

PROJECT NO. 24068
DATE: 05/20/2024
DRAWN BY: AL/LH/AC
SCALE: AS NOTED
FILE: REDACTED

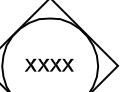
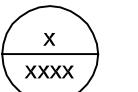
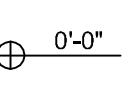
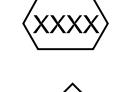
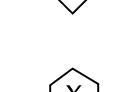
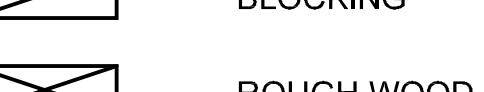
REVISIONS: REDACTED

City of Puyallup
Development & Permitting Services
ISSUED PERMIT
Building Planning
Engineering Public Works
Fire Traffic

SHEET TITLE:
GENERAL NOTES

SHOE PALACE
SOUTH HILL MALL
SPACE 410 & 420
3500 S MERIDIAN
PUYALLUP, WA 98373
PRCTI20240836

G001

	NORTH ARROW	& @	AND	INT.	INTERIOR
	ELEVATION	O	CENTERLINE	JAN.	JANITOR
	SECTION NUMBER	#	DIAMETER OR ROUND	J.T.	JOINT
	SECTION	ACOUS.	POUND OR NUMBER	KIT.	KITCHEN
	DETAL NUMBER	A.D.	ACOUSTICAL	LAB.	LABORATORY
	DETAL BUBBLE	ADJ.	AREA DRAIN	LAV.	LAVATORY
	DETAL NUMBER	ADJ.	ADJUSTABLE	LKR.	LOCKER
	BENCHMARK	AL.	ACRYLIC	L.T.	LIGHT
	FINISH SCHEDULE	APPROX.	ALUMINUM	MAX.	MAXIMUM
	REVISION	ARCH.	APPROXIMATE	M.C.	MEDICINE CABINET
	DATUM POINT	ASPH.	ARCHITECTURAL	MECH.	MECHANICAL
	AFF HEIGHT TAGS	A.V.	ASPHALT	MEMB.	MEMBRANE
	DOOR NUMBER	BD.	AUDIO / VISUAL	MET.	METAL
	EQUIPMENT TAG	BITUM.	BOARD	MFR.	MANUFACTURER
	WALL TYPE TAG	BLDG.	BITUMINOUS	M.H.	MANHOLE
	APPLIED WALL TREATMENT TAG	BLDG.	BUILDING	MIN.	MINIMUM
	CENTER LINE	BLK/G.	BLOCK	MIR.	MIRROR
	REVISION CLOUD	BM.	BLOKKING	MISC.	MISCELLANEOUS
SYMBOLS		BOT.	BEAM	M.O.	MASONRY OPENING
LEGEND		CAB.	BOTTOM	MTD.	MOUNTED
	FINISH WOOD	C.B.	CABINET	MUL.	MULLION
	BLOCKING	CEM.	CATCH BASIN	N.	NORTH
	ROUGH WOOD	CER.	CEMENT	N.I.C.	NOT IN CONTRACT
	BATT INSULATION	CER.	CERAMIC	NUMBER	NUMBER
	RIGID INSULATION	C.G.	CORNER GUARD	NO.	NO. 1
	EARTH	C.I.	CAST IRON	NOT TO SCALE	NOT TO SCALE
	CONCRETE	CL.G.	CEILING	O.A.	OVERALL
	MASONRY	CL.K/G.	CAULKING	OBS.	OBSCURE
	METAL	CLO.	CLOSET	O.C.	ON CENTER
	PLYWOOD	CLR.	CLEAR	O.D.	OUTSIDE DIAMETER (DIM.)
		COL.	COLUMN	O.F.C.I.	OWNER FURNISHED, CONTRACTOR INSTALLED
		CONC.	CONCRETE	O.F.O.I.	OWNER FURNISHED, OWNER INSTALLED
		CONN.	CONNECTION	OFF.	OPENING
		C.F.C.I.	CONTRACTOR FURNISHED,	OPNG.	OPPOSITE
		CONTRACTOR INSTALLED,	OWNER INSTALLED	OPP.	PLATE
		CONSTRUCTION	PRCST.	PRECAST	PLASTIC LAMINATE
		CONTINUOUS	PL.	PLASTER	PLAS.
		CORRIDOR	P.L.	PLYWOOD	PLYWD.
		CPT.	P.LAM.	PAIR.	PAIR.
		C.R.	PLASTER	PR.	PAINT
		CRACK ROLL, AND	PAPER TOWEL DISPENSER	PT.	PAPER TOWEL DISPENSER
		COLD-ROLLED	COMBINATION PAPER TOWEL	P.T.D.	COMBINATION PAPER TOWEL
		CTSK.	DISPENSER	P.T.O/R	DISPENSER AND RECEPTACLE
		CNTR.	PARTITION		PARTITION
		CTR.	PARTITION		PARTITION
		CT.	PARTITION		PARTITION
		CERAMIC TILE	PARTITION		PARTITION
		DBL.	DOUBLE	P.T.R.	PARTITION
		DEPT.	DEPARTMENT	P.T.R.	PARTITION
		DET.	DRINKING FOUNTAIN	R.	QUARRY TILE
		DIA.	DETAIL	RAD.	RADIUS
		DIM.	DIA.	R.D.	ROOF DRAIN
		DISP.	DIMENSION	REF.	REFERENCE
		DN.	DISPENSER	REF/R.	REFRIGERATOR
		D.O.	DOWN	RSTR.	REGISTER
		D.O.	DOOR OPENING	REINF.	REINFORCED
		D.S.	DOWNSPOUT	REC.	REQUIRED
		D.S.P.	DRY STANDPIPE	RES.	RESILIENT
		DWG.	DRAWING	RM.	ROOM
		DWR.	DRAWER	R.O.	ROUGH OPENING
		E.	EAST	RWD.	REDWOOD
		EA.	EACH	R.W.L.	RAIN WATER LEADER
		E.J.	EXPANSION JOINT	S.	SOUTH
		E.L.	ELEVATION	S.C.	SOLID CORE
		ELEC.	EL.	S.C.D.	SOLID COVER DISPENSER
		EMER.	EMERGENCY	SCHEDULE	SCHEDULE
		ENCL.	ENCLOSURE	SD.	SOPA DISPENSER
		E.P.	ELECTRICAL	SECT.	SECTION
		E.P.D.M.	PANELBOARD	SH.	SHELF
		EQ.	SINGLE PLY ROOF MEMBRANE	SHR.	SHOWER
		EQUIP.	EQUAL	SHEET.	SHEET
		EXST.	EQUIPMENT	SIM.	SIMILAR
		EXPO.	ELECT. WATER COOLER	S.J.D.	SOLID NAPKIN DISPENSER
		EXIST.	EXISTING	SPEC.	SPECIFICATION
		EXPOSED.	EXPOSED	SQ.	SQUARE
		EXP.	EXPANSION	STA.	STAINLESS STEEL
		EXT.	EXTERIOR	STA.	SERVICE SINK
		F.A.	FIRE ALARM	STD.	STATION
		F.B.	FLAT BAR	STD.	STANDARD
		F.D.	FLOOR DRAIN	STR.	STORAGE
		FDN.	FOUNDATION	STR.	STRUCTURAL
		F.E.	FIRE EXTINGUISHER	SUSP.	SUSPENDED
		F.E.C.	FIRE EXTINGUISHER CAB.	SYM.	SYMMETRICAL
		F.H.C.	FIRE HOSE CABINET	TREAD.	TREAD
		FIN.	FINISH	T.B.	TOWEL BAR
		FLR.	FLOOR	TEL.	TELEPHONE
		FLASH.	FLASHING	T.E.R.	TOE LINE & GROOVE
		FLUOR.	FLUORESCENT	T.G.	THICK.
		F.O.C.	FACE OF CONCRETE	THK.	TOP OF CURB
		F.O.S.	FACE OF FINISH	T.O.C.	TOP OF PAVEMENT
		F.P.R.	FACE OF STUDS	T.O.P.	TOP OF WALL
		FT.	FULL SIZE	T.V.	TELEVISION
		FTG.	FOOT OR FEET	UNFIN.	TOPICAL
		FURR.	FUFTING	UNFIN.	UNFINISHED
		FUT.	FUTURE	U.N.O.	UNFINISHED
		GA.	GAUGE	UR.	URINALS NOTED OTHERWISE
		GLAV.	GALVANIZED	VAR.	VARIES
		G.B.	GRAB BAR	V.B.	VAPOR BARRIER
		GL.	GLASS	V.C.G.	VINYL CORNER GUARD
		GND.	GROUND	VERT.	VERTICAL
		GYP.	GRADE	VEST.	VESTIBULE
		H.B.	GYPSUM	V.T.	VINYL TILE
		H.C.	HOSE BIB	W.	WET
		HDWD.	HOLLOW CORE	W.C.	WATER CLOSET
		HDWE.	HARDWOOD	WD.	WOOD
		H.M.	HARDWARE	W/O.	WITHOUT
		HORIZ.	HOLLOW METAL	WP.	WATERPROOF
		HR.	HORIZONTAL	WSCT.	WAINTSCOT
		HGT.	HOUR	WT.	WEIGHT
		I.D.	INSIDE DIAMETER (DIM.)		
		INSUL.	INSULATION		

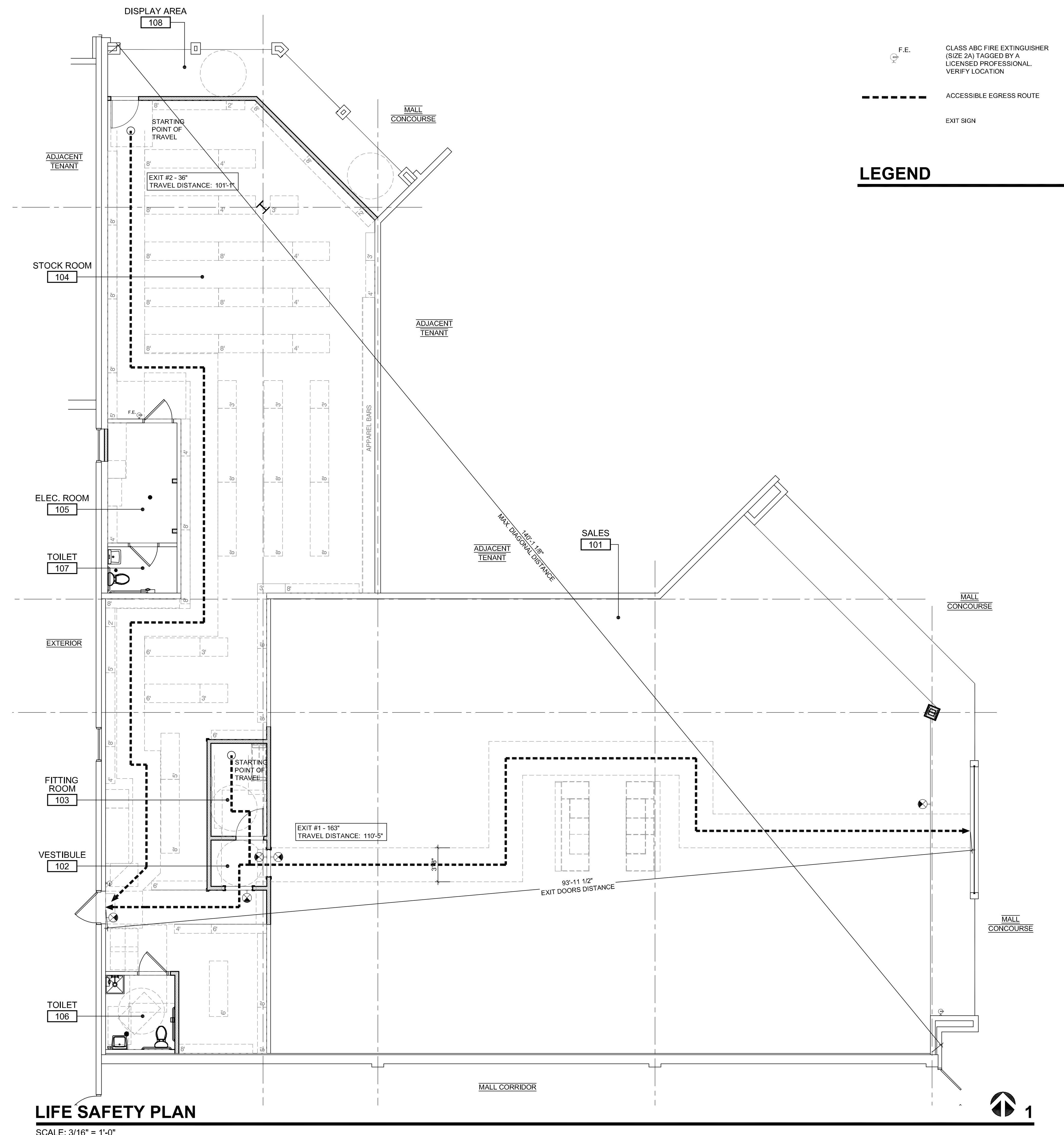
MATERIALS

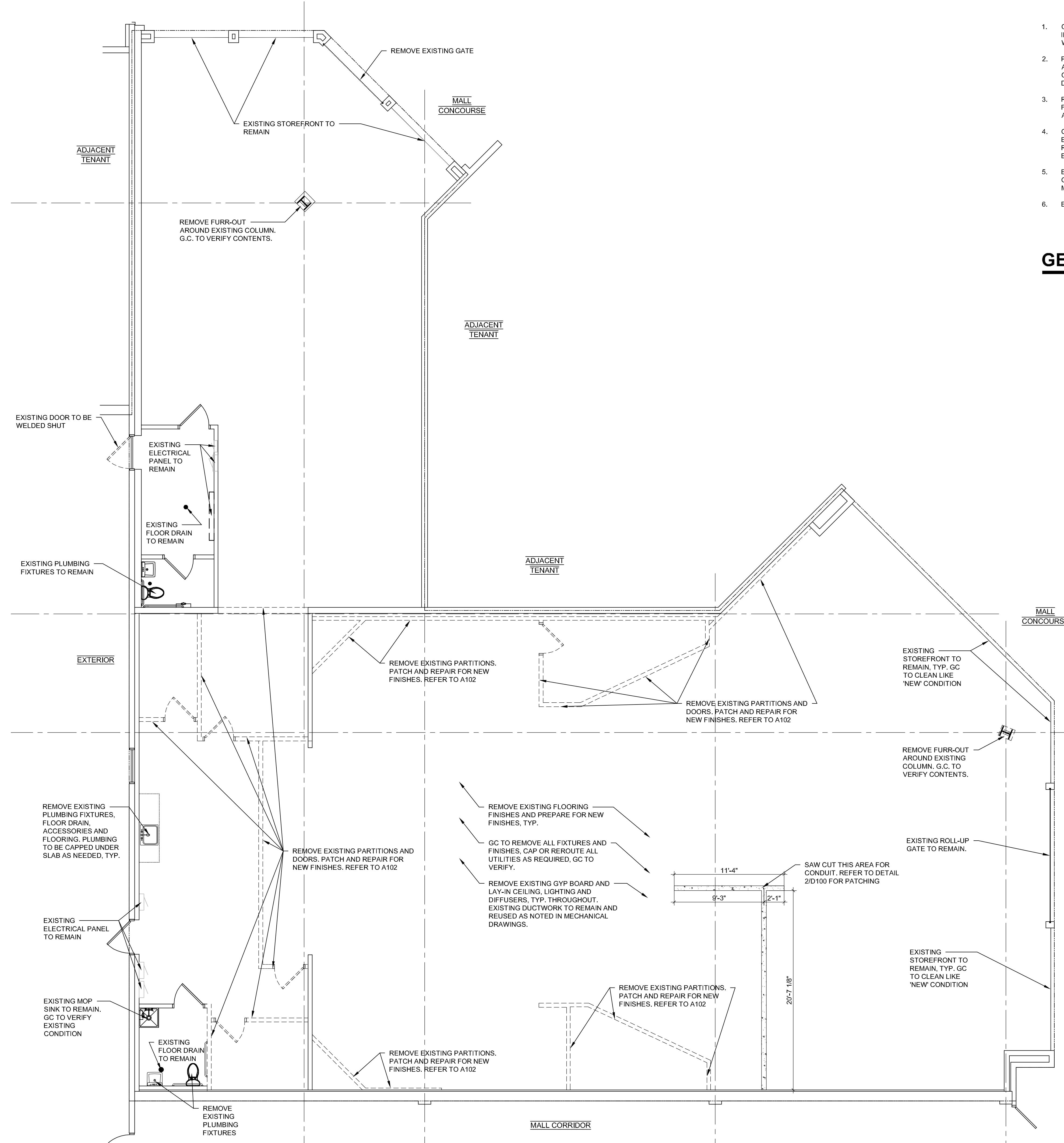
ABBREVIATIONS

BID CONSTRUCTION

1. ALL BIDS ARE PER PLANS AND SPECIFICATIONS FOR A COMPLETE SCOPE OF WORK. NO EXCLUSIONS FROM THE PLANS ARE PERMITTED. ANY EXCLUSIONS ARE REJECTED AND ASSUMED AS PART OF THE SCOPE PROVIDED THEY ARE IN THE PLANS AND SPECIFICATIONS.

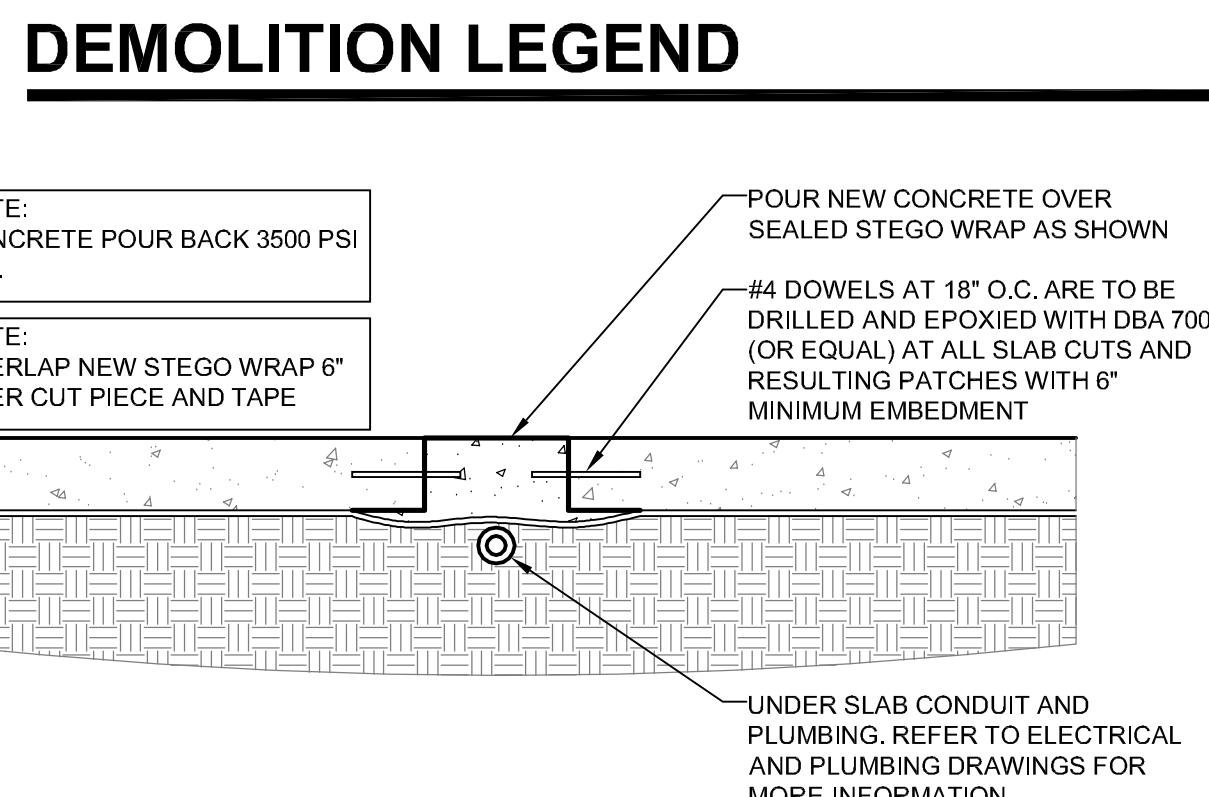
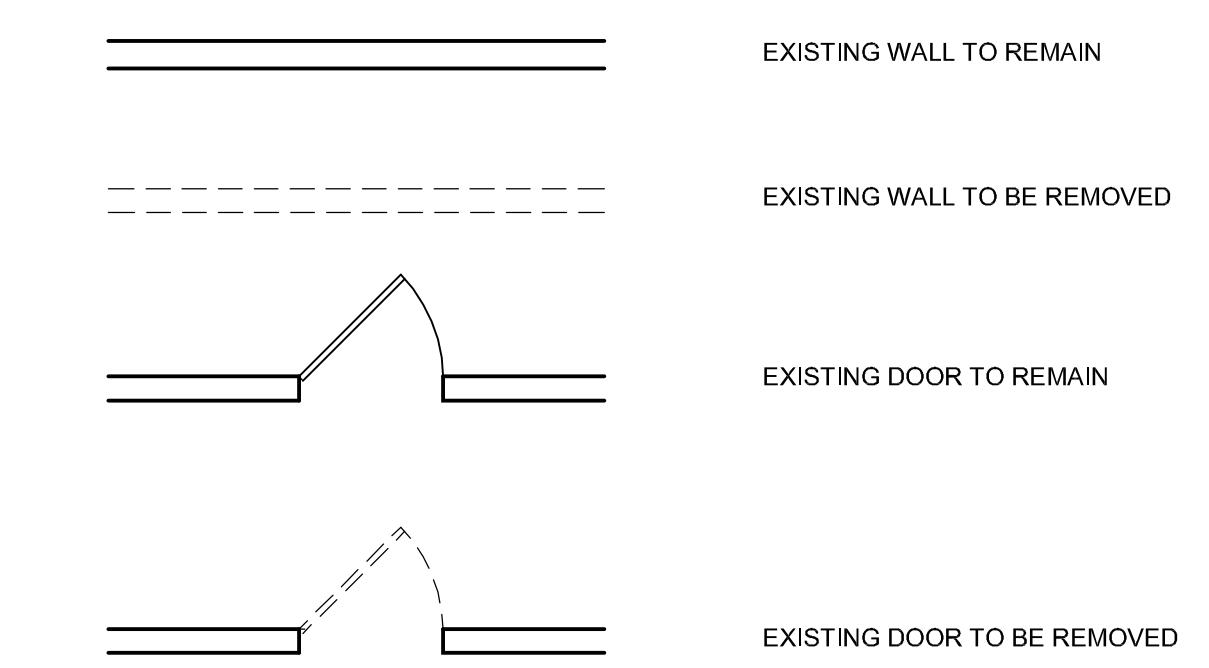
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- IT IS THE RESPONSIBILITY OF THE GENERAL CONTRACTOR TO OBTAIN THE CONSTRUCTION RULES, REGULATIONS AND REQUIRED CONTRACTORS FROM THE LANDLORD. ALL COSTS ASSOCIATED WITH THESE ARE TO BE INCLUDED IN YOUR BID.
- ALTHOUGH NOT MANDATORY, A SITE VISIT IS RECOMMENDED. MISSED BID ITEMS THAT WOULD BE CLEAR DURING A SITE VISIT WILL NOT BE ACCEPTED AS A CHANGE ORDER.
- NO ALLOWANCES ARE PERMITTED IN YOUR BID UNLESS APPROVED IN WRITING. IF AN ALLOWANCE IS PRESENT ON THE BID FORM IT WILL BE ACCEPTED AS THE FULL AND COMPLETE COST TO COMPLETE THE WORK. NO CHANGE ORDERS WILL BE ACCEPTED.
- IT IS ENCOURAGED TO VALUE ENGINEER THE PROJECT AND THIS SHOULD BE PRESENTED AS AN ALTERNATE ONLY. ALL BIDS ARE TO BE PER PLANS.
- THE SALES FLOOR IS TO BE COMPLETED BY THE SUBSTANTIAL COMPLETION DATE ON YOUR CONTRACT WHICH IS AT SIX WEEKS IN MOST CASES. SALES FLOOR COMPLETED IS DEFINED AS ALL WALL AND CEILING FINISHES, HVAC, FLOORING, DRYWALL, STOREFRONT, BLOCKING, CEILING PAINT, ELECTRICAL IN WALLS TRIMMED OUT, LIGHTS HUNG AND FUNCTIONAL. ALL ITEMS COMPLETED AND READY FOR MILLWORK INSTALLER.
- ALL STORES TURN OVER TO OPERATIONS ON A MONDAY AT 7AM AND INVENTORY ARRIVES THAT MORNING. YOUR FINAL COMPLETION DATE IS THE FRIDAY PRIOR. THIS DATE ALL PUNCH ITEMS SHOULD BE COMPLETED AND A CERTIFICATE OF OCCUPANCY ACHIEVED THE PRIOR WEEK.
- GC IS RESPONSIBLE FOR ALL COMMUNICATION AND MANAGEMENT WITH OWNERS DIRECT SUBS.
- GC IS RESPONSIBLE FOR HAVING A FORKLIFT ON SITE TO RECEIVE, INVENTORY AND UNLOAD ALL OWNER SUPPLIED ITEMS. DO NOT REQUEST A LIFT GATE FROM THE TRUCKING COMPANY.
- OWNER SUPPLIED MATERIALS ARE NOT TO BE RESCHEDULED OR TURNED AWAY WITHOUT APPROVAL FROM SHOE PALACE IN WRITING.
- ALL FIRE ALARM PLANS AND SPRINKLER PLANS ARE TO BE SUBMITTED TO THE CITY WITH 7 BUSINESS DAYS OF COMMENCEMENT.
- GC IS RESPONSIBLE FOR ANY THIRD PARTY INSPECTIONS THAT MAY BE REQUIRED.
- GC IS RESPONSIBLE FOR ANCHORING STOCK ROOM SHELVING. SHELVES BY SP, ANCHORS BY GC. THIRD PARTY INSPECTION BY GC AT GC COST.
- GC TO SUPPLY AND INSTALL THREE SHELVES AT STOCKROOM VESTIBULE FOR AUDIO AND CAMERA EQUIPMENT.
- SHOE PALACE TO SUPPLY ALL LIGHT FIXTURES AND EMERGENCY LIGHTS. ALL GEAR, CONDUIT, WIRING ETC. BY GC.
- SHOE PALACE TO SUPPLY ALL LIGHT FIXTURES AND EMERGENCY LIGHTS. ALL GEAR, CONDUIT, WIRING ETC. BY GC.
- SHOE PALACE TO SUPPLY ALL FLOORING.
- SITE IS TO BE SECURED AT ALL TIMES.
- NO EATING OR SMOKING IS PERMITTED ON THE JOBSITE AT ANY TIME.
- THE JOBSITE GC IS TO PROVIDE THE COST OF THE BARRICADE AS AN ALTERNATE. INCLUDE THE COST OF THE GRAPHIC.
- GC TO INVENTORY ALL OWNER SUPPLIED MATERIAL AND REPORT ANY ISSUES WITHIN 24 HOURS. ISSUES OTHER THAN CONCEALED DAMAGES, WILL BECOME THE COST RESPONSIBILITY OF THE GC IF NOT REPORTED WITHIN 24 HOURS OF RECEIPT.
- ALL EXISTING CEILING OBSTRUCTIONS, PIPE, DUCT, ETC ARE TO BE BROUGHT ABOVE 12' TO ENSURE CLEARANCES FOR NEW LIGHTS, DUCT AND MILLWORK.
- HVAC UNITS ARE TO BE SUPPLIED AND INSTALLED BY GC - HVAC UNITS TO BE PURCHASED UNDER NATIONAL ACCOUNTS WHERE POSSIBLE - FOR CARRIER MARY BETH KOWLASKI 315-432-7054 MARYBETH.KOZLOWSKI@CARRIER.UTC.COM- HVAC UNITS ARE TO BE ORDER ON OR BEFORE DAY ONE OF THE PROJECT. IF LEAD TIMES ARE LONGER THAN PROJECT REQUIREMENTS, GC IS TO SUPPLY IMMEDIATE ALTERNATES TO ENSURE PROJECT COMPLETION.
- STORE SHOULD BE FINAL CLEANED IN TIME FOR PUNCH AND THEN A MINOR "FLUFF" BEFORE OPERATIONS TAKES OVER.
- GC TO INCLUDE THREE DUMPSTERS FOR MILLWORK.
- PROVIDE A DETAILED SCHEDULE ONCE AWARDED WITH ORDER AND SHIP DATES FOR GC SUPPLIED MATERIALS.
- THIS PROJECT SCOPE HAS BOTH INTERIOR AND EXTERIOR WORK. PATCHING OF WALLS AFTER BARRICADE REMOVAL IF BY GC.
- GC SUPER MUST HAVE THE ABILITY TO EMAIL, SCAN, AND PRINT DOCUMENTS FROM SITE.
- WORKING DWGS ON SITE MUST BE ACCESSIBLE AT ANYTIME TO ALL TRADES
- APPROVED PROJECT SCHEDULE TO BE POSTED ON SITE.
- JOB SITE MUST BE 100% CLEANED UP AND SECURED DAILY.
- GC SUPER TO REMAIN ON SITE THROUGH PUNCH LIST COMPLETION, RECEIPT





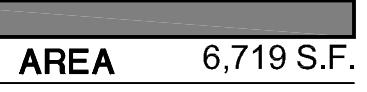
1. COORDINATE ALL REQUIRED CORE BORING OR TRENCHING IN EXISTING SLAB WITH LANDLORD PRIOR TO COMMENCING WORK.
2. PATCH AND REPAIR CONCRETE SLAB AND DEMISING WALLS AS REQUIRED FOR PAINTING. PATCH DIVOTS AND HOLES IN CONCRETE SLAB. G.C. TO MAINTAIN REQUIRED RATINGS AT DEMISING WALLS.
3. REMOVE ANY EXISTING PARTITIONS AS SHOWN OR NEEDED FOR NEW CONSTRUCTION. REMOVE EXISTING FURNISHINGS AND FIXTURES UNLESS NOTED OTHERWISE.
4. G.C. TO TAKE NECESSARY PRECAUTION TO PROTECT EXISTING FINISHES. ANY DAMAGE INCURRED WILL BE THE RESPONSIBILITY OF THE G.C. TO REPAIR/ REPLACE AT NO EXPENSE TO THE TENANT OR LANDLORD.
5. EXISTING SUPPLY GRILLES, HVAC DUCT WORK, RETURN AIR GRILLES, ETC., TO REMAIN U.N.O. TYP. REFER TO MECHANICAL FOR DUCTING TO BE REMOVED.
6. EXISTING FIRE SPRINKLER SYSTEM TO REMAIN.
7. THE EXISTING FIRE ALARM SYSTEM IS TO BE REMAIN. THE G.C. IS RESPONSIBLE FOR PROTECTING THE SYSTEM DURING CONSTRUCTION. DAMAGE TO THE FIRE ALARM SYSTEM DUE TO INADVERTENT DEMOLITION OR AS A RESULT OF THE NEW CONSTRUCTION WILL BE THE RESPONSIBILITY OF THE G.C. ANY TESTING OR INSPECTIONS OF THE FIRE ALARM SYSTEM AS A RESULT OF THIS WORK WILL BE THE RESPONSIBILITY OF THE G.C. COORDINATE WITH RETAIL CENTER MANAGEMENT.
8. REMOVE ALL EXISTING FLOOR FINISHES IN THEIR ENTIRETY. REMOVE ALL THIN SET, GROUT, ADHESIVES ETC. SAND CONCRETE FINISH SMOOTH AND PREPARE CONCRETE FOR NEW FLOOR FINISHES AS SCHEDULED.
9. REMOVE EXISTING TILE/CARPET/VCT FLOOR FINISH, ADHESIVES AND ANY PROTRUDING ELEMENTS, UNLESS OTHERWISE NOTED. FILL LINE/NEV AREAS. PROVIDE LEVELING CONCRETE WHERE REQUIRED, GRIND SMOOTH. PREP FLOOR AS REQUIRED FOR INSTALLATION OF NEW FLOORING, TYP. THROUGHOUT.
10. REMOVE EXISTING SALES AREA DISPLAY FIXTURES/ASSEMBLIES INCLUDING ALL ASSOCIATED WIRING, ETC. PATCH AND REPAIR ADJACENT SURFACE AND PREPARE TO RECEIVE NEW FINISHES, TYP.

GENERAL DEMOLITION NOTES



FLOOR SLAB PATCH DETAIL

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

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GROSS AREA 6,719 S.F.

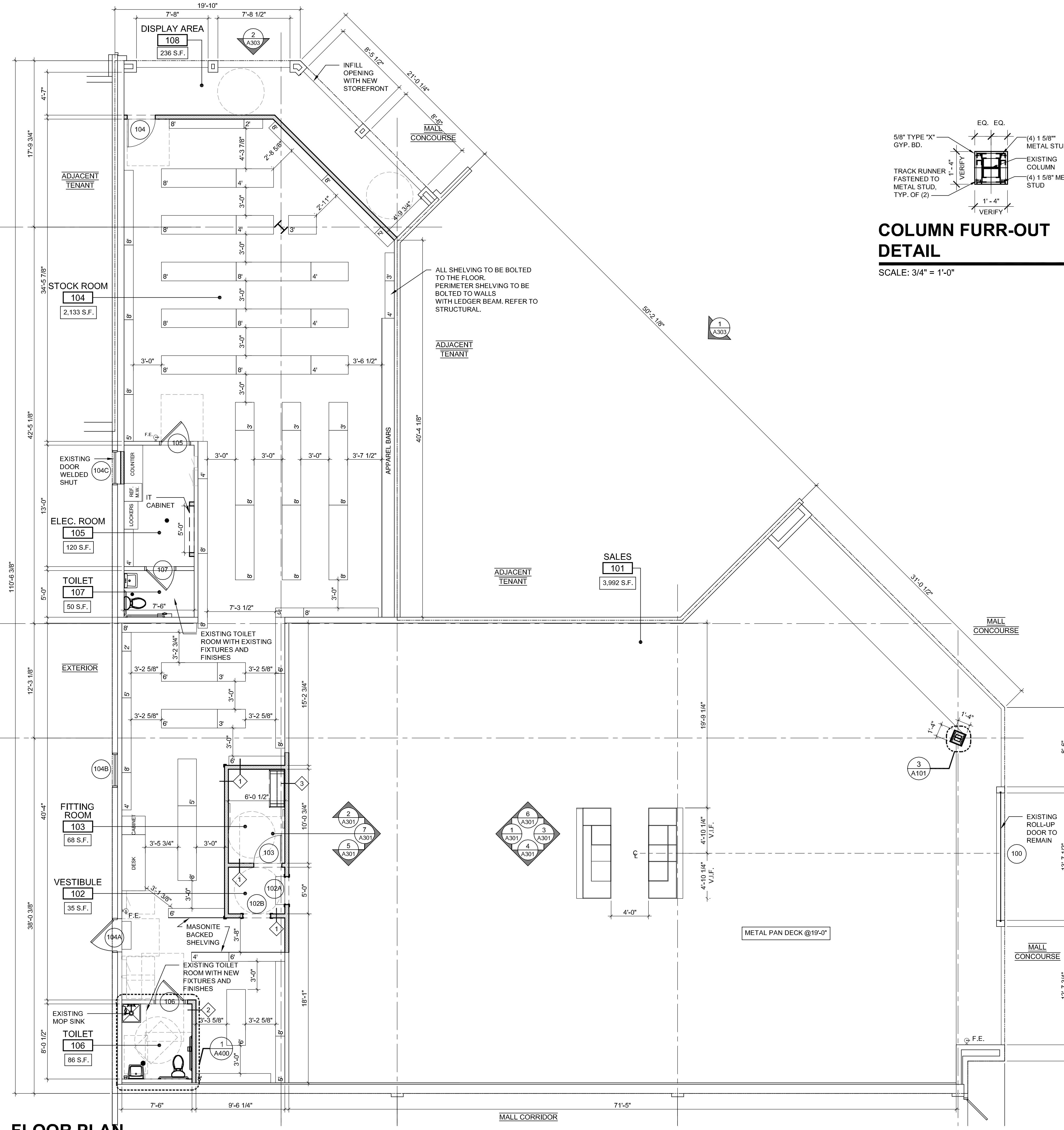
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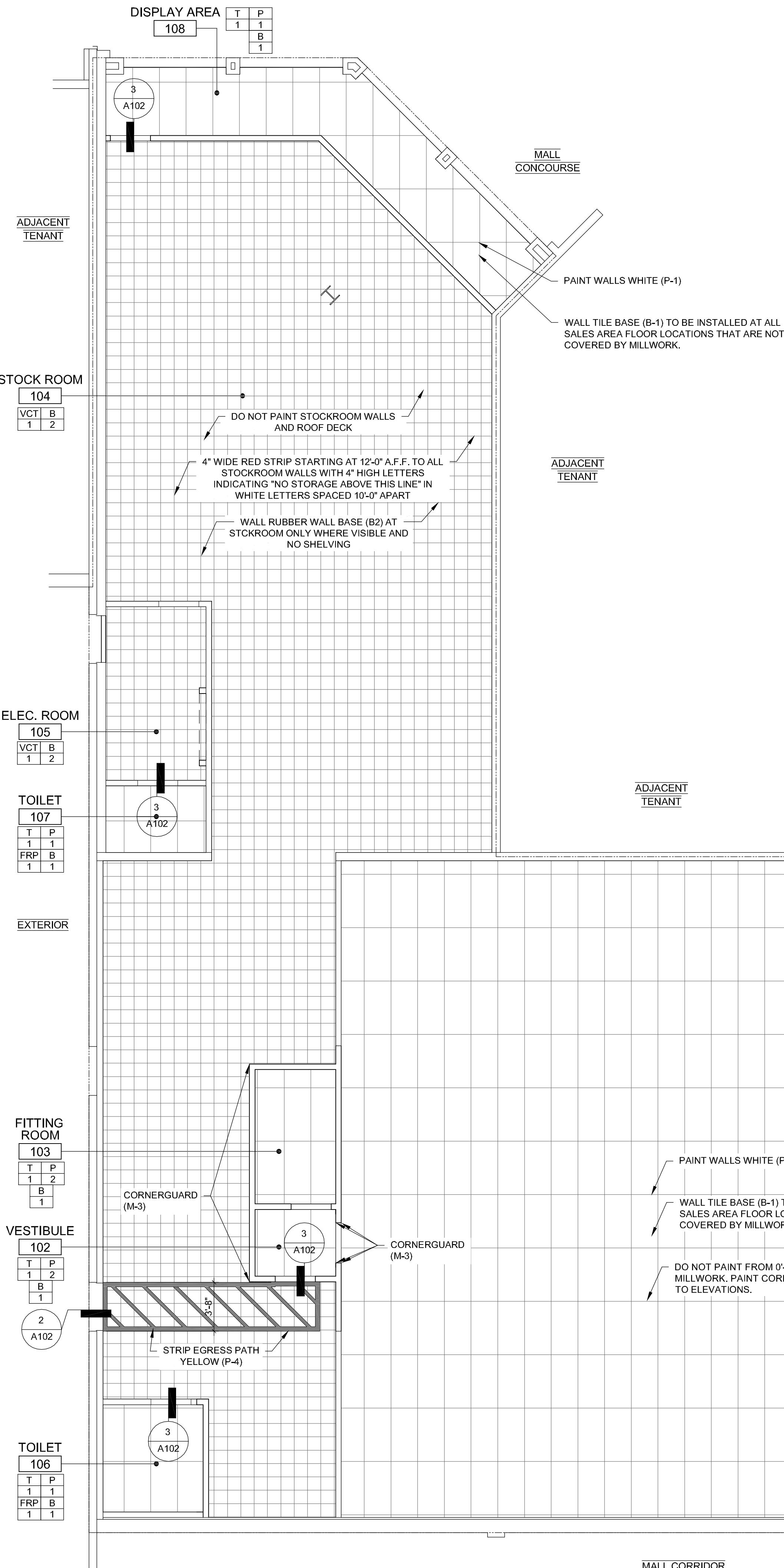
SHEET TITLE:
**DEMOLITION
PLAN**

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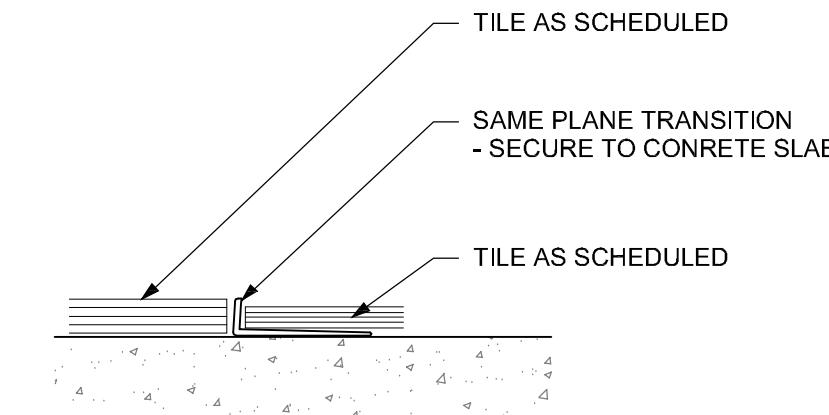
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FINISHES NOTES:
 · VERIFY ALL FINISH MATERIALS WITH OWNER
 · SUBMIT FINISH MATERIAL SAMPLES TO THE ARCHITECT AND LANDLORD (TENANT COORDINATOR) FOR APPROVAL
 · ALL CHANGES IN FLOOR MATERIAL SHALL OCCUR AT THE MIDDLE OF DOOR
 · PROVIDE GYPSUM BOARD LEVEL 3 FINISH THROUGHOUT
 · ALLOW FOR REASONABLE TOUCH-UP FOLLOWING RECEIPT OF MERCHANDISE.
 · LEAVE A QUART OF EACH PAINT COLOR ON SITE.
 · SEE INTERIOR ELEVATIONS FOR FURTHER INFORMATION.
 · THE THICKNESS AND QUALITY OF FINISHES SHALL BE A MINIMUM OF CLASS B.
 · ALL WOOD TRIMS SHALL BE CLASS C RATED
 · ALL ELECTRICAL SWITCHES, SWITCH PLATES, CONVENIENCE OUTLETS, TELEPHONE JACKS, ETC. SHALL MATCH ADJACENT WALL FINISHES.
 · PROVIDE TRANSITION STRIP AT CHANGE OF MATERIAL LINE PER DETAILS.
 · NO PAINT AT STOCK ROOM
 · BASE APPLIED TO VISIBLE WALLS ONLY (WITHOUT FIXTURES/SHELVING)
 · PATCH AND REPAIR EXISTING DRYWALL SURFACE TO BE READY TO ACCEPT FINAL FINISHES
PAINT GENERAL NOTES:
 1. PROVIDE A MINIMUM OF 1 COAT PRIMER AND 2 COATS OF FINISH.
 2. PAINT ON WALLS AND CEILING IN RESTROOM TO BE A SMOOTH (NOT TEXTURED OR ROUGH) AND EASILY CLEANABLE FINISH.
 3. USE METAL PAINT ON HM DOORS & FRAMES



TILE TO TILE 4

SCALE: 12" = 1'-0"

EXISTING CERAMIC TILE

CERAMIC TILE TO VCT TRANSITION

VINYL COMPOSITE TILE AS SCHEDULED

CONCRETE FLOOR SLAB



FINISH LEGEND

TILE TO VCT 3

SCALE: 12" = 1'-0"

THRESHOLD AS SPECIFIED

POLISHED CONCRETE AS SCHEDULED

CONCRETE FLOOR SLAB

THRESHOLD 2

SCALE: 12" = 1'-0"

SYMBOL	ITEM	MFR.	DESCRIPTION	REMARKS
FRP-1	FIBERGLASS REINF. PLASTIC		SIZE: 4" HIGH WITH CAP TRIM IN RESTROOMS ALL WALLS COLOR: GRAY	INSTALL ABOVE BASE
M-3	CORNERGUARD		3" x 3" x 7'-0" H. MIN. 14 GA STAINLESS STL. SCREW-LESS	MOUNT WITH COUNTERSUNK STAINLESS STEEL SCREWS
P-1	PAINT	SHERWIN WILLIAMS	COLOR: SW7006 EXTRA WHITE. FINISH: SEMI GLOSS IN RESTROOMS, EGGSHELL AT ALL OTHER LOCATIONS	
P-2	PAINT	SHERWIN WILLIAMS	COLOR: SW7659 GRIS. FINISH: EGGSHELL IN FITTING ROOM, AT RESTROOM DOORS ALL SIDES.	
P-3	PAINT	RAL	COLOR: 3002, CARMINE RED	
P-4	PAINT	SHERWIN WILLIAMS	COLOR: SW4084 SAFETY YELLOW	
B-1	TILE BASE		SIZE: 6" HIGH TILE BASE TO MATCH FLOOR TILE	TV WALL, HAT WALL, WHERE VISIBLE AND WHERE MILLWORK IS NOT INSTALLED. GC TO CONFIRM w/ SP CM
B-2	RUBBER COVE BASE	BURKE	SIZE: 1/8" x 4" COLOR: 204 GRAY	INSTALL BASE WHERE VISIBLE. TO BE INSTALLED AFTER FIXTURES/SHELVINGS ARE INSTALLED. GC TO COORDINATE W/ MILLWORK VENDOR. STOCKROOM ONLY. - PROHIBITED FINISHES: SALES AREA: VINYL BASE, RUBBER BASE, OR LANDLORD DEEMED LOW QUALITY MATERIAL OR NON-COMMERCIAL RATED MATERIAL
T-1	TILE	SOMERTILE CONFIRM W/ SPCM	SIZE: 24" x 48" CERAMIC TILE. NON-SLIP SURFACE. "GREY" 16". GROUT 1/16". PRE-SEALING, AQUAMIX ULTRA-SOV SEALER.	GROUT: CUSTOM BUILDING PRODUCTS, TYP. GC TO CONFIRM w/ SP CM
VCT-1	VINYL TILE	ARMSTRONG	ARMSTRONG STD. EXCELON, IMPERIAL TEXTURE SIZE: 12"x12"x1/8", COLOR: 51903 BLUE GRAY	PROTECT DURING SHELF INSTALLATION AND CLEAN AFTER SHELF INSTALLATION TO THE SATISFACTION OF SHOE PALACE.
MT-1	METAL PANEL AT STOREFRONT		METAL PANEL FINS PROVIDED BY SHOE PALACE INSTALLED BY GC	METAL PANEL FINS PROVIDED BY SHOE PALACE INSTALLED BY GC

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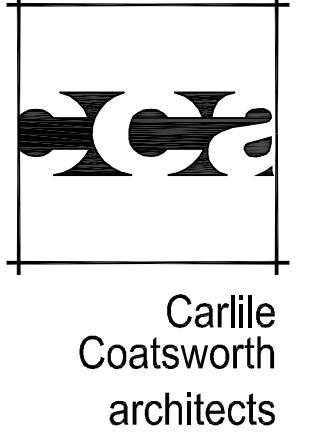
REVISIONS:

City of Puyallup Development & Permitting Services ISSUED PERMIT
 Building Planning
 Engineering Public Works
 Fire Traffic

SHEET TITLE:
FINISH PLAN

SHOE PALACE
 SOUTH HILL MALL
 SPACE 410 & 420
 3500 S MERIDIAN
 PUYALLUP, WA 98373
 PRCTI20240836

A102



Carlile
Coatsworth
architects

18600 MacArthur Boulevard
Suite 300
Irvine, California 92612
949.833.1930
www.ccarchitects.com

DISPLAY AREA (N) GYP. 11'-0" P-1

SET TRACK LIGHTS AT 5000K

STOCK ROOM 104 OPEN 16'-10"

ELEC. ROOM 105 OPEN 16'-10"

TOILET 107 (E) GYP. 7'-0"

EXTERIOR

FITTING ROOM 103 (N) GYP. 10'-0" P-1

VESTIBULE 102 OPEN 19'-0"

TOILET 106 (E) GYP. 8'-0" P-1

MALL CONCOURSE

ADJACENT TENANT

ADJACENT TENANT

SALES 101 OPEN 19'-0" P-3

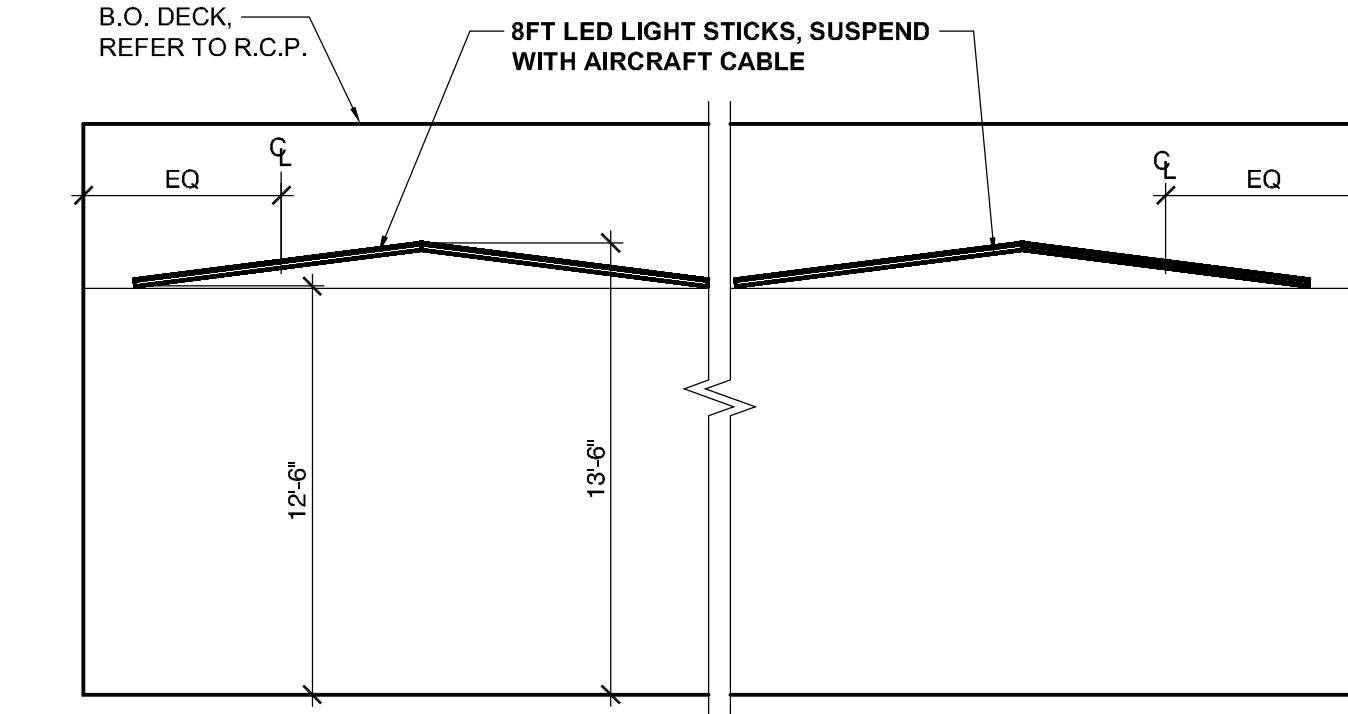
SET TRACK LIGHTS AT 5000K

SET TRACK LIGHTS AT 5000K

CONFIRM EXACT LOCATION OF ALL TRACK LIGHTING WITH SPCM BEFORE INSTALL, TYP.

KEY LEGEND

- LT1 1'x4' FLAT PANEL LED FLUSH MOUNT
- LT2 2'x2' TROFFER LIGHT B.O. LIGHT @12'-6"
- LT2-EM 2'x2' TROFFER LIGHT, EMERGENCY B.O. LIGHT @12'-6" CONNECT TO 90 MINUTE BATTERY BACK-UP
- LT3 8' LED LIGHT B.O. LIGHT @12'-6"
- LT3-EM 8' LED LIGHT, EMERGENCY B.O. LIGHT @12'-6" CONNECT TO 90 MINUTE BATTERY BACK-UP
- LT4 6" RECESSED CAN LIGHT
- NEW GYP. BD. CEILING
- EXISTING GYP. BD. CEILING
- EXIT SIGN
- SP SPEAKER: SONY SS-B3000
- △ TRACK LIGHT
- TRACK @12'-6"

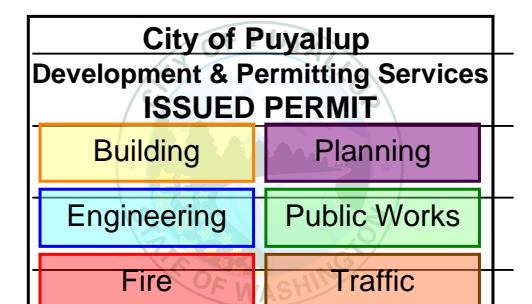


SALES LIGHT FIXTURES

SCALE: 3/16" = 1'-0"

PROJECT NO.	24068
DATE:	05/20/2024
DRAWN BY:	AL/LH/AC
SCALE:	AS NOTED
FILE:	
GROSS AREA	6,719 S.F.

REVISIONS:



SHEET TITLE:
REFLECTED
CEILING PLAN

ALL
20
AN
8373

SHOE PAL
SOUTH HILL MALL
SPACE 410 & 420
3500 S MERIDIAN
PUYALLUP, WA 98373

PRCTI20240836

A201

REFLECTED CEILING PLAN

SCALE: 3/16" = 1'-0"

MALL CORRIDOR

MALL CORRIDOR
SET TRACK LIGHTS AT 5000K
CONFIRM EXACT LOCATION OF ALL TRACK LIGHTING WITH SPCM BEFORE INSTALL, TYP.
SET TRACK LIGHTS AT 3000K

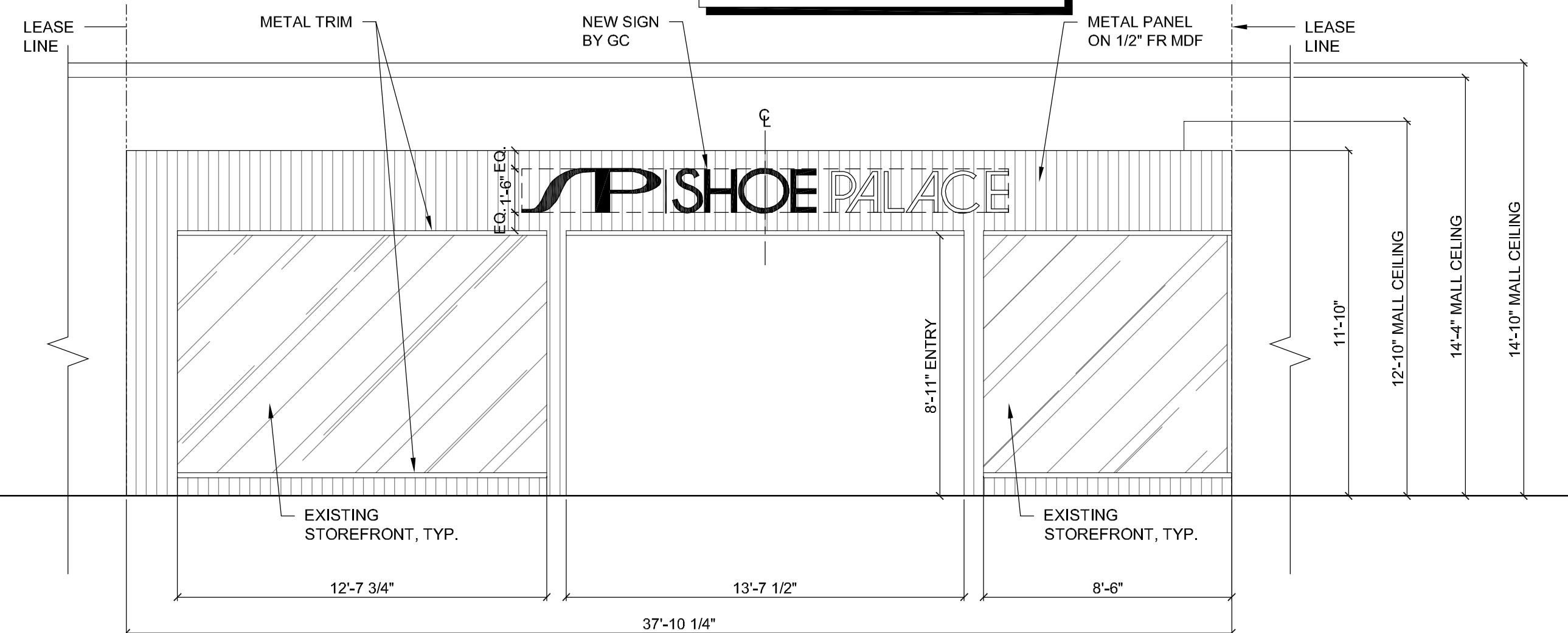


EXISTING STOREFRONT

5

SCALE: N.T.S.

NOTE:
SIGNAGE SHOWN FOR REFERENCE ONLY AND
SUBMITTED UNDER A SEPARATE PERMIT.
SIGNAGE CONTRACTOR TO SUBMIT SHOP
DRAWINGS TO LL FOR APPROVAL. GC TO
PROVIDE REQUIRED POWER, BLOCKING,
SUPPORT, INSTALLATION TO ALL INTERIOR
AND EXTERIOR SIGNAGE.



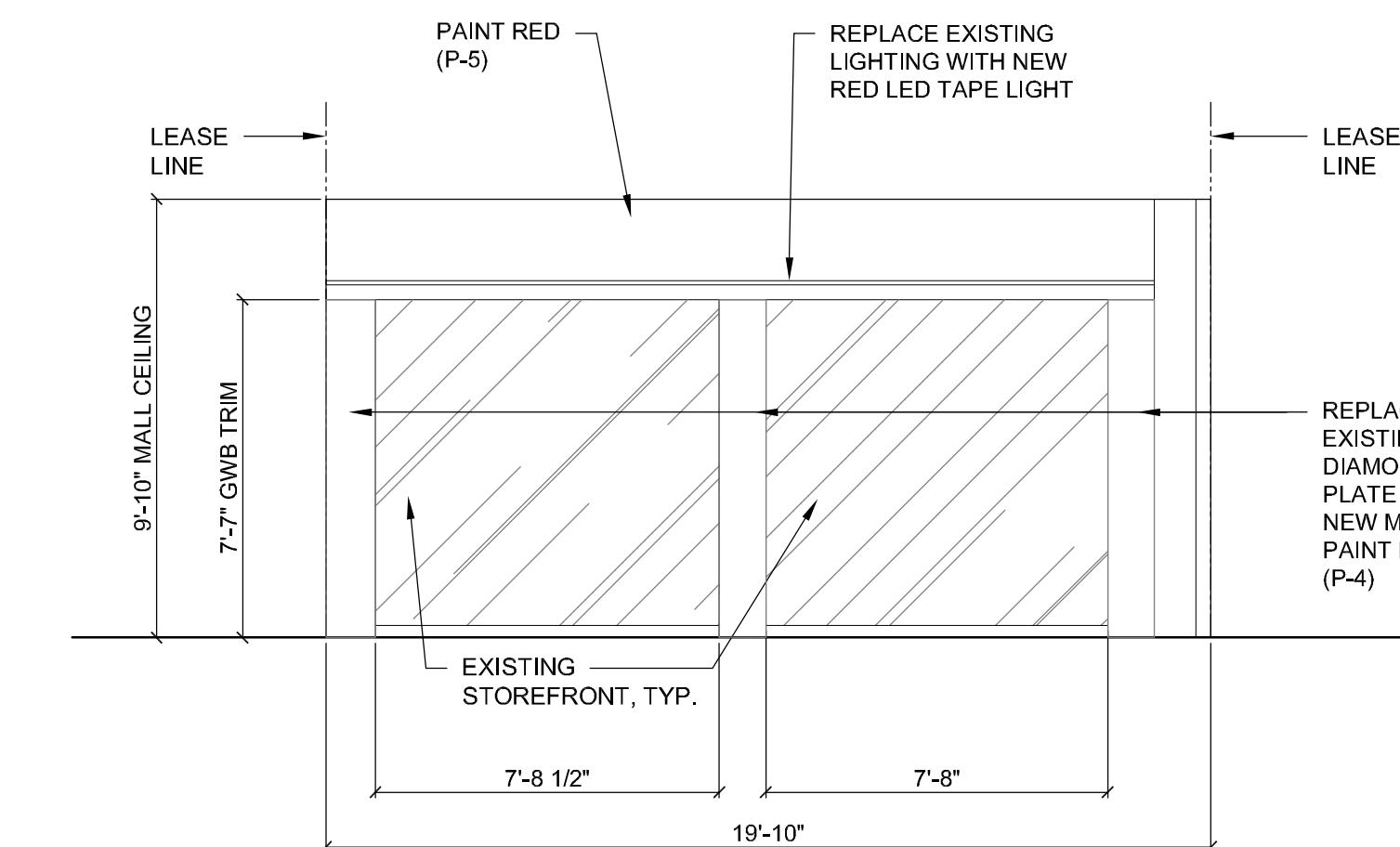
STOREFRONT ELEVATION

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

EXISTING STOREFRONT

4

SCALE: N.T.S.



STOREFRONT ELEVATION

2

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

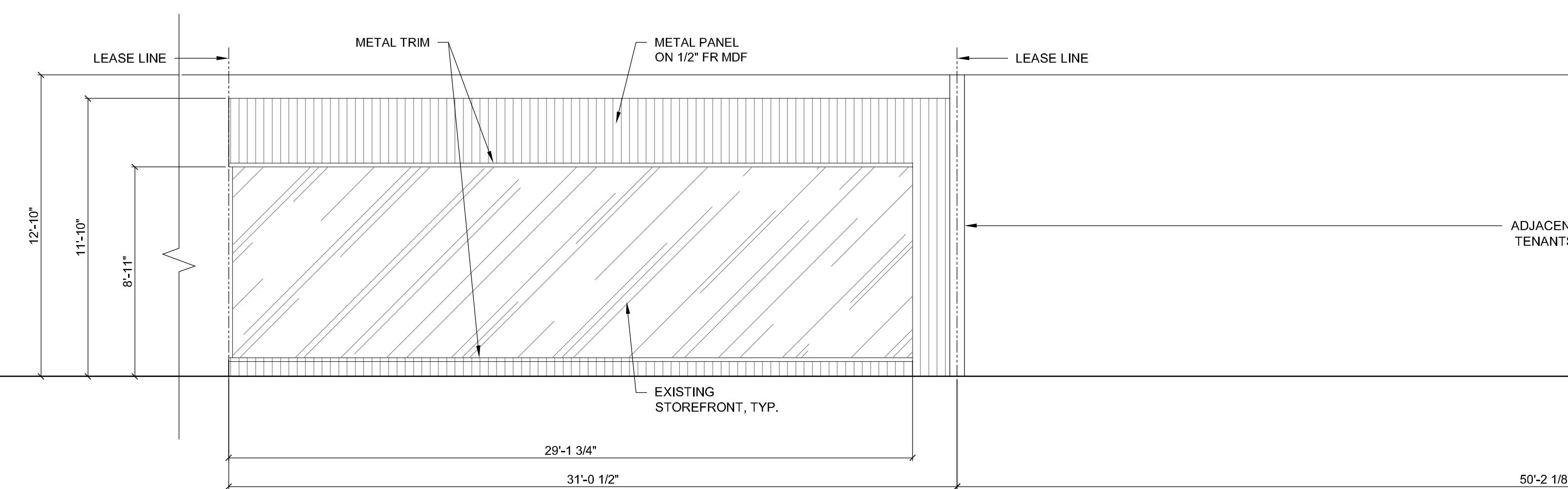
PROJECT NO. 24068
DATE: 05/20/2024
DRAWN BY: AL/LH/AC
SCALE: AS NOTED
FILE:

GROSS AREA 6,719 S.F.

REVISIONS:

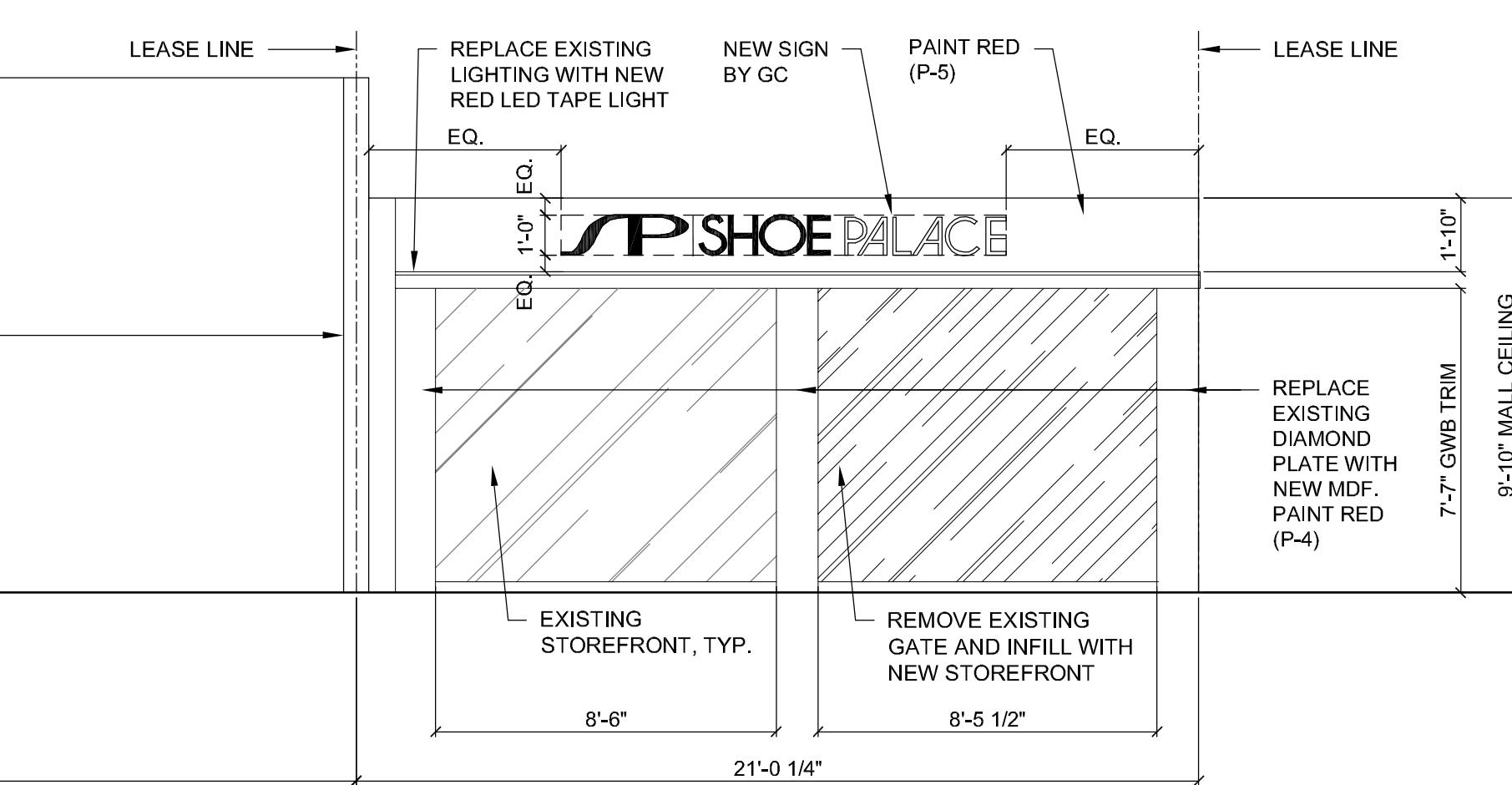
City of Puyallup
Development & Permitting Services
ISSUED PERMIT
Building Planning
Engineering Public Works
Fire Traffic

SHEET TITLE: STOREFRONT ELEVATIONS



STOREFRONT ELEVATION

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



A303

SHOE PALACE
SOUTH HILL MALL
SPACE 410 & 420
3500 S MERIDIAN
PUYALLUP, WA 98373

PRCTI20240836

- ALL DOOR HARDWARE SHALL COMPLY WITH FEDERAL AND STATE ACCESSIBILITY REQUIREMENTS.
- ALL DOORS TO BE EQUIPPED W/ LEVER TYPE HANDLES OR PUSH BARS CAPABLE OF OPERATION W/ ONE HAND & SHALL NOT REQUIRE TIGHT GRASPING, TIGHT PINCHING, OR TWISTING OF THE WRIST TO OPERATE.
- THE FORCE REQUIRED TO OPERATE ANY DOOR SHALL BE MAXIMUM 5 LBS FOR EXTERIOR DOORS AND 5 LBS FOR INTERIOR DOORS.
- MOUNTING HEIGHTS OF ALL HARDWARE SHALL BE 34 INCHES MINIMUM AND 44 INCHES MAXIMUM ABOVE THE FINISH FLOOR OR GROUND.
- SEE PLAN FOR DIRECTION OF SWING.
- ALL DOORS DESIGNATED "EXIT" SHALL BE OPERABLE FROM THE INSIDE WITHOUT THE USE OF ANY SPECIAL KNOWLEDGE OR EFFORT.
- ALL EXPOSED DOOR & FRAME RECESSES (INCLUDING STRIKE PLATES) ARE TO BE FINISHED TO MATCH DOOR OR FRAME FINISH - NO UNFINISHED EXPOSED SURFACES PERMITTED.
- TGC TO SUBMIT MANUF. CUT SHEETS FOR REVIEW/APPROVAL PRIOR TO ORDERING.
- TGC SHALL FURNISH AND INSTALL ALL DOORS COMPLETE WITH ALL HARDWARE AS REQUIRED BY CODE AND/OR SPECIFIC INSTALLATION UNLESS NOTED OTHERWISE.
- IN CASE OF DEMOLITION, ALL HARDWARE ON EXISTING DOORS TO REMAIN SHALL BE REPLACED AS SPECIFIED ON SCHEDULE OR DRAWINGS, UNLESS NOTED OTHERWISE.
- ALL COMPONENTS OF FIRE RATED DR. ASSEMBLIES SHALL BEAR THE LABEL OF AN APPROVED TESTING AGENCY.
- RATED DOORS SHALL BE A TIGHT FITTING SMOKE AND DRAFT CONTROL ASSEMBLY.
- PROVIDE A SIGN ABOVE ALL EXITS FROM THE PREMISES TO READ "THIS DOOR TO REMAIN UNLOCKED WHEN THE BUILDING IS OCCUPIED." LETTERS SHALL BE AT LEAST 1" HIGH AND SHALL BE WHITE ON A CONTRASTING BACKGROUND MOUNTED AT HEAD OF DOOR.
- ALL HARDWARE FINISHES TO BE SATIN CHROME 626 / US26D U.N.O.
- LEVER HANDLE DOOR HARDWARE. THE LEVER OF LEVER ACTUATED LATCHES OR LOCKS SHALL BE CURVED WITH A RETURN TO WITHIN 1/2" INCH OF THE DOOR TO PREVENT CATCHING ON THE CLOTHING OF PERSONS DURING EGRESS.
- DOOR CLOSERS SHALL BE ADJUSTED SO THAT FROM AN OPEN POSITION OF 90 DEGREES, THE TIME REQUIRED TO MOVE THE DOOR TO A POSITION OF 12 DEGREES FROM THE LATCH IS 5 SECONDS MINIMUM.

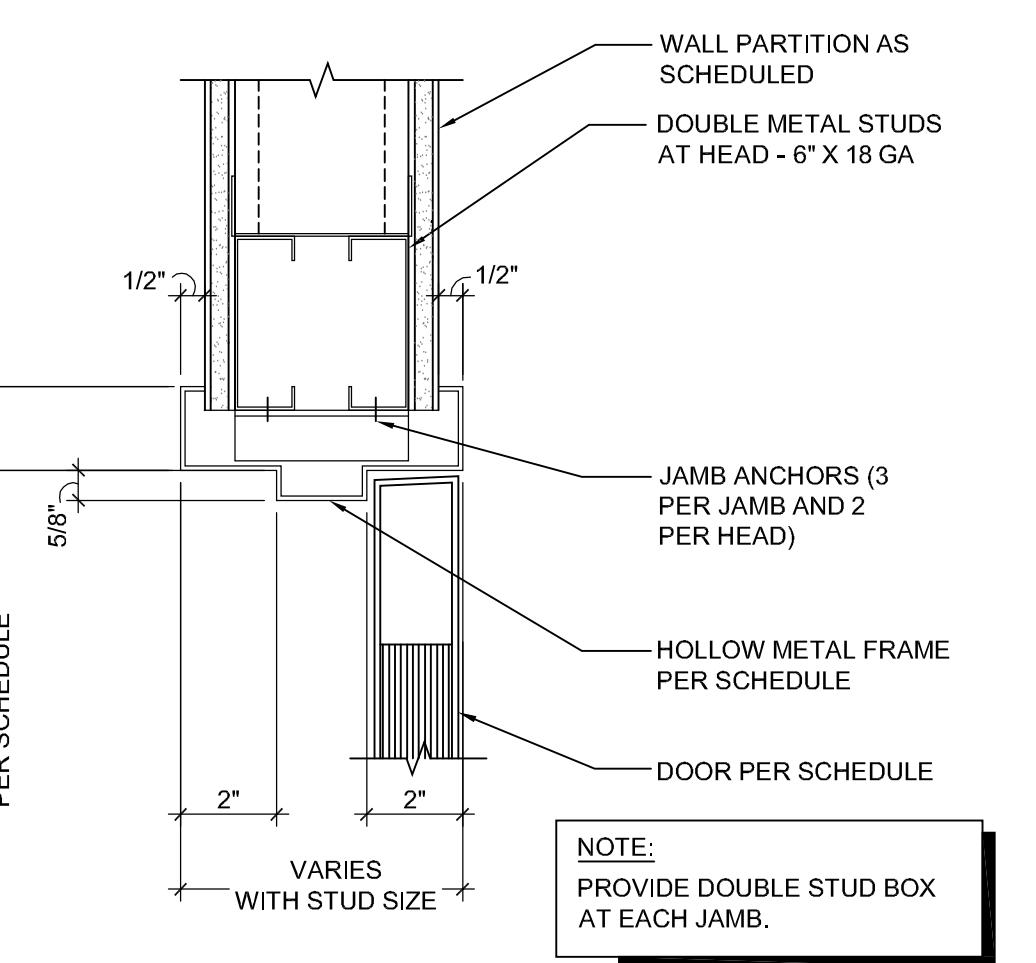
DOOR & HARDWARE NOTES

PROJECT NO.	24068
DATE:	05/20/2024
DRAWN BY:	AL/LH/AC
SCALE:	AS NOTED
FILE:	
GROSS AREA	6,719 S.F.

REVISIONS:	

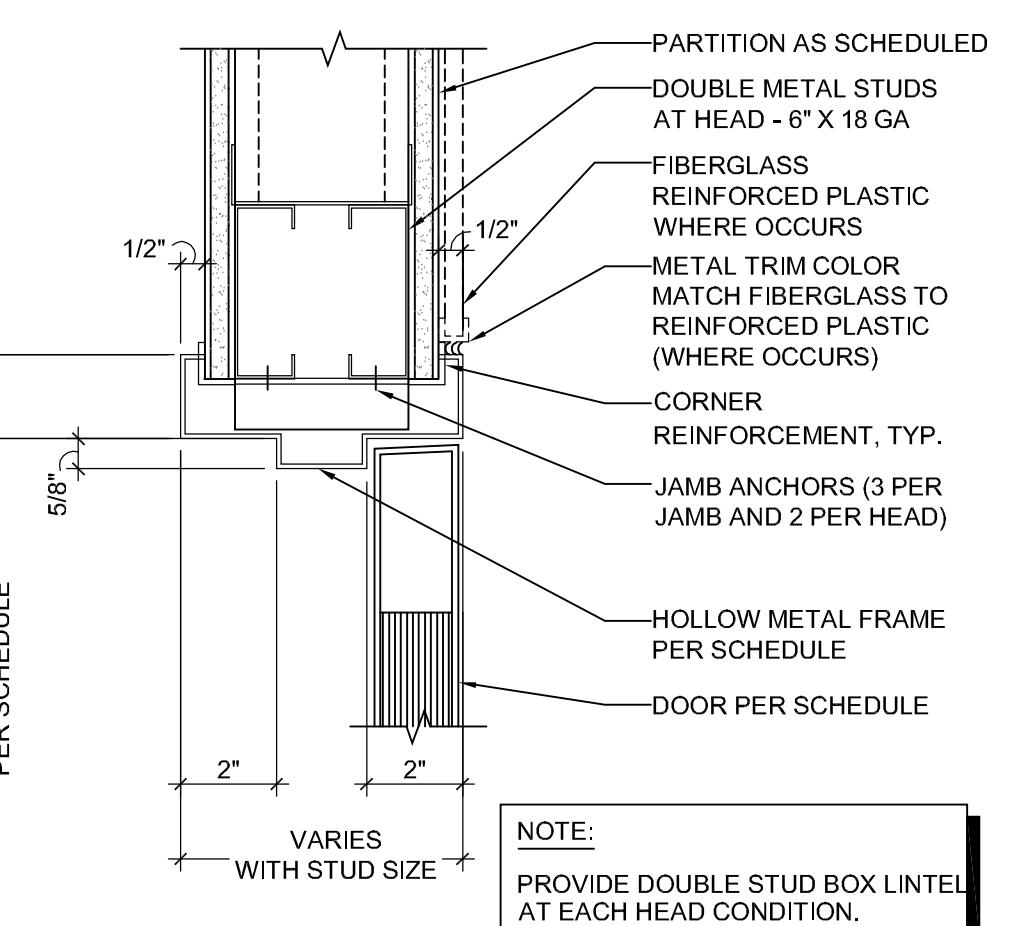
City of Puyallup Development & Permitting Services ISSUED PERMIT	
Building	Planning
Engineering	Public Works
Fire	Traffic

SHEET TITLE: DETAILS AND SCHEDULES	



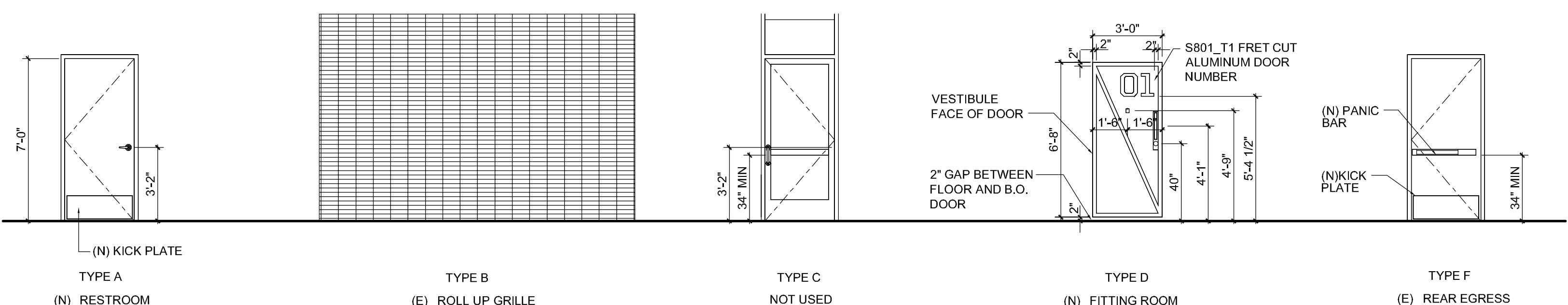
DOOR HEAD

SCALE: 3" = 1'-0"



DOOR JAMB

SCALE: 3" = 1'-0"



DOOR TYPES

DOOR SCHEDULE

DOOR #	NAME	(N) OR (E)	SIZE	MATERIAL	TYPE	FINISH	FRAME MATERIAL	FRAME FINISH	HARDWARE	REMARKS
100	ENTRY ROLL-UP GRILLE	(E)	13'-7 1/2" X 8'-11"	AL	B		AL		1	G.C. TO COORDINATE WITH SPCM FOR REPLACEMENT OF EXISTING CYLINDER LOCKS
102A	VESTIBULE	(N)	3'-0" X 7'-0"	-	-	-	-	-	-	OPENING
102B	VESTIBULE	(N)	3'-0" X 7'-0"	-	-	-	-	-	-	OPENING
103	FITTING ROOM	(N)	3'-0" X 7'-0"	HM	D	P-1	AL	P-3	3	WITH SIGNAGE, FOIO @5'-0" AFF. JAMBS TO BE PAINTED P-3 OPEN TO CEILING ABOVE FITTING ROOM DOOR. DUMMY LEVER CENTER LINE @3'-8" ON INSIDE ONLY. DEADLOCK CENTERLINE @3'-4" GC TO CORE/DRILL DOOR ON SITE FOR HINGES, DOOR AND HARDWARE BY SP. FRAME BY GC
104	REAR EGRESS	(E)	3'-0" X 7'-0"	HM	F	-	HM		4	G.C. TO COORDINATE WITH SPCM FOR LOCK.
104A	REAR EGRESS	(E)	3'-4" X 7'-0"	HM	F	-	HM		4	G.C. TO COORDINATE WITH SPCM FOR LOCK.
104B	REAR	(E)	3'-4" X 7'-0"	EXISTING	EXIST	-	EXISTING			EXISTING DOOR TO REMAIN WELDED SHUT. EXTERIOR DOOR HANDLE TO BE REMOVED.
104C	REAR	(E)	3'-4" X 7'-0"	EXISTING	EXIST	-	EXISTING			EXISTING DOOR TO REMAIN WELDED SHUT. EXTERIOR DOOR HANDLE TO BE REMOVED.
105	ELECTRICAL ROOM	(E)	3'-0" X 7'-0"	EXISTING	EXIST	-	EXISTING			G.C. TO COORDINATE WITH SPCM FOR REPLACEMENT OF EXISTING LOCKS. UNDERCUT DOOR BY 1".
106	TOILET ROOM	(N)	3'-0" X 7'-0"	HM	A	P-2	AL	P-2	2	G.C. TO COORDINATE WITH SPCM FOR REPLACEMENT OF EXISTING LOCKS. UNDERCUT DOOR BY 1".
107	TOILET ROOM	(E)	3'-0" X 7'-0"	EXISTING	EXIST	P-2	EXISTING	P-2	2	G.C. TO COORDINATE WITH SPCM FOR REPLACEMENT OF EXISTING LOCKS. UNDERCUT DOOR BY 1".

HARDWARE GROUPS

SET #1	DESCRIPTION	QUANTITY	MANUFACTURER	MODEL NO.	FINISH	REMARKS	
						CLEAR ANOD.	CLEAR SATIN ANODIZED. VERIFY CYLINDER TYPE WITH OWNER.
TOILET	HINGES	1 PAIR	HAGER	BB1279			
	LOCKSET	1	SCHLAGE	AL40S NEPTUNE	-		BATH PRIVACY LOCK LEVER TYPE
	KICK PLATES	2			-		12" HIGH BOTH SIDES
FITTING ROOM	BUTT HINGES		HAGER OR EQUAL		US26D	4 1/2" X 4 1/2" (3 EACH)	
	LOCKSET		CORBIN-RUSSWIN	CL3857			LEVER STYLE, STOREROOM TYPE
	SILENCERS	1 EACH	IVES OR EQUAL	SR64			
	FLOOR STOP	1 EACH	GLEN JOHNSON	#1153M	US26D		
	FINGER GUARD		G.C.				
	COAT HOOK		BID				
REAR EGRESS	PANIC		DETUX	V40	-		VERIFY SPEC WITH OWNER PRIOR TO ORDERING
	CLOSER	1	LCN	4011			
	KICK PLATES	2			-		12" HIGH BOTH SIDES
	LATCH PROTECTOR	1	HAGER				MIN. 10" LENGTH STAINLESS STEEL
	SECURITY BAR	1	EXIT SECURITY INC.	SB-01-036	-		FURNISHED BY OWNER, INSTALLED BY G.C.
	SIGN	1			-		TGC TO PROVIDE SIGN(S) WITH TENANT NAME & SUITE NUMBER. SEE REQUIRED VENDOR LIST. SEE 8/A02
	THRESHOLD	1	NGP	#425	-		MILL ALUM
	DOOR BUZZER						F&I BY TGC
	PUSH BAR						BASIC PUSH BAR FROM HOME DEPOT (NO DETEX)

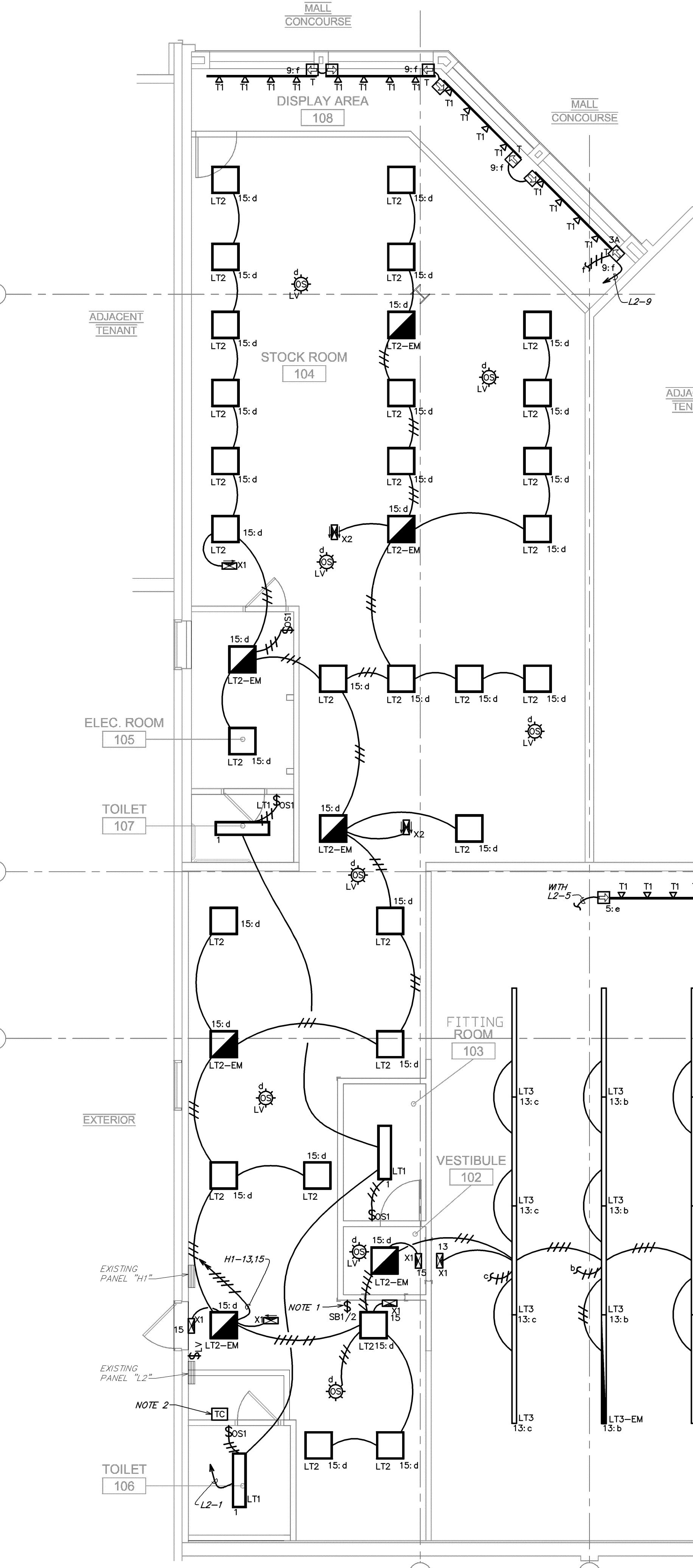


Carlile
Coatsworth
architects

18800 MacArthur Boulevard
Irvine, California 92612
www.coatsworth.com



Date: 05/05/2024
COA # 2609



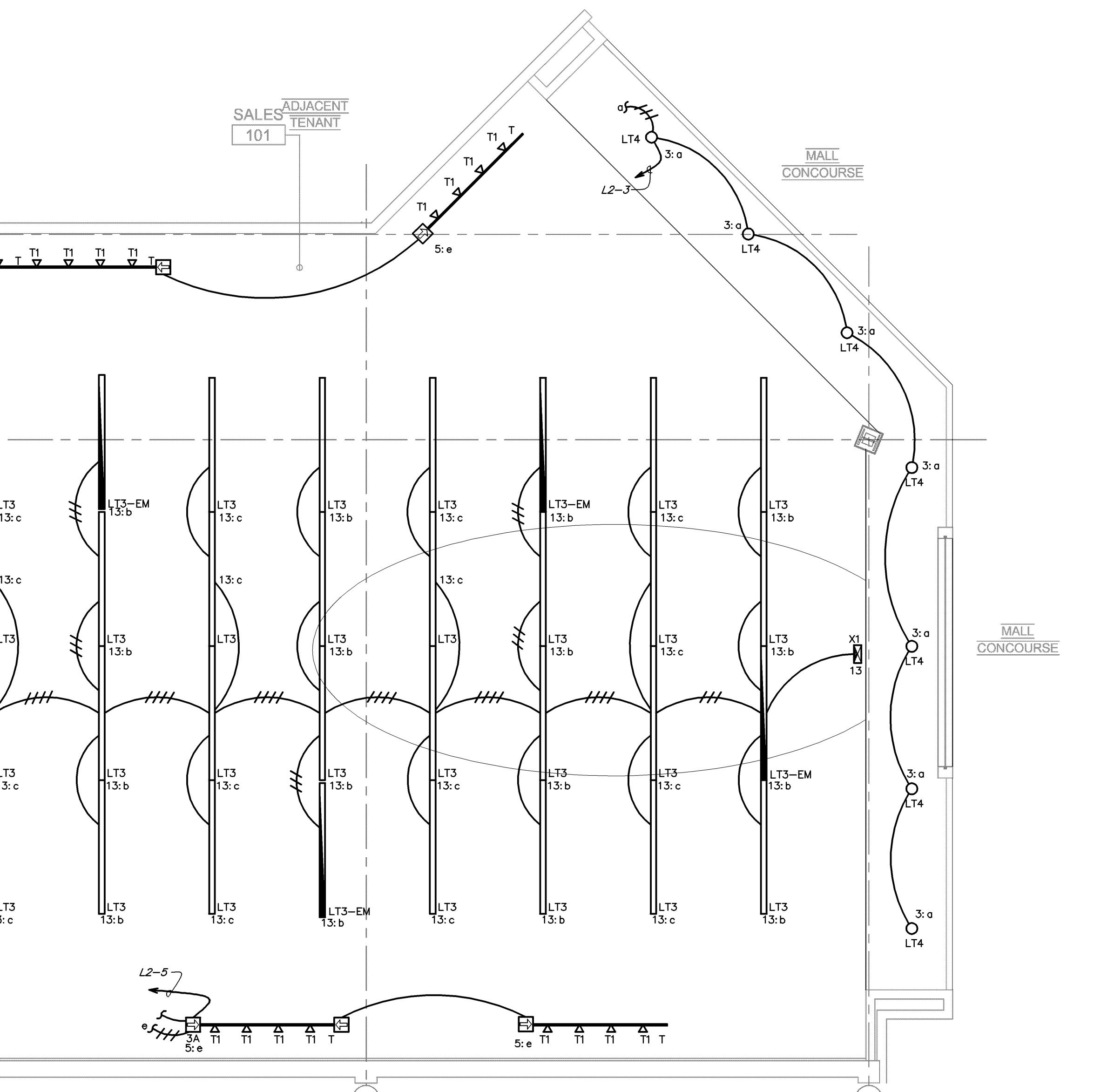
LUMINAIRE SCHEDULE											
MARK	MANUFACTURER	CATALOG NUMBER	VOLTAGE	WATTS	MOUNTING	LIGHT SOURCE	LAMP QTY.	LAMP DESCRIPTION	SUPPORTED DIMMING	SELECTED BY	REMARKS
LT1	COMMERCIAL ELECTRIC	FP1X46WYBKHD	120	48	CEILING, SURFACE	LED	N/A	N/A	NON	OTHERS	
LT2	BRANDON	RT891FLM03522BVKD4A	277	35	CEILING, SUSPENDED	LED	N/A	N/A	0-10V	OTHERS	
LT2-EM	BRANDON	RT891FLM03522BVKD4C	277	35	CEILING, SUSPENDED	LED	N/A	N/A	0-10V	OTHERS	WITH 90 MINUTES BATTERY BACKUP
LT3	BRANDON	MX811ELM08018BKKW	277	80	CEILING, SUSPENDED	LED	N/A	N/A	0-10V	OTHERS	
LT3-EM	BRANDON	MX811ELM08018BKKW-EM	277	80	CEILING, SUSPENDED	LED	N/A	N/A	0-10V	OTHERS	WITH 90 MINUTES BATTERY BACKUP
LT4	ENVISION LED	LED-RDL-5/6-PC-CCT-WH-SM	120	15	CEILING, RECESSED	LED	N/A	N/A	0-10V	OTHERS	6" DOWNLIGHT / 15 WATTS / 1100 LUMENS /5000K
T1	BRANDON	AR834TLM01012VKD1A	120	10	TRACK	LED	N/A	N/A	0-10V	OTHERS	PROVIDE WITH HALO OR JUNO TRACK. REFER TO PLAN FOR TRACK LENGTHS.
X1	BEST LIGHTING	ELXTEU-1-R-W-W-EM-SDT	277	4	WALL, SURFACE	LED	N/A	N/A	NON	OTHERS	
X2	BEST LIGHTING	ELXTEU-2-R-W-W-EM-SDT	277	4	CEILING, SURFACE	LED	N/A	N/A	NON	OTHERS	

LUMINAIRE SCHEDULE GENERAL NOTES:

A. LUMINAIRE SYMBOLS THAT ARE SHOWN HALF-SHADED, OR LABELED "EM", ON THE PLAN(S) INDICATE LUMINAIRES THAT SERVE AS EMERGENCY LIGHTING. UNLESS SERVED BY A CIRCUIT ORIGINATING AT AN EMERGENCY PANELBOARD OR CENTRAL LIGHTING INVERTER, EMERGENCY LIGHTING LUMINAIRES SHALL BE PROVIDED WITH AN EMERGENCY BATTERY. SEE THE SPECIFICATIONS FOR MINIMUM EMERGENCY BATTERY PERFORMANCE REQUIREMENTS.

B. PROPOSED SUBSTITUTIONS FOR LUMINAIRES THAT ARE SELECTED BY OTHERS REQUIRE THE APPROVAL OF THE INDIVIDUAL THAT SELECTED THE LUMINAIRE.

Separate electrical permit is required with Washington State Department of Labor & Industries.
<https://lni.wa.gov/licensing-permits/electrical/electrical-permits-fees-and-inspections-or-Licensing-information>: Call 1-800-647-0982



GENERAL ELECTRICAL EXISTING CONDITIONS NOTES:

- ANY EXISTING CONDITIONS INDICATED IN THIS SET OF DRAWINGS ARE BASED ON INFORMATION PROVIDED BY OTHERS AND POSSIBLE LIMITED FIELD VERIFICATION. ADJUST FOR ACTUAL FIELD CONDITIONS AT NO ADDITIONAL EXPENSE TO THE OWNER.
- VISIT THE PROJECT SITE, REVIEW EXISTING CONDITIONS AGAINST THE CONTRACT DOCUMENTS, AND BECOME FAMILIAR WITH THE WORK PRIOR TO BIDDING AND START OF WORK. SIGNING THE CONTRACT IS AN ACKNOWLEDGEMENT THAT THE SITE VISITED IS IN CONFORMITY WITH THE EXISTING CONDITIONS.
- DEMOLISH ANY EXISTING EQUIPMENT, DEVICES, AND LUMINAIRES AS INDICATED AND/OR AS REQUIRED TO ALLOW FOR INSTALLATION AND CONSTRUCTION OF THE NEW WORK. REMOVE ALL EQUIPMENT, DEVICES, LUMINAIRES, CONDUITS, SUPPORTS, HANGERS, ETC., THAT ARE NOT SHOWN AND ARE REQUIRED TO BE REMOVED IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.
- ELECTRICAL CIRCUITS THAT ARE TO BE REMOVED SHALL BE REMOVED IN THEIR ENTIRETY. CONDUITS SHALL BE REMOVED FROM THE ITEM TO BE DEMOLISHED TO THE SOURCE OVERCURRENT DEVICE. RACEWAYS WHICH ARE INSTALLED IN OR BELOW FLOORS OR WITHIN WALLS MAY BE ABANDONED, BUT ALL OVERHEAD OR EXPOSED CONDUITS, CABLES, AND RACEWAYS TO BE ABANDONED SHALL BE REMOVED AND SHALL BE CUT OR CHISELED AT LEAST 2" IN THE WALL OR FLOOR AND THE OPENING GROUTED SMOOTH.
- THE OWNER SHALL HAVE SALVAGE RIGHTS TO ANY ITEMS THAT ARE TO BE REMOVED. THESE ITEMS THAT ARE DIMINISHES TO SALVAGE SHALL BE CAREFULLY REMOVED AND STORED IN A LOCATION DIRECTED BY THE OWNER. ALL OTHER ITEMS OF DEMOLITION SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE REMOVED FROM THE SITE.
- PROVIDE TEMPORARY CIRCUITS AND CONNECTIONS TO EQUIPMENT, LUMINAIRES, OR DEVICES IN EXISTING FACILITIES THAT ARE REQUIRED FOR THE COMPLETE OPERATION AS REQUIRED TO MAINTAIN THESE AREAS IN COMPLETE OPERATION.
- MAINTAIN CONTINUITY OF EXISTING CIRCUITS AS REQUIRED TO PROVIDE POWER TO REMAINING EQUIPMENT, DEVICES, AND LUMINAIRES THAT ARE NOT BEING REMOVED.
- PROVIDE BLANK COVERS FOR EXISTING EMPTY DEVICE BOXES OR JUNCTION BOXES THAT MUST REMAIN, SUCH AS FOR CIRCUITS THAT MUST BE MAINTAINED TO OTHER AREAS.
- LUMINAIRES MARKED "EX" ARE EXISTING LUMINAIRES THAT ARE TO REMAIN IN PLACE. ALL EXISTING LUMINAIRES WITHIN THE LIMITS OF CONSTRUCTION SHALL BE DEMOLISHED AND RELOCATED. THOROUGHLY CLEANED AND RELAMED. ANY EXISTING LUMINAIRES THAT ARE DAMAGED BEYOND REPAIR SHALL BE REPLACED WITH AN IDENTICAL LUMINAIRE.

GENERAL ELECTRICAL NOTES:

- WHERE THE MECHANICAL DESIGN UTILIZES A PLENUM RETURN AIR CEILING DESIGN, ALL EQUIPMENT AND MATERIALS INSTALLED WITHIN THE PLENUM RETURN CEILING MUST MEET THE FLAME SPREAD AND SMOKE DEVELOPED RATINGS OF 25% AND BE APPROVED FOR USE IN PLENUM RETURN CEILINGS. COORDINATE PLENUM DESIGN WITH THE MECHANICAL CONTRACTOR. LUMINAIRES THAT ARE MANUFACTURED WITH A METAL HOUSING MEET THIS REQUIREMENT AND ARE NOT REQUIRED TO BE PLENUM RATED UNLESS INDICATED OTHERWISE.
- COORDINATE ALL DEVICE LOCATIONS AND CIRCUIT ROUTING WITHIN ANY MILLWORK WITH MILLWORK VENDOR PRIOR TO ROUGH-IN.
- COORDINATE ALL EQUIPMENT LOCATIONS AND CIRCUIT ROUTING PROVIDED BY OTHERS WITH THE CONTRACTOR, PROVIDING THE EQUIPMENT PRIOR TO ROUGH-IN. THIS INCLUDES, BUT IS NOT LIMITED TO, MECHANICAL EQUIPMENT, KITCHEN EQUIPMENT, AUDIO/VISUAL EQUIPMENT, FIRE SUPPRESSION SYSTEM EQUIPMENT, FIRE ALARM EQUIPMENT, ETC. PROVIDE THE APPROPRIATE DISCONNECTING MEANS FOR, AND TO THE FINAL CONNECTIONS TO, ANY EQUIPMENT PROVIDED BY OTHERS. THE ELECTRICAL CONTRACTOR IS ALSO RESPONSIBLE TO PROVIDE AN APPROPRIATE CORD AND PLUG FOR ANY CORD-AND-PLUG CONNECTED EQUIPMENT THAT IS NOT EQUIPPED WITH AN INTEGRAL CORD AND PLUG.
- SEE SECTION 300 FOR INFORMATION ON CIRCUITS THAT ARE TO BE ROUTED THROUGH CONTACTORS OR RELAYS FOR CONTROL.
- ALL EQUIPMENT, DEVICES, AND LUMINAIRES SHALL BE SUITABLE FOR THE ENVIRONMENT IN WHICH THEY ARE INSTALLED. EQUIPMENT MOUNTED OUTDOORS SHALL BE NEMA 3R. DEVICES MOUNTED IN DAMP OR WET LOCATIONS SHALL BE WEATHERPROOF. EQUIPMENT MOUNTED IN DRY LOCATIONS SHALL BE LOCATED IN DAMP OR WET LOCATIONS SHALL BE GFCI PROTECTED AND EQUIPPED WITH A SUITABLE WEATHERPROOF COVERPLATE (WHILE-IN-USE IN WET LOCATIONS).
- ALL LUGS, TERMINALS, ETC. IN ELECTRICAL DISTRIBUTION EQUIPMENT SHALL BE LTSG FOR A MINIMUM OF 75 DEGREES C CONDUCTOR TERMINATIONS LISTED FOR ONLY 60 DEGREE C CONDUCTORS ARE NOT PERMITTED.
- CIRCUITS SERVING EMERGENCY LIGHTING EQUIPMENT SUCH AS EMERGENCY BATTERIES SHALL NOT SHARE A NEUTRAL. SHALL NOT BE PART OF A MULTIWIRE BRANCH CIRCUIT WITH ANY OTHER CIRCUIT. PROVIDE A SEPARATE NEUTRAL FOR EACH CIRCUIT. PROVIDE A SEPARATE CIRCUIT FOR EMERGENCY LIGHTING EQUIPMENT.
- ALTHOUGH NOT SPECIFICALLY SHOWN, THE ELECTRICAL CONTRACTOR SHALL PROVIDE ALL REQUIRED LOW VOLTAGE WIRING AND DATA CABLEING, PER THE MANUFACTURER'S RECOMMENDATIONS, FOR COMPLETE, FUNCTIONAL LIGHTING CONTROL SYSTEMS.
- ALTHOUGH NOT SPECIFICALLY SHOWN, THE ELECTRICAL CONTRACTOR SHALL PROVIDE ALL REQUIRED WIRING AND DATA CABLEING, INCLUDING ALL 0-10V CONTROL WIRING WHERE APPLICABLE, PER THE MANUFACTURER'S RECOMMENDATIONS FOR A COMPLETE, FUNCTIONAL DIMMING SYSTEM.
- REFER TO ARCHITECTURAL PLANS FOR EXACT LUMINAIRE MOUNTING HEIGHTS.

KEYED NOTES:

- PROVIDE LIGHTING CONTROL SWITCHBANK(S). SEE SWITCHBANK SCHEDULE(S) FOR ADDITIONAL INFORMATION. LOWERCASE LETTERS ADJACENT THE LUMINAIRE OR POWER SOURCE INDICATE THE LOCATED SWITCHBANK ON THE DRAWING. FIELD VERIFY EXACT LOCATION. CONFIRM SWITCHBANK(S) WILL FIT WITHIN THIS DESIGNATED AREA AND STACK MULTIPLE SWITCHBANKS, WITH FEWER GANGS, AT THIS LOCATION IF A SINGLE SWITCHBANK WILL NOT FIT WITHIN THIS DESIGNATED AREA.
- PROVIDE DIGITAL TIMECLOCK FOR AUTOMATIC LIGHTING CONTROL. REFER TO DETAIL 3/23.0 FOR ADDITIONAL INFORMATION.

SWITCHBANK "SB1" SCHEDULE		
SWITCH TAG	ZONE DESCRIPTION	CONTROL TYPE
a	STOREFRONT DOWNLIGHTS	SPST TOGGLE SWITCH
b	SALES LTS	SPST TOGGLE SWITCH
c	SALES LTS	SPST TOGGLE SWITCH
d	BOH LTS	LOW VOLTAGE DIGITAL SWITCH
e	TRACK LTS	SPST TOGGLE SWITCH
f	DISPLAY TRACK LTS	SPST TOGGLE SWITCH

GENERAL NOTES:

A. PROVIDE BOX PARTITIONS BETWEEN CONTROLS OF DIFFERENT VOLTAGES.

SWITCHBANK "SB2" SCHEDULE		
SWITCH TAG	ZONE DESCRIPTION	CONTROL TYPE
	TIMECLOCK OVERRIDE	TIMED OVERRIDE SWITCH

GENERAL NOTES:

A. PROVIDE BOX PARTITIONS BETWEEN CONTROLS OF DIFFERENT VOLTAGES.

PROJECT NO. 24068
DATE: 05/09/2024
DRAWN BY: SEI
SCALE: AS NOTED
FILE: **Lighting Plan**

City of Puyallup Development & Permitting Services ISSUED PERMIT
Building Planning
Engineering Public Works
Fire Traffic

REVISIONS:

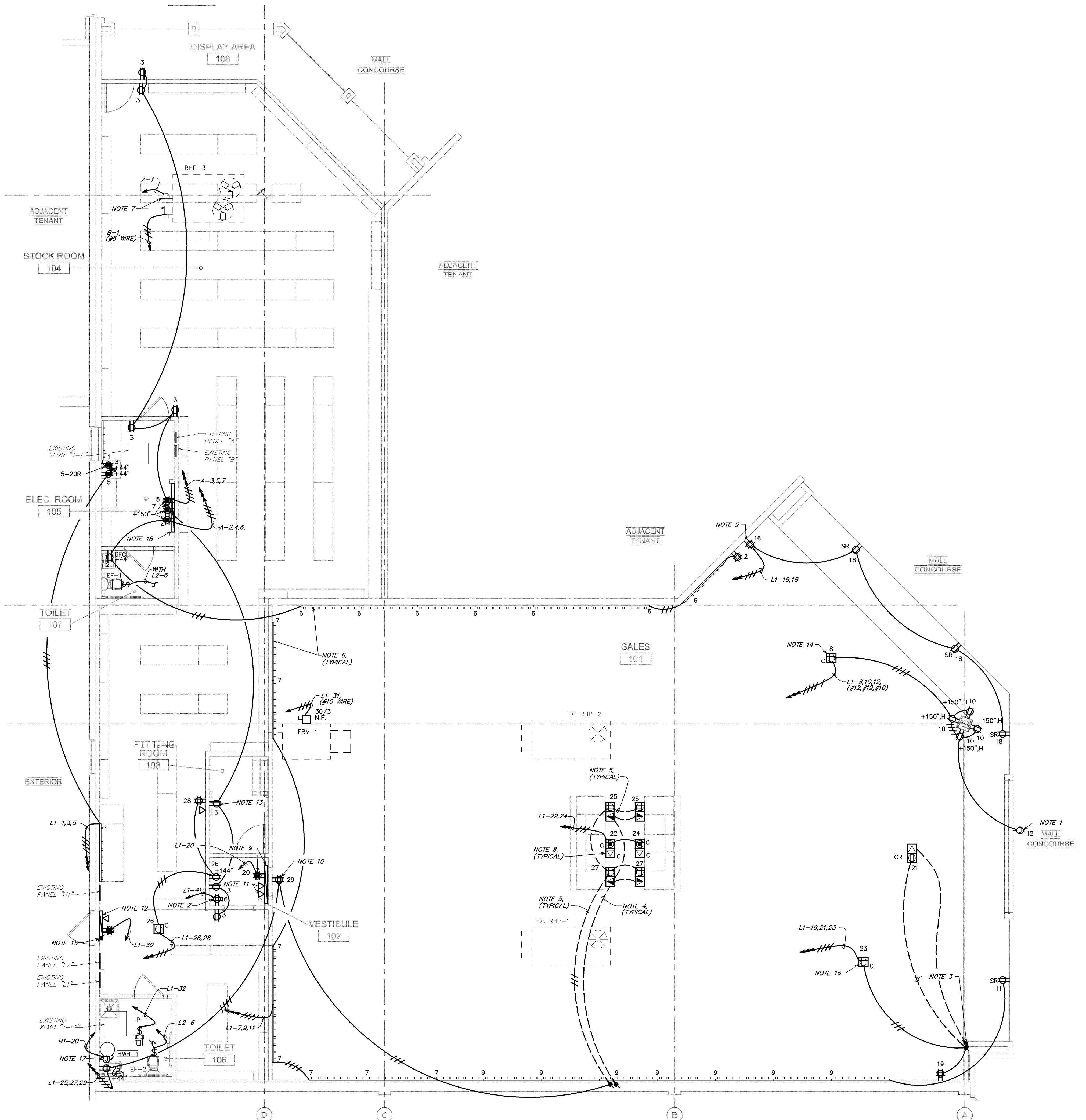
SHEET TITLE:
LIGHTING PLAN

SHOE PALACE
SOUTH HILL MALL
SPACE 410 & 420
3500 S MERIDIAN
PUYALLUP, WA 98373
PRCTI20240836

LEGEND
— EXISTING
— NEW WORK
⊕ NEW TO EXISTING CONNECTION

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800-581-0963 | www.schnackel.com

E1.0



GENERAL ELECTRICAL EXISTING CONDITIONS NOTES

A. ANY EXISTING CONDITIONS INDICATED IN THIS SET OF DRAWINGS ARE BASED ON INFORMATION PROVIDED BY OTHERS AND POSSIBLE LIMITED FIELD VERIFICATION. ADJUST FOR ACTUAL FIELD CONDITIONS AT NO ADDITIONAL EXPENSE TO THE OWNER.

B. REVIEW THE PROJECT SITE, REVIEW EXISTING CONDITIONS AGAINST THE CONTRACT DOCUMENTS, AND BECOME FAMILIAR WITH THE WORK PRIOR TO BIDDING AND START OF THE WORK. SIGNING THE CONTRACT IS AN ACKNOWLEDGEMENT THAT THE SITE VISIT HAS BEEN COMPLETED AND THE EXISTING CONDITIONS ARE ACCEPTED.

C. DEMOLISH ALL EXISTING EQUIPMENT, DEVICES, AND LUMINAIRES LOCATED AND/OR AS REQUIRED TO ALLOW FOR INSTALLATION AND CONSTRUCTION OF THE NEW WORK. REMOVE ALL EQUIPMENT, DEVICES, LUMINAIRES, CONDUITS, SUPPORTS, HANGERS, ETC. THAT ARE NOT SHOWN AND ARE REQUIRED TO BE REMOVED IN ORDER TO COMPLETE THE NEW WORK.

D. EXISTING ELECTRICAL CONDUITS AND CONDUCTORS SHALL BE REMOVED IN THEIR ENTIRETY. CONDUITS SHALL BE REMOVED FROM THE ITEM TO BE DEMOLISHED TO THE SOURCE OVERCURRENT DEVICE. RACEWAYS WHICH ARE INSTALLED IN OR BELOW FLOORS OR WITHIN WALLS MAY BE ABANDONED, BUT ALL OVERHEAD OR EXPOSED RACEWAYS SHALL BE REMOVED. EXPOSED RACEWAYS TO BE ABANDONED SHALL BE REROUTED TO A CONDUIT OR RESELED AT LEAST 2" INTO THE WALL OR FLOOR AND THE OPENING GROUTED SMOOTH.

E. THE OWNER SHALL HAVE SALVAGE RIGHTS TO ANY ITEMS THAT ARE TO BE DEMOLISHED. THOSE ITEMS THAT THE OWNER WISHES TO SALVAGE SHALL BE CAREFULLY REPACKED AND RESEALED AS DIRECTED BY THE OWNER. ALL OTHER ITEMS OF DEMOLITION SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE REMOVED FROM THE SITE.

F. PROVIDE TEMPORARY CIRCUITS AND CONNECTIONS TO EQUIPMENT, LUMINAIRES, OR DEVICES IN AREAS OF THE FACILITY THAT ARE TO REMAIN IN OPERATION AS REQUIRED FOR THE CONTRACTOR TO COMPLETE THE NEW WORK.

G. MAINTAIN CONTINUITY OF EXISTING CIRCUITS AS REQUIRED TO PROVIDE POWER TO REMAINING EQUIPMENT, DEVICES, AND LUMINAIRES THAT ARE NOT BEING REMOVED.

H. PROVIDE BLANK COVERPLATES FOR EXISTING EMPTY DEVICE BOXES OR JUNCTION BOXES THAT MUST REMAIN SUCH AS FOR CIRCUITS THAT MUST BE MAINTAINED TO OTHER AREAS.

I. REMOVE ALL ABANDONED TELECOMMUNICATIONS CABLEING.

GENERAL ELECTRICAL NOTES

A. WHERE THE MECHANICAL DESIGN UTILIZES A PLenum RETURN AIR CEILING DESIGN, ALL EQUIPMENT AND MATERIALS INSTALLED WITHIN THE PLenum RETURN CEILING MUST MEET THE FLAME SPREAD AND SMOKE DEVELOPED RATINGS OF 25/50 AND BE APPROVED FOR USE IN PLenum RETURN CEILINGS. COORDINATE PLenum CEILING EQUIPMENT WITH MECHANICAL CONTRACTOR.

B. COORDINATE ALL DEVICE LOCATION AND CIRCUIT ROUTING WITHIN ANY MILLWORK WITH MILLWORK VENDOR PRIOR TO ROUGH-IN.

C. COORDINATE THE CONNECTIONS OF ALL EQUIPMENT PROVIDED BY OTHERS WITH THE CONTRACTOR PROVIDING THE EQUIPMENT PRIOR TO ROUGH-IN. THIS INCLUDES, BUT NOT LIMITED TO, MECHANICAL EQUIPMENT, FIRE EQUIPMENT, AUDIO/VIDEO EQUIPMENT, FIRE SUPPRESSION SYSTEM EQUIPMENT, FIRE ALARM EQUIPMENT, ETC. PROVIDE THE APPROPRIATE DISCONNECTING MEANS FOR, AND TO MAKE THE FINAL CONNECTION TO, ANY HARDWIRED EQUIPMENT. THE ELECTRICAL CONTRACTOR IS ALSO RESPONSIBLE TO PROVIDE AN APPROPRIATE CONNECTION TO THE EQUIPMENT IF THE EQUIPMENT IS NOT EQUIPPED WITH AN INTEGRAL CORD AND PLUG.

D. SEE PANEL SCHEDULES FOR INFORMATION ON CIRCUITS THAT ARE TO BE ROUTED THROUGH CONTACTORS OR RELAYS FOR CONTROL.

E. ALL ELECTRICAL DEVICES AND CIRCUITS SHALL BE SUITABLE FOR THE ENVIRONMENT IN WHICH THEY ARE INSTALLED. EQUIPMENT MOUNTED OUTDOORS SHALL BE NEMA 3R. DEVICES MOUNTED IN DAMP OR WET LOCATIONS SHALL BE WEATHERPROOF. RECEPTACLES RATED 15- OR 20-AMPS AND 120 VOLTS WHICH ARE LOCATED IN DAMP OR WET LOCATIONS SHALL BE GFCI PROTECTED AND EQUIPPED WITH A LISTABLE WEATHERPROOF COVERPLATE WHILE IN USE IN WET LOCATIONS.

F. ALL LUGS, TERMINALS, ETC. IN ELECTRICAL DISTRIBUTION EQUIPMENT SHALL BE LISTED FOR A MINIMUM OF 75 DEGREE C CONDUCTORS. TERMINATIONS LISTED FOR ONLY 60 DEGREE C CONDUCTORS ARE NOT PERMITTED.

G. DO NOT ROUTE CIRCUITS IN A MANNER THAT COULD REQUIRE CLEARANCES AROUND ELECTRICAL CONNECTION AND CONTROLS COMPARTMENTS IN ALL EQUIPMENT WHICH IS PROVIDED BY OTHERS AND CONNECTED BY THE ELECTRICAL CONTRACTOR SUCH AS, BUT NOT LIMITED TO, HVAC EQUIPMENT.

KEYED NOTES

1. PROVIDE FINAL CONNECTION TO SIGNAGE. COORDINATE LOCATION AND ALL REQUIREMENTS WITH SIGN CONTRACTOR PRIOR TO ROUGH-IN. PROVIDE AN APPROPRIATE LOCAL DISCONNECTING MEANS MOUNTED IN AN ACCESSIBLE, INCONSPICUOUS LOCATION. THIS IS WITHIN SIGN OR SIGN EQUIPMENT. CIRCUIT SHALL HAVE A SEPARATE NEUTRAL AND SEPARATE EQUIPMENT GROUNDING CONDUCTOR.

2. PROVIDE ORANGE QUADRUPLE RECEPTACLE FOR DJ EQUIPMENT.

3. STU 1" EMT CONDUIT WITH PULL STRING UP TO 12'-0" A.F.F. OR 8" ABOVE MALL CONCOURSE.

4. PROVIDE 1-1/2" EMT CONDUIT WITH (4) CAT 5 CABLES FOR CASHWRAP DATA.

5. PROVIDE APPROPRIATELY SIZED EMT CONDUIT FOR CASHWRAP POWER.

6. PLUMGOLD 9" SPACED SINGLE RECEPTACLES AT 12'-4" A.F.F. "LEGEND" PLUMGOLD MULTICLUTER SYSTEM OR EQUAL. WIRING THROUGH TIMECLOCK. KEEP 3" FROM CORNER. VERIFY WITH GENERAL CONTRACTOR FOR EXACT REQUIREMENTS.

7. DISCONNECT SWITCH AND WEATHERPROOF GFCI SERVICE RECEPTACLE ARE PROVIDED BY EQUIPMENT MANUFACTURER, INTEGRATE WITH EQUIPMENT. PROVIDE CONNECTIONS AS INDICATED.

8. PROVIDE 1-1/2" CAT 5 EMT CONDUIT STRUNG OVER CASHWRAP.

9. GENERAL CONTRACTOR SHALL INSTALL THE RECEPTACLE ON 4' WID & 2' HIGH PLYWOOD ABOVE THE SERVICE DOOR WITHIN 4 WEEKS INTO CONSTRUCTION FOR SHOE PALACE SUB-CONTRACTOR TO INSTALL OUTLET ABOVE SHELVES. SEE DETAIL ON CASHWRAP. VERIFY EXACT LOCATION WITH OWNER, CONSTRUCTION MANAGER, AND SUB-CONTRACTOR BEFORE RELOCATING.

10. PROVIDE QUADRUPLEX RECEPTACLE CENTERED 12" ABOVE DOOR ON SALES SIDE.

11. PROVIDE PHONE JACKS BEHIND VESTIBULE DOOR ABOVE THE SHELVES. GENERAL CONTRACTOR SHALL CONFIRM EXACT LOCATION AND MOUNTING HEIGHT WITH SHOE PALACE.

12. PROVIDE A 3'-0" x 4'-0" x 3/4" UL-LABELED FIRE-RETARDANT PLYWOOD BACKBOARD MOUNTED ABOVE DOOR FOR TELECOMMUNICATIONS EQUIPMENT. PROVIDE GROUND BAR MOUNTED ON BACKBOARD WITH EQUIPMENT GROUNDING CONDUCTOR CONNECTED TO POWER SYSTEM'S GROUNDING ELECTRODE SYSTEM. SEE DETAIL 4/2.3 FOR ADDITIONAL INFORMATION REGARDING GROUND BAR.

13. COORDINATE EXACT LOCATION WITH SHOE PALACE CONSTRUCTION MANAGER IN FIELD.

14. QUADRUPLEX RECEPTACLE MOUNTED TIGHT TO DECK ABOVE. COORDINATE EXACT LOCATION WITH ARCHITECT PRIOR TO ROUGH-IN.

15. PROVIDE 1-1/2" CAT 5 EMT CONDUIT STRUNG TO THIS LOCATION, FROM EXISTING TELECOMMUNICATIONS SERVICE STUB-IN TO TENANT SPACE.

16. PROVIDE QUADRUPLEX RECEPTACLE AT 12'-6" FOR JUMP MAN SIGN.

17. PROVIDE FINAL CONNECTION TO WATER HEATER. THE REQUIRED DISCONNECTING MEANS SHALL BE PADDED ACCESSORY ON CIRCUIT BREAKER SERVING WATER HEATER BRANCH CIRCUIT TO LOCAL CIRCUIT BREAKER (IN OFFICE) POSITION. COORDINATE ALL REQUIREMENTS WITH PLUMBING CONTRACTOR PRIOR TO ROUGH-IN.

18. PROVIDE A 5'-0" x 5'-0" x 3/4" UL-LABELED FIRE-RETARDANT PLYWOOD BACKBOARD MOUNTED ON BOTTOM AND A 1" GROUND BAR FOR TELECOMMUNICATIONS EQUIPMENT. PROVIDE GROUND BAR MOUNTED ON BACKBOARD WITH EQUIPMENT GROUNDING CONDUCTOR CONNECTED TO POWER SYSTEM'S GROUNDING ELECTRODE SYSTEM. SEE DETAIL 4/3.0 FOR ADDITIONAL INFORMATION REGARDING GROUND BAR.

PROJECT NO. 24068
DATE: 05/09/2024
DRAWN BY: SEI
SCALE: AS NOTED
FILE: **POWER AND SYSTEMS PLAN**

REVISIONS:

City of Puyallup
Development & Permitting Services
ISSUED PERMIT
Building
Planning
Engineering
Public Works
Fire
Traffic

SHEET TITLE:
POWER AND SYSTEMS PLAN

SHOE PALACE
SOUTH HILL MALL
SPACE 410 & 420
3500 S MERIDIAN
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PRCTI20240836

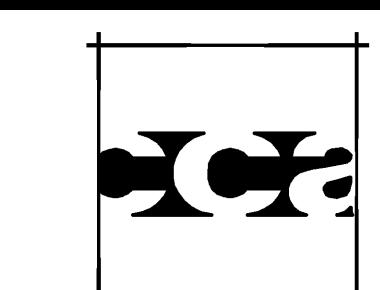
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E2.0

LEGEND

— EXISTING
— NEW WORK
⊕ NEW TO EXISTING CONNECTION

ALL EXPOSED CONDUIT TO BE ROUTED TIGHT TO DECK.



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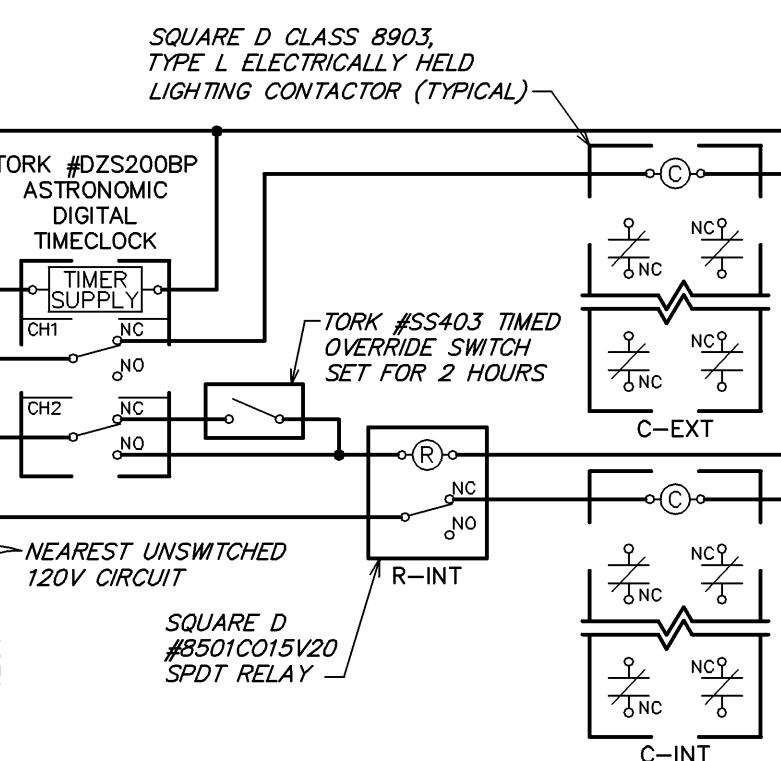
Date: 05/13/2024
COA # 2609

ELECTRICAL SYMBOL LEGEND (SOME MAY NOT BE USED)

SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
	WALL MOUNTED SINGLE RECEPTACLE, NEMA 5-20R		FLUSH FLOOR MOUNTED SINGLE RECEPTACLE, NEMA 5-20R
	WALL MOUNTED DUPLEX RECEPTACLE		FLUSH FLOOR MOUNTED DUPLEX RECEPTACLE
	WALL MOUNTED DEDICATED DUPLEX RECEPTACLE		FLUSH FLOOR MOUNTED DEDICATED DUPLEX RECEPTACLE, SPLIT-WIRED
	WALL MOUNTED DUPLEX RECEPTACLE, ONE RECEPTACLE SWITCHED OR SPLIT-WIRED		FLUSH FLOOR MOUNTED DUPLEX RECEPTACLE, SPLIT-WIRED
	WALL MOUNTED QUADRUPLEX RECEPTACLE		FLUSH FLOOR MOUNTED QUADRUPLEX RECEPTACLE
	WALL MOUNTED DEDICATED QUADRUPLEX RECEPTACLE		FLUSH FLOOR MOUNTED DEDICATED QUADRUPLEX RECEPTACLE, SPLIT-WIRED
	WALL MOUNTED SPECIAL RECEPTACLE, NEMA CONFIGURATION AS NOTED		FLUSH FLOOR MOUNTED SPECIAL RECEPTACLE, NEMA CONFIGURATION AS NOTED
	WALL MOUNTED RANGE RECEPTACLE, RATED WHEN USED IN CONJUNCTION WITH MOTORS		ABOVE FLOOR SERVICE FITTING, HUBBELL #SC3098A OR EQUIVALENT, CEILING MOUNTED, AS NOTED
	CEILING MOUNTED SINGLE RECEPTACLE, NEMA 5-20R		CEILING MOUNTED QUADRUPLEX RECEPTACLE (C-FLUSH CEILING, DC=DROPCORD)
	CEILING MOUNTED DUPLEX RECEPTACLE (C-FLUSH CEILING, DC=DROPCORD)		CEILING MOUNTED DEDICATED QUADRUPLEX RECEPTACLE (C-FLUSH CEILING, DC=DROPCORD)
	CEILING MOUNTED DUPLEX RECEPTACLE, SPLIT-WIRED (C-FLUSH CEILING, DC=DROPCORD)		CEILING MOUNTED SPECIAL RECEPTACLE, NEMA CONFIGURATION AS NOTED (C-FLUSH CEILING, DC=DROPCORD)
	MULTI-OUTLET ASSEMBLY		CORD AND PLUG
	WALL MOUNTED JUNCTION/OUTLET BOX		CEILING MOUNTED JUNCTION/OUTLET BOX
	FLUSH FLOOR MOUNTED JUNCTION/OUTLET BOX		JUNCTION BOX MOUNTED ABOVE CEILING
	SWITCH, SPST UNLESS INDICATED OTHERWISE, HORSEPOWER RATED WHEN USED IN CONJUNCTION WITH MOTORS		PUSHBUTTON STATION, ONE BUTTON
	CEILING MOUNTED OCCUPANCY SENSOR		PUSHBUTTON STATION, TWO BUTTON
	WALL MOUNTED OCCUPANCY SENSOR		PUSHBUTTON STATION, THREE BUTTON
	CEILING MOUNTED PHOTOSENSOR		SAFETY SWITCH, CHARACTERISTICS AS INDICATED
	CEILING MOUNTED MOTION SENSOR		DISCONNECT SWITCH PROVIDED BY EQUIPMENT MANUFACTURER INTEGRAL WITH EQUIPMENT
	AUTOMATIC TIMECLOCK		ENCLOSED CIRCUIT BREAKER, CHARACTERISTICS AS INDICATED
	PHOTOCELL		MAGNETIC MOTOR STARTER
	RELAY		COMBINATION MAGNETIC MOTOR STARTER AND DISCONNECT SWITCH, CHARACTERISTICS AS INDICATED
	CONTACTOR		VARIABLE FREQUENCY DRIVE
	UL 924 AUTOMATIC LOAD CONTROL RELAY, HUBBELL CONTROL SYSTEMS #ALCR1277 OR EQUAL		UL 1008 BRANCH CIRCUIT EMERGENCY LIGHTING TRANSFER SWITCH, BODINE #GTD20A OR EQUAL
	BELL		CHIME
	BUZZER		ROTATING BEACON
	WALL MOUNTED TELEPHONE OUTLET, *P DENOTES NUMBER OF TELEPHONE PORTS		WALL MOUNTED DATA OUTLET, *D DENOTES NUMBER OF DATA PORTS
	FLUSH FLOOR MOUNTED TELEPHONE OUTLET, *P/D DENOTES NUMBER OF TELEPHONE PORTS		FLUSH FLOOR MOUNTED DATA OUTLET, *D DENOTES NUMBER OF DATA PORTS
	CEILING MOUNTED TELEPHONE OUTLET, *P/D DENOTES NUMBER OF TELEPHONE PORTS		CEILING MOUNTED DATA OUTLET, *D DENOTES NUMBER OF DATA PORTS
	WALL MOUNTED COMBINATION TELEPHONE AND DATA OUTLET, *P/D/D DENOTES NUMBER OF TELEPHONE/DATA PORTS		FLUSH FLOOR MOUNTED COMBINATION TELEPHONE AND DATA OUTLET, *P/D/D DENOTES NUMBER OF TELEPHONE/DATA PORTS
	WIRELESS ACCESS POINT		CIRCUITRY, CONCEALED IN WALL OR CEILING
	CIRCUITRY, CONCEALED IN OR UNDER FLOOR		TELECOMMUNICATIONS POLE
	CIRCUITRY, EXPOSED		TWO-CHANNEL TELECOMMUNICATIONS AND POWER POLE
	UCP UNDERCARPET FLAT CONDUCTOR CABLE WIRING SYSTEM, POWER		UCP UNDERCARPET FLAT CONDUCTOR CABLE WIRING SYSTEM, TELEPHONE
	UCD UNDERCARPET FLAT CONDUCTOR CABLE WIRING SYSTEM, DATA		CONDUIT STUB
	CONDUIT/CIRCUIT BREAK AND CONTINUED ELSEWHERE		VERTICAL CONDUIT/CIRCUIT
	METER AND SOCKET		MOTOR
	LIGHTING AND APPLIANCE PANELBOARD, SURFACE MOUNTED		LIGHTING AND APPLIANCE POWER SUPPLY/TRANSFORMER, (XX) WATT RATING
	LIGHTING AND APPLIANCE PANELBOARD, FLUSH MOUNTED		TRACK LIGHTING END FEED, (XX = CURRENT LIMITER RATING, IF APPLICABLE)
	OTHER EQUIPMENT AS NOTED		GFCI CLASS A (4-6 mA TRIP) GCFI DEVICE; VOLTAGE, PHASE, AND CURRENT RATING AS REQUIRED FOR THE LOAD
	LOW VOLTAGE CONTROL TRANSFORMER		SPGFC SPECIAL PURPOSE GFI DEVICE; VOLTAGE, PHASE, AND CURRENT RATING AS REQUIRED FOR THE LOAD

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GENERAL NOTES APPLICABLE TO THIS DETAIL:

- SEE PANEL SCHEDULES FOR CIRCUITS THAT ARE TO BE CONTROLLED BY EACH CONTACTOR.
- EACH CONTACTOR CONSTITUTES A CONTROL ZONE. ALTHOUGH NOT SPECIFICALLY SHOWN, THE CONTRACTOR PROVIDES MULTIPLE CONTACTORS IN PARALLEL WHEN THE NUMBER OF CIRCUITS IN A CONTROL ZONE EXCEEDS THE MAXIMUM NUMBER OF POLES AVAILABLE ON A SINGLE CONTACTOR. PROVIDE A MINIMUM OF 2 SPARE CONTACTOR POLES PER CONTROL ZONE.
- ALL CONTACTORS SHALL BE PROVIDED WITH NORMALLY CLOSED CONTACTS. THE CONTRACTOR SHALL PROVIDE FIELD-CONVERTIBLE CONTACTS. THE CONTRACTOR SHALL FIELD-CONVERT CONTACTORS TO NORMALLY CLOSED WHEN FIELD-CONVERTIBLE NORMALLY OPEN CONTACTS ARE PROVIDED.
- ANY LOCAL SWITCHING INDICATED ON THE PLANS SHALL BE ON THE LOAD SIDE OF THE CONTACTOR.
- THE ELECTRICAL CONTRACTOR SHALL PROGRAM ALL TIMECLOCKS AND INDIVIDUAL DIGITAL TIMECLOCK CHANNELS. COORDINATE ALL ON, OFF, AND HOLIDAY SETTINGS WITH THE OWNER. INTERIOR CONTROL ZONES SHALL HAVE THE ASTRONOMIC FUNCTIONS FOR THE CHANNEL TURNED OFF. EXTERIOR CONTROL ZONES SHALL HAVE THE ASTRONOMIC FUNCTIONS FOR THE CHANNEL TURNED ON.
- FIELD TIMECLOCK, RELAYS, AND CONTACTORS ALTERNATE TO UTILIZE A RELAY PANEL WITH A DIGITAL TIMECLOCK AND LOW VOLTAGE OVERRIDE SWITCH IN LIEU OF THE COMPONENTS SHOWN WITHIN THIS DETAIL.

PROJECT NO. 24068
DATE: 05/09/2024
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SCALE: AS NOTED
FILE:
GROSS AREA 6,719 S.F.

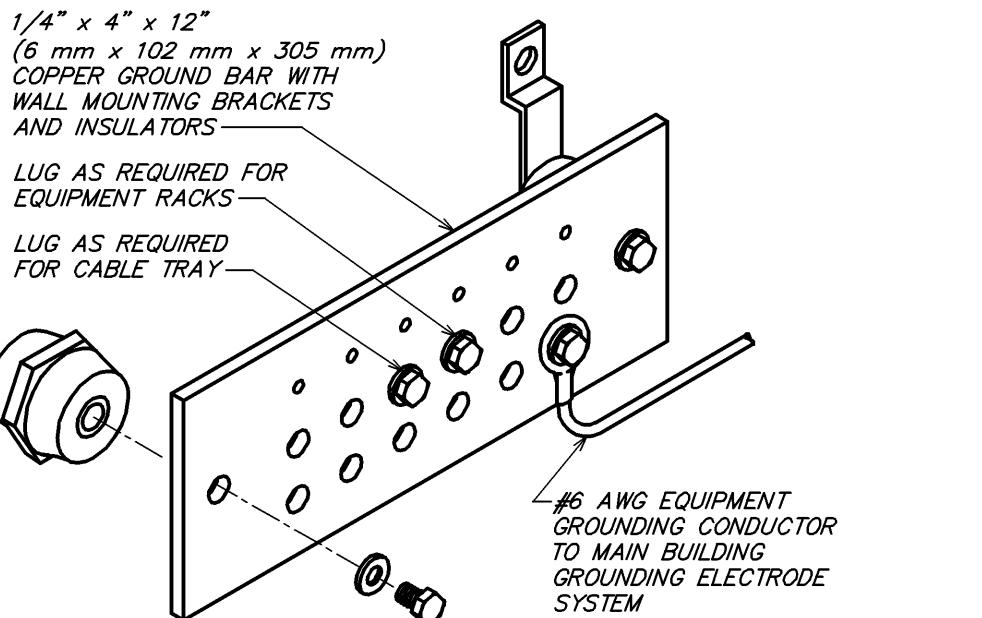
REVISIONS:

City of Puyallup
Development & Permitting Services
ISSUED PERMIT
Building Planning
Engineering Public Works
Fire Traffic

SHEET TITLE: ELECTRICAL DETAILS

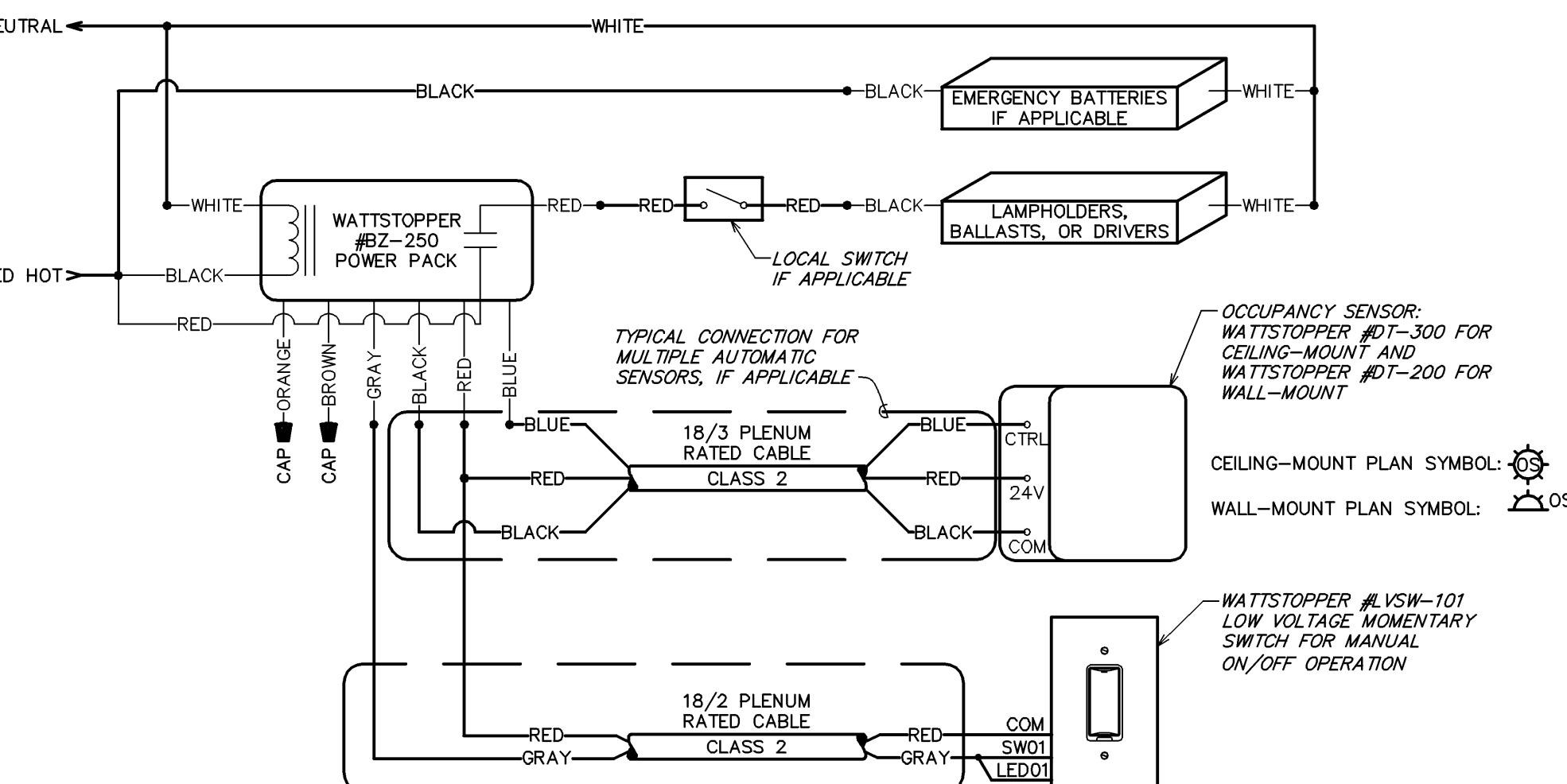
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SPACE 410 & 420
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PUYALLUP, WA 98373

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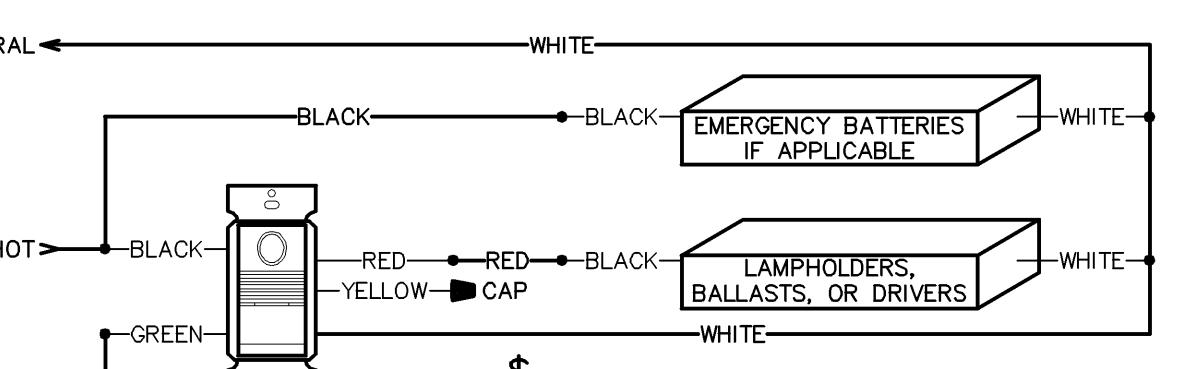
GENERAL NOTES APPLICABLE TO THIS DETAIL:

- NOT ALL PARTS AND PART NUMBERS ARE SHOWN IN THE DETAIL. THE ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR A COMPLETE WORKING INSTALLATION, INCLUDING MISCELLANEOUS APPURTENANCES REQUIRED BUT NOT SHOWN.



GENERAL NOTES APPLICABLE TO THIS DETAIL:

- PROVIDE ADDITIONAL POWER PACKS TO PROVIDE LOW VOLTAGE POWER TO LOW VOLTAGE SENSORS AND SWITCHES WHEN THE TOTAL CURRENT DRAW BY THE ASSOCIATED LOW VOLTAGE SENSORS AND SWITCHES EXCEEDS THE RATED LOW VOLTAGE POWER OUTPUT OF THE POWER PACK.
- PROGRAM OCCUPANCY SENSORS FOR AUTOMATIC "OFF" WITH TIMEOUT SET TO 15 MINUTES. PROGRAM FOR AUTOMATIC "ON" IN CORRIDORS, HALLWAYS, PASSAGeways, ETC. AND MANUAL "ON" IN ALL OTHER LOCATIONS.



TYPICAL SINGLE-ZONE WALL SWITCH OCCUPANCY SENSOR WIRING DIAGRAMS

3 NOT TO SCALE

TYPICAL SINGLE-ZONE CEILING-MOUNT OCCUPANCY SENSOR WIRING DIAGRAM

1 NOT TO SCALE

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E3.0

SECTION 260000 - ELECTRICAL GENERAL CONDITIONS

PART 1 GENERAL

1.01 SUMMARY

- A. This Section supplements all Sections of the Specifications for Division 26, Division 27, and Division 28 and shall apply to all phases of work hereinafter specified, shown on the Drawings, or required to provide a complete installation of approved electrical equipment, subject to the interpretation of the Engineer.
- B. The Drawings, General Conditions and General Provisions of the Contract shall apply to this Section and the other Sections of Division 26, Division 27, and Division 28 of the specifications. Where conflicts arise between these documents, the more stringent provision will be applicable.
- C. Furnish all labor, material, services, and supervision necessary for the complete and proper installation, connections, testing, and adjustment of all materials and electrical equipment specified herein, or shown noted on the Drawings, and its delivery to the Owner, complete in all respects and ready for use.
- D. All plans, instructions, and information furnished by this Contractor for installation by other Contractors, this Contractor shall furnish all such equipment, complete in all respects and ready for installation. Drawings, instructions, and manuals supplied with equipment shall be carefully preserved and turned over to the Contractor.
- E. When plans indicate fixtures or equipment will be furnished by others, this Contractor shall provide all rough-in and supplies and shall connect such equipment to the electrical system. Drawings, instructions, and manuals supplied with equipment shall be carefully preserved and turned over to the Architect.

1.02 DEFINITIONS

- A. Authority Having Jurisdiction: All regulatory agencies, including but not limited to, plans examiners, fire marshals, inspectors, insurance companies, and utility companies.
- B. Conduit: Hidden or open sight in chases, buried spaces, shafts, hung ceilings, embedded in construction, in crawl spaces, or underground.
- C. Conduit: Conduit tubing and all required fittings, pull boxes, hangers, and other supports and accessories related to such.
- D. Code: All applicable codes, standards, and regulations required by the administrative code, including code, fire code, energy conservation code, existing building code, fire code, fuel gas code, mechanical code, plumbing code, and residential code.
- E. Code: Administrative: The administrative code, including all local administrative and reference standards, adopted and enforced by the Authority Having Jurisdiction.
- F. Code: Building: The building code, including all local amendments and reference standards, adopted and enforced by the Authority Having Jurisdiction.
- G. Code: Electrical: The electrical code, including all local amendments and reference standards, adopted and enforced by the Authority Having Jurisdiction.
- H. Code: Energy Conservation Code: The energy conservation code, including all local codes and reference standards, adopted and enforced by the Authority Having Jurisdiction.
- I. Code: Existing Building: The existing building code, including all local amendments and reference standards, adopted and enforced by the Authority Having Jurisdiction.
- J. Code: Fire: The fire code, including all local amendments and reference standards, adopted and enforced by the Authority Having Jurisdiction.
- K. Code: Fuel Gas: The fuel gas code, including all local amendments and reference standards, adopted and enforced by the Authority Having Jurisdiction.
- L. Code: Mechanical: The mechanical code, including all local amendments and reference standards, adopted and enforced by the Authority Having Jurisdiction.
- M. Code: Plumbing: The plumbing code, including all local amendments and reference standards, adopted and enforced by the Authority Having Jurisdiction.
- N. Code: Residential: The residential code, including all local amendments and reference standards, adopted and enforced by the Authority Having Jurisdiction.
- O. Connect: To bring service to the equipment and make final attachment including necessary switches, outlets, boxes, terminations, etc.
- P. Contract Documents: All drawings, specifications, specified reference standards, applicable codes, manufacturer's installation instructions, and other documents required for the project.
- Q. Contractor: The contractor or subcontractor(s) responsible for performing the work associated with Divisions 26, 27, and 28, and ultimately the General Contractor.
- R. Drawings: All plans, details, schedules, diagrams, sketches, etc. issued for the execution of the work.
- S. Exposed: Not concealed.
- T. Furnish: To supply and deliver, unload, and inspect for damage.
- U. Install: To unpack, assemble, erect, apply, place, finish, cure, protect, clean, connect, and place into operation into the work.
- V. Owner: The individual or authorized representatives, to whom the work is being provided.
- W. Provide: To furnish and install.
- X. Work: The construction and services, including all labor, materials, and equipment, required by the contract documents to fulfill the Contractual obligations. The work may constitute the whole or a part of the project.

1.03 CODES AND STANDARDS

- A. Perform work in accordance with the applicable Building Code, Electrical Code, Mechanical Code, Plumbing Code, Energy Code, and all other applicable codes, standards, and ordinances. Also perform all work in accordance with:
 - 1. Occupational Safety and Health Administration (OSHA) Regulations.
 - 2. Americans with Disabilities Act (ADA).
 - 3. The Authority Having Jurisdiction.
 - 4. Landlord requirements including Tenant Criteria Manuals and Lease Exhibits.
 - 5. Uniform Standard Requirements.
- B. Recognized Standard: Data, manufacture, testing and method of installation of all apparatus and materials furnished under the requirements of these Specifications shall conform to the latest publications or standard rules of Institute of Electrical and Electronic Engineers (IEEE), National Electrical Manufacturers Association (NEMA), Underwriters Laboratories, Inc. (UL), National Fire Protection Association (NFPA), American Society for Testing and Materials (ASTM), American National Standards Institute (ANSI), National Electrical Code (NEC), National Electrical Safety Code (NESC), National Fire Protection Association (NFPA), and American Institute of Steel Construction (AISC).

1.04 PERMITS AND FEES

- Permits, licenses, fees, inspections and arrangements required for the work under this Contract shall be obtained by the Contractor at his expense.

1.05 TEMPORARY SERVICES FOR CONSTRUCTION

- A. Provide all temporary electrical service, including all required equipment such as transformers, generators and fuel, panelboards, etc., as required by all trades. Coordinate power requirements for the temporary service with the General Contractor and the utility company prior to the start of construction. The Contractor is responsible to develop all temporary service plans and specifications as required by the Authority Having Jurisdiction, submit those plans and specifications as required by the Authority Having Jurisdiction, and to pay for all temporary service energy consumption.

- B. Provide all temporary lighting, including all required lighting levels in compliance with OSHA regulations and as required by all trades.

1.06 CONTRACT DRAWINGS

- A. Obtain, fully understand, and coordinate the work with the complete set of Contract Documents. All required conditions, including all associated drawings, arising from the contract with the complete set of Contract Documents is the Contractor's sole responsibility.

- B. Work under these Sections is diagrammatic and is intended to convey the scope of work and indicate the general arrangement of equipment, controls, and outlets. Obtain drawings from the Architect/Engineer prior to rough-in where construction exists as to the exact intended location of outlets or equipment.

- C. Promptly report and discrepancies discovered within the Contract Documents. Failure of the Contractor to report discrepancies shall result in the Owner reserving the right to reject the work and subject to the Architect/Engineer's review and possible rejection. Should the Architect/Engineer reject a discrepancy resolution of which they were not notified, the Contractor is fully responsible to correct the installation, including all associated costs, until completion of the work and resolution given by the Architect/Engineer.

1.07 SUBMITTALS FOR ENGINEER REVIEW

- A. Furnish the following submittals to the Architect for review by the Engineer:
 - 1. Product data for floor boxes and all associated cover plates and flanges.
 - 2. Product data for contactors and relays.
 - 3. Product data and shop drawings for lighting control devices.
 - 4. Shop drawings for low voltage transformers.
 - 5. Product data for 3-wire-3-wire-3-ground assemblies.
 - 6. Product data for enclosed panelboards.
 - 7. Product data for interior lighting.
 - 8. Product data and shop drawings for telephone and data systems.

- B. Submit manufacturer's specification sheets identified by number including the date of issue.
- C. Indicate catalog numbers on the cut sheets.
- D. Submittals other than those listed above will not be reviewed and will be returned stating such.

- E. Submittals are reviewed only for general compliance with the Contract Documents. Dimensions, quantities and details are not checked during submittal review. Review of the submittals does not relieve the Contractor of the responsibility for providing all materials, equipment and accessories necessary for a complete and operational system to meet the requirements of the project and the intent of the Contract Documents. The responsibility for coordination of substituted materials and equipment lies solely with the substituting Contractor.

1.08 QUALITY ASSURANCE

- A. All components shall be listed and classified by Underwriters Laboratories, Inc. as suitable for the purpose and free of all rust/corrosion or any visible damage. All items not complying with this requirement shall be replaced without any change in the Contract amount.
- B. Unless otherwise specified, all equipment, devices, luminaires, and materials of the same type or classification and used for the same purpose shall be products of the same manufacturer. Use only new, unweathered, and unused material, except as specifically noted.
- C. Equipment performance, accessories, and bid items on the Drawings other than specified in the Contract, including in both locations is not a prerequisite to inclusion in the Contract; equipment and accessories specified in either location shall be included in the Contract. Provide all necessary accessories and connections required for a complete functioning system. All required components required to interface to a system although such components may or may not be specifically indicated in the Contract Documents.
- D. When plans indicate fixtures or equipment will be furnished by others, this Contractor shall provide all rough-in and supplies and shall connect such equipment to the electrical system. Drawings, instructions, and manuals supplied with equipment shall be carefully preserved and turned over to the Architect.

1.09 DELIVERY, STORE, AND HANDLING

- A. Accept all materials on site and inspect for damage or protection from corrosion and entrance of debris. Handle all materials in accordance with manufacturer's instructions to avoid damage to internal components, enclosures, and finishes.

- B. Warranty and Guarantee: Provide a complete parts and labor warranty and guarantee on all systems for a period of one year from Owner's acceptance of the work for the duration of the contract. The contractor shall cover all failures unless such failure is directly attributable to vandalism or causes other than defects in material or workmanship.

1.10 WARRANTY AND GUARANTEE

- A. Provide all complete parts and labor warranty and guarantee on all systems for a period of one year from Owner's acceptance of the work for the duration of the contract. The contractor shall cover all failures unless such failure is directly attributable to vandalism or causes other than defects in material or workmanship.
- B. Provide all necessary accessories and connections required for a complete functioning system. All required components required to interface to a system although such components may or may not be specifically indicated in the Contract Documents.

1.11 DELIVERY, STORE, AND HANDLING

- A. Accept all materials on site and inspect for damage or protection from corrosion and entrance of debris. Handle all materials in accordance with manufacturer's instructions to avoid damage to internal components, enclosures, and finishes.

- B. Warranty and Guarantee: Provide a complete parts and labor warranty and guarantee on all systems for a period of one year from Owner's acceptance of the work for the duration of the contract. The contractor shall cover all failures unless such failure is directly attributable to vandalism or causes other than defects in material or workmanship.

1.12 CONTRACTOR'S RESPONSIBILITY

- A. Work lines and established heights shall be in strict accordance with architectural drawings and specifications. Verify all dimensions shown and establish all elevations and detailed dimensions not shown prior to rough-in.

- B. Promptly report any difficulties encountered in the installation of the work which might prevent prompt and proper installation. Failure to report shall constitute a report of the work of other trades being fit and proper for the execution of this work.

- C. Coordinate the work of all trades so that it proceeds without delay and without interference to other trades which have not yet been completed. Conflicts arising from lack of coordination shall be this Contractor's responsibility. The Electrical Contractor shall pay for all extra cutting and patching necessary by any lack of coordination.

- D. All work lines and established heights shall be in strict accordance with architectural drawings and specifications. Verify all dimensions shown and establish all elevations and detailed dimensions not shown prior to rough-in.

- E. Coordinate the work of all trades so that it proceeds without delay and without interference to other trades which have not yet been completed. Conflicts arising from lack of coordination shall be this Contractor's responsibility. The Electrical Contractor shall pay for all extra cutting and patching necessary by any lack of coordination.

1.13 COORDINATION OF WORK

- A. Work lines and established heights shall be in strict accordance with architectural drawings and specifications. Verify all dimensions shown and establish all elevations and detailed dimensions not shown prior to rough-in.

- B. Coordinate the work of all trades so that it proceeds without delay and without interference to other trades which have not yet been completed. Conflicts arising from lack of coordination shall be this Contractor's responsibility. The Electrical Contractor shall pay for all extra cutting and patching necessary by any lack of coordination.

1.14 CONTRACTOR'S RESPONSIBILITY

- A. Work lines and established heights shall be in strict accordance with architectural drawings and specifications. Verify all dimensions shown and establish all elevations and detailed dimensions not shown prior to rough-in.

- B. Coordinate the work of all trades so that it proceeds without delay and without interference to other trades which have not yet been completed. Conflicts arising from lack of coordination shall be this Contractor's responsibility. The Electrical Contractor shall pay for all extra cutting and patching necessary by any lack of coordination.

1.15 CONTRACTOR'S RESPONSIBILITY

- A. Work lines and established heights shall be in strict accordance with architectural drawings and specifications. Verify all dimensions shown and establish all elevations and detailed dimensions not shown prior to rough-in.

- B. Coordinate the work of all trades so that it proceeds without delay and without interference to other trades which have not yet been completed. Conflicts arising from lack of coordination shall be this Contractor's responsibility. The Electrical Contractor shall pay for all extra cutting and patching necessary by any lack of coordination.

1.16 CONTRACTOR'S RESPONSIBILITY

- A. Work lines and established heights shall be in strict accordance with architectural drawings and specifications. Verify all dimensions shown and establish all elevations and detailed dimensions not shown prior to rough-in.

- B. Coordinate the work of all trades so that it proceeds without delay and without interference to other trades which have not yet been completed. Conflicts arising from lack of coordination shall be this Contractor's responsibility. The Electrical Contractor shall pay for all extra cutting and patching necessary by any lack of coordination.

1.17 CONTRACTOR'S RESPONSIBILITY

- A. Work lines and established heights shall be in strict accordance with architectural drawings and specifications. Verify all dimensions shown and establish all elevations and detailed dimensions not shown prior to rough-in.

- B. Coordinate the work of all trades so that it proceeds without delay and without interference to other trades which have not yet been completed. Conflicts arising from lack of coordination shall be this Contractor's responsibility. The Electrical Contractor shall pay for all extra cutting and patching necessary by any lack of coordination.

1.18 CONTRACTOR'S RESPONSIBILITY

- A. Work lines and established heights shall be in strict accordance with architectural drawings and specifications. Verify all dimensions shown and establish all elevations and detailed dimensions not shown prior to rough-in.

- B. Coordinate the work of all trades so that it proceeds without delay and without interference to other trades which have not yet been completed. Conflicts arising from lack of coordination shall be this Contractor's responsibility. The Electrical Contractor shall pay for all extra cutting and patching necessary by any lack of coordination.

1.19 CONTRACTOR'S RESPONSIBILITY

- A. Work lines and established heights shall be in strict accordance with architectural drawings and specifications. Verify all dimensions shown and establish all elevations and detailed dimensions not shown prior to rough-in.

- B. Coordinate the work of all trades so that it proceeds without delay and without interference to other trades which have not yet been completed. Conflicts arising from lack of coordination shall be this Contractor's responsibility. The Electrical Contractor shall pay for all extra cutting and patching necessary by any lack of coordination.

1.20 CONTRACTOR'S RESPONSIBILITY

- A. Work lines and established heights shall be in strict accordance with architectural drawings and specifications. Verify all dimensions shown and establish all elevations and detailed dimensions not shown prior to rough-in.

- B. Coordinate the work of all trades so that it proceeds without delay and without interference to other trades which have not yet been completed. Conflicts arising from lack of coordination shall be this Contractor's responsibility. The Electrical Contractor shall pay for all extra cutting and patching necessary by any lack of coordination.

1.21 CONTRACTOR'S RESPONSIBILITY

- A. Work lines and established heights shall be in strict accordance with architectural drawings and specifications. Verify all dimensions shown and establish all elevations and detailed dimensions not shown prior to rough-in.

- B. Coordinate the work of all trades so that it proceeds without delay and without interference to other trades which have not yet been completed. Conflicts arising from lack of coordination shall be this Contractor's responsibility. The Electrical Contractor shall pay for all extra cutting and patching necessary by any lack of coordination.

1.22 CONTRACTOR'S RESPONSIBILITY

- A. Work lines and established heights shall be in strict accordance with architectural drawings and specifications. Verify all dimensions shown and establish all elevations and detailed dimensions not shown prior to rough-in.

- B. Coordinate the work of all trades so that it proceeds without delay and without interference to other trades which have not yet been completed. Conflicts arising from lack of coordination shall be this Contractor's responsibility. The Electrical Contractor shall pay for all extra cutting and patching necessary by any lack of coordination.

1.23 CONTRACTOR'S RESPONSIBILITY

- A. Work lines and established heights shall be in strict accordance with architectural drawings and specifications. Verify all dimensions shown and establish all elevations and detailed dimensions not shown prior to rough-in.

- B. Coordinate the work of all trades so that it proceeds without delay and without interference to other trades which have not yet been completed. Conflicts arising from lack of coordination shall be this Contractor's responsibility. The Electrical Contractor shall pay for all extra cutting and patching necessary by any lack of coordination.

1.24 CONTRACTOR'S RESPONSIBILITY

- A. Work lines and established heights shall be in strict accordance with architectural drawings and specifications. Verify all dimensions shown and establish all elevations and detailed dimensions not shown prior to rough-in.

- B. Coordinate the work of all trades so that it proceeds without delay and without interference to other trades which have not yet been completed. Conflicts arising from lack of coordination shall be this Contractor's responsibility. The Electrical Contractor shall pay for all extra cutting and patching necessary by any lack of coordination.

1.25 CONTRACTOR'S RESPONSIBILITY

- A. Work lines and established heights shall be in strict accordance with architectural drawings and specifications. Verify all dimensions shown and establish all elevations and detailed dimensions not shown prior to rough-in.

- B. Coordinate the work of all trades so that it proceeds without delay and without interference to other trades which have not yet been completed. Conflicts arising from lack of coordination shall be this Contractor's responsibility. The Electrical Contractor shall pay for all extra cutting and patching necessary by any lack of coordination.

1.26 CONTRACTOR'S RESPONSIBILITY

- A. Work lines and established heights shall be in strict accordance with architectural drawings and specifications. Verify all dimensions shown and establish all elevations and detailed dimensions not shown prior to rough-in.

- B. Coordinate the work of all trades so that it proceeds without delay and without interference to other trades which have not yet been completed. Conflicts arising from lack of coordination shall be this Contractor's responsibility. The Electrical Contractor shall pay for all extra cutting and patching necessary by any lack of coordination.

1.27 CONTRACTOR'S RESPONSIBILITY

- A. Work lines and established heights shall be in strict accordance with architectural drawings and specifications. Verify all dimensions shown and establish all elevations and detailed dimensions not shown prior to rough-in.

- B. Coordinate the work of all trades so that it proceeds without delay and without interference to other trades which have not yet been completed. Conflicts arising from lack of coordination shall be this Contractor's responsibility. The Electrical Contractor shall pay for all extra cutting and patching necessary by any lack of coordination.

1.28 CONTRACTOR'S RESPONSIBILITY

- A. Work lines and established heights shall be in strict accordance with architectural drawings and specifications. Verify all dimensions shown and establish all elevations and detailed dimensions not shown prior to rough-in.

2. Power Pack: Wattstopper #BZ-250 unless indicated otherwise.
 3. Finish: White.
 D. Accessories: Provide heavy duty coated steel wire protective guards compatible with specified occupancy sensors where subject to impact.

2.03 TIMECLOCKS
 A. All DZS series unless indicated otherwise.
 B. Input Voltage: Coordinate with the voltage of the control circuit.
 C. Enclosure: Manufacturer's standard enclosure suitable for the environment in which the timelock is installed.

2.04 TIMER SWITCHES: Tor #S5403 unless indicated otherwise.

2.05 GENERAL INSTALLATION REQUIREMENTS
 3.01 Provide all control wiring and communications cabling, whether or not shown on the Drawings, per manufacturer's recommendations and as required for a complete and operational system.
 B. Program the system as established in meeting with the Owner.

3.02 INSTALLATION OF TIMECLOCKS
 A. Install timelocks adjacent to panelboard serving controlled circuits and make electrical wiring interconnections.
 B. Provide all control relays, interposing relays, and controls that are required but not shown to switch the loads in the manner indicated on the Drawings.
 C. Provide nameplate for timelocks indicating timelock number.

3.03 INSTALLATION OF OCCUPANCY SENSORS AND MOTION SENSORS
 A. Provide occupancy sensors and motion sensors indicated on the Drawings, per manufacturer's recommendations and only intended to indicate which rooms or areas require devices. Provide quantity and locations as required for complete coverage of respective room or area based on manufacturer's recommendations for installed devices.
 B. Install both optical and dual technology occupancy sensors a minimum of 4 feet from the supply ducts or other sources of heavy air flow and as per manufacturer's recommendations, in order to minimize false triggers.
 C. Provide occupancy sensors as MANUAL-ON, AUTOMATIC-OFF unless indicated otherwise.
 D. Mask sensor lenses using the manufacturer's masking material as required to prevent false triggers.
 E. Adjust position of directional occupancy sensors and outdoor motion sensors for optimal coverage as required.

3.04 INSTALLATION OF POWER PACKS
 A. Install power packs on junction box in accessible location above ceiling of the associated sensor.
 B. Do not switch power serving power packs. All required switching shall occur on the load side of the power pack relay.

3.05 CLOSURE
 A. Demonstrate proper operation of lighting control devices to the Owner and correct deficiencies or make adjustments as directed.
 B. Train Owner's personnel on operation, adjustment, programming, and maintenance of lighting control devices.
 C. Provide a written report of all program settings and photosensor settings to the Owner.

END OF SECTION

SECTION 262200 - LOW-VOLTAGE TRANSFORMERS

PART 1 GENERAL
 1.01 PREPARATION
 A. Identify any loads that require buck/boost transformers based on the voltage requirement of the load as compared to the voltage of serving panelboard.
 B. Determine all required ratings of any required buck/boost transformers and provide buck/boost transformers as required.

PART 2 PRODUCTS
 2.01 TRANSFORMERS
 A. Description: Square D Class 7400 Type EX air cooled, dry type transformer unless indicated otherwise.
 B. Ratings: Voltage, phase, and kVA as indicated.
 C. Windings: Aluminum or copper.
 D. Insulation:
 1. 1-15 kVA: Class 185 with 115 degrees C rise.
 2. 16-100 kVA: Class 220 with 150 degrees C rise.
 E. Energy Efficiency: DOE-2016 for transformers rated 15 kVA or greater.
 F. Enclosure: Ventilated enclosure suitable for the environment in which the transformer is installed.

2.02 BUCK/BOOST TRANSFORMERS
 A. Description: Square D Class 7400
 B. Ratings: Voltage, phase, and kVA as required for the load served.

PART 3 EXECUTION
 3.01 INSTALLATION
 A. Mount all transformers, except floor-mounted transformers on slab on grade, on vibration isolating pads suitable for isolating the transformer noise from the building structure.
 B. Install wall-mounted transformers using integral flanges or accessory brackets furnished by the manufacturer.
 C. Provide 3 inch thick concrete housekeeping pad for floor-mounted transformers.
 D. Use 2 feet minimum flexible conduit for connections to transformer cores.
 E. Provide seismic restraints where required by Code.
 F. Provide grounding and bonding as required by Code and specified.
 G. Measure primary and secondary voltages and make appropriate tap adjustments.

END OF SECTION

SECTION 262416 - PANELBOARDS

PART 1 GENERAL - NOT USED

PART 2 PRODUCTS
 2.01 LIGHTING AND APPLIANCE PANELBOARDS
 A. Description: Square D Type NO for 240 Volt Class and Square D Type NO for 600 Volt Class, unless indicated otherwise.
 B. Voltage, Phase, and Current Ratings: As indicated or otherwise required.
 C. Short-Circuit Current Rating (SCCR): No less than the available fault current. The Contractor shall determine the available fault current which will not be indicated on the Drawings.
 D. Busbars: As indicated.
 E. Bonded Equipment Ground Bar: Provide for each panelboard.
 F. Isolated Ground Bar: Provide for each panelboard that serves isolated ground loads.
 G. Enclosure: Manufacturer's standard enclosure suitable for the environment in which the panelboard is installed: 5.75 inches deep, 20 inches wide unless indicated otherwise; surface or flush mounted as indicated.
 H. Cabinet Front: Surface or flush type as indicated with hinged door, finish, metal directory frame and finished in manufacturer's standard enclosure.
 I. Circuit Breakers:
 1. Bolt-on thermal-magnetic molded case circuit breakers with common trip handle and all poles.
 2. Provide Type GFCI for lighting circuits.
 3. Provide Type HACR for heating, air-conditioning, and refrigeration equipment circuits.
 4. Provide Class A ground-fault circuit interrupter (GFCI) where indicated or otherwise required.
 5. Provide ground-fault protection of equipment (GFPE) where serving heat tracing or otherwise required.
 6. Provide combination type arc-fault circuit interrupter (AFCI) where indicated or otherwise required.
 7. Provide ground-fault protection of circuit breaker (GFCI) where indicated or otherwise required.
 8. Accessories:
 a. Provide handle ties for circuit breakers serving multiwire branch circuits.
 b. Provide Square D #HLD1 handle clamp for circuit breakers denoted as "HLD" and for all fire protection and fire alarm equipment and all circuits serving emergency lighting.
 c. Provide Square D #000PA fixed handle padlock attachment for circuit breakers denoted as "HLD" and for appliances without a local disconnecting means.
 d. Provide shunt trip where denoted as "ST" or otherwise required.
 9. Amp Interrupting Capacity (AIC) Rating: No less than the available fault current; fully rated or manufacturer tested series combination. The Contractor shall determine the available fault current where indicated on the Drawings.
 10. Do not use multi-pole circuit breakers that mount in a 1-pole circuit breaker space (i.e. half-size circuit breakers).

PART 3 EXECUTION
 3.01 INSTALLATION
 A. Install panelboards 6 feet to top of panelboard but no less than 4 inches above floor.
 B. Provide 4 inch thick concrete housekeeping pad for surface-mounted panelboards within 4 inches of the floor.
 C. Provide filler plates for unused spaces in panelboards.
 D. Provide type circuit directory and nameplate for each panelboard. Revise directory to reflect circuiting changes required to balance phase loads.
 E. Provide five 1 inch spare conduits out of each flush-mounted panelboard to an accessible location above ceiling. Identify each as SPARE.
 F. Measure steady state load currents at each panelboard feeder and rearrange circuits as required to balance the phase loads to within 10 percent maximum imbalance. Maintain proper phasing for multiwire branch circuits.

G. Provide nameplate indicating panelboard equipment designation for each panelboard.

END OF SECTION

SECTION 262717 - EQUIPMENT WIRING

PART 1. GENERAL

1.01 COORDINATION WITH OTHER TRADES

A. Meet with all other trades before commencing any work and obtain and review shop drawings, product data, manufacturer's wiring diagrams, and manufacturer's instructions for equipment furnished under other Sections.

- Determine all equipment connection locations and requirements and verify that proper power supply is available prior to installing or connecting equipment.
- Calculate the available fault current at any equipment required to carry a short-circuit current rating (SCCR) and communicate the minimum SCCR required to the contractor supplying the equipment prior to the equipment being ordered.
- Sequence electrical connections to coordinate with start-up of equipment.
- Verify and coordinate all requirements and installation details of other equipment, including power, rough-in, and final.
- Verify proper voltage, phase, and current rating of power supply and immediately report any discrepancies.
- Responsibility for verification of proper power supply voltage and any damage resulting from incorrect connections shall rest with this Contractor.
- Any conflicts arising from lack of coordination shall be this Contractor's responsibility.

PART 2. PRODUCTS

2.01 CORDS

A. Description: Multi-conductor flexible cord Type SO for dry and damp locations or Type SOW in wet locations.
 B. Conductor Quantity: As required for the load served; include all required equipment grounding conductor.
 C. Conductor Insulation Rating: As required for the voltage of the load served.
 D. Conductor Ampacity: No less than the rating of the overcurrent protection device protecting the circuit.

2.02 CORD

Provide a cord cap to receptacle configuration at outlet provided for equipment.

2.03 OTHER MATERIALS:

Provide all disconnect switches, wiring devices, conduit, wire and cable, and boxes required.

PART 3. EXECUTION

3.01 ELECTRICAL CONNECTIONS

A. Make electrical connections in accordance with equipment manufacturer's instructions.
 B. Make conduit connections to equipment using flexible conduit. Use listed flexible conduit with watertight connectors in damp or wet locations.
 C. Connect heat producing equipment with wire and cable with insulation suitable for temperatures encountered.
 D. Provide receptacle outlet to accommodate connection with attachment plug.

3.02 CONDUIT

Provide a separate GFCI receptacle for every instance where a receptacle is not located on the Drawings and where required by Code; do not GFCI-protect receptacles from the load side of an upstream GFCI receptacle.

3.03 GROUND-FAULT CIRCUIT INTERRUPTER (GFCI) RECEPTACLES

1. Provide a separate GFCI receptacle for every instance where a receptacle is not located on the Drawings and where required by Code; do not GFCI-protect receptacles from the load side of an upstream GFCI receptacle.

3.04 WALL BOXES

A. Install wall switches with OFF position down.
 B. Install receptacles vertically with ground pin on bottom unless indicated otherwise.

3.05 GROUND-FAULT CIRCUIT INTERRUPTER (GFCI) RECEPTACLES

A. Make a separate GFCI receptacle for every instance where a receptacle is not located on the Drawings and where required by Code; do not GFCI-protect receptacles from the load side of an upstream GFCI receptacle.

3.06 WALL BOXES

A. Install wall switches to achieve full rating; do not break hentsink fins off.

B. Install power interfaces in concealed accessible location.

C. Provide a separate neutral conductor for each branch circuit serving wall box dimmers; do not connect wall box dimmers to multi-wire branch circuits.

D. Install all control wiring and communications cabling including all 10-10V control wiring, whether or not shown on the Drawings, per manufacturer's recommendations and as required for a code, local and open standards.

E. Install single-pole switches in outlet boxes and connect wiring device grounding terminal to branch circuit equipment grounding conductor.

F. Connect wiring devices by wrapping conductor around screw terminal; do not use back-wired push terminals.

G. Install single-pole wall outlet boxes including blank outlets.

H. Use flat-head screws, clips, and straps to fasten multi-outlet assembly channel to surfaces and use suitable insulating bushings and inserts at connections to outlets and corner fittings.

PART 4. EXECUTION

4.01 INSTALLATION

A. Replace any lamps and ballasts that expire before the Owner's acceptance of project.

B. Aim and adjust all luminaires to provide illumination levels, focusing, and distribution patterns to the Owner's satisfaction.

END OF SECTION

SECTION 262720 - WIRING DEVICES

PART 1. GENERAL

1.01 PREPARATION
 Contact the Architect to determine colors of all wiring devices, cover plates, and carpet and tile flanges, locations where stainless steel cover plates are required, and locations where carpet and tile flanges are required.

PART 2. PRODUCTS

2.01 RECEPTACLES
 A. All Receptacles:
 1. Color as selected by Architect.
 2. Provide tamper-resistant receptacles where denoted "TR" on the Drawings.

3. Provide ground-fault circuit interrupter receptacles where denoted "GFCI" on the Drawings and otherwise required.

4. Provide receptacles with factory-applied permanent controlled receptacle markings where denoted on the Drawings and controlled by a circuit switch control.

5. Provide NEMA receptacle indicated with one Type A and one Type B receptacle where denoted on the Drawings.

6. Provide identified weather-resistant receptacles for receptacles installed outdoors.

7. Provide NEMA 5-15R Duplex: Hubbell #BR15 unless indicated otherwise.

C. Standard NEMA 5-20R Duplex: Hubbell #BR20 unless indicated otherwise.

D. Interior GFCI Duplex: Hubbell #GFC20 unless indicated otherwise.

E. Isolated Ground Duplex: Hubbell #IGC20 unless indicated otherwise.

F. Clock Hanger Receptacles: Hubbell #HBL5235 unless indicated otherwise.

G. GFCI Receptacles: As required by the load served.

H. GFCI Receptacles: As required by the load served.

I. GFCI Receptacles: As required by the load served.

J. Site Lighting: Class CC with in-line fuseholder.

K. Remote ballasts, low voltage transformers, and drivers in concealed accessible areas in close proximity to the associated luminaires and connect to the associated luminaires per the manufacturer's recommendations, including adjusting wire sizes for voltage drop if required.

L. Prevent insulation from being installed above or within 3 inches away from any luminaire that is recessed into an insulated ceiling but is not insulated ceiling (IC) rated.

M. Install fire-rated luminaire covers (tents) for luminaires installed in fire-rated ceiling assemblies; provide fire-rated boxes around luminaires when fire-rated luminaire covers (tents) are not available.

N. Provide remote ballasts, fire-rated ceiling assemblies; coordinate with the Architect.

O. Provide GFCI receptacles marked with "GFCI" where indicated on the Drawings.

P. Provide GFCI receptacles marked with "GFCI" where indicated on the Drawings.

Q. Provide GFCI receptacles marked with "GFCI" where indicated on the Drawings.

R. Provide GFCI receptacles marked with "GFCI" where indicated on the Drawings.

S. Provide GFCI receptacles marked with "GFCI" where indicated on the Drawings.

T. Provide GFCI receptacles marked with "GFCI" where indicated on the Drawings.

U. Provide GFCI receptacles marked with "GFCI" where indicated on the Drawings.

V. Provide GFCI receptacles marked with "GFCI" where indicated on the Drawings.

W. Provide GFCI receptacles marked with "GFCI" where indicated on the Drawings.

X. Provide GFCI receptacles marked with "GFCI" where indicated on the Drawings.

Y. Provide GFCI receptacles marked with "GFCI" where indicated on the Drawings.

Z. Provide GFCI receptacles marked with "GFCI" where indicated on the Drawings.

AA. Provide GFCI receptacles marked with "GFCI" where indicated on the Drawings.

BB. Provide GFCI receptacles marked with "GFCI" where indicated on the Drawings.

CC. Provide GFCI receptacles marked with "GFCI" where indicated on the Drawings.

DD. Provide GFCI receptacles marked with "GFCI" where indicated on the Drawings.

EE. Provide GFCI receptacles marked with "GFCI" where indicated on the Drawings.

FF. Provide GFCI receptacles marked with "GFCI" where indicated on the Drawings.

GG. Provide GFCI receptacles marked with "GFCI" where indicated on the Drawings.

HH. Provide GFCI receptacles marked with "GFCI" where indicated on the Drawings.

II. Provide GFCI receptacles marked with "GFCI" where indicated on the Drawings.

JJ. Provide GFCI receptacles marked with "GFCI" where indicated on the Drawings.

KK. Provide GFCI receptacles marked with "GFCI" where indicated on the Drawings.

LL. Provide GFCI receptacles marked with "GFCI" where indicated on the Drawings.

MM. Provide GFCI receptacles marked with "GFCI" where indicated on the Drawings.

NN. Provide GFCI receptacles marked with "GFCI" where indicated on the Drawings.

OO. Provide GFCI receptacles marked with "GFCI" where indicated on the Drawings.

PP. Provide GFCI receptacles marked with "GFCI" where indicated on the Drawings.

QQ. Provide GFCI receptacles marked with "GFCI" where indicated on the Drawings.

RR. Provide GFCI receptacles marked with "GFCI" where indicated on the Drawings.



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Date: 05/13/2024
COA # 2609

PROJECT NO. 24068
DATE: 05/09/2024
DRAWN BY: SEI
SCALE: AS NOTED
FILE:
GROSS AREA 6,719 S.F.

REVISIONS:

City of Puyallup
Development & Permitting Services
ISSUED PERMIT
Building Planning
Engineering Public Works
Fire Traffic

SHEET TITLE:
FIRE ALARM PLAN

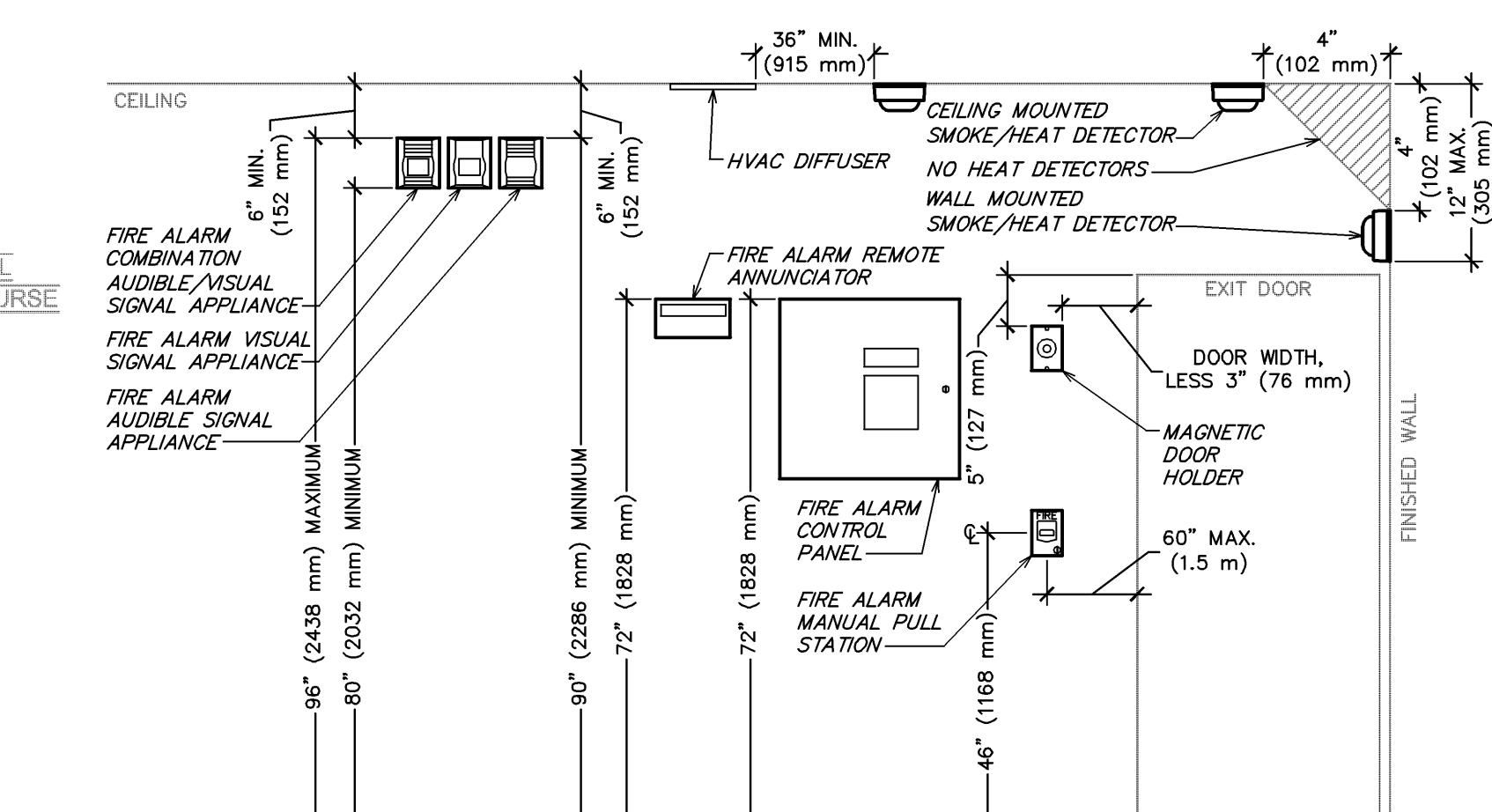
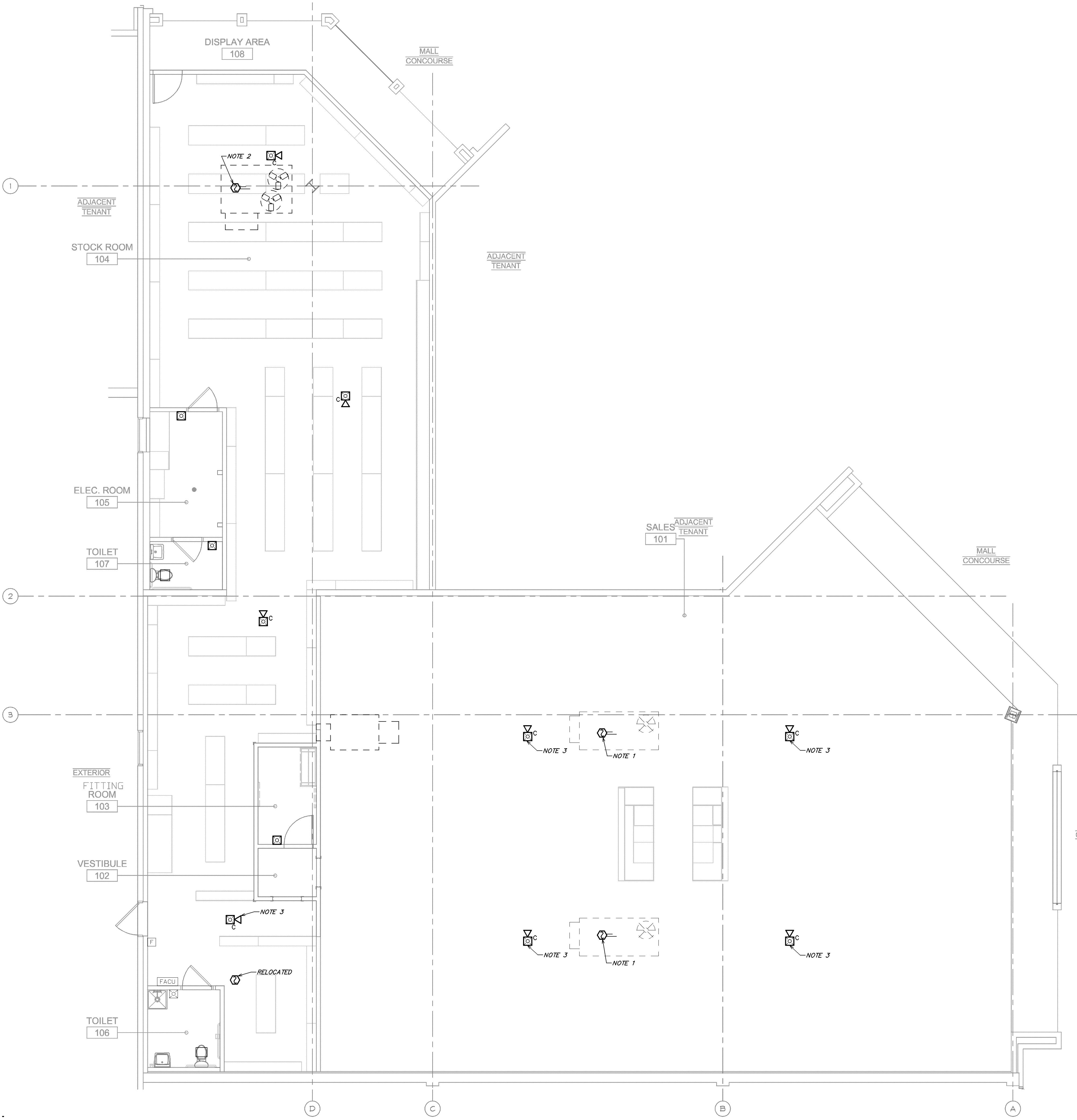
SHOE PALACE
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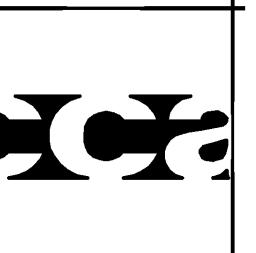
FA1.0



2 TYPICAL DEVICE ELEVATION DETAIL
NOT TO SCALE

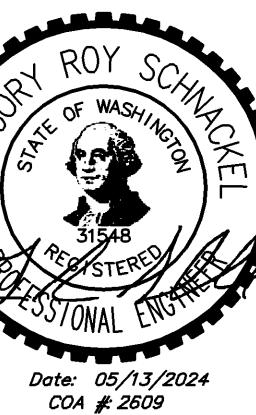
ALL EXPOSED CONDUIT TO BE ROUTED TIGHT TO DECK.

LEGEND
— EXISTING
— NEW WORK
⊕ NEW TO EXISTING CONNECTION



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Date: 05/13/2024
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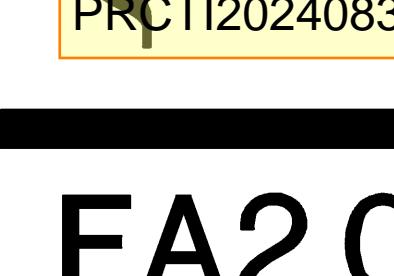
REVISIONS:

City of Puyallup
Development & Permitting Services
ISSUED PERMIT
Building Planning
Engineering Public Works
Fire Traffic

SHEET TITLE:
FIRE ALARM
SPECIFICATIONS

SHOE PALACE
SOUTH HILL MALL
SPACE 410 & 420
3500 S MERIDIAN
PUYALLUP, WA 98373

PRCTI20240836



FA2.0

SECTION 28000 - FIRE ALARM GENERAL CONDITIONS

1.01 **SUMMARY**
A. This section supplements Section 284600 and shall apply to all phases of work hereinafter specified, shown on the drawings, or required to provide a complete installation of approved electrical, communications, and electronic safety and security systems.
B. All drawings and specifications, including drawings and specifications related to other divisions, shall apply to the work. Where conflicts arise between documents, the more stringent requirement will apply, subject to the interpretation of the Engineer.
C. Furnish all labor, material, services, and skilled supervision necessary for the construction, erection, installation, commissioning, and adjustment of all equipment, materials, and components specified herein, or shown on the drawings, and its delivery to the Owner, complete in all respects and ready for use.
D. Products furnished but not installed under this section:
1. Where plans indicate equipment, materials, or components will be furnished by this Contractor for installation by other Contractors, this Contractor shall furnish all such equipment, materials, or components, complete in all respects and ready for installation.
2. Drawings, instructions, and materials supplied with equipment, materials, or components furnished under this division but installed under other divisions shall be carefully preserved and turned over to the installing Contractor.
E. Products installed but not furnished under this section:
1. Where plans indicate equipment, materials, or components will be furnished by others, this Contractor shall furnish all such equipment, materials, and components, and shall connect such equipment, materials, or components.
2. Drawings, instructions, and materials supplied with equipment, materials, or components furnished under separate divisions but installed under this division shall be carefully preserved and turned over to the Owner in the closeout documents.

1.02 **DEFINITIONS**
A. The following definitions apply throughout the drawings and specifications associated with the work performed under Section 284600.
1. Authority Having Jurisdiction: All regulatory agencies, including but not limited to, plans examiners, fire marshals, inspectors, insurance carriers, and utility companies.
2. Concealed: Hidden from sight in chases, furred spaces, shafts, hung ceilings, embedded in construction in crawl spaces, or underground.
3. Conduct: Conduct, lay, run, and install required fittings, pull boxes, hangers, and other equipment and accessories related to such.
4. Code: All applicable codes, including but not limited to the administrative code, building code, electrical code, energy conservation code, existing building code, fire code, fuel gas code, mechanical code, plumbing code, and zoning code.
5. Code: Administrative: The administrative code, including all local amendments and reference standards, adopted and enforced by the Authority Having Jurisdiction.
6. Code Building: The building code, including all local amendments and reference standards, adopted and enforced by the Authority Having Jurisdiction.
7. Code, Electrical: The electrical code, including all local amendments and reference standards, adopted and enforced by the Authority Having Jurisdiction.
8. Code, Energy Conservation: The energy conservation code, including all local amendments and reference standards, adopted and enforced by the Authority Having Jurisdiction.
9. Code, Existing Building: The existing building code, including all local amendments and reference standards, adopted and enforced by the Authority Having Jurisdiction.
10. Code, Fire: The fire code, including all local amendments and reference standards, adopted and enforced by the Authority Having Jurisdiction.
11. Code, Fuel Gas: The fuel gas code, including all local amendments and reference standards, adopted and enforced by the Authority Having Jurisdiction.
12. Code, Mechanical: The mechanical code, including all local amendments and reference standards, adopted and enforced by the Authority Having Jurisdiction.
13. Code, Plumbing: The plumbing code, including all local amendments and reference standards, adopted and enforced by the Authority Having Jurisdiction.
14. Code, Residential: The residential code, including all local amendments and reference standards, adopted and enforced by the Authority Having Jurisdiction.
15. Connect: To bring service to the equipment and make final attachment including necessary switches, outlets, boxes, terminations, etc.
16. Contract Documents: All drawings, specifications, specified reference standards, applicable design practices, installation instructions, and other legal documents related to the project.
17. Contractor: The contractor(s) or subcontractor(s) responsible for performing the work associated with Section 284600, and ultimately the General Contractor.
18. Drawings: All plans, details, schedules, diagrams, sketches, etc. issued for the construction of the work.
19. Exposed: Not concealed.
20. Furnish: To supply and deliver, unload, and inspect for damage.
21. Install: To unpack, assemble, dress, apply, place, finish, cure, protect, and/or connect equipment and materials to the work or parts thereof.
22. Owner: The entity, including authorized representatives, to whom the work is being provided.
23. Provide: To furnish and install.
24. Work: The construction and services, including all labor, materials, and equipment, required by the contract documents to fulfill the Contractor's obligations. The work may constitute the whole or a part of the project.

1.03 CODES AND STANDARDS

A. Perform work in accordance with code requirements.
B. Perform work in accordance with:
1. Occupational Safety and Health Administration (OSHA) Regulations.
2. Americans with Disabilities Act (ADA).
3. The Authority Having Jurisdiction (AHJ).
4. All applicable NEC standards.
5. Applicable NFPA standards.
6. Instructions associated with the component's listing agency's requirements.
7. Landlord requirements including the tenant's Criteria Manuals and Lease Exhibits.
C. All Referenced Standards identified in the specifications apply to the work as if they were incorporated into the specifications in their entirety. It shall not be necessary to refer to the original standard or the referenced standard to determine the requirements of the referenced standard to apply to the work. If there is a conflict between the requirements of a referenced standard and the drawings or specifications, it is the responsibility of this Contractor to notify the Engineer of the discrepancy and obtain direction as to which standard applies prior to proceeding with the work.
D. Code and Landlord requirements supersede any requirements of the contract documents.
E. The contract documents take precedence where the contract documents exceed code, local, or referenced standards requirements.

1.04 PERMITS AND FEES

A. Permits, licenses, fees, inspections and arrangements required for the work shall be obtained by the Contractor at his expense.
1.05 PREPARATION

A. The Contractor is responsible to obtain, fully understand, and coordinate the work with the complete set of contract documents. Any required corrections, including all associated costs, arising from issues caused by the Contractor's failure to understand and/or coordinate the work with the complete set of contract documents are the Contractor's sole responsibility.
B. Notwithstanding section 1.04, the work is intended to convey the scope of work and indicate the general arrangement of equipment, conduit, and outlets. Obtain instructions from the Architect/Engineer prior to rough-in where a question exists as to the exact intended location of outlets or equipment.
C. Promptly report any discrepancies discovered within the resolution becoming the Contractor's responsibility and subject to the Architect/Engineer's review and possible rejection. Should the Architect/Engineer reject a discrepancy resolution of which they were not notified, the Contractor is fully responsible to correct the installation, including all associated costs, until approval of the installation is given by the Architect/Engineer.

1.06 EXISTING CONDITIONS

A. Verify all existing conditions prior to beginning work.
B. Any existing conditions indicated are based on information provided by others and may not be accurate.
C. Visit the project site, review existing conditions against the contract documents, and become familiar with the work prior to bidding and start of the work.
1. Adjust for actual field conditions at no additional expense to the Owner.
2. If major discrepancies are found, the Contractor shall advise the Architect/Engineer of the discrepancies and the appropriate modifications to the design can be made without delay to the project.
a. The Contractor assumes full responsibility for adjusting for discrepancies of which the Architect/Engineer is not informed.
3. Signing the contract is an acknowledgement that the site visit has been completed and the information is accurate.

D. Verify field measurements and circuiting arrangements are indicated.
E. Verify that removed wiring and equipment serve only abandoned facilities.
F. Where connections are made between new work and existing work, the connections shall be made by using the standard method to match the actual conditions.
G. Where existing work is to be modified, it shall be done in conformance with these specifications. Materials used shall be same as existing except where specified otherwise.

1.07 SUBMITTALS

A. Furnish the Architect/Engineer product data and/or shop drawings, as specified.
B. Indicate all proposed catalog numbers. Product data and/or shop drawings submitted without catalog numbers will be returned without Engineer review.

C. Product data shall consist of manufacturer's standard catalog pages and/or cut-sheets.
D. Submittals shall be concise and to the point, demonstrating the key performance parameters indicated in the contract documents, major dimensions, and identifying the materials used to manufacture the products. Submittals shall directly address the specific requirements of the contract documents without unnecessary, superfluous information such as non-applicable catalog pages, non-applicable cut sheets, and/or brochures. Submittals shall not be delivered orally, via email, or fax, unless specifically directed by the requirements of the contract documents will be returned without Engineer review.
E. The Architect/Engineer's review shall not relieve the Contractor from responsibility for errors within the submittals.

1.08 QUALITY ASSURANCE

A. All Products:
1. Listed, classified, and labeled by an organization recognized by OSHA as a Nationally Recognized Testing Laboratory (NRTL) and acceptable to Authority Having Jurisdiction as suitable for the purpose specified and indicated.
2. Listed and labeled by the manufacturer of Buildings and furnished with an acceptance number, where applicable.
3. Listed and classified by the Landlord's and/or Owner's insurance carrier (FM, IRI, etc.), where applicable.
B. All equipment, materials, and components shall be free of all rust/corrosion or any visible damage. Components failing to comply with this requirement shall be replaced at no additional cost to the Owner.
C. Unless otherwise indicated, all equipment, materials, and components of the same type or classification and used for the same purpose shall be products of the same manufacturer.
D. Use only new, unweathered, and unused equipment, materials, and components, unless indicated otherwise.

PART 2 PRODUCTS - NOT USED

3. PART 3 EXECUTION

3.01 COORDINATION OF WORK

A. Examine the contract documents as a whole for the work of other trades and coordinate all trades accordingly.
B. Work lines and established heights shall be in strict accordance with the contract documents. Verify all dimensions shown and establish all elevations and detailed dimensions not shown.
C. Promptly report to the Architect/Engineer any delay or difficulties encountered in the installation of the work that prevent prompt and proper installation or make unsafe to connect with or receive the work of others. Failure to so report shall constitute an acceptance of the work of other trades as being fit and proper for the execution of this work.
D. Plan, lay out, and coordinate the work with all trades well enough in advance so that it is free of minimum of interference to that has not been completed and work that is in progress.
1. Inform all trades of openings required for the work and provide all special frames, sleeves, and anchor bolts required.
2. Perform work in compliance with the contract documents and/or other trade requirements to the extent that the work of others is not delayed or interfered with.
3. Properly connect and coordinate this work with the work of other trades at such time and in such a manner as not to delay or interfere with their work.
4. Conflicts arising from lack of coordination shall be the Contractor's responsibility.
5. The Contractor shall pay for all extra cutting and patching made necessary by his failure to properly direct such work at the correct time.

E. Install equipment, materials, and components to provide for maximum headroom.
F. Install equipment to facilitate service when selecting mounting elevations.
G. Maintain access to equipment requiring service when selecting mounting elevations.
H. Maintain access to equipment requiring service when selecting mounting elevations.
I. Verify and coordinate with the architect and/or engineer the work of other trades and components that are to be furnished by other trades and installed or connected by the Contractor prior to rough-in. Conflicts arising from lack of coordination shall be the Contractor's responsibility. As such, the Contractor is responsible to:
1. Properly review shop drawings, product data, manufacturer's wiring diagrams, and manufacturer's instructions for equipment, materials, and components furnished under other sections.
2. Determine connection locations and requirements.
3. Sequence rough-in of connections to coordinate with installation of equipment.
4. Sequence connections to coordinate with start-up of equipment.

I. Where crane rental or other erection is required, such costs shall be included in the Subcontractor's contract, unless specific arrangements are made with the General Contractor to cover these costs.

3.02 INTERFACES

A. Fire and Smoke Rated Assemblies:

1. The Contractor shall familiarize himself with all fire and smoke rated construction and install his work so as to maintain the integrity of the fire and smoke rating.
2. Install all equipment, materials, and components to preserve fire resistance rating of partitions and other elements, using materials and methods specified.

3. Seal manholes space around conduits.

4. Use UL listed materials that maintains fire rated wall and floor integrity.

3.03 FIELD QUALITY CONTROL

A. Explicitly follow manufacturer's instruction sheets for the installation of all equipment, materials, and components. Where manufacturer's instruction sheets conflict with required standards, the stronger specification or conflict shall be brought to the attention of the Architect/Engineer for clarification.

B. Although all such work is not specifically indicated, provide all supplementary or miscellaneous items, appurtenances and devices incidental to or necessary for a sound, secure and complete installation.

C. Provide testable and reliable operation of each system.

D. Seal equipment, materials, and components exposed to the weather and make weather-tight and insect-proof.

E. Surface Preparation:

1. Prepare all conduit, fittings, supports, and equipment enclosures exposed to the weather for painting by removing therefrom all oil, grease and dirt. Employ the necessary precautionary methods to prevent scratching or defacing of all apparatus or equipment.

2. Provide all conduit galvanized components for ferric materials exposed to the weather. Provide galvanized components of one coat of rust inhibiting primer paint for all materials after fabrication, color as selected by the Architect.

3. Degrease and clean all surfaces of equipment, materials, and components that are to be painted are to receive nomenclature or labels.

F. All equipment, materials, and components located on exterior walls or on the roof where exposed to the elements shall be painted to match the surrounding surfaces. Paint colors shall be as selected by the Architect. The above provisions shall apply to all exposed equipment and materials visible from 6'-0" above grade from any property line. The Architect may, at his sole option, elect to not paint equipment as acceptable in appearance.

G. All equipment, materials, and components shall be provided, providing circuit continuity in accordance with applicable codes whether or not each component is shown between such items and the point of circuit origin.

3.04 ACCESS TO EQUIPMENT

A. Provide access to equipment and boxes so that all parts are easily accessible for inspection, operation, maintenance and repair. If concealed, provide access doors. Provide fire rated access doors where required by the fire resistance rating of the wall or ceiling in which the door is installed.

3.05 EQUIPMENT CLEARANCES

A. Working space: Install all equipment which is likely to require examination, adjustment, servicing, or maintenance, such that all working spaces required by NFPA 70 are maintained.

3.06 CUTTING, PATCHING, AND PIERCING

A. Carefully open and install all of sleeves or fire through walls and other shall be done in such a manner as to leave the opening as small as possible. Openings shall be cut only as large as required for the installation; sleeves and/or frames installed flush with finished surfaces and cut in place. Surfaces around openings shall be left smooth and finished to match surrounding surface.

B. Obtain written permission from the Architect/Engineer before cutting or piercing structural members. Use craftsmen skilled in their respective trades for cutting, fitting, repairing, patching of plaster, and finishing of materials including carpentry work, metal work, or concrete work required for this work.

C. Do not weaken walls, partitions, or floors with cutting. Holes required to be cut in walls shall be drilled without breaking out around the holes. The Architect/Engineer will determine suitability of patching and/or refinishing requirements.

D. Patch all openings resulting from the installation or removal of equipment, metal work, and/or partitions.

E. Provide and maintain temporary partitions or dust barriers adequate to prevent the spread of dust and dirt to adjacent areas.

F. Patch existing finished surfaces and building components using new materials matching existing materials and experienced subcontractors.

END OF SECTION

SECTION 284600 - FIRE ALARM SYSTEMS

1.01 GENERAL

A. Coordinate with the architectural plans to determine occupancy classification, occupant loads, and fire-rated and smoke-rated construction locations and ratings.
B. Coordinate locations of all smoke curtains, smoke shutters, fire curtains, fire shutters, magnetic door hold-opens, etc. with the architectural plans. Include all components that are required to control smoke detectors, including duct smoke detectors which are required to control smoke dampers, with the Mechanical Contractor. Include all costs in the bid.

C. Coordinate division of responsibility of duct smoke detector installation and all wiring with both the Electrical and Mechanical Contractors. Include all costs in the bid.

D. Coordinate locations of oil fire suppression system monitoring components including flow switches, valve supervisory switches, pressure switches, corrosion monitoring systems, fire pumps, etc. with the Fire Sprinkler Contractor. Include all costs in the bid.

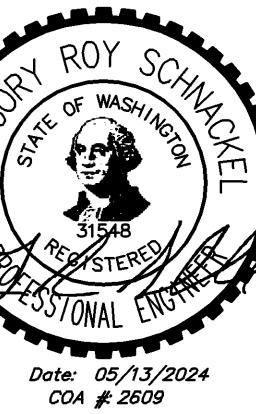
E. Coordinate all required access control system interface controls with the Security Contractor. Include all costs in the bid.

F. Coordinate all required elevator interface controls with the Elevator Contractor. Include all costs in the bid.

G. Coordinate with the Electrical Contractor to provide 120 VAC circuits for equipment at the required locations and any raceways required for fire alarm circuitry. Include all costs in the bid.

H. Coordinate with the Contractor(s) responsible for all other systems that may require fire alarm interfaces. Include all costs in the bid.

I. Coordinate the locations of all wall-mounted notification appliances with the Security Contractor. Coordinate the locations of all wall-mounted notification appliances with the Architect. Coordinate the locations of all wall-mounted notification appliances with the Contractor. Coordinate the locations of all wall-mounted notification appliances with the Fire Sprinkler Contractor. Coordinate the locations of all wall-mounted notification appliances with the Elevator Contractor. Coordinate the locations of all wall-mounted notification appliances with the Security Contractor. Coordinate the locations of all wall-mounted notification appliances with the Architect. Coordinate the locations of all wall-mounted notification appliances with the Contractor. Coordinate the locations of all wall-mounted notification appliances with the Fire Sprinkler Contractor. Coordinate the locations of all wall-mounted notification appliances with the Elevator Contractor. 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Coordinate the locations of all wall-mounted notification appliances with the Security Contractor. Coordinate the locations



PROJECT NO. 24068
 DATE: 05/09/2024
 DRAWN BY: SEI
 SCALE: AS NOTED
 FILE:
 GROSS AREA 6,719 S.F.

REVISIONS:

City of Puyallup	
Development & Permitting Services	
ISSUED PERMIT	
Building	Planning
Engineering	Public Works
Fire	Traffic

 SHEET TITLE:
 FIRE ALARM
 SPECIFICATIONS

SHOE PALACE
 SOUTH HILL MALL
 SPACE 410 & 420
 3500 S MERIDIAN
 PUYALLUP, WA 98373

PRCTI20240836

 Schnackel
 engineers

11. Primary Power: 120 VAC, 60 Hertz.
 12. Secondary Power: Storage battery and battery charger capable of operating entire system for period of time specified by NFPA 72 plus 25 percent spare capacity.

13. Audio Amplifier Modules: As required for speakers served.

D. Remote Announciators:

1. Remote annunciator including audible and visual indication of fire alarm by zone, addressable, and visual indication of system status.

2. Compatible with the control unit, coordinate finish color with the Architect.

3. Provide at a location approved by the Authority Having Jurisdiction when indicated on the drawings or when control unit is installed at a location other than the First Responder's primary point of entry.

E. Addressable Modules:

1. Provide addressable modules suitable for connection to fire alarm control unit signaling line circuits.

2. Use addressable modules only in clean, dry, indoor nonhazardous locations.

3. Multi-Module: Addressable devices are explicitly permitted to be connected together in a multi-module configuration. Provide a connection for each conventional dry-contact input device in order to be individually identifiable by addressable fire alarm control unit.

4. Control Modules: Provide as indicated or as required for selective control of notification appliances.

5. Remote Control Modules: Provide as indicated or as required for control of listed solenoids in releasing applications.

6. Relay Modules: Provide as indicated or as required to perform necessary functions via dry-contact interface. Where load exceeds module contact rating, provide accessory power isolation relays suitable for load as required.

7. Signaling Line Circuit (SLC) Isolating Modules: Provide as required to automatically isolate short circuits on connected sections of SLC loops and allow other sections to continue to function normally. Provide automatic self-diagnostics for correction of short circuit.

F. Initiating Devices:

1. General: All initiating devices shall be compliant with NFPA 72 requirements.

2. Manual Stations: Dual-action, semi-flush mounted in all finished areas and surfaces mounted with appropriate boxbox in unfinished areas.

3. Spot Heat Detectors: Combination type-of-rise and fixed temperature, rated 135 degrees F (57 degrees C) and temperature rate of rise of 15 degrees F (8.3 degrees C), with appropriate mounting base suitable for installation on 4-inch (100 mm) outlet box.

4. Spot Smoke Detectors: Low-profile photoelectric smoke detector with adjustable sensitivity, unless indicated otherwise, with appropriate mounting base suitable for installation on 4-inch (100 mm) outlet box.

a. Provide standard type smoke detector when located in areas that are subject to a room build-up.

b. Provide relay base when smoke detector is used for releasing service.

c. Provide low frequency sounder bases for smoke detectors installed within sleeping units.

5. Duct Smoke Detectors:

a. General:

1. Provide for each HVAC unit rated equal to or greater than 2,000 cubic feet per minute (0.9 cubic meters per second).

2. Provide for all HVAC units serving the same room or area where the total aggregate capacity of the units is equal to or greater than 2,000 cubic feet per minute (0.9 cubic meters per second).

3. Provide for all HVAC units that share a common return air plenum where the total aggregate capacity of the units is equal to or greater than 2,000 cubic feet per minute (0.9 cubic meters per second).

4. Provide as required for control of each smoke damper.

5. All other locations required by code or the Authority Having Jurisdiction.

b. Detection: Photoelectric smoke detector suitable for duct air velocities from 100 to 4,000 feet per minute (0.5 to 20.32 meters per second) with visual indication of detector activation and capabilities for remote testing.

c. Housing: As required for the duct smoke detector.

d. Supply air: As required for duct smoke detector.

e. Remote Test Stations: Keyed remote test station with green POWER and red ALARM status indicators. Provide for each duct smoke detector.

f. Multi-Signaling Accessories: Keyed remote test station with audible alarm signal, add-on strobe, green POWER status indicator, and red ALARM status indicator unless indicated otherwise. Provide for each duct smoke detector that is not connected to a fire alarm control unit.

6. Carbon Monoxide Detectors:

a. UL 2075 carbon monoxide detector with appropriate mounting base suitable for installation on 4-inch (100 mm) outlet box.

1. Provide with integral sounder base when required by local code or the Authority Having Jurisdiction.

b. Sensitivity: Per UL 2034 requirements.

G. Notification Appliances:

1. General:

a. All notification appliances shall be compliant with NFPA 72 requirements.

b. All notification appliances shall be from the same manufacturer.

c. All notification appliances shall be semi-flush mounted in all finished areas; notification appliances are permitted to be surface mounted in unfinished areas.

d. All notification appliances installed within damp or wet locations shall be weatherproof.

e. Color: As selected by the Architect.

2. Strobes:

a. Description: Flash tube with clear lens and reflector, suitable for ceiling or wall-mounting as indicated on the drawings, and field-selectable horn settings.

b. Provide strobe synchronization modules when more than one strobe is located within a viewing area.

3. Horns: Rated at 88 dB at 16 volts, suitable for ceiling or wall-mounting as indicated on the drawings, field-selectable horn tones, and field-selectable volume settings.

4. Combination Horn/Strobes: An integrated appliance consisting of a horn unit and strobe unit meeting the specified individual requirements of both horns and strobes.

5. Speakers: Frequency range from 400 Hz to 4.0 kHz, high-fidelity, high volume, field-selectable speaker voltage, and field-selectable power settings.

6. Combination Speaker/Strobes: An integrated appliance consisting of a horn unit and strobe unit meeting the specified individual requirements of both horns and strobes.

7. Wireless: Provide for notification appliances located in gymnasiums and where otherwise subject to physical damage.

H. Auxiliary Devices:

1. Door Holders: 24 volt coil and 40 pounds of holding force unless indicated otherwise. Holders shall be considered with architectural hardware requirements and verify required clearances, sizes, and locations to operate properly with the doors and hardware specified.

2. Notification Appliance Circuit Power Supplies: As required for a complete operational system.

3. Electronic Resistors: As recommended by the manufacturer.

I. Non-Sysm Alarms:

1. Smoke Alarms: UL 217 dual-sensor (photoelectric and ionization) smoke alarm with audible and visual alarm indicators, integral test switch, low battery alarm, 120 VAC wired with 10-year Lithium ion battery backup; capable of stand-alone operation (single station) or interlocked with other smoke alarms (multiple station).

2. Carbon Monoxide Alarms: UL 2034 electromechanical type with green POWER, red alarm LED, audible alarm indicator, integral test switch, low battery alarm, and end-of-life alarm indicator. UL 2034 wired with 10-year Lithium ion battery, capable of stand-alone operation (single station) or interlocked with other carbon monoxide alarms (multiple station).

3. Combination Smoke/Carbon Monoxide Alarms: An integrated appliance consisting of a smoke alarm and carbon monoxide alarm meeting the specified individual requirements of both smoke and carbon monoxide alarms.

J. Conductive Electrical Metal tubing (BMT): Painted red.

L. Wire and Cable:

1. General: Permitted by local codes and the Authority Having Jurisdiction, fire alarm system wiring is permitted to be installed without conduit where accessible and not subject to physical damage.

a. All wiring installed in exposed or inaccessible locations shall be installed in conduit, including wiring installed inside walls.

2. Riser Conduit: Unshielded Type FPL when installed in conduit and Type FPLP when not installed in conduit unless indicated otherwise or otherwise required; red jacket.

3. Horizontal Cabling: Unshielded Type FPL when installed in conduit and Type FPLP when not installed in conduit unless indicated otherwise or otherwise required; red jacket.

4. Number and size of conductors shall be as recommended by the manufacturer, but shall not be less than 18 AWG for initiating device and signaling line circuits, and 14 AWG for notification appliance circuits.

5. Surge Protection: In accordance with IEEE 626.41.2 category B combination waveform and NFPA 72.

6. Equipment Connected to Alternating Current Circuits: Maximum load through voltage of 350 VAC, line-to-neutral, and 350 VAC, line-to-line; do not use

7. Initiating Device Circuits, Notification Appliance Circuits, and Communications Circuits: Provide surge protection at each point where circuit exits or enters a building; rated to protect applicable equipment; for 24 VDC maximum dc clamping voltage of 36 VDC, line-to-ground, and 72 VDC, line-to-line.

8. Signaling Line Circuits: Provide surge protection at each point where circuit exits or enters a building; rated to protect applicable equipment; for 24 VDC maximum dc clamping voltage of 36 VDC, line-to-ground, and 72 VDC, line-to-line.

N. Document Holder: Steel 14 inch (350 mm) wide by 14 inch (350 mm) high by 3 inch (75 mm) deep system document box with red baked enamel finish.

2.05 SEQUENCE OF OPERATION

A. Trouble Mode: System or circuit trouble places system in trouble mode, which causes the following system operations:

1. Visual and audible trouble signal indicated at fire alarm control unit.

2. Visual and audible trouble signal indicated at remote annunciator panel.

3. Trouble signal transmitted to remote supervising station.

4. Manual acknowledge function at fire alarm control panel silences audible trouble alarm; visual alarm is displayed until initiating failure or circuit trouble is cleared.

B. Supervisory Alarm Mode: Supervisory signal places system in supervisory alarm mode, which causes the following system operations:

1. Visual and audible supervisory signal indicated at fire alarm control unit.

2. Supervisory signal indicated at remote annunciator panel.

3. Activation of initiation device places circuit in alarm mode, which causes the following system operations:

1. Visual and audible alarm signal indicated at fire alarm control unit.

2. Activation of initiation device places circuit in alarm mode, which causes the following system operations:

1. Visual and audible alarm signal indicated at fire alarm control unit.

2. Activation of initiation device places circuit in alarm mode, which causes the following system operations:

1. Visual and audible alarm signal indicated at fire alarm control unit.

2. Activation of initiation device places circuit in alarm mode, which causes the following system operations:

1. Visual and audible alarm signal indicated at fire alarm control unit.

2. Activation of initiation device places circuit in alarm mode, which causes the following system operations:

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1. Visual and audible alarm signal indicated at fire alarm control unit.

2. Activation of initiation device places circuit in alarm mode, which causes the following system operations:

1. Visual and audible alarm signal indicated at fire alarm control unit.

2. Activation of initiation device places circuit in alarm mode, which causes the following system operations:

1. Visual and audible alarm signal indicated at fire alarm control unit.

2. Activation of initiation device places circuit in alarm mode, which causes the following system operations:

1. Visual and audible alarm signal indicated at fire alarm control unit.

2. Activation of initiation device places circuit in alarm mode, which causes the following system operations:

1. Visual and audible alarm signal indicated at fire alarm control unit.

2. Activation of initiation device places circuit in alarm mode, which causes the following system operations:

1. Visual and audible alarm



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Date: 05/13/2024
COA # 2609

PROJECT NO. 24068
DATE: 05/09/2024
DRAWN BY: SEI
SCALE: AS NOTED
FILE:

GROSS AREA 6,719 S.F.

REVISIONS:

City of Puyallup
Development & Permitting Services
ISSUED PERMIT
Building Planning
Engineering Public Works
Fire Safety Traffic

SHEET TITLE:

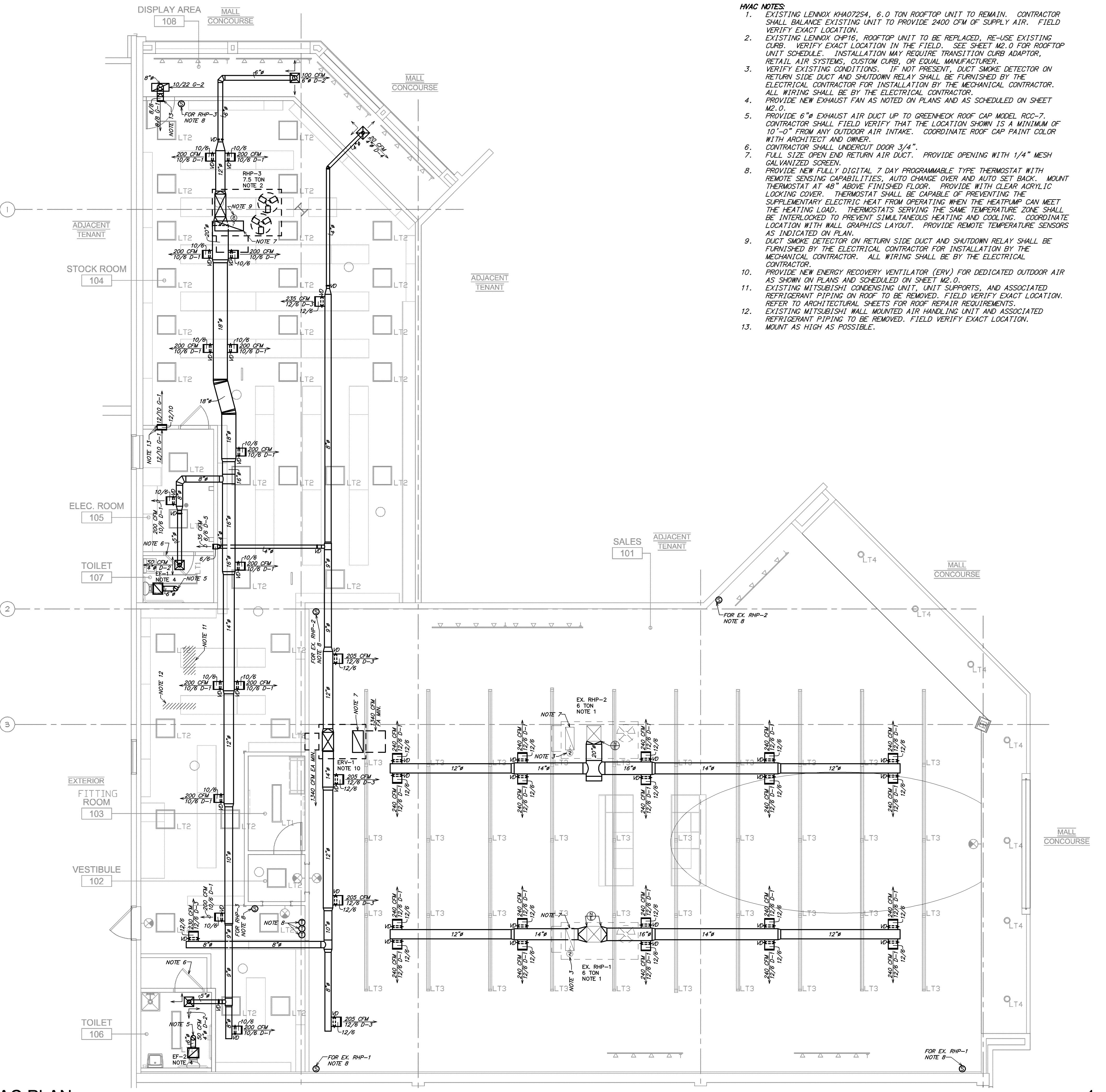
HVAC PLAN

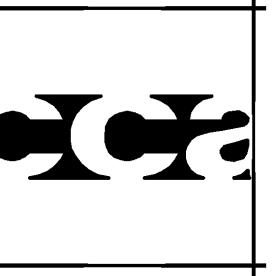
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PUYALLUP, WA 98373

PRCTI20240836



M1.0





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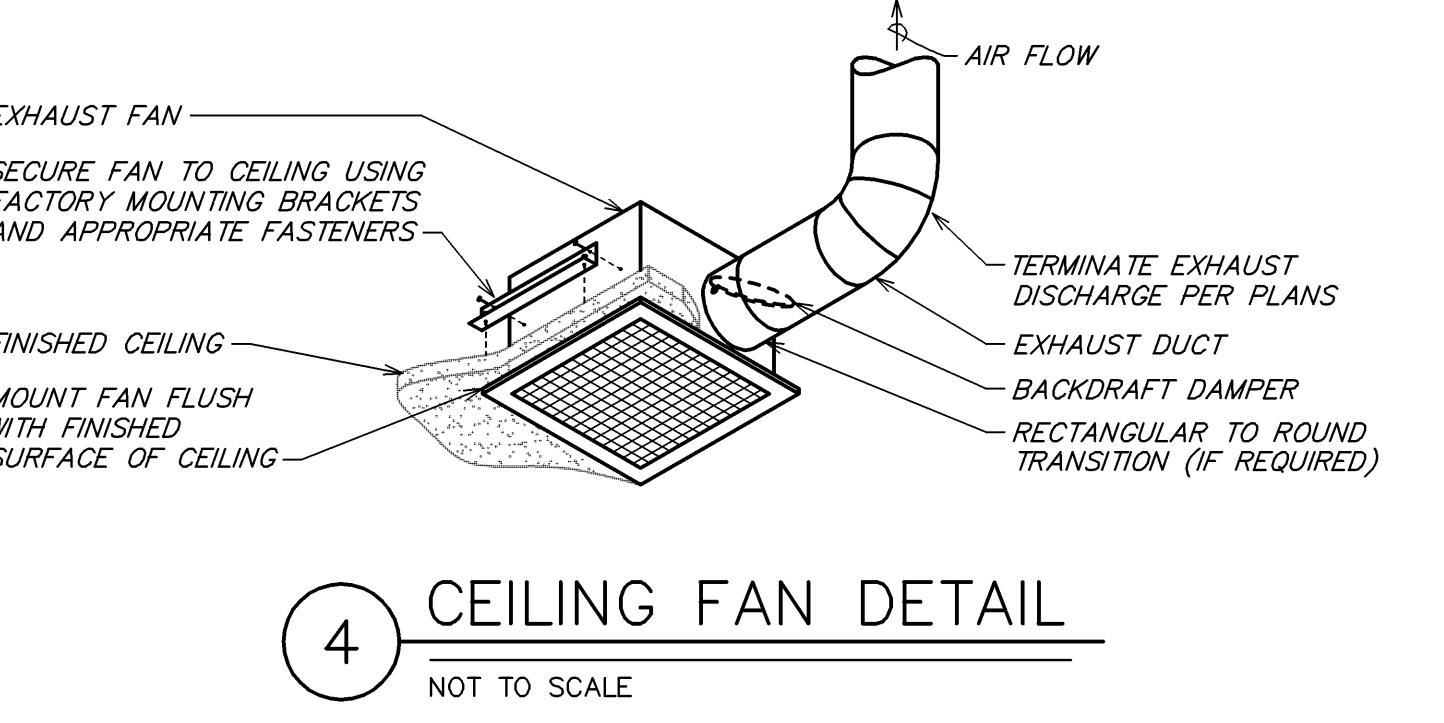
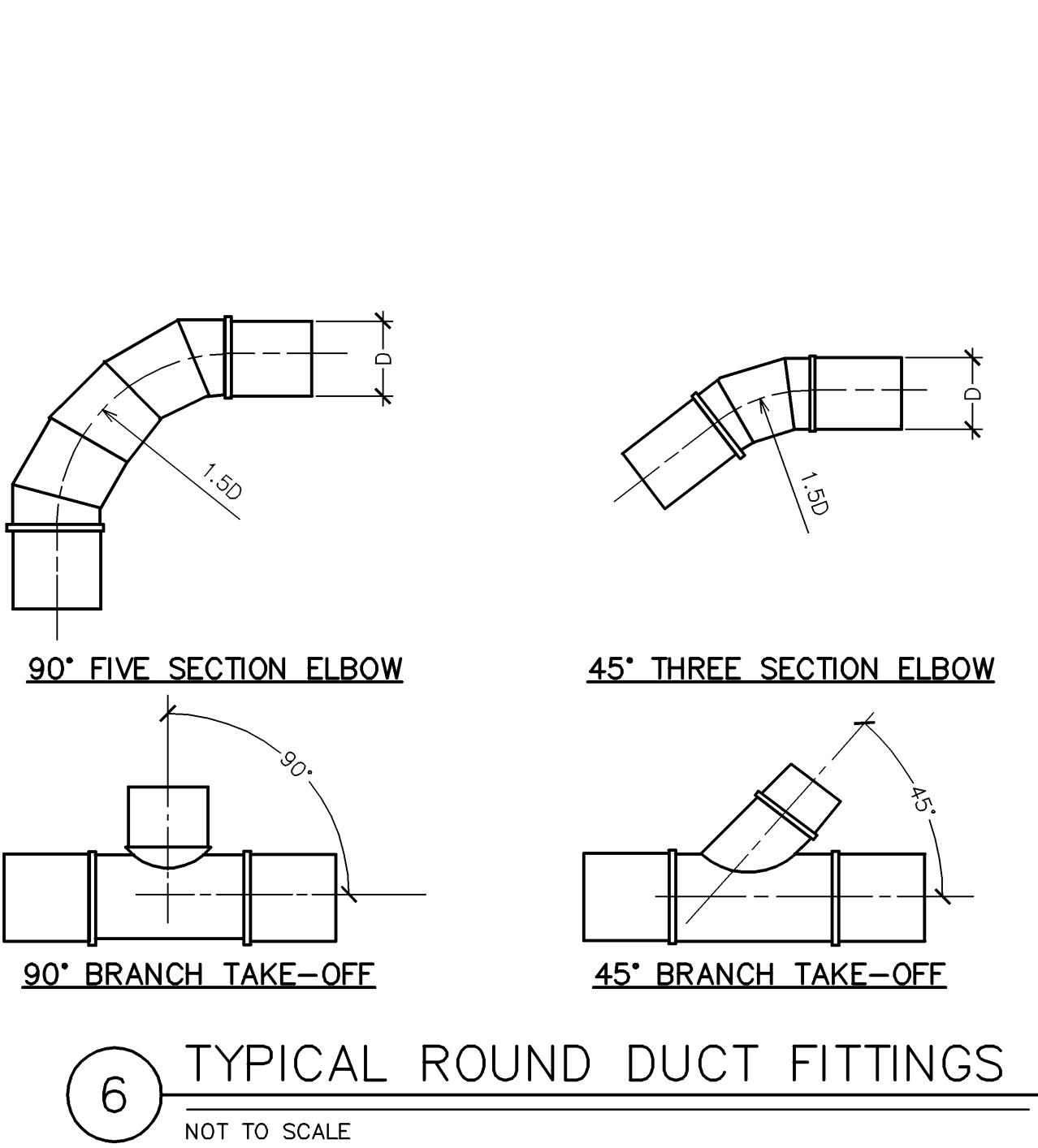
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Date: 05/13/2024
COA # 2609

ENERGY RECOVERY VENTILATION UNIT																									
MARK	MANUFACTURER	MODEL	SUPPLY FAN		EXHAUST FAN		WINTER EXHAUST		WINTER SUPPLY		SUMMER EXHAUST		SUMMER SUPPLY		ELECTRICAL			WEIGHT	NOTES						
			CFM	ESP	NOM (IN)	HP	CFM	ESP	NOM (IN)	HP	DB (F)	WB (F)	DB (F)	WB (F)	DB (F)	WB (F)	V/PH	MCA	MOPC	(LBS)					
ERV-1	GREENHECK	ECV-20-P-H	1340	0.6	3/4	1340	0.6	3/4	39.4	37.4	18	14.8	58.4	47	81.2	63.1	86.0	65.0	74.8	60.6	208/3	20.6	25	893	(1-8)

1. PROVIDE 2 INCH MERV 8 OUTDOOR AIR FILTER.
2. PROVIDE NON-FUSED DISCONNECT SWITCH.
3. PROVIDE WITH SOLID STATE SPEED CONTROLS.
4. PROVIDE WITH LOW LEAKAGE OUTDOOR AIR DAMPER.
5. PROVIDE 2 INCH MERV 8 EXHAUST AIR FILTER.
6. PROVIDE ELECTRIC PREHEATER FOR FROST CONTROL.
7. PROVIDE WITH HI-PRO POLYESTER FINISH COORDINATE FINAL COLOR WITH ARCHITECT PRIOR TO ORDERING.
8. PROVIDE WITH GREENHECK 14" GKD ROOF CURB.

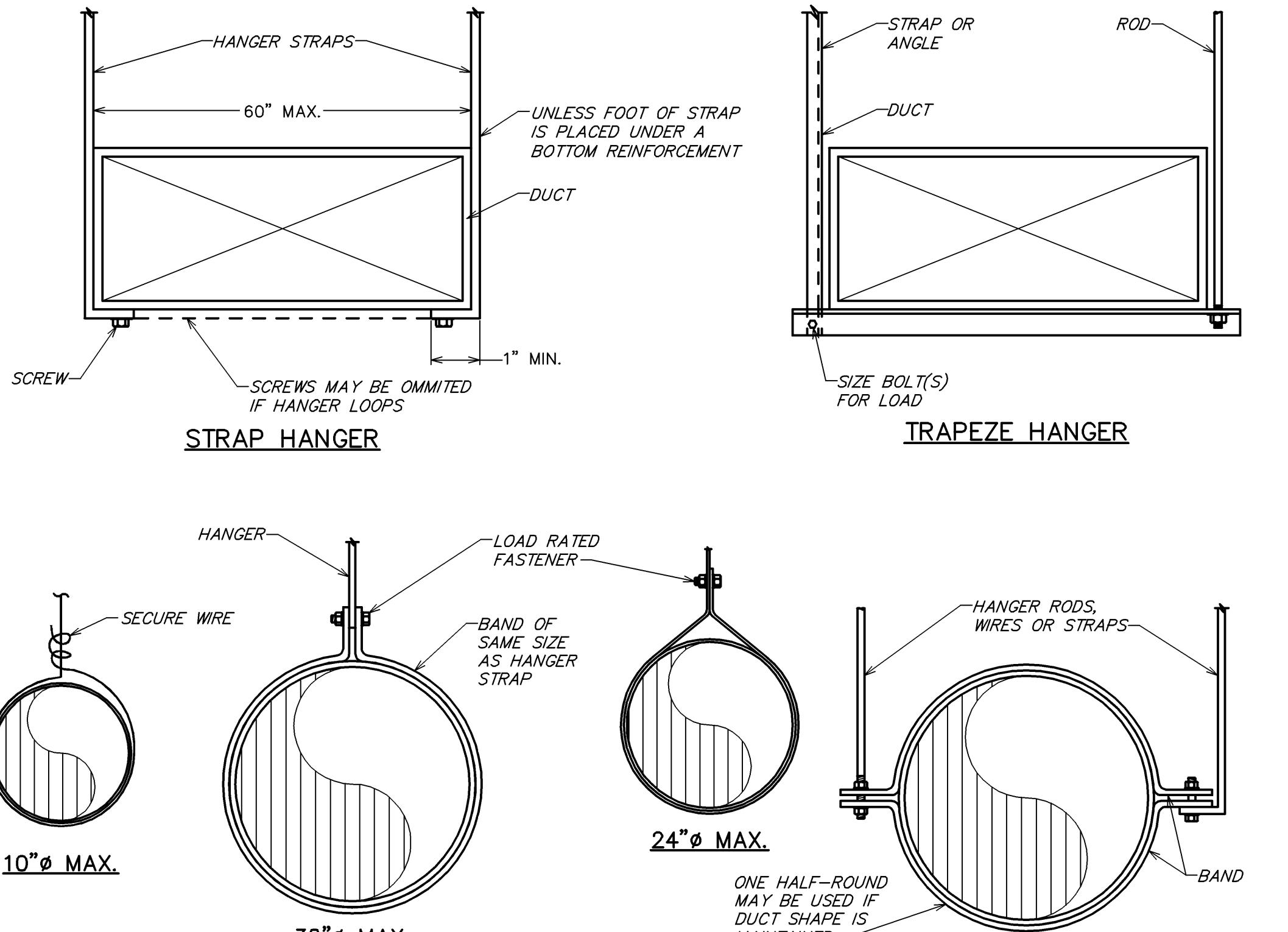


4 CEILING FAN DETAIL
NOT TO SCALE

DIA.	WIRE DIA.	ROD	STRAP
10" DN	ONE 12 GA.	1/4"	1" x 22 GA.
11-18"	TWO 12 GA. OR ONE 8 GA.	1/4"	1" x 22 GA.
19-24"	TWO 10 GA.	1/4"	1" x 22 GA.
25-36"	TWO 8 GA.	3/8"	1" x 20 GA.
37-50"	—	TWO 3/8"	TWO 1" x 20 GA.
51-60"	—	TWO 3/8"	TWO 1" x 18 GA.
61-84"	—	TWO 3/8"	TWO 1" x 16 GA.
85-96"	—	TWO 1/2"	TWO 1 1/2" x 16 GA.

NOTES:
1. STRAPS ARE GALVANIZED STEEL; RODS ARE UNCOATED OR GALVANIZED STEEL; WIRE IS BLACK ANNEALED, BRIGHT BASIC OR GALVANIZED STEEL. ALL ARE ALTERNATIVES.
2. TABLE ALLOWS FOR CONVENTIONAL WALL THICKNESS, AND JOINT SYSTEMS PLUS ONE LB/SF OF INSULATION WEIGHT. IF HEAVIER DUCTS ARE TO BE INSTALLED, ADJUST HANGER SIZES TO BE WITHIN THEIR LOAD LIMITS.

3 ROUND DUCT HANGER TABLE
NOT TO SCALE



NOTE: HANGERS MUST NOT DEFORM DUCT SHAPE

2 DUCT HANGER DETAIL
NOT TO SCALE

ROOF TOP HEAT PUMP UNITS															
MARK	COOLING		HEATING		SUPPLY AIR (CFM)		EXT. S.P. (IN)	FAN BHP	ELECTRICAL			SEER /EER	HSPF /COP	CARRIER MODEL NUMBER	REMARKS
	SEN (MBH)	TOT (MBH)	COOL 47F (MBH)	ELEC (KW)	SUPPLY (CFM)	PH			MCA	MOPC	WEIGHT (LBS)				
RHP-3	66.9	89.5	7.5	85.6	13.8	3,000	0.60	1.02	460	3	41.0	45	1,039	-11.2	-3.4

CARRIER IS THE BASIS OF DESIGN. HIGH EFFICIENCY AAON, LENNOX, TRANE OR YORK 210/240 OR 340/360: 80°F DB/ 67°F WB INDOOR ENTERING AIR TEMPERATURE, 95°F DB AIR ENTERING OUTDOOR FAN. SCHEDULED UNIT MAY DIFFER FROM AHRI STANDARD CFM.

REMARKS:

1. PROVIDE EQUIPMENT WITH SCCR GREATER THAN THE AVAILABLE FAULT CURRENT AT THE EQUIPMENT OR UPSTREAM PANELBOARD. REFER TO THE ELECTRICAL ONE LINE DIAGRAM AND PANEL SCHEDULES FOR AVAILABLE FAULT CURRENT AT UPSTREAM PANELBOARD.
2. PROVIDE WITH FACTORY INSTALLED DISCONNECT, UNPOWERED CONVENIENCE OUTLET, THROUGH THE BASE ELECTRICAL CONNECTION.
3. PROVIDE WITH DRY BULB ECONOMIZER AND BAROMETRIC RELIEF DAMPER.
4. ECONOMIZER SHALL INCLUDE FAULT DETECTION DIAGNOSTICS (FDD). DAMPER LEAKAGE SHALL MEET APPLICABLE ENERGY CODE.
5. PROVIDE WITH CONDENSER COIL HAIL GUARD.
6. DUCT SMOKE DETECTOR ON THE RETURN SIDE DUCT AND SHUTDOWN RELAY SHALL BE FURNISHED BY THE ELECTRICAL CONTRACTOR.
7. PROVIDE CORROSION PROTECTION - PHENOLIC EPOXY COATING, FACTORY APPLIED TO CONDENSER AND EVAPORATOR COILS.
8. PROVIDE WATER LEVEL MONITORING DEVICE IN DRAIN PAN TO SHUT OFF UNIT IF THE DRAIN LINE BECOMES RESTRICTED.
9. UNITS WITH COOLING CAPACITY GREATER THAN OR EQUAL TO 65 MBH SHALL HAVE MULTI-STAGE CAPABILITY PER APPLICABLE ENERGY CODE.
10. PROVIDE ADAPTOR CURB.
11. PROVIDE WITH MODEL CRHEATER420A00 SUPPLEMENTAL HEATER, 15.0 KW AT 480 VOLT, 13.8 KW AT 460 VOLT, 3 PHASE ELECTRIC HEATER.
12. PROVIDE CONTROLS TO PREVENT THE SUPPLEMENTARY ELECTRIC HEAT FROM OPERATING WHEN THE HEAT PUMP CAN MEET THE HEATING LOAD.

EXHAUST FANS											
MARK	LOCATION	SERVICE	AIRFLOW (CFM)	EXTERNAL STATIC (IN H2O)	SONES	MOTOR DATA			REMARKS		
						FAN (HP)	VOLT	PH	RPM	MANUFACTURER	MODEL NUMBER
EF-1	CEILING	RESTROOM	100	0.50	2.0	128 W	115	1	1,050	GREENHECK	SP-B150
EF-2	CEILING	RESTROOM	100	0.50	2.0	128 W	115	1	1,050	GREENHECK	SP-B150

REMARKS:

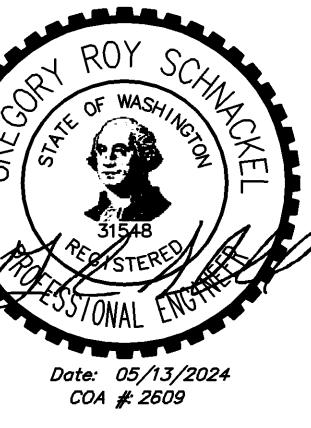
1. FAN SHALL BE UL/CUL 507 LISTED.
2. PROVIDE FAN WITH SOLID STATE SPEED CONTROL.
3. FAN SHALL HAVE ROUND DUCT CONNECTION.
4. PROVIDE WITH BACKDRAFT DAMPER.
5. PROVIDE WITH GPI 14" HEIGHT ROOF CURB AND RCC-7 ROOF CAP.

DIFFUSERS, GRILLES AND REGISTERS											
MARK	SERVICE	LOCATION	CEILING TYPE	MOUNTING TYPE	MANUFACTURER	MODEL NUMBER			REMARKS		
D-1	SUPPLY	DUCT	NA	SURFACE	TITUS	300 R L X X 1 26			(1-2)		
D-2	SUPPLY	CEILING	GYP. BOARD	LAY-IN	TITUS	OMNI X 3 12x12 26 D-75			(1,2,4)		
D-3	FRESH AIR	DUCT	NA	SURFACE	TITUS	300 R L X X 1 26			(1-2)		
D-4	FRESH AIR	CEILING	GYP. BOARD	LAY-IN	TITUS	OMNI X 3 12x12 26 D-75			(1,2,4)		
D-5	FRESH AIR	WALL	NA	SURFACE	TITUS	300 R L X X 1 26			(1-2)		
G-1	TRANSFER	WALL	NA	SURFACE	TITUS	350 R L X X 1 26			(1-2)		
G-2	TRANSFER	CEILING	GYP. BOARD	SURFACE	TITUS	50F X X 1 26			(1-3)		

REMARKS:

1. TITUS IS THE BASE OF DESIGN. KRUEGER, PRICE, NAILOR, CARNES ARE EQUAL. NO EXCEPTIONS.
2. SEE PLAN FOR NECK SIZE.
3. PROVIDE 1/2" x 1/2" x 1" CORE.
4. PROVIDE WITH MODEL TRM FRAME.

MAXIMUM HALF OF DUCT PERIMETER	PAIR AT 10 FT. SPACING		PAIR AT 8 FT. SPACING		PAIR AT 5 FT. SPACING		PAIR AT 4 FT. SPACING	
	STRAP	WIRE /						



PROJECT NO. 24068
DATE: 05/09/2024
DRAWN BY: SEI
SCALE: AS NOTED
FILE: **MECHANICAL**

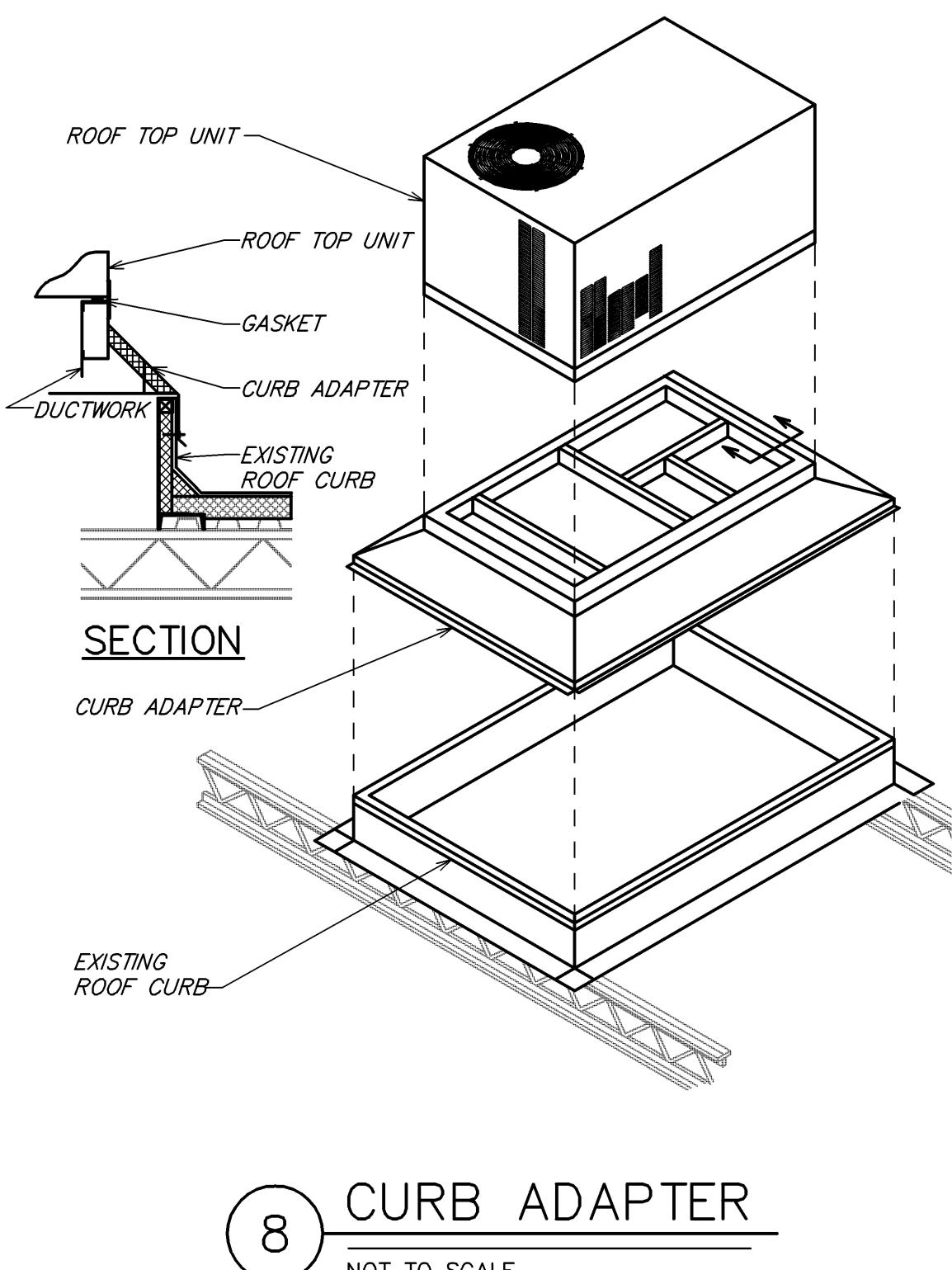
REVISIONS:

City of Puyallup
Development & Permitting Services
ISSUED PERMIT
Building Planning
Engineering Public Works
Fire Safety Traffic

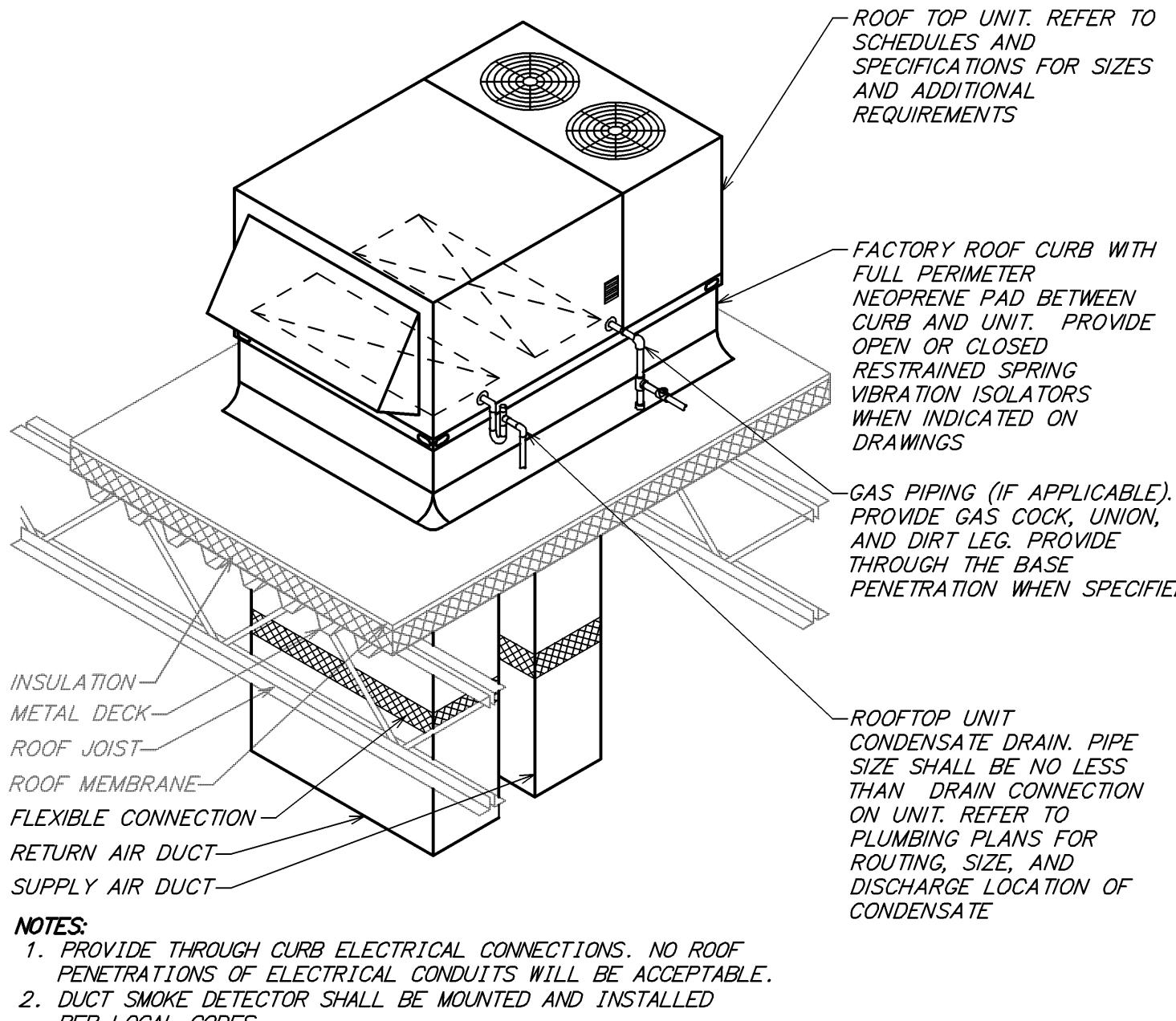
SHEET TITLE:
MECHANICAL DETAILS

SHOE PALACE
SOUTH HILL MALL
SPACE 410 & 420
3500 S MERIDIAN
PUYALLUP, WA 98373

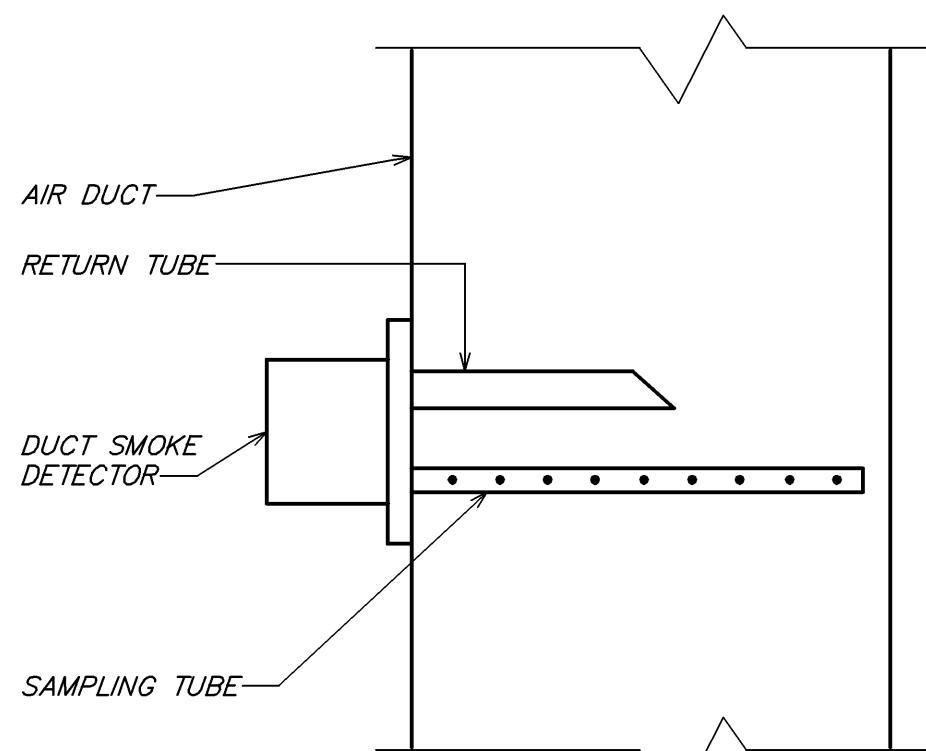
PRCTI20240836



8 CURB ADAPTER
NOT TO SCALE

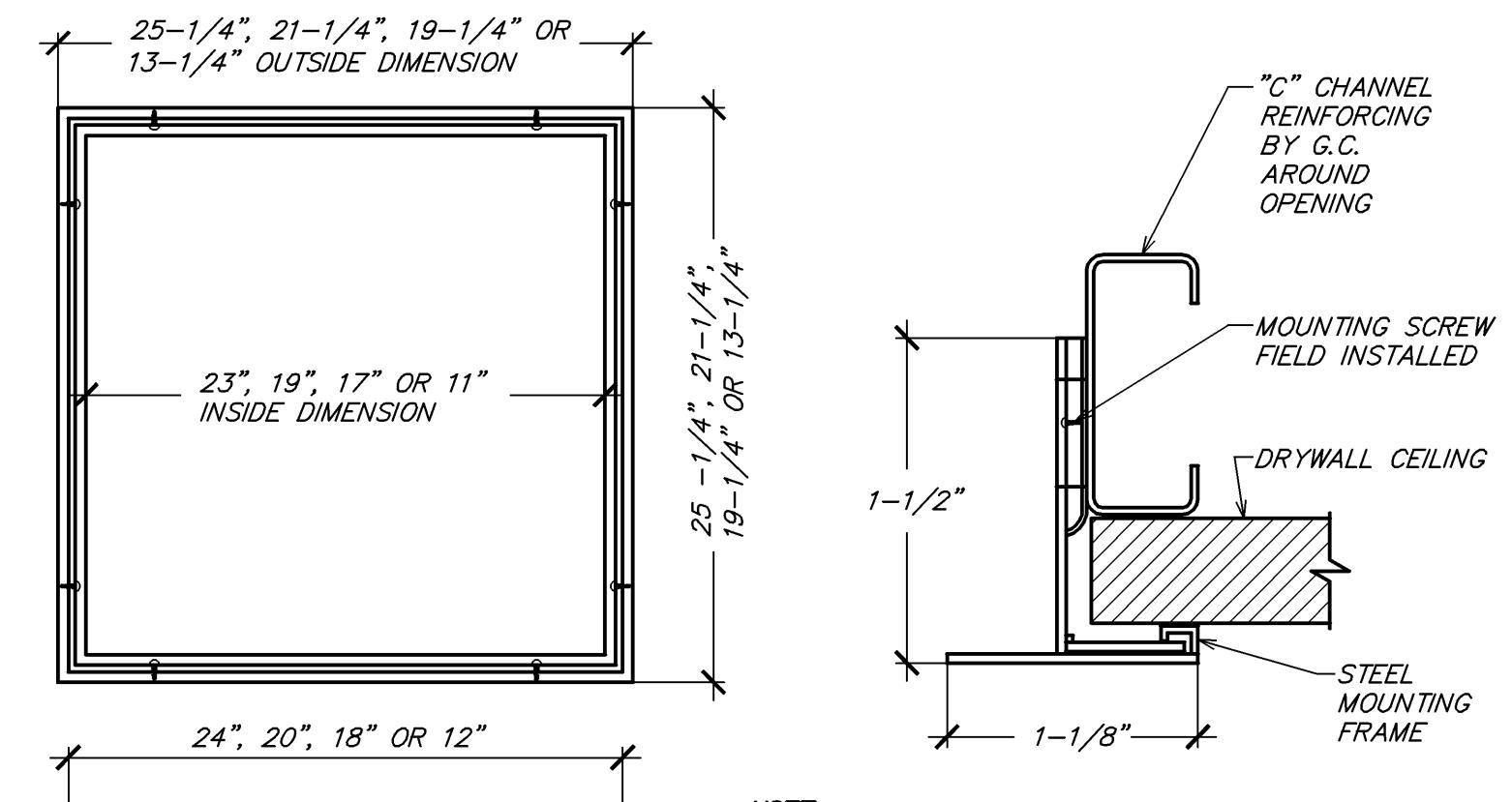


7 TYPICAL ROOF TOP UNIT DETAIL
NOT TO SCALE

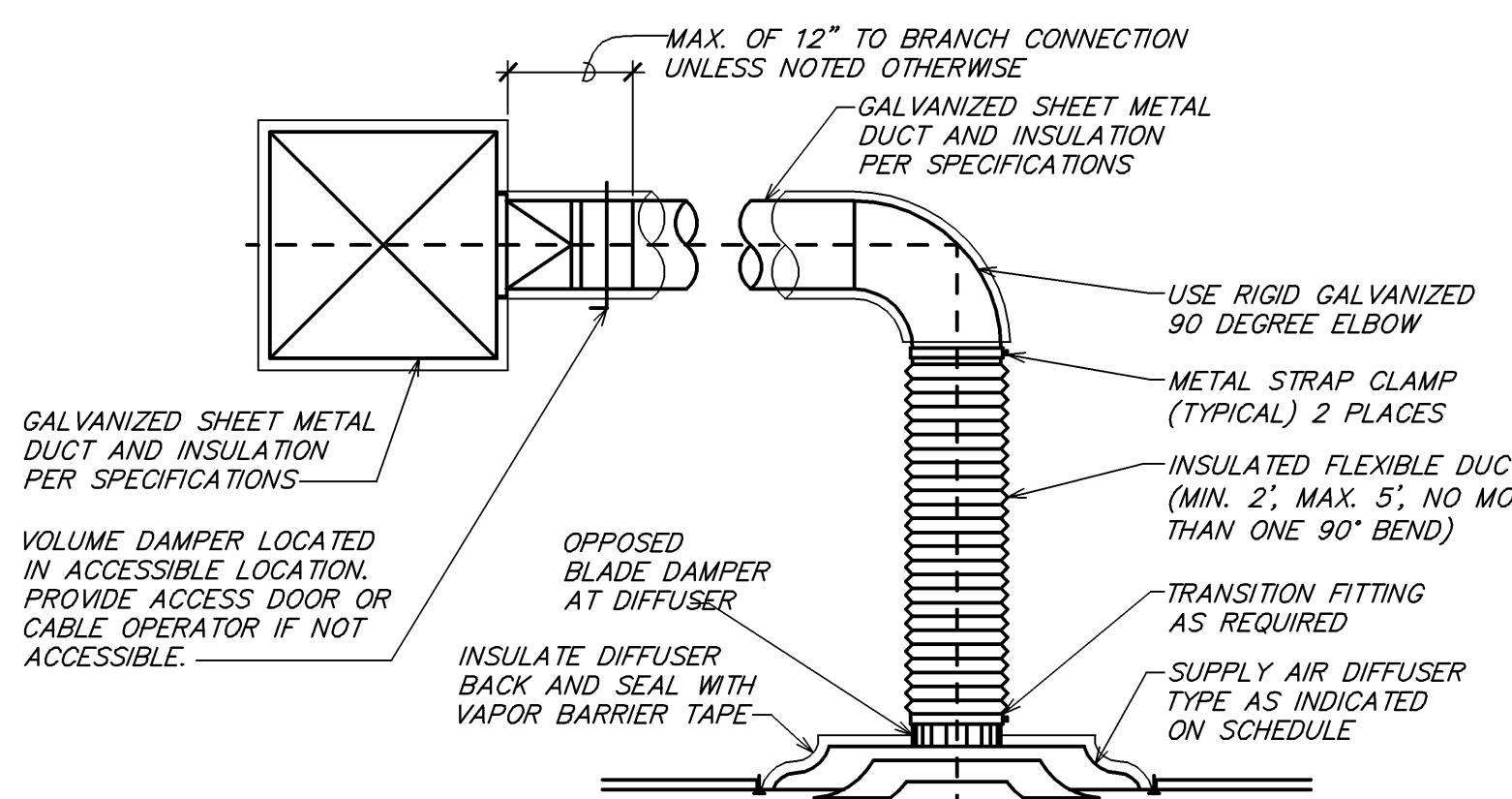


6 DUCT SMOKE DETECTOR DETAIL
NOT TO SCALE

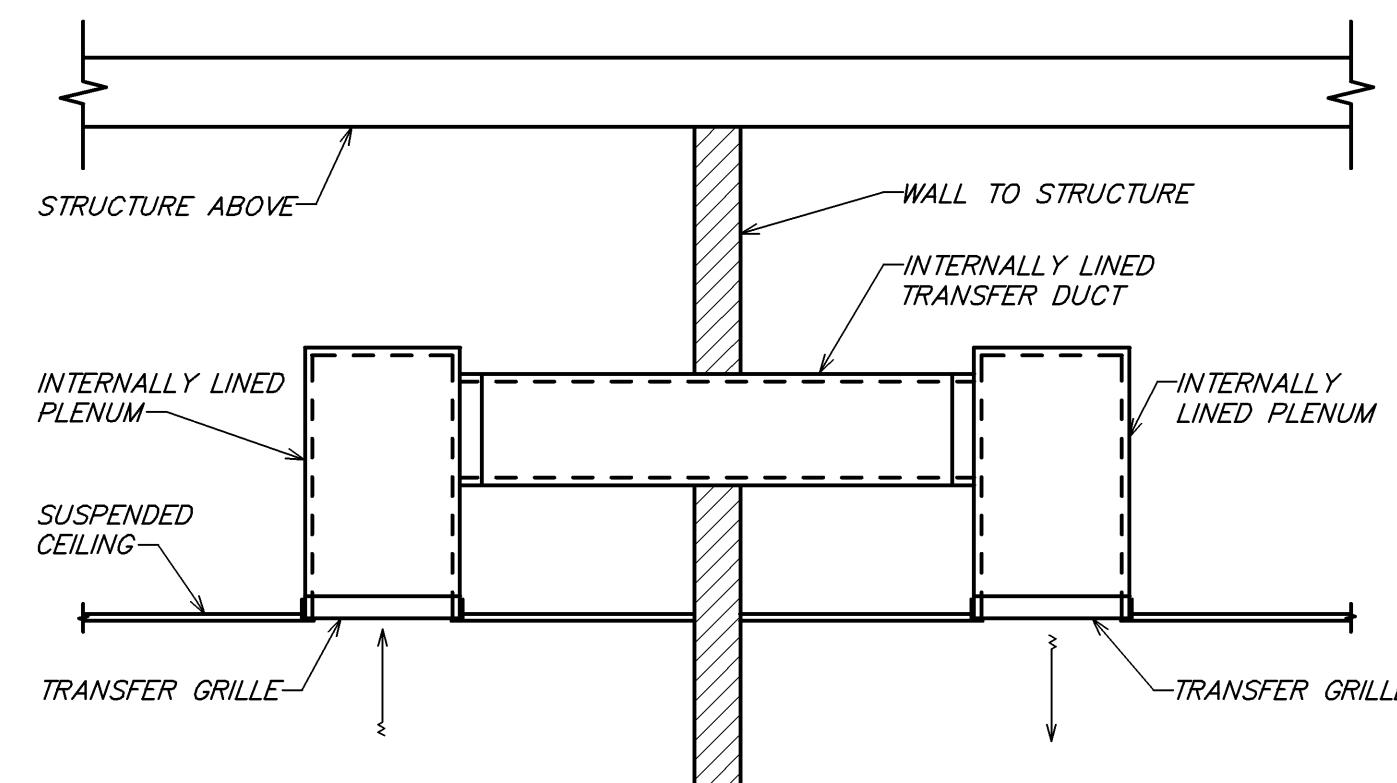
STRUCTURAL CURBS INSTALLED TO SUPPORT ROOFTOP HVAC EQUIPMENT ARE ALLOWED TO INTERRUPT THE ABOVE ROOF INSULATION. THE AREA UNDER THE HVAC EQUIPMENT INSIDE OF THE EQUIPMENT CURB SHALL BE INSULATED TO A MINIMUM OF R-13 IN ALL LOCATIONS WHERE THERE ARE NO ROOF OPENINGS FOR DUCTWORK. THE ANNULAR SPACE BETWEEN THE ROOF OPENING AND THE DUCTWORK SHALL BE SEALED TO MAINTAIN THE BUILDING AIR BARRIER.



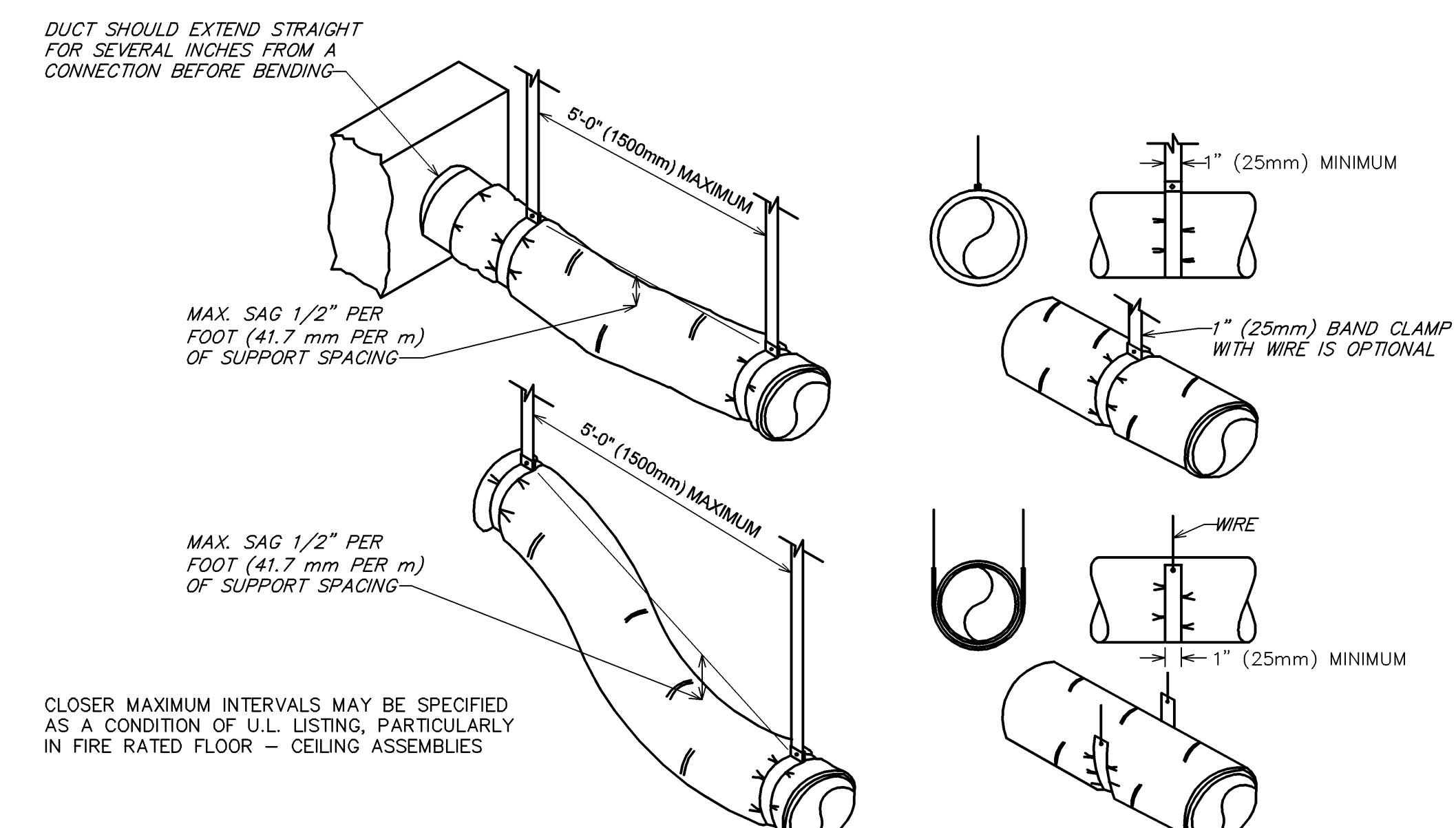
5 TYPICAL DRYWALL MOUNTING FRAME DETAIL
NOT TO SCALE



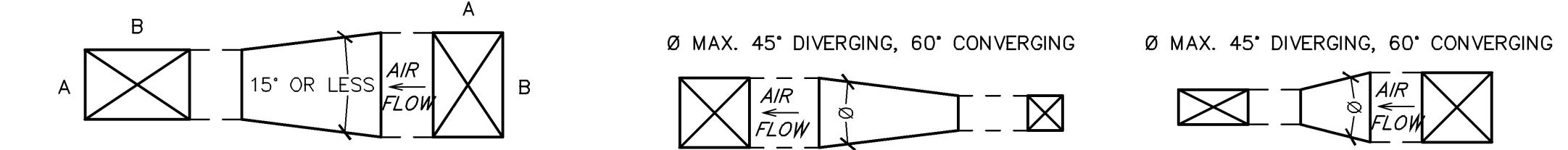
4 TYPICAL DIFFUSER CONNECTION DETAIL
NOT TO SCALE



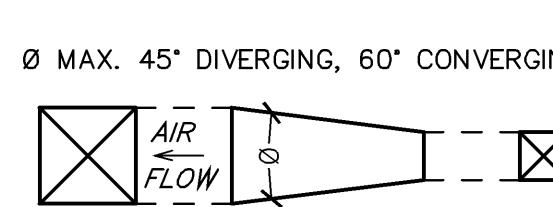
3 RETURN AIR TRANSFER
NOT TO SCALE



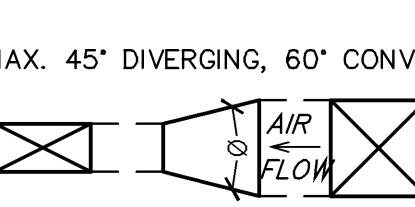
2 FLEXIBLE DUCT SUPPORTS
NOT TO SCALE



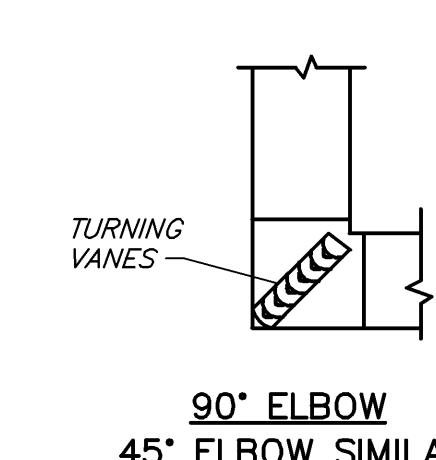
TRANSFORMATION



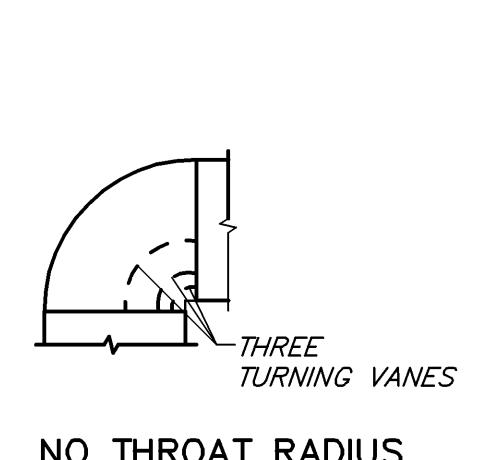
EXPANSION



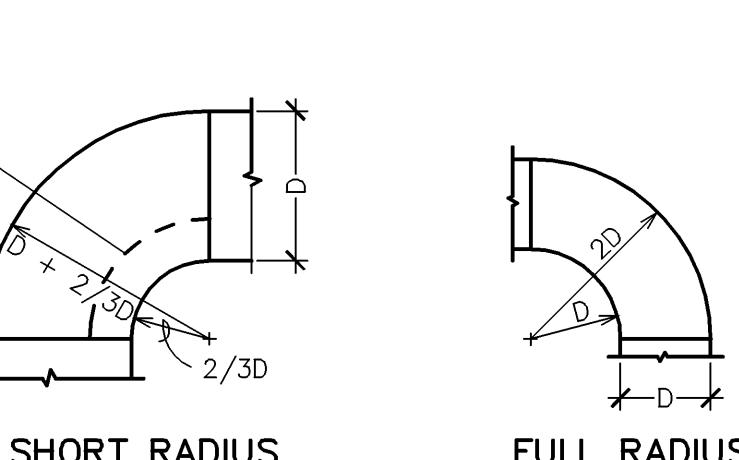
CONTRACTION



90° ELBOW

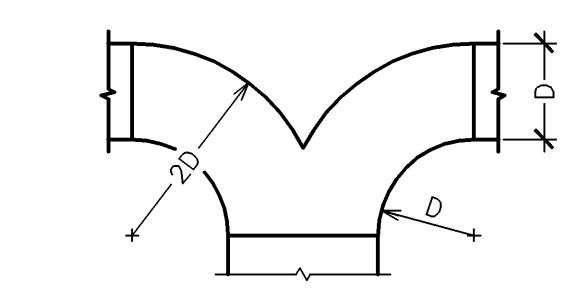


NO THROAT RADIUS



SHORT RADIUS

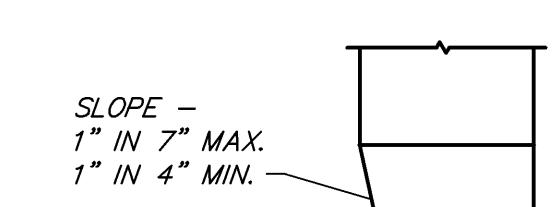
FULL RADIUS



SUPPLY OR RETURN WYE (RECTANGULAR DUCT)

45 DEGREE ENTRY Ø 45° BRANCH TAKE-OFF FITTING

L=W/4, 4" MIN.

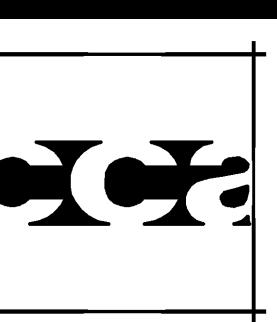


90° ELBOW TAKE-OFF

USE ONLY IN AREAS WHERE SPACE IS LIMITED

FULL RADIUS ELBOW TAKE-OFF

1 DUCTWORK DETAILS
NOT TO SCALE



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Date: 05/15/2024
COA # 2609

SECTION 230000 - HVAC GENERAL CONDITIONS

PART 1 GENERAL

1.01 APPLICABILITY

A. This section supplements all sections of the Specifications for Division 23 and shall apply to all phases of work hereinafter specified, shown on the Drawings, or required to provide a complete installation of approved HVAC systems.

1.02 DEFINITIONS

A. "Work" is hereby defined as, "The construction and services required by the Contract Documents whether completed or partially completed and includes all labor, materials, equipment, and services provided or to be provided by the Contractor to fulfill the Contractor's obligations. The work may constitute the whole or a part of the project."

B. "Furnish" is hereby defined as, "To supply and deliver, unload, and inspect for damage."

C. "Install" is hereby defined as, "To unpack, assemble, erect, apply, place, finish, cure, protect, clean, connect, and assemble into operation into the work."

D. "Provide" is hereby defined as, "To furnish and install."

E. "Connect" is hereby defined as, "To bring service to the equipment and make final attachment including necessary ductwork, piping, wiring, etc."

F. "Concealed" is hereby defined as, "Hidden from sight in chases, furred spaces, shafts, hung ceilings, embedded in construction, in crawl spaces, or behind walls as defined by the Specifications."

G. "Exposed" is hereby defined as, "Not installed underground nor concealed as defined by the Specifications."

H. "Drawings" is hereby defined as, "All plans, details, equipment schedules, diagrams, sketches, etc. issued for the construction of the work."

1.03 CODES AND STANDARDS

A. Perform work in accordance with the applicable Building Code, Electrical Code, Fire Code, Mechanical Code, Plumbing Code, Energy Code, and all other applicable codes, amendments, and ordinances. Also perform all work in accordance with the Americans with Disabilities Act (ADA) and the Authority Having Jurisdiction (AHJ) including Fire Marshals.

B. Perform work in accordance with Landlord requirements, including any Tenant Criteria Manuals or Lease Exhibits, where applicable.

C. Perform work in accordance with the applicable utility companies serving the project. Make all arrangements with the utility companies for proper coordination of the work.

D. Recognized Standards: Design, manufacture, testing and method of installation of all apparatus and materials furnished under the requirements of these Specifications shall conform to the latest publication of standard rules of Underwriters Laboratories, Inc., American Society of Testing and Materials (ASTM), American National Standards Institute (ANSI), and National Electrical Code (NEC), National Fire Protection Association (NFPA), American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE), and the Sheet Metal and Air Conditioning Contractors' National Association (SMACNA).

E. The Contract Documents shall take precedence where the Contract Documents exceed code, Landlord, utility, or recognized standards requirements.

1.04 PERMITS AND FEES

A. Permits, licenses, fees, inspections and arrangements required for the work under this Contract shall be obtained by the Contractor at his expense, unless otherwise indicated on the Drawings.

1.05 CONTRACT DRAWINGS

A. The Contractor is responsible to obtain, fully understand, and coordinate the work with the complete set of Contract Documents. Any required corrections, including all associated costs, arising from issues caused by the Contractor's failure to understand or coordinate the work with the complete set of Contract Documents are the Contractor's sole responsibility.

B. Work under these sections is diagrammatic unless indicated otherwise and is intended to convey the scope of work and indicate the general arrangement of ductwork, piping, and equipment. Follow the drawings and layout of the work as indicated for the installation of these materials and equipment. Wherever a question exists as to the exact intended location of ductwork, piping, or equipment, obtain instructions from the Architect before proceeding with the work.

C. Notify the Architect for resolution if a discrepancy is discovered within the Contract Documents. Failure of the Contractor to notify the Architect of discrepancies shall result in the resolution becoming the Contractor's responsibility and subject to the Architect's review and possible rejection.

Should the Architect reject a discrepancy resolution of which they were not notified, the Contractor is fully responsible to correct the installation, including all associated costs, until approval of the installation is given by the Architect.

1.06 EXISTING CONDITIONS

A. Verify existing conditions prior to beginning work.

B. Any existing conditions indicated in the Contract Documents are based on information drawings provided by others and possibly limited field verification. The Contractor shall adjust for actual field conditions at no additional expense to the Owner.

C. The Contractor shall visit the project site, review existing conditions against the Contract Documents, and familiarize himself with the work prior to bidding and start of the work. By signing the Contract, the Contractor acknowledges the site visit has been completed and the existing conditions are accepted.

D. The Contractor shall notify the Architect of major discrepancies in writing so the appropriate action can be made without delay to the project.

The Contractor assumes full responsibility of adjusting for discrepancies of which the Architect is not informed.

1.07 SUBMITTALS

A. Shop Drawings:

1. Furnish the following submittals to the Architect for review by the Engineer:

a. Provide product data and shop drawings for vibration isolation, Testing, Adjusting, and Balancing.

b. Provide product data for duct insulation.

c. Provide product data for fireproofing (if specified).

d. Provide product data for HVAC piping insulation.

e. Provide product data for duct insulation.

f. Provide product data and shop drawings for HVAC ductwork.

g. Provide product data for air duct accessories.

h. Provide product data for HVAC power ventilators.

i. Provide product data and shop drawings for HVAC power ventilators.

j. Provide product data and shop drawings for packaged rooftop units.

2. Submittals other than those listed above will not be reviewed and will be returned stating as such.

3. Shop drawings shall be prepared by a manufacturer's representative, and shall contain names of the manufacturer and cut sheets of equipment to be used on the project. Use manufacturer's specification sheets identified by number indicated on drawings or schedules. Indicate catalog number of the cut sheets, as applicable, provide construction, size, weight and dimensional data, voltage, amperage, prior to date, listing of curves, fan curves, fan sound data as of the shop drawing submittal.

4. Submittals are reviewed only for generic compliance with the Contract Documents. Dimensions, quantities and details are not checked during submittal review. The responsibility for the completeness of the drawings necessary for a complete and operational system meeting the requirements of the project and the intent of the Contract Documents. The responsibility for coordination of substituted materials and equipment lies solely with the submittal of the Contractor.

5. Electrical Characteristics: Verify that proper power supply is available prior to ordering equipment. Verify proper voltage, phase and current rating of power supply and inform Engineer of any deviations prior to order.

6. Equipment performance and accessories shall be as scheduled on the Drawings and specified herein. Inclusion in both locations is not a prerequisite to inclusion in the Contract. Equipment and accessories specified in either location shall be included in the Contract. Equipment and accessories required for a complete, functional system, including all required components reasonably inferred to be necessary although such components may or may not be specifically indicated in the Contract Documents.

F. Conflict with company requirements shall supersede any conflicting requirements of this section.

1.08 QUALITY ASSURANCE

A. Manufacturer Qualifications: Company specializing in manufacturing the Products specified in this section with minimum five years experience.

B. Installer Qualifications: Company specializing in performing the work of this section with minimum five years experience.

C. Products:

i. Listed and classified by Underwriters Laboratories Inc. as suitable for the purpose specified and indicated.

D. All equipment and components shall be free of oil rust/corrosion or any visible damage. Items shall be replaced with this requirement shall be replaced without any change in the Contract amount.

E. Equipment performance and accessories shall be as scheduled on the Drawings and specified herein. Inclusion in both locations is not a prerequisite to inclusion in the Contract. Equipment and accessories specified in either location shall be included in the Contract. Equipment and accessories required for a complete, functional system, including all required components reasonably inferred to be necessary although such components may or may not be specifically indicated in the Contract Documents.

F. Conflict with company requirements shall supersede any conflicting requirements of this section.

1.09 DELIVERY, STORAGE, AND HANDLING

A. Rooftop Equipment: Protect units from physical damage by storing off site until roof mounting curves are in place, ready for immediate installation of units.

B. Protection insulation from weather and construction traffic, dirt, water, chemical, and mechanical damage by storing in original packaging.

C. Protect dampers and accessories from damage to operating linkages, blades and finishes.

D. Provide temporary end caps and closures on piping and fittings. Maintain in place until completion of the project.

E. Protect motors stored on site from weather and moisture by maintaining factory covers and suitable weather-proof covering. For extended outdoor storage, remove motors from equipment and store separately.

1.010 WARRANTIES AND GUARANTEES

A. Provide the Owner's warranty and ensure forms have been filled out in Owner's name and registered with manufacturer.

B. Provide one year manufacturer's warranty for pumps.

C. Provide three year manufacturers warranty for solid state ignition modules.

D. Provide five year manufacturers warranty for compressors, heat exchangers, condensing units, and electronic air cleaners.

PART 2 PRODUCTS

2.01 SUBSTITUTIONS

A. The manufacturers listed are listed to set minimum standards for quality, design,

and functionality. The products of other manufacturers may be submitted, at the Contractor's option, during shop drawing review unless indicated otherwise. The products of other manufacturers shall meet or exceed all requirements of the Contract Documents. The Contractor accepts responsibility for costs and coordination issues arising out of the substitution of materials or equipment, and the coordination of such substitutions with all other contractors and subcontractors.

B. The Contractor may use any of the following ductwork, piping or insulation materials, or their equivalents, provided that the selected material meets with the approval of all State, local authorities and any utility company requirements. Verification of compliance of the selected material is the sole responsibility of the installing Contractor.

PART 3 EXECUTION

3.01 COORDINATION OF WORK

A. Examine the Contract Documents as a whole for the work of other trades. Coordinate all work accordingly.

B. Promptly advise the Architect any delay or difficulties encountered in the installation of the work, which might prevent prompt and proper installation, or make it unsuitable to connect with or receive the work of others. Failure to so advise shall constitute an acceptance of the work of other trades as being fit and proper to execute and will be held as such.

C. Place lay out and coordinate the work with all trades well enough in advance so that it proceeds with a minimum of interference to work that has not been completed and work that is in progress. Inform all trades of openings required for the work and provide oil special frames, sleeves, and anchor bolts required. The HVAC system shall be coordinated with the other trades as required by the approval, prior to the installation of any work and without additional cost to the Owner.

Conflicts arising from lack of coordination shall be the Contractor's responsibility.

D. Perform work in accordance with the Contract Documents and afford other trades reasonable opportunity for the execution of their work. Properly connect and coordinate this work with the work of other trades of such time and in such a manner as not to delay or interfere with their work.

E. All roofing penetrations shall be flashed and weather sealed by the roofing manufacturer or authorized contractor to this Contractor's expense. This Contractor shall coordinate with the roof contractor or roof contractor for the specific roofing system applicable to this Project. The use of an unauthorized roofing contractor may result in removal and replacement of the penetration systems at this Contractor's expense.

F. All electrical piping, including, thermostatic wiring, damper interlock wiring, control panel interlock wiring and miscellaneous low voltage wiring associated with the equipment furnished or installed under this contract shall be furnished and installed by the mechanical contractor or his sub-contractor. All wiring installed under this contract shall be in full compliance with the National Electrical Code, all State and local codes and requirements of the Electrical Specifications for this project.

G. Notify the Architect for resolution if a discrepancy is discovered within the Contract Documents. Failure of the Contractor to notify the Architect of discrepancies shall result in the resolution becoming the Contractor's responsibility and subject to the Architect's review and possible rejection.

Should the Architect reject a discrepancy resolution of which they were not notified, the Contractor is fully responsible to correct the installation, including all associated costs, until approval of the installation is given by the Architect.

H. The Contractor assumes full responsibility of adjusting for discrepancies of which the Architect is not informed.

I. The Contractor shall be responsible to obtain, fully understand, and coordinate the work with the complete set of Contract Documents. Any required corrections, including all associated costs, arising from issues caused by the Contractor's failure to understand or coordinate the work with the complete set of Contract Documents are the Contractor's sole responsibility.

J. Work under these sections is diagrammatic unless indicated otherwise and is intended to convey the scope of work and indicate the general arrangement of ductwork, piping, and equipment. Follow the drawings and layout of the work as indicated for the installation of these materials and equipment. Wherever a question exists as to the exact intended location of ductwork, piping, or equipment, obtain instructions from the Architect before proceeding with the work.

K. Notify the Architect for resolution if a discrepancy is discovered within the Contract Documents. Failure of the Contractor to notify the Architect of discrepancies shall result in the resolution becoming the Contractor's responsibility and subject to the Architect's review and possible rejection.

Should the Architect reject a discrepancy resolution of which they were not notified, the Contractor is fully responsible to correct the installation, including all associated costs, until approval of the installation is given by the Architect.

L. The Contractor assumes full responsibility of adjusting for discrepancies of which the Architect is not informed.

M. The Contractor shall notify the Architect of major discrepancies in writing so the appropriate action can be made without delay to the project.

The Contractor assumes full responsibility of adjusting for discrepancies of which the Architect is not informed.

N. The Contractor shall adjust for actual field conditions at no additional expense to the Owner.

O. The Contractor shall visit the project site, review existing conditions against the Contract Documents, and familiarize himself with the work prior to bidding and start of the work. By signing the Contract, the Contractor acknowledges the site visit has been completed and the existing conditions are accepted.

P. The Contractor shall notify the Architect of major discrepancies in writing so the appropriate action can be made without delay to the project.

The Contractor assumes full responsibility of adjusting for discrepancies of which the Architect is not informed.

Q. Notify the Architect for resolution if a discrepancy is discovered within the Contract Documents. Failure of the Contractor to notify the Architect of discrepancies shall result in the resolution becoming the Contractor's responsibility and subject to the Architect's review and possible rejection.

Should the Architect reject a discrepancy resolution of which they were not notified, the Contractor is fully responsible to correct the installation, including all associated costs, until approval of the installation is given by the Architect.

R. The Contractor assumes full responsibility of adjusting for discrepancies of which the Architect is not informed.

S. The Contractor shall be responsible to obtain, fully understand, and coordinate the work with the complete set of Contract Documents. Any required corrections, including all associated costs, arising from issues caused by the Contractor's failure to understand or coordinate the work with the complete set of Contract Documents are the Contractor's sole responsibility.

T. Work under these sections is diagrammatic unless indicated otherwise and is intended to convey the scope of work and indicate the general arrangement of ductwork, piping, and equipment. Follow the drawings and layout of the work as indicated for the installation of these materials and equipment. Wherever a question exists as to the exact intended location of ductwork, piping, or equipment, obtain instructions from the Architect before proceeding with the work.

U. Notify the Architect for resolution if a discrepancy is discovered within the Contract Documents. Failure of the Contractor to notify the Architect of discrepancies shall result in the resolution becoming the Contractor's responsibility and subject to the Architect's review and possible rejection.

Should the Architect reject a discrepancy resolution of which they were not notified, the Contractor is fully responsible to correct the installation, including all associated costs, until approval of the installation is given by the Architect.

V. The Contractor assumes full responsibility of adjusting for discrepancies of which the Architect is not informed.

W. The Contractor shall notify the Architect of major discrepancies in writing so the appropriate action can be made without delay to the project.

The Contractor assumes full responsibility of adjusting for discrepancies of which the Architect is not informed.

X. Notify the Architect for resolution if a discrepancy is discovered within the Contract Documents. Failure of the Contractor to notify the Architect of discrepancies shall result in the resolution becoming the Contractor's responsibility and subject to the Architect's review and possible rejection.

Should the Architect reject a discrepancy resolution of which they were not notified, the Contractor is fully responsible to correct the installation, including all associated costs, until approval of the installation is given by the Architect.

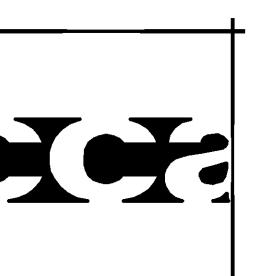
Y. The Contractor assumes full responsibility of adjusting for discrepancies of which the Architect is not informed.

Z. The Contractor shall be responsible to obtain, fully understand, and coordinate the work with the complete set of Contract Documents. Any required corrections, including all associated costs, arising from issues caused by the Contractor's failure to understand or coordinate the work with the complete set of Contract Documents are the Contractor's sole responsibility.

AA. Work under these sections is diagrammatic unless indicated otherwise and is intended to convey the scope of work and indicate the general arrangement of ductwork, piping, and equipment. Follow the drawings and layout of the work as indicated for the installation of these materials and equipment. Wherever a question exists as to the exact intended location of ductwork, piping, or equipment, obtain instructions from the Architect before proceeding with the work.

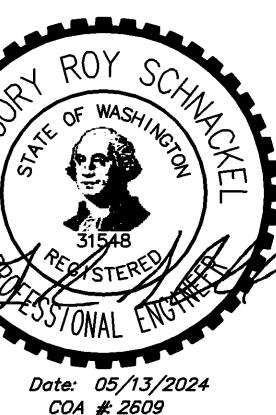
BB. Notify the Architect for resolution if a discrepancy is discovered within the Contract Documents. Failure of the Contractor to notify the Architect of discrepancies shall result in the resolution becoming the Contractor's responsibility and subject to the Architect's review and possible rejection.

CC. Should the Architect reject a discrepancy resolution of which they were not notified, the Contractor is fully responsible to correct the installation, including all associated costs, until



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Date: 05/13/2024
COA # 2609

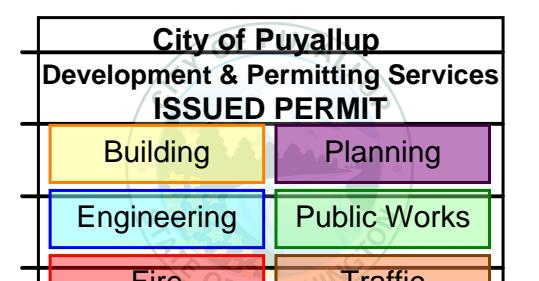
PROJECT NO. 24068
DATE: 05/09/2024

DRAWN BY: SEI
SCALE: AS NOTED

FILE:

GROSS AREA 6,719 S.F.

REVISIONS:



SHEET TITLE:
MECHANICAL
SPECIFICATIONS

SHOE PALACE
SOUTH HILL MALL
SPACE 410 & 420
3500 S MERIDIAN
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PRCTI20240836

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M3.1

SECTION 233100 - HVAC DUCTS AND CASINGS

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Metal ductwork.
- B. Nonmetal ductwork.
- C. Round spiral ductwork.
- D. Duct sealants.

1.02 PERFORMANCE REQUIREMENTS

- A. No variation of duct configuration or sizes permitted except by written permission. Size round ducts installed in place of rectangular ducts in accordance with ASHRAE table of equivalent rectangular and round ducts, only after approval of the Engineer. Increases in duct size without written permission may increase duct size without engineer approval, provided all ceiling and shaft clearances can be maintained. Additional charge for increased duct size will not be accepted by the owner.
- B. Report all conflicts with structure or other obstructions, prior to fabrication of ductwork. Suitable adjustments in the sizes of ducts shall be accommodated without any additional expense to the Owner.

1.03 SUBMITTALS

- A. Shop Drawings: Indicate duct fittings, materials such as gages, sizes, welds, drawings, and fabrication prior to start of work for all systems. No drawings shall be furnished until the required shop drawings have been received by the Contractor. Identify on ductwork shop drawings any deviations in sizes or shapes made necessary by the obstructions of other trades.
- B. Test Reports: Indicate pressure tests performed. Include date, section tested, test pressure, and leakage rate, following SMACNA (LEAK) - HVAC Air Duct Leakage Test Manual.

1.04 REGULATORY REQUIREMENTS

- A. Construct ductwork to NFPA 90A, NFPA 90B, and NFPA 96 standards.
- B. Code or utility company requirements shall supersede any conflicting requirements in this Section.

1.05 FIELD CONDITIONS

- A. Do not install duct sealants when temperatures are less than those recommended by sealant manufacturers.
- B. Maintain temperatures within acceptable range during and after installation of duct sealants.

PART 2 PRODUCTS

2.01 MATERIALS

- A. Galvanized Steel Ducts: Hot-dipped galvanized steel sheet, ASTM A 653/A 653M FS Type B, with G90/Z275 coating.
- B. Steel Ducts: ASTM A 108/A 108M, Designation CS, cold-rolled commercial steel.
- C. Aluminum Ducts: ASTM B 209 (ASTM B 209M); aluminum sheet, alloy 3003-H14.
- D. Insulated Flexible Ducts:
 - 1. The Contractor may use any of the following ductwork materials, at his option, provided the selected material meets with the approval of all State, local codes and utility company requirements. Verification of compliance of the selected ductwork material is the sole responsibility of the installing Contractor.
 - 2. Two-ply vinyl film supported by helically wound spring steel wire; fiberglass insulation; aluminized vapor barrier film.
 - a. Pressure Rating: 10 inches WG positive and 1.0 inches WG negative.
 - b. Maximum Velocity: 4000 fpm.
 - c. Temperature Range: -10 degrees F to 160 degrees F.
 - d. Minimum R-Value: 4.2 or greater as required by the applicable energy codes.
- 3. Black vinyl film supported by helically wound spring steel wire; fiberglass insulation; aluminized vapor barrier film.
- a. Pressure Rating: 4 inches WG positive and 0.5 inches WG negative.
- b. Maximum Velocity: 4000 fpm.
- c. Temperature Range: -20 degrees F to 175 degrees F.
- d. Minimum R-Value: 4.2 or greater as required by the applicable energy codes.
- 4. Multiple layers of aluminum laminate supported by helically wound spring steel wire; fiberglass insulation; aluminized vapor barrier film.
- a. Pressure Rating: 10 inches WG positive and 1.0 inches WG negative.
- b. Maximum Velocity: 4000 fpm.
- c. Temperature Range: -20 degrees F to 210 degrees F.
- d. Minimum R-Value: 4.2 or greater as required by the applicable energy codes.
- 5. UL 181, Class 1, aluminum laminate and polyester film with latex adhesive supported by helically wound spring steel wire; fiberglass insulation; aluminized vapor barrier film.
- a. Pressure Rating: 10 inches WG positive and 1.0 inches WG negative.
- b. Maximum Velocity: 4000 fpm.
- c. Temperature Range: -20 degrees F to 210 degrees F.
- d. Minimum R-Value: 4.2 or greater as required by the applicable energy codes.
- 6. UL 181, Class 0, interlocking spiral of aluminum foil; fiberglass insulation; aluminized vapor barrier film.
- a. Pressure Rating: 8 inches WG positive or negative.
- b. Maximum Velocity: 5000 fpm.
- c. Temperature Range: -20 degrees F to 250 degrees F.
- d. Minimum R-Value: 4.2 or greater as required by the applicable energy codes.

- E. Joint Sealants and Sealants: Non-hardening, water resistant, mildew and mold resistant.
- 1. Type: Heavy mastic or liquid used alone or with tape, suitable for joint configuration and compatible with substrates, and recommended by manufacturer for resistance to loss of ducts.
- 2. VOC Content: Not to exceed 250 g/L, excluding water.
- 3. Surface Burning Characteristics: Flame spread of zero, smoke developed of zero, when tested in accordance with ASTM E 84.
- 4. For Use With Flexible Ducts: UL labeled.
- 5. Duct Sealant: The Weather Hardcoat VersaGrip 102, (VG-102), UL 181-AM compliant duct joint sealer manufactured by Carlisle, with fiberglass scrim tape reinforcement on all seams and joints, lateral and longitudinal.

F. Header Rod: ASTM A 36/A 36M; steel; threaded both ends, threaded one end, or continuous threaded.

- 2.02 DUCTWORK FABRICATION
 - A. Fabricate, support and seal in accordance with SMACNA HVAC Duct Construction Standards - Metal and Flexible, and as indicated. Provide duct material, gages, reinforcing, and sealing for operating pressures indicated.
 - B. Connect to beaded elbows with gages, not less than 1-1/2 times width of duct on centerline. Where not possible and where rectangular elbows must be used, provide turning vanes. Where acoustical lining is indicated, provide turning vanes of perforated metal with glass fiber insulation.
 - C. In-line diffuser, individually, not exceeding 15 degrees divergence wherever possible, maximum 30 degrees divergence upstream of equipment and 45 degrees convergence downstream of equipment.
 - D. Fabricate continuously welded round and oval duct fittings two gages heavier than duct gages indicated with SMACNA Standard. Joints shall be minimum 4 inch cemented steel or aluminum or electric welded. Prime coat welded joints.
 - E. Provide standard 45 degree lateral tee takeoffs unless otherwise indicated where 90 degree conical tee connections may be used.
 - F. Where ducts are connected to exterior wall louvers and duct outlet is smaller than louver frame, provide blank-out panels sealing louver around duct. Use same material as duct, pointed block on exterior side seal to louver frame and duct.

2.03 DUCT MANUFACTURERS

- A. Metal-Fab, Inc.; SEMCO Incorporated; United McGill Corporation.
- B. MANUFACTURED METAL DUCTWORK AND FITTINGS:
 - A. Manufacture in accordance with SMACNA HVAC Duct Construction Standards - Metal and Flexible, and as indicated. Provide duct material, gages, reinforcing, and sealing for operating pressures indicated.
 - B. Round Spiral Ducts: Machine made from round spiral lockseam duct with light reinforcing corrugations; fittings manufactured of at least two gages heavier metal than outer wall.
 - C. Double Wall Insulated Round Ducts: Round spiral lockseam duct with galvanized steel outer wall, 1 inch thick fiberglass insulation, perforated galvanized steel inner wall, fitting with solid inner wall.
 - D. Transverse Duct Connection System: SMACNA "E" rated rigidly class connection, interlocking angle and duct edge connection system with sealant, gasket, cleats, and corner clips.

PART 3 EXECUTION

3.01 EXAMINATION

- A. Examine drawings for the Architectural, Structural, Electrical and all other trades prior to preparation of ductwork shop drawings and prior to the fabrication of any ductwork.
- B. Resolve any conflicts encountered with the Engineer prior to fabrication.
- C. Identify on ductwork shop drawings any deviations in sizes or shapes made necessary by the obstructions of other trades.
- 3.02 INSTALLATION
 - A. Install in accordance with manufacturer's instructions.
 - B. Ducts indicated are inside clear dimensions. For lined ducts, maintain sizes inside lining.
 - C. Install and seal metal and flexible ducts in accordance with SMACNA HVAC Duct Construction Standards - Metal and Flexible.
 - D. Provide openings in ductwork where required to accommodate thermometers and controls. Provide access to ductwork where required for inspection and cleaning, complete with metal can with spring device or screw to ensure against air leakage. Where openings are provided in insulated ductwork, install insulation material inside a metal ring.
 - E. Locate ducts with sufficient space around equipment to allow normal operating and maintenance activities.
 - F. Use crimp joints with or without bead for joining round duct sizes 8 inch and smaller with crimp in direction of air flow.
 - G. Use double nuts and lock washers on threaded rod supports.
 - H. Connect flexible ducts to metal ducts with metal body.
 - I. Connect flexible duct runs every five feet in the horizontal direction to avoid dips and sags.
 - J. Connect terminal units to supply ducts with one foot maximum length of flexible duct. Do not use flexible duct to change direction.
 - K. Connect diffusers to low pressure ducts directly or with 5 feet maximum length of flexible duct held in place with strap or clamp. Longer duct lengths are acceptable if depicted on the design drawings and allowed per local code. A maximum of one 90 degree bend, or equivalent, will be allowed in flexible duct runs.

acceptable if depicted on the design drawings and allowed per local code. A maximum of one 90 degree bend, or equivalent, will be allowed in flexible duct runs.

- L. During construction provide temporary closures of metal or liquid polyethylene on open ductwork to prevent contamination of interior ductwork.
- M. All exposed ducts in finished areas must be completely free from oil slants or imperfections in the galvanized coating and shall be sealed CAREFULLY AND NEATLY with duct sealer completely contained within the joint. Duct wrap will not be permitted in exposed locations.

3.03 CLEANING

- A. Clean duct system and force air at high velocity through duct to remove accumulated dust or clean with high power vacuum machines. To obtain sufficient air, clean half the system at a time. Protect equipment which may be harmed by excessive dirt with temporary filters, or bypass during cleaning.
- 3.04 SCHEDULES
 - A. Ductwork Material:
 - B. The Contractor may use any of the following ductwork materials, at his option, provided the selected material meets with the approval of all State, local codes and utility company requirements. Verification of compliance of the selected piping material is the sole responsibility of the installing Contractor.
 - 1. Low Velocity Supply (Heating Systems): Galvanized Steel, Aluminum.
 - 2. Low Velocity Supply (System with Cooling Coils): Galvanized Steel, Aluminum.
 - 3. Low Velocity Supply (System with Cooling Coils): Galvanized Steel, Aluminum.
 - 4. General Exhaust: Galvanized Steel, Aluminum.
 - 5. Outside Air Intake: Galvanized Steel.
 - C. Ductwork Pressure Class:
 - 1. Low Velocity Supply (Heating Systems): Scheduled System ESP+0.25", round up to next higher pressure class.
 - 2. Low Velocity Supply (System with Cooling Coils): Scheduled System ESP +0.5", round up to next higher pressure class.
 - 3. Return and Relief: 1 inch.
 - 4. General Exhaust: Scheduled System ESP +1.0", round up to next higher pressure class.
 - 5. Outside Air Intake: 1 inch.

END OF SECTION

SECTION 233700 - AIR OUTLETS AND INLETS

metal bands of connectors are parallel with minimum one inch flex between ductwork and fan while running.

- D. Provide gravity backdraft dampers on outlet from cabinet and ceiling fans and as indicated.

END OF SECTION

SECTION 233700 - AIR OUTLETS AND INLETS

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Rectangular ceiling diffusers.
- B. Grid core exhaust and return grilles.
- C. Wall registers and grilles.

1.02 SUBMITTALS

- A. Project Data: Provide data for equipment required for this project. Review outlet and inlets as to size, finish, and type of mounting prior to submission. Submit schedule of outlets and inlets showing type, size, location, application, accessories, and noise level.
- 1.03 QUALITY ASSURANCE
 - A. Test and rate air outlet and inlet performance in accordance with ASHRAE Std 70.
 - B. Test and rate louver performance in accordance with AMCA 500-L.
 - C. Code requirements shall supersede any conflicting requirements of this Section.
- 1.04 QUALIFICATIONS
 - A. Manufacturer Qualifications: Company specializing in manufacturing the type of products specified in this Section, with minimum five years of documented experience.

PART 2 PRODUCTS

2.01 MANUFACTURERS

- A. Titus; Krueger; Price Industries; Naior Industries Inc.; Hart & Cooley; Ruskin, Greenheck.

2.02 RECTANGULAR CEILING DIFFUSERS

- A. Type: Square, adjustable pattern, stamped, multi-core, or architectural plaque diffuser to discharge air in 360 degree pattern with sectorizing baffle where indicated.
- B. Frame: Inverted T-bar type. In plaster ceilings, provide plaster frame and ceiling frame. (To allow lift-off removal of the diffuser without removal of the plaster frame.)
- C. Fabrication: Steel with baked enamel off-white finish.
- D. Accessories: Opposed blade damper and multi-layered equalizing grid with damper adjustable from diffuser face.

2.03 GRID CORE EXHAUST AND RETURN GRILLES

- A. Type: 1-1/4 inch margin with countersunk screw mounting.
- B. Fabrication: Aluminum with factory off-white enamel finish.
- C. Frame: 1-1/4 inch margin with countersunk screw mounting.
- D. Frame: Channel lay-in frame for suspended grid ceilings where face size exceeds 18 inches.

2.04 WALL SUPPLY REGISTERS/GRILLES

- A. Type: Streamlined and individually adjustable blades, 3/4 inch minimum depth, 3/4 inch maximum spacing with spring or other device to set blades, horizontal face, double offset.
- B. Frame: 1-1/4 inch margin with countersunk screw mounting and gasket.
- C. Fabrication: Steel with 20 gage minimum frame and 22 gage minimum blades, steel or aluminum with 20 gage minimum frame, or aluminum extrusions, with factory off-white enamel finish.
- D. Damper: Integral gang-operated opposed blade type with removable key operator, operable from face.

2.05 ACCESS DOORS

- A. Manufacturers: Louvers & Dampers, Inc.; Naior Industries Inc.; Ruskin Company; Price Industries.

2.06 VOLUME CONTROL DAMPERS

- A. Fabricate in accordance with SMACNA HVAC Duct Construction Standards - Metal and Flexible, and as indicated.
- B. Fabricate for duct sizes up to 6 x 30 inch.

2.07 FLEXIBLE DUCT CONNECTIONS

- A. Fabricate in accordance with SMACNA HVAC Duct Construction Standards - Metal and Flexible, and as indicated.
- B. Flexible Duct Connection: Fabric crimped into metal edging strip.

2.08 DUCT ACCESS DOORS

- A. Manufacturers: Acdor Products Inc.; Naior Industries Inc.; Ruskin Company; SEMCO Incorporated.
- B. Fabricate in accordance with SMACNA HVAC Duct Construction Standards - Metal and Flexible, and as indicated.
- C. Fabrication: Right-angle close-fitting of galvanized steel with sealing gaskets and quick fastening locking devices. For insulated ducts, install minimum 1 inch thick insulation with sheet metal cover.
 - 1. Less Than 12 inches Square: Secure with sash locks.
 - 2. Up to 12 inches Square: Provide hinges and sash locks.
 - 3. 12 inches and larger: Approximately 2 inches wide.

2.09 ACCESS DOORS

- A. Manufacturers: Acdor Products Inc.; Naior Industries Inc.; Ruskin Company; SEMCO Incorporated.
- B. Fabricate in accordance with SMACNA HVAC Duct Construction Standards - Metal and Flexible, and as indicated.
- C. Fabrication: Right-angle close-fitting of galvanized steel with sealing gaskets and quick fastening locking devices. For insulated ducts, install minimum 1 inch thick insulation with sheet metal cover.
 - 1. Less Than 12 inches Square: Secure with sash locks.
 - 2. Up to 12 inches Square: Provide hinges and sash locks.
 - 3. 12 inches and larger: Approximately 2 inches wide.

2.10 ACCESS DOORS

- A. Manufacturers: Acdor Products Inc.; Naior Industries Inc.; Ruskin Company; SEMCO Incorporated.
- B. Fabricate in accordance with SMACNA HVAC Duct Construction Standards - Metal and Flexible, and as indicated.
- C. Fabrication: Right-angle close-fitting of galvanized steel with sealing gaskets and quick fastening locking devices. For insulated ducts, install minimum 1 inch thick insulation with sheet metal cover.
 - 1. Less Than 12 inches Square: Secure with sash locks.
 - 2. Up to 12 inches Square: Provide hinges and sash locks.
 - 3. 12 inches and larger: Approximately 2 inches wide.

2.11 OPERATING CONTROLS

- A. Provide low voltage, adjustable thermostat to control heater stages in sequence with delay between stages, compressor and condenser fan, and supply



GENERAL NOTES:

- A. THE EXISTING CONDITIONS ARE BASED ON "AS-BUILT" DRAWINGS AND/OR LIMITED FIELD VERIFICATIONS. THE CONTRACTOR SHALL ADJUST TO ACTUAL FIELD CONDITIONS AT NO ADDITIONAL EXPENSE TO THE PROJECT. NO ADDITIONAL COMPENSATION WILL BE PROVIDED FOR ANY EXTRAS DUE TO THE CONTRACTOR'S FAILURE TO VISIT THE PROJECT SITE AND/OR PREDETERMINATION OF EXISTING CONDITIONS PRIOR TO SUBMITTING THE BID. ANY DISCREPANCIES SHALL BE IMMEDIATELY REPORTED TO THE ARCHITECT/ENGINEER FOR RESOLUTION.
- B. THE CONTRACTOR SHALL FAMILIARIZE HIMSELF WITH THE INCIDENTAL DEMOLITION WORK PRIOR TO BIDDING AND COMMENCEMENT OF WORK. THE CONTRACTOR IS RESPONSIBLE FOR DEMOLITION OF ALL EXISTING EQUIPMENT AS REQUIRED FOR THE INSTALLATION/CONSTRUCTION OF NEW WORK.
- C. ALL WORK SHALL BE COMPLETED IN ACCORDANCE WITH ALL APPLICABLE GOVERNMENTAL AND LOCAL CODE REQUIREMENTS.
- D. PROVIDE ACCESS PANELS AS REQUIRED TO ALLOW ACCESS TO VALVES, EQUIPMENT, ETC. LOCATED ABOVE INACCESSIBLE CEILINGS AND WALL CAVITIES.
- E. ALL SANITARY LINES AND PLUMBING FIXTURES ON THE PROJECT SHALL HAVE AN APPROVED MEANS OF SEWAGE BACKFLOW PREVENTION. FIXTURE SPECIFIC BACKFLOW PREVENTION INCLUDING AIR CAPS AND VACUUM BREAKERS ARE AN ACCEPTABLE MEANS OF BACKFLOW PREVENTION.
- F. PIPE SIZES INDICATED ON THE PLANS ARE MINIMUM. THE CONTRACTOR SHALL PROVIDE PIPE SIZES EQUAL TO OR GREATER THAN THE SPECIFIED SIZES. THE CONTRACTOR MAY INCREASE PIPE SIZES AS REQUIRED AT NO ADDITIONAL EXPENSE TO THE PROJECT.
- G. REFER TO THE PLUMBING FIXTURE SCHEDULE FOR INDIVIDUAL PLUMBING FIXTURE CONNECTION SIZE REQUIREMENTS.
- H. COORDINATE ALL SLAB PENETRATIONS WITH GENERAL CONTRACTOR PRIOR TO CONSTRUCTION. MAINTAIN A MINIMUM OF 2" CLEARANCE FROM THE EDGE OF THE SLAB OPENING TO ANY STRUCTURAL MEMBERS AND PIPES.
- I. SLEEVE OR CORE-DRILL FLOOR SLABS, WALLS, ETC. AS REQUIRED FOR PIPING AND FIRE-STOP OPENING AROUND PIPE. VERIFY LOCATION OF STRUCTURAL BEAMS, JOISTS, ETC. BEFORE DRILLING.
- J. THE CONTRACTOR SHALL OBTAIN A COPY OF THE LANDLORD'S TENANT CRITERIA MANUAL PRIOR TO BIDDING. THE TENANT CRITERIA MANUAL REQUIREMENTS SHALL BE INCLUDED IN THE CONTRACTOR CONTRACT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLYING WITH THE LANDLORD REQUIREMENTS AT NO ADDITIONAL EXPENSE TO THE PROJECT.
- K. ALL HANDICAPPED ACCESSIBLE WATER CLOSETS SHALL HAVE THE FLUSHING HANDLE ON THE WIDE SIDE OF THE HANDICAPPED ACCESSIBLE STALL AS REQUIRED BY ADA REQUIREMENTS.
- L. THE ENTIRE AREA UNDER CONSTRUCTION SHALL BE PROVIDED WITH A COMPLETE FIRE SPRINKLER SYSTEM IN ALL RESPECTS. RELOCATE/ADD NEW SPRINKLER DROPS TO EXISTING SYSTEMS WHERE REQUIRED TO PROVIDE COMPLETE COVERAGE THROUGHOUT THE AREA OF CONSTRUCTION. COORDINATE FIRE SPRINKLER PIPING AND HEAD LOCATIONS WITH ALL TRADES PRIOR TO FABRICATION AND/OR INSTALLATION. IF CONFLICTS OCCUR BETWEEN FIRE SPRINKLER PIPING/HEADS AND LIGHTS, DIFFUSERS, DUCTWORK, ETC., THE FIRE SPRINKLER PIPING/HEADS SHALL BE RELOCATED OR REROUTED AT NO ADDITIONAL EXPENSE TO THE PROJECT. AN ADEQUATE SUPPLY OF EXTRA PIPING AND FITTINGS SHALL BE MAINTAINED ON SITE TO ALLOW FOR FIELD MODIFICATIONS. PERFORM HYDRAULIC CALCULATIONS AS REQUIRED BY NFPA, LOCAL, STATE CODES, AND THE OWNER'S INSURANCE AGENCY. APPROVED SHOP DRAWINGS DO NOT PRECLUDE REROUTING IF SO REQUIRED BY THE ARCHITECT/ENGINEER.

PLUMBING NOTE

1. THIS SPACE IS RESERVED FOR ELECTRICAL EQUIPMENT. NO PIPING SHALL PASS BELOW, ABOVE, OR AROUND ELECTRICAL EQUIPMENT. PROVIDE CODE REQUIRED MINIMUM CLEARANCE ABOVE ELECTRICAL EQUIPMENT ACCESS SPACE.
2. ROUTE THE CONDENSATE PIPING ON THE ROOF FROM THE ROOFTOP UNIT TO THE NEAREST ROOF DRAIN OR GUTTER. THE CONDENSATE SHALL BE CONNECTED TO THE ROOFTOP UNIT IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. VERIFY CONDENSATE REMOVAL REQUIREMENTS WITH LOCAL JURISDICTION PRIOR TO INSTALLATION. IF CONFLICTS OCCUR, NOTIFY THE ARCHITECT/ENGINEER IMMEDIATELY.
3. PROVIDE NEW PLUMBING FIXTURE AS SCHEDULED AND RECONNECT TO EXISTING UTILITY ROUGH-INS. ADJUST EXISTING ROUGH-INS AS NECESSARY TO CONNECT TO NEW FIXTURE.
4. EXISTING PLUMBING FIXTURE TO REMAIN. CONTRACTOR SHALL REVIEW CONDITION OF EXISTING FIXTURE AND BRING TO A-LINE NEW CONDITION. COORDINATE WITH OWNERS REPRESENTATIVE IF EXISTING FIXTURE NEEDS TO BE REPLACED.
5. CONNECT THE NEW DOMESTIC HOT WATER LINE TO AN EXISTING HOT WATER LINE OF EQUAL OR GREATER SIZE. FIELD VERIFY THE EXACT LOCATION AND SIZE OF THE EXISTING WATER LINE PRIOR TO CONSTRUCTION. ADJUST THE NEW WATER LAYOUT AS REQUIRED TO ALLOW FOR CONNECTION TO THE EXISTING WATER SYSTEM.

PROJECT NO. 24068
DATE: 05/09/2024
DRAWN BY: SEI
SCALE: AS NOTED
FILE:

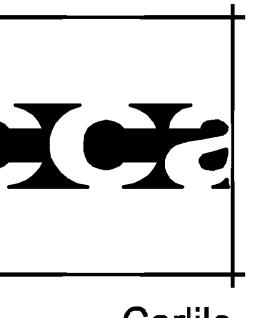
GROSS AREA 6,719 S.F.

REVISIONS:

City of Puyallup
Development & Permitting Services
ISSUED PERMIT
Building Planning
Engineering Public Works
Fire Traffic

SHEET TITLE:
**OVERALL
PLUMBING PLAN**

SHOE PALACE
SOUTH HILL MALL
SPACE 410 & 420
3500 S MERIDIAN
PUYALLUP, WA 98373
PRCTI20240836



Carlile
Coatsworth
architects

18600 MacArthur Boulevard
Suite 300
Irvine, California 92612
949.833.1930
www.ccarchitects.com



Date: 05/13/2024
COA #: 2609

GENERAL NOTE

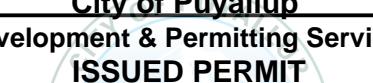
- A. THE EXISTING CONDITIONS ARE BASED ON "AS-BUILT" DRAWINGS AND/OR LIMITED FIELD VERIFICATIONS. THE CONTRACTOR SHALL ADJUST TO ACTUAL FIELD CONDITIONS AT NO ADDITIONAL EXPENSE TO THE PROJECT. NO ADDITIONAL COMPENSATION WILL BE PROVIDED FOR ANY EXTRAS DUE TO THE CONTRACTOR'S FAILURE TO VISIT THE PROJECT SITE AND/OR PREDETERMINATION OF EXISTING CONDITIONS PRIOR TO SUBMITTING THE BID. ANY DISCREPANCIES SHALL BE IMMEDIATELY REPORTED TO THE ARCHITECT/ENGINEER FOR RESOLUTION.
- B. THE CONTRACTOR SHALL FAMILIARIZE HIMSELF WITH THE INCIDENTAL DEMOLITION WORK PRIOR TO BIDDING AND COMMENCEMENT OF WORK. THE CONTRACTOR IS RESPONSIBLE FOR DEMOLITION OF ALL EXISTING EQUIPMENT AS REQUIRED FOR THE INSTALLATION/CONSTRUCTION OF NEW WORK.
- C. ALL WORK SHALL BE COMPLETED IN ACCORDANCE WITH ALL APPLICABLE GOVERNMENTAL AND LOCAL CODE REQUIREMENTS.
- D. PROVIDE ACCESS PANELS AS REQUIRED TO ALLOW ACCESS TO VALVES, EQUIPMENT, ETC. LOCATED ABOVE INACCESSIBLE CEILINGS AND WALL CAVITIES.
- E. ALL SANITARY LINES AND PLUMBING FIXTURES ON THE PROJECT SHALL HAVE AN APPROVED MEANS OF SEWAGE BACKFLOW PREVENTION. FIXTURE SPECIFIC BACKFLOW PREVENTION INCLUDING AIR GAPS AND VACUUM BREAKERS ARE AN ACCEPTABLE MEANS OF BACKFLOW PREVENTION.
- F. PIPE SIZES INDICATED ON THE PLANS ARE MINIMUM. THE CONTRACTOR SHALL PROVIDE PIPE SIZES EQUAL TO OR GREATER THAN THE SPECIFIED SIZES. THE CONTRACTOR MAY INCREASE PIPE SIZES AS REQUIRED AT NO ADDITIONAL EXPENSE TO THE PROJECT.
- G. REFER TO THE PLUMBING FIXTURE SCHEDULE FOR INDIVIDUAL PLUMBING FIXTURE CONNECTION SIZE REQUIREMENTS.
- H. COORDINATE ALL SLAB PENETRATIONS WITH GENERAL CONTRACTOR PRIOR TO CONSTRUCTION. MAINTAIN A MINIMUM OF 2" CLEARANCE FROM THE EDGE OF THE SLAB OPENING TO ANY STRUCTURAL MEMBERS AND PIPES.
- I. SLEEVE OR CORE-DRILL FLOOR SLABS, WALLS, ETC. AS REQUIRED FOR PIPING AND FIRE-STOP OPENING AROUND PIPE. VERIFY LOCATION OF STRUCTURAL BEAMS, JOISTS, ETC. BEFORE DRILLING.
- J. THE CONTRACTOR SHALL OBTAIN A COPY OF THE LANDLORD'S TENANT CRITERIA MANUAL PRIOR TO BIDDING. THE TENANT CRITERIA MANUAL REQUIREMENTS SHALL BE INCLUDED IN THE CONTRACTOR CONTRACT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLYING WITH THE LANDLORD REQUIREMENTS AT NO ADDITIONAL EXPENSE TO THE PROJECT.
- K. ALL HANDICAPPED ACCESSIBLE WATER CLOSETS SHALL HAVE THE FLUSHING HANDLE ON THE WIDE SIDE OF THE HANDICAPPED ACCESSIBLE STALL AS REQUIRED BY ADA REQUIREMENTS.
- L. PROVIDE TEMPORARY COVERS, CAPS, OR PLUGS ON SANITARY SEWER SYSTEM THROUGHOUT THE DURATION OF CONSTRUCTION. RAG WADS, DUCT TAPE, OR OTHER SIMILAR METHODS OF TEMPORARY COVERS SHALL NOT BE UTILIZED. UPON COMPLETION OF CONSTRUCTION, COMPLETELY REMOVE ANY AND ALL OBSTRUCTIONS INSIDE THE ENTIRE SYSTEM BY SNAKING, RODING, OR JETTING THE SYSTEM IMMEDIATELY PRIOR TO PROJECT TURNOVER TO THE OWNER.
- M. ALL BELOW GRADE SANITARY LINES SHALL BE A MINIMUM OF 2" OR IN ACCORDANCE WITH LOCAL CODE REQUIREMENTS.
- N. SANITARY TEE FITTINGS SHALL NOT BE INSTALLED IN DRAIN, WASTE, AND VENT (DWV) SYSTEMS.
- O. INSTALL SANITARY PIPING 3" OR SMALLER AT A SLOPE OF 1/4" PER FOOT AND SANITARY PIPING 4" AND LARGER AT A SLOPE OF 1/8" PER FOOT.
- P. ALL PUBLIC USE LAVATORY FAUCETS SHALL HAVE AN AUTOMATIC SAFETY WATER MIXING DEVICE IN ACCORDANCE WITH ANSI/ASSE 1017 OR 1070 AS APPLICABLE.
- Q. THE ENTIRE AREA UNDER CONSTRUCTION SHALL BE PROVIDED WITH A COMPLETE FIRE SPRINKLER SYSTEM IN ALL RESPECTS. RELOCATE/ADD NEW SPRINKLER DROPS TO EXISTING SYSTEMS WHERE REQUIRED TO PROVIDE COMPLETE COVERAGE THROUGHOUT THE AREA OF CONSTRUCTION. COORDINATE FIRE SPRINKLER PIPING AND HEAD LOCATIONS WITH ALL TRADES PRIOR TO FABRICATION AND/OR INSTALLATION. IF CONFLICTS OCCUR BETWEEN FIRE SPRINKLER PIPING/HEADS AND LIGHTS, DIFFUSERS, DUCTWORK, ETC., THE FIRE SPRINKLER PIPING/HEADS SHALL BE RELOCATED OR REROUTED AT NO ADDITIONAL EXPENSE TO THE PROJECT. AN ADEQUATE SUPPLY OF EXTRA PIPING AND FITTINGS SHALL BE MAINTAINED ON SITE TO ALLOW FOR FIELD MODIFICATIONS. PERFORM HYDRAULIC CALCULATIONS AS REQUIRED BY NFPA, LOCAL, STATE CODES, AND THE OWNER'S INSURANCE AGENCY. APPROVED SHOP DRAWINGS DO NOT PRECLUDE REROUTING IF SO REQUIRED BY THE ARCHITECT/ENGINEER.

PLUMBING NO 1 PROJECT

1. PROVIDE NEW PLUMBING FIXTURE AS SCHEDULED AND RECONNECT TO EXISTING UTILITY ROUGH-INS. ADJUST EXISTING ROUGH-INS AS NECESSARY TO CONNECT TO NEW FIXTURE.
2. EXISTING PLUMBING FIXTURE TO REMAIN. CONTRACTOR SHALL REVIEW CONDITION OF EXISTING FIXTURE AND BRING TO LIKE NEW CONDITION. COORDINATE WITH OWNERS REPRESENTATIVE IF EXISTING FIXTURE NEEDS TO BE REPLACED.
3. CONNECT THE NEW DOMESTIC COLD WATER LINE TO AN EXISTING COLD WATER LINE OF EQUAL OR GREATER SIZE. FIELD VERIFY THE EXACT LOCATION AND SIZE OF THE EXISTING WATER LINE PRIOR TO CONSTRUCTION. ADJUST THE NEW WATER LAYOUT AS REQUIRED TO ALLOW FOR CONNECTION TO THE EXISTING WATER SYSTEM.
4. CONNECT THE NEW DOMESTIC HOT WATER LINE TO AN EXISTING HOT WATER LINE OF EQUAL OR GREATER SIZE. FIELD VERIFY THE EXACT LOCATION AND SIZE OF THE EXISTING WATER LINE PRIOR TO CONSTRUCTION. ADJUST THE NEW WATER LAYOUT AS REQUIRED TO ALLOW FOR CONNECTION TO THE EXISTING WATER SYSTEM.
5. FURNISH AND INSTALL WATER HEATER AND EXPANSION TANK ON SHELF AS INDICATED ON THE PLANS. SET THE DISCHARGE TEMPERATURE TO 140 DEG. F. REFER TO ARCHITECTURAL PLANS FOR WATER HEATER SHELF REQUIREMENTS AND EXACT LOCATION. PIPE WATER HEATER RELIEF AND SECONDARY DRAIN PAN DISCHARGE TO THE NEAREST MOP SINK OR FLOOR DRAIN BELOW THE WATER HEATER. PROVIDE A CODE APPROVED AIR GAP ON THE DISCHARGE OF THE WATER HEATER RELIEF AND SECONDARY DRAIN. REFER TO DETAILS SHEET FOR ADDITIONAL INFORMATION.
6. PROVIDE THERMOSTATIC MIXING VALVE, POWERS #LFE480 OR EQUAL, BELOW FIXTURE. SET TEMPERATURE AS REQUIRED BY LOCAL JURISDICTION. THERMOSTATIC MIXING VALVE SHALL BE IN ACCORDANCE WITH ANSI/ASSE 1070.
7. WATER HAMMER ARRESTORS SHALL BE SIZED AND INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. LOCATIONS SHOWN ARE FOR REFERENCE PURPOSES ONLY.

PROJECT NO.	24068
DATE:	05/09/2024
DRAWN BY:	SEI
SCALE:	AS NOTED
FILE:	
GROSS AREA	6,719 S.F.

REVISIONS:



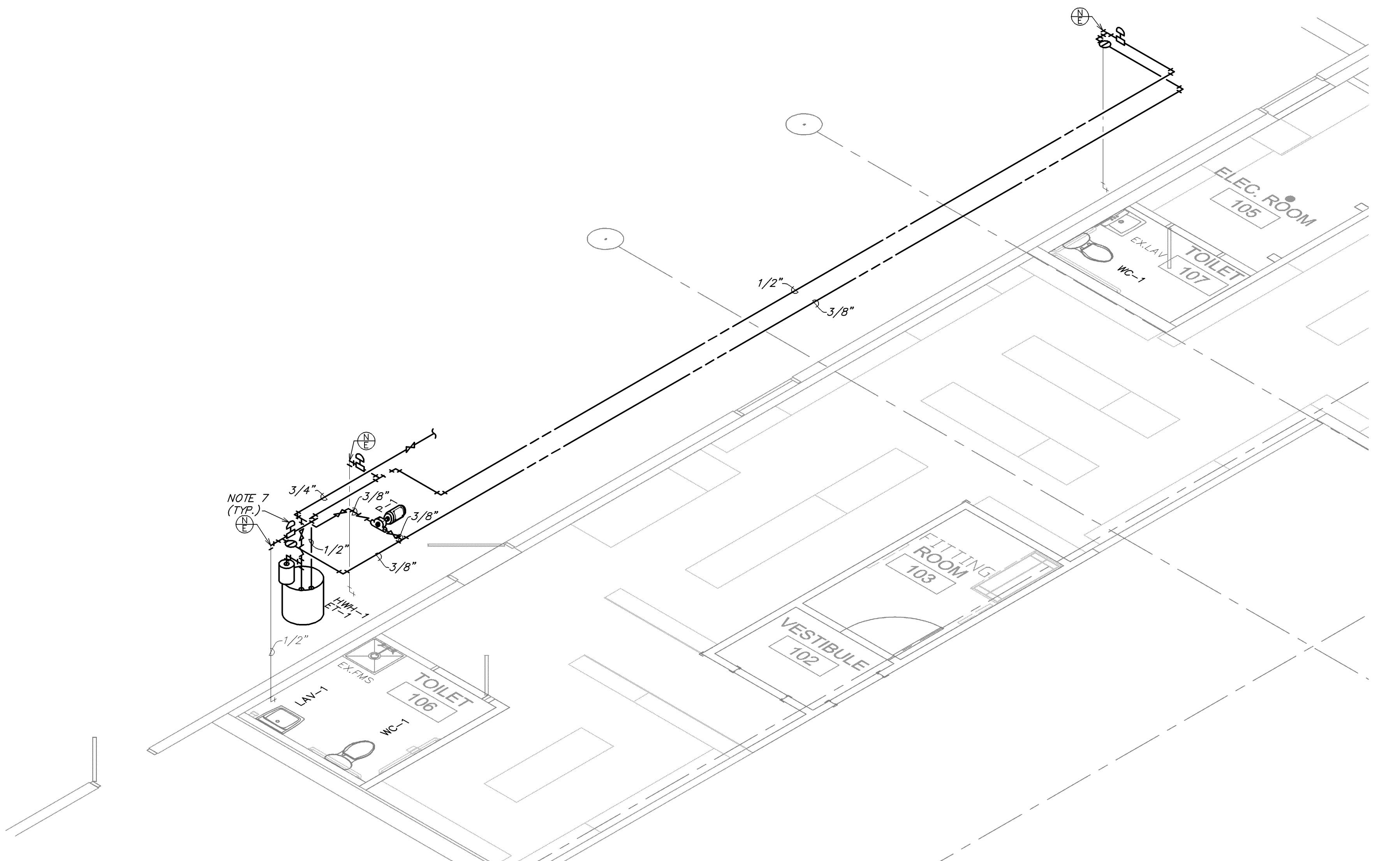
City of Puyallup
Development & Permitting Services
ISSUED PERMIT

Building	Planning
Engineering	Public Works
Fire	Traffic

**SHEET TITLE:
ENLARGED
PLUMBING PLAN**

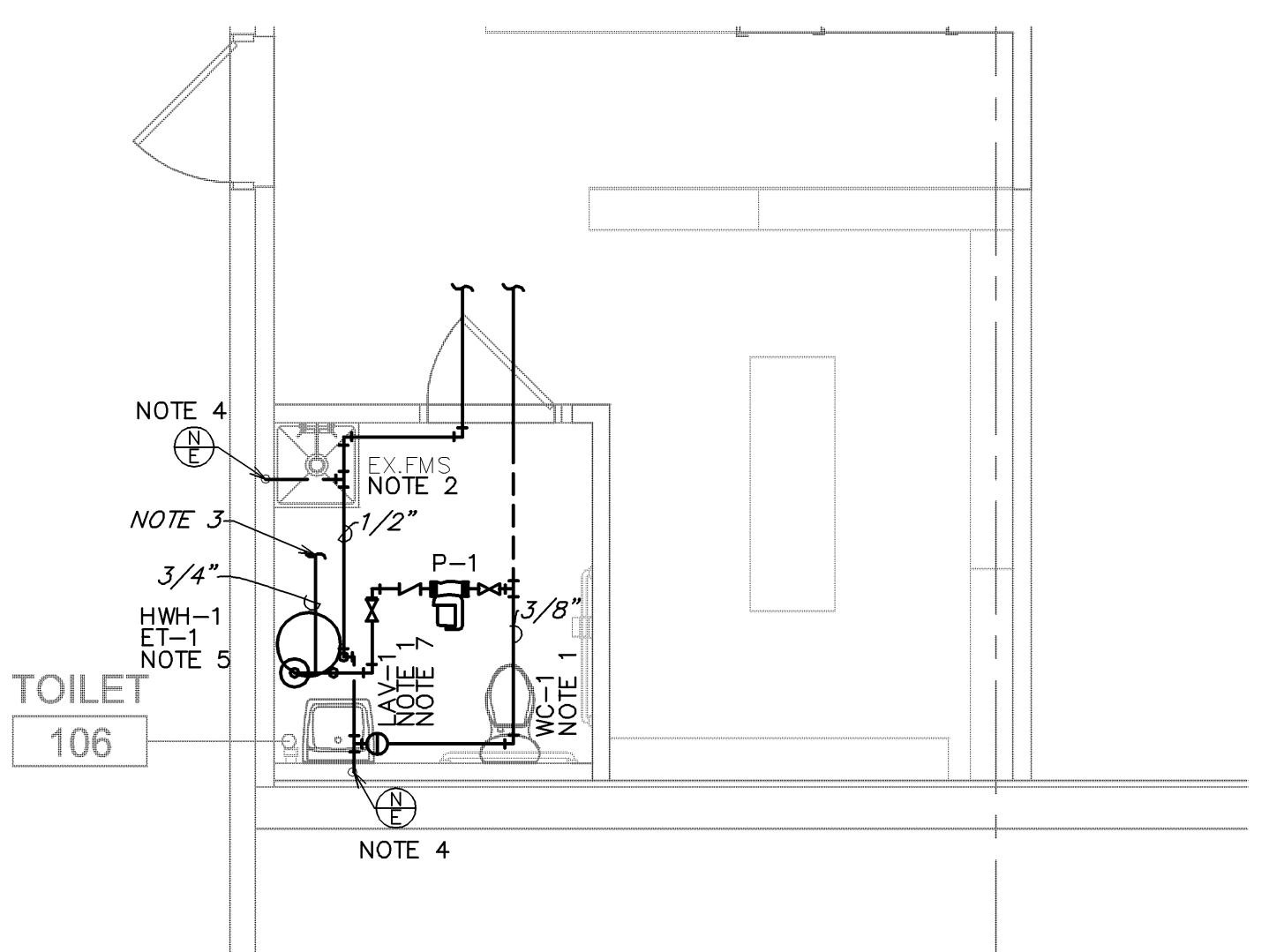
TP SHOE PALACE

PRCTI20240836



WATER RISER DIAGRAM

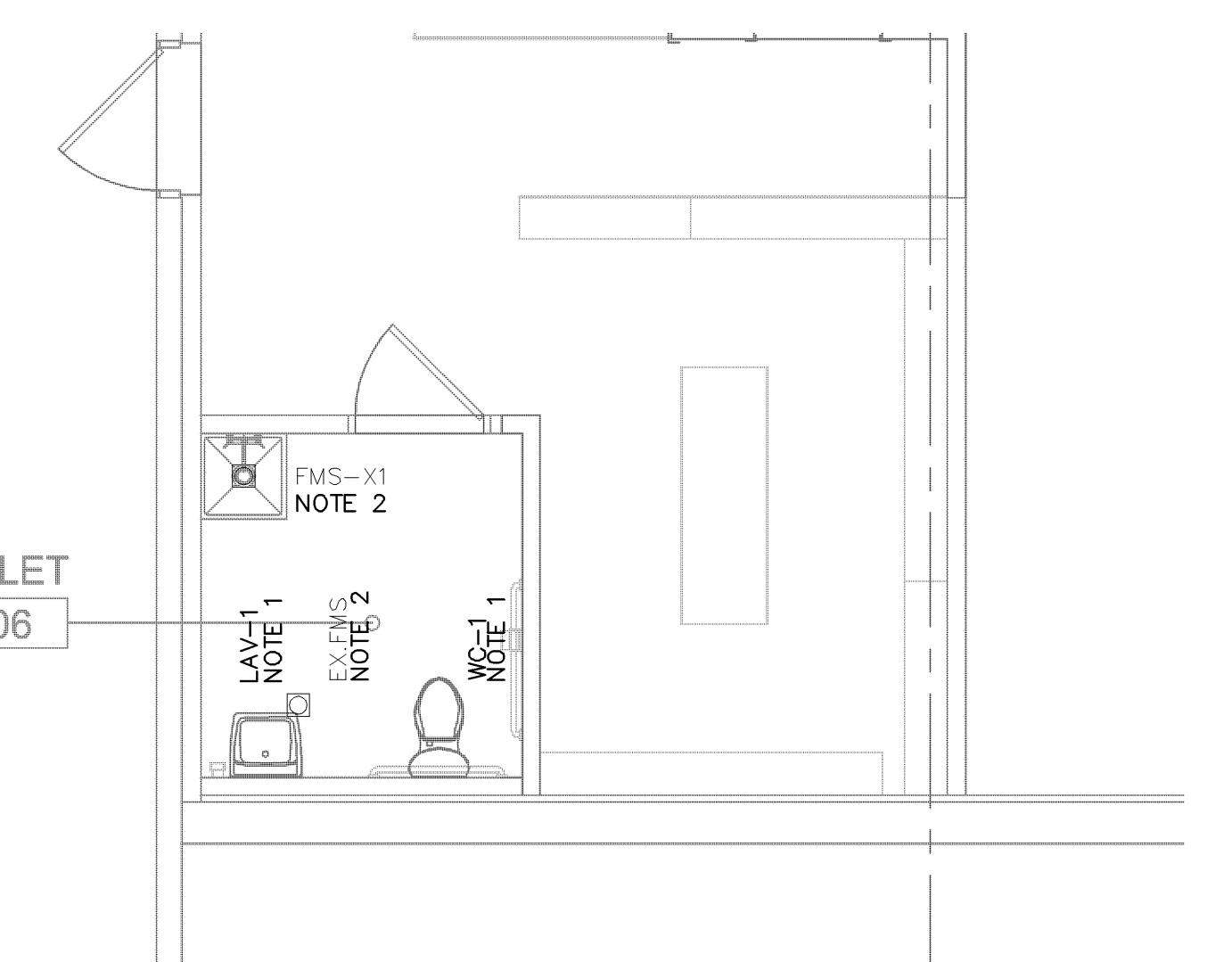
NOT TO SCALE



ENLARGED WATER PLAN

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

3
 NORTH

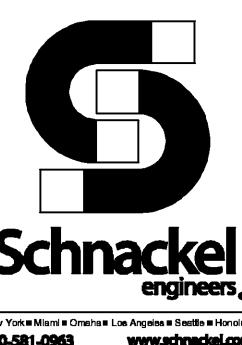


ENLARGED SANITARY PLAN

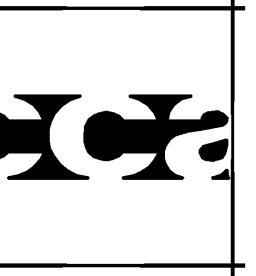
SCALE: 1/4"=1'-0"

1

NORTH



P2.0



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Date: 05/13/2024
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Mark		DESCRIPTION	FINAL CONNECTIONS				MANUFACTURER MODEL NUMBER
			HW	CW	V	W	
LAV-1	LAVATORIES	SWISS MADISON ST. TROPEZ WALL MOUNT SM-WS320 GLAZED CERAMIC, 1-3/4" FRAIN HOLE, 1-3/8" FAUCET HOLE, 17-1/2" L X 13" W X 4-5/16" H. WHITE.	1/2"	1/2"	1 1/2"	2"	SWISS MADISON: SM-WS320
	LAVATORY FAUCET	KINESIS TOUCHLESS TECHNOLOGY, SINLE-HOLE, BELOW COUNTER VALVING, METERED, SENSOR, AC-POWERED, 0.5 GPM, 5-1/8" SPOUT REACH, ADA COMPLIANT. MATTE BLACK.					KOHLER: OBLO K-103BB76-SBNA-BL
	LAVATORY SUPPLIES	INSIGHT AC POWERED DECK AND WALL MOUNT TOUGHLESS POWER SUPPL, ENERGY STAR EFFICEINCY,					KOHLER: K-13480-A
	LAVATORY WASTE	POP UP DRAIN WITH OVERFLOW					SWISS MADISON: SM-PD25
WC-1	WATER CLOSETS	FLUSH TANK, FLOOR MOUNTED, VITREOUS CHINA, ELONGATED BOWL, CLASSIC COMFORT HEIGHT, 1.28 GPF, W/ KOHLER LUSTRA ELONGAED FROM SEAT, SELF-SUSTAINING HINGES.	-	1/2"	2"	3"	KOHLER: KINGSTON K-25077
	WATER CLOSET SEAT	COMMERCIAL DUTY, EXTRA HEAVY WEIGHT, INJECTION MOLDED SOLID PLASTIC, LARGE MOLDED BUMPERS, STAINLESS STEEL POSTS, SELF-SUSTAINING, CONCEALED STAINLESS STEEL CHECK HINGE HOLDING SEAT IN ANY RAISED POSITION UP TO 11 DEG. BEYOND VERTICAL, OPEN FRONT, LESS COVER, COLOR: WHITE					KOHLER: LUSTRA K-4650
	SUPPLIES	CHROME PLATED LEVER TYPE 1/4 TURN BALL ANGLE STOP VALVE					

TANK TYPE ELECTRIC WATER HEATERS												
MARK	LOCATION	OPERATING WEIGHT (LBS)	SIZE (IN)		STORAGE CAPACITY (GALLONS)	RECOVERY (GPH @ 100 DEG F RISE)	ELECTRICAL			MANUFACTURER	MODEL	REMARKS
			DIA	H			KW	VOLT	PH			
HWH-1	SHELF	572	26.25"	32	47	13.7	3	277	1	RHEEM	ELDS52-TB	1

REMARKS: 1. SET WATER HEATER STORAGE TEMPERATURES TO 120°F

EXPANSION TANKS							
MARK	LOCATION	SERVES	MINIMUM ACCEPTANCE	WORKING PRESS (PSI)	SIZE (APPROX)	MANUFACTURER	REMARKS
ET-1	MOP SINK	DOM. HW	0.9	150	8"Øx12 1/2"	AMTROL	MODEL ST-5

PUMPS													
MARK	LOCATION	SERVICE	FLOW RATE (GPM)	HEAD (FT)	ELECTRICAL DATA				RPM	TYPE	MANUFACTURER	MODEL	REMARKS
					HP	VOLT	PH	CYC.					
P-1	HWH-1	DOM. HW	1	10.5	1/6	115	1	60	2950	INLINE	BELL & GOSSETT	NBF-25	

The diagram illustrates the installation of a water heater and the associated condensate drainage system. The water heater is mounted on a shelf, secured with a strap. The condensate line from the rooftop unit is shown running to a drain. The diagram includes various valves, pipes, and structural details.

Water Heater Installation:

- Sheet Metal Strap:** Secure to wall for seismic restraint.
- Drill Pilots:** On centerline of stud, insert screws through punched holes in strap.
- Use Minimum 1/4" Screws:** With minimum 1 1/2" penetration. Use washers.
- Lower Strap:** Must be a minimum of 4" above the control unit.
- 2 1/2" Deep Galvanized Steel (22 Gauge Min.) Drip Pan:** With all seams soldered watertight.
- Set Thermostat:** At 110 F.
- Shelf and Brackets:** Shall be of welded steel construction.
- Secure Shelf:** To wall structure in a manner equal to plumbing fixtures.
- 1/2" Threaded Rod:** Secured to structure above.
- Union (Typ.):** Used for connections.
- Water Heater:** The central component.
- ASME Pressure & Temperature Relief Valve:** Located on the water heater.
- DRAIN VALVE:** Located on the water heater.
- RELIEF VALVE DISCHARGE:** Piped full size to standpipe, 3/4" min.
- ROUTE 1" DRAIN LINE:** To standpipe.

Condensate Drainage System:

- ROOF TOP UNIT:** Integral rooftop unit condensate drain.
- OPEN TO ATMOSPHERE:** The condensate drain pipe size shall be no less than drain connection on unit.
- REFER TO SPECIFICATIONS:** For condensate material requirements.
- CONDENSATE LINE:** Shall run on roof to the nearest roof drain at a slope of no less than 1/8" per foot. Refer to plumbing plans for routing, size, and discharge location of condensate.
- 6" MIN.:** Minimum height requirement for the condensate line.

4 ROOFTOP UNIT CONDENSATE TRAP
NOT TO SCALE

This technical diagram illustrates a piping system support structure. A horizontal pipe is shown being supported by a vertical pipe. The vertical pipe is secured to a steel joist using a C-clamp. The horizontal pipe is supported by a clevis hanger. A note specifies that a saddle should be used for insulated pipe larger than 3/4". A note also specifies that a copper or non-metallic coating should be provided where hangers contact bare copper wire. A note specifies that an adjustable band hanger should be used for piping four inches or less. A note specifies that an all-thread rod should be used for pipe slope. A note specifies that a top beam C-clamp should be used if a steel bar joist is present.

ALL-THREAD ROD.
LENGTH AS REQUIRED
FOR PIPE SLOPE (TYP.)

LEVIS HANGER FOR PIPE
OVER FOUR INCHES

ROVIDE GALVANIZED STEEL
SADDLE FOR ALL INSULATED PIPE
LARGER THAN 3/4". VERIFY
INSULATION THICKNESS WHEN
SIZING HANGERS.

TOP BEAM C-CLAMP
IF STEEL BAR JOIST

ADJUSTABLE BAND
HANGER FOR PIPING
FOUR INCHES OR LESS

PROVIDE COPPER
OR NON-METALLIC
COATING WHERE
HANGERS CONTACT
BARE COPPER WIRE

NOTE: PROVIDE UPPER ATTACHMENT AS REQUIRED FOR CASES NOT SHOWN HERE. DO NOT INSTALL HANGER INSIDE INSULATION OR OTHERWISE PENETRATE VAPOR BARRIER. DO NOT HANG ONE PIPE FROM ANOTHER EXCEPT IN CHASES. TRAPEZE HANGERS MAY BE USED FOR MULTIPLE PARALLEL PIPES. HANGER SPACING FOR PIPE SIZE: COPPER: 4"=12' 3"=11' 2-1/2"=10' 2"=9' 1-1/4"=8' 1-1/4"=7' 1"=6' 3/4"=6' 1/2"=5'. CAST IRON: 10' AND ONE NEAR ALL JOINTS. STEEL: 4"=14' 3"=12' 2-1/2"=11' 2"=10' 1-1/2"=9' 1"=7' 3/4"=6' 1/2"=5'. LOCATE HANGERS AS CLOSE AS POSSIBLE TO TURNS AND TEES OF PIPE. PROVIDE SUPPLEMENTARY STEEL STRUTS BETWEEN JOISTS IF REQUIRED. LOCATE HANGERS TO TAKE LOAD OFF OF EQUIPMENT CONNECTIONS. ANCHOR WATER PIPE AGAINST SWAYING DUE TO CHANGES IN WATER VELOCITY. PROVIDE SEISMIC BRACING IF/AS REQUIRED BY LOCAL AUTHORITIES. CHAINS OR PERFORATED STRAP IRON OR STEEL IS NOT ACCEPTABLE. REFER TO CODES FOR FURTHER INFORMATION.

**INSTALL PER PDI
STANDARDS AND
MANUFACTURER'S
INSTRUCTIONS**

Fixture Unit Tabulation		
Fixture	Cold	Hot
VALVE WATER CLOSET	10	--
TANK WATER CLOSET	5	--
URINAL	5	--
LAVATORY/SINK	1.5	1.5
JANITOR'S SINK	3	3

OLD WATER SUPPLY

IF HORIZONTAL BRANCH IS LESS THAN 20' LONG, PROVIDE ONE WHA AT END OF LINE

IF BRANCH IS GREATER THAN 20' LONG, PROVIDE ANOTHER WHA IN MIDDLE, EACH SIZED FOR HALF THE FIXTURE UNITS

TO FIXTURES

TO FIXTURES

TO FIXTURES

PDI SIZE	PIPE SIZE	Fixture Unit Load
A	1/2"	1-11
B	3/4"	12-32
C	1"	33-60
D	1-1/4"	61-113
E	1-1/2"	114-154
F	2"	155-330

PDI SIZE	PIPE SIZE	FIXTURE UNIT LOAD
A	1/2"	1-11
B	3/4"	12-32
C	1"	33-60
D	1-1/4"	61-113
E	1-1/2"	114-154
F	2"	155-330

PLUMBING CONTRACTOR SHALL PROVIDE WATER HAMMER ARRESTERS BY SIOUX CHIEF, PRECISION PLUMBING PRODUCTS, WATTS OR APPROVED EQUIVALENT WITH PISTON AND O-RING CONSTRUCTION, HAVING PDI #WH-201, ASSE #1010 AND ANSI #A112.26.1M CERTIFICATION. INSTALL IN HORIZONTAL OR VERTICAL POSITION, BUT NEVER UPSIDE DOWN. INSTALL IN LINE WITH WATER FLOW DIRECTION IF POSSIBLE. SIZE THE UNITS AS SHOWN ON THE DRAWINGS AND/OR PER THE TABLES SHOWN ABOVE.

3 PIPE INSULATION DETAIL

NOT TO SCALE

WATER HAMMER ARRESTERS

**SOUTH HILL MALL
SPACE 410 & 420
3500 S MERIDIAN
PUYALLUP, WA 98373**

CTI2024083



P3.0

PART 1 - GENERAL**1. SUMMARY**

- A. Provide complete, approved sprinkler system as specified, including, but not limited to, the following:
 - 1. Sprinkler service connections to existing piping terminating above floor in sprinkler valve rooms with all required valves, devices, connections, etc.
 - 2. Sprinkler valves, hangers, connections, test connections, drain connections, alarm check valves, flow switches, etc.
 - 3. Complete interior sprinkler system of the wet type as indicated.
 - 4. Include coverage for all canopies, awnings, vestibule overhangs, etc. as required by NFPA 13.
 - 5. Identification, diagrams, and signs.
 - 6. Cutting and setting.
 - 7. All other requirements of a complete sprinkler installation.
 - 8. Furnish all permits of a special nature required by local and state authority.

2. IN GENERAL

- A. The naming of manufacturers in the Specifications shall not be construed as eliminating the materials, products, or services of other manufacturers and suppliers having approved equivalent items.
- B. The substitutions of materials or products other than those named in the Specifications are subject to prior approval of the Engineer granted in writing.
- C. The Subcontractor shall furnish and install wet pipe automatic sprinkler systems of first quality in every and all respects, together with the necessary pipe, fittings, hangers and other apparatus as hereinabove enumerated and/or indicated.
- D. All sprinkler piping must be substantially supported from building structure and only approved type hangers shall be used. Sprinkler lines under ducts shall not be supported from ductwork or roof deck, but shall be supported from building structure with trapeze hangers where necessary. No fire sprinkler piping may be attached to Epic Deck or any metal roof decking. Suspend from structural steel only.
- E. Sprinkler equipment shall be completed and placed in service during non-attended hours in all areas. Every effort shall be made to provide sprinkler protection before combustible contents are moved into the building. Sprinkler Subcontractor shall plan his work with Owner's representative to determine which system will be required first.
- F. All work specified shall be done in a first class and workmanlike manner, complete in every respect and when completed shall conform to the present standards of the National Fire Protection Association Pamphlet #13 and to all requirements of the inspection agency of the owner's insurance company, to all local and state inspection agencies and to the requirements of the local utility. Pressure tests to be 200 psi or as required by inspection authorities, but not less than 200 psi.
- G. The Sprinkler Subcontractor shall obtain the approval of local officials on system design and completed installation.

3. DEFINITIONS

- A. Pipe sizes used in this Specification are Nominal Pipe size (NPS).
- B. Other definitions for fire protection systems are listed in NFPA Standards 13, 14, and 24.
- C. Working Plans as used in this section means those documents (including drawings and calculations), prepared pursuant to the requirements contained in NFPA 13 for obtaining approval of the authority having jurisdiction.
- 4. SYSTEM DESCRIPTION

- A. Fire protection system is a "Wet-Pipe" system employing automatic sprinklers attached to a piping system containing water and connected to a water supply so that water discharges immediately from sprinklers opened by fire. Wet standpipes are to be provided as required by local building codes.

- 5. SUBMITTALS

- A. Product Data for each type sprinkler head, valve, piping specialty, fire protection specialty, fire department connection and standpipe cabinet specified.
 - B. Shop Drawings prepared in accordance with NFPA 13 identified as "Working Plans," including hydraulic calculations that have been approved by the authority having jurisdiction.
 - 1. The Subcontractor shall before commencing installation of his work obtain all necessary insurance or inspection agency approvals and then send one set and one copy of approved drawings to the Architect for his review.
 - 2. Shop drawings must be legible copies of clear, sharp tracings, prepared at scale of 1/8" = 1'-0" and must show along with piping, sprinklers, ductwork, etc., construction and occupancy of each area, including ceiling and roof heights.
 - 3. Calculations shall be based on NFPA requirements for mercantile occupancy.
 - 4. Shop drawings shall be prepared using for reference all of the architectural, structural, mechanical, plumbing, and electrical drawings.
 - 5. The placement of sprinklers and the routing of all exposed piping are subject to the review and approval of both the Engineer and the Architect for proper coordination and aesthetics. Pipe routing in exposed areas may require rerouting for architectural reasons, at no additional cost to the Owner.
 - C. Maintenance Data for each type sprinkler head, valve, piping specialty, fire protection specialty, fire department connection, hose and rack, and hose cabinet specified, for inclusion in operating and maintenance manual specified in Division 1 and Division-15 Section "Basic mechanical Requirements."
 - D. Welders, qualification certificates.
 - E. Test Reports and Certificates including "Contractor's Material & Test Certificate for Above-ground Piping" and "Contractor's Material & Test Certificate for Underground Piping" as described in NFPA 13.

6. QUALITY ASSURANCE

- A. Subcontractor's Qualifications: Installation and alterations of fire protection piping, equipment, specialties, and accessories, and repair and servicing of equipment shall be performed only by a qualified installer employed by the subcontractor. The term qualified means experienced in such work (experienced shall mean having a minimum of 5 previous projects similar in size and scope to this project), familiar with all precautions required, and has complied with all the requirements of the authority having jurisdiction. Upon request, submit evidence of such qualifications to the Architect. Refer to Division-1 Section: "Definitions and Standards", for definitions for "Installers."
- B. Qualifications for Welding Processes and Operators: Comply with the requirements of AWS D10.9, Specifications for Qualifications of Welding Procedures and Welders for Piping and Tubing, Level AR-3.
- C. Regulatory Requirements: Comply with the requirements of the following codes:
 - 1. NFPA 13 - Standard for the Installation of Sprinkler Systems.
 - 2. UL Compliance: Fire protection system materials and components shall be Underwriter's Laboratories listed and labeled, and approved for the application anticipated.
 - 3. Current Uniform Building Code and Uniform Fire Code as they apply to covered mall buildings.

7. SEQUENCING AND SCHEDULING

- A. Schedule rough-in installations with installations of other building components as directed by the Construction Manager.
- 8. EXTRA MATERIALS

- A. Valve Wrenches: Furnish to Owner, 3 valve wrenches for each type of sprinkler head installed.
 - B. Sprinkler Heads and Cabinets: Furnish 12 extra sprinkler heads of each style included in the project. Furnish each style with its own sprinkler head cabinet and special wrenches as specified in this Section.

PART 2 - PRODUCTS**1. MANUFACTURERS**

- A. Manufacturer: Subject to compliance with requirements, provide fire protection system products from one of the following:
 - 1. Grooved Mechanical Couplings:
 - a. Stockman
 - b. Reliance Company of America
 - 2. Sprinkler Heads:
 - a. Automatic Sprinkler Corp of America
 - b. Tyco
 - c. Reliable Automatic Sprinkler Co., Inc.
 - d. Star Sprinkler Corp.
 - e. Viking Corp.

2. PIPE AND TUBING MATERIALS

- A. General: Refer to Part 3 Article "PIPE APPLICATIONS" for identification of systems where the below specified pipe and fitting materials are used.
- B. Steel Pipe (2 inches and smaller): ASTM A 120, Schedule 40, E.R.W., black steel pipe, plain ends.
- C. Steel Pipe (2-1/2 inches and larger): ASTM A53 or A55, Schedule 10, E.R.W., black steel pipe, plain or roll grooved ends.
- D. The use of threaded "thinwall" pipe will not be acceptable.
- E. The use of schedule 40 black steel pipe 2" and smaller with roll grooved connections on gridded systems is acceptable.

3. FITTINGS

- A. Cast-Iron Threaded Fittings: ANSI B16.4, Class 125, standard pattern, for threaded joints. Threads shall conform to ANSI B1.20.1.
- B. Malleable-Iron Threaded Fittings: ANSI B16.3, Class 300, standard pattern, for threaded joints. Threads shall conform to ANSI B1.20.1.
- C. Steel Fittings: ASTM A 234, seamless or welded, for welded joints.
- D. Grooved Mechanical Fittings: ASTM A 536, Grade 65-45-12 ductile iron; ASTM A 47 Grade 32510 malleable iron; or ASTM A53, Type F or Types E or S, Grade B fabricated steel fittings with grooves or shoulders designed to accept grooved end couplings.
- E. Grooved Mechanical Couplings: Consist of ductile or malleable iron housing, a synthetic rubber gasket, of a central cavity pressure-responsive design; with nuts, bolts, locking pin, locking toggle, or lugs to secure roll-grooved pipe and fittings.
- F. Cast-Iron Threaded Flanges: ANSI B16.1, Class 125; raised round face, bolt holes spot faced.

4. JOINING MATERIALS

- A. Welding Materials: Comply, with section II, Part C, ASME Boiler and Pressure Vessel Code for welding material appropriate for the wall thickness and chemical analysis of the pipe being welded.
 - 1. Brazing Filler Metals: AWS A5.8, Classification BAg¹ (silver).
 - 2. Solder Filler Metals: ASTM B 32, 95-5 Tin-Antimony.
- B. Gasket Materials: Thickness, material, and type suitable for fluid to be handled, and design temperatures and pressures.

5. AUTOMATIC SPRINKLERS

- A. Sprinkler Heads: Fusible link type or glass bulb type, and style as required by the application. Unless otherwise indicated, provide heads with nominal 1/2-inch discharge orifice, for "Ordinary" temperature range.
- B. Sprinkler Head Finishes: Provide heads with the following finishes:
 - 1. Sprinklers for the proposed equipment shall be of the approved bronze and chrome upright and pendent; bronze and chrome flush and semi-recessed; and lead coated upright type, and shall be distributed throughout the building as required.
 - 2. Sprinklers in suspended acoustical tile and gypsum drywall ceilings in service/exit corridors or office areas shall be approved semi-recessed pendent type, chrome plated with escutcheon of 1" maximum depth with supply piping concealed above ceiling.
 - 3. Sprinklers within existing spaces with fire sprinkler coverage shall match existing sprinklers in color, K factor, temperature, and style.

PART 3 - EXECUTION**1. EXAMINATION**

- A. Examine rough in for sprinkler system piping and equipment to verify actual locations of piping and equipment prior to installation.
- B. Examine walls for suitable conditions where cabinets are to be installed.
- C. Do not proceed until unsatisfactory conditions have been corrected.

2. PIPE APPLICATIONS

- A. Use most economical combination of the following materials meeting all requirements. Alternate piping materials may be submitted for approval, subject to prior written approval by the Local Fire Marshal.
 - 1. Install Schedule 40 steel pipe with threaded joints and fittings for 2 inch and smaller.
 - 2. Install Schedule 10 steel pipe with roll-grooved ends and grooved mechanical couplings for 2 1/2 inch and larger.

3. PIPING INSTALLATIONS

- A. Locations and Arrangements: Drawings (plans, schematics, and diagrams) indicate the general location and arrangement of piping systems. So far as practical, install piping as indicated.
 - 1. The Subcontractor shall make no changes in installation from layout as shown on approved working drawings which may be requested by any Inspection Bureau or Insurance Association unless such change is specifically approved by the Engineer. Any changes other than as above stated are at the Subcontractor's own expense and responsibility.
- B. Install sprinkler piping to provide for complete system drainage in accordance with NFPA 13.
- C. Use approved fittings to make all changes in direction, branch takeoffs from mains, and reductions in pipe sizes.
- D. Install unions in pipes 2 inch and smaller, adjacent to each valve. Unions are not required on flanged devices or in piping installations using grooved mechanical couplings.
- E. Hangers and Supports: Comply with the requirements of NFPA 13 and NFPA 14. Hanger and support spacing and locations for piping joined with grooved mechanical couplings shall be in accordance with the grooved mechanical coupling manufacturer's written instructions, for rigid systems. Provide protection from damage where subject to earthquake in accordance with NFPA 13.
- F. Install pressure gage on the riser or feed main at or near each test connection. Provide gage with a connection not less than 1/4 inch and having a soft metal seated globe valve, arranged for draining pipe between gage and valve. Install gages to permit removal, and where they will not be subject to freezing.

4. PIPE JOINT CONSTRUCTION

- A. Welded Joints: AWS D10.9, Level AR-3.
- B. Threaded Joints: conform to ANSI B1.20.1, tapered pipe threads for field cut threads. Join pipe, fittings, and valves as follows:
 - 1. Note the internal length of threads in fittings or valve ends, and proximity of internal seat or wall, to determine how far pipe should be threaded into joint.
 - 2. Align threads at point of assembly.
 - 3. Apply appropriate tape or thread compound to the external pipe threads.
 - 4. Assemble joint to appropriate thread depth. When using a wrench on valves place the wrench on the valve end into which the pipe is being threaded.
 - 5. Damaged Threads: Do not use pipe with threads that are corroded or damaged. If a weld opens during cutting or threading operations, that portion of pipe shall not be used.
- C. Mechanical Grooved Joints: Cut or roll grooves on pipe ends dimensionally compatible with the couplings.
- D. End Treatment: After cutting pipe lengths, remove burrs and fins from pipe ends.

5. SPRINKLER HEAD INSTALLATIONS

- A. Use proper tools to prevent damage during installations.

6. FIELD QUALITY CONTROL

- A. Flush, test, and inspect sprinkler piping systems in accordance with NFPA 13 requirements.
- B. Flush, test, and inspect standpipe systems in accordance with NFPA 14 requirements.
- C. Replace piping system components, which do not pass the test procedures, specified, and retest repaired portion of the system.

7. FLUSHING CONNECTIONS

- A. Provide flushing connections in cross-mains as specified in NFPA 13, latest edition.

8. PIPING THROUGH WALLS AND FLOORS

- A. Sleeves shall be set in place for all pipes passing through floors and walls.
- B. In the event Sprinkler Subcontractor fails to set sleeves for passage of piping through floors and walls, he shall pay the Construction Manager to cut and install them.
- C. All hangers and hanger components shall be approved type.

9. FREIGHT & HAULING

- A. Deliver materials to job site and unload and stack in location designated by the owner's representative.

10. LEAK DAMAGE

- A. This Subcontract shall be responsible during the installation and testing periods of the sprinkler system for any damage to the walls of others, to the building, its contents, etc., caused by tanks, pipes, or any equipment, by untagged or disconnected pipes, fittings, etc., or by overflow and shall pay for necessary replacements or repair to work of others, building, store fixtures, or merchandise damaged by such leakage.

11. GUARANTEE

- A. At the completion of the work under this sprinkler contractor, this Subcontractor shall furnish, in writing, to the owner, a guarantee stating that all equipment, materials and work performed are in full accordance with the Plans and Specifications.
- B. This Subcontractor shall also furnish to the owner a written guarantee (in triplicate) that all equipment, materials and work performed under this contract, and any subsequent change orders thereto, are fully guaranteed for one year from date of final acceptance, and that any equipment, materials or workmanship which may prove defective within that time will be replaced at no cost to the owner.

12. MORE OR LESS SPRINKLERS

- A. The Sprinkler Subcontractor shall state price in the bid for more or less sprinklers than the total number of sprinkler heads as shown on the working drawings. This price shall include all necessary heads, piping, fittings, and labor per head and shall state price for installation of each type of sprinkler used job.

13. ACCEPTANCE

- A. Before offering system for acceptance, the Subcontractor shall furnish written proof that it is entirely satisfactory to the Inspection Agency, governmental bodies having jurisdiction and the local water utility.

14. CUTTING & PATCHING

- A. Chases, openings, recesses, etc. in new construction shall be provided where so indicated by the Subcontractors in construction at the locations involved. Subcontractors shall furnish information as to size, location, etc. and shall provide and set in place all boxes, sleeves, inserts, forms, etc.
- B. If he fails to provide the required data in time for openings to be left, or if he fails to set boxes, sleeves, inserts, forms, etc., Construction manager shall do required cutting.
- C. Openings shall be accurately located, neatly cut and no larger than necessary.
- D. The Subcontractor shall do rebuilding, patching, refinishing and painting required to restore construction to original condition before cutting, as approved by the Architect, using skilled craftsmen.

15. INSPECTOR'S TESTING

- A. Inspector's test connections, consisting of 1" piping, 1" Globe valve, and 1/2" special discharge nozzle, shall be provided and connected to the systems at required points. The subcontractor to consult with Construction Manager's superintendent on the job to determine exact locations of Inspector's test connections and locations of discharge piping. Piping downstream of test valves shall be galvanized.

16. SUBSTITUTIONS

- A. If the Subcontractor makes any substitutions of equipment or materials from that specified he shall be responsible for any required changes in drawings and responsible for any changes and cost caused by changes to other contracts involved.

END OF SECTION

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DATE: 05/09/2024
DRAWN BY: SEI
SCALE: AS NOTED
FILE:
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SECTION 22000 - PLUMBING GENERAL CONDITIONS

PART 1 GENERAL

- This section supplements all sections of the Specifications for this Division and shall apply to all phases of work hereinafter specified, shown on the Contract Documents, or required to provide a complete installation of approved plumbing systems.
- All drawings and specifications, including drawings and specifications related to other divisions, apply to the work. Where conflicts exist between documents, the more stringent requirement shall apply, subject to the interpretation of the Engineer.
- Furnish all labor, material, services, and skilled supervision necessary for the construction, erection, insulation, connection, testing, and adjustment of all materials and equipment specified, including the preparation of the Drawings, and its delivery to the Owner, complete in all respects and ready for use.
- Products furnished, but not installed under this section:
 - Products listed in the drawings and specifications shall be furnished by this Contractor for installation by other Contractors. This Contractor shall furnish all such equipment, complete in all respects and ready for installation.
 - Drawings, instructions, and manuals supplied with equipment furnished under this Division, and installed under other Divisions, shall be carefully preserved and turned over to the installing Contractor.
- Products installed but not furnished under this section:
 - Where plans indicate fixtures or equipment will be furnished by others, this Contractor shall furnish rough-in and supplies and shall connect such equipment to the piping system.
 - Drawings, instructions, and manuals supplied with equipment furnished under separate Divisions but installed under this Division shall be carefully preserved and turned over to the Architect.

1.02 DEFINITIONS

- The following definitions apply throughout the drawings and specifications associated with the work performed under this Division.
 - Authority Having Jurisdiction: All regulatory agencies, including but not limited to, plans examiners, fire marshals, inspectors, insurance carriers, and utility companies.
 - Conduit: Hidden from sight in chases, furred spaces, shafts, hung ceilings, embedded in construction, in crawl spaces, or underground.
 - Conduit: Conduit or tubing and all required fittings, pull boxes, hangers, and other supports and accessories related to such.
 - Code: The administrative code, including all local amendments and reference standards, adopted and enforced by the Authority Having Jurisdiction.
 - Code, Building: The administrative code, including all local amendments and reference standards, adopted and enforced by the Authority Having Jurisdiction.
 - Code, Electrical: The electrical code, including all local amendments and reference standards, adopted and enforced by the Authority Having Jurisdiction.
 - Code, Energy Conservation Code: The energy conservation code, including all local amendments and reference standards, adopted and enforced by the Authority Having Jurisdiction.
 - Code, Existing Building: The existing building code, including all local amendments and reference standards, adopted and enforced by the Authority Having Jurisdiction.
 - Code, Fire: The fire code, including all local amendments and reference standards, adopted and enforced by the Authority Having Jurisdiction.
 - Code, Fuel Gas: The fuel gas code, including all local amendments and reference standards, adopted and enforced by the Authority Having Jurisdiction.
 - Code, Mechanical: The mechanical code, including all local amendments and reference standards, adopted and enforced by the Authority Having Jurisdiction.
 - Code, Plumbing: The plumbing code, including all local amendments and reference standards, adopted and enforced by the Authority Having Jurisdiction.
 - Code, Residential: The residential code, including all local amendments and reference standards, adopted and enforced by the Authority Having Jurisdiction.
 - Contract Documents: All drawings, specifications, reference standards, applicable codes, manufacturer's installation instructions, and executive legal documents related to the project.
 - Contractor: The contractor(s) or subcontractor(s) responsible for performing the work associated with Divisions 26, 27, and 28, and ultimately the General Contractor.
 - Drawings: All plans, details, equipment schedules, diagrams, sketches, etc. issued for the construction of the work.
 - Exhibit: Not controlled.
 - Furnish: To supply and deliver, unload, and inspect for damage.
 - Install: To unpack, assemble, erect, apply, place, finish, cure, protect, clean, connect, and place into operation into the work.
 - Owner: The entity, including authorized representatives, to which the work is being provided.
 - Provide: To furnish and install.
 - Work: The construction and services, including all labor, materials, and equipment, required by the contract documents to fulfill the Contractor's obligations. The work may constitute the whole or a part of the project.

1.03 CODES AND STANDARDS

- Perform work in accordance with code requirements.
- Perform work in accordance with:
 - Occupational Safety and Health Administration (OSHA) Regulations.
 - Architectural Recordings Act (ADA).
 - The Authority Having Jurisdiction (AHJ).
 - Landlord requirements, including Tenant Criteria Manuals and Lease Exhibits.
 - Utility company requirements. Make all arrangements with the utility companies for proper connection to their systems.
 - All Referenced Standards: The specifications apply to the work as they were incorporated into the specifications in their entirety. It shall not be necessary to specifically reference one of these Referenced Standards for the requirements to the Referenced Standards to apply to the work. If there is a conflict between the requirements of the Referenced Standard and the Drawings or specification, the responsibility of this contract is to notify the Engineer of the discrepancy and obtain direction as to which standard applies prior to proceeding.
 - Code, Landlord and utility company requirements supersede any requirements of the contract documents.
 - The contract documents take precedence where the contract documents exceed code, Landlord, utility, or referenced standards requirements.

1.04 PERMITS AND FEES

- Permit, licenses, fees, inspections and arrangements required for the work under this Contract shall be obtained by the Contractor at his expense, unless otherwise indicated.
- All fees and scheduling associated with obtaining an accurate water flow test shall be at the Contractor's expense.

1.05 PREPARATION

- The Contractor is responsible to obtain, fully understand, and coordinate the work with the complete set of Contract Documents. Any required corrections, including all associated costs, arising from issues caused by the Contractor's failure to understand and/or coordinate the work with the complete set of Contract Documents or the Contractor's failure to understand and/or coordinate the work with the section is diagrammatic unless indicated otherwise and is intended to convey the scope of work and indicate the general arrangement of piping, equipment, and accessories. Follow these drawings in laying out the work and verify spaces for the installation of these materials and equipment. Wherever a conflict exists, the drawings shall take precedence over the contract documents, obtain instructions from the Architect before proceeding with the work. Notify the Architect/Engineer for resolution if a discrepancy is discovered within the Contract Documents. Failure of the Contractor to notify the Architect/Engineer of discrepancies shall result in a resolution section. The Contractor shall be responsible for the Architect/Engineer's review and possible rejection. Should the Architect/Engineer reject a discrepancy resolution of which they were not notified, the Contractor is fully responsible to correct the installation, including all associated costs, until approval of the installation is given by the Architect/Engineer.
- EXISTING CONDITIONS
 - Verify all existing conditions prior to beginning work.
 - Any existing conditions indicated are based on information provided by others and possible limited field verification.
 - Verify existing conditions against the contract documents, and become familiar with the work prior to bidding and start of the work.
 - Adjust for actual field conditions at no additional expense to the Owner.
 - If major discrepancies are found, the Contractor shall advise the Architect/Engineer of such deviations and bring it to the appropriate modification to the design and code with respect to the project.
 - The Contractor assumes full responsibility for adjusting for discrepancies of which the Architect/Engineer is not informed.
 - Signed the contract is an acknowledgement that the site visit has been completed and the existing conditions are accepted.
 - Verify all pipe locations and sizes in field prior to fabrication or installation.
 - Verify all equipment locations in field prior to installation. Coordinate final locations with all trades.
 - The Owner shall have first salvage right on all demolished equipment and materials. The Contractor shall dispose of all demolished equipment and materials the Owner rejects.
 - Where connections are made between new work and existing work, the connections shall be made by using materials and methods to suit the actual conditions.
 - Where existing conditions do not conform to the required design pattern, on the Drawings, this Contractor shall perform all work required for removal. Existing pipe run-outs shall be removed all the way back to mains and capped using appropriate methods.
 - Where existing work is to be modified, it shall be done in conformance with these specifications. Materials used shall be same as existing except where specified otherwise.

1.07 SUBMITTALS

- Furnish the Architect/Engineer product data and/or shop drawings, as specified in the individual specification sections, for review.

- Only submittals specifically required to be provided for Architect/Engineer review within the individual specification sections will be reviewed by the Engineer.
- Indicate the corresponding equipment tag on each unique component or piece of equipment.
- Indicate all proposed catalog numbers.
- Product data shall consist of manufacturer's standard catalog pages and/or cut-sheets.
- Submittals shall be concise and to the point, demonstrating the key performance parameters indicated in the contract documents, major dimensions, and identifying the materials used to manufacture the products. Submittals shall directly address the specific requirements of the contract documents without unnecessary, superfluous information such as non-applicable catalog pages, non-applicable cut sheets, and/or sales brochures. Submittals that are deemed overly voluminous or do not clearly address the requirements of the contract documents will be returned without Engineer review.
- The Architect/Engineer's review shall not relieve the Contractor from responsibility for errors within the submittals.
- If a substituted device or component is used, the contract documents, the Contractor shall advise the Architect/Engineer of the deviation in writing accompanying the submittal, including the reason for the deviation.
- Submittals are reviewed only for general compliance with the Contract Documents. Dimensions, quantities and details are not checked during submittal review. Review of shop drawings and other documents is the responsibility of the General Contractor for providing all materials, equipment and accessories necessary for a complete and operational system meeting the requirements of the project and the intent of the Contract Documents. The responsibility for coordination of substituted materials and equipment lies solely with the substituting Contractor.

1.08 QUALITY ASSURANCE

- Manufacturer Qualifications: Company specializing in manufacturing the Products section with minimum five years' experience.
- Installer Qualifications: Company specializing in performing the work of this section with minimum five years' experience. Approved by manufacturer.
- All Products:
 - Listed and classified by Underwriters Laboratories Inc. as suitable for the purpose specified and indicated.
 - Listed and classified by the local Department of Buildings and furnished with an occupancy number, where applicable.
 - Listed and classified by the Lender's and/or Owner's insurance carrier, where applicable.
- All equipment and components shall be free of all rust/corrosion or any visible damage. All items not complying with this requirement shall be replaced at no cost to the Owner.
- Equipment performance and accessories shall be as scheduled on the Drawings and specified herein. Inclusion in both locations is not a prerequisite to inclusion in the Contract. Equipment and accessories specified in either location shall be included in the contract. Provide all necessary accessories and connections as required in the contract. Functional systems shall be all required components reasonably inferred to as necessary although such components may or may not be specifically indicated on the Drawings or within the Specifications.
- Code or utility company requirements shall supersede any conflicting requirements of this section.
- Fill Composition Test Reports: Results of laboratory tests on actual materials used. Compaction Density Test Reports.

1.09 DELIVERY AND HANDLING

- Provide temporary protective coating on cast iron and steel valves.
- Provide temporary end caps and closures on piping and fittings. Maintain in place until installation.
- Protect motors stored on site from weather and moisture by maintaining factory covers and suitable waterproof covering. For extended outdoor storage, remove motors from equipment and store separately.
- Provide a complete parts and labor warranty and guarantee on all systems installed and maintained for a period of one year from the completion of the facility. This warranty and guarantee shall cover all failures of any equipment, materials or installation, unless such failure is directly attributable to vandalism, or causes other than defects in material or workmanship.
- Additional warranty and guaranteed terms in excess of this requirement are specified within the individual sections of Division 22.

1.10 WARRANTY

- Provide a complete parts and labor warranty and guarantee on all systems installed and maintained for a period of one year from the completion of the facility. This warranty and guarantee shall cover all failures of any equipment, materials or installation, unless such failure is directly attributable to vandalism, or causes other than defects in material or workmanship.
- Additional warranty and guaranteed terms in excess of this requirement are specified within the individual sections of Division 22.

PART 2 PRODUCTS

Manufacturers listed are to set minimum standards for quality, design, and performance. Products of other manufacturers may be substituted at the Contractor's option, during shop drawing review unless indicated otherwise. The products of other manufacturers shall not meet or exceed all requirements of the Contract Documents. The Contractor accepts all responsibility for costs and coordination issues arising out of the substitution of materials or equipment, and the coordination of such substitutions with all other contractors and subcontractors.

by a single manufacturer and obtained from a single supplier.

2.02 SOURCE LIMITATIONS

Furnish equipment and associated components and accessories produced

PART 3 EXECUTION

Execution of the Contract Documents as a whole for the work of other trades. Coordinate

3.01 COORDINATION

Contract Documents. All trades shall be in strict accordance with the contract documents. Verify all dimensions shown and establish all elevations and detailed dimensions not shown.

C. Promptly report to the Architect any delay or difficulties encountered in the installation of the work, which might prevent prompt and proper installation or make it difficult to work with other trades during the work. Failure to do so report shall constitute an acceptance of the work of other trades as being fit and proper for the execution of this work.

D. Plan, lay out, and coordinate the work with all trades well enough in advance so that it proceeds with a minimum of interference to work that has not been completed and work that is to be performed.

1. Inform all trades of openings required for the work and provide all special frames, sleeves, and anchor bolts required.

2. The plumbing system layout may be altered to suit the conditions, prior to the installation of the work and without cost to the Owner.

3. Perform all work in conjunction with the contract documents and offer other trades reasonable opportunity for the execution of their work.

4. Properly connect and coordinate this work with the work of other trades at such time and in such a manner as not to delay or interfere with their work.

5. Conflicting work from lack of coordination shall be the Contractor's responsibility.

a. The Contractor shall pay for all extra cutting and patching made necessary by his failure to properly direct such work at the correct time.

E. Whenever piping runs in or above ceilings or walls, the Contractor shall arrange the run of pipe in such a manner that it does not interfere with grilles, diffusers, outlet boxes, luminaires, or other ceiling mounted items.

F. Install systems, materials and equipment to provide for maximum headroom. Maintain access to equipment requiring service when selecting mounting elevations.

G. Install piping, equipment, and components in a manner that will not damage or replace of equipment components. As much as practical, connect equipment for ease of disconnecting, with minimum of interference with other installations.

H. Install systems, materials and equipment level and plumb, parallel and perpendicular to the piping when new, unless otherwise indicated.

I. Manufacturers' instruction sheets shall be followed explicitly in the installation of all equipment. Where manufacturer's instruction sheets conflict with requirements of these specifications or the Drawings, such conflicts shall be brought to the attention of the Architect/Engineer for clarification.

J. All roofing penetrations shall be made by the roofing contractor at this Contractor's expense. This Contractor shall contract with the factory authorized roofing contractor for the specific roofing system applicable to this Project. The use of an unauthorized roofing contractor may result in removal and replacement of the penetration systems or other damage to the roof. The Contractor shall pay for all extra cutting and patching made necessary by his failure to properly direct such work at the correct time.

K. Although all such work is not specifically indicated, furnish and install all supplementary or miscellaneous items, appurtenances and devices incidental to or necessary for a sound, secure and complete installation.

L. Verify all existing conditions of requirements for installation of all materials and components that are to be used under this Division and installed or connected under this Division prior to rough-in. Conflicts arising from lack of coordination shall be this Contractor's responsibility. As such, the Contractor is responsible to:

1. Verify all existing shop drawings, product data, manufacturer's wiring diagrams, and manufacturer's instructions for equipment furnished under other sections.
2. Determine connection locations and requirements.
3. Sequence rough-in of plumbing connections to coordinate with installation of all other trades.
4. Utilize galvanized steel hangers and supports in all wet, damp, and corrosive environments, including all exterior locations.
5. Where crane rental or other erection is required, such costs shall be included in the contract, unless specific arrangements are made with the General Contractor to cover these costs.
6. Verify that mounting surfaces are ready to receive support and attachment components.
7. Verify that conditions are satisfactory for installation prior to starting work.

3.02 COORDINATION

Relationship with other systems, installations, and systems of plumbing equipment and materials in

3.03 INTERFACES

A. Install all pipe, equipment, and accessories to preserve fire resistance rating of partitions and other elements, using materials and methods specified.

3.04 FIELD QUALITY CONTROL

A. Provide tests necessary to establish the adequacy, quality, safety, completed status and suitable operation of each system.

B. Install all equipment, devices, pipe, and materials securely and in a neat and workmanlike manner in accordance with all applicable standards and codes.

C. Install all equipment, pipe, and materials plumb and level and align and adjust for satisfactory operation.

D. Install all equipment, pipe, and materials in accordance with the manufacturer's instructions and recommendations.

E. Inspect all equipment, pipe, and materials for defects.

3.05 ERECTION

A. Rigging:

1. The Plumbing Contractor shall arrange for all labor and equipment required for the proper installation of the plumbing equipment in the locations indicated on the Drawings. Where crane rental or other erection is required, such costs shall be included in the Plumbing Contract, unless specific arrangements are made with the General Contractor to cover these costs.

B. Supplemental Framing:

1. Provide the design, fabrication, and erection of supplementary structural framing required for attachment of hardware, other devices supporting piping, and equipment, and framing members in unusual or non-standard shapes. A-36 steel. Provide members welded to structural members equal to the specification for the main structural member. Provide "simple beam" type framing with end connections welded or bolted for shear loads. Use cantilevered members where specifically approved by the Architect/Engineer. The Architect/Engineer is responsible for the design of supplementary framing. Use only certified welders. Design framing members for their actual loads, with allowable stresses specified by AISC, without excessive deflection and with consideration for rigidity under vibration, in accordance with standard structural practices. Show on shop drawing supplementary framing, including design loads, member size and location.

C. CUTTING, PATCHING, AND PIERCING:

1. Cutting of openings and installation of sleeves or frames through walls and floors shall be done in a neat workmanlike manner. Openings shall be cut only as large as required for the required equipment and/or frames installed flush with finished floor or ceiling grouted in place. Surface around openings shall be left smooth and finished to match surrounding surface.
2. Obtain written permission of the Architect/Engineer before cutting or piercing structural members. Use craftsmen skilled in their respective trades for cutting, fitting, and placing sleeves, plates, and fittings. Use caution when working on overhead work, metal work or concrete required for this work.
3. Do not weaken walls, partitions, or floors with cutting. Holes required to be cut in floors must be drilled without breaking out around the holes. The Architect/Engineer will determine suitability of patching and/or refinishing required.
4. The Plumbing Contractor is responsible for patching of all openings resulting from the installation or removal of plumbing equipment or materials.

D. The Plumbing Contractor is responsible for patching of all openings resulting from the installation or removal of plumbing equipment or materials.

E. Provide and maintain temporary partitions or dust barriers adequate to prevent the spread of dust, debris, or other materials.

F. For existing finished surfaces and building components using new materials matching existing materials and experienced subcontractors.

G. Fire and Smoke Partition Penetrations: The Contractor shall familiarize himself with all fire rated construction and install his work so as to maintain the integrity of the fire code rating. Maintain rating of fire rated and smoke rated construction. Seal all joints around concrete, fire and smoke rated floors, walls, partitions, and floors with UL listed material that maintains fire rated wall and floor integrity.

3.06 TOLERANCES

A. Top Surface of General Backfilling: Plus or minus 1 inch (25 mm) from required elevations.

B. Top Surface of Backfilling Under Paved Areas: Plus or minus 1 inch (25 mm) from required elevations.

3.07 FIELD QUALITY CONTROL

A. Perform compaction density testing on compacted fill in accordance with ASTM D1556, ASTM D2167, ASTM D2922 or ASTM D3017.

B. Evaluate results in relation to compaction curve determined by testing uncompacted materials in accordance with ASTM D 698 ("standard Proctor"), ASTM D 1557 ("modified Proctor"), or AASHTO T 180.

C. If tests indicate work does not meet specified requirements, remove work, replace and retest.

D. Frequency of Tests: Every two feet.

3.08 CLEAN-UP

A. Leave unused materials in a neat, compact stockpile.

B. Remove unused stockpiled materials, leave area in a clean and neat condition.

C. Grade stockpile area to prevent standing surface water.

END OF SECTION

SECTION 220516 - EXPANSION FITTINGS AND LOOPS FOR PLUMBING PIPING

PART 1 GENERAL

1.01 SUBMITTALS

- Provide the following for Architect/Engineer review:
 - Product Data:
 - Flexible Pipe Connectors: Indicate maximum temperature and pressure rating, face-to-face length, live length, hose wall thickness, hose convolutions per foot (meter) and per assembly, fundamental frequency of assembly, braid structure, and total number of wires in braid.
 - Drainage Fittings: Indicate maximum temperature and pressure rating, and maximum expansion compensation.

3.08 TESTING AND INSPECTION

- Upon completion, the entire system shall be tested under operating conditions.
 1. All equipment shall be tested under service conditions and proven to operate properly and satisfactorily.
 2. All additional tests as required throughout this Specification shall be completed with results reported back to the Architect/Engineer for review.
- Operate all equipment, after installation and connection. Inspect for improper connection, assembly and operation and correct deficiencies as required.
- Inspection:
 1. Upon completion of the work, the Contractor shall obtain certificates of inspection and approval from all City and State Authorities Having Jurisdiction.
 2. Design Data: Indicate locations and calculations.
 3. Manufacturer's Instructions: Indicate manufacturer's installation and operational procedures.
 4. Maintenance Data: Indicate adjustment instructions.
 5. Project Record Documents: Record installed locations of flexible pipe connectors, expansion joints, anchors, and guides.

PART 2 PRODUCTS

2.01 FLEXIBLE PIPE CONNECTORS - STEEL PIPING

 - Inner Hose: Carbon steel.
 - Exterior Sleeve: Single braided, stainless steel.
 - Pressure Rating: 125 psi and 450 degrees F (862 kPa and 232 degrees C).
 - Joint: Flanged.
 - Size: Use pipe size units.
 - Maximum offset: 3/4 inch (20 mm) on each side of installed center line.

2.02 FLEXIBLE PIPE CONNECTORS - COPPER PIPING

 - Inner Hose: Copper.
 - Exterior Sleeve: Braided bronze.
 - Pressure Rating: 125 psi and 450 degrees F (862 kPa and 232 degrees C).
 - Joint: Flanged.
 - Size: Use pipe size units.
 - Maximum offset: 3/4 inch (20 mm) on each side of installed center line.
 - Application: Copper piping.

PART 3 EXECUTION

3.01 INSTALLATION

 - Install in accordance with EJMA (Expansion Joint Manufacturers Association) Standards.
 - Install flexible pipe connectors on pipes connected to vibration isolated equipment. Provide line size flexible connectors.
 - Install flexible pipe connectors to isolated equipment and anchor other end. Install one immediately adjacent to isolated equipment and anchor other end. Install in horizontal plane unless indicated otherwise.
 - Anchor pipe to building structure where indicated and/or required to control detrimental movement of piping. Provide pipe guides so movement is directed along the pipe only. Easing piping such that strain and weight is not on connections or apparatus.
 - Provide support and equipment required to control expansion and contraction of piping. Provide loops, pipe offsets, and swing joints, or expansion joints where required.
 - Contractor may substitute grooved piping for vibration isolated equipment instead of flexible connectors. Grooved piping need not be anchored.

END OF SECTION

SECTION 220501 - TRENCHING AND BACKFILL FOR PLUMBING SYSTEMS

PART 1 GENERAL

1.01 DEFINITIONS

A. Grade Elevations: 4 inches (100 mm) below finish grade elevations indicated on drawings, unless otherwise indicated.

B. Finish Grade Elevations: 4 inches (100 mm) above subgrade elevations indicated on drawings, unless otherwise indicated.

1.02 SUBMITTALS

A. Submittals for Architect/Engineer review are not required.

B. Provide the following to the Owner upon project closeout:

 1. Fill Composition Test Reports: Results of laboratory tests on actual materials used.
 2. Compaction Density Test Reports.

1.03 PROJECT CLOSEOUT

A. Provide one printed copy and one electronic copy of project record drawings to the Owner.

B. These drawings shall remain at the construction site throughout construction and shall be updated on a daily basis.

C. These drawings shall be available for review by the Architect/Engineer at all times.

D. Include information required in the individual specification sections.

E. Operate all equipment, after installation and connection. Inspect for improper connection, assembly and operation and correct deficiencies as required.

F. Upon completion of the work, the Contractor shall obtain certificates of inspection and approval from all City and State Authorities Having Jurisdiction.

1.04 PRODUCTS

A. Provide one printed copy and one electronic copy of operation and maintenance data to the Owner, including:

 1. All submittals required in the individual specification sections.
 2. All manufacturers' warranty information.
 3. All applicable codes of compliance with testing or regulatory requirements.
 4. All test reports.
 5. Organize all information by specification section.

END OF SECTION

SECTION 220501 - TRENCHING AND BACKFILL FOR PLUMBING SYSTEMS

PART 1 GENERAL

1.01 DEFINITIONS

A. Grade Elevations: 4 inches (100 mm) below finish grade elevations indicated on drawings, unless otherwise indicated.

B. Finish Grade Elevations: 4 inches (100 mm) above subgrade elevations indicated on drawings, unless otherwise indicated.

1.02 SUBMITTALS

A. Submittals for Architect/Engineer review are not required.

B. Provide the following to the Owner upon project closeout:

 1. Fill Composition Test Reports: Results of laboratory tests on actual materials used.
 2. Compaction Density Test Reports.

1.03 PROJECT CLOSEOUT

A. Provide sufficient quantities of fill to meet project schedule and requirements. Where necessary, store materials on site in advance of need.

B. When fill materials need to be stored on site, locate stockpiles where designated. Separate differing materials with dividers or stockpile separately to prevent intermixing.

C. Protect stockpiles from erosion and deterioration of materials.

D. Verify that survey bench marks and intended elevations for the work are as indicated.

E. Protect bench marks, survey control points, existing structures, fences, sidewalks, paving, and curbs from excavating equipment and vehicular traffic.

F. Code requirements shall supersede any conflicting requirements of this section.

2.01 PRODUCTS

A. General Fill: Subsoil excavated on-site.

 1. Graded.
 2. Free of lumps larger than 3 inches (75 mm), rocks larger than 2 inches (50 mm), and debris.

B. Structural Fill: Subsoil excavated on-site.

 1. Graded.
 2. Free of lumps larger than 3 inches (75 mm), rocks larger than 2 inches (50 mm), and debris.

C. Granular Fill - Gravel: Pit run stone; free of shale, clay, friable material and debris.

D. Granular Fill - Pea Gravel: Natural stone; free of clay, shale, organic matter, sand, natural river or bank sand; free of silt, clay, loam, friable or soluble materials, and organic matter.

E. Topsoil: Topsoil excavated on-site.

 1. Select.
 2. Free of roots, rocks larger than 1/2 inch (12 mm), subsoil, debris, large weeds and foreign matter.

F. Fill: Fill soil, rock, sand, gravel, and debris.

G. Acidity range (pH) of 5.7 to 7.5.

H. Containing

