lululemon

PROJECT SUMMARY

STORE NAME: CF POLO PARK

STORE NUMBER: 610

STORE CLASSIFICATION TYPE: SMALL (5,249 SF)

STORE DESIGN CLASSIFICATION: SELECT

SCOPE OF WORK CLASSIFICATION: NEW STORE OPENING

PROJECT ADDRESS: 1485 Portage Ave, Unit 144E
Winnipeg, MB
R3G 0W5
CRU NUMBER: 144E

PROJECT SCOPE: INTERIOR RENOVATIONS, INCLUDING MECHANICAL,ELECTRICAL AND STRUCTURAL MODIFICATIONS.

STOREFRONT RENDERING

DRAWING INDEX

● = ISSUED OR RE-ISSUED WITH REVISION ○ = REISSUED WITHOUT REVISION ○ = PROGRESS ONLY

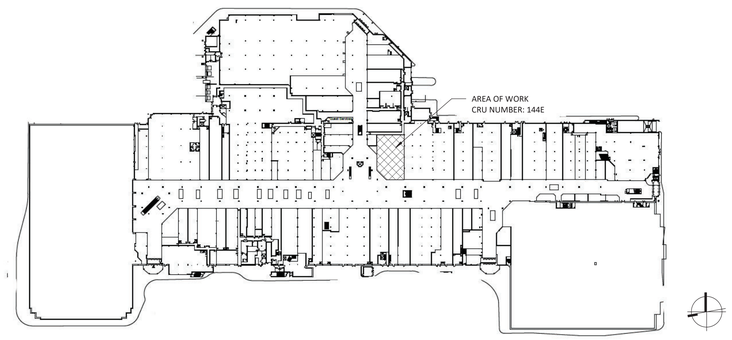
ARCHITECTURAL

SHEET	DESCRIPTION	ISSUE: DD	CD	PERMIT	BID	IFC
WK-16	LAYOUT					
A-000 SERIES - PROJECT INTRODUCTION						
A-000	COVER SHEET AND PROJECT DIRECTORY	●	●	●	●	
A-010	RESPONSIBILITY SCHEDULE, GB LIST, VENDOR DIRECTORY, AND AREA PLAN	●	●	●	●	
A-020	BUILDING CODE SUMMARY AND EGRESS PLAN	●	●	●	●	
A-030	NATIONAL ACCESSIBILITY NOTES (2010 NBC)		●	●	●	
A-040	DEMO PLAN & DEMO RCP	●	●	●	●	
A-041	FIELD VERIFICATION PLAN		●	●	●	
A-050	CONSTRUCTION BARRICADE AND WINDOW DIMS.	●	●	●	●	
AX-100 SERIES - FOR REFERENCE ONLY						
AX-110	SURVEY DWGS FOR REFERENCE ONLY	●	●		●	
AX-120	SURVEY DWGS FOR REFERENCE ONLY	●	●		●	
AX-130	SURVEY DWGS FOR REFERENCE ONLY	●	●		●	
AX-140	SURVEY DWGS FOR REFERENCE ONLY					
A-100 SERIES - PLANS & SCHEDULES						
A-110	CONSTRUCTION PLAN	●	●	●	●	
A-120	FINISH SCHEDULE	●	●	●	●	
A-121	FINISH PLAN	●	●	●	●	
A-130	FIXTURE SCHEDULE	●	●	●	●	
A-131	FIXTURE PLAN	●	●	●	●	
A-140	POWER, COMMUNICATIONS, AND LOW VOLTAGE PLAN	●	●	●	●	
A-141	POWER AND TRENCHING / CORING DETAILS		●	●	●	
A-150	REFLECTED CELING PLAN - LIGHTING 1 OF 2	●	●	●	●	
A-151	REFLECTED CEILING PLAN - LIGHTING 2 OF 2	●	●	●	●	
A-160	RCP - FINISH AND CONSTRUCTION	●	●	●	●	
A-170	RCP - FIXTURE REFERENCE		●	●	●	
A-180	DOOR SCHEDULE & DETAILS	●	●	●	●	
A-181	DOOR SCHEDULE & DETAILS	●	●	●	●	
A-200 SERIES - INTERIOR ELEVATIONS						
A-210	INTERIOR ELEVATIONS - SALES AREA	●	●	●	●	
A-220	INTERIOR ELEVATIONS - BACK OF HOUSE	●	●	●	●	
A-300 SERIES - ENLARGED PLANS						
A-310	ENLARGED FITROOM PLANS AND ELEVATIONS	●	●	●	●	
A-320	ENLARGED RESTROOM PLANS AND ELEVATIONS	●	●	●	●	
A-400 SERIES - STOREFRONT						
A411.A NOT USED	PANELS UPDATED - LOD					
A-410	STOREFRONT PLANS AND ELEVATIONS	●	●	●	●	
A-411	STOREFRONT PLANS AND ELEVATIONS	●	●	●	●	
A-420	STOREFRONT SECTIONS AND DOOR DETAILS		●	●	●	
A-430	STOREFRONT DETAILS		●	●	●	
A-440	SIGNAGE DETAILS		●	●	●	
A-500 SERIES - DETAILS						
A-510	PARTITION AND WALL PROTECTION DETAILS		●	●	●	
A-520	CEILING DETAILS		●	●	●	
A-521	CEILING DETAILS		●	●	●	
A-530	FLOOR DETAILS		●	●	●	
A-540	BACKWRAP AND MURAL DETAILS		●	●	●	
A-541	COMMUNITY WALL PLAN & ELEVATION		●	●	●	
A-542	COMMUNITY WALL DETAILS		●	●	●	
A-543	COMMUNITY WALL DETAILS		●	●	●	
A-550	TYPICAL MILLWORK DETAILS		●	●	●	
A-551	TYPICAL MILLWORK DETAILS		●	●	●	
A-552	TYPICAL MILLWORK DETAILS		●	●	●	
AS-100 SERIES - ARCHITECTURAL SPECIFICATIONS SECTION						
AS-110	INDEX / ARCHITECTURAL SPECIFICATIONS		●	●	●	
AS-120	ARCHITECTURAL SPECIFICATIONS		●	●	●	
AS-130	ARCHITECTURAL SPECIFICATIONS		●	●	●	
AS-140	ARCHITECTURAL SPECIFICATIONS		●	●	●	
AS-150	ARCHITECTURAL SPECIFICATIONS		●	●	●	
AS-160	ARCHITECTURAL SPECIFICATIONS - APPENDICES		●	●	●	
ELECTRICAL DRAWINGS						
E-011	ELECTRICAL PANEL SCHEDULE AND LEGEN		●	●	●	
E-012	LIGHTING CONTROL AND SINGLE LINE DIAGRAM		●	●	●	
E-110	ELECTRICAL POWER PLAN		●	●	●	
E-111	FIRE ALARM PLAN		●	●	●	
E-120	ELECTRICAL LIGHTING PLAN		●	●	●	
E-121	ELECTRICAL LIGHTINGLEGEND		●	●	●	
E-122	ELECTRICAL STOREFRONT PLAN		●	●	●	
E-130	ELECTRICAL LOW VOLTAGE PLAN		●	●	●	
E-510	ELECTRICAL DETAILS		●	●	●	
E-511	ELECTRICAL DETAILS		●	●	●	
E-610	ELECTRICAL SPECIFICATIONS		●	●	●	
MECHANICAL DRAWINGS						
M-110	HVAC PLAN		●	●	●	
M-111	SPRINKLER PLAN		●	●	●	
M-610	MECHANICAL SCHEDULES AND LOAD CALCULATION		●	●	●	
M-611	MECHANICAL DETAILS		●	●	●	
M-612	MECHANICAL SPECIFICATIONS		●	●	●	
PLUMBING DRAWINGS						
P-110	PLUMBING AND DRAINAGE PLAN		●	●	●	
P-510	PLUMBING RISERS AND DETAILS		●	●	●	
P-520	PLUMBING FIXTURE SCHEDULES		●	●	●	
STRUCTURAL DRAWINGS						
S-100	GENERAL NOTES, TYPICAL DETAILS		●	●	●	
S-101	GENERAL NOTES, TYPICAL DETAILS		●	●	●	
S-200	GALLERY AND UPPER LEVEL FRAMING PLANS		●	●	●	
S-300	SECTIONS		●	●	●	

PROJECT DIRECTORY

	COMPANY NAME / CONTACT NAME	ADDRESS	TELEPHONE / EMAIL
LLL DESIGNER	LULULEMON ATHLETICA RYAN SARSFIELD	1280 BURRARD ST. 11TH FLOOR VANCOUVER, BC V6Z 1Z1	1 (604) 561-2608 RSARFIELD@LULULEMON.COM
LLL PROJECT MANAGER	LULULEMON ATHLETICA TYLER CROMPTON	1280 BURRARD ST. 11TH FLOOR VANCOUVER, BC V6Z 1Z1	1 (778) 997-6296 TCROMPTON2@LULULEMON.COM
LLL PROJECT SPECIALIST	LULULEMON ATHLETICA JORGI LI	1280 BURRARD ST. 11TH FLOOR VANCOUVER, BC V6Z 1Z1	1 (403) 872-4452 JFLEWELL@LULULEMON.COM
ARCHITECT	BDP QUADRANGLE NILOUFAR AMINI	THE WELL, 8 SPADINA AVE, SUITE 2100 TORONTO, ON M5V 0S8	1 (416) 598-1240 EXT 490 NAMINI@BDPQUADRANGLE.COM
MEP ENGINEER	THOMAS A. FEKETE LTD. BRUCE ZHANG	7181 WOODBINE AVE. UNIT 229 MARKHAM, ON L3R 1A3	1 (905) 946-4260 BZHANG@TAFENG.CA
STRUCTURAL ENGINEER	EXP ENGINEERING CHARLIE ZHENG	220 COMMERCE VALLEY DRIVE WEST SUITE 110 MARKHAM, ONTARIO L3T 0A8	1 (905) 695-3217 EXT 3690 CHARLIE.ZHENG@EXP.COM
LANDLORD	THE CADILLAC FAIRVIEW CORPORATION LIMITED CONTACT NAME: ANNA SKRIPKA	233 - 1485 PORTAGE AVENUE, WINNIPEG, MB, R3G 0W4	1 (514) 353-2153 ANNA.SKRIPKA@CADILLACFAIRVIEW.COM

KEY PLAN



ABBREVIATIONS

ACP	ACOUSTICAL CEILING PANEL	FNDN	FOUNDATION	OAE	OR APPROVED EQUAL
ADJ	ADJACENT	FO	FINISH OPENING	OC	ON CENTER
AFF	ABOVE FINISH FLOOR	FOH	FRONT OF HOUSE	OF	OUTSIDE FACE
ALUM/AL	ALUMINUM	FOIC	FURNISHED BY OWNER, INSTALLED BY CONTRACTOR	OPG	OPENING
B/O	BOTTOM OF	FOIO	FURNISHED BY OWNER, INSTALLED BY OWNER	PR	PATCH AND REPAIR
BOH	BACK OF HOUSE	FRGWB	FIRE RATED GWB	PREP	PREPARE
BOJ	BOTTOM OF JOIST	FRT	FIRE RETARDANT TREATED	PTD	PAINTED
BD	BOARD	FS	FRAME SIZE	PM	PROJECT MANAGER
CL	CENTERLINE	GA	GAUGE	PS	PROJECT SPECIALIST
CLO	CLOSET	GC/G.C.	GENERAL CONTRACTOR	REQ'D	REQUIRED
CLG	CEILING	GL	GLASS	RO	ROUGH OPENING
CLR	CLEAR	GWB	GYPSUM WALL BOARD	SA	SOUND ATTENUATING
CONC	CONCRETE	GYP	GYPSUM	SIM	SIMILAR
CONT	CONTINUOUS	HR	HOUR	SPEC	SPECIFICATIONS
COORD	COORDINATE	INSUL	INSULATION/INSULATING	STRUCT	STRUCTURAL
CW	CENTER ON WALL	LLD	LANDLORD	SUB-C	SUBCONTRACTOR
DAS	DIRECTLY APPLIED FINISH SYSTEM	LLL	LULULEMON	TEMP	TEMPERED
DF	DRINKING FOUNTAIN	LLL-V	LULULEMON VENDOR	TGC	TENANT'S GENERAL CONTRACTOR
DIM	DIMENSION	MAX	MAXIMUM	TME	TO MATCH EXISTING
DWG	DRAWINGS	MFR'S	MANUFACTURER'S	T/O	TOP OF
ENG	ENGINEER	MIN	MINIMUM	TOP	TOP OF PARTITION
ENG'D	ENGINEERED	MTL	METAL	TYP	TYPICAL
(E)	EXISTING	MMRGWB	MOLD AND MOISTURE RESISTANT GWB	UNO	UNLESS NOTED OTHERWISE
ETR	EXISTING TO REMAIN	MO	MASONRY OPENING	U/S	UNDERSIDE
FD	FLOOR DRAIN	MR	MOISTURE RESISTANT	W/	WITH
FIN	FINISH	(N)	NEW	WF	WATER FEATURE
FLR	FLOOR	NIC	NOT IN CONTRACT	VIF	VERIFY IN FIELD
		NTS	NOT TO SCALE		

GENERAL NOTES

A. DO NOT SCALE THE DRAWINGS.

B. VERIFY FIELD CONDITIONS PRIOR TO COMMENCEMENT OF EACH PORTION OF THE WORK.

C. THE CONTRACT DOCUMENTS, WHICH INCLUDE THE AGREEMENT, THE GENERAL CONDITIONS, DRAWINGS, AND SPECIFICATIONS, ARE COMPLEMENTARY, AND WHAT IS REQUIRED BY ONE SHALL BE AS BINDING AS IF REQUIRED BY ALL. THE CONTRACTOR SHALL COORDINATE ALL PORTIONS OF THE WORK AS DESCRIBED IN THE CONTRACT DOCUMENTS. NOTIFY THE ARCHITECT FOR RESOLUTION OF DISCREPANCIES PRIOR TO CONSTRUCTION.

D. GENERAL CONTRACTOR RESPONSIBLE FOR PROVIDING GENERAL SPECIFICATIONS AND INFORMATION TO ALL SUBCONTRACTORS.

E. CONTRACTOR IS RESPONSIBLE FOR OBTAINING AND FAMILIARIZING THEMSELVES WITH THE LANDLORD TENANT CRITERIA MANUAL AND LANDLORD RULES AND REGULATIONS FOR CONSTRUCTION. CONSULT LANDLORD FOR CONTACT INFORMATION AND FOR ANY REQUIRED SUBCONTRACTORS

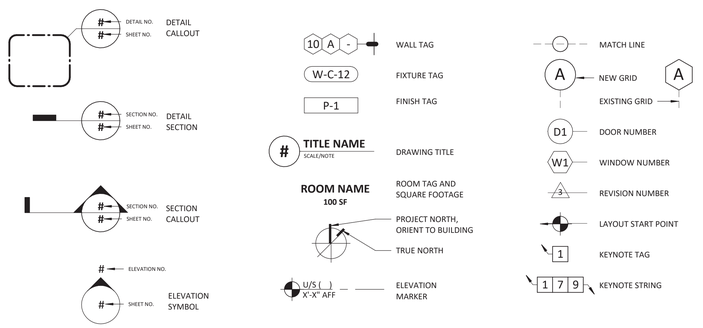
F. BARRIERS: PROVIDE TEMPORARY BARRICADES, FENCES, AND COVERS AS NECESSARY TO PROTECT EXISTING FACILITIES, AND TO PREVENT PUBLIC ENTRY TO CONSTRUCTION SITE.

G. DUST CONTROL: PROVIDE TEMPORARY ENCLOSURES AS NECESSARY TO PREVENT PENETRATION OF DUST INTO OCCUPIED AREAS SEPARATE FROM WORK AREAS, DAMAGE TO OPERATING SYSTEMS AND COMPONENTS, AND TO CREATE ENVIRONMENTAL CONDITIONS NECESSARY FOR THE PROPER INSTALLATION OF MATERIALS AND SYSTEMS.

H. NOISE CONTROL: PROVIDE NECESSARY PRECAUTIONS AS REQUIRED BY THE OWNER AND LANDLORD.

VICINITY MAP

GRAPHIC SYMBOLS



DEFERRED PERMIT SUBMITTALS

- FIRE SPRINKLER AND ALARM SYSTEM
- SIGNAGE
- STOREFRONT SHOP DRAWING

SPECIAL INSPECTIONS

SPECIAL INSPECTIONS :

A. SPECIAL INSPECTIONS SHALL BE MADE AND WITNESSED BY OR UNDER THE SUPERVISION OF A REGISTERED ARCHITECT (RA) OR PROFESSIONAL ENGINEER (PE). THE INSPECTING RA OR PE SHALL BE INDEPENDENT OF THE CONTRACTOR.

B. THE FOLLOWING LIST CONTAINS THE ITEMS SUBJECT TO SPECIAL INSPECTIONS AND THE RELEVANT CODE SECTIONS:

LANDLORD GENERAL NOTES:

THE CLIENT, OR THEIR REPRESENTATIVE, ARE REQUIRED TO UNDERTAKE A SURVEY OF THE SITE PRIOR TO THE COMPLETION OF THE IFC DRAWINGS.
ALL SITE VISITS FOR PROJECT BIDDERS MUST BE ARRANGED AS A GROUP VISIT AT ONE TIME, COORDINATED WITH THE OPERATIONS MANAGER, AND SCHEDULED AT LEAST 48 HRS IN ADVANCE.
IT IS THE CLIENTS RESPONSIBILITY TO ENSURE THAT THEIR CONTRACTOR HAS READ AND FOLLOWS THE REGULATIONS AS LAID OUT IN THE 'CLIENT CONTRACTOR MANUAL/ RULES & REGULATIONS' PROVIDED BY CF. PLEASE CONTACT THE MALL OPERATIONS MANAGER WITH ANY QUESTIONS.
ENSURE SUBMITTED DRAWINGS MEET TRAVEL DISTANCES, CLEARANCES AND ALL LOCAL CODE REQUIREMENTS AS REQUIRED. CLIENT IS RESPONSIBLE TO ENSURE PLANS CONFORM TO ALL LOCAL CODES UNDER THE AUTHORITIES HAVING JURISDICTION; LANDLORD'S REVIEW IS FOR GENERAL DESIGN INTENT ONLY.
ALL GENERAL NOTES AND OR SPECS ARE TO BE READ IN CONJUNCTION WITH APPROVED DRAWING SET/COMMENTS, AND AS PER THE REQUIREMENTS OF THE PROPERTY (Contractor Manual/Rules & Regulations)
A COPY OF LANDLORD APPROVED DRAWINGS MUST REMAIN ON SITE DURING CONSTRUCTION. ANY/ALL LANDLORD COMMENTS TO THE DRAWINGS MUST BE FOLLOWED BY THE TENANT, G.C. AND SUB-TRADES ON SITE.
SUBMIT HOARDING GRAPHICS TO THE LANDLORD FOR APPROVAL PRIOR TO FABRICATION AND INSTALLATION. THE EXACT HOARDING DETAILS AND LOCATION MUST BE CONFIRMED AND COORDINATED WITH THE MALL OPERATIONS MANAGER.
ALL PATHS OF EGRESS TO BE MAINTAINED CLEAR OF OBSTRUCTION AT ALL TIMES.DHE TENANT IS RESPONSIBLE FOR MAINTAINING ANY REQUIRED FIRE RATING WITHIN THE PREMISES.
IT IS THE RESPONSIBILITY OF THE TENANT TO REVIEW THE LEASE AGREEMENT FOR ALL ITEMS LISTED PROVIDED BY TENANT VS. LANDLORD TO ENSURE THE INFORMATION IN THE "RESPONSIBILITY TABLE" IS ACCURATE.
MECHANICAL SYSTEMS ARE NOT TO BE IN OPERATION DURING CONSTRUCTION. TENANT GC MUST INSTALL FILTERS ON THE DUCTS AND AIR RETURNS DURING CONSTRUCTION WITHIN THE SPACE, REGARDLESS. VERIFY THE EXACT REQUIREMENTS WITH THE OPERATIONS MANAGER PRIOR TO POSSESSION.
ACCESS PANELS TO HAVE A FLUSH ACCESS DOOR WITH DRYWALL BEAD FLANGE - BY ACUDOR OR EQUIVALENT. SURFACE MOUNTED METAL ACCESS TRAPS WILL NOT BE PERMITTED WITHIN THE SALES AREA.
A SET OF (As Built) RECORD DRAWINGS COMPLETED IN CAD ARE TO BE HANDED OVER TO THE LANDLORD UPON COMPLETION OF THE PROJECT.
ANY MODIFICATIONS TO THE BASE BUILDING MECHANICAL OR ELECTRICAL SERVICE NEEDS TO BE DISCUSSED WITH MALL OPERATIONS AND AGREED WITH LANDLORD.

7/14/2023 12:08:45 PM

lululemon
1818 CORNWALL AVE.
VANCOUVER, B.C., V6J1C7

CF POLO PARK
1485 Portage Ave, Unit 144E
Winnipeg, MB
R3G 0W5
CRU NUMBER: 144E

Quadrangle
Quadrangle Architects Limited
The Well, 8 Spadina Avenue, Suite 2100, Toronto, ON M5V 0S8
t 416 598 1240 www.bdpquadrangle.com

ARCHITECT SEAL

ONTARIO ASSOCIATION OF ARCHITECTS
KIRTIDEV MEHTA
LICENCE
8699

ISSUED FOR CONSTRUCTION

07/14/2023

△	DATE	DESCRIPTION
	05/05/2023	DESIGN DEVELOPMENT
	06/09/2023	PERMIT/CONSTRUCTION
	06/09/2023	ISSUED FOR BID
	07/14/2023	ISSUED FOR CONSTRUCTION

DRAWING INFORMATION
PROJECT #: 23206
CHECKED BY: NA
DRAWN BY: MP

COVER SHEET AND PROJECT DIRECTORY

DRAWING NUMBER
A-000

GLOBAL BULLETINS

NOTE: TO BE REVIEWED BY GC AND TO AMEND / SUPERCEDE INFORMATION IN DRAWINGS; INFORMATION IN SET MAY NOT BE UPDATED

G.B. #	DESCRIPTION	G.B. #	DESCRIPTION	G.B. #	DESCRIPTION	G.B. #	DESCRIPTION
GB 22.XXX	...						

VENDOR DIRECTORY

	COMPANY NAME / CONTACT NAME	ADDRESS	TELEPHONE / EMAIL
BARRICADE AND SALES LIGHTBOX VENDOR	BOSTON BARRICADE KATHERINE VANHOOSE JOE BAKER CLIFF MCCARTNEY	1151 19TH STREET VERO BEACH, FL 32960	KVANHOOSE@BOSTONRS.COM JBAKER@BOSTONRS.COM CMCCARTNEY@BOSTONRS.COM
LIGHTING VENDOR	CSI ILLUMINATION MICHELE MCBRIDE KEITH BECKHAM	1210 KEYSTONE WAY, SUITE A&B VISTA, CA 92081	MMCBRIDE@CSILLUMINATION.COM CELL: (1) 760-936-6991 KBECKHAM@CSILLUMINATION.COM
EAS, CCTV, AND TRAFFIC COUNTER	JOHNSON CONTROLS INC. USA: LYNN SEILO (ACCOUNT MNGR) TED BOCCUZZI TAMIYA DANGERFIELD JASON MILLS CAN: LORI BONE CECELIA MORENO	7 PAGET RD BRAMPTON, ON, CANADA L6T 5S2	1 (206) 225-8410 LYNN.SEILO@JCI.COM 1 (585) 377-2908 THEODORE.RALPH.BOCCUZZI@JCI.COM (312) 529-5300 TDANGERFIELD@SHOPPERTAK.COM 1 (905) 452-2936 JASON.MILLS@JCI.COM LORI.BONE@JCI.COM 1 (905) 452-2936 CECILIA.MORENO@JCI.COM
FIXTURE VENDOR	WAM ROBERT WOODS	375 FENMAR DR TORONTO, ON M9L2X4	1 (416) 741-0660 RWOODS@WAMINDUSTRIES.COM
AUDIO VENDOR	SPENCER INTERACTIVE BRUCE MORRISS	14907 NE 95TH ST REDMOND, WA 98052	SUPPORT@SPENCERINTERACTIVE.NET BMORRISS@SPENCERTECH.COM
SIGNAGE VENDOR	JONES SIGN JENNIFER MENDEZ TRACY SILVA	9025 BALBOA AVENUE SAN DIEGO, CA 92123	LULULEMON@JONESSIGN.COM TSILVA@JONESSIGN.COM JMENDEZ@JONESSIGN.COM
BOH SHELVING VENDOR	PIPP ANGELA MORSE	2966 WILSON DR NW WALKER, MI 49534	1 (616) 988-4069 ANGELA@PIPPMOBILE.COM
BENJAMIN MOORE NATIONAL ACCOUNT PRODUCT ORDER CODE: NA048 DIRECT ORDER LINE: 1.877.6.COLOR.6	BENJAMIN MOORE & CO. LTD. TRISH BECHER, ARCHITECTURAL REP CA.	26680 GLOUCESTER WAY ALDERGROVE, BC. CANADA V4W 3V6	1 (604) 751-1733 TRISH.BECHER@BENJAMINMOORE.COM
DAL TILE NATIONAL ACCOUNT DIRECT ORDER EMAIL: NATIONAL.ACCOUNTS@DALTILE.COM DIRECT ORDER LINE: 1.877.556.5728	DAL TILE KAREN FOURCHALK, ARCHITECTURAL REP	2770 BENTALL STREET VANCOUVER, BC V5M4H4	1 (604) 251-8995 CELL: (604)861-1718
BURGLAR ALARM	JOHNSON CONTROLS INC. USA: LONNA DEE BARRETT ALI CSICSELY CAN: CHRISTINA NIEDERKORN	7565 IRVINE CENTER DRIVE, SUITE 100 IRVINE, CA 92618 7 PAGET RD BRAMPTON, ON, CANADA L6T 5S2	CELL: 1 (480) 376-5379 LONNA.BARRETT@JCI.COM ALEXANDRIA.CSICSELY@JCI.COM CHRISTINA.NIEDERKORN@JCI.COM
LOW VOLTAGE AND NETWORK	SPENCER TECHNOLOGIES KATIE BEVERLY AMY RIBAO NICOLE FOGARTY COLIN FLACK	10 TROTTER DRIVE MEDWAY, MA 02053	LULULEMONTEAM@SPENCERTECH.COM KBEVERLY@SPENCERTECH.COM ARIBAO@SPENCERTECH.COM NFOGARTY@SPENCERTECH.COM CFLACK@SPENCERTECH.COM
BRAND SCREEN	DIVERSIFIED DON SIDNEY - PROJECT MANAGER CHRISTOPHER SANCHEZ	315 WEST 36TH STREET, STE 8030 NEW YORK, NY 10018	LULULEMONTEAM@DIVERSIFIEDUS.COM DSIDNEY@DIVERSIFIEDUS.COM CSANCHEZ@DIVERSIFIEDUS.COM
DOOR CORES	INSTAKEY RIKKI ACOSTA	7456 WEST 5TH AVE LAKEWOOD, CO 80226	1 (303) 761-9999 X120 RACOSTA@INSTAKEY.COM
LULULEMON IT	DANIEL ROBERTS	855 HOMER STREET, 2ND FLOOR VANCOUVER, BC V6B 2W2	1 (604) 424-0025 DANIELROBERTS@LULULEMON.COM ITNSOSUPPORT@LULULEMON.COM
TELEPHONE LINES	GRANITE	100 NEWPORT AVE EXTENSION QUINCY, MA 02171	LULULEMONPM@GRANITENET.COM
DDS	ANA CROOKER	7351 BOONE AVE N. MINNEAPOLIS, MN 55428	1 (612) 217-6343 ANA.CROOKER@DDSJIT.COM
LULULEMON ASSET PROTECTION	KALEN STEWART NELSON LINDQUIST	855 HOMER STREET, 2ND FLOOR VANCOUVER, BC V6B 2W2	KALENSTEWART@LULULEMON.COM NLINDQUIST@LULULEMON.COM
ARC PRINT	ANGELA YEASTING SENIOR ACCOUNT MANAGER	BURNABY OFFICE: 5035 BERESFORD STREET BURNABY BC V5J 1H8 VANCOUVER OFFICE: 438 HELMCKEN STREET VANCOUVER, BC V6B 6E9	M: (604) 836-6049 ANGELA.YEASTING@E-ARC.COM

LANDLORD (LLD) SUBCONTRACTORS AS REQUIRED

SEE ALSO LLD CONSTRUCTION RULES AND REGULATIONS	COMPANY NAME / CONTACT NAME	ADDRESS	TELEPHONE / EMAIL
FIRE ALARM	EXCO ELECTRIC KEVIN ALLAN	STREET ADDRESS CITY, ST ZIPCODE	1 (204) 633-7305 NAME@COMPANY.COM
SPRINKLER	BDR DAVE	STREET ADDRESS CITY, ST ZIPCODE	1 (204) 586-8227 NAME@COMPANY.COM
ROOFING	OAKWOOD ROOFING PAUL	STREET ADDRESS CITY, ST ZIPCODE	1 (204) 237-8361 NAME@COMPANY.COM

SPECIAL INSPECTIONS

RESPONSIBILITY SCHEDULE

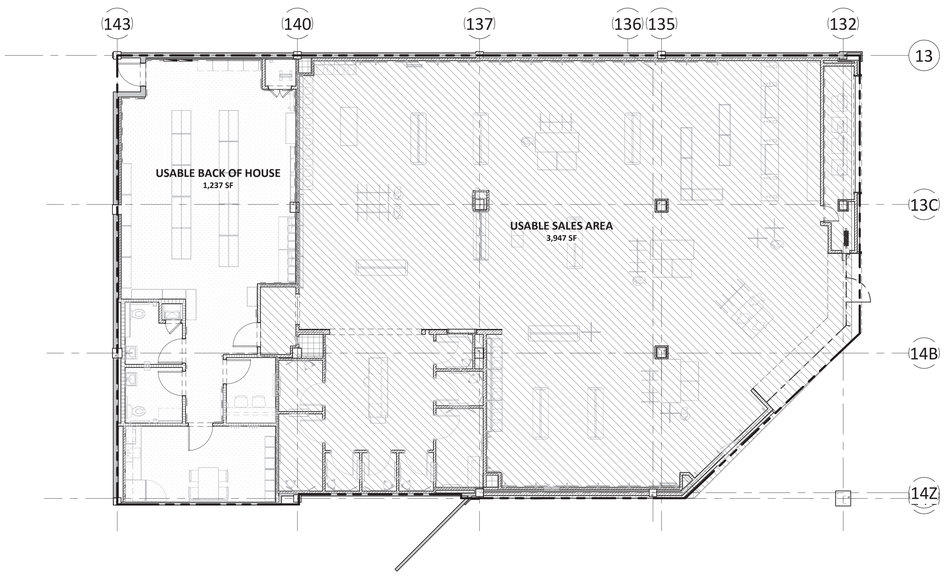
NOTE: GC TO ASSUME RESPONSIBILITY FOR ALL ITEMS REPRESENTED IN DRAWINGS AND NOT LISTED IN THE SCHEDULE.

RESPONSIBLE PARTY ABBREVIATIONS: LLL: LULULEMON LLD: LANDLORD GC: GENERAL CONTRACTOR LLL-V: LULULEMON VENDOR

NOT USED

CSI DIVISION	DESCRIPTION	FURNISHED	INSTALLED	SUBMITTAL REQUIRED	NOTES
1	**GENERAL CONDITIONS**				
	SUBMITTALS	GC	GC		SEE AS-110 SECTION 013.1.1
	CONSTRUCTION SCHEDULES	GC	GC	●	
	TEMPORARY FACILITIES, SERVICES AND CONTROLS	GC	GC	●	SEE AS-110 SECTION 015.1.0 SUBMIT TO PM AND LULULEMON PRIOR TO CONSTRUCTION AND WEEKLY
	PROJECT CLOSEOUT	GC	GC	●	SEE AS-110 SECTION 017.1.5
	REMOVE EXISTING INTERIOR PARTITIONS, AND FINISHES	LLD	LLD		SEE A-040
	REMOVE EXISTING FIXTURES, FINISHES, AND EQUIPMENT	LLD	LLD		SEE A-040
	REMOVE AND CAP (E) PLUMBING, ELECTRICAL	LLD	LLD		SEE A-040
	REMOVE EXISTING STOREFRONT	LLD	LLD		
	TEMPORARY ELECTRIC	GC	GC		SEE AS-110 SECTION 015000 (D)
	TEMPORARY HEATING AND COOLING	GC	GC		SEE AS-110 SECTION 015000 (C)
	LEGAL DISPOSAL OF ALL WASTE MATERIALS	GC	GC		SEE AS-110 SECTION 017.4.19 SUSTAIN BEST PRACTICES
	INSTALLATION OF BARRICADE	LLL-V or GC or LLD	LLD		REMOVAL BY GC, SEE A-050
	TEMPORARY ENCLOSURE OF FENCE	GC	GC		REMOVAL BY GC, SEE A-050
	TEMPORARY SIGNS AND WINDOWS GRAPHICS	LLL-V	LLL-V		REMOVAL BY GC, SEE A-050
	TEMPORARY WINDOW PAPER	LLL-V	GC		SEE A-050
	INTERIOR PARTITIONS	GC	GC		SEE A-110
	DEMISING PARTITIONS				
	FRAMING @ DEMISING WALL	LLD	LLD		SEE A-110
	GYPSUM BOARD TENANT SIDE	GC	GC		SEE A-110
	PATCH AND REPAIR GYPSUM BOARD TENANT SIDE	GC	GC		SEE A-110
	U.L. PENETRATION CAULKING AT RATED ASSEMBLIES	GC	GC		SEE A-110
3	**CONCRETE**				
	CONCRETE SAW CUTTING AND PATCHING	GC	GC		AS REQUIRED, SEE A-040 AND A-141
	CONCRETE SLAB IN-FILL	GC	GC	●	AT ANY SLAB LEAVE OUT LOCATIONS
	CONCRETE SLAB LEVELING AND REPAIR	GC	GC		AS REQUIRED
	CONCRETE TOPPING / POLISHING	GC	GC	●	AS REQUIRED, SEE A-120
	CONCRETE STOREFRONT WALL PLASTER	GC	GC	○	SUBMITTAL AND MOCK-UP REQUIRED, SEE A-120
	EXISTING CONCRETE FLOOR	GC	GC	●	AS REQUIRED, SEE A-120
5	**METALS**				
	STRUCTURAL STEEL, JOIST, AND DECKING	GC	GC		AS REQUIRED, SEE STRUCTURAL DWGS
	STRUCTURAL METAL FRAMING	GC	GC		AS REQUIRED, SEE STRUCTURAL DWGS
	METAL STUDS, DRYWALL CHANNELS AND FURRING	GC	GC		REFERENCE STUD CHART, SEE A-110
	SHEET METAL BACKING/BLOCKING STRIPS	GC	GC		SEE A-500 SERIES DRAWINGS
	BRAKE METAL	GC	GC	●	SEE A-120 FOR FINISH SCHEDULE AND SEE A-400 SERIES FOR DETAILS
	PERFORATED METAL PANELS	LLL-V	LLL-V	●	SEE A-120 FOR FINISH SCHEDULE AND SEE A-400 SERIES FOR DETAILS
	ALUMINUM C-CHANNEL	LLL-V or GC	GC	●	SEE A-120 FOR FINISH SCHEDULE AND SEE A-400 SERIES FOR DETAILS
6	**WOOD AND PLASTICS**				
	ROUGH CARPENTRY AND BLOCKING AND BACKING	GC	GC		SEE A-500 SERIES DRAWING FOR BLOCKING DETAILS
	TELEPHONE AND ELECTRICAL BACK BOARDS (PAINTED)	GC	GC		FIRE RATED TREATED WOOD, SEE ELECTRICAL DETAIL 1/E-510
	FINISH CARPENTRY	GC	GC		SEE AS-130 SECTION 062.1.0
	MILLWORK FIXTURES	LLL-V	GC	●	CONFIRM WITH LULULEMON, SEE A-130 FIXTURE SCHEDULE
	STAFF ROOM MILLWORK, HEAVY DUTY SHELVING AND BRACKETS	LLL-V/GC	GC	●	COORDINATE WITH MILLWORK VENDOR (LLL-V). SEE A-130
	OFFICE MILLWORK, HEAVY DUTY SHELVING AND BRACKETS	GC	GC	●	
	SPECIALTY WOOD WALL FINISHES	LLL-V/GC	GC	●	SEE A-120 AND A-541 FOR ADDITIONAL INFO
	STOREFRONT MILLWORK	GC	GC	●	SEE A-120 AND A-400 SERIES FOR ADDITIONAL INFO
	PROTECTIVE WALLCOVERING	GC	GC		AS REQUIRED. SEE A-120
7	**THERMAL AND MOISTURE PROTECTION**				
	INSULATION	GC	GC		TO MATCH EXISTING
	FIRESTOPPING	GC	GC		TO MATCH EXISTING
	FLASHING AND SHEET METAL	GC	GC		TO MATCH EXISTING.
	JOINT SEALERS	GC	GC		TO MATCH EXISTING
	EXIST. ROOF, INSTALL CURBS//JACKS, PATCH ROOF	GC	GC		LLD APPROVED ROOF CONTRACTOR. REFER TO STRUCTURAL IF APPLICABLE
	WATERPROOF MEMBRANE AT RESTROOM AND MOP SINK	GC	GC		WHEN REQUIRED; REFER TO A-320
8	**DOOR AND WINDOWS (OPENINGS)**				
	HOLLOW METAL DOORS AND FRAMES	GC	GC	●	SEE A-180, A-181 DOOR SCHEDULE AND SEE AS-140 SECTION 082.3.1
	WOOD DOORS AND FRAMES	GC	GC	●	SEE A-180, A-181 DOOR SCHEDULE AND SEE AS-140 SECTION 082.2.1
	FITROOM WOOD DOORS AND FRAMES	LLL-V	GC	●	SEE A-180, A-310 AND SEE AS-140 SECTION 082.2.1 (GC TO PROVIDE LEVERS)
	ACCESS DOORS AND ACCESS PANELS	GC	GC		SEE A-170, A-180, A-181 DOOR SCHEDULE AND SEE AS-140 SECTION 083.1.16
	STOREFRONT SYSTEM / GLAZING	GC	GC	●	SEE A-120 FINISH SCHEDULE, A-400 SERIES, AS-130, AND AS-140
	FINISH HARDWARE	LLL-V/GC	GC	●	SEE A-180, A-181 DOOR SCHEDULE
	OVERHEAD / SIDE-FOLDING GRILLE	GC	GC	●	SEE A-180, A-181 DOOR SCHEDULE

CSI DIVISION	DESCRIPTION	FURNISHED	INSTALLED	SUBMITTAL REQUIRED	NOTES
9	**FINISHES**				
	GYPSUM BOARD ASSEMBLIES	GC	GC		SEE A-110, A-510, A-520, AND AS-140 SECTION 092.5.0
	ACOUSTICAL CEILING ASSEMBLIES	GC	GC		SEE A-120 FINISH SCHEDULE, A-160, AND AS-140 SECTION 095.1.0
	WALL COVERINGS	LLL-V	LLL-V	●	SEE A-120
	FLOOR FINISHES	LLL-V/GC	GC		SEE A-120
	FLOOR PREPARATION AND SUBFLOORING	GC	GC		SEE A-530, AS-130, AND AS-140 FOR ADDITIONAL INFO
	PAINT	GC	GC		SEE A-120, A-160, AND AS-140 SECTION 099.1.2.1
	PORCELAIN TILE - RESTROOM / HALLWAY	GC	GC		SEE A-120
	CERAMIC TILE	GC	GC		SEE A-120
	TERRAZZO/PORCELAIN SALES FIELD TILE	LLL	GC		SEE A-120
	GROUT	GC	GC		SEE A-120
	FRP, CORNER GUARDS, AND WALL CAPS (BACK OF HOUSE)	GC	GC		SEE A-120 AND A-510 (FRP-1, WP-6, AND WP-7)
	CORNER GUARDS (FRONT OF HOUSE)	LLL-V	GC		SEE A-120 AND A-510 (WP-1)
	CORNER GUARDS (MUD-IN)	GC	GC		SEE A-120 AND A-510 (WP-5)
	WALL END PLATE	LLL-V	GC	●	SEE A-120 AND A-510 (WP-4)
	VINYL BASE	GC	GC		SEE A-120 AND A-510
	WALK OFF MAT	GC	GC		SEE A-120
	THRESHOLDS AND TRANSITION STRIPS	GC	GC		SEE A-120, A-530
	GWB REVEALS (STANDARD STORES)	GC	GC		SEE A-541 FOR DETAILS AT COMMUNITY WALL
	INTERIOR WOOD PANELING AND METAL TRIMS	LLL-V	GC	●	SEE A-541 FOR DETAILS AT COMMUNITY WALL
	INTERIOR ACRYLIC PANELING AND METAL TRIMS	LLL-V	GC	●	SEE A-541 FOR DETAILS AT COMMUNITY WALL
10	**SPECIALTIES**				
	AWNINGS	LLL-V	LLL-V	●	CONFIRM WITH LULULEMON
	STOREFRONT SIGNS	LLL-V	LLL-V	●	COORDINATE WITH LLL-V SHOP DRAWINGS
	STOREFRONT SIGN WIRING	GC	GC		COORDINATE WITH SIGNAGE VENDOR, SEE ELECTRICAL SHEET E-120
	FIRE EXTINGUISHERS AND CABINETS	GC	GC	●	COORDINATE WITH LOCAL AUTHORITIES HAVING JURISDICTION
	RESTROOM ACCESSORIES	GC	GC		SEE A-130 AND A-320
	RESTROOM SIGNS	GC	GC	●	SEE SHEET A-030
	HAND DRYERS	LLL-V	GC		GC TO COORDINATE WHEN REQUIRED, SEE A-130 AND A-320
	APPLIED FITROOM MIRRORS	GC	GC		SEE A-130, A-180, A-310, A-510, AND AS-140
	FRAMED MIRRORS	LLL-V/GC	GC		MIRRORS BY GC AND FRAMES BY LLL-V UNO, SEE A-130 AND AS-140
	INTERACTIVE DIGITAL MIRRORS	LLL-V	LLL-V		SEE A-130, A-140, A-552, CONDUIT BY GC
	SALES LIGHTBOXES	LLL-V	LLL-V/GC		SEE A-130, A-140, A-551, POWER OUTLETS BY GC, SEE A-140 AND ELEC DWGS
	STOREFRONT DISPLAY HARDWARE	GC	GC		SEE A-521, RECESSED TRACK AND POWER FEED AT CEILING BY GC FOR LLL-V WINDOW DISPLAY (GRAPHICS AND HANGERS BY LLL-V) MANUF: ARAKAWA CRC RECESSED CEILING TRACK, SEE SHEET A-160 FOR REQUIRED LENGTHS: FINISH: CLEAR ANODIZED
	RFID SHIELDING	GC	GC		SEE A110, A181 and AS-150 APPENDIX B
	SECURITY GLAZING FILM	GC	GC		SEE A-120 AND A-180
11	**EQUIPMENT**				
	COMPUTERS	LLL-V	LLL-V		CONDUIT BY GC, SEE E-011
	MUSIC SYSTEM	LLL-V	LLL-V/GC		CONDUIT BY GC, SEE E-011. INSTALLATION BY LLL-V
	CASH REGISTER	LLL-V	LLL-V		CONDUIT BY GC, SEE E-011
12	**FURNITURE**				
	MISCELLANEOUS	LLL-V	GC		SEE A-130, A-210, A-220
	CASH ART	LLL-V	LLL-V /GC		SEE A-130, A-210, A-220
	ARTWORK OTHER	LLL-V	LLL-V		SEE A-130, A-210, A-220
	BULLETIN BOARDS / MARKER BOARDS	LLL-V	GC		SEE A-130, A-210, A-220
	SAFES AND DROP BOXES	LLL-V	GC		SAFE BOLTED TO FLOOR BY GC
	OFFICE AND STAFF ROOM FURNISHINGS	LLL-V / GC	GC		SEE A-130, A-220
15	**MECHANICAL**				
	SEE MECHANICAL SHEET M-610 FOR MECHANICAL AND PLUMBING RESPONSIBILITY SCHEDULE				
16	**PLUMBING**				
	SEE MECHANICAL SHEET M-610 FOR MECHANICAL AND PLUMBING RESPONSIBILITY SCHEDULE				
17	**ELECTRICAL**				
	SEE ELECTRICAL SHEET E-010 RESPONSIBILITY SCHEDULE				
18	**FIRE PROTECTION SYSTEMS**				
	SEE ELECTRICAL AND MECHANICAL SHEETS E-010 AND M-610 FOR MECHANICAL AND PLUMBING RESPONSIBILITY SCHEDULE				



1 USABLE AREA PLAN

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

AREA PLAN MEASUREMENT SUMMARY

NOTE: PER BOMA STANDARDS, MEASURE TO C.L. OF DEMISING WALLS AT ADJACENT TENANT SPACES OR OUTSIDE FACE OF NON-SHARED PERIMETER WALLS. VOIDS TO BE INCLUDED IN GROSS LEASABLE AREA

LEASABLE AREA	AREA (SF)	SF %	LINE TYPE & HATCH
LEASABLE SALES AREA	4,012 SF	76%	
LEASABLE BACK OF HOUSE	1,237 SF	24%	
TOTAL LEASABLE AREA	5,249 SF	100%	

NOTE: INTERNAL AREA TABLE BELOW IS PROVIDED FOR LULULEMON USE, MEASURE TO INSIDE FACE OF DEMISING WALLS AT ADJACENT TENANT SPACES AND PERIMETER WALLS. MEASURE TO C.L. OF WALLS WITHIN TENANT SPACE DO NOT INCLUDE VOIDS IN USABLE AREA

USABLE AREA	AREA (SF)	SF %	LINE TYPE & HATCH
VOID AREA	65 SF	1%	
USABLE SALES AREA	3,947 SF	75%	
USABLE BACK OF HOUSE	1,237 SF	24%	
TOTAL AREA	5,249 SF	100%	

lululemon
1818 CORNWALL AVE.
VANCOUVER, B.C., V6J1C7

CF POLO PARK
1485 Portage Ave, Unit 144E
Winnipeg, MB
R3G 0W5
CRU NUMBER: 144E

Quadrangle
Quadrangle Architects Limited
The Well, 3 Spadina Avenue, Suite 2100, Toronto, ON M5V 0S8
t 1 416 861 1167 www.quadrangle.com

ARCHITECT SEAL

ONTARIO ASSOCIATION OF ARCHITECTS
KIRTIDEV MEHTA
LICENCE
8699

ISSUED FOR CONSTRUCTION

07/14/2023

DATE	DESCRIPTION
05/05/2023	DESIGN DEVELOPMENT
06/09/2023	PERMIT/CONSTRUCTION
06/09/2023	ISSUED FOR BID
07/14/2023	ISSUED FOR CONSTRUCTION

DRAWING INFORMATION
PROJECT #: 23206
CHECKED BY: NA
DRAWN BY: TA/MP

RESPONSIBILITY SCHEDULE, GB LIST, VENDOR DIRECTORY, AND AREA PLAN

DRAWING NUMBER
A-010

7/14/2023 12:08:58 PM

LEGEND

NOTE: SEE A-150 LIGHTING SCHEDULE FOR EMERGENCY AND EXIT LIGHTING SPECIFICATIONS

EX1-CA	EXIT SIGN - RECESSED
EX2-CA	EXIT SIGN - SUSPENDED/ SURFACE MOUNTED
EX3-CA	EXIT SIGN - SUSPENDED/ SURFACE MOUNTED
- - - - -	PATH OF EGRESS
44" CLEAR	PATH OF EGRESS: 44" CLEAR WIDTH
	REMOTE POINT
FE	FIRE EXTINGUISHER
EM-1	EMERGENCY LIGHT - SEE ELECTRICAL.
EM-2	EMERGENCY LIGHT - SEE ELECTRICAL.
RF1-S-EM	EMERGENCY LIGHT - SEE ELECTRICAL.

EGRESS PLAN SUMMARY NOTES:

A. PUBLIC TOILET FACILITIES REQUIRED IN ALL STORE LOCATIONS. FOR MALL LOCATIONS THE MAX ALLOWABLE DISTANCE FROM AN ACCESSIBLE PUBLIC TOILET FACILITY IS 45M / 148 FT.

B. THIS DRAWING REPRESENTS A DESIGN DIAGRAM AND DOES NOT REPRESENT A DEFINITIVE PLAN FOR THE EXACT LOCATION AND EXTENT OF THE FIRE AND LIFE SAFETY FEATURES REPRESENTED ON THIS DRAWING. SEE THE APPROPRIATE DRAWINGS PREPARED BY THE SPECIFIC DISCIPLINE TO DETERMINE THE EXACT LOCATION AND EXTENT OF FIRE AND LIFE SAFETY FEATURES.

C. EGRESS PLAN INDICATES CRITICAL LOCATIONS FOR TRAVEL DISTANCES, DEAD END CORRIDORS AND COMMON PATH OF TRAVEL. REFER TO ADDITIONAL DRAWINGS THIS SET FOR CONSTRUCTION PLANS, NOTES ETC.

D. FIRE EXTINGUISHERS TO BE PLACED AS PER MECHANICAL DRAWINGS.

E. FIRE EXTINGUISHER MOUNTED AT 3'-2" ABOVE FLOOR MAX.

F. ACCESSIBLE ROUTE OF TRAVEL: TRAVEL SLOPES NOT TO EXCEED RUNNING SLOPE OF 1:20 (5%), CROSS SLOPE NOT TO EXCEED SLOPE OF 1:48 (2%), MAX.

G. PROVIDE 'EXIT' AND 'EXIT ROUTE' TACTILE SIGNAGE AS REQUIRED BY CODE.

BUILDING CODE SUMMARY

PROJECT DESCRIPTION	ALLOWABLE	ACTUAL
CONSTRUCTION CLASSIFICATION	GROUP E - MECHANTILE	GROUP E - MECHANTILE, NO CHANGE
BUILDING HEIGHT		2 STOREY EXISTING, NO CHANGE
BUILDING AREA		5249 SF [487.65 SQM] EXISTING, NO CHANGE
HIGH RISE OR COVERED MALL	COVERED MALL	
SPRINKLERED	THE EXISTING BUILDING IS FULLY SPRINKLERED AND ALL MODIFICATIONS FOR NEW DESIGNS WILL CONFORM TO NFPA 13	
USE GROUP AND OCCUPANCY CLASSIFICATION	GROUP (E) MERCANTILE - NO CHANGE IN USE GROUP	
SCOPE OF WORK STORY	GROUND FLOOR ONLY	
TENANT AREA	LEASABLE SALES AREA 4,012 SF LEASABLE BACK OF HOUSE 1,237 SF GROSS LEASABLE AREA 5,249 SF	
NUMBER OF EMPLOYEES	MAX 9 EMPLOYEES IN STORE	MAX 9 EMPLOYEES IN STORE

OCCUPANCY CALCULATIONS	
TOTAL OCCUPANTS	SALES: 4012 SF/40 GROSS SF PER OCCUPANT = 100 STOCKROOM: 1237SF/495 GROSS SF PER OCCUPANT= 2

PLUMBING CALCULATIONS	ALLOWABLE	ACTUAL
DISTANCE FROM ENTRY TO MALL FACILITIES	300FT MAX	178FT
	2 WATER CLOSET (102/2 OCCUPANTS = 51) 2 LAVATORY (102/2 OCCUPANTS = 51) 1 SERVICE SINK	EMPLOYEE ONLY UNISEX TOILET ROOM: 1 BARRIER FREE EMPLOYEE ONLY UNISEX TOILET ROOM: 1 STANDARD 1 SERVICE SINK

EGRESS SUMMARY	ALLOWABLE	ACTUAL
NUMBER OF EXITS	2 REQUIRED	2 PROVIDED
MINIMUM EGRESS SEPARATION NBC 3.4.2.3 & 3.3.1.5	WHERE TWO EXIT DOORS ARE REQUIRED THE EXITS SHALL BE PLACED ONE-HALF THE MAXIMUM DIAGONAL DIMENSION OF THE FLOOR AREA, BUT NEED NOT BE MORE THAN 9 M FOR A FLOOR AREA HAVING A PUBLIC CORRIDOR, OR (B) ONE-HALF THE MAXIMUM DIAGONAL DIMENSION OF THE FLOOR AREA, BUT NOT LESS THAN 9 M FOR ALL OTHER FLOOR AREAS. WHERE TWO EGRESS DOORS ARE REQUIRED THEY SHALL BE PLACED AT A DISTANCE FROM ONE ANOTHER EQUAL TO OR GREATER THAN ONE-THIRD OF THE MAXIMUM OVERALL DIAGONAL DIMENSION OF THE ROOM OR SUITE TO BE SERVED, MEASURED AS THE SHORTEST DISTANCE THAT SMOKE WOULD HAVE TO TRAVEL BETWEEN THE NEAREST REQUIRED EGRESS DOORS.	OVERALL DIAGONAL = 111'-2 1/8" OVERALL 1/3 DIAGONAL = 37'-3/4" DOOR TO DOOR DISTANCE = 89'-10"
MAXIMUM EGRESS PATH NBC 3.4.2.4 - — -	SHALL NOT EXCEED 45M (147'-7") WITH SPRINKLERS 105 M IF IT IS SERVED BY A PUBLIC CORRIDOR IN CONFIRMATION WITH 3.4.2.5.(1).(d)	APPROX 95'-6"
DEAD END CORRIDOR (NBC 3.3.1.9.7	SHALL NOT EXCEED 19' 8" WITH SPRINKLERS	N/A
EGRESS THROUGH THE STOCKROOM	EGRESS SHALL NOT PASS THROUGH KITCHENS, STORAGE ROOMS, CLOSETS OR SPACED USED FOR SIMILAR PURPOSES. EXCEPTION: MEANS OF EGRESS IS ALLOWED THROUGH STOCKROOMS WHERE ALL THE FOLLOWING ARE MET: • STOCK IS SAME HAZARD CLASSIFICATION AS MAIN RETAIL AREA • NOT MORE THAN 50% EXIT ACCESS IS THROUGH STOCKROOM • STOCKROOM CANNOT BE LOCKED FROM EGRESS SIDE • THERE IS A DEMARCATED MINIMUM 44" WIDE AISLE DEFINED BY FULL OR PARTIAL HEIGHT FIXED WALLS OR SIMILAR CONSTRUCTION THAT WILL MAINTAIN REQUIRED WIDTH AND LEAD DIRECTLY FROM THE RETAIL AREA TO THE EXIT WITHOUT OBSTRUCTIONS.	

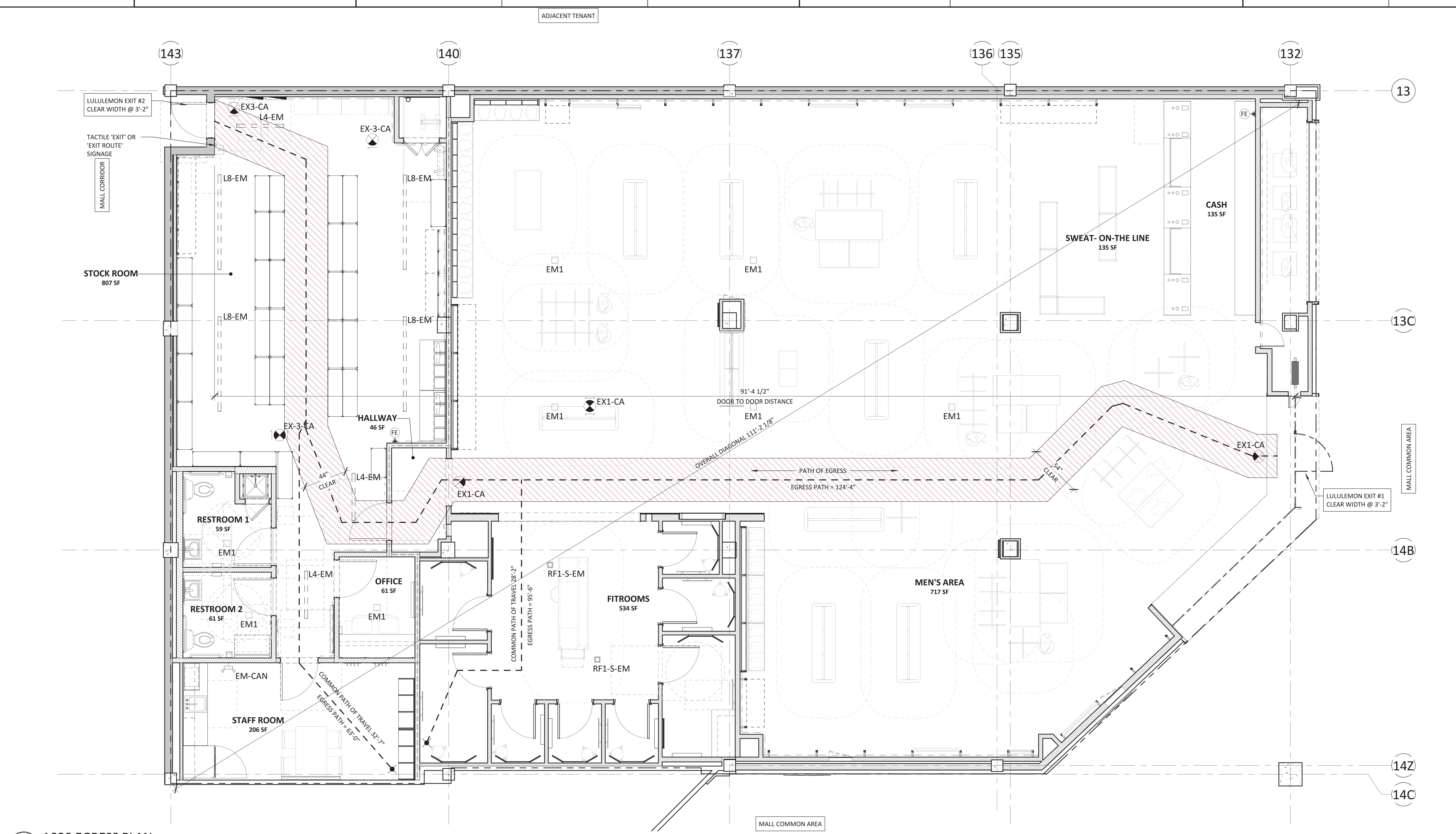
SYSTEMS, CLASSIFICATIONS, AND REPORTS	
ENGINEERING DETAILS, REPORTS, CALCULATIONS, PLANS & SPECIFICATIONS	THE CONTRACT DOCUMENTS SHALL CONTAIN SUFFICIENT INFORMATION TO DESCRIBE THE ARCHITECTURAL FIRE PROTECTION, FIRE ALARM, ELECTRICAL, MECHANICAL AND ENERGY CONSERVATION SYSTEMS. THIS INCLUDES ANY REQUIRED CALCULATIONS, NARRATIVES, AND REPORTS DEEMED NECESSARY BY THE AUTHORITIES HAVING JURISDICTION.

BUILDING DEPARTMENT	
CITY OF WINNIPEG - BUILDING DEPARTMENT: ZONING AND PERMIT APPLICATION 4TH FLOOR - 65 GARRY ST, WINNIPEG, MB R3C 4K4 PHONE: JAMAL (204) 986 8753-EXT 204/PERMIT DEPARTMENT (204) 986-5140	
FIRE PROTECTIVE SIGNALING AND DETECTION SYSTEMS - FIRE ALARMS	THE GENERAL CONTRACTORS SHALL COORDINATE WITH THE CITY OF WINNIPEG AND FIRE DEPARTMENTS FOR ALL FIRE ALARM SYSTEM REQUIREMENTS PRIOR TO THE WORK

APPLICABLE CODES	
BUILDING	NCB 2010
ACCESSIBILITY	MANITOBA'S ACCESSIBILITY STANDARDS OCTOBER 2015
MECHANICAL	NATIONAL BUILDING CODE (NBC) OF CANADA
PLUMBING	NATIONAL BUILDING CODE (NBC) OF CANADA 2015
ELECTRICAL	MANITOBA ENERGY CODE FOR BUILDINGS (MECB) WHICH WAS INTRODUCED IN 2013
FIRE / LIFE, SAFETY	NATIONAL BUILDING CODE (NBC) OF CANADA 2015
ENERGY/IAQ	NATIONAL ENERGY CODE FOR BUILDINGS (NECB) FROM 2011 WITH A FEW AMENDMENTS

FIRE RATING REQUIREMENTS		
PRIMARY STRUCTURAL FRAME	X HR	EXISTING TO REMAIN, GC TO PATCH AND REPAIR AS REQUIRED TO ENSURE 2-HR RATING
NON-BEARING WALLS	X HR	NO SEPARATION REQUIREMENT
FLOORS AND SECONDARY STRUCTURE	X HR	EXISTING TO REMAIN, GC TO PATCH AND REPAIR AS REQUIRED TO ENSURE 2-HR RATING
ROOFS AND SECONDARY STUCTURE	X HR	EXISTING TO REMAIN, GC TO PATCH AND REPAIR AS REQUIRED TO ENSURE 1-HR RATING
STOCKROOM / SALES PARTITION	X HR	NO SEPARATION REQUIREMENT
TENANT STOREFRONT/MALL SEPARATION	X HR	NO SEPARATION REQUIREMENT
TENANT SEPARATION/DEMISING WALLS	X HR	EXISTING TO REMAIN, GC TO PATCH AND REPAIR AS REQUIRED TO ENSURE 1-HR RATING
EXTERIOR WALLS	N/A	NOT APPLICABLE

INTERIOR FINISHES	
INTERIOR FINISHES CLASSIFICATIONS	SPRINKLERED: ENCLOSED VERTICAL EXITS AND PASSAGEWAYS — CLASS B: FLAME SPREAD 26-75 CORRIDORS PROVIDING EXIT ACCESS — CLASS C: FLAME SPREAD 76-200 ROOMS OR ENCLOSED SPACES — CLASS C: FLAME SPREAD 76-200 IN NO CASE SHALL INTERIOR FINISHES EXCEED THE MAX SMOKE-DEVELOPED INDEX OF 450. INTERIOR FINISHES TO BE CLASS III OR GREATER. DOES NOT APPLY TO TRIM DEFINED AS BASEBOARDS AND MOLDINGS, OR TO MATERIALS LESS THAN 1/28 INCH IN THICKNESS APPLIED DIRECTLY TO SURFACE OF WALLS OR CEILINGS



1 A020 EGRESS PLAN

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

lululemon

1818 CORNWALL AVE.
VANCOUVER, B.C., V6J1C7

CF POLO PARK

1485 Portage Ave, Unit 144E
Winnipeg, MB
R3G 0W5
CRU NUMBER: 144E

Quadrangle

Quadrangle Architects Limited
The Well, 8 Spadina Avenue, Suite 2100, Toronto, ON M5V 0S8
t 416 598 1240 www.bdpquadrangle.com

ARCHITECT SEAL

ONTARIO ASSOCIATION OF ARCHITECTS
KIRTIDEV MEHTA
LICENCE
8099

ISSUED FOR CONSTRUCTION

07/14/2023

DATE	DESCRIPTION
06/09/2023	PERMIT/CONSTRUCTION
06/09/2023	ISSUED FOR BID
07/14/2023	ISSUED FOR CONSTRUCTION

DRAWING INFORMATION

PROJECT #: 23206

CHECKED BY: NA

DRAWN BY: MP

BUILDING CODE SUMMARY AND EGRESS PLAN

DRAWING NUMBER

A-020

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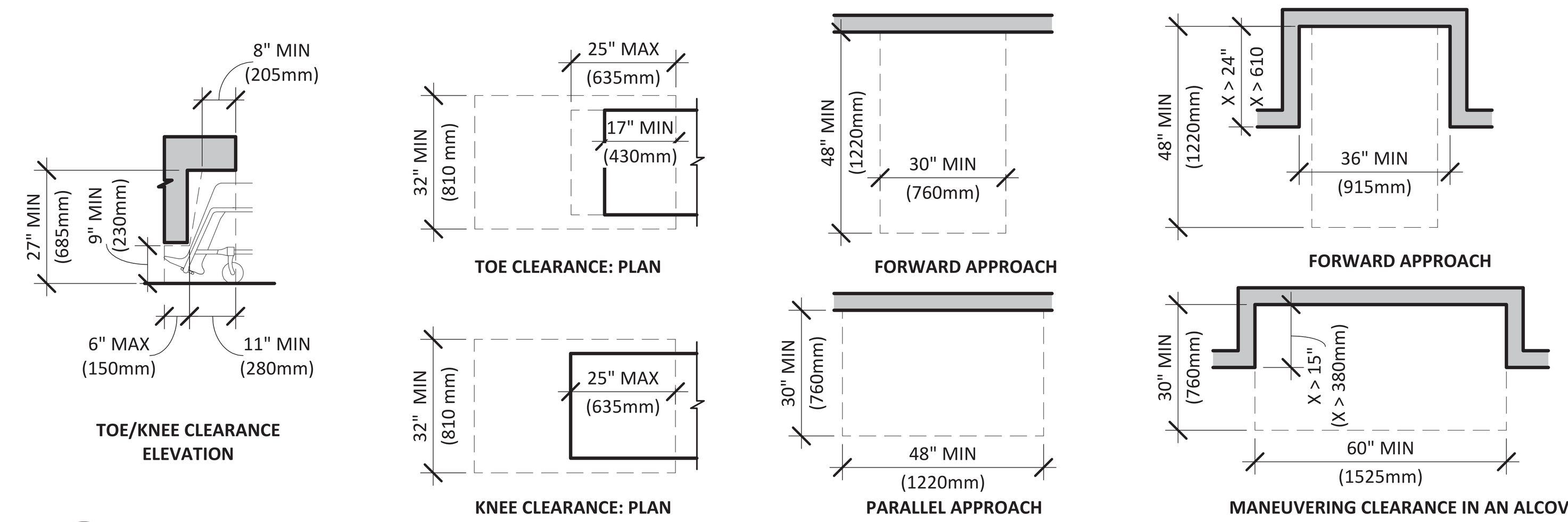


17 CLEAR FLOOR SPACE
SCALE: 3/8" = 1'-0"

ACCESSIBILITY NOTES (2012 OBC / O.REG. 368/13):

BARRIER-FREE DESIGN NOTE:

TENANT'S LEASED PREMISES SHALL COMPLY WITH O.REG. 368/13, THE BARRIER-FREE DESIGN REQUIREMENTS OF THE 2012 ONTARIO BUILDING CODE O.REG. 332/12, UNDER THE 1992 BUILDING CODE ACT AND THE 2012 NATIONAL BUILDING CODE OF CANADA AS ADOPTED BY THE LOCAL AUTHORITY HAVING JURISDICTION. COMPLIANCE WILL INCLUDE, BUT NOT BE LIMITED TO, THE DESIGN, CONSTRUCTION AND/OR ALTERATION OF THE LEASED PREMISES AS REQUIRED BY THE CODE, SHOWN GRAPHICALLY ON THIS SHEET AND IN NOTES BELOW.

WHERE THESE CODES PROVIDE CONFLICTING REQUIREMENTS, GC TO CONFORM TO THE STRICTEST REQUIREMENT. **GC IS RESPONSIBLE FOR ALL SITE VERIFICATIONS.**

ACCESSIBILITY SIGNS (2012 OBC 3.8.3.1):

1. WHERE A BUILDING IS REQUIRED TO HAVE A BARRIER-FREE ENTRANCE, SIGNS INCORPORATING THE INTERNATIONAL SYMBOL OF ACCESS SHALL BE INSTALLED TO INDICATE THE LOCATION OF THAT ENTRANCE, RAMPS LOCATED IN A REQUIRED BARRIER-FREE PATH OF TRAVEL SERVING THAT ENTRANCE, AND AN EXTERIOR PASSENGER LOADING ZONE IF ONE IS PROVIDED.
2. WHERE A WASHROOM, ELEVATOR, TELEPHONE OR PARKING AREA IS REQUIRED TO ACCOMMODATE PERSONS WITH DISABILITIES, IT SHALL BE IDENTIFIED BY A SIGN CONSISTING OF THE INTERNATIONAL SYMBOL OF ACCESS AND SUCH OTHER GRAPHIC, TACTILE OR WRITTEN DIRECTIONS AS ARE NEEDED TO INDICATE CLEARLY THE TYPE OF FACILITY AVAILABLE.
3. WHERE A WASHROOM IS NOT DESIGNED TO ACCOMMODATE PERSONS WITH DISABILITIES IN A STOREY THAT IS REQUIRED TO HAVE A BARRIER-FREE PATH OF TRAVEL, SIGNS SHALL BE PROVIDED TO INDICATE THE LOCATION OF A WASHROOM REQUIRED TO BE BARRIER-FREE.
4. SIGNS INCORPORATING THE INTERNATIONAL SYMBOL OF ACCESS SHALL BE INSTALLED WHERE NECESSARY TO INDICATE THE LOCATION OF A BARRIER-FREE MEANS OF EGRESS.
5. WHERE A WALL MOUNTED TACTILE SIGN IS PROVIDED IN A BUILDING, CHARACTERS, SYMBOLS OR PICTOGRAPHS ON THE SIGN SHALL BE LOCATED NOT LESS THAN 1200 MM AND NOT MORE THAN 1500 MM ABOVE THE FINISHED FLOOR.

DOORWAYS AND DOORS (2012 OBC 3.8.3.3):

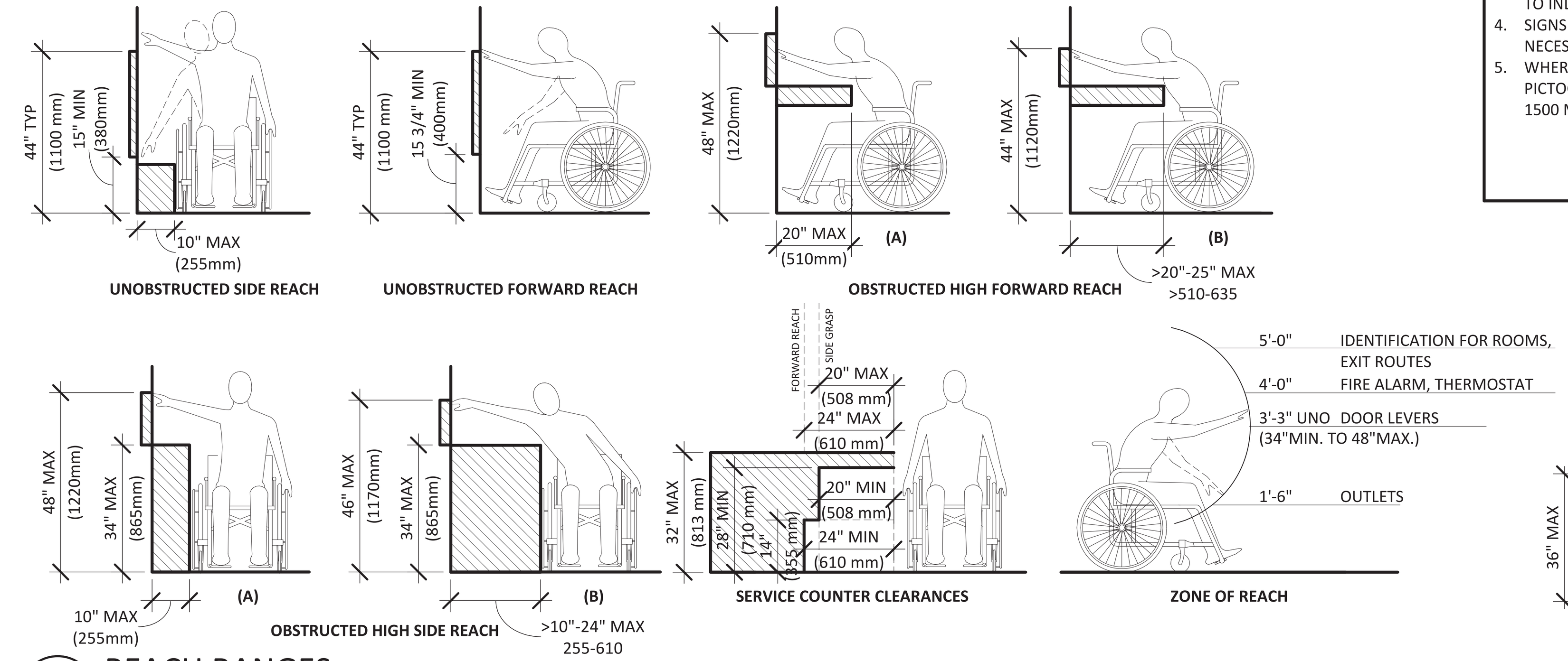
1. EVERY DOORWAY THAT IS LOCATED IN A BARRIER-FREE PATH OF TRAVEL SHALL HAVE A CLEAR WIDTH OF NOT LESS THAN 860 MM WHEN THE DOOR IS IN THE OPEN POSITION.
2. DOOR OPENING DEVICES THAT ARE THE ONLY MEANS OF OPERATION SHALL, BE DESIGNED TO BE OPERABLE USING A CLOSED FIST, AND BE MOUNTED NOT LESS THAN 900 MM AND NOT MORE THAN 1100 MM ABOVE THE FINISHED FLOOR.
3. POWER DOOR OPERATORS
   A. EVERY DOOR (ACTIVE LEAF) THAT PROVIDES A BARRIER-FREE PATH OF TRAVEL THROUGH A BARRIER-FREE ENTRANCE SHALL BE EQUIPPED WITH A POWER DOOR OPERATOR IF THE ENTRANCE SERVES A BUILDING CONTAINING A GROUP A, GROUP B, DIVISION 2 OR 3, GROUP C, GROUP D OR GROUP E OCCUPANCY.
   B. EXCEPT WHERE A BARRIER-FREE ENTRANCE REQUIRED INCORPORATES A VESTIBULE, A DOOR LEADING FROM THE VESTIBULE INTO THE FLOOR AREA SHALL BE EQUIPPED WITH A POWER DOOR OPERATOR IN A BUILDING CONTAINING A GROUP E OCCUPANCY.
   C. A DOOR SHALL BE EQUIPPED WITH A POWER DOOR OPERATOR WHERE THE DOOR SERVES A WASHROOM FOR PUBLIC USE REQUIRED TO BE BARRIER-FREE
4. EXCEPT FOR DOORS WITH POWER OPERATORS, CLOSERS FOR DOORS IN A BARRIER-FREE PATH OF TRAVEL SHALL BE DESIGNED TO PERMIT DOORS TO OPEN WHEN A FORCE OF NOT MORE THAN 38 N IS APPLIED TO THE HANDLES, PUSH PLATES OR LATCH-RELEASING DEVICES IN THE CASE OF EXTERIOR DOORS AND 22 N IN THE CASE OF INTERIOR DOORS.
5. CLOSERS FOR INTERIOR DOORS IN A BARRIER-FREE PATH OF TRAVEL SHALL HAVE A CLOSING PERIOD OF NOT LESS THAN 3 SECONDS MEASURED FROM WHEN THE DOOR IS IN AN OPEN POSITION OF 70° TO THE DOORWAY, TO WHEN THE DOOR REACHES A POINT 75 MM FROM THE CLOSED POSITION, MEASURED FROM THE LEADING EDGE OF THE LATCH SIDE OF THE DOOR.
6. THE FLOOR SURFACE ON EACH SIDE OF A DOOR IN A BARRIER-FREE PATH OF TRAVEL SHALL BE LEVEL WITHIN A RECTANGULAR AREA, AS WIDE AS THE DOOR PLUS THE CLEARANCE REQUIRED ON THE LATCH SIDE BY SENTENCE (10), AND WHOSE DIMENSION PERPENDICULAR TO THE CLOSED DOOR IS NOT LESS THAN THE WIDTH OF THE BARRIER-FREE PATH OF TRAVEL BUT NEED NOT EXCEED 1500 MM.
7. A DOOR IN A BARRIER-FREE PATH OF TRAVEL CONSISTING OF A SHEET OF GLASS SHALL BE MARKED WITH A CONTINUOUS OPAQUE STRIP.

BARRIER-FREE PATH OF TRAVEL (2012 OBC 3.8.1.3):

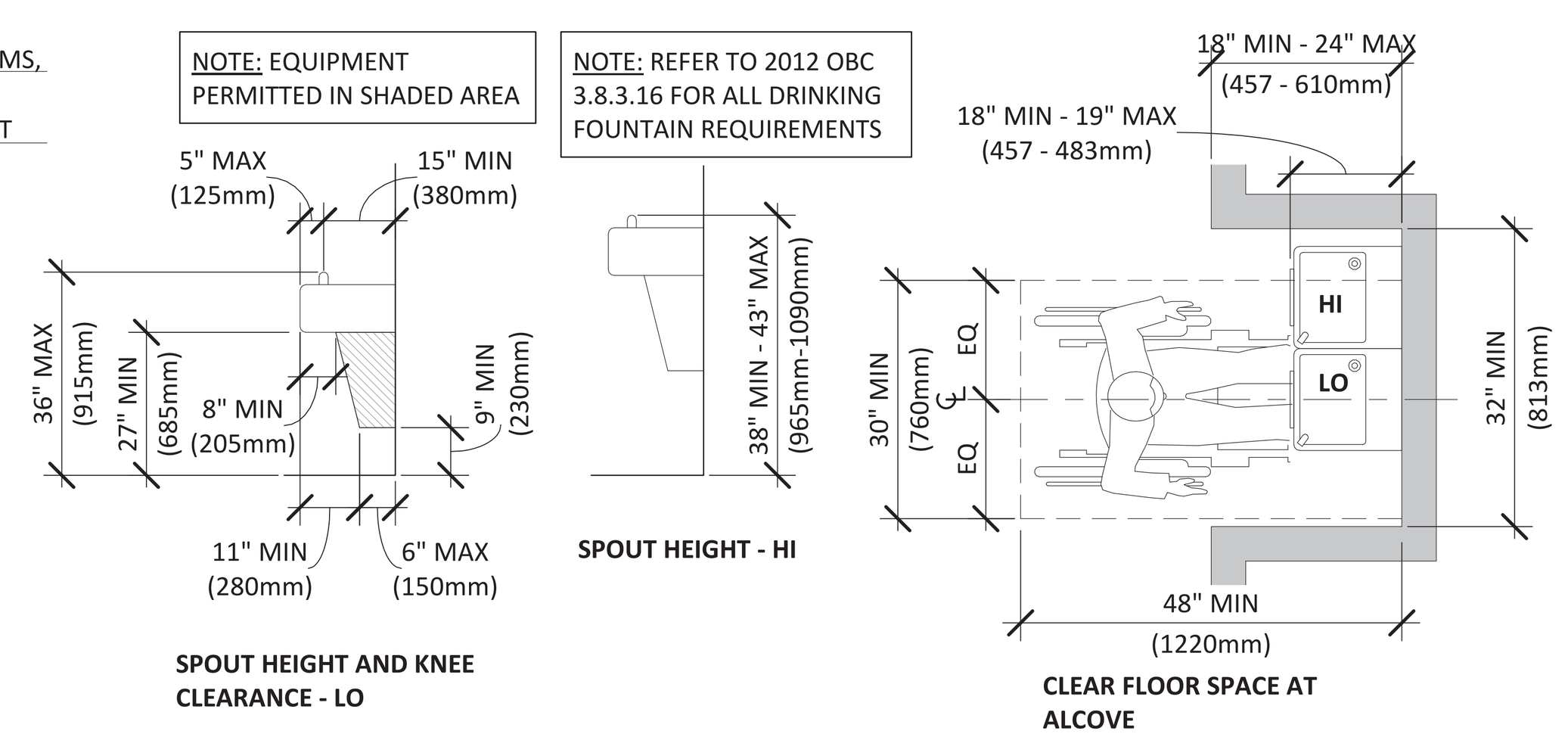
1. EVERY BARRIER-FREE PATH OF TRAVEL SHALL PROVIDE AN UNOBSTRUCTED WIDTH OF AT LEAST 1100 MM FOR THE PASSAGE OF WHEELCHAIRS.
2. INTERIOR AND EXTERIOR WALKING SURFACES THAT ARE WITHIN A BARRIER-FREE PATH OF TRAVEL SHALL HAVE NO OPENING THAT WILL PERMIT THE PASSAGE OF A SPHERE MORE THAN 13 MM IN DIAMETER, HAVE ANY ELONGATED OPENINGS ORIENTED APPROXIMATELY PERPENDICULAR TO THE DIRECTION OF TRAVEL, BE STABLE, FIRM AND SLIP-RESISTANT, BE BEVELLED AT A MAXIMUM SLOPE OF 1 IN 2 AT CHANGES IN LEVEL NOT MORE THAN 13 MM, AND BE PROVIDED WITH SLOPED FLOORS OR RAMPS AT CHANGES IN LEVEL MORE THAN 13 MM.
3. A BARRIER-FREE PATH OF TRAVEL IS PERMITTED TO INCLUDE RAMPS, PASSENGER ELEVATORS OR OTHER PLATFORM EQUIPPED PASSENGER ELEVATING DEVICES TO OVERCOME A DIFFERENCE IN LEVEL.

CONTROLS (2012 OBC 3.8.1.5):

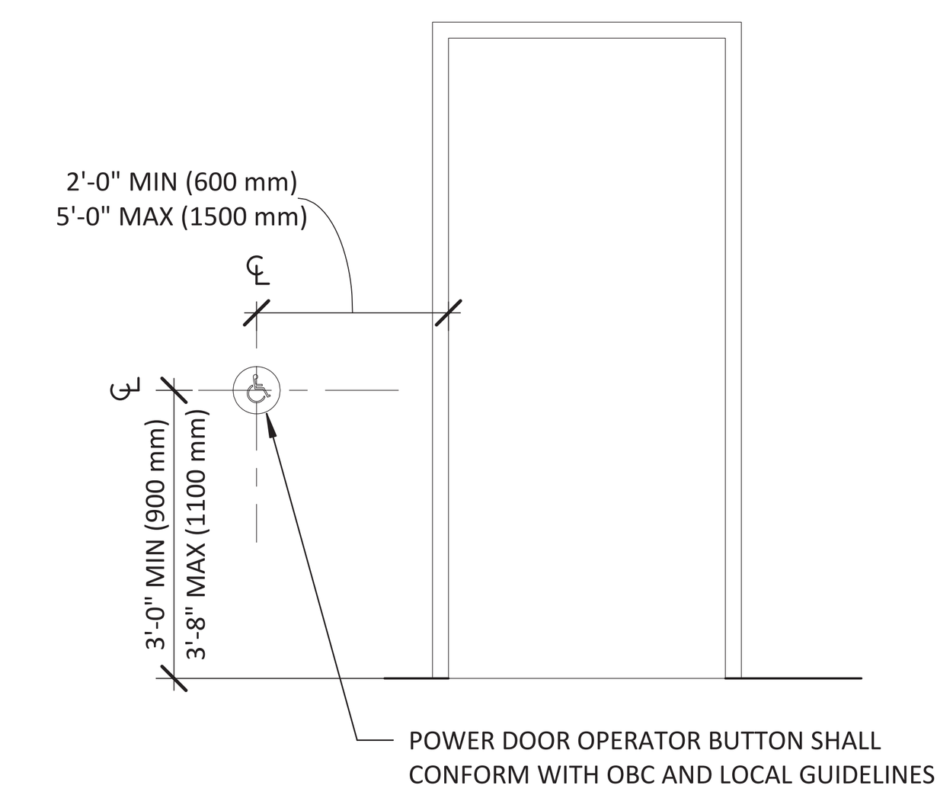
1. EXCEPT FOR POWER DOOR OPERATOR CONTROLS, CONTROLS FOR THE OPERATION OF BUILDING SERVICES OR SAFETY DEVICES, INCLUDING ELECTRICAL SWITCHES, THERMOSTATS AND INTERCOM SWITCHES, INTENDED TO BE OPERATED BY THE OCCUPANT AND LOCATED IN A BARRIER-FREE PATH OF TRAVEL SHALL BE MOUNTED 1200 MM ABOVE THE FINISHED FLOOR, IN THE CASE OF A THERMOSTAT OR A MANUAL PULL STATION, AND NOT LESS THAN 900 MM AND NOT MORE THAN 1100 MM ABOVE THE FINISHED FLOOR, IN THE CASE OF ALL OTHER CONTROLS, AND BE LOCATED SO AS TO BE ADJACENT TO AND CENTERED ON EITHER THE LENGTH OR THE WIDTH OF A CLEAR FLOOR SPACE OF 810 MM BY 1370 MM, AND BE OPERABLE USING ONE HAND, WITHOUT REQUIRING TIGHT GRASPING, PINCHING WITH FINGERS OR TWISTING OF THE WRIST, AND WITH A FORCE OF NOT MORE THAN 22.2 N, IN THE CASE OF A MANUAL PULL STATION, AND USING A CLOSED FIST AND WITH A FORCE OF NOT MORE THAN 22.2 N, IN THE CASE OF ALL OTHER CONTROLS.
2. A SIGNAL INTENDED FOR THE PUBLIC TO INDICATE THE OPERATION OF A BUILDING SECURITY SYSTEM THAT CONTROLS ACCESS TO A BUILDING SHALL CONSIST OF AN AUDIBLE AND VISUAL SIGNAL.



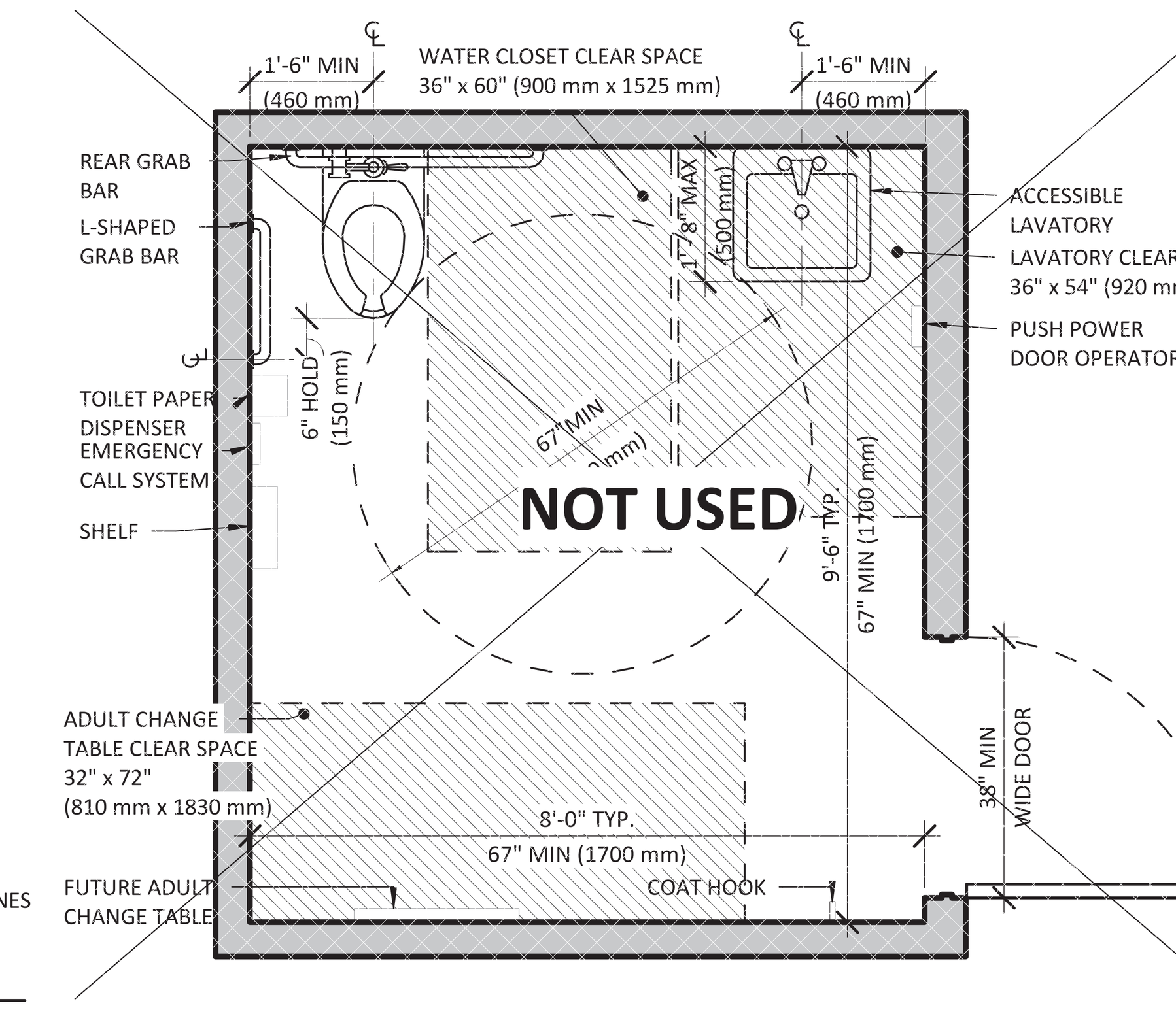
16 REACH RANGES
SCALE: 3/8" = 1'-0"



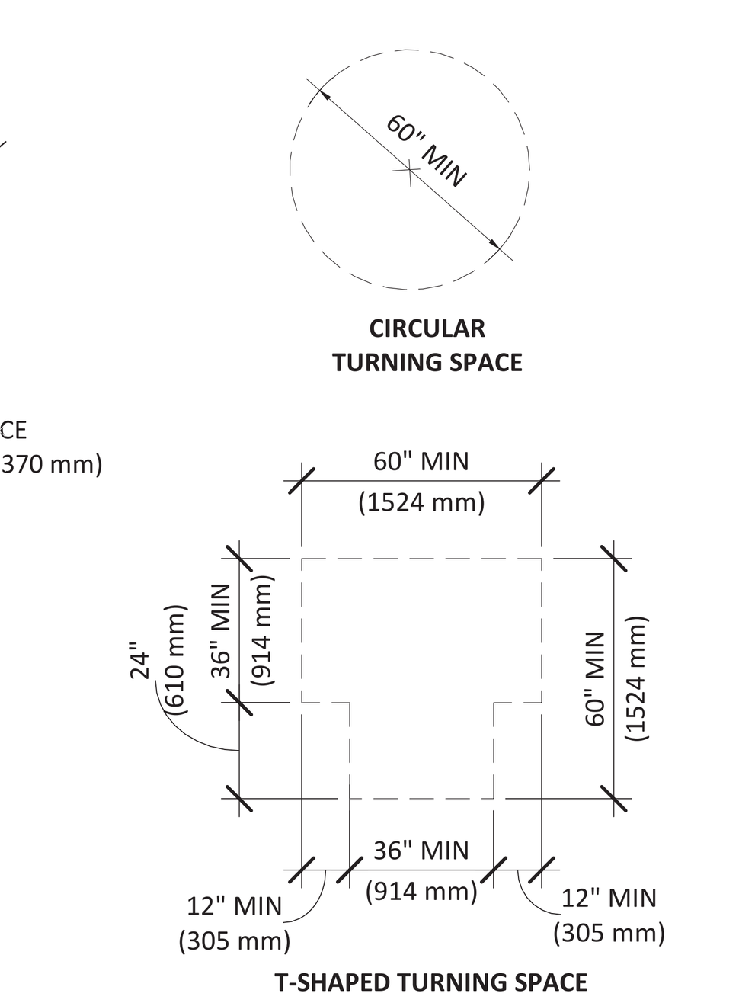
15 DRINKING FOUNTAIN
SCALE: NTS



14 POWER DOOR OPERATOR
SCALE: 1/2" = 1'-0"

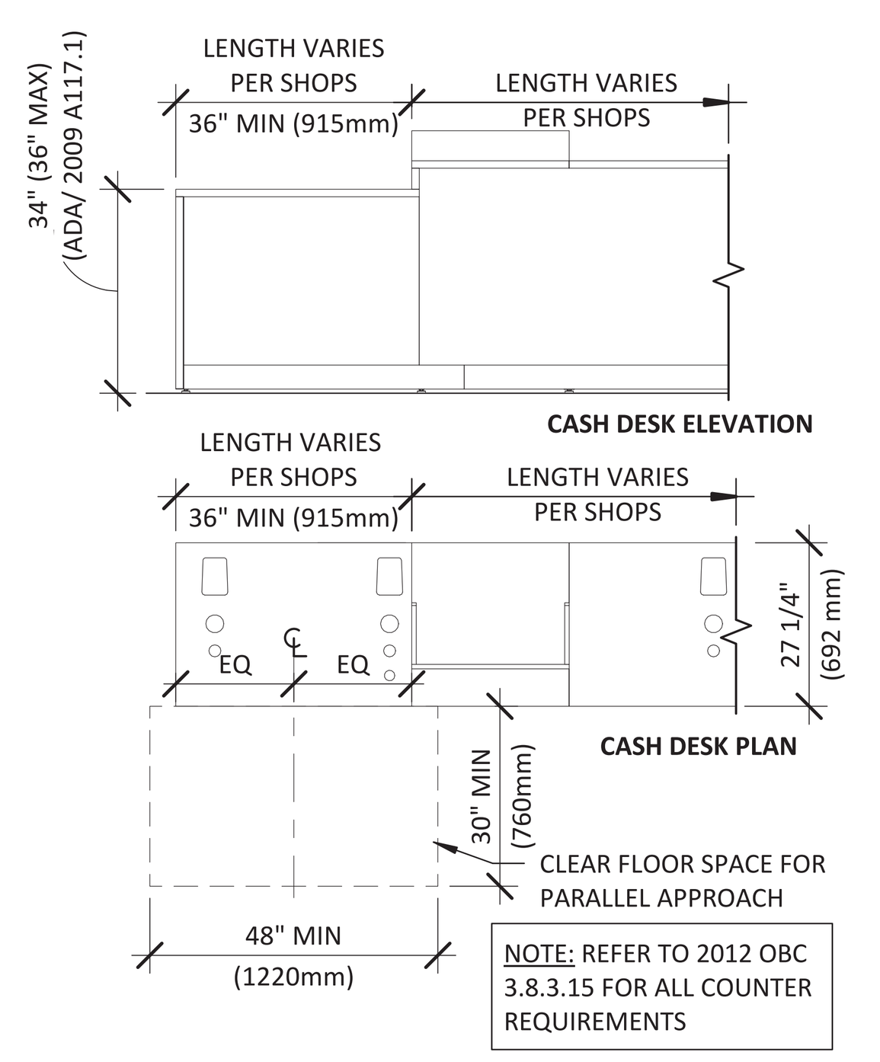


13 UNIVERSAL TOILET ROOM - PLAN DETAIL
SCALE: 1/2" = 1'-0"



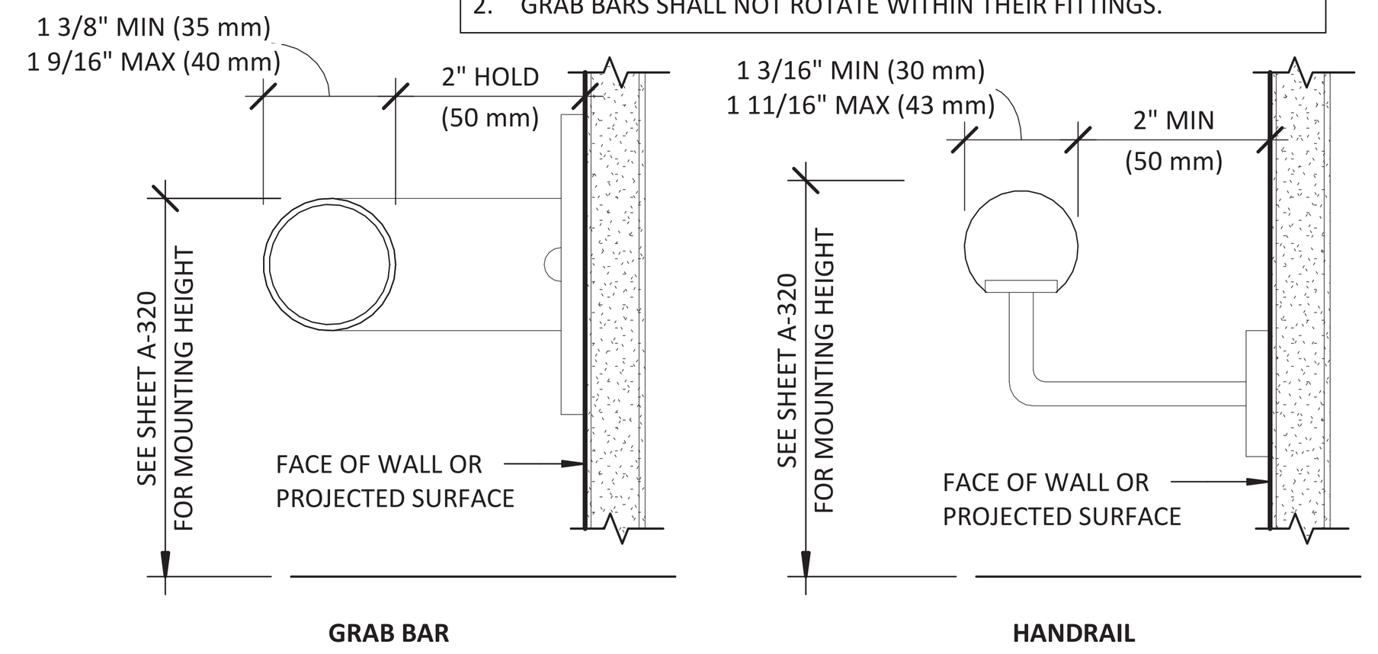
NOTE:
1. FLOOR SURFACES OF A TURNING SPACE SHALL HAVE A SLOPE NOT STEEPER THAN 1:48.
2. TURNING SPACES SHALL BE PERMITTED TO INCLUDE KNEE AND TOE CLEARANCES.
3. UNLESS OTHERWISE SPECIFIED, DOORS SHALL BE PERMITTED TO SWING INTO THE TURNING SPACES.

12 TURNING SPACES
SCALE: 1/4" = 1'-0"

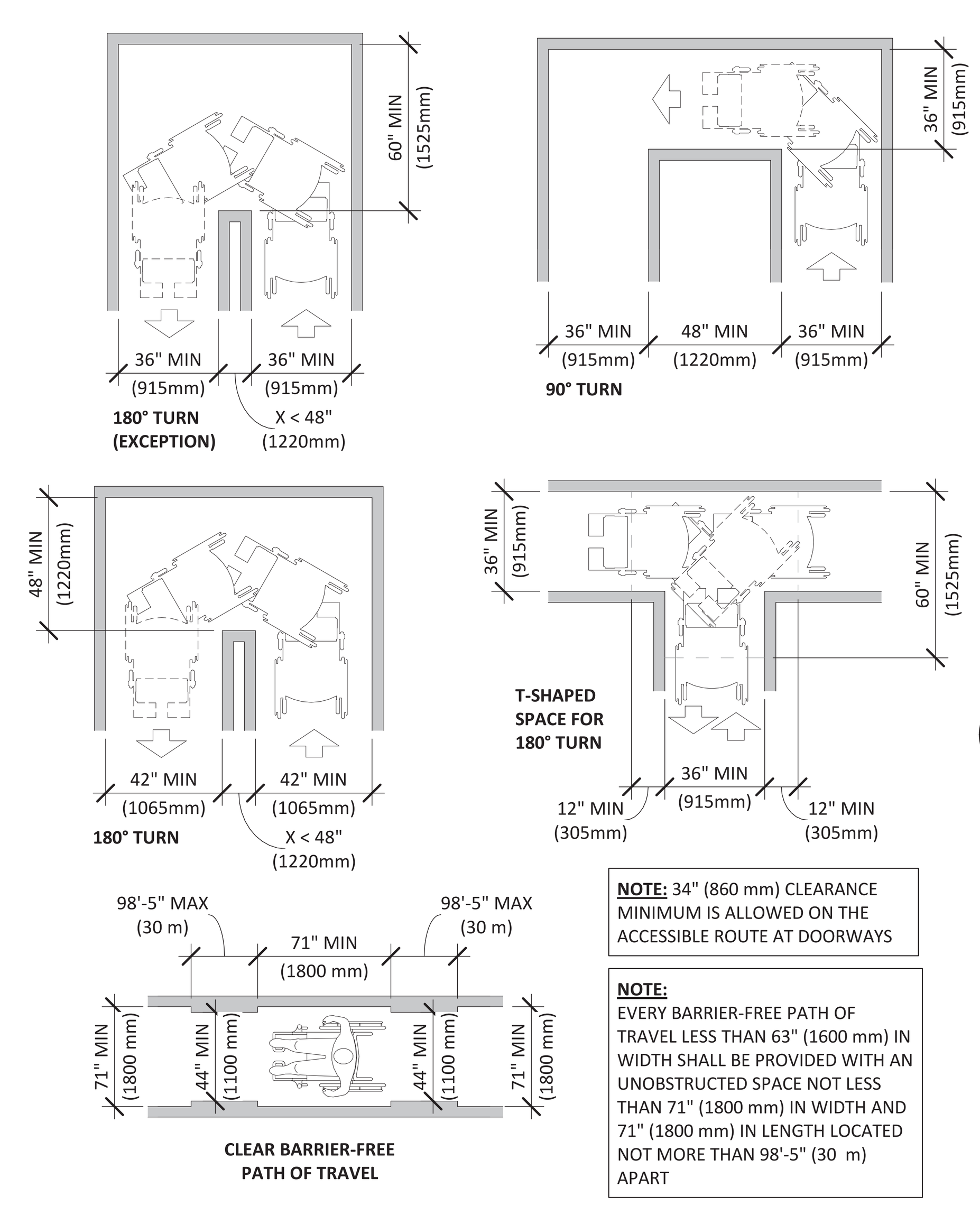


11 ACCESSIBLE CASH DESK
SCALE: 3/8" = 1'-0"

NOTE:
1. GRAB BARS AND ANY WALL OR OTHER SURFACE, SHALL BE FREE OF SHARP OR ABRASIVE ELEMENTS AND SHALL HAVE ROUNDED EDGES.
2. GRAB BARS SHALL NOT ROTATE WITHIN THEIR FITTINGS.



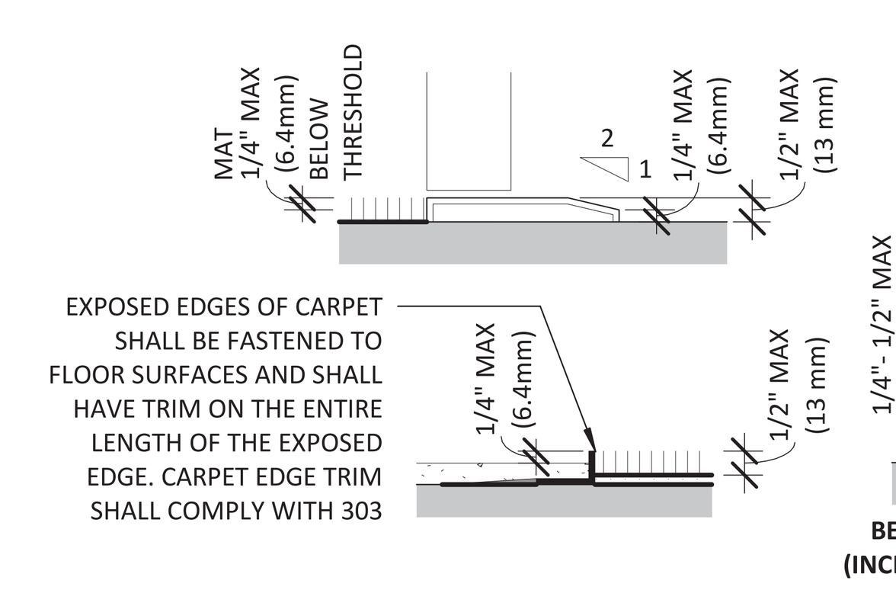
10 BAR AND RAIL DETAIL
SCALE: 6" = 1'-0"



NOTE: 34" (860 mm) CLEARANCE MINIMUM IS ALLOWED ON THE ACCESSIBLE ROUTE AT DOORWAYS

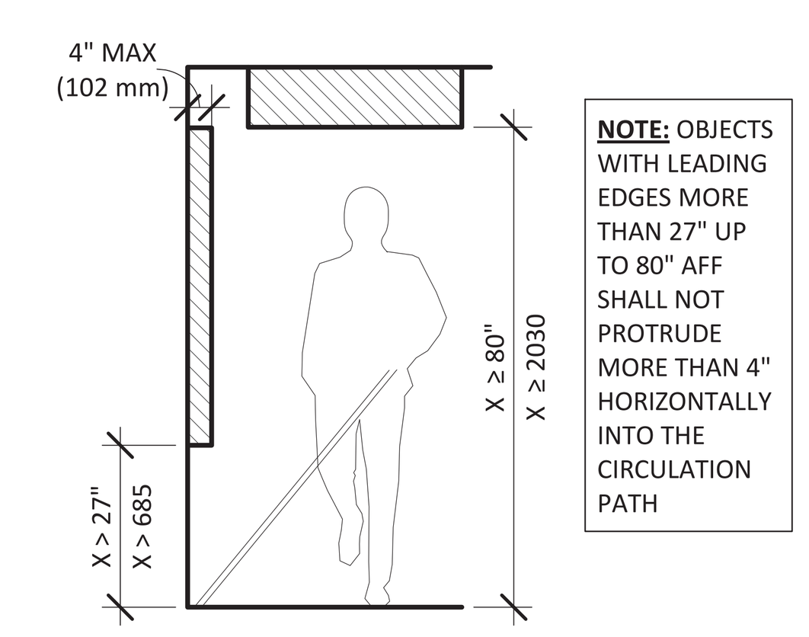
NOTE:
EVERY BARRIER-FREE PATH OF TRAVEL LESS THAN 63" (1600 MM) IN WIDTH SHALL BE PROVIDED WITH AN UNOBSTRUCTED SPACE NOT LESS THAN 71" (1800 MM) IN WIDTH AND 71" (1800 mm) IN LENGTH LOCATED NOT MORE THAN 98'-5" (30 m) APART

9 WALKING SURFACES CLEAR WIDTH
SCALE: 1/4" = 1'-0"



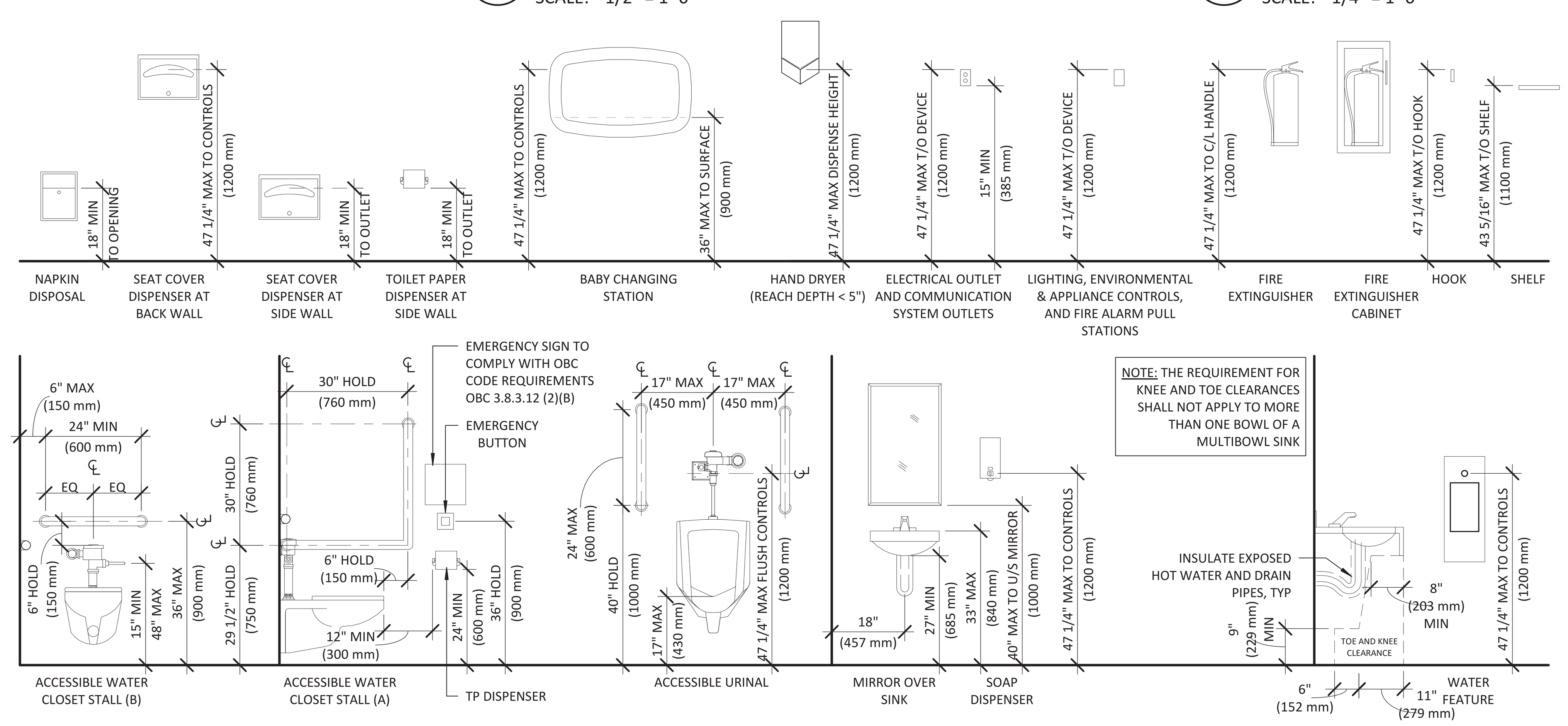
NOTE: CARPET OR CARPET TILE SHALL BE SECURELY ATTACHED AND SHALL HAVE A FIRM CUSHION, PAD, OR BACKING OR NO CUSHION OR PAD. CARPET OR CARPET TILE SHALL HAVE A LEVEL LOOP, TEXTURED LOOP, LEVEL CUT PILE, OR LEVEL CUT/UNCUT PILE TEXTURE. PILE HEIGHT SHALL BE ½ INCH (13 MM) MAXIMUM.

8 FLOOR TRANSITION HEIGHTS
SCALE: 3" = 1'-0"



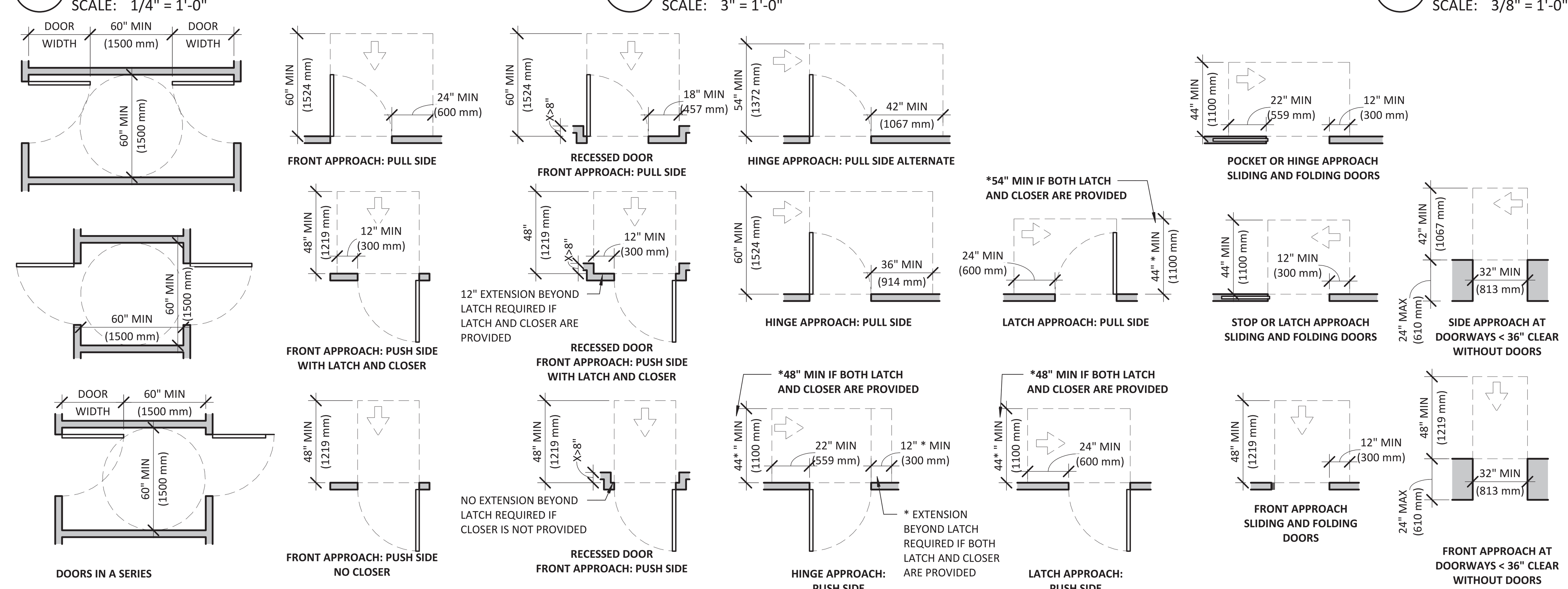
NOTE: OBJECTS WITH LEADING EDGES MORE THAN 27" UP TO 80" AFF SHALL NOT PROTRUDE MORE THAN 4" HORIZONTALLY INTO THE CIRCULATION PATH

7 PROTRUDING OBJECTS
SCALE: 3/8" = 1'-0"

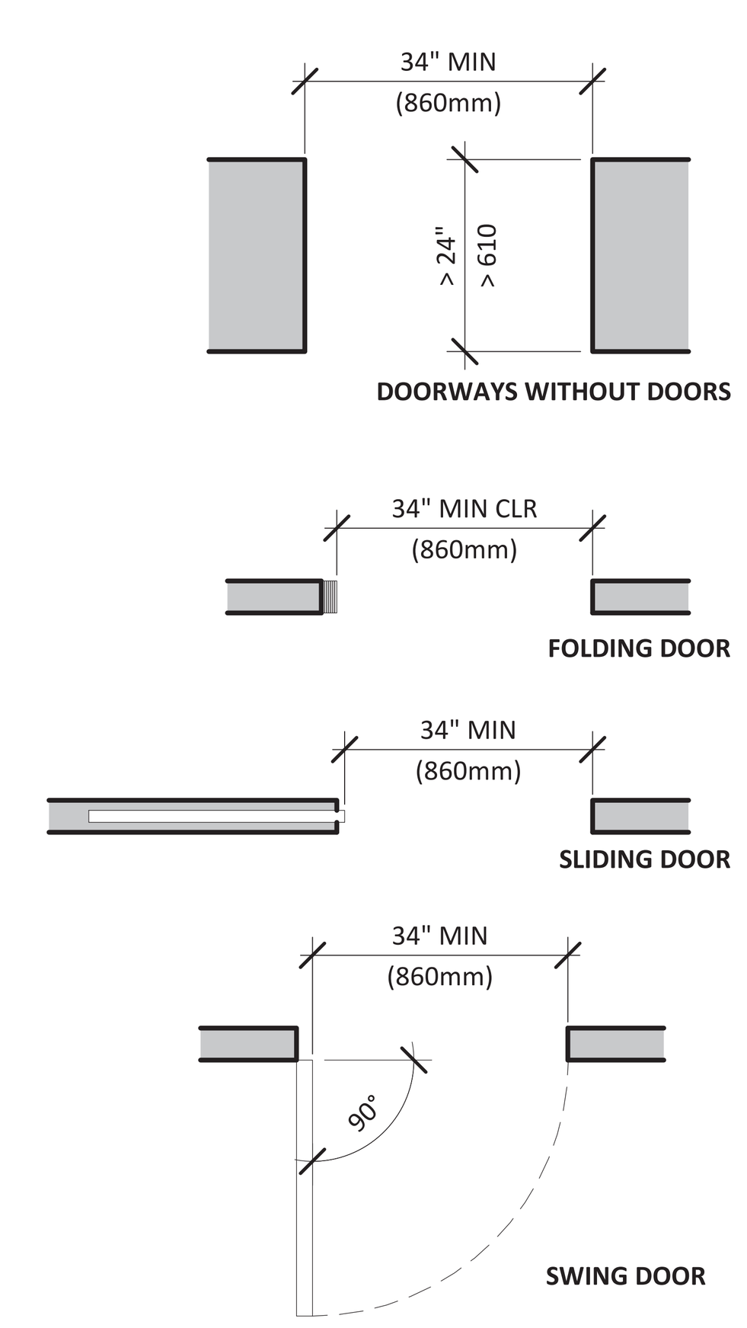


NOTE: THE REQUIREMENT FOR KNEE AND TOE CLEARANCES SHALL NOT APPLY TO MORE THAN ONE BOWL OF A MULTIBOWL SINK

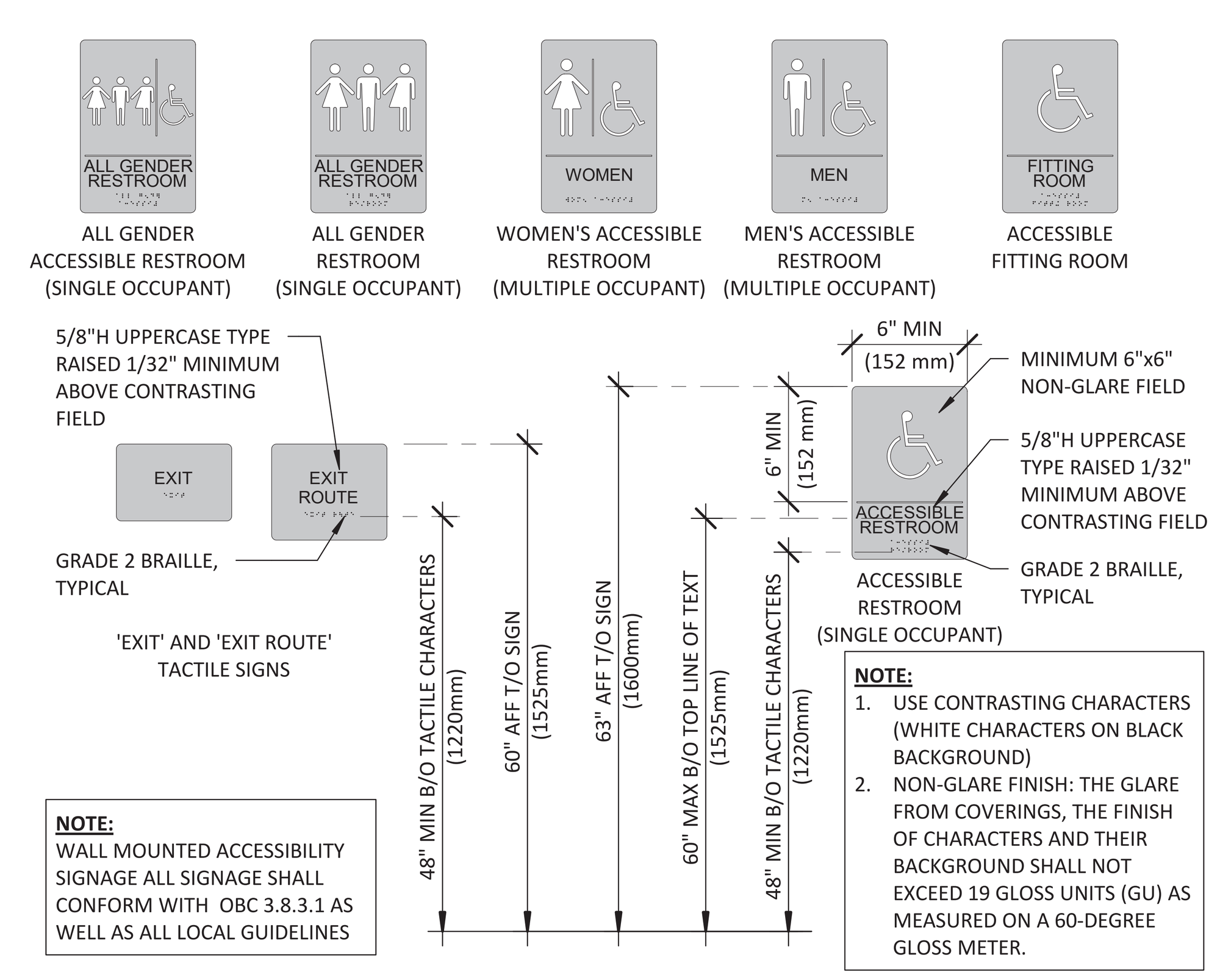
6 MOUNTING HEIGHTS FOR PLUMBING FIXTURES, TOILET ACCESSORIES, AND MISCELLANEOUS FIXTURES
SCALE: 1/2" = 1'-0"



4 DOOR ACCESS CLEARANCES
SCALE: 1/4" = 1'-0"



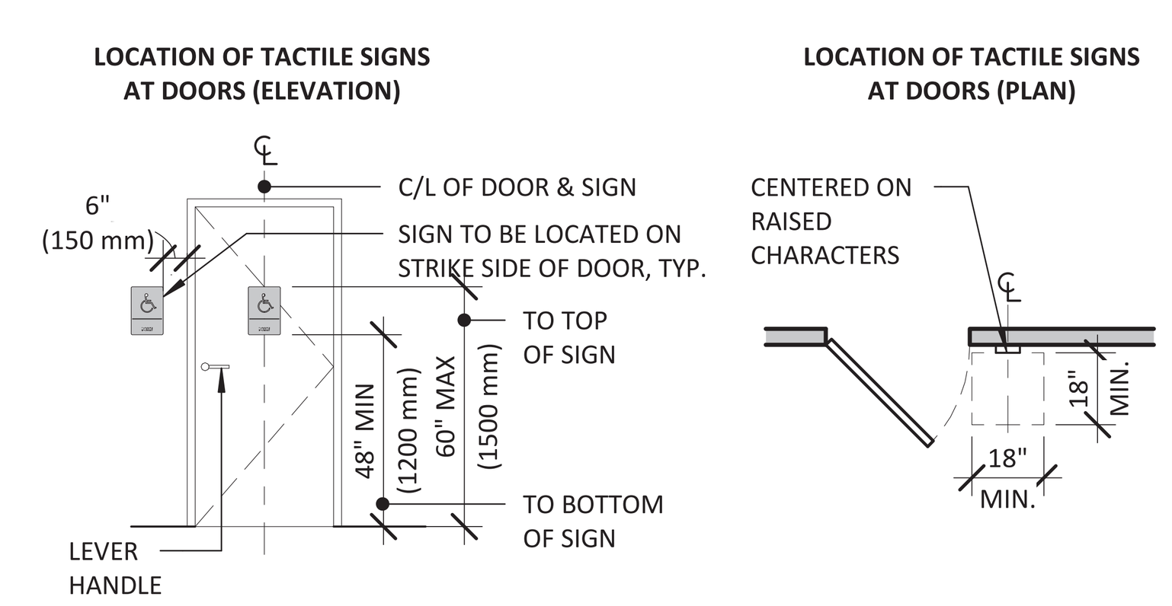
3 DOORWAYS
SCALE: 1/2" = 1'-0"



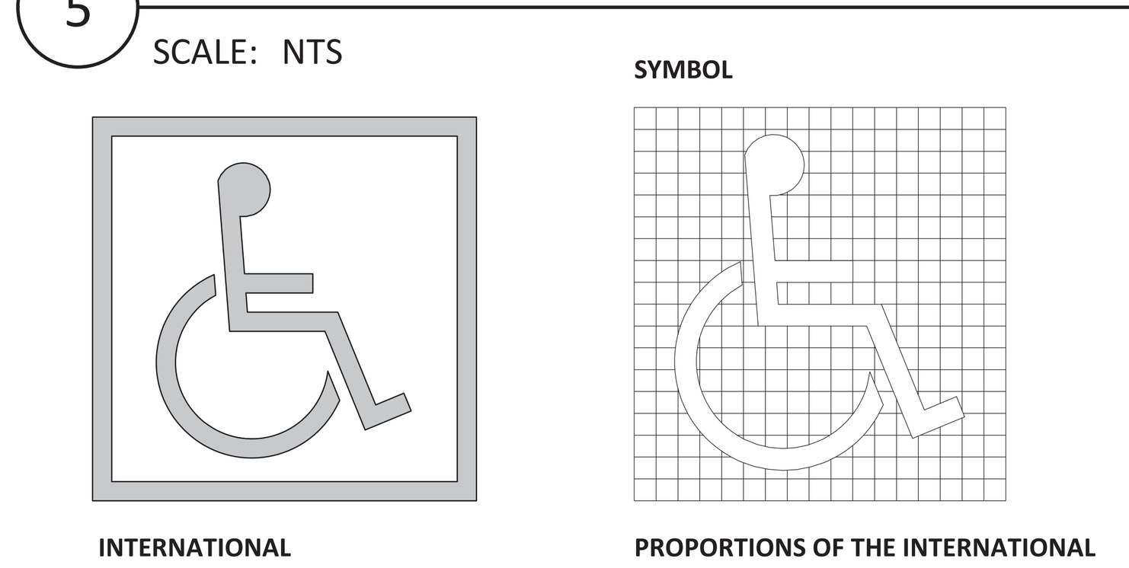
NOTE:
WALL MOUNTED ACCESSIBILITY SIGNAGE ALL SIGNAGE SHALL CONFORM WITH OBC 3.8.3.1 AS WELL AS ALL LOCAL GUIDELINES

NOTE:
1. USE CONTRASTING CHARACTERS (WHITE CHARACTERS ON BLACK BACKGROUND)
2. NON-GLARE FINISH: THE GLARE FROM COVERINGS, THE FINISH OF CHARACTERS AND THEIR BACKGROUND SHALL NOT EXCEED 19 GLOSS UNITS (GU) AS MEASURED ON A 60-DEGREE GLOSS METER.

2 TACTILE SIGNAGE
SCALE: NTS



5 TACTILE SIGNAGE LOCATION AT DOORS
SCALE: NTS



1 INTERNATIONAL SYMBOL OF ACCESSIBILITY
SCALE: NTS

lululemon
1818 CORNWALL AVE.
VANCOUVER, B.C., V6J1C7

CF POLO PARK
1485 Portage Ave, Unit 144E
Winnipeg, MB
R3G 0W5
CRU NUMBER: 144E

Quadrangle
Quadrangle Architects Limited
The Well, 8 Spadina Avenue, Suite 2100, Toronto, ON M5V 0S8
t 416 598 1240 www.bdpquadrangle.com

ARCHITECT SEAL

ONTARIO ASSOCIATION OF ARCHITECTS
KIRTIDEV MEHTA
LICENCE
8090

ISSUED FOR CONSTRUCTION

07/14/2023

DATE	DESCRIPTION
06/09/2023	PERMIT/CONSTRUCTION
06/09/2023	ISSUED FOR BID
07/14/2023	ISSUED FOR CONSTRUCTION

DRAWING INFORMATION
PROJECT #: 23206
CHECKED BY: NA
DRAWN BY: MP

NATIONAL ACCESSIBILITY NOTES (2010 NBC)

DRAWING NUMBER
A-030

7/14/2023 12:09:20 PM

LEGEND

- EXISTING CONDITION TO REMAIN REPAIR AS REQUIRED TO MAINTAIN REQUIRED RATINGS AND ACCEPT FINAL TENANT FINISHES
- ITEM TO BE DEMOLISHED
- TRENCHING ZONE
- CORING ZONE

GENERAL NOTES

DEMO PLAN - SEQUENCING & EXECUTION

A. SUBMIT FOR APPROVAL SELECTIVE DEMOLITION SCHEDULE, INCLUDING SCHEDULE AND METHODS FOR CAPPING AND CONTINUING UTILITY SERVICE.

B. ALL WORK SHALL COMPLY WITH THE RULES AND REGULATIONS OF THE DIVISION OF INDUSTRIAL SAFETY AND ALL OTHER LOCAL, PROVINCIAL AND FEDERAL AGENCIES AND AUTHORITIES HAVING JURISDICTION.

C. DEMO CONTRACTOR TO OBTAIN AND PAY FOR ALL PERMITS REQUIRED TO PERFORM THE DEMOLITION WORK AS REQUIRED BY ALL AGENCIES AND AUTHORITIES HAVING JURISDICTION.

D. DEMOLITION CONTRACTOR SHALL COORDINATE AND BE RESPONSIBLE FOR ALL CITY REQUIREMENTS FOR PROTECTION OF PERSONS, PROPERTY, TRAFFIC CONTROL, BARRICADES, ETC. FOR THE DURATION OF THE DEMOLITION CONTRACT.

E. COORDINATE WITH GENERAL CONTRACTOR A SCHEDULE FOR DEMOLITION OF SPECIFIC ITEMS TO CONFORM WITH SCHEDULING FOR OTHER TRADES REQUIRED TO COMPLETE OR PERFORM A DIRECTLY RELATED PORTION OF THE WORK.

LANDLORD DEMOLITION SCOPE

A. Remove existing tenant improvements, finishes and installations within the Premises including, but not limited to, the following:
   a. Storefront (interior and/or exterior) to be demolished and removed. Interior/exterior hoarding to be installed as applicable.
   b. All signage, interior and exterior, removed. Patch and repair Landlord finishes to match existing.
   c. Floor finishes, floor adhesives/fasteners, subfloors. Patch and repair flooring to remove previous Tenant's adhesives, patch obvious cracking and divots.
   d. Interior walls, doors and finishes from former Tenant layout removed. Patch and repair demising walls.
   e. Trade fixtures. Patch and repair fixture removal areas.
   f. Remove lighting. Redundant electrical distribution wiring, voice and data cabling.
   g. Ceiling finishes, fasteners, hangers related to ceiling systems
   h. Redundant HVAC branch lines (main supply lines to remain).
   i. Plumbing branch lines (main supply lines to remain)
   j. Sprinkler coverage to be modified to meet local codes at handover of space to tenant as required by law

Interior column finishes excluding fire rated components

DEMO PLAN - HANDLING

A. WHEN THE SCOPE OF DEMOLITION WORK REQUIRES THEIR USE, ERECT AND MAINTAIN DUST CHUTES FOR THE DISPOSAL OF MATERIALS, RUBBISH AND DEBRIS.

B. REMOVE DEBRIS FROM THE SITE AS IT ACCUMULATES. DO NOT STORE, SELL, BURN OR OTHERWISE DISPOSE OF DEBRIS ON THE SITE. REMOVE ALL MATERIALS IN SUCH MANNER AS TO PREVENT SPILLAGE. GC TO KEEP ALL PAVEMENT AND AREAS ADJACENT TO AND LEADING FROM THE SITE CLEAN AND FREE OF MUD, DIRT, AND DEBRIS AT ALL TIMES. ALL MATERIAL SHALL BE DISPOSED OF LEGALLY.

C. ERECT AND MAINTAIN TEMPORARY BRACING, SHORING, LIGHTS, BARRICADES, WARNING SIGNS, AND GUARDS NECESSARY TO PROTECT BUILDING OCCUPANTS, AND ADJOINING TENANTS FROM INJURY, AND/OR DAMAGE, ALL IN ACCORDANCE WITH APPLICABLE RULES AND REGULATIONS.

D. DO NOT DAMAGE BUILDING ELEMENTS AND IMPROVEMENTS INDICATED TO REMAIN. COORDINATE ITEMS OF SALVAGE VALUE NOT INCLUDED IN SCHEDULE OF SALVAGE ITEMS WITH OWNER PRIOR TO REMOVAL FROM PREMISES.

E. DO NOT CLOSE OR OBSTRUCT THE MEANS OF EGRESS, CORRIDORS, OR OTHER SPACES WITHOUT THE WRITTEN PERMISSION OF THE OWNER, LANDLORD, AND AUTHORITIES HAVING JURISDICTION.

F. UTILITIES TO BE MAINTAINED UNO INTERRUPTIONS/SHUT DOWNS SHALL BE COORDINATED WITH OWNER AND LANDLORD PRIOR TO COMMENCING THE WORK. PROVIDE TEMPORARY UTILITIES AS REQUIRED.

G. CEASE OPERATIONS IF PUBLIC SAFETY OR REMAINING STRUCTURES ARE ENDANGERED. PERFORM TEMPORARY CORRECTIVE MEASURES UNTIL OPERATIONS CAN BE CONTINUED SAFELY.

H. MAINTAIN EXISTING VAPOR BARRIERS AS APPLICABLE.

I. UNO, VERIFY FLOOR IS LEVEL THROUGHOUT, NOTIFY ARCHITECT AND OWNER OF ANY DISCREPANCIES.

DEMO PLAN - GENERAL

A. GC TO STUDY THE CONTRACT DOCUMENTS, DETERMINE THE LOCATION AND EXTENT OF SELECTIVE DEMOLITION TO BE PERFORMED.

B. GC TO FAMILIARIZE THEMSELVES WITH LANDLORD/OWNER RULES AND REGULATIONS PRIOR TO THE START OF DEMO.

C. COORDINATE WITH CONSTRUCTION PLANS FOR TOTAL EXTENT OF DEMOLITION/SELECTIVE DEMOLITION SCOPE. IDENTIFY ITEMS FOR DEMOLITION, SALVAGE, TO BE LEFT IN PLACE AND ITEMS TO BE SORTED FOR RECYCLING.

D. COORDINATE THE REMOVAL, RELOCATION, REPLACEMENT, STUB OFF, CAP OFF OR UPGRADE OF EXISTING POWER AND COMMUNCATION OUTLETS THROUGHOUT PER ELECTRICAL CODE REQUIREMENTS (WHERE REQUIRED).

E. COORDINATE THE REMOVAL, RELOCATION, REPLACEMENT, STUB OFF, CAP OFF OR UPGRADE OFMECHANICAL EQUIPMENT, DUCTS AND GRILLES WITH NEW WORK AND MECHANICAL DRAWINGS PER MECHANICAL CODE REQUIREMENTS.

F. COORDINATE THE REMOVAL, RELOCATION, REPLACEMENT, STUB OFF, CAP OFF OR UPGRADE OF PLYMBING FIXTURES PER PLUMBING CODE REQUIREMENTS.

G. COORDINATE THE REMOVAL, RELOCATION, REPLACEMENT, STUB OFF, CAP OFF OR UPGRADE OF EXISTING FIRE SUPPRESSION SYSTEMS.

H. EXECUTE DEMOLITION WORK TO ENSURE SAFETY OF PERSONS AND ADJACENT PROPERTY AGAINST DAMAGE BY FALLING DEBRIS.

I. FINISH NEW AND EXISTING SURFACES AS SCHEDULED. CLEAN EXISTING SURFACES OF DIRT, GREASE AND LOOSE PAINT BEFORE REFINISHING.

J. GENERAL CONTRACTOR IS RESPONSIBLE FOR FINAL TRENCHING OR CORING LAYOUT. COORDINATE WITH ARCHITECTURAL, ELECTRICAL, MECHANICAL, PLUMBING AND STRUCTURAL DRAWINGS. ALL TENCHING OR CORING IN FLOOR ASSEMBLIES IS TO BE COORDINATED AND APPROVED BY OWNER AND LANDLORD PRIOR TO WORK.

K. WHERE TRENCHING IS NOT PERMITTED AND CORING IS REQUIRED, GC IS RESPONSIBLE TO COORDINATE WORK WITH LOWER TENANT WHERE APPLICABLE AND INCLUDE ALL COSTS FOR COORDINATION/INSURANCE/PROTECTION/SECURITY/DRYWALL REPAIRS ETC. INCLUDING FINAL SIGNOFF FROM SAID TENANT.

KEYNOTES

- KEYNOTE SYMBOL

NOT USED

1 ALL WORK TO MAKE GOOD THE DEMISING WALLS AND COLUMNS TO RECEIVE THE TENANT'S FINISHES INCLUDING BUT NOT LIMITED TO PRIMER PAINT, FINISH PAINT, SPECIALIZED PAINT, TILE, WALL COVERINGS, GLASS, STONE, MIRROR, MILLWORK, AND STORE FIXTURES

2 REMOVE EXISTING PARTITION IN ITS ENTIRETY. PATCH AND REPAIR ALL REMAINING ADJACENT PARTITIONS, FLOOR AND CEILING AS REQUIRED TO PROVIDE LIKE NEW CONDITION, COORDINATE WITH PLAN

3 EXISTING PARTITION TO REMAIN, SEE SHEET A-110 CONSTRUCTION PLAN FOR SCOPE OF NEW WORK

4 REMOVE EXISTING DOOR AND FRAME IN ITS ENTIRETY

5 REMOVE EXISTING PLUMBING FIXTURES. CUT AND CAP ALL ABANDONED FIXTURES. COORDINATE WITH PLAN

6 REMOVE EXISTING TOILET ROOM ACCESSORIES. PATCH AND REPAIR EXISTING WALLS TO PROVIDE LIKE NEW CONDITION, COORDINATE WITH PLAN

7 REMOVE ALL EXISTING GWB OR ACT CEILINGS, SOFFITS, AND CONNECTIONS TO STRUCTURE ABOVE

8 REMOVE ALL EXISTING CEILING SYSTEMS, LIGHTING, HVAC REGISTERS, DUCTWORK, AND ELECTRICAL CONDUITS, UNO TO REMAIN ON THIS SHEET OR THE ARCHITECTURAL RCP OR SHOWN IN THE MEP DWGS.

9 REMOVE ANY AND ALL ABANDONED ELECTRICAL WIRING FOR LIGHT FIXTURES, CONDUITS, OUTLETS, ETC. EXPOSED OR CONEALED IN THE CEILING AND OR PARTITIONS. SEE SPECIFICATIONS FOR DISPOSAL METHODS

10 REMOVE EXISTING LIFE SAFETY AND EXIT SIGNAGE

11 EXISTING FIRE SPRINKLERS SHALL BE RELOCATED, UNO

12 REMOVE AND OR RELOCATE EXISTING MECHANICAL EQUIPMENT PER MEP DWGS

13 REMOVE ALL FLOOR AND WALL MILLWORK FIXTURES FROM PREVIOUS TENANT UNO

14 EXISTING COLUMN TO REMAIN, GC TO PATCH AND REPAIR FIRE PROOFING AS REQUIRED

15 REMOVE EXISTING STOREFRONT IN ITS ENTIRETY. DO NOT DAMAGE BASE BUILDING UTILITIES, STRUCTURE, OR MALL SOFFIT AND NEUTRAL PIERS. PATCH AND REPAIR AS REQUIRED TO MATCH EXISTING

16 NEW EAS EQUIPMENT AT NEW STOREFRONT OPENING, SAW CUT AND TRENCH EXISTING CONCRETE SLAB TO RECESS EQUIPMENT BELOW SLAB, 3" DEEP TYP; SEE SHEET A-140 AND ELECTRICAL DRAWINGS. COORDINATE WITH LANDLORD FOR REQUIREMENTS/RESTRICTIONS

17 1"x1"SAW CUT AT EXISTING CONCRETE SLAB FOR EAS CONDUIT TO WALL WHERE NEW EAS CONTROLLER IS TO BE LOCATED. SEE A-140, ELECTRICAL DRAWINGS, AND APPROVED VENDOR DRAWINGS. COORDINATE WITH LANDLORD FOR SAW CUTTING REQUIREMENTS/RESTRICTIONS

18 NEW PLUMBING LOCATION, SAW CUT AND TRENCH/CORE EXISTING CONCRETE SLAB AS REQUIRED TO PROVIDE PLUMBING BELOW SLAB; SEE PLUMBING DRAWINGS FOR REQUIRED PLUMBING PENETRATIONS; COORDINATE WITH LANDLORD FOR REQUIREMENTS/RESTRICTIONS

19 NEW CASH DESK LOCATION, CORE EXISTING CONCRETE SLAB AS REQUIRED TO PROVIDE ELECTRICAL CONDUIT BELOW SLAB TO REQUIRED POWER AND DATA STUB-UPS, HATCHED AREA INDICATES ZONE ACCEPTABLE FOR STUB-UP LOCATION, SEE SHEETS A-140, A-141 AND ELECTRICAL DRAWINGS; COORDINATE WITH LANDLORD FOR REQUIREMENTS/RESTRICTIONS

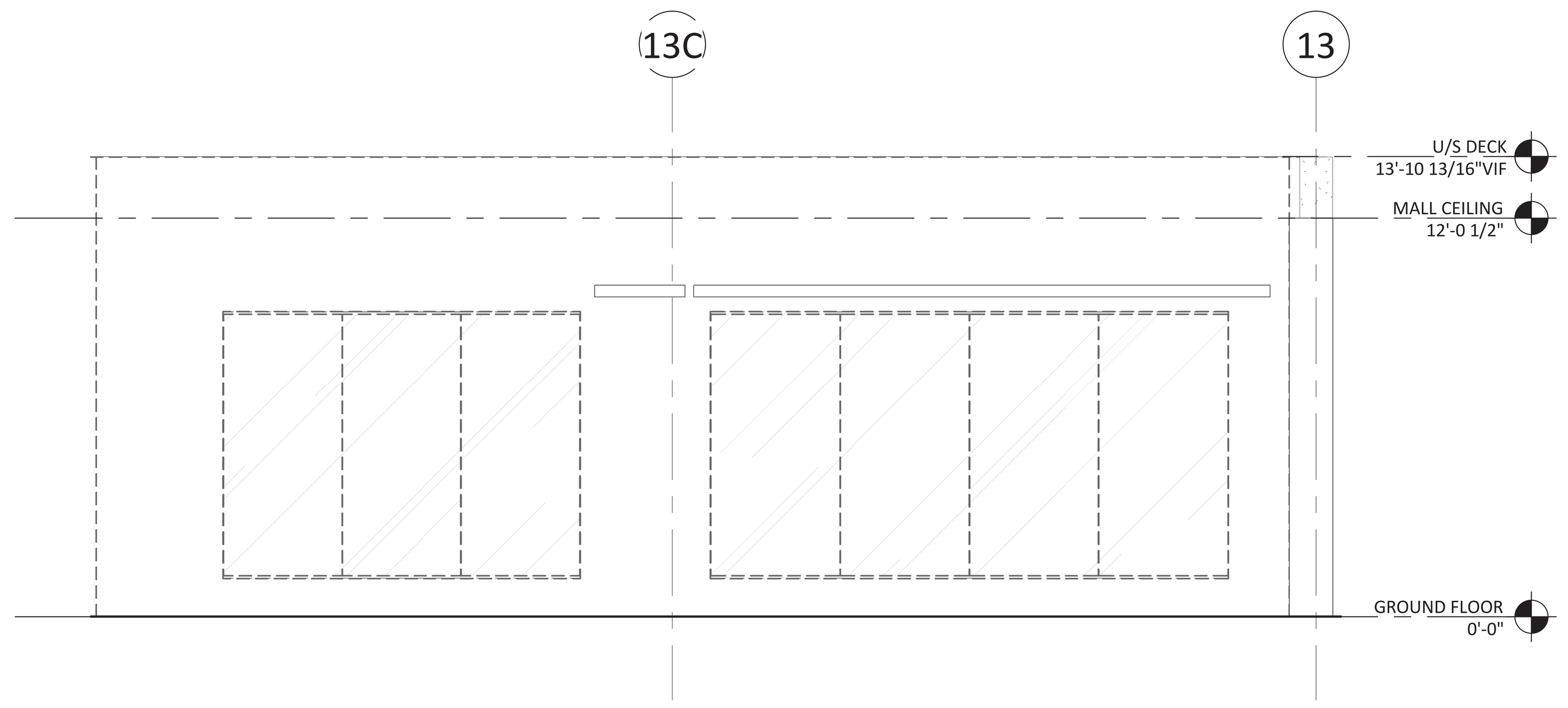
20 NEW CASH DESK LOCATION, SAW CUT AND TRENCH EXISTING CONCRETE SLAB AS REQUIRED TO PROVIDE ELECTRICAL CONDUIT BELOW SLAB TO REQUIRED POWER AND DATA STUB-UPS; SEE SJEETS A-140, A141, AND ELECTRICAL DRAWINGS. COORDINATE WITH LANDLORD FOR REQUIREMENTS/RESTRICTIONS

21 NEW CASH DESK LOCATION, WHERE SAW CUT/TRENCHING IS NOT PERMITTED PROVIDE LOW PROFILE RACEWAY ON SLAB FLUSH WITH NEW FINISHED FLOOR FOR ELECTRICAL CONDUIT TO REQUIRED POWER AND DATA STUB-UPS; COORDINATE WITH LANDLORD FOR REQUIREMENTS/RESTRICTIONS

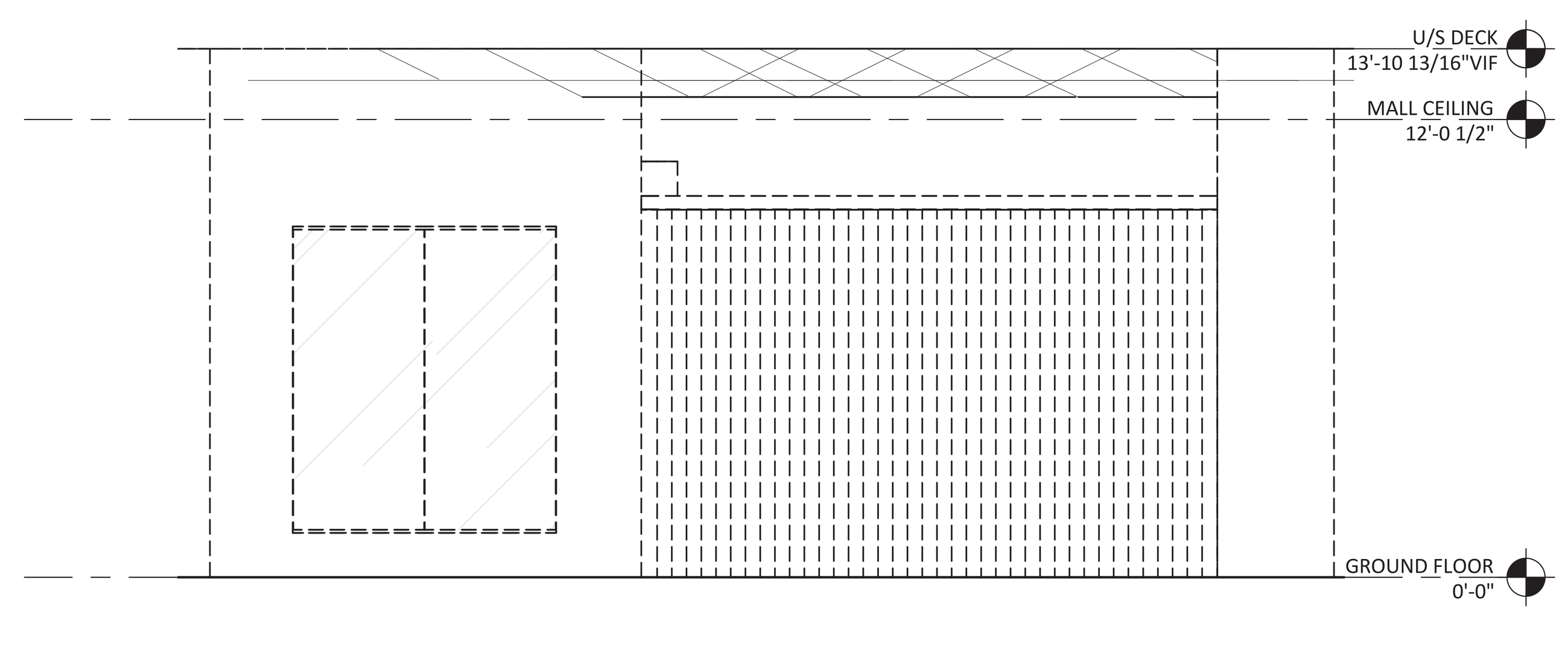
22 EXISTING ELECTRICAL PANELS TO REMAIN/BE RELOCATED/BE REMOVED

23 NEW FLOOR BOX LOCATION, SAW CUT AND TRENCH/CORE EXISTING CONCRETE SLAB AS REQUIRED TO CONCEAL POWER/DATA CONDUIT; SEE SHEET A-140, A-141, AND ELECTRICAL DRAWINGS; COORDINATE WITH LANDLORD FOR REQUIREMENTS/RESTRICTIONS

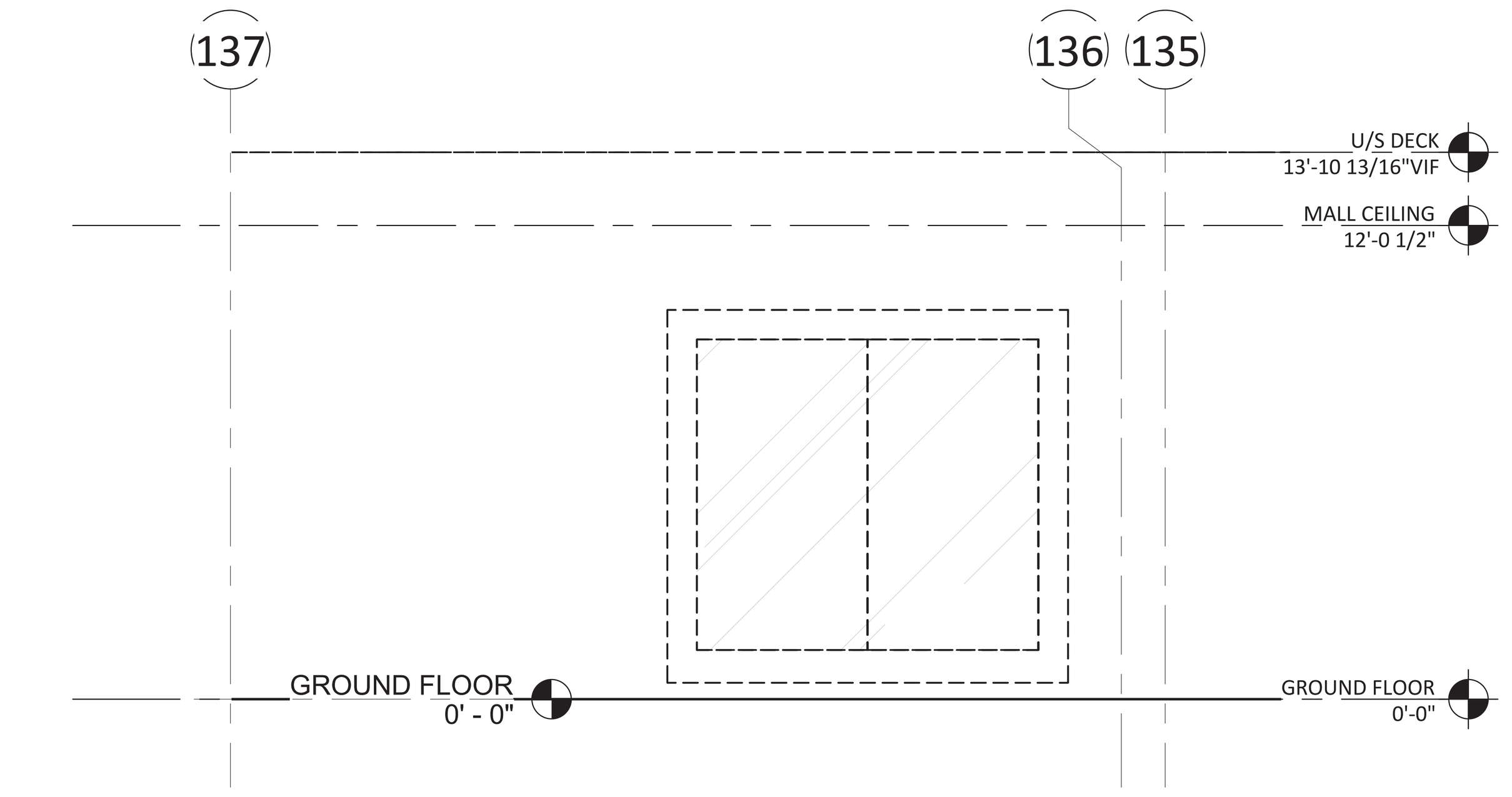
24 GC TO CONFIRM LEVEL CHANGE AT MALL FLOORING WITH NEW FLOORING SPEC (SEE A-120 AND A-121) AND GRIND DOWN SLAB AS REQUIRED AT FRONT OF STORE AT 1:48 MAX SLOPE TO ALLOW FOR FLUSH TRANSITION, COORDINATE EXTENT WITH NEW WORK DRAWINGS



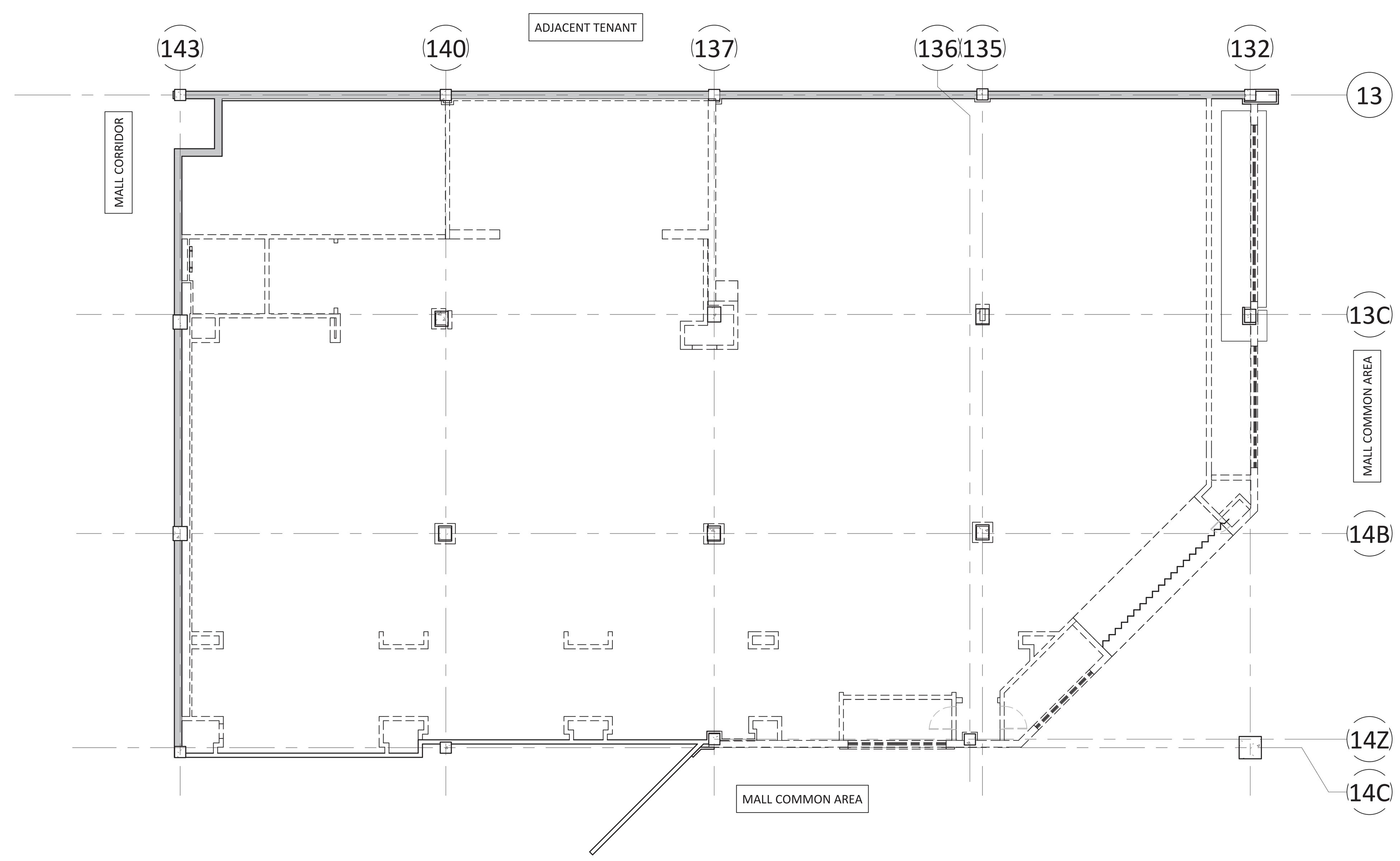
3 STOREFRONT DEMO ELEVATION - 1
SCALE: 1/4" = 1'-0"



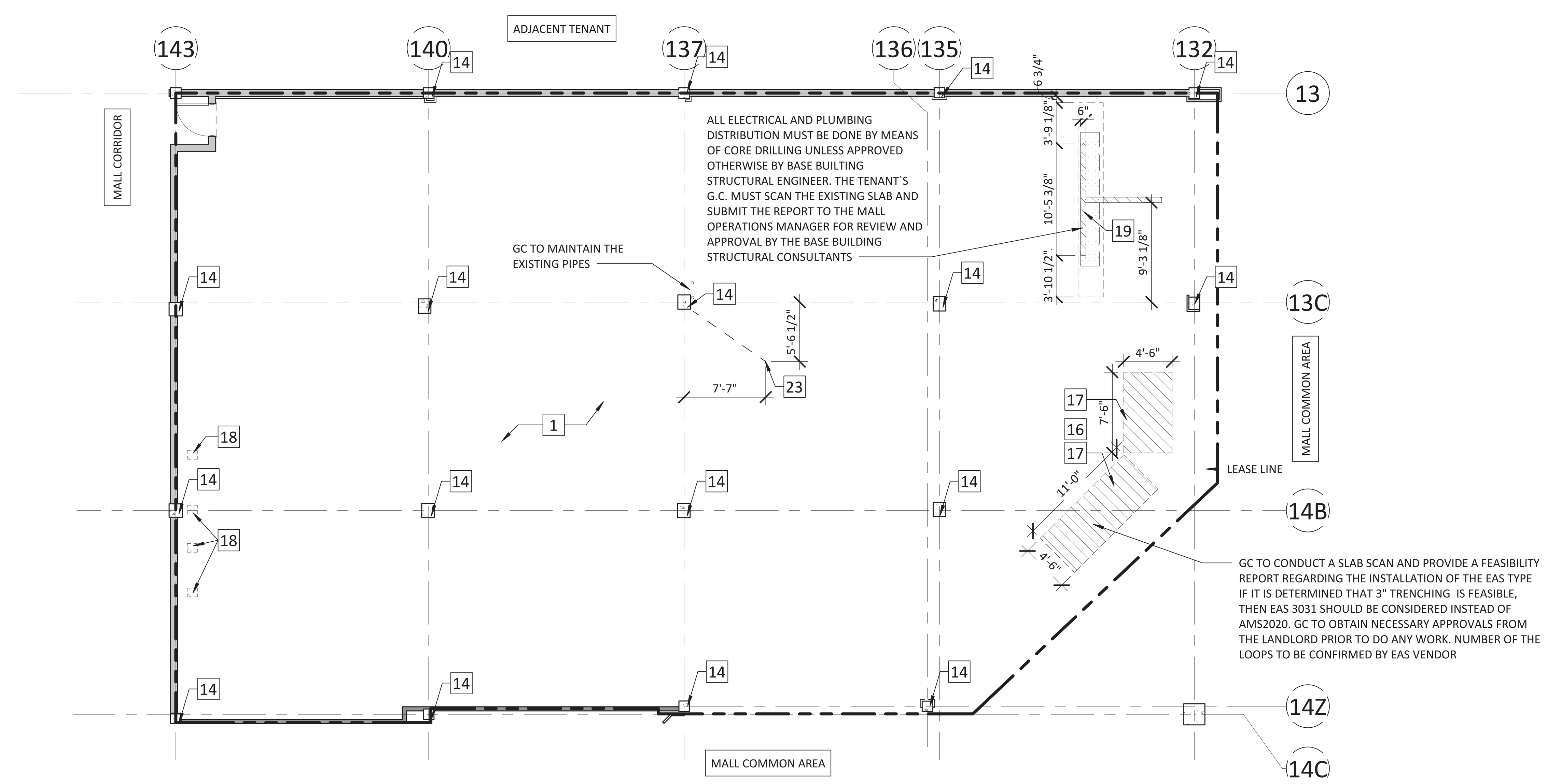
4 STOREFRONT DEMO ELEVATION - 2
SCALE: 1/4" = 1'-0"



5 STOREFRONT DEMO ELEVATION - 3
SCALE: 1/4" = 1'-0"



2 REFLECTED CEILING PLAN
SCALE: 1/8" = 1'-0"



1 DEMO PLAN
SCALE: 1/8" = 1'-0"

lululemon
1818 CORNWALL AVE.
VANCOUVER, B.C., V6J1C7

CF POLO PARK
1485 Portage Ave, Unit 144E
Winnipeg, MB
R3G 0W5
CRU NUMBER: 144E

Quadrangle
Quadrangle Architects Limited
The Well, 8 Spadina Avenue, Suite 2100, Toronto, ON M5V 0S8
t 416 598 1240 www.bdpquadrangle.com

ARCHITECT SEAL

ONTARIO ASSOCIATION OF ARCHITECTS
KIRTIDEV MEHTA
LICENCE
8099

ISSUED FOR CONSTRUCTION
07/14/2023

△	DATE	DESCRIPTION
	05/05/2023	DESIGN DEVELOPMENT
	06/09/2023	PERMIT/CONSTRUCTION
	06/09/2023	ISSUED FOR BID
	07/14/2023	ISSUED FOR CONSTRUCTION

DRAWING INFORMATION
PROJECT #: 23206
CHECKED BY: MP
DRAWN BY: TA

DEMO PLAN & DEMO RCP

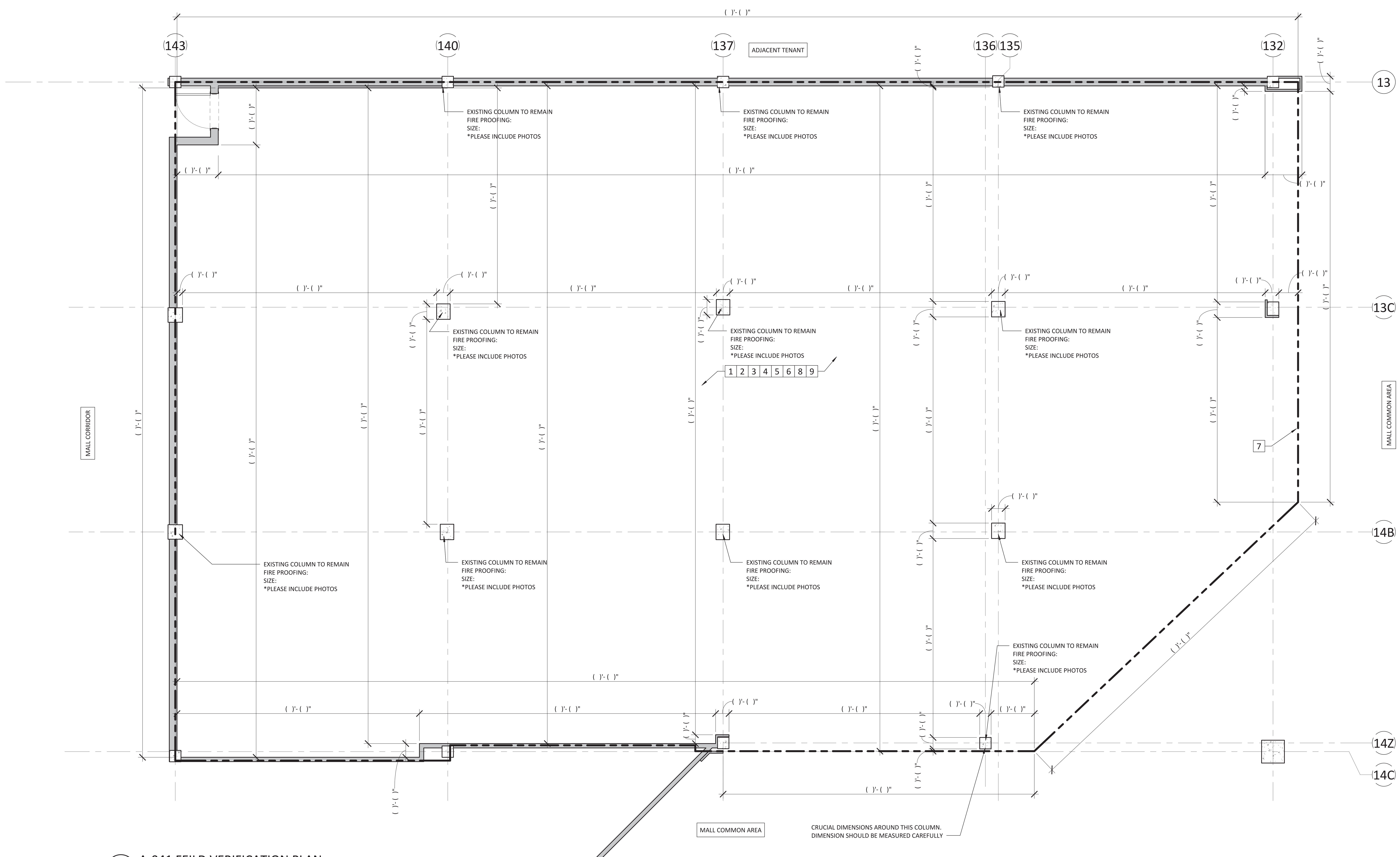
DRAWING NUMBER
A-040

7/14/2023 12:09:53 PM

KEYNOTES

[#] - KEYNOTE SYMBOL — NOT USED

1. GC TO VERIFY EXISTING SPACE, AFTER DEMOLITION AND PRIOR TO ANY NEW CONSTRUCTION
2. GC TO FILL IN REQUESTED INFORMATION ON PLAN ALONG WITH DOCUMENTATION FOR ANY CONDITION THAT DIFFERS FROM THESE PLANS AND FORWARD TO ARCHITECT AND LULULEMON CM
3. GC TO TAKE PHOTOS OF EXISTING SPACE INCLUDING COLUMNS, WALL, FLOOR, CEILING/STRUCTURE ABOVE
4. GC TO VERIFY HEIGHT AFF TO UNDERSIDE OF EXISTING STRUCTURE ABOVE
5. GC TO VERIFY HEIGHT TO UNDERSIDE OF EXISTING SPRINKER MAINS, UTILITIES, DUCTWORK, ETC. NOT DEMOLISHED OR RELOCATED FOR NEW WORK
6. GC TO VERIFY AND LOCATE ALL SLAB CONTROL JOINTS, SAWCUTS, CRACKS, FLOOR/WALL/CEILING EXPANSION JOINTS AND COORDINATE WITH PLANS AND ELEVATIONS
7. GC TO CONFIRM LEVEL CHANGE AT MALL FLOORING WITH NEW FLOORING SPEC (SEE A-120 AND A-121) AND GRIND DOWN SLAB AS REQUIRED AT FRONT OF STORE AT 1:48 MAX SLOPE TO ALLOW FOR FLUSH TRANSITION, COORDINATE EXTENT WITH NEW WORK DRAWINGS
8. GC TO CONFIRM HEIGHT OF EXISTING HVAC UNITS TO BE REUSED, IN CASES WHERE THE EXISTING UNIT LOCATION IS TOO HIGH ABOVE THE PROPOSED NEW CEILING HEIGHT TO SERVICE THE UNIT THROUGH CEILING ACCESS PANELS, GC TO CONFIRM IF A CATWALK WILL BE REQUIRED AND NOTIFY THE PROJECT TEAM IMMEDIATELY
9. GC TO VERIFY LOCATION AND DIMENSIONS OF ALL EXISTING COLUMNS, PIPES, ROOF DRAINS, OR SIMILAR AND NOTIFY OWNER AND ARCHITECT OF RECORD OF ANY CONFLICT WITH PROPOSED DESIGN AND CONSTRUCTION DOCUMENTS



1 A-041 FEILD VERIFICATION PLAN
SCALE: 1/4" = 1'-0"

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VANCOUVER, B.C., V6J1C7

CF POLO PARK
1485 Portage Ave, Unit 144E
Winnipeg, MB
R3G 0W5
CRU NUMBER: 144E

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Quadrangle Architects Limited
The Well, 8 Spadina Avenue, Suite 2100, Toronto, ON M5V 0S8
t 416 598 1240 www.bdpquadrangle.com

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KIRTIDEV MEHTA
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DRAWN BY: TA

FIELD VERIFICATION PLAN

DRAWING NUMBER
A-041

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BARRICADE RESPONSIBILITY SCHEDULE

DESCRIPTION	FURNISHED	INSTALLED	NOTES
BARRICADE	LLL-V	LLD	BARRICADE TO BE INSTALLED BY LANDLORD. PAINT NOT REQUIRED IF BY LULULEMON VENDOR IF FURNISHED AND INSTALLED BY GC PAINT BENJAMIN MOORE - DECORATOR WHITE
BARRICADE DOORS	LLD	LLD	PAINT NOT REQUIRED IF BY LULULEMON VENDOR IF FURNISHED AND INSTALLED BY GC PAINT BENJAMIN MOORE - DECORATOR WHITE
BARRICADE PAINT	GC	GC	PAINT NOT REQUIRED IF BY LULULEMON VENDOR
BARRICADE GRAPHICS	LLL-V	LLL-V	
BARRICADE REMOVAL	GC	GC	
WINDOW GRAPHICS	LLL-V	LLL-V	
GRAPHICS REMOVAL AND CLEANING OF WINDOWS	GC	GC	
CONSTRUCTION PAPER REMOVAL AND CLEANING OF WINDOWS	GC	GC	
CONSTRUCTION PAPER	GC	GC	TO BE USED ONLY WHEN WINDOW GRAPHICS ARE NOT FEASIBLE DUE TO CITY REQUIREMENTS OR BUDGET CONSTRAINTS.

GC PROVIDED BARRICADE NOTES

A. WHERE NO BARRICADE SPECIFICATION IS GIVEN BY THE MALL AND BOSTON BARRICADE IS NOT DOING THE BARRICADE, BARRICADES TO BE CONSTRUCTED WITH 3-5/8" METAL STUDS WITH 5/8" TYPE 'X' GYPSUM WALL BOARD, TYP. FOR BARRICADES TALLER THAN 18'-0" USE 6" METAL STUDS. FOR EXTERIOR BARRICADES USE 3/4" GRADE AC PLYWOOD WHERE PERMITTED OR SMOOTH WEATHERPROOF WALLBOARD SUCH AS HDF, CREZONE, HARDIEPANEL OR APPROVED EQUAL.

B. ALL SUBSTRATES MUST BE PRE-PRIMED WITH ONE COAT LATEX PRIMER AND TWO COATS SEMI GLOSS LATEX PAINT WITH FINISHED JOINTS, CLEAN, SMOOTH AND DRY, READY TO ACCEPT GRAPHIC VINYL.

C. BARRICADE DOORS TO BE FLAT AND FLUSH TO ADJACENT WALL PREPPED THE SAME AS THE BARRICADE TO ACCEPT GRAPHIC.

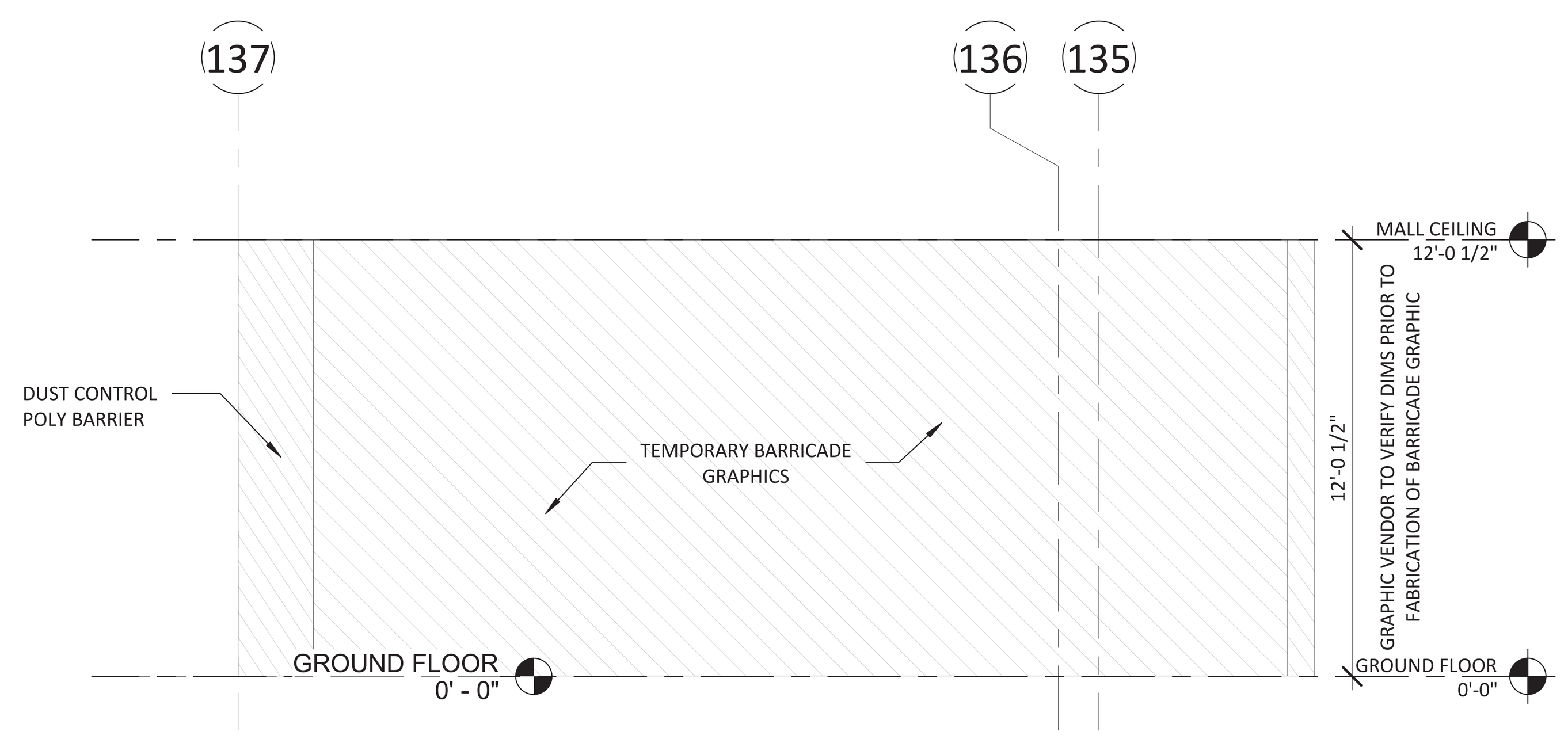
D. GRAPHICS FOR EXTERIOR APPLICATION TO USE STRONG ADHESIVE MEANT FOR TEXTURED SURFACES AND EXTERIOR APPLICATIONS. GRAPHICS FOR INTERIOR BARRICADES PROVIDED BY HOLDING COMPANY OR LANDLORD TO USE REMOVALABLE ADHESIVE. GC TO ENSURE NO RESIDUE TO REMAIN ON REMOVAL OF GRAPHICS.

E. GC TO INSTALL TEMPORARY LULULEMON-FURNISHED GRAPHICS WITH MASKING TAPE OVER ALL CLEAR WINDOWS TO 7'-0" ABOVE GRADE AFTER REMOVAL OF BARRICADE. GC TO REMOVE TEMPORARY PAPER AND CLEAN WINDOWS PRIOR TO STORE OPENING.

F. COORDINATE BARRICADE GRAPHICS WITH LLL STORE DEVELOPMENT

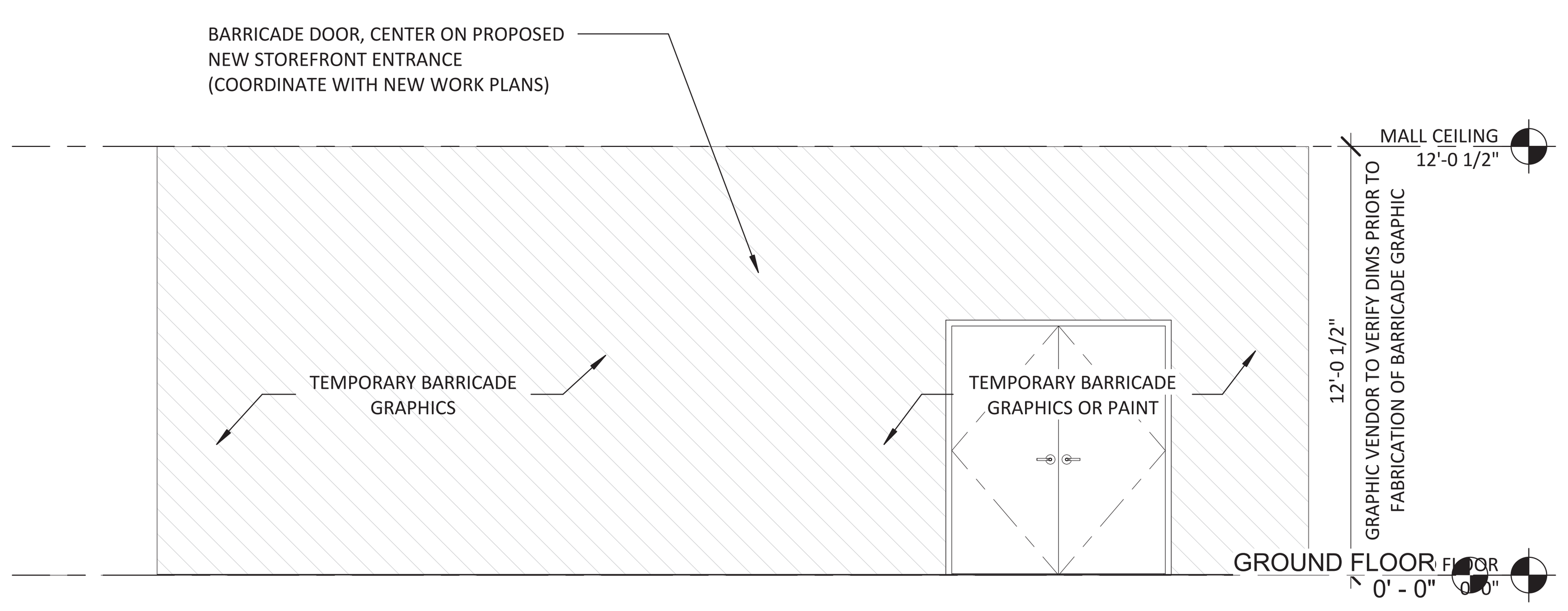
LANDLORD NOTES

- HOARDING TO BE INSTALLED UNDER LL WORK. THE EXACT HOARDING DETAILS AND LOCATION MUST BE SITE VERIFIED WITH THE MALL OPERATINS MANAGER. SUBMIT HOARDING GRAPHICS TO THE LLD FOR APPROVAL PRIOR TO FABRICATION AND INSTALLATION.



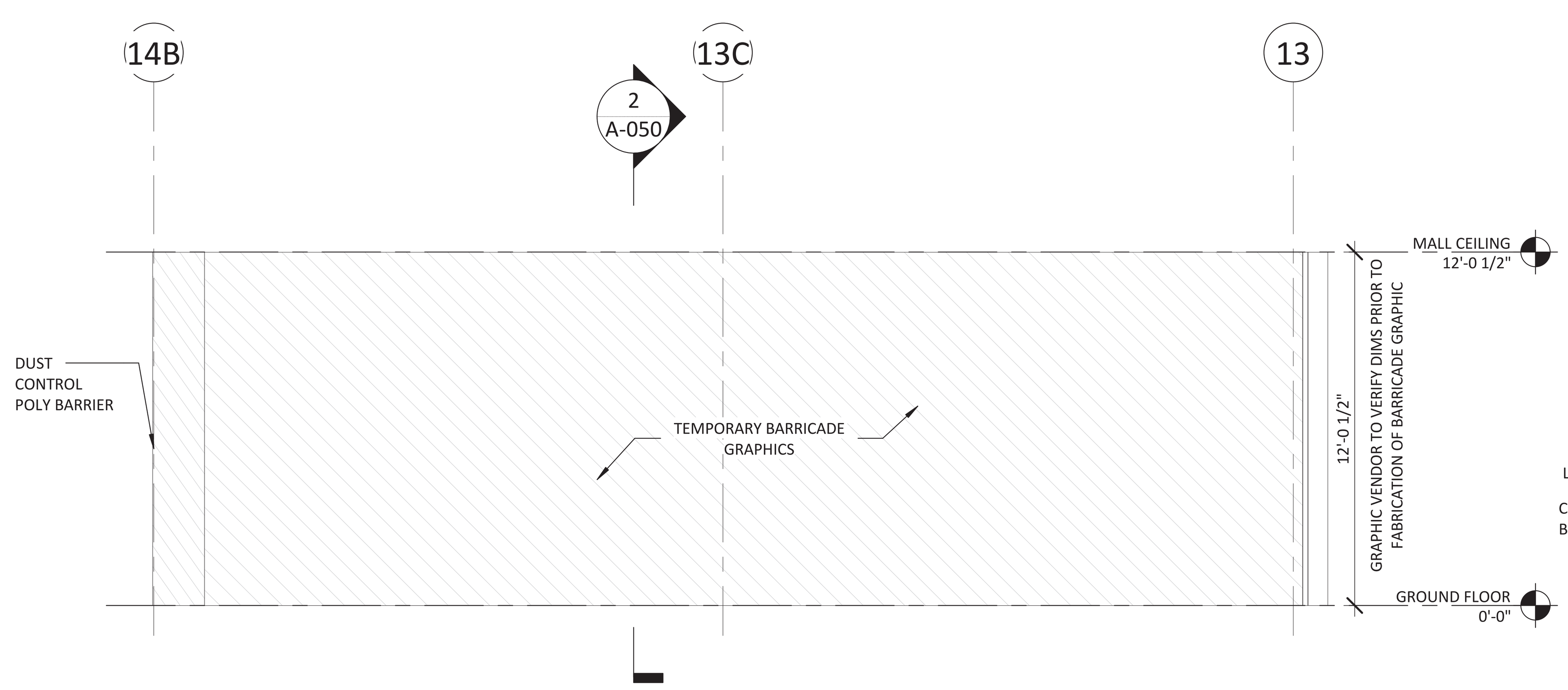
5 TEMPORARY BARRICADE ELEVATION C

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



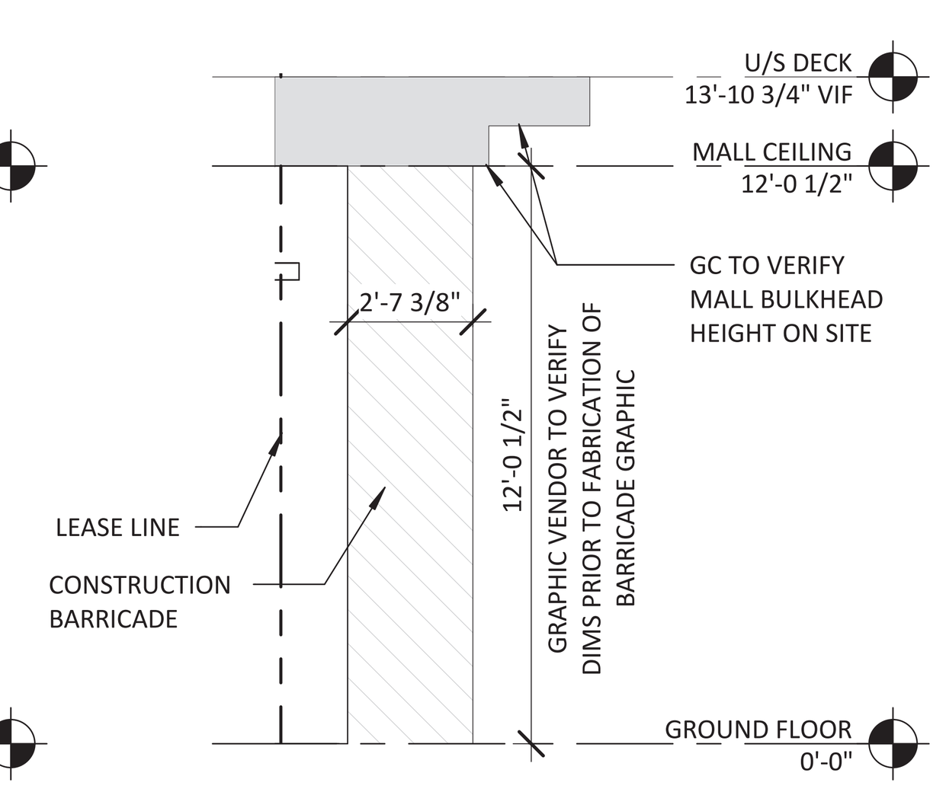
4 TEMPORARY BARRICADE ELEVATION B

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



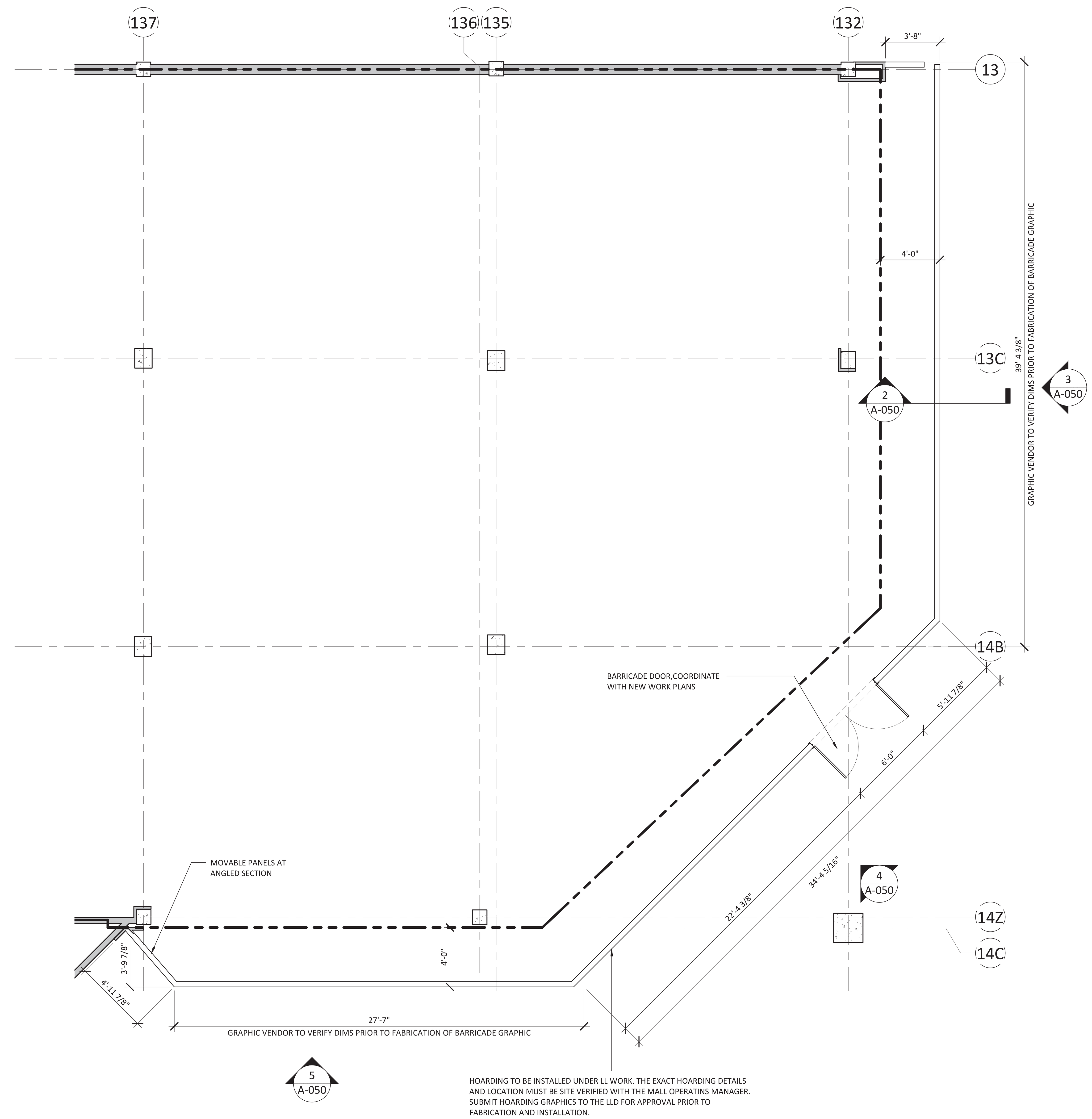
3 TEMPORARY BARRICADE ELEVATION A

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



2 Section 3

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



1 TEMPORARY BARRICADE PLAN

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

7/14/2023 12:10:02 PM

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CF POLO PARK
1485 Portage Ave, Unit 144E
Winnipeg, MB
R3G 0W5
CRU NUMBER: 144E

Quadrangle
Quadrangle Architects Limited
The Well, 8 Spadina Avenue, Suite 2100, Toronto, ON M5V 0S8
t 416 598 1240 www.bdpquadrangle.com

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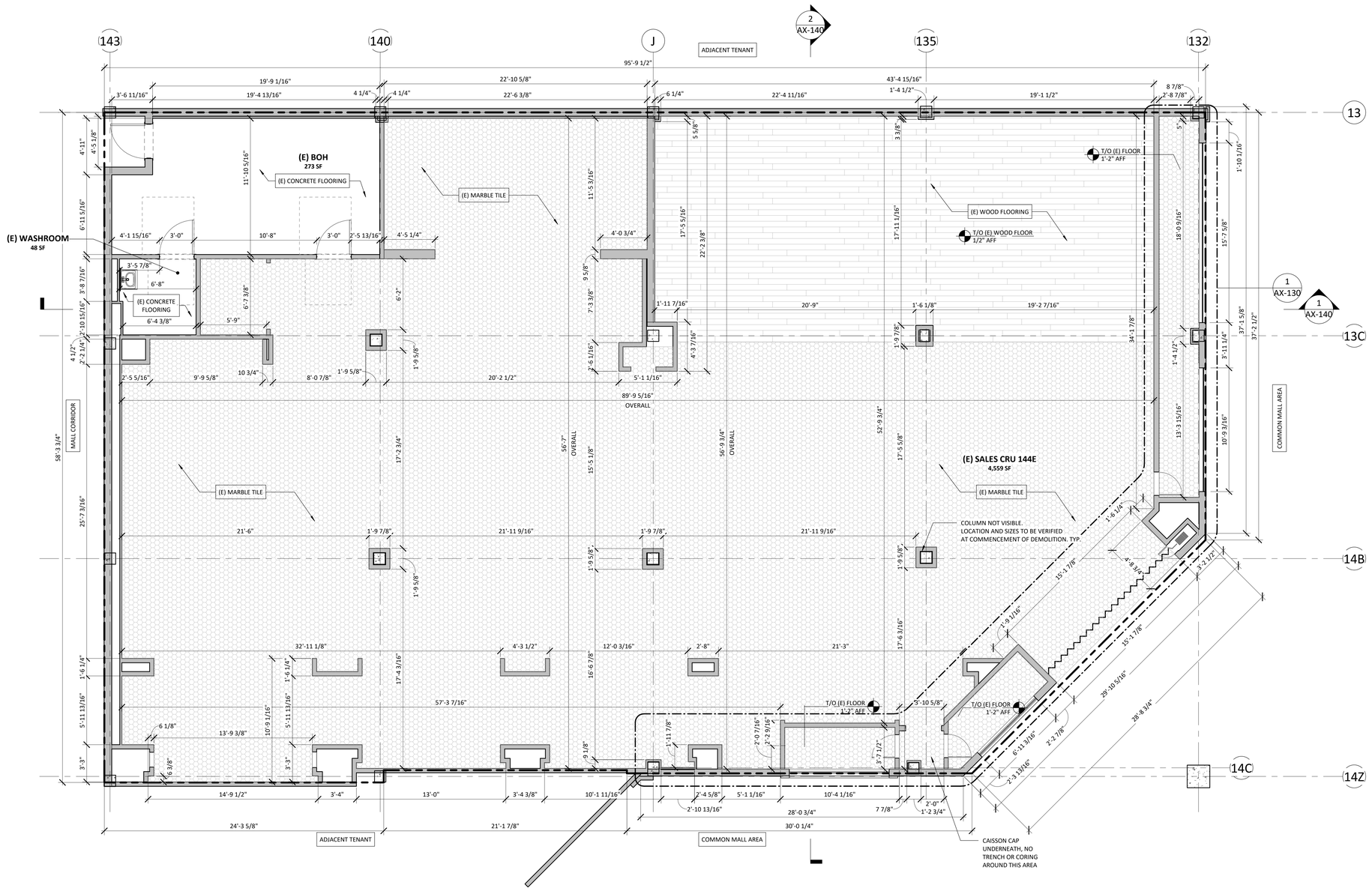
CONSTRUCTION BARRICADE AND WINDOW DIMS.

DRAWING NUMBER
A-050



1 AX-110 EXISTING FLOOR PLAN

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

7/13/2023 8:47:46 PM

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CF POLO PARK

1485 Portage Ave, Unit 144E
Winnipeg, MB
R3G 0W5

ARCHITECT

BDP. Quadrangle

Quadrangle Architects Limited
79 Wellington Street, Suite 2100, Toronto, ON M5V 1E8
t 416 598 8200 www.bdpquadrangle.com

SEAL

LICENSED NAME, ARCHITECT

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LICENCE
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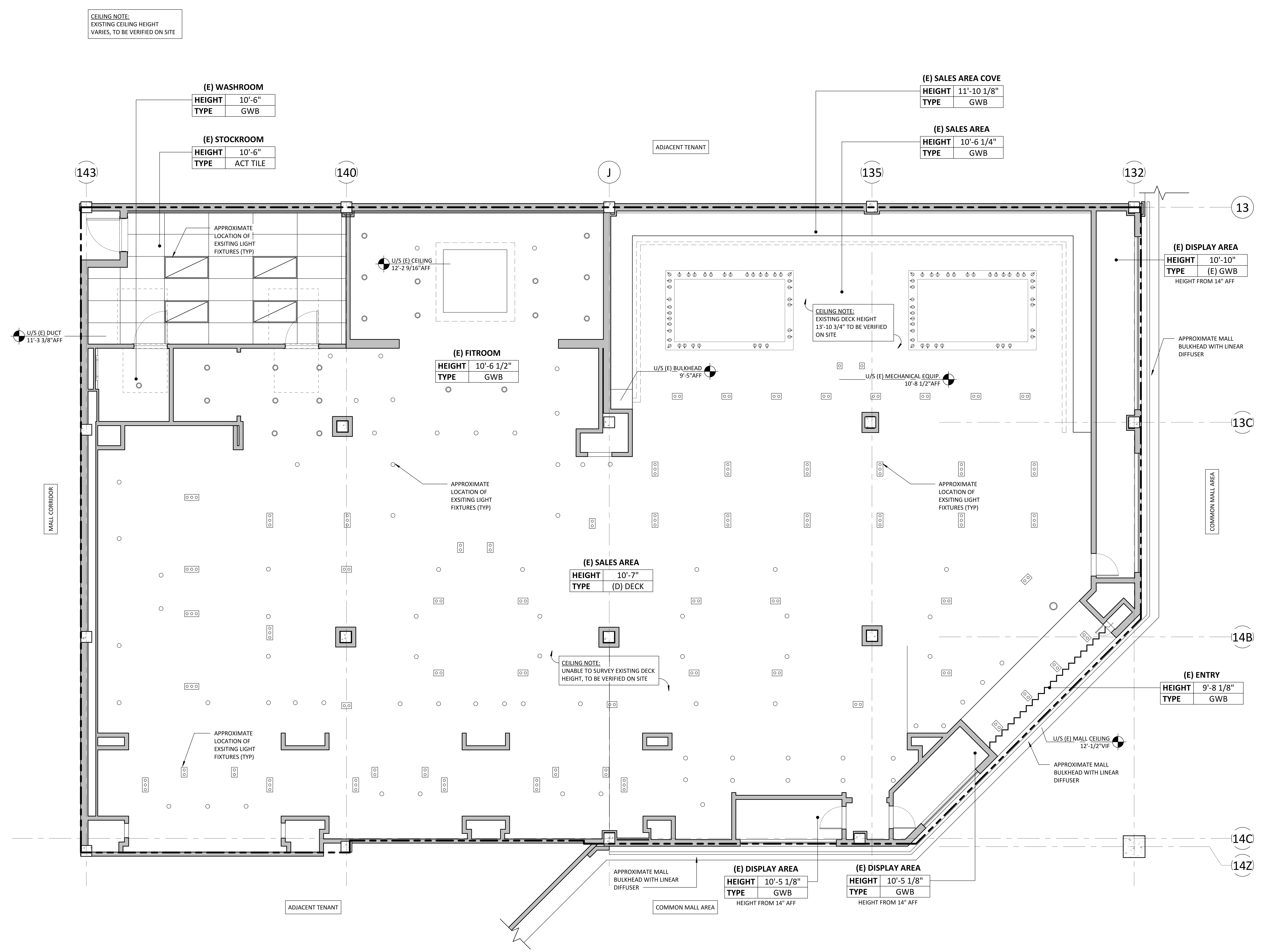
AX-110



1 AX-120 EXISTING CEILING PLAN

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

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1485 Portage Ave, Unit 144E
Winnipeg, MB
R3G 0W5

ARCHITECT

BDP. Quadrangle
Quadrangle Architects Limited
The Well, 8 Spadina Avenue, Suite 2100, Toronto, ON M5V 0S8
t 416 598 1240 www.bdpquadrangle.com

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ONTARIO ASSOCIATION OF ARCHITECTS
KIRTIDEV MEHTA
LICENCE
8099

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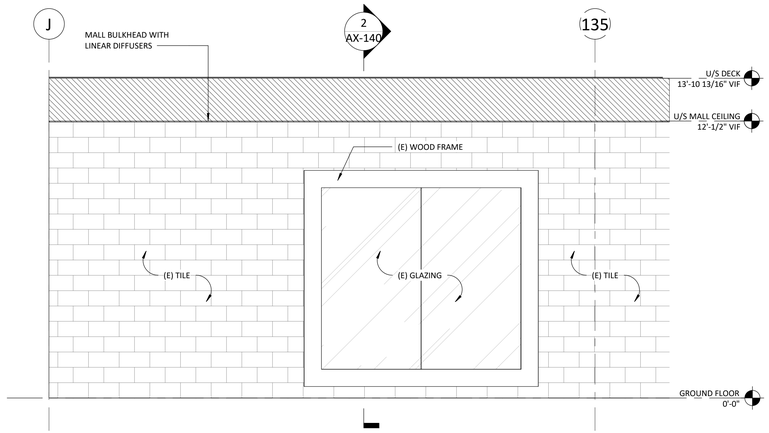
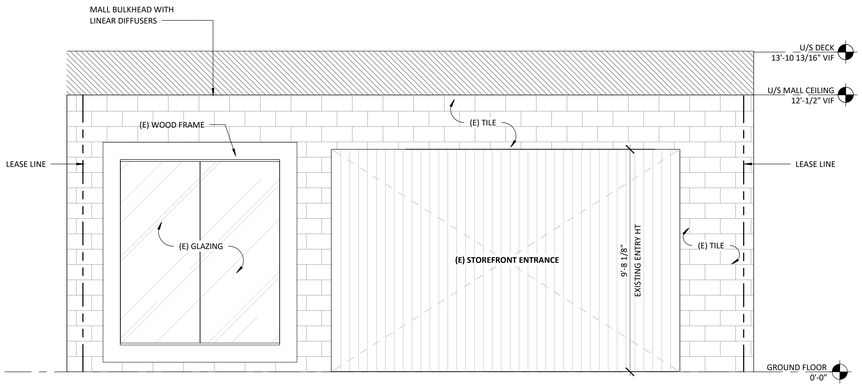


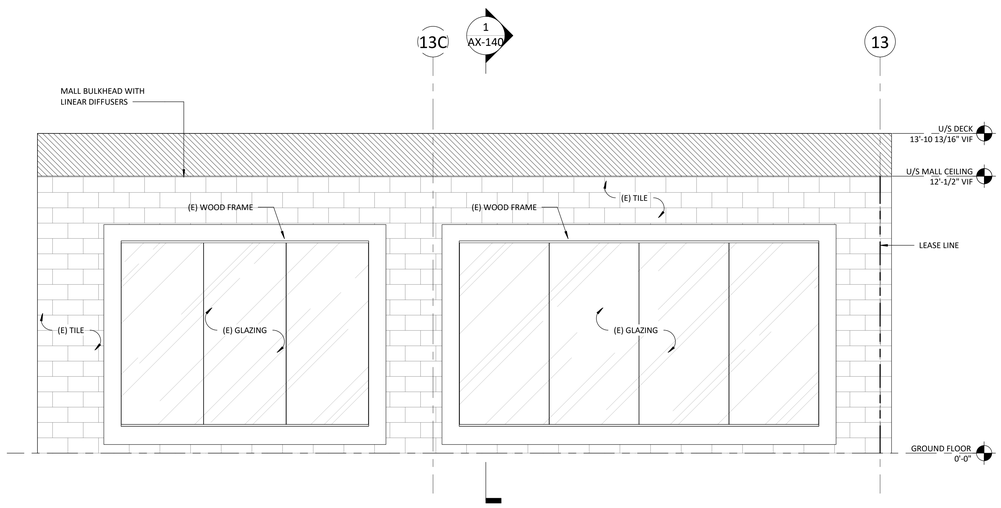
4 EXISTING STOREFRONT ELEVATION C

SCALE: 3/8" = 1'-0"



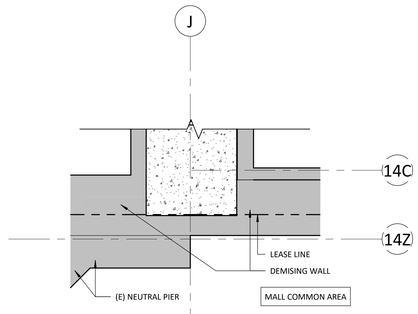
3 EXISTING STOREFRONT ELEVATION B

SCALE: 3/8" = 1'-0"



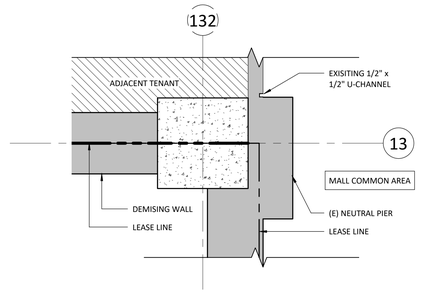
2 EXISTING STOREFRONT ELEVATION A

SCALE: 3/8" = 1'-0"



6 EXISTING DEMISING CAP - CONDITION 1 AREA

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



5 EXISTING DEMISING CAP - CONDITION 2 AREA

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

1 EXISTING STOREFRONT

SCALE: 3/8" = 1'-0"

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1485 Portage Ave, Unit 144E
Winnipeg, MB
R3G 0W5

ARCHITECT

BDP. Quadrangle
Quadrangle Architects Limited
79 Wellington Street, Suite 2100, Toronto, ON M5V 1E8
t 416 598 8200 www.bdpquadrangle.com

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KIRTIDEV MEHTA
LICENCE
8099

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PROJECT #: 23206
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AX-130

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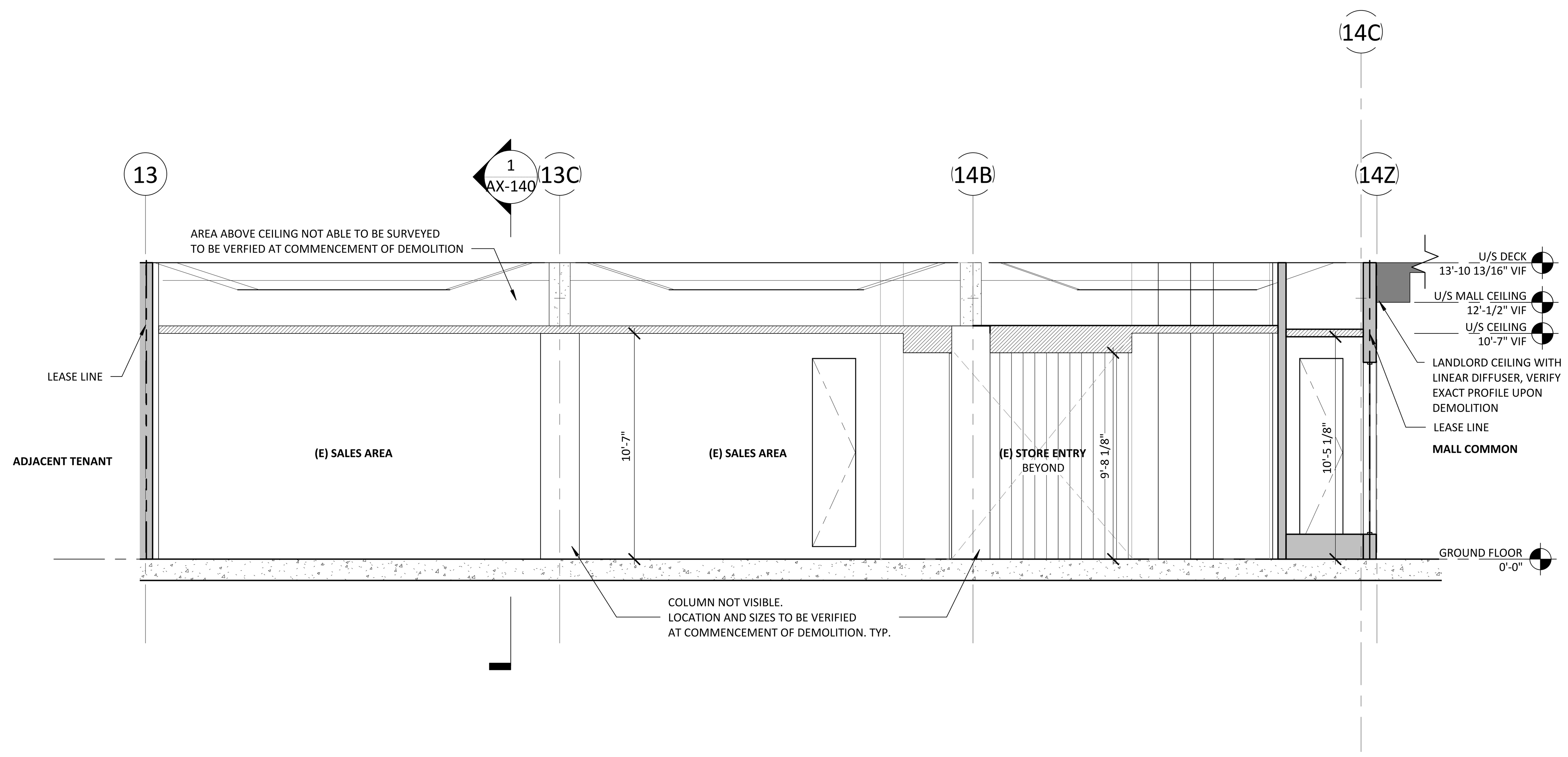
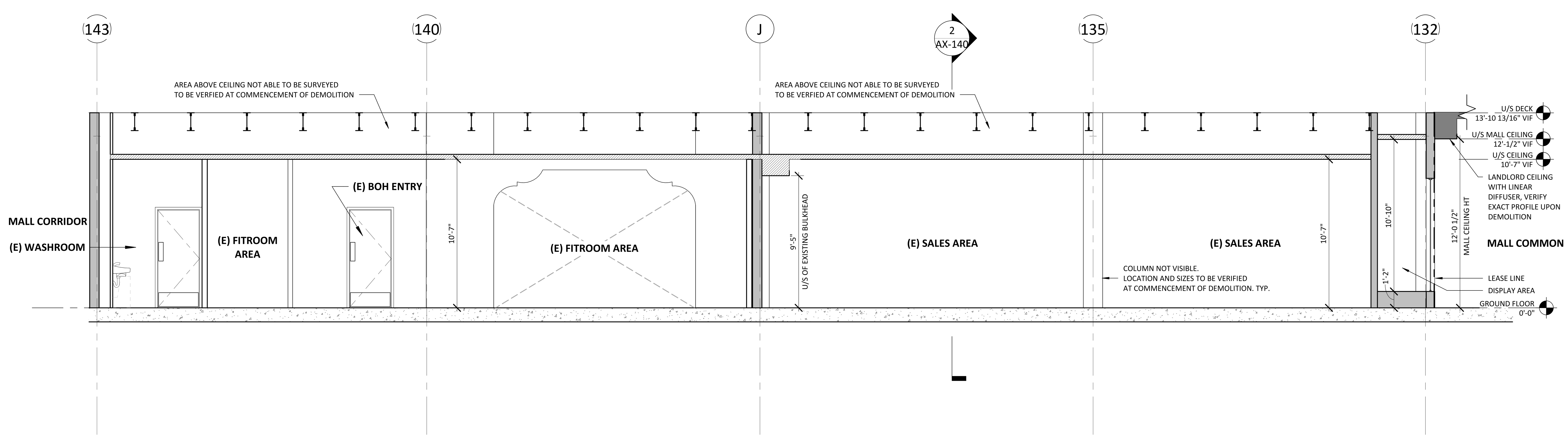


2 EXISTING BUILDING SECTION - NORTH/SOUTH

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



1 EXISTING BUILDING SECTION - EAST/WEST

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

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CF POLO PARK

1485 Portage Ave, Unit 144E
Winnipeg, MB
R3G 0W5

ARCHITECT

BDP. Quadrangle

Quadrangle Architects Limited
The Well, 8 Spadina Avenue, Suite 2100, Toronto, ON M5V 0S8
t 416 598 1240 www.bdpquadrangle.com

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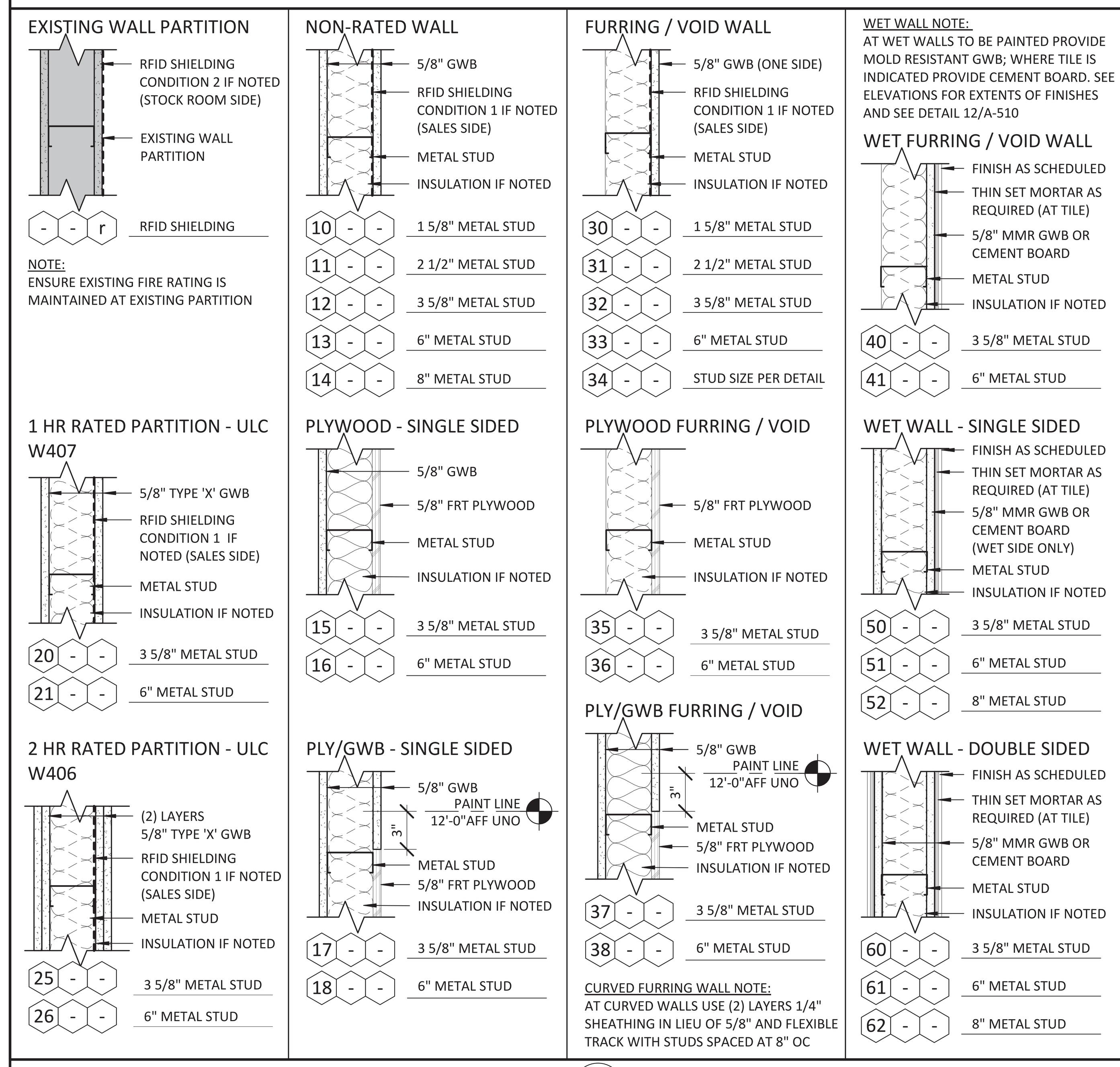
AX-140

PARTITION CONFIGURATION



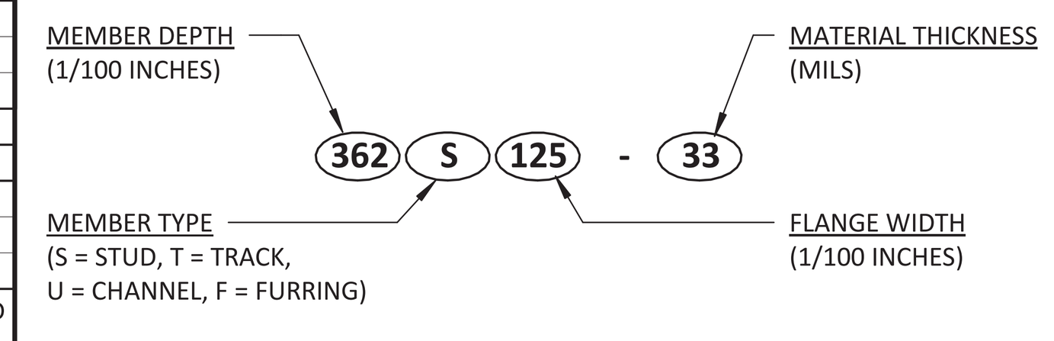
NON-STRUCTURAL STUD HEIGHT CHART

TYPE 'A' WALLS - COMPOSITE WALLS, FULLY BRACED			
STUD DEPTH	FLANGE WIDTH	SSMA DESIGNATION	HEIGHT
2 1/2"	1 1/4"	250S125-33	UP TO 14' - 3"
3 5/8"	1 1/4"	362S125-33	UP TO 17' - 5"
6"	1 1/4"	600S125-33	UP TO 25' - 6"
ALL OTHER WALLS - NON-COMPOSITE WALLS, BRACED AT 48" OC*			
STUD DEPTH	FLANGE WIDTH	SSMA DESIGNATION	HEIGHT
2 1/2"	1 1/4"	250S125-33	UP TO 12' - 1"
3 5/8"	1 1/4"	362S125-33	UP TO 16' - 1"
6"	1 1/4"	600S125-33	UP TO 23' - 11"

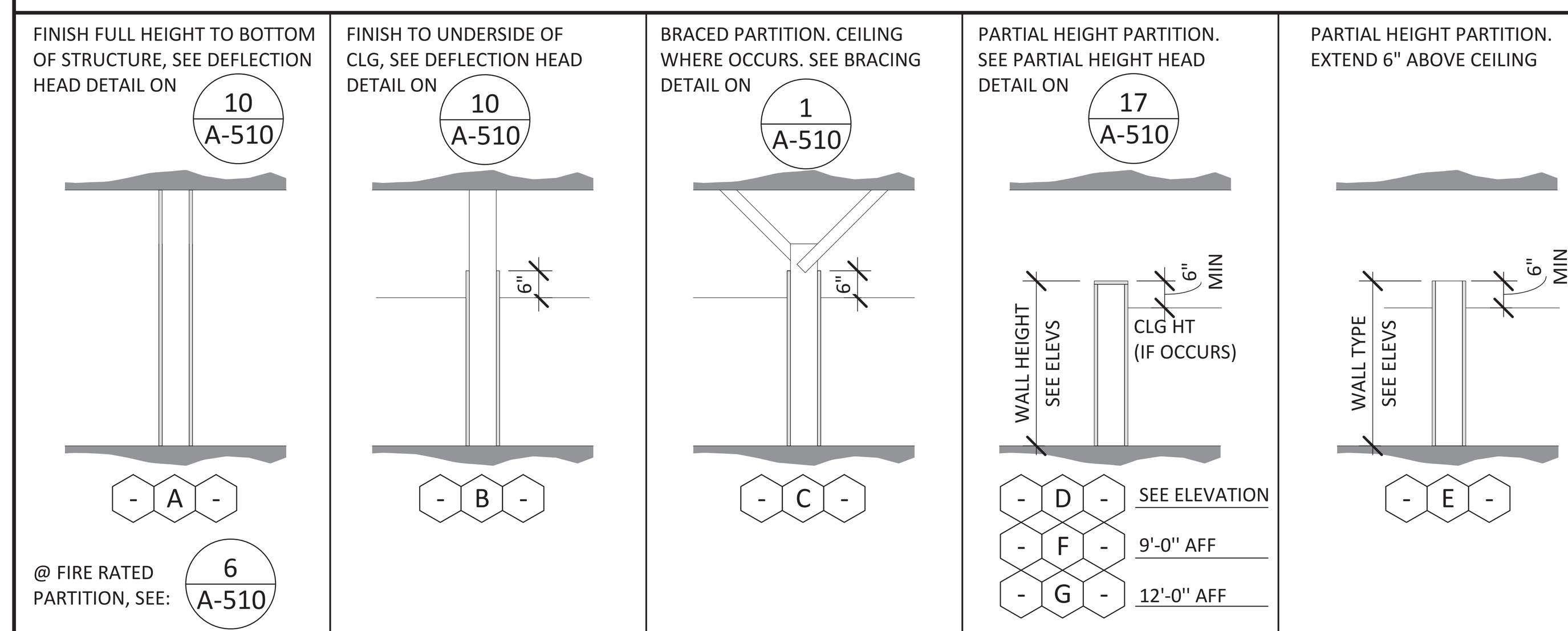
1. USE MINIMUM 20 GAUGE METAL STUDS OR 7/8" METAL FURRING CHANNELS, SPACED AT 16" OC, UNO, *PROVIDE HORIZONTAL BRIDGING AT 48" OC
2. THE SIZE, SPACING AND HEIGHT OF STEEL STUDS FOR NON-LOAD BEARING INTERIOR WALLS SHALL CONFORM TO OBC/NBC 9.24.2.1

STUD DESIGNATION

EXAMPLE: 3 5/8", 20 GA. NON-STRUCTURAL METAL STUD



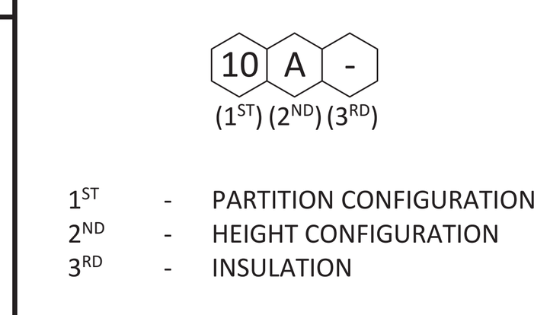
HEIGHT CONFIGURATION



WALL LEGEND

BASE BUILDING (E) WALL
NEW WALLS
NEW WALLS WITH RFID
SOUND BATT IN WALL
SOUND BATT/RFID IN WALL
NEW 1-HR WALLS
NEW 2-HR WALLS
NOT IN SCOPE

PARTITION TAG



PARTITION SERIES

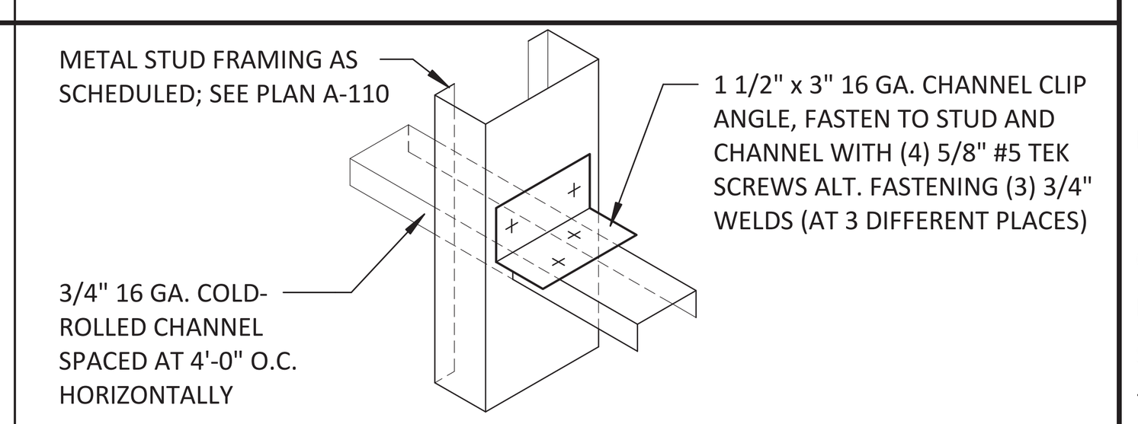
10-SERIES: NON-RATED
20-SERIES: RATED
30-SERIES: FURRING
40-SERIES: WET FURRING
50-SERIES: WET WALL - SINGLE SIDED
60-SERIES: WET WALL - DOUBLE SIDED

INSULATION

NOTE:
ENSURE EXISTING FIRE RATING IS MAINTAINED AT EXISTING PARTITIONS

- - - NO INSULATION
- - a ACOUSTICAL INSULATION
- - 1hr FIRE RATED - 1 HR MINERAL WOOL BATT
- - r RFID REFLECTIVE SHIELDING CONDITION 1 OR 2 AS NOTED SEE SPEC AS-150 APPENDIX B
- - t THERMAL INSULATION
- - 2hr FIRE RATED - 2 HR MINERAL WOOL BATT

HORZ. BRIDGING



GENERAL NOTES

A. FURNISH AND INSTALL PARTITIONS AND SIMILAR STRUCTURES IN ACCORDANCE WITH SPECIFICATIONS INCLUDING BUT NOT LIMITED TO DOOR TRIM, ROUGH / FINISH HARDWARE, DECORATIVE ELEMENTS AS INDICATED ON PLANS, ELEVATIONS, AND DETAILS, UNO.

B. GC TO VERIFY THAT ALL PENETRATIONS IN SLAB ARE FREE OF ALL OBSTRUCTIONS INCLUDING, BUT NOT LIMITED TO IN SLAB CONDUIT, REBAR, ETC. GC TO COORDINATE AND RETAIN APPROVAL FROM LANDLORD AS REQUIRED FOR ALL SLAB PENETRATIONS PRIOR TO COMMENCING WORK

C. SEE SHEET AS-140 GYPSUM BOARD SPECIFICATIONS AND SHEET A-120 FINISH SCHEUDLE FOR GYPSUM BOARD FINISH LEVELS

D. DO NOT SCALE DRAWINGS. SUBMIT TO ARCHITECT ANY DISCREPANCIES FOR CLARIFICATION

E. APPROVED FIRE EXTINGUISHERS SHALL BE INSTALLED AS REQUIRED BY LOCAL AUTHORITY. SEE A-130 FIXTURE SCHEDULE FOR SPECIFICATION

F. GC TO FURNISH AND INSTALL ACCESS PANELS PER CODE FOR ACCESS TO HVAC, WATER CHILLERS, LED DRIVERS, SIGNAGE, AND SENSORMATIC ACCESS. IF ADDITIONAL ACCESS PANELS ARE REQUIRED FOR OVERHEAD GRILLE OR ADDITIONAL PLUMBING, MECHANICAL, OR ELECTRICAL ACCESS, ETC. GC TO COORDINATE PLACEMENT WITH ARCHITECT AND LULULEMON CM. IN-WALL ACCESS PANELS TO BE FLUSH FRAMELESS GYPSUM BOARD TYPE, CEILING ACCESS PANELS TO BE PUSH-UP TYPE 1. GC TO SPECIFY AND SUBMIT TO ARCHITECT FOR REVIEW AND APPROVAL. SEE AS-130 DIVISION 083100 FOR SPECIFICATIONS

G. USE NO COMBUSTIBLE MATERIALS ABOVE SUSPENDED CEILINGS. FIRE RETARDANT TREATMENTS WILL BE EXTENDED TO STRUCTURAL CEILING WHERE REQUIRED FOR CODE COMPLIANCE

H. USE MINIMUM 20 GAUGE METAL STUDS OR 7/8" METAL FURRING CHANNELS, TYPE AND SPACING IN ACCORDANCE WITH LOCAL BUILDING REQUIREMENTS, NORMAL SPACING OF 16" O.C., FOR FRAMING PARTITIONS AND SIMILAR CONSTRUCTION, UNO

I. ALL INTERIOR PARTITIONS SHALL EXTEND 6" MIN ABOVE HIGHEST ADJACENT FINISHED CEILING, UNO

J. ALL WALLS TO BE PREPARED FOR PAINT ON GYPSUM BOARD, UNO. FINISH LEVELS SPECIFIED ON SHEET A-120 FINISH SCHEDULE

K. PROVIDE DIAGONAL BRACING TO STRUCTURE ABOVE ALL DOORS, GLAZING HEADS AND JAMBS AS REQUIRED TO MAKE ASSEMBLY RIGID

L. GC IS RESPONSIBLE FOR MAINTAINING INTEGRITY OF RATED PARTITIONS AND STRUCTURE PARTICULARLY WHERE PENETRATED BY VARIOUS TRADES AND SERVICES

M. PROVIDE WATER PROOF MEMBRANE 5'-0" BEYOND ALL PLUMBING FIXTURES AND RESTROOMS WITH 6" MINIMUM UP ADJACENT WALLS

N. SEE ENLARGED STOREFRONT PLANS AND DETAILS ON A-410 FOR STOREFRONT DIMENSIONS AND OTHER CRITICAL INFORMATION

O. GC SHALL REVIEW ALL ELEVATIONS, FIXTURE PLANS AND DETAILS FOR LOCATIONS OF METAL STRAP BACKING IN WALLS AND MOUNTING REQUIREMENTS FOR FIXTURES, EQUIPMENT AND GRAPHIC/SIGN INSTALLATION PRIOR TO BEGINNING CONSTRUCTION. THE GC SHALL COORDINATE ALL SUCH BACKING WITH LULULEMON VENDOR INSTRUCTIONS

P. GC SHALL INSTALL MOISTURE RESISTANT GYPSUM BOARD (COORDINATE WITH WALL TYPES, 40 SERIES, 50 SERIES, AND 60 SERIES) ALL TOILET ROOMS, AROUND MOP SINKS, KITCHENETTE, LIMITED EXTERIOR EXPOSURES AND OTHER LOCATIONS SUSCEPTIBLE TO MOISTURE, UNO

Q. SEE 500 SERIES DETAILS AND 300 SERIES ENLARGED RESTROOMS FOR BLOCKING EXTENTS

R. ALL WALL DIMENSIONS ARE FROM FACE OF FINISH, UNO

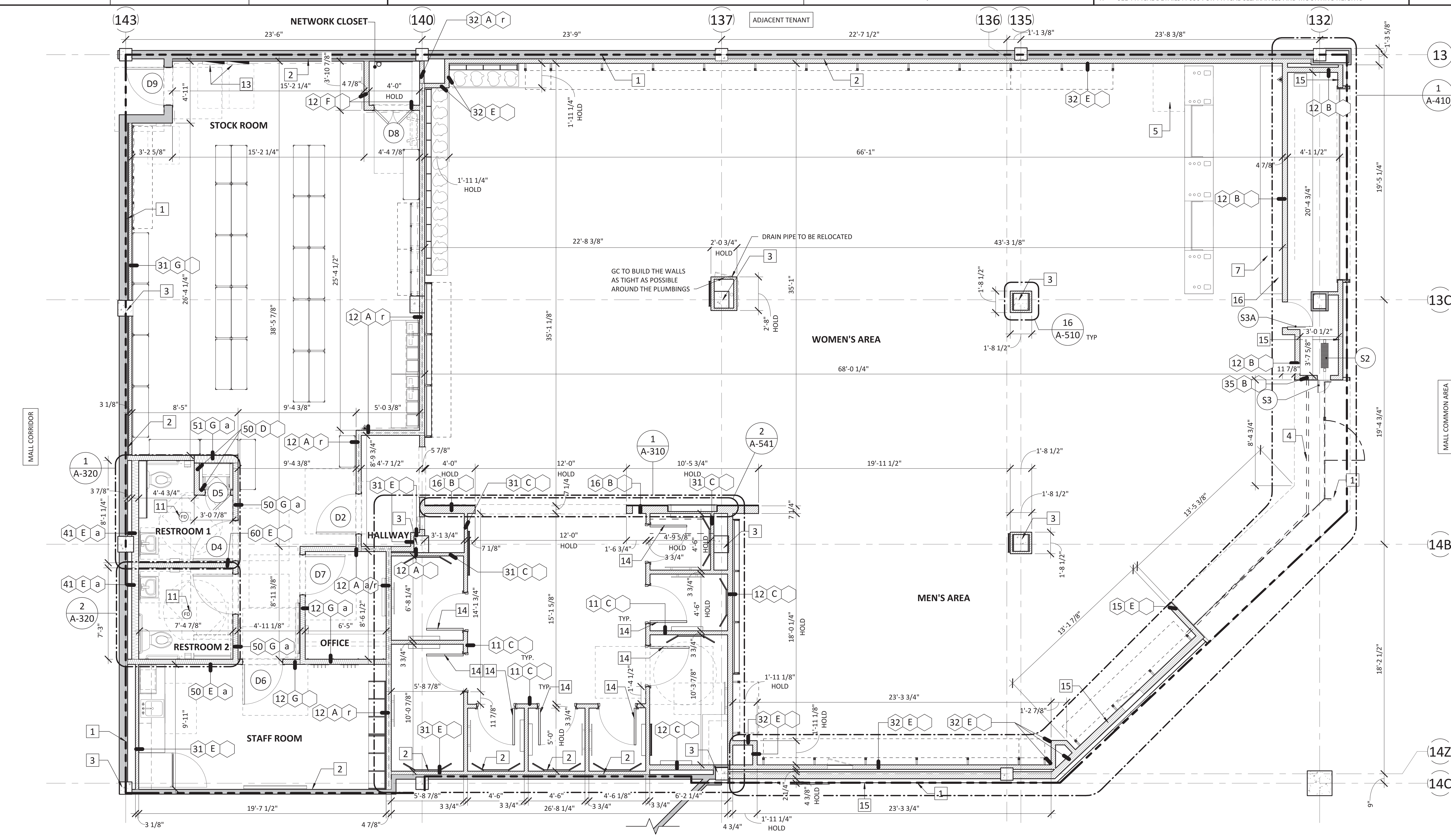
S. ALL DOORS TO BE LOCATED 4" FROM ADJACENT PERPENDICULAR WALL, UNO

T. SEE TYPICAL DETAILS A-030 FOR TYPICAL CLEARANCES AND MOUNTING HEIGHTS

KEYNOTES

[#] - KEYNOTE SYMBOL — NOT USED (shaded)

1. DASH/DOT LINE AT PERIMETER INDICATES LEASE LINE
2. EXISTING DEMISING WALL, REMOVE AND REPLACE (E) GWB AS REQUIRED TO PROVIDE BLOCKING FOR WALL FIXTURES, SEE A-500 SERIES FOR BLOCKING DETAILS, PATCH, REPAIR, AND SEAL GAPS AS REQUIRED TO RESTORE REQUIRED FIRE RATING FOR FULL EXTENT OF PARTITION AND PREP AS REQUIRED TO PROVIDE 'LIKE NEW' SURFACE UP TO CEILING HEIGHT OR PAINT LINE AT 12'-0"AFF.
3. EXISTING COLUMN. LOCATION TO BE VERIFIED IN FIELD BY GC
4. ENTRY GRILLE LINE OF CLOSURE, REFER TO DOOR SCHEDULE
5. 34" AFF COUNTER HEIGHT AT ACCESSIBLE TRANSACTION SPACE
6. MDF PANEL AND METAL FRAME PARTITIONS BY LULULEMON VENDOR, SEE SHEET A-310 FOR MORE DETAIL
7. SAFE TO BE INSTALLED IN BACKWRAP MILLWORK BY G.C.
8. FRT PLYWOOD TELEPHONE BACKER BOARD, PAINT TO MATCH WALL. SEE SHEET A-140 AND ELECTRICAL DRAWINGS FOR BACKER BOARD DETAIL
9. LINE OF SOFFIT OR DROPPED CEILING ABOVE, SEE SHEET A-160 RCP FOR MORE INFORMATION
10. WATER FEATURE (BOTTLE FILLER)/DRINKING FOUNTAIN, SEE SHEET A-210 INTERIOR ELEVATIONS AND A-130 FIXTURE SCHEDULE FOR MORE INFORMATION
11. FLOOR DRAIN, CENTERED IN ROOM, REFER TO A-320 AND PLUMBING DRAWINGS FOR MORE DETAIL
12. GC TO PROVIDE 24" X 24" SQUARE CORNER TAPE-IN ACCESS PANEL AT WALL, SEE AS-130, FINISH TO MATCH ADJACENT WALL
13. FRT PLYWOOD ELECTRICAL PANEL BACKER BOARD, PAINT TO MATCH WALL. REFER TO A-140 AND ELECTRICAL DRAWINGS FOR BACKER BOARD DETAIL
14. FITROOM DOOR, TYPICAL. LLL-V TO PROVIDE DOOR, JAMB, MIRROR FRAME, AND MARKER BOARD. GC TO PROVIDE MIRROR GLASS AND LEVERS, SEE SHEET A-180 FOR DOOR SCHEDULE.
15. SEE A-400 SERIES STOREFRONT DETAILS AND STRUCTURAL DRAWINGS FOR STOREFRONT WALL CONFIGURATION
16. SEE A-540 FOR BACKWRAP WALL CONFIGURATION



1 CONSTRUCTION PLAN
SCALE: 1/4" = 1'-0"

MALL COMMON AREA

lululemon
1818 CORNWALL AVE.
VANCOUVER, B.C., V6J1C7

CF POLO PARK
1485 Portage Ave, Unit 144E
Winnipeg, MB
R3G 0W5
CRU NUMBER: 144E

Quadrangle
Quadrangle Architects Limited
The Well, 8 Spadina Avenue, Suite 2100, Toronto, ON M5V 0S8
t 416 598 1240 www.bdpquadrangle.com

ARCHITECT SEAL

ISSUED FOR CONSTRUCTION
07/14/2023

DATE	DESCRIPTION
05/05/2023	DESIGN DEVELOPMENT
06/09/2023	PERMIT/CONSTRUCTION
06/09/2023	ISSUED FOR BID
07/14/2023	ISSUED FOR CONSTRUCTION

DRAWING INFORMATION
PROJECT #: 23206
CHECKED BY: MP
DRAWN BY: TA

CONSTRUCTION PLAN

DRAWING NUMBER
A-110

7/14/2023 12:10:14 PM

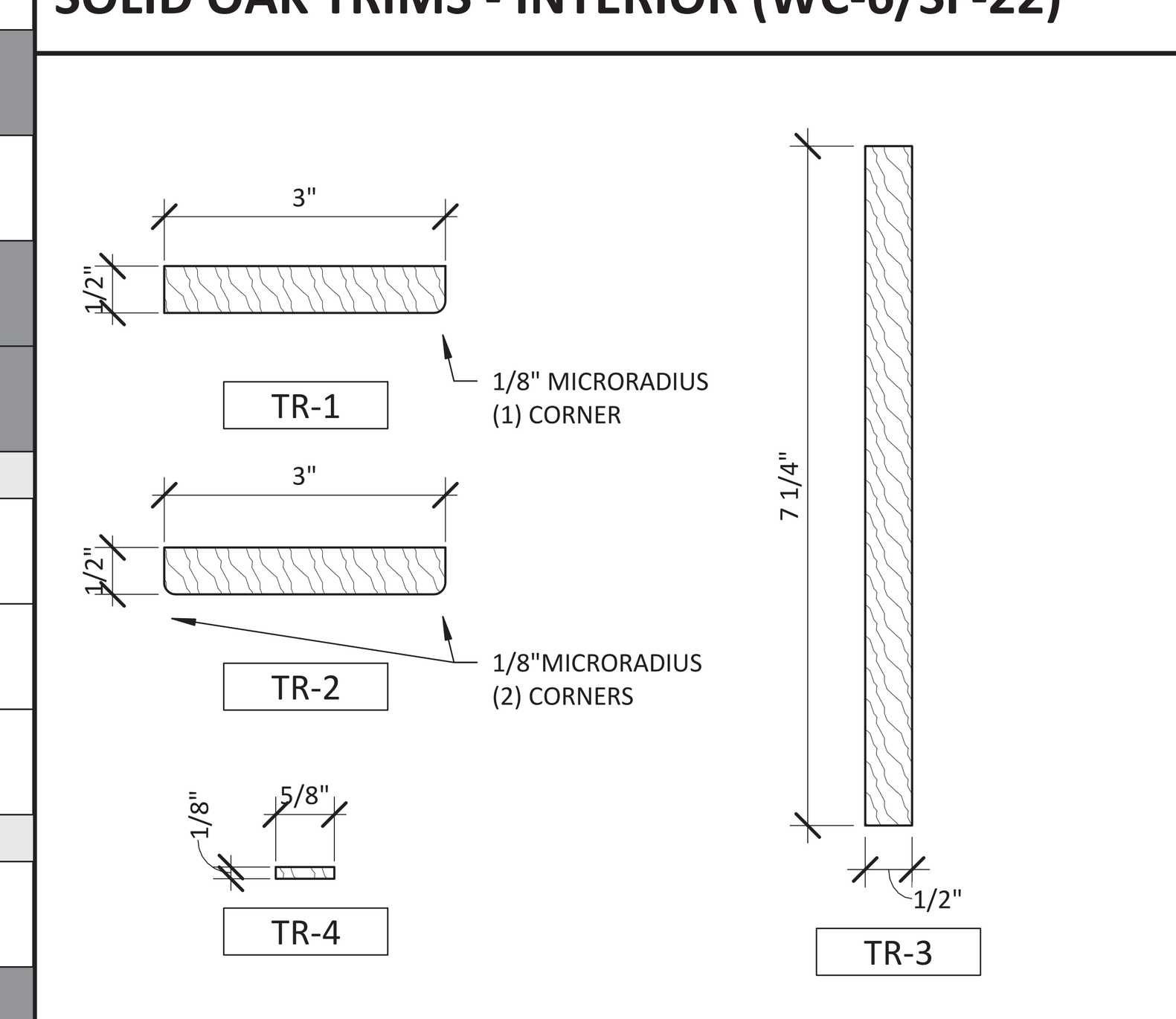
FINISH SCHEDULE

NOT USED (grey shading)

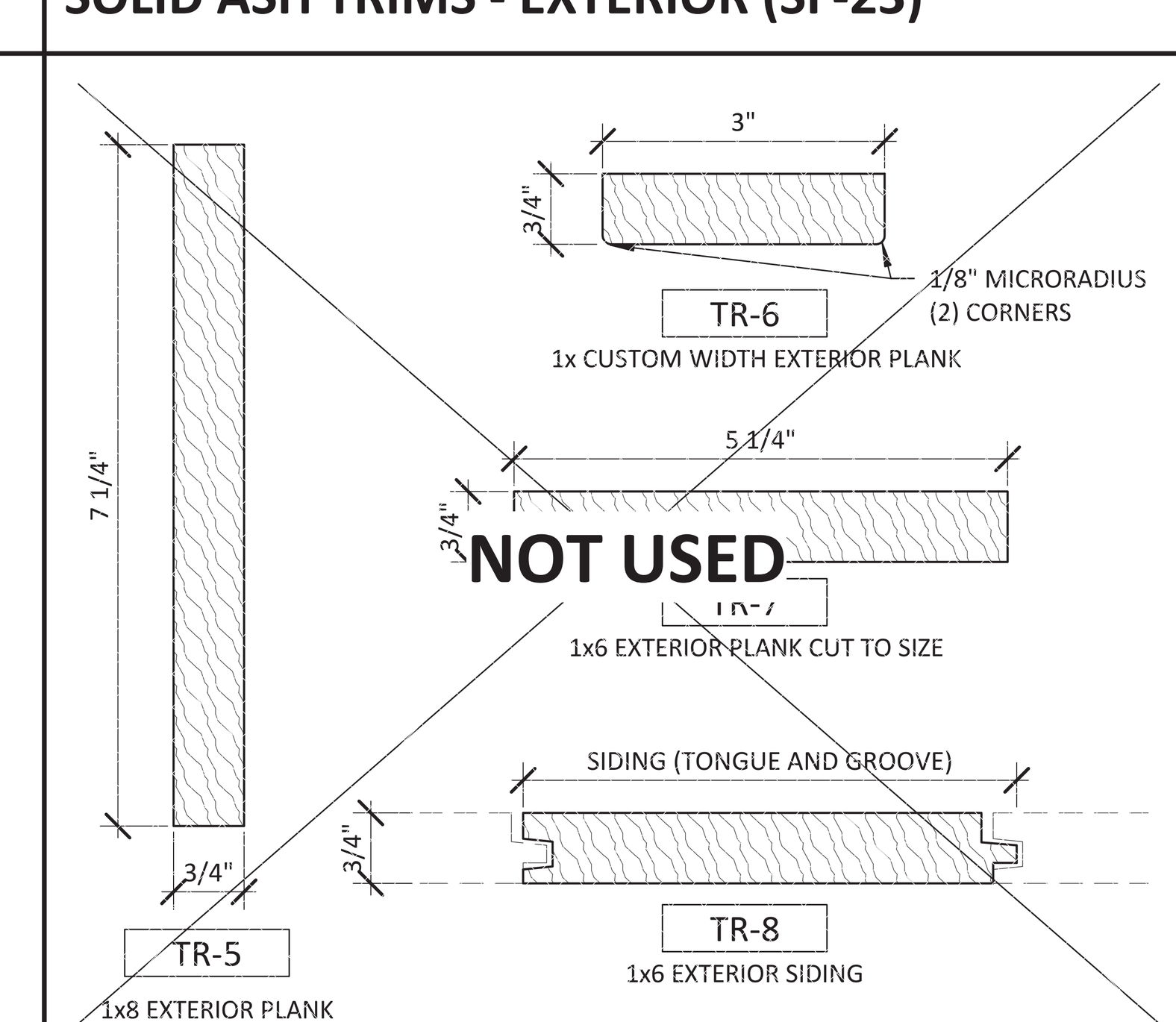
TAG	MATERIAL/LOCATION	MANUFACTURER	DESCRIPTION	REMARKS	FURNISHED	INSTALLED	AREA
PAINTS							
P-1	SALES - OPEN CEILING (DECKS OVER 16'-0"AFF)	BENJAMIN MOORE WATERBOURNE CEILING PAINT	COLOR: HC-166 KENDALL CHARCOAL, FINISH: ULTRA FLAT (508)	OPEN CEILING, HVAC , EXPOSED CEILING ITEMS , WALLS ABOVE 12'-0" PAINT LINE	GC	GC	--
P-2	SALES AND BOH GWB CEILINGS	BENJAMIN MOORE WATERBOURNE CEILING PAINT	COLOR: OC-65 CHANTILLY LACE, FINISH: ULTRA FLAT (508)	GWB CEILINGS AND PERIMETER SOFFITS	GC	GC	--
P-3	DOORS/ TRIM	BENJAMIN MOORE ULTRA SPEC SCUFF-X	COLOR: HC-166 KENDALL CHARCOAL, FINISH: SATIN (486)		GC	GC	--
P-4	SALES - WALLS	BENJAMIN MOORE REGAL SELECT INTERIOR	COLOR: OC-53 HORIZON, FINISH: EGGSHELL (549)	SALES WALLS TO 12'-0" PAINT LINE	GC	GC	--
P-5	SALES - WALLS AT FITROOMS / HIGH TOUCH AREAS / HALLWAYS	BENJAMIN MOORE ULTRA SPEC SCUFF-X	COLOR: OC-53 HORIZON, FINISH: MATTE (484)	SEE SHEET A-310 FOR FITROOM PAINT SCOPE	GC	GC	--
P-6	BOH AND RESTROOM - WALLS	BENJAMIN MOORE ULTRA SPEC SCUFF-X	COLOR: HC-170 STONINGTON GRAY, FINISH: SATIN (486)	BOH WALLS TO 12'-0" PAINT LINE	GC	GC	--
P-7	BOH - OPEN CEILING SALES - OPEN CEILING (DECKS UNDER 14'-0"AFF)	BENJAMIN MOORE WATERBORNE CEILING PAINT	COLOR: HC-179 PLATINUM GRAY, FINISH: ULTRA FLAT (508)	OPEN CEILING, HVAC, EXPOSED CEILING ITEMS, WALLS ABOVE 12'-0" PAINT LINE	GC	GC	--
P-8	SALES HALLWAY TO BOH	BENJAMIN MOORE ULTRA SPEC SCUFF-X	COLOR: HC-166 KENDALL CHARCOAL, FINISH: MATTE (484)	SALES HALLWAY LEADING TO BOH	GC	GC	--
P-10	PRIMER FOR WC-2	BENJAMIN MOORE REGAL SELECT PRIMER	COLOR: STANDARD BASE WHITE (01), FINISH: SEMI-GLOSS (F551) NO TINT REQUIRED	NO PRE-PRIMER REQUIRED APPLY 2 COATS AT ALL WALLS TO BE PRIMED BEHIND WC-2 WALL COVERING AT STAFF WALLS WC-2 VENDOR REQUIRES MINIMUM 7 DAYS AFTER PRIMER APPLICATION TO ALLOW FOR OFF-GASSING PRIOR TO THEIR SCHEDULED WC-2 INSTALL DATE	GC	GC	--
P-11	SALES - OPEN CEILING (DECKS OVER 14'-0"AFF TO 16'-0"AFF)	BENJAMIN MOORE WATERBORNE CEILING PAINT	COLOR: AF-710 SECRET, FINISH: ULTRA FLAT (508)	OPEN CEILING, HVAC, EXPOSED CEILING ITEMS, WALLS ABOVE 12'-0" PAINT LINE	GC	GC	--
FLOORING							
CNC-1	(STANDARD) EXISTING CONCRETE FLOOR - SALES	RETROPLATE OR APPROVED EQUAL	RETROPLATE CONCRETE POLISHING SYSTEM, FINISH: MATTE SLAB PREP: 1. DIAMOND GRIND: LEVEL 2 - SATIN (400 GRIT) 2. NO COLOR 3. DENSIFY 4. POLISH: LEVEL 1 - MATTE (100 GRIT), GRIND TO A LOW SHEEN, HONED NON-SLIP FINISH	SEE SHEET AS-130 FOR PERFORMANCE SPECIFICATION ENSURE EXISTING THRESHOLDS TO ADJACENT SPACES OR MALL FLOORING IS ADA COMPLIANT, OTHERWISE IF DIFFERENCE IS 1/2" MAX: PROVIDE SCHLUTER RENO-EU STAINLESS STEEL TRANSITION STRIP, AND IF OVER 1/2"H: GC TO PROVIDE A 1:48 MAX SLOPE AS REQUIRED USING SELF-LEVELING CONCRETE, CUSTOM MATCH TO EXISTING SLAB BASED, COORDINATE WITH VENDOR AT BEGINNING OF CONSTRUCTION FOR ON SITE SAMPLE	GC	GC	--
CNC-2	(STANDARD) NEW SELF-LEVELLING POLISHED CONCRETE TOPPER	CTS CEMENT MANUFACTURING	PRIMER: RAPIDSET TXP FAST EPOXY PRIMER WITH SAND BROADCAST. 1/2" RAPIDSET TRU PC GRAY 3000 EXTENDED 25% WITH TRU PC 1/4" AGGREGATE. POLISH: LEVEL 2 - SATIN (400 GRIT) GRIND TO A LOW SHEEN, HONED NON-SLIP FINISH SEALER: CLEAR PENETRATING SEALER AMERIPOLISH 3D SP OR EQUAL. CONTROL JOINTS: NATIONAL METAL SHAPES INC. ZINC TZ1216G OR ALTERNATE: POLYURETHANE METZGER-McGUIRE RS88 OR EQUAL	SEE SHEET AS-130 FOR PERFORMANCE SPECIFICATION CONTACT REP.: JOE ZINGALE JZINGALE@CTSCEMENT.COM FOR MORE INFORMATION NO ALTERNATES	GC	GC	--
CNC-3	EXISTING CONCRETE FLOOR - BOH	ARDEX OR APPROVED EQUAL	SEALER: CLEAR, POLYURETHANE, REDUCED GLOSS, SEALER. ARDEX PC 60 REDUCED GLOSS OR EQUAL APPROVED ALTERNATE: ARDEX CG™ 2.0, COLOR: GRAY USE AT BOH TYPICAL, IF USED AT SALES FLOOR PROVIDE (2) LAYERS MATTE, ANTI-SLIP SACRIFICIAL WAX	SEE SHEET AS-130 FOR PERFORMANCE SPECIFICATION PREP SLAB PRIOR TO SEAL PER MANUFACTURER'S INSTRUCTIONS: MECHANICALLY REMOVE ANY FORM RELEASE, SEALERS OR PAINTS, DUST, DIRT, OILS OR ANY OTHER CONTAMINANT THAT COULD ACT AS A BOND BREAKER BY SHOT BLASTING OR SIMILAR. PATCH SLAB TO CREATE LEVEL SURFACE THROUGHOUT USING ONLY ARDEX APPROVED PATCHING MATERIALS	GC	GC	--
FT-1	PORCELAIN FLOOR TILE - RESTROOM & MOP SINK	DAL TILE	SERIES: PORTFOLIO, COLOR: ASH GREY PF05, FINISH: MATTE, 12" x 24" x 3/8", STACKED PATTERN GROUT: 1/8" ARDEX 22 - CAST IRON	PROVIDE UNCOUPLING MEMBRANE:SCHLUTER-DITRA OR ALTERNATE: LATICRETE FRACTURE BAN SC	GC	GC	--
FT-3	(SELECT) TERRAZZO TILE - SALES	ANN SACKS	SERIES: RENATA, COLOR: WHITE, 24" x 24" x .5", STACKED PATTERN GROUT: 1/8" LATICRETE 89 - SMOKE GRAY SEALER: CLEAR, PH NEUTRAL, LOW SHEEN, APPLY AFTER INSTALL. FILAFOB OR APPROVED EQUAL CONTROL JOINTS: COLOUR MATCHED RESILIENT JOINTS 12' OC BOTH DIRECTIONS INCLUDING HONORING OF SLAB JOINTS	3-4 MONTHS LEAD TIME GC TO PROVIDE UNCOUPLING MEMBRANE. SCHLUTER-DITRA OR EQUAL. GC TO CONFIRM LEVEL CHANGE AT MALL FLOORING AND GRIND DOWN SLAB AS REQUIRED AT FRONT OF STORE AT 1:48 MAX SLOPE TO ALLOW FOR FLUSH TRANSITION	LLL	GC	3285.49 SF
FT-3L	(INV. DIAL-UP) TERRAZZO TILE - SALES	ANN SACKS	SERIES: RENATA, COLOR: WHITE, 29.5" x 48" x .787", OFFSET PATTERN, TILE ORIENTED WITH LONG SIDES PARALLEL TO FRONT OF STORE, UNO GROUT: 5mm LATICRETE 89 - SMOKE GRAY SEALER: CLEAR, PH NEUTRAL, LOW SHEEN, APPLY AFTER INSTALL. FILAFOB OR APPROVED EQUAL CONTROL JOINTS: COLOUR MATCHED RESILIENT JOINTS 12' OC BOTH DIRECTIONS INCLUDING HONORING OF SLAB JOINTS	3-4 MONTHS LEAD TIME GC TO PROVIDE UNCOUPLING MEMBRANE. SCHLUTER-DITRA OR EQUAL. GC TO CONFIRM LEVEL CHANGE AT MALL FLOORING AND GRIND DOWN SLAB AS REQUIRED AT FRONT OF STORE AT 1:48 MAX SLOPE TO ALLOW FOR FLUSH TRANSITION	LLL	GC	XX SF
FT-4	PORCELAIN TILE - SALES	ANN SACKS	SERIES: FLAKE, COLOR: GRIGIO, FINISH: HONED, 24" x 24" x .392", STACKED PATTERN GROUT: 1/8" ARDEX 19 - SILVER SHIMMER	3 MONTHS LEAD TIME GC TO PROVIDE UNCOUPLING MEMBRANE. SCHLUTER-DITRA OR EQUAL.	LLL	GC	XX SF
MAT-3	WALK OFF MAT - ENTRY	MATS INC.	ULTRA ENTRY, 3/8"H BLACK BASE PANELS WITH CHARCOAL SPLASH INSERTS R-FRAME PERIMETER, STANDARD 4'W ROLL UNO		GC	GC	--
WD-1	WOOD FLOOR - FITROOMS	RECLAIMED WOOD DESIGN WORKS, LLC	CIRCULAR SAWN WHITE OAK; ENGINEERED PLANK, STANDARD UV PREFINISHED; 6" WIDE PLANK, 1/2" THICK, RANDOM LENGTHS NOT LESS THAN 72 INCHES	SMOOTHED IN FIELD PER OWNER'S REQUEST. INSTALLATION: GLUE-DOWN. NOTE: BUILD UP SUBFLOOR IF REQUIRED TO ACHIEVE LEVEL TRANSITION WITH ADJACENT FINISHES, VERIFY FIELD CONDITIION AND PROVIDE VAPOR BARRIER UNDERLAYMENT IF REQUIRED, RECOMMENDED, APPROVED, OR ACCEPTED BY THE MANUFACTURER FOR THE INSTALLATION INDICATED	LLL	GC	519.61 SF
WD-2	WOOD FLOOR - FITROOMS	RECLAIMED WOOD DESIGN WORKS, LLC	CIRCULAR SAWN WHITE OAK; ENGINEERED PLANK, STANDARD UV PREFINISHED; 6" WIDE PLANK, 3/4" THICK, RANDOM LENGTHS NOT LESS THAN 72 INCHES	SMOOTHED IN FIELD PER OWNER'S REQUEST. INSTALLATION: GLUE-DOWN. NOTE: BUILD UP SUBFLOOR IF REQUIRED TO ACHIEVE LEVEL TRANSITION WITH ADJACENT FINISHES, VERIFY FIELD CONDITIION AND PROVIDE VAPOR BARRIER UNDERLAYMENT IF REQUIRED, RECOMMENDED, APPROVED, OR ACCEPTED BY THE MANUFACTURER FOR THE INSTALLATION INDICATED	LLL	GC	XX SF
WALLS							
FRP-1	FRP - BOH	MARLITE OR APPROVED EQUAL	COLOR: WHITE, FINISH: S100 - PEBBLE FINISH, 4' x 8' x 3/32", PROVIDE STAINLESS STEEL CORNER GUARDS AND WHITE PVC TRIM PIECES	SEE DETAILS 4, 9, 15, AND 19/A-510 ORIENT HORIZONTALLY WITH TOP OF PANEL @ 50"AFF BOTTOM EDGE TO BE CONCEALED BY WALL BASE	GC	GC	--
WC-2	STAFFROOM WALLCOVERING	LLL-V	DREAMSCAPE: CAVIAR - CUSTOM PRINTED WALLCOVERING WITH SELF-ADHESIVE BACKING APPLIED OVER FINISHED GC PRIMED WALL SURFACE (P-10)	SEE ELEVATIONS SHEET A-220, ALLOW 7 DAYS FOR GC PRIMER TO CURE PROR TO INSTALLATION	LLL-V	LLL-V	195.42 SF
WC-3	3RD TIER MANIFESTO	LLL-V	CUT VINYL GRAPHIC APPLIED OVER FINISHED GC PAINTED WALL SURFACE EXTEND FROM 5'-2 1/2"AFF TO 12'-0"AFF TO ALIGN WITH SOFFIT	SEE ELEVATIONS SHEET A-210, GC TO COORDINATE VENDOR INSTALL BEFORE OUTRIGGERS ARE INSTALLED, ALLOW 7 DAYS FOR GC PAINT TO CURE PRIOR TO INSTALLATION	LLL-V	LLL-V	550.6SF
WC-5	INTERIOR WOOD VENEER PANEL CLADDING	LLL-V	1/2" THICK WHITE OAK VENEER PANEL WITH MATTE CLEAR COAT, PLAIN SAWN, BOOK AND END MATCHED, ALL EXPOSED EDGES TO BE FINISHED. VENEER PANELS TO BE HUNG BY GC ON LLL-V SUPPLIED Z-CLIPS TO FRT PLYWOOD SUBSTRATE PANEL	SEE SHEETS A-541, A-542, A-543 FOR DETAILS, SEE TRIM PROFILES BELOW FOR SOLID WOOD TRIMS, LLL-V TO PROVIDE SOLID WOOD BASE TR-3 WITH BRAKE METAL AT BASE REVEAL (B-4), LLL-V TO MITER ALL EXPOSED OUTSIDE CORNERS AND PROVIDE METAL CORNER TRIMS (WP-8) AS REQUIRED.GC TO ENSURE A FLAME SPREAD RATING OF NOT MORE THAN 150.	LLL-V	GC	--
WC-6	INTERIOR SOLID WOOD	LLL-V	1/2" THICK WHITE OAK SOLID WOOD WITH MATTE CLEAR COAT, PLAIN SAWN, WHERE GRAIN DIRECTION IS NOTED AS PARALLEL TO ADJACENT VENEER PANELS MATCH GRAIN WITH VENEER, ALL EXPOSED EDGES TO BE FINISHED. SECURE TRIMS TO WALLS AND CEILINGS WITH ADHESIVE AND FINISHING NAILS AS REQUIRED, GC TO FILL HOLES WITH MATCHING FILLER	SEE SHEETS A-541, A542, A543 FOR DETAILS, SEE TRIM PROFILES BELOW FOR SOLID WOOD TRIMS, AT SOLID WOOD BASE (TR-3) LLL-V TO PROVIDE BRAKE METAL AT BASE REVEAL (B-4), LLL-V TO MITER ALL EXPOSED OUTSIDE CORNERS AND PROVIDE METAL CORNER TRIMS (WP-8) AS REQUIRED.GC TO ENSURE A FLAME SPREAD RATING OF NOT MORE THAN 150.	LLL-V	GC	--
WT-1	CERAMIC TILE - RESTROOM AND KITCHEN BACKSPLASH	DALTILE	SERIES: RITTENHOUSE, COLOR: 0190 ARCTIC WHITE, FINISH: SEMI-GLOSS, 3" x 6" x 5/16", RUNNING BOND PATTERN 1/16" GROUT: ARDEX 22 CAST IRON	SEE DETAIL 12/A-510, PROVIDE RITTENHOUSE SQUARE 3x6 BULLNOSE AT WAINSCOT AND OUTSIDE CORNERS, AND PROVIDE RITTENHOUSE SQUARE 3x6 COVE TILE AT BASE	GC	GC	--
WT-2	CERAMIC TILE - SALES HALLWAY TO BOH AT DRINKING FOUNTAIN	DALTILE	SERIES: COLOR WHEEL LINEAR, COLOR: 0780 CHALKBOARD, FINISH: MATTE 2 1/8" x 8 9/16" X 5/16", HORIZONTAL STACKED PATTERN 1/16" GROUT: ARDEX 22 CAST IRON	SEE DETAIL 5/A-510, PROVIDE BLACK SCHLUTTER JOLLY TRIM AT WAINSCOT AND OUTSIDE CORNERS, MITER WAINSCOT TRIM AT CORNERS, AND SEAL AT BASE WITH BLACK SEALANT, +/- 50"AFF (23 FULL TILES HIGH) UNO	GC	GC	--
WALL PROTECTION							
WP-1	CORNER GUARDS	LLL-V	METAL ANGLE FURNISHED BY LLL-V, INSTALLED BY GC FINISH: POWDER COATED TO MATCH BENJAMIN MOORE OC-53 HORIZON, 1" x 1" x HEIGHT AS NOTED	SEE DETAIL 2/A-510, SEE SHEET A-121 FINISH PLAN AND A-210 ELEVATIONS FOR HEIGHTS	LLL-V	GC	--
WP-4	WALL END PLATE	LLL-V	ALUMINIMUM PLATE FURNISHED BY LLL-V, INSTALLED BY GC, FINISH: PRE-FINISHED HRPO GREY M51 BY LLL-V 1/8" THICK, COORDINATE WIDTH WITH WALL THICKNESS	SEE DETAIL 13/A-510, SEE SHEET A-121 FINISH PLAN AND A-210 ELEVATIONS FOR HEIGHTS AND WIDTHS	LLL-V	GC	--
WP-5	MUD-IN CORNER GUARD	FRY REGLET	WALL COVERING TRIM WCT-OSC FINISH: POWDER COATED TO MATCH BENJAMIN MOORE HC-170 STONIGTON GRAY, 1" x 1"	SEE DETAIL 14/A-510, SEE ELEVATIONS FOR HEIGHTS	GC	GC	--
WP-6	BOH CORNER GUARD	GC	STAINLESS STEEL, 18 GA. 304 BRUSHED FINISH	SEE DETAIL 15/A-510, 50"H UNO, ALIGN WITH TOP OF FRP-1	GC	GC	--
WP-7	BOH WALL END CAP	GC	STAINLESS STEEL, 18 GA. 304 BRUSHED FINISH	SEE DETAIL 19/A-510, 50"H UNO, ALIGN WITH TOP OF FRP-1	GC	GC	--
WP-8	CORNER GUARD AT WOOD CORNER	LLL-V	ALUMINIMUM TRIM FURNISHED BY LLL-V, INSTALLED BY GC, FINISH: PRE-FINISHED HRPO GREY M51 BY LLL-V 1/8" THICK x 1" x HEIGHT PER PLANS	SEE DETAIL 16/A-543, LLL-V TO PRE-MITER ADJACENT WOOD PANELS, GC TO APPLY SILICONE ADHESIVE TO BACK EDGE OF TRIM AND EMBED IN CORNER SEAM	LLL-V	GC	--
BASES							
B-1	VINYL BASE - SALES AND GWB FITROOMS	TARKETT	MANDALAY, COLOR: 50 WHITE, 4 1/2"H x 3/8"THK	SEE DETAIL 3/A-510, JOINTS MITERED AT CORNERS IN FIELD	GC	GC	--
B-3	VINYL BASE - BOH	TARKETT	TRADITIONAL VINYL WALL BASE, COLOR: 40 BLACK, 4"H	SEE DETAIL 8/A-510, JOINTS MITERED AT CORNERS IN FIELD	GC	GC	--
B-4	METAL BASE - AT WOOD PANELS	LLL-V	ALUMINIMUM BASE FURNISHED BY LLL-V, INSTALLED BY GC FINISH: PRE-FINISHED HRPO GREY M51 BY LLL-V 1/16" THICK x 1 1/2"H x 10' LENGTHS	SEE DETAIL 1/A-543 INSTALL BEHIND WOOD BASE SO 3/4" METAL REVAL IS VISIBLE AT BASE. GC TO ENSURE A FLAME SPREAD RATING OF NOT MORE THAN 150. JOINTS MITERED AT CORNERS IN FIELD	LLL-V	GC	--
CEILINGS							
ACT-1	ACOUSTIC CEILING TILE	ARMSTRONG	PRELUDE XL SUSPENSION SYSTEM, ULTIMA BEVELED TEGULAR TILE: WHITE, 2' x 4'	SEE DETAILS 10 AND 12 / A-520, AND AS-140 SPEC.	GC	GC	--
ACS-1	ACOUSTIC CEILING SPRAY	INTERNATIONAL CELLULOSE CORP	K-13 THERMAL & ACOUSTICAL SPRAY, COLOR: GRAY	--	GC	GC	--

TAG	MATERIAL/LOCATION	MANUFACTURER	DESCRIPTION	REMARKS	FURNISHED	INSTALLED	AREA
STOREFRONT							
SF-4	STOREFRONT INTERIOR GLAZING	GC'S VENDOR	3/4'' THICK TEMPERED GLAZING UNIT-STARPHIRE OR EQ WITH BEVELED AND POLISHED EXPOSED EDGES AND 1/8" MAX BUTT JOINTS	SEE A-400 SERIES STOREFRONT DETAILS	GC	GC	--
SF-5	STOREFRONT GLAZING	GC'S VENDOR	1/2'' THICK TEMPERED GLAZING UNIT "CLARITY" ANTI REFLECTIVE GLASS STARPHIRE OR EQ WITH BEVELED AND POLISHED EXPOSED EDGES AND 1/8" MAX BUTT JOINTS	SEE A-400 SERIES STOREFRONT DETAILS	GC	GC	--
SF-6	STOREFRONT EXTERIOR GLAZING	GC'S VENDOR	1" THICK INSULATED GLAZING UNIT, SOLARBAN 60, INSULATED, STARPHIRE OR EQ	SEE A-400 SERIES STOREFRONT DETAILS	GC	GC	--
SF-6H	STOREFRONT EXTERIOR GLAZING-HAMMER GLASS	GC'S VENDOR	1" THICK INSULATED GLAZING UNIT INCLUDING EXTERIOR HAMMER GLASS LAYER, STARPHIRE OR EQUAL AT INSIDE PANE	SEE A-400 SERIES STOREFRONT DETAILS	GC	GC	--
SF-7	STOREFRONT WOOD EMBLEM - EXTERIOR SLATS	TBD	1" x 1 1/2" WOOD SLATS AT STOREFRONT ENTRY WALL, NATURAL WHITE OAK WITH CLEAR MATE FINISH, SEAL WITH EXTERIOR GRADE MATTE SEALANT AT EXTERIOR LOCATIONS SLATS COME IN 10' LENGTHS, RANDOM STAGGER SEAMS	SEE A-400 SERIES STOREFRONT DETAILS ADHERE TO SUBSTRATE WITH NO VISIBLE FASTENERS, HUNG WITH Z-CLIPS	GC	GC	--
SF-8	STOREFRONT WOOD EMBLEM - EXTERIOR SLATS	TBD	1 1/2" x 3 1/2" WOOD SLATS AT STOREFRONT ENTRY WALL, NATURAL WHITE OAK WITH CLEAR MATE FINISH, SEAL WITH EXTERIOR GRADE MATTE SEALANT AT EXTERIOR LOCATIONS, SLATS COME IN 10' LENGTHS, RANDOM STAGGER SEAMS	SEE A-400 SERIES STOREFRONT DETAILS ADHERE TO SUBSTRATE WITH NO VISIBLE FASTENERS, HUNG WITH Z-CLIPS	GC	GC	--
SF-10	STOREFRONT PAINT - BLACK	BENJAMIN MOORE REGAL SELECT	COLOR: 2132-10 BLACK INTERIOR FINISH: MATTE (484) / EXTERIOR FINISH: FLAT (400)	SEE A-400 SERIES STOREFRONT DETAILS USE EXTERIOR PAINT AT EXTERIOR LOCATIONS	GC	GC	--
SF-11	STOREFRONT BRAKE METAL - DARK GREY	GC	RAL 7043 TRAFFIC GREY - POWDER COAT FINISH 16 GA. ALUMINUM, MATTE FINISH, SCRIBE IN FIELD	SEE A-400 SERIES STOREFRONT DETAILS	GC	GC	--
SF-12	STOREFRONT BRAKE METAL - LIGHT GREY	GC	RAL 7035 LIGHT GREY - POWDER COAT FINISH 16 GA. ALUMINUM, MATTE FINISH, SCRIBE IN FIELD	SEE A-400 SERIES STOREFRONT DETAILS	GC	GC	--
SF-13	STOREFRONT PERFORATED METAL - DARK GREY	LLL-V	RAL 7043 TRAFFIC GREY - POWDER COAT FINISH, ANTI-GRAFFITI COAT AT EXTERIOR LOCATIONS 1/8" THK PERFORATED ALUMINUM PANEL FACE WITH 2 3/8"D RETURNS, MATTE FINISH BACK-PAN OF ASSEMBLY OUTSIDE FACES TO MATCH FINISH OF FRONT PANEL	SEE STOREFRONT DETAILS A-400 SERIES, LLL TO PROVIDE FINAL PATTERN FOR PERFORATION GC TO PROVIDE REQUIRED HAT CHANNELS, FASTENERS, AND BRAKE METAL REVEALS, COORDINATE LOCATIONS, WIRE ROUTING, AND DRIVER ACCESS WITH LLL-V SHOP DRAWINGS	LLL-V	LLL-V	--
SF-14	STOREFRONT PERFORATED METAL - LIGHT GREY	LLL-V	RAL 7035 LIGHT GREY - POWDER COAT FINISH, ANTI-GRAFFITI COAT AT EXTERIOR LOCATIONS 1/8" THK PERFORATED ALUMINUM PANEL FACE WITH 2 3/8"D RETURNS, MATTE FINISH BACK-PAN OF ASSEMBLY OUTSIDE FACES TO MATCH FINISH OF FRONT PANEL	SEE STOREFRONT DETAILS A-400 SERIES, LLL TO PROVIDE FINAL PATTERN FOR PERFORATION GC TO PROVIDE REQUIRED HAT CHANNELS, FASTENERS, AND BRAKE METAL REVEALS, COORDINATE LOCATIONS, WIRE ROUTING, AND DRIVER ACCESS WITH LLL-V SHOP DRAWINGS	LLL-V	LLL-V	--
SF-18	STOREFRONT BLACK TRIM AT WOOD CORNERS	GC	ANODIZED BLACK ALUMINIMUM TRIM 1/8" THICK x 1" x HEIGHT PER STOREFRONT DETAILS	EMBED INTO CORNERS AT INTERIOR WOOD EMBLEM SEE A-400 SERIES STOREFRONT DETAILS	GC	GC	--
SF-18B	(CANADA) BLACK TRIM AT WOOD CORNERS	GC	ANODIZED BLACK ALUMINIMUM TRIM 1/8" THICK x 3/4" x HEIGHT PER STOREFRONT DETAILS	EMBED INTO CORNERS AT INTERIOR WOOD EMBLEM SEE A-400 SERIES STOREFRONT DETAILS	GC	GC	--
SF-19	STOREFRONT MULLIONS - BLACK	YKK AP OR APPROVED EQUAL	ANODIZED BLACK (OR VENDOR'S STANDARD BLACK FINISH) STOREFRONT SYSTEM MULLIONS	SEE A-400 SERIES STOREFRONT DETAILS	GC	GC	--
SF-20	STOREFRONT BRAKE METAL - BLACK	GC	VENDOR'S STANDARD BLACK FINISH - STOREFRONT BRAKE METAL 16 GA. ALUMINUM, MATTE FINISH, SCRIBE IN FIELD	SEE A-400 SERIES STOREFRONT DETAILS	GC	GC	--
SF-21 MATCH WC-5	STOREFRONT PORTAL INTERIOR WOOD VENEER PANEL CLADDING	GC	(MATCH WC-5 CONTROL SAMPLE) 3/4" THICK x 5' X 10' WHITE OAK VENEER PANEL WITH MATTE CLEAR COAT, PLAIN SAWN, BOOK AND END MATCHED, ALL EXPOSED EDGES TO BE FINISHED. VENEER TO BE ADHERED TO FRT PLYWOOD SUBSTRATE PANEL, SECURE PANELS TO WALLS AND CEILINGS WITH FINISHING NAILS AS REQUIRED AT REVEALS PROVIDED AT SEAMS, GC TO FILL HOLES WITH MATCHING FILLER	SEE A-400 SERIES STOREFRONT DETAILS, SEE TRIM PROFILES BELOW FOR SOLID WOOD TRIMS SAMPLES REQUIRED FOR APPROVAL	GC	GC	--
SF-21B MATCH WC-5	(CANADA) STOREFRONT PORTAL INTERIOR WOOD VENEER PANEL CLADDING	GC	(MATCH WC-5 CONTROL SAMPLE) 1/2" THICK x 5' X 10' WHITE OAK VENEER PANEL W/ MATTE CLEAR COAT, PLAIN SAWN, BOOK & END MATCHED, ALL EXPOSED EDGES TO BE FINISHED. VENEER TO BE ADHERED TO FRT PLYWOOD SUBSTRATE PANEL, SECURE PANELS TO WALLS AND CEILINGS WITH COUNTERSUNK SCREWS & PL LOCTITE ADHESIVE W/ MATCHING FLUSH SCREW CAPS AS REQ AT REVEALS PROVIDED AT SEAMS, GC TO FILL HOLES WITH MATCHING FILLER	SEE A-400 SERIES STOREFRONT DETAILS, SEE TRIM PROFILES BELOW FOR SOLID WOOD TRIMS NON-COMBUSTIBLE FINISHES SHALL HAVE A FLAME SPREAD RATING OF NOT MORE THAN 150 ON ANY EXPOSED SURFACE. PROVIDE CAN/ULC S102 TESTED FR SUBSTATE AND FLAME RETARDANT MATTE CLEAR COAT. SAMPLE REQUIRED FOR APPROVAL.	GC	GC	--
SF-22 MATCH WC-6	STOREFRONT PORTAL INTERIOR SOLID WOOD	GC	(MATCH WC-6 CONTROL SAMPLE) 3/4" THICK WHITE OAK WITH MATTE CLEAR COAT, PLAIN SAWN, WHERE GRAIN DIRECTION IS NOTED AS PARALLEL TO ADJACENT VENEER PANELS MATCH GRAIN WITH VENEER, ALL EXPOSED EDGES TO BE FINISHED. SECURE TRIMS TO WALLS AND CEILINGS WITH ADHESIVE AND FINISHING NAILS AS REQUIRED, GC TO FILL HOLES WITH MATCHING FILLER	SEE A-400 SERIES STOREFRONT DETAILS, SEE TRIM PROFILES BELOW FOR SOLID WOOD TRIMS SAMPLES REQUIRED FOR APPROVAL	GC	GC	--
SF-22B MATCH WC-6	(CANADA) STOREFRONT PORTAL INTERIOR SOLID WOOD	GC	(MATCH WC-6 CONTROL SAMPLE) 1/2" THICK WHITE OAK, PLAIN SAWN WITH MATTE CLEAR COAT, WHERE GRAIN DIRECTION IS NOTED AS PARALLEL TO ADJACENT VENEER PANELS MATCH GRAIN WITH VENEER, ALL EXPOSED EDGES TO BE FINISHED. SECURE TRIMS TO WALLS AND CEILINGS WITH ADHESIVE AND FINISHING NAILS AS REQUIRED, GC TO FILL HOLES WITH MATCHING FILLER	SEE A-400 SERIES STOREFRONT DETAILS, SEE TRIM PROFILES BELOW FOR SOLID WOOD TRIMS SUBMIT SAMPLE FOR APPROVAL NON-COMBUSTIBLE FINISHES SHALL HAVE A FLAME SPREAD RATING OF NOT MORE THAN 150 ON ANY EXPOSED SURFACE. PROVIDE CAN/ULC S102 TESTED FR SUBSTATE AND FLAME RETARDANT MATTE CLEAR COAT.SAMPLE REQUIRED FOR APPROVAL.	GC	GC	--
SF-23	STOREFRONT PORTAL EXTERIOR SOLID WOOD	ARBOR WOOD	THERMALLY MODIFIED ASH WITH PRE-APPLIED CUSTOM EXTERIOR U-V RESISTANT MATTE FINISH COAT TO MATCH LULULEMON INTERIOR WOOD CONTROL SAMPLE AT FACES (TR-6): 1x CUSTOM WIDTH PLANKS PER DETAILS, ORDER CONTINUOUS VERTICALS AT PORTAL RETURNS (TR-7): 1x6 PLANKS, COORDINATE LENGTHS WITH SEAMS PER ELEVATIONS AT PORTAL BASE (TR-5): 1x8 PLANKS AT PORTAL CEILING AND SIDES (TR-8): 1x6 TONGUE AND GROOVE SIDING, ALIGN SEAMS IF POSSIBLE WITH RECESSED DOOR CONCEAL FASTENERS AT GROOVE WHERE PERMITTED BY LOCAL CODE	SEE A-400 SERIES STOREFRONT DETAILS SAMPLES REQUIRED FOR APPROVAL MINIMIZE BUTT-JOINTS AT CORNERS, ADHERE TO EXTERIOR RATED FRT PLYWOOD SUBSTRATE AND SECURE WITH CORROSION RESISTANT FASTENERS AS REQUIRED, GC TO FILL HOLES WITH MATCHING FILLER	GC	GC	--
SF-24	STOREFRONT CONCRETE PLASTER	TEXSTON	PRODUCT: TEXSTON TUSCANY VPC-8333D CEMENT-LIME PLASTER WITH REINFORCED POLYMER ADDITIVE (RPA) FIBER MESH: EMBED FIBER MESH IN FIRST COAT OF CEMENT PLASTER TO RESIST CRACKING EIFS BASE COAT: ACRYLIC MODIFIED CEMENTITIOUS BASECOAT BY STO, DRYVIT, PAREX, SENERGY, FINESTONE, BASF OR EQUAL PRIMER: 2 COATS TEXSTON TEX PREP PRIMER GRIND: DIAMOND GRIND TO FINISH LEVEL 5/16" AND POLISH TO SMOOTH MATTE FINISH TO EXPOSE AGGREGATE PER CONTROL SAMPLE SEALER: 2 COATS TEXSTON TEXPROTECT SDS 7.5 REVEALS: PROVIDE CUSTOM COLOR TO MATCH PLASTER MUD-IN REVEALS AS REQUIRED	SEE SHEET AS-150 FOR PERFORMANCE SPEC AND SEE A-400 SERIES FOR STOREFRONT DETAILS USE TEXSTON CERTIFIED INSTALLER GC/INSTALLER TO SUBMIT SHOP DRAWING FOR LLL REVIEW INDICATING DESIGN JOINTS AND IF REQUIRED, ANY ADDITIONAL CONTROL JOINTS GC/INSTALLER TO SUBMIT 24" x 24" MOCK UP FOR APPROVAL OF COLOR AND TEXTURE PRIOR TO INSTALLATION	GC	GC	--
SF-25	STOREFRONT BRAKE METAL - GREY TO MATCH CONCRETE PLASTER	GC	RAL 7038 AGATE GREY - POWDER COAT FINISH 16 GA. ALUMINUM, MATTE FINISH, SCRIBE IN FIELD	SEE A-400 SERIES STOREFRONT DETAILS	GC	GC	--
SF-26	STOREFRONT BASE - GREY EXTERIOR TILE (USE WITH SF-14 LIGHT PERFORATED PANEL OR CONCRETE PLASTER)	DALTILE	PORCELAIN 'UNIFORM CONCRETE', COLOR: LIGHT GREY UC12, UNPOLISHED, 12" x 24" x 7/16" STACK BOND 1/8" GROUT: ARDEX 02 FRESH LILLY	SEE A-400 SERIES STOREFRONT DETAILS SCRIBE AT BASE AS REQUIRED, CUT LENGTHS AND MITER CORNERS AS REQUIRED IN FIELD	GC	GC	--
SF-27	STOREFRONT BASE - BLACK EXTERIOR TILE (USE AT BLACK MULLIONS, SF-13 DARK PERFORATED PANEL, WOOD SLATS)	DALTILE	PORCELAIN 'UNIFORM CONCRETE', COLOR: BLACK UC16, UNPOLISHED, 12" x 24" x 7/16" STACK BOND 1/8" GROUT: ARDEX 24 BLACK LICORICE	SEE A-400 SERIES STOREFRONT DETAILS SCRIBE AT BASE AS REQUIRED, CUT LENGTHS AND MITER CORNERS AS REQUIRED IN FIELD	GC	GC	--
MISCELLANEOUS							
AC-1	ACRYLIC AT COMMUNITY WALL	LLL-V	1/2"THK P95 FROSTED ACRYLIC, MATTE FINISH AND SANDED EDGES (220 GRIT), BACK-PAINTED WHITE	SEE SHEET A-541 USE UV-RESISTANT CLEAR ACRYLIC SAFE ADHESIVE TO SECURE TO SUBSTRATE	LLL-V	GC	XX SF
GL-1	MIRROR	GC	CLEAR 1/4" MIRROR GLAZING W/ STYLMARK ALUMINUM MIRROR 'J' TRIMS #420107 AND #420068, COLOR: 118 BUFFED BRITE STAINLESS STEEL	GC TO PROVIDE ALL SURFACE APPLIED MIRROR AT WALLS AND AT LLL-V FEATURE MIRRORS SEE A-310 ELEVATIONS, DETAIL 11/A-510, AND AS-140 SPEC	GC	GC	--
MTL-1	BRAKE METAL - COLUMN WRAP	GC	CUSTOM COLOR POWDER COAT FINISH: MATCH BENJAMIN MOORE OC-53 HORIZON 16 GA. ALUMINUM, MATTE FINISH, SCRIBE IN FIELD	SEE SHEET ____	GC	GC	--
TRANS-1	MARBLE THRESHOLD - RESTROOM TO SALES	GC	WHITE CARRARA MARBLE THRESHOLD, 2" WIDE	SEE SHEET A-530, VERIFY HEIGHT REQUIRED IN FIELD PRIOR TO PURCHASE	GC	GC	--
TRANS-2	SALES - FLUSH TRANSITIONS	SCHLUTER	SCHIENE 1/8" THICK, FINISH: BRUSHED STAINLESS STEEL	SEE SHEET A-530, VERIFY HEIGHT REQUIRED IN FIELD PRIOR TO PURCHASE	GC	GC	--
TRANS-3	BOH - TRANSITIONS	SCHLUTER	RENO-RAMP 1/2"H MAX x 2 1/2", FINISH: BRUSHED STAINLESS STEEL	SEE SHEET A-530, VERIFY HEIGHT REQUIRED IN FIELD PRIOR TO PURCHASE	GC	GC	--
TRANS-4	FITROOM WOOD TRANSITION	RECLAIMED WOOD DESIGN WORKS, LLC	(MATCH WD-1) 1/2"H TRANSITION PLANK WITH FINISHED BEVELED EDGE (1:2 BEVEL MAX)	SEE SHEET A-530, VERIFY HEIGHT REQUIRED IN FIELD PRIOR TO PURCHASE	LLL	GC	XX LF
WF-1	SECURITY FILM EXTERIOR GLAZING	GC	3M SCOTCHSHIELD ULTRA S800, 8MIL (0.008") THICKNESS. CLEAR (INTERIOR APPLICATION) IF INTERIOR APPICATION NOT FEASIBLE: 3M SAFETY S70, CAULK ALL EDGES (MATCH FRAMES)	CONFIRM WITH ASSET PROTECTION AT DD PHASE IF REQUIRED, INSTALL ON INTERIOR SIDE OF GLASS, TYPICAL, IF NOT POSSIBLE USE EXTERIOR SAFETY FILM AND CAULK ALL EDGES	GC	GC	--
WF-2A	GLAZING SAFETY DECAL A	LLL-V	BRAND TECHNICAL DOT PATTERN - OPTION A (PREFERRED)	SEE A410 FOR DIMENSIONS. INSTALL ON INTERIOR SIDE OF GLASS WHERE REQUIRED BY CODE	LLL-V	LLL-V	--
WF-2B	GLAZING SAFETY DECAL B	LLL-V	BRAND TECHNICAL DOT PATTERN - OPTION B	SEE A410 FOR DIMENSIONS. INSTALL ON INTERIOR SIDE OF GLASS WHERE REQUIRED BY CODE	LLL-V	LLL-V	--
WF-2C	GLAZING SAFETY DECAL C	LLL-V	BRAND TECHNICAL DOT PATTERN - OPTION C	SEE A410 FOR DIMENSIONS. INSTALL ON INTERIOR SIDE OF GLASS WHERE REQUIRED BY CODE	LLL-V	LLL-V	--

SOLID OAK TRIMS - INTERIOR (WC-6/SF-22)



SOLID ASH TRIMS - EXTERIOR (SF-23)



GWB FINISH LEVELS

GWB FINISH	LOCATION
LEVEL 1	PLENUM AND NON-FINISH AREAS
LEVEL 2	AREAS COVERED WITH TILE, NON-VISIBLE GWB AT LIGHT COVES
LEVEL 4	NON-CUSTOMER ACCESSIBLE AREAS
LEVEL 5	CUSTOMER ACCESSIBLE AREAS GC TO USE SPRAY APPLIED WITH SHEETROCK® BRAND TUFF-HIDE™ PRIMER-SURFACER OR APPROVED EQUAL AT ALL PAINTED SURFACES

GLASS THICKNESS

PER IBC 2403.4 FOR FULLY TEMPERED GLASS FIXED AT TOP AND BOTTOM ONLY

GLASS HEIGHT	OPEN JOINTS	JOINTS WITH PERMANENT FASTENERS OR SILICONE
UP TO 8FT	5/8"	1/2"
OVER 8FT TO 9FT	5/8"	1/2"
OVER 9FT TO 10FT	3/4"	1/2"
OVER 10FT TO 11FT	3/4"	5/8"
OVER 11FT TO 12FT	3/4"	5/8"
OVER 12FT TO 13FT	7/8"	5/8"
OVER 13FT TO 14FT	7/8"	3/4"

lululemon
1818 CORNWALL AVE.
VANCOUVER, B.C., V6J1C7

CF POLO PARK
1485 Portage Ave, Unit 144E
Winnipeg, MB
R3G 0W5
CRU NUMBER: 144E

Quadrangle
Quadrangle Architects Limited
The Well, 8 Spadina Avenue, Suite 2100, Toronto, ON M5V 0S8
t 416 598 1240 www.bdpquadrangle.com

ARCHITECT SEAL

ONTARIO ASSOCIATION OF ARCHITECTS
KIRTIDEV MEHTA
LICENCE
8099

ISSUED FOR CONSTRUCTION

07/14/2023

DATE	DESCRIPTION
05/05/2023	DESIGN DEVELOPMENT
06/09/2023	PERMIT/CONSTRUCTION
06/09/2023	ISSUED FOR BID
07/14/2023	ISSUED FOR CONSTRUCTION

DRAWING INFORMATION
PROJECT #: 23206
CHECKED BY: NA
DRAWN BY: TA

FINISH SCHEDULE

DRAWING NUMBER
A-120

7/14/2023 12:10:24 PM

LANDLORD FINISHES GENERAL NOTES:

THE TENANT AND THEIR GENERAL CONTRACTOR WILL BE RESPONSIBLE FOR ENSURING THAT THE INTEGRITY OF THE PREMISES IS MAINTAINED WITH RESPECT TO FIRE RESISTANCE AS PRESCRIBED BY THE BUILDING CODE AND BYLAWS.

METAL PANELS MUST BE A MIN 16 GAUGE STEEL TO AVOID OIL CANNING AND DENTS. ALL METAL WORK MUST BE SHOP FINISHED BREAK METAL PANELS WITH FORMED/ROLLED EDGES. NO PRE-FABRICATED SHEET GOODS WITH BUTT JOINTS WILL BE ACCEPTED. FABRICANT SHOP DRAWINGS WILL BE REQUIRED FOR FINAL APPROVAL.ÞNSURE THAT JOINTS IN STOREFRONT MATERIALS ALIGN WITH ARCHITECTURALLY SIGNIFICANT ELEMENTS. PROVIDE ALL RELEVANT DETAILS FOR LANDLORD APPROVAL.

ALL GLASS IS TO BE TEMPERED.ĐF REQUIRED, PROVIDE MOUNTING CLIPS. NO SILICONE JOINTS ACCEPTED. SPECIFICATION AND MATERIAL OF CLIPS IS SUBJECT TO LANDLORD APPROVAL.

ALL MATERIALS USED MUST BE FINISHED IN A WAY THAT ENSURES THEIR 'CLEANABILITY'. TEXTURED FINISHES MUST RECEIVE ALL THE NECESSARY TREATMENTS TO CLEAN THEM AND NOT ACCUMULATE DUST AND/OR GREASE OVER TIME.

THE TENANT`S CONTRACTOR MUST ENSURE A SMOOTH, LEVEL TRANSITION BETWEEN THE MALL FLOOR TILE FINISH AND THE NEW TENANT FLOOR FINISH. A 1/8" `SCHLUTER SCHIENE' METAL TRANSITION STRIP MUST BE INSTALLED BETWEEN THE TENANT FLOOR FINISH AND LANDLORD FLOOR FINISH. EXACT DETAILS AND LOCATION OF SCHLUTER MUST BE CONFIRMED ON SITE WITH THE LANDLORD PRIOR TO CONSTRUCTION.

THE CLIENT`S CONTRACTOR WILL ENSURE THAT THE SCHLUTER AND ALL LANDLORD TILE IS FULLY INTACT AND IN GOOD CONDITION AT THE LEASE LINE, AND WILL RAISE ANY CONCERNS TO THE LANDLORD PRIOR TO COMMENCING WORK. (SHOULD THERE BE ANY ISSUES BROUGHT UP AT A LATER DATE, THE CLIENT`S CONTRACTOR WILL BE RESPONSIBLE FOR REPARATION WORKS).

SUBMIT A SAMPLE BOARD FOR FINAL LANDLORD APPROVAL.

GENERAL NOTES

A. UNO, THE PAINT COLORS ARE ECO SPEC BY BENJAMIN MOORE (NO SUBSTITUTIONS).

B. ALL PRODUCTS, FINISHES AND MATERIALS TO BE INSTALLED PER MANUFACTURER'S SPECIFICATIONS.

C. ALWAYS PROVIDE BENJAMIN MOORE TINTED PRIMER. PROVIDE MINIMUM TWO COATS OF FINISH PAINT. PROVIDE MORE COATS IF REQUIRED.

D. FOR OVERALL CEILING - BENJAMIN MOORE REQUIRED TINTED PRIMER TO BE USED. GC TO PROVIDE THREE COATS OF PAINT MINIMUM.

E. GC TO ENSURE A SMOOTH LEVEL CONCRETE SUB-FLOOR AS NEEDED FOR WOOD INSTALLATION. PROVIDE LEVELASTIC (O.A.E.) WHERE REQUIRED TO ACHIEVE LEVEL SUB-FLOOR. REFER TO MANUFACTURER SPECIFICATIONS FOR MORE INFORMATION AND MOISTURE REQUIREMENTS. VERIFY IN FIELD PRIOR TO INSTALLATION OF FLOORING (TYP.)

F. TRANSITION PAINT COLORS ON AN INSIDE CORNER WHENEVER POSSIBLE UNO.

G. PROVIDE PAINTABLE CLEAR CAULKING BETWEEN WALL AND BASEBOARD. KEEP BEAD SMALL, CLEAN AND SMOOTH. PAINTER TO CUT IN WALL COLOUR AFTER APPLICATION AS REQUIRED. APPROVED BRAND IS DAP ALEX PLUS CLEAR. NO CAULKING SHOULD BE USED BETWEEN BASEBOARD AND FLOOR.

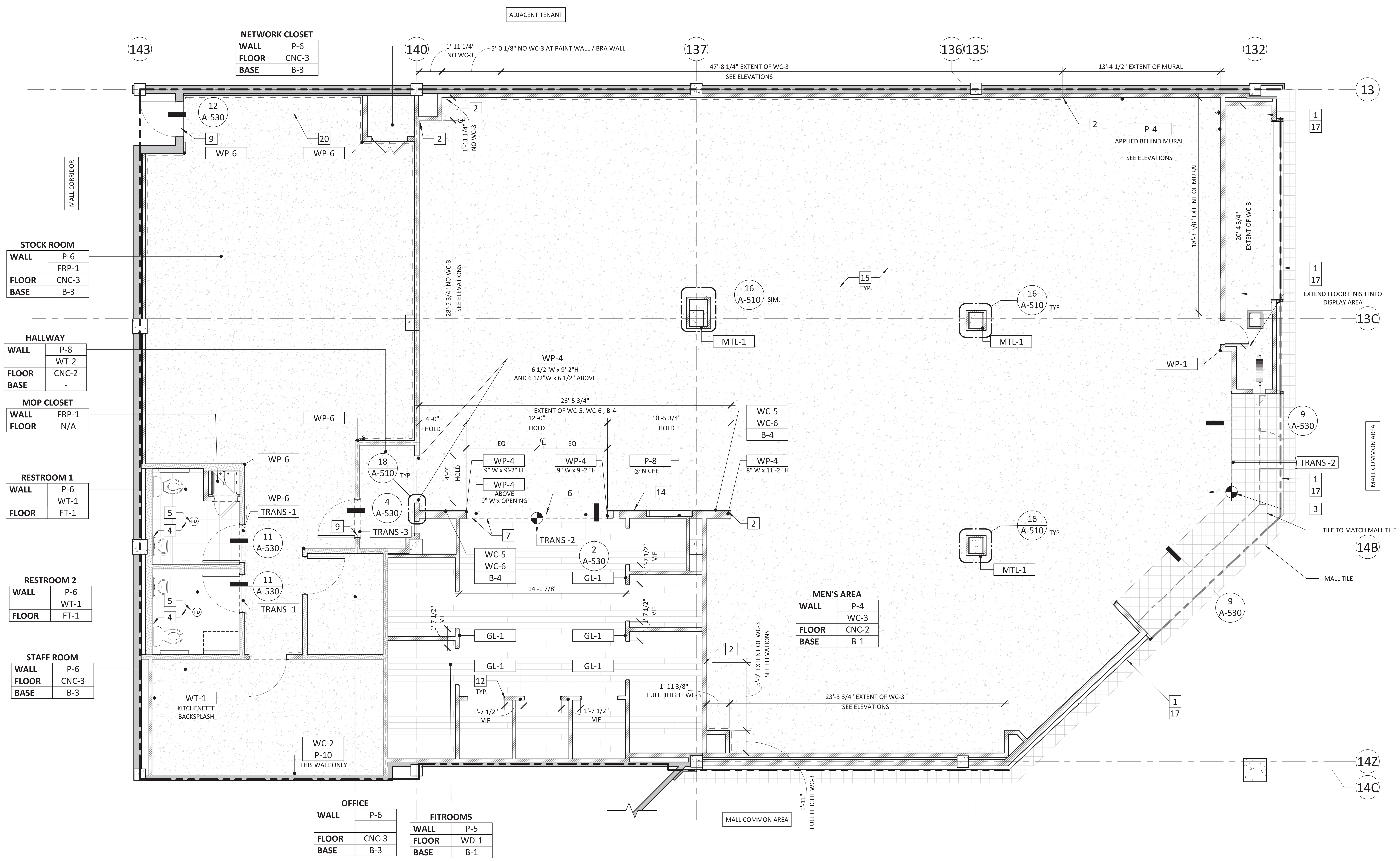
H. ALL AREAS AND QUANTITIES ARE FOR REFERENCE ONLY AND DOES NOT INCUDE OVERAGE

I. GC SHALL VERIFY DIMENSIONS ON SITE AND CONFIRM QUANTITIES OF ALL PROCURED ITEMS

KEYNOTES

[#] - KEYNOTE SYMBOL — NOT USED (shaded)

1. SEE STOREFRONT SHEETS A-410 FOR STOREFRONT FINISHES
2. DISSIMILAR WALL FINISHES TERMINATE AT CORNER
3. SALES FLOOR TILE LAYOUT POINT CENTERED IN ENTRY PORTAL AT LEASE LINE
4. GC TO INSTALL WATERPROOF MEMBRANE UNDER TILE IN RESTROOMS AND OTHER WET AREAS, WATERPROOFING TO EXTEND UP WALLS 6" MIN, REFER TO DETAIL 12/A-510
5. RESTROOM TILE LAYOUT POINT AT FLOOR DRAIN, TILE TO NEVER BE CUT LESS THAN 6" WIDE
6. WOOD FLOOR LAYOUT POINT CENTERED IN TRANSITION
7. WOOD FLOOR AT TRANSITION TO ALIGN WITH FACE OF ADJACENT WALL PLATE
8. PAINT TO MATCH EXISTING AND/OR REQUIRED LANDLORD FINISH
9. INSTALL ADA COMPLIANT THRESHOLD AT BOH SIDE OF DOOR
10. PAINT LINE AT SALES AT 12'-0"AFF, PAINT EVERYTHING ABOVE 12'-0" P-1
11. PAINT LINE AT BACK OF HOUSE AT 12'-0"AFF, PAINT EVERYTHING ABOVE 12'-0" P-7
12. APPLIED MIRROR GL-1 BY GC SECURED WITH TOP AND BOTTOM CLIPS, SEE DETAILS 1/A-180, 2/A-180, 11/A-510
13. WALL HUNG ACRYLIC PANEL WITH METAL FRAME ON Z-CLIPS BY LLL-V, INSTALLED BY GC, SEE SHEET A-541 FOR DETAILS
14. WALL PANELS AND SOLID WOOD BASE WITH METAL BASE REVEAL BY LLL-V, INSTALLED BY GC, SEE SHEET A-541 FOR DETAILS
15. GC TO COORDINATE AND INSTALL SLAB CONTROL JOINTS WITH NEW FLOOR FINISH
16. TAPED-IN FRY-REGLET DRYWALL REVEAL MOLDING DRM-625-25 BY GC, SEE DETAIL 3/A-510
17. EXTEND MALL TILE TO LINE OF NEW STOREFRONT CONTSTUCTION, SEE A-400 SERIES FOR DETAILS, COORDINATE WITH MALL MANAGEMENT FOR SPECIFICATION
18. GC TO CONFIRM LEVEL CHANGE AT MALL FLOORING AND GRIND DOWN SLAB AS REQUIRED AT FRONT OF STORE AT 1:48 MAX SLOPE TO ALLOW FOR FLUSH TRANSITION
19. WHERE LEVEL CHANGE BETWEEN ADJACENT FLOORING IS MORE THAN 1/2", GC TO POUR FEATHERED TRANSITION AT 1:48 SLOPE TO ALLOW 1/2" MAX THRESHOLD AT DOOR, PROVIDE SAW CUT AT EXISTING SLAB FOR FEATHER EDGE AT BOH SLAB
20. GC TO SUPPLY AND INSTALL HI-VIS FLOOR TAPE TO OUTLINE "BOX STORAGE AREA" ULINE-2" w YELLOW/BLACK TRACTION TAPE. S-24489YB



1 FINISH PLAN

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

lululemon

1818 CORNWALL AVE.
VANCOUVER, B.C., V6J1C7

CF POLO PARK

1485 Portage Ave, Unit 144E
Winnipeg, MB
R3G 0W5
CRU NUMBER: 144E

Quadrangle

Quadrangle Architects Limited
The Well, 8 Spadina Avenue, Suite 2100, Toronto, ON M5V 0S8
t 416 598 1240 www.bdpquadrangle.com

ARCHITECT SEAL

ONTARIO ASSOCIATION OF ARCHITECTS
KIRTIDEV MEHTA
LICENCE
8099

ISSUED FOR CONSTRUCTION

07/14/2023

△	DATE	DESCRIPTION
	05/05/2023	DESIGN DEVELOPMENT
	06/09/2023	PERMIT/CONSTRUCTION
	06/09/2023	ISSUED FOR BID
	07/14/2023	ISSUED FOR CONSTRUCTION

DRAWING INFORMATION

PROJECT #: 23206
CHECKED BY: MP
DRAWN BY: TA

FINISH PLAN

DRAWING NUMBER

A-121

7/14/2023 12:10:37 PM

FIXTURE & EQUIPMENT SCHEDULE

NOTE: ASTERISKS ADDED TO MILLWORK CODES (BEFORE & AFTER) INDICATE A CUSTOM OR MODIFIED COMPONENT. LULULEMON VENDOR TO PROVIDE SHOP DRAWINGS FOR ALL CUSTOM OR MODIFIED COMPONENTS)

NOT USED

FOH WALL FIXTURES

TAG	DESCRIPTION	FURN	INST	BLOCKING	REMARKS	CODE/SPECIFICATION
M-AP-X W-AP-X	APPLIED SLOTTED POSTS	LLL-V	GC	SEE DETAIL 6/A-551	OUTLETS: NO TRIM	NO TRIM: WF-AP.SL-RAW-V2 ACRYLIC TRIM: WF-AP.SL-RAW.AC-V2
M-FTW-125-X W-FTW-125-X	FLOOR TO WALL 125" OUTRIGGERS	LLL-V	GC	SEE DETAIL 3/A-551	STANDARD STORES - ACRYLIC TRIM SEASONAL CONVERSION STORES - NO TRIM	ACRYLIC TRIM: WF-OR-FTW.125.AC-V1 NO TRIM: WF-OR-FTW.125.RAW-V1
M-C-X W-C-X	'C' SHAPE OUTRIGGERS	LLL-V	GC	SEE DETAIL 3/A-551	MOUNTING HEIGHT: 6" AFF FOR THIS STORE	WF-OR.C-RAW.AC-V4
M-FTC-X W-FTC-X	FLOOR TO CLG OUTRIGGERS	LLL-V	GC	SEE DETAIL 4/A-551		WF-OR.FTC-RAW.AC-V2
M-FTC-DBL-X W-FTC-DBL-X	DOUBLE SIDED FLOOR TO CLG OUTRIGGERS	LLL-V	GC	SEE DETAIL 4/A-551	CEILING AND FLOOR ATTACHMENTS WILL VARY PER SITE CONDITIONS	WF-OR.FTC.DBL-RAW.AC-V2
M-FTC-MW-X W-FTC-MW-X	MIDWALL FLOOR TO CLG OUTRIGGERS	LLL-V	GC	SEE DETAIL 4/A-551	CEILING AND FLOOR ATTACHMENTS WILL VARY PER SITE CONDITIONS TO BE USED AT LOCATIONS WITH MIDWALL PANELS	
M-FTW-X W-FTW-X	FLOOR TO WALL OUTRIGGERS	LLL-V	GC	SEE DETAIL 5/A-551	STANDARD STORES - ACRYLIC TRIM SEASONAL CONVERSION STORES - NO TRIM TO BE USED AT LOCATIONS AS REQUIRED BY SITE CONDITIONS (I.E. WINDOWS)	ACRYLIC TRIM: WF-OR.FTW-RAW.AC-V4 NO TRIM: WF-OR.FTW-RAW.V4
W-PW-X W-PW-LH-X W-PW-RH-X	WOMEN'S PANT WALL - STANDARD	LLL-V	GC	SEE DETAIL 2/A-551		STANDARD SINGLE: WF-WCU.B-AC.NO-V2 STANDARD LEFT HAND: WF-WCU.B.LH-AC.NO-V2 STANDARD RIGHT HAND: WF-WCU.B.RH-AC.NO-V2
W-PW-LS-LH-11 W-PW-LS-RH-4	WOMEN'S BACKLIT PANT WALL - SELECT	LLL-V	GC	SEE DETAIL 2/A-551	POWER REQUIRED SEE SHEET A-210 AND ELECTRICAL DRAWINGS FOR MORE INFORMATION	LARGE LEFT HAND: WF-WCU.SS.LH-AC.NO.LIT-V2 LARGE RIGHT HAND:WF-WCU.SS.RH-AC.NO.LIT-V2
W-PW-LS-LB-11 *W-PW-LS-LB-4*	WOMEN'S PANT WALL LIGHTBOX - SELECT	LLL-V	LLL-V	SEE DETAIL 2/A-551	POWER REQUIRED SEE SHEET A-210 AND ELECTRICAL DRAWINGS FOR MORE INFORMATION	BOSTON BARRICADES LARGE STRAIGHT: 16 1/16" x 62 1/2"
W-PW-DUC-X W-PW-DUS-X W-PW-DUS-LH-X W-PW-DUS-RH-X	WOMEN'S BACKLIT PANT WALL - INVESTMENT DIAL-UP	LLL-V	GC	SEE DETAIL 2/A-551	POWER REQUIRED SEE SHEET A-210 AND ELECTRICAL DRAWINGS FOR MORE INFORMATION	DIAL-UP CURVED: WF-DU-WCU-AC.NO.LIT-V1 DIAL-UP SINGLE: WF-DU-WCU-AC.NO.LIT-V1 DIAL-UP LEFT HAND: WF-DU-WCU-LH-AC.NO.LIT-V1 DIAL-UP RIGHT HAND: WF-DU-WCU-RH-AC.NO.LIT-V1
W-PW-DUC-LB-X W-PW-DUS-LB-X	WOMEN'S PANT WALL LIGHTBOX - INVESTMENT DIAL-UP	LLL-V	LLL-V	SEE DETAIL 2/A-551	POWER REQUIRED SEE SHEET A-210 AND ELECTRICAL DRAWINGS FOR MORE INFORMATION	BOSTON BARRICADES DIAL-UP CURVED: 29 5/8" x 89 3/4" DIAL-UP STRAIGHT: 23 11/16" x 89 3/4"
W-BRA-FTW-125-X	BRA WALL OUTRIGGERS - STANDARD	LLL-V	GC	SEE DETAIL 3/A-551	STANDARD STORES - ACRYLIC TRIM SEASONAL STORES - NO TRIM	ACRYLIC TRIM: WF-OR-FTW.125.AC-V1 NO TRIM: WF-OR-FTW.125.RAW-V1
M-PW-L-12	MEN'S BACKLIT PANT WALL - SELECT / DIAL-UP	LLL-V	GC	SEE DETAIL 1/A-551	POWER REQUIRED FOR BACKLIT PANT WALL SEE SHEET A-210 AND ELECTRICAL DRAWINGS FOR MORE INFORMATION	LARGE: WF-BW.S-AC.LIT-V1 LEFT HAND END CAP: WF-BW.S.LHE-AC.PW-V1 RIGHT HAND END CAP: WF-BW.S.RHE-AC.PW-V1 (PROVIDE END CAPS AT EXPOSED ENDS)
M-PW-L-LB-3	MEN'S PANT WALL LIGHTBOX SELECT / DIAL-UP	LLL-V	LLL-V	SEE DETAIL 1/A-551	POWER REQUIRED FOR BACKLIT PANT WALL SEE SHEET A-210 AND ELECTRICAL DRAWINGS FOR MORE INFORMATION	BOSTON BARRICADES MEN'S PANT WALL LIGHTBOX: 47 3/8" x 63.5"
W-BRA-L-12	BACKLIT BRA WALL - SELECT / DIAL-UP	LLL-V	GC	SEE DETAIL 4/A-551	POWER REQUIRED FOR BACKLIT BRA WALL SEE SHEET A-210 AND ELECTRICAL DRAWINGS FOR MORE INFORMATION	LARGE: WF-BW.S-AC.LIT-V1 LEFT HAND END CAP: WF-BW.S.LHE-AC.PW-V1 RIGHT HAND END CAP: WF-BW.S.RHE-AC.PW-V1 (PROVIDE END CAPS AT EXPOSED ENDS)
W-BRA-L-LB-3	BRA WALL LIGHTBOX - SELECT / DIAL-UP	LLL-V	LLL-V	SEE DETAIL 4/A-551	POWER REQUIRED FOR BACKLIT BRA WALL SEE SHEET A-210 AND ELECTRICAL DRAWINGS FOR MORE INFORMATION	BOSTON BARRICADES BRA WALL LIGHTBOX: 47 3/8" x 117"
MI-18 MI-30 *MI-42*	FEATURE MIRROR - WALL AND ADA FITROOM	LLL-V /GC	GC	SEE DETAIL 1/A-552	FRAME FURNISHED BY LLL-V AND INSTALLED BY GC. MIRROR GLASS FURNISHED AND INSTALLED BY GC, MIRROR TO BE (1) PIECE, NO SEAM. SEE SHEET AS-140 FOR MIRROR SPECIFICATIONS.	WF-MI.18.74-SPC-V1 WF-MI.30.74-SPC-V2
MI-A	FEATURE MIRROR ANGLED	LLL-V /GC	GC	SEE DETAIL 1/A-552	FRAME FURNISHED BY LLL-V AND INSTALLED BY GC. MIRROR GLASS FURNISHED AND INSTALLED BY GC, MIRROR TO BE (1) PIECE, NO SEAM.	WF-MI-A FEATURE FRAME WALL FIXTURE. SEE SHEET AS-140 FOR MIRROR SPECIFICATIONS.
AMBF-R-LG	AMBASSADOR RECESSED FRAME	LLL-V	GC	SEE DETAILS A-541	TRIMS USED TO FRAME NICHE FOR AMBASSADOR EXPRESSION	WF.AWF.L-RAW-V1
AMB-R-LG	AMBASSADOR EXPRESSION	LLL-V	LLL-V	SEE DETAILS A-541	USED AT COMMUNITY WALL, INSTALL IN NICHE WITH AMBASSADOR FRAME	LARGE
BW-4+2M	BACK WRAP	LLL-V	GC	SEE DETAIL 2/A-540	POWER AND DATA REQUIRED. SEE ELECTRICAL DRAWINGS FOR MORE INFORMATION. BACKING BY G.C.	WF-4BW.2MB-AC.NO.BN-V1
CD-4+2M	CASH DESK	LLL-V	GC	N/A	POWER AND DATA REQUIRED. SEE ELECTRICAL DRAWINGS FOR MORE INFORMATION. TO ARRIVE ON SITE AS FULL SIZE BACK PANEL WITH FRAME SHOP ATTACHED.	WF-4CD.2MB-AC.NO-V1
BF-1	BOTTLE FILLER	GC	GC	N/A	POWDER COAT FINISH - RAL 7035 LIGHT GREY, MATTE	FILTRINE-B103
BF-AC-30x113 BF-AC-30x144 BF-AC-30x151 BF-AC-30x161	BOTTLE FILLER ACRYLIC FRAME	LLL-V	GC	N/A	1/2" THK BACK-PAINTED ACRYLIC WITH FINISHED EDGES BY LLL-V, PRE-SECURED WITH UV RESISTANT CLEAR ADHESIVE TO 5/8" THK SUBSTRATE AND HUNG BY GC ON LLL-V PROVIDED Z-CLIPS INSIDE METAL FRAME 30"W x 113"H: USE AT 9'-6" CEILINGS 30"W x 144"H: USE AT 12'-0" PAINT LINE / 12'-2" LIGHT COVES 30"W x 151"H: USE AT 12'-8" LIGHT COVES 30"W x 161"H: USE AT 13'-6" LIGHT COVES	WF-BF-AC-30x113 WF-BF-AC-30x144 WF-BF-AC-30x151 WF-BF-AC-30x161
BW-ART-X+XM	3D CASH MANIFESTO	LLL-V	GC	SEE DETAILS A-540		WF-ART.IN.2BW.1MB-BPC.AC-V1 WF-ART.IN.2BW.2MB-BPC.AC-V1 WF-ART.IN.3BW.2MB-BPC.AC-V1 WF-ART.IN.4BW.2MB-BPC.AC-V1 WF-ART.IN.5BW.2MB-BPC.AC-V1
WAM FRAME *MURAL*	ART, POSTERS, PHOTOS	LLL-V	GC	N/A	TO BE INSTALLED AT TURNOVER	*MURAL* /MURAL BEHIND CASH AREA TBD
BML-L	BRAND MOMENT	LLL-V	LLL-V /GC	N/A	BRAND MOMENT LARGE LIT - 'NEON LOOK' LED SIGN GC TO PROVIDE POWER CONCEALED ABOVE CEILING AND ACCESS AT WALL BEHIND FIXTURE, RUN INDIVIDUAL LOW VOLTAGE CONNECTIONS THROUGH WALL FINISH TO EACH SIGN LETTER	LARGE
M1-FM-C-LH M1-FM-LR-LH M1-FM-RR-LH M1-FM-LH M1-FM-C-RH M1-FM-LR-RH M1-FM-RR-RH M1-FM-RH	WALL INTERACTIVE MIRROR - M1 WITH FLOOR MIRROR	LLL-V	GC	SEE DETAIL 1/A-552	90"Wx110"H WALL FRAME WITH LEFT HAND FLOOR MIRROR - CANOPY FRAME 90"Wx110"H WALL FRAME WITH LEFT HAND FLOOR MIRROR - LEFT RETURN FRAME 90"Wx110"H WALL FRAME WITH LEFT HAND FLOOR MIRROR - RIGHT RETURN FRAME 90"Wx110"H WALL FRAME WITH LEFT HAND FLOOR MIRROR - NO RETURN FRAME 90"Wx110"H WALL FRAME WITH RIGHT HAND FLOOR MIRROR - CANOPY FRAME 90"Wx110"H WALL FRAME WITH RIGHT HAND FLOOR MIRROR - LEFT RETURN FRAME 90"Wx110"H WALL FRAME WITH RIGHT HAND FLOOR MIRROR - RIGHT RETURN FRAME 90"Wx110"H WALL FRAME WITH RIGHT HAND FLOOR MIRROR - NO RETURN FRAME POWER AND DATA REQUIRED. SEE LLL-V SHOP DRAWINGS AND ELECTRICAL DRAWINGS FOR MORE INFORMATION.	WF.M1.FM.90x110.C-LH WF.M1.FM.90x110.LR-LH WF.M1.FM.90x110.RR-LH WF.M1.FM.90x110-LH WF.M1.FM.90x110.C-RH WF.M1.FM.90x110.LR-RH WF.M1.FM.90x110.RR-RH WF.M1.FM.90x110-RH
M2-FM-C-LH M2-FM-LR-LH M2-FM-RR-LH M2-FM-LH M2-FM-C-RH M2-FM-LR-RH M2-FM-RR-RH M2-FM-RH	WALL INTERACTIVE MIRROR - M2 WITH FLOOR MIRROR	LLL-V	GC	SEE DETAIL 1/A-552	64"Wx110"H WALL FRAME WITH LEFT HAND FLOOR MIRROR - CANOPY FRAME 64"Wx110"H WALL FRAME WITH LEFT HAND FLOOR MIRROR - LEFT RETURN FRAME 64"Wx110"H WALL FRAME WITH LEFT HAND FLOOR MIRROR - RIGHT RETURN FRAME 64"Wx110"H WALL FRAME WITH LEFT HAND FLOOR MIRROR - NO RETURN FRAME 64"Wx110"H WALL FRAME WITH RIGHT HAND FLOOR MIRROR - CANOPY FRAME 64"Wx110"H WALL FRAME WITH RIGHT HAND FLOOR MIRROR - LEFT RETURN FRAME 64"Wx110"H WALL FRAME WITH RIGHT HAND FLOOR MIRROR - RIGHT RETURN FRAME 64"Wx110"H WALL FRAME WITH RIGHT HAND FLOOR MIRROR - NO RETURN FRAME POWER AND DATA REQUIRED. SEE LLL-V SHOP DRAWINGS AND ELECTRICAL DRAWINGS FOR MORE INFORMATION.	WF.M2.FM.64x110.C-LH WF.M2.FM.64x110.LR-LH WF.M2.FM.64x110.RR-LH WF.M2.FM.64x110-LH WF.M2.FM.64x110.C-RH WF.M2.FM.64x110.LR-RH WF.M2.FM.64x110.RR-RH WF.M2.FM.64x110-RH
M2-WM-C-LH M2-WM-LR-LH M2-WM-RR-LH M2-WM-LH M2-WM-C-RH M2-WM-LR-RH M2-WM-RR-RH M2-WM-RH	WALL INTERACTIVE MIRROR - M2 WITH WALL MIRROR	LLL-V	GC	SEE DETAIL 1/A-552	64"Wx110"H WALL FRAME WITH LEFT HAND WALL MIRROR - CANOPY FRAME 64"Wx110"H WALL FRAME WITH LEFT HAND WALL MIRROR - LEFT RETURN FRAME 64"Wx110"H WALL FRAME WITH LEFT HAND WALL MIRROR - RIGHT RETURN FRAME 64"Wx110"H WALL FRAME WITH LEFT HAND WALL MIRROR - NO RETURN FRAME 64"Wx110"H WALL FRAME WITH RIGHT HAND WALL MIRROR - CANOPY FRAME 64"Wx110"H WALL FRAME WITH RIGHT HAND WALL MIRROR - LEFT RETURN FRAME 64"Wx110"H WALL FRAME WITH RIGHT HAND WALL MIRROR - RIGHT RETURN FRAME 64"Wx110"H WALL FRAME WITH RIGHT HAN WALL MIRROR - NO RETURN FRAME POWER AND DATA REQUIRED. SEE LLL-V SHOP DRAWINGS AND ELECTRICAL DRAWINGS FOR MORE INFORMATION.	WF.M2.WM.64x110.C-LH WF.M2.WM.64x110.LR-LH WF.M2.WM.64x110.RR-LH WF.M2.WM.64x110-LH WF.M2.WM.64x110.C-RH WF.M2.WM.64x110.LR-RH WF.M2.WM.64x110.RR-RH WF.M2.WM.64x110-RH
M3-FM	WALL INTERACTIVE MIRROR - M3 WITH FLOOR MIRROR	LLL-V	GC	SEE DETAIL 1/A-552	34"Wx110"H WALL FRAME WITH FLOOR MIRROR - NO RETURN FRAME POWER AND DATA REQUIRED. SEE LLL-V SHOP DRAWINGS AND ELECTRICAL DRAWINGS FOR MORE INFORMATION.	WF.M3.FM.34x110
M3-WM	WALL INTERACTIVE MIRROR - M3 WITH WALL MIRROR	LLL-V	GC	SEE DETAIL 1/A-552	34"Wx110"H WALL FRAME WITH WALL MIRROR - NO RETURN FRAME POWER AND DATA REQUIRED. SEE LLL-V SHOP DRAWINGS AND ELECTRICAL DRAWINGS FOR MORE INFORMATION.	WF.M3.WM.34x110
M5-WM	WALL INTERACTIVE MIRROR - M5 WITH WALL MIRROR	LLL-V	GC	SEE DETAIL 2/A-552	28"Wx92"H WALL PANEL WITH WALL MIRROR POWER AND DATA REQUIRED. SEE LLL-V SHOP DRAWINGS AND ELECTRICAL DRAWINGS FOR MORE INFORMATION.	WF.M5.WM.28x92

FOH FLOOR FIXTURES

TAG	DESCRIPTION	FURN	INST	BLOCKING	REMARKS	CODE/SPECIFICATION
MP-6	MANNEQUIN PLINTHS	LLL-V	GC	N/A	6" MANNEQUIN PLINTH	FF-MP.EH.6-GW.AC-V1
ACC-AFM	ACCESSORY A-FRAME	LLL-V	GC	N/A		FF-ACC.AFM-RAW-V1
SLF-AFM	SELFCARE A-FRAME	LLL-V	GC	N/A		FF-SLF.AFM-RAW-V1
W-TT	TIERED TABLE	LLL-V	GC	N/A		FF-TT-AC.RAW-V1
W-SPFT	PANT FOLDING TABLES	LLL-V	GC	N/A	JUNIOR PANT FOLDING TABLE STANDARD PANT FOLDING TABLE CURVED PANT FOLDING TABLE	FF-SPFT-NO.AC.PW-V1
M-MR W-MR	MID RACK	LLL-V	GC	N/A		FF-MR-RAW.NO.BN-V2
W-TST M-TST	T-STAND	LLL-V	GC	N/A		FF-TST56-RAW.BN-V1
W-AFM M-AFM	A-FRAME	LLL-V	GC	N/A	TO ARRIVE ON SITE IN ONE PIECE	FF-AFM-RAW.BN-V1
M-OH-RH W-OH-RH M-OH-LH W-OH-LH	OUTFITTING HUB v2.0	LLL-V	GC	N/A	OUTFITTING HUB - RIGHT HANDED OUTFITTING HUB - LEFT HANDED	FF-RH.OH-GW.RAW-V1 FF-LH.OH-GW.RAW-V1
EH-4x4	ENTRY HUB	LLL-V	GC	N/A	ENTRY HUB - 4x4	FF-EH.4X4-RAW.AC-V1
SOTL-ST SOTL-DT SOTL-CU	SWEAT ON THE LINE	LLL-V	GC	N/A	SINGLE TOPPER CORNER UNIT	FF-SOTL.NO.ST.RAW-V1 FF-SOTL.NO.CU.RAW-V1
MH-LH MH-RH MMH	INTERACTIVE MIRROR HUB	LLL-V	GC	N/A	48"W HUB PLATFORM WITH FLOOR MIRROR - LEFT HANDED 48"W HUB PLATFORM WITH FLOOR MIRROR - RIGHT HANDED 36"W MINI HUB PLATFORM WITH FLOOR MIRROR POWER AND CAT6 DATA REQUIRED. SEE LLL-V SHOP DRAWINGS AND ELECTRICAL DRAWINGS FOR MORE INFORMATION.	FF.MH.FM.48.LH FF.MH.FM.48.RH FF.MMH.FM.36.LH
PLYO-ST	PLYO SMALL TABLE	LLL-V	GC	N/A	PROVIDE (1) PER EACH MIRROR WITH WEIGHTS	FF.M.ST.12-BPC.NO.V1
FW-S-RH	FOOTWEAR - FRAME FIXTURE	LLL-V	GC	N/A	SMALL FRAME FIXTURE (D) - RIGHT HANDED POWER REQUIRED. SEE LLL-V SHOP DRAWINGS AND ELECTRICAL DRAWINGS FOR MORE INFORMATION.	FF-FW.FRA.S.RH-NO.RAW-V1
FW-M-RH	FOOTWEAR - CANOPY FIXTURE NO BENCH	LLL-V	GC	N/A	MEDIUM CANOPY FIXTURE (B/C) - RIGHT HANDED POWER REQUIRED. SEE LLL-V SHOP DRAWINGS AND ELECTRICAL DRAWINGS FOR MORE INFORMATION.	FF-FW.CAN.M.ST.RH-NO.RAW-V1
FW-L-LH-B FW-L-RH-B FW-L-ST-LH-B FW-L-ST-RH-B	FOOTWEAR - CANOPY FIXTURE WITH BENCH	LLL-V	GC	N/A	LARGE CANOPY FIXTURE (A/A+) - LEFT HANDED WITH BENCH LARGE CANOPY FIXTURE (A/A+) - RIGHT HANDED WITH BENCH LARGE STRAIGHT CANOPY FIXTURE (A/A+) - LEFT HANDED WITH BENCH LARGE STRAIGHT CANOPY FIXTURE (A/A+) - RIGHT HANDED WITH BENCH POWER REQUIRED. SEE LLL-V SHOP DRAWINGS AND ELECTRICAL DRAWINGS FOR MORE INFORMATION.	FF-FW.CAN.L.LHB-NO.RAW-V1 FF-FW.CAN.L.RHB-NO.RAW-V1 FF-FW.CAN.L.STB.LH-NO.RAW-V1 FF-FW.CAN.L.STB.RH-NO.RAW-V1
FW-L-LH-B-PED FW-L-RH-B-PED FW-L-ST-LH-B-PED FW-L-ST-RH-B-PED	FOOTWEAR - CANOPY FIXTURE WITH BENCH AND PEDESTALS	LLL-V	GC	N/A	LARGE CANOPY FIXTURE (A+) - LEFT HANDED WITH BENCH AND PEDESTALS LARGE CANOPY FIXTURE (A+) - RIGHT HANDED WITH BENCH LARGE STRAIGHT CANOPY FIXTURE (A+) - LEFT HANDED WITH BENCH AND PEDESTALS LARGE STRAIGHT CANOPY FIXTURE (A+) - RIGHT HANDED W/ BENCH AND PEDESTALS POWER REQUIRED. SEE LLL-V SHOP DRAWINGS AND ELECTRICAL DRAWINGS FOR MORE INFORMATION.	FF-FW.CAN.L.LHB-NO.RAW-V1+FF-FW.PED-RAW-V1 FF-FW.CAN.L.RHB-NO.RAW-V1+FF-FW.PED-RAW-V1 FF-FW.CAN.L.STB.LH-NO.RAW-V1+FF-FW.PED-RAW-V1 FF-FW.CAN.L.STB.RH-NO.RAW-V1+FF-FW.PED-RAW-V1

FOH OUTRIGGER HARDWARE

TAG	DESCRIPTION	FURN	INST	BLOCKING	REMARKS	CODE/SPECIFICATION
H-MI	MIRROR	LLL-V	GC	N/A	MIRROR GLASS AND FRAME FURNISHED BY LLL-V	H-MI-RAW-V3
PNL-MW-2 PNL-MW-4	MIDWALL OUTRIGGER PANEL	LLL-V	GC	N/A	TO BE USED AT MIDWALL FLOOR TO CEILING OUTRIGGERS	FROSTED ACRYLIC
PNL-SF-2 PNL-SF-4	STOREFRONT OUTRIGGER PANEL	LLL-V	GC	N/A	LLL TO ORDER FROM LLL-V TO BE USED AT DOUBLE FLOOR TO CEILING OUTRIGGERS AT THE STOREFRONT	FROSTED ACRYLIC WITH VINYL PATTERN (LLL TO CONFRIM PATTERN PER LOCATION)
MCU-15	MEN'S SLOTTED CUBBIES - 48"	LLL-V	GC	N/A	5 ROWS (4 SYLES EACH) PER BAY x X BAYS = X TOTAL UNITS	H-UCU.48-SPC-V1 H-DU-UCU.48-SPC-V1
TTS-LA	THIRD TIER SIGNAGE	LLL-V	GC	N/A	LIT AMBASSADOR SIGNAGE. LIGHT BOX. POWER REQUIRED	WHERE POWER IS REQUIRED, SEE SHEET A-210 AND ELECTRICAL DRAWINGS FOR MORE INFO

FITROOM FIXTURES

TAG	DESCRIPTION	FURN	INST	BLOCKING	REMARKS	CODE/SPECIFICATION
FR-HB-3	FITROOM HANGBAR	LLL-V	GC	SEE DETAIL 10/A-550	FURNISHED BY LLL-V AND INSTALLED BY GC.	FR-HB.3-BPC-V1
FR-CS	CONVENIENCE SHELF	LLL-V	GC	SEE DETAIL 11/A-550	FURNISHED BY LLL-V AND INSTALLED BY GC.	FR-S.30-RAW.GW-V1
FR-3WAY	3 WAY MIRROR BACKLIT LED GWB FITROOMS	LLL-V	GC	SEE DETAIL 9/A-310	POWER REQUIRED AT EACH LOCATION; SEE SHEET E-120 FOR MORE INFO. ALL MIRROR GLASS FOR BACKLIT 3-WAY MIRROR FURNISHED BY LLL-V, SHIPPED LOOSE, AND INSTALLED BY GC WITH CONSTRUCTION ADHESIVE.	FR-BLDW-STD-MIR-V2
FR-BN-LH	ADA FITROOM BENCH	LLL-V	GC	SEE DETAIL 12/A-550	FURNISHED BY LLL-V AND INSTALLED BY GC.	LEFT HAND: FR-ADA-BCH.LH.NO.V1
FR-WD-DR-35-RH FR-WD-DR-35-LH FR-WD-DR-37-LH	FITROOM WOOD DOOR	LLL-V /GC	GC	N/A	LLL-V TO PROVIDE DOOR, JAMB, MIRROR FRAME WITH GLASS PACKAGED SEPARATELY, AND MARKER BOARD. GC TO PROVIDE LEVERS, SEE SHEET A-180 FOR DOOR SCHEDULE.	SEE SHEET A-180 DOOR SCHEDULE. IN-SWING UNLESS OTHERWISE NOTED. FR-DR.35.RH-NO-BPC-V1 FR-DR.35.LH-NO-BPC-V1 FR-ADA.DR.RH-NO-BPC-V1 (CANADA) FR-ADA.DR.LH-NO-BPC-V1 (CANADA)
MFRT-RH MFRT-LH	MINI FITROOM TABLES	LLL-V	GC	N/A	MINI FITTING ROOM TABLES	LEFT HAND: MINI-FF-MFRT.LH-NO.AC.BN-V1 RIGHT HAND: MINI-FF-MFRT.RH-NO.AC.BN-V1
FRT-RH FRT-LH	FITROOM TABLES	LLL-V	GC	N/A	STANDARD FITTING ROOM TABLES	LEFT HAND: FF-FRT.LH-NO.AC.BN-V3 RIGHT HAND: FF-FRT.RH-NO.AC.BN-V3
HVFRT-LH	HIGH VOLUME FITROOM TABLE	LLL-V	GC	N/A	HIGH VOLUME FITTING ROOM TABLES TO ARRIVE ON SITE IN ONE PIECE	LEFT HAND: FF-HVT.LH-NO.AC.BN-V1
FR-STL	FITROOM STOOL	LLL-V	GC	N/A	GRETA DE PERRY - CAMP STOOL (CUSTOM VERSION) INDUSTRIAL/ CHARCOAL SEAT, 1 PER FITROOM EXCLUDES ADA	
FRT-STL	FITROOM TABLE STOOL	LLL-V	GC	N/A	GRETA DE PERRY -27" COLEMAN STOOL INDUSTRIAL/ BLACK WOOD STAINED SEAT	
FR-HS	HEMMING STOOL	LLL-V	GC	N/A		FR-HS-BTPC.NO-V2
FR-UB-48 FR-UB-72 FR-UB-96	FITROOM UPHOLSTERED BENCH	LLL-V	GC	N/A		FR-UBNH.48-GR.RAW-V1 FR-UBNH.72-GR.RAW-V1 FR-UBNH.96-GR.RAW-V1
FR-FEUB-48 FR-FEUB-72 FR-FEUB-96	FITROOM FLAT END UPHOLSTERED BENCH	LLL-V	GC	N/A		FR-FE-UBNH.48-GR.RAW-V1 FR-FE-UBNH.72-GR.RAW-V1 FR-FE-UBNH.96-GR.RAW-V1

BOH FIXTURES

TAG	DESCRIPTION	FURN	INST	BLOCKING	REMARKS	CODE/SPECIFICATION
BOH-RD BOH-MO	RECEIVING DESK & MONITOR	LLL-V	LLL-V	SEE DETAIL 2/A-550	DESK SIZE: DESK 4'-3"W X 2'-2"D X 8'-6"H GC TO PROVIDE BLOCKING FOR MONITOR INSTALLATION	
BOH-HM-44-120	HANGER MANAGEMENT	LLL-V	LLL-V	SEE DETAIL 4/A-550	FOR EACH CONFIGURATION PROVIDE THE FOLLOWING: 44-120: (24) IHB-2100, (5) CFR-2100, (1) HBR	
BOH-AP-8	BOH APPLIED SLOTTED POSTS	LLL-V	GC	SEE DETAIL 1/A-550	APPLIED SLOTTED POSTS TO BE LOCATED ABOVE ROLLING RACK (AT 5'-6") WHEN SPACE ALLOWS	BOH-AP.SL-RAW-V1
BOH-RR	ROLLING RACK STORAGE	GC	GC	SEE DETAIL 1/A-550	AVAILABLE AT HOME DEPOT RAIL: LENGTH TO SUIT BOH-AP-X HOOKS: QUANTITY: 6	RUBBERMAID FASTRACK: 1. RAIL-MODEL 5E00 56" RAIL PART #FG5E00DWCS 2. HOOK - FASTRACK - MULTIPURPOSE HOOK.
FS-48-X	FIXED SHELVING	LLL-V	LLL-V	N/A	SEE PLAN FOR CONFIGURATIONS: H: HANG F: FOLD FT: FOOTWEAR HM: HEMMING OM: OMNI (HEMMING + BOPIS)	10'-0" HEIGHT X 15" DEPTH X VARIES IN LENGTH SEE PIPP (LLL-V) SHOP DRAWINGS
BOH-KC	KEY CABINET	GC	GC	N/A	LOCATED IN OFFICE, MOUNT T/O CABINET AT 48"AFF	SHURLOK 48
BOH-LH	LADDER HOOK	GC	GC	N/A	INSTALL @ 8'-0" AFF	CROWN BOLT 75 LB DOUBLE ARM SUPER HOOK, MODEL 18044
BOH-MD	MANAGER'S DESK	GC	GC	SEE DETAIL 3/A-550	SEE ELEVATION 12/A-220 FOR MOUNTING HEIGHTS. GC TO PROVIDE (QTY:3) 2 1/2" PLASTIC GROMMET COVER FOR (3) HOLES.	REFER TO DETAIL ON A552
BOH-PC	PRINTER CADDY	LLL-V	GC	N/A		BOH-PC-MBF-V1
BOH-OC	OFFICE CHAIR	GC	GC	N/A	SEE STAFF ROOM LAYOUT ON SHEET A-220 FOR LOCATION. GC TO CONFIRM IKEA SPECS, PRODUCTS, & DIMS. ALERT ARCHITECT OF ANY DISCREPANCIES.	IKEA: CHAIR - MILLBERGET, ARTICLE NO. 004.893.97
BOH-K	KITCHENETTE	GC	GC	SEE DETAIL 5/A-550	CABINET: FRAME AND DOORS TO BE MADE OF WHITE P-LAM PANELS. CABINET TO HAVE A 4"H TOE KICK WITH A (B-3) BASE ATTACHED TO THE TOE KICK PANEL. CABINET TO BE ADA COMPLIANT WITH THE TOP OF COUNTERTOP AT 34"H MAX AND BASE CAB UNDER SINK TO BE OPEN TO FINISH FLOOR WITH DOORS WITH INTEGRATED KICK - SEE DETAIL 5/A-550 FOR KITCHENETTE ELEVATION. HARDWARE: 1. LIBERTY, ESSENTIALS LOMBARD 5-1/16" SATIN NICKEL PULL, ALT: LIBERTY, ESSENTIALS 4" SATIN NICKEL STEEL BAR PULL COUNTERTOP: IKEA, STYLE: SALJAN, COLOR: WHITE, SIZE: 1 1/2" THK 25 5/8" x 98"	
BOH-SC	STAFF COUNTER	GC	GC	N/A	COUNTERTOP: CUT TO SIZE PER PLAN, SHEET A-131: 18"D x LENGTH OF WALL, MOUNT AT 29"H WITH STEEL WALL BRACKETS TO ANCHOR TO WALL, NO LEGS. ENSURE BRACKETS ARE SPACED AT LEAST 32" OC TO ALLOW FOR FORWARD WHEELCHAIR APPROACH. CAULK ALL WALL TRANSITIONS WITH WHITE CAULK PROVIDE BLOCKING IN WALL AS REQUIRED FOR MOUNTING BRACKETS IKEA, STYLE: (MATCH KITCHENETTE COUNTER) SALJAN, COLOR: WHITE, SIZE: 1 1/2" THK x 25 5/8" x 98"	
BOH-CU	STAFF CUBBY	LLL-V	LLL-V	N/A	FOR SHIPPING PURPOSES EACH CUBBY UNIT WILL CONSIST OF (3) SECTIONS WITH 3Wx2H CUBBIES EACH, STACKED ON TOP OF EACH OTHER AND SECURED TOGETHER	SEE PIPP (LLL-V) SHOP DRAWINGS
BOH-CH	COAT HOOK	GC	GC	SEE DETAIL 8/A-550	SEE A-550 FOR MOUNTING HEIGHTS	LISTED IN ORDER OF PREFERENCE: MFG: LIBERTY, MODEL 131584, 19" MFG: BRAINERD, MODEL R46121Y-WSN-L, 27" MFG: LIBERTY, MODEL 13125, 18 1/2"
BOH-GR-60	BOH GOAL RAILS	GC	GC	SEE DETAIL 7/A-550	BACKING BY GC FOR FOH RAILS ONLY. LENGTH TBD BASED ON PLACEMENT	IKEA: MALMBAECK- ARTICLE NO. 204.462.36 (WHITE) QTY. 8 DIMENSIONS:23 5/8" x 4 3/4"
BOH-C	STAFF CHAIR	GC	GC	N/A	SEE STAFF AREA ROOM LAYOUT ON A-220 FIXTURE PLAN FOR LOCATION. GC TO CONFIRM IKEA SPECS, PRODUCTS, AND DIMENSIONS.	IKEA - TEODORES, ARTICLE NO. 793.998.41 ALT 1: IKEA - LIDÅS, ARTICLE NO. 394.813.81 ALT 2: HOME DEPOT OR EQUAL - FLASH FURNITURE HERCULES SERIES 770 LB WHITE STACK CHAIR WITH LUMBAR SUPPORT AND SILVER FRAME (MANUF. SKU: RUT-288-WHITE-GG) COLOR: WHITE
BOH-TT-1	STAFF TABLE - SMALL	GC	GC	N/A	SEE STAFF AREA ROOM LAYOUT ON A-220 FIXTURE PLAN FOR LOCATION. GC TO CONFIRM IKEA SPECS, PRODUCTS, AND DIMENSIONS. (DO NOT INSTALL INCLUDED BAG HOOKS)	IKEA: TOMMARYD, ARTICLE NO. 993.048.04 SIZE: 51 1/8L x 27 1/2"W x 29 1/2"H COLOR: ANTHRACITE
BOH-TT-2	STAFF TABLE - LARGE	GC	GC	N/A	SEE STAFF AREA ROOM LAYOUT ON A-220 FIXTURE PLAN FOR LOCATION. GC TO CONFIRM IKEA SPECS, PRODUCTS, AND DIMENSIONS.	IKEA: TRANEBO, ARTICLE NO. 804.929.42. SIZE: 86 5/8"L x 39 3/4"W x 29 7/8"H COLOR: BLACK
BOH-SOFA	SOFA	GC	GC	N/A	SEE STAFF AREA ROOM LAYOUT ON A-220 FIXTURE PLAN FOR LOCATION. GC TO CONFIRM IKEA SPECS, PRODUCTS, AND DIMENSIONS.	IKEA: PÄRUP, ARTICLE NO. 193.894.68 SIZE: 81 1/8"L x 31 1/2"D x 33 7/8"H COLOR: VISSLE GRAY ALT: COLOR: GUNNARED DARK GREY, 493.894.76
BOH-WB	WHITE/CORK BOARD	LLL-V	GC	N/A	DDS TO SPECIFY WHITE/CORK BOARD	24"H x 36"W, 4'-0" AFF

MISCELLANEOUS FURNISHINGS / EQUIPMENT

TAG	DESCRIPTION	FURN	INST	BLOCKING	REMARKS	CODE/SPECIFICATION
REF	REFRIGERATOR	GC	GC	N/A	GC TO PROVIDE SWING AT WALL & 2" MIN CLEARANCE FOR DOOR SWING GC TO PROVIDE 2 x DOOR STOPS ON WALL AT POINT OF CONTACT OF REFRIGERATOR DOOR HANDLES, SEE A-180 STAFF ROOM DOOR HARDWARE SCHEDULE FOR SPEC.	WHIRLPOOL WRT311FZDZ, OR APPROVED EQ 20 CU FT TOP-FREEZER, FINISH: STAINLESS STEEL
MICRO	MICROWAVE	GC	GC	N/A		DANBY DMW7700WDB, 0.7 CU FT, 17 5/16"W X 13"D X 10 3/16"H, FINISH: WHITE, OR APPROVED EQUAL
STAN	STANCHIONS	LLL-V	GC	N/A		TBD
MAT-3x18 MAT-2x3	ANTI-FATIGUE MAT	GC	GC	N/A	MATSINC: ANTI-STATIC ANTI-FATIGUE MATS. BEVELLED EDGES. COLOUR: GREY. WEB: HTTPS://MATSINC.COM/ANTI-STATIC-ANTI-FATIGUE	4+2M: 3'x18' BOH-RD: 2'x3' (QTY: 2)
SUR	LV SERVER RACK	LLL-V	LLL-V	N/A	FRAME RACK TO BE SECURELY BOLTED TO SLAB	SEE DETAIL 6/E-510 FOR EQUIPMENT SPECS.
SUR-CAB	LV SERVER CAB	LLL-V	LLL-V	N/A	MOUNTED TO WALL, ENSURE CLEARANCE FOR DOOR SWING	SEE DETAIL 6/E-510 FOR EQUIPMENT SPECS.
FE	FIRE EXTINGUISHER	GC	GC	N/A	EXACT LOCATION TO BE DETERMINED ON SITE PER LOCAL CODES	LARSEN'S MP-5 W/ BRACKET 821
FE-R	RECESSED FIRE EXTINGUISHER	GC	GC	N/A	EXACT LOCATION TO BE DETERMINED ON SITE PER LOCAL CODES	LARSEN'S MP-5 W/ SEMI-RECESSED CABINET 24095R, STAINLESS STEEL W/ TEMPERED GLASS LITE
SW	SAFETY WALL	LLL-V	GC	N/A	CORK BOARD AND FRAME	MIN 4'-0" X 4'-0" CLEAR WALL SPACE FOR OSHA AND HR DOCUMENTS AND FIRST AID
BS-XxX	BRAND SCREEN	LLL-V	LLL-V	SEE SHEET A-540	POWER AND DATA REQUIRED AT EACH LOCATION; PROVIDE TWO LAYERS OF 3/4" THK PLYWOOD FOR BLOCKING. SEE SHEET A-540, ELECREICAL DRAWINGS, AND LULULEMON VENDOR SHOP DRAWINGS FOR MORE INFO	DIVERSIFIED LED TILE MODULE: SAMSUNG LH025IER MOUNT: PREMIER FBWM BS: 4x3 BS: 5x3
DPO	DOOR PULL OFFSET	LLL-V	GC	N/A	36" BLACK OFFSET DOOR PULL WITH CUSTOM ETCHED NOTE. LLL-V TO PROVIDE TEMPLATE FOR MOUNTING LOCATION. AT EXISTING DOOR LOCATIONS, GC TO PROVIDE COVERPLATE TO PATCH PREVIOUS PULL MOUNTING HOLES, COVERPLATE TO MATCH DOOR FINISH	SEE SHEET A-180 DOOR SCHEDULE, STOREFRONT DOORS
LB-SF-CLG-9x6 LB-SF-CLG-8x5	STOREFRONT LIGHTBOX SUSPENDED	LLL-V	LLL-V	BY GC	SUSPEND FROM AIRCRAFT CABLE GC TO PROVIDE FRT BLOCKING ABOVE CEILING	
DT-SF-CLG	STOREFRONT DISPLAY HARDWARE	GC	GC	SEE DETAIL 1/A-521	RECESSED TRACK AND POWER FEED AT CEILING BY GC FOR LLL-V WINDOW DISPLAY (GRAPHICS AND HANGERS BY LLL-V) MANUF: ARAKAWA CRC RECESSED CEILING TRACK, SEE SHEET A-160 FOR REQUIRED LENGTHS: CLEAR ANODIZED FINISH	DT-SF-CLG

RESTROOM FIXTURES

TAG	DESCRIPTION	FURN	INST	BLOCKING	REMARKS	CODE/SPECIFICATION
RR-C	OVERHEAD RESTROOM CABINET	LLL-V	GC	SEE A-320	CONFIRM SIZE PER PLAN	BOH-RR-C

SEE A-320 FOR ALL GC PROVIDED PLUMBING FIXTURES AND RESTROOM ACCESSORIES

lululemon
1818 CORNWALL AVE.
VANCOUVER, B.C., V6J1C7

CF POLO PARK
1485 Portage Ave, Unit 144E
Winnipeg, MB
R3G 0W5
CRU NUMBER: 144E

Quadrangle
Quadrangle Architects Limited
The Well, 8 Spadina Avenue, Suite 2100, Toronto, ON M5V 0S8
t 416 598 1240 www.bdpquadrangle.com

ARCHITECT SEAL

ONTARIO ASSOCIATION OF ARCHITECTS
KIRTIDEV MEHTA
LICENCE
8099

ISSUED FOR CONSTRUCTION
07/14/2023

△	DATE	DESCRIPTION
	05/05/2023	DESIGN DEVELOPMENT
	06/09/2023	PERMIT/CONSTRUCTION
	06/09/2023	ISSUED FOR BID
	07/14/2023	ISSUED FOR CONSTRUCTION

DRAWING INFORMATION
PROJECT #: 23206
CHECKED BY: MP
DRAWN BY: TA

FIXTURE SCHEDULE

DRAWING NUMBER
A-130

7/14/2023 12:10:49 PM

USABLE SQUARE FOOT SUMMARY MATRIX

NOTE: MEASURE TO INSIDE FACE OF DEMISING WALLS AT ADJACENT TENANT SPACES AND PERIMETER WALLS. MEASURE TO C.L. OF WALLS WITHIN TENANT SPACE DO NOT INCLUDE VOIDS IN USABLE AREA

ROOM NAME	SF	%	LF IF APPLICABLE
SALES AREA			
WOMEN'S AREA	2,134 SF	SALES	43% 58'-0"
MEN'S AREA	717 SF	SALES	15% 50'-0"
FITROOMS	534 SF	SALES	11%
SWEAT- ON-THE LINE	135 SF	SALES	3%
CASH	135 SF	SALES	3%
HALLWAY	46 SF	SALES	1%
TOTAL SALES AREA	3,700 SF		75%
BACK OF HOUSE			
STOCK ROOM	807 SF	BOH	16%
STAFF ROOM	206 SF	BOH	4%
RESTROOM 2	61 SF	BOH	1%
OFFICE	61 SF	BOH	1%
RESTROOM 1	59 SF	BOH	1%
NETWORK CLOSET	17 SF	BOH	0%
MOP CLOSET	8 SF	BOH	0%
TOTAL BOH AREA	1,219 SF		25%
TOTAL USABLE AREA	4,919 SF		100%

GENERAL NOTES

A. ALL QUANTITIES SHOULD BE VERIFIED BY LULULEMON VENDOR. PRIOR TO ORDERING AND INSTALLATION. GC TO CHECK ALL QUANTITIES OF MILLWORK UPON DELIVERY.

B. ALL WOODWORK ATTACHED TO THE PREMISES, BLOCKING, GROUNDS, ETC. SHALL BE FIRE RETARDANT AND COMPLY WITH THE LANDLORD'S AND BUILDING CODE REQUIREMENTS GOVERNING FIREPROOFING.

C. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS AT THE JOB SITE AND NOTIFY LULULEMON'S CONSTRUCTION MANAGER AS TO ANY DISCREPANCIES IMMEDIATELY.

D. ALL MILLWORK HARDWARE TO BE FURNISHED BY LULULEMON VENDOR AND INSTALLED BY GC, UNO.

E. ALL MILLWORK IS TO BE HANDLED UNDER SEPARATE CONTRACT BY LULULEMON UNO. GC TO COORDINATE SCHEDULING WITH LULULEMON VENDOR. SEE SHEET A-010 RESPONSIBILITY SCHEDULE.

F. SEE SERIES 500 SHEETS AND SHEET A320 ENLARGED RESTROOM PLANS AND ELEVATIONS FOR BLOCKING EXTENTS BY GC

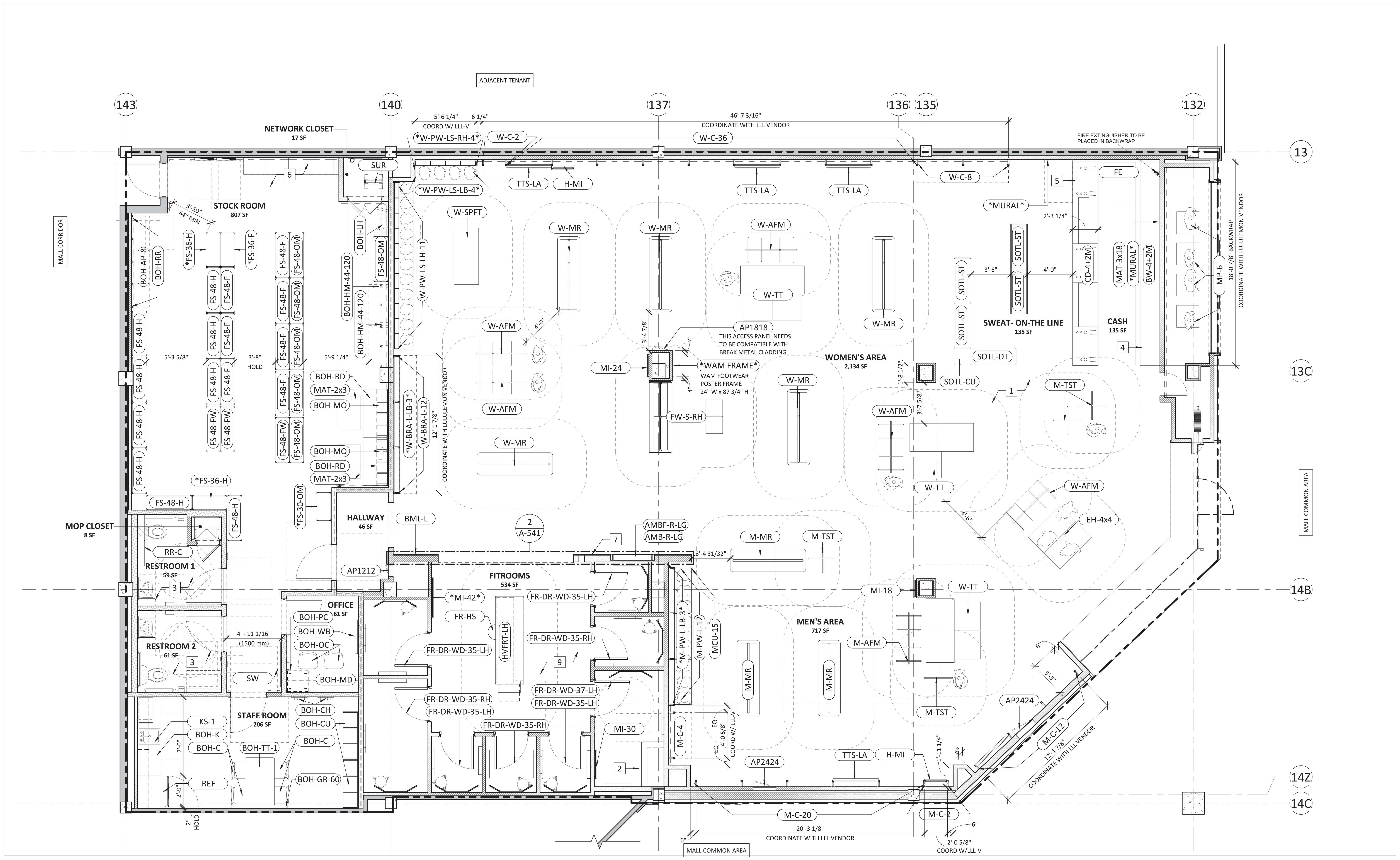
G. RECYCLING TO BE PROVIDED AT BOH. RECYCLING SHOULD INCLUDE PAPER, CARDBOARD, HANGARS, METAL, GLASS, BATTERIES, AND LAMPS.

H. DIMENSIONS ARE TAKEN FROM THE CENTER OF OUTRIGGER POSTS.

KEYNOTES

[#] - KEYNOTE SYMBOL

1. GC TO VERIFY ALL FIELD DIMENSIONS AND COORDINATE WITH LLL-V.
2. 24'' X 48'' MIN ACCESSIBLE FITROOM BENCH TO BE SECURELY FASTENED TO WALL.
3. SEE A-320 FOR RESTROOM ACCESSORIES, SEE A-320 AND PLUMBING DRAWINGS FOR PLUMBING FIXTURES.
4. SAFE TO BE INSTALLED IN BACK WRAP BY GC.
5. 34" AFF COUNTER HEIGHT AT ACCESSIBLE TRANSACTION SPACE
6. CLEAR AREA FOR BOX DELIVERIES
7. WALL PANELS AND SOLID WOOD BASE WITH METAL BASE REVEAL BY LLL-V, SHIPPED LOOSE, AND INSTALLED BY GC, SEE SHEET A-120 FOR FINISH SCHEDULE.
8. CUSTOM ETCHED DOOR PULLS PROVIDED BY LLL-V, SEE SHEET A-180 FOR DOOR SCHEDULE
9. SEE SHEET A-310 FOR FITROOM FIXTURES



1 FIXTURE PLAN
SCALE: 1/4" = 1'-0"

lululemon
1818 CORNWALL AVE.
VANCOUVER, B.C., V6J1C7

CF POLO PARK
1485 Portage Ave, Unit 144E
Winnipeg, MB
R3G 0W5
CRU NUMBER: 144E

Quadrangle
Quadrangle Architects Limited
The Well, 8 Spadina Avenue, Suite 2100, Toronto, ON M5V 0S8
t 416 598 1240 www.bdpquadrangle.com

ARCHITECT SEAL

ONTARIO ASSOCIATION OF ARCHITECTS
KIRTIDEV MEHTA
LICENCE
8099

ISSUED FOR CONSTRUCTION
07/14/2023

△	DATE	DESCRIPTION
	05/05/2023	DESIGN DEVELOPMENT
	06/09/2023	PERMIT/CONSTRUCTION
	06/09/2023	ISSUED FOR BID
	07/14/2023	ISSUED FOR CONSTRUCTION

DRAWING INFORMATION
PROJECT #: 23206
CHECKED BY: MP
DRAWN BY: TA

FIXTURE PLAN

DRAWING NUMBER
A-131

7/14/2023 12:11:08 PM

LANDLORD GENERAL NOTES:

STOREFRONT DISPLAY & MERCHANDISE LIGHTING FOUND AT THE STOREFRONT AND WITHIN ALL WALL AND FLOOR FIXTURES MUST BE LED TYPE COMPLETE WITH DIFFUSERS (FROSTED LENS) TO ENSURE NO SPOTS ARE VISIBLE OR REFLECT ON THE PRODUCT, FIXTURES OR FLOORING. LIGHTING MUST BE INTEGRATED INTO THE FIXTURE DESIGN IN SUCH A WAY THAT THE LIGHT SOURCE IS NOT VISIBLE TO THE PUBLIC. THE LIGHT FIXTURE SPECIFICATION AND INTEGRATION DETAILS MUST BE SUBMITTED TO, AND APPROVED BY THE LANDLORD PRIOR TO FABRICATION & INSTALLATION.

ENSURE THAT CASH DESK WORK SURFACES AND EXPOSED SURFACES TO THE CUSTOMER ARE CLAD IN UPGRADED DURABLE FINISHES (CORIAN, QUARTZ, METAL AND SOLID WOOD). PAINT AND LAMINATES NOT PERMITTED.Ð BE SURE TO DETAIL WOOD VENEER FINISHES WITH PROTECTED CORNERS OR SOLID WOOD.Ð IF MILLWORK OR FIXTURES HAVE ANY LIGHTING, ENSURE TO CONCEAL LIGHT BULBS, ELECTRICAL CONNECTIONS AND EQUIPMENT FOR A FULLY INTEGRATED APPEARANCE.Ð ENSURE ALL CORNERS ARE BREAK FORMED, NOT MITERED.Ð ALL EQUIPMENT POWER CORDS AND WIRING MUST BE HIDDEN UNDER THE COUNTER AND/OR WITH SHROUDS. WIRING CAN PASS THROUGH THE COUNTER BY MEANS OF GROMMETS TO THE ASSOCIATED EQUIPMENT BELOW. PROVIDE ALL RELEVANT DETAILS. Ð POWER: ENSURE ALL FLOOR MOUNTED OUTLETS TO BE INSIDE MILLWORK AND NOT VISIBLE. IF FIXTURE REQUIRES OUTLETS, ENSURE TO MOUNT WITHIN MILLWORK AND WIRES ARE NOT VISIBLE. ANY ELECTRICAL CONNECTIONS ARE TO BE COMPLETELY CONCEALED AND FULLY INTEGRATED.

WASHROOM:
VERIFY LOCAL CODE IF THE STORE REQUIRES A NEW UNIVERSAL WASHROOM. ENSURE TO MEET CODES. ÐPROVIDE A FLOOR DRAIN. ÐIF ANY FIXTURES ARE NEW, ENSURE THEY ARE COMMERCIAL GRADE AND ENERGY EFFICIENT, LOW CONSUMPTION MODEL.

POWER:
*ENSURE ALL FLOOR MOUNTED OUTLETS TO BE INSIDE MILLWORK AND NOT VISIBLE.
*ENSURE NO VISIBLE WIRES AND OUTLETS. PROVIDE POWER LAYOUT. *IF FIXTURE REQUIRES OUTLETS, ENSURE TO MOUNT WITHIN MILLWORK AND WIRES ARE NOT VISIBLE. *ANY ELECTRICAL CONNECTIONS ARE TO BE COMPLETELY CONCEALED AND FULLY INTEGRATED.

- PROVIDE ALL DIGITAL CONTENT FOR REVIEW AND APPROVAL. NO EXPOSED MOUNTING HARDWARE, BRACKETS, OR ELECTRICAL CONNECTIONS, CORDS OR PLUGS PERMITTED, INSTALLATION TO BE FULLY INTEGRATED AND SEAMLESS NOT SURFACE MOUNTED. PROVIDE ALL DIGITAL, ILLUMINATED GRAPHIC AND POSTER USE LOCATIONS.
PLEASE ENSURE ALL AUDIOVISUAL SYSTEMS ARE REVIEWED BY LANDLORD PRIOR TO INSTALLATION.ALL AUDIOVISUAL SYSTEMS THAT SHOW UP ON SITE AFTER OPENING THAT HAVE NOT BEEN APPROVED BY THE LANDLORD WILL NOT BE PERMITTED. AUDIOVISUAL CONTRACTOR'S DRAWINGS MUST BE SUBMITTED TO LANDLORD FOR APPROVAL.

PLEASE REFER TO THE ENGINEERING CRITERIA AND DOCUMENTS PROVIDED BY THE OPERATIONS MANAGER - BUT GENERALLY:

LECTRICAL
ALL WORK SHALL CONFORM TO THE CURRENT CANADIAN ELECTRICAL AND PROVINCIAL BUILDING CODES AND ESA (ELECTRICAL SAFETY AUTHORITY) STANDARDS. ENSURE ALL CADILLAC FAIRVIEW CONSTRUCTION RULES AND REGULATIONS ARE ADHERED TO

DRAWINGS ARE TO BE STAMPED AND SEALED BY AN ENGINEER THAT IS REGISTERED IN THE PROVINCE OF THE PROJECT LOCATION.

EXISTING OR NEW FIRE ALARM SPEAKER/STROBES ARE TO BE NEW 8" TYPE. ALL WORK ASSOCIATED WITH THE FIRE ALARM SYSTEM IS TO BE COMPLETED BY THE BASE BUILDING FIRE ALARM CONTRACTOR AT THE TENANT'S EXPENSE.

FIRE ALARM CONTROL MODULE IS TO BE CONNECTED TO THE TENANTS AUDIO SYSTEM SO THAT UPON ACTIVATION OF THE FIRE ALARM SYSTEM THE TENANT`S AUDIO SYSTEM WILL SHUT DOWN.

ALL UNUSED WIRING IS TO BE REMOVED BACK TO TENANT'S ELECTRICAL PANEL.

BX (AC-90) ARMORED COPPER CABLE DROPS FROM A CEILING OUTLET BOX TO A DRYWALL PARTITION OUTLET SHALL NOT EXCEED 6 METERS.

FINAL CONNECTION OF BX (AC-90) ARMORED CABLE FROM A CEILING OUTLET BOX TO A LIGHTING FIXTURE SHALL NOT EXCEED 3 METERS.

ENSURE ALL ELECTRICAL CABLING INSIDE FIXTURES AND MILLWORK ARE CONCEALED AND INTEGRATED FOR A CLEAN OVERALL APPEARANCE.

IF USING DIGITAL MEDIA, ALL CONDUITS MUST BE CONCEALED, BEVELS MINIMAL AND MOVING IMAGES/CONTENT MUST BE REVIEWED BY LANDLORD

ALL ELECTRICAL AND PLUMBING DISTRIBUTION MUST BE DONE BY MEANS OF CORE DRILLING UNLESS APPROVED OTHERWISE BY BASE BUILTING STRUCTURAL ENGINEER. THE TENANT`S G.C. MUST SCAN THE EXISTING SLAB AND SUBMIT THE REPORT TO THE MALL OPERATIONS MANAGER FOR REVIEW AND APPROVAL BY THE BASE BUILDING STRUCTURAL CONSULTANTS

LEGEND

SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
	TRENCHED AREA	$	LIGHT SWITCH
	FLOOR MOUNTED DUPLEX	$3	THREE WAY LIGHT SWITCH
	WALL OUTLET, DATA	$D	DIMMER LIGHT SWITCH
	WALL OUTLET, DUPLEX	$OS	OCCUPANCY SENSOR/SWITCH
GFI	GFI WALL OUTLET, DUPLEX	$VS	VACANCY SENSOR/SWITCH
	WALL OUTLET, QUAD	$LV	LOW VOLTAGE SWITCH
	WALL OUTLET, USB		BUZZER PUSH BUTTON
ABV CLG	J BOX		BUZZER TRANSFORMER
	THERMOSTAT		BUZZER CHIME
	TEMPERATURE SENSOR	FACP	FIRE ALARM CONTROL PANEL
CLG	CEILING, DUPLEX	F	FIRE ALARM PULL STATION
	WALL WHIP, 6FT LENGTH MIN	+X"	HEIGHT ABOVE FINISHED FLOOR
	CO2 SENSOR		

GENERAL NOTES

A. ALL FIRE ALARM DEVICES INCLUDING ALARMS, SMOKE DETECTORS, STROBES, SPEAKERS, CHIMES, ETC. TO BE INSTALLED PER LANDLORDS SPECIFICATIONS.

B. GC TO COORDINATE REQUIREMENTS AND INSTALLATION WITH LANDLORD'S AUTHORIZED CONTRACTOR. PM TO COORDINATE INSTALL LOCATIONS, QUANTITIES AND SCHEDULES.

C. ALL OUTLETS AND COVER PLATES AT FOH AND BOH AREAS ARE TO BE WHITE IN COLOR, UNO.

D. DO NOT SCALE DRAWINGS. SUBMIT TO ARCHITECT ANY DISCREPANCIES FOR CLARIFICATION.

E. GC TO FURNISH AND INSTALL ACCESS PANELS PER CODE FOR ACCESS TO HVAC, WATER CHILLERS, LED DRIVERS, SIGNAGE, AND SENSORMATIC ACCESS. IF ADDITIONAL ACCESS PANELS ARE REQUIRED FOR OVERHEAD GRILLE OR ADDITIONAL PLUMBING, MECHANICAL, OR ELECTRICAL ACCESS, ETC., GC TO COORDINATE PLACEMENT WITH ARCHITECT AND LULULEMON CM. IN-WALL ACCESS PANELS TO BE FLUSH FRAMELESS GYPSUM BOARD TYPE, CEILING ACCESS PANELS TO BE PUSH-UP TYPE 1. GC TO SPECIFY AND SUBMIT TO ARCHITECT FOR REVIEW AND APPROVAL. SEE AS-130 DIVISION 083100 FOR SPECIFICATIONS

F. ALL DIMENSIONS FOR OUTLETS ARE TO CENTERLINE, UNO.

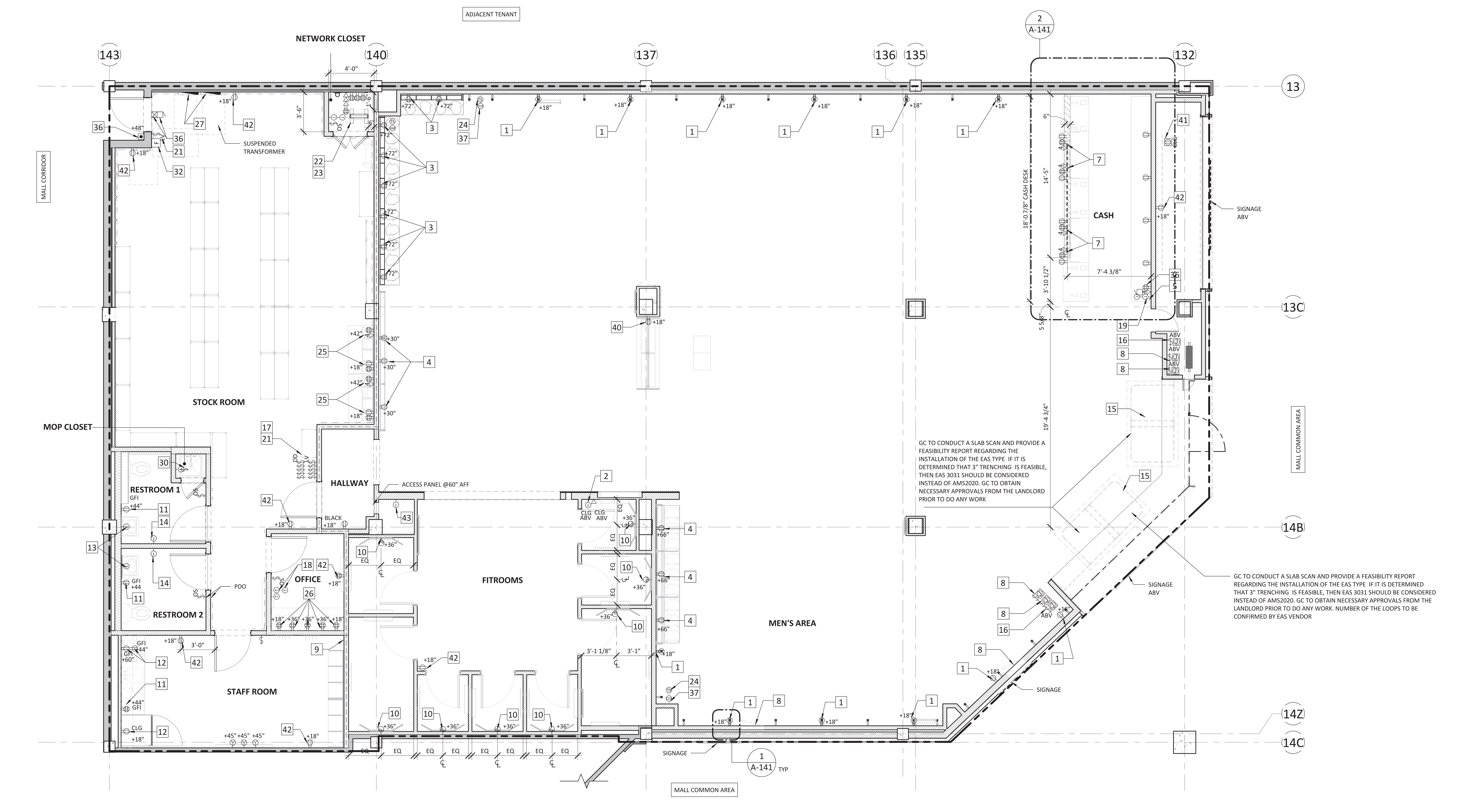
G. SEE INTERIOR ELEVATIONS AND ENLARGED DETAILS FOR SPECIFIC OUTLET DIMENSIONS

KEYNOTES

NOT USED

[#] - KEYNOTE SYMBOL

1. POWER OUTLETS FOR LIGHTBOXES/SALES CENTERED BEHIND OUTRIGGER, SEE DETAIL 3/A-140
2. POWER AND DATA FOR FUTURE USE AT COMMUNTIY WALL LOCATED ABOVE CEILING AT ACCESS PANEL NEAR AMBASSADOR FIXTURE
3. POWER OUTLETS FOR BACKLIT PANT WALL (SELECT STORES) CENTERED BETWEEN EVERY OTHER LIGHTBOX PANEL, SEE SHEET A-551 FOR DETAILS AND COORDINATE WITH LLL-V SHOP DWGS
4. POWER OUTLETS FOR BACKLIT BRA WALL & MEN'S PANT WALL (SELECT STORES) CENTERED BETWEEN OUTRIGGERS, SEE SHEET A-551 FOR DETAILS AND COORDINATE WITH LLL-V SHOP DWGS
5. POWER AND DATA OUTLETS IN BACKWRAP MILLWORK, SEE ELECTRICAL DWGS AND SHEET A-540 BACKWRAP DETAILS FOR MORE INFORMATION
6. POWER AND DATA OUTLETS FOR VIDEO WALL, SEE ELECTRICAL DWGS AND SHEET A-540 BACKWRAP DETAILS FOR MORE INFORMATION
7. POWER AND DATA OUTLETS SURFACE-MOUNTED ON SLAB, SEE LULULEMON VENDOR SHOP DWGS, SHEET A-040 DEMO PLAN, AND DETAIL 2/A-140 FOR TRENCHING/CORING LOCATION
8. J-BOX FOR STOREFRONT SIGNAGE LOCATED ABOVE CEILING, PROVIDE ACCESS PANEL AT GWB FACE, SEE SHEET A420 FOR STOREFRONT SECTIONS AND SEE ELECTRICAL SHEET E-110 FOR ADDITIONAL INFORMATION
9. REMOTE DRIVERS TO SERVE FITROOM LIGHTING; MOUNTED AT 10'-0"AFF AT BACK OF HOUSE
10. 6' -0" WHIP MINIMUM REQUIRED BEHIND MIRROR FOR ROUTING OF LOW VOLTAGE TO BOH MOUNTED DRIVERS. PAINT WHIP TO MATCH WALL FINISH, COORDINATE DRIVER LOCATION WITH ARCHITECT, SEE ELECTRICAL DRAWINGS FOR MORE INFORMATION
11. GFI POWER OUTLETS AT RESTROOMS, KITCHENETTE, AND WITHIN 5'-0" OF WET AREAS
12. DEDICATED GFI DUPLEX POWER OUTLET FOR KITCHENETTE APPLIANCE
13. J-BOX FOR RESTROOM AUTOMATIC FAUCET LOCATED ABOVE CEILING, PROVIDE ACCESS PANEL AT CEILING UNLESS ADJACENT TO STAFF ROOM WITH REMOVABLE ACT ACCESS, SEE ELECTRICAL AND PLUMBING DWGS
14. IN-WALL J-BOX FOR HAND DRYER AT RESTROOM, COORDINATE EXACT LOCATION WITH MANUFACTURER INSTALLATION INSTRUCTIONS
15. SENSORMATIC AMS2020 EAS SENSOR FOR DIRECT INSTALLATION ONTO FLAT CONCRETE, NO FLOOR CUT REQUIRED, SEE ELECTRICAL DWGS FOR MORE INFORMATION
16. SENSORMATIC AMS2020 EAS CONTROLLER LOCATED BEHIND ACCESS PANEL AT STOREFRONT VOID, SEE ELECTRICAL DWGS FOR MORE INFORMATION
17. SWITCH BANK, COORDINATE LOCATION WITH LULULEMON. T/O SWITCHES MOUNTED AT 48'' AFF MAX. SEE ELECTRICAL DWGS FOR MORE INFORMATION
18. THERMOSTAT, SEE MECHANICAL DWGS AND COORDINATE LOCATION WITH ARCHITECT
19. VOLUME CONTROL, SEE ELECTRICAL DWGS AND SHEET A-540 BACKWRAP DETAILS FOR MORE INFORMATION
20. BURGLAR ALARM SYSTEM (BAS) CONTROL, SEE ELECTRICAL DWGS AND SHEET A-540 BACKWRAP DETAILS FOR MORE INFORMATION.
21. 3-WAY SWITCH TO LIGHT SECONDARY BOH ENTRANCE, WIRE WITH SWITCH AT SWITCH BANK
22. AMPLIFIER TO BE LOCATED AT LOW VOLTAGE SERVER RACK IN NETWORK CLOSET
23. MUSIC PLAYER TO BE LOCATED AT LOW VOLTAGE SERVER RACK IN NETWORK CLOSET
24. PROVIDE J-BOX AT 54" AFF, PLASTER RING AND 1/2" CONDUIT WITH PULL STRING FROM TEMPERATURE SENSOR TO THERMOSTAT
25. POWER AND DATA OUTLETS FOR RECEIVING DESK, SEE ELECTRICAL DRAWINGS AND ENLARGED ELEVATION 2/A-550 FOR DETAILS.
26. POWER AND DATA OUTLETS FOR MANAGER'S OFFICE DESK, SEE ELECTRICAL DRAWINGS AND ENLARGED ELEVATION 3/A-550 FOR DETAILS.
27. NEW ELECTRICAL PANELS, SEE ELECTRICAL DRAWINGS
28. J-BOX AND SWITCH AT REMOTE WATER CHILLER FOR BOTTLE FILLER/DRINKING FOUNTAIN IN VOID SPACE ABOVE FITROOM CEILIING
29. J-BOX FOR VIDEO PRESENTATION INPUT, SEE ELECTRICAL LOW VOLTAGE DRAWINGS
30. J-BOX AND SWITCH AT ELECTRIC WATER HEATER ABOVE MOP SINK
31. POWER OUTLET AT STOREFRONT DISPLAY WINDOW LOCATED ABOVE STOREFRONT WINDOW, FINISH WHITE AT GWB FACE AND BRUSHED STAINLESS AT WOOD PORTAL CEILING, ENSURE OUTLET IS LOCATED WITHIN 18" OF TOP OF STOREFRONT WINDOW
32. FIRE ALARM PULL STATION AT 48"AFF MAX, COORDINATE WITH APPROVED VENDOR DWGS
33. FIRE ALARM CONTROL PANEL, EXISTING TO REMAIN, RE-WIRE AS REQUIRED FOR NEW LAYOUT, COORDINATE WITH APPROVED VENDOR DWGS
34. PROVIDE POWER FOR OVERHEAD GRILLE SWITCH AND EMERGENCY RELEASE AT 48" MAX
35. NOT USED
36. DELIVERY BUZZER SYSTEM, SEE ELECTRICAL DRAWINGS
37. CO2 SENSOR, SEE ELECTRICAL DRAWINGS
38. POWER AND CAT6 DATA OUTLET AT WALL FOR WALL MOUNTED LLL-V FURNISHED INTERACTIVE MIRROR FIXTURE, COORDINATE EXACT LOCATION WITH LLL-V SHOP DWGS.
39. FLUSH FLOOR BOX WITH POWER (1 DUPLEX) AND CAT6 DATA FOR FLOOR MOUNTED LLL-V FURNISHED INTERACTIVE MIRROR FIXTURE, COVERPLATE TO BE FLUSH WITH FINISH FLOOR AND BRUSHED ALUMINUM FINISH, COORDINATE LOCATION WITH LLL-V SHOP DRAWINGS
40. FLUSH FLOOR BOX WITH POWER (1 DUPLEX) FOR FLOOR MOUNTED LLL-V FURNISHED FOOTWEAR FIXTURE, COVERPLATE TO BE FLUSH WITH FINISH FLOOR AND BRUSHED ALUMINUM FINISH, COORDINATE EXACT LOCATION WITH LLL-V SHOP DRAWINGS
41. POWER OUTLET CEILING FOR DISPLAY TRACK, FINISH WHITE AT GWB FACE AND BRUSHED STAINLESS AT WOOD PORTAL CEILING, PROVIDE POWER ONLY IF (2) TRACKS ARE INSTALLED, OTHERWISE UTILIZE SHOW WINDOW POWER
42. POWER OUTLET FOR CONVENIENCE AT 18"AFF, TYPICAL, AT OUTRIGGER LOCATIONS CENTER BEHIND OUTRIGGER, TYP.
43. LOCATION OF 'NEON LOOK' LED BRAND MOMENT BY LLL-V, GC TO PROVIDE POWER CONCEALED IN WALL TO J-BOX CONCEALED ABOVE FITROOM CEILING, PROVIDE ACCESS PANEL AND RUN INDIVIDUAL LOW VOLTAGE CONNECTIONS THROUGH WALL FINISH TO EACH SIGN LETTER, EXACT SIZE AND LETTERING TO BE CONFIRMED
44. POWER FOR DRINKING FOUNTAIN BOTTLE FILLER AUTOMATIC SENSOR



1 POWER, COMMUNICATIONS, AND LOW VOLTAGE
SCALE: 1/4" = 1'-0"

lululemon
1818 CORNWALL AVE.
VANCOUVER, B.C., V6J1C7

CF POLO PARK
1485 Portage Ave, Unit 144E
Winnipeg, MB
R3G 0W5
CRU NUMBER: 144E

Quadrangle
Quadrangle Architects Limited
The Well, 8 Spadina Avenue, Suite 2100, Toronto, ON M5V 0S8
t 416 598 1240 www.bdpquadrangle.com

ARCHITECT SEAL
ONTARIO ASSOCIATION OF ARCHITECTS
KIRTIDEV MEHTA
LICENCE
8099

ISSUED FOR CONSTRUCTION
07/14/2023

△	DATE	DESCRIPTION
	05/05/2023	DESIGN DEVELOPMENT
	06/09/2023	PERMIT/CONSTRUCTION
	06/09/2023	ISSUED FOR BID
	07/14/2023	ISSUED FOR CONSTRUCTION

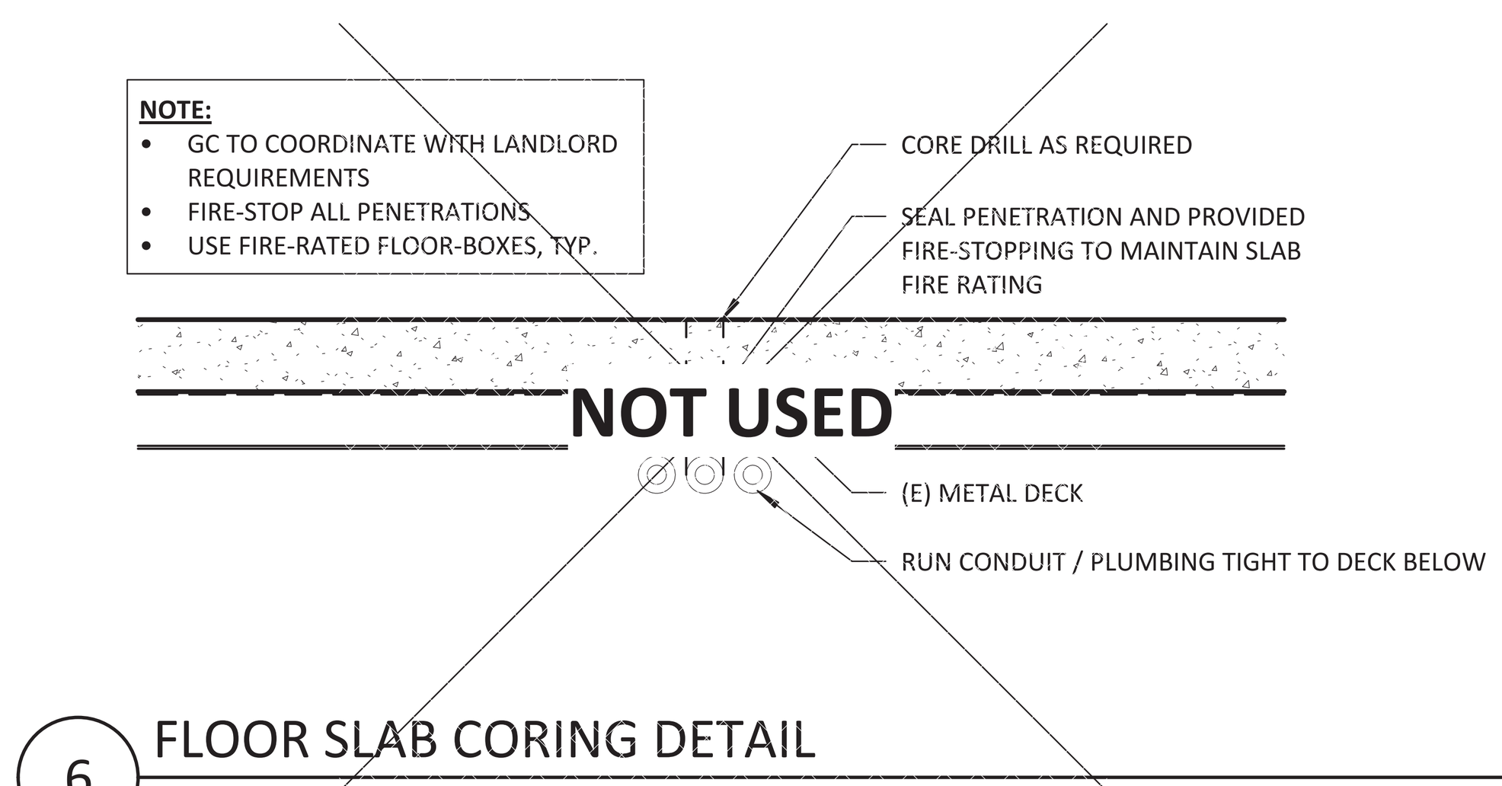
DRAWING INFORMATION
PROJECT #: 23206
CHECKED BY: NA
DRAWN BY: TA

POWER, COMMUNICATIONS, AND LOW VOLTAGE PLAN

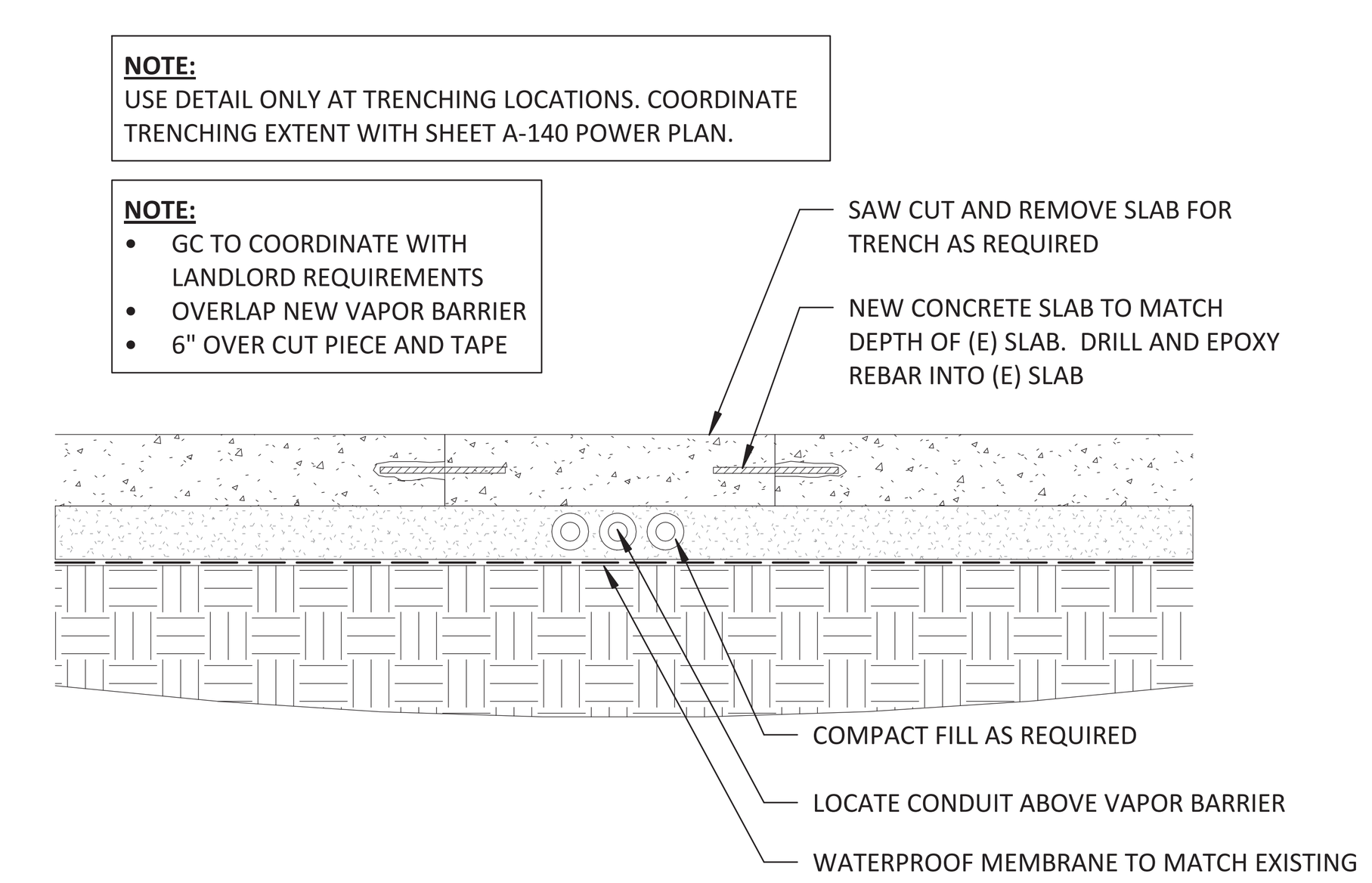
DRAWING NUMBER
A-140

7/14/2023 12:11:18 PM

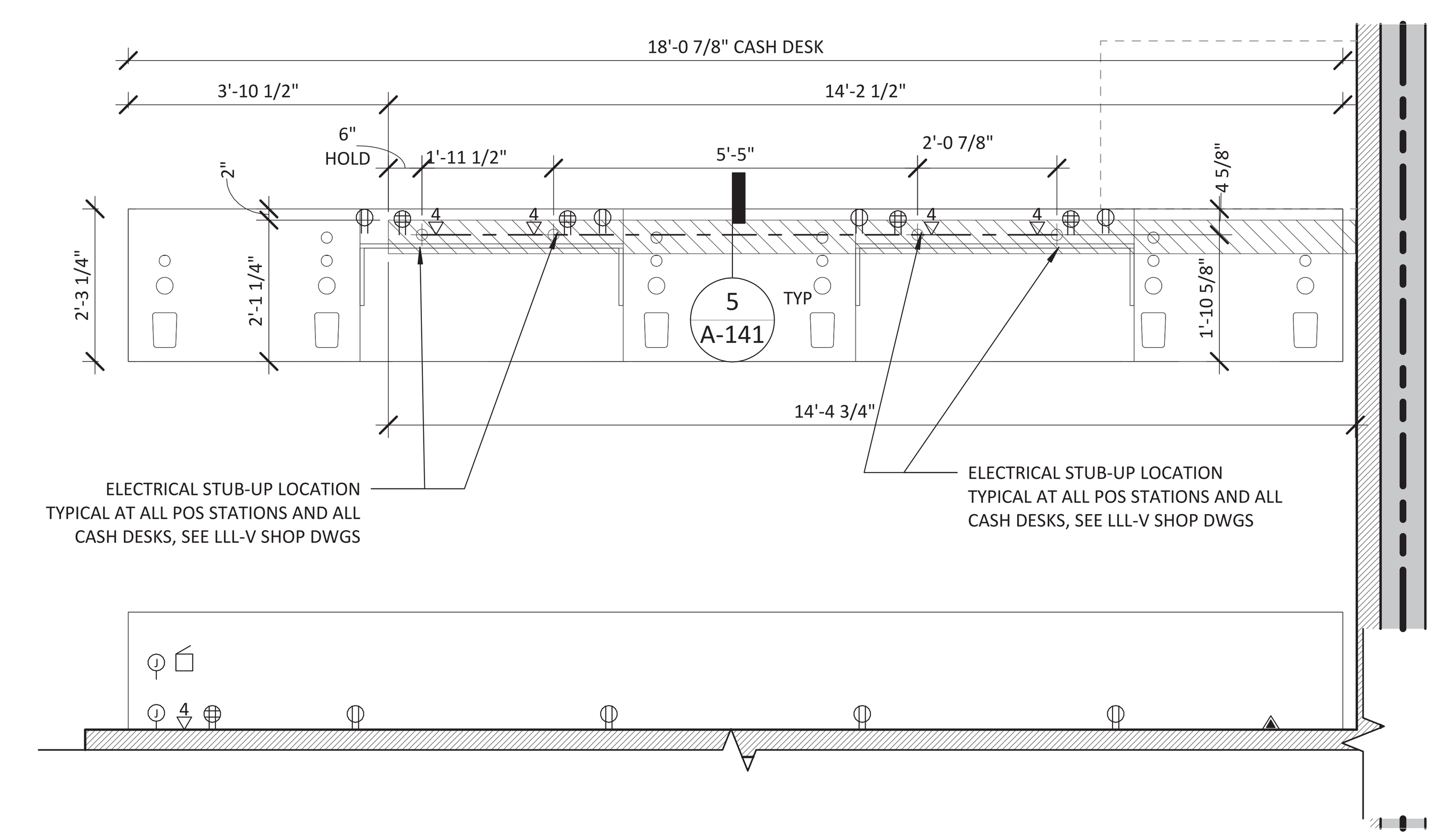
NOTE:
SAW CUT OT TRENCING FOR THE CASH DESK AND FOOTWEAR TBC BY THE CLIENT & ARCHITECT PRIOR TO START OF THE WORK



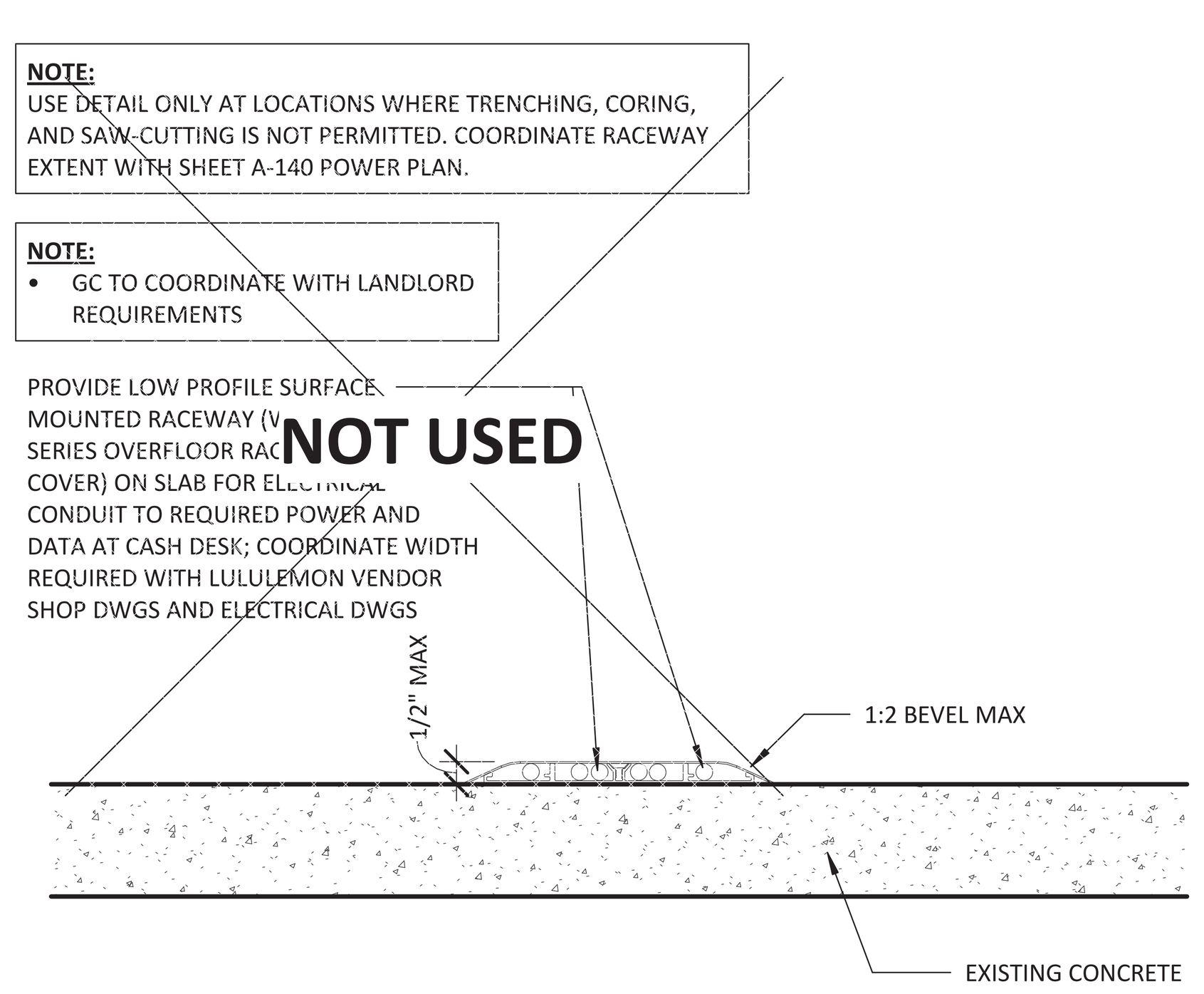
6 FLOOR SLAB CORING DETAIL
SCALE: 3/4" = 1'-0"



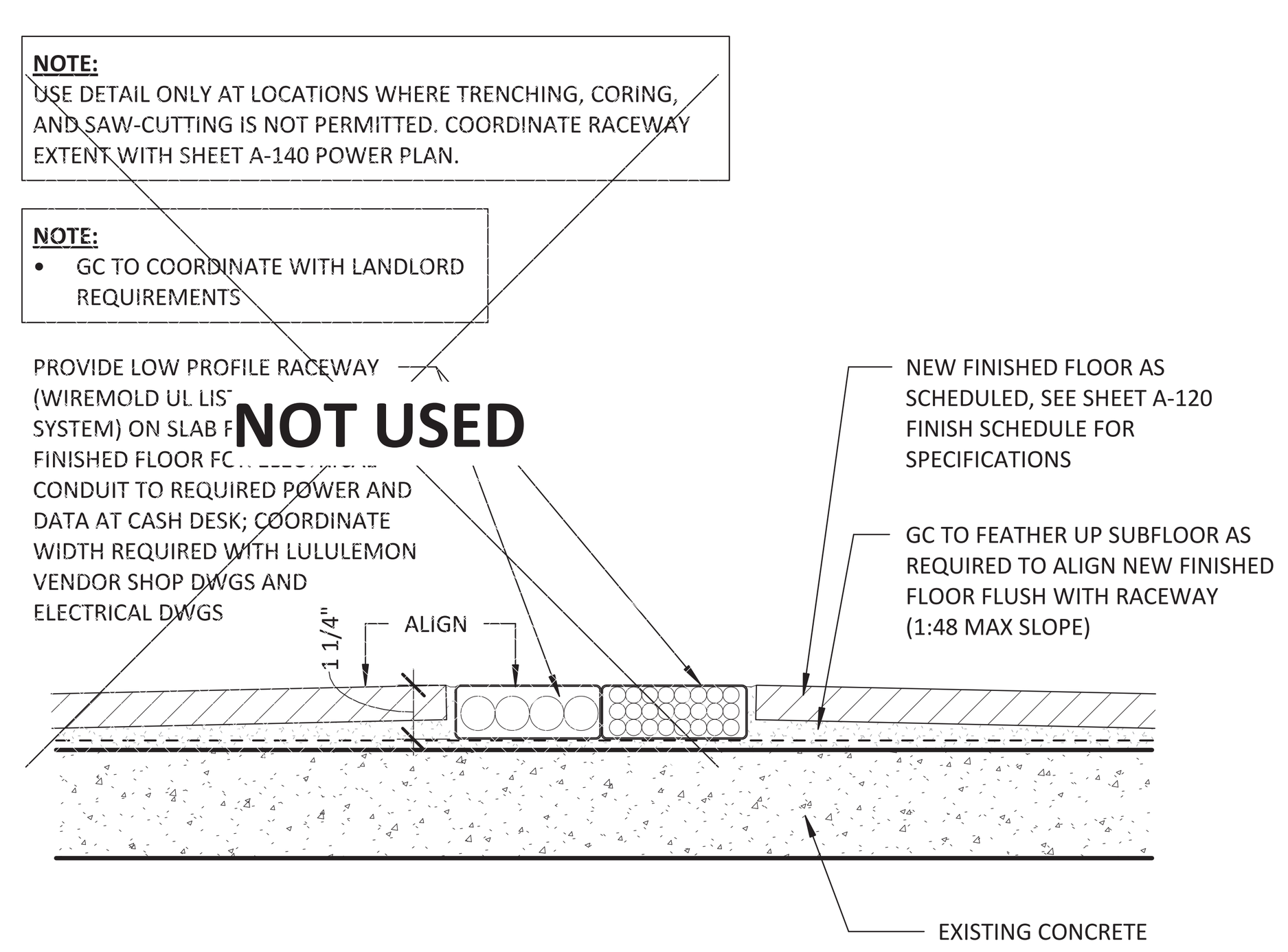
5 FLOOR SLAB PATCH DETAIL
SCALE: 3/4" = 1'-0"



2 ELECTRICAL TRENCHING AND STUB-UP LOCATIONS @ CASH DESK
SCALE: 1/2" = 1'-0"

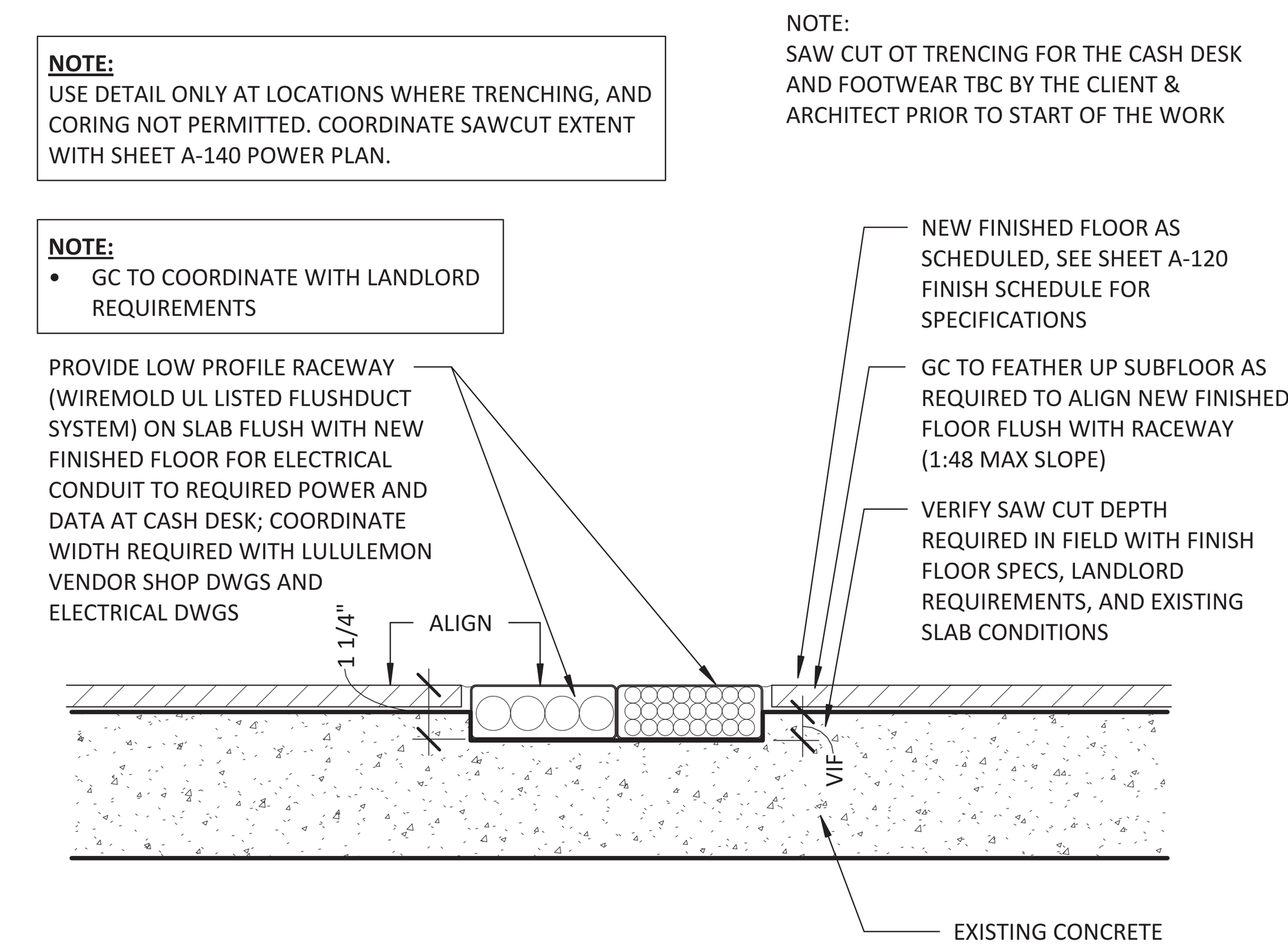


8 SURFACE MOUNTED RACEWAY DETAIL
SCALE: 3" = 1'-0"

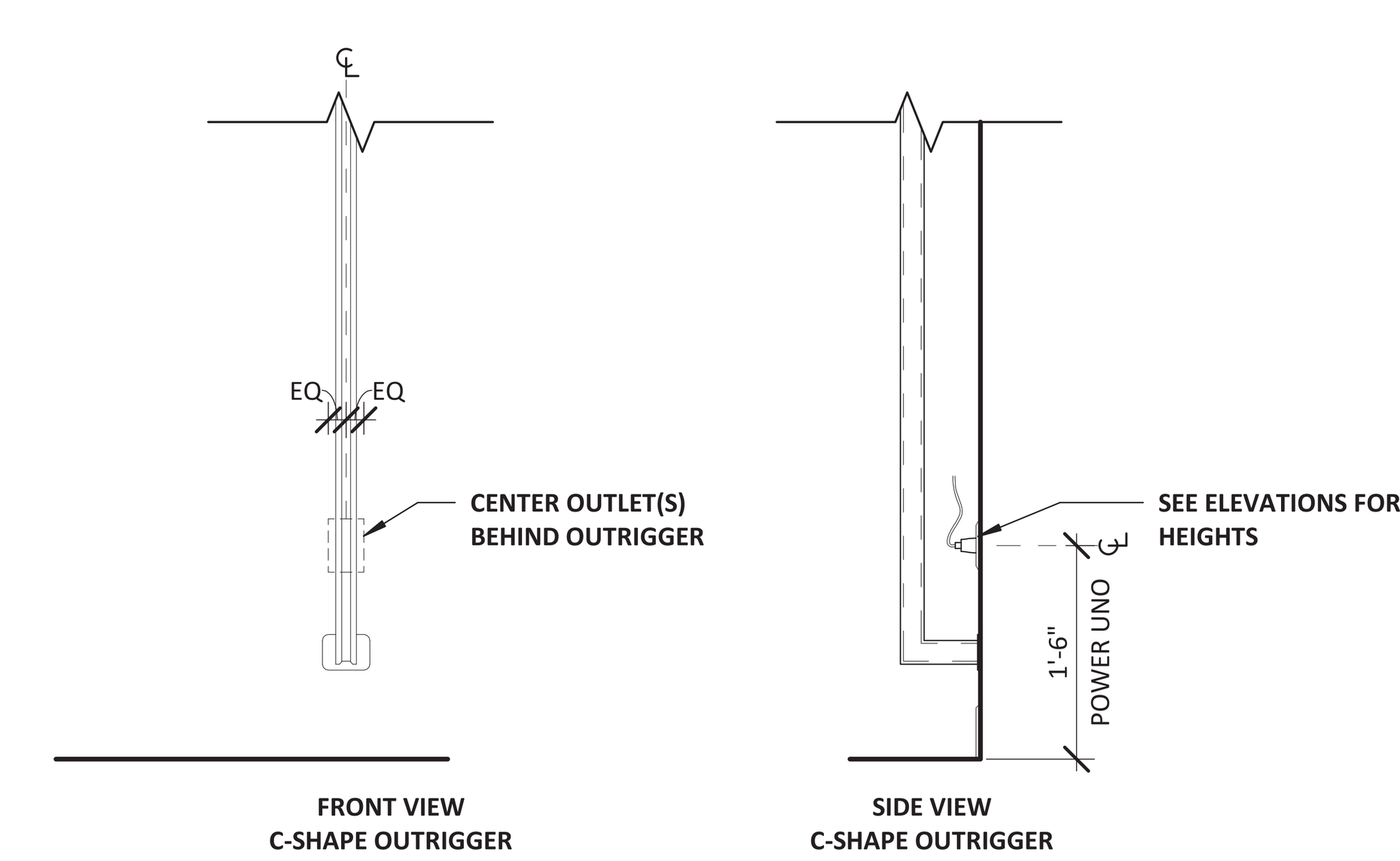


7 FLUSH MOUNTED RACEWAY DETAIL
SCALE: 3" = 1'-0"

NOTE:
SAW CUT OT TRENCING FOR THE CASH DESK AND FOOTWEAR TBC BY THE CLIENT & ARCHITECT PRIOR TO START OF THE WORK



4 SAW CUT FLOOR - RACEWAY DETAIL
SCALE: 3" = 1'-0"



1 POWER LOCATIONS AT OUTRIGGERS
SCALE: 3/4" = 1'-0"

lululemon
1818 CORNWALL AVE.
VANCOUVER, B.C., V6J1C7

CF POLO PARK
1485 Portage Ave, Unit 144E
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ARCHITECT SEAL

ONTARIO ASSOCIATION OF ARCHITECTS
KIRTIDEV MEHTA
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8099

ISSUED FOR CONSTRUCTION
07/14/2023

DATE	DESCRIPTION
06/09/2023	PERMIT/CONSTRUCTION
06/09/2023	ISSUED FOR BID
07/14/2023	ISSUED FOR CONSTRUCTION

DRAWING INFORMATION
PROJECT #: 23206
CHECKED BY: MP
DRAWN BY: TA

POWER AND TRENCHING / CORING DETAILS

DRAWING NUMBER
A-141

7/14/2023 12:11:21 PM

LIGHTING FIXTURE SCHEDULE

NOTE: SEE ELECTRICAL SHEET E120 FOR LIGHTING SPECIFICATIONS

NAME & SYMBOL	PROCUREMENT	QTY	INSTALL	FIXTURE	LAMP	HEIGHT AFF	INSTALL DIRECTIONS / NOTES
D5 (WALL)	LLL	8	WALL MOUNTED	CORE LED LINEAR LSM-60-30K-PF-24V DC WITH LED DRIVER	6 WATTS/LF LED 24V		MIRROR MILLWORK LIGHTS PROVIDED BY CSI
D6 (WALL)	LLL	2	WALL MOUNTED	WAC: WS-180327-30-BN	20 WATT LED	B/O FIXTURE @ 6'-6"	1 AT EACH TOILET ROOM MOUNTED ABOVE THE MIRROR AND CENTERED
FL	LLL	2	RECESSED	BROAN AE80BL DELUXE FAN LIGHT COMBO	11 WATT LED	CEILING HT.	FAN LIGHT COMBO TO BE CENTERED IN ROOM; FAN: 27 WATT / 80 CFM
L4	LLL	1	SURFACE MOUNTED OR SUSPENDED	HUBBELL COLUMBIA MPS4-30LW-CW-EDU	35 WATT LED	12'-0" U.N.O. SURFACE MT AT BOH HALL	BACK OF HOUSE LED STRIP LIGHT, SUSPENDED UNO
L4-EM	LLL	3	SURFACE MOUNTED OR SUSPENDED	HUBBELL COLUMBIA MPS4-30LW-CW-EDU-ELL14	35 WATT LED	12'-0"	BACK OF HOUSE STRIP LIGHT WITH EM, SUSPENDED UNO
L8	LLL	3	SURFACE MOUNTED OR SUSPENDED	HUBBELL COLUMBIA MPS8-30LW-CW-EDU	69 WATT LED	12'-0"	BACK OF HOUSE LED STRIP LIGHT, SUSPENDED UNO
L8-EM	LLL	4	SURFACE MOUNTED OR SUSPENDED	HUBBELL COLUMBIA MPS8-30LW-CW-EDU-ELL14	69 WATT LED	12'-0"	BACK OF HOUSE STRIP LIGHT WITH EM, SUSPENDED UNO
L2 (WALL)	LLL	2	SURFACE MOUNTED	PHILIPS S7R830K10 SLIM SURFACE	14.2 WATT LED	7'-9" @ CLOSET WALLS	
SF-L	LLL-V	232	PERFORATED PANEL ASSEMBLY	SLOAN POSTERBOX 3 - 'LONG' MODULE PROVIDE 1 POWER SUPPLYPER 10 MODULES: MEANWELL HLG-240H-24	14 WATT LED	SEE A-410 STOREFRONT ELEVATION	MTD ALONG LONG SIDE OF BACK PAN RETURN OF PANEL ASSEMBLY
SF-S	LLL-V	0	PERFORATED PANEL ASSEMBLY	SLOAN POSTERBOX 3 - 'SHORT' MODULE PROVIDE 1 POWER SUPPLYPER 10 MODULES: MEANWELL HLG-240H-24	7.2 WATT LED	SEE A-410 STOREFRONT ELEVATION	MTD ALONG LONG SIDE OF BACK PAN RETURN OF PANEL ASSEMBLY
LS2	LLL	REF RCP	SURFACE MOUNTED	CORE LED LINEAR (LSM-45-30K-PF-24V) WITH DIMMING LED DRIVER, MAX 30LF PER POWER FEED, SEE VOLTAGE DROP CHART ON E-121	4.4 WATTS/LF LED 24V	11'-2" @ INDIRECT	MTD IN 6"W x 8"H COVE BUILT OUT ON SITE BY GC WITH ALUM CHANNEL (ALP-65-48/96-FR-10-SI). REMOTE DRIVERS. SEE DETAIL 3 & 4 A/521
P1	LLL	1	SUSPENDED	LUMEN WERX - WHITE PENDANT RIMSP-XX-XX-ULO-LED90-MEDIUM OUTPUT-30-UNV-D1-1-RDB-W -POC-60IN-W	LED INCLUDED 7 WATTS/LF	8'-6"	CUSTOM SIZE LEAD TIME 3-4 WEEKS, SIZE ROUNDED TO THE CLOSEST FT INCREMENT, DIMMABLE
R2	LLL	0	SEMI-RECESSED	AMERLUX HORNET - WHITE x 2 SPOTS HP-R/SR-NC-FRAME-T-2-120-LE/TE HP-SR-NC-TRIM-T-2-18-WT-120-277- MFL-MFL-309-LE/TE	18 WATTS/ HEAD TOTAL 36 WATTS	CEILING HT.	
R3-45	LLL	4	SEMI-RECESSED	AMERLUX HORNET - WHITE x 3 SPOTS HP-R/SR-NC-FRAME-T-3-120-LE/TE HP-SR-NC-TRIM-T-3-18-WT-120-277- WF-WF-WF-309-LE/TE	18 WATTS/ HEAD TOTAL 54 WATTS	CEILING HT.	
R2S	LLL	5	RECESSED	AMERLUX HORNET - SILVER x 2 SPOTS HP-R/SR-NC-FRAME-T-2-120-LE/TE HP-R-NC-TRIM-T-2-18-ST-120-277- MFL-MFL-309-LE/TE	18 WATTS/ HEAD TOTAL 36 WATTS	CEILING HT.	
R3S	LLL	0	RECESSED	AMERLUX HORNET - SILVER x 3 SPOTS HP-R/SR-NC-FRAME-T-3-120-LE/TE HP-R-NC-TRIM-T-3-18-ST-120-277- MFL-MFL-MFL-309-LE/TE	18 WATTS/ HEAD TOTAL 54 WATTS	CEILING HT.	

NAME & SYMBOL	PROCUREMENT	QTY	INSTALL	FIXTURE	LAMP	HEIGHT AFF	INSTALL DIRECTIONS / NOTES
RF1-S	LLL	4	RECESSED	PRESCOLITE LTR-4SQD-H-SL-10L-DM1- LTR-4SQD-T-SL-30K-9-XW-SS-WT 4" SQUARE DOWN LIGHT - WHITE TRIM	12 WATT LED	CEILING HT.	HALLWAY: NON-DIMMING FITROOMS: DIMMABLE
RF1-S-EM	LLL	2	RECESSED	PRESCOLITE LTR-4SQD-H-SL-10L-DM1-EM LTR-4SQD-T-SL-30K-9-XW-SS-WT 4" SQUARE DOWN LIGHT - WHITE TRIM	12 WATT LED	CEILING HT.	EM: PROVIDE 90 MIN BATTERY BACKUP HALLWAY: NON-DIMMING FITROOMS: DIMMABLE
RF1-SB	LLL	0	RECESSED BLACK	PRESCOLITE LTR-4SQD-H-SL-10L-DM1 LTR-4SQD-T-SL-30K-9-XW-SS-BT 4" SQUARE DOWN LIGHT - BLACK TRIM	12 WATT LED	CEILING HT.	
RF1-SB-EM	LLL	0	RECESSED BLACK	PRESCOLITE LTR-4SQD-H-SL-10L-DM1-EM LTR-4SQD-T-SL-30K-9-XW-SS-BT 4" SQUARE DOWN LIGHT - BLACK TRIM	12 WATT LED	CEILING HT.	PROVIDE 90 MIN BATTERY BACKUP
RW1	LLL	18	RECESSED	AMERLUX HORNET HDL-HP-S-NC-A17-T-12-120-0-10V HDL-HP-SLW-A17-T-MWW-309 3 1/2" SQUARE WALL WASH - WHITE	12 WATT LED	CEILING HT.	FITROOM WALL WASHERS DIMMABLE
RF3-S	LLL	1	RECESSED	PRESCOLITE LTR-4SQD-H-ML-20L-DM1 -LTR-4SQD-T-ML-30K-9-XW-SS-WT 4" SQUARE DOWN LIGHT - WHITE TRIM	23 WATT LED	CEILING HT.	HALLWAY: NON-DIMMING FITROOMS: DIMMABLE
RF3-S-EM	LLL	1	RECESSED	PRESCOLITE LTR-4SQD-H-ML-20L-DM-EM -LTR-4SQD-T-ML-30K-9-XW-SS-WT 4" SQUARE DOWN LIGHT - WHITE TRIM	23 WATT LED	CEILING HT.	EM: PROVIDE 90 MIN BATTERY BACKUP HALLWAY: NON-DIMMING FITROOMS: DIMMABLE
RF4	LLL	10	RECESSED	CON TECH RL38L-ICSA RF6L130KCE-PL LED DOWN LIGHT - WHITE TRIM	15W LED	CEILING HT.	STAFF ROOM RECESSED IN GWB CEILING
RF6	LLL	7	RECESSED SILVER TRIM	AMERLUX HORNET - SILVER TRIM HDL-HP-R-NC-A17-T-20-120-LE/TE HDL-HP-RA-A17-T-SLVS-MFL-309 3 1/2" ROUND ADJUSTABLE LIGHT	20 WATT LED	CEILING HT.	WOOD PORTAL (DAMP RATED)
RF6-EM	LLL	1	RECESSED SILVER TRIM EMERGENCY	AMERLUX HORNET - SILVER TRIM HDL-HP-R-NC-A17-T-20-120-LE/TE-EM HDL-HP-RA-A17-T-SLVS-MFL-309 3 1/2" ROUND ADJUSTABLE LIGHT	20 WATT LED	CEILING HT.	AT WOOD PORTAL, PROVIDE 90 MIN BATTERY BACKUP (DAMP RATED)
RF6-IC	LLL	0	RECESSED SILVER TRIM IC/DAMP RATED	AMERLUX HORNET - SILVER TRIM HDL-HP-R-IC-A17-T-18-120/277-LE/TE HDL-HP-RA-A17-T-SLV-MFL-309 3 1/2" ROUND ADJUSTABLE PIN LIGHT	18 WATT LED	CEILING HT.	AT WOOD PORTAL, WHERE IC RATING IS REQUIRED
T1	LLL	REF RCP	RECESSED	CON TECH LT-4-P, LT-6-P, LT8-P, LT-12-P, 1 CIRCUIT WHITE TRACK, RECESSED	-	CEILING HT.	TRACK TO BE RECESSED. SEE PLANS FOR LENGTHS, PATTERNS, AND QTYS
T2	LLL	REF RCP	SUSPENDED	CON TECH LT-4-P, LT-6-P, LT8-P, LT-12-P, 1 CIRCUIT SUSPENDED WHITE TRACK, SUSPEND ON 1/16" GALVANIZED CABLE (GI-16TRK-44-120") FROM LLL-V CANOPY (Q5-14-W), SEE DETAIL 7/A-520	-	SUSPENDED 12'-0"	HANG FROM STRUCTURE, VERIFY MOUNTING WITH DESIGNER PRIOR TO INSTALL. SEE PLANS FOR LENGTHS, PATTERNS, AND QUANTITIES
T4	LLL	REF RCP	SUSPENDED	CON TECH LT-4-B, LT-6-B, LT8-B, LT-12-B, 1 CIRCUIT SUSPENDED BLACK TRACK, , SUSPEND ON 1/16" GALVANIZED CABLE (GI-16TRK-44-120") FROM LLL-V CANOPY (Q5-14-B), SEE DETAIL 7/A-520	-	SUSPENDED 12'-0"	HANG FROM STRUCTURE, VERIFY MOUNTING WITH DESIGNER PRIOR TO INSTALL. SEE PLANS FOR LENGTHS, PATTERNS, AND QUANTITIES

NAME & SYMBOL	PROCUREMENT	QTY	INSTALL	FIXTURE		HEIGHT AFF	INSTALL DIRECTIONS / NOTES
TL1	LLL	0	TRACK MOUNTED	LUMENTURE T65-1500-30H-25-W-J WHITE TRACK HEAD - SPOT WITH T65-SNW SNOOT	18 WATT LED	TRACK MOUNTED	SEE PLANS FOR DIRECTION SET IN FIELD
TL2	LLL	223	TRACK MOUNTED	LUMENTURE T80-2000-30H-40-W-J WHITE TRACK HEAD - FLOOD	22 WATT LED	TRACK MOUNTED	SEE PLANS FOR DIRECTION SET IN FIELD
TL3	LLL	99	TRACK MOUNTED	LUMENTURE T65-1500-30H-25-B-J BLACK TRACK HEAD - SPOT WITH T65-SNB SNOOT	18 WATT LED	TRACK MOUNTED	SEE PLANS FOR DIRECTION SET IN FIELD
TL4	LLL	41	TRACK MOUNTED	LUMENTURE T65-1500-30H-40-B-J BLACK TRACK HEAD - FLOOD	18 WATT LED	TRACK MOUNTED	SEE PLANS FOR DIRECTION SET IN FIELD
TL5	LLL	50	TRACK MOUNTED	LUMENTURE TWW160-30H-1600-B-J TRACK HEAD - BLACK WALL WASHER	17 WATT LED	TRACK MOUNTED	DIRECT TOWARDS WALL
TL6	LLL	0	TRACK MOUNTED	LUMENTURE TWW160-30H-1600-W-J TRACK HEAD - WHITE WALL WASHER	17 WATT LED	TRACK MOUNTED	DIRECT TOWARDS WALL
TL7	LLL	33	TRACK MOUNTED	LUMENTURE TWW160-30H-1600-W-J3 TRACK HEAD - WHITE STEM WALL WASH	17 WATT LED	TRACK MOUNTED	WITH CUSTOM STEM DIRECT TOWARDS WALL
EX1 (WALL)	LLL	3	RECESSED	BEST RELZXTE-1-R-C-W-EM EDGE LIGHT EXIT SIGN W/BATTERY BACK-UP	5 WATT FOR BATTERY BACKUP (EM)	CEILING HT. 8'-6" TYP 13'-0" MAX SEE ELEVS	EXIT SIGNS TO BE RED, CLEAR PLEXI AND RECESSED BATTERY TYPE. USED ONLY AT SALES
EX2	LLL	1	SUSPENDED	BEST ELXTEU-1-R-C-B-EM EDGE LIGHT EXIT SIGN W/BATTERY BACK-UP	5 WATT FOR BATTERY BACKUP (EM)	13'-0" MAX SEE ELEVS	EXIT SIGNS TO BE USED ONLY IN OPEN CEILINGS
EX3-CA (WALL)	LLL	3	SURFACE MOUNTED OR SUSPENDED	EMERGI-LITE EA SERIES W OR WITHOUT ARROWS AS SHOWN ON DRAWING EA-X-W-I SINGLE OR DOUBLE FACE	3 WATTS	8'- 0" TYP 13'-0" MAX SEE ELEVS	USE THIS SPEC FOR ALL CANADA PROJECTS. USED ONLY IN BOH
EX1-CA	LLL	3	RECESSED-CEILING MOUNTED	EMERGI-LITE EDE-X-W-F-UI WITH OR WITHOUT ARROW SEE DRAWINGS	3.5 WATTS	13'-0" MAX	USE THIS SPEC FOR ALL CANADA PROJECTS AT SALES AREA
EX2-CA	LLL	0	SURFACE MOUNTED OR SUSPENDED	EMERGI-LITE EDE-X-W-C-UI UNIVERSAL EXIT WITH OR WOTHOUT ARROW REFER TO DRAWINGS	3.5 WATTS	13'-0" MAX	USE THIS SPEC FOR ALL CANADA PROJECTS AT SALES AREA
EM-CAN	LLL	1	SURFACE MOUNTED OR SUSPENDED	ELM6L-UVOLT-LTP-SDRT SUPPLY RIGID CONDUIT FOR SUSPENSION AS REQUIRED	10.6 WATTS	14'-0" TYP	USE THIS SPEC FOR CANADA PROJECTS WITH P-7 (LIGHT) OPEN TO DECK
EM-CANB	LLL	0	SURFACE MOUNTED OR SUSPENDED	ELM6L-B-UVOLT-LTP-SDRT SUPPLY RIGID CONDUIT FOR SUSPENSION AS REQUIRED	10.6 WATTS	14'-0" TYP	USE THIS SPEC FOR ALL CANADA PROJECTS WITH P-1 (DARK) OPEN TO DECK
EM1	LLL	13	RECESSED	ISOLITE: MIGN2-SQ-WH-MR-L	9 WATTS	CEILING HT.	USE THIS SPEC FOR GWB CEILINGS AT SALES
EM2	LLL	0	SUSPENDED	DUAL LITE EV-2 WHITE ON STEM	2 x 1 WATT LED	14' - 0'' TYP	USE THIS SPEC FOR PROJECTS WITH P-7 (LIGHT) OPEN TO DECK
EM2B	LLL	0	SUSPENDED	LITHONIA LIGHTING ELM6L-B-UVOLT-LTP-SDRT-HO	2 x 5.3 WATT LED	14' - 0'' TYP	USE THIS SPEC FOR PROJECTS WITH P-1 (LIGHT) OPEN TO DECK
EM3 (WALL)	LLL	1	SURFACE MOUNTED	LITHONIA LIGHTING ELM6L-UVOLT-LTP-SDRT-HO	2 x 5.3 WATT LED	9' - 6" AFF	BUG EYE EMERGENCY LIGHT.WHITE IN COLOUR. 120 MINUTE BACKUP
EM3B (WALL)	LLL	0	SURFACE MOUNTED	DUAL LITE EV-2B BLACK	2X 1W LED	9' - 6" AFF	BUG EYE EMERGENCY LIGHT

KEYNOTES

[#] - KEYNOTE SYMBOL — NOT USED (shaded)

1. PROVIDE IN-CEILING BLOCKING AS REQUIRED FOR SUSPENDED FITROOM LIGHT FIXTURE
2. TRACK LIGHTS SUSPENDED FROM STRUCTURE WITH AIRCRAFT CABLE AT 12'-10" AFF
3. TRACK LIGHTS MOUNTED IN TAPED-IN REVEAL AT GWB CEILING, SEE DETAIL 8/A-520
4. LOCATION OF SUSPENDED OR FLOOR-MOUNTED TRANSFORMER, SEE ELECTRICAL DRAWINGS FOR ADDITIONAL INFORMATION, REFER TO STRUCTURAL DRAWINGS FOR SUSPENSION DETAILS
5. REMOTE DRIVERS TO SERVE FITROOM LIGHTING; MOUNTED AT 10'-0"AFF AT BACK OF HOUSE
6. LIGHTS PRE-INSTALLED AT LLL-V FITROOM MIRROR. GC TO PROVIDE 6' -0" WHIP MINIMUM BEHIND MIRROR FOR ROUTING OF LOW VOLTAGE TO BOH MOUNTED DRIVERS, SEE SHEET A-140 AND ELECTRICAL DRAWINGS FOR MORE INFORMATION
7. COVELIGHT TO STOP AT BACK-LIT PANT/ BRA WALLS, COVE RECESS CONTINUES
8. PROVIDE IN-CEILING BLOCKING AND POWER AS REQUIRED FOR SUSPENDED LLL-V LIGHTBOX
9. LLL-V TO PROVIDE PRE-ASSEMBLED BACK-LIT PERFORATED PANEL INCLUDING LED MODULES AND POWER SUPPLIES, SEE SHEET A-410 STOREFRONT ELEVATION AND LLL-V DWGS
10. PROVIDE IN-CEILING BLOCKING AND POWER AS REQUIRED FOR RECESSED DISPLAY TRACK AT STOREFRONT WINDOW
11. CONTINUOUS TAPED-IN LINEAR SLOT DIFFUSER, SEE MECHANICAL DRAWINGS, PROVIDE LIGHT SHIELDS AT ALL LENGTHS NOT USED FOR SUPPLY AIR
12. TRACK LIGHTS SURFACE MOUNTED IN GWB TROUGH AT CEILING, SEE DETAIL 5/A-521
13. DIRECT TRACK HEADS NEAR FOOTWEAR FIXTURE AWAY FROM FIXTURE
14. AT INSIDE CORNER CONDITIONS FOR BACKWRAP AND PANT AND BRA WALL, COVE AND COVELIGHT TO STOP

GENERAL NOTES

A. GC TO CONFIRM QUANTITY AND SPECIFICATION OF ALL LIGHTING FIXTURES UPON RECEIPT

B. SEE ELECTRICAL DRAWINGS FOR LIGHTING SPECIFICATIONS

C. COORDINATE AIMING OF LIGHT FIXTURES WITH OWNER. GC TO ENSURE LIGHTS ARE AIMED AT 30 DEGREES FROM NADIR IN THE LOCATION THAT THE LIGHTS ARE POINTED AT TIME OF HANDOVER.

D. MAINTAIN ACCESS TO EXISTING HVAC, ELECTRICAL, PLUMBING, AND FIRE SUPPRESSION SYSTEMS, INCLUDING CLEANOUTS, VALVES, DAMPERS, SMOKE DETECTORS ETC

E. SEE SHEET A-170 FOR SPEAKER, SECURITY AND OTHER MISCELLANEOUS ITEMS

F. CENTER HVAC AND LIGHTING ELEMENTS WITHIN ACOUSTIC CEILING TILE

G. ALL CONDUIT FOR CEILING ITEMS TO BE STAIGHT, PARALLEL/PERPENDICULAR AND TIGHT TO STRUCTURE. PAINT TO MATCH ADJACENT SURFACES

H. GC TO INFORM ARCHITECT OF ANY CONFLICT BETWEEN ARCHITECTUAL, MEP AND BASE BUILDING ELEMENTS

I. TRACK LIGHTING TO BE SUSPENDED WITH AIRCRAFT CABLE AND PROPERLY SUPPORTED AS PER MANUFACTURER'S INSTALLATION INSTRUCTIONS

J. GC TO FURNISH AND INSTALL ACCESS PANELS PER CODE FOR ACCESS TO HVAC, WATER CHILLERS, LED DRIVERS, SIGNAGE, AND SENSORMATIC ACCESS. IF ADDITIONAL ACCESS PANELS ARE REQUIRED FOR OVERHEAD GRILLE OR ADDITIONAL PLUMBING, MECHANICAL, OR ELECTRICAL ACCESS, ETC., GC TO COORDINATE PLACEMENT WITH ARCHITECT AND LULULEMON CM. IN-WALL ACCESS PANELS TO BE FLUSH FRAMELESS GYPSUM BOARD TYPE, CEILING ACCESS PANELS TO BE PUSH-UP TYPE 1. GC TO SPECIFY AND SUBMIT TO ARCHITECT FOR REVIEW AND APPROVAL. SEE AS-130 DIVISION 083100 FOR SPECIFICATIONS

K. ALL DIMENSIONS OF LIGHTING ARE TO CENTERLINE OF FIXTURE

LANDLORD GENERAL NOTES:

COORDINATE M&E WITH RCP, ALL FOH CEILING ELEMENTS ARE TO BE INTEGRATED INTO THE PROPOSED LIGHTING GRID WHERE FEASIBLE (I.E. SPRINKLER, SPEAKERS, EMERGENCY LIGHTS, EXIT SIGNS ETC.) ALL SALES AREA ELEMENTS TO BE AS FOLLOWS:

EXIT SIGNS TO BE SLIM-LINE, LED, AND HAVE RECESSED HOUSINGS (TO MATCH THE COLOR OF THE CEILING). EDGE-LIT MODELS WITH FLUSH RECESSED HOUSINGS AND TO HAVE MIRRORED BACKS IF VISIBLE FROM THE MALL.

SPEAKERS ARE TO BE FLUSH RECESSED, TO MATCH ADJACENT CEILING/WALL AND TO BE A MIN 10’-0” FROM ENTRANCE.

SPRINKLERS ARE TO BE FLUSH RECESSED WITH CAPS TO MATCH ADJACENT CEILING.

EMERGENCY LIGHTS ARE TO BE FLUSH RECESSED WITH NO VISIBLE OR SURFACE MOUNTED BATTERY PACKS.

ENSURE THAT SECURITY CAMERAS AND FIRE ALARMS ARE EMBEDDED IN THE CEILING OR ARE INSTALLED IN DISCRETE AREAS.

THE CAMERAS CAN NOT BE VISIBLE FROM COMMON AREAS OF THE SHOPPING CENTER OR POINT IN THEIR DIRECTION.

HVAC EQUIPMENT:
AIR DIFFUSERS TO BE LINEAR TYPE OR SPECIFY A MODEL WITH FLAT PLAQUE FACE WITH NARROW TRIM.AIR RETURNS TO BE LINEAR, OR CLARIFY THE TYPE OF RETURNS THAT WILL BE INSTALLED: PLENUM OR DUCTED. IF PLENUM TYPE, ENSURE THAT THERE ARE NO LIGHT BLEEDS, NO VISIBLE CABLING, ETC. IN ANY AREAS VISIBLE TO THE PUBLIC.
SUBMIT COMPLETE SPECIFICATIONS AND CUT SHEETS OF RETURNS AND ANY DUCTWORK THAT WILL BE VISIBLE TO THE PUBLIC FOR LANDLORD APPROVAL - COLOUR TO BE SPECIFIED OR PAINTED TO MATCH ADJACENT CEILING COLOR, WITH MATT/FLAT FINISH.

ACCESS PANELS TO HAVE A FLUSH ACCESS DOOR WITH DRYWALL BEAD FLANGE - BY ACUDOR OR EQUIVALENT. SURFACE MOUNTED METAL ACCESS TRAPS WILL NOT BE PERMITTED WITHIN THE SALES AREA.

PROVIDE FULL CUT SHEETS INCLUDING COLOUR TEMPERATURE FOR ALL SALES AREA LIGHTING. COLOUR TEMPERATURE HAS TO BE CONSISTENT THROUGHOUT STORE.

lululemon
1818 CORNWALL AVE.
VANCOUVER, B.C., V6J1C7

CF POLO PARK
1485 Portage Ave, Unit 144E
Winnipeg, MB
R3G 0W5
CRU NUMBER: 144E

Quadrangle
Quadrangle Architects Limited
The Well, 8 Spadina Avenue, Suite 2100, Toronto, ON M5V 0S8
t 416 598 1240 www.bdpquadrangle.com

ARCHITECT SEAL
ONTARIO ASSOCIATION OF ARCHITECTS
KIRTIDEV MEHTA
LICENCE
8099

ISSUED FOR CONSTRUCTION

07/14/2023

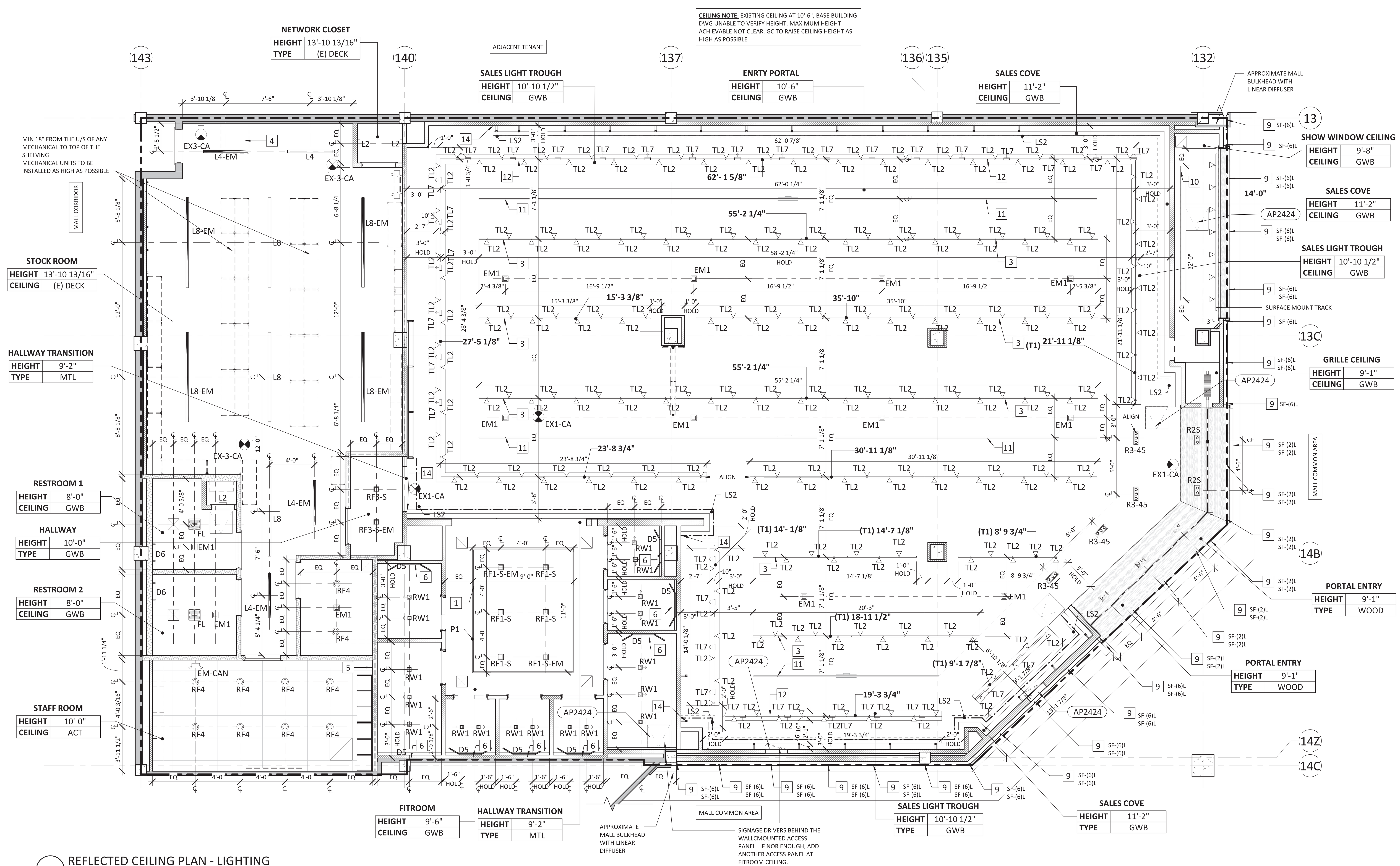
DATE	DESCRIPTION
06/09/2023	PERMIT/CONSTRUCTION
06/09/2023	ISSUED FOR BID
07/14/2023	ISSUED FOR CONSTRUCTION

DRAWING INFORMATION
PROJECT #: 23206
CHECKED BY: NA
DRAWN BY: MP

REFLECTED CEILING PLAN - LIGHTING 1 OF 2

DRAWING NUMBER
A-150

7/14/2023 12:11:33 PM



1 REFLECTED CEILING PLAN - LIGHTING

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

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DRAWING INFORMATION

PROJECT #: 23206

CHECKED BY: NA

DRAWN BY: MP

REFLECTED CEILING PLAN - LIGHTING 2 OF 2

DRAWING NUMBER

A-151

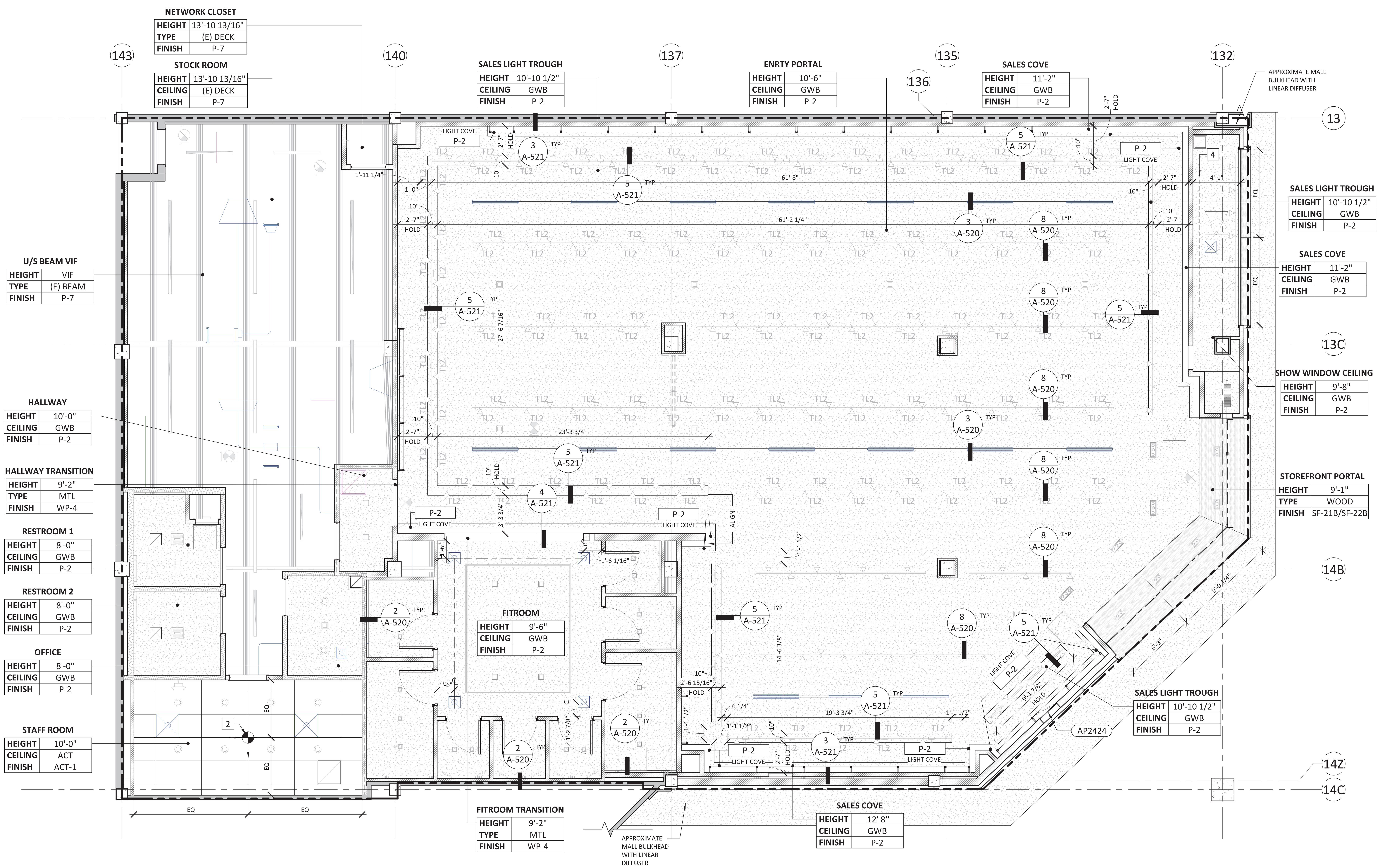
GENERAL NOTES

A. SEE SHEET A-120 FOR FINISH SCHEDULE. NO SUBSTITUTIONS.
B. INSTALL ALL FINISHES, MATERIALS, AND PRODUCT/ EQUIPMENT PER MANUFACTURER RECOMMENDATIONS AND/OR SPECIFICATIONS.
C. PAINT ALL EXPOSED DECK, FRAMING, PIPING, MECHANICAL, CONDUIT, ETC. P-1 AT SALES FLOOR IF DECK ABOVE IS OVER 14'-0"AFF AND P-7 IF DECK IS UNDER 14'-0" AND P-7 AT BACK OF HOUSE UNO OR PROHIBITED BY CODE
D. ALL AREAS AND QUANTITIES ARE FOR REFERENCE ONLY AND DOES NOT INCLUDE OVERAGE.
E. GC SHALL VERIFY DIMENSIONS ON SITE AND CONFIRM QUANTITIES OF ALL PROCURED ITEMS.
F. SEE SHEET AS-140 FOR SUSPENDED ACT CEILING SPECIFICATIONS.
G. SEE DETAIL 11/A520 FOR SUSPENDED GYP CEILING DETAILS.

KEYNOTES

- KEYNOTE SYMBOL

1. PAINT TO MATCH EXISTING AND/OR REQUIRED LANDLORD FINISH
2. CEILING TILE LAYOUT POINT
3. SEE SHEET A-551 FOR CEILING MOUNTED OUTRIGGER BLOCKING DETAILS
4. RECESSED DISPLAY WINDOW TRACKS, PROVIDE BLOCKING ABOVE SEE DETAIL 1/A-521



1 REFLECTED CEILING PLAN - LIGHTING
SCALE: 1/4" = 1'-0"

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DRAWN BY: MP

RCP - FINISH AND CONSTRUCTION

DRAWING NUMBER
A-160

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SYMBOL LEGEND

DESCRIPTION	INSTALL	SYMBOL	DESCRIPTION	INSTALL	SYMBOL
SECURITY CAMERA	SURFACE MOUNTED OR SUSPENDED	FINISH: CMW = WHITE SURFACE MTD CMW-S = WHITE SUSPENDED @ 12'-0"AFF CMB = BLACK SURFACE MTD CMB-S = BLACK SUSPENDED @ 12'-0"AFF	SECURITY CAMERA	SURFACE MOUNTED OR SUSPENDED	SEE AS-130 DIVISION 083.1.16 FOR SPECIFICATIONS AP1212 = 12" x 12" AP1818 = 18" x 18" AP2424 = 24" x 24"
TRAFFIC COUNTER	CEILING MOUNTED OR SUSPENDED	FINISH: TCW = WHITE CEILING MOUNTED TCW-S = WHITE SUSPENDED @ 12'-0" TCB-S = BLACK SUSPENDED @ 12'-0"	SUPPLY GRILLE	CEILING OR DUCT MOUNTED	
WIRELESS ACCESS POINT	SURFACE MOUNTED OR SUSPENDED	FINISH: WAP = WHITE WAP-B = BLACK	RETURN GRILLE	CEILING OR DUCT MOUNTED	
SPEAKER	SUSPENDED	SUB2 Zx 15.4"Ø x 7.4" WHITE SUB3 Zx 15.4"Ø x 7.4" BLACK SUB4 Zx 15.7"Ø x 15.1" BLACK S2 Zx 6.2"Ø x 4.8" WHITE S3 Zx 6.2"Ø x 4.8" BLACK S5 Zx 5.9"Ø x 7.2" WHITE S6 Zx 5.9"Ø x 7.2" BLACK	LINEAR SLOT	TAPED-IN AT GWB CEILING	LS
			FIRE ALARM SOUNDER / STROBE/FIRE ALARM SPEAKER	CEILING / WALL MOUNTED OR SUSPENDED	FINISH: SUSPENDED = BLACK GWB CEILING = WHITE S
SPEAKER	FLUSH RECESSED MOUNTED	SUB1 Zx 15.4"Ø x 7.4" WHITE S1 Zx 6.2"Ø x 4.8" WHITE S4 Zx 7.2"Ø x 5.2" WHITE	FIRE ALARM STROBE	CEILING MOUNTED OR SUSPENDED	FINISH: SUSPENDED = BLACK GWB CEILING = WHITE ST
			SMOKE DETECTOR	CEILING MOUNTED OR DECK MOUNTED	FINISH: DECK MOUNTED = BLACK GWB CEILING = WHITE SD
CONCEALED J-BOX AND SWITCH	MOUNTED ABOVE CEILING	ABV CLG	DISPLAY TRACK	RECESSED AT CEILING	DT-SF-CLG
CEILING DUPLEX	MOUNTED AT CEILING	FINISH: GWB CEILNG = WHITE WOOD = BRUSHED STAINLESS CLG			

SPRINKLER LEGEND

DESCRIPTION	LOCATION	SYMBOL	COVERPLATE FINISH
FULLY RECESSED CONCEALED	GWB CEILINGS	●	WHITE UNO
	WOOD CEILINGS	SF●	BRUSHED CHROME (VENDOR'S STANDARD)
SEMI RECESSED	BACK OF HOUSE ACT CEILING	◉	N/A
UPRIGHT	AREAS OPEN TO DECK	○	N/A

GENERAL NOTES

A. THIS SHEET IS FOR COORDINATION BETWEEN MECHANICAL DUCTS, DIFFUSERS, ACCESS HATCHES AND LOW VOLTAGE LOCATIONS ONLY, SEE MEP AND APPROVED FIRE-ALARM/SPRINKLER VENDOR DRAWINGS FOR ALL OTHER REQUIRED INFORMATION

B. GC AND ALL TRADES SHALL COORDINATE REQUIRED ACCESS HATCH LOCATIONS WITH LANDLORD TO MAINTAIN ACCESS TO LANDLORD EQUIPMENT

C. GC TO FURNISH AND INSTALL ACCESS PANELS PER CODE FOR ACCESS TO HVAC, WATER CHILLERS, LED DRIVERS, SIGNAGE, AND SENSORMATIC ACCESS. IF ADDITIONAL ACCESS PANELS ARE REQUIRED FOR OVERHEAD GRILLE OR ADDITIONAL PLUMBING, MECHANICAL, OR ELECTRICAL ACCESS, ETC., GC TO COORDINATE PLACEMENT WITH ARCHITECT AND LULULEMON CM. IN-WALL ACCESS PANELS TO BE FLUSH FRAMELESS GYPSUM BOARD TYPE, CEILING ACCESS PANELS TO BE PUSH-UP TYPE 1. GC TO SPECIFY AND SUBMIT TO ARCHITECT FOR REVIEW AND APPROVAL. SEE AS-130 DIVISION 083100 FOR SPECIFICATIONS

D. GC TO COORDINATE SPRINKLER HEAD PLACEMENT WITH OWNER PRIOR TO INSTALLATION

E. GC TO COORDINATE WAP QUANTITY AND LOCATION WITH VENDOR

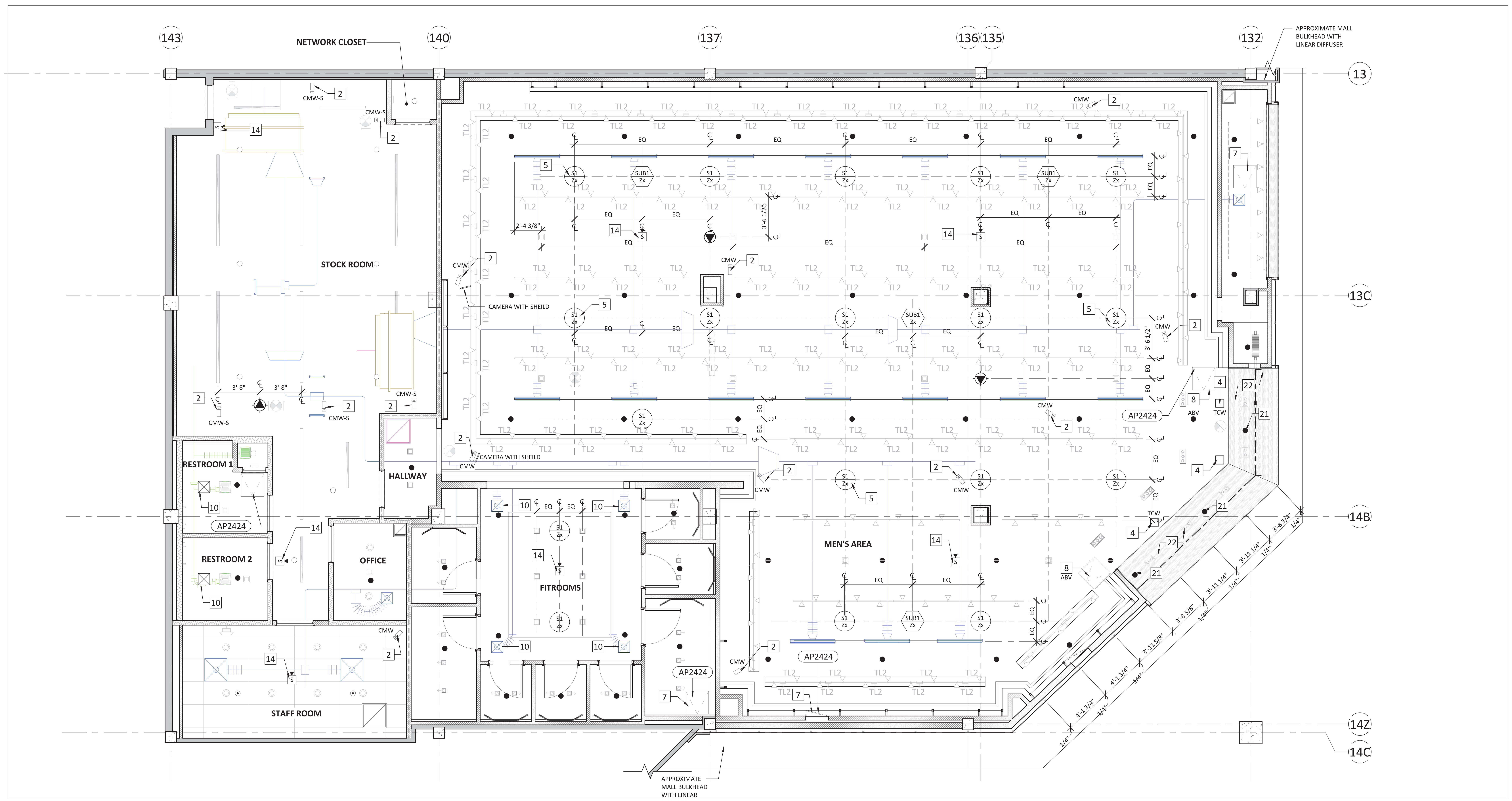
F. HVAC DUCTWORK, DIFFUSERS AND ACCESS PANELS ARE FOR REFERENCE ONLY. SEE MECHANICAL DWGS FOR LOCATIONS, HEIGHTS, AND SIZING

G. GC TO PROVIDE CABLE TRAY SYSTEM TO ALL EXPOSED AREA IN A NEAT AND CLEAN MANNER

KEYNOTES

 # - KEYNOTE SYMBOL

1. ELECTRICAL TRANSFORMER LOCATION, SEE ELECTRICAL AND STRUCTURAL DRAWINGS.
2. SECURITY CAMERA. SEE ELECTRICAL DWGS
3. HVAC TRANSFER GRILLE, MOUNTED ABOVE PAINT LINE AND PAINTED TO MATCH ADJACENT WALL
4. TRAFFIC COUNTER, MOUNTED AT GWB CEILING
5. ALIGN ALL LIGHTING, SPEAKERS, CAMERAS, AND OTHER DEVICES, NOTIFY ARCHITECT OF ANY CONFLICTS WITH ALIGNMENT IN FIELD
6. BOTTLE FILLER CHILLER SUSPENDED/WALL MOUNTED IN VOID SPACE ABOVE CEILING, SEE DETAIL 6/A-520, PROVIDE ACCESS, SEE SHEET A-210 ELEVATION FOR HEIGHT OF WALL ACCESS PANEL IF REQUIRED OR A-170 PLAN FOR LOCATION OF CEILING ACCESS IF REQUIRED.
7. STOREFRONT SIGNAGE DRIVERS MOUNTED IN VOID SPACE, SEE SHEETS A-170 , A-210 FOR ACCESS PANEL LOCATIONS AND STOREFRONT SECTIONS ON A-420 FOR MORE DETAIL
8. EAS SYSTEM CONTROLLER MOUNTED IN STOREFRONT VOID SPACE, SEE SHEETS A-170 , A-210 FOR ACCESS PANEL LOCATIONS AND ELECTRICAL DRAWINGS FOR MORE DETAIL
9. HVAC UNIT, SEE MECHANICAL DRAWINGS FOR ADDITIONAL INFORMATION
10. HVAC SUPPLY DIFFUSER, SEE MECHANICAL DRAWINGS FOR ADDITIONAL INFORMATION
11. HVAC RETURN DIFFUSER, SEE MECHANICAL DRAWINGS FOR FOR ADDITIONAL INFORMATION
12. HVAC DUCTWORK, PAINT-GRADE INTERNALLY LINED RECTANGULAR DUCTWORK AT EXPOSED SALES AREA, COORDINATE WITH MECHANICAL DWGS, FINISH TO MATCH OPEN CEILING PAINT COLOR
13. PROVIDE ACCESS FOR HVAC EQUIPMENT, GC TO PROVIDE 24" X 24" SQAURE CORNER TAPE-IN PUSH-UP TYPE ACCESS PANEL IN CEILING, REFER TO AS-130 FOR SPECIFICATION, FINISH TO MATCH CEILING
14. CEILING MOUNTED FIRE ALARM DEVICE, FINISH PER LEGEND, SEE APPROVED VENDOR DWGS
15. DECK SUSPENDED FIRE ALARM DEVICE, FINISH PER LEGEND, SEE APPROVED VENDOR DWGS
16. DECK MOUNTED FIRE ALARM DEVICE, FINISH PER LEGEND, SEE APPROVED VENDOR DWGS
17. WALL MOUNTED FIRE ALARM DEVICE, FINISH PER LEGEND, SEE APPROVED VENDOR DWGS
18. TAPED-IN LINEAR SLOT DIFFUSER, SEE MECHANICAL DRAWINGS, PROVIDE LIGHT SHIELDS AT ALL LENGTHS NOT USED FOR SUPPLY AIR.
19. POWER OUTLET AT STOREFRONT DISPLAY WINDOW LOCATED ABOVE STOREFRONT WINDOW, FINISH WHITE AT GWB FACE AND BRUSHED STAINLESS AT WOOD PORTAL CEILING, ENSURE OUTLET IS LOCATED WITHIN 18" OF TOP OF STOREFRONT WINDOW
20. POWER OUTLET CEILING FOR DISPLAY TRACK, FINISH WHITE AT GWB FACE AND BRUSHED STAINLESS AT WOOD PORTAL CEILING, PROVIDE POWER ONLY IF (2) TRACKS ARE INSTALLED, OTHERWISE UTILIZE SHOW WINDOW POWER
21. ANY REQUIRED SPRINKLER HEADS AT WOOD PORTAL TO BE CONCEALED TYPE IN VENDOR'S STANDARD BRUSHED CHROME FINISH
22. ALL REQUIRED DEVICES AT WOOD PORTAL TO ALIGN, INCLUDING LIGHTS, OUTLETS, AND SPRINKLER HEADS



1 CEILING FIXTURE REFERENCE PLAN

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

lululemon
1818 CORNWALL AVE.
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DRAWING INFORMATION
PROJECT #: 23206
CHECKED BY: NA
DRAWN BY: TA

RCP - FIXTURE REFERENCE

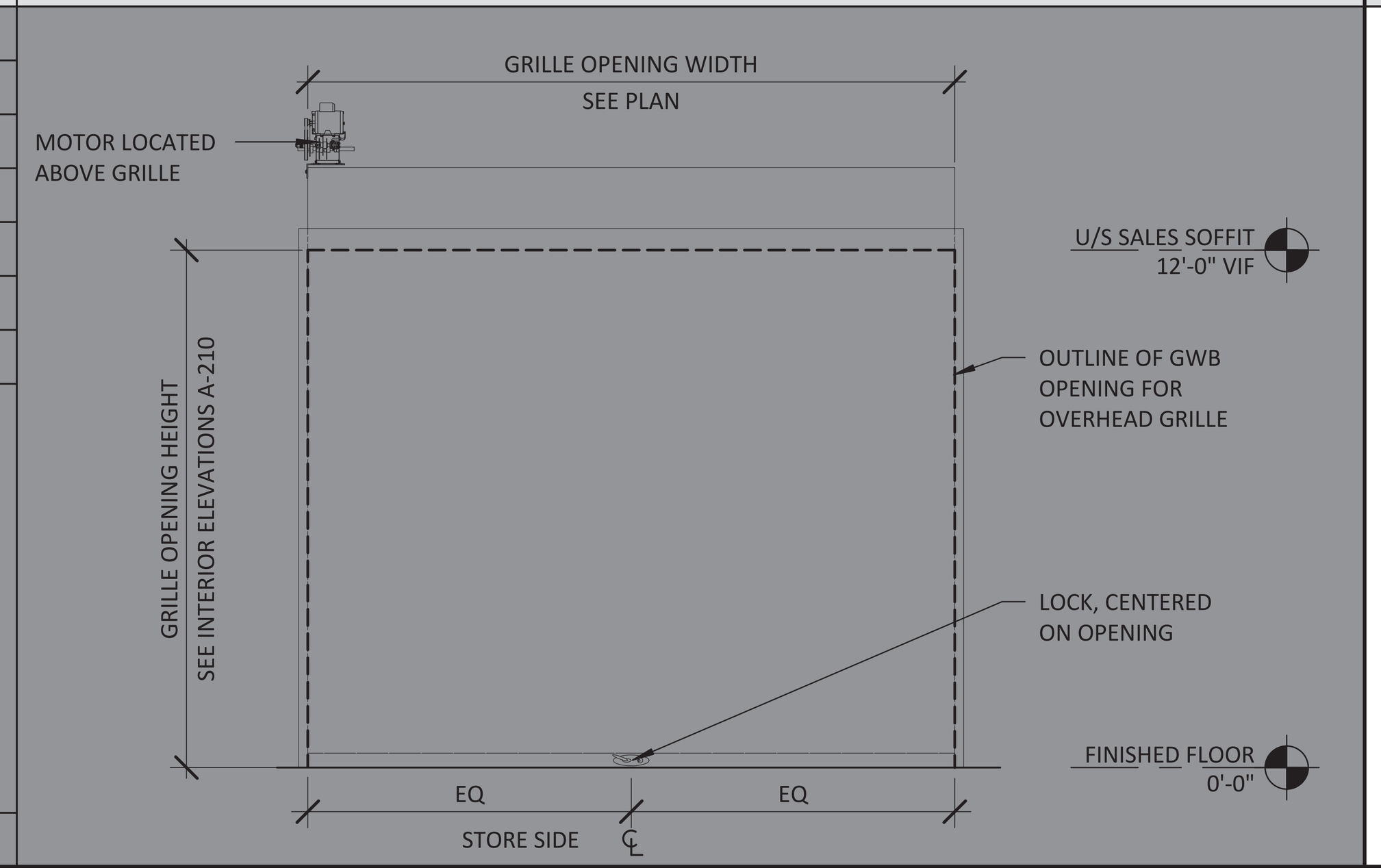
DRAWING NUMBER
A-170

DOOR SCHEDULE

STOREFRONT DOOR: OVERHEAD GRILLE - MOTOR ABOVE GRILLE

SYMBOL	DOOR SPECIFICATIONS	
S1	LOCATION	MALL COMMON AREA TO SALES AREA
	TYPE	OVERHEAD ROLLING GRILLE
	MATERIAL	N/A
	FINISH	N/A
	GLAZING	N/A
	FRAME MATL	ALUMINUM
	FRAME FINISH	CLEAR ANODIZED
	HARDWARE	GRILLE: ALUMATEC PACIFIC PRODUCTS OVERHEAD ROLLING GRILLE MODEL AT-9 ALL HARDWARE PROVIDED BY MANUFACTURER: (1) MOTOR WITH KEYED ELECTRONIC OPERATING SWITCH AT INTERIOR AND EMERGENCY RELEASE PULL (1) LOCK W/ SFIC 7-PIN INSTAKEY CYLINDER AND STRIKE CENTERED AT OPENING
	NOTES	SEE STOREFRONT DETAILS A-400 SERIES - SUBMITTAL REQUIRED

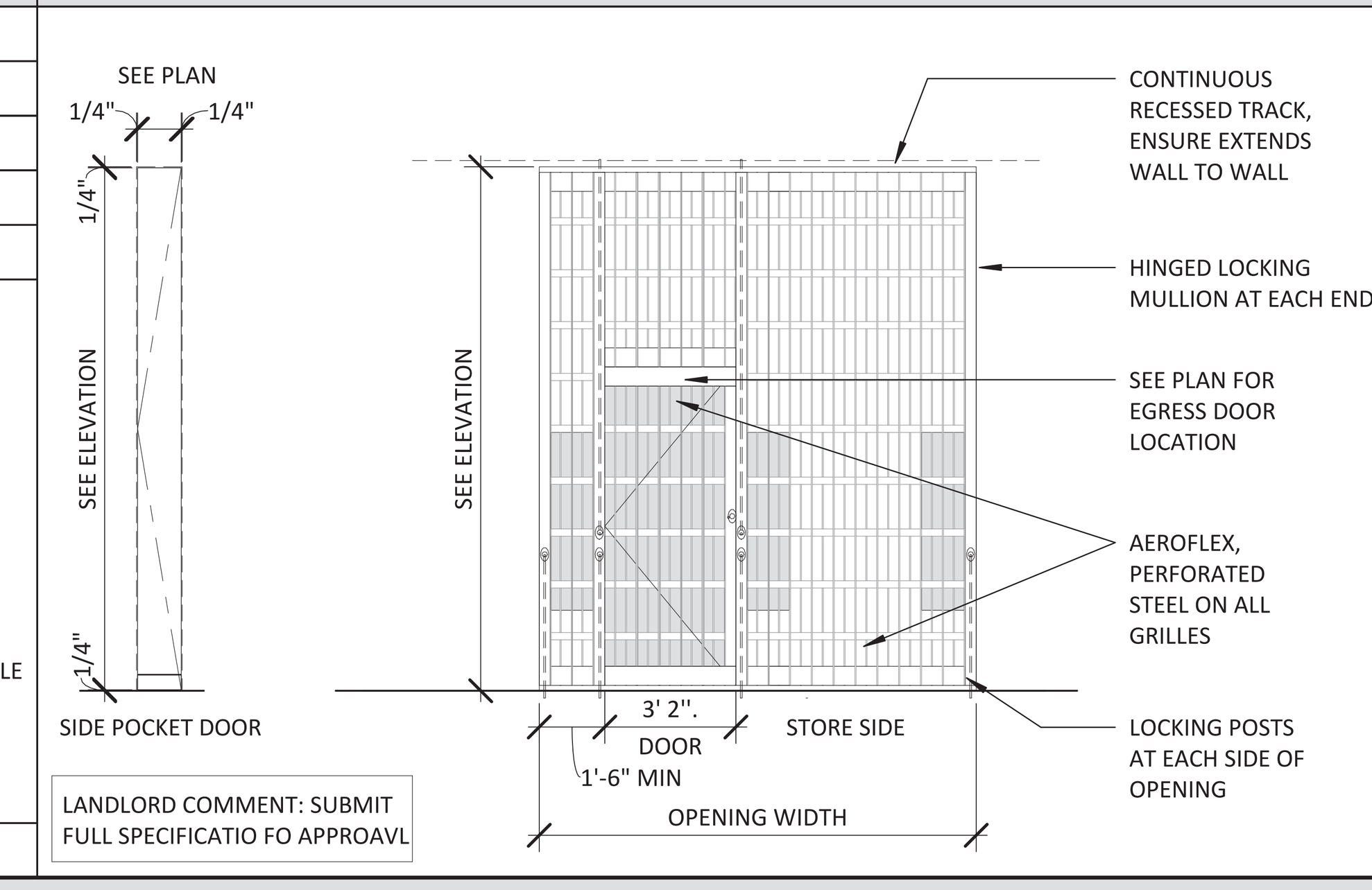
ELEVATIONS



STOREFRONT DOOR: SIDE-FOLDING GRILLE - SINGLE POCKET

SYMBOL	DOOR SPECIFICATIONS	
S2 S3 S3	LOCATION	MALL COMMON AREA TO SALES AREA
	TYPE	SIDE FOLDING GRILLE WITH INTEGRATED EGRESS DOOR
	GLAZING	N/A
	FRAME MATL	ALUMINUM
	FRAME FINISH	CLEAR ANODIZED
	HARDWARE	(S2) GRILLE: ALUMATEC PACIFIC PRODUCTS (CANADA MANUF: MOBIFLEX, MODEL: AEROFLEX) SIDE-FOLDING GRILLE MODEL ST-12, ALL HARDWARE PROVIDED BY MANUFACTURER: (2) EXTERIOR LOCKING END POST W/ SFIC 7-PIN INTERCHANGEABLE KEYED CYLINDER AND INTERIOR THUMBTURNS ALL OTHER POSTS TO BE BLANK ON EXTERIOR AND THUMBTURN ON INTERIOR: (2) HINGED LOCKING MULLION AT ENDS (1) INTEGRATED 3'-2" EGRESS DOOR - OUT SWING (2) TOP AND BOTTOM LOCKING POST AT EGRESS DOOR INTERMEDIATE DROP LOCKING POSTS AS REQUIRED FOR WIDTH, COORDINATE FINAL POST QUANTITY AND LOCATION REQUIRED WITH VENDOR (S3) SIDE DOOR: CUSTOM SIDE POCKET DOOR AT BY GC - CONFIRM SIZE WITH VENDOR AT EACH DOOR PROVIDE MCKINNEY CONCEALED HINGE - MK40A SERIES, AND INVISIBLE PUSH-RELEASE LATCH, POCKET DOOR FRAME TO MATCH WOODEN PORTAL FINISH, FRAME, AND HARDWARE MATCH ADJACENT WALL, SEE A-420 FOR DETAIL
	NOTES	SEE STOREFRONT DETAILS A-400 SERIES - SUBMITTAL REQUIRED

ELEVATIONS



STOREFRONT DOOR: SWING DOOR - INTERIOR

SYMBOL	DOOR SPECIFICATIONS	
S4	LOCATION	MALL COMMON AREA TO SALES AREA
	TYPE	STOREFRONT FRAMELESS DOORS (PAIR)
	MATERIAL	TEMPERED GLASS
	FINISH	SF-4
	GLAZING	PREMIUM CLARITY LOW IRON
	FRAME MATL	N/A
	FRAME FINISH	N/A
	HARDWARE (BY GC)	FITTINGS: (2) CR LAURENCE LOCKING PATCH FITTING KIT, MODEL PHA2LBS, FINISH: BRUSHED STAINLESS PIVOTS: (2) CENTER PIVOT SET CLOSER: (2) CR LAURENCE CONCEALED FLOOR CLOSER W/ TAPERED SPINDLE (105° BACK STOP - HOLD OPEN) COMPATIBLE W/ PATCH FITTINGS LOCKSET/CYLINDER: (2) SFIC 7-PIN INSTAKEY CYLINDER (AT EXTERIOR) (2) STANDARD THUMB TURNS (AT INTERIOR) (2) BRUSHED STAINLESS DUST PROOF STRIKES AT LOCKED POSITION ENSURE STRIKE LOCATION DOES NOT CONFLICT WITH CONCEALED EAS UNDER FLOORING
	HARDWARE (BY LLL-V)	PULLS: LLL-V CODE: DPO (2 PAIR) 36" BLACK PULLS STRONGAR - SH-PRO-316-OFR-B-36-1510 FOR GLASS DOORS (LULULEMON VENDOR TO FURNISH, GC TO INSTALL)
	NOTES	SEE STOREFRONT DETAILS A-400 SERIES, SEE ALSO GENERAL NOTE K

ELEVATIONS

STOREFRONT DOOR: SWING DOOR - EXTERIOR

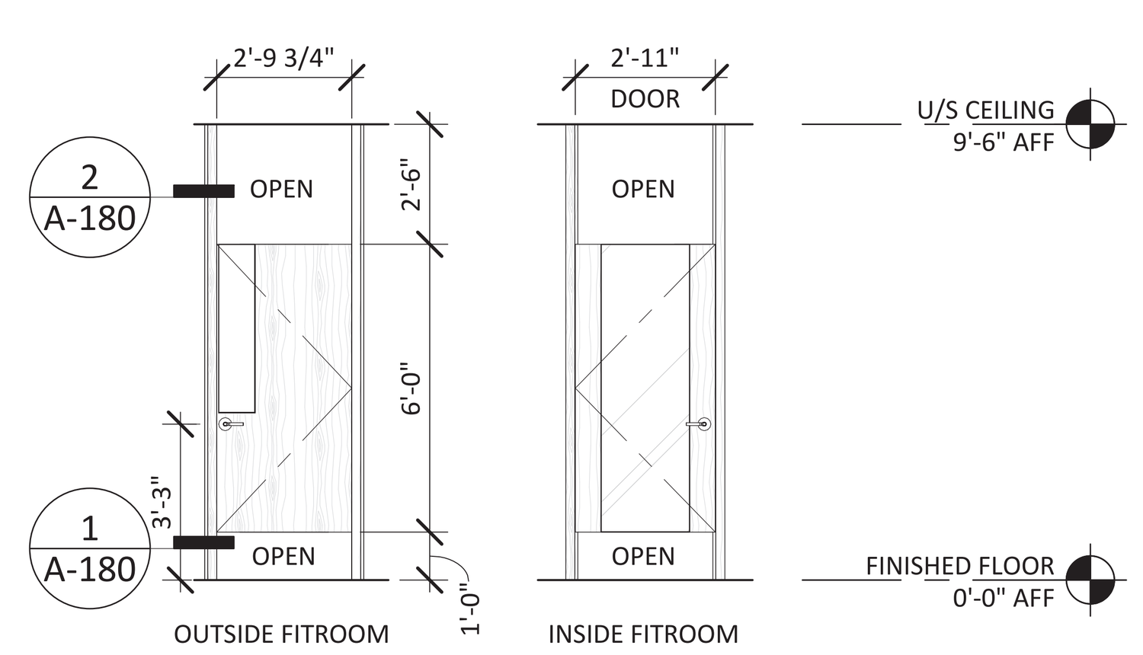
SYMBOL	DOOR SPECIFICATIONS	
S5	LOCATION	MALL COMMON AREA TO SALES AREA
	TYPE	STOREFRONT FRAMED DOORS (PAIR)
	MATERIAL	ALUMINUM NARROW STILE WITH 10" BOTTOM RAILS
	FINISH	SF-19
	GLAZING	PREMIUM CLARITY LOW IRON
	FRAME MATL	ALUMINUM
	FRAME FINISH	SF-19
	HARDWARE (BY GC)	PIVOTS: (2) x CENTER PIVOT SET LOCKSET: (1) ADAMS RITE DEADLOCK MS1850SN-45-0-335 WITH THUMBTURN AT INTERIOR (1) ADAMS RITE THRESHOLD BOLT 4015-18-18 (AT ACTIVE DOOR) (1) ADAMS RITE HEADER BOLT 4016-10-02 (AT ACTIVE DOOR) (1) ADAMS RITE FLUSH BOLT MS2180 (AT INACTIVE DOOR) CYLINDER: (1) BLACK SFIC 7-PIN INSTAKEY CYLINDER (AT EXTERIOR) CLOSER: CONCEALED OVERHEAD CLOSERS (105° BACK STOP - HOLD OPEN) SWEEPS: (2) BOTTOM DOOR RAIL SWEEPS THRESHOLD: STANDARD THRESHOLD AND WEATHER STRIPPING.
	HARDWARE (BY LLL-V)	PULLS: LLL-V CODE: DPO (2 PAIR) 36" BLACK PULLS STRONGAR - SH-PRO-316-OFR-B-36-1510 FOR METAL DOORS (LULULEMON VENDOR TO FURNISH, GC TO INSTALL)
	NOTES	SEE STOREFRONT DETAILS A-400 SERIES, SEE ALSO GENERAL NOTE K

ELEVATIONS

FITROOM DOOR (BY LLL-V): 35" SWING DOOR AT GWB FITROOMS - RIGHT HANDED

SYMBOL	DOOR SPECIFICATIONS	
	LOCATION	FITROOM
	TYPE	SOLID CORE WOOD DOOR (BY LLL-V), SEE FIXTURE SCHEDULE A-130 FR-DR-WD-35-RH
	MATERIAL	WOOD
	FINISH	NATURAL OAK (MATCH CONTROL SAMPLE)
	FRAME MATL	WOOD (BY LLL-V) - SIZED FOR 2 1/2" METAL STUD WALL BY GC
	FRAME FINISH	NATURAL OAK (MATCH CONTROL SAMPLE)
	HARDWARE (BY LLL-V)	FURNISHED BY LLL-V, INSTALLED BY GC: PIVOTS/HINGES: 1 1/2 PAIR SCHLAGE 1010-622, 3 1/2" x 3 1/2", MATTE BLACK PRIVACY LOCKSET/CYLINDER: PREP DOOR FOR LEVERSET BY GC DOOR STOP: RICHILIEU 221301278 HEAVY DUTY PIN STOP MARKER BOARD AND FRAME: BACK-PAINTED GLASS WITH BLACK METAL FRAME MIRROR FRAME: BLACK METAL FRAME FOR MIRROR BY LLL-V MIRROR GLASS: 1/4" TEMPERED MIRROR GLASS BY LLL-V
	HARDWARE (BY GC)	PRIVACY LOCKSET/CYLINDER: SCHLAGE LATITUDE LEVER IN MATTE BLACK (622), ALX40 SILENCERS: 3 x RICHELIEU 531211 CLEAR RUBBER BUMPER - 1/8"H
	NOTES	IN-SWING UNO, SEE FITROOM ENLARGED PLAN AND ELEVATIONS, A-310

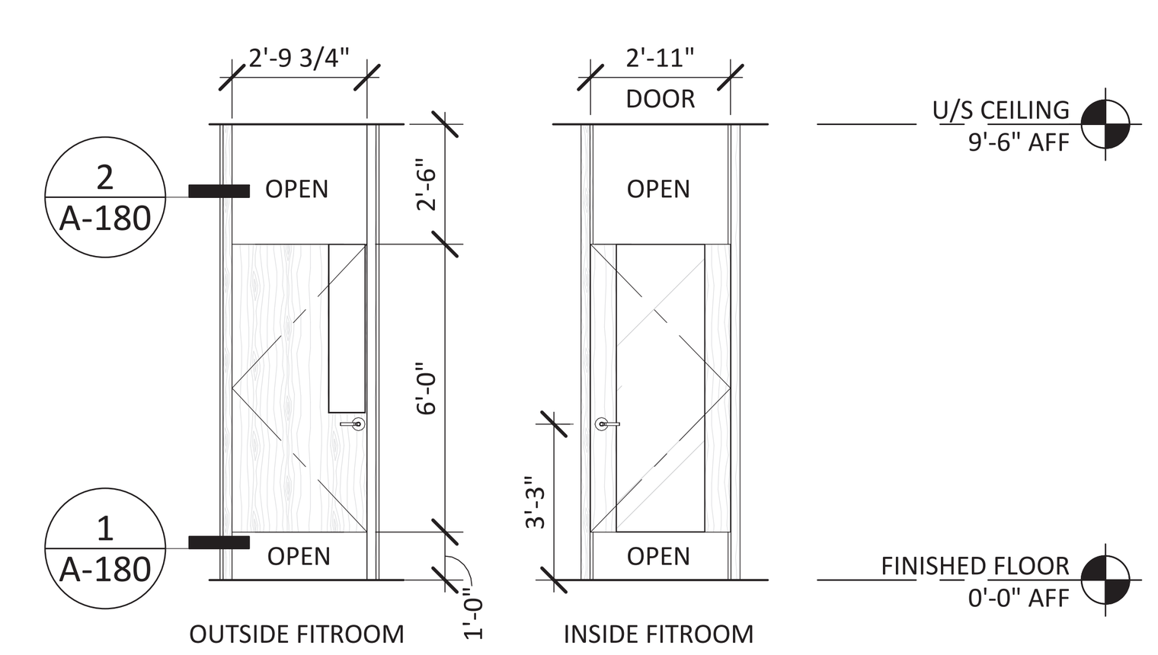
ELEVATIONS



FITROOM DOOR (BY LLL-V): 35" SWING DOOR AT GWB FITROOMS - LEFT HANDED

SYMBOL	DOOR SPECIFICATIONS	
	LOCATION	FITROOM
	TYPE	SOLID CORE WOOD DOOR (BY LLL-V), SEE FIXTURE SCHEDULE A-130 FR-DR-WD-35-LH
	MATERIAL	WOOD
	FINISH	NATURAL OAK (MATCH CONTROL SAMPLE)
	FRAME MATL	WOOD (BY LLL-V) - SIZED FOR 2 1/2" METAL STUD WALL BY GC
	FRAME FINISH	NATURAL OAK (MATCH CONTROL SAMPLE)
	HARDWARE (BY LLL-V)	FURNISHED BY LLL-V, INSTALLED BY GC: PIVOTS/HINGES: 1 1/2 PAIR SCHLAGE 1010-622, 3 1/2" x 3 1/2", MATTE BLACK PRIVACY LOCKSET/CYLINDER: PREP DOOR FOR LEVERSET BY GC DOOR STOP: RICHILIEU 221301278 HEAVY DUTY PIN STOP MARKER BOARD AND FRAME: BACK-PAINTED GLASS WITH BLACK METAL FRAME MIRROR FRAME: BLACK METAL FRAME FOR MIRROR BY LLL-V MIRROR GLASS: 1/4" TEMPERED MIRROR GLASS BY LLL-V
	HARDWARE (BY GC)	PRIVACY LOCKSET/CYLINDER: SCHLAGE LATITUDE LEVER IN MATTE BLACK (622), ALX40 SILENCERS: 3 x RICHELIEU 531211 CLEAR RUBBER BUMPER - 1/8"H
	NOTES	IN-SWING UNO, SEE FITROOM ENLARGED PLAN AND ELEVATIONS, A-310

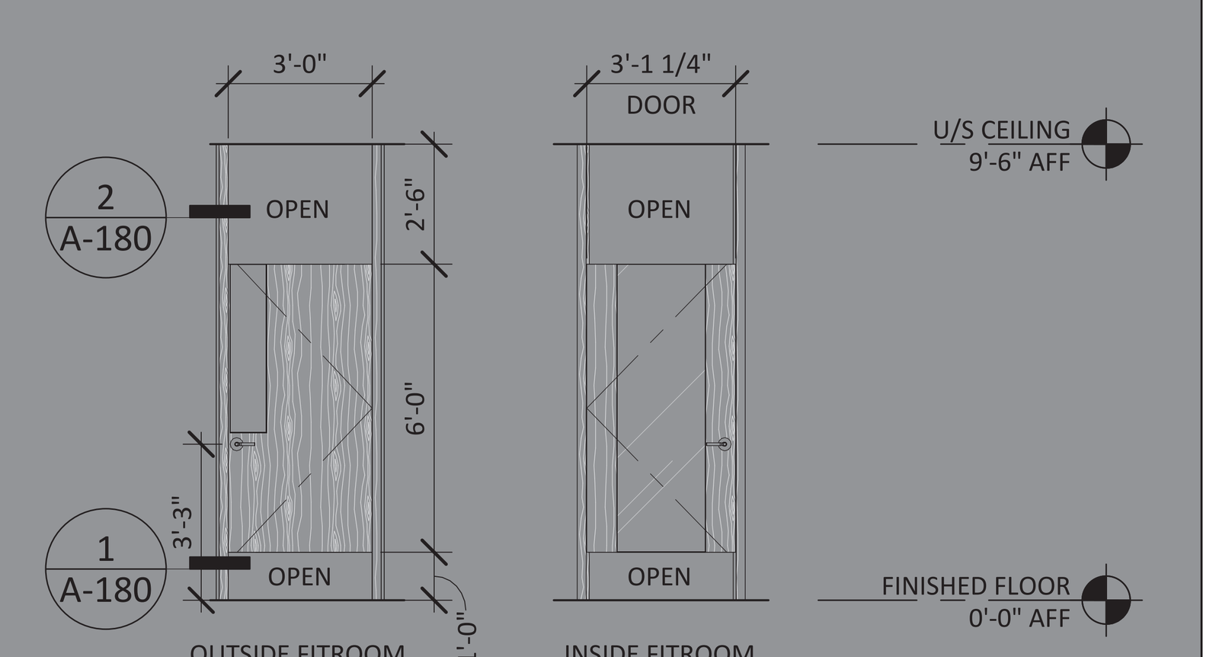
ELEVATIONS



FITROOM DOOR (BY LLL-V): 37 1/4" SWING DOOR AT ACCESSIBLE GWB FITROOMS (CANADA) - RIGHT HANDED

SYMBOL	DOOR SPECIFICATIONS	
	LOCATION	FITROOM
	TYPE	SOLID CORE WOOD DOOR (BY LLL-V), SEE FIXTURE SCHEDULE A-130 FR-DR-WD-37-RH
	MATERIAL	WOOD
	FINISH	NATURAL OAK (MATCH CONTROL SAMPLE)
	FRAME MATL	WOOD (BY LLL-V) - SIZED FOR 2 1/2" METAL STUD WALL BY GC
	FRAME FINISH	NATURAL OAK (MATCH CONTROL SAMPLE)
	HARDWARE (BY LLL-V)	FURNISHED BY LLL-V, INSTALLED BY GC: PIVOTS/HINGES: 1 1/2 PAIR SCHLAGE 1010-622, 3 1/2" x 3 1/2", MATTE BLACK PRIVACY LOCKSET/CYLINDER: PREP DOOR FOR LEVERSET BY GC DOOR STOP: RICHILIEU 221301278 HEAVY DUTY PIN STOP MARKER BOARD AND FRAME: BACK-PAINTED GLASS WITH BLACK METAL FRAME MIRROR FRAME: BLACK METAL FRAME FOR MIRROR BY LLL-V MIRROR GLASS: 1/4" TEMPERED MIRROR GLASS BY LLL-V
	HARDWARE (BY GC)	PRIVACY LOCKSET/CYLINDER: SCHLAGE LATITUDE LEVER IN MATTE BLACK (622), ALX40 SILENCERS: 3 x RICHELIEU 531211 CLEAR RUBBER BUMPER - 1/8"H
	NOTES	IN-SWING UNO, SEE FITROOM ENLARGED PLAN AND ELEVATIONS, A-310

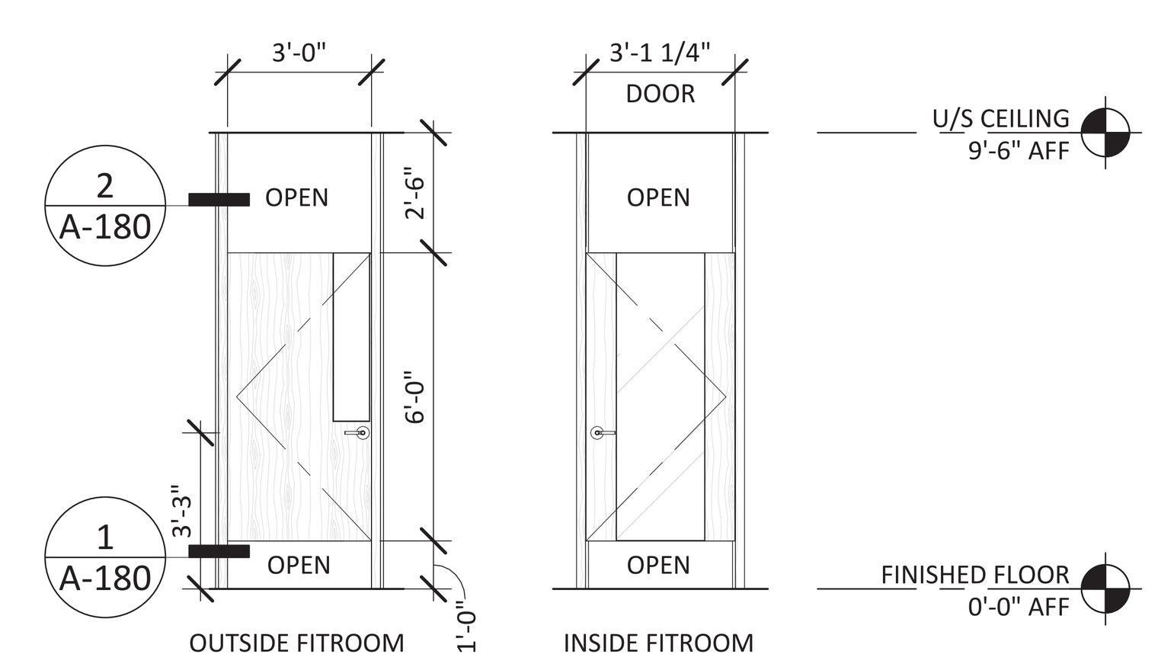
ELEVATIONS

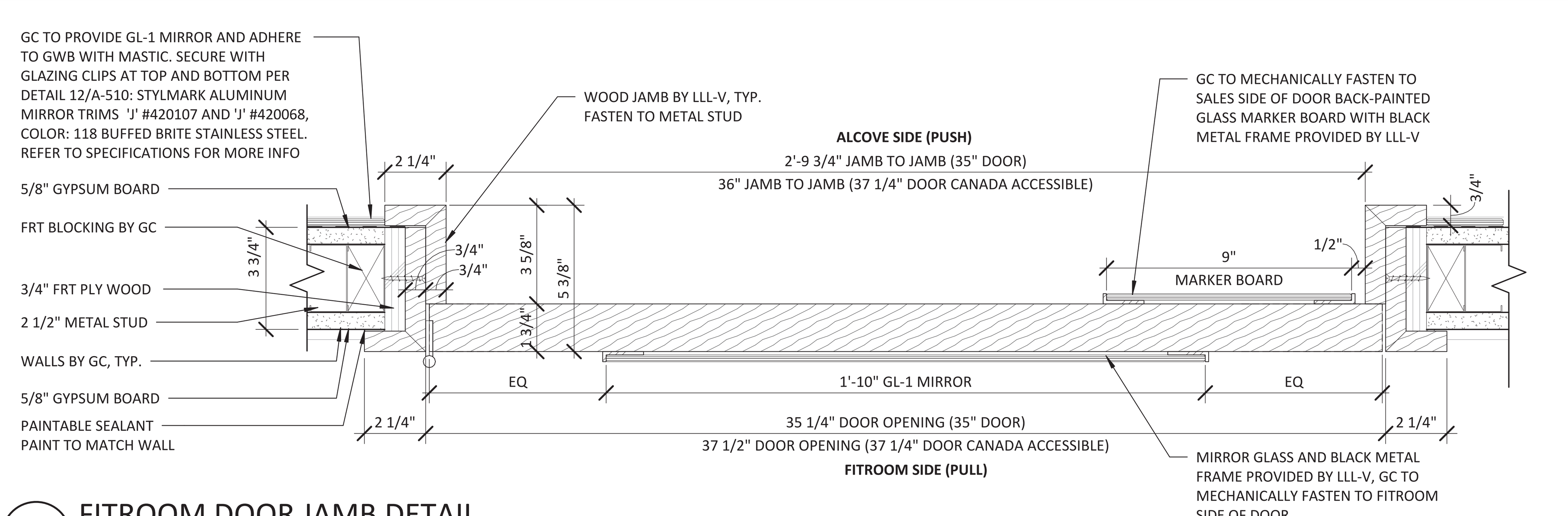


FITROOM DOOR (BY LLL-V): 37 1/4" SWING DOOR AT ACCESSIBLE GWB FITROOMS (CANADA) - LEFT HANDED

SYMBOL	DOOR SPECIFICATIONS	
	LOCATION	FITROOM
	TYPE	SOLID CORE WOOD DOOR (BY LLL-V), SEE FIXTURE SCHEDULE A-130 FR-DR-WD-37-LH
	MATERIAL	WOOD
	FINISH	NATURAL OAK (MATCH CONTROL SAMPLE)
	FRAME MATL	WOOD (BY LLL-V) - SIZED FOR 2 1/2" METAL STUD WALL BY GC
	FRAME FINISH	NATURAL OAK (MATCH CONTROL SAMPLE)
	HARDWARE (BY LLL-V)	FURNISHED BY LLL-V, INSTALLED BY GC: PIVOTS/HINGES: 1 1/2 PAIR SCHLAGE 1010-622, 3 1/2" x 3 1/2", MATTE BLACK PRIVACY LOCKSET/CYLINDER: PREP DOOR FOR LEVERSET BY GC DOOR STOP: RICHILIEU 221301278 HEAVY DUTY PIN STOP MARKER BOARD AND FRAME: BACK-PAINTED GLASS WITH BLACK METAL FRAME MIRROR FRAME: BLACK METAL FRAME FOR MIRROR BY LLL-V MIRROR GLASS: 1/4" TEMPERED MIRROR GLASS BY LLL-V
	HARDWARE (BY GC)	PRIVACY LOCKSET/CYLINDER: SCHLAGE LATITUDE LEVER IN MATTE BLACK (622), ALX40 SILENCERS: 3 x RICHELIEU 531211 CLEAR RUBBER BUMPER - 1/8"H
	NOTES	IN-SWING UNO, SEE FITROOM ENLARGED PLAN AND ELEVATIONS, A-310

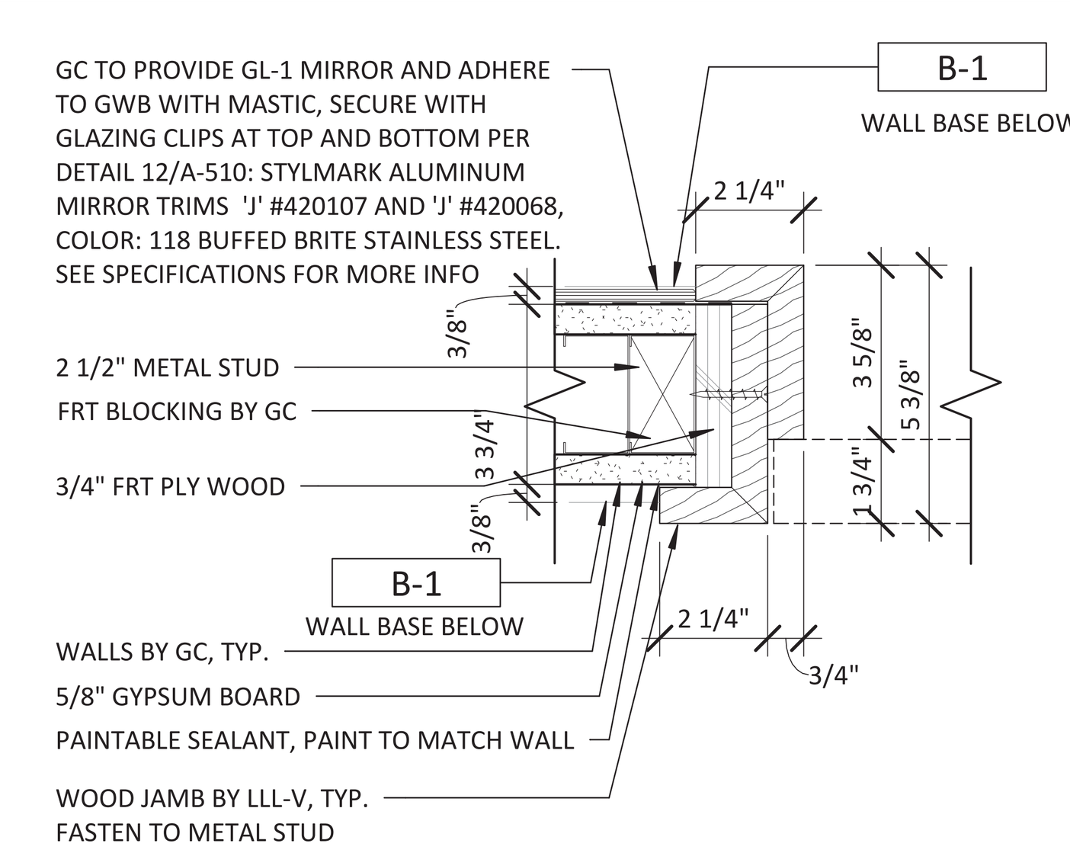
ELEVATIONS





2 FITROOM DOOR JAMB DETAIL

SCALE: 3" = 1'-0"



1 FITROOM DOOR JAMB @ BASE

SCALE: 3" = 1'-0"

GENERAL NOTES

A. ALL DOOR HARDWARE, INCLUDING LOCKS AND KEYING IS TO BE STANLEY/ BEST UNO - WITHOUT SUBSTITUTIONS
B. ALL WITHIN EACH STORE ARE KEYED ALIKE UNDER INSTAKEY SYSTEM
C. EACH STORE IS ISSUED 10 SERIALIZED PREMIUM KEYS
D. THRESHOLDS AT DOORWAYS SHALL NOT EXCEED 1/2" IN HEIGHT. RAISED THRESHOLDS AT DOORWAYS SHALL BE BEVELED WITH A SLOPE NOT GREATER THAN ONE UNIT VERTICAL IN TWO UNITS HORIZONTAL (50%) SLOPE
E. NEW PAINTED WOOD DOORS ARE TO BE PAINT GRADE
F. IF EXISTING DOORS ARE IN GOOD CONDITION REFINISH AND REUSE
G. ALL "INSTAKEY" AND KEYS ARE FURNISHED BY LLL AND INSTALLED BY GC
H. REFER TO FITROOM PLANS AND ELEVATIONS SHEET A-310 FOR FITROOM DOOR DETAILS
I. REFER TO FINISH SCHEDULE ON SHEET A-120 FOR SPECIFICATION, PROCUREMENT AND INSTALLATION RESPONSIBILITY FOR ALL FINISH MATERIALS
J. REFER TO FIXTURE SCHEDULE ON SHEET A-130 FOR SPECIFICATION, PROCUREMENT AND INSTALLATION RESPONSIBILITY FOR ALL FIXTURE ELEMENTS
K. COORDINATE S4 AND S5 DOOR PULL INSTALLATION TEMPLATE AND INSTRUCTIONS WITH LULULEMON VENDOR. DOOR PULLS COME WITH CUSTOM ETCHED NOTES FOR INTERIOR AND EXTERIOR SIDES

DOOR SERIES

S1-S5	STOREFRONT DOOR; SEE SHEET A-410
D2	SALES TO BOH DOOR
D3	SALES RESTROOM DOOR
D4	BOH RESTROOM DOOR
D5	MOP CLOSET DOOR
D6	STAFF ROOM DOOR
D7	OFFICE ROOM DOOR
D8	NETWORK CLOSET DOOR
D9	EGRESS DOOR
OTHER	LLL-V FITROOM DOOR (SEE A-130 FOR FIXTURE SCHEDULE AND A-310)

LANDLORD GENERAL NOTES:

POCKET DOOR ENCLOSURE TO HAVE CONCEALED HARDWARE AND HINGE. CONFIRM CLOSURE SPECIFICATIONS AND FINISHES. FLOOR FINISH IN THIS AREA IS TO BE INSTALLED INSIDE THE GRILLE DOOR POCKET ENCLOSURE MINIMUM 12". NO OPEN STYLE GRILLES AREA PERMITTED, USE PERFORATED METAL IN FINISH TO COMPLEMENT CONCEPT, OR TEMPERED GLASS INSERTS. LEXAN/ACRYLIC INSERTS ARE PROHIBITED.

OPEN GRILLES ARE NOT PERMITTED – THEY MUST BE COMPLETE WITH PERFORATED METAL INSERTS.SUBMIT FULL SPECIFICATION FOR APPROVAL.LEXAN/ACRYLIC INSERTS ARE NOT PERMITTED.

DOORS TO HAVE FLUSH RECESSED LOCKING SLEEVES WITH SPRING LOADED DUST COVERS FOR BOTH LOCKED AND HOLD OPEN POSITIONS. SURFACE MOUNTED HOLD DEVICES ARE NOT PERMITTED.

lululemon
1818 CORNWALL AVE.
VANCOUVER, B.C., V6J1C7

CF POLO PARK
1485 Portage Ave, Unit 144E
Winnipeg, MB
R3G 0W5
CRU NUMBER: 144E

Quadrangle
Quadrangle Architects Limited
The Well, 8 Spadina Avenue, Suite 2100, Toronto, ON M5V 0S8
t 416 598 1240 www.bdpquadrangle.com

ARCHITECT SEAL

ONTARIO ASSOCIATION OF ARCHITECTS
KIRTIDEV MEHTA
LICENCE
8099

ISSUED FOR CONSTRUCTION

07/14/2023

	DATE	DESCRIPTION
	05/05/2023	DESIGN DEVELOPMENT
	06/09/2023	PERMIT/CONSTRUCTION
	06/09/2023	ISSUED FOR BID
	07/14/2023	ISSUED FOR CONSTRUCTION

DRAWING INFORMATION
PROJECT #: 23206
CHECKED BY: NA
DRAWN BY: MP

DOOR SCHEDULE & DETAILS

DRAWING NUMBER
A-180

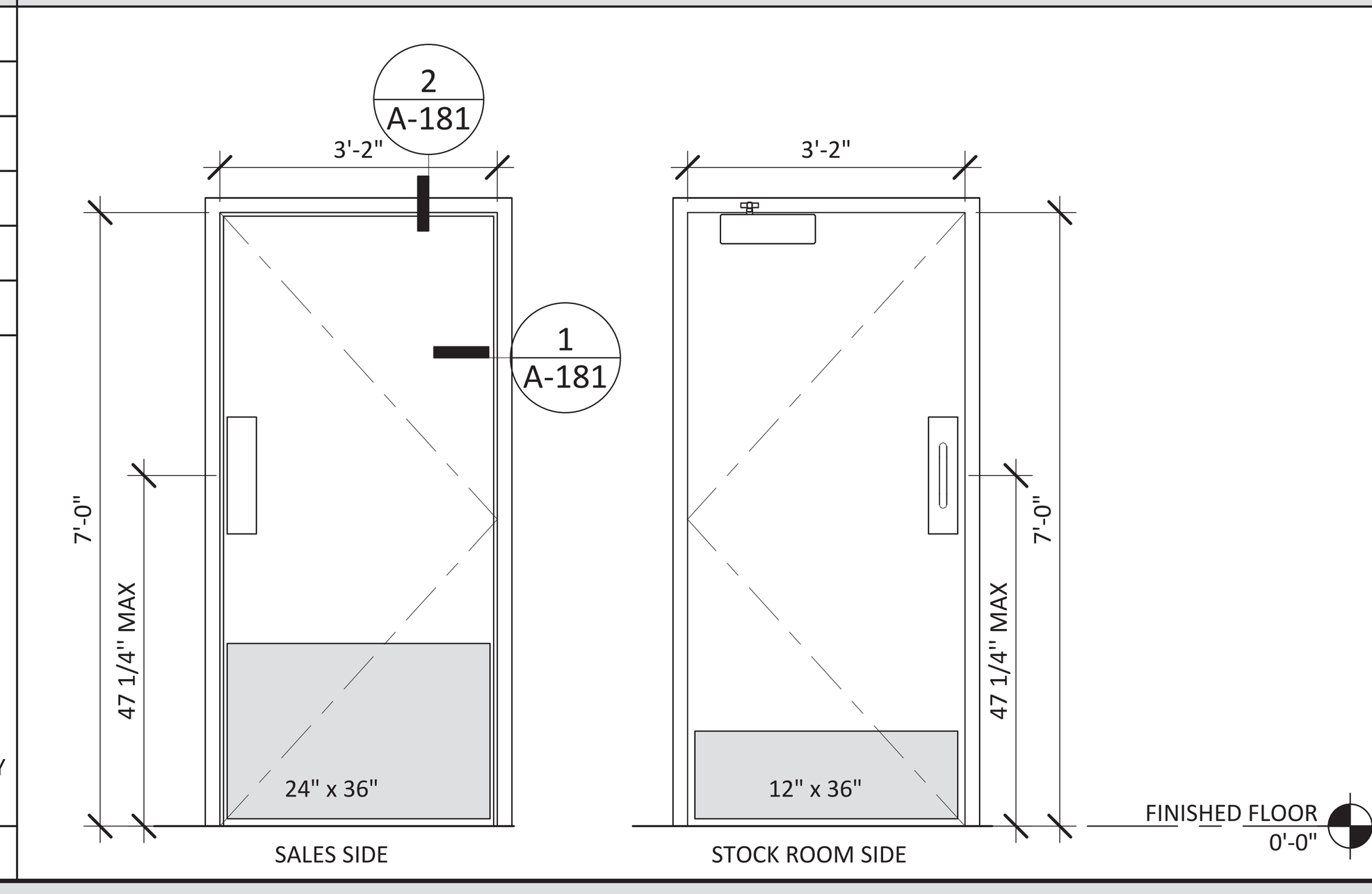
7/14/2023 12:12:30 PM

DOOR SCHEDULE

SALES TO STOCK ROOM DOOR

SYMBOL	DOOR SPECIFICATIONS	
D2	LOCATION	SALES AREA TO STOCK ROOM
	TYPE	HOLLOW METAL DOOR
	MATERIAL	METAL
	FINISH	P-3
	FRAME MATL	METAL - 16 GAUGE FOR HIGH TRAFFIC (STANDARD 3-PIECE KNOCK-DOWN)
	FRAME FINISH	P-3
	HARDWARE	PIVOTS/HINGES: (1 1/2) PAIR HAGER BB1279 4 1/2" x 4 1/2", L1 FLAT BLACK PULL/PUSH: (1) SET ROCKWOOD 110 X 73C/73CL BSP KICK PLATE: (1) IVES 12"x34" 8400 BLK (1) IVES 24"x34" 8400 BLK CLOSER: (1) YALE 4400-1-0-M-BSP NOTE: CLOSER SHOULD ALWAYS BE ATTACHED TO THE DOOR AT THE TOP JAMB ON THE SIDE FACING THE STOCK ROOM - USE STANDARD ARM. EMERGENCY LOCK: (1) NIGHTLOCK.COM: LOCKDOWN 1 WITH LOW PROFILE FLOOR PLATE DOOR STOP: (1) ROCKWOOD 400 BSP (WALL MOUNTED) DOOR HOLD-OPEN: (1) ROCKWOOD 461-BSP SILENCERS: (3) HAGER - 307D SIGNAGE: (1) MYDOORSIGN 2"x6" (DP-0018) 'DIAMOND PLATE BLACK AND SILVER OR APPROVED EQUAL INSTALL 'EMPLOYEES ONLY' SIGN AT SALES/HALLWAY SIDE OF DOOR
	NOTES	

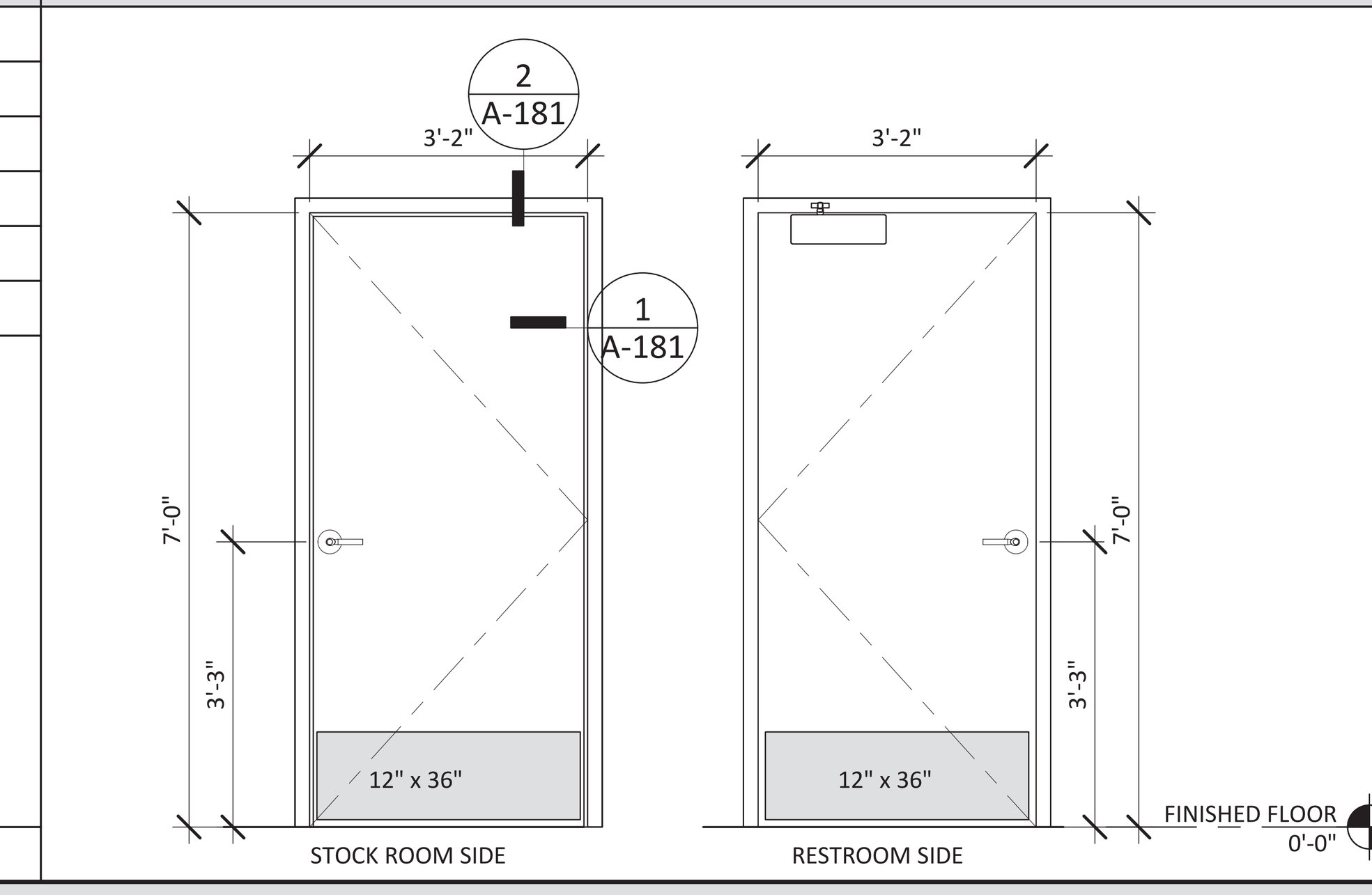
ELEVATIONS



SALES RESTROOM DOOR

SYMBOL	DOOR SPECIFICATIONS	
D3	LOCATION	SALES AREA TO RESTROOM
	TYPE	SOLID CORE WOOD DOOR
	MATERIAL	WOOD
	FINISH	P-3
	FRAME MATL	METAL - 16 GAUGE FOR HIGH TRAFFIC (STANDARD 3-PIECE KNOCK-DOWN)
	FRAME FINISH	P-3
	HARDWARE	PIVOTS/HINGES: (1 1/2) PAIR HAGER BB1279 4 1/2" x 4 1/2", L1 FLAT BLACK PRIVACY LEVER: (1) SCHLAGE LATITUDE LEVERSET IN MATTE BLACK(622), ALX40 KICK PLATE: (2) IVES 12"x34" 8400 BLK CLOSER: (1) YALE 4400-1-0-M-BSP NOTE: CLOSER SHOULD ALWAYS BE ATTACHED TO THE DOOR AT THE TOP JAMB ON THE SIDE FACING THE RESTROOM DOOR STOP: (1) ROCKWOOD 441H BSP (FLOOR MOUNTED) SILENCERS: (3) HAGER - 307D THRESHOLD: (1) TRANS-1: 2"W WHITE CARRARA MARBLE SEE DETAIL 5/A-530
	NOTES	PROVIDE TACTILE ROOM SIGNAGE PER LOCAL CODE: BLACK WITH WHITE LETTERS

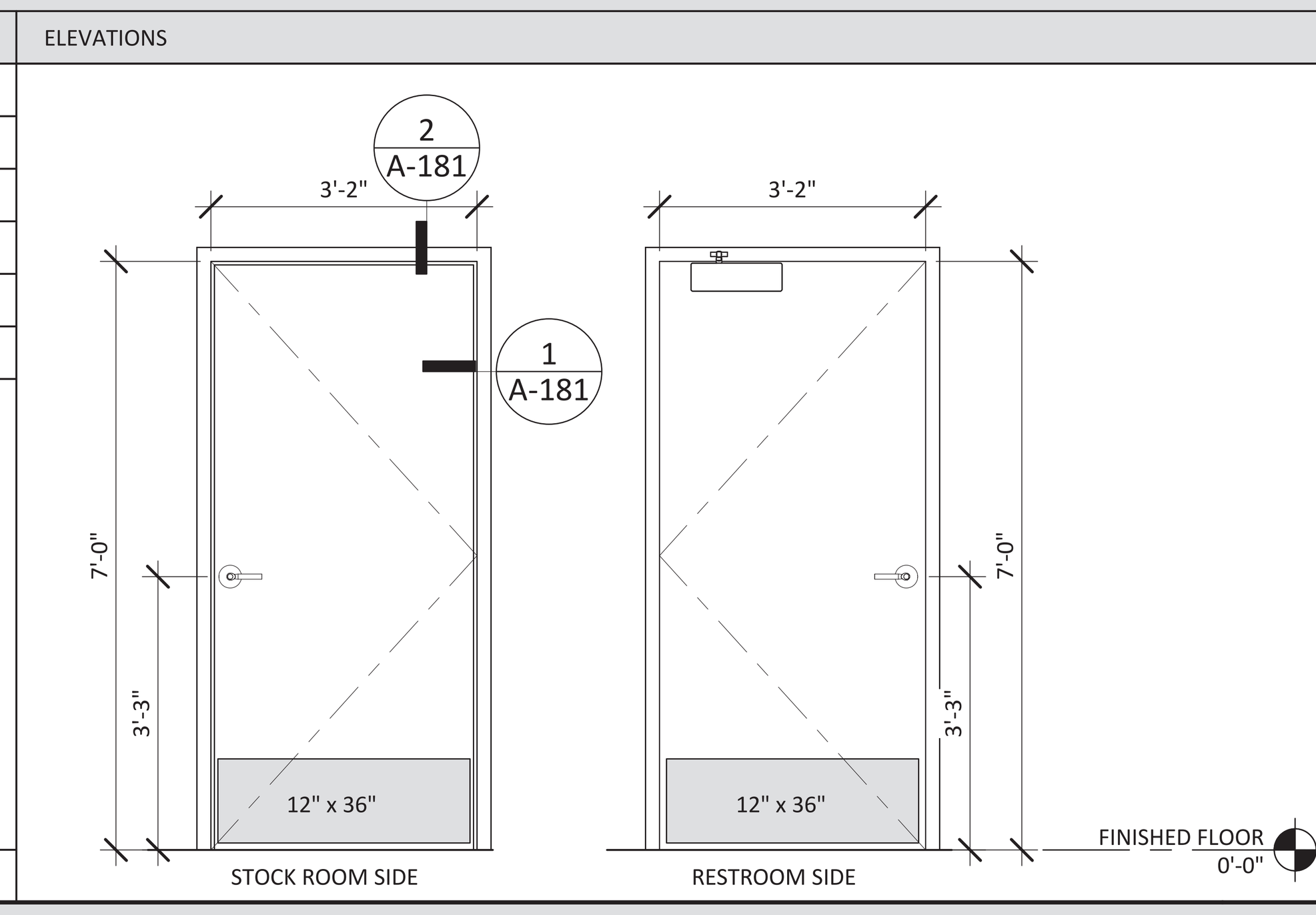
ELEVATIONS



STOCK ROOM TO RESTROOM

SYMBOL	DOOR SPECIFICATIONS	
D4	LOCATION	STOCK ROOM TO RESTROOM
	TYPE	SOLID CORE WOOD DOOR
	MATERIAL	WOOD
	FINISH	P-3
	FRAME MATL	METAL - 18 GAUGE FOR REGULAR TRAFFIC (STANDARD 3-PIECE KNOCK-DOWN)
	FRAME FINISH	P-3
	HARDWARE	PIVOTS/HINGES: (1 1/2) PAIR HAGER BB1279 4 1/2" x 4 1/2", L1 FLAT BLACK PRIVACY LEVER: (1) SCHLAGE LATITUDE LEVERSET IN MATTE BLACK(622), ALX40 KICK PLATE: (2) IVES 12X34 8400 BLK CLOSER: (1) YALE 4400-1-0-M-BSP NOTE: CLOSER SHOULD ALWAYS BE ATTACHED TO THE DOOR AT THE TOP JAMB ON THE SIDE FACING THE RESTROOM - USE STANDARD ARM. DOOR STOP: (1) ROCKWOOD 441H BSP (FLOOR MOUNTED) SILENCERS: (3) HAGER - 307D THRESHOLD: (1) TRANS-1: 2"W WHITE CARRARA MARBLE SEE DETAIL 3/A-530
	NOTES	PROVIDE TACTILE ROOM SIGNAGE PER LOCAL CODE: BLACK WITH WHITE LETTERS

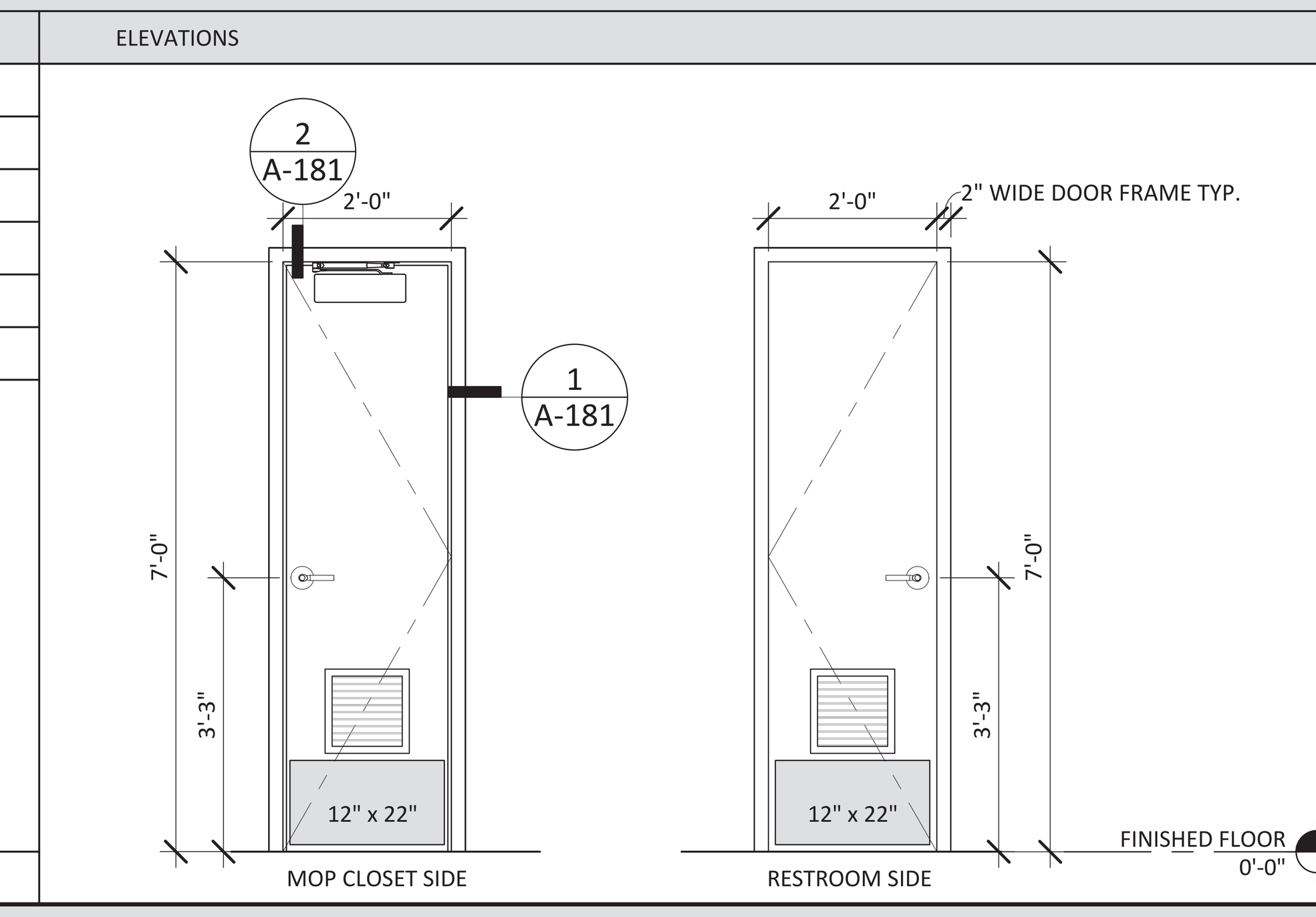
ELEVATIONS



MOP CLOSET DOOR

SYMBOL	DOOR SPECIFICATIONS	
D5	LOCATION	MOP CLOSET
	TYPE	HOLLOW METAL DOOR
	MATERIAL	METAL
	FINISH	P-3
	FRAME MATL	METAL - 18 GAUGE FOR REGULAR TRAFFIC (STANDARD 3-PIECE KNOCK-DOWN)
	FRAME FINISH	P-3
	HARDWARE	PIVOTS/HINGES: (1 1/2) PAIR x HAGER BB1279 4 1/2 X 4 1/2, L1 FLAT BLACK LEVER/LOCKSET/CYLINDER: SCHLAGE LATITUDE LEVER IN MATTE BLACK(622), ALX80B STOREROOM LOCK WITH BLACK SFIC 7-PIN INSTAKEY CYLINDER KICKPLATE: (2) IVES 12"x22" 8400 BLK DOOR STOP: (1) ROCKWOOD 441H BSP (FLOOR MOUNTED) SILENCERS: (3) x HAGER - 307D GRILLE: 12X12 TITUS CT-700
	NOTES	

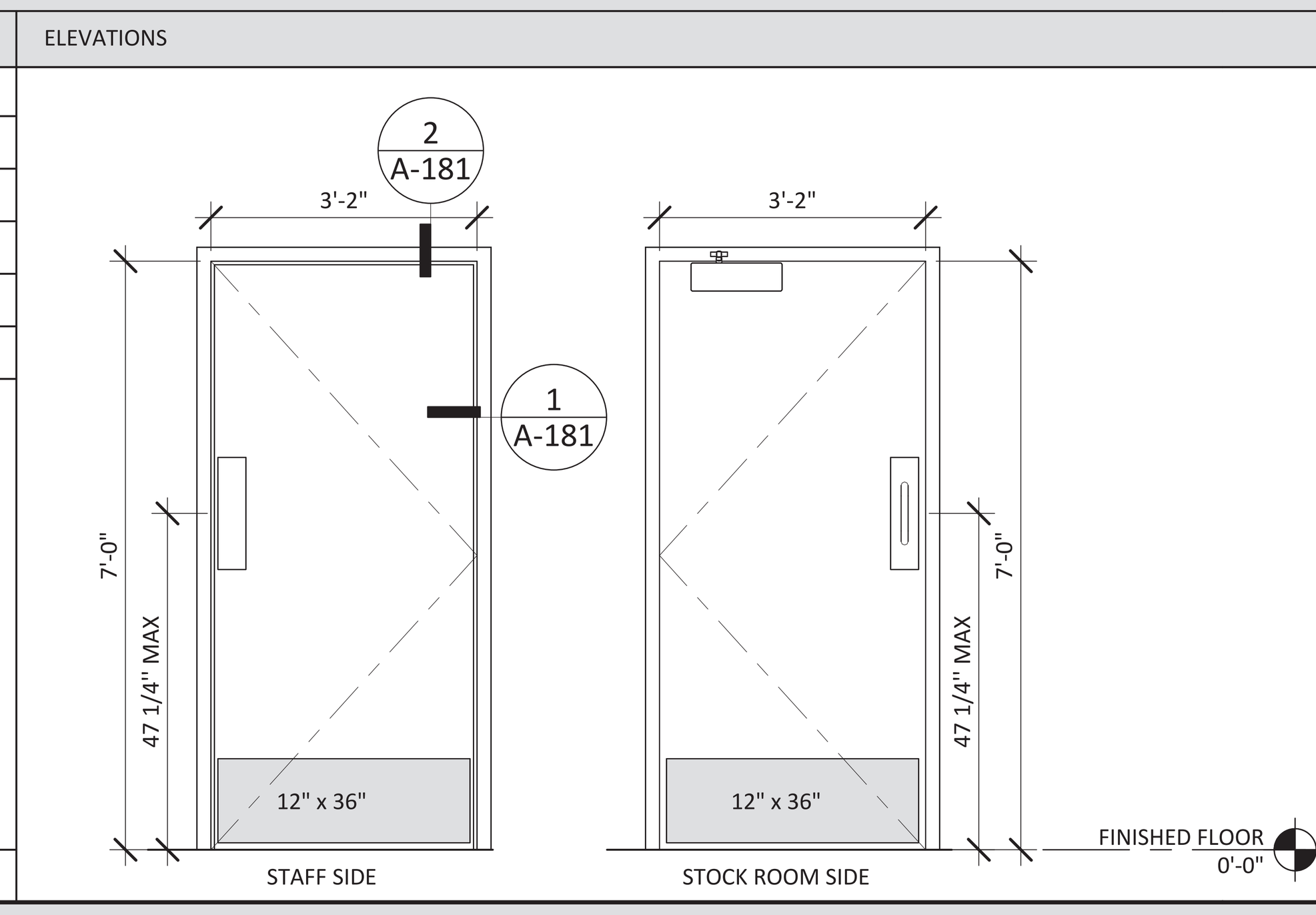
ELEVATIONS



STAFF ROOM DOOR

SYMBOL	DOOR SPECIFICATIONS	
D6	LOCATION	ENTRY TO STAFF ROOM
	TYPE	SOLID CORE WOOD DOOR
	MATERIAL	WOOD
	FINISH	P-3
	FRAME MATL	METAL - 18 GAUGE FOR REGULAR TRAFFIC (STANDARD 3-PIECE KNOCK-DOWN)
	FRAME FINISH	P-3
	HARDWARE	PIVOTS/HINGES: 1 1/2 PAIR x HAGER BB1279 4 1/2" x 4 1/2", L1 FLAT BLACK PULL/PUSH: 1 SET x ROCKWOOD 110 x 73C/73CL BSP KICKPLATE: 2 x IVES 12"x34" 8400 BLK CLOSER: 1 x YALE 4400-1-0-M-BSP NOTE: CLOSER SHOULD ALWAYS BE ATTACHED TO THE DOOR AT THE TOP JAMB ON THE PULL SIDE - USE STANDARD ARM. DOOR STOP: 1 x ROCKWOOD 400 BSP (WALL MOUNTED) 2 x ROCKWOOD 400 WSP (LOCATE ON WALL ADJACENT TO REFRIGERATOR AT POINT OF CONTACT OF DOOR HANDLES.) SILENCERS: 3 x HAGER - 307D
	NOTES	

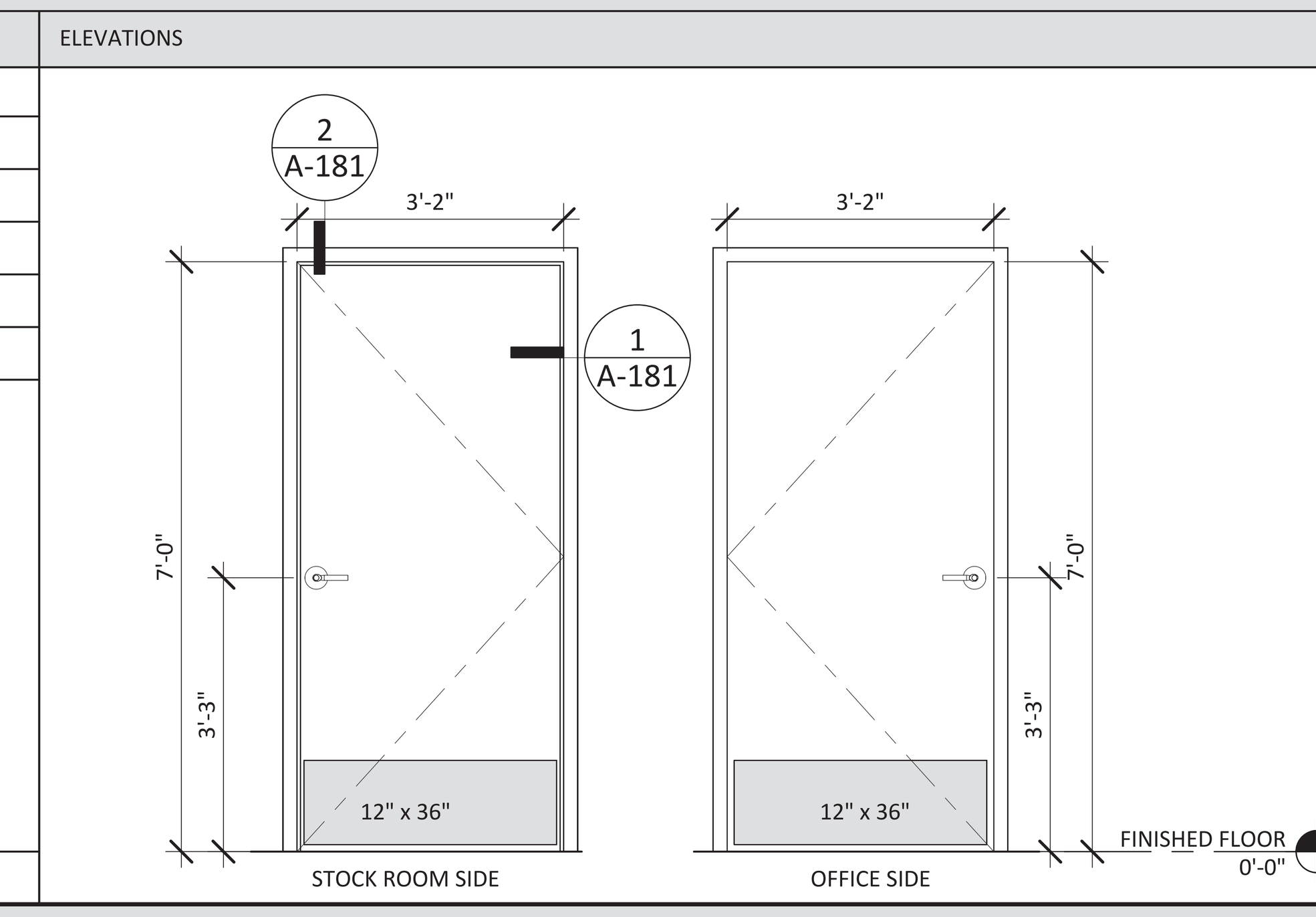
ELEVATIONS



OFFICE ROOM DOOR

SYMBOL	DOOR SPECIFICATIONS	
D7	LOCATION	ENTRY TO OFFICE
	TYPE	SOLID CORE WOOD DOOR
	MATERIAL	WOOD
	FINISH	P-3
	FRAME MATL	METAL - 18 GAUGE FOR REGULAR TRAFFIC (STANDARD 3-PIECE KNOCK-DOWN)
	FRAME FINISH	P-3
	HARDWARE	PIVOTS/HINGES: (1 1/2) PAIR x HAGER BB1279 4 1/2" x 4 1/2", L1 FLAT BLACK LEVER/LOCKSET/ CYLINDER: SCHLAGE LATITUDE LEVER IN MATTE BLACK(622), ALX50B OFFICE LOCK WITH BLACK SFIC 7-PIN INSTAKEY CYLINDER DOOR STOP: (1) ROCKWOOD 400 BSP (WALL MOUNTED) SILENCERS: (3) HAGER - 307D KICKPLATE: (2) IVES 12X34 8400 BLK
	NOTES	

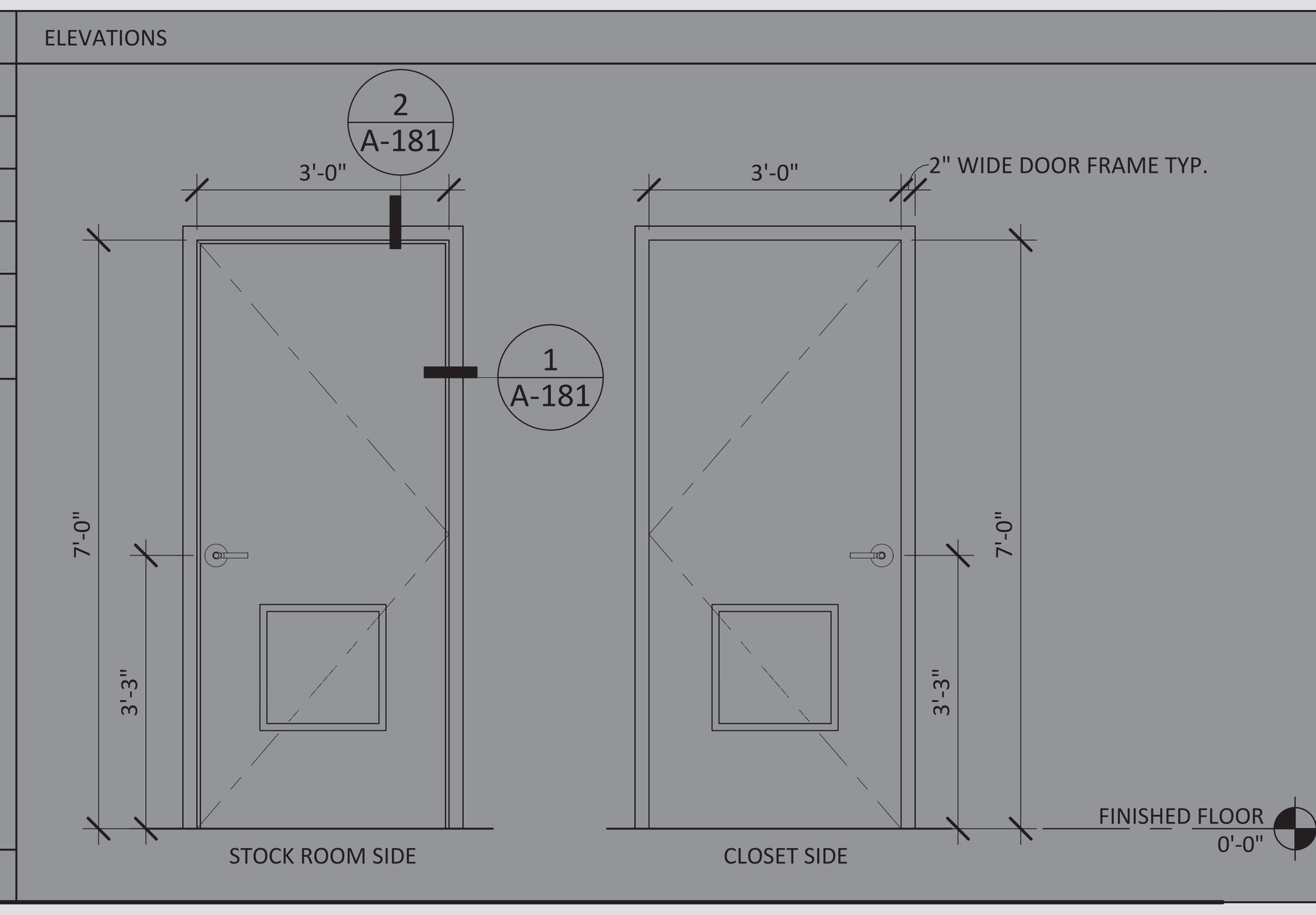
ELEVATIONS



NETWORK CLOSET DOOR

SYMBOL	DOOR SPECIFICATIONS	
D8	LOCATION	ENTRY TO NETWORK CLOSET
	TYPE	SOLID CORE WOOD DOOR
	MATERIAL	WOOD
	FINISH	P-3
	FRAME MATL	METAL - 18 GAUGE FOR REGULAR TRAFFIC (STANDARD 3-PIECE KNOCK-DOWN)
	FRAME FINISH	P-3
	HARDWARE	PIVOTS/HINGES: 1 1/2 PAIR x HAGER BB1279 4 1/2" x 4 1/2", L1 FLAT BLACK LEVER/LOCKSET/CYLINDER: SCHLAGE LATITUDE LEVER IN MATTE BLACK(622), ALX80B STOREROOM LOCK WITH BLACK SFIC 7-PIN INSTAKEY CYLINDER DOOR STOP: 1 x ROCKWOOD 400 BSP (WALL MOUNTED) SILENCERS: 3 x HAGER - 307D GRILLE: 18X18 TITUS CT-700
	NOTES	

ELEVATIONS

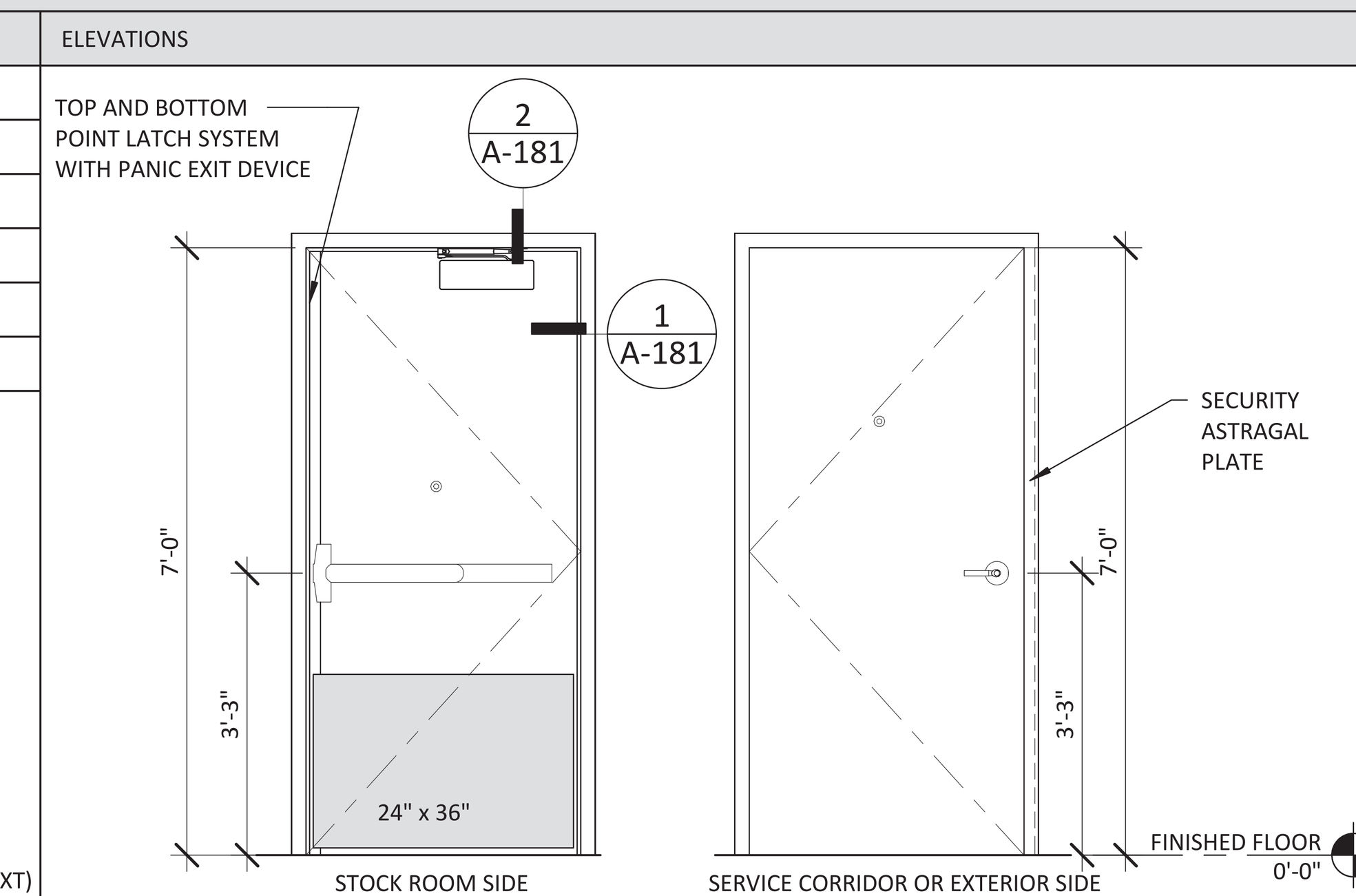


EGRESS DOOR

SYMBOL	DOOR SPECIFICATIONS	
D9	LOCATION	EGRESS
	TYPE	EXISTING
	MATERIAL	EXISTING
	FINISH	P-3
	FRAME MATL	METAL - 16 GAUGE FOR HIGH TRAFFIC (STANDARD 3-PIECE KNOCK-DOWN)
	FRAME FINISH	P-3
	HARDWARE	PIVOTS/HINGES: 1 1/2 PAIR x HAGER BB1279 4 1/2 X 4 1/2, L1 FLAT BLACK CLOSER: 1 x YALE PA-4400-0-0-M-BSP (PARALLEL ARM, NON-HOLD OPEN) NOTE: CLOSER SHOULD ALWAYS BE ATTACHED TO THE TOP JAMB AT THE PUSH SIDE - USE PARALLEL ARM. KICKPLATE: 1 x IVES 24"x34" 8402 BLK PANIC BAR: DETEX V40XEB PANIC BAR W/ INTEGRATED ALARM BYPASS AND SFIC 7-PIN INSTAKEY CYLINDER PEEP HOLE: 1 x PHS SUPERVISION 45M132 (MOUNTED AT 5'-0" A.F.F.) DOOR ALARM: DETEX V40XEB PANIC BAR W/ INTEGRATED ALARM BYPASS DOOR STOP: 1 x ROCKWOOD 400 BSP (WALL MOUNTED) DOOR HOLD-OPEN: ROCKWOOD 461-BSP (DO NOT INSTALL AT FIRE-RATED WALL) SILENCERS: 3 x HAGER - 307D FIRE/SMOKE SEAL: PEMKO PK33BL, COLOR: BLACK DOOR SHOE: PEMKO 216AV, MILL FINISH ALUMINUM (AT EXTERIOR / FIRE RATED ONLY) THRESHOLD: PEMKO 252X3AFG, MILL FIN ALUM, THERMAL BARRIER SADDLE (AT EXT) PEMKO 270, MILL FIN ALUM, SADDLE (AT INT NO FLOOR LEVEL CHANGE) PEMKO 229, MILL FIN ALUM, SADDLE (AT INT W/ FLOOR LVL CHANGE)

NOTE: EXISTING DOOR TO REMAIN. GC TO INVESTIGATE IF EXISTING DOOR AND HARDWARE ARE IN GOODWORKING CONDITION. PROVIDE AND INSTALL ANY MISSING HARDWARE PER ABOVE.

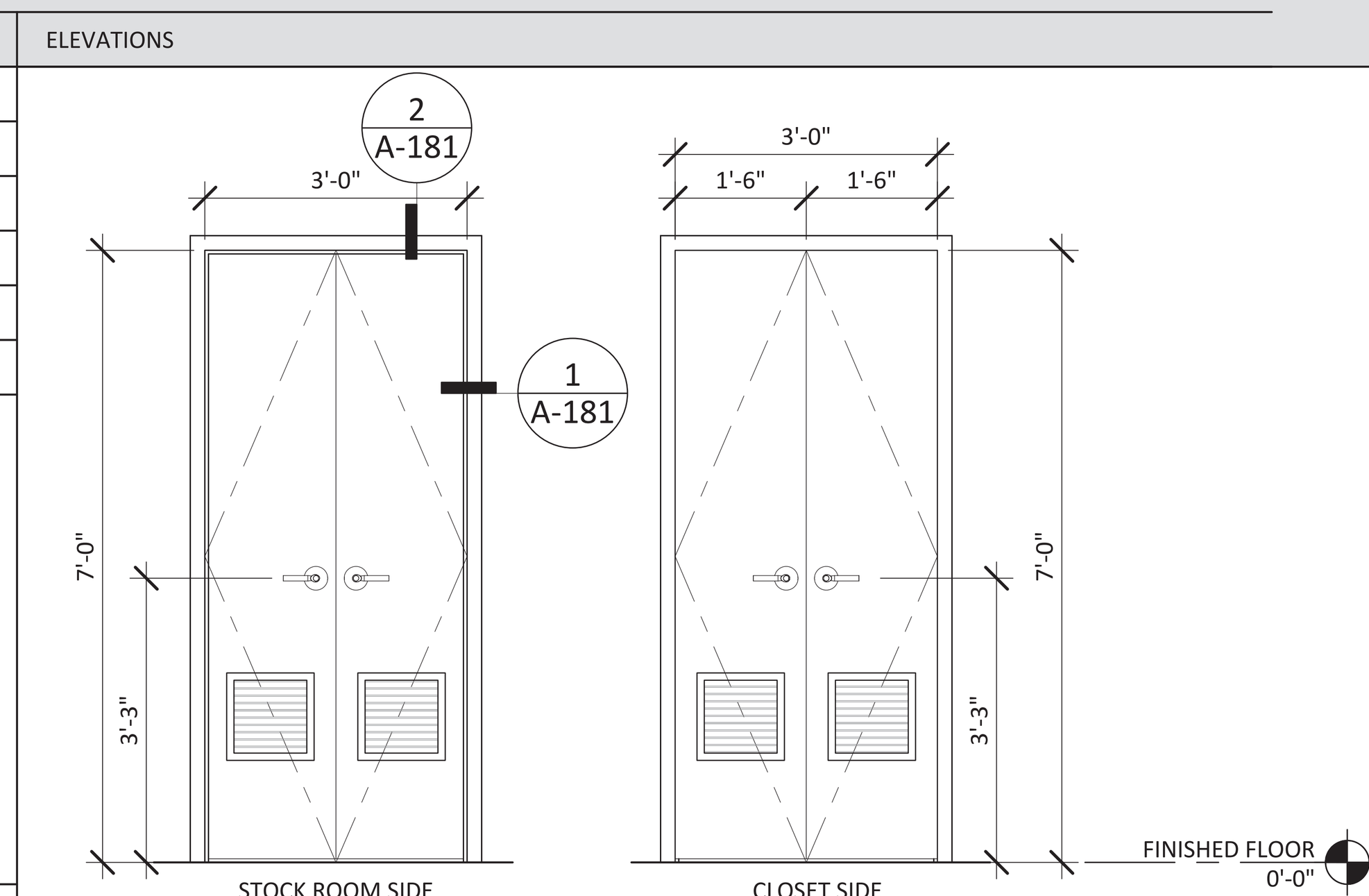
ELEVATIONS



NETWORK CLOSET DOOR

SYMBOL	DOOR SPECIFICATIONS	
D8 ALT	LOCATION	ENTRY TO NETWORK CLOSET
	TYPE	SOLID CORE WOOD DOOR (PAIR)
	MATERIAL	WOOD
	FINISH	P-3
	FRAME MATL	METAL - 18 GAUGE FOR REGULAR TRAFFIC (STANDARD 3-PIECE KNOCK-DOWN)
	FRAME FINISH	P-3
	HARDWARE	PIVOTS/HINGES: 3 PAIR HAGER BB1279 4 1/2 X 4 1/2, L1 FLAT BLACK LEVER/LOCKSET/CYLINDER: SCHLAGE LATITUDE LEVER IN MATTE BLACK(622), ALX80B STOREROOM LOCK WITH BLACK SFIC 7-PIN INSTAKEY CYLINDER DOOR STOP: 1 X ROCKWOOD 400 BSP (WALL MOUNTED) GRILLE: 2 x 12X12 TITUS CT-700
	NOTES	

ELEVATIONS

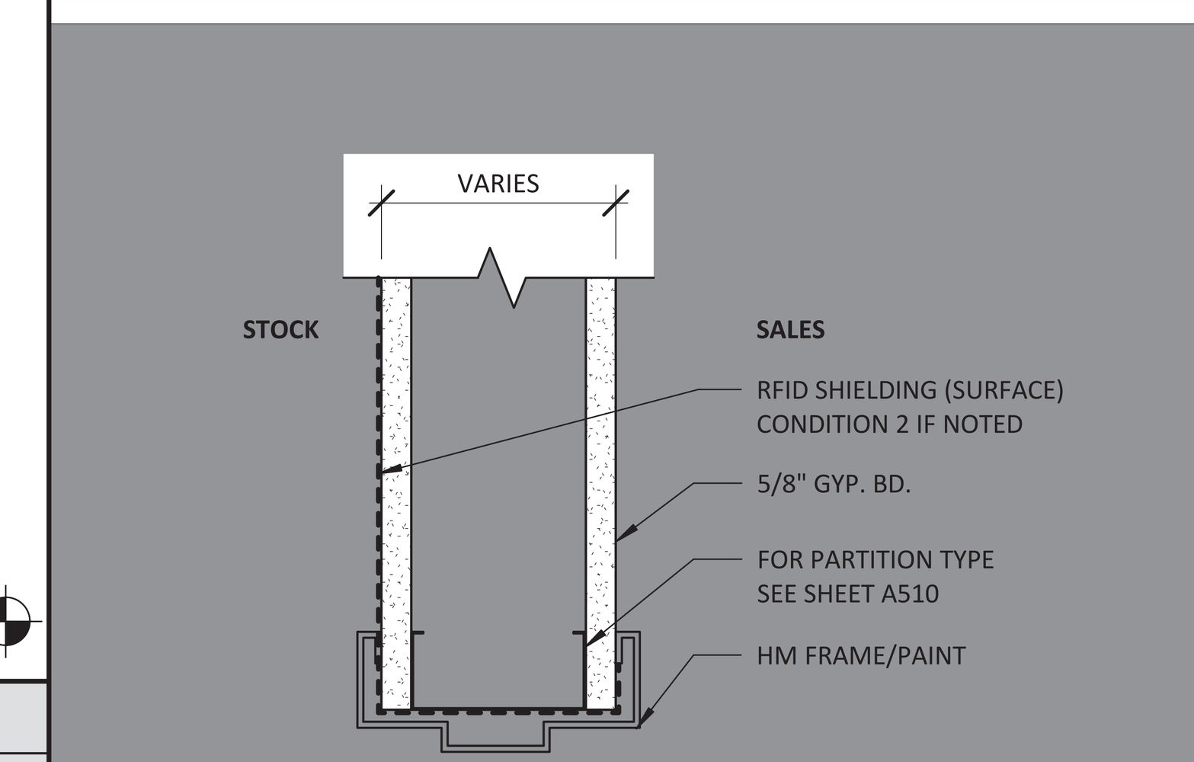


GENERAL NOTES

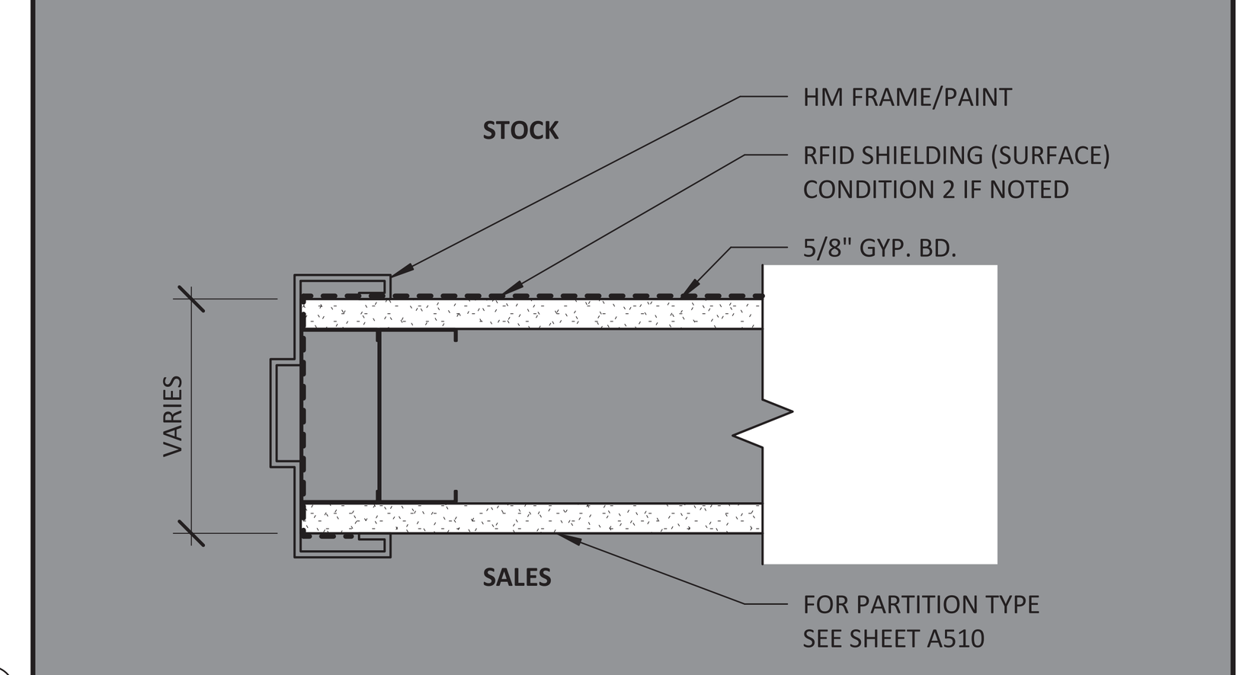
A. ALL DOOR HARDWARE, INCLUDING LOCKS AND KEYING IS TO BE STANLEY/ BEST UNO - WITHOUT SUBSTITUTIONS
B. ALL WITHIN EACH STORE ARE KEYED ALIKE UNDER INSTAKEY SYSTEM
C. EACH STORE IS ISSUED 10 SERIALIZED PREMIUM KEYS
D. THRESHOLDS AT DOORWAYS SHALL NOT EXCEED 1/2" IN HEIGHT. RAISED THRESHOLDS AT DOORWAYS SHALL BE BEVELED WITH A SLOPE NOT GREATER THAN ONE UNIT VERTICAL IN TWO UNITS HORIZONTAL (50%) SLOPE
E. NEW PAINTED WOOD DOORS ARE TO BE PAINT GRADE
F. IF EXISTING DOORS ARE IN GOOD CONDITION REFINISH AND REUSE
G. ALL "INSTAKEY" AND KEYS ARE FURNISHED BY LLL AND INSTALLED BY GC
H. REFER TO FITROOM PLANS AND ELEVATIONS SHEET A-310 FOR FITROOM DOOR DETAILS
I. REFER TO FINISH SCHEDULE ON SHEET A-120 FOR SPECIFICATION, PROCUREMENT AND INSTALLATION RESPONSIBILITY FOR ALL FINISH MATERIALS
J. REFER TO FIXTURE SCHEDULE ON SHEET A-130 FOR SPECIFICATION, PROCUREMENT AND INSTALLATION RESPONSIBILITY FOR ALL FIXTURE ELEMENTS
K. COORDINATE S4 AND S5 DOOR PULL INSTALLATION TEMPLATE AND INSTRUCTIONS WITH LULULEMON VENDOR. DOOR PULLS COME WITH CUSTOM ETCHED NOTES FOR INTERIOR AND EXTERIOR SIDES

DOOR SERIES

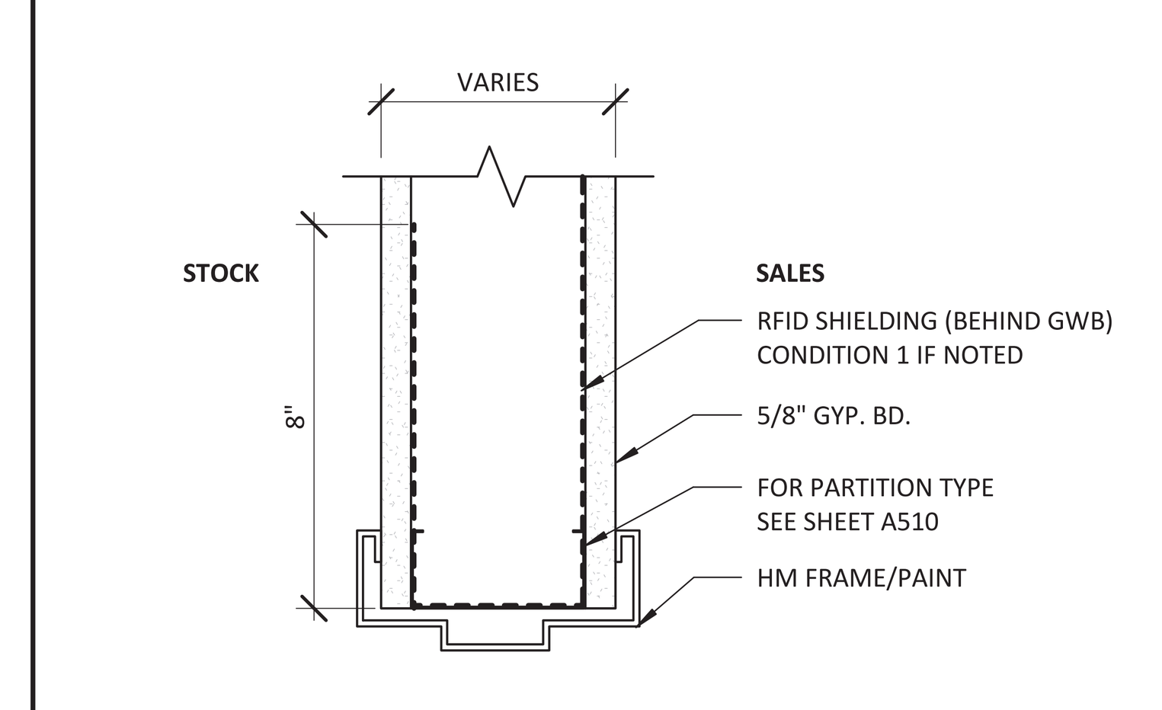
S1-S5	STOREFRONT DOOR; SEE SHEET A-410
D2	SALES TO BOH DOOR
D3	SALES RESTROOM DOOR
D4	BOH RESTROOM DOOR
D5	MOP CLOSET DOOR
D6	STAFF ROOM DOOR
D7	OFFICE ROOM DOOR
D8	NETWORK CLOSET DOOR
D9	EGRESS DOOR
OTHER	LLL-V FITROOM DOOR (SEE A-130 FOR FIXTURE SCHEDULE AND A-310)



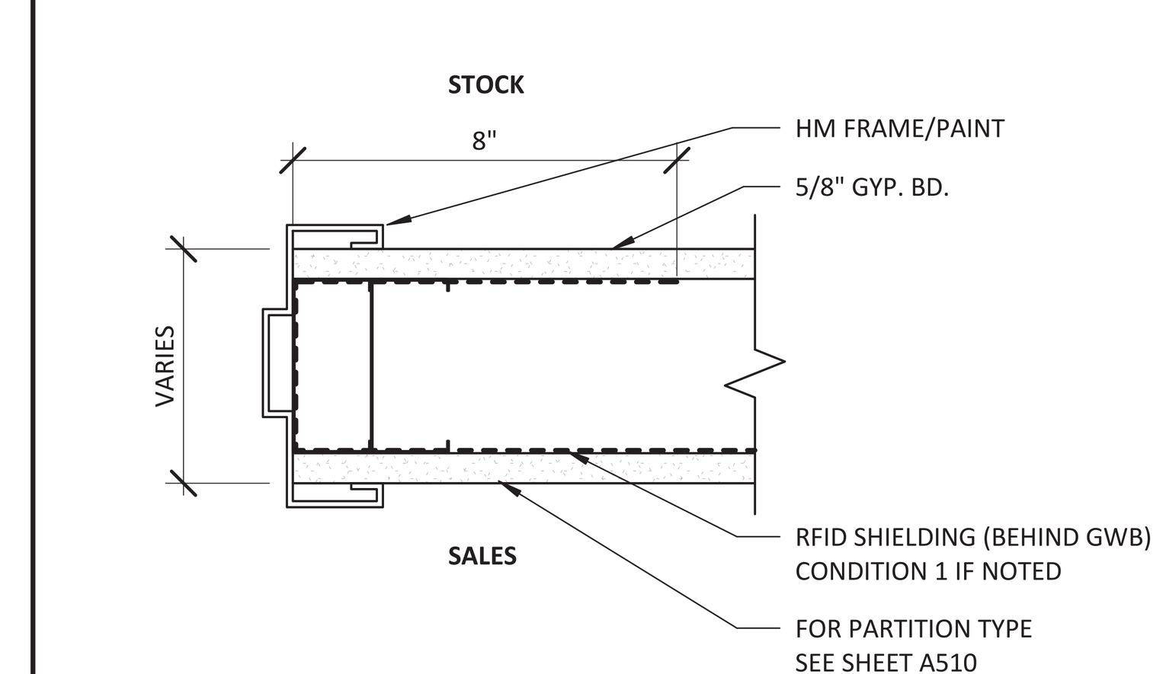
4 DOOR HEAD DETAIL - RFID COND. 2
SCALE: 3" = 1'-0"



3 DOOR JAMB DETAIL - RFID COND. 2
SCALE: 3" = 1'-0"



2 DOOR HEAD DETAIL - RFID COND. 1
SCALE: 3" = 1'-0"



1 DOOR JAMB DETAIL - RFID COND. 1
SCALE: 3" = 1'-0"

lululemon
1818 CORNWALL AVE.
VANCOUVER, B.C., V6J1C7

CF POLO PARK
1485 Portage Ave, Unit 144E
Winnipeg, MB
R3G 0W5
CRU NUMBER: 144E

Quadrangle
Quadrangle Architects Limited
The Well, 8 Spadina Avenue, Suite 2100, Toronto, ON M5V 0S8
t 416 598 1240 www.bdpquadrangle.com

ARCHITECT SEAL

ONTARIO ASSOCIATION OF ARCHITECTS
KIRTIDEV MEHTA
LICENCE
8099

ISSUED FOR CONSTRUCTION
07/14/2023

△	DATE	DESCRIPTION
	05/05/2023	DESIGN DEVELOPMENT
	06/09/2023	PERMIT/CONSTRUCTION
	06/09/2023	ISSUED FOR BID
	07/14/2023	ISSUED FOR CONSTRUCTION

DRAWING INFORMATION
PROJECT #: 23206
CHECKED BY: NA
DRAWN BY: MP

DOOR SCHEDULE & DETAILS

DRAWING NUMBER
A-181

7/14/2023 12:12:39 PM

GENERAL NOTES

A. SEE SHEET A-131 FIXUTRE PLAN FOR SPACING AND EXACT LOCATIONS OF ALL WALL FIXTURES. ALL QUANTITIES SHOULD BE VERIFIED BY LULULEMON VENDOR. PRIOR TO ORDERING AND INSTALLATION. GC TO CHECK ALL QUANTITIES OF MILLWORK UPON DELIVERY.

B. PAINT FINISH BY GC - SEE SHEET A-120 FINISH SCHEDULE FOR PAINT SPECIFICATION. VERIFY ALL PAINT COLOR LOCATIONS ON SHEET A-121 FINISH PLAN. NOTIFY LULULEMON CONSTRUCTION MANAGER OF ANY CONFLICTS BEFORE PROCEEDING WITH PAINTING. PAINT ALL EXPOSED LULULEMON VENDOR PROVIDED FITROOM PANELS THAT ARE NOT OAK FINISH.

C. SEE SHEET A-150 REFLECTED CEILNG PLAN FOR LIGHT FIXTURE LOCATIONS AND SHEET E-121 LIGHT FIXTURE SCHEDULE FOR SPECIFICATIONS.

D. ALL WOODWORK ATTACHED TO THE PREMISES, BLOCKING, GROUNDS, ETC. SHALL BE FIRE RETARDANT AND COMPLY WITH THE LANDLORD'S AND BUILDING CODE REQUIREMENTS GOVERNING FIREPROOFING.

E. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS AT THE JOB SITE AND NOTIFY LULULEMON CONSTRUCTION MANAGER AS TO ANY DISCREPANCIES IMMEDIATELY.

F. ALL MILLWORK HARDWARE TO BE FURNISHED BY LULULEMON VENDOR AND INSTALLED BY GC, UNO.

G. ALL MILLWORK IS TO BE HANDLED UNDER SEPARATE CONTRACT BY LULULEMON UNO. GC TO COORDINATE SCHEDULING WITH LULULEMON VENDOR. SEE SHEET A-010 RESPONSIBILITY SCHEDULE.

H. ALL MIRROR GLASS TO BE FURNISHED BY GC, UNO, AND INSTALLED WITH ADHESIVE. GC TO USE TOP CLIPS (STAINLESS) AT ALL FRAMELESS INSTALLATIONS INCLUDING OVER LULULEMON VENDOR PROVIDED FITROOM PANELS.

I. SEE LULULEMON VENDOR PROVIDED CUT SHEETS FOR ALL FIXTURE FINISHES.

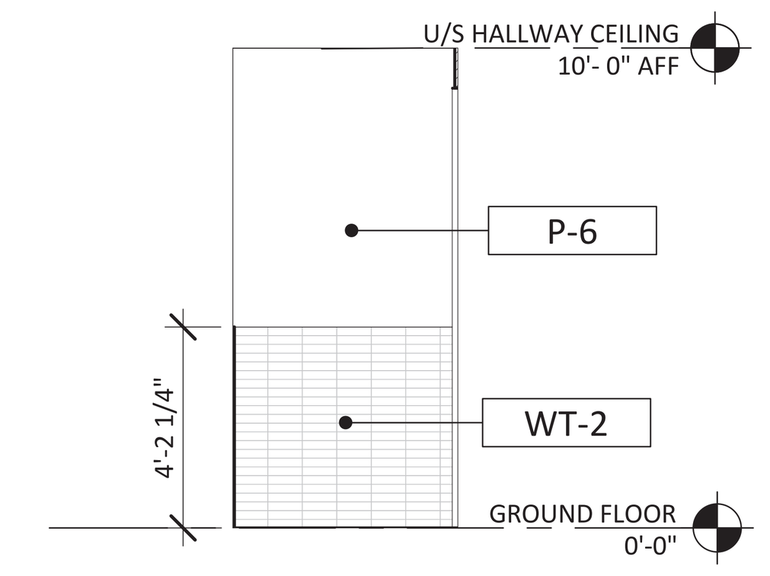
J. SEE SHEET A-120 FINISH SCHEDULE FOR SPECIFICATION, PROCUREMENT, AND INSTALLATION RESPONSIBILITY FOR ALL FINISH MATERIALS.

K. SEE SHEET A-130 FIXTURE SCHEDULE FOR SPECIFICATION, PROCUREMENT, AND INSTALLATION RESPONSIBILITY FOR ALL FIXTURE ELEMENTS.

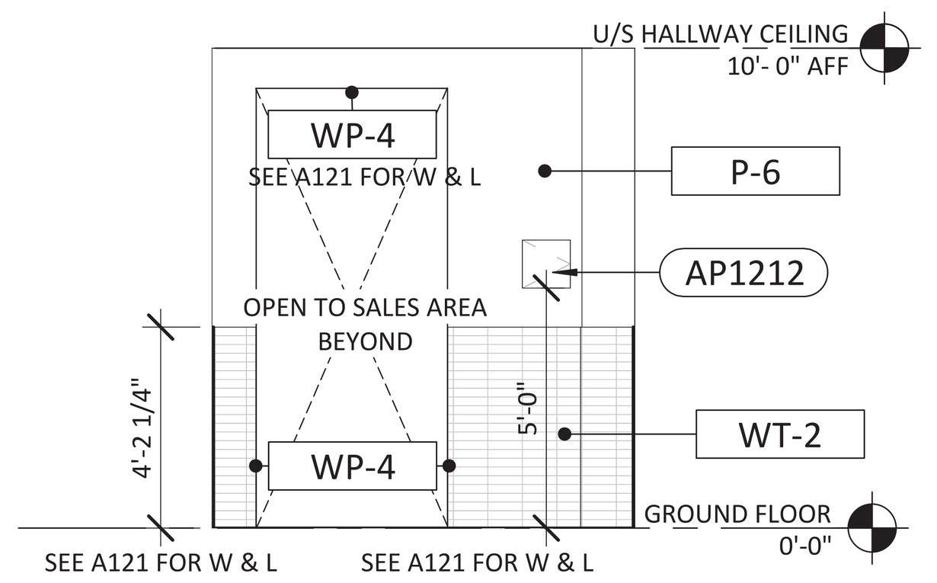
KEYNOTES

[#]- KEYNOTE SYMBOL ▇ - NOT USED

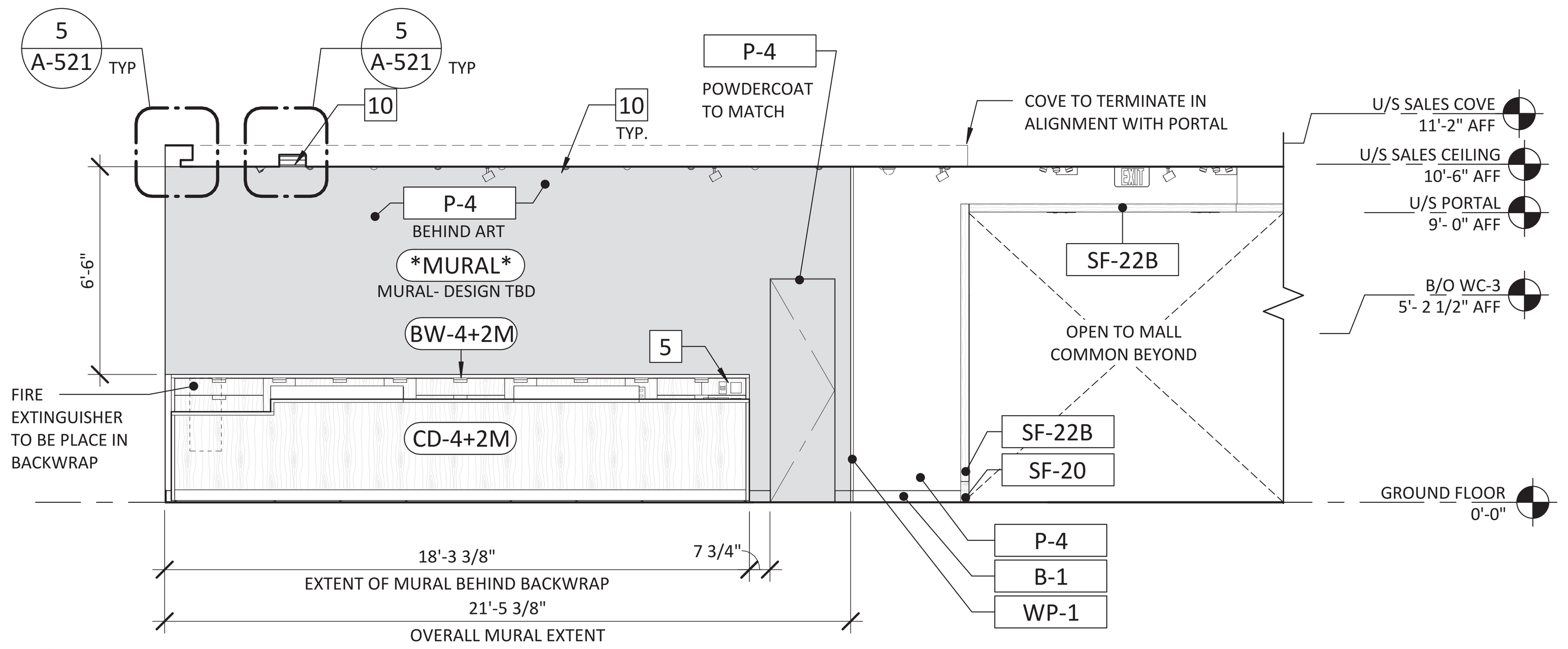
#	KEYNOTE
1	POWER OUTLET FOR LIGHTBOXES OUTLETS CENTERED BEHIND OUTRIGGER
2	CONVENIENCE POWER OUTLETS AT OUTRIGGER WALL TO BE CENTERED BEHIND OUTRIGGER
3	POWER OUTLETS FOR BACKLIT PANT WALL (SELECT STORES), SEE SHEET A-551 FOR DETAILS AND COORDINATE WITH LLL-V SHOP DWGS
4	POWER OUTLETS FOR BACKLIT BRA WALL (SELECT STORES) CENTERED BETWEEN OUTRIGGERS, SEE SHEET A-551 FOR DETAILS AND COORDINATE WITH LLL-V SHOP DWGS
5	POWER AND DATA OUTLETS IN BACKWRAP MILLWORK, SEE ELECTRICAL DWGS AND SHEET A-540 BACKWRAP DETAILS FOR MORE INFORMATION
6	POWER AND DATA OUTLETS FOR VIDEO WALL, SEE ELECTRICAL DWGS AND SHEET A-540 BACKWRAP DETAILS FOR MORE INFORMATION
7	SECURITY CAMERA MOUNTED TO CEILING OR SUSPENDED AT 12'-0" AFF, SEE SHEET A-170 FOR SCHEDULE AND PLACEMENT
8	TRAFFIC COUNTER, SEE SHEET A-170 FOR PLACEMENT
9	SPEAKER SUSPENDED AT 14'-0" AFF, SEE SHEET A-170 FOR SCHEDULE AND PLACEMENT
10	TRACK LIGHTS, SEE A-150 FOR LIGHTING SCHEDULE AND LAYOUT
11	MOUNT BOTTLE FILLER WITH PUSH BUTTON AT 48" AFF PER MANUFACTURER INSTRUCTIONS, G.C. TO USE MOISTURE RESISTANT GWB AT WATER FEATURE LOCATION
12	GC TO PROVIDE 24" X 24" SQUARE CORNER TAPE-IN ACCESS PANEL, SEE SHEET AS-130 FOR SPECIFICATION, FINISH TO MATCH ADJACENT WALL
13	PAINT LINE AT 12'-0" AFF
14	WALL MOUNTED ACCESSIBILITY SIGNAGE, SEE DETAIL 9/A-030 FOR MORE INFORMATION.
15	WALL MOUNTED EXIT OR EXIT ROUTE SIGNAGE
16	GC TO CUT DOWN CORNER WALL BASE AT CORNER PANT WALL TO ALIGN WITH RECESSED KICK ON PANT WALL FIXTURE AS REQUIRED.
17	FIRE ALARM PULL STATION AT 48"AFF MAX, SEE APPROVED VENDOR DRAWINGS
18	FIRE ALARM DEVICE SUSPENDED FROM DECK, SEE APPROVED VENDOR DRAWINGS
19	WALL MOUNTED FIRE ALARM DEVICE AT 7'-6"AFF, SEE APPROVED VENDOR DRAWINGS
20	PROVIDE POWER FOR OVERHEAD GRILLE KEYED OPERATING SWITCH AND EMERGENCY RELEASE AT 48" MAX
21	RECESSED AMBASSADOR FRAME, SEE OWNER SUPPLIED FIXTURE DRAWINGS FOR NICHE SIZE. SEE DETAILS A-541.



1J HALLWAY
SCALE: 1/4" = 1'-0"



IK HALLWAY
SCALE: 1/4" = 1'-0"



1G SALES AREA
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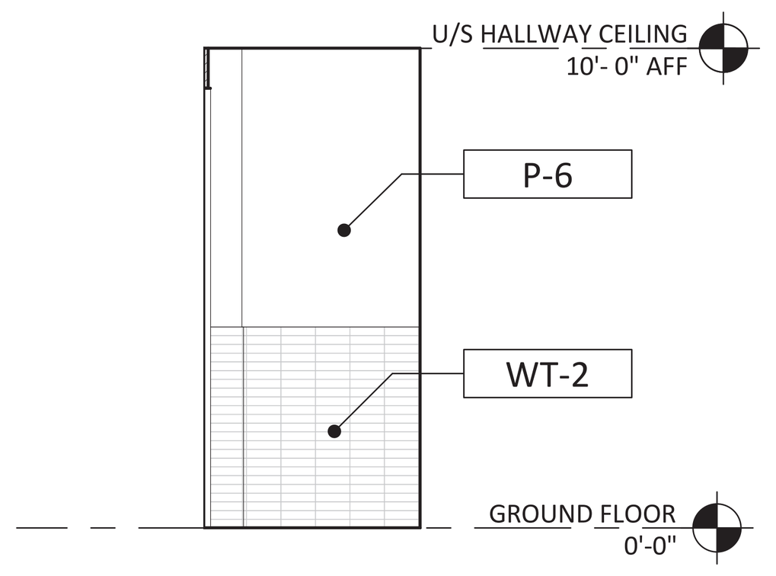

1H HALLWAY
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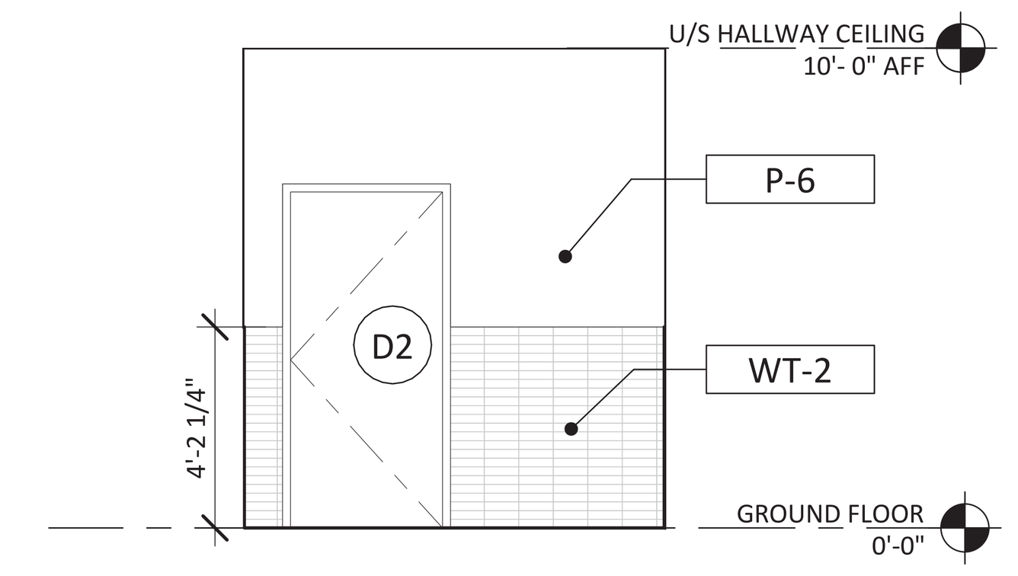

1I HALLWAY
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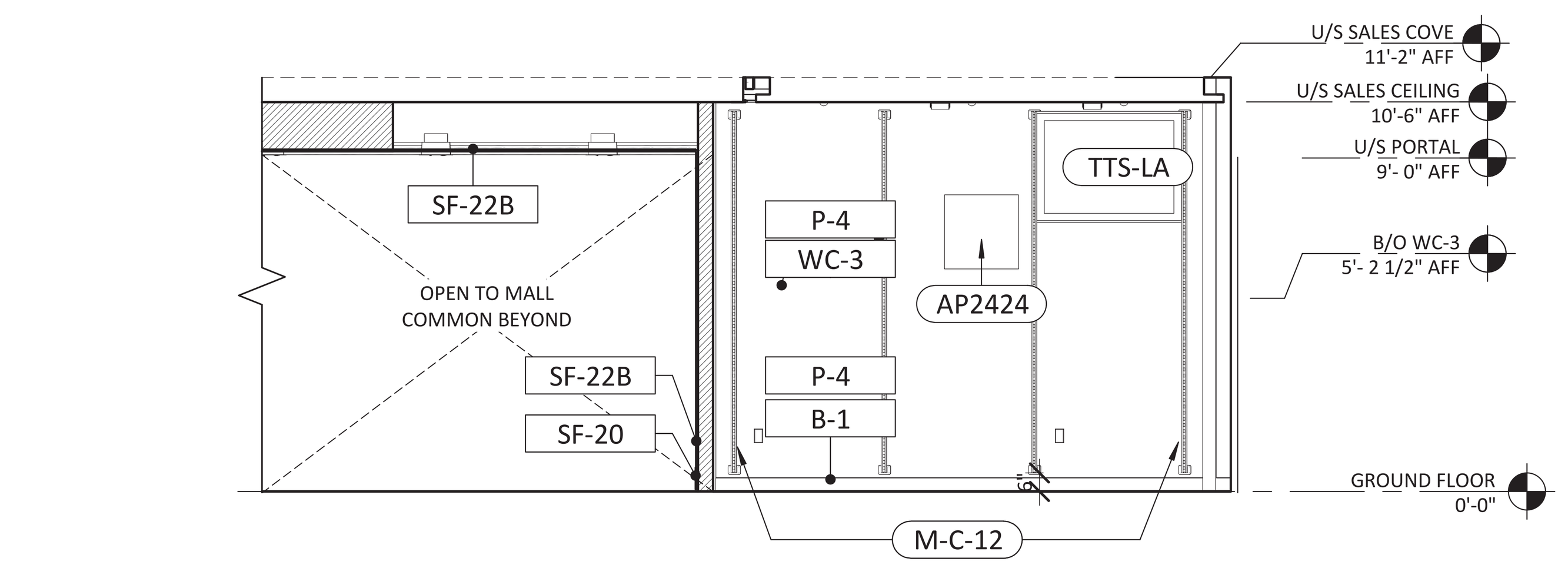

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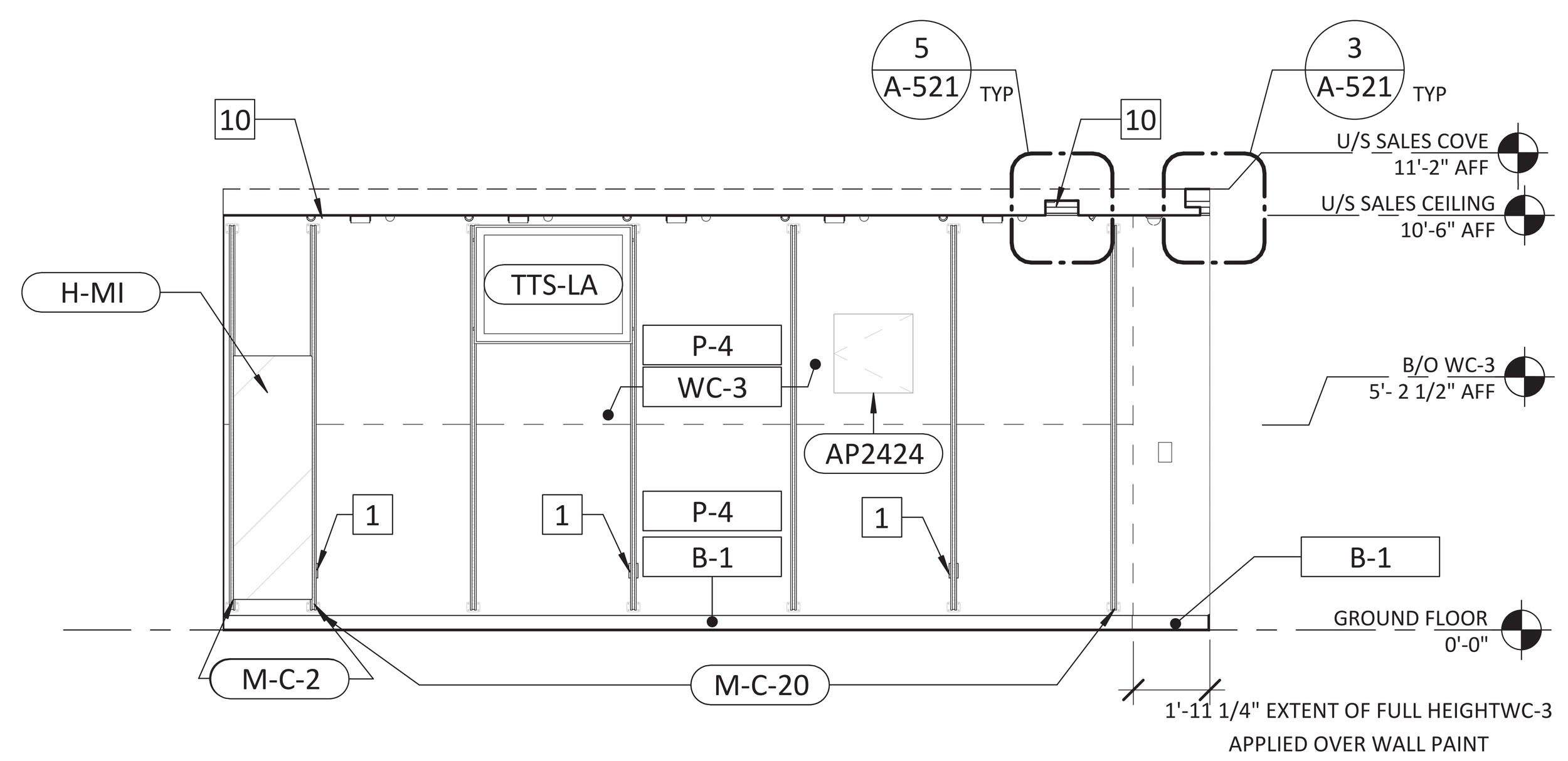

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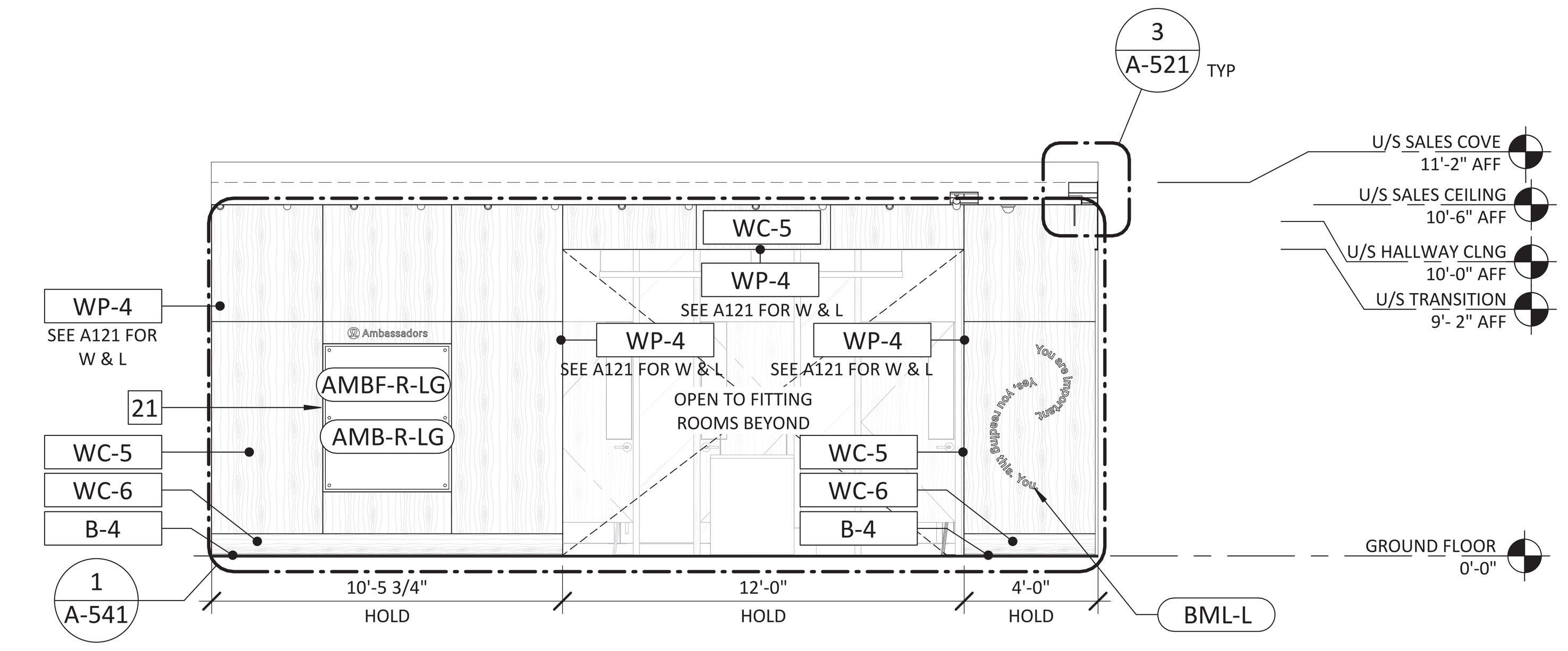

1D SALES AREA
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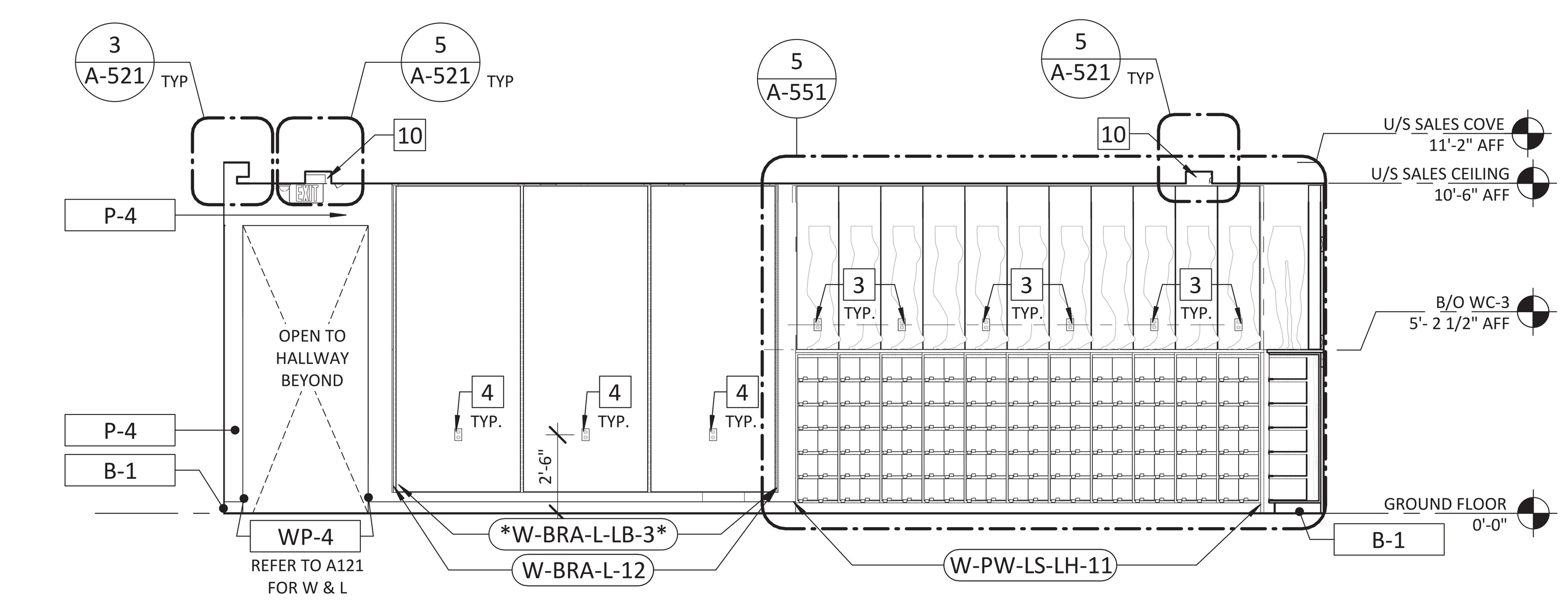

1C SALES AREA
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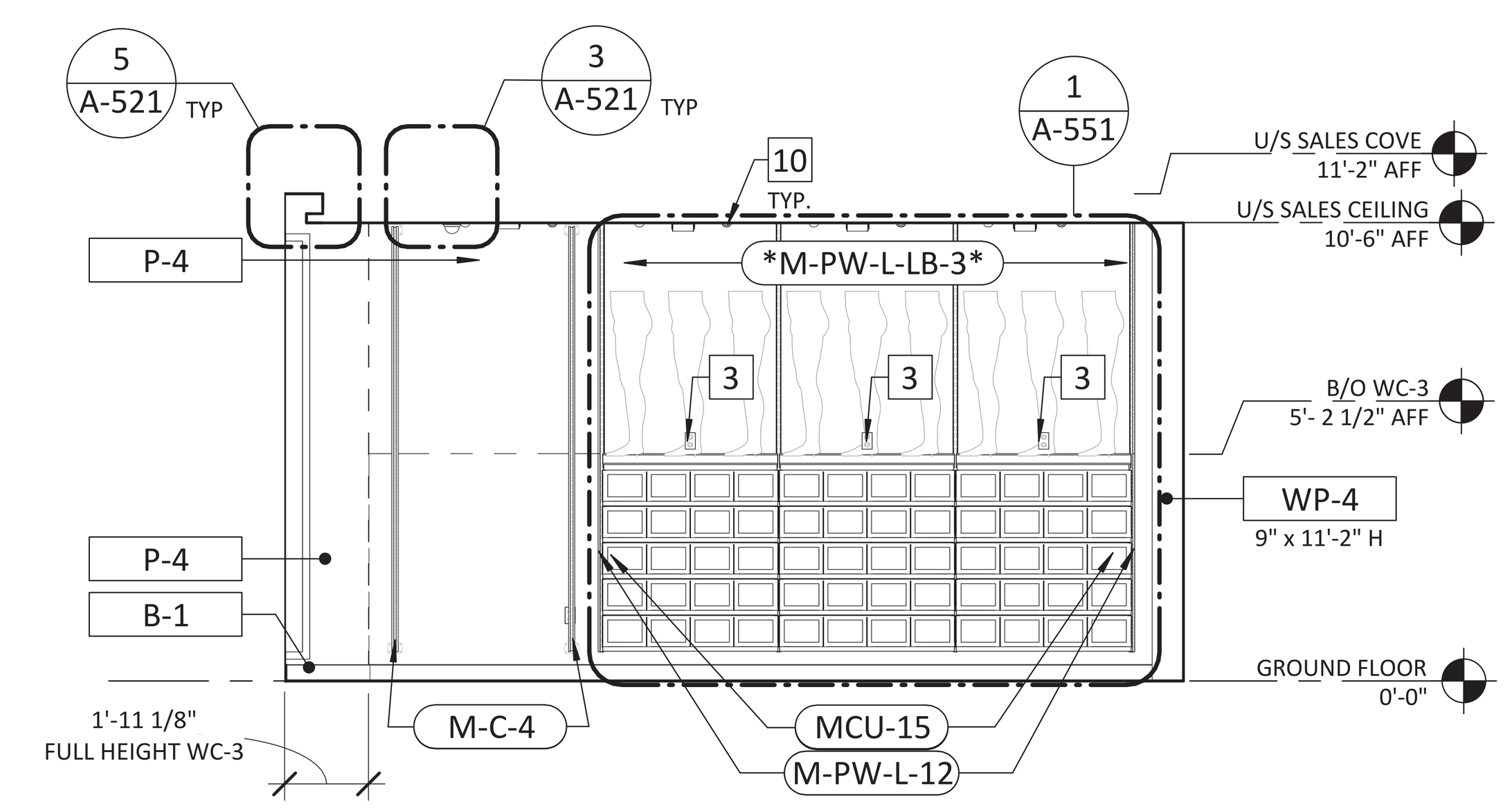

1B SALES AREA
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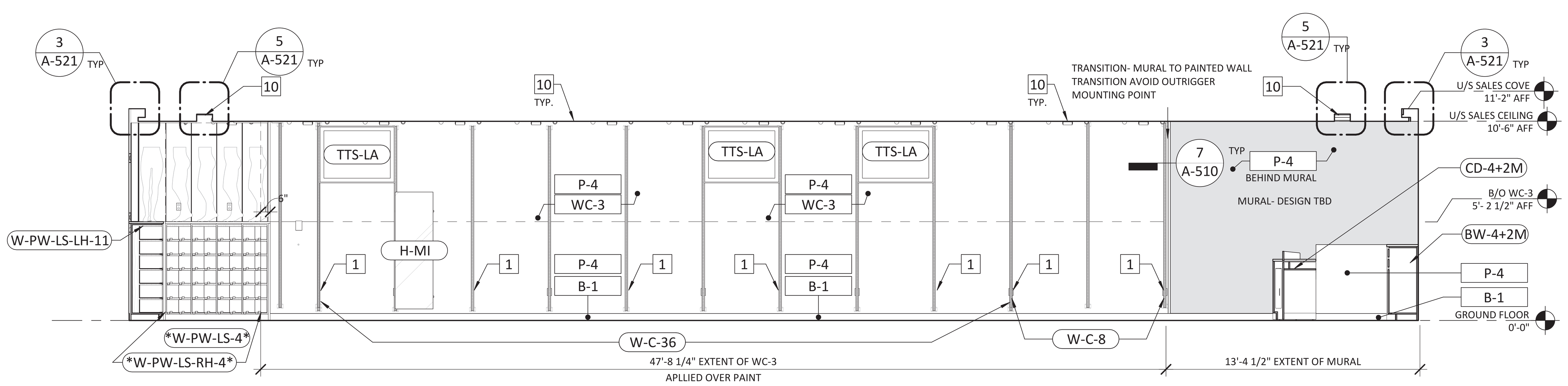

1A SALES AREA
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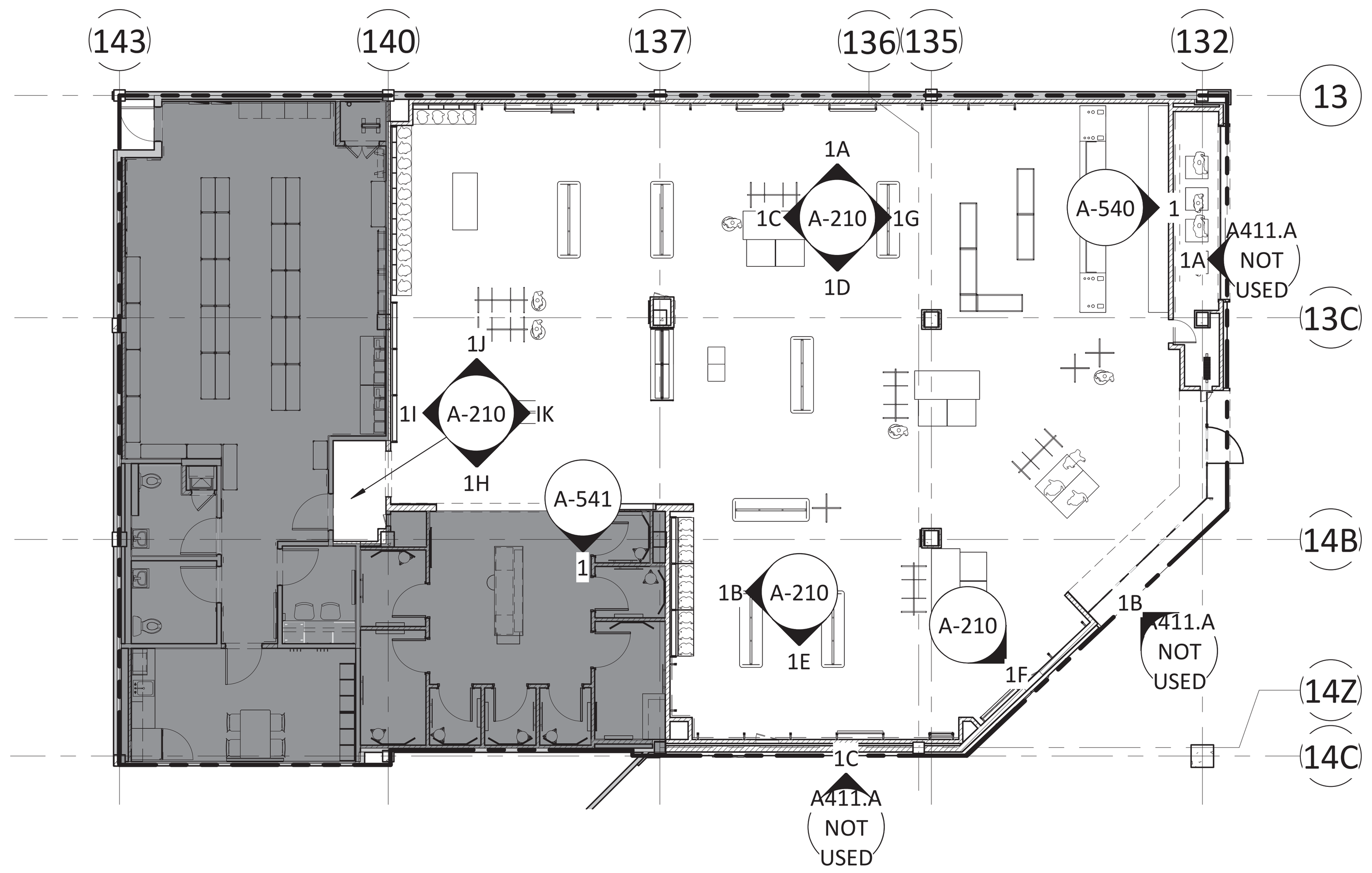


1 KEY PLAN - SALES AREA
SCALE: 3/32" = 1'-0"

lululemon
1818 CORNWALL AVE.
VANCOUVER, B.C., V6J1C7

CF POLO PARK
1485 Portage Ave, Unit 144E
Winnipeg, MB
R3G 0W5
CRU NUMBER: 144E

Quadrangle
Quadrangle Architects Limited
The Well, 8 Spadina Avenue, Suite 2100, Toronto, ON M5V 0S8
t 416 598 1240 www.bdpquadrangle.com

ARCHITECT SEAL

ONTARIO ASSOCIATION OF ARCHITECTS
KIRTIDEV MEHTA
LICENCE
8099

ISSUED FOR CONSTRUCTION

07/14/2023

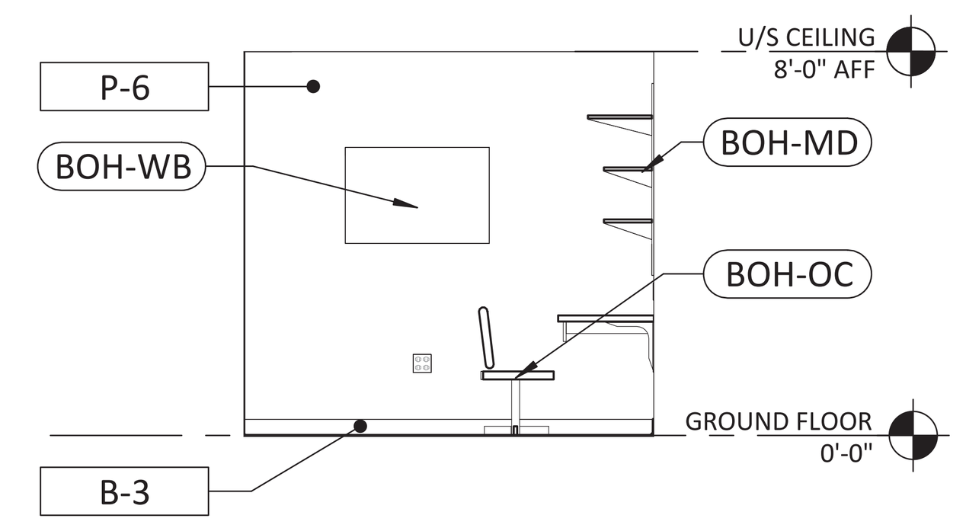
△	DATE	DESCRIPTION
	05/05/2023	DESIGN DEVELOPMENT
	06/09/2023	PERMIT/CONSTRUCTION
	06/09/2023	ISSUED FOR BID
	07/14/2023	ISSUED FOR CONSTRUCTION

DRAWING INFORMATION
PROJECT #: 23206
CHECKED BY: NA
DRAWN BY: MP

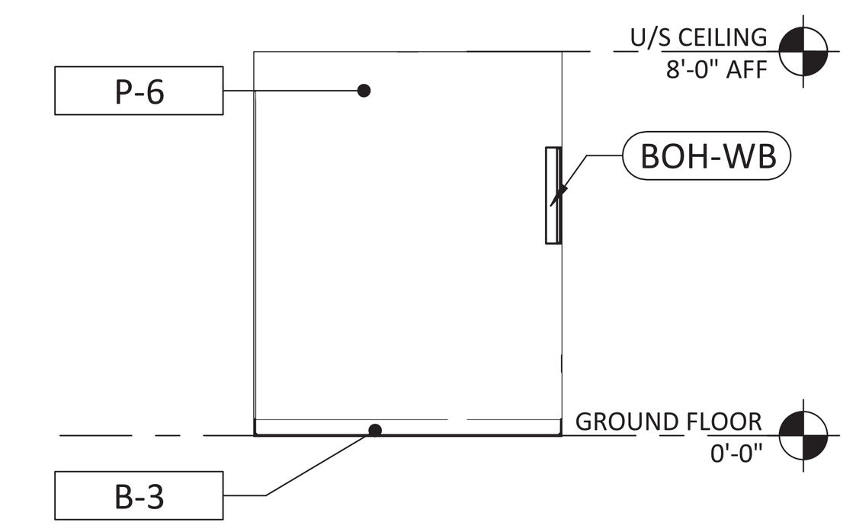
INTERIOR ELEVATIONS - SALES AREA

DRAWING NUMBER
A-210

7/14/2023 12:13:17 PM



3D OFFICE
SCALE: 1/4" = 1'-0"



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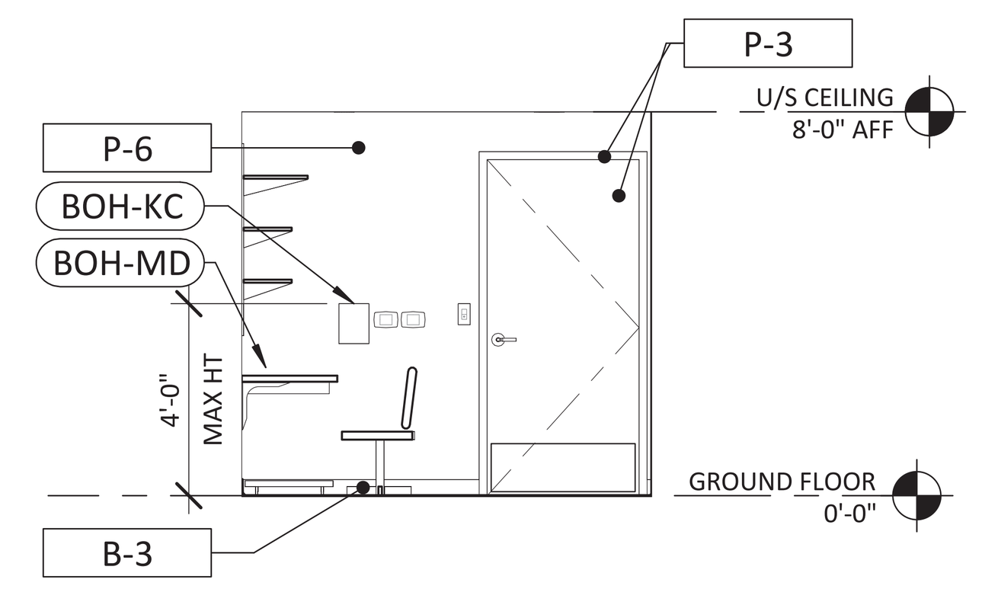
SCALE: 1/4" = 1'-0"



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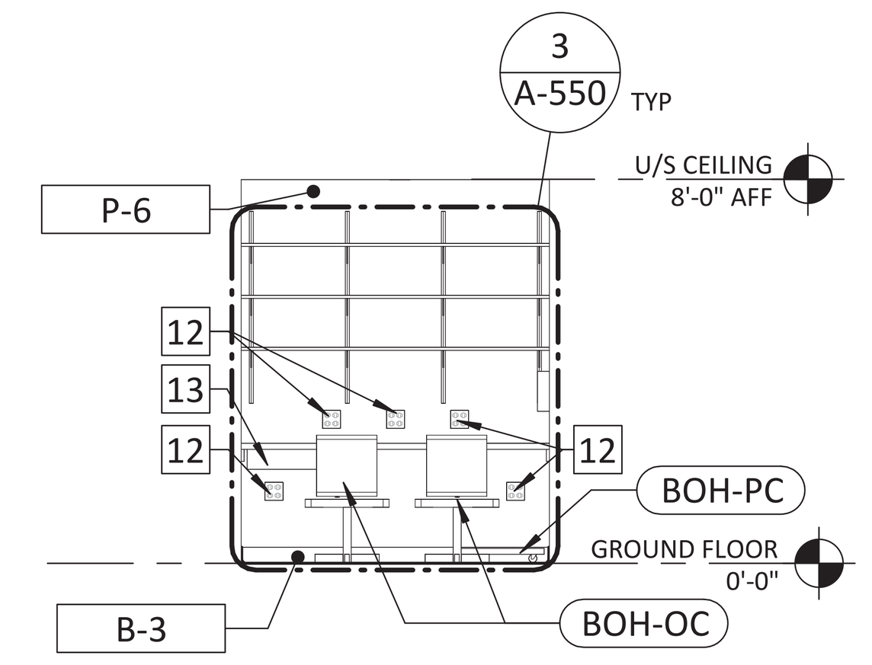
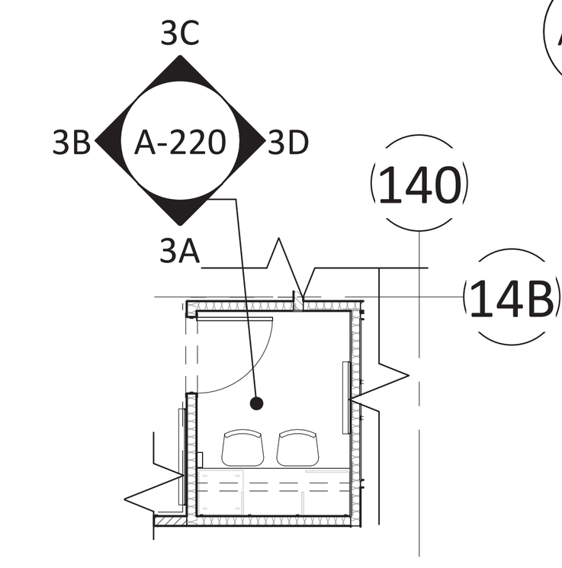


3A OFFICE
SCALE: 1/4" = 1'-0"



3 KEY PLAN - OFFICE
SCALE: 1/8" = 1'-0"

GENERAL NOTES

A. SEE SHEET A-131 FIXUTRE PLAN FOR SPACING AND EXACT LOCATIONS OF ALL WALL FIXTURES. ALL QUANTITIES SHOULD BE VERIFIED BY LULULEMON VENDOR. PRIOR TO ORDERING AND INSTALLATION. GC TO CHECK ALL QUANTITIES OF MILLWORK UPON DELIVERY.

B. PAINT FINISH BY GC - SEE SHEET A-120 FINISH SCHEDULE FOR PAINT SPECIFICATION. VERIFY ALL PAINT COLOR LOCATIONS ON SHEET A-121 FINISH PLAN. NOTIFY LULULEMON CONSTRUCTION MANAGER OF ANY CONFLICTS BEFORE PROCEEDING WITH PAINTING. PAINT ALL EXPOSED LULULEMON VENDOR PROVIDED FITROOM PANELS THAT ARE NOT OAK FINISH.

C. SEE SHEET A-150 REFLECTED CEILNG PLAN FOR LIGHT FIXTURE LOCATIONS AND SHEET E-121 LIGHT FIXTURE SCHEDULE FOR SPECIFICATIONS.

D. ALL WOODWORK ATTACHED TO THE PREMISES, BLOCKING, GROUNDS, ETC. SHALL BE FIRE RETARDANT AND COMPLY WITH THE LANDLORD'S AND BUILDING CODE REQUIREMENTS GOVERNING FIREPROOFING.

E. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS AT THE JOB SITE AND NOTIFY LULULEMON CONSTRUCTION MANAGER AS TO ANY DISCREPANCIES IMMEDIATELY.

F. ALL MILLWORK HARDWARE TO BE FURNISHED BY LULULEMON VENDOR AND INSTALLED BY GC, UNO.

G. ALL MILLWORK IS TO BE HANDLED UNDER SEPARATE CONTRACT BY LULULEMON UNO. GC TO COORDINATE SCHEDULING WITH LULULEMON VENDOR. SEE SHEET A-010 RESPONSIBILITY SCHEDULE.

H. ALL MIRROR GLASS TO BE FURNISHED BY GC, UNO, AND INSTALLED WITH ADHESIVE. GC TO USE TOP CLIPS (STAINLESS) AT ALL FRAMELESS INSTALLATIONS INCLUDING OVER LULULEMON VENDOR PROVIDED FITROOM PANELS.

I. SEE LULULEMON VENDOR PROVIDED CUT SHEETS FOR ALL FIXTURE FINISHES.

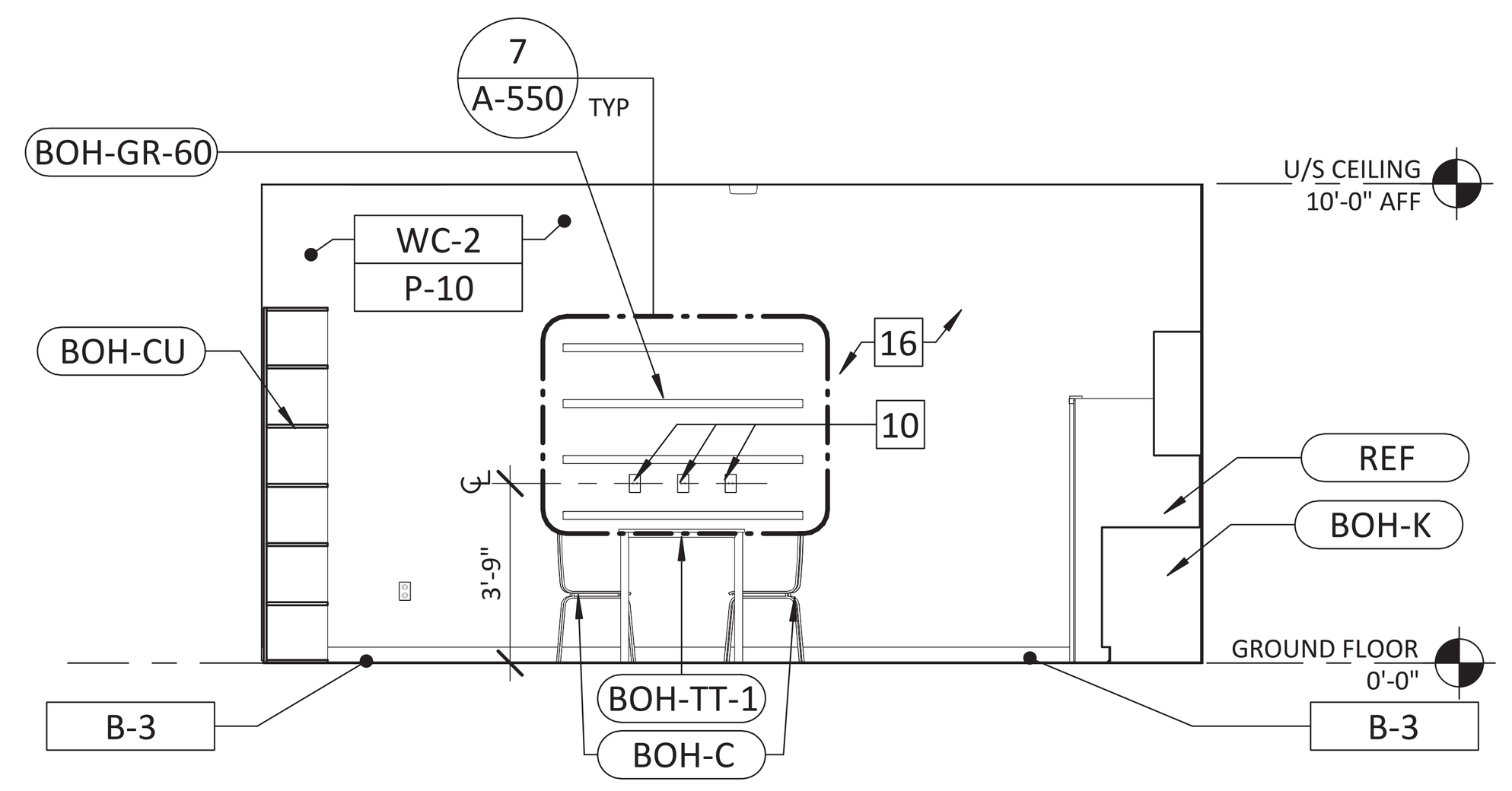
J. SEE SHEET A-120 FINISH SCHEDULE FOR SPECIFICATION, PROCUREMENT, AND INSTALLATION RESPONSIBILITY FOR ALL FINISH MATERIALS.

K. SEE SHEET A-130 FIXTURE SCHEDULE FOR SPECIFICATION, PROCUREMENT, AND INSTALLATION RESPONSIBILITY FOR ALL FIXTURE ELEMENTS.

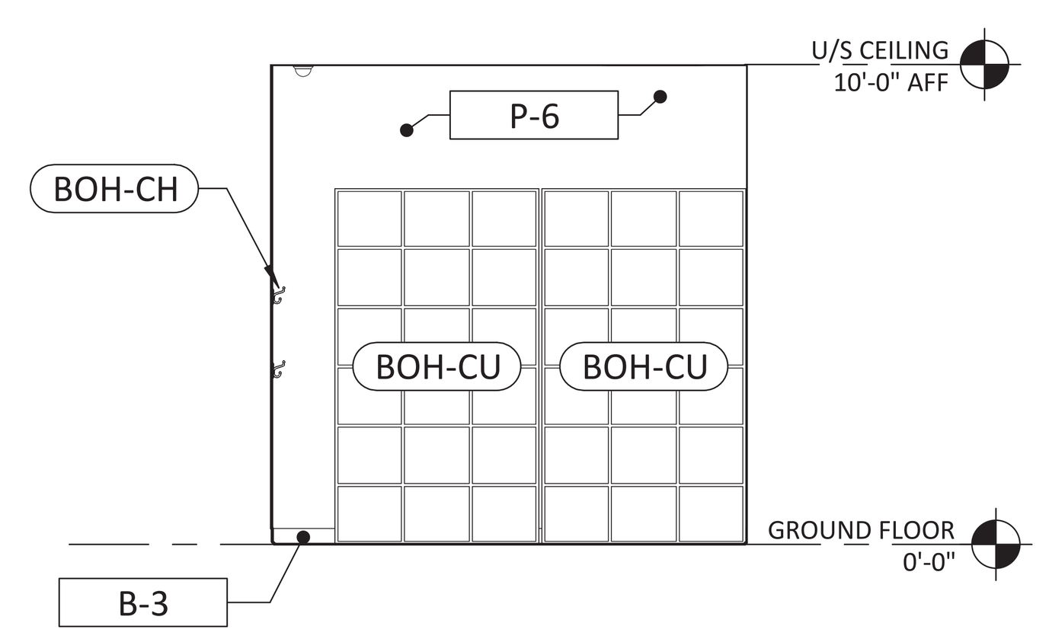
KEYNOTES

#- KEYNOTE SYMBOL — - NOT USED

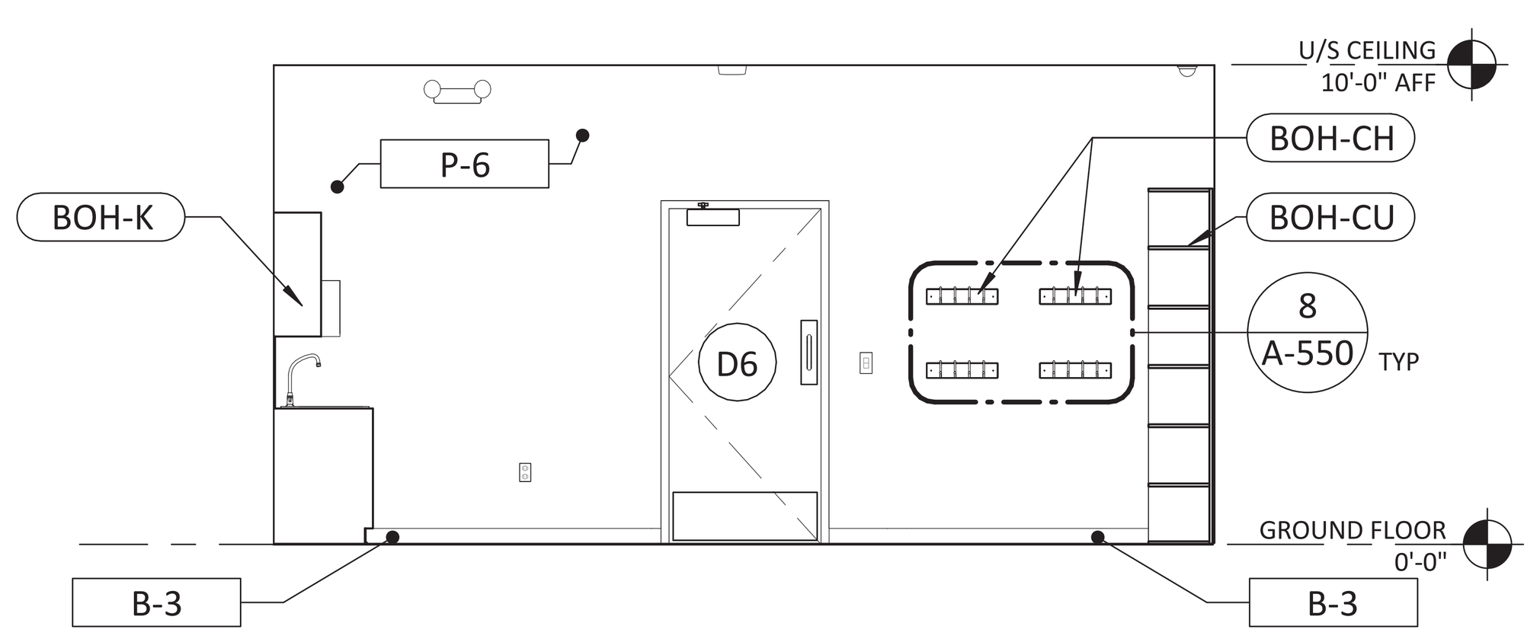
#	Keynote
1	PAINT LINE AT 12'-0" AFF
2	SUSPENDED LED STRIP LIGHT HUNG FROM STRUCTURE ABOVE
3	SURFACE MOUNTED LED STRIP LIGHT
4	RELOCATED/EXISTING/NEW ELECTRICAL PANELS, SEE ELECTRICAL DRAWINGS
5	SECURITY CAMERA SUSPENDED AT 12'-0" AFF OR SURFACE MOUNTED, SEE SHEET A-170 FOR SCHEDULE AND PLACEMENT
6	KITCHEN SINK FURNISHED AND INSTALLED BY GC SEE PLUMBING DRAWINGS
7	SWITCH BANK, COORDINATE LOCATION WITH LULULEMON. T/O SWITCHES MOUNTED AT 48'' AFF MAX. SEE ELECTRICAL DWGS FOR MORE INFORMATION
8	DEDICATED G.F.I. DUPLEX OUTLET FOR KITCHENETTE APPLIANCE, SEE ELECTRICAL DRAWINGS
9	G.F.I. QUAD OUTLET, SEE ELECTRICAL DRAWINGS
10	USB/ELECTRICAL OUTLET, SEE ELECTRICAL DRAWINGS
11	POWER AND DATA OUTLETS FOR RECEIVING DESK, SEE ELECTRICAL DRAWINGS AND ENLARGED ELEVATION 2/A-550 FOR DETAILS.
12	POWER AND DATA OUTLETS FOR MANAGER'S OFFICE DESK, SEE ELECTRICAL DRAWINGS AND ENLARGED ELEVATION 3/A-550 FOR DETAILS.
13	DRAWER UNDER MANAGER'S DESK TO BE INSTALLED AGAINST THE WALL
14	WALL MOUNTED ACCESSIBILITY SIGNAGE, SEE DETAIL 9/A-030 FOR MORE INFORMATION
15	WALL MOUNTED EXIT OR EXIT ROUTE SIGNAGE
16	STAFFROOM WALL COVERING APPLIED BY LLL-V OVER GC PRIMER
17	FIRE ALARM PULL STATION AT 48"AFF MAX, SEE APPROVED VENDOR DWGS
18	FIRE ALARM DEVICE SUSPENDED FROM DECK, SEE APPROVED VENDOR DWGS
19	WALL MOUNTED FIRE ALARM DEVICE AT 7'-6"AFF, SEE APPROVED VENDOR DWGS
20	FIRE ALARM CONTROL PANEL, EXISTING TO REMAIN, RE-WIRE AS REQUIRED FOR NEW LAYOUT, SEE APPROVED VENDOR DRAWINGS
21	LOCATION OF SUSPENDED TRANSFORMER, SEE ELECTRICAL DRAWINGS FOR MORE INFORMATION, SEE STRUCTURAL DRAWINGS FOR SUSPENSION/MOUNTING DETAILS
22	HVAC TRANSFER GRILLE, MOUNTED ABOVE PAINT LINE AND PAINTED TO MATCH WALL
23	POWER AND DATA OUTLETS FOR RFID TAP PAD STATION, SEE ELECTRICAL DRAWINGS AND ENLARGED ELEVATION 2B/A-550 FOR DETAILS



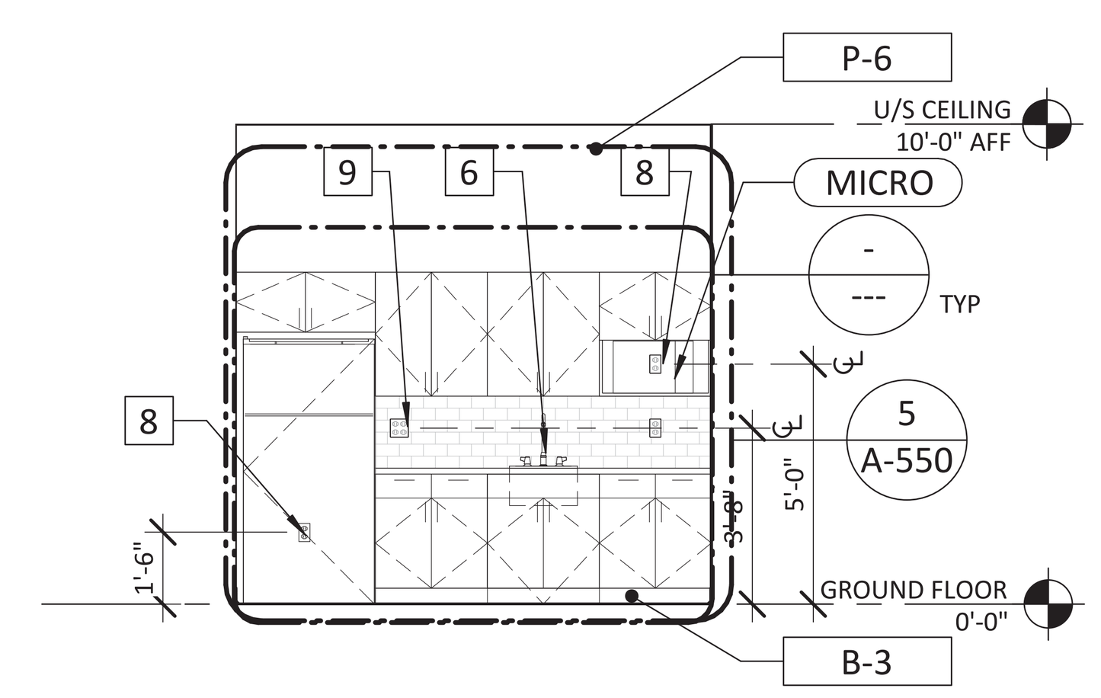
2D STAFF ROOM
SCALE: 1/4" = 1'-0"



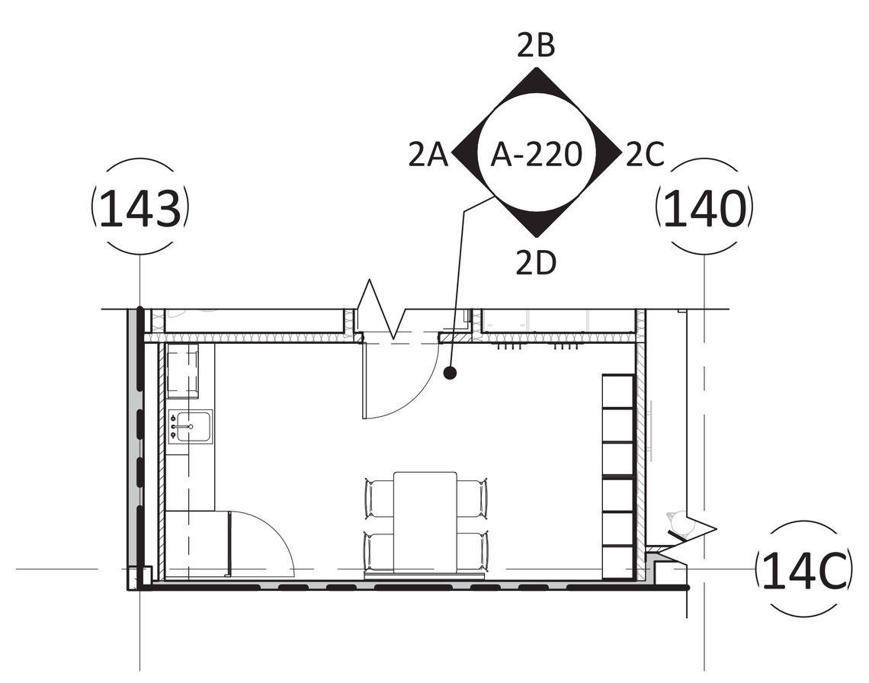
2C STAFF ROOM
SCALE: 1/4" = 1'-0"



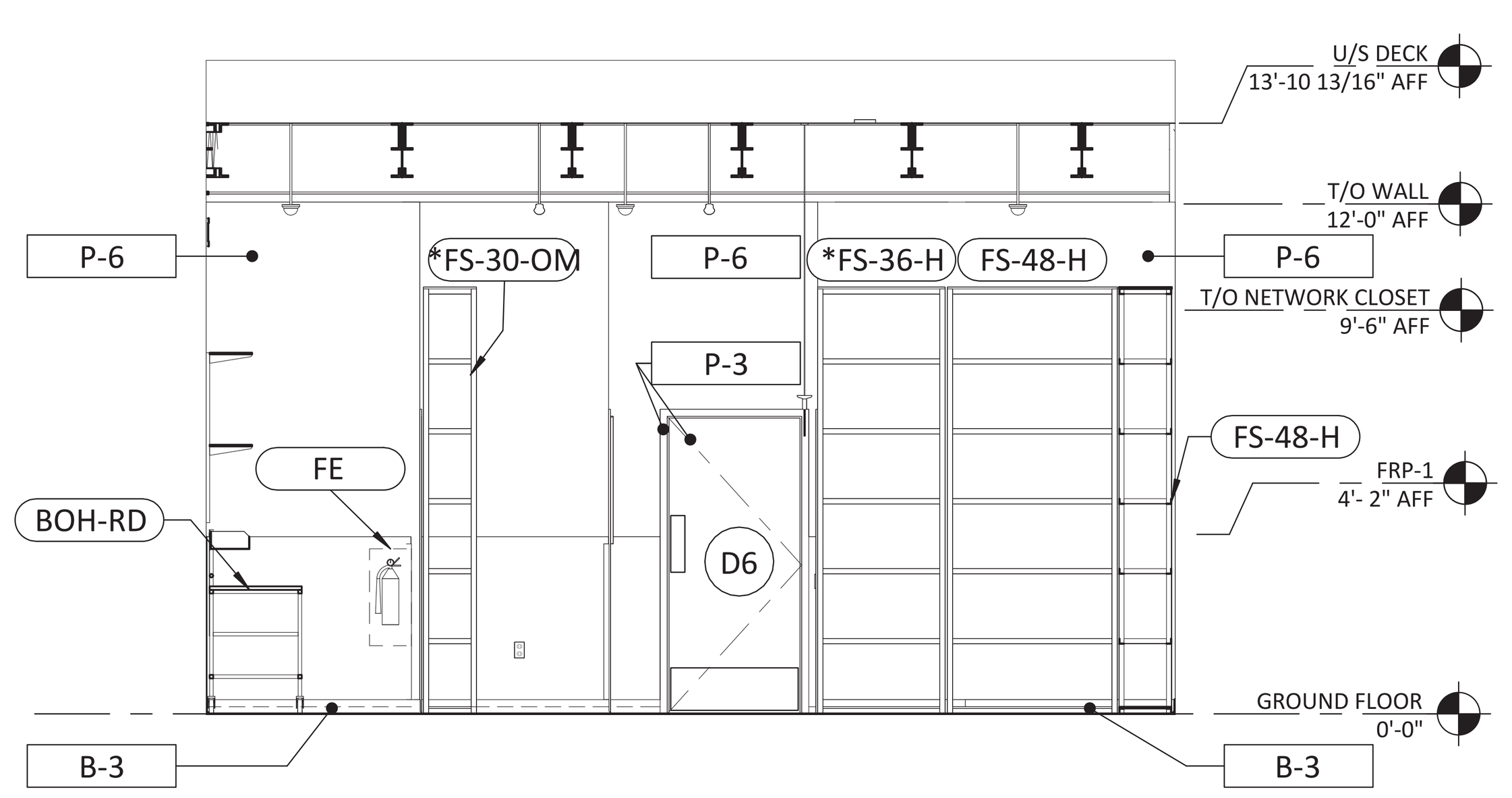
2B STAFF ROOM
SCALE: 1/4" = 1'-0"



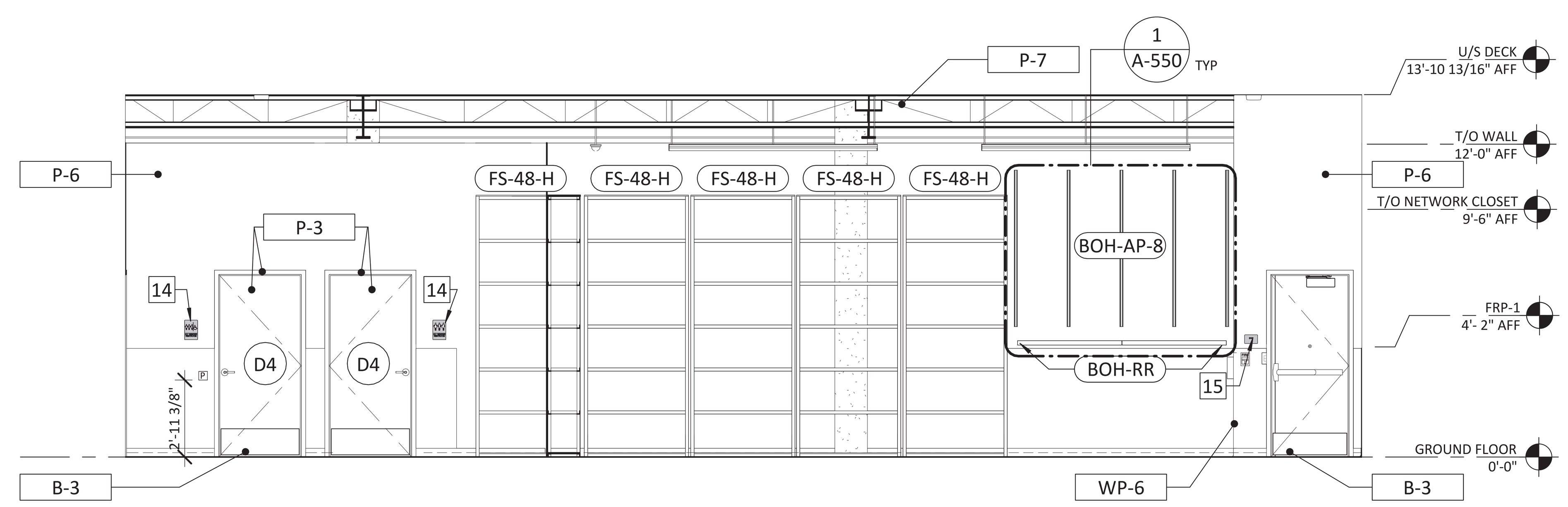
2A STAFF ROOM
SCALE: 1/4" = 1'-0"



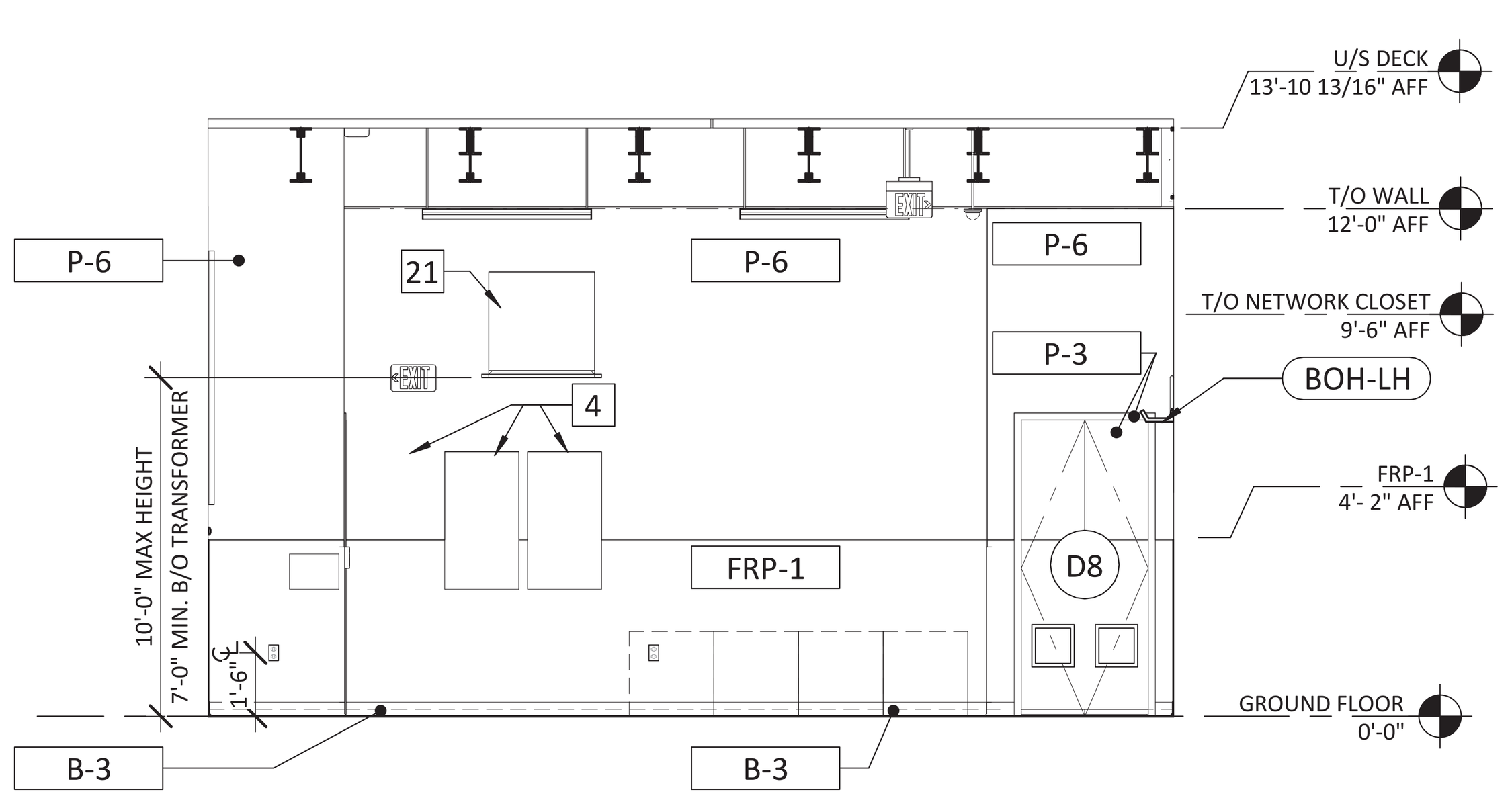
2 KEY PLAN - STAFF ROOM
SCALE: 1/8" = 1'-0"



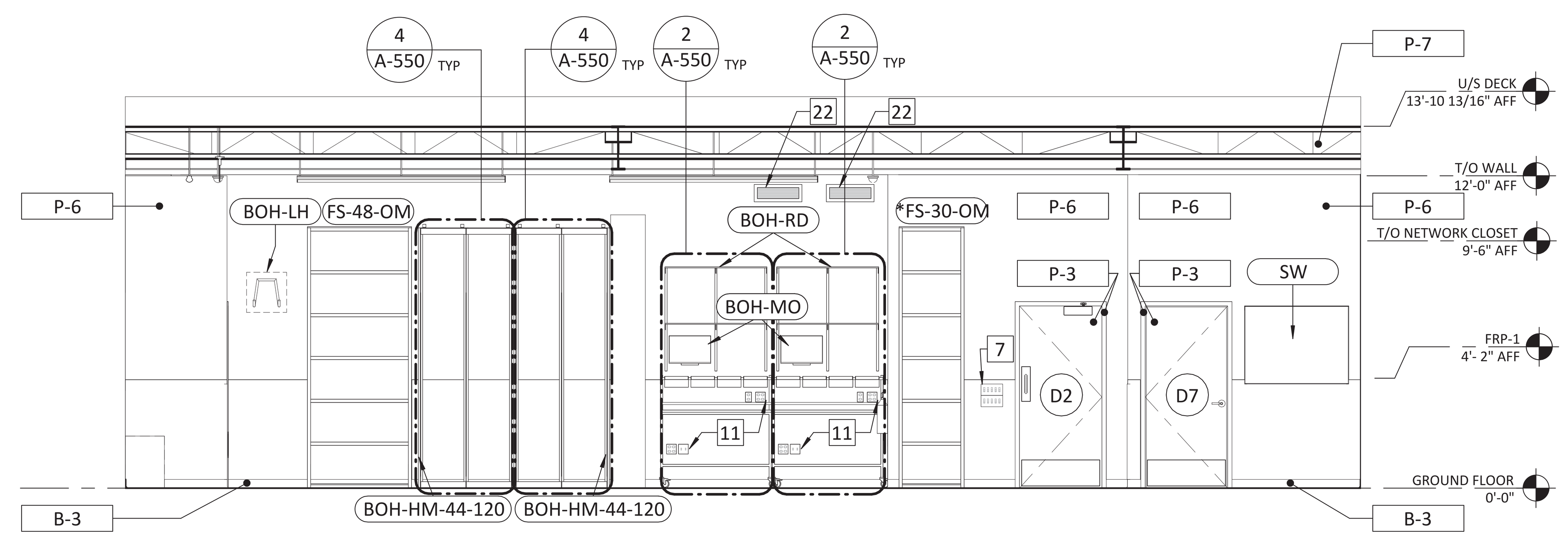
1D STOCK ROOM
SCALE: 1/4" = 1'-0"



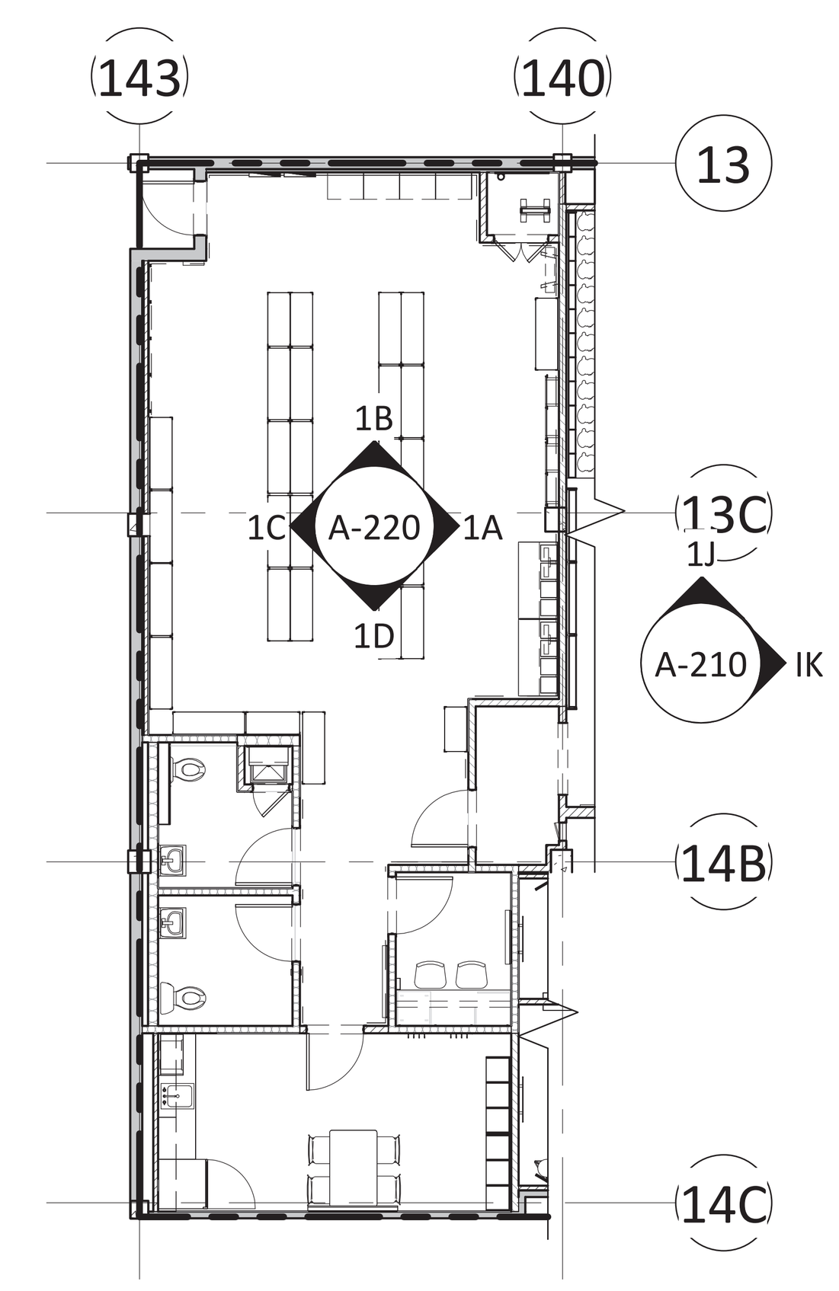
1C STOCK ROOM
SCALE: 1/4" = 1'-0"



1B STOCK ROOM
SCALE: 1/4" = 1'-0"



1A STOCK ROOM
SCALE: 1/4" = 1'-0"



1 KEY PLAN - SALES AREA
SCALE: 3/32" = 1'-0"

lululemon
1818 CORNWALL AVE.
VANCOUVER, B.C., V6J1C7

CF POLO PARK
1485 Portage Ave, Unit 144E
Winnipeg, MB
R3G 0W5
CRU NUMBER: 144E

Quadrangle
Quadrangle Architects Limited
The Well, 8 Spadina Avenue, Suite 2100, Toronto, ON M5V 0S8
t 416 598 1240 www.bdpquadrangle.com

ARCHITECT SEAL

ONTARIO ASSOCIATION OF ARCHITECTS
KIRTIDEV MEHTA
LICENCE
8099

ISSUED FOR CONSTRUCTION

07/14/2023

△	DATE	DESCRIPTION
	05/05/2023	DESIGN DEVELOPMENT
	06/09/2023	PERMIT/CONSTRUCTION
	06/09/2023	ISSUED FOR BID
	07/14/2023	ISSUED FOR CONSTRUCTION

DRAWING INFORMATION
PROJECT #: 23206
CHECKED BY: NA
DRAWN BY: MP

INTERIOR ELEVATIONS - BACK OF HOUSE

DRAWING NUMBER
A-220

7/14/2023 12:13:41 PM

FITROOM GENERAL NOTES

A. REFER TO A-131 FIXUTRE PLAN FOR SPACING AND EXACT LOCATIONS OF ALL WALL FIXTURES. ALL QUANTITIES SHOULD BE VERIFIED BY LULULEMON VENDOR. PRIOR TO ORDERING AND INSTALLATION. GC TO CHECK ALL QUANTITIES OF MILLWORK UPON DELIVERY.

B. PAINT FINISH BY GC - REFER TO A-120 FINISH SCHEDULE FOR PAINT SPECIFICATION. VERIFY ALL PAINT COLOR LOCATIONS ON SHEET A-121 FINISH PLAN. NOTIFY LULULEMON CONSTRUCTION MANAGER OF ANY CONFLICTS BEFORE PROCEEDING WITH PAINTING. PAINT ALL EXPOSED LULULEMON VENDOR PROVIDED FITROOM PANELS THAT ARE NOT OAK FINISH.

C. REFER TO SHEET A-150 REFLECTED CEILNG PLAN FOR LIGHT FIXTURE LOCATIONS AND E-121 LIGHT FIXTURE SCHEDULE FOR SPECIFICATIONS.

D. ALL WOODWORK ATTACHED TO THE PREMISES, BLOCKING, GROUNDS, ETC. SHALL BE FIRE RETARDANT AND COMPLY WITH THE LANDLORD'S AND BUILDING CODE REQUIREMENTS GOVERNING FIREPROOFING.

E. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS AT THE JOB SITE AND NOTIFY OWNER'S CONSTRUCTION MANAGER AS TO ANY DISCREPANCIES IMMEDIATELY.

F. ALL MILLWORK HARDWARE TO BE FURNISHED BY LULULEMON VENDOR AND INSTALLED BY GC UNO.

G. ALL MILLWORK IS TO BE HANDLED UNDER SEPARATE CONTRACT BY LULULEMON UNO. GC TO COORDINATE SCHEDULING WITH LULULEMON VENDOR. REFER TO A-010 RESPONSIBILITY SCHEDULE.

H. ALL MIRROR GLASS TO BE FURNISHED BY GC, UNO, AND INSTALLED WITH ADHESIVE. GC TO USE TOP CLIPS (STAINLESS) AT ALL FRAMELESS INSTALLATIONS INCLUDING OVER LULULEMON VENDOR PROVIDED FITROOM PANELS.

I. REFER TO LULULEMON VENDOR PROVIDED CUT SHEETS FOR ALL FIXTURE FINISHES.

J. REFER TO A-120 FINISH SCHEDULE FOR SPECIFICATION, PROCUREMENT, AND INSTALLATION RESPONSIBILITY FOR ALL FINISH MATERIALS.

K. REFER TO A-130 FIXTURE SCHEDULE FOR SPECIFICATION, PROCUREMENT, AND INSTALLATION RESPONSIBILITY FOR ALL FIXTURE ELEMENTS.

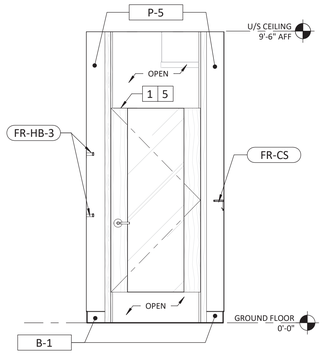
L. USE STANDARD SIZE FOR TYPICAL FITROOM 5'-0"x5'-0", MINUMUM FITROOM SIZE 4'-6"x4'-6".

M. USE STANDARD SIZE FOR ADA FITROOM 5'-6"x10'-0", PROVIDE 60" TURNING CIRCLE CLEARANCE WITHIN FITROOM

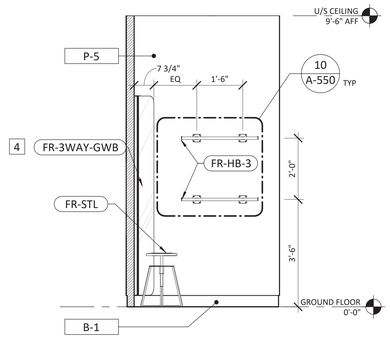
KEYNOTES

 # - KEYNOTE SYMBOL

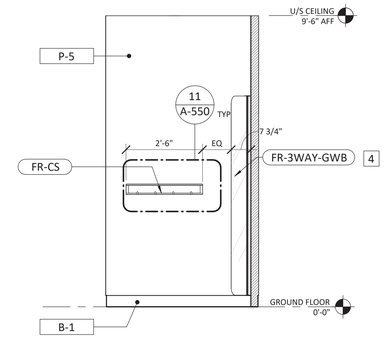
1 FITROOM DOOR, TYPICAL. LLL-V TO PROVIDE DOOR, JAMB, MIRROR FRAME AND GLASS, AND MARKER BOARD. GC TO INSTALL AND PROVIDE LEVERS, SEE SHEET A-180 FOR DOOR SCHEDULE.
2 WALL-APPLIED MIRROR AT FITROOM ALCOVE BY GC, TYP. SEE DETAIL 11/A-510.
3 6'-0" WHIP MINIMUM REQUIRED BEHIND MIRROR FOR ROUTING OF LOW VOLTAGE TO BOH MOUNTED DRIVERS. PAINT WHIP TO MATCH WALL FINISH
4 ILLUMINATED MIRROR BY LLL-V, CENTER MIRROR ON CENTERLINE OF DOOR, UNO.
5 LLL-V AND GC TO ENSURE MANUEVERING CLEARANCES ARE PROVIDED AS REQUIRED AT ADA FITROOM DOOR
6 FRAMED MIRRORS AT WALL OPPOSITE BENCH. FRAME BY LLL-V, MIRROR GLASS BY GC.
7 ADA FITROOM BENCH AS PER SPECIFICATION, SEE DETAIL 12/A-550.
8 30"x48" CLEAR TRANSFER SPACE PROVIDED AT END OF BENCH
9 30"x48" WHEELCHAIR SPACE PROVIDED INSIDE FITROOM BEYOND THE SWING OF THE DOOR



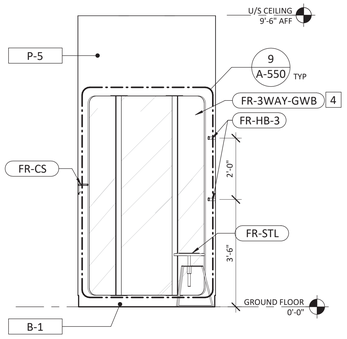
3D TYPICAL FITROOM
SCALE: 1/2" = 1'-0"



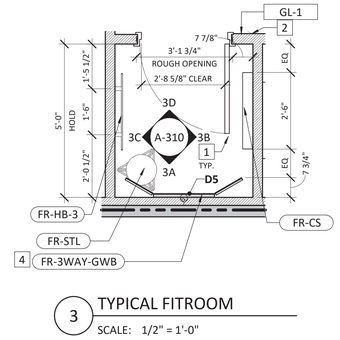
3C TYPICAL FITROOM
SCALE: 1/2" = 1'-0"



3B TYPICAL FITROOM
SCALE: 1/2" = 1'-0"



3A TYPICAL FITROOM
SCALE: 1/2" = 1'-0"



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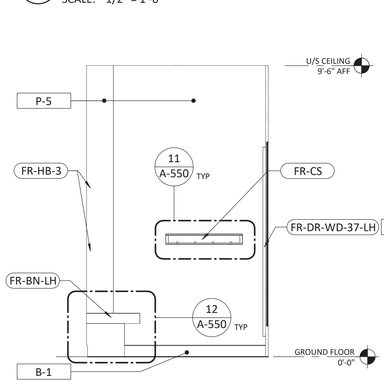

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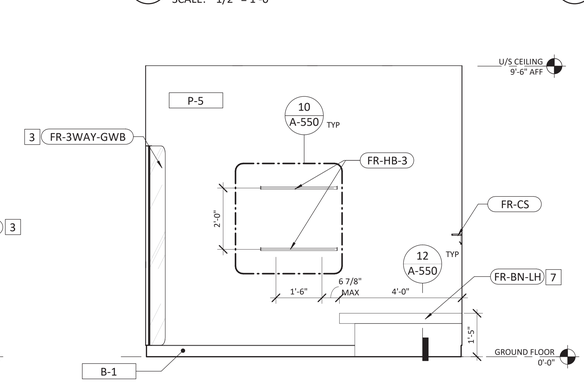

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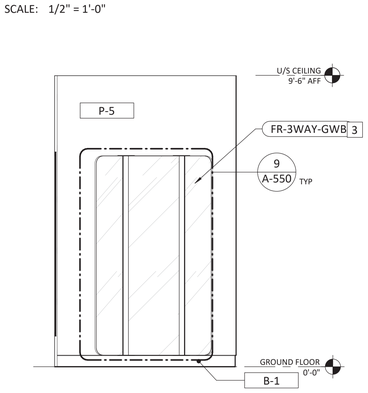

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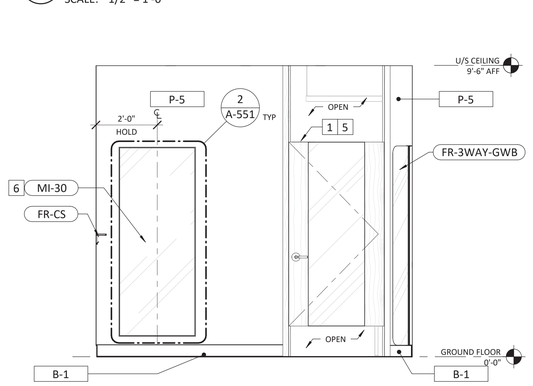

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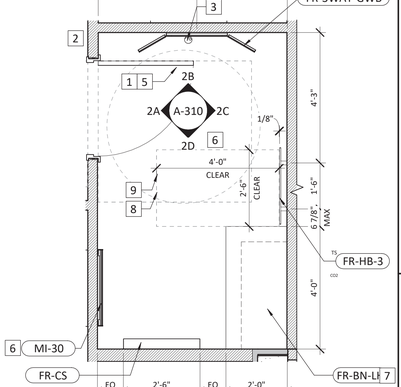

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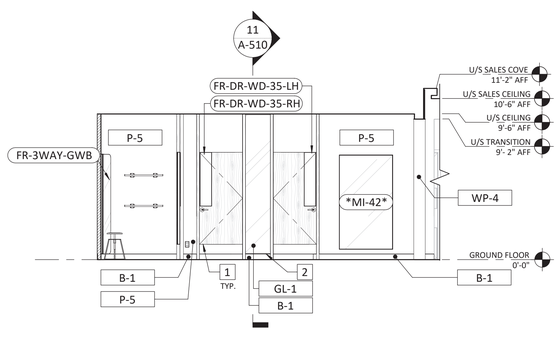
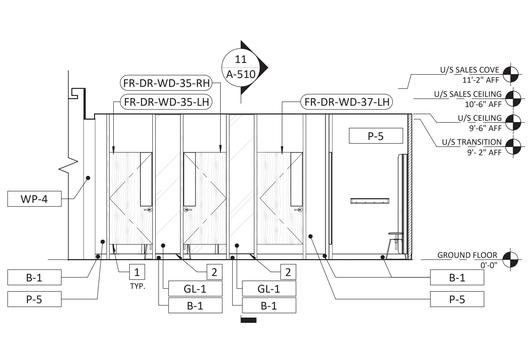


1C FITROOMS
SCALE: 1/4" = 1'-0"



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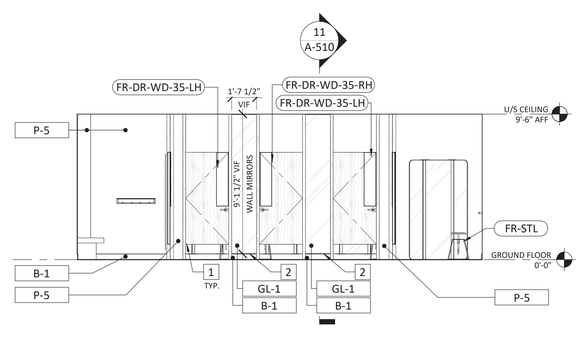

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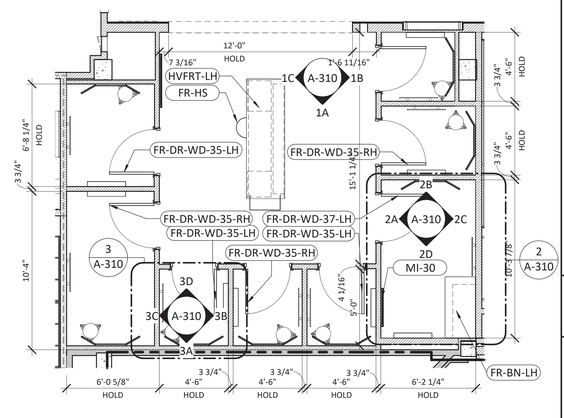

1 KEY PLAN - FITROOM AREA
SCALE: 1/4" = 1'-0"

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lululemon
1818 CORNWALL AVE.
VANCOUVER, B.C., V6J1C7

CF POLO PARK
1485 Portage Ave, Unit 144E
Winnipeg, MB
R3G 0W5
CRU NUMBER: 144E

Quadrangle
Quadrangle Architects Limited
The Well, 8 Spadina Avenue, Suite 2100, Toronto, ON M5V 0S8
t 416 861 1167 www.quadrangle.com

ARCHITECT SEAL

ONTARIO ASSOCIATION OF ARCHITECTS
KIRTIDEV MEHTA
LICENCE
8699

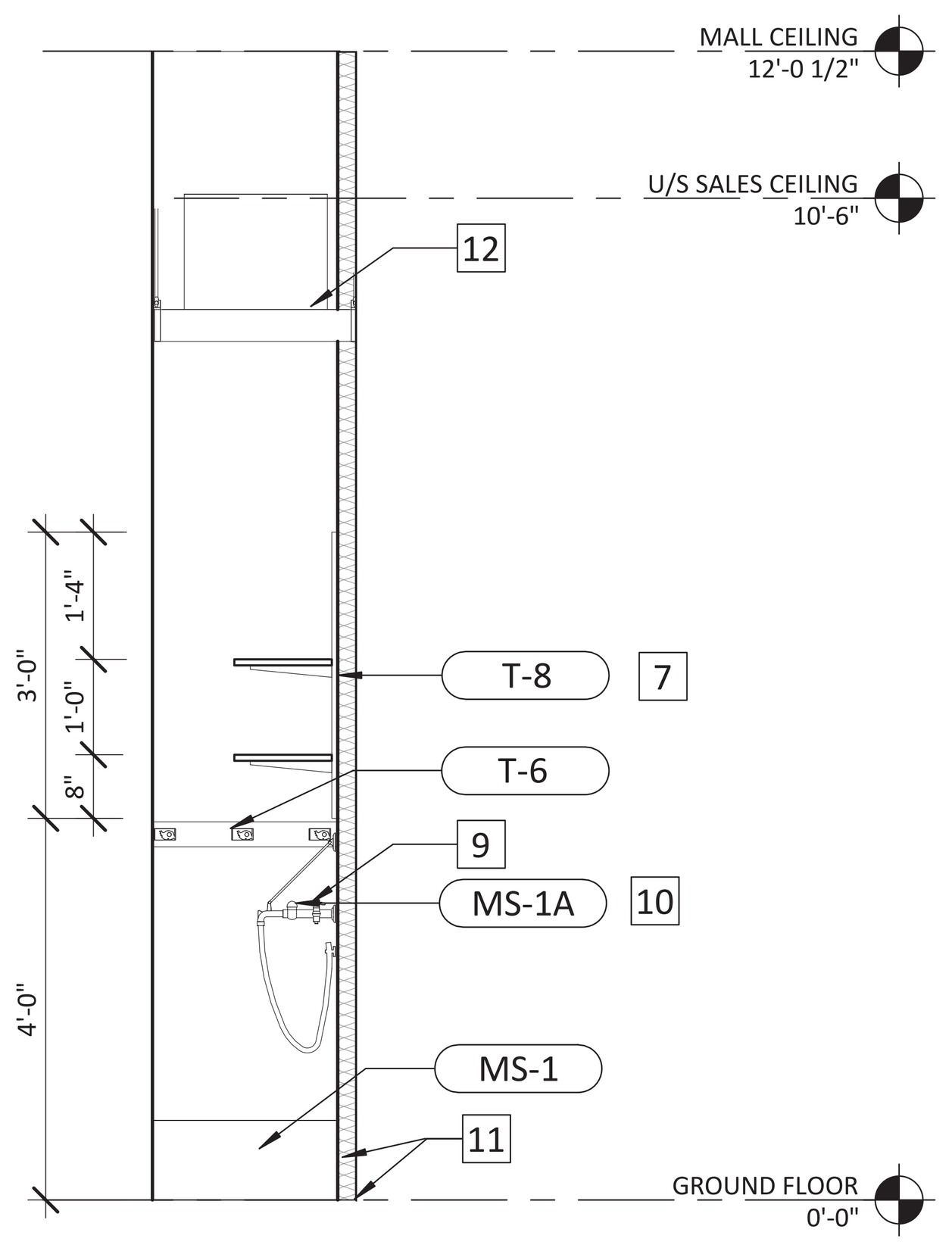
ISSUED FOR CONSTRUCTION
07/14/2023

△	DATE	DESCRIPTION
	06/09/2023	PERMIT/CONSTRUCTION
	06/09/2023	ISSUED FOR BID
	07/14/2023	ISSUED FOR CONSTRUCTION

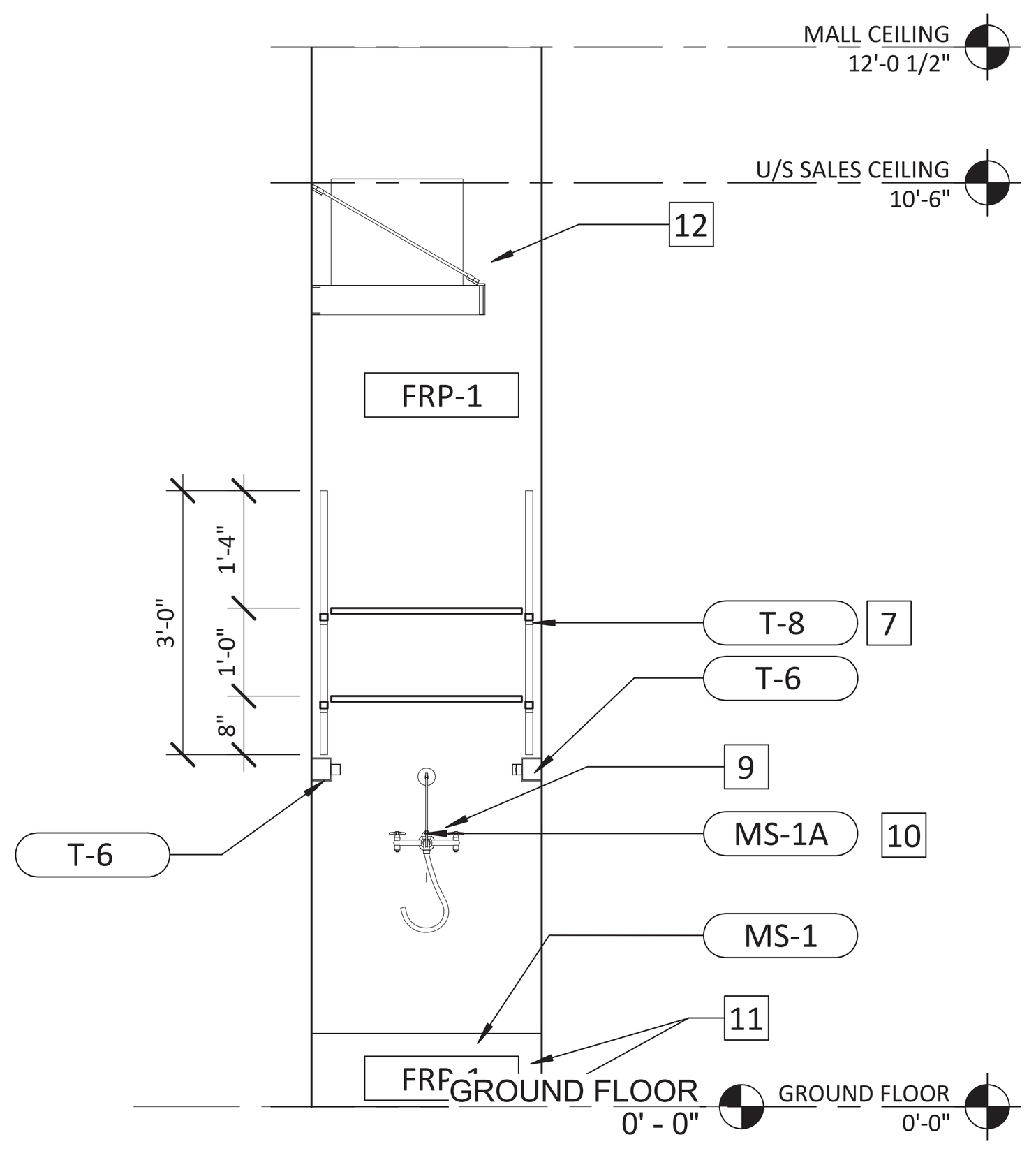
DRAWING INFORMATION
PROJECT #: 23206
CHECKED BY: NA
DRAWN BY: MP

ENLARGED FITROOM PLANS AND ELEVATIONS

DRAWING NUMBER
A-310



1F MOP SINK ELEVATION- SIDE
SCALE: 1/2" = 1'-0"



1E MOP SINK ELEVATION- REAR
SCALE: 1/2" = 1'-0"

RESTROOM FIXTURES AND ACCESSORIES

TAG	DESCRIPTION	MANUF.	DIMENSION	MODEL	RESP.	FINISH	NOTES
T-1A	L SHAPED ANGLED GRAB BAR	BOBRICK	30"X30"	B-5898	GC	BRUSHED STAINLESS STEEL	PROVIDE 5/8" FRT PLYWOOD STRAPPING FOR BLOCKING
T-1B	36" GRAB BAR	BOBRICK	36"L	B-5806-36	GC	BRUSHED STAINLESS STEEL	PROVIDE 5/8" FRT PLYWOOD STRAPPING FOR BLOCKING
T-1C	18" GRAB BAR	BOBRICK	18"L	B5806-18	GC	BRUSHED STAINLESS STEEL	PROVIDE 20 GA. METAL STRAPPING FOR BLOCKING
T-2	BABY CHANGING STATION	KOALA KARE	30"L x 20"W	KB200-SS	GC	GRAY / STAINLESS STEEL	PROVIDE 20 GA. METAL STRAPPING FOR BLOCKING, SURFACE MOUNTED, SEE MANUFACTUER'S INSTRUCTIONS
T-3	MIRROR WITH SS FRAME (PROVIDE TEMPERED GLASS FOR MIRROR WHERE REQUIRED)	BOBRICK	36"L x 24"W	B-290 2436	GC	MIRROR / STAINLESS STEEL	PROVIDE 20 GA. METAL STRAPPING FOR BLOCKING
T-4	COAT HOOK (ACCESSIBLE HEIGHT) DOOR MOUNTED	BOBRICK	4"W x 2 5/16"H	B-672	GC	BRUSHED STAINLESS STEEL	DOOR MOUNTED AT 48"AFF MAX
T-5	TOILET TISSUE DISPENSER	BOBRICK	11"H x 6"W x 6"D	B-2888	GC	BRUSHED STAINLESS STEEL	PROVIDE 20 GA. METAL STRAPPING FOR BLOCKING
T-6	MOP HANGER	BOBRICK	24"L	B-223 x 24 (QTY:2)	GC	BRUSHED STAINLESS STEEL	QTY: 2 MOP HANGERS TO BE INSTALLED
T-7	HAND DRYER	DYSON	18"H x 10	DYSON AIRBLADE VS-AB-V-HV02	LLL-V / GC	BRISHED STAINLESS STEEL	FURNISHED BY LLL-V, INSTALLED BY GC, GC TO PROVIDE POWER AS REQUIRED
T-8	SHELVING OVER MOP SINK	GC	PER PLANS AND ELEVATIONS	N/A	GC	WHITE MELAMINE	36"HIGH HEAVY DUTY ZINC FINISHED WALL STANDARDS FASTENED TO STUDS OR SOLID BLOCKING. GC TO ENSURE ADEQUATE BLOCKING EXISTS FOR FATENING. (QTY:2) 12" WHITE MELAMINE SHELVES WITH MATCH PVC TAPED EDGES (QTY: 4 TOTAL) AND ZINC FINISHED 10" SHELF BRACKETS SUPPLIED AND INSTALLED BY GC SCREWED TO UNDERSIDE OF SHELVES. LENGTH OF SELF EQUALS THE MAXIMUM LENGTH ALLOWED PER CLOSET WIDTH
T-9	PUSH PLATE	CAMDEN	4 1/2"	CM-45/46 SERIES	GC		

PLUMBING SCHEDULE

TAG	DESCRIPTION	MANUF.	DIMENSION	MODEL	RESP.	FINISH	NOTES
BF-1	WATER FEATURE BOTTLE FILLER	FILTRINE	10"W x 3 3/4"D x 26"H	B103	GC	POWDER-COAT WHITE	RECESSED IN WALL, PROVIDE REMOTE CHILLER AND FILTER AT ACCESSIBLE LOCATION, SEE PLUMBING DRAWINGS
DF-1	BI-LEVEL DRINKING FOUNTAIN WITH BOTTLE FILLER AND ACCESS PANEL	ELKAY	38 1/2"W x 19"D x 34 5/8"H	EZWS-EDFPBM117K WITH ACCESS 12x38-5	GC	STAINLESS STEEL	RECESSED IN WALL, MIN 8" STUD REQUIRED, PROVIDE REMOTE CHILLER AND FILTER AT ACCESSIBLE LOCATION, AND POWER AS REQUIRED FOR BOTTLE FILLER SENSOR, SEE PLUMBING DRAWINGS
DF-2	BI-LEVEL DRINKING FOUNTAIN AND ACCESS PANEL	ELKAY	38 1/2"W x 19"D x 22"H	EDFPBM117K WITH ACCESS 12x38-5	GC	STAINLESS STEEL	PROVIDE REMOTE CHILLER AND FILTER AT ACCESSIBLE LOCATION, SEE PLUMBING DRAWINGS
KS-1	KITCHENETTE SINK	ELKAY	17"W x 22"D x 6"H	LRAD1722603	GC	STAINLESS STEEL	PROVIDE P-TRAP COVER WHERE PIPES ARE EXPOSED
KS-1A	KITCHENETTE FAUCET	ELKAY	8" OC x 8" x 12 1.8"H	LKD2432BHC	GC	STAINLESS STEEL	
L-1	WALL MOUNTED LAVATORY	AMERICAN STANDARD	20 1/2"W x 18 1/2"D x 12 1/8"H	0355.012	GC	VITREOUS CHINA	PROVIDE BLOCKING AS REQUIRED
L-1A	LAVATORY FAUCET	ZURN	6"W x 6 3/4"D x 5 1/4"H	Z6915-HW6-CWB-F-TMV-1	GC	CHROME	PROVIDE P-TRAP COVER
L-1B	P TRAP COVER	TRUEBRO	N/A	103 E-Z	GC	WHITE	
MS-1	MOP SINK	FIAT	24"W x 24"D x 10"H	MSB-2424	GC	WHITE	
MS-1A	MOP SINK FAUCET, HOSE AND BRACKET	FIAT	N/A	830AA AND 832AA	GC	CHROME	PROVIDE HOSE AND HOSE HOLDER
WC-1	TOILET	KOHLER	17 5/8"W x 29 1/2"D x 30 3/4"H	K-3658	GC	VITREOUS CHINA	TANK AND BOWL COMBO, ORDER WITH LEVER AT ACCESSIBLE SIDE OF TOILET

RESTROOM GENERAL NOTES

A. SEE PLUMBING SCHEDULE ON SHEET P-520 FOR SPECIFICATION, PROCUREMENT AND INSTALLATION RESPONSIBILITY FOR ALL PLUMBING ELEMENTS. PLUMBING FIXTURES AND ACCESSORIES ARE TO BE REVIEWED BY THE GENERAL CONTRACTOR AND PLUMBING SUB-CONTRACTOR PRIOR TO THE ORDERING OF ANY FIXTURES FOR QUANTITIES, SPECIFICATIONS, AND LOCATIONS.

B. SEE SHEET A-030 FOR MORE INFORMATION ON ADA ACCESSIBLE / BARRIER FREE MOUNTING HEIGHTS AND CLEARANCES.

C. PROVIDE ALL NECESSARY BLOCKING AS REQUIRED FOR TOILET ROOM ACCESSORIES AND FIXTURES.

D. PROVIDE P-TRAP WRAPS AT ALL EXPOSED COLD WATER & HOT WATER SUPPLIES AT HANDICAP LAVATORY LOCATIONS.

E. TOILET FLUSH HANDLE LOCATED ON OPEN SIDE OF RESTROOM

F. SEE SHEET A-120 FINISH SCHEDULE FOR SPECIFICATION, PROCUREMENT AND INSTALLATION RESPONSIBILITY FOR ALL FINISH MATERIALS.

LANDLORD GENERAL NOTES:

MOP SINK:
IF MOP SINK IS REQUIRED, INSTALL IT AT 18H. " OR HIGHER. (The intent is to catch any water in the event of a leak from spreading and or infiltrating to any other locations.)

KEYNOTES

[#] - KEYNOTE SYMBOL

1 SHOWER DRAIN CENTERED IN SHOWER

2 PROVIDE WATER PROOF MEMBRANE 5'-0" BEYOND ALL PLUMBING FIXTURES AND RESTROOMS, WITH 6" MINIMUM UP ADJACENT WALLS

3 DRAIN TO BE START POINT OF TILE PATTERN AND LOCATE IN CENTER OF ROOM. TILE TO NEVER BE CUT LESS THAN 6" WIDE. PITCH FLOOR A MIN. OF 1/4" REFER TO PLUMBING DWGS

4 WALL SCONCE TO BE CENTERED OVER MIRROR. SEE SHEET A-150

5 WALL MOUNTED ACCESSIBILITY SIGNAGE,SEE SHEET A-030 FOR MORE INFORMATION

6 56"x60" CLEAR FLOOR AREA AT TOILET.

7 (2) 12" WHITE MELAMINE SHELVES WITH MATCHING PVC TAPED EDGES (4 TOTAL) AND ZINC FINISHED 10" SHELF BRACKETS SUPPLIED AND INSTALLED BY G.C. LENGTH OF SHELF EQUALS THE MAXIMUM LENGTH ALLOWED PER CLOSET DIMENSIONS. SHELVES MOUNTED TO 36" HIGH HEAVY DUTY ZINC FINISHED WALL STANDARDS FASTENED TO STUDS OR SOLID BLOCKING. G.C. TO ENSURE ADEQUATE BLOCKING EXISTS FOR FASTENING.

8 30" X 48" CLEAR FLOOR AREA AT LAVATORY

9 VACUUM BREAKER FAUCET WITH HOSE FITTING. MOUNT AT 36" AFF

10 MOP SINK TO BE INSTALLED AGAINST BACK WALL AND CENTERED IN CLOSET. FRAME OUT GAPS BETWEEN THE EDGE OF THE SINK AND THE WALLS TO MATCH THE HEIGHT OF THE MOP SINK, COVER WITH FRP-1 AND PROVIDE SILICONE SEALANT AT TRANSITIONS WHERE SINK AND FRP MEET FLOOR/WALL

11 PROVIDE SILICONE SEALANT AT TRANSITIONS FROM TILE TO BASE AND TILE TO RIM OF SINK

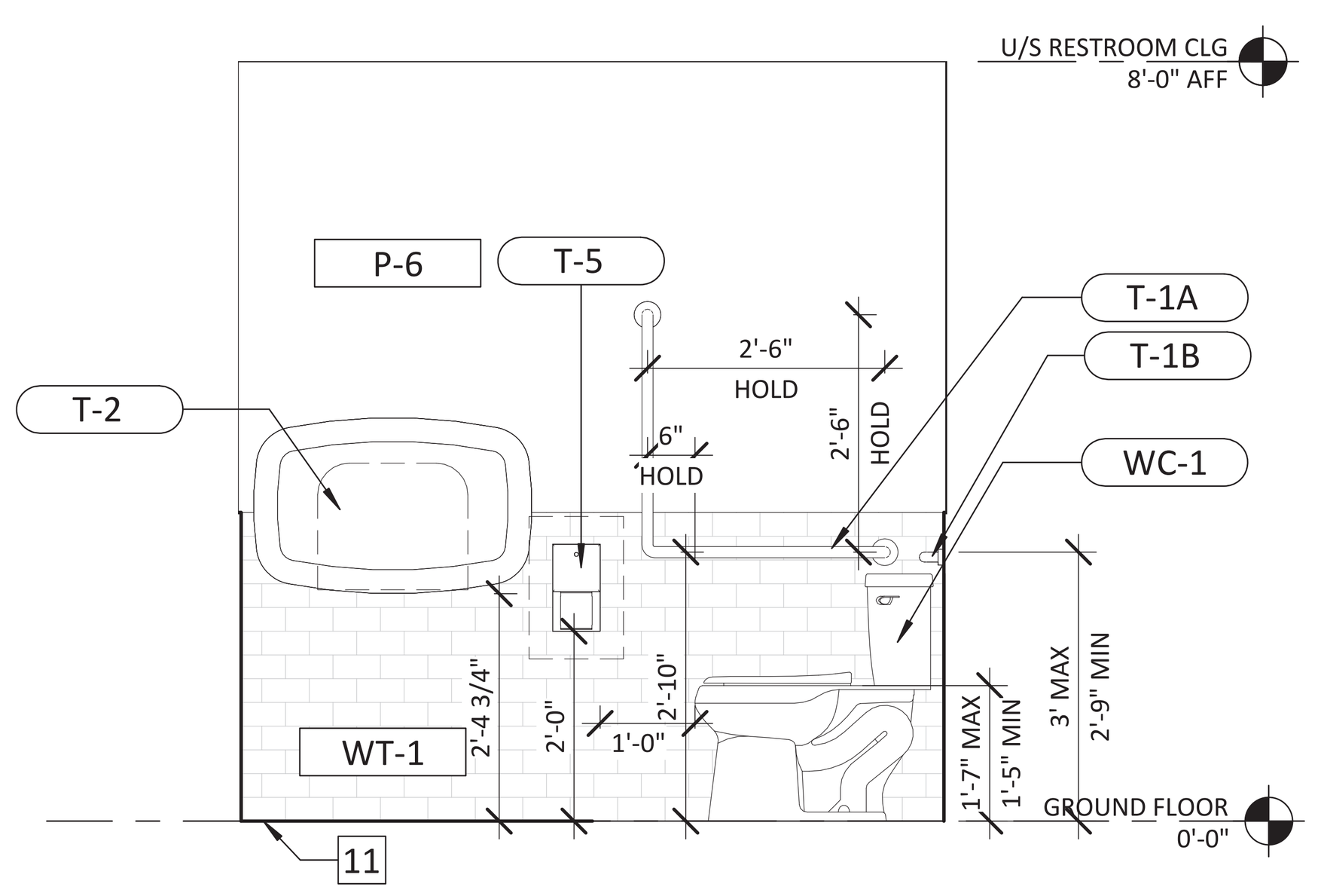
12 ELECTRIC WATER HEATER WITH WALL-MOUNTED PLATFORM, SEE DETAIL 6/A-520 FOR MORE INFORMATION. MOUNT B/O WATER HEATER SHELF AS HIGH AS POSSIBLE. SEE ELECTRICAL DWGS FOR POWER REQUIREMENTS

13 ELECTRIC WATER HEATER WITH PLATFORM SUSPENDED FROM STRUCTURE ABOVE, SEE DETAIL 6/A-520 FOR MORE INFORMATION. MOUNT B/O. WATER HEATER SHELF AS HIGH AS POSSIBLE.SEE ELECTRICAL DWGS FOR POWER REQUIREMENTS

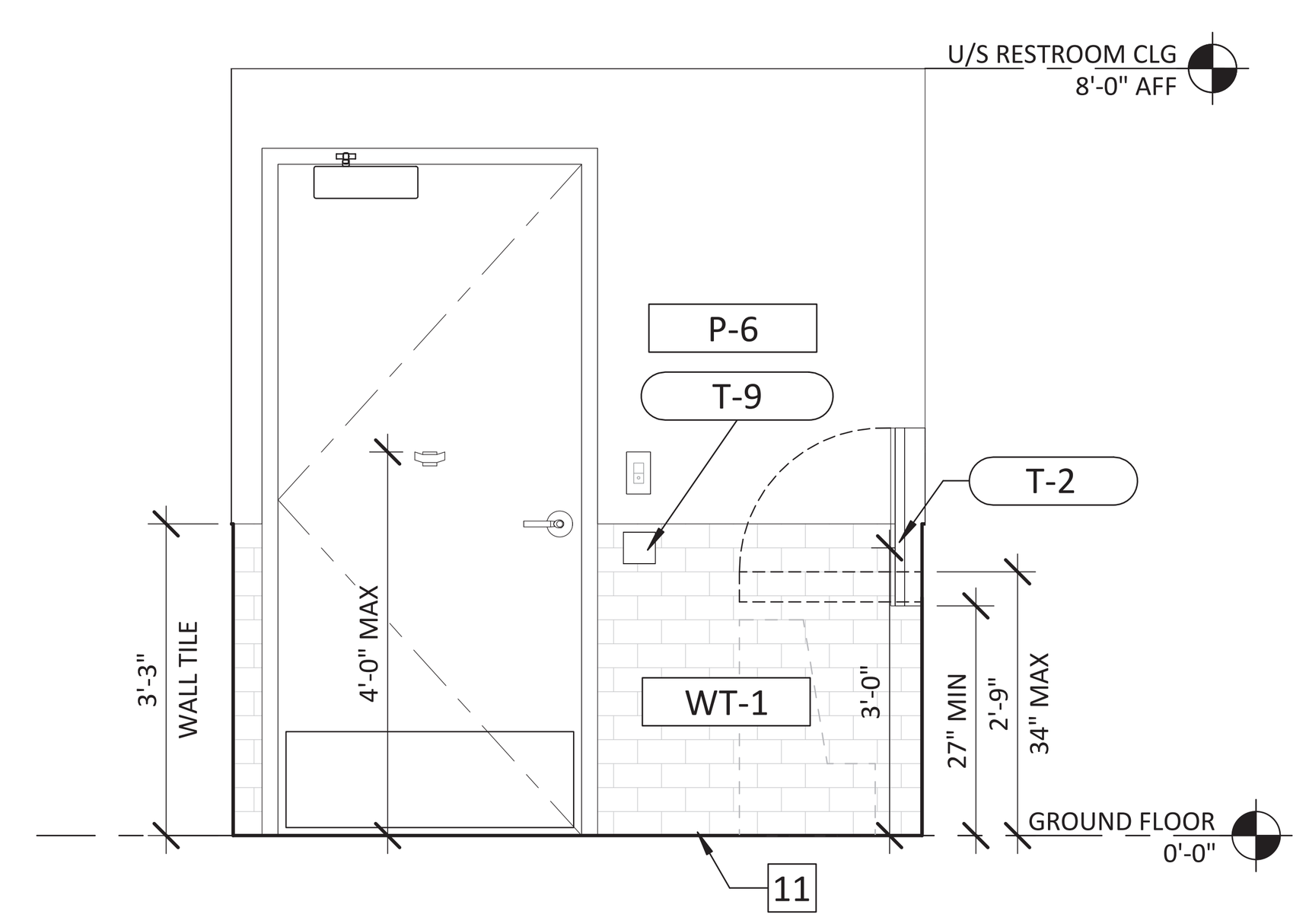
14 MOUNT BOTTLE FILLER WITH PUSH BUTTON AT 48" AFF PER MANUFACTURER INSTRUCTIONS, GC TO USE MOISTURE RESISTANT GWB AT WATER FEATURE LOCATION

15 HATCHED ZONE INDICATES LOCATION TO PACK OUT BEHIND CHANGING STATION MOUNTING PLATE WITH PLYWOOD AT GWB ABOVE WAINSCOT TO ALIGN WITH FACE OF TIL, PAINT AND SEAL EXPOSED PLYWOOD EDGE

16 30"x48" WHEELCHAIR SPACE PROVIDED INSIDE RESTROOM BEYOND THE SWING OF THE DOOR



2D RESTROOM 2- ELEVATION D
SCALE: 1/2" = 1'-0"



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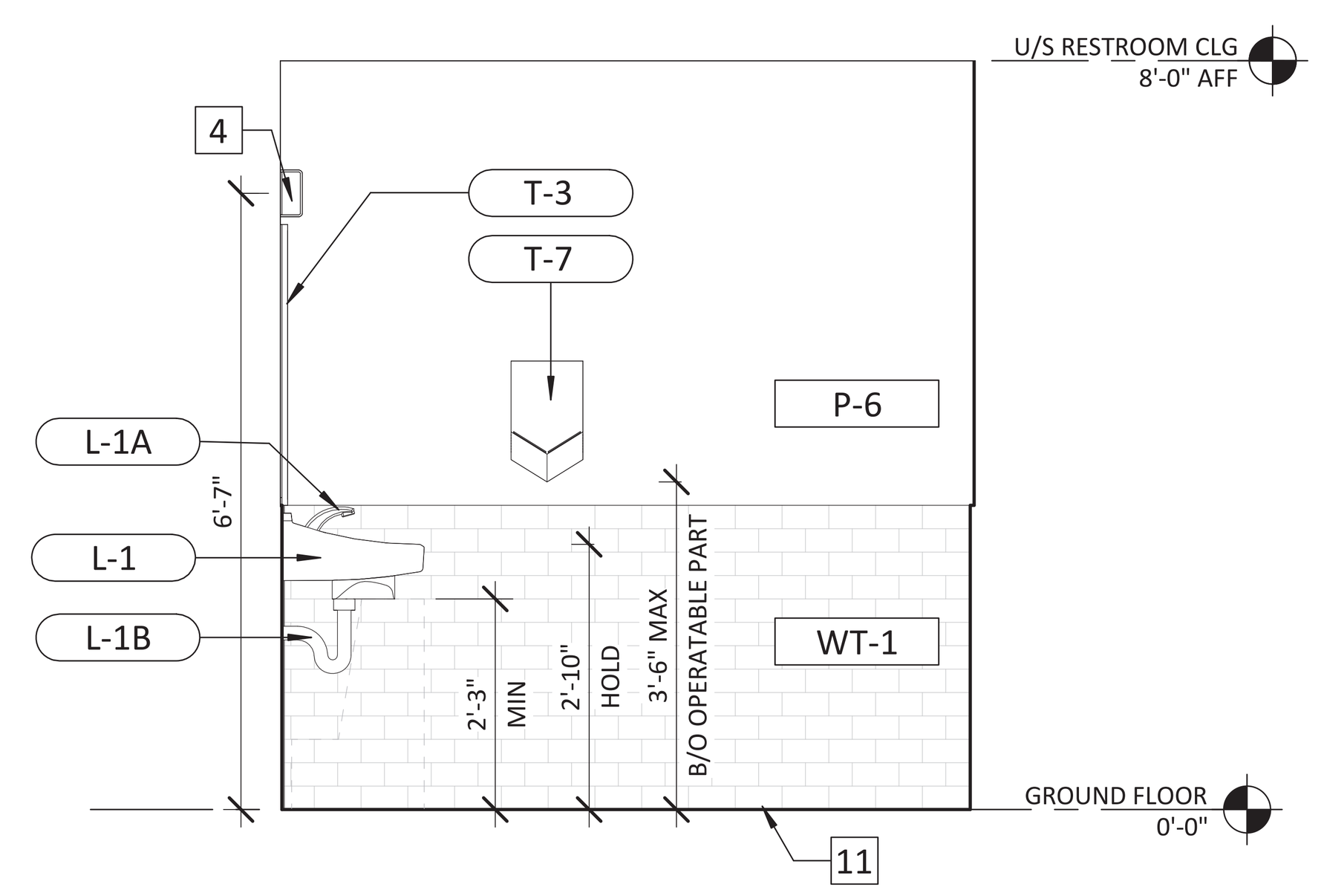

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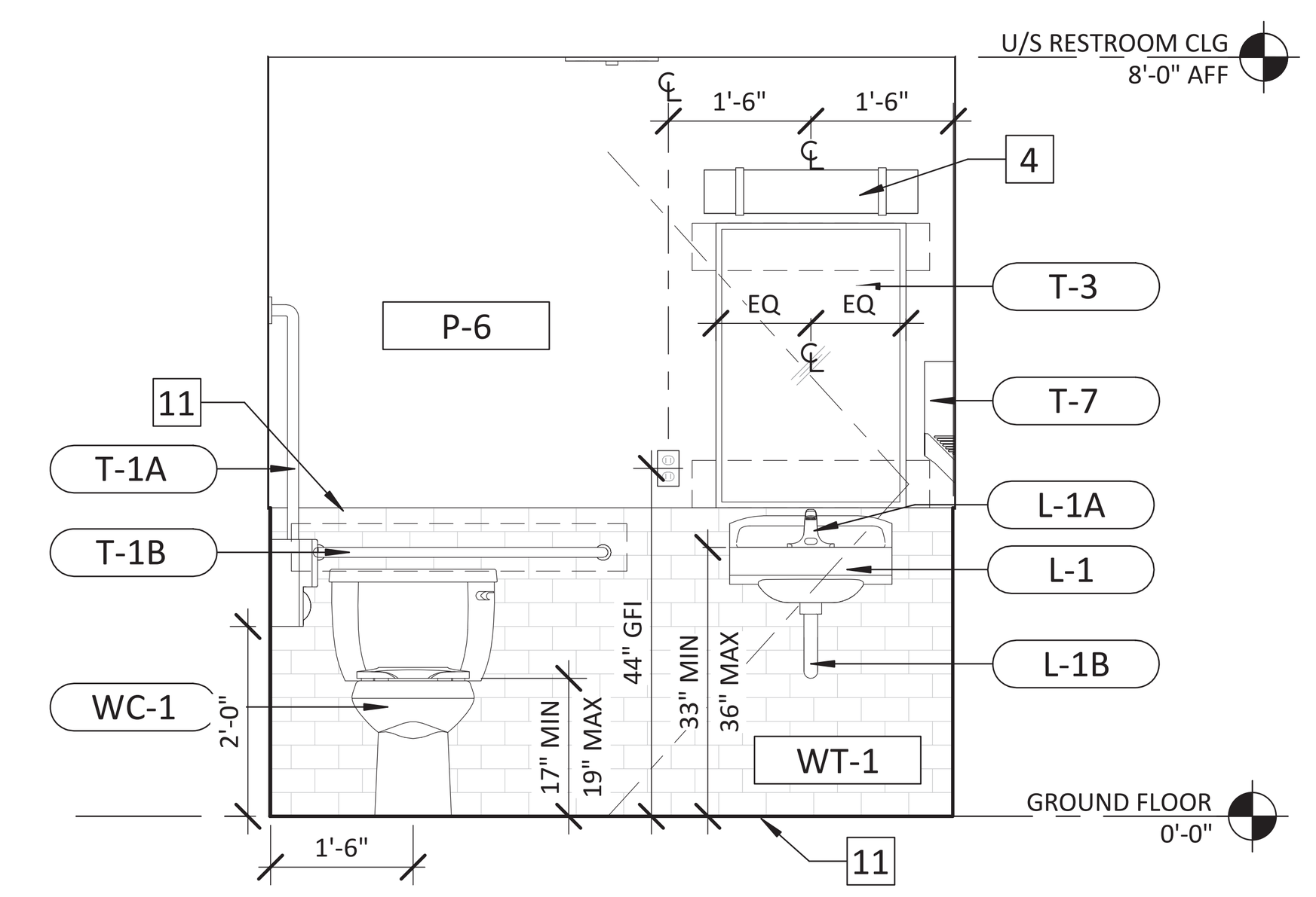

2A RESTROOM 2- ELAVATION A
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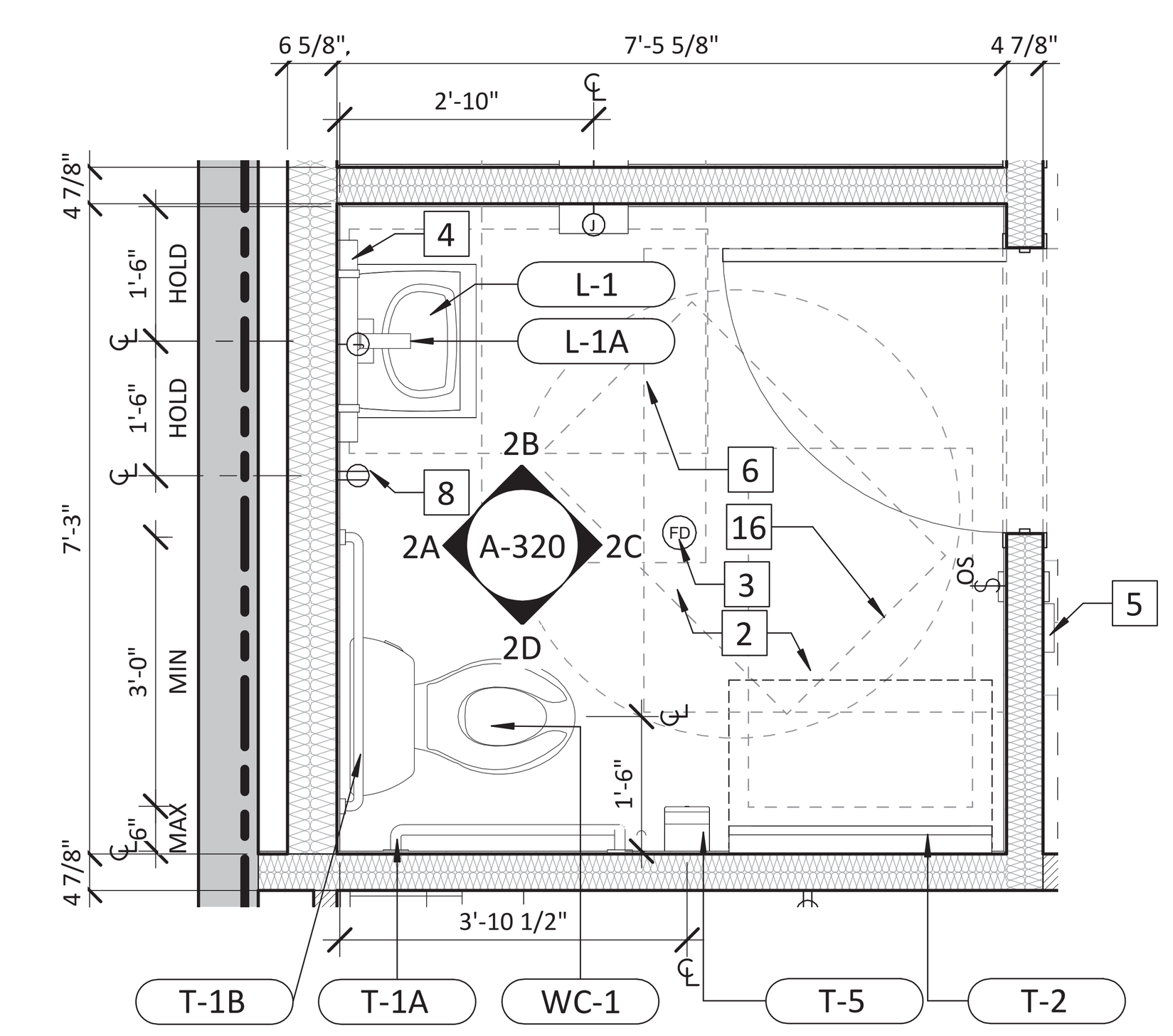

2 ENLARGED RESTROOM 2-PLAN
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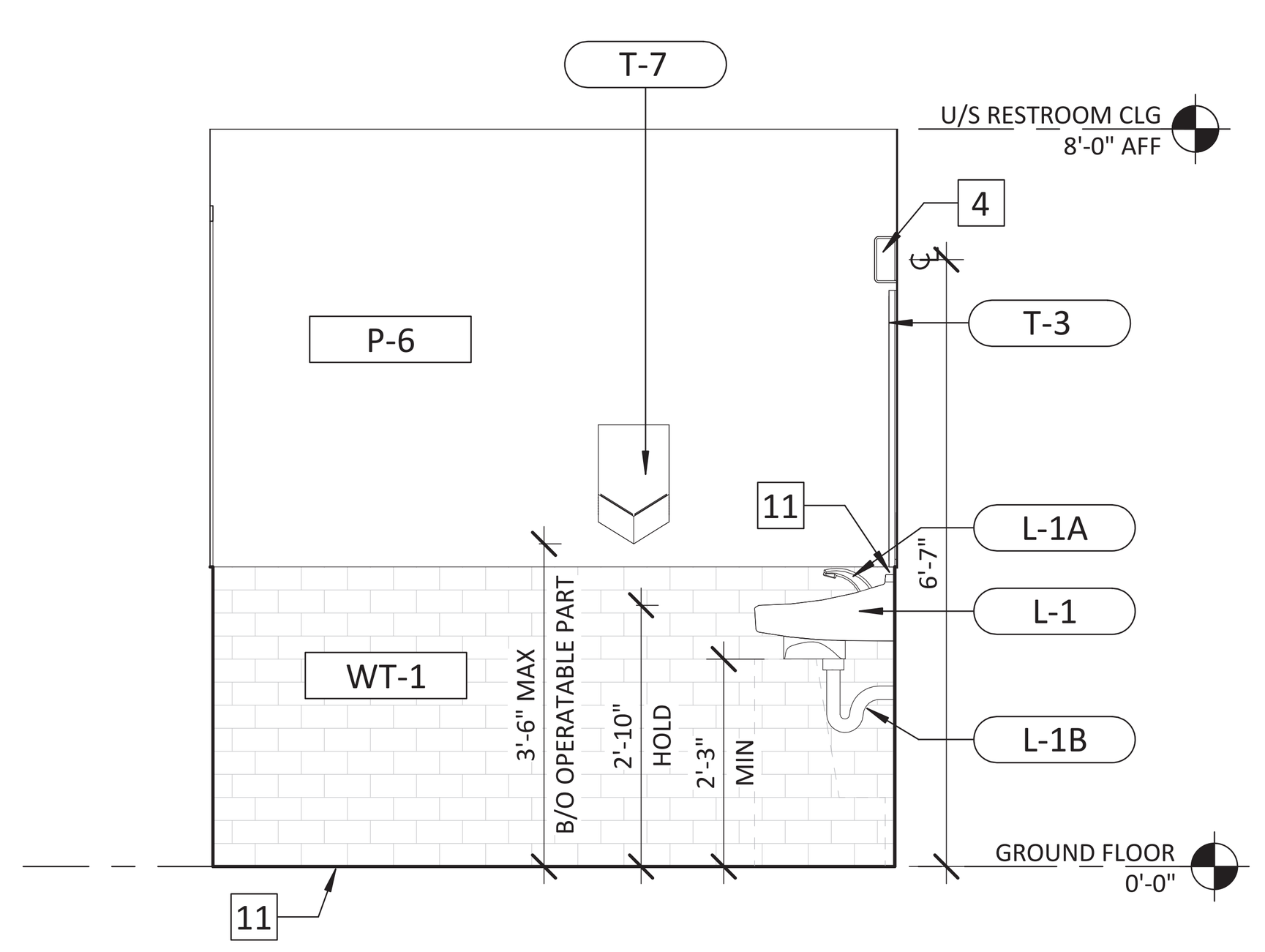

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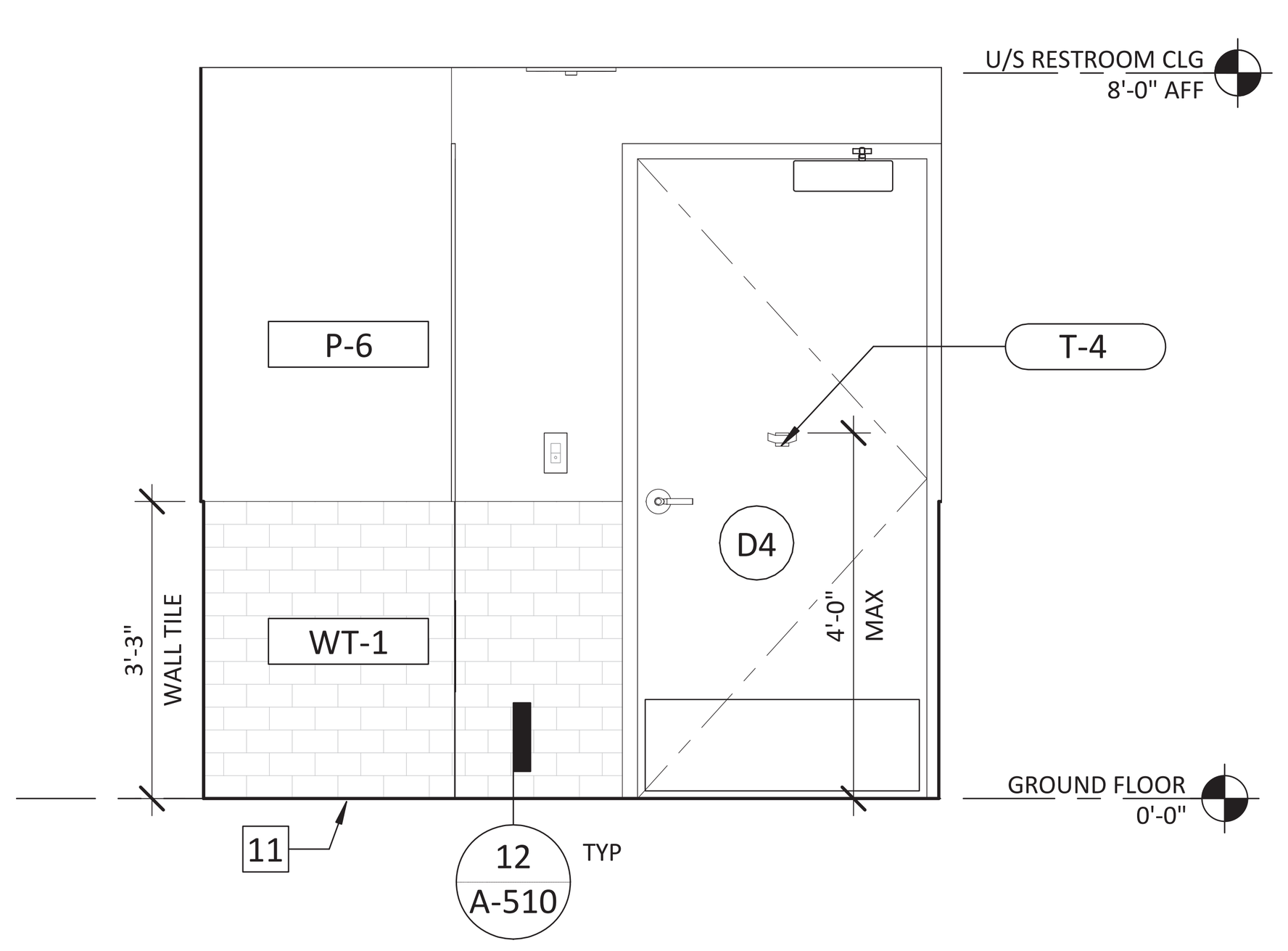

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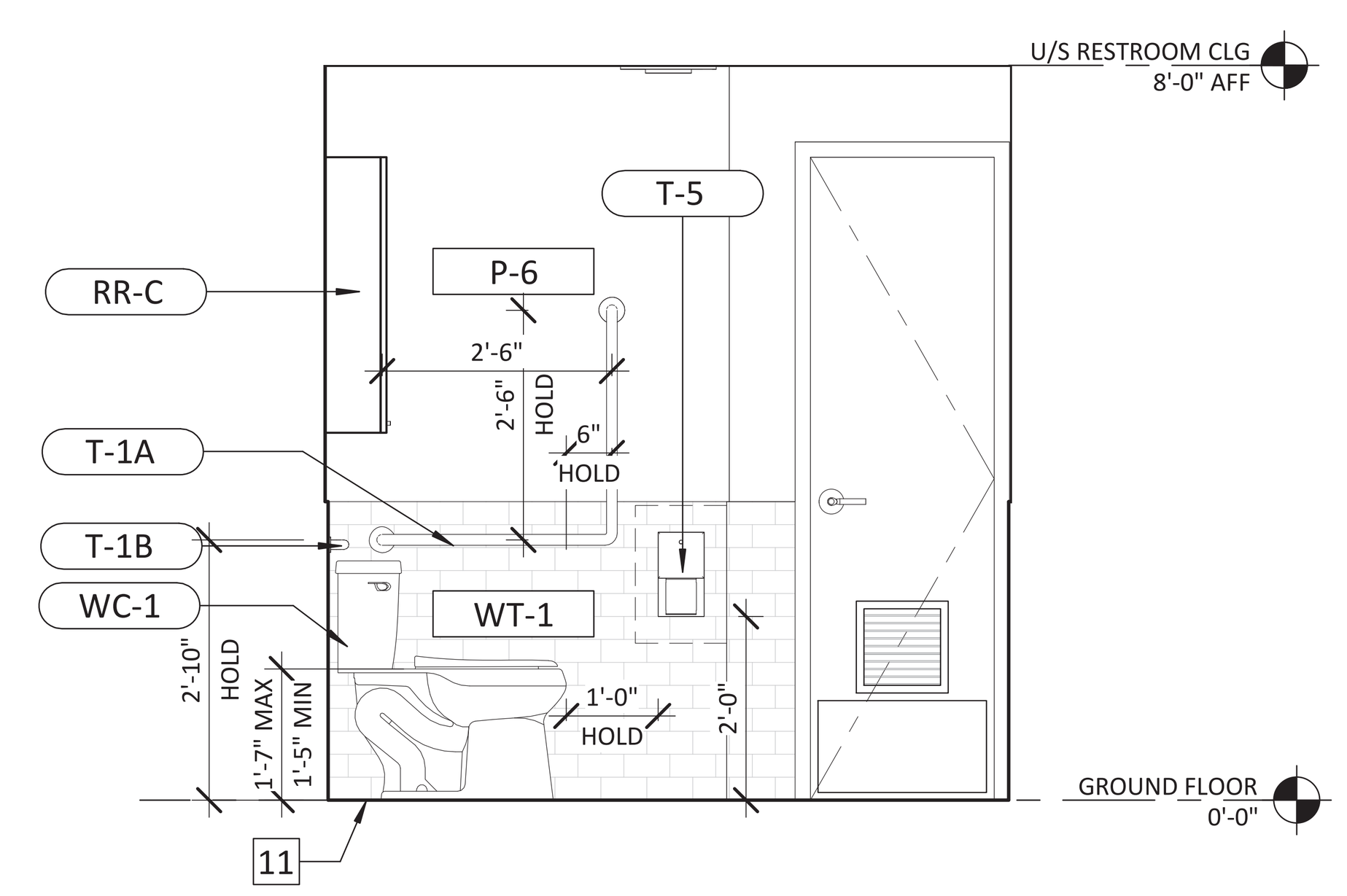

1B RESTROOM 1- ELEVATION B
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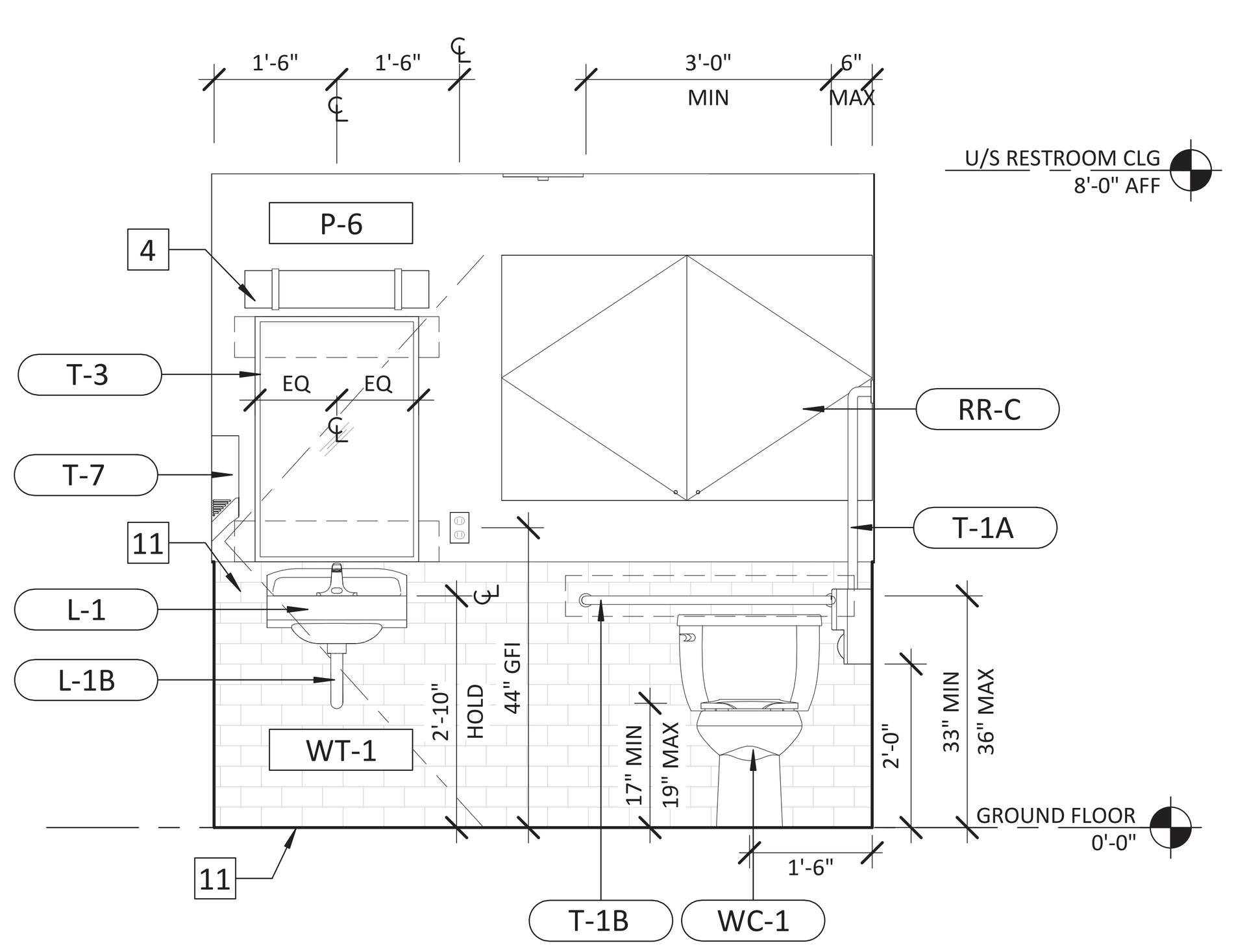

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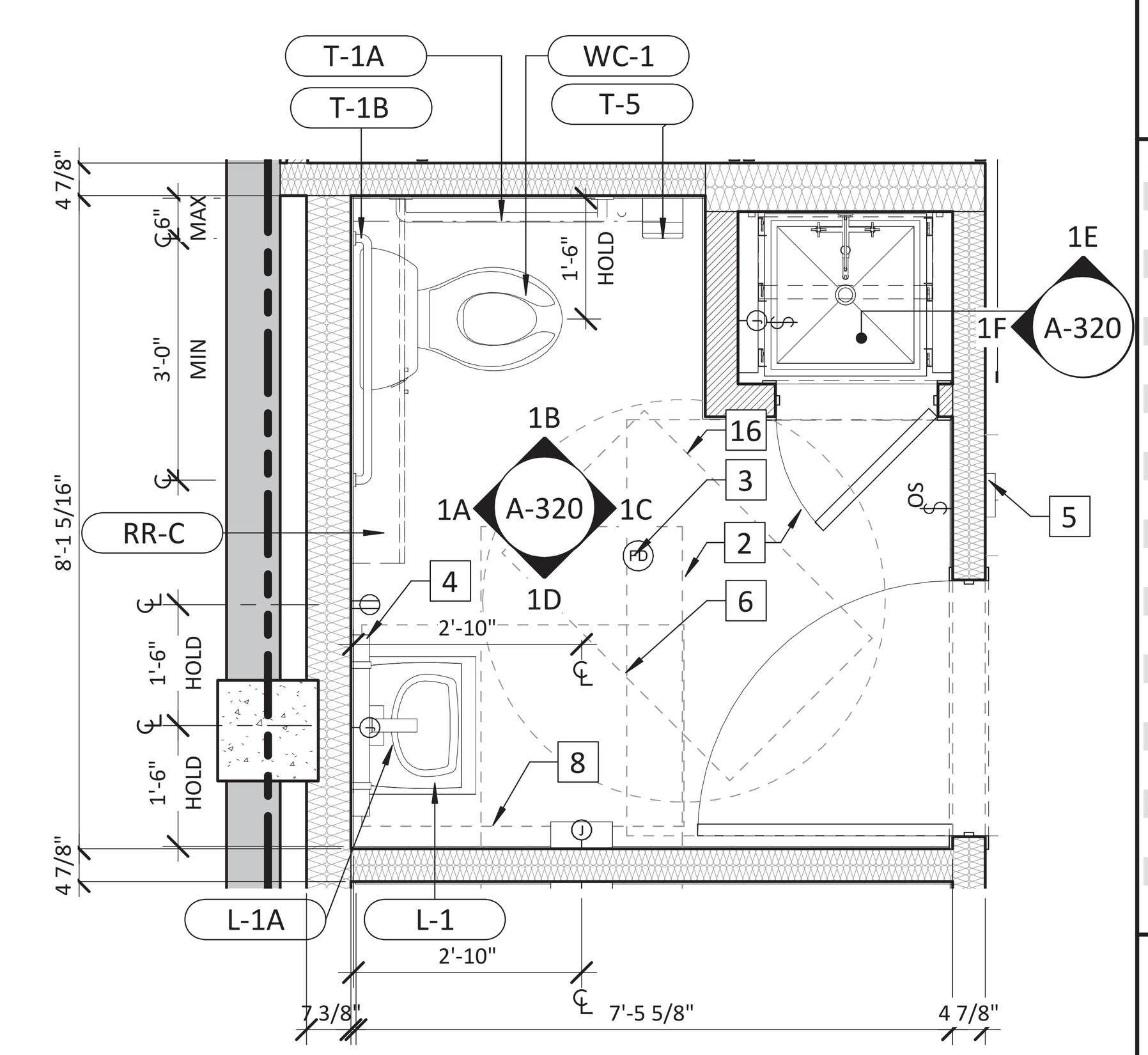

1 ENLARGED RESTROOM 1-PLAN
SCALE: 1/2" = 1'-0"

lululemon
1818 CORNWALL AVE.
VANCOUVER, B.C., V6J1C7

CF POLO PARK
1485 Portage Ave, Unit 144E
Winnipeg, MB
R3G 0W5
CRU NUMBER: 144E

Quadrangle
Quadrangle Architects Limited
The Well, 8 Spadina Avenue, Suite 2100, Toronto, ON M5V 0S8
t 416 598 1240 www.bdpquadrangle.com

ARCHITECT SEAL

ONTARIO ASSOCIATION OF ARCHITECTS
KIRTIDEV MEHTA
LICENCE
8099

ISSUED FOR CONSTRUCTION

07/14/2023

△	DATE	DESCRIPTION
	05/05/2023	DESIGN DEVELOPMENT
	06/09/2023	PERMIT/CONSTRUCTION
	06/09/2023	ISSUED FOR BID
	07/14/2023	ISSUED FOR CONSTRUCTION

DRAWING INFORMATION
PROJECT #: 23206
CHECKED BY: MP
DRAWN BY: TA

ENLARGED RESTROOM PLANS AND ELEVATIONS

DRAWING NUMBER
A-320

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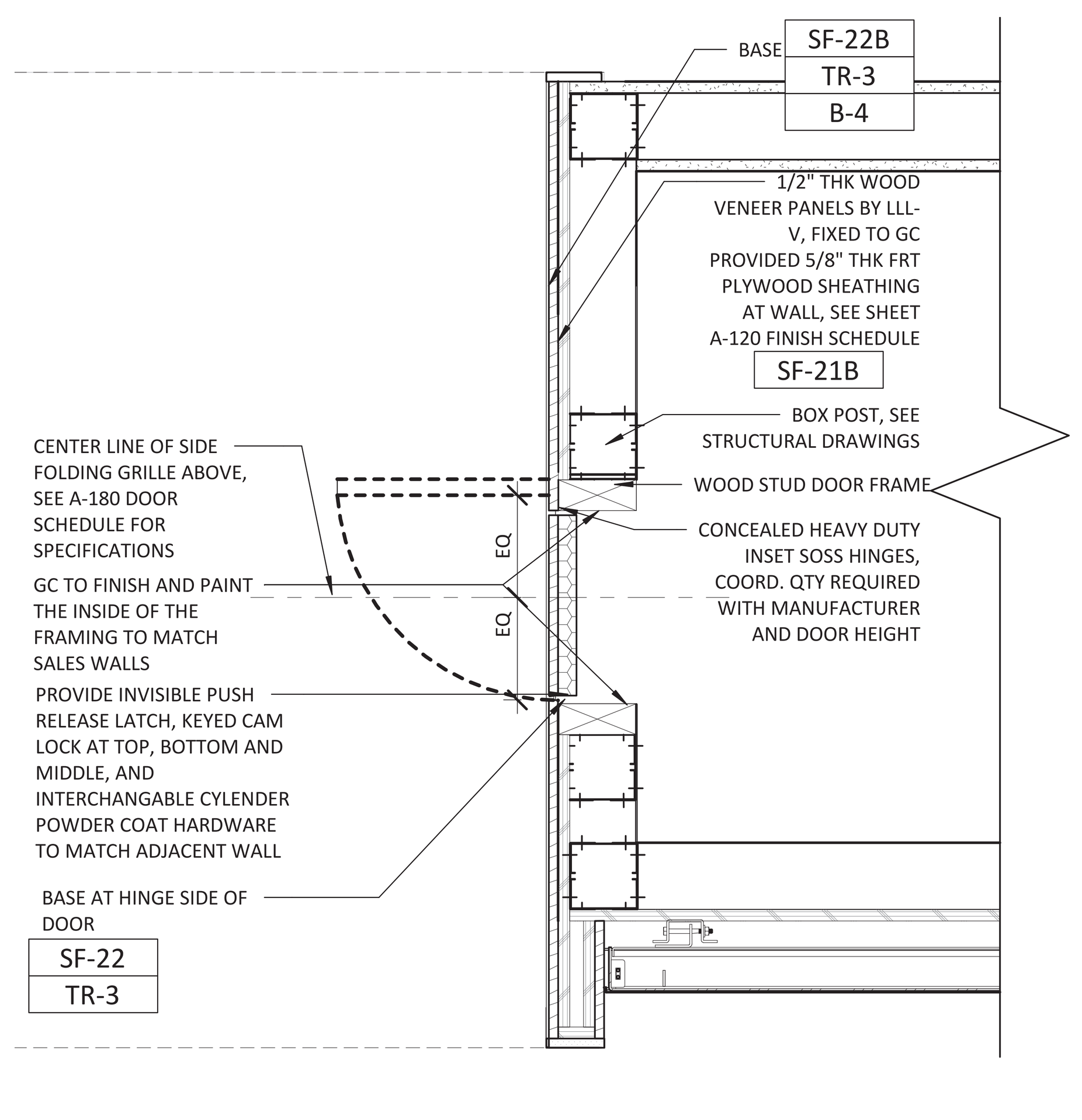


2 PLAN AT SIDE-FOLD GRILLE-JAMB 1
SCALE: 1 1/2" = 1'-0"

GENERAL NOTES

A. SEE SHEET A-120 FINISH SCHEDULE FOR SPECIFICATIONS, PROCUREMENT AND INSTALLATION RESPONSIBILITIES OF ALL STOREFRONT MATERIAL.

B. SEE SHEET A-180 DOOR SCHEDULE FOR SIZES AND SPECIFICATION OF STOREFRONT DOORS.

C. ARTWORK PROVIDED BY OWNER

D. SEE STRUCTURAL DWGS FOR STOREFRONT FRAMING

KEYNOTES

 # - KEYNOTE SYMBOL | **NOT USED**

1. NEW SIGNAGE FURNISHED AND INSTALLED BY SIGN VENDOR. GC TO COORDINATE WITH SIGN VENDOR ALL ELECTRICAL AND STRUCTURAL REQUIREMENTS PRIOR TO INSTALLATION.
2. INSTALL BLOCKING AS REQUIRED FOR SIGNAGE. SEE VENDOR SHOP DRAWINGS FOR ADDITIONAL INFORMATION
3. JUNCTION BOX FOR STOREFRONT SIGNAGE CONCEALED ABOVE CEILING, SEE SHEET A-420 STOREFRONT SECTIONS AND ELECTRICAL SHEET E-110 FOR ADDITIONAL INFORMATION
4. EAS SENSORS RECESSED INTO SLAB, SEE ELECTRICAL DRAWINGS FOR MORE INFORMATION
5. EAS CONTROLLER LOCATED BEHIND ACCESS PANEL AT STOREFRONT VOID, SEE ELECTRICAL DWGS FOR MORE INFORMATION
6. CONCRETE PLASTER FINISH APPLIED OVER CEMENTITIOUS BACKER BOARD OVER SHEATHING PER DETAILS, INSTALL PER MANUFACTURER'S INSTRUCTIONS, SEE SHEET A-120 FINISH SCHEDULE. PROVIDE U-V RESISTANT SEALER AT EXTERIOR LOCATIONS
7. 3/8" FRY-REGLET REVEAL CONTROL JOINT AT CONCRETE PLASTER, MATCH CONCRETE COLOR
8. POWDER-COATED 3/4"W REVEAL, SEE A-400 SERIES DETAILS, COLOR: AS NOTED
9. POWDER-COATED BRAKE METAL 'L' AT REVEAL, SEE A-430 FOR MORE INFO, COLOR: AS NOTED
10. 2 3/8" BACK-LIT CUSTOM PERFORATED METAL PANEL ASSEMBLY SECURED ON GC PROVIDED 7/8" HAT CHANNELS TO STOREFRONT WALL ASSEMBLY, GC TP RUN HAT CHANNELS IN PARALLEL TO LONG SIDE OF PANEL AND PROVIDE GAPS AS NEEDED TO ROUTE WIRING BETWEEN CHANNELS, GC TO COORDINATE POWER REQUIREMENTS AND ACCESS FOR REMOTE DRIVERS, FINAL PATTERN TO BE PROVIDED BY LLL FOR EACH LOCATION
11. DASHED LINE INDICATES LOCATION OF LED STRIP LIGHTS INSIDE STOREFRONT PERFORATED PANEL, SEE SHEET A-150 RCP AND ELECTRICAL DRAWINGS FOR MORE INFORMATION
12. INTERIOR WOOD VENEER PORTAL WITH FLUSH SOLID WOOD BASE AND SOLID WOOD FACE TRIMS AT STOREFRONT ENTRY, SEE SHEET A-120 FINISH SCHEDULE FOR SPEC AS NOTED
13. INTERIOR WOOD VENEER EMBLEM WALL WITH FLUSH SOLID WOOD BASE AND METAL BASE REVEAL TRIMS, SEE SHEET A-120 FINISH SCHEDULE FOR SPEC AS NOTED
14. PROVIDE DUPLEX OUTLET WITH WHITE COVERPLATE AT GWB SOFFIT WITHIN 18" OF TOP OF STOREFRONT WINDOW
15. PROVIDE DUPLEX OUTLET BRUSHED STAINLESS COVERPLATE AT WOOD PORTAL CEILING WITHIN 18" OF TOP OF STOREFRONT WINDOW
16. EXISTING COLUMN. LOCATION TO BE VERIFIED BY GC, ENSURE FIRE RATING IS MAINTAINED
17. INTERIOR BRAKE METAL BASE, CORNER PIECES TO BE SHOP WELDED, AND SCRIBE IN FIELD, TYP.
18. INTERIOR GLAZING ASSEMBLY, SEE SHEET A-120 FINISH SCHEDULE FOR SPEC AS NOTED
19. 1/8" MAX BUTT-JOINT. POLISH AND BEVEL ALL EXPOSED GLASS EDGES AND SEAMS, TYP.
20. INTERIOR STOREFRONT GLAZING CHANNEL USE 1"x1" AT SILL AND 1" x 1 1/2" RECESSED INTO WOOD PORTAL AT HEAD, PROVIDE GRAY GASKETTING, NEOPRENE SETTING PADS, AND MATTE GRAY SILICONE SEALANT AS REQUIRED, FINISH BRUSHED STAINLESS STEEL
21. INTERIOR SIDE-FOLDING GRILLE AND INTEGRATED LOCKING EGRESS DOOR, SEE SECTIONS A-420
22. INTERIOR OVERHEAD GRILLE WITH EQUIPMENT CONCEALED ABOVE PORTAL, SEE SECTIONS A-420, PROVIDE POWER FOR KEYED OPERATING SWITCH AND EMERGENCY RELEASE AT 48" AFF
23. INTERIOR TEMPERED GLASS DOOR WITH BRUSHED STAINLESS STEEL PATCH FITTINGS, SEE SHEET A-180 FOR DOOR AND HARDWARE SCHEDULE

LANDLORD GENERAL NOTES:

STOREFRONT GENERAL NOTES:

EXACT LEASE LINE LOCATION MUST BE CONFIRMED ON SITE WITH THE MALL OPERATIONS MANAGER PRIOR TO CONSTRUCTION.
ALL CONSTRUCTION DETAILS OF THE STOREFRONT JUNCTIONS WITH THE LANDLORD DEMISING CAPS AND LANDLORD CEILINGS/BULKHEADS MUST BE CONFIRMED ON SITE WITH THE LANDLORD'S REPRESENTATIVE PRIOR TO CONSTRUCTION.
IF NECESSARY, THE INSTALLATION OF ANY NEW DEMISING CAPS ARE TO BE COORDINATED WITH MALL OPERATIONS MANAGER.
CLIENT STOREFRONT SHALL NOT BE ATTACHED TO LANDLORD BULKHEAD. ALL CONNECTIONS MUST BE DIRECTLY TO BASE BUILDING STRUCTURE AND OR AS APPROVED BY BASE BUILDING STRUCTURAL ENGINEER.
ENSURE TO PROVIDE A 1/2''X1/2'' (Min.) METAL REVEAL DETAIL PERIMETER OF THE STOREFRONT WHERE JUNCTIONS WITH THE BASE BUILDING ELEMENTS (MALL BULKHEAD & DEMISING CAPS). INSTALL FLUSH WITH CLIENT MATERIALS/FINISH AND FULLY INTEGRATE INTO THE DESIGN. PROVIDE ALL RELEVANT DETAILS FOR FINAL LANDLORD APPROVAL.
MUST PROVIDE A 4'' (Min.) HIGH STOREFRONT BASE IN DURABLE MATERIALS SUCH AS METAL OR STONE ETC.
NO SILICONE GLAZING JOINTS, USE CLIPS TO MATCH STOREFRONT FINISHES. ENSURE GLAZING THICKNESS IS SUITABLE (MEETS CODE) FOR HEIGHT OF PANELS BEING INSTALLED.
ENSURE UNDERSIDE OF ENTRY BULKHEAD AND DEMISING WALL RETURNS ARE FINISHED IN A DURABLE FINISH UP TO AN ARCHITECTURALLY SIGNIFICANT POINT. PROVIDE DETAILS AND SPECIFICATIONS FOR LANDLORD REVIEW AND APPROVAL.
PROVIDE RECESSED NICHE FOR TRACK LIGHTING IN WINDOW DISPLAY AREA, SURFACE MOUNTED LIGHTING IS NOT PERMITTED IN THIS AREA.Đ SHOP DRAWINGS ARE REQUIRED FOR CF REVIEW FOR ANY STOREFRONT MILLWORK, GLAZING AND METAL SYSTEMS.

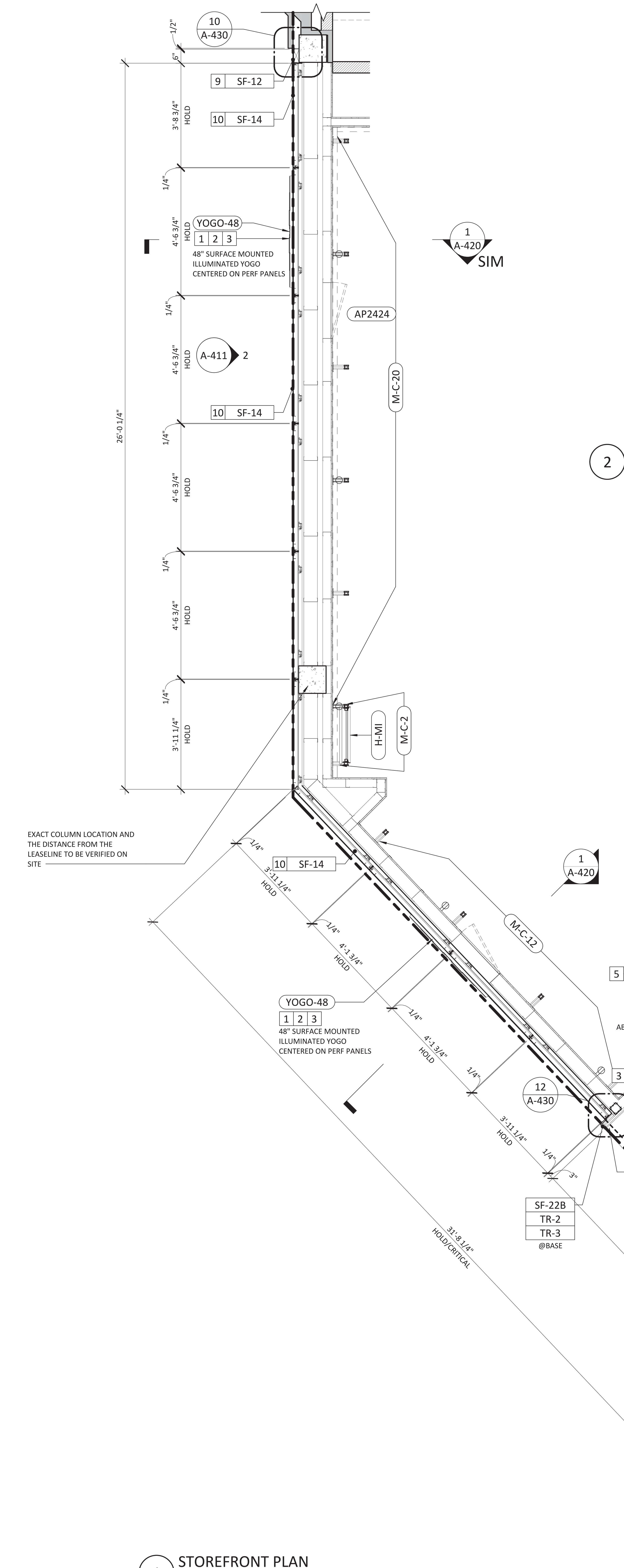
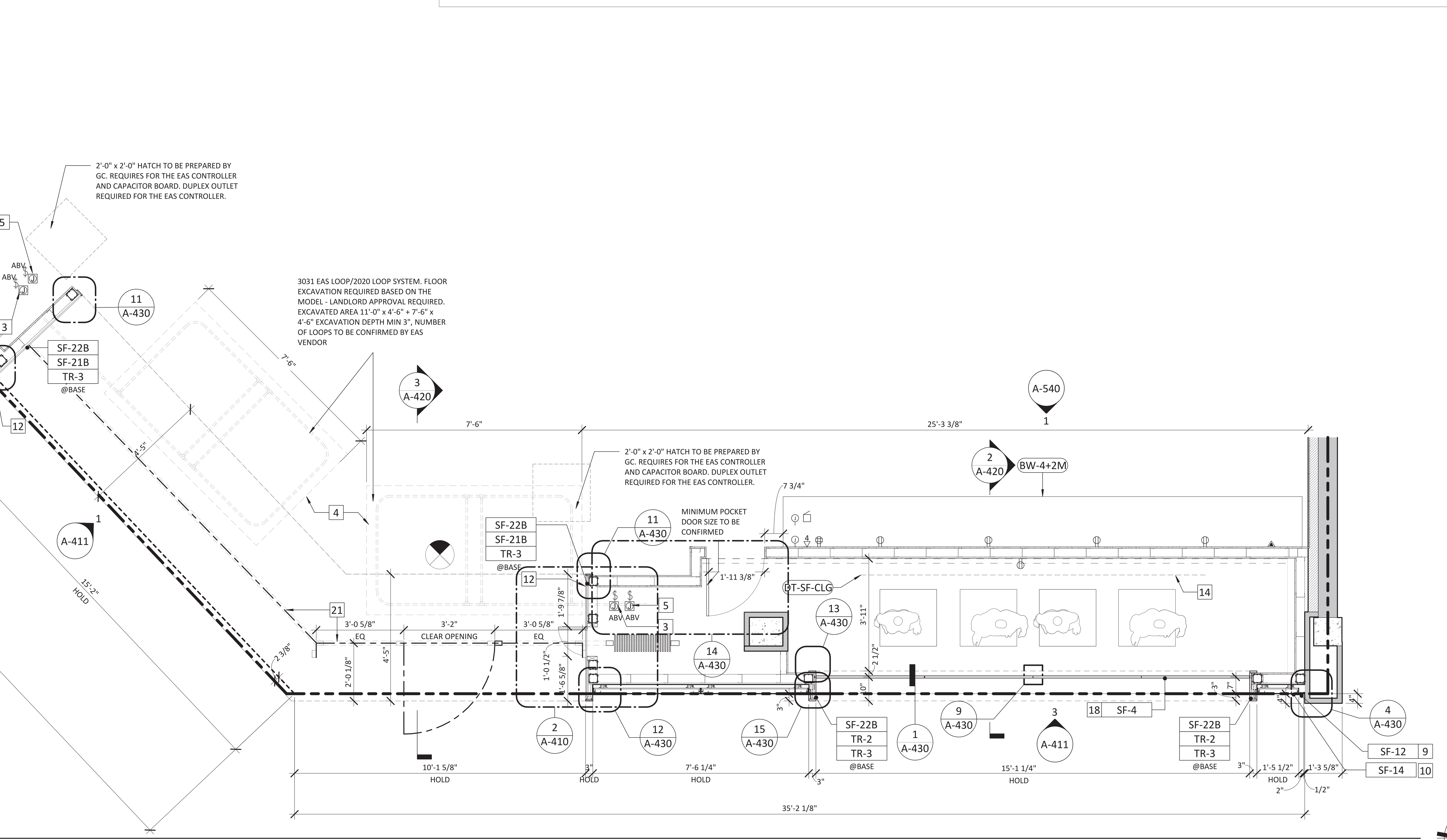
STOREFRONT GRAPHICS / LIGHTBOX / DIGITAL SCREEN NOTES:

MUST BE DESIGNED AND FULLY INTEGRATED WITHIN THE CONTEXT OF THE OVERALL STOREFRONT.
MUST BE LOCATED EITHER BEHIND THE LEASE LINE, OR AT THE LEASE LINE, (WITHIN THE CLIENT'S PREMISES). IF AT THE LEASE LINE, MUST BE DESIGNED AND FULLY INTEGRATED WITHIN THE CONTEXT OF THE OVERALL STOREFRONT & MUST HAVE A DIMMER, NO EXPOSED LOCKS, AND CANNOT BE SURFACE MOUNTED.
IF USING DIGITAL MEDIA, ALL CONDUITS MUST BE CONCEALED, BEVELS MINIMAL AND MOVING IMAGES/CONTENT MUST BE REVIEWED BY LANDLORD.ĐILLUMINATED GRAPHICS AT STOREFRONT HAVE TO BIND GLASS AND GRAPHIC CHANGED OUT FROM ACCESS IN THE REAR OF THE PANEL. NO ACCESS OR HARDWARE FROM THE FRONT OF THE STOREFRONT.
LIGHTBOX SHALL BE CONTROLLED BY A DIMMER.
ALL MEDIA (FIXED OR MOBILE) MUST BE LIFE STYLE GRAPHICS, NO PROMO OR SALE SIGNS AND MUST BE CHANGED OUT SEASONALLY AS PER DIGITAL MEDIA RIDER INCLUDED IN THE LEASE AGREEMENT.

FINISHES GENERAL NOTES:

METAL PANELS MUST BE A MIN 16 GAUGE STEEL TO AVOID OIL CANNING AND DENTS. ALL METAL WORK MUST BE SHOP FINISHED BREAK METAL PANELS WITH FORMED/ROLLED EDGES. NO PRE-FABRICATED SHEET GOODS WITH BUTT JOINTS WILL BE ACCEPTED. FABRICANT SHOP DRAWINGS WILL BE REQUIRED FOR FINAL APPROVAL.Đ ENSURE THAT JOINTS IN STOREFRONT MATERIALS ALIGN WITH ARCHITECTURALLY SIGNIFICANT ELEMENTS. PROVIDE ALL RELEVANT DETAILS FOR LANDLORD APPROVAL.Đ ALL GLASS IS TO BE TEMPERED. IF REQUIRED, PROVIDE MOUNTING CLIPS. NO SILICONE JOINTS ACCEPTED. SPECIFICATION AND MATERIAL OF CLIPS IS SUBJECT TO LANDLORD APPROVAL.
ALL MATERIALS USED MUST BE FINISHED IN A WAY THAT ENSURES THEIR 'CLEANABILITY'. TEXTURED FINISHES MUST RECEIVE ALL THE NECESSARY TREATMENTS TO CLEAN THEM AND NOT ACCUMULATE DUST AND/OR GREASE OVER TIME.
THE TENANT`S CONTRACTOR MUST ENSURE A SMOOTH, LEVEL TRANSITION BETWEEN THE MALL FLOOR TILE FINISH AND THE NEW TENANT FLOOR FINISH. A 1/8" `SCHLUTER SCHIENE' METAL TRANSITION STRIP MUST BE INSTALLED BETWEEN THE TENANT FLOOR FINISH AND LANDLORD FLOOR FINISH. EXACT DETAILS AND LOCATION OF SCHLUTER MUST BE CONFIRMED ON SITE WITH THE LANDLORD PRIOR TO CONSTRUCTION.
THE CLIENT`S CONTRACTOR WILL ENSURE THAT THE SCHLUTER AND ALL LANDLORD TILE IS FULLY INTACT AND IN GOOD CONDITION AT THE LEASE LINE, AND WILL RAISE ANY CONCERNS TO THE LANDLORD PRIOR TO COMMENCING WORK. (SHOULD THERE BE ANY ISSUES BROUGHT UP AT A LATER DATE, THE LIENT`S CONTRACTOR WILL BE RESPONSIBLE FOR REPARATION WORKS).

PROVIDE SHOP DRAWINGS FOR SIGNAGE FOR APPROVAL

1 STOREFRONT PLAN
SCALE: 1/2" = 1'-0"

7/14/2023 12:14:31 PM

lululemon
1818 CORNWALL AVE.
VANCOUVER, B.C., V6J1C7

CF POLO PARK
1485 Portage Ave, Unit 144E
Winnipeg, MB
R3G 0W5
CRU NUMBER: 144E

Quadrangle
Quadrangle Architects Limited
The Well, 8 Spadina Avenue, Suite 2100, Toronto, ON M5V 0S8
t 416 598 1240 www.bdpquadrangle.com

ARCHITECT SEAL

ONTARIO ASSOCIATION OF ARCHITECTS
KIRTIDEV MEHTA
LICENCE
8099

ISSUED FOR CONSTRUCTION

07/14/2023

△	DATE	DESCRIPTION
	05/05/2023	DESIGN DEVELOPMENT
	06/09/2023	PERMIT/CONSTRUCTION
	06/09/2023	ISSUED FOR BID
	07/14/2023	ISSUED FOR CONSTRUCTION

DRAWING INFORMATION
PROJECT #: 23206
CHECKED BY: NA
DRAWN BY: DK/MP

STOREFRONT PLANS AND ELEVATIONS

DRAWING NUMBER
A-410

GENERAL NOTES

A. SEE SHEET A-120 FINISH SCHEDULE FOR SPECIFICATIONS, PROCUREMENT AND INSTALLATION RESPONSIBILITIES OF ALL STOREFRONT MATERIAL.

B. SEE SHEET A-180 DOOR SCHEDULE FOR SIZES AND SPECIFICATION OF STOREFRONT DOORS.

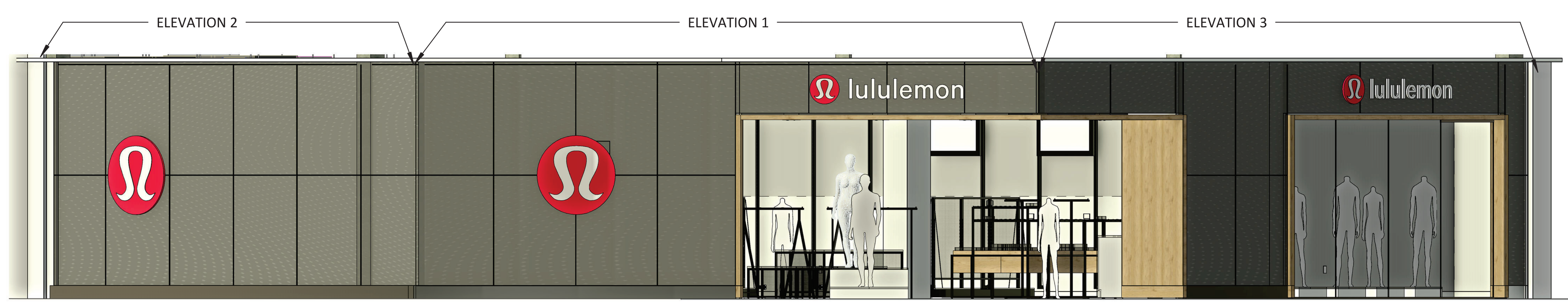
C. ARTWORK PROVIDED BY OWNER

D. SEE STRUCTURAL DWGS FOR STOREFRONT FRAMING

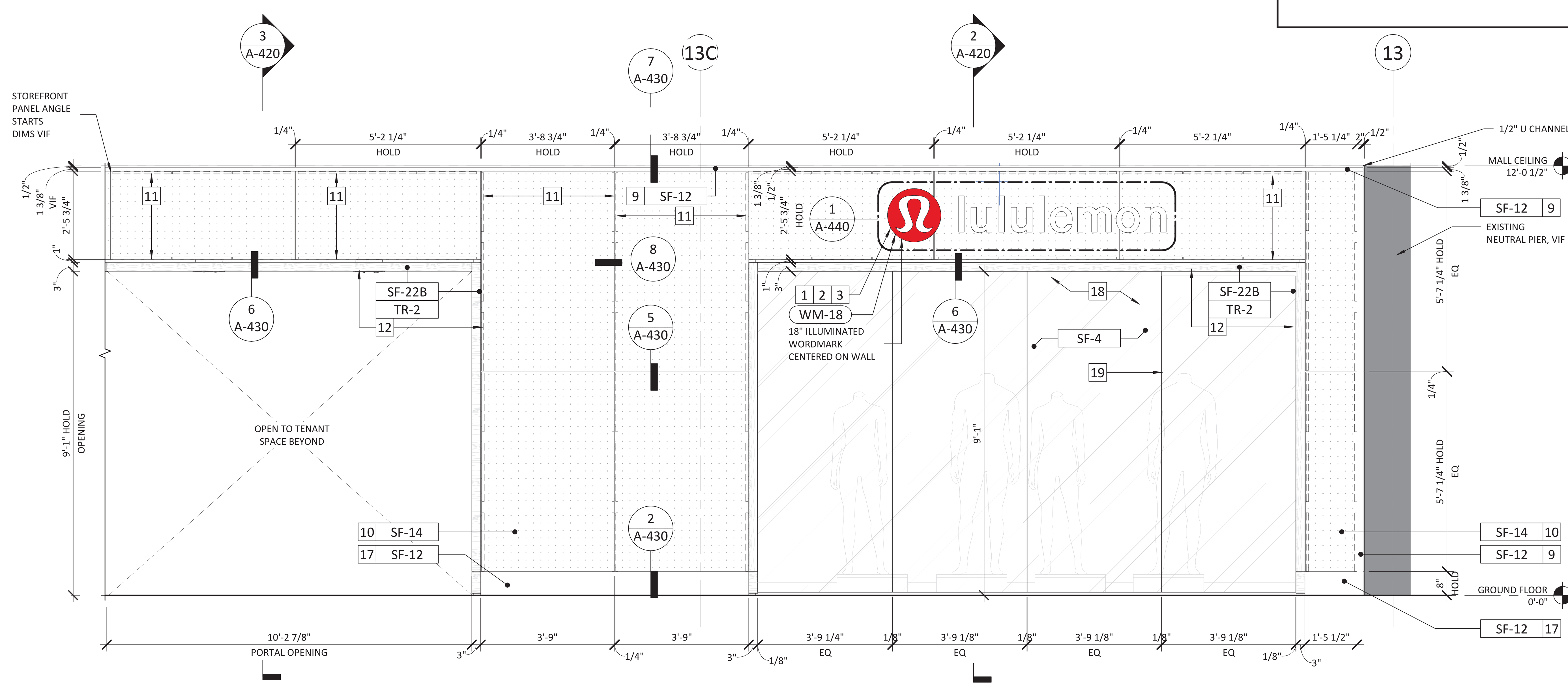
KEYNOTES

[#] - KEYNOTE SYMBOL — NOT USED (shaded)

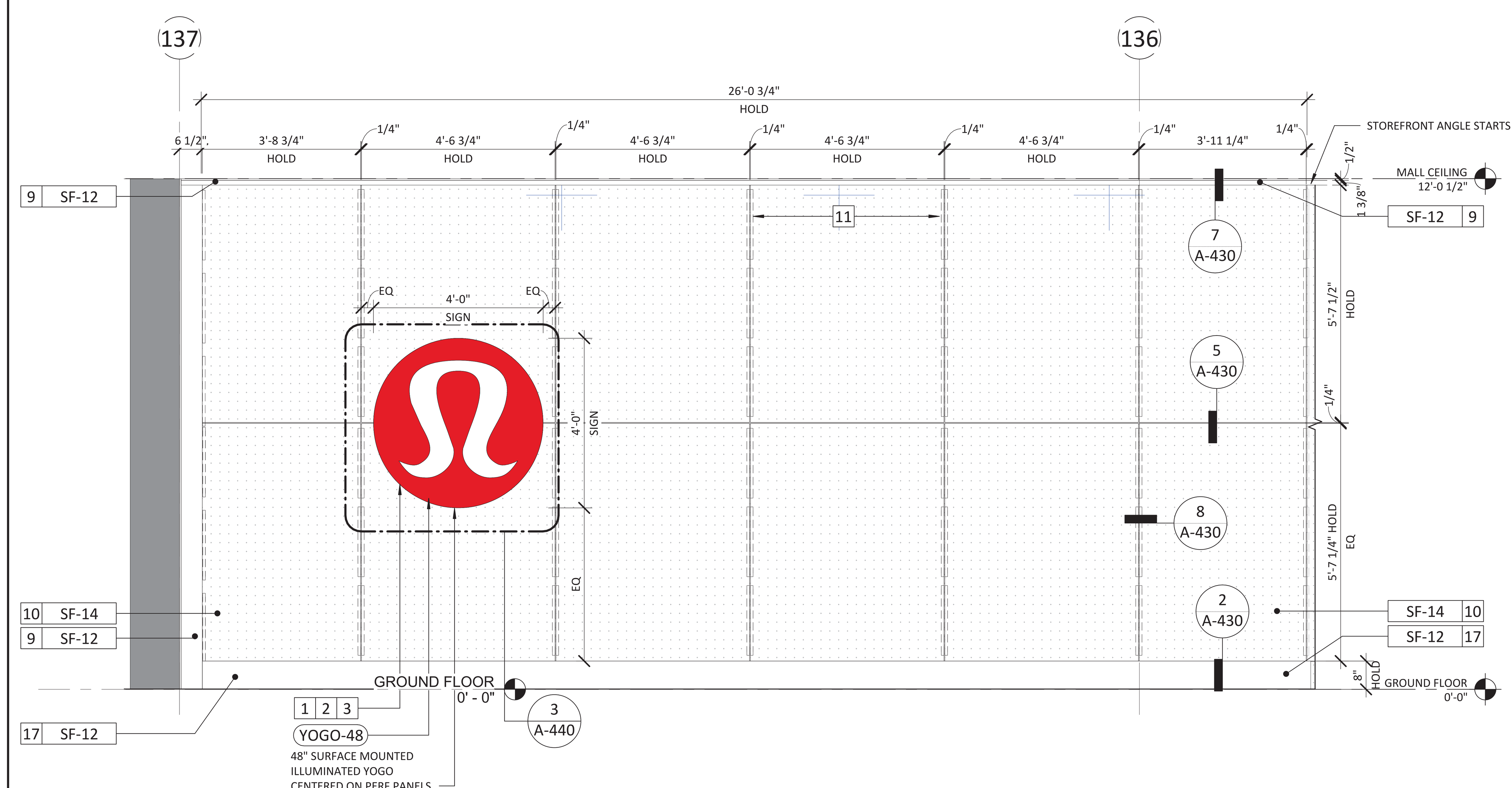
1. NEW SIGNAGE FURNISHED AND INSTALLED BY SIGN VENDOR. GC TO COORDINATE WITH SIGN VENDOR ALL ELECTRICAL AND STRUCTURAL REQUIREMENTS PRIOR TO INSTALLATION.
2. INSTALL BLOCKING AS REQUIRED FOR SIGNAGE. SEE VENDOR SHOP DRAWINGS FOR ADDITIONAL INFORMATION
3. JUNCTION BOX FOR STOREFRONT SIGNAGE CONCEALED ABOVE CEILING, SEE SHEET A-420 STOREFRONT SECTIONS AND ELECTRICAL SHEET E-110 FOR ADDITIONAL INFORMATION
4. EAS SENSORS RECESSED INTO SLAB, SEE ELECTRICAL DRAWINGS FOR MORE INFORMATION
5. EAS CONTROLLER LOCATED BEHIND ACCESS PANEL AT STOREFRONT VOID, SEE ELECTRICAL DWGS FOR MORE INFORMATION
6. CONCRETE PLASTER FINISH APPLIED OVER CEMENTITIOUS BACKER BOARD OVER SHEATHING PER DETAILS, INSTALL PER MANUFACTURER'S INSTRUCTIONS, SEE SHEET A-120 FINISH SCHEDULE. PROVIDE U-V RESISTANT SEALER AT EXTERIOR LOCATIONS
7. 3/8" FRY-REGLET REVEAL CONTROL JOINT AT CONCRETE PLASTER, MATCH CONCRETE COLOR
8. POWDER-COATED 3/4"W REVEAL, SEE A-400 SERIES DETAILS, COLOR: AS NOTED
9. POWDER-COATED BRAKE METAL 'L' AT REVEAL, SEE A-430 FOR MORE INFO, COLOR: AS NOTED
10. 2 3/8" BACK-LIT CUSTOM PERFORATED METAL PANEL ASSEMBLY SECURED ON GC PROVIDED 7/8" HAT CHANNELS TO STOREFRONT WALL ASSEMBLY, GC TP RUN HAT CHANNELS IN PARALLEL TO LONG SIDE OF PANEL AND PROVIDE GAPS AS NEEDED TO ROUTE WIRING BETWEEN CHANNELS, GC TO COORDINATE POWER REQUIREMENTS AND ACCESS FOR REMOTE DRIVERS, FINAL PATTERN TO BE PROVIDED BY LLL FOR EACH LOCATION
11. DASHED LINE INDICATES LOCATION OF LED STRIP LIGHTS INSIDE STOREFRONT PERFORATED PANEL, SEE SHEET A-150 RCP AND ELECTRICAL DRAWINGS FOR MORE INFORMATION
12. INTERIOR WOOD VENEER PORTAL WITH FLUSH SOLID WOOD BASE AND SOLID WOOD FACE TRIMS AT STOREFRONT ENTRY, SEE SHEET A-120 FINISH SCHEDULE FOR SPEC AS NOTED
13. INTERIOR WOOD VENEER EMBLEM WALL WITH FLUSH SOLID WOOD BASE AND METAL BASE REVEAL TRIMS, SEE SHEET A-120 FINISH SCHEDULE FOR SPEC AS NOTED
14. PROVIDE DUPLEX OUTLET WITH WHITE COVERPLATE AT GWB SOFFIT WITHIN 18" OF TOP OF STOREFRONT WINDOW
15. PROVIDE DUPLEX OUTLET BRUSHED STAINLESS COVERPLATE AT WOOD PORTAL CEILING WITHIN 18" OF TOP OF STOREFRONT WINDOW
16. EXISTING COLUMN. LOCATION TO BE VERIFIED BY GC, ENSURE FIRE RATING IS MAINTAINED
17. INTERIOR BRAKE METAL BASE, CORNER PIECES TO BE SHOP WELDED, AND SCRIBE IN FIELD, TYP.
18. INTERIOR GLAZING ASSEMBLY, SEE SHEET A-120 FINISH SCHEDULE FOR SPEC AS NOTED
19. 1/8" MAX BUTT-JOINT. POLISH AND BEVEL ALL EXPOSED GLASS EDGES AND SEAMS, TYP.
20. INTERIOR STOREFRONT GLAZING CHANNEL USE 1"x1" AT SILL AND 1" x 1 1/2" RECESSED INTO WOOD PORTAL AT HEAD, PROVIDE GRAY GASKETTING, NEOPRENE SETTING PADS, AND MATTE GRAY SILICONE SEALANT AS REQUIRED, FINISH BRUSHED STAINLESS STEEL
21. INTERIOR SIDE-FOLDING GRILLE AND INTEGRATED LOCKING EGRESS DOOR, SEE SECTIONS A-420
22. INTERIOR OVERHEAD GRILLE WITH EQUIPMENT CONCEALED ABOVE PORTAL, SEE SECTIONS A-420, PROVIDE POWER FOR KEYED OPERATING SWITCH AND EMERGENCY RELEASE AT 48" AFF
23. INTERIOR TEMPERED GLASS DOOR WITH BRUSHED STAINLESS STEEL PATCH FITTINGS, SEE SHEET A-180 FOR DOOR AND HARDWARE SCHEDULE



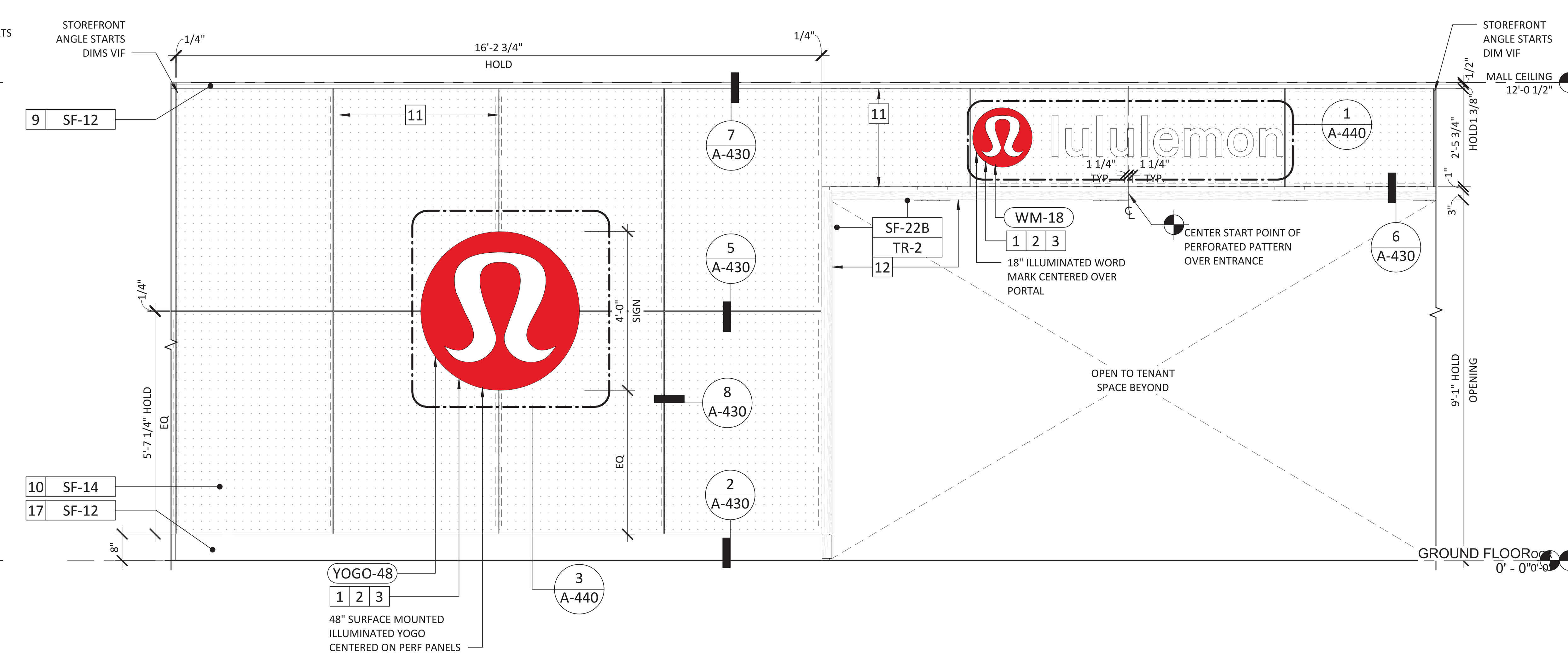
5 3D STOREFRONT
SCALE: NTS



3 STOREFRONT ELEVATION - SELECT - INTERIOR 3
SCALE: 1/2" = 1'-0"



2 STOREFRONT ELEVATION - SELECT - INTERIOR 2
SCALE: 1/2" = 1'-0"



1 STOREFRONT ELEVATION - SELECT - INTERIOR 1
SCALE: 1/2" = 1'-0"

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1818 CORNWALL AVE.
VANCOUVER, B.C., V6J1C7

CF POLO PARK
1485 Portage Ave, Unit 144E
Winnipeg, MB
R3G 0W5
CRU NUMBER: 144E

Quadrangle
Quadrangle Architects Limited
The Well, 8 Spadina Avenue, Suite 2100, Toronto, ON M5V 0S8
t 416 598 1240 www.bdpquadrangle.com

ARCHITECT SEAL

ONTARIO ASSOCIATION OF ARCHITECTS
KIRTIDEV MEHTA
LICENCE
8099

ISSUED FOR CONSTRUCTION
07/14/2023

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06/09/2023	ISSUED FOR BID
07/14/2023	ISSUED FOR CONSTRUCTION

DRAWING INFORMATION
PROJECT #: 23206
CHECKED BY: NA
DRAWN BY: DK/MP

STOREFRONT PLANS AND ELEVATIONS

DRAWING NUMBER
A-411

7/14/2023 12:15:32 PM

GENERAL NOTES

A. SEE SHEET A-120 FINISH SCHEDULE FOR SPECIFICATIONS, PROCUREMENT AND INSTALLATION RESPONSIBILITIES OF ALL STOREFRONT MATERIAL.

B. SEE SHEET A-180 DOOR SCHEDULE FOR SIZES AND SPECIFICATION OF STOREFRONT DOORS.

C. ARTWORK PROVIDED BY OWNER

D. SEE STRUCTURAL DWGS FOR STOREFRONT FRAMING

KEYNOTES

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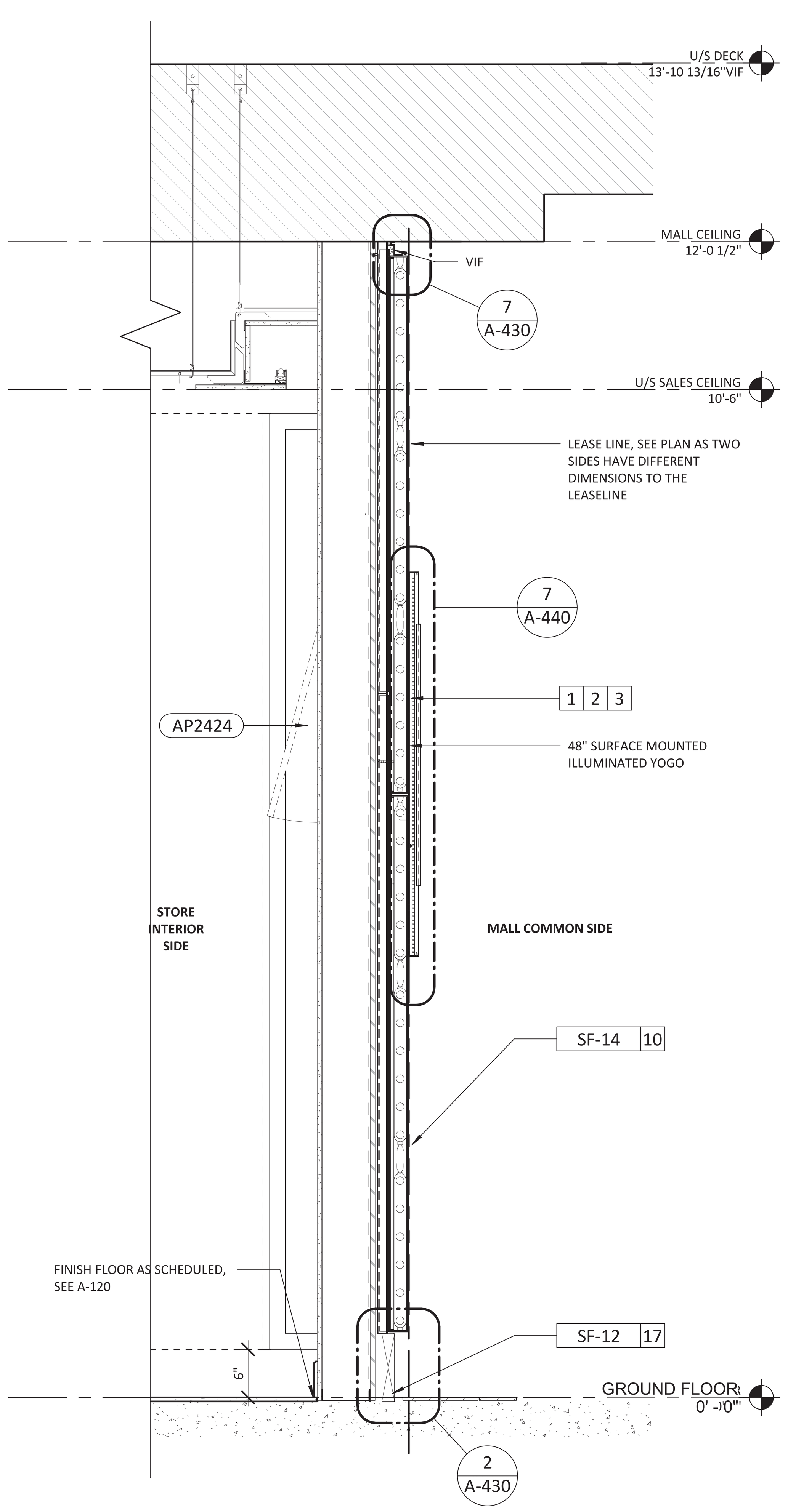
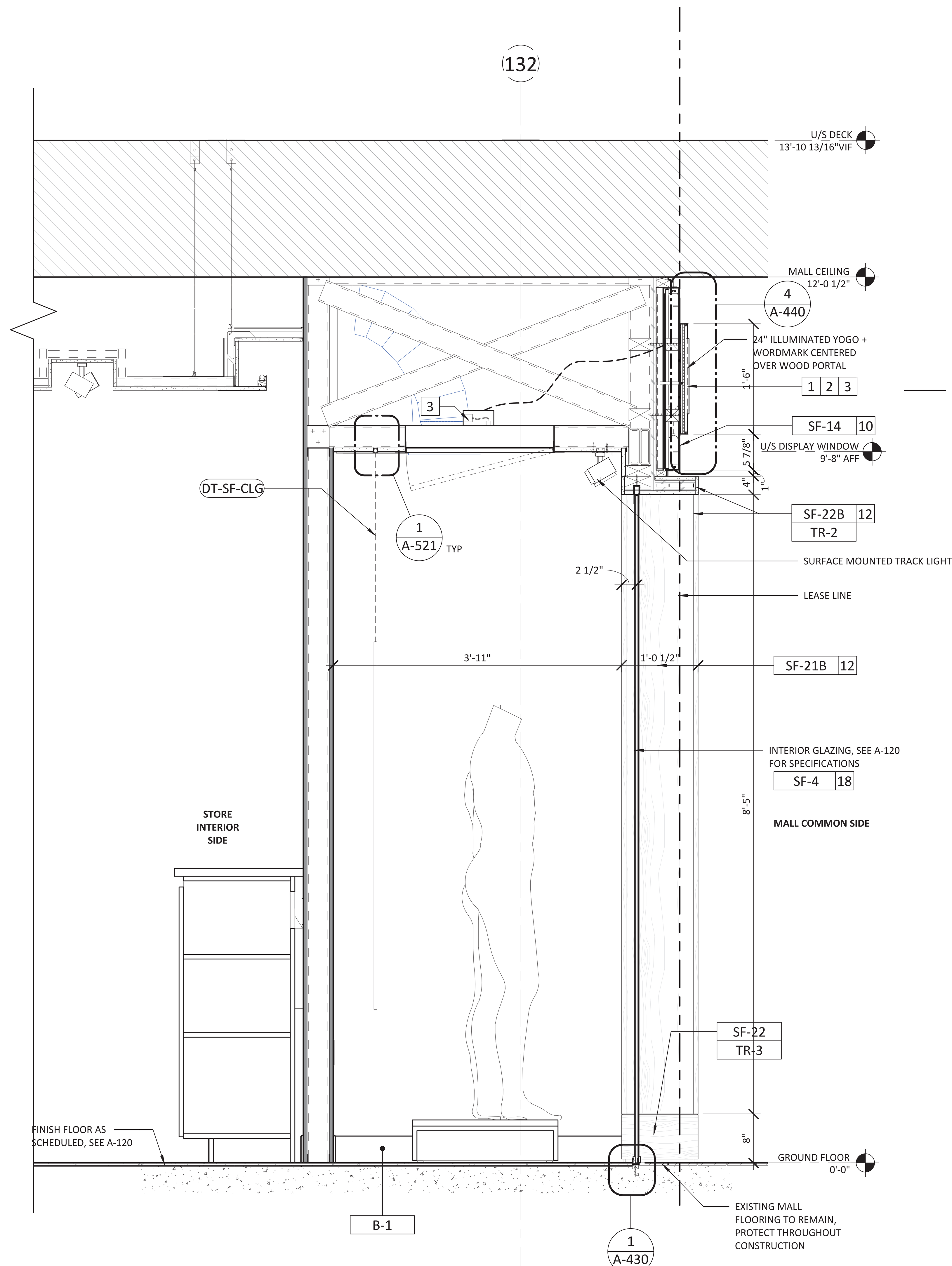


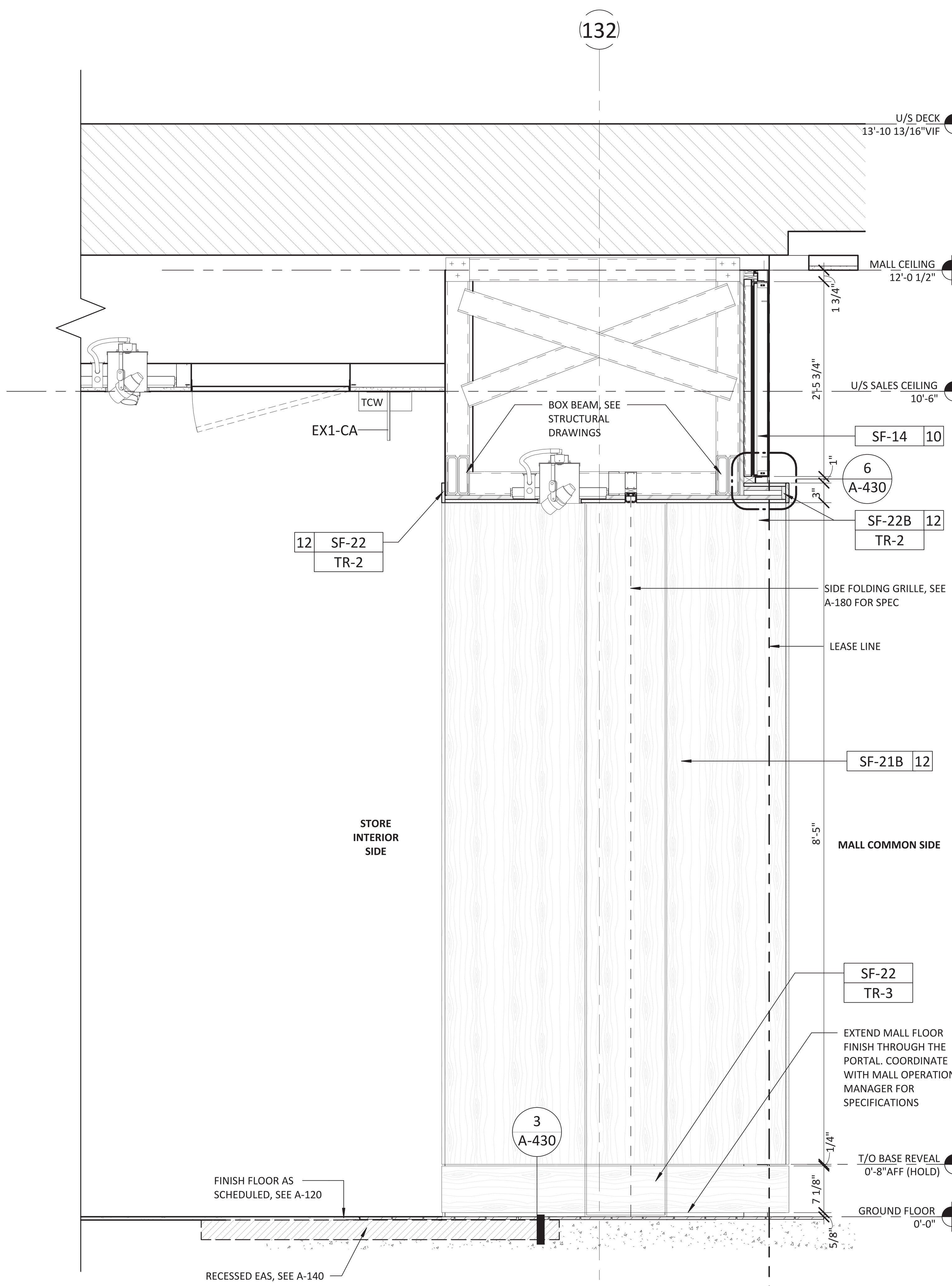
1 SECTION AT LARGE YOGO PERF PANEL WALL

SCALE: 1" = 1'-0"



2 SECTION AT GLAZING / WOOD PORTAL

SCALE: 1" = 1'-0"



3 SECTION AT SIDE FOLDING GRILLE / WOOD PORTAL

SCALE: 1" = 1'-0"

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VANCOUVER, B.C., V6J1C7

CF POLO PARK
1485 Portage Ave, Unit 144E
Winnipeg, MB
R3G 0W5
CRU NUMBER: 144E

Quadrangle
Quadrangle Architects Limited
The Well, 8 Spadina Avenue, Suite 2100, Toronto, ON M5V 0S8
t 416 598 1240 www.bdpquadrangle.com

ARCHITECT SEAL

ONTARIO ASSOCIATION OF ARCHITECTS
KIRTIDEV MEHTA
LICENCE
8099

ISSUED FOR CONSTRUCTION

07/14/2023

△	DATE	DESCRIPTION
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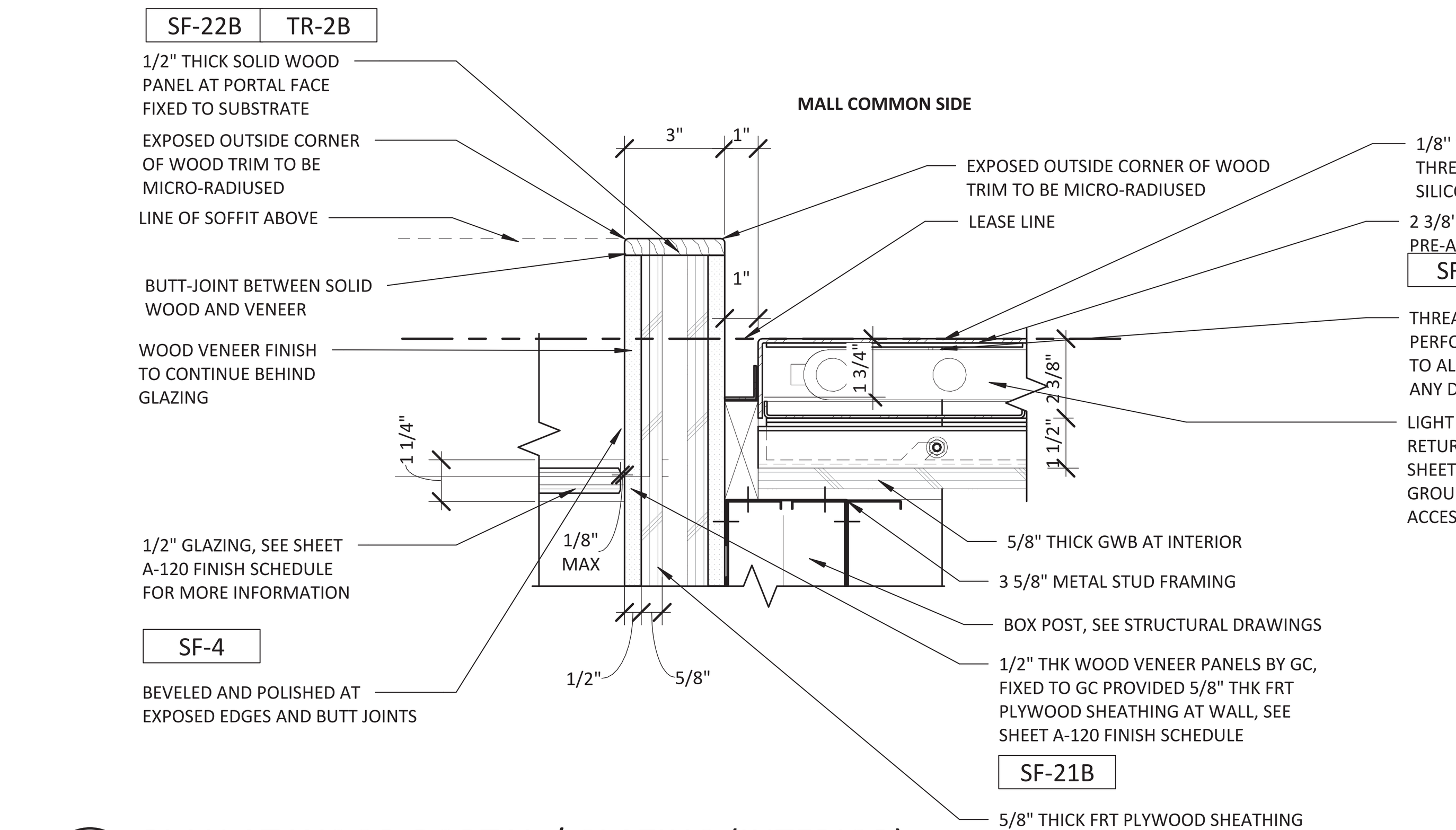
	06/09/2023	ISSUED FOR BID
	07/14/2023	ISSUED FOR CONSTRUCTION

DRAWING INFORMATION
PROJECT #: 23206
CHECKED BY: MP
DRAWN BY: TA

STOREFRONT SECTIONS AND DOOR DETAILS

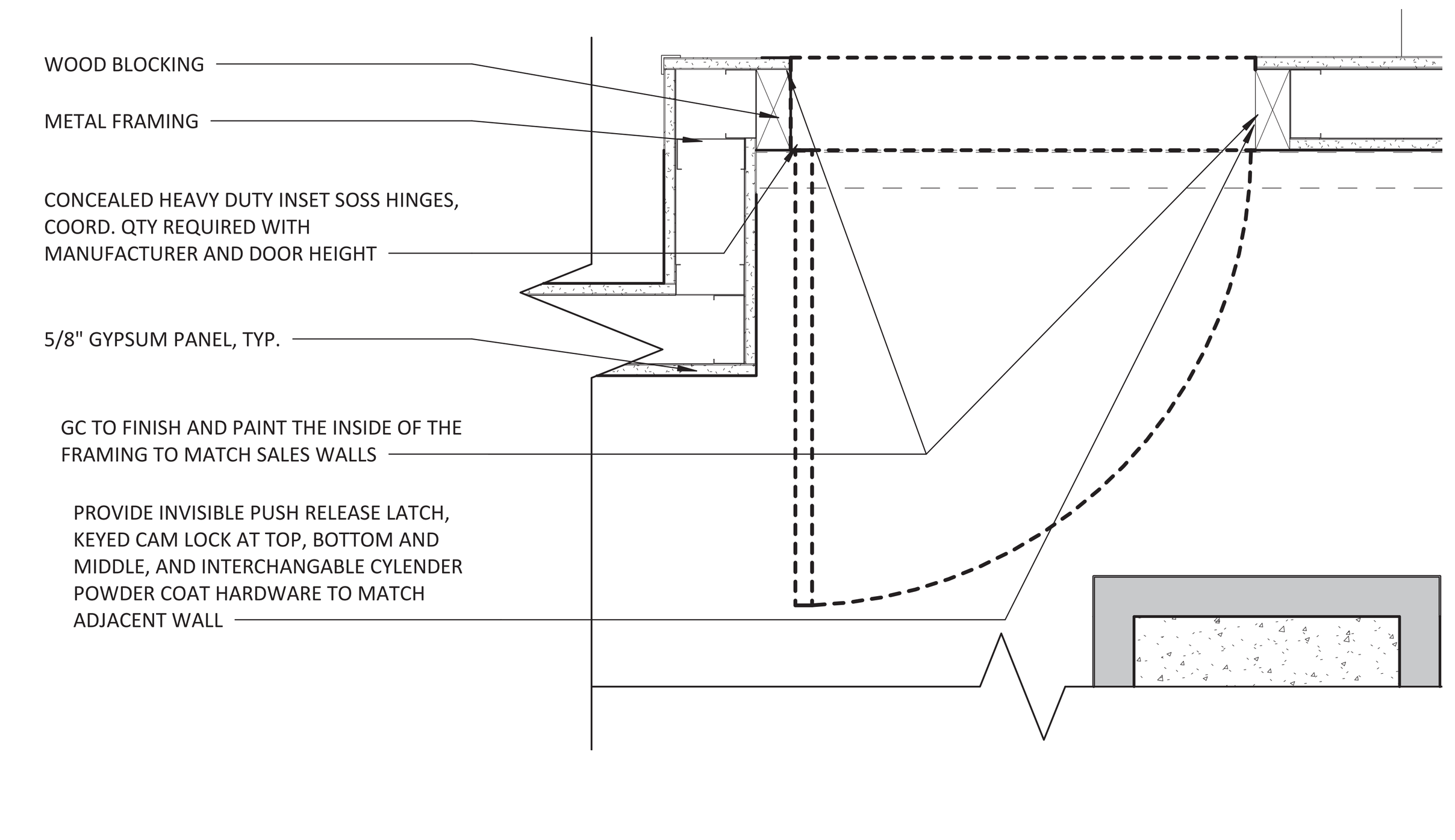
DRAWING NUMBER
A-420

7/14/2023 12:15:39 PM



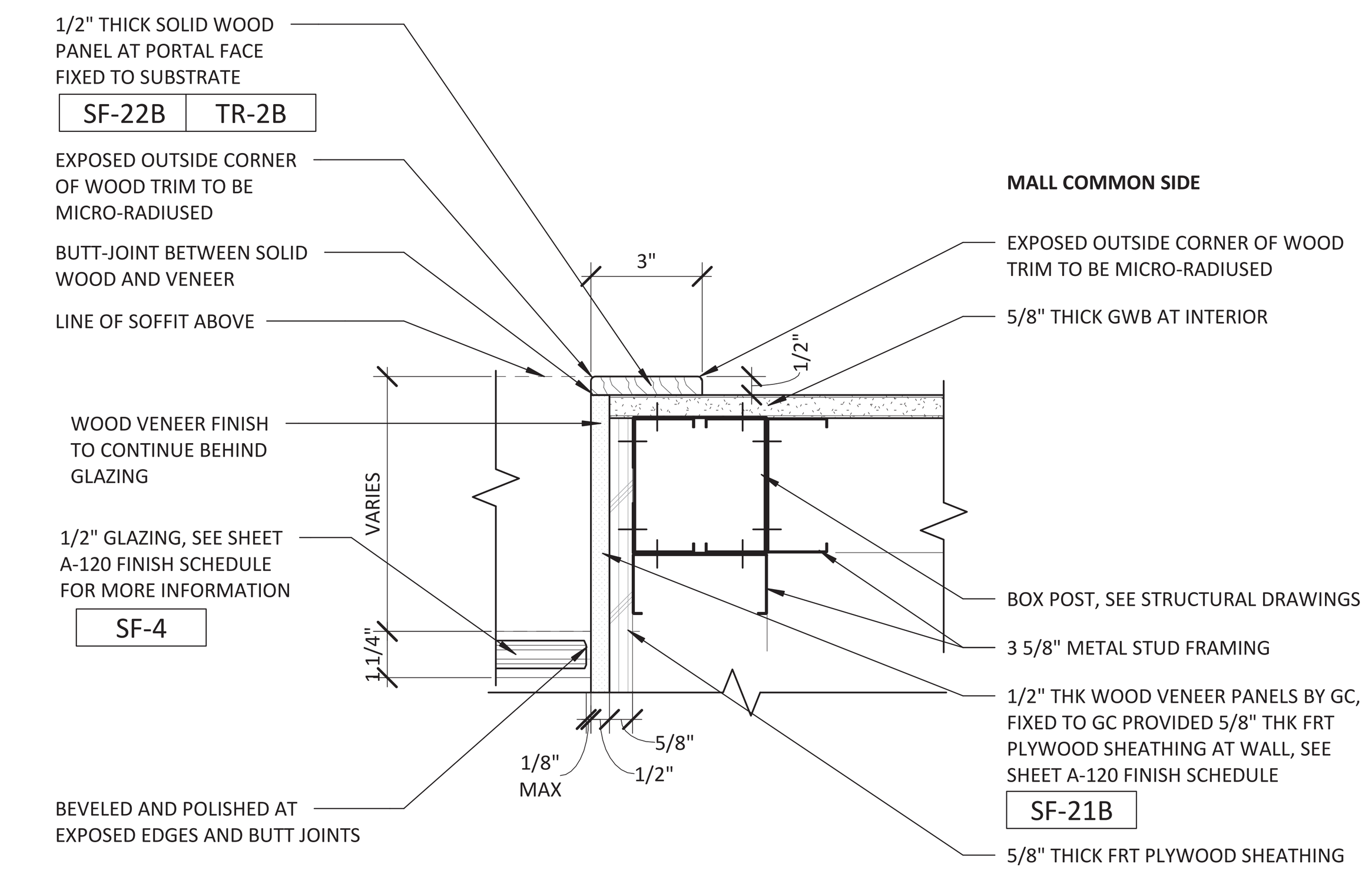
15 PLAN AT WOOD PORTAL / GLAZING (INTERIOR)

SCALE: 3" = 1'-0"



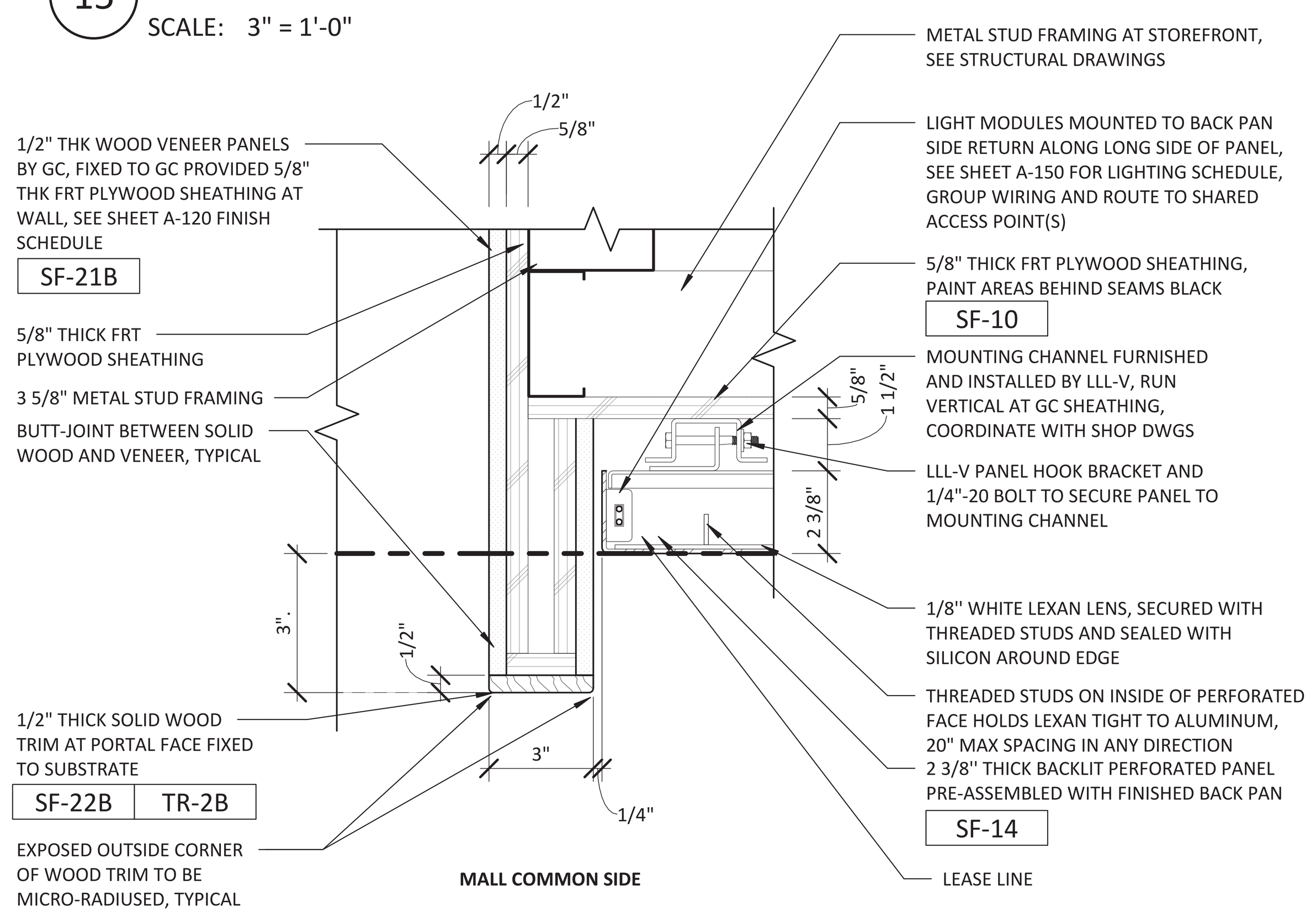
14 WINDOW DISPLAY DOOR

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



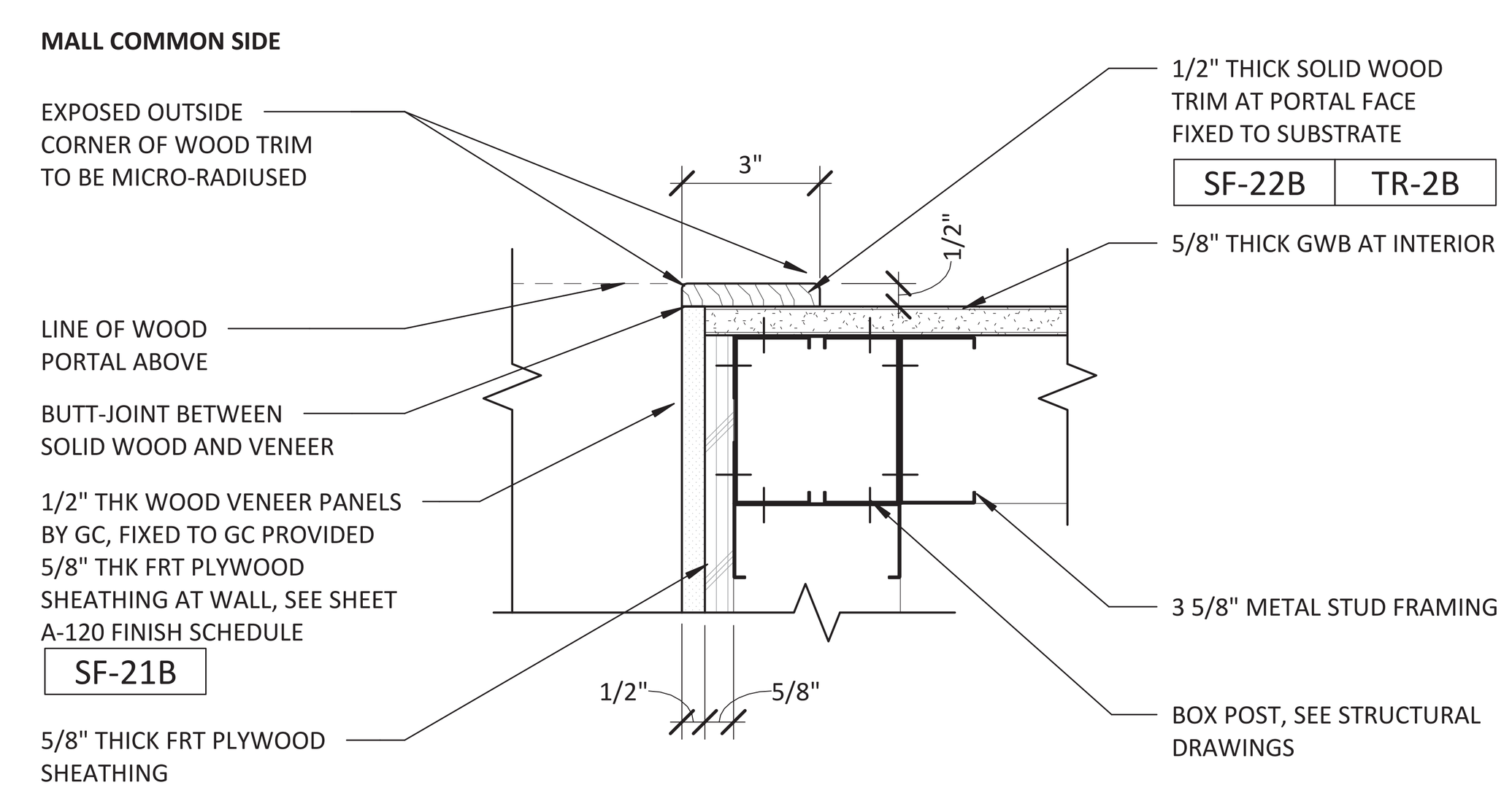
13 PLAN AT WOOD PORTAL / GLAZING (INTERIOR)

SCALE: 3" = 1'-0"



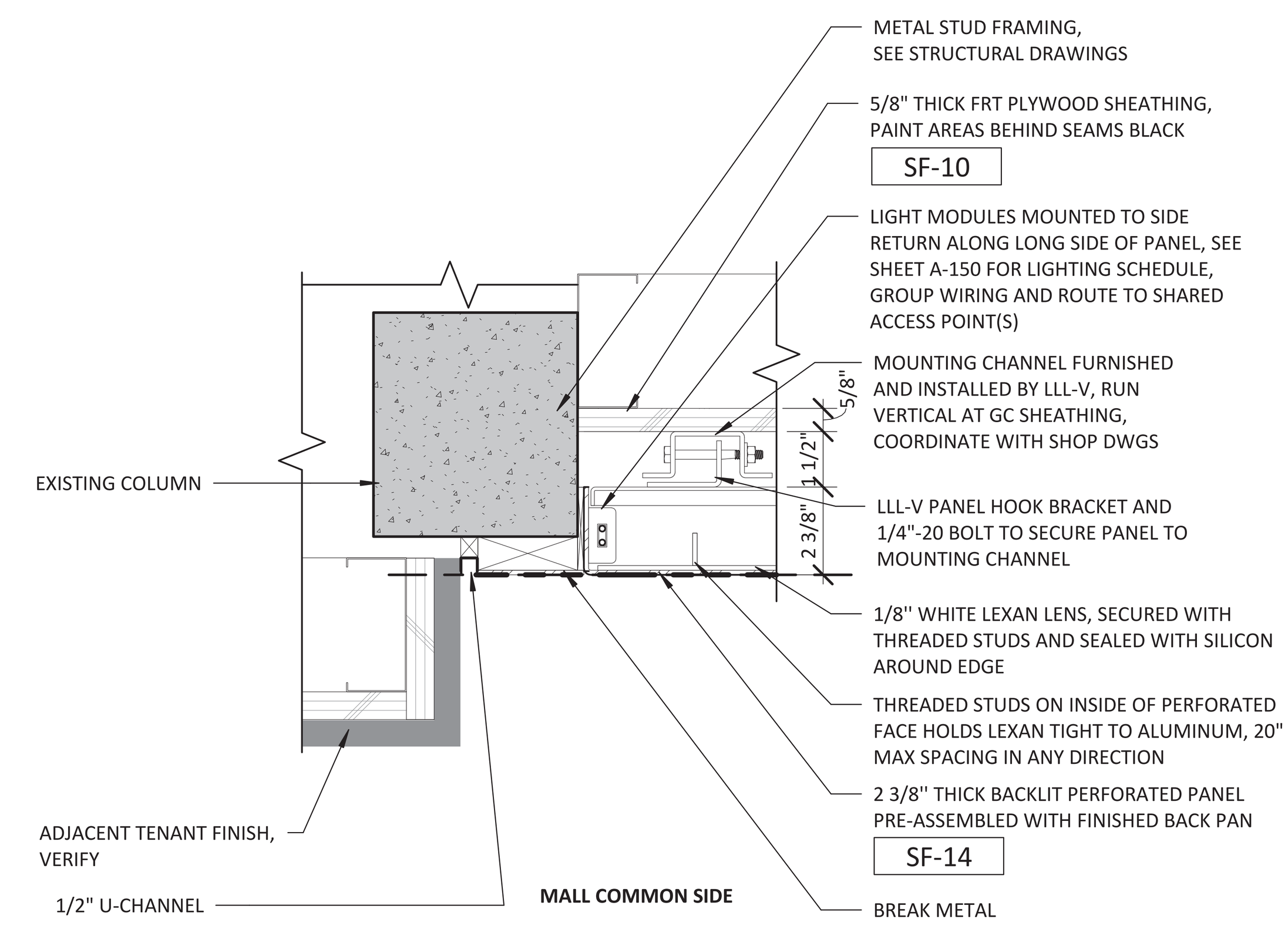
12 PLAN AT BACK-LIT PERF. PANEL / WOOD PORTAL (INTERIOR)

SCALE: 3" = 1'-0"



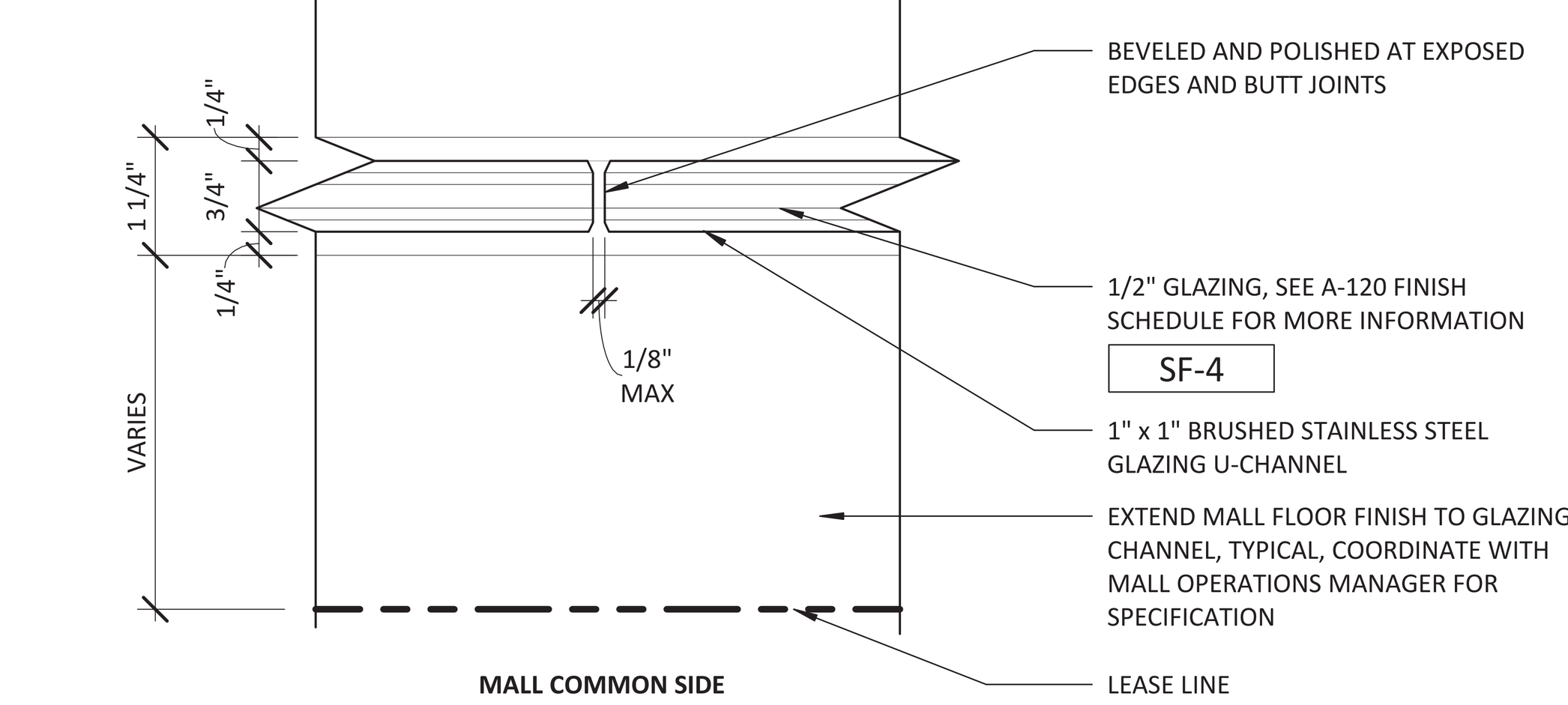
11 PLAN AT WOOD PORTAL INSIDE CORNER (INTERIOR)

SCALE: 3" = 1'-0"



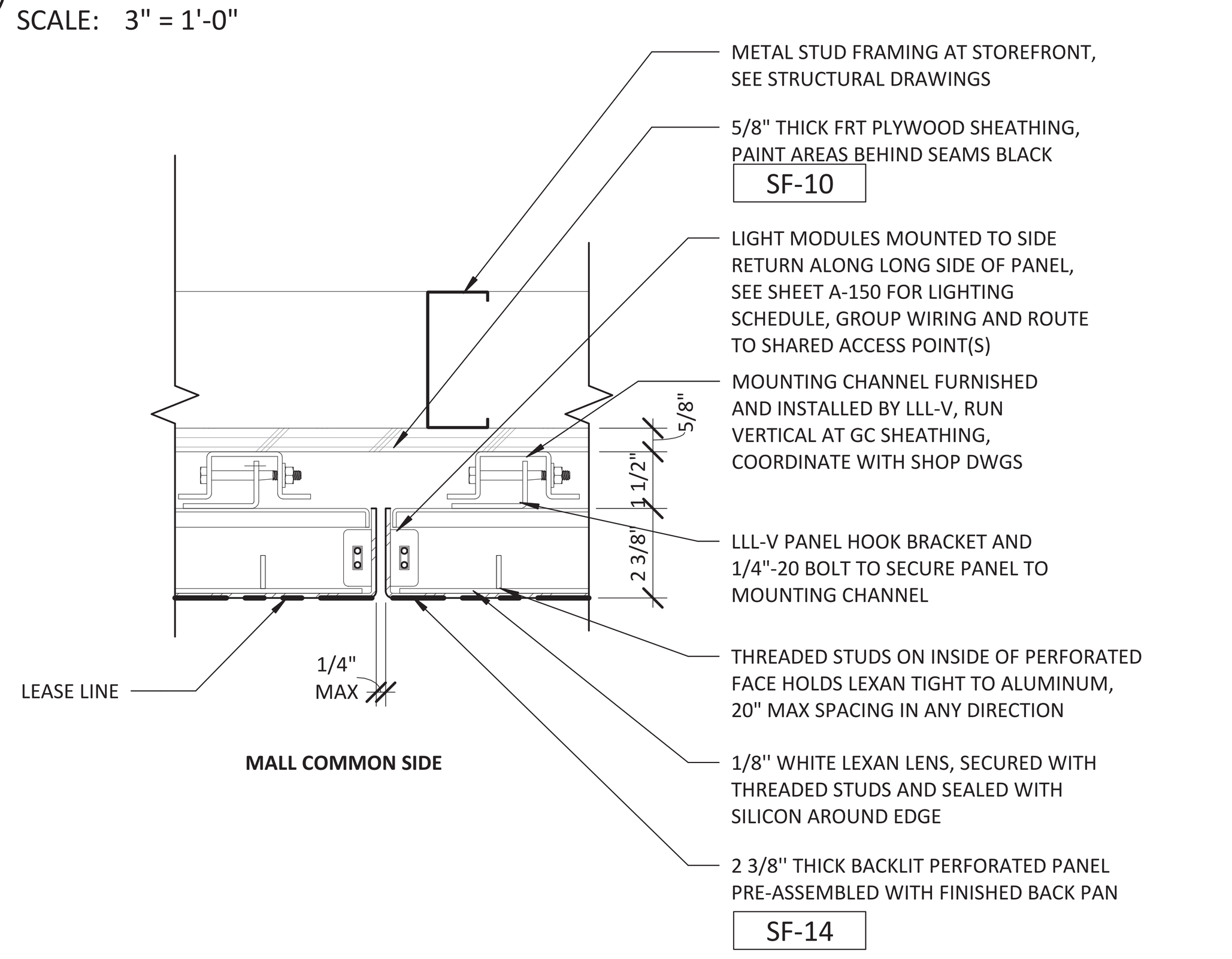
10 PLAN AT BACK-LIT PERF. PANEL / NEUTRAL PIER (INTERIOR)

SCALE: 3" = 1'-0"



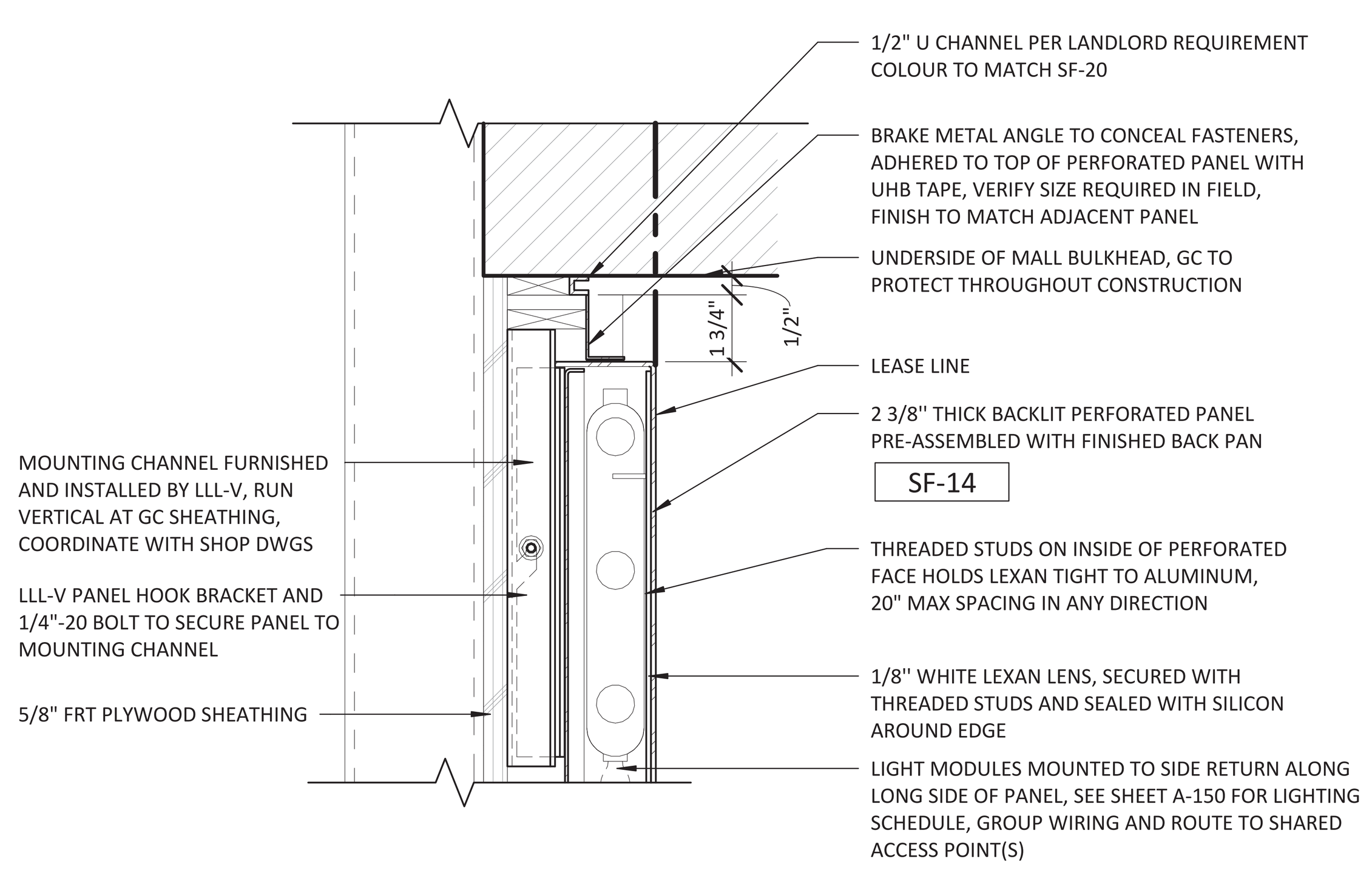
9 PLAN AT GLAZING BUTT-JOINT (INTERIOR)

SCALE: 6" = 1'-0"



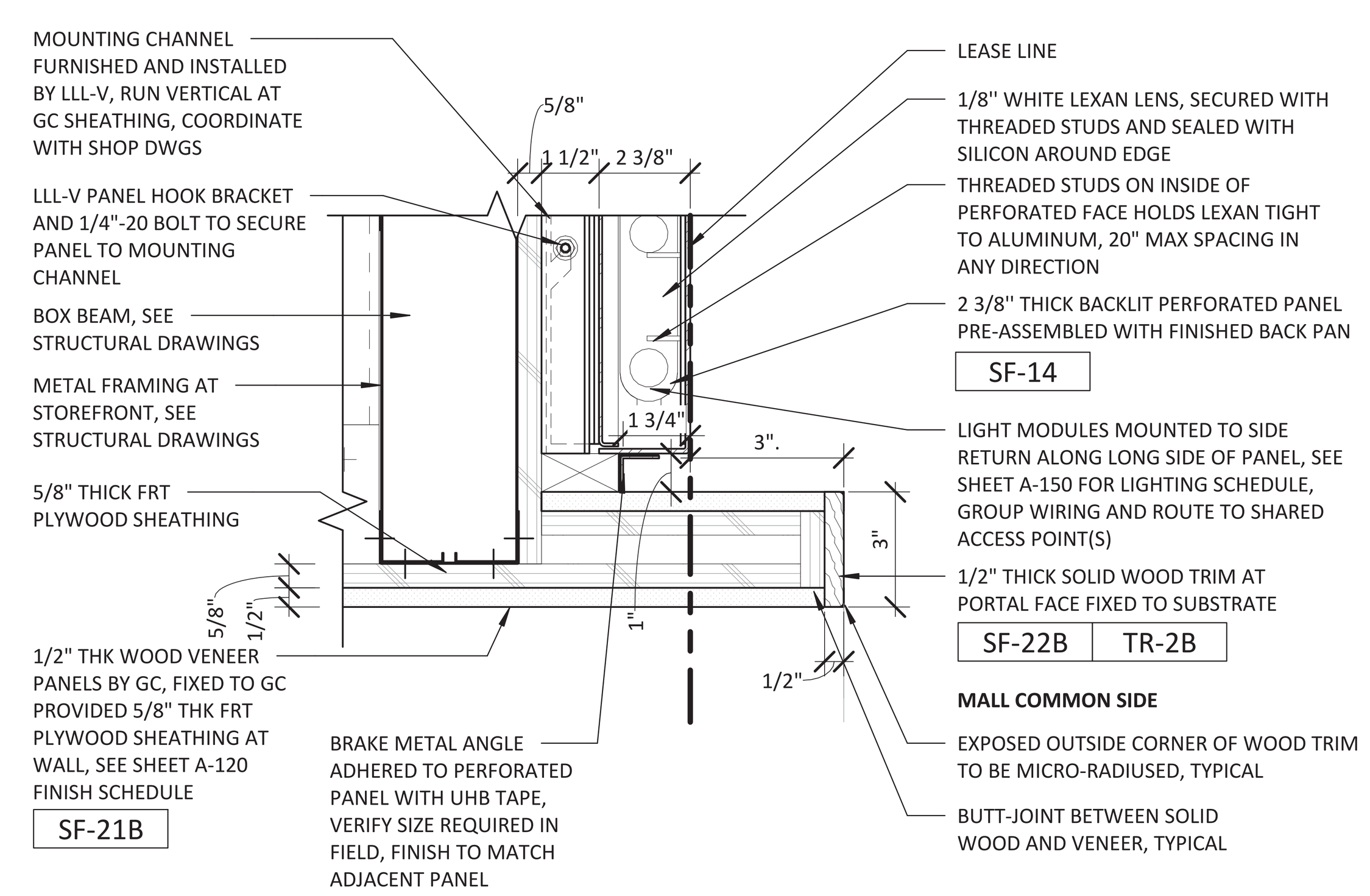
8 PLAN AT FLUSH BACK-LIT PERF. PANEL VERTICAL SEAM (INTERIOR)

SCALE: 3" = 1'-0"



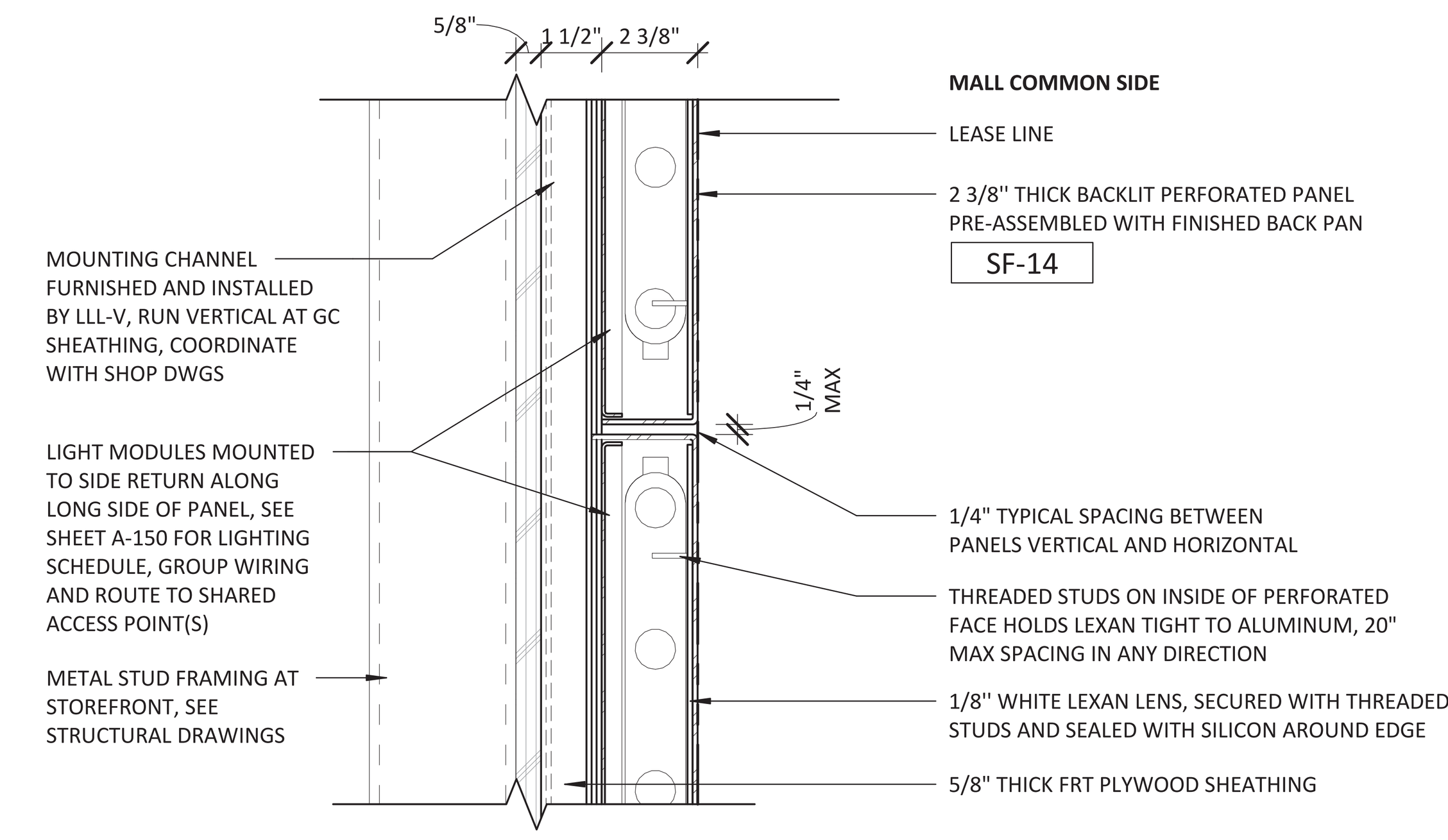
7 SECTION AT FLUSH BACK-LIT PERF. PANEL / MALL BULKHEAD (INT)

SCALE: 3" = 1'-0"



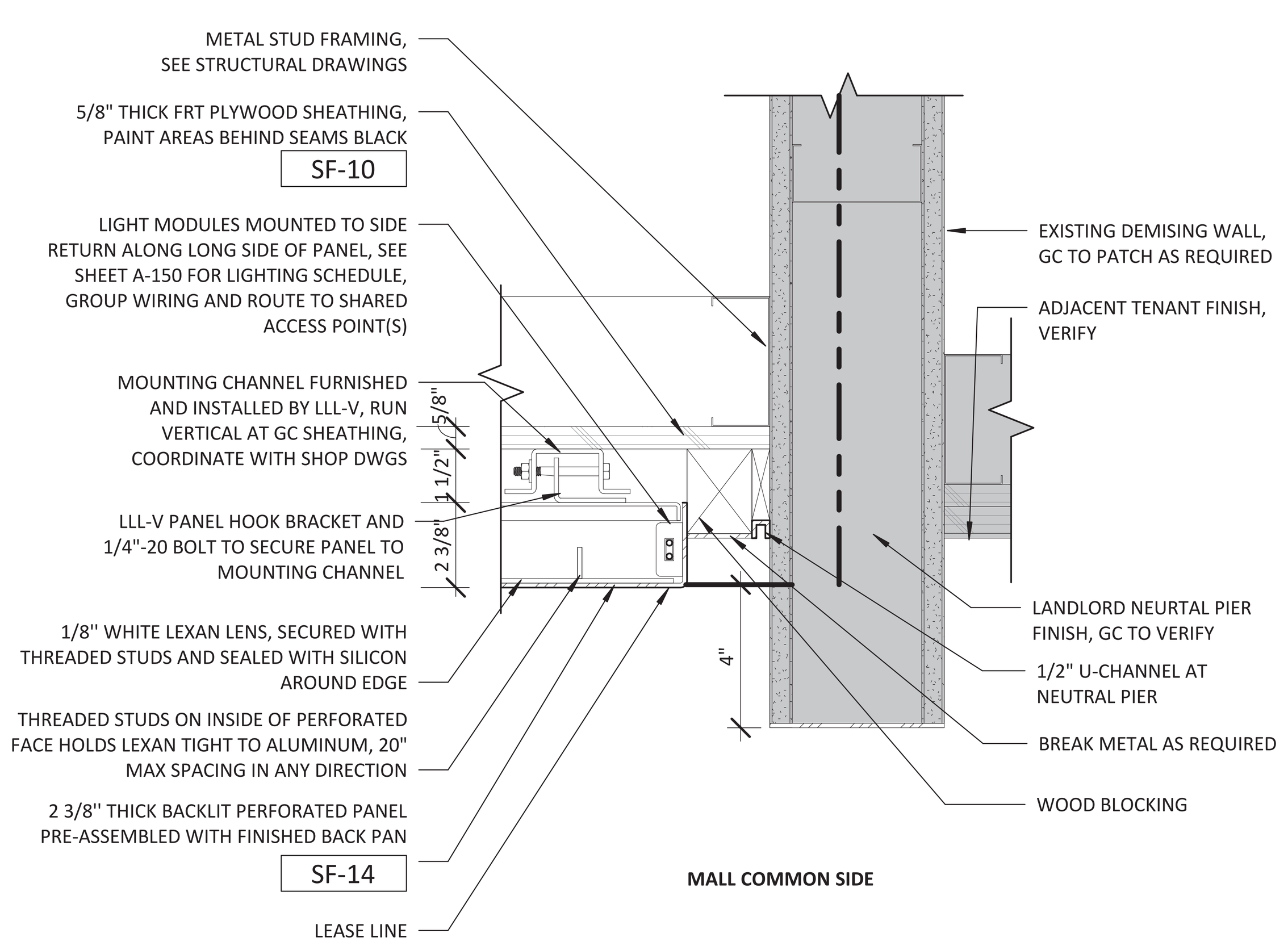
6 SECTION AT BACK-LIT PERF. PANEL / WOOD PORTAL (INTERIOR)

SCALE: 3" = 1'-0"



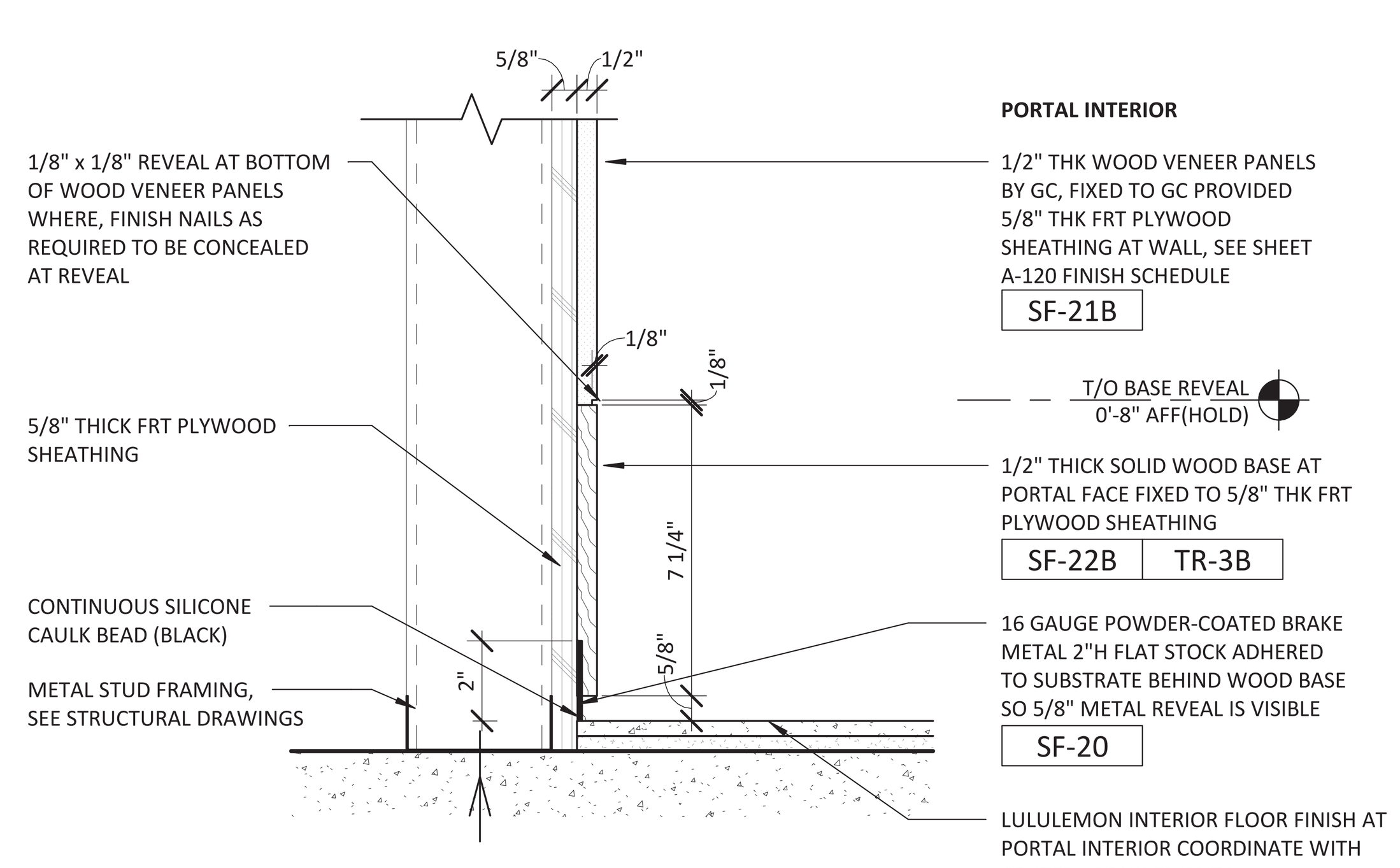
5 SECTION AT FLUSH BACK-LIT PERF. PANEL HORZ. SEAM (INTERIOR)

SCALE: 3" = 1'-0"



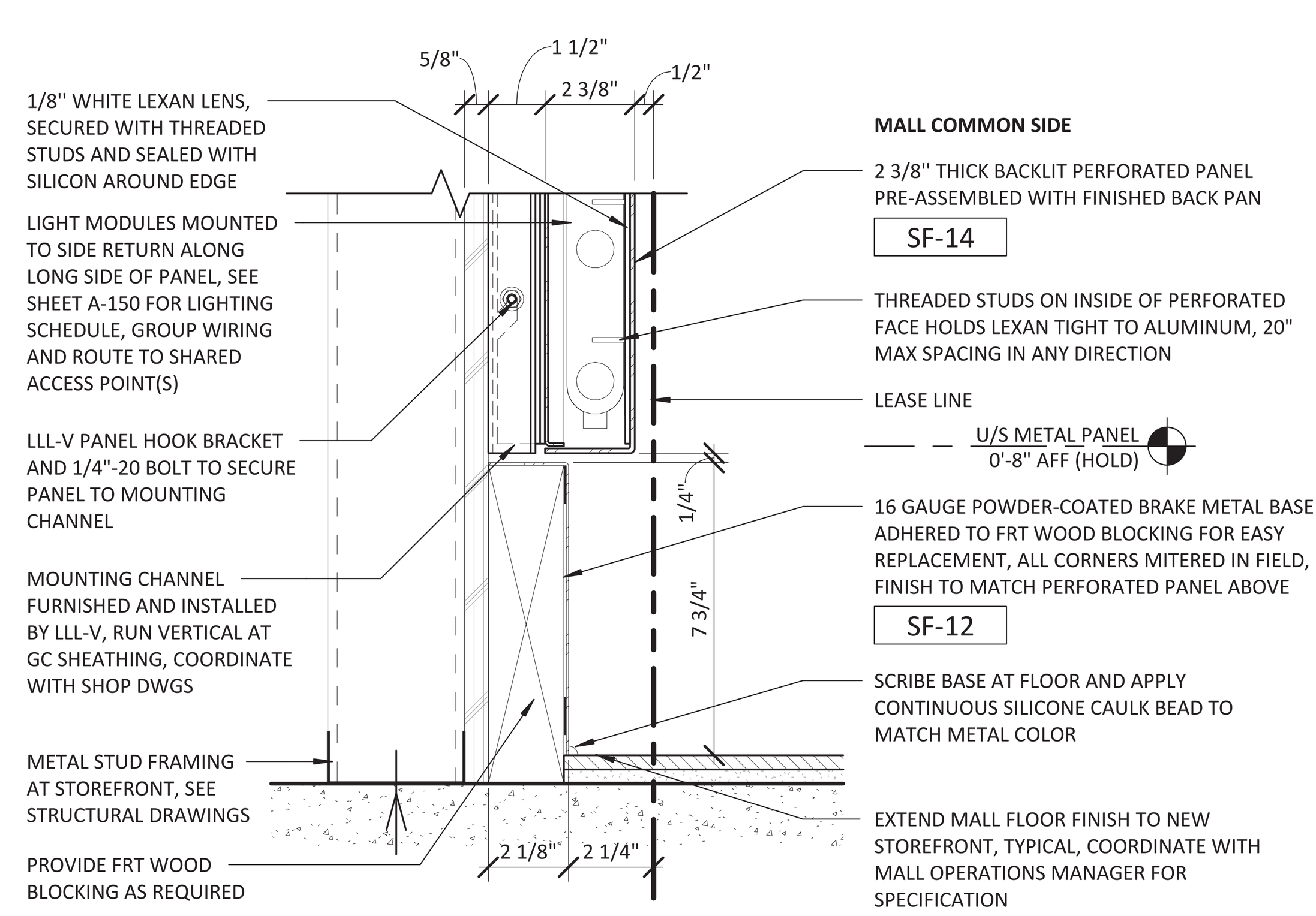
4 PLAN AT BACK-LIT PERF. PANEL / NEUTRAL PIER (INTERIOR)

SCALE: 3" = 1'-0"



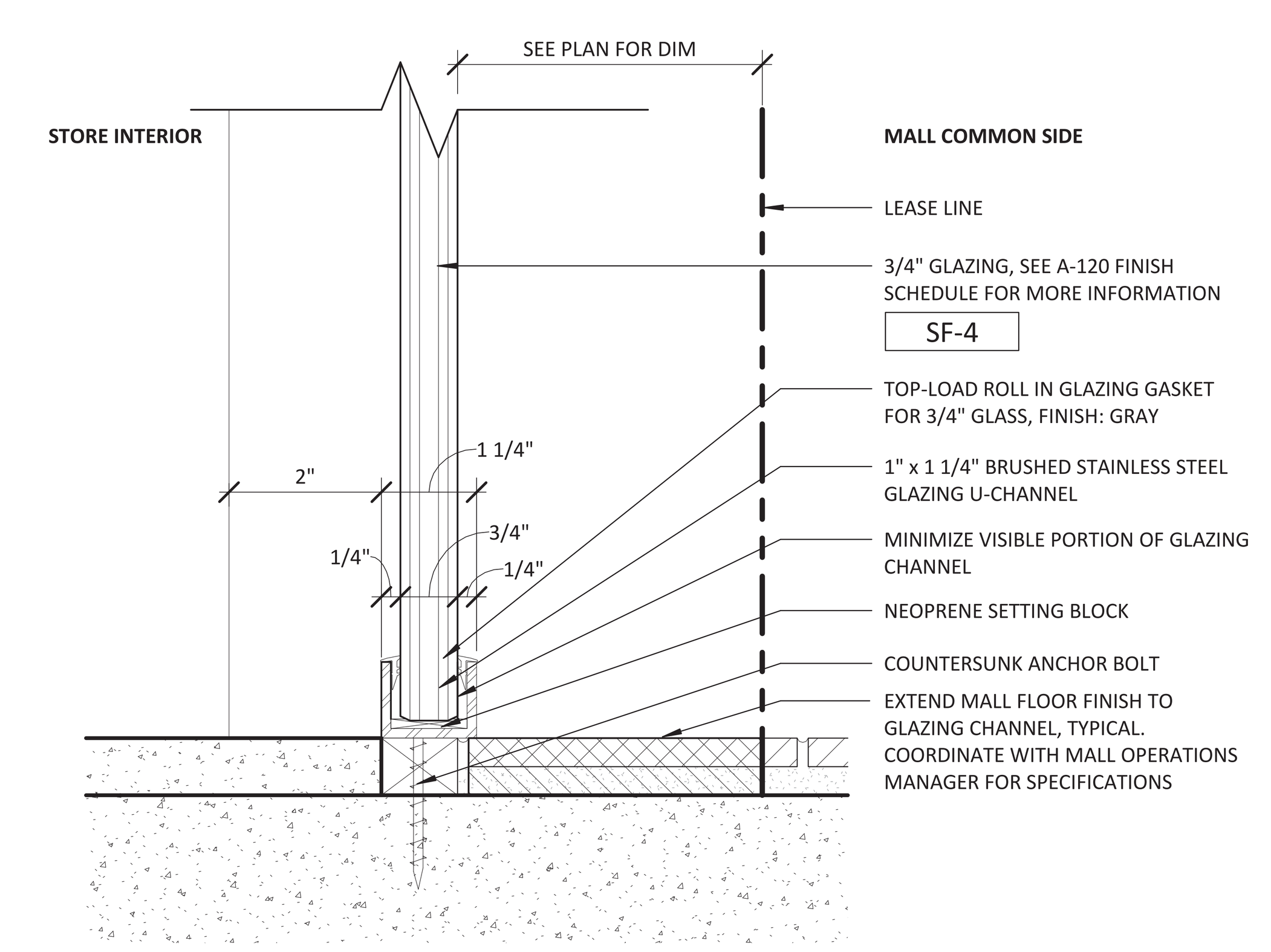
3 SECTION AT WOOD PORTAL - BASE (INTERIOR)

SCALE: 3" = 1'-0"



2 SECTION AT BACK LIT PERF. PANEL - BASE (INTERIOR)

SCALE: 3" = 1'-0"



1 SECTION AT GLAZING SILL / NEW FINISHED FLOOR (INTERIOR)

SCALE: 6" = 1'-0"

lululemon
1818 CORNWALL AVE.
VANCOUVER, B.C., V6J1C7

CF POLO PARK
1485 Portage Ave, Unit 144E
Winnipeg, MB
R3G 0W5
CRU NUMBER: 144E

Quadrangle
Quadrangle Architects Limited
The Well, 8 Spadina Avenue, Suite 2100, Toronto, ON M5V 0S8
t 416 598 1240 www.bdpquadrangle.com

ARCHITECT SEAL

ONTARIO ASSOCIATION OF ARCHITECTS
KIRTIDEV MEHTA
LICENCE
8099

ISSUED FOR CONSTRUCTION

07/14/2023

DATE	DESCRIPTION
06/09/2023	PERMIT/CONSTRUCTION
06/09/2023	ISSUED FOR BID
07/14/2023	ISSUED FOR CONSTRUCTION

DRAWING INFORMATION
PROJECT #: 23206
CHECKED BY: TA
DRAWN BY: DK

STOREFRONT DETAILS

DRAWING NUMBER
A-430

7/14/2023 12:15:45 PM

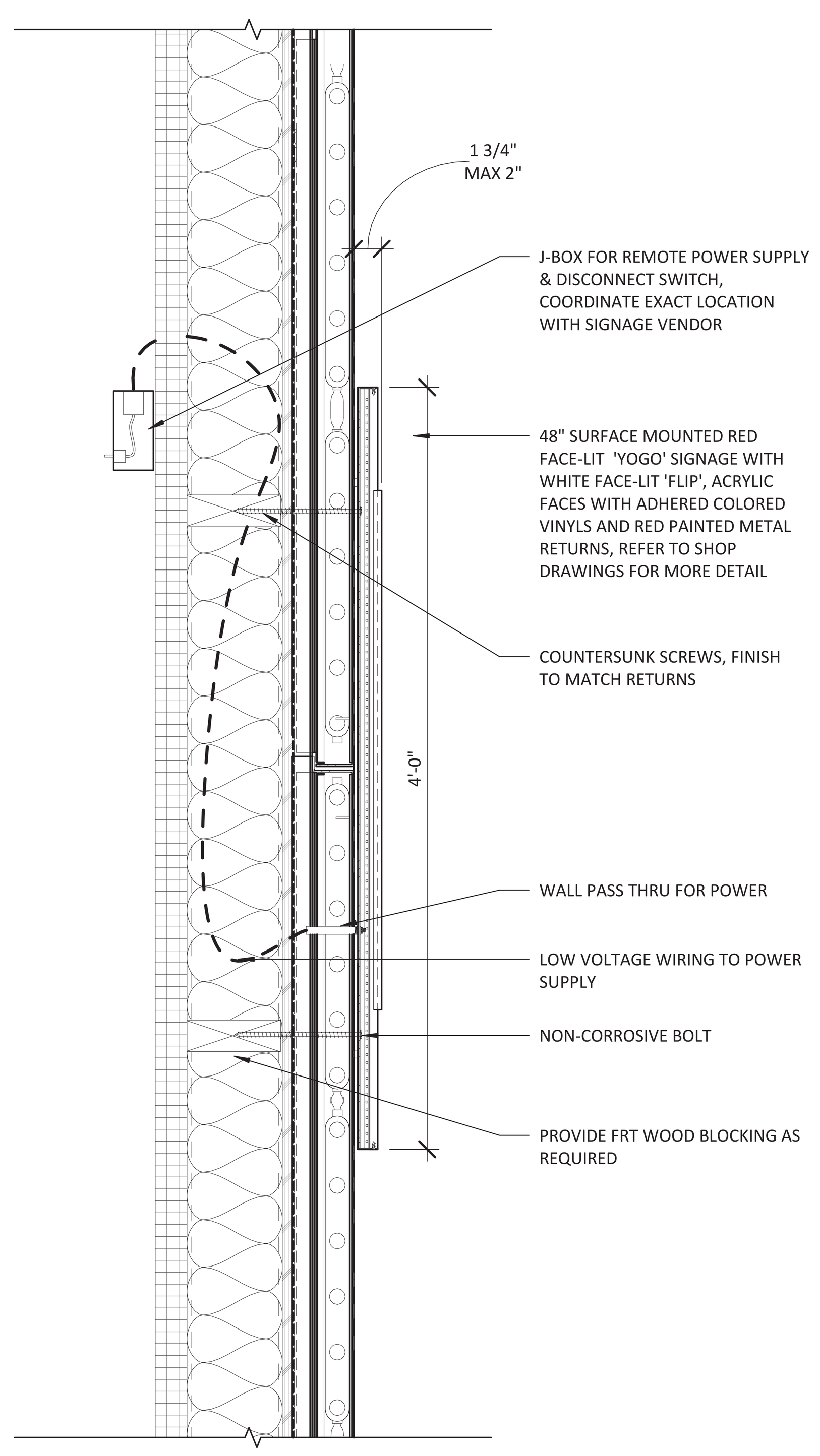
LANDLORD GENERAL NOTES:

SIGNAGE
ENSURE AN EVEN OVERALL ILLUMINATION WITH NO HOT OR DARK SPOTS. ALL SIGNAGE LIGHTING TO HAVE SIMILAR COLOUR TEMPERATURE AND RENDITION AND TO COMPLEMENT OVERALL LIGHTING CONCEPT. ALL SIGNAGE OVER 4100K MUST BE ON A DIMMER
ALL SIGNAGE POWER SUPPLY SOURCES MUST BE CONNECTED TO TENANT PROVIDED TIME CLOCK SET TO THE LANDLORD SPECIFIED HOURS OF OPERATION.
NO EXPOSED CONDUIT, RACEWAYS, BALLAST BOXES OR TRANSFORMERS WILL BE PERMITTED .
NO LABELS WILL BE PERMITTED ON VISIBLE SURFACES, EXCEPT THOSE REQUIRED BY ORDINANCES. WHERE NECESSARY, LABELS WILL BE PLACED IN INCONSPICUOUS LOCATIONS. NO MANUFACTURERS NAME SHALL BE PERMITTED.
ALL METAL SURFACES SHALL BE SHOP FINISHED FREE OF PARTICLES, DRIPS AND RUNS.
EXPOSED SCREWS SHALL BE COUNTERSUNK WHERE FEASIBLE. RIVETS OR OTHER FASTENING DEVICES SHALL BE FLUSH WITH THE SURROUNDING SURFACE AND FINISHED TO MATCH.
SIGN SHALL BE SCALED APPROPRIATELY AND SHALL NOT CROWD THE BORDERS OF SIGNAGE BULKHEAD.
NO WEEP HOLES ON INTERIOR SIGNS, NO LIGHT LEAKS. ANY REQUIRED VENTILATION HOLES MUST BE IN A CONCEALED LOCATION.

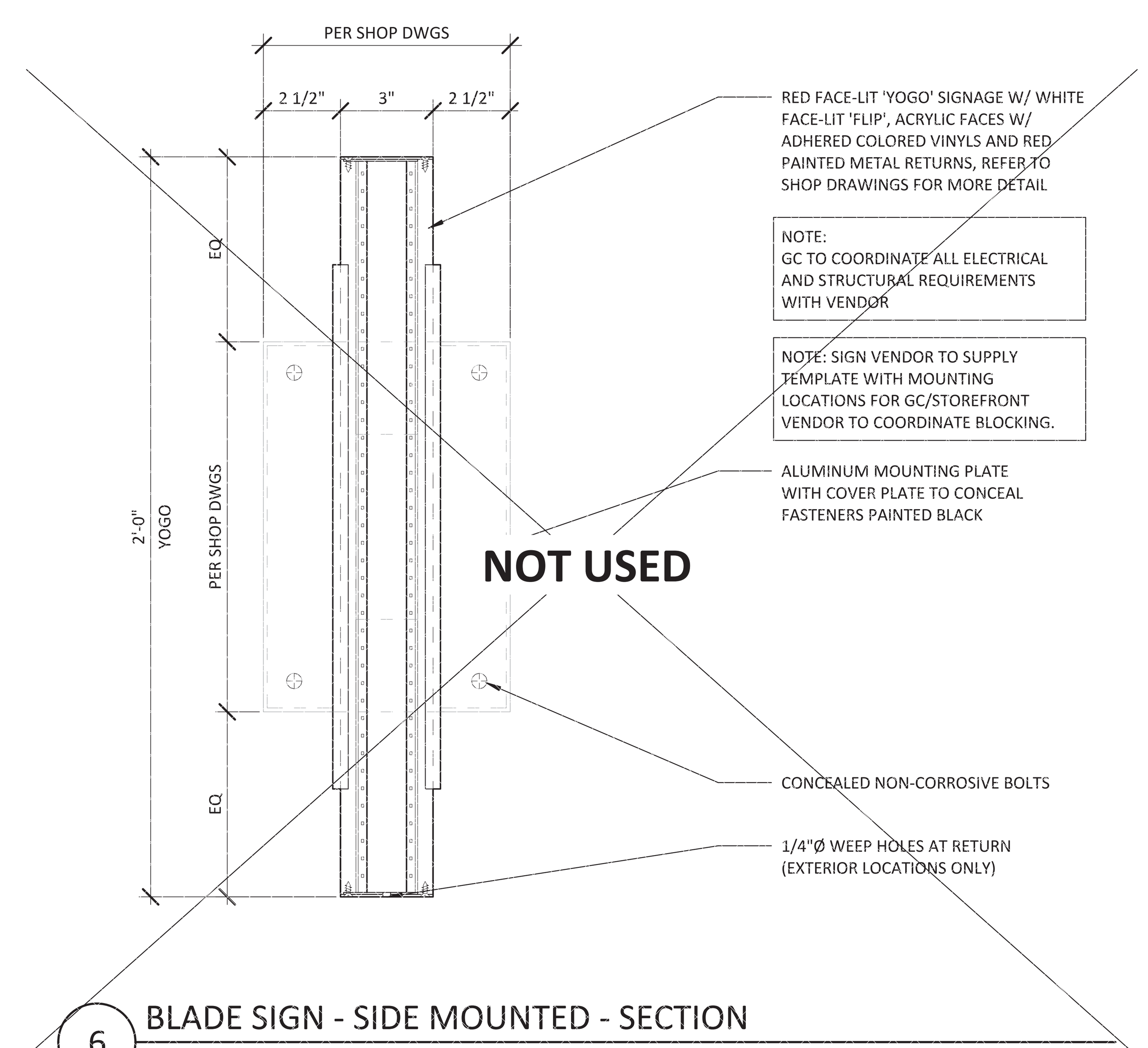
STANDARD SIGN SCHEDULE - INTERIOR

NOTE: ASTERISKS ADDED TO SIGN CODES (BEFORE & AFTER) INDICATE A CUSTOM OR MODIFIED COMPONENT. SIGN VENDOR TO PROVIDE SHOP DRAWINGS FOR ALL CUSTOM OR MODIFIED COMPONENTS)

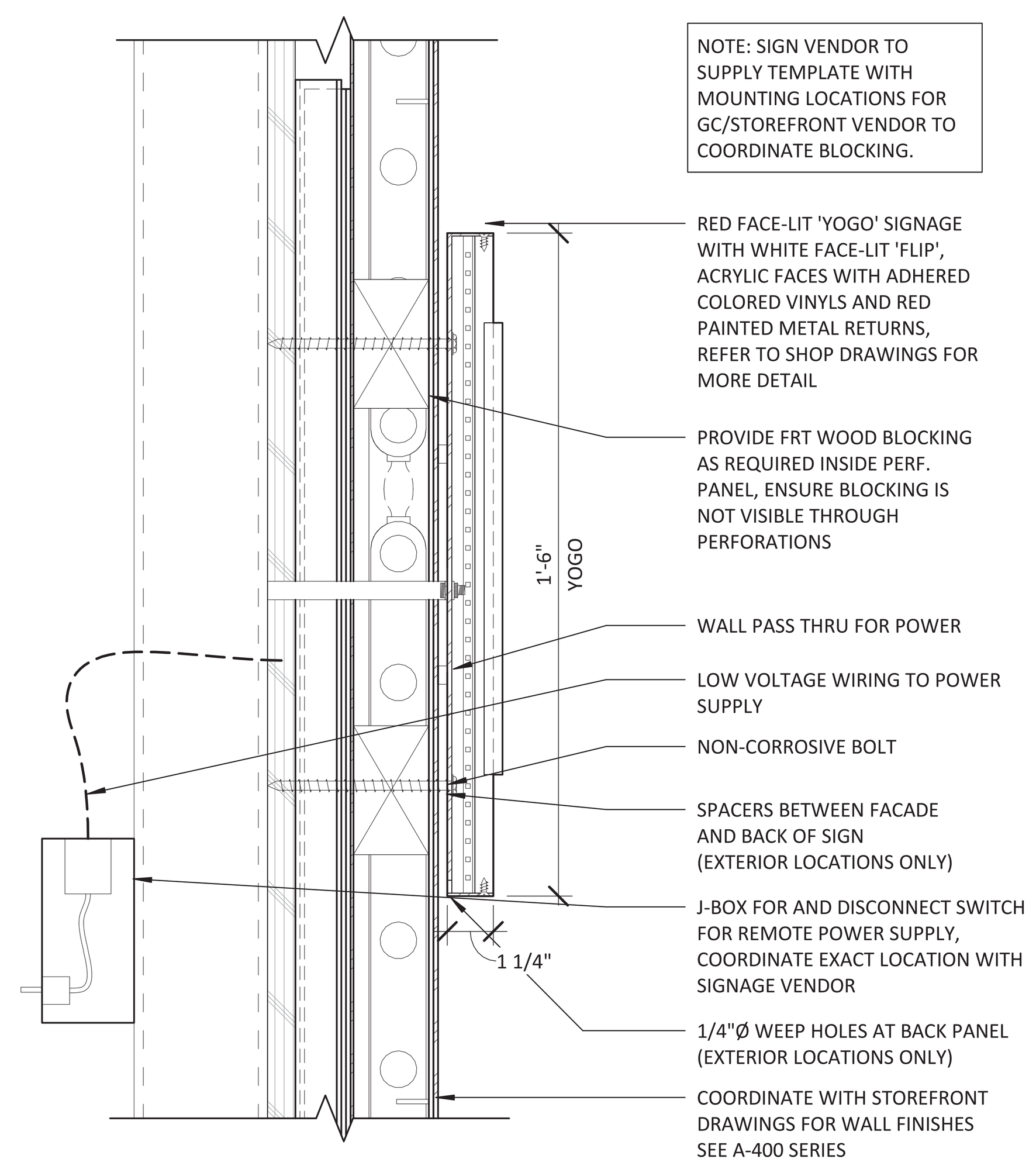
TAG	DESCRIPTION	FURN	INST	BLOCKING	REMARKS	CODE
WORDMARK (YOGO + LLL)						
WM-18	WORDMARK (YOGO + LLL) ILLUMINATED	LLL-V	LLL-V	BY GC SEE DETAIL A-440	SIGN VENDOR TO SUPPLY TEMPLATE OF MOUNTING POINTS TO GC. GC TO PROVIDE REQUIRED POWER.	LLL-WM-18
WM-RW-18 WM-RW-24 WM-RW-30 WM-RW-36 WM-RW-42 WM-RW-48	WORDMARK (YOGO + LLL) ILLUMINATED RACEWAY	LLL-V	LLL-V	BY GC SEE DETAIL A-440	SIGN VENDOR TO SUPPLY TEMPLATE OF MOUNTING POINTS TO GC. GC TO PROVIDE REQUIRED POWER.	LLL-WM-RW-18 LLL-WM-RW-24 LLL-WM-RW-30 LLL-WM-RW-36 LLL-WM-RW-42 LLL-WM-RW-48
WM-HALO-18 WM-HALO-24 WM-HALO-30 WM-HALO-36 WM-HALO-42 WMK-HALO-48	WORDMARK (YOGO + LLL) ILLUMINATED HALO	LLL-V	LLL-V	BY GC SEE DETAIL A-440	SIGN VENDOR TO SUPPLY TEMPLATE OF MOUNTING POINTS TO GC. GC TO PROVIDE REQUIRED POWER.	LLL-WM-HALO-18 LLL-WM-HALO-24 LLL-WM-HALO-30 LLL-WM-HALO-36 LLL-WM-HALO-42 LLL-WM-HALO-48
WM-HALO-BLK-18 WM-HALO-BLK-24 WM-HALO-BLK-30 WM-HALO-BLK-36 WM-HALO-BLK-42 WM-HALO-BLK-48	WORDMARK (YOGO + LLL) ILLUMINATED HALO BLACK	LLL-V	LLL-V	BY GC SEE DETAIL A-440	SIGN VENDOR TO SUPPLY TEMPLATE OF MOUNTING POINTS TO GC. GC TO PROVIDE REQUIRED POWER.	LLL-WM-HALO-BLK-18 LLL-WM-HALO-BLK-24 LLL-WM-HALO-BLK-30 LLL-WM-HALO-BLK-36 LLL-WM-HALO-BLK-42 LLL-WM-HALO-BLK-48
WM-NI-18 WM-NI-24 WM-NI-30 WM-NI-36 WM-NI-42 WM-NI-48	WORDMARK (YOGO + LLL) NON-ILLUMINATED	LLL-V	LLL-V	BY GC SEE DETAIL A-440	SIGN VENDOR TO SUPPLY TEMPLATE OF MOUNTING POINTS TO GC. NO POWER REQUIRED.	LLL-WM-NI-18 LLL-WM-NI-24 LLL-WM-NI-30 LLL-WM-NI-36 LLL-WM-NI-42 LLL-WM-NI-48
WM-NI-BLK-18 WM-NI-BLK-24 WM-NI-BLK-30 WM-NI-BLK-36 WM-NI-BLK-42 WM-NI-BLK-48	WORDMARK (YOGO + LLL) NON-ILLUMINATED BLACK	LLL-V	LLL-V	BY GC SEE DETAIL A-440	SIGN VENDOR TO SUPPLY TEMPLATE OF MOUNTING POINTS TO GC. NO POWER REQUIRED.	LLL-WM-NI-BLK-18 LLL-WM-NI-BLK-24 LLL-WM-NI-BLK-30 LLL-WM-NI-BLK-36 LLL-WM-NI-BLK-42 LLL-WM-NI-BLK-48
YOGO						
YOGO-48	YOGO ILLUMINATED	LLL-V	LLL-V	BY GC SEE DETAIL A-440	SIGN VENDOR TO SUPPLY TEMPLATE OF MOUNTING POINTS TO GC. GC TO PROVIDE REQUIRED POWER.	LLL-YOGO-48
YOGO-REC-36 YOGO-REC-42 YOGO-REC-48	YOGO ILLUMINATED RECESSED	LLL-V	LLL-V	BY GC SEE DETAIL A-440	USED AT LOACTIONS WHERE BOTTOM OF SIGN IS LOWER THAN 7'-0". GC TO PROVIDE REQUIRED POWER.	LLL-YOGO-REC-36 LLL-YOGO-REC-42 LLL-YOGO-REC-48
YOGO-HALO-36 YOGO-HALO-42 YOGO-HALO-48	YOGO ILLUMINATED HALO	LLL-V	LLL-V	BY GC SEE DETAIL A-440	SIGN VENDOR TO SUPPLY TEMPLATE OF MOUNTING POINTS TO GC. GC TO PROVIDE REQUIRED POWER.	LLL-YOGO-HALO-36 LLL-YOGO-HALO-42 LLL-YOGO-HALO-48
YOGO-NI-36 YOGO-NI-42 YOGO-NI-48	YOGO NON-ILLUMINATED	LLL-V	LLL-V	BY GC SEE DETAIL A-440	SIGN VENDOR TO SUPPLY TEMPLATE OF MOUNTING POINTS TO GC. NO POWER REQUIRED.	LLL-YOGO-NI-36 LLL-YOGO-NI-42 LLL-YOGO-NI-48
LARGE YOGO						
YOGO-LG-54 YOGO-LG-60 YOGO-LG-66 YOGO-LG-72	LARGE YOGO (OVER 48") ILLUMINATED	LLL-V	LLL-V	BY GC SEE DETAIL A-440	SIGN VENDOR TO SUPPLY TEMPLATE OF MOUNTING POINTS TO GC. GC TO PROVIDE REQUIRED POWER.	LLL-YOGO-LG-54 LLL-YOGO-LG-60 LLL-YOGO-LG-66 LLL-YOGO-LG-72
YOGO-LG-REC-54 YOGO-LG-REC-60 YOGO-LG-REC-66 YOGO-LG-REC-72	LARGE YOGO (OVER 48") ILLUMINATED RECESSED	LLL-V	LLL-V	BY GC SEE DETAIL A-440	USED AT LOACTIONS WHERE BOTTOM OF SIGN IS LOWER THAN 7'-0". GC TO PROVIDE REQUIRED POWER.	LLL-YOGO-REC-LG-54 LLL-YOGO-REC-LG-60 LLL-YOGO-REC-LG-66 LLL-YOGO-REC-LG-72
YOGO-LG-HALO-54 YOGO-LG-HALO-60 YOGO-LG-HALO-66 YOGO-LG-HALO-72	LARGE YOGO (OVER 48") ILLUMINATED HALO	LLL-V	LLL-V	BY GC SEE DETAIL A-440	SIGN VENDOR TO SUPPLY TEMPLATE OF MOUNTING POINTS TO GC. GC TO PROVIDE REQUIRED POWER.	LLL-YOGO-HALO-LG-54 LLL-YOGO-HALO-LG-60 LLL-YOGO-HALO-LG-66 LLL-YOGO-HALO-LG-72
BLADE - TOP MOUNTED						
BLD-TOP-18 BLD-TOP-20 BLD-TOP-22 BLD-TOP-24 BLD-TOP-30 BLD-TOP-36	BLADE - TOP MOUNT ILLUMINATED	LLL-V	LLL-V	BY GC SEE DETAIL A-440	SIGN VENDOR TO SUPPLY TEMPLATE OF MOUNTING POINTS TO GC. GC TO PROVIDE REQUIRED POWER.	LLL-BLD-TOP-18 LLL-BLD-TOP-20 LLL-BLD-TOP-22 LLL-BLD-TOP-24 LLL-BLD-TOP-30 LLL-BLD-TOP-36
BLD-TOP-NI-18 BLD-TOP-NI-20 BLD-TOP-NI-22 BLD-TOP-NI-24 BLD-TOP-NI-30 BLD-TOP-NI-36	BLADE - TOP MOUNT NON-ILLUMINATED	LLL-V	LLL-V	BY GC SEE DETAIL A-440	SIGN VENDOR TO SUPPLY TEMPLATE OF MOUNTING POINTS TO GC. NO POWER REQUIRED.	LLL-BLD-TOP-NI-18 LLL-BLD-TOP-NI-20 LLL-BLD-TOP-NI-22 LLL-BLD-TOP-NI-24 LLL-BLD-TOP-NI-30 LLL-BLD-TOP-NI-36
BLADE - SIDE MOUNTED						
BLD-SIDE-18 BLD-SIDE-20 BLD-SIDE-22 BLD-SIDE-24 BLD-SIDE-30 BLD-SIDE-36	BLADE - SIDE MOUNT ILLUMINATED	LLL-V	LLL-V	BY GC SEE DETAIL A-440	SIGN VENDOR TO SUPPLY TEMPLATE OF MOUNTING POINTS TO GC. GC TO PROVIDE REQUIRED POWER.	LLL-BLD-TOP-18 LLL-BLD-TOP-20 LLL-BLD-TOP-22 LLL-BLD-TOP-24 LLL-BLD-TOP-30 LLL-BLD-TOP-36
BLD-SIDE-NI-18 BLD-SIDE-NI-20 BLD-SIDE-NI-22 BLD-SIDE-NI-24 BLD-SIDE-NI-30 BLD-SIDE-NI-36	BLADE - SIDE MOUNT NON-ILLUMINATED	LLL-V	LLL-V	BY GC SEE DETAIL A-440	SIGN VENDOR TO SUPPLY TEMPLATE OF MOUNTING POINTS TO GC. NO POWER REQUIRED.	LLL-BLD-SIDE-NI-18 LLL-BLD-SIDE-NI-20 LLL-BLD-SIDE-NI-22 LLL-BLD-SIDE-NI-24 LLL-BLD-SIDE-NI-30 LLL-BLD-SIDE-NI-36
BLADE - CABINET WITH PUSH-THROUGH WORDMARK						
BLD-CAB-XX-XX	BLADE - CABINET ILLUMINATED	LLL-V	LLL-V	BY GC SEE DETAIL A-440	SIGN VENDOR TO SUPPLY TEMPLATE OF MOUNTING POINTS TO GC. NO POWER REQUIRED.	LLL-BLD-CAB-XX-XX
BLADE - FIN						
BLD-FIN-XX-XX	BLADE - FIN NON-ILLUMINATED	LLL-V	LLL-V	BY GC SEE DETAIL A-440	SIGN VENDOR TO SUPPLY TEMPLATE OF MOUNTING POINTS TO GC. NO POWER REQUIRED.	LLL-BLD-FIN-XX-XX



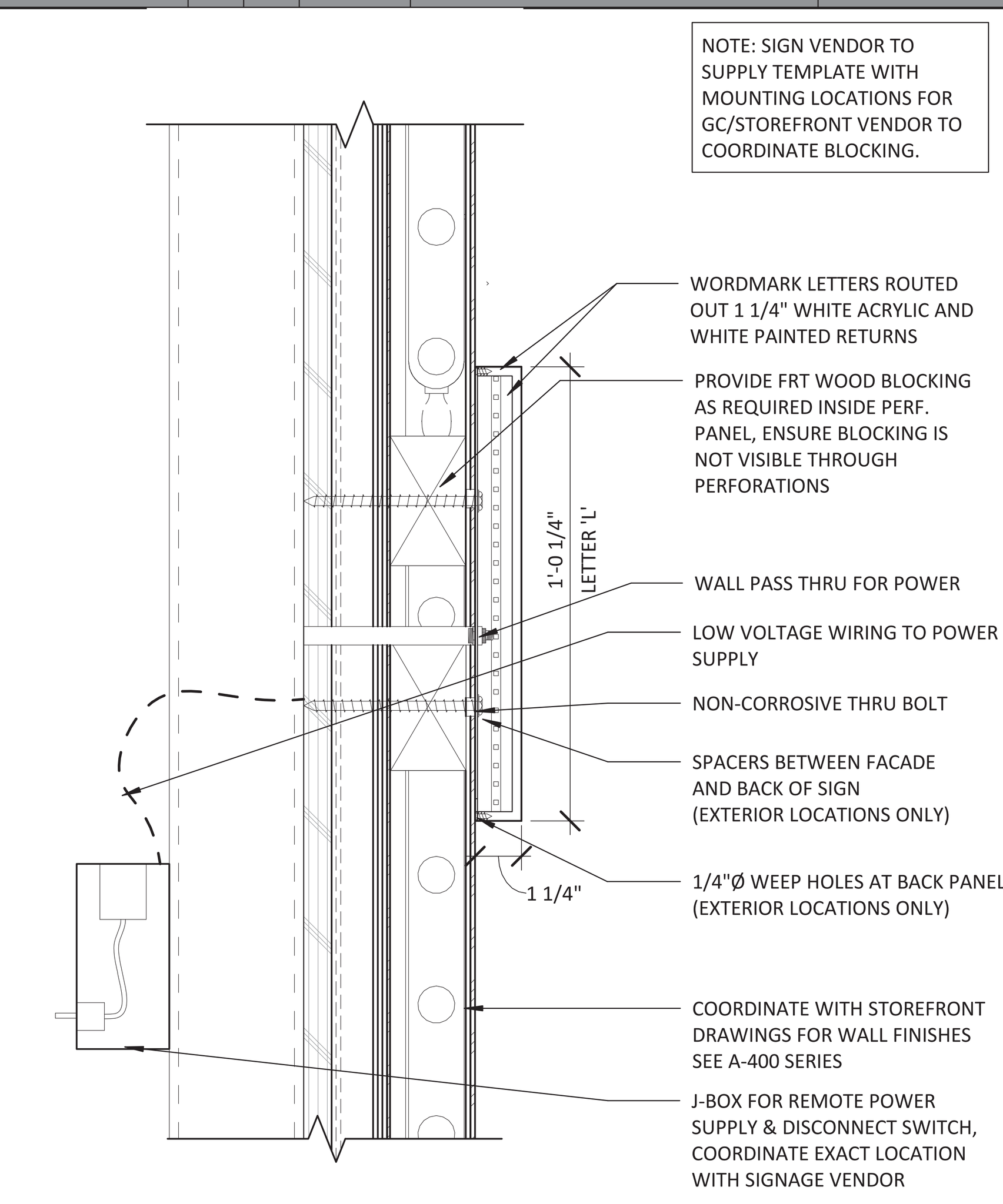
7 LARGE SURFACE MOUNTED FACE-LIT YOGO - SECTION - PERF. PANEL
SCALE: 1 1/2" = 1'-0"



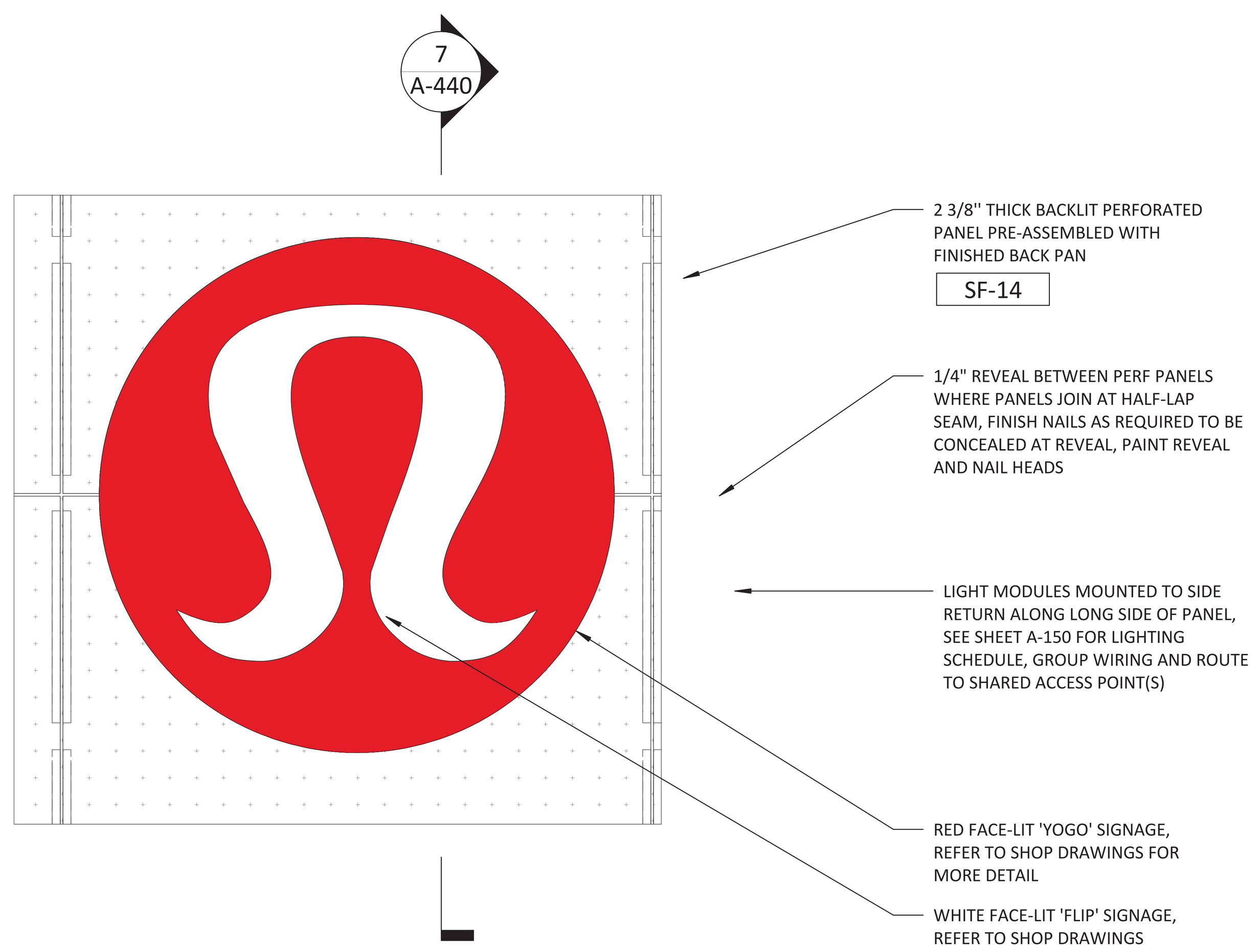
6 BLADE SIGN - SIDE MOUNTED - SECTION
SCALE: 3" = 1'-0"



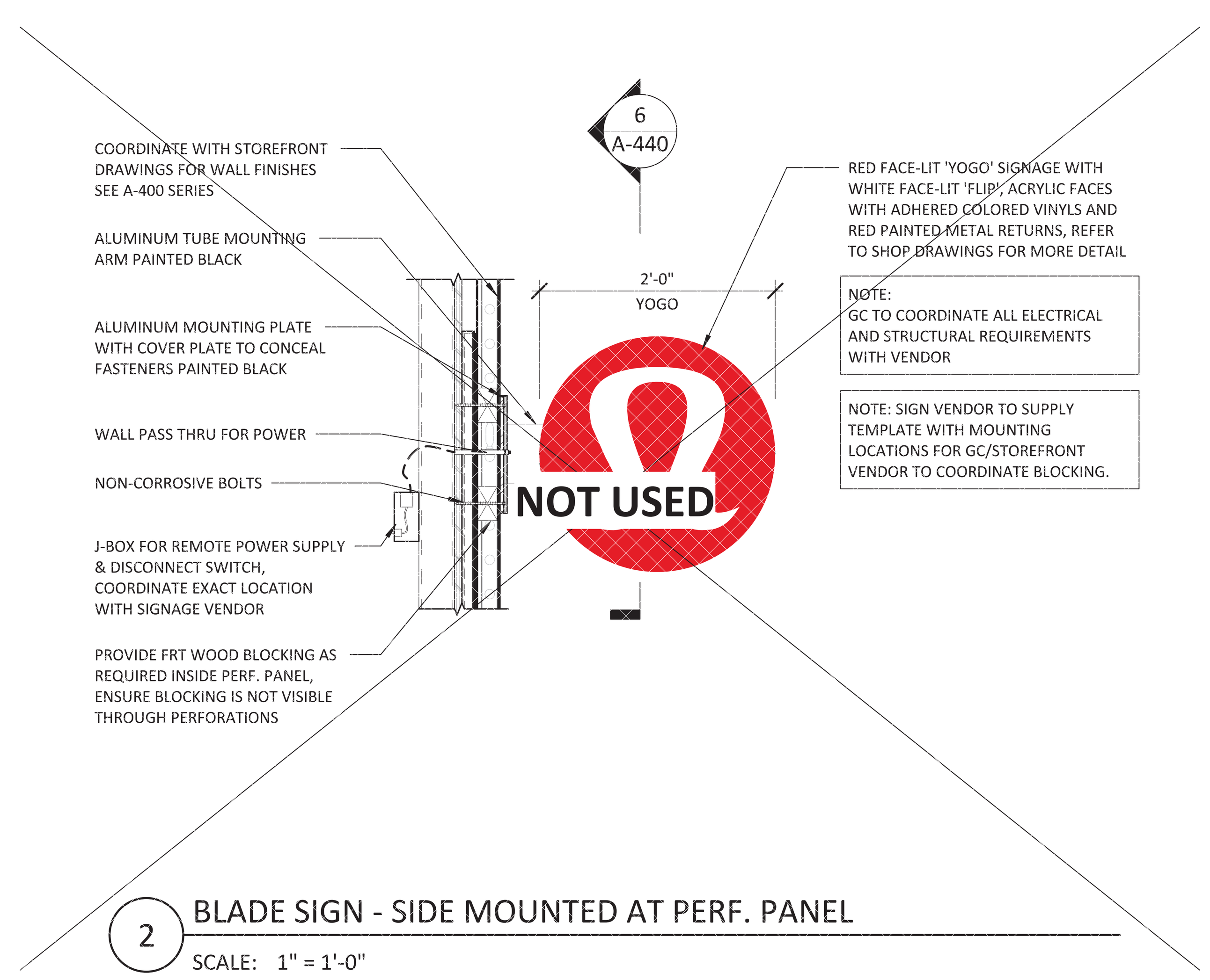
5 FACE-LIT YOGO - SECTION AT PERF.
SCALE: 3" = 1'-0"



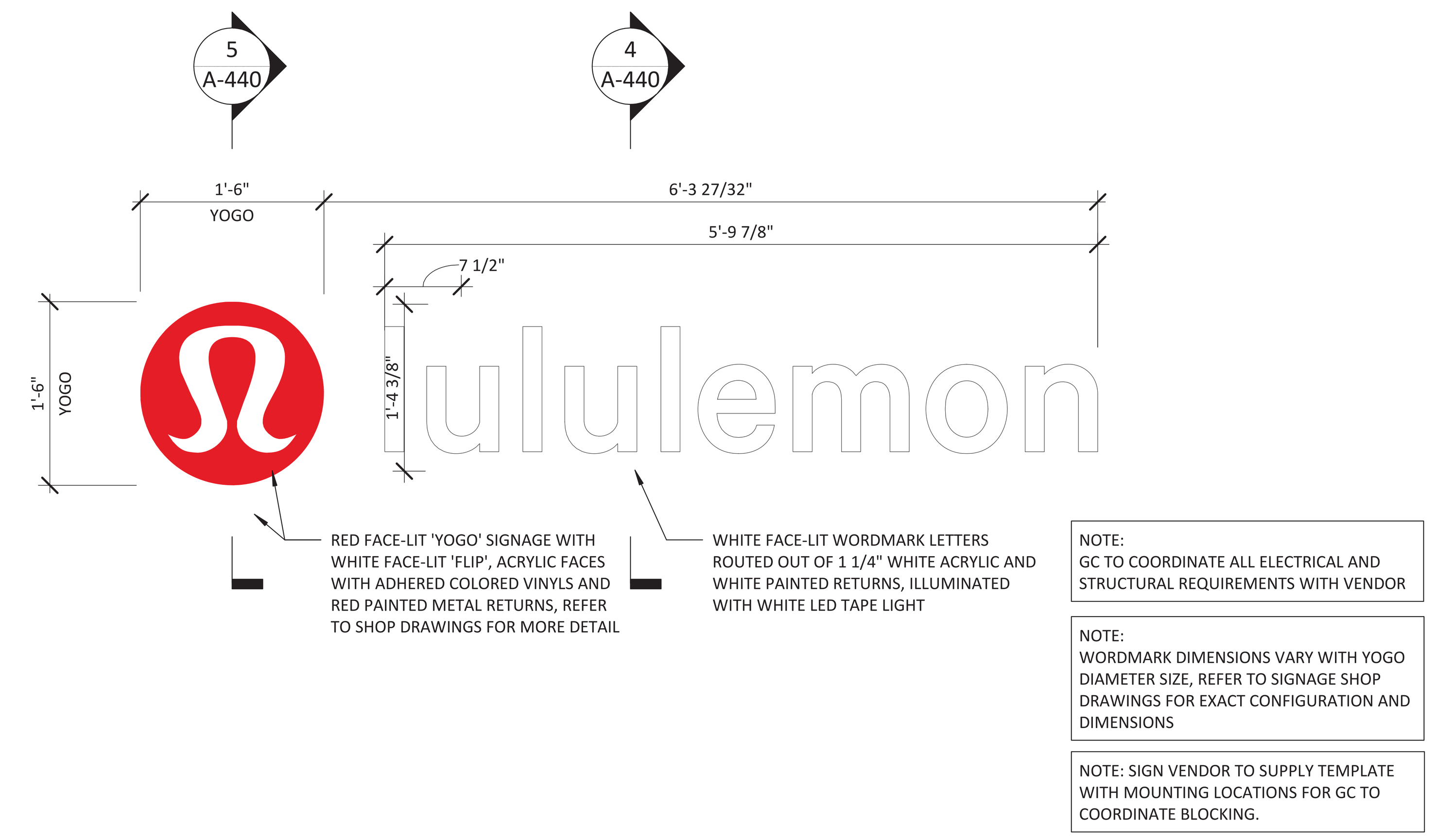
4 FACE-LIT WORDMARK - SECTION AT PERF.
SCALE: 3" = 1'-0"



3 SURFACE MOUNTED FACE LIT YOGO - PERF PANEL
SCALE: 1" = 1'-0"



2 BLADE SIGN - SIDE MOUNTED AT PERF. PANEL
SCALE: 1" = 1'-0"



1 FACE-LIT WORDMARK (YOGO + LLL)
SCALE: 1" = 1'-0"

lululemon
1818 CORNWALL AVE.
VANCOUVER, B.C., V6J1C7

CF POLO PARK
1485 Portage Ave, Unit 144E
Winnipeg, MB
R3G 0W5
CRU NUMBER: 144E

Quadrangle
Quadrangle Architects Limited
The Well, 8 Spadina Avenue, Suite 2100, Toronto, ON M5V 0S8
t 416 598 1240 www.bdpquadrangle.com

ARCHITECT SEAL

ONTARIO ASSOCIATION OF ARCHITECTS
KIRTIDEV MEHTA
LICENCE
8099

ISSUED FOR CONSTRUCTION

07/14/2023

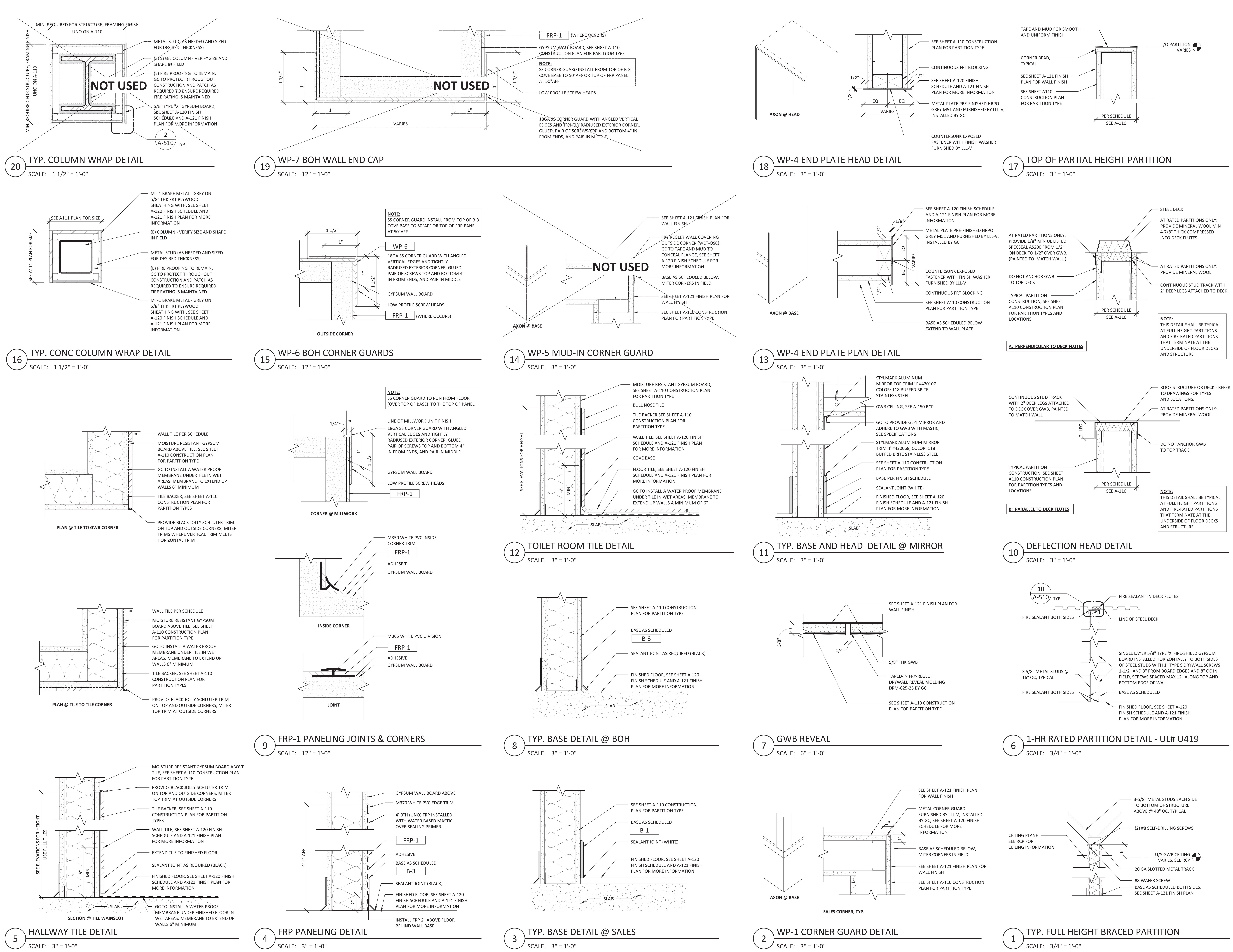
△	DATE	DESCRIPTION
	06/09/2023	PERMIT/CONSTRUCTION
	06/09/2023	ISSUED FOR BID
	07/14/2023	ISSUED FOR CONSTRUCTION

DRAWING INFORMATION
PROJECT #: 23206
CHECKED BY: NA
DRAWN BY: TA/MP

SIGNAGE DETAILS

DRAWING NUMBER
A-440

7/14/2023 12:15:52 PM



lululemon
1818 CORNWALL AVE.
VANCOUVER, B.C., V6J1C7

CF POLO PARK
1485 Portage Ave, Unit 144E
Winnipeg, MB
R3G 0W5
CRU NUMBER: 144E

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Quadrangle Architects Limited
The Well, 8 Spadina Avenue, Suite 2100, Toronto, ON M5V 0S8
t 416 598 1240 www.bdpquadrangle.com

ARCHITECT SEAL

ONTARIO ASSOCIATION OF ARCHITECTS
KIRTIDEV MEHTA
LICENCE
8099

ISSUED FOR CONSTRUCTION

07/14/2023

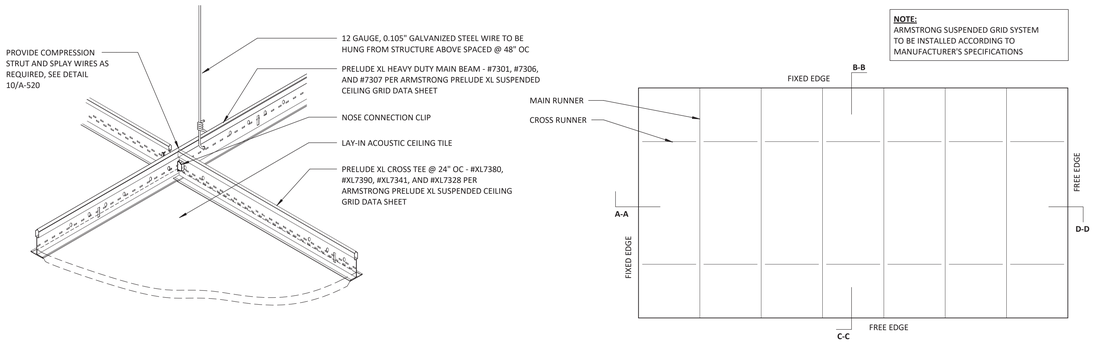
DATE	DESCRIPTION
06/09/2023	PERMIT/CONSTRUCTION
06/09/2023	ISSUED FOR BID
07/14/2023	ISSUED FOR CONSTRUCTION

DRAWING INFORMATION
PROJECT #: 23206
CHECKED BY: CHECKER
DRAWN BY: AUTHOR

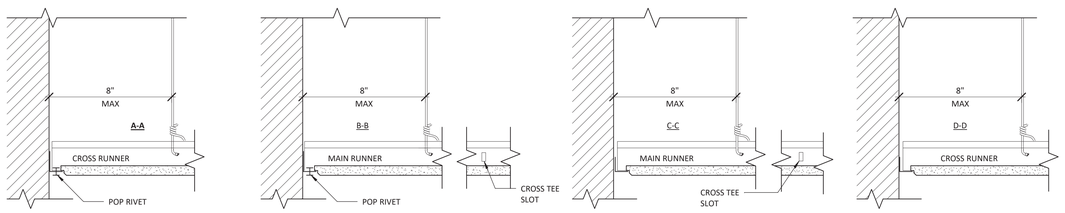
PARTITION AND WALL PROTECTION DETAILS

DRAWING NUMBER
A-510

7/14/2023 12:15:58 PM

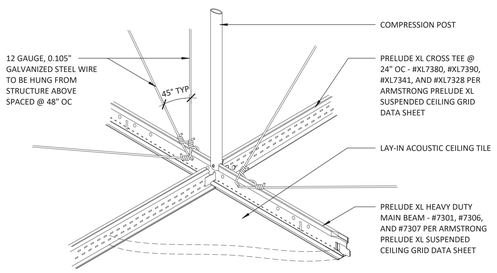


NOTE:
ARMSTRONG SUSPENDED GRID SYSTEM TO BE INSTALLED ACCORDING TO MANUFACTURER'S SPECIFICATIONS



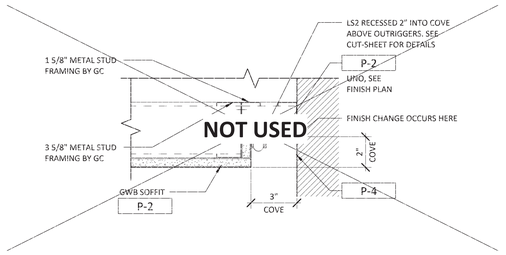
12 SUSPENDED ACOUSTIC CEILING TILE SYSTEM

SCALE: 3" = 1'-0"



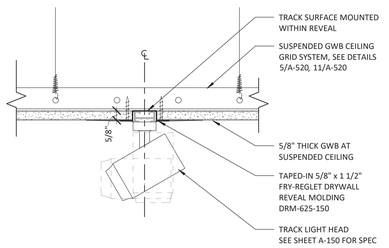
10 SUSPENDED ACT CEILNG COMPRESSION STRUT

SCALE: 3" = 1'-0"



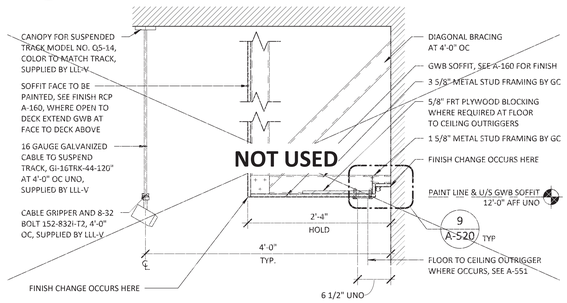
9 DIRECT WALL WASH @ PERIMETER COVE (STANDARD STORES)

SCALE: 3" = 1'-0"



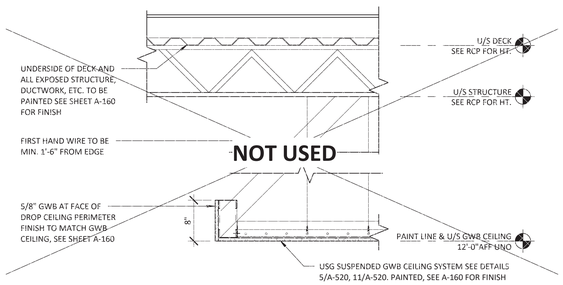
8 TAPED-IN RECESSED REVEAL DETAIL FOR TRACK LIGHTING

SCALE: 3" = 1'-0"



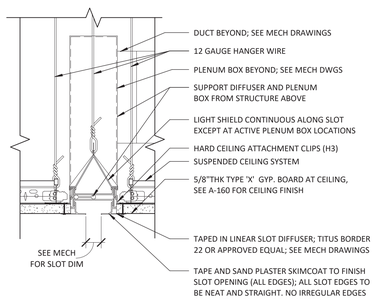
7 SOFFIT DETAIL WITH COVE (STANDARD STORES)

SCALE: 1" = 1'-0"



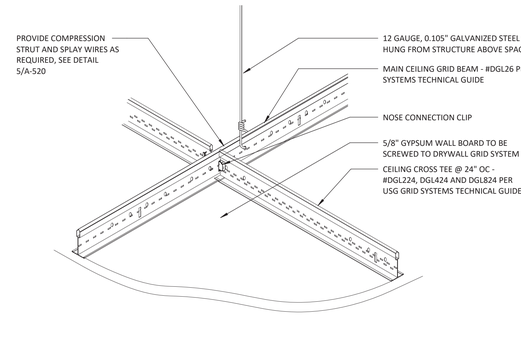
4 FLOATING GWB CEILING PAD DETAIL (STANDARD STORES)

SCALE: 1" = 1'-0"

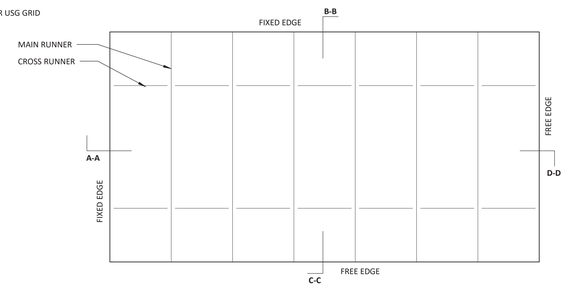


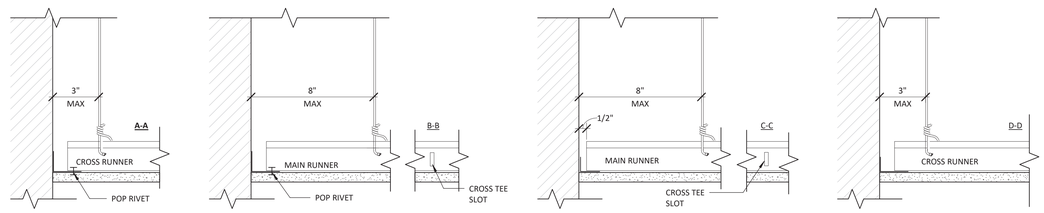
3 TAPED-IN LINEAR SLOT DIFFUSER

SCALE: 3" = 1'-0"



NOTE:
USG DRYWALL GRID SYSTEM TO BE INSTALLED ACCORDING TO MANUFACTURER'S SPECIFICATIONS



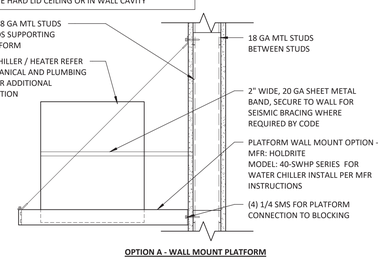


11 SUSPENDED GWB CEILING GRID SYSTEM

SCALE: 3" = 1'-0"

OPTION B - SUSPENDED PLATFORM

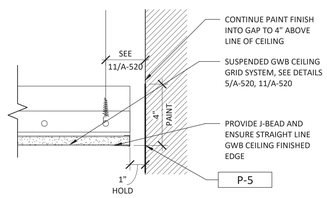
NOTES:
1. WATER CHILLER DISTANCE FROM WATER FEATURE TO BE 15'-0" MAX, AND BOTTOM OF WATER CHILLER TO BE 13'-0" AFF. GC TO COORD LOCATION WITH CONSTRUCTION MANAGER
2. GC TO PROVIDE ACCESS PANEL WHENEVER CHILLER IS ABOVE HARD LID CEILING OR IN WALL CAVITY



OPTION A - WALL MOUNT PLATFORM

6 WATER CHILLER / HEATER MOUNTING DETAIL

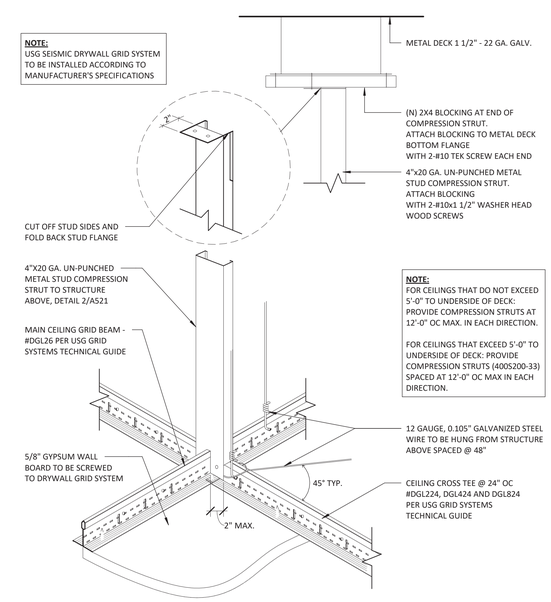
SCALE: 1 1/2" = 1'-0"



2 RETURN SLOT AT FITROOM

SCALE: 3" = 1'-0"

NOTE:
USG SEISMIC DRYWALL GRID SYSTEM TO BE INSTALLED ACCORDING TO MANUFACTURER'S SPECIFICATIONS

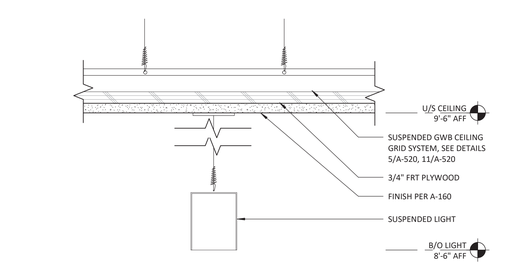


NOTE:
FOR CEILINGS THAT DO NOT EXCEED 5'-0" TO UNDERSIDE OF DECK: PROVIDE COMPRESSION STRUTS AT 12'-0" OC MAX. IN EACH DIRECTION.

FOR CEILINGS THAT EXCEED 5'-0" TO UNDERSIDE OF DECK: PROVIDE COMPRESSION STRUTS (4005200-33) SPACED AT 12'-0" OC MAX IN EACH DIRECTION.

5 SUSPENDED GWB CEILNG COMPRESSION STRUT

SCALE: 3" = 1'-0"



1 SUSPENDED LIGHTING SYSTEM

SCALE: 3" = 1'-0"

lululemon
1818 CORNWALL AVE.
VANCOUVER, B.C., V6J1C7

CF POLO PARK
1485 Portage Ave, Unit 144E
Winnipeg, MB
R3G 0W5
CRU NUMBER: 144E

Quadrangle
Quadrangle Architects Limited
The Well, 8 Spadina Avenue, Suite #100, Toronto, ON M5V 0S8
t 416 861 1564 www.quadrangle.com

ARCHITECT SEAL

ONTARIO ASSOCIATION OF ARCHITECTS
KIRTIDEV MEHTA
LICENCE
8099

ISSUED FOR CONSTRUCTION
07/14/2023

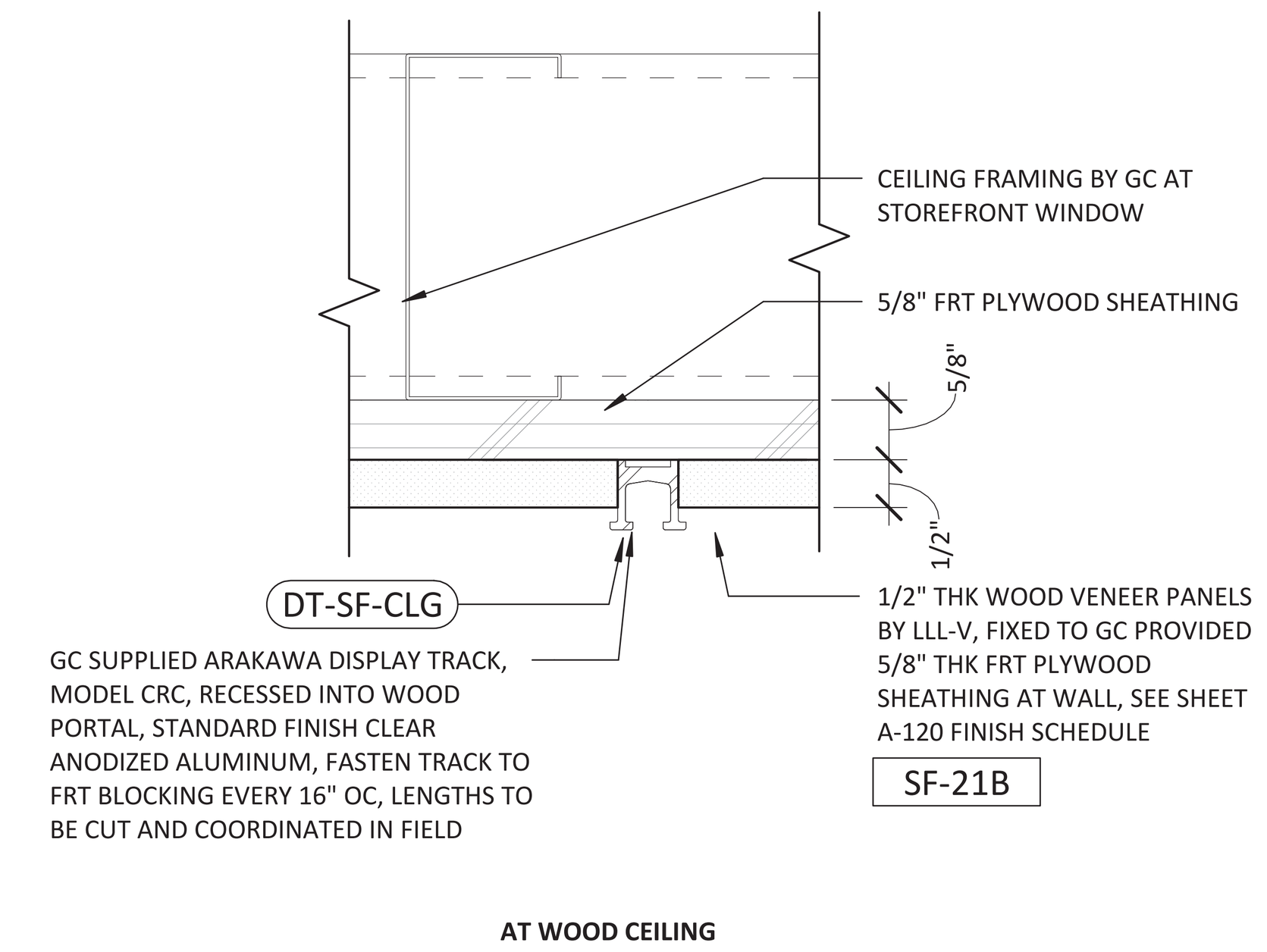
	DATE	DESCRIPTION
1	06/09/2023	PERMIT/CONSTRUCTION
2	06/09/2023	ISSUED FOR BID
3	07/14/2023	ISSUED FOR CONSTRUCTION

DRAWING INFORMATION
PROJECT #: 23206
CHECKED BY: NA
DRAWN BY: MP

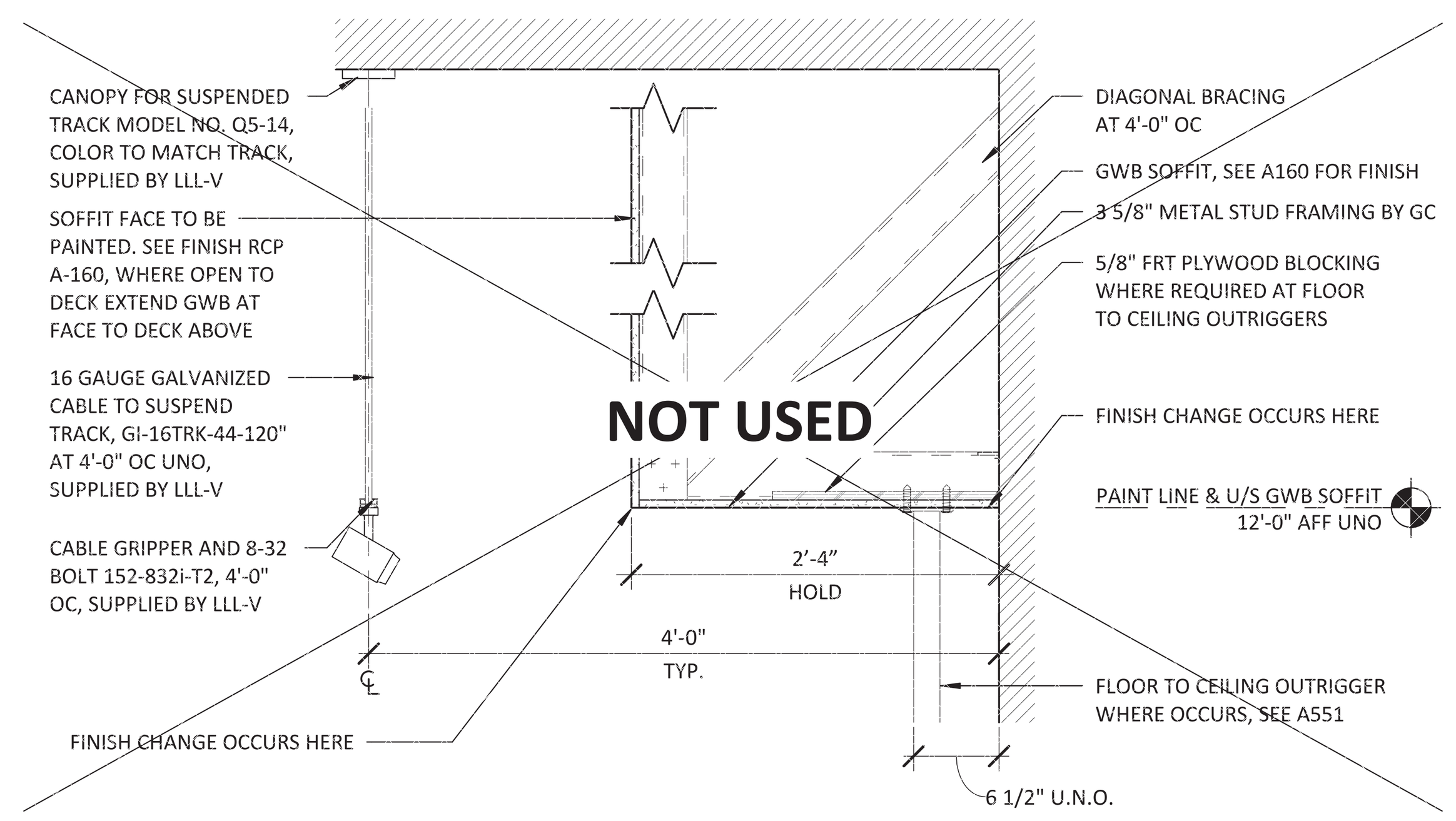
CEILING DETAILS

DRAWING NUMBER
A-520

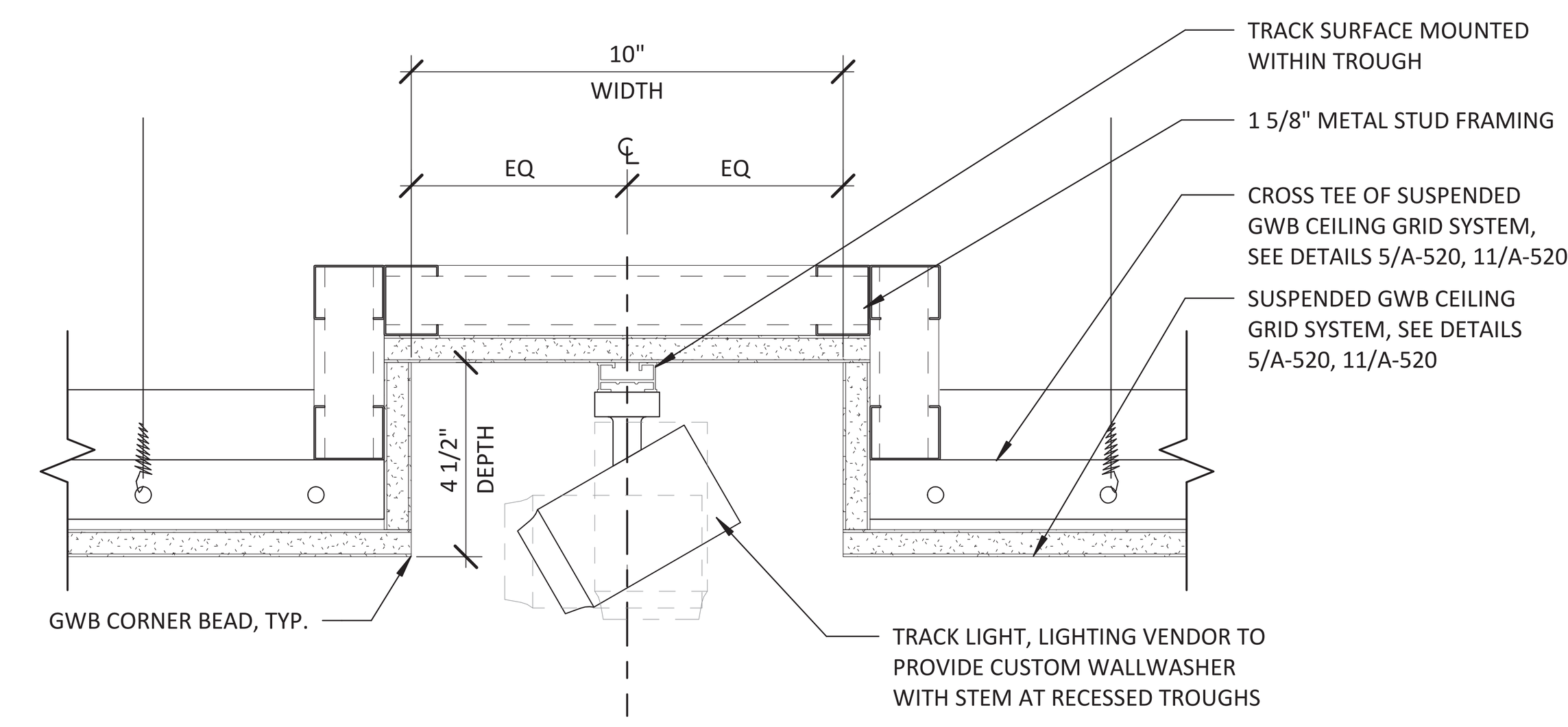
7/14/2023 12:16:02 PM



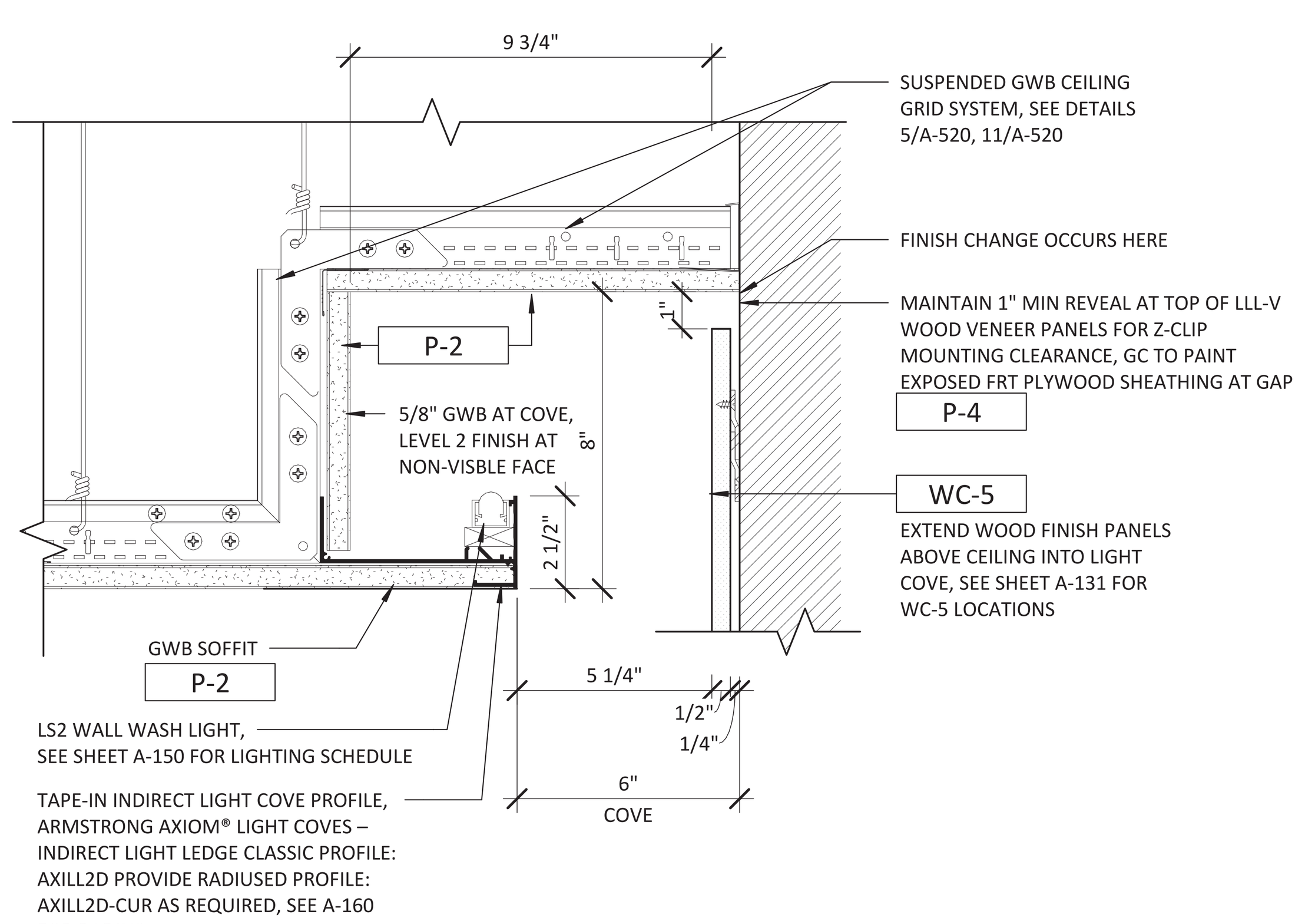
7 DISPLAY TRACK AT STOREFRONT (CANADA)
SCALE: 6" = 1'-0"



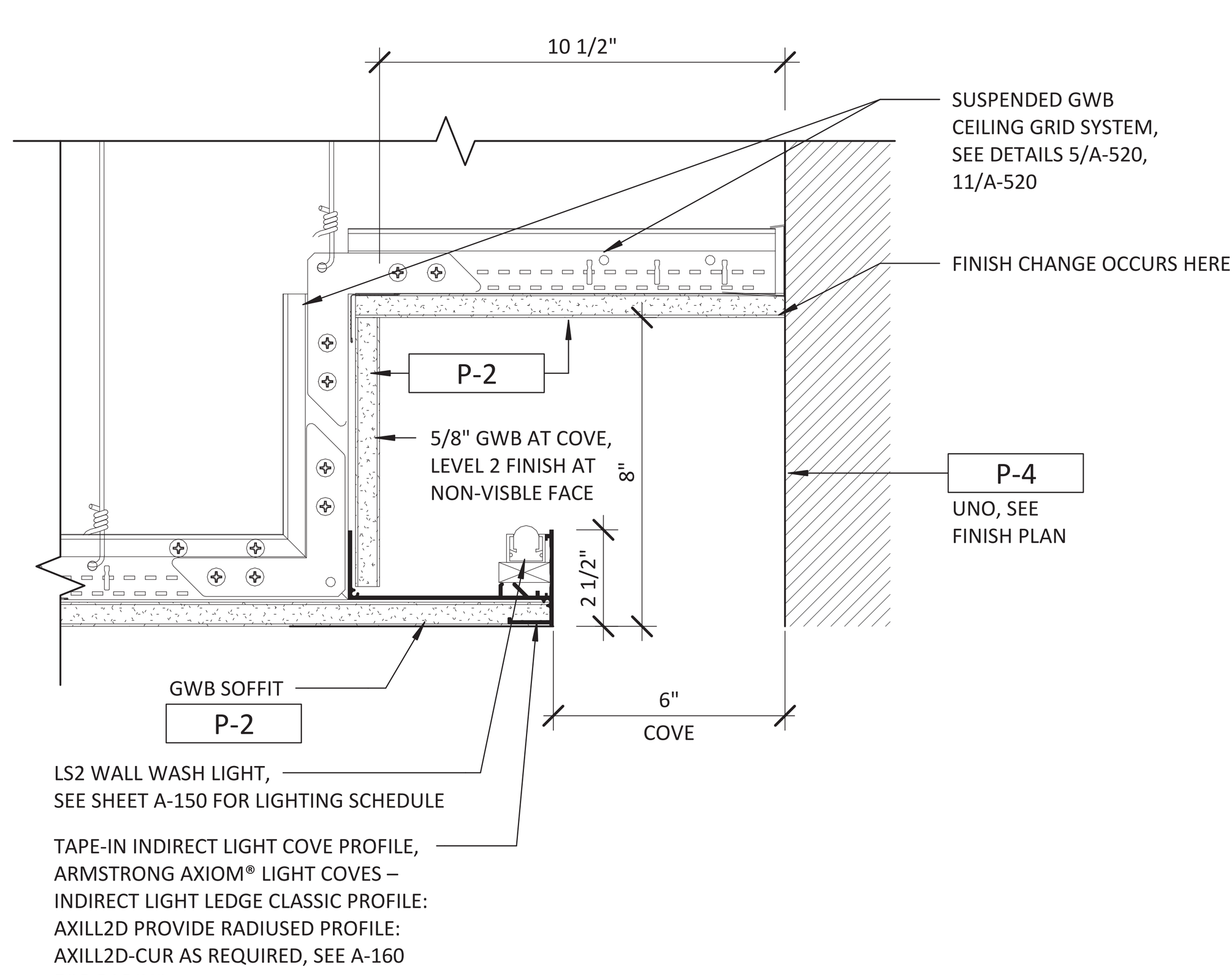
6 SOFFIT DETAIL - NO COVE
SCALE: 1" = 1'-0"



5 LIGHT TROUGH TRACK LIGHTING SYSTEM (SELECT STORES)
SCALE: 3" = 1'-0"



4 INDIRECT WALL WASH @ PERIMETER WOOD COVE (SELECT STORES)
SCALE: 3" = 1'-0"



3 INDIRECT WALL WASH @ PERIMETER COVE (SELECT STORES)
SCALE: 3" = 1'-0"

1 DISPLAY TRACK AT STOREFRONT
SCALE: 6" = 1'-0"

7/14/2023 12:16:05 PM

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1818 CORNWALL AVE.
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CF POLO PARK
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Winnipeg, MB
R3G 0W5
CRU NUMBER: 144E

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Quadrangle Architects Limited
The Well, 8 Spadina Avenue, Suite 2100, Toronto, ON M5V 0S8
t 416 598 1240 www.bdpquadrangle.com

ARCHITECT SEAL

ONTARIO ASSOCIATION OF ARCHITECTS
KIRTIDEV MEHTA
LICENCE
8099

ISSUED FOR CONSTRUCTION
07/14/2023

△	DATE	DESCRIPTION
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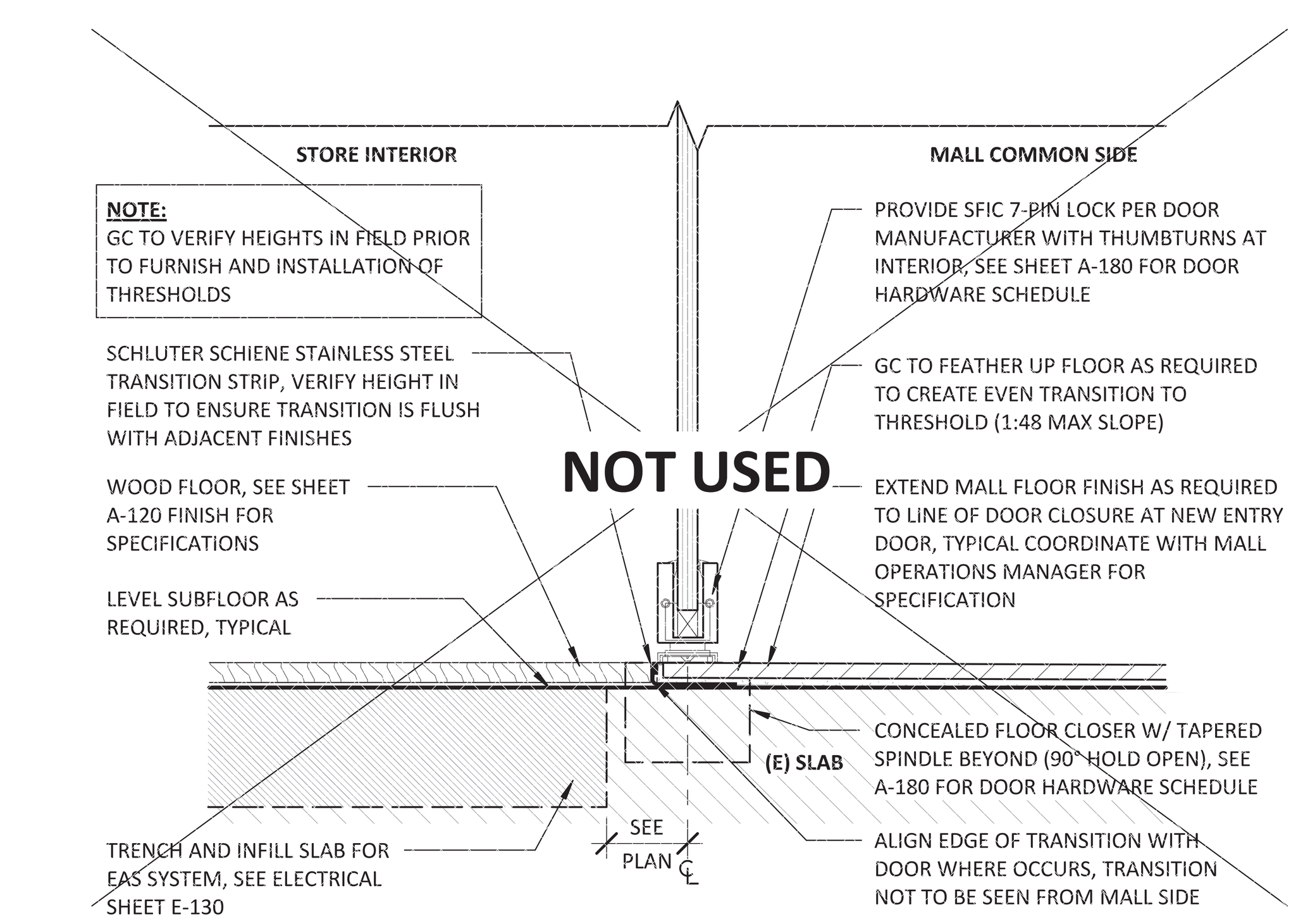
	07/14/2023	ISSUED FOR CONSTRUCTION

DRAWING INFORMATION
PROJECT #: 23206
CHECKED BY: NA
DRAWN BY: MP

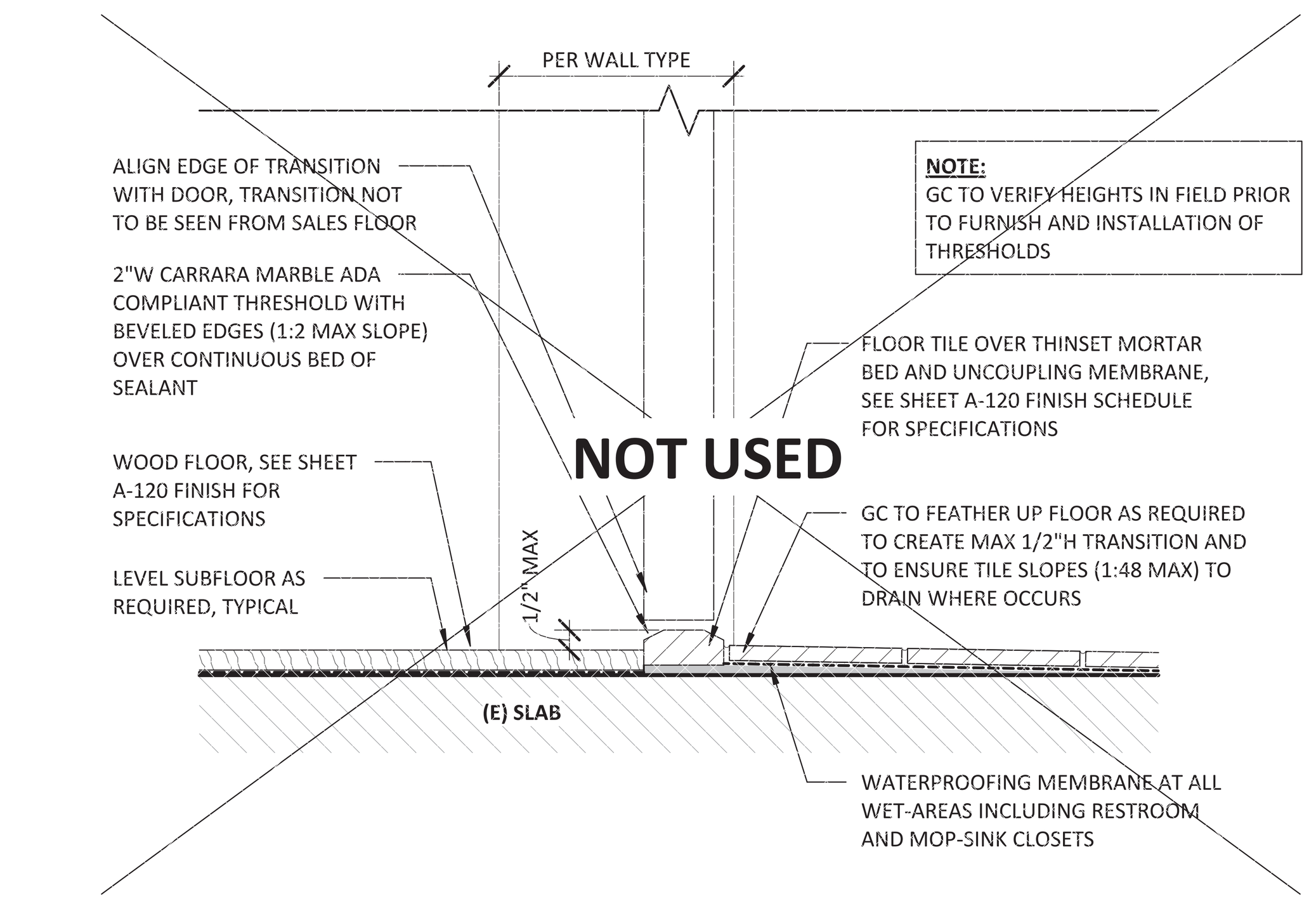
CEILING DETAILS

DRAWING NUMBER
A-521



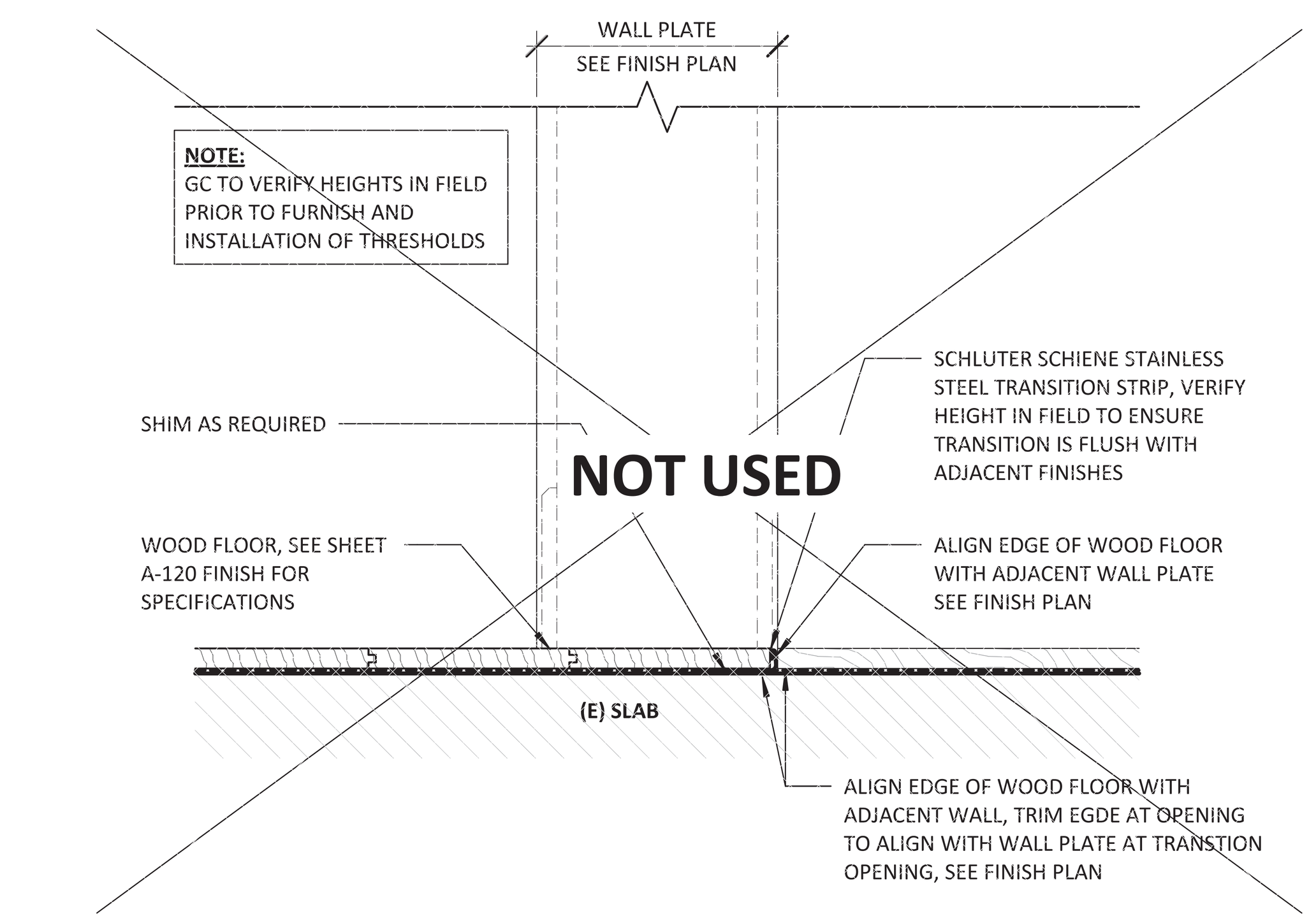
16 WOOD TO MALL TILE @ INTERIOR ENTRY DOOR

SCALE: 3" = 1'-0"



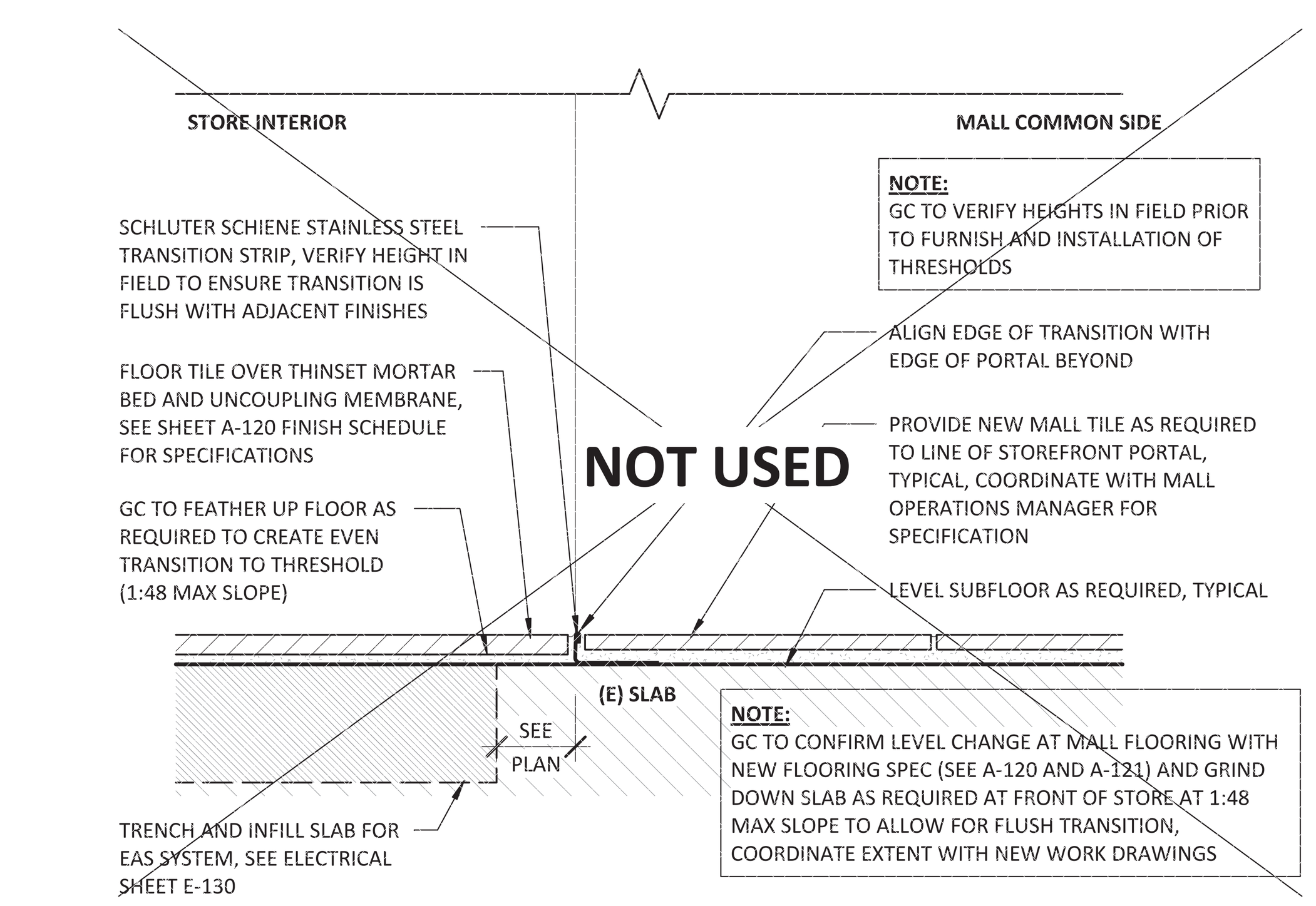
15 WOOD TO TILE @ RESTROOM

SCALE: 3" = 1'-0"



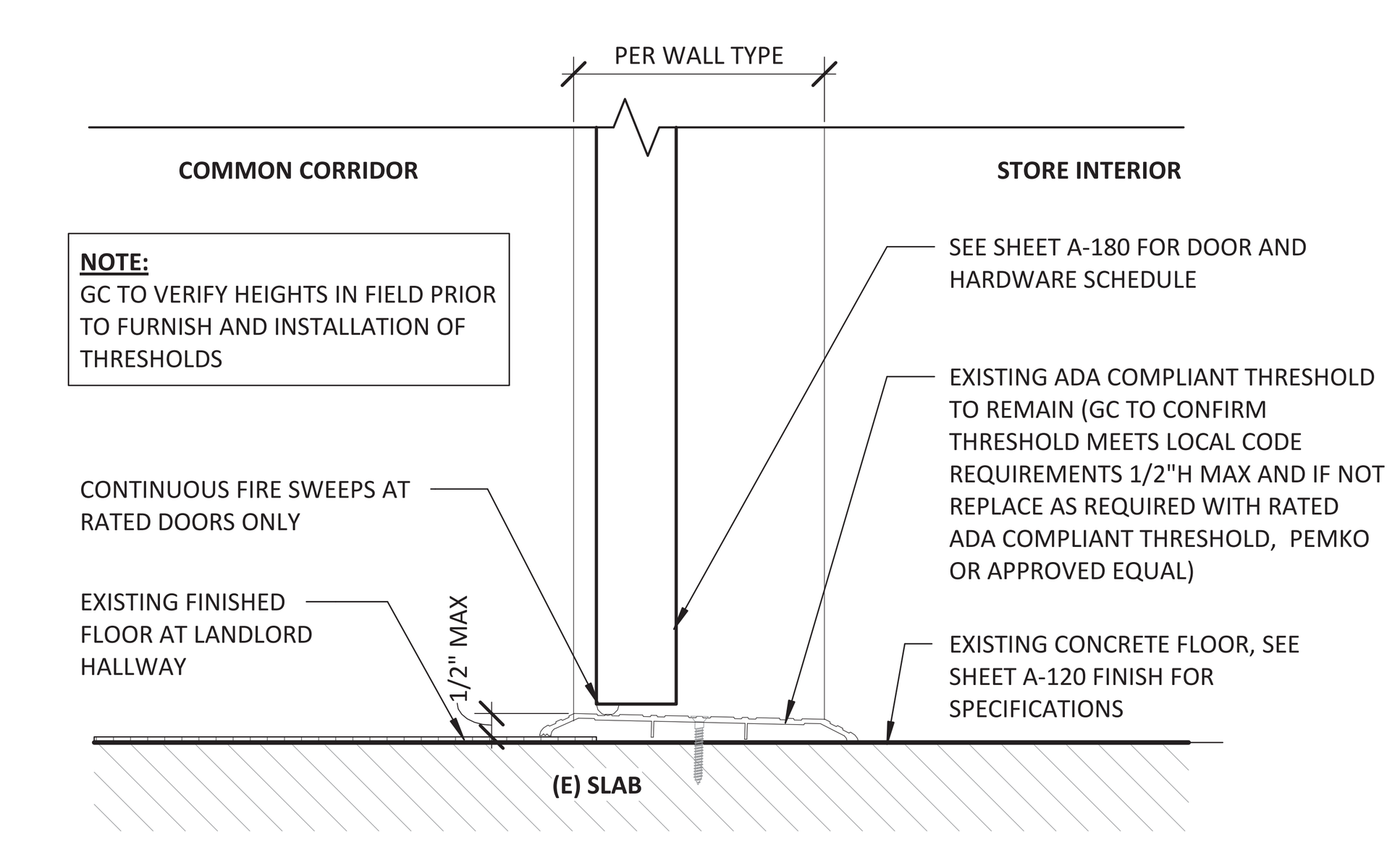
14 WOOD TO WOOD TRANSITION (CHANGE DIRECTION)

SCALE: 3" = 1'-0"



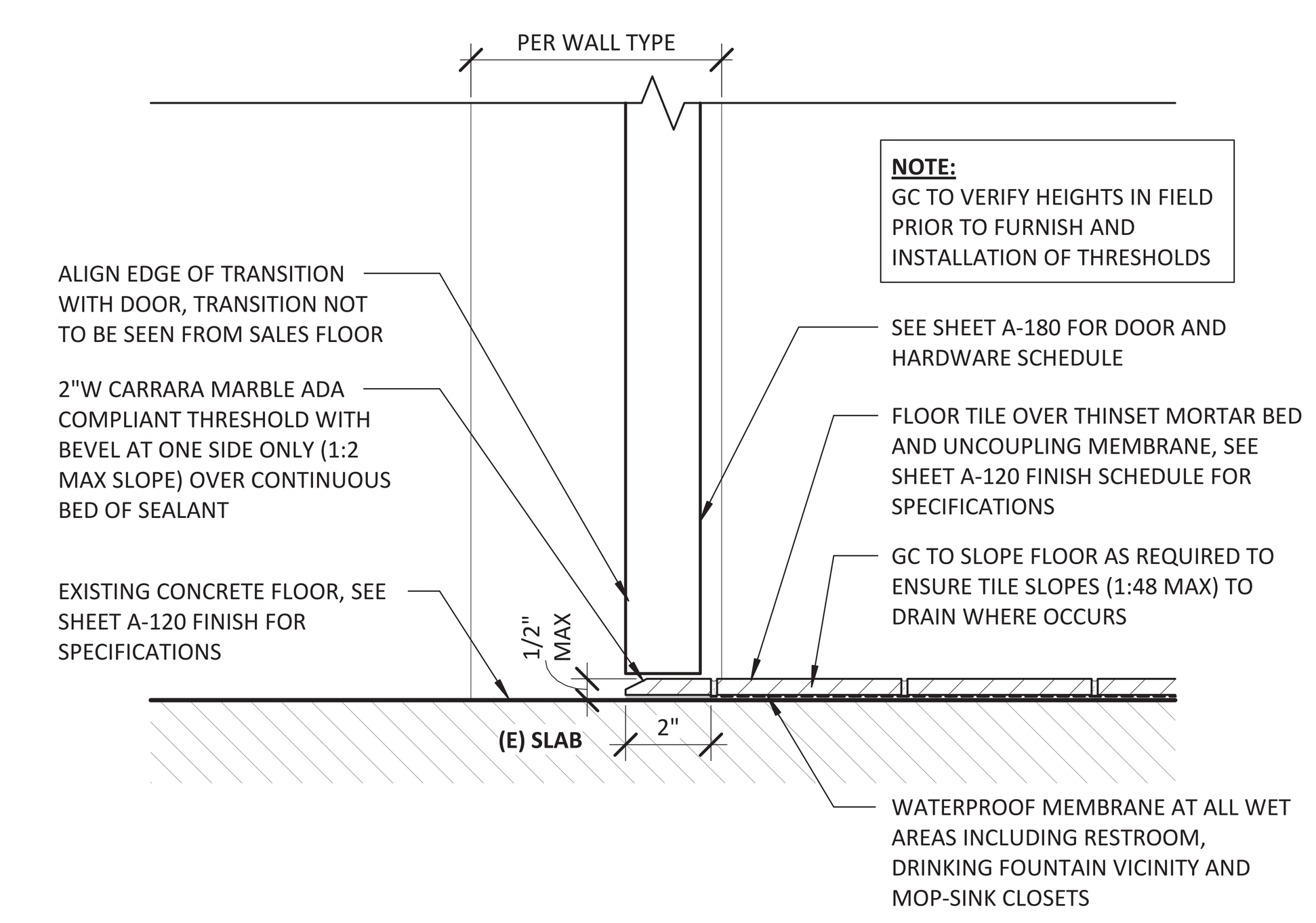
13 TILE TO MALL TILE @ INTERIOR ENTRY

SCALE: 3" = 1'-0"



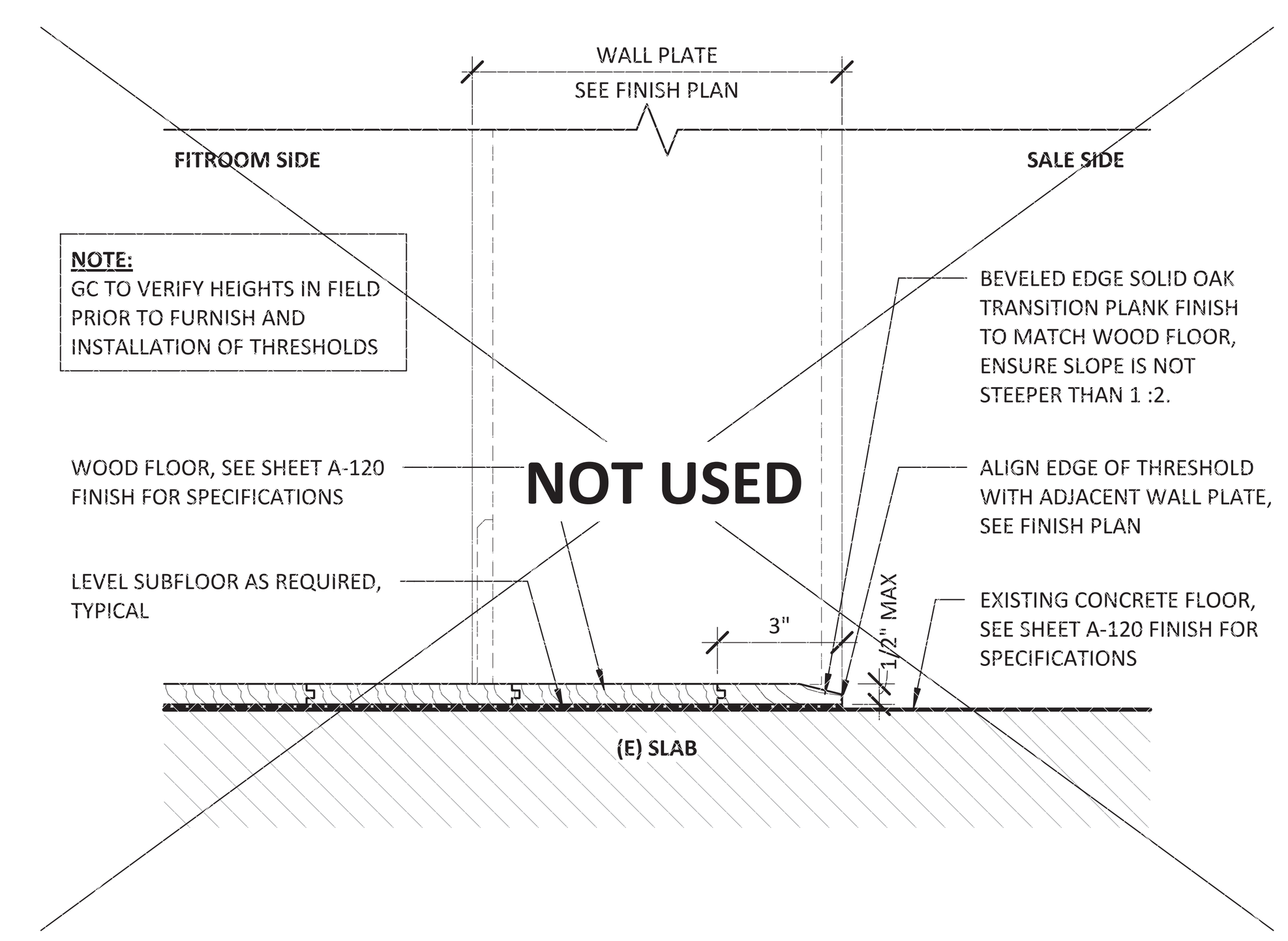
12 EXISTING CONCRETE TO COMMON CORRIDOR

SCALE: 3" = 1'-0"



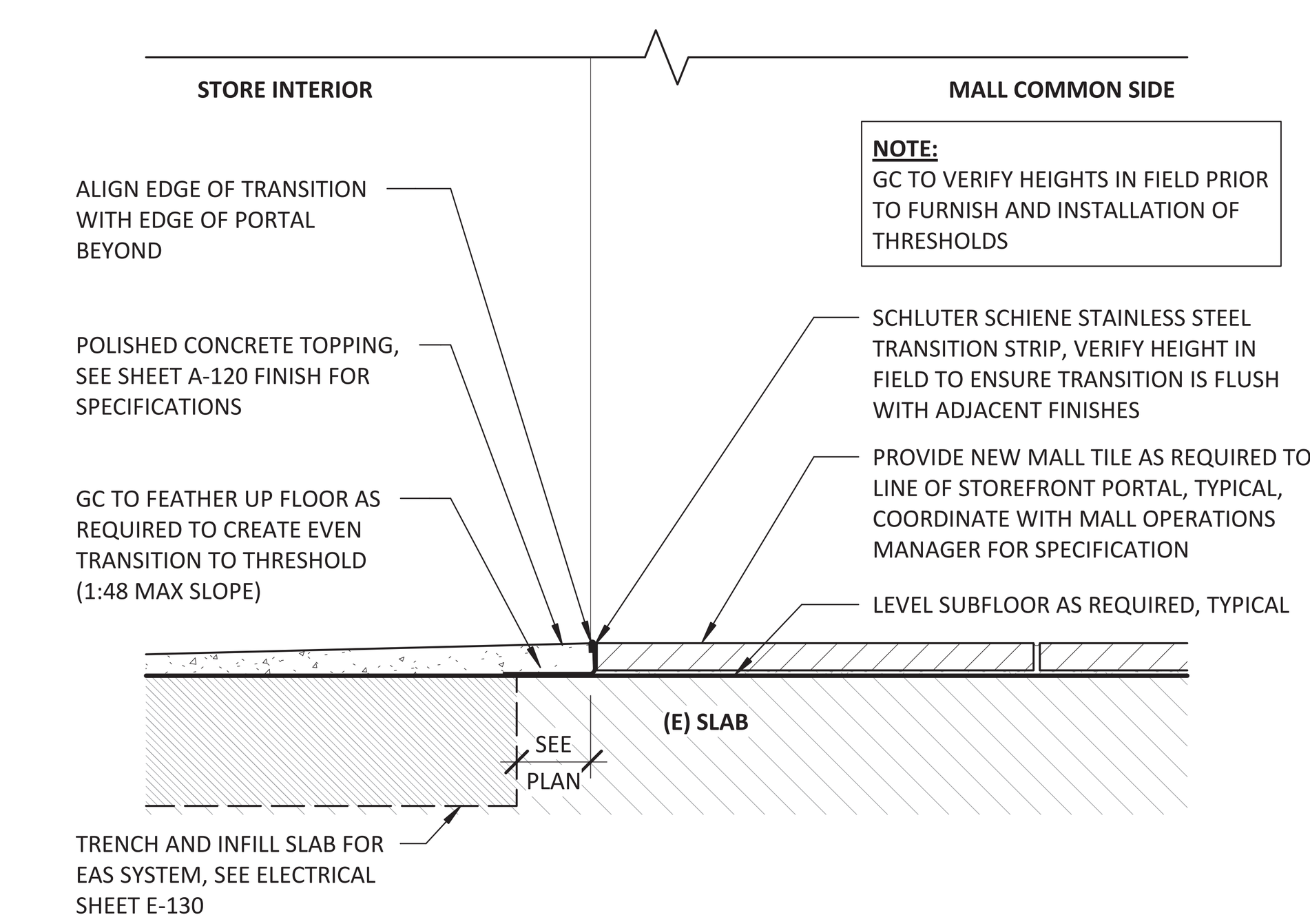
11 EXISTING CONCRETE TO TILE @ RESTROOM

SCALE: 3" = 1'-0"



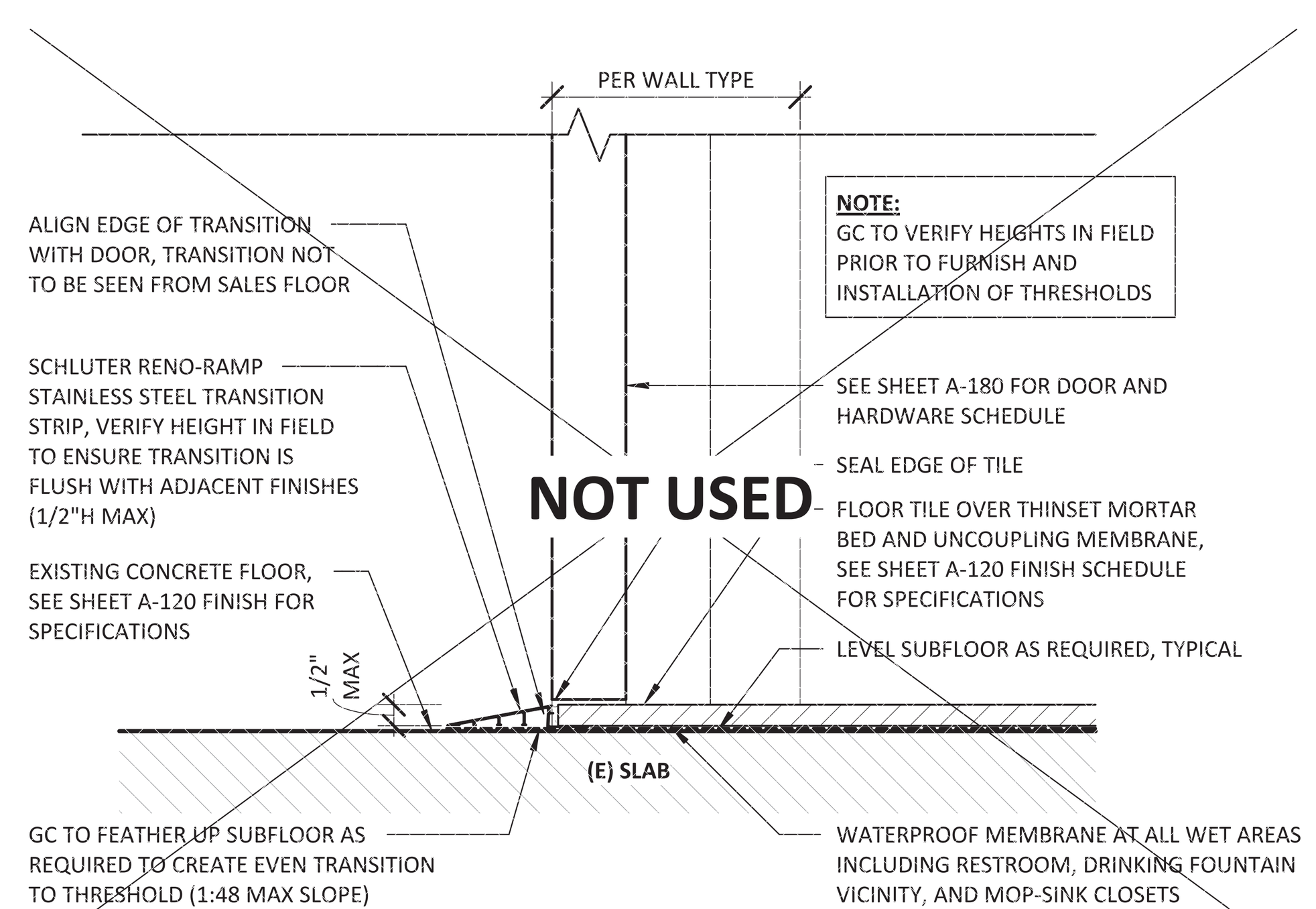
10 EXISTING CONCRETE TO WOOD

SCALE: 3" = 1'-0"



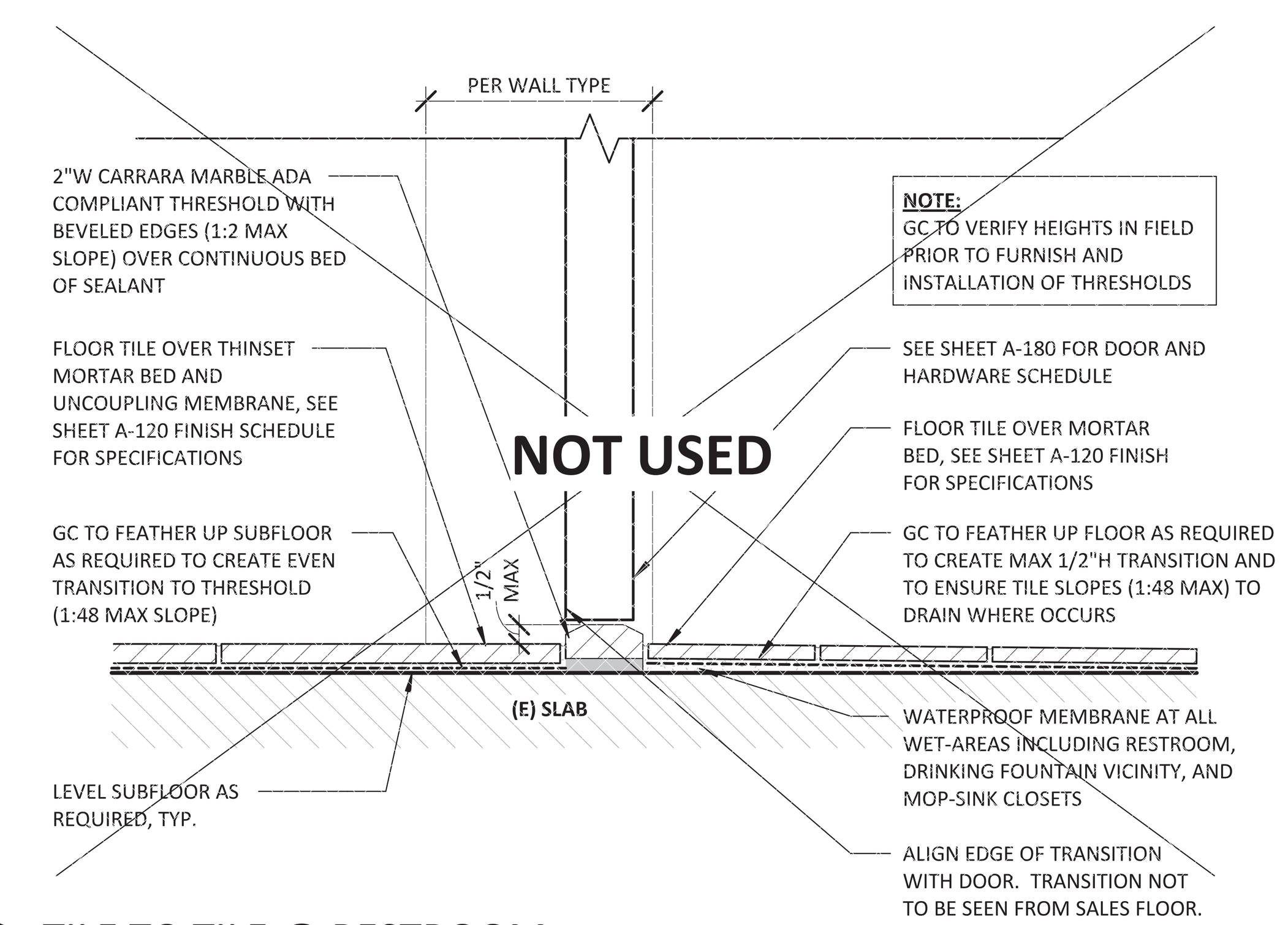
9 POLISHED CONCRETE TOPPING TO MALL TILE @ INTERIOR ENTRY

SCALE: 3" = 1'-0"



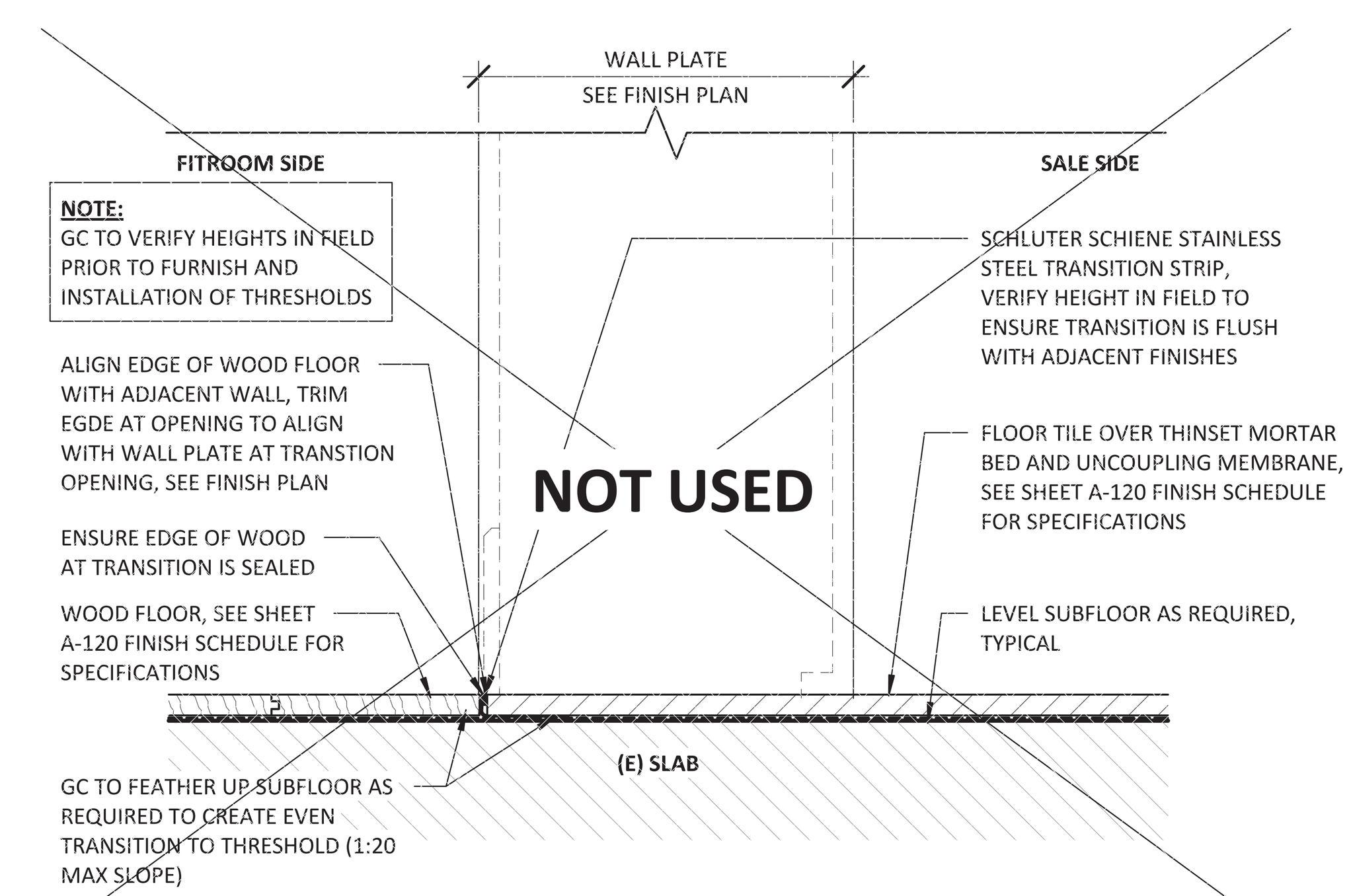
8 EXISTING CONCRETE TO TILE TRANSITION @ BOH

SCALE: 3" = 1'-0"



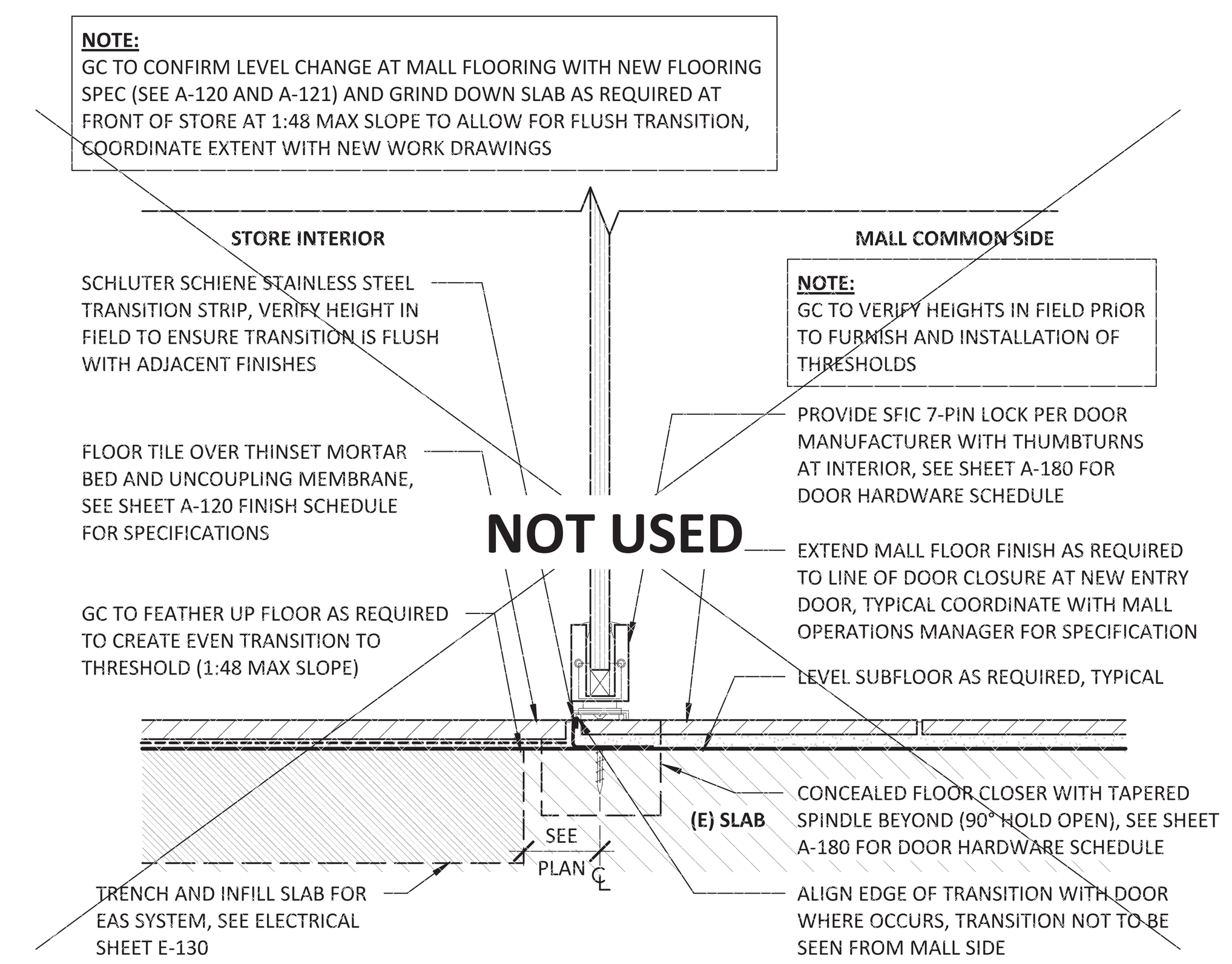
7 TILE TO TILE @ RESTROOM

SCALE: 3" = 1'-0"



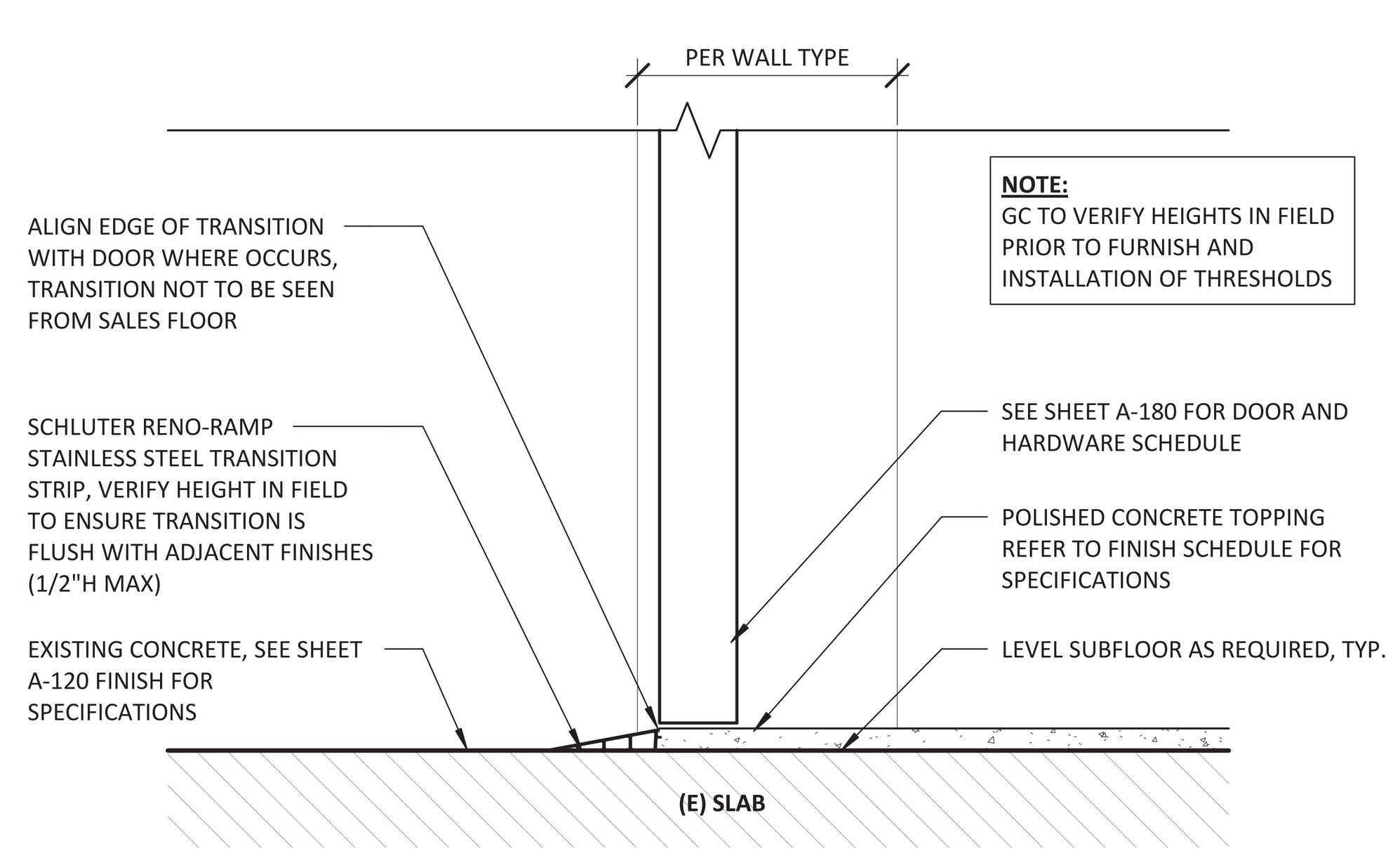
6 WOOD TO TILE @ SALES

SCALE: 3" = 1'-0"



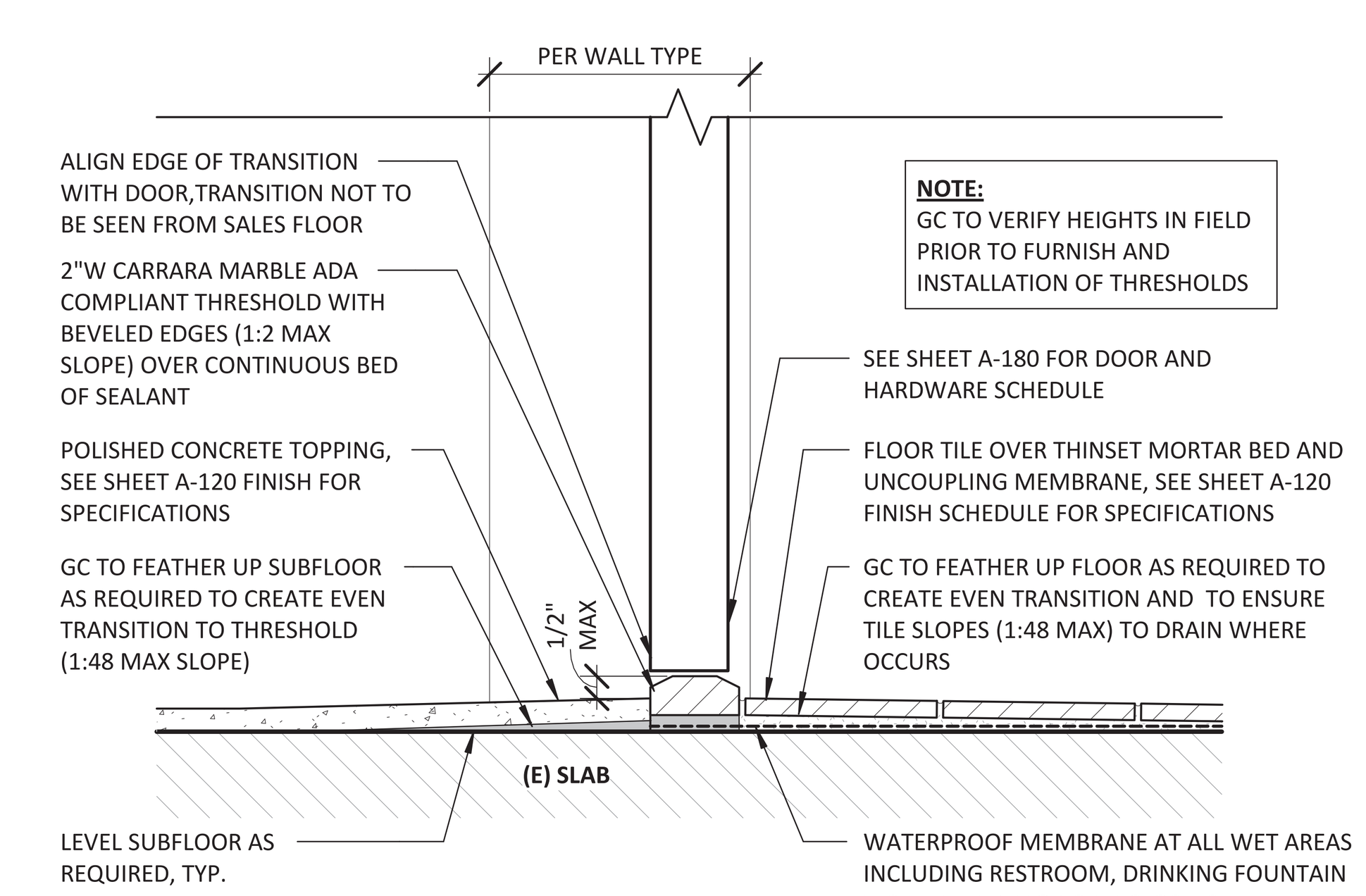
5 TILE TO MALL TILE @ INTERIOR ENTRY DOOR

SCALE: 3" = 1'-0"



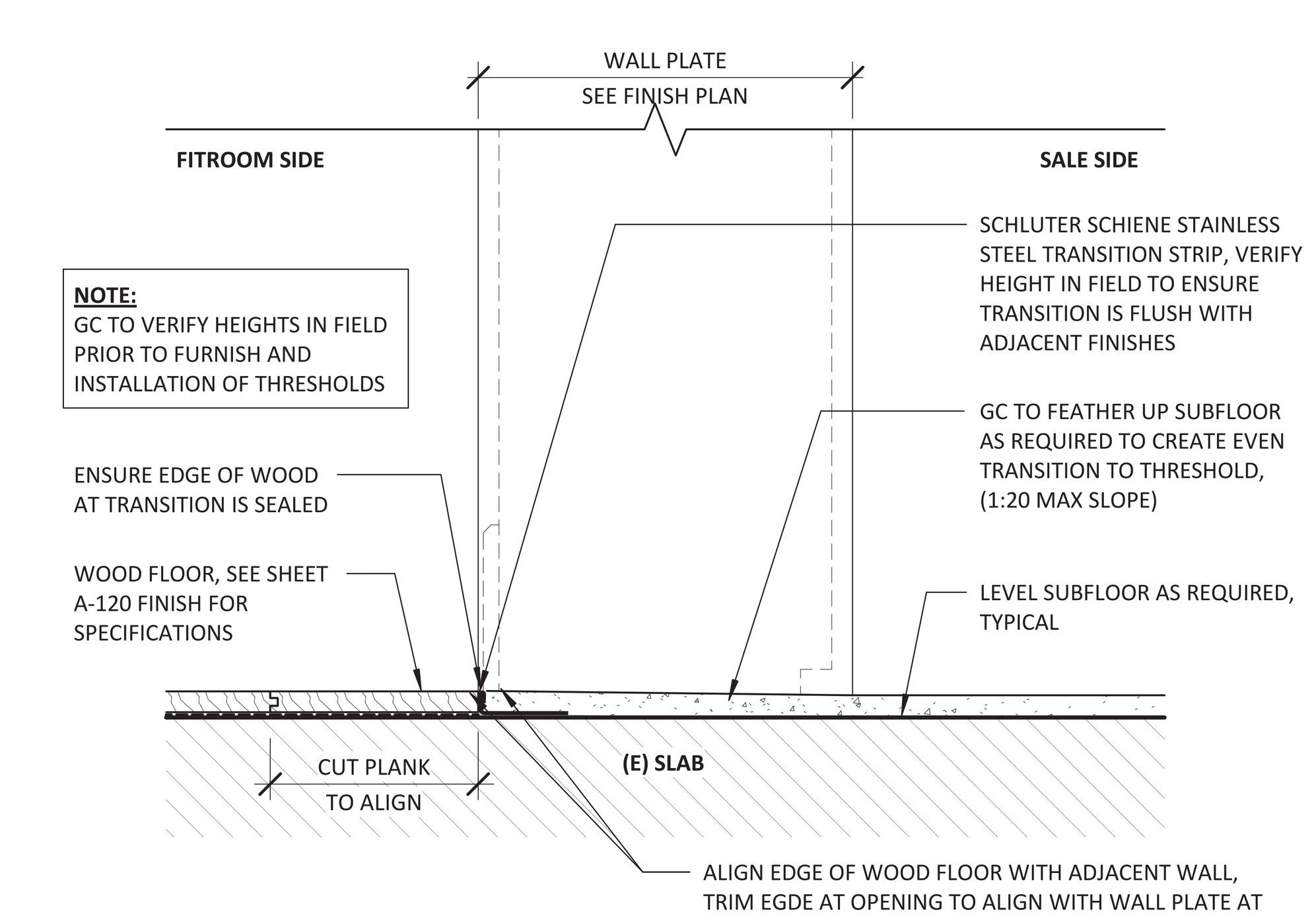
4 EXISTING CONCRETE TO POLISHED CONCRETE TOPPING @ BOH

SCALE: 3" = 1'-0"



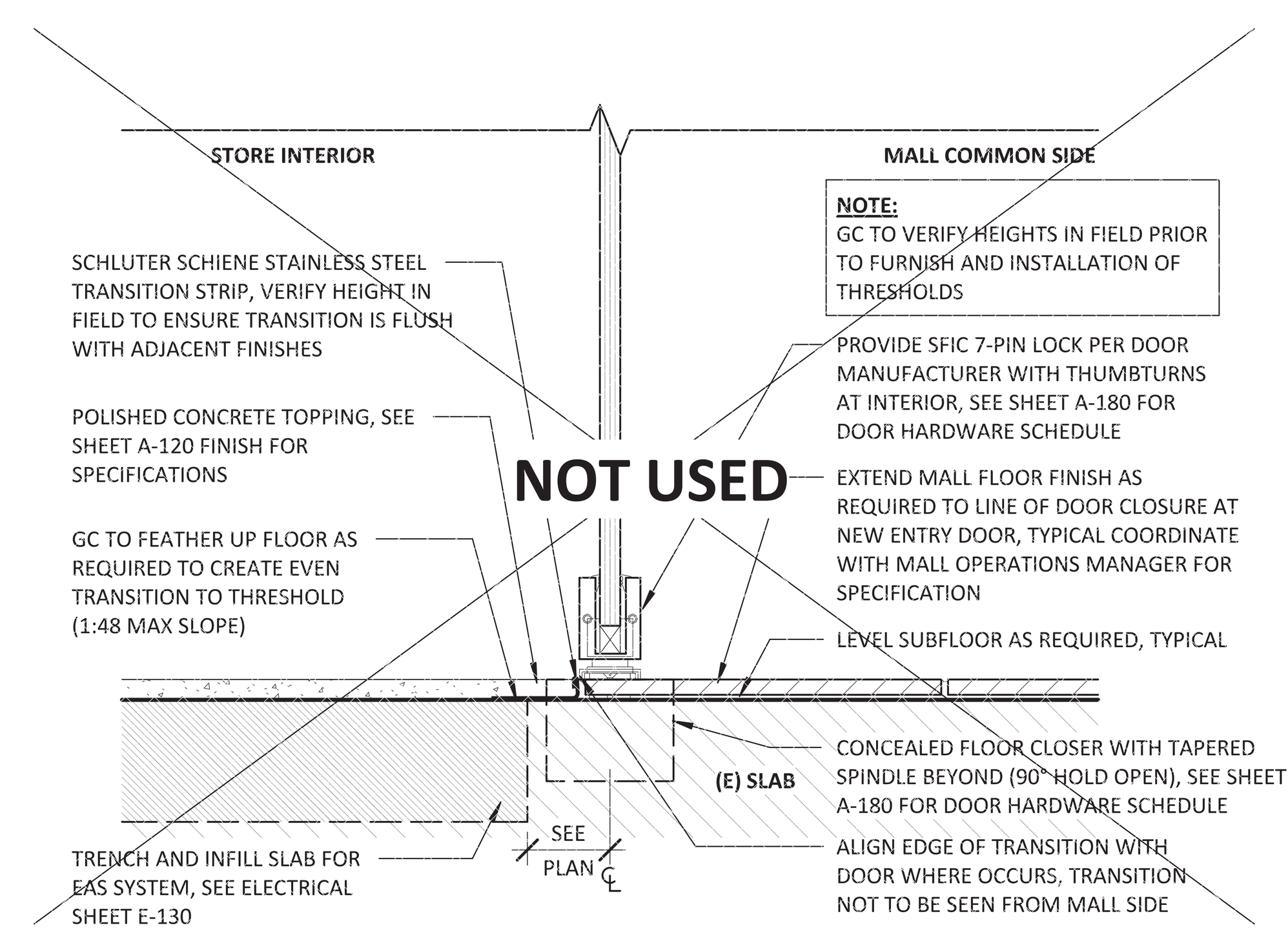
3 POLISHED CONCRETE TOPPING TO TILE @ RESTROOM

SCALE: 3" = 1'-0"



2 WOOD TO POLISHED CONCRETE TOPPING @ SALES

SCALE: 3" = 1'-0"



1 POLISHED CONCRETE TOPPING TO MALL TILE @ ENTRY DOOR

SCALE: 3" = 1'-0"

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Winnipeg, MB
R3G 0W5
CRU NUMBER: 144E

Quadrangle
Quadrangle Architects Limited
The Well, 8 Spadina Avenue, Suite 2100, Toronto, ON M5V 0S8
t 416 598 1240 www.bdpquadrangle.com

ARCHITECT SEAL

ONTARIO ASSOCIATION OF ARCHITECTS
KIRTIDEV MEHTA
LICENCE
8099

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07/14/2023

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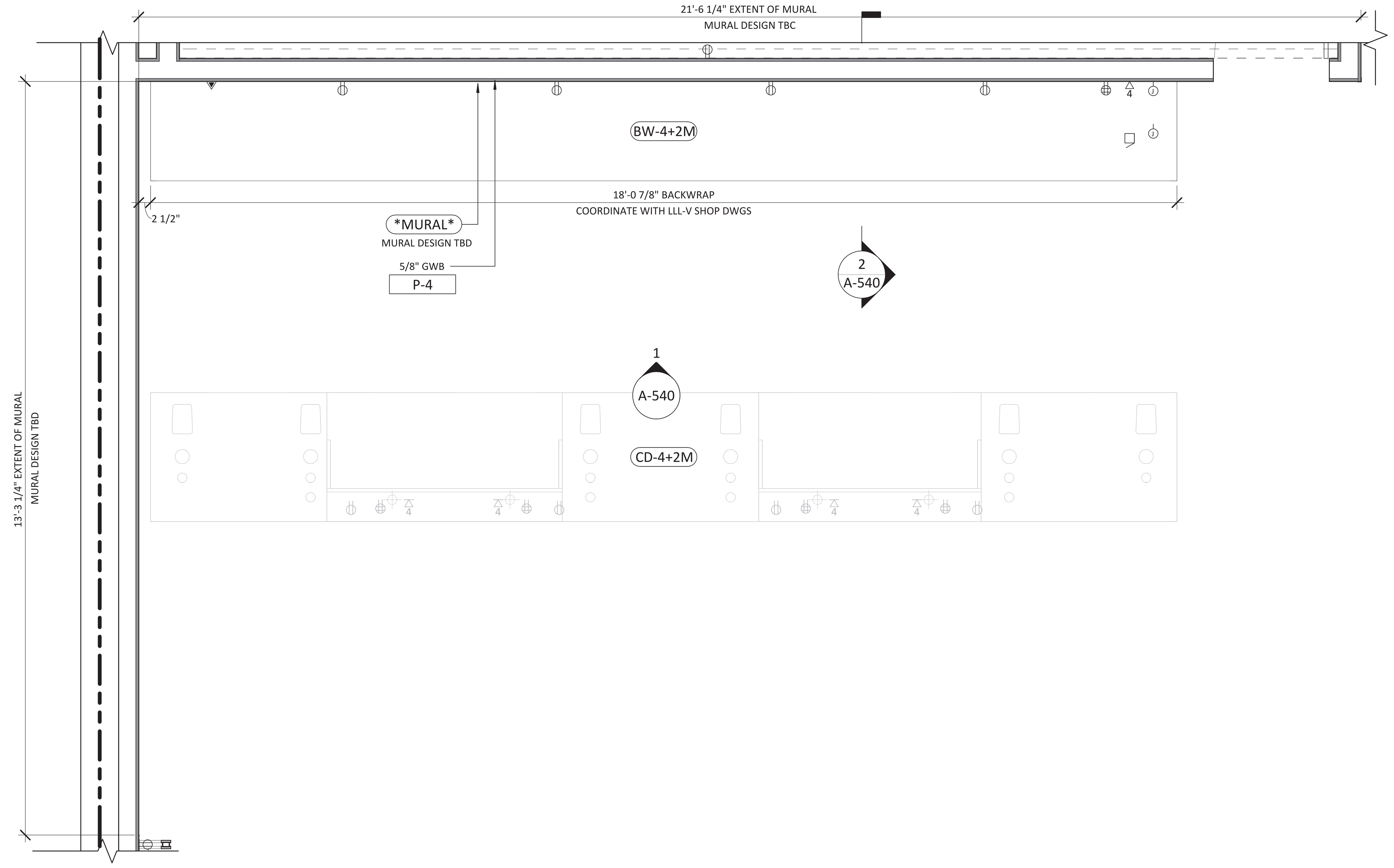
DRAWING INFORMATION
PROJECT #: 23206
CHECKED BY: NA
DRAWN BY: MP

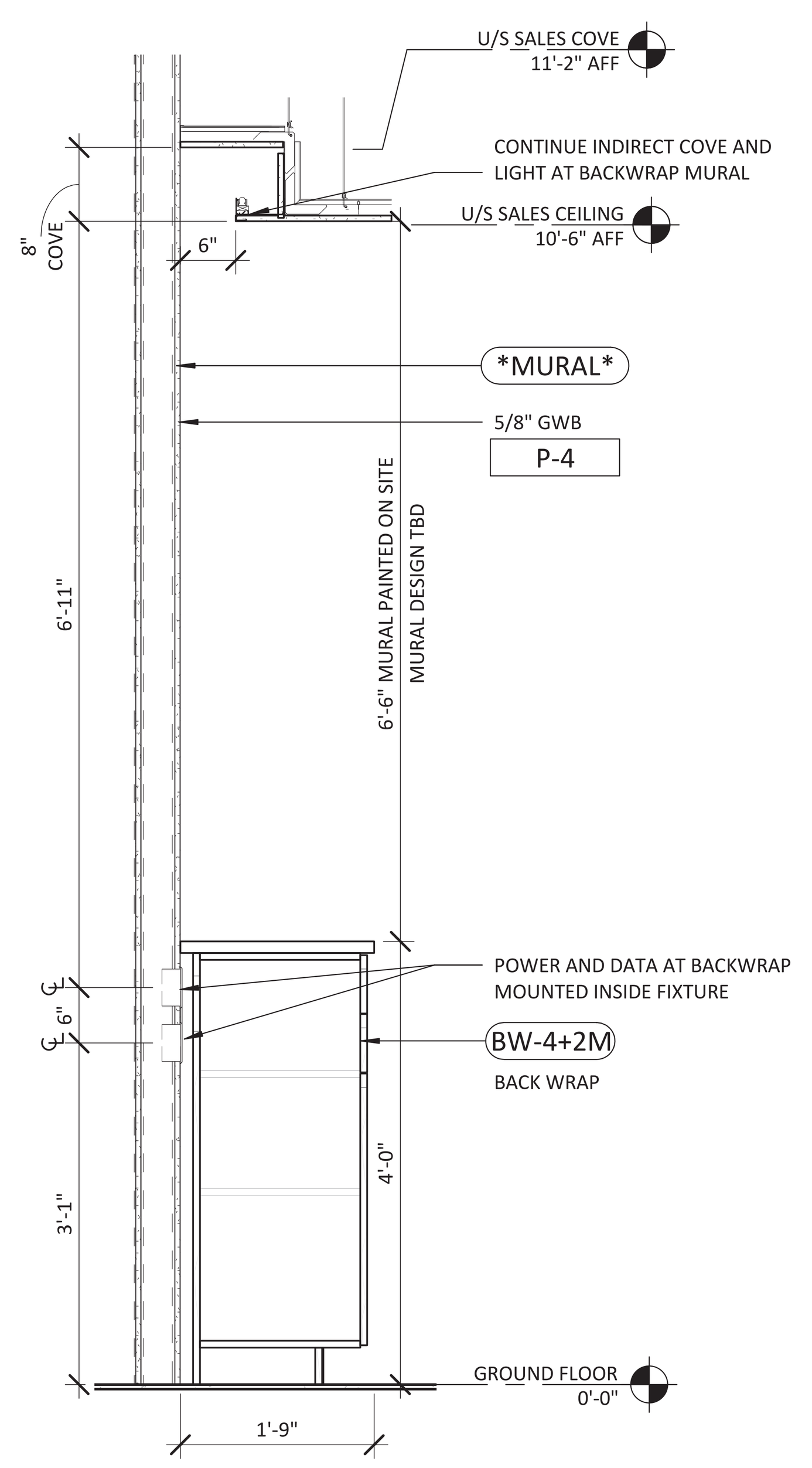
FLOOR DETAILS

DRAWING NUMBER
A-530

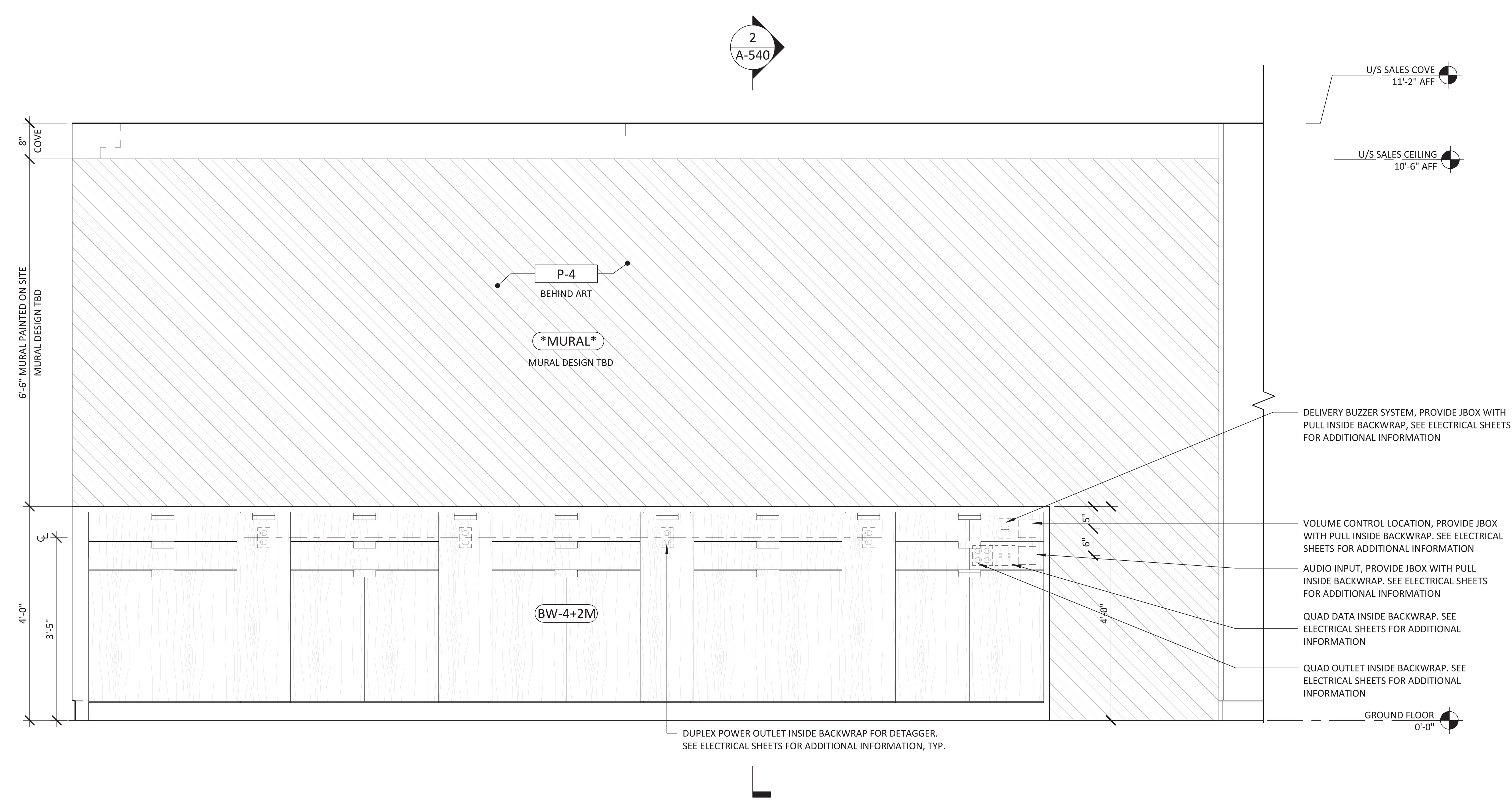
7/14/2023 12:16:09 PM



3 BACKWRAP MURAL PLAN VIEW
SCALE: 3/4" = 1'-0"



2 BACKWRAP MURAL SECTION
SCALE: 3/4" = 1'-0"



1 BACKWRAP MURAL ELEVATION
SCALE: 3/4" = 1'-0"

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CRU NUMBER: 144E

Quadrangle
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The Well, 8 Spadina Avenue, Suite 2100, Toronto, ON M5V 0S8
t 416 598 1240 www.bdpquadrangle.com

ARCHITECT SEAL

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KIRTIDEV MEHTA
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8099

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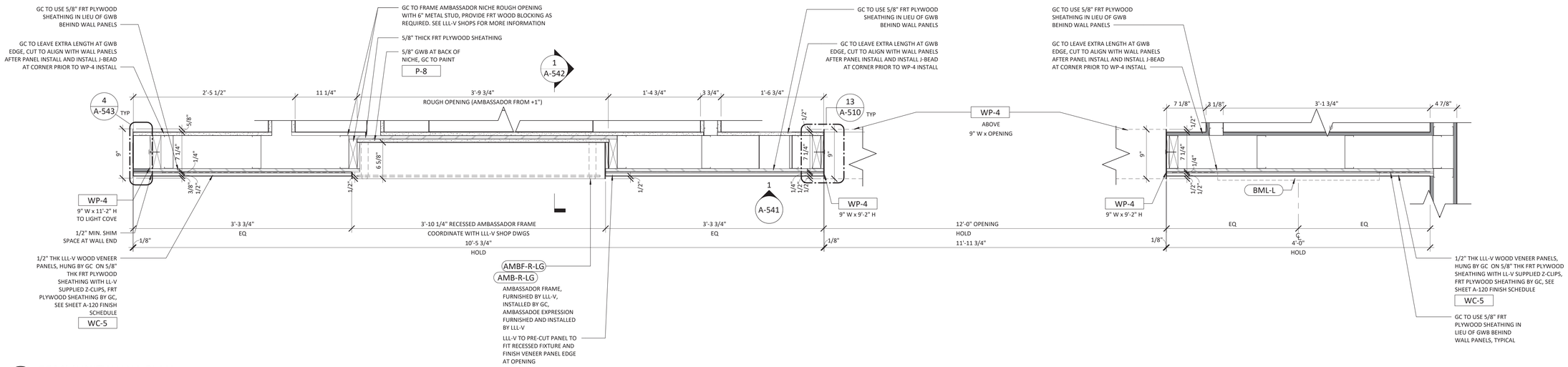
07/14/2023	ISSUED FOR CONSTRUCTION

DRAWING INFORMATION
PROJECT #: 23206
CHECKED BY: NA
DRAWN BY: MP

BACKWRAP AND MURAL DETAILS

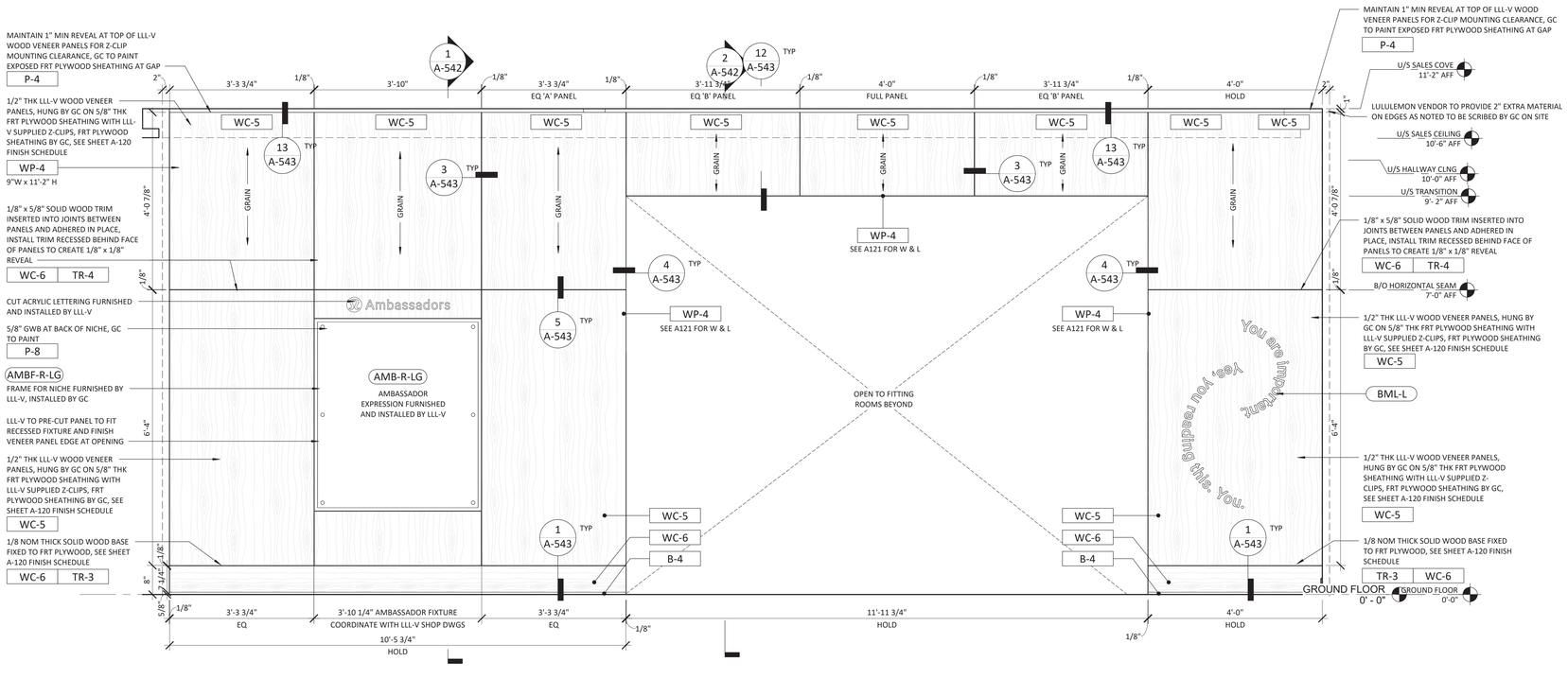
DRAWING NUMBER
A-540

7/14/2023 12:16:12 PM



2 COMMUNITY WALL PLAN

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



1 COMMINUNITY WALL ELEVATION

SCALE: 3/4" = 1'-0"

7/14/2023 12:16:17 PM

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CRU NUMBER: 144E

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The Well, 8 Spadina Avenue, Suite 2100, Toronto, ON M5V 0S8
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ARCHITECT SEAL

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KIRTIDEV MEHTA
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8099

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	07/14/2023	ISSUED FOR CONSTRUCTION

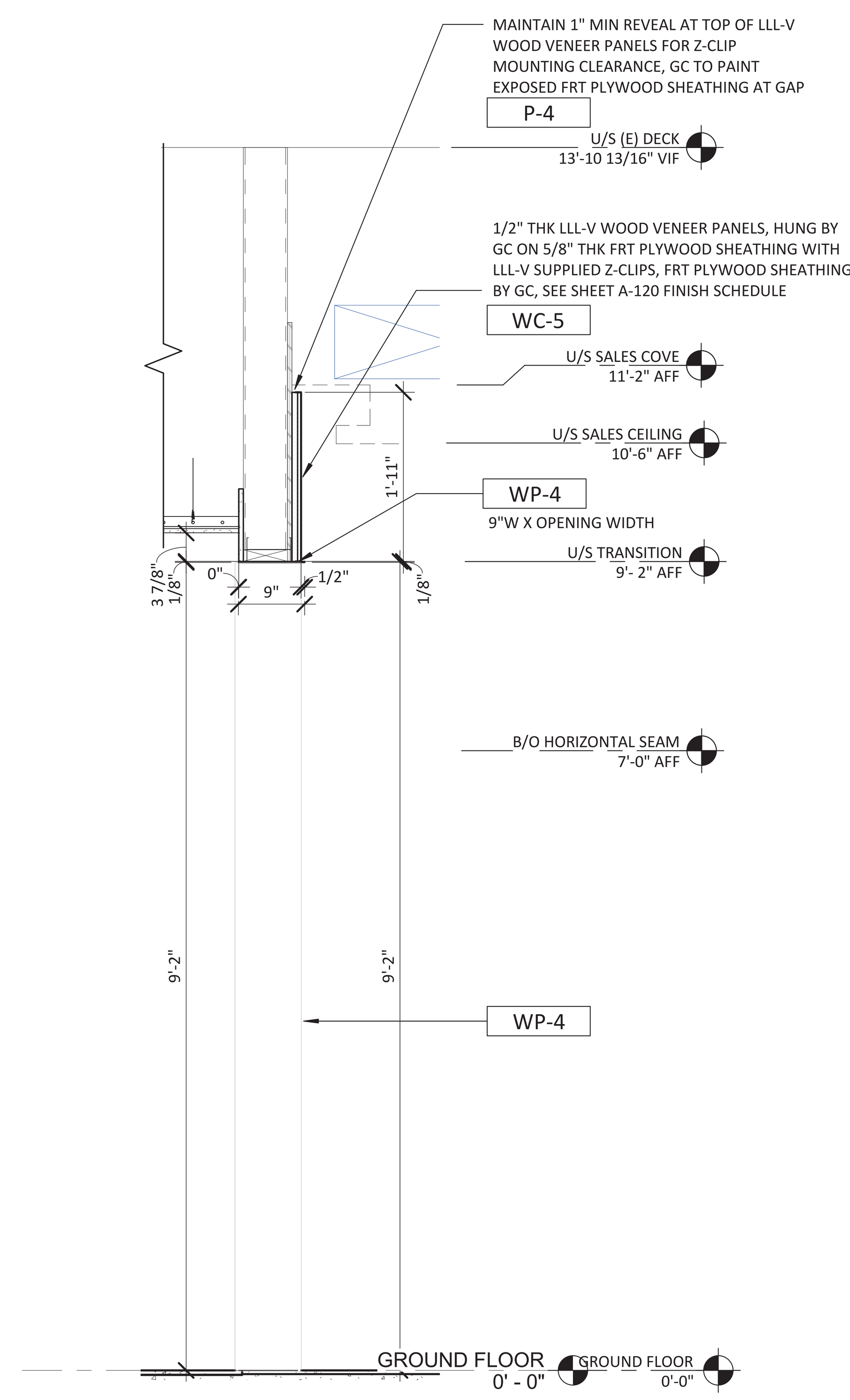
DRAWING INFORMATION
PROJECT #: 23206
CHECKED BY: NA
DRAWN BY: MP

COMMUNITY WALL PLAN & ELEVATION

DRAWING NUMBER
A-541

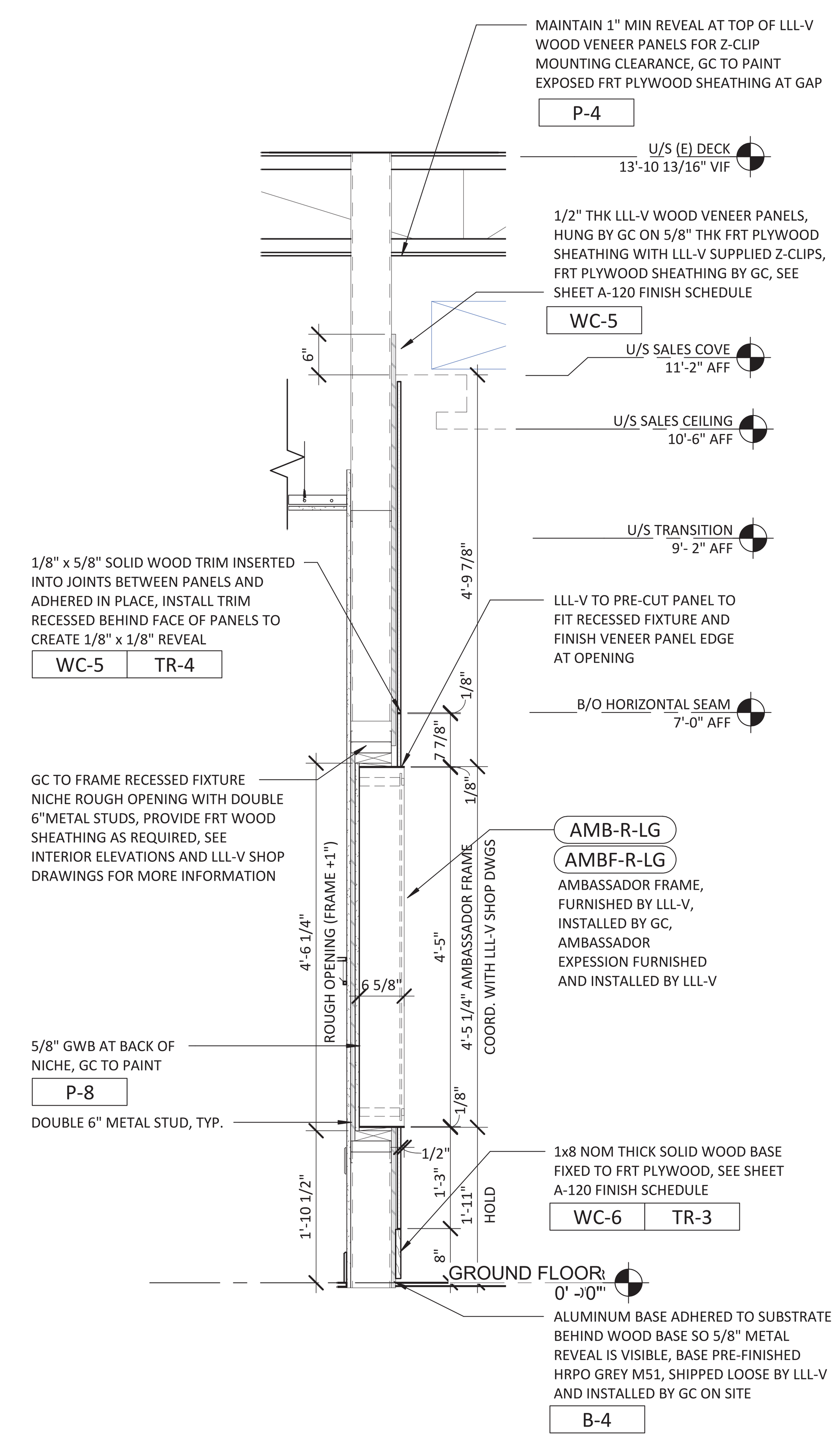
3 A542 COMMUNITY WALL 3D VIEW

SCALE:



2 FITROOM TRANSITION WALL SECTION

SCALE: 3/4" = 1'-0"



1 A542 AMBASSADOR WALL SECTION

SCALE: 3/4" = 1'-0"

7/14/2023 12:17:30 PM

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1818 CORNWALL AVE.
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CF POLO PARK

1485 Portage Ave, Unit 144E
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CRU NUMBER: 144E

Quadrangle

Quadrangle Architects Limited
The Well, 8 Spadina Avenue, Suite 2100, Toronto, ON M5V 0S8
t 416 598 1240 www.bdpquadrangle.com

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KIRTIDEV MEHTA
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8099

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DRAWING INFORMATION

PROJECT #: 23206

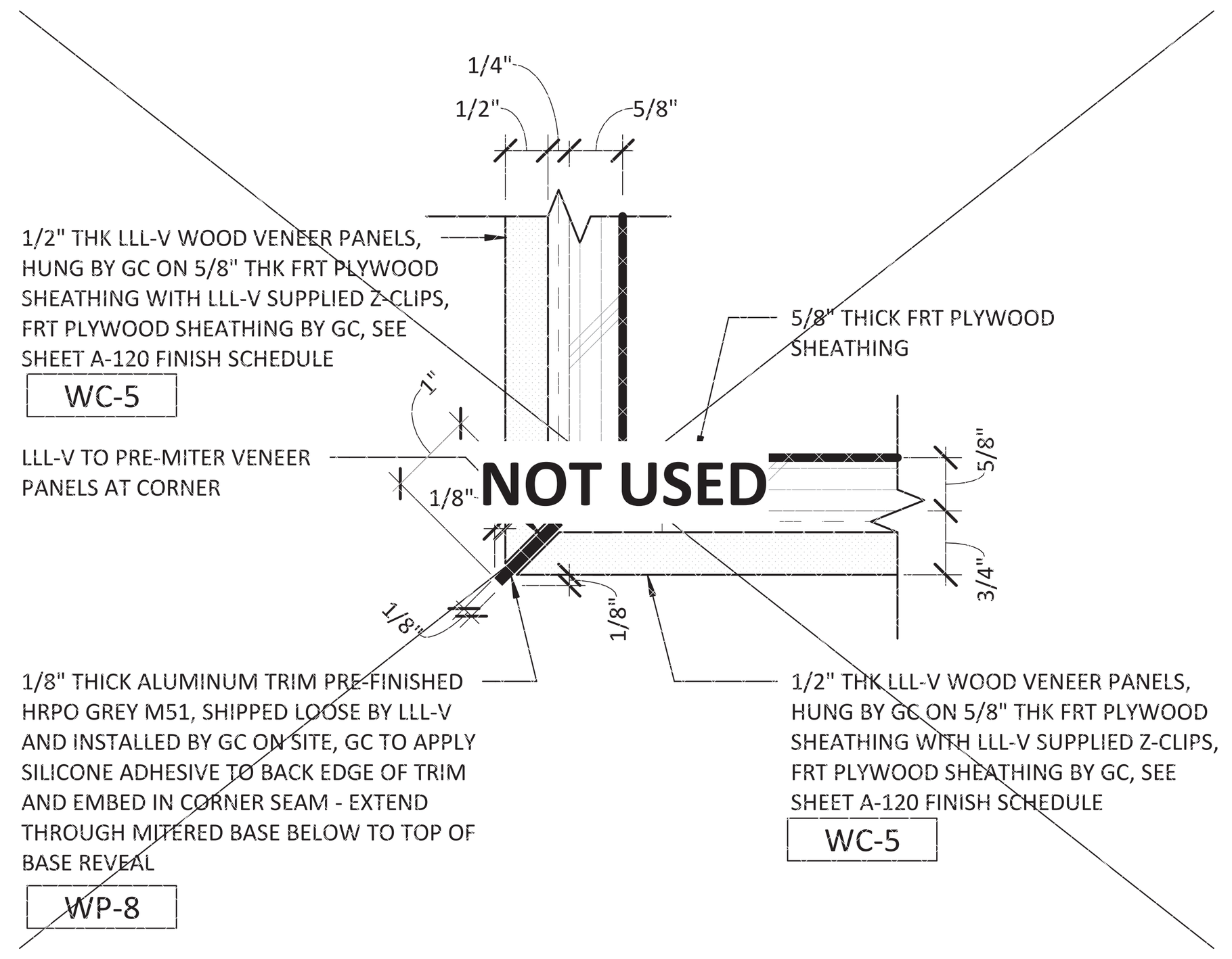
CHECKED BY: NA

DRAWN BY: MP

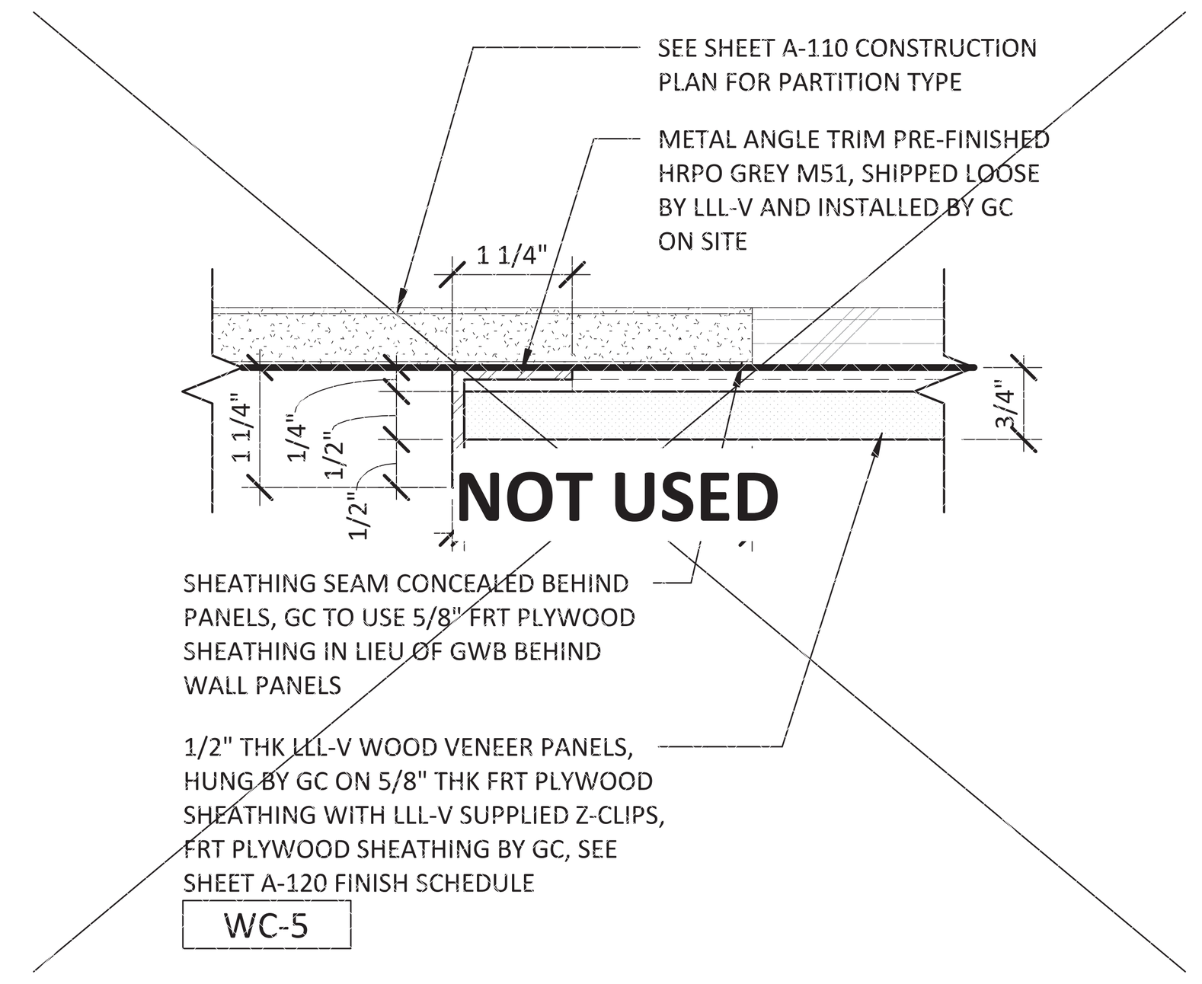
COMMUNITY WALL DETAILS

DRAWING NUMBER

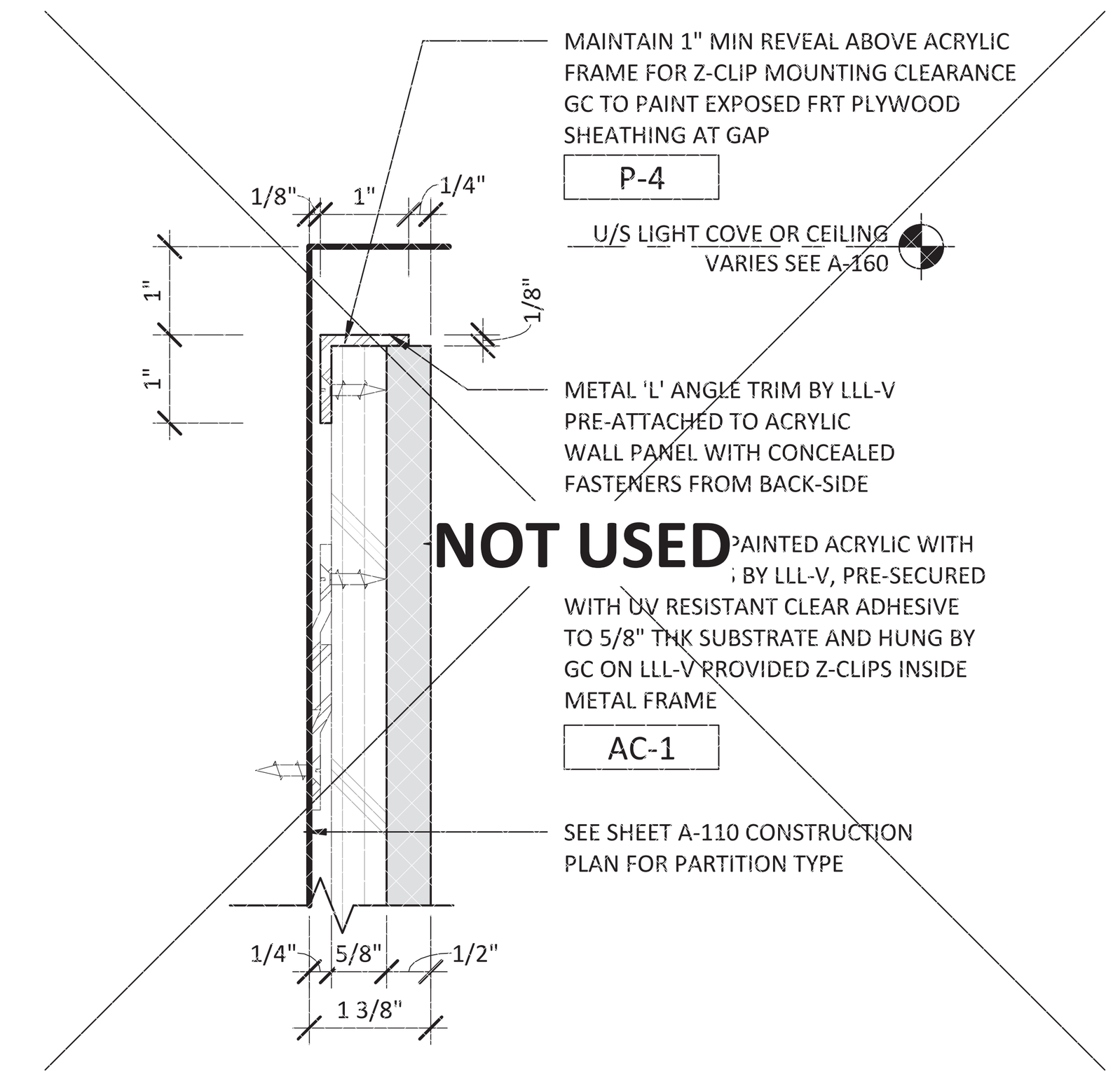
A-542



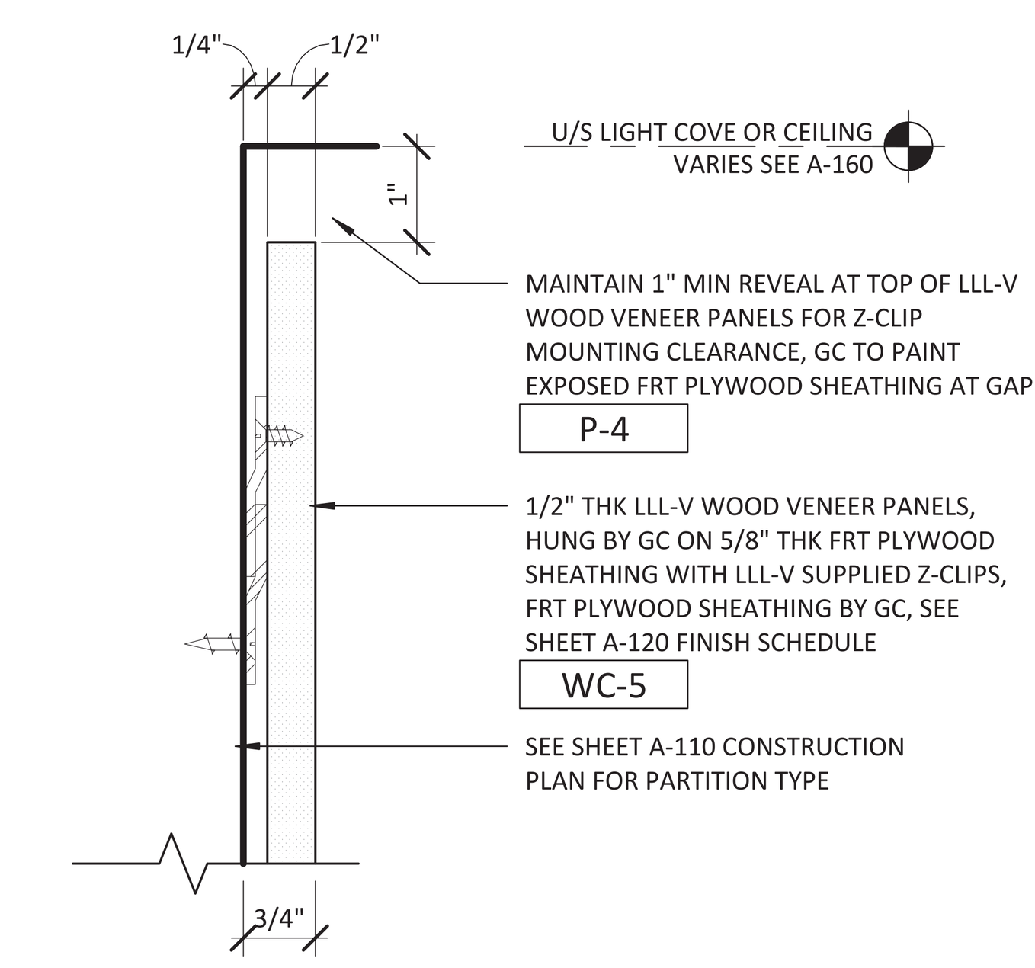
16 PLAN AT WOOD PANEL CORNER
SCALE: 6" = 1'-0"



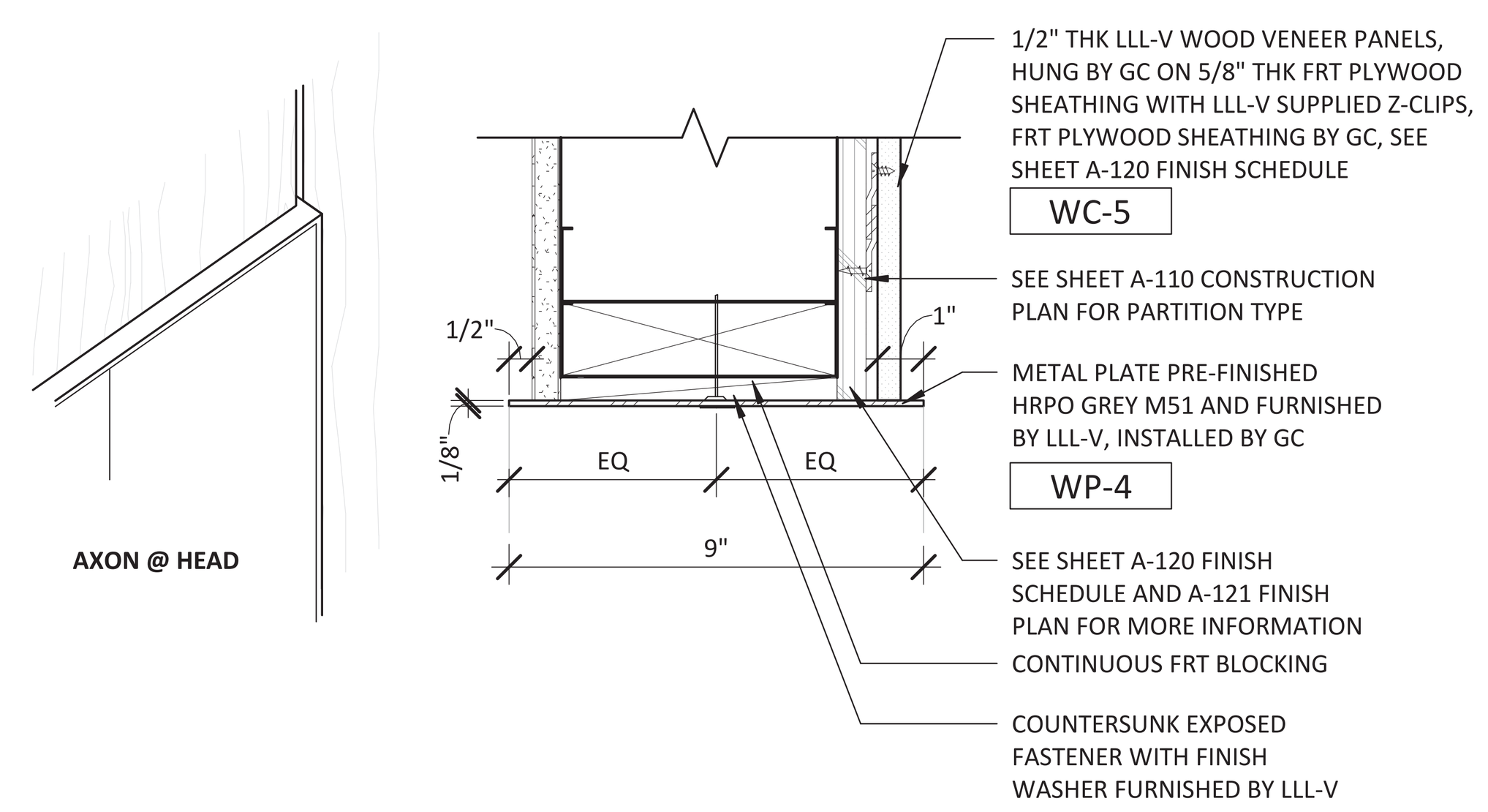
15 EDGE AT GWB TO WOOD PANEL ABOVE HEADER
SCALE: 6" = 1'-0"



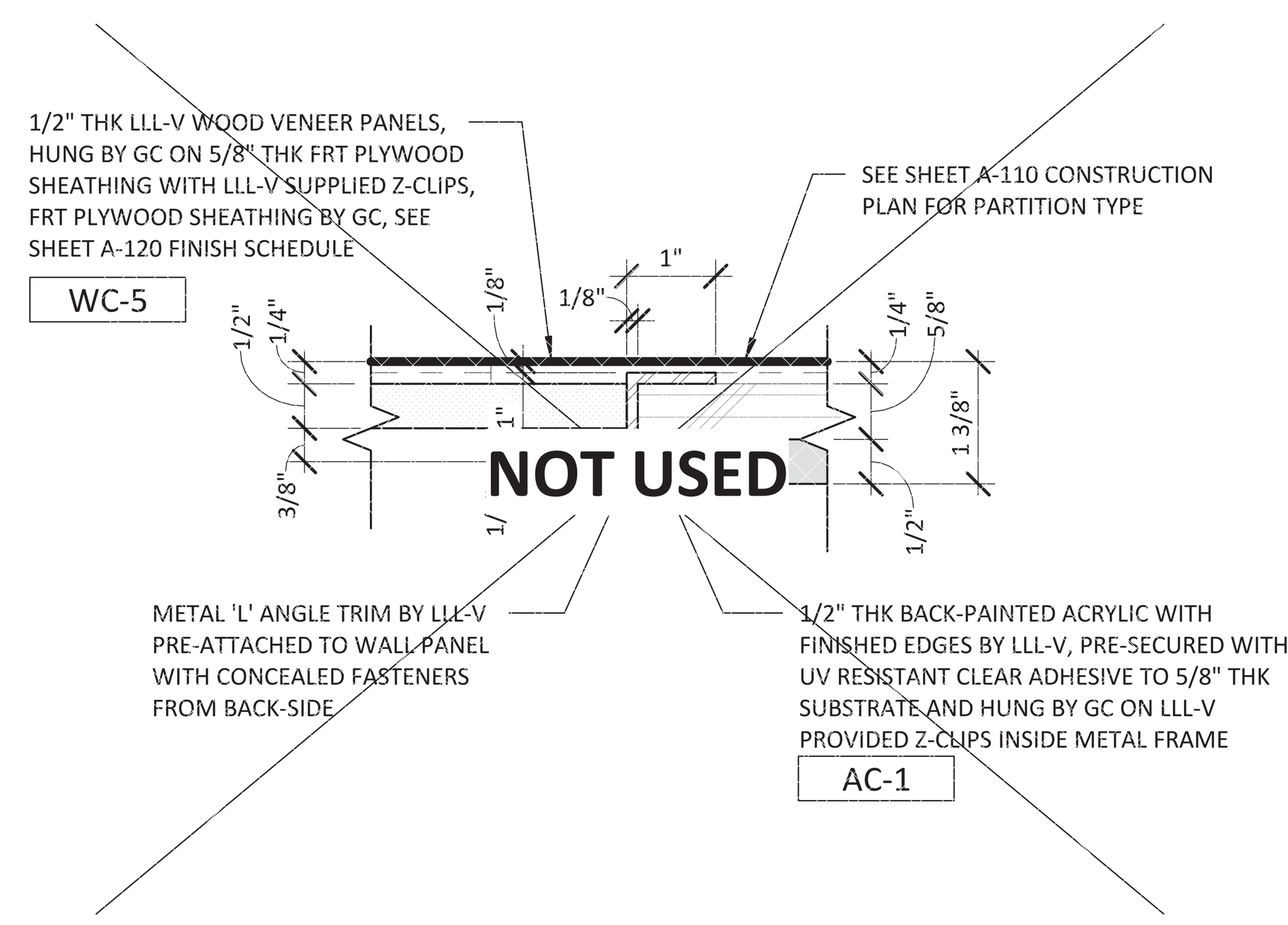
14 TOP AT ACRYLIC AT CEILING / COVE
SCALE: 6" = 1'-0"



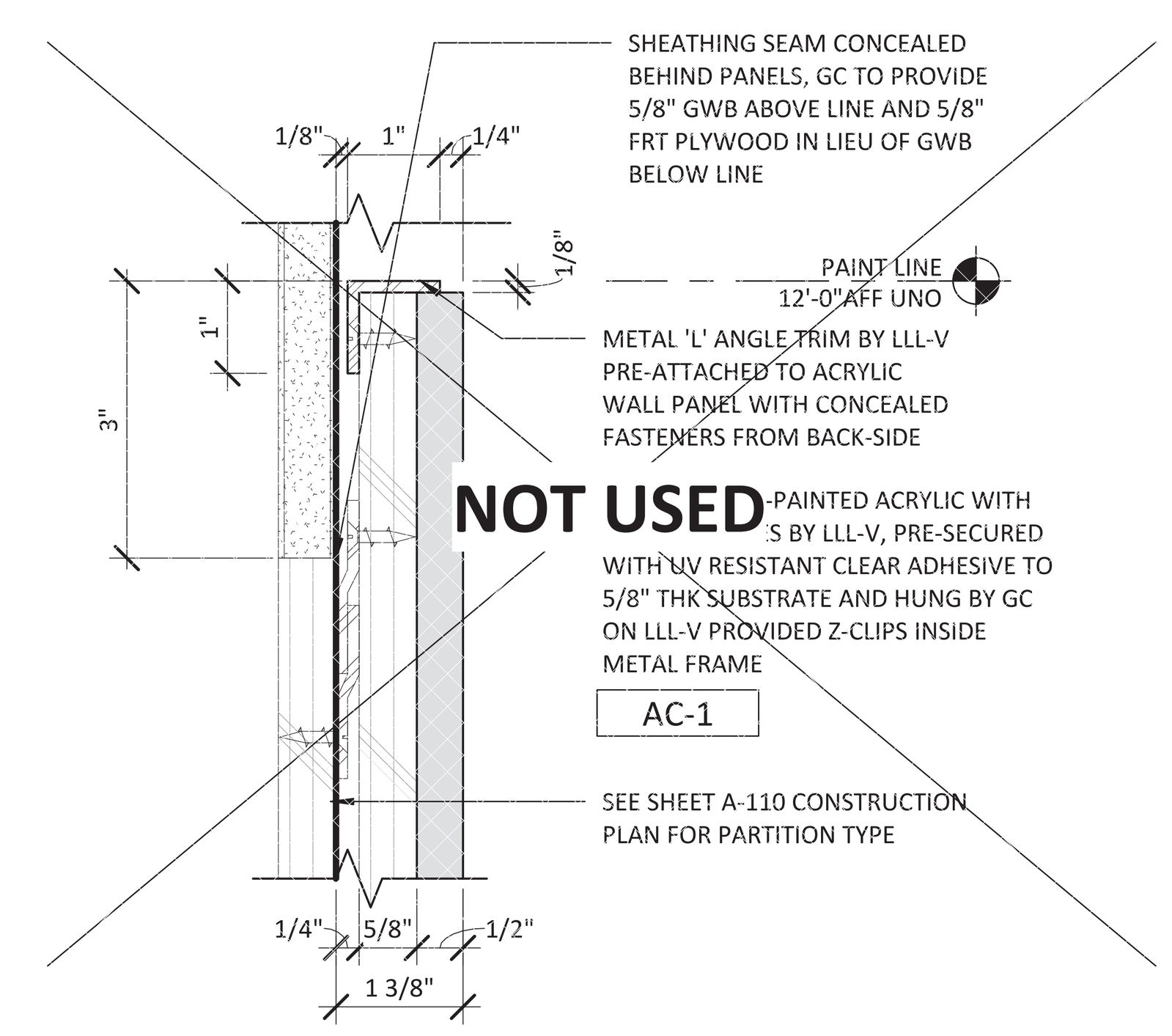
13 TOP AT WOOD VENEER PANELS AT CEILING / COVE
SCALE: 6" = 1'-0"



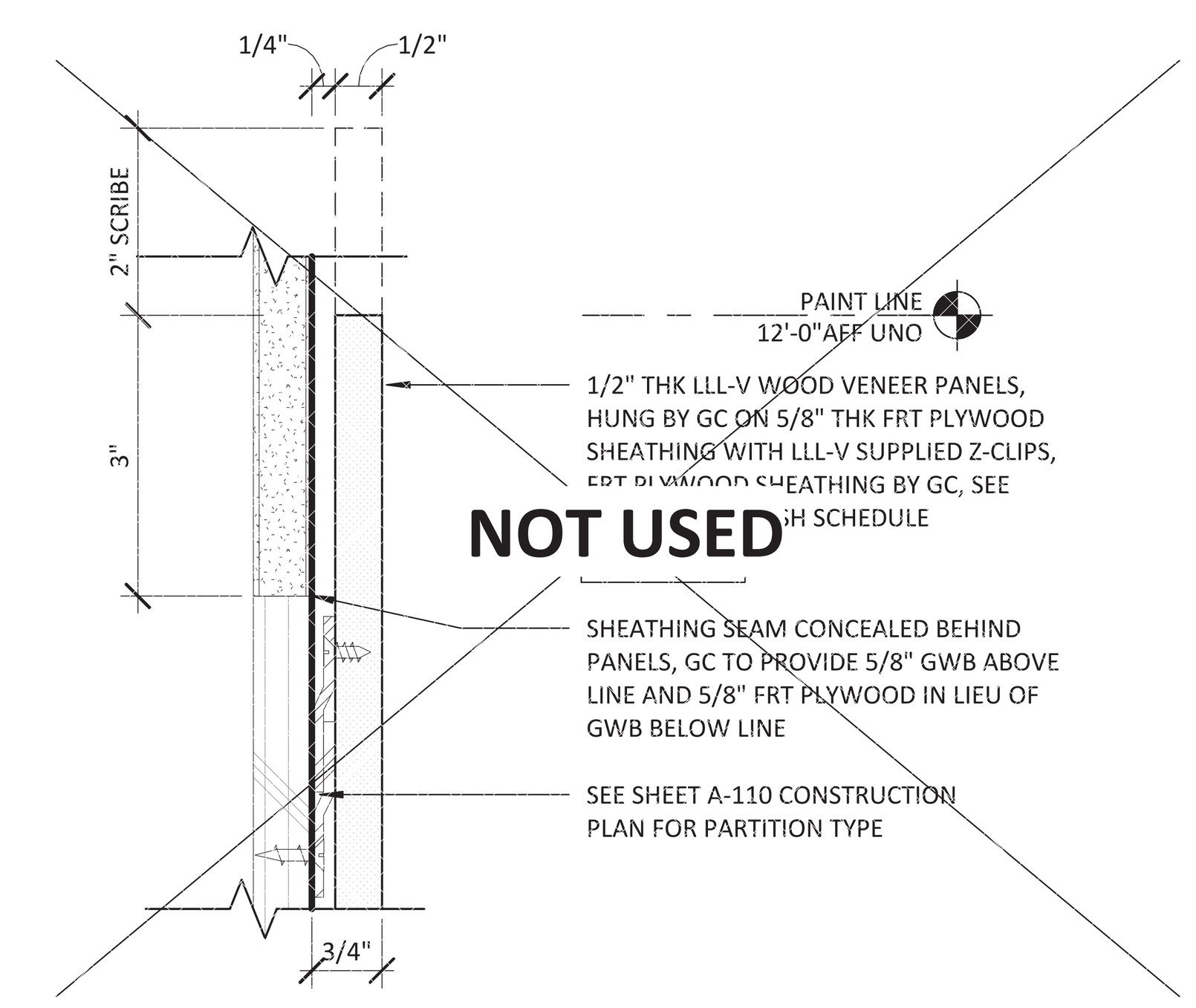
12 WP-4 HEAD DETAIL WITH WOOD VENEER PANELS ABOVE
SCALE: 3" = 1'-0"



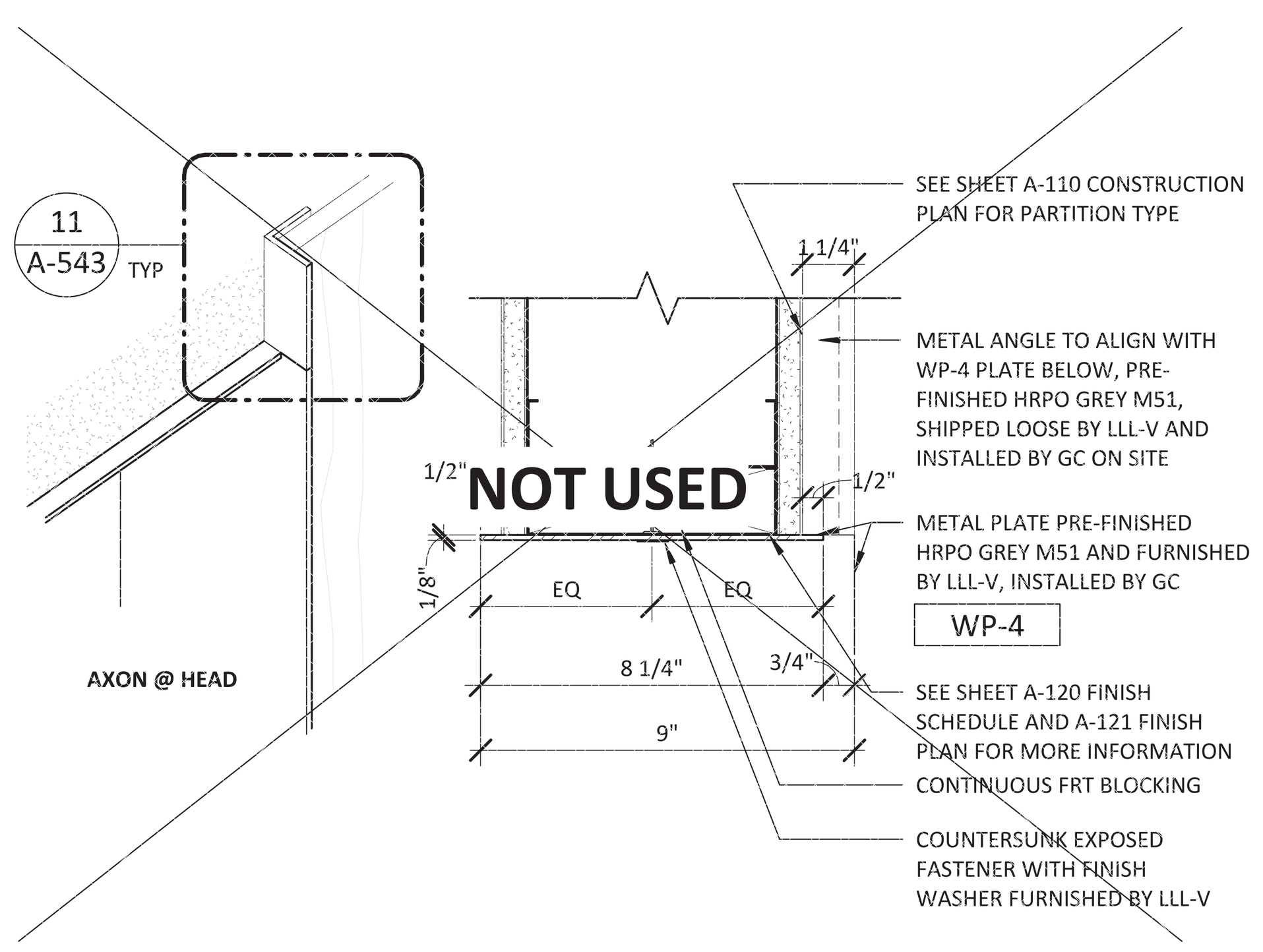
11 EDGE PLAN AT ACRYLIC FRAME AT WOOD PANELS
SCALE: 6" = 1'-0"



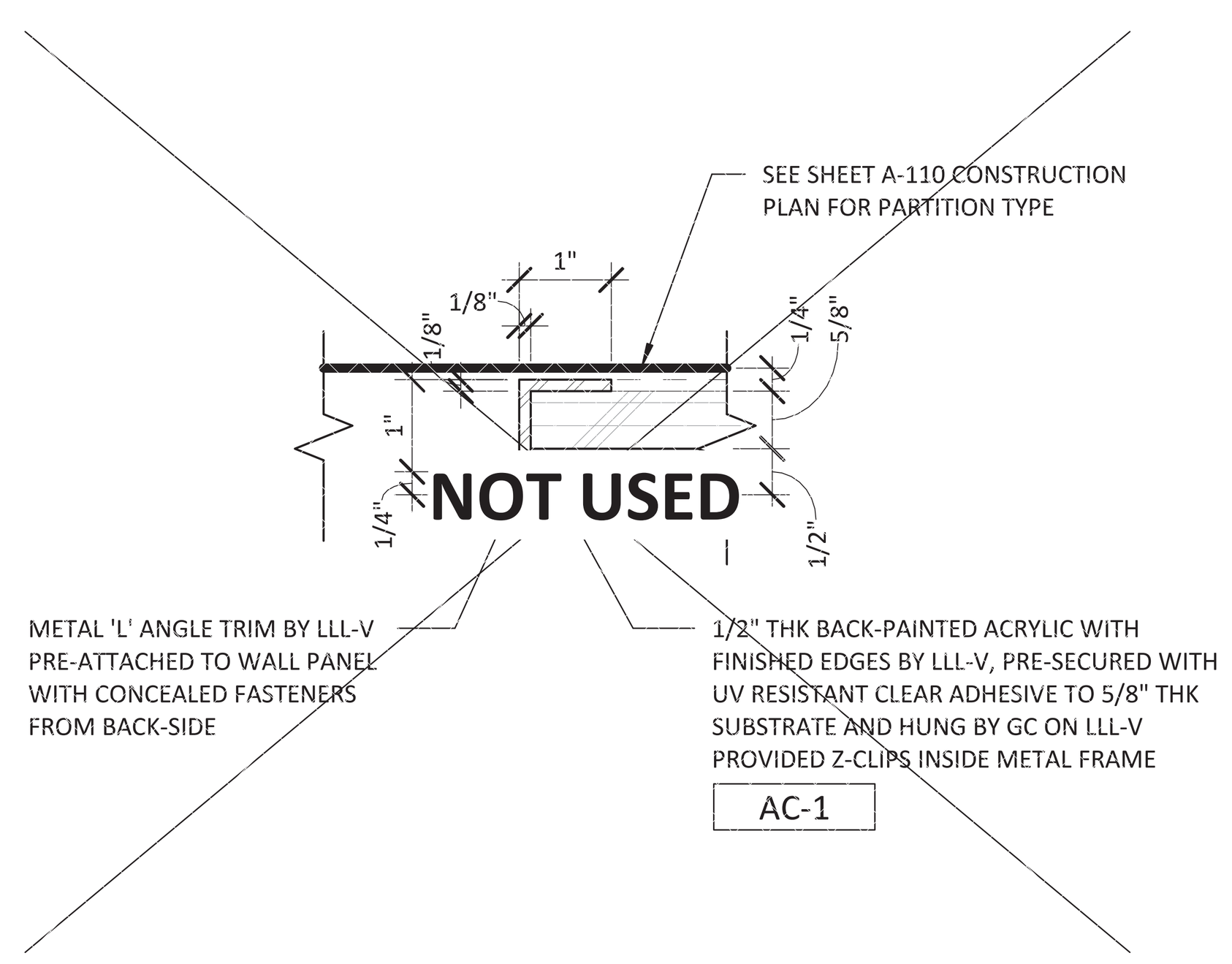
10 TOP AT ACRYLIC AT PAINT LINE
SCALE: 6" = 1'-0"



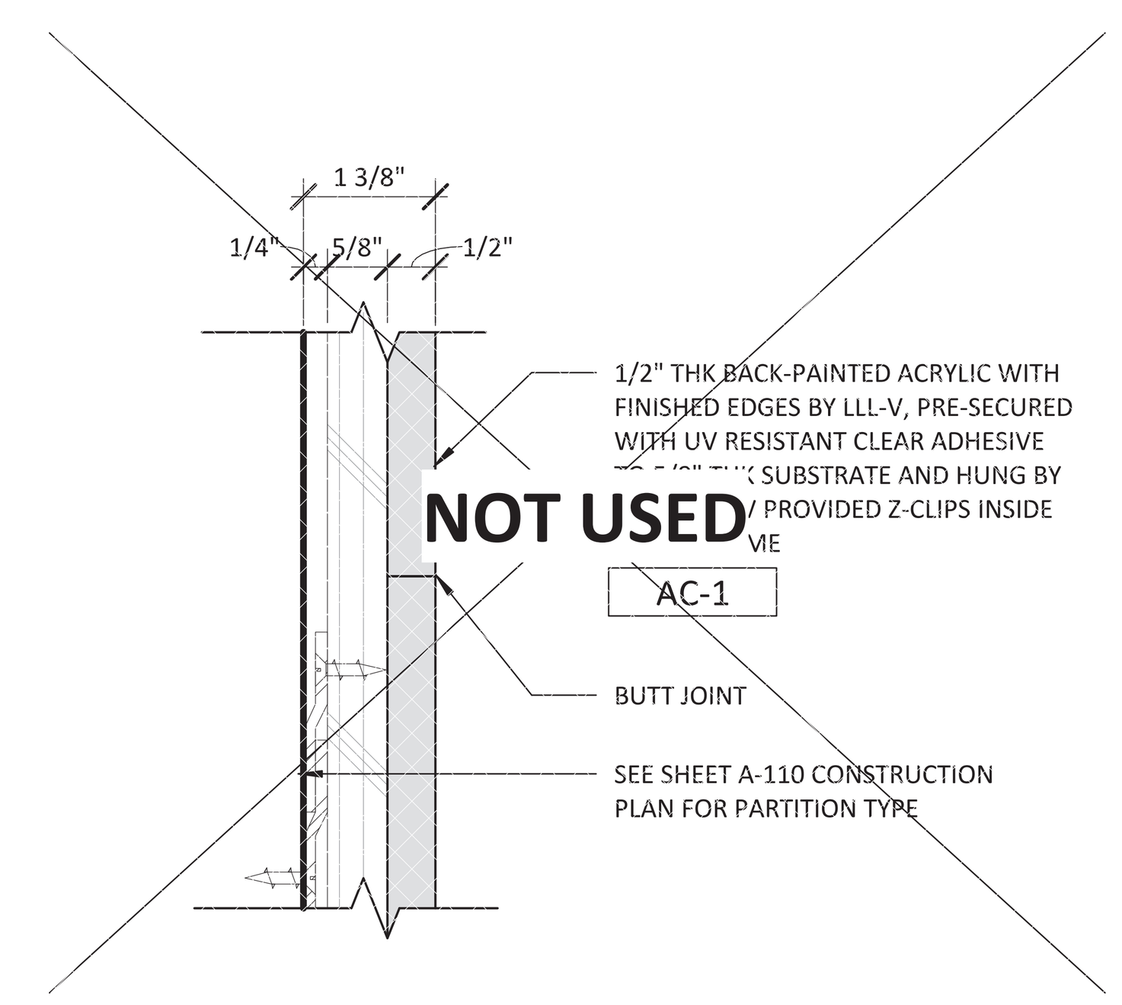
9 TOP AT WOOD VENEER PANELS AT PAINT LINE
SCALE: 6" = 1'-0"



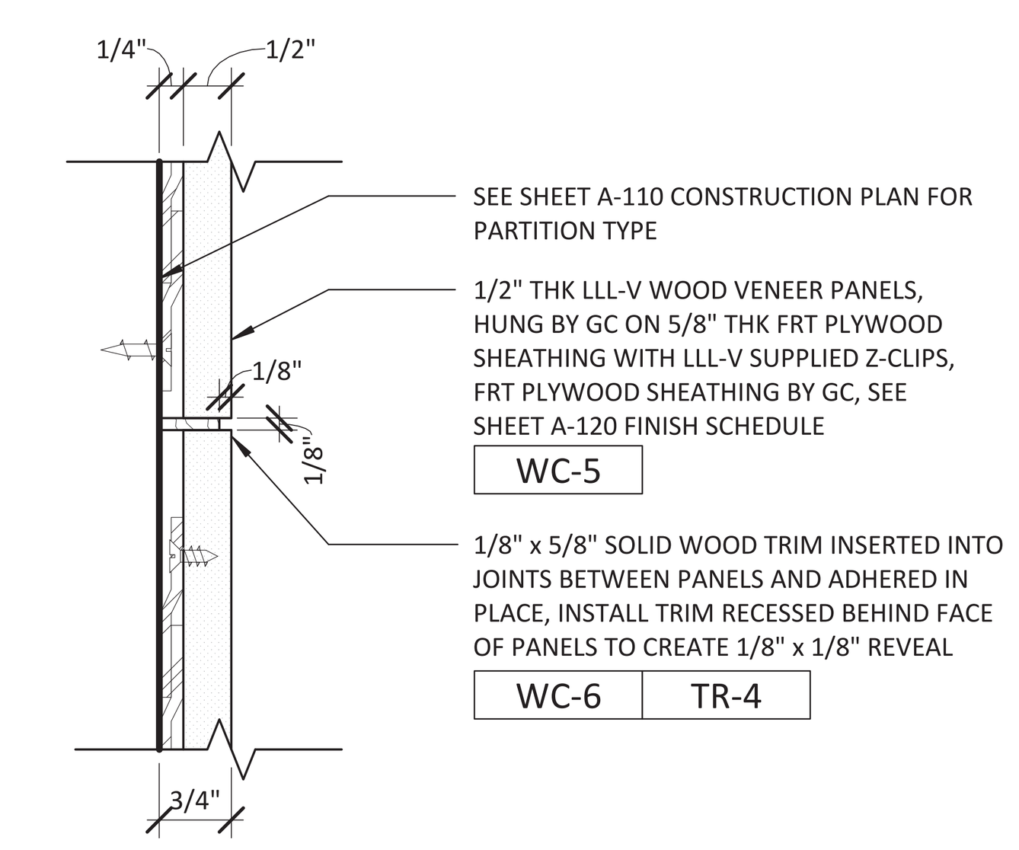
8 WP-4 HEAD DETAIL - GWB TO WOOD PANEL
SCALE: 3" = 1'-0"



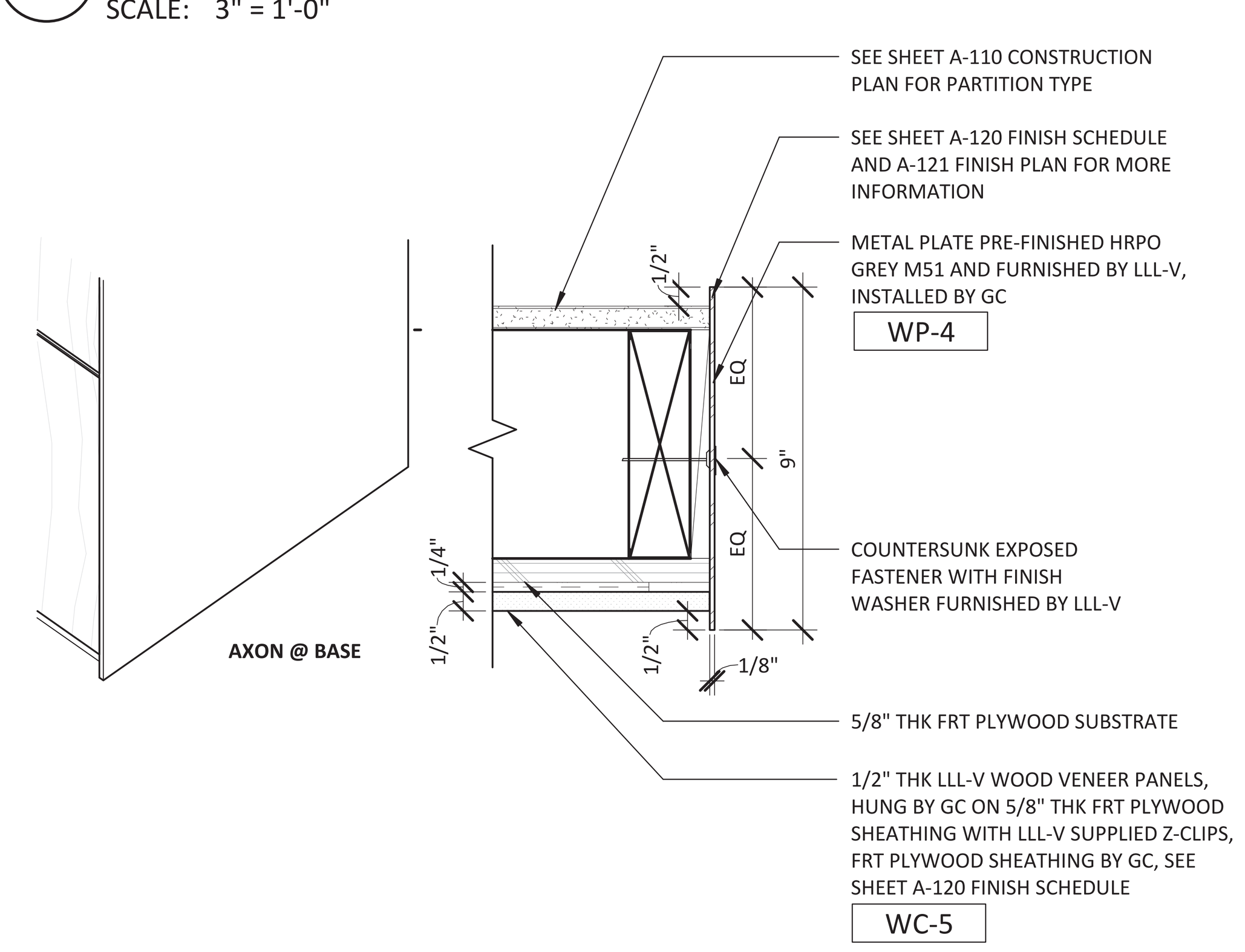
7 EDGE PLAN AT ACRYLIC FRAME AT GWB
SCALE: 6" = 1'-0"



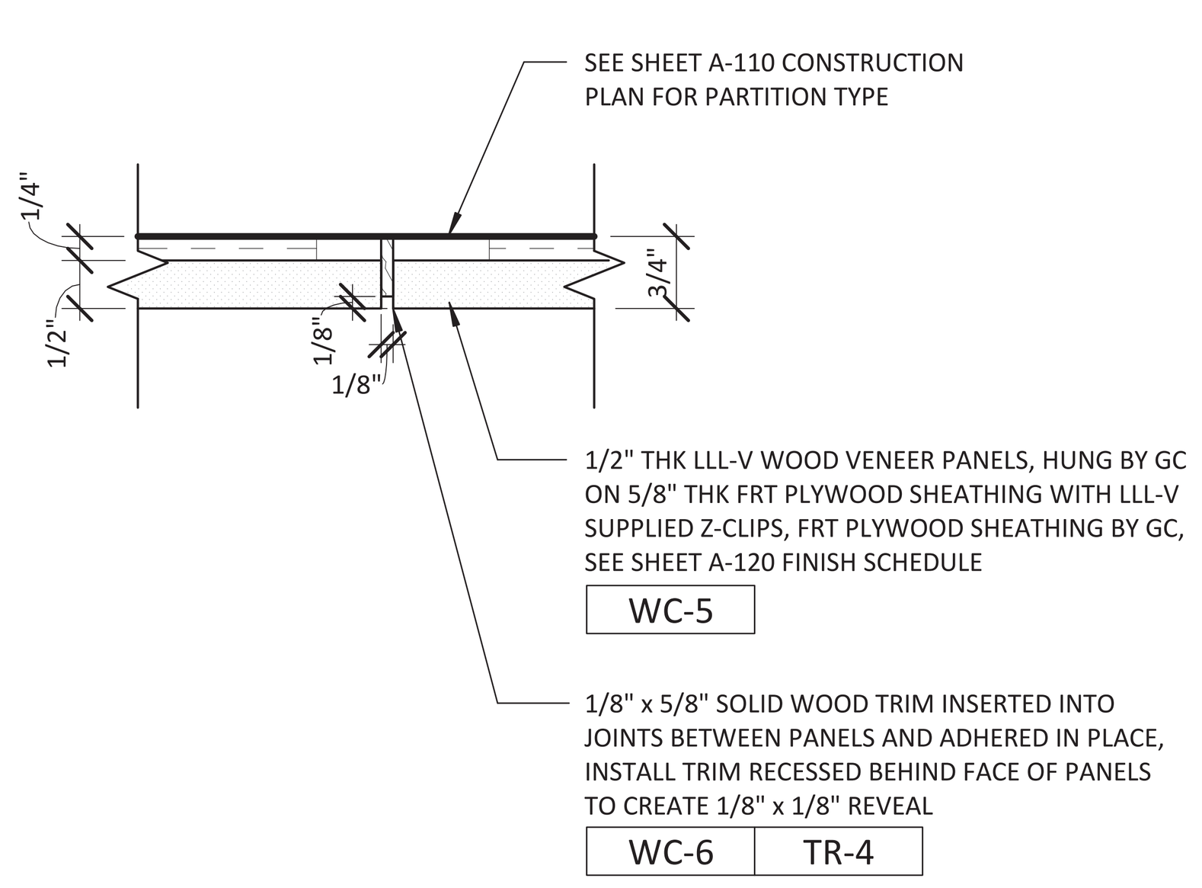
6 HORIZ. SEAM AT ACRYLIC
SCALE: 6" = 1'-0"



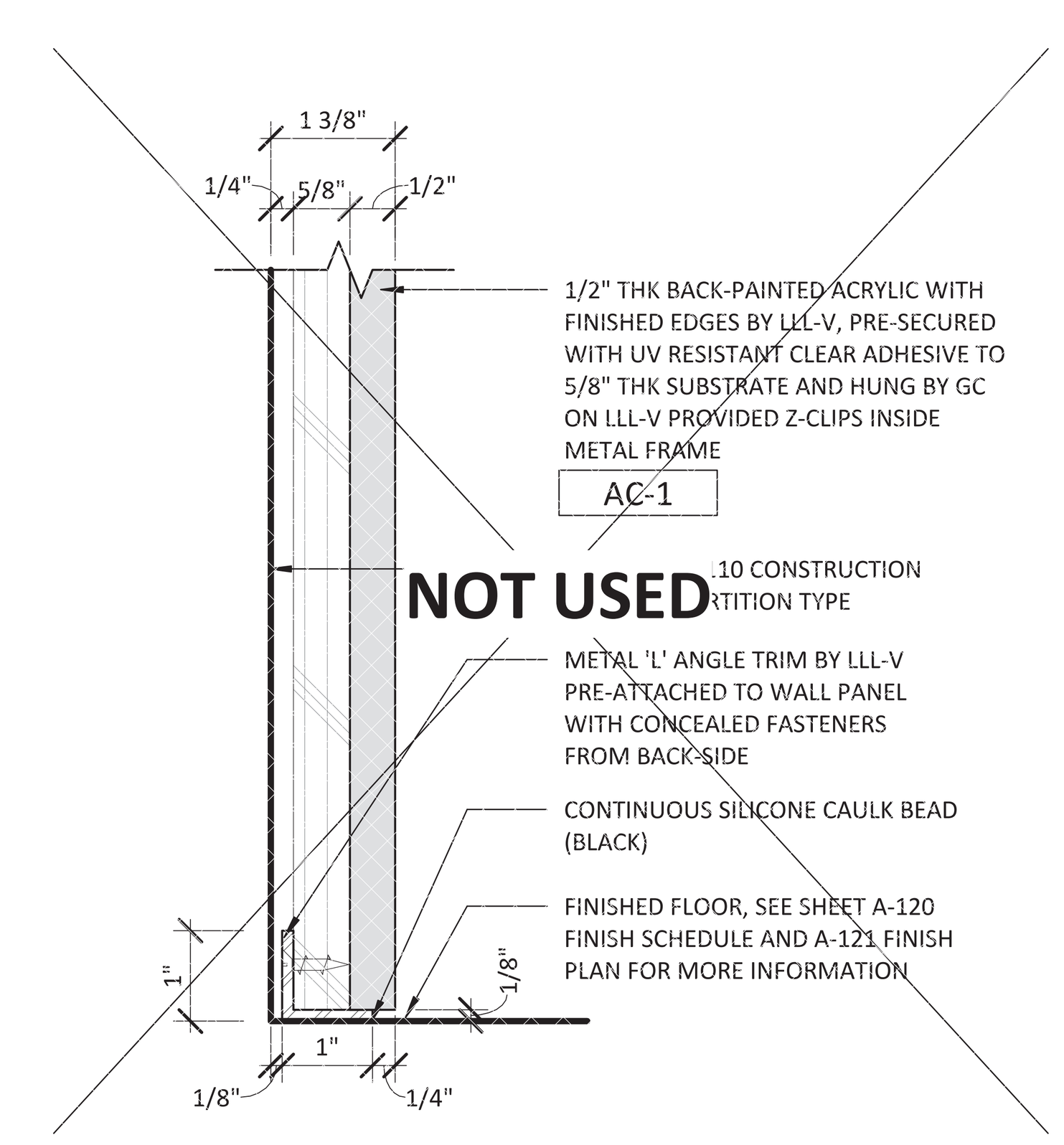
5 HORIZ. SEAM AT WOOD VENEER PANELS
SCALE: 6" = 1'-0"



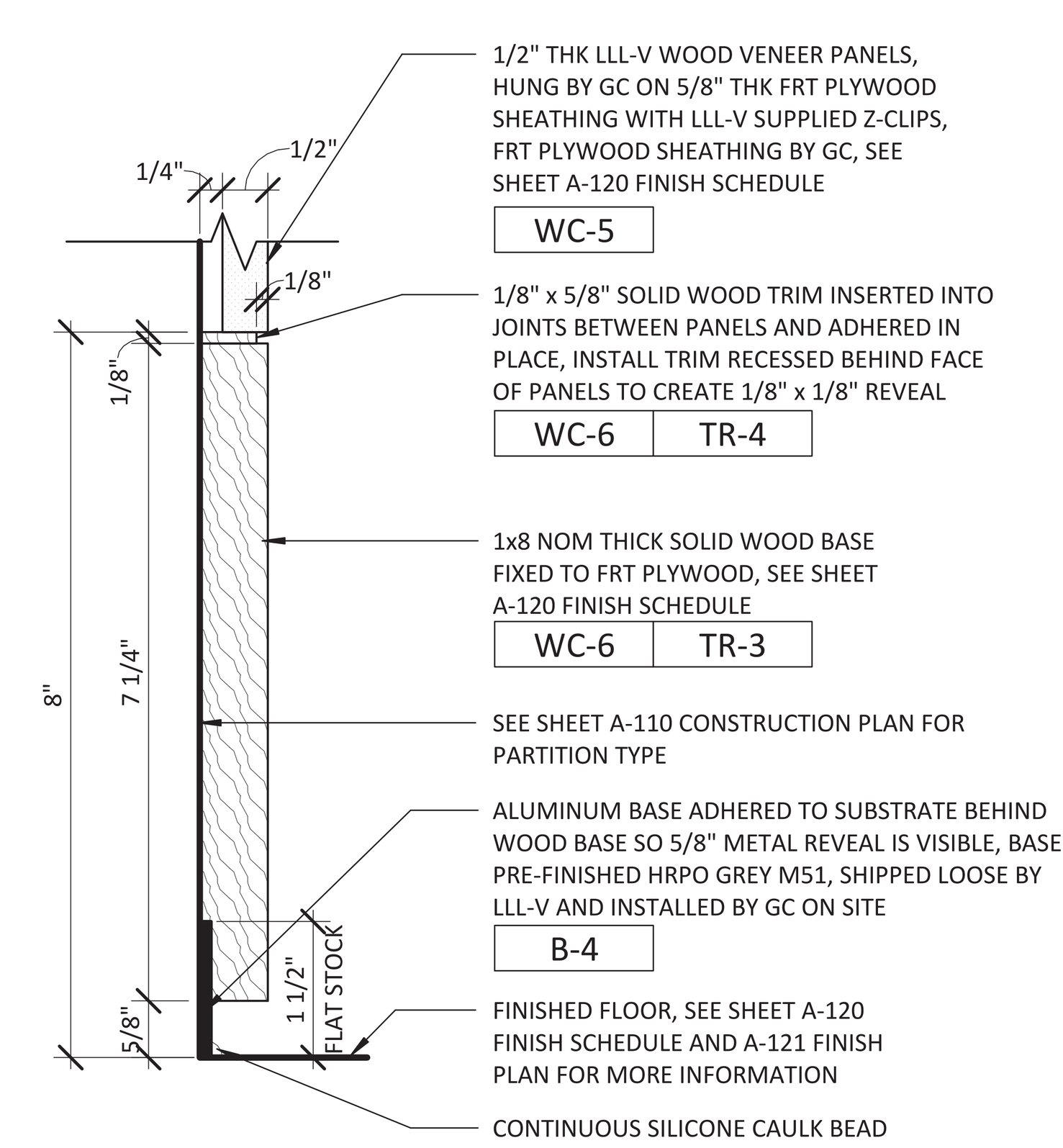
4 WP-4 END PLATE PLAN DETAIL AT WOOD VENEER PANELS
SCALE: 3" = 1'-0"



3 VERTICAL SEAM AT LLL-V PANELS (TYP.)
SCALE: 6" = 1'-0"



2 BASE AT ACRYLIC FRAME
SCALE: 6" = 1'-0"



1 WOOD BASE AT WOOD VENEER PANELS
SCALE: 6" = 1'-0"

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CF POLO PARK
1485 Portage Ave, Unit 144E
Winnipeg, MB
R3G 0W5
CRU NUMBER: 144E

Quadrangle

ARCHITECT SEAL

ISSUED FOR CONSTRUCTION
07/14/2023

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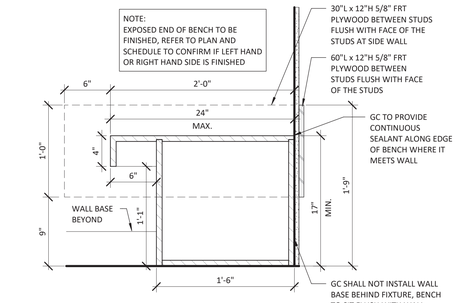
DRAWING INFORMATION
PROJECT #: 23206
CHECKED BY: NA
DRAWN BY: MP

COMMUNITY WALL DETAILS

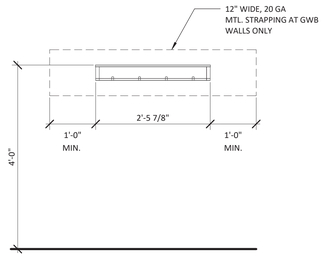
DRAWING NUMBER
A-543

7/14/2023 12:17:35 PM



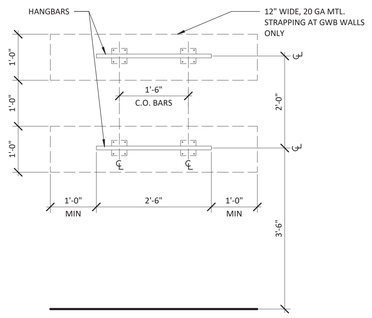
12 FITROOM BENCH DETAIL

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



11 FITROOM SHELF DETAIL

SCALE: 3/4" = 1'-0"



10 FITROOM HANGBAR DETAIL

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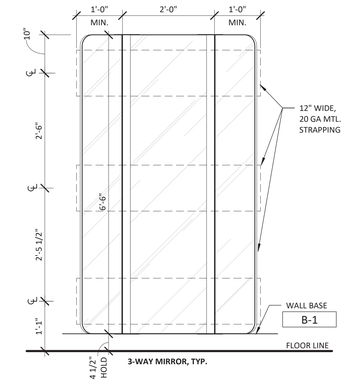

9 3-WAY MIRROR

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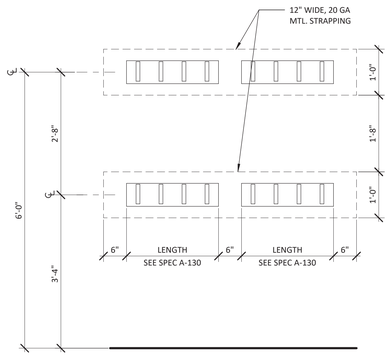

8 COAT HOOK DETAIL

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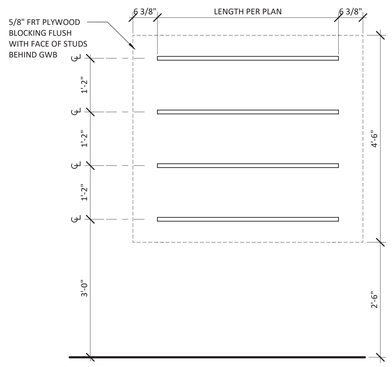

7 GOAL RAILS DETAIL

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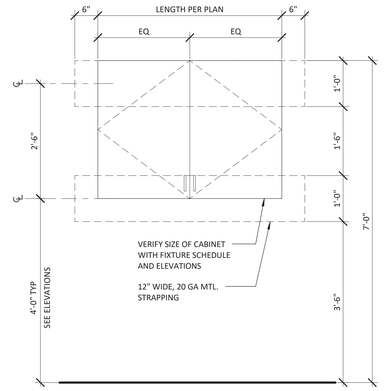

6 RESTROOM CABINET DETAIL

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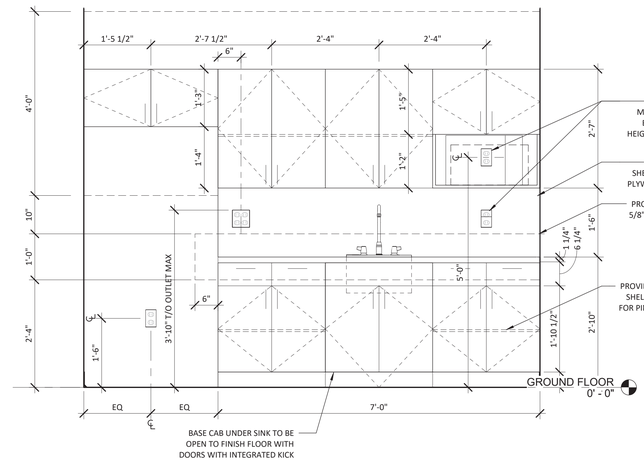

5 A550 KITCHENETTE BLOCKING DETAIL

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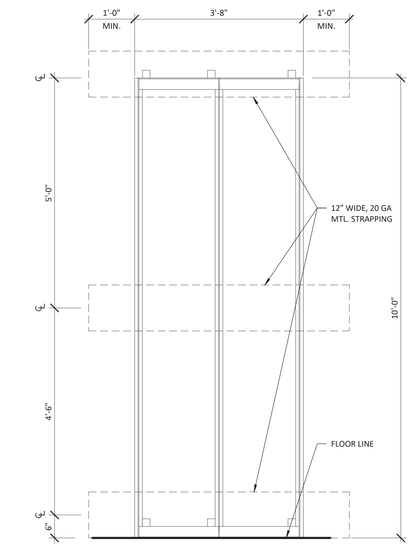

4 HANGER MANAGEMENT DETAIL

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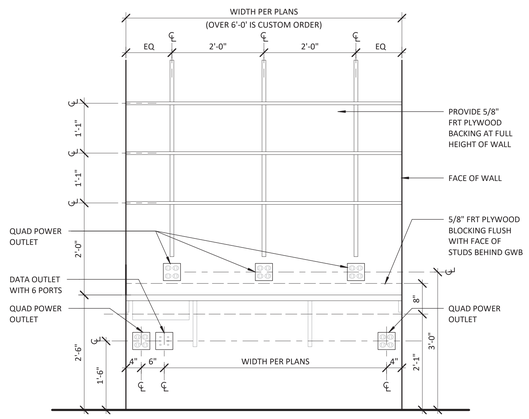

3 MANAGER'S DESK DETAIL

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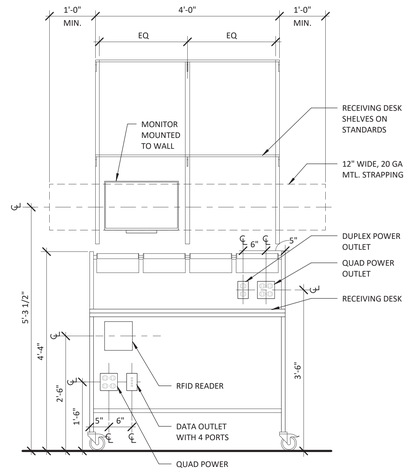

2 RECEIVING DESK DETAIL

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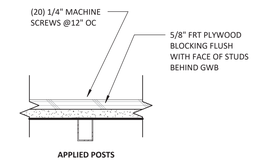
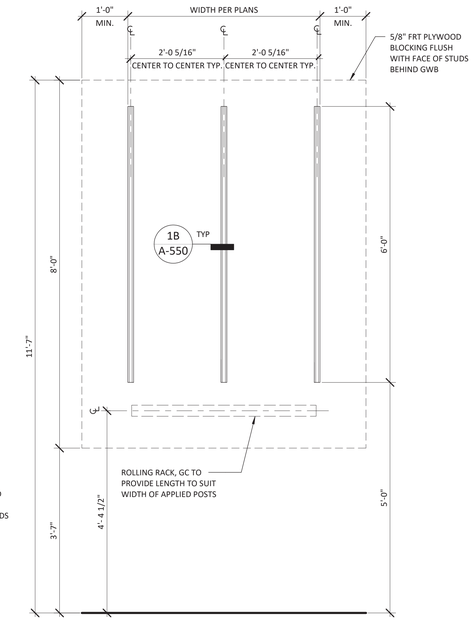


1B BOH APPLIED POSTS PLAN

SCALE: 3" = 1'-0"



1 BOH APPLIED POSTS BLOCKING DETAIL

SCALE: 3/4" = 1'-0"

7/14/2023 12:17:41 PM

lululemon
1818 CORNWALL AVE.
VANCOUVER, B.C., V6J1C7

CF POLO PARK
1485 Portage Ave, Unit 144E
Winnipeg, MB
R3G 0W5
CRU NUMBER: 144E

Quadrangle
Quadrangle Architects Limited
The Well, 3 Spadina Avenue, Suite 2100, Toronto, ON M5V 0S8
t 416 861 1167 www.quadrangle.com

ARCHITECT SEAL

ONTARIO ASSOCIATION OF ARCHITECTS
KIRTIDEV MEHTA
LICENCE
8099

ISSUED FOR CONSTRUCTION

07/14/2023

△	DATE	DESCRIPTION
	06/09/2023	PERMIT/CONSTRUCTION
	06/09/2023	ISSUED FOR BID
	07/14/2023	ISSUED FOR CONSTRUCTION

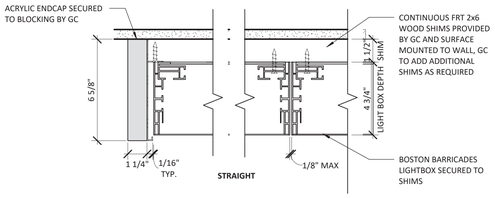
DRAWING INFORMATION

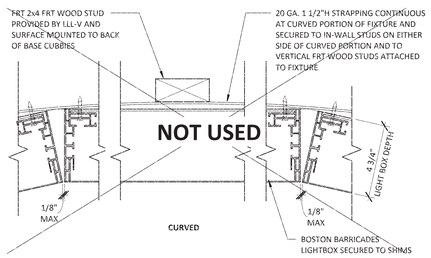
PROJECT #: 23206
CHECKED BY: NA
DRAWN BY: MP

TYPICAL MILLWORK DETAILS

DRAWING NUMBER

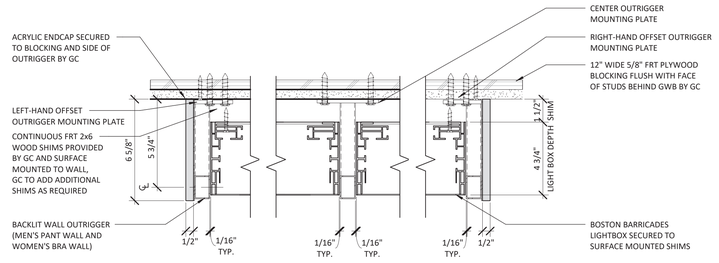
A-550





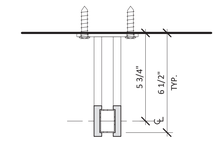
8 BACKLIT PANT WALL PLAN DETAIL

SCALE: 3" = 1'-0"



7 BACKLIGHT LIGHTBOXES AT OUTRIGGER PLAN DETAIL

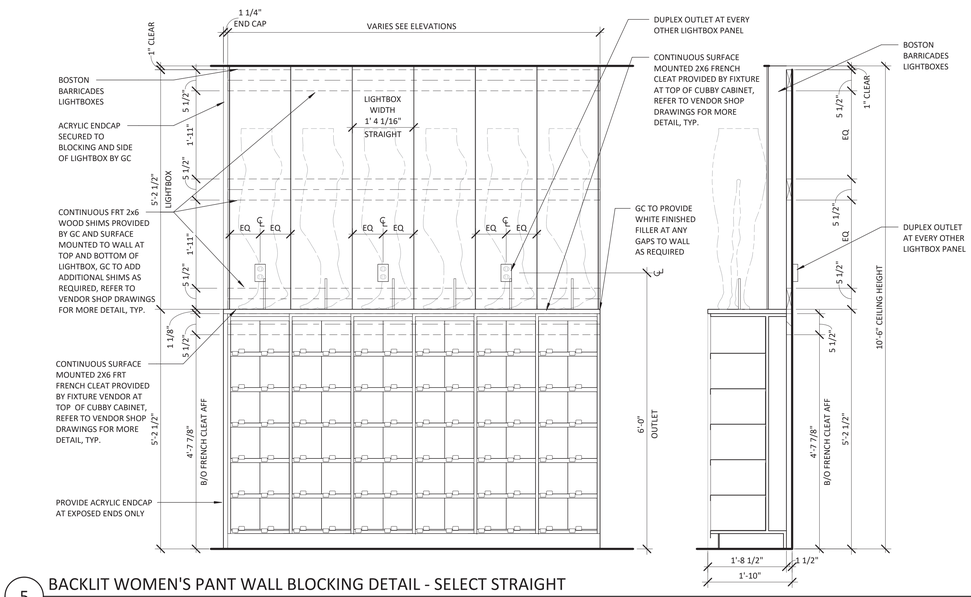
SCALE: 3" = 1'-0"



C-SHAPE OUTRIGGER WITH ACRYLIC TRIM (SELECT STORES)

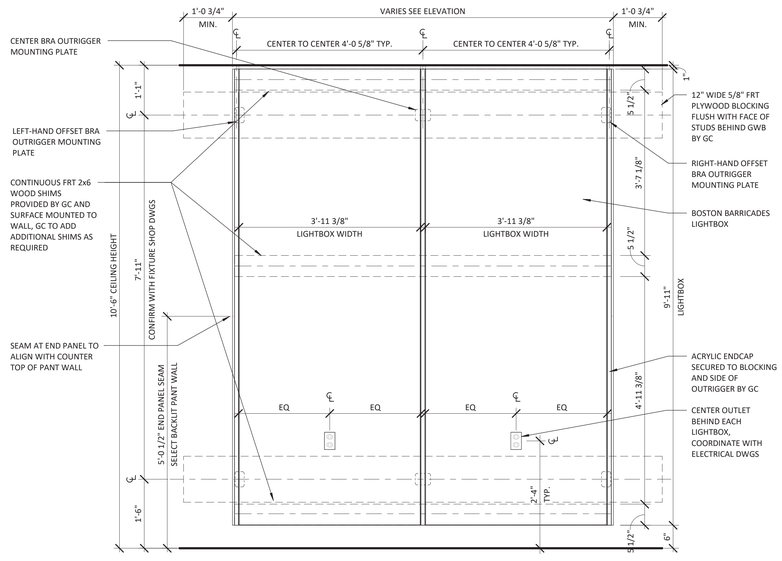
6 C-OUTRIGGER PLAN DETAIL

SCALE: 3" = 1'-0"



5 BACKLIT WOMEN'S PANT WALL BLOCKING DETAIL - SELECT STRAIGHT

SCALE: 3/4" = 1'-0"



4 BACKLIT BRA WALL BLOCKING DETAIL - SELECT

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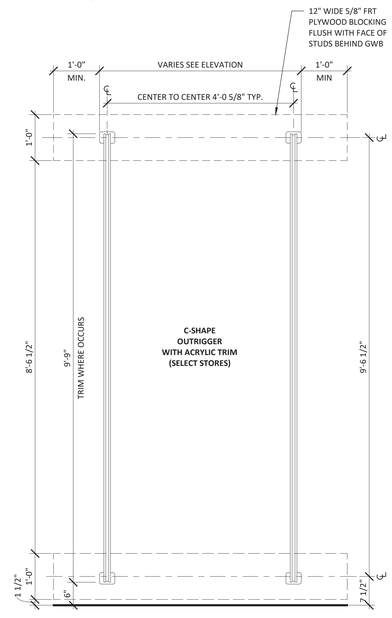
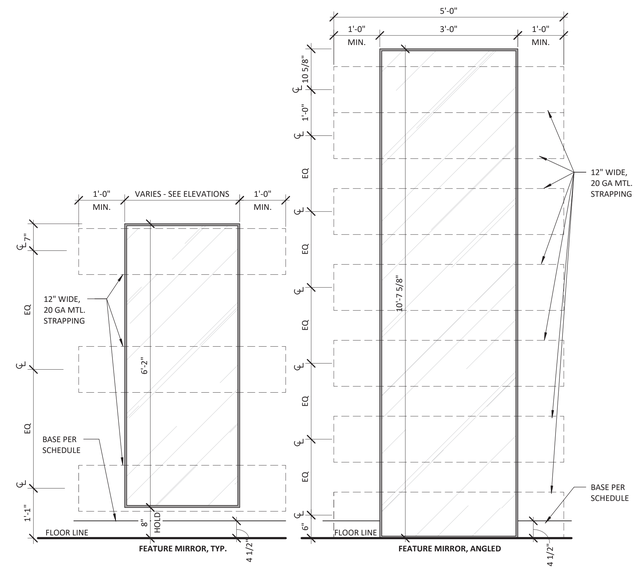


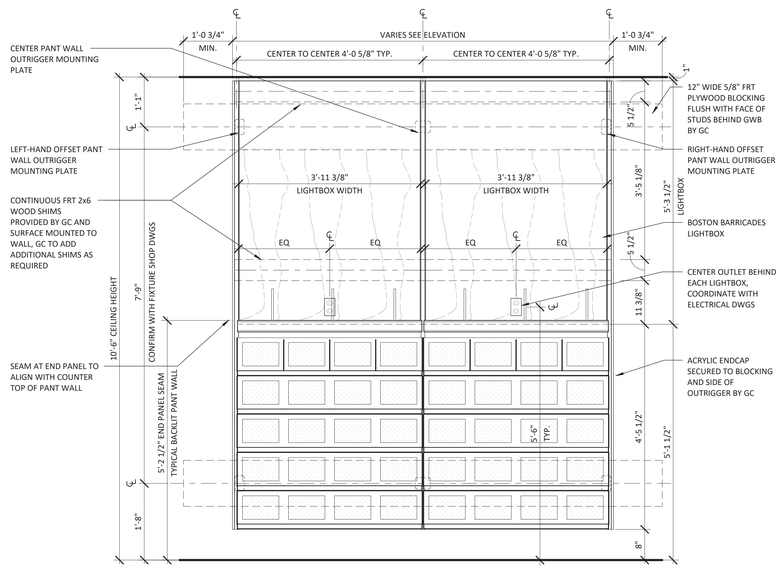
3 C-SHAPE OUTRIGGER BLOCKING DETAIL

SCALE: 3/4" = 1'-0"



2 FRAMED MIRROR DETAILS

SCALE: 3/4" = 1'-0"



1 BACKLIT MEN'S PANT WALL BLOCKING DETAIL - SELECT

SCALE: 3/4" = 1'-0"

lululemon
1818 CORNWALL AVE.
VANCOUVER, B.C., V6J1C7

CF POLO PARK
1485 Portage Ave, Unit 144E
Winnipeg, MB
R3G 0W5
CRU NUMBER: 144E

Quadrangle
Quadrangle Architects Limited
The Well, 8 Spadina Avenue, Suite 2100, Toronto, ON M5V 0S8
t 416.862.8800 www.quadrangle.com

ARCHITECT SEAL

ONTARIO ASSOCIATION OF ARCHITECTS
FORTIDEV MEHTA
LICENCE
8699

ISSUED FOR CONSTRUCTION
07/14/2023

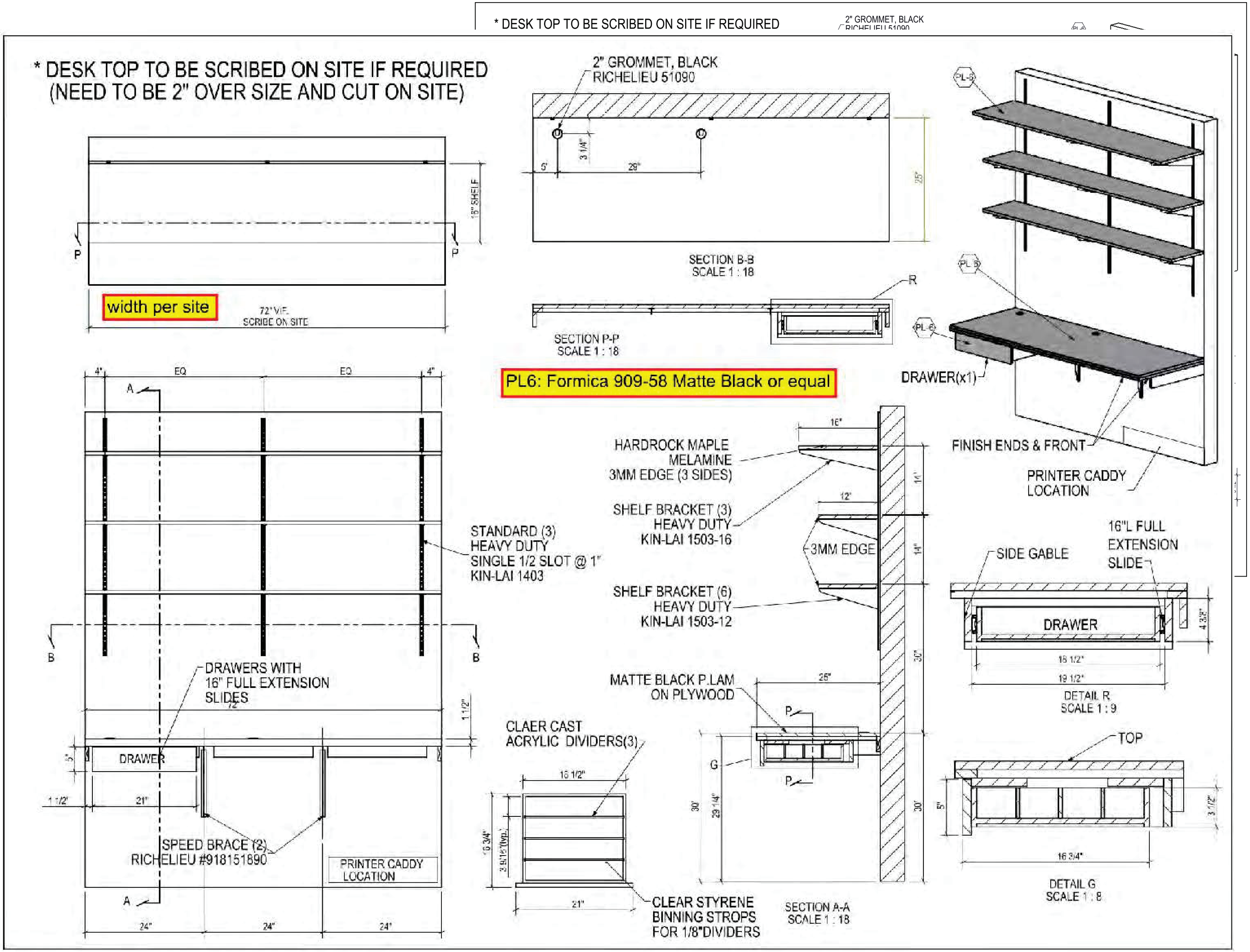
△	DATE	DESCRIPTION
	06/09/2023	PERMIT/CONSTRUCTION
	06/09/2023	ISSUED FOR BID
	07/14/2023	ISSUED FOR CONSTRUCTION

DRAWING INFORMATION
PROJECT #: 23206
CHECKED BY: NA
DRAWN BY: MP

TYPICAL MILLWORK DETAILS

DRAWING NUMBER
A-551

7/14/2023 12:17:46 PM



1 MANAGERS DESK DETAIL
SCALE: NTS

lululemon
1818 CORNWALL AVE.
VANCOUVER, B.C., V6J1C7

CF POLO PARK
1485 Portage Ave, Unit 144E
Winnipeg, MB
R3G 0W5
CRU NUMBER: 144E

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ARCHITECT SEAL

ISSUED FOR CONSTRUCTION
07/14/2023

DATE	DESCRIPTION
06/09/2023	PERMIT/CONSTRUCTION
06/09/2023	ISSUED FOR BID
07/14/2023	ISSUED FOR CONSTRUCTION

DRAWING INFORMATION
PROJECT #: 23206
CHECKED BY: Checker
DRAWN BY: Author

TYPICAL MILLWORK DETAILS

DRAWING NUMBER
A-552

7/14/2023 12:17:49 PM

TABLE OF CONTENTS

SEE MECHANICAL, ELECTRICAL, PLUMBING, SPRINKLER, AND FIRE ALARM DRAWINGS FOR SPEIFICATION DIVISIONS RELATING TO THOSE DISCIPLINES

DIVISION 00 - GENERAL CONDITIONS
SECTION 007200 - GENERAL CONDITIONS:
OWNER'S STANDARD GENERAL CONDITIONS FOR CONSTRUCTION ARE INCORPORATED INTO THE CONTROLLING CONTRACT FOR CONSTRUCTION. A COPY WILL BE MADE AVAILABLE BY OWNER (LULULEMON) UPON REQUEST.

DIVISION 01 - GENERAL REQUIREMENTS
SECTION 011000 - SUMMARY
1.1 - CONTRACT DOCUMENTS
- DOCUMENTS
A. CONTRACTOR SHALL USE THE FOLLOWING OWNER (LULULEMON) PROVIDED DOCUMENTS IN THE NEGOTIATION AND EXECUTION OF THE WORK. CONTACT OWNER'S PROJECT MANAGER (PER PROJECT DIRECTORY SHEET A-000) FOR COPIES OF THESE DOCUMENTS:
1. LULULEMON ATHLETICA INSTRUCTIONS TO BIDDERS.

1.2 - CONSTRUCTION CONTRACT FOR LULULEMON
A. DEFINITIONS
1. THE TERM OWNER OR LLL USED IN THESE DOCUMENTS REFERS TO LULULEMON.
2. THE TERM LANDLORD OR LLD USED IN THESE DOCUMENTS REFERS TO THE SHELL BUILDING OWNER.
3. THE TERM CONTRACTOR OR GC USED IN THESE DOCUMENTS REFERS TO THE GENERAL CONTRACTOR (INCLUDING THEIR SUB-CONTRACTORS) CONTRACTED BY THE OWNER TO EXECUTE THE WORK INCLUDED IN THE CONTRACT DOCUMENTS.
4. THE TERM OWNER'S VENDOR OR LULULEMON VENDOR OR LLL-V REFERS TO OWNER'S VENDORS CONTRACTED BY THE OWNER OTHER THAN THE GENERAL CONTRACTOR.

2.1 - SUMMARY OF WORK
A. THE WORK SHALL INCLUDE CONSTRUCTION OF THE SITE AND BUILDING FACILITIES AS SHOWN AND SPECIFIED IN THESE SPECIFICATIONS AND DRAWINGS.
B. THE OWNER, WITHOUT INVALIDATING THE CONTRACT, MAY ORDER EXTRA WORK, ALTER, ADD TO, OR DEDUCT FROM THE CONTRACT WORK. THE CONTRACT SUM WILL BE ADJUSTED ACCORDINGLY. ALL CHANGES MUST BE INCORPORATED INTO THE CONSTRUCTION DOCUMENTS IN WRITING.
C. INITIATION OF WORK BY THE CONTRACTOR REPRESENTS THAT THE GENERAL CONTRACTOR AND DEMOLITION CONTRACTOR VISITED THE SITE PRIOR TO BIDDING, ARE FAMILIAR WITH THE SITE CONDITIONS AND INCORPORATED THE CONDITIONS INTO THE SCOPE OF WORK. LACK OF SITE VISIT DOES NOT REMOVE RESPONSIBILITY OF ACCEPTING VISIBLE EXISTING SITE CONDITIONS FROM CONTRACTOR.
D. CONCEALED UNFORESEEN CONDITIONS THAT ARE EXPOSED DURING WORK SHALL BE RESOLVED THROUGH THE RFI PROCESS, SECTION 013200
E. **APPENDIX A - RENOVATIONS AND RELOCATIONS**

END OF SECTION - 011000

SECTION 013000 - ADMINISTRATIVE REQUIREMENTS
1.1- COORDINATION
A. INFORM THE OWNER'S REPRESENTATIVE OF DISCREPANCIES BETWEEN THE INFORMATION INDICATED IN THE CONTRACT DOCUMENTS AND EXISTING PROJECT CONDITIONS, AND OF DISCREPANCIES BETWEEN INFORMATION INDICATED ON THE ARCHITECTURAL, STRUCTURAL, MECHANICAL, PLUMBING, FIRE PROTECTION AND ELECTRICAL DOCUMENTS. UPON COMPLETION OF SELECTIVE DEMOLITION WORK, FIELD MEASURE THE PROPERTY AND CONFIRM IN WRITING USING SHEET TO THE OWNER'S PROJECT MANAGER. THE OVERALL DIMENSIONS MUST MATCH DIMENSIONS INDICATED ON THE DRAWINGS. CONTRACTOR TO MARK-UP ANY DISCREPANCIES ON CONSTRUCTION PLAN SHEET AND SEND TO THE OWNER'S PROJECT MANAGER. IMMEDIATELY INFORM THE ARCHITECT AND THE OWNER'S PROJECT MANAGER IF DISCREPANCIES OCCUR.
B. PRIOR TO FABRICATION AND INSTALLATION OF NEW COMPONENTS, FIELD VERIFY ALL EXISTING AND NEW DIMENSIONS AND INSTALLATION CONDITIONS THAT MAY AFFECT THE WORK. SUBMIT A REQUEST FOR INFORMATION (RFI) FOR ANY DISCREPANCY FOUND. DO NOT SCALE THE DRAWINGS TO ESTABLISH LOCATIONS OF ITEMS THAT ARE NOT LOCATED USING DIMENSIONS.
1. ALL DIMENSIONS ARE FACE OF FINISH TO FACE OF FINISH, UNLESS OTHERWISE INDICATED.
2. COORDINATE LOCATIONS OF REGISTERS, FIXTURES, AND OUTLETS WITH FINISH ELEMENTS.
C. COORDINATE NEW WORK INDICATED ON THE CONTRACT DOCUMENTS WITH NEW WORK THAT MAY BE PROVIDED BY THE LANDLORD AND OWNER UNDER SEPARATE CONTRACTS, AS IDENTIFIED BY LANDLORD WORK DRAWINGS OR WORK LETTER, GC TO REQUEST THESE ITEMS PRIOR TO BID.
D. COORDINATE THE WORK OF VENDORS, CONTRACTORS, AND SUBCONTRACTORS PROVIDING FIXTURES, FURNITURE, AND EQUIPMENT IDENTIFIED AS BY OWNER OR BY OWNER'S VENDOR IN THESE DRAWINGS AND SPECIFICATIONS.
1. NOTIFY THE OWNER'S PROJECT MANAGER WITHIN 24 HOURS IF ANY PROBLEMS DEVELOP WITH THE PERFORMANCE OF THESE VENDORS, CONTRACTORS, OR SUBCONTRACTORS.
E. COORDINATE THE SCHEDULING, SEQUENCING, AND THE WORK OF ALL TRADES AND SUBCONTRACTORS TO ASSURE EFFICIENT AND ORDERLY SEQUENCES OF INSTALLATION OF INTERDEPENDENT CONSTRUCTION ELEMENTS.
F. VERIFY THAT THE UTILITY REQUIREMENT CHARACTERISTICS OF OPERATING EQUIPMENT ARE COMPATIBLE WITH THE BUILDING UTILITY SERVICES. COORDINATE SUCH EQUIPMENT
G. COORDINATE THE INSTALLATION AND PHYSICAL SPACE REQUIREMENTS OF PLUMBING, MECHANICAL AND ELECTRICAL WORK THAT ARE INDICATED DIAGRAMMATICALLY ON THE DRAWINGS. FOLLOW ROUTING SHOWN FOR PIPING, DUCTS, AND CONDUIT AS CLOSELY AS PRACTICAL. INSTALL RUNS PARALLEL WITH AND PERPENDICULAR TO THE LINE OF THE BUILDING. UTILIZE SPACES AS EFFICIENTLY AS POSSIBLE TO MAXIMIZE ACCESSIBILITY FOR OTHER WORK INSTALLATION AND FOR MAINTENANCE AND REPAIR.
1. CONCEAL PIPING, DUCTS, AND CONDUIT WITHIN THE CONSTRUCTION, EXCEPT AS OTHERWISE NOTED.
H. COORDINATE COMPLETION AND CLEANUP WORK OF ALL TRADES AND SUBCONTRACTORS IN PREPARATION FOR CONSTRUCTION PUNCH. THE GENERAL CONTRACTOR IS RESPONSIBLE FOR THE FINAL CLEAN UP OF THE ENTIRE PREMISES TO INCLUDE BUT NOT LIMITED TO FLOORS, MILLWORK, FIXTURES, ETC. PRIOR TO TURNOVER.
I. TO MINIMIZE DISRUPTION OF OWNER'S ACTIVITIES AFTER OWNER OCCUPANCY OF THE PROPERTY, COORDINATE ACCESS TO THE PROPERTY WITH THE OWNER'S PROJECT MANAGER FOR CORRECTION OF DEFECTIVE WORK AND WORK NOT IN ACCORDANCE WITH THE CONTRACT DOCUMENTS. ALL WORK SHALL ALWAYS BE IN ACCORDANCE WITH THE CONTRACT DOCUMENTS. ALL WORK SHALL ALWAYS BE ACCESSIBLE TO THE OWNER'S PROJECT MANAGER.
J. THE CONTRACTOR SHALL SCHEDULE AND COORDINATE WITH THE LANDLORD, THROUGH THEIR AUTHORIZED REPRESENTATIVE, ALL WORK WHICH MAY CAUSE INTERRUPTION TO THE EXISTING MECHANICAL, ELECTRICAL SYSTEM, OR BUILDING OPERATIONS. ADVANCED NOTICE SHALL ALSO BE GIVEN TO THE LANDLORD'S REPRESENTATIVE FOR ANY WORK WHICH WILL INTERFERE WITH THE FIRE SAFETY AND SECURITY SYSTEMS WITHIN THE BUILDING. GC TO REQUEST LANDLORD RULES AND REGULATIONS AT TIME OF BIDDING.
K. THE CONTRACTOR ALONE SHALL BE RESPONSIBLE FOR SAFETY OF THE EXISTING STRUCTURE AND ALTERATIONS TO THE EXISTING STRUCTURE DURING THE ENTIRE CONSTRUCTION. GC SHALL DOCUMENT CONDITIONS AT POSSESSION DATE AND REVIEW WITH LULULEMON PRIOR TO TAKING POSSESSION. THE CONTRACTOR SHALL TAKE ADEQUATE PRECAUTIONS TO PREVENT DAMAGE TO THE EXISTING STRUCTURE IN ANY WAY. DAMAGE TO THE EXISTING STRUCTURE, IF OCCURS, SHALL BE RECTIFIED TO THE SATISFACTION OF THE LANDLORD AT NO EXTRA COST TO THE LANDLORD OR THE OWNER.
L. THE CONTRACTOR SHALL NOT DETAIL, ORDER, AND/OR FABRICATE ANY MATERIAL WITHOUT COORDINATING SAME WITH THE ACTUAL FIELD CONDITIONS. THE CONTRACTOR ALONE IS RESPONSIBLE FOR THE PROPER FITTING AND CONNECTION OF THE NEW CONSTRUCTION TO THE EXISTING CONSTRUCTION.
M. THE CONTRACTOR SHALL ACCEPT AND UNLOAD DELIVERY OF ALL OWNER OR OWNER'S VENDOR FURNISHED CONSTRUCTION MATERIALS, AND FIXTURES UNLESS OTHERWISE SPECIFIED BY OWNER. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL MATERIALS ONCE DELIVERED. UPON ARRIVAL, CONTRACTOR MUST CHECK THE CONDITION AND QUANTITIES OF THE MATERIALS DELIVERED AND CONTRACTOR MUST SIGN THE TRUCKER'S TICKET INDICATING ALL DAMAGES AND/OR SHORTAGES AND SEND THE SIGNED TICKETS TO THE OWNER WITHIN 48 HOURS. FAILURE TO DO SO WILL BE DEEMED THAT ALL MATERIALS ARRIVED WITHOUT DAMAGE AND QUANTITIES. ANY FUTURE CLAIMS OF DAMAGES TO MATERIALS OR SHORTAGES FURNISHED BY THE OWNER OR OWNER'S VENDOR WILL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
N. THE CONTRACTOR WILL BE RESPONSIBLE FOR ANY REDELIVERY CHARGES OF MATERIALS FURNISHED BY THE OWNER OR OWNER'S VENDOR IF CONTRACTOR REFUSES ORIGINAL SCHEDULED DELIVERY FOR REASONS NOT RELATED TO VIOLATIONS OF LANDLORD RULES AND REGULATIONS INCLUDING PPE, DELIVERY PROCEDURES, OSHA, AND PROPER DELIVERY EQUIPMENT (IE LIFT GATES, PALLER JACKS ETC)
O. IT IS THE INTENT OF THE OWNER TO HAVE LULULEMON PERSONNEL ON HAND TO RECEIVE DELIVERY OF STORE SUPPLIES, ETC. IF A DELIVERY ARRIVES AND STORE PERSONNEL ARE NOT ON SITE, THE DELIVERY IS NOT TO BE REFUSED WITHOUT FIRST CHECKING WITH THE OWNER'S PROJECT MANAGER. REFER TO LULULEMON VENDOR DELIVERY SHCEDULE (VDS).
P. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PATCHING BEHIND OTHER TRADES INCLUDING THE PATCHING OF FRAME WALLS, CEILING, OR PARTITIONS MADE NECESSARY BY THE SUBCONTRACTORS AND OWNER VENDORS FOR THE ABOVE MENTIONED ITEMS IN A FIRST CLASS WORKMANSHIP LIKE MANNER. PATCHING ONLY FOR WORK WITHIN THIS CONTRACT SHALL BE DONE.

END OF SECTION - 013000

SECTION 013100 - SUBMITTALS
A. WHEN INDICATED ON THE DRAWINGS, SUBMIT SHOP DRAWINGS, PRODUCT DATA, AND SAMPLES TO THE ARCHITECT (CC: OWNER'S PROJECT MANAGER AND STORE DESIGNER) FOR ACCEPTANCE. MAKE SUBMITTALS IN TIME TO ALLOW FIVE (5) DAYS FOR REVIEW AND RETURN, UNLESS MATERIAL SHORTAGES OR DELIVERY SCHEDULE NECESSITATE SPECIAL HANDLING FOR QUICKER TURN-AROUND TIME. NOTIFY ARCHITECT (CC: OWNER'S PROJECT MANAGER AND STORE DESIGNER) OF SPECIAL HANDLING REQUIREMENTS AT TIME OF SUBMITTAL. PROVIDE SUBMITTALS AS FOLLOWS:
1. SHOP DRAWINGS: SEND PDF FILES TO THE ARCHITECT (CC: OWNER'S PROJECT MANAGER AND STORE DESIGNER).
2. PRODUCT DATA: SEND PDF FILES TO THE ARCHITECT (CC: OWNER'S PROJECT MANAGER AND STORE DESIGNER).
3. ARCHITECT WILL REVIEW AND RETURN ACCEPTED SHOP DRAWINGS AND PRODUCT DATA TO THE CONTRACTORS AS A PDF FILE WITHIN THREE (3) DAYS.
4. SAMPLES: SUBMIT THREE (3) SETS EACH OF PHYSICAL SAMPLES, OR THREE SETS EACH OF MANUFACTURER'S COLOR AND FINISH SAMPLES, OR CHARTS, AND COLOR PLATES FOR ACCEPTANCE IMMEDIATELY FOLLOWING APPROVAL OF SUBCONTRACTOR'S FURNISHING THE REQUIRED MATERIALS. ONLY SUBMIT SAMPLES WHEN REQUESTED, WHEN REQUIRED WITHIN THE CONTRACT DOCUMENTS, OR IF SUBSTITUTION IS REQUESTED AND APPROVED.
B. ARCHITECT WILL RETAIN TWO (2) SETS OF PHYSICAL SAMPLES/COLOR AND FINISH SAMPLES/CHARTS AND COLOR PLATES AND RETURN ONE (1) SET TO THE CONTRACTOR FOR CONTRACTOR'S DOCUMENTS.
C. ARCHITECT TO FORWARD SAMPLE OF ALL APPROVED MATERIALS AND FINISHES TO THE OWNER'S PROJECT MANAGER AND STORE DESIGNER FOR FIELD VERIFICATION
D. THE OWNER WILL REQUIRE THAT THE CONTRACTOR REVIEW AND APPROVE SUBMITTALS BEFORE SUBMITTING THEM TO THE ARCHITECT AND THE CONTRACTOR SHALL INDICATE THAT IT HAS DONE SO BY SIGNING THE SUBMITTAL. CHANGES, IF ANY, SHALL BE SHOWN AND FLAGGED ON THE SUBMITTALS, BUT THE SUBMITTALS SHALL NOT BE USED AS A SUBSTITUTE FOR REQUESTS OR APPROVALS OF SUBSTITUTIONS OR OTHER CHANGES, OR OTHER PROCEDURES REQUIRED BY THE CONTRACT DOCUMENTS. THE OWNER AGREES THAT IF THE CONTRACTOR INTENDS TO MAKE A CLAIM BASED UPON THE SUBMITTALS OR NOTATIONS BY THE ARCHITECT ON RETURNED SUBMITTALS, THE CONTRACTOR SHALL BE REQUIRED TO SO NOTIFY THE ARCHITECT IMMEDIATELY (CC: OWNER'S PROJECT MANAGER AND STORE DESIGNER).

END OF SECTION - 013100

SECTION 013200 - REQUESTS FOR INFORMATION (RFI)
A. IN THE EVENT THAT THE GENERAL CONTRACTOR, OR A SUBCONTRACTOR, AT ANY TIER, DETERMINES THAT SOME PORTION OF THE DRAWINGS, SPECIFICATIONS, OR OTHER CONTRACT DOCUMENTS REQUIRES A CLARIFICATION OR INTERPRETATION BY THE ARCHITECT, THE GENERAL CONTRACTOR SHALL SUBMIT A REQUEST FOR INFORMATION (RFI) BY THE PROCESS SET FORTH BY THE OWNER. ALL RFIS SHALL BE DIRECTED TO THE ARCHITECT USING ONLINE RFI TOOLS, IE EMAIL, PLANGRID, PROCORE OR EQUAL (CC: OWNER'S PROJECT MANAGER AND STORE DESIGNER).
B. REQUESTS FOR INFORMATION MAY ONLY BE SUBMITTED BY THE GENERAL CONTRACTOR AND MAY ONLY BE SUBMITTED BY THE MEANS SET FORTH BY THE OWNER. THE GENERAL CONTRACTOR SHALL CLEARLY AND CONCISELY SET THE ISSUE FOR WHICH CLARIFICATION OR INTERPRETATION IS SOUGHT AND WHY A RESPONSE IS NEEDED FROM THE ARCHITECT, ARCHITECT'S CONSULTANTS, OR THE OWNER'S PROJECT MANAGER. IN THE REQUEST FOR INFORMATION, THE GENERAL CONTRACTOR SHALL SET FORTH AN INTERPRETATION OR UNDERSTANDING OF THE REQUIREMENT ALONG WITH AN EXPLANATION OF WHY SUCH AN UNDERSTANDING WAS REACHED, AS WELL AS SCHEDULE AND COST IMPLICATIONS. GC SHALL INCLUDE PHOTOS OF CONDITIONS IN QUESTION.
C. RESPONSES TO REQUESTS FOR INFORMATION SHALL BE REVIEWED AND RESPONDED TO UPON RECEIPT, BUT NO LATER THAN TWO (2) WORKING DAYS OF RECEIPT OF THE REQUEST FROM THE GENERAL CONTRACTOR; UNLESS THE ARCHITECT OR CONSTRUCTION MANAGER DETERMINES THAT A LONGER AMOUNT OF TIME IS NECESSARY TO PROVIDE AN ADEQUATE RESPONSE. IF A LONGER AMOUNT OF TIME THAN 24 HOURS IS DETERMINED NECESSARY BY THE ARCHITECT, THE ARCHITECT WILL, WITHIN 24 HOURS OF RECEIPT OF THE REQUEST, NOTIFY THE GENERAL CONTRACTOR OF THE ANTICIPATED RESPONSE TIME. IF THE GENERAL CONTRACTOR SUBMITS A REQUEST FOR INFORMATION ON AN ACTIVITY WITH THREE (3) WORKING DAYS OR LESS OF FLOAT ON THE CURRENT PROJECT SCHEDULE THE GENERAL CONTRACTOR SHALL NOT BE ENTITLED TO ANY TIME EXTENSION DUE TO THE TIME IT TAKES THE ARCHITECT OR THE OWNER'S PROJECT MANAGER TO RESPOND TO THE REQUEST PROVIDED THAT THE ARCHITECT OR THE OWNER'S PROJECT MANAGER RESPONDS WITHIN THE PARAMETERS SET FORTH ABOVE.
D. RESPONSES TO REQUESTS FOR INFORMATION FROM THE ARCHITECT WILL NOT CHANGE ANY REQUIREMENTS OF THE CONTRACT DOCUMENTS. IN THE EVENT THAT THE GENERAL CONTRACTOR BELIEVES THAT A RESPONSE TO A REQUEST FOR INFORMATION WILL CAUSE A CHANGE TO THE REQUIREMENTS OF THE CONTRACT DOCUMENTS, THE GENERAL CONTRACTOR SHALL IMMEDIATELY GIVE WRITTEN NOTICE TO THE ARCHITECT (CC: THE OWNER'S PROJECT MANAGER) STATING THAT THE GENERAL CONTRACTOR CONSIDERS THE RESPONSE TO BE A CHANGE ORDER. FAILURE TO GIVE SUCH WRITTEN NOTICE IMMEDIATELY SHALL WAIVE THE GENERAL CONTRACTOR'S (OR ANY SUBCONTRACTOR'S) RIGHT TO SEEK ADDITIONAL TIME OR COST UNDER THE ADMINISTRATIVE REQUIREMENTS OF THESE CONTRACT DOCUMENTS.

END OF SECTION - 013200

013300 - REGULATORY REQUIREMENTS
1. REGION
A. USA - ALL MATERIALS AND CONSTRUCTION SHALL CONFORM WITH APPLICABLE LOCAL, STATE, AND FEDERAL BUILDING CODES, PLUMBING CODES, MECHANICAL CODES, ELECTRICAL CODES, ORDINANCES, AND RULES AND REGULATIONS. REFER TO LIST OF APPLICABLE CODES ON SHEET .
B. CANADA - ALL MATERIALS AND CONSTRUCTION SHALL CONFORM WITH APPLICABLE LOCAL, MUNICIPAL, PROVINCIAL AND/OR FEDERAL BUILDING CODES, PLUMBING CODES, MECHANICAL CODES, ELECTRICAL CODES, ORDINANCES, AND RULES AND REGULATIONS. REFER TO LIST OF APPLICABLE CODES ON SHEET .

2. REQUIREMENTS
A. COMPLY WITH LOCAL, STATE, AND FEDERAL REQUIREMENTS GOVERNING ACCESSIBILITY. REFER TO SHEET A-030.
B. OBTAIN ALL REQUIRED DEMOLITION AND EROSION CONTROL PERMITS REQUIRED BY AUTHORITIES HAVING JURISDICTION.
C. THE OWNER RESERVES THE RIGHT TO REJECT ITEMS INCORPORATED INTO THE WORK WHICH FAILED TO MEET THE SPECIFIED MINIMUM REQUIREMENTS. LULULEMON SHALL GIVE WRITTEN NOTICE TO THE CONTRACTOR AND COME TO AN AGREEMENT ON ACCEPTABLE TIMELINE TO CORRECT DEFICIENCES. IF THE DEFICIENCIES ARE NOT CORRECTED WITHIN THE AGGREED UPRON TIMELINE, THE OWNER FURTHER RESERVES THE RIGHT AND WITHOUT PREJUDICE FOR OTHER RECOURSE SO THAT THE OWNER MAY MAKE ACCEPTABLE ANY NON-COMPLIANT ITEMS SUBJECT TO AN ADJUSTMENT IN THE CONTRACT AMOUNT AS APPROVED BY THE OWNER.

END OF SECTION - 013300

013400 - QUALITY CONTROL
A. MAINTAIN QUALITY CONTROL OVER MANUFACTURERS, SUPPLIERS, PRODUCTS, SERVICES, SITE CONDITIONS, AND WORKMANSHIP, TO PRODUCE WORK OF SPECIFIED QUALITY.
B. COMPLY WITH MANUFACTURER'S INSTRUCTIONS AND APPLICABLE TRADE STANDARDS. HANDLE, INSTALL, CONNECT, CLEAN, CONDITION, AND ADJUST PRODUCTS IN STRICT ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS AND COMPLYING WITH SPECIFIED REQUIREMENTS. REQUEST CLARIFICATION FROM THE ARCHITECT IN THE FORM OF AN RFI BEFORE PROCEEDING, WHERE MANUFACTURER'S INSTRUCTIONS CONFLICT WITH THE CONTRACT DOCUMENTS.
C. ALL WORK SHALL BE PERFORMED IN THE BEST PROFESSIONAL MANNER AND CRAFTSMANSHIP.
D. PERFORM WORK BY PERSONS QUALIFIED TO PRODUCE WORKMANSHIP OF THE SPECIFIED QUALITY.
E. THE GENERAL CONTRACTOR AND SUPPLIERS OF LABOR AND MATERIALS SHALL PROVIDE A ONE (1) YEAR GUARANTEE ON ALL WORK AND MATERIALS FROM THE DATE OF STORE OPENING AND COMPLETION OF ALL PUNCH LIST ITEMS TO THE COMPLETE SATISFACTION OF THE OWNER'S REPRESENTATIVE.
F. THE GENERAL CONTRACTOR AND SUPPLIERS OF LABOR AND MATERIALS INCLUDING ALL LULULEMON PROVIDED VENDORS SHALL ABIDE BY ALL THE BUILDING RULES AS SUPPLIED BY BUILDING MANAGEMENT.
G. THE GENERAL CONTRACTOR SHALL SUPPLY AND INSTALL PROPER AND ADEQUATE ANCHORS, FURRING, BLOCKING, STUDS, AND SIMILAR PROVISIONS TO SUPPORT ALL OWNER SUPPLIED AND MILLWORK CONTRACTOR ITEMS FOR FIRM, SECURE, AND CONCEALED SUPPORT OR ATTACHMENT OF WALL OR COLUMN FIXTURES, FITTING ROOMS, LIGHTING FIXTURES, TOILET ROOM ACCESSORIES, AND SERVICE FACILITIES AT LOCATIONS INDICATED BY PLANS AND/OR ELEVATIONS AND/OR DETAILS. GC SHALL COORDINATE WITH MILLWORK CONTRACTOR AND OWNER'S VENDORS FOR REQUIRED LOCATIONS:
1. ADEQUACY OF BLOCKING REQUIREMENT AND PROVIDE ALL SUCH BLOCKING PRIOR TO CLOSING UP ANY AND ALL WALLS, COLUMNS, ETC. IF REQUIRED BY CODE AND LOCAL BUILDING OFFICIAL, WOOD BLOCKING SHALL BE FIRE RETARDANT TREATED TO MEET SUCH REQUIREMENT.

END OF SECTION - 013400

013500 - TESTING
A. EMPLOY AND PAY FOR THE SERVICES OF AN INDEPENDENT TESTING LABORATORY TO PERFORM INSPECTIONS, TESTS AND OTHER SERVICES WHEN REQUIRED
B. INCLUDE INSPECTION AND TESTS AS INDICATED IN THE SPECIFICATION SECTIONS, DRAWINGS, AND AS REQUIRED BY AUTHORITIES HAVING JURISDICTION.
1. TEST CONCRETE IN ACCORDANCE WITH SECTION 03300 AND DRAWING REQUIREMENTS
2. TEST STRUCTURAL STEEL IN ACCORDANCE WITH SECTION 05110 AND DRAWING REQUIREMENTS

END OF SECTION - 013500

SECTION 015000 - TEMPORARY FACILITIES AND CONTROLS / IF REQUIRED
A. PROVIDE TEMPORARY FACILITIES AND CONTROLS AS SHOWN AND SPECIFIED
B. CODES AND STANDARDS: PROVIDE TEMPORARY CONSTRUCTION FACILITIES AND CONTROLS COMPLYING WITH ALL APPLICABLE LOCAL, STATE AND FEDERAL LOCAL LAWS, REGULATIONS, AND CODES AND UTILITY COMPANY REQUIREMENTS.
C. TEMPORARY HEATING, VENTILATING AND COOLING
1. PROVIDE, PAY FOR, AND MAINTAIN ALL TEMPORARY HEATING, VENTILATING AND COOLING EQUIPMENT, AND FACILITIES REQUIRED DURING THE PROGRESS OF THE WORK TO PROTECT MATERIALS, FINISHED WORK, AND EQUIPMENT AGAINST DAMAGE FROM LOW AND HIGH TEMPERATURES AND HUMIDITY.
2. PROVIDE TEMPORARY HEATING, VENTILATING AND COOLING WHEN THE OUTSIDE TEMPERATURE AND HUMIDITY IS LOW/HIGH ENOUGH TO DAMAGE OR AFFECT IN ANY WAY THE PERFORMANCE OR QUALITY OF MATERIAL AND PRODUCT STORED IN THE BUILDING, IN ANY TEMPORARY STORAGE AREA, OR ANY MATERIAL OR PRODUCT TO BE INCORPORATED INTO THE WORK.
3. PROVIDE TEMPORARY HEATING, VENTILATING AND COOLING WHEN THE OUTSIDE TEMPERATURE AND HUMIDITY IS LOW/HIGH ENOUGH TO SIGNIFICANTLY SLOW OR HAMPER EFFECTIVENESS OF WORKERS AND TO PROVIDE SUITABLE WORKING CONDITIONS.
4. ENSURE MERV 8 FILTERS OR LOCAL MINIMUM REQUIREMENT (WHICHEVER IS HIGHER) ARE INSTALLED AND DUCT WORK IS PROTECTED FROM CONSTRUCTION POLLUTION IN ACCORDANCE WITH THE INDOOR AIR QUALITY MANAGEMENT PLAN.
D. TEMPORARY ELECTRICAL, LIGHTING, AND POWER
1. PROVIDE, PAY FOR, AND MAINTAIN ALL TEMPORARY ELECTRICAL SERVICE FOR LIGHTING AND POWER REQUIRED DURING THE PROGRESS OF THE WORK. INCLUDE ALL NECESSARY WIRING, FUSES, DISCONNECT SWITCHES, SAFETY DEVICES, JUNCTION BOXES, PANELS, GROUND FAULT PROTECTIONS, AND TRANSFORMER IF REQUIRED. INCLUDE COST FOR PROVIDING TEMPORARY ELECTRIC GENERATORS IN THE CONTRACT SUM, IF TEMPORARY ELECTRIC SERVICE IS NOT AVAILABLE FOR USE DURING PROGRESS OF THE WORK.
2. TEMPORARY SERVICE AND LIGHTING AND POWER ITEMS AND INSTALLATIONS SHALL CONFORM TO THE REQUIREMENTS OF THE NFPA NATIONAL ELECTRIC CODE AND OSHA OCCUPATIONAL SAFETY AND HEALTH ACT OF 1970.
E. TEMPORARY WATER: PROVIDE, PAY FOR, AND MAINTAIN ALL TEMPORARY WATER REQUIRED DURING THE PROGRESS OF THE WORK. INCLUDE ALL NECESSARY STORAGE TANKS, PIPING, VALVES, FITTINGS, HOSE, AND HOSE CONNECTIONS DURING CONSTRUCTION AND TESTING.
F. BARRIERS AND ENCLOSURES, SEE SHEET .
1. PROVIDE TEMPORARY CONSTRUCTION BARRIERS IN ACCORDANCE WITH PROJECT REQUIREMENTS. EXERCISE ALL NECESSARY PRECAUTIONS TO PROTECT ADJACENT PROPERTIES OUTSIDE PROJECT CONTRACT LIMITS DURING PROGRESS OF THE WORK. TAKE SPECIAL PRECAUTIONS TO AVOID DAMAGE TO EXISTING OVERHEAD AND UNDERGROUND UTILITIES AND SERVICES OWNED OR OPERATED BY THE LANDLORD OR BY PUBLIC OR PRIVATE UTILITY COMPANIES.
2. ALL BARRICADES SHOULD BE CONSTRUCTED WITH A SMOOTH FINISH, FROM GROUND LEVEL TO TOP, TO ACCEPT OWNER'S VENDOR INSTALLED VINYL GRAPHICS
3. PROVIDE TEMPORARY WEATHER-TIGHT ENCLOSURES AT EXTERIOR OPENINGS TO PROVIDE ACCEPTABLE WORKING CONDITIONS AND PROTECTION OF MATERIALS AND TO ALLOW FOR TEMPORARY HEATING, VENTILATING, AND COOLING. CONTRACTOR TO APPLY TWO COATS OF PRIMER TO BARRIER WITH 48 HOURS DRYING TIME PRIOR TO SCHEDULED INSTALL OF GRAPHICS. CONTRACTOR TO PROVIDE DOUBLE DOORS IN BARRICADE FOR DELIVERY PURPOSES.
G. FIELD OFFICE, TELEPHONE, AND EMAIL
1. PROVIDE AND MAINTAIN A TEMPORARY FIELD OFFICE AREA AT THE PROJECT SITE DURING PROGRESS OF THE WORK.
2. MAINTAIN COPIES OF PERMITS, APPROVED SHOP DRAWINGS, SPECIFICATIONS, ADDENDA, AND RECORD DOCUMENTS ON SITE AT ALL TIMES.
3. PROVIDE ALL NECESSARY SECURITY BARRIERS AND ENCLOSURES TO PROTECT THE WORK AND OWNER'S OPERATIONS FROM UNAUTHORIZED ENTRY OF PERSONS, VANDALISM AND THEFT. PROVIDE DOORS, WHEN REQUIRED, WITH SELF-CLOSING HARDWARE AND LOCKS.
H. CLEANING
1. FOLLOW APPLICABLE CONSTRUCTION AND DEMOLITION WASTE MANAGEMENT REQUIREMENTS AS DESCRIBED IN SECTION 018113 - SUSTAINABILITY REQUIREMENTS.
2. DURING CONSTRUCTION: PROVIDE AN APPROVED ON-SITE CONTAINER FOR THE USE OF ALL CONTRACTORS, SUBCONTRACTORS, AND OWNER'S VENDORS FOR THE COLLECTION OF WASTE MATERIALS, DEBRIS, AND RUBBISH. PROVIDE AN APPROVED ON-SITE CONTAINER FOR ALL RECYCLED MATERIALS. EXECUTE PERIODIC CLEANING TO KEEP THE WORK, THE SITE, AND ADJACENT PROPERTIES FREE FROM ACCUMULATIONS OF WASTE MATERIALS, RUBBISH, AND WIND BLOWN DEBRIS, RESULTING FROM CONSTRUCTION OPERATIONS. REMOVE CRATES AND CARTONS IN WHICH MATERIALS, EQUIPMENT, OR FIXTURES ARE RECEIVED TO ON-SITE CONTAINERS DAILY.
3. MAINTAIN THE PROPERTY IN A CLEAN AND ORDERLY CONDITION. REMOVE WASTE MATERIALS, DEBRIS, AND RUBBISH FROM THE SITE ON A DAILY BASIS AND DISPOSE OF AT LEGAL DISPOSAL AREAS AWAY FROM THE SITE.
4. GC IS TO SUPPLY ONE (1) EMPTY 30 YARD DUMPSTER FOR THE SOLE USE OF THE OWNER'S STORE OPERATIONS AT THE TIME OF TURNOVER UNLESS DIRECTED OTHERWISE,
I. DUST CONTROL
1. FOLLOW APPLICABLE INDOOR AIR QUALITY MANAGEMENT REQUIREMENTS AS DESCRIBED IN SECTION 018113 - SUSTAINABILITY REQUIREMENTS
2. REMOVE DEBRIS AND RUBBISH FROM PIPE CHASES, PLENUMS AND OTHER SIMILAR CLOSED OR REMOTE SPACES PRIOR TO COVERING OR ENCLOSING THE SPACE
3. SWEEP AND VACUUM CLEAN INTERIOR SURFACES BEFORE START OF SURFACE FINISHING AND PAINTING. CONTINUE CLEANING ON AN AS-NEEDED BASIS UNTIL FINISHING AND PAINTING IS COMPLETED
4. CLEANING OPERATIONS SHALL BE ACCEPTABLE TO THE TENANT'S CONSTRUCTION MANAGER
5. GC SHALL SUPPLY COVERS FOR ALL OPEN DUCTS AND OPENINGS IN STOREFRONT DURING CONSTRUCTION
J. THE CONTRACTOR SHALL UTILIZE THE AREAS WITHIN THE LIMITS OF THE SITE FOR STORAGE OF MATERIAL UNLESS NOTED OTHERWISE.

END OF SECTION - 015000

SECTION 016000 - PRODUCT REQUIREMENTS
016310 - SUBSTITUTIONS
A. SUBSTITUTIONS ARE GENERALLY NOT ALLOWED UNLESS OTHERWISE INDICATED THAT APPROVED EQUALS ARE PERMITTED, HOWEVER IF A SUBSTITUTION IS REQUESTED IT MUST BE DONE AT THE TIME OF BID AND PRIOR TO THE BIDS BEING DUE. THE SUBSTITUTION WILL BE REVIEWED BY THE OWNER'S PROJECT MANAGER AT THIS TIME AND MUST BE SUBMITTED IN WRITING AND WRITTEN APPROVAL MUST BE RECEIVED TO PROCEED WITH THE SUBSTITUTION.
B. PRODUCTS, INCLUDING MATERIALS, EQUIPMENT, AND SYSTEMS DESCRIBED IN THE CONTRACT DOCUMENTS ESTABLISH THE STANDARDS OF REQUIRED FUNCTION, DIMENSION, APPEARANCE, QUALITY AND PERFORMANCE OF THE WORK. BASE ALL BIDS ON THE STANDARDS INDICATED
C. REQUESTS BY THE CONTRACTOR FOR CHANGES IN PRODUCTS, MANUFACTURERS, FABRICATORS, SUPPLIERS, INSTALLERS, AND METHODS OF CONSTRUCTION REQUIRED BY THE CONTRACT DOCUMENTS ARE CONSIDERED REQUESTS FOR SUBSTITUTIONS: SUBSTITUTIONS WILL BE CONSIDERED ONLY UNDER THE FOLLOWING CONDITIONS:
1. THE INDICATED STANDARD CANNOT BE PROVIDED WITHIN THE CONTRACT TIME.
2. THE INDICATED STANDARD CANNOT RECEIVE NECESSARY APPROVAL BY THE GOVERNING AUTHORITY.
3. A SUBSTANTIAL ADVANTAGE IS OFFERED THE OWNER, IN TERMS OF COST, TIME, ENERGY CONSERVATION, OR OTHER CONSIDERATIONS OF MERIT AS DETERMINED BY THE ARCHITECT OR OWNER'S PROJECT MANAGER.
D. SUBMIT EACH REQUEST FOR SUBSTITUTION TO THE OWNER'S PROJECT MANAGER AND COPY THE ARCHITECT IN WRITING FOLLOWING SUBMITTAL REQUIREMENTS OF OTHER SECTIONS. IDENTIFY THE PRODUCT, MANUFACTURER, FABRICATOR, SUPPLIER, INSTALLER, OR THE FABRICATION OR INSTALLATION METHOD TO BE REPLACED IN EACH REQUEST. IDENTIFY RELATED SPECIFICATION SECTION AND DRAWING NUMBERS. PROVIDE DOCUMENTATION AS DIRECTED BY THE OWNER'S PROJECT MANAGER OR THE ARCHITECT.
E. SUBSTITUTIONS WILL NOT BE CONSIDERED WHEN INDICATED ON SHOP DRAWINGS OR PRODUCT DATA SUBMITTALS WITHOUT SEPARATE WRITTEN REQUEST, WHEN REQUESTED DIRECTLY BY SUBCONTRACTOR, MANUFACTURER, FABRICATOR, OR SUPPLIER, OR WHEN ACCEPTANCE WILL REQUIRE SUBSTANTIAL REVISION OF THE CONTRACT DOCUMENTS.
F. SUBSTITUTE PRODUCTS, MANUFACTURERS, FABRICATORS, SUPPLIERS, AND INSTALLERS SHALL NOT BE USED FOR THE PROJECT WITHOUT THE OWNER'S WRITTEN ACCEPTANCE.

END OF SECTION - 016000

SECTION 017000 - EXECUTION REQUIREMENTS
1.1 - PREPARATION
A. PROTECTION OF EXISTING CONSTRUCTION: USE ALL NECESSARY CARE AND APPROPRIATE MEANS AND METHODS TO PROTECT AND PREVENT DAMAGE TO EXISTING CONSTRUCTION AND PROPERTY NOT PART OF THE CONTRACT WORK. REPAIR AND REFINISH OR REPLACE CONSTRUCTION AND PROPERTY DAMAGED DURING CONSTRUCTION WORK AT CONTRACTOR'S EXPENSE.
B. ALL FIREPROOFING THAT IS DAMAGED AS A RESULT OF NEW CONSTRUCTION SHALL BE PATCHED WITH MATERIALS AND THICKNESS TO MATCH EXISTING AND ENSURE EXISTING FIRE-RATING IS MAINTAINED. THE CONTRACTRACTOR SHALL INCLUDE AN ALLOWANCE AS PART OF THEIR BID FOR THIS WORK.

2.1 - SELECTIVE DEMOLITION: PROVIDE SELECTIVE DEMOLITION AS SHOWN AND SPECIFIED
A. PREPARATION
1. COORDINATE WORK OF THIS SECTION WITH WORK OF VARIOUS CONTRACTORS AND OWNER'S STAFF.
2. THE CONTRACTOR SHALL MAINTAIN THE EXISTING EXITS, CORRIDORS, AISLES, AND DOORS FREE OF OBSTRUCTIONS AT ALL TIMES.
3. ERECT AND MAINTAIN WEATHERPROOF CLOSURES AT EXTERIOR OPENINGS.
4. ERECT AND MAINTAIN DUST-PROOF INTERIOR PARTITIONS TO PREVENT SPREAD OF DUST OR FUMES.
5. ERECT AND MAINTAIN BARRICADES, ENCLOSURES, BRACING, SHORING, LIGHTS, WARNING SIGNS, AND GUARDS NECESSARY FOR WORKER AND PUBLIC SAFETY AND PROTECTION OF PROPERTY.
6. DISCONNECT, REMOVE, AND CAP DESIGNATED UTILITY SERVICES. IDENTIFY AND MARK LOCATIONS OF DISCONNECTED AND CAPPED UTILITIES AT THE PROJECT SITE AND ON PROJECT RECORD DOCUMENTS.
7. NOTIFY AND COORDINATE WITH THE OWNER'S PROJECT MANAGER AND THE BUILDING OWNER (LLD) FOR ANY DEMOLITION OCCURRING OUTSIDE THE LEASE LIMIT.
8. COORDINATE HOURS OF OPERATION AND CONSTRUCTION ACCESS WITH THE OWNER'S PROJECT MANAGER AND THE BUILDING OWNER (LLD).
9. GENERAL CONTRACTOR SHALL CONFIRM WITH SHELL BUILDING OWNER (LANDLORD) OR MANAGEMENT REPRESENTATIVE THE ALLOWABLE HOURS FOR VARIOUS TYPES OF DEMOLITION PRIOR TO SUBMITTING BID. NO ADDITIONAL COMPENSATION WILL BE DUE THE CONTRACTOR FOR AFTER NORMAL BUSINESS HOURS WORK.
B. SELECTIVE DEMOLITION
1. REMOVE EXISTING CONSTRUCTION TO ACCOMMODATE NEW CONSTRUCTION AS INDICATED.
2. PERFORM SELECTIVE DEMOLITION IN AN ORDERLY, SYSTEMATIC, AND CAREFUL MANNER WITH LEAST POSSIBLE DISTURBANCE TO PUBLIC AND ADJACENT PROPERTY. USE OF EXPLOSIVES IS PROHIBITED.
3. IMMEDIATELY REMOVE FROM THE SITE AND LEGALLY DISPOSE OF DEMOLISHED MATERIALS, EXCEPT AS INDICATED OTHERWISE. DO NOT BURN OR BURY MATERIALS ON THE PROJECT SITE.

1.3 - CLEANING
A. FINAL CLEANING: PERFORM FINAL CLEANING UPON TURNOVER.
1. REMOVE WASTE AND SURPLUS MATERIALS, RUBBISH, TOOLS, EQUIPMENT, AND TEMPORARY CONSTRUCTION FACILITIES FROM THE SITE.
2. CLEAN EXTERIOR GROUNDS; REMOVE STAINS, SPILLS, AND FOREIGN MATERIALS FROM PAVED AREAS. POWER WASH, AND SWEEP CLEAN. RAKE CLEAN LANDSCAPED SURFACES OF THE GROUNDS. (CONFIRM AT TIME OF BID IF APPLICABLE)
3. REMOVE TEMPORARY PROTECTION AND LABELS NOT REQUIRED TO REMAIN.
4. CLEAN ALL FINISHED SURFACES. REMOVE GREASE, MASTIC, ADHESIVES, DUST, DIRT, STAINS, FINGERPRINTS, LABELS, AND OTHER FOREIGN MATERIALS FROM EXPOSED INTERIOR AND EXTERIOR SURFACES.
5. CLEAN ALL PLUMBING, FIRE PROTECTION, AND ELECTRICAL FIXTURES AND EQUIPMENT INCLUDING CEILING AREA ELEVATED DUCTWORK AND LIGHTING FIXTURES.
6. CLEAN PERMANENT EQUIPMENT FILTERS AND REPLACE TEMPORARY DISPOSABLE FILTERS IN MECHANICAL UNITS USED DURING CONSTRUCTION.
7. CLEAN DUCTS, BLOWERS, AND COILS IF MECHANICAL UNITS WERE OPERATED WITHOUT FILTERS DURING CONSTRUCTION.
8. CLEAN INTERIOR AND EXTERIOR GLAZING AND MIRRORS, POLISH TRANSPARENT, AND GLOSSY SURFACES, AND CLEAN FLOORS WITH APPROPRIATE MATERIALS AND EQUIPMENT.
9. REMOVE WASTE, FOREIGN MATERIAL, AND DEBRIS FROM ROOFS, AREAWAYS, AND DRAINAGE SYSTEMS.
10. BEFORE OWNER OCCUPANCY, CONDUCT AN INSPECTION WITH THE OWNER, OF EXPOSED INTERIOR AND EXTERIOR SURFACES AT ALL WORK AREAS, TO VERIFY THAT THE ENTIRE WORK AREA IS CLEAN.
11. GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR THE REMOVAL OF ANY AND ALL OWNER'S TEMPORARY GRAPHICS INSTALLED DURING CONSTRUCTION, INSTALLED TO ANY PERMANENT AND FINAL SURFACES INCLUDED BUT NOT LIMITED TO GLAZING, STOREFRONT SYSTEM, DOORS, AND NEUTRAL PIERS. ALL FINAL SURFACES SHALL BE CLEANED AND FREE OF VINYL GRAPHIC RESIDUE.
12. CLEAN ALL EXISTING CONCRETE SURFACES. REMOVE FROM JOB AND REPLACE ANY CONCRETE NOT COMPLYING WITH THE INTENT OF THESE DRAWINGS AND THESE SPECIFICATIONS, UNLESS PERMISSION IS GIVEN BY OWNER TO PATCH AND REPAIR. IF THE PATCHING DOES NOT SATISFACTORILY RESTORE THE QUALITY AND APPEARANCE OF THE WORK, THE DEFECTIVE WORK SHALL BE REMOVED, REGARDLESS OF THE PERMISSION TO PATCH. CONCRETE IS TO HAVE A SMOOTH, CLEAN, STEEL TROWEL FINISH AS REQUIRED TO RECEIVE FLOOR FINISHES.

1.4 - STARTING AND ADJUSTING
A. PRIOR TO SUBSTANTIAL COMPLETION, COORDINATE THE START-UP, TEST AND BALANCE, PLACEMENT IN OPERATION, AND ADJUSTMENT OF ALL SYSTEMS, CONTROLS, AND EQUIPMENT TO VERIFY PROPER OPERATION. ALL SYSTEMS SHALL BE COMPLETE AND OPERATING PRIOR TO FINAL INSPECTION AND/OR CONSTRUCTION PUNCH.

1.5 - CONTRACT CLOSEOUT
TO BE SUBMITTED WITHIN 30 DAYS OF TURNOVER. THE FOLLOWING ITEMS NEED TO BE INCLUDED IN THE CLOSEOUT PACKAGE TO THE OWNER AT PROJECT COMPLETION:
A. GC SIGNED FINAL PAY APPLICATION WITH CONTINUATION SHEETS (SIGNED WITH NOTARY)
B. COMPLETED PUNCH LIST WITH ALL REQUIRED SIGNATURES (GC, OWNER'S PROJECT MANAGER, OWNER'S OPERATIONS TEAM) WITH A COPY LEFT IN THE TURNOVER MANUAL
C. ALL FINAL REPORTS IN COMPLIANCE WITH THE FOLLOWING SUSTAINABILITY REQUIREMENTS:
1. FINAL WASTE HAUL REPORT IDENTIFYING DIVERSION RATE
2. CONFIRMATION 24 HR BUILDING FLUSH OUT WAS COMPLETED
3. CONFIRMATION OF FINAL CLEANING AND FILTER REPLACEMENT
D. BUILDING PERMIT (PROVIDE A COPY FOR CLOSEOUT) (ORIGINAL TO BE LEFT IN TURNOVER MANUAL)
E. CERTIFICATE OF OCCUPANCY OR JURISDICTION REQUIRED DOCUMENT IF APPLICABLE (PROVIDE A COPY FOR CLOSEOUT).
F. FULL SET OF AS-BUILT (REDLINED DWGS) UPLOADED TO LUCERNEX ONLY. (NOT TO BE MAILED)
G. FINAL PHOTOS UPLOADED TO LUCERNEX ONLY. (NOT TO BE MAILED)
H. SUB CONTRACTOR UNCONDITIONAL LIEN WAIVERS
I. GC UNCONDITIONAL LIEN WAIVERS

1.5.2 - CLOSEOUT PACKAGE DELIVERY
ALL DOCUMENTS TO BE SENT TO LULULEMON ATHLETICA OFFICES, ATTENTION: LULULEMON PROJECT MANAGER, AS ONE PACKAGE FOR GC FINAL PAY RELEASE. INCLUDE THE FOLLOWING:
A. GENERAL CONTRACTOR CONTACT INFORMATION
B. LIST OF SUBCONTRACTORS (TRADE, COMPANY NAME, CONTACT NAME, PHONE NUMBER)

END OF SECTION - 017000

SECTION 017419 - CONSTRUCTION WASTE MANAGEMENT

PART 1 GENERAL

1.1 - SUMMARY
A. SECTION INCLUDES:
1. SPECIAL REQUIREMENTS FOR WASTE MANAGEMENT DURING DECONSTRUCTION, RENOVATION, AND CONSTRUCTION OPERATIONS.
2. PROTECT THE ENVIRONMENT, BOTH ON-SITE AND OFF-SITE, DURING DECONSTRUCTION, RENOVATION, AND CONSTRUCTION OPERATIONS.
3. PREVENT ENVIRONMENTAL POLLUTION AND DAMAGE.
4. MAXIMIZE SOURCE REDUCTION, REUSE AND RECYCLING OF SOLID WASTE.
B. RELATED SECTIONS:
1. 018000 - SUSTAINABILITY
2. 019000 - COMMISSIONING / TURNOVER

1.2 - DEFINITIONS
A. DEFINITIONS PERTAINING TO SUSTAINABLE DEVELOPMENT: AS DEFINED IN ASTM E2114.
B. DECONSTRUCTION: DISASSEMBLY OF BUILDINGS FOR THE PURPOSE OF RECOVERING MATERIALS.

1.3 - QUALITY ASSURANCE
A. MAXIMIZE USE OF SOURCE REDUCTION AND RECYCLING PROCEDURES.
B. DIVERSION GOALS: DIVERT AT LEAST MINIMUM PERCENT BY WEIGHT OF TOTAL PROJECT SOLID WASTE TO BE DIVERTED FROM LANDFILL AS REQUIRED BY LOCAL CODE.

1.4 - PRECONSTRUCTION MEETING
A. SEE REQUIREMENTS PER SECTION 018113.1.4 - SUSTAINABILITY ADMINISTRATIVE REQUIREMENTS

1.5 - SUBMITTALS
A. SOLID WASTE MANAGEMENT PLAN: NOT LESS THAN 10 DAYS BEFORE THE PRE-CONSTRUCTION MEETING, PREPARE AND SUBMIT A SOLID WASTE MANAGEMENT PLAN INCLUDING, BUT NOT LIMITED TO, THE FOLLOWING:
1. LIST OF THE RECYCLING FACILITIES, REUSE FACILITIES, MUNICIPAL SOLID WASTE LANDFILLS AND OTHER DISPOSAL AREA(S) TO BE USED. INCLUDE:
a. NAME, LOCATION, AND PHONE NUMBER.
b. COPY OF PERMIT OR LICENSE FOR EACH FACILITY.
2. IDENTIFY MATERIALS THAT CANNOT BE RECYCLED OR REUSED. PROVIDE EXPLANATION OR JUSTIFICATION.
3. REVISE AND RESUBMIT PLAN AS REQUIRED BY OWNER.
4. APPROVAL OF CONTRACTOR'S PLAN WILL NOT RELIEVE THE CONTRACTOR OF RESPONSIBILITY FOR COMPLIANCE WITH APPLICABLE ENVIRONMENTAL REGULATIONS.
B. RECORD SUBMITTALS: WITH RECORD SUBMITTALS AS SPECIFIED IN SECTION 017000 - CLOSEOUT DOCUMENTS, SUBMIT THE FOLLOWING:
1. SUMMARY OF SOLID WASTE DISPOSAL AND DIVERSION, INCLUDE THE QUANTITY BY WEIGHT OF WASTE GENERATED; WASTE DIVERTED THROUGH SALE, REUSE, OR RECYCLING; AND WASTE DISPOSED BY LANDFILL OR INCINERATION. IDENTIFY LANDFILLS, RECYCLING CENTERS, WASTE PROCESSORS, AND OTHER ORGANIZATIONS THAT PROCESS OR RECEIVE THE SOLID WASTE.

PART 3 - EXECUTION

3.1 - SOLID WASTE MANAGEMENT
A. DEVELOP AND IMPLEMENT A WASTE MANAGEMENT PROGRAM IN ACCORDANCE WITH ASTM E1609 AND AS SPECIFIED HEREIN.
B. COLLECTION: IMPLEMENT A RECYCLING/REUSE PROGRAM THAT INCLUDES SEPARATE COLLECTION OF WASTE MATERIALS OF THE FOLLOWING TYPES AS APPROPRIATE TO THE PROJECT WASTE AND TO THE AVAILABLE RECYCLING AND REUSE PROGRAMS IN THE PROJECT AREA:
1. LAND CLEARING DEBRIS.
2. ASPHALT.
3. CONCRETE AND MASONRY.
4. METAL.
a. FERROUS
b. NON-FERROUS.
5. WOOD, NAILS AND STAPLES ALLOWED.
6. DEBRIS.
7. GLASS, COLORED GLASS ALLOWED.
8. PAPER.
a. BOND.
b. NEWSPRINT.
c. CARDBOARD AND PAPER PACKAGING MATERIALS.
9. PLASTIC
a. TYPE 1: POLYETHYLENE TEREPHTHALATE (PET, PETE).
b. TYPE 2: HIGH DENSITY POLYETHYLENE (HDPE).
c. TYPE 3: VINYL (POLYVINYL CHLORIDE OR PVC).
d. TYPE 4: LOW DENSITY POLYETHYLENE (LDPE).
e. TYPE 5: POLYPROPYLENE (PP).
f. TYPE 6: POLYSTYRENE (PS).
g. TYPE 7: OTHER. USE OF THIS CODE INDICATES THAT THE PACKAGE IN QUESTION IS MADE WITH A RESIN OTHER THAN THE SIX LISTED ABOVE, OR IS MADE OF MORE THAN ONE RESIN LISTED ABOVE, AND USED IN A MULTI-LAYER COMBINATION.
10. GYPSUM.
11. NON-HAZARDOUS PAINT AND PAINT CANS.
12. FLOORING.
a. CARPET.
b. RESILIENT FLOORING.
13. INSULATION.
14. CEILING TILES
15. OTHERS AS APPROPRIATE
C. RECYCLING/REUSE: MAXIMIZE RECYCLING AND REUSE OF MATERIALS.
1. RECYCLING/REUSE ON PROJECT SITE: COORDINATE WITH ARCHITECT.
2. RECYCLING/REUSE OFF PROJECT SITE: FOR MORE INFORMATION, CONTACT THE STATE DEPARTMENT OF ENVIRONMENTAL QUALITY AND THE LOCAL INTEGRATED SOLID WASTE MANAGEMENT OFFICE.
D. HANDLING:
1. CLEAN MATERIALS THAT ARE CONTAMINATED PRIOR TO PLACING IN COLLECTION CONTAINERS. DELIVER MATERIALS IN ACCORDANCE WITH RECYCLING OR REUSE FACILITY REQUIREMENTS (E.G., FREE OF DIRT, ADHESIVES, SOLVENTS, PETROLEUM CONTAMINATION, AND OTHER SUBSTANCES DELETERIOUS TO RECYCLING PROCESS).
2. ARRANGE FOR COLLECTION BY OR DELIVERY TO THE APPROPRIATE RECYCLING OR REUSE FACILITY.
3. HAZARDOUS WASTE AND HAZARDOUS MATERIALS: HANDLE IN ACCORDANCE WITH APPLICABLE REGULATIONS.

END OF SECTION - 017419

lululemon
1818 CORNWALL AVE.
VANCOUVER, B.C., V6J1C7

CF POLO PARK
1485 Portage Ave, Unit 144E
Winnipeg, MB
R3G 0W5
CRU NUMBER: 144E

Quadrangle
Quadrangle Architects Limited
The Well, 8 Spadina Avenue, Suite 2100, Toronto, ON M5V 0S8
t 416 598 1240 www.bdpquadrangle.com

ARCHITECT SEAL

ONTARIO ASSOCIATION OF ARCHITECTS
KIRTIDEV MEHTA
LICENCE
8099

ISSUED FOR CONSTRUCTION

07/14/2023

△	DATE	DESCRIPTION
	06/09/2023	PERMIT/CONSTRUCTION
	06/09/2023	ISSUED FOR BID
	07/14/2023	ISSUED FOR CONSTRUCTION

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SECTION 018000 - SUSTAINABILITY
SECTION 018113 - SUSTAINABILITY REQUIREMENTS (SUS)

PART 1 - GENERAL

1.1 - SUMMARY
A. THIS SECTION INCLUDES GENERAL REQUIREMENTS AND PROCEDURES FOR COMPLIANCE WITH CERTAIN LULULEMON SUSTAINABILITY AND ETHICAL POLICIES INCLUDING LULULEMON ATHLETICA VENDOR CODE OF ETHICS AS WELL AS THOSE REFERENCED IN THE 'KNOW THE CHAIN APPAREL AND FOOTWEAR BENCHMARK'.
B. THE CONTRACTOR WILL IMPLEMENT PRACTICES AND PROCEDURES TO MEET THE PROJECT'S SUSTAINABILITY REQUIREMENTS OR LOCAL REQUIREMENTS, WHICHEVER ARE MORE STRINGENT. ASSURE THAT ALL PROJECT TEAM MEMBERS ARE AWARE OF THE OWNER'S SUSTAINABILITY POLICIES AND COMPLY WITH DOCUMENTATION REQUIREMENTS.
C. THE CONTRACTOR AND SUBCONTRACTORS ARE REQUIRED TO FURNISH DOCUMENTATION TO MEET THE OWNER'S SUSTAINABILITY POLICIES. NOT PROVIDING THE NECESSARY DOCUMENTATION MAY LEAD TO A REQUEST FOR RE-SUBMITTAL. PERIODIC MEETINGS SHOULD BE CONDUCTED WITH PROJECT TEAM AND SUBCONTRACTORS TO ENSURE ALL UNDERSTAND THE DOCUMENTATION REQUIREMENTS, AND THAT THE APPROPRIATE DOCUMENTATION IS BEING COLLECTED.

1.2 - RELATED SECTIONS
RELATED SECTIONS INCLUDE THE FOLLOWING:
A. SECTION 017419 - CONSTRUCTION WASTE MANAGEMENT
B. SECTION 018113.1.5.0 – CONSTRUCTION INDOOR AIR QUALITY REQUIREMENTS
C. SECTION 019100 – COMMISSIONING REQUIREMENTS (TURNOVER)

1.3 - DEFINITIONS
A. **CDPH STANDARD METHOD V1.2 - 2017:** CALIFORNIA DEPARTMENT OF PUBLIC HEALTH (CDPH) STANDARD METHOD FOR THE TESTING AND EVALUATION OF VOLATILE ORGANIC CHEMICAL EMISSIONS FROM INDOOR SOURCES USING ENVIRONMENTAL CHAMBERS, V. 1.2–2017, FOR THE EMISSIONS TESTING AND REQUIREMENTS OF PRODUCTS AND MATERIALS.
B. **CHAIN-OF-CUSTODY CERTIFICATE:** A CERTIFICATE SIGNED BY MANUFACTURERS AND FABRICATORS CERTIFYING THAT WOOD USED TO MAKE PRODUCTS WAS OBTAINED FROM FORESTS CERTIFIED BY AN FSC-ACCREDITED CERTIFICATION BODY TO COMPLY WITH FSC STD-01-001.
C. **COMPOSITE WOOD AND AGRIFIBER:** PRODUCTS MADE OF WOOD PARTICLES AND/OR PLANT MATERIAL PRESSED AND BONDED WITH ADHESIVE OR RESIN SUCH AS PARTICLEBOARD, MEDIUM DENSITY FIBERBOARD (MDF), PLYWOOD, WHEATBOARD, STRAWBOARD, PANEL SUBSTRATES, AND DOOR CORES.
D. **CORPORATE SUSTAINABILITY REPORT:** A THIRD-PARTY VERIFIED REPORT THAT OUTLINES THE ENVIRONMENTAL IMPACTS OF EXTRACTION OPERATIONS AND ACTIVITIES ASSOCIATED WITH THE MANUFACTURER'S PRODUCT AND THE PRODUCT'S SUPPLY CHAIN.
E. **ENVIRONMENTAL PRODUCT DECLARATION (EPD):** AN INDEPENDENTLY VERIFIED REPORT BASED ON LIFE-CYCLE ASSESSMENT STUDIES THAT HAVE BEEN CONDUCTED ACCORDING TO A SET OF COMMON RULES FOR EACH PRODUCT CATEGORY AND PEER-REVIEWED.
F. **PRODUCT-SPECIFIC TYPE III EPD:** A PRODUCT WITH A THIRD-PARTY CERTIFICATION, INCLUDING EXTERNAL VERIFICATION, IN WHICH THE MANUFACTURER IS EXPLICATED RECOGNIZED BY THE PROGRAM OPERATOR. EPD MUST CONFORM TO ISO 14025, 14040, 14044, AND EN 15804 OR ISO 21930 AND HAVE AT LEAST A CRADLE TO GATE SCOPE.
G. **INDUSTRY-WIDE (GENERIC) EPD:** PROVIDE PRODUCTS WITH THIRD-PARTY CERTIFICATION (TYPE III), INCLUDING EXTERNAL VERIFICATION, IN WHICH THE MANUFACTURER IS EXPLICITLY RECOGNIZED AS A PARTICIPANT BY THE PROGRAM OPERATOR. EPD MUST CONFORM TO ISO 14025, 14040, 14044, AND EN 15804 OR ISO 21930 AND HAVE AT LEAST A CRADLE TO GATE SCOPE.
H. **PRODUCT-SPECIFIC DECLARATION:** A PRODUCT WITH A PUBLICLY AVAILABLE, CRITICALLY REVIEWED LIFE-CYCLE ASSESSMENT CONFORMING TO ISO 14044 THAT HAS AT LEAST A CRADLE TO GATE SCOPE.
I. **EXTENDED PRODUCER RESPONSIBILITY (EPR):** MEASURES UNDERTAKEN BY THE MAKER OF A PRODUCT TO ACCEPT ITS OWN AND SOMETIMES OTHER MANUFACTURERS' PRODUCTS AS POSTCONSUMER WASTE AT THE END OF THE PRODUCTS' USEFUL LIFE. PRODUCERS RECOVER AND RECYCLE THE MATERIALS FOR USE IN NEW PRODUCTS OF THE SAME TYPE. TO COUNT TOWARD CREDIT COMPLIANCE, A PROGRAM MUST BE WIDELY AVAILABLE. FOR CARPET, EXTENDED PRODUCER RESPONSIBILITY MUST BE CONSISTENT WITH NSF/ANSI 140–2007. ALSO KNOWN AS CLOSED-LOOP PROGRAM OR PRODUCT TAKE-BACK.
J. **FURNITURE EVALUATION:** FURNITURE TESTED IN ACCORDANCE WITH ANSI/BIFMA STANDARD METHOD M7.1-2011 USING THE OPEN PLAN, PRIVATE OFFICE, OR SEATING SCENARIO, AS APPLICABLE AND COMPLY WITH ANSI/BIFMA E3-2011 FURNITURE SUSTAINABILITY STANDARD, SECTIONS 7.6.1 AND 7.6.2, USING EITHER THE CONCENTRATION MODELING APPROACH OR THE EMISSIONS FACTOR APPROACH.
K. **HEALTH PRODUCT DECLARATION OPEN STANDARD (HPD):** A STANDARD FORMAT FOR REPORTING PRODUCT CONTENT AND ASSOCIATED HEALTH INFORMATION FOR BUILDING PRODUCTS AND MATERIALS. MANUFACTURERS THAT USE HPDS MUST PROVIDE THE FOLLOWING INFORMATION FOR EVERY INGREDIENT, NOT JUST THOSE WHOSE NAMES HAVE BEEN WITHHELD:
1. ROLE OR FUNCTION IN THE PRODUCT
2. AMOUNT, AS A PERCENTAGE OF TOTAL PRODUCT CONTENT OR PPM, AND
3. ANY POTENTIAL HEALTH HAZARDS ASSOCIATED WITH THE INGREDIENTS AS DEFINED IN AUTHORITATIVE HAZARD LISTS FROM GREENSCREEN
L. **INDOOR AIR QUALITY (IAQ) MANAGEMENT PLAN:** PLAN DEVELOPED BY THE CONTRACTOR TO PROVIDE A HEALTHY INDOOR ENVIRONMENT FOR WORKERS AND BUILDING OCCUPANTS DURING CONSTRUCTION. PLAN MUST MEET OR EXCEED THE RECOMMENDATIONS OF THE SHEET METAL AND AIR CONDITIONING CONTRACTORS NATIONAL ASSOCIATION (SMACNA): "IAQ GUIDELINES FOR OCCUPIED BUILDINGS UNDER CONSTRUCTION."
M. **LEADERSHIP EXTRACTION PRACTICES:** PRODUCTS THAT MEET AT LEAST ONE OF THE FOLLOWING RESPONSIBLE EXTRACTION CRITERIA:
1. EXTENDED PRODUCER RESPONSIBILITY
2. BIO-BASED MATERIALS
3. FSC WOOD PRODUCTS
4. MATERIALS REUSE
5. RECYCLED CONTENT
6. REGIONALLY SOURCED MATERIALS
N. **MULTI-ATTRIBUTE OPTIMIZATION:** THIRD PARTY CERTIFIED PRODUCTS THAT DEMONSTRATE IMPACT REDUCTION BELOW INDUSTRY AVERAGE IN AT LEAST THREE (3) OF THE FOLLOWING SIX (6) CATEGORIES:
1. GLOBAL WARMING POTENTIAL
2. STRATOSPHERIC OZONE DEPLETION
3. ACIDIFICATION
4. EUTROPHICATION
5. TROPOSPHERIC OZONE CREATION
6. NONRENEWABLE RESOURCE DEPLETION
O. **RECYCLED CONTENT:** RECYCLED CONTENT IS THE SUM OF POSTCONSUMER RECYCLED CONTENT PLUS ONE-HALF THE PRECONSUMER RECYCLED CONTENT, BASED ON COST.
P. **"POSTCONSUMER" MATERIAL:** WASTE MATERIAL GENERATED BY HOUSEHOLDS OR BY COMMERCIAL, INDUSTRIAL, AND INSTITUTIONAL FACILITIES IN THEIR ROLE AS END USERS OF THE PRODUCT, WHICH CAN NO LONGER BE USED FOR ITS INTENDED PURPOSE.
Q. **"PRECONSUMER" MATERIAL:** MATERIAL DIVERTED FROM THE WASTE STREAM DURING THE MANUFACTURING PROCESS. EXCLUDED IS RE-UTILIZATION OF MATERIALS, SUCH AS REWORK, REGRIND, OR SCRAP, GENERATED IN A PROCESS AND CAPABLE OF BEING RECLAIMED WITHIN THE SAME PROCESS THAT GENERATED IT. SCRAPS, SPILLS OR OTHER WASTE FROM THE ORIGINAL MANUFACTURING PROCESS THAT ARE COMBINED WITH OTHER CONSTITUENTS AFTER A MINIMAL AMOUNT OF REPROCESSING FOR USE IN THE FURTHER PRODUCTION OF THE SAME PRODUCT ARE NOT RECYCLED MATERIALS.
R. **SUSTAINABILITY PRODUCT DATA MATRIX:** TOOL TO IDENTIFY WHAT SUSTAINABILITY CRITERIA IS PREFERRED AND ALTERNATE FOR GENERAL CONTRACTOR MATERIAL PURCHASES, INCLUDING A SUBMITTAL SHEET TO BE COMPLETED IDENTIFYING APPLICABLE SUSTAINABILITY CRITERIA
S. **VOLATILE ORGANIC COMPOUNDS (VOC) CONTENT:** REFERS TO VOCS FOUND IN ON-SITE WET-APPLIED PRODUCTS INCLUDING ADHESIVES, SEALANTS, PAINTS AND COATINGS WHICH MUST MEET APPLICABLE VOC REGULATIONS.
T. **VOLATILE ORGANIC COMPOUNDS (VOC) EMISSIONS:** REFER TO CDPH STANDARD METHOD V1.2 - 2017 DEFINITION.

1.4 - ADMINISTRATIVE REQUIREMENTS
A. PROVIDE MATERIALS AND PROCEDURES NECESSARY TO SUSTAINABILITY GOALS REQUIRED IN THIS SECTION.
B. RESPOND TO QUESTIONS AND REQUESTS FOR ADDITIONAL INFORMATION FROM ARCHITECT AND OWNER.
C. SCHEDULE AND CONDUCT A CONFERENCE AT A TIME CONVENIENT TO OWNER'S PROJECT MANAGER AND ARCHITECT WITHIN **21 DAYS** PRIOR TO COMMENCEMENT OF THE WORK. ADVISE ARCHITECT, GENERAL CONTRACTOR, OWNER'S COMMISSIONING AUTHORITY (IF APPLICABLE), AND OWNER'S PROJECT MANAGER OF SCHEDULED MEETING DATES.
1. ATTENDEES: AUTHORIZED REPRESENTATIVES OF OWNER, OWNER'S COMMISSIONING AUTHORITY (IF APPLICABLE), OWNER'S PROJECT MANAGER, ARCHITECT, AND THEIR CONSULTANTS; GENERAL CONTRACTOR AND ITS SUPERINTENDENT; MAJOR SUBCONTRACTORS; SUPPLIERS; AND OTHER CONCERNED PARTIES SHALL ATTEND THE CONFERENCE. PARTICIPANTS AT THE CONFERENCE SHALL BE FAMILIAR WITH PROJECT AND AUTHORIZED TO CONCLUDE MATTERS RELATING TO THE WORK.
2. AGENDA: SUSTAINABILITY GOALS FOR THE PROJECT, CONTRACTOR'S ACTION PLANS, AND DISCUSSION OF DESIRED SUSTAINABILITY SUBMITTALS.
3. MINUTES: RECORD AND DISTRIBUTE MINUTES TO ATTENDEES AND OTHER ENTITIES WITH RESPONSIBILITIES FOR MEETING SUSTAINABILITY GOALS.

1.5 - SUBMITTALS
A. **GENERAL**: SUBMIT ADDITIONAL SUSTAINABILITY RELATED SUBMITTALS INCLUDED IN OTHER SECTIONS OF THE SPECIFICATIONS.
1. SUSTAINABILITY SUBMITTALS MAY BE SUBMITTED SIMULTANEOUSLY WITH PRODUCT DATA SUBMITTALS. INCLUDE DOCUMENTATION TO VERIFY COMPLIANCE WITH INDICATED SUSTAINABILITY REQUIREMENTS.
B. **SUSTAINABILITY PRODUCT DATA MATRIX**: REFER TO THE PRODUCT DATA MATRIX TO DETERMINE WHICH SUSTAINABILITY CRITERIA APPLIES TO A MATERIAL. SUSTAINABILITY CRITERIA IS IDENTIFIED BY PRODUCT/MATERIAL TYPE AND INCLUDE A PREFERRED AND ALTERNATE LISTING.
C. **SUSTAINABILITY PRODUCT DATA SUBMITTAL FORM**: PROJECT SUBMITTALS MUST BE ACCOMPANIED BY A COMPLETED MATRIX AND HIGHLIGHTED MANUFACTURER DOCUMENTATION SUPPORTING THE SUSTAINABILITY CLAIMS MADE.
D. **PROVIDE LOCATION AND DISTANCE FROM PROJECT OF MATERIAL MANUFACTURER AND POINT OF EXTRACTION, HARVEST, OR RECOVERY FOR EACH RAW MATERIAL**.
E. **SUSTAINABILITY PLANS**: SUBMIT THE FOLLOWING PLANS WITHIN **FOURTEEN** DAYS OF DATE ESTABLISHED FROM [**THE NOTICE OF AWARD**]:
1. CONSTRUCTION WASTE MANAGEMENT PLAN
2. PROVIDE CONSTRUCTION INDOOR AIR QUALITY (IAQ) MANAGEMENT PLAN
3. SUSTAINABILITY PROGRESS REPORTS: SUBMIT REPORTS SUMMARIZING PROGRESS IN CONSTRUCTION ACTIVITIES RELATED TO THE AFOREMENTIONED PLANS ON TWO SEPARATE OCCASIONS DURING CONSTRUCTION
F. **SUSTAINABILITY DOCUMENTATION SUBMITTALS:** FOR EACH SECTION OF THE SPECIFICATION, SUBMIT THE FOLLOWING FOR EACH APPLICABLE SUSTAINABILITY GOAL.
1. INDOOR WATER USE REDUCTION - PROVIDE THE FOLLOWING:
• CUT SHEETS FOR ALL TOILETS (WATER CLOSETS), URINALS, PUBLIC AND PRIVATE LAVATORY FAUCETS, KITCHEN FAUCETS, AND SHOWERHEADS INDICATING FLOW RATES (GALLONS/MINUTE) AND FLUSH VOLUMES (GALLONS/FLUSH).
• PRODUCT DATA DEMONSTRATING PRODUCT MEETS THE EPA WATERSENSE LABEL FOR ALL TOILETS (WATER CLOSETS), URINALS, AND SHOWERHEADS.
• PRODUCT DATA FOR APPLIANCES INCLUDING DISHWASHERS DEMONSTRATING THE PRODUCT MEETS ENERGY STAR OR PERFORMANCE EQUIVALENT
G. **ENVIRONMENTAL PRODUCT DECLARATIONS (EPD)**: PROVIDE MANUFACTURER AND PRODUCT INFORMATION FOR ALL REQUIRED MATERIALS:
1. PREFERRED: PROVIDE PRODUCT EPD FORM.
H. **SOURCING OF RAW MATERIALS**: PROVIDE MANUFACTURER AND PRODUCT INFORMATION FOR ALL REQUIRED MATERIALS:
1. PREFERRED: PROVIDE CURRENT CORPORATE SUSTAINABILITY REPORTS (CSR).
2. ALTERNATE: PROVIDE MANUFACTURER AND PRODUCT INFORMATION THAT MEETS ONE OF THE FOLLOWING EXTRACTION CRITERIA.
a. EXTENDED PRODUCER RESPONSIBILITY: PRODUCTS PURCHASED FROM A MANUFACTURER (PRODUCER) THAT PARTICIPATES IN AN EXTENDED PRODUCER RESPONSIBILITY PROGRAM OR IS DIRECTLY RESPONSIBLE FOR EXTENDED PRODUCER RESPONSIBILITY.
b. WOOD PRODUCTS: FOREST STEWARDSHIP COUNCIL (FSC) FOR CERTIFIED WOOD PRODUCTS. PRODUCT DATA AND CHAIN-OF-CUSTODY CERTIFICATES FOR PRODUCTS CONTAINING CERTIFIED WOOD. INCLUDE STATEMENT INDICATING COST FOR EACH CERTIFIED WOOD PRODUCT.
c. RECYCLED CONTENT: PROVIDE DOCUMENTATION OR POST CONSUMER (PC%) AND PRE-CONSUMER/POST INDUSTRIAL (PI%) RECYCLED CONTENT.
I. **MATERIAL INGREDIENTS**: PROVIDE MANUFACTURER AND PRODUCT INFORMATION FOR ALL REQUIRED MATERIALS:
1. PREFERRED: PROVIDE CURRENT HEALTH PRODUCT DECLARATION (HPD).
2. ALTERNATE: PROVIDE MANUFACTURER AND PRODUCT INFORMATION THAT COMPLIES WITH ONE OF THE FOLLOWING:
a. A PUBLICLY AVAILABLE INVENTORY OF ALL INGREDIENTS IDENTIFIED BY NAME AND CHEMICAL ABSTRACT SERVICE REGISTRATION NUMBER (CASRN)
b. CRADLE TO CRADLE
c. GREEN SCREEN V1.2 BENCHMARK
d. DECLARE PRODUCT LABELS
e. ANSI/BIFMA E3 FURNITURE SUSTAINABILITY STANDARD
f. PRODUCT LENS CERTIFICATION
g. REACH OPTIMIZATIONS
h. MANUFACTURERS WITH SUPPLY CHAIN OPTIMIZATION REPORTS
J. **CONSTRUCTION WASTE MANAGEMENT PLAN:**
A. PROVIDE CONSTRUCTION WASTE MANAGEMENT PLAN
B. PROVIDE IMAGES OF ON-SITE WASTE CONTAINERS AND APPLICABLE SIGNAGE.
C. PROVIDE FINAL WASTE HAUL DIVERSION REPORT FOR ALL WASTE REMOVED FROM THE PROJECT SITE AND DOCUMENTATION OF RECYCLING RECOVERY RATE FOR OFF-SITE SORTING FACILITIES (IF WASTE IS COMMINGLED).
K. **ENHANCED INDOOR AIR QUALITY STRATEGIES:**
1. PROVIDE CUT SHEET OF PERMANENT ENTRY WAY SYSTEMS (WALK-OFF MATS).
2. PROVIDE CUT SHEETS INDICATING MERV VALUES FOR FILTRATION MEDIA USED DURING CONSTRUCTION.
L. **LOW-EMITTING MATERIALS:**
1. PAINTS, COATINGS, ADHESIVES AND SEALANTS:
A. PREFERRED: SUBMIT GENERAL EMISSIONS EVALUATION USING CALIFORNIA DEPARTMENT OF PUBLIC HEALTH (CDPH) STANDARD METHOD V1.2 - 2017 FOR VOC EMISSIONS THROUGH ONE OF THE CERTIFICATIONS LISTED BELOW. MANUFACTURERS' CLAIMS OF COMPLIANCE FOR LEED DOCUMENTATION MUST STATE THE EXPOSURE SCENARIO USED AND MUST ALSO STATE THE RANGE OF TOTAL VOCS AFTER 14 DAYS (336 HOURS), MEASURED AS SPECIFIED IN THE CDPH STANDARD METHOD V1.2 - 2017. LOW-EMITTING MATERIALS THIRD PARTY CERTIFICATIONS AND LABELS MAY INCLUDE:
• INTERTEK ETL ENVIRONMENTAL VOC+
• MAS CERTIFIED GREEN
• SCS INDOOR ADVANTAGE GOLD
• UL GREENGUARD GOLD OR OTHER LEVEL
• BERKELEY ANALYTICAL CLEARCHEM
• COLLABORATIVE FOR HIGH PERFORMANCE SCHOOLS (CHPS)
B. PREFERRED: PRODUCT DATA AND MATERIAL SAFETY DATA SHEETS (MSDS) FOR ALL PAINTS, COATINGS, ADHESIVES AND SEALANTS USED INSIDE THE BUILDING'S MOISTURE BARRIER INDICATING THE VOLATILE ORGANIC COMPOUND (VOC) CONTENT OF EACH PRODUCT IN GRAMS PER LITER (G/L).
C. ADHESIVES AND SEALANTS USED ON THE INTERIOR OF THE BUILDING DURING CONSTRUCTION SHALL COMPLY WITH THE VOC LIMITS OF THE SOUTH COAST RULE #1168 BY THE SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT, AS AMENDED OCTOBER 6, 2017.
D. ALL PAINTS AND COATINGS WET-APPLIED ON SITE MUST MEET THE APPLICABLE VOC LIMITS OF THE CALIFORNIA AIR RESOURCES BOARD (CARB) 2020, SUGGESTED CONTROL MEASURE (SCM) FOR ARCHITECTURAL COATINGS, OR THE SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT (SCAQMD) RULE 1113 AS AMENDED FEBRUARY 5, 2016. SEE SECTION 2.1 SUMMARY OF REFERENCED STANDARDS.
2. FLOORING SYSTEMS:
a. PREFERRED: SUBMIT GENERAL EMISSIONS EVALUATION USING CALIFORNIA DEPARTMENT OF PUBLIC HEALTH (CDPH) STANDARD METHOD V1.2 - 2017 FOR VOC EMISSIONS THROUGH ONE OF THE FOLLOWING CRITERIA:
• FLOORSCORE
• GREEN LABEL PLUS
• NSF/ ANSI 332-2015
• COLLABORATIVE FOR HIGH PERFORMANCE SCHOOLS (CHPS)
3. COMPOSITE WOOD:
PREFERRED: SUBMIT DOCUMENTATION SHOWING COMPLIANCE WITH CALIFORNIA AIR RESOURCES BOARD (CARB) 93120 AIRBORNE TOXIC CONTROL MEASURE (ATCM) FOR ULTRA-LOW EMITTING FORMALDEHYDE RESINS, NO ADDED FORMALDEHYDE, OR NO ADDED UREA FORMALDEHYDE FROM COMPOSITE WOOD PRODUCTS.
ALTERNATE: SUBMIT DOCUMENTATION SHOWING COMPLIANCE WITH ULTRA-LOW EMITTING FORMALDEHYDE RESINS, NO ADDED FORMALDEHYDE, OR NO ADDED UREA FORMALDEHYDE FROM COMPOSITE WOOD PRODUCTS.
1. CEILING SYSTEMS, INTERIOR WALL SYSTEMS, THERMAL INSULATION AND ACOUSTIC INSULATION.
PREFERRED: SUBMIT GENERAL EMISSIONS EVALUATION USING CALIFORNIA DEPARTMENT OF PUBLIC HEALTH (CDPH) STANDARD METHOD V1.2-2017 FOR VOC EMISSIONS THROUGH ONE OF THE FOLLOWING CRITERIA:
• INTERTEK ETL ENVIRONMENTAL VOC+
• MAS CERTIFIED GREEN
• SCS INDOOR ADVANTAGE GOLD
• UL GREENGUARD GOLD
• BERKELEY ANALYTICAL CLEARCHEM
• COLLABORATIVE FOR HIGH PERFORMING SCHOOLS (CHPS)
1. **FURNITURE**
A. PREFERRED: SUBMIT GENERAL EMISSIONS EVALUATIONS MEETING THROUGH ONE OF THE FOLLOWING CRITERIA:
• ANSI/BIFMA E3-2011 FURNITURE SUSTAINABILITY STANDARD, SECTIONS 7.6.1 AND/OR 7.6.2
• INTERTEK ETL ENVIRONMENTAL VOC OR VOC+
• MAS CERTIFIED GREEN
• SCS INDOOR ADVANTAGE OR GOLD – FURNITURE
• UL GREENGUARD GOLD
B. ALTERNATE: SUBMIT DOCUMENTATION SHOWING COMPLIANCE WITH ULTRA-LOW EMITTING FORMALDEHYDE RESINS, NO ADDED FORMALDEHYDE, OR NO ADDED UREA FORMALDEHYDE FROM COMPOSITE WOOD PRODUCTS
2. **CONSTRUCTION IAQ MANAGEMENT PLAN:**
1. PROVIDE CONSTRUCTION INDOOR AIR QUALITY (IAQ) MANAGEMENT PLAN THAT COMPLIES WITH THE SMACNA IAQ GUIDELINES FOR OCCUPIED BUILDINGS UNDER CONSTRUCTION, 2ND EDITION, 2007, ANSI/SMACNA 008–2008, CHAPTER 3.
2. PHOTOGRAPHS HIGHLIGHTING THE IAQ MANAGEMENT PLAN PRACTICES, LABELED TO IDENTIFY THE HIGHLIGHTED APPROACH. AT LEAST 12 PHOTOGRAPHS – SIX PHOTOGRAPHS TAKEN ON TWO SEPARATE OCCASIONS DURING CONSTRUCTION DEMONSTRATING ALL OF THE FOLLOWING ITEMS:
a. PROTECTION OF ABSORPTIVE MATERIALS DURING CONSTRUCTION
b. HVAC PROTECTION
c. SOURCE CONTROL
d. PATHWAY INTERRUPTION
e. HOUSEKEEPING
f. SCHEDULING
3. PROVIDE PHOTOS OF SIGNAGE DEMONSTRATING THE PROHIBITION OF ALL TOBACCO PRODUCTS INSIDE OF THE BUILDING AND WITHIN 25 FEET OF ALL STORE ENTRIES DURING CONSTRUCTION.
3. **INDOOR AIR QUALITY - FLUSH OUT REPORT:**
1. FLUSH-OUT, BEFORE OCCUPANCY: COMPLETE A BUILDING FLUSH OUT FOR 24 HOURS AND PROVIDE A NARRATIVE OUTLINING THE BUILDING FLUSH-OUT PROCEDURES, INCLUDING ALL OF THE FOLLOWING:
a. CONFIRMATION THAT ALL INTERIOR FINISHES, SUCH AS MILLWORK, DOORS, PAINT, CARPET, ACOUSTIC TILES, AND MOVABLE FURNISHINGS WERE INSTALLED AND MAJOR PUNCH LIST ITEMS WERE COMPLETED BEFORE THE FLUSH-OUT BEGAN.
b. FILTER LOG DEMONSTRATING NEW FILTERS ON THE AHU WERE INSTALLED BEFORE THE FLUSH-OUT BEGAN AND AFTER THE FLUSH-OUT/BEFORE OCCUPANCY. PROVIDE CUTSHEETS OF THE FILTRATION MEDIA USED.
c. DESCRIBE THE FLUSH-OUT PROCEDURE. INCLUDE THE FLUSH-OUT DATE(S), OUTDOOR AIR DELIVERY RATES, INTERNAL TEMPERATURE AND RELATIVE HUMIDITY.

PART 2 - PRODUCTS

2.1 - SUMMARY OF REFERENCED STANDARDS
REFERENCED STANDARDS FOR SUSTAINABILITY GOALS ARE AS FOLLOWS
(OR PER LOCAL REQUIREMENTS, WHICHEVER IS STRICTER):
A. **WATER USE REDUCTION:**
1. PLUMBING FIXTURES MUST NOT EXCEED THE FOLLOWING RATES, WHEN PRACTICAL:
• LOW-FLOW TOILET (≤ 1.28 GPF)
• LOW-FLOW URINAL (≤ 0.125 GPF)
• LOW-FLOW SHOWERHEAD (≤ 1.0 GPM)
• AERATORS ON LAVATORIES (≤0.5 GPM)
• AERATORS ON KITCHEN SINKS (≤1.0 GPM)
2. PLUMBING FIXTURES MUST HAVE A EPA WATER SENSE LABEL, WHEN PRACTICAL
B. **LOW EMITTING MATERIALS:** GENERAL EMISSIONS EVALUATION USING CALIFORNIA DEPARTMENT OF PUBLIC HEALTH (CDPH) STANDARD METHOD V1.2 - 2017 FOR VOC EMISSIONS:
1. VOC LIMITS IN GRAMS PER LITER FOR ADHESIVES AND SEALANTS USED ON INTERIOR OF BUILDING SHALL COMPLY WITH THE FOLLOWING:
• SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT RULE #1168, AS AMENDED OCTOBER 6, 2017. (HTTP://WWW.AQMD.GOV/DOCS/DEFAULT-SOURCE/RULE-BOOK/REG-XI/RULE-1168.PDF?SFVRSN=4).
2. THE GREEN SEAL STANDARD FOR COMMERCIAL ADHESIVES GS-36 V2.1 REQUIREMENTS DATED JULY 12, 2013 AND RULE AMENDMENT DATE OF APRIL 30, 2021. (HTTPS://GREENSEAL.ORG/STANDARDS/GS-36-ADHESIVES-FOR-COMMERCIAL-USE/)
3. VOC LIMITS IN GRAMS PER LITER FOR PAINTS AND ANTI-CORROSIVE PAINTS INCLUDING CLEAR WOOD FINISHES, FLOOR COATINGS, STAINS, SEALERS, AND SHELLACS APPLIED TO INTERIOR ELEMENTS AND ANTI-CORROSIVE PAINTS APPLIED TO INTERIOR FERROUS METAL DURING CONSTRUCTION SHALL COMPLY WITH THE FOLLOWING:
4. THE SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT (SCAQMD) RULE 1113, ARCHITECTURAL COATINGS, AS AMENDED FEBRUARY 5, 2016. (HTTP://WWW.AQMD.GOV/DOCS/DEFAULT-SOURCE/RULE-BOOK/REG-XI/R1113.PDF?SFVRSN=24)
• THE GREEN SEAL STANDARD FOR PAINTS, COATINGS, STAINS, AND SEALERS GS-11 V 4.0, DATED SEPTEMBER 7, 2021. THE GREEN SEAL STANDARD IS INTENDED FOR PAINTS AND ANTI-CORROSIVE PAINTS. BOTH INTERIOR AND EXTERIOR PAINTS ARE ADDRESSED BY THE STANDARD, BUT ONLY LIMITS FOR INTERIOR PAINTS APPLY TO AN INTERIOR PROJECT. (HTTPS://GREENSEAL.ORG/WP-CONTENT/UPLOADS/GS-11-STANDARD-ED-4.0_04.2022.PDF)

SECTION 01.90.0 - COMMISSIONING / TURNOVER
01.91.0 REQUIREMENTS

SECTION 019100 – COMMISSIONING REQUIREMENTS (CX)

PART 1 - GENERAL

1.1 - GENERAL
A. COMMISSIONING (CX) IS A COMPREHENSIVE AND SYSTEMATIC QUALITY ASSURANCE PROCESS TO VERIFY THAT THE BUILDING'S ENERGY RELATED SYSTEMS ARE INSTALLED, CALIBRATED, AND PERFORM PER THE OWNER'S PROJECT REQUIREMENTS (OPR), ENGINEER'S BASIS OF DESIGN (BOD), AND CONSTRUCTION DOCUMENTS.
B. THE INTENT OF THE COMMISSIONING PROCESS IS TO SUPPORT THE DESIGN, CONSTRUCTION, AND EVENTUAL OPERATION OF THE PROJECT THAT MEETS THE OWNER'S PROJECT REQUIREMENTS FOR ENERGY, WATER, INDOOR ENVIRONMENTAL QUALITY AND DURABILITY. THIS IS ACCOMPLISHED WITH THE FOLLOWING ACTIVITIES:
1. DEVELOP THE OWNER'S PROJECT REQUIREMENTS (OPR)
2. DEVELOP THE BASIS OF DESIGN (BOD)
3. DEVELOP A COMMISSIONING PLAN
4. COMMISSIONING FOCUSED REVIEW OF THE OPR, BOD AND DESIGN DOCUMENTS
5. CONDUCTING COMMISSIONING MEETINGS
6. COMMISSIONING FOCUSED REVIEW OF CONTRACTOR SUBMITTALS
7. DEVELOPING AND CONDUCTING PREFUNCTIONAL/START-UP CHECKS AND TESTS
8. DEVELOPING AND EXECUTING FUNCTIONAL ACCEPTANCE TESTS
9. DOCUMENTING FINDINGS AND MAINTAINING A COMMISSIONING OBSERVATIONS LOG
10. TRAINING THE OWNER'S STAFF
11. PREPARING A SUMMARY COMMISSIONING REPORT
12. COMPILING CURRENT FACILITY REQUIREMENTS AND AN OPERATIONS AND MAINTENANCE PLAN
13. DEVELOPING AND COMPILING A SYSTEMS MANUAL
14. DEVELOPING AN ONGOING COMMISSIONING PLAN
C. CONDUCTING SEASONAL TESTING IF REQUIRED AND CONDUCTING A REVIEW OF BUILDING OPERATIONS WITHIN 10-MONTHS OF SUBSTANTIAL COMPLETION
D. THE COMMISSIONING PROCESS DOES NOT TAKE AWAY FROM OR REDUCE THE RESPONSIBILITY OF THE SYSTEM DESIGNERS OR INSTALLING CONTRACTORS TO PROVIDE A FINISHED AND FULLY FUNCTIONING PRODUCT.
E. COMMISSIONING PROCESS ACTIVITIES SHALL BE COMPLETED FOR THE FOLLOWING BUILDING ENERGY SYSTEMS (AS APPLICABLE):
1. MECHANICAL, INCLUDING HVAC AND R EQUIPMENT AND CONTROLS
2. PLUMBING, INCLUDING DOMESTIC HOT WATER SYSTEMS, PUMPS, AND CONTROLS
3. ELECTRICAL, INCLUDING SERVICE, DISTRIBUTION, LIGHTING, AND CONTROLS, INCLUDING DAYLIGHTING CONTROLS
4. RENEWABLE ENERGY SYSTEMS DEDICATED TO THE PROJECT SPACE

DIVISION 01, GENERAL REQUIREMENTS, ARE HEREBY MADE A PART OF THIS SECTION AS IF FULLY REPEATED HEREIN

1.2 - COORDINATION
A. **COMMISSIONING TEAM (ABBREVIATION):**
1. ARCHITECT AND DESIGN ENGINEERS – DESIGN TEAM (A/E)
2. CONTROLS CONTRACTOR (CC)
3. COMMISSIONING AUTHORITY (CXA)
4. DESIGN BUILD CONTRACTORS (DBC)
5. ELECTRICAL CONTRACTOR (EC)
6. GENERAL CONTRACTOR (GC)
7. MECHANICAL, ELECTRICAL AND PLUMBING CONTRACTORS (MEP)
8. OWNER / OWNER'S TECHNICAL STAFF (LLL)
9. OWNER'S DESIGNATED PROJECT MANAGER (PM)
10. TEST AND BALANCE CONTRACTOR (TAB)
B. **CXA QUALIFICATIONS**: BY THE END OF THE DESIGN DEVELOPMENT PHASE, ENGAGE A COMMISSIONING AUTHORITY WITH THE FOLLOWING QUALIFICATIONS:
1. THE CXA MUST HAVE DOCUMENTED COMMISSIONING PROCESS EXPERIENCE ON AT LEAST TWO BUILDING PROJECTS WITH A SIMILAR SCOPE OF WORK. THE EXPERIENCE MUST EXTEND FROM EARLY DESIGN PHASE THROUGH AT LEAST 10 MONTHS OF OCCUPANCY.
2. THE CXA MAY NOT BE AN EMPLOYEE OF THE DESIGN OR CONSTRUCTION FIRM NOR A SUBCONTRACTOR TO THE CONSTRUCTION FIRM.
C. **MANAGEMENT:** THE CXA IS HIRED BY THE OWNER OR THE OWNER'S REPRESENTATIVE. THE CXA DIRECTS AND COORDINATES THE COMMISSIONING ACTIVITIES. ALL MEMBERS WORK TOGETHER TO FULFILL THEIR CONTRACTED RESPONSIBILITIES AND MEET THE OBJECTIVES OF THE CONTRACT DOCUMENTS. THE CXA'S RESPONSIBILITIES ARE THE SAME REGARDLESS OF WHO HIRED THE CXA.
D. **SCHEDULING:** THE CXA WILL WORK WITH AND PROVIDE SUFFICIENT NOTICE TO THE PM AND GC TO SCHEDULE COMMISSIONING ACTIVITIES. THE GC WILL INTEGRATE ALL COMMISSIONING ACTIVITIES INTO THE MASTER SCHEDULE. ALL PARTIES WILL ADDRESS SCHEDULING ON AN ONGOING BASIS AND MAKE NECESSARY NOTIFICATIONS IN A TIMELY MANNER TO EXPEDITE THE COMMISSIONING PROCESS.

1.3 - RELATED WORK
RELATED SPECIFICATION SECTIONS, DRAWINGS OF THE CONTRACT, INCLUDING SUPPLEMENTARY CONDITIONS, AND OTHER DIVISION / SPECIFICATION, APPLY TO THE WORK OF THIS SECTION.

1.4 - COMMISSIONING PROCESS
COMMISSIONING DURING DESIGN, CONSTRUCTION, ACCEPTANCE, AND WARRANTY PHASES IS INTENDED TO ACHIEVE THE FOLLOWING OBJECTIVES:
A. VERIFY AND DOCUMENT EQUIPMENT AND SYSTEMS ARE INSTALLED AND STARTED PER MANUFACTURER'S RECOMMENDATIONS AND TO INDUSTRY ACCEPTED MINIMUM STANDARDS.
B. VERIFY AND DOCUMENT EQUIPMENT AND SYSTEMS RECEIVE COMPLETE OPERATIONAL CHECKOUT BY INSTALLING CONTRACTORS.
C. VERIFY AND DOCUMENT EQUIPMENT AND SYSTEM PERFORMANCE.

1.5 - COMMISSIONING TEAM RESPONSIBILITIES
THE RESPONSIBILITIES OF VARIOUS PARTIES IN THE COMMISSIONING PROCESS ARE PROVIDED IN THIS SECTION TO CLARIFY THE COMMISSIONING PROCESS. IT IS NOTED THAT THE SERVICES FOR THE PROJECT MANAGER, CONSTRUCTION MANAGER, ARCHITECT, MECHANICAL AND ELECTRICAL DESIGNERS/ENGINEERS ARE NOT PROVIDED FOR IN THIS CONTRACT (THE CONTRACTOR IS NOT RESPONSIBLE FOR PROVIDING THEIR SERVICES).
A. DESIGN TEAM (A/E) RESPONSIBILITIES (DESIGN, CONSTRUCTION, AND ACCEPTANCE PHASE):
1. ATTEND COMMISSIONING SCOPING MEETING, CONTROLS INTEGRATION MEETING AND ADDITIONAL MEETINGS, AS NECESSARY.
2. COMPLETE THE BASIS OF DESIGN (BOD) DOCUMENTATION, ASSIST WITH DEVELOPMENT OF THE OWNER'S PROJECT REQUIREMENTS (OPR) DOCUMENT AND SEQUENCE OF OPERATION DOCUMENTATION AS REQUIRED BY CXA.
3. PERFORM NORMAL SUBMITTAL REVIEW, CONSTRUCTION OBSERVATION, AS-BUILT DRAWING PREPARATION, ETC., AS CONTRACTED.
4. ASSIST IN RESOLUTION OF SYSTEM DEFICIENCIES IDENTIFIED DURING COMMISSIONING.
5. REVIEW AND APPROVE OPERATIONS AND MAINTENANCE MANUALS (O&M).
6. WARRANTY PERIOD: REFER TO SECTION 3.12, BUILDING OPERATIONS REVIEW
B. **COMMISSIONING AGENT (CXA) RESPONSIBILITIES (DESIGN, CONSTRUCTION, AND ACCEPTANCE PHASE):**
1. DEVELOP AND COORDINATE EXECUTION OF TESTING PLAN AND COMMISSIONING ACTIVITIES TO VERIFY AND DOCUMENT SYSTEMS ARE FUNCTIONING IN ACCORDANCE WITH DESIGN INTENT AND CONTRACT DOCUMENTS.
2. MAY ASSIST WITH PROBLEM-SOLVING OF DEFICIENCIES, BUT ULTIMATELY THAT RESPONSIBILITY LIES WITH THE CONTRACTORS AND DESIGN ENGINEER OF RECORD.
3. NOT RESPONSIBLE FOR DESIGN CONCEPT, DESIGN CRITERIA, CODE COMPLIANCE, GENERAL CONSTRUCTION SCHEDULING, COST ESTIMATING, OR CONSTRUCTION MANAGEMENT.
4. REVIEW THE OPR, BOD AND DESIGN DOCUMENTS
5. DEVELOP AND MAINTAIN A PROJECT COMMISSIONING PLAN AND CONDUCT A COMMISSIONING SCOPING MEETING AND OTHER COMMISSIONING MEETINGS.
6. ASSIST THE OWNER AND DESIGN TEAM WITH DEVELOPMENT OF TRAINING REQUIREMENTS FOR COMMISSIONED EQUIPMENT AND SYSTEMS.
7. COORDINATE THE COMMISSIONING WORK AND, WITH THE GC AND PM, ENSURE THAT COMMISSIONING ACTIVITIES ARE BEING SCHEDULED INTO THE MASTER SCHEDULE.
8. REQUEST AND REVIEW ADDITIONAL INFORMATION REQUIRED TO PERFORM COMMISSIONING TASKS, INCLUDING O&M MATERIALS, CONTRACTOR START-UP AND CHECKOUT PROCEDURES.
9. CONCURRENT WITH THE A/E REVIEWS, REVIEW CONTRACTOR SUBMITTALS OF SYSTEMS BEING COMMISSIONED FOR COMPLIANCE WITH COMMISSIONING PROCESS.
10. PERFORM SITE VISITS TO OBSERVE COMPONENT AND SYSTEM INSTALLATIONS.
11. ATTEND CONSTRUCTION JOB-SITE MEETINGS AS SCHEDULED BY THE GC OR REQUESTED BY THE OWNER TO MONITOR CONSTRUCTION AND COMMISSIONING PROGRESS.
12. DEVELOP START-UP AND INITIAL SYSTEMS CHECKOUT PLAN WITH SUBCONTRACTORS.
13. APPROVE SYSTEMS STARTUP BY REVIEWING START-UP REPORTS AND BY SELECTED SITE OBSERVATION.
14. REVIEW TAB EXECUTION PLAN.
15. OVERSEE SUFFICIENT FUNCTIONAL TESTING OF THE CONTROL SYSTEM AND APPROVE IT TO BE USED FOR TAB, BEFORE TAB IS EXECUTED.
16. WITH NECESSARY ASSISTANCE AND REVIEW FROM INSTALLING CONTRACTORS, WRITE THE FUNCTIONAL PERFORMANCE TEST PROCEDURES FOR EQUIPMENT AND SYSTEMS. SUBMIT TO PM FOR REVIEW, AND FOR APPROVAL IF REQUIRED.
17. COORDINATE, WITNESS, DOCUMENT AND APPROVE FUNCTIONAL PERFORMANCE TESTS PERFORMED BY INSTALLING CONTRACTORS. COORDINATE RETESTING AS NECESSARY.
18. WITH THE GC AND SUBCONTRACTORS, MAINTAIN MASTER DEFICIENCY AND RESOLUTION RECORD AND PROVIDE OWNER WITH WRITTEN PROGRESS REPORTS AND RECOMMENDED ACTIONS. ADDITIONAL COSTS TO OVERSEE, RETEST AND CORRECT DEFICIENCIES SHALL BE PAID BY THE GC.
19. REVIEW THE O&M MANUALS
20. COORDINATE CURRENT FACILITY REQUIREMENTS AND OPERATIONS AND MAINTENANCE PLAN DOCUMENTATION
21. CONFIRM THAT THE OWNER TRAINING PROGRAM HAS BEEN COMPLETED PER THE OWNER'S PROJECT REQUIREMENTS FOR ALL COMMISSIONED EQUIPMENT.
22. COORDINATE SYSTEMS MANUAL DOCUMENTATION DEVELOPMENT
23. PREPARE A FINAL COMMISSIONING REPORT
24. DEVELOP ONGOING COMMISSIONING PLAN
C. **GENERAL CONTRACTOR (GC) RESPONSIBILITIES (CONSTRUCTION AND ACCEPTANCE PHASE):**
1. FACILITATE COORDINATION OF COMMISSIONING WORK BY CXA AND INTEGRATE COMMISSIONING ACTIVITIES INTO THE MASTER SCHEDULE.
2. ATTEND COMMISSIONING SCOPING MEETING AND ADDITIONAL MEETINGS, AS NECESSARY.
3. FURNISH COPIES OF CONSTRUCTION DOCUMENTS, ADDENDA, CHANGE ORDERS, RFI, SUBMITTALS, AND SHOP DRAWINGS OF COMMISSIONED EQUIPMENT AND SYSTEMS TO CXA.
4. ENSURE SUBCONTRACTORS EXECUTE THEIR COMMISSIONING RESPONSIBILITIES PER THE CONTRACT DOCUMENTS, SPECIFICATIONS AND COMMISSIONING PLAN.
5. SUBMIT OWNER TRAINING AGENDA AND PLAN TO CXA PRIOR TO TRAINING AND COORDINATE TRAINING WITH OWNER AND INSTALLING CONTRACTORS.
6. WORK WITH SUBCONTRACTORS TO PREPARE O&M MANUALS, PER SPECIFICATIONS, INCLUDING UPDATING ORIGINAL SEQUENCES OF OPERATION AND PLANS TO RECORD CONDITIONS.
7. WORK WITH DESIGN TEAM AND SUBCONTRACTORS TO PREPARE CURRENT FACILITY REQUIREMENTS AND OPERATIONS AND MAINTENANCE PLAN AND SYSTEMS MANUAL DOCUMENTATION, PER SPECIFICATIONS,
8. ASSIST IN RESOLUTION OF SYSTEM DEFICIENCIES IDENTIFIED DURING COMMISSIONING. CORRELATE THE RESOLUTION OF ALL DEFICIENCIES WITH FINAL PAYMENT TO ASSOCIATED CONTRACTOR LESS WARRANTY RETENTION.
9. WARRANTY PERIOD: REFER TO SECTION 3.12, BUILDING OPERATIONS REVIEW
D. **CONTROLS CONTRACTOR (CC) RESPONSIBILITIES:**
1. SEQUENCES OF OPERATION SUBMITTALS: TEMPERATURE CONTROLS SUBMITTALS TO INCLUDE COMPLETE AND DETAILED SEQUENCES OF OPERATION FOR EACH PIECE OF EQUIPMENT.
2. CONTROL DRAWINGS SUBMITTAL SHALL INCLUDE:
a. GRAPHIC SCHEMATIC DEPICTIONS OF SYSTEMS AND INDIVIDUAL COMPONENTS ASSOCIATED WITH THE CONTROL SYSTEM, INCLUDING EQUIPMENT PRIMARILY CONTROLLED BY PACKAGED CONTROLS. ALL CONTROL INTERFACES TO EMBEDDED CONTROLS WITHIN PACKAGED SYSTEMS WILL BE FULLY DETAILED.
b. FULL POINTS LIST INCLUDING FOR EACH POINT: SYSTEM NAME, POINT ABBREVIATION AND DESCRIPTION, POINT TYPE, AND DISPLAY UNIT.
c. RECORD DRAWING VERSION OF CONTROL DRAWINGS AND SEQUENCES OF OPERATION TO BE INCLUDED IN FINAL CONTROLS O&M MANUAL SUBMITTAL.
d. CONTROLS CONTRACTOR TO PREPARE AND SUBMIT TO THE CXA A WRITTEN PLAN THAT WILL BE FOLLOWED TO TEST, CHECKOUT AND ADJUST CONTROL SYSTEM PRIOR TO FUNCTIONAL PERFORMANCE TESTING.
e. SIGNED AND DATED CERTIFICATION TO CXA AND OWNER UPON COMPLETION OF CONTROL SYSTEM CHECKOUT.
3. WARRANTY PERIOD: REFER TO SECTION 3.12, BUILDING OPERATIONS REVIEW
E. **MECHANICAL, ELECTRICAL, CONTROLS, AND TEST AND BALANCE (TAB) CONTRACTOR (SUBCONTRACTORS) RESPONSIBILITIES:**
CONSTRUCTION AND ACCEPTANCE PHASES:
1. ATTEND COMMISSIONING KICK-OFF MEETING, ADDITIONAL COMMISSIONING COORDINATION MEETINGS AND DEFICIENCY RESOLUTION MEETINGS, AS NECESSARY.
2. PROVIDE ADDITIONAL REQUESTED DOCUMENTATION, PRIOR TO NORMAL O&M MANUAL SUBMITTALS, TO CXA FOR DEVELOPMENT AND REVIEW OF START-UP AND FUNCTIONAL TESTING PROCEDURES.
3. ASSIST IN CLARIFICATION OF OPERATION AND CONTROL OF COMMISSIONED EQUIPMENT AS NECESSARY FOR WRITING DETAILED TESTING PROCEDURES.
4. DEVELOP START-UP AND CHECKOUT PLAN FOR COMMISSIONED EQUIPMENT BASED ON MANUFACTURER'S RECOMMENDATIONS AND VENDOR'S IN-HOUSE CHECKLISTS. SUBMIT TO CXA FOR REVIEW AND APPROVAL PRIOR TO START-UP.
5. DURING STARTUP AND CHECKOUT PROCESS, EXECUTE PFAT FOR COMMISSIONED EQUIPMENT. PERFORM AND DOCUMENT COMPLETED STARTUP AND SYSTEM OPERATIONAL CHECKOUT PROCEDURES. BE PRESENT ON THE JOB SITE TO REVIEW PFAT RESULTS WITH THE CXA AS REQUESTED.
6. RESOLVE A/E PUNCH LIST ITEMS BEFORE IMPLEMENTATION OF FAT.
7. AIR AND WATER TAB TO BE COMPLETED WITH DISCREPANCIES AND PROBLEMS RESOLVED BEFORE FAT.
8. PERFORM FAT, UNDER DIRECTION OF CXA, FOR COMMISSIONED EQUIPMENT.
9. RESOLVE EQUIPMENT OR SYSTEM DEFICIENCIES BY MAKING HARDWARE OR SOFTWARE CHANGES NECESSARY TO SATISFY PROJECT PLANS AND SPECIFICATIONS AND RETEST AS REQUIRED.
10. PREPARE O&M MANUALS PER SPECIFICATIONS, INCLUDING UPDATING ORIGINAL SEQUENCES OF OPERATION AND PLANS TO RECORD CONDITIONS.
11. PROVIDE TRAINING OF OWNER'S OPERATING PERSONNEL FOR ALL INSTALLED EQUIPMENT AND/OR EQUIPMENT THE OWNER REQUESTS TRAINING FOR.
12. COORDINATE WITH EQUIPMENT MANUFACTURERS TO DETERMINE REQUIREMENTS TO MAINTAIN VALIDITY OF WARRANTIES.
13. PROVIDE ALL NECESSARY HANDHELD INSTRUMENTS TO PERFORM STARTUP, CHECKOUT, PFATS, FATS AND DEFICIENCY RESOLUTION.
14. TAB TO PROVIDE TEST AND BALANCE PLAN TO CXA FOR REVIEW BEFORE BALANCING BEGINS.
15. TAB TO MAINTAIN A DEFICIENCY LOG (INCLUDING AIR, WATER & CONTROLS ISSUES) PROVIDED TO THE CXA ON A WEEKLY BASIS.
16. TAB TO SUBMIT FINAL TEST AND BALANCE DATA TO CXA FOR REVIEW.
17. EACH CONTRACTOR SHALL PROVIDE A WRITTEN DETAILED DESCRIPTION OF ALL MAJOR COMPONENTS THEY PROVIDE OR INSTALL THAT ARE PART OF THE COMMISSIONED SYSTEMS. THE MC SHALL PROVIDE A DESCRIPTION OF ALL HYDRONIC AND AIR SYSTEMS THAT ARE INSTALLED, WHILE THE EC SHALL PROVIDE A DESCRIPTION OF ANY LIGHTING CONTROL SYSTEMS. THE CC IS REQUIRED TO SUBMIT A NARRATIVE DESCRIPTION OF THE HVAC CONTROL SYSTEM. ALL WRITTEN SYSTEM DESCRIPTIONS SHALL BE SUBMITTED ELECTRONICALLY IN MICROSOFT WORD OR PDF FORMAT TO THE CXA ACCOMPANYING PFAT SUBMISSIONS TO THE CXA.
18. SINGLE LINE DIAGRAMS OF EACH COMMISSIONED SYSTEM SHALL BE PROVIDED BY MECHANICAL CONTRACTOR OR SUBCONTRACTORS AND SUBMITTED TO CXA FOR REVIEW. DIAGRAMS SHALL BE UNTANGLED TO REFLECT THE SIMPLEST DISPLAY OF DUCTING, PIPING LINES OR CIRCUITRY POSSIBLE. EQUIPMENT CAPACITIES AND FLOW RATES SHALL BE DISPLAYED ON DIAGRAM ADJACENT TO ASSOCIATED EQUIPMENT.
19. WARRANTY PERIOD: REFER TO SECTION 3.12, BUILDING OPERATIONS REVIEW
F. **OWNER'S TECHNICAL STAFF (LLL) RESPONSIBILITIES:**
1. DESIGN, CONSTRUCTION AND ACCEPTANCE PHASE:
2. PROVIDE OWNER'S PROJECT REQUIREMENTS (OPR)
3. ARRANGE FOR REQUIRED FACILITY OPERATING AND MAINTENANCE PERSONNEL TO PARTICIPATE IN COMMISSIONING ACTIVITIES AND TRAINING SESSIONS.
4. PROVIDE FINAL ACCEPTANCE OF BUILDING CONTINGENT UPON THE RESOLUTION OF ALL DEFICIENCIES IDENTIFIED DURING THE COMMISSIONING PROCESS.
5. WARRANTY PERIOD: REFER TO SECTION 3.12, BUILDING OPERATIONS REVIEW
G. **MANUFACTURER'S REPRESENTATIVES AND EQUIPMENT SUPPLIERS RESPONSIBILITIES:**
1. PROVIDE REQUESTED SUBMITTAL DATA, INCLUDING DETAILED START-UP PROCEDURES AND SPECIFIC RESPONSIBILITIES OF OWNER TO KEEP WARRANTIES IN EFFECT.
2. PROVIDE INFORMATION REQUESTED BY CXA REGARDING EQUIPMENT SEQUENCE OF OPERATION AND TESTING PROCEDURES.
H. ASSIST IN EQUIPMENT TESTING AND TRAINING PER AGREEMENTS WITH CONTRACTORS.

PART 2 - PRODUCTS

2.1 TEST EQUIPMENT
A. GC AND SUBCONTRACTORS, INCLUDING THE TAB CONTRACTOR, TO PROVIDE ALL STANDARD TESTING EQUIPMENT REQUIRED TO PERFORM STARTUP AND INITIAL CHECKOUT AND REQUIRED PFAT AND FAT FOR EQUIPMENT BEING TESTED. ANY SPECIALIZED TESTING EQUIPMENT WILL BE PROVIDED BY THE INSTALLING CONTRACTOR.
B. ALL TESTING EQUIPMENT SHALL BE OF SUFFICIENT QUALITY AND ACCURACY TO TEST AND/OR MEASURE SYSTEM PERFORMANCE WITH THE TOLERANCES SPECIFIED IN THE SPECIFICATIONS. ALL EQUIPMENT SHALL BE CALIBRATED PER THE MANUFACTURER'S RECOMMENDED INTERVALS AND WHEN DROPPED OR DAMAGED. CALIBRATION TAGS SHALL BE AFFIXED OR CERTIFICATES READILY AVAILABLE.
C. FIELD-INSTALLED SENSORS AND GAGES SHALL BE CALIBRATED USING THE METHODS DESCRIBED BELOW. CALIBRATION PROCEDURES ARE DOCUMENTED DURING EXECUTION OF THE START-UP PLAN ON THE PREFUNCTIONAL CHECKLISTS. SENSORS INSTALLED IN PACKAGED UNITS AT THE FACTORY WITH CALIBRATION CERTIFICATION PROVIDED NEED NOT BE FIELD CALIBRATED. ALTERNATE METHODS MAY BE USED, IF APPROVED BY THE OWNER AND CXA.
D. CC OR SUBCONTRACTORS TO VERIFY CALIBRATION OF SENSORS AS FOLLOWS: PUT THE EQUIPMENT IN OPERATION. MAKE A READING WITH A CALIBRATED TEST INSTRUMENT WITHIN SIX INCHES OF THE SITE SENSOR. VERIFY THAT THE SENSOR READING IS WITHIN THE TOLERANCE LISTED IN THE PROJECT SPECIFICATIONS FOR THE ASSOCIATED SENSOR. IF NOT, CALIBRATE OR REPLACE SENSOR.

PART 3 - EXECUTION

3.1 - MEETINGS
A. KICK-OFF MEETING: MEMBERS OF DESIGN AND CONSTRUCTION TEAM INVOLVED IN THE COMMISSIONING PROCESS MEET AND DISCUSS SCOPE OF WORK, TASKS, SCHEDULES, DELIVERABLES, AND RESPONSIBILITIES FOR IMPLEMENTATION OF COMMISSIONING PLAN. ADDITIONAL SCHEDULED MEETINGS WILL BE REQUIRED THROUGHOUT CONSTRUCTION TO PLAN, SCOPE, COORDINATE AND SCHEDULE FUTURE ACTIVITIES AND RESOLVE ISSUES.
B. OTHER MEETINGS TO BE PLANNED AND CONDUCTED BY CXA AS CONSTRUCTION PROGRESSES:
1. MEETINGS TO COVER COORDINATION AND DEFICIENCY RESOLUTION (INCLUDING TAB WEEKLY DEFICIENCY LOGS) AS REQUIRED.
2. COST OF DEFICIENCY RESOLUTION MEETINGS MAY BE BORNE BY THE CONTRACTORS AS JUDGED BY THE CXA.

3.2 - COMMISSIONING PLAN:
A. THE COMMISSIONING PLAN IS DEVELOPED BY THE CXA TO PROVIDE GUIDANCE TO THE TEAM IN EXECUTION OF THE COMMISSIONING PROCESS.
1. COMMISSIONING PLAN SHALL INCLUDE THE FOLLOWING:
A. GOALS AND OBJECTIVES
B. GENERAL PROJECT INFORMATION
C. SYSTEMS TO BE COMMISSIONED
D. TEAM MEMBERS AND ROLES
E. COMMUNICATION PROTOCOL, MEETINGS AND MANAGEMENT OF THE PROCESS
2. SUMMARY FOR THE COMMISSIONING ACTIVITIES

3.3 - SUBMITTALS AND SUBMITTAL REVIEW PROCEDURES
A. CONTRACTORS TO PROVIDE ONE COPY OF SUBMITTALS TO CXA CONGRUENT TO A/E TEAM SUBMITTAL REVIEW. CXA MAY REQUEST THAT ALL SUBMITTALS FOR COMMISSIONED SYSTEMS TAKE THE FORM OF ELECTRONIC FILES IN PDF FORMAT. SUBMITTED FILES SHALL ONLY CONTAIN DESIGN, INSTALLATION, OPERATION AND MAINTENANCE MANUALS PERTINENT TO THE SPECIFIC EQUIPMENT BEING PROVIDED.
B. CXA REVIEWS SUBMITTALS RELATED TO COMMISSIONED EQUIPMENT FOR CONFORMANCE TO CONSTRUCTION DOCUMENTS AS IT RELATES TO COMMISSIONING PROCESS.
C. AFTER THE SUBMITTAL IS APPROVED BY THE DESIGNER THE CXA WILL REQUEST ADDITIONAL INFORMATION FROM DESIGN TEAM, CONTRACTORS AND SUBCONTRACTORS SUCH AS O & M AND INSTALLATION LITERATURE OR OTHER TECHNICAL DATA TO FACILITATE THE COMMISSIONING PROCESS.
D. CXA MAY REQUEST ADDITIONAL DESIGN AND OPERATIONS NARRATIVE FROM SUBCONTRACTORS AND A/E.
E. A DRAFT O&M MANUAL SUBMITTAL WILL BE REQUIRED A MONTH PRIOR TO SITE COMMISSIONING AND SCHEDULED TRAINING.

3.4 - START-UP, PREFUNCTIONAL INSPECTION CHECKLISTS / PREFUNCTIONAL ASSURANCE TESTS (PFAT)
A. PREFUNCTIONAL CHECKLISTS ARE IMPORTANT TO ENSURE THAT THE EQUIPMENT AND SYSTEMS ARE PROPERLY INSTALLED AND OPERATIONAL AND TO ENSURE THAT FUNCTIONAL PERFORMANCE TESTING MAY PROCEED WITHOUT UNNECESSARY DELAYS. EACH PIECE OF EQUIPMENT RECEIVES FULL PREFUNCTIONAL CHECKOUT BY THE RESPONSIBLE CONTRACTOR. THE PREFUNCTIONAL TESTING FOR A GIVEN SYSTEM MUST BE SUCCESSFULLY COMPLETED PRIOR TO FORMAL FUNCTIONAL PERFORMANCE TESTING OF EQUIPMENT OR SUBSYSTEMS OF THE GIVEN SYSTEM.
B. START-UP AND INITIAL CHECKOUT PLAN: THE CXA SHALL ASSIST THE CONTRACTOR IN DEVELOPING PRE-FUNCTIONAL CHECKLISTS AND A DETAILED START-UP PLAN FOR ALL COMMISSIONED EQUIPMENT SO THAT THERE IS WRITTEN DOCUMENTATION THAT THE MANUFACTURER-RECOMMENDED PROCEDURES HAVE BEEN COMPLETED:
1. THE SUBCONTRACTOR RESPONSIBLE FOR THE PURCHASE OF THE EQUIPMENT SHALL DEVELOP THE FULL START-UP PLAN OR PREFUNCTIONAL ASSURANCE TESTS (PFAT). THE PLAN WILL INCLUDE CHECKLISTS AND PROCEDURES WITH SPECIFIC BOXES OR LINES FOR RECORDING AND DOCUMENTING THE CHECKING AND INSPECTIONS OF EACH PROCEDURE AND A SUMMARY STATEMENT WITH A SIGNATURE BLOCK AT THE END OF THE PLAN.
2. THE SUBCONTRACTOR TO SUBMIT THE FULL STARTUP PLAN TO THE CXA FOR REVIEW AND APPROVAL FOUR WEEKS PRIOR TO FIELD USE.
3. THE CXA TO REVIEW AND APPROVE THE PROCEDURES AND THE FORMAT FOR DOCUMENTING THEM, NOTING ANY PROCEDURES THAT NEED TO BE ADDED.
4. THE FULL START-UP PROCEDURES AND THE APPROVAL FORM MAY BE PROVIDED TO THE PM FOR REVIEW AND APPROVAL, DEPENDING ON MANAGEMENT PROTOCOL.
5. WHERE SPECIFIED, START-UP IS ONLY TO BE PERFORMED BY CERTIFIED MANUFACTURER'S REPRESENTATIVES.
C. CONTRACTOR TO SCHEDULE PFAT ACTIVITIES AND INFORM CXA OF THIS SCHEDULE TO ENABLE THE CXA TO ATTEND IF DESIRED. CONTRACTOR TO COMPLETE ALL PFAT(S) IN THEIR ENTIRETY AND SUBMITS COMPLETED PFAT REPORT(S) TO THE CXA FOR REVIEW.
D. PFAT SHALL VERIFY ALL ASPECTS OF EQUIPMENT INCLUDING BUT NOT LIMITED TO EQUIPMENT MANUFACTURER, MODEL, CAPACITY, EFFICIENCY, ACCURACY, STATUS, FULL MODULATION CAPABILITY, TYPE, RATINGS, ACCESSORIES, COMPATIBILITY, INSTALLATION METHODS AND ALL OTHER PROJECT SPECIFICATION REQUIREMENTS.
D. TAB TO SUBMIT TEST AND BALANCE PLAN AND DEFICIENCY LOG FORM TO CXA FOR REVIEW AND COMMENT THREE (3) WEEKS BEFORE BALANCING IS TO BEGIN. INCORPORATE CXA COMMENTS INTO FINAL TEST AND BALANCE PLAN. COMPLETED FINAL TEST AND BALANCE PLANS AND DATA SHALL INCLUDE SUFFICIENT DESCRIPTIONS OF HOW THE RESULTS WERE ACHIEVED INCLUDING A FULL DESCRIPTION OF THE SYSTEM CONDITIONS AT THE TIME MEASUREMENTS WERE TAKEN AND WHERE WITHIN THE SYSTEM THE MEASUREMENTS WERE TAKEN. TAB FINAL TEST AND BALANCE RESULTS WILL IDENTIFY THE LOWEST POSSIBLE AIR OR WATER PRESSURE NECESSARY TO SATISFY SYSTEM DESIGN FLOW RATES / HEATING OR COOLING CAPACITY.
E. TAB TO PROVIDE LABOR AND HANDHELD INSTRUMENTS NECESSARY TO CALIBRATE ALL PROJECT AIR AND HYDRONIC FLOW SENSORS AND PRESSURE SENSORS. CC TO BE PRESENT AS NECESSARY TO MANIPULATE CONTROL SYSTEM AND RECORD RESULTS OF CALIBRATION PROCESS AND ENTER RESULTS INTO CONTROL SYSTEM SOFTWARE OR EQUIPMENT SOFTWARE.
F. CC TO SUBMIT CONTROL SYSTEM CHECKOUT PLAN TO CXA FOR REVIEW AND COMMENT THREE (3) WEEKS BEFORE CONTROL SYSTEM CHECKOUT IS TO COMMENCE. CONTROL SYSTEM CHECKOUT PLAN IS TO VERIFY ALL INSTALLATION OF END DEVICE, WIRING BETWEEN DEVICE AND CONTROLLER AND CONTROLLER SOFTWARE IS CONFIGURED CORRECTLY SUCH THAT A CHANGE IN THE END DEVICE CONDITION IS CORRECTLY REFLECTED IN THE SOFTWARE. CALIBRATION OF ALL ANALOG INPUTS SHALL BE A PART OF CONTROL SYSTEM CHECKOUT. VERIFICATION OF ALL END DEVICE FULL RANGE OF MOTION ASSOCIATED WITH ANALOG OUTPUTS SHALL BE A PART OF CONTROL SYSTEM CHECKOUT. VERIFICATION OF END DEVICE CORRECT ON/OFF STATUS ASSOCIATED WITH APPROPRIATE DIGITAL OUTPUT COMMAND SIGNAL STATUS SHALL BE A PART OF CONTROL SYSTEM CHECKOUT. INCORPORATE CXA COMMENTS INTO FINAL CONTROL SYSTEM CHECKOUT DOCUMENTATION. PROVIDE ALL CONTROL SYSTEM DOCUMENTATION TO CXA UPON COMPLETION FOR REVIEW AND COMMENT. CONTROL SYSTEM CHECKOUT IS A COMPONENT OF PFAT AND ALL SPECIFICATION REQUIREMENTS OF PFAT APPLY.
G. LIGHTING ELECTRICAL CONTRACTOR SHALL CREATE AND SUBMIT PFAT FOR ALL LIGHTING CONTROL SYSTEMS OR LIGHTING CONTROL COMPONENTS INCLUDING BUT NOT LIMITED TO MOTION SENSOR CONTROLS, PHOTOCELL CONTROLS, TIME CLOCK OR ASTRONOMICAL CLOCK CONTROLS OR SWEEP FUNCTION CONTROLS. AT MINIMUM, PHOTOCELL OPTIMAL PLACEMENT AND SENSITIVITY ADJUSTED SHALL BE VERIFIED. FOR MOTION SENSORS: PLACEMENT, ANGLE, DELAY TIMES, LENS ADJUSTMENT AND SENSITIVITY ADJUSTMENTS SHALL BE MADE TO CONFIRM 100% COVERAGE IN THE SPACE. SENSITIVITY ADJUSTMENTS SHALL BE MADE SUCH THAT AIR-MOVEMENT DOES NOT RESULT IN THE LIGHTS BEING TRIPPED ON.
H. COMPLETION OF PREFUNCTIONAL CHECKLISTS AND STARTUP:
1. FOUR WEEKS PRIOR TO STARTUP, THE SUBCONTRACTORS AND VENDORS SCHEDULE STARTUP AND CHECKOUT WITH THE PM, GC AND CXA. THE PERFORMANCE OF THE PREFUNCTIONAL CHECKLISTS, STARTUP AND CHECKOUT ARE DIRECTED AND EXECUTED BY THE SUB OR VENDOR. WHEN CHECKING OFF PREFUNCTIONAL CHECKLISTS, SIGNATURES MAY BE REQUIRED OF OTHER SUBCONTRACTORS FOR VERIFICATION OF COMPLETION OF THEIR WORK.
2. SUBCONTRACTORS AND VENDORS EXECUTE STARTUP AND CHECKOUT AND PROVIDE CXA WITH SIGNED AND DATED COPY OF COMPLETED START-UP AND PFAT. THE CXA WILL WITNESS SOME, BUT NOT ALL START-UP.
3. ONLY INDIVIDUALS THAT HAVE DIRECT KNOWLEDGE AND WITNESSED THAT A LINE ITEM TASK ON THE PREFUNCTIONAL CHECKLIST WAS PERFORMED SHALL INITIAL OR CHECK THAT ITEM. IT IS NOT ACCEPTABLE FOR WITNESSING SUPERVISORS TO FILL OUT THESE FORMS.
I. DEFICIENCIES, NON-CONFORMANCE AND APPROVAL IN CHECKLISTS AND STARTUP.
1. AT THE REQUEST OF THE CXA, THE CONTRACTOR WILL BE AVAILABLE ON THE JOBSITE AND WITH THE SAME PORTABLE MEASUREMENT INSTRUMENT USED DURING BALANCING, START-UP AND CHECKOUT OR WHILE COMPLETING PFAT, TO PERFORM SAMPLE MEASUREMENTS OR MAKE SYSTEM ADJUSTMENTS TO CONFIRM THE RESULTS OF ANY DOCUMENTATION SUBMITTED TO THE CXA. THE QUANTITY OF SAMPLE MEASUREMENTS TAKEN SHALL BE DETERMINED BY THE CXA BUT WILL NOT CONSTITUTE OVER 20% OF THE TOTAL MEASUREMENTS MADE BY THE CONTRACTOR. SHOULD THE MEASUREMENTS OR RESULTS NOT AGREE WITH THOSE TAKEN PREVIOUSLY BY THE CONTRACTOR, THE CXA WILL RESERVE THE RIGHT TO REJECT ALL PREVIOUSLY SUBMITTED TESTS OR CHECKLISTS FORCING THE CONTRACTOR TO REPEAT THE TEST / CHECKLIST.
J. PROCEDURES RESOLVING ANY OUTSTANDING DEFICIENCIES ARE PROVIDED TO CXA WITHIN TWO (2) DAYS OF TEST
K. SCHEDULING THE PFAT, TAB, START-UP, AND CHECKOUTS WILL BE CONDUCTED BY THE GC WITH THE APPROPRIATE SUB AND CXA. EFFORTS WILL BE MADE BY THE CXA TO BE ON-SITE WITNESSING CONTRACTOR REQUIRED MEASUREMENTS AND ACTIVITIES LISTED ABOVE. WHEN THE CXA IS ON-SITE WITNESSING THE ACTIVITIES AND MEASUREMENTS DETAILED ABOVE THIS WILL BE INCLUDED IN THE 20% SAMPLE.
L. CXA TO REVIEW PFAT, TAB, AND START-UP REPORTS AND SUBMIT TO OWNER.

3.5 - FUNCTIONAL ASSURANCE TESTING (FAT)
A. OBJECTIVES AND SCOPE:
1. DEMONSTRATE EACH SYSTEM IS OPERATING PER DOCUMENTED DESIGN INTENT, CONSTRUCTION DOCUMENTS, AND/OR BIDDER DESIGN PACKAGE.
2. FAT VERIFIES COMPONENTS, EQUIPMENT, SYSTEMS, AND INTERFACES BETWEEN SYSTEMS OPERATE CORRECTLY AND INCLUDE OPERATING MODES, INTERLOCKS, CONTROL SEQUENCES, AND RESPONSES TO EMERGENCY/LIFE SAFETY CONDITIONS.
3. FUNCTIONAL TESTING FACILITATES BRINGING THE SYSTEMS FROM A STATE OF SUBSTANTIAL COMPLETION TO FULL DYNAMIC OPERATION. ALSO,DURING THE TESTING PROCESS, AREAS OF DEFICIENT PERFORMANCE ARE IDENTIFIED AND CORRECTED, IMPROVING THE OPERATION AND FUNCTIONING OF THE SYSTEMS.
4. VERIFICATION PROCEDURES ARE REVIEWED, WITNESSED, AND DOCUMENTED BY CXA.
B. FUNCTIONAL TESTING WILL NOT BE SCHEDULED UNTIL ALL CONTROL SYSTEM START-UP AND CHECKOUT PLANS, ALL TESTING AND BALANCING REPORTS AND ALL PFAT HAVE BEEN COMPLETED, AND SUBMITTED TO THE CXA FOR REVIEW AND APPROVAL. FUNCTIONAL TESTING MAY COVER COMPLETE COMPONENT AND SYSTEM INSTALLATION, SETUP AND PROGRAMMING OF EQUIPMENT, ALL FACETS OF THE CONTROL SYSTEM AND EFFICIENCY AND CAPACITY OF COMPONENTS AND SYSTEMS.
C. DEVELOPMENT OF TEST PROCEDURES:
1. CXA TO CREATE TEST PROCEDURES AND FORMS BASED ON PROJECT PLANS AND SPECIFICATIONS, CONTRACTOR APPROVED SUBMITTALS AND CONTRACTOR SUBMITTED INSTALLATION, OPERATION AND MAINTENANCE MANUALS. O&M MANUALS WILL BE REQUIRED TO BE SUBMITTED TO THE CXA DURING PFAT DEVELOPMENT.
A. TEST METHODS: FUNCTIONAL PERFORMANCE TESTING AND VERIFICATION MAY BE ACHIEVED BY DIRECT MANIPULATION OF SYSTEM INPUTS SUCH AS TEMPERATURE SENSORS, SETPOINTS, OR SHORT-TERM MONITORING OF PARAMETERS USING STAND ALONE DATA LOGGERS.
B. A COMBINATION OF METHODS MAY BE REQUIRED TO TEST COMPLETE SEQUENCE OF OPERATIONS.
C. CXA TO CREATE TESTS AND DECIDE WHICH METHOD, OR COMBINATION, IS MOST APPROPRIATE.
2. CXA TO SUBMIT TEST PROCEDURES TO ASSOCIATED CONTRACTORS AND EQUIPMENT MANUFACTURER WHO ARE RESPONSIBLE TO REVIEW THE TESTS FOR FEASIBILITY, SAFETY, EQUIPMENT AND WARRANTY PROTECTION PRIOR TO EXECUTION. IF DAMAGE TO EQUIPMENT OR SYSTEM RESULTS FROM THE IMPLEMENTATION OF A FUNCTIONAL PERFORMANCE TEST THAT WAS SENT TO THE CONTRACTORS FOR REVIEW, IT IS THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE ALL EQUIPMENT AND LABOR NECESSARY TO MAKE REPAIRS.
3. CXA MAY SUBMIT TESTS TO OWNER OR A/E TEAM FOR REVIEW.
4. TEST PROCEDURE FORMS, DEVELOPED BY THE CXA, TO INCLUDE THE FOLLOWING INFORMATION:
1. SYSTEM AND EQUIPMENT OR COMPONENT NAME(S)
2. EQUIPMENT LOCATION AND ID NUMBER
3. DATE
4. PARTICIPATING PARTIES
5. INSTRUCTIONS FOR SETTING UP TEST, INCLUDING SPECIAL CAUTIONS AND LIMITS
6. SPECIFIC PROCEDURES TO EXECUTE TEST
7. ACCEPTANCE CRITERIA OF PROPER PERFORMANCE WITH DATE PASSED AND INITIALS BOXES
8. SECTION FOR COMMENTS OR NOTES
5. EXECUTION OF FUNCTIONAL ASSURANCE TESTS:
1. SETUP: EACH TEST PROCEDURE IS PERFORMED UNDER CONDITIONS THAT SIMULATE NORMAL BUILDING OPERATING CONDITIONS AS CLOSELY AS POSSIBLE.
2. CONTRACTOR EXECUTING TEST TO PROVIDE NECESSARY SYSTEM MODIFICATIONS TO PRODUCE SPECIFIED CONDITIONS SUCH AS FLOWS, PRESSURES AND TEMPERATURES AS NECESSARY TO EXECUTE TEST.
3. AT COMPLETION OF TEST, SUB-CONTRACTOR TO RETURN AFFECTED BUILDING EQUIPMENT AND SYSTEMS TO THEIR PRE-TEST CONDITIONS.
4. CXA WILL PROVIDE THE CONTRACTOR FATS FOR DRY RUN TESTING BY THE CONTRACTOR. THE CONTRACTOR WILL EXECUTE ALL FUNCTIONAL TESTS IN ADVANCE OF FORMAL FUNCTIONAL TESTING WITH THE CXA, OWNER AND CONSTRUCTION TEAM. IN ADDITION, THE CONTRACTOR WILL REVIEW THEIR ASSOCIATED APPROVED SUBMITTAL TO ENSURE THAT THE INSTALLED SYSTEM MEETS THE REQUIREMENTS OF THE APPROVED SUBMITTAL PRIOR TO FUNCTIONAL TESTING.
D. COORDINATION AND SCHEDULING: CONTRACTOR TO PROVIDE SUFFICIENT NOTICE TO CXA REGARDING COMPLETION SCHEDULE FOR PRE-FUNCTIONAL CHECKLISTS AND STARTUP OF EQUIPMENT AND SYSTEMS.
1. CXA TO SCHEDULE FUNCTIONAL TESTS THROUGH OWNER, CONTRACTOR AND APPROPRIATE SUBCONTRACTORS AND THE FOLLOWING SEQUENTIAL PRIORITIES FOLLOWED:
a. EQUIPMENT IS NOT 'TEMPORARILY" STARTED (FOR HEATING OR COOLING), UNTIL PRE-START CHECKLIST ITEMS AND MANUFACTURER'S PRE-START PROCEDURES ARE COMPLETED AND MOISTURE, DUST AND OTHER ENVIRONMENTAL AND BUILDING INTEGRITY ISSUES HAVE BEEN ADDRESSED.
b. FUNCTIONAL PERFORMANCE TESTING ONLY BEGINS AFTER PRE-FUNCTIONAL, START-UP AND TAB IS COMPLETED FOR GIVEN SYSTEM.
c. CONTRACTOR AND SUBCONTRACTORS ARE RESPONSIBLE TO ASSURE THAT THE FUNCTIONAL TEST PLAN AND ITS EXECUTION IS COORDINATED WITH THE EQUIPMENT MANUFACTURER AND WILL NOT NEGATIVELY AFFECT THE EQUIPMENT OR ASSOCIATED WARRANTY.
d. CONTROLS SYSTEM AND EQUIPMENT IT CONTROLS ARE NOT FUNCTIONALLY TESTED UNTIL POINTS HAVE BEEN CALIBRATED AND PRE-FUNCTIONAL CHECKLISTS ARE COMPLETED.
e. LIGHTING CONTROL SYSTEM OR LIGHTING CONTROL COMPONENT PFATS MUST BE COMPLETE BEFORE FAT IS SCHEDULED FOR LIGHTING CONTROLS.
f. PROBLEM SOLVING: THE CXA MAY RECOMMEND SOLUTIONS TO PROBLEMS OR DEFICIENCIES FOUND, HOWEVER THE BURDEN OF RESPONSIBILITY TO SOLVE, CORRECT AND RETEST PROBLEMS IS WITH THE GC, SUBCONTRACTORS, AND A/E.

3.6 - DOCUMENTATION, NON-CONFORMANCE AND APPROVAL OF TESTS
A. DOCUMENTATION: CXA TO WITNESS AND DOCUMENT THE RESULTS OF FUNCTIONAL PERFORMANCE TESTS.
B. NON-CONFORMANCE: CXA TO RECORD RESULTS OF FUNCTIONAL TEST ON PROCEDURE OR TEST FORM.
1. DEFICIENCIES IDENTIFIED DURING VERIFICATION TESTING TO BE DOCUMENTED ON AN OBSERVATION OR ISSUES LOG AND REPORTED TO OWNER, CONTRACTORS AND SUBCONTRACTORS.
a. DEFICIENCY REPORT / OBSERVATION LOG SHALL INCLUDE DETAILS OF COMPONENTS OR SYSTEMS FOUND TO BE NON-COMPLIANT WITH PARAMETERS OF TEST PLANS OR PROJECT DOCUMENTS.
b. OBSERVATION LOG TO DETAIL REQUIREMENT ITEM(S) IN NEED OF CORRECTION AND ATTEMPTS TO IDENTIFY RESPONSIBLE PARTY.
c. CORRECTIONS OF MINOR DEFICIENCIES IDENTIFIED MAY BE MADE DURING TESTS AT DISCRETION OF CXA AND WITH RESOLUTION DOCUMENTED ON PROCEDURE FORM.
C. IDENTIFIED DEFICIENCY RESOLUTION:
1. WHERE NO DISPUTE ON DEFICIENCY AND RESPONSIBILITY TO CORRECT IT:
1. CXA TO DOCUMENT DEFICIENCY AND ADJUSTMENTS OR ALTERATIONS REQUIRED TO CORRECT IT.
2. SUBCONTRACTOR TO CORRECT DEFICIENCY AND NOTIFY CXA WHEN READY TO BE RETESTED.
3. CXA TO RESCHEDULE TEST AND TEST IS REPEATED.
2. WHERE DISPUTE ABOUT DEFICIENCY OR RESPONSIBILITY:
1. DEFICIENCY SHALL BE DOCUMENTED ON NON-COMPLIANCE FORM AND A COPY GIVEN TO OWNER AND CONTRACTOR.
2. RESOLUTIONS TO BE MADE AT THE LOWEST MANAGEMENT LEVEL POSSIBLE. OTHER PARTIES TO BE BROUGHT INTO THE DISCUSSIONS AS NEEDED. FINAL INTERPRETIVE AUTHORITY IS WITH THE A/E. FINAL ACCEPTANCE AUTHORITY IS WITH THE OWNER'S PROJECT MANAGER.
3. CXA DOCUMENTS RESOLUTION PROCESS.
4. ONCE INTERPRETATION AND RESOLUTION HAVE BEEN DECIDED, APPROPRIATE PARTY CORRECTS DEFICIENCY, DOCUMENTS REQUIRED ACTION ON THE ISSUES LOG AND NOTIFIES CXA THAT EQUIPMENT IS READY TO BE RETESTED, THE CXA SHALL RESCHEDULE THE TEST AND THE TEST SHALL BE REPEATED UNTIL SATISFACTORY PERFORMANCE IS ACHIEVED.
3. COSTS OF RETESTING:
1. IF THE COST TO RETEST A PREFUNCTIONAL OR FUNCTIONAL TEST IS BEYOND 10% OF THE TOTAL NUMBER OF TESTS, THE COST WILL BE BACK-CHARGED TO THE RESPONSIBLE SUB-CONTRACTOR.
2. FOR A DEFICIENCY IDENTIFIED, NOT RELATED TO ANY PREFUNCTIONAL CHECKLIST OR START-UP FAULT, THE FOLLOWING SHALL APPLY: THE CXA AND PM WILL DIRECT THE RETESTING OF THE EQUIPMENT ONCE AT NO "CHARGE" TO THE GC FOR THEIR TIME. HOWEVER, THE CXA'S TIME FOR A SECOND RETEST WILL BE CHARGED TO THE GC, WHO MAY CHOOSE TO RECOVER COSTS FROM THE RESPONSIBLE SUBCONTRACTOR.

lululemon
1818 CORNWALL AVE.
VANCOUVER, B.C., V6J1C7

CF POLO PARK
1485 Portage Ave, Unit 144E
Winnipeg, MB
R3G 0W5
CRU NUMBER: 144E

Quadrangle
Quadrangle Architects Limited
The Well, 8 Spadina Avenue, Suite 2100, Toronto, ON M5V 0S8
t 416 598 1240 www.bdpquadrangle.com

ARCHITECT SEAL
ONTARIO ASSOCIATION OF ARCHITECTS
KIRTIDEV MEHTA
LICENCE
8099

ISSUED FOR CONSTRUCTION
07/14/2023

△	DATE	DESCRIPTION
	06/09/2023	PERMIT/CONSTRUCTION
	06/09/2023	ISSUED FOR BID
	07/14/2023	ISSUED FOR CONSTRUCTION

DRAWING INFORMATION
PROJECT #: 23206
CHECKED BY: CHECKER
DRAWN BY: AUTHOR

ARCHITECTURAL SPECIFICATIONS

DRAWING NUMBER
AS-120

7/14/2023 12:17:55 PM

DIVISION 03 - CONCRETE

SECTION 033000 - CAST-IN-PLACE CONCRETE

A. CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 3500 PSI AT 28 DAYS, WITH A WATER CEMENT RATIO = .50 (MAXIMUM). CONCRETE EXPOSED TO WEATHER SHALL BE AIR-ENTRAINED AT 6% ± 1.5% , UNLESS OTHERWISE INDICATED ON STRUCTURAL DRAWINGS.
B. LL REINFORCING STEEL SHALL BE NEW DOMESTIC DEFORMED BILLET STEEL CONFORMING TO ASTM A-615 GRADE 60.
C. WELDED WIRE REINFORCEMENT SHALL CONFORM TO ASTM A-185 DELIVERED IN FLAT SHEETS.
D. ALL CONCRETE WORK SHALL BE IN ACCORDANCE WITH "THE BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE" ACI 318-XX.
E. ALL REINFORCING DETAILS SHALL CONFORM TO "MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE STRUCTURES" ACI 315-94, UNLESS DETAILED OTHERWISE ON THE STRUCTURAL DRAWINGS.
F. CONTRACTOR SHALL VERIFY LOCATIONS OF ALL OPENINGS, SLEEVES, ANCHOR BOLTS, INSERTS, ETC., AS REQUIRED BY OTHER TRADES BEFORE CONCRETE IS PLACED.
G. CONTRACTOR SHALL PROVIDE SPACERS, CHAIRS, BOLSTERS, ETC., NECESSARY TO SUPPORT REINFORCING STEEL. CHAIRS WHICH BEAR ON EXPOSED CONCRETE SURFACES SHALL HAVE ENDS WHICH ARE PLASTIC TIPPED OR STAINLESS STEEL. CHAIRS WHICH BEAR ON EXPOSED CONCRETE SURFACES TO RECEIVE SANDBLAST FINISH SHALL BE STAINLESS STEEL.
H. MINIMUM CONCRETE COVER SHALL BE PROVIDED FOR REINFORCEMENT: (REFER TO THE STRUCTURAL DRAWINGS & SPECIFICATIONS).
I. REFER TO STRUCTURAL SPECIFICATIONS.

END OF SECTION 033000

DIVISION 03 - CONCRETE - CONTINUED

SECTION 033500 – POLISHED CONCRETE FLOOR FINISH [CNC-1]

PART 1 – GENERAL

1.1 - SUMMARY
A. SECTION INCLUDES: THIS SECTION SPECIFIES POLISHED CONCRETE
B. RELATED SECTIONS:
1. SECTION 079200 "JOINT SEALANTS" FOR SEALANTS IN CONCRETE FLOOR SURFACES

1.2 - REFERENCES
A. AMERICAN CONCRETE INSTITUTE (ACI)
B. ACI 302.1R – GUIDE FOR CONCRETE FLOOR AND SLAB CONSTRUCTION
C. ASTM INTERNATIONAL
1. ASTM C309 – STANDARD SPECIFICATION FOR LIQUID MEMBRANE FORMING COMPOUNDS FOR CURING CONCRETE
2. ASTM C171 – STANDARD SPECIFICATION FOR SHEET MATERIALS FOR CURING CONCRETE
3. ASTM C779 – STANDARD TEST METHOD FOR ABRASION RESISTANCE OF HORIZONTAL CONCRETE SURFACES
4. ASTM C805 – STANDARD TEST METHOD FOR REBOUND NUMBER OF HARDENED CONCRETE
5. ASTM E 1155 – STANDARD TEST METHOD FOR DETERMINING FLOOR FLATNESS AND LEVELNESS USING THE F NUMBER SYSTEM
D. REUNION INTERNATIONALE DES LABORATORIES D'ESSAIS ET DE RECHERCHES SUR LES MATERIAUX ET LES CONSTRUCTIONS (RILEM)
1. RILEM TEST METHOD 11.4 STANDARD MEASUREMENT OF REDUCTION OF MOISTURE PENETRATION THROUGH HORIZONTAL CONCRETE SURFACES

1.3 PERFORMANCE REQUIREMENTS
A. PERFORMANCE REQUIREMENTS: PROVIDE POLISHED FLOORING THAT HAS BEEN SELECTED, MANUFACTURED AND INSTALLED TO ACHIEVE THE FOLLOWING:
1. ABRASION RESISTANCE: ASTM C779, UP TO 400% INCREASE IN ABRASION RESISTANCE
2. REFLECTIVITY: INCREASE OF 45% AS DETERMINED BY GLOSS METER
3. WATERPROOF PROPERTIES: RILEM TEST METHOD 11.4, 70% OR GREATER REDUCTION IN ABSORPTION
4. IMPACT STRENGTH: ASTM C805, UP TO 21% INCREASED IMPACT STRENGTH
5. MUST MEET OR EXCEED ADA/OSHA SUGGESTED 0.5 STANDARD VALUE FOR THE STATIC CO-EFFICIENT OF FRICTION
B. DESIGN REQUIREMENTS
1. HARDENED CONCRETE PROPERTIES
a. MINIMUM CONCRETE COMPRESSIVE STRENGTH: 3500 PSI
b. NORMAL WEIGHT CONCRETE, NO LIGHT WEIGHT AGGREGATES
c. NON-AIR ENTRAINED CONCRETE
d. FLY ASH PROHIBITED
2. PLACEMENT PROPERTIES FOR NEW CONCRETE
a. NATURAL CONCRETE SLUMP OF 4 1/2 INCHES – 5 INCHES, ADMIXTURES MAY BE USED
b. FLATNESS REQUIREMENTS
1) OVERALL FF 40
2) LOCAL FF 35
3) FLATNESS TESTING COST AND SCHEDULING IS THE RESPONSIBILITY OF THE GENERAL CONTRACTOR
3. HARD-STEEL TROWELED (3 PASSES) CONCRETE
a. NO BURN MARKS. FINISH TO ACI 302.1R, CLASS 5 FLOOR
4. CURING OPTIONS
a. CURING AGENT
1) E-CURE; SPECCHEM
2) MED-CURE; WR MEADOWS
3) PCA CURING AGENT; AMERIPOLISH
b. MOISTURE RETAINING CURE COVER (REQUIRED FOR FLORIDA AND WYOMING) - SUBSTITUTIONS: NOT PERMITTED
1) ULTRACURE; SIKA CORPORATION
2) RELIABLECURE SOG; RELIABLE CONCRETE ACCESSORIES
c. MOISTURE-RETAINING SHEET: ASTM C171 (CONCRETE TO RECEIVE COATINGS OR FLOOR COVERINGS ONLY)
1) POLYETHYLENE FILM, CLEAR OR OPAQUE, MINIMUM NOMINAL THICKNESS OF 0.0040 IN.

1.4 - PRE-INSTALLATION MEETINGS
A. PRE INSTALLATION CONFERENCE: CONDUCT CONFERENCE AT PROJECT SITE.

1.5 - SUBMITTALS
A. GENERAL: SUBMIT SAMPLES AND MANUFACTURER'S PRODUCT DATA SHEETS, INSTALLATION INSTRUCTIONS, MAINTENANCE PROCEDURES, PROJECT REFERENCES, ETC. IN ACCORDANCE WITH DIVISION 01 GENERAL REQUIREMENTS SUBMITTAL SECTION.
B. TEST DATA: SUBMIT QUALIFIED TESTING DATA THAT CONFIRMS COMPLIANCE WITH SPECIFIED PERFORMANCE REQUIREMENTS.
C. MAINTENANCE DATA: FOR INCLUSION IN MAINTENANCE MANUAL REQUIRED BY DIVISION 01.
1. INCLUDE MANUFACTURER'S INSTRUCTIONS FOR MAINTENANCE OF INSTALLED WORK, INCLUDING METHODS AND FREQUENCY RECOMMENDED FOR MAINTAINING OPTIMUM CONDITION UNDER INTENDED USE.
2. INCLUDE PRECAUTIONS AGAINST CLEANING PRODUCTS AND METHODS WHICH MAY BE DETRIMENTAL TO FINISHES AND PERFORMAN

1.8 - QUALITY ASSURANCE
A. MANUFACTURERS QUALIFICATIONS:
1. MANUFACTURER HAS A MINIMUM OF FIVE (5) YEARS' EXPERIENCE IN MANUFACTURING COMPONENTS SIMILAR TO OR EXCEEDING REQUIREMENTS OF PROJECT
2. MANUFACTURER MUST BE ABLE TO PROVIDE TECHNICALLY TRAINED FIELD REPRESENTATIVE DURING CONSTRUCTION AND APPROVING APPLICATION METHOD
B. INSTALLER QUALIFICATIONS
1. INSTALLER AT LEAST FIVE (5) YEARS EXPERIENCE IN PERFORMING WORK OF THIS SECTION WHO HAS SPECIALIZED IN INSTALLATION WORK SIMILAR TO THAT REQUIRED FOR THIS PROJECT
2. INSTALLER TRAINED AND HAVING CURRENT CERTIFICATION FOR RETROPLATE CONCRETE POLISHING SYSTEM. FOR APPROVED CONTRACTORS SEE BELOW:

UNITED STATES: CURECRETE DISTRIBUTION, INC. – RETROPLATE SYSTEM:
SCOTT MAXFIELD
P. O. BOX 80533
PROVO, UT 84605
TELEPHONE: (800) 998-5664
SCOTT.MAXFIELD@RETROPLATESYSTEM.COM

CANADA: CURECRETE DISTRIBUTION, INC. – RETROPLATE SYSTEM:
ATTN: KYLE HARKER
DURACON CONSULTING
TELEPHONE: (403) 393-4335
KYLE.HARKER@GMAIL.COM

C. MOCK-UPS
1. MOCK-UP SIZE: 10' x 10' FLOOR AREA AT JOB SITE, AT LOCATION AS DIRECTED UNDER CONDITIONS SIMILAR TO THOSE WHICH WILL EXIST DURING ACTUAL PLACEMENT TO MATCH 5 AND 6 OF THIS SECTION
2. MOCK-UP WILL BE USED TO JUDGE WORKMANSHIP, CONCRETE SUBSTRATE PREPARATION, OPERATION OF EQUIPMENT, MATERIAL APPLICATION, COLOR SELECTION, AND SHINE LEVEL
3. ALLOW 24 HOURS FOR INSPECTION OF MOCK-UP BEFORE PROCEEDING WITH WORK
4. WHEN ACCEPTED, MOCK-UP WILL DEMONSTRATE MINIMUM STANDARD OF QUALITY REQUIRED FOR THIS PROJECT:

AGGREGATE APPEARANCE CLASS PER ASCC CONCRETE POLISHING COUNCIL
SURFACE CLASS B FINE AGGREGATE:
85-95% FINE AGGREGATE 5-15% BLEND OF CEMENT FINES AND COARSE AGGREGATE.
AGGREGATE RANGE 1/16 – 1/8 IN. – CONSISTENT THROUGHOUT ENTIRE FLOOR

POLISHED CONCRETE APPEARANCE LEVEL PER ASCC CONCRETE POLISHING COUNCIL:
LEVEL 2 – SATIN [HONED]:
MATTE APPEARANCE; UP TO 200-400 GRIT POLISH; A DOI (IMAGE CLARITY) READING OF 10-39; HAZE READING <10; REFLECTIVE SHEEN: LOW TO MEDIUM
FINAL FINISH TO BE LEVEL 1: (100 GRIT)

A. SEQUENCE WITH OTHER WORK:
1. COMPLY WITH MANUFACTURER'S WRITTEN RECOMMENDATIONS FOR SEQUENCING CONSTRUCTION OPERATIONS; IT IS THE GENERAL CONTRACTOR'S RESPONSIBILITY TO ENSURE THAT ALL OTHER TRADES ARE AWARE OF NECESSARY SEQUENCING AND PROTECTION REQUIRED PRIOR TO, DURING AND AFTER THE INSTALLATION OF THE POLISHED CONCRETE FLOOR FINISH

1.9 - DELIVERY, STORAGE & HANDLING
A. ORDERING:
1. COMPLY WITH MANUFACTURER'S ORDERING INSTRUCTIONS AND LEAD TIME REQUIREMENTS TO AVOID CONSTRUCTION DELAYS
B. DELIVERY:
1. DELIVERY: DELIVER MATERIALS IN MANUFACTURER'S ORIGINAL PACKAGING WITH IDENTIFICATION LABELS AND SEALS INTACT
C. STORAGE AND PROTECTION:
1. STORE MATERIALS PROTECTED FROM EXPOSURE TO HARMFUL WEATHER CONDITIONS AND AT TEMPERATURE CONDITIONS RECOMMENDED BY MANUFACTURER
2. PROTECT CONCRETE SLAB
a. PROTECT FROM PETROLEUM STAINS DURING CONSTRUCTION
b. DIAPER ALL HYDRAULIC LIFTS AND POWER EQUIPMENT
c. RESTRICT VEHICULAR PARKING, DROP CLOTHS WILL BE PLACED UNDER VEHICLES PARKED ON SLAB
d. NO PIPE CUTTING MACHINERY WILL BE USED ON INTERIOR FLOOR SLAB
e. STEEL WILL NOT BE PLACED ON INTERIOR FLOOR SLAB TO AVOID RUST STAINING
f. NO ACIDS OR ACIDIC DETERGENTS WILL COME INTO CONTACT WITH SLAB
g. ENTIRE FLOOR SHALL BE COVERED WITH VISQUEEN PRIOR TO ANY WORK OVERHEAD

1.10 - PROJECT CONDITIONS
A. ENVIRONMENTAL LIMITATIONS: DO NOT INSTALL WORK UNTIL AMBIENT TEMPERATURE AND HUMIDITY CONDITIONS ARE MAINTAINED AT LEVELS INDICATED IN REFERENCE STANDARDS

1.11 - WARRANTY
A. PROJECT WARRANTY: REFER TO CONTRACT CONDITIONS FOR PROJECT WARRANTY PROVISIONS
B. MANUFACTURER'S WARRANTY: SUBMIT FOR OWNER'S ACCEPTANCE, MANUFACTURER'S STANDARD WARRANTY DOCUMENT EXECUTED BY AUTHORIZED COMPANY OFFICIAL; MANUFACTURER'S WARRANTY IS IN ADDITION TO AND DOES NOT LIMIT OTHER RIGHTS OWNER MAY HAVE UNDER CONTRACT DOCUMENTS

PART 2 – PRODUCTS

2.1 - PRODUCTS, GENERAL
A. ENSURE CONCRETE FINISHING COMPONENTS AND MATERIALS ARE FROM SINGLE SOURCE, FROM SINGLE MANUFACTURER

2.2 - POLISHED CONCRETE FINISHING PRODUCTS - NO SUBSTITUTIONS ALLOWED - [CNC-1] - SEE SHEET A-120
A. BASIS OF DESIGN PRODUCT:
CURECRETE DISTRIBUTION, INC. (DBA ADVANCED FLOOR PRODUCTS; RETROPLATE SYSTEM)
1203 SPRING CREEK PLACE, SPRINGVILLE, UT 84663 | (801) 489-5663
DEKE RIFE (402) 598-0801 | DEKE@CURECRETE.COM
B. PROPRIETARY PRODUCTS/SYSTEMS:
1. HARDENER, SEALER, DENSIFIER: **RETROPLATE 99** – PENETRATING, WATER BASED, ODORLESS LIQUID, VOC COMPLIANT, ENVIRONMENTALLY SAFE CHEMICAL, LEAVES NO FILM ON SURFACE
2. CONCRETE CLARITY ENHANCER: **KICKSTART**
3. JOINT FILLER: **CRETEFILL PRO 85 (MOISTURE INSENSITIVE)** – SEMI-RIGID, 2-COMPONENT, SELF-LEVELING, 100% SOLIDS, RAPID CURING, POLYUREA CONTROL JOINT AND CRACK FILLER WITH A CHOICE OF 65, 75 OR 85 SHORE-A HARDNESS DEPENDING ON PROJECT NEEDS
4. OIL REPELLENT SEALER: **RETROPEL**
5. STAIN PROTECTOR: **RETROGUARD** OR **SHIELD**
6. CLEANING SOLUTION: **CRETECLEAN PLUS** / **CRETECLEAN PLUS - SINGLE DOSE**
7. TOPICALLY APPLIED, TRANSPARENT CONCRETE DYE: **RADIANCE** BY RETROPLATE; SHIELD OR RETROGUARD ARE RECOMMENDED PROTECTION FOR POLISHED SURFACES THAT RECEIVE DYE; CONTACT CURECRETE FOR COLOR CHOICES, SAMPLES AND APPLICATION INSTRUCTIONS
C. POLISHED CONCRETE DYE COLOR: NO COLOR

PART 3 – EXECUTION

3.1 - MANUFACTURERS INSTRUCTIONS
A. COMPLIANCE: COMPLY WITH MANUFACTURER'S WRITTEN DATA, INCLUDING PRODUCT TECHNICAL BULLETINS PRODUCT CATALOG INSTALLATION INSTRUCTIONS, PRODUCT CARTON INSTALLATIONS AND CURECRETE'S (ADVANCED FLOOR PRODUCTS') SPEC-DATA SHEETS

3.2 - EXAMINATION
A. SITE VERIFICATION OF CONDITIONS
1. VERIFY THAT CONCRETE SUBSTRATE CONDITIONS, WHICH HAVE BEEN PREVIOUSLY INSTALLED UNDER OTHER SECTIONS OR CONTRACTS, ARE ACCEPTABLE FOR PRODUCT INSTALLATION IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS PRIOR TO INSTALLATION OF FINISHING MATERIALS
2. VERIFY CONCRETE IS CURED TO 28 DAYS OR 3500 PSI STRENGTH

3.3 - PREPARATION
A. ENSURE SURFACES ARE CLEAN AND FREE OF DIRT AND OTHER FOREIGN MATTER HARMFUL TO PERFORMANCE OF CONCRETE FINISHING MATERIALS
B. EXAMINE SURFACE TO DETERMINE SOUNDNESS OF CONCRETE FOR POLISHING

3.4 - INSTALLATION
A. FLOOR SURFACE POLISHING AND TREATMENT
1. PROVIDE DENSIFIED AND POLISHED CONCRETE FLOOR TREATMENT IN ENTIRETY OF SLAB AS INDICATED BY APPROVED DRAWINGS; PROVIDE CONSISTENT FINISH IN ALL CONTIGUOUS AREAS
2. PERFORM WORK PRIOR TO INSTALLATION OF FIXTURES AND ACCESSORIES
3. DELIVER A CONSISTENT FINISH IN ALL CONTIGUOUS AREAS UTILIZING **KICKSTART CLARITY ENHANCING SYSTEM** TO ACHIEVE THE APPROVED AND DESIGNATED CONCRETE POLISHING COUNCIL'S AGGREGATE EXPOSURE AND POLISHED CONCRETE APPEARANCE DESIGNATIONS AS SPECIFIED (EFFECTIVE 12/2017)
4. DIAMOND-POLISH CONCRETE FLOOR SURFACES UTILIZING KICKSTART IN CONJUNCTION WITH PROPER GRINDING EQUIPMENT AS RECOMMENDED BY POLISHING SYSTEM REPRESENTATIVE
a. COMPLY WITH MANUFACTURER'S RECOMMENDED POLISHING GRITS FOR EACH SEQUENCE USING KICKSTART TO ACHIEVE DESIRED FINISH LEVEL; LEVEL OF SHINE SHALL MATCH THAT OF APPROVED MOCK-UP.
b. EXPOSE AGGREGATE IN CONCRETE SURFACE ONLY AS DETERMINED BY APPROVED MOCK-UP
c. ALL CONCRETE SURFACES SHALL BE AS UNIFORM IN APPEARANCE AS POSSIBLE
5. APPLY RETROPLATE 99 HARDENER, DENSIFIER AS FOLLOWS:
a. APPLY RETROPLATE 99 AT 200 SQ. FT. PER GALLON, ACCORDING TO MANUFACTURER'S DIRECTIONS
6. APPLY RETROGUARD OR SHIELD ACCORDING TO MANUFACTURER'S DIRECTIONS
a. REMOVE DEFECTS AND RE-POLISH DEFECTIVE AREAS
b. FINISH EDGES OF FLOOR AND ADJOINING MATERIALS IN A CLEAN AND SHARP MANNER

3.6 - FINAL CLEANING
A. MECHANICALLY SCRUB TREATED FLOORS FOR SEVEN DAYS WITH SOFT TO MEDIUM PADS USING APPROVED CLEANER (CRETECLEAN PLUS / CRETECLEAN PLUS – SINGLE DOSE)
B. UPON COMPLETION, GENERAL CONTRACTOR MUST REMOVE SURPLUS AND EXCESS MATERIALS, RUBBISH, TOOLS AND EQUIPMENT
C. LEAVE ONE MASTER CASE OF CRETECLEAN PLUS SINGLE DOSE (12 OZ.) AND INSTRUCTIONS FOR INITIAL CLEANINGS

3.7 - PROTECTION
A. PROTECT INSTALLED PRODUCT (POLISHED FLOORS) FROM DAMAGE DURING CONSTRUCTION\

END OF SECTION - 033543

SECTION 035300 – POLISHED CONCRETE FLOOR TOPPINGS [CNC-2]

PART 1 - GENERAL

1.1 - SUMMARY
A. SECTION INCLUDES: SUPPLY AND INSTALLATION OF A FAST-SETTING, HIGH STRENGTH, CEMENTITIOUS, NON-SHRINK, DECORATIVE, EXPOSED AGGREGATE POLISHABLE ARCHITECTURAL TOPPING AND RESURFACER FOR INTERIOR AND EXTERIOR FLOORING INSTALLATIONS.
B. RELATED SECTIONS:
1. SECTION 03 01 00 - MAINTENANCE OF CONCRETE
2. SECTION 03 01 40 - MAINTENANCE OF PRECAST CONCRETE
3. SECTION 03 30 00 - CAST-IN-PLACE CONCRETE
4. SECTION 03 40 00 - PRECAST CONCRETE
5. SECTION 07 91 29 - JOINT FILLERS
C. SECTION 09 61 00 - FLOORING TREATMENTS

1.2 - REFERENCES
A. AMERICAN CONCRETE INSTITUTE (ACI)
1. ACI 302.1R-04 GUIDE FOR CONCRETE FLOOR AND SLAB CONSTRUCTION
B. ASTM INTERNATIONAL
1. ASTM C109 STANDARD TEST METHOD FOR COMPRESSIVE STRENGTH OF HYDRAULIC CEMENT MORTARS
2. ASTM C 309 STANDARD SPECIFICATION FOR LIQUID MEMBRANE-FORMING COMPOUNDS FOR CURING CONCRETE
3. ASTM C348 STANDARD TEST METHOD FOR FLEXURAL STRENGTH OF HYDRAULIC-CEMENT MORTARS
4. ASTM C 779 STANDARD TEST METHOD FOR ABRASION RESISTANCE OF HORIZONTAL CONCRETE SURFACES
5. ASTM C1028 STANDARD TEST METHOD FOR DETERMINING THE STATIC COEFFICIENT OF FRICTION OF CERAMIC TILE AND OTHER LIKE SURFACES BY THE HORIZONTAL DYNAMOMETER PULL-METER METHOD
6. ASTM C 1315 LIQUID MEMBRANE-FORMING COMPOUNDS HAVING SPECIAL PROPERTIES OF CURING AND SEALING CONCRETE
7. ASTM E430 STANDARD TEST METHOD FOR MEASUREMENT OF GLOSS OF HIGH-GLOSS SURFACES BY ABRIDGED GONIOPHOTOMETRY
8. ASTM F710 STANDARD PRACTICE FOR PREPARING CONCRETE FLOORS TO RECEIVE RESILIENT FLOORING
9. ASTM F1869 STANDARD TEST METHOD FOR MEASURING MOISTURE VAPOR EMISSION RATE OF CONCRETE SUBFLOOR USING ANHYDROUS CALCIUM CHLORIDE
10. ASTM F2170 STANDARD TEST METHOD FOR DETERMINING RELATIVE HUMIDITY IN CONCRETE FLOOR SLABS USING IN SITU PROBES

1.3 - SUBMITTALS
A. GENERAL: SUBMIT SAMPLES AND MANUFACTURER'S PRODUCT DATA SHEETS, INSTALLATION INSTRUCTIONS, MAINTENANCE PROCEDURES, PROJECT REFERENCES, ETC. IN ACCORDANCE WITH DIVISION 01 GENERAL REQUIREMENTS SUBMITTAL SECTION.
B. TEST DATA: SUBMIT QUALIFIED TESTING DATA THAT CONFIRMS COMPLIANCE WITH SPECIFIED PERFORMANCE REQUIREMENTS.
C. MAINTENANCE DATA: FOR INCLUSION IN MAINTENANCE MANUAL REQUIRED BY DIVISION 01.
1. INCLUDE MANUFACTURER'S INSTRUCTIONS FOR MAINTENANCE OF INSTALLED WORK, INCLUDING METHODS AND FREQUENCY RECOMMENDED FOR MAINTAINING OPTIMUM CONDITION UNDER INTENDED USE.
2. INCLUDE PRECAUTIONS AGAINST CLEANING PRODUCTS AND METHODS WHICH MAY BE DETRIMENTAL TO FINISHES AND PERFORMANCE.

1.4 - QUALITY ASSURANCE
A. QUALIFICATIONS:
1. MANUFACTURER:
a. MUST HAVE MARKETED FAST-SETTING, HIGH STRENGTH, CEMENTITIOUS, POLISHABLE MATERIALS IN THE UNITED STATES FOR AT LEAST FIVE (5) YEARS AND MUST HAVE COMPLETED PROJECTS OF THE SAME GENERAL SCOPE AND COMPLEXITY.
b. OVERLAY AND COMPLEMENTARY MATERIALS MUST BE MANUFACTURED BY OR APPROVED FOR USE BY CTS CEMENT MANUFACTURING CORP. (800-929-3030, WWW.CTSCEMENT.COM) AND DISTRIBUTED BY THE SAME OR AN AUTHORIZED CTS CEMENT DEALER.
2. APPLICATOR:
a. MUST BE EXPERIENCED AND COMPETENT IN INSTALLATION OF FAST-SETTING, HIGH STRENGTH, CEMENTITIOUS, POLISHABLE MATERIALS AND PROVIDE EVIDENCE OF A MINIMUM OF FIVE YEARS EXPERIENCE IN WORK SIMILAR IN SIZE AND SCOPE TO THAT REQUIRED BY THIS SECTION.
b. MUST RETAIN SUFFICIENT PRODUCTION CAPABILITY, FACILITIES, AND PERSONNEL TO PRODUCE SPECIFIED WORK.
c. MUST PROVIDE PROOF OF CURRENT PLACEMENT ON THE CTS PREFERRED APPLICATOR LIST. TEMPORARY APPROVALS MUST BE APPROVED IN WRITING BY AN AUTHORIZED CTS CEMENT MANUFACTURING TECHNICAL REPRESENTATIVE AT LEAST 15 DAYS PRIOR TO INSTALLATION AND ARE REQUIRED TO HAVE AN AUTHORIZED CTS REPRESENTATIVE ON SITE FOR INITIAL APPLICATION.
3. APPLY DENSIFIERS, SEALERS, GUARDS OR STAIN PROTECTORS PER MANUFACTURERS' INSTRUCTIONS.
4. ACHIEVE WATERPROOFING, HARDENING, DUST-PROOFING, AND ABRASION RESISTANCE OF THE SURFACE WITHOUT CHANGING THE DESIGNED AESTHETICS OF THE FINISH.

SAMPLES:
1. SUBMIT SAMPLES FOR APPROVAL. REFER TO DIVISION 01 SECTION 013100 SUBMITTALS FOR
a. SAMPLES MUST BE OF MATERIALS SPECIFIED AND OF SUITABLE SIZE AS REQUIRED TO ACCURATELY REPRESENT EACH COLOR AND TEXTURE USED ON PROJECT. PREPARE EACH SAMPLE USING THE SAME TOOLS AND TECHNIQUES FOR ACTUAL PROJECT APPLICATION.
b. MAINTAIN AND MAKE APPROVED SAMPLES AVAILABLE AT THE JOB SITE THROUGHOUT THE CONSTRUCTION PROCESS AND UNTIL FINAL ACCEPTANCE.
2. MOCK-UP: NOT REQUIRED
A. WALKWAY AUDITOR:
1. CERTIFIED BY CPAA OR NFSI TO TEST POLISHED CONCRETE FLOORS FOR DYNAMIC AND STATIC COEFFICIENT OF FRICTION ACCORDING TO ANSI B101.1 AND B101.3.
B. COEFFICIENT OF FRICTION:
1. ACHIEVE FOLLOWING COEFFICIENT OF FRICTION BY FIELD QUALITY CONTROL TESTING IN ACCORDANCE TO THE FOLLOWING STANDARDS:
a. ANSI B101.1 STATIC COEFFICIENT OF FRICTION - ACHIEVE A MINIMUM OF [.5] FOR LEVEL FLOOR SURFACES.
b. ANSI B101.3 DYNAMIC COEFFICIENT OF FRICTION - ACHIEVE A MINIMUM OF [.35] FOR LEVEL FLOOR SURFACES

1.5 - PRE-INSTALLATION MEEETINGS
A. PRE-INSTALLATION CONFERENCE: CONDUCT CONFERENCE AT THE PROJECT SITE PRIOR TO INITIAL OVERLAY PLACEMENT.
B. ORGANIZE MEETING TO REVIEW SPECIFICATION REQUIREMENTS AND FINISHED AESTHETICS. REQUIRE REPRESENTATIVES OF EACH ENTITY DIRECTLY CONCERNED TO ATTEND, INCLUDING THE FOLLOWING:
1. CONTRACTOR'S SUPERINTENDENT/SUPERVISOR.
2. OVERLAY AND POLISHING SUBCONTRACTOR(S), INCLUDING FINISHERS AND SUPERVISOR.

1.6 - DELIVERY, STORAGE, AND HANDLING
A. DELIVERY: DELIVER PRODUCTS IN ORIGINAL, UNOPENED, UNDAMAGED PACKAGING WITH MANUFACTURER'S IDENTIFICATION (I.E., BRAND LOGO, PRODUCT NAME, WEIGHT OF PACKAGED UNIT, LOT NUMBER). MAINTAIN RECORDS OF MANUFACTURER'S PRODUCT LOT NUMBERS.
B. STORAGE: STORE PRODUCTS IN A DRY LOCATION, COVERED, OUT OF DIRECT SUNLIGHT, OFF THE GROUND, AND PROTECTED FROM MOISTURE. MAINTAIN STORAGE TEMPERATURE REQUIRED BY THE MANUFACTURER. KEEP MATERIALS DRY UNTIL USED. STORE BULK SAND IN A WELL-DRAINED AREA ON A CLEAN, SOLID SURFACE. COVER SAND TO PREVENT CONTAMINATION. PROTECT MATERIALS FROM TEMPERATURE EXTREMES.
C. HANDLING: HANDLE PRODUCTS IN ACCORDANCE WITH MANUFACTURER'S PUBLISHED RECOMMENDATIONS.

1.7 - SITE / ENVIRONMENTAL CONDITIONS
A. TEMPERATURE: MAINTAIN AMBIENT AND SURFACE TEMPERATURES BETWEEN 50°F (10°C) AND 90°F (32°C). DO NOT APPLY MATERIALS IF AMBIENT TEMPERATURE FALLS BELOW 50°F (10°C) WITHIN 24 HOURS OF APPLICATION. PROTECT MATERIALS FROM UNEVEN AND EXCESSIVE EVAPORATION DURING DRY WEATHER, WINDY CONDITIONS AND STRONG BLASTS OF DRY AIR.
B. INCLEMENT WEATHER: DO NOT APPLY MATERIALS DURING INCLEMENT WEATHER UNLESS APPROPRIATE PROTECTION IS EMPLOYED.
C. SUNLIGHT EXPOSURE: AVOID, WHENEVER POSSIBLE, INSTALLATION OF MATERIALS IN DIRECT SUNLIGHT WHICH COULD ADVERSELY AFFECT AESTHETICS.
D. SUBSTRATE: PRIOR TO INSTALLATION, THE SUBSTRATES MUST BE INSPECTED FOR SURFACE CONTAMINATION OR OTHER CONDITIONS THAT MAY ADVERSELY AFFECT THE PERFORMANCE OF THE MATERIALS AND BE FREE OF RESIDUAL MOISTURE.
E. COMPLY WITH MANUFACTURER'S WRITTEN INSTRUCTIONS FOR SUBSTRATE TEMPERATURE AND MOISTURE CONTENT, AMBIENT TEMPERATURE AND HUMIDITY, VENTILATION AND OTHER CONDITIONS AFFECTING PRODUCT PERFORMANCE.
F. DAMAGE AND STAIN PREVENTION: TAKE PRECAUTIONS TO PREVENT DAMAGE AND STAINING OF SUBSTRATES AND SURFACES TO BE POLISHED BEFORE AND AFTER INSTALLATION.
1. PROTECT AREAS TO RECEIVE POLISHED TOPPING AT ALL TIMES TO PREVENT OILS, DIRT, METAL, EXCESSIVE WATER AND OTHER POTENTIALLY DAMAGING MATERIALS FROM AFFECTING THE FINISHED SURFACE.
2. PROHIBIT USE OF MARKERS, SPRAY PAINT, AND SOAPSTONE.
3. PROHIBIT VEHICLE TRAFFIC OVER SURFACES. IF NECESSARY TO COMPLETE A SCOPE OF WORK, DROP CLOTHS OR OTHER SUITABLE MATERIALS MUST BE PLACED UNDER VEHICLES AT ALL TIMES.
4. PREVENT STAINING BY HYDRAULIC-POWERED EQUIPMENT FLUIDS.
5. PROHIBIT STEEL FROM BEING PLACED ON THE FINISHED SURFACE TO AVOID RUSTING.
6. PROHIBIT PIPE-CUTTING OPERATIONS OVER SURFACES.
7. PROHIBIT FERROUS METALS STORAGE OVER SURFACES.
8. PROTECT FROM PETROLEUM, OIL, HYDRAULIC FLUID, OR OTHER LIQUID DRIPPING FROM EQUIPMENT WORKING OVER SURFACES.
9. PROTECT FROM ACIDS AND ACIDIC DETERGENTS CONTACTING SUBSTRATES AND SURFACES TO BE POLISHED.
10. PROTECT FROM PAINTING ACTIVITIES.
11. ALL TRADES MUST BE INFORMED THAT THE SURFACES MUST BE PROTECTED AT ALL TIMES.
12. INSTALLED TOPPING AREA MUST BE CLOSED TO TRAFFIC DURING FINISH FLOOR APPLICATION AND AFTER APPLICATION FOR THE LENGTH OF TIME RECOMMENDED BY THE MANUFACTURER.

1.8 - COORDINATION AND SCHEDULING
A. COORDINATE INSTALLATION OF MATERIALS WITH ALL OTHER TRADES TO AVOID IMPEDING OTHER CONSTRUCTION.
B. SUFFICIENT MANPOWER MUST BE PROVIDED TO ENSURE CONTINUOUS APPLICATION AND TIMELY FINISHING.

PART 2 - PRODUCTS

2.1 - MANUFACTURERS
A. BASIS OF DESIGN:
CTS CEMENT MANUFACTURING CORP.
12442 KNOTT STREET
GARDEN GROVE, CA 92841
TELEPHONE: (800) 929-3030
WWW.CTSCEMENT.COM
B. COMPONENTS: OBTAIN OVERLAY AND COMPLEMENTARY MATERIALS MANUFACTURED BY CTS CEMENT FROM AUTHORIZED DISTRIBUTORS. NO SUBSTITUTIONS OR ADDITIONS OF OTHER MATERIALS ARE PERMITTED WITHOUT PRIOR WRITTEN PERMISSION FROM THE MANUFACTURER FOR THIS PROJECT.

2.2 - MATERIALS - NO SUBSTITUTIONS - [CNC-2] - SEE SHEET A-120
A. FAST SETTING, HIGH STRENGTH, CEMENTITIOUS POLISHABLE OVERLAY:
1. RAPID SET® TRU PC [GRAY]: A PRE-PACKAGED, HIGH-PERFORMANCE, FAST-SETTING, HIGH-FLOW, SELF-LEVELING CEMENTITIOUS, POLISHABLE OVERLAY MATERIAL MIXED WITH WATER ON SITE. SUITABLE FOR USE INTERIOR AND EXTERIOR, IN WET AND DRY CONDITIONS, FOR FLOORING APPLICATIONS WHERE HIGH DURABILITY, RAPID STRENGTH GAIN AND POLISHED AESTHETICS ARE DESIRED. IDEAL FOR FAST-TRACK PROJECTS READY FOR FOOT TRAFFIC IN 2 TO 3 HOURS; COATINGS IN 12 HOURS; GRIND AND POLISH IN 24 HOURS. ORDER PRODECT NO. 3000 EXTENDED 25% WITH 1/4" TRU AGGREGATE.
B. PRIMER:
1. RAPID SET® TXP™ FAST: A HIGH-PERFORMANCE, 100% SOLIDS, NO VOC, FAST-CURING, MOISTURE TOLERANT, INTERIOR EPOXY PRIMER DESIGNED FOR USE WITH CEMENTITIOUS OVERLAYS. PROVIDES HIGH BOND STRENGTH TO ENSURE STRONG ADHESION. ACCEPTABLE MVER ≤ 10 LBS/1000 SQ. FT. PER 24 HR. AND RH ≤100%. READY FOR OVERLAY IN 4-6 HOURS.
C. ADDITIVES AND ADMIXTURE MATERIALS MUST BE APPROVED FOR USE BY CTS CEMENT MANUFACTURING CORP. PRIOR TO USE.
1. 1/4" TRU AGGREGATE
D. WATER: CLEAN, POTABLE WATER FREE OF DELETERIOUS AMOUNTS OF SILT AND DISSOLVED SALTS.

2.3 MATERIAL PERFORMANCE
A. FAST SETTING, HIGH STRENGTH, NON-SHRINK CEMENTITIOUS POLISHABLE OVERLAY
1. MINIMUM PERFORMANCE REQUIREMENTS:
a. FINISHED SHEEN/GLOSS LEVEL:
POLISHED CONCRETE LEVEL 2 – (400 GRIT) HONED: AT A DISTANCE OF 30 TO 50 FEET, THE FLOOR WILL CLEARLY REFLECT FROM SIDE AND OVERHEAD LIGHTING AND ACHIEVE GLOSS METER READINGS OF 41 TO 55.
b. FLOOR FLATNESS AND LEVELNESS REQUIREMENTS ARE:
FF = 40, SPECIFIED OVERALL VALUE IN
FF = 35, MINIMUM LOCAL VALUE

SUBSTRATE FLOOR FLATNESS AND LEVELNESS SHOULD BE TESTED PRIOR TO INSTALLATION OF THE OVERLAY ACCORDING TO ASTM E1155 *STANDARD TEST METHOD FOR DETERMINING FF FLOOR FLATNESS AND FL FLOOR LEVELNESS NUMBERS* BY AN INDEPENDENT TESTING AGENCY EXPERIENCED WITH THE TESTING PROCEDURE AND POSSESSING THE NECESSARY EQUIPMENT

2.4 - AGGREGATES
A. FINE AND COARSE AGGREGATES MUST CONFORM TO ASTM C33/C33M.
B. LIGHTWEIGHT AGGREGATES MUST CONFORM TO ASTM C330/C330M.
C. DECORATIVE BROADCAST AGGREGATES: 1/4 TRU BROADCAST AGGREGATE
D. PROVIDE AGGREGATES FROM A SINGLE SOURCE WITH A DOCUMENTED SATISFACTORY SERVICE RECORD FOR AT LEAST 10 YEARS IN SIMILAR APPLICATIONS AND SERVICE CONDITIONS USING SIMILAR AGGREGATES AND CEMENTITIOUS MATERIALS

2.5 - RELATED MATERIALS
A. REPAIR MATERIALS: PRODUCTS DESIGNED TO REPAIR CRACKS AND SURFACE IMPERFECTIONS PRIOR TO APPLICATION OF OVERLAY MATERIAL.
1. RAPID SET LEVELFLOR®: A QUICK SETTING, HYDRAULIC CEMENT-BASED, SELF-LEVELING FLOOR UNDERLAYMENT SUITABLE FOR USE BOTH INDOORS AND OUTDOORS TO PRODUCE A FLAT, STRONG SURFACE. APPLIED AT 0.25 TO 2.0" DEPTH NEAT, UP TO 5" EXTENDED.
2. RAPID SET CEMENT ALL®: A PRE-PACKAGED, HIGH-PERFORMANCE, FAST-SETTING, MULTI-PURPOSE, NON-METALLIC, CEMENTITIOUS, NON-SHRINK GROUT AND CONCRETE REPAIR MATERIAL MIXED WITH WATER ON SITE. SUITABLE FOR USE IN WET ENVIRONMENTS AND ANY APPLICATION WHERE HIGH DURABILITY AND RAPID STRENGTH GAIN ARE DESIRED. STRUCTURAL STRENGTH IS ACHIEVED IN ONE (1) HOUR. SUITABLE FOR STRUCTURAL AND NON-STRUCTURAL APPLICATIONS. APPLIED AT 0 TO 4" DEPTH.
3. RAPID SET® MORTAR MIX: A PRE-PACKAGED, TROWEL GRADE, HIGH-PERFORMANCE, FAST-SETTING, MULTI-PURPOSE, NON-METALLIC, CEMENTITIOUS REPAIR MATERIAL [WITH INTEGRAL AIR ENTRAINMENT] MIXED WITH WATER ON SITE. SUITABLE FOR INDOOR AND OUTDOOR USE, USE IN WET ENVIRONMENTS, AND FOR ANY APPLICATION WHERE HIGH DURABILITY, RAPID STRENGTH GAIN AND LOW SHRINKAGE ARE DESIRED. STRUCTURAL STRENGTH IS ACHIEVED IN ONE (1) HOUR. SUITABLE FOR STRUCTURAL AND NON-STRUCTURAL APPLICATIONS FROM 1/2 IN. TO 6 IN. DEPTHS.
4. RAPID SET® CONCRETE MIX: A PRE-PACKAGED, TROWEL GRADE, HIGH-PERFORMANCE, FAST-SETTING, MULTI-PURPOSE, NON-METALLIC, CEMENTITIOUS REPAIR MATERIAL [WITH INTEGRAL AIR ENTRAINMENT] MIXED WITH WATER ON SITE. SUITABLE FOR INDOOR AND OUTDOOR USE, USE IN WET ENVIRONMENTS, AND FOR ANY APPLICATION WHERE HIGH DURABILITY, RAPID STRENGTH GAIN AND LOW SHRINKAGE ARE DESIRED. STRUCTURAL STRENGTH IS ACHIEVED IN ONE (1) HOUR. SUITABLE FOR STRUCTURAL AND NON-STRUCTURAL APPLICATIONS FROM 2 IN. TO 24 IN. DEPTHS.
5. METZGER/MCGUIRE RAPID REFLOOR: A 100% SOLIDS, TWO-COMPONENT, LOW VISCOSITY STRUCTURAL POLYUREA/POLYURETHANE HYBRID INTENDED FOR USE IN REPAIRING CRACKS AND SMALL SURFACE DEFECTS SUCH AS BOLT HOLES AND POP-OUTS IN INDUSTRIAL, RETAIL OR COMMERCIAL CONCRETE FLOORS.
6. CLEANED TO THE SATISFACTION OF THE PROJECT DESIGNER/OWNER.
7. LIQUID DENSIFIER: AN AQUEOUS SOLUTION OF SILICON DIOXIDE DISSOLVED IN ONE OF THE FOLLOWING HYDROXIDES THAT PENETRATES INTO THE CONCRETE SURFACE AND REACTS WITH THE CALCIUM HYDROXIDE TO PROVIDE A PERMANENT CHEMICAL REACTION THAT HARDENS AND DENSIFIES THE WEAR SURFACE OF THE CEMENTITIOUS PORTION OF THE CONCRETE. ALL OF THE FOLLOWING HAVE THE SAME CHEMISTRY VARYING ONLY BY THE ALKALI USED FOR SOLUBILITY OF THE SILICON DIOXIDE.
a. SODIUM SILICATE
b. POTASSIUM SILICATE
c. LITHIUM SILICATE
d. ALKALIS SOLUTION OF COLLOIDAL SILICATES OR SILICA
8. ADMIXTURES: MUST CONFORM TO ASTM C494. ALL ADDITIVES AND ADMIXTURE MATERIALS MUST BE APPROVED FOR USE BY CTS CEMENT MANUFACTURING CORP. PRIOR TO USE.
9. SAND: WASHED AND KILN DRIED ANGULAR CUT #20 - #30 GRIT SILICA SAND FOR USE WITH PRIMER.
10. INSTALLATION ACCESSORIES: GAUGE RAKES, SPREADERS OR ROLLERS FOR OVERLAY PLACEMENT. USE THE RAPID SET® TRU® PC SPIKED ROLLER TO REMOVE ENTRAPPED AIR.

2.6 - PIGMENTS/COLORANTS: NOT USED

2.7 - SEALER/DENSIFIER
A. SEALER - SEMI IMPREGNATING STAIN PROTECTION: A FILM FORMING MATERIAL WHICH WILL PENETRATE INTO THE POLISHED AND DENSIFIED CONCRETE LEAVING A PROTECTIVE SURFACE FILM OF LESS THAN .05 MILS WHICH MEETS THE OSHA REQUIREMENTS FOR SLIP RESISTANCE AS TESTED BY ASTM D 2047 AND STAIN RESISTANCE OF ASTM D 1308
1. AMERIPOLISH 3D SP™ OR EQUAL: A BREATHABLE SEMI-PENETRATING/ SEMI-TOPICAL SEALER THAT HELPS TO PROTECT SURFACES AGAINST STAINS AND ETCHING. 3D SP™ CREATES A WATER-RESISTANT BARRIER THAT PREVENTS LIQUIDS FROM INFILTRATING THE SURFACE, PROTECTING AGAINST STAINING AND COLOR DISPERSION. CONTAINS 3D DENSIFIER PROPERTIES TO AID IN HARDENING AND DUST PROOFING

2.8 - JOINT AND CRACK FILL MATERIALS
A. SAW CUT CONTRACTION/CONSTRUCTION JOINT FILLER AND CRACK FILLER
1. METZGER/MCGUIRE SPAL-PRO RS 88 SEMI-RIGID POLYUREA JOINT FILLER.
2. METZGER/MCGUIRE MM-80/MM-80P SEMI-RIGID POLYUREA JOINT FILLER.
3. METZGER/MCGUIRE RAPID REFLOOR.
B. COLOR TO MATCH ADJACENT FINISHED FLOOR SURFACE

2.9 - POLISHING EQUIPMENT
A. FIELD GRINDING AND POLISHING EQUIPMENT:
1. A MULTIPLE-HEAD, COUNTER-ROTATING, WALK-BEHIND OR RIDE-ON MACHINE, OF VARIOUS SIZE AND WEIGHTS, WITH DIAMOND TOOLING AFFIXED TO THE HEAD FOR THE PURPOSE OF GRINDING CONCRETE. EXCLUDES JANITORIAL MAINTENANCE EQUIPMENT.
a. MINIMUM THREE (3) HEAD COUNTER ROTATING, VARIABLE SPEED FLOOR GRINDER WITH AT LEAST 600 POUNDS OF DOWN PRESSURE.
2. IF DRY GRINDING, HONING, OR POLISHING, USE DUST EXTRACTION EQUIPMENT WITH FLOW RATE SUITABLE FOR DUST GENERATED, WITH SQUEEGEE ATTACHMENTS.
3. IF WET GRINDING, HONING, OR POLISHING, USE SLURRY EXTRACTION EQUIPMENT SUITABLE FOR SLURRY REMOVAL AND CONTAINMENT PRIOR TO PROPER DISPOSAL.
B. EDGE GRINDING AND POLISHING EQUIPMENT: HAND-HELD OR WALK-BEHIND MACHINES WITH DUST EXTRACTION ATTACHMENTS AND PADS WHICH PRODUCES SAME RESULTS, WITHOUT NOTICEABLE DIFFERENCES, AS FIELD GRINDING AND POLISHING EQUIPMENT.
C. BURNISHING EQUIPMENT: HIGH SPEED WALK-BEHIND OR RIDE-ON MACHINES CAPABLE OF GENERATING 1000 TO 2000 REVOLUTIONS PER MINUTE AND WITH SUFFICIENT HEAD PRESSURE OF NOT LESS THAN 20 POUNDS TO RAISE FLOOR TEMPERATURE BY 20 DEGREES F.
D. DIAMOND TOOLING: ABRASIVE TOOLS THAT CONTAIN INDUSTRIAL GRADE DIAMONDS WITHIN A BONDED MATRIX (SUCH AS METALLIC, RESINOUS, CERAMIC, ETC.) THAT ARE ATTACHED TO ROTATING HEADS TO REFINE THE CONCRETE SUBSTRATE.
1. BONDED ABRASIVE: ABRASIVE MEDIUM THAT IS HELD WITHIN A BONDING THAT ERODES AWAY TO EXPOSE NEW ABRASIVE MEDIUM AS IT IS USED.
2. METAL BOND TOOLING: DIAMOND TOOLING THAT CONTAINS INDUSTRIAL GRADE DIAMONDS WITH A METALLIC BONDED MATRIX THAT IS ATTACHED TO ROTATING HEADS TO REFINE THE CONCRETE SUBSTRATE. THESE TOOLS ARE AVAILABLE IN LEVELS OF SOFT, MEDIUM, AND HARD METALLIC MATRICES THAT ARE MATCHED WITH CONTRASTING CONCRETE SUBSTRATES (I.E. HARD MATRIX/SOFT CONCRETE, MEDIUM MATRIX/MEDIUM CONCRETE, SOFT MATRIX/HARD CONCRETE) AND ARE TYPICALLY USED IN THE GRINDING AND EARLY HONING STAGES OF THE POLISHING PROCESS.
3. RESIN BOND TOOLING: DIAMOND TOOLING THAT CONTAINS INDUSTRIAL GRADE DIAMONDS WITHIN A RESINOUS BONDED MATRIX (POLY-PHENOLIC, ESTER-PHENOLIC, THERMOPLASTIC-PHENOLIC) THAT IS ATTACHED TO ROTATING HEADS TO REFINE THE CONCRETE SUBSTRATE. RESIN BOND TOOLING DOES NOT HAVE THE SOFT/MEDIUM/HARD CHARACTERISTICS OF METAL BOND TOOLING AND ARE TYPICALLY USED FOR THE LATER HONING AND POLISHING STAGES OF THE POLISHING PROCESS.
4. HYBRID TOOLING: DIAMOND TOOLING THAT COMBINES METAL BOND AND RESIN BOND THAT HAS THE CHARACTERISTICS OF BOTH TYPES OF TOOLING. THESE TYPES OF TOOLS ARE TYPICALLY USED AS EITHER TRANSITIONAL TOOLING FROM METAL BOND TOOLS TO RESIN BOND TOOLS OR AS A FIRST CUT TOOL ON SMOOTH CONCRETE SURFACES.
5. TRANSITIONAL TOOLING: DIAMOND TOOLING THAT IS USED TO REFINE THE SCRATCH PATTERN OF METAL BOND TOOLING PRIOR TO THE APPLICATION OF RESIN BOND TOOLING IN AN EFFORT TO EXTEND THE LIFE OF RESIN BOND TOOLING AND TO CREATE A BETTER FOUNDATION FOR THE POLISHING PROCESS.
6. ABRASIVE PAD: AN ABRASIVE PAD, RESEMBLING A TYPICAL FLOOR MAINTENANCE BURNISHING PAD, THAT HAS THE CAPABILITY OF REFINING THE CONCRETE SURFACE ON A MICROSCOPIC LEVEL THAT MAY OR MAY NOT CONTAIN INDUSTRIAL GRADE DIAMONDS. THESE PADS ARE TYPICALLY USED FOR THE MAINTENANCE AND/OR RESTORATION OF PREVIOUSLY INSTALLED POLISHED CONCRETE FLOORING.
E. POWER SUPPLY: ENSURE APPROPRIATE POWER SOURCES, GENERATORS, ETC. AS REQUIRED TO PRODUCE SPECIFIED WORK AND AVOID DISRUPTION OR DELAYS ON THE PROJECT.
F. DUST EXTRACTION: PROVIDE DUST EXTRACTION SYSTEM, PRE-SEPARATOR, AND SQUEEGEE ATTACHMENTS WITH MINIMUM FLOW RATING OF 580 CUBIC FEET PER MINUTE.

PART 3 - EXECUTION

3.1 - EXAMINATION
A. VERIFY PROJECT SITE CONDITIONS UNDER PROVISIONS OF SECTION 01 00 00.
B. COMPLIANCE: COMPLY WITH MANUFACTURER'S INSTRUCTIONS FOR INSTALLATION OF MATERIALS. EXISTING CONCRETE MUST HAVE A MINIMUM COMPRESSIVE STRENGTH OF 3000 PSI AND A MINIMUM DENSITY OF 100 PCF (POUNDS PER CUBIC FOOT).
C. COORDINATE INSTALLATION WITH ADJACENT WORK TO ENSURE PROPER SEQUENCING OF CONSTRUCTION.
D. PROTECT ADJACENT AND SURROUNDING SURFACES NOT SPECIFIED TO RECEIVE OVERLAY WITH NECESSARY MEANS TO ENSURE PROTECTION AGAINST OVERSPRAY, WATER OR OTHER HARMFUL DEBRIS.
E. CLOSE OFF AREAS RECEIVING OVERLAY DURING INSTALLATION FROM ALL TRAFFIC AND STOP EXCESSIVE AIR MOVEMENT ACROSS THE TOP OF THE SURFACE UNTIL OVERLAY HAS REACHED FINAL SET.
F. ADVISE CONTRACTOR OF DISCREPANCIES PREVENTING PROPER INSTALLATION OF MATERIALS. DO NOT PROCEED WITH THE WORK UNTIL UNSATISFACTORY CONDITIONS ARE CORRECTED.

3.2 - VAPOR TESTING CONCRETE FLOORS
A. ALKALINITY:
1. TEST METHOD: MEASURE PH ACCORDING TO METHOD INDICATED IN ASTM F 710.
2. ACCEPTABLE RESULTS: PH BETWEEN 8 AND 14.
B. MOISTURE VAPOR TRANSMISSION RATE:
1. TEST METHOD: PERFORM ANHYDROUS CALCIUM CHLORIDE TEST ACCORDING TO ASTM F 1869.
2. ACCEPTABLE RESULTS: UP TO 10 POUNDS PER 1000 SQUARE FEET IN 24 HOURS WHEN ONE COAT OF TXP FAST PRIMER IS USED AT A MINIMUM 10 MILS. WHEN TEST RESULTS INDICATE OVER 10 POUNDS UP TO 20 POUNDS PER 1000 SQUARE FEET IN 24 HOURS, USE TWO COATS OF TXP FAST PRIMER AS FOLLOWS:
a. APPLY TWO COATS WITH THE FIRST COAT APPLIED NEAT AT A MINIMUM 16 MIL THICKNESS, FOLLOWED BY A SECOND COAT AT A MINIMUM OF 10 MILS WITH FULL BROADCAST AGGREGATE TO ACHIEVE A TOTAL MINIMUM THICKNESS OF 26 MILS.
C. RELATIVE HUMIDITY:
1. TEST METHOD: PERFORM RELATIVE HUMIDITY TEST USING IN SITU PROBES ACCORDING TO ASTM F 2170.
2. ACCEPTABLE RESULTS: UP TO 100 PERCENT.
D. WHEN ADDITIONAL SEALERS, GUARDS OR COATINGS ARE USED, THE MANUFACTURER'S MVT AND RH RECOMMENDATIONS MUST BE FOLLOWED.

3.3 - PREPARATION
A. MECHANICALLY ROUGHEN SURFACES AND REMOVE ALL LOOSE, UNSOUND, CONTAMINATED MATERIAL.
B. USE APPROPRIATE MECHANICAL MEANS AND METHODS TO COMPLETELY REMOVE EXISTING FLOOR COVERINGS, COATINGS, MASTICS, PAINTS, ADHESIVES AND OTHER FLOOR MATERIALS THAT MAY INHIBIT BOND.
C. BONDING SURFACES MUST BE CLEAN, SOUND, AND FREE FROM ANY MATERIALS THAT MAY INHIBIT BOND SUCH AS OIL, DIRT, ASPHALT, SEALING COMPOUNDS, ACIDS, WAX AND LOOSE DUST AND DEBRIS.
D. PREVENT DAMAGE TO SUBSTRATE DURING DEMOLITION AND PREPARATION.
E. CORRECT CONDITIONS THAT ARE FOUND TO BE OUT OF COMPLIANCE WITH THE REQUIREMENTS OF THIS SECTION, TO INCLUDE SUBSTRATE REPAIR AND PRE-LEVELING, JOINT AND CRACK TREATMENT AS REQUIRED TO ACHIEVE THE SPECIFIED FINISH.
F. MECHANICALLY PREPARE THE SUBSTRATE TO AN ICRI CSP 3-5.
G. WHERE REQUIRED, PLACE DIVIDER/TERRAZZO STRIPS. LEVEL AND SET STRIPS TO APPROPRIATE HEIGHTS PRIOR TO POURING THE OVERLAY.
H. PIN OR OTHERWISE MARK ALL EXISTING JOINT LOCATIONS TO ENSURE THEY CAN BE LOCATED AND RE-SAW CUT AFTER PLACEMENT OF TOPPING.
I. PRIME THE PREPARED CONCRETE IN ACCORDANCE WITH MANUFACTURER'S PUBLISHED PROCEDURES AND RECOMMENDATIONS.
J. IMMEDIATELY BROADCAST WASHED AND KILN DRIED ANGULAR CUT #20 - #30 GRIT SILICA SAND ONTO EPOXY PRIMER ENSURING COMPLETE COVERAGE PRIOR TO INITIAL SET. BROADCAST TO REFUSAL.
K. AFTER EPOXY PRIMER CURES, REMOVE ALL LOOSE SILICA SAND

3.4 - MIXING
A. COMPLY WITH MANUFACTURER'S PRINTED INSTRUCTIONS.
B. INCLUDE CAREFUL MONITORING OF MIX WATER VOLUME BEING USED, WITH ALLOWANCE FOR THE FOLLOWING SPECIAL DESIGNS.
1. ANY DECORATIVE AGGREGATES USED AND LOADING DOSAGE AS RECOMMENDED AND APPROVED BY THE OVERLAY MANUFACTURER.
2. INTEGRAL COLORANTS. MUST BE APPROVED BY THE OVERLAY MANUFACTURER AND WATER VOLUME PER MIX VERIFIED.
C. USE CS UNITEC (HIPPO MIXER), BATCH MIXERS OR EQUIVALENT TO PREPARE OVERLAY MATERIAL. IF BARREL MIXING, USE A 1/2" HEAVY-DUTY DRILL (12 MM) WITH A MINIMUM OF 650 RPM.
D. CLEAN BARRELS/MIXERS PERIODICALLY TO REMOVE ANY UNMIXED AND/OR HARDENED MATERIAL PRIOR TO PLACING THE MIXED OVERLAY ONTO THE FLOOR.
E. VERIFY PROPER FLOW USING THE RAPID SET® SELF LEVELING PRODUCTS FIELD FLOW TEST.

3.5 - APPLICATION
A. COMPLY WITH MANUFACTURER'S PRINTED INSTRUCTIONS AND THE FOLLOWING:
1. VERIFY THAT ALL SUBSTRATES AND AMBIENT TEMPERATURES ARE BETWEEN 50°F (10°C) AND 90°F (32°C) AND WILL REMAIN WITHIN RANGE UNTIL THE OVERLAY HAS REACHED FULL CURE. IDEAL INSTALLATION CONDITIONS ARE 60°F (15.6°C) TO 80°F (26.7°C).
2. TO PREVENT PINHOLING AND MICRO-CRAZING, ELIMINATE AIR MOVEMENT OVER THE SURFACE AND DO NOT APPLY OVERLAY WHEN RELATIVE HUMIDITY IS BELOW 30%.
3. HAVE ALL REQUIRED TOOLS, EQUIPMENT AND MATERIALS ORGANIZED AND AS CLOSE TO THE PLACEMENT AREA AS POSSIBLE.
4. POUR OR PUMP OVERLAY AND SPREAD IN PLACE WITH A GAUGE RAKE SET AT THE APPROPRIATE THICKNESS . USE THE RAPID SET TRU® PC SPIKED ROLLER TO COAX THE MATERIAL INTO PLACE. USE ROUNDED METAL SPIKED SHOES TO AVOID DAMAGING THE PRIMER. CONTACT THE CTS CEMENT TECHNICAL SUPPORT (800.929.3030) IF OTHER TOOLS ARE REQUIRED. USE METHODS THAT AVOID PINHOLES.
5. PLACE OVERLAY TO GRADE LEVELS REQUIRED AND TO CONFORM TO DRAWING DETAILS.
6. THE MINIMUM INSTALLATION THICKNESS MUST BE 3/8" MINIMUM.

3.6 - CURING
A. FOR EXTERIOR APPLICATIONS, APPLY A FINE WATER MIST TO NEWLY HARDENED SURFACE AS SOON AS IT CAN BE DONE WITHOUT MARRING THE SURFACE. FINE WATER MIST CONTINUOUSLY UNTIL ONE HOUR AFTER FINAL SET.
B. ALLOW TOPPING TO CURE FOR A MINIMUM OF FOUR (4) HOURS PRIOR TO SAW CUTTING JOINTS.
C. PREVENT DAMAGE TO OVERLAY AND PROTECT FROM ALL TRAFFIC FOR THE LENGTH OF TIME RECOMMENDED BY THE MANUFACTURER.

3.7 - COLORING CONCRETE FLOORS: [RESERVED]

3.8 - JOINT CUTTING, PREPARATION AND FILLING
A. JOINTS MUST BE INSTALLED PRIOR TO THE POLISHING PROCESS.
B. HONOR ALL EXISTING JOINTS. LOCATE ORIGINAL JOINT LOCATIONS AND SAW CUT THROUGH TOPPING INTO THE ORIGINAL JOINT. SAW BLADE MUST PENETRATE TO THE DEPTH OF THE ORIGINAL JOINT OR 2" DEEP, WHICHEVER IS SMALLER. PREFILL JOINTS GREATER THAN 2" DEEP.
C. ENSURE SAW-CUT JOINT IS COMPLETELY FREE OF DUST/DEBRIS/LAITANCE.
D. APLY STAIN PREVENTION FILM OR OTHER MASKING AGENT ALONG SURFACE ON BOTH SIDES OF THE JOINT TO AVOID RESIDUAL STAINING.
E. INSTALL JOINT FILLER. FILL FROM THE BOTTOM OF THE JOINT, BEING CAREFUL TO AVOID ENTRAPPING AIR.
F. SLIGHTLY OVERFILL JOINT TO A CROWNED PROFILE.
G. AFTER SUFFICIENT CURE, RAZOR EXCESS FILLER LEAVING A FILLER PROFILE THAT IS FLUSH WITH FLOOR SURFACE.
H. IF FILLER PROFILE IS LOW/CONCAVE, REMOVE TOP 1/2" OF FILLER AND RE-APPLY

3.9 - POLISHING
A. ALLOW OVERLAY TO CURE FOR A MINIMUM OF 24 HOURS BEFORE BEGINNING THE POLISHING PROCESS.
B. USE OVERLAY MANUFACTURER'S APPROVED POLISHING SYSTEM FROM ONE OF THE FOLLOWING MANUFACTURERS:
1. HTC
2. SASE
3. HUSQVARNA
4. LAVINA
5. STI
C. COMPLY WITH OVERLAY MANUFACTURER'S AND POLISHING EQUIPMENT MANUFACTURER'S PUBLISHED TECHNICAL BULLETINS AND GUIDELINES

3.10 - SEALING
A. APPLY DENSIFIERS, SEALERS, GUARDS OR STAIN PROTECTORS PER MANUFACTURERS' INSTRUCTIONS.
B. ACHIEVE WATERPROOFING, HARDENING, DUST-PROOFING, AND ABRASION RESISTANCE OF THE SURFACE WITHOUT CHANGING THE DESIGNED AESTHETICS OF THE FINISH.

3.11 - PROTECTION
A. PREVENT DAMAGE TO OVERLAY AND PROTECT FROM ALL TRAFFIC FOR AT LEAST 72 HOURS AFTER FINAL SURFACE TREATMENT.
B. DO NOT ALLOW STANDING WATER, RUBBER MATTING, OR OTHER NON-BREATHABLE OBJECTS ONTO THE POLISHED SURFACE.
C. PROTECT THE FINISHED SURFACES FROM DAMAGE, SOILING AND OTHER CONSTRUCTION ACTIVITIES.
D. PROVIDE SUITABLE PROTECTIVE COVER WITHOUT DAMAGING THE POLISHED SURFACE.
E. FOLLOW MAINTENANCE GUIDELINES AS PROVIDED IN SECTION 1.4 SUBMITTALS

3.12 - CLEAN-UP
A. REMOVE AND LEGALLY DISPOSE OF DEBRIS MATERIAL FROM JOB SITE.
B. CLEAN EXCESS MATERIAL FROM SURROUNDING AREAS AND ALL TOOLS IMMEDIATELY, BEFORE MATERIAL CURES. IF MATERIALS HAVE CURED, REMOVE USING MECHANICAL METHODS THAT WILL NOT DAMAGE THE SUBSTRATE.
C. CLEAN ADJACENT SURFACES AS NEEDED USING MATERIALS AND METHODS RECOMMENDED BY THE MANUFACTURER OF THE MATERIAL BEING CLEANED. REMOVE AND REPLACE WORK THAT CANNOT BE CLEANED TO THE SATISFACTION OF THE PROJECT DESIGNER/OWNER.

END OF SECTION - 035300

SECTION 039250 – REPAIR MORTARS [CNC-3]

PART 1 - GENERAL

1.1 - SUMMARY
A. THIS SECTION INCLUDES A FILM FORMING, NON-FLAMMABLE, UV STABLE HIGH SOLIDS CONCRETE SEALER
1. ARDEX PC 60™ PERFORMANCE SEALER FOR STAIN & WEAR PROTECTION
OR APPROVED ALTERNATE
2. ARDEX CG™ CONCRETE GUARD™ HIGH PERFORMANCE, HIGH SOLIDS CONCRETE SEALER
B. RELATED SECTIONS INCLUDE THE FOLLOWING:
1. SECTION 03 30 00, CAST-IN-PLACE CONCRETE

1.2 - QUALITY ASSURANCE
A. INSTALLATION OF THE ARDEX PRODUCT MUST BE COMPLETED BY A FACTORY-TRAINED APPLICATOR USING MIXING EQUIPMENT AND TOOLS APPROVED BY THE MANUFACTURER. PLEASE CONTACT ARDEX ENGINEERED CEMENTS (724) 203-5000 FOR A LIST OF RECOMMENDED INSTALLERS.

1.5 - DELIVERY, STORAGE AND HANDLING
A. DELIVER PRODUCTS IN ORIGINAL PACKAGING, LABELED WITH PRODUCT IDENTIFICATION, MANUFACTURER, BATCH NUMBER AND SHELF LIFE.
B. STORE PRODUCTS IN A DRY AREA WITH TEMPERATURE MAINTAINED BETWEEN 50° AND 85° F (10° AND 29°) AND PROTECT FROM DIRECT SUNLIGHT.
C. HANDLE PRODUCTS IN ACCORDANCE WITH MANUFACTURER'S PRINTED RECOMMENDATIONS.

1.6 - PROJECT CONDITIONS
A. DO NOT INSTALL MATERIAL BELOW 50° F (10° C) SURFACE AND AIR TEMPERATURES. THESE TEMPERATURES MUST ALSO BE MAINTAINED DURING AND FOR 48 HOURS AFTER THE INSTALLATION OF PRODUCTS INCLUDED IN THIS SECTION. INSTALL QUICKLY IF SUBSTRATE IS WARM AND FOLLOW WARM WEATHER INSTRUCTIONS AVAILABLE FROM THE ARDEX TECHNICAL SERVICE DEPARTMENT.
B. PROCESS: MECHANICALLY GRIND WITH DIAMOND TOOLING TO REMOVE EXISTING COATING ON THE CONCRETE SURFACE AND TO IT'S PENETRATED DEPTH FOLLOWED BY PROGRESSION OF DIAMOND TOOLING TO THE DESIRED HONED OR POLISHED LEVEL DESIRED. DIAMOND TOOLING MAY INCLUDE METAL BONDED DIAMONDS, TRANSITIONAL CERAMIC BONDED DIAMONDS, RESIN BONDED DIAMONDS.

PART 2 - PRODUCTS

2.1 - REPAIR MATERIALS:
A. WHERE SPALLS, REPAIR, OR MINOR PATCHWORK IS NECESSARY APPLY ARDEX PC-R™ AS NECESSARY AND IN ACCORDANCE WITH RECOMMENDATIONS, APPLIED AT THE APPROPRIATE TIME DURING THE HONING PROCESS.
B. IF NECESSARY, CORRECT EXCESSIVE PINHOLES WITH ARDEX PC-M™. CONTACT THE ARDEX TECHNICAL SERVICES DEPARTMENT FOR RECOMMENDATIONS.

2.2 - SEALER:
1. ARDEX PC 60™ PERFORMANCE SEALER FOR STAIN & WEAR PROTECTION
OR APPROVED ALTERNATE
2. ARDEX CG™ CONCRETE GUARD™ HIGH PERFORMANCE, HIGH SOLIDS CONCRETE SEALER

PART 3 – EXECUTION

3.1 - PREPARATION
A. GENERAL: PREPARE SUBSTRATE IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS. PRIOR TO PROCEEDING WITH ANY REPAIR, PLEASE REFER TO THE INTERNATIONAL CONCRETE REPAIR INSTITUTE'S ICRI 03730 GUIDE FOR SURFACE PREPARATION FOR THE REPAIR OF DETERIORATED CONCRETE RESULTING FROM REINFORCING STEEL CORROSION; ICRI 03732 GUIDELINE FOR SELECTING AND SPECIFYING CONCRETE SURFACE PREPARATION FOR SEALERS, COATINGS, AND POLYMER OVERLAYS; AND THE AMERICAN CONCRETE INSTITUTE'S ACI 546R-04 CONCRETE REPAIR GUIDE FOR GENERAL GUIDELINES FOR CONCRETE REPAIR.
1. ALL CONCRETE AND MASONRY SUBSTRATES MUST BE SOUND, SOLID, DRY, AND COMPLETELY FREE OF ALL OIL, GREASE, DIRT, CURING COMPOUNDS AND ANY SUBSTANCE THAT MIGHT ACT AS A BOND BREAKER. OVERWATERED, FROZEN OR OTHERWISE WEAK CONCRETE SURFACES MUST ALSO BE CLEANED DOWN TO SOUND, SOLID CONCRETE BY MECHANICAL METHODS SUCH AS SCARIFYING, SCABBLING OR SIMILAR IN ACCORDANCE WITH ICRI 03732. BEFORE PRIMING. ACID ETCHING AND THE USE OF SWEEPING COMPOUNDS AND SOLVENTS ARE NOT ACCEPTABLE.
B. JOINT PREPARATION
1. MOVING JOINTS – A FLEXIBLE SEALING COMPOUND SUCH AS ARDEX ARDISEAL™ MAY BE INSTALLED.
2. SAW CUTS AND CONTROL JOINTS – FILL ALL NON-MOVING JOINTS WITH ARDEX ARDIFIX™ JOINT FILLER.

3.2 - SEALING WITH ARDEX CG™ CONCRETE GUARD™
A. MIXING: THE CONTENTS OF THE ARDEX CG™ CONTAINER MUST BE THOROUGHLY STIRRED JUST PRIOR TO USE TO ENSURE A UNIFORM CONSISTENCY. FOR BEST RESULTS, MIX WITH A MECHANICAL MIXING PADDLE AND LOW SPEED DRILL.
B. INSTALLATION:
1. ARDEX CONCRETE GUARD SHOULD BE APPLIED IN TWO THIN COATS, ALLOWING 2-4 HOURS BETWEEN COATS, DEPENDING UPON ATMOSPHERIC CONDITIONS. (BACK-ROLLING IS RECOMMENDED WHEN SPRAYING TO PREVENT PUDDLING.)
2. WHEN OUTDOORS, DO NOT APPLY IF RAIN, FOG, OR EXTREMELY HIGH HUMIDITY IS EXPECTED WITHIN 6-8 HOURS OR IF FREEZING TEMPERATURES COULD OCCUR WITHIN 24 HOURS OF APPLICATION. DO NOT APPLY ON SURFACES UNDER 50°F OR OVER 90°F.
3. ALLOW ARDEX CONCRETE GUARD TO CURE A MINIMUM OF 24 HOURS BEFORE NORMAL TRAFFIC, AND A MINIMUM OF 72 HOURS BEFORE HEAVY TRAFFIC.
C. MAINTENANCE: IN ORDER TO ATTAIN MAXIMUM LIFE FROM THE DRESSING, IT IS ESSENTIAL THAT THE SURFACE BE PROPERLY SEALED AND PROTECTED. RESEAL AS REQUIRED DEPENDING UPON TRAFFIC VOLUME AND CONDITIONS.

END OF SECTION - **039250**

lululemon
1818 CORNWALL AVE.
VANCOUVER, B.C., V6J1C7

CF POLO PARK
1485 Portage Ave, Unit 144E
Winnipeg, MB
R3G 0W5
CRU NUMBER: 144E

Quadrangle
Quadrangle Architects Limited
The Well, 8 Spadina Avenue, Suite 2100, Toronto, ON M5V 0S8
t 416 598 1240 www.bdpquadrangle.com

ARCHITECT SEAL

ONTARIO ASSOCIATION OF ARCHITECTS
KIRTIDEV MEHTA
LICENCE
8099

ISSUED FOR CONSTRUCTION

07/14/2023

△	DATE	DESCRIPTION
	06/09/2023	PERMIT/CONSTRUCTION
	06/09/2023	ISSUED FOR BID
	07/14/2023	ISSUED FOR CONSTRUCTION

DRAWING INFORMATION
PROJECT #: 23206
CHECKED BY: CHECKER
DRAWN BY: AUTHOR

ARCHITECTURAL SPECIFICATIONS

DRAWING NUMBER
AS-130

7/14/2023 12:17:58 PM

DIVISION 5 - METALS

SECTION 054000 - COLD FORMED METAL FRAMING

PART 1 - GENERAL

1.1 - SUBMITTALS

A. SHOP DRAWINGS: INCLUDE PLANS, ELEVATIONS, SECTIONS & DETAILS OF METAL FABRICATIONS AND THEIR CONNECTIONS. SHOW ANCHORAGE AND ACCESSORY ITEMS
B. TEMPLATES: FOR ANCHORS AND BOLTS
C. SUSTAINABILITY PRODUCT DATA SUBMITTAL FORM: INCLUDE DOCUMENTATION SUPPORTING AT LEAST ONE PREFERRED OR ALTERNATE SUSTAINABLE CRITERIA

PART 2 - PRODUCTS

2.1 - PRODUCTS - STEEL FRAMING

A. C-SHAPED, GALVANIZED, STANDARD STEEL STUDS AND JOISTS OF SIZE, SHAPE, AND GAUGE AS RECOMMENDED BY MANUFACTURER. INCLUDE MANUFACTURER'S STANDARD ACCESSORIES, INCLUDING RUNNERS, TRACKS, CLIPS, STIFFENERS, AND BRACING
B. OPEN-WEB, TRIANGULAR SECTION STEEL STUD (DESIGNED TO MINIMIZE THERMAL BRIDGING) 054.2.2
C. RELATED MATERIALS:
1. FASTENERS: PROVIDE SCREWS AS RECOMMENDED BY MANUFACTURER. TO FACILITATE DISMANTLING, THE USE OF NAILS IS NOT RECOMMENDED
2. INSULATION: PROVIDE RIGID INSULATION OVER THE FRAMING, IN LOCATIONS SHOWN BY DRAWINGS, TO PREVENT THERMAL BRIDGING AT STEEL FRAMING. THICKNESS TO BE DETERMINED BY CLIMATE CONDITIONS. FOR FULL WALL COVERAGE, AVOID RIGID INSULATION PRODUCED WITH OZONE-DEPLETING HCFC BLOWING AGENTS
3. INDIVIDUAL FRAMING MEMBER INSULATORS: EXTRUDED POLYSTYRENE CHANNELS ATTACH TO FRAMING MEMBER WITH FRICTION FIT OR PEEL-AND-STICK FOR CORNERS AND TOP AND BOTTOM CHANNELS
4. RIGID FOAM SHEETS APPLIED TO EXTERIOR OF FRAMING ASSEMBLY
5. EXPANDED POLYSTYRENE FOAM
6. EXTRUDED POLYSTYRENE FOAM (MADE WITH OZONE-DEPLETING BLOWING AGENTS)
7. POLYISOCYANURATE FOAMS EXPANDED WITH HYDROCARBONS RATHER THAN HCFCS

PART 3 - EXECUTION

3.1 - INSTALLATIONGENERAL

A. FIT EXPOSED CONNECTIONS ACCURATELY TOGETHER. WELD CONNECTIONS THAT ARE NOT TO BE LEFT AS EXPOSED JOINTS BUT CANNOT BE SHOP WELDED. DO NOT WELD, CUT, OR ABRADE SURFACES OF EXTERIOR UNITS THAT HAVE BEEN HOT-DIP GALVANIZED AFTER FABRICATION
B. PROVIDE ANCHORAGE DEVICES AND FASTENERS WHERE METAL FABRICATIONS ARE REQUIRED TO BE FASTENED TO IN-PLACE CONSTRUCTION
C. TOUCH UP SURFACES AND FINISHES AFTER ERECTION
1. GALVANIZED SURFACES: CLEAN FIELD WELDS, BOLTED CONNECTIONS, AND ABRADED AREAS AND REPAIR GALVANIZING TO COMPLY WITH ASTMA 780

END OF SECTION - 054000

DIVISION 6 - WOOD AND PLASTIC

SECTION 062100 - FINISH CARPENTRY AND MILLWORK

PART 1 - GENERAL

1.1 - SUBMITTALS

A. PRODUCT DATA: FOR EACH TYPE OF PROCESS AND FACTORY- FABRICATED PRODUCT
1. INCLUDE DATA FOR WOOD-PRESERVATIVE AND FIRE-RETARDANT TREATMENT FROM CHEMICAL TREATMENT MANUFACTURER AND CERTIFICATION BY TREATING PLANT THAT TREATED MATERIALS COMPLY WITH REQUIREMENTS
B. SUSTAINABILITY PRODUCT DATA SUBMITTAL FORM: INCLUDE DOCUMENTATION SUPPORTING AT LEAST ONE PREFERRED OR ALTERNATE SUSTAINABLE CRITERIA

PART 2 - PRODUCTS

2.1 - INTERIOR MILLWORK

A. WOOD USED FOR TRIM AND DECORATIVE COMPONENTS SHALL BE FIRST CLASS TRIM STOCK, FREE OF ANY BLEMISH WHICH WILL BE EVIDENT AFTER FINISHING
B. BASE, CASING, TRIM, INTERIOR RAIL AND WALL CAPS, AND MISCELLANEOUS MILLWORK
C. PANELING
1. PLYWOOD
2. FACED VENEERS OVER MDF CORE
D. VENEER PANELS, [WC-5, SF-21], SEE SHEET A-120
1. SUBSTRATE - WHERE CLASS A OR B MATERIAL IS REQUIRED USE CLASS A SUBSTRATE
2. MDF - WHERE CLASS A OR B MATERIAL IS REQUIRED USE CLASS A SUBSTRATE
3. VENEERS [WC-5, WC-21], SEE SHEET A-120
a. WHITE OAK, PLAIN SAWN, BOOK AND END MATCH, MATTE CLEAR COAT
b. THICKNESS AND ATTACHMENT METHOD PER DRAWINGS, SEE SHEET A-120
c. FIRE RETARDENT TREATMENT:
WHERE CLASS A OR B MATERIAL IS REQUIRED PROVIDE PROVIDE ASTM E84 AND/OR CAN/ULC S102 TESTED FR SUBSTRATE AND FLAME RETARDANT MATTE CLEAR COAT
USA: (CLASS B) WTC-103 / CAN: (CLASS A) FRCT FX LUMBER GUARD
E. SOLID WOOD TRIM [WC-6, SF-22], SEE SHEET A-120
a. WHITE OAK, PLAIN SAWN, BOOK AND END MATCH, MATTE CLEAR COAT
b. THICKNESS AND ATTACHMENT METHOD PER DRAWINGS, SEE SHEET A-120
c. FIRE RETARDENT TREATMENT:
WHERE CLASS A OR B MATERIAL IS REQUIRED PROVIDE PROVIDE ASTM E84 AND/OR CAN/ULC S102 TESTED FR SUBSTRATE AND FLAME RETARDANT MATTE CLEAR COAT
USA: (CLASS B) WTC-103 / CAN: (CLASS A) FRCT FX LUMBER GUARD

2.2 - CASEWORK

A. CARCASSES AND SUBSTRATES
1. MEDIUM-DENSITY FIBERBOARD
2. PLYWOOD
3. SOLID DIMENSIONAL LUMBER
B. SYNTHETIC CAST SLABS
1. CAST, LIGHTWEIGHT MATERIAL
2. CAST, TERRAZZO-LIKE MATERIAL
C. TILE: SEE SECTION 09300

PART 3 - EXECUTION

3.1 - INSTALLATION

A. SET CARPENTRY TO REQUIRED LEVELS AND LINES, WITH MEMBERS PLUMB, TRUE TO LINE, CUT, AND FITTED. FIT CARPENTRY TO OTHER CONSTRUCTION; SCRIBE AND COPE AS NEEDED FOR ACCURATE FIT. LOCATE FURRING, NAILERS, BLOCKING, GROUNDS, AND SIMILAR SUPPORTS TO COMPLY WITH REQUIREMENTS FOR ATTACHING OTHER CONSTRUCTION
B. FRAMING STANDARD: COMPLY WITH AF AND PA'S DETAILS FOR CONVENTIONAL WOOD FRAME CONSTRUCTION, UNLESS OTHERWISE INDICATED
C. DO NOT SPLICE STRUCTURAL MEMBERS BETWEEN SUPPORTS, UNLESS OTHERWISE INDICATED
D. COMPLY WITH AWPA M4 FOR APPLYING FIELD TREATMENT TO CUT SURFACES OF PRESERVATIVE-TREATED LUMBER
E. SECURELY ATTACH CARPENTRY WORK TO SUBSTRATE BY ANCHORING AND FASTENING AS INDICATED, COMPLYING WITH THE FOLLOWING
1. TABLE 2304.9.1, FASTENING SCHEDULE, IN ICC'S INTERNATIONAL BUILDING CODE

3.2 - PROTECTION

A. PROTECT WOOD THAT HAS BEEN TREATED WITH INORGANIC BORON (SBX) FROM WEATHER. IF, DESPITE PROTECTION, INORGANIC BORON-TREATED WOOD ECOMES WET, APPLY EPA-REGISTERED BORATE TREATMENT. APPLY BORATE SOLUTION BY SPRAYING TO COMPLY WITH EPA-REGISTERED LABEL

END OF SECTION - 062100

SECTION 074600 - THERMALLY MODIFIED WOOD RAIN SCREEN SIDING SYSTEM [SF-23]

PART 1 - GENERAL

1.1 - SUMMARY

A. PROVIDE RAIN SCREEN THERMALLY MODIFIED WOOD SIDING SYSTEM AND ACCESSORIES.
1. HORIZONTAL RAIN SCREEN THERMALLY MODIFIED WOOD SIDING APPLICATION WITH FURRING STRIPS AND EXPOSED FASTENERS.
2. VERTICAL RAIN SCREEN THERMALLY MODIFIED WOOD SIDING APPLICATION WITH FURRING STRIPS AND EXPOSED FASTENERS.

1.2 - SUBMITTALS - REQUIRED SEE SECTION 013000

1.3 - QUALITY ASSURANCE

A. SINGLE SOURCE: TO ENSURE FUNCTIONAL AND APPEARANCE COMPATIBILITY, SIDING, FURRING STRIPS, CONCEALED FASTENERS AND ALL TRIM PIECES SHALL BE PRODUCTS BY ARBOR WOOD CO.
B. REGULATORY REQUIREMENTS: COMPLY WITH REQUIREMENTS OF AUTHORITIES HAVING JURISDICTION AND APPLICABLE CODES AT THE LOCATION OF THE PROJECT.

1.4 - DELIVERY, STORAGE, AND HANDLING

A. STORE AND HANDLE MATERIALS IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.
B. STORE THERMALLY MODIFIED WOOD SIDING ON FLAT, LEVEL SURFACE, RAISED ABOVE FLOOR OR GROUND, WITH ADEQUATE SUPPORT TO PREVENT SAGGING.
C. KEEP THERMALLY MODIFIED WOOD SIDING COVERED AND FREE OF DIRT, DEBRIS, AND MOISTURE UNTIL INSTALLATION.
D. PROTECT MATERIALS AND FINISH DURING STORAGE, HANDLING, AND INSTALLATION TO PREVENT DAMAGE.

1.5 - WARRANTY

A. MANUFACTURER'S WARRANTY: PROVIDE MANUFACTURER'S STANDARD 20- YEAR WARRANTY FOR THERMALLY MODIFIED WOOD SIDING (WHEN INSTALLED PER MANUFACTURER RECOMMENDATIONS).

PART 2 - PRODUCTS

2.1 - MANUFACTURERS

A. MANUFACTURER: ARBOR WOOD CO.
1025 LONDON RD, DULUTH, MN 55802
TOLL FREE TEL: 1-855-414-2727; EMAIL: HELLO@ARBORWOODCO.COM;
WEB: ARBORWOODCO.COM
B. SIDING, TRIM, AND FURRING SHALL BE MANUFACTURED FROM ARBOR WOOD CO. THERMALLY MODIFIED WOOD, CERTIFIED CONFORMING TO AWPA USE-CLASS UC3B, ABOVE GROUND, EXPOSED (SEE AWPA GUIDANCE N FOR REQUIRED TESTS).
C. MANUFACTURER SHOULD BE ABLE TO PRESENT CERTIFICATION, AND DOCUMENTATION OF THE QUALITY PROCESSES USED DURING THERMAL MODIFICATION. WOOD SHALL BE SOURCED & PROCESSED ENTIRELY IN THE U.S. - SUBSTITUTIONS: NOT PERMITTED.

2.2 - THERMALLY MODIFIED WOOD SIDING [SF-23] - SEE SHEET A-120

A. ARBOR WOOD CO. THERMALLY MODIFIED WOOD SIDING AND TRIM:
1. SIDING USED AS EXTERIOR RAINSCREEN SYSTEM OVER WOOD FURRING STRIPS
2. SPECIES: WHITE ASH
3. GRADE: FAS / SELECT & BETTER
4. SIZES PER DRAWINGS, 1 X NOMINAL PLANKS AND SIDING, WITH TONGUE & GROOVE:
a. AT PORTAL FACES (TR-6): 1X CUSTOM WIDTH PLANKS PER DETAILS, ORDER CONTINUOUS VERTICALS
b. AT PORTAL RETURNS (TR-7): 1X6 PLANKS, COORDINATE LENGTHS WITH SEAMS PER ELEVATIONS
c. AT PORTAL BASE (TR-5): 1X8 PLANKS
d. AT PORTAL CEILING AND SIDES (TR-8): 1X6 TONGUE AND GROOVE SIDING
5. LENGTH: 6'-0" OR LONGER.
6. EXPOSED TEXTURE: SMOOTH.
7. FINISH: CUSTOM LULULEMON APPROVED STANDARD PRE-FINISH WIHT UV-RESISTANT EXTERIOR COAT

2.3 - ADDITIONAL ACCESSORIES AND FASTENERS

A. PROVIDE THERMALLY MODIFIED FURRING STRIPS AS REQUIRED FOR INSTALL INCLUDING AROUND DOOR AND WINDOW OPENINGS AND ALL REQUIRED FASTENERS
B. FASTENERS, SCREWS. #8 STAINLESS STEEL W/ TRIM HEAD, MINIMUM 2 ½" RECOMMENDED, UNLESS OTHERWISE NOTED OR REQUIRED BY LOCAL CODE

PART 3 - EXECUTION

3.1 - EXAMINATION

A. CONFIRM THAT ALL CRITICAL DIMENSIONS ARE AS SPECIFIED ON THE DRAWINGS. EXAMINE WOOD FRAMING MEMBERS TO RECEIVE ARBOR WOOD CO. THERMALLY MODIFY WOOD RAINSCREEN SIDING SYSTEM.
B. NOTIFY ARCHITECT OF CONDITIONS THAT WOULD ADVERSELY AFFECT INSTALLATION. DO NOT BEGIN INSTALLATION UNTIL UNACCEPTABLE CONDITIONS ARE CORRECTED.

3.2 - PREPARATION

A. REPAIR SUBSTRATE FLAWS OR DEFECTS BEFORE APPLYING SIDING OR SOFFITS.
B. WHERE NECESSARY, FUR SURFACES TO AN EVEN PLANE AND FREE FROM OBSTRUCTIONS BEFORE APPLICATION.

3.3 - INSTALLATION

A. INSTALL ARBOR WOOD CO. SIDING AND TRIM IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS AT LOCATIONS INDICATED ON THE DRAWINGS.
B. CLIMATE-SHIELD RAIN SCREEN WOOD SIDING SYSTEM INSTALLATION GUIDELINES ARE AVAILABLE FROM MANUFACTURER. INSTALL IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS
C. DO NOT INSTALL ARBOR WOOD CO. SIDING OR TRIM IN STRUCTURAL OR LOAD-BEARING APPLICATIONS.
D. INSTALL ARBOR WOOD CO. SIDING AND TRIM PLUMB, LEVEL, SQUARE, AND TRUE TO LINE.
E. INSTALL EXTERIOR ARBOR WOOD CO. SIDING AND TRIM WITH FLUSH, TIGHT JOINTS.
F. FASTENING: INSTALL FASTENERS IN ACCORDANCE WITH LOCAL BUILDING CODE AND:
1. RAINSCREEN INSTALLATION WITH FURRING STRIPS:
a. MAXIMUM OF 16 INCHES ON CENTER.
b. AT BUTT JOINTS PROVIDE 1" OVERLAP ON FURRING STRIP.
c. INSTALL SIDING, SOFFITS, AND ACCESSORIES IN ACCORDANCE WITH BEST PRACTICE, WITH ALL JOINT MEMBERS PLUMB AND TRUE.
d. FILL ANY NAIL AND SCREW HOLES WITH WOOD FILLER TO MATCH FINISHED COLOR.

3.4 - ADJUSTING

A. REPAIR MINOR DAMAGES TO ARBOR WOOD CO. SIDING IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS AND AS APPROVED BY ARCHITECT.
B. REMOVE AND REPLACE WITH NEW MATERIAL, DAMAGED ARBOR WOOD CO. SIDING THAT CANNOT BE SUCCESSFULLY REPAIRED, AS DETERMINED BY ARCHITECT.

3.5 - CLEANING AND PROTECTION

A. AFTER APPLICATION OF SIDING AND TRIM, CLEAN AS NECESSARY TO REMOVE ALL FINGERPRINTS AND SOILED AREAS. REMOVING ALL SCRAP, PACKAGING, AND UNUSED MATERIALS RELATED TO THIS WORK.
B. PROTECT INSTALLED ARBOR WOOD CO. SIDING TO ENSURE THAT, EXCEPT FOR NORMAL WEATHERING, SIDING WILL BE WITHOUT DAMAGE OR DETERIORATION AT TIME OF SUBSTANTIAL COMPLETION.

END OF SECTION - 074600

DIVISION 7 - THERMAL AND MOISTURE PROTECTION

SECTION 079200 - JOINT SEALANT

1. GENERAL: PROVIDE EXTERIOR AND INTERIOR JOINT SEALERS NOT PROVIDED ELSEWHERE; TYPE SUITABLE FOR APPLICATION INDICATED WITH ACCESSORIES AS REQUIRED FOR COMPLETE INSTALLATION.
2. INSTALLER QUALIFICATIONS: FIRM WITH MINIMUM FIVE YEAR'S SUCCESSFUL EXPERIENCE ON PROJECTS OF SIMILAR TYPE AND SIZE, USING SPECIFIED PRODUCTS
3. SUBMITTALS: FURNISH PRODUCT DATA AND SAMPLES OF EXPOSED JOINT SEALERS IN REQUIRED COLORS.
4. EXTERIOR NON-TRAFFIC JOINTS: GE/SILPRUF, DOW/790-795, PECORA/864 NST, OR TREMCO/SPECTRUM 3 LOW MODULUS SILICONE SEALANT.
5. TRAFFIC BEARING JOINTS: TREMCO/VULKEM 345, PECORA/NR-200 UREXPAN, OR SONNEBORN DIVISION CHEMREX/SL 2 MULTI-COMPONENT POLYURETHANE, SELF-LEVELING JOINT SEALER.
6. MILDEW-RESISTANT SANITARY SEALANTS: GE/SCS 1700 SANITARY SEALANT, DOW/786 BATHTUB CAULK, PECORA/863 #345 WHITE, OR TREMCO/TREMSIL 200; PROVIDE AT INTERIOR AREAS WHERE SEALANT WILL BE EXPOSED TO WATER.
7. GENERAL INTERIOR JOINT SEALER: PECORA/AC-20, SONNEBORN/SONOLAC, OR LATEX EMULSION.
8. MISCELLANEOUS MATERIALS: PRIMERS, SEALERS, JOINT CLEANERS, BOND BREAKER TAPE, AND SEALANT BACKER RODS AS RECOMMENDED BY SEALANT MANUFACTURER FOR APPLICATIONS INDICATED.
A. OVERSIZE BACKER ROD MINIMUM 30% TO 50% OF SIZE OF JOINT OPENING AS INDICATED IN THE DRAWINGS HEREIN.
9. PREPARATION: CLEAN JOINT SURFACES IMMEDIATELY BEFORE INSTALLATION OF JOINT SEALER, AND PRIME OR SEAL JOINT SURFACES AS RECOMMENDED BY MANUFACTURER.
10. INSTALLATION: COMPLY WITH MANUFACTURER'S INSTRUCTIONS AND ASTM C1193.
A. EMPLOY INSTALLATION TECHNIQUES WHICH WILL ENSURE JOINT SEALERS ARE DEPOSITED IN UNIFORM, CONTINUOUS RIBBONS WITHOUT GAPS OR AIR POCKETS, WITH COMPLETE "WETTING" OF BOND SURFACES.

END OF SECTION - 079200

DIVISION 8 - DOORS, WINDOWS, AND MIRRORS

SECTION 082000 - DOORS

PART 1 - GENERAL

1.1 - SUBMITTALS

A. SUSTAINABILITY PRODUCT DATA SUBMITTAL FORM: INCLUDE DOCUMENTATION SUPPORTING AT LEAST ONE PREFERRED OR ALTERNATE SUSTAINABLE CRITERIA

1.2 - INDOOR AIR QUALITY

A. INTERIOR GLUES OFTEN CONTAIN UREA-FORMALDEHYDE. DO NOT USE WOOD PRODUCTS CONTAINING UREA-FORMALDEHYDE BINDERS, OR SEAL ALL SURFACES. AROMATIC WOODS MAY OFF GAS AND CAUSE PROBLEMS FOR INDIVIDUALS WITH CHEMICAL SENSITIVITIES
B. MEET SUSTAINABILITY REQUIREMENTS FOR COMPOSITE WOOD AND APPLICABLE ADHESIVES, SEALANTS, PAINTS AND COATINGS
C. MACHINING PLASTIC PRODUCTS PRODUCES HAZARDOUS DUST. PROTECT SURROUNDING AREAS FROM DUST. WEAR APPROPRIATE PROTECTION

PART 2 - PRODUCTS

2.1 - MATERIALS

A. WOOD DOORS AND FRAMES SHALL MEET ALL APPLICABLE REQUIREMENTS OF THE AMERICAN WOODWORK INSTITUTE QUALITY STANDARDS AND NATIONAL WOODWORK MANUFACTURERS ASSOCIATION SPECIFICATION UNLESS OTHERWISE SPECIFIED
B. SOLID CORE WOOD
1. VENEER
2. CORE
3. MEDIUM-DENSITY FIBERBOARD
4. SOLID OR LAMINATED WOOD
5. FINISH: FACTORY-APPLIED FINISH

PART 3 - EXECUTION

3.1 - INSTALLATION

A. HOLLOW METAL FRAMES: COMPLY WITH ANSI/SDI A250.11
B. SET FRAMES ACCURATELY IN POSITION, PLUMBED, ALIGNED, AND BRACED SECURELY UNTIL PERMANENT ANCHORS ARE SET. AFTER WALL CONSTRUCTION IS COMPLETE, REMOVE TEMPORARY BRACES, LEAVING SURFACES SMOOTH AND UNDAMAGED
C. AT FIRE-PROTECTION-RATED OPENINGS, INSTALL FRAMES ACCORDING TO NFPA 80
D. WHERE FRAMES ARE FABRICATED IN SECTIONS BECAUSE OF SHIPPING OR HANDLING LIMITATIONS, FIELD SPLICE AT APPROVED LOCATIONS BY WELDING FACE JOINT CONTINUOUSLY; GRIND, FILL, DRESS, AND MAKE SPLICE SMOOTH, FLUSH, AND INVISIBLE ON EXPOSED FACES
E. INSTALL DOOR SILENCERS IN FRAMES BEFORE GROUTING
F. REMOVE TEMPORARY BRACES NECESSARY FOR INSTALLATION ONLY AFTER FRAMES HAVE BEEN PROPERLY SET AND SECURED
G. CHECK PLUMBNESS, SQUARENESS, AND TWIST OF FRAMES AS WALLS ARE CONSTRUCTED. SHIM AS NECESSARY TO COMPLY WITH INSTALLATION TOLERANCES
H. FIELD APPLY BITUMINOUS COATING TO BACKS OF FRAMES THAT ARE FILLED WITH GROUT CONTAINING ANTIFREEZING AGENTS
I. FLOOR ANCHORS: PROVIDE FLOOR ANCHORS FOR EACH JAMB THAT EXTENDS TO FLOOR, AND SECURE WITH POST INSTALLED EXPANSION ANCHORS
J. FLOOR ANCHORS MAY BE SET WITH POWDER-ACTUATED FASTENERS INSTEAD OF POST INSTALLED EXPANSION ANCHORS IF SO INDICATED AND APPROVED ON SHOP DRAWINGS
K. METAL-STUD PARTITIONS: SOLIDLY PACK MINERAL-FIBER INSULATION BEHIND FRAMES MASONRY WALLS: COORDINATE INSTALLATION OF FRAMES TO ALLOW FOR SOLIDLY FILLING SPACE BETWEEN FRAMES AND MASONRY WITH GROUT
L. IN-PLACE CONCRETE OR MASONRY CONSTRUCTION: SECURE FRAMES IN PLACE WITH POST INSTALLED EXPANSION ANCHORS. COUNTERSINK ANCHORS, AND FILL AND MAKE SMOOTH, FLUSH, AND INVISIBLE ON EXPOSED FACES
M. IN-PLACE GYPSUM BOARD PARTITIONS: SECURE FRAMES IN PLACE WITH POST INSTALLED EXPANSION ANCHORS THROUGH FLOOR ANCHORS AT EACH JAMB. COUNTERSINK ANCHORS, AND FILL AND MAKE SMOOTH, FLUSH, AND INVISIBLE ON EXPOSED FACES
N. CEILING STRUTS: EXTEND STRUTS VERTICALLY FROM TOP OF FRAME AT EACH JAMB TO OVERHEAD STRUCTURAL SUPPORTS OR SUBSTRATES ABOVE FRAME UNLESS FRAME IS ANCHORED TO MASONRY OR TO OTHER STRUCTURAL SUPPORT AT EACH JAMB. BEND TOP OF STRUTS TO PROVIDE FLUSH CONTACT FOR SECURING TO SUPPORTING CONSTRUCTION. PROVIDE ADJUSTABLE WEDGED OR BOLTED ANCHORAGE TO FRAME JAMB MEMBERS
1. INSTALLATION TOLERANCES: ADJUST HOLLOW METAL DOOR FRAMES FOR SQUARENESS, ALIGNMENT, TWIST, AND PLUMB TO THE FOLLOWING TOLERANCES
2. SQUARENESS: PLUS OR MINUS 1/16 INCH, MEASURED AT DOOR RABBET ON A LINE 90 DEGREES FROM JAMB PERPENDICULAR TO FRAME HEAD
3. ALIGNMENT: PLUS OR MINUS 1/16 INCH, MEASURED AT JAMBS ON A HORIZONTAL LINE PARALLEL TO PLANE OF WALL
4. TWIST: PLUS OR MINUS 1/16 INCH, MEASURED AT OPPOSITE FACE CORNERS OF JAMBS ON PARALLEL LINES, AND PERPENDICULAR TO PLANE OF WALL
5. PLUMBNESS: PLUS OR MINUS 1/16 INCH, MEASURED AT JAMBS AT FLOOR
O. HOLLOW METAL DOORS: FIT HOLLOW METAL DOORS ACCURATELY IN FRAMES, WITHIN CLEARANCES SPECIFIED BELOW. SHIM AS NECESSARY
1. NON-FIRE-RATED STANDARD STEEL DOORS
2. JAMBS AND HEAD: 1/8 INCH PLUS OR MINUS 1/16 INCH
3. BETWEEN EDGES OF PAIRS OF DOORS: 1/8 INCH PLUS OR MINUS 1/16 INCH
4. BETWEEN BOTTOM OF DOOR AND TOP OF THRESHOLD: MAXIMUM 3/8 INCH
5. BETWEEN BOTTOM OF DOOR AND TOP OF FINISH FLOOR (NO THRESHOLD): MAXIMUM 3/4 INCH
6. FIRE-RATED DOORS: INSTALL DOORS WITH CLEARANCES ACCORDING TO NFPA 80

3.2 - ADJUSTING AND CLEANING

A. FINAL ADJUSTMENTS: CHECK AND READJUST OPERATING HARDWARE ITEMS IMMEDIATELY BEFORE FINAL INSPECTION. LEAVE WORK IN COMPLETE AND PROPER OPERATING CONDITION. REMOVE AND REPLACE DEFECTIVE WORK, INCLUDING HOLLOW METAL WORK THAT IS WARPED, BOWED, OR OTHERWISE UNACCEPTABLE
B. IMMEDIATELY AFTER ERECTION, SAND SMOOTH RUSTED OR DAMAGED AREAS OF PRIME COAT AND APPLY TOUCH UP OF COMPATIBLE AIR-DRYING, RUST-INHIBITIVE PRIMER

END OF SECTION - 082000

SECTION 083116 - ACCESS PANELS AND FRAMES

PART 1 - GENERAL

1.0 - SUMMARY

A. SECTION INCLUDES
1. METAL ACCESS PANEL ASSEMBLIES
2. SUPPLEMENTARY COMPONENTS AND ACCESSORIES NECESSARY FOR A COMPLETE INSTALLATION WHETHER OR NOT SUCH ITEMS ARE INDICATED ON THE DRAWINGS OR INCLUDED IN THE SPECIFICATIONS

1.1 - REQUIREMENTS

A. SUBMITTALS: PRODUCT DATA AND SHOP DRAWINGS
B. SUSTAINABILITY PRODUCT DATA SUBMITTAL FORM: INCLUDE DOCUMENTATION SUPPORTING AT LEAST ONE PREFERRED OR ALTERNATE SUSTAINABLE CRITERIA

PART 2 - PRODUCTS

2.0 - METAL ACCESS PANEL ASSEMBLIES

A. DESCRIPTION: NON-RATED RECESSED ACCESS DOORS WITH CONCEALED HARDWARE AND GYPSUM BOARD INLAY FOR FLUSH INSTALLATION
B. BASIS OF DESIGN MANUFACTURER: DESIGN IS BASED ON PRODUCTS MANUFACTURED BY THE FOLLOWING
1. ACCESS PANEL SOLUTIONS, INC
C. ACCEPTABLE MANUFACTURERS: OTHER ACCEPTABLE SOURCES OF COMPARABLE PRODUCTS INCLUDE THE FOLLOWING
1. JL INDUSTRIES
2. KARP ASSOCIATES, INC
3. MILCOR, INC
4. NYSTROM BUILDING PRODUCTS
D. PRODUCT: PROVIDE BAUCOPLUS-II, OR EQUAL
E. ACCESSORIES: PROVIDE ACCESSORIES AND OTHER SIMILAR SECONDARY ITEMS SUPPLIED, REQUIRED, RECOMMENDED, APPROVED, OR ACCEPTED BY THE MANUFACTURER

PART 3 - EXECUTION

3.0 - INSTALLATION

A. GENERAL
1. COMPLY WITH THE MANUFACTURER'S INSTALLATION INSTRUCTIONS
2. USE MATERIALS AND METHODS REQUIRED, RECOMMENDED, APPROVED, OR ACCEPTED BY THE MANUFACTURER, ALONG WITH MANUFACTURER-RECOMMENDED ACCESSORIES AND TECHNIQUES
3. SET UNITS TRUE TO LINE, TO REQUIRED LEVELS AND LINES, PLUMB, LEVEL, SQUARE, AND FITTED WITHOUT WARP OR RACK OF FRAMES AND PANELS; WITH FLUSH WELL-FITTED JOINTS; AND IN ALIGNMENT WITH ADJACENT CONSTRUCTION, WITHOUT WARPING, JOGS IN ALIGNMENT, EXCESSIVE OIL CANNING, BUCKLING, OR TOOL MARKS
4. INSTALL THE WORK OF THIS SECTION AS NECESSARY FOR AN ACCURATE FIT. PERFORM REQUIRED DRILLING AND FITTING FOR A COMPLETE INSTALLATION
B. SPECIAL TECHNIQUES
1. SECURELY FASTEN ACCESS PANEL ASSEMBLIES IN PLACE, USING FASTENERS, SEPARATORS, SEALANTS, AND OTHER MISCELLANEOUS ITEMS AS REQUIRED FOR A COMPLETE INSTALLATION
2. WHERE DISSIMILAR METALS WILL CONTACT EACH OTHER OR CORROSIVE SUBSTRATES, PROTECT AGAINST GALVANIC ACTION BY PAINTING CONTACT SURFACES WITH BITUMINOUS COATING OR BY OTHER PERMANENT SEPARATION AS RECOMMENDED BY MANUFACTURER
3. COAT CONCEALED SIDE OF ACCESS PANEL WITH BITUMINOUS COATING SPECIFIED IN SECTION 05 50 00 WHERE IN CONTACT WITH WOOD, FERROUS METAL, OR CEMENTITIOUS CONSTRUCTION
4. SEAL JOINTS WITH ELASTOMERIC SEALANT AS RECOMMENDED OR APPROVED BY THE MANUFACTURER
5. ATTACHMENT: SECURELY ATTACH ACCESS PANEL ASSEMBLIES AND ACCESSORIES IN PLACE TO SUPPORT

END OF SECTION - 083116

SECTION 083326 - OVERHEAD ROLLING GRILLES

PART 1 - GENERAL

1.1 - SECTION INCLUDES

A. ALUMINUM OVERHEAD COILING GRILLES.

1.2 - SUBMITTALS: SEE SECTION 013000

1.3 - SUMMARY

GENERAL CONTRACTOR TO VERIFY GRILLE IS TRUE, PLUMB, AND OPERATING PROPERLY, BEFORE INSTALLER LEAVES PREMISES

PART 2 - PRODUCT

2.1 - MANUFACTURER

A. USA: ALUMATEC PACIFIC PRODUCTS
1155 WEST 500 NORTH, CENTERVILLE, UT 84014 – WWW.ALUMATECPP.COM
SALES DEPARTMENT: 801-298-0181 EXT. 1 OR TOLL FREE 877-770-0181 EXT. 1
B. CANADA: MOBILFLEX

2.2 - MATERIALS

A. USA: ALUMATEC AT-9
1. CURTAIN IS ASSEMBLED FROM HORIZONTAL RODS TO CONSIST OF EXTRUDED ALUMINUM, 5/16" ROUND 6063, SPACED AT 2" ON CENTER. VERTICAL LINK TO CONSIST OF .083 STAMPED ALUMINUM LINKS DOUBLE TO SINGLE CONNECTED WITH HEAVY-DUTY EYELETS, SPACED AT 9" ON CENTER.
2. BOTTOM BAR IS A RECTANGULAR SHAPE EXTRUDED FROM 6063-ALLOY ALUMINUM, ATTACHED TO THE BOTTOM OF THE CURTAIN WITH ADAPTOR, AND 3 5/8" WIDE CAP TO FINISH AND FLUSH WITH OPENING IN SOFFIT.
3. BARREL IS STEEL TUBING OR PIPE, 6" MINIMUM DIAMETER, TO CONTAIN COUNTERBALANCE ASSEMBLY AND SUPPORT THE CURTAIN WITH A MAXIMUM DEFLECTION OF 0.03 PER FT. OF WIDTH. COUNTERBALANCE ASSEMBLY CONSISTS OF COIL TEMPERED HELICAL TORSION SPRING(S) MOUNTED ON A COLD ROLLED STEEL SHAFT, ROTATING THOUGH A SEALED BEARING. WELDING IS NOT TO BE USED TO ATTACH PLUG TO BARREL AT SPRING END. SPRING TENSIONS ADJUSTABLE BY A TENSION WHEEL OUTSIDE OF BRACKET.
4. BRACKETS ARE STEEL PLATES, 3/16" MINIMUM THICKNESS, BOLTED TO SUPPORT STEEL, TO SUPPORT BARREL. BRACKET ON OPERATOR SIDE IS FITTED WITH A FLANGE OR SEALED ROLLER BEARING.
5. GUIDES ARE RECTANGULAR SHAPES EXTRUDED FROM 6063-ALLOY ALUMINUM, FORMED TO RETAIN CURTAIN AND FITTED WITH WOOL PILE STRIPS. GUIDES ARE ATTACHED TO JAMBS WITH ¼" MINIMUM BOLTS SPACED NOT MORE THAN 24" ON CENTER. REMOVABLE AND ADJUSTABLE CURTAIN STOPS ARE PROVIDED ON GUIDES AT PRE-DETERMINED STOP HEIGHT.
6. OPERATION IS MOTOR – KEY ACTIVATION OF AN ELECTRIC OPERATER, AS SHOWN ON THIS SUBMITTAL.
7. LOCKING: CYLINDER LOCK ON THE BOTTOM BAR (DOUBLE THROW-BOLT ACTIVATED BY CENTER THUMB TURN OR KEY, OPERABLE FROM BOTH SIDES OF DOOR, BEST INTERCHANGEABLE CORE CYLINDER EXTERIOR AND THUMB-TURN CYLINDER INTERIOR

2.3 - FINISHES

A. ALUMINUM CURTAIN FINISH, CLEAR ANODIZED
B. BOTTOM BAR, CLEAR ANODIZED
C. EXPOSED STEEL SURFACES ARE PAINTED WITH A RUST-INHIBITING GRAY OR BLACK PRIMER ON EXTERIOR APPLICATIONS.

PART 3 EXECUTIONS

3.1 - PREPARATION

A. PREPARE OPENING(S) TO RECEIVE GRILLE(S) AS REQUIRED BY MANUFACTURER.
B. GENERAL CONTRACTOR TO SUPPLY GRILLE INSTALLERS WITH FINISH FLOOR ELEVATION FOR PROPER INSTALLATION OF GRILLE LOCK AS WELL AS PRECISE GRILLE LOCATION ON FLOOR LAYOUT.
C. CAREFULLY COORDINATE INSTALLATION AND HOOK-UP OF ROLLING GRILLE WITH ALL AFFECTED TRADES. REFER TO DOOR SCHEDULE, SHEET A-180

3.2 - INSTALLATION

A. DOORS ARE TO BE INSTALLED IN ACCORDANCE WITH MANUFACTUER'S INSTALLATION INSTRUCTIONS AND BY AUTHORIZED, AND CERTIFIED PROFESSIONAL MANUFACTURER'S DOOR DEALER.
B. INSTALL AS SHOWN ON DRAWINGS IN STRICT ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS ADJUST FOR SMOOTH AND EASY OPERATION.

END OF SECTION - 083326

SECTION 083516 - SIDE FOLDING GRILLES

PART 1 - GENERAL

1.1 - SECTION INCLUDES

A. MANUALLY OPERATED ALUMINUM SIDE-FOLDING ACCORDION DOOR

1.2 - SUBMITTALS: REQUIRED, SEE SECTION 013000

1.3 - SUMMARY

GENERAL CONTRACTOR TO VERIFY GRILLE IS TRUE, PLUMB, AND OPERATING PROPERLY, BEFORE INSTALLER LEAVES PREMISES

PART 2 - PRODUCT

2.1 - MANUFACTURER

A. USA: ALUMATEC PACIFIC PRODUCTS
1155 WEST 500 NORTH, CENTERVILLE, UT 84014 – WWW.ALUMATECPP.COM
SALES DEPARTMENT: 801-298-0181 EXT. 1 OR TOLL FREE 877-770-0181 EXT. 1
B. CANADA: MOBILFLEX

2.2 - MATERIALS

A. USA: ALUMATEC ST-12
1. CURTAIN IS ASSEMBLED FROM CUSTOM DESIGNED, EXTRUDED, FULL HEIGHT INTERLOCKING HINGE SYSTEM, USING PURE US BILLET ALUMINUM. STANDARD FINISH TO BE COMMERCIAL CLEAR SATIN ANODIZED. EXTRUDED INTERLOCKING HINGE SYSTEM EVERY 7" ON HORIZONTAL CENTERS. EACH PANEL IS FABRICATED TO OPENING SIZE LESS 1½" GAP AT TOP OF CURTAIN (BETWEEN CURTAIN AND TRACK), AND 1½" GAP BETWEEN FLOOR AND BOTTOM OF CURTAIN SLAT. ALUMINUM PANELS TO BE EXTRUDED AT 1/8" THICK BY 2" TALL BY 5¼" WIDE, AND SPACED 12 INCHES APART. WITH 5/16" SOLID ALUMINUM ROD CONNECTING CENTER OF PANELS, CONCEALED BY ALUMINUM HOLLOW SLEEVE. CLEAR OPENING APERTURE OF 12" TALL BY 2¼" WIDE.
2. LOCKING MULLION IS A RECTANGULAR SHAPE EXTRUDED FROM 6063-ALLOY ALUMINUM, AND CONSTRUCTED WITH A LOCKING SYSTEM TO PREVENT ACCESS BY PULLING OUT OR PUSHING IN ON THE CURTAIN
3. TOP TRACK V3 (1½" WIDE BY 1½" TALL – STANDARD (BLACK ROLLER / WHEEL BEARINGS).
4. OPERATION: MANUAL PUSH / PULL
5. LOCKING: CYLINDER LOCK ON THE LEAD POST WITH BEST INTERCHANGEABLE CORE CYLINDER EXTERIOR AND THUMB-TURN CYLINDER INTERIOR. ALL OTHER POSTS TO BE SECURED WITH THUMBTURNS AT THE INTERIOR ONLY

2.3 - FINISHES

A. ALUMINUM CURTAIN FINISH, CLEAR ANODIZED

PART 3 EXECUTIONS

3.1 - PREPARATION

A. PREPARE OPENING(S) TO RECEIVE GRILLE(S) AS REQUIRED BY MANUFACTURER.
B. GENERAL CONTRACTOR TO SUPPLY GRILLE INSTALLERS WITH FINISH FLOOR ELEVATION FOR PROPER INSTALLATION OF GRILLE LOCK AS WELL AS PRECISE GRILLE LOCATION ON FLOOR LAYOUT.
C. CAREFULLY COORDINATE INSTALLATION AND HOOK-UP OF ROLLING GRILLE WITH ALL AFFECTED TRADES. REFER TO DOOR SCHEDULE, SHEET A-180

3.2 - INSTALLATION

A. DOORS ARE TO BE INSTALLED IN ACCORDANCE WITH MANUFACTUER'S INSTALLATION INSTRUCTIONS AND BY AUTHORIZED, AND CERTIFIED PROFESSIONAL MANUFACTURER'S DOOR DEALER.
B. INSTALL AS SHOWN ON DRAWINGS IN STRICT ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS ADJUST FOR SMOOTH AND EASY OPERATION.

END OF SECTION - 083516

SECTION 084113 - ALUMINUM FRAMED ENTRANCE AND STOREFRONTS

PART 1 - GENERAL

1.0 - PERFORMANCE REQUIREMENTS

A. GENERAL: PROVIDE ALUMINUM-FRAMED SYSTEMS, INCLUDING ANCHORAGE, CAPABLE OF WITHSTANDING, WITHOUT FAILURE, THE EFFECTS OF THE FOLLOWING
1. STRUCTURAL LOADS
2. THERMAL MOVEMENTS
3. MOVEMENTS OF SUPPORTING STRUCTURE INDICATED ON DRAWINGS INCLUDING, BUT NOT LIMITED TO, STORY DRIFT AND DEFLECTION FROM UNIFORMLY DISTRIBUTED AND CONCENTRATED LIVE LOADS
4. DIMENSIONAL TOLERANCES OF BUILDING FRAME AND OTHER ADJACENT CONSTRUCTION
5. FAILURE INCLUDES THE FOLLOWING
6. DEFLECTION EXCEEDING SPECIFIED LIMITS
7. THERMAL STRESSES TRANSFERRED TO BUILDING STRUCTURE
8. FRAMING MEMBERS TRANSFERRING STRESSES, INCLUDING THOSE CAUSED BY THERMAL AND STRUCTURAL MOVEMENTS, TO GLAZING
9. NOISE OR VIBRATION CREATED BY WIND AND THERMAL AND STRUCTURAL MOVEMENTS
10. LOOSENING OR WEAKENING OF FASTENERS, ATTACHMENTS, AND OTHER COMPONENTS
11. SEALANT FAILURE
12. FAILURE OF OPERATING UNITS TO FUNCTION PROPERLY
B. DEFLECTION OF FRAMING MEMBERS NORMAL TO WALL PLANE: LIMITED TO 1/175 OF CLEAR SPAN FOR SPANS UP TO 13 FEET 6 INCHES AND TO 1/240 OF CLEAR SPAN PLUS 1/4 INCH FOR SPANS GREATER THAN 13 FEET 6 INCHES OR AN AMOUNT THAT RESTRICTS EDGE DEFLECTION OF INDIVIDUAL GLAZING LITES TO 3/4 INCH, WHICHEVER IS LESS
C. TEMPERATURE CHANGE (RANGE): SYSTEMS ACCOMMODATE 120°F, AMBIENT; 180°F, MATERIAL SURFACES
D. CONDENSATION RESISTANCE: FIXED GLAZING AND FRAMING AREAS OF SYSTEMS HAVE CONDENSATION-RESISTANCE FACTOR (CRF) OF NOT LESS THAN 53 WHEN TESTED ACCORDING TO AAMA 1503.
E. AFTER FABRICATION, CLEARLY MARK COMPONENTS TO IDENTIFY THEIR LOCATIONS IN PROJECT ACCORDING TO SHOP DRAWINGS

1.1 - SUBMITTALS

A. PRODUCT DATA: FOR EACH TYPE OF PRODUCT INDICATED
B. SHOP DRAWINGS: INCLUDE PLANS, ELEVATIONS, SECTIONS, DETAILS, AND ATTACHMENTS TO OTHER WORK
1. FOR ENTRANCES, INCLUDE HARDWARE SCHEDULE AND INDICATE OPERATING HARDWARE TYPES, FUNCTIONS, QUANTITIES, AND LOCATIONS
C. SUSTAINABILITY PRODUCT DATA SUBMITTAL FORM: INCLUDE DOCUMENTATION SUPPORTING AT LEAST ONE PREFERRED OR ALTERNATE SUSTAINABLE CRITERIA

1.2 - QUALITY ASSURANCE

A. INSTALLER QUALIFICATIONS: ACCEPTABLE TO MANUFACTURER AND CAPABLE OF PREPARATION OF DATA FOR ALUMINUM-FRAMED SYSTEMS INCLUDING SHOP DRAWINGS BASED ON TESTING AND ENGINEERING ANALYSIS OF MANUFACTURER'S STANDARD UNITS IN ASSEMBLIES SIMILAR TO THOSE INDICATED FOR THIS PROJECT

1.3 - WARRANTY

A. SPECIAL ASSEMBLY WARRANTY: MANUFACTURER'S STANDARD FORM IN WHICH MANUFACTURER AGREES TO REPAIR OR REPLACE COMPONENTS OF ALUMINUM-FRAMED SYSTEMS THAT DO NOT COMPLY WITH REQUIREMENTS OR THAT DETERIORATE AS DEFINED IN THIS SECTION WITHIN SPECIFIED WARRANTY PERIOD
1. FAILURES INCLUDE, BUT ARE NOT LIMITED TO, THE FOLLOWING
2. STRUCTURAL FAILURES INCLUDING, BUT NOT LIMITED TO, EXCESSIVE DEFLECTION
3. NOISE OR VIBRATION CAUSED BY THERMAL MOVEMENTS
4. DETERIORATION OF METALS, METAL FINISHES, AND OTHER MATERIALS BEYOND NORMAL WEATHERING
5. FAILURE OF OPERATING COMPONENTS TO FUNCTION PROPERLY
B. WARRANTY PERIOD: TWO YEARS FROM DATE OF SUBSTANTIAL COMPLETION
1. SPECIAL FINISH WARRANTY: MANUFACTURER'S STANDARD FORM IN WHICH MANUFACTURER AGREES TO REPAIR OR REPLACE COMPONENTS ON WHICH FINISHES FAIL WITHIN SPECIFIED WARRANTY PERIOD. WARRANTY DOES NOT INCLUDE NORMAL WEATHERING

PART 2 - PRODUCTS

2.1 - MANUFACTURERS

A. BASIS OF DESIGN: BASIS OF DESIGN FOR THE STOREFRONT SYSTEM IS YKK AP YES 20 SERIES, SUBJECT TO COMPLIANCE WITH REQUIREMENTS PROVIDE THE NAMED PRODUCT OR A COMPARABLE PRODUCT BY AN AVAILABLE MANUFACTURER

2.2 - MATERIALS

A. ALUMINUM: ALLOY AND TEMPER RECOMMENDED BY MANUFACTURER FOR TYPE OF USE AND FINISH INDICATED
1. SHEET AND PLATE: ASTM B 209
2. EXTRUDED BARS, RODS, PROFILES, AND TUBES: ASTM B 221
3. EXTRUDED STRUCTURAL PIPE AND TUBES: ASTM B 429
4. STRUCTURAL PROFILES: ASTM B 308/B 308M
B. STEEL REINFORCEMENT: WITH MANUFACTURER'S STANDARD CORROSION-RESISTANT PRIMER
1. STRUCTURAL SHAPES, PLATES, AND BARS: ASTM A 36/A 36M
2. COLD-ROLLED SHEET AND STRIP: ASTM A 1008/A 1008M
3. HOT-ROLLED SHEET AND STRIP: ASTM A 1011/A 1011M

2.3 - FRAMING SYSTEMS

A. FRAMING MEMBERS: MANUFACTURER'S STANDARD EXTRUDED-ALUMINUM FRAMING MEMBERS OF THICKNESS REQUIRED AND REINFORCED AS REQUIRED TO SUPPORT IMPOSED LOADS
1. CONSTRUCTION: NONTHERMAL
B. BRACKETS AND REINFORCEMENTS: MANUFACTURER'S STANDARD HIGH-STRENGTH ALUMINUM WITH NONSTAINING, NONFERROUS SHIMS FOR ALIGNING SYSTEM COMPONENTS

A. FASTENERS AND ACCESSORIES: MANUFACTURER'S STANDARD CORROSION-RESISTANT, NONSTAINING, NONBLEEDING FASTENERS AND ACCESSORIES COMPATIBLE WITH ADJACENT MATERIALS
1. WHERE FASTENERS ARE SUBJECT TO LOOSENING OR TURNING OUT FROM THERMAL AND STRUCTURAL MOVEMENTS, WIND LOADS, OR VIBRATION, USE SELF-LOCKING DEVICES
2. REINFORCE MEMBERS AS REQUIRED TO RECEIVE FASTENER THREADS
3. USE EXPOSED FASTENERS WITH COUNTERSUNK PHILLIPS SCREW HEADS, FINISHED TO MATCH FRAMING SYSTEM
B. CONCRETE AND MASONRY INSERTS: HOT-DIP GALVANIZED CAST-IRON, MALLEABLE-IRON, OR STEEL INSERTS COMPLYING WITH ASTM A 123/A 123M OR ASTM A 153/A 153M REQUIREMENTS
C. FLASHING: MANUFACTURER'S STANDARD CORROSION-RESISTANT, NONSTAINING, NONBLEEDING FLASHING COMPATIBLE WITH ADJACENT MATERIALS. FORM EXPOSED FLASHING FROM SHEET ALUMINUM FINISHED TO MATCH FRAMING AND OF SUFFICIENT THICKNESS TO MAINTAIN A FLAT APPEARANCE WITHOUT VISIBLE DEFLECTION
D. FRAMING SYSTEM GASKETS AND SEALANTS: AS RECOMMENDED BY MANUFACTURER FOR JOINT TYPE

2.4 - GLAZING SYSTEMS

A. GLAZING: AS SPECIFIED IN DIVISION 08 SECTION GLAZING.
B. GLAZING GASKETS: MANUFACTURER'S STANDARD COMPRESSION TYPES, REPLACEABLE, MOLDED OR EXTRUDED, THAT MAINTAIN UNIFORM PRESSURE AND WATERTIGHT SEAL
C. SPACERS AND SETTING BLOCKS: MANUFACTURER'S STANDARD ELECTROMETRIC TYPES

2.5 - DOORS

A. DOORS: MANUFACTURER'S STANDARD GLAZED DOORS, FOR MANUAL SWING OPERATION
1. DOOR CONSTRUCTION: 1-3/4-INCH OVERALL THICKNESS, WITH MINIMUM 0.125-INCH-THICK, EXTRUDED-ALUMINUM TUBULAR RAIL AND STILE MEMBERS. MECHANICALLY FASTEN CORNERS WITH REINFORCING BRACKETS THAT ARE DEEP PENETRATION AND FILLET WELDED OR THAT INCORPORATE CONCEALED TIE RODS
2. DOOR DESIGN: AS INDICATED
3. GLAZING STOPS AND GASKETS: BEVELED, SNAP-ON, EXTRUDED-ALUMINUM STOPS AND PREFORMED GASKETS"
B. DOOR HARDWARE: AS SPECIFIED IN DRAWINGS, SEE DOOR SCHEDULE SHEETS A180, A181

2.6 - ACCESSORY MATERIALS

A. JOINT SEALANTS: FOR INSTALLATION AT PERIMETER OF ALUMINUM-FRAMED SYSTEMS, AS SPECIFIED IN DIVISION 07 SECTION JOINT SEALANTS
B. BITUMINOUS PAINT: COLD-APPLIED ASPHALT-MASTIC PAINT COMPLYING WITH SSPC-PAINT 12 REQUIREMENTS EXCEPT CONTAINING NO ASBESTOS, FORMULATED FOR 30-MIL THICKNESS PER COAT

2.7- FABRICATION

A. FORM ALUMINUM SHAPES BEFORE FINISHING
B. WELD IN CONCEALED LOCATIONS TO GREATEST EXTENT POSSIBLE TO MINIMIZE DISTORTION OR DISCOLORATION OF FINISH. REMOVE WELD SPATTER AND WELDING OXIDES FROM EXPOSED SURFACES BY DESCALING OR GRINDING
C. FRAMING MEMBERS, GENERAL: FABRICATE COMPONENTS THAT, WHEN ASSEMBLED, HAVE THE FOLLOWING CHARACTERISTICS
1. PROFILES THAT ARE SHARP, STRAIGHT, AND FREE OF DEFECTS OR DEFORMATIONS
2. ACCURATELY FITTED JOINTS WITH ENDS COPED OR MITERED
3. PHYSICAL AND THERMAL ISOLATION OF GLAZING FROM FRAMING MEMBERS
4. ACCOMMODATIONS FOR THERMAL AND MECHANICAL MOVEMENTS OF GLAZING AND FRAMING TO MAINTAIN REQUIRED GLAZING EDGE CLEARANCES
5. FASTENERS, ANCHORS, AND CONNECTION DEVICES THAT ARE CONCEALED FROM VIEW TO GREATEST EXTENT POSSIBLE
D. DOOR FRAMES: REINFORCE AS REQUIRED TO SUPPORT LOADS IMPOSED BY DOOR OPERATION AND FOR INSTALLING HARDWARE
D. AT INTERIOR DOORS, PROVIDE SILENCERS AT STOPS TO PREVENT METAL-TO-METAL CONTACT. INSTALL THREE SILENCERS ON STRIKE JAMB OF SINGLE-DOOR FRAMES AND TWO SILENCERS ON HEAD OF FRAMES FOR PAIRS OF DOORS
1. DOORS: REINFORCE DOORS AS REQUIRED FOR INSTALLING HARDWARE
E. HARDWARE INSTALLATION: FACTORY INSTALL HARDWARE TO THE GREATEST EXTENT POSSIBLE. CUT, DRILL, AND TAP FOR FACTORY-INSTALLED HARDWARE BEFORE APPLYING FINISHES
F. AFTER FABRICATION, CLEARLY MARK COMPONENTS TO IDENTIFY THEIR LOCATIONS IN PROJECT ACCORDING TO SHOP DRAWINGS

084.1.13.2.8 ALUMINUM FINISHES

A. COLOR ANODIC FINISH: AAMA 611, CLASS I
1. COLOR: AS INDICATED ON FINISH SCHEDULE, SEE SHEET A-120

PART 3 - EXECUTION

3.1 - INSTALLATION

A. GENERAL
1. FIT JOINTS TO PRODUCE HAIRLINE JOINTS FREE OF BURRS AND DISTORTION
2. RIGIDLY SECURE NON-MOVEMENT JOINTS
3. INSTALL ANCHORS WITH SEPARATORS AND ISOLATORS TO PREVENT METAL CORROSION AND ELECTROLYTIC DETERIORATION
4. SEAL JOINTS WATERTIGHT, UNLESS OTHERWISE INDICATED
B. METAL PROTECTION
1. WHERE ALUMINUM WILL CONTACT DISSIMILAR METALS, PROTECT AGAINST GALVANIC ACTION BY PAINTING CONTACT SURFACES WITH PRIMER OR BY APPLYING SEALANT OR TAPE OR INSTALLING NONCONDUCTIVE SPACERS AS RECOMMENDED BY MANUFACTURER FOR THIS PURPOSE
2. WHERE ALUMINUM WILL CONTACT CONCRETE OR MASONRY, PROTECT AGAINST CORROSION BY PAINTING CONTACT SURFACES WITH BITUMINOUS PAINT
3. INSTALL COMPONENTS TO DRAIN WATER PASSING JOINTS, CONDENSATION OCCURRING WITHIN FRAMING MEMBERS, AND MOISTURE MIGRATING WITHIN THE SYSTEM TO EXTERIOR
C. SET CONTINUOUS SILL MEMBERS AND FLASHING IN FULL SEALANT BED AS SPECIFIED IN DIVISION 07 SECTION "JOINT SEALANTS" AND TO PRODUCE WEATHER TIGHT INSTALLATION
D. INSTALL COMPONENTS PLUMB AND TRUE IN ALIGNMENT WITH ESTABLISHED LINES AND GRADES, WITHOUT WARP OR RACK
E. INSTALL GLAZING AS SPECIFIED IN DIVISION 08 SECTION GLAZING.
F. ENTRANCES: INSTALL TO PRODUCE SMOOTH OPERATION AND TIGHT FIT AT CONTACT POINTS
1. FIELD-INSTALLED HARDWARE: INSTALL SURFACE-MOUNTED HARDWARE ACCORDING TO HARDWARE MANUFACTURERS' WRITTEN INSTRUCTIONS USING CONCEALED FASTENERS TO GREATEST EXTENT POSSIBLE
G. INSTALL PERIMETER JOINT SEALANTS AS SPECIFIED IN DIVISION 07 SECTION JOINT SEALANTS AND TO PRODUCE WEATHERTIGHT INSTALLATION
H. ERECTION TOLERANCES: INSTALL ALUMINUM-FRAMED SYSTEMS TO COMPLY WITH THE FOLLOWING MAXIMUM TOLERANCES
1. LOCATION AND PLANE: LIMIT VARIATION FROM TRUE LOCATION AND PLANE TO 1/8 INCH IN 12 FEET; 1/4 INCH OVER TOTAL LENGTH
2. ALIGNMENT
a. WHERE SURFACES ABUT IN LINE, LIMIT OFFSET FROM TRUE ALIGNMENT TO 1/16 INCH
b. WHERE SURFACES MEET AT CORNERS, LIMIT OFFSET FROM TRUE ALIGNMENT TO 1/32 INCH"
3. DIAGONAL MEASUREMENTS: LIMIT DIFFERENCE BETWEEN DIAGONAL MEASUREMENT TO 1/8 INCH

END OF SECTION - 084113

SECTION 088100 - GLASS GLAZING

PART 1 - GENERAL:

1.1 - SUMMARY

A. INSTALL GLASS AND FILM ON GLASS; PROVIDE GLAZING ACCESSORIES AS REQUIRED FOR COMPLETE INSTALLATION, UNLESS NOTED BY OTHERS IN DRAWINGS.

1.2 - STANDARDS:

A. COMPLY WITH GLASS ASSOCIATION OF NORTH AMERICA (GANA) "GLAZING MANUAL".
B. SAFETY GLAZING SHALL COMPLY WITH CONSUMER PRODUCT STANDARD 16 CFR 1201, AND SHALL HAVE PASSED ANSI Z97.1.

1.3 - SUBMITTALS: FURNISH PRODUCT DATA AND SAMPLES OF EXPOSED GLAZING MATERIALS.

PART 2 - MATERIALS

2.1 - GLAZING [GL-1] : SEE SHEET A-120

A. ASTM C1048, FULLY TEMPERED, SELECT GLAZING QUALITY, CLEAR FLOAT GLASS, SAFETY GLASS, UNLESS OTHERWISE INDICATED.
1. INTERIOR [SF-4]: FULLY TEMPERED STARPHIRE GLAZING, THICKNESS AS INDICATED ON DRAWINGS.
2. INTERIOR [SF-5]:FULLY TEMPERED "CLARITY" ANTI REFLECTIVE GLASS STARPHIRE OR EQ, THICKNESS AS INDICATED ON DRAWINGS
3. EXTERIOR [SF-6]: 1" TEMPERED INSULATED WITH DUAL SEAL (MAKEUP: 1/4" CLEAR TEMPERED, 1/2" SPACER, 1/4" CLEAR TEMPERED), SOLAR BAN 60 OR APPROVED EQUAL
4. EXTERIOR [SF-7]: 1" TEMPERED INSULATED WITH DUAL SEAL (MAKEUP: EXTEIOR 1/4" CLEAR HAMMER GLASS, 1/2" SPACER, 1/4" CLEAR TEMPERED STARPHIRE
B. EXPOSED AND BUTT EDGES: EASED POLISHED EDGE
C. CORNER EDGES: LAP-JOINT CORNERS WITH EXPOSED EDGES POLISHED
D. GLAZING ACCESSORIES: OF TYPE RECOMMENDED BY MANUFACTURER TO SUIT SECURITY LOCATIONS AND APPLICATIONS FOR DRY GLAZING INSTALLATION.
E. GLAZING FILM [WF-1, WF-2A, WF-2B, WF-2C]: PROVIDE TRANSLUCENT AND/OR OPAQUE GLAZING FILMS BY 3M OR LULULEMON VENDOR IF INDICATED ON DRAWINGS, SEE SHEET A-120.
F. GLAZING SEALANT: ONE COMPONENT SILICONE GLAZING SEALANT BY DOW, GE, OR TREMCO.
G. SETTING BLOCKS AND SPACERS: NEOPRENE OR EPDM, SILICONE COMPATIBLE WHERE IN CONTACT WITH SILICONE SEALANT.

PART 3 - EXECUTION

3.1 - PREPARATION:

CLEAN GLAZING CHANNELS AND FRAMING MEMBERS TO RECEIVE GLASS IMMEDIATELY BEFORE GLAZING; REMOVE COATINGS NOT FIRMLY BONDED TO SUBSTRATE.

3.2 - INSTALLATION: COMPLY WITH GANA GLAZING MANUAL AND SEALANT MANUAL AND GLAZING MANUFACTURER INSTRUCTIONS.
1. DO NOT ALLOW GLASS TO TOUCH METAL SURFACES.
2. COMPLY WITH NFPA 80 FOR GLASS IN FIRE RATED OPENINGS.
3. PLACE SETTING BLOCKS AT QUARTER POINTS IN THIN COURSE OF SEALANT.
4. INSTALL REMOVABLE STOPS WITH GLASS CENTERED IN SPACE WITH SPACER SHIMS AT 2'-0" INTERVALS ON BOTH SIDES OF GLASS, 1/4" BELOW SIGHTLINE.
5. SEALANT GLAZING: FILL GAP BETWEEN GLASS AND STOPS WITH SEALANT TO DEPTH EQUAL TO BITE OF FRAME ON GLASS BUT NOT MORE THAN 3/8" BELOW SIGHTLINE.

END OF SECTION - 088100

SECTION 088300 - MIRRORS

PART 1 - GENERAL

1.1 - SUMMARY

A. THIS SECTION INCLUDES GLASS MIRRORS.

1.2 - QUALITY ASSURANCE

A. INSTALLER QUALIFICATIONS: AN EXPERIENCED INSTALLER WHO HAS COMPLETED MIRROR GLAZING SIMILAR IN MATERIAL DESIGN AND EXTENT TO THAT INDICATED; WHOSE WORK HAS RESULTED IN MIRROR INSTALLATIONS WITH A RECORD OF NOT LESS THAN 5 YEARS OF SUCCESSFUL IN-SERVICE PERFORMANCE. SOURCE LIMITATIONS FOR MIRRORS: OBTAIN MIRRORS FROM ONE SUPPLIER/MANUFACTURER FOR EACH TYPE OF MIRROR INDICATED.
B. SOURCE LIMITATIONS FOR GLAZING ACCESSORIES: OBTAIN GLAZING ACCESSORIES FROM ONE SOURCE FOR EACH TYPE OF ACCESSORY INDICATED.
C. GLAZING PUBLICATIONS: COMPLY WITH THE APPLICABLE RECOMMENDATIONS OF THE FOLLOWING. WHERE RECOMMENDATIONS CONFLICT THE MORE STRINGENT SHALL APPLY:
1. GLASS ASSOCIATION OF NORTH AMERICA (GANA): "GLAZING MANUAL" AND THE MIRROR DIVISION'S "MIRRORS, HANDLE WITH EXTREME CARE: TIPS FOR THE PROFESSIONAL ON THE CARE AND HANDLING OF MIRRORS."
2. NATIONAL GLASS ASSOCIATION (NGA): "CUSTOM MIRRORS, FABRICATION AND INSTALLATION."

1.3 - DELIVERY, STORAGE, AND HANDLING

A. PROTECT MIRRORS ACCORDING TO MIRROR MANUFACTURER'S WRITTEN INSTRUCTIONS AND AS NEEDED TO PREVENT DAMAGE TO MIRRORS FROM CONDENSATION, TEMPERATURE CHANGES, DIRECT EXPOSURE TO SUN, OR OTHER CAUSES.
B. COMPLY WITH MIRROR MANUFACTURER'S WRITTEN INSTRUCTIONS FOR SHIPPING, STORING, AND HANDLING MIRRORS AS NEEDED TO PREVENT DETERIORATION OF SILVERING, DAMAGE TO EDGES, AND ABRASION OF GLASS SURFACES AND APPLIED COATINGS. STORE INDOORS, PROTECTED FROM MOISTURE INCLUDING CONDENSATION.

1.4 - PROJECT CONDITIONS

A. ENVIRONMENTAL LIMITATIONS: DO NOT INSTALL MIRRORED GLASS UNTIL AMBIENT TEMPERATURE AND HUMIDITY CONDITIONS ARE MAINTAINED AT LEVELS INDICATED FOR FINAL OCCUPANCY.

PART 2 - PRODUCT

2.1 - MIRROR SPECIFICATIONS

A. CLEAR GLASS / MIRROR
1. FLAT GLASS WITH SILVERED COATING ON SECOND SURFACE, WITH PROTECTIVE PAINT BACKING
2. EDGES TO BE FLAT GROUND SMOOTH AND POLISHED
3. VINYL SAFETY BACKING TO BE USED AT DOOR APPLICATIONS

PART 3 - EXECUTION

3.1 - INSTALLATION

A. FIELD MEASURE MUST BE COMPLETE AFTER FIT ROOM MILLWORK PACKAGE IS FULLY INSTALLED
B. MIRROR SIZES MUST BE FIELD MEASURED TO SUIT EXISTING SITE CONDITIONS
C. MIRROR PANE CUTTING AND EDGE FINISH TO BE COMPLETED OFF-SITE IN A CONTROLLED ENVIRONMENT
D. INSTALL MIRROR WITH QUICK-SET CONSTRUCTION ADHESIVE (TITEBOND CONSTRUCTION ADHESIVE IS RECOMMENDED) THAT ALLOWS FOR MINOR MIRROR PLACEMENT ADJUSTMENTS UPON INSTALLATION
E. MIRROR MUST BE SUPPORTED DURING CURING PERIOD
F. FOR INSTALLATION OF A 3-WAY MIRROR, CENTER MIRROR PANE TO BE INSTALLED FIRST, FOLLOWED BY THE FLANKING MIRROR PANELS

3.2 - JOINT FINISHING

1. MIRROR PANELS TO BE TIGHTLY BUTT TOGETHER, MAX ALLOWABLE JOINT IS 1/16"
2. NO CAULKING TO BE USED

3.3 - WARRANTY

1. ONE YEAR INSTALLATION WARRANTY FROM TIME OF INSTALLATION

END OF SECTION - 088300

lululemon
1818 CORNWALL AVE.
VANCOUVER, B.C., V6J1C7

CF POLO PARK
1485 Portage Ave, Unit 144E
Winnipeg, MB
R3G 0W5
CRU NUMBER: 144E

Quadrangle
Quadrangle Architects Limited
The Well, 8 Spadina Avenue, Suite 2100, Toronto, ON M5V 0S8
t 416 598 1240 www.bdpquadrangle.com

ARCHITECT SEAL

ONTARIO ASSOCIATION OF ARCHITECTS
KIRTIDEV MEHTA
LICENCE
8099

ISSUED FOR CONSTRUCTION
07/14/2023

△	DATE	DESCRIPTION
	06/09/2023	PERMIT/CONSTRUCTION
	06/09/2023	ISSUED FOR BID
	07/14/2023	ISSUED FOR CONSTRUCTION

DRAWING INFORMATION
PROJECT #: 23206
CHECKED BY: Checker
DRAWN BY: Author

ARCHITECTURAL SPECIFICATIONS

DRAWING NUMBER
AS-140

7/14/2023 12:18:03 PM

DIVISION 9 - FINISHES

SECTION 092500 - GYPSUM BOARD

PART 1 - GENERAL

1.0 - SUBMITTALS
A. SUSTAINABILITY PRODUCT DATA SUBMITTAL FORM: INCLUDE DOCUMENTATION SUPPORTING AT LEAST ONE PREFERRED OR ALTERNATE SUSTAINABLE CRITERIA

1.1 - QUALITY ASSURANCE
A. FIRE-RESISTANCE-RATED ASSEMBLIES: FOR FIRE-RESISTANCE-RATED ASSEMBLIES, PROVIDE MATERIALS AND CONSTRUCTION IDENTICAL TO THOSE TESTED IN ASSEMBLY INDICATED ACCORDING TO ASTM E 119 BY AN INDEPENDENT TESTING AGENCY

PART 2 - PRODUCTS

2.1 - MATERIALS
A. GYPSUM BOARD
B. FIBER GYPSUM WALLBOARD PANELS: FIBER-REINFORCED GYPSUM BOARD. GYPSUM, AND PERLITE CORE- HEAVIER AND MORE DURABLE THAN CONVENTIONAL GYPSUM BOARD WITH A DENSE, HARD SURFACE LESS PRONE TO MOLD GROWTH. 5/8" THICK MATERIAL CAN SPAN 24", HAS TO BE CUT OR SCORED ON BOTH SIDES
1. THICKNESS: 5/8"
2. FIRE RESISTANCE: 5/8" PANELS EQUIVALENT TO TYPE X, ASTM E119, AND CAN/ULC-S101, WITH CLASS 1 FLAME SPREAD, SMOKE DEVELOPMENT, AND FUEL CONTRIBUTION IN ACCORDANCE WITH ASTM E84 AND CAN/ULC-S102
3. MOISTURE TOLERANCE: AFTER WETTING, REGAINS ORIGINAL STRENGTH UPON DRYING
4. GYPSUM BOARD IN ALL WET AREAS, INCLUDING TOILET ROOMS, STAFF SINK AREA, WATER FEATURE AND MOP SINK AREA SHALL BE MOISTURE AND WATER-RESISTANT GRADE

2.2 - RELATED MATERIALS
A. JOINT COMPOUND
1. DRY MIX: LIME COMPOUND; ALL-PURPOSE JOINT AND TEXTURING COMPOUND CONTAINING INERT FILLERS AND NATURAL BINDERS
2. ALL-PURPOSE, PREMIXED
B. DRYWALL STOPS
C. JOINT TAPE PAPER

PART 3 - EXECUTION

3.1 - APPLYING AND FINISHING PANELS, GENERAL
A. COMPLY WITH ASTM C 840
B. EXAMINE PANELS BEFORE INSTALLATION. REJECT PANELS THAT ARE WET, MOISTURE DAMAGED, AND MOLD DAMAGED
C. ISOLATE PERIMETER OF GYPSUM BOARD APPLIED TO NON-LOAD-BEARING PARTITIONS AT STRUCTURAL ABUTMENTS, EXCEPT FLOORS. PROVIDE 1/4 TO 1/2 INCH WIDE SPACES AT THESE LOCATIONS, AND TRIM EDGES WITH EDGE TRIM WHERE EDGES OF PANELS ARE EXPOSED. SEAL JOINTS BETWEEN EDGES AND ABUTTING STRUCTURAL SURFACES WITH ACOUSTICAL SEALANT

3.2 - APPLYING INTERIOR GYPSUM BOARD
A. INSTALL INTERIOR GYPSUM BOARD IN THE FOLLOWING LOCATIONS
1. TYPE X: VERTICAL SURFACES, UNLESS OTHERWISE INDICATED
2. FLEXIBLE TYPE: AS INDICATED ON DRAWINGS
3. CEILING TYPE: AS INDICATED ON DRAWINGS

3.3 - INSTALLING TRIM ACCESSORIES
A. GENERAL: FOR TRIM WITH BACK FLANGES INTENDED FOR FASTENERS, ATTACH TO FRAMING WITH SAME FASTENERS USED FOR PANELS. OTHERWISE, ATTACH TRIM ACCORDING TO MANUFACTURER'S WRITTEN INSTRUCTIONS
B. CONTROL JOINTS: INSTALL CONTROL JOINTS AT LOCATIONS INDICATED ON DRAWINGS

3.4 - FINISHING GYPSUM BOARD
A. GENERAL: TREAT GYPSUM BOARD JOINTS, INTERIOR ANGLES, EDGE TRIM, CONTROL JOINTS, PENETRATIONS, FASTENER HEADS, SURFACE DEFECTS, AND ELSEWHERE AS REQUIRED TO PREPARE GYPSUM BOARD SURFACES FOR DECORATION. PROMPTLY REMOVE RESIDUAL JOINT COMPOUND FROM ADJACENT SURFACES
B. PREFILL OPEN JOINTS, ROUNDED OR BEVELED EDGES, AND DAMAGED SURFACE AREAS
C. APPLY JOINT TAPE OVER GYPSUM BOARD JOINTS, EXCEPT THOSE WITH TRIM HAVING FLANGES NOT INTENDED FOR TAPE
D. GYPSUM BOARD FINISH LEVELS: FINISH PANELS TO LEVELS INDICATED BELOW AND PER ASTM C 840
1. LEVEL 1: CEILING PLENUM AREAS, CONCEALED AREAS, AND WHERE INDICATED
2. LEVEL 2: AREAS COVERED WITH COMMERCIAL GRADE HEAVY DUTY WALLCOVERINGS, TILE, WOOD PANELING OR SIMILAR, CONCEALED AREAS AT LIGHT COVES
3. LEVEL 3: AT SALES AREA AND ALL AREAS THAT ARE RECEIVING HEAVY TEXTURE FINISH
4. LEVEL 4: AT B.O.H. NON CUSTOMER AREAS, UNLESS OTHERWISE INDICATED
a. PRIMER AND ITS APPLICATION TO SURFACES ARE SPECIFIED IN OTHER DIVISION 09 SECTIONS
b. LIGHT WEIGHT WALLCOVERINGS
5. LEVEL 5: CUSTOMER ACCESSIBLE AREAS, GC TO USE SPRAY APPLIED WITH SHEETROCK® BRAND TUFF-HIDE™ PRIMER-SURFACER OR APPROVED EQUAL AT ALL PAINTED SURFACES
6. PLASTIC: SPECIFY HIGHEST RECYCLED CONTENT AVAILABLE

3.5 - PROTECTION
A. PROTECT INSTALLED PRODUCTS FROM DAMAGE FROM WEATHER, CONDENSATION, DIRECT SUNLIGHT, CONSTRUCTION, AND OTHER CAUSES DURING REMAINDER OF THE CONSTRUCTION PERIOD
B. REMOVE AND REPLACE PANELS THAT ARE WET, MOISTURE DAMAGED, AND MOLD DAMAGED
1. INDICATIONS THAT PANELS ARE WET OR MOISTURE DAMAGED INCLUDE, BUT ARE NOT LIMITED TO, DISCOLORATION, SAGGING, OR IRREGULAR SHAPE
2. INDICATIONS THAT PANELS ARE MOLD DAMAGED INCLUDE, BUT ARE NOT LIMITED TO, FUZZY OR SPLOTCHY SURFACE CONTAMINATION AND DISCOLORATION

END OF SECTION 092500

SECTION 092514 - CONCRETE PLASTER FINISH [SF-24]

PART 1 GENERAL

1.1 - SUMMARY
A. SECTION INCLUDES: INTEGRALLY-COLORED, POLYMER-ENHANCED, PORTLAND CEMENT-BASED PLASTER FINISH.

1.2 REFERENCES
A. ASTM C979 – PIGMENTS FOR INTEGRALLY COLORED CONCRETE.
B. ASTM D1308-02 - HOUSEHOLD CHEMICAL RESISTANCE.
C. ASTM D2486-06 – SCRUB RESISTANCE.
D. ASTM D3363 – PENCIL SCRATCH AND GOUGE HARDNESS.
E. ASTM E84 – SURFACE BURNING CHARACTERISTICS OF BUILDING MATERIALS.
F. ISO 9002 – QUALITY SYSTEMS -- MODEL FOR QUALITY ASSURANCE IN PRODUCTION, INSTALLATION AND SERVICING.

1.3 SUBMITTALS
A. PRODUCT DATA: SUBMIT MANUFACTURER'S PRODUCT DATA FOR FINISHES AND OTHER MATERIALS PROVIDED UNDER THIS SECTION.
B. VERIFICATION SAMPLES: SUBMIT ONE (1) 24 INCH x 24 INCH SAMPLES ILLUSTRATING COLOR TEXTURE, AND REVEAL EXECUTION TO BE EXPECTED IN COMPLETED WORK.
C. APPLICATION INSTRUCTIONS: SUBMIT COMPLETE MANUFACTURER'S APPLICATION INSTRUCTIONS. INCLUDE REQUIREMENTS FOR PREPARATION OF SURFACES, METHOD OF APPLICATION OF EACH FINISH, AND RECOMMENDED CURING AND PROTECTION METHODS.
D. QUALIFICATION DATA: SUBMIT A CERTIFICATE INDICATING THAT INSTALLER IS AUTHORIZED BY THE MANUFACTURER TO INSTALL SPECIFIED PRODUCT.
E. INSTALLER'S EXPERIENCE RECORD: SUBMIT A LIST OF AT LEAST 5 INSTALLATIONS THAT HAVE BEEN INSTALLED FOR A MINIMUM OF THREE (3) YEARS OF FINISH SYSTEM SIMILAR IN SIZE, TYPE AND SCOPE AS DESCRIBED IN THIS DOCUMENT. INCLUDE CONTACT NAMES AND PHONE NUMBERS.

1.4 - QUALITY ASSURANCE
A. MANUFACTURER QUALIFICATIONS: FINISH SHALL BE PRODUCED IN ISO 9002 CERTIFIED FACILITY. MANUFACTURER SHALL BE COMPANY SPECIALIZING IN MANUFACTURING PRODUCTS SPECIFIED IN THIS SECTION WITH MINIMUM FOUR YEARS EXPERIENCE.
B. INSTALLER: INSTALLERS SHALL BE SPECIALLY TRAINED IN THE APPLICATION OF THE FINISH. INSTALLERS SHALL HAVE COMPLETED AT LEAST FIVE (5) INSTALLATIONS OF FINISHES SIMILAR TO TYPE INCLUDED IN THIS SECTION AND SHALL HAVE TRAINED AND CERTIFIED BY MANUFACTURER.
1. CONTACT TEXSTON OR YOUR TEXSTON DISTRIBUTOR FOR NAMES OF QUALIFIED CONTRACTORS.
2. CERTIFICATION: SUBMIT WRITTEN DOCUMENTATION THAT INSTALLER IS TRAINED AND CERTIFIED BY MANUFACTURER TO INSTALL FINISH.
3. TECHNICAL REPRESENTATIVE: INSTALLER SHALL ARRANGE AND PAY FOR A FACTORY TECHNICAL REPRESENTATIVE TO BE PRESENT AT THE START OF THE WORK AND TO OBSERVE THE WORK IN PROGRESS FOR NOT LESS THAN SIX (6) HOURS.
C. MOCK-UP: SEE VERIFICATION SAMPLE SUBMITTAL REQUIREMENTS ABOVE
D. SINGLE SOURCE RESPONSIBILITY: PROVIDE ONLY PROPRIETARY, FACTORY-FORMULATED MATERIALS AS PRODUCED BY TEXSTON INDUSTRIES, INC. SPECIFICALLY FOR APPLICATION INDICATED. SUBSTITUTES WITHIN THE SYSTEM ARE NOT PERMITTED.

1.5 - DELIVERY, STORAGE, AND HANDLING
A. DELIVERY AND STORAGE: PROTECT MATERIALS FROM EXCESSIVE MOISTURE AND DIRECT SUN IN SHIPMENT, STORAGE, AND HANDLING. DELIVER MATERIALS IN MANUFACTURER'S UNOPENED CONTAINERS AND STORE IN DARK AND DRY PLACE AT BETWEEN 45 AND 95 DEGREES F AND WITH ADEQUATE AIR CIRCULATION.

1.6 - PROJECT CONDITIONS
A. ENVIRONMENTAL REQUIREMENTS, GENERAL: COMPLY WITH REQUIREMENTS OF REFERENCED PLASTER APPLICATION STANDARDS AND RECOMMENDATIONS OF PLASTER MANUFACTURER FOR ENVIRONMENTAL CONDITIONS BEFORE, DURING, AND AFTER PLASTER APPLICATION.
B. COLD-WEATHER REQUIREMENTS: PROVIDE HEAT AND PROTECTION, TEMPORARY OR PERMANENT, AS REQUIRED TO PROTECT EACH COAT OF PLASTER FROM FREEZING FOR AT LEAST 24 HOURS AFTER APPLICATION. DISTRIBUTE HEAT UNIFORMLY TO PREVENT CONCENTRATION OF HEAT ON PLASTER NEAR HEAT SOURCES; PROVIDE DEFLECTION OR PROTECTIVE SCREENS.
C. WARM-WEATHER REQUIREMENTS: PROTECT PLASTER AGAINST UNEVEN AND EXCESSIVE EVAPORATION AND FROM STRONG FLOWS OF DRY AIR, BOTH NATURAL AND ARTIFICIAL. APPLY AND CURE PLASTER AS REQUIRED BY CLIMATIC AND JOB CONDITIONS TO PREVENT DRY OUT DURING CURE PERIOD. PROVIDE SUITABLE COVERINGS, MOIST CURING, BARRIERS TO DEFLECT SUNLIGHT AND WIND, OR COMBINATIONS OF THESE AS REQUIRED.
D. EXTERIOR PLASTER WORK: DO NOT APPLY IF RAIN OR FREEZING TEMPERATURES ARE EXPECTED WITHIN 24 HOURS; PROTECT FROM RAIN FOR 48 HOURS AFTER APPLICATION. DO NOT APPLY OVER WET OR FROZEN SURFACES. DO NOT APPLY WHEN TEMPERATURE IS LESS THAN 45 DEGREES F OR MORE THAN 95 DEGREES F
E. PROTECT CONTIGUOUS WORK FROM SOILING AND MOISTURE DETERIORATION CAUSED BY PLASTERING. PROVIDE TEMPORARY COVERING AND OTHER PROVISIONS NECESSARY TO MINIMIZE HARMFUL SPATTERING OF PLASTER ON OTHER WORK.

1.6 - WARRANTY
A. MANUFACTURER'S LIMITED WARRANTY: PROVIDE MANUFACTURER'S FIVE (5) YEAR LIMITED WARRANTY AGAINST PRODUCTS DEFECTS.

PART 2 PRODUCTS

2.1 - ACCEPTABLE MANUFACTURER - NO SUSTITUTIONS
A. TEXSTON INDUSTRIES
8025 DEERING AVE
CANOGA PARK 91304
800-788-7113
818-227-4812
FAX 818-227-4852
WWW.TEXSTON.COM

2.2 - SYSTEM PERFORMANCE REQUIREMENTS
A. COMPOSITION: PREMIXED, DRY, POWDER CONTAINING WHITE PORTLAND CEMENT; SPECIALLY GRADED SILICA SAND FREE OF DUST AND SALTS; DRY ACRYLIC POLYMERS; RHEOLOGICAL, WATER REPELLENT, MILDEWICIDAL, AND FUNGICIDAL ADMIXTURES; PROPRIETARY MICRO REINFORCED FIBERS, AND MINERAL OXIDE PIGMENTS COMPLYING WITH ASTM C979.
B. SURFACE BURNING PERFORMANCE: CLASS A; SURFACE BURNING CHARACTERISTICS NOT EXCEEDING FLAME SPREAD = 0 AND SMOKE DENSITY = 5 WHEN TESTED ACCORDING TO ASTM E84.
C. PENCIL HARDNESS: GOUGE 6H/SCRATCH 4H WHEN TESTED IN ACCORDANCE WITH ASTM- 3363
D. SCRUB RESISTANCE: MINIMUM OF 10000 CYCLES USING 10GRAMS OF SCRUBBING MEDIUM AND 5 GRAMS OF WATER ASTM D2486-06: NO VISIBLE/MEASURABLE WEAR.
E. CHEMICAL EXPOSURE: ASTM D-1308-02: NO CHANGE.

2.3 - FINISH - [SF-24] - SEE SHEET A-120
A. PRODUCT: TEXSTON TUSCANY - LULULEMON CUSTOM MIX LIME-CEMENT PLASTER WITH AGGREGATE
B. FINISH CODE # VPC-8333D WITH RESIN POLYMER ADDITIVE (RPA)
C. COLOR: PLASTER MIX SHALL BE FACTORY-TINTED BY MANUFACTURER.
1. MATCH OWNER'S APPROVED CONTROL SAMPLE.
a. COLOR A FOR 1ST COAT (WITHOUT ROCKS)
b. COLOR B FOR 2ND COAT (WITH ROCKS)

2.4 - ACCESSORIES
A. EFIS BASE COAT:
1. ACRYLIC MODIFIED CEMENTITIOUS BASECOAT BY STO, DRYVIT, PAREX, SENERGY, FINESTONE, BASF OR EQUAL
B. FIBER MESH:
1. 4.5 OZ FULL FIBER MESH EMBEDDED IN BASECOAT
2. 4" WIDE MINIMUM 4.5 OZ DETAIL FIBER MESH EMBEDDED IN ALL SEAMS AND CORNERS
C. PRIMER:
1. TWO (2) COATS TEXSTON TEX PREP PRIMER
D. SAND:
1. TO MIX WITH PRIMER AND ROUGHEN PRIMED SURFACE AND IMPROVE SPREADABILITY OF PLASTER COATING; PROVIDE ONE QUART OF SAND PER FIVE GALLONS OF PRIMER.
E. REINFORCED POLYMER ADDITIVE (RPA):
1. TEXSTON RPA ADDITIVE. PROVIDE IN PROPORTIONS ACCORDING TO MANUFACTURER RECOMMENDATIONS FOR 1ST COAT AND SECOND COAT.
F. CURE RETARDANT
1. RUGASOL RETARDANT
G. SEALER:
1. TWO (2) COATS TEXSTON TEXPROTECT SDS 7.5
H. CORROSION RESISTANT TRIM AND FASTENERS REQUIRED IN EXTERIOR AND WET AREAS.
I. SEE DETAIL STOREFRONT SERIES A-400 FOR TRIMS, JOINTS, AND REVEALS REQUIRED

2.5 - TOOLS
A. USE TROWELS OF TYPES RECOMMENDED BY MANUFACTURER TO PRODUCE INTENDED RESULTS.
B. FOR GRIND/POLISH FINISH USE SANDER WITH ELECTROPLATED DIAMOND DISCS OF TYPES RECOMMEND BY MANUFACTUER TO PRODUCE INTENDED RESULTS:
1. GENESIS ELECTROPLATED FLEXIBLE DIAMOND DISC
a. DD1 = 120 GRIT
b. DD2 = 220 GRIT
c. DD3 = 400 GRIT

PART 3 EXECUTION

3.1 - EXAMINATION
A. INSPECT SUBSTRATES AND CONDITIONS AFFECTING WORK OF SECTION. DO NOT PROCEED UNTIL UNSATISFACTORY CONDITIONS HAVE BEEN CORRECTED.

3.2 - PREPARATION
A. MASK AND PROTECT ADJACENT SURFACES NOT SCHEDULED TO RECEIVE PRODUCTS OF SECTION.
B. SUBSTRATE PREPARATION:
1. EXISTING SUBSTRATES:
a. REMOVE DETERIORATED SUBSTRATES AND PATCH IN ACCEPTABLE MANNER.
b. OILY OR GLOSSY SURFACES AND OIL-BASED PAINTS: LIGHTLY SAND PRIOR TO WASHING
c. WASH WITH TRISODIUM PHOSPHATE MIXED AT RATE OF INDICATED ON PRODUCT LABEL. RINSE, NEUTRALIZE, AND WIPE DRY.
d. SUBSTRATES SHALL BE CLEAN AND FREE OF CONTAMINATION.
2. NEW SUBSTRATES:
a. INTERIOR: 5/8" THICK CEMENTITIOUS BACKER BOARD OVER 1/2" THICK FRT PLYWOOD SHEATHING
b. EXTERIOR: 5/8" THICK EXTERIOR RATED CEMENTITIOUS BACKER BOARD OVER 5/8" MINIMUM EXTERIOR RATED FIBERGLASS MAT GYPSUM SHEATHING
C. LEVELING: REMOVE PROJECTIONS AND FILL DEPRESSIONS, IF REQUIRED, WITH LEVELING COAT.
D. BROWN COAT: DAMPEN WITH WATER IMMEDIATELY BEFORE APPLYING FINISH.
1. PLASTER BROWN COAT: APPLY BROWN COAT IN ACCORDANCE WITH ASTM C926 - APPLICATION OF PORTLAND CEMENT-BASED PLASTER AND PORTLAND CEMENT ASSOCIATION'S PORTLAND CEMENT PLASTER MANUAL. PAY PARTICULAR ATTENTION TO MOIST CURING REQUIREMENTS TO MINIMIZE SHRINKAGE CRACKING; CURE AT LEAST SEVEN DAYS (21 DAYS RECOMMENDED) PRIOR TO APPLICATION OF FINISH COATING. FOR ADDITIONAL RESISTANCE TO CRACKING, A FIBER MESH CAN BE IMBEDDED INTO BROWN COAT.
E. PRIME:
1. PRIME SUBSTRATES WITH UNEVEN MOISTURE ABSORPTION CHARACTERISTICS TO CREATE UNIFORM SUCTION.
2. PRIME METAL OR NON-POROUS SUBSTRATES TO IMPROVE SPREADABILITY OF PLASTER.
3. ALLOW PRIMER TO DRY BEFORE PLASTER APPLICATION.

3.3 - APPLICATION
A. GENERAL:
1. COMPLY WITH MANUFACTURER'S INSTALLATION REQUIREMENTS.
2. APPLY WHEN TEMPERATURE IS BETWEEN 45 TO 95 DEGREES F.
3. DO NOT BRIDGE EXPANSION OR CONTROL JOINTS.
4. MIXING: ADD SMALL AMOUNT OF CLEAN, POTABLE WATER AND MIX WITH DRILL MIXER UNTIL HOMOGENEOUS PASTE CONSISTENCY IS REACHED. LET MATERIAL REST FOR TWO TO THREE MINUTES. THEN ADD SUFFICIENT WATER TO YIELD CONSISTENCY SUITABLE FOR APPLICATION AND MIX AGAIN. DO NOT RE-TEMPER OR REMIX
5. CONTINUOUSLY APPLY EACH LAYER IN ONE GENERAL DIRECTION WITHOUT ALLOWING COATING TO DRY AT EDGES. WORK SHALL BE FREE FROM COLD JOINTS, SCAFFOLD LINES, AND OTHER DEFICIENCIES DETRIMENTAL TO APPEARANCE AND PERFORMANCE. IF FULL WIDTH OF WALL CANNOT BE COVERED AT ONE TIME, TERMINATE APPLICATIONS AT NATURAL DIVISIONS OF SURFACE SUCH AS CONTROL JOINTS OR CORNERS.
B. TEXTURE:
1. FOLLOW SPECIFIC MANUFACTURER INSTALLATION TECHNIQUE INSTRUCTIONS TO MATCH THE LULULEMON APPROVED CONTROL SAMPLE.
C. TOLERANCES: SLIGHT MOTTLING AND VARIATIONS IN COLORS WHICH ARE RANDOM YET CONSISTENT IN OVERALL EFFECT ARE NORMAL AND ACCEPTABLE FEATURES OF FINISH.

3.4 - CURING
A. NOT MORE THAN 24 HOURS AFTER APPLICATION, MOISTEN PLASTER WITH WATER. USE SPRAY OR HOSE; START AT BOTTOM AND WORK UPWARDS.

3.5 - SEALING
A. ALLOW 72 HOURS FOR PLASTER SUBSTRATE TO DRY BEFORE APPLYING SEALER.
B. APPLY ACCORDING TO SEALER MANUFACTURER'S INSTRUCTIONS. PROTECT AGAINST OVERSPRAY.
C. APPLY TWO COATS. ALLOW FIRST COAT TO DRY BEFORE APPLYING SECOND COAT. PROMPTLY AFTER APPLICATION OF SECOND COAT, WIPE SURFACE TO REMOVE EXCESS SEALER.

3.6 - CLEANING
A. REMOVE MASKING.
B. ADJACENT SURFACES: REMOVE PLASTER SPLATTERS USING METHODS WHICH WILL NOT DAMAGE SURFACES.

3.7 - PROTECTION
A. PROTECT FROM RAIN FOR 48 HOURS AFTER APPLICATION.
B. PROTECT FINISHES FROM DAMAGE UNTIL FINAL ACCEPTANCE.
C. REPAIR DAMAGE IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS AND TO SATISFACTION OF OWNER.

END OF SECTION SECTION 092514

SECTION 093100 - TILE WORK

PART 1 - GENERAL

1.1 - SUBMITTALS
A. SUSTAINABILITY PRODUCT DATA SUBMITTAL FORM: INCLUDE DOCUMENTATION SUPPORTING AT LEAST ONE PREFERRED OR ALTERNATE SUSTAINABLE CRITERIA

1.2 - QUALITY ASSURANCE
A. ALL INSTALLATION AND PREPARATION MATERIALS INCLUDING BUT NOT LIMITED TO; SETTING BED/ADHESIVE, MOISTURE MITIGATION, CRACK REPAIR, FILLING, AND LEVELING, SHALL BE PROVIDED FROM A SINGLE MANUFACTURER. TO DETERMINE WHICH MANUFACTURER'S PRODUCTS TO USE BEGIN WITH SECTION 2.04 OF THIS SPECIFICATION.
B. INSTALLER QUALIFICATIONS: TILE FABRICATOR, SPECIALIZING IN INSTALLATION OF TILE, MOSAICS, PAVERS, TRIM UNITS AND THRESHOLDS WITH FIVE (5) YEARS DOCUMENTED EXPERIENCE WITH INSTALLATIONS OF SIMILAR SCOPE, MATERIALS AND DESIGN.
1. INSTALLER TO HAVE COMPLETED A CERTIFIED TILE INSTALLATION PROGRAM SIMILAR TO TCAA "TROWEL OF EXCELLENCE", TCNA "FIVE STAR" OR OTHER EQUIVALENT RECOGNIZED INSTALLATION PROGRAM.
C. INSTALLATION SYSTEM MANUFACTURER: COMPANY SPECIALIZING IN ADHESIVES, MORTARS, GROUTS AND/OR OTHER INSTALLATION MATERIALS WITH TEN (10) YEARS MINIMUM EXPERIENCE AND ISO 9001 CERTIFICATION.
1. ALL SETTING MATERIALS SHALL BE FROM A SINGLE SOURCE AND COMPLY WITH MANUFACTURER WARRANTY REQUIREMENTS.
2. MANUFACTURER OF SETTING MATERIALS SHALL PROVIDE A 25-YEAR SYSTEMS (LABOR & MATERIALS) WARRANTY. SEE SPECIFIC WARRANTY INFORMATION AS PROVIDED BY MANUFACTURER.

1.3 - SEQUENCING AND SCHEDULING
A. COORDINATE INSTALLATION OF TILE WORK WITH RELATED WORK.
B. PROCEED WITH TILE WORK ONLY AFTER CURBS, VENTS, DRAINS, PIPING, AND OTHER PROJECTIONS THROUGH SUBSTRATE HAVE BEEN INSTALLED AND WHEN SUBSTRATE CONSTRUCTION AND FRAMING OF OPENINGS HAVE BEEN COMPLETED.

1.4 - PROJECT CONDITIONS
A. TEMPERATURE REQUIREMENTS FOR INTERIOR TILE:
1. DO NOT SET WHEN AIR, AMBIENT, MATERIAL, AND/OR SUBSTRATE TEMPERATURE IS BELOW 45°F OR ABOVE 90°F (4°C - 35°C)
2. MAINTAIN TEMPERATURE AT 50°F OR ABOVE BUT LESS THAN 90°F (4°C - 35°C) IN INSTALLATION AREAS DURING INSTALLATION AND FOR 7 DAYS AFTER COMPLETION UNLESS HIGHER TEMPERATURES ARE REQUIRED BY FABRICATOR'S OR SUPPLIER'S INSTRUCTIONS.
a. PROTECT PORTLAND CEMENT BASED MORTARS AND GROUTS FROM DIRECT SUNLIGHT, RADIANT HEAT, FORCED VENTILATION (HEAT & COLD) AND DRAFTS UNTIL CURED TO PREVENT PREMATURE EVAPORATION OF MOISTURE.
b. EPOXY MORTARS AND GROUTS REQUIRE SURFACE TEMPERATURES BETWEEN 60°F AND 90°F (16°C AND 32°C) AT TIME OF INSTALLATION.
3. PREVENT CARBON DIOXIDE DAMAGE TO TILE, MOSAICS, PAVERS, TRIM, AND THRESHOLDS, AS WELL AS ADHESIVES, MORTARS, GROUTS AND OTHER INSTALLATION MATERIALS, BY VENTING TEMPORARY HEATERS TO THE EXTERIOR.
4. PROVIDE VENTILATION AND PROTECTION OF ENVIRONMENT AS RECOMMENDED BY MFG.
B. MOISTURE REQUIREMENTS FOR INTERIOR TILE:
1. PERFORM THE FOLLOWING TEST TO DETERMINE MOISTURE LEVEL OF SUBSTRATE. THE TEST RESULTS SHALL BE PROVIDED TO THE LULEMON PROJECT MANAGER PRIOR TO SUB FLOOR PREPARATION.
a. TEST SLAB FOR RELATIVE HUMIDITY WITH A PROBE TEST COMPLYING WITH ASTM F-2170. IF THE VALUE IS ABOVE 75% THEN MOISTURE MITIGATION IS REQUIRED.

PART 2 - PRODUCTS
2.1 MATERIALS - SEE SHEET A-120 FOR FINISH SCHEDULE
TILES:
A. SLATE
B. CERAMIC
C. GLASS-BONDED CERAMIC
D. PORCELAIN
E. QUARRY
F. CEMENT MORTAR
a. 1-DRY-SET MORTAR
b. 2-LATEX-PORTLAND CEMENT MORTAR
c. 3-THIN-SET MORTAR
G. TILE ADHESIVE: WATER-BASED, (MAXIMUM 44 GRAMS/LITER)
H. GROUT: CEMENT-BASED, PETROLEUM- AND PLASTIC-FREE GROUT
I. SEALANTS
a. 1-SINGLE-COMPONENT POLYURETHANE SEALANT
b. 2-TWO-COMPONENT POLYURETHANE SEALANT
J. UNCOUPLING MEMBRANE - SCHLUTER-DITRA OR ALTERNATE: LATICRETE FRACTURE BAN SC

PART 3 - EXECUTION
3.1 - PREPARATION
A. REMOVE COATINGS, INCLUDING CURING COMPOUNDS AND OTHER SUBSTANCES THAT CONTAIN SOAP, WAX, OIL, OR SILICONE, THAT ARE INCOMPATIBLE WITH TILE-SETTING MATERIALS
B. FILL CRACKS, HOLES, AND DEPRESSIONS WITH TROWELABLE LEVELING AND PATCHING COMPOUND ACCORDING TO TILE-SETTING MATERIAL MANUFACTURER'S WRITTEN INSTRUCTIONS
C. REMOVE PROTRUSIONS, BUMPS, AND RIDGES BY SANDING OR GRINDING
D. BLENDING: FOR TILE EXHIBITING COLOR VARIATIONS, USE FACTORY BLENDED TILE OR BLEND TILES AT PROJECT SITE BEFORE INSTALLING

3.2 - INSTALLATION, GENERAL
A. ANSI TILE INSTALLATION STANDARDS: COMPLY WITH PARTS OF ANSI A108 SERIES SPECIFICATIONS FOR INSTALLATION OF CERAMIC TILE THAT APPLY TO TYPES OF SETTING AND GROUTING MATERIALS AND TO METHODS INDICATED IN CERAMIC TILE INSTALLATION SCHEDULES
B. TCA INSTALLATION GUIDELINES: TCA'S ""HANDBOOK FOR CERAMIC TILE INSTALLATION."" COMPLY WITH TCA INSTALLATION METHODS INDICATED IN CERAMIC TILE INSTALLATION SCHEDULES
C. EXTEND TILE WORK INTO RECESSES AND UNDER OR BEHIND EQUIPMENT AND FIXTURES TO FORM COMPLETE COVERING WITHOUT INTERRUPTIONS, UNLESS OTHERWISE INDICATED. TERMINATE WORK NEATLY AT OBSTRUCTIONS, EDGES, AND CORNERS WITHOUT DISRUPTING PATTERN OR JOINT ALIGNMENTS
D. ACCURATELY FORM INTERSECTIONS AND RETURNS. PERFORM CUTTING AND DRILLING OF TILE WITHOUT MARRING VISIBLE SURFACES. GRIND CUT EDGES OF TILE ABUTTING TRIM, FINISH, OR BUILT-IN ITEMS. FIT TILE CLOSELY TO ELECTRICAL OUTLETS, PIPING, FIXTURES, AND OTHER PENETRATIONS SO PLATES, COLLARS, OR COVERS OVERLAP TILE
E. EXPANSION JOINTS: LOCATE EXPANSION JOINTS AND OTHER SEALANT- FILLED JOINTS DURING INSTALLATION OF SETTING MATERIALS, MORTAR BEDS, AND TILE. DO NOT SAW-CUT JOINTS AFTER INSTALLING TILES
F. MOVEMENT JOINTS: MINIMUM 1/4" GAPS SHALL BE MAINTAINED AT ALL PERIMETER WALLS AND AT ALL COLUMN ENCLOSURES. THIS GAP MUST BE OBSCURED COMPLETELY BY THE WALL BASE MATERIAL.
G. GROUT TILE TO COMPLY WITH REQUIREMENTS OF ANSI A108.10, UNLESS OTHERWISE INDICATED
H. FOR INSTALLATIONS INDICATED BELOW, FOLLOW PROCEDURES IN ANSI A108 SERIES TILE INSTALLATION STANDARDS FOR PROVIDING 95 PERCENT MORTAR COVERAGE
I. INSTALL TILE ON FLOORS WITH 1/4 GROUT JOINT
J. METAL EDGE STRIPS: INSTALL AT LOCATIONS INDICATED OR WHERE EXPOSED EDGE OF TILE FLOORING MEETS CARPET, WOOD, OR OTHER FLOORING THAT FINISHES FLUSH WITH TOP OF TILE

3.3 FLOOR TILE INSTALLATION SCHEDULE
A. INTERIOR FLOOR INSTALLATION ON CONCRETE; THIN-SET MORTAR; TCA F113
1. THIN-SET MORTAR: LATEX- PORTLAND CEMENT MORTAR
2. UNCOUPLING MEMBRANE: SCHLUTER-DITRA OR ALTERNATE: LATICRETE FRACTURE BAN SC
3. GROUT: POLYMER-MODIFIED UNSANDED GROUT

3.4 - ADJUSTING AND CLEANING
A. TILE TO BE REPLACED IF INSTALLED IMPROPERLY AND NOT IN ACCORDANCE WITH THESE SPECIFICATIONS AND MANUFACTURER'S INSTRUCTIONS.
B. IN-PROGRESS CLEANING: CLEAN TILE AS WORK PROGRESSES. REMOVE MORTAR FINS AND SMEARS PER MANUFACTURER'S RECOMMENDATIONS.
C. CLEAN TILE AFTER SETTING AND GROUTING ARE COMPLETE PER MANUFACTURER' RECOMMENDATIONS.

3.5 - PROTECTION
1. PROHIBIT TRAFFIC FROM INSTALLED TILE PER THE MFGS INSTRUCTIONS FOR SETTING ADHESIVE

END OF SECTION 093100

SECTION 096429 -WOOD FLOORING [WD-1], [WD-2]

PART 1 - GENERAL

1.1 - SUMMARY
A. SECTION INCLUDES:
1. SOLID AND ENGINEERED WOOD PLANK FLOORING
2. WOOD FLOORING ADHESIVE.
3. SUPPLEMENTARY COMPONENTS, AND ACCESSORIES NECESSARY FOR A COMPLETE INSTALLATION, WHETHER OR NOT SUCH ITEMS ARE INDICATED ON THE DRAWINGS OR INCLUDED IN THE SPECIFICATIONS

1.2 - SECTION REQUIREMENTS
A. SUBMITTALS: PRODUCT DATA, SHOP DRAWINGS, SAMPLES, AND MAINTENANCE DATA
B. SUSTAINABILITY PRODUCT DATA SUBMITTAL FORM: INCLUDE DOCUMENTATION SUPPORTING AT LEAST ONE PREFERRED OR ALTERNATE SUSTAINABLE CRITERIA

PART 2 - PRODUCTS

2.1 - WOOD FLOORING
A. WOOD FLOORING: AS SCHEDULED ON SHEET A-120
1. [WD-1] - 1/2 INCH THICK ENGINEERED WOOD PLANKS
MANUFACTURER: RECLAIMED WOOD DESIGN WORKS, LLC
PRODUCT: ENGINEERED PLANK CIRCULAR SAWN WHITE OAK - SMOOTHED IN FIELD
THICKNESS: 1/2 INCH
WIDTH: 6 INCH
LENGTH: RANDOM LENGTHS NOT LESS THAN 72 INCHES
FINISH: UV STANDARD PREFINISH
2. [WD-2] - 3/4 INCH THICK ENGINEERED WOOD PLANKS
MANUFACTURER: RECLAIMED WOOD DESIGN WORKS, LLC
PRODUCT: ENGINEERED PLANK CIRCULAR SAWN WHITE OAK - SMOOTHED IN FIELD
THICKNESS: 3/4 INCH
WIDTH: 6 INCH
LENGTH: RANDOM LENGTHS NOT LESS THAN 72 INCHES
FINISH: UV STANDARD PREFINISH

2.2 - ACCESSORIES
A. TROWELABLE LEVELING AND PATCHING COMPOUNDS: AS SUPPLIED, REQUIRED, RECOMMENDED, OR APPROVED BY THE FABRICATOR FOR THE APPLICATIONS INDICATED
B. VAPOR RETARDER: ASTM D 4397, POLYETHYLENE SHEET NOT LESS THAN 6.0 MILS THICK, IF REQUIRED, RECOMMENDED, APPROVED, OR ACCEPTED BY THE MANUFACTURER FOR THE INSTALLATION INDICATED
C. ADHESIVES: WATER-RESISTANT TYPE SUPPLIED, REQUIRED, RECOMMENDED, APPROVED, OR ACCEPTED BY THE MANUFACTURER FOR THE APPLICATIONS INDICATED
D. OTHER ACCESSORIES: PROVIDE OTHER ACCESSORIES AND SIMILAR SECONDARY ITEMS AS SUPPLIED, REQUIRED, RECOMMENDED, APPROVED, OR ACCEPTED BY THE MANUFACTURER

PART 3 - EXECUTION

3.1 - INSTALLATION
A. GENERAL
1. COMPLY WITH THE MANUFACTURER'S INSTALLATION INSTRUCTIONS FOR INSTALLING WOOD FLOORING AND ACCESSORIES
2. USE MATERIALS AND METHODS REQUIRED, RECOMMENDED, APPROVED, OR ACCEPTED BY THE MANUFACTURER, ALONG WITH MANUFACTURER-RECOMMENDED ACCESSORIES AND TECHNIQUES
3. MAINTAIN UNIFORMITY OF FLOORING DIRECTION
B. SPECIAL TECHNIQUES
1. PROVIDE EXPANSION SPACE AT WALLS AND OTHER OBSTRUCTIONS AND TERMINATIONS OF FLOORING OF NOT LESS THAN 3/4 INCH
2. WHERE WOOD FLOORING IS INSTALLED ON CONCRETE SLABS, INSTALL A LAYER OF POLYETHYLENE SHEET ACCORDING TO FLOORING MANUFACTURER'S WRITTEN INSTRUCTIONS
3. SET WOOD PLANK FLOORING IN A BED OF ADHESIVE
C. CONFORMANCE: DIRECTION OF FLOORING IN COMPLETED WORK MUST MATCH THE APPROVED SHOP DRAWINGS, AS DETERMINED BY THE ARCHITECT

END OF SECTION 096429

SECTION 099100 - PAINT

PART 1 - GENERAL

1.1 - SUMMARY
A. SECTION INCLUDES:
1. INTERIOR PAINTING, INCLUDING SURFACE PREPARATION
2. EXTERIOR PAINTING, INCLUDING SURFACE PREPARATION

1.2 - SUBMITTALS - SEE ALSO SECTION xxxxx FOR SUBMITTAL REQUIREMENTS
A. PRODUCT DATA: SUBMIT A COMPLETE LIST OF PAINT MATERIALS PROPOSED FOR USE, TOGETHER WITH MANUFACTURER'S TECHNICAL DATA SHEETS (TDS), INCLUDING PAINT LABEL ANALYSIS, VOC CONTENT, AND SAFETY DATA SHEETS (SDS).
B. SUBMIT TEST RESULTS CERTIFYING THAT RECYCLED PAINT DOES NOT CONTAIN LEAD
C. EXTRA PAINT TO REMAIN ON SITE
D. SUSTAINABILITY PRODUCT DATA SUBMITTAL FORM: INCLUDE DOCUMENTATION SUPPORTING AT LEAST ONE PREFERRED OR ALTERNATE SUSTAINABLE CRITERIA

PART 2 - PRODUCTS

2.1 - MANUFACTURERS
A. ACCEPTABLE MANUFACTURER: BENJAMIN MOORE & CO.

OWNER'S NATIONAL ACCOUNT:
PRODUCT ORDER CODE: NA048
DIRECT ORDER LINE: 1.877.6.COLOR.6

26680 GLOUCESTER WAY
ALDERGROVE, BC. CANADA V4W 3V6

ARCHITECTURAL REP CANADA: TRISH BECHER
1 (604) 751-1733
TRISH.BECHER@BENJAMINMOORE.COM

2.2 - MATERIALS
A. LATEX PAINTS:
1. INTERIOR PAINT: (FOR COLORS SEE FINISH SCHEDULE SHEET A-120)
a. WALLS AT SALES: BENJAMIN MOORE REGAL® SELECT PREMIUM INTERIOR PAINT & PRIMER EGGSHELL FINISH - 549
b. WALL AT FITROOMS / HIGH TOUCH / SALES HALLWAYS: BENJAMIN MOORE ULTRA SPEC® SCUFF-X® MATTE FINISH - 484
c. WALLS AT BOH/RESTROOMS: BENJAMIN MOORE ULTRA SPEC® SCUFF-X® INTERIOR SATIN FINISH - 486
d. DOORS/TRIMS: BENJAMIN MOORE ULTRA SPEC® SCUFF-X® - INTERIOR SATIN FINISH - 486
e. CEILINGS: BENJAMIN MOORE WATERBORNE CEILING PAINT FLAT FINISH - 508
f. OTHER (REVEALS, WOOD TOUCH-UPS ETC): BENJAMIN MOORE REGAL® SELECT PREMIUM INTERIOR PAINT & PRIMER MATTE FINISH - 549
2. INTERIOR PRIMERS:
a. WALL PRIMER [P-10] AT WALL GRAPHICS [WC-2]: BENJAMIN MOORE REGAL® SELECT PREMIUM INTERIOR PRIMER - SEMI-GLOSS FINISH - F551 - (NO TINT)
b. CEILING PRIMER: BENJAMIN MOORE FRESH START® HIGH-HIDING ALL PURPOSE PRIMER 046 WHITE (00)
3. EXTERIOR PAINT: (FOR COLORS SEE FINISH SCHEDULE SHEET A-120)
a. BENJAMIN MOORE REGAL® SELECT EXTERIOR PAINT - HIGH BUILD - FLAT FINISH - N400
b. BENJAMIN MOORE REGAL® SELECT EXTERIOR PAINT - HIGH BUILD - LOW LUSTRE FINISH - N401
B. OTHER PAINTS AND COATINGS:
1. OIL-BASED PAINT: MAXIMUM 10% AROMATIC HYDROCARBONS CONTENT. FOR INCREASED RESISTANCE TO YELLOWING, SPECIFY HIGH QUALITY, SOY-BASED OIL PAINTS
2. EPOXY: WATERBORNE EPOXY - EXTREMELY DURABLE, SUITABLE FOR FLOORS
3. TRANSPARENT FINISHES: PIGMENTS PROVIDE SOME UV PROTECTION
1. POLYURETHANE, WATER-BASED
2. PENETRATING OIL: OIL-BASED, WATER-REDUCIBLE EXTERIOR FINISH
3. NATURAL PLANT-BASED OILS AND WAXES: EXTRACTS FROM PLANTS AND MINIMALLY PROCESSED EARTH MINERALS, SUCH AS CHALK OR IRON OXIDE, FREE FROM PETROLEUM DISTILLATES. SOLVENTS INCLUDE CITRUS OILS AND SMALL AMOUNTS OF LOW- ODOR PETROLEUM SOLVENTS (DE-AROMATIZED ISOPARAFFINICS).
a. POLYMERIZED LINSEED OIL: INTERIOR USE
b. POLYMERIZED TUNG OIL: INTERIOR USE
4. PAINT STRIPPERS: SHALL NOT CONTAIN METHYLENE CHLORIDE. AVOID PRODUCTS CONTAINING METHANOL AND TRICHLOROETHANE
5. PIGMENTS
a. CLAY- AND MINERAL-BASED PIGMENTS
1) NATIVE EARTHS: OCHRE, RAW UMBER, RAW SIENNA
2) CALCINED EARTHS: BURNT UMBER, BURNT SIENNA
3) IRON OXIDES: MARS BLACK, MARS YELLOW, MARS VIOLET"
b. CONVENTIONAL PIGMENTS: AVOID OR MINIMIZE BY AVOIDING HEAVILY TINTED PAINTS. PIGMENTS USED IN CONVENTIONAL
1) WHITE: ANTIMONY OXIDE, RUTILE TITANIUM DIOXIDE
2) YELLOW-ORANGE-RED: CADMIUM, CADMIUM LITHOPONE, CHROME YELLOW, MOLYBDATE ORANGE, STRONTIUM CHROMATE, ZINC CHROMATE"
3) BLUE: PHTHALOCYANINE BLUE
4) BIOCIDES: MAXIMUM 0.025% ALLOWED
6. OPTIONAL UPGRADE WITH LEAD TIME – RAL POWDER COAT PAINT

PART 3 - EXECUTION

3.1 - EXAMINATION AND PREPARATION
A. EXAMINATION
1. TEST EXISTING FINISHES FOR LEAD BEFORE SANDING, SCRAPING, OR REMOVING. IF LEAD IS PRESENT, CONFORM TO PROCEDURES APPLICABLE WHEN HAZARDOUS OR CONTAMINATED MATERIALS ARE DISCOVERED
2. EXAMINE AREAS AND CONDITIONS UNDER WHICH PAINTING WORK IS TO BE APPLIED. START OF PAINTING WORK INDICATES ACCEPTANCE OF SURFACE CONDITIONS WITHIN ANY PARTICULAR AREA.
B. SCHEDULING: SCHEDULE TO APPLY FIRST COAT TO SURFACES THAT HAVE BEEN CLEANED, PRETREATED, OR PREPARED FOR PAINTING AS SOON AS PRACTICABLE AFTER PREPARATION.
C. PREPARATION: PERFORM PREPARATION ACCORDING TO MANUFACTURER'S TECHNICAL DATA SHEET AND CAN LABEL.
a. REMOVE HARDWARE, ACCESSORIES AND ITEMS IN PLACE AND NOT TO BE PAINTED, OR PROVIDE PROTECTION PRIOR TO SURFACE PREPARATION AND PAINTING, AFTER PAINTING REINSTALL REMOVED ITEMS.
b. BARE DRYWALL OR AREAS WHERE PATCHING HAS OCCURRED SHOULD BE DUSTED LIBERALLY TO REMOVE DRYWALL DUST AND CONTAMINANTS BEFORE PAINTING.
c. PRIME COATS: FOR UNFINISHED, UNSEALED, POROUS SURFACES, HARD TO COAT SUBSTRATES, SURFACES THAT DISPLAY SIGNS OF 'FLASHING' AND UN-EVEN SHEEN PRIME WITH BENJAMIN MOORE'S 046 FRESH START HIGH HIDING ALL PURPOSE PRIMER. BENJAMIN MOORE REGAL INTERIOR PAINTS DO NOT REQUIRE A PRIMER OVER MOST INTERIOR SURFACES.
d. PROTECT WORK OF OTHER TRADES

3.2 - APPLICATION:
A. APPLY PAINT ACCORDING TO THE PRODUCT TECHNICAL DATA SHEETS. USE APPLICATORS AND TECHNIQUES BEST SUITED FOR SUBSTRATE AND TYPE OF MATERIAL BEING APPLIED.
1. LOW-BIOCIDE PAINT: REDUCED SHELF LIFE. PRODUCTS SHOULD BE CAREFULLY EVALUATED FOR SPOILAGE BEFORE APPLYING. COMPLY WITH MANUFACTURER'S RECOMMENDATIONS FOR STORAGE AND APPLICATION
2. NATURAL PLANT- AND MINERAL-BASED FINISHES: PRODUCTS MAY NOT PERFORM OR BEHAVE THE SAME AS CONVENTIONAL PAINTS. COMPLY WITH MANUFACTURER'S RECOMMENDATIONS FOR APPLICATION
3. MILK-BASED PAINT (CASEIN): AVAILABLE IN POWDERED FORM; ADD WATER AND STIR WELL. TRANSPARENCY IS CONTROLLED BY AMOUNT OF WATER. IN POWDER FORM IT HAS AN INDEFINITE SHELF LIFE. AFTER MIXING, DO NOT KEEP BEYOND RECOMMENDED SHELF LIFE (TO AVOID SPOILAGE).
4. PAINT STRIPPERS: COMPOUNDS THAT DO NOT CONTAIN METHYLENE CHLORIDE TEND TO BE SLOWER-ACTING THAN CONVENTIONAL PAINT STRIPPERS AND MAY TAKE FROM ONE HOUR TO OVERNIGHT TO WORK. COMPLY WITH MANUFACTURER'S RECOMMENDATIONS FOR APPLICATION
5. HEAT GUNS: DO NOT USE WITH LEAD-BASED PAINTS
B. COLOR AND SHEEN AS INDICATED IN FINISH SCHEDULE (SEE SHEET A-120)
C. FINISH COATS: PROVIDE EVEN TEXTURE; LEAVE NO LAPS, IRREGULARITY IN TEXTURE, SKID MARKS, OR OTHER SURFACE IMPERFECTIONS.
1. PROVIDE MINIMUM OF TWO COATS. BENJAMIN MOORE REGAL INTERIOR PAINT LINES REQUIRE NO ADDITIONAL PRIMER AS THE PRIMER IS INCLUDED IN THE PAINT (UNLESS OTHERWISE NOTED).
2. APPLY ADDITIONAL COATS WHEN STAINS OR BLEMISHES SHOW THROUGH FINAL COATS, UNTIL PAINT IS A UNIFORM FINISH, COLOR AND APPEARANCE.
D. FINISH DOORS ON TOPS, BOTTOMS AND SIDE EDGES SAME AS FACES.
E. PROTECTION: PROVIDE "WET PAINT" SIGNS TO PROTECT NEWLY PAINTED FINISHES.

3.3 - CLEAN-UP:
A. DURING PROGRESS OF WORK, REMOVE DISCARDED PAINT MATERIALS, RUBBISH, CANS, AND RAGS FROM SITE AT END OF EACH WORK DAY.
B. REMOVE TEMPORARY PROTECTIVE WRAPPINGS PROVIDED BY OTHERS FOR PROTECTION OF THEIR WORK AFTER COMPLETION OF PAINTING OPERATIONS.
C. CLEAN GLASS AND PAINT-SPATTERED SURFACES IMMEDIATELY BY PROPER METHODS OF WASHING AND SCRAPING, USING CARE NOT TO SCRATCH OR DAMAGE FINISHED SURFACES.
D. CORRECT ANYDAMAGE BY CLEANING, REPAIRING OR REPLACING, AND REPAINTING AS ACCEPTABLE TO OWNER'S PROJECT MANAGER
E. AT COMPLETION OF WORK OF OTHER TRADES, TOUCH-UP AND RESTORE DAMAGED SURFACES OR DEFACED PAINTED SURFACES.

END OF SECTION 099100

lululemon
1818 CORNWALL AVE.
VANCOUVER, B.C., V6J1C7

CF POLO PARK
1485 Portage Ave, Unit 144E
Winnipeg, MB
R3G 0W5
CRU NUMBER: 144E

Quadrangle
Quadrangle Architects Limited
The Well, 8 Spadina Avenue, Suite 2100, Toronto, ON M5V 0S8
t 416 598 1240 www.bdpquadrangle.com

ARCHITECT SEAL

ONTARIO ASSOCIATION OF ARCHITECTS
KIRTIDEV MEHTA
LICENCE
8099

ISSUED FOR CONSTRUCTION
07/14/2023

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APPENDIX A - RENOVATIONS AND RELOCATIONS

SECTION 001.0.0 - RENOVATIONS AND RELOCATIONS

PART 1 - GENERAL

1.0 - GENERAL

A. SECTION APPLIES ONLY WHEN SPACE IS RENOVATED OR RELOCATED - SEE SHEET A-010 FOR OWNER'S VENDOR DIRECTORY

1.1 - RENOVATIONS

A. TRAFFIC COUNTERS TO BE REMOVED, STORED OFFSITE, AND REINSTALLED (DO NOT DEMOLISH) BY OWNER'S TRAFFIC COUNTER VENDOR WHEN APPLICABLE
B. SENSORMATIC DETACHER AND DEMAGNETIZER: TO BE TRANSFERRED FROM TEMP SPACE AND INSTALLED IN CASH DESK BY OWNER'S LOW VOLTAGE VENDOR
C. MUSIC PLAYER: TO BE TRANSFERRED FROM TEMP SPACE AND INSTALLED IN BACK WRAP BY GC
D. SMALL/LARGE SAFES: TO BE RE-USED AND TRANSFERRED FROM TEMP STORE TO NEW STORE BY GC
E. CAMERAS TO BE REMOVED, STORED OFFSITE AND REINSTALLED BY OWNER'S CCTV VENDOR
F. ALL COMPUTERS, POS TERMINALS, CASH REGISTERS, PRINTERS, VERIFONES TO BE REMOVED, RELOCATED TO TEMP STORE AND REINSTALLED (IF APPLICABLE) IN NEW STORE BY OWNER'S IT VENDOR

1.2 - RELOCATIONS

A. TRAFFIC COUNTERS TO BE NEW, INSTALLED IN NEW STORE BY OWNER'S TRAFFIC COUNTER VENDOR
B. SMALL/LARGE SAFES: TO BE RE-USED AND TRANSFERRED TO NEW STORE BY GC
C. SENSORMATIC DETACHER AND DEMAGNETIZER: TO BE REUSED AND TRANSFERRED TO NEW STORE BY OWNER'S LOW VOLTAGE VENDOR
D. MUSIC PLAYER: TO BE RE-USED AND TRANSFERRED TO NEW STORE BY GC
E. ALL CAMERAS TO BE NEW, INSTALLED IN NEW STORE BY OWNER'S CCTV VENDOR
F. ALL COMPUTERS, POS TERMINALS, CASH REGISTERS, PRINTERS, VERIFONES TO BE REMOVED, AND REINSTALLED (IF APPLICABLE) IN NEW STORE BY OWNER'S IT

APPENDIX B - RFID (RADIO FREQUENCY IDENTIFICATION) SHIELDING

CONDITION 1: NEW WALL CONSTRUCTION
NEW STORES AND RENOVATIONS. IE: NEW WALLS BUILT BY OUR GENERAL CONTRACTOR (GC) PER THE CONSTRUCTION DRAWINGS.

1. RFID REFLECTIVE SHIELDING TO BE INSTALLED BEHIND FINISHED GYPSUM WALL BOARD (GWB) ON ALL STOCKROOM PARTITIONS CONTIGUOUS WITH THE SALES FLOOR. SEE PRODUCT SPECIFICATION BELOW.
2. RFID REFLECTIVE SHIELDING TO BE INSTALLED FULL HEIGHT AND WIDTH OF ENTIRE PARTITION ENSURING MINIMUM 2" OVERLAP OF SEAMS.
3. RFID REFLECTIVE SHIELDING TO BE INSTALLED ON THE SALES FLOOR SIDE OF THE METAL STUD CONSTRUCTION.
4. RFID REFLECTIVE SHIELDING TO RETURN 8" ON STOCKROOM SIDE WITHIN WALL CAVITY AT DOOR JAMBS AND HEADERS. REFER TO JAMB & HEADER DETAILS ON DOOR SCHEDULE A180.
5. ALL PENETRATIONS INCLUDING BUT NOT LIMITED TO OUTLETS, CONDUIT, PIPING AND DUCTWORK SHALL BE SEALED WITH SPECIFIED RFID SHIELDING TAPE. SEE PRODUCT SPECIFICATION BELOW.
6. GENERAL CONTRACTOR TO PHOTO DOCUMENT THE COMPLETE INSTALLATION PRIOR TO GWB INSTALLATION AND INCLUDE IN A WEEKLY CONSTRUCTION PROGRESS REPORT.

RFID REFLECTIVE SHIELDING-CONDITION 1:
MANUFACTURER: **TEMPSHIELD**
PRODUCT: **SINGLE BUBBLE/WHITE FOIL REFLECTIVE INSULATION**
LINK: HTTP://WWW.RADIANTBARRIER.COM/PRODUCTS/TEMPSHIELD-SINGLE-BUBBLE-WHITE-FOIL/

RFID SHIELDING TAPE:
MANUFACTURER: **AVERY DENNISON**
PRODUCT: **SHIELDSENSE FT 0815/ALUMINUM FOIL TAPE**
4" WIDE ROLL FOR SEALING PENETRATIONS AT OUTLETS, CONDUIT, PIPING AND DUCTWORK.
27" WIDE X 187 FT ROLL FOR WALL SURFACE APPLICATION.
LINK:
HTTPS://WWW.AVERYDENNISON.COM/CONTENT/DAM/AVERYDENNISON/PT/NA/EN/LITERATURE/PRODUCT%20INFORMATION/FT%200815/FT-0815-TDS-ADPT.PDF

CONDITION 2: EXISTING WALL CONSTRUCTION
NEW STORES AND RENOVATIONS. IE: EXISTING WALLS BUILT BY LANDLORD SCHEDULED TO REMAIN PART OF NEW DESIGN. EXISTING LANDLORD DEMISING WALLS THAT DIVIDE OWNER'S STOCKROOM FROM ADJACENT TENANTS OR OWNER'S SALES FLOOR. THERE HAVE BEEN INSTANCES WHERE OUR RFID READERS ARE PICKING UP PRODUCT FROM ADJACENT TENANTS.

1. RFID REFLECTIVE SHIELDING TO BE INSTALLED OVER EXISTING GYPSUM WALL BOARD (GWB) ON ALL STOCKROOM PARTITIONS CONTIGUOUS WITH THE SALES FLOOR AND ADJACENT TENANTS PRIOR TO FRP PANEL INSTALLATION IF APPLICABLE. SEE PRODUCT SPECIFICATION BELOW.
2. RFID REFLECTIVE SHIELDING TO BE INSTALLED FULL HEIGHT AND WIDTH OF ENTIRE PARTITION ENSURING MINIMUM 2" OVERLAP OF SEAMS. WHERE VISIBLE, PAINTING OVER THIS PRODUCT NOT REQUIRED.
3. RFID REFLECTIVE SHIELDING TO BE INSTALLED ON THE STOCKROOM SIDE OF THE EXISTING WALL.
4. ALL PENETRATIONS INCLUDING BUT NOT LIMITED TO OUTLETS, CONDUIT, PIPING AND DUCTWORK SHALL BE SEALED WITH SPECIFIED RFID SHIELDING TAPE. SEE PRODUCT SPECIFICATION BELOW.

RFID REFLECTIVE SHIELDING-CONDITION 2:
MANUFACTURER: **AVERY DENNISON**
PRODUCT: **SHIELDSENSE FT 0815/ALUMINUM FOIL ROLL & TAPE**
ROLL: **27" WIDE X 187 FT ROLL** FOR WALL SURFACE APPLICATION.
TAPE: **4" WIDE ROLL** FOR SEALING PENETRATIONS AT OUTLETS, CONDUIT, PIPING AND DUCTWORK.
LINK:
HTTPS://WWW.AVERYDENNISON.COM/CONTENT/DAM/AVERYDENNISON/PT/NA/EN/LITERATURE/PRODUCT%20INFORMATION/FT%200815/FT-0815-TDS-ADPT.PDF

CONDITION 3: EXISTING CEILING CONSTRUCTION
NEW STORES AND RENOVATIONS. IE: MULTI-LEVEL STORE WHERE OWNER'S STOCKROOM IS LOCATED IN THE BASEMENT OR OTHER LEVEL.

1. RFID REFLECTIVE SHIELDING TO BE INSTALLED TO UNDERSIDE OF ENTIRE STOCKROOM CEILING/DECK CONTIGUOUS WITH THE SALES FLOOR ABOVE. SEE PRODUCT SPECIFICATION BELOW.
2. RFID REFLECTIVE SHIELDING TO BE INSTALLED FULL COVERAGE OF ENTIRE CEILING ENSURING MINIMUM 2" OVERLAP OF SEAMS.
3. ALL PENETRATIONS INCLUDING BUT NOT LIMITED TO RECESSED LIGHT FIXTURES, J-BOXES, CONDUIT, PIPING AND DUCTWORK SHALL BE SEALED WITH SPECIFIED RFID SHIELDING TAPE. SEE PRODUCT SPECIFICATION BELOW.

RFID REFLECTIVE SHIELDING FOR GYPSUM WALL BOARD (GWB) CEILINGS:
MANUFACTURER: **AVERY DENNISON**
PRODUCT: **SHIELDSENSE FT 0815/ALUMINUM FOIL ROLL & TAPE**
ROLL: **27" WIDE X 187 FT ROLL** FOR CEILING SURFACE APPLICATION.
TAPE: **4" WIDE ROLL** FOR SEALING PENETRATIONS AT RECESSED LIGHT FIXTURES, J-BOXES, CONDUIT, PIPING AND DUCTWORK.
LINK:
HTTPS://WWW.AVERYDENNISON.COM/CONTENT/DAM/AVERYDENNISON/PT/NA/EN/LITERATURE/PRODUCT%20INFORMATION/FT%200815/FT-0815-TDS-ADPT.PDF

RFID REFLECTIVE SHIELDING FOR OPEN WOOD JOIST CEILINGS:
MANUFACTURER: **TEMPSHIELD**
PRODUCT: **SINGLE BUBBLE/WHITE FOIL REFLECTIVE INSULATION**
LINK: HTTP://WWW.RADIANTBARRIER.COM/PRODUCTS/TEMPSHIELD-SINGLE-BUBBLE-WHITE-FOIL/
NOTE: PRODUCT STAPLED DIRECTLY TO UNDERSIDE OF WOOD CEILING JOISTS. NO PAINTING REQUIRED.

RFID REFLECTIVE SHIELDING FOR OPEN DECK CEILINGS WITH UNEVEN SURFACES WITHOUT SPRAYED ON FIREPROOFING:
MANUFACTURER: **Y-SHIELD**
PRODUCT: **HSF54 – RFID SHIELDING PAINT**
LINK: HTTPS://WWW.YSHIELD.COM/EN/YSHIELD-SHIELDING-PAINT-HSF54-HF-NF-5-LITER_150_1081/
NOTE: ONE COAT PROVIDES ATTENUATION OF 36DB (EFFECTIVENESS OF 99.98%)
NOTE: IF OPEN DECK CEILING HAS **SPRAYED ON FIREPROOFING**, THEN THE PAINT PRODUCT CAN BE APPLIED TO THE FLOOR ABOVE PRIOR TO INSTALLATION OF ANY FLOATED FLOOR MATERIAL. REFER TO MANUFACTURERS INSTRUCTIONS.
NOTE: FOR ELECTRICAL SAFETY, PAINT MUST BE GROUNDED WITH GROUNDING STRAP SOLD SEPARATELY.

lululemon
1818 CORNWALL AVE.
VANCOUVER, B.C., V6J1C7

CF POLO PARK
1485 Portage Ave, Unit 144E
Winnipeg, MB
R3G 0W5
CRU NUMBER: 144E

Quadrangle
Quadrangle Architects Limited
The Well, 8 Spadina Avenue, Suite 2100, Toronto, ON M5V 0S8
t 416 598 1240 www.bdpquadrangle.com

ARCHITECT SEAL

ONTARIO ASSOCIATION OF ARCHITECTS
KIRTIDEV MEHTA
LICENCE
8099

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ARCHITECTURAL SPECIFICATIONS - APPENDICES

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ELECTRICAL LEGEND

LIGHTING

Symbol	Description
$LV'	LIGHT SWITCH – SINGLE POLE, 120 VOLT OR 347 VOLT AS REQUIRED. 'LV' DENOTES COMPATIBLE LOW VOLTAGE SWITCH
	DIMMER SWITCH W/ ON/OFF CONFIRM DIMMER COMPATIBILITY PRIOR TO ORDER. ACUITY NPODM–DX.
OS	CEILING/SUSPENDED OCCUPANCY SENSOR C/W POWER PACK WATTSTOPPER DT–305 DUAL TECH CEILING SENSOR W/ BZ–250 POWER PACK.
OS 'D'	WALL MOUNTED OCCUPANCY SENSOR SENSOR SWITCH # WSX–PDT OR EQUAL. SET TO AUTO ON/AUTO OFF W/ 10 MINUTE OFF DELAY. 'D' DENOTES WSD–PDT 2P FAN.
VS	DUAL TECH CEILING/SUSPENDED VACANCY SENSOR C/W DIMMING POWER PACK ACUITY NCM–PDT–10 SENSOR. POWER PACK: ACUITY NPP16–D POWER PACK (0–10V), NSP5 PCD–XXX (ELV/MLV).
VS	WALL MOUNTED VACANCY SENSOR SET TO MANUAL ON, AUTO OFF W/ 15 MINUTE OFF DELAY. IN–WALL DIMMER. LEVITON IPSD6–1LZ. CONFIRM DIMMER COMPATIBILITY PRIOR TO ORDER.
	NOTE: CONFIRM COMPATIBILITY OF POWER PACKS/DIMMERS WITH LIGHTING FIXTURES PRIOR TO ORDERING.

FIRE ALARM SYSTEM

Symbol	Description
	HEAT DETECTOR – CEILING OR WALL MOUNTED COMBINATION RATE OF RISE AND FIXED 57 DEGREE C.
	SMOKE DETECTOR – CEILING, WALL, OR DUCT MOUNTED.
	FIRE ALARM PULLSTATION.
	FIRE ALARM STROBE. 15cd UNO.
S	FIRE ALARM SPEAKER
S	FIRE ALARM SPEAKER/STROBE
	HORN/STROBE COMBINATION FIRE ALARM DEVICE.
	FIRE ALARM AUDIBLE DEVICE

POWER

Symbol	Description
GFI IG C CH USB	WALL MOUNTED DUPLEX RECEPTACLE. (15A,1P, 120V UNLESS OTHERWISE NOTED). 'GFI' DENOTES GROUND FAULT CIRCUIT INTERRUPTER TYPE 'IG' DENOTES ISOLATED GROUND TYPE, PROVIDE SEPARATE NEUTRAL AND GROUND 'C' DENOTES CEILING MOUNTED 'CH' DENOTES COUNTER HEIGHT 'USB' DENOTES USB CHARGER DUPLEX. HUBBELL MODEL #USB15X. COLOUR OF RECEPTACLE TO MATCH ADJACENT ELECTRICAL DEVICES.
	FLOOR/CEILING MOUNTED DUPLEX OUTLET AS SHOWN ON DRAWING
	WALL MOUNTED DUPLEX RECEPTACLE ON DEDICATED CIRCUIT. EACH DEDICATED CIRCUIT TO HAVE A SEPARATE NEUTRAL RUN DIRECTLY BACK TO PANELBOARD.
	WALL MOUNTED QUAD RECEPTACLE. (15A,1P,120V UNLESS OTHERWISE NOTED).
	SINGLE PHASE DIRECT CONNECTION OUTLET. (HARDWIRE DIRECT CONNECTION TO EQUIPMENT TERMINALS).
	THREE PHASE DIRECT CONNECTION OUTLET. (HARDWIRE DIRECT CONNECTION TO EQUIPMENT TERMINALS).
	DISCONNECT SWITCH.
J	JUNCTION BOX
J	CEILING MOUNTED JUNCTION BOX
	PUSH BUTTON FOR BUZZER
	BUZZER
	FLOOR/CEILING MOUNTED DATA AND POWER OUTLET AS SHOWN ON DRAWINGS.

MISCELLANEOUS

Symbol	Description
	DOOR RELEASE PUSHBUTTON
L	ILLUMINATED PUSH TO LOCK BUTTON (LOCKED WHEN RED, UNLOCKED WHEN GREEN)
O	ILLUMINATED PUSH PLATE (OCCUPIED WHEN RED, VACANT WHEN GREEN)
E	EMERGENCY PUSH BUTTON C/W DISPLAY & SOUNDER
ES	ELECTRIC STRIKE
DC	DOOR CONTACT
EC	AUDIBLE AND VISUAL SIGNAL DEVICE
VC	VOLUME CONTROL

COMMUNICATIONS

Symbol	Description
	SINGLE–GANG WALL MOUNTED VOICE OUTLET BOX C/W EMPTY CONDUIT BACK TO TELEPHONE/DATA BACKBOARD
	SINGLE–GANG WALL MOUNTED DATA OUTLET BOX C/W EMPTY CONDUIT BACK TO TELEPHONE/DATA BACKBOARD
	SINGLE–GANG COMBINATION VOICE/DATA OUTLET BOX C/W EMPTY CONDUIT BACK TO TELEPHONE/DATA BACKBOARD
	TELEPHONE DEMARCATION POINT

ABBREVIATIONS

E	EXISTING
R	EXISTING TO BE REMOVED AND/OR RELOCATED
ER	EXISTING IN RELOCATED POSITION
R/R	REMOVE AND REINSTALL
AFF	ABOVE FINISHED FLOOR
WP	WEATHER PROOF
EX	EXPLOSION PROOF
C/W	COMPLETE WITH
CLG	CEILING

DRAWING LIST

NEW PANEL 2A1

VOLTAGE: 120 / 208
PHASE/WIRE: 3 / 4
PANEL MAINS: 250A
MCCB SIZE OR MLO: MLO
MOUNTING TYPE: SURFACE

AIC RATING: 10kA
DOUBLE LUGS:
ISOLATED GROUND BUS:
NOTES:

CCT NO.	ZONE	LOAD DESCRIPTION	BKR SIZE	BKR OPT	ACTUAL KW	PHASE	ACTUAL KW	BKR OPT	BKR SIZE	LOAD DESCRIPTION	ZONE	CCT NO.
1		TELEPHONE BOARD RECEPTACLE	15/1	LO	0.300	A	0.300		15/1	CASH OUTLET IG		2
3		AV SYSTEM RECEPTACLE	15/1	LO	0.500	B	0.300		15/1	CASH OUTLET IG		4
5		NETWORK RACK RECEPTACLE	15/1	LO	0.500	C	0.300		15/1	CASH OUTLET IG		6
7		NETWORK RACK RECEPTACLE	15/1	LO	0.500	A	0.300		15/1	CASH OUTLET IG		8
9		STOCKROOM OUTLETS	15/1		0.400	B	0.300		15/1	CASH OUTLET		10
11		RECEIVING DESK	15/1		0.500	C	0.200		15/1	STOREFRONT OUTLETS	4	12
13		RECEIVING DESK	15/1		0.500	A	0.400		15/1	AUTODOOR		14
15		STOCKROOM OUTLETS	15/1		0.200	B	0.500	LO	15/1	MANAGER DESK OUTLET IG		16
17		BUZZER	15/1		0.100	C	0.300		15/1	CONVENIENCE OUTLET		18
19						A	0.300		15/1	CASH OUTLET		20
21		PANEL OUTLET	15/1		0.200	B	0.250		15/1	WASHROOM POWER		22
23		SENSORMATIC	15/1		0.500	C	0.600		15/1	FRIDGE		24
25	4	NEON LIKE SIGN	15/1		0.300	A	1.400		15/1	HAND DRYER		26
27		MANAGER DESK OUTLET IG	15/1	LO	0.500	B	0.500	LO	15/1	MANAGER DESK OUTLET IG		28
29		USB CHARGER OUTLETS	15/1		0.300	C	0.500		20/1	COUNTER OUTLET		30
31		POWER FOR FUTURE DIGITAL FIXT	15/1		0.300	A	1.400		15/1	HAND DRYER		32
33		WH-1	20/2		1.500	B	1.000		15/1	STAFF MICROWAVE		34
35					1.500	C	0.500		20/1	COUNTER OUTLET		36
37						A	6.637		100/3	PANEL '2A2'		38
39						B	6.806					40
41						C	6.692					42

NOTES:
-CONTRACTOR TO BALANCE LOAD TO WITHIN 7% BETWEEN PHASES UPON COMPLETION.
-CIRCUITS ARE FOR GROUPING PURPOSES ONLY. CONTRACTOR TO PROVIDE UDPATED TYPE-WRITTEN PANEL SCHEDULE OF FINAL CIRCUITING ARRANGEMENT.
-REUSE BREAKERS WHERE APPLICABLE, REPLACE IF NEEDED.

TOTAL CONNECTED		
PHASE	AMPS	KW
A	105.31	12.637
B	107.97	12.956
C	104.10	12.492
TOTAL	105.72	38.085

NEW PANEL 2A2

VOLTAGE: 120 / 208
PHASE/WIRE: 3 / 4
PANEL MAINS: 150A
MCCB SIZE OR MLO: MLO
MOUNTING TYPE: SURFACE

AIC RATING: 10kA
DOUBLE LUGS:
ISOLATED GROUND BUS:
NOTES:

CCT NO.	ZONE	LOAD DESCRIPTION	BKR SIZE	BKR OPT	ACTUAL KW	PHASE	ACTUAL KW	BKR OPT	BKR SIZE	LOAD DESCRIPTION	ZONE	CCT NO.
1	3	TRACK LIGHTING	15/1		0.954	A	0.550		15/1	STOREFRONT LIGHTING	4	2
3	3	TRACK LIGHTING	15/1		0.806	B	0.500		20/1	SIGNAGE	4	4
5	3	TRACK LIGHTING	15/1		0.814	C	0.948	LO	15/1	TRACK LIGHTING / EM /NL		6
7	3	TRACK LIGHTING	15/1		0.616	A	0.050	LO	15/1	EXIT SIGNS		8
9	3	TRACK LIGHTING	15/1		0.484	B	0.800		15/1	FITTING ROOM MIRROR LIGHTING	1	10
11	3	TRACK LIGHTING	15/1		0.693	C	0.568		15/1	FIT STALL LIGHTING	1	12
13						A	0.600		15/1	COVE LIGHTING	1	14
15		CONTACTOR	20/1		0.200	B	0.300		15/1	COVE LIGHTING	1	16
17		BREAKRM / WASHRM / OFFICE / EM	15/1		0.301	C	0.600		15/1	COVE LIGHTING	1	18
19		BOH LIGHTING/NL/EM	15/1		0.623	A	0.100		15/1	EF-3		20
21	2	PANTS WALL OUTLETS	15/1		0.200	B	0.600		15/1	COVE LIGHTING	1	22
23	2	PANTS WALL OUTLETS	15/1		0.300	C	0.500		20/1	SIGNAGE	4	24
25	2	PANTS WALL OUTLETS	15/1		0.300	A	0.500		15/1	MANAGER'S DESK OUTLETS IG	4	26
27	2	BRA WALL OUTLETS	15/1		0.300	B	0.500		15/1	SIGNAGE	4	28
29	2	PANTS WALL OUTLETS	15/1		0.300	C	0.672		15/1	SF LED PANELS		30
31	2	LIGHTBOX	15/1		0.400	A	0.672		15/1	SF LED PANELS		32
33	2	LIGHTBOX	15/1		0.400	B	0.616		15/1	SF LED PANELS		34
35	2	LIGHTBOX	15/1		0.400	C	0.596		15/1	SF LED PANELS		36
37	2	LIGHTBOX	15/1		0.600	A	0.672		15/1	SF LED PANELS		38
39	2	LIGHTBOX	15/1		0.600	B	0.500		15/1	SIGNAGE	4	40
41						C						42

NOTES:
-CONTRACTOR TO BALANCE LOAD TO WITHIN 7% BETWEEN PHASES UPON COMPLETION.
-CIRCUITS ARE FOR GROUPING PURPOSES ONLY. CONTRACTOR TO PROVIDE UDPATED TYPE-WRITTEN PANEL SCHEDULE OF FINAL CIRCUITING ARRANGEMENT.

TOTAL CONNECTED		
PHASE	AMPS	KW
A	55.31	6.637
B	56.72	6.806
C	55.77	6.692
TOTAL	55.89	20.135

ELECTRICAL LOAD SUMMARY 347/ 600 V SYSTEM

LOAD DESCRIPTION	ACTUAL CONNECTED KW	DEMAND FACTOR	ACTUAL DEMAND KW
LIGHTING	13.535	100%	13.535
SIGNAGE	2.000	100%	2.000
AIR CONDITIONING	0.000	0%	0.000
HEATING	0.000	100%	0.000
MOTORS	0.000	100% + 25% OF THE LARGEST	0.000
WATER HEATER	3.000	100%	3.000
GENERAL POWER	40.185	60%	24.111
	58.720	TOTAL KW	42.646

NOTES:

DEMAND KW / SYSTEM VOLTAGE x 1.732 = MINIMUM FEEDER AMPERAGE

42.6 KW X 1000 / 600 V x 1.732 = 041 AMPS

MIN. REQUIRED ELETRICAL SERVICE
347/ 600V-3P-3W
51

INCOMING SERVICE SIZE
347/ 600V-3P-3W
70A

TRANSFORMER LOAD SUMMARY

LOAD DESCRIPTION	CONNECTED KW	DEMAND FACTOR	DEMAND KW
LIGHTING	13.535	100%	13.535
SIGNAGE	2.000	100%	2.000
WATER HEATER	3.000	100%	3.000
GEN. POWER	40.185	60%	24.111
HEATING *	0.000	100%	0.000
HVAC	0.000	100%	0.000
	58.720	TOTAL KW	42.646
	56.503	TOTAL AMPS	41.036

NOTES:

KVA USAGE: 42.60 KVA

TRANSFORMER SIZE: 75 KVA

PANEL SCHEDULE LEGEND

BREAKER OPTIONS	
LO	HANDLE LOCK-ON DEVICE
LF	HANDLE LOCK-OFF DEVICE
PA	HANDLE PADLOCK DEVICE
ST	SHUNT TRIP BREAKER
AS	POWER LINK AS BREAKER
GFCI	GROUND FAULT CIRCUIT INTERRUPTER BREAKER
HACR	HEATING, A/C, & REFRIGERATION RATED BREAKER
AUX	AUXILIARY CONTACTS
TS	CIRCUIT VIA TIME SWITCH
SB	SMART BREAKER

ELECTRICAL RESPONSIBILITY SCHEDULE

DESCRIPTION	N/A	EXIST.	FURNISHED BY	INSTALLED BY	SUBMITTAL REQUIRED	NOTES
ELECTRICAL SERVICE / DISTRIBUTION						
MAIN OVERCURRENT DEVICE IN LANDLORD'S ELECTRIC ROOM		●	LLD	LLD		
METER IN LANDLORD'S ELECTRIC ROOM OR TENANT SPACE		●	LLD	LLD		TENANT NEED TO SET UP AN ACCOUNT AND REQUEST A HYDRO METER INSTALLED IN THEIR NAME FOR THE SORE POWER.
SERVICE CONDUIT TO TENANT SPACE		●	LLD	LLD		NEW FEEDER & UNF DISC.SW TO BE PROVIDED BY LANDLORD
SERVICE FEEDERS TO TENANT SPACE		●	LLD	LLD		NEW FEEDER & UNF DISC.SW TO BE PROVIDED BY LANDLORD
TENANT ELECTRICAL PANELS			G.C.	G.C.	●	PROVIDE NEW PANEL AS PER THE PANEL SCHEDULE.
TENANT ELECTRICAL STEP DOWN TRANSFORMER			G.C.	G.C.	●	PROVIDE NEW PANEL AS PER THE SINGLE LINE DIAGRAM.
CIRCUIT BREAKER LOCKS AND HANDLE TIES			G.C.	G.C.		REUSE EXISTING BREAKERS IF POSSIBLE; PROVIDE NEW AS REQUIRED.
MECHANICAL / PLUMBING EQUIPMENT COORDINATION						
HVAC EQUIPMENT – DISCONNECT SWITCH			LLD	LLD		COORDINATE WITH MECHANICAL CONTRACTOR. EXISTING TO BE RELOCATED.
HVAC EQUIPMENT – WIRING			LLD	LLD		EXTEND TO NEW SERVICE LOCATION.
HVAC EQUIPMENT – CONDUIT / PULL STRING			LLD	LLD		EXTEND TO NEW SERVICE LOCATION.
HVAC EQUIPMENT – SERVICE RECEPTACLE			LLD	LLD		PROVIDE WEATHERPROOF / GFCI AS REQUIRED
HVAC THERMOSTAT / SENSOR – JUNCTION BOX			G.C.	G.C.		COORDINATE WITH MECHANICAL CONTRACTOR. JUNCTION BOX NOT REQUIRED FOR BULLET SENSOR
HVAC THERMOSTAT / SENSOR – CONDUIT / PULL STRING			G.C.	G.C.		COORDINATE WITH MECHANICAL CONTRACTOR
GENERAL POWER & LIGHTING EQUIPMENT						
DISCONNECT SWITCHES			G.C.	G.C.		
WIRING			G.C.	G.C.		
CONDUIT / PULL STRING			G.C.	G.C.		
JUNCTION BOXES			G.C.	G.C.		
RECEPTACLES			G.C.	G.C.		
SWITCHES			G.C.	G.C.		
LIGHT FIXTURES AND LAMPS			LLL–V	G.C.		REFER TO SHEET A–150 AND E–121
LIGHTING CONTROL SYSTEM COMPONENTS			G.C.	G.C.	●	
TRACK LIGHTING CURRENT LIMITING PANEL			LLL–V	G.C.		
LOW VOLTAGE SYSTEMS						
TELECOMMUNICATION SERVICE CONDUIT TO TENANT SPACE			G.C.	G.C.		
TELEPHONE – EQUIPMENT			LLL–V	LLL–V		
TELEPHONE – WIRING			LLL–V	LLL–V		
TELEPHONE – CONDUIT / PULL STRING			G.C.	G.C.		CONDUIT ALWAYS REQUIRED
NETWORK – EQUIPMENT AND CABINET / RACK			LLL–V	LLL–V		
DATA – WIRING			LLL–V	LLL–V		
DATA – CONDUIT / PULL STRING			G.C.	G.C.		
AUDIO / VIDEO – EQUIPMENT AND CABINET / RACK			LLL–V	LLL–V/G.C.		SPEAKER PANS & BRIDGES TO BE INSTALLED BY G.C.
AUDIO / VIDEO – WIRING			LLL–V	LLL–V		
AUDIO / VIDEO – CONDUIT / PULL STRING			G.C.	G.C.		
SECURITY SYSTEM (CCTV) – EQUIPMENT			LLL–V	G.C.		G.C. TO PROVIDE ELECTRICAL SUPPORT AND COORDINATE INSTALLATION
SECURITY SYSTEM (CCTV) – WIRING			LLL–V	G.C.		G.C. TO PROVIDE ELECTRICAL SUPPORT AND COORDINATE INSTALLATION
SECURITY SYSTEM (CCTV) – CONDUIT / PULL STRING			G.C.	G.C.		CONDUIT ALWAYS REQUIRED
ELEC EAS SYSTEM & TRAFFIC COUNTER – EQUIPMENT			LLL–V	LLL–V		
SENSORMATIC SYSTEM & TRAFFIC COUNTER – WIRING			LLL–V	LLL–V		
SENSORMATIC SYSTEM & TRAFFIC COUNTER – CONDUIT / PULL STRING			G.C.	G.C.		
FIRE ALARM SYSTEM – EQUIPMENT			G.C.	G.C.		SYSTEM SHALL TIE INTO LANDLORD'S SYSTEM. COORDINATE REQUIREMENTS WITH LANDLORD
FIRE ALARM SYSTEM – WIRING			G.C.	G.C.		SYSTEM SHALL TIE INTO LANDLORD'S SYSTEM. COORDINATE REQUIREMENTS WITH LANDLORD
FIRE ALARM SYSTEM – CONDUIT / PULL STRING			G.C.	G.C.		SYSTEM SHALL TIE INTO LANDLORD'S SYSTEM. COORDINATE REQUIREMENTS WITH LANDLORD
MISCELLANEOUS						
CONCRETE SAW CUTTING / CORE DRILLING & PATCHING			G.C.	G.C.		AS REQUIRED. COORDINATE REQUIREMENTS WITH LANDLORD
ELECTRICAL AND TELEPHONE PLYWOOD BACKER BOARDS			G.C.	G.C.		FIRE RATED, TREATED WOOD, PAINTED TO MATCH WALL FINISH
RESTROOM HAND DRYER			LLL–V	G.C.		COORDINATE REQUIREMENTS WITH LANDLORD. REFER TO SHEETS A–130, A–320.

RESPONSIBLE PARTY ABBRIVIATIONS: LLL:LULULEMON LLD: LANDLORD G.C.:GENERAL CONTRACTOR LLL–V: LULULEMON VENDOR

NOTE: REFER TO RESPONSIBILITY SCHEDULES ON ARCHITECTURAL SHEETS FOR ADDITIONAL INFORMATION

NOTE: G.C. TO ASSUME RESPONSIBILITY FOR ALL ITEMS REPRESENTED IN DRAWINGS AND NOT LISTED IN THE SCHEDULE. NOTIFY ARCHITECT OF ANY DISCREPANCIES WITH WORK LETTER

lululemon
1818 CORNWALL AVE.
VANCOUVER, B.C., V6J1C7

CF POLO PARK
1485 PORTAGE AVE, UNIT 144E
WINNIPEG, MB
R3G 0W5

ARCHITECT

BDP. Quadrangle
Quadrangle Architects Limited
8 Spadina Avenue, Suite 2100 Toronto, ON M5V 0S8
t 416 598 1240 www.bdpquadrangle.com

MEP ENGINEER

THOMAS A. FEKETE LTD.
7181 WOODBINE AVE UNIT 229
MARKHAM ONTARIO L3R 1A3
PH.: (905) 946 4260 FAX: (905) 946 0901
JOB #: 23061

PROVINCE OF MANITOBA
Z.H. GUO
Member 45105
REGISTERED PROFESSIONAL ENGINEER
06/09/2023

APEGM
Certificate of Authorization
Thomas A. Fekete Ltd.
No. 5075 Date: 06/09/2023

ISSUED FOR CONSTRUCTION

07/14/2023

DATE	DESCRIPTION
06/07/2023	ISSUED FOR COORDINATION
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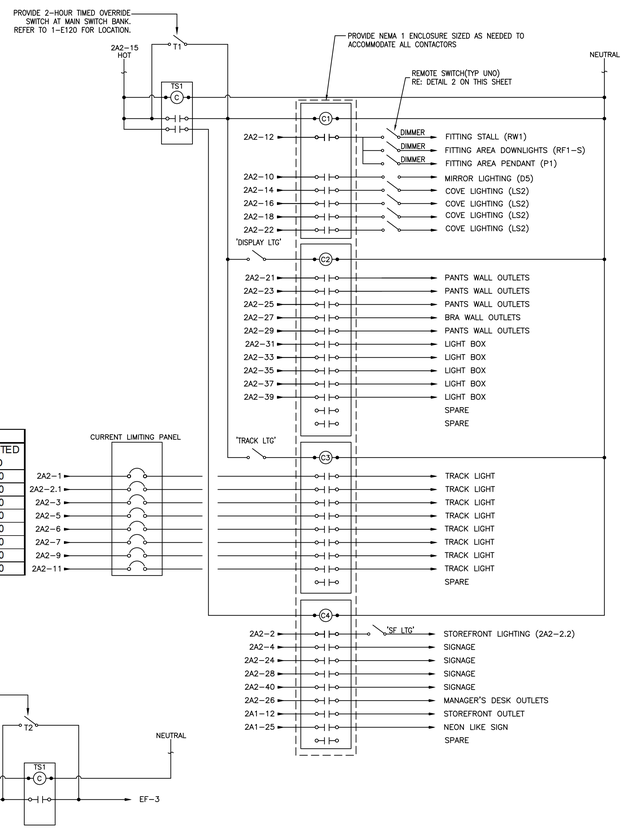
06/09/2023	ISSUED FOR BID
07/13/2023	ISSUED FOR COORDINATION
07/14/2023	ISSUED FOR CONSTRUCTION

[redacted]

DRAWING INFORMATION
PROJECT #: 23206
CHECKED BY: JG
DRAWN BY: SW

ELECTRICAL PANEL SCHEDULES AND LEGEND

DRAWING NUMBER
E011



CURRENT LIMITING SCHEDULE					
CL	CIRCUIT	LOAD	AMPS	RATED WATTS	CONNECTED LOAD
1	2A2-1	TRACK LIGHT	10	1200	954.00
2	2A2-2.1	TRACK LIGHT	2	240	154.00
3	2A2-3	TRACK LIGHT	9	1080	806.00
4	2A2-5	TRACK LIGHT	9	1080	814.00
5	2A2-6	TRACK LIGHT	10	1200	948.00
6	2A2-7	TRACK LIGHT	7	840	616.00
7	2A2-9	TRACK LIGHT	6	720	484.00
8	2A2-11	TRACK LIGHT	8	960	693.00

1 **LIGHTING CONTROL DIAGRAM**
N.T.S.

LIGHTING CONTROL SCHEMATIC NOTES:

1 THIS DETAIL IS SCHEMATIC IN NATURE. PROVIDE ALL NECESSARY WIRING, CONDUIT, DEVICES, BOXES, ETC FOR A COMPLETE OPERATING LIGHTING SYSTEM. SEE LIGHTING PLAN FOR LOCATION OF CONTROL EQUIPMENT.

2 CONTACTORS
PROVIDE SQUARE D MODEL #8903 (OR EQUIVALENT) ELECTRICALLY HELD CONTACTOR WITH POLE QUANTITY AS INDICATED.

3 TIME CLOCK
PROVIDE TORK MODEL #EWZ201C (DIGITAL, 2 CHANNEL, SPST). COORDINATE TIME SCHEDULE WITH OWNER AND LANDLORD (AS REQUIRED).

4 2-HOUR TIMED OVERRIDE / MANUAL ON SWITCH - 'T1', 'T2'
PROVIDE TORK MODEL #SS403 TIME BASED CONTROL TIME SWITCH FOR LIGHTING SYSTEM/EXHAUST FAN OVERRIDE. PROGRAM TIME SWITCH IN THE FIELD TO A 2-HOUR OVERRIDE AND SET TIME SCROLL TO DOWN.
LABEL SWITCH IN FIELD (DISPLAY LIGHTING OVERRIDE)/(MOP SINK FAN OVERRIDE)

5 CURRENT LIMITING PANEL
PROVIDE COOPER GREENGATE TRACKEEPER MODEL #TK16-120-#-S. REFER TO CURRENT LIMITING BREAKER SCHEDULE ON SHEET E-010 FOR CIRCUIT BREAKER RATINGS.

LIGHTING CONTROL TESTING REQUIREMENTS:

PROVIDE EVIDENCE THAT THE LIGHTING CONTROL SYSTEMS HAVE BEEN TESTED TO ENSURE THAT CONTROL HARDWARE AND SOFTWARE ARE CALIBRATED, ADJUSTED, PROGRAMMED AND IN PROPER WORKING CONDITION IN ACCORDANCE WITH THE CONSTRUCTION DOCUMENTS AND MANUFACTURER'S INSTRUCTIONS.

OCCUPANT SENSOR CONTROLS:

THE FOLLOWING PROCEDURES SHALL BE PERFORMED:

1 CERTIFY THAT THE OCCUPANT SENSOR HAS BEEN LOCATED AND AIMED IN ACCORDANCE WITH MANUFACTURER RECOMMENDATIONS.

2 EACH SENSOR SHALL BE TESTED.

3 FOR PROJECTS WITH MORE THAN SEVEN OCCUPANT SENSORS, TESTING SHALL BE DONE FOR EACH UNIQUE COMBINATION OF SENSOR TYPE AND SPACE GEOMETRY, WHERE MULTIPLES OF EACH UNIQUE COMBINATION OF SENSOR TYPE AND SPACE GEOMETRY ARE PROVIDED, NOT LESS THAN 10 PERCENT, BUT IN NO CASE LESS THAN ONE, OF EACH COMBINATION SHALL BE TESTED UNLESS THE CODE OFFICIAL REQUIRES A HIGHER PERCENTAGE TO BE TESTED. WHERE 30 PERCENT OR MORE OF THE TESTED CONTROLS FAIL, ALL REMAINING IDENTICAL COMBINATIONS SHALL BE TESTED.

4 FOR OCCUPANT SENSOR CONTROLS TO BE TESTED, VERIFY THE FOLLOWING:

A WHERE OCCUPANT SENSOR CONTROLS INCLUDE STATUS INDICATORS, VERIFY CORRECT OPERATION.

B THE CONTROLLED LIGHTS TURN OFF OR DOWN TO THE PERMITTED LEVEL WITHIN THE REQUIRED TIME.

C FOR AUTO-ON OCCUPANT SENSOR CONTROLS, THE LIGHTS TURN ON TO THE PERMITTED LEVEL WHEN AN OCCUPANT ENTERS THE SPACE.

D FOR MANUAL-ON OCCUPANT SENSOR CONTROLS, THE LIGHTS TURN ON ONLY WHEN MANUALLY ACTIVATED.

E THE LIGHTS ARE NOT INCORRECTLY TURNED ON BY MOVEMENT IN ADJACENT AREAS OR BY HVAC OPERATION.

TIME CLOCK CONTROLS:

WHERE TIME CLOCK CONTROLS ARE PROVIDED, THE FOLLOWING PROCEDURES SHALL BE PERFORMED:

1 CONFIRM THAT THE TIME CLOCK CONTROL IS PROGRAMMED WITH ACCURATE WEEKDAY, WEEKEND AND HOLIDAY SCHEDULES.

2 PROVIDE DOCUMENTATION TO THE OWNER OF TIME CLOCK CONTROLS PROGRAMMING INCLUDING WEEKDAY, WEEKEND, HOLIDAY SCHEDULES, AND SET-UP AND PREFERENCE PROGRAM SETTINGS.

3 VERIFY THE CORRECT TIME AND DATE IN THE TIME CLOCK.

4 VERIFY THAT ANY BATTERY BACK-UP IS INSTALLED AND ENERGIZED.

5 VERIFY THAT THE OVERRIDE TIME LIMIT IS SET TO NOT MORE THAN 2 HOURS.

6 SIMULATE OCCUPIED CONDITION. VERIFY AND DOCUMENT THE FOLLOWING:

A ALL LIGHTS CAN BE TURNED ON AND OFF BY THEIR RESPECTIVE AREA CONTROL SWITCH.

B THE SWITCH ONLY OPERATES LIGHTING IN THE ENCLOSED SPACE IN WHICH THE SWITCH IS LOCATED.

C SIMULATE UNOCCUPIED CONDITION. VERIFY AND DOCUMENT THE FOLLOWING:

D NONEXEMPT LIGHTING TURNS OFF.

E MANUAL OVERRIDE SWITCH ALLOWS ONLY THE LIGHTS IN THE ENCLOSED SPACE WHERE THE OVERRIDE SWITCH IS LOCATED TO TURN ON OR REMAIN ON UNTIL THE NEXT SCHEDULED SHUTOFF OCCURS.

DOCUMENTATION REQUIREMENTS:

DOCUMENTS CERTIFYING THAT THE INSTALLED LIGHTING CONTROLS MEET DOCUMENTED PERFORMANCE CRITERIA ARE TO BE PROVIDED TO THE BUILDING OWNER WITHIN 90 DAYS FROM THE DATE OF RECEIPT OF THE CERTIFICATE OF OCCUPANCY.

LIGHTING SWITCH BANK NOTES:

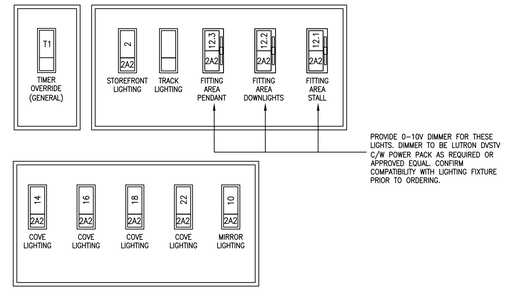
1 EACH TOGGLE SWITCH MUST BE LIGHTED TOGGLE TYPE SWITCH, FACTORY WIRED TO ILLUMINATE WHEN LOAD IS ON. PROVIDE NEUTRAL CONNECTION TO EACH SWITCH AS NECESSARY.

2 PROVIDE EACH SET OF SWITCHES IN MULTI-GANG OUTLET BOX WITH SINGLE COVERPLATE. PROVIDE LABEL ABOVE EACH SWITCH WITH DESCRIPTION OF LIGHTING CONTROLLED AS INDICATED.

3 DIMMER SWITCHES LOCATED AT SALES LIGHTING SWITCH BANK FOR CONTROL OF DIMMED LIGHTS.

0-10V: LUTRON #DVSTV-WH
LOAD RATING: 8 AMPS

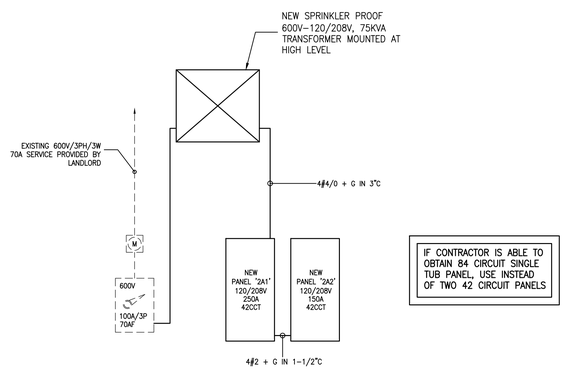
FOR LOADS MORE THAN 8A, USE DVTV W/ LUTRON PP-DV POWER PACK. CONFIRM COMPATIBILITY OF DIMMERS WITH LIGHTING FIXTURE(S) TO BE USED PRIOR TO ORDERING.



2 **SWITCH BANK DETAIL**
N.T.S.

LEGEND

———	NEW
- - - - -	EXISTING/RELOCATED ELECTRICAL EQUIPMENT
X — X — X	EXISTING TO BE REMOVED



3 **SINGLE LINE DIAGRAM**
N.T.S.

RISER DIAGRAM GENERAL NOTES

A. HVAC CIRCUIT BREAKERS TO BE "HACR" TYPE WHERE REQUIRED BY EQUIPMENT NAMEPLATE PER CEC.

B. FIELD VERIFY EXACT AIC RATING OF LANDLORD'S DISTRIBUTION EQUIPMENT. FURNISH AND INSTALL TENANTS ELECTRICAL SYSTEM TO MATCH AS NECESSARY.

C. BALANCE ALL PANELBOARDS AND ELECTRICAL EQUIPMENT UNDER LOAD CONDITIONS TO +/- 10% BETWEEN PHASES; A/B, B/C, A/C REGARDLESS OF CIRCUITING INDICATED.

D. PROPER CLEARANCE MUST BE MAINTAINED ABOUT ELECTRICAL EQUIPMENT PER CEC. FIELD VERIFY EXACT MOUNTING SPACE AVAILABLE IN ELECTRICAL ROOM/AREA PRIOR TO INSTALLATION OF ELECTRICAL EQUIPMENT.

E. MAKE ALL FINAL ELECTRICAL CONNECTIONS FOR A COMPLETE ELECTRICAL DISTRIBUTION SYSTEM.

F. TENANT'S NAME AND SPACE SHALL BE ENGRAVED ON A BAKELITE PLATE WITH 1" HIGH LETTERS. SCREW FASTEN TO THE METER SOCKET AND DISCONNECT SWITCH/CIRCUIT BREAKER AT THE SERVICE DISTRIBUTION POINT.

G. ALL CONNECTIONS TO LANDLORD'S SERVICE EQUIPMENT SHALL BE AS DIRECTED BY LANDLORD'S SITE REPRESENTATIVE. PROVIDE ALL TERMINATION EXPENSES.

H. TENANT'S ELECTRICAL SYSTEM SHALL BE GROUNDED TO THE BUILDING'S MAIN GROUNDING SYSTEM.

I. ALL EQUIPMENT TO BE U.L.C. LISTED OR EQUIVALENT.

J. INSTALL ALL EQUIPMENT TO MEET SEISMIC CRITERIA AT THE SITE AS NECESSARY. REFER TO ARCHITECTURAL DRAWINGS FOR ADDITIONAL INFORMATION.

lululemon
1818 CORNWALL AVE.
VANCOUVER, B.C., V6J1C7

CF POLO PARK
1485 PORTAGE AVE, UNIT 144E
WINNIPEG, MB
R3G 0W5

ARCHITECT

BDP Quadrangle
Quadrangle Architects Limited
55 Mercer Street, Toronto, ON M5V 0S8
t 416 598 1240 www.bdpquadrangle.com

MEP ENGINEER

THOMAS A. FEKETE LTD.
7181 WOODBINE AVE UNIT 229
MARKHAM ONTARIO L3R 1A3
PH.: (905) 946 4260 FAX: (905) 946 0901
JOB #: 23061

PROVINCE OF MANITOBA
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45105
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06/09/2023

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Certificate of Authorization
Thomas A. Fekete Ltd.
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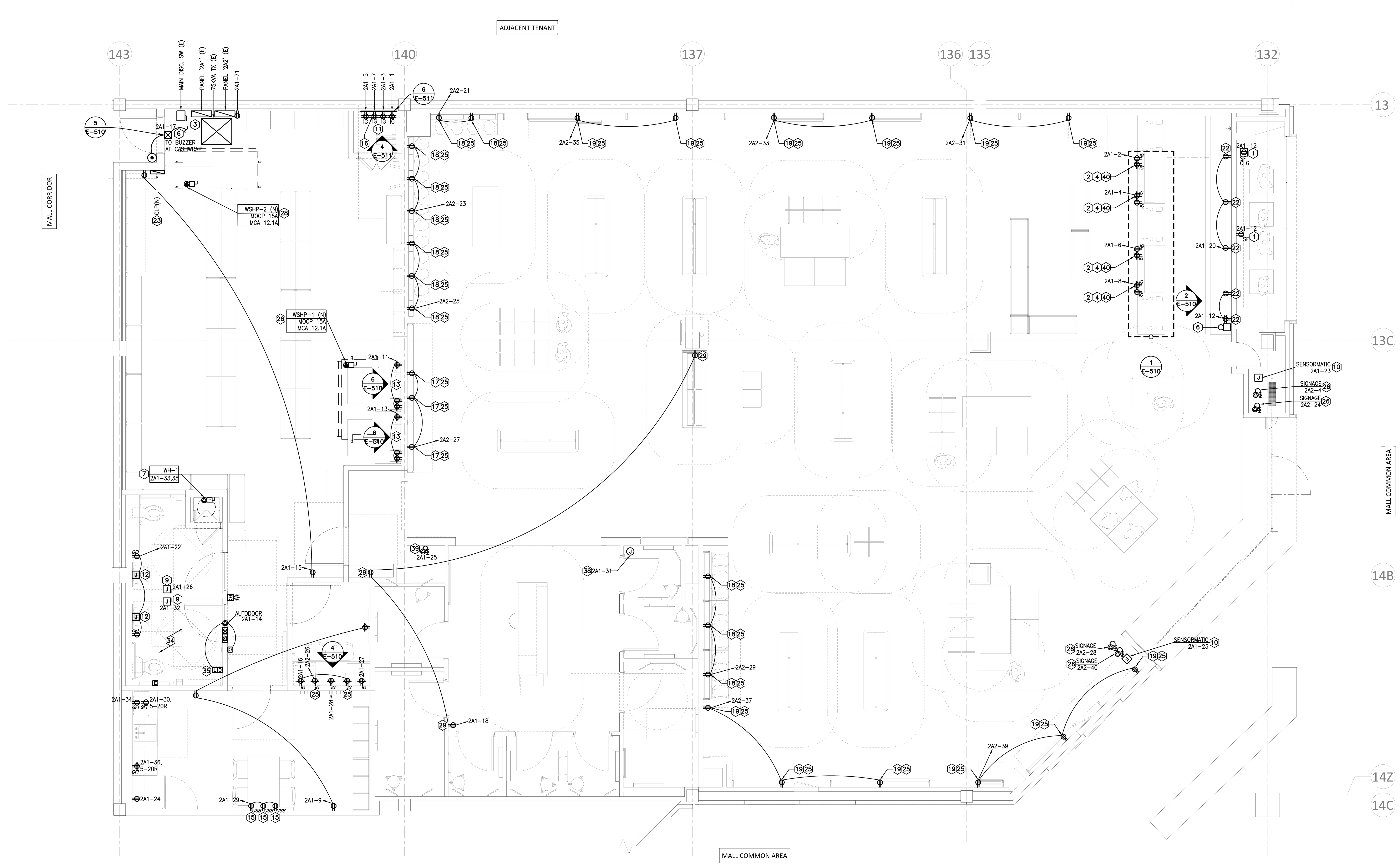
DRAWING INFORMATION
PROJECT #: 23206
CHECKED BY: JG
DRAWN BY: SW

LIGHTING CONTROL AND SINGLE LINE DIAGRAM

DRAWING NUMBER
E012



ELECTRICAL POWER PLAN
SCALE: 1/4" = 1'-0"

GENERAL POWER NOTES

A. REFER TO MECHANICAL PLAN FOR LOCATION OF MECHANICAL EQUIPMENT. FIELD VERIFY EXACT LOCATIONS. PROVIDE AND INSTALL ALL CONVENIENCE RECEPTACLES, SAFETY SWITCHES, WIRING, OR OTHER EQUIPMENT TO ENSURE A COMPLETE AND OPERABLE HVAC SYSTEM.

B. ALL CEILING MOUNTED RECEPTACLE COVERPLATES SHALL BE WHITE IN COLOR.

C. ALL WALL MOUNTED RECEPTACLES AND SWITCHES SHALL BE MOUNTED VERTICALLY AND SHALL BE WHITE IN COLOR, UNLESS NOTED OTHERWISE. IN THE SALES AREA AND FITTING AREAS, COVERPLATES SHALL BE WHITE. IN THE BACK OF HOUSE, COVERPLATES SHALL BE STAINLESS STEEL. IN THE STAFF AREA ALL RECEPTACLES AND COVERPLATES SHALL BE WHITE.

D. LABEL ALL COVERPLATES ON INSIDE FACE OF PLATE WITH CIRCUIT NUMBER AND PANEL DESIGNATION. I.E. "A-1". CIRCUIT SHALL BE WRITTEN WITH PERMANENT MARKER IN A CONTRASTING COLOR.

E. (IF APPLICABLE) REFER TO ARCHITECTURAL PLANS FOR EXACT LOCATIONS OF RECEPTACLES, DATA/TELEPHONE OUTLETS AND OTHER DEVICES.

F. ALL EQUIPMENT SHALL BE U.L.C LISTED OR EQUIVALENT.

G. ALL EXPOSED CONDUIT, WHERE REQUIRED BY CODE, MUST BE RUN STRAIGHT AND PARALLEL/PERPENDICULAR TO STRUCTURE. RUN CONDUIT ADJACENT TO EXISTING STRUCTURE OR ROOF DECK WHERE POSSIBLE.

H. REVIEW ANY QUESTIONS REGARDING INSTALLATIONS WITH LULULEMON PROJECT MANAGER.

I. ELECTRICAL DEVICE MOUNTING HEIGHTS (UNLESS NOTED OTHERWISE):
   a. PANELBOARDS: 6'-6" AFF TO TOP
   b. TOGGLE SWITCHES: 4'-0" AFF TO CENTERLINE
   c. RECEPTACLES: 1'-6" AFF TO CENTERLINE
   d. VOICE/DATA OUTLETS: 1'-6" AFF TO CENTERLINE

J. INFORMATION ON THIS SHEET PERTAINING TO THE EXISTING ELECTRICAL SYSTEM IS BASED ON RECORD DRAWINGS AND SITE INFORMATION AVAILABLE AT THE TIME OF DESIGN. FIELD VERIFY ALL EXISTING CONDITIONS AND NOTIFY ARCHITECT AND ENGINEER IMMEDIATELY IF ANY DISCREPANCIES ARE FOUND.

K. DESIGN DRAWINGS ARE SCHEMATIC. THIS CONTRACTOR SHALL VISIT THE SITE PRIOR TO BIDDING OR AWARD OF CONTRACT TO INSPECT EXISTING FIELD CONDITIONS. THIS CONTRACT SHALL INCLUDE ALL LABOR AND MATERIALS NECESSARY FOR FIELD MODIFICATIONS DUE TO EXISTING CONDITIONS.

L. THE CONTRACTOR SHALL CONTACT THE ARCHITECT, ENGINEER, OR OWNER PRIOR TO BIDDING FOR INTERPRETATIONS AND CLARIFICATIONS OF THE DESIGN AND INCLUDE IN THEIR BID ALL COSTS TO MEET THE DESIGN INTENT. CLARIFICATIONS MADE BY THE ARCHITECT, ENGINEER, OR OWNER AFTER BIDDING WILL BE FINAL AND SHALL BY IMPLEMENTED AT CONTRACTOR'S COST.

M. BIDDING CONTRACTORS SHALL HAVE A WORKING KNOWLEDGE OF LOCAL CODES AND ORDINANCES AND SHALL INCLUDE IN THEIR BIDS THE COSTS FOR ALL WORK INSTALLED IN STRICT ORDINANCE WITH GOVERNING CODES, THE PLANS AND SPECIFICATIONS NOT WITHSTANDING. THE CONTRACTOR SHALL ALERT ARCHITECT, ENGINEER OR OWNER OR ANY APPARENT DISCREPANCIES BETWEEN GOVERNING CODES AND DESIGN INTENT.

(#) CODED POWER NOTES

1. STOREFRONT RECEPTACLE:
RECEPTACLES AND COVERPLATES WITH AN "SF" DESIGNATION SHALL BE MOUNTED HORIZONTALLY ON CEILING IF CEILING IS WITHIN 18" FROM THE TOP OF THE WINDOW, OR ON THE WALL ABOVE THE WINDOW IF THERE IS MORE THAN 18" TO THE CEILING ABOVE.

2. CASH REGISTER:
ELECTRONIC CASH REGISTER POWER SYSTEM. THE CIRCUITS USED TO POWER THE ELECTRONIC CASH REGISTERS SHALL NOT BE USED FOR ANY OTHER PURPOSES. THE CIRCUITS SHALL NOT SHARE THE NEUTRAL OR GROUND WITH OTHER EQUIPMENT. SEPARATE POWER, NEUTRAL AND DEDICATED GROUND WIRES, MINIMUM SIZE #12 AWG, SHALL BE RUN TO THE CIRCUIT BREAKER PANELBOARD WHERE GROUND WIRE SHALL BE TIED TO THE GROUND TERMINAL ISOLATED FROM NEUTRAL. DO NOT USE THE CONDUIT FOR GROUNDING AS THIS IS NOT ADEQUATE AT HIGH FREQUENCIES. CIRCUITS FOR THE ELECTRONIC CASH REGISTERS SHALL BE RUN IN SEPARATE CONDUIT. REFER TO DETAIL "1" ON SHEET E-510 FOR ADDITIONAL INFORMATION.

3. ELECTRICAL PANELS:
ELECTRICAL SERVICE EQUIPMENT, SEE POWER RISER DIAGRAM ON SHEET E-011 FOR ADDITIONAL INFORMATION. SEE RESPONSIBILITY SCHEDULE ON E-011 FOR LANDLORD AND TENANT RESPONSIBILITIES. CONTRACTOR TO INSTALL EQUIPMENT AS TIGHT AS POSSIBLE.

4. COMPUTER OUTLET:
CONTRACTOR TO COORDINATE WITH MILLWORK VENDOR ON ALL POWER AND DATA OUTLET REQUIREMENTS AT CASH WRAP. PROVIDE CIRCUITING AS SHOWN ON PLAN.

5. ~~POWER CONNECTION FOR NEON SIGNAGE. CONFIRM EXACT LOCATION AND POWER REQUIREMENTS PRIOR TO ROUGH-IN WITH SIGNAGE VENDOR.~~

6. BUZZER SYSTEM:
FURNISH AND INSTALL A COMPLETE DELIVERY BUZZER SYSTEM. REFER TO SHEET E-130 FOR LOW VOLTAGE COMPONENTS. CONNECT TO LOCAL CONVENIENCE CIRCUIT. REFER TO DETAIL "5" ON SHEET E-510 FOR ADDITIONAL INFORMATION.

7. WATER HEATER:
TANK TYPE ELECTRIC WATER HEATER 208V, 1PH, 5.0KW. CIRCUIT AS INDICATED. FURNISH AND INSTALL SERVICE DISCONNECT AS REQUIRED. CONFIRM EXACT LOCATION ON SITE WITH MECHANICAL.

8. ~~HVAC EQUIPMENT CONNECTIONS:
SEE HVAC ELECTRICAL CONNECTION SCHEDULE ON SHEET E-011 FOR CIRCUIT. DISCONNECT, WIRE SIZE. SEE MECHANICAL PLANS FOR ADDITIONAL INFORMATION.~~

9. HAND DRYER:
COORDINATE EXACT LOCATION AND INSTALLATION HEIGHT OF JUNCTION BOX WITH THE PROJECT MANAGER AND PER MANUFACTURER RECOMMENDATIONS PRIOR TO ROUGH-IN. SEE FIXTURE SCHEDULE FOR SPECIFICATION.

10. EAS SENSORMATIC SYSTEM:
JUNCTION BOX AND CIRCUIT ABOVE CEILING FOR POWER TO SENSORMATIC SYSTEM. SEE SHEET E-130 AND DETAIL "7" ON SHEET E-510 FOR ADDITIONAL INFO. PROVIDE ALL CONDUIT AND WIRING FOR A COMPLETE AND FUNCTIONAL SYSTEM. COORDINATE ALL REQUIREMENTS WITH MANUFACTURER PRIOR TO ROUGH-IN. SENSORMATIC SYSTEM MAY NOT BE VISIBLE.

11. NETWORK CLOSET:
RECEPTACLE FOR NETWORK CABINET. REFER TO DETAIL 6 ON SHEET E-511 FOR ALL LOW VOLTAGE CONDUIT INFORMATION.

12. INSTALL JUNCTION BOX AND TRANSFORMER FOR AUTOMATIC FAUCET FURNISHED BY PLUMBING CONTRACTOR. PROVIDE POWER WIRING AND CONNECT TO TRANSFORMER. JUNCTION BOX TO BE MOUNTED ABOVE CEILING IN ACCESSIBLE LOCATION. VERIFY EXACT INSTALLATION HEIGHT IN FIELD.

13. REFER TO ARCHITECTURE PLANS FOR EXACT LOCATION AND INSTALLATION HEIGHT OF RECEPTACLES IN THIS AREA.

14. ~~PROVIDE 1" CONDUITS FOR CASH WRAP CIRCUITING INSTALLED UNDER SLAB. COORDINATE REQUIREMENTS WITH LANDLORD. ROUTE CIRCUITING AS SHOWN ON PLANS WITHIN CONDUIT, UP TO DECK AND BACK TO PANELBOARD AS REQUIRED. REFER TO SHEET E-130 FOR ADDITIONAL LOW VOLTAGE CONDUIT AT THIS AREA. REFER TO DETAIL "1" ON SHEET E-510 FOR ADDITIONAL INFORMATION.~~

15. PROVIDE USB CHARGER RECEPTACLE, HUBBELL MODEL #USB15A. COLOR OF RECEPTACLE TO MATCH ADJACENT ELECTRICAL DEVICES.

16. PROVIDE RECEPTACLE FOR SPEAKER SYSTEM AMPLIFIER VERIFY EXACT LOCATION AND INSTALLATION HEIGHT OF SPEAKER SYSTEM WITH FINAL LOCATION OF AMPLIFIER IN FIELD.

17. RECEPTACLE FOR BRA WALL FIXTURE. COORDINATE EXACT LOCATION WITH ARCHITECT (SHEET A-130, A-140, A-210, A-560).

18. RECEPTACLE FOR PANT WALL FIXTURE. COORDINATE EXACT LOCATION WITH ARCHITECT (SHEET A-130, A-140, A-210, A-560).

19. RECEPTACLE FOR LIGHTBOX POWER. COORDINATE EXACT LOCATION WITH ARCHITECT (SHEET A-130, A-140, A-210).

20. ~~RECEPTACLE FOR DIGITAL FIXTURE. COORDINATE EXACT LOCATION WITH ARCHITECT (SHEET A-130, A-140, A-210).~~

21. ~~RECEPTACLE FOR BACKWRAP SCREEN POWER. PROVIDE ADDITIONAL POWER AS REQUIRED FOR LARGER SCREENS.~~

22. REFER TO MOUNTING DETAILS ON ARCHITECT'S DETAIL DRAWINGS FOR ADDITIONAL INFORMATION ON BACKWRAP DEVICES.

23. PROPOSED LOCATION OF CURRENT LIMITING PANEL. SEE LIGHTING PLAN FOR ADDITIONAL INFORMATION. IF SUFFICIENT WALL SPACE IS AVAILABLE, INSTALL NEXT TO THE ELECTRICAL PANELS INSTEAD.

24. ~~BOTTLE FILLER REMOTE CHILLER:
PROVIDE JUNCTION BOX AND DISCONNECT TOGGLE TYPE SWITCH. LOCATE ABOVE CEILING NEAR ACCESS PANEL IN CONCEALED LOCATION. COORDINATE EXACT LOCATION WITH PLUMBING CONTRACTOR.~~

25. CONTROLLED RECEPTACLES:
CIRCUIT VIA TIME CLOCK. RECEPTACLES SHALL BE MARKED TO VISUALLY DIFFERENTIATE THEM AS BEING CONTROLLED BY TIME CLOCK.

26. STOREFRONT SIGN LIGHTING CIRCUIT:
PROVIDE JUNCTION BOX AND DISCONNECT GOGGLE TYPE SWITCH WITH MINIMUM 12' WHIP CONNECTION FOR CONNECTION BY OTHERS TO THE STORE FRONT SIGN LIGHTING PER C.E.C. LOCATE ABOVE CEILING NEAR ACCESS PANEL IN CONCEALED LOCATION. CIRCUIT THRU TIME CLOCK AND POWER PANEL AS INDICATED. SEE SHEET E-012 FOR ADDITIONAL INFORMATION. CONFIRM CONTROL CRITERIA REQUIREMENTS WITH LANDLORD.

27. ~~PROVIDE 1" CONDUITS FOR DIGITAL MIRROR FIXTURE CIRCUITING INSTALLED UNDER SLAB. COORDINATE REQUIREMENTS WITH LANDLORD. ROUTE CIRCUITING AS SHOWN ON PLANS WITHIN CONDUIT, UP TO DECK AND BACK TO PANELBOARD AS REQUIRED. REFER TO SHEET E-130 FOR ADDITIONAL LOW VOLTAGE CONDUIT AT THIS AREA.~~

28. NEW WATER SOURCE HEAT PUMP FED FROM LANDLORD'S SERVICE.

29. SALES AREA GENERAL CONVENIENCE RECEPTACLE. CONNECT TO NON-SWITCHED, 24/7 CIRCUIT.

30. ~~RECEPTACLE FOR INTERACTIVE MIRROR FIXTURE. COORDINATE. EXACT LOCATION WITH ARCHITECT (SHEET A-130,A-140,A-210).~~

31. NOT USED.

32. ~~RECEPTACLE FOR FOOTWEAR FIXTURE. COORDINATE EXACT LOCATION WITH ARCHITECT.~~

33. ~~PROVIDE 1" CONDUIT FOR FOOTWEAR FIXTURE CIRCUITING INSTALLED UNDER SLAB. COORDINATE REQUIREMENTS WITH LANDLORD. ROUTE CIRCUITING AS SHOWN ON PLANS WITHIN CONDUIT, UP TO DECK AND BACK TO PANEL BOARD AS REQUIRED. REFEER TO SHEET E-130 FOR ADDITIONAL LOW VOLTAGE CONDUIT AT THIS AREA.~~

34. REFER TO UNIVERSAL WASHROOM DETAIL 1 ON E121 FOR ADDITIONAL INFORMATION.

35. AUTO-DOOR PUSH BUTTON TO BE WITHIN 600mm-1500mm BEYOND DOOR SWING AS PER BUILDING CODE. EXACT LOCATION TO BE COORDINATED WITH PROJECT MANAGER PRIOR TO ROUGH-IN.

36. ~~PROVIDE FIRE RATED POKE THROUGH. POKE THROUGH TO BE HUBBELL SYSTEM ONE W/ BRUSHED ALUMINIUM FINISH. 4" RECESSED C/W S1R4SPSTYLE MOUNTING PLATE AND DECORA DUPLEX. CONFIRM COVER FINISH WITH ARCHITECT PRIOR TO ORDERING.~~

37. NOT USED.

38. POWER FOR FUTURE DIGITAL FIXTURE AT COMMUNITY WALL LOCATED ABOVE CEILING AT ACCESS PANEL NEAR AMBASSAFOR FIXTURE. EC TO FURNISH AND INSTALL J-BOX AND 6' WHIP COILED IN CEILING.

39. LOCATION OF 'NEON' LOOK LED BRAND ELEMENT BY LLL-V, GC TO PROVIDE POWER CONCEALED IN WALL TO J-BOX CONCEALED ABOVE CEILING. SIGN REQUIRED INDIVIDUAL LOW VOLTAGE CONNECTIONS THROUGH WALL FINISH TO EACH SIGN LETTER CIRCUIT VIA TIMECLOCK AND CONTACTORS.

40. FEED CASH DESK WIRING THROUGH MILLWORK TO WALL.

lululemon
1818 CORNWALL AVE.
VANCOUVER, B.C., V6J1C7

CF POLO PARK
1485 PORTAGE AVE, UNIT 144E
WINNIPEG, MB
R3G 0W5

ARCHITECT

BDP. Quadrangle
Quadrangle Architects Limited
8 Spadina Avenue, Suite 2100 Toronto, ON M5V 0S8
t 416 598 1240 www.bdpquadrangle.com

MEP ENGINEER

THOMAS A. FEKETE LTD.
7181 WOODBINE AVE UNIT 229
MARKHAM ONTARIO L3R 1A3
PH.: (905) 946 4260 FAX: (905) 946 0901
JOB #: 23061

PROVINCE OF MANITOBA
Z.H. GUO
Member 45105
REGISTERED PROFESSIONAL ENGINEER
06/09/2023

APEGM
Certificate of Authorization
Thomas A. Fekete Ltd.
No. 5075 Date: 06/09/2023

ISSUED FOR CONSTRUCTION

07/14/2023

DATE	DESCRIPTION
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[redacted]

DRAWING INFORMATION
PROJECT #: 23206
CHECKED BY: JG
DRAWN BY: SW

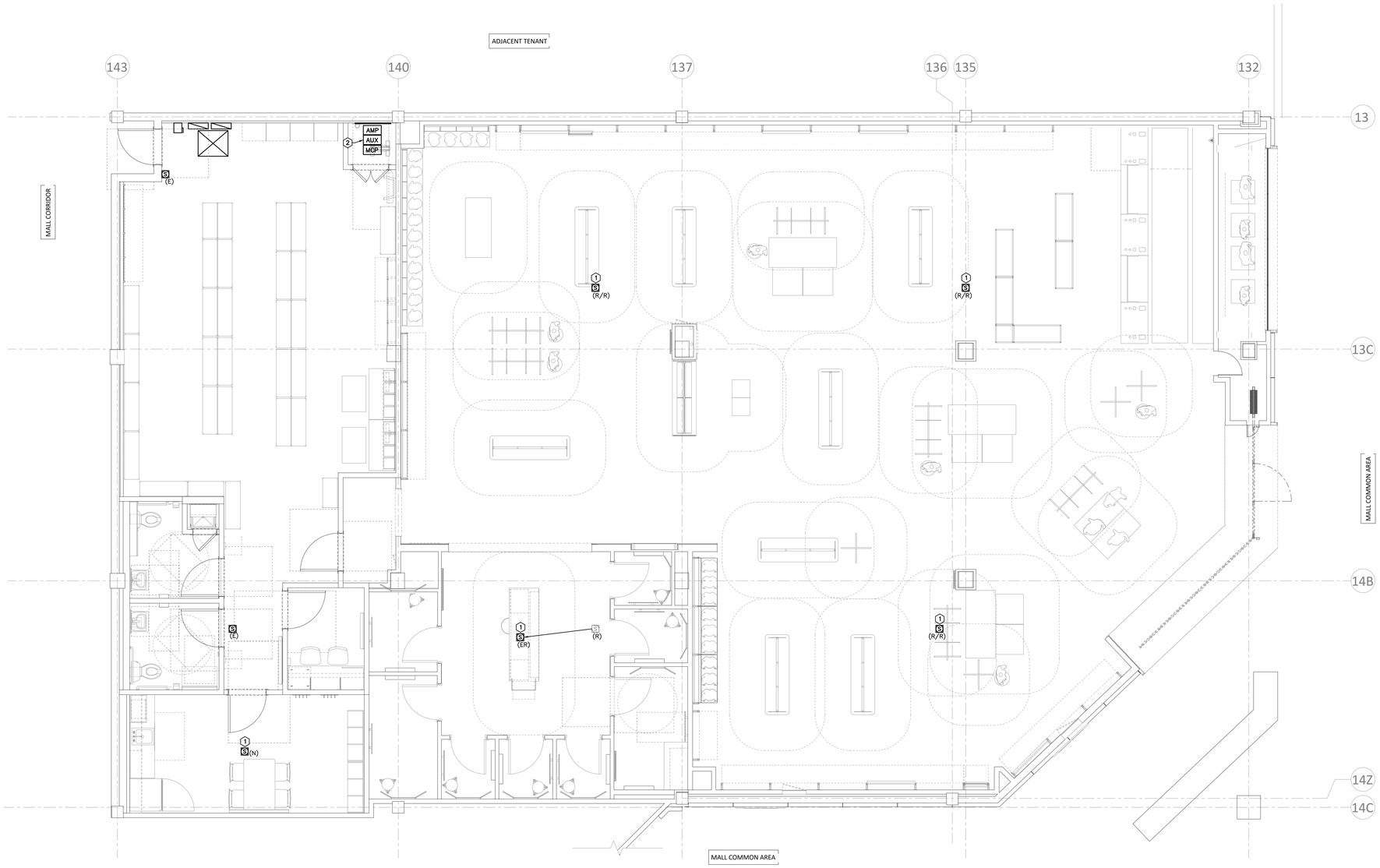
ELECTRICAL POWER PLAN

DRAWING NUMBER
E110

CODED FIRE ALARM NOTES

1. FIRE ALARM:
   NEW OR RELOCATED FIRE ALARM DEVICE TO MATCH BASE BUILDING FIRE ALARM SYSTEM. VERIFY EXACT LOCATION ON SITE. VERIFY OPERATION OF FIRE ALARM SYSTEM UPON COMPLETION OF CONSTRUCTION. COORDINATE ANY REQUIRED MODIFICATIONS TO THE FIRE ALARM SYSTEM WITH THE BASE BUILDING FIRE ALARM MAINTENANCE CONTRACTOR AT CONTRACTORS EXPENSE.

2. MUSIC SYSTEM TO BE SHUT DOWN UPON FIRE ALARM ACTIVATION. PROVIDE ADDITIONAL FIRE ALARM RELAY AS REQUIRED. COORDINATE WITH BUILDING FIRE ALARM SYSTEM CONTRACTOR.



1 **FIRE ALARM PLAN**
SCALE: 1/4" = 1'-0"

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1818 CORNWALL AVE.
VANCOUVER, B.C., V6J1C7

CF POLO PARK

1485 PORTAGE AVE, UNIT 144E
WINNIPEG, MB
R3G 0W5

ARCHITECT

BDP Quadrangle
Quadrangle Architects Limited
Brookfield Place, 181 Bay Street, Toronto, ON M5V 0S8
t 416 598 1240 www.bdpquadrangle.com

MEP ENGINEER

THOMAS A. FEKETE LTD.
7181 WOODBINE AVE UNIT 229
MARKHAM ONTARIO L3R 1A3
PH.: (905) 946 4260 FAX: (905) 946 0901

JOB #: 23061

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DRAWING INFORMATION
PROJECT #: 23206
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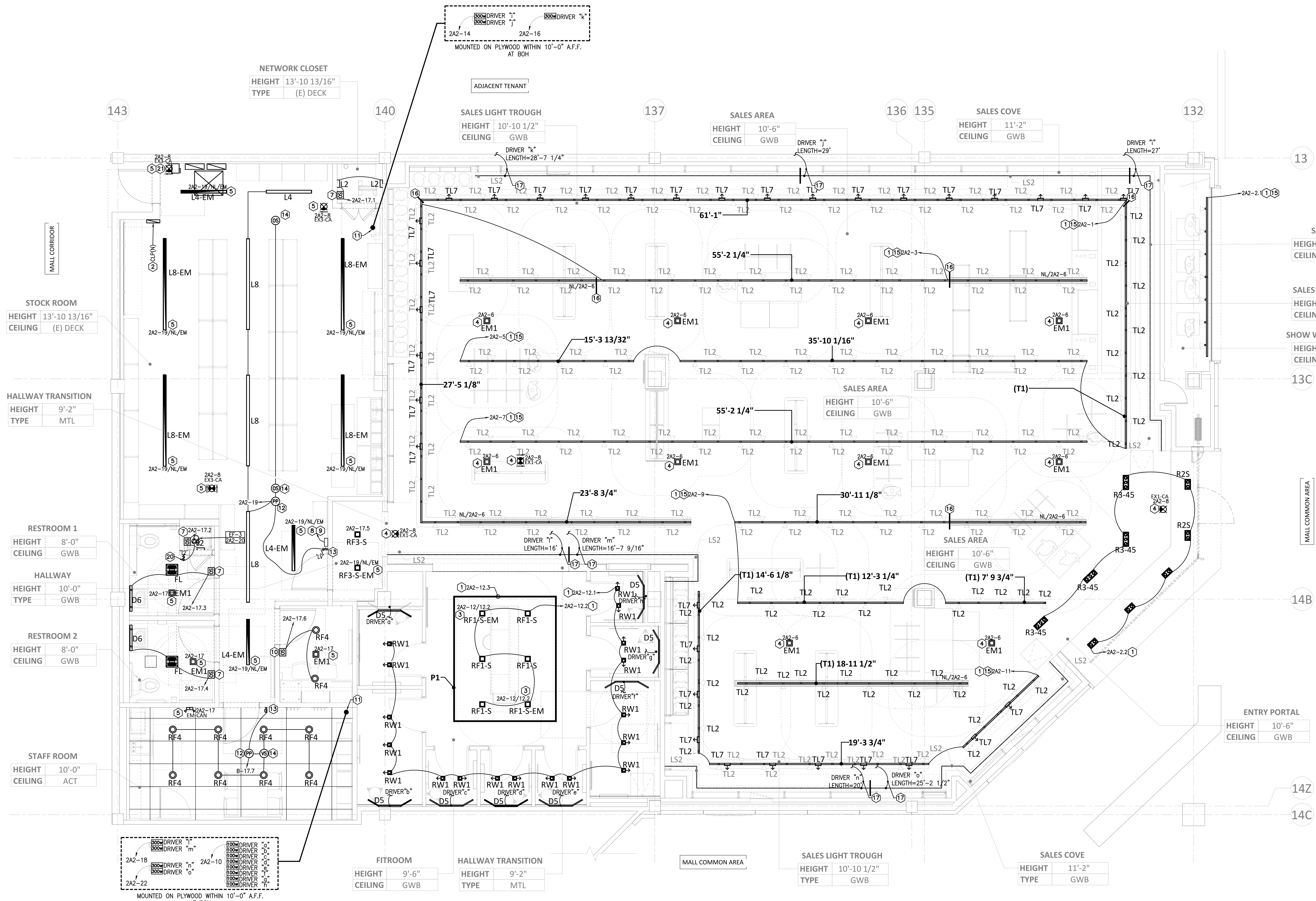
DRAWN BY: SW

FIRE ALARM PLAN

DRAWING NUMBER
E111



1 ELECTRICAL LIGHTING PLAN
SCALE: 1/4" = 1'-0"

COVE & VALENCE LIGHTING VOLTAGE DROP WIRE SIZE CHART						
WIRE GAUGE	LED DRIVER SIZE / MAXIMUM DISTANCE IN FEET					
	20W	40W	60W	96W	150W	300W
18 AWG	210 ft.	105 ft.	70 ft.	46 ft.	28 ft.	14 ft.
16 AWG	330 ft.	175 ft.	51 ft.	70 ft.	46 ft.	23 ft.
14 AWG	525 ft.	260 ft.	82 ft.	115 ft.	75 ft.	36 ft.
12 AWG	830 ft.	420 ft.	130 ft.	175 ft.	120 ft.	58 ft.
10 AWG	1300 ft.	650 ft.	206 ft.	285 ft.	185 ft.	94 ft.
8 AWG	2016 ft.	1025 ft.	328 ft.	460 ft.	300 ft.	150 ft.

NOTES:
- CHART ABOVE APPLIES TO 24V DC LED STRIPS.
- EACH LED STRIP HAS A MAXIMUM LENGTH OF BEFORE IT REQUIRES AN ADDITIONAL POWER FEED BACK TO THE DRIVER
  - LS1 = 16'–0"
  - LS2 = 30'–0"
- DRIVERS TO BE LOADED TO 80% OR LESS.

GENERAL LIGHTING NOTES

A. LIGHTING SHALL BE CIRCUITED EXACTLY AS SHOWN ON PLANS.

B. SEE ARCHITECTURAL REFLECTED CEILING PLAN FOR EXACT LOCATION OF LIGHTING FIXTURES.

C. EMERGENCY AND EXIT LIGHTS SHALL BE INSTALLED AND CIRCUITED PER THE LATEST NATIONAL ELECTRICAL CODE AND ALL LOCAL CODES.

D. ELECTRICAL CONTRACTOR IS TO ENSURE ACCESSIBILITY IS MAINTAINED PER N.E.C. REQUIREMENTS AN LOCAL CODES.

E. ALL EQUIPMENT TO BE U.L. LISTED OR EQUIVALENT.

F. ALL LOW VOLTAGE WIRING MUST BE RUN IN CONDUIT CONCEALED IN WALLS (IF REQUIRED BY CODE). PLENUM RATED WIRING MAY BE RUN CONCEALED ABOVE CEILING WHEN ALLOWED BY THE LOCAL AHJ.

G. ALL EXPOSED CONDUIT MUST BE RUN STRAIGHT AND PARALLEL/PERPENDICULAR TO STRUCTURE. RUN CONDUIT ADJACENT TO EXISTING STRUCTURE OR ROOF DECK WHERE POSSIBLE.

H. REVIEW ANY QUESTIONS REGARDING INSTALLATION WITH LULULEMON PROJECT MANAGER.

I. CABLE, RACEWAY, OR BOX INSTALLED IN EXPOSED OR CONCEALED LOCATIONS UNDER METAL–CORRUGATED SHEET ROOF DECKING SHALL BE INSTALLED AND SUPPORTED SO THERE IS NOT LESS THAN 1–1/2" MEASURED FROM THE LOWEST SURFACE OF THE ROOF DECKING TO THE TOP OF THE CABLE, RACEWAY, OR BOX. A CABLE, RACEWAY, OR BOX SHALL NOT BE INSTALLED IN CONCEALED LOCATIONS IN METAL–CORRUGATED, SHEET DECKING–TYPE ROOF.

J. INFORMATION ON THIS SHEET PERTAINING TO THE EXISTING ELECTRICAL SYSTEM IS BASED ON RECORD DRAWINGS AND SITE INFORMATION AVAILABLE AT THE TIME OF DESIGN. FIELD VERIFY ALL EXISTING CONDITIONS AND NOTIFY ARCHITECT AND ENGINEER IMMEDIATELY IF ANY DISCREPANCIES ARE FOUND.

K. DESIGN DRAWINGS ARE SCHEMATIC. THIS CONTRACTOR SHALL VISIT THE SITE PRIOR TO BIDDING OR AWARD OF CONTRACT TO INSPECT EXISTING FIELD CONDITIONS. THIS CONTRACT SHALL INCLUDE ALL LABOR AND MATERIALS NECESSARY FOR FIELD MODIFICATIONS DUE TO EXISTING CONDITIONS.

L. THE CONTRACTOR SHALL CONTACT THE ARCHITECT, ENGINEER, OR OWNER PRIOR TO BIDDING FOR INTERPRETATIONS AND CLARIFICATIONS OF THE DESIGN AND INCLUDE IN THEIR BID ALL COSTS TO MEET THE DESIGN INTENT. CLARIFICATIONS MADE BY THE ARCHITECT, ENGINEER, OR OWNER AFTER BIDDING WILL BE FINAL AND SHALL BY IMPLEMENTED AT CONTRACTOR'S COST.

M. BIDDING CONTRACTORS SHALL HAVE A WORKING KNOWLEDGE OF LOCAL CODES AND ORDINANCES AND SHALL INCLUDE IN THEIR BIDS THE COSTS FOR ALL WORK INSTALLED IN STRICT ORDINANCE WITH GOVERNING CODES, THE PLANS AND SPECIFICATIONS NOT WITHSTANDING. THE CONTRACTOR SHALL ALERT ARCHITECT, ENGINEER OR OWNER OR ANY APPARENT DISCREPANCIES BETWEEN GOVERNING CODES AND DESIGN INTENT.

(#) CODED LIGHTING NOTES

1. SALES GENERAL LIGHTING CIRCUIT CONTROLLED BY SWITCH. REFER TO LIGHTING CONTROL DIAGRAM/SWITCH BANK ON E–012 FOR DETAILS.
2. LIGHTING CONTROL TIME CLOCKS AND CONTACTORS. REFER TO DETAIL "1" ON SHEET E–012 FOR ADDITIONAL INFORMATION. VERIFY LOCATION PRIOR TO BID. IF SUFFICIENT WALL SPACE IS AVAILABLE NEXT TO ELECTRICAL PANELS, INSTALL CURRENT LIMITING PANEL NEXT TO THE ELECTRICAL PANELS INSTEAD.
3. EMERGENCY / EXIT LIGHT CIRCUIT – SALES AREA:
   CONNECT DESIGNATED LIGHT FIXTURES TO INDICATED LIGHTING CIRCUIT TO PROVIDE EMERGENCY ILLUMINATION. FIXTURES TO BE SWITCHED AS SHOWN IN DETAIL "1" ON SHEET E–012. BATTERY BACKUP SHALL CONNECT TO CIRCUIT AHEAD OF ALL SWITCHING.
4. EMERGENCY / EXIT LIGHT CIRCUIT – SALES AREA:
   CONNECT DESIGNATED LIGHT FIXTURES TO INDICATED CIRCUIT TO PROVIDE EMERGENCY ILLUMINATION. ALL EXIT SIGNS AND NORMALLY–OFF EMERGENCY FIXTURES SHALL CONNECT TO CIRCUIT AHEAD OF ALL SWITCHING.
5. EMERGENCY / EXIT LIGHT CIRCUIT – NON–SALES AREA:
   CONNECT EMERGENCY BALLAST TO LOCAL LIGHTING CIRCUIT, AHEAD OF LOCAL SWITCHING, TO PROVIDE CONTINUOUS EGRESS, SECURITY AND EMERGENCY ILLUMINATION.
6. ~~EMERGENCY / EXIT LIGHT CIRCUIT – NON–SALES AREA:~~
   ~~CONNECT DESIGNATED LIGHT FIXTURES TO INDICATED LIGHTING CIRCUIT TO PROVIDE EMERGENCY ILLUMINATION. FIXTURES TO BE SWITCHED AS SHOWN IN DETAIL "1" ON SHEET E–012. BATTERY BACKUP SHALL CONNECT TO CIRCUIT AHEAD OF ALL SWITCHING.~~
7. OCCUPANCY MOTION SENSOR SWITCH MOUNTED @ 42" AFF. VERIFY EXACT LOCATION IN FIELD PRIOR TO ROUGH–IN. COORDINATE WITH WALL FINISH & TRIM DESIGN. MOTION SENSOR SHALL BE EQUAL OR SIMILAR TO SENSOR SWITCH MODEL #: WSX–PDT. SET FOR 10 MINUTE OFF DELAY.
8. MASTER LIGHTING SWITCH BANK:
   PROVIDE GANGED SWITCH LOCATION FOR LOCAL LIGHTING SWITCHES. PROVIDE UNDER COMMON FACEPLATE OR MULTIPLE FACEPLATES OF EQUAL WIDTHS. REFER TO DETAIL "2" ON SHEET E–012 FOR ADDITIONAL INFORMATION.
9. GENERAL LIGHTING TIMED OVERRIDE SWITCH. REFER TO DETAIL "1" & "2" ON SHEET E–012 FOR ADDITIONAL INFORMATION.
10. WALL MOUNTED DIMMING VACANCY SENSOR/MANUAL ON SWITCH MOUNTED @ 42" AFF. VERIFY EXACT LOCATION IN FIELD PRIOR TO ROUGH–IN. COORDINATE WITH WALL FINISH & TRIM DESIGN.
11. LOCATION OF REMOTE LED DRIVERS FOR SALES LED STRIP/WALLWASH LIGHTING, FITTING ROOM MIRRORS, AND FITTING ROOM VALANCE LIGHTING. APPROXIMATE QUANTITIES: SEE LIGHTING FIXTURE SCHEDULE ON SHEET E–121 FOR ADDITIONAL INFORMATION ABOUT LOCATION, LENGTH OF LED'S, AND ADDITIONAL REQUIREMENTS. MOUNT DRIVERS AT 10'–0" A.F.F. ON A PLYWOOD BACKBOARD. PROVIDE ALL WIRING FOR A COMPLETE AND OPERATIONAL SYSTEM. MINIMUM WIRE SIZE BETWEEN LIGHT FIXTURE AND LED DRIVER SHALL BE DETERMINED BY VOLTAGE DROP CALCULATIONS BY CONTRACTOR. IT IS THE ELECTRICAL CONTRACTOR'S RESPONSIBILITY TO PROPERLY CONNECT ALL LED LIGHTING PER C.E.C. AND PROVINCIAL CODES.
12. FURNISH AND INSTALL CEILING MOUNTED POWER PACK WITH DIMMING CAPABILITY (ACUITY NPP16–D).
13. FURNISH & INSTALL WALL MOUNTED, LOW VOLTAGE DIMMING SWITCH (ACUITY NPODM–DX) FOR MANUAL ON & MULTI–LEVEL CONTROL OF LIGHTING IN THIS AREA.
14. FURNISH AND INSTALL CEILING MOUNTED VACANCY SENSOR (ACUITY NCMB–PDT–10). VACANCY SENSORS SHALL AUTOMATCIALLY SHUT OFF LIGHTING WITHIN 20 MINUTES OF ALL OCCUPANTS LEAVING THE SPACE.
15. FURNISH AND INSTALL NEW EATON TRACKEEPER CURRENT LIMITING PANEL MODEL #: TK16–120–x–S. FURNISH AND INSTALL CURRENT LIMITING BREAKERS IN PANEL. SEE CURRENT LIMITING BREAKERS SCHEDULE ON SHEET E–012 FOR CIRCUITS AND CURRENT LIMITING BREAKER SIZES.
16. BREAK LINE FOR BREAKING TRACK INTO MULTIPLE CIRCUITS. COORDINATE EXACT LOCATION IN FIELD.
17. REFER TO COVE & VALENCE SCHEDULE ON THIS SHEET FOR ADDITIONAL INFORMATION ABOUT VOLTAGE DROP. MAX 30L/FT PER POWER FEED. TOTAL COMBINED LENGTH NOT TO EXCEED 54'–6" PER 300W DRIVER.
18. NOT USED.
19. NOT USED.
20. SPRING WOUND TIMED OVERRIDE SWITCH FOR MOP SINK EXHAUST FAN 'T2'. PROVIDE LABEL "EXHAUST FAN OVERRIDE".
21. EXIT SIGN TO BE MOUNTED AT HEIGHT NOT BLOCKED BY THE TRANSFORMER.

lululemon
1818 CORNWALL AVE.
VANCOUVER, B.C., V6J1C7

CF POLO PARK
1485 PORTAGE AVE, UNIT 144E
WINNIPEG, MB
R3G 0W5

ARCHITECT
BDP. Quadrangle
Quadrangle Architects Limited
8 Spadina Avenue, Suite 2100 Toronto, ON M5V 0S8
t 416 598 1240 www.bdpquadrangle.com

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[redacted]

DRAWING INFORMATION
PROJECT #: 23206
CHECKED BY: JG
DRAWN BY: SW

ELECTRICAL LIGHTING PLAN

DRAWING NUMBER
E120

LIGHTING FIXTURE SCHEDULE

NOTE: SEE ELECTRICAL SHEET E120 FOR LIGHTING SPECIFICATIONS

NAME & SYMBOL	PROCUREMENT	QTY	INSTALL	FIXTURE	LAMP	HEIGHT AFF	INSTALL DIRECTIONS / NOTES
D5 (WALL)	LLL	8	WALL MOUNTED	CORE LED LINEAR LSM-60-30K-PF-24V DC WITH LED DRIVER	LED 6.0 WATTS/FT 24V		MIRROR MILLWORK LIGHTS PROVIDED BY CSI
D6 (WALL)	LLL	2	WALL MOUNTED	WAC: WS-180327-30-BN	20 WATT LED	B/O FIXTURE @ 6'-6"	1 AT EACH TOILET ROOM MOUNTED ABOVE THE MIRROR AND CENTERED
FL	LLL	2	RECESSED	BROAN AE80L DELUXE FAN LIGHT COMBO	11 WATT LED	CEILING HT.	FAN LIGHT COMBO TO BE CENTERED IN ROOM; FAN: 27 WATT / 80 CFM
L4	LLL	1	SURFACE MOUNTED OR SUSPENDED	HUBBELL COLUMBIA MPS4-30LW-CW-EDU	35 WATT LED	12'-0" U.N.O. SURFACE MT AT BOH HALL	BACK OF HOUSE LED STRIP LIGHT, SUSPENDED UNO
L4-EM	LLL	3	SURFACE MOUNTED OR SUSPENDED	HUBBELL COLUMBIA MPS4-30LW-CW-EDU-ELL14	35 WATT LED	12'-0"	BACK OF HOUSE STRIP LIGHT WITH EM, SUSPENDED UNO
L8	LLL	3	SURFACE MOUNTED OR SUSPENDED	HUBBELL COLUMBIA MPS8-30LW-CW-EDU	69 WATT LED	12'-0"	BACK OF HOUSE LED STRIP LIGHT, SUSPENDED UNO
L8-EM	LLL	4	SURFACE MOUNTED OR SUSPENDED	HUBBELL COLUMBIA MPS8-30LW-CW-EDU-ELL14	69 WATT LED	12'-0"	BACK OF HOUSE STRIP LIGHT WITH EM, SUSPENDED UNO
L2 (WALL)	LLL	2	SURFACE MOUNTED	PHILIPS S7R830K10 SLIM SURFACE	LED 14.2 WATTS	7'-9" @ NETWORK CL. WALLS	
SF-L	LLL-V	232	PERFORATED PANEL ASSEMBLY	SLOAN POSTERBOX 3 - 'LONG' MODULE PROVIDE 1 POWER SUPPLYPER 10 MODULES: MEANWELL HLG-240H-24	14 WATTS	SEE A-410 STOREFRONT ELEVATION	MTD ALONG LONG SIDE OF BACK PAN RETURN OF PANEL ASSEMBLY
SF-S	LLL-V	0	PERFORATED PANEL ASSEMBLY	SLOAN POSTERBOX 3 - 'SHORT' MODULE PROVIDE 1 POWER SUPPLYPER 10 MODULES: MEANWELL HLG-240H-24	7.2 WATTS	SEE A-410 STOREFRONT ELEVATION	MTD ALONG LONG SIDE OF BACK PAN RETURN OF PANEL ASSEMBLY
LS2	LLL	REF RCP	SURFACE MOUNTED	CORE LED LINEAR (LSM-45-30K-PF-24V) WITH DIMMING LED DRIVER	LED 4.4 WATTS/FT 24V	12'-8" @ INDIRECT LIGHT COVE	MTD IN 6" W x 8"H COVE PROFILE BY GC WITH ALUM CHANNEL (ALP-65-48/96-FR-10-SI). REMOTE DRIVERS. SEE DETAILS 3&4/A-521
P1	LLL	1	SUSPENDED	LUMEN WERX - WHITE PENDANT RIMSP-XX-XX-ULO-LED90-MEDIUM OUTPUT-30-UNV-D1-1-RDB-W -POC-60IN-W	LED INCLUDED 7 W/LF	8'-6"	CUSTOM SIZE LEAD TIME 3-4 WEEKS, CUSTOM SIZES TO BE ROUNDED TO THE CLOSEST FT INCREMENT, DIMMABLE
R1	LLL	0	RECESSED	SOLAIS LIGHTING - WHITE x 1 SPOT XAR11/XM20/25C/30M/1500/WH/ WH/TS/010 MULTISPOT W/ 1 LAMP	22 WATTS/ HEAD	CEILING HT.	
R2-45	LLL	6	RECESSED	AMERLUX HORNET-SILVER x 2 SPOTS HP-R/SR-NC-FRAME-T-2-120-LE/TE HP-R-NC-TRIM-T-2-18-ST-120-277-MFL-MFL-309-LE/TE	18 WATTS/ HEAD TOTAL 36 WATTS	CEILING HT.	
R2S	LLL	5	RECESSED	AMERLUX HORNET - SILVER x 2 SPOTS HP-R/SR-NC-FRAME-T-2-120-LE/TE HP-R-NC-TRIM-T-2-18-ST-120-277-MFL-MFL-309-LE/TE	18 WATTS/ HEAD TOTAL 36 WATTS	CEILING HT.	
R3-45	LLL	4	SEMI-RECESSED	AMERLUX HORNET - WHITE x 3 SPOTS HP-R/SR-NC-FRAME-T-3-120-LE/TE HP-SR-NC-TRIM-T-3-18-WT-120-277-MFL-MFL-309-LE/TE	18 WATTS/ HEAD TOTAL 54 WATTS	CEILING HT.	
RWW	LLL	0	RECESSED	LUMENTURE - WHITE WALL WASH RWW160-30H-W-W	14W LED	CEILING HT.	BACK WRAP IF NO BRAND SCREEN AND GWB CEILING
RF1-S	LLL	4	RECESSED	PRESCOLITE LTR-4SQD-H-SL-10L-DM1-LTR-4SQD-T-SL-30K-9-XW-SS-WT 4" SQUARE DOWN LIGHT - WHITE TRIM	12 WATT LED	CEILING HT.	HALLWAY: NON-DIMMING FITROOMS: DIMMABLE
RF1-S-EM	LLL	2	RECESSED	PRESCOLITE LTR-4SQD-H-SL-10L-DM1-EM LTR-4SQD-T-SL-30K-9-XW-SS-WT 4" SQUARE DOWN LIGHT - WHITE TRIM	12 WATT LED	CEILING HT.	EM: PROVIDE 90 MIN BATTERY BACKUP HALLWAY: NON-DIMMING FITROOMS: DIMMABLE
RF1-SB	LLL	0	RECESSED BLACK	PRESCOLITE LTR-4SQD-H-SL-10L-DM1 LTR-4SQD-T-SL-30K-9-XW-SS-BT 4" SQUARE DOWN LIGHT - BLACK TRIM	12 WATT LED	CEILING HT.	
RF1-SB-EM	LLL	0	RECESSED BLACK	PRESCOLITE LTR-4SQD-H-SL-10L-DM1-EM LTR-4SQD-T-SL-30K-9-XW-SS-BT 4" SQUARE DOWN LIGHT - BLACK TRIM	12 WATT LED	CEILING HT.	PROVIDE 90 MIN BATTERY BACKUP
RW1	LLL	18	RECESSED	AMERLUX HORNET HDL-HP-S-NC-A17-T-12-120-0-10V HDL-HP-SLW-A17-T-MWW-309 3 1/2" SQUARE WALL WASH - WHITE	12 WATT LED	CEILING HT.	FITROOM WALL WASHERS DIMMABLE
RF3-S	LLL	1	RECESSED	PRESCOLITE LTR-4SQD-H-ML-20L-DM1 -LTR-4SQD-T-ML-30K-9-XW-SS-WT 4" SQUARE DOWN LIGHT - WHITE TRIM	23 WATT LED	CEILING HT.	HALLWAY: NON-DIMMING FITROOMS: DIMMABLE
RF3-S-EM	LLL	1	RECESSED	PRESCOLITE LTR-4SQD-H-ML-20L-DM-EM -LTR-4SQD-T-ML-30K-9-XW-SS-WT 4" SQUARE DOWN LIGHT - WHITE TRIM	23 WATT LED	CEILING HT.	EM: PROVIDE 90 MIN BATTERY BACKUP HALLWAY: NON-DIMMING FITROOMS: DIMMABLE
RF4	LLL	10	RECESSED	CON TECH RL38L-ICSA RF6L130KCE-PL LED DOWN LIGHT - WHITE TRIM	15W LED	CEILING HT.	STAFF ROOM RECESSED IN GWB CEILING
RF6	LLL	6	RECESSED SILVER TRIM	AMERLUX HORNET - SILVER TRIM HDL-HP-S-NC-A17-T-20-120-LE/TE HDL-HP-SA-A17-T-SLVS-MFL-309 3 1/2" SQUARE ADJUSTABLE LIGHT	20 WATT LED	CEILING HT.	WOOD PORTAL (DAMP RATED)
RF6-EM	LLL	4	RECESSED SILVER TRIM EMERGENCY	AMERLUX HORNET - SILVER TRIM HDL-HP-S-NC-A17-T-20-120-LE/TE HDL-HP-SA-A17-T-SLVS-MFL-309 3 1/2" SQUARE ADJUSTABLE LIGHT	20 WATT LED	CEILING HT.	AT WOOD PORTAL, PROVIDE 90 MIN BATTERY BACKUP (DAMP RATED)
RF5-IC	LLL	0	RECESSED SILVER TRIM IC/DAMP RATED	AMERLUX HORNET - SILVER TRIM HDL-HP-S-IC-A17-T-18-120/277-LE/TE HDL-HP-SA-A17-T-SLV-MFL-309 3 1/2" SQUARE ADJUSTABLE PIN LIGHT	20 WATT LED	CEILING HT.	AT WOOD PORTAL, WHERE IC RATING IS REQUIRED
T1	LLL	REF RCP	RECESSED	CON TECH LT-4-P, LT-6-P, LT8-P, LT-12-P, 1 CIRCUIT WHITE TRACK, SURFACE MOUNT WHEN RECESSED IN CEILING TROUGH, OTHERWISE RECESS INTO GWB CEILING, PROVIDE FRY REGLET DRYWALL REVEAL MOLDING DRM-625-150	-	CEILING HT.	TRACK TO BE RECESSED INTO GWB CEILING OR SURFACE MOUNTED AT GWB TROUGH. SEE PLANS FOR LENGTHS, PATTERNS, AND QTYS
T2	LLL	REF RCP	SUSPENDED	CON TECH LT-4-P, LT-6-P, LT8-P, LT-12-P, 1 CIRCUIT SUSPENDED WHITE TRACK	-	SUSPENDED 12'-0"	HANG FROM STRUCTURE, VERIFY MOUNTING WITH DESIGNER PRIOR TO INSTALL. SEE PLANS FOR LENGTHS, PATTERNS, AND QUANTITIES
T4	LLL	REF RCP	SUSPENDED	CON TECH LT-4-B, LT-6-B, LT8-B, LT-12-B, 1 CIRCUIT SUSPENDED BLACK TRACK	-	SUSPENDED 12'-0"	HANG FROM STRUCTURE, VERIFY MOUNTING WITH DESIGNER PRIOR TO INSTALL. SEE PLANS FOR LENGTHS, PATTERNS, AND QUANTITIES
TL1	LLL	0	TRACK MOUNTED	LUMENTURE T65-1500-30H-25-W-J WHITE TRACK HEAD - SPOT WITH T65-SNW SNOOT	18W LED	TRACK MOUNTED	SEE PLANS FOR DIRECTION SET IN FIELD
TL2	LLL	223	TRACK MOUNTED	LUMENTURE T80-2000-30H-40-W-J WHITE TRACK HEAD - FLOOD	22W LED	TRACK MOUNTED	SEE PLANS FOR DIRECTION SET IN FIELD
TL3	LLL	84	TRACK MOUNTED	LUMENTURE T65-1500-30H-25-B-J BLACK TRACK HEAD - SPOT WITH T65-SNB SNOOT	18W LED	TRACK MOUNTED	SEE PLANS FOR DIRECTION SET IN FIELD
TL4	LLL	37	TRACK MOUNTED	LUMENTURE T65-1500-30H-40-B-J BLACK TRACK HEAD - FLOOD	18W LED	TRACK MOUNTED	SEE PLANS FOR DIRECTION SET IN FIELD
TL5	LLL	32	TRACK MOUNTED	LUMENTURE TWW160-30H-1600-B-J TRACK HEAD - BLACK WALL WASHER	17W LED	TRACK MOUNTED	DIRECT TOWARDS WALL
TL6	LLL	0	TRACK MOUNTED	LUMENTURE TWW160-30H-1600-W-J TRACK HEAD - WHITE WALL WASHER	17W LED	TRACK MOUNTED	DIRECT TOWARDS WALL
TL7	LLL	33	TRACK MOUNTED	LUMENTURE TWW160-30H-1600-W-J TRACK HEAD - WHITE STEM WALL WASH	17W LED	TRACK MOUNTED	DIRECT TOWARDS WALL
EX1	LLL	7	RECESSED	EMERGI-LITE EDE SERIES W/ ARROWS AS SHOWN ON DRAWINGS EDE-X-W-A-UI	3.5 WATTS	13'-0" MAX	USE THIS SPEC FOR ALL CANADA PROJECTS
EX2	LLL	2	SUSPENDED	EMERGI-LITE EA SERIES W/ ARROWS AS SHOWN ON DRAWINGS EA-3-W-I	3 WATTS	13'-0" MAX	USE THIS SPEC FOR ALL CANADA PROJECTS
EX3-CA (WALL)	LLL	3	SURFACE MOUNTED OR SUSPENDED	EMERGI-LITE EA SERIES W/ ARROWS AS SHOWN ON DRAWINGS EA-X-W-I	3 WATTS	8'-0" TYP 13'-0" MAX SEE ELEVS	USE THIS SPEC FOR ALL CANADA PROJECTS
EX1-CA	LLL	3	SURFACE MOUNTED OR SUSPENDED	EMERGI-LITE EDE-X-W-F-UI SINGLE FACE EXIT	3.5 WATTS	13'-0" MAX	USE THIS SPEC FOR ALL CANADA PROJECTS
EX2-CA	LLL	0	SURFACE MOUNTED OR SUSPENDED	EMERGI-LITE EDE-X-W-F-UI UNIVERSAL EXIT	3 WATTS	13'-0" MAX	USE THIS SPEC FOR ALL CANADA PROJECTS
EM-CAN	LLL	1	SURFACE MOUNTED OR SUSPENDED	ELM6L-UVOLT-LTP-SDRT SUPPLY RIGID CONDUIT FOR SUSPENSION AS REQUIRED	10.6 WATTS	14'-0" TYP	USE THIS SPEC FOR CANADA PROJECTS WITH P-7 (LIGHT) OPEN TO DECK
EM-CANB	LLL	0	SURFACE MOUNTED OR SUSPENDED	ELM6L-B-UVOLT-LTP-SDRT SUPPLY RIGID CONDUIT FOR SUSPENSION AS REQUIRED	10.6 WATTS	14'-0" TYP	USE THIS SPEC FOR ALL CANADA PROJECTS WITH P-1 (DARK) OPEN TO DECK
EM1	LLL	13	RECESSED	ISOLITE: MIGN2-SQ-WH-MR-L	9 WATTS	CEILING HT.	USE THIS SPEC FOR GWB CEILINGS AT SALES
EM2 (WALL)	LLL	0	SUSPENDED	DUAL LITE EV-2 WHITE ON STEM	2X 1W LED	14' - 0" TYP	USE THIS SPEC FOR PROJECTS WITH P-7 (LIGHT) OPEN TO DECK
EM2B (WALL)	LLL	0	SUSPENDED	LITHONIA LIGHTING ELM6L-B-UVOLT-LTP-SDRT-HO	2X 1W LED	14' - 0" TYP	USE THIS SPEC FOR PROJECTS WITH P-1 (LIGHT) OPEN TO DECK
EM3 (WALL)	LLL	1	SURFACE MOUNTED	LITHONIA LIGHTING ELM6L-UVOLT-LTP-SDRT-HO	2X 1W LED	8' - 0" AFF	BUG EYE EMERGENCY LIGHT
EM3B (WALL)	LLL	0	SURFACE MOUNTED	EMERGILITE JMLA SERIES 12JMLA-44-BK/2 MW BLACK	2X 1W LED	8' - 0" AFF	BUG EYE EMERGENCY LIGHT

LIGHTING FIXTURE SCHEDULE NOTES:

A. PLEASE CONTACT CS ILLUMINATION FOR ALL LIGHTING PURCHASES & QUESTIONS. MICHELE MCBRIDE 760.477.1244 EXT. 215 OR MMCBRIDE@CSILLUMINATION.COM

B. ALL FIXTURES ARE TO BE FURNISHED BY OWNER'S VENDOR, INSTALLED BY GC, UNLESS NOTED OTHERWISE.

C. CONTRACTORS SHALL CONFORM TO ALL APPLICABLE LOCAL, PROVINCIAL AND NATIONAL CODES.

D. ALL FIXTURES SHALL BE ULC LISTED.

E. ALL FIXTURES SHALL BE INSTALLED PER MANUFACTURER SPECIFICATIONS.

F. DO NOT SCALE DRAWINGS. FIELD VERIFY ALL DIMENSIONS. NOTIFY ARCHITECT OF AND DISCREPANCIES.

lululemon
1818 CORNWALL AVE.
VANCOUVER, B.C., V6J1C7

CF POLO PARK
1485 PORTAGE AVE, UNIT 144E
WINNIPEG, MB
R3G 0W5

ARCHITECT
BDP. Quadrangle
Quadrangle Architects Limited
8 Spadina Avenue, Suite 2100 Toronto, ON M5V 0S8
t 416 598 1240 www.bdpquadrangle.com

MEP ENGINEER
THOMAS A. FEKETE LTD.
7181 WOODBINE AVE UNIT 229
MARKHAM ONTARIO L3R 1A3
PH.: (905) 946 4260 FAX: (905) 946 0901
JOB #: 23061

PROVINCE OF MANITOBA
Z.H. GUO
Member
45105
REGISTERED PROFESSIONAL ENGINEER
06/09/2023

APEGM
Certificate of Authorization
Thomas A. Fekete Ltd.
No. 5075 Date: 06/09/2023

ISSUED FOR CONSTRUCTION

07/14/2023

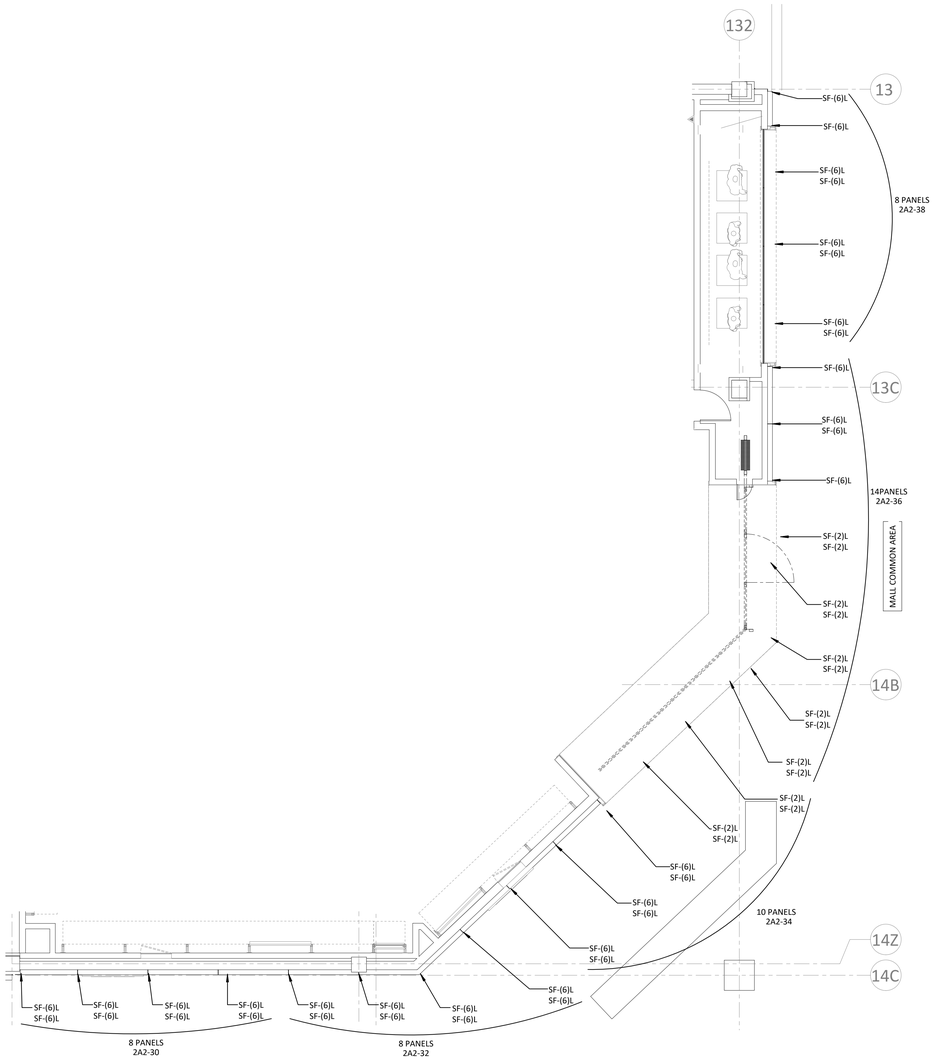
△ DATE	DESCRIPTION
06/07/2023	ISSUED FOR COORDINATION
06/09/2023	ISSUED FOR PERMIT/ CONSTRUCTION
06/09/2023	ISSUED FOR BID
07/13/2023	ISSUED FOR COORDINATION
07/14/2023	ISSUED FOR CONSTRUCTION

[redacted]

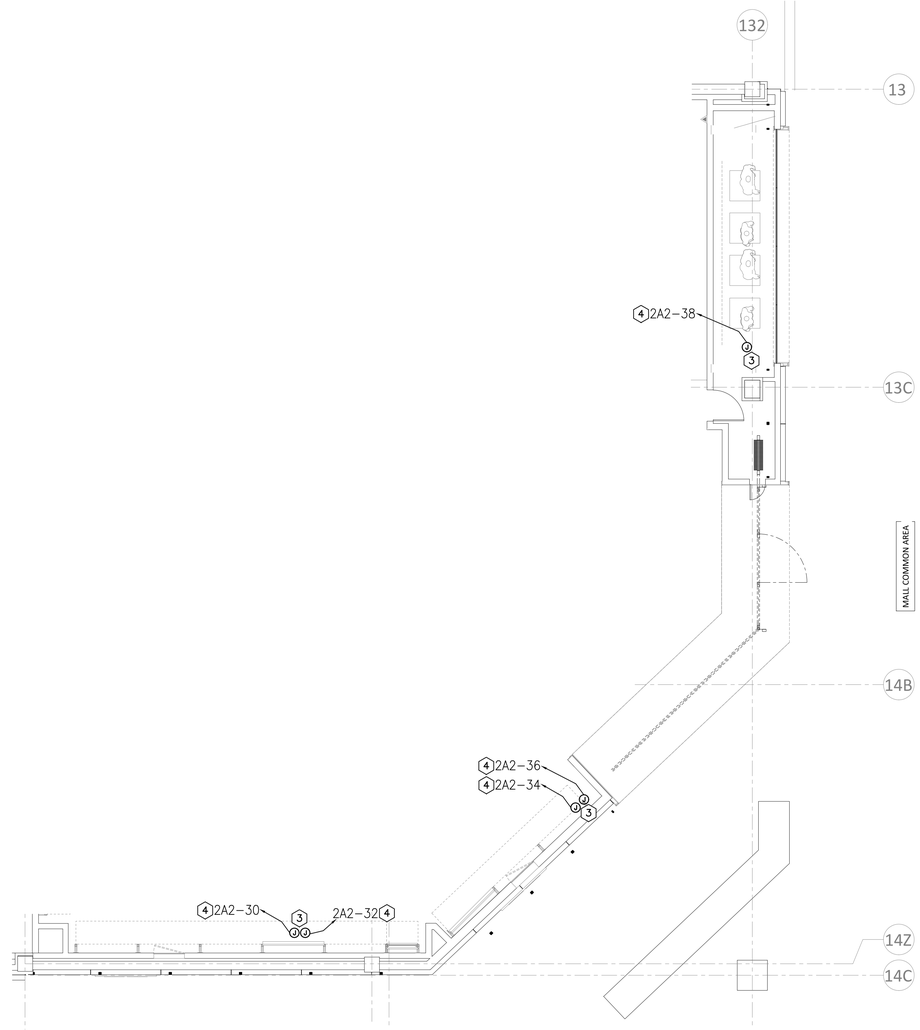
DRAWING INFORMATION
PROJECT #: 23206
CHECKED BY: JG
DRAWN BY: SW

ELECTRICAL LIGHTING LEGEND

DRAWING NUMBER
E121



1 **STOERFRONT LIGHTING PLAN**
SCALE: 1/4" = 1'-0"



2 **STOREFRONT POWER PLAN**
SCALE:1/4" = 1'-0"

STORE FRONT PLAN KEYNOTES:

1 LIGHTING CIRCUIT:
CIRCUIT VIA MASTER LIGHTING SWITCH BANK AND TIME CLOCK / CONTACTORS. REFER TO DETAIL "1" AND "2" ON SHEET E-012.

2 LIGHT FOR ILLUMINATED STOREFRONT LIGHTING PANELS. REFER TO SHEET E-110 FOR CIRCUITING. COORDINATE QUANTITIES WITH ARCHITECTURAL DETAIL PLANS. REFER TO SHEET E-120-X1 FOR ADDITIONAL INFORMATION.

3 STOREFRONT LIGHTING PANELS CIRCUIT:
PROVIDE JUNCTION BOX AND DISCONNECT TOGGLE TYPE SWITCH WITH MINIMUM 12' WHIP CONNECTION FOR CONNECTION BY OTHERS TO THE STORE FRONT LIGHTING PANELS PER C.E.C. LOCATE ABOVE CEILING NEAR ACCESS PANEL IN CONCEALED LOCATION. CIRCUIT THRU TIME CLOCK AND POWER PANEL AS INDICATED. SEE SHEET E-012 FOR ADDITIONAL INFORMATION. CONFIRM CONTROL CRITERIA REQUIREMENTS WITH LANDLORD.

4 CONTROLLED CIRCUIT: CIRCUIT VIA MASTER LIGHTING SWITCH BANK AND/OR CONTACTOR. REFER TO DETAIL "1" AND "2" ON SHEET E-012.

ILLUMINATED STOREFRONT LIGHTING FIXTURE SCHEDULE

NAME	FIXTURE	LAMP	HEIGHT (AFF)	INSTALL	INSTALL DIRECTIONS / NOTES
SF-L	SLOAN POSTERBOX 3 – "LONG" MODULE 14 WATTS PROVIDE (1) POWER SUPPLYPER 10 MODULES: MEANWELL HLG 240H 24	14 WATT LED	SEE A-410 STOREFRONT ELEVATION	PERFORATED PANEL ASSEMBLY	MTD ALONG LONG SIDE OF BACK PAN RETURN OF PANEL ASSEMBLY
SF-S	SLOAN POSTERBOX 3 – "SHORT" MODULE 7.2 WATTS PROVIDE 1 POWER SUPPLYPER 10 MODULES: MEANWELL HLG 240H 24	7.2 WATT LED	SEE A-410 STOREFRONT ELEVATION	PERFORATED PANEL ASSEMBLY	MTD ALONG LONG SIDE OF BACK PAN RETURN OF PANEL ASSEMBLY

lululemon
1818 CORNWALL AVE.
VANCOUVER, B.C., V6J1C7

CF POLO PARK
1485 PORTAGE AVE, UNIT 144E
WINNIPEG, MB
R3G 0W5

ARCHITECT

BDP Quadrangle
Quadrangle Architects Limited
Bay-Adelaide Centre, East Tower, Toronto, ON M5V 0S8
t 416 598 1240 www.bdpquadrangle.com

MEP ENGINEER

THOMAS A. FEKETE LTD.
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MARKHAM ONTARIO L3R 1A3
PH.: (905) 946 4260 FAX: (905) 946 0901

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No. 5075 Date: 06/09/2023

ISSUED FOR CONSTRUCTION

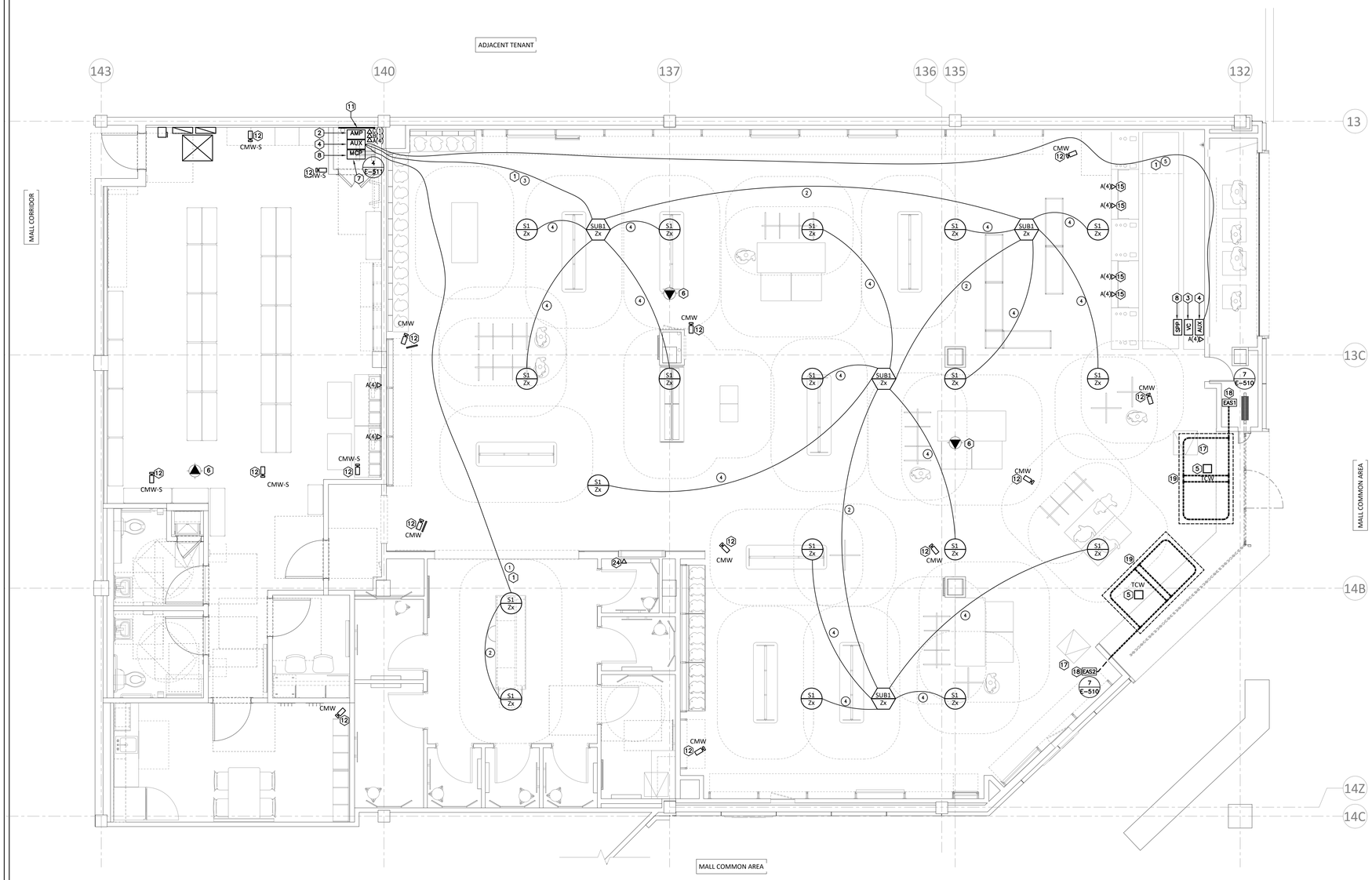
07/14/2023

△	DATE	DESCRIPTION
	06/07/2023	ISSUED FOR COORDINATION
	06/09/2023	ISSUED FOR PERMIT/ CONSTRUCTION
	06/09/2023	ISSUED FOR BID
	07/13/2023	ISSUED FOR COORDINATION
	07/14/2023	ISSUED FOR CONSTRUCTION

DRAWING INFORMATION
PROJECT #: 23206
CHECKED BY: JG
DRAWN BY: SW

ELECTRICAL STOREFRONT PLAN

DRAWING NUMBER
E122



1 **ELECTRICAL LOW VOLTAGE PLAN**
SCALE: 1/4" = 1'-0"

SPEAKER SYSTEM SYMBOL LEGEND

SYMBOL	FIXTURE	INSTALL DIRECTIONS/NOTES
S1 Zx	SPEAKER S# = SPEAKER TYPE Z# = SPEAKER ZONE	S1 = 6.2" DIA., WHITE, FLUSH RECESSED MOUNTED S2 = 6.2" DIA., WHITE, SUSPENDED S3 = 6.2" DIA., BLACK, SUSPENDED S4 = 7.2" DIA., WHITE, FLUSH RECESSED MOUNTED S5 = 5.9" DIA., WHITE, SUSPENDED S6 = 5.9" DIA., BLACK, SUSPENDED Z1 = SALES AREA Z2 = FITTING ROOM AREA CONNECT TO J-BOX AT DECK FOR ALL SPEAKERS. ALL PENDANT SPEAKERS SHALL BE AT 14'-0" AFF.
SUB1 Zx	SUBWOOFER SUB# = SUBWOOFER TYPE Z# = SUBWOOFER ZONE	SUB1 = 15.4" DIA., WHITE, FLUSH RECESSED MOUNTED SUB2 = 15.4" DIA., WHITE, SUSPENDED SUB3 = 15.4" DIA., BLACK, SUSPENDED SUB4 = 15.7", BLACK, SUSPENDED Z1 = SALES AREA Z2 = FITTING ROOM AREA ALL PENDANT SUBWOOFERS SHALL BE AT 14'-0" AFF.
AMP	AMPLIFIER	LOCATED IN NETWORK RACK
AUX	RCA BALUN WALL PLATE AUXILIARY INPUT	LOCATED IN BACKWRAP
VC	VOLUME CONTROLLER	LOCATED IN BACKWRAP
1	ONE (1) PAIR 18/2 SPEAKER WIRE (HOME RUN FROM SPEAKER TO AMP)	
2	ONE (1) PAIR 18/2 SPEAKER WIRE (HOME RUN FROM SPEAKER TO SPEAKER)	
3	ONE (1) PAIR 18/2 SPEAKER WIRE (HOME RUN FROM SUBWOOFER TO AMP)	
4	ONE (1) PAIR 18/2 SPEAKER WIRE (HOME RUN FROM SUBWOOFER TO SPEAKER)	
5	THREE (3) CAT6 (TO BACK WRAP) (TWO (2) VOLUME/ ONE (1) RCA WALL PLATE)	

LOW VOLTAGE SYMBOL LEGEND

SYMBOL	FIXTURE	INSTALL DIRECTIONS/NOTES
CMW CMW-S CMB CMB-S	SECURITY CAMERA	CMW = WHITE, SURFACE MOUNTED CMW-S = WHITE, SUSPENDED CMB = BLACK, SURFACE MOUNTED CMB-S = BLACK, SUSPENDED PENDANT MOUNT CAMERA JUNCTION BOX AT 12'-0" AFF. WHEN CEILING IS LOWER THAN 12'-0" AFF., FLUSH MOUNT J-BOX WITHIN CEILING.
TC	TRAFFIC COUNTER	WALL/CEILING MOUNTED (16'-0" A.F.F. MAX)
WAP	WIRELESS ACCESS POINT	WAP = WHITE WAP-B = BLACK PENDANT MOUNT WAP JUNCTION BOX AT 16'-0" AFF. WHEN CEILING IS LOWER THAN 16'-0" AFF. FLUSH MOUNT J-BOX WITHIN CEILING. VERIFY EXACT LOCATION IN FIELD.
SCP	SECURITY MAIN CONTROL PANEL	MOUNTED ON TELEPHONE BOARD
SPP	SECURITY PINPAD	LOCATED IN BACKWRAP
EAS	EAS CONTROLLER	LOCATED IN ACCESSIBLE CEILING / VOID SPACE AT STOREFRONT
ASB	EAS CAPACITOR BOARD ENCLOSURE	LOCATED IN ACCESSIBLE CEILING / VOID SPACE AT STOREFRONT
VCV	VIDEO PRESENTER AUXILIARY INPUT WALL PLATE	LOCATED IN BACKWRAP

DATA DEVICE SYMBOL LEGEND

RJ45	RJ45 CAT6 JACK
RJ31X	RJ31X JACK
SMART	SMART JACK
RJ45 SHIELDED	RJ45 SHIELDED CAT6 JACK

GENERAL LOW VOLTAGE NOTES

A. ALL LOW VOLTAGE WIRING SHALL ONLY BE IN CONDUIT IN WALLS AND AT DROP LOCATIONS, UNLESS REQUIRED BY CODE.

B. ALL EXPOSED LOW VOLTAGE WIRING SHALL BE PLENUM RATED CABLE AND SHALL MATCH CEILING COLOR, UON. INSTALL EXPOSED CABLE PARALLEL AND PERPENDICULAR TO SURFACES OR EXPOSED STRUCTURAL MEMBERS, AND FOLLOW SURFACE CONTOURS, WHERE POSSIBLE. CABLE SHALL NOT BE RUN THROUGH STRUCTURAL MEMBERS OR IN CONTACT WITH PIPES, DUCTS, OR OTHER POTENTIALLY DAMAGING ITEMS.

C. SECURE AND SUPPORT CABLE AT INTERVALS NOT EXCEEDING 60 INCHES AND NOT MORE THAN 6 INCHES FROM CABINETS, BOXES, FITTINGS, OUTLETS, RACKS, FRAMES, AND TERMINALS.

D. ALL CONDUIT, WHERE REQUIRED BY CODE, WILL BE 3/4" EMT AND ROUTED UP TO DECK UNLESS NOTED OTHERWISE.

E. ALL CONDUIT, WHERE REQUIRED BY CODE, IS TO BE RUN IN NEAT AND ORDERLY GROUPS.

F. ALL CONDUITS SHALL HAVE POLY PULL STRING INSTALLED AND TIED AT EACH END.

G. CONDUIT FOR DATA/TELEPHONE OUTLETS, WHERE REQUIRED BY CODE, SHALL HAVE NO MORE THAN THREE 90° BENDS. IF THE CONDUIT RUN REQUIRES MORE THAN THREE 90° BENDS, PROVIDE A PULL/JUNCTION BOX AFTER EACH SET OF THREE 90° BENDS.

H. INSTALL CABLE USING TECHNIQUES, PRACTICES, AND METHODS THAT ARE CONSISTENT WITH THE RATING OF COMPONENTS, AND TEST EACH LOW VOLTAGE CABLE TO ENSURE THE PERFORMANCE OF COMPLETED AND LINKED SIGNAL PATHS, END TO END. ANY CABLES THAT ARE KINKED, HAVE A BROKEN CABLE SHEATH, DAMAGED DURING INSTALLATION, OR FAIL TESTING MUST BE REPLACED AT NO ADDITIONAL COST TO OWNER. THE OWNER RESERVES THE RIGHT TO HAVE A REPRESENTATIVE PRESENT DURING ALL OR A PORTION OF THE TESTING PROCESS.

I. INSTALL A MINIMUM 10-FOOT LONG SERVICE LOOP ON EACH CABLE.

J. MAINTAIN SEPARATION OF WIRES FOR UNSHIELDED COPPER COMMUNICATION CABLES FROM POTENTIAL EMI SOURCES, INCLUDING ELECTRICAL POWER WIRING AND EQUIPMENT. COORDINATE EXACT REQUIREMENTS WITH SYSTEM VENDOR.

K. ALL TELEPHONE JACKS ARE BY OTHERS.

L. DEPENDING ON SERVICE AVAILABILITY, SOME STORES WILL HAVE EITHER CABLE OR DSL INTERNET SERVICE, NOT BOTH.

M. REFER TO SHEET A-170 FOR SPEAKER, CAMERA, WAP AND TRAFFIC COUNTER LOCATION DIMENSIONS. COORDINATE EXACT LOCATION FOR HEAD-END SYSTEM EQUIPMENT.

N. ALL CONDUIT SHALL BE INSTALLED AND SECURED TO SUPPORT WEIGHT OF INTENDED SPEAKER.

O. SPEAKER WIRING JUNCTION BOX SHALL BE FULLY ACCESSIBLE.

P. ALL COMPONENTS SHALL BE CONNECTED TO AN AC SURGE PROTECTOR STRIP.

CODED LOW VOLTAGE NOTES

1. HOME RUN(S) FROM AMPLIFIER TO SUBWOOFER AS SHOWN ON PLAN. PROVIDE SPEAKER WIRE / 3/4" CONDUIT ROUTED FROM AMPLIFIER TO SUBWOOFER / SPEAKERS AS DIRECTED BY SPEAKER VENDOR. VERIFY ALL REQUIREMENTS WITH SPEAKER VENDOR, AS REQUIRED.
2. MUSIC SYSTEM AMPLIFIER LOCATED IN NETWORK RACK.
3. PROVIDE ONE (1) DOUBLE GANG JUNCTION BOX FOR ZONE 1 AND ZONE 2 VOLUME CONTROLLERS. PROVIDE 3/4" CONDUIT FROM VOLUME CONTROLLER JUNCTION BOX WIRING FROM AMPLIFIER TO VOLUME CONTROL AS DIRECTED BY SPEAKER VENDOR- TWO (2) CAT6 CABLES. VERIFY EXACT LOCATIONS WITH MILLWORK CONTRACTOR.
4. PROVIDE (2) SINGLE GANG JUNCTION BOXES FOR RCA WALL INPUT FOR PORTABLE MUSIC PLAYER AT BACKWRAP AND AMP INPUT IN NETWORK CLOSET. ROUTE 3/4" CONDUIT FROM JUNCTION BOX AT BACKWRAP TO JUNCTION BOX AT AMP WITH ONE (2) CAT6 DATA WIRE. VERIFY EXACT LOCATION OF THE RCA JUNCTION BOX WITHIN NETWORK CLOSET WITH SPEAKER VENDOR PRIOR TO ROUGH-IN.
5. STOREFRONT HEADCOUNT THERMAL SENSOR. CONFIRM EXACT LOCATION WITH ARCHITECT. SURFACE MOUNTED AT HARDLID CEILINGS LESS THAN 16'-0" AFF, AND SIDE-MOUNTED ON SOFFITS: RUN DATA CABLE OUT OF SMALL HOLE CEILING FINISHES. DEVICE TO MOUNT DIRECTLY TO SURFACE. AT OPEN CEILINGS AND CEILINGS ABOVE 16'-0" AFF: PROVIDE OCTAGONAL JUNCTION BOX AT DECK AND EXTEND 3/4" CONDUIT VERITCALLY DOWN TO ANOTHER OCTAGONAL BOX AT 12'-0" AFF".
6. WIRELESS ACCESS POINT (WAP):
   PROVIDE JUNCTION BOX AT DECK, EXTEND 3/4" CONDUIT TO SQUARE JUNCTION BOX AT 16'-0" AFF.
7. NETWORK LADDER LOCATION. VERIFY ALL REQUIREMENTS WITH LOW VOLTAGE VENDOR AS REQUIRED.
8. PROVIDE ROUGH-IN JUNCTION BOXES FOR SECURITY DEVICES AT MAX. 42" A.F.F. SECURITY DEVICES AND WIRING BY OTHERS. VERIFY EXACT LOCATIONS WITH MILLWORK CONTRACTOR.
9. PROVIDE JUNCTION BOX 54" AFF, PLASTER RING, AND 1/2" CONDUIT WITH PULL STRING FROM TEMPERATURE SENSOR TO THERMOSTAT. FINAL CONNECTION BY MECHANICAL CONTRACTOR.
10. PROVIDE 1" CONDUITS IN OR UNDER SLAB AND ROUTE CONCEALED IN WALL UP TO DECK AND BACK TO IT CLOSET FOR FUTURE USE WITH PULL STRINGS. REFER TO SHEET E-110 FOR ADDITIONAL POWER CONDUITS AT THIS AREA. COORDINATE WITH LANDLORD FOR SLAB TRENCHING REQUIREMENTS. REFER TO DETAIL "1" ON SHEET E-510 FOR ADDITIONAL INFORMATION.
11. PROVIDE FIRE-RATED PLYWOOD TELEPHONE BACKBOARD. EXTEND ANY EXISTING CONDUIT TO THIS LOCATION FOR TELEPHONE SERVICE. COORDINATE WITH LANDLORD AND OWNER REPRESENTATIVE. REFER TO DETAIL "4" ON SHEET E-511 FOR BACKBOARD SIZE AND ADDITIONAL INFORMATION.
12. PROVIDE JUNCTION BOX FOR FUTURE USE FOR SECURITY CAMERAS. AT HARDLIDS: PROVIDE OCTAGONAL JUNCTION BOX. DEVICE MOUNTS DIRECTLY TO JUNCTION BOX. AT OPEN CEILING: PROVIDE OCTAGONAL JUNCTION BOX AT DECK WITH SWIVEL-MOUNT VERTICAL 3/4" CONDUIT DOWN TO 12'-0" AFF". DEVICE MOUNTS DIRECTLY TO CONDUIT.
13. REFER TO MOUNTING DETAILS ON ARCHITECT'S DETAIL DRAWINGS FOR ADDITIONAL INFORMATION.
14. ~~DATA OUTLET FOR DIGITAL FIXTURE. COORDINATE EXACT LOCATION WITH ARCHITECT.~~
15. DATA OUTLET FOR POINT OF SALE (POS) STATION.
16. ~~FIRE ALARM PANEL. COORDINATE FINAL LOCATION WITH FIRE/SAFETY CONTRACTOR PRIOR TO ROUGH-IN.~~
17. ACCESS PANEL BY GC TO BE USED AS ACCESS TO EQUIPMENT LOCATED ABOVE CEILING OR WALL CAVITY.
18. ELECTRONIC ARTICLE SURVEILLANCE (EAS) EQUIPMENT. REFER TO DETAIL FOR ADDITIONAL INFORMATION.
19. ELECTRONIC ARTICLE SURVEILLANCE (EAS) ANTENNAS. REFER TO DETAIL FOR ADDITIONAL INFORMATION.
20. ~~PROVIDE ONE (1) SINGLE GANG JUNCTION BOX FOR AUXILIARY VIDEO PRESENTER CONNECTION. PROVIDE 3/4" CONDUIT AND PULL STRING FROM VIDEO PRESENTER JUNCTION BOX TO NETWORK CLOSET. VERIFY EXACT LOCATIONS WITH MILLWORK CONTRACTOR~~
21. DATA OUTLET FOR INTERACTIVE MIRROR FIXTURE. COORDINATE EXACT LOCATION WITH ARCHITECT.
22. ~~PROVIDE 1" CONDUITS IN OR UNDER SLAB AND ROUTE CONCEALED IN WALL UP TO DECK AND BACK TO IT CLOSET FOR FUTURE USE WITH PULL STRINGS. REFER TO SHEET E-110 FOR ADDITIONAL POWER CONDUITS AT THIS AREA. COORDINATE WITH LANDLORD FOR SLAB TRENCHING/CORING REQUIREMENTS.~~
23. ~~BUZZER SYSTEM: INSTALL A DELIVERY BUZZER SYSTEM AS SHOWN ON DRAWINGS. REFER TO DETAIL "5" ON SHEET E-510.~~
24. DATA FOR FUTURE DIGITAL FIXTURE AT COMMUNITY WALL LOCATED ABOVE CEILING AT ACCESS PANEL NEAR AMBASSADOR FIXTURE. FURNISH AND INSTALL 6" WHIP ABOVE CEILING.

lululemon
1818 CORNWALL AVE.
VANCOUVER, B.C., V6J1C7

CF POLO PARK
1485 PORTAGE AVE, UNIT 144E
WINNIPEG, MB
R3G 0W5

ARCHITECT
DDP Quadrangle
Quadrangle Architects Limited
155 Wellington Street West, Toronto, ON M5V 0S8
t 416 598 1240 www.ddpquadrangle.com

MEP ENGINEER
THOMAS A. FEKETE LTD.
7181 WOODBINE AVE UNIT 229
MARKHAM ONTARIO L3R 1A3
PH.: (905) 946 4260 FAX: (905) 946 0901
JOB #: 23061

PROVINCE OF MANITOBA
Z.H. GUO
Member
45105
REGISTERED PROFESSIONAL ENGINEER
06/09/2023

APEGM
Certificate of Authorization
Thomas A. Fekete Ltd.
No. 5075 Date: 06/09/2023

ISSUED FOR CONSTRUCTION

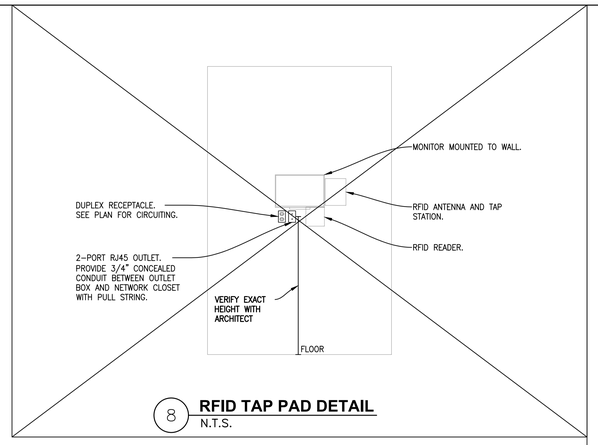
07/14/2023

△	DATE	DESCRIPTION
	06/07/2023	ISSUED FOR COORDINATION
	06/09/2023	ISSUED FOR PERMIT/ CONSTRUCTION
	06/09/2023	ISSUED FOR BID
	07/13/2023	ISSUED FOR COORDINATION
	07/14/2023	ISSUED FOR CONSTRUCTION

DRAWING INFORMATION
PROJECT #: 23206
CHECKED BY: JG
DRAWN BY: SW

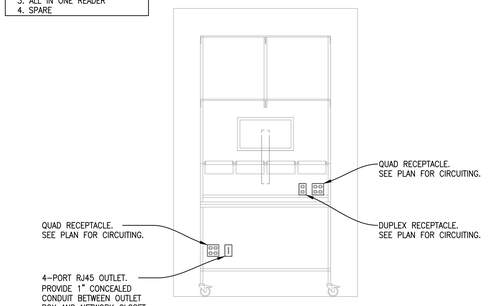
ELECTRICAL LOW VOLTAGE PLAN

DRAWING NUMBER
E130



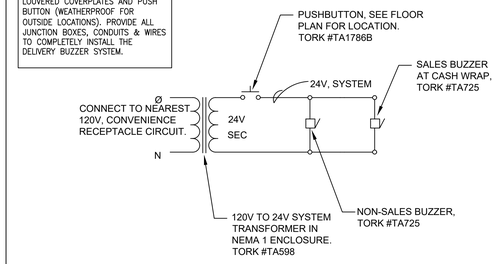
8 RFID TAP PAD DETAIL
N.T.S.

DATA DEVICES AT RECEIVING DESK
1. SPARE
2. SPARE
3. ALL IN ONE READER
4. SPARE



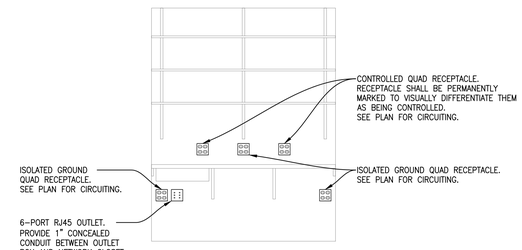
6 RECEIVING DESK DETAIL
N.T.S.

FURNISH AND INSTALL A COMPLETE DELIVERY BUZZER SYSTEM COMPLETE WITH TRANSFORMER, BUZZERS, LOUVERED COVERPLATES AND PUSH BUTTON (WEATHERPROOF FOR OUTSIDE LOCATIONS). PROVIDE ALL JUNCTION BOXES, CONDUITS & WIRES TO COMPLETELY INSTALL THE DELIVERY BUZZER SYSTEM.



5 DELIVERY BUZZER SCHEMATIC
N.T.S.

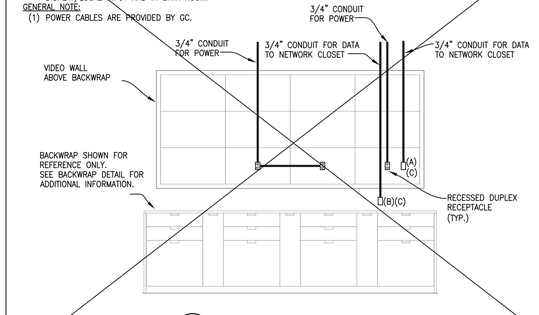
DATA DEVICES AT MANAGER'S DESK
1. OFFICE PC#1
2. SPARE
3. DECT CORDLESS PHONE (ANALOG)
4. VoIP DESK PHONE
5. OFFICE PRINTER
6. SPARE



4 MANAGER DESK DETAIL
N.T.S.

NOTE:
(A) TWO (2) CAT6 CABLES– LABEL AS "AV W1" AND "AV W2".
(B) ONE (1) CAT 6 CABLE– LABEL AS "AV LI 3".
(C) WALL PLATES NOT REQUIRED. PROVIDE TERMINATED CABLE AT EACH LOCATION WITH SHIELDED PLUG AND 6" SERVICE WHIPS AT DISPLAY/LOCAL INPUT AND IN DATA ROOM.

GENERAL NOTE:
(1) POWER CABLES ARE PROVIDED BY GC.

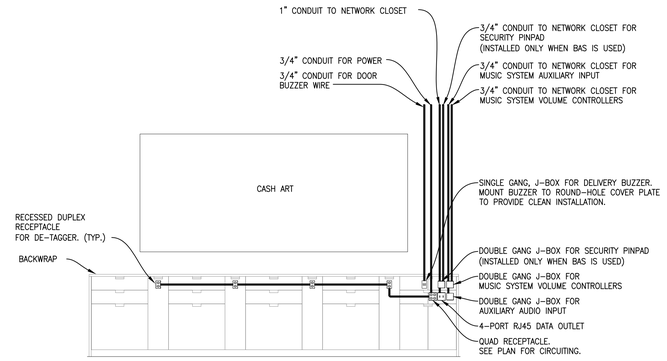


3 VIDEO WALL DETAIL
N.T.S.

DETAIL FOR ELECTRICAL CONNECTION INFORMATION ONLY. SEE ARCHITECTURAL DRAWINGS FOR BACKWRAP ORIENTATION.

REFER TO BACKWRAP MILLWORK SHOP DRAWINGS FOR ADDITIONAL INFORMATION

MAIN PHONE LINE SHOULD BE DOUBLE PUNCHED (1) TO CASH DESK AND (1) TO MANAGER'S DESK

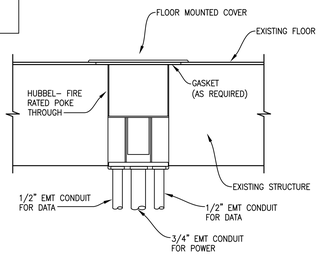


2 BACKWRAP DETAIL- NO BRAND SCREEN
N.T.S.

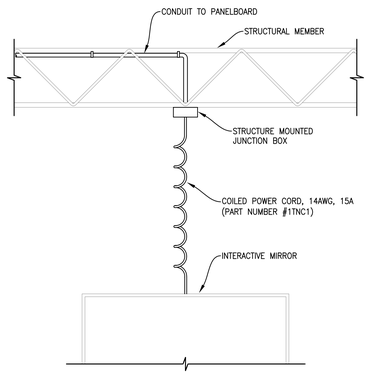
COVER:
ST84CVRALU OR EQUAL
BRUSHED ALUMINUM FINISH

ALTERNATE FINISHES AVAILABLE:
BRONZE, BRASS, NICKEL, GRAY, BLACK

COORDINATE ALTERNATE FINISHES WITH ARCHITECT

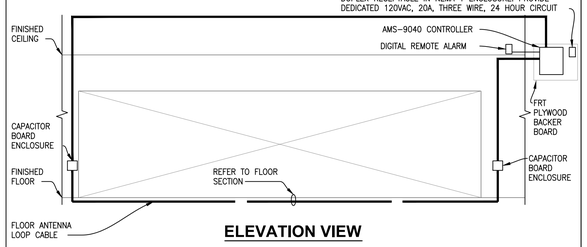


10 FIRE RATED POKE THRU
N.T.S.

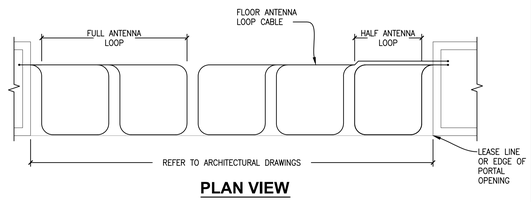


9 MIRROR PIGTAIL DROP
N.T.S.

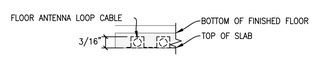
GENERAL NOTES:
- THIS DETAIL IS DIAGRAMMATIC. CONTRACTOR SHALL REFER TO PROJECT SPECIFIC FLOOR PLAN FOR ACTUAL SITE CONDITIONS/REQUIREMENTS.
- CONTRACTOR SHALL COORDINATE THE EAS SYSTEM WITH VENDOR AND THE MANUFACTURER'S INSTALLATION INSTRUCTIONS, PRIOR TO ROUGH–IN.
- ALL EQUIPMENT INSTALLED IN A PLENUM SPACE MUST BE RATED FOR PLENUM, OR SHALL HAVE ADDITIONAL EQUIPMENT/ENCLOSURES INSTALLED TO MEET PLENUM REQUIREMENTS.
- VENDOR CONTRACTOR SHALL VERIFY PROPER MOUNTING EQUIPMENT AND APPROVED SURFACES, WHERE REQUIRED.
- DO NOT COIL ANY EXCESS WIRE, AS IT MAY LEAD TO UNRELIABLE OPERATION OF THE SYSTEM.
- COORDINATE ACCESS TO ALL EQUIPMENT INSTALLED ABOVE CEILING OR VOID SPACES.
- CONTRACTOR SHALL PROVIDE ALL REQUIRED CONDUIT, INCLUDING CONDUIT FOR LOW VOLTAGE WIRING WHEN REQUIRED BY CODE.



ELEVATION VIEW



PLAN VIEW



SECTION VIEW

SYSTEM NOTES:
- CAN COVER WIDER ENTRIES (UP TO 31.5')
- FLAT ANTENNA CABLE ALLOWS FOR DIRECT INSTALLATION ONTO FLAT CONCRETE SURFACE, AND THEN COVERED WITH TILE OR WOOD FLOORING MATERIAL
- DOES NOT REQUIRE FLOOR CUT
- 4' DETECTION HEIGHT
- ANTENNA CABLE LENGTH LIMITATION (20' MAX. TO CAPACITOR BOARD ENCLOSURE)

PART NUMBERS:
- SINGLE ANTENNA = ZA2020–1
- DUAL ANTENNA = ZA2020–2
- SPLIT ANTENNA = ZA2020–3
- QUAD ANTENNA = ZA2020–4

7 EAS SYSTEM DETAILS
AMS-2020 SYSTEM

CONDUIT QUANTITY FOR CASH DESK

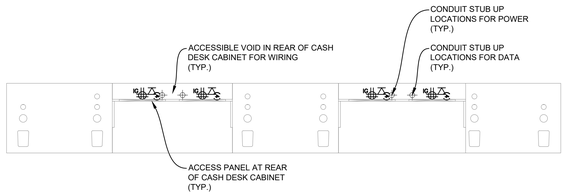
1–POS:	(1) 1" CONDUIT FOR QUAD IG POWER (1) 1" CONDUIT FOR 4–PORT DATA
2–POS:	(1) 1" CONDUIT FOR QUAD IG POWER (2) 1" CONDUIT FOR 4–PORT DATA
3–POS:	(2) 1" CONDUIT FOR QUAD IG POWER (3) 1" CONDUIT FOR 4–PORT DATA
4–POS:	(2) 1" CONDUIT FOR QUAD IG POWER (4) 1" CONDUIT FOR 4–PORT DATA
5–POS:	(3) 1" CONDUIT FOR QUAD IG POWER (5) 1" CONDUIT FOR 4–PORT DATA
6–POS:	(3) 1" CONDUIT FOR QUAD IG POWER (6) 1" CONDUIT FOR 4–PORT DATA
7–POS:	(4) 1" CONDUIT FOR QUAD IG POWER (7) 1" CONDUIT FOR 4–PORT DATA

COORDINATE SIZE & LOCATION OF TRENCH/CORE TO ACCOMMODATE REQUIRED CONDUIT. REFER TO DETAIL "2" ON SHEET A140.

REFER TO SHEET E–110 FOR CIRCUITING AND ADDITIONAL INFORMATION.

REFER TO SHEET E–130 FOR DATA AND ADDITIONAL INFORMATION.

THIS DETAIL (5+2 POS) IS FOR REFERENCE ONLY. COORDINATE EXACT CASH DESK LAYOUT FOR EACH STORE. COORDINATE WITH VENDOR SHOP DRAWINGS.



1 CASH DESK DETAIL
N.T.S.

lululemon
1818 CORNWALL AVE.
VANCOUVER, B.C., V6J1C7

CF POLO PARK
1485 PORTAGE AVE, UNIT 144E
WINNIPEG, MB
R3G 0W5

ARCHITECT
BDP Quadrangle
Quadrangle Architects Limited
90 Eglinton Avenue East, Toronto, ON M4P 0S8
t 416 598 1240 www.bdpquadrangle.com

MEP ENGINEER
THOMAS A. FEKETE LTD.
7181 WOODBINE AVE UNIT 229
MARKHAM ONTARIO L3R 1A3
PH.: (905) 946 4260 FAX: (905) 946 0901
JOB #: 23061

PROVINCE OF MANITOBA
Z.H. GUO
Member
45105
REGISTERED PROFESSIONAL ENGINEER
06/09/2023

APEGM
Certificate of Authorization
Thomas A. Fekete Ltd.
No. 5075 Date: 06/09/2023

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07/14/2023

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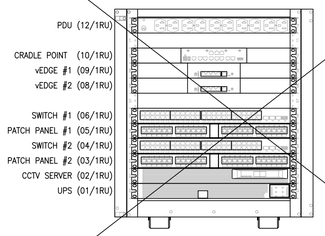
	07/14/2023	ISSUED FOR CONSTRUCTION

DRAWING INFORMATION
PROJECT #: 23206
CHECKED BY: JG
DRAWN BY: SW

ELECTRICAL DETAILS

DRAWING NUMBER
E510



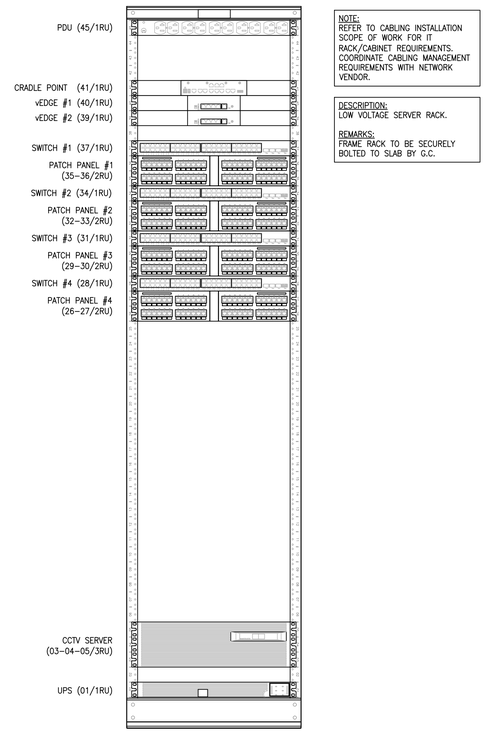
LOCKABLE CABINET

NOTE:
REFER TO CABLING INSTALLATION SCOPE OF WORK FOR IT RACK/CABINET REQUIREMENTS. COORDINATE CABLING MANAGEMENT REQUIREMENTS WITH NETWORK VENDOR.

NOTE:
ENSURE THE CABINET IS LOCKED ONCE LV INSTALLATION IS COMPLETE AND KEYS ARE GIVEN TO GC. KEYS ARE ONLY TO BE PROVIDED FOR THE CAMERA INSTALLATION AND THEN HANDED OVER AT TURNOVER TO STORE MANAGER FOR STORAGE IN THE SMALL SAFE AT THE CASH DESK.

NOTE:
WALL MOUNTED CABINET MAY BE USED WHEN NETWORK CLOSET IS NOT INCLUDED IN DESIGN. COORDINATE EXACT MOUNTING AND LOCATION WITH ARCHITECT.

6 NETWORK CABINET ILLUSTRATION DETAIL
N.T.S. (FOR REFERENCE ONLY)



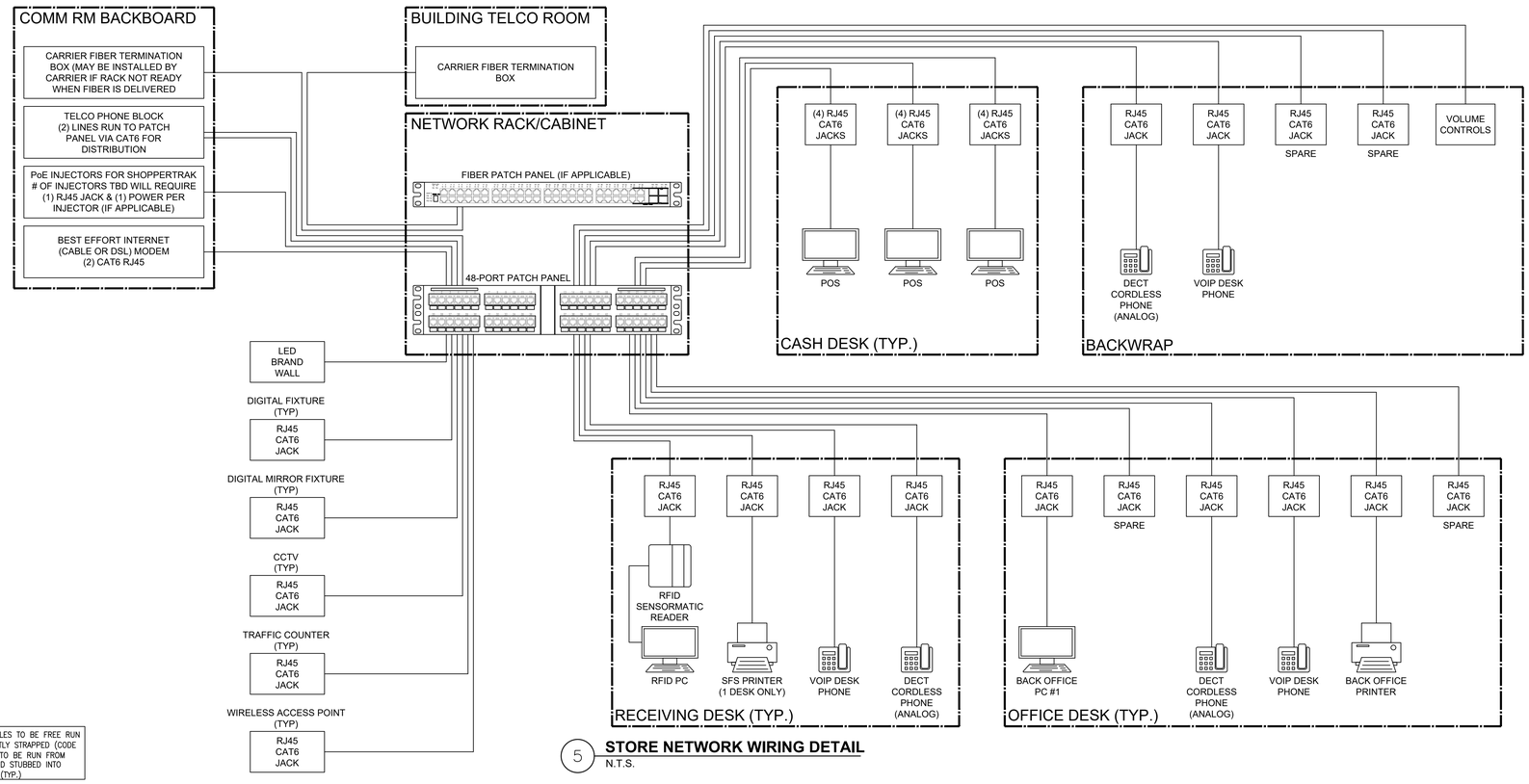
FLOOR MOUNTED 2-POST RACK

NOTE:
REFER TO CABLING INSTALLATION SCOPE OF WORK FOR IT RACK/CABINET REQUIREMENTS. COORDINATE CABLING MANAGEMENT REQUIREMENTS WITH NETWORK VENDOR.

DESCRIPTION:
LOW VOLTAGE SERVER RACK.

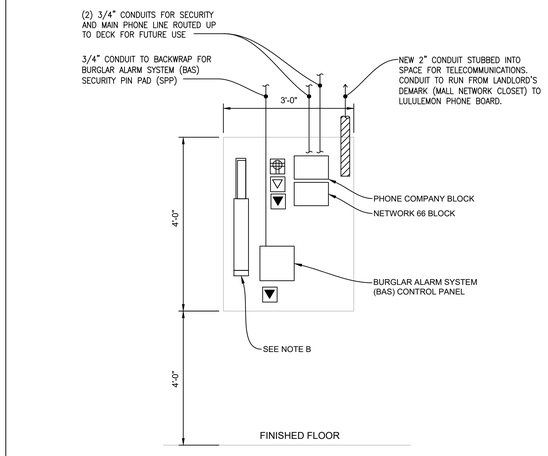
REMARKS:
FRAME RACK TO BE SECURELY BOLTED TO SLAB BY G.C.

6 NETWORK RACK ILLUSTRATION DETAIL
N.T.S. (FOR REFERENCE ONLY)



ALL LOW VOLTAGE CABLES TO BE FREE RUN IN CEILING SPACE NEATLY STRAPPED (CODE PERMITTING). CONDUIT TO BE RUN FROM MILLWORK UP WALL AND STUBBED INTO CEILING SPACE ABOVE (TYP.)

5 STORE NETWORK WIRING DETAIL
N.T.S.



BACKBOARD LEGEND

- BACKBOARD RECEPTACLE
- NETWORK JACK
- SERVICE PROVIDER SMART JACK

TELEPHONE BACKBOARD DETAIL NOTES:

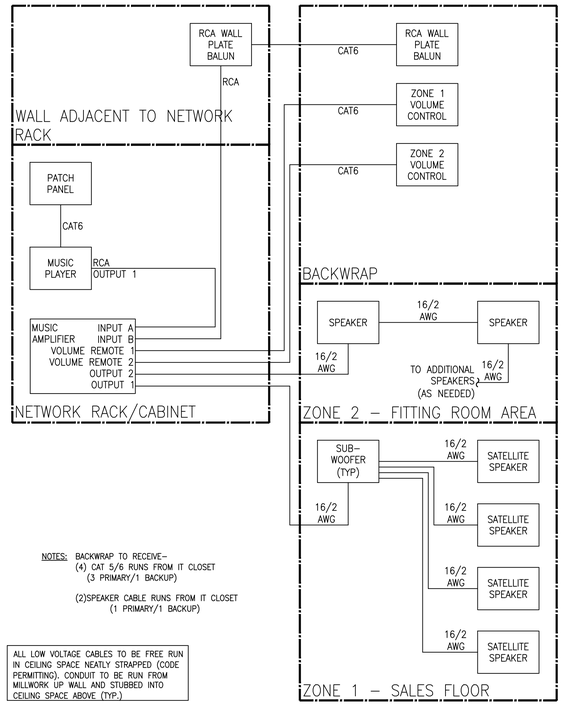
A. ALL WIRES SHALL BE STAPLED TO PANEL. ALL EXCESS WIRES SHALL BE COILED AND ZIP-TIED.

B. 4" PVC PLAN TUBE WITH CAP.

C. PROVIDE TELEPHONE BACKBOARD AS FIRE RATED PLYWOOD, SIZED AS INDICATED, MOUNTED TO WALL, PAINT TO MATCH ADJACENT WALL.

D. INSTALL TELEPHONE BACKBOARD BY END OF WEEK 3 OF CONSTRUCTION.

4 TELEPHONE BACKBOARD DETAIL
N.T.S. (FOR REFERENCE ONLY)

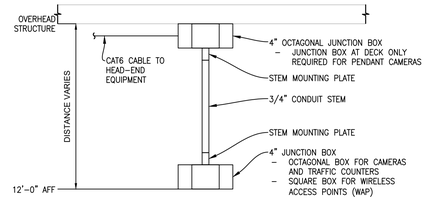


NOTES: BACKWRAP TO RECEIVE–
(4) CAT 5/6 RUNS FROM IT CLOSET (3 PRIMARY/1 BACKUP)
(2)SPEAKER CABLE RUNS FROM IT CLOSET (1 PRIMARY/1 BACKUP)

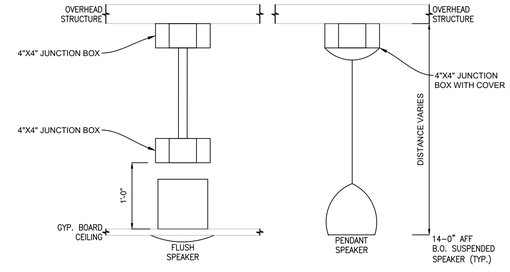
ALL LOW VOLTAGE CABLES TO BE FREE RUN IN CEILING SPACE NEATLY STRAPPED (CODE PERMITTING). CONDUIT TO BE RUN FROM MILLWORK UP WALL AND STUBBED INTO CEILING SPACE ABOVE (TYP.)

3 SOUND SYSTEM WIRING DETAIL
N.T.S.

THIS DETAIL APPLIES TO CAMERAS, TRAFFIC COUNTERS AND WIRELESS ACCESS POINTS (WAP).



2 OVERHEAD PENDANT J-BOX DETAIL
N.T.S.



1 SPEAKER MOUNTING DETAIL
N.T.S.

lululemon
1818 CORNWALL AVE.
VANCOUVER, B.C., V6J1C7

CF POLO PARK
1485 PORTAGE AVE, UNIT 144E
WINNIPEG, MB
R3G 0W5

ARCHITECT
DDP Quadrangle
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t 416 598 1240 www.ddpquadrangle.com

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	06/09/2023	ISSUED FOR BID
	07/13/2023	ISSUED FOR COORDINATION
	07/14/2023	ISSUED FOR CONSTRUCTION

DRAWING INFORMATION
PROJECT #: 23206
CHECKED BY: JG
DRAWN BY: SW

ELECTRICAL DETAILS

DRAWING NUMBER
E511

GENERAL CONDITIONS:

A. THE REQUIREMENTS AS SET FORTH UNDER GENERAL CONDITIONS,INSTRUCTIONS TO BIDDERS AND GENERAL REQUIREMENTS ARE A PART OF THIS CONTRACT.

B. BIDS SHALL BE BASED ON A COMPLETE/FULL SET OF DRAWINGS.

C. CONTRACTOR MUST READ THE ENTIRE SPECIFICATIONS COVERING OTHER BRANCHES OF WORK AND IS RESPONSIBLE FOR COORDINATION OF THE WORK WITH WORK PERFORMED BY OTHER TRADES.

SCOPE OF WORK:

A. CONTRACTOR SHALL VISIT SITE PRIOR TO BIDDING. BIDS SHALLSERVE AS EVIDENCE OF KNOWLEDGE OF EXISTING CONDITIONS. ALL REQUIREMENTS INCLUDING MODIFICATIONS WHICH ARE REQUIRED TO MEET THE INTENT OF THE DRAWINGS AND SPECIFICATIONS ARE TO BE OBTAINED PRIOR TO AND INCLUDED IN BID PRICE. FIELD VERIFY ALL EXISTING ELECTRICAL AND TELEPHONE EQUIPMENT, LOCATIONS, CONDITIONS ETC. FAILURE TO VISIT THE SITE SHALL NOT RELIEVE THE CONTRACTOR FROM ANY RESPONSIBILITY IN THE PERFORMANCE OF THE ELECTRICAL WORK.

B. FURNISH ALL LABOR, MATERIALS, TESTING, EQUIPMENT, INCIDENTALS AND TOOLS TO PERFORM ELECTRICAL WORK SHOWN, NOTED OR SCHEDULED FOR A COMPLETE AND FINISHED INSTALLATION. ALL EQUIPMENT AND MATERIAL, UNLESS SPECIFICALLY NOTED OTHERWISE, SHALL BE NEW AND FREE OF BLEMISH OR DEFECT. ALL MATERIAL AND EQUIPMENT SHALL BE OF THE TYPE SUBJECT TO FACTORY MUTUAL, UNDERWRITERS' LABORATORIES OF CANADA AND/OR CANADIAN STANDARDS ASSOCIATION INSPECTION AND APPROVAL AND SHALL BEAR ULC OR CSA LABELS AND SHALL BE SIZED IN CONFORMITY WITH REQUIREMENTS OF THE LATEST EDITION OF THE CANADIAN ELECTRICAL CODE AND OTHER APPLICABLE CODES, WHICHEVER ARE MORE STRINGENT.

C. THE WORK IS TO BE IN ACCORDANCE WITH THE LATEST EDITION OF THE CEC, PROVINCIAL AND LOCAL CODES.

D. INCLUDE ANY LABOR AND MATERIALS NOT SPECIFICALLY MENTIONED, BUT NECESSARY TO PROVIDE A COMPLETE AND FULLY OPERATIVE ELECTRICAL SYSTEMS.

PERMITS:

A. SECURE AND PAY FOR ALL REQUIRED PERMITS, FEES, ASSESSMENTSAND INSPECTION CERTIFICATES THAT RELATE TO THE ELECTRICALCONTRACT.

B. FURNISH APPROVED CERTIFICATE OF FINAL INSPECTION, AND TURNOVER TO OWNER AT COMPLETION OF PROJECT.

DRAWINGS AND SPECIFICATIONS:

A. THIS ELECTRICAL PLANS ARE DIAGRAMMATIC, NOT SHOWING EVERYITEM IN EXACT LOCATION OR DETAIL. MEASUREMENTS ANDLOCATIONS MUST BE FIELD VERIFIED AND COORDINATED WITHARCHITECTURAL, PLUMBING, HVAC, FIRE PROTECTION, FIRE ALARM,STRUCTURAL, AND OTHER BUILDING DRAWINGS.

SHOP DRAWINGS:

A. FOR SUBSTITUTIONS ONLY, SUBMIT PDF FILES OF MATERIAL LISTS AND SHOP DRAWINGS FOR MAJOR EQUIPMENT TO THE OWNER'S CONSTRUCTION MANAGER FOR APPROVAL PRIOR TO ORDERING EQUIPMENT. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS EARLY ENOUGH IN PROJECT TO ALLOW AMPLE TIME FOR OWNER'S REVIEW WITHOUT CAUSING TIME DELAYS OR CONFLICTS IN THE JOB PROGRESS. SUBMITTALS SHALL BE IN ACCORDANCE WITH GENERAL CONDITIONS AND THE MANUFACTURERS LISTED ON THE DRAWINGS AND SHALL BEAR THE STAMP OF THE CONTRACTOR SHOWING THAT HE HAS REVIEWED AND APPROVED THEM AND THAT THEY ARE IN CONFORMANCE WITH THE CONTRACT DRAWINGS. LACK OF SUCH CONTRACTOR'S APPROVAL WILL BE CAUSE FOR REJECTION WITHOUT REVIEW BY THE OWNER.

B. WHERE TRADE NAMES, BRANDS OF MANUFACTURERS OF EQUIPMENT OR MATERIALS ARE SHOWN ON THE DRAWINGS OR SPECIFICATIONS THE EXACT EQUIPMENT SHALL BE USED ON THE PROJECT. THE USE OF ANY UNAUTHORIZED EQUIPMENT SHALL BE SUBJECT TO REMOVAL/REPLACEMENT AT THE REQUEST OF THE OWNER'S CONSTRUCTION MANAGER (AT THE ELECTRICAL CONTRACTORS EXPENSE).

CONDUITS:

A. CONDUIT SHALL BE STANDARD STEEL RIGID, OR EMT (THIN WALL) ACCORDING TO LOCAL CODE AND LANDLORD REQUIREMENTS. CONDUIT SHALL BE CONCEALED IN FINISHED AREAS, EXCEPT AS OTHERWISE APPROVED BY ARCHITECT. USE RIGID CONDUIT IN ALL OPEN CEILING CONDITIONS. RUN CONDUIT IN STRAIGHT LINES (PARALLEL OR PERPENDICULAR) TO DEMISING WALLS ALONG EXISTING STRUCTURE OR DECK WHERE POSSIBLE. PAINT TO MATCH. USE RIGID PVC CONDUIT WHEN EMBEDDED IN CONCRETE. USE APPROVED CONCRETE TIGHT FITTINGS. EMT CONNECTIONS SHALL BE COMPRESSION OR SET SCREW TYPE.

B. FLEXIBLE CONDUIT OR TYPE MC CABLE SHALL BE USED FOR FINAL CONNECTIONS TO LIGHT FIXTURES, MOTORS AND VIBRATING EQUIPMENT ONLY; AND WHERE SO USED TO BE GROUNDED WITH A SEPARATE FULL SIZED GREEN GROUNDING CONDUCTOR. FINAL TYPE MC/FLEX CONNECTIONS SHALL BE LIMITED TO 6'-0" IN LENGTH. (ARRANGE CIRCUITS SO AS TO AVOID THE USE OF JUNCTION BOXES ABOVE DRYWALL CEILING AREAS, JUNCTION BOXES LOCATED ABOVE LAY-IN CEILINGS ARE ACCEPTABLE.) PAINT TO MATCH.

1. MINIMUM SIZES OF CONDUITS SHALL BE 3/4" FOR STANDARD CONDUIT, AND 1/2" FOR FLEX CONDUIT (1/2" STANDARD CONDUIT AND 3/8" BX CABLE MAY BE USED AS SPECIFIED ABOVE, IF ACCEPTABLE WITH LANDLORD AND LOCAL CODES, ELECTRICAL CONTRACTOR SHALL FIELD COORDINATE WITH LANDLORD & INSPECTION AGENCIES PRIOR TO INSTALLATION). ELECTRIC METALLIC TUBING (EMT) SHALL BE GALVANIZED OR ELECTRO-GALVANIZED. FITTINGS SHALL BE SET SCREW OR COMPRESSION TYPE, FITTING SHALL BE AS MANUFACTURED BY REGEL, STEEL CITY, RACO, T & B, EFCOR OR EQUAL. EMT SHALL BE USED FOR FEEDERS AND BRANCH CIRCUITS RUN ABOVE SUSPENDED CEILINGS OR CONCEALED IN INTERIOR PARTITIONS.

2. PAINTING OF ELECTRICAL CONDUITS, ETC., IF REQUIRED, WILL BE BY GENERAL CONTRACTOR.

C. THE USE OF ROMEX, AC CABLE IS NOT PERMITTED UNLESS NOTED OTHERWISE AND APPROVED BY THE ENGINEER.

D. MAXIMUM CONDUIT HANGER SPACING SHALL BE 8'-0" FOR 3/4" THRU 1 1/4" AND 10'-0" FOR 1 1/2" THRU 4" CONDUITS. DO NOT SUPPORT CONDUIT FROM THE CEILING SYSTEM.

E. LEAVE A #10 AWG PULL WIRE OR NYLON PULL STRING IN ALL EMPTY CONDUITS.

F. SECURE ALL RACEWAYS TO THE BUILDING STRUCTURE IN A RIGID AND SECURE MANNER, USING FASTENERS SUCH AS "CADDY CLIPS" OR EQUAL.

G. FLASH AND COUNTERFLASH ALL RACEWAYS WHICH PENETRATE THE ROOF OR USE PITCH POCKETS. INSURE THAT PENETRATIONS ARE COMPLETELY WEATHERPROOF. ALL RACEWAY SYSTEMS EXPOSED TO THE WEATHER SHALL BE WEATHERPROOF. PRIOR APPROVAL BY LANDLORD IS REQUIRED TO ADD ADDITIONAL EQUIPMENT LOADS TO STRUCTURE OR TO MAKE HOLES IN EXISTING ROOF. NOTIFY LANDLORD'S ROOFING CONTRACTOR AT LEAST 72 HOURS PRIOR TO ANY REQUIRED ROOF WORK.

H. REVIEW ANY QUESTION REGARDING INSTALLATION WITH LULULEMON PM.

WIRE:

A. WIRE SHALL BE SINGLE CONDUCTOR COPPER WITH 600 VOLT INSULATION. MINIMUM WIRE SIZE SHALL BE #14 AWG, ALL WIRE AND CABLE SHALL BE NEW AND SHALL BE BROUGHT TO THE SITE IN UNBROKEN PACKAGES. ALL WIRING OF ANY TYPE SHALL BE IN CONDUIT. NO STRANDED WIRE ALLOWED FOR #10 AND #12 AWG.

MINIMUM WIRE SIZE - 20 AMP BRANCH CIRCUIT SHALL BE AWG LISTED SIZE PER DISTANCE SHOWN BELOW. DISTANCE SHALL BE MEASURED FROM THE PANELBOARD CIRCUIT BREAKER TO THE FARTHEST OUTLET.

a. #12 LESS THAN 100 FEET
b. #10 BETWEEN 100 - 150 FEET
c. #8 BETWEEN 150 - 250 FEET
d. #6 OVER 250 FEET

1. GENERAL WIRING SHALL BE T90 OR RW90. (ALUMINUM CONDUCTORS ARE NOT PERMITTED.)

B. WIRE CONNECTORS SHALL BE EQUAL TO SCOTCHLOCK FOR #8 AND SMALLER, AND EQUAL TO T & B "LOCK-TITE" FOR #6 AND LARGER.

C. THE USE OF SHARED NEUTRALS IS ACCEPTABLE FOR LIGHTING AND RECEPTACLE CIRCUITS OTHER THAN GFCI AND ISOLATED GROUND CIRCUITS IF INSTALLED IN ACCORDANCE WITH CEC.

D. ALL WIRING TO BE COLOR CODED AS FOLLOWS:

120/208 VOLT SYSTEM
NEUTRAL - WHITE
PHASE A RED
PHASE B BLACK
PHASE C BLUE
GROUND-GREEN
ISOLATED GROUND - GREEN WITH YELLOW STRIPE.

LIGHTING:

A. INSTALL OWNER PROVIDE LIGHTING FIXTURES AND LAMPS. COORDINATE EXACT LOCATION AND ALL MOUNTING REQUIREMENTS WITH ARCHITECT, OWNER, AND MANUFACTURER PRIOR TO ROUGH-IN.

B. LIGHT FIXTURES SHALL BE SUPPORTED FROM THE BUILDING STRUCTURAL WITH 12GA WIRE SUPPORT TO OPPOSING CORNERS OF EACH RECESSED LIGHTING FIXTURE IN SUSPENDED CEILINGS. INSTALLATION SHALL CONFORM TO THE PROVISIONS OF THE BUILDING CODE.

WIRED GROUND SYSTEM:

A. FURNISH AND INSTALL A COMPLETE WIRED GROUNDING SYSTEM FORELECTRICAL EQUIPMENT AND CIRCUITS AS SHOWN ON THE DRAWINGS AND DESCRIBED GENERALLY BELOW.

B. ALL GROUNDING CONDUCTORS SHALL BE GREEN, WHERE EXPOSED IN PANEL, SWITCHBOARD, OUTLET, BOXES, ETC.

C. ALL ENCLOSURES AND NON-CURRENT CARRYING METALS TO BE GROUNDED. CONDUIT SYSTEM TO BE ELECTRICALLY CONTINUOUS. ALL LOCK NUTS MUST CUT THROUGH ENAMELED OR PAINTED SURFACES ON ENCLOSURES. WHERE ENCLOSURES AND NON-CURRENT CARRYING METALS ARE ISOLATED FROM THE CONDUIT SYSTEM, USE BONDING JUMPERS WITH APPROVED CLAMPS.

D. RUN A SEPARATE GROUNDING CONDUCTOR IN EACH CONDUIT, #12 MINIMUM, OR AS SHOWN ON DRAWINGS. FOR PANEL FEEDERS BOND THE GROUNDING CONDUCTOR TO THE CONDUIT, WHERE ENTERING AND LEAVING THE CONDUIT. ALL GROUND CLAMPS SHALL BE PENN-UNION OR EQUAL, SIMILAR TO "GPL" TYPE. CONDUIT GROUND BUSHINGS SHALL BE THOMAS & BETTS OR EQUAL, SIMILAR TO #3800 SERIES WITH NYLON INSULATED THROAT.

E. ALL DEVICES SHALL BE BONDED TO THE CONDUIT SYSTEM. USE A BONDING JUMPER BETWEEN THE OUTLET BOX AND THE DEVICE GROUNDING TERMINAL. METAL-TO-METAL CONTACT BETWEEN THE DEVICE YOKE AND THE OUTLET BOX IS NOT ACCEPTABLE AS A BOND FOR EITHER SURFACE MOUNTED BOXES OR FLUSH TYPE BOXES. ALL JUNCTION BOXES, OUTLET BOXES AND PULL BOXES SHALL BE BONDED TO THE CONDUIT SYSTEM. ALL FLEXIBLE CONDUIT SHALL BE JUMPERED WITH A GROUND CONDUCTOR.

WIRE DEVICES:

A. COLOR OF WIRING DEVICES AND COVERPLATES SHALL BE SELECTED BY ARCHITECT. (SEE PLAN NOTES FOR ADDITIONAL INFORMATION).

1. 15 AMP RECEPTACLES SHALL BE 3-WIRE GROUNDING TYPE EQUAL TO HUBBELL 5242.
2. 20 AMP RECEPTACLES SHALL BE 3-WIRE GROUNDING TYPE EQUAL TO HUBBELL 5362.
3. SWITCHES SHALL BE 20 AMP SPECIFICATION GRADE, RATED AT 120 OR 347 VOLT, AS REQUIRED.
4. SPECIAL DEVICES SHALL BE A SPECIFICATION GRADE.
5. EQUAL BY ARROW-HART, GENERAL ELECTRIC, BRYANT, PASS &SEYMOUR, OR SIERRA.
6.

PANELBOARDS AND SAFETY SWITCHES:

A. PROVIDE BRANCH CIRCUIT PANELS WHICH SHALL BE OF THE BOLTEDCIRCUIT BREAKER TYPE WITH SOLID COPPER BUSSING FULL SIZEDNEUTRAL, 25% GROUND BUSSING, OVERALL HINGED/LOCKABLE DOOR,AND TYPEWRITTEN DIRECTORY INSIDE DOOR. ALL SERVICE ENTRANCE EQUIPMENT SHALL BEAR THE MANUFACTURER'S LABEL WHICH SHALL STATE THAT THE EQUIPMENT IS RATED FOR SERVICE ENTRANCE APPLICATION IN ACCORDANCE WITH C.E.C. LOAD BALANCE ALL ELECTRICAL PHASES AT PANELS AND SWITCHBOARDS. TWO AND THREE POLE BREAKERS SHALL BE COMMON TRIP TYPE. WHEN USED AS SWITCHES IN 120V. AND 347V. LIGHTING CIRCUITS, FURNISH TYPE "SWD" BREAKERS IN ACCORDANCE WITH CEC. SQUARE D OR EQUAL BY SIEMENS ITE, CUTLER HAMMER, OR GENERAL ELECTRIC (OR APPROVED EQUAL).

B. PROVIDE SAFETY AND DISCONNECT SWITCHES, FUSED OR NONFUSED, AS CALLED FOR ON DRAWINGS AND AS REQUIRED BY CODE. (FUSES AS MANUFACTURED BY BUSSMAN, CHASE SHAWMUT, ECONOMY FUSE CO., OR LITTLE FUSE CO. ARE ACCEPTABLE). DISCONNECT SWITCHES THAT ARE INSTALLED AT AIR CONDITIONING EQUIPMENT, HEAT PUMPS, ETC SHALL BE FUSED IN ACCORDANCE WITH THE EQUIPMENT'S NAME PLATE REQUIREMENTS PER NEC. SWITCHES SHALL BE HEAVY DUTY, QUICK MAKE/QUICK BREAK TYPE, FUSIBLE OR NON-FUSIBLE, WEATHERPROOF AS INDICATED ON THE DRAWINGS, OR AS REQUIRED BY LOCAL CODES. LOAD AND HORSEPOWER RATED AS MANUFACTURED BY SQUARE D, SIEMENS ITE, CUTLER HAMMER, OR GENERAL ELECTRIC (OR APPROVED EQUAL).

C. MANUAL MOTOR STARTERS WITH OVERLOAD PROTECTION MAY BE USEDFOR FRACTIONAL HORSEPOWER MOTORS THAT DO NOT REQUIRE AUXILIARY CONTROL. SINGLE PHASE STARTERS SHALL BE SQUARE D OR EQUAL. THREE PHASE STARTERS SHALL BE PROVIDED WITH OVERLOAD DEVICE IN EACH PHASE MATCHED TO MOTOR NAMEPLATE RATING. MAGNETIC MOTOR STARTERS (MINIMUM SIZE #1) SHALL BE USED FOR ALL SINGLE PHASE AND THREE PHASE MOTORS RATED ABOVE 1/2 HP OR THAT REQUIRE AUXILIARY CONTROL. PROVIDE CONTROL DEVICES (CONTACTS, TRANSFORMERS, ETC.) IN STARTERS AS REQUIRED FOR INTERLOCKS, COORDINATE WITH MECHANICAL AND/OR TEMPERATURE CONTROL CONTRACTORS. COMBINATION STARTERS, WHEN USED, SHALL CONTAIN FUSIBLE SWITCHES.

BOXES:

A. OUTLET BOXES AND COVERS SHALL BE GALVANIZED, ONE-PIECEPRESSED STEEL KNOCKOUT.

B. JUNCTION, PULL BOXES AND COVERS SHALL BE GALVANIZED STEEL,CODE GAUGE SIZE.

C. INSTALL BOXES RIGIDLY ON BUILDING STRUCTURE AND SUPPORTINDEPENDENTLY OF THE CONDUIT SYSTEM. ALSO PROVIDE SUITABLE/PROPER BOX EXTENSIONS TO EXTEND BOXES TO FINISHED FACES OF WALLS ETC. ALL OUTLET BOXES TO HAVE SUITABLE BLOCKING BEHIND THEM TO MINIMIZE THE DEFLECTION THAT OCCURS WHEN PUGGING/UNPLUGGING INTO THESE DEVICES.

D. WHERE A 347 VOLT LIGHT SWITCH IS GANGED WITH A 120 VOLTRECEPTACLE PROVIDE A SUITABLE DIVIDER OR SEPARATE JUNCTIONBOXES IN ACCORDANCE WITH CEC AND LOCAL CODES.

SERVICES:

A. PROVIDE TEMPORARY SERVICE FROM LANDLORD'S DESIGNATED LOCATION AND PROVIDE LIGHTING, POWER AND WIRING AS REQUIRED TO FACILITATE APPLICABLE TEMPORARY NEEDS, AND FURNISH EXTENSION CORDS. ANY TEMPORARY WIRING, FUSES, ETC., SHALL BE REMOVED UPON COMPLETION OF THE PROJECT. PROVIDE GROUND FAULT PROTECTION AS REQUIRED BY LOCAL CODES.

B. PROVIDE ELECTRICAL SERVICE AS SHOWN ON THE DRAWINGS, FIELDVERIFY EXACT REQUIREMENTS PRIOR TO BIDS. ALL WORK NOTSPECIFICALLY NOTED AS BEING BY THE LANDLORD OR POWERCOMPANY SHALL BE PROVIDED BY THE ELECTRICAL CONTRACTOR.CLOSELY COORDINATE ENTIRE INSTALLATION WITH LANDLORD ANDPOWER COMPANY AS REQUIRED. (PROVIDE EQUIPMENT THAT ISCOMPATIBLE WITH AVAILABLE FAULT CURRENT LEVELS, PROVIDE"CABLE LIMITERS" IF NECESSARY FOR SYSTEM COORDINATION).FIELD VERIFY EXACT TYPE, SIZE, LOCATION, REQUIREMENTS,ETC. OF EXISTING POWER AND TELEPHONE FACILITIES PRIOR TOBIDDING PROJECT.

C. MAKE PROVISIONS FOR NEW TELEPHONE SERVICE AS REQUIRED, ANDAS INDICATED ON THE DRAWINGS.

D. CONDUIT SYSTEM FOR TELEPHONE DISTRIBUTION WITHIN TENANT'SPREMISES SHALL BE PROVIDED AS REQUIRED FOR A COMPLETETELEPHONE SYSTEM. OUTLET BOXES SHALL BE 4" SQUAREMINIMUM WITH SINGLE DEVICE COVER AND TELEPHONE PLATE.FIELD COORDINATE WITH TENANTS CONSTRUCTION MANAGERTO AVOID CONFLICTS.

STEP-DOWN TRANSFORMER:

A. PROVIDE DRY-TYPE TRANSFORMER AS MANUFACTURED BY SQUARE "D" , HEAVY DUTY, ACME, GENERAL ELECTRIC, SIEMENS ITE OR OTHER EQUIVALENT MANUFACTURERS, OF THE ENCLOSED VENTILATED TYPE WITH KVA AND VOLTAGE RATINGS AS CALLED FOR ON THE DRAWINGS WITH COILS DESIGNED FOR 150 DEGREE C RISE ABOVE A 40 DEGREE C AMBIENT WITH 100% OF RATED LOAD CONNECTED TO THE SECONDARY, CLASS 220 DEGREE C INSULATION AND A MINIMUM OF SIX STANDARD FULL CAPACITY TAPS (TWO ABOVE AND FOUR BELOW NORMAL). SOUND LEVEL/DECIBELS SHALL BE IN ACCORDANCE WITH "NEMA" STANDARDS, AND INSTALLATION SHALL INCLUDE "KORFOUND" OR EQUAL VIBRATION-DAMPENING MOUNTS AND FLEXIBLE STEEL CONDUIT FOR PRIMARY AND SECONDARY CONNECTIONS TO MINIMIZE SOUND TRANSMISSION. MOUNT TRANSFORMER ON SEPARATE VIBRATION ISOLATORS. THESE ARE ADDITIONAL VIBRATION ISOLATORS AND ARE USED IN CONJUNCTION WITH ANY INTEGRAL FACTORY INSTALLED VIBRATION ISOLATORS. PROVIDE SPRINKLER PROOF ENCLUSURE FOR SPRINKLERED BUILDINGS.

LIGHTING CONTACTOR AND TIMER SWITCHES:

A. CONTACTORS FOR CONTROL OF LIGHTING AND SIGNS SHALL BE SQUARE "D", CLASS 8903, TYPE "L", ELECTRICALLY HELD. EQUIVALENT PRODUCTS BY OTHER MANUFACTURERS ARE PERMITTED.

B. ELECTRONIC DIGITAL TIME SWITCHES SHALL BE USED FOR CONTROL OF SHOW WINDOW LIGHTING, SIGNS, AND IF REQUIRED/DESIRED OTHER LIGHTING. THE ELECTRONIC DIGITAL TIMER SHALL BE PROVIDED WITH A 7-DAY FORMAT, 365 DAY ADVANCED HOLIDAY SCHEDULE, CAPABLE OF DIFFERENT SETTINGS EACH DAY OF THE WEEK, AND HAVE AN ASTRONOMIC FEATURE.

INSTALLATION:

A. ALL ELECTRIC WORK SHALL BE INSTALLED SO AS TO BE READILYACCESSIBLE FOR OPERATING, SERVICING, MAINTAINING AND REPAIRING. HANGERS SHALL INCLUDE ALL MISCELLANEOUS STEEL SUCH AS CHANNELS, RODS, ETC., NECESSARY FOR THE INSTALLATION OF WORK AND SHALL BE FASTENED TO BUILDING STEEL, CONCRETE OR MASONRY, BUT NOT PIPING OR DUCTWORK. ALL CONDUIT SHALL BE CONCEALED WHEREVER POSSIBLE. EXPOSED CONDUITS SHALL BE IN STRAIGHT LINES PARALLEL WITH OR AT RIGHT ANGLES TO COLUMN LINES OR BEAMS AND SEPARATED AT LEAST 3 INCHES FROM WATER LINES WHEREVER THEY RUN ALONGSIDE OR ACROSS SUCH LINES. ALL CONDUCTORS SHALL BE IN CONDUIT, DUCTS OR OTHER CODE APPROVED RACEWAYS.

B. ALL LINE AND LOW VOLTAGE POWER AND CONTROL WIRING (EXCEPTHVAC, DATA, TELEPHONE AND VIDEO/TV LOW VOLTAGE WIRING) INCLUDING CONNECTIONS TO MOTORS, DAMPERS, INTERLOCKING, ETC., SHALL BE PROVIDED BY THE ELECTRICAL CONTRACTOR. ALL LINE VOLTAGE WIRING, CONDUIT, AND FINAL CONNECTIONS FROM THE POWER SOURCE THRU THE STARTER/DISCONNECT ETC. TO THE MOTOR OR EQUIPMENT IS THE RESPONSIBILITY OR THE ELECTRICAL CONTRACTOR. ALL HVAC RELATED LOW VOLTAGE CONTROL WIRING, CONDUIT AND FINAL CONNECTIONS ARE THE RESPONSIBILITY OF THE MECHANICAL/TEMPERATURE CONTROL CONTRACTOR, UNLESSOTHERWISE NOTED ON THE PLANS. ALL DATA, TELEPHONE AND VIDEO/TV LOW VOLTAGE WIRING AND CONNECTIONS ARE THE RESPONSIBILITY OF THE OWNER'S VENDORS.

C. THE ELECTRICAL CONTRACTOR SHALL DO ALL CUTTING, CHASING ORCHANNELING AND PATCHING REQUIRED FOR ANY WORK UNDER THEELECTRICAL DIVISION, ANY CUTTING SHALL HAVE PRIOR APPROVALOF THE LANDLORD. SLEEVES SHALL EXTEND AT LEAST TWO (2")INCHES ABOVE FINISHED FLOOR AND ALL SLEEVES, OPENINGS,ETC., THROUGH FIRE RATED WALLS AND FLOORS SHALL BE FIRESEALED WITH CALCIUM SILICATE, SILICONE "RTV" FOAM, "3M"FIRE RATED SEALANTS OR EQUAL BY HILTI AFTER CONDUIT/CABLESINSTALLATION SO AS TO RETAIN THE FIRE RATING.

D. THE ELECTRICAL CONTRACTORS, INSOFAR AS THE WORK ISCONCERNED, SHALL AT ALL TIMES KEEP THE PREMISES IN A NEATAND ORDERLY CONDITION AND, AT THE COMPLETION OF THE WORK,SHALL PROPERLY CLEAN UP AND CART AWAY ANY DEBRIS ANDEXCESS MATERIAL.

E. THE FOLLOWING EQUIPMENT SHALL BE IDENTIFIED WITH ENGRAVEDBAKELITE NAMEPLATES AS TO NAME AND/OR FUNCTION:DISTRIBUTION PANELS, LIGHTING PANELS, MOTOR STARTERS ANDDISCONNECT SWITCHES. NAMEPLATES TO BE APPROXIMATELY 1" X2" IN SIZE AND BE FASTENED WITH POP RIVETS OR SCREWS.

F. THE LOCATION OF OUTLETS AND EQUIPMENT SHOWN ON THEDRAWINGS ARE APPROXIMATE AND THE ARCHITECT/TENANTCONSTRUCTION MANAGER SHALL HAVE THE RIGHT TO RELOCATE ANYOUTLETS OR FIXTURES BEFORE THEY ARE INSTALLED WITHOUTADDITIONAL COST. IN THE EVENT OF ANY CONFLICTS WITH EXISTING OR NEW FIXTURE LAYOUT GENERAL CONTRACTOR TO CONTACT LULULEMON PROJECT MANAGER.

G. ELECTRICAL CONTRACTOR SHALL RECORD ALL FIELD CHANGES INTHE WORK AS THE JOB PROGRESSES, AND TURN THIS "AS BUILT"INFORMATION OVER TO THE OWNER AT THE COMPLETION OF THEPROJECT.

H. ELECTRICAL CONTRACTOR SHALL PROTECT ALL FIXTURES/EQUIPMENTAGAINST DAMAGE FROM LEAKS, ABUSE, ETC., AND PAY COST OFREPAIR OR REPLACEMENT OF FIXTURES OR EQUIPMENT MADENECESSARY BY FAILURE TO PROVIDE SUITABLE SAFEGUARDS ORPROTECTION.

I. ELECTRICAL CONTRACTOR SHALL MAKE ALL FINAL ELECTRICALCONNECTIONS AS REQUIRED FOR A COMPLETE AND OPERATINGSYSTEM. AFTER ALL EQUIPMENT HAS BEEN INSPECTED ANDAPPROVED, THOROUGHLY CLEAN ALL EQUIPMENT PROVIDED UNDERTHIS WORK JUST PRIOR TO COMPLETION OF PROJECT.

J. THE ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR ANY/ALLNECESSARY ELECTRICAL DEMOLITION WORK THAT IS REQUIRED TOFACILITATE THE NEW INSTALLATION, FIELD COORDINATE PRIOR TOBIDS. REMOVE AND/OR MODIFY EQUIPMENT, ETC. AS REQUIREDFOR A COMPLETE INSTALLATION. ANY EQUIPMENT OR DEVICEREMAINING IN USE AFTER PART OF THE EQUIPMENT OR DEVICESHAVE BEEN REMOVED ARE TO BE RECONNECTED TO EXISTING OR NEWCIRCUITS AND LEFT IN WORKING ORDER. FEEDERS TO PANELS ANDWIRING TO OTHER EQUIPMENT TO BE ROUTED CONCEALED INFINISHED AREAS. COORDINATE ANY DISRUPTION OF ELECTRICALOR TELEPHONE SERVICES WITH LANDLORD AND TENANTCONSTRUCTION MANAGER TO AVOID CONFLICTS.

GUARANTEE:

A. MATERIALS, EQUIPMENT AND INSTALLATION SHALL BE GUARANTEEDFOR A PERIOD OF ONE (1) YEAR FROM DATE OF ACCEPTANCE.DEFECTS WHICH APPEAR DURING THAT PERIOD SHALL BE CORRECTEDAT THE ELECTRICAL CONTRACTOR'S EXPENSE.

B. FOR THE SAME PERIOD, ELECTRICAL CONTRACTOR SHALL BERESPONSIBLE FOR ANY DAMAGE TO PREMISES CAUSED BY DEFECTSIN WORKMANSHIP OR IN THE WORK OR EQUIPMENT FURNISHEDAND/OR INSTALLED BY THE ELECTRICAL CONTRACTOR.

FINALLY:

A. IT IS THE INTENT THAT THE FOREGOING WORK SHALL BE COMPLETEIN EVERY RESPECT AND THAT ANY MATERIAL OR WORK NOTSPECIFICALLY MENTIONED OR SHOWN ON THE DRAWINGS, BUTNECESSARY TO FULLY COMPLETE THE WORK SHALL BE FURNISHED.

B. PROVIDE AND INSTALL TYPED PANEL SCHEDULES FOR ALL PANEL BOARDS. PROVIDE AND INSTALL BLACK PLASTIC, WHITE ENGRAVED NAMEPLATES ON EXTERIOR OF ALL PANELBOARDS. PROVIDE ONE COMPLETE SET OF STAMPED PLANS TO BE CONTAINED IN A PVC TUBE MOUNTED ON PHONE BOARD.

~~SEISMIC REQUIREMENTS~~

~~THIS CONTRACTOR TO CONFIRM WITH BASE BUILDING IF SEISMIC RESTRAINT IS REQUIRED IN THE BUILDING. INCLUDE THE COST IF REQUIRED BY BUILDING CODE FOR THIS LOCATION. PROVIDE A SEISMIC RESTRAINT FOR ALL EQUIPMENT, LIGHTING FIXTURES, CONDUIT, CABLE TRAYS AND BUS DUCTS. SEISMIC ENGINEER SHALL BE RETAINED UNDER THE CONTRACTORS SCOPE OF WORK TO ENSURE SEISMIC INSTALLATIONS ARE APPROVED BY A CERTIFIED SEISMIC ENGINEER.~~

~~REFERENCE STANDARDS~~
~~-NATIONAL BUILDING CODE 4.1.8.~~
~~-LATEST VERSION OF PROVINCIAL BUILDING CODE.~~

PROJECT CLOSE OUT

THE FOLLOWING INFORMATION MUST BE PROVIDED TO THE ENGINEER PRIOR TO FINAL SITE INSPECTION AND ISSUANCE OF THE ENGINEERS FINAL SIGN OFF LETTER TO OBTAIN OCCUPANCY.

1. FIRE ALARM VERIFICATION REPORT.
2. LETTER OF ACCEPTANCE FROM THE ELECTRICAL SAFETY AUTHORITY.
3. EMERGENCY LIGHTING LETTER ATTESTING TO THE FACT THAT THE SYSTEM IS INSTALLED AS PER THE DESIGN DRAWINGS AND OPERATES TO MEET BCBC REQUIREMENTS.
4. ~~ELECTRICAL SYSTEM SEISMIC INSTALLATION FINAL SCHEDULE FROM SEISMIC ENGINEER.~~

THE FOLLOWING INFORMATION MUST BE PROVIDED TO THE OWNER UPON PROJECT COMPLETION;

1. LETTERS OF WARRANTY FROM THE ELECTRICAL CONTRACTORS.
2. AS BUILT DRAWINGS AND MANUALS.

FIRE ALARM SYSTEM:

A. PROVIDE NEW EQUIPMENT, COMPATIBLE WITH, OR OF THE SAME MANUFACTURER AS, THE EXISTING FIRE ALARM CONTROL PANEL AND SYSTEM, AT LOCATIONS INDICATED ON THE DRAWINGS, AS REQUIRED BY BUILDING CODES, THE LANDLORD, OR ALL THREE, AND CONNECT TO THE EXISTING FIRE ALARM CONTROL PANEL:

B. ANY FIRE ALARM DEVICES AND SYSTEM FOUND IN THIS PREMISES SHALL BE MAINTAINED OPERATIONAL DURING AND AFTER CONSTRUCTION. NOTIFY THE LANDLORD AND OBTAIN ITS APPROVAL FOR RELOCATION, MODIFICATION, AND/OR DELETION OF EXISTING F.A. DEVICES TO SUIT NEW STORE LAYOUT. THIS CONTRACTOR TO BEAR THE COST FOR F.A. WORKS DONE BY THE LANDLORD'S CONTRACTOR.

C. INSTALL FIRE ALARM DEVICES IN ACCORDANCE WITH THE LATEST VERSION OF CAN/ULC-S524 AND BASE BUILDING STANDARD. PROVIDE FIRE ALARM VERIFICATION REPORT FOR AFFECTED FIRE ALARM DEVICES IN ACCORDANCE WITH THE LATEST VERSION OF CAN/ULC-S537.

D. CONDUCT AUDIBILITY TEST AS PER CAN/ULC-S537. PROVIDE SIGNALLING DEVICE SOUND LEVEL MEASUREMENT REPORT AS SHOWN ON CAN/ULC-S537 APPENDIX C6.3.

lululemon
1818 CORNWALL AVE.
VANCOUVER, B.C., V6J1C7

CF POLO PARK
1485 PORTAGE AVE, UNIT 144E
WINNIPEG, MB
R3G 0W5

ARCHITECT

BDP. Quadrangle
Quadrangle Architects Limited
8 Spadina Avenue, Suite 2100 Toronto, ON M5V 0S8
t 416 598 1240 www.bdpquadrangle.com

MEP ENGINEER

THOMAS A. FEKETE LTD.
7181 WOODBINE AVE UNIT 229
MARKHAM ONTARIO L3R 1A3
PH.: (905) 946 4260 FAX: (905) 946 0901
JOB #: 23061

PROVINCE OF MANITOBA
Z.H. GUO
Member
45105
REGISTERED PROFESSIONAL ENGINEER
06/09/2023

APEGM
Certificate of Authorization
Thomas A. Fekete Ltd.
No. 5075 Date: 06/09/2023

ISSUED FOR CONSTRUCTION

07/14/2023

△	DATE	DESCRIPTION
	06/07/2023	ISSUED FOR COORDINATION
	06/09/2023	ISSUED FOR PERMIT/ CONSTRUCTION
	06/09/2023	ISSUED FOR BID
	07/13/2023	ISSUED FOR COORDINATION
	07/14/2023	ISSUED FOR CONSTRUCTION

[redacted]

DRAWING INFORMATION
PROJECT #: 23206
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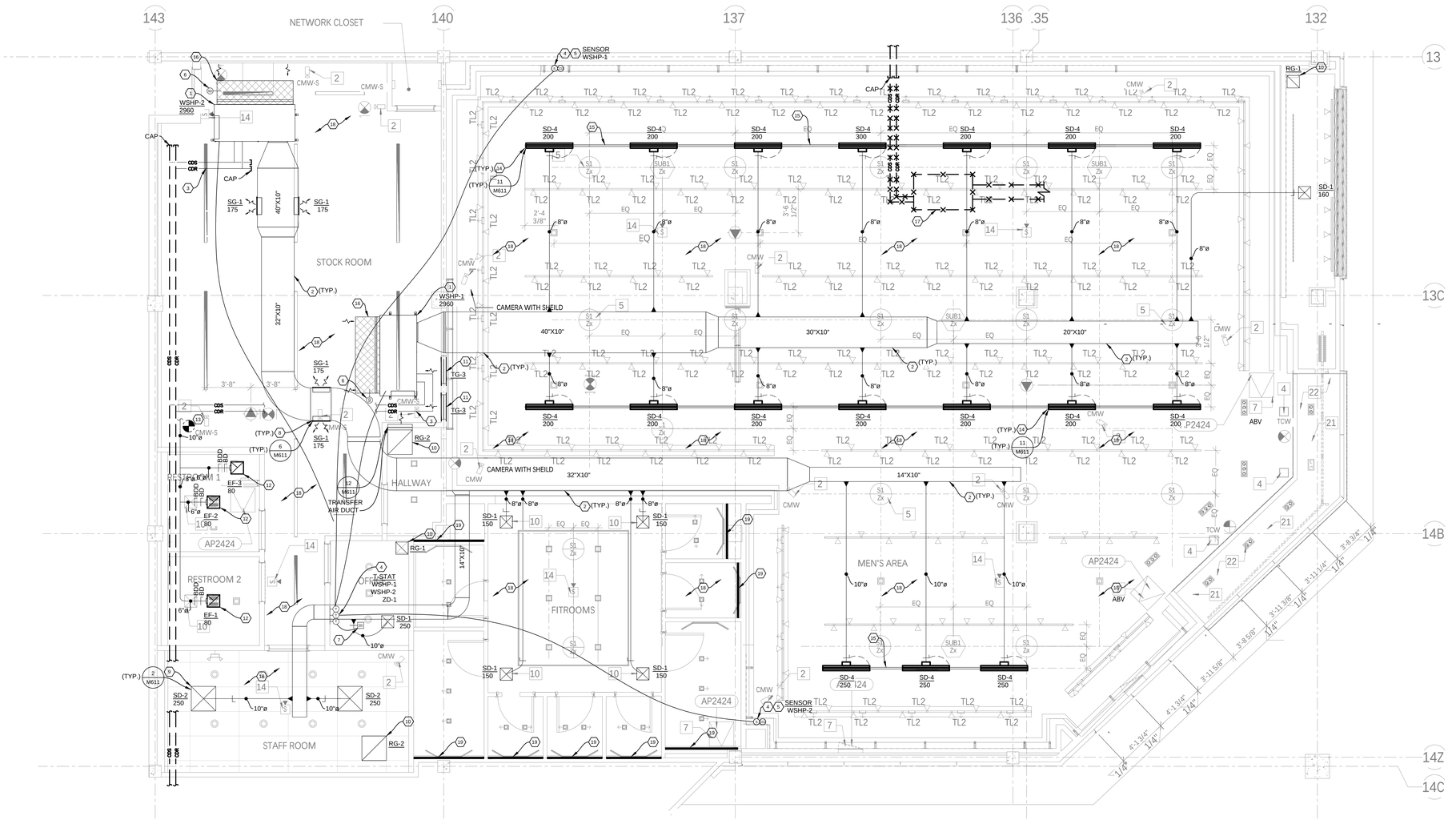
ELECTRICAL SPECIFICATIONS

DRAWING NUMBER
E610



MECHANICAL PLAN

1/4"=1'-0"

HVAC CODED NOTES:

1. EXISTING WSHP-1 TO RELOCATE AS SHOWN. EXISTING APPROXIMATE LOCATION OF WSHP-2 TO REMAIN AS SHOWN. AIR BALANCE AS SHOWN. SEE WATER SOURCE HEAT PUMP SCHEDULE FOR FURTHER DETAILS. FIELD VERIFICATION FOR EXACT LOCATION. THE HEAT PUMP REPLACEMENT IS PART OF A REPLACEMENT PROGRAM THAT THE LANDLORD IS CURRENTLY WORKING ON.
2. PROVIDE NEW MAIN AND BRANCH DUCT, FLEXIBLE DUCT AND DIFFUSERS AS SHOWN. DUCT TO BE PAINTED TO MATCH CEILING.BOTTOM OF DUCTWORK HEIGHT TO BE COORDINATED WITH ARCHITECTURAL ELEMENTS. FIELD VERIFY HEIGHT OF DUCTWORK TO NOT CONFLICT WITH BEAMS AND SPRINKLER HEIGHT.(TYPICAL)
3. CONNECT AND EXTEND NEW CONDENSER WATER SUPPLY AND RETURN PIPE TO EXISTING FOR WSHP-1. EXISTING CONDENSER WATER SUPPLY AND RETURN PIPE TO REMAIN FOR FOR WSHP-2. FIELD VERIFY EXACT LOCATION.
4. BASE BUILDING MECHANICAL CONTRACTOR SHALL FURNISH AND INSTALL TRANE THERMOSTAT WITH REMOTE SENSOR AS SHOWN MOUNTED AT 4 FT. ABOVE FINISHED FLOOR. COORDINATE EXACT LOCATION WITH TENANT. THE ENTIRE CONTROL SYSTEM SHALL BE PROVIDED COMPLETE IN EVERY RESPECT BY THE BASE BUILDING MECHANICAL CONTRACTOR AT TENANT'S COST. ORDER WITH THE HVAC EQUIPMENT. THE CONTROL SYSTEM SHALL INCLUDE THE FOLLOWING COMPONENTS AND FUNCTIONS:
   - AUTOMATIC OCCUPIED/UNOCCUPIED OPERATION WITH PROGRAMMABLE THERMOSTAT.
   - THE SYSTEM SHALL AUTOMATICALLY INDEX EQUIPMENT TO THE HEATING, COOLING, AND OCCUPIED AND UNOCCUPIED MODES OF OPERATION.
   - CONTINUOUS SUPPLY FAN OPERATION MUST BE MAINTAINED DURING OCCUPIED HOURS.
   - OUTSIDE AIR SYSTEMS SHALL INCLUDE A MOTORIZED DAMPER INTERLOCKED TO CLOSE WHEN THE UNIT SUPPLY FAN IS DE-ENERGIZED.
5. MOUNT CO2 SENSOR BETWEEN 48" AND 60" AFF FOR DEMAND CONTROL VENTILATION. THE MINIMUM CODE REQUIRED OUTDOOR AIR CFM WILL BE MAINTAINED WHENEVER THE SPACE IS OCCUPIED REGARDLESS OF C02 SENSOR CONTROL.
6. SMOKE DETECTOR FURNISHED AND INSTALLED BY MECHANICAL CONTRACTOR. SMOKE DETECTOR TO BE INSTALLED IN THE RETURN AIR DUCT OF THE ROOF TOP UNIT. THE SMOKE DETECTOR SHALL SHUT DOWN THE HVAC UNIT UPON SENSING SMOKE.
7. ZD-1 :
   CONTRACTOR SHALL FURNISH AND INSTALL A ZONE DAMPER WITH CONTROLS EQUAL TO YOUNG REGULATOR #2000. FURNISH #2075 ROUND DAMPER OR #2085 RECTANGULAR DAMPER, SIZED FOR DUCT INDICATED ON THE PLAN, WITH MODEL #T-312-CE ZONE THERMOSTAT MOUNTED AT 48" A.F.F. WHERE INDICATED ON THE PLAN. THE DAMPER AND THERMOSTAT SHALL BE MODULATING TYPE AND CAPABLE OF AUTO-CHANGEOVER. MOUNT CHANGE-OVER SENSOR IN THE DUCT PER MANUFACTURER'S PRINTED INSTRUCTIONS, SET FOR MIN. OPENING TO BE 30%. 120V. CONNECTION BY THE ELECTRICAL CONTRACTOR. ALL LOW VOLTAGE SYSTEMS BY THIS CONTRACTOR.

HVAC CODED NOTES:

8. SUPPLY AND INSTALL NEW SPIRAL DUCT MOUNTED EXTRUDED SUPPLY AIR GRILLES SG-1 AS NOTED ON PLANS AND SCHEDULES. TYPICAL FOR ALL.
9. SUPPLY AND INSTALL NEW PLAQUE SQUARE SUPPLY AIR DIFFUSERS SD-1 AND SD-2 AS NOTED ON PLANS AND SCHEDULES. TYPICAL FOR ALL.
10. SUPPLY AND INSTALL NEW RETURN AIR GRILLES RG-1 AND RG-2 AS NOTED ON PLANS AND SCHEDULES. TYPICAL FOR ALL.
11. ENSURE TRANSFER AIR OPENINGS AND/OR GRILLES ON HIGH SIDE WALL AND ABOVE CEILING WHERE APPLICABLE FOR RETURN AIR PATH TO UNITS. PROVIDE FIRE DAMPER AT RATED PARTITIONS. VERIFY BEST LOCATION AND SIZE AT SITE. COORDINATE COLOR WITH ARCHITECT FOR SALES FLOOR TRANSFER GRILLES. TYPICAL FOR ALL.
12. EXHAUST FAN COMPLETE WITH INTEGRAL BACKDRAFT DAMPER AND ON-OFF SWITCH, UNIT SHALL BE FURNISHED WITH LIGHTING PACKAGE AND INSTALLED BY MECHANICAL CONTRACTOR. EXHAUST CAPACITY SHALL BE AS SCHEDULED. CONTRACTOR TO FURNISH AND INSTALL EXHAUST DUCT AND ACCESSORIES AS REQUIRED. VERIFY IN FIELD EXACT LOCATION.
13. RUN 10"Ø EXHAUST DUCT TO EXISTING EXHAUST MALL SYSTEM PROVISION. CONFIRM SYSTEM LOCATION ON SITE. VERIFY ACTUAL LOCATION ON SITE.
14. SUPPLY AND INSTALL NEW LINEAR SUPPLY AIR PLENUM ON TOP OF CONTINUOUS LINEAR RETURN SLOT . TYPICAL FOR ALL.
15. SUPPLY AND INSTALL NEW CONTINUOUS LINEAR RETURN AIR SLOT RG-3 AS NOTED ON PLANS AND SCHEDULES. TYPICAL FOR ALL.
16. PROVIDE NEW ACOUSTICALLY LINE FIELD FABRICATED RETURN DUCT PLENUM. SIZE TO MATCH THE AIR HANDLING COIL RETURN OPENING. PROVIDE AND FILTER SECTION.
17. REMOVE EXISTING HEAT PUMP, ASSOCIATED DUCT WORK AND CONDENSER WATER SUPPLY AND RETURN PIPE AS SHOWN. VERIFY ACTUAL LOCATION AT SITE.
18. REMOVE ALL EXISTING EQUIPMENT,DUCTS AND PIPES THAT WILL NOT BE USED IN THE NEW MECHANICAL SYSTEM. PATCH AND SEAL ANY OPENINGS NOT USED. EXISTING LANDLORD BASE BUILDING MECHANICAL SYSTEM TO REMAIN. FIELD VERIFY AND COORDINATE WITH THE LANDLORD.
19. 1" SLOT FOR RETURN AIR PATH. REFER TO ARCHITECTURAL PLANS FOR DETAIL.

FIELD VERIFY ALL CONDITIONS

DESIGN DRAWINGS ARE SCHEMATIC. THIS CONTRACTOR SHALL VISIT THE SITE PRIOR TO BIDDING OR AWARD OF CONTRACT TO INSPECT EXISTING FIELD CONDITIONS. THIS CONTRACT SHALL INCLUDE ALL LABOR AND MATERIALS NECESSARY FOR FIELD MODIFICATIONS DUE TO EXISTING CONDITIONS.

THE CONTRACTOR SHALL CONTACT THE ARCHITECT, ENGINEER OR OWNER PRIOR TO BIDDING FOR INTERPRETATIONS AND CLARIFICATIONS OF THE DESIGN AND INCLUDE IN HIS BID ALL COSTS TO MEET THE DESIGN INTENT. CLARIFICATIONS MADE BY THE ARCHITECT, ENGINEER OR OWNER AFTER BIDDING WILL BE FINAL AND SHALL BE IMPLEMENTED AT CONTRACTORS COST.

BIDDING CONTRACTORS SHALL HAVE A WORKING KNOWLEDGE OF LOCAL CODES AND ORDINANCES AND SHALL INCLUDE IN THEIR BIDS THE COSTS FOR ALL WORK INSTALLED IN STRICT ACCORDANCE WITH GOVERNING CODES, THE PLANS AND SPECIFICATIONS NOT WITHSTANDING. THE CONTRACTOR SHALL ALERT ARCHITECT, ENGINEER OR OWNER OF ANY APPARENT DISCREPANCIES BETWEEN GOVERNING CODES AND DESIGN INTENT.

HVAC GENERAL NOTES:

1. EXISTING CONDITIONS WERE TAKEN FROM ORIGINAL DRAWINGS AND SITE VISITS AND MAY NOT REFLECT EXACT "AS-BUILT" CONDITIONS. FIELD VERIFY EXISTING CONDITIONS PRIOR TO SUBMITTING FINAL BIDS. COORDINATE NEW WORK AND DEMOLITION WITH OTHER DISCIPLINES AND EXISTING CONDITIONS PRIOR TO CONSTRUCTION. MECHANICAL CONTRACTOR TO PROVIDE TENANT WITH AS-BUILT DRAWINGS, ALL EQUIPMENT SHOP DRAWINGS, INFORMATION ON THERMOSTATS, CONTROL WIRING DIAGRAMS AND OTHER PERTINENT INFORMATION AT COMPLETION OF PROJECT.
2. COORDINATE THE INSTALLATION OF THE MECHANICAL SYSTEMS WITH OTHER TRADES TO ENSURE A NEAT AND ORDERLY INSTALLATION. COORDINATE INSTALLATION OF DUCTWORK AND PIPING TO AVOID CONFLICTS WITH ELECTRICAL PANELS, LIGHTING FIXTURES, ETC.
3. AVOID DAMAGING EXISTING SURFACES AND EQUIPMENT TO REMAIN FOR NEW INSTALLATION DURING WORK. REPAIR DAMAGE CAUSED DURING CONSTRUCTION AT NO EXTRA COST TO THE OWNER.
4. ALL MECHANICAL EQUIPMENT SHOWN ON THE MECHANICAL PLANS SHALL BE PROVIDED BY THE MECHANICAL CONTRACTOR UNLESS OTHERWISE NOTED.
5. NEW MECHANICAL EQUIPMENT AND DUCTWORK ARE SHOWN AT APPROXIMATE LOCATIONS. FIELD MEASURE FINAL DUCTWORK LOCATIONS PRIOR TO FABRICATION AND MAKE ADJUSTMENTS AS REQUIRED TO FIT THE DUCTWORK WITHIN THE AVAILABLE SPACE. VERIFY THAT FINAL EQUIPMENT LOCATIONS MEET MANUFACTURER'S RECOMMENDATIONS REGARDING SERVICE CLEARANCE AND PROPER AIRFLOW CLEARANCE AROUND EQUIPMENT.
6. GC MUST FLUSH ALL MECHANICAL PIPING PRIOR TO CONNECTING TO BUILDING SYSTEMS.
7. FLEXIBLE INSULATED DUCTS SHALL BE MAXIMUM 3'-0" LONG AND SHALL MEET INSTALLATION AND MATERIAL REQUIREMENTS OF LOCAL CODES.
8. ALL BRANCH TAKE-OFFS SHALL BE PROVIDED WITH MANUAL BALANCING DAMPERS.
9. MECHANICAL CONTRACTOR SHALL FURNISH AND INSTALL A COMPLETE TEMPERATURE CONTROL SYSTEM TO INCLUDE: PANELS, MODULES, RELAYS, WIRING, THERMOSTATS, SENSORS, DAMPERS, ACTUATORS AND ALL MISCELLANEOUS ITEMS AS REQUIRED TO FULFILL THE DESIGN INTENT AS INDICATED ON THE PLANS AND IN THE CODED NOTES.
10. MECHANICAL CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION WITH ELECTRICAL CONTRACTOR FOR ALL EQUIPMENT POWER REQUIREMENTS PRIOR TO ORDERING AND FINAL INSTALLATION OF EQUIPMENT
11. INSTALL DUCTWORK PARALLEL TO BUILDING COLUMN LINES UNLESS OTHERWISE SHOWN OR NOTED.
12. OVERHEAD HANGERS AND SUPPORTS FOR EQUIPMENT AND DUCTWORK SHALL BE FASTENED TO BUILDING JOISTS OR BEAMS. DO NOT ATTACH HANGERS AND SUPPORTS TO THE ABOVE FLOOR SLAB OR ROOF.
13. COORDINATE LOCATION OF EQUIPMENT SUPPORTS WITH LOCATION OF EQUIPMENT ACCESS PANELS/DOORS TO ENABLE SERVICE OF EQUIPMENT AND/OR FILTER REPLACEMENT.
14. SEAL PENETRATIONS THROUGH THE BUILDING COMPONENTS IN ACCORDANCE WITH THE CONTRACT SPECIFICATIONS. FIREPROOF PENETRATIONS THROUGH FIRE RATED COMPONENTS IN ACCORDANCE WITH U.L. REQUIREMENTS.
15. COORDINATE THE EXACT MOUNTING SIZE AND FRAME TYPE OF DIFFUSERS, REGISTERS AND GRILLES WITH THE SUPPLIER TO MEET THE CEILING, WALL AND DUCT INSTALLATION REQUIREMENTS.
16. ADJUST LOCATION OF CEILING DIFFUSERS, REGISTERS AND GRILLES AS REQUIRED TO ACCOMMODATE FINAL CEILING GRID AND LIGHTING LOCATIONS. BRANCH DUCTWORK TO AIR OUTLETS SHALL BE SAME SIZE AS OUTLET NECK SIZE UNLESS OTHERWISE NOTED.
17. PROVIDE A NEW SET OF MERV 8 AIR FILTERS IN UNITS PRIOR TO TESTING, ADJUSTING AND BALANCING AND BEFORE TURNING SYSTEM(S) OVER TO OWNER.
18. ALL ROOF PENETRATIONS SHALL BE PERFORMED BY A LANDLORD APPROVED CONTRACTOR TO MAINTAIN WARRANTIES.
19. TENANT SHALL LOCATE ANY ROOF TOP VENTS A MINIMUM OF 10' AWAY FROM ANY ADJACENT ROOFTOP UNIT.
20. FIELD VERIFY EXISTING CONDITIONS AND THAT SPACE CONFORMS TO APPROVED LEASE OUTLINE DRAWING, AS APPROVED WITH LEASE AGREEMENT.
21. CONTRACTOR SHALL BE RESPONSIBLE FOR MEETING ALL APPLICABLE CODES AND OBTAINING ALL JURISDICTIONAL APPROVALS. ALL WORK SHALL BE IN STRICT ACCORDANCE WITH ALL FEDERAL, STATE AND LOCAL CODES AND ORDINANCES.
22. ANY EXISTING HVAC UNITS NOT TO BE REUSED BY TENANT SHALL BE REMOVED AND DISCARDED BY TENANT G.C. AND ROOF PATCHED IF REQUIRED.
23. INSULATE DUCTS IN HOT HUMID/MOIST CLIMATE ZONES.

THE OWNER RESERVES THE RIGHT TO CHECK CONSTRUCTION COMPLIANCE WITH PLANS AND SPECIFICATIONS. SHOULD THE OWNER FIND CORRECTIVE WORK NECESSARY, HE WILL NOTIFY CONTRACTOR OF SUCH WORK IN WRITING AND EXPECT COMPLIANCE PERFORMED WITH DUE DILIGENCE. IF ANY CORRECTIVE WORK IS DEEMED TO BE NECESSARY, THE COST OF REINSPECTIONS WILL BE BORNE BY THE CONTRACTOR.

IF WORK IS REQUIRED BY OWNER IN ORDER TO IMPROVE, CHANGE OR CORRECT AIR CONDITIONING OPERATIONAL CONDITIONS DUE TO PART MALFUNCTION, WARRANTY OR OTHER INABILITY TO PROVIDE THE COMFORT CONDITIONS REQUIRED BY THE STORE, CONTRACTOR SHALL BE DIRECTED BY OWNER TO ADDRESS THIS WORK IN A TIMELY MANNER. IF IT BECOMES EVIDENT THAT THE CONTRACTOR CAN NOT ACCOMPLISH THE TASK, THEN AFTER 72 HOURS OF WRITTEN NOTICE, THE OWNER MAY AT HIS DISCRETION TAKE OVER SUCH WORK AND BACK CHARGE THE CONTRACTOR FOR ANY CORRECTIVE WORK THAT WAS REQUIRED DUE TO LACK OF PERFORMANCE, WORKMANSHIP AND/OR ADHERENCE TO PLANS AND SPECIFICATIONS.

SYMBOL LEGEND

SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
	SUPPLY AIR DIFFUSER - SHADING DENOTES BLANK-OFF		CEILING EXHAUST GRILLE
	RETURN AIR GRILLE OR DUCT	T	T-DENOTES THERMOSTAT
	DUCT MOUNTED DIFFUSER	S	S-DENOTES SENSOR
	BOTTOM DUCT MOUNTED DIFFUSER	CO2	CARBON DIOXIDE SENSOR
	SUPPLY AIR DUCT RISE. SIMILAR FOR RETURN AIR	TV	TURNING VANES
	SUPPLY AIR DUCT DROP. SIMILAR FOR RETURN AIR		DUCT TRANSITIONS
HSW	HIGH SIDE WALL		BRANCH DUCT WITH SPIN-IN FITTING AND VOLUME DAMPER
LSW	LOW SIDE WALL		
E	EXISTING TO REMAIN	FD	FD - FIRE DAMPER
	ROOF MOUNTED EQUIPMENT AS NOTED	SD	DUCT SMOKE DETECTOR
		M.C.	MECHANICAL CONTRACTOR
		E.C.	ELECTRICAL CONTRACTOR

lululemon
1818 CORNWALL AVE.
VANCOUVER, B.C., V6J1C7

CF POLO PARK
1485 Portage Ave, Unit 144E
Winnipeg, MB
R3G 0W5

ARCHITECT
BDP. Quadrangle
Quadrangle Architects Limited
90 Eglinton Avenue East Toronto, ON M4P 0S8
t 416 598 1240 www.bdpquadrangle.com

ARCHITECT SEAL

THOMAS A. FEKETE LTD.
7181 WOODBINE AVE UNIT 229
MARKHAM ONTARIO L3R 1A3
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DRAWING INFORMATION
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HVAC PLAN

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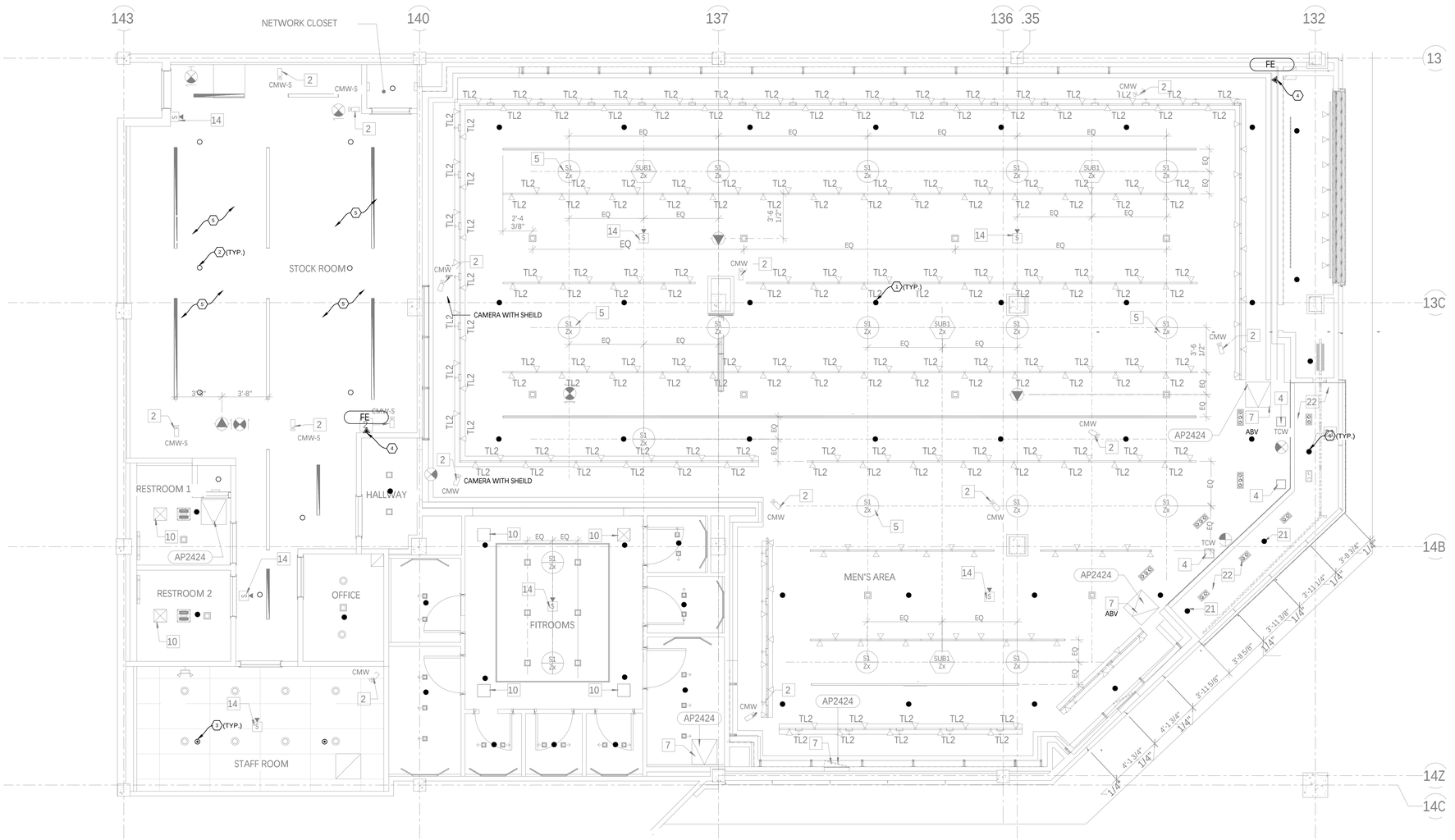

SPRINKLER PLAN

1/4"=1'-0"

FIRE PROTECTION SPECIFICATION:

1. HAVE SPRINKLER INSTALLATION PERFORMED BY A CONTRACTOR APPROVED BY THE LANDLORD LISTED BY IAO AND LICENSED FOR SPRINKLER INSTALLATION BY THE AUTHORITIES.
2. HAVE SPRINKLER SYSTEM SIZED BY HYDRAULIC DESIGN. HAVE SPRINKLER DRAWINGS SUBMITTED TO THE OWNER'S INSURANCE UNDERWRITER AND OBTAIN THEIR APPROVAL.
3. IT IS THE RESPONSIBILITY OF THIS SPRINKLER CONTRACTOR TO PREPARE AND SUBMIT SHOP DRAWINGS AND ALL PERTINENT DOCUMENTS AND CALCULATIONS AS REQUIRED BY THE AUTHORITIES HAVING JURISDICTION, AND SHALL BEAR THE SEAL AND SIGNATURE OF A PROFESSIONAL ENGINEER. FILES THESE DRAWINGS WITH LOCAL BUILDING DEPARTMENTS AND AUTHORITIES HAVING JURISDICTION AND OBTAIN ALL NECESSARY APPROVALS AND PERMITS. CONTRACTOR SHALL BEAR ALL COSTS OF PREPARING SHOP DRAWINGS, CALCULATIONS AND SECURING PERMITS AND APPROVALS.
4. HAVE DRAWINGS AND CALCULATIONS SUBMITTED TO THE OWNER'S INSURANCE UNDERWRITER.
5. INSTALL ALL PIPING, DROPS AND HEADS. PROVIDE TEST CONNECTIONS PIPED TO DRAIN OR TO OUTDOORS. HAVE SYSTEM TESTED TO THE APPROVAL OF AUTHORITIES, UNDERWRITERS AND THE OWNER.
6. ENSURE SPRINKLER SYSTEM INSTALLATION IS COORDINATED WITH DUCTWORK INSTALLATION. SPRINKLER HEAD POSITIONING SHALL COMPLY WITH NFPA-13 REQUIREMENTS FOR DISTANCE AND HEIGHT INSTALLATION.
7. MAINTAIN ALL SPRINKLER AND ANY OTHER FIRE AND LIFE SAFETY PROTECTION SERVICES IN OPERATION AT ALL TIMES DURING CONSTRUCTION.
8. CO-ORDINATE CHANGES TO EXISTING SPRINKLER SYSTEM WITH ALL TRADES PRIOR TO INSTALLATION. MODIFY EXISTING SPRINKLER PIPING AS REQUIRED TO COMPLY WITH NFPA CODE, AND TO SUIT NEW SPRINKLER HEAD LAYOUT AND TO AVOID INTERFERENCE WITH NEW DUCTWORK AND EQUIPMENT. ALLOWANCES FOR ADDITIONAL WORK AND MATERIALS REQUIRED TO SUIT SITE CONDITIONS AND REROUTING OF EXISTING AND/OR NEW SERVICES SHALL BE INCLUDED IN TENDER PRICE.
9. ADJUST SPRINKLER DROPS TO SUIT LAYOUT AND CEILING HEIGHTS.
10. EXISTING SPRINKLER HEADS SHALL BE REMOVED OR RELOCATED. PROVIDE NEW SPRINKLER HEADS AND NEW PIPING AS REQUIRED.
11. NEW SPRINKLER HEADS SHALL BE AS FOLLOWS:
- CONCEALED AUTOMATIC SPRINKLER HEADS (165 DEGREES), RELIABLE MODEL "G-4" WITH WHITE COVER PLATE.
- SURFACE PENDANT AUTOMATIC SPRINKLER HEADS (165 DEGREES), RELIABLE MODEL "G" WITH NATURAL BRONZE FINISH.
- UPRIGHT AUTOMATIC SPRINKLER HEADS (165 DEGREES), RELIABLE MODEL "G" WITH NATURAL BRONZE FINISH.
- SIDE WALL HORIZONTAL SPRINKLER HEADS (165 DEGREE) RELIABLE MODEL F-1.
12. ADD NEW SPRINKLER HEADS AND PIPING WHERE REQUIRED DUE TO SITE CONDITIONS TO OBTAIN THE NECESSARY APPROVALS FROM LOCAL AUTHORITIES AND UNDERWRITERS.
13. SUBMIT A SEPARATE PRICE FOR THE ADDITION AND/OR DELETION OF ONE SPRINKLER HEAD OF EACH TYPE SPECIFIED. ANY NUMBER OF SPRINKLER HEADS MAY BE INCORPORATED AT THIS UNIT PRICE.
14. ALL SPRINKLER HEADS LOCATED WITHIN 12" OF SURFACE MOUNTED TRACK LIGHTING FIXTURES SHALL BE 212 DEGREES F. TYPE. MAINTAIN MINIMUM 6" CLEAR BETWEEN SPRINKLER HEADS AND TRACK LIGHTING FIXTURES.
15. FIRE DAMPERS AND FIRE STOP FLAPS MUST BE PROVIDED AS REQUIRED.
16. SPRINKLER DISTRIBUTION WITHIN TENANT SPACES SHALL BE IN ACCORDANCE WITH NFPA-13 AND LOCAL FIRE DEPARTMENT. TENANT IS REQUIRED TO UTILIZE LANDLORD DESIGNATED CONTRACTOR FOR ANY NECESSARY MODIFICATION AND THE ISSUANCE OF A CERTIFICATE STATING MEETS WITH THE CODE. (3A 10BC DRY CHEMICAL FIRE EXTINGUISHER).
17. FIRE EXTINGUISHER TO BE LARSEN'S MP-5W/BRACKET 846 OR LARSEN'S MP-5W/SEMI RECESSED CABINET 24095R, STAINLESS STEEL W/TEMPERED GLASS WINDOW.
18. FIRE EXTINGUISHERS FIRE EXTINGUISHERS MUST BE PROVIDED AND DISTRIBUTED THROUGHOUT ANY AREA THE GC IS WORKING IN ACCORDANCE WITH NFPA 10, STANDARD FOR PORTABLE FIRE EXTINGUISHERS. THE TRAVEL DISTANCE TO A FIRE EXTINGUISHER CANNOT EXCEED 50 FEET. ACCESS TO FIRE EXTINGUISHERS MUST BE ALONG A CLEAR, UNOBSTRUCTED PATH.

GENERAL SPRINKLER NOTES:

1. REFER TO ARCHITECTURAL FOR COLOUR SPECIFICATION FOR THE COVER OF SPRINKLER HEAD IN DRY WALL OR T-BAR CEILING AREA AND AT EXPOSED CEILING AREA.
5. UPON COMPLETION, THE GENERAL CONTRACTOR SHALL SUBMIT TO LANDLORD A SIGNED LETTER BY A P. ENG. CERTIFYING THAT THE FIRE SPRINKLER INSTALLATION WITHIN THE PREMISES COMPLIES WITH BCBC/NFPA 13 AND OWNER'S INSURANCE.
6. CONTRACTOR TO REVIEW EXISTING SPRINKLER LAYOUT ON SITE AND INSTALL NEW SPRINKLER HEAD(S) AS REQUIRED TO COMPLY WITH BCBC/NFPA 13 AND LANDLORD'S INSURANCE COMPANY.
7. ALL MODIFICATIONS TO THE SPRINKLER SYSTEM AND LIFE SAFETY SYSTEM MUST BE COORDINATED WITH THE LANDLORD MANAGER AND WILL BE COMPLETED BY THE BASE BUILDING SPRINKLER CONTRACTOR AT THIS CONTRACTOR COST. THIS CONTRACTOR TO PROVIDE A COPY OF THE TENANT SPRINKLER SHOP DRAWING WHENEVER IT IS AVAILABLE.
8. ENSURE NO UNCOVERED CEILING POCKETS BEYOND NFPA 13 ALLOWANCE IS CREATED
9. HYDRAULIC CALCULATION IS NOT INCLUDED AND REMAINS THE RESPONSIBILITY OF THE SPRINKLER DESIGN ENGINEER AND THIS CONTRACTOR.
10. FLEXIBLE SPRINKLER PIPING IS NOT PERMITTED.
11. SPRINKLER SYSTEM THROUGHOUT SPACE. PROVIDE NEW HEADS AS REQUIRED TO ACCOMMODATE LAYOUT. SPRINKLER HEADS SHOWN FOR LOCATION/CEILING COORDINATION ONLY. ALIGN SPRINKLER HEADS WITH THE ADJACENT CEILING ELEMENTS WHERE CEILINGS OCCUR. STAMPED DESIGN DRAWINGS TO BE SUBMITTED BY SPRINKLER CONTRACTOR AND APPROVED BY LULULEMON. SUBMIT A COPY OF THE SPRINKLER SHOP DRAWINGS TO THE LANDLORD.

(9) CODED SPRINKLER NOTES:

1. SUPPLY AND INSTALL NEW FULLY RECESSED TYPE SPRINKLER HEADS IN GWB OR T-BAR CEILING (TYPICAL).
2. SUPPLY AND INSTALL NEW UPRIGHT TYPE SPRINKLER HEADS IN OPEN CEILING (TYPICAL).
3. SUPPLY AND INSTALL NEW SEMI RECESSED TYPE SPRINKLER HEADS IN BOH T-BAR CEILING (TYPICAL).
4. SUPPLY AND INSTALL NEW FIRE EXTINGUISHERS. EXACT LOCATION TO BE DETERMINED ON SITE PER LOCAL CODES.
5. INSTALL SPRINKLER HEADS ABOVE AND BELOW DUCT WORK AND EQUIPMENT AS REQUIRED BY NFPA 13. VERIFY ACTUAL LOCATION ON SITE.
6. CONCEALED SPRINKLER HEAD IN WOOD PORTAL TO BE BRUSHED CHROME. COORDINATED COLOR WITH ARCHITECT PRIOR TO INSTALLATION.

FIRE EXTINGUISHER SCHEDULE

TAG	LOCATION	MODEL	CAPACITY	UL RATING	DESCRIPTION
FE-1	TENANT AREAS	LARSEN'S MP-5	5LBS	3A-40BC	MULTI-PURPOSE DRY CHEMICAL FIRE EXTINGUISHER WALL HUNG WITH BRACKET 846

NOTES:
1. MECHANICAL CONTRACTOR TO PROVIDE PORTABLE FIRE EXTINGUISHERS AS PER PLANS AND NFPA 10. PROVIDE CERTIFICATION TAG AT BUILDING TURNOVER.

SPRINKLER LEGEND

SYMBOL	TYPE
●	NEW FULLY RECESSED/CONCEALED SPRINKLER HEAD FACTORY WHITE UNO
⊙	NEW SEMI-RECESSED SPRINKLER HEAD IN BACK OF HOUSE ACT CEILING
○	NEW UPRIGHT SPRINKLER HEAD
○E ●E	EXISTING SPRINKLER HEAD
/R	EXISTING SPRINKLER TO BE REMOVED
FE	FIRE EXTINGUISHER WALL MOUNTED
FE-R	RECESSED CABINET TYPE FIRE EXTINGUISHER

HEAD LOCATION SHOWN FOR COORDINATION ONLY. LICENSED FIRE PROTECTION CONTRACTOR SHALL PROVIDE AND SUBMIT DRAWINGS FOR MODIFICATION OF EXISTING SYSTEM. SPRINKLER HEADS TO BE FM GLOBAL APPROVED.

lululemon
1818 CORNWALL AVE.
VANCOUVER, B.C., V6J1C7

CF POLO PARK
1485 Portage Ave, Unit 144E
Winnipeg, MB
R3G 0W5

ARCHITECT

BDP. Quadrangle
Quadrangle Architects Limited
52 Wellington Street East, Toronto, ON M5V 0S8
t 416 598 1240 www.bdpquadrangle.com

ARCHITECT SEAL

THOMAS A. FEKETE LTD.
7181 WOODBINE AVE UNIT 229
MARKHAM ONTARIO L3R 1A3
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SPRINKLER PLAN

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M111

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HVAC LOAD CALCULATIONS

Air System Information

Air System Name	BLOCKLOAD	Number of zones	1
Equipment Class	UNDEF	Floor Area	5118.7 ft²
Air System Type	SZCAV	Location	Winnipeg, Manitoba

Sizing Calculation Information

Calculation Months	Jan to Dec	Zone CFM Sizing	Peak zone sensible load
Sizing Data	Calculated	Space CFM Sizing	Coincident space loads

Central Cooling Coil Sizing Data

Total coil load	11.9 Tons	Load occurs at	Jul 1500
Total coil load	142.4 MBH	OA DB / WB	87.0 / 68.0 °F
Sensible coil load	109.5 MBH	Entering DB / WB	83.6 / 66.9 °F
Coil CFM at Jul 1500	3672 CFM	Leaving DB / WB	55.2 / 53.8 °F
Max block CFM	3672 CFM	Coil ADP	52.1 °F
Sum of peak zone CFM	3672 CFM	Bypass Factor	0.100
Sensible heat ratio	0.769	Resulting RH	53 %
CFM/Ton	309.5	Design supply temp.	55.0 °F
ft²/Ton	431.5	Zone T-stat Check	1 of 1 OK
BTU/(hr·ft²)	27.8	Max zone temperature deviation	0.0 °F
Water flow @ 10.0 °F rise	28.49 gpm		

Central Heating Coil Sizing Data

Max coil load	184.7 MBH	Load occurs at	Des Htg
Coil CFM at Des Htg	3672 CFM	BTU/(hr·ft²)	36.1
Max coil CFM	3672 CFM	Ent. DB / Lvg DB	23.4 / 71.3 °F
Water flow @ 20.0 °F drop	18.48 gpm		

Supply Fan Sizing Data

Actual max CFM	3672 CFM	Fan motor BHP	1.01 BHP
Standard CFM	3569 CFM	Fan motor kW	0.80 kW
Actual max CFM/ft²	0.72 CFM/ft²	Fan static	1.00 in wg

Outdoor Ventilation Air Data

Design airflow CFM	1803 CFM	CFM/person	16.87 CFM/person
CFM/ft²	0.35 CFM/ft²		

Air System Information

Air System Name	BLOCKLOAD	Number of zones	1
Equipment Class	UNDEF	Floor Area	5118.7 ft²
Air System Type	SZCAV	Location	Winnipeg, Manitoba

Sizing Calculation Information

Calculation Months	Jan to Dec	Zone CFM Sizing	Peak zone sensible load
Sizing Data	Calculated	Space CFM Sizing	Coincident space loads

Zone Terminal Sizing Data

Zone Name	Design Supply Airflow (CFM)	Minimum Supply Airflow (CFM)	Zone CFM/ft²	Reheat Coil Load (MBH)	Reheat Coil Water gpm @ 20.0 °F	Zone Htg Unit Coil Load (MBH)	Zone Htg Unit Water gpm @ 20.0 °F	Mixing Box Fan Airflow (CFM)
Zone 1	3672	3672	0.72	0.0	0.00	0.0	0.00	0

Zone Peak Sensible Loads

Zone Name	Zone Cooling Sensible (MBH)	Time of Peak Sensible Cooling Load	Zone Heating Load (MBH)	Zone Floor Area (ft²)
Zone 1	77.1	Jan 2300	0.0	5118.7

Space Loads and Airflows

Zone Name / Space Name	Mult.	Cooling Sensible (MBH)	Time of Peak Sensible Load	Air Flow (CFM)	Heating Load (MBH)	Floor Area (ft²)	Space CFM/ft²
Zone 1							
FIT ROOMS	1	8.3	Jan 2300	394	0.0	538.0	0.73
HALLWAY	1	0.5	Jan 2300	24	0.0	38.0	0.64
NETWORK CLOSET	1	6.9	Jan 2300	328	0.0	14.0	23.44
OFFICE	1	2.0	Jan 2300	96	0.0	55.0	1.74
SALES AREA	1	47.8	Jan 2300	2279	0.0	3377.7	0.67
STAFF ROOM	1	4.8	Jan 2300	229	0.0	194.0	1.18
STOCK ROOM	1	6.2	Jan 2300	296	0.0	784.0	0.38
WASHROOMS AND MOP SINK	1	0.6	Jan 2300	27	0.0	118.0	0.23

	DESIGN COOLING			DESIGN HEATING		
	COOLING DATA AT Jul 1500 COOLING OA DB / WB 87.0 °F / 68.0 °F			HEATING DATA AT DES HTG HEATING OA DB / WB -27.0 °F / -27.4 °F		
ZONE LOADS	Details	Sensible (BTU/hr)	Latent (BTU/hr)	Details	Sensible (BTU/hr)	Latent (BTU/hr)
Window & Skylight Solar Loads	0 ft²	0	-	0 ft²	-	-
Wall Transmission	0 ft²	0	-	0 ft²	0	-
Roof Transmission	0 ft²	0	-	0 ft²	0	-
Window Transmission	0 ft²	0	-	0 ft²	0	-
Skylight Transmission	0 ft²	0	-	0 ft²	0	-
Door Loads	0 ft²	0	-	0 ft²	0	-
Floor Transmission	2371 ft²	0	-	2371 ft²	0	-
Partitions	0 ft²	0	-	0 ft²	0	-
Ceiling	0 ft²	0	-	0 ft²	0	-
Overhead Lighting	15474 W	36958	-	0	0	-
Task Lighting	0 W	0	-	0	0	-
Electric Equipment	3044 W	10386	-	0	0	-
People	107	29750	28841	0	0	0
Infiltration	-	0	0	-	0	0
Miscellaneous	-	0	0	-	0	0
Safety Factor	0% / 10%	0	2884	15%	0	0
>> Total Zone Loads	-	77093	31725	-	0	0
Zone Conditioning	-	78392	31725	-	0	0
Plenum Wall Load	0%	0	-	0	0	-
Plenum Roof Load	70%	0	-	0	0	-
Plenum Lighting Load	30%	15839	-	0	0	-
Return Fan Load	3672 CFM	0	-	3672 CFM	0	-
Ventilation Load	1803 CFM	12516	1157	1803 CFM	187382	0
Supply Fan Load	3672 CFM	2722	-	3672 CFM	-2722	-
Space Fan Coil Fans	-	0	-	-	0	-
Duct Heat Gain / Loss	0%	0	-	0%	0	-
>> Total System Loads	-	109470	32882	-	184660	0
Central Cooling Coil	-	109470	32882	-	0	0
Central Heating Coil	-	0	-	-	184660	-
>> Total Conditioning	-	109470	32882	-	184660	0
Key:	Positive values are clg loads Negative values are htg loads			Positive values are htg loads Negative values are clg loads		

OUTSIDE AIR VENTILATION SCHEDULE

Design Parameters:

City Name	Winnipeg
Location	Manitoba
Latitude	49.9 Deg.
Longitude	97.2 Deg.
Elevation	784.0 ft
Summer Design Dry-Bulb	87.0 °F
Summer Coincident Wet-Bulb	68.0 °F
Summer Daily Range	20.5 °F
Winter Design Dry-Bulb	-27.0 °F
Winter Design Wet-Bulb	-27.4 °F
Atmospheric Clearness Number	1.05
Average Ground Reflectance	0.20
Soil Conductivity	0.800 BTU/(hr·ft·°F)
Local Time Zone (GMT +/- N hours)	6.0 hours
Consider Daylight Savings Time	No
Simulation Weather Data	N/A
Current Data is	2001 ASHRAE Handbook
Design Cooling Months	January to December

DESIGN WEATHER PARAMETERS

1. Summary

Ventilation Sizing Method	ASHRAE Std 62.1-2016
Design Condition	Heating operation
Occupant Diversity (D)	1.000
Uncorrected Outdoor Air Intake (Vou)	1331 CFM
System Ventilation Efficiency (Ev)	0.738
Outdoor Air Intake (Vot)	1803 CFM

2. Space Ventilation Analysis

Zone Name / Space Name	Mult.	Supply Air (CFM) (Vpz)	Space Floor Area (ft²) (Az)	Area Outdoor Air Rate (CFM/ft²) (Ra)	Time Averaged Occupancy (Occupants) (Pz)	People Outdoor Air Rate (CFM/person) (Rp)	Air Distribution Effectiveness (Ez)	Space Outdoor Air (CFM) (Voz)	Breathing Zone Outdoor Air (CFM) (Vbz)	Space Ventilation Efficiency (Evz)
Zone 1										
FIT ROOMS	1	394	538.0	0.12	13.5	7.50	0.8	207	165	0.837
HALLWAY	1	24	38.0	0.12	1.0	7.50	0.8	15	12	0.738
NETWORK CLOSET	1	328	14.0	0.06	0.0	5.00	0.8	1	1	1.359
OFFICE	1	96	55.0	0.06	2.0	5.00	0.8	17	13	1.189
SALES AREA	1	2279	3377.7	0.12	84.4	7.50	0.8	1298	1039	0.793
STAFF ROOM	1	229	194.0	0.12	4.0	5.00	0.8	54	43	1.126
STOCK ROOM	1	296	784.0	0.06	2.0	5.00	0.8	71	57	1.121
WASHROOMS AND MOP SINK	1	27	118.0	0.00	0.0	0.00	0.8	0	0	1.362
Totals (incl. Space Multipliers)		3672							1331	0.738

AIR DEVICE SCHEDULE

NOTES:

1. SYMBOL KEY:
   FIRST LETTER: S - SUPPLY, R - RETURN, E - EXHAUST, T - TRANSFER
   SECOND LETTER: D - DIFFUSER, R - REGISTER, G - GRILLE
2. PROVIDE OPTIONAL DIRECTIONAL BLOW FEATURE FOR OTHER THAN 4-WAY.
3. FINISH:
   "A" WHITE
   "B" WHITE - G.C. TO FIELD PAINT TO MATCH CEILING OR WALL WITH ENAMEL FINISH. COORDINATE FINAL COLOR WITH ARCHITECT.
4. VOLUME DAMPER:
   FACTORY FURNISHED OPPOSED BLADE OR BUTTERFLY WHERE AVAILABLE. ADJUSTABLE FROM FACE USE MANUAL VOLUME DAMPERS.
5. BORDER STYLE:
   "A" SURFACE MOUNTED
   "B" LAY-IN, PROVIDE WITH PLASTER FRAME FOR DRYWALL CEILING MOUNTING
   "C" LAY-IN FRAME FOR T-BAR CEILING
6. PROVIDE BOOT FOR DUCT MOUNTING

SYMBOL (1)(2)	MANUFACTURER CATALOG NUMBER	NOMINAL SIZE MOD.	NOMINAL SIZE NECK	MOUNTING CLG.	MOUNTING OTHER	MATERIAL STEEL	MATERIAL ALUM.	FINISH (3)	DPR (4)	BORDER (5)	NOTES
SG-1	TITUS S300FL	14"x8"	12"x6"		●		●	B	OB	A	DUCT MOUNTED 1, 4, 5
SG-2	TITUS 300FL	14"x8"	12"x6"		●		●	B	OB	A	DUCT MOUNTED 1, 4
SD-1	TITUS OMNI	12"x12"	AS NOTE ON PLANS	●		●		A	ROB	B	1, 2
SD-2	TITUS OMNI	24"x24"	AS NOTE ON PLANS	●		●		A	ROB	B/C	1, 2
SD-3	TITUS 250	12"x8"	AS NOTE ON PLANS	●		●		A	ROB	B	1, 2
SD-4	TITUS FL-15-HT	4'-0" 1 SLOT	AS NOTE ON PLANS	●		●		A	●	TITUS 22	1, 6, 7
SD-5	TITUS FL-15-HT	4'-0" 1 SLOT	AS NOTE ON PLANS	●		●		A	●	TITUS 22	1, 6, 7
RG-1	TITUS 355RL	12"x12"	AS NOTE ON PLANS	●		●		A	ROB	B	1, 2
RG-2	TITUS 355RL	24"x24"	AS NOTE ON PLANS	●		●		A	ROB	B/C	1, 2
RG-3	TITUS FL-15-HT	CONTINUOUS SLOT	AS NOTE ON PLANS	●		●		A	●	TITUS 22	1, 6, 7, 8, 10
RG-4	TITUS FL-15-HT	2'-0" 1 SLOT	AS NOTE ON PLANS	●		●		A	●	TITUS 22	1, 6, 7, 8
TG-1	TITUS 355RL	12"x8"	10"x6"		●	●		A		A	HSW MOUNTED 1
TG-2	TITUS 355RL	14"x12"	12"x10"		●	●		A		A	HSW MOUNTED 1
TG-3	TITUS 355 RL	24"x10"	22"x8"		●	●		A		A	HSW MOUNTED 1

NOTES:

1. EQUALS SHALL BE BY PRICE OR KRUEGER. G.C. TO CONFIRM AVAILABILITY WITHIN CONSTRUCTION SCHEDULE. PROVIDE AIR DEVICES WITH SHORTEST LEAD TIME.
2. PROVIDE TITUS RAPID MOUNT FRAME TO ALLOW BALANCE DAMPERS TO BE ACCESSIBLE THROUGH DIFFUSER WHERE REQUIRED OR TO ACCESS EQUIPMENT ABOVE FINISHED CEILING WHERE REQUIRED.
3. SIDEWALL OR CEILING MOUNT, CONFIRM ON PLANS
4. DEFLECT BLADES FOR 22.5 THROW
5. PROVIDE WITH AIR SCOOP, ASD
6. INSTALL YOUNG REGULATOR DAMPER AND BOWDEN CABLE CONTROLS FOR EACH OF THE SUPPLY/RETURN BOOTS. LOCATE THE ADJUSTMENT DEVICE SO ADJUSTMENTS CAN BE MADE THRU THE FACE OF THE GRILLE OR SLOT AS RECOMMENDED BY THE REGULATOR MANUFACTURER.
7. PROVIDE LIGHT SHIELDS FOR RETURN LINEAR DEVICES
8. PROVIDE BLANK OFFS FOR UNUSED SECTIONS OF LINEAR DEVICE AS INDICATED ON PLANS.
9. PROVIDE 48" LONG TITUS FBP-15 PLENUM C/W FULL FLOW DAMPER C/W CABLE OPERATOR, MOUNTED ON TOP OF CONTINUOUS RETURN SLOT
10. LENGTH TO BE CONFIRMED WITH ARCHITECT, CONTINUOUS WITH 1.5" SLOT WIDTH. MOUNTING TO BE BORDER FLANGE FRAME CONCEALED MOUNTING, MUDDED IN, FACTORY MITERED ENDS(STANDARD). COLOR TO BE SELECTED BY ARCHITECT.

WATER SOURCE HEAT PUMP SCHEDUE

TAG.	MANUFACTURER/ MODEL NO.	QTY	NOMINAL TONNAGE	SUPPLY FAN CFM	SUPPLY FAN ESP	COOLING(MBH) SEN.	COOLING(MBH) TOTAL	HEATING(MBH) TOTAL	MIN O/A (CFM)	ELECTRICAL CHARACTERISTIC VOLT	PH	MCA	MOCP	WEIGHT	REMARKS
WSHP-1	TRANE/GEHE0905	1	7.5	2950	0.5	74.6	93.2	107.0	1400	575	3	12.10	13.6	–	–
WSHP-2	TRANE/GEHE0905	1	7.5	2950	0.5	74.6	93.2	107.0	450	575	3	12.10	13.6	–	–

MECHANICAL/PLUMBING RESPONSIBILITYSCHEDULE

DESCRIPTION	FURNISHED BY	INSTALLED BY	SUBMITTAL REQUIRED	NOT APPLICABLE	NOTES
HEAT PUMP	LL	LL	●		
STRUCTURAL SUPPORTS FOR HEAT PUMP AS REQUIRED	GC	GC		●	
AHU MIXING BOX AND MIXING BOX MOTOR OPERATED DAMPERS	GC	GC		●	
AHU MIXING BOX MOTOR OPERATED DAMPER ACTUATOR	GC	GC		●	
CONDENSING UNIT	LL	LL	●		
CURB AND/OR STRUCTURAL SUPPORTS FOR CONDENSING UNITS AS REQUIRED	LL	LL		●	
ROOF TOP UNITS	LL	LL		●	N/A
ROOF CURB AND/OR CURB ADAPTER FOR RTU AS REQUIRED	LL	LL		●	N/A
STRUCTURAL SUPPORTS FOR RTU AS REQUIRED	LL	LL		●	N/A
V.A.V. BOXES - FAN POWERED	GC	GC		●	N/A
STRUCTURAL SUPPORTS FOR V.A.V. AS REQUIRED	GC	GC		●	N/A
DIFFUSERS AND GRILLES	GC	GC	●		SEE AIR DEVICE SCHEDULE
DIFFUSERS.GRILLES FIRE DAMPERS	GC	GC		●	
WALL FIRE DAMPERS AND/OR COMBINATION SMOKE/FIRE DAMPERS	GC	GC		●	
LOW PRESSURE DUCTWORK	GC	GC	●		SEE CODED NOTES
HIGH/MEDIUM PRESSURE DUCTWORK	GC	GC		●	
TEMPERATURE CONTROL SYSTEM	GC	GC	●		SEE CODED NOTES
OUTSIDE AIR FAN	GC	GC		●	N/A
OUTSIDE AIR MOTOR OPERATED DAMPERS AND ACUATORS	GC	GC		●	
SMOKE DETECTOR(S) IN RETURN AND/OR SUPPLY AIR DUCT	GC	GC	●		SEE CODED NOTES
ZONE DAMPERS	GC	GC	●		SEE CODED NOTES
DUCT HEATER(S)	GC	GC		●	N/A
UNIT/BASEBOARD HEATER(S)	GC	GC	●		N/A
RETURN AIR FAN	GC	GC		●	
OUTSIDE AIR INTAKE HOOD	GC	GC		●	
RELIEF AIR HOOD	GC	GC		●	
EXHAUST FAN(S)	GC	GC	●		SEE CODED NOTES
EXHAUST DUCTWORK AND ROOF CAP	GC	GC	●		SEE CODED NOTES
AIR BALANCE REPORT	GC	GC	●		
AS-BUILT DRAWINGS	GC	GC	●		
PLUMBING FIXTURES	GC	GC	●		REFER TO P520 AND A320
SAN, CW, VENT PIPING CONNECTIONS	LL	LL	●		
WATER METER	GC	GC	●		COORDINATE WITH LANDLORD
SPRINKLER PIPING AND HEADS	LL	LL	●		USE LANDLORD REQUIRED SUB WHERE APPLICABLE
AIR CURTAIN	GC	GC		●	N/A
SERVICE ACCESS AND ACCESS PANEL	GC	GC	●		
NEW AIR FILTERS AT STORE TURN OVER	GC	GC	●		
EQUIPMENT IDENTIFICATION / STENCILING	GC	GC	●		

GENERAL NOTE
THIS SCHEDULE IS INTENDED AS A "QUICK" REFERENCE. ALL ITEMS LISTED HERE ARE SPECIFIED AND DETAILED ON THESE DRAWINGS. IF THE CONTRACTOR ENCOUNTERS ITEMS THAT ARE CONTRADICTORY THEN IT IS HIS RESPONSIBILITY TO INFORM TENANT'S CONSTRUCTION MANAGER SO THAT THESE ITEMS CAN BE CLARIFIED FOR THE CONTRACTOR.

FAN SCHEDULE

MARK	SERVICE (EA, RA, SA)	MANUFACTURER	MOUNTING	MODEL	CFM	ESP (IN.)	MIN. HP	ELECTRICAL VOLTS/PH	DISC. TYPE	NOTE
EF-1 & 2	WASHROOM	BROAN	CEILING	AE80BL	80	0.25	FRAC	120/1	SWITCH	A, C, D
EF-3	MOP SINK	BROAN	ABOVE MOP SINK	QTXE80	80	0.25	FRAC	120/1	SWITCH	A, B, D
TF-1	NETWORK CLOSET	FANTECH	INLINE	FG 5XL	190	0.20	FRAC.	120/1	-	E

NOTES:

A. PROVIDE WITH BACK DRAFT DAMPER.
B. COORDINATE ELECTRICAL CONNECTION OF EXHAUST FAN WITH TIMER CONTROL BY ELECTRICAL DIVISION.
C. FANS SHALL BE CONNECTED TO 24 HOUR TIME CLOCK ON DURING OCCUPIED HOURS/OFF DURING UNOCCUPIED HOURS. TIME CLOCK BY ELECTRICAL CONTRACTOR.
D. THIS CONTRACTOR ENSURE THAT THE EXHAUST AIR DUCT ON ROOF SHALL BE AWAY AT LEAST 10 FEET FROM THE AIR INTAKE.
E. TRANSFER FAN (TF-1) SHALL BE COMPLETE WITH THERMOSTAT. WHEN ROOM TEMPERATURE REACH 75 F, THE FAN IS ON. WHEN THE ROOM TEMPERATURE REACH 70 F, THE FAN IS OFF.

PROJECT CLOSEOUT AND COMPLETION

THE FOLLOWING INFORMATION MUST BE PROVIDED TO THE ENGINEER PRIOR TO FINAL SITE INSPECTION AND ISSUANCE OF THE ENGINEERS FINAL SIGN OFF LETTER TO OBTAIN OCCUPANCY.

10. SPRINKLER SYSTEM MATERIALS TEST AND SAFETY CERTIFICATE STATING THAT THE FIRE PROTECTION SPRINKLER SYSTEM IS INSTALLED TO MEET NFPA 13 REQUIREMENTS.
11. SEISMIC LETTER OF ACCEPTANCE FROM STRUCTURAL ENGINEER FOR MECHANICAL SYSTEMS INSTALLATIONS.

THE FOLLOWING INFORMATION MUST BE PROVIDED TO THE OWNER UPON PROJECT COMPLETION;

1. AIR BALANCING REPORT.
2. LETTERS OF WARRANTY FROM THE MECHANICAL AND ELECTRICAL CONTRACTORS.
3. AS BUILT DRAWINGS AND MANUALS.

SEISMIC NOTES

1. SCOPE: SEISMIC RESTRAINTS FOR ALL EQUIPMENT, DUCTWORK, AND PIPING COVERED BY SECTION 15.
   - SEISMIC ENGINEER SHALL BE RETAINED UNDER THE CONTRACTOR'S SCOPE OF WORK TO ENSURE SEISMIC INSTALLATIONS ARE APPROVED BY A CERTIFIED SEISMIC ENGINEER.
2. ATTACHMENT TO STRUCTURAL MEMBERS.
   - REFERENCE STANDARDS
   - NATIONAL CODE SECTION 4.1.8.
   - LATEST VERSION OF PROVINCIAL BUILDING CODE.
   - NFPA 13.
   - SMACNA GUIDELINES FOR SEISMIC RESTRAINTS OF MECHANICAL SYSTEMS AND PLUMBING PIPING SYSTEMS.

lululemon
1818 CORNWALL AVE.
VANCOUVER, B.C., V6J1C7

CF POLO PARK
1485 Portage Ave, Unit 144E
Winnipeg, MB
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PROVINCE OF MANITOBA
Z.H. GUO
Member
45105
REGISTERED PROFESSIONAL ENGINEER
06/09/2023

APEGM
Certificate of Authorization
Thomas A. Fekete Ltd.
No. 5075 Date: 06/09/2023

ISSUED FOR CONSTRUCTION
07/14/2023

DATE	DESCRIPTION
06/07/2023	ISSUED FOR CD COORDINATION
06/09/2023	ISSUED FOR PERMIT/ CONSTRUCTION
06/09/2023	ISSUED FOR BID
07/13/2023	ISSUED FOR COORDINATION
07/14/2023	ISSUED FOR CONSTRUCTION

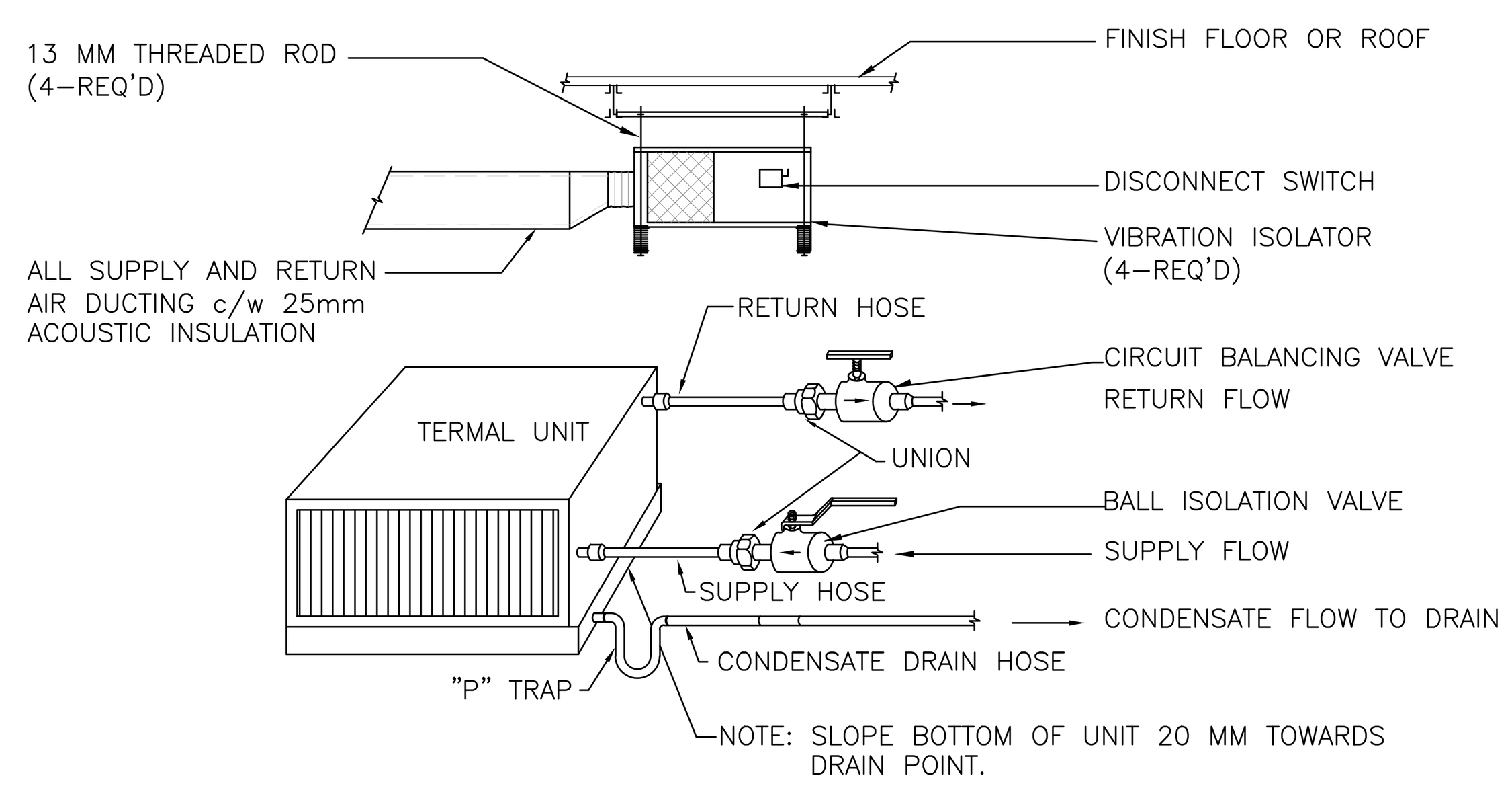
[redacted]

DRAWING INFORMATION
PROJECT #: 2301141
CHECKED BY: BZ
DRAWN BY: KO

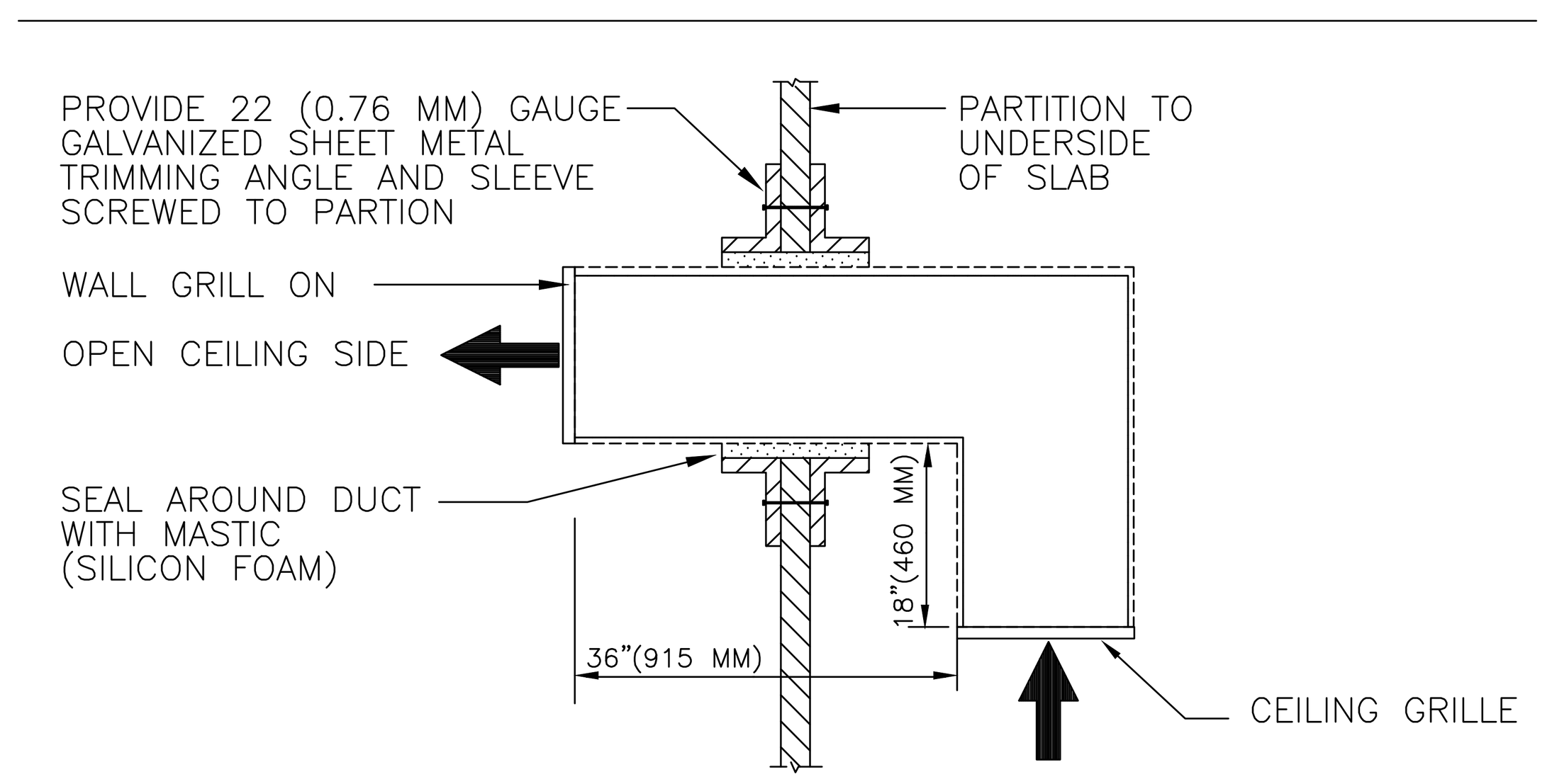
MECHANICAL SCHEDULES AND LOAD CALCULATION

DRAWING NUMBER
M610

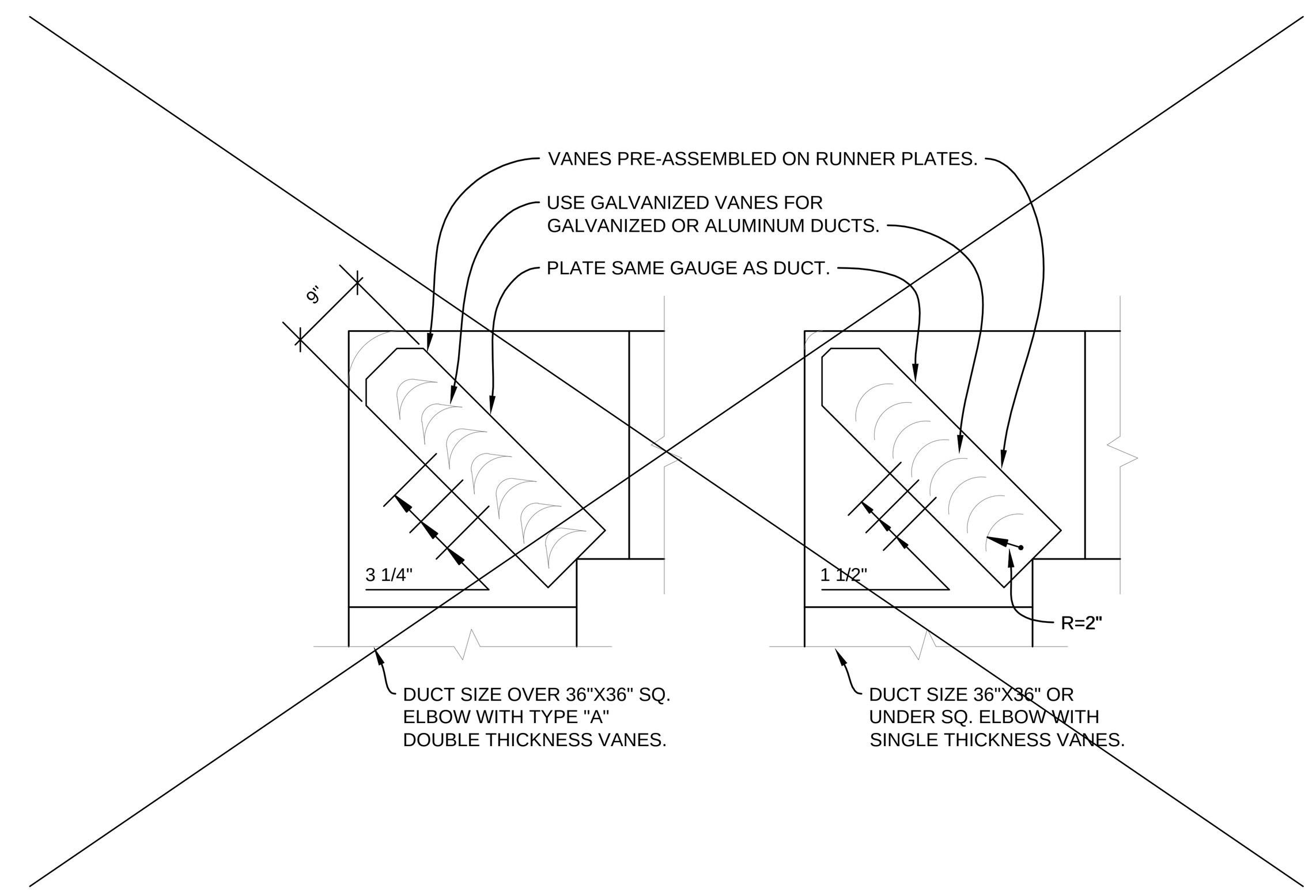
2023-03-08 11:19:44 AM



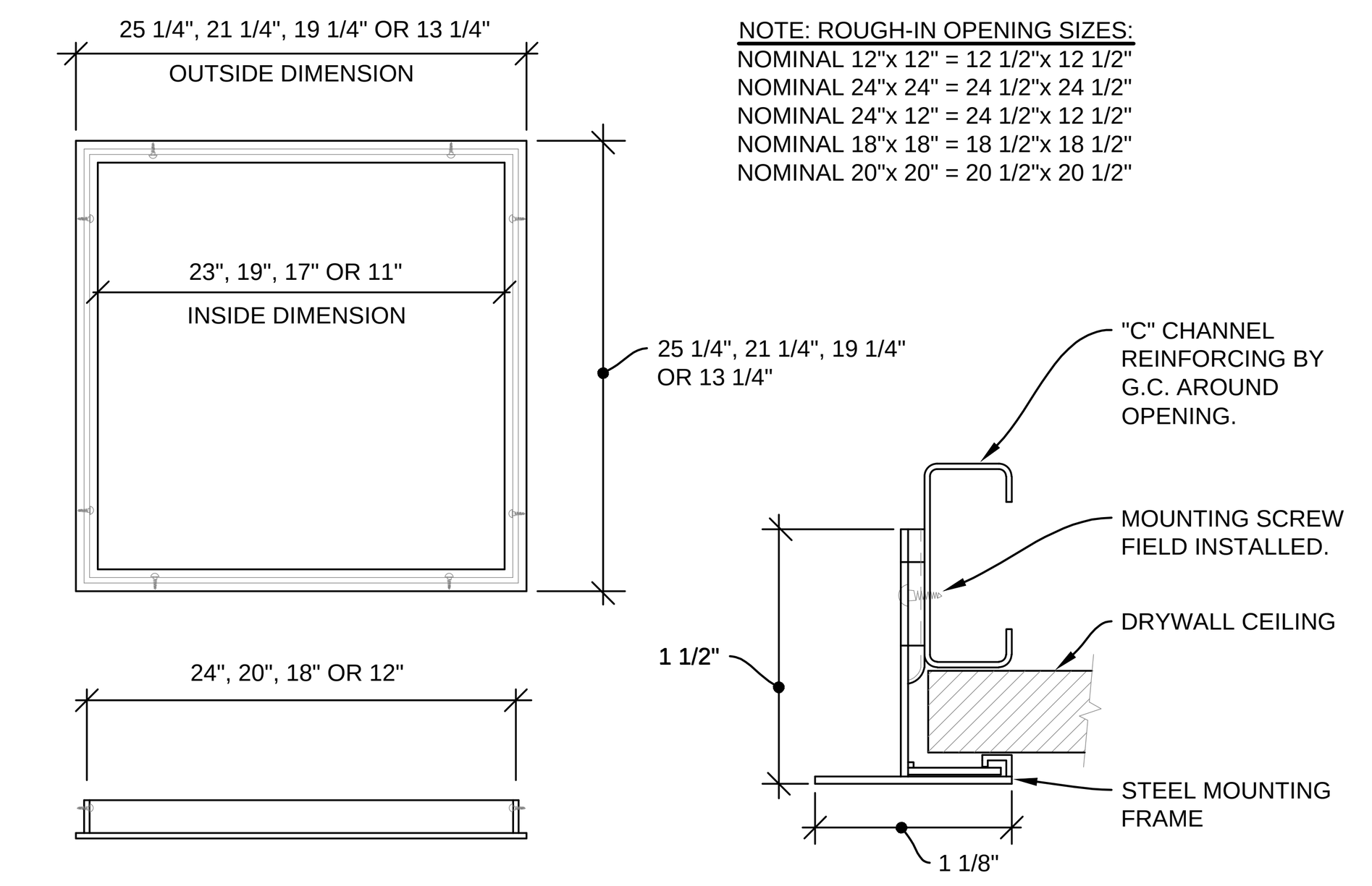
15 **HORIZONTAL HEAT PUMP INSTALLATION DETAIL**
N.T.S.



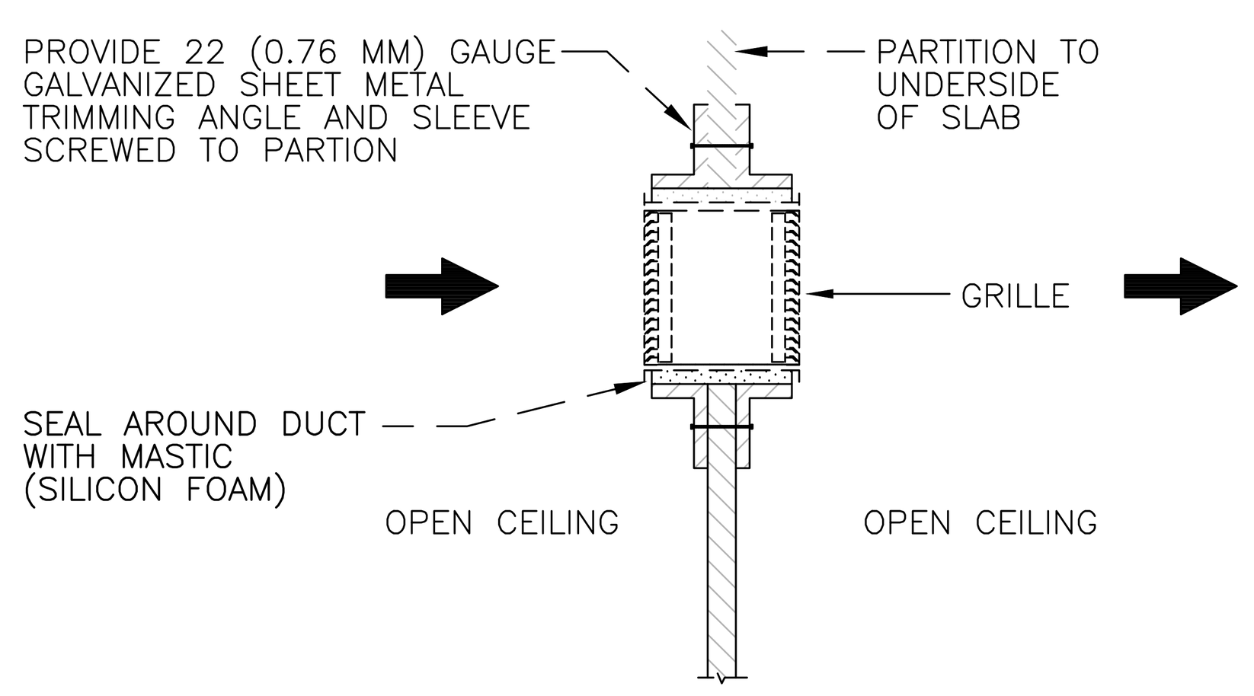
12 **TRANSFER AIR DUCT DETAIL**
N.T.S.



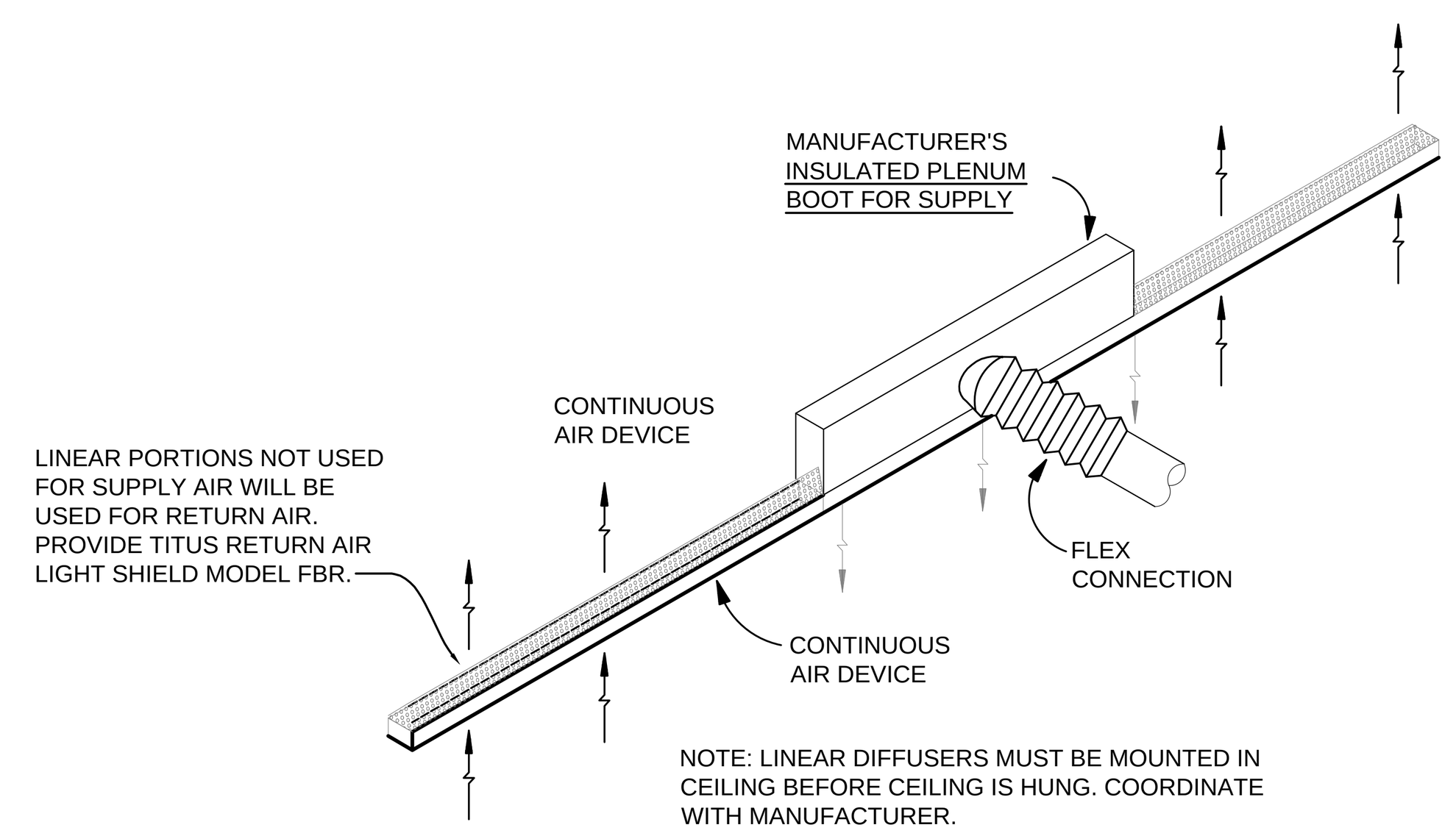
8 **TURNING VANE SCHEMATIC**
N.T.S.



4 **DRYWALL MOUNTING FRAME SCHEMATIC**
N.T.S.

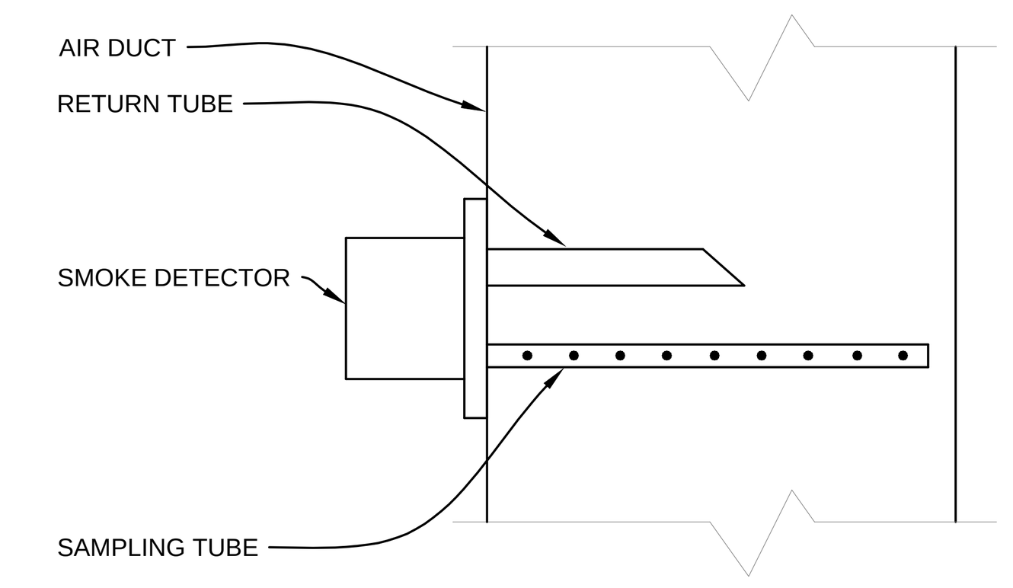


14 **TRANSFER DUCT SCHEMATIC (OPEN CEILING TO OPEN CEILING)**
N.T.S.

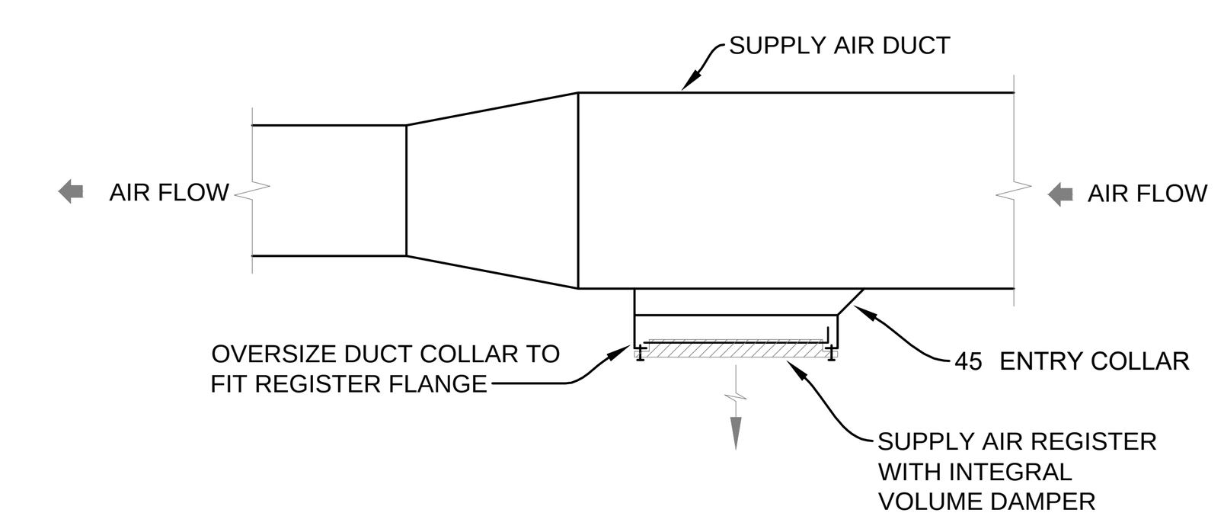


HORIZONTAL HEAT PUMP INSTALLATION DETAIL

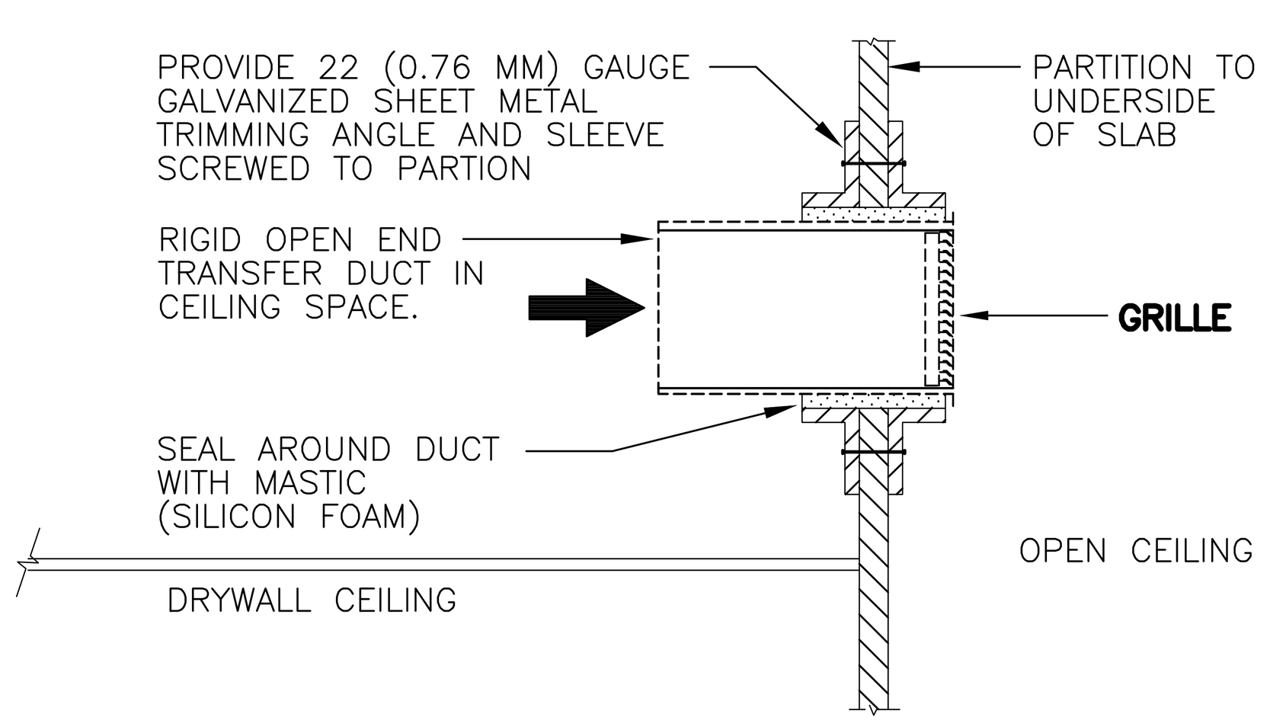
11 **SUPPLY AND RETURN LINEAR ISOMETRIC SCHEMATIC**
N.T.S.



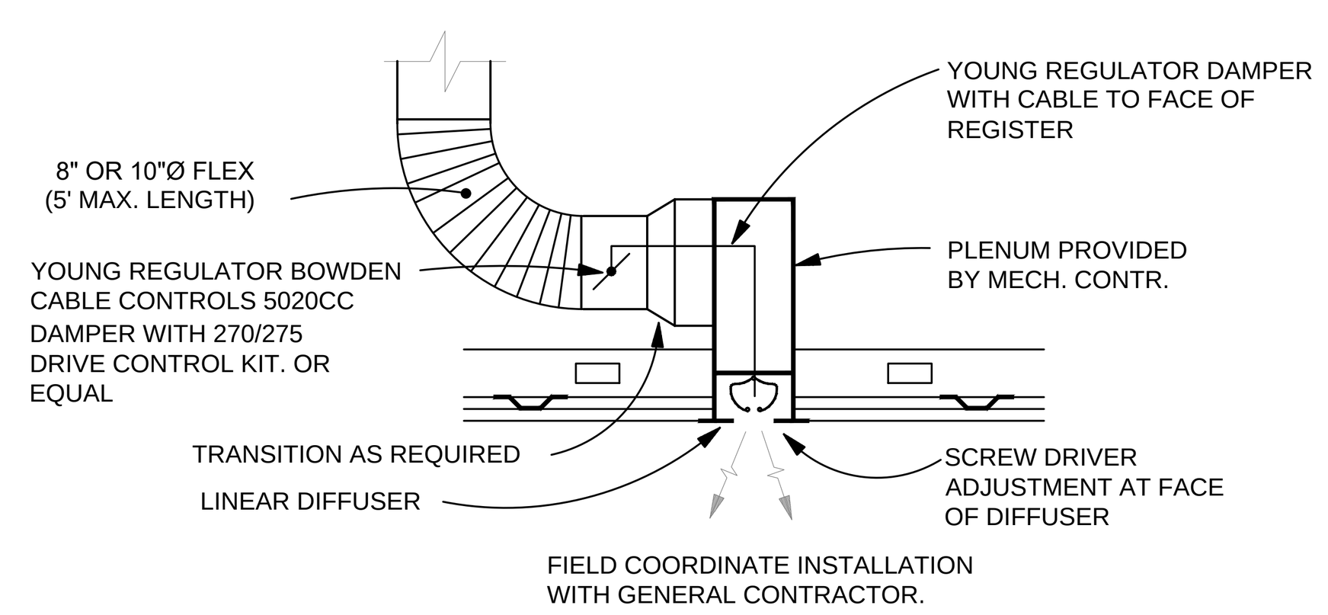
7 **SMOKE DETECTOR SCHEMATIC**
N.T.S.



3 **DUCT MOUNTED REGISTER SCHEMATIC**
N.T.S.

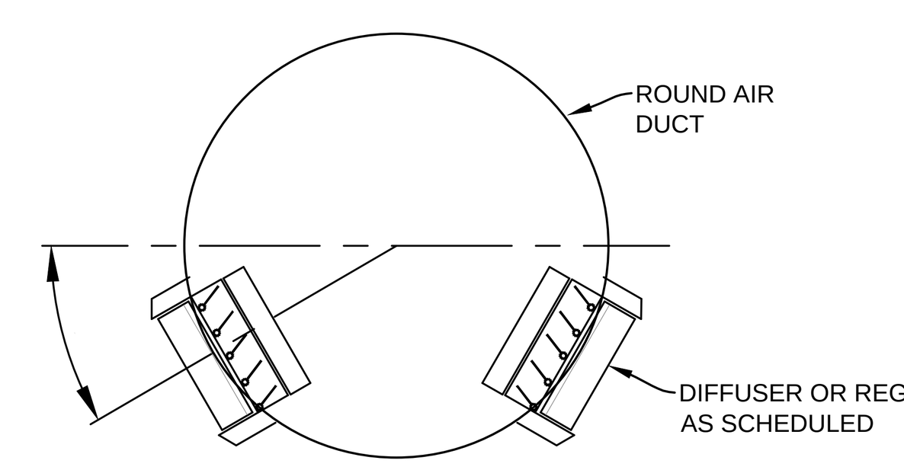


13 **TRANASFER DUCT SCHEMATIC (OPEN CEILING TO DRYWALL CEILING)**
N.T.S.

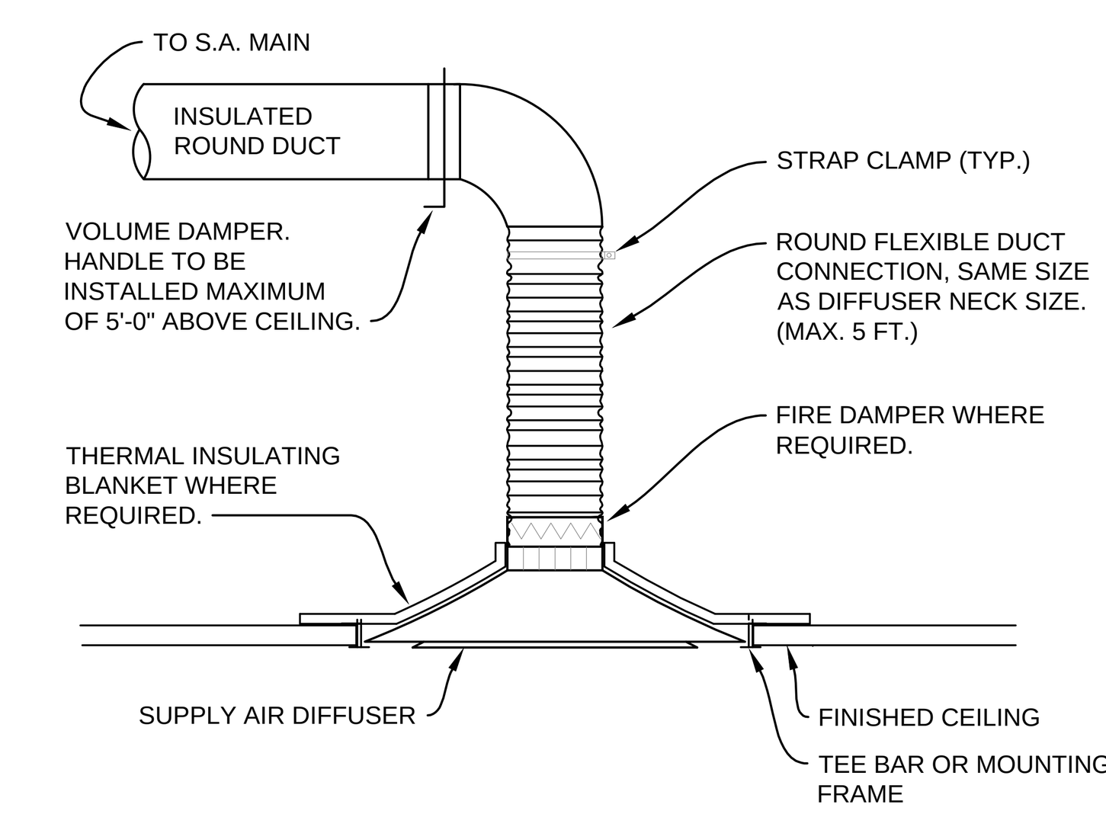


NOTES
1. DIFFUSER SHALL APPEAR CONTINUOUS.
2. ALL CORNERS SHALL BE MITERED.

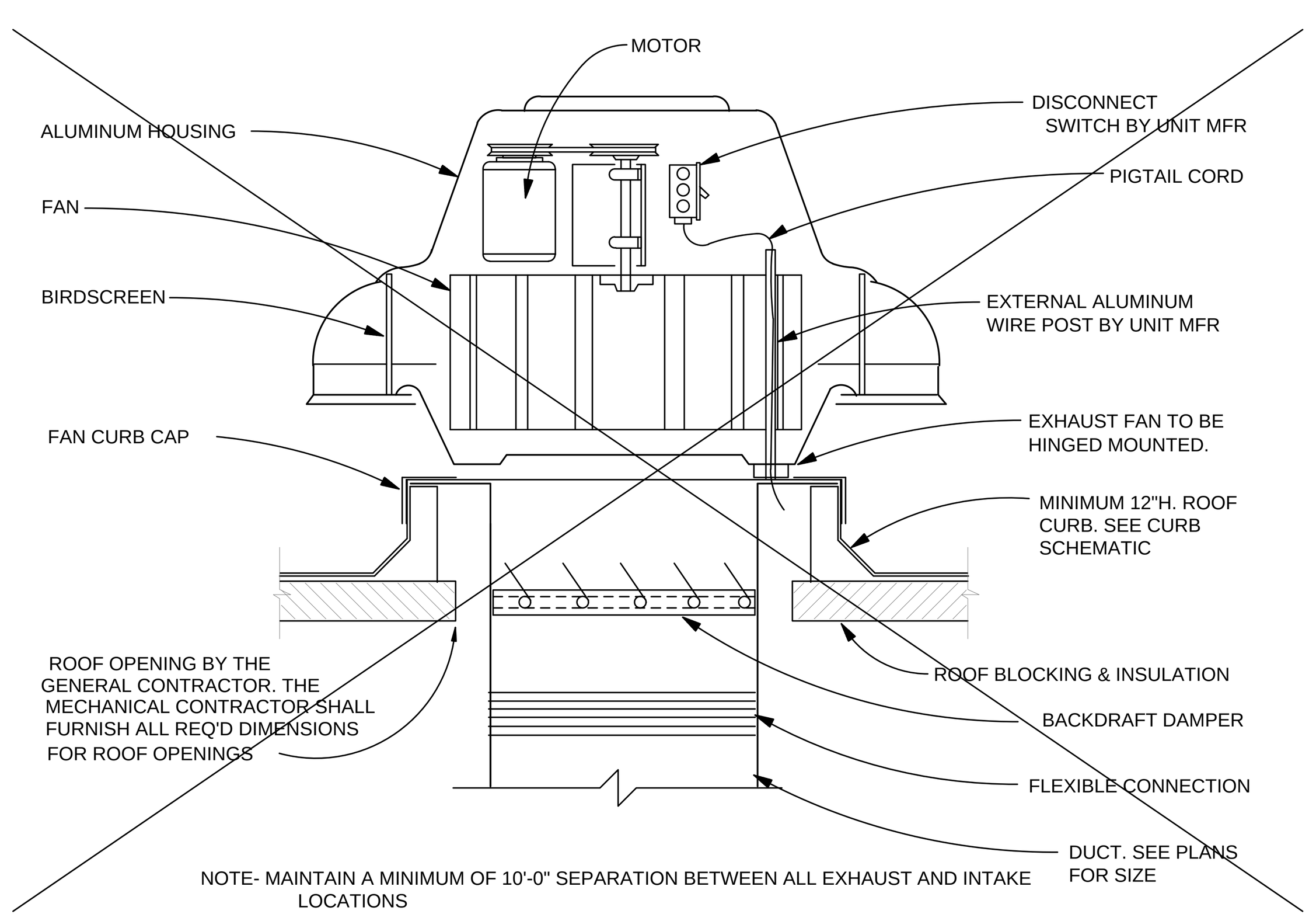
10 **LINEAR GRILLE ISOMETRIC SCHEMATIC**
N.T.S.



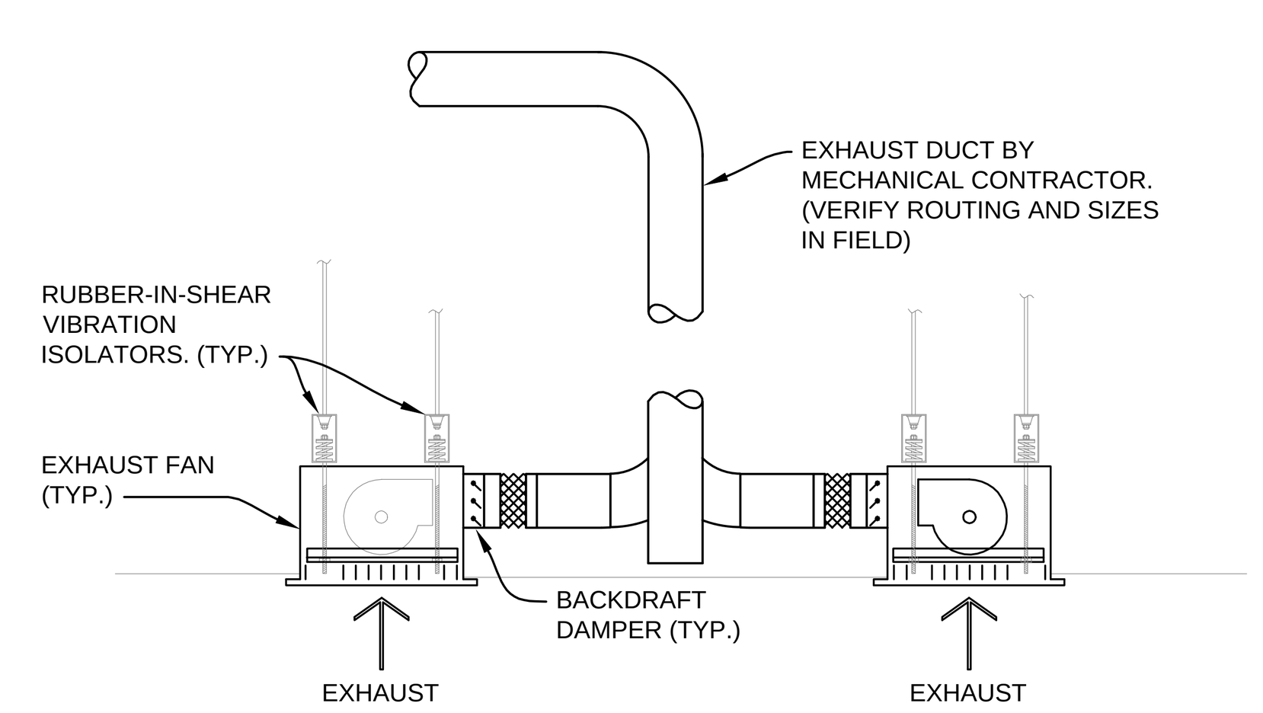
6 **DUCT MOUNTED DIFFUSER SCHEMATIC**
N.T.S.



2 **DIFFUSER MOUNTING SCHEMATIC**
N.T.S.



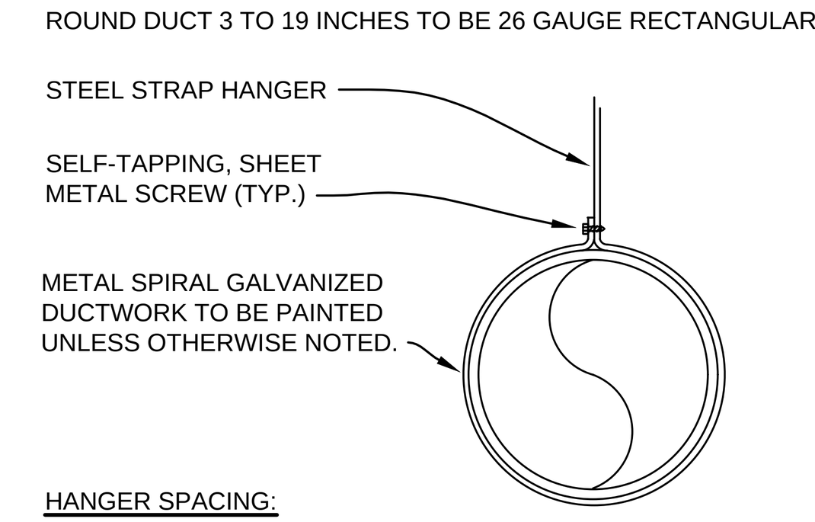
12 **TOILET EXHAUST FAN SCHEMATIC**
N.T.S.



9 **TOILET EXHAUST FAN SCHEMATIC**
N.T.S.

METAL GAUGE FOR DUCTWORK TO BE AS FOLLOWS:

ROUND DUCT 3 TO 19 INCHES TO BE 26 GAUGE RECTANGULAR



HANGER SPACING:

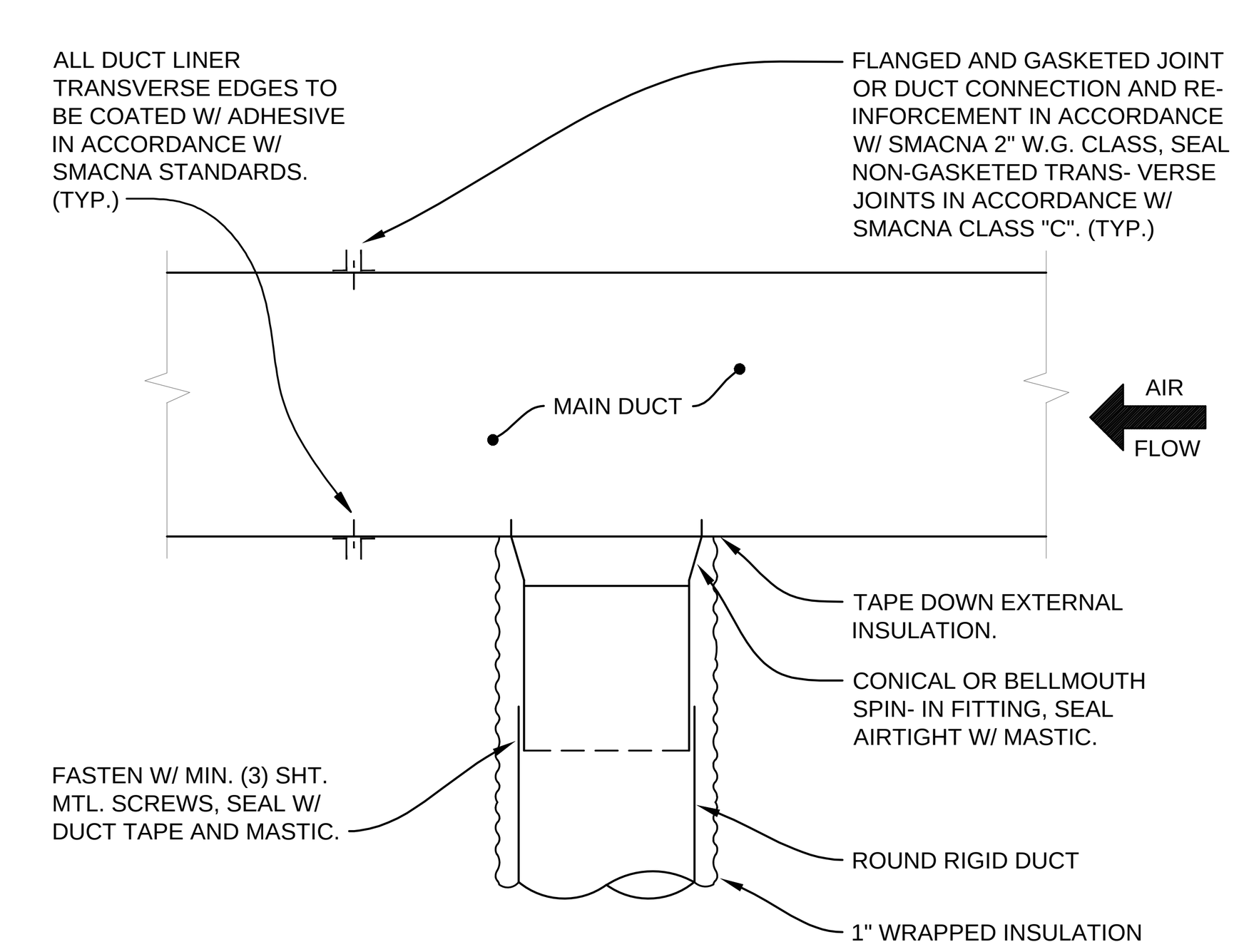
DUCT FACE AREA FROM 0 TO 4 SQ. FT. HANGERS 98" O.C. MAX
DUCT FACE AREA FROM 4 TO 10 SQ. FT. HANGERS 72" O.C. MAX
DUCT FACE AREA FROM 10 AND GREATER HANGERS 48" O.C. MAX

WHERE DUCTS ARE LESS THAN 2 SQ. FT. IN FACE AREA, HANGERS SHALL BE NOT LESS THAN 1"x1/16" STRAP STEEL.

WHERE DUCT ARE GREATER THAN 2 SQ. FT. IN FACE AREA. HANGERS SHALL BE NOT LESS THAN 1"x1/8" STRAP STEEL.

WHERE DUCT ARE 8 SQ. FT. IN FACE AREA. HANGERS SHALL BE BRACED BY 1"x1"x1/8" STEEL ANGLES ALL AROUND, SPACED NO MORE THAN FOUR FEET ON CENTERS.

5 **DUCT SUPPORT SCHEMATIC**
N.T.S. ROUND



1 **TYP. ROUND DUCT TAKE-OFF SCHEMATIC**
N.T.S.

lululemon
1818 CORNWALL AVE.
VANCOUVER, B.C., V6J1C7

CF POLO PARK
1485 Portage Ave, Unit 144E
Winnipeg, MB
R3G OW5

ARCHITECT

BDP. Quadrangle
Quadrangle Architects Limited
8 Spadina Avenue, Suite 2100 Toronto, ON M5V 0S8
t 416 598 1240 www.bdpquadrangle.com

ARCHITECT SEAL

THOMAS A. FEKETE LTD.
7181 WOODBINE AVE. UNIT 229
MARKHAM ONTARIO L3R 1A3
PH.: (905) 946 4260 FAX: (905) 946 0901
JOB #: 23061

PROVINCE OF MANITOBA
Z.H. GUO
Member 45105
REGISTERED PROFESSIONAL ENGINEER

06/09/2023

APEGM
Certificate of Authorization
Thomas A. Fekete Ltd.
No. 5075 Date: 06/09/2023

ISSUED FOR CONSTRUCTION
07/14/2023

DATE	DESCRIPTION
06/07/2023	ISSUED FOR CD COORDINATION
06/09/2023	ISSUED FOR PERMIT/ CONSTRUCTION
06/09/2023	ISSUED FOR BID
07/13/2023	ISSUED FOR COORDINATION
07/14/2023	ISSUED FOR CONSTRUCTION

[redacted]

DRAWING INFORMATION
PROJECT #: 2301141
CHECKED BY: BZ
DRAWN BY: KO

MECHANICAL DETAILS

DRAWING NUMBER
M611

2023-03-08 11:19:44 AM

DIVISION 15 - MECHANICAL

SECTION 15000

MECHANICAL GENERAL PROVISIONS

A. GENERAL CONDITIONS

1. DRAWINGS AND GENERAL PROVISIONS OF CONTRACT, INCLUDING GENERAL AND SUPPLEMENTARY CONDITIONS AND ALL OTHER SPECIFICATION SECTIONS ARE A PART OF THIS CONTRACT AND APPLY TO THIS AND THE OTHER SECTIONS OF DIVISION 15.

2. THE CONTRACTOR FOR THIS WORK IS REQUIRED TO READ THE ENTIRE SPECIFICATIONS AND REVIEW DRAWINGS FOR ALL OTHER TRADES.

3. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING HIS SUBCONTRACTORS WITH A FULL SET OF BID SET DOCUMENTS (INCLUDING SPECIFICATIONS) AND THE COORDINATION OF HIS WORK AND INSPECTIONS AND THE WORK AND INSPECTIONS OF HIS SUBCONTRACTORS WITH ALL OTHER TRADES ON SITE CONFORMING TO THE GENERAL CONTRACTOR'S TIME SCHEDULE.

4. THE CONTRACTOR SHALL VISIT THE SITE PRIOR TO SUBMITTING HIS BID TO DETERMINE CONDITIONS AFFECTING THE WORK. BIDS SHALL SERVE AS EVIDENCE OF KNOWLEDGE OF EXISTING CONDITIONS AND ANY MODIFICATIONS WHICH ARE REQUIRED TO MEET THE INTENT OF THE DRAWINGS AND SPECIFICATIONS. FAILURE TO VISIT THE SITE DOES NOT RELIEVE THE CONTRACTOR OF RESPONSIBILITY IN PERFORMANCE OF WORK.

5. WHEN USED, THE TERM "PROVIDED BY CONTRACTOR" SHALL BE INTERPRETED AS MEANING "FURNISHED AND INSTALLED" WITH THE EXCEPTION WHERE ITEMS ARE "PROVIDED BY TENANT" WHICH MEANS "FURNISHED ONLY" (INSTALLED BY CONTRACTOR), EXCEPT AS SPECIFICALLY NOTED OTHERWISE.

B. GENERAL REQUIREMENTS

1. THE CONTRACTOR SHALL PROVIDE ALL LABOR, MATERIALS, EQUIPMENT, SERVICES, TOOLS, TRANSPORTATION, INCIDENTALS AND DETAILS NECESSARY TO PROVIDE A COMPLETE AND FULLY FUNCTIONAL MECHANICAL SYSTEM AS SHOWN ON THE DRAWINGS, CALLED FOR IN THE SPECIFICATIONS, AND AS REQUIRED BY JOB CONDITIONS. ALL WORK NOT SPECIFICALLY NOTED AS BEING BY THE LANDLORD SHALL BE PROVIDED BY THE MECHANICAL CONTRACTOR. CLOSELY COORDINATE THE ENTIRE INSTALLATION WITH THE LANDLORD, AS REQUIRED. FIELD VERIFY THE EXACT TYPE, SIZE AND LOCATION, ETC. OF EXISTING PIPE AND DUCTS IN THE TENANT SPACE PRIOR TO BID.

2. THE DRAWINGS AND SPECIFICATIONS ARE INTENDED TO SUPPLEMENT EACH OTHER AND ANY MATERIAL OR LABOR CALLED FOR IN ONE SHALL BE PROVIDED EVEN THOUGH NOT SPECIFICALLY MENTIONED IN BOTH. ANY MATERIAL OR LABOR WHICH IS NEITHER SHOWN ON THE DRAWINGS NOR CALLED FOR IN THE SPECIFICATIONS, BUT WHICH IS OBVIOUSLY NECESSARY TO COMPLETE THE WORK, AND WHICH IS USUALLY INCLUDED IN WORK OF SIMILAR CHARACTER, SHALL BE PROVIDED AS PART OF CONTRACT.

3. WHERE THE DRAWINGS OR SPECIFICATIONS CALL FOR ITEMS WHICH EXCEED CODES OR THE LANDLORD'S TENANT CRITERIA, THE CONTRACTOR IS STILL RESPONSIBLE FOR PROVIDING THE SYSTEM AS DESIGNED AND DESCRIBED ON THESE DRAWINGS, UNLESS SPECIFICALLY NOTED OTHERWISE.

4. ALL MECHANICAL WORK SHALL BE INSTALLED SO AS TO BE READILY ACCESSIBLE FOR OPERATING, SERVICING, MAINTAINING, AND REPAIRING. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING SUFFICIENT ACCESS TO ALL EQUIPMENT FOR SERVICE.

5. THE CONTRACTOR SHALL DO ALL CUTTING, CORE DRILLING, CHASING OR CHANNELING AND PATCHING REQUIRED FOR ANY WORK UNDER THIS DIVISION. CUTTING SHALL HAVE PRIOR APPROVAL BY THE TENANT'S CONSTRUCTION MANAGER AND THE LANDLORD. PATCHING SHALL MATCH, FINISH OF SURROUNDING AREA.

C. CODES

1. ALL WORK SHALL BE PERFORMED IN A NEAT PROFESSIONAL MANNER USING GOOD ENGINEERING PRACTICES. ALL WORK SHALL CONFORM TO THE LANDLORD'S CRITERIA, THE STATE'S, COUNTY'S, CITY'S AND LOCAL CODES AND ORDINANCES, SAFETY AND HEALTH CODES, NFPA CODES, ENERGY CODES AND ALL OTHER APPLICABLE CODES AND REQUIREMENTS. THE CONTRACTOR SHALL INQUIRE INTO AND COMPLY WITH ALL APPLICABLE CODES, ORDINANCES, AND REGULATIONS. AFTER CONTRACT IS ISSUED, NO ADDITIONAL COST DUE TO CODE ISSUES SHALL BE REIMBURSED BY THE TENANT TO THE CONTRACTOR.

D. LICENSES, PERMITS, INSPECTIONS & FEES

1. THE CONTRACTOR SHALL OBTAIN AND PAY FOR ALL LICENSES, PERMITS, INSPECTIONS, AND FEES REQUIRED OR RELATED TO HIS WORK.

2. FURNISH TO THE TENANT'S CONSTRUCTION MANAGER ALL CERTIFICATES OF INSPECTION AND FINAL INSPECTION APPROVAL AT SUBSTANTIAL COMPLETION DATE OF PROJECT.

E. DRAWINGS

1. DRAWINGS (PLANS, SPECIFICATIONS, AND DETAILS) ARE DIAGRAMMATIC AND INDICATE THE GENERAL LOCATION AND INTENT OF THE MECHANICAL SYSTEMS. BECAUSE OF THE SMALL SCALE OF THE DRAWINGS, IT IS NOT POSSIBLE TO INDICATE ALL DUCT AND PIPING OFFSETS, FITTINGS AND ACCESSORIES THAT MAY BE REQUIRED.

2. THE LAYOUT SHOWN ON THE DRAWINGS IS BASED ON A PARTICULAR MAKE OF EQUIPMENT. IF ANOTHER MAKE OF EQUIPMENT IS USED WHICH REQUIRES MODIFICATION OR CHANGE OF ANY DESCRIPTION FROM THE DRAWINGS OR SPECIFICATIONS, THE CONTRACTOR SHALL BE RESPONSIBLE AS PART OF THIS WORK, FOR MAKING ALL SUCH MODIFICATIONS AND CHANGES, INCLUDING THOSE INVOLVING OTHER TRADES WITH THE COST THEREOF INCLUDED IN HIS BID. IN SUCH CASE, CONTRACTOR SHALL SUBMIT DRAWINGS AND SPECIFICATIONS PRIOR TO STARTING WORK SHOWING ALL SUCH MODIFICATIONS AND CHANGES. HIS PROPOSAL SHALL BE SUBJECT TO THE APPROVAL OF THE TENANT'S CONSTRUCTION MANAGER.

F. EXISTING SHELL SPACE CONDITONS

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE COORDINATION OF THE DEMOLITION OF EXISTING MECHANCIAL WORK SHOWN ON THE MECHANCIAL DRAWINGS AND THE MECHANCIAL DEMOLITION SHOWN ON THE ARCHITECTURAL DRAWINGS.

2. THE CONTRACTOR SHALL INCLUDE, AND WILL BE HELD RESPONSIBLE FOR, THE REMOVAL OF ALL EXISTING FIRE PROTECTION, PLUMBING FIXTURES, PIPING, HVAC UNITS, REFRIGERANT RECAPTURE, EXHAUST FANS, ETC. AND ASSOCIATED ROOF CURBS NOT TO BE REUSED ON THIS PROJECT, UNLESS SPECIFICALLY NOTED OTHERWISE. CONTRACTOR MUST VERIFY WITH THE LANDLORD ALL PRESUMED ABANDONED EQUIPMENT, PIPES, DUCTWORK, AND EQUIPMENT PRIOR TO REMOVAL. ROOF CURBS SHALL BE REMOVED AND THE ROOF PATCHED UNLESS NOTED FOR REUSE OR RECONFIGURATION ON PLANS. ROOF PATCHING SHALL BE PERFORMED AT THE CONTRACTOR'S EXPENSE BY A ROOFING CONTRACTOR APPROVED BY THE LANDLORD. ALL EXTRANEOUS ITEMS IN THE SPACE OR ON THE ROOF (ABOVE THIS SPACE) NOT APPLICABLE TO THE NEW WORK OR PART OF THE LANDLORD'S OR ANOTHER TENANT'S ACTIVE SYSTEM MUST BE REMOVED AND ROOF/WALL/FLOOR PATCHED/REPAIRED TO MATCH EXISTING STRUCTURE. EXISTING ABANDONED PIPES, DUCTS, OR EQUIPMENT IN THE FLOOR, EMBEDDED IN CONCRETE, OR OTHERWISE INACCESSIBLE ARE TO BE CUT OFF AND SEALED BELOW OR WITHIN FLOOR OR WALL LEVEL WHEN THEY ARE NOT TO BE REUSED IN THIS PROJECT. IF REQUIRED BY LANDLORD OR CODES, ABANDONED PIPING AND/OR DUCTWORK MUST BE REMOVED TO POINT OF ORIGIN. CONFIRM THE EXTENT OF DEMOLITION PRIOR TO BID AND INCLUDE IN BID PROPOSAL.

3. ACTIVE LANDLORD OR OTHER TENANT SERVICES ENCOUNTERED IN WORK SHALL BE PROTECTED AND SUPPORTED. IF EXISTING SERVICES NOT ANTICIPATED REQUIRE RELOCATION, CONTACT THE TENANT'S CONSTRUCTION MANAGER IMMEDIATELY. ALL COSTS FOR REPAIR OF DAMAGES TO ACTIVE LANDLORD OR OTHER TENANT SERVICES DURING CONSTRUCTION SHALL BE PAID FOR BY THE CONTRACTOR CAUSING THE DAMAGE.

4. TIE-INS AND MODIFICATIONS TO EXISTING LANDLORD SERVICES MUST BE DONE WITH MINIMUM INTERRUPTION OF LANDLORD OPERATION AND DURING HOURS SPECIFIED BY THE LANDLORD. THE CONTRACTOR IS RESPONSIBLE FOR CONFIRMING EXACT WORKING HOURS OF THIS WORK WITH THE LANDLORD PRIOR TO SUBMITTING HIS BID. THE CONTRACTOR SHALL INCLUDE IN HIS BID, ALL PREMIUM TIME REQUIRED TO PERFORM MODIFICATIONS DURING OTHER THAN NORMAL WORKING HOURS. ALL SUCH WORK MUST BE COORDINATED WITH THE LANDLORD.

G. DISCREPANCIES IN DOCUMENTS

1. DRAWINGS (PLANS, SPECIFICATIONS, AND DETAILS) ARE DIAGRAMMATIC AND INDICATE THE GENERAL LOCATION AND INTENT OF THE MECHANICAL SYSTEMS. WHERE DRAWINGS, EXISTING SITE CONDITIONS, SPECIFICATIONS OR OTHER TRADES CONFLICT OR ARE UNCLEAR, ADVISE THE GENERAL CONTRACTOR IN WRITING, PRIOR TO SUBMITTAL OF BID. THE GENERAL CONTRACTOR IS RESPONSIBLE TO ADVISE THE TENANT'S CONSTRUCTION MANAGER, IN WRITING, OF VARIATIONS TO CONTRACT DOCUMENTS PRIOR TO SUBMISSION OF BID. OTHERWISE, TENANT'S CONSTRUCTION MANAGER'S INTERPRETATION OF CONTRACT DOCUMENTS OR CONDITIONS SHALL BE FINAL WITH NO ADDITIONAL COMPENSATION PERMITTED.

H. TRADE NAMES AND MANUFACTURERS

1. WHERE TRADE NAMES AND MANUFACTURERS ARE USED ON THE DRAWINGS OR IN THE SPECIFICATIONS, THE EXACT EQUIPMENT SHALL BE USED AS A MINIMUM STANDARD FOR THE BASE BID. MANUFACTURERS CONSIDERED AS AN EQUAL OR BETTER IN ALL ASPECTS TO THAT SPECIFIED WILL BE SUBJECT TO APPROVAL IN WRITING BY THE TENANT'S CONSTRUCTION MANAGER PRIOR TO ACCEPTANCE. THE USE OF ANY UNAUTHORIZED EQUIPMENT SHALL BE SUBJECT TO REMOVAL AND REPLACEMENT AT THE CONTRACTOR'S EXPENSE.

I. SHOP DRAWINGS

1. SUBMIT SIX COPIES OF MATERIAL LISTS AND SHOP DRAWINGS FOR ALL EQUIPMENT AND DUCT FABRICATION DRAWINGS TO THE TENANT'S CONSTRUCTION MANAGER FOR APPROVAL PRIOR TO ORDERING EQUIPMENT. SUBMISSIONS MUST BE EARLY ENOUGH TO ALLOW THE TENANT'S CONSTRUCTION MANAGER EIGHT WORKING DAYS FOR REVIEW WITHOUT CAUSING DELAYS OR CONFLICTS TO THE JOB'S PROGRESS. SUBMITTALS SHALL BE IN ACCORDANCE WITH THE GENERAL CONDITIONS USING THE MANUFACTURER'S LISTED ON THE DRAWINGS. SHOP DRAWINGS SHALL INCLUDE ALL DATA THAT PERTAINS TO THE REQUIREMENTS SET FORTH ON THE DRAWINGS AND IN THE SPECIFICATIONS. THE SUBMITTAL SHALL INCLUDE BUT NOT LIMITED TO CUTS OR CATALOGS INCLUDING DESCRIPTIVE LITERATURE AND CHARACTERISTICS OF EQUIPMENT SHALL SHOW MAJOR DIMENSIONS, ROUGHING-IN DATA, CAPACITY, CURVES, PRESSURE DROP, CODE COMPLIANCE, MOTOR AND DRIVE DATA AND ELECTRICAL DATA. OBSERVE SPECIAL INSTRUCTIONS WHEN REQUIRED. SUBMITTALS SHALL BEAR THE STAMP OF THE GENERAL AND SUB-CONTRACTOR SHOWING THAT HE HAS REVIEWED AND CONFIRMED THAT THEY ARE IN CONFORMANCE WITH THE CONTRACT DRAWINGS AND SPECIFICATIONS OR INDICATE WHERE EXCEPTIONS TAKE PLACE. LACK OF SUCH CONTRACTOR'S REVIEW AND APPROVAL WILL BE CAUSE FOR REJECTION WITHOUT REVIEW BY TENANT'S CONSTRUCTION MANAGER. ALL SHOP DRAWINGS MUST APPEAR IN THE OPERATION AND MAINTENANCE MANUALS LEFT ON SITE AT JOB COMPLETION.

2. TENANT'S CONSTRUCTION MANAGER'S REVIEW OF SHOP DRAWINGS OR SCHEDULES SHALL NOT RELIEVE THE CONTRACTOR FROM RESPONSIBILITY FOR ERRORS, OMISSIONS OR OTHER DEFICIENCIES OR DEVIATIONS IN THE SHOP DRAWING FROM THE CONTRACT DRAWINGS AND SPECIFICATIONS.

J. RECORD DRAWINGS

1. THE CONTRACTOR SHALL MAINTAIN ONE COPY OF DRAWINGS AND SPECIFICATIONS ON THE JOB SITE TO RECORD DEVIATIONS FROM CONTRACT DRAWINGS, SUCH AS:

A. LOCATION OF CONCEALED PIPING VALVES AND DUCTS.
B. REVISIONS, ADDENDUMS, AND CHANGE ORDERS.
C. SIGNIFICANT DEVIATIONS MADE NECESSARY BY FIELD CONDITIONS, APPROVED EQUIPMENT SUBSTITUTIONS, AND CONTRACTOR'S COORDINATION WITH OTHER TRADES.
D. EXACT ROUTING OF ALL SANITARY AND DOMESTIC WATER PIPING UNDER FLOOR.

2. AT COMPLETION OF THE PROJECT AND BEFORE FINAL APPROVAL, THE CONTRACTOR SHALL MAKE ANY FINAL CORRECTIONS TO DRAWINGS AND CERTIFY THE ACCURACY OF EACH PRINT BY SIGNATURE THEREON. THE DRAWINGS ARE TO BE TURNED OVER TO THE TENANT.

K. GUARANTEE

1. THE CONTRACTOR SHALL GUARANTEE ALL MATERIALS AND WORK UNDER HIS CONTRACT AND SHALL MAKE GOOD, REPAIR OR REPLACE AT HIS OWN EXPENSE, ANY DEFECTIVE WORK, MATERIAL, OR EQUIPMENT WHICH MAY BE DISCOVERED WITHIN A PERIOD OF 12 MONTHS FROM THE DATE OF ACCEPTANCE (IN WRITING) OF THE INSTALLATION BY THE TENANT'S CONSTRUCTION MANAGER. PROVIDE EXTENDED WARRANTIES AS SPECIFIED WITH INDIVIDUAL EQUIPMENT. IN CASE OF REPLACEMENT OR REPAIR OR EQUIPMENT DUE TO FAILURE WITHIN GUARANTEE PERIOD, GUARANTEE ON THAT PORTION OF WORK SHALL BE EXTENDED FOR A PERIOD OF ONE (1) YEAR FROM DATE OF SUCH REPLACEMETN OR REPAIR.

L. OPERATIONS MANUALS

1. ONE COPY OF EACH OPERATION AND MAINTENANCE MANUAL FOR ALL EQUIPMENT FURNISHED ON JOB SHALL BE COLLECTED AND INSERTED IN A 3" THREE RING BINDER AND TURNED OVER TO THE TENANT. EACH NOTEBOOK SHALL INCLUDE BUT NOT BE LIMITED TO INSTALLATION, MAINTENANCE AND OPERATING INSTRUCTIONS, PAMPHLETS OR BROCHURES APPROVED SHOP DRAWINGS AND WARRANTIES OBTAINED FROM EACH MANUFACTURER OF PRINCIPAL ITEMS OF EQUIPMENT.

M. SLEEVES

1. THE CONTRACTOR SHALL PROVIDE SLEEVES TO PROTECT EQUIPMENT OR FACILITIES IN THE INSTALLATION. EACH SLEEVE SHALL EXTEND THROUGH IT'S RESPECTIVE FLOOR, WALL OR PARTITION AND SHALL BE CUT FLUSH WITH EACH SURFACE EXCEPT SLEEVES THAT PENETRATE THE FLOOR, WHICH SHALL EXTEND 2" ABOVE THE FLOOR.

2. ALL SLEEVES AND OPENINGS THROUGH FIRE RATED WALLS AND/OR FLOORS SHALL BE FIRE SEALED WITH CALCIUM SILICATE, SILICONE "RTV" FOAM, "3M" FIRE RATED SEALANTS OR EQUAL, SO AS TO RETAIN THE FIRE RATING OF THE FLOOR OR WALL. CONFORM TO U.L. ASSEMBLY RATING OF FLOOR OR WALL.

3. SLEEVES IN BEARING AND MASONRY WALLS, FLOORS, AND PARTITIONS SHALL BE STANDARD WEIGHT STEEL PIPE FINISHED WITH SMOOTH EDGES. FOR OTHER THAN MASONRY PARTITIONS, THROUGH SUSPENDED CEILINGS, OR FOR CONCEALED VERTICAL PIPING, SLEEVES SHALL BE NO. 22 U.S.G. GALVANIZED STEEL MINIMUM.

4. DUCT SLEEVES TO BE MINIMUM 14 GAUGE STEEL.

N. HANGERS

1. HANGERS SHALL INCLUDE ALL MISCELLANEOUS STEEL SUCH AS ANGLE IRON, BANDS, C-CLAMPS WITH RETAINING CLIPS, CHANNELS, HANGER RODS, ETC., NECESSARY FOR THE INSTALLATION OF WORK.

2. HANGERS SHALL BE FASTENED TO BUILDING STEEL, CONCRETE, OR MASONRY, BUT NOT TO PIPING OR DUCTWORK. HANGING FROM METAL DECK IS NOT PERMITTED. HANGERS MUST BE ATTACHED TO UPPER CHORD OF BAR JOIST. WHERE INTERFERENCES OCCUR, IN ORDER TO SUPPORT DUCTWORK OR PIPING, THE CONTRACTOR MUST INSTALL TRAPEZE TYPE HANGERS OR SUPPORTS WHICH SHALL BE LOCATED WHERE THEY DO NOT INTERFERE WITH ACCESS TO FIRE DAMPERS, VALVES, ACCESS DOORS AND OTHER EQUIPMENT SERVICE REQUIREMENTS AND/OR OTHER TRADES. HANGER TYPES AND INSTALLATION METHODS ARE SUBJECT TO LANDLORD CRITERIA.

3. HANGERS FOR ALL INSULATED PIPING SHALL BE SIZED AND INSTALLED FOR THE OUTER DIAMETER OF INSULATION. INSTALL 6" LONG SPLIT CIRCLE GALVANIZED SADDLE BETWEEN THE HANGER AND THE PIPE INSULATION.

4. HANGERS AND PIPING OF DISSIMILAR METALS SHALL BE DI-ELECTRICALLY SEPARATED FROM ONE ANOTHER.

O. ACCESS DOORS

1. FURNISH STEEL ACCESS DOORS AND FRAMES, MIN. 16" X 20" OR AS SHOWN ON DRAWINGS, TO GENERAL CONTRACTOR FOR ALL LOCATIONS WHERE NECESSARY TO PROVIDE ACCESS TO CONCEALED VALVES, AND OTHER EQUIPMENT REQUIRING SERVICE OR INSPECTION. LOCATION, TYPE, SIZE AND NUMBER AS DETERMINED BY CONTRACTOR AND APPROVED BY TENANT CONSTRUCTION MANAGER TO SUIT EQUIPMENT REQUIREMENTS. GENERAL CONTRACTOR WILL INSTALL ACCESS DOORS AND FRAMES.

2. ACCESS DOORS LOCATED IN FIRE-RATED WALLS, FLOORS, CEILING-FLOOR OR CEILING-ROOF ASSEMBLIES SHALL BE FIRE RATED, UNDERWRITER'S LABORATORIES, INC., LISTED AND LABELED.

3. ACCESS DOORS SHALL BE FLUSH TYPE, MANUFACTURED FROM NO. 14 GAUGE STEEL, COMPLETE WITH FLUSH FLANGE TYPE FRAMES MANUFACTURED FROM NO. 16 GAUGE STEEL, PROVIDED WITH ANCHORS. ACCESS DOORS SHALL BE SUITABLE FOR INSTALLATION IN WALL OR CEILING MATERIALS SHOWN IN ROOM FINISH SCHEDULES.

P. ELECTRICAL MOTORS

1. FURNISH, INSTALL AND ALIGN ALL MOTORS REQUIRED FOR THIS EQUIPMENT. UNLESS THEY ARE FACTORY INSTALLED ON THE UNIT, ALL STARTERS AND ASSOCIATED WIRING AND SAFETY SWITCHES FOR SUCH MOTORS SHALL BE FURNISHED AND INSTALLED BY THE ELECTRICAL CONTRACTOR. STARTERS SHALL MEET ALL REQUIREMENTS AS DEFINED IN THE ELECTRICAL DIVISION OF THE SPECIFICATIONS.

2. DESIGN, CONSTRUCTION AND PERFORMANCE CHARACTERISTICS OF MOTORS SHALL CONFORM TO ALL APPLICABLE PROVISIONS OF LATEST NEMA, ANSI, ISEE STANDARDS FOR ELECTRICAL EQUIPMENT. ALL MOTORS SHALL BE SUITABLE FOR OPERATION ON VOLTAGE VARIATION OF PLUS OR MINUS 10%, 40 DEGREES C AMBIENT TEMPERATURE; HAVE A SERVICE FACTOR OF NOT LESS THAN 1.15.

Q. LOW VOLTAGE (24 VOLT) WIRING

1. THE CONTRACTOR IS TO INSTALL ALL LOW VOLTAGE WIRING REQUIRED FOR HIS EQUIPMENT. THIS WORK INCLUDES ALL TRANSFORMERS AND DEVICES TO MAKE THIS A COMPLETE FUNCTIONAL SYSTEM.

2. ALL WORK IS TO CONFORM TO THE LATEST ADDITION N.E.C AND TO DIVISION 16 ELECTRICAL SPECIFICATIONS.

3. ANY CONDUIT REQUIRED BY CODE OR THE LANDLORD WILL BE INSTALLED BY THE ELECTRICAL SUBCONTRACTOR.

DIVISION 15 - MECHANICAL

SECTION 15300

FIRE PROTECTION

A. SCOPE OF WORK

1. THE F.P. CONTRACTOR SHALL FURNISH ALL LABOR, MATERIALS, EQUIPMENT, SERVICES, TOOLS, TRANSPORTATION AND FACILITIES NECESSARY FOR, REASONABLY IMPLIED AND INCIDENTAL TO, THE FURNISHING, INSTALLATION, COMPLETION AND TESTING OF ALL THE WORK FOR THE SPRINKLER SYSTEMS AS SHOWN ON THE DRAWINGS, CALLED FOR IN THE SPECIFICATIONS, AND AS REQUIRED BY JOB CONDITIONS, TO INCLUDE, BUT NOT BE LIMITED TO THE FOLLOWING: (REFER TO RESPONSIBILITY SCHEDULE FOR EXACT RESPONSIBILITIES)

A. INSTALLATION OF NEW WET SPRINKLER SYSTEM AS REQUIRED TO PROVIDE COVERAGE IN ACCORDANCE WITH NFPA-13, LOCAL CODES, LANDLORD'S CRITERIA, AND INSURANCE CARRIERS FOR THE MALL AND TENANT.
B. TAPS, RISERS, LATERALS, BRANCHES, VALVES, ALARMS, SPRINKLER HEADS AND ALL COMPONENTS REQUIRED FOR A COMPLETE SYSTEM.
C. DESIGN DRAWINGS, CALCULATIONS, SUBMITTALS AND APPROVALS.
D. PERMITS, FEES, AND CHARGES.
E. TESTS AND TEST CERTIFICATES.
F. COST FOR SHUT DOWN FEES.

2. THE CONTRACTOR THAT DOES THE ACTUAL SPRINKLER WORK IS REQUIRED TO BE A LANDLORD APPROVED SPRINKLER CONTRACTOR.

3. BEFORE STARTING WORK, THE CONTRACTOR SHALL EXAMINE THE ARCHITECTURAL, STRUCTURAL, MECHANICAL AND ELECTRICAL PLANS AND SPECIFICATIONS TO SEQUENCE, COORDINATE, AND INTEGRATE THE VARIOUS ELEMENTS OF THE FIRE PROTECTION SYSTEM, MATERIALS, AND EQUIPMENT WITH OTHER CONTRACTORS TO AVOID INTERFERENCES AND CONFRONTATIONS.

4. RELOCATION OF EXISTING MAINS, LATERALS, BRANCHES AND RISERS TO FACILITATE STORE DESIGN CRITERIA MUST BE INCLUDED IN BID PROPOSAL.

B. SHOP DRAWINGS

1. THE FIRE PROTECTION CONTRACTOR SHALL PREPARE DETAILED SHOP DRAWINGS AND CALCULATIONS FOR HIS WORK. SUBMIT SIX (6) COPIES TO GENERAL CONTRACTOR FOR APPROVAL. NO WORK SHALL BEGIN UNTIL TENANT'S CONSTRUCTION MANAGER APPROVES HEAD AND PIPING LOCATIONS.

2. THE FIRE PROTECTION CONTRACTOR IS RESPONSIBLE FOR SUBMITTING COORDINATED DRAWINGS, CALCULATIONS, HEAD TYPES AND COLORS TO ALL AUTHORITIES HAVING JURISDICTION FOR APPROVAL. NO WORK SHALL BEGIN UNTIL ALL APPROVALS HAVE BEEN RECEIVED.

3. A COPY OF THE LETTER OF APPROVAL FROM THE LANDLORD'S INSURANCE RATING BUREAU SHALL BE FORWARDED TO THE LANDLORD'S AGENT AND TO THE TENANT'S CONSTRUCTION MANAGER.

C. EQUIPMENT

1. SPRINKLER HEADS:

A. ALL SPRINKLER HEADS SHALL BE NEW (EXISTING HEADS SHALL BE REPLACED AS NECESSARY), U.L., F.M. LISTED AND APPROVED AUTOMATIC SPRAY TYPE AS MANUFACTURED BY CENTRAL SPRINKLER CO., GLOBE, GRINNELL, RELIABLE, STAR, OR VIKING.
B. ALL SPRINKLER HEADS SHALL BE RATED FOR 165 F UNLESS INDICATED OTHERWISE ON DRAWINGS OR REQUIRED BY LOCAL CODES.
C. ALL SALES FLOORS HEADS ARE TO HAVE BE FACTORY APPLIED COLOR FINISH TO MATCH ARCHITECTURAL CEILING FINISH. VERIFY HEAD TYPES AND COLORS WITH TENANT'S CONSTRUCTION MANAGER AND SUBMIT WITH SPRINKLER DRAWINGS FOR PERMIT.
D. SPRINKLER HEAD TYPES SHALL BE AS FOLLOWS:

1. FINISHED CEILING (SALES AREA) - FULLY RECESSED/CONCEALED TYPE
2. FINISHED CEILING (NON-SALES AREA) - SEMI-RECESSED TYPE
3. NO-CEILING - CHROME UPRIGHT TYPE.

NOTE:SEMI-RECESSED HEADS SHALL PROTRUDE NO MORE THAN 1" BELOW LEVEL OF CEILING OF SOFFIT. ALL HORIZONTAL SPRINKLER RUNS AT SIDEWALL SOFFITS SHALL BE CONCEALED WITHIN SOFFIT FRAMING.

D. GENERAL PIPING

1 A FIRE PROTECTION SYSTEM STUB IN SHALL BE FURNISHED BY THE LANDLORD. SPRINKLER SPACING SHALL NOT EXCEED 130 SQ. FT. IN "SALES" AREAS AND 100 SQ. FT. IN "STOCK" AREAS. COMPLY WITH LANDLORD'S DESIGN CRITERIA. PIPE SIZING SHALL BE BASED ON NFPA ORDINARY HAZARD.

2. ALL SPRINKLER LINES SHALL BE INSTALLED CONCEALED, AVOIDING INTERFERENCE WITH LIGHTS, DUCTS, PIPES, STORAGE DECK, ETC. FIRE PROTECTION CONTRACTOR SHALL PREPARE COORDINATED SHOP DRAWINGS INDICATING THE LOCATIONS OF ALL SPRINKLER HEADS, SPRINKLER LINES, LIGHTS, DIFFUSERS, GRILLES AND REGISTERS PRIOR TO INSTALLATION. HORIZONTAL SPRINKLER RUNS AT MERCHANDISE SOFFITS SHALL BE PLACED INSIDE SOFFIT STRUCTURE. VERTICAL DROPS FROM CEILING TO MERCHANDISE SOFFIT SHALL BE LOCATED FLUSH AGAINST DEMISING WALLS.

3. WHERE POSSIBLE, REWORK THE EXISTING SPRINKLER SYSTEM TO MEET THE NEW REQUIREMENTS OF THIS DESIGN. RELOCATE ALL MAINS AND BRANCHES INTERFERING WITH CEILING HEIGHTS, EQUIPMENT, AND MAJOR COMPONENTS INCLUSIVE OF ADJACENT TENANTS AND MALL COMMON AREAS. REMOVE ALL UNUSED PIPING.

4. LOCATIONS OF ALL HEADS SHOULD BE APPROVED BY THE LOCAL FIRE PROTECTION OFFICIAL AND THE TENANT'S CONSTRUCTION MANAGER BEFORE INSTALLATION. HEADS MUST BE LOCATED IN THE CENTER OF CEILING TILES AND IN A SYMMETRICAL PATTERN WITH OTHER CEILING FIXTURES. ADDITIONAL MONIES WILL NOT BE ALLOCATED FOR ADDITIONAL HEADS REQUIRED BY FIELD FIRE INSPECTOR AFTER BIDS ARE ACCEPTED. HEADS IN MERCHANDISE BAYS SHALL BE CENTERED SIDE TO SIDE AND FRONT TO BACK.

5 PROVIDE AND INSTALL A VALVED TEST CONNECTION FOR THE SPRINKLER SYSTEM AS REQUIRED OR REQUESTED BY THE MALL, LOCAL INSPECTOR, OR INSURANCE CARRIER. COORDINATE LOCATION WITH TENANT'S CONSTRUCTION MANAGER AND LOCAL FIRE PROTECTION OFFICIAL PRIOR TO ROUGH-IN.

6. SPRINKLER HEADS LOCATED IN STOCK, CORRIDOR ON TOILET ROOM CEILINGS OR WALLS BELOW 8'-0" ABOVE THE FINISHED FLOOR ARE TO BE PROTECTED WITH APPROVED GUARDS.

E. PIPING:

1. SCHEDULE 40, BLACK STEEL PIPE, ASTM A-53 FOR FERROUS PIPING, WELDED AND SEAMLESS, ANSI B-36-10-70 FOR WROUGHT STEEL PIPE.
2. CAST IRON OR MALLEABLE IRON SCREWED FITTINGS FOR PIPES 2 INCHES AND SMALLER. SCREWED OR CAST IRON FLANGED JOINTS FOR PIPES LARGER THAN 2 INCHES.
3. GALVANIZED OR BLACK MALLEABLE IRON WITH BRASS SEAT SCREWED UNIONS FOR PIPES 2 INCHES AND SMALLER.
4. VICTAULIC TYPE COUPLINGS ARE ACCEPTABLE, WHERE APPROVED BY CODE AND THE LANDLORD.

F. TESTS

1. WHEN COMPLETED, THE ENTIRE FIRE PROTECTION PIPING SYSTEM SHALL BE HYDROSTATICALLY TESTED AS REQUIRED BY THE RULES AND REGULATIONS OF THE AUTHORITIES HAVING JURISDICTION. SYSTEM SHALL SHOW NO SIGNS OF LEAKAGE OR OTHER DEFECTS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DAMAGE TO THE WORK OF THE OTHER CONTRACTORS OR TO THE BUILDING, OR TO ITS CONTENTS, PEOPLE, ETC., CAUSED BY LEAKS IN ANY OF THE EQUIPMENT INSTALLED BY HIM. ALL REPAIRS OR REPLACEMENT OF DAMAGES SHALL BE AT THIS CONTRACTOR'S EXPENSE.

2. PROPERLY COMPLETED AND SIGNED "SPRINKLER CONTRACTOR'S MATERIAL AND TEST CERTIFICATES" SHALL BE FURNISHED TO THE LANDLORD, AUTHORITIES HAVING JURISDICTION, AND TENANT'S CONSTRUCTION MANAGER.

DIVISION 15 - MECHANICAL

SECTION 15500

HEATING, VENTILATION, AND AIR CONDITIONING

A. SCOPE OF WORK

1. THE HVAC CONTRACTOR SHALL FURNISH ALL LABOR, MATERIALS, EQUIPMENT, SERVICES, TOOLS, TRANSPORTATION AND FACILITIES NECESSARY FOR, REASONABLY IMPLIED AND INCIDENTAL TO, THE FURNISHING, INSTALLATION, COMPLETION AND TESTING OF ALL THE WORK FOR THE MECHANICAL SYSTEMS AS SHOWN ON THE DRAWINGS, CALLED FOR IN THE SPECIFICATIONS, AND AS REQUIRED BY JOB CONDITIONS, TO INCLUDE, BUT NOT BE LIMITED TO THE FOLLOWING:(REFER TO RESPONSIBILITY SCHEDULE FOR EXACT RESPONSIBILITIES)

A. ROOFTOP UNITS, EQUIPMENT, AND APPURTENANCES.
B. DUCTWORK, FITTINGS, DAMPERS, AND INSULATION.
C. HYDRONIC PIPING AND INSULATION (AS APPLICABLE, REFER TO PLANS).
D. REFRIGERANT PIPING (AS APPLICABLE, REFER TO PLANS).
E. DIFFUSERS, GRILLES, AND REGISTERS.
F. CURBS AND STEEL FRAMING FOR SUPPORT (AS APPLICABLE, REFER TO PLANS).
G. TESTING, ADJUSTING, AND BALANCING.
H. OPERATIONS MANUALS.
I. TEMPERATURE CONTROLS AND RELATED DIAGRAMS.
J. SEQUENCES OF OPERATION.
K. CONNECTION TO ANY LANDLORD ENERGY MANAGEMENT SYSTEM.

3. BEFORE STARTING WORK, THIS CONTRACTOR SHALL EXAMINE THE ARCHITECTURAL, STRUCTURAL, MECHANICAL AND ELECTRICAL PLANS AND SPECIFICATIONS TO SEQUENCE, COORDINATE, AND INTEGRATE THE VARIOUS ELEMENTS OF THE HVAC SYSTEM, MATERIALS, AND EQUIPMENT WITH OTHER CONTRACTORS TO AVOID INTERFERENCES AND CONFRONTATIONS.

B. HVAC EQUIPMENT

1. PRIMARY HEATING, VENTILATION AND AIR CONDITIONING UNITS.

A. PRIMARY HEATING, VENTILATION, AND AIR CONDITIONING UNITS ARE TO BE BY AS SCHEDULED. ALL COMPRESSORS ARE TO INCLUDE A 5-YEAR EXTENDED WARRANTY.
B. EQUALS EQUIPMENT AS MANUFACTURED BY TRANE, CARRIER OR YORK ARE ACCEPTABLE.
C. ALL EQUIPMENT SHALL BE COMPLETE IN EVERY RESPECT WITH ALL DEVICES, APPURTENANCES, AND ACCESSORIES PROVIDED TO MEET THE DESIGN INTENT AND OPERATION OF THE SYSTEMS SHOWN ON THE DRAWINGS AND SPECIFIED HEREIN.
D. EQUIPMENT SHALL BE INSTALLED IN STRICT ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS. ALL AIR CONDITIONING EQUIPMENT MUST HAVE A CONDENSATE DRAIN AND BE TRAPPED IN ACCORDANCE WITH MANUFACTURERS DATA. SEE DRAWINGS FOR ADDITIONAL DETAILS.
E. SECONDARY DRAIN PANS ARE REQUIRED TO BE INSTALLED BENEATH ALL INDOOR AIR CONDITIONING EQUIPMENT WITH THE EXCEPTION OF VAV BOXES. SECONDARY PANS ARE TO PROTECT ENTIRE UNIT. PROVIDE CONDENSATE PUMPS, AS REQUIRED. CONDENSATE SHALL BE DIRECTED TO MOP SINK OR AS SPECIFIED ON PLANS.

2. VARIABLE AIR VOLUME BOXES (VAV)

A. WHERE SHOWN ON DRAWINGS, PROVIDE VAV BOXES COMPLETE WITH CONTROLS, HEATING COILS (FANS AS REQUIRED). ALL DUCT CONNECTIONS FLEXIBLE DUCT/PIPE CONNECTIONS SHALL BE PROVIDED BY THE CONTRACTOR.

3. TOILET EXHAUST FANS

A. WHERE SHOWN ON DRAWINGS, PROVIDE A TOILET EXHAUST FAN UNIT COMPLETE WITH GRAVITY BACK DRAFT DAMPERS. ALL DUCTWORK, ROOF OPENINGS AND CAPS NECESSARY TO PROVIDE A COMPLETE EXHAUST SYSTEM SHALL BE PROVIDED BY THE CONTRACTOR. REFER TO PLANS FOR APPLICABILITY.

4. BASEBOARD, CABINET, AND UNIT HEATERS

A. WHERE SHOWN ON DRAWINGS, PROVIDE ELECTRIC HEATERS COMPLETE WITH ELECTRIC HEATING COIL, CONTROLS, AND INTEGRAL THERMOSTAT.

5. INLINE PUMPS

A. WHERE SHOWN ON DRAWINGS PROVIDE AN INLINE CLOSE COUPLED PUMP(S), BRONZE FITTED, PUMPS SHALL BE FURNISHED WITH BRONZE CASE WEARING RINGS, BRONZE SHAFT SLEEVE AND MECHANICAL SHAFT SEAL RATED FOR. PUMPS TO BE SO CONSTRUCTED THAT THEY MAY BE MOUNTED IN A HORIZONTAL OR VERTICAL PIPE LINE. MOTOR TO BE 1750 RPM UNLESS NOTED OTHERWISE.

6. VIBRATION ISOLATION DEVICES

A. VIBRATION ISOLATION DEVICES SHALL BE PROVIDED IN ALL SUPPORTS BETWEEN VIBRATING EQUIPMENT (FANS, ROOFTOP UNITS, AIR HANDLERS, FAN POWERED VAV BOXES, ETC.) AND STRUCTURE.
B. VIBRATING EQUIPMENT HUNG FROM STRUCTURE SHALL BE ISOLATED WITH RUBBER AND SPRING DEVICES. VIBRATING EQUIPMENT SUPPORTED FROM FLOOR OR DECK SHALL BE ISOLATED WITH HOUSED SPRING MOUNT DEVICES.
C. EXAMINE DEAD LOAD AND OPERATING LOAD CONDITIONS WHEN SELECTING DEVICES. ADJUST FOR PROPER ALIGNMENT AND LOADING. AVOID "GROUNDING" THE ISOLATOR.
D. CHECK HANGER ROD SIZE FOR ALLOWABLE LOADS AT THE ISOLATING DEVICE AND AT THE UPPER AND LOWER ATTACHMENTS TO STRUCTURES, DUCTS, EQUIPMENT, ETC.
E. CONSULT MANUFACTURER FOR APPLICATION DATA.

7. CURBS AND STEEL FRAMING FOR SUPPORT

A. THIS CONTRACTOR WILL PROVIDE ALL NECESSARY CURBS AND STEEL FRAMING REQUIRED TO INSTALL ALL HVAC EQUIPMENT AS DESCRIBED OR IMPLIED ON THE DRAWINGS. CURBS SHALL BE A MINIMUM OF 14" HIGH, OF THE SAME MANUFACTURER OF THE EQUIPMENT SUPPORTED. INSULATE UNDER THE COMPRESSOR SECTION TO PREVENT CONDENSATION. ALL CURBS MUST BE INSTALLED SO THAT TOP OF CURBS ARE "DEAD" LEVEL. ALL PENETRATIONS OF EXISTING STRUCTURE SHALL BE DONE IN ACCORDANCE TO THE LANDLORD'S GUIDELINES AT THIS CONTRACTOR'S EXPENSE.

C. METAL DUCTWORK - NO FIBERGLASS DUCT ALLOWED

1. NO DUCTWORK SHALL BE FABRICATED PRIOR TO APPROVAL BY THE TENANT'S CONSTRUCTION MANAGER. SIGNIFICANT DEVIATIONS FROM DESIGN MUST BE APPROVED BY TENANT'S CONSTRUCTION MANAGER PRIOR TO FABRICATION OR INSTALLATION. ALL DUCT MAINS ARE TO BE RECTANGULAR UNLESS NOTES OTHERWISE. ALL DUCT BRANCHES TO DIFFUSERS ARE TO BE ROUND RIGID DUCT.

2. EXCEPT AS OTHERWISE INDICATED, FABRICATE AND INSTALL RECTANGULAR DUCTS WITH GALVANIZED SHEET STEEL, IN ACCORDANCE WITH SMACNA "HVAC DUCT CONSTRUCTION STANDARDS" OF THE LATEST EDITION. CONFORM TO THE REQUIREMENTS IN THE REFERENCED STANDARD FOR METAL THICKNESS, REINFORCING TYPES AND INTERVALS, TIE ROD APPLICATIONS, AND JOINT TYPES AND INTERVALS.

3. EXCEPT WHERE OTHERWISE INDICATED, CONSTRUCT DUCT SYSTEMS TO THE FOLLOWING PRESSURE CLASSIFICATIONS: (VERIFY WHETHER RETURN OR EXHAUST DUCT IS POSITIVE OR NEGATIVE PRESSURE).

A. SUPPLY DUCTS: 2 INCHES WATER GAUGE, POSITIVE PRESSURE
B. RETURN AND EXHAUST DUCTS: 2 INCHES WATER GAUGE, NEGATIVE PRESSURE.
PRESSURE TEST DUCTS FOR LEAKAGE. REMAKE LEAKING JOINTS AND APPLY SEALANTS AS REQUIRED TO FABRICATE A SYSTEM THAT DOES NOT EXCEED 5% LEAKAGE OR LESS AS STATED BY PRESSURE CLASS RATINGS IN SMACNA STANDARDS.

4. AS A MINIMUM, CROSSBREAK ALL FLAT SURFACES OR REINFORCE WITH A BEAD APPROXIMATELY 3/8" WIDE X 3/16" DEEP ON 12" CENTERS TO PREVENT VIBRATIONS.

5. INSTALL DOUBLE THICKNESS TURNING VANES IN ALL RIGHT ANGLE ELBOWS.

6. INSTALL RIGID ROUND AND RECTANGULAR METAL DUCT WITH SUPPORT SYSTEMS INDICATED IN SMACNA STANDARDS. SUPPORT HORIZONTAL DUCTS WITHIN 2 FEET OF EACH ELBOW AND WITHIN 4 FEET OF EACH BRANCH INTERSECTION USING DOUBLE STRAP HANGERS ON EACH SIDE OF FITTING. SUPPORT VERTICAL DUCTS AT A MAXIMUM INTERVAL OF 16 FEET AND AT EACH FLOOR. NO WOOD SHALL BE USED TO SUPPORT OR BRACE DUCTS. PROVIDE SWAY AND SEISMIC BRACING AS REQUIRED BY STATE AND LOCAL CODES OR BY LANDLORD.

7. WHERE DUCTS PASS THROUGH ROOFS AND FLOORS, PROVIDE AS MINIMUM 1-1/2"X1-1/2" X1/8" STEEL ANGLE FRAMES AT EACH SIDE OF OPENING. THE ANNULAR SPACE BETWEEN DUCT AND ANGLE FRAMES SHALL BE CAULKED WITH SILICONE SEALANT OR FIREPROOFED AS REQUIRED BY ASSEMBLY FIRE RATING.

8. ALL TRAVERSE JOINTS AND SEAMS IN SUPPLY AIR DUCT SHALL BE SEALED AIR TIGHT WITH DAP CMC DUCT SEALER. JOINTS ALSO SHALL BE RIVETED OR CONNECTED WITH SHEET METAL SCREWS.

9. SOFT ELASTOMER BUTYL GASKET WITH ADHESIVE BACKING SHALL BE USED TO SEAL FLANGED JOINTS.

10. DUCT TRANSITIONS SHALL NOT EXCEED 30 DEGREES SLOPE EXCEPT AS SPECIFICALLY NOTED OTHERWISE.

11. PROVIDE ACCESS TO ALL MOTORIZED DAMPERS, FIRE DAMPERS, CONTROLS, AND OTHER ITEMS IN DUCTWORK THAT REQUIRE SERVICE OR INSPECTION. IF THE ACCESS PANEL LOCATION IS EXPOSED TO THE SALES AREA, IT MUST BE APPROVED BY THE TENANT'S CONSTRUCTION MANAGER PRIOR TO INSTALLATION. LAY-IN SUPPLY AND RETURN AIR DIFFUSERS, GRILLES AND REGISTERS WITH PLASTER FRAMES MAY BE USED AS ACCESS LOCATIONS.

12. FLEXIBLE CONNECTIONS

A. FLEXIBLE COLLARS SHALL BE PROVIDED IN ALL CONNECTIONS BETWEEN VIBRATING EQUIPMENT (FANS, ROOFTOP UNITS, AIR HANDLERS, FAN POWERED VAV BOXES, ETC.) AND DUCTS OR CASINGS. ALSO, PROVIDE FLEXIBLE CONNECTIONS WHERE DUCTS CROSS BUILDING EXPANSION JOINTS.
B. FLEXIBLE CONNECTIONS SHALL CONSTRUCTED OF NEOPRENE-COATED FLAMEPROOF FABRIC. PROVIDE ADEQUATE JOINT FLEXIBILITY TO ALLOW FOR MOVEMENT AND PREVENT THE TRANSMISSION OF VIBRATION.
C. FLEXIBLE CONNECTION IS TO BE RATED FOR THE OPERATING PRESSURE OF THE SYSTEM.

13. FIRE DAMPERS

A. PROVIDE PRIMARY FIRE DAMPERS WHERE INDICATED OR REQUIRED BY CODES. DAMPERS SHALL BE DESIGNED FOR HORIZONTAL OR VERTICAL FLOW OF AIR AS REQUIRED. FIRE DAMPERS SHALL BE UL LABELED.
B. FIRE DAMPERS SHALL HAVE THE BLADES OUT OF THE AIRSTREAM AND A 165 F FUSIBLE LINK, TYPE A, AS MINIMUM.
C. PROVIDE ALL NECESSARY FRAMING AND SLEEVES FOR DAMPER MOUNTING PER UL AND CODE REQUIREMENTS.
D. PROVIDE DUCT ACCESS DOORS IN AN ACCESSABLE LOCATION FOR ALL FIRE DAMPERS. DOOR IS TO BE 20 GA GALVANIZED DOOR WITH QUICK-OPENING LATCH AND PIANO HINGE.

14. FLEXIBLE AIR DUCT

A. FLEXIBLE AIR DUCT SHALL BE 1" INSULATED CLASS 1 AND RATED FOR THE OPERATING PRESSURE OF THE SYSTEM. DUCT CONSTRUCTION MATERIAL (PLASTIC, CLOTH, ALUMINUM) MUST ADHERE TO LOCAL CODES AND LANDLORD'S REQUIREMENTS AND BE INCLUDED AS SUCH IN THE BID.
B. FLEXIBLE AIR DUCT MAY ONLY BE USED IN VERTICAL APPLICATIONS WITH PRIOR APPROVAL FROM TENANT'S CONSTRUCTION MANAGER.
C. FLEXIBLE DUCT SHALL NOT EXTEND OVER 5'-0" IN LENGTH AT ANY ONE LOCATION.

15. SUPPLY AIR TAKE-OFF FITTINGS

A. PROVIDE CONICAL OR "BELL-MOUTH" TAKE-OFFS FROM MAIN DUCTWORK TO ROUND BRANCHES. INSTALL PER MANUFACTURER'S INSTRUCTIONS.
B. PROVIDE 45 RECTANGULAR TAKE-OFFS FROM MAIN DUCTWORK TO RECTANGULAR BRANCHES.

16. DAMPERS

A. PROVIDE MANUAL LOCKING QUADRANT VOLUME CONTROL DAMPERS WITH HANDLE OPERATORS IN EACH BRANCH DUCT AND AS SHOWN ON PLANS TO FACILITATE AIR BALANCING.
B. WHERE ACCESS TO BALANCING DAMPER IS RESTRICTED, YOUNG'S REGULATORS SHALL BE USED.
C. ALL RECTANGULAR DAMPERS IN OUTSIDE AIR, RELIEF AIR, OR RETURN AIR DUCTS ARE TO BE OF OPPOSED BLADE TYPE. ALL OUTSIDE AIR DUCT DAMPERS MUST ALSO BE OF THE LOW LEAKAGE TYPE.
D. ALL MOTORIZED DAMPERS NOT FURNISHED WITH EQUIPMENT ARE TO BE HONEYWELL DAMPERS.

17. DIFFUSERS, GRILLES, AND REGISTERS

A. PROVIDE DIFFUSERS GRILLES AND REGISTERS AS SCHEDULED. DEVICES TO BE COMPLETE WITH DAMPERS FRAMES AND ALL ACCESSORIES. FINISH AS INDICATED.
B. INSTALL ALL AIR DEVICES AS LOCATED ON THE ARCHITECTURAL REFLECTED CEILING PLAN.
C. APPROVED MANUFACTURERS: TITUS IS SPECIFIED, EQUALS BY METALAIRE OR KRUEGER IS ACCEPTABLE.

18. MEDIUM PRESSURE DUCT

A. WHERE DUCTWORK IS SPECIFICALLY NOTED AS MEDIUM PRESSURE, IT SHALL BE CONSTRUCTED IN ACCORDANCE WITH SMACNA STANDARDS FOR A PRESSURE RATING OF 3 INCHES WATER COLUMN MINIMUM OR LARGER AS REQUIRED BY LANDLORD.
B. ALL GAUGES AND REINFORCEMENT MUST MEET WITH THE LATEST EDITION OF SMACNA STANDARDS FOR MEDIUM PRESSURE DUCT AND WITH THE LANDLORD'S CRITERIA.
C. ALL OTHER ITEMS FROM METAL DUCTWORK SPECIFICATION SECTION APPLY TO THIS SECTION

19. DUCTWORK INSULATION

A. INSTALL INSULATION PRODUCTS IN ACCORDANCE WITH MANUFACTURER'S WRITTEN INSTRUCTIONS, AND IN ACCORDANCE WITH RECOGNIZED INDUSTRY PRACTICES. INSULATION MUST COMPLY WITH NFPA 90A.

B. DUCT SIZES SHOWN ON DRAWINGS ARE INSIDE CLEAR DIMENSIONS. INSULATE SUPPLY AND RETURN AIR RECTANGULAR DUCTWORK. DUCTWORK SHALL BE INTERNALLY LINED WITH 1" THICK ACCOUSTICAL LINER. IF REQUIRED, DUCTWORK SHALL BE EXTERNALLY WRAPPED WITH 1 1/2" THICK, FOIL FACED FIBERGLASS INSULATION IN PLACE OF ACCOUSTICAL LINER.

C. ALL ROUND AND OUTSIDE AIR DUCTWORK ABOVE THE CEILING SHALL BE EXTERNALLY INSULATED WITH A MINIMUM OF 1" THICK, 1-1/2 LB. DENSITY (R=5.6) DUCT WRAP WITH VAPOR BARRIER. VAPOR BARRIER IS TO BE MAINTAINED THROUGHOUT DUCT SYSTEM. ALL JOINTS MUST BE TAPED SO THAT NO INSULATION FIBER IS VISIBLE. EXTEND DUCTWORK INSULATION WITHOUT INTERRUPTION THROUGH WALLS, FLOORS, AND SIMILAR PENETRATIONS.

D. DUCKWORK LOCATED IN THE CONDITIONED SPACE SHALL NOT BE INSULATED UNLESS OTHERWISE NOTED ON PLANS. INSULATE ALL DUCT DROPS OR THE FIRST 20 FEET OF DUCT AT THE HVAC UNITS IN ALL CASES.

E. ALL INSULATION SHALL HAVE A FLAME SPREAD RATING OF NOT MORE THAN 25 AND A SMOKE DEVELOPED RATING OF NO HIGHER THAN 50 WHEN TESTED IN ACCORDANCE WITH ASTM C 411, OR AS REQUIRED BY LOCAL CODES.

20. SYSTEM CLEANOUT

A. DUCTWORK AND AIR HANDLING EQUIPMENT IS TO BE CLEANED OUT AND BLOWN OUT BEFORE PAINTING IS STARTED BY THE GENERAL CONTRACTOR.
B. FILTERS MUST BE IN UNITS AT ANY TIME FANS ARE OPERATED.

D. HYDRONIC PIPING

1. PROVIDE A COMPLETE HYDRONIC PIPING SYSTEM IF APPLICABLE. REFER TO PLANS TO DETERMINE IF A HYDRONIC SYSTEM IS REQUIRED.

2. PIPING

A. HYDRONIC PIPING FOR CHILLED WATER AND/OR HEATING WATER AND/OR CONDENSER WATER SHALL BE ASTM A-120, SCHEDULE 40, ERW, BLACK STEEL PIPE WITH PLAIN ENDS. INSTALL STEEL PIPE WITH WELDED JOINTS WHERE PIPE IS 2-1/2 INCH AND LARGER. INSTALL STEEL PIPE WITH THREADED JOINTS AND FITTINGS OR INSTALL TYPE "K" ANNEALED TEMPERED COPPER TUBE WITH SILFOS JOINTS FOR 2 INCH AND SMALLER PIPE. PROVIDE DIELECTRIC UNIONS BETWEEN DISSIMILAR METALS. ALL PIPING SHALL BE IN STRICT CONFORMANCE WITH ASTM, ASA, AND LANDLORD'S REQUIREMENTS, WHICHEVER IS MOST STRINGENT. UNIONS OR FLANGES MUST BE USED AT EQUIPMENT CONNECTIONS WHERE SERVICE OR REMOVAL MAY BE REQUIRED.
B. ALL PIPING AND EQUIPMENT SHALL BE PRESSURE TESTED WITHOUT LEAKAGE AT A MINIMUM PRESSURE OF 125 PSI.
C. ALL HYDRONIC PIPING AND EQUIPMENT CONNECTED TO THE HVAC PIPING SYSTEM SHALL BE CLEANED AND FLUSHED. REMOVE, CLEAN, AND REPLACE STRAINER SCREENS. FILL TENANT'S SYSTEM WITH DOMESTIC WATER AND VENT ALL PIPING AND EQUIPMENT PRIOR TO CONNECTION TO THE LANDLORD'S SYSTEM. CONTRACTOR SHALL NOT FILL TENANT'S SYSTEM WITH WATER FROM THE LANDLORD'S SYSTEM UNLESS SPECIFICALLY INSTRUCTED TO DO SO FROM THE LANDLORD'S FIELD REPRESENTATIVE.
D. PRIOR TO CONNECTION TO THE LANDLORD'S SYSTEM, CONTRACTOR SHALL OBTAIN WRITTEN CONFIRMATION FROM THE LANDLORD'S FIELD REPRESENTATIVE, THAT ALL TESTING, FLUSHING, AND PROPER FILLING OF THE TENANT'S SYSTEM HAS BEEN COMPLETED IN ACCORDANCE TO THE LANDLORD'S REQUIREMENTS AND THAT THE TENANT'S SYSTEM IS READY TO BE CONNECTED TO THE LANDLORD'S SYSTEM.

3. VALVES

A. GATE VALVES, 2-INCH AND SMALLER: CLASS 150, BODY AND UNION BONNET OF ASTM B 62 CAST BRONZE WITH THREADED OR SOLDER ENDS, INTEGRAL SEAT, RENEWABLE SOLID BRONZE WEDGE DISC, RISING STEM, SCREWED BONNET AND RE-PACKABLE UNDER PRESSURE. BALL VALVES ARE ACCEPTED AS AN EQUAL SUBSTITUTION.
B. GATE VALVES, 2-1/2 INCH AND LARGER: CLASS 125 CAST IRON BODY, RENEWABLE BRONZE SEATS AND SOLID WEDGE DISC, RISING STEM, FLANGED ENDS, AND RE-PACKABLE UNDER PRESSURE.
C. SWING CHECK VALVES, 2-INCH AND SMALLER: CLASS 150, CAST BRONZE BODY AND CAP CONFORMING TO ASTM B 62 WITH HORIZONTAL SWING, Y-PATTERN, RENEWABLE BRONZE DISC, AND HAVING THREADED OR SOLDERED ENDS.
D. SWING CHECK VALVE, 2-1/2 INCH AND LARGER: CLASS 125 CAST IRON BODY AND BOLTED CAP, HORIZONTAL SWING, RENEWABLE BRONZE DISC, FLANGED ENDS AND CAPABLE OF BEING REFITTED WHILE THE VALVE REMAINS IN THE LINE.
E. COMBINATION BALANCING AND SHUT-OFF VALVES: BELL & GOSSETT CIRCUIT SETTER WITH LOCKING SETPOINT. A CIRCUIT SETTER BALANCE WHEEL MUST BE INCLUDED WITH O & M MANUAL.
F. FLOW METER: BELL AND GOSSETT THERMOFLO INDICATOR MODEL TFI.

4. PIPING SPECIALTIES

A. PRESSURE/TEMPERATURE TEST PLUGS (PETE'S PLUG) - 1/4 INCH NPT FITTINGS TO RECEIVE EITHER A TEMPERATURE OR PRESSURE PROBE, 1/8 INCH O.D. FITTING AND CAPS SHALL BE BRASS WITH VALVE CORE OF NORDEL, RATED AT 400 PSIG, O F TO 200 F.
B. STRAINERS - "Y" PATTERN STRAINERS, 125 PSIG, CAST IRON BODY WITH PERFORATED STAINLESS STEEL SCREEN, THREADED FOR 2 INCHES AND SMALLER, FLANGED FOR 2-1/2 INCHES AND LARGER. SCREEN OPENING SIZE AT 0.033 INCH FOR HEATING AND 1/8 INCH FOR CHILLED OR CONDENSER WATER. PROVIDE WITH BLOWDOWN VALVE WITH HOSE END FITTING.
C. THERMOMETERS - DIE CAST ALUMINUM, 9" INDUSTRIAL MERCURY THERMOMETER, FULLY ADJUSTABLE WITH CLEAR ACRYLIC WINDOW AND BRASS SEPARABLE SOCKET.
D. MANUAL AIR VENTS - 1/8" COIN-OPERATED VENT. PROVIDE AN AIR CHAMBER CONSISTING OF A 3/4" NIPPLE AND BUSHINGS.

5. GENERAL INSTALLATION

A. INSTALL WATER MAINS WITHOUT PITCH. USE ECCENTRIC REDUCING COUPLINGS AT CHANGES IN SIZE WITH THE TOP OF PIPES AT SAME ELEVATION. MAKE CHANGES IN DIRECTION WITH FITTINGS.
B. BRANCHES TO UNITS BELOW MAINS TO BE TAKEN FROM BOTTOM OF MAINS AT A 45 DEGREE ANGLE, PITCH DOWNWARD TOWARD UNITS. BRANCHES TO UNITS ABOVE MAINS TO BE TAKEN FROM TOP OF MAINS AT A 45 DEGREE ANGLE PITCHED UPWARD TOWARDS UNITS. PITCH NOT LESS THAN 1" TO 10 FEET.
C. HANGERS SHALL BE SIZED AND INSTALLED FOR THE OUTSIDE DIAMETER OF THE INSULATED PIPE. INSTALL 6" LONG SPLIT CIRCLE GALVANIZED SADDLE BETWEEN THE HANGER AND PIPE INSULATION.
D. HANGERS AND PIPING OF DISSIMILAR METALS SHALL BE DIELECTRICALLY SEPARATED FROM ONE ANOTHER.
E. SEE PLANS FOR APPLICABLE DETAILS.
F. ALL PRESSURE PIPING SYSTEMS INSTALLED SHALL CONFORM TO THE REQUIREMENTS OF THE STATE PIPING AND WELDING CODES.
G. INSTALL VALVES AT LOW POINTS FOR DRAINING EACH SYSTEM AND INSTALL MANUAL VENTS AT ALL HIGH POINTS OF EQUIPMENT AND PIPING IN THE SYSTEM TO PROPERLY REMOVE ENTRAPPED AIR.

6. INSULATION

A. ALL HYDRONIC PIPING FOR CHILLED WATER AND/OR HEATING WATER, VALVES, FITTINGS, AND ACCESSORIES SHALL BE INSULATED. FOR PIPE SIZES UP TO 2 INCHES, INSULATE WITH 1 INCH THICK (K=0.23 @ 75 F FIBERGLASS INSULATION WITH ALL SERVICE JACKET AND VAPOR BARRIER. FOR PIPE SIZES 2-1/2 INCHES AND LARGER, INSULATE WITH 1-1/2 INCH THICK (K 0.23 75 F) FIBERGLASS INSULATION WITH ALL SERVICE JACKET AND VAPOR BARRIER.
B. INSULATION AT ALL HANGERS FOR PIPING 2-1/2 INCHES AND LARGER SHALL BE HARD AND NON-COMPRESSIBLE.
C. ALL INSULATION SHALL HAVE A FLAME SPREAD RATING OF NOT MORE THAN 25 AND A SMOKE DEVELOPED RATING OF NO HIGHER THAT 50 TO CONFORM WITH THE REQUIREMENTS OF THE NFPA.

E. REFRIGERANT PIPING

1. PROVIDE A COMPLETE REFRIGERANT PIPING SYSTEM BETWEEN INDOOR FAN UNITS AND OUTDOOR CONDENSING UNITS, IF APPLICABLE. PROVIDE OIL, REFRIGERANT CHARGE AND TEST SYSTEM. REFER TO PLANS TO DETERMINE IF A REFRIGERANT PIPING SYSTEM IS REQUIRED.

2. MATERIALS

A. REFRIGERANT PIPING SHALL BE TYPE "L" DRAWN COPPER TUBING (ASTM B88), WROUGHT COPPER OR CAST BRONZE FITTINGS (ANSI B16.22), WITH SILFOS-5 SOLDERED JOINTS.
B. SERVICE VALVES, CHARGING PORTS, FILTER-DRIER, SIGHT GLASS, AND A THERMOSTATIC EXPANSION VALVE (TXV) SHALL BE INSTALLED FOR EACH SYSTEM AS A MINIMUM.

3. INSTALLATION

A. SIZE LINES WITH ADEQUATE LIFT TRAPS AND DOUBLE SUCTION RISERS AS NECESSARY TO MEET THE NEEDS OF EQUIPMENT SPECIFIED, FIELD CONDITIONS, AND EQUIPMENT MANUFACTURER'S RECOMMENDATIONS.
B. PRESSURE TEST FOR LEAKS WITH AN INERT GAS AT 250 PSIG. REDO LEAKING JOINTS AND RETEST UNTIL SYSTEM IS TIGHT. EVACUATE GAS AND CHARGE SYSTEM. RE-TEST SYSTEM AND CHECK FOR LEAKS WITH HALIDE LEAK DETECTOR. ALL LEAKING JOINTS MUST BE COMPLETELY RE- DONE UNTIL NO LEAKS EXIST.
C. UPON COMPLETION OF TESTING, BUT BEFORE INSULATION IS APPLIED, PIPING MUST BE INSPECTED BY A REPRESENTATIVE OF THE LOCAL GOVERNING AUTHORITY AS NECESSARY.

D. REFRIGERANT LINES SHALL BE INSULATED WITH 1 INCH THICK RUBATEX OR ARMSTRONG REFRIGERANT PIPE INSULATION IN ACCORDANCE WITH INDUSTRY STANDARDS.

F. SYSTEM TESTING, ADJUSTING, AND BALANCING

1. TESTING, ADJUSTING AND BALANCING OF ALL WORK SHALL BE MADE BY AN INDEPENDENT CONTRACTOR WHO IS CURRENTLY LICENSED ASSOCIATED AIR BALANCING COUNCIL (AABC) OR NATIONAL ENVIRONMENTAL BALANCING BUREAU (NEBB) BALANCING CONTRACTOR. NO OTHER BALANCE REPORTS WILL BE REVIEWED OR ACCEPTED. ALL BALANCING WORK MUST BE COMPLETE AND DONE IN ACCORDANCE WITH THE MOST RECENT STANDARDS OF THEIR SOCIETY. PAYMENT OF ALL COSTS FOR TESTING SHALL BE MADE BY THE HVAC CONTRACTOR.
2. THE HVAC CONTRACTOR SHALL INSTALL NEW FILTERS IN ALL UNITS PRIOR TO THE AIR BALANCE. THE COMPLETE AIR BALANCE SHALL TAKE PLACE WITH OUTSIDE AIR DAMPERS IN MINIMUM POSITION.

3. BALANCE AIR AND WATER QUANTITIES TO WITHIN + 5% OF THAT INDICATED ON THE DRAWINGS. ANY REQUIRED CHANGES IN SHEAVES, BELTS, PULLEYS, OR THE ADDITION OF DAMPERS REQUIRED TO ACHIEVE SPECIFIED FLOW RATES SHALL BE PERFORMED BY THE HVAC CONTRACTOR WITH NO ADDITIONAL COST TO THE TENANT.

4. THE BALANCE REPORT SHALL INCLUDE AS A MINIMUM THE FOLLOWING INFORMATION:
A. AABC OR NEBB CERTIFICATION NUMBER AND SIGNATURE OF BALANCING CONTRACTOR.
B. INSTRUMENTATION LIST WITH LAST CALIBRATION DATES.
C. MAKE AND MODEL NUMBERS OF ALL HVAC EQUIPMENT TESTED.
D. AIR CFM AND STATIC PRESSURE READINGS (DISCHARGE AND SUCTION) AS MEASURED BY PITOT TUBE DUCT TRAVERSE AT THE UNIT.
E. MOTOR NAMEPLATE DATA WITH ACTUAL FIELD VOLTAGE AND AMPERAGE READINGS FOR EACH LEG.
F. MOTOR AND FAN RPMS, SHEAVE SIZES AND BELT SIZES.
G. OUTSIDE, RETURN, MIXED AND SUPPLY AIR TEMPERATURES AT FULL COOLING.
H. WATER BALANCE DATA INCLUDING GPM WITH INLET AND OUTLET TEMPERATURE AND PRESSURE READINGS (WHERE APPLICABLE).
I. MAKE AND MODEL NUMBERS OF ALL AIR DISTRIBUTION EQUIPMENT.
J. FINAL BALANCED AIR VOLUMES AT ALL OUTLETS (INCLUDING RETURNS WHERE DUCTED).
K. INDEXED PLAN WITH DIFFUSER AND RETURN LOCATIONS.
L. REPORT SHALL INCLUDE VAV BOX AIRFLOW SENSOR DIFFERENTIAL PRESSURE READING AT MAX. AND MIN. COOLING.

5. ALL CONTROL SEQUENCES SHALL BE TESTED (INTERLOCKED EQUIPMENT, SMOKE DETECTORS, SMOKE EVACUATION, ECONOMIZER, ETC.) AND OPERATING STATUS RECORDED IN THE REPORT.

6. THREE COPIES OF THE BALANCE REPORT SHALL BE SUBMITTED THROUGH THE GENERAL CONTRACTOR TO THE TENANT'S CONSTRUCTION MANAGER FOR APPROVAL.

7. THE BALANCING CONTRACTOR SHALL PERFORM ALL APPLICABLE TESTING AND BALANCING FUNCTIONS REQUIRED FOR THE SYSTEM DESIGNED IN THESE DRAWINGS. THE BALANCING CONTRACTOR SHALL RECHECK ANY ITEMS THAT THE TENANT DEEMS NECESSARY AT NO ADDITIONAL COST TO THE TENANT.
8. FINAL BALANCE REPORT SHALL BE INCLUDED IN THE OPERATION & MAINTENANCE MANUALS.

G. FINAL HVAC INSPECTIONS

1. ASIDE FROM NORMAL INTERIM INSPECTIONS OF WORK IN PLACE, THE TENANT SHALL HAVE THE RIGHT TO AN INDEPENDENT HVAC CONTRACTOR INSPECT THE FINISHED HVAC INSTALLATION UPON COMPLETION FOR COMPLIANCE WITH THE PLANS, SPECIFICATIONS, AND CODES. THE INSTALLING CONTRACTOR WILL BE RESPONSIBLE TO BRING ALL ITEMS REPORTED BY THE INDEPENDENT HVAC CONTRACTOR UP TO PLANS AND SPECIFICATION REQUIREMENTS AT NO COST TO TENANT.

lululemon
1818 CORNWALL AVE.
VANCOUVER, B.C., V6J1C7

CF POLO PARK
1485 Portage Ave, Unit 144E
Winnipeg, MB
R3G OW5

ARCHITECT
BDP. Quadrangle
Quadrangle Architects Limited
8 Spadina Avenue, Suite 2100 Toronto, ON M5V 0S8
t 416 598 1240 www.bdpquadrangle.com

ARCHITECT SEAL
THOMAS A. FEKETE LTD.
7181 WOODBINE AVE UNIT 229
MARKHAM ONTARIO L3R 1A3
PH.: (905) 946 4260 FAX: (905) 946 0901
JOB #: 23061

PROVINCE OF MANITOBA
Z.H. GUO
Member
45105
REGISTERED PROFESSIONAL ENGINEER

06/09/2023

APEGM
Certificate of Authorization
Thomas A. Fekete Ltd.
No. 5075 Date: 06/09/2023

ISSUED FOR CONSTRUCTION

07/14/2023

DATE	DESCRIPTION
06/07/2023	ISSUED FOR CD COORDINATION
06/09/2023	ISSUED FOR PERMIT/ CONSTRUCTION
06/09/2023	ISSUED FOR BID
07/13/2023	ISSUED FOR COORDINATION
07/14/2023	ISSUED FOR CONSTRUCTION

[redacted]

DRAWING INFORMATION
PROJECT #: 2301141
CHECKED BY: BZ
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MECHANICAL SPECIFICATIONS

DRAWING NUMBER
M612

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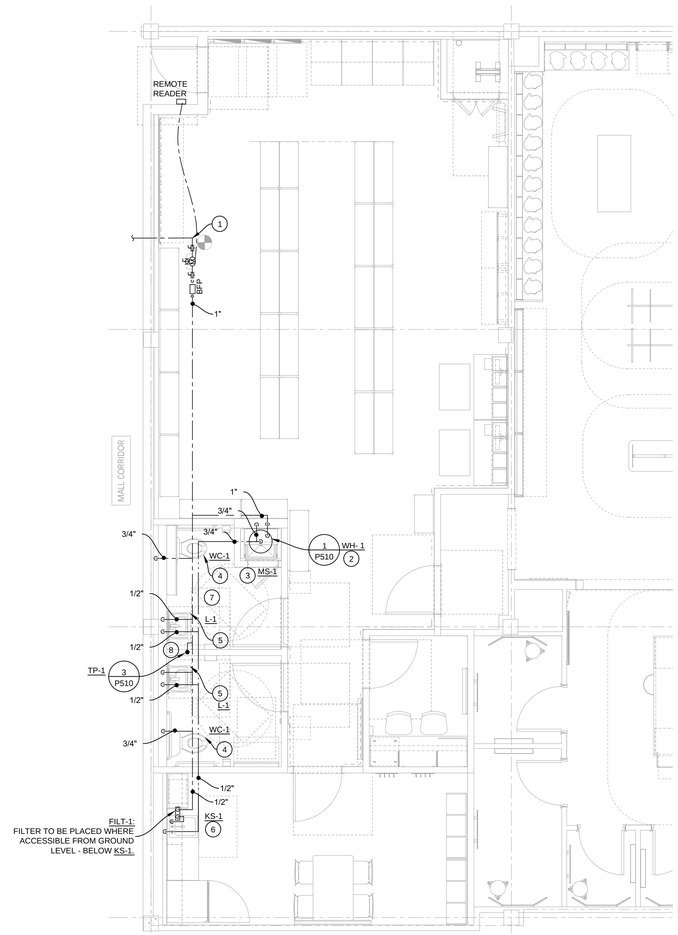

PLUMBING PLAN

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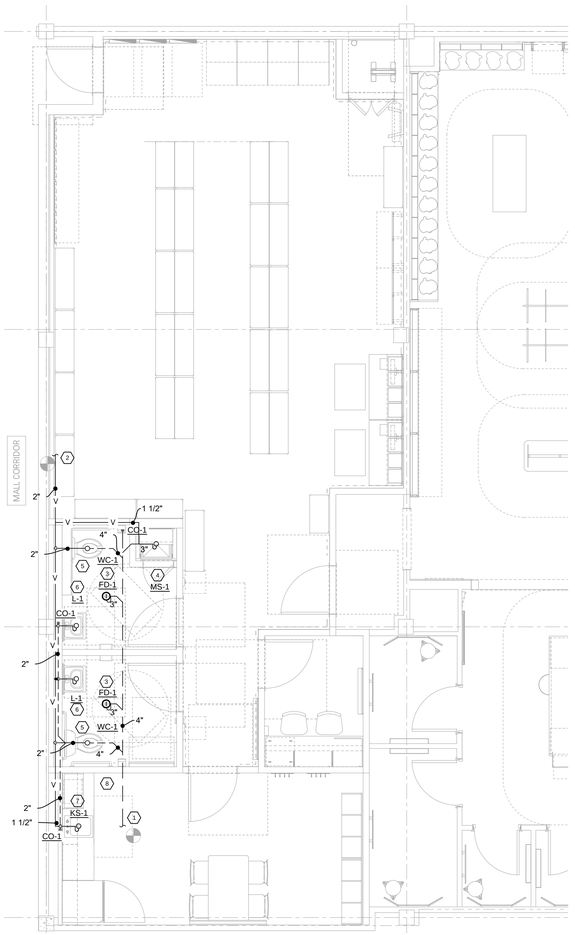

DRAINAGE PLAN

1/4"=1'-0"

GENERAL PLUMBING AND DRAINAGE NOTES:

1. DRAWINGS ARE DIAGRAMMATIC ONLY AND REPRESENT THE GENERAL SCOPE OF THE WORK. REVIEW THE GENERAL NOTES, SPECIFICATIONS AND PLANS FOR ADDITIONAL REQUIREMENTS THAT MAY NOT BE SPECIFICALLY CALLED OUT IN THIS PORTION OF THE CONSTRUCTION DOCUMENTS. NOTIFY THE OWNER'S CONSTRUCTION MANAGER OF ANY CONFLICTS OR DISCREPANCIES PRIOR TO SUBMISSION OF BID.
2. FURNISH A CONSTRUCTION RECORD SET OF "AS-BUILT" DOCUMENTS TO THE OWNER'S CONSTRUCTION MANAGER REFLECTING ANY VARIANCES OF INSTALLED PIPING LOCATIONS OR EQUIPMENT CONTRARY TO THE CONSTRUCTION DOCUMENTS PREPARED BY THE ENGINEER-OF-RECORD AFTER FINAL INSPECTION OF INSTALLED PLUMBING SYSTEMS.
3. FURNISH TO THE OWNER'S CONSTRUCTION MANAGER A COPY OF INSPECTION REPORTS AND APPROVAL CERTIFICATES FROM LOCAL AND STATE INSPECTIONS.
4. INSTALLATION SHALL COMPLY WITH LEGALLY CONSTITUTED CODES AND THE REQUIREMENTS OF AUTHORITIES HAVING JURISDICTION AND ALSO MEET ALL REQUIREMENTS OF THE LANDLORD.
5. PLANS AND SPECIFICATIONS GOVERN WHERE THEY EXCEED CODE REQUIREMENTS.
6. VERIFY LOCATION AND DEPTH OF UTILITIES AT POINTS OF CONNECTION BEFORE START OF PROJECT.
7. REFER TO ARCHITECTURAL PLANS FOR EXACT LOCATION AND MOUNTING HEIGHTS OF PLUMBING FIXTURES.
8. DO NOT SCALE FLOOR PLANS FOR EXACT HORIZONTAL LOCATION OF PIPE ROUTING.
9. VALVES SHALL BE PIPE SIZE UNLESS OTHERWISE NOTED.
10. PIPING IN FINISHED AREAS SHALL BE ROUTED CONCEALED; EXPOSED PIPING, WHERE NECESSARY, SHALL BE ROUTED AS HIGH AS POSSIBLE AND TIGHT TO WALLS.
11. COORDINATE ALL WORK WITH OTHER TRADES AND CONTRACTORS.
12. COORDINATE PIPING INSTALLATION WITH STRUCTURAL GRADE BEAMS, FOOTINGS, COLUMN PIERS, ETC. SLEEVE PIPING THROUGH GRADE BEAMS, FOOTING, ETC. WHERE REQUIRED AND AS NOTED ON PLANS. COORDINATE SLEEVE INSTALLATIONS WITH THE ARCHITECT, STRUCTURAL ENGINEER, STRUCTURAL CONTRACTOR AND GENERAL CONTRACTOR BEFORE CONCRETE IS INSTALLED.
13. CLEAN FAUCET AERATORS AND PIPE STRAINERS PRIOR TO TURNING BUILDING OVER TO THE OWNER.
14. PROVIDE TRAP PRIMERS FOR ALL FLOOR DRAINS.
15. COORDINATE PIPE ROUTING AWAY FROM ELECTRICAL PANELS. DO NOT ROUTE PIPING OVER ELECTRICAL PANELS.
16. COORDINATE ALL ROOF PENETRATIONS WITH OTHER TRADES. MAINTAIN 10' MINIMUM CLEARANCE FROM ALL AIR INTAKES. MAINTAIN 2' CLEARANCE FROM ALL OTHER EQUIPMENT.
17. INSULATE PIPING ROUTED IN EXTERIOR BUILDING WALLS WITH MINIMUM 2" BATT INSULATION TO PREVENT FREEZING.
18. WATER HAMMER ARRESTORS SHALL BE SIZE "A" UNLESS NOTED OTHERWISE.

GENERAL PLUMBING AND DRAINAGE NOTES:

1. PROVIDE CHECK VALVES IN HOT AND COLD WATER SUPPLIES FOR MOP SINK FAUCETS DOWNSTREAM OF SHUTOFF VALVES.
2. GENERAL CONTRACTOR SHALL ROD AND SCOPE WASTE PIPE TO LANDLORD'S MAIN PRIOR TO TURNOVER.
3. HARD 90 DEGREE TURNS WILL NOT BE ALLOWED ON WASTE PIPES. TURNS MUST BE SWEEPING.
4. SANITARY LINES TO BE CLEARED ALL THE WAY TO MAIN, BY MEANS OF SCOPING BY LANDLORD PLUMBING CONTRACTOR. GC TO CONFIRM PRIOR TO HOOK UP.
5. ALL HORIZONTAL WASTE PIPING TO BE AT A 2"Ø SLOPE UNLESS NOTED OTHERWISE ON THE PLAN.
6. ALL PIPING HUNG WITHIN 12" OR LESS FROM STRUCTURE, FOR ENTIRE RUN OF PIPE.
7. FIRESTOP ALL PIPE PENETRATIONS OF FIRE RATED WALLS. SEE ARCH. DRAWINGS FOR LOCATIONS OF FIRE WALLS.
8. ALL PLUMBING FIXTURES SHALL BE INSTALLED WITH STOP VALVES TO ISOLATE EACH FIXTURE.
9. BUILDING WATER SUPPLY SYSTEMS WHERE QUICK-ACTING VALVES ARE INSTALLED MUST BE PROVIDED WITH WATER HAMMER ARRESTER(S) TO ABSORB HIGH PRESSURES RESULTING FROM THE QUICK CLOSING OF THESE VALVES. WATER HAMMER ARRESTERS MUST BE APPROVED MECHANICAL DEVICES THAT COMPLY WITH ASSE 1010 OR PDI-WH 201 AND MUST BE INSTALLED AS CLOSE AS POSSIBLE TO QUICK-ACTING VALVES. [609.11].
10. HORIZONTAL DRAINAGE PIPE MUST BE PROVIDED WITH A CLEANOUT AT ITS UPPER TERMINAL, AND EACH RUN OF PIPING, THAT IS MORE THAN 100 FEET IN TOTAL DEVELOPED LENGTH, SHALL BE PROVIDED WITH A CLEANOUT FOR EACH 100 FEET. AN ADDITIONAL CLEANOUT MUST BE PROVIDED IN A DRAINAGE LINE FOR EACH AGGREGATE HORIZONTAL CHANGE OF DIRECTION EXCEEDING 135 DEGREES. A CLEANOUT MUST BE INSTALLED ABOVE THE FIXTURE CONNECTION FITTING, SERVING EACH URINAL, REGARDLESS OF THE LOCATION OF THE URINAL IN THE UILDING. [707.4] (MOP SINK AND KITCHEN SINK ARE CONSIDERED UPPER TERMINAL)

(#) CODED PLUMBING NOTES:

1. CONNECT 1" COLD WATER LINE TO LANDLORD PROVIDED COLD WATER STUB-IN. FIELD VERIFY EXACT LOCATION .VERIFY IF WATER METER EXIST. IF NOT CONTRACTOR TO SUPPLY AND INSTALL NEW WATER METER WITH REMOTE READ OUT. REMOTE READER INSTALLED IN ACCESSIBLE LOCATION.
2. SUPPLY AND INSTALL NEW WATER HEATER. TO BE SUSPENDED FROM CEILING STRUCTURE WITH STEEL RODS AND STEEL SUPPORT PLATE. PROVIDE SEISMIC RESTRAINT. TERMINATE T & P RELIEF VALVE PIPE WITH OPEN SIGHT OVER MOP SINK. CONFIRM EXACT LOCATION ON SITE.
3. SUPPLY AND INSTALL NEW MOP SINK. NEW 3/4"Ø COLD AND HOT WATER PIPES DOWN TO MOP SINK.
4. SUPPLY AND INSTALL WATER CLOSET AS INDICATED ON THE DRAWING. CONNECT 3/4"Ø DCW DOWN TO WATER CLOSET.
5. SUPPLY AND INSTALL LAVATORY AS INDICATED ON THE DRAWING. CONNECT 1/2"Ø DCW AND DHW DOWN TO THE LAVATORY C/W 1070 MIXING VALVE.
6. SUPPLY AND INSTALL KITCHEN SINK AS INDICATED ON THE DRAWING. CONNECT 1/2"Ø DCW AND DHW DOWN TO THE SINK. KITCHEN SINK C/W WITH REMOTE WATER FILTER BY KITCHEN SINK AND INLINE DOUBLE CHECK VALVE BACKFLOW PREVENTION (DCVA) DEVICE FOR FILTER. INSTALL PER MANUFACTURER'S PRINTED INSTRUCTIONS. REFER TO SHEET P520 FOR MORE INFORMATION.
7. ALL WATER LINES, VENT LINES, DRAIN LINES, SPRINKLER LINES, ETC. SHALL BE OFFSET BELOW PLATFORM AND CONCEALED IN WALL ABOVE PLATFORM. DO NOT ROUTE PIPING, ETC. THROUGH STORAGE SPACE ABOVE PLATFORM OR ABOVE ELECTRICAL EQUIPMENT.
8. SUPPLY AND INSTALL NEW TRAP PRIMER FOR FLOOR DRAIN.

(#) CODED DRAINAGE NOTES:

1. RUN NEW 4" SANITARY LINE AND CONNECT TO EXISTING SANITARY LINE IN CEILING OF SPACE BELOW. FIELD VERIFY EXACT LOCATION, SIZE AND DIRECTION OF SANITARY MAIN PRIOR TO BIDDING. INSTALL CLEAN OUT AT CONNECTION TO LANDLORD'S MAIN AND COORDINATE LOCATION AND TYPE OF COVER REQUIRED TO MATCH FLOOR FINISH WITH CONSTRUCTION MANAGER.
2. CONNECT NEW 2"Ø VENT LINE TO EXISTING BASE BUILDING VENT LINE. VERIFY EXACT LOCATION AND SIZE ON SITE.
3. SUPPLY AND INSTALL NEW 3"Ø FLOOR DRAIN.
4. SUPPLY AND INSTALL NEW MOP SINK. SUPPLY AND INSTALL NEW 3"Ø WASTE DOWN AND 1 1/2"Ø VENT PIPE UP.
5. SUPPLY AND INSTALL NEW WATER CLOSET. RUN 4"Ø WASTE DOWN AND 2"Ø VENT UP.
6. SUPPLY AND INSTALL NEW LAVATORY. 1 1/4"Ø VENT PIPE UP AND 2"Ø WASTE IN WALL AND DOWN TO EXISTING SANITARY LINE IN CEILING OF SPACE BELOW.
7. SUPPLY AND INSTALL NEW KITCHEN SINK, 1 1/2"Ø VENT PIPE UP AND 2"Ø WASTE IN WALL AND DOWN TO EXISTING SANITARY LINE IN CEILING OF SPACE BELOW.
8. ALL WATER LINES, VENT LINES, DRAIN LINES, SPRINKLER LINES, ETC. SHALL BE OFFSET BELOW PLATFORM AND CONCEALED IN WALL ABOVE PLATFORM. DO NOT ROUTE PIPING, ETC. THROUGH STORAGE SPACE ABOVE PLATFORM OR ABOVE ELECTRICAL EQUIPMENT.

FIELD VERIFY ALL CONDITIONS

DESIGN DRAWINGS ARE SCHEMATIC. THIS CONTRACTOR SHALL VISIT THE SITE PRIOR TO BIDDING OR AWARD OF CONTRACT TO INSPECT EXISTING FIELD CONDITIONS. THIS CONTRACT SHALL INCLUDE ALL LABOR AND MATERIALS NECESSARY FOR FIELD MODIFICATIONS DUE TO EXISTING CONDITIONS.

THE CONTRACTOR SHALL CONTACT THE ARCHITECT, ENGINEER OR OWNER PRIOR TO BIDDING FOR INTERPRETATIONS AND CLARIFICATIONS OF THE DESIGN AND INCLUDE IN HIS BID ALL COSTS TO MEET THE DESIGN INTENT. CLARIFICATIONS MADE BY THE ARCHITECT, ENGINEER OR OWNER AFTER BIDDING WILL BE FINAL AND SHALL BE IMPLEMENTED AT CONTRACTORS COST.

BIDDING CONTRACTORS SHALL HAVE A WORKING KNOWLEDGE OF LOCAL CODES AND ORDINANCES AND SHALL INCLUDE IN THEIR BIDS THE COSTS FOR ALL WORK INSTALLED IN STRICT ACCORDANCE WITH GOVERNING CODES, THE PLANS AND SPECIFICATIONS NOT WITHSTANDING. THE CONTRACTOR SHALL ALERT ARCHITECT, ENGINEER OR OWNER OF ANY APPARENT DISCREPANCIES BETWEEN GOVERNING CODES AND DESIGN INTENT.

PLUMBING SYMBOLS

(NOT ALL SYMBOLS USED)

SYMBOL	DESCRIPTION
	DOMESTIC COLD WATER (DCW)
	DOMESTIC HOT WATER (DHW)
	SANITARY PIPE
	VENT PIPE
	REDUCER
	FLOOR OR AREA DRAIN
	CAPPED PIPE
	PIPE UNION
	P-TRAP (PLAN VIEW)
	METER AND REMOTE READOUT
	SHUT-OFF VALVE
	BALL VALVE
	Y-TYPE STRAINER
	WATER HAMMER ARRESTOR
	REMOTE WATER CHILLER

SYMBOL	DESCRIPTION
	CHECK VALVE
	WATER HEATER
	BALANCE VALVE
	COMB. BALANCE & SHUT-OFF VALVE
	PIPE DROP
	PIPE RISE
	WALL CLEAN-OUT
	END PIPE CLEAN-OUT
	FLOOR CLEAN-OUT
	CONNECT TO EXISTING
(E)	EXISTING TO REMAIN
X X X X	REMOVE EXISTING PIPING
	GAS COCK (PLUG VALVE)
	SANITARY DRAIN
	WATER FILTER
	FLOOR DRAIN

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lululemon
1818 CORNWALL AVE.
VANCOUVER, B.C., V6J1C7

CF POLO PARK
1485 Portage Ave, Unit 144E
Winnipeg, MB
R3G OW5

ARCHITECT

BDP. Quadrangle
Quadrangle Architects Limited
155 Wellington Street West, Toronto, ON M5V 0S8
t 416 598 1240 www.bdpquadrangle.com

ARCHITECT SEAL

THOMAS A. FEKETE LTD.
7181 WOODBINE AVE UNIT 229
MARKHAM ONTARIO L3R 1A3
PH.: (905) 946 4260 FAX: (905) 946 0901
JOB #: 23061

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06/09/2023

APEGM
Certificate of Authorization
Thomas A. Fekete Ltd.
No. 5075 Date: 06/09/2023

ISSUED FOR CONSTRUCTION

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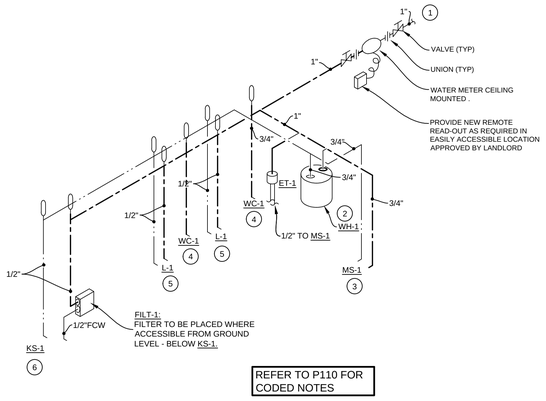
DRAWING INFORMATION
PROJECT #: 2301141
CHECKED BY: BZ
DRAWN BY: KO

PLUMBING AND DRAINAGE PLAN

DRAWING NUMBER
P110

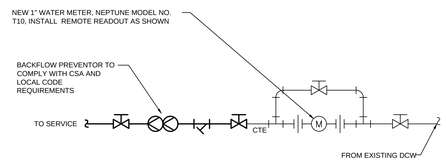
STANDARD MOUNTING HEIGHTS	
PLUMBING	(AFF UNLESS NOTED OTHERWISE)
REFER TO THE ARCHITECTURAL DRAWINGS FOR PLUMBING FIXTURE MOUNTING HEIGHTS. UNO, INSTALL PLUMBING FIXTURES WITH THE MOUNTING HEIGHTS AS LISTED BELOW WITH FINAL APPROVAL BY THE BY THE ARCHITECT.	
ADA ACCESSIBLE DRINKING FOUNTAIN	17" FLOOR TO RIM
ADA ACCESSIBLE LAVATORIES	34" FLOOR TO RIM
ADA ACCESSIBLE SHOWER VALVES	38" MINIMUM TO 48" MAXIMUM FLOOR TO CENTERLINE
ADA ACCESSIBLE TUB VALVES	CENTER BETWEEN GRAB BAR AND TUB RIM
ADA ACCESSIBLE URINALS	17" FLOOR TO RIM
ADA ACCESSIBLE WATER CLOSET	17" TO 19" FLOOR TO TOP OF SEAT
ADA ACCESSIBLE WATER COOLER	35" FLOOR TO RIM
ADULT STANDARD DRINKING FOUNTAIN	40" FLOOR TO RIM
ADULT STANDARD WATER COOLER	30" FLOOR TO RIM
CHILD STANDARD DRINKING FOUNTAIN	30" FLOOR TO RIM
CHILD STANDARD WATER COOLER	14" FLOOR TO RIM
CHILD URINAL	14" FLOOR TO RIM
CLINIC SERVICE SINKS	30" FLOOR TO RIM
JANITOR'S SINK FAUCET FITTINGS	42" FLOOR TO CENTERLINE
HOSE BIBBS	36" AFF TO CENTERLINE
ICE MAKER OUTLET BOXES	24" FLOOR TO CENTER OF BOX
LAVATORY OR SINK	31" FLOOR TO RIM
NON FREEZE HYDRANT	18" AFG TO CENTERLINE
SHOWER HEADS	6'-0" MEN & 5'-6" WOMEN FLOOR TO CENTERLINE
SHOWER VALVES	48" MEN & 42" WOMEN FLOOR TO CENTERLINE
STANDARD URINALS	22" FLOOR TO RIM
SURGEON'S SCRUB-UP SINKS	35" FLOOR TO FRONT RIM
TUB VALVES	32" FLOOR TO CENTERLINE
WASHING MACHINE OUTLET BOXES	42" FLOOR TO RIM
WATER CLOSET	15" FLOOR TO RIM

ABBREVIATIONS			
AFF	ABOVE FINISHED FLOOR	MH	MANHOLE
AFG	ABOVE FINISHED GRADE	MIN	MINIMUM
AHU	AIR HANDLING UNIT	N/C	NORMALLY CLOSED
BFF	BELOW FINISHED FLOOR	N/O	NORMALLY OPEN
BFG	BELOW FINISHED GRADE	ORD	OVERFLOW ROOF DRAIN
BOP	BOTTOM OF PIPE	PDI	PLUMBING DRAINAGE INSTITUTE
BOS	BOTTOM OF STRUCTURE	PVC	POLYVINYL CHLORIDE
BTU	BRITISH THERMAL UNIT	PRV	PRESSURE REDUCING VALVE
CPVC	CHLORINATED POLYVINYL CHLORIDE	RD	ROOF DRAIN
DN	DOWN	RPM	REVOLUTIONS PER MINUTE
DFU	DRAINAGE FIXTURE UNIT	RTU	ROOFTOP UNIT
DS	DOWNSPOUT	SF	SQUARE FEET, SUPPLY FAN
ETR	EXISTING TO REMAIN	SP	SUMP PUMP
EWC	ELECTRIC WATER COOLER	SS	STAINLESS STEEL, SANITARY SEWER, SOIL STACK
FD	FLOOR DRAIN	TDH	TOTAL DYNAMIC HEAD
FFA	FROM FLOOR ABOVE	TFA	TO FLOOR ABOVE
FFB	FROM FLOOR BELOW	TFB	TO FLOOR BELOW
FF	FINISHED FLOOR	TYP	TYPICAL
FL	FLOW LINE	UL	UNDERWRITERS LABORATORIES, INC.
FLA	FULL LOAD AMPS	UNO	UNLESS NOTED OTHERWISE
FLR	FLOOR	UPS	UNITERRUPTIBLE POWER SUPPLY
GPM	GALLONS PER MINUTE	V	VOLT(S)
HD	HEAD, HUB DRAIN	VCP	VITRIFIED CLAY PIPE
IE	INVERT ELEVATION	VS	VENT STACK
IN WC	INCHES OF WATER COLUMN	VTR	VENT THROUGH ROOF
JB	JUNCTION BOX	W/	WITH
J-BOX	JUNCTION BOX	W/O	WITHOUT
KW	KILOWATT	WC	WATER COLUMN
MAU	MAKE-UP AIR UNIT	WS	WASTE STACK
MAX	MAXIMUM	WSFU	WATER SUPPLY FIXTURE UNIT
MBH	1000 BTU PER HOUR		

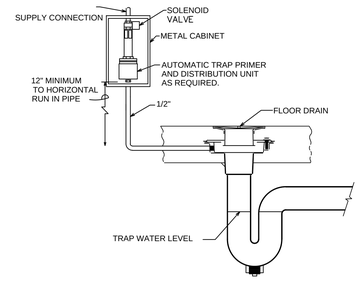


REFER TO P110 FOR CODED NOTES

9 WATER RISER DIAGRAM
NTS



6 WATER METER INSTALLATION DETAIL
NTS



3 TRAP PRIMER SCHEMATIC
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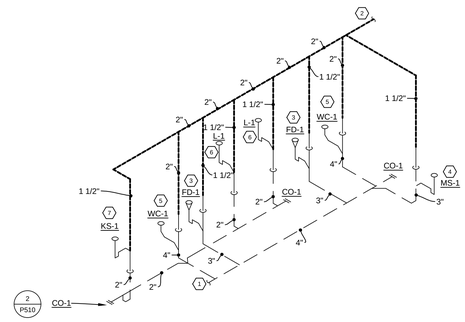
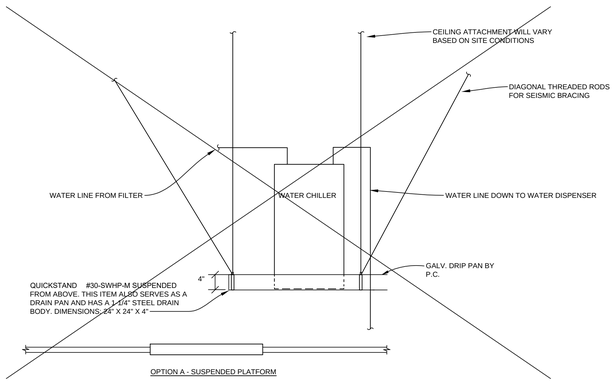
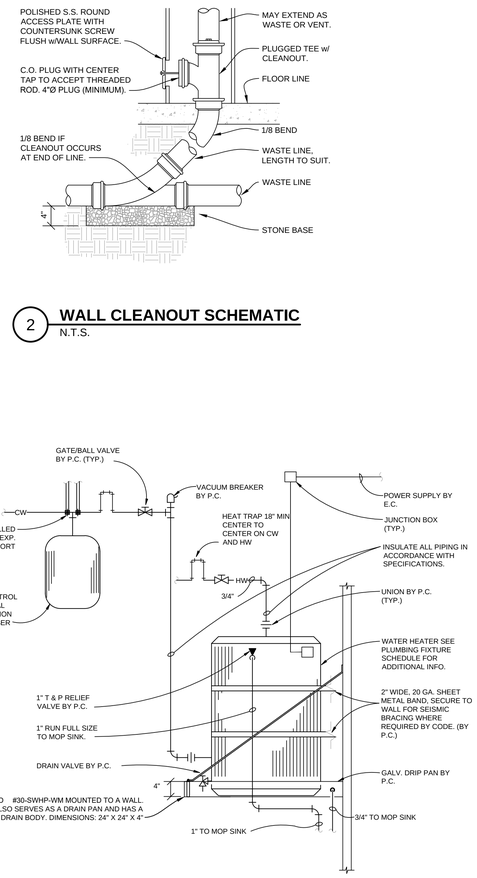


REFER TO P110 FOR CODED NOTES

8 WASTE AND VENT RISER DIAGRAM
NTS



5 REMOTE WATER CHILLER SCHEMATIC
NTS



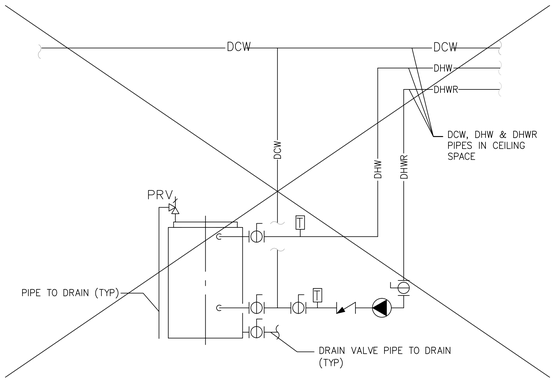
2 WALL CLEANOUT SCHEMATIC
N.T.S.

FIELD VERIFY ALL CONDITIONS

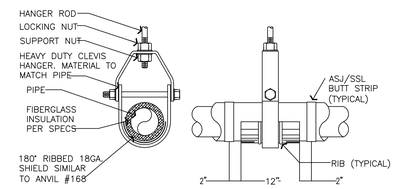
DESIGN DRAWINGS ARE SCHEMATIC. THIS CONTRACTOR SHALL VISIT THE SITE PRIOR TO BIDDING OR AWARD OF CONTRACT TO INSPECT EXISTING FIELD CONDITIONS. THIS CONTRACT SHALL INCLUDE ALL LABOR AND MATERIALS NECESSARY FOR FIELD MODIFICATIONS DUE TO EXISTING CONDITIONS.

THE CONTRACTOR SHALL CONTACT THE ARCHITECT, ENGINEER OR OWNER PRIOR TO BIDDING FOR INTERPRETATIONS AND CLARIFICATIONS OF THE DESIGN AND INCLUDE IN HIS BID ALL COSTS TO MEET THE DESIGN INTENT. CLARIFICATIONS MADE BY THE ARCHITECT, ENGINEER OR OWNER AFTER BIDDING WILL BE FINAL AND SHALL BE IMPLEMENTED AT CONTRACTORS COST.

BIDDING CONTRACTORS SHALL HAVE A WORKING KNOWLEDGE OF LOCAL CODES AND ORDINANCES AND SHALL INCLUDE IN THEIR BIDS THE COSTS FOR ALL WORK INSTALLED IN STRICT ACCORDANCE WITH GOVERNING CODES, THE PLANS AND SPECIFICATIONS NOT WITHSTANDING. THE CONTRACTOR SHALL ALERT ARCHITECT, ENGINEER OR OWNER OF ANY APPARENT DISCREPANCIES BETWEEN GOVERNING CODES AND DESIGN INTENT.



7 WATER HEATER PIPING DETAIL WITH RECIRCULATION PUMP
NTS



4 INSULATED PIPE SUPPORT DETAIL
NTS

1 WATER HEATER SCHEMATIC - WALL MOUNT
NTS

lululemon
1818 CORNWALL AVE.
VANCOUVER, B.C., V6J1C7

CF POLO PARK
1485 Portage Ave, Unit 144E
Winnipeg, MB
R3G 0W5

ARCHITECT
BDP. Quadrangle
Quadrangle Architects Limited
55 Mercer Street, Toronto, ON M5V 0S8
t 416 598 1240 www.bdpquadrangle.com

ARCHITECT SEAL

THOMAS A. FEKETE LTD.
7181 WOODBINE AVE UNIT 229
MARKHAM ONTARIO L3R 1A3
PH.: (905) 946 4260 FAX: (905) 946 0901
JOB #: 23061

PROVINCE OF MANITOBA
Z.H. GUO
Member
45105
REGISTERED PROFESSIONAL ENGINEER

06/09/2023

APEGM
Certificate of Authorization
Thomas A. Fekete Ltd.
No. 5075 Date: 06/09/2023

ISSUED FOR CONSTRUCTION

07/14/2023

△	DATE	DESCRIPTION
	06/07/2023	ISSUED FOR CD COORDINATION
	06/09/2023	ISSUED FOR PERMIT/ CONSTRUCTION
	06/09/2023	ISSUED FOR BID
	07/13/2023	ISSUED FOR COORDINATION
	07/14/2023	ISSUED FOR CONSTRUCTION

DRAWING INFORMATION
PROJECT #: 2301141
CHECKED BY: BZ
DRAWN BY: KO

PLUMBING DETAILS

DRAWING NUMBER
P510

2023-03-08 11:19:44 AM

PLUMBING FIXTURE SCHEDULE

MARK			CONNECTIONS HW	CW	V	W	MANUFACTURER / MODEL NUMBER	FURNISHED BY	INSTALLED BY
WC-1	WATER CLOSET (ADA	ELONGATED COMBINATION TOILET, 12" ROUGH-IN, POLISHED CHROME TRIP LEVER, VITREOUS CHINA, 1.28 GPF, 16-1/2" RIM HEIGHT, ADA COMPLIANT. INSTALL WITH TRIP LEVERS ON THE WIDE SIDE OF THE STALL.	--	3/4"	2"	4"	STANDARD KOHLER/K-3658-0 TANK/BOWL-COMBO	GC	GC
	SEAT	HEAVY DUTY, ELONGATED, OPEN FRONT LESS COVER, SELF SUSTAINING CHECK HINGE.					OLSONITE/95SSC		
	SUPPLIES	1/2" CHROME PLATED BRASS TUBING WITH BALL VALVE ANGLE STOPS.							
BFPV-1	BLACKFLOW / PREVENTER	PROVIDE BACKFLOW PREVENTER PER LANDLORD REQUIREMENTS	--	LINE SIZE	--	--	--	GC	GC
L-1	LAVATORY/ADA	"LUCERNE" WALL-HUNG LAVATORY, VITREOUS CHINA, FRONT OVERFLOW, D-SHAPED BOWL, SELF-DRAINING DECK, FAUCET LEDGE, FAUCET HOLES ON 4" CENTERS	1/2"	1/2"	1 1/2"	2"	AMERICAN STANDARD 0355.012	GC	GC
	FAUCET	"AQUASENSE" HARDWIRED ELECTRONIC SENSOR FAUCET, INTEGRAL FOUR INCH COVER PLATE, INFRARED CONVERGENCE-TYPE PROXIMITY SENSOR LOCATED IN THE CHROME PLATED CAST BRASS SPOUT, IN-LINE FILTER, 0.5 GPM VANDAL RESISTANT AERATOR, THERMOSTATIC MIXING VALVE FOR SINGLE FAUCETS, INCLUDES FOUR 'AA' BATTERIES TO PROVIDE BATTERY BACKUP POWER TO THE FAUCET DURING POWER OUTAGES, SENSOR RANGE IS FACTORY SET FOR OPTIMUM PERFORMANCE					ZURN Z6915-HW6-CWB-F-TMV-1		
	SUPPLIES	3/8" CHROME PLATED ANGLED STOP WITH WHEEL HANDLE, 3/8" CHROME PLATED FLEXIBLE BRASS RISER, INSULATE ALL EXPOSED WATER LINES AND VALVES							
	WASTE	GRID DRAIN, 4-1/2" OFFSET FOR WHEELCHAIR LAVATORY, 1-1/4" TAILPIECE, 1-1/4" 17 GAUGE CHROME PLATED ADJUSTABLE BRASS P-TRAP WITH CLEANOUT PLUG RUN PARALLEL AND AS TIGHT TO WALL AS POSSIBLE, 1-1/4" CHROME PLATED BRASS WASTE TO WALL					AMERICAN STANDARD 7723.018		
	CARRIER	LAVATORY SUPPORT SYSTEM WITH TOP SUPPORT PLATE, DURA-COATED RECTANGULAR STEEL UPRIGHTS WITH WELDED FEET, ADJUSTABLE SUPPORT PLATE, AND MOUNTING FASTENERS					ZURN/Z-1224		
	PROTECTIVE PIPE COVER	ONE P-TRAP COVER, TWO ANGLE VALVES AND SUPPLY COVERS, ONE 5" OFFSET TAILPIECE WHEELCHAIR STRAINER COVER					TRUEBRO/103 E-Z		
	MOUNTING HEIGHT	33 INCHES FLOOR TO RIM							
KS-1 FILT-1	SINK WITH REMOTE WATER FILTER	"LUSTERTONE" SINGLE BOWL, SEAMLESSLY FORMED OF #18 GAUGE, TYPE 304 (18-8) NICKEL BEARING STAINLESS STEEL, SELF-RIMMING, FULLY UNDERCOATED UNDERSIDE TO DAMPEN SOUND AND PREVENT CONDENSATION, 6" BOWL DEPTH, 17"X22" OVERALL DIMENSIONS, 3 HOLES ON 4" CENTERS. PROVIDE WITH AQUA-PURE AP200 SYSTEM AND AP217 FILTER. PROVIDE 2 REPLACEMENT CARTRIDGES. INITIAL FILTER CARTRIDGE SHOULD BE REPLACED APPROX 1 WEEK AFTER OPENING. PROVIDE BACKFLOW ASSE 1012 COMPLIANT PREVENTER BEFORE FILTER	1/2"	1/2"	1 1/2"	0'-2"	ELKAY/LRAD1722	GC	GC
	FAUCET	DUAL HANDLE TOP MOUNT MIXING FAUCET, GOOSENECK SWING SPOUT, HEAVY CHROME PLATE, REMOVABLE CARTRIDGES, 1/2" I.P. CONNECTIONS, 4" LEVER HANDLES. PROVIDE WITH 1.5GPM AERATOR.					ELKAY/LKD2432BHC		
	SUPPLIES	1/2" CHROME PLATED ANGLE STOPS WITH LOOSE KEY HANDLE, 1/2" CHROME PLATED FLEXIBLE BRASS RISER							
	WASTE	STANDARD DUO STRAINER, FITS 3 1/2" OPENING (4-1/2" TOP DIAMETER), ONE PIECE STAINLESS CONICAL STRAINER BASKET WITH NEOPRENE STOPPER, CHROME PLATED BRASS TAILPIECE, 1-1/2" 17 GAUGE CHROME PLATED ADJUSTABLE P-TRAP WITH CLEANOUT PLUG, 1 1/2" CHROME PLATED BRASS WASTE TO WALL					ELKAY/LK-35		
TP-1	TRAP PROMER	MACHINED OF CORROSION RESISTANT BRASS CONTAINS NO SPRINGS OR DIAPHRAGMS, INLET 1/2" MALE NPT, OUTLET 1/2" FEMALE NPT. PRESSURE ACTIVATED PRIMER DELIVERS POTABLE WATER ACROSS AN AIR GAP FUNNEL THEN THROUGH THE DISTRIBUTION UNIT WHEN IT SENSES A PRESSURE DROP OF 5 TO 10 P.S.I.G.	--	--	1/2"	--	PRECISION PLUMBING PRODUCTS INC. / P2-500	GC	GC
	MUNTING HEIGHT	MINIMUM MOUNTING HEIGHT OF 12" ABOVE FINISHED FLOOR WHEN FLOOR DRAIN SERVED IS 20'-0" OR LESS DEVELOPED LENGTH FROM UNIT, MOUNT AN ADDITIONAL 12" HIGHER FOR EACH ADDITIONAL 20'-0" OF LENGTH							
	SUPPLIES	DISTRIBUTION UNIT DU-1 FOR 1 OR 2 TRAPS, DU-3 FOR 3 TRAPS, OR DU-4 FOR 4 TRAPS, TO SUPPLY MORE THAN FOUR TRAPS ADD DISTRIBUTION UNIT PAIRS UP TO 8 DRAINS, PROVIDE AG-500 AIR GAP CONNECTION.							
P-1 & P-2	DRAIN PUMP	DRAIN PUMP	--	--	2"	2"	LIBERTY MODEL 405	GC	GC
FD-1	FLOOR DRAIN	COATED CAST IRON FLOOR DRAIN, TWO-PIECE BODY, DOUBLE DRAINAGE FLANGE, INVERTIBLE NON-PUNCTURING FLASHING COLLAR, WEEPHOLES, BOTTOM OUTLET INSIDE CAULK CONNECTION. ADJUSTABLE SQUARE SUPER-FLO STRAINER, FLASHING CLAMP WITH 20"x24" 4 LB. LEAD FLASHING FOR FLOOR DRAINS INSTALLED ABOVE SLAB ON GRADE, 1/2" TRAP PRIMER CONNECTION.	--	--	1 1/2"	3"	ZURN/Z-415S-P	GC	GC
	STRAINER	6" x 6" SQUARE NICKEL BRONZE FINISH					ZURN/TYPE 5		
	WASTE	CAST IRON P-TRAP UNDER FLOOR							
FD-2	FLOOR DRAIN	COATED CAST IRON FLOOR DRAIN, TWO-PIECE BODY, DOUBLE DRAINAGE FLANGE, INVERTIBLE NON-PUNCTURING FLASHING COLLAR, WEEPHOLES, BOTTOM OUTLET INSIDE CAULK CONNECTION. ADJUSTABLE SQUARE SUPER-FLO STRAINER, FLASHING CLAMP WITH 20"x24" 4 LB. LEAD FLASHING FOR FLOOR DRAINS INSTALLED ABOVE SLAB ON GRADE, 1/2" TRAP PRIMER CONNECTION.	--	--	1 1/2"	3"	ZURN/Z-415-SB	GC	GC
	STRAINER	6" ROUND NICKEL BRONZE FINISH					ZURN/ HEAVY DUTY SLOTTED GRATE WITH FUNNEL DRAIN.		
	WASTE	CAST IRON P-TRAP UNDER FLOOR							
WCO	WALL CLEANOUT	COATED CAST IRON CLEANOUT TEE, HUB AND SPIGOT CONNECTION, BRONZE PLUG. FOR SALES AREAS, PROVIDE ZURN Z1460 SQUARE ACCESS COVER. PAINT TO MATCH WALL.	--	--	--	SEE PLANS	ZURN/Z1468	GC	GC
FCO	FLOOR CLEANOUT	ZURN MODEL #ZB-1400 DURA-COATED CAST IRON BODY, "LEVEL-TROL" ADJUSTABLE FLOOR CLEANOUT, INSIDE CAULK CONNECTION WITH GAS AND WATER TIGHT ABS TAPERED THREAD INTERNAL PLUG ADJUSTABLE HOUSING, HEAVY-DUTY SCORIATED SECURED ROUND TOP, POLISHED BRONZE FINISH, INSTALL FLUSH WITH FINISHED FLOOR.	--	--	--	SEE PLANS	ZURN #ZB-1400	GC	GC
MS-1	MOP SINK	MOLDED STONE, 2" CHROME STRAINER, WITH PAIL HOOK, HOSE THREAD, VACUUM BREAKER, WALL SUPPORTS, SUPPLIES WITH TEE OPS, P-TRAP, RIM GUARD	3/4"	3/4"	2"	2"	FIAT/MODEL MSB-2424	GC	GC
	FAUCET	SERVICE SINK FAUCET CHROME	--	--	--	--	FIAT/MODEL 830AA AND 832AA		
SINK FILT-1	FEATURE SINK W/ BOTTLE FILLER AND REMOTE FILTER	24" ADA FLOATING CONCRETE SINK TRUEFORM FLO-24-ADA 24"W14"DX3"H WITH ADA/COMPLIANT FAUCET 312-"ABCP, WALL MOUNTED WITH PUSH LEVER HANDLE DC1240610	-	1/2"	1 1/2"	2"	AQUA-PURE AP200 SYSTEM WITH AP217 FILTER. INCLUDE FILTER PLUS 2 REPLACEMENT CARTRIDGES. INITIAL FILTER CARTRIDGE SHOULD BE REPLACED APPROX 1 WEEK AFTER OPENING	GC	GC
BF-1 FILT-1	BOTTLE FILLER WITH REMOTE WATER FILTER	RECESSED FILLING STATION WITH AQUA-PURE AP200 SYSTEM AND AP217 FILTER. PROVIDE 2 REPLACEMENT CARTRIDGES. INITIAL FILTER CARTRIDGE SHOULD BE REPLACED APPROX 1 WEEK AFTER OPENING. PROVIDE BACKFLOW ASSE 1012 COMPLIANT PREVENTER BEFORE FILTER	--	1/2"	1 1/2"	2"	FILTRINE MODEL B103 FILLING STATION - POWDER COAT COLOR RAL 9010	GC	GC
DF-1 FILT-1	BI-LEVEL DRINKING FOUNTAIN WITH BOTTLE FILLER AND ACCESS PANEL	ADA COMPLIANT ELKAY EZWS BOTTLE FILLING STATION WITH INTEGRAL SWIRLFLO HI-LOW DRINKING FOUNTAIN. ALSO PROVIDE FILTER AQUAPURA AP200, INCLUDE FILTER PLUS 2 REPLACEMENT CARTRIDGES. INITIAL FILTER CARTRIDGE SHOULD BE REPLACED APPROX 1 WEEK AFTER OPENING, PROVIDE BACKFLOW ASSE 1012 COMPLIANT PREVENTER BEFORE FILTER	--	1/2"	1 1/2"	2"	ELKAY MODEL EZWS-EDFPBM117K WITH ACCESS 12"x38-5"	GC	GC
DF-2 FILT-1	DRINKING FOUNTAIN WITH REMOTE WATER FILTER	ADA COMPLIANT INTEGRAL SWIRLFLO HI-LOW DRINKING FOUNTAIN. ALSO PROVIDE FILTER AQUAPURA AP200. INCLUDE FILTER PLUS 2 REPLACEMENT CARTRIDGES. INITIAL FILTER CARTRIDGE SHOULD BE REPLACED APPROX 1 WEEK AFTER OPENING, PROVIDE BACKFLOW ASSE 1012 COMPLIANT PREVENTER BEFORE FILTER	--	1/2"	1 1/2"	2"	ELKAY MODEL EDFPBM117K	GC	GC
RWC-1	ABOVE CEILING	2 GPH OF 50 F DRINKING WATER AT 80 F ROOM TEMPERATURE.	--	--	--	--	ELKAY MODEL ER21Y, 120/1/60	GC	GC
DP-1	UNDER COUNTER	FLOOR MOUNTED 5 GAL. POLYETHYLENE BASIN WITH GASKETED POLYETHYLENE LID. PUMP: ZOELLER #M98, 115V-1Ø, 1/2 HP, 1725 RPM, 25 FT. HD. U.L. LISTED. PUMP PASSES 1/2" SPHERICAL SOLIDS. ELECTRICAL CONNECTION TO BE MADE WITH 15 FT. U.L. LISTED 3 WIRE CORD AND PLUG. BASIN AND PUMP TO BE TEMPERATURE RATED TO 130 F. UNIT IS FURNISHED WITH CHECK VALVE, MODEL #10-0032-115V-15FT NORMALLY OPEN (N.O.) SINGLE PIGGYBACK FLOAT SWITCH, MODEL #10-0064-115V-15FT NORMALLY CLOSED (N.C.) SINGLE PIGGYBACK FLOAT SWITCH.	--	--	1 1/2"	1 1/2"	ZOELLER #131	GC	GC
SOLENOID VALVE		115V 1/2" NPT (TWO WAY) NORMALLY CLOSED (N.C.) SOLENOID VALVE FOR EACH SINK. VALVE SHALL BE PROVIDED WITH 6 FT. U.L. LISTED 3 WIRE CORD AND PLUG. PLUMBING CONTRACTOR TO INSTALL.	--	--	--	--	ASCO RED HAT MODEL #8210G002	GC	GC

TANK ELECTRIC WATER HEATER

MARK	LOCATION	KW	F RISE @100 GPM FLOWRATE	ELECTRICAL VOLTS	PHASE	STORAGE CAPACITY (GALLONS)	MANUFACTURER /MODEL NUMBER	REMARKS
WH-1	PLATFORM	3.0	12	208	1	10	A.O. SMITH/ DEL-10	-

EXPANSION TANKS

MARK	LOCATION	SERVES	CAPACITY (GALLONS)	WORKING PRESSURE (PSI)	SIZE (APPROX.)	MANUFACTURER /MODEL NUMBER	REMARKS
ET-1	PLATFORM	DOM. HW	0.90	150	12 5/8"x8"H	AMTROL/ ST-5*	

* CONTRACTOR SHALL ADJUST PRE-CHARGE OF EXPANSION TANK TO EQUAL INCOMING WATER PRESSURE PRIOR TO INSTALLATION.

INSTA-HOT ELECTRIC WATER HEATER

MARK	LOCATION	KW	F RISE @ .05 GPM FLOWRATE	ELECTRICAL VOLTS	PHASE	STORAGE CAPACITY (GALLONS)	MANUFACTURER /MODEL NUMBER	REMARKS
WH-2	UNDER KS-1	4.16	57	208	1	INSTANT	CHRONOMITE	MODEL NO. SR-20L
WH-2	UNDER KS-1	5.54	57	277	1	INSTANT	CHRONOMITE	MODEL NO. SR-20L

PLUMBING SPECIFICATIONS: SECTION 15200

A. SCOPE OF WORK

1. THIS CONTRACTOR SHALL FURNISH ALL LABOR, MATERIALS, EQUIPMENT, SERVICES, TOOLS, TRANSPORTATION AND FACILITIES NECESSARY FOR, REASONABLY IMPLIED AND INCIDENTAL TO, THE FURNISHING, INSTALLATION, COMPLETION AND TESTING OF ALL THE WORK FOR THE PLUMBING SYSTEMS AS SHOWN ON THE DRAWINGS, CALLED FOR IN THE SPECIFICATIONS, AND AS REQUIRED BY JOB CONDITIONS, TO INCLUDE, BUT NOT BE LIMITED TO THE FOLLOWING: (REFER TO RESPONSIBILITY SCHEDULE FOR EXACT RESPONSIBILITIES)
   A. COMPLETE SANITARY PIPING SYSTEMS OF WASTE, DRAINS, AND VENTS.
   B. COMPLETE COLD AND HOT WATER PIPING SYSTEMS, APPURTENANCES AND INSULATION.
   C. PLUMBING FIXTURES AND EQUIPMENT AS SCHEDULED.
   D. TESTS AND ADJUSTMENTS.
2. BEFORE STARTING WORK, THIS CONTRACTOR SHALL EXAMINE THE ARCHITECTURAL, STRUCTURAL, MECHANICAL AND ELECTRICAL PLANS AND SPECIFICATIONS TO SEQUENCE, COORDINATE, AND INTEGRATE THE VARIOUS ELEMENTS OF THE PLUMBING SYSTEM, MATERIALS, AND EQUIPMENT WITH OTHER CONTRACTORS TO AVOID INTERFERENCE'S AND CONFRONTATIONS.
3. RELOCATION OF EXISTING WATER, WASTE, VENT, OR DRAINAGE LINES TO FACILITATE STORE DESIGN CRITERIA MUST BE INCLUDED IN BID PROPOSAL.
4. ALL WORK SHALL BE DONE IN STRICT ACCORDANCE WITH ALL APPLICABLE GOVERNMENT AND LOCAL CODES AND THE LANDLORD'S REQUIREMENTS. VERIFY LOCAL ADA AND WATER-SAVING DEVICE CODE REQUIREMENTS PRIOR TO CONSTRUCTION.
5. CONTRACTOR SHALL SUBMIT A REPRODUCIBLE COPY OF THE "AS-BUILT" DRAWING TO THE LANDLORD AND TO THE OWNER FOR THEIR RECORDS.

B. PLUMBING EQUIPMENT

1. PROVIDE NEW PLUMBING EQUIPMENT AS SHOWN ON THE DRAWING AND SPECIFIED IN THE PLUMBING FIXTURE SCHEDULE.
2. WHERE EXISTING PLUMBING FIXTURES ARE TO BE REUSED, REPLACE BALL COCK VALVE SEALS, LEAVE IN PROPER WORKING ORDER.

C. GENERAL PIPING REQUIREMENTS

1. GENERALLY, SANITARY AND POTABLE WATER CONNECTIONS WILL BE MADE AT EXISTING TOILET ROOM. FIELD VERIFY EXACT CONNECTION POINTS PRIOR TO SUBMITTING BID AND NOTIFY THE TENANT'S CONSTRUCTION MANAGER IF CONDITIONS ARE NOT AS SHOWN ON THE PLANS OR AS STATED IN THE SPECIFICATIONS. CONTRACTOR MUST VERIFY THE OPERABILITY OF ENTIRE SYSTEM PRIOR TO TIE IN AS FOLLOWS:
   A. SNAKE SANITARY FOR A DISTANCE OF 100 FEET AND REPORT ANY BLOCKAGE.
   B. TEST WATER PRESSURE TO INSURE MINIMUM OF 50 PSI.
2. INSTALL ALL NECESSARY PIPE HANGERS, SADDLES, AND CARRIERS TO PROPERLY SUPPORT ALL PIPING AND FIXTURES. HANGERS SHALL SUIT TYPE OF PIPING PROVIDED AND BE SPACED AT A MAXIMUM SPAN OF 5 FEET.
3. ESCUTCHEONS SHALL BE CHROME PLATED, SIZE AS REQUIRED AND PLACED AT ALL PIPE PENETRATIONS AT WALLS, FLOORS, AND CEILINGS IN FINISHED AREAS.
4. FLASHING SHALL BE SEALED WATERTIGHT AND PERFORMED IN ACCORDANCE TO THE LANDLORD'S CRITERIA. USE A LANDLORD APPROVED ROOFING CONTRACTOR WHERE APPLICABLE
5. THE CONTRACTOR SHALL ENSURE THAT ALL SLAB PENETRATIONS WITHIN THE TENANT'S DEMISED PREMISES ARE PROPERLY SEALED AND REMAIN WATERTIGHT TO PREVENT ANY POSSIBLE DAMAGE TO OTHER TENANTS AND/OR TO THE BUILDING. FAILURE TO DO SO SHALL BE AT RISK AND SOLE EXPENSE OF THE CONTRACTOR.

D. PIPING

1. SANITARY PIPING - NO PVC ALLOWED
   A. WASTE, DRAIN AND VENT PIPING SHALL BE SERVICE WEIGHT, CAST IRON SOIL PIPE. VENT PIPING ABOVE FLOOR 2" OR SMALLER MAY BE GALVANIZED STEEL.
      JOINTS:
      BELOW FLOOR SLAB - COMPRESSION TYPE PLASTIC SEAL (HUB AND SPIGOT).
      ABOVE FLOOR SLAB - NEOPRENE SEALING SLEEVE WITH STAINLESS STEEL SHIELD AND CLAMP WITH APPROVED NEOPRENE - BASED LUBRICANT, (HUBLESS).
      GALVANIZED VENT - SCREWED JOINTS WITH TEFLON TAPE ON MALE THREADS.
   B. PITCH WASTE LINES 2" AND SMALLER NOT LESS THAN 1/4" PER FOOT. PITCH LARGER MAINS NOT LESS THAN 1/8" PER FOOT.
   C. INSTALL A CLEANOUT AT BASE OF EACH SOIL STACK, AT EACH CHANGE IN DIRECTION, AT INTERVALS NOT OVER 50 FEET, AND ELSEWHERE AS SHOWN ON DRAWINGS OR REQUIRED BY LOCAL CODE. CLEAN OUTS SHALL ONLY BE INSTALLED IN NON-PUBLIC AREAS, UNLESS GIVEN EXPRESSED WRITTEN PERMISSION BY TENANT'S CONSTRUCTION MANAGER. WHEN GIVEN PERMISSION TO INSTALL IN PUBLIC AREAS, THE CLEANOUTS SHALL COORDINATE THE FINAL FINISH WITH THE ARCHITECT. PROVIDED BY THE CONTRACTOR. PROVIDE COVERS WITH INSET AREA FOR CARPETED FLOOR LOCATIONS. ALL CLEAN-OUT LOCATIONS SHALL BE APPROVED BY THE TENANT'S CONSTRUCTION MANAGER.
   D. INSULATE ALL HORIZONTAL RUNS OF PIPING LOCATED IN CEILING SPACES WHEN APPLICABLE. INSULATION TO BE AS SPECIFIED FOR WATER PIPING.
   E. INSULATE THE TRAP, SANITARY AND SUPPLY PIPES UNDER LAVATORY WITH ADA COMPLIANT ARMSTRONG "ARMAFLEX" PIPING INSULATION OR TRUEBRO MODEL 102W "HANDI LAV GUARD" INSULATION KIT.
   F. G.C. TO VERIFY SANITARY LINE HAS BEEN SCOPED AND CLEANED OF ALL BLOCKAGE.
2. CONDENSATE PIPING SHALL BE TYPE 'L" DRAWN COPPER TUBE WITH 95-5 TIN-ANTIMONY SOLDERED JOINTS AND WROUGHT COPPER FITTINGS WITH DIELECTRIC SEPARATION BETWEEN DISSIMILAR METALS.
3. POTABLE WATER PIPING:
   A. BELOW GRADE: TYPE 'K', ANNEALED TEMPERED COPPER TUBE FOR PIPE SIZES 2 INCHES AND SMALLER. BRAZE ALL JOINTS.
   B. ABOVE GRADE: TYPE 'L' DRAWN COPPER TUBE WITH WROUGHT COPPER FITTINGS AND 95-5 TIN-ANTIMONY SOLDER.
   C. INSTALL AIR CHAMBER SHOCK ABSORBERS IN PIPING SYSTEM TO PREVENT NOISE AND DAMAGE DUE TO WATER HAMMER.
   D. ALL BRANCH PIPING SYSTEM SHALL HAVE ACCESSIBLE SERVICE VALVE. PROVIDE SHUT OFF VALVES IN THE SUPPLY PIPING TO EVERY FIXTURE. PROVIDE ACCESS DOORS WHERE NECESSARY.
   E. PROVIDE WATER METER AND REMOTE READER PER LANDLORD'S CRITERIA OR LOCAL UTILITIES REQUIREMENTS IF APPLICABLE. REFER TO PLANS FOR FOR ADDITIONAL INFORMATION.
   F. SECURE PIPE AT ANGLE STOPS.
   G. PROVIDE FLEXIBLE INSERTS AT ALL PIPE PENETRATIONS THROUGH FRAMING TO KEEP PIPES FROM HITTING FRAME WHEN IN OPERATION.
4. GAS PIPING
   A. PROVIDE A COMPLETE GAS PIPING SYSTEM IF APPLICABLE. REFER TO PLANS TO DETERMINE IF A GAS SYSTEM IS REQUIRED.
   B. LOW PRESSURE (14" W.C. AND BELOW) GAS LINES SHALL BE BLACK STEEL, SCHEDULE 40, ASTM A-120, WITH MALLEABLE THREADED FITTINGS FOR 2" AND SMALLER, AND WITH WELDED JOINTS FOR 2-1/2" AND LARGER. MEDIUM PRESSURE (ABOVE 14" W.C.) SHALL HAVE WELDED JOINTS.
   C. PROVIDE A GAS COCK, DIRT LEG, AND UNION CONNECTION TO EACH PIECE OF EQUIPMENT. PROVIDE GAS METER AND/OR REGULATOR AS REQUIRED. REGULATOR TO BE VENTED TO THE EXTERIOR.
   D. PITCH PIPING AT A UNIFORM GRADE OF 1/4" IN 15 FEET UPWARD IN DIRECTION OF FLOW. SUPPORT PIPING EVERY 5 FEET. GAS PIPING SHALL BE SUPPORTED BY PIPE STANDS WITH ROLLERS, MODEL 3-RAH-8 FROM MIRO INDUSTRIES. WOOD BLOCKING IS NOT TO BE USED.
   E. GAS PIPING EXPOSED ON ROOF MUST BE PAINTED WITH RUST-INHIBITING PAINT.
   F. INSTALLATION, TESTING AND PURGING OF GAS PIPING SHALL BE DONE PER THE REQUIREMENTS OF THE LOCAL GAS COMPANY, LOCAL CODES, AND APPLICABLE NFPA 54 CODES.
   G. CONTACT AND COORDINATE GAS SERVICE AND METER REQUIREMENTS WITH THE LOCAL GAS COMPANY AND THE MALL'S MANAGER PRIOR TO BID.
5. INSULATION
   A. INSULATE ALL WATER AND INTERIOR CONDENSATE PIPING WITH 1" THICK (K=0.23 @ 75 F) SNAP-ON FIBERGLASS PIPE INSULATION WITH AN ALL SERVICE JACKET TO MEET LOCAL CODES AND UL FLAME SPREAD RATING OF 25 AND SMOKE DEVELOPED RATINGS OF 50. APPROVED MANUFACTURER: MANVILLE MICRO-LOK.
6. TEST & STERILIZATION
   A. LEAKAGE TESTS SHALL BE PER LOCAL CODES, MINIMUM AS FOLLOWS:
      A.A. TEST POTABLE WATER PIPING AND CONDENSATE PIPING AT 125 PSIG FOR SIX HOURS.
      A.B. TEST DRAIN, WASTE, VENT PIPING BY A 10' WATER COLUMN FOR TWO HOURS. ALL JOINTS SHALL BE GAS AND WATER TIGHT.
      A.C. STERILIZE POTABLE HOT & COLD WATER LINES UPON COMPLETION OF SYSTEM. STERILIZE WATER SYSTEM IN ACCORDANCE WITH LOCAL CODES.
      A.D. TEST GAS PIPING WITH NFPA 54 CODES

HOT WATER RECIRCULATION PUMP SCHEDULE

TAG	MAKE/MODEL	USGPM	HD. FT.	RPM	BHP	HP	POWER	WEIGHT (LBS)	REMARKS
P-1	BELL&GOSSETT/ NBF-9U-LF	4.7	6	-	-	1/40	120/1/60		SUPPLY AND INSTALL TIMER TOGETHER WITH THE PUMP. CONTROLLED VIA 'BELL&GOSSETT' 113210 AUTOMATIC TIMER

FIELD VERIFY ALL CONDITIONS

DESIGN DRAWINGS ARE SCHEMATIC. THIS CONTRACTOR SHALL VISIT THE SITE PRIOR TO BIDDING OR AWARD OF CONTRACT TO INSPECT EXISTING FIELD CONDITIONS. THIS CONTRACT SHALL INCLUDE ALL LABOR AND MATERIALS NECESSARY FOR FIELD MODIFICATIONS DUE TO EXISTING CONDITIONS.

THE CONTRACTOR SHALL CONTACT THE ARCHITECT, ENGINEER OR OWNER PRIOR TO BIDDING FOR INTERPRETATIONS AND CLARIFICATIONS OF THE DESIGN AND INCLUDE IN HIS BID ALL COSTS TO MEET THE DESIGN INTENT. CLARIFICATIONS MADE BY THE ARCHITECT, ENGINEER OR OWNER AFTER BIDDING WILL BE FINAL AND SHALL BE IMPLEMENTED AT CONTRACTORS COST.

BIDDING CONTRACTORS SHALL HAVE A WORKING KNOWLEDGE OF LOCAL CODES AND ORDINANCES AND SHALL INCLUDE IN THEIR BIDS THE COSTS FOR ALL WORK INSTALLED IN STRICT ACCORDANCE WITH GOVERNING CODES, THE PLANS AND SPECIFICATIONS NOT WITHSTANDING. THE CONTRACTOR SHALL ALERT ARCHITECT, ENGINEER OR OWNER OF ANY APPARENT DISCREPANCIES BETWEEN GOVERNING CODES AND DESIGN INTENT.

2023-03-08 11:19:44 AM

lululemon
1818 CORNWALL AVE.
VANCOUVER, B.C., V6J1C7

CF POLO PARK
1485 Portage Ave, Unit 144E
Winnipeg, MB
R3G OW5

ARCHITECT

BDP. Quadrangle
Quadrangle Architects Limited
55 St. Clair Avenue West, Toronto, ON M4V 2S8
t 416 598 1240 www.bdpquadrangle.com

ARCHITECT SEAL

THOMAS A. FEKETE LTD.
7181 WOODBINE AVE UNIT 229
MARKHAM ONTARIO L3R 1A3
PH.: (905) 946 4260 FAX: (905) 946 0901
JOB #: 23061

PROVINCE OF MANITOBA
Z.H. GUO
Member
45105
REGISTERED PROFESSIONAL ENGINEER

06/09/2023

APEGM
Certificate of Authorization
Thomas A. Fekete Ltd.
No. 5075 Date: 06/09/2023

ISSUED FOR CONSTRUCTION

07/14/2023

△	DATE	DESCRIPTION
	06/07/2023	ISSUED FOR CD COORDINATION
	06/09/2023	ISSUED FOR PERMIT/ CONSTRUCTION
	06/09/2023	ISSUED FOR BID
	07/13/2023	ISSUED FOR COORDINATION
	07/14/2023	ISSUED FOR CONSTRUCTION

DRAWING INFORMATION
PROJECT #: 2301141
CHECKED BY: BZ
DRAWN BY: KO

PLUMBING FIXTURE SCHEDULES

DRAWING NUMBER
P520

TABLE 1: LIGHTWEIGHT STEEL FRAMING STANDARD THICKNESS						
DESIGNATION THICKNESS	MINIMUM BASE STEEL THICKNESS		DESIGN THICKNESS		COLOUR	STEEL FRAMING GAUGE NO. (FOR REFERENCE ONLY)
(Mils)	(in.)	(mm)	(in.)	(mm)		
33	0.0329	0.836	0.0346	0.879	WHITE	20-STRUCTURAL
43	0.0428	1.087	0.0451	1.146	YELLOW	18
54	0.0538	1.367	0.0566	1.438	GREEN	16
68	0.0677	1.720	0.0713	1.811	ORANGE	14
97	0.0966	2.454	0.1017	2.583	RED	12
118	0.1180	2.997	0.1242	3.155	BLUE	10

1. MINIMUM THICKNESS REPRESENTS 95% OF THE DESIGN THICKNESS, AND IS THE MINIMUM ACCEPTABLE THICKNESS OF THE BASE STEEL DELIVERED TO THE JOBSITE.
2. A "MIL" IS 1/1000 OF AN INCH (E.G. 30 MILS IS 0.030 INCHES).

TABLE 2: FASTENERS
LSF TO LSF
LSF TO STRUCTURAL STEEL
LSF TO CONCRETE
LSF TO CMU FACE SHELLS
LSF TO WOOD
LSF TO BRICK TIE

#10-16 SCREWS - 2 SCREWS MIN.

#12-14 SCREWS OR HILTI "X-U" 0.145" DIA. SHANK POWDER-ACTUATED FASTENERES

1/4" DIA. x1-3/4" LG. HILTI KWIK-CON II+ OR ITW BLUE CLIMASEAL TAPCON ANCHORS

1/4" DIA. x1-3/4" LG. HILTI KWIK-CON II+ OR ITW BLUE CLIMASEAL TAPCON ANCHORS

#10-16 SCREWS

#10-16 SCREWS

CLIP ANGLE LENGTH AT BRIDGING LINES, HEADER TO JAMB OR SILL TO JAMB CONNECTION

- 3-1/4" FOR 362S & 400S
- 5-1/2" FOR 600S
- 7-1/2" FOR 800S

ALL CLIP ANGLES SHALL BE 54MILS (16 GA.) MATERIAL U.N.O.

TABLE 3: STEEL STUD IDENTIFICATION

362S162-33

- 362 = STUD WIDTH 362 = 3 5/8"
- S=STUD T=TRACK
- 162 = FLANGE WIDTH=1.625"
- 33 = MIN BASE STEEL THICKNESS SEE TABLE, GENERAL NOTES

STRUCTURAL STEEL NOTES

1. ALL MATERIALS, COMPONENTS AND WORKMANSHIP SHALL CONFORM TO THE CURRENT CSA STANDARD S16-14.
2. ALL STRUCTURAL STEEL TO BE OF NEW MATERIAL, CONFORMING TO CSA STANDARD G40.20 AND G40.21-M92 - GRADE 300W, GRADE 350W CLASS 'C' FOR HSS SECTIONS.
3. ALL STEEL WORK SHALL BE GIVEN ONE COAT OF APPROVED PRIMER.
4. ALL CONNECTIONS SHALL BE WELDED OR HIGH TENSILE BOLTED (ASTM STANDARD A325)
5. HEADER CONNECTIONS SHALL BE USED AT ENDS OF ALL BEAMS.
6. WELDING SHALL CONFORM TO LATEST CSA SPECIFICATION W59 AND BE UNDERTAKEN BY A FABRICATOR APPROVED BY THE CANADIAN WELDING BUREAU TO THE REQUIREMENTS OF CSA SPECIFICATION W47.
7. MINIMUM SIZE OF WELDS TO BE 6MM(1/4") EXCEPT FOR SEAL WELDS.
8. EXISTING STRUCTURAL FLOOR HAS BEEN REVIEWED AND FOUND TO BE SATISFACTORY TO RESIST THE NEW LOADS. TYPICAL UNLESS NOTED.
9. SHOP DRAWINGS MUST TO BE STAMPED BY A.P. ENG. OF MANITOBA AND SUBMITTED FOR REVIEW.
10. CONTRACTOR SHALL VISIT THE SITE AND TO CONFIRM ALL REQUIRED DIMENSIONS.
11. CONTRACTOR SHALL VISIT THE SITE BEFORE SUBMITTING THE PRICE AND SHOULD CHECK EXISTING CONDITIONS, LOCATIONS OF MECHANICAL AND ELECTRICAL EQUIPMENT, CONDUITS, PIPES ETC.
12. EXISTING STRUCTURE, DIMENSIONS AND CONDITIONS TO BE VERIFIED ON SITE BY GENERAL CONTRACTOR BEFORE COMMENCEMENT OF WORK. ANY DISCREPANCIES FROM THE CONDITION SHOWN ON THE DRAWING MUST BE REPORTED TO THE ENGINEER
13. GENERAL CONTRACTOR TO PROVIDE TEMPORARY SHORING TO ENSURE THE SAFETY DURING CONSTRUCTION.
14. ALL STRUCTURAL STEEL AND CONNECTIONS INSTALLED ON SITE ARE TO BE INSPECTED AND ACCEPTED BY A QUALIFIED THIRD PARTY STEEL INSPECTOR. ALL REPORTS MUST BE SUBMITTED TO THE ARCHITECT AND STRUCTURAL ENGINEER ON RECORD FOR THEIR REVIEW AND RECORDS. THE CONTRACTOR IS RESPONSIBLE FOR THE COST OF THE INSPECTION(S). ANY COSTS RELATED TO REINSPECTED/DEFICIENT WORK IS THE RESPONSIBILITY OF THE CONTRACTOR. THIS INCLUDES ANY COSTS ASSOCIATED WITH WORK REQUIRING ADDITIONAL INSPECTIONS.

DESIGN LOADS

1. THE DESIGN OF LIGHT-GAUGE STEEL FRAMING IS IN ACCORDANCE WITH CAN/CSA-S136-16 AND CSA-S16-14.
2. SPECIFIED DEFLECTION LIMIT FOR LIVE LOAD: L/360
3. SPECIFIED LOADING:

INTERIOR AIR PRESSURE	= 5 PSF
DEAD LOAD	= 7 PSF (SOFFIT), 8.5 PSF (FACADE)
SECURITY GRILLE	= 2 PSF

SEISMIC LOAD PARAMETERS, MBC 2011 (R2017) WINNIPEG, MANITOBA

- Vp = 0.30 Fa Sa (0.2) Ie Sp Wp
  Vp = 0.060 Wp
- Sp = Cp Ar Ax / Rp
  Sp = 1.2
  Sa (0.2) = 0.054
  Sa (0.5) = 0.032
  Sa (1.0) = 0.016
  Sa (2.0) = 0.0066
  PGA = 0.032
  SITE CLASS "C" (ASSUMED)
  Ie = 1.00
  Fa = 1.00
  IeFaSa(0.2) = 0.07
  Cp = 1.00
  Ar = 1.00
  Ax = 3.00
  Rp = 2.50
  Wp = Element Weight

GENERAL NOTES

1. COMPLY WITH THE MANITOBA BUILDING CODE 2011 (R2017), 2015 NATIONAL BUILDING CODE OF CANADA, CANADIAN CONSTRUCTION CODE, LOCAL BY-LAWS AND ALL REGULATIONS SET BY AUTHORITIES HAVING JURISDICTION. THE MORE STRINGENT REQUIREMENTS SHALL APPLY IN CASE OR DISCREPANCIES OR CONFLICTS.
2. ONLY COMPONENTS DETAILED ON THESE DRAWINGS HAVE BEEN DESIGNED BY EXP SERVICES; OTHER COMPONENTS ARE THE RESPONSIBILITY OF THEIR RESPECTIVE DESIGNER.
3. IT IS THE BASE BUILDING ARCHITECT AND THE STRUCTURAL ENGINEERS RESPONSIBILITY TO INSURE THAT THE LIGHT-GAUGE STEEL FRAMING HAS ADEQUATE AND SUITABLE STRUCTURE FOR ANCHORAGE AND SUPPORT.
4. REFER TO ARCHITECTURAL DRAWINGS AND/OR SPECIFICATIONS FOR FIRE AND SOUND RATINGS.
5. REFER TO ARCHITECTURAL DRAWINGS FOR EXACT DIMENSIONS AND LOCATIONS OF SECTIONS AND OPENINGS.
6. LIGHT-GAUGE STEEL FRAMING SHALL BE ERECTED TRUE AND PLUMB.
7. TEMPORARY BRACING SHALL BE EMPLOYED WHEREVER NECESSARY TO WITHSTAND ALL LOADS TO WHICH THE STRUCTURE MAY BE SUBJECT TO DURING ERECTION AND SUBSEQUENT CONSTRUCTION.
8. TEMPORARY BRACING SHALL BE LEFT IN PLACE AS LONG AS REQUIRED FOR THE SAFETY AND INTEGRITY OF THE STRUCTURE.
9. LIGHT-GAUGE STEEL FRAMING TO BE INSPECTED BY QUALIFIED INSPECTION AGENCY AND DEFICIENCIES CORRECTED AND RE-INSPECTED PRIOR TO BOARDING. PROVIDE INSPECTION AGENCY A MINIMUM OF ONE WEEK NOTICE TO ALLOW SCHEDULING.
10. PRIOR TO TENDER, CONTRACTORS ARE TO FAMILIARIZE THEMSELVES WITH ALL CONTRACT DOCUMENTS AND VISIT THE SITE AS REQUIRED TO ENSURE THAT THE EXTENT OF THE WORK IS UNDERSTOOD. NO EXTRAS WILL BE ALLOWED DUE TO CONTRACTOR'S MISUNDERSTANDING THE EXTENT OF THE WORK.
11. VERIFY EXISTING MEMBER SIZES, ELEVATIONS, AND DIMENSIONS ON SITE BEFORE FABRICATION. REPORT ANY DISCREPANCIES TO EXP SERVICES INC. PROMPTLY FOR COMMENT AND/OR DESIGN REVISION.

RENOVATIONS AND EXISTING CONDITIONS — GN-014

1. EXISTING CONDITIONS AS SHOWN ON THE STRUCTURAL DRAWINGS ARE BASED UPON THE INFORMATION AVAILABLE AT THE TIME THAT DRAWINGS WERE PREPARED.
2. THE CONTRACTOR SHALL FAMILARIZE THEMSELF WITH EXISTING CONDITIONS INCLUDING: THE STRUCTURE, LOCATION OF INTERFERENCES, CONDUITS, PIPES, EQUIPMENT ETC.
3. FIELD VERIFY DIMENSIONS AND ELEVATIONS NECESSARY FOR THE PROPER CONSTRUCTION AND ALIGNMENT OF THE NEW PORTIONS OF THE WORK TO THE EXISTING WORK. REPORT INCONSISTENCIES TO THE CONSULTANT BEFORE PROCEEDING WITH THE WORK.
4. PRIOR TO FABRICATION OF ANY STRUCTURAL MEMBERS, COMPLETE A SITE REVIEW OF CRITICAL "TIE-IN" DIMENSIONS AND CONFIRM ALL DIMENSIONS TO ENSURE PROPER FIT OF NEW WORK TO EXISTING WORK.
5. PROVIDE ALL NECESSARY BRACING, SHORING AND OTHER SAFEGUARDS TO MAINTAIN ALL PARTS OF THE EXISTING WORK IN A SAFE CONDITION DURING THE PROCESS OF DEMOLITION AND CONSTRUCTION AND TO PROTECT FROM DAMAGE THOSE PORTIONS OF THE EXISTING WORK WHICH ARE TO REMAIN.
6. FOR TEMPORARY SHORING OF EXISTING STRUCTURAL MEMBERS, THE CONTRACTOR MUST RETAIN AN EXPERIENCED SHORING ENGINEER LICENCED IN THE PROVINCE OF MANITOBA TO DESIGN THE SHORING SYSTEMS. SUBMIT SHORING DRAWINGS FOR REVIEW BY CONSULTANT PRIOR TO PROCEEDING WITH THE WORK. SHORING DRAWINGS MUST BE SEALED BY A PROFESSIONAL ENGINEER.
7. USE ONLY WELDED CONNECTIONS FOR NEW STRUCTURAL STEEL FRAMING TO EXISTING STRUCTURAL STEEL UNLESS OTHERWISE NOTED.
   7.1 OBTAIN A REPORT FROM MATERIAL TESTING COMPANY COMMENTING ON CHEMICAL COMPOSITION AND WELDABILITY OF EXISTING STEEL. MODIFY WELDING PROCEDURES TO SUIT CHEMICAL COMPOSITION OF EXISTING STEEL.
   7.2 PAINT ON EXISTING STRUCTURAL STEEL MAY CONTAIN LEAD. REFER TO DESIGNATED SUBSTANCE SURVEY OR IF NO REPORT EXISTS OBTAIN A REPORT FROM MATERIAL TESTING COMPANY COMMENTING ON HAZARDOUS MATERIAL. TAKE ALL NECESSARY SAFETY PRECAUTIONS.
   7.3 BE AWARE THAT WELDING TO AND WITHIN AN EXISTING FACILITY PRESENTS POTENTIAL HAZARDS
   7.3.1 PROTECT AGAINST FIRE:
   : PROTECT EXISTING COMBUSTIBLES PRIOR TO WELDING. KEEP A SEPARATE WATCHMAN AND SEVERAL FIRE EXTINGUISHERS ON HAND.
   : DO NOT LEAVE THE SITE UNTIL SATISFIED THAT NO FIRE HAZARD EXISTS.
   7.3.2 PROTECT AGAINST STRUCTURAL LIQUEFACTION DUE TO WELDING ACROSS THE FULL SECTION OF STRUCTURAL STEEL MEMBERS.
   : WELD IN SHORT INCREMENTS. ALLOW WELDS TO COOL BEFORE CONTINUING TO THE NEXT INCREMENT.
8. CONNECTIONS OF NEW STRUCTURAL STEEL TO EXISTING CONCRETE SHALL BE ACHIEVED BY CONCRETE ANCHORS. REFER TO DRAWINGS AND SPECIFICATION.
   8.1 DRILL AND SITE MEASURE HOLES FOR ANCHORS IN EXISTING STRUCTURE PRIOR TO FABRICATING STEEL CONNECTION PLATES. HOLE LOCATIONS MAY HAVE TO BE MOVED TO AVOID CUTTING EXISTING REINFORCING OR TO AVOID OTHER SITE CONDITIONS. OBTAIN CONSULTANT'S APPROVAL BEFORE MODIFYING CONNECTION PLATES.

FASTENERS

1. ALL FASTENERS SHALL HAVE A MINIMUM COATING THICKNESS OF 0.008MM OF ZINC. OTHER COATINGS PROVIDING EQUAL OR BETTER CORROSION PROTECTION MAY BE USED, SUBJECT TO ACCEPTANCE BY CONSULTANT.
2. INSTALL FASTENERS IN ACCORDANCE WITH THEIR RESPECTIVE MANUFACTURER'S RECOMMENDATIONS.
3. PROVIDE CLAMPING BEFORE INSTALLING FASTENERS AS REQUIRED NEEDED TO ACHIEVE FIRM CONTACT BETWEEN FAYING SURFACES OF CONNECTIONS.
4. SHEET METAL SCREWS TO BE PANHEAD TYPE, SELF-TAPING AND SELF-DRILLING.
5. SHEET METAL SCREWS TO PENETRATE BEYOND JOINED MATERIALS NOT LESS THAN 3 EXPOSED THREADS.
6. SPACE SHEET METAL SCREWS 2D FROM EDGES AND 4D APART; D = DIAMETER OF THE FASTENER. REFER TO TYPICAL DETAILS FOR FASTENING PATTERNS AND SPACING.
7. FASTEN STUDS TO TRACKS OR STUDS USING #10-16 SCREWS.
8. FASTEN BOTH FLANGERS OF STUDS TO TRACKS.
9. FASTEN TRACKS TO METAL DECK USING #10-16 SCREWS. REFER TO DETAILS FOR FASTENING PATTERNS AND SPACING.
10. FASTEN TRACKS AND ANGLES TO STRUCTURAL STEEL USING #12-14 SCREWS OR HILTI "X-U" UNIVERSAL KNURLED SHANK POWDER-ACTUATED FASTENERS.
11. FASTEN TRACKS AND ANGLES TO CONCRETE USING 1/4" DIA. X1-3/4" LG. HILTI KWIK-CON II+ OR ITW BLUE CLIMASEAL TAPCON SCREWS. MINIMUM 1-3/4" EMBEDMENT AND 1-3/4" EDGE DISTANCE.
12. FASTEN TRACKS AND ANGLES TO CONCRETE BLOCK FACE SHELLS USING 1/4" DIA. X1-3/4" LG. HILTI KWIK-CON II+ OR ITW BLUE CLIMASEAL TAPCON SCREWS. MINIMUM 1" EMBEDMENT AND 2" EDGE DISTANCE.
13. CONNECT BUILT UP STUD AND TRACK MEMBERS TOGETHER WITH #10-16 SCREWS SPACED AT 18" O/C ALONG FULL LENGTH UNLESS NOTED OTHERWISE.
14. BRICK CONNECTORS TO BE WEB-CLIP TYPE, FASTENED TO STUDS USING #10-16 SCREWS.

STRUCTURAL STEEL STUDS

1. MATERIALS, COMPONENTS AND WORKMANSHIP: CONFORM TO CAN/CSA- S136 NORTH AMERICAN SPECIFICATION FOR THE DESIGN OF COLD FORMED STEEL STRUCTURAL MEMBERS.
2. LIGHT-GAUGE STEEL: MEET THE REQUIREMENTS OF ASTM-A653/A653M STANDARD SPECIFICATION FOR STEEL SHEET ZINC-COATED (GALVANIZED) OR ZINC-IRON ALLOY COATED (GALVANNEALED BY THE HOT-DIP PROCESS).
   - MINIMUM GRADES:
   - GRADE A, 228 MPA (33 KSI) MINIMUM YIELD, FOR 0.0428" MATERIAL OR THINNER.
   - GRADE D, 345 MPA (50 KSI) MINIMUM YIELD, FOR 0.0538" MATERIAL OR THICKER.
3. LIGHT-GAUGE STEEL FRAMING MEMBERS AND COMPONENTS SHALL HAVE A MINIMUM COATING OF G60/Z180 GALVANIZING.
4. MEMBER SELECTION IS BASED ON THE LATEST VERSION OF THE CSSBI "LIGHTWEIGHT STEEL FRAMING WALL STUD AND FLOOR JOIST LOAD TABLE".
5. FULLY SEAT STUDS INTO TOP AND BOTTOM TRACKS.
6. MAINTAIN COMPLETE BEARING UNDER TRACKS TO PROVIDE FOR LOAD TRANSFER IN AXIALLY LOADED ASSEMBLIES.
7. ALIGN WEB CUT-OUTS IN STUDS AND JOISTS AS REQUIRED FOR THE INSTALLATION OF THROUGH-THE-KNOCKOUT STYLE BRIDGING AND SERVICES.
8. PROVIDE BRIDGING AT A MAXIMUM SPACING OF 1220MM (48"), DO NOT RELY ON COLLATERAL SHORING.
9. STUDS AND TRACKS IN BUILT-UP BOX MEMBERS SHALL BE CONTINUOUS FOR FULL LENGTH OF BOX SECTION UNLESS NOTED OTHERWISE.
10. FASTEN TRACKS AND ANGLES TO CONCRETE BLOCK FACE SHELLS USING 1/4" DIA. X1-3/4" LG. HILTI KWIK-CON II+ OR ITW BLUE CLIMASEAL TAPCON SCREWS. MINIMUM 1" EMBEDMENT AND 2" EDGE DISTANCE.
11. SUBMIT SHOP DRAWINGS STAMPED BY A PROFESSIONAL ENGINEER REGISTERED TO PRACTICE IN THE PROVINCE OF MANITOBA AND EXPERIENCED IN DESIGN OF LIGHT GAUGE METAL FRAMING. ALLOW FIVE (5) FOR REVIEW BY CONSULTANT.

STRUCTURAL GUIDELINES FOR DRILLING, CUTTING & CORING THROUGH EXISTING CONCRETE STRUCTURE — R-003

1. GENERAL
   1.1 ALL OPENINGS THROUGH EXISTING STRUCTURE REQUIRED FOR MECHANICAL AND ELECTRICAL SERVICES ARE TO BE LOCATED AND CUT IN ACCORDANCE WITH THE REQUIREMENTS STIPULATED HEREIN. ALL PROPOSED NEW CORES AND OPENINGS THROUGH EXISTING STRUCTURE MUST BE REVIEWED ON SITE BY THE STRUCTURAL CONSULTANT PRIOR TO PROCEEDING WITH CUTTING OR CORING.
   1.2 GENERAL CONTRACTOR IS RESPONSIBLE FOR SUBMITTING COORDINATED SLEEVING AND CORING DRAWINGS SHOWING LOCATION, SIZE AND SPACING FOR PROPOSED NEW OPENINGS FOR ALL MECHANICAL AND ELECTRICAL SERVICES AND ALL EXISTING OPENINGS WITHIN THREE FEET OF NEW ONES. THE COORDINATED DRAWINGS SHALL BE PREPARED ON STRUCTURAL FRAMING PLAN BACKGROUNDS. ALL OPENINGS TO BE REFERENCED TO GRID LINES. INDIVIDUAL SUBMISSIONS OF DRAWINGS SHOWING MECHANICAL CORES ONLY OR ELECTRICAL CORES ONLY WILL NOT BE ACCEPTED. DO NOT DRILL OR CUT HOLES THROUGH EXISTING STRUCTURE PRIOR TO SUBMISSION OF SLEEVING DRAWINGS AND FINAL REVIEW BY STRUCTURAL CONSULTANT.
   1.3 PRIOR TO DRILLING FOR ANCHOR BOLTS OR CUTTING HOLES IN EXISTING REINFORCED CONCRETE STRUCTURES LOCATE ALL TOP AND BOTTOM EXISTING REINFORCING STEEL USING HILTI FERROSCAN OR GRAFSCAN RADAR RADAR DETECTION SYSTEMS. RESULTS OBTAINED BY X-RAY WILL NOT BE ACCEPTED. ALLOW CONSULTANT TO REVIEW ALL RESULTS BEFORE PROCEEDING.
   1.4 CUTTING NEW RECTANGULAR OPENINGS THROUGH EXISTING STRUCTURE: CORE DRILL AT CORNERS OF OPENING AND SAW CUT OR CORE DRILL AROUND PERIMETER. DO NOT OVER CUT BEYOND MINIMUM DIMENSION REQUIRED.
   1.5 WHERE HOLES ARE IN A GROUP, SPACE AT LEAST 3 TIMES THE DIAMETER OF THE LARGER ADJACENT HOLE, CENTER TO CENTER.
   1.6 DO NOT CUT ANY EXISTING REINFORCING STEEL WITHOUT WRITTEN AUTHORIZATION BY STRUCTURAL CONSULTANT.
2. PROCEDURE FOR REVIEW OF NEW OPENINGS THROUGH EXISTING STRUCTURE
   2.1 GENERAL CONTRACTOR TO SUBMIT COORDINATED CORING DRAWINGS TO ALL CONSULTANTS FOR REVIEW.
   2.2 MARK PROPOSED CORE LOCATION ON EXISTING STRUCTURE.
   2.3 SCAN EXISTING STRUCTURE TO IDENTIFY ALL REINFORCING STEEL IN AREA OF PROPOSED CORES. SCANNING CONTRACTOR SHALL CLEARLY MARK AND DISTINGUISH BETWEEN ALL TOP AND BOTTOM BARS.
   2.4 ALLOW STRUCTURAL CONSULTANT TO REVIEW EACH PROPOSED CORE LOCATION AND REINFORCING STEEL SCAN RESULTS ON SITE. ADJUSTMENTS TO FINAL POSITION OF CORE MAY BE NECESSARY TO MINIMIZE EFFECTS TO STRUCTURAL FRAMING.

CITY STAMP

lululemon
1818 CORNWALL AVE.
VANCOUVER, B.C., V6J1C7

CF POLO PARK
1485 Portage Ave,Unit 144E
Winnipeg, MB
R3G 0W5

STRUCTURAL ENGINEER

EXP ENGINEER
HAO (CHARLIE) ZHENG, P. ENG.
T: +1 905-695-3217, 3690
M: +1 647-622-7659

SEAL
LICENSED NAME, ARCHITECT

EXP Services Inc.
t: +1.905.695.3217 f: +1.905.470.7700
220 Commerce Valley Drive West, Suite 110
Markham, ON L3T 0A8
CANADA
www.exp.com

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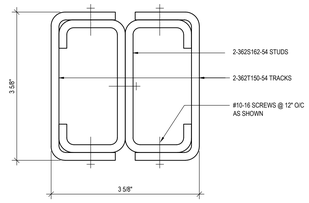
△	DATE	DESCRIPTION
1	06.09.2023	ISSUED FOR CD
2	06.09.2023	ISSUED FOR PERMIT/CONST.
3	06.16.2023	BID ADDENDUM S1
4	07.14.2023	ISSUED FOR CONSTRUCTION

DRAWING INFORMATION
PROJECT #: ALL-23006739-A0
CHECKED BY: TY / CZ
DRAWN BY: CJ

GENERAL NOTES
TYPICAL DETAILS

DRAWING NUMBER
S-100

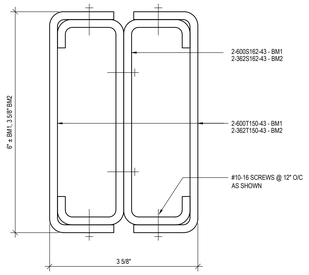
BUILT UP POST TYPE 'P1' — STD-004



NOTE:

ALL STUD AND TRACK MEMBERS USED IN THE CONSTRUCTION OF THE BUILT-UP POST SHALL BE CONTINUOUS FOR FULL LENGTH OF THE SECTION.

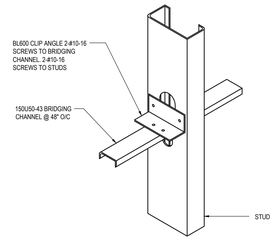
BUILT UP BEAM TYPE 'BM1', 'BM2' — STD-003



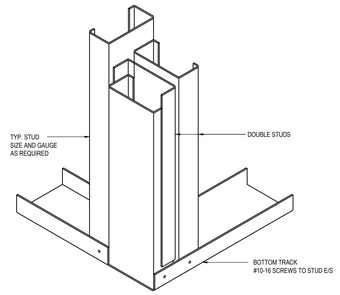
NOTE:

ALL STUD AND TRACK MEMBERS USED IN THE CONSTRUCTION OF THE BUILT-UP BEAM SHALL BE CONTINUOUS FOR FULL LENGTH OF THE SECTION.

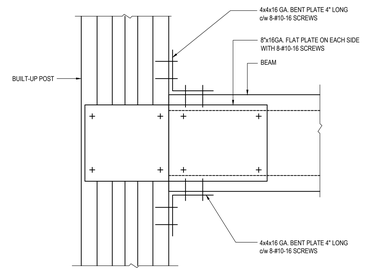
TYPICAL BRIDGING DETAILS — STD-002



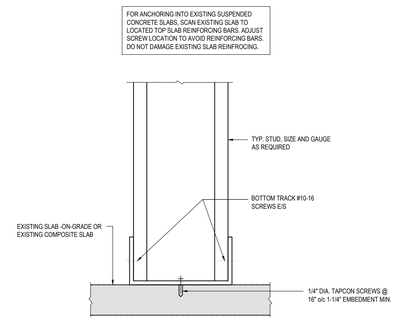
TYPICAL CORNER STUD — STD-001



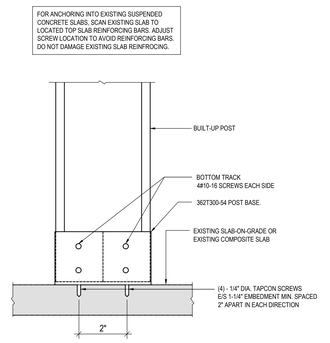
TYP. BEAM TO BUILT UP POST/BEAM CONNECTION — STD-007



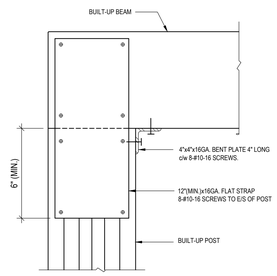
TYPICAL STUD TO TRACK CONNECTION — STD-006



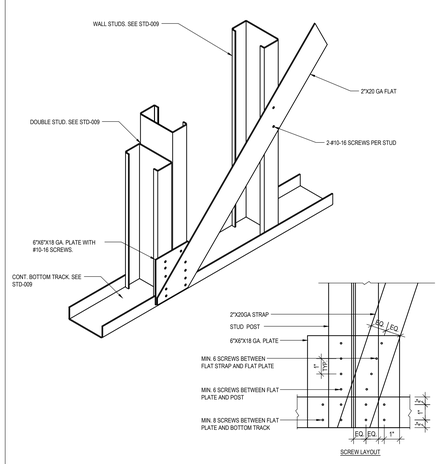
TYPICAL BUILT UP POST BASE CONNECTION — STD-005



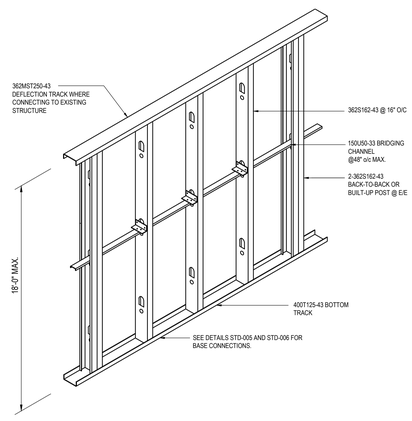
BEAM TO BUILT UP POST CONNECTION — STD-007a



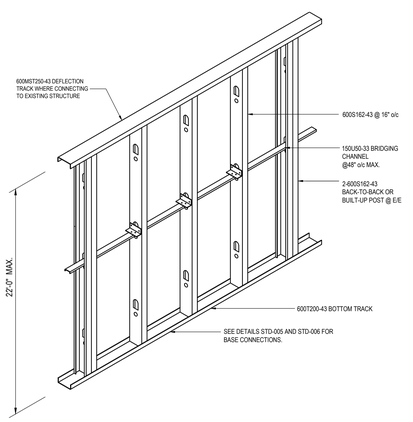
TENSION STRAP CONNECTION w/ GUSSET PLATE — STD-010



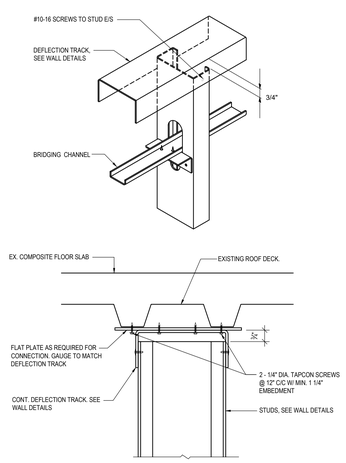
TYPICAL SHEAR WALL DETAIL 'W1' — STD-009B



TYPICAL SHEAR WALL DETAIL 'W2' — STD-009A



TYPICAL STUD WALL AT TOP CONNECTION — STD-012



CITY STAMP

lululemon
1818 CORNWALL AVE.
VANCOUVER, B.C., V6J1C7

CF POLO PARK
1485 Portage Ave,Unit 144E
Winnipeg, MB
R3G 0W5

STRUCTURAL ENGINEER

EXP ENGINEER
HAO (CHARLIE) ZHENG, P. ENG.
T: +1 905-695-3217, 3690
M: +1 647-622-7659

SEAL
LICENSED NAME, ARCHITECT

EXP Services Inc.
t: +1.905.695.3217 f: +1.905.470.7700
220 Commerce Valley Drive West, Suite 110
Markham, ON L3T 0A8
CANADA
www.exp.com

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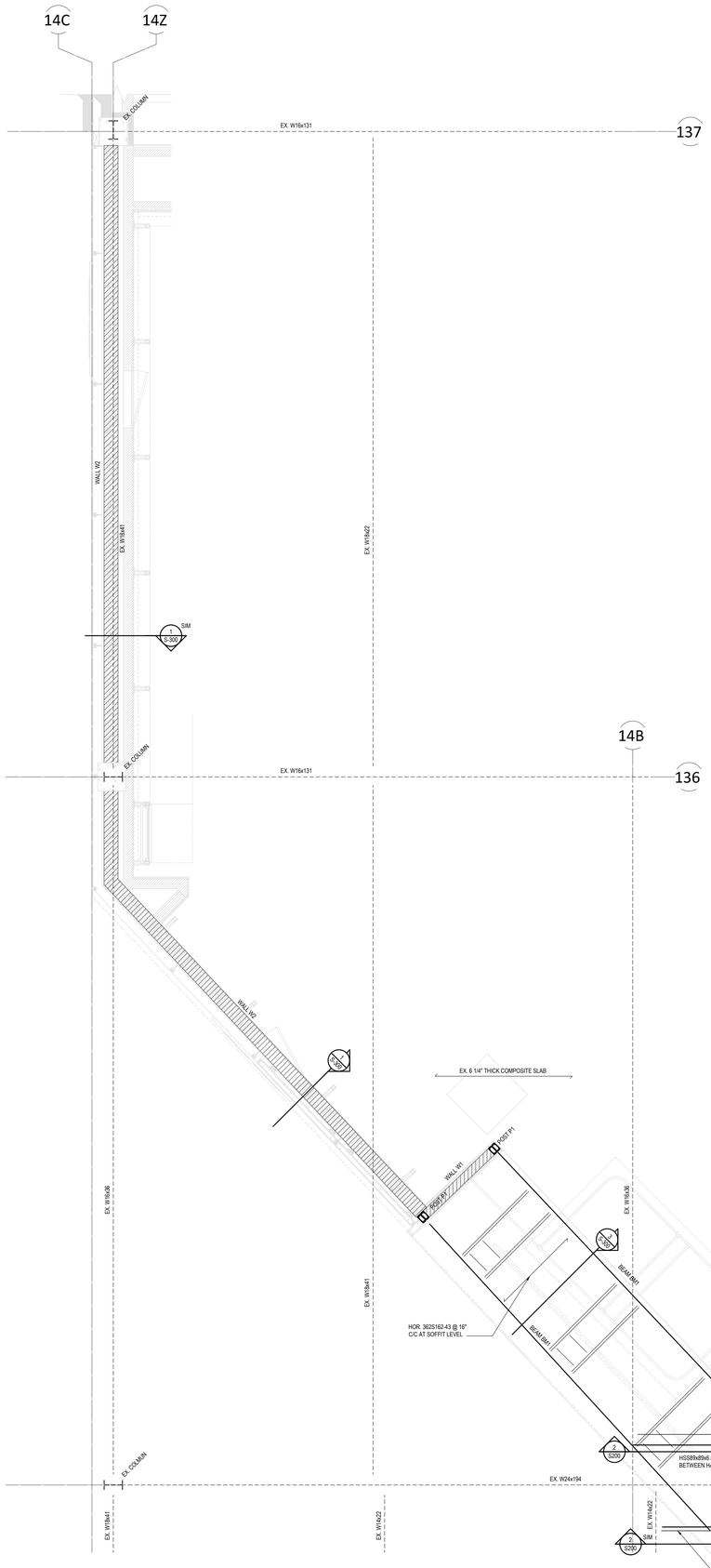
△	DATE	DESCRIPTION
1	06.09.2023	ISSUED FOR CD
2	06.09.2023	ISSUED FOR PERMIT/CONST.
3	06.16.2023	BID ADDENDUM S1
4	07.14.2023	ISSUED FOR CONSTRUCTION

DRAWING INFORMATION
PROJECT #: ALL-23006739-A0
CHECKED BY: TY / CZ
DRAWN BY: CJ

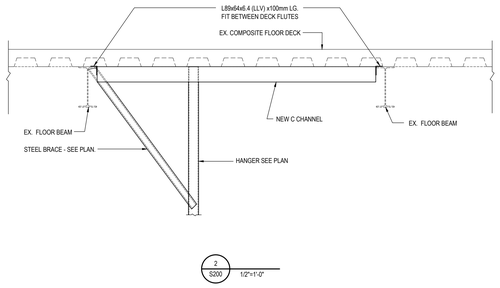
GENERAL NOTES
TYPICAL DETAILS

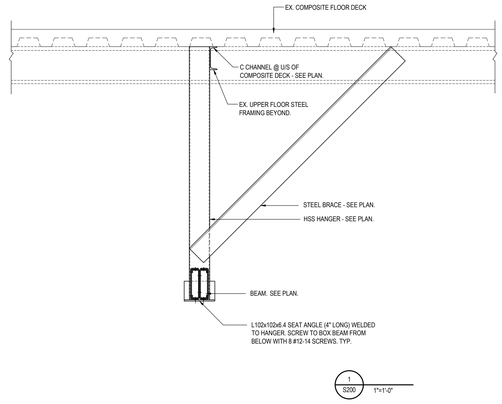
DRAWING NUMBER
S-101



STOREFRONT PLAN

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





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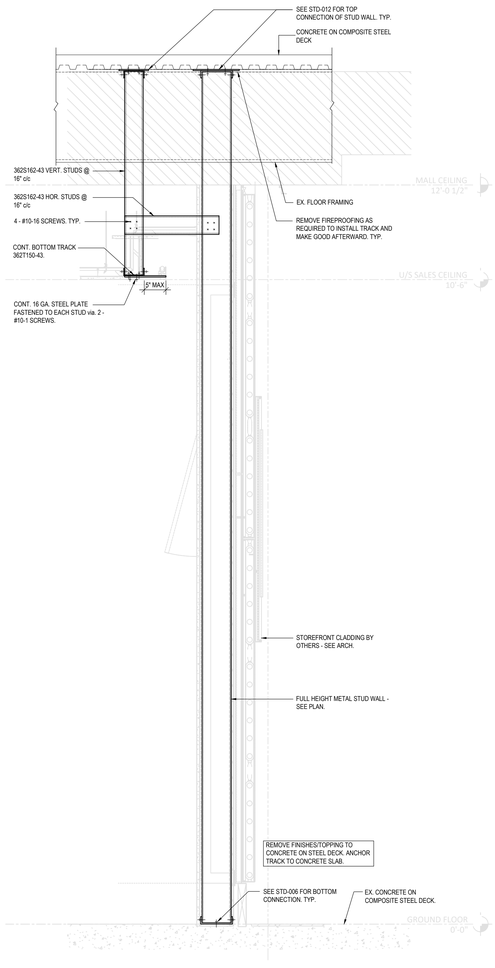
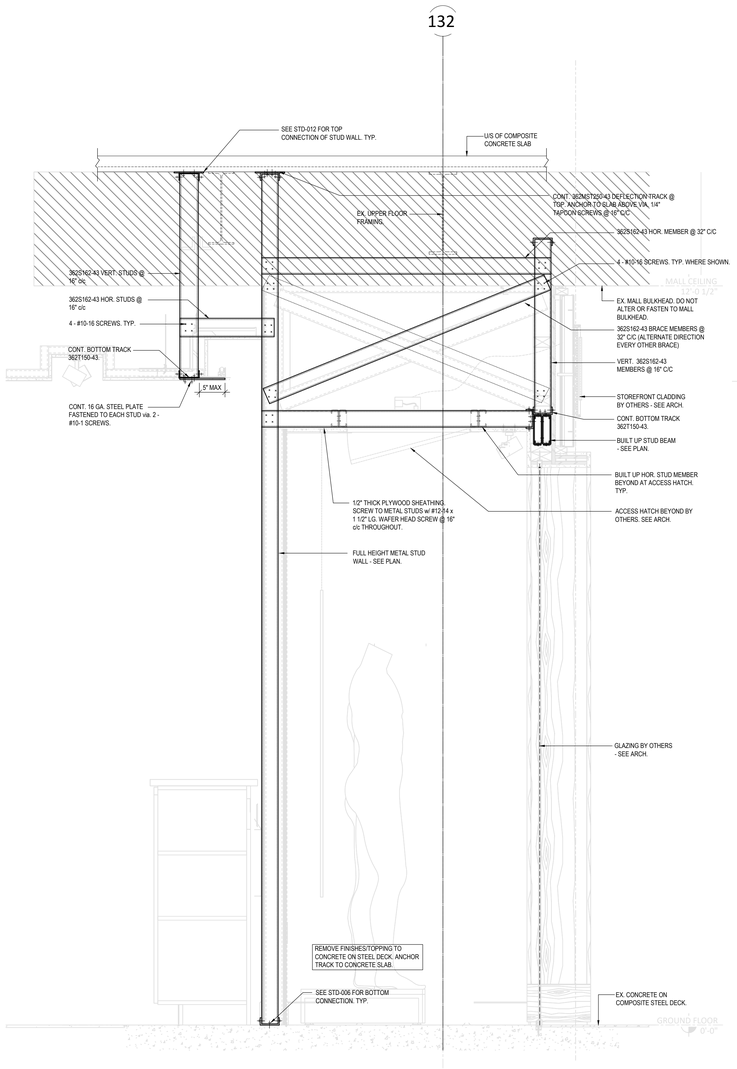
DRAWING INFORMATION
PROJECT #: ALL-23006739-A0
CHECKED BY: TY / CZ
DRAWN BY: CJ

GALLERY AND UPPER LEVEL FRAMING PLANS

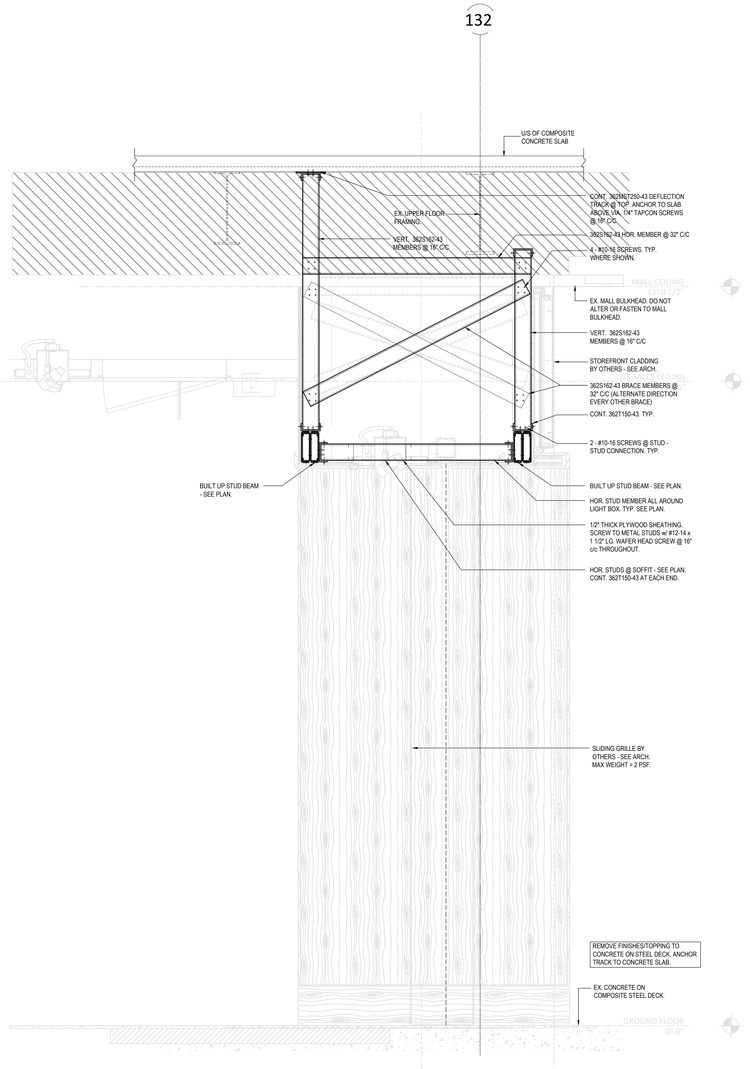
DRAWING NUMBER
S-200



1 S-300 1"=1'-0"



2 S-300 1"=1'-0"



3 S-300 1"=1'-0"

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VANCOUVER, B.C., V6J1C7

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Winnipeg, MB
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HAO (CHARLIE) ZHENG, P. ENG.
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PROJECT #: ALL-23006739-A0
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DRAWN BY: CJ

SECTIONS

DRAWING NUMBER
S-300