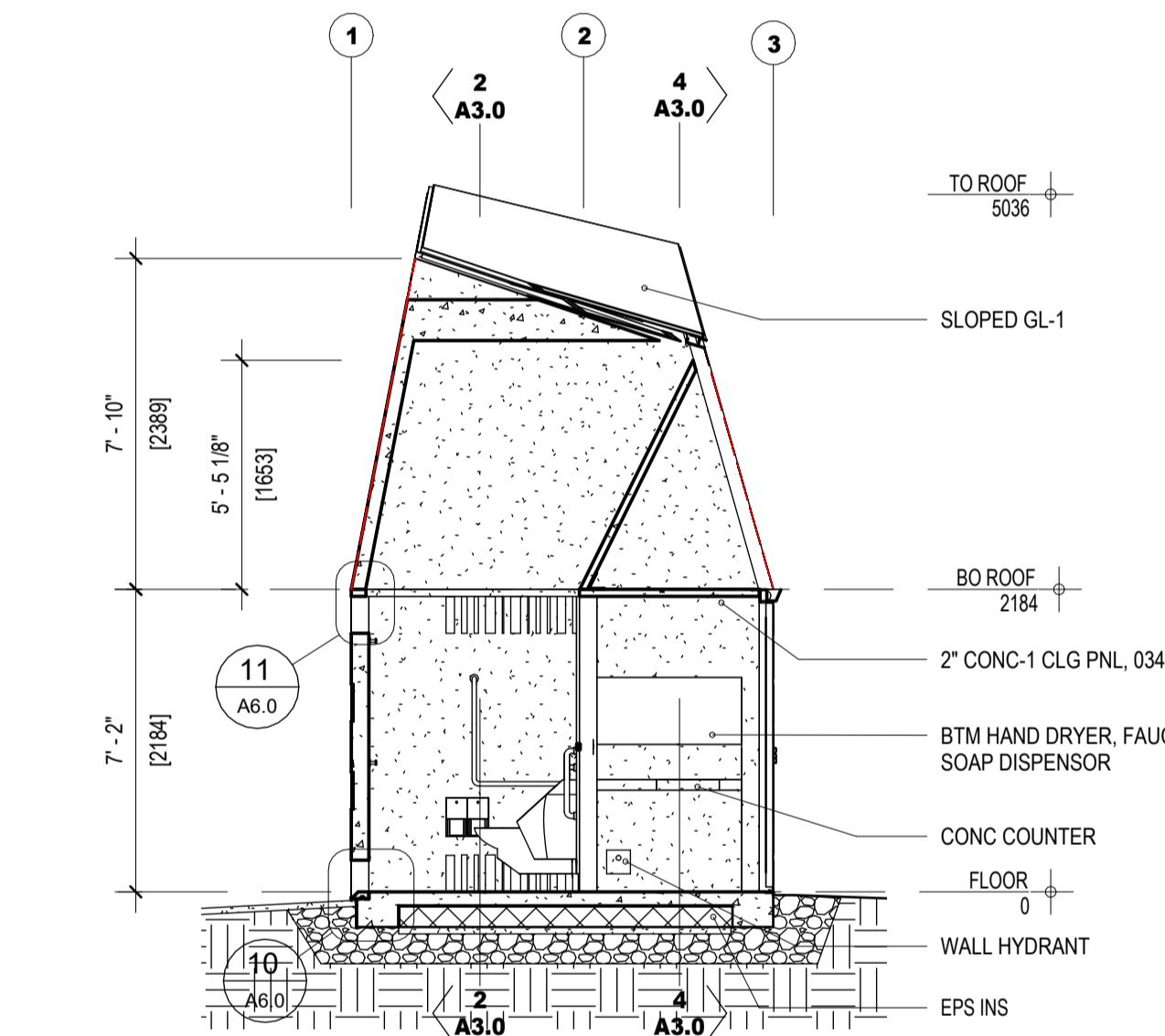
2 SECTION D
1 : 50



4 SECTION C
1 : 50



1 SECTION A
1 : 50



3 SECTION B
1 : 50

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REVISIONS:

△	DATE	DESCRIPTION

Surrey Park Washroom

Surrey, BC
JIM PROJECT NO.044.4

SCALE: 1 : 50
DRAWN BY: JFH
CHECKED BY: NA
DATE: 05/15/18

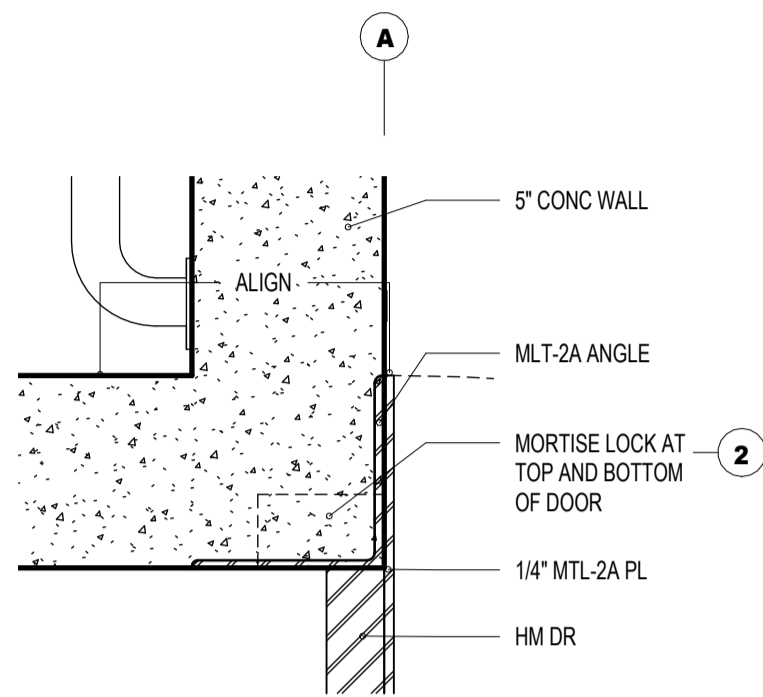
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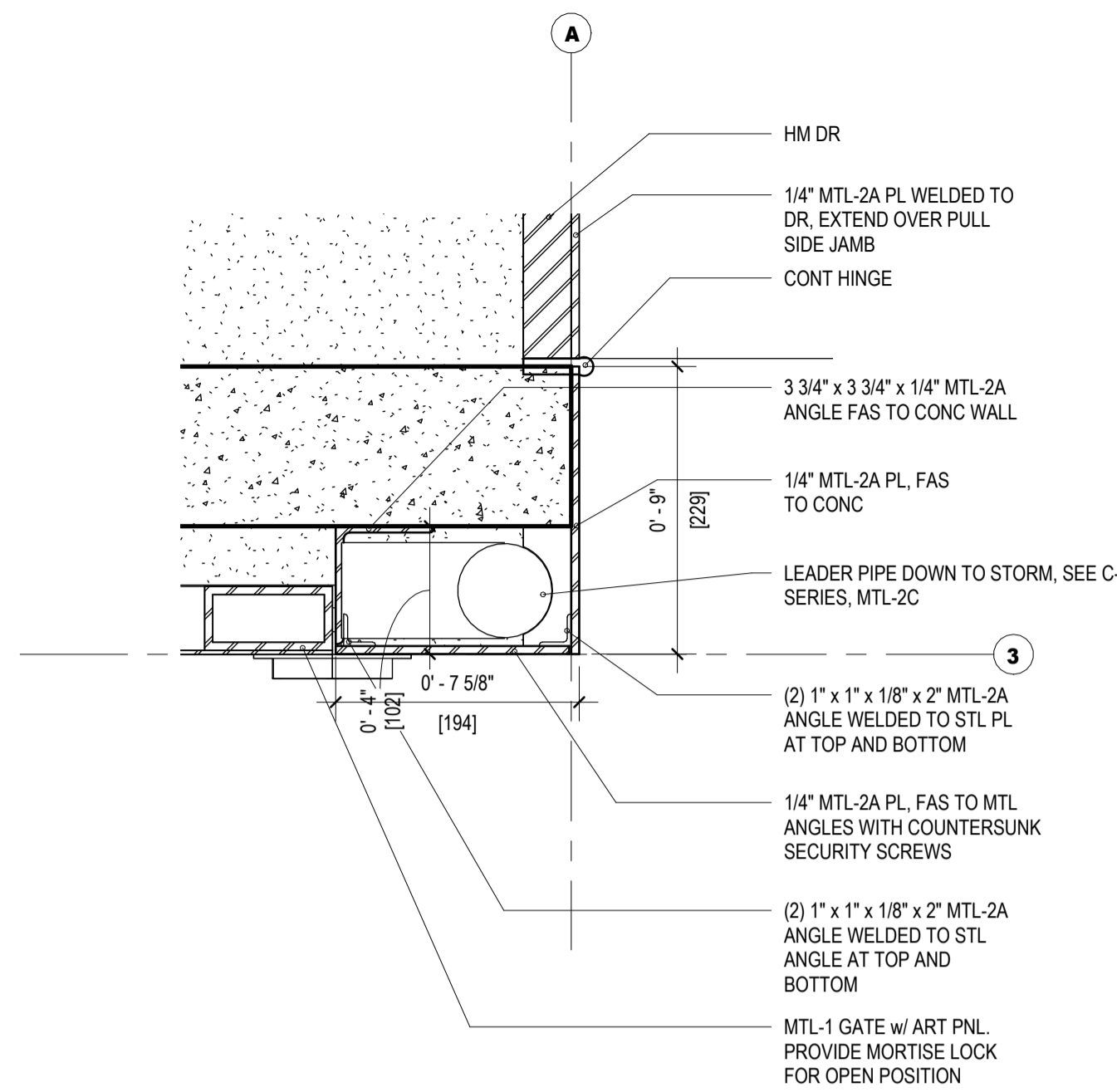
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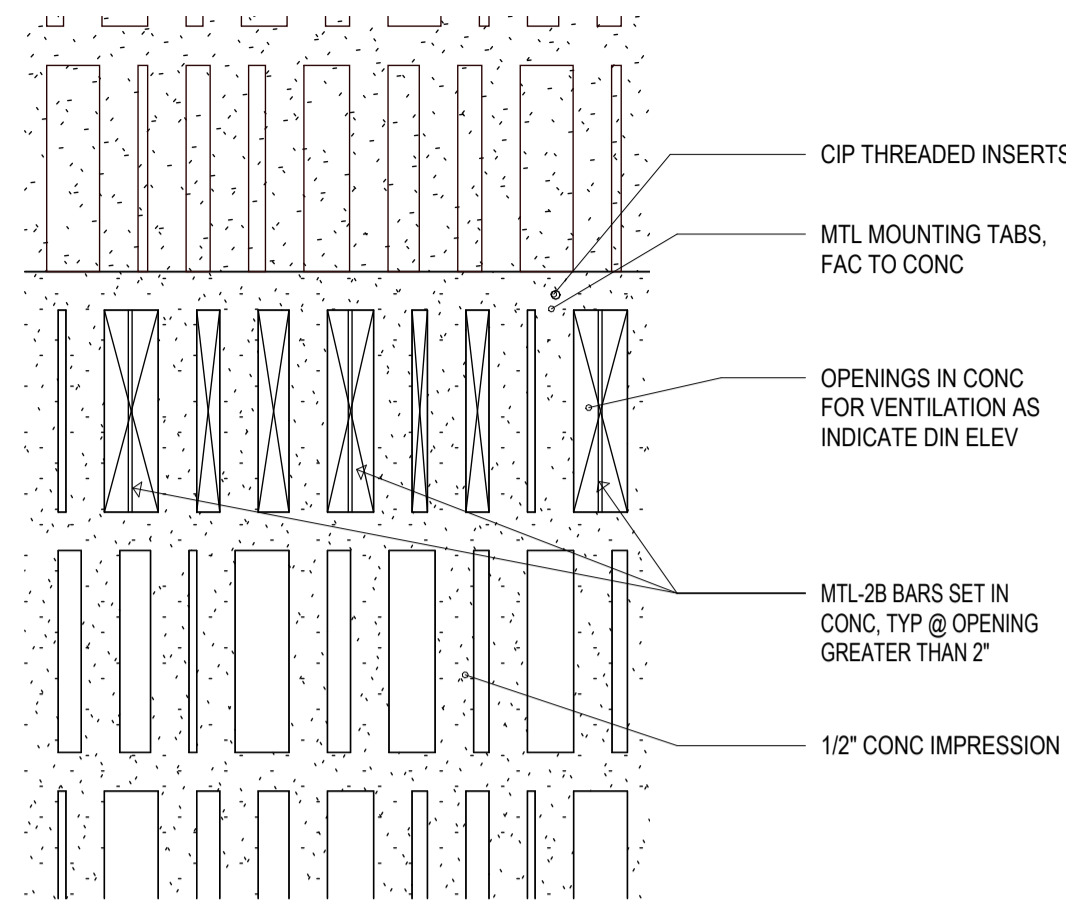
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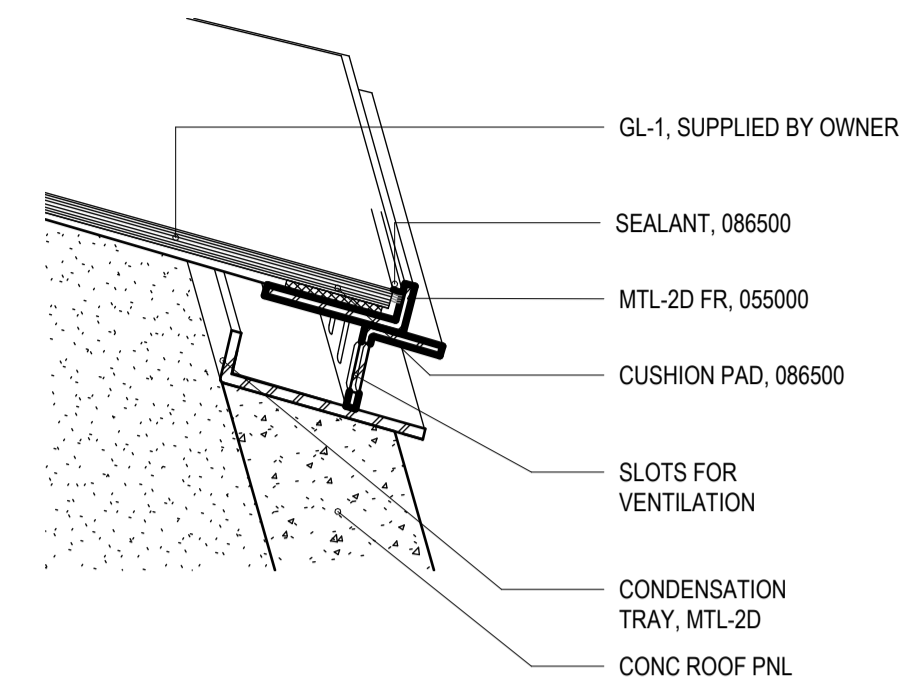
9 PLAN VIEW - DR JAMB
1:5



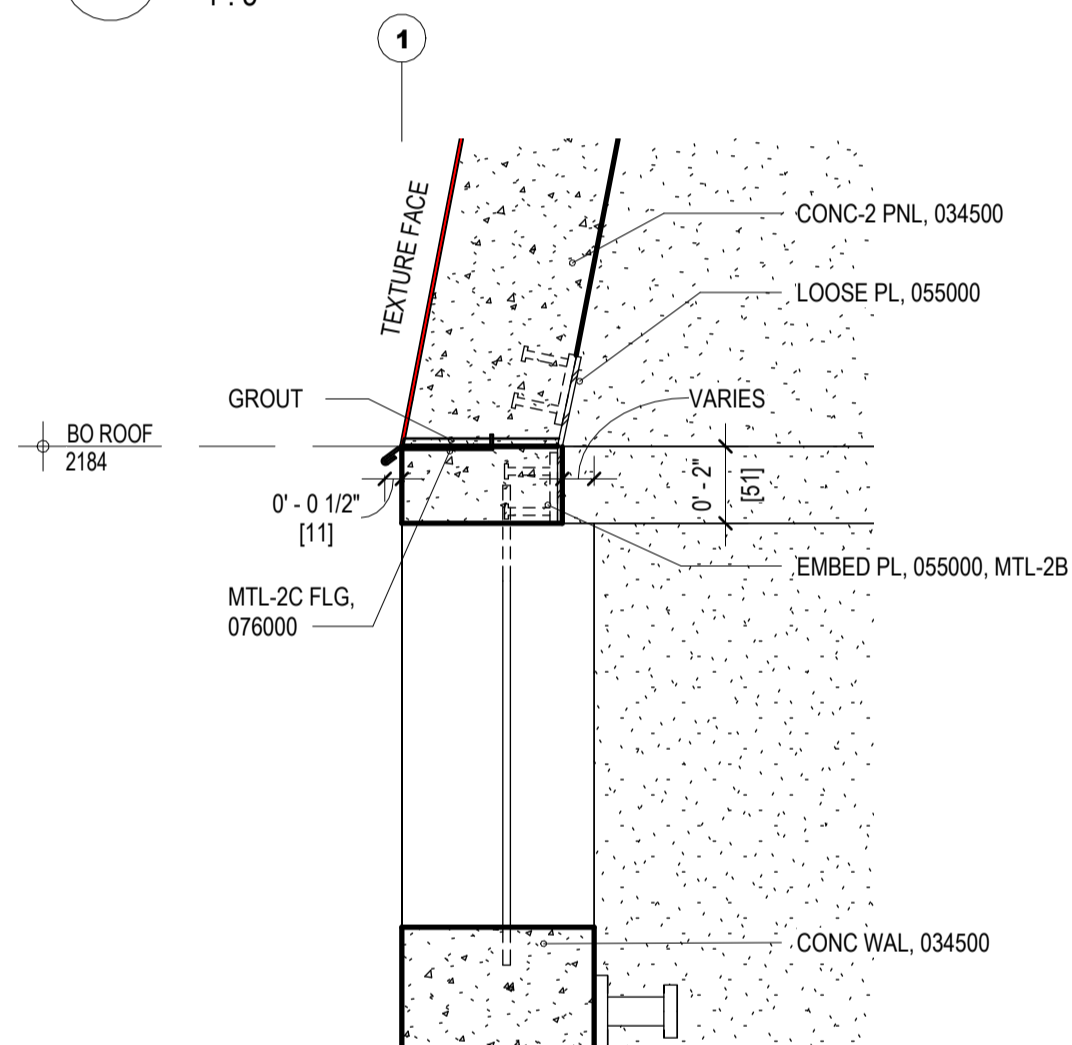
7 PLAN DETAIL - LEADER
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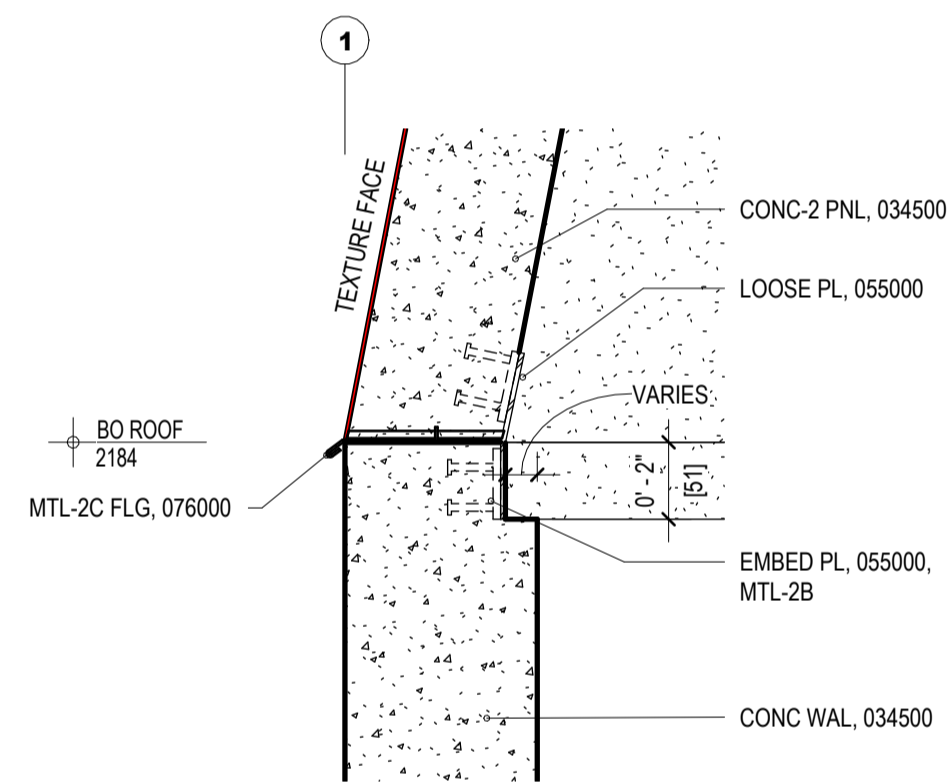
5 TYP CONC-2 EXT FIN
1:10



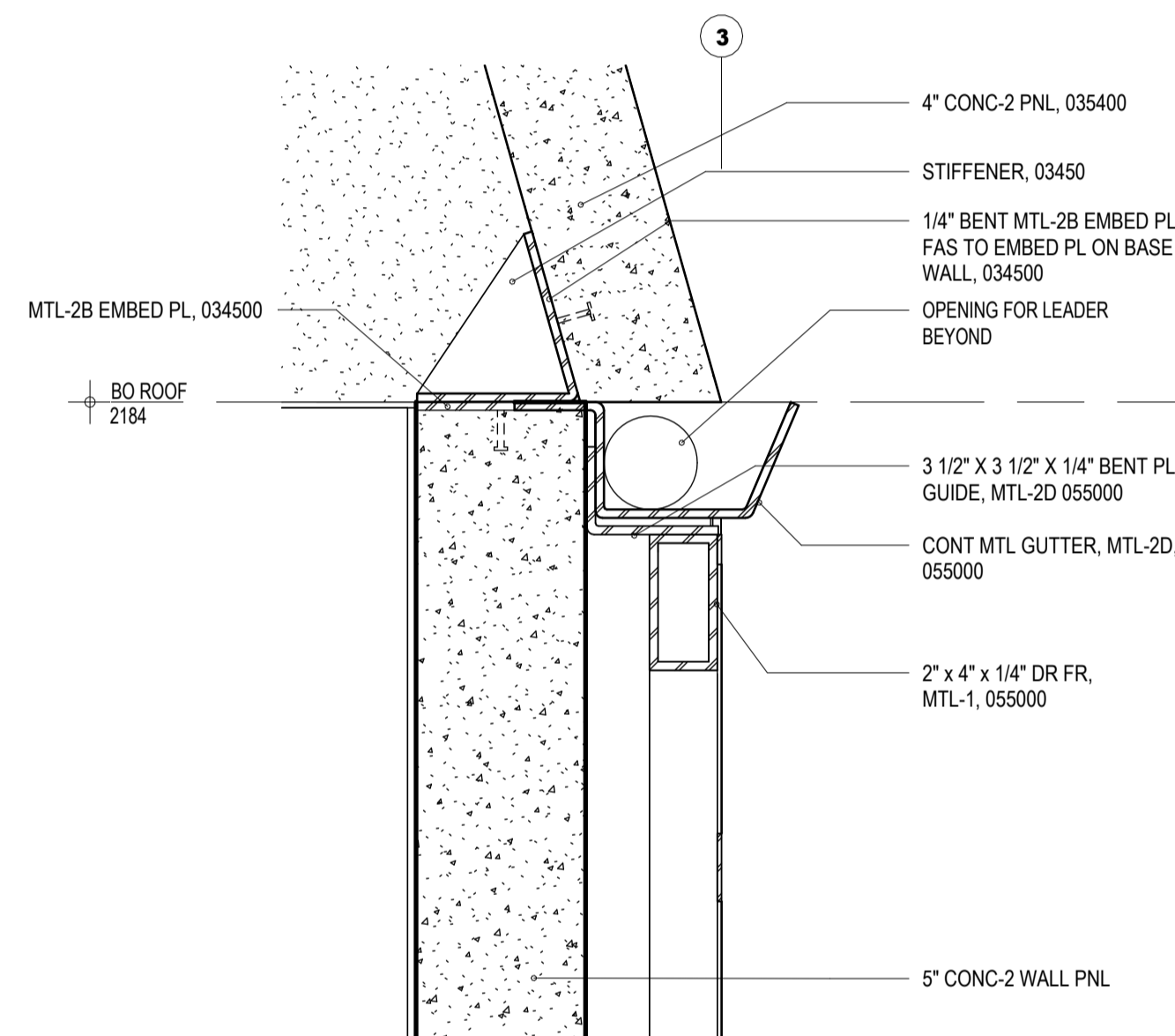
3 SLOPED GL-1 - FR
1:5



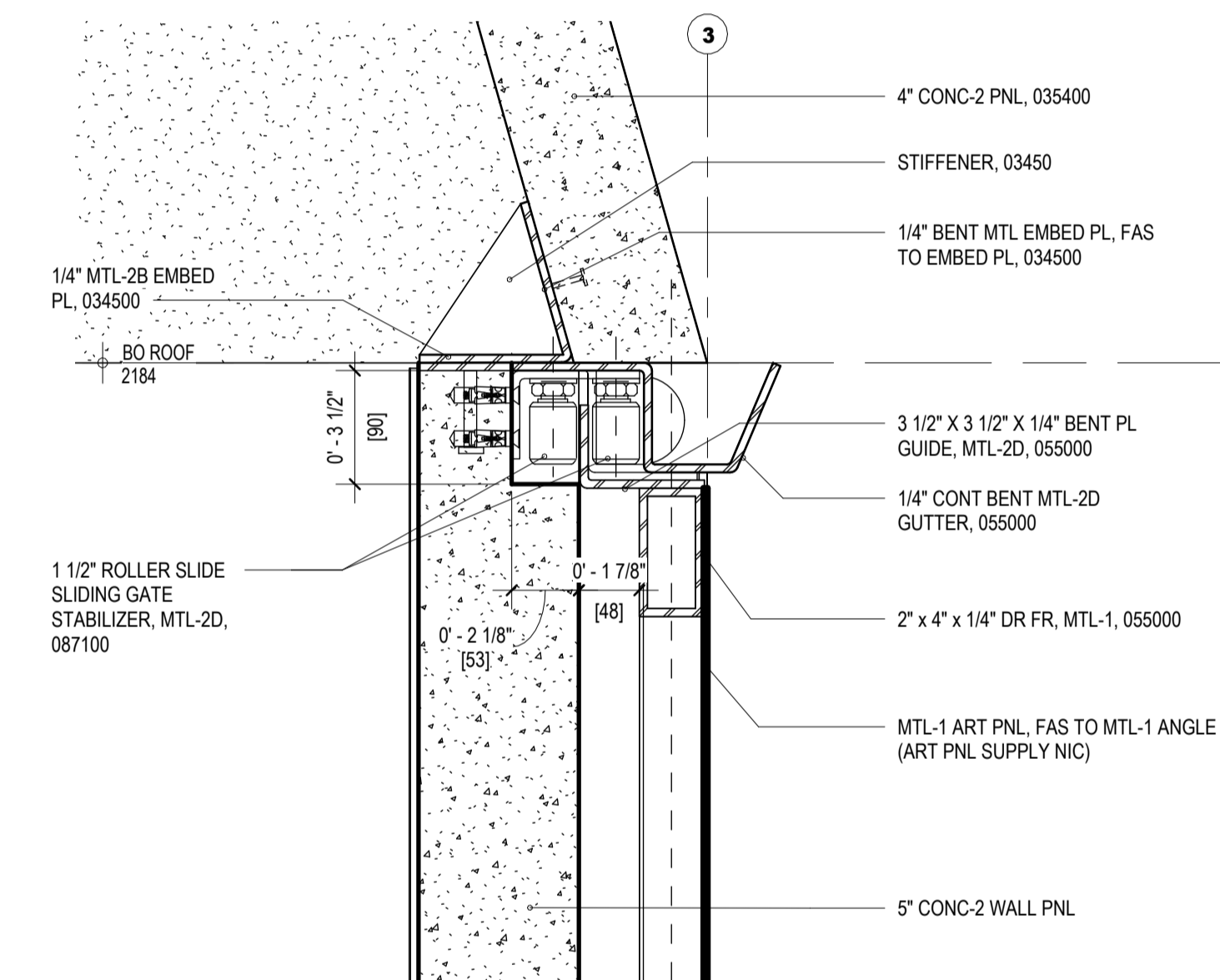
11 TOP OF WALL - OPENING
1:5



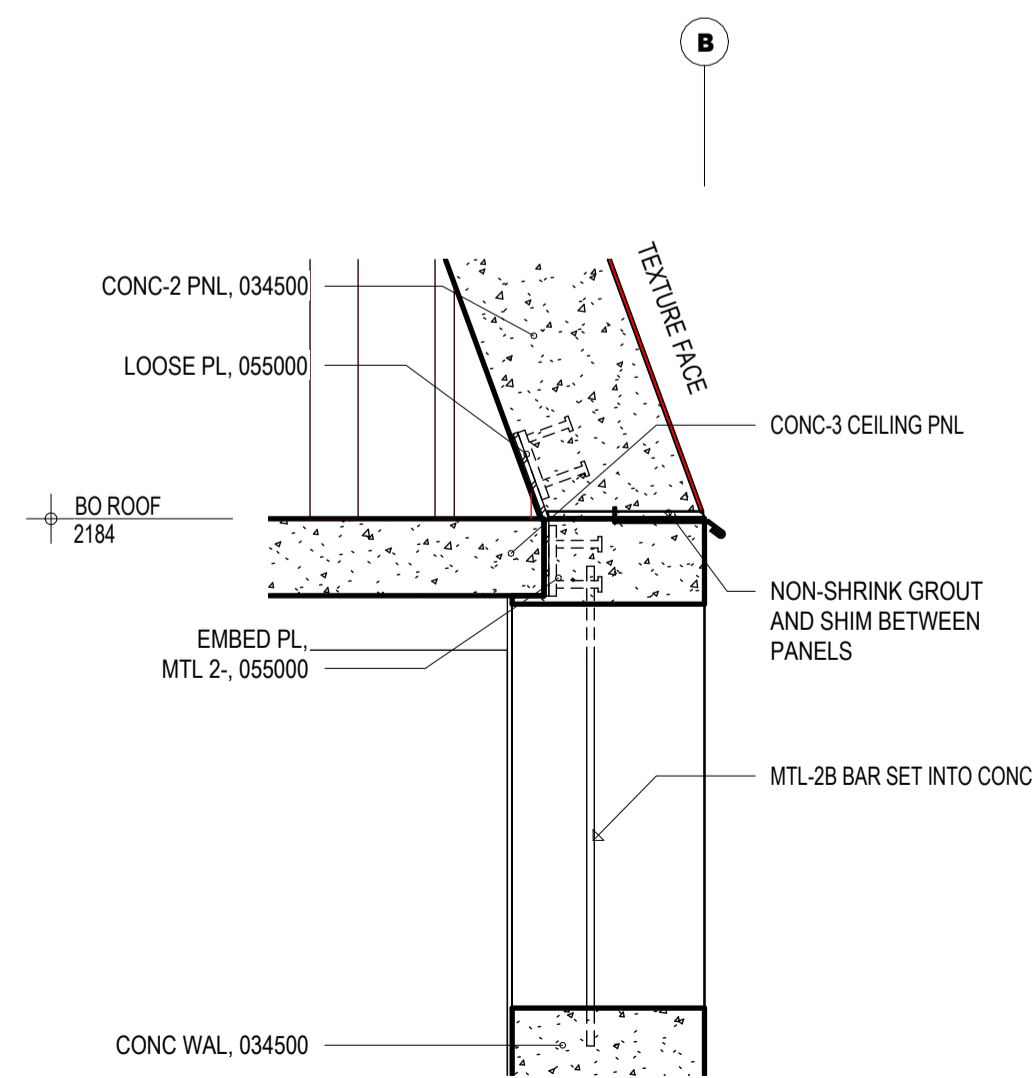
2 TYP TOP OF WALL
1:5



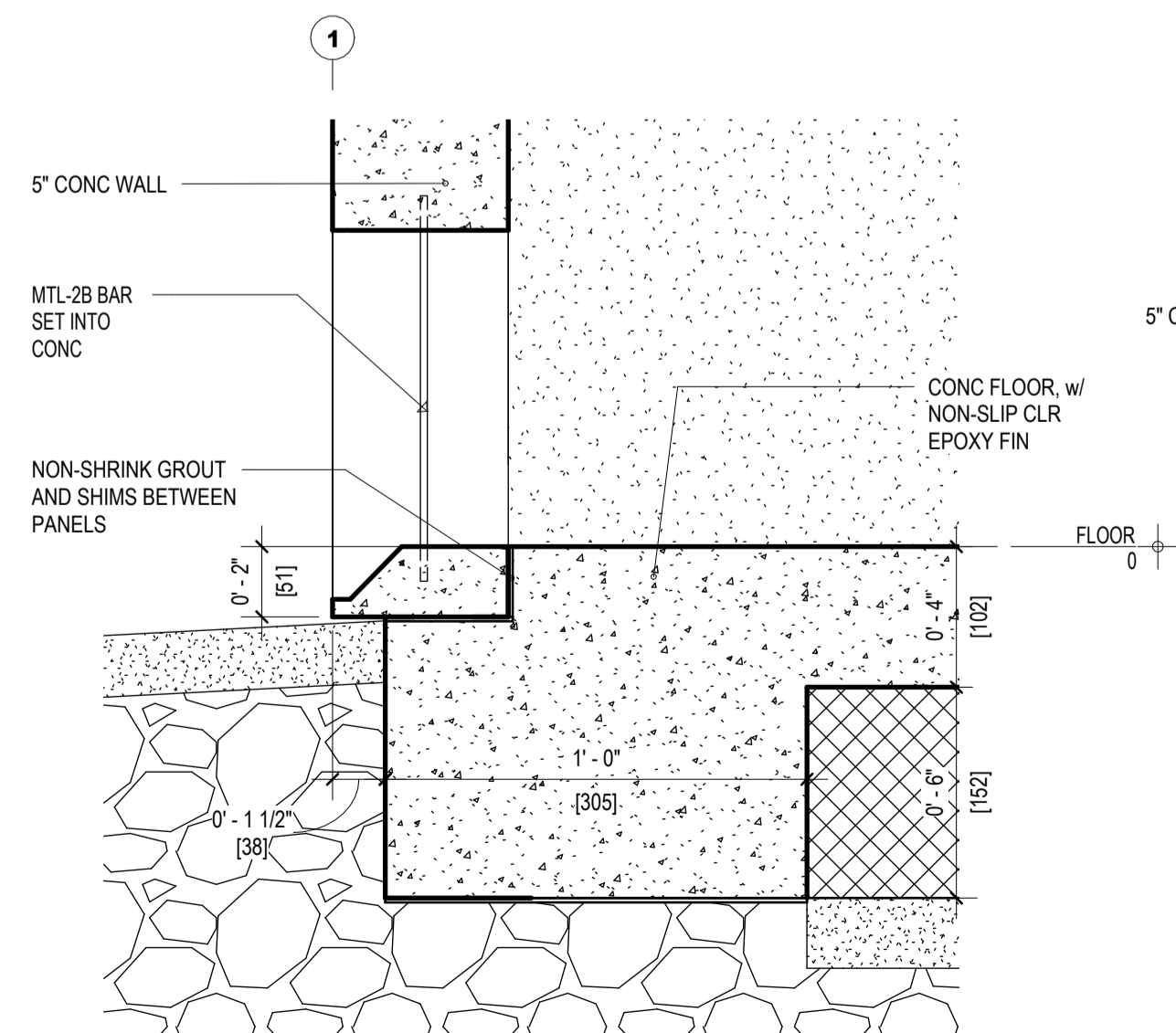
8 SLIDING DR - HEAD - TYP
1:5



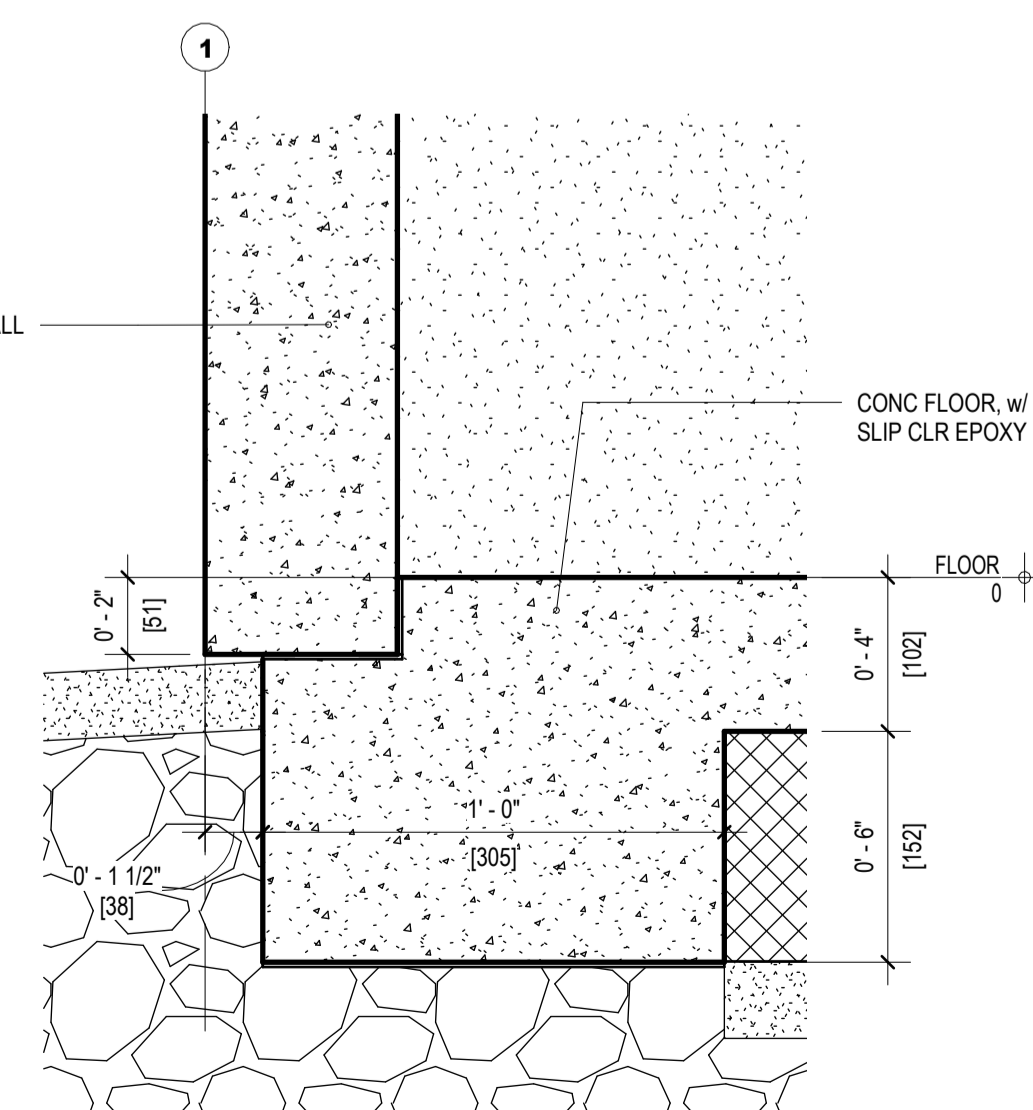
1 SLIDING DR - HEAD @ ROLLERS
1:5



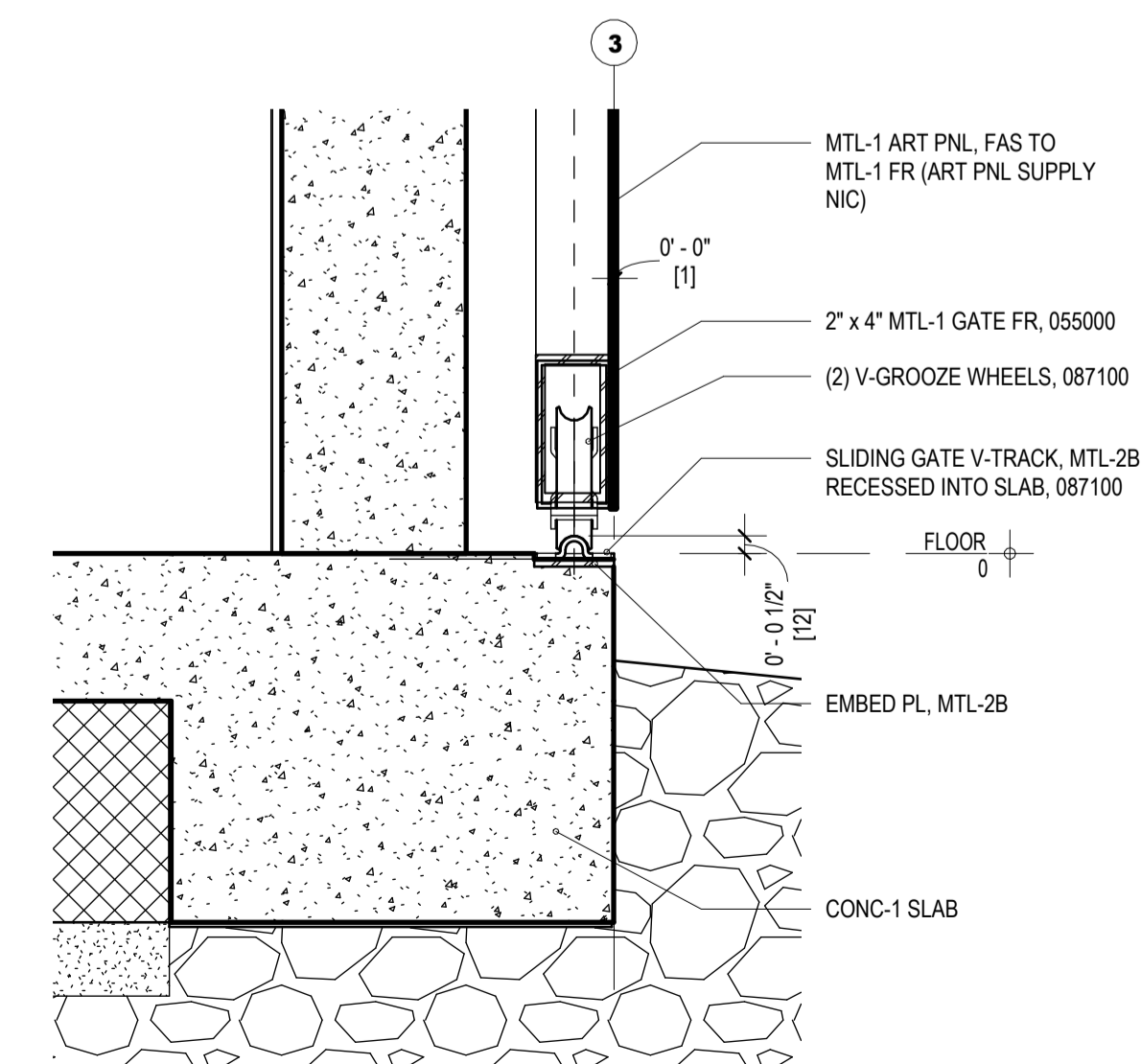
12 TOP OF WALL - CEILING
1:5



10 TYP DETAIL WALL BASE - OPENING
1:5



6 TYP DETAIL WALL BASE
1:5



4 SLIDING GATE - HEAD
1:5

REVISIONS:

△	DATE	DESCRIPTION

Surrey Park Washroom
Surrey, BC
JIM PROJECT NO.044.4

SCALE: As indicated
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CHECKED BY: NA
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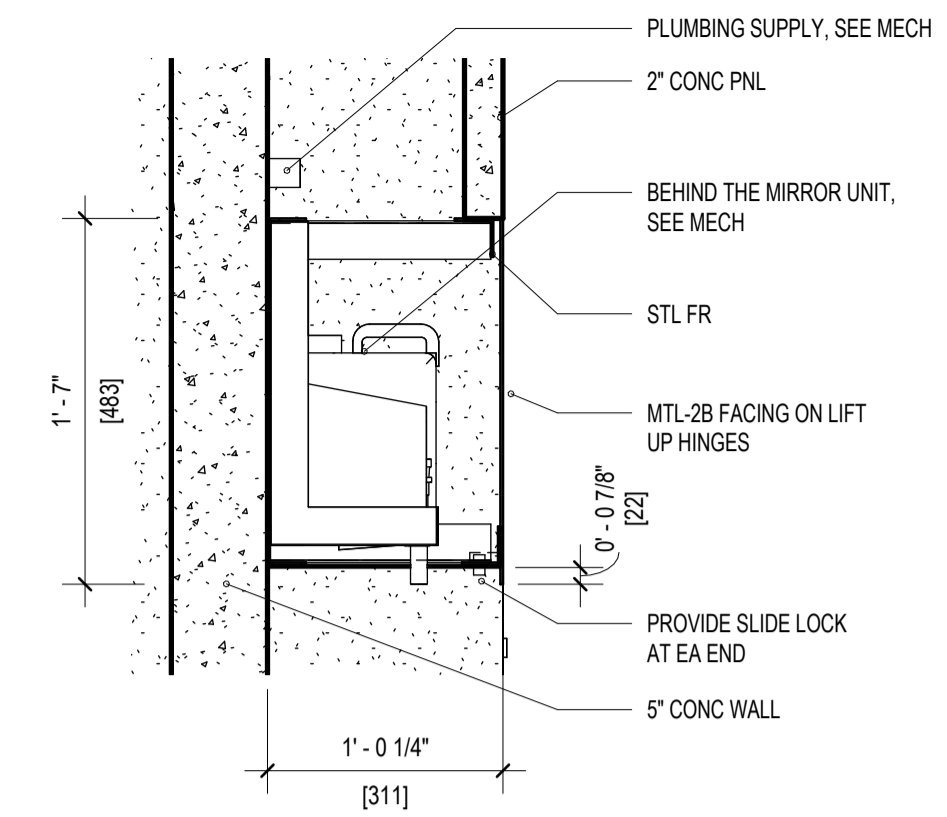
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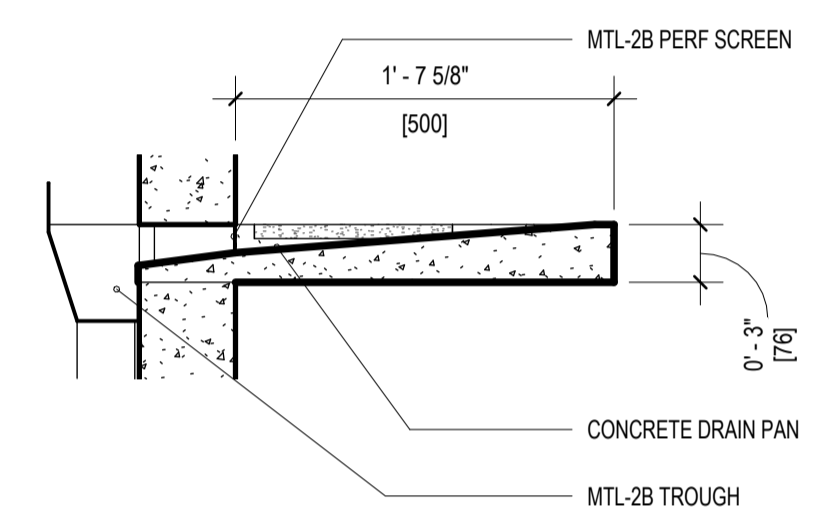
EXTERIOR DETAILS

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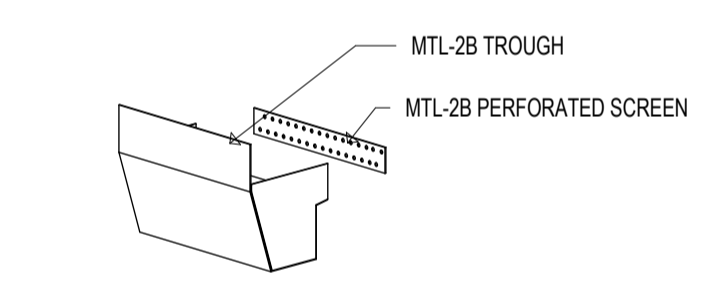
ISSUE FOR TENDER - NOT FOR CONSTRUCTION



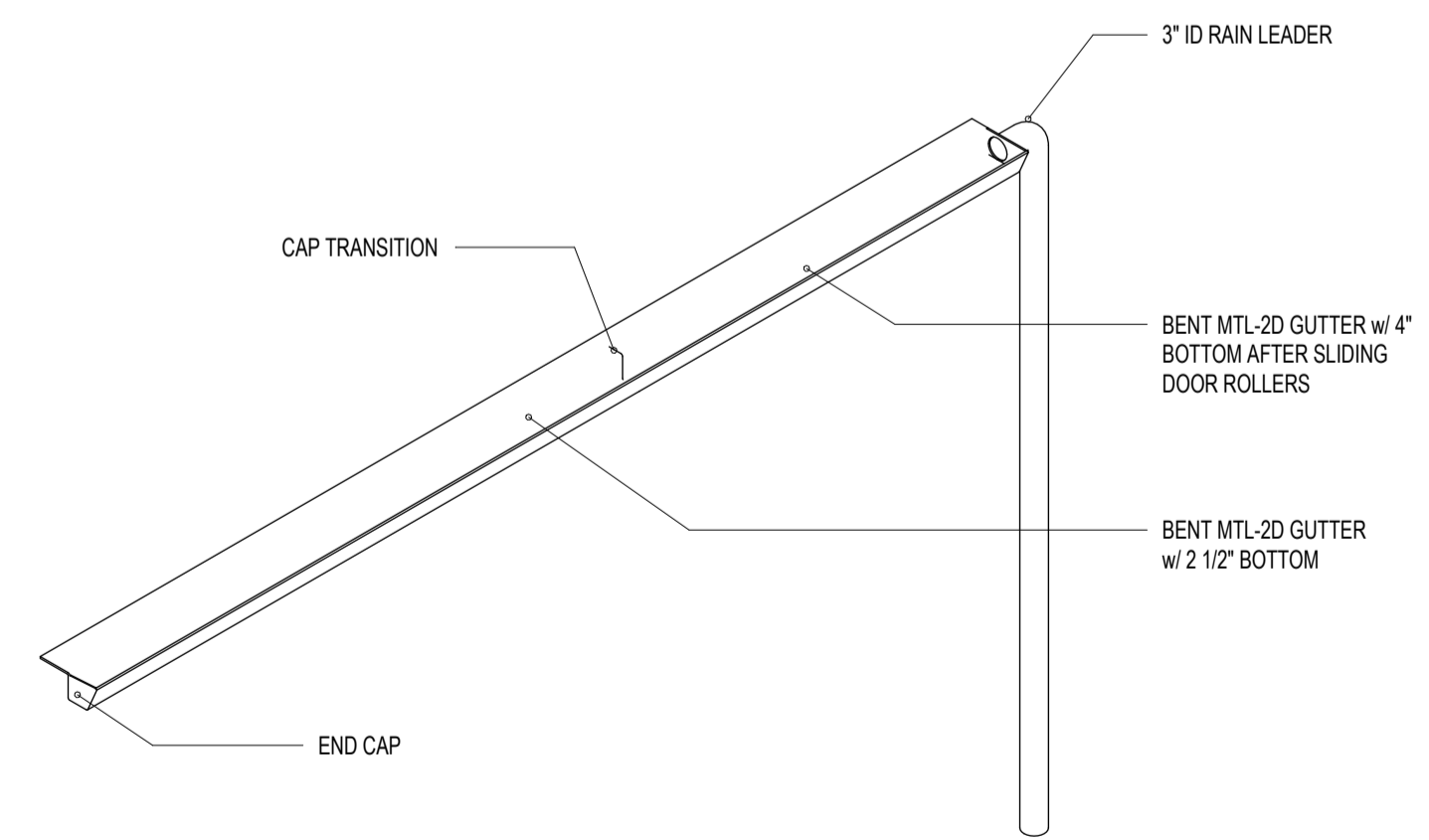
1 BEHIND THE MIRROR UNIT
 1 : 10



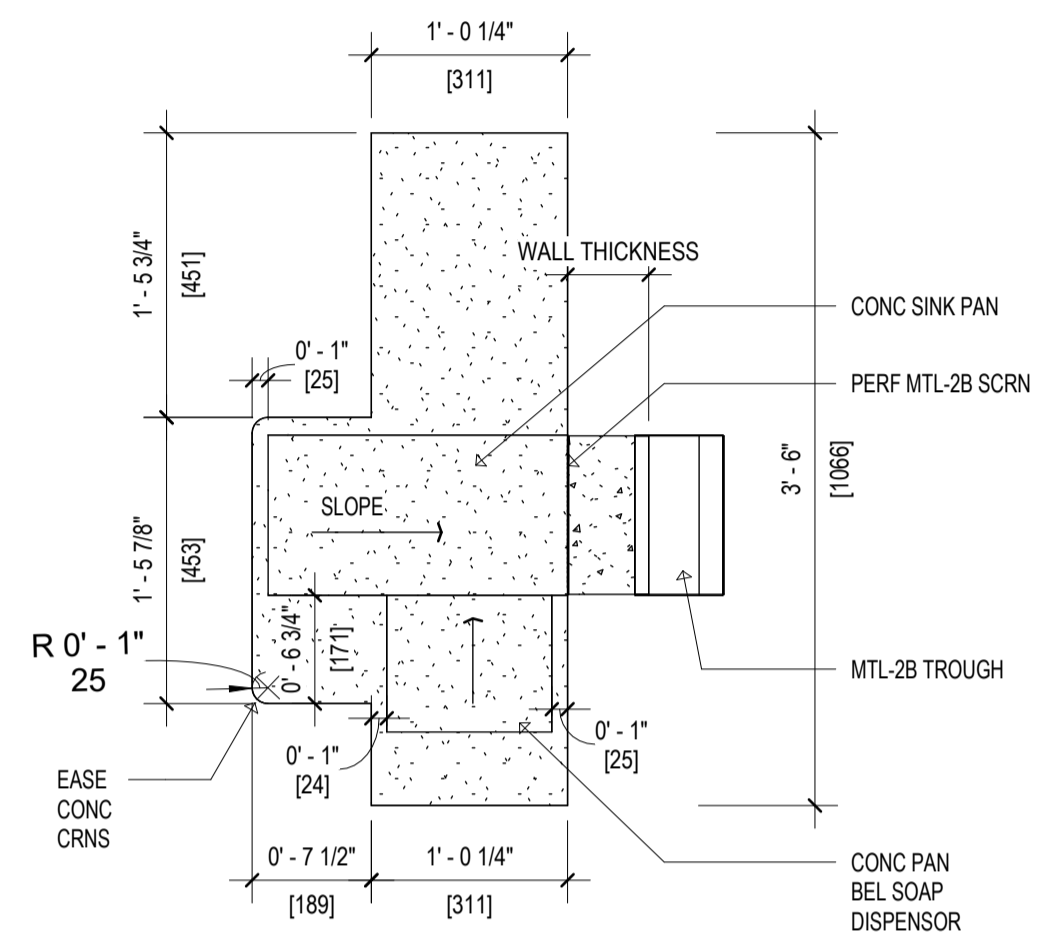
4 SINK
 1 : 10



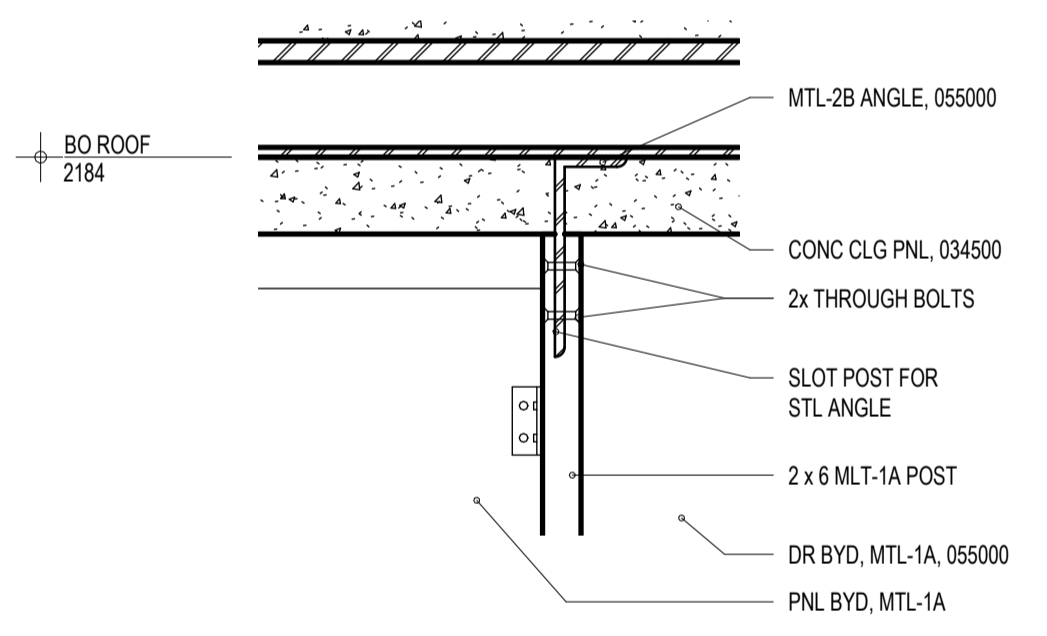
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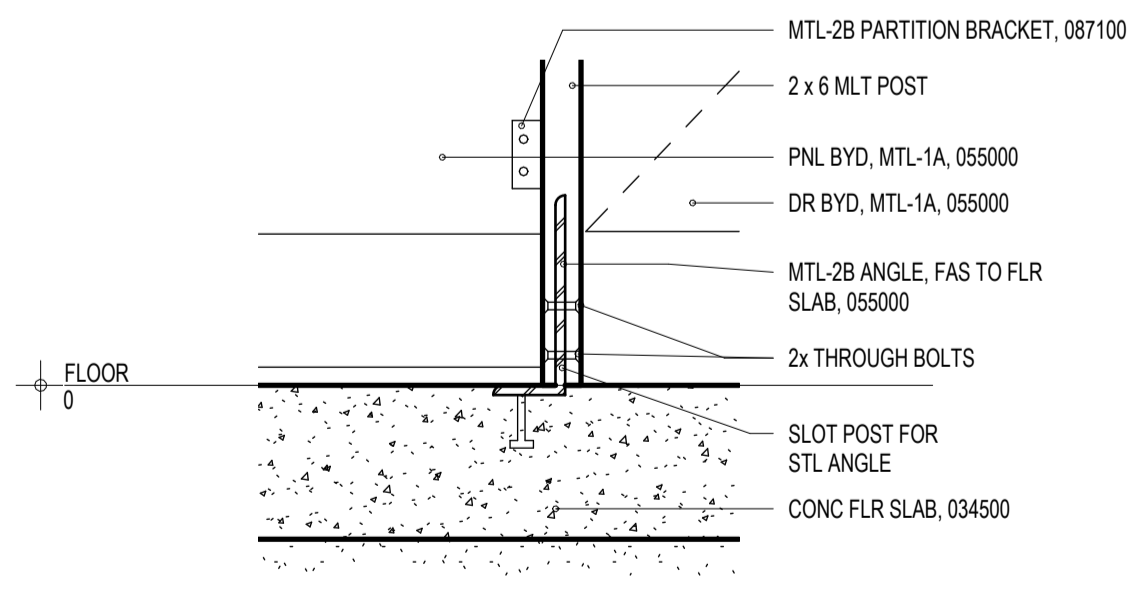
5 GUTTER



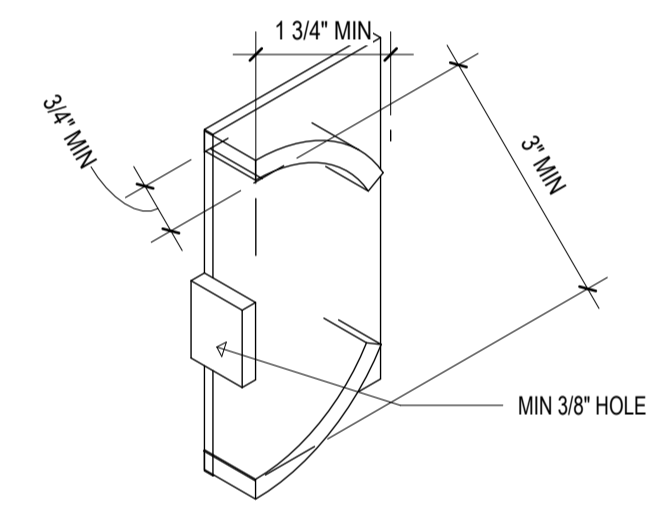
9 CONC COUNTER
 1 : 12



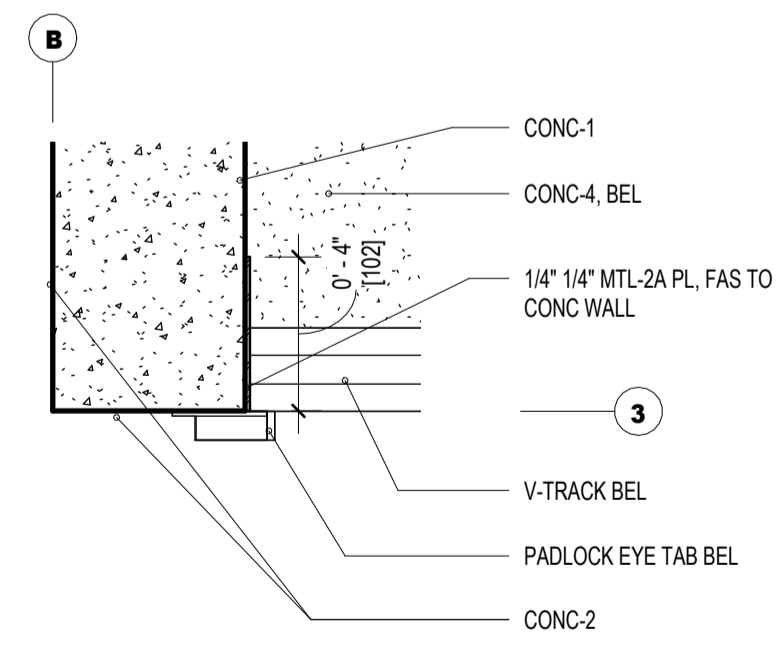
7 TOP OF PARTITION
 1 : 5



8 BO PARTITION
 1 : 5



12 LOCK EYE WITH BELL



11 SLIDING GATE JAMB
 1 : 5

REVISIONS:

△	DATE	DESCRIPTION

Surrey Park Washroom
 Surrey, BC
 JIM PROJECT NO.044.4

SCALE: As indicated
 DRAWN BY: JFH
 CHECKED BY: NA
 DATE: 08/27/18

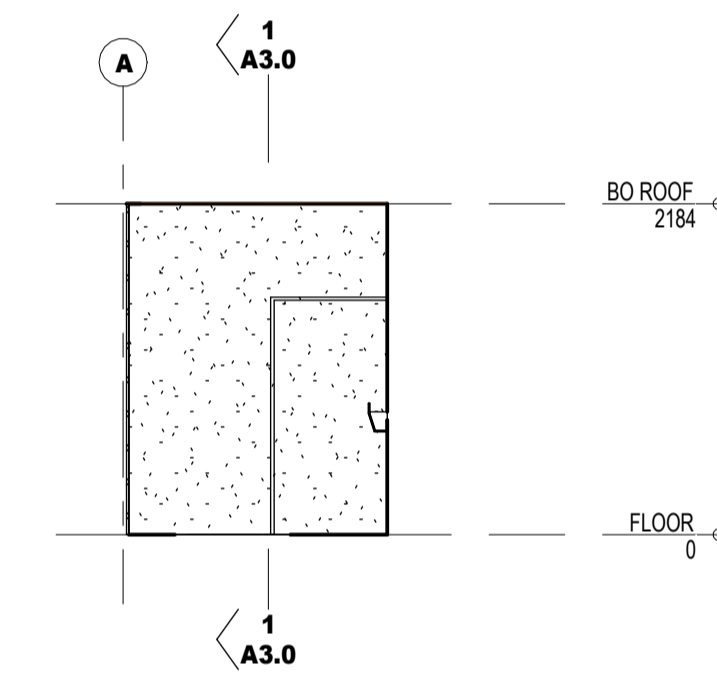
ISSUE:

△	DATE	DESCRIPTION
1	22.05.10	Issue for Tender

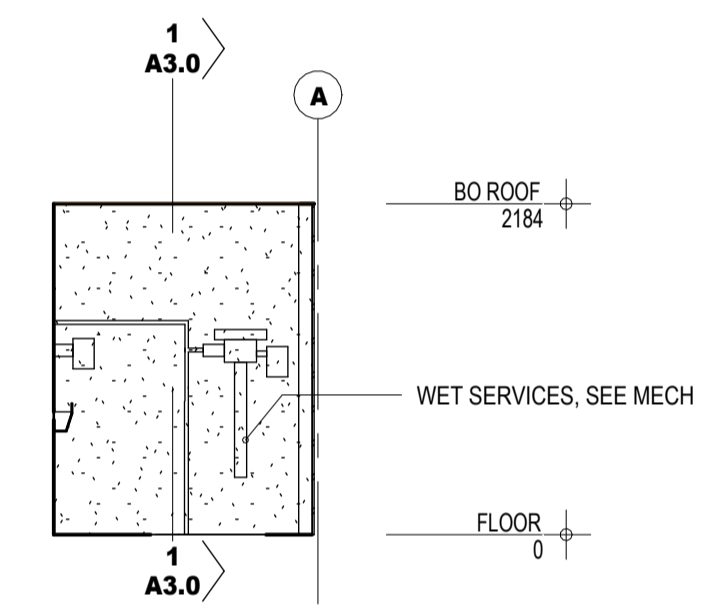
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A6.1

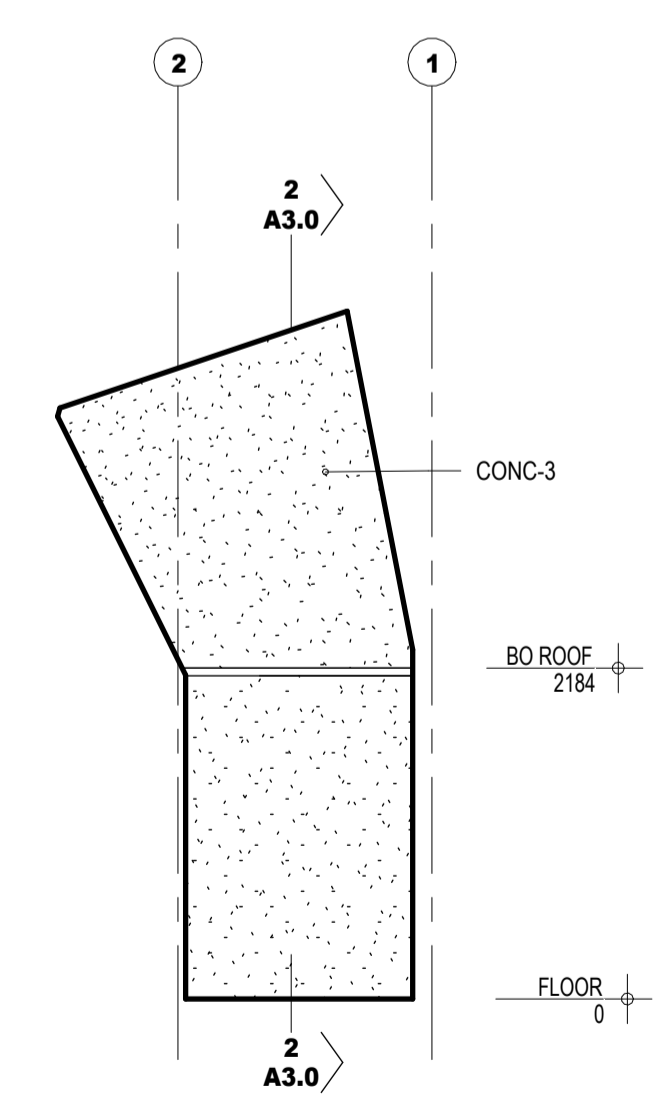
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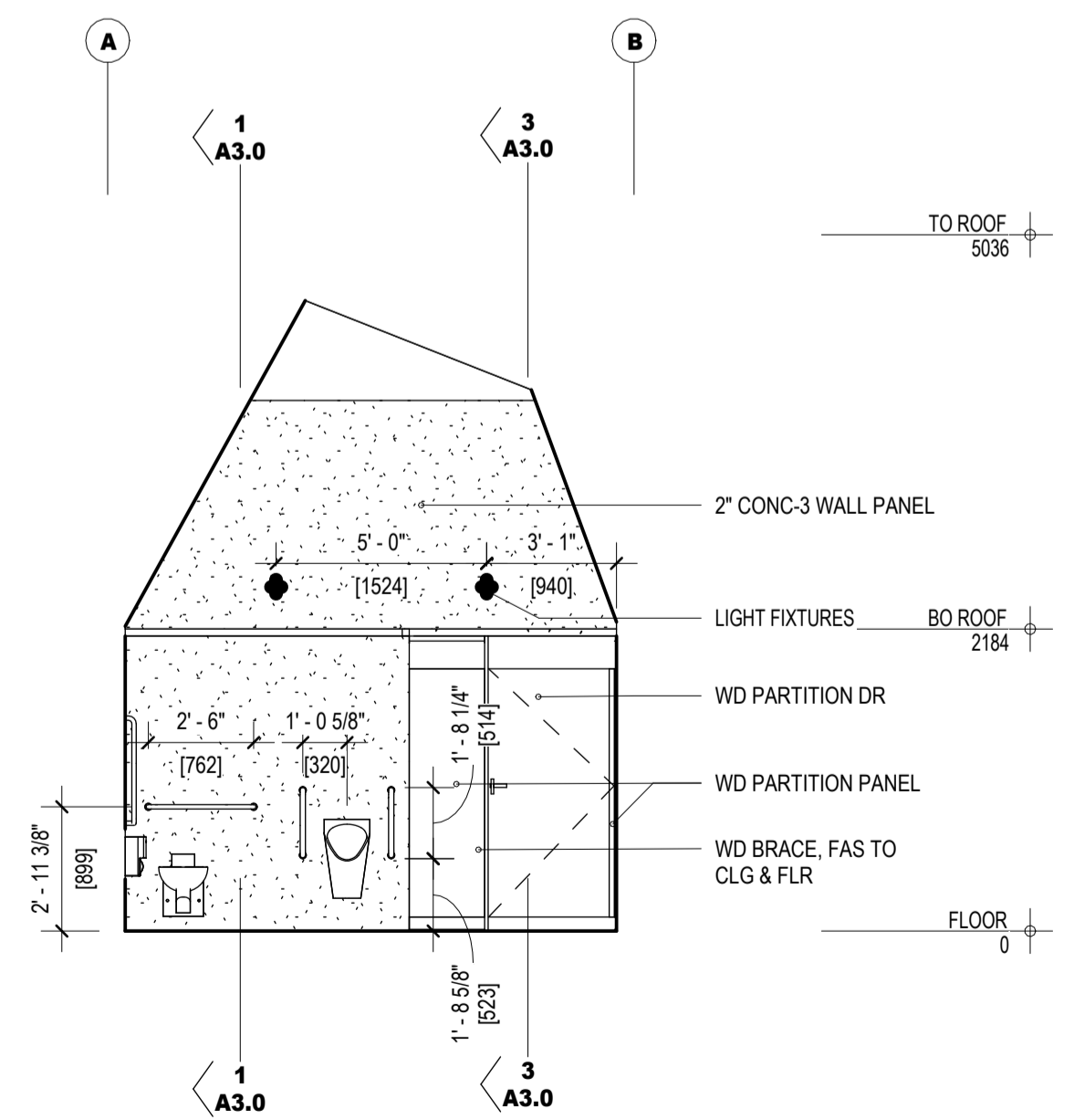
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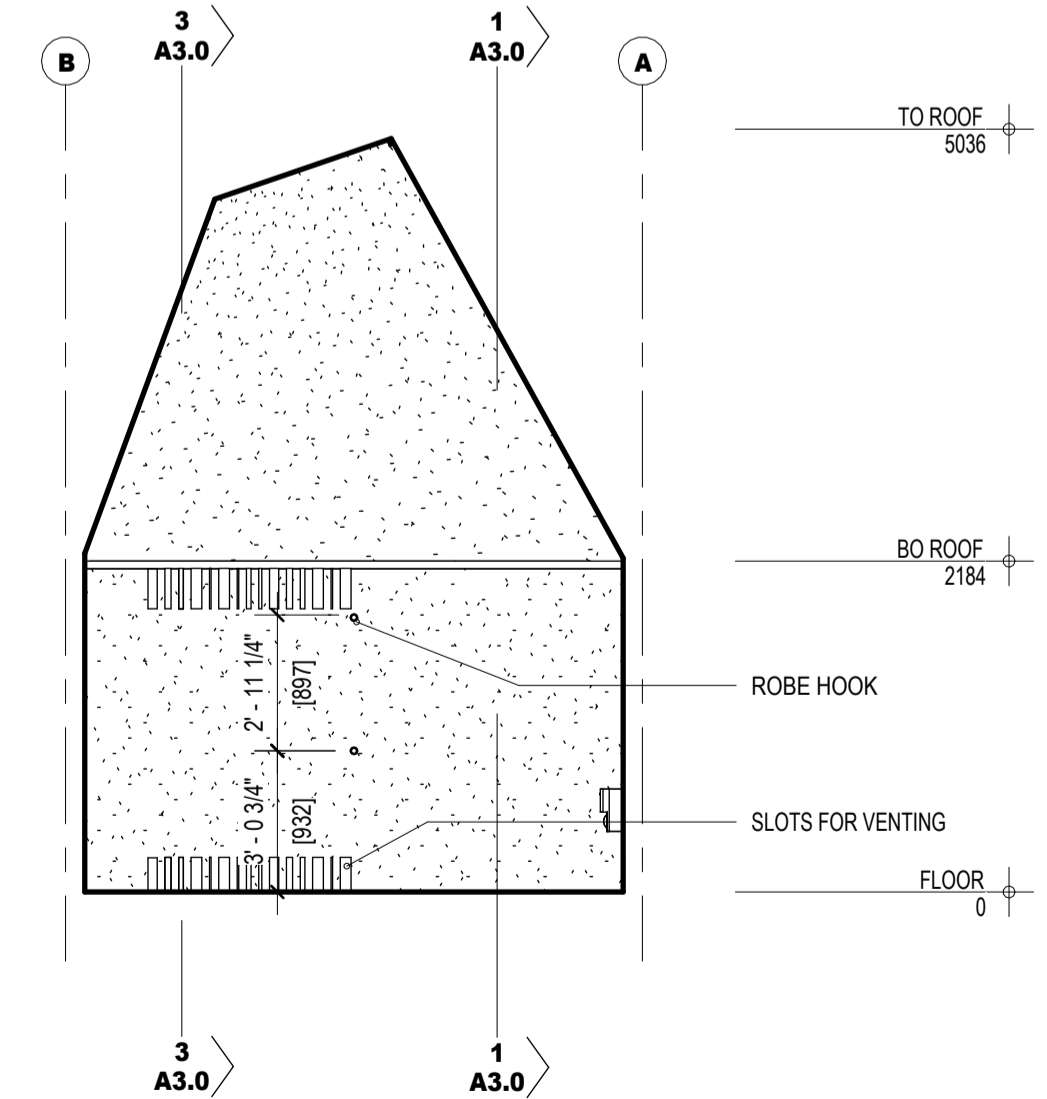
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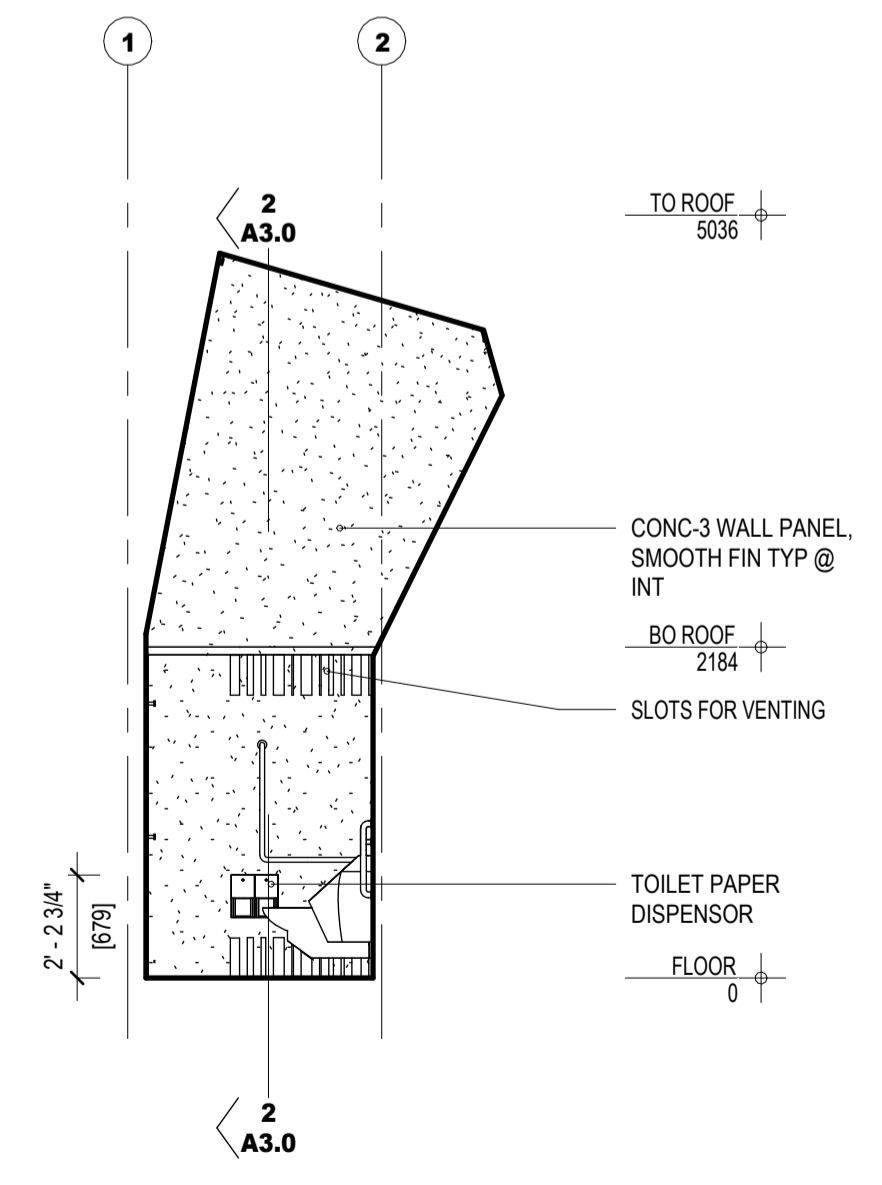
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5 TOILET - SOUTH
 1:50



4 TOILET - NORTH
 1:50



3 TOILET - EAST
 1:50

REVISIONS:

△	DATE	DESCRIPTION

Surrey Park Washroom
 Surrey, BC
 JIM PROJECT NO.044.4

SCALE: 1:50
 DRAWN BY: JFH
 CHECKED BY: NA
 DATE: 10/05/18

ISSUE:

△	DATE	DESCRIPTION
1	22.05.10	Issue for Tender

GENERAL NOTES:

- STRUCTURAL DRAWINGS ARE TO BE READ IN CONJUNCTION WITH OTHER RELATED DRAWINGS INCLUDING EXISTING DRAWINGS FOR DIMENSIONS, ELEVATIONS AND PRESENCE OF OPENINGS, INSERTS, EXISTING UNDERGROUND SERVICES AND MECHANICAL AND ELECTRICAL ELEMENTS ETC.
- PRIOR TO COMMENCEMENT OF WORK, THE CONTRACTOR SHALL COMPARE ALL RELATED DRAWINGS, CONFIRM ALL DIMENSIONS, CONFIRM ALL EXISTING CONDITIONS AND PROVIDE FIELD MEASUREMENTS. CONTRACTOR TO REPORT ANY DISCREPANCIES TO THE ARCHITECT AND ENGINEER OF RECORD CALLED 'ENGINEER' HEREAFTER.
- IF DISCREPANCIES RELATING TO STRUCTURAL WORK ARE FOUND IN THE VARIOUS DOCUMENTS, THE MORE STRINGENT PROVISIONS SHALL APPLY, UNLESS APPROVED BY THE ENGINEER. SPECIFICATIONS SHALL CONTROL OVER THESE DRAWINGS AND GENERAL NOTES ONLY WHERE THE SPECIFICATIONS PROVIDE FOR MORE STRINGENT REQUIREMENTS. CONTRACTOR, SUPPLIERS AND SUBTRADES ARE TO ENSURE THAT THEY ARE WORKING WITH DRAWINGS DESIGNATED "ISSUED FOR CONSTRUCTION".
- BRACING OF THE STRUCTURE AND ALL COMPONENTS DURING CONSTRUCTION, INCLUDING ANY UNDERPINNING SHALL REMAIN THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
- THESE DRAWINGS SHOW REQUIREMENTS FOR COMPLETED STRUCTURES ONLY. THE DESIGN AND INSPECTION OF FALSEWORK, SHORING AND RE-SHORING IS THE RESPONSIBILITY OF THE CONTRACTOR AND SHALL CONFORM TO W.C.B. STANDARDS.
- ALL SHOP DRAWINGS (INCLUDING PRECAST CONCRETE SHOP DRAWING BUT NOT LIMITED TO) TO BE SEALED BY PROFESSIONAL ENGINEER REGISTERED IN BRITISH COLUMBIA AND REVIEWS BY THE ENGINEER CONSTITUTE REVIEW FOR GENERAL CONCEPT ONLY. THE DETAILED DESIGN REMAINS THE RESPONSIBILITY OF CONTRACTOR/FABRICATOR. ALL COMPONENTS SHALL BE ASSEMBLED AND ERECTED IN ACCORDANCE WITH FINAL REVIEWED SHOP AND ERECTION DRAWINGS. NO FABRICATION/ERECTION SHALL PROCEED UNTIL REVIEW HAS BEEN COMPLETED BY THE ENGINEER.
- DESIGN LOADS:

A) SPECIFIED UNIFORM LOAD (U.N.O. ON PLAN)	LIVE LOAD	DEAD LOAD
ROOF (SNOW LOAD BASED ON)	Is (ULS) = 1.0 Is (SLS) = 0.9 Cb = 0.8 Ss = 2.4 kPa (50 psf) Sf = 0.3 kPa (6.3 psf)	0 kPa (0 psf)
FLOOR SLAB	1.9 kPa (40 psf)	0 kPa (0 psf)

DEAD LOADS INCLUDES ARCHITECTURAL TOPPING, ROOFING MATERIAL, PAVERS, CEILING FINISHES AND MECHANICAL/ELECTRICAL CONDUITS/FIXTURES.

B) WIND LOAD BASED ON	lw (ULS) = 1.0 lw (SLS) = 0.75	q 1/10 = 0.34 kPa (7.1 psf) q 1/50 = 0.44 kPa (9.2 psf)
C) RAIN LOAD BASED ON	1-Day Rain (1:50) = 128 mm (5 in.) 1-Day Rain Load (1:50) = 1.25 kPa (26.12 psf)	

D) SEISMIC LOAD BASED ON	Is (ULS) = 1.0 Is (SLS) = 1.0 Sa (1.0) = 0.394 Sa (5.0) = 0.076 PGA = 0.341 Rd = 1.3 Site Class "C"	Sa (0.2) = 0.786 Sa (0.5) = 0.290 Sa (2.0) = 0.240 Sa (10.0) = 0.027 PGV = 0.511 Ro = 1.3
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- THESE DRAWINGS SHOW STRUCTURAL WORK REQUIRED TO MEET PROVISIONS OF THE 2018 B.C. BUILDING CODE.
- ALL CODES AND DOCUMENTS REFERRED TO IN THESE GENERAL NOTES ARE TO BE THE CURRENT ADAPTED EDITIONS.
- DESIGN OF SECONDARY COMPONENTS ITEMS INCLUDING THEIR ATTACHMENT TO THE STRUCTURE IS THE RESPONSIBILITY OF OTHERS.
- SEISMIC ATTACHMENT OF NON-STRUCTURAL ITEMS IS THE RESPONSIBILITY OF OTHERS.

FIELD REVIEW AND TESTING

- THE CONTRACTOR IS SOLELY RESPONSIBLE TO GIVE THE ENGINEER REASONABLE ADVANCE NOTICE WHEN STRUCTURAL WORK IS READY FOR REVIEWS BY THE ENGINEER (MINIMUM 24 HOURS PRIOR TO POUR OR CONCEALMENT). CONTRACTOR IS RESPONSIBLE FOR REVIEWING HIS OWN WORK AND THE WORK OF HIS SUBTRADES PRIOR TO REVIEW BY THE ENGINEER.
- ALL STRUCTURAL WORK REQUIRES WRITTEN REVIEW BY THE ENGINEER INCLUDING:
 - A) CONCRETE REINFORCEMENT PRIOR TO EACH CONCRETE POUR
- MATERIAL TESTING SHALL BE DIRECTED BY THE ENGINEER AT THE EXPENSE OF THE OWNER
- CONCRETE TESTING SHALL BE IN ACCORDANCE WITH CAN/CSA A23.2 AND CARRIED OUT BY AN INDEPENDENT TESTING AGENCY APPROVED BY THE ENGINEER. A MINIMUM OF 3 TEST CYLINDERS SHALL BE CAST FOR EACH 50 CU. METER / 50 CU. YARDS OR EACH DAY'S POUR, WHICHEVER IS LESS. TEST ONE AT 7 DAYS AND TWO AT 28 DAYS AND SUBMIT WRITTEN REPORTS FOR REVIEW BY THE ENGINEER. TEST REPORTS SHALL IDENTIFY THE LOCATIONS WHERE CONCRETE IS BEING TESTED WITH GRIDLINES AND ELEVATIONS
- THE OWNER SHALL APPOINT AN INDEPENDENT CSA CERTIFIED TESTING AGENCY TO CARRY OUT REPRESENTATIVE TESTINGS OF BOLT TORQUE AND WELDING ON STRUCTURAL STEEL WORK, INCLUDING DECKING. THIS TESTING SHALL TAKE PLACE PRIOR TO CONCEALMENT OF ALL STRUCTURAL STEEL
- THE OWNER SHALL APPOINT AN INDEPENDENT CSA CERTIFIED TESTING AGENCY TO CARRY OUT REQUIRED TESTING OF PROTECTIVE MEMBRANE TO CONCRETE PARKADE SURFACES WHERE REQUIRED IN ACCORDANCE WITH CAN/CSA-9413-94 (R2000)
- SUBMIT CONCRETE TEST RESULTS MAXIMUM 24 HOURS AFTER TEST
- ADDITIONAL TESTING AND FIELD REVIEW RESULTING FROM REJECTION OF MORE THAN 5% OF WORK WILL BE AT THE CONTRACTOR'S EXPENSE

FOUNDATIONS

- PRIOR TO COMMENCEMENT OF WORK, THE OWNER IS TO RETAIN PROFESSIONAL GEOTECHNICAL ENGINEER, REGISTERED IN THE PROVINCE OF BRITISH COLUMBIA AND WITH LOCAL KNOWLEDGE, TO PROVIDE A GEOTECHNICAL FIELD REVIEW REPORT SPECIFIC FOR THIS SITE. THIS GEOTECHNICAL FIELD REVIEW REPORT TO CONTAIN INFORMATION REGARDING FOUNDATION SYSTEM, SERVICEABILITY LIMIT STATE (SLS) AND ULTIMATE LIMIT STATE (ULS) BEARING PRESSURE UNDER SPREAD FOOTINGS, SLAB ON GRADE FLOORS, SEISMIC CONSIDERATIONS AND DESIGN OF FOUNDATIONS, FOUNDATION DRAINAGE, TEMPORARY EXCAVATIONS AND DEWATERING, SITE PREPARATIONS, ENGINEERED FILL MATERIAL, GEOTECHNICAL FIELD REVIEW REQUIREMENTS AND OTHER REQUIREMENTS SUCH AS SETTLEMENTS AND SOIL STABILIZATION.
- DESIGN OF FOUNDATIONS IS BASED ON SERVICEABILITY LIMIT STATE (SLS) OF 150 kPa (3135 PSF) AND ULTIMATE LIMIT STATE (ULS) BEARING PRESSURE OF 225 kPa (4710 PSF) FOR SPREAD FOOTINGS AND STRIP FOOTINGS. ALL FOOTINGS SHALL BEAR ON SOIL CAPABLE OF THIS PRESSURE WITHOUT FAILURE OR UNDESIRABLE SETTLEMENT.
- IF DURING CONSTRUCTION, SOILS ARE FOUND TO NOT MEET CRITERIA IN THE GEOTECHNICAL REPORT, NOTIFY THE GEOTECHNICAL AND STRUCTURAL ENGINEERS, AND PROVIDE REVISED FOUNDATION TO THE ENGINEER'S SPECIFICATION.
- CONTRACTOR TO FOLLOW ALL RECOMMENDATIONS GIVEN IN GEOTECHNICAL REPORT FOR FOUNDATION DRAINAGE, TEMPORARY EXCAVATIONS AND DEWATERING, SITE PREPARATIONS, ENGINEERING FILL MATERIAL AND ALL OTHER REQUIREMENTS.
- CONTRACTOR IS SOLELY RESPONSIBLE TO ENSURE THAT GEOTECHNICAL ENGINEER REVIEWS AND CONFIRMS BEARING PRESSURE IN THE GEOTECHNICAL REPORT AND APPROVE SUB-GRADE INSTALLATION PRIOR TO POURING CONCRETE FOR FOOTING OR FOUNDATION.
- THE OWNER SHALL RETAIN AN APPROVED TESTING AGENCY TO CARRY OUT DENSITY TESTING OF SUB-GRADE MATERIAL. TESTING OF SUB-GRADE MATERIAL IS TO BE CARRIED OUT IMMEDIATELY PRIOR TO INSTALLATION OF SLAB IN GRADE COMPONENTS. CARE MUST BE TAKEN TO NOT TO DISTURB SUB-GRADE AFTER APPROVAL AND PRIOR TO POURING CONCRETE.
- CONTRACTOR SHALL BE RESPONSIBLE FOR ALL TEMPORARY DRAINAGE DURING EXCAVATION.
- CONCRETE PLACED UNDER WATER SHALL CONFORM TO SECTION 19.6, CAN/CSA-A23.1.
- FOOTING ELEVATIONS, IF SHOWN, ARE FOR BIDDING PURPOSES ONLY, ARE NOT FINAL, AND MAY VARY ACCORDING TO SITE CONDITIONS. ALL FOOTINGS MUST BE TAKEN TO BEARING LAYER APPROVED BY THE GEOTECHNICAL ENGINEER.
- BEARING SURFACES MUST BE PROTECTED FROM FREEZING BEFORE AND AFTER FOOTINGS ARE POURED.

CONCRETE

- ALL CONCRETE SHALL CONFORM TO THE REQUIREMENTS OF CAN/CSA-A23.1. CEMENT SHALL BE TYPE 10 PORTLAND CEMENT UNLESS NOTED OTHERWISE. NORMAL WEIGHT CONCRETE FOR VARIOUS PURPOSES SHALL BE AS FOLLOWS UNLESS NOTED OTHERWISE:

ELEMENT	MIN 28 DAY STRENGTH	MAXIMUM SLUMP	MAX SIZE AGGREGATE	AIR CONTENT	EXPOSURE CLASS
FOUNDATIONS	40 MPa (5800 psi)	75 mm (3")	20 mm (3/4")	-	-
EXTERIOR CONCRETE	40 MPa (5800 psi)	75 mm (3")	20 mm (3/4")	-	-
EXTERIOR SLAB ON GRADE	40 MPa (5800 psi)	75 mm (3")	20 mm (3/4")	5% - 8%	C2

 - A) SLUMPS LISTED ARE BEFORE THE ADDITION OF SUPER PLASTICIZERS TOLERANCE IN SPECIFIED SLUMP SHALL BE ± 20mm (3/4")
 - B) NO CALCIUM CHLORIDE PERMITTED IN ANY FORM IN THE CONCRETE MIXES
 - C) SUBMIT MIX DESIGNS TO THE ENGINEER AND TESTING AGENCY FOR REVIEW AND APPROVAL PRIOR TO PLACEMENT MIX DESIGN SUBMITTALS SHALL IDENTIFY THE ELEMENTS FOR WHICH THEY ARE INTENDED
- PERFORM ALL WORK IN ACCORDANCE WITH CAN/CSA-A23.1, INCLUDING THE FOLLOWING:
 - A) CONSTRUCTION TOLERANCES
 - B) FABRICATION AND PLACEMENT OF REINFORCING
 - C) PLACEMENT OF CONCRETE, INCLUDING PROPER VIBRATION AND CURING
- TAKE ALL PRECAUTIONS TO ENSURE EXPOSED CONCRETE ACHIEVES FINISH DESIRED BY ARCHITECT, INCLUDING PROPER FORMING, MIX DESIGN, SITE CARE AND ADEQUATE VIBRATION. PROTECT AGAINST DAMAGE DURING STRIPPING AND ENTIRE CONSTRUCTION PERIOD
- SEE ARCHITECTURAL DRAWINGS FOR SLAB ELEVATIONS, DRAINAGE, SLOPES AND LOCATIONS OF REGLETS, REVEALS AND CHAMFERS. UNLESS NOTED OTHERWISE, EXPOSED CORNERS OF SLAB, BEAMS, SLAB BANDS, COLUMNS AND WALLS SHALL BE BEVELLED 20mm X 20mm (3/4" X 3/4")
- BLOCKOUTS, NAILERS, CONDUITS, DUCTS, PIPES, SLEEVES AND OTHER OPENINGS ARE SUBJECT TO APPROVAL BY THE ENGINEER
 - A) OPENINGS AND CONDUITS ARE NOT PERMITTED IN WALL ZONES, WITHIN 90mm (3 9/16") OF WALL ENDS OR AT INTERSECTIONS OR IN COLUMNS
 - B) WHERE PERMITTED, SPACE OPENINGS 2 DIAMETERS, OR MINIMUM 150mm (6") APART
 - C) WHERE PERMITTED, SINGLE OPENINGS LARGER THAN 300mm (12") OR A GROUP OF OPENINGS OCCUPYING TOGETHER MORE THAN 300mm X 300mm (1.0 SQ. FT.) IN ANY 1 SQ. METER (10 SQ. FT.) AREA SHALL NOT BE PERMITTED
- EXPANSION AND/OR CONSTRUCTION SEQUENCE JOINTS SHALL BE INSTALLED IN CONCRETE STRUCTURES GREATER THAN 45m (150 FT) IN LENGTH, DETAILS AND LOCATIONS SHALL BE DISCUSSED WITH AND APPROVED BY THE ENGINEER IN WRITING PRIOR TO CONSTRUCTION.
- STRIPPING OF FORMS FOR STRUCTURAL ELEMENTS ARE NOT ALLOWED UNTIL CONCRETE STRENGTH HAS REACHED 12 MPa FOR COLUMNS WALLS AND 17MPa FOR ROOF SLABS. STRENGTH OF CONCRETE SHALL BE DETERMINED FROM FIELD-CURED CYLINDERS.
- ALL HOT AND COLD WEATHER CONCRETE WORK SHALL BE CARRIED OUT IN ACCORDANCE WITH CAN/CSA-A23.1.
 - A) WHEN TEMPERATURE IS EXPECTED TO FALL BETWEEN 3°C AND -10°C WITHIN 3 DAYS OF POURING CONCRETE THE CONTRACTOR SHALL:
 - MAKE PROVISIONS TO HEAT MIX WATER OR AGGREGATE TO MAINTAIN A MIN CONC. TEMP OF 10°C
 - MAKE PROVISIONS TO HEAT THE FORMWORK OR SOIL SURFACE. CONCRETE SHALL NOT BE POURED AGAINST ANY SURFACE WITH A TEMPERATURE LESS THAN 3°C. CALCIUM CHLORIDE OR OTHER DE-ICING SALTS ARE NOT PERMITTED
 - COVER CONCRETE WITH INSULATION BLANKET FOR THE FIRST 36 HOURS AFTER POURING CONCRETE. DO NOT POUR WHEN TEMPERATURE IS EXPECTED TO FALL BELOW -10°C WITHIN 3 DAYS AFTER POURING
 - MAKE PROVISIONS FOR A HEATED ENCLOSURE TO MAINTAIN THE TEMPERATURE OF ALL CONCRETE SURFACES ABOVE 10°C FOR A MINIMUM OF 3 DAYS AFTER THE POUR
 - PROVIDE ALTERNATE MIX DESIGNS FOR COLD WEATHER
 - WHEN THE TEMPERATURE IS EXPECTED TO RISE ABOVE 25°C THE CONTRACTOR SHALL:
 - MAKE PROVISIONS TO COOL CONCRETE TO MAINTAIN A MAXIMUM TEMPERATURE OF 30°C
 - MAKE PROVISIONS TO PREVENT CONCRETE FROM DRYING
- TAKE MEASURES TO MINIMIZE SHRINKAGE CRACKING INCLUDING COVERING AND DAMPENING CONCRETE.

REINFORCEMENT

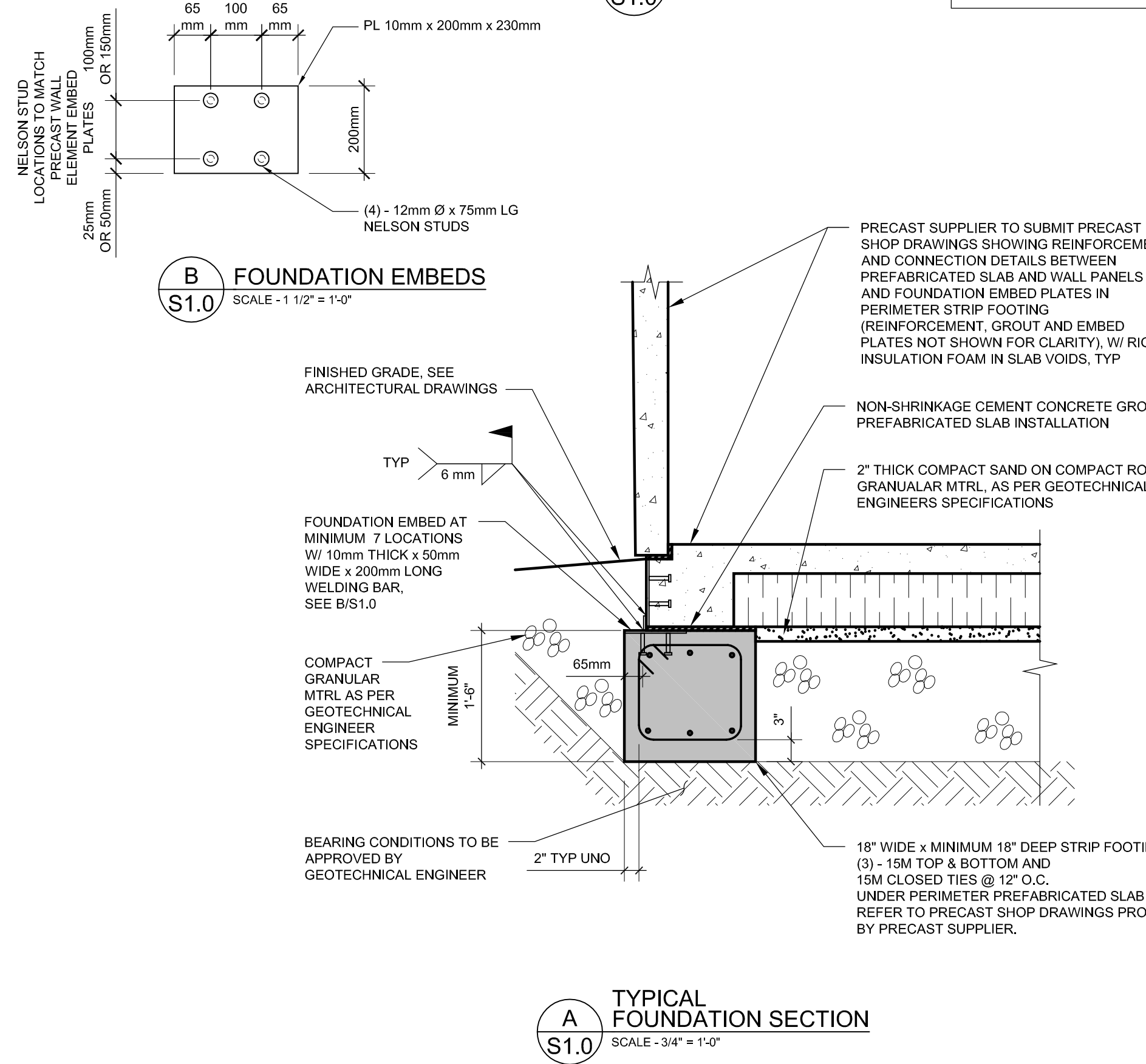
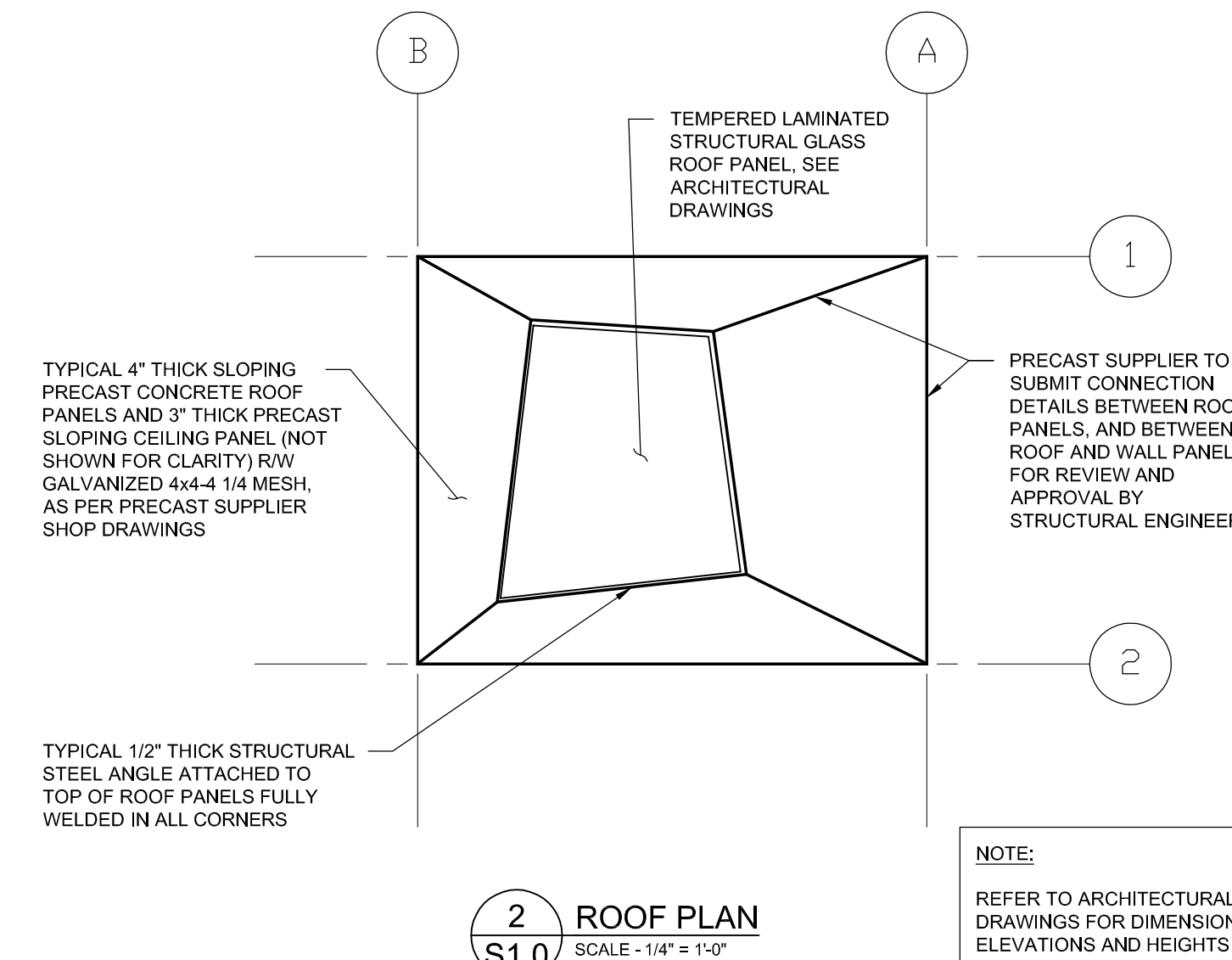
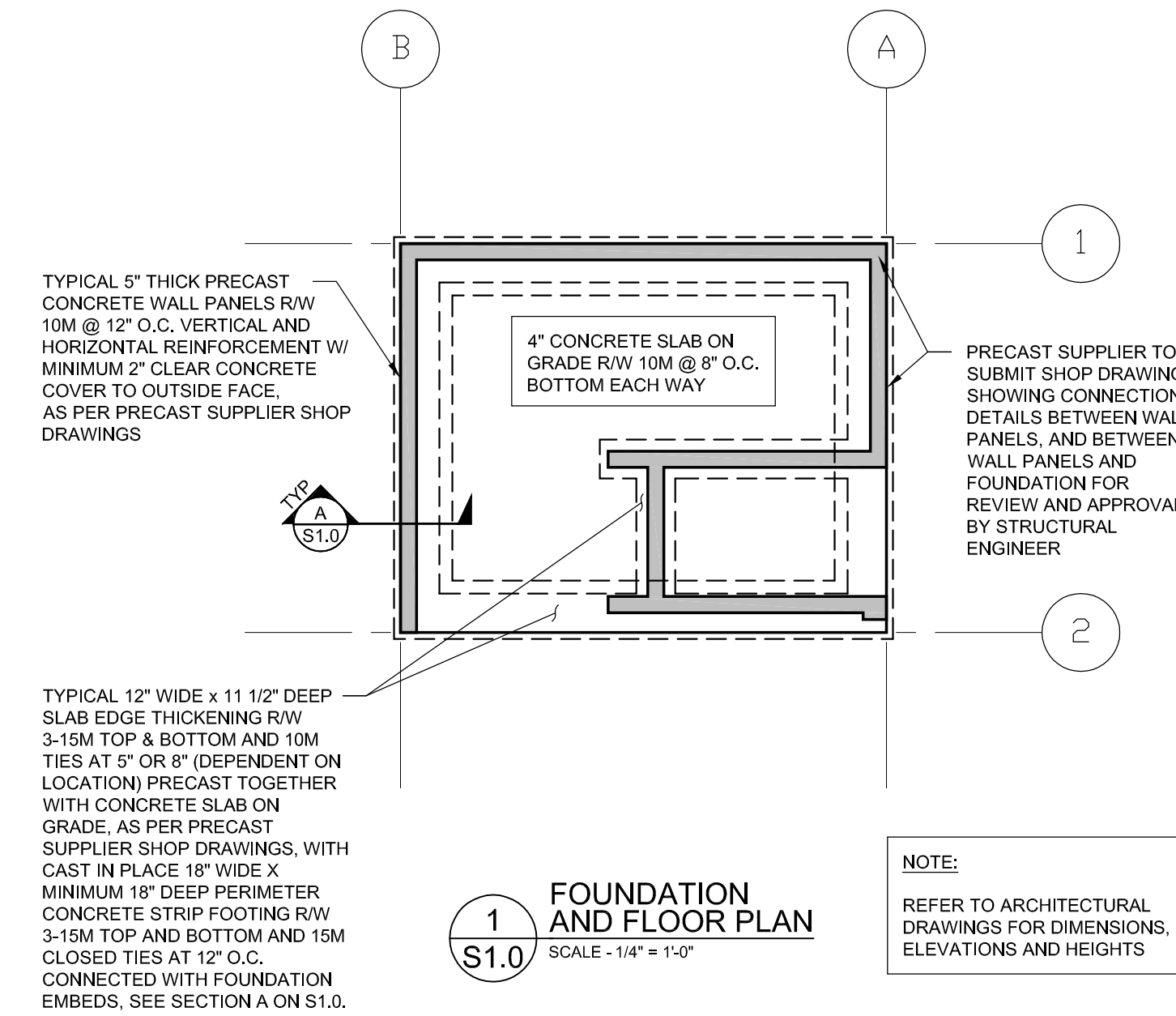
- REINFORCING SHALL BE NEW BILLET STEEL CONFORMING TO THE FOLLOWING STANDARDS:
 - A) 10M AND LARGER CAN/CSA-G30.18-M92 (R2002), 400 MPA
 - B) WELDABLE REINFORCEMENT CAN/CSA-G30.18-M92 (R2002), WELDING TO CSA-W186-M1990 (R2000)
 - C) WELDED WIRE MESH CSA-G30.5-M1983 (R1998)
 - D) EPOXY COATED REINFORCEMENT ASTM A775M-97E2

NOTE: WELDABLE REBAR (INCLUDING DEFORMED BAR ANCHORS) MUST BE CLEARLY IDENTIFIED ON EACH PIECE
- REINFORCEMENT SHALL HAVE CONCRETE PROTECTION AS FOLLOWS UNLESS NOTED OTHERWISE :

FIRE RESISTANCE RATING	0-2 HRS	3 HRS
A) ALL SURFACES PLACED IN CONTACT WITH GROUND	75 mm (3")	75 mm (3")
B) FORMED SURFACES EXPOSED TO GROUND OR WEATHER	50 mm (2")	50 mm (2")
C) WALLS	32 mm (1 1/4")	32 mm (1 1/4")
D) SLAB ON GRADE (FROM TOP OF SLAB)	40 mm (1 1/2")	-
E) ALL OTHERS UNLESS NOTED OTHERWISE	40 mm (1 1/2")	40 mm (1 1/2")
- IF CONCRETE PROTECTION OF 50 mm (2") CAN NOT TO ACHIEVED FOR FORMED SURFACES EXPOSED TO GROUND OR WEATHER USED GALVANIZED HOT DIPPED REINFORCEMENT OR STAINLESS STEEL REINFORCEMENT WITH SAME DIAMETERS AS CONVENTIONAL STEEL REINFORCEMENT SPECIFIED.
- ALL REINFORCING BARS SHALL BE ACCURATELY PLACED, CHAIRED AND TIED SECURELY TO PREVENT DISPLACEMENT AND TO MAINTAIN THE SPECIFIED COVER. INSTALL COLUMN REINFORCEMENT ACCURATELY WITH TEMPLATES. PROVIDE HOOKED DOWELS FROM BOTTOM OF FOOTING TO MATCH AND LAP WITH VERTICALS. INSTALL MASONRY DOWELS ACCURATELY TO ALIGN WITH CENTER OF WALLS. CHAIRS SHALL BE PROTECTED AGAINST RUSTING WHERE REQUIRED FOR APPEARANCE.
- ALL BARS SHALL BE CONTINUOUS, PROPERLY LAPPED AT SPLICES. AT CORNERS AND INTERSECTIONS, HORIZONTAL REINFORCEMENT SHALL BE BENT AND LAPPED.
 - A) LAP LENGTHS, INCLUDING DOWELS, FOR 400 MPA (58 KSI) REINFORCEMENT SHALL BE AS FOLLOWS UNO :

UNCOATED BARS	EPOXY COATED BARS:
10M - 450 mm (18")	10M - 500 (20")
15M - 600 mm (24")	15M - 650 (26")
 - LAP SPLICES NOT SHOWN ON DRAWINGS SHALL NOT BE ALLOWED UNLESS APPROVED IN WRITING BY THE STRUCTURAL ENGINEER
- STANDARD HOOK LENGTHS ARE AS FOLLOWS, WITH BEND DIAMETER AS PER CSA A23.3:

BAR SIZE	BEND DIAMETER	90° HOOK	180° HOOK	TIE	135° HOOK
UNCOATED	EPOXY COATED				
10M	65 (2 5/8")	90 (3 1/2")	200 (8")	150 (6")	65 (2 1/2")
15M	95 (3 3/4")	125 (5")	250 (10")	200 (8")	100 (4")
- SUBMIT 5 SETS OF SHOP DRAWINGS FOR PRECAST WALL AND ROOF PANELS AS WELL AS CONNECTION DETAILS BETWEEN PANELS AS WELL AS TO FOUNDATIONS FOR REVIEW PRIOR TO PRECAST FABRICATION. SHOP DRAWINGS SHALL SHOW ALL DETAILS, AND INDICATE ALL APPLICABLE DESIGN LOADS AND MATERIAL SPECIFICATIONS AND SHALL BE SEALED BY THE FABRICATOR'S BRITISH COLUMBIA REGISTERED ENGINEER.
- THE PROFESSIONAL ENGINEER SEALING THE FABRICATORS SHOP DRAWINGS IS ALSO RESPONSIBLE FOR ALL FIELD REVIEW OF THEIR WORK AND SHALL PROVIDE A LETTER TO THE ENGINEER CONFIRMING THAT THE WORK HAS BEEN COMPLETED IN ACCORDANCE WITH THE FINAL REVIEWED PRECAST SHOP DRAWINGS AND ALL STRUCTURAL REQUIREMENTS.
- UNLESS NOTED OTHERWISE (2)-15M VERTICAL AT EACH END OF ALL CONCRETE WALLS AND ROOF PANELS.
- UNLESS NOTED OTHERWISE OPENINGS IN WALLS SHALL HAVE 2-15M EXTRA EACH SIDE EXTENDING 600 (2 FT.) PAST CORNERS, PLUS 1-15M X 1200 (4 FT.) DIAGONAL AT EACH CORNER. SEE TYPICAL DETAIL.



THIS DRAWING MUST NOT BE SCALED. THE GENERAL CONTRACTOR SHALL VERIFY ALL DIMENSIONS, DATUMS AND LEVELS PRIOR TO COMMENCEMENT OF WORK. ALL ERRORS AND OMISSIONS MUST BE REPORTED IMMEDIATELY TO THE CONSULTANT. THIS DRAWING IS TO BE USED IN CONJUNCTION WITH ALL OTHER DRAWINGS AND SPECIFICATIONS. VARIATIONS AND MODIFICATIONS TO WORK SHOWN SHALL NOT BE CARRIED OUT WITHOUT WRITTEN PERMISSION FROM THE CONSULTANT. THIS DRAWING IS THE EXCLUSIVE PROPERTY OF THE CONSULTANT AND CANNOT BE REPRODUCED, COPIED OR LOANED WITHOUT THE PERMISSION OF THE CONSULTANT.

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NO	DATE	DESCRIPTION
6	JUL 22	ISSUED FOR TENDER

NORTH POINT: _____ STAMP: _____

PROJECT NAME: **Surrey Park Washroom Surrey, BC**

DRAWING: **GENERAL NOTES FOUNDATION AND FLOOR PLAN ROOF PLAN**

PROJECT NO:	2213	SCALE:	AS SHOW
START DATE:	JULY 2022	DRAWN BY:	TY
FORMAT:	ARCH D (24"x36")	CHECKED BY:	BJ
SHEET NUMBER:			

S1.0

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ISSUES

DESCRIPTION	DATE
ISSUED FOR COORDINATION	JUL 04, 2022
ISSUED FOR COORDINATION	JUL 27, 2022
ISSUED FOR TENDER	AUG 02, 2022

DRAWINGS ARE SCHEMATIC AND SHALL NOT BE SCALED. CONTRACTOR SHALL VISIT SITE AND VERIFY ALL DIMENSIONS BEFORE SUBMITTING BID.



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Surrey, B.C. V3R 1M7
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Seal

Project:



SURREY PARK WASHROOM
Surrey, BC

Sheet Title:

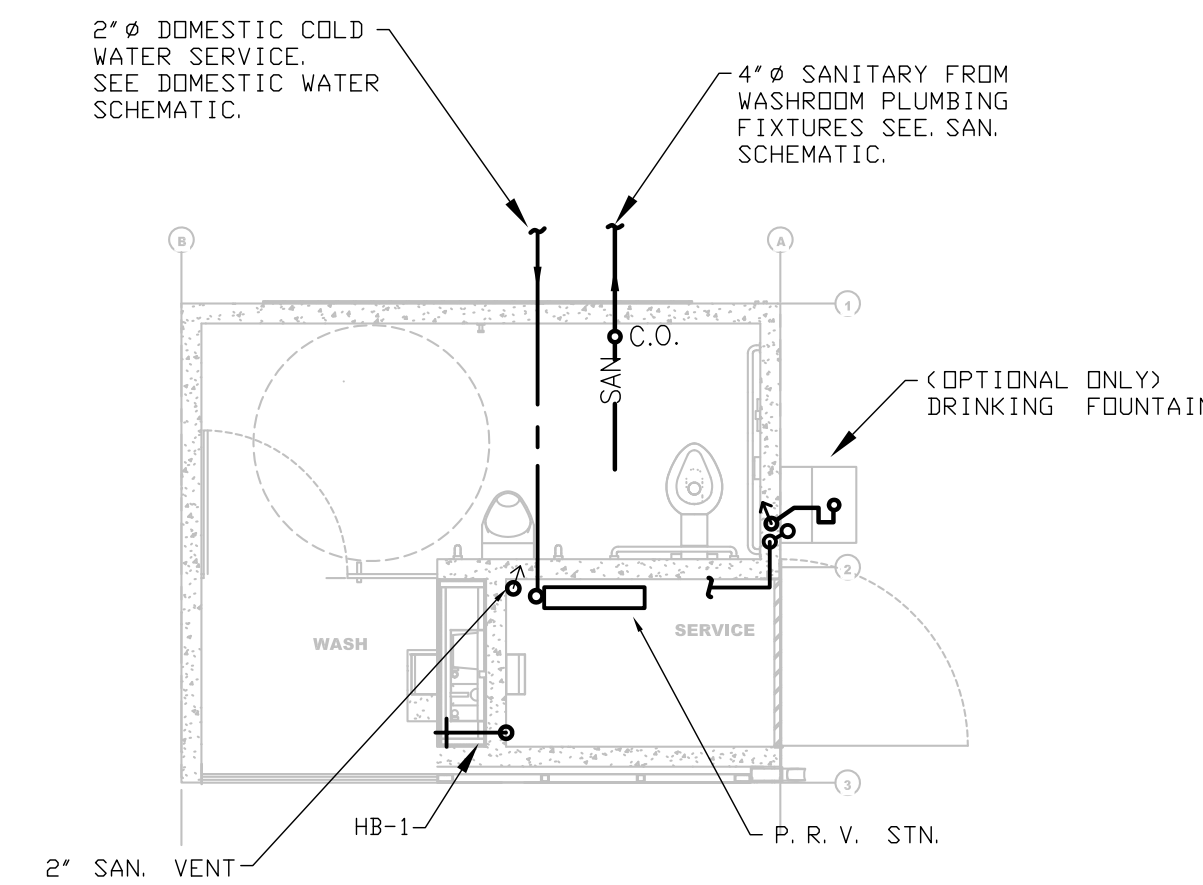
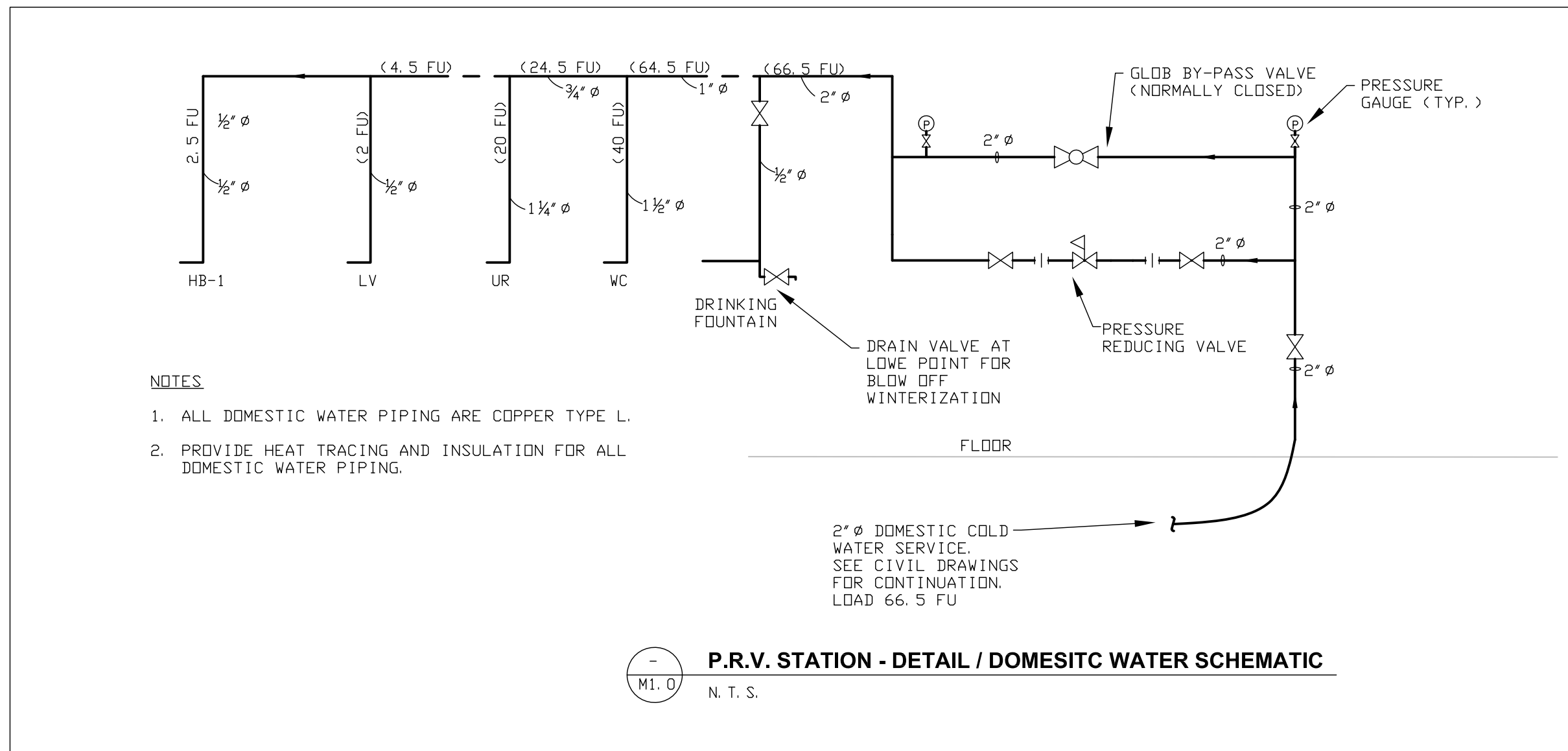
WASHROOM PLUMBING

Start Date: December 2019

Scale: As Noted

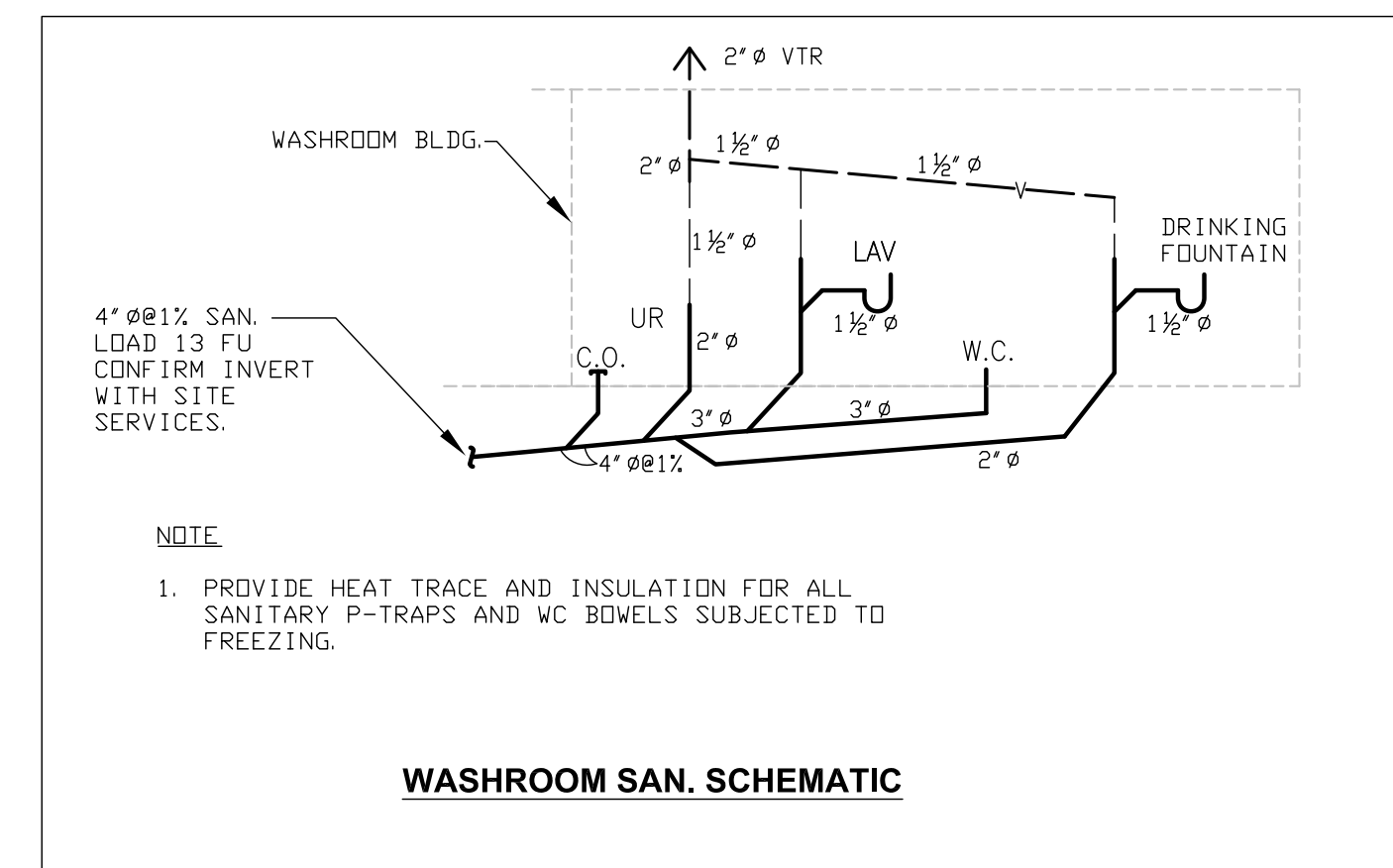
Project No.: 1381

Drawing No. **M1.0** of 1.0



NOTE

CONFIRM WITH CIVIL DRAWINGS BUILDING'S PLUMBING SERVICES (PIPE SIZES AND INVERTS) BEFORE COMMENCING PLUMBING WORKS.



DOMESTIC WATER PIPING SIZING METHODOLOGY :

AVERAGE PRESSURE LOSS METHOD

- ESTIMATED MIN. PRESSURE AVAILABLE 48 PSI
 - LOSSES:
 - SERVICE PRESSURE LOSS = (10 PSI)
 - PRV STATION PRESSURE LOSSES = (10 PSI)
 - ELEVATION (HEIGHT) PRESSURE = (2.6 PSI @ 6' HEIGHT).
 - MIN. PRESSURE REQUIRED FOR FIXTURES OPERATION = (15 PSI)
 - TOTAL PRESSURE AVAILABLE FOR FRICTION LOSS FROM WATER SERVICE ENTRY TO FURTHEST FIXTURE:
 $48 - (10+10+2.6+15) = 10.4 \text{ PSI } (72 \text{ KPa})$
 - MAX. DEVELOPED LENGTH X1.5 FOR FITTING = $15' \times 1.5 = 22.5'$ OR 6.8M
 - $10.4 \text{ PSI} / 22.5' = 0.46 \text{ PSI/FT OR } (10.5 \text{ KPa/M.})$
- AVERAGE PRESSURE LOSS IS $> 2.6 \text{ KPa/meter.}$

PIPE SIZES IS BASED ON BC PLUMBING CODE TABLE A-2.6.3.1(2)F

MAXIMUM WATER VELOCITY RECOMMENDED BY THE MANUFACTURER FOR COPPER PIPING IS 1.5 M/S FOR COLD AND 1.2 M/S FOR HOT.

COPPER TYPE L PIPING PIPE SIZE V.S. FUS

1/2" @ 3 SFU MAX., 3/4" @ 9FU MAX., 1" @ 18FU MAX.,
1 1/4" @ 29 FU MAX., 1 1/2" @ 46 FU MAX., 2" @ 120 FU MAX.

NOTES:

- PLUMBING DRAWINGS ARE SCHEMATIC AND SHALL BE SCALED.
- INSTALL AND TEST ALL PLUMBING SYSTEMS AS PER 2018 BC BUILDING AND PLUMBING CODES REQUIREMENTS.
- LOCATION AND SIZE OF UNDERGROUND OR CONCEALED PIPING SHOWN ON DRAWINGS ARE BASED ON THE AVAILABLE INFORMATION. NO GUARANTEE IS GIVEN BY THE ENGINEER FOR THESE INFORMATION. PRIOR TO COMMENCING ANY PLUMBING WORKS, CONTRACTOR SHALL EXCAVATE AND CONFIRM THE SUITABILITY OF BURIED OR CONCEALED PLUMBING PIPING. IF THE BURIED OR CONCEALED SERVICES FOUND TO BE UNSUITABLE IN TERM OF PIPE SIZE, LOCATION, INVERT, AND CONDITIONS, THE CONTRACTOR SHALL INFORM THE ENGINEER IN WRITING AND REQUEST FOR A DECISION.
- PROVIDE 36" MINIMUM COVER FOR ALL PIPING SUBJECTED TO TRAFFIC. FOR PIPE COVER LESS THAN 36" DEPTH USE HEAVY DUTY D.W.V. PIPING MATERIALS.
- ALL OUTDOOR UNDERGROUND SANITARY PIPING SHALL BE BURIED BELOW THE FROST LEVEL.
- GENERAL CONTRACTOR SHALL PROVIDE PIPE GUARD TO PROTECT ALL PIPING SUBJECTED TO TRAFFIC DAMAGE.
- ALL INSTALLATION OF HEAT TRACE FREEZE PROTECTION DEVICES AND WIRING SHALL BE PERFORMED BY A QUALIFIED LICENSED ELECTRICIAN.
- ALL DOMESTIC WATER PIPING AND FITTING SHALL BE LEAD FREE COPPER TYPE L ASTM 888 SOLDER JOINTS. PROVIDE WATER HUMMER ARRESTED FOR ALL FLUSH VALVE FIXTURES.
- PROVIDE CHROMES PLATED ESCUTCHEON FOR ALL PIPING PENETRATING FINISHED WALLS, FLOORS AND CEILING.
- ALL SANITARY PIPING SHALL BE IPEX PVC SYSTEM 15 CEMENTED JOINTS.
- PROVIDE HANGERS, BRACKETS, ANCHORS, VIBRATION ISOLATORS, AND ALL MISCELLANEOUS SUPPORTS AS REQUIRED FOR THE INSTALLATION OF PLUMBING PIPING AND EQUIPMENT.
- PROVIDE CLEANOUTS ON ALL INTERIOR AND EXTERIOR SANITARY AND STORM PIPING SYSTEMS AS REQUIRED BY 2018 BC PLUMBING CODE. CLEANOUTS SHALL BE FULL SIZE OF THE PIPE DIAMETER FOR PIPING SIZE LESS THAN 4" AND 4" FOR PIPING SIZE DIAMETER MORE THAN 4".
- CONTRACTOR SHALL PROVIDE SHOP DRAWINGS FOR ALL PLUMBING EQUIPMENT AND FIXTURES FOR APPROVAL PRIOR TO INSTALLATION.

PLUMBING SERVICES:

SANITARY SERVICE: PROVIDE A 4" SANITARY CONNECTED TO THE CIVIL SERVICES.

DOMESTIC WATER SERVICE: PROVIDE 2" DOMESTIC WATER CONNECTION.

STORM/RAIN WATER: ANY STORM OR RAIN WATER SHOULD BE REDIRECTED TO AN ADJACENT LANDSCAPE AREA. A 1FT COURSE GRAVEL STRIP SHOULD BE PROVIDED ON THE TWO SIDES AND REAR OF THE UNIT TO COLLECT THE RAINWATER FROM THE ROOF.

WINTERISATION: INSTALL HEAT TRACE/CABLES AND INSULATION FOR ALL DOMESTIC WATER LINES AND SANITARY P-TRAPS INCLUDED THE TOILET POWEL AND HANDWASHING STATION BOWLS. HEAT TRACE INSTALLATION SHALL BE AS PER MANUFACTURER RECOMMENDATIONS.

PLUMBING FIXTURES SPECIFICATIONS

TOILET: METCRAFT 4610 & 4615 HIGH ABUSE FIXTURES
PROVIDE 1600T6102ATR ELECTRONIC ACTIVATED FLUSH VALVE
Hardware (24 VAC)
infrared electronic activated concealed flush valve system
• Stainless steel cover with integral sensor utilizing H2Optics® technology and S/S cover and vandal resistant mounting screws
• Metal recessed mounting box or frame, power function light, field selectable sensor range
• Preset blocking time, built-in activation delay
• Electronic manual override
• Solenoid operation valve for wall hang water closet operation control box and sensor c/w battery back up

URINAL: FRANKE SINGLE URINAL XINOX - CMPX38CD
PROVIDE 1600T6 SERIES ELECTRONIC ACTIVATED FLUSH VALVE
Hardware (24 VAC)
infrared electronic activated concealed flush valve system
• Stainless steel cover with integral sensor utilizing H2Optics® technology and S/S cover and vandal resistant mounting screws
• Metal recessed mounting box or frame, power function light, field selectable sensor range
• Preset blocking time, built-in activation delay
• Electronic manual override
• Solenoid operation valve for urinal operation control box and sensor c/w battery back up

HB-1 WALL HYDRANT: ZURN - Z1320 ECOLOTROL CERAMIC DISC WALL HYDRANT

BEHIND THE MIRROR: STURN SIVA HI-SPEED MODULE - 280410

**(OPTION ONLY)
DRINKING FOUNTAIN** METCRAFT WATER FOUNTAIN - DRINKING FOUNTAIN FIXTURE MODEL # 5691 INSTALLED AS PER MANUFACTURER SPECIFICATION

- Front mounted fixture, wall outlet waste.
- Splash basin
Rectangular splash basin.
Multi-hole integral drain.
1 1/2" (38mm) OD slip joint P-trap.
- Heavy duty chrome plated vandal resistant bubbler head.
- Security type pushbutton pneumatic control valve with .5 GPM flow restrictor.
- 4" (102mm) high back splash.
- Removable bottom enclosure with stainless steel vandal resistant screws.

HEAT TRACING SPECIFICATIONS

PROVIDE COMPLETE HEAT TRACING SYSTEM FOR ALL DOMESTIC WATER LINES AND P-TRAPS SUBJECTED TO FREEZING IN IN THE WASHROOM AS FOLLOWS:

DOMESTIC WATER LINES UP TO 4" - RAYCHEM WINTERGUARD H311, 3 WATTS/FT. C/W POWER SUPPLY, TEES, CAPS., ETC TO PROVIDE COMPLETE OPERATIONAL HEAT TRACING SYSTEM.

SANITARY P-TRAPS AND WASHROOM FIXTURES BOWLS - RAYCHEM WINTERGUARD H611, 6 WATTS/FT. C/W POWER SUPPLY, TEES, CAPS., ETC TO PROVIDE COMPLETE OPERATIONAL HEAT TRACING SYSTEM.

SURREY PARK WASHROOM

CITY OF SURREY BRITISH COLUMBIA



GENERAL NOTES

- ELECTRICAL DRAWINGS MUST BE READ IN CONJUNCTION WITH ELECTRICAL SPECIFICATIONS.
- ALL WORK SHALL COMPLY WITH REQUIREMENTS OF CEC 2021, BCBC 2018, AND THE CITY OF SURREY.
- DETAILS INDICATED ON DRAWINGS REFLECT THE DESIGN INTENT AND ANTICIPATED FINAL CONFIGURATION OF THE SYSTEM. EVERY ATTEMPT HAS BEEN MADE TO DOCUMENT ALL DEVICES AND REQUIREMENTS. NEVERTHELESS, THE CONTRACTOR IS RESPONSIBLE FOR COMPLETE SITE INVESTIGATION AND IS RESPONSIBLE FOR PROVIDING AND INSTALLING A COMPLETE AND OPERATIONAL ELECTRICAL SYSTEM THAT MEETS ALL REQUIREMENTS OF THE DESIGN DOCUMENTS, AND REQUIREMENTS OF THE CITY OF SURREY. CONTRACTOR SHALL REVIEW DRAWINGS ON SITE AND REVIEW EACH AREA WITH CONSULTANT PRIOR TO INSTALLATION.
- THE WORK INVOLVED IN THIS PROJECT INCLUDES INSTALLATION OF ELECTRICAL EQUIPMENT FOR A NEW PARK WASHROOM FACILITY. PROVISIONS SHALL BE MADE FOR PROVIDING POWER FROM SOLAR PANEL INSTALLED UP ON THE ROOF. SCOPE OF WORK ALSO INCLUDES INSTALLATION OF NEW SOLAR PANEL ON ROOF AND ASSOCIATED EQUIPMENT IN SERVICE ROOM, AS INDICATED ON DRAWINGS.
- PROVIDE CUSTOMER OWNED METERING FOR THE SOLAR SYSTEM AND NORMAL POWER TO MEASURE CONSUMPTION AND PEAK DEMAND.
- PROVIDE EMERGENCY LIGHTING AT LOCATIONS AS INDICATED ON DRAWINGS, INCLUDING SERVICE ROOM, TOILET AND WASHING AREAS. VERIFY EXACT MOUNTING LOCATIONS WITH CONSULTANT ON-SITE. SIZE UP BATTERIES AS PER BCBC REQUIREMENTS. CONTRACTOR IS RESPONSIBLE FOR CONFIRMING CIRCUIT CAPACITY.
- NEW EMERGENCY LIGHTING AND BATTERY UNITS SHALL BE CONNECTED TO OPERATE IN CASE OF DRAINED SOLAR BATTERIES ON FAILURE OF NORMAL POWER. CONNECT TO EXISTING LIGHTING CIRCUITS.
- IF ANY ELECTRICAL EQUIPMENT OR LUMINAIRES ARE MODIFIED FROM THE ORIGINAL SPECIFICATION, CONTRACTOR IS RESPONSIBLE TO CONFIRM ELECTRICAL LOADS AND PROVIDE AN UPDATED ELECTRICAL LOAD TABLE TO THE CONSULTANT.
- ELECTRICAL CONDUITS MAY BE INSTALLED SURFACE MOUNTED. HOWEVER, RUN NEW WIRING AND CONDUITS THROUGH THE CEILING CONCEALED WHERE POSSIBLE TO PROVIDE WIRING CONNECTIONS FOR ALL NEW ELECTRICAL EQUIPMENT INDICATED ON DRAWINGS. CONTRACTOR SHALL COORDINATE WITH MECHANICAL EQUIPMENT AND ARCHITECTURAL FEATURES AND ELEMENTS AND OTHER SYSTEMS BEING INSTALLED IN EACH SPACE.
- SOLAR CONNECTION SERVICES TO/FROM SOLAR PANEL SHALL INCLUDE PROVISIONS FOR EQUIPMENT AND WIRING AS INDICATED IN THE SINGLE-LINE DIAGRAM.
- PROVIDE NUMBER AND SIZE OF NEW CONDUITS AS REQUIRED BY CEC 2021.
- ENSURE THAT MANUFACTURER ONE YEAR WARRANTY WILL INCLUDE SERVICING THE SOLAR EQUIPMENT DURING THE WARRANTY PERIOD FOR ALL TESTS REQUIRED BY CODE.
- CONTRACTOR SHALL CONFIRM ALL PANELBOARD, EQUIPMENT SERVICE AND CIRCUIT BREAKER SIZES ON-SITE PRIOR TO ORDERING EQUIPMENT AND MATERIALS.
- CONTRACTOR WILL BE RESPONSIBLE FOR REPAIR OF DAMAGE TO ANY SERVICES WITHIN WALLS OR ANY SERVICES WITHIN ROOMS, BUILDING PERIMETER AND COURTYARDS IN THIS SCOPE OF WORK.
- ALL AFFECTED ELECTRICAL EQUIPMENT AND PANELS SHALL BE COMPLETE AND LABELED WITH WORDPROCESSOR – GENERATED PANEL DIRECTORY FOR ALL CIRCUITS. REFER TO THE SPECIFICATION FOR MORE DETAILS.
- ALL WIRING SHALL BE COPPER, INCLUDING ANY INCOMING SERVICE UNDERGROUND CABLING. ALUMINUM WIRING IS NOT ACCEPTABLE.
- INSTALL GROUNDING AS PER CEC 2021 REQUIREMENTS. SPLICES FOR GROUNDING AND BONDING ARE NOT ALLOWED.
- ALL ASSOCIATED STRUCTURAL, DRYWALL WORK AND PAINTING OF EXTERIOR AND INTERIOR SURFACES NECESSARY TO THIS SCOPE OF WORK ARE TO BE PERFORMED BY GENERAL CONTRACTOR. ELECTRICAL CONTRACTOR SHALL COORDINATE AS NECESSARY AND ENSURE THAT ALL WORK IS COMPLETED PRIOR TO SUBSTANTIAL PERFORMANCE.
- REMOVE OBSOLETE EQUIPMENT, CONDUIT AND WIRING FROM THE SITE AS DIRECTED BY GENERAL CONTRACTOR.
- CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL APPLICABLE PERMITS TO ACCOMMODATE THESE INSTALLATIONS. COORDINATE WITH OWNER AS NECESSARY.
- CONTRACTOR IS RESPONSIBLE TO ATTEND ALL SITE REVIEWS AND AUTHORITY INSPECTIONS.
- IN THE CASE OF BC HYDRO AVAILABLE POWER, CONSIDER THE FOLLOWING PROVISIONS:
PROVISIONS SHALL BE MADE FOR OBTAINING A NEW POWER SERVICE FOR THIS FACILITY FROM AN EXISTING BC HYDRO PMT TRANSFORMER AND INSTALLATION OF NEW UNDERGROUND ELECTRICAL CABLING. ALL SUCH WORK SHALL BE COORDINATE WITH BC HYDRO AND IN COMPLIANCE WITH BC HYDRO STANDARDS FOR ALL UNDERGROUND CABLING, CONNECTION TO THEIR TRANSFORMER AND ALL INCOMING SECTION EQUIPMENT.
- INSTALL NEW UNDERGROUND CABLES AT 24" BELOW GRADE ON WALK-THROUGH OR LAWN AREAS AND A MINIMUM OF 40" BELOW GRADE ON DRIVE THROUGH AREAS, OR TO CODE, WHICHEVER IS MORE STRINGENT.
- PROVIDE T-DRAIN FOR EACH CONDUIT BEFORE ENTERING THE BUILDING. REFER TO DRAWINGS FOR MORE DETAILS.
- OBTAIN A TICKET NUMBER FROM BC ONE CALL 1 (800) 474-6886 AS SOON AS POSSIBLE AND PROVIDE SUCH NUMBER TO ELECTRICAL CONSULTANT PRIOR TO DIGGING ON-SITE. OBTAIN LOCATIONS INFORMATION FROM ALL UTILITIES PRIOR TO ANY DIGGING. COORDINATE WITH EXISTING UNDERGROUND UTILITIES INCLUDING BUT NOT LIMITED TO: BC HYDRO, FORTIS BC, TELUS, AND CITY OF SURREY. CALL BC ONE CALL AT 1 (800) 474-6886 FIVE BUSINESS DAYS PRIOR TO DIGGING TO OBTAIN A WORK LICENSE.

SYMBOL LEGEND	
LIGHTING, POWER AND LOW VOLTAGE	
	SURFACE OR RECESSED LUMINAIRE
	WALL MOUNTED LUMINAIRE
	LINEAR SURFACE OR RECESSED LED LUMINAIRE
	EMERGENCY LIGHTING C/W BATTERY UNIT
	DOUBLE HEAD – EMERGENCY LIGHTING
	SINGLE POLE SWITCH
	DUPLEX RECEPTACLE, NEMA 5-15A OR NEMA 5-20RA, AS NOTED
	GROUND FAULT CIRCUIT INTERRUPTER – DUPLEX RECEPTACLE
	MOTOR, HOOD VENT OR BATHROOM FAN
	ELECTRICAL PANELBOARD
	WEATHER-PROOF DEVICE

DRAWING LIST	
E1	GENERAL NOTES, DRAWING LIST, SYMBOL LEGEND
E2	FLOOR PLANS, SCHEDULES, SINGLE-LINE DIAGRAM SOLAR PV POWER ONLY
E3	FLOOR PLANS, SCHEDULES, SINGLE-LINE DIAGRAM SOLAR PV + BC HYDRO

GENERAL NOTES

- MAINTAIN MINIMUM 1 METER CLEARANCE FROM EXISTING UNDERGROUND CABLING AND OTHER SERVICES WHEN RUNNING ELECTRICAL CABLES PARALLEL TO THESE SERVICES. MAINTAIN MINIMUM 1FT CLEARANCE WHEN CROSSING PERPENDICULAR TO THESE SERVICES. HAND DIG IN AREAS WHERE CABLES OR OTHER SERVICES ARE EXPECTED TO BE NEARBY. THESE CLEARANCES SHALL BE CONFIRMED WITH EACH UTILITY COMPANY PRIOR TO DIGGING.
- ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR REPAIR OF DAMAGE CAUSED TO ANY EXISTING UNDERGROUND SERVICES AT NO ADDITIONAL COST TO OWNER.
- COORDINATE PMT TRANSFORMER POWER SHUT DOWNS WITH BC HYDRO FOR CONNECTING NEW SERVICE. IF ANY EXISTING SERVICES ARE INTERRUPTED AND THE POWER OUTAGE OF MORE THAN 8 HOURS, PROVIDE SEPARATE PRICING FOR A TEMPORARY GENERATOR SIZED AS PER SERVICES REQUIRING POWER. CONNECTION OF NEW CABLING TO PMT TRANSFORMER TO BE COMPLETED DURING DAYTIME. PROVIDE 96 HOURS NOTICE TO OWNER. COORDINATE WITH BC HYDRO AND OTHER TRADES AS NECESSARY. PROVIDE AN ADEQUATE AMOUNT OF FUEL AS NECESSARY.
- ENSURE THAT METERING IS "COLD METER" STYLE AS PER BC HYDRO STANDARDS (BREAKER BEFORE METER).
- PROVIDE CUSTOMER OWNED METERING FOR THE SOLAR SYSTEM AND NORMAL POWER TO MEASURE CONSUMPTION AND PEAK DEMAND.
- ENSURE THAT SOLAR SYSTEM CONDUCTORS (ALL VOLTAGES) ARE PROPERLY BARRIERED FROM NORMAL POWER CONDUCTORS AT ALL LOCATIONS. SEPARATE ALL SOLAR POWER FEEDERS FROM NORMAL POWER FEEDERS.
- CONTRACTOR SHALL COORDINATE WITH OWNER AT CONSTRUCTION START UP FOR THE UNDERGROUND OR ABOVE GROUND PATHWAY OF THE NEW DUCTWORK. PROVIDE SEPARATE PRICING FOR EACH PATHWAY.

JIM

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Surrey Park Washroom

SURREY, BC

SINO PROJECT NO.2225

GENERAL NOTES DRAWING LIST SYMBOL LEGEND

SCALE: AS SHOWN
DRAWN BY: M.S. S NOTED
CHECKED BY: - i.
DATE: 05/10/18

REVISIONS:		
△	DATE	DESCRIPTION
1	JUL 4/22	REVIEW
2	JUL 31/22	REVIEW 2
3	AUG 2/22	ISSUED FOR TENDER

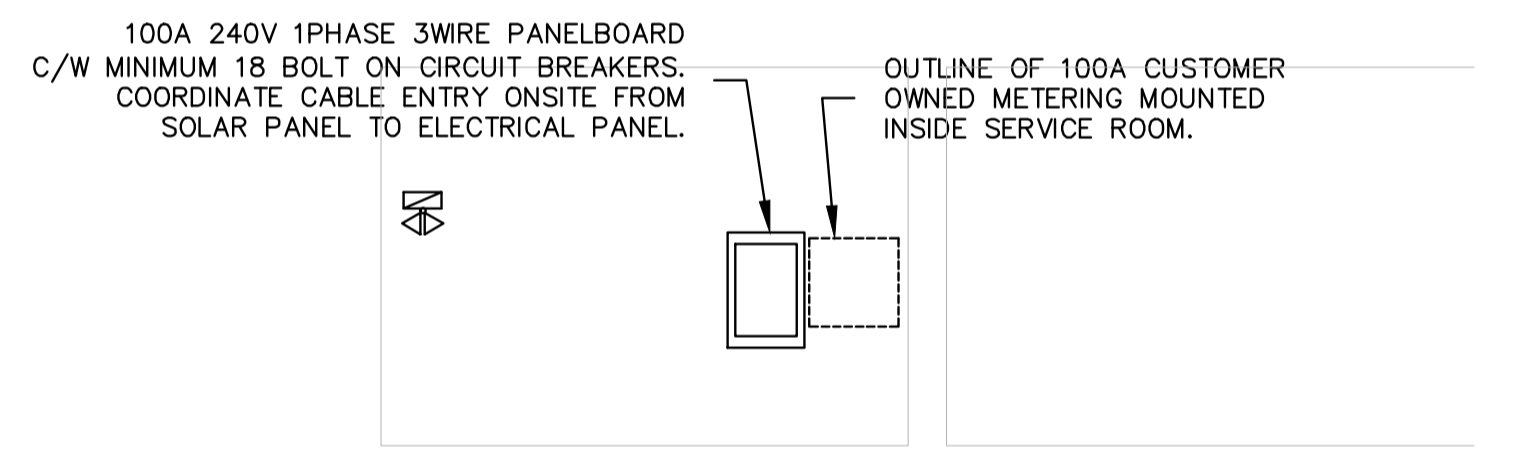
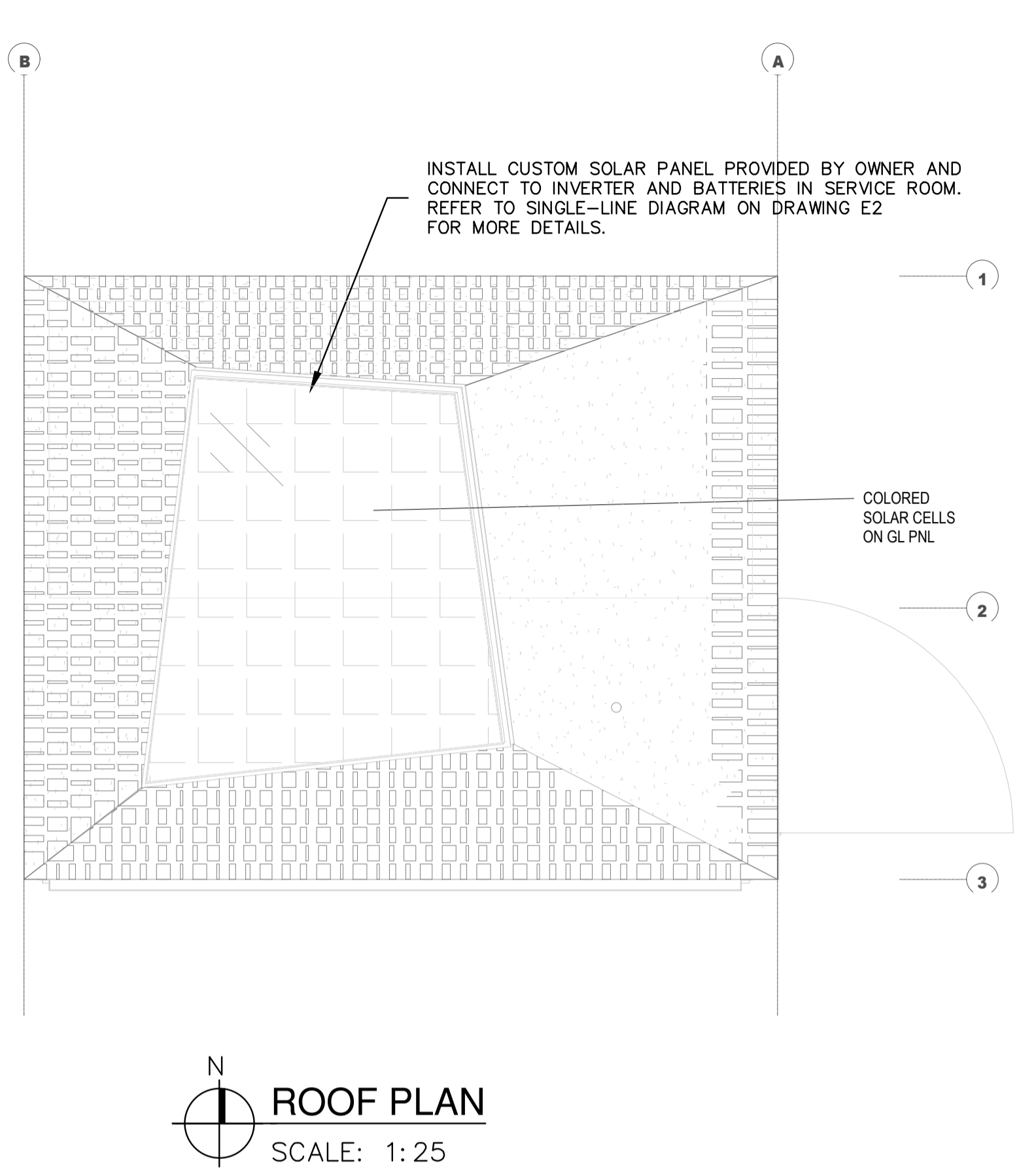
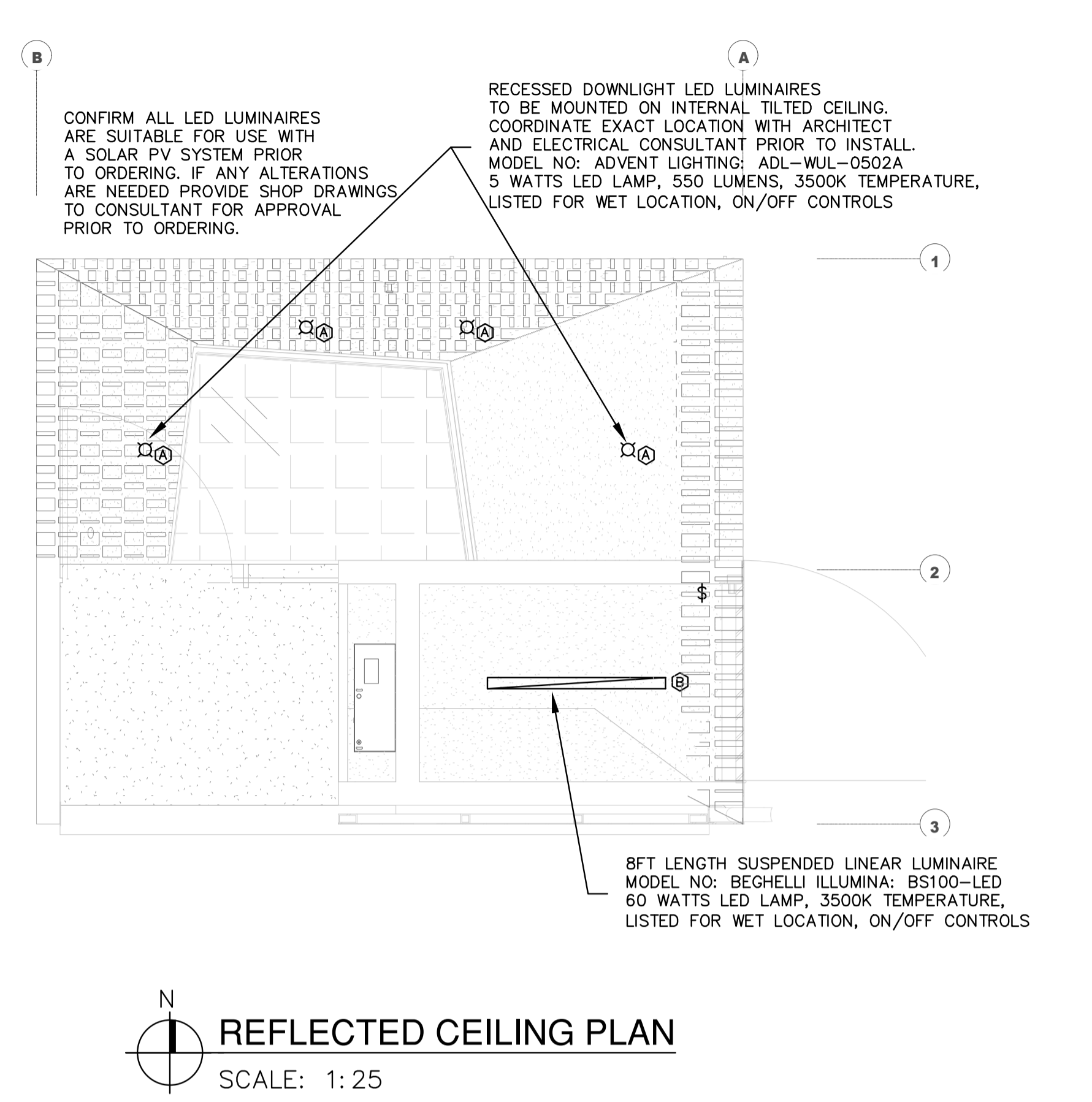
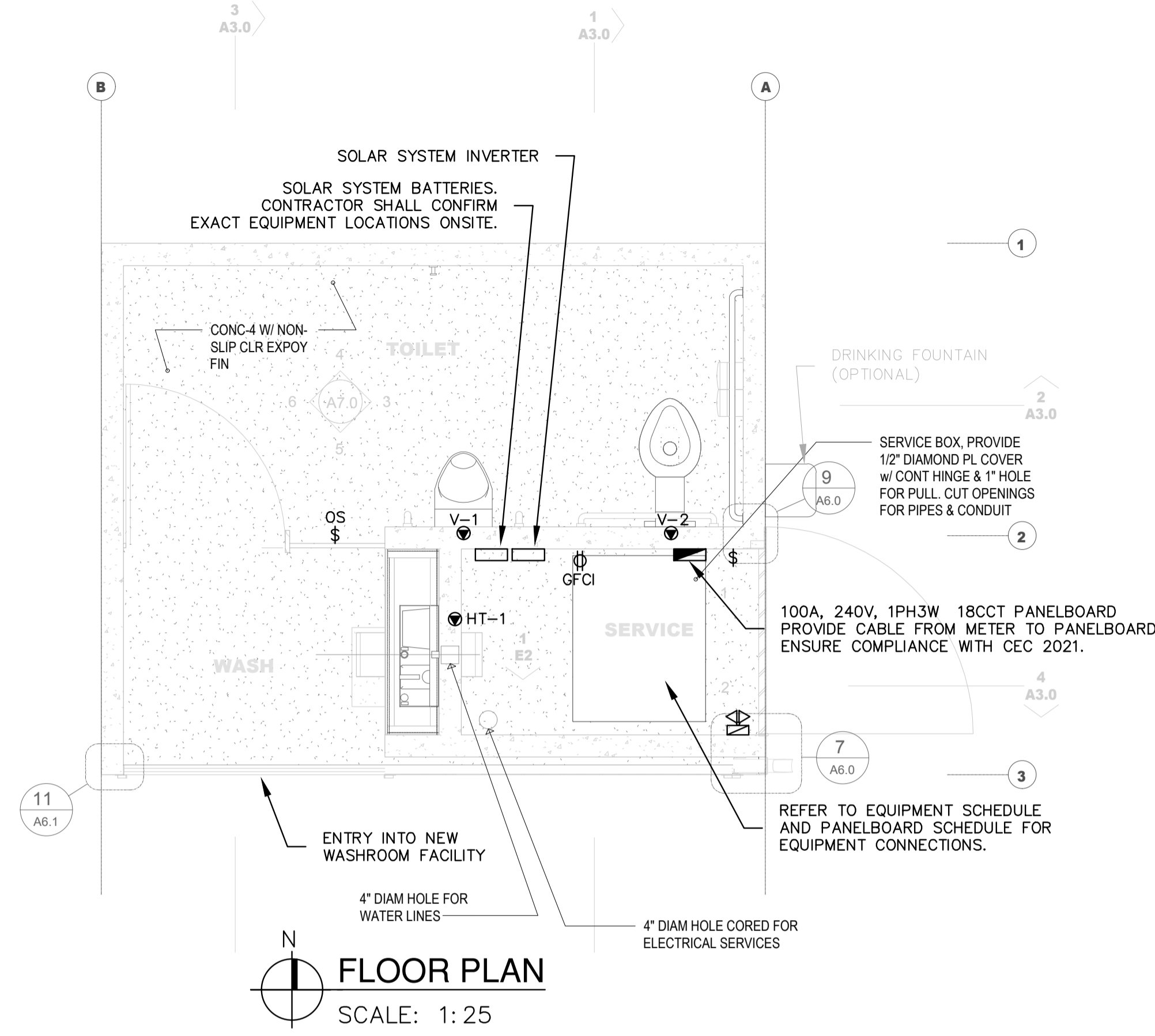
E1

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ELECTRICAL EQUIPMENT NOTES

- LOCATION OF ALL INCOMING ELECTRICAL SERVICE EQUIPMENT SHALL BE COORDINATED ONSITE.
- INFORMATION ON THIS DETAIL AND PLAN VIEW DETAIL ARE SHOWN FOR COORDINATION PURPOSES ONLY. EQUIPMENT SHALL BE INSTALLED AFTER FULL COORDINATION WITH ALL OTHER TRADES AND APPROVAL FROM OWNER. COMPLY WITH OWNERS REQUIREMENTS AS NECESSARY.
- COORDINATE ELECTRICAL EQUIPMENT LAYOUT WITH ALL TRADES INSIDE THE UTILITY ROOM.

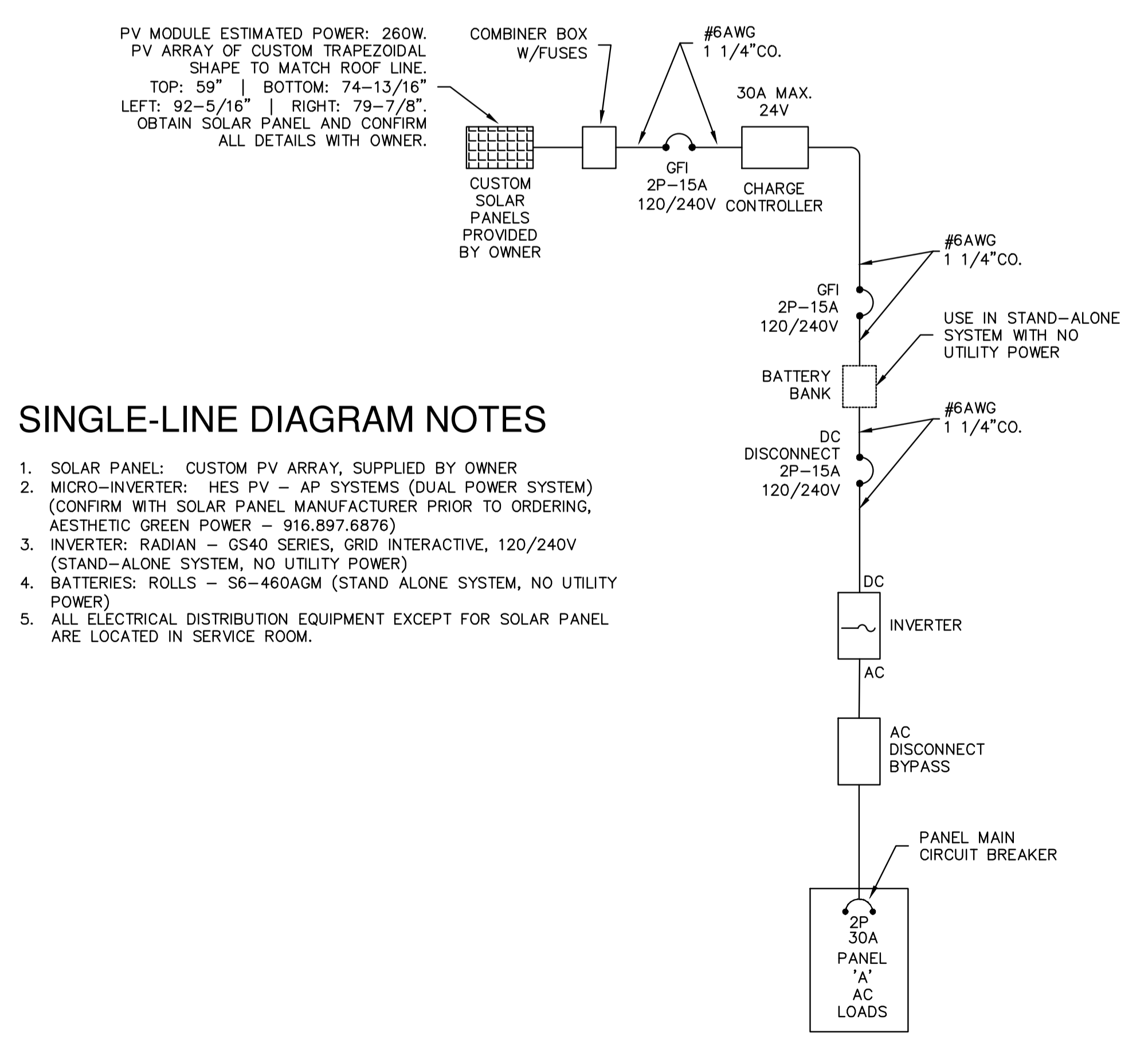
LOCATION:	UTILITY ROOM	2P-100A MAIN BREAKER	PAINTED:	GRAY	BLUE	OTHER	18CCT.		
600V3Ø/3W	347/600V3Ø/4W	120/208V3Ø/4W	120/240V1Ø/3W	DOOR	LOCK				
125A	225A	400A	600A	GROUNDING PAD:	NORMAL	ISOLATED	SURFACE	RECESSED	
DOUBLE NEUTRAL								REQ. NOT REQ. SIZE: 100A	BUS FAULT LEVEL (10,000A RMS)
NOTE:	DESCRIPTION	CCT BRKR	CCT	CCT BRKR	DESCRIPTION	NOTE:			
46W	MECHANICAL ROOM LIGHT	15A	1	2	15A	HEAT TRACING	100W		
20W	WASHROOM LIGHTS	15A	3	4	15A	FLUSH VALVES	GFCI 10W		
50W	EMERGENCY LIGHTING	15A	5	6	-	SPACE			
	SPACE	-	7	8	-	SPACE			
	SPACE	-	9	10	-	SPACE			
	SPACE	-	11	12	-	SPACE			
	SPACE	-	13	14	-	SPACE			
	SPACE	-	15	16	-	SPACE			
	SPACE	-	17	18	-	SPACE			

WP - WEATHER-PROOF
GFCI - GROUND FAULT BREAKER * - PROVIDE LOCK-ON BREAKER DEVICE
AFCI - ARC FAULT BREAKER ** - CONFIRM BREAKER/FEEDER SIZE
AFGF - ARC/GROUND FAULT BREAKER
R - CONTROLLED VIA LOW-VOLTAGE RELAY | - INDICATES 2 OR 3 POLE BREAKER

PANELBOARD 'A' SCHEDULE

EQUIPMENT SCHEDULE							
NO.	TAG	EQUIPMENT DESCRIPTION	LOCATION	ELECTRICAL LOAD VOLTS, PHASE	CIRCUIT BREAKER	BRANCH WIRE SIZE	REMARKS
1	HT-1	HEAT TRACE *	SERVICE ROOM	100W* 120V, 1PH	1P-15A	2#12	B-5 DIV 16 SUPPLY & INSTALL
2	V-1	VALVE - URINAL **	WASHROOM	40W 120V, 1PH	1P-15A	2#12	B-7 DIV 16 SUPPLY & INSTALL
3	V-2	VALVE - TOILET **	WASHROOM	40W 120V, 1PH	1P-15A	2#12	B-7 DIV 16 SUPPLY & INSTALL

* CONFIRM SIZE AND DETAILS WITH MECHANICAL TRADE PRIOR TO INSTALLATION. CONFIRM LOAD DEPENDING ON REQUIRED LENGTHS.
** OPERATES AT 24VDC. PROVIDE TRANSFORMERS AND CONNECT AS NECESSARY. COORDINATE WITH MECHANICAL TRADE.



SINGLE-LINE DIAGRAM - SOLAR PV ONLY

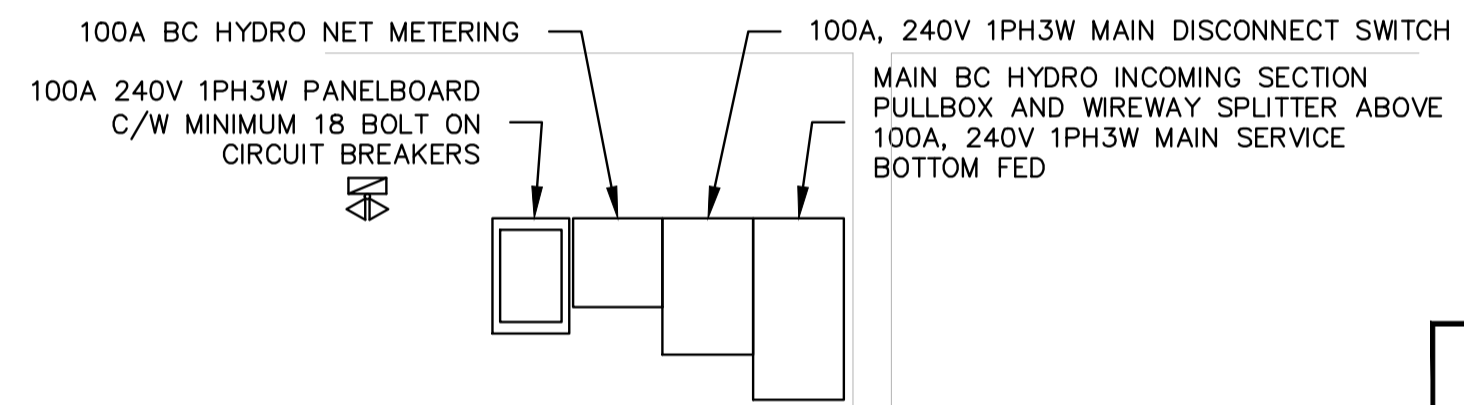
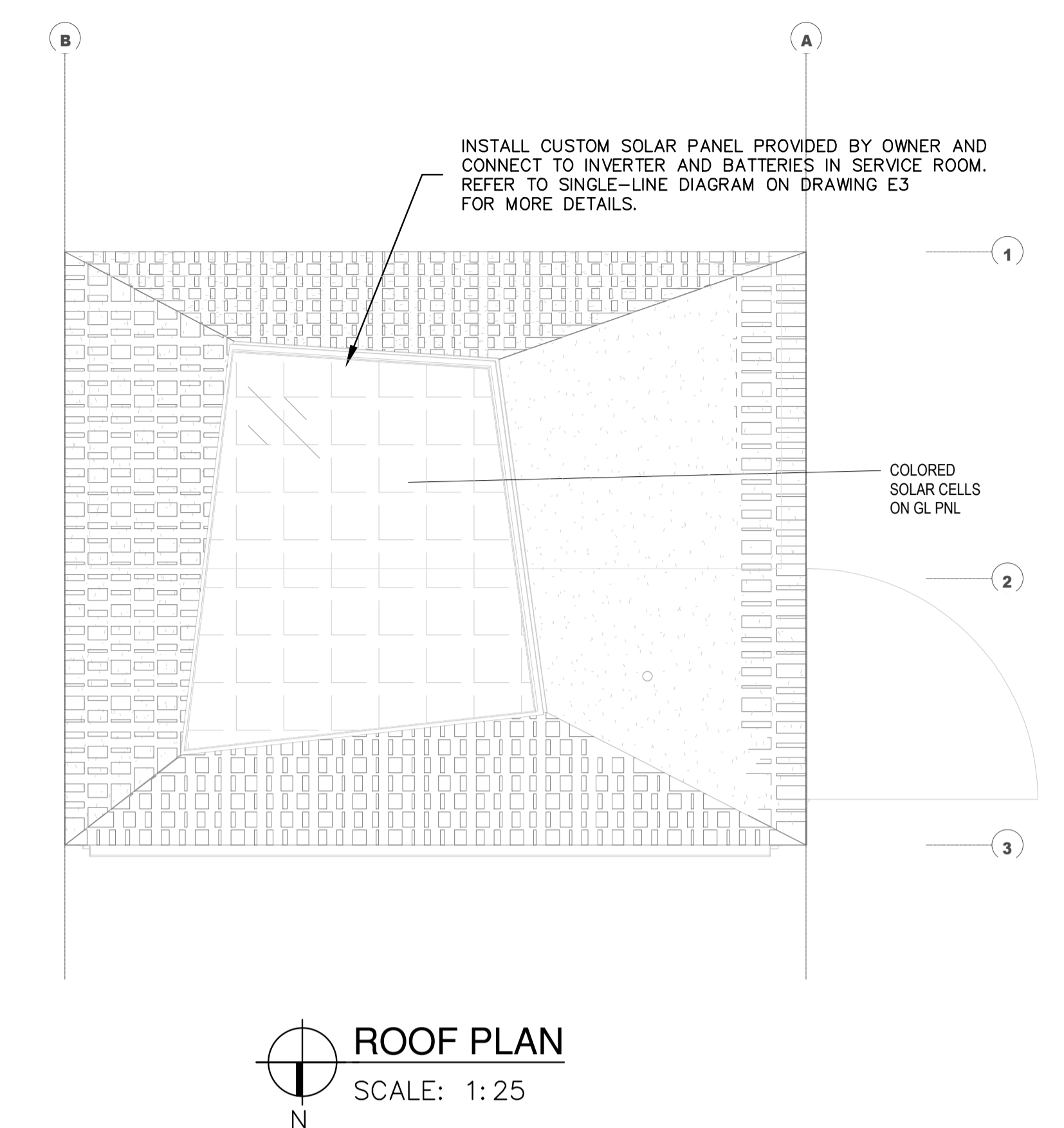
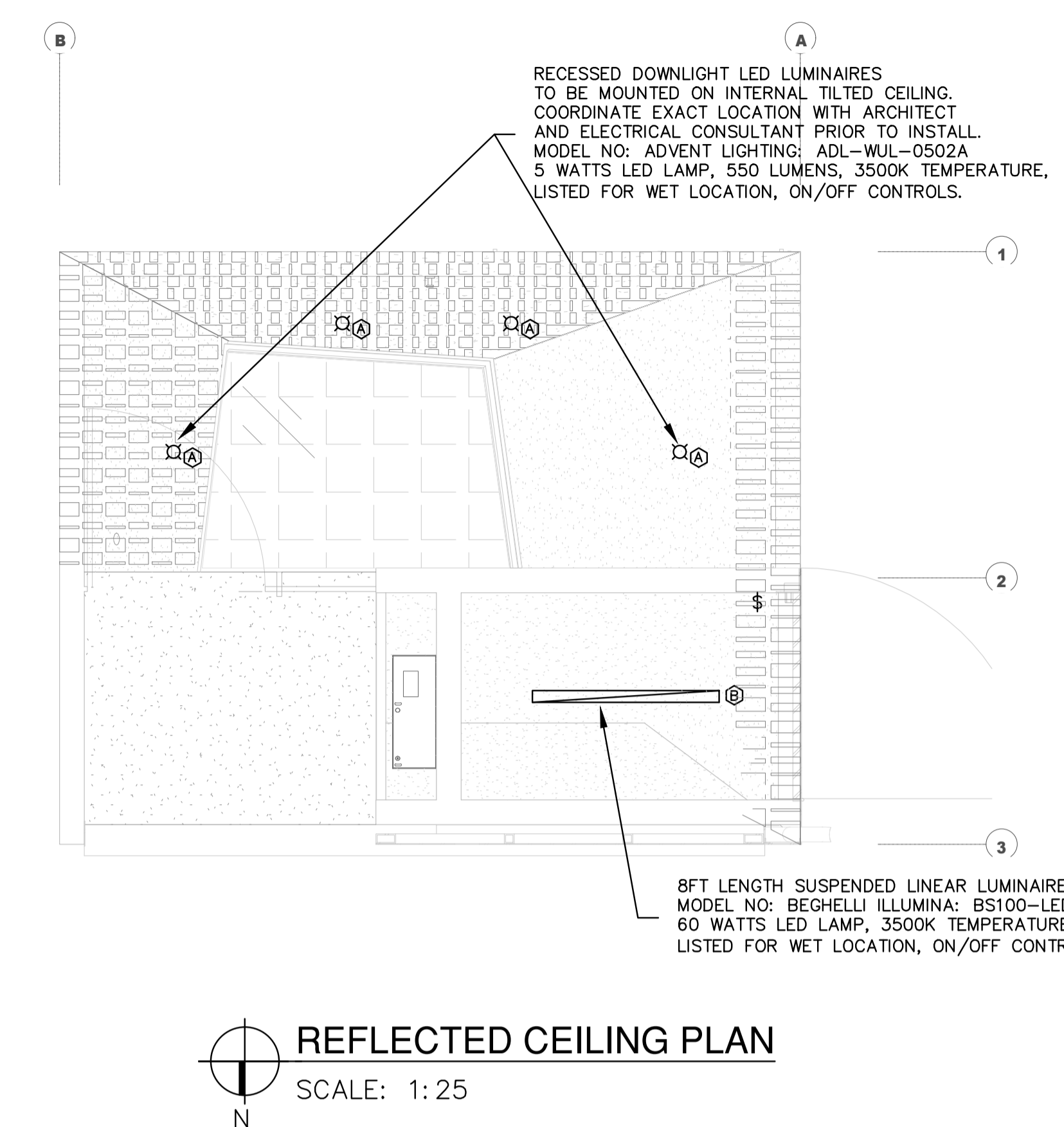
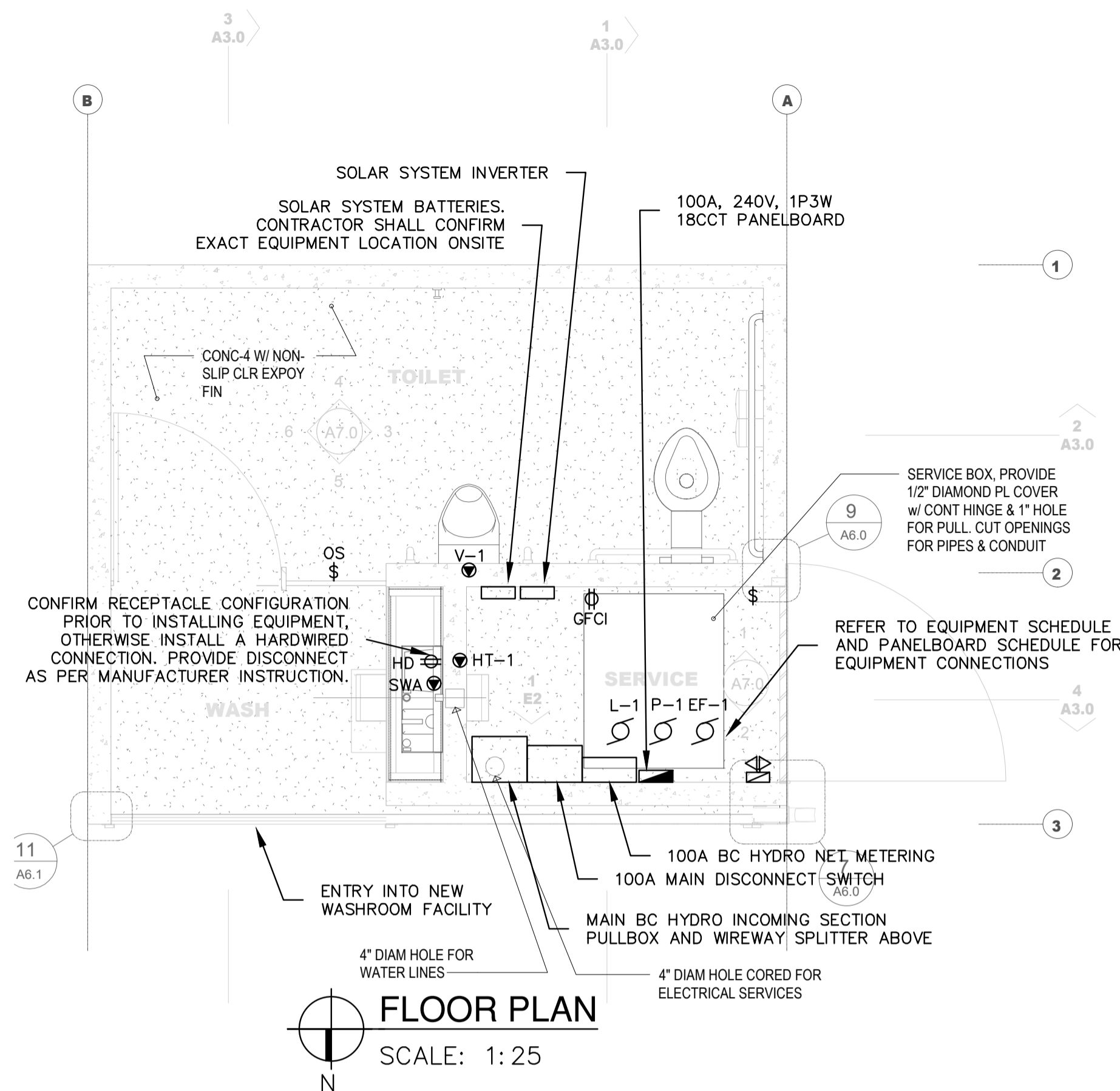
Surrey Park Washroom

SURREY, BC
SINO PROJECT NO.2225

PLANS, SCHEDULES AND SINGLE-LINE DIAGRAM OPTION 1 - SOLAR PV POWER ONLY

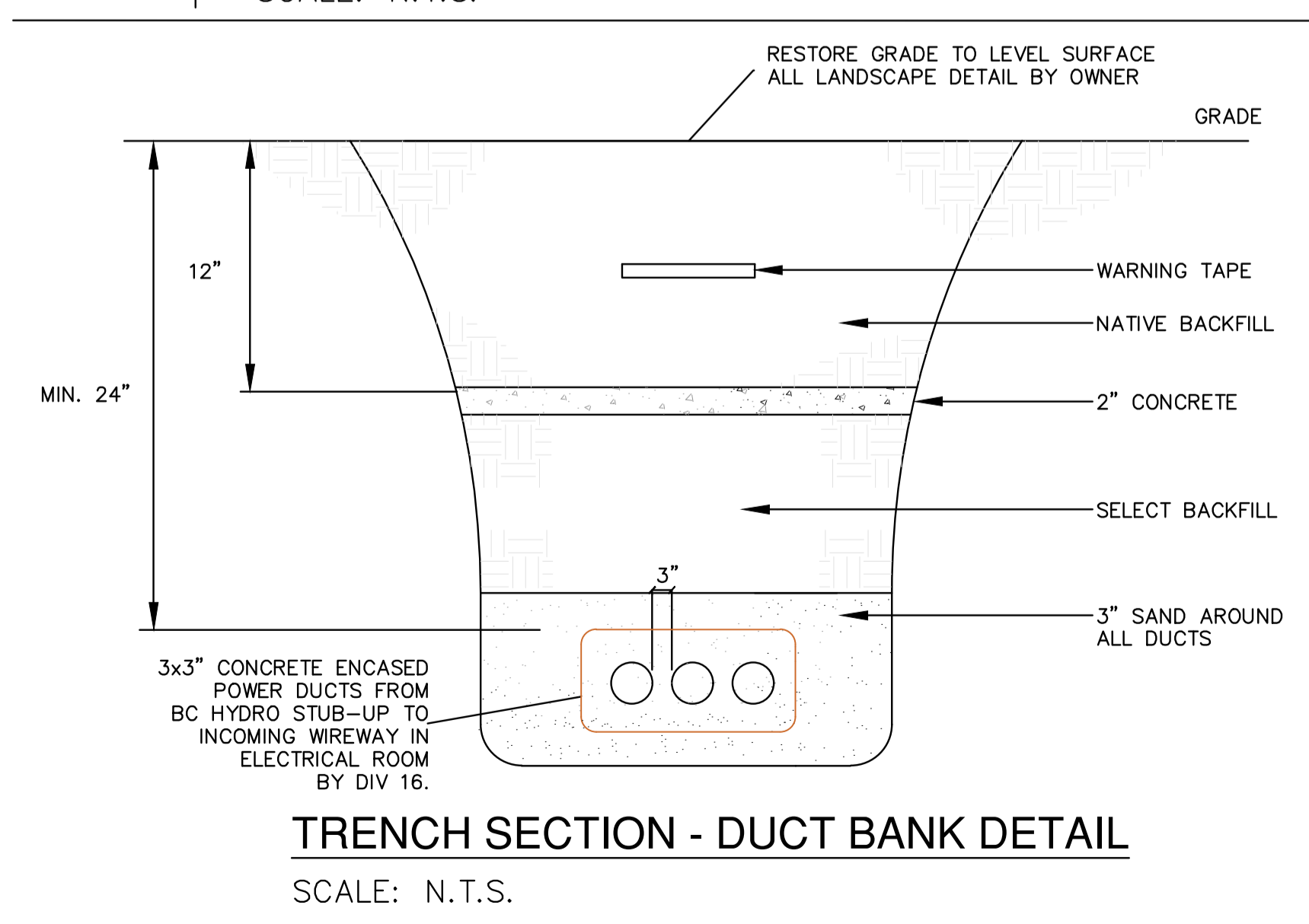
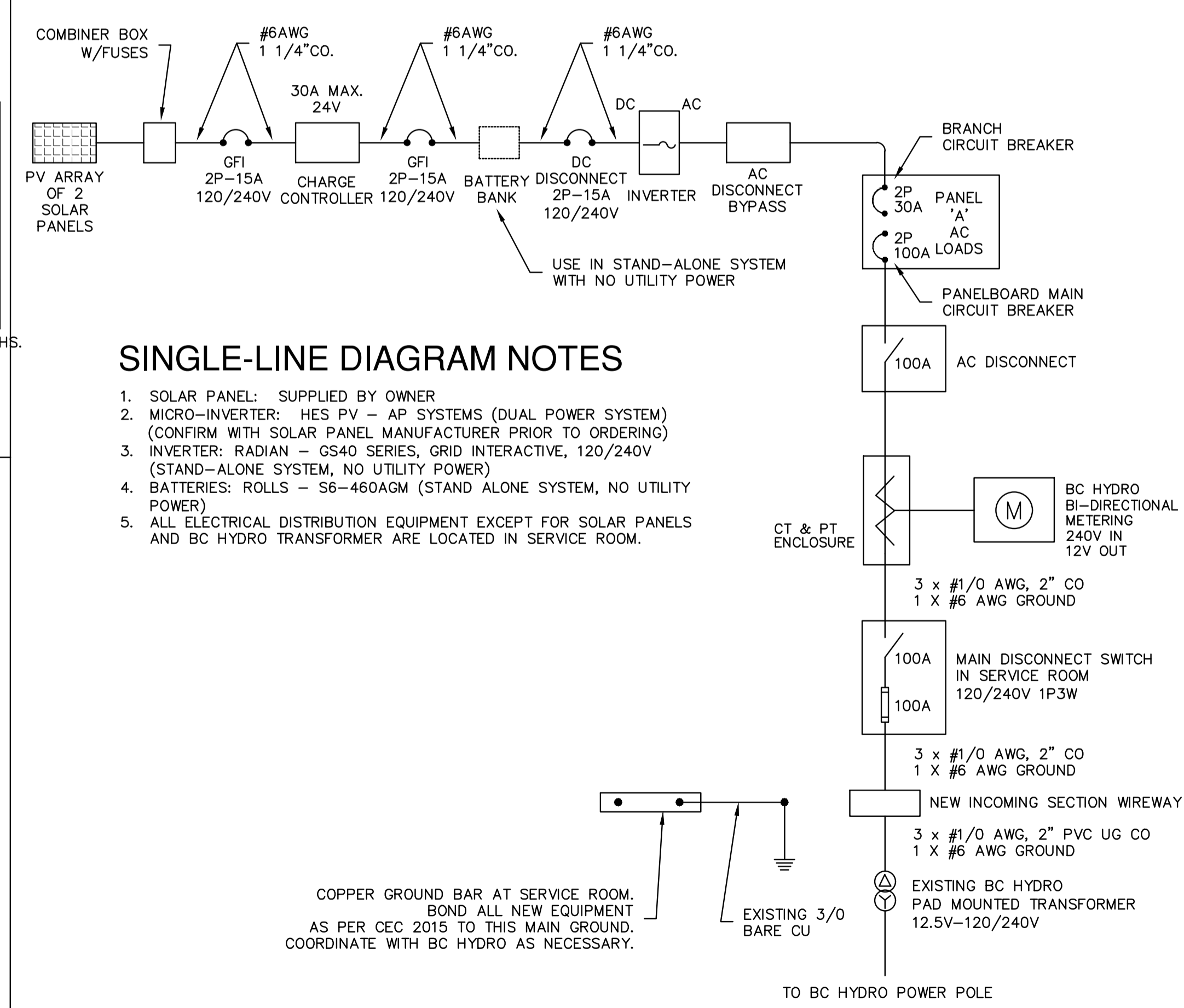
DRAWN BY: M.S.
CHECKED BY:
DATE: 05/10/18

REVISIONS:	DATE	DESCRIPTION
1	JUL 4/22	REVIEW
2	JUL 31/22	REVIEW 2
3	AUG 2/22	ISSUED FOR TENDER



NO.	TAG	EQUIPMENT DESCRIPTION	LOCATION	ELECTRICAL LOAD VOLTS, PHASE	CIRCUIT BREAKER	BRANCH CCT. WIRE SIZE	FED FROM PANEL-CCT.	REMARKS
1	HD	HAND DRYER	WASH AREA	1200W 240V, 1PH	2P-15A	3#12	B-8,10	DIV 16 SUPPLY & INSTALL
2	SWA	SOAP DRYER-SWAR	WASH AREA	60W 120V, 1PH	2P-15A	2#12	B-12	DIV 16 SUPPLY & INSTALL
3	HT-1	HEAT TRACE *	SERVICE ROOM	60W 120V, 1PH	1P-15A	2#12	B-5	DIV 16 SUPPLY & INSTALL
4	V-1	VALVE - URINAL **	WASHROOM	40W 120V, 1PH	1P-15A	2#12	B-7	DIV 16 SUPPLY & INSTALL
5	V-2	VALVE - TOILET **	WASHROOM	40W 120V, 1PH	1P-15A	2#12	B-7	DIV 16 SUPPLY & INSTALL
6	P-1	SEWER PUMP	SERVICE ROOM	1/4HP 120V, 1PH	1P-15A	2#12	B-4	DIV 16 SUPPLY & INSTALL
7	P-2	SEWER PUMP	SERVICE ROOM	1/4HP 120V, 1PH	1P-15A	2#12	B-6	DIV 16 SUPPLY & INSTALL

* CONFIRM SIZE AND DETAILS WITH MECHANICAL TRADE PRIOR TO INSTALLATION. CONFIRM LOAD DEPENDING ON REQUIRED LENGTHS.
** OPERATES AT 24VDC. PROVIDE TRANSFORMERS AND CONNECT AS NECESSARY. COORDINATE WITH MECHANICAL TRADE.



LOCATION: UTILITY ROOM 2P-100A MAIN BREAKER	PAINTED: GRAY	BLUE	OTHER	18CCT.				
600V3Ø/3W	347/600V3Ø/4W	120/208V3Ø/4W	120/240V1Ø/3W	DOOR	LOCK			
125A	225A	400A	600A	GROUNDING PAD:	NORMAL	ISOLATED	SURFACE	RECESSED
DOUBLE NEUTRAL	REQ.	NOT REQ.	SIZE: 100A	BUS FAULT LEVEL	(10,000A RMS)			
NOTE:	DESCRIPTION	CCT BRKR	CCT	CCT BRKR	DESCRIPTION	NOTE:		
	MECHANICAL ROOM LIGHT	15A	• 1	2	15A	CONVENIENCE OUTLET		
	WASHROOM LIGHTS	15A	• 3	• 4	15A	WATER SUMP PUMP		
	HEAT TRACING	15A	• 5	• 6	15A	SEWER SUMP PUMP		
	GFCI FLUSH VALVES	15A	• 7	• 8	2P	HAND DRYER		
	SPACE	-	• 9	• 10	15A			
	SPACE	-	• 11	• 12	-	SWAR		
	SPACE	-	• 13	• 14	-	SPACE		
	SPACE	-	• 15	• 16	-	SPACE		
	SPACE	-	• 17	• 18	-	SPACE		
WP	WEATHER-PROOF				- PROVIDE LOCK-ON BREAKER DEVICE			
GFCI	GROUND FAULT BREAKER				- CONFIRM BREAKER/FEEDER SIZE			
AFCI	ARC FAULT BREAKER				- INDICATES 2 OR 3 POLE BREAKER			
AFCR	ARC/GROUND FAULT BREAKER							
R	CONTROLLED VIA LOW-VOLTAGE RELAY							

PANELBOARD 'A' SCHEDULE

