Saint Paul Public Library

Design Report Appendix

RIVERVIEW LIBRARY

OK DROP & PICKUP

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SAINT PAUL

RIVERVIEW

Saint Paul Public Library

1 George Street East Saint Paul, Minnesota 55107

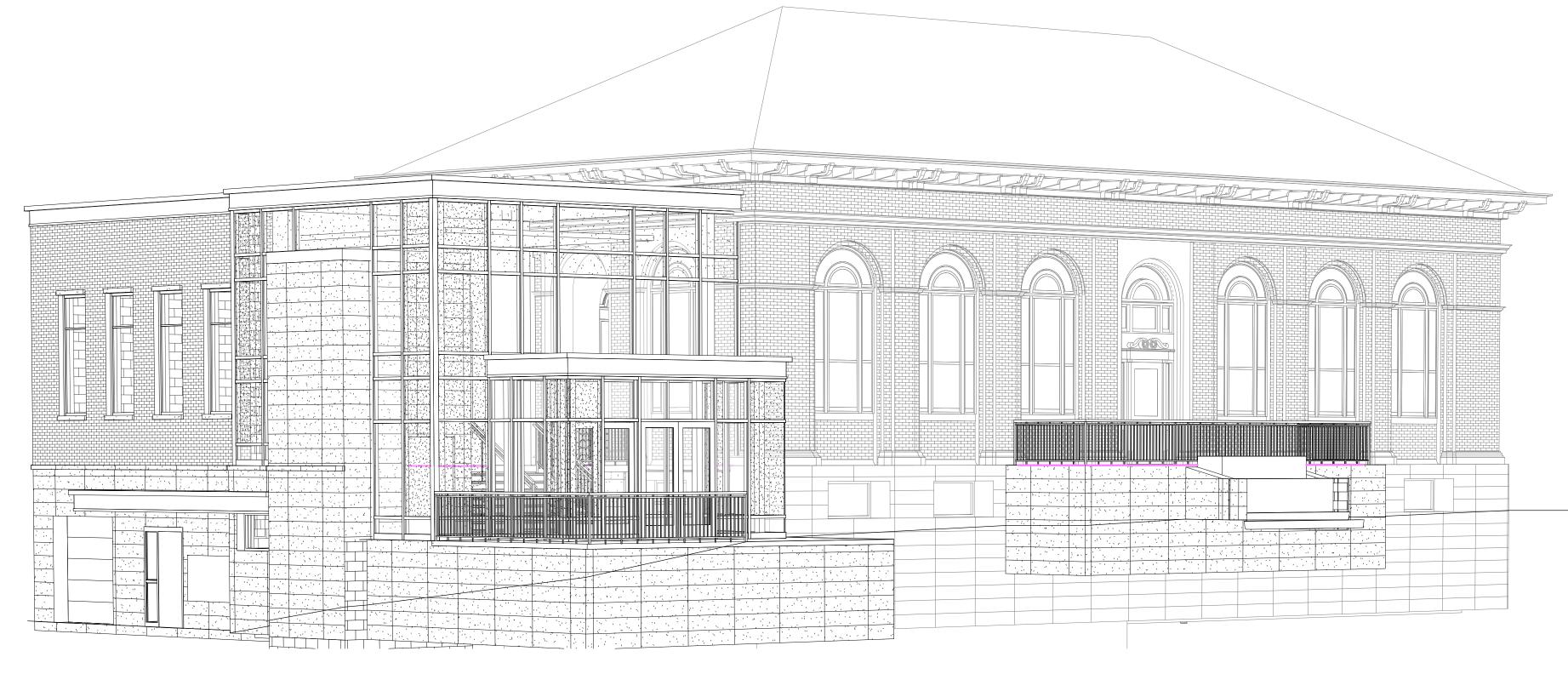
75% DESIGN DEVELOPMENT

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SHEET LIST - ARCHITECTURAL



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No.	Date	Revision Description
	09.30.2022	75% DD
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Project	21.1037.01	Drawing Number
Date	9/30/2022	
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Checked by	CL	A000

Α	ATIONS	E		М	
AB	ANCHOR BOLT	E	EAST	MAF	MODULAR ATHLETIC FLOORING
AC ACB	AIR CONDITIONER ACOUSTIC CEILING BAFFLE	EA EFIS		MAS MAT	MASONRY MATERIAL
ACC	ACCESSORY	EFIS	EXTERIOR FINISHED INSULATION SYSTEM EXPANSION JOINT	MAX	MATERIAL MAXIMUM
ACL	ACOUSTICAL CLOUD	ELEC	ELECTRIC	MEB	MECHANICAL EPOXY WALL BASE COAT
AFL ACP	ACCESS FLOORING ACOUSTIC CEILING PANEL	ELEV ENT	ELEVATION OR ELEVATOR ENTRANCE	MECH MEF	MECHANICAL MECHANICAL EPOXY FLOOR COATING
ACT	ACOUSTIC CEILING TILE	EP	EPOXY PAINT	MEL	MELAMINE
ADJ		EPB	EPOXY POURED BASE	MEMB	MEMBRANE
AFF AGG	ABOVE FINISHED FLOOR AGGREGATE	EPF EPW	EPOXY POURED FLOORING EPOXY POURED WALL	MET FAB MEZZ	METAL FABRICATION MEZZANINE
ALT	ALTERNATE	EQ	EQUAL	MFR	MANUFACTURER
ALUM ANOD	ALUMINUM ANODIZED	EQUIP	EQUIPMENT	MIN MISC	MINIMUM OR MINUTES MISCELLANEOUS
AP	ACCESS PANEL	EW EWC	EACH WAY ELECTRIC WATER COOLER	MKBD	MARKER BOARD
APP	APPLIANCE	EXIST	EXISTING	ML	METAL LAMINATE
APPROX ARP	APPROXIMATE ACOUSTIC REFLECTIVE PANEL	EXP EXT	EXPOSED EXTERIOR	MLWK MO	MILLWORK MASONRY OPENING
ART	ARTWORK		EATERIOR	MP	METAL PANEL
AV AWP	AUDIO VISUAL ACOUSTIC WALL PANEL	F		MPI	METAL PANEL INSULATED
ARP	ACOUSTIC REFLECTIVE PANEL			MR MT	MIRROR METAL TRIM
		FB FD	FACE BRICK FLOOR DRAIN	MTL	METAL
		FDN	FOUNDATION		
В		_ FE		N	
BM	BENCH MARK	FEC FF	FIRE EXTINGUISHER CABINET FINISHED FLOOR		NORTH
BATT	BATT INSULATION	FFE	FINISHED FLOOR FINISH FLOOR ELEVATION	N NACP	NORTH NON-ACOUSTICAL CEILING PANEL
BD BFE	BOARD BOTTOM FOOTING ELEVATION	FF&E	FURNISHINGS, FIXTURES, AND EQUIPMENT	NIC	NON-ACOUSTICAL CEILING PANEL NOT IN CONTRACT
BG-	BUMPER GUARD	FIN FIXT	FINISH FIXTURE	NOM	NOMINAL
BIT	BITUMINOUS	FLR	FLOOR	NO NTS	NUMBER NOT TO SCALE
BLDG BLK	BUILDING BLOCK	FO	FACE OF	6 I MI	NUT TO SUALE
BLKG	BLOCKING	FP FR	FIREPLACE / INSERT FIRE RATED		
BM	BEAM	FR FRG	FIRE RATED FIBERGLASS REINFORCED GYPSUM		
B.O. BOTT	BOTTOM OF BOTTOM	FRP	FIBERGLASS REINFORCED PANELING	0	
BR	BRICK	FT FTG	FOOT OR FEET FOOTING		
BRG	BEARING	FURR	FURRING	OA	OVERALL
BUR	BUILT-UP ROOF	FV	FIELD VERIFY	OC OCD	ON CENTER OVERHEAD COILING DOOR
				OCG	OVERHEAD COILING GRILLE
С		G		OD	OUTSIDE DIAMETER
CAB	CABINET	GALV	GALVANIZED	OFF OPG	OFFICE OPENING
СВ	CATCH BASIN	GB / GYP BD	GYPSUM BOARD	OPP	OPPOSITE
CBD	CEMENTITIOUS BOARD	GCMU	GLAZED CONCRETE MASONRY UNIT	ORN MET	ORNAMENTAL METAL ASSEMBLY
CFM CG	CUBIC FEET PER MINUTE CORNER GUARD	GC GL-	GENERAL CONTRACTOR GLASS OR GLAZING	ORN RAIL OSD	ORNAMENTAL RAILING OVERHEAD SECTIONAL DOOR
СН	COAT HOOK	GLU-LAM	GLUE LAMINATED		OVENILAD SECTIONAL DOOK
CHBD	CHALK BOARD	GMU	GLASS MASONRY UNIT	Р	
CHR CIP	CHAIR RAIL CAST IN PLACE	GR GROM	GROUT GROMMET		
CJ	CONTROL JOINT			PC	
CL	CENTER LINE	Н		PCF PERF	POLISHED CONCRETE FINISH PERFORATED
CLG CLO	CEILING CLOSET			PL	PLATE OR PLASTIC LAMINATE
CLO	CLEAR	HC HD	HANDICAPPED HAND DRYER	PLAM	PLASTIC LAMINATE
CMU	CONCRETE MASONRY UNIT	HDW	HANDURTER	PLAS PLBG	PLASTER PLUMBING
CO CONC	CLEANOUT CONCRETE	HDWD	HARDWOOD	PLYWD	PLYWOOD
CONC	CONFERENCE	HT HM	HEIGHT HOLLOW METAL	PNL	PANEL OR PANELING
CONT	CONTINUOUS	HM	HOLLOW METAL HORIZONTAL	PS PT	PROJECTION SCREEN PAINT
COL CONST	COLUMN	HR	HOUR	PULL	CABINETRY PULL
CORR	CONSTRUCTION CORRIDOR	HVAC	HEATING VENTILIATION AIR CONDITIONING		
СР	CEMENT PLASTER			Q	
CPT	CARPET			QT	QUARRY TILE
CPTB CPTW	CARPET BASE WALK OFF CARPET TILE	ID	INSIDE DIAMETER	QTB	QUARRY TILE BASE
CS	CONCRETE SEALER		INTERIOR	QZ	QUARTZ
CSMU	CALCIUM SILICATE MASONRY UNIT	INSUL	INSULATION		
CST	CAST STONE	INV	INVERT	R	
CSWK CT	CASEWORK CERAMIC TILE			R	RISER OR RADIUS
СТВ	CERAMIC TILE BASE	J		RAF	RESILIENT ATHLETIC FLOORING
CTF	CERAMIC TILE FLOORING	JAN	JANITOR	RB RD	RESILIENT BASE ROOF DRAIN
CTW- CUH	CERAMIC WALL TILE CABINET UNIT HEATER	JBE	JOIST BEARING ELEVATION	REF	REFRIGERATOR
CW	CURTAIN WALL	JST	JOIST	REINF	REINFORCED
		K		REQ REV	REQUIRED REVERSE
D				REV	ROOM
		КО	KNOCK OUT	RO	ROUGH OPENING
DEFS DEPT	DIRECT APPLIED EXTERIOR FINISH DEPARTMENT			RP	
DEMO	DEPARTMENT DEMOLITION OR DEMOLISH			RSF RST	RESILIENT SHEET FLOORING RESILIENT STAIR TREAD
DF	DRINKING FOUNTAIN	L		RTF	RESILIENT TILE FLOORING
DIA DIM	DIAMETER DIMENSION	LAB	LABORATORY	RTS	RESILIENT TRANSITION STRIP
DIM DIR	DIMENSION DIRECTORY	LAD	LADDER	RWL	RAIN WATER LEADER
DIS	DISPLAY CASE	LAV	LAVATORY		
DKG	DECKING	LF LGT	LINEAL FOOT LIGHT		
DN DR	DOWN DOOR	LGT	LIGHT		
DRP	DRAPERY	LLH	LONG LEG HORIZONTAL		
914	DOWNSPOUT	LLV	LONG LEG VERTICAL		
DS					
DS DWLS	DOWELS	LSE	LAWAL SCOTT ERICKSON		
DS DWLS DWG		LSE LVR LWC	LAWAL SCOTT ERICKSON LOUVER LINEAR WOOD CEILING		

0	
S	
S SC	SOUTH SEALED CONCRETE
SCG	SIDE COILING GRILLE
SCHED	
SCT SDT	STATIC CONTROL TILE STATIC DISSIPATIVE TILE
SECT	SECTION
SF SG	SQUARE FOOT / FEET SNOW GUARD
SGFT	STRUCTURAL GLAZED FACING TILE
SHP SIGN	SHOWER PAN SIGNAGE / IDENTIFYING DEVICE
SIM	SIMILAR
SLW- SPF	SLATWALL SPECIAL FINISH
SPEC	SPECIFICATION
SPPL SQ	SAINT PAUL PUBLIC LIBRARY SQUARE
SS	SQUARE STAINLESS STEEL
SSM ST	SOLID SURFACE MATERIAL STAIN
STD	STAND
STL	STEEL
STN STN-B	STONE SLAB STONE TILE BASE
STN-T	STONE TILE
STOR SUSP	STORAGE SUSPENDED
SW	SWITCH
<u>SYM</u> T	SYMMETRICAL
T&G	TONGUE AND GROOVE
TAG	TOILET ACCESSORY
TBD	
TCP TEL	TOILET COMPARTMENT PARTITION TELEPHONE
TEMP	TEMPORARY
TFE THR	TOP OF FOOTING ELEVATION THRESHOLD
TKBD	TACKBOARD
TO TOM	TOP OF TOP OF MASONRY
TOS	TOP OF STEEL
TOW TR	TOP OF WALL TRIM
TV	TELEVISION OR MONITOR
TYP TZ	TYPICAL TERRAZZO
TZB	TERRAZZO BASE
U	
UNO	UNLESS NOTED OTHERWISE
UPH	UPHOLSTERY
V	
VFY	VERIFY
VERT	VERTICAL
VEST VIF	VESTIBULE VERIFY IN FIELD
VP-SF	VENEER PLASTER
VRB- VTC	VENTED RUBBER BASE VEHICLE TRAFFFIC COATING
*10	
W	
W WAF	WEST WOOD ATHLETIC FLOORING
WAF	WOOD AT HE TIC FLOORING WATER CLOSET OR WALLCOVERING
WD W / D	WOOD
WD SHTG	WASHER / DRYER WOOD SHEATHING
WDB	WOOD BASE
WDC WDF	WOOD CEILING SYSTEM WOOD FLOORING
WDP	
WDV WF	WOOD VENEER WINDOW FILM
WG	WALL GUARD
WGT	WEIGHT WATER HEATER
WH	WALL PROTECTION
WH WP	WASTE RECEPTACLE WINDOW TREATMENT
WH	
WH WP WR WT WVL	WOOD VENEER LAMINATE
WH WP WR WT	
WH WP WR WT WVL	WOOD VENEER LAMINATE
WH WP WR WT WVL WWF	WOOD VENEER LAMINATE
WH WP WR WT WVL WWF	WOOD VENEER LAMINATE WELDED WIRE FABRIC
WH WP WR WT WVL WWF	WOOD VENEER LAMINATE WELDED WIRE FABRIC
WH WP WR WT WVL WWF	WOOD VENEER LAMINATE WELDED WIRE FABRIC

M

WING SYMBOLS		
00 KEYNOTES	100A	DOOR #
(0) WINDOW SHADE	(W10)	WINDOW
F1 FLOOR TAG	(SF-10)	STOREFRONT
W1 6" EXT WALL TAG	©W-10	CURTAIN WALL
R1 ROOF TAG	(LV10)	LOUVER
- FINISHED FLOOR	(A4)	MARKER BOARD
ROOM ROOM NAME/ A100 NUMBER	CPT-0	MATERIAL ID
B LINE	GRID	-NEW GRID
3 A401 BUILDING SECTION	GRID	- EXISTING GRID
3 A301 BUILDING / INTERIOR ELEVATION	×	FLOOR FINISH TRANSITION
3 A301 FRAME ELEVATION		BREAK LINE
DETAIL # 1 NAME A201 SCALE SHEET #	NORTH	NORTH ARROW
A3 A3 A3 ADDITIONAL INFORMATION ACOUSTICAL) REVISION CLOUD
ERIAL SYMBOLS		
METAL PANEL		EARTH 45°
EXISTING CONSTRUCTION TO REMAIN	2 6	DIMENSIONAL LUMBER
REMOVE EXISTING CONSTRUCTION		PLYWOOD
 _ EARTH		METAL
GRANULAR FILL		RIGID INSULATION
CONCRETE		BATT INSULATION
CONCRETE BLOCK		E.I.F.S.
BRICK	$ \begin{array}{c} \sum\limits_{i=1}^{N} \sum\limits_{j=1}^{N} \sum\limits_{i=1}^{$	CEMENT PLASTER/ STUCCO / SAND
STONE , MARBLE, GRANITE		GYP. BD.
TERRAZZO		EXPANSION MATERIAL
FINISHED WOOD		ACOUSTICAL TILE/PANEL

NERAL NOTES

PROVIDE WALL BLOCKING FOR ALL WALL SUPPORTED ITEMS INCLUDING BUT NOT LIMITED TO WALL CABINETS,

TRIMS, WINDOWS TREATMENTS FASTENINGS, DOOR STOPS, TOILET ACCESSORIES, VISUAL DISPLAY BOARDS ETC.

SEE STRUCTURAL FOR ALL CONCRETE FLOOR RECESSES. PROVIDE POSITIVE SLOPE TO ALL FLOOR AND TRENCH DRAINS. ALL CONCRETE BLOCK OUTSIDE CORNERS SHALL BE BULLNOSED UNITS UNLESS DETAILED OR NOTED

OTHERWISE. CONTRACTOR TO ROUND OUTSIDE CORNERS OF ROCK FACE BANDS TO ALIGN WITH BURNISHED

BLOCK BULLNOSE. REFER TO SHEETS A020 FOR LOCATIONS OF ALL FIRE RATED BUILDING WALLS, PROVIDE FIRE RATED ASSEMBLY FOR ALL PENETRATIONS AND OPENINGS TO MEET THE REQUIRED FIRE RATINGS.

ALL JANITORS CLOSETS ARE TO BE PROVIDED WITH MATERIALS AS NOTED IN DETAIL _/____.

ALL CASEWORK IS NOTED ON INTERIOR ELEVATIONS.

REFER TO WALL TYPES AND STRUCTURAL DRAWINGS FOR THICKENED FLOOR SLABS.

CONTRACTOR/SUBCONTRACTOR TO VERIFY AND COORDINATE THE INSTALLATION OF ALL EQUIPMENT AND OWNER SUPPLIED ITEMS. BACKINGS, ROUGH-INS AND FINAL HOOK-UPS ARE TO BE COORDINATED BY GENERAL CONTRACTOR.

CONTRACTOR/SUBCONTRACTOR IS TO PROVIDE BACKING AS REQUIRED FOR MOUNTING OF ALL WALL, CEILING AND PARTITION MOUNTED ITEMS SUCH AS SHELVING, SPECIAL LIGHTING, TABLE BRACKETS, EQUIPMENT AND TELEVISIONS. LOCATIONS AND REQUIREMENTS ARE TO BE COORDINATED WITH PLUMBING, MECHANICAL, ELECTRICAL, FOOD SERVICE SUB-CONTRACTOR AND OWNER'S REPRESENTATIVE.

CONTRACTOR/SUBCONTRACTOR SHALL VERIFY LOCATIONS OF ALL FOOD SERVICE EQUIPMENT AND COORDINATE LOCATIONS OF FLOOR SINKS. FLOOR DRAINS. TROUGH DRAINS. SLAB DEPRESSIONS. RAISED CURBS, ELECTRICAL/PLUMBING STUBOUTS AND ALL OTHER WORK UNDER THE SCOPE OF RESPONSIBILITIES RELATED TO THIS EQUIPMENT. REFER TO DRAWINGS AND SPECIFICATIONS FOR CLARIFICATION.

GENERAL CONTRACTOR SHALL VERIFY WITH MECHANICAL CONTRACTORS ALL MECHANICAL DUCT SHAFTS, BOILER STACK, TOILET EXHAUST DUCTS, WATER CLOSET TRAPS, FLOOR DRAINS, ETC. BEFORE SETTING ANY FLOORS.

FIRE RATED WALLS AND ENCLOSURES BY GENERAL CONTRACTOR. VERIFY ALL PENETRATIONS BY OTHER TRADES. ALL CONTRACTORS/SUBCONTRACTORS ARE RESPONSIBLE FOR FIRE STOPPING AS REQUIRED.

NERAL PARTITION NOTES

JURISDICTION.

NOT ALL INTERIOR PARTITIONS SHOWN ON THIS SHEET ARE NECESSARILY USED IN THE PROJECT. SEE FLOOR PLANS FOR DESIGNATION OF PARTITIONS.

PARTITIONS SHALL BE TYPE A3 UNLESS NOTED OR TAGGED OTHERWISE ON PLANS. SEE "INTERIOR PARTITION TYPE SUBSCRIPT KEY" FOR SYMBOLS USED TO DESCRIBE PARTITION HEIGHTS AND

ACOUSTICAL INSULATION. PARTITION TYPES DESCRIBE GENERAL REQUIREMENTS FOR PARTITION CONSTRUCTION. REFER TO SPECIFICATIONS FOR REQUIREMENTS OF TESTING

AGENCIES FOR SPECIFICS. GYPSUM ASSOCIATION (GA) AND UNDERWRITER'S LABORATORIES, INC. (UL) WILL VARY DEPENDING ON THE MANUFACTURER OF COMPONENTS ACTUALLY USED. VARIATION FROM DESIGNATED UL NUMBERS SHALL BE APPROVED BY THE AUTHORITY HAVING

TYPICAL FLOOR PLAN DIMENSIONS OF PARTITIONS ARE TO THE NOMINAL FINISHED FACE OF GYPSUM BOARD UNLESS NOTED TO THE CENTERLINE OF THE PARTITION. WHERE A CLEAR DIMENSION OR OPENING IS REQUIRED OR NOTED, MEASURE DIMENSION TO FINISHED FACE OF PARTITION.

ALL WOOD BLOCKING IN WALL FOR ATTACHMENT OF WALL HUNG EQUIPMENT, TO BE FIRE TREATED INSTALL 5/8" TYPE 'X' GYPSUM BOARD AT ALL PARTITIONS UNLESS NOTED OTHERWISE

REFER TO CODE PLANS FOR LOCATIONS OF SMOKE AND FIRE RATED WALLS AND SHAFTS.

ALL THROUGH-WALL PENETRATIONS IN RATED WALLS TO BE FIRESTOPPED / FIRE CAULKED AS REQUIRED TO MAINTAIN WALL FIRE RATING.

ALL THROUGH-WALL DUCTWORK IN RATED WALLS TO HAVE FIRE / SMOKE DAMPERS AS REQUIRED TO MAINTAIN WALL RATING AND MEET ALL APPLICABLE CODES. SEE MECHANICAL DRAWINGS.

ALL PARTITIONS SHALL BE ACOUSTICALLY RATED UNLESS NOTED OTHERWISE. ALL ELEMENTS OF ACOUSTIC RATED PARTITIONS SHALL EXTEND TO ROOF OR FLOOR DECK ABOVE.

INSTALL ACOUSTICAL SEALANT AT ACOUSTICALLY RATED PARTITIONS. SEE GENERAL PARTITION NOTES 19 AND 20.

WASTE LINES AND VERTICAL RAINWATER LEADERS TO BE SOUND INSULATED. ELECTRICAL (INCLUDING LOW-VOLTAGE) DEVICES AND BOXES TO BE OFFSET / STAGGERED FROM DEVICES AND BOXES ON OPPOSITE SIDE OF WALL. DO NOT INSTALL BACK TO BACK.

INSTALL GYPSUM TILE BOARD BACKER PANELS AND/OR CEMENT BACKER BOARD AT AREAS SCHEDULED TO RECEIVE CERAMIC TILE FINISH AND AS REQUIRED BY CODE. FOR WALLS SCHEDULED TO RECEIVE PAINT ABOVE CERAMIC TILE, INSTALL PAPER-FACED MOISTURE-RESISTANT GYPSUM BOARD PANELS TO PROVIDE A SMOOTH PAINTABLE SURFACE.

INSTALL IMPACT RESISTANT GYPSUM BOARD PANELS FROM FINSIHED FLOOR TO A HEIGHT OF 8'-0" AT CLASSROOMS AND CORRIDORS, AS NOTED ON PLANS

PENETRATIONS IN RATED PARTITIONS AND CONNECTIONS OF THE PARTITIONS TO OTHER PORTIONS OF THE WORK SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDED DETAILS AND IN COMPLIANCE WITH APPLICABLE TESTING AGENCY REQUIRMENTS.

NOT USED

APPLY 1/4" MINIUMUM CONTINUOUS BEAD OF ACOUSTICAL SEALANT AT PERIMETERS OF PARTITIONS WHERE THEY MEET ADJACENT SURFACES INCLUDING APPLYING A DOUBLE BEAD AT UNDERSIDE OF RUNNER CHANNELS PRIOR TO ANCHORING TO FLOOR. SEAL CONSTRUCTION AT PERIMTERS, BEHIND CONTROL JOINTS AND AT OPENINGS AND PENETRATIONS.

INSERT ACOUSTICAL BATT INSULATION BACKING AND APPLY ACRYLIC-BASED SMOKE AND ACOUSTIC SEALANT AT GAPS OF1/2" OR MORE AROUND THROUGH-WALL PENETRATIONS INCLUDING, BUT NOT LIMITED TO SPRINKLER PIPING, ELECTRICAL CONDUITS AND MECHANICAL DUCTWORK. (GAPS LESS THAN 1/2" ARE STILL REQUIRED TO BE SEALED WITH ACOUSTICAL SEALANT.)

AT ALL EXTERIOR WALLS AND PARAPETS, WOOD BLOCKING AND SHEATHING EXCEEDING 24 INCHES ABOVE THE ROOF DECK USED IN ROOF CONSTRUCTION FOR EQUIPMENT SUPPORT, BUILDING OR ROOF SYSTEM JOINTS, SKYLIGHT OR MECHANICAL EQUIPMENT, CURBS, CANTS, BLOCKING AND BACKING, AND FOR PARAPET OR ROOF EDGE CONSTRUCTION SHALL BE FIRE-RETARDANT-TREATED WOOD.

AT ALL FIRE WALLS, FIRE BARRIERS, FIRE PARTITIONS, SMOKE BARRIERS AND SMOKE PARTITIONS OR ANY OTHER WALL REQUIRED TO HAVE PROTECTED OPENINGS OR PENETRATIONS SHALL BE EFFECTIVELY AND PERMANENTLY IDENTIFIED WITH SIGNS OR STENCILING. SUCH IDENTIFICATION SHALL: BE LOCATED IN ACCESSIBLE CONCEALED FLOOR, FLOOR-CEILING OR ATTIC SPACES; BE LOCATED WITHIN 15 FEET (4572 MM) OF THE END OF EACH WALL AND AT INTERVALS NOT EXCEEDING 30 FEET (9144 MM) MEASURED HORIZONTALLY ALONG THE WALL OR PARTITION; AND INCLUDE LETTERING NOT LESS THAN 3 INCHES (76 MM) IN HEIGHT WITH A MINIMUM 3/8 INCH (9.5 MM) STROKE IN A CONTRASTING COLOR CORPORATING THE SUGGESTED WORDING. "FIRE AND/OR SMOKE BARRIER—PROTECT ALL OPENINGS" OR OTHER WORDING.

GENERAL INTERIORS NOTES

REFER TO FINISH PLANS, ELEVATIONS, REFLECTED CEILING PLANS, ROOM FINISH SCHEDULE AND SPECIFICATIONS MANUAL FOR FURTHER FINISH INFORMATION.

DO NOT PAINT ANY PREVIOUSLY UNPAINTED EXISTING BRICK, STONE, OR GLAZED CMU, UNLESS NOTED OTHERWISE (U.N.O.).

PAINT ALL HARD SURFACE CEILINGS AND SOFFITS IN THE AREA OF WORK PT-1, FLAT FINISH, U.N.O. EXISTING AND NEW GYP. BD. WALLS IN AREA OF WORK TO BE PAINTED PT-2, EGGSHELL FINISH, U.N.O.

ALL HOLLOW METAL DOOR FRAMES, METAL RAILINGS, STAIR PANS, STRINGERS, ETC. IN AREA OF WORK TO BE PAINTED PT-3, SEMI-GLOSS FINISH, U.N.O.

REFER TO ALL ALTERNATES FOR ADDITIONAL INFORMATION. SEE DWGS & SPECIFICATION MANUAL. ALL CEILING INFORMATION IS LOCATED ON THE REFLECTED CEILING PLANS (RCP) AND DETAILS.

PREPARE OR REPAIR ALL SUBSTRATES AS RECOMMENDED BY THE MANUFACTURER AS NEEDED FOR PROPER FINISH MATERIAL INSTALLATION.

ALL NEW WINDOW SILLS TO BE SOLID SURFACE SSM-1.

INSTALL STAINLESS STEEL CORNER GUARDS (CG-1) AT ALL OUTSIDE GYP. BD. CORNERS (TO BE PAINTED) WITHIN THE AREA OF WORK (TYP.).

PROVIDE TRANSITION STRIPS AT ALL FLOORING CHANGES. REFER TO SHEET A050 FOR TRANSITION TYPES PER CONDITION.

PROVIDE METAL TRANSITION STRIPS (MT) AT ALL OUTSIDE TILED CORNERS AND EXPOSED TILE EDGES. SEE ELEVATIONS FOR LOCATIONS AND PROJECT MANUAL FOR MORE INFORMATION.

SEE SHEET A050 FOR TYPICAL MOUNTING HEIGHTS & FLOOR TRANSITION DETAILS

REFLECTED CEILING PLAN GENERAL NOTES

- ALL CEILING DEMO AND REPLACEMENT WORK WILL BE REFERED TO IN ADD ALTERNATE #2 EXCEPT FOR THE CEILINGS IN THE MAIN ADMIN AREA THAT ARE BEING RENOVATED AS PART OF THE SECURE ENTRY ADDITION, THE FACS CLASSROOM AND THE CEILINGS IN THE LUNCH ROOM WHICH ARE COVERED UNDER THE BASE BID.
- REFER TO PROJECT SPECIFICATION MANUAL FOR FURTHER PRODUCT AND INSTALLATION INFORMATION. ALL HARDSURFACE CEILINGS IN AREA OF WORK TO BE PAINTED PT-1 U.N.O.
- REPLACE 1X1 ACP CEILING IN THE LUNCHROOM WITH 2X4 CARDINAL PANELS AND REMOVE AND REINSTALL EXISTING PENDANT LIGHTS IN SAME LOCATION

ROOF PLAN GENERAL NOTES

- TYPICAL ROOF MEMBRANE CONSISTS OF A 45 MIL. EPDM BALLAST ROOFING SYSTEM AS SPECIFIED. ENTRY CANOPY'S, VESTIBULES AND PORTE-COCHERE IS 60 MIL. EPDM ADHERED ROOFS. TYPICAL ROOF INSULATION CONSISTS OF (2) LAYERS OF POLYISOCYANURATE INSULATION. (2" BASE LAYER AND 2" SECOND LAYER FOR R VALUE OF 22.24). 1/2" COVERBOARD TOP LAYER.
- NUMBERS NOTED IN CIRCLES ON ROOF PLAN DENOTE TOTAL ROOF INSULATION THICKNESS EXCLUDING 1/4" COVER BOARD CAP. ROOF NOTE (R.S.T.) HAVE A 2" BASE LAYER AND A TAPERED TOP LAYER OF INSULATION WITH 1/4" COVER BOARD. ALL TAPERED INSULATION STARTS AT 1" MINIMUM THICKNESS.
- REFER TO DETAIL _/A____ FOR TYPICAL ROOF DRAIN. REFER TO DETAIL __/A____ FOR TYPICAL METAL WALL/ROOF FLASHING AT GENERIC WALL INTERSECTION TRANSITIONS.
- REFER TO DETAIL _/A____ FOR FLASHING DETAIL OF SINGLE PIPE, CONDUITS, PLUMBING VENT STACK, ETC.
- REFER TO MECHANICAL AND ELECTRICAL DRAWINGS FOR ALL ROOF OPENING SIZES, OPENING TYPES, LOCATIONS AND TYPES OF VENTS AND FLUES. AVOID PLACING EQUIPMENT IN DRAINAGE CREASES OF ROOF.
- ROOF OVERFLOW DRAIN SHALL BE INSTALLED 2" ABOVE MAIN AREA ROOF DRAIN SPILL LINE. NOTE DISCHARGE RUN LOCATION. DO NOT INSTALL OVERFLOW ROOF DRAIN IN A SUMP CONDITION. (NOTED R.O.D. ON PLAN). ALL ROOF OVERFLOW SCUPPERS SHALL BE 8" WIDE UNLESS NOTED OTHERWISE (NOTED R.O.S. ROOF PLAN).
- INSTALL 2" ABOVE PRIMARY DRAIN LINE.

ROOF SYMBOLS

ROOF ABBREVIATIONS

RSS	ROOF SLOPE (STRUCTURAL)	PRIMARY ROOF DRAIN
RST	ROOF SLOPED (TAPPERED INSULATION)	
ROS	ROOF OVERFLOW SCUPPER	OVERFLOW ROOF DRAIN
RS	ROOF SCUPPER	
ROD	ROOF OVERFLOW DRAIN	
RTU	ROOF TOP UNIT, SEE MECHANICAL	TAPERRED ROOF INSULATION
E-RS	EXISTING ROOF SCUPPER (FIELD VERIFY)	
2110		EXISTING ROOF

DEMOLITION GENERAL NOTES

- THESE DEMOLITION NOTES AND KEYNOTES MAY NOT NECESSARILY DESCRIBE ALL DEMOLITION AND PATCHING REQUIRED TO PERFORM THE WORK. REFER TO OTHER SHEETS IN THE CONSTRUCTION DOCUMENTS FOR DESCRIPTION OF WORK THAT MAY INVOLVE DEMOLITION NOT SHOWN ON THE DEMOLITION PLANS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE DEMOLITION WORK REQUIRED TO PROVIDE A FULL AND COMPLETE PROJECT.
- CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTION OF THE EXISTING BUILDING AND STORAGE OF MATERIALS BEING REINSTALLED OR SALVAGED. IF DAMAGES TO THE EXISTING BUILDING OCCUR DURING DEMOLITION, THE CONTRACTOR OR SUB-CONTRACTOR RESPONSIBLE FOR THE DAMAGE WILL BE LIABLE FOR PROPER AND PERMANENT REPAIRS.
- VERIFY EXISTING CONDITIONS AND DIMENSIONS. COORDINATE THE EXTENT OF DEMOLITION WORK TO REMAIN WITH NEW FLOOR PLAN AND PROJECT SITE PRIOR TO PRICING, FABRICATION AND INSTALLATION. NOTIFY ARCHITECT OF ANY CONFLICTS IMMEDIATELY.
- WHERE WALLS OR PARTITIONS ARE INDICATED TO BE REMOVED: REMOVE ENTIRE WALL OR PARTITION (AS WELL AS DUCTS, PIPING, CONDUIT AND OTHER ELEMENTS IN OR ON THE WALL WHICH MAY OR MAY NOT BE SPECIFICALLY IDENTIFIED) UNLESS OTHERWISE NOTED. REFER TO MECHANICAL AND ELECTRICAL DRAWINGS. COORDINATE WITH OWNER ALL EQUIPMENT TO BE SALVAGED.
- REFER TO OWNER'S HAZARDOUS MATERIAL REPORT FOR EXTENT OF NECESSARY MATERIAL REMOVAL. COORDINATE DEMOLITION WITH MECHANICAL, ELECTRICAL, AND PLUMBING NOTES.
- AVOID DISRUPTION TO ADJACENT FLOORS/AREAS AS MUCH AS POSSIBLE. KEEP NOISE TO A LEVEL ACCEPTABLE TO THE OWNER BY SCHEDULING EXCESSIVE NOISE TASKS WITH OWNER. ALL SAW-CUTTING AND NOISE/VIBRATION-PRODUCING DEMOLITION / CONSTRUCTION TO BE SCHEDULED WITH OWNER AS NOT TO INTERFERE WITH SCHOOL ACTIVITIES. THIS MAY REQUIRE AFTER HOURS WORK.
- ALL ITEMS INDICATED TO BE REMOVED FROM EXISTING WALLS, INCLUDING, BUT NOT LIMITED TO: (BLACK BOARDS, TACK BOARDS, MARKER BOARDS, BUMPER RAILS, CORNER GUARDS, MIRRORS, ETC.) SHALL BE RETURNED TO THE OWNER, UNLESS NOTED OTHERWISE. PATCH WALLS AS REQUIRED FOR NEW FINISHES.
- PRIOR TO REMOVING FURNITURE, EQUIPMENT AND CASEWORK, CONTRACTOR TO VERIFY WITH OWNER WHICH

DEMOLITION CEILING NOTES

- REFER TO OWNER'S HAZARDOUS MATERIALS REPORT FOR EXTENT OF NECESSARY MATERIAL REMO
- COORDINATE DEMOLITION WITH MECHANICAL, ELECTRICAL, PLUMBING NOTES AND ROOF SPEC DRAW DEMOLISH EXISTING CEILING TO B.O. STRUCTURE, INCLUDING ALL ACP, GRID AND SPLINE CEILINGS.
- COORDINATE DEMOLITION OF LIGHTING AND MECHANICAL SYSTEMS WITH ELECTRICAL AND MECHANI PREPARE FIRE SPRINKLER SYSTEM FOR RECONFIGURATION AS REQUIRED.

INSTALLATION OF GYP.BD. / SOFFITS / CEILINGS

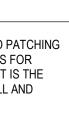
- GENERAL: FOR TRIM WITH BACK FLANGES INTENDED FOR FASTENERS, ATTACH TO FRAMING WITH SAME FASTENERS USED FOR PANELS. OTHERWISE, ATTACH TRIM ACCORDING TO MANUFACTURER'S WRITTEN INSTRUCTIONS. PROVIDE TYPE WITH FACE FLANGE TO RECEIVE JOINT COMPOUND EXCEPT WHERE SEMI-FINISHING TYPE IS INDICATED.
- INSTALL METAL CORNER BEADS AT OUTSIDE OR EXTERNAL CORNERS.
- INSTALL METAL EDGE TRIM WHENEVER EDGE OF GYPSUM BOARD WOULD OTHERWISE BE EXPOSED OR SEMI-EXPOSED.
- INSTALL CONTROL JOINTS WHERE INDICATED; IF NOT INDICATED, INSTALL CONTROL JOINTS IN SPECIFIC LOCATIONS APPROVED BY ARCHITECTS FOR VISUAL EFFECT. A. SPACING DO NOT EXCEED 30 FEET O.C. MAXIMUM FOR WALLS.
 - а. DO NOT EXCEED 50 FEET O.C. MAXIMUM FOR CEILINGS WITH PERIMETER RELIEF, AND 30 FEET O.C. MAXIMUM FOR CEILINGS WITHOUT PERIMETER RELIEF.
 - REGARDLESS OF SPACING INDICATED ABOVE, DO NOT EXCEED 2500 SQ. FT. OF CEILING AREAS
 - WITH PERIMETER RELIEF AND 900 SQ. FT. WITHOUT PERIMETER RELIEF.

ITEMS ARE TO BE SALVAGED AND THEIR STORAGE LOCATIONS.

PROVIDE FIRE EXTINGUISHER PER CODE AT ALL TIMES THROUGHOUT DEMOLITION / CONSTRUCTION AREAS.



1 George Street East Saint Paul, Minnesota 55107





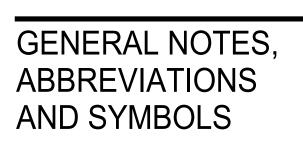
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Revision Description

75% Design Development

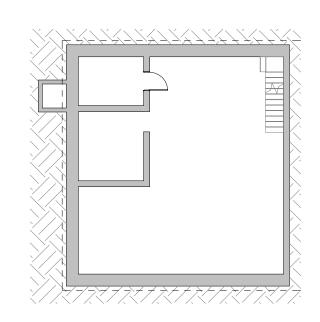


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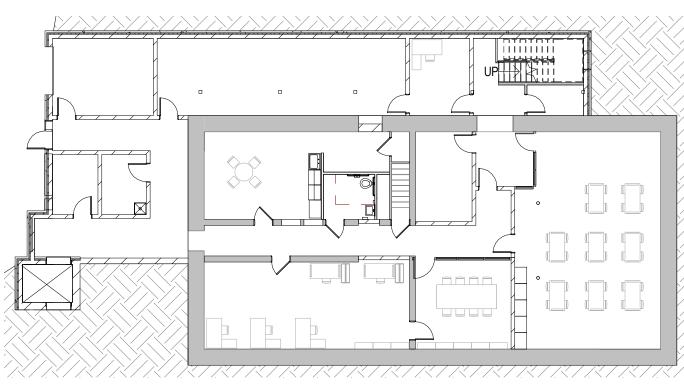
21.1037.01 Drawing Number



APPLICABLE CODES		E. ALLOWABLE HEIGHTS AND BUILD	<u> 2ING AREA (</u> Chapter 5) (Cont. D)	
CODE REVIEW: CODE ENFORCEMENT:	CITY OF SAINT PAUL DEPARTMENT OF SAFETY AND INSPECTION (DSI) CITY OF SAINT PAUL DSI	Allowable areas with modifica	ations (506.1, 506.2, and 506.3) See below.	
ZONING ORDINANCE:	CITY OF SAINT PAUL		BY TYPE OF CONSTRUCTION NEW ADDITI	
BUILDING CODE:	2020 MSBC (MINNESOTA STATE BUILDING CODE)	601)		
ACCESSIBILITY CODE: MECHANICAL CODE: PLUMBING CODE: FIRE CODE: ELECTRICAL CODE: ENERGY CODE: ELEVATOR CODE: ELEVATOR CODE: ALTERATIONS CODE: ALTERATIONS CODE: A. OCCUPANCY CLASSIFICATION (Chapter 3	2020 MN ACCESSIBILITY CODE 2020 MN MECHANICAL AND FUEL GAS CODE 2020 MN STATE PLUMBING CODE 2020 MSFC (MINNESOTA STATE FIRE CODE) 2020 NATIONAL ELECTRIC CODE, NFPA 70 2020 MN ENERGY CODE 2020 MSBC, CHAPTER 1307 2020 MN CONSERVATION CODE FOR EXISTING BUILDINGS	1. PRIMARY STRUCTURAL 2. BEARING WALLS - EXTE 3. BEARING WALL - INTERI 4. NONBEARING WALLS - I 5. NONBEARING WALL - IN 6. FLOOR CONSTRUCTION 7. ROOF CONSTRUCTION: Note:	ERIOR: 0 HR.* IOR: 0 HR. EXTERIOR: 0, SEE ITEN ITERIOR: 0 HR. N: 0 HR.	
GROUP DESCRIPTION O		fire resistance rated construct		
A-3 Libraries				
B Administration, C	Offices (304.1)	*Protection of openings, duct unless required by another p	ts, and air transfer openings in building elemer rovision in the code (602.1)	
MIXED USE: ACCESSORY OCCUPANCIES (§	<u>508)</u>	G. EXTERIOR WALL AND OPENING I	PROTECTION (Table 602)	
No separation between Occupancies	A and S-2 is required when fully sprinklered. (Table 508.4)	FIRE RESISTANCE REQUI	REMENTS FOR EXTERIOR & INTERIOR BE	
INCIDENTAL USE AREAS (§509)			0 HR requirement (all sides > 30' open space	
Pool Mechanical Room: 1 hour	or provide automatic sprinkler system	$10 \ge X < 30'$ - Group A, II-B: 0 HR requirement X<10' - GOUP A II-B: 1 HR		
B. TYPE OF CONSTRUCTION (§602, Table 60	01)	H. OCCUPANT LOAD AND EXITING F	REQUIREMENTS (Chapter 10)	
TYPE II-B		Maximum Floor Area per occ STAFF WORK AREAS	cupant (§1004.1.2) BUSINESS	
C. ALLOWABLE HEIGHTS AND BUILDING AR	<u>EA</u> (§504, Table 504.3, 504.4)	MECH / STORAGE MEETING ROOMS	INCIDENTAL / ACCESSORY (A OCC.) ASSEMBLY	
Occupancy: A-3		READING ROOMS STACK AREA	LIBRARY	
Allowed: Height = 75'				
Stories = 3 Stories Actual: Height = 35' Stories = 2 Story				
D. FULLY SPRINKLERED BUILIDNG				
Automatic Sprinkler System				



4 **MECH BASEMENT** A010 1/16" = 1'-0"



5 LOWER LEVEL 1/16 A010 1/16" = 1'-0"

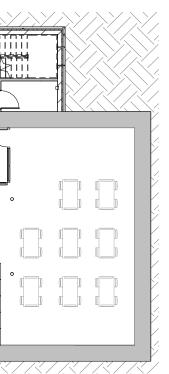
		I. OCCUPANT LOAD AND EXITING REQUIREMENTS § 1004.1, Table 1004.5								
W.		SPACES WITH ONE EXIT OR EXIT ACCESS DOOR WAY (§1006.2.1)								
DITION BU	ILDING 4 (Table		Occupancy Max. Occupant Load A 49 S 29 E 49							
ITEM BELC	W/	NUMBER	R OF EXITS REQUIE	<u>RED</u> (Table 1006.3.2)						
	· · · · ·		500 < OCCUPANT OCCUPANT LOAD		(3) EXITS REQUIRED(4) EXITS REQUIRED					
) hr. if gr 20' above f		ACCESS	<u>S TO EXITS</u> (1007.1.	2)						
wed to be su	bstituted for 1 hr	Where access to (3) or more exits is required, at least (2) exit doors shall be arranged such that the separation distance of the exit doors or eixt access doorways shall not be less than one-third of the length of the maximum overall dimemsion of the area served.								
ements shall	not be required	CORRIDORS								
R BEARING	WALLS BASED		RATING:NON-RATED (TABLE 1020.1)WIDTH:44" MINIMUM (TABLE 1020.2)DEAD ENDS:20' MAXIMUM (TABLE 1020.4)							
space)		CORRIDOR RATINGS (TABLE 1018.1, w/ sprinkler system)								
			Occupancy A & S A & S	Occ. Load ≤ 30 > 30	Rating (Hours) 0 0					
)	150 GSF 300 GSF 15 NET	<u>DOORS</u>	Exit width factor @	doors: (Section 1005	um leaf size 48" (1010.1.1) 5.3.2) .15 nergency voice / alarm communication system.					
	50 NSF 100 GSF	EXIT ACCESS TRAVEL DISTANCE (Table 1017.2, w/ Sprinkler System)								
			OCCUPANCY A S-2	ALLOWABLE 250 400'	ACTUAL MAX. DISTANCE SEE PLANS SEE PLANS					
		<u>COMMO</u>	N PATH OF EGRES	S TRAVEL (Table 10	06.2.1, w/ Sprinkler System)					
			OCCUPANCY A S	ALLOWABLE 75' 100'	ACTUAL MAX. COMMON SEE PLANS SEE PLANS					

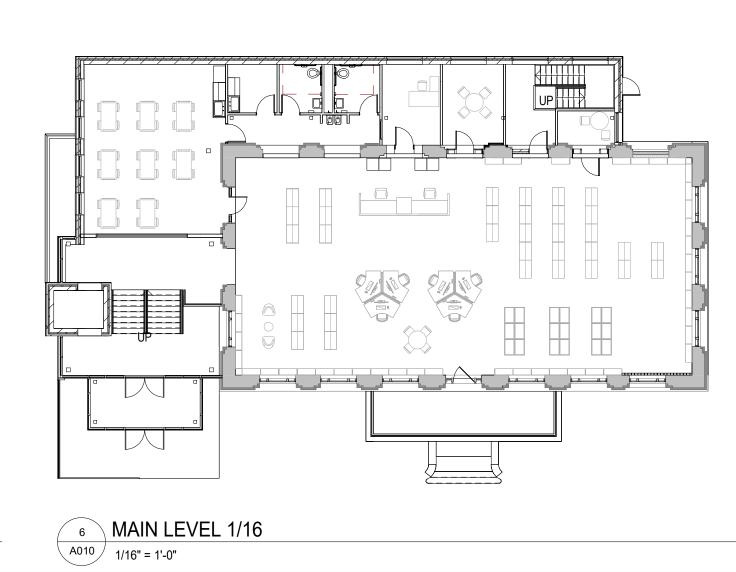
CHAPTER 29 PLUMBING SYSTEMS

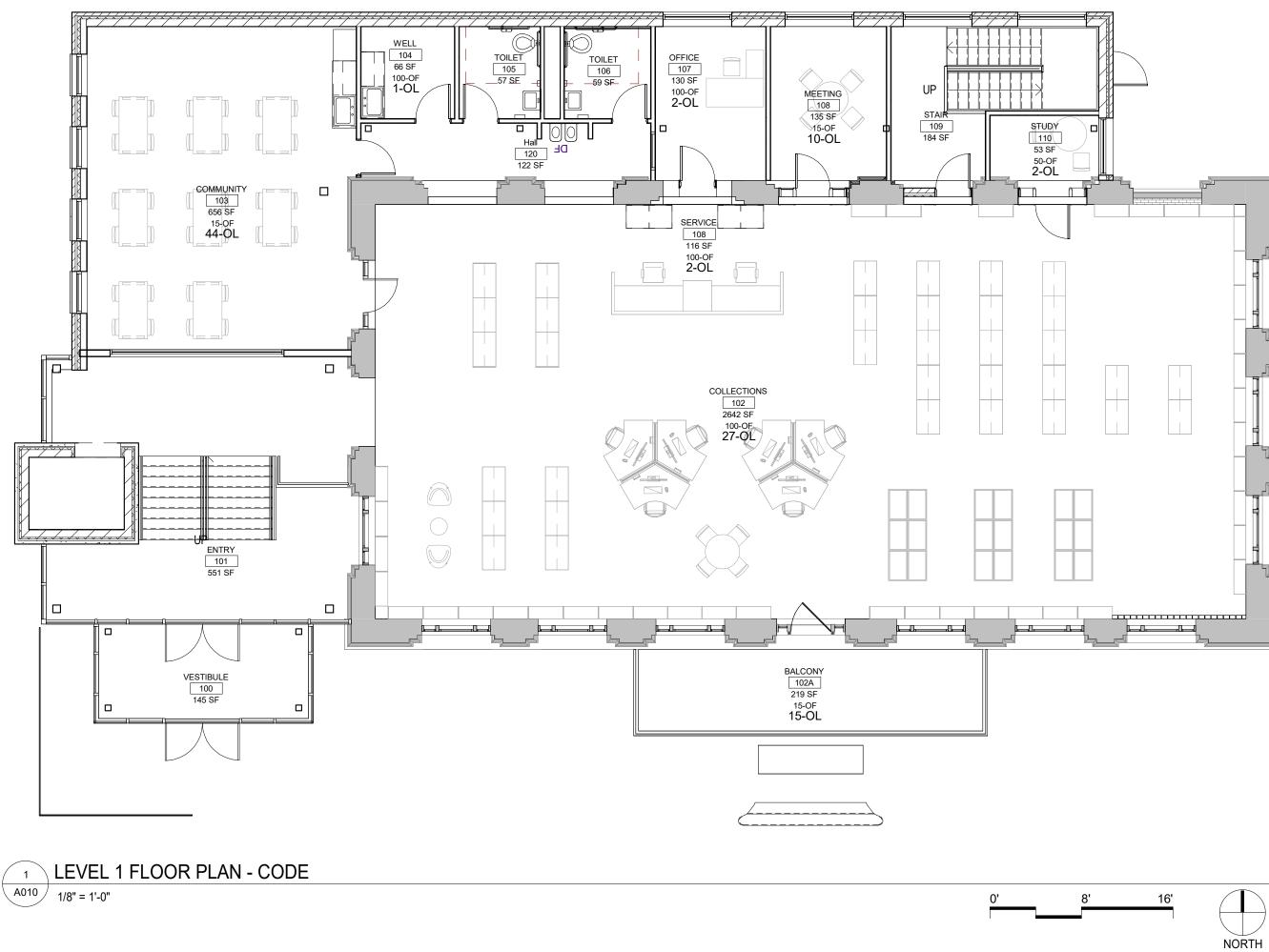
GROUP)	WATER CLOSETS LAVATORIES				S	DF	SERVICE	
OCC. COL	JNT	MALE	FEMALE	UNISEX	MALE	FEMALE	UNISEX		SINK
A-2	EVENT	1/75=	1/75=		1/200=	1/200=		1/500=	
132 OCC.	REQ:	0.88	0.88		0.33	0.33		0.26	1
GROUP)	WA	TER CLOSI	ETS	L	AVATORIE	S	DF	SERVICE
OCC. COL	JNT	MALE	FEMALE	UNISEX	MALE	FEMALE	UNISEX		SINK
A-3	FITNESS	1/125=	1/65=		1/200=	1/200=		1/500=	
856 OCC.	REQ:	3.42	6.58		2.14	2.14		1.71	1
GROUP		WA	TER CLOS	ETS	LAVATORIES		DF	SERVICE	
OCC. COL	JNT	MALE	FEMALE	UNISEX	MALE	FEMALE	UNISEX		SINK
B e	BUSINESS	1/25 FIRST 50, 1/50 REMAIN=	1/25 FIRST 50, 1/50 REMAIN=		1/40 FIRST 40, 1/80 REMAIN=	1/40 FIRST 40, 1/80 REMAIN=		1/100=	
15 OCC.	REQ:	0.3	0.3		0.19	0.19		0.15	1
GROUP	1	WA	TER CLOS	ETS	L	AVATORIE	S	DF	SERVICE
OCC. COL	JNT	MALE	FEMALE	UNISEX	MALE	FEMALE	UNISEX		SINK
E EC	UCATION	1/50=	1/50=		1/50=	1/50=		1/100=	
32 OCC.	REQ:	0.32	0.32		0.32	0.32		0.32	1
TOTALS	3	WA	TER CLOSI	ETS	L	AVATORIE	S	DF	SERVICE
		MALE	FEMALE	UNISEX	MAI F	FEMALE	UNISEX		SINK

	MALE	FEMALE	UNISEX	MALE	FEMALE	UNISEX		SINK
REQUIRED	5	8	0	3	3	0	3	1
PROVIDED	3	3	9***	3	3	9***	7	2

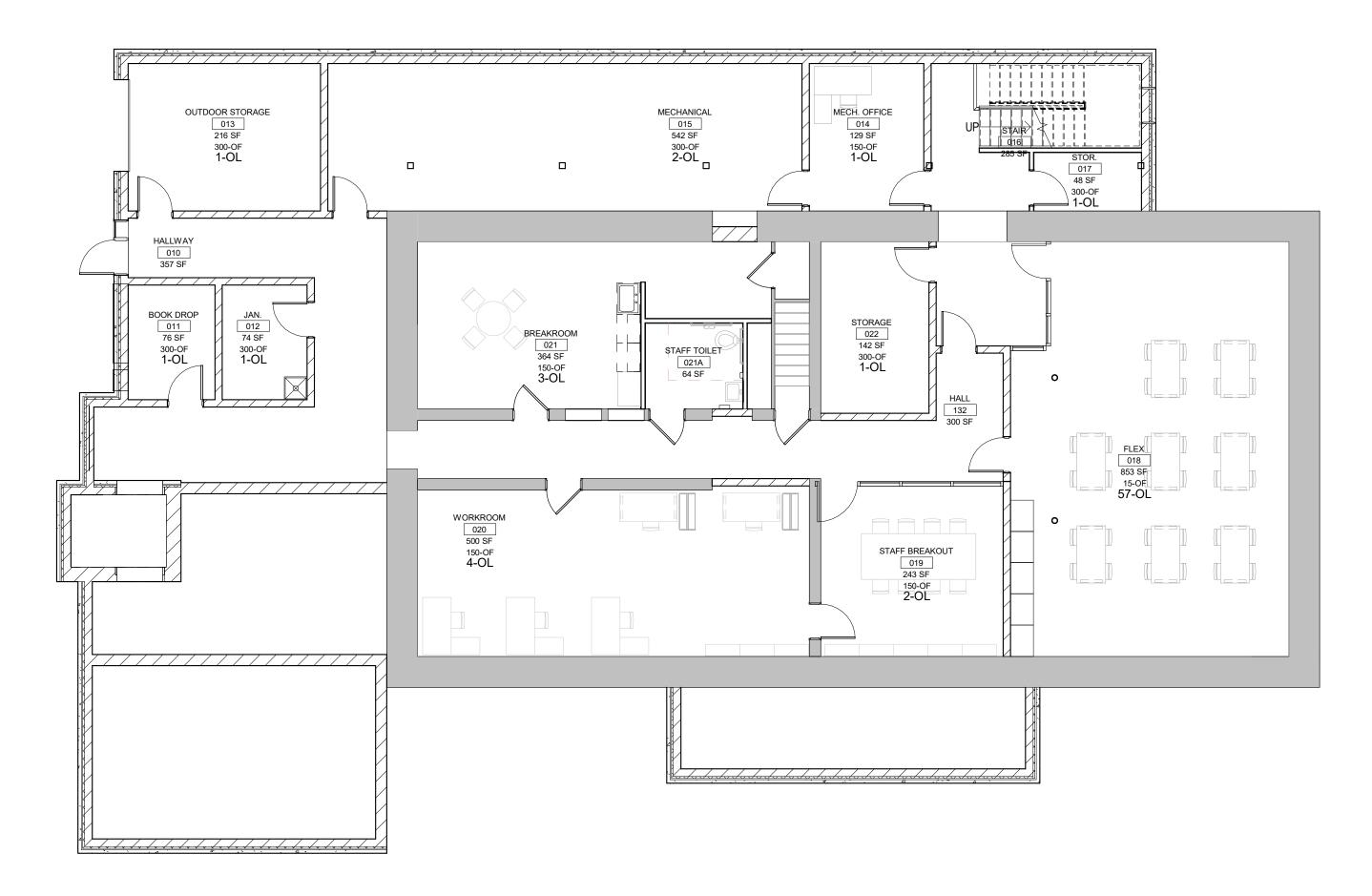
***UNISEX WATER CLOSETS DISTRIBUTED EQUALLY BETWEEN MEN AND WOMEN ** URINALS SHALL NOT BE SUBSITUTED FOR MORE THAN 67% OF THE REQUIRED WATER CLOSETS.



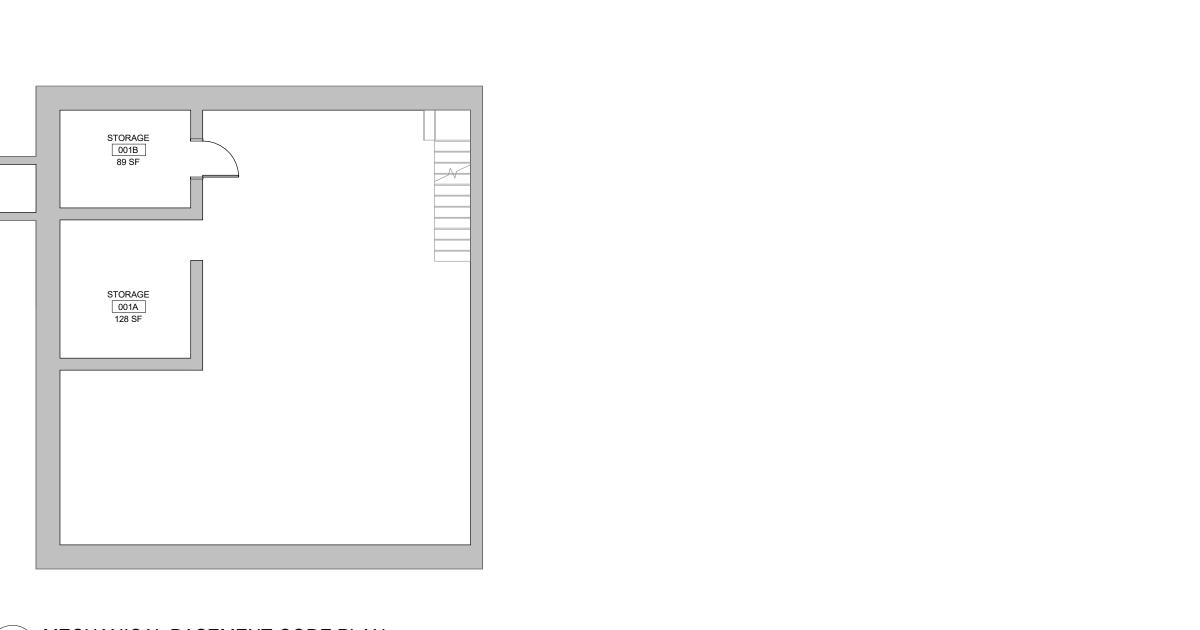


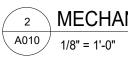












² MECHANICAL BASEMENT CODE PLAN

16'

NORTH

NORTH





1 George Street East Saint Paul, Minnesota 55107



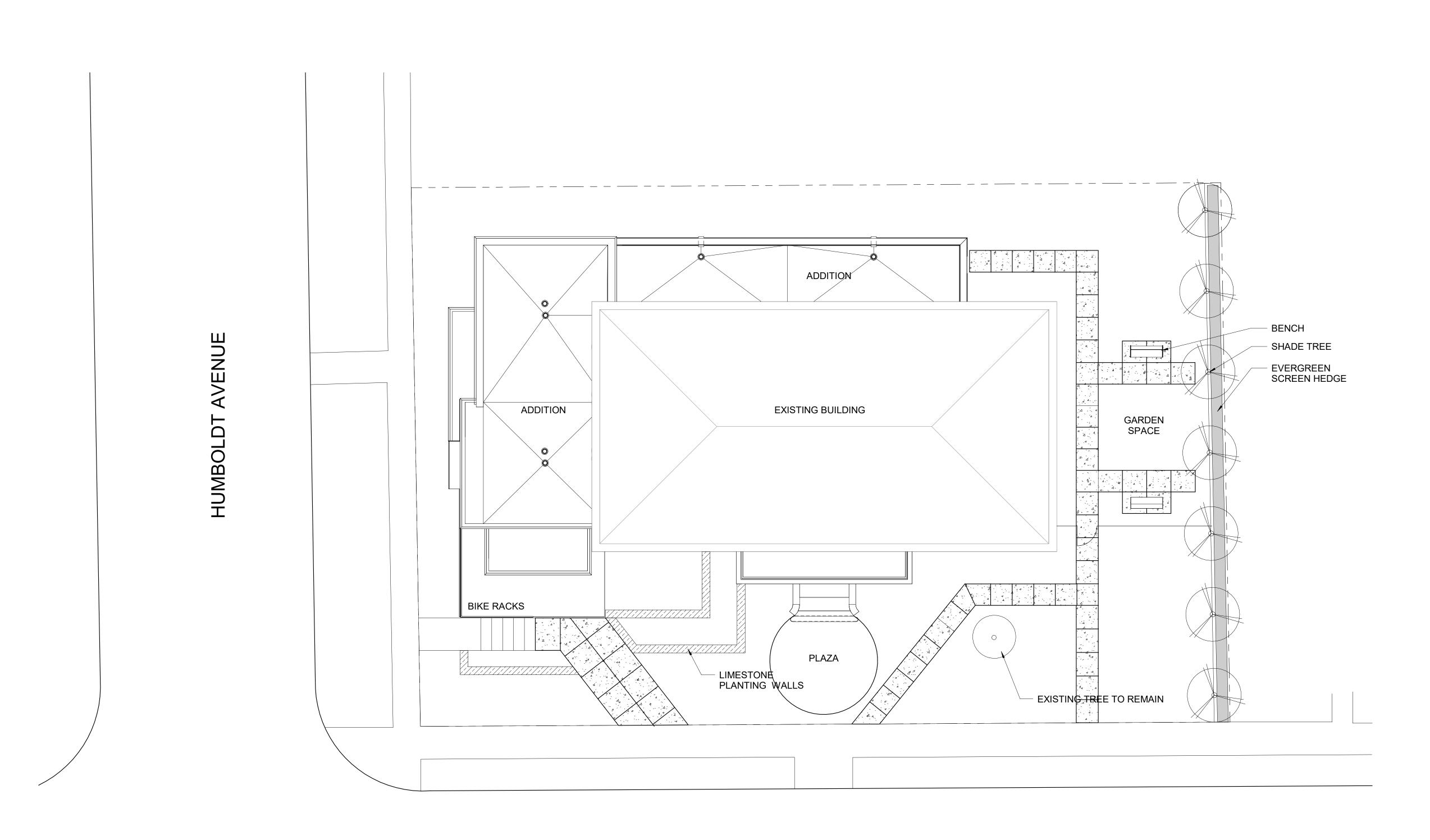
No.	Date	Revision Description

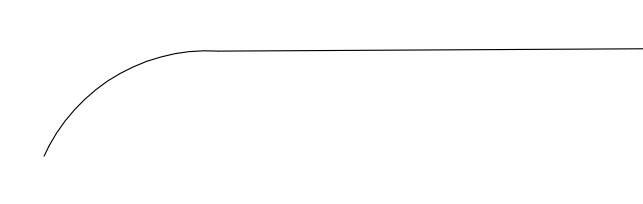
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Project	21.1037.01	Drawing Number
Date	9/30/2022	
Drawn by	Author	A 0 4 0
Checked by	Checker	A010

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1 SITE PLAN A020 1" = 10'-0" GEORGE STREET

0' 10' 20' NORTH



1 George Street East Saint Paul, Minnesota 55107

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	c	onstruction
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No.	Date	Revision Description

SITE PLAN

Project	21.1037.01	Drawing Number
Date	9/30/2022	
Drawn by	WB	A 0 0 0
Checked by	CL	A020

- 1. APPLY AND ACQUIRE NPDES PERMIT. CONTRACTOR SHALL FOLLOW ALL REQUIREMENTS WITHIN STORM WATER POLLUTION PREVENTION PLAN (SWPPP).
- 2. SEE SWPPP NARRATIVE AND PLANS (C300 SERIES) AND SPECIFICATION 312500 FOR FURTHER INFORMATION AND DIRECTION OF EROSION AND SEDIMENT CONTROL MEASURES AND MONITORING.
- 3. INSTALL PERIMETER EROSION CONTROL AT THE LOCATIONS SHOWN ON THE PLANS PRIOR TO BEGINNING CONSTRUCTION. (HAY BALES ARE NOT AN ACCEPTABLE PERIMETER CONTROL). EROSION CONTROL SHALL BE PLACED ALONG THE PERIMETER OF THE SITE EXCAVATION. EROSION CONTROL SHALL BE PLACED SO IT DOES NOT DISTURB THE EXISTING PAVEMENT OR DRIVE LANES THAT ARE TO REMAIN. MANY METHODS OF EROSION CONTROL WILL WORK AND IT IS THE CONTRACTOR'S RESPONSIBILITY TO INSTALL THE MEASURE MOST APPROPRIATE TO THE SITE CONDITIONS AND THAT WHICH MEETS THE CITY OF ST. PAUL AND MPCA STANDARDS. PERIMETER EROSION CONTROL IS GRAPHICALLY SHOWN ON THE PLANS AT THE LIMITS OF CONSTRUCTION FOR CLARITY BUT SHALL BE PLACED IN THE MOST APPROPRIATE LOCATIONS NOT TO DAMAGE EXISTING PAVEMENT AND/OR CURBS TO REMAIN. DAMAGED PAVEMENT AND/OR CURBS SHALL BE PAID FOR SOLELY BY THE CONTRACTOR. SEE DETAILS AND SPECIFICATIONS.
- 4. INSTALL TREE PROTECTION FENCING AROUND ALL TREES TO REMAIN PRIOR TO BEGINNING CONSTRUCTION, SEE DETAILS.
- 5. BEFORE BEGINNING CONSTRUCTION, INSTALL A TEMPORARY ROCK CONSTRUCTION ENTRANCE AT EACH POINT WHERE VEHICLES EXIT THE CONSTRUCTION SITE. USE TWO INCH OR GREATER DIAMETER ROCK IN A LAYER AT LEAST 12 INCHES THICK ACROSS THE ENTIRE WIDTH OF THE ENTRANCE. EXTEND THE ROCK ENTRANCE AT LEAST 50 FEET INTO THE CONSTRUCTION ZONE. USE A GEOTEXTILE FABRIC BENEATH THE AGGREGATE IN ORDER TO PREVENT MIGRATION OF SOIL INTO THE ROCK FROM BELOW. SEE DETAILS. OTHER METHODS OF VEHICULAR CONSTRUCTION ENTRANCES MEET MPCA REQUIREMENTS AND MAY BE ALLOWED IN LIEU OF ROCK ENTRANCES. CONTRACTOR SHALL SUBMIT ALTERNATE METHODS FOR REVIEW BY ENGINEER PRIOR TO INSTALLATION.
- 6. REMOVE ALL SOILS AND SEDIMENTS TRACKED OR OTHERWISE DEPOSITED ONTO PUBLIC AND PRIVATE PAVEMENT AREAS. REMOVAL SHALL BE ON A DAILY BASIS WHEN TRACKING OCCURS. SWEEPING MAY BE ORDERED BY AT ANY TIME IF CONDITIONS WARRANT. SWEEPING SHALL BE MAINTAINED THROUGHOUT THE DURATION OF THE CONSTRUCTION AND DONE IN A MANNER TO PREVENT DUST BEING BLOWN TO ADJACENT PROPERTIES.
- 7. INSTALL INLET PROTECTION AT ALL PUBLIC AND PRIVATE CATCH BASIN INLETS WHICH RECEIVE RUNOFF FROM THE DISTURBED AREAS. CATCH BASIN INSERTS ARE REQUIRED IN UNDISTURBED AREAS THAT RECEIVE RUNOFF FROM DISTURBED AREAS. NOTE: HAY BALES OR FILTER FABRIC WRAPPING THE GRATES ARE NOT EFFECTIVE OR AN ACCEPTABLE FORM OF INLET PROTECTION.
- 8. LOCATE SOIL OR DIRT STOCKPILES NO LESS THAN 25 FEET FROM ANY PUBLIC OR PRIVATE ROADWAY OR DRAINAGE CHANNEL. IF REMAINING FOR MORE THAN SEVEN DAYS, STABILIZE THE STOCKPILES BY MULCHING, VEGETATIVE COVER, TARPS, OR OTHER MEANS. CONTROL EROSION FROM ALL STOCKPILES BY PLACING SILT BARRIERS AROUND THE PILES. TEMPORARY STOCKPILES LOCATED ON PAVED SURFACES MUST BE NO LESS THAN TWO FEET FROM THE DRAINAGE/GUTTER LINE AND SHALL BE COVERED IF LEFT MORE THAN 24 HOURS.
- 9. MAINTAIN ALL TEMPORARY EROSION AND SEDIMENT CONTROL DEVICES IN PLACE UNTIL THE CONTRIBUTING DRAINAGE AREA HAS BEEN STABILIZED. INSPECT TEMPORARY EROSION AND SEDIMENT CONTROL DEVICES ON A DAILY BASIS AND REPLACE DETERIORATED, DAMAGED, OR ROTTED EROSION CONTROL DEVICES IMMEDIATELY.
- 10. TEMPORARILY OR PERMANENTLY STABILIZE ALL CONSTRUCTION AREAS WHICH HAVE BEEN FINISH GRADED AND ALL AREAS IN WHICH GRADING OR SITE BUILDING CONSTRUCTION OPERATIONS ARE NOT ACTIVELY UNDERWAY AGAINST EROSION DUE TO RAIN, WIND AND RUNNING WATER WITHIN 7-14 DAYS. USE SEEDING AND MULCHING, EROSION CONTROL MATTING, AND/OR SODDING AND STAKING IN GREEN SPACE AREAS. APPLICATION OF GRAVEL BASE ON AREAS TO BE PAVED RECOMMENDED TO MINIMIZE EROSION POTENTIAL.
- 11. REMOVE ALL TEMPORARY SYNTHETIC, STRUCTURAL, NON-BIODEGRADABLE EROSION AND SEDIMENT CONTROL DEVICES AFTER THE SITE HAS UNDERGONE FINAL STABILIZATION AND PERMANENT VEGETATION HAS BEEN ESTABLISHED, MINIMUM VEGETATION ESTABLISHMENT IS 70% COVER, MAINTAIN ALL TEMPORARY EROSION CONTROL DEVICES UNTIL 70% ESTABLISHED COVER IS ACHIEVED.
- 12. READY MIXED CONCRETE AND CONCRETE BATCH PLANTS PROHIBITED WITHIN THE PUBLIC RIGHT-OF-WAY. UNDER NO CIRCUMSTANCES MAY WASHOUT WATER DRAIN ONTO THE PUBLIC RIGHT-OF-WAY OR INTO THE STORM SEWER. CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING DESIGNATED CONCRETE WASHOUT AREA THAT COMPLIES WITH MPCA REQUIREMENT.
- 13. ALL EROSION CONTROL ELEMENTS ARE TEMPORARY. CONTRACTOR TO INSTALL EROSION CONTROL ELEMENTS PRIOR TO START OF LAND DISTURBING ACTIVITIES. MAINTAIN IN GOOD CONDITION DURING CONSTRUCTION AND REMOVE FROM THE SITE UPON COMPLETION OF FINAL PAVING AND TURF ESTABLISHMENT.
- 14. CONTRACTOR TO PROVIDE TEMPORARY SEED AND MULCH ON ALL NON-PAVED AREAS WITHIN 7 DAYS AFTER ROUGH GRADING IS COMPLETED. SEED WITH ANNUAL RYE SEED AT 60 LBS PER ACRE AND WOOD MULCH FIBER AT 45 LBS PER 1,000 SF.
- 15. CONTRACTOR TO PREVENT DIRT AND/OR DEBRIS FROM ENTERING STORM SEWER OR BEING TRANSPORTED OFF-SITE IN AN UNCONTROLLED MANNER. CONTRACTOR TO VERIFY AT PROJECT CLOSEOUT THAT STORM SEWER SYSTEM AND STORMWATER MANAGEMENT SYSTEM IS CLEAR OF SEDIMENT AND/OR DEBRIS AND IS FULLY FUNCTIONAL.
- 16. STRAWBALES ARE NOT ALLOWED ON SITE IN ANY CAPACITY.

- 1. ALL EXISTING INFORMATION TAKEN FROM SURVEY BY SUNDE LAND SURVEYING CERTIFICATION DATED APRIL 15, 2022.
- 2. SUBSURFACE GEOTECHNICAL INVESTIGATION PREPARED BY ? PROJECT ? DATED ?.
- 3. CONTRACTOR TO FIELD VERIFY ALL EXISTING CONDITIONS INCLUDING LOCATIONS OF EXISTING UTILITIES, AND NOTIFY ENGINEER OF ANY DISCREPANCIES PRIOR TO STARTING CONSTRUCTION.
- 4. ALL AREAS DISTURBED BY CONSTRUCTION WHICH ARE OUTSIDE THE LIMITS OF PAVING ARE TO BE RESTORED AND REVEGETATED.
- 5. ALL UTILITY DEMOLITION AND/OR ABANDONMENT TO BE PERFORMED IN ACCORDANCE WITH THE CITY OF SAINT PAUL AND STATE OF MINNESOTA **REGULATIONS AND STANDARDS.**
- 6. EXISTING UTILITIES ARE SHOWN IN THEIR APPROXIMATE LOCATIONS. CONTRACTOR TO FIELD VERIFY THE LOCATION OF ALL EXISTING UTILITIES WHICH MAY INCLUDE BUT IS NOT LIMITED TO: ELECTRIC, TELEPHONE, GAS, CABLE TV, COMPUTER CABLE, FIBER OPTIC CABLE, SANITARY SEWER, STORM SEWER, STEAM, CONDENSATE, ELECTRICAL DUCTBANK AND WATERMAIN. CONTRACTOR TO CONTACT GOPHER ONE-CALL BEFORE EXCAVATING.
- 7. ALL EXISTING UTILITIES AND OTHER IMPROVEMENTS ARE TO REMAIN UNLESS NOTED OTHERWISE. 8. CONTRACTOR TO PROTECT FROM DAMAGE ALL EXISTING IMPROVEMENTS,
- LANDSCAPING, STRUCTURES AND UTILITIES THAT ARE TO REMAIN. CONTRACTOR TO REPAIR ANY DAMAGE AT OWN EXPENSE. 9. ALL WORK TO CONFORM WITH CITY OF SAINT PAUL AND STATE OF
- MINNESOTA STANDARDS AND REGULATIONS. CFR, PART 1926, SUBPART P "EXCAVATIONS AND TRENCHES". THIS DOCUMENT STATES THAT EXCAVATION SAFETY IS THE SOLE RESPONSIBILITY
- 10. ALL EXCAVATIONS MUST COMPLY WITH THE REQUIREMENTS OF OSHA 29 OF THE CONTRACTOR. 11. PROVIDE BARRICADES AT STREETS AND SIDEWALKS PER CITY OF SAINT
- (MN_MUTCD).
- 12. CONTRACTOR SHALL OBTAIN ALL REQUIRED PERMITS PRIOR TO STARTING CONSTRUCTION.
- 13. ALL MATERIALS FOR PROPOSED CONSTRUCTION OR REPAIR OF EXISTING FACILITIES SHALL BE NEW PRODUCTS DIRECT FROM THE FACTORY AND FREE FROM DEFECTS.
- 14. WHEN WORKING AROUND EXISTING TELEPHONE OR ELECTRICAL POLES. THE CONTRACTOR SHALL BRACE THE POLE FOR SUPPORT. 15. WHEN WORKING AROUND EXISTING UTILITIES THAT BECOME EXPOSED, THE CONTRACTOR SHALL PROVIDE SUFFICIENT SUPPORT TO PREVENT EXCESSIVE
- THESE UNDERGROUND FACILITIES. 16. CONTRACTOR TO FIELD VERIFY THE EXACT LOCATION AND ELEVATION OF EXISTING STORM AND SANITARY SEWER PRIOR TO THE START OF CONSTRUCTION. IF ELEVATIONS DIFFER FROM SURVEYED ELEVATIONS SHOW ON PLAN, REPORT DISCREPANCIES TO ENGINEER PRIOR TO CONSTRUCTION. SANITARY SEWER AND STORM SEWER FACILITIES AND APPURTENANCES TO WITHIN FIVE FEET OUTSIDE THE BUILDING. COORDINATE WITH MECHANICAL CONTRACTOR FOR EXACT LOCATION AND DEPTH OF CONNECTION WITHIN
- 17. SITE UTILITY CONTRACTOR TO FURNISH AND INSTALL ALL WATERMAIN, BUILDING.
- 18. CATCH BASINS AND MANHOLES ARE SHOWN ON PLAN LARGER THAN ACTUAL SIZE. COORDINATE LOCATION OF MANHOLE COVER AND CASTING SO THAT IT IS PROPERLY LOCATED AT THE BACK OF CURBLINE FOR THE CURB INLETS OR CENTERED IN THE AREA AS SHOWN ON THE PLAN FOR THE AREA DRAINS AND MANHOLE COVERS.
- 19. CONTRACTOR SHALL COORDINATE WITH ARCHITECT'S DRAWINGS TO VERIFY LOCATION, SIZE AND QUANTITY OF ALL ROOF DRAINS AND UTILITY CONNECTIONS. LIMITS OF PROPOSED SITE PLUMBING FACILITIES SHALL BE FIVE FEET FROM EDGE OF BUILDING UNLESS OTHERWISE NOTED. 20. PROVIDE THE FOLLOWING MINIMUM COVER OVER THE TOP OF PIPE AS
- FOLLOWS:
- A. 8' OVER WATERMAIN B. 5' OVER SANITARY SEWER C. 2' OVER STORM SEWER
- D. 1' OVER STORM SEWER DRAINTILE 21. ALL WATERMAIN AND SERVICES TO BE INSTALLED IN ACCORDANCE WITH CITY OF SAINT PAUL WATER STANDARDS. ALL WATER MAIN AND SERVICES TO BE INSTALLED IN ACCORDANCE WITH RECOMMENDED STANDARDS FOR WATER WORKS BY THE GREAT LAKES UPPER MISSISSIPPI RIVER BOARD OF
- STATE PUBLIC HEALTH AND ENVIRONMENTAL MANAGERS (TEN-STATE STANDARDS), CITY ENGINEER'S ASSOCIATION OF MINNESOTA SPECIFICATIONS (CEAMS) AND STATE OF MINNESOTA PLUMBING CODE. LATEST EDITIONS. 22. ALL PAVEMENT MARKINGS WITHIN EXISTING CITY OF SAINT PAUL PAVEMENT AREAS TO BE RESTORED TO MATCH EXISTING UNLESS NOTED OTHERWISE. 23. MAXIMUM CROSS-SLOPES FOR SIDEWALKS AND ADA ACCESS ROUTES SHALL NOT EXCEED 2.00%. MAXIMUM SLOPES FOR ADA PARKING STALLS AND ADA ACCESS AISLES SHALL NOT EXCEED 2.00% IN ANY DIRECTION.
- MAXIMUM RUNNING SLOPE FOR ALL SIDEWALKS SHALL NOT EXCEED 5.00%.
- 24. THE CONTRACTOR SHALL PROVIDE A CONTINUOUS. ACCESSIBLE AND SAFE PEDESTRIAN WALKWAY THAT MEETS ADA AND MINNESOTA MUTCD STANDARDS IF WORKING IN A SIDEWALK AREA, AND TRAFFIC CONTROL PER MINNESOTA MUTCD REQUIREMENTS FOR WORK IN THE PUBLIC RIGHT-OF-WAY.
- 25. WASTE MATERIALS INCLUDING PAVEMENT REMOVED DURING CONSTRUCTION, WASTE PIPING AND SUPPLIES, CONSTRUCTION DEBRIS AND EXCESS EXCAVATED MATERIAL SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE REMOVED FROM THE PROJECT SITE AND DISPOSED OF PROPERLY BY THE CONTRACTOR.
- 26. CONTRACTOR SHALL NOT BLOCK DRAINAGE FROM OR DIRECT EXCESS DRAINAGE ONTO ADJACENT PROPERTY.
- 27. ADEQUATE DRAINAGE SHALL BE MAINTAINED AT ALL TIMES DURING CONSTRUCTION AND ANY EXISTING DRAINAGE DITCH OR STRUCTURE DISTURBED DURING CONSTRUCTION SHALL BE RESTORED TO THE SATISFACTION OF THE OWNING AUTHORITY. ALL CONSTRUCTION STORM RUNOFF SHALL COMPLY WITH THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) REQUIREMENTS.
- 28. CARE MUST BE TAKEN DURING CONSTRUCTION AND EXCAVATION TO PROTECT ANY SURVEY MONUMENTS AND/OR PROPERTY IRONS.
- 29. COORDINATE SCHEDULING OF CLOSURES AND RE-OPENINGS OF EGRESSES, LOADING DOCKS, DUMPSTERS, DRIVEWAYS, SIDEWALKS AND ROADS WITH OWNER AND CITY OF SAINT PAUL. TRAFFIC CONTROL SIGNAGE, TEMPORARY WALKWAYS AND TEMPORARY DRIVEWAYS TO CONFORM WITH CITY OF SAINT PAUL AND STATE OF MINNESOTA REQUIREMENTS AND STANDARDS.
- FOR SUBMITTAL REQUIREMENTS.
- OF THESE ITEMS AND TO REPLACE AT OWN EXPENSE.
- DRAINAGE SIMILAR TO EXISTING.
- OR SIMILAR WORK IS TO BE PERFORMED ADJACENT TO OR IN THF PROVIDE BUILDING SURVEYS AND SEISMIC MONITORING.
- 34. ALL EXISTING BUILDING EXITS AND DRIVEWAYS SHALL REMAIN UNOBSTRUCTED AND USABLE AT ALL TIMES. IF THERE ARE UNAVOIDABLE EXCEPTIONS. THEN CONTRACTOR SHALL PROVIDE TEMPORARY EXIT PLANS TO THE OWNER FOR APPROVAL PRIOR TO CONSTRUCTION.
- 35. SANITARY SEWER PIPE AND FITTINGS TO BE POLYVINYL CHLORIDE (PVC), SDR 26 MINIMUM AND COMPLY WITH ASTM D3034 AND F679. JOINTS TO BE SOLVENT CEMENT OR FLEXIBLE WATERTIGHT.

- PAUL AND MINNESOTA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES
- STRESS ON THE PIPING. THE CONTRACTOR IS FULLY RESPONSIBLE FOR ANY DAMAGES CAUSED BY FAILURE TO EXACTLY LOCATE AND PRESERVE

- 30. DRAWINGS DO NOT INDICATE AREAS OF TEMPORARY SUPPORT SYSTEMS. THE CONTRACTOR IS RESPONSIBLE FOR ALL MEANS AND METHODS AND WILL HAVE TOTAL CONTROL OVER THE TYPES AND DESIGN OF ALL SHORING, SHEETING, BRACING, ANCHORAGES, EXCAVATION SUPPORT WALLS, DIRECTIONAL BORING, AUGER JACKING, SOIL STABILIZATION AND OTHER METHODS OF PROTECTING EXISTING IMPROVEMENTS. SEE SPECIFICATIONS
- 31. STORAGE AND PROTECTION OF EXISTING SITE FEATURES WHICH NEED TO BE REMOVED AND REPLACED FOR CONSTRUCTION OF PROJECT ARE THE RESPONSIBILITY OF THE CONTRACTOR. STORAGE SHALL BE WITHIN THE LIMITS OF STAGING AREA. CONTRACTOR SHALL PREVENT DAMAGE OR THEFT
- 32. CONTRACTOR TO RECORD EXISTING CONDITIONS (PHOTOGRAPHS, VIDEO PHOTOGRAPHY, FIELD SURVEYING, ETC.) TO ENABLE RECONSTRUCTION TO MATCH EXISTING CONDITIONS AS REQUIRED. CONTRACTOR TO DOCUMENT EXISTING CONDITIONS SO THAT RECONSTRUCTED AREAS WILL HAVE POSITIVE
- 33. WHERE DEMOLITION, EXCAVATION, UNDERPINNING, PILE DRIVING, COMPACTING IMMEDIATE VICINITY OF EXISTING STRUCTURES, THE CONTRACTOR WILL
- 36. STORM SEWER PIPE TO BE REINFORCED CONCRETE PIPE (RCP), ASTM C76, CLASS 5. WITH GASKETED JOINTS OR POLYVINYL CHLORIDE (PVC) SDR 26 MINIMUM COMPLYING WITH ASTM D3034 AND F679 WITH SOLVENT CEMENT OR FLEXIBLE WATERTIGHT JOINTS, PER SPECIFICATIONS AS NOTED ON PLAN.

- 37. WATERMAIN TO BE DUCTILE IRON PIPE (DIP) THICKNESS CLASS 52 FOR 8" DIP AND THICKNESS CLASS 53 FOR 4" AND 6" DIP, ANSI A-21.51, 150 PSI WORKING PRESSURE MINIMUM. TYPE K COPPER SHALL BE USED FOR PIPES LESS THAN 4" DIAMETER.
- 38. MAINTAIN 10 FEET HORIZONTAL AND 3 FEET VERTICAL SEPARATION BETWEEN WATER AND SEWER PIPES.
- 39. WHERE PRACTICABLE INSTALL WATERMAIN GATE VALVES WITHIN GREEN SPACE AREAS TWO FEET OFFSET FROM THE MAIN. SIDEWALKS SHALL BE STAKED AND EXACT LOCATIONS OF WATER VALVES COORDINATED IN THE FIELD, TYPICAL FOR ALL.
- 40. SEQUENCING OF UTILITIES AND STRUCTURAL SYSTEMS SHALL BE CAREFULLY COORDINATED. CONTRACTOR SHALL ALSO TAKE CARE TO PROTECT SERVICE CONNECTIONS AND ADJACENT PARALLEL UTILITY LINES WHILE FORMING AND PLACING CONCRETE FOR OTHER HEAVY CONSTRUCTION WITHIN THE AREA. CONSTRUCTABILITY OF THE STRUCTURAL SYSTEMS SHALL TAKE INTO ACCOUNT ANY UTILITY WORK SO PIPE/CONDUIT OR STRUCTURES ARE NOT DISPLACED, CRUSHED, OR OTHERWISE ADVERSELY AFFECTED DURING CONSTRUCTION.
- 41. ALL STUMPS FROM TREES REMOVED WITHIN PROJECT LIMITS SHALL BE GROUND AND REMOVED IN THEIR ENTIRETY.
- 42. CONTRACTOR IS RESPONSIBLE FOR PROPER REMOVAL AND DISPOSAL OF ALL DEBRIS, EXCESS FILL AND OTHER UNUSED MATERIALS GENERATED BY PROJECT AND DONE IN FULL COMPLIANCE WITH ALL LOCAL, STATE AND FEDERAL RULES AND REGULATIONS. THE SITE SHALL BE KEPT CLEAN AND FREE FROM ALL WASTE MATERIALS.
- 43. ALL WORK WILL BE IN ACCORDANCE WITH OSHA CODES AND STANDARDS. NOTHING INDICATED ON THE DRAWINGS OR SPECIFICATIONS SHALL RELIEVE THE CONTRACTOR FROM COMPLYING WITH ANY APPROPRIATE SAFETY REGULATIONS.
- 44. PROVIDE AN EXPANSION JOINT AROUND ALL EXISTING UTILITIES, MANHOLES, POLES, LIGHTS, POSTS, BOXES, ETC. WITHIN AREAS OF NEW OR RECONSTRUCTED CONCRETE PAVEMENT.
- 45. ALL EXPOSED CONCRETE (CURB, STEPS, WALLS, ETC.) TO HAVE A CONSISTENT RUBBED FINISH. CONTRACTOR TO PROVIDE MINIMUM FOUR SQUARE FOOT MOCK-UP FOR REVIEW AND APPROVAL.
- 46. CONTRACTOR TO PROVIDE MINIMUM 4'X4' OF ALL PAVEMENT TYPES FOR REVIEW AND APPROVAL. ALL CONCRETE SIDEWALKS TO HAVE BROOM FINISH. MOCK-UP TO REMAIN ON SITE THROUGHOUT CONSTRUCTION.
- 47. THICKENED EDGE EXPANSION JOINTS SHALL BE PLACE ALONG THE EDGE OF ALL CONCRETE PAVEMENT AT THE PERIMETER OF ALL STRUCTURES, CONCRETE CURB AND GUTTER ADJACENT PAVEMENT.
- 48. THE DRAWINGS REPRESENT TO FINISHED SITE, NOT THE METHOD OF CONSTRUCTION. THE ENGINEER IS NOT RESPONSIBLE FOR CONTRACTOR'S MEANS AND METHODS. SEQUENCING OF CONSTRUCTION OR SAFETY PROGRAM. OBSERVATION VISITS TO THE SITE BY THE ENGINEER WILL NOT INVOLVE REVIEW OF THESE ITEMS.
- 49. WHERE DISCREPANCIES OCCUR BETWEEN GENERAL NOTES, PLANS, DETAILS AND SPECIFICATIONS. THE MOST STRINGENT REQUIREMENTS SHALL GOVERN. UNLESS OTHERWISE VERIFIED BY THE ENGINEER OR ARCHITECT IN WRITING. 50. THESE DOCUMENTS SHALL NOT BE CONSTRUED AS STAND-ALONE
- DOCUMENTS. CONTRACTOR SHALL COORDINATE WITH ALL OTHER DISCIPLINE'S DOCUMENTS. 51. FOR TREES TO REMAIN HEALTHY DURING A CONSTRUCTION PROJECT THEY
- MUST BE PROTECTED FROM CONSTRUCTION ACTIVITIES. FOR PROPER TREE AND PLANT PROTECTION, THE FOLLOWING REQUIREMENTS APPLY TO ALL CONSTRUCTION SITES:
- A. TREES WITHIN THE CONSTRUCTION ZONE SHALL BE PROTECTED FROM DAMAGE AND SOIL COMPACTION BY EQUIPMENT, DEBRIS AND STORAGE INTRUSION. SUGGESTED MATERIALS FOR PROTECTION ARE CONCRETE BARRICADES, CONSTRUCTION FENCING OR CHAIN LINK FENCING AND NOTED ON CONTRACTOR'S SITE OPERATIONS LAYOUT.
- B. TREE PROTECTION SHALL BE PLACED AT A MINIMUM OF ONE AND A HALF (1.5) TIMES (IN FEET) THE CALIPER DIMENSION (IN INCHES) FROM THE BASE OF THE TRUNK. FOR EXAMPLE; A TEN (10) CALIPER INCH TREE WOULD REQUIRE PROTECTION A MINIMUM OF FIFTEEN (15) FEET FROM THE BASE OF THE TRUNK
- TREES THAT ARE NECESSARILY IMPACTED BY CONSTRUCTION SHALL BE PRUNED AND ROOT PRUNED AS REQUIRED BY A CERTIFIED ARBORIST.
- 52. TRACER WIRES TO BE TERMINATED IN THE CORRECT COLOR COPPERHEAD TRACER WIRE BOX OR WITHIN A MANHOLE. LOCATION OF TRACER WIRE BOXES TO BE SHOWN ON AS-BUILT DRAWINGS.
- 53. WITHIN LANDSCAPE AREAS ALL CLASS V MATERIAL SHALL BE REMOVED AND COMPACTED SOILS DECOMPACTED TO A DEPTH OF 12" PRIOR TO INSTALLATION OF TOPSOIL.
- 54. MINNESOTA PLUMBING CODE REQUIRES A 10' MINIMUM SEPARATION BETWEEN WATERMAIN PIPE AND SEWERS FROM OUTSIDE OF WATER PIPE TO OUTSIDE OF SEWER PIPE OR MANHOLE. CONTRACTOR TO FIELD VERIFY EXACT LOCATIONS OF WATERMAIN AND SEWERS AND REPORT DISCREPANCIES TO THIS SETBACK TO ENGINEER PRIOR TO INSTALLING UTILITIES SO ADJUSTMENTS CAN BE MADE. ADJUSTMENTS MAY REQUIRE USING SCH 40 PVC FOR SEWER PIPES. CONCRETE ENCASEMENT OF THE WATERMAIN OR SEWER, OR A SCH 40 CASING PIPE FOR THE WATERMAIN WHERE WHERE THIS IS NOT FEASIBLE. UTILITY DESIGN PLANS MAY REQUIRE ADJUSTMENTS IN THE FIELD TO THE EXACT LAYOUT TO MEET PLUMBING CODE SEPARATION.
- 55. INSTALL WATERMAIN WITH A CASING PIPE WITHIN AREA WHERE THE 10' OF SEPARATION BETWEEN WATERMAIN AND SEWER PIPE OR MANHOLE IS NOT FFASIBLE.
- 56. WHERE WATERMAIN CROSSES ABOVE SEWER THERE NEEDS TO BE A MINIMUM OF 12" OF SEPARATION BETWEEN OUTSIDE OF PIPE TO OUTSIDE OF PIPE. WATERMAIN SHALL BE OFFSET TO PROVIDE SEPARATION WHERE THIS IS NOT FEASIBLE.

- 1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PAVEMENT TO. COLLECTING DATA FROM IN-PLACE LANE LINES AND INCLUDE ANY LANE CLOSURES OR TRAFFIC CONTROL NECESSARY TO COMPLETE THESE PROJECTS SAFELY.
- EDGE LINES AND LANE LINES ARE TO BE BROKEN ONLY AT INTERSECTIONS WITH PUBLIC ROADS AND AT PRIVATE ENTRANCES. THE BREAK POINT IS TO BE AT THE START OF THE RADIUS FOR THE INTERSECTION OR AT MARKED STOP LINES OR CROSSWALKS.
- 3. A TOLERANCE OF 1/4 INCH UNDER OR 1/4 INCH OVER THE OF APPLICATION TOLERANCES SHALL NOT RELIEVE THE CONTRACTOR OF THEIR RESPONSIBILITY TO COMPLY AS CLOSELY AS PRACTICABLE WITH THE PLANNED DIMENSIONS.
- ROAD SURFACE SHALL BE CLEANED AND FREE OF CONTAMINATION AS RECOMMENDED BY THE MATERIAL MANUFACTURER AND ACCEPTABLE TO THE ENGINEER.
- 5. APPLY ALL PAVEMENT MARKINGS AS RECOMMENDED BY THE MATERIAL MANUFACTURER.
- OVER TEMPORARY TAPE MARKINGS.
- MADE TO PREVENT SPILLAGE OF MATERIAL. PAVEMENT MARKINGS SHALL ONLY BE APPLIED IN SEASONABLE
- AND BEFORE THE MARKING MATERIAL CAN BE APPLIED. 9. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO UTILIZE THE "ONE CALL EXCAVATION NOTICE SYSTEM" (TELEPHONE STATUE 2160.
- 10. ALL PAVEMENT MARKINGS WITHIN THE PARKING LOTS SHALL BE STANDARD STRIPING PAINT WHILE ROADWAY PAVEMENT MARKINGS SHALL BE GROOVED-IN, WET-REFLECTIVE MULTI-COMPONENT.
- 11. THE ENGINEERS INVOLVEMENT IN THE APPLICATION OF THE MATERIAL SHALL BE LIMITED TO FIELD CONSULTATION AND INSPECTION. THE CONTRACTOR WILL PLACE NECESSARY CONTROL FOR STRIPING AND TO DETERMINE NECESSARY STARTING AND CUTOFF POINTS. LONGITUDINAL JOINTS. PAVEMENT EDGES AND EXISTING MARKINGS MAY SERVE AS HORIZONTAL CONTROL WHEN SO DIRECTED.
- 12. CONTRACTOR TO FOLLOW MINNESOTA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MN MUTCD), MINNESOTA TEMPORARY TRAFFIC CONTROL FIELD MANUAL, TEMPORARY

MARKING RELATED ACTIVITIES SUCH AS, BUT NOT EXCLUSIVE MARKING PERMANENT MARKING ALIGNMENTS. THIS SHALL ALSO

SPECIFIED WIDTH WILL BE ALLOWED FOR STRIPING PROVIDED THE VARIATION IS GRADUAL AND DOES NOT DETRACT FROM THE GENERAL APPEARANCE. ALIGNMENT DEVIATIONS FROM THE CONTROL GUIDE SHALL NOT EXCEED 1 INCH. MATERIAL SHALL NOT BE APPLIED OVER LONGITUDINAL JOINTS. ESTABLISHMENT

4. JUST PRIOR TO THE PLACEMENT OF PAVEMENT MARKINGS THE

6. PERMANENT PAVEMENT MARKINGS SHALL NOT BE PLACED

7. THE FILLING OF TANKS, POURING OF MATERIALS OR CLEANING OF EQUIPMENT SHALL NOT BE PERFORMED ON UNPROTECTED PAVEMENT SURFACES UNLESS ADEQUATE PROVISIONS ARE

WEATHER WHEN AIR AND PAVEMENT SURFACE TEMPERATURES ARE 50° F OR HIGHER AND SHALL NOT BE APPLIED WHEN THE WIND OR OTHER CONDITIONS CAUSE A FILM OF DUST TO BE DEPOSITED ON THE PAVEMENT SURFACE AFTER CLEANING

NUMBER 651-454-0003). THIS IS REQUIRED BY MINNESOTA

"SPOTTING" AT APPROPRIATE POINTS TO PROVIDE HORIZONTAL

BARRIER GUIDANCE MANUAL, MINNESOTA FLAGGING HANDBOOK. AND WORK ZONE SAFETY PROGRAM, LATEST EDITIONS AND SUPPLEMENTS. ALL INFORMATION IS AVAILABLE ON MNDOT WEBSITE WWW.DOT.STATE.MN.US/TRAFFICENG/WORKZONE/

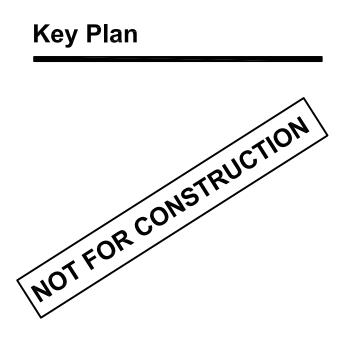
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-X	EXISTING UTILITY TO BE REMOVED
	PROPOSED STORM SEWER
	PROPOSED SANITARY SEWER
	PROPOSED WATERMAIN
	PROPOSED DRAINTILE
	PROPOSED TRENCH DRAIN
	PROPOSED CATCH BASIN
	PROPOSED MANHOLE
	PROPOSED CLEAN OUT
	PROPOSED DOWNSPOUT
	PROPOSED HYDRANT
	PROPOSED GATE VALVE
	PROPOSED FIRE DEPARTMENT CONNECTION
	PROPOSED FLARED END SECTION W/ RIPRA
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4	PROPOSED CONCRETE PAVING
	PROPOSED CONCRETE SIDEWALK
iy s	PROPOSED CONSTRUCTION ENTRANCE

PROPOSED PROPERTY LINE



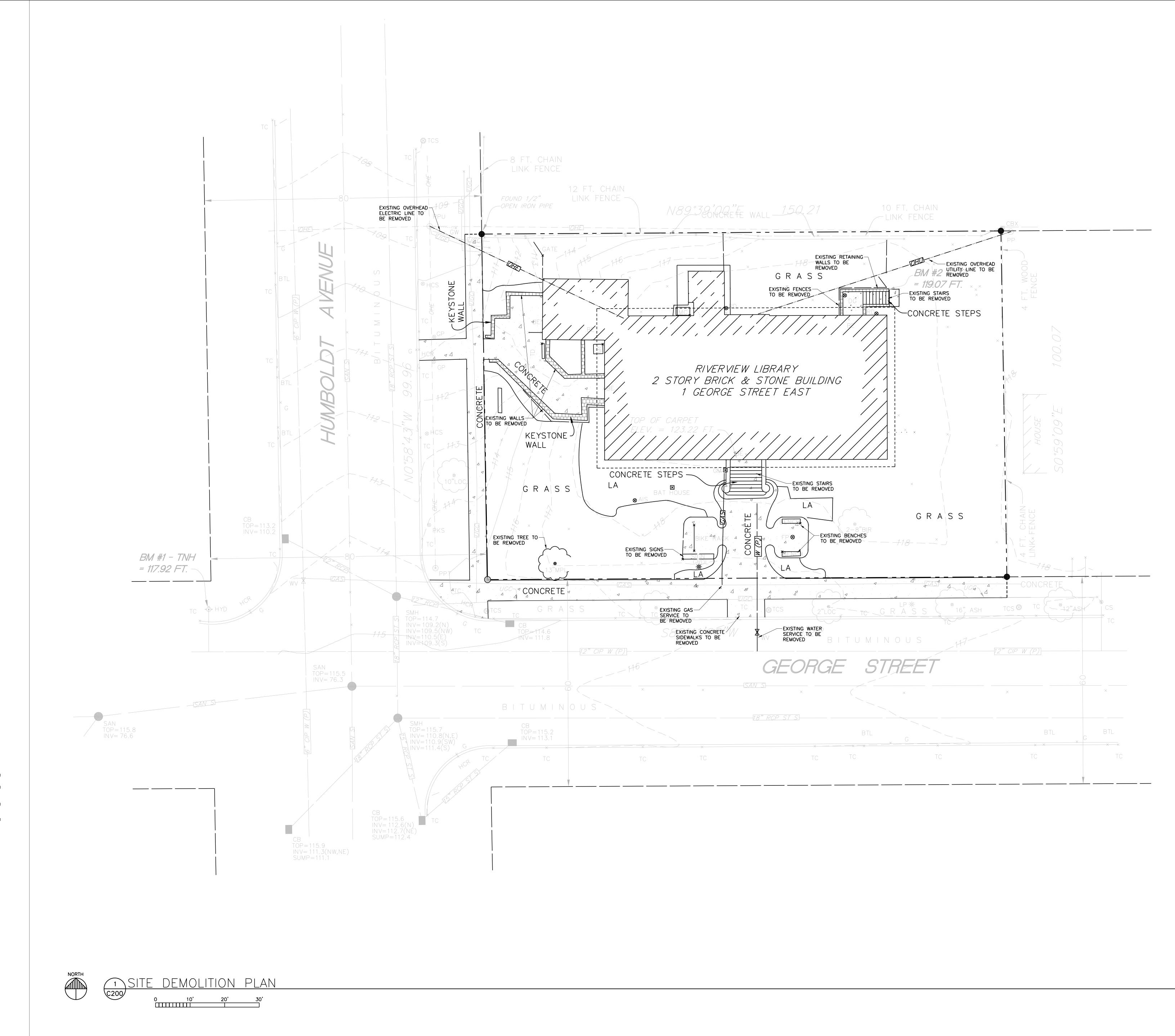




No.	Date	Revision Description
	PROJECT	STATUS

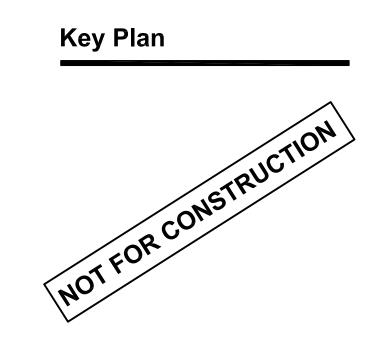
CIVIL NOTES AND LEGEND

Project	Project Number	Drawing Number
Date	August 5, 2022	
Drawn by	Author	0400
Checked by	Checker	C100









Date	Revision Description
 PROJECT	

SITE DEMOLITION PLAN

Project	Project Number	Drawing Numbe
Date	August 5, 2022	
Drawn by	Author	0000
Checked by	Checker	C200

SWPPP NARRATIVE

THIS STORMWATER POLLUTION PREVENTION PLAN (SWPPP) HAS BEEN COMPLETED TO FULFILL THE PERMIT REQUIREMENTS OF THE GENERAL CONSTRUCTION STORMWATER PERMIT (NPDES/SDS PERMIT) FOR EROSION AND SEDIMENT CONTROL FROM SITES WITH MORE THAN 1 ACRE OF SOIL DISTURBANCE. A PERMIT FROM THE MINNESOTA POLLUTION CONTROL AGENCY (MPCA) IS NOT REQUIRED FOR THIS PROJECT.

THE CITY OF ST. PAUL AND CAPITOL REGION WATERSHED DISTRICT HAVE JURISDICTIONAL AUTHORITY FOR EROSION AND SOIL CONTROL AND STORMWATER MANAGEMENT AT THIS SITE. IN ADDITION TO THE PROVISIONS OF THE PERMIT, EROSION PREVENTION AND SEDIMENTATION CONTROL SPECIFICATIONS AND PLANS. MPCA PROCEDURES FOR APPLICATION, MAINTENANCE AND TERMINATION OF THE PERMIT ARE DESCRIBED IN THE SPECIFICATIONS. ADDITIONAL INFORMATION AND GENERAL CONTRACTOR REQUIREMENTS ARE CONTAINED IN THE SPECIFICATIONS THAT IS NOT INCLUDED ON THIS SHEET. THE GENERAL CONTRACTOR SHALL FOLLOW PERMIT REQUIREMENTS AT ALL TIMES; NOTHING IN THE SWPPP OR SPECIFICATIONS SUPERCEDES THE GENERAL CONTRACTORS RESPONSIBILITIES UNDER THE PERMIT.

THIS SWPPP MUST BE KEPT ONSITE AND UPDATED AS NECESSARY TO REFLECT CHANGES TO SITE CONDITIONS, PLACEMENT OF CONTROL MEASURES AND ELEMENTS ONSITE. THIS DOCUMENT IS REQUIRED TO REFLECT CURRENT CONDITIONS BASED ON SITE INSPECTIONS AND ACTIONS.

1. PROJECT DESCRIPTION/LOCATION

SEE STORMWATER MANAGEMENT CALCULATIONS AND REPORT AND SPECIFICATIONS FOR THIS SITE AND INCORPORATE INFORMATION INTO CONSTRUCTION PROCEDURES.

PROJECT NAME:	RIVERVIEW LIBRARY
PROJECT NUMBER:	22-003.3
PROJECT LOCATION:	ST PAUL, MN
TOTAL DISTURBED AREA:	0.23 ACRES
PRE-CONSTRUCTION IMPERVIOUS SURFACE ACRES:	0.13 ACRES
POST-CONSTRUCTION IMPERVIOUS SURFACE ACRES:	0.18 ACRES
CUMULATIVE NEW IMPERVIOUS SURFACE ACRES:	0.05 ACRES
WORK IN/NEAR WATER/CONVEYANCE?:	NO
ECOLOGICALLY SENSITIVE AREAS IN PROJECT SCOPE ?:	NO
TEMPORARY BASIN IN PROJECT SCOPE*?:	NO
TYPE AND DESIGN CRITERIA OF PERMANENT BMPS IN PROJECT SCOPE**:	UNDERGROUND RETENTION

**LONG TERM MAINTENANCE OF PROJECT BMPS WILL BE CONDUCTED BY OWNER. DESIGN CALCULATIONS AND DETAILS ARE MAINTAINED WITH PROJECT DOCUMENTATION AND BY OWNER'S REPRESENTATIVE.

THE PLANNED SCOPE OF THE PROJECT INCLUDES:

• RENOVATION OF LIBRARY AND CONSTRUCTION OF ASSOCIATED DRIVEWAYS AND SIDEWALKS.

• STORMWATER FROM THIS SITE WILL BE ROUTED TO AN ? SYSTEM THAT DISCHARGES TO CITY OF ST. PAUL STORM SEWER.

2. SPECIAL AND IMPAIRED WATERS

o. SPECIAL AND IMPAIRED WATERS: THESE WETLANDS, FENS, TROUT STREAMS, ORVWS AND IMPAIRED WATERS ARE LOCATED WITHIN ONE MILE (AERIAL RADIUS) OF THE PROJECT LIMITS. THERE ARE NO IMPAIRED WATERS WITHIN ONE MILE OF THIS PROJECT.

WATER BODY NAME	REACH NUMBER	IMPAIRMENTS	APPLICABLE?
NONE	NONE	NONE	Ν

3. ECOLOGICAL AND OTHER SENSITIVE AREAS

IN ADDITION TO ANY ADDITIONAL PROVISIONS DICTATED IN THE RESPECTIVE PART BELOW, THE GENERAL CONTRACTOR SHALL PROVIDE SPECIAL CARE AND ATTENTION TO ECOLOGICAL OR OTHER SENSITIVE AREA(S) INDICATED IN THIS SECTION TO PREVENT TRAFFIC AND DISTURBANCE, AND TO PRESERVE VEGETATIVE COVER IN IDENTIFIED AREAS. IDENTIFIED AREAS AND APPROPRIATE SETBACKS SHALL BE MARKED IN THE FIELD BY THE GENERAL CONTRACTOR, AS SPECIFIED IN SUBSEQUENT PAGE DETAILS, IF APPLICABLE.

- o. PLACEMENT OF FILL IN WATERS OF THE STATE: A NEW STORM SEWER OUTLET TO THE MISSISSIPPI RIVER IS PART OF THIS PROJECT. PERMITS WILL BE REQUIRED FROM THE DNR FOR THIS WORK. b. DRINKING WATER SUPPLY MANAGEMENT AREA: THIS PROJECT IS NOT WITHIN A WELLHEAD PROTECTION AREA,
- DRINKING WATER SUPPLY MANAGEMENT AREA (DWSMA), OR WITHIN A KNOWN KARST AREA. NO ADDITIONAL
- PROVISIONS APPLY TO THIS PROJECT.
- ENVIRONMENTAL REVIEW: THIS PROJECT IS NOT SUBJECT TO FINDINGS OF AN ENVIRONMENTAL, OR ARCHEOLOGICAL AND HISTORIC PLACES REVIEW. NO ADDITIONAL PROVISIONS APPLY TO THIS PROJECT. d. ENDANGERED OR THREATENED SPECIES: THERE ARE NO ENDANGERED OR THREATENED SPECIES AFFECTED BY THIS
- PROJECT. NO ADDITIONAL PROVISIONS APPLY TO THIS PROJECT. e. AQUATIC INVASIVE SPECIES, INFESTED WATERS AND WORK IN WATERS RESTRICTIONS: PROJECT SCOPE DOES NOT
- INCLUDE WORK IN OR NEAR PUBLIC WATERS. NO PUBLIC WATERS IN OR NEAR THE PROJECT SITE ARE LISTED OR SPECIALLY DESIGNATED BY THE MINNESOTA DEPARTMENT OF NATURAL RESOURCES DEPARTMENT OF WATER (DOW). SOIL TYPES TYPICALLY FOUND ON THIS PROJECT SITE ARE: A GEOTECHNICAL REPORT HAS YET TO BE COMPLETED FOR THIS PROJECT. A PRELIMINARY WEB SOIL SURVEY INDICATES TYPICAL URBAN FILL SOILS CONSISTING OF CLAYEY SANDS, ORGANIC SILTS AND CLAYS. SOILS WILL BE CORRECTED AND/OR AMENDED DURING THE PROJECT TO ACCOMMODATE PROPOSED STRUCTURES, STORMWATER MANAGEMENT SYSTEM, UTILITIES AND PAVEMENTS.

4. PROJECT PERSONNEL AND SWPPP IMPLEMENTATION RESPONSIBILITIES

ORGANIZATION	CONTACT NAME & CERTIFICATION NUMBER	PHONE
OWNER: ?	xxxx	xxx
ENGINEER FIRM NAME	PIERCE PINI + ASSOCIATES, INC.	763-537-1311
SWPPP PREPARER: PIERCE PINI AND ASSOCIATES	KEVIN GARDNER, P.E.	763-537-1311
GENERAL CONTRACTOR FIRM NAME:	xxxxx	xxxxx
SOIL/EROSION CONSTRUCTION SITE MANAGER		
SOIL/EROSION CONSTRUCTION SITE MANAGER		

MPCA DUTY OFFICER 24-HOUR EMERGENCY SPILL NOTIFICATION: 651-649-5451 OR 800-422-0798

a. THE OWNER AND THE NAMED GENERAL CONTRACTOR ARE CO-PERMITTEES FOR THE GENERAL CONSTRUCTION STORMWATER PERMIT (NPDES/SDS PERMIT). THE GENERAL CONTRACTOR IS RESPONSIBLE TO COMPLY WITH ALL

- ASPECTS OF THE PERMIT AND STORMWATER COMPLIANCE POLICY AT ALL TIMES UNTIL THE NOTICE OF TERMINATION (NOT) HAS BEEN FILED WITH THE MPCA. b. THE GENERAL CONTRACTOR SHALL DEVELOP A CHAIN OF COMMAND WITH ALL OPERATORS ON THE SITE TO ENSURE
- THAT THE SWPPP IS IMPLEMENTED AND MAINTAINED UNTIL THE PROJECT IS COMPLETE, THE ENTIRE SITE HAS UNDERGONE FINAL STABILIZATION, AND OWNER HAS COMPLETED THE FINAL INSPECTION c. THE PROJECT ENGINEER OF RECORD IS RESPONSIBLE FOR THE DESIGN OF THE SWPPP. THE GENERAL CONTRACTOR IS RESPONSIBLE FOR IMPLEMENTATION OF THE SWPPP AND THE INSTALLATION, INSPECTION AND MAINTENANCE OF
- THE EROSION PREVENTION AND SEDIMENT CONTROL BEST MANAGEMENT PRACTICES (BMPS) DESCRIBED BY THE SWPPP AT ALL STAGES OF CONSTRUCTION UNTIL THE OWNER HAS COMPLETED THE FINAL INSPECTION. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR ALL ON-SITE IMPLEMENTATION OF THE SWPPP INCLUDING
- THE ACTIVITIES OF ALL OF SUBCONTRACTORS DURING CONSTRUCTION. e. GENERAL CONTRACTOR SHALL PROVIDE AT LEAST ONE CERTIFIED INSTALLER FOR EACH SUBCONTRACTOR TO OVERSEE
- ALL INSTALLATION AND MAINTENANCE OF BMPS AND IMPLEMENTATION OF THE SWPPP. CERTIFICATION IS THROUGH THE UNIVERSITY OF MINNESOTA EROSION AND STORMWATER MANAGEMENT CERTIFICATION PROGRAM (http://www.erosion.umn.edu/) OR APPROVED EQUIVALENT.
- GENERAL CONTRACTOR SHALL PROVIDE AT LEAST ONE CERTIFIED INDIVIDUAL TO CONDUCT INSPECTION AND MAINTENANCE OF ALL EROSION PREVENTION AND SEDIMENT CONTROL BMPS IN ACCORDANCE WITH THE REQUIREMENTS OF THE PERMIT. GENERAL CONTRACTOR SHALL PROVIDE EVIDENCE OF CERTIFICATION FOR EACH INDIVIDUAL AT THE PRE-CONSTRUCTION MEETING AND IS MAINTAINED BY GENERAL CONTRACTOR WITH PROJECT DOCUMENTATION.
- THIS SWPPP HAS BEEN PREPARED BY INDIVIDUAL(S) TRAINED IN ACCORDANCE WITH THE PERMIT'S TRAINING REQUIREMENTS FOR PREPARATION OF SWPPPS.

<u>PREPARED BY:</u> KEVIN GARDNER, P.E. PIERCE PINI AND ASSOCIATES KEVIN@PIERCEPINI.COM 763-537-1311

TRAINING/CERTIFICATION: DATE OF TRAINING/CERTIFICATION: 2020 INSTRUCTOR(S): DWANE STENLUND CERTIFICATION EXPIRATION: MAY 31, 2023

5. <u>SEQUENCE OF CONSTRUCTION</u>

THE FOLLOWING DESCRIBES, IN GENERAL, THE SEQUENCE OF WORK PERFORMED ON THE SITE:

- a. GENERAL CONTRACTOR SHALL VERIFY THAT ALL PERMITS HAVE BEEN OBTAINED AND/OR OBTAIN THE NECESSARY PERMITS IN ACCORDANCE WITH THE MPCA POLICY.
- b. GENERAL CONTRACTOR SHALL INSTALL ALL PERIMETER AND DOWN-GRADIENT EROSION CONTROL AND SEDIMENT CONTROL BMPS, INCLUDING CONSTRUCTION ENTRANCES AND INLET PROTECTION DEVICES PRIOR TO SITE GRADING, EXCAVATION, STOCKPILING OR DISTURBING EXISTING VEGETATIVE COVER. GENERAL CONTRACTOR SHALL INSTALL ALL DOWN-GRADIENT PERIMETER CONTROLS BEFORE ANY UP-GRADIENT DISTURBANCE BEGINS.
- THE GENERAL CONTRACTOR SHALL ATTEMPT TO PHASE ALL WORK TO MINIMIZE EROSION AND MAINTAIN VEGETATIVE COVER TO THE EXTENT POSSIBLE. PRESERVE ALL NATURAL BUFFERS SHOWN ON PLAN. d. GENERAL CONTRACTOR SHALL MARK OR OTHERWISE DELINEATE AREAS ON THE SITE NOT TO BE DISTURBED,
- INCLUDING ECOLOGICALLY SENSITIVE AREAS, BEFORE CONSTRUCTION BEGINS. e. GENERAL CONTRACTOR SHALL ESTABLISH SITE LOCATION AND COMPLETE INSTALLATION OF ANY PORTABLE TOILET.
- FUELING AREA. SPILL KIT LOCATION. CONCRETE WASHOUT AREA. HAZARDOUS MATERIAL HANDLING AND STORAGE AREA, LITTER CONTROL DEVICE AREA, STAGING AREA, STOCK PILING AREA, AND OTHER SWPPP DESIGNATED AREAS.

UPDATE ONSITE-COPY OF SWPPP TO REFLECT LOCATION OF THESE ITEMS.

- f. GENERAL CONTRACTOR SHALL ESTABLISH AND ENFORCE PROTOCOL REGARDING CLEANING OF ALL EQUIPMENT THAT HAS BEEN USED IN INFESTED WATERS OR WATERS WITH INVASIVE SPECIES TO PREVENT THE SPREAD OF BOTH AQUATIC AND TERRESTRIAL INVASIVES. GENERAL CONTRACTOR SHALL OBTAIN VERIFICATIONS FROM ALL SUBCONTRACTORS THAT EQUIPMENT IS CLEAN, OR NEW, AND WILL NOT SPREAD INVASIVES.
- g. GENERAL CONTRACTOR IS RESPONSIBLE FOR MEANS AND METHODS OF SITE DEWATERING. DEWATERING SHALL FOLLOW MPCA AND CITY OF ST. PAUL STANDARDS AND REQUIREMENTS. SUBMIT PLAN OF ACTION FOR REVIEW PRIOR TO CONSTRUCTION.
- h. GENERAL CONTRACTOR SHALL ESTABLISH AND ENFORCE TRAFFIC FLOW AND PATTERNS, INCLUDING HAUL ROADS, AT PROJECT SITE TO MINIMIZE SOIL DISTURBANCE, TRACKING AND COMPACTION, AND TO PRESERVE NATIVE AND EXISTING VEGETATION. UPDATE ONSITE-COPY OF SWPPP TO REFLECT HAUL ROADS AND OTHER SITE TRAFFIC PATTERNS. i. GENERAL CONTRACTOR SHALL PERFORM SITE GRADING, EXCAVATION, STOCKPILING WORK IN ACCORDANCE WITH THE SWPPP
 - A. STOCKPILES SHALL BE PROTECTED AROUND THE ENTIRE PERIMETER WHEN NOT ACTIVELY BEING WORKED: STOCKPILES ACTIVELY BEING WORKED SHALL BE STABILIZED AT THE END OF EACH WORK DAY. PRESERVED TOPSOIL STOCKPILES SHALL ADDITIONALLY BE COVERED. PLACE BMP A MINIMUM OF 5 FEET FROM THE TOE OF THE SLOPE WHERE FEASIBLE. STABILIZE ALL ERODABLE STOCKPILES. B. DO NOT PLACE STOCKPILES IN NATURAL BUFFER AREAS, SURFACE WATERS OR STORMWATER CONVEYANCES
- INCLUDING GUTTERS OR SWALES. C. MINIMIZE SOIL COMPACTION AND PRESERVE TOPSOIL, UNLESS INFEASIBLE. MINIMIZING SOIL COMPACTION IS NOT REQUIRED WHERE THE FUNCTION OF A SPECIFIC AREA OF THE SITE DICTATES THAT IT BE COMPACTED. GENERAL CONTRACTOR SHALL PROVIDE GRADING AND BMP INSTALLATION TO LIMIT SOIL EXPOSURE ON ALL SLOPES
- OF 3H:1V OR STEEPER TO AN UNBROKEN LENGTH OF 75 FEET OR LESS. k. GENERAL CONTRACTOR SHALL STABILIZE ALL EXPOSED SOILS NO LATER THAN 7 DAYS AFTER THE CONSTRUCTION ACTIVITY IN THAT PORTION OF THE SITE HAS TEMPORARILY OR PERMANENTLY CEASED. A. GENERAL CONTRACTOR SHALL MAINTAIN 70% VEGETATIVE COVER ON COMPLETED AREAS OF THE PROJECT SITE
- B. STABILIZE ALL AREAS OF THE SITE PRIOR TO THE ONSET OF WINTER. C. STABILIZE WETTED PERIMETER OF DITCH (I.E. WHERE THE DITCH GETS WET).
- WHEN PERMANENT BMPS OR PORTIONS THEREOF ARE INSTALLED, GENERAL CONTRACTOR SHALL STAKE OR MARK THESE AREAS, AND INSTALL SEDIMENT PROTECTION UPGRADIENT OF COMPLETED AREAS TO AVOID COMPACTION AND FOULING OF SYSTEM ELEMENTS. PERMANENT BMPS SHALL BE CONSTRUCTED AND STABILIZED TO THE EXTENT PRACTICABLE PRIOR TO BEING PLACED INTO SERVICE. IN THE EVENT THAT PERMANENT STABILIZATION CANNOT BE ACHIEVED BEFORE BEING PLACED INTO SERVICE, TEMPORARY MEASURES TO PREVENT FOULING SHALL BE IN PLACE. m. GENERAL CONTRACTOR SHALL PERFORM SITE RESTORATION ACTIVITIES FOR PERMANENT VEGETATIVE ESTABLISHMENT TEMPORARY BMPS SUCH AS MULCH AND HYDROSEED DO NOT CONSTITUTE PERMANENT VEGETATIVE COVER; SOD INSTALLATION MAY CONSTITUTE PERMANENT VEGETATIVE COVER.
- n. THE GENERAL CONTRACTOR SHALL ENSURE FINAL STABILIZATION:

o. PERMIT SHALL BE TERMINATED IN ACCORDANCE WITH MPCA POLICY.

- A. ALL SOIL DISTURBING ACTIVITIES ARE COMPLETE AND A UNIFORM PERENNIAL VEGETATIVE COVER WITH A DESTINY OF 70% OVER THE ENTIRE PERVIOUS SURFACE HAS BEEN ACHIEVED, INCLUDING STABILIZATION OF ALL DITCHES AND SWALES. B. GENERAL CONTRACTOR SHALL ENSURE THAT ALL PERMANENT STORMWATER TREATMENT SYSTEMS ARE
- CONSTRUCTED IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS IF INCLUDED WITHIN THE SCOPE OF THE PROJECT. C. GENERAL CONTRACTOR SHALL REMOVE ALL TEMPORARY SYNTHETIC AND STRUCTURAL BMPS, EXCEPT AS
- SPECIFICALLY AUTHORIZED/REQUIRED BY CITY OF ST. PAUL. D. GENERAL CONTRACTOR SHALL REMOVE ALL SEDIMENTS FROM STORMWATER CONVEYANCES AND PERMANENT
- WATER QUALITY BASINS. E. GENERAL CONTRACTOR SHALL REQUEST A FINAL INSPECTION FROM THE CITY OF ST. PAUL PRIOR TO INITIATING PERMIT TERMINATION.
- 6. <u>SITE INSPECTION AND MAINTENANCE</u>
- a. INSPECT THE ENTIRE CONSTRUCTION SITE AND DOWNGRADIENT ADJACENT SITES/AREAS, INCLUDING THE FOLLOWING: A. INSPECT SURFACE WATER, INCLUDING DRAINAGE DITCHES, AND OFF-SITE PROPERTIES FOR SIGNS OF EROSION AND SEDIMENT DEPOSITION.
 - B. INSPECT CONSTRUCTION SITE VEHICLE EXIT LOCATIONS FOR EVIDENCE OF TRACKING ONTO PAVED SURFACES. C. INSPECT INFILTRATION AREAS FOR SIGNS OF SEDIMENT DEPOSITION AND COMPACTION, AND TO ENSURE EQUIPMENT IS NOT BEING DRIVEN INTO THE AREA.
 - D. INSPECT, MONITOR AND MAINTAIN ALL WATER QUALITY MANAGEMENT, EROSION PREVENTION AND SEDIMENT CONTROL BMPS.
 - E. INSPECT, MONITOR AND MAINTAIN POLLUTION PREVENTION BMPS
- b. INSPECTION FREQUENCY: GENERAL CONTRACTOR SHALL CONDUCT A SITE STORMWATER INSPECTION A MINIMUM OF ONCE EVERY SEVEN DAYS DURING ACTIVE CONSTRUCTION AND WITHIN 24 HOURS AFTER A RAINFALL EVENT GREATER THAN 0.5 INCHES IN 24 HOURS. INSPECTIONS MAY BE SUSPENDED DUE TO FROZEN GROUND CONDITIONS UNTIL FIRST RUNOFF OCCURS OR CONSTRUCTION ACTIVITIES RESUME, WHICHEVER COMES FIRST. GENERAL CONTRACTOR SHALL NOTE EXACT DATE OF LAST INSPECTION PRIOR TO WINTER SUSPENSION AND FIRST DATE WHEN CONSTRUCTION RESUMES. THE GENERAL CONTRACTOR IS RESPONSIBLE FOR INSPECTIONS UNTIL THE SITE HAS UNDERGONE FINAL STABILIZATION AND THE NOT HAS BEEN SUBMITTED TO THE MPCA, OR UNTIL PERMIT COVERAGE HAS BEEN TRANSFERRED TO ANOTHER PERMITTEE.
- RECORD ALL INSPECTIONS, MAINTENANCE AND CORRECTIVE ACTIONS CONDUCTED DURING CONSTRUCTION ON A PROVIDED INSPECTION FORM WITHIN 24 HOURS OF THE ACTION. DATE AND INITIAL THE ON-SITE SWPPP WITH ANY CHANGES TO REFLECT ON-SITE CONDITIONS. COPIES OF ALL SHALL BE SUBMITTED TO THE CIVIL ENGINEER. d. ALL EROSION CONTROL MEASURES MUST BE INSTALLED AND MAINTAINED BY GENERAL CONTRACTOR ACCORDING TO THE DETAILS INCLUDED IN THE CONSTRUCTION DOCUMENTS AND IN ACCORDANCE WITH THE PRODUCT
- MANUFACTURER'S RECOMMENDATIONS. BMPS MUST BE OPERATIONALLY FUNCTIONAL AND ADEQUATE. ALL NONFUNCTIONAL BMPS MUST BE REPAIRED OR REPLACED WITHIN 24 HOURS OF DISCOVERY OR THEREAFTER AS SOON AS FIELD CONDITIONS ALLOW. e. THE GENERAL CONTRACTOR SHALL RESPOND TO CHANGING SITE CONDITIONS AND IMPLEMENT/SUPPLEMENT EROSION
- PREVENTION AND SEDIMENT CONTROL MEASURES UTILIZED TO PROVIDE ADEQUATE PROTECTION OF DISTURBED SOILS AND ADEQUATE PREVENTION OF SEDIMENT TRANSPORT OFF-SITE. UPDATE SWPPP DOCUMENTS WHEN CHANGES ARE
- WHEN AN INSPECTION FINDS EROSION PREVENTION AND SEDIMENT CONTROL BMPS THAT ARE NONFUNCTIONAL OR INADEQUATE, ANY NONFUNCTIONAL BMPS MUST BE REPAIRED, REPLACED, OR SUPPLEMENTED WITH FUNCTIONAL BMPS WITHIN 24 HOURS AFTER DISCOVERY OR THEREAFTER AS SOON AS FIELD CONDITIONS ALLOW. THE GENERAL CONTRACTOR SHALL ALSO PLACE ANY ADDITIONAL EROSION CONTROL MEASURES DEEMED NECESSARY BY THE CITY OF ST. PAUL OR A/E WITHIN 24 HOURS OF NOTICE.
- A. IF DOWN GRADIENT SEDIMENT CONTROLS ARE OVERLOADED, THE GENERAL CONTRACTOR MUST INSTALL ADDITIONAL UPGRADIENT SEDIMENT CONTROL PRACTICES OR REDUNDANT BMPS TO ELIMINATE OVERLOADING. THE SWPPP MUST BE AMENDED TO IDENTIFY THESES ADDITIONAL PRACTICES. g. REPAIR OR REPLACE INLET PROTECTION DEVICES WHEN THEY BECOME NONFUNCTIONAL OR SEDIMENT REACHES
- ONE-HALF THE DEPTH OF THE DEVICE. SITE INLETS REMOVED IN RESPONSE TO A PUBLIC SAFETY CONCERN MUST BE RETURNED TO SERVICE AS SOON AS THE THREAT (EG. FLOODING) HAS RECEDED. h. REPAIR, REPLACE OR SUPPLEMENT PERIMETER CONTROL DEVICES WHEN THEY BECOME NON-FUNCTIONAL OR THE
- SEDIMENT REACHES ONE-HALF THE HEIGHT OF THE DEVICE. GENERAL CONTRACTOR SHALL REPAIR OR REPLACE DEVICE THAT IS NONFUNCTIONAL BY THE END OF THE NEXT BUSINESS DAY AFTER DISCOVERY OR THEREAFTER AS SOON AS FIELD CONDITIONS ALLOW. PERIMETER CONTROL DEVICES REMOVED IN RESPONSE TO A PUBLIC SAFETY CONCERN MUST BE RETURNED TO SERVICE AS SOON AS THE THREAT HAS RECEDED.
- TEMPORARY AND PERMANENT SEDIMENTATION BASINS MUST BE DRAINED AND SEDIMENT REMOVED BY GENERAL CONTRACTOR ONCE THE SEDIMENT COLLECTED REACHES ONE-HALF THE STORAGE VOLUME WITHIN 72 HOURS OF DISCOVERY, OR AS SOON AS FIELD CONDITIONS ALLOW. ALL SEDIMENT DEPOSITS WITHIN SURFACE WATERS OR STORMWATER CONVEYANCES MUST BE REMOVED AND
- RESTABILIZED BY GENERAL CONTRACTOR WITHIN 7 DAYS OF DISCOVERY, INCLUDING DELTAS AND STORM SEWER SEDIMENT DEPOSITS. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL PERMITS REQUIRED, IF NECESSARY, FOR SUCH SEDIMENT REMOVAL. MAINTAIN EXISTING PAVED SURFACES CLEAN OF SEDIMENT. CONSTRUCTION ENTRANCES AND PUBLIC AND PRIVATE
- ROADS LEADING TO AND FROM THE CONSTRUCTION ENTRANCE SHALL BE CHECKED DAILY BY GENERAL CONTRACTOR. IF THE ENTRANCE BECOMES INUNDATED WITH SEDIMENT, THE GENERAL CONTRACTOR SHALL CLEAN OR REPLACE AS APPROPRIATE. PUBLIC AND PRIVATE ROADS LEADING TO AND FROM THE CONSTRUCTION ENTRANCE SWEPT OR OTHERWISE CLEANED DAILY. GENERAL CONTRACTOR SHALL EXTEND SWEEPING TO THE EXTREMITY OF ANY SEDIMENT TRACKING THAT OCCURS OFF-SITE. USE MECHANICAL METHODS TO REMOVE SOLIDS FIRST, FOLLOWED BY WET METHODS, ONLY AS NEEDED. SWEEPING IS NOT A SUBSTITUTE FOR PROPER MAINTENANCE OF CONSTRUCTION ENTRANCES.
- GENERAL CONTRACTOR SHALL REMOVE ANY OFF-SITE SEDIMENT ACCUMULATIONS IN A MANNER AND AT A FREQUENCY SUFFICIENT TO MINIMIZE OFF-SITE IMPACTS. STREET SWEEPING MAY HAVE TO OCCUR MORE FREQUENTLY THAN DESCRIBED ABOVE TO MINIMIZE OFF-SITE IMPACTS. THERE ARE DOWNSTREAM WATERWAYS THAT WOULD BE ADVERSELY AFFECTED BY VEHICULAR TRACKED SOILS. STREET SWEEPING IS IMPERATIVE TO MAKES SURE THIS DOES NOT OCCUR.
- m. ALL INFILTRATION/FILTRATION AREAS MUST BE INSPECTED BY GENERAL CONTRACTOR TO ENSURE THAT NO SEDIMENT FROM ONGOING CONSTRUCTION IS ACCUMULATING OVER THE INFILTRATION/FILTRATION AREA. SEDIMENT ACCUMULATED OVER INFILTRATION/FILTRATION MUST BE REMOVED BY GENERAL CONTRACTOR. n. SEE CIVIL NOTES, DETAILS AND DRAWINGS ON CONSTRUCTION DOCUMENTS.
- 7. POLLUTION PREVENTION AND SPILL RESPONSE
- GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR IMPLEMENTING POLLUTION PREVENTION MEASURES AT THE SITE, AS DESCRIBED IN DETAIL IN THE EROSION PREVENTION AND SEDIMENTATION CONTROL SPECIFICATIONS SECTION 312500. IN GENERAL, THE FOLLOWING MEASURES ARE REQUIRED AT PROJECT SITES.
- a. BUILDING MATERIALS AND WASTES WITH THE POTENTIAL TO CONTAMINATE STORMWATER SHALL BE STORED INSIDE OR UNDER COVER IN A DESIGNATED AREA, AND SHALL BE INDICATED BY THE GENERAL CONTRACTOR ON THE SWPPP SITE MAP
- b. LITTER AND SOLID WASTE SHALL BE PLACED INTO COVERED CONTAINERS AT A DESIGNATED AREA AT THE SITE AND SHALL BE INDICATED BY THE GENERAL CONTRACTOR ON THE SWPPP SITE MAP. C. ON-SITE FUELING SHALL BE CONDUCTED IN DESIGNATED AREAS ONLY AND SHALL BE INDICATED BY THE GENERAL
- CONTRACTOR ON THE SWPPP SITE MAP. d. A SPILL RESPONSE KIT AT EACH LOCATION SPECIFIC TO THE MATERIALS USED AT THE PROJECT SITE AND SHALL BE INDICATED BY THE GENERAL CONTRACTOR ON THE SWPPP SITE MAP. e. PORTABLE TOILETS SHALL BE SECURED IN PLACE TO PREVENT BEING TIPPED OR KNOCKED OVER AND SHALL BE
- INDICATED BY THE GENERAL CONTRACTOR ON THE SWPPP SITE MAP.
- f. VEHICLE AND EQUIPMENT WASHING IS PROHIBITED AT PROJECT SITES. q. CONCRETE WASH OUT WASTE, INCLUDING WASTE CURED CONCRETE, SHALL BE MANAGED OFF-SITE OR MANAGED ON-SITE IN A DESIGNATED CONCRETE WASHOUT AREA AND SHALL BE INDICATED BY THE GENERAL CONTRACTOR ON THE SWPPP SITE MAP. ON-SITE BATCH PLANTS AND MORTAR MIX AREAS ARE CONCRETE PRODUCTS AND SHALL
- FOLLOW ALL STORMWATER MANAGEMENT CONTROLS AS NOTED HEREIN AND WITHIN NPDES PERMIT. h. THE GENERAL CONTRACTOR SHALL USE OR ENSURE USE OF METHODS AND OPERATIONS WHICH PREVENT DUST, PARTICLES, PIECES AND SLURRY FROM DEPOSITING IN VEGETATED OR FUTURE VEGETATED AREAS OR FROM LEAVING THE PROJECT SITE AND ENTERING A STORMWATER CONVEYANCE SYSTEM, INCLUDING A DITCH OR CULVERT.
- i. IN THE EVENT OF A SPILL AT THE PROJECT SITE WITH A RELEASE OR POTENTIAL RELEASE TO THE ENVIRONMENT, THE GENERAL CONTRACTOR SHALL CONTACT WITH THE STATE DUTY OFFICER.
- 8. <u>PERMANENT STORMWATER PRACTICES</u> a. CONSTRUCTION SEQUENCING OF INFILTRATION PRACTICES:
 - A. STORMWATER MANAGEMENT SYSTEMS ARE DESIGNED TO MEET CITY OF ST. PAUL AND CAPITOL REGION WATERSHED DISTRICT WATERSHED MANAGEMENT COMMISSION REQUIREMENTS FOR WATER QUALITY.
 - B. ALL SITE WORK SHOULD BE COMPLETE PRIOR TO WORK ON THE FILTRATION SYSTEMS BEING STARTED TO THE EXTENT POSSIBLE. IF CONSTRUCTION OF THESE AREAS NEEDS TO OCCUR PRIOR TO FINAL SITE STABILIZATION, THEN THE CONSTRUCTED AREA MUST BE PROTECTED AND CONTRIBUTING FLOWS NEED TO BE FILTERED TO

- MATERIALS REQUIRED FOR EACH SYSTEM.
- K. CONSTRUCT STORMWATER SYSTEMS PER DRAWINGS AND SPECIFICATIONS
- AND AFTER TURF HAS BEEN ESTABLISHED.
- ENGINEER AT THE CLOSEOUT OF THE PROJECT.
- SUBMIT TO OWNER.



PREVENT CLOGGING OF THE SYSTEM OR COMPACTION OF THE FILTRATION AREA

C. INSTALLATION OF FILTRATION PRACTICES SHALL BE DONE DURING PERIODS OF DRY WEATHER AND COMPLETED BEFORE A RAINFALL EVENT. PLACEMENT OF ENGINEERED SOILS SHALL BE ON DRY NATIVE SOIL ONLY. D. EXCAVATION SHALL BE COMPLETED USING A BACKHOE WITH A TOOTHED BUCKET

E. THE BOTTOM SURFACE OF EXCAVATION SHALL BE LEVEL WITHOUT DIPS OR SWALES.

F. ENGINEERED SOIL SHALL REMAIN UNCONTAMINATED (NOT MIXED WITH OTHER SOILS) WHEN INSTALLED. G. DURING CONSTRUCTION. STORMWATER MUST BE ROUTED AROUND FILTRATION AREAS UNTIL ALL CONSTRUCTION ACTIVITY HAS CEASED AND TRIBUTARY SURFACES ARE CLEANED OF SEDIMENT.

H. SHOP DRAWINGS OF ALL SYSTEMS NEED TO BE APPROVED PRIOR TO CONSTRUCTION. ALL SOIL MATERIAL TESTING SHALL BE DONE PRIOR TO INSTALLATION TO ENSURE SOIL MIXTURE IS ADEQUATE FOR FILTRATION. TESTS SHALL BE SUBMITTED TO ENGINEER AND APPROVED PRIOR TO INSTALLATION. SPECIFICATIONS INDICATE

. NOTIFY CIVIL ENGINEER OF WORK BEING DONE ON STORMWATER SYSTEMS AND THE SCHEDULE OF CONSTRUCTION. ALLOW A MINIMUM OF FIVE WORKING DAYS FOR NOTIFICATION SO ENGINEER CAN CONDUCT SITE MEETING TO DISCUSS THE INTENT OF THE SYSTEM AND CONSTRUCTION OBSERVATION CAN BE SCHEDULED ACCORDINGLY. SITE MEETING TO REVIEW THE INTENT OF THE DESIGN AND THE CONSTRUCTION OF THE FILTRATION SYSTEM NEEDS TO OCCUR PRIOR TO STARTING CONSTRUCTION ON THE SYSTEMS. J. MAINTAIN EROSION AND SEDIMENT CONTROL ON CONTRIBUTING AREAS TO AVOID CLOGGING OF SYSTEM.

L. COMPLETE CONSTRUCTION OF CONCRETE PAVEMENT AFTER STORMWATER SYSTEM IS INSTALLED. AFTER PAVEMENT IS INSTALLED, VERIFY THAT SYSTEMS ARE CLEAR AND FULLY FUNCTIONAL. VACUUM AND CLEAN SYSTEMS AS NEEDED SO THEY ARE FULLY FUNCTIONAL AT PROJECT CLOSEOUT

M. INSTALL LANDSCAPING AND PLANTING MATERIALS PER LANDSCAPE DRAWINGS AND SPECIFICATIONS. N. GENERAL CONTRACTOR SHALL TEST FILTRATION SYSTEM AFTER CONSTRUCTION EFFORTS ON THE SITE HAVE BEEN COMPLETED PRIOR TO FINAL CLOSEOUT. FILTRATION MUST MEET RATES AS DESIGNED, SEE SPECIFICATIONS FOR TESTING.

O. REMOVE ALL TEMPORARY EROSION CONTROL BMP'S AFTER PAVING AND INFILTRATION AREAS ARE COMPLETE

P. GENERAL CONTRACTOR SHALL TAKE PHOTOGRAPHS AND MEASUREMENTS OF ALL STORMWATER MANAGEMENT SYSTEMS THROUGHOUT CONSTRUCTION. DOCUMENTATION OF CONSTRUCTION SHALL BE SUBMITTED TO THE CIVIL ENGINEER AT THE CLOSEOUT OF THE PROJECT. CLOSEOUT DOCUMENTATION SHALL INCLUDE PHOTOGRAPHS AND MEASUREMENTS OF SYSTEM DURING CONSTRUCTION, TESTING REPORTS AND OBSERVATIONS AND REDLINE DRAWINGS OF ANY FIELD MODIFICATIONS MADE DURING CONSTRUCTION.

Q. A LETTER WRITTEN ON COMPANY LETTERHEAD THAT THE STORMWATER MANAGEMENT PRACTICES HAVE BEEN BUILT PER THE CIVIL PLANS, OR PER REDLINE FIELD DRAWINGS, SHALL BE SUBMITTED TO THE CIVIL

R. THE GENERAL CONTRACTOR SHALL SUBMIT AN AS-BUILT SURVEY OF THE COMPLETED SITE PREPARED AND SIGNED BY A LICENSED SURVEYOR TO THE CIVIL ENGINEER AT THE END OF THE PROJECT. AS-BUILT SURVEY SHALL INCLUDE ENOUGH INFORMATION TO VERIFY THE CONSTRUCTED TOPOGRAPHY, UTILITY AND SITE ELEMENTS. COORDINATE WITH OWNER AND CIVIL ENGINEER FOR SCHEDULE FOR WHEN THIS SHALL BE COMPLETED. A COPY OF THE CADD FILE AND CERTIFIED PDF FILE SHALL BE PROVIDED TO CIVIL ENGINEER. S. GENERAL CONTRACTOR TO COMPLETE NOTICE OF TERMINATION (NOT) UPON COMPLETION OF PROJECT AND

T. SEE NOTES ON SHEET C100 AND SPECIFICATION 312500 FOR FURTHER INFORMATION.

	ESTIMATED	BMP	QUAN	TITIES	
SILT FENCE					492 LF
FILTER LOGS					246 LF
CATCH BASIN INSER	TS				3 EA
ROCK CONSTRUCTIO	N ENTRANCE				? CY

NOTES:

QUANTITIES ARE FOR INFORMATIONAL PURPOSES ONLY. CONTRACTOR SHALL DETERMINE FOR THEMSELVES THE EXACT QUANTITIES FOR BIDDING AND CONSTRUCTION. CONTRACTOR SHALL NOT RELY ON THESE QUANTITIES FOR THEIR BID AND CIVIL ENGINEER IS NOT RESPONSIBLE FOR COST ESTIMATES OR ACTUAL CONSTRUCTION COSTS.



SITE LOCATION MAP NOT TO SCALE LATITUDE: 44.9298 LONGITUDE: -93.0847

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		J

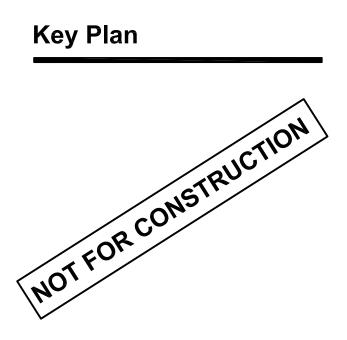




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Riverview

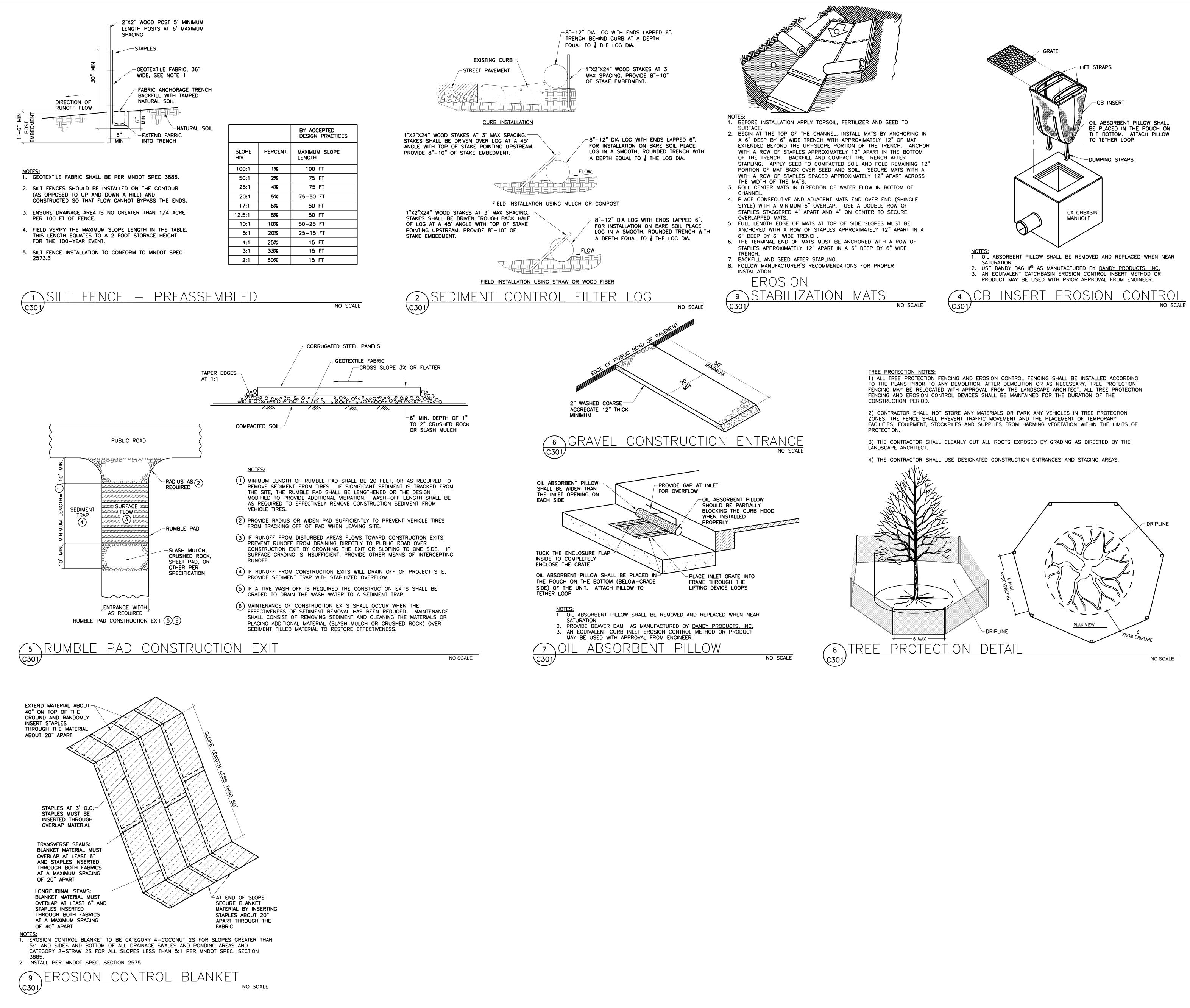




No.	Date	Revision Description
PROJECT STATUS		



Project	Project Number	Drawing Number
Date	August 5, 2022	
Drawn by	Author	0000
Checked by	Checker	C300





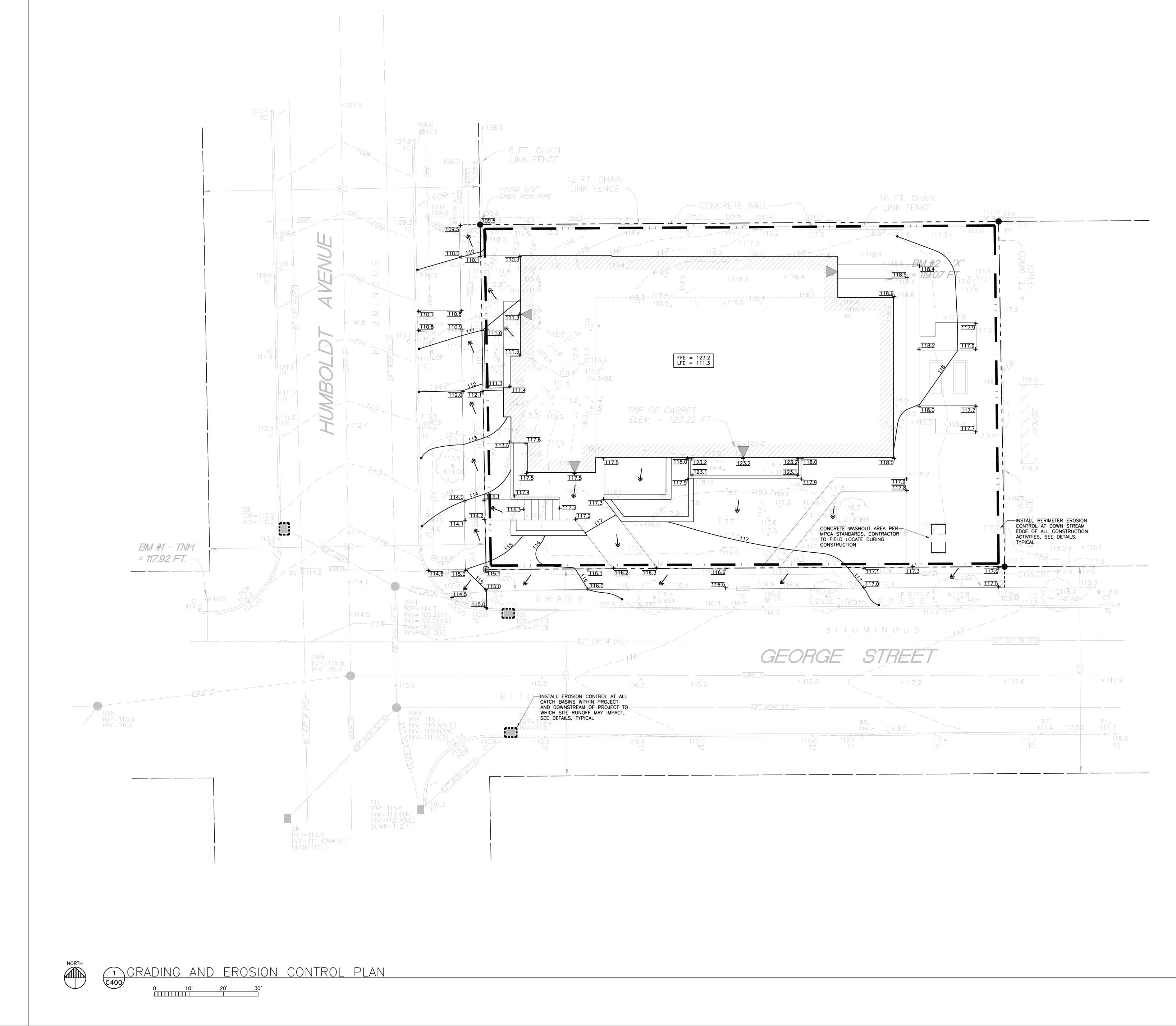


Key Plan NOTFORCONSTRUCTION

No.	Date	Revision Description
PROJECT STATUS		

SWPPP DETAILS

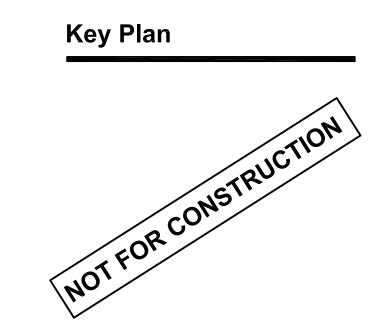
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Author	0004
Checker	C301



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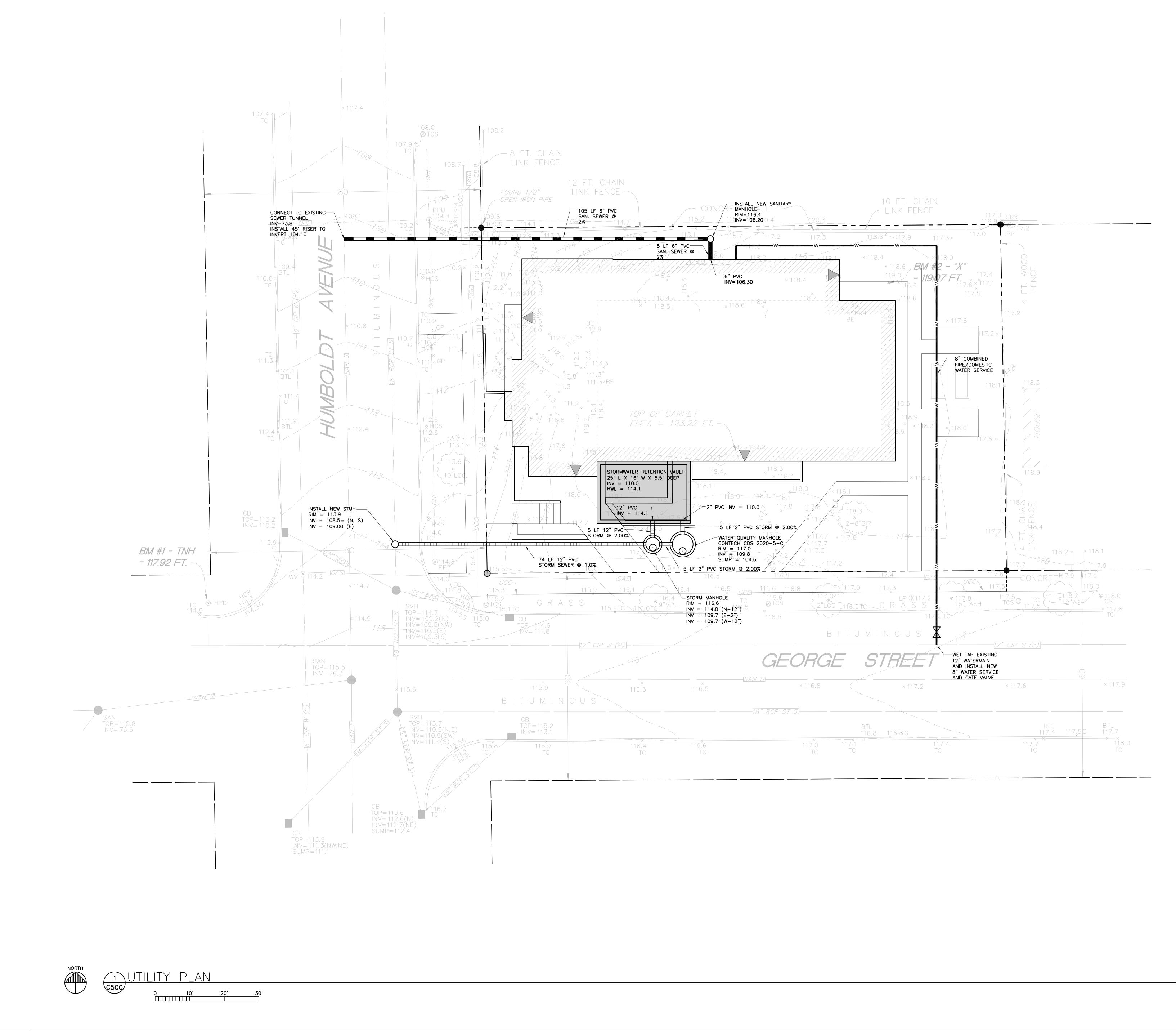




No.	Date	Revision Description
PROJECT STATUS		

GRADING AND EROSION CONTROL PLAN

Project	Project Number	Drawing Num
Date	August 5, 2022	
Drawn by	Author	~ 4 ^ ^
Checked by	Checker	C400





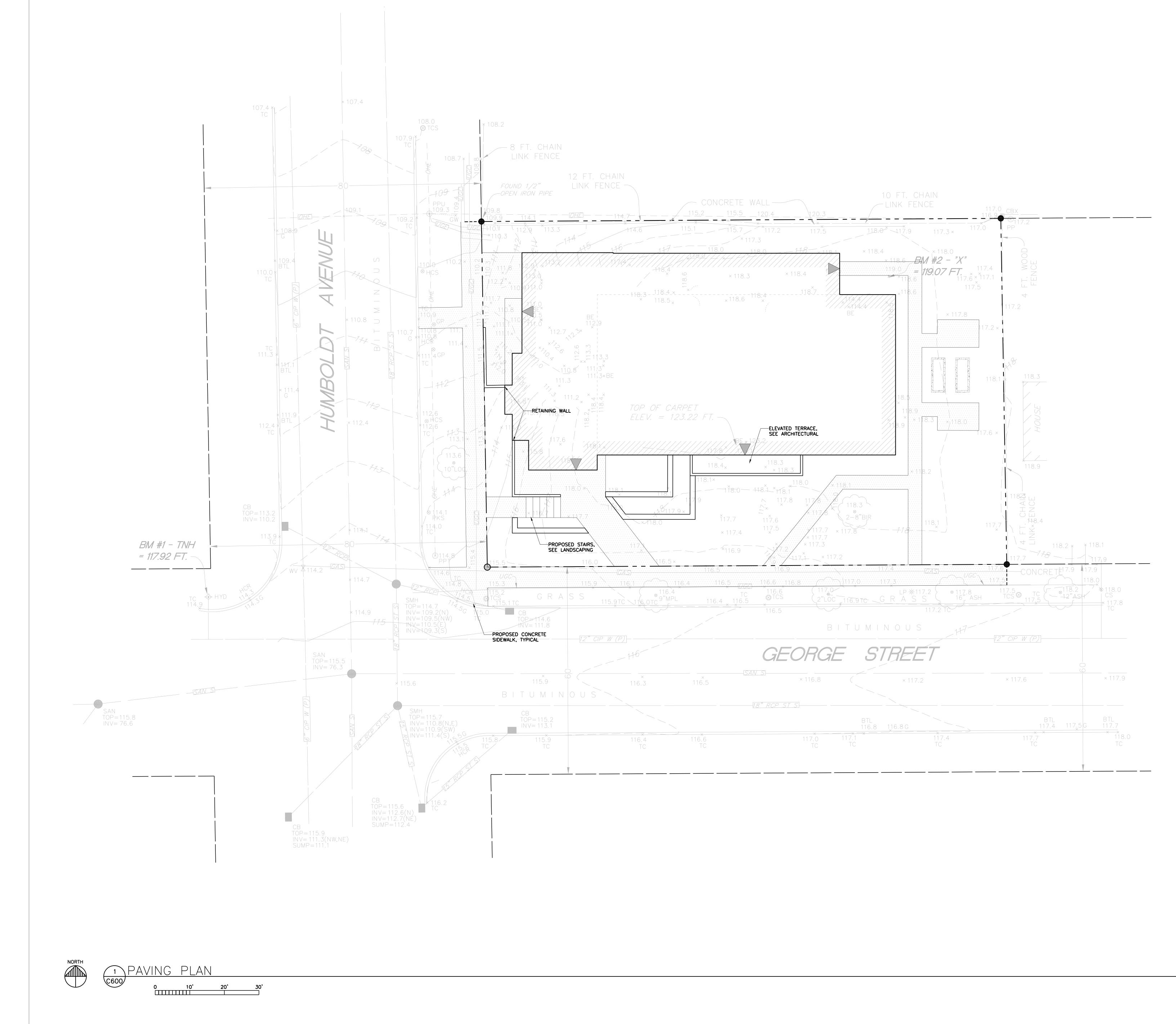


Key Plan NOT FOR CONSTRUCTION

No.	Date	Revision Description	
PROJECT STATUS			

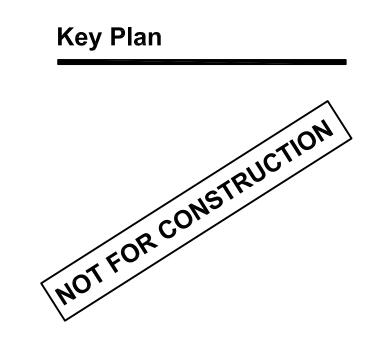
UTILITY PLAN

Project	Project Number	Drawing Number
Date	August 5, 2022	
Drawn by	Author	~~~~
Checked by	Checker	C500

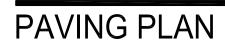








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PROJECT STATUS			

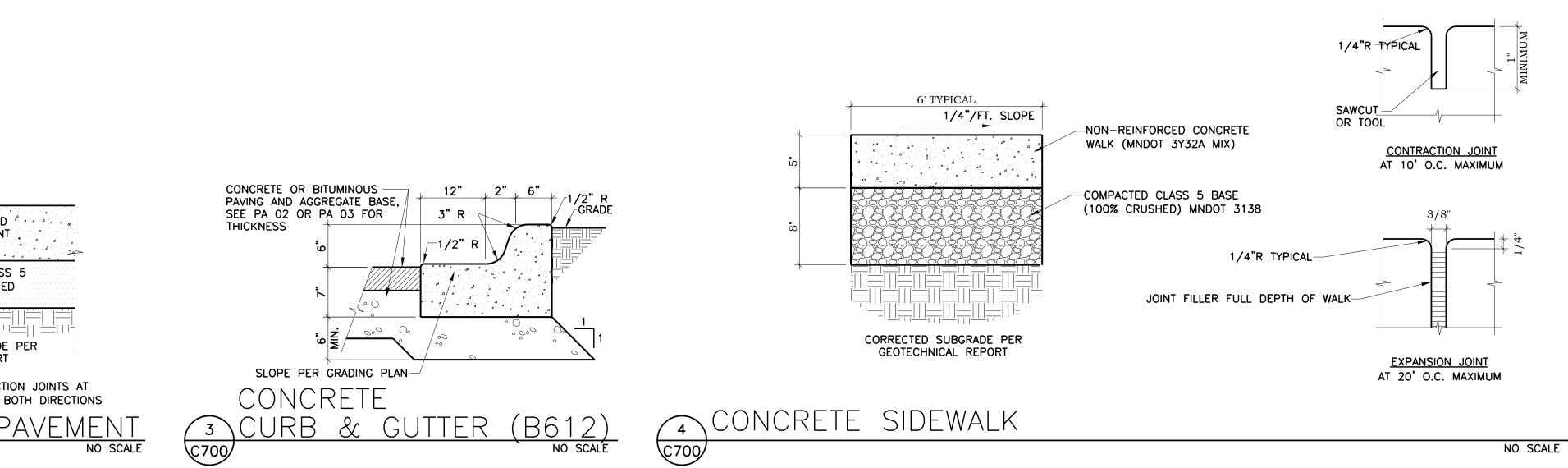


Project	Project Number	Drawing Num
Date	August 5, 2022	
Drawn by	Author	0000
Checked by	Checker	C600

ng Numbe

-2" BITUMINOUS WEARING COURSE MNDOT 2360, (SPWEA340B) - BITUMINOUS TACK COAT PER MNDOT 2357 /-2" BITUMINOUS BINDING COURSE MNDOT 2360, (SPNWB330B) 8" COMPACTED CLASS 5 BASE (100% CRUSHED) MNDOT 3138 GEOTEXTILE, MNDOT 3733, TYPE V ///////////// 7" UNREINFORCED PORTLAND CEMENT CONCRETE SLAB 6" COMPACTED CLASS 5 BASE (100% CRUSHED MNDOT 3138 CORRECTED SUBGRADE PER GEOTECHNICAL REPORT COMPACTED SUBGRADE PER GEOTECHNICAL REPORT NOTES: PROVIDE CONTRACTION JOINTS AT 10' O.C. MAX. IN BOTH DIRECTIONS BITUMINOUS PAVEMENT <u>CONCRETE PAVEMENT</u> C700 NO SCALE C700

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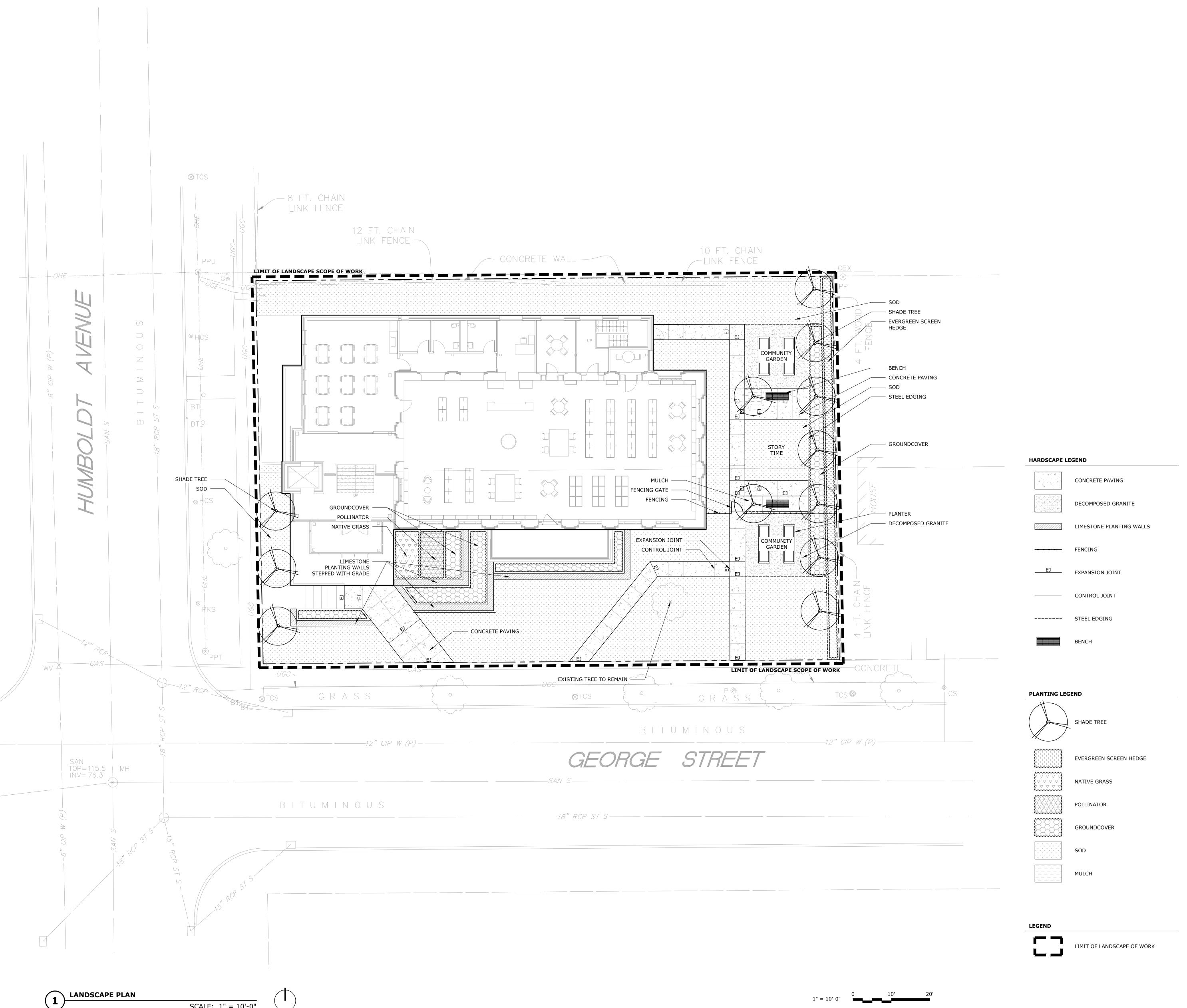


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No.	Date	Revision Description			
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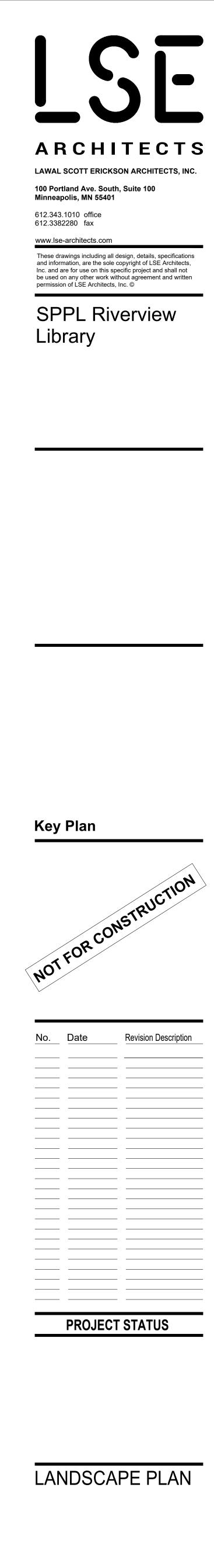
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Date	August 5, 2022	
Drawn by	Author	0700
Checked by	Checker	C700



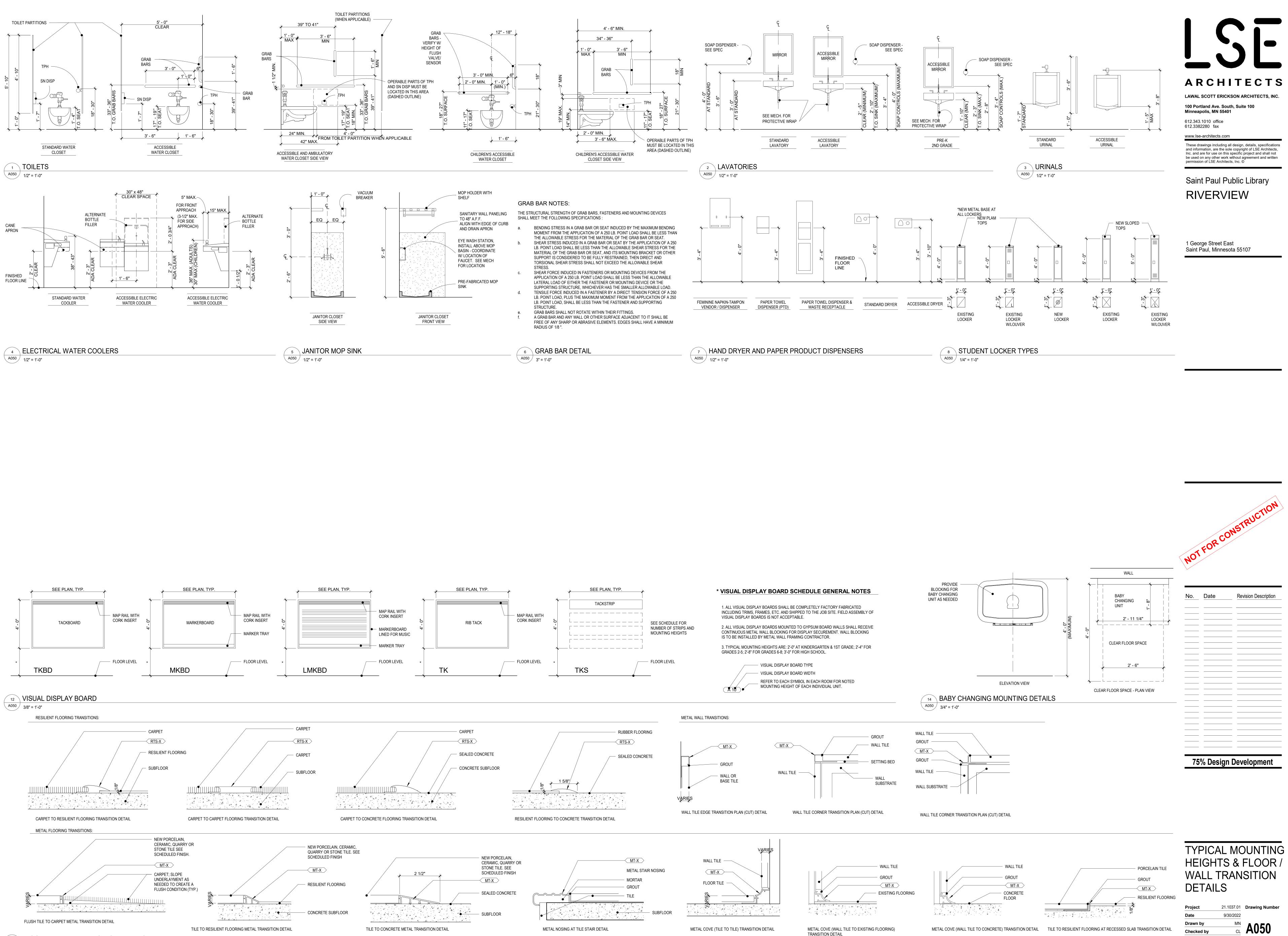


SCALE: 1" = 10'-0"

1" = 10'-0"



roject Number Drawing Nun L001





15 FLOOR AND WALL TRANSITION DETAILS A050 6" = 1'-0"



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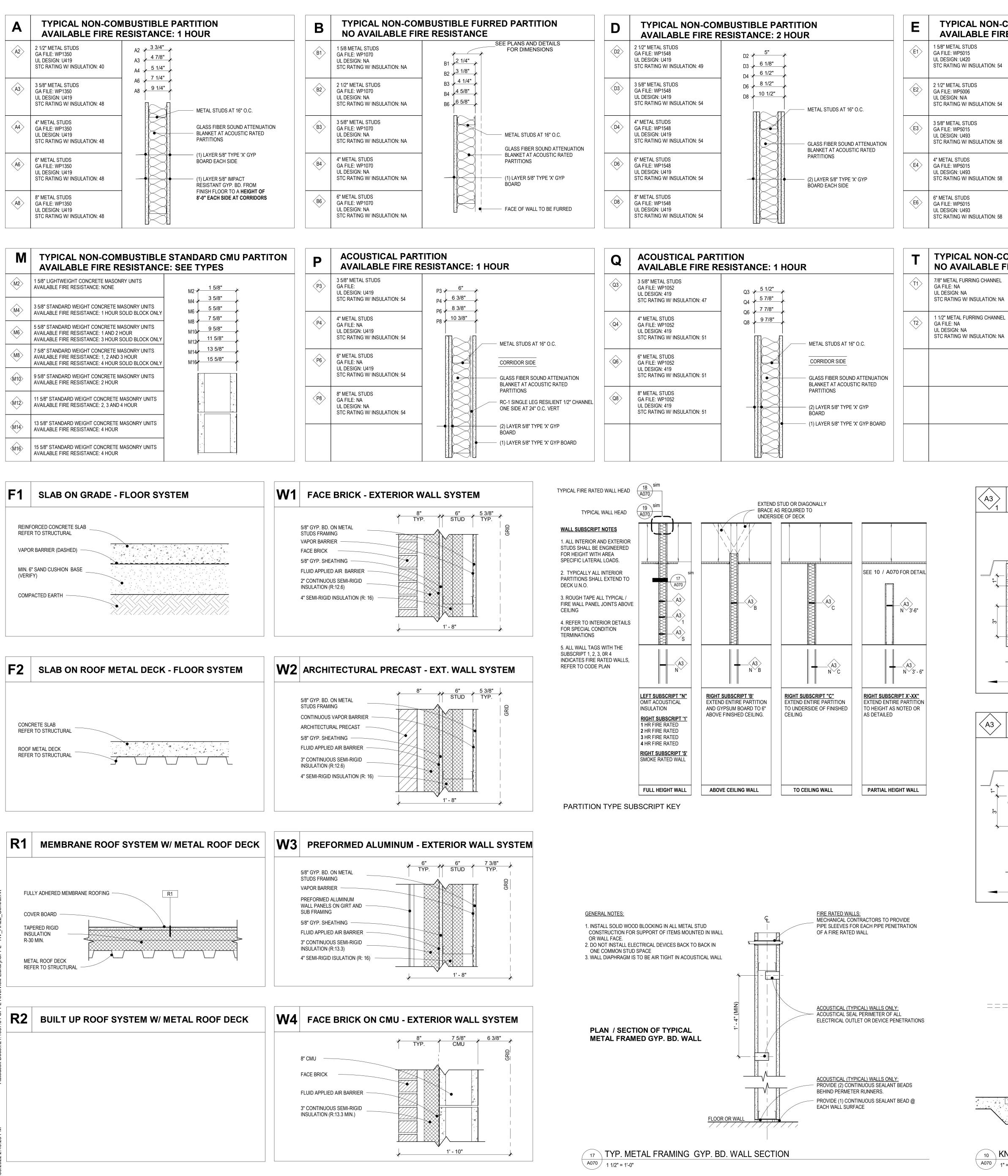


No.	Date	Revision Description

75% Design Development

Project	21.1037.01
Date	9/30/2022
Drawn by	MN
Checked by	Cl

1 Drawing Number



	MBUSTIBLE CHASE WALL PARTITION RESISTANCE: 1 HOUR	G	NON-COMBUSTIBLE	SHAFT WALL PARTITION SISTANCE: 2 HOUR
METAL STUDS E: WP5015 SIGN: U420 ATING W/ INSULATION: 54	SEE PLANS FOR DIMENSIONS	G2	2 1/2" C-H METAL STUDS GA FILE: UL DESIGN: U415 STC RATING W/ INSULATION: 47	$G_{2} \xrightarrow{3} 3/4"$ $G_{4} \xrightarrow{5} 1/4"$
METAL STUDS E: WP5006 SIGN: N/A ATING W/ INSULATION: 54	METAL STUDS AT 16" O.C.	G4	4" C-H METAL STUDS GA FILE: UL DESIGN: U415, SYSTEM C STC RATING W/ INSUL: 51	G6 7 1/4" C-H METAL STUDS AT 16" O.
METAL STUDS E: WP5015 SIGN: U493 ATING W/ INSULATION: 58	GLASS FIBER SOUND ATTENUATION BLANKET AT ACOUSTIC RATED	G6>	6" C-H METAL STUDS GA FILE: UL DESIGN: U415, SYSTEM C STC RATING W/ INSUL: 51	GLASS FIBER SOUND ATTEN BLANKET AT ACOUSTIC RAT PARTITIONS
AL STUDS E: WP5015 SIGN: U493 ATING W/ INSULATION: 58	PARTITIONS (1) LAYER 5/8" TYPE 'X' GYP BOARD EACH SIDE			(2) LAYER 5/8" TYPE 'X' GYP BOARD
AL STUDS E: WP5015 SIGN: U493 ATING W/ INSULATION: 58				(1) LAYER 1" GYP. BOARD LII PANEL SHAFT SIDE
	BUSTIBLE FURRED PARTITION	GEN	ERAL PARTITION NOTES	
AVAILABLE FIR		1.	NOT ALL INTERIOR PARTITIONS SHOWN (PLANS FOR DESIGNATION OF PARTITION	ON THIS SHEET ARE NECESSARILY USED IN THE PROJECT. SEE FLO
ETALT BRAING CHANNEL E: NA SIGN: NA	<u> </u>	2.	PARTITIONS SHALL BE TYPE A3 UNLESS I	NOTED OR TAGGED OTHERWISE ON PLANS.
ATING W/ INSULATION: NA	1 1/2"	3.	SEE "INTERIOR PARTITION TYPE SUBSCR ACOUSTICAL INSULATION.	RIPT KEY" FOR SYMBOLS USED TO DESCRIBE PARTITION HEIGHTS A

METAL HAT CHANNEL AT 16" O.C.

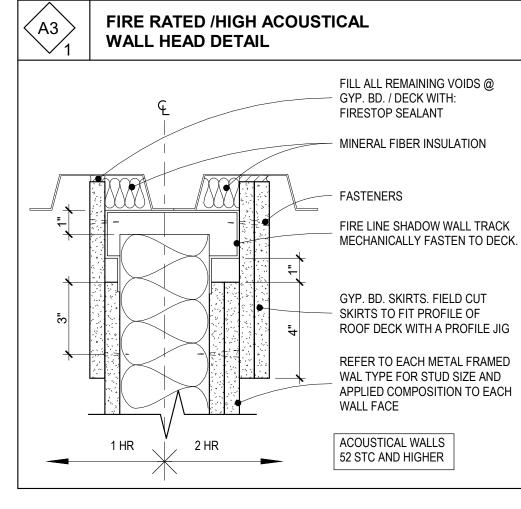
- WALL OR SUBSTRATE TO BE FURRED

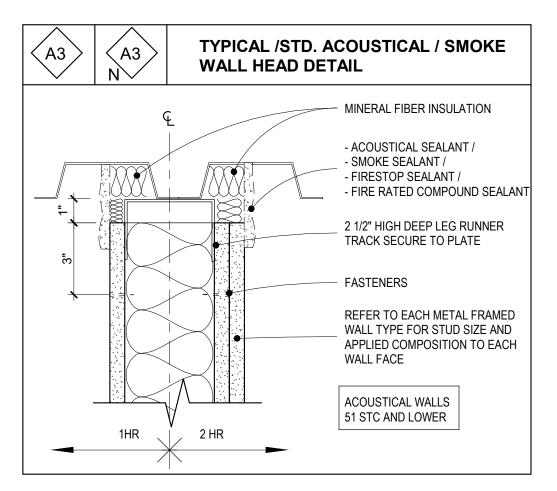
(1) LAYER 5/8" TYPE 'X' GYP

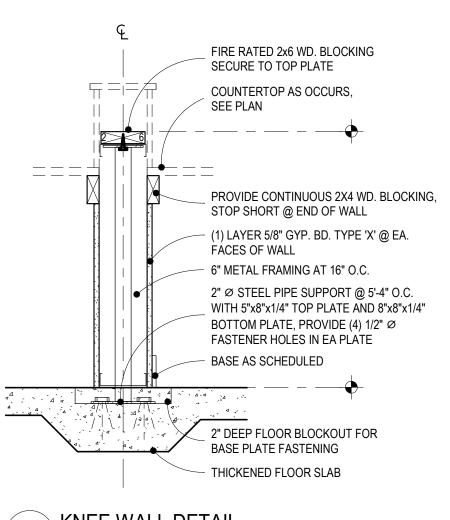
BOARD

- ACOUSTICAL INSULATION. PARTITION TYPES DESCRIBE GENERAL REQUIREMENTS FOR PARTITION CONSTRUCTION. REFER TO
- SPECIFICATIONS FOR REQUIREMENTS OF TESTING AGENCIES FOR SPECIFICS. GYPSUM ASSOCIATION (GA) AND UNDERWRITER'S LABORATORIES, INC. (UL) WILL VARY DEPENDING ON THE MANUFACTURER OF COMPONENTS ACTUALLY USED. VARIATION FROM DESIGNATED UL NUMBERS SHALL BE APPROVED BY THE AUTHORITY HAVING JURISDICTION.
- TYPICAL FLOOR PLAN DIMENSIONS OF PARTITIONS ARE TO THE NOMINAL FINISHED FACE OF GYPSUM BOARD UNLESS NOTED TO THE CENTERLINE OF THE PARTITION. WHERE A CLEAR DIMENSION OR OPENING IS REQUIRED OR NOTED, MEASURE DIMENSION TO FINISHED FACE OF PARTITION.
- ALL WOOD BLOCKING IN WALL FOR ATTACHMENT OF WALL HUNG EQUIPMENT, TO BE FIRE TREATED INSTALL 5/8" TYPE 'X' GYPSUM BOARD AT ALL PARTITIONS UNLESS NOTED OTHERWISE
- REFER TO CODE PLANS FOR LOCATIONS OF SMOKE AND FIRE RATED WALLS AND SHAFTS.
- ALL THROUGH-WALL PENETRATIONS IN RATED WALLS TO BE FIRESTOPPED / FIRE CAULKED AS REQUIRED TO MAINTAIN WALL FIRE RATING.
- ALL THROUGH-WALL DUCTWORK IN RATED WALLS TO HAVE FIRE / SMOKE DAMPERS AS REQUIRED TO MAINTAIN WALL RATING AND MEET ALL APPLICABLE CODES. SEE MECHANICAL DRAWINGS.
- ALL PARTITIONS SHALL BE ACOUSTICALLY RATED UNLESS NOTED OTHERWISE. ALL ELEMENTS OF ACOUSTIC RATED PARTITIONS SHALL EXTEND TO ROOF OR FLOOR DECK ABOVE. INSTALL ACOUSTICAL SEALANT AT ACOUSTICALLY RATED PARTITIONS. SEE GENERAL PARTITION NOTES 19 AND 20.
- WASTE LINES AND VERTICAL RAINWATER LEADERS TO BE SOUND INSULATED. ELECTRICAL (INCLUDING LOW-VOLTAGE) DEVICES AND BOXES TO BE OFFSET / STAGGERED FROM DEVICES AND BOXES ON OPPOSITE SIDE OF WALL. DO NOT INSTALL BACK TO BACK.
- INSTALL GYPSUM TILE BOARD BACKER PANELS AND/OR CEMENT BACKER BOARD AT AREAS SCHEDULED TO RECEIVE CERAMIC TILE FINISH AND AS REQUIRED BY CODE. FOR WALLS SCHEDULED TO RECEIVE PAINT ABOVE CERAMIC TILE, INSTALL PAPER-FACED MOISTURE-RESISTANT GYPSUM BOARD PANELS TO PROVIDE A SMOOTH PAINTABLE SURFACE.
- INSTALL IMPACT RESISTANT GYPSUM BOARD PANELS FROM FINSIHED FLOOR TO A HEIGHT OF 8'-0" AT CLASSROOMS AND CORRIDORS, AS NOTED ON PLANS
- PENETRATIONS IN RATED PARTITIONS AND CONNECTIONS OF THE PARTITIONS TO OTHER PORTIONS OF THE WORK SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDED DETAILS AND IN COMPLIANCE WITH APPLICABLE TESTING AGENCY REQUIRMENTS.
- NOT USED 18.
- APPLY 1/4" MINIUMUM CONTINUOUS BEAD OF ACOUSTICAL SEALANT AT PERIMETERS OF PARTITIONS WHERE THEY MEET ADJACENT SURFACES INCLUDING APPLYING A DOUBLE BEAD AT UNDERSIDE OF RUNNER CHANNELS PRIOR TO ANCHORING TO FLOOR. SEAL CONSTRUCTION AT PERIMTERS, BEHIND CONTROL JOINTS AND AT OPENINGS AND PENETRATIONS. INSERT ACOUSTICAL BATT INSULATION BACKING AND APPLY ACRYLIC-BASED SMOKE AND ACOUSTIC SEALANT
- AT GAPS OF1/2" OR MORE AROUND THROUGH-WALL PENETRATIONS INCLUDING, BUT NOT LIMITED TO SPRINKLER PIPING, ELECTRICAL CONDUITS AND MECHANICAL DUCTWORK. (GAPS LESS THAN 1/2" ARE STILL REQUIRED TO BE SEALED WITH ACOUSTICAL SEALANT.)
- AT ALL EXTERIOR WALLS AND PARAPETS, WOOD BLOCKING AND SHEATHING EXCEEDING 24 INCHES ABOVE THE ROOF DECK USED IN ROOF CONSTRUCTION FOR EQUIPMENT SUPPORT, BUILDING OR ROOF SYSTEM JOINTS, SKYLIGHT OR MECHANICAL EQUIPMENT, CURBS, CANTS, BLOCKING AND BACKING, AND FOR PARAPET OR ROOF EDGE CONSTRUCTION SHALL BE FIRE-RETARDANT-TREATED WOOD.
- AT ALL FIRE WALLS, FIRE BARRIERS, FIRE PARTITIONS, SMOKE BARRIERS AND SMOKE PARTITIONS OR ANY 22 OTHER WALL REQUIRED TO HAVE PROTECTED OPENINGS OR PENETRATIONS SHALL BE EFFECTIVELY AND PERMANENTLY IDENTIFIED WITH SIGNS OR STENCILING. SUCH IDENTIFICATION SHALL: BE LOCATED IN ACCESSIBLE CONCEALED FLOOR, FLOOR-CEILING OR ATTIC SPACES; BE LOCATED WITHIN 15 FEET (4572 MM) OF THE END OF EACH WALL AND AT INTERVALS NOT EXCEEDING 30 FEET (9144 MM) MEASURED HORIZONTALLY ALONG THE WALL OR PARTITION; AND

BARRIER-PROTECT ALL OPENINGS" OR OTHER WORDING.







10 KNEE WALL DETAIL A070 1" = 1'-0"

IND ATTENUATION JSTIC RATED

BOARD LINER

. SEE FLOOR

HEIGHTS AND

INCLUDE LETTERING NOT LESS THAN 3 INCHES (76 MM) IN HEIGHT WITH A MINIMUM 3/8 INCH (9.5 MM) STROKE IN A CONTRASTING COLOR CORPORATING THE SUGGESTED WORDING. "FIRE AND/OR SMOKE



Minneapolis, MN 55401 612.343.1010 office 612.3382280 fax

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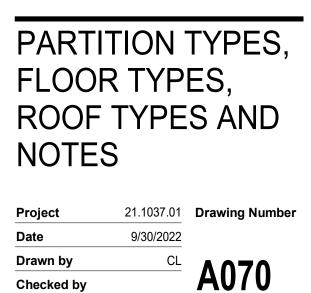
Saint Paul Public Library RIVERVIEW

1 George Street East Saint Paul, Minnesota 55107



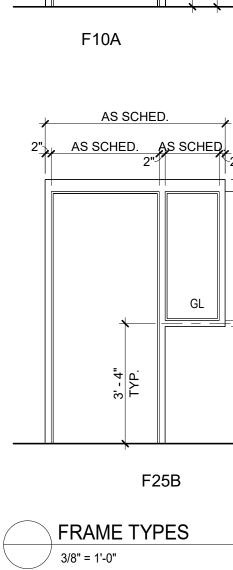
No.	Date	Revision Description

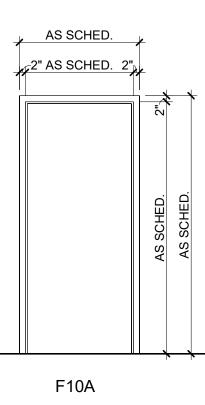
75% Design Development



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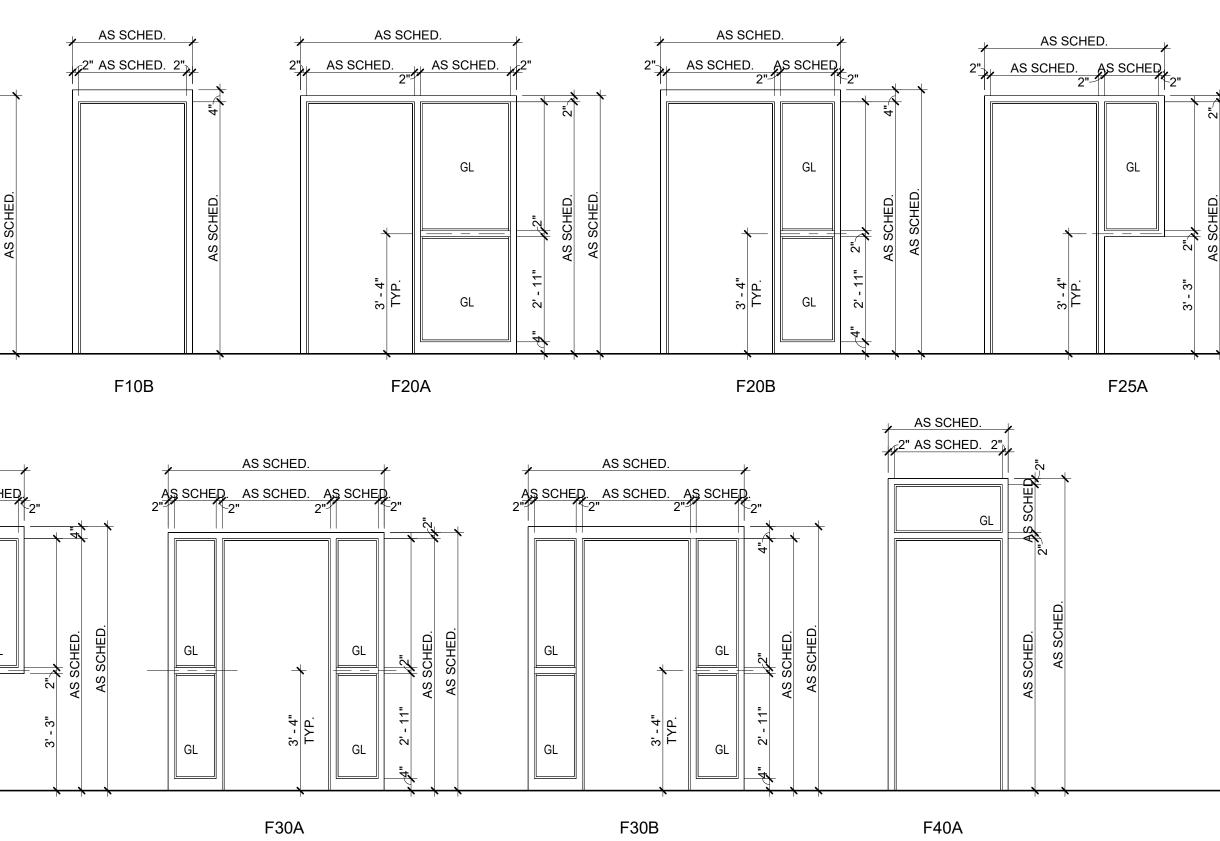
Checked by





FRAME TYPES

												S AND FRA	AMES SCH	IEDULE								
	ROOM				DOOR F	PANEL						FRAME				HARD	WARE RATING		DETAILS			
MARK	FROM	ТО	PNL #	MAT'L	FINISH	WIDTH	HEIGHT	TYPE	MAT'L	FINISH	TYPE	WIDTH	HEIGHT	SIDELIGHT	TRANSOM	GROUP	(MIN)	HEAD	JAMB	SILL	NOTES	Appear In Schedule
MECHANICAL BA		DOOM	0.01	1184	Matal ICC Charl	21 01	71 01			Matal ICO Charl	E104	21 41	71 01		1							Vee
001B	STORAGE	RUUM	SGL	HIM	Metal - ICS - Steel	3' - 0"	7' - 0"	F	WD	Metal - ICS - Steel	F10A	3 - 4	7' - 2"									Yes
LOWER LEVEL		HALLW	SGL	ALUM	<by category=""></by>	2' - 11"	6' - 10 1/8"	HG2	ALUM	<by category=""></by>												Yes
010 011	HALLWAY	BOOK	SGL SGL			3' - 0" 3' - 0"	7' - 0" 7' - 0"	F F	HM WD	Metal - ICS - Steel Metal - ICS - Steel	F20B F10A	5' - 0" 3' - 4"	7' - 4" 7' - 2"	1' - 6"								Yes Yes
012 013	HALLWAY		SGL SGL	-	Metal - ICS - Steel Metal - ICS - Steel	3' - 0" 3' - 0"	7' - 0" 7' - 0"	F	WD HM	Metal - ICS - Steel Metal - ICS - Steel	F10A F10B	3' - 4" 3' - 4"	7' - 2" 7' - 4"									Yes Yes
		OR STORA GE	JOL		Metal - 100 - Oleci	3-0	7-0	I	1 1101			5-4	/ - 4									163
013A		OUTDO OR STORA GE				8' - 0"	8' - 0"															
014	HALLWAY		SGL	HM	Metal - ICS - Steel	3' - 0"	7' - 0"	F	WD	Metal - ICS - Steel	F10A	3' - 4"	7' - 2"									Yes
015A	MECH. OFFICE	STAIR	SGL	WD	Metal - ICS - Steel	3' - 0"	7' - 0"	F	HM	Metal - ICS - Steel	F40A	3' - 4"	8' - 8"		1' - 4"							Yes
016	STAIR	HALL	SGL		Metal - ICS - Steel	3' - 0"	7' - 0" 7' - 0"	F	HM	Metal - ICS - Steel	F10B	3' - 4"	7' - 4"									Yes
017 018A	STAIR FLEX	STOR. STAIR	SGL SGL	-	Metal - ICS - Steel <by category=""></by>	3' - 0" 3' - 0"	7' - 0" 6' - 9 1/2"	FG	HM ALUM	Metal - ICS - Steel <by category=""></by>	F10B	3' - 4"	7' - 4"									Yes Yes
018B	HALL	FLEX	SGL	WD	Metal - ICS - Steel	3' - 0"	7' - 0"	F	HM	Metal - ICS - Steel	F10B	3' - 4"	7' - 4"									Yes
019A	STAFF BREAKOU T	HALL	SGL	ALUM	<by category=""></by>	3' - 6 3/16"	11' - 3 1/4"	FG	ALUM	<by category=""></by>												Yes
019B		STAFF BREAK OUT	SGL		Metal - ICS - Steel			F	HM	Metal - ICS - Steel	F10B		7' - 4"									Yes
020 021	ROOM STORAGE	ROOM STORA GE	SGL SGL	HM		3' - 0" 3' - 0"	7' - 0" 7' - 0"	F	WD WD	Metal - ICS - Steel Metal - ICS - Steel	F10A F10A	3' - 4" 3' - 4"	7' - 2" 7' - 2"									Yes Yes
021A	ROOM	ROOM	SGL		Metal - ICS - Steel	3' - 0"	7' - 0"	F	WD	Metal - ICS - Steel	F10A	3' - 4"	7' - 2"									Yes
021B 022	ROOM STAIR	ROOM STORA GE	SGL SGL		Metal - ICS - Steel Metal - ICS - Steel	3' - 0" 3' - 0"	7' - 0" 7' - 0"	F	WD HM	Metal - ICS - Steel Metal - ICS - Steel	F10A F10B	3' - 4" 3' - 4"	7' - 2" 7' - 4"									Yes Yes
023	ROOM	ROOM	SGL		Metal - ICS - Steel	3' - 0"	7' - 0"	F	WD	Metal - ICS - Steel	F10A	3' - 4"	7' - 2"									Yes
230	MECHANI CAL ROOM	MECH. OFFICE ROOM	SGL SGL		Metal - ICS - Steel Metal - ICS - Steel	3' - 0"	7' - 0" 7' - 0"	F	HM	Metal - ICS - Steel Metal - ICS - Steel	F40A F10A	3' - 4" 3' - 4"	8' - 8" 7' - 2"		1' - 4"							Yes
232	ROOM	ROOM	SGL	HM	Metal - ICS - Steel	3' - 0"	7' - 0"	F	WD	Metal - ICS - Steel	F10A	3' - 4"	7' - 2"									Yes
240 247	HALL STORAGE	HALL	PAIR SGL		Metal - ICS - Steel Metal - ICS - Steel	4' - 8" 3' - 0"	7' - 0" 7' - 0"	F	HM WD	Metal - ICS - Steel Metal - ICS - Steel	F10A F10A	5' - 0" 3' - 4"	7' - 2" 7' - 2"									Yes Yes
249	STORAGE	GE STORA	PAIR		Metal - ICS - Steel	4' - 8"	7' - 0"	F	HM	Metal - ICS - Steel	F10A	5' - 0"										Yes
252	STAFF BREAKOU	GE STAFF BREAK OUT	PAIR	WD	Metal - ICS - Steel	4' - 8"	7' - 0"	F	HM	Metal - ICS - Steel	F10A	5' - 0"	7' - 2"									Yes
259	HALLWAY		SGL	WD	Metal - ICS - Steel	3' - 0"	7' - 0"	F	HM	Metal - ICS - Steel	F10B	3' - 4"	7' - 4"									Yes
262	HALLWAY	HALLW AY	PAIR	WD	Metal - ICS - Steel	6' - 0"	7' - 0"	F	HM	Metal - ICS - Steel	F10A	6' - 4"	7' - 2"									Yes
ENTRY LEVEL																						
100			SGL		<by category=""></by>	3' - 2 3/4"	8' - 0"	FG	-	<by category=""></by>												Yes
100 101			SGL SGL		<by category=""> <by category=""></by></by>	3' - 3 1/4" 3' - 3 1/4"	8' - 0" 8' - 0"	FG FG		<by category=""> <by category=""></by></by>												Yes Yes
338			SGL	-	<by category=""></by>	3' - 2 3/4"	8' - 0"	FG		<by category=""></by>												Yes
LIBRARY LEVEL				1																1		
	COLLECTI ONS	COLLEC TIONS	SGL	ALUM	<by category=""></by>	3' - 1 31/32"	7' - 9 1/2"	HG2	ALUM	<by category=""></by>												Yes
013B 102	BALCONY	OFFICE COLLEC	SGL	WD	Metal - ICS - Steel	3' - 0" 3' - 0"	7' - 0" 7' - 0"	F	HM	Metal - ICS - Steel	F10A	3' - 4"	7' - 2"									Yes
103A	COLLECTI	TIONS COMMU NITY	SGL	ALUM	<by category=""></by>	3' - 0"	7' - 2 11/32"	FG	ALUM	<by category=""></by>												Yes
103B	COMMUNI TY	Hall	SGL		Metal - ICS - Steel	3' - 0"	7' - 0"	F		Metal - ICS - Steel	F10A		7' - 2"									Yes
104	Hall	WELL	SGL		Metal - ICS - Steel	3' - 0"	7' - 0"	F		Metal - ICS - Steel	F10A	3' - 4"	7' - 2"									Yes
105 106	TOILET Hall	Hall TOILET	SGL SGL		Metal - ICS - Steel Metal - ICS - Steel	3' - 0" 3' - 0"	7' - 0" 7' - 0"	<u>۲</u>	WD WD	Metal - ICS - Steel Metal - ICS - Steel	F10A F10A	3' - 4" 3' - 4"	7' - 2" 7' - 2"									Yes Yes
108	MEETING	COLLEC		-	Metal - ICS - Steel	3' - 0"	7' - 0"	F	HM	Metal - ICS - Steel	F30A	6' - 0"		1' - 2"								Yes
109	COLLECTI	TIONS	SGL	PVC	Metal - ICS - Steel	3' - 0"	7' - 0"	F1 : F 2	WD	Metal - ICS - Steel	F10A	3' - 4"	7' - 2"									Yes
109B 110		COLLEC	SGL SGL		Metal - ICS - Steel Metal - ICS - Steel	3' - 0" 3' - 0"	7' - 0" 7' - 0"	F1 : F 2 F	WD HM	Metal - ICS - Steel Metal - ICS - Steel	F10A F30A	3' - 4" 6' - 0"	7' - 2" 7' - 2"	1' - 2"								Yes Yes
Grand total: 46		GNON				I						1	_									



DOORS AND FRAMES SCHEI	DULE

NOTE: SPECIFY GLASS TYPE

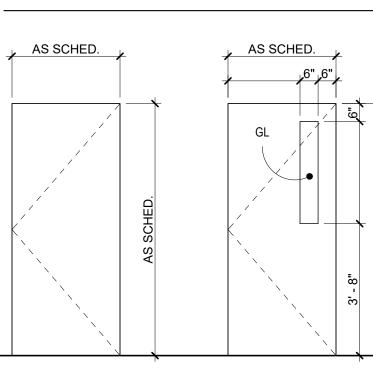




F

AS SCHED.

**





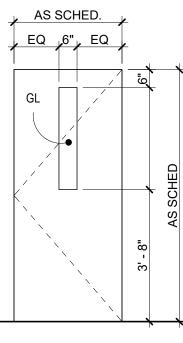
11

ΔS

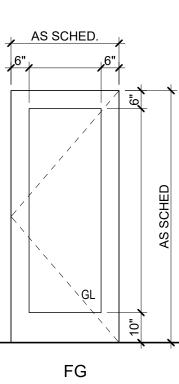
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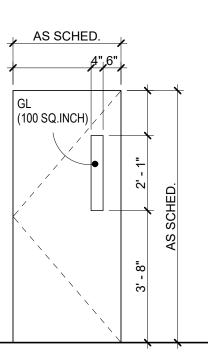
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HG2



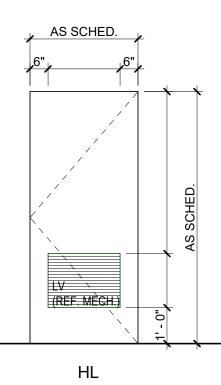


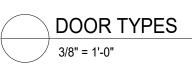




NOTE: SPECIFY GLASS TYPE

NVF





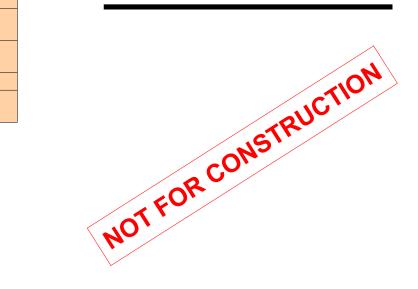
HG



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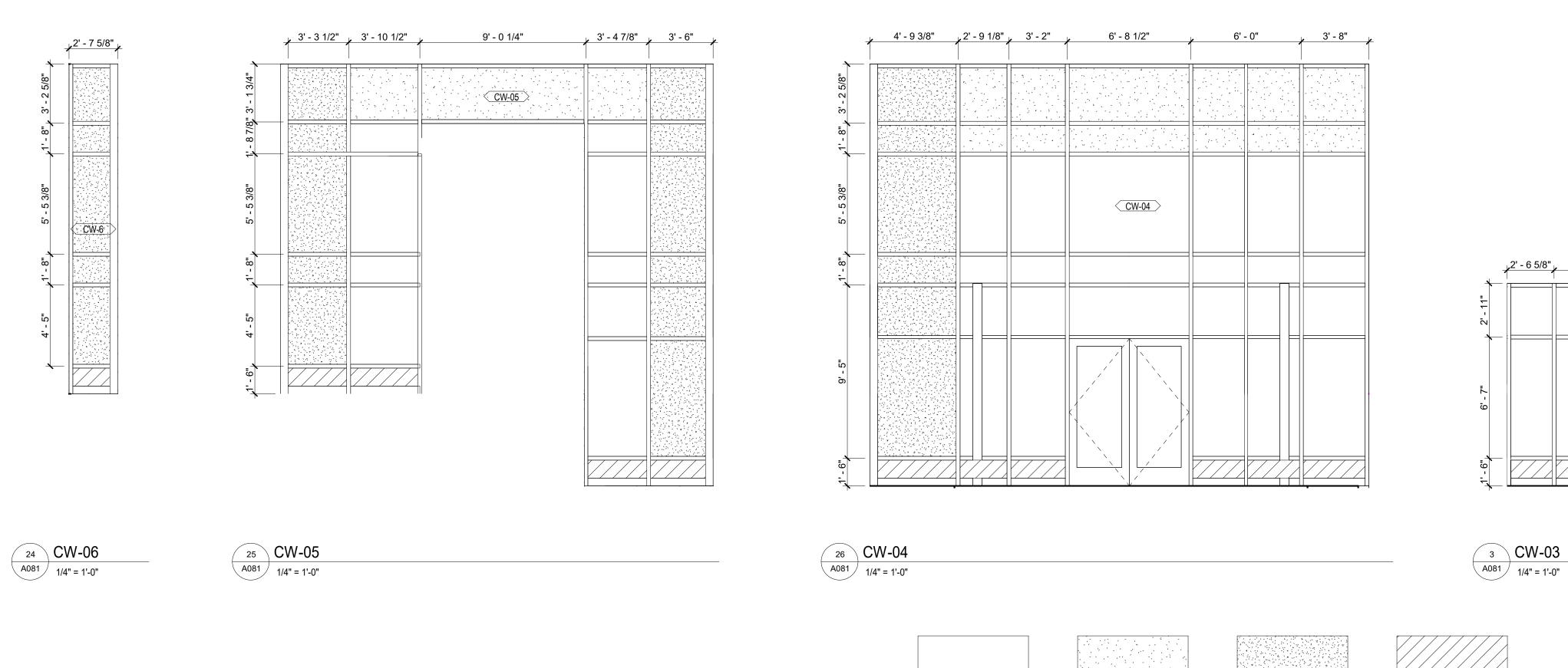


No.	Date	Revision Description

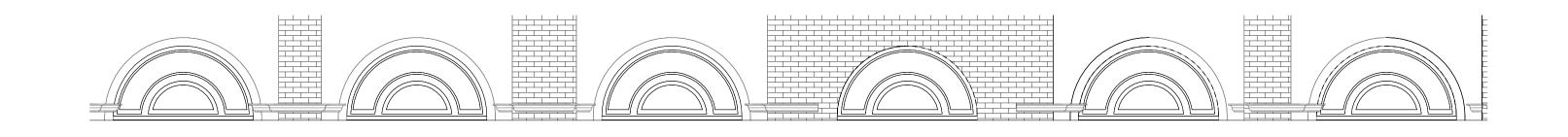
75% Design Development

DOOR SCHEDULE

Project	21.1037.01	Drawing Number
Date	9/30/2022	
Drawn by	Author	A 000
Checked by	Checker	A080



A081 1/4" = 1'-0"



4 NORTH ELEVATION BOTTOM WINDOWS 1/4" = 1'-0"

Clear Glass 1" w/ Argon Fill

Bird Safe Glazing Threat Factor 41 (20% Coverage) 1" w/ Argon Fill

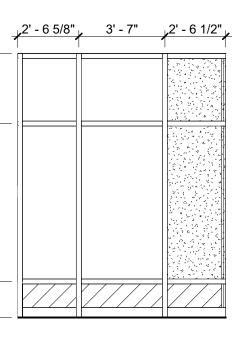
Bird Safe Glazing Threat Factor 25 (40% Coverage) 1" w/ Argon Fill

Aluminum Infill Panel, Both Sides Insulation Fill

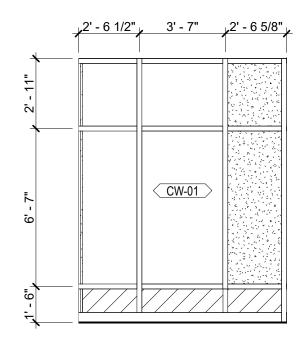
6' - 0"

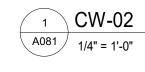
 14
 Elevation 15 - a

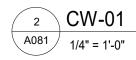
 A081
 1/4" = 1'-0"

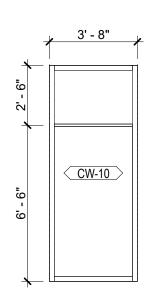


	2' - 11 1/2"	. 3' - 2"	6' - 8 1/2"	6' - 4"
2'-11"				
6' - 7"				
1' - 6"				

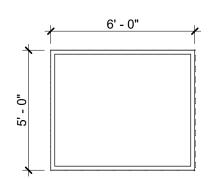




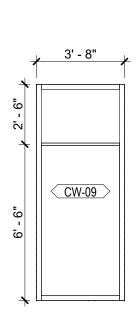




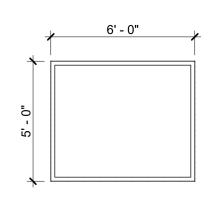
20 CW-10 A081 1/4" = 1'-0"



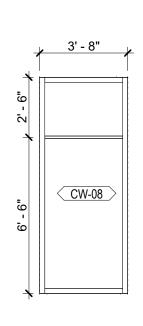
15 Elevation 16 - a A081 1/4" = 1'-0"



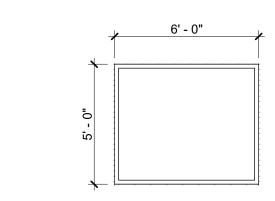
21 CW-09 A081 1/4" = 1'-0"



16 Elevation 17 - a



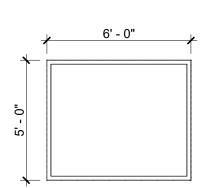
22 CW-08 A081 1/4" = 1'-0"



17 Elevation 18 - a A081 1/4" = 1'-0"

3' - 8" <u>۳</u> CW-07

23 CW-07 A081 1/4" = 1'-0"



18 Elevation 19 - a A081 1/4" = 1'-0"



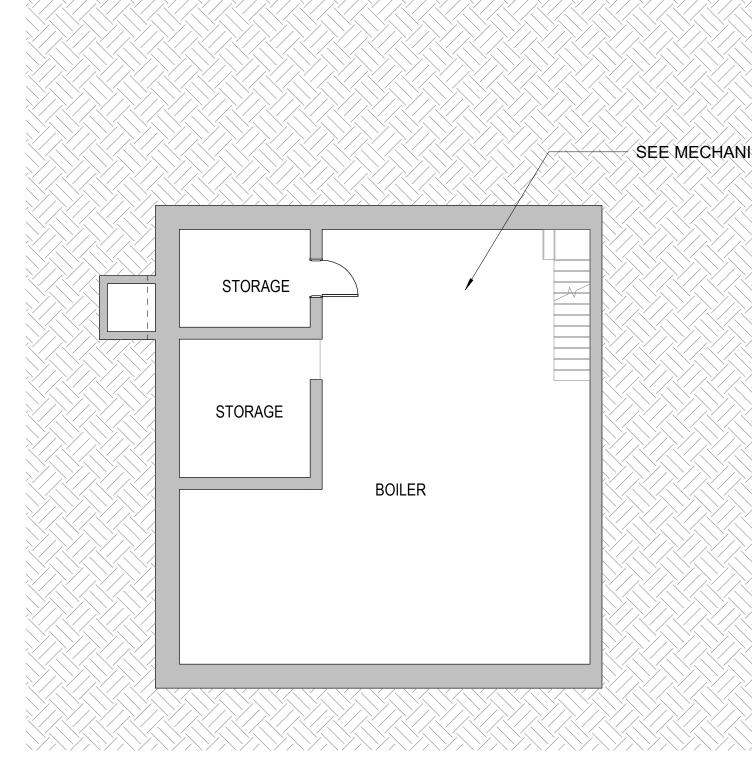
1 George Street East Saint Paul, Minnesota 55107

NOT	FORC	ONSTRUCTION
No.	Date	Revision Description
75	% Desig	n Development

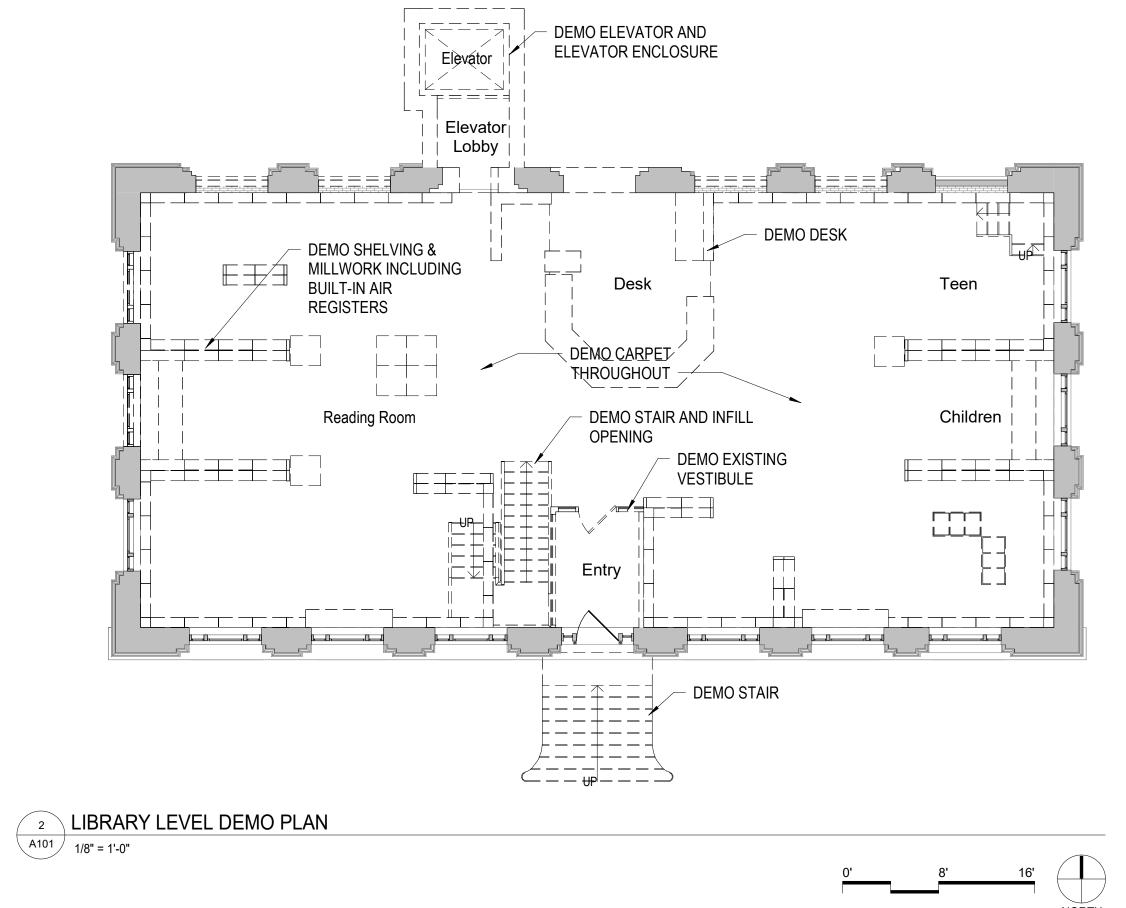
Project	21.1037.01	Drawing Number
Date	9/30/2022	
Drawn by	Author	A 0 0 4
Checked by	Checker	A081

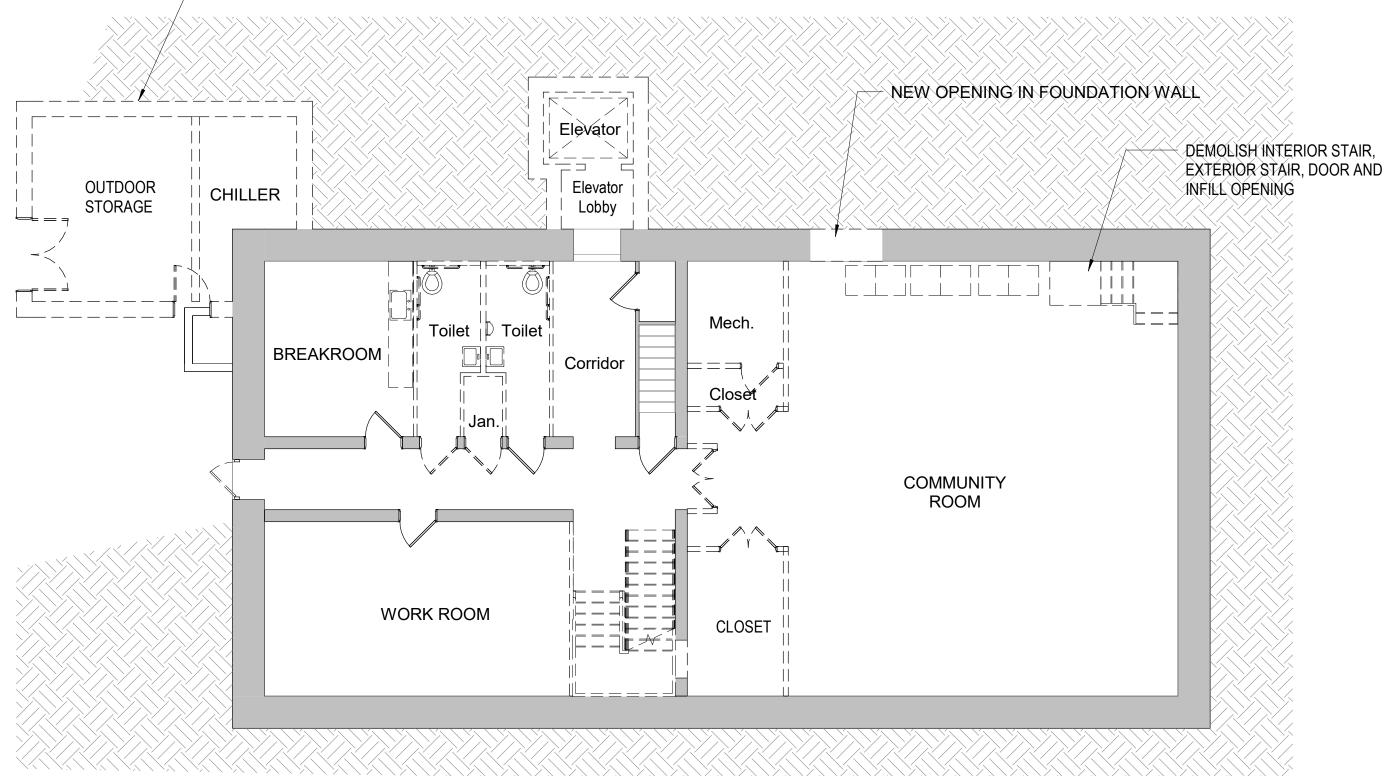
DEMOLITION GENERAL NOTES

A.	THESE DEMOLITION NOTES AND KEYNOTES MAY NOT NECESSARILY DESCRIBE ALL DEMOLITION AND PATCHING REQUIRED TO PERFORM THE WORK. REFER TO OTHER SHEETS IN THE CONSTRUCTION DOCUMENTS FOR DESCRIPTION OF WORK THAT MAY INVOLVE DEMOLITION NOT SHOWN ON THE DEMOLITION PLANS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE DEMOLITION WORK REQUIRED TO PROVIDE A FULL AND COMPLETE PROJECT.
B.	CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTION OF THE EXISTING BUILDING AND STORAGE OF MATERIALS BEING REINSTALLED OR SALVAGED. IF DAMAGES TO THE EXISTING BUILDING OCCUR DURING DEMOLITION, THE CONTRACTOR OR SUB-CONTRACTOR RESPONSIBLE FOR THE DAMAGE WILL BE LIABLE FOR PROPER AND PERMANENT REPAIRS.
C.	VERIFY EXISTING CONDITIONS AND DIMENSIONS. COORDINATE THE EXTENT OF DEMOLITION WORK TO REMAIN WITH NEW FLOOR PLAN AND PROJECT SITE PRIOR TO PRICING, FABRICATION AND INSTALLATION. NOTIFY ARCHITECT OF ANY CONFLICTS IMMEDIATELY.
D.	WHERE WALLS OR PARTITIONS ARE INDICATED TO BE REMOVED: REMOVE ENTIRE WALL OR PARTITION (AS WELL AS DUCTS, PIPING, CONDUIT AND OTHER ELEMENTS IN OR ON THE WALL WHICH MAY OR MAY NOT BE SPECIFICALLY IDENTIFIED) UNLESS OTHERWISE NOTED. REFER TO MECHANICAL AND ELECTRICAL DRAWINGS. COORDINATE WITH OWNER ALL EQUIPMENT TO BE SALVAGED.
E.	REFER TO OWNER'S HAZARDOUS MATERIAL REPORT FOR EXTENT OF NECESSARY MATERIAL REMOVAL.
F.	COORDINATE DEMOLITION WITH MECHANICAL, ELECTRICAL, AND PLUMBING NOTES.
G.	AVOID DISRUPTION TO ADJACENT FLOORS/AREAS AS MUCH AS POSSIBLE. KEEP NOISE TO A LEVEL ACCEPTABLE TO THE OWNER BY SCHEDULING EXCESSIVE NOISE TASKS WITH OWNER. ALL SAW-CUTTING AND NOISE/VIBRATION-PRODUCING DEMOLITION / CONSTRUCTION TO BE SCHEDULED WITH OWNER AS NOT TO INTERFERE WITH SCHOOL ACTIVITIES. THIS MAY REQUIRE AFTER HOURS WORK.
H.	ALL ITEMS INDICATED TO BE REMOVED FROM EXISTING WALLS, INCLUDING, BUT NOT LIMITED TO: (BLACK BOARDS, TACK BOARDS, MARKER BOARDS, BUMPER RAILS, CORNER GUARDS, MIRRORS, ETC.) SHALL BE RETURNED TO THE OWNER, UNLESS NOTED OTHERWISE. PATCH WALLS AS REQUIRED FOR NEW FINISHES.
I.	PROVIDE FIRE EXTINGUISHER PER CODE AT ALL TIMES THROUGHOUT DEMOLITION / CONSTRUCTION AREAS.
J.	PRIOR TO REMOVING FURNITURE, EQUIPMENT AND CASEWORK, CONTRACTOR TO VERIFY WITH OWNER WHICH ITEMS ARE TO BE SALVAGED AND THEIR STORAGE LOCATIONS.



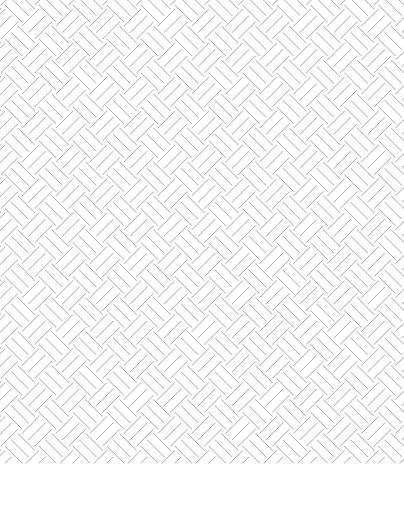
3 MECHANICAL BASEMENT DEMO PLAN A101 1/8" = 1'-0"

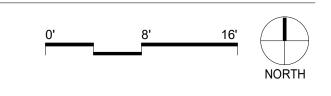




1 LOWER LEVEL DEMO PLAN A101 1/8" = 1'-0"







- DEMO EXTERIOR ENCLOSURE



NORTH



1 George Street East Saint Paul, Minnesota 55107

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DEMO PLANS

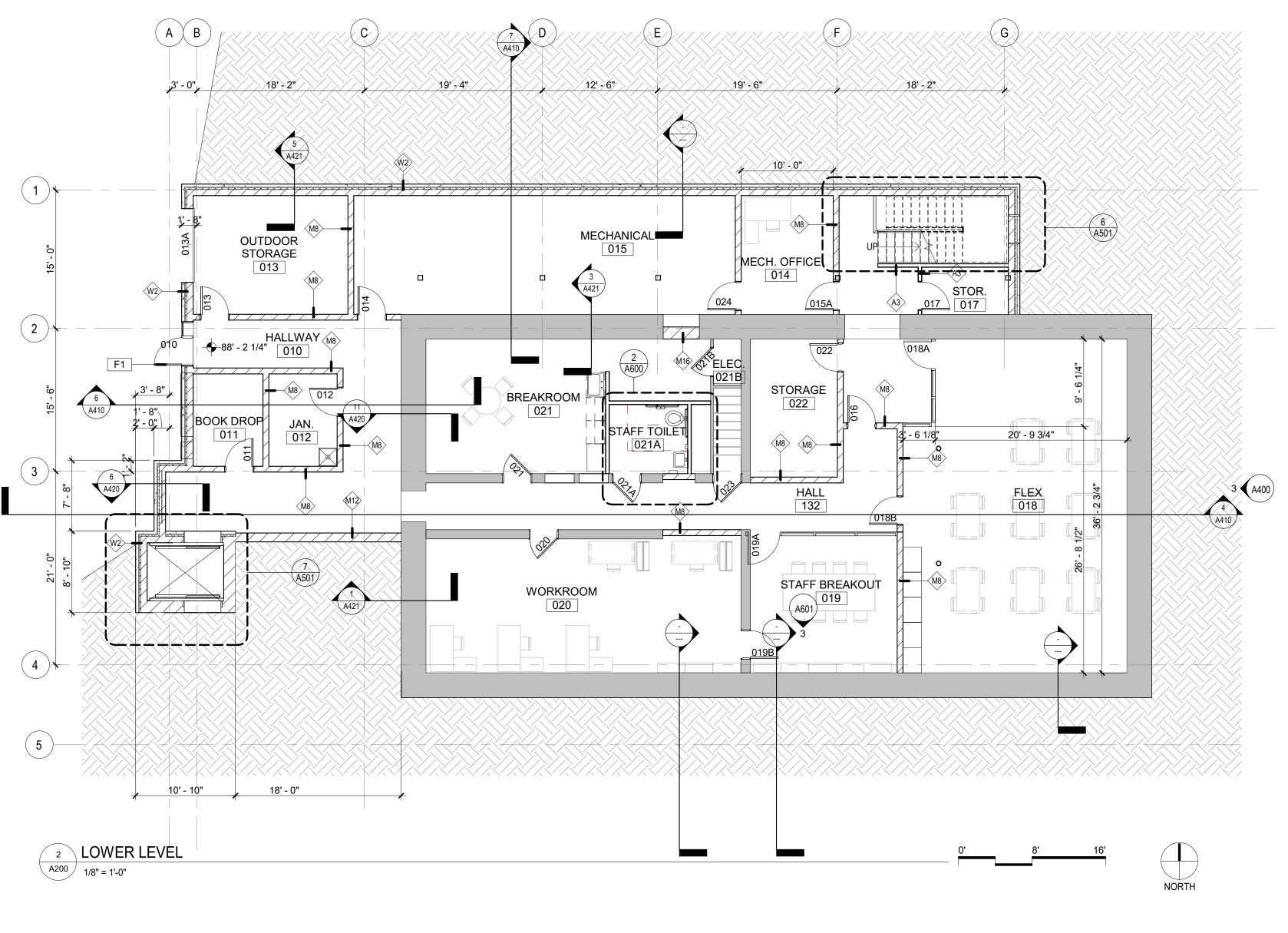
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Date	9/30/2022	
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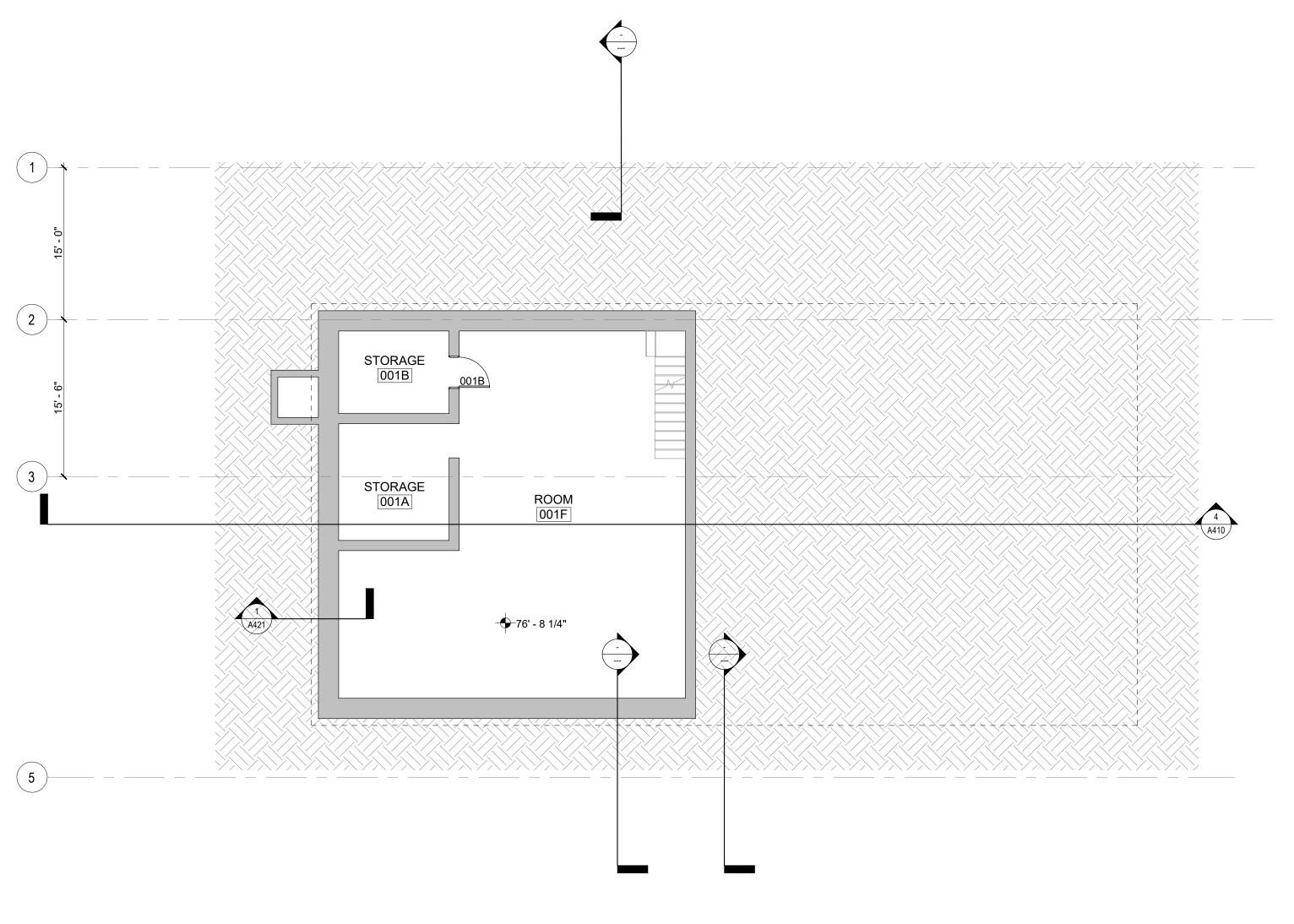
GEN	ERAL NOTES
1.	PROVIDE WALL BLOCKING FOR ALL WALL SUPPORTED ITEMS INCLUDING BUT NOT LIMITED TO WALL CABINETS, TRIMS, WINDOWS TREATMENTS FASTENINGS, DOOR STOPS, TOILET ACCESSORIES, VISUAL DISPLAY BOARDS ETC.
2.	SEE STRUCTURAL FOR ALL CONCRETE FLOOR RECESSES. PROVIDE POSITIVE SLOPE TO ALL FLOOR AND TRENCH DRAINS.
3.	ALL CONCRETE BLOCK OUTSIDE CORNERS SHALL BE BULLNOSED UNITS UNLESS DETAILED OR NOTED OTHERWISE. CONTRACTOR TO ROUND OUTSIDE CORNERS OF ROCK FACE BANDS TO ALIGN WITH BURNISHED BLOCK BULLNOSE.
4.	REFER TO SHEETS A020 FOR LOCATIONS OF ALL FIRE RATED BUILDING WALLS. PROVIDE FIRE RATED ASSEMBLY FOR ALL PENETRATIONS AND OPENINGS TO MEET THE REQUIRED FIRE RATINGS.
5.	ALL JANITORS CLOSETS ARE TO BE PROVIDED WITH MATERIALS AS NOTED IN DETAIL _/
6.	ALL CASEWORK IS NOTED ON INTERIOR ELEVATIONS.
7.	REFER TO WALL TYPES AND STRUCTURAL DRAWINGS FOR THICKENED FLOOR SLABS.
8.	CONTRACTOR/SUBCONTRACTOR TO VERIFY AND COORDINATE THE INSTALLATION OF ALL EQUIPMENT AND OWNER SUPPLIED ITEMS. BACKINGS, ROUGH-INS AND FINAL HOOK-UPS ARE TO BE COORDINATED BY GENERAL CONTRACTOR.
9.	CONTRACTOR/SUBCONTRACTOR IS TO PROVIDE BACKING AS REQUIRED FOR MOUNTING OF ALL WALL, CEILING AND PARTITION MOUNTED ITEMS SUCH AS SHELVING, SPECIAL LIGHTING, TABLE BRACKETS, EQUIPMENT AND TELEVISIONS. LOCATIONS AND REQUIREMENTS ARE TO BE COORDINATED WITH PLUMBING, MECHANICAL, ELECTRICAL, FOOD SERVICE SUB-CONTRACTOR AND OWNER'S REPRESENTATIVE.
10.	CONTRACTOR/SUBCONTRACTOR SHALL VERIFY LOCATIONS OF ALL FOOD SERVICE EQUIPMENT AND COORDINATE LOCATIONS OF FLOOR SINKS, FLOOR DRAINS, TROUGH DRAINS, SLAB DEPRESSIONS, RAISED CURBS, ELECTRICAL/PLUMBING STUBOUTS AND ALL OTHER WORK UNDER THE SCOPE OF RESPONSIBILITIES RELATED TO THIS EQUIPMENT. REFER TO DRAWINGS AND SPECIFICATIONS FOR CLARIFICATION.
11.	GENERAL CONTRACTOR SHALL VERIFY WITH MECHANICAL CONTRACTORS ALL MECHANICAL DUCT SHAFTS, BOILER STACK, TOILET EXHAUST DUCTS, WATER CLOSET TRAPS, FLOOR DRAINS, ETC. BEFORE SETTING ANY FLOORS.
12.	FIRE RATED WALLS AND ENCLOSURES BY GENERAL CONTRACTOR. VERIFY ALL PENETRATIONS BY OTHER TRADES. ALL CONTRACTORS/SUBCONTRACTORS ARE RESPONSIBLE FOR FIRE STOPPING AS REQUIRED.

KEYNOTE LEGEND

Key Value

Keynote Text







0' <u>8' 16'</u> NORTH



RIVERVIEW

1 George Street East Saint Paul, Minnesota 55107

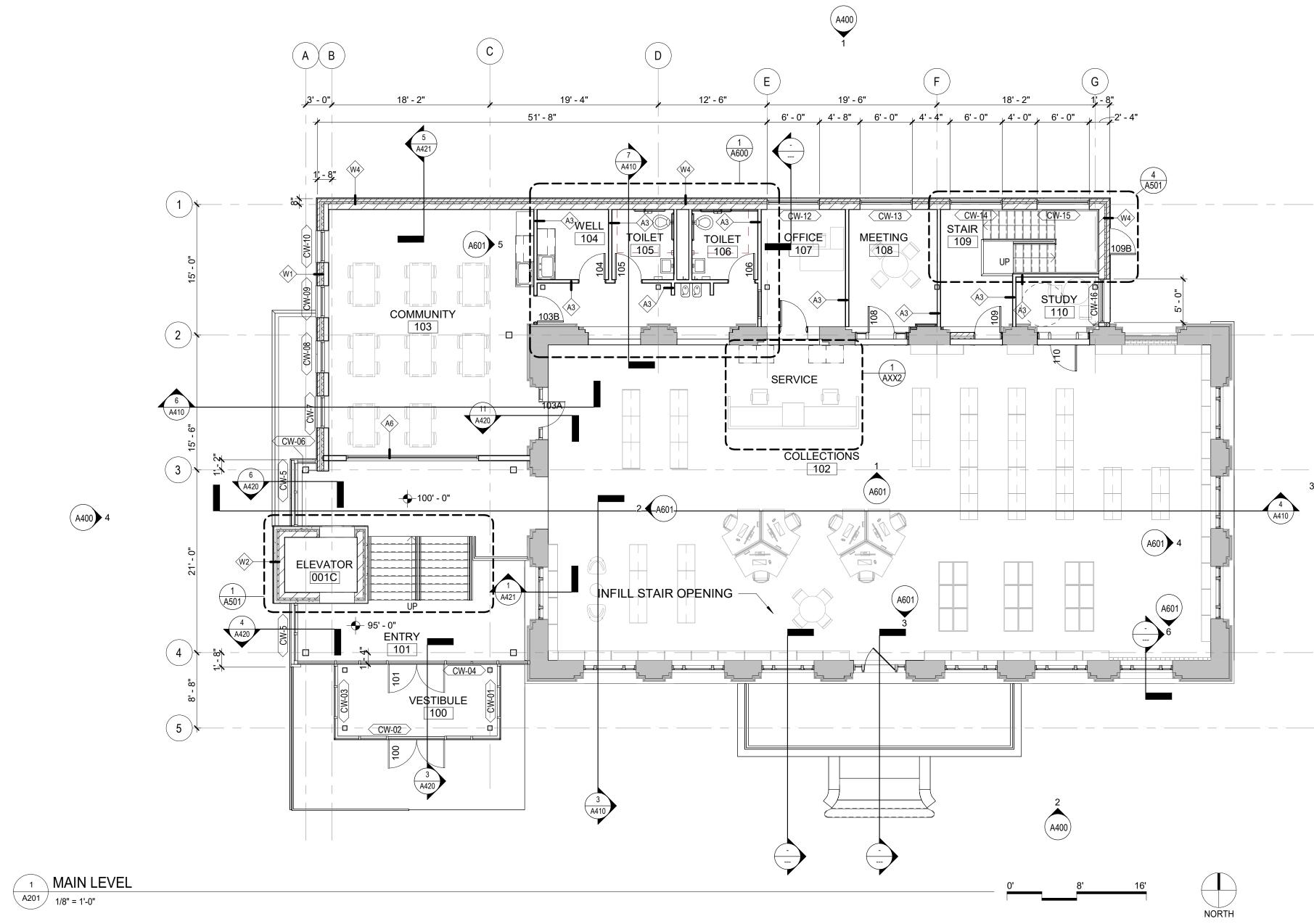
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LOWER LEVEL PLAN

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Date	9/30/2022	
Drawn by	WB, CL	A 000
Checked by	CL	A200

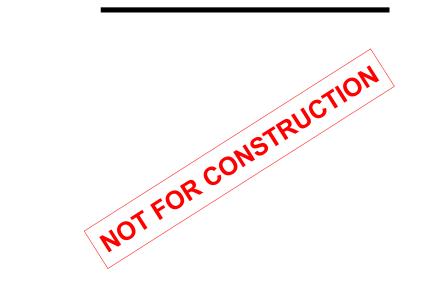
GENERAL NOTES

1.	PROVIDE WALL BLOCKING FOR ALL WALL SUPPORTED ITEMS INCLUDING BUT NOT LIMITED TO WALL CABINETS, TRIMS, WINDOWS TREATMENTS FASTENINGS, DOOR STOPS, TOILET ACCESSORIES, VISUAL DISPLAY BOARDS ETC.
2.	SEE STRUCTURAL FOR ALL CONCRETE FLOOR RECESSES. PROVIDE POSITIVE SLOPE TO ALL FLOOR AND TRENCH DRAINS.
3.	ALL CONCRETE BLOCK OUTSIDE CORNERS SHALL BE BULLNOSED UNITS UNLESS DETAILED OR NOTED OTHERWISE. CONTRACTOR TO ROUND OUTSIDE CORNERS OF ROCK FACE BANDS TO ALIGN WITH BURNISHED BLOCK BULLNOSE.
4.	REFER TO SHEETS A020 FOR LOCATIONS OF ALL FIRE RATED BUILDING WALLS. PROVIDE FIRE RATED ASSEMBLY FOR ALL PENETRATIONS AND OPENINGS TO MEET THE REQUIRED FIRE RATINGS.
5.	ALL JANITORS CLOSETS ARE TO BE PROVIDED WITH MATERIALS AS NOTED IN DETAIL _/
6.	ALL CASEWORK IS NOTED ON INTERIOR ELEVATIONS.
7.	REFER TO WALL TYPES AND STRUCTURAL DRAWINGS FOR THICKENED FLOOR SLABS.
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11.	GENERAL CONTRACTOR SHALL VERIFY WITH MECHANICAL CONTRACTORS ALL MECHANICAL DUCT SHAFTS, BOILER STACK, TOILET EXHAUST DUCTS, WATER CLOSET TRAPS, FLOOR DRAINS, ETC. BEFORE SETTING ANY FLOORS.
12.	FIRE RATED WALLS AND ENCLOSURES BY GENERAL CONTRACTOR. VERIFY ALL PENETRATIONS BY OTHER TRADES. ALL CONTRACTORS/SUBCONTRACTORS ARE RESPONSIBLE FOR FIRE STOPPING AS REQUIRED.





³ (A400) 1 George Street East Saint Paul, Minnesota 55107

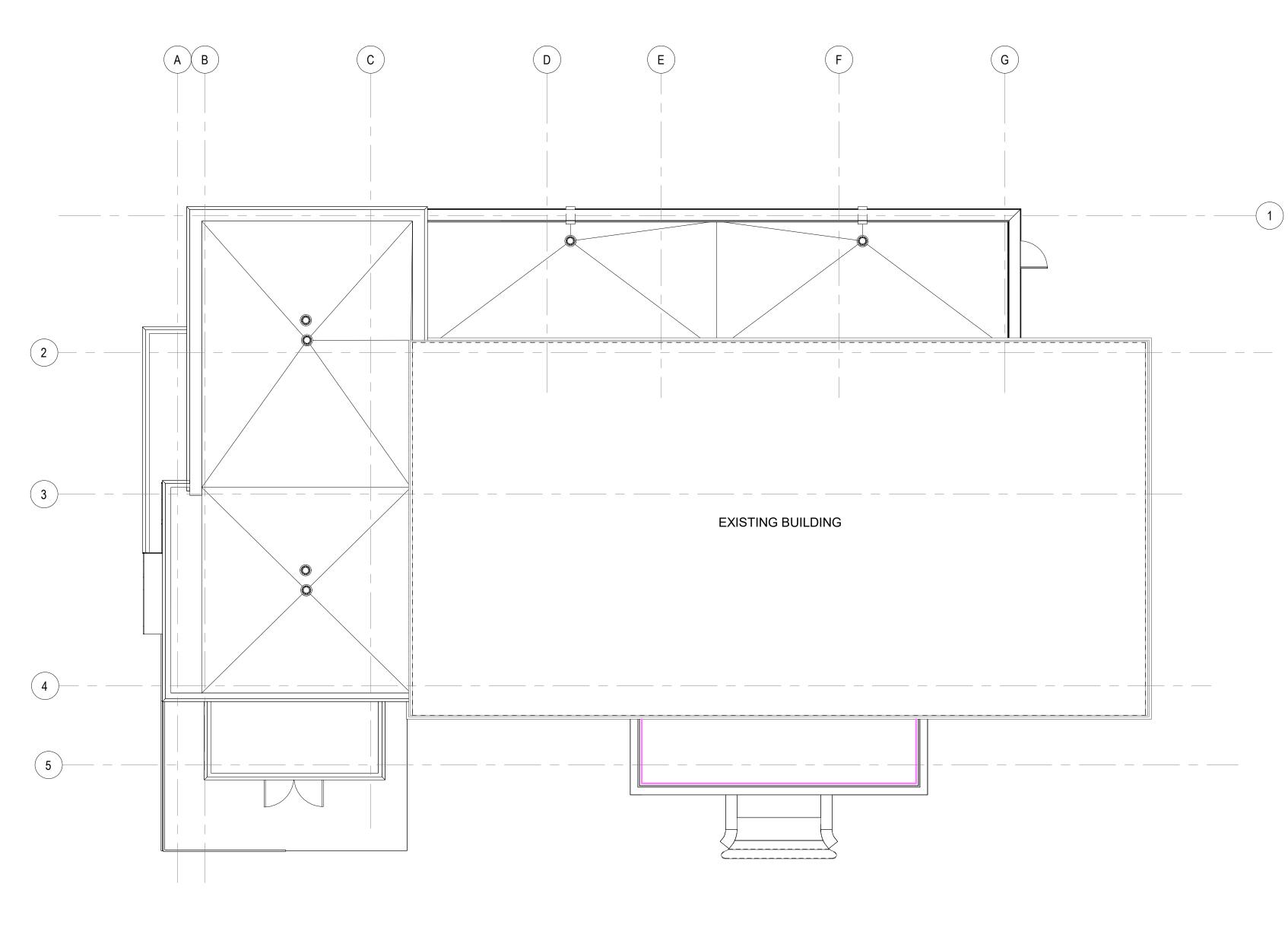


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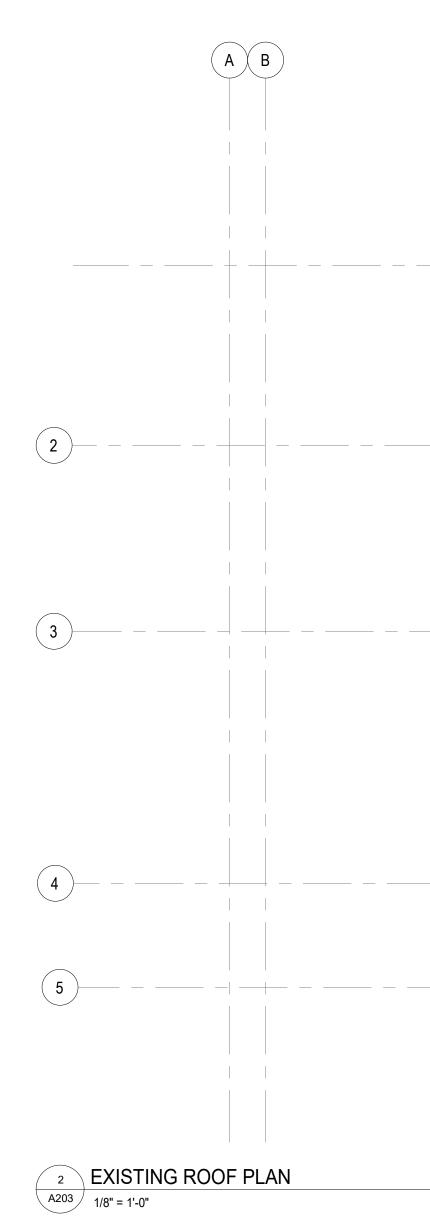
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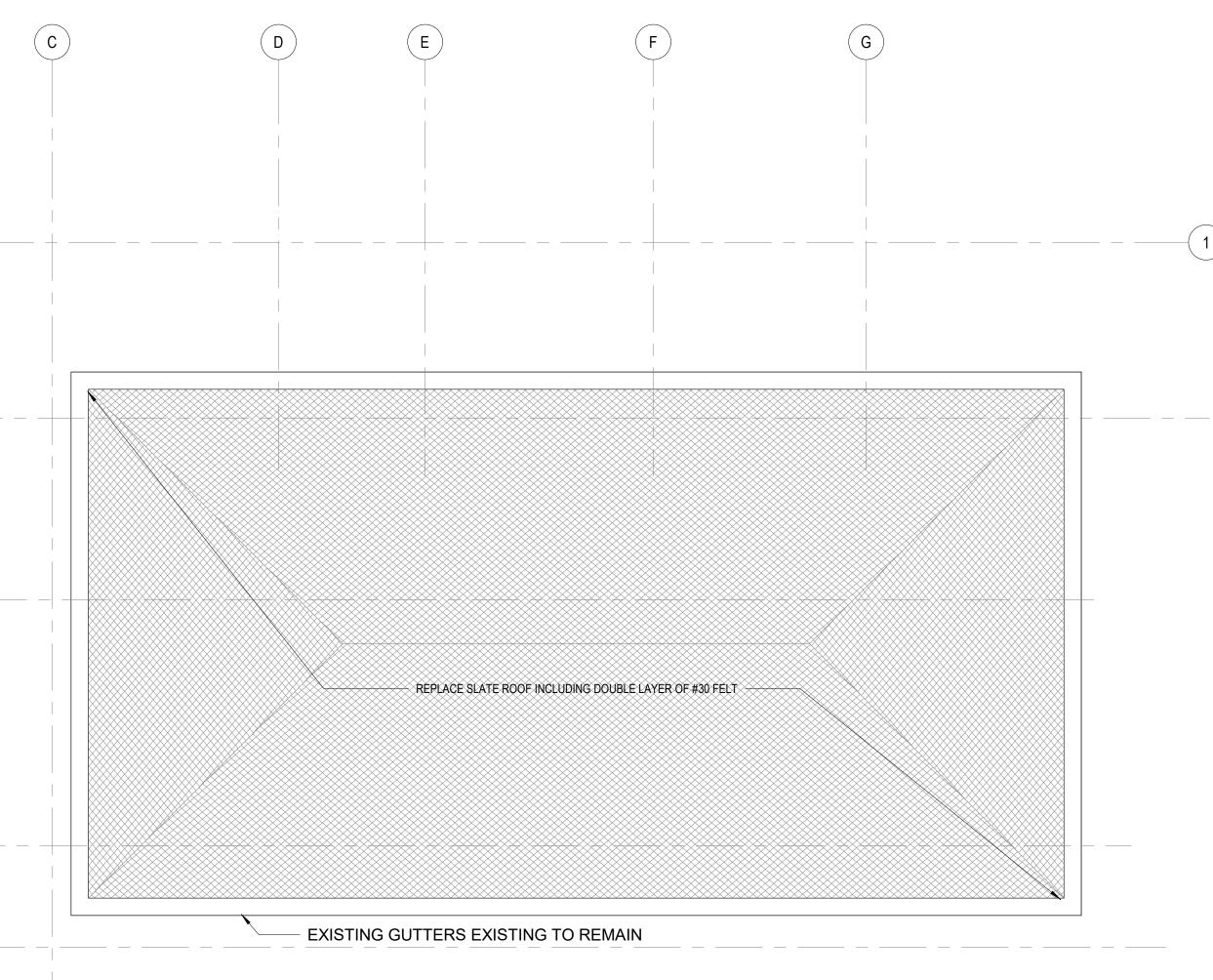


Project	21.1037.01	Drawing Number
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Drawn by	WB, CL	A 004
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1 ROOF PLAN A203 1/8" = 1'-0"





ROOF PLAN GENERAL NOTES

1.	TYPICAL ROOF MEMBRANE CONSISTS OF A 45 MIL. EL CANOPY'S, VESTIBULES AND PORTE-COCHERE IS 60	EPDM BALLAST ROOFING SYSTEM AS SPECIFIED. ENTRY) MIL. EPDM ADHERED ROOFS.			
2.	TYPICAL ROOF INSULATION CONSISTS OF (2) LAYERS AND 2" SECOND LAYER FOR R VALUE OF 22.24). 1/2" C	RS OF POLYISOCYANURATE INSULATION. (2" BASE LAYER COVERBOARD TOP LAYER.			
3.	NUMBERS NOTED IN CIRCLES ON ROOF PLAN DENOTE TOTAL ROOF INSULATION THICKNESS EXCLUDING 1/4 COVER BOARD CAP. ROOF NOTE (R.S.T.) HAVE A 2" BASE LAYER AND A TAPERED TOP LAYER OF INSULATION WITH 1/4" COVER BOARD. ALL TAPERED INSULATION STARTS AT 1" MINIMUM THICKNESS.				
4.	REFER TO DETAIL/A FOR TYPICAL ROOF DRAIN.				
5.	REFER TO DETAIL/A FOR TYPICAL METAL WALL/ROOF FLASHING AT GENERIC WALL INTERSECTION TRANSITIONS.				
6.	REFER TO DETAIL _/A FOR FLASHING DETAIL OF	OF SINGLE PIPE, CONDUITS, PLUMBING VENT STACK, ETC.			
7.	REFER TO MECHANICAL AND ELECTRICAL DRAWINGS LOCATIONS AND TYPES OF VENTS AND FLUES. AVOID	SS FOR ALL ROOF OPENING SIZES, OPENING TYPES, ID PLACING EQUIPMENT IN DRAINAGE CREASES OF ROOF.			
8.		BOVE MAIN AREA ROOF DRAIN SPILL LINE. NOTE DISCHARGE DRAIN IN A SUMP CONDITION. (NOTED R.O.D. ON PLAN).			
9.	ALL ROOF OVERFLOW SCUPPERS SHALL BE 8" WIDE INSTALL 2" ABOVE PRIMARY DRAIN LINE.	E UNLESS NOTED OTHERWISE (NOTED R.O.S. ROOF PLAN).			
ROOF	ABBREVIATIONS	ROOF SYMBOLS			
RSS RST ROS RS ROD RTU E-RS	ROOF SLOPE (STRUCTURAL) ROOF SLOPED (TAPPERED INSULATION) ROOF OVERFLOW SCUPPER ROOF SCUPPER ROOF OVERFLOW DRAIN ROOF TOP UNIT, SEE MECHANICAL EXISTING ROOF SCUPPER (FIELD VERIFY)	 PRIMARY ROOF DRAIN OVERFLOW ROOF DRAIN TAPERRED ROOF INSULATION EXISTING ROOF 			

ROOF PLAN GENERAL NOTES 12" = 1'-0"

NORTH

-1



, ETC. ROOF. CHARGE



Saint Paul Public Library RIVERVIEW

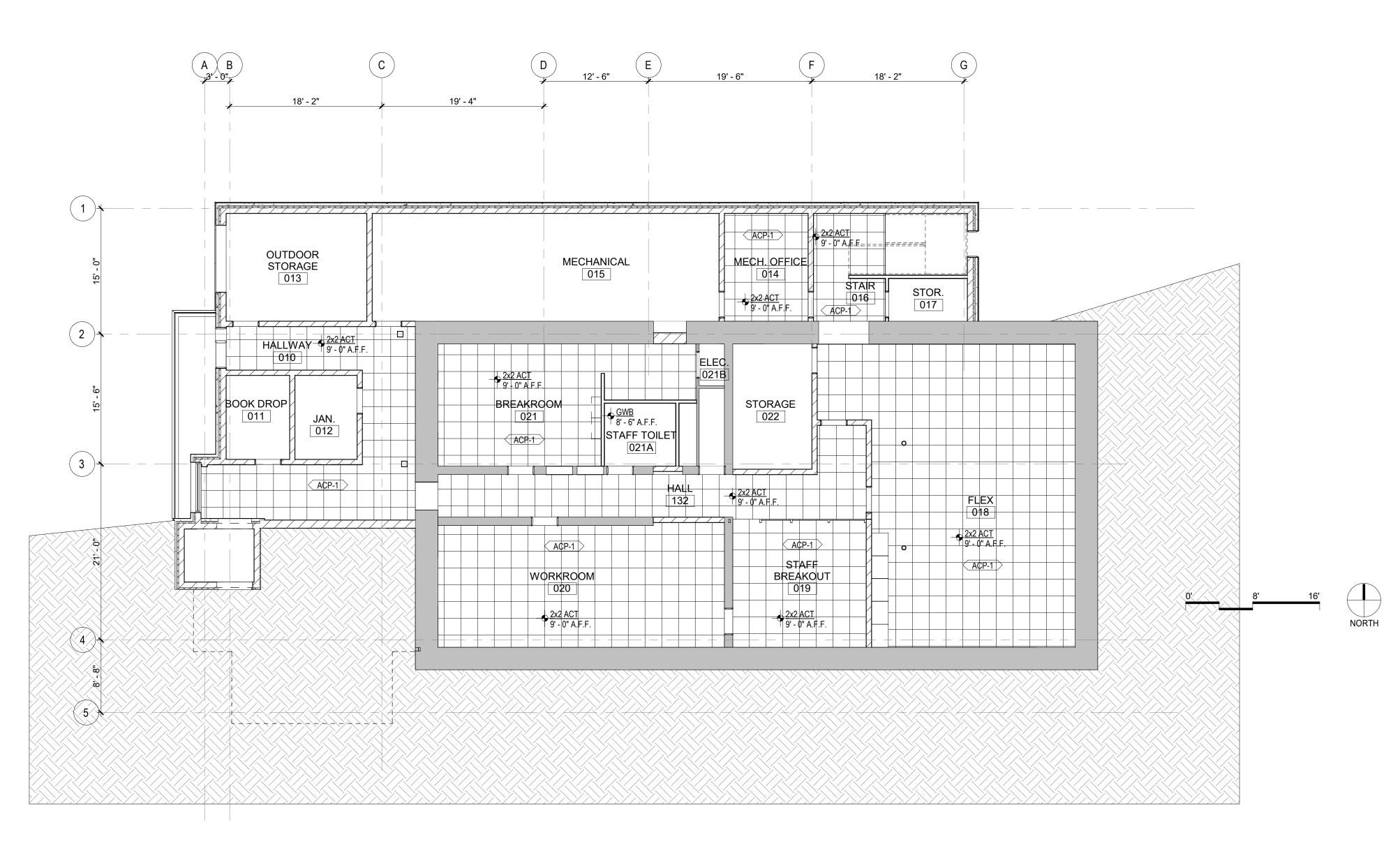
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ROOF PLAN

Project	21.1037.01	Drawing Number
Date	9/30/2022	
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1 LOWER LEVEL A301 1/8" = 1'-0" REFLECTED CEILING PLAN GENERAL NOTES

- ALL CEILING DEMO AND REPLACEMENT WORK WILL BE REFERED TO IN ADD ALTERNATE #2 EXCEPT FOR THE CEILINGS IN THE MAIN ADMIN AREA THAT ARE BEING RENOVATED AS PART OF THE SECURE ENTRY ADDITION, THE FACS CLASSROOM AND THE CEILINGS IN THE LUNCH ROOM WHICH ARE COVERED UNDER THE BASE BID.
- 2. REFER TO PROJECT SPECIFICATION MANUAL FOR FURTHER PRODUCT AND INSTALLATION INFORMATION.
 3. ALL HARDSURFACE CEILINGS IN AREA OF WORK TO BE PAINTED PT-1 U.N.O.
- 4. REPLACE 1X1 ACP CEILING IN THE LUNCHROOM WITH 2X4 CARDINAL PANELS AND REMOVE AND REINSTALL EXISTING PENDANT LIGHTS IN SAME LOCATION



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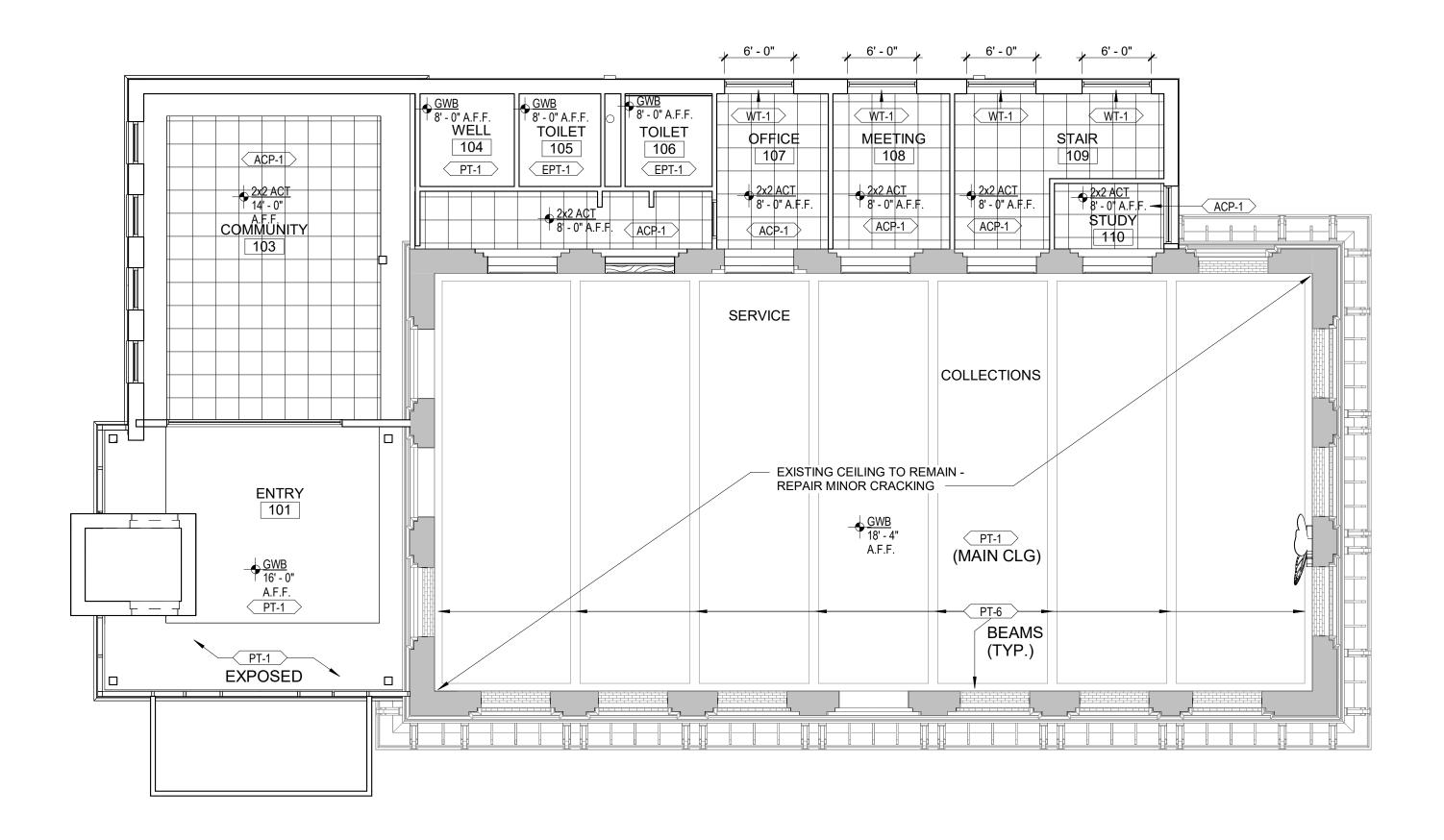
1 George Street East Saint Paul, Minnesota 55107

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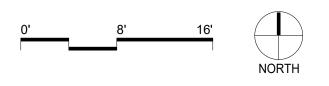
Project	21.1037.01	Drawing Number
Date	9/30/2022	
Drawn by	WB. CL	A 0.04
Checked by	CL	A301



1 MAIN LEVEL RCP A302 1/8" = 1'-0"

REFLECTED CEILING PLAN GENERAL NOTES

- ALL CEILING DEMO AND REPLACEMENT WORK WILL BE REFERED TO IN ADD ALTERNATE #2 EXCEPT FOR THE CEILINGS IN THE MAIN ADMIN AREA THAT ARE BEING RENOVATED AS PART OF THE SECURE ENTRY ADDITION, THE FACS CLASSROOM AND THE CEILINGS IN THE LUNCH ROOM WHICH ARE COVERED UNDER THE BASE BID.
- REFER TO PROJECT SPECIFICATION MANUAL FOR FURTHER PRODUCT AND INSTALLATION INFORMATION. ALL HARDSURFACE CEILINGS IN AREA OF WORK TO BE PAINTED PT-1 U.N.O.
- REPLACE 1X1 ACP CEILING IN THE LUNCHROOM WITH 2X4 CARDINAL PANELS AND REMOVE AND REINSTALL EXISTING PENDANT LIGHTS IN SAME LOCATION





RIVERVIEW

1 George Street East Saint Paul, Minnesota 55107

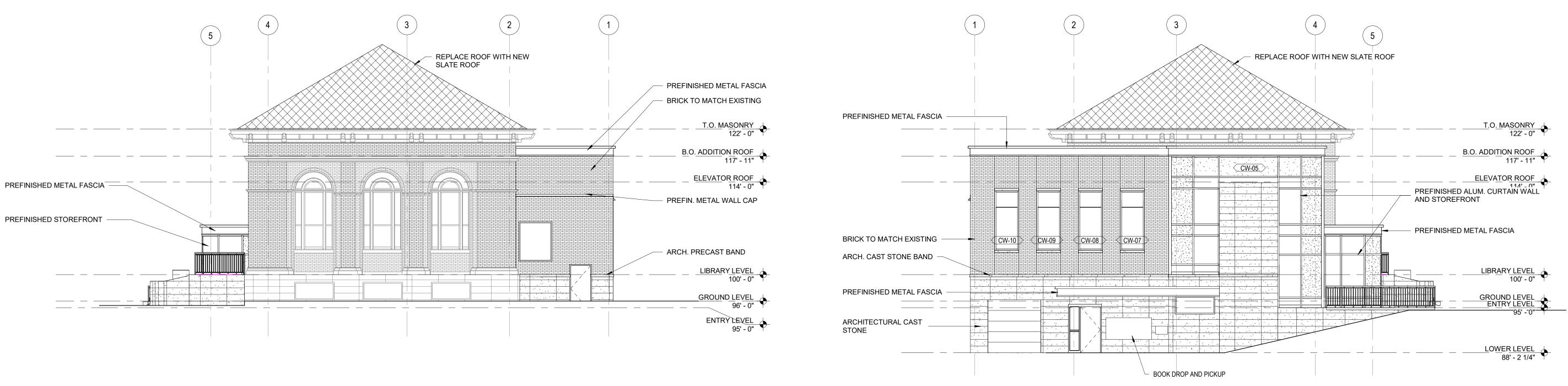
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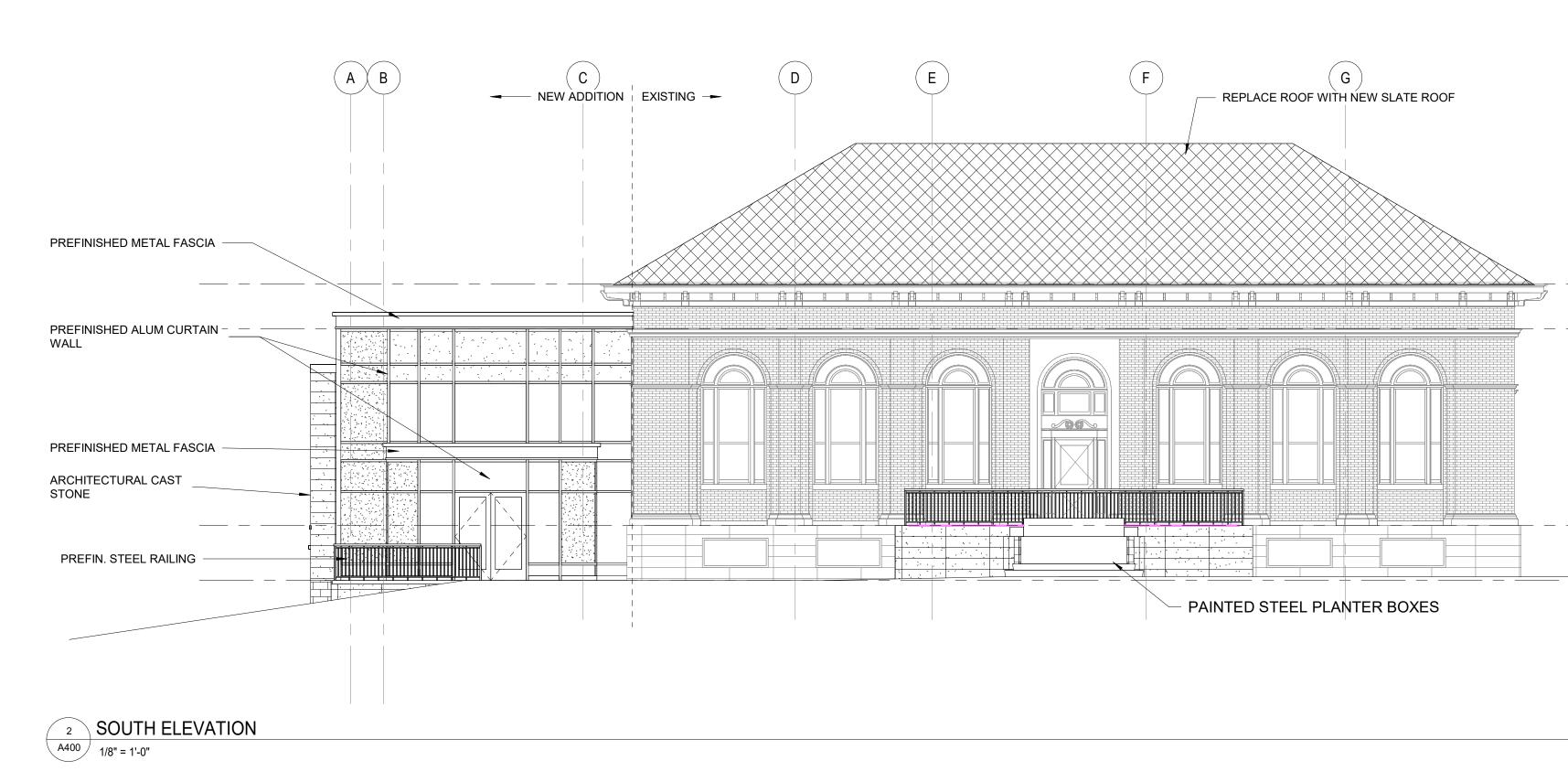
MAIN LEVEL REFLECTED CEILING PLAN

Project	21.1037.01	Drawing Number
Date	9/30/2022	
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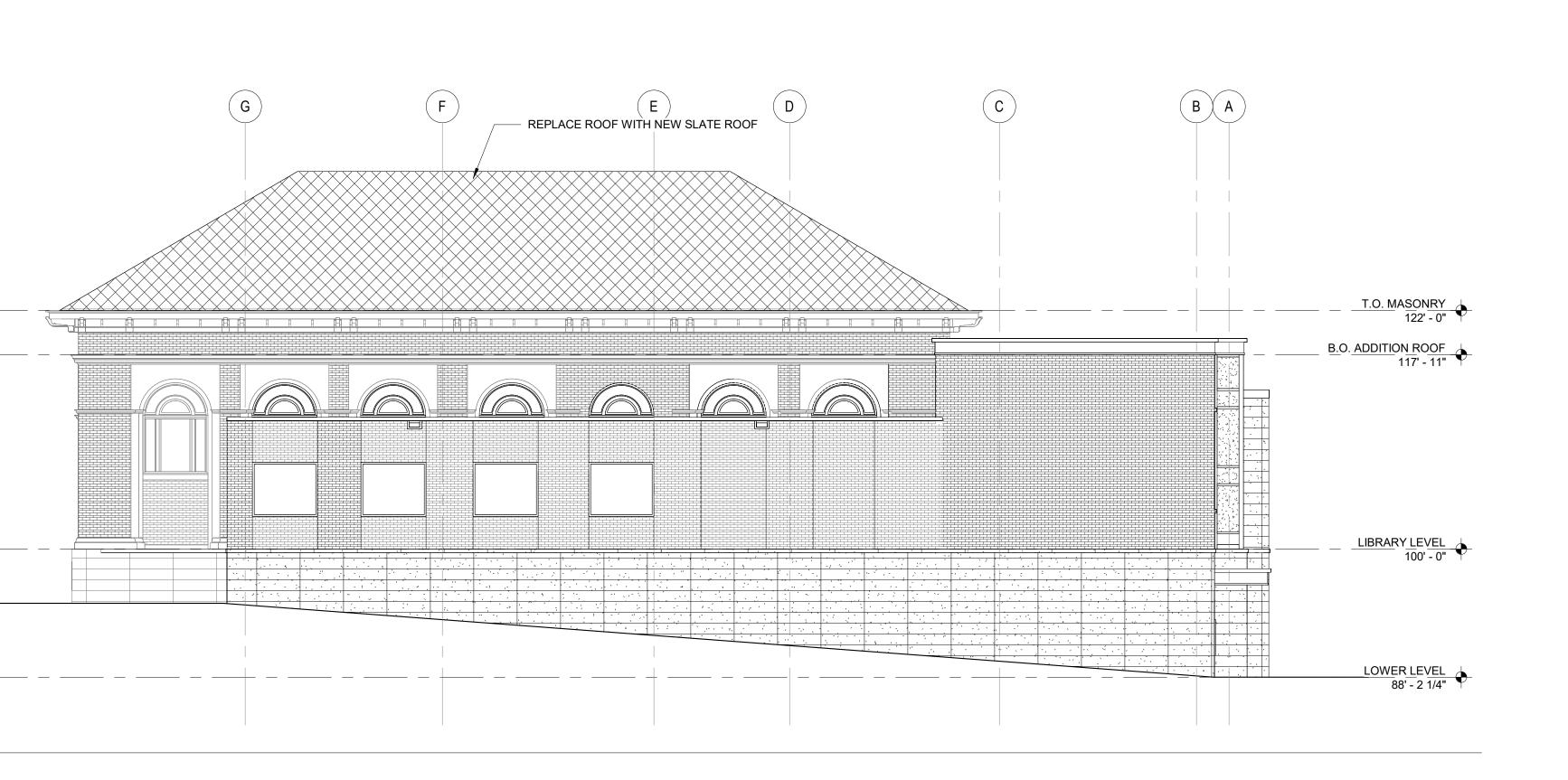












 <u>T.O. M</u> ASONRY 122' - 0"	
 B.O. <u>ADDITION ROOF</u> 117' - 11"	

LIBRARY LEVEL 100' - 0" ENTRY LEVEL 95' - 0"

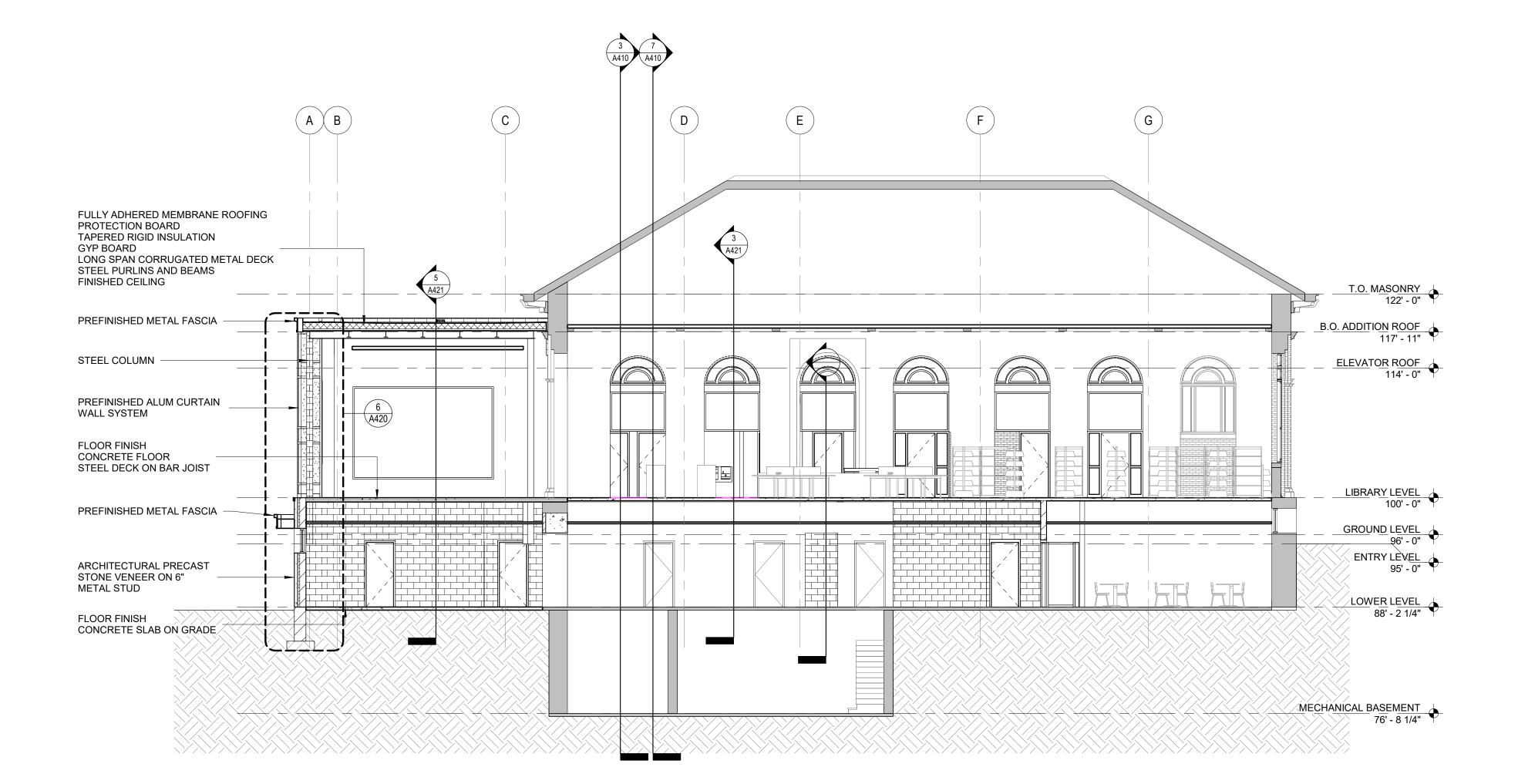


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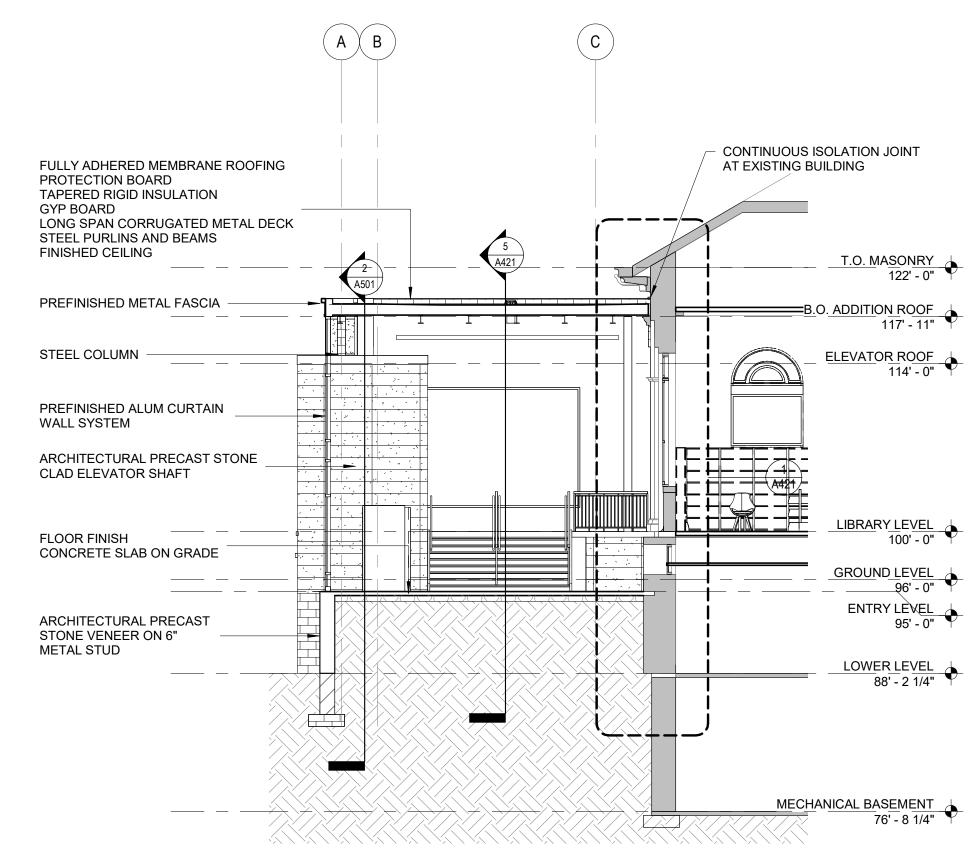
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BUILDING ELEVATIONS

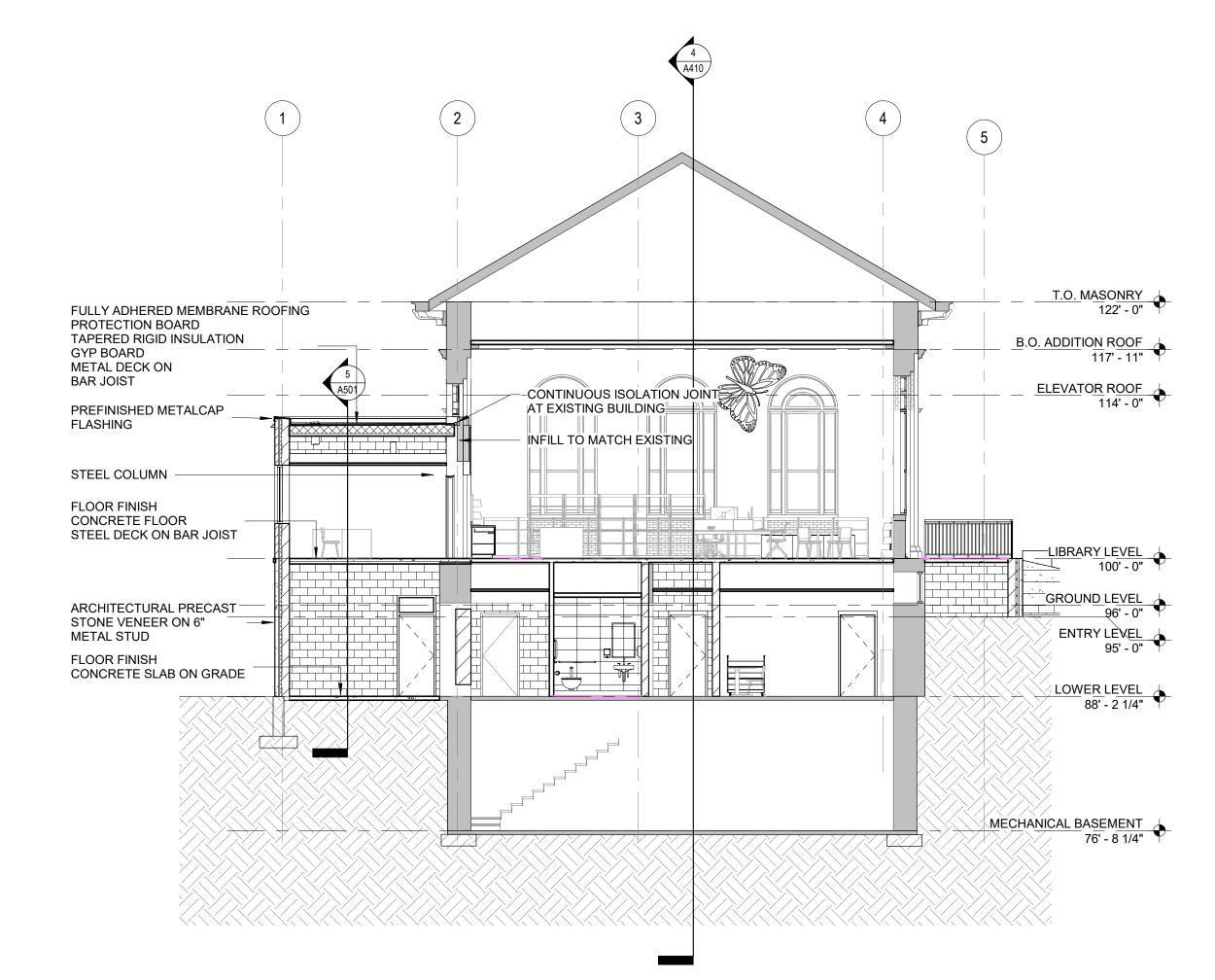
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Date	9/30/2022	
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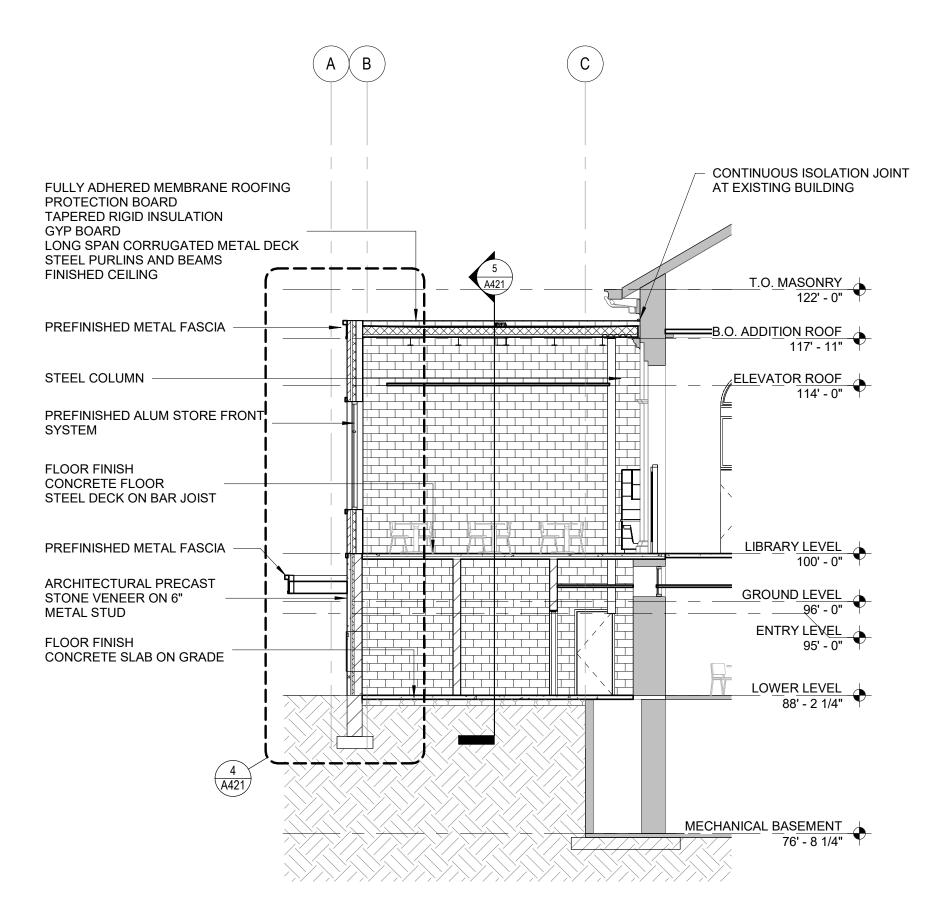
4 EAST - WEST BUILDING SECTION A410 1/8" = 1'-0"







A410 1/8" = 1'-0"



FULLY ADHERED MEMBRANE ROOFING PROTECTION BOARD TAPERED RIGID INSULATION GYP BOARD METAL DECK ON STEEL PURLINS

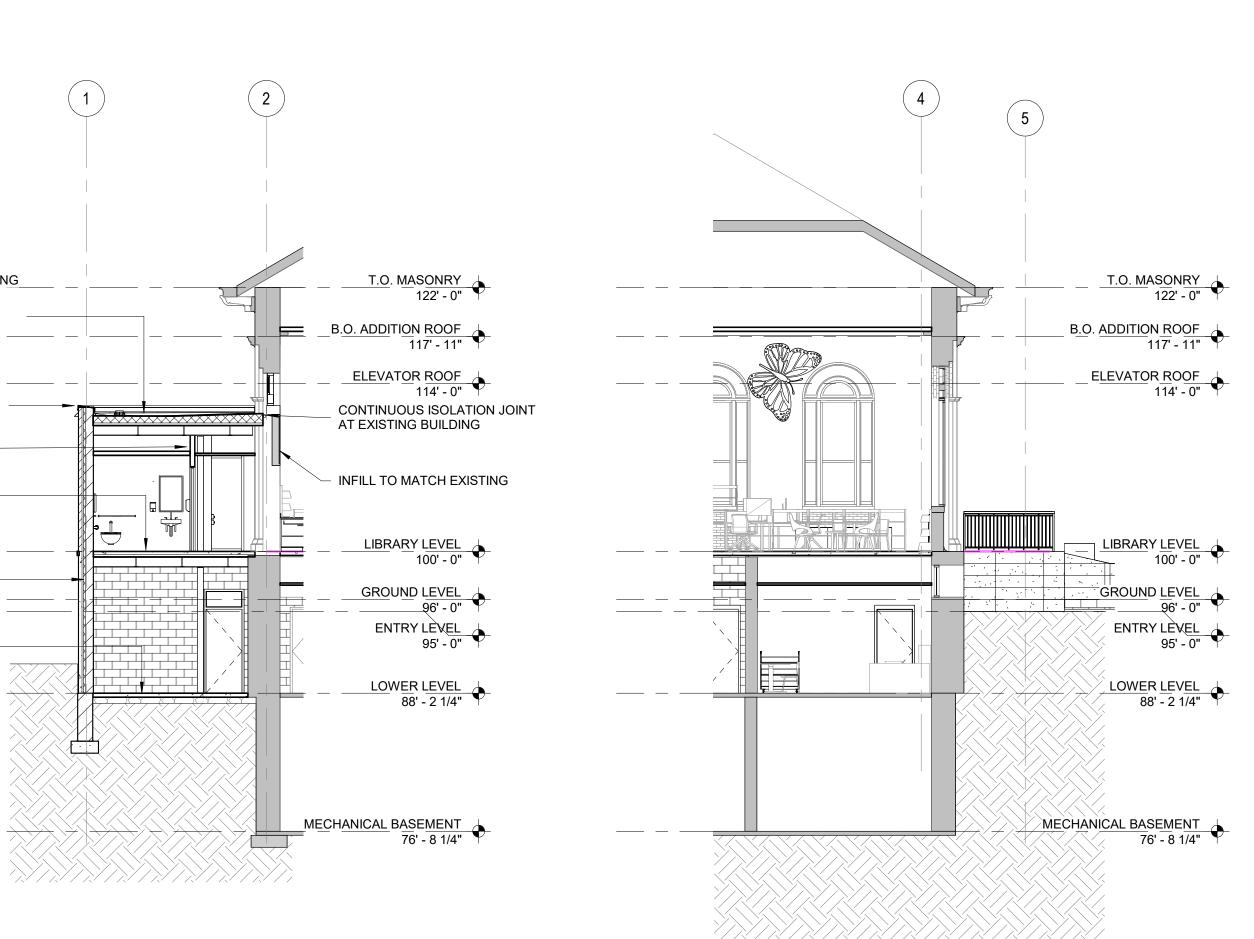
PREFINISHED METAL CAP FLASHING

STEEL COLUMN FLOOR FINISH CONCRETE FLOOR STEEL DECK ON STEEL PURLINS

ARCHITECTURAL PRECAST STONE VENEER ON 6" METAL STUD

FLOOR FINISH CONCRETE SLAB ON GRADE

1 NORTH - SOUTH BUILDING SECTION



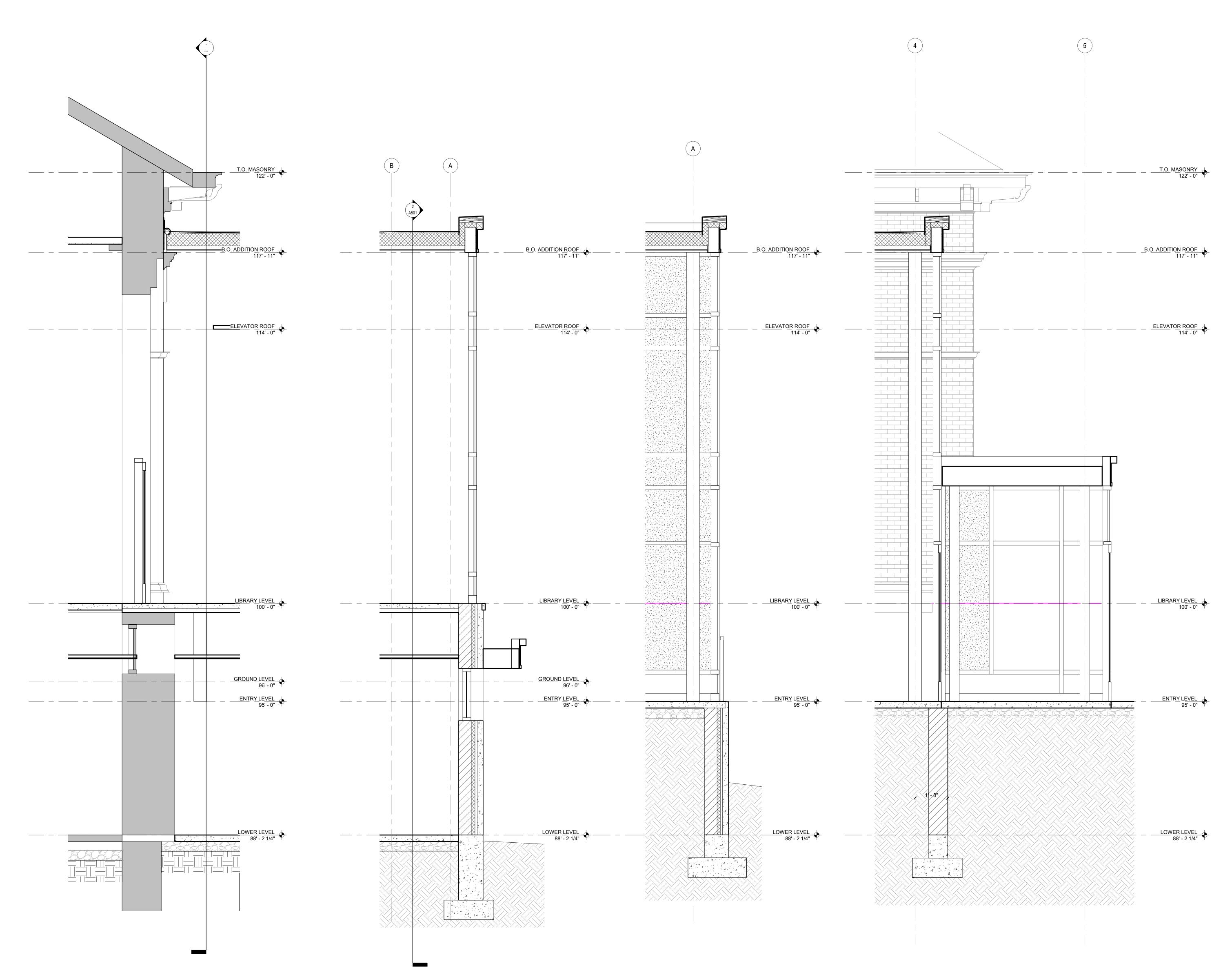
3 Section 3 A410 1/8" = 1'-0"



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BU	ILDING	SECTIONS

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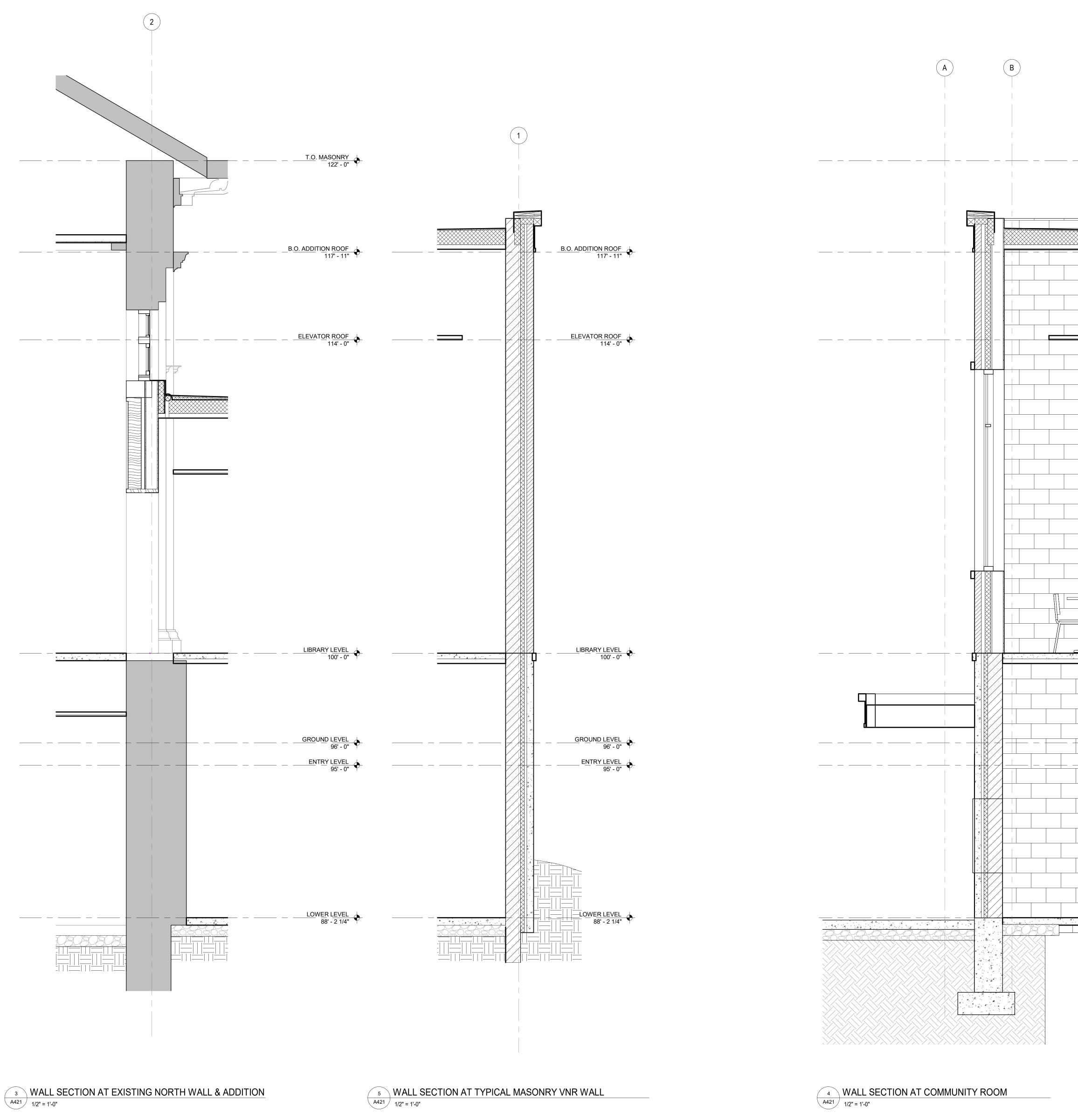




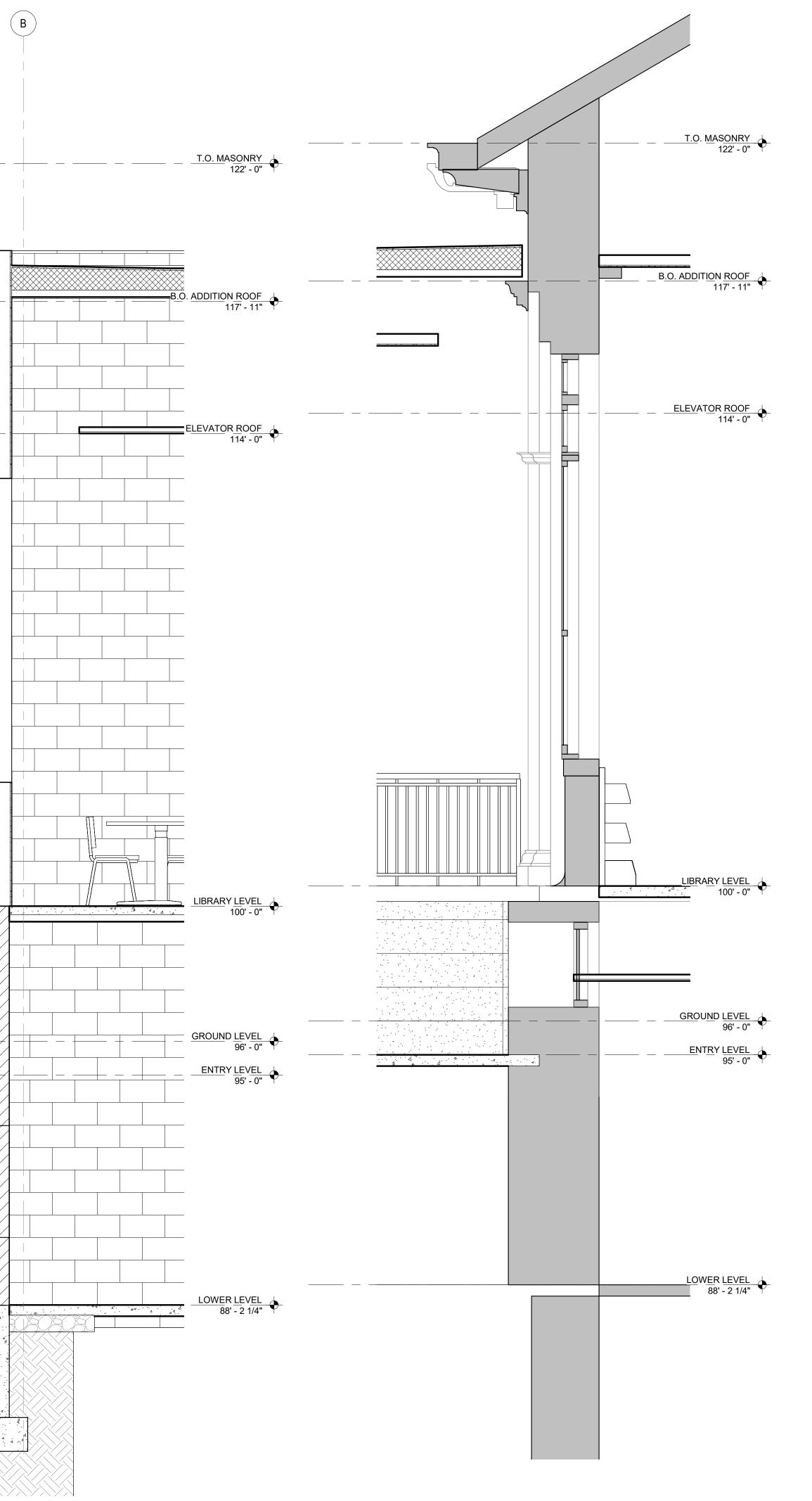
1 George Street East Saint Paul, Minnesota 55107

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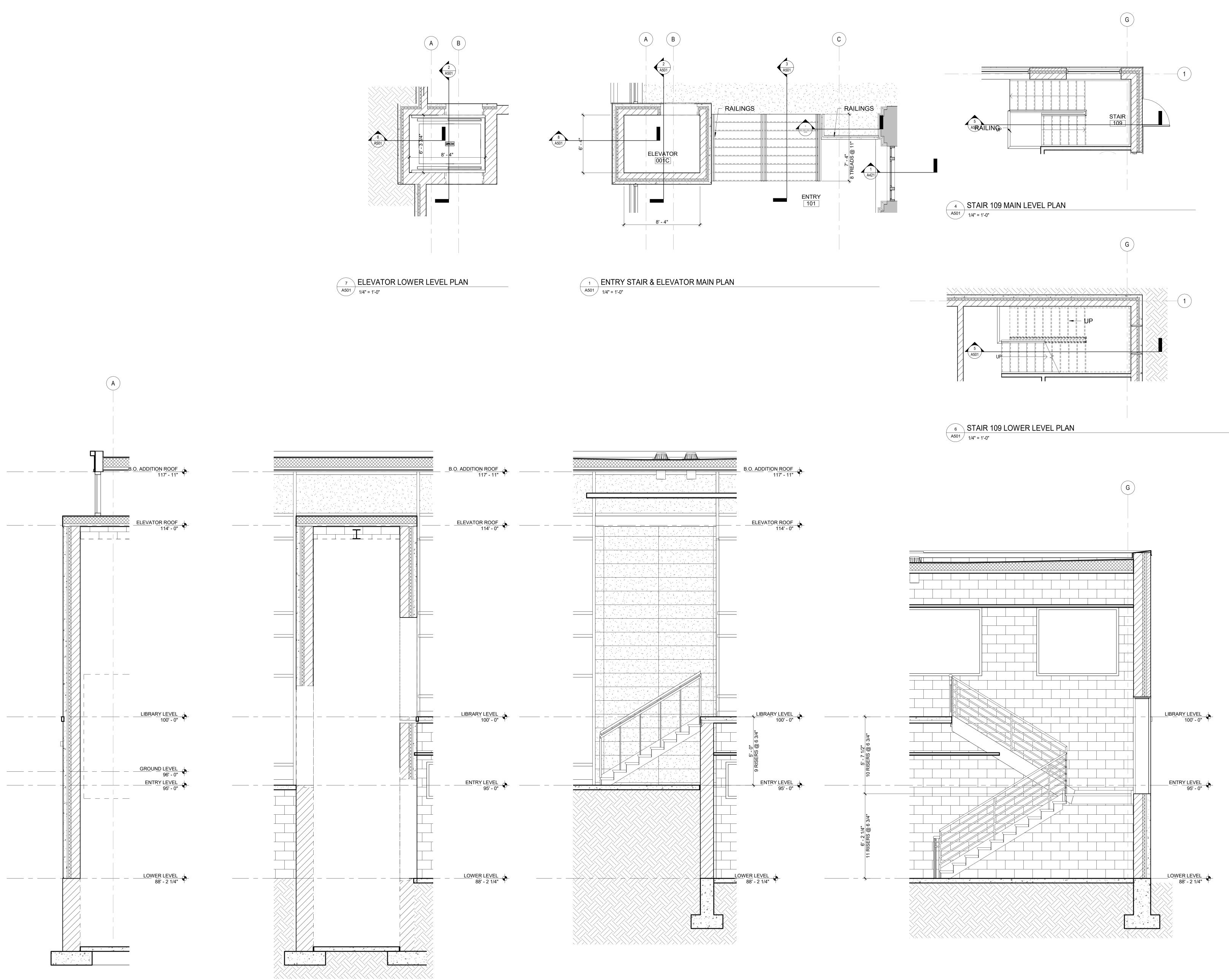


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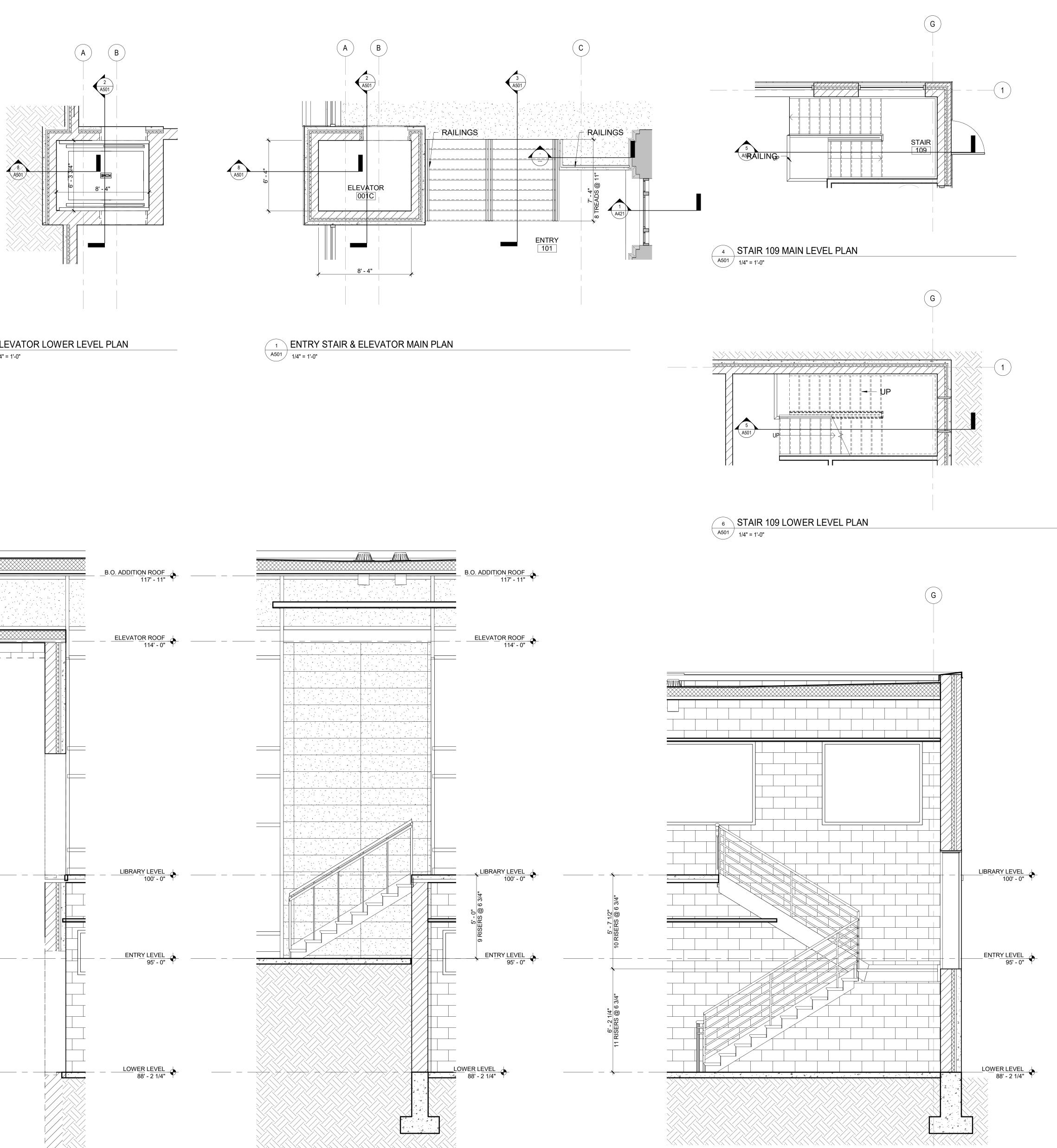
WALL SECTIONS

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Allor A421





2 WALL SECTION AT ELEVATOR SHAFT A501 3/8" = 1'-0"



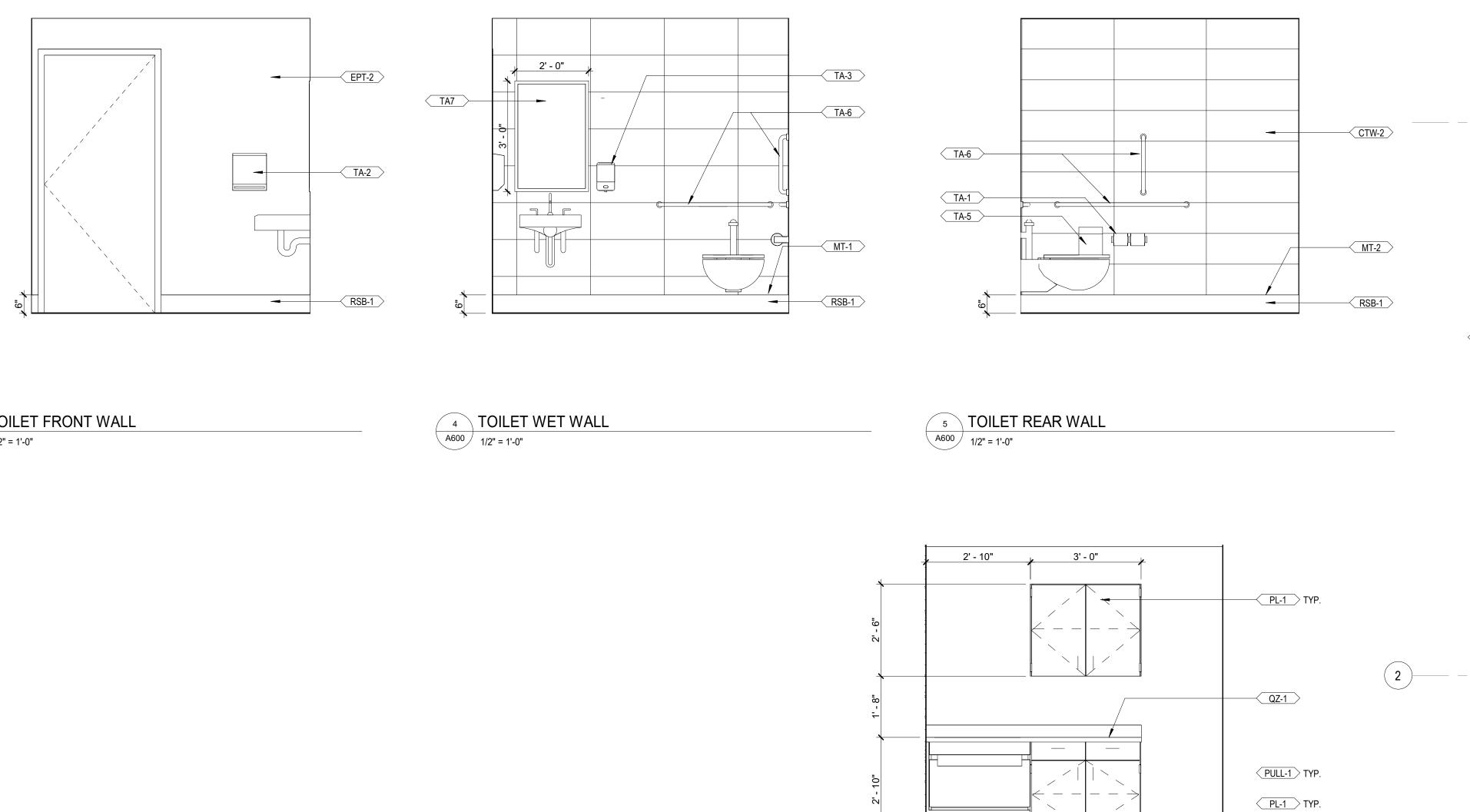


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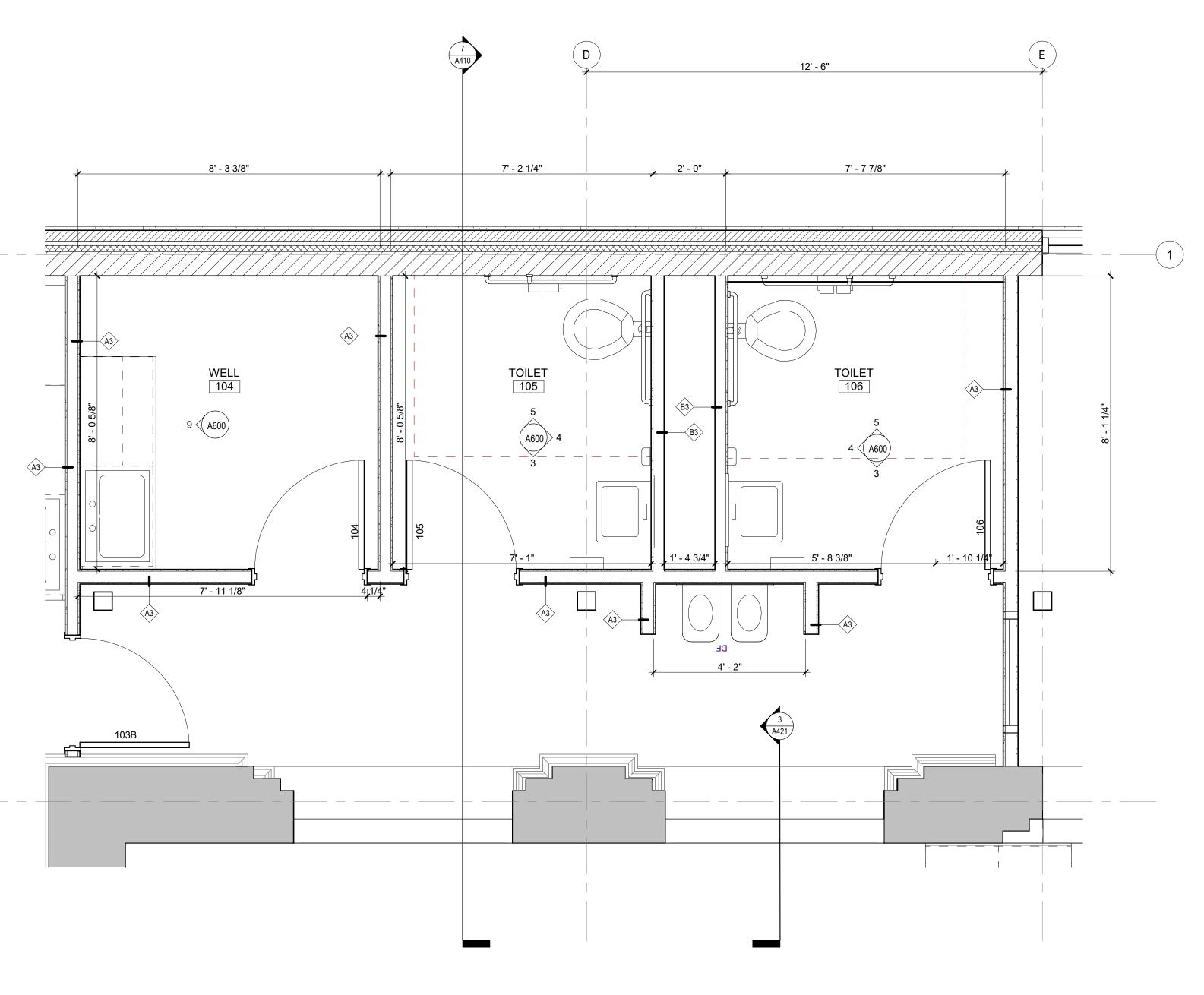
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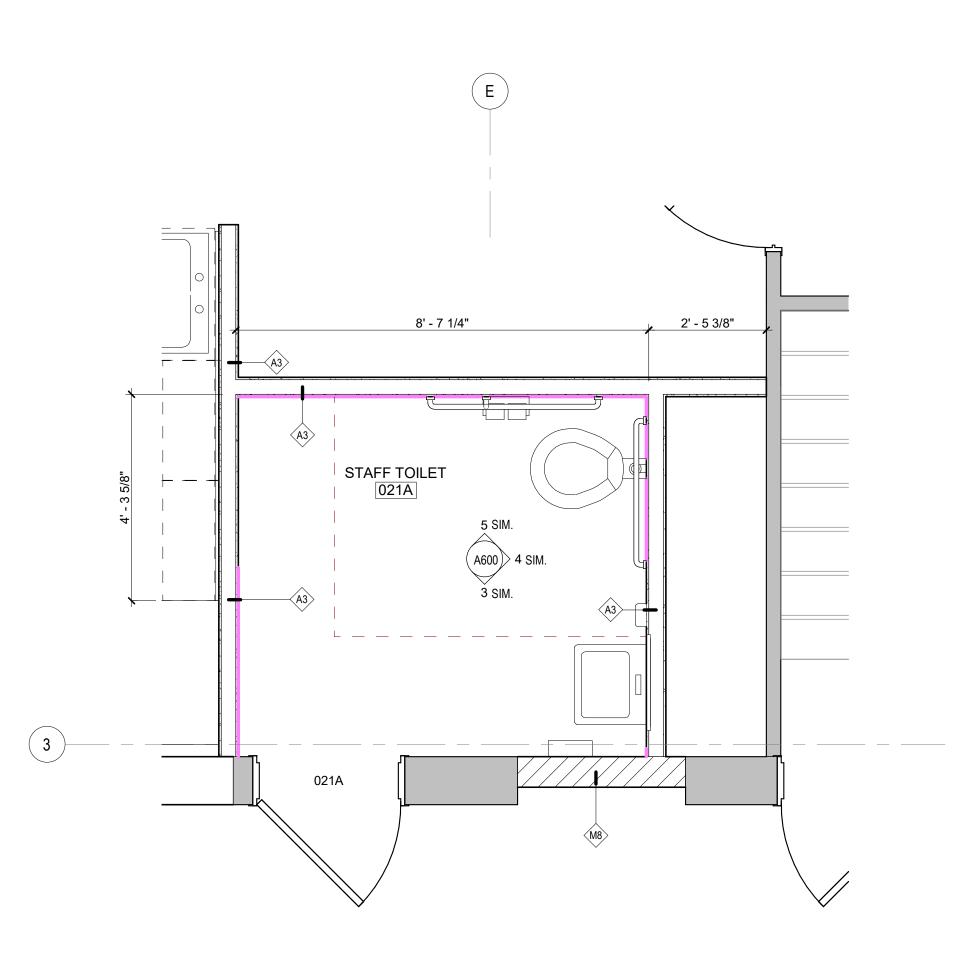




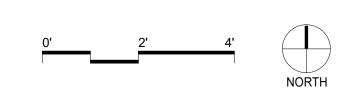
1 MAIN LEVEL TOILET PLAN A600 1/2" = 1'-0"

RB-1 TYP.

9 WELL ROOM ELEVATION A600 1/2" = 1'-0"



2 LOWER LEVEL TOILET PLAN A600 1/2" = 1'-0"

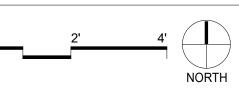




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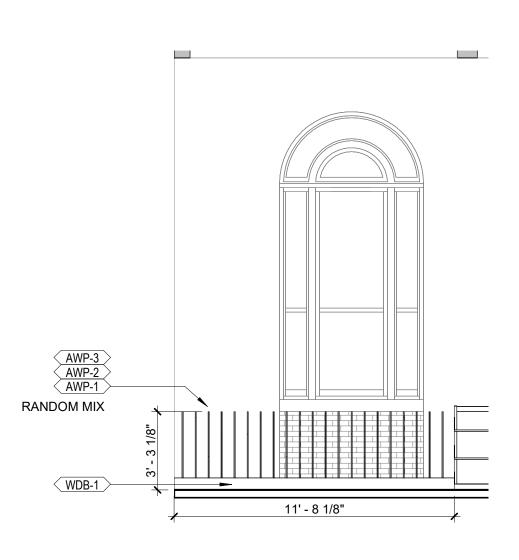
ENLARGED TOILET PLANS



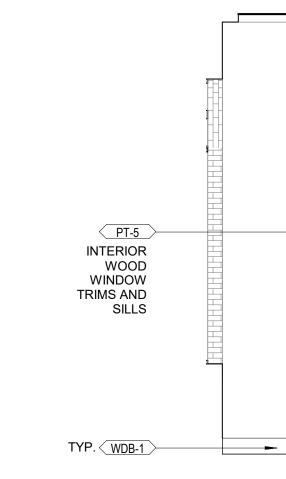
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	9/30/2022



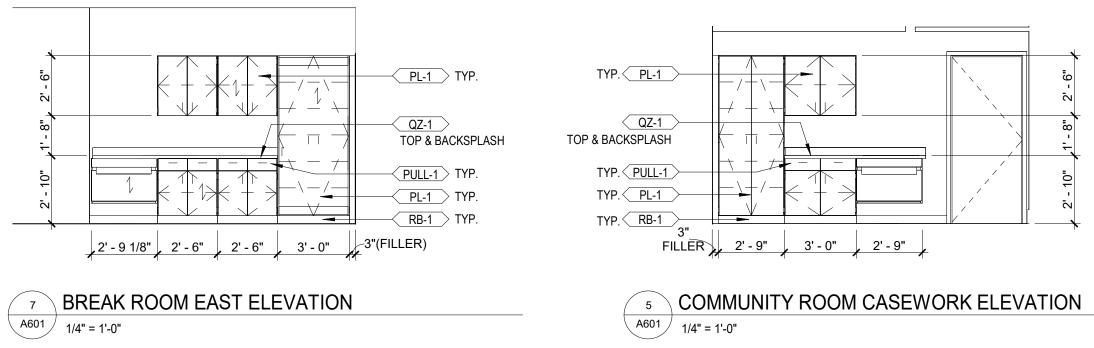
3 READING ROOM SOUTH WALL ELEVATION A601 1/4" = 1'-0"

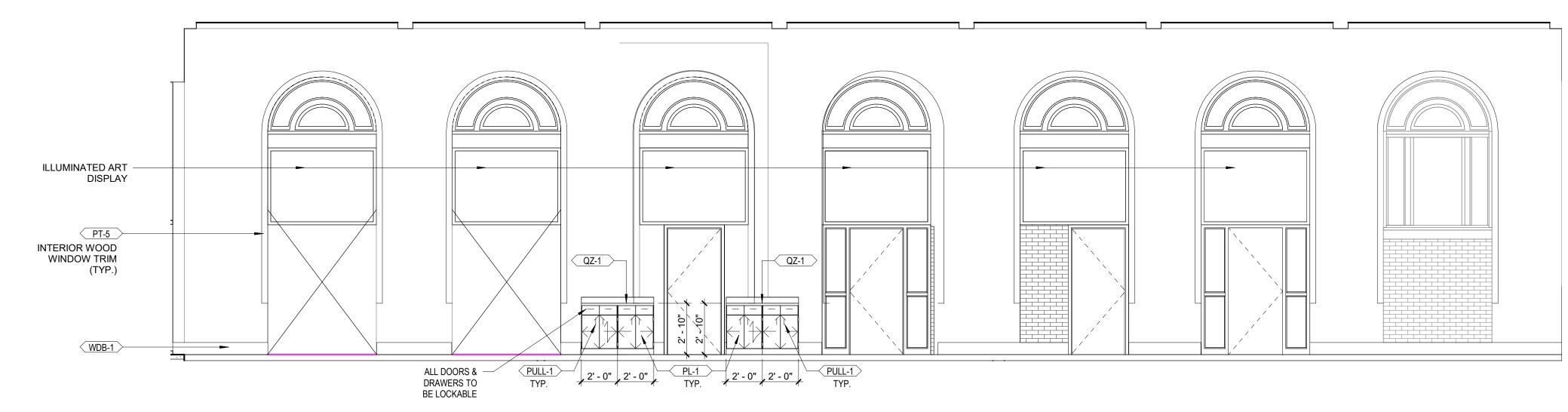


6 CHILDREN'S ACOUTIC BAFFLES ELEVATION A601 1/4" = 1'-0"

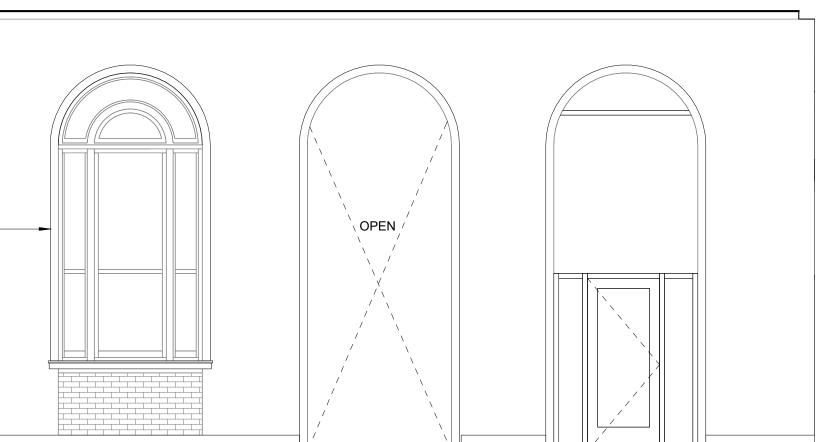


2 **READIN** A601 1/4" = 1'-0"



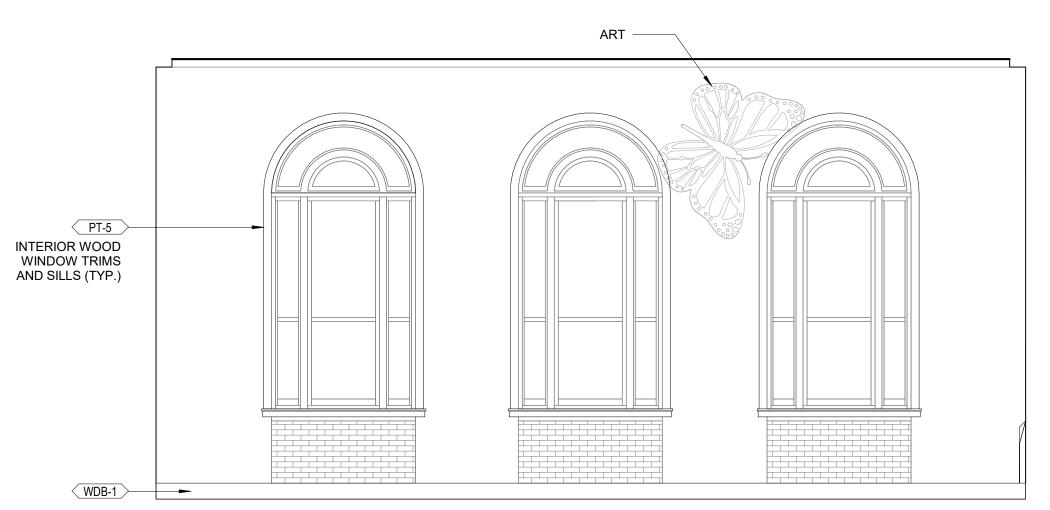


¹ READING ROOM NORTH WALL ELEVATION A601 1/4" = 1'-0"



GENERAL INTERIORS NOTES

- REFER TO FINISH PLANS, ELEVATIONS, REFLECTED CEILING PLANS, ROOM FINISH SCHEDULE AND SPECIFICATIONS MANUAL FOR FURTHER FINISH INFORMATION.
- DO NOT PAINT ANY PREVIOUSLY UNPAINTED EXISTING BRICK, STONE, OR GLAZED CMU, UNLESS NOTED OTHERWISE (U.N.O.).
- PAINT ALL HARD SURFACE CEILINGS AND SOFFITS IN THE AREA OF WORK PT-1, FLAT FINISH, U.N.O.
- EXISTING AND NEW GYP. BD. WALLS IN AREA OF WORK TO BE PAINTED PT-2, EGGSHELL FINISH, U.N.O.
- ALL HOLLOW METAL DOOR FRAMES, METAL RAILINGS, STAIR PANS, STRINGERS, ETC. IN AREA OF WORK TO BE PAINTED PT-3, SEMI-GLOSS FINISH, U.N.O.
- REFER TO ALL ALTERNATES FOR ADDITIONAL INFORMATION. SEE DWGS & SPECIFICATION MANUAL.
- ALL CEILING INFORMATION IS LOCATED ON THE REFLECTED CEILING PLANS (RCP) AND DETAILS.
- PREPARE OR REPAIR ALL SUBSTRATES AS RECOMMENDED BY THE MANUFACTURER AS NEEDED FOR PROPER FINISH MATERIAL INSTALLATION. ALL NEW WINDOW SILLS TO BE SOLID SURFACE SSM-1.
- INSTALL STAINLESS STEEL CORNER GUARDS (CG-1) AT ALL OUTSIDE GYP. BD. CORNERS (TO BE PAINTED) WITHIN THE AREA OF WORK (TYP.). PROVIDE TRANSITION STRIPS AT ALL FLOORING CHANGES. REFER TO SHEET A050 FOR TRANSITION TYPES PER CONDITION.
- PROVIDE METAL TRANSITION STRIPS (MT) AT ALL OUTSIDE TILED CORNERS AND EXPOSED TILE EDGES. SEE ELEVATIONS FOR LOCATIONS AND PROJECT MANUAL FOR MORE INFORMATION.
- M. SEE SHEET A050 FOR TYPICAL MOUNTING HEIGHTS & FLOOR TRANSITION DETAILS







RIVERVIEW

1 George Street East Saint Paul, Minnesota 55107

5	FORC	ONSTRUCTION
NO		

No.	Date	Revision Description
75	% Design [Development

INTERIOR ELEVATIONS

2/2222
30/2022
CL A601

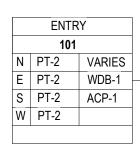
					ROOM	FINISH SCHEDULE				
F	ROOM FLOOR			WALL FINISH			CE	ILING		
Number	Name	Floor Finish	Base Finish	North	East	South	West	Finish	Material	Comments
001A	STORAGE	EXIST	EXIST	EXIST	EXIST	EXIST	EXIST	EXIST	EXIST	
001B	STORAGE	EXIST	EXIST	EXIST	EXIST	EXIST	EXIST	EXIST	EXIST	
001C	ELEVATOR									
001F	ROOM									
010	HALLWAY	RSF-2	RB-1	PT-2	PT-2	PT-2	PT-2	ACP-1	-	
011	BOOK DROP	CPT-4	RB-1	PT-2	PT-2	PT-2	PT-2	ACP-1	-	
012	JAN.	SC-1	RB-2	EPT-2	EPT-2	EPT-2	EPT-2	EXP	-	
013	OUTDOOR STORAGE	SC-1	RB-1	PT-2	PT-2	PT-2	PT-2	EXP	-	
014	MECH. OFFICE	CPT-4	RB-1	PT-2	PT-2	PT-2	PT-2	ACP-1	-	
015	MECHANICAL	SC-1	-	-	-	-	-	EXP	-	
016	STAIR	VARIES	RB-1	PT-2	PT-2	PT-2	PT-2	GYP	PT-1	
017	STOR.	RTF-1	RB-1	PT-2	PT-2	PT-2	PT-2	ACP-1	-	
018	FLEX	CPT-5	RB-1	PT-2	PT-2	PT-2	PT-2	ACP-1	-	
019	STAFF BREAKOUT	CPT-4	RB-1	PT-2	PT-2	PT-2	PT=2	ACP-1	-	
020	WORKROOM	CPT-4	RB-1	PT-2	PT-2	PT-2	PT-2	ACP-1	-	
021	BREAKROOM	RSF-2	RB-1	PT-2	PT-2	PT-2	PT-2	ACP-1		
021A	STAFF TOILET	RSF-1	RSB-1	CTW-2	CTW-1	EPT-2	EPT-2	GYP	EPT-1	
021B	ELEC.	SC-1	RB-1	PT-2	PT-2	PT-2	PT-2	EXP	-	
022	STORAGE	RTF-1	RB-1	PT-2	PT-2	PT-2	PT-2	ACP-1	-	
100	VESTIBULE	CTF-1	CTB-1	PT-2	PT-2	PT-2	PT-2	GYP	PT-1	
101	ENTRY	VARIES	WDB-1	PT-2	PT-2	PT-2	PT-2	ACP-1		
102	COLLECTIONS	VARIES	WDB-1	PT-2	PT-2	PT-2	PT-2	EXIST	VARIES	
102A	BALCONY									
103	COMMUNITY	CPT-4	WDB-1	PT-2	PT-2	PT-2	PT-2	ACP-1	-	
104	WELL	RSF-2	RB-1	PT-2	PT-2	PT-2	PT-2	GYP	PT-1	
105	TOILET	RSF-1	RSB-1	CTW-2	CTW-1	EPT-2	EPT-2	GYP	EPT-1	
106	TOILET	RSF-1	RSB-1	CTW-2	EPT-2	EPT-2	CTW-1	GYP	EPT-1	
107	OFFICE	CPT-4	RB-1	PT-2	PT-2	PT-2	PT-2	ACP-1	-	
108	SERVICE									
108	MEETING	CPT-4	WDB-1	PT-2	PT-2	PT-2	PT-2	ACP-1	-	
109	STAIR	VARIES	RB-1	PT-2	PT-2	PT-2	PT-2	EXP	PT-1	
110	STUDY	CPT-1	WDB-1	PT-2	PT-2	PT-2	PT-2	ACP-1	-	
120	Hall	CTF-1	WDB-1	PT-2	PT-2	PT-2	PT-2	GYP	PT-1	
132	HALL	CPT-4	RB-1	PT-2	PT-2	PT-2	PT-2	ACP-1	-	

Key

	Room Name					
Room Number						
Ν	Wall	-				
Ε	Wall	-				
S	Wall	-				
W	Wall	-				
No	Notes					

Floor Material Base Material Ceiling Finish Ceiling Material

CARPERT CARPET - WALKOFF SHEET VINYL FLOORING SEALED CONCRETE EPOXY PAINT PAINT WOOD BASE VINYL BASE RESILIENT SHEET BASE INTEGRAL BASE ACOUSTICAL CEILING PANEL GYPSUM WALLBOARD EXPOSED EXISTING **RESILIENT SHEET FLOORING**



GENERAL INTERIORS NOTES

A.	REFER TO FINISH PLANS, ELEVATIONS, REFLECTED CEILING PLANS, ROOM FINISH SCHEDULE AND SPECIFICATIONS MANUAL FOR FURTHER FINISH INFORMATION.
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D.	EXISTING AND NEW GYP. BD. WALLS IN AREA OF WORK TO BE PAINTED PT-2, EGGSHELL FINISH, U.N.O.
E.	ALL HOLLOW METAL DOOR FRAMES, METAL RAILINGS, STAIR PANS, STRINGERS, ETC. IN AREA OF WORK TO BE PAINTED PT-3, SEMI-GLOSS FINISH, U.N.O.
F.	REFER TO ALL ALTERNATES FOR ADDITIONAL INFORMATION. SEE DWGS & SPECIFICATION MANUAL.
G.	ALL CEILING INFORMATION IS LOCATED ON THE REFLECTED CEILING PLANS (RCP) AND DETAILS.
H.	PREPARE OR REPAIR ALL SUBSTRATES AS RECOMMENDED BY THE MANUFACTURER AS NEEDED FOR PROPER FINISH MATERIAL INSTALLATION.
I.	ALL NEW WINDOW SILLS TO BE SOLID SURFACE SSM-1.
J.	INSTALL STAINLESS STEEL CORNER GUARDS (CG-1) AT ALL OUTSIDE GYP. BD. CORNERS (TO BE PAINTED) WITHIN THE AREA OF WORK (TYP.).
K.	PROVIDE TRANSITION STRIPS AT ALL FLOORING CHANGES. REFER TO SHEET A050 FOR TRANSITION TYPES PER CONDITION.
L.	PROVIDE METAL TRANSITION STRIPS (MT) AT ALL OUTSIDE TILED CORNERS AND EXPOSED TILE EDGES. SEE ELEVATIONS FOR LOCATIONS AND PROJECT MANUAL FOR MORE INFORMATION.

CPT

SV

SC EPT

ΡT

RB

RSB

INT

ACP

GYP

EXP

EXIST

RSF

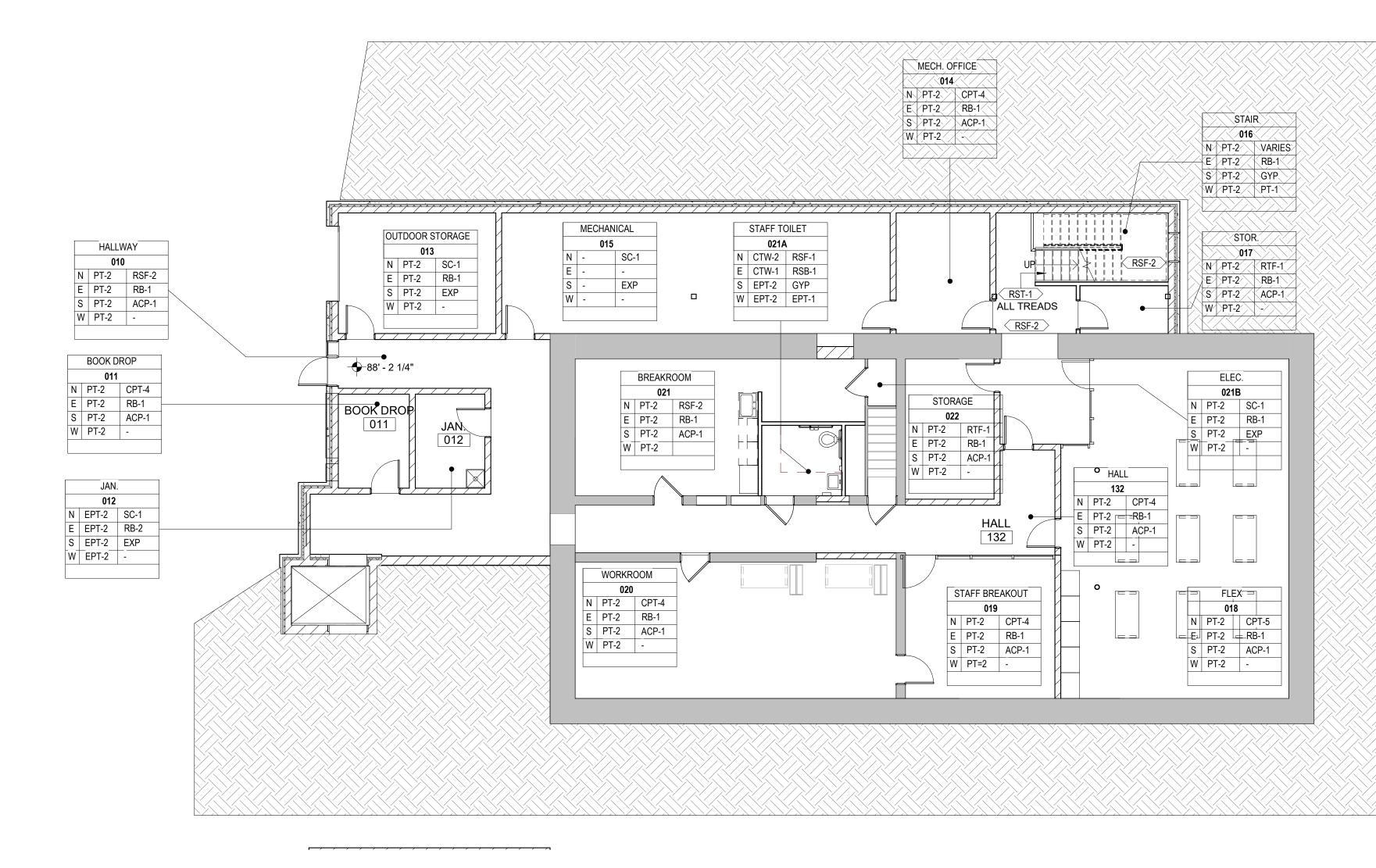
WDB

CPT-W

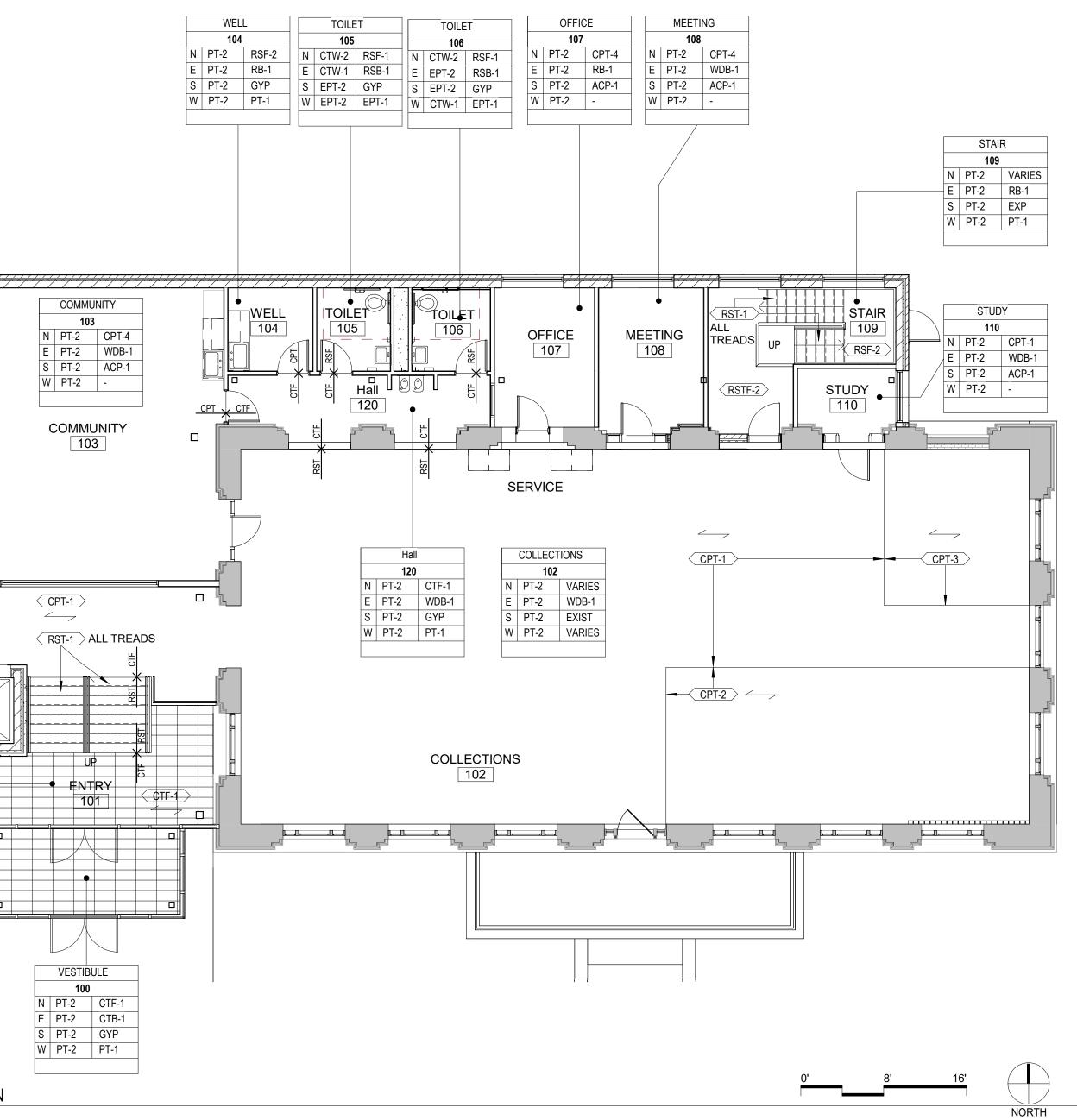
SEE SHEET A050 FOR TYPICAL MOUNTING HEIGHTS & FLOOR TRANSITION DETAILS Μ.

CPT-1 *____* ___ Elevator CTF-1 ____

² MAIN LEVEL FINISH PLAN A701 1/8" = 1'-0"







0' 8' 16'



1 George Street East Saint Paul, Minnesota 55107

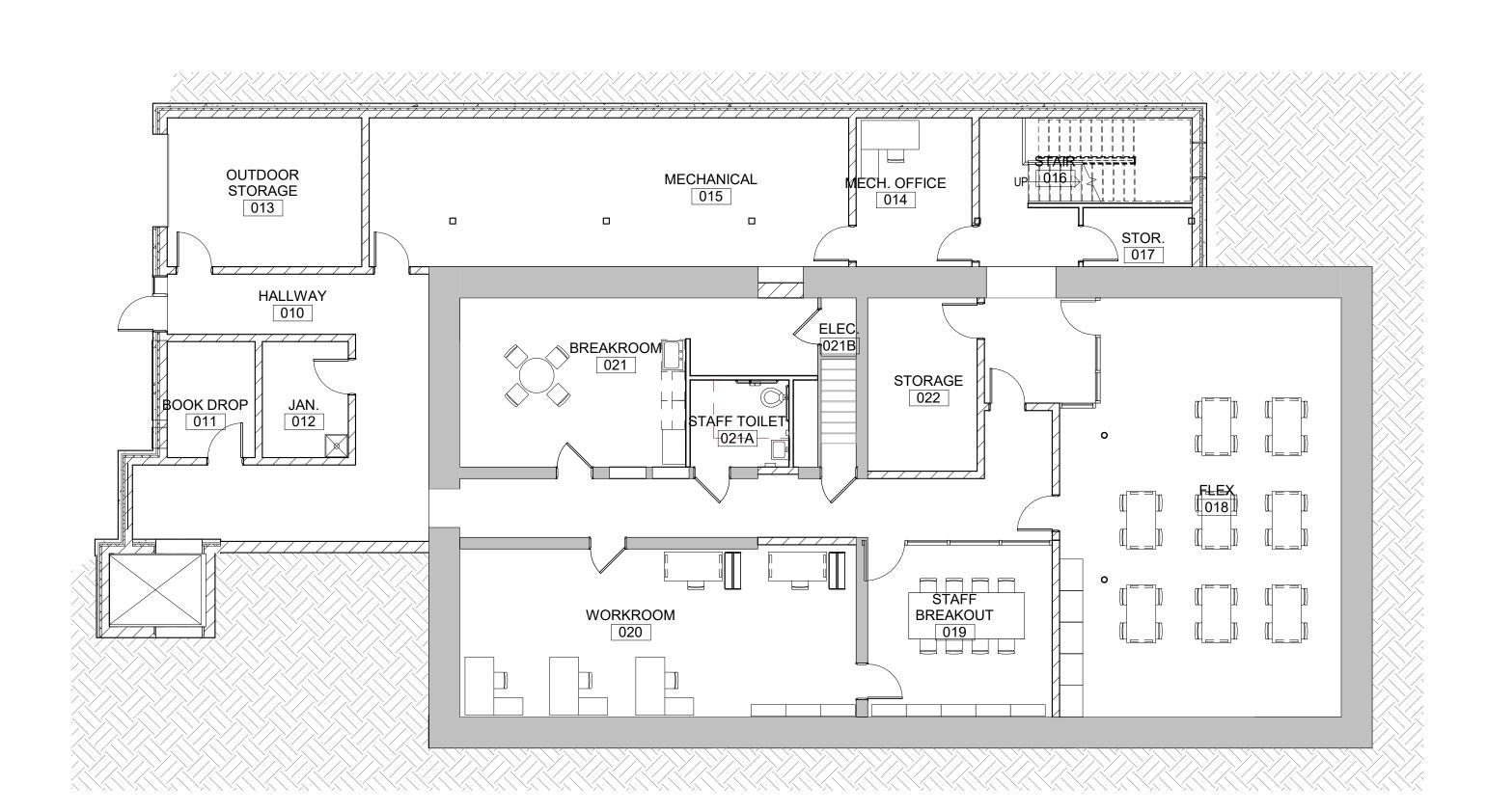
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No.	Date	Revision Description
	·	
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75	% Desia	n Development

Project	21.1037.01	Drawing Number
Date	9/30/2022	
Drawn by	WB	A 704
Checked by	RA, CL	A701

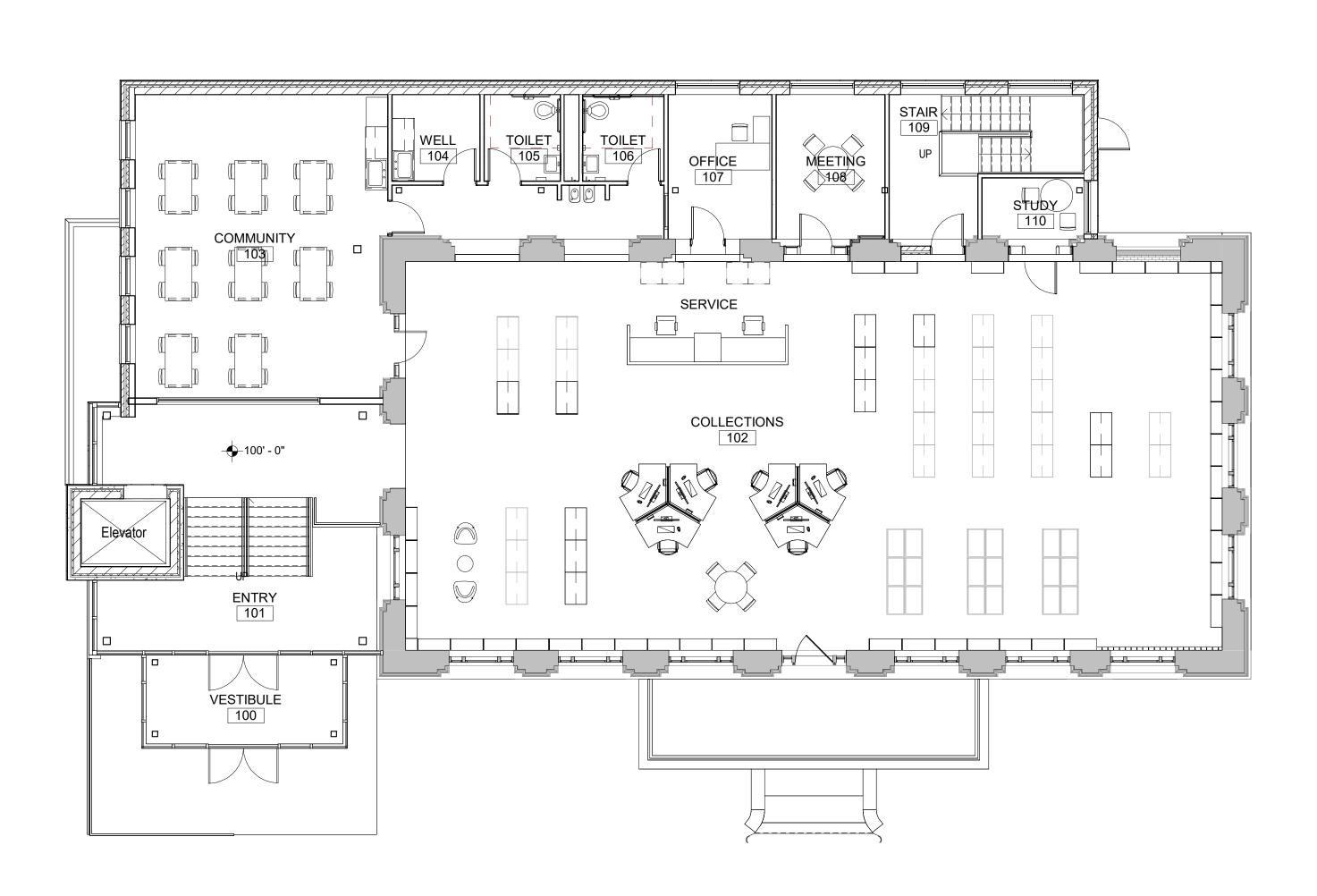
right © LSE Architects. In

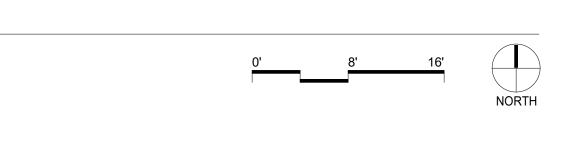
9/30/2022 2:41:00 PM Autodesk Docs://21.1037.01 SPPL Riverview Library/SPPL - RV_AR22_Central.rvt





1 MAIN LEVEL FURNITURE PLAN A750 1/8" = 1'-0"





0' 8' 16' NORTH



1 George Street East Saint Paul, Minnesota 55107

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No.	Date	Revision Description
	·	
75	% Desig	n Development

FURNITURE PLAN

Project	21.1037.01	Drawing Number
Date	9/30/2022	
Drawn by	Author	A 750
Checked by	Checker	A750

Current Collection:

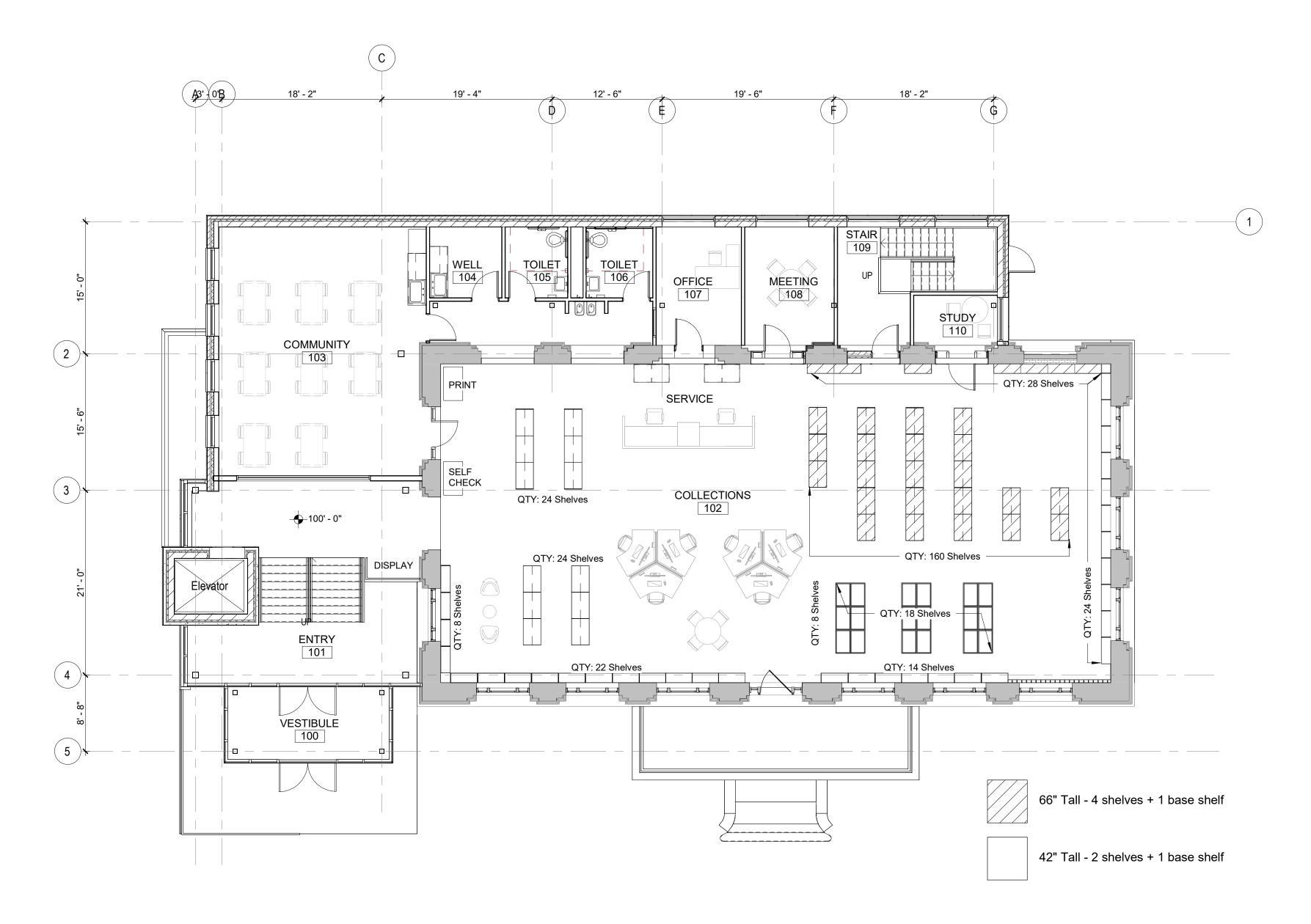
Proposed Collections: 46 Units @ 36" L x 4 Shelves H = 6,624linear inches 59 Units @ 36" L x 2 Shelves H = 4,248 linear inches 18 EZ Bins @ 36" L = 648 Linear Inches Total: 11,520 Linear Inches = 320 shelves

Collections Info:

75 Units @ 34" L x 5 Shelves H = 12,720 linear inches 21 Units @ 34" L x 2 Shelves H = 1,428 linear inches Total: 14,148 linear inches = 393 shelves (36" units)

Base Shelving Available 107 Shelves = 3,852 linear Inches

Shelving in new building 11,520 + 3,852 = 15,372 linear inches = 427 shelves



1 MAIN LEVEL SHELVING PLAN A751 1/8" = 1'-0"

0' <u>8' 16'</u> NORTH

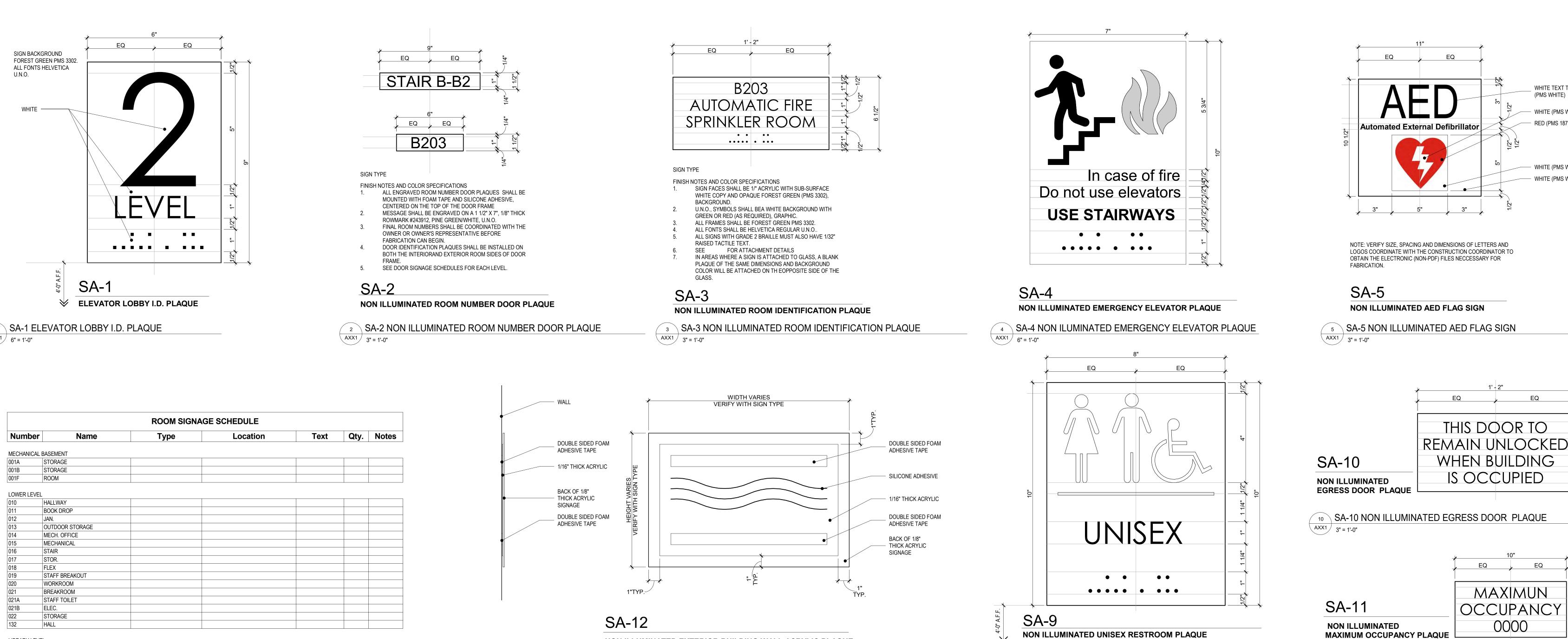


1 George Street East Saint Paul, Minnesota 55107

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NO		
No.	Date	Revision Description
75	5% Design	Development

SHELVING PLAN

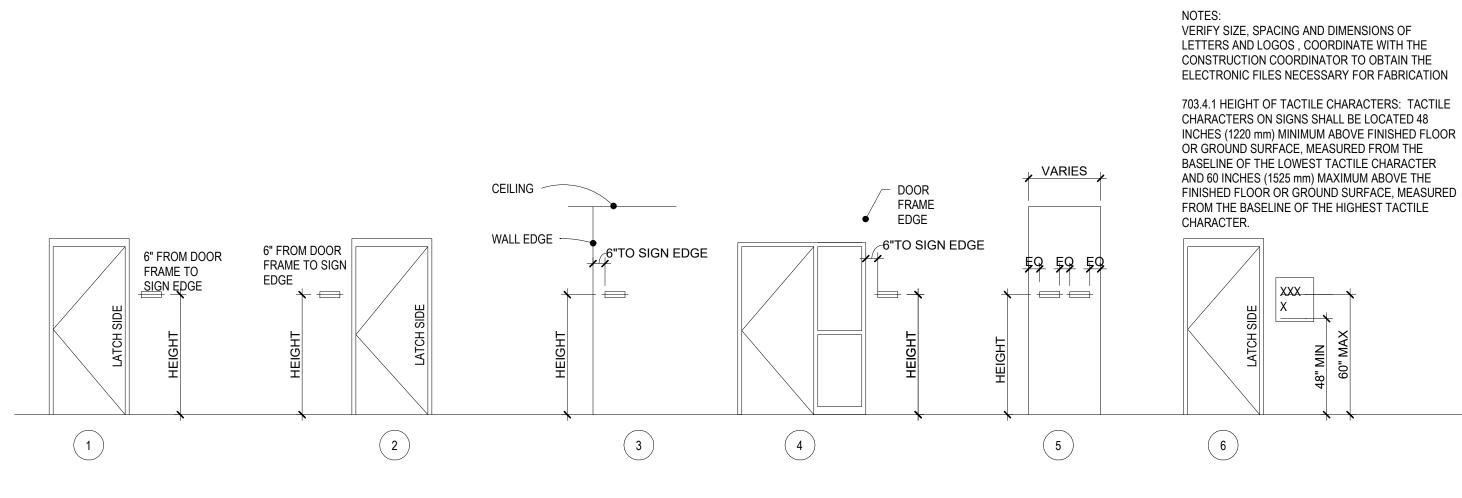
Project	21.1037.01	Drawing Number
Date	9/30/2022	
Drawn by	Author	A 7 <i>C 4</i>
Checked by	Checker	A751



AXX1 6" = 1'-0"

ROOM SIGNAGE SCHEDULE						
Number	Name	Туре	Location	Text	Qty.	Notes
MECHANICAL	RASEMENT					
001A	STORAGE					
001B	STORAGE					
001E	ROOM					
LOWER LEVEL						
010	HALLWAY					
011	BOOK DROP					
012	JAN.					
013	OUTDOOR STORAGE					
014	MECH. OFFICE					
015	MECHANICAL					
016	STAIR					
017	STOR.					
018	FLEX					
019	STAFF BREAKOUT					
020	WORKROOM					
021	BREAKROOM					
021A	STAFF TOILET					
021B	ELEC.					
022	STORAGE					
132	HALL					
LIBRARY LEVE	1					
001C	ELEVATOR					
100	VESTIBULE					
100	ENTRY					
101	COLLECTIONS					
102 102A	BALCONY					
103	COMMUNITY					
104	WELL					
105	TOILET					
106	TOILET					
107	OFFICE					
108	SERVICE					
108	MEETING					
109	STAIR					
110	STUDY					
120	Hall					

NON ILLUMINATED EXTERIOR BUILDING WALL ACRYLIC PLAQUE 14 SA-12 NON ILUMINATED EXTERIOR BUILDING WALL ACRYLIC PLAQUE AXX1 3" = 1'-0"





AXX1 6" = 1'-0"

10 SA-10 NON ILLUMINATED EGRESS DOOR PLAQUE

EQ EQ MAXIMUN CCUPANCY 0000 EQ EQ EQ EQ EQ EQ EQ EQ EQ EQ	1	0"	L
OCCUPANCY	EQ	EQ	L
OCCUPANCY			\ =
	MAX	MUN	
0000	OCCU	PANCY	
			/2" 1"

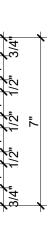
11 SA-11 NON ILLUMINATED MAXIMUM OCCUPANCY PLAQUE AXX1 3" = 1'-0"

⁹ SA-9 NON ACRYLIC ILLUMINATED UNISEX RESTROOM PLAQUE





1 George Street East Saint Paul, Minnesota 55107



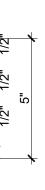
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RED (PMS 187)





No.	Date	Revision Description

75% Design Development

TYPICAL SIGNAGE AND EQUIPMENT MOUNTING HEIGHTS

21.1037.01	Drawing Number
9/30/2022	
Author	
Checker	AXX1
	9/30/2022 Author

GENERAL CONSTRUCTION NOTES:

1. Reference Standards: Unless noted otherwise, all standards shall be current edition, with latest addenda, if applicable. Contractor shall verify all existing dimensions, member sizes, and field conditions prior to any demolition, fabrication,

- construction, or installation and notify Structural Engineer of Record if conditions, materials, sizes, and dimensions are different from those shown.
- 3. The contract structural drawings and specifications represent the finished structure. Unless otherwise indicated, they do not indicate the means or method of construction. The contractor is solely responsible for the protection of the structure during all phases of demolition, construction, and installation.
- 4. The finished structure has been designed for the loading indicated below. It is the responsibility of the contractor(s) and their specialty Engineer(s) to review and use means and methods to adequately address loading on the structure during construction including, but not limited to, wind, snow, seismic, underpinning, material storage, and equipment.
- 5. Cross reference all dimensions and details with architectural and mechanical drawings before commencing any fabrication and/or construction.
- 6. Details and conditions not specifically shown shall be constructed in accordance with details shown for similar conditions and materials.
- 7. Shop drawings prepared by suppliers, sub-contractors, etc. shall be reviewed, coordinated, and signed/stamped by the contractor prior to submitting to the Structural Engineer of Record. The Structural Engineer of Record's review of shop drawings, product data, design calculations, etc., does not relieve the contractor from complying with the contract documents
- 8. Verify location of all box outs and openings. Opening sizes and locations shown for pipes, ducts, mechanical units, etc. are for general information only and shall be verified with all trades before commencing the work.
- 9. Contractor is solely responsible for protection of the existing building during all phases of construction.

3. Minimum Design Loads for Buildings and Other Structures (ASCE 7-16).

- 10. No structural repairs, corrections, or alterations of work affecting a structural member shall be made without the approval of the Structural Engineer of Record. Design and/or review may be an additional service.
- 11. Do not scale the drawings.

DESIGN CRITERIA LOADS AND STRESSES:

CODES:

1. 2020 Minnesota State Building Code International Building Code (2018)

DESIGN LOADS:			
WIND DESI	GN CRITERIA		
Ultimate Design Wind Speed (3-sec gust), V _{ult}	115 MPH		
Nominal Design Wind Speed (3-sec gust), Vasd	90 MPH		
Risk Category			
Wind Exposure	"C"		
Internal Pressure Coefficients	GC _{pi} = +/- 0.18		
	$GO_{pi} = \tau - 0.10$		
BOOL SNOW	V LOAD DATA*		
Ground Snow Load, Pg	50 PSF		
Snow Exposure Factor, Ce	1.0		
Snow Load Importance Factor, I	1.0		
Thermal Factor, Ct	Heated $C_t = 1.0$ Unheated $C_t = 1.2$		
Slope Factor, Cs	C _s = 1.0		
Flat Roof Snow Load, P _f	Heated P_f = 35 PSF + drifting		
	Unheated P _f = 42 PSF + drifting		
*See Plan for Unbalanced Snow Loads & Snow Drift Loads ROOF RAIN	I LOAD DATA		
Rain Intensity, <i>ν</i> (in/hr)	<i>ν</i> = 7.08		
· ····································			
 50 PSF Offices 125 PSF Mechanical/Electrical areas 125 PSF Light storage live load 100 PSF First floor corridors, public spaces, stairs, and exit 80 PSF Corridors above first floor 15 PSF Partition load, office areas ROOF LIVE LOADS:	S		
20 PSF Minimum Roof Live Load			
 CONCRETE: (f'c) at 28 Days 3000 PSI Footings 3000 PSI Masonry grout corefill with 3/8" max. aggregate [n 3500 PSI Slab on grade [max w/c = 0.45, no entrained air] 4000 PSI Slab on steel deck, topping slabs [max w/c = 0.45 4500 PSI Piers, foundation walls, and exterior slabs [5%-7% 4500 PSI Retaining walls, basement walls, pile caps, and gr 5000 PSI Columns and shear walls 7000 PSI Non-shrink grout below baseplates All exterior concrete work shall have 5% to 7% air entrainment. STEEL: (Fy) 60,000 PSI ASTM A615 grade 60 reinforcing 60,000 PSI ASTM A706 weldable reinforcing 75,000 PSI ASTM A185 welded wire fabric 50,000 PSI ASTM A992 wide-flange shapes 	, fly ash not permitted, no entrained air] air content] ade beams		
 36,000 PSI ASTM A36 plates, channels, and angles, etc. 50,000 PSI ASTM A500 grade C structural tubes (HSS) 35,000 PSI ASTM A53 type E or S, grade B steel pipe 46,000 PSI ASTM A500 grade C structural pipe (HSS) 92,000 PSI ASTM A325 high strength bolts 36,000 PSI ASTM F1554 threaded anchor rods 50,000 PSI ASTM A108 headed studs MASONRY: (F'm) 2000 PSI concrete masonry FOUNDATION LOADS:			
PSF soil bearing, based on soil report prepared by _ dated, (report #).		
······································	/`		

LATERAL EARTH PRESSURE [EDIT/ VERIFY PER JOB. DELETE IF DOES NOT APPLY]:

35 PCF Active Lateral Earth Pressure (Equivalent Fluid Density) 60 PCF At-Rest Lateral Earth Pressure (Equivalent Fluid Density)

PILE FOUNDATIONS:

__" wall thickness) driven to elevation _____ " ø and ; based on soil report #

TEMPORARY BRACING:

- 1. Provide temporary lateral support for all walls where grade varies on the two sides until slab has reached its design strength.
- 2. Provide required temporary bracing for structural steel until permanent bracing and walls are in place.
- 3. Provide temporary bracing for all walls, concrete, masonry, light gage metal, or wood until they are of adequate design strength and are properly anchored in final form.
- 4. Provide temporary shoring for all existing walls, floors, and roof members until new construction is in place and properly
- anchored or cured in final form. 5. All temporary shoring is to be designed by a specialty shoring contractor, by a Professional Engineer licensed in the state
- of the project, at the expense of the contractor.
- 6. Shore all foundation walls as required before backfilling and compacting. 7. Contractor shall provide adequate bracing and shoring during all phases of construction and erection of the structure.

GENERAL FOUNDATION NOTES:

- 2. Cross reference all architectural, mechanical, electrical, and structural drawings to assure proper dimensions and placement of all anchor rods, inserts, etc.
- 3. All footing elevations are shown to top of footings, unless noted otherwise. All footings are centered under walls or columns above, unless noted otherwise.
- 5. Continuous wall footings up through 1'-8" wide to be 10" thick. Footings over 1'-8" wide to be 12" thick, unless noted
- otherwise
- Provide wall footing reinforcement as follows: Footings up through 2'-0" wide = (2)-#5 cont. Footings 2'-1" through 3'-0" wide = (3)-#5 cont. Footings 3'-1" through 3'-6" wide = (3)-#5 cont. & #5 @ 12" transv.
- See details for reinforcing in all footings over 3'-6" wide.
- Provide 90 degree bend in all footing dowels. Cast dowels in footings for columns, piers, and walls above. Dowels to be the same number and size as the vertical reinforcing, unless noted otherwise. See General Concrete Notes or General Masonry Notes for required lap length.
- 8. Provide hot dip galvanized welded wire block reinforcing in all masonry foundation walls at 16" o.c. maximum spacing 9. Rebar and anchor rods to be securely tied in place prior to placing concrete (i.e. no "wet-sticking" is allowed).

GENERAL CONCRETE NOTES:

- 1. Concrete construction shall comply with the provisions of the "Building Code Requirements for Structural Concrete," ACI 318-14.
- 2. The "ACI Detailing Manual" shall govern detailing and fabrication of all reinforcing steel, unless noted otherwise.
- 3. Reinforcing steel supplier to provide all accessories, chairs, spacing bars, and supports necessary to secure steel in accordance with "Manual of Standard Practice" by the Concrete Reinforcing Steel Institute. Clay brick is not allowed. 4. Provide minimum clear concrete cover for all reinforcement as follows:
- Cast against and permanently exposed to earth = 3
- Exposed to earth or weather: #5 bars and smaller = $1 \frac{1}{2}$ "
- #6 bars and larger = 2" Not exposed to weather or in contact with ground:
- Slabs, walls, & joists (#3 to #11 bars) = 3/4" Beams, girders and columns, primary reinforcement, ties, stirrups, or spirals = 1 1/2"
- 5. Provide corner bars at all corners and intersections of walls, grade beams, and edge beams. Corner bar to be the same size and spacing as all horizontal bars.
- 6. At openings in structural slabs or walls, provide a minimum of (2)-#6 bars each side of opening. Bars are to extend a minimum of 3'-0" beyond corners of openings, unless noted otherwise. Provide (1)-#5 x 4'-0" long diagonal bar at each corner of opening in each face of wall or slab.
- 7. Provide minimum concrete wall reinforcing as follows: (unless noted otherwise) 6" & 8" concrete walls:
- #4 @ 16" o.c. vert & #4 @ 10" o.c. horiz (center in wall) 10" concrete walls:
- #4 @ 16" o.c. vert & #4 @ 16" o.c. horiz (each face)
- 12" concrete walls: #4 @ 16" o.c. vert & #4 @ 12" o.c. horiz (each face) 16" concrete walls:
- #4 @ 16" o.c. vert & #4 @ 12" o.c. horiz (each face)
- Joint and Construction Joint Detail.
- 9. No aluminum of any type shall be allowed in the concrete work, unless coated to prevent reaction with concrete.
- 10. Maximum outside diameter of embedded conduit shall be no larger than 1/3 of the slab thickness. This restriction applies to the total height at conduit crossings. The conduit shall be placed such that it does not significantly impair the strength of construction.
- 11. Post-installed anchors in concrete shall be ICC approved for use in cracked concrete. Approved anchors shall be Hilti Kwik Bolt TZ Expansion Anchors (ESR-1917) or a Hilti HIT-HY 200 Adhesive Anchoring System (ESR-3187), unless noted otherwise. Install anchors in strict conformance with anchor manufacturer's instructions. Anchor substitutions shall not be made without written permission from the Structural Engineer of Record.
- 12. No pipe or conduit of any type shall be placed in structural concrete members without written approval from the Structural Engineer of Record.
- 13. Composite slabs and beams are designed to support the dead load of the wet concrete plus normal construction loads without requiring temporary shoring. Some deflection of the deck and beams will occur when the wet concrete is placed. The contractor shall include in the bid the cost of the additional concrete quantity caused by the deflection of the beams
- and deck. 14. Provide pockets in concrete walls for beams or base plates as required. Patch void with concrete.
- 15. Do not weld rebar, unless Weldable Rebar is provided and its use is approved by the Structural Engineer of Record. 16. Lap splice lengths in continuous reinforcing shall be tension lap splices and are shown below, unless noted otherwise on
- drawings or details:

f'c = 3000 PSI:

	CLASS	B TENSION LAP SPLICE	E LENGTH	
	Top Bars		Other Bars	
Bar Size	Case 1	Case 2	Case 1	Case 2
#3	28"	42"	22"	32"
#4	37"	56"	29"	43"
#5	47"	70"	36"	54"
#6	56"	84"	43"	64"
#7	81"	122"	63"	94"
#8	93"	139"	72"	107"
#9	105"	157"	81"	121"
#10	118"	177"	91"	136"
#11	131"	196"	101"	151"

f'c = 4000 PSI

	CLASS	B TENSION LAP SPLICE	E LENGTH	
	Тор	Bars	Othe	r Bars
Bar Size	Case 1	Case 2	Case 1	Case 2
#3	24"	36"	19"	28"
#4	32"	48"	25"	37"
#5	40"	60"	31"	47"
#6	48"	72"	37"	56"
#7	70"	106"	54"	81"
#8	80"	121"	62"	93"
#9	91"	136"	70"	105"
#10	102"	153"	79"	118"
#11	113"	170"	87"	131"

1. Tables are for normal weight concrete with Grade 60 uncoated reinforcing bars. For lightweight aggregate, multiply the values in the table by 1.33. For epoxy coated reinforcing bars, multiply the values in the table by 1.5

2. Top bars are horizontal bars with more than 12" of concrete cast below the bars.

- 3. Compression lap splices (only where indicated on drawings) for Grade 60 uncoated reinforcing bars shall be 30 times the bar diameter.
- 4. Cases 1 and 2 are defined as follows

bar diameter.

Beams and columns: Case 1: Concrete cover at least 1.0 times the bar diameter and center-to-center spacing of at least 2.0 times the bar diamete Case 2: Concrete cover less than 1.0 times or center-to-center spacing less than 2.0 times the bar diameter. All other members: Case 1: Concrete cover at least 1.0 times the bar diameter and center-to-center spacing at least 3.0 times the bar diameter Case 2: Concrete cover less than 1.0 times the bar diameter or center-to-center spacing less than 3.0 times the

1. All foundation excavations, backfill, and compaction shall be inspected and certified by a qualified soils testing firm prior to the construction of any footings. All reports are to be submitted to Structural Engineer of Record in a timely manner.

- 8. Provide vertical control joints in exposed concrete walls at a maximum of 30'-0" intervals. See typical details for Control

LICE	LENGTH

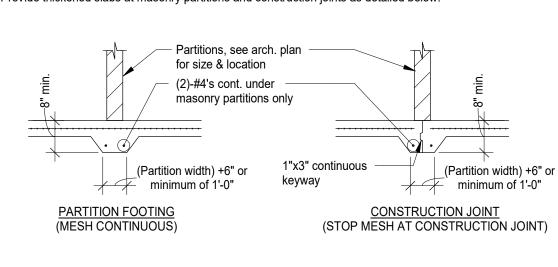
- GENERAL MASONRY NOTES:
- Masonry construction shall comply with the provisions of the "Building Code Requirements and Specification for Masonry Structures," TMS 402-16 and TMS 602-16.
- 2. Do not apply floor/roof loads until masonry has reached adequate design strength.
- 3. Masonry wall construction shall be running bond, unless noted otherwise on architectural drawings.
- 4. All mortar in bearing walls shall be Type S.
- 5. Provide continuous bond beams with (2)-#5 continuous reinforcing bars at the top of all bearing walls, end walls, and at joist bearing elevations. See details for angles and plates cast in bond beams.
- 6. Provide grout corefill under all steel beam or lintel bearings a minimum of 5 courses down for a 16" length of wall, unless noted otherwise.
- 7. Wire reinforcing for single-wythe concrete block walls, masonry cavity walls, and multi-wythe composite masonry walls shall be hot dipped galvanized, corrosion resistant horizontal joint reinforcing with the following gage and vertical spacing: Any width masonry in running bond: 9 gage @ 16" o.c. (typical wall)
- Provide corefill at all vertical and horizontal reinforcing locations
- 9. Multi-wythe cavity walls shall have the full air space as shown on the architectural details. Multi-wythe composite walls shall have the collar joint filled solid.
- 10. Consolidate and reconsolidate all grout by puddling or vibrating per ACI 530 specification section 3.5E.
- 11. Grouting shall be stopped 1 1/2" below the top of a course to form a key at the pour joint.
- 12. Masonry wall cells to be filled with grout shall be filled in lifts not exceeding 4'-0". High lift grouting can be utilized at the contractor's option. Provide clean outs at each bar location.
- 13. Vertical reinforcing bars shall be held in position at top and bottom and as required to maintain intended position of rebar. 14. Vertical reinforcing shall be lapped to all dowels extending from footings and provide vertical wall reinforcing splices as follows

#4 BAR = 16" #5 BAR = 24" #6 BAR = 42"

- Unless noted otherwise on the drawings.
- 15. Walls must be guyed and braced until floor and/or roof systems are in place.
- 16. Where a single rebar is specified in a masonry wall, it shall be centered in the core. Where two rebar are specified in one core, one bar shall be located at each face. The distance from the centerline of the rebar to the outside face of the block shall not exceed 3".
- 17. Reinforce all bond beams with (2)-#5 continuous horizontal, unless noted otherwise.
- 18. Provide corner bars in all bond beams to match continuous bar size.
- 19. Where pipe, conduit or other non-structural embed items are desired in reinforced masonry, items shall be placed whenever possible in un-grouted cells. Vertical grouted cores may have up to one (1)-1 inch diameter conduit, pipe, etc positioned in the middle of the core, provide 1" clear to masonry core vertical reinforcing bars. Additional items/configurations only permitted with the written approval from the Structural Engineer of Record.
- 20. Post-installed anchors in masonry shall be ICC approved. Approved anchors shall be Hilti Kwik Bolt 3 Expansion Anchors (ESR-1385) or a Hilti HIT-HY 270 Adhesive Anchoring System (ESR-4143), unless noted otherwise. Grout masonry solid at anchor locations. Install anchors in strict conformance with anchor manufacturer's instructions. Anchor substitutions shall not be made without written permission from the Structural Engineer of Record.

CONCRETE SLAB AND JOINT NOTES AND DETAILS:

- 1. Control Joints (C.J.) Locate saw cut control joints at column centerlines and at the following maximum spacing to create approximately square panels Concrete slabs on grade:
- i. 4"-5" thick slab = 12'-0' ii. 6"-8" thick slab = 15'-0"
- b. Coordinate control joint layout with floor finish requirements. c. Control joint depth to be 1", using an early entry saw.
- Cut control joints with an early entry saw as soon as possible without damage to the slab surface. 2. Provide 6x6-W1.4xW1.4 W.W.F. in all slabs on grade, unless noted otherwise. All mesh to be lapped a minimum of 12".
- Provide prefabricated sheets in lieu of rolled mesh. Reinforce with (2)-#5 x 3'-0" long at all re-entrant (inside) corners.
- 3. Place slab reinforcing between 1/4 and 1/3 of slab thickness down from top of slab.
- 4. Coordinate all floor finishes, slopes, recesses, floor drains, gutters, etc. with all disciplines (arch., mech., etc.). Provide a preformed isolation joint in concrete slab at columns. The isolation joint can be either a circular or diamond
- shaped pattern.
- 6. Do not provide control joints in structural slabs, slabs on metal deck, or precast topping, unless noted otherwise 7. Provide thickened slabs at masonry partitions and construction joints as detailed below.



TYPICAL LINTEL TYPES AND NOTES:

- 1. Verify size and location of all mechanical, U.V., U.H., louver, and duct openings with mechanical contractor. 2. For all openings through masonry walls not shown, including mechanical and electrical openings, provide one of the
- following: (unless noted otherwise)
- a. Steel angle lintels:
- (1) L 3 1/2" x 3 1/2" x 1/4" for each 4" thickness of wall for spans up to 4'-0". (1) L 5" x 3 1/2" x 5/16" (LLV) for each 4" thickness of wall for spans up to 5'-0".
- (1) L 6" x 3 1/2" x 5/16" (LLV) for each 4" thickness of wall for spans up to 6'-0".
- b. Block lintels Use only U-shaped lintel block for masonry lintels. The centerline of the reinforcing is to be located 3" maximum
 - from the bottom of the lintel block. Non-bearing wall up to 3'-4" span:
- <u>12" Block</u> <u>10" Block</u> <u>8" Block</u> <u>6" Block</u> (2)-#4 Bot. (2)-#4 Bot. (2)-#4 Bot. (1)-#4 Bo
- Non-bearing wall 3'-5" to 6'-4" span:
- <u>12" Block</u> <u>10" Block</u> <u>8" Block</u> <u>6" Block</u> (2)-#5 Bot. (2)-#5 Bot. (2)-#5 Bot. (1)-#5 Bot.
- Bearing wall up to 4'-0" span (8" deep lintel)
- <u>12" Block</u> <u>10" Block</u> <u>8" Block</u> (2)-#5 Bot. (2)-#5 Bot. (2)-#5 Bot
- Bearing wall 4'-1" to 6'-4" span (16" deep lintel):

<u>12" Block</u> <u>10" Block</u> <u>8" Block</u> (2)-#6 T&B (2)-#6 T&B (2)-#6 T&B

- 3. Fill lintel blocks solid with 3000 PSI grout (3/8" maximum aggregate). Provide 8" minimum bearing each end of masonry lintel, unless noted otherwise.
- 4. All steel lintel beams to bear a minimum of 8" on grouted or solid masonry, unless noted otherwise. All steel lintel angles
- to bear a minimum of 6" on solid or grouted masonry, unless noted otherwise. 5. Bottom plate of steel lintels shall be welded to the beam with 3/16" fillet weld, 3" long at 12" o.c., staggered both sides.
- 6. All lintels in exterior walls to be hot-dipped galvanized, unless noted otherwise.

GENERAL STEEL NOTES: . Construction of structural steel shall comply with the provisions of "AISC 360-16 Specification for Structural Steel Buildings" and "AISC 341-16 Seismic Provisions for Structural Steel Buildings."

- 2. All shop connections shall be welded or bolted, field connections shall be bolted, unless noted otherwise. Bolted connections shall be Bearing Type (snug-tightened) and shall be made with a minimum of 3/4"ø ASTM A325-N Bolts. Direct-Tension Indicators are acceptable substitutions.
- 3. All welds as per latest specifications of the AWS E70xx electrodes.
- 4. Before encasing steel columns in concrete or masonry, paint column bases and tops of anchor rods with asphaltic paint.
- 5. The structural fabricator shall furnish all plates and angles cast in bond beams, concrete walls, or columns to support steel joists, beams, and steel deck.
- 6. 'C' denotes beam is continuous over columns, 'S' denotes beam simple shear splice. 7. All steel beams shall be true to line and elevation, column base plates grouted, and anchor rods tight before any loads are placed.
- 8. All column base and cap plates to be welded around all sides.
- 9. All welds not specified are 3/16" fillet weld, continuous and/or all around. 10. Structural fabricators shall show all welding requirements on structural steel shop drawings.
- 11. Fabricator shall select AISC simple shear connections for steel beams capable of carrying either the reaction load indicated or the reaction load calculated and based on tributary area or at a minimum 50% of the total shear capacity.
- 12. Fabricator shall select AISC simple shear connections for composite beams capable of carrying the reaction load indicated or the reaction load calculated and based on tributary area or at a minimum 75% of the total shear capacity
- 13. Cuts, holes, or openings required in structural steel members for the work of other trades shall be shown on the shop drawings. Burning of holes and cuts in structural steel members in the field shall not be allowed, except by written permission from the Structural Engineer of Record.
- 14. The top of all beams receiving shear studs shall not be painted. 15. The contractor shall provide XXX pounds of structural steel contingency material to be fabricated and erected as directed
- by the Structural Engineer of Record. Cost of material, labor, delivery, and associated services are to be included in the bid amount. 16. All connections not specifically detailed shall be
- project is located. Detailing shall be performed with the contract documents. The general detai required number of bolts, weld requirements, et 17. Shear stud connectors shall be manufactured b
- be field applied with automatic welding equipme Remove ferrules after welding. 18. Location, type, diameter, length, and

STEEL JOIST NOTES:

1. All steel joists shall comply with the s 2. Field weld all steel joists to supports

Joist Section Number K1-K12 LH02-06 LH07-17, DLH10-17 DLH18-25

All K Series

All LH Series

DLH10-17

DLH18-19

minimum, the net uplift used shall not be less than 5 psf.

adjacent space.

STEEL DECK NOTES:

G-60 coating.

(AISI S100).

in place until properly fastened.

butt-welded or spliced together.

attached to supporting members.

decks shall be as shown on the drawings.

locations of acoustical steel deck.

a) #10 self-drilling screws

b) Crimp or button punch

between adjacent supports (unless noted otherwise).

required for conform decks supporting concrete stoop slabs.

4. Joist bearing and seat depth should be as follows, unless noted otherwise on the drawings

DLH20-25 and Special Joist | See Plans and Details

8. Joists at or adjacent to columns shall be bolted to their supports per OSHA requirements.

16. Wall stud bridging shall be attached in a manner to prevent stud rotation. The minimum bridging shall be 5'-0" o.c. for 17. Cutouts, holes, or notches are not permitted in cold-formed steel roof and floor joists, headers, or beams, without prior written approval of the Structural Engineer of Record.

wind loaded walls and 3'-4" o.c. for axial loaded walls.

7. Splices in axially loaded studs shall not be permitted 8. Framing components may be preassembled into panels prior to erecting. Prefabricated panels shall be square, with components attached in a manner as to prevent racking.

9. All framing components shall be cut squarely for attachment to perpendicular members. Members shall be held positively

10. Erect framing and panels plumb, level, and square in accordance with the shop drawings.

11. Handling and lifting of prefabricated panels shall be done in a manner as to not cause distortion in any member.

13. At track butt joints, abutting pieces of track shall be securely anchored to a common structural element, or they shall be

12. Track shall be securely anchored to the supporting structure as shown on the fabrication and erection drawings.

14. Studs shall be plumbed, aligned, and securely attached to the flange or webs of both upper and lower tracks.

5. All steel stud and joist fasteners shall be TEK screws, manufactured by ITW Buildex, or approved equal. 6. Studs shall have full bearing against inside track web, prior to stud and track attachment.

supplier and sealed by a Professional Engineer licensed in the state of the project. 4. All steel studs, joists, and accessories shall be ASTM A653/A653M, Grade 33 (Fy = 33 KSI) or Grade 50 (Fy = 50 KSI), either as indicated on plans, details, or required by design.

1. All cold formed metal framing shall conform to the AISI specification for the design of Cold Formed Structural Metals 2. All welds shall comply with the requirements of the North American Specification for the Design of Cold-Formed Steel

COLD FORMED METAL FRAMING NOTES:

7. See plans and details for composite deck thickness, depth, and profile. All composite steel deck to be galvanized with 8. Steel conform deck shall be attached at all supports sufficiently to prevent movement. Steel deck fasteners are not

5. General contractor to verify locations of acoustical steel deck. Cross reference architectural and structural drawings for 6. Composite steel deck with concrete slabs shall be welded to all supporting members with 5/8" ø puddle welds at 36/4

2. All steel deck shall span a minimum of three spans, unless otherwise approved. 3. Field weld 1 1/2" steel roof deck to supporting members with 5/8"ø puddle welds at 36/4 pattern. Where areas of warped deck occur, field weld steel deck maximum 6" o.c. at all supports. Typical, unless noted otherwise.

added per typical detail. Joist manufacturer to design chords for minimum bend load of 150 lbs. 11. Bridging shall not be removed without written permission from the Structural Engineer of Record. Horizontal bridging can be removed in one joist space if cross-bridging is added into the other joist space on either side of the location that has had the bridging removed. Cross-bridging can also be removed in one joist space if horizontal bridging is added to each

*Last two digits of joist designation shown in load table. 5. When beams or girders have joists bearing on one side only, provide full joist bearing on beam or girder flange. Where joists bear on both sides of beam or girder, butt joists or provide maximum 1/2" gap. Joist fabricator to show all field welding requirements on shop drawings. 7. Camber steel joists per SJI specifications, unless noted otherwise

(2)-1/4" x 4" *Last two digits of joist designation shown in load table 3. All steel joist bridging to be per SJI specifications. Anchor solidly to end walls, unless noted otherwise.

Steel

2 1/2"

4"

Concrete or Masonry

(2)-1/8" x 2 1/2" (2)-3/16" x 2 1/2" (2)-1/4" x 2 1/2"

Joist Section Number* End Bearing Bearing Length - Bearing Length -

Depth

2 1/2"

7 1/2"

9. Joists and bridging shall be designed for wind uplift as required by the applicable versions of the IBC and ASCE 7. At a

10. Concentrated loads at joist top or bottom chords shall be located within 4" of a panel point, or reinforcement shall be

1. All steel decking shall comply with the specifications of the Steel Deck Institute (SDI). Thickness, type, and properties of

4. 1 1/2" steel roof deck shall have; (1)-#10 TEK screw [EDIT amount depending on project!] side lap connector installed

pattern. For deck units with spans greater than 5'-0", sidelaps and perimeter edges of units between span supports shall

be fastened at intervals not exceeding 36" o.c., using one of the following methods:

c) Arc puddle welds 5/8" minimum visible diameter, or minimum 1" long fillet weld.

Structural Members (AISI S100) and the Structural Welding Code – Sheet Steel (AWS D1.3).

3. All framing components not specifically detailed and designed on these structural documents shall be designed by the

15. Jack studs or cripples shall be installed below window sills, above window and door heads, and shall be securely

specification of the Steel Joist Institute (SJI).			
per AWS standards as shown in the table below:			
on Number*	Minimum Fillet Weld		

I spacing of shear stud connectors shall be detailed on the shop draw
specification of the Steel Joist Institute (SJI).
per AWS standards as shown in the table below:

spacing of shear stud connectors shall be detailed on the shop drawi
pecification of the Steel Joist Institute (SJI).
per AWS standards as shown in the table below:

e designed by Professional Engineer licensed in the state where the using rational engineering design and standard practice in conformance ils shown on the drawings are approximate only and do not indicate the tc., unless specifically noted.
by Nelson Stud Welding Co. or equal conforming to ASTM A108, and sha ent through the composite steel deck with the use of a proper ferrule.
f shear stud connectors shall be detailed on the shop drawings.

• NAME 10'-0" -	 LEVEL NAME HEIGHT ABOVE PROJECT 0'-0" 	ADE	CATES NOTE USED TO DESCRIBE DITIONAL INFORMATION ABOUT RK REQUIRED, SPECIFIC TO THE EET AND/OR DETAIL	
INDICATES DIRECTION OF TRUE NORTH				
	PLAN OR DETAIL NUMBER			
	Р	PLAN OR DETAIL N	JAME	
	VIFW	NAME		
	(1) <u>1/8" = 1'-0"</u>			
N _{OR}		PLAN OR DETAIL S	SCALE	
		NDICATES SIMILA N MULTIPLE LOC/	R DETAIL REFERENCED	
		ETAIL REFERRE	D TO BY SECTION CUT	
		HEET DETAIL IS I	LOCATED ON	
LINE TYPE KE	<u>:Y:</u>			
	– NEW WORK (DARK SOLID LINE/LINE WEIGH	T WILL VARY)		
	——————————————————————————————————————			
EXISTING TO BE REMOVED (DARK DASH LINE)				
	EXISTING WORK TO REMAIN (HALFTONED SOLID LINE/LINE WEIGHT WILL VARY)			
NON STRUCTURAL (HALFTONED LIGHT SOLID LINE)				
	- GRID OR CENTERLINE			
MATERIAL LE	<u>GEND:</u>			
	CONCRETE - CAST-IN-PLACE		MASONRY	
	CONCRETE - EXISTING		METAL / COLD-FORM STUD	
	EARTH		STEEL	
	GRAVEL OR GRANULAR FILL			
	GROUT OR DRYPACK OR SANE)		
	CX - COLUMN DESIGNATION			

- FOOTING MARK (TOP ELEVATION)

SF#(+X'-X") PIER MARK (TOP ELEVATION)

L____

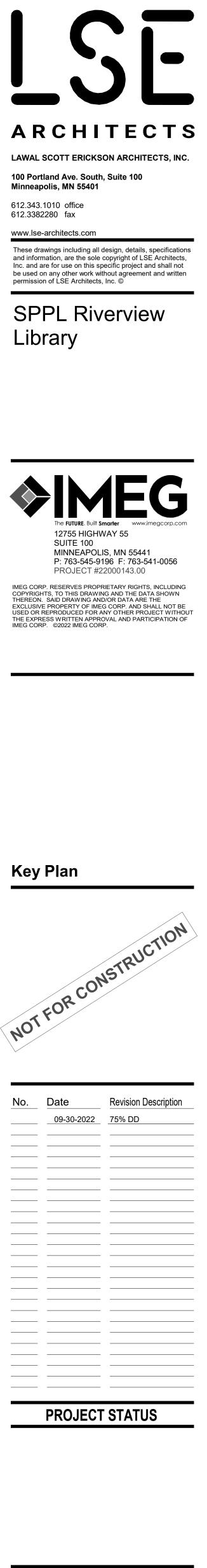
P# (+X'-X")

VIEW KEY

STRUCTURAL SHEET INDEX SHEET NUMBER SHEET NAME GENERAL NOTES S200

LOWER LEVEL FRAMING / FOUNDATION PLAN LEVEL 1 FRAMING PLAN ROOF FRAMING PLAN GRAND TOTAL: 4

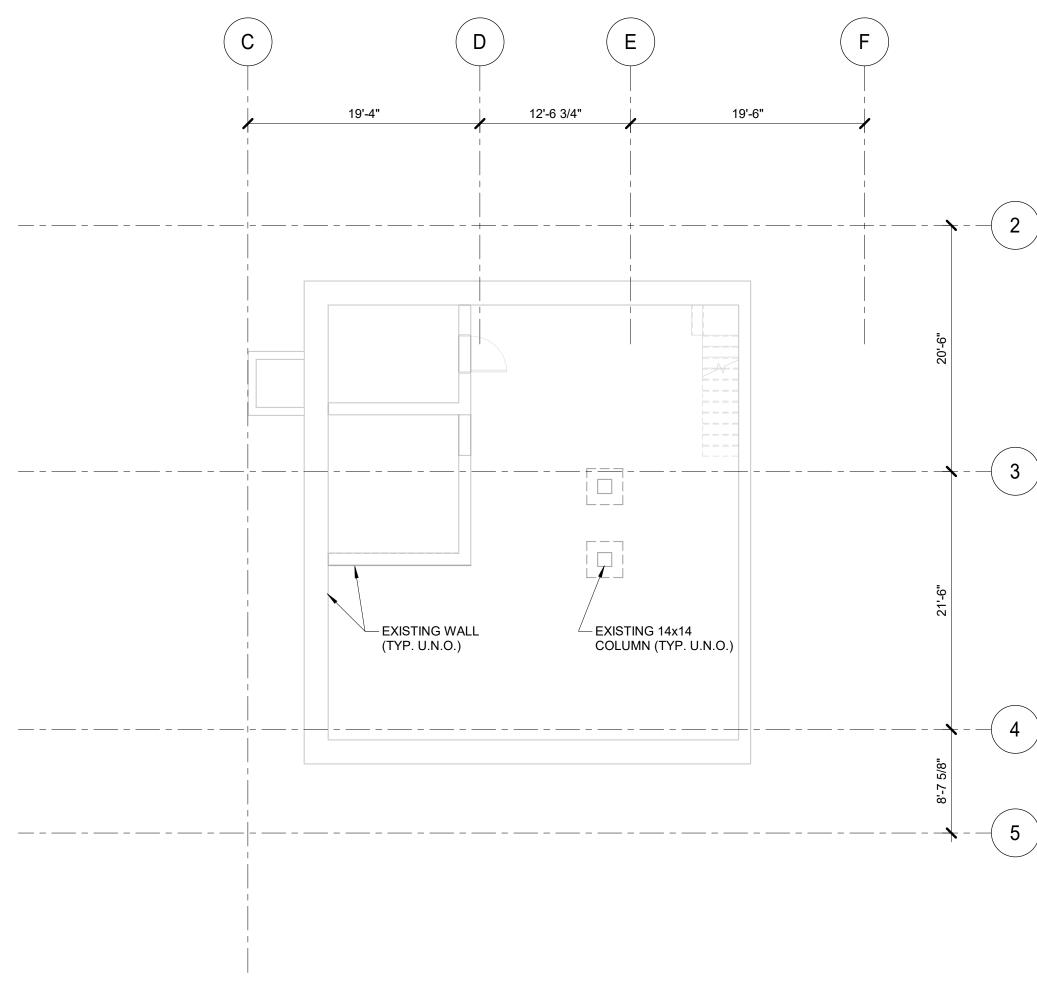
S300



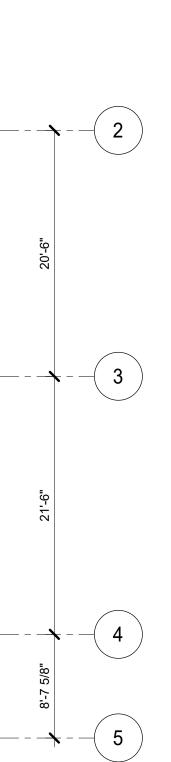
GENERAL NOTES

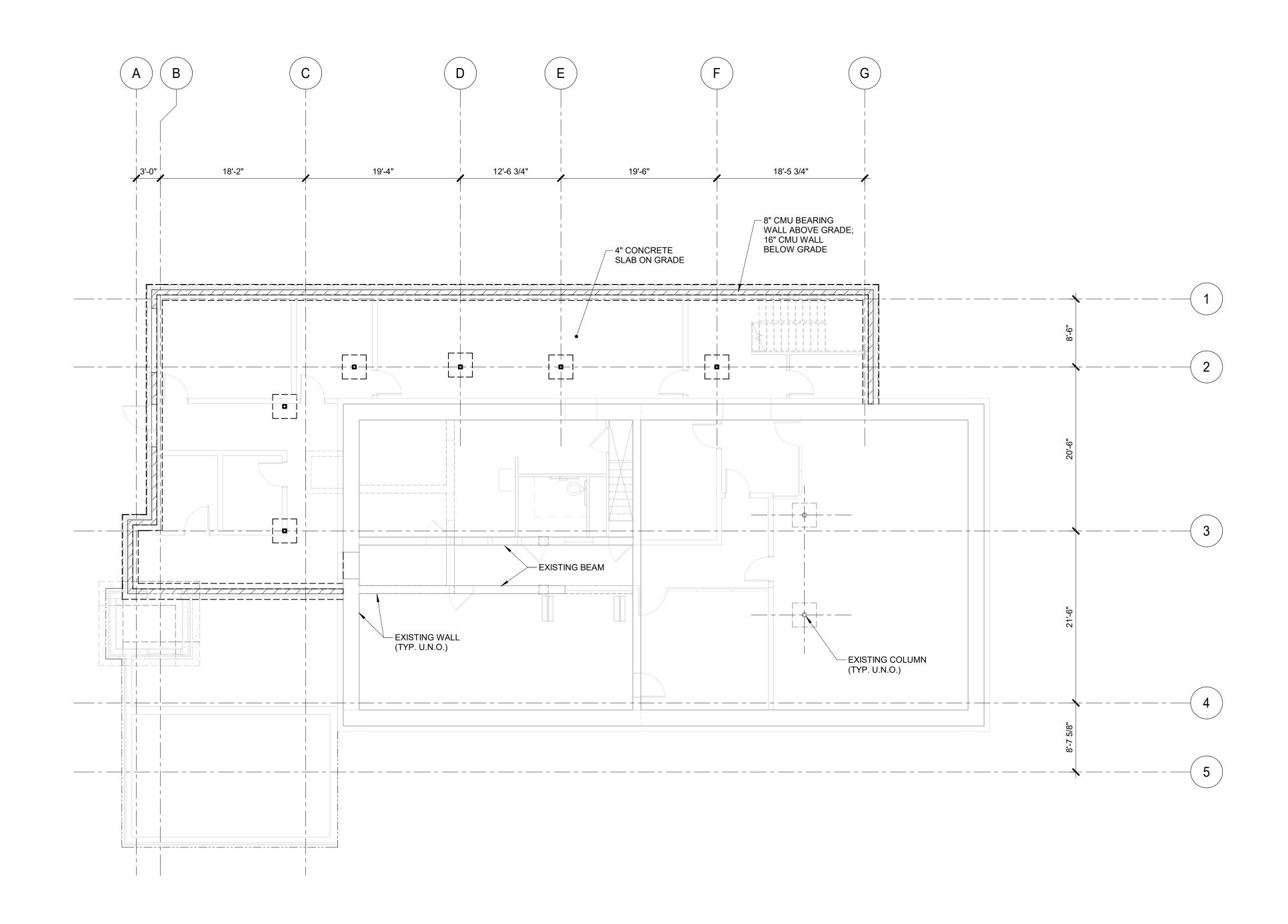
Project	21.1037.01	Drawing Number
Date	Issue Date	
Drawn by	Author	0004
Checked by	Checker	S001
Checked by	Checker	

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1 MECHANICAL BASEMENT FOUNDATION PLAN





2 LOWER LEVEL FOUNDATION / FRAMING PLAN

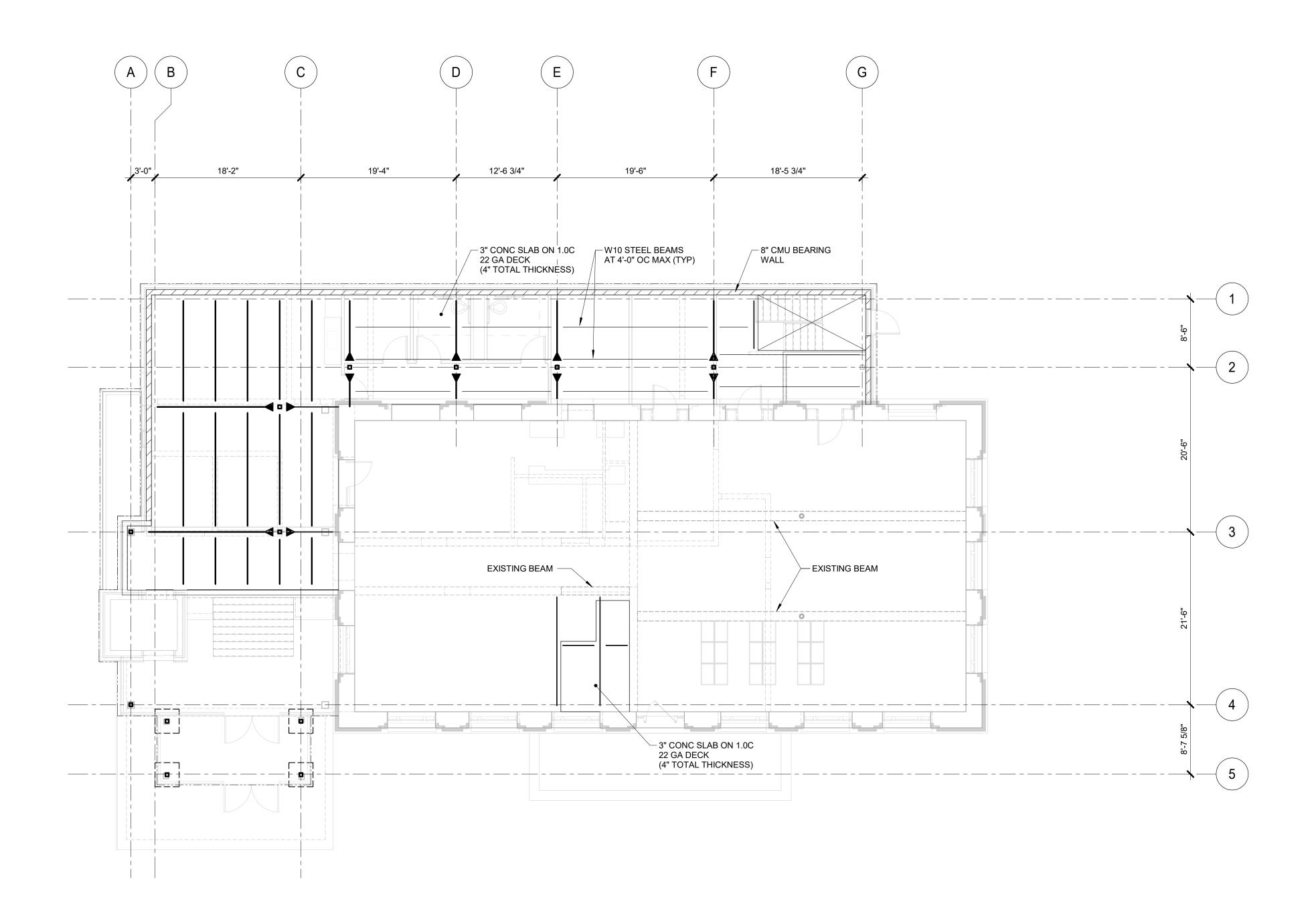


LOWER LEVEL FRAMING / FOUNDATION PLAN

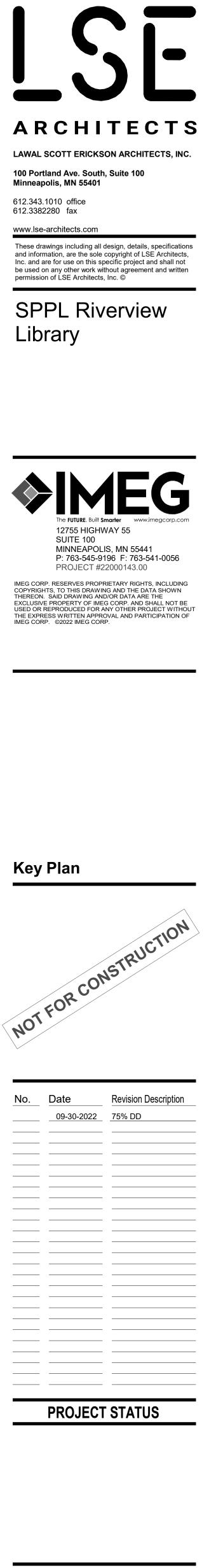
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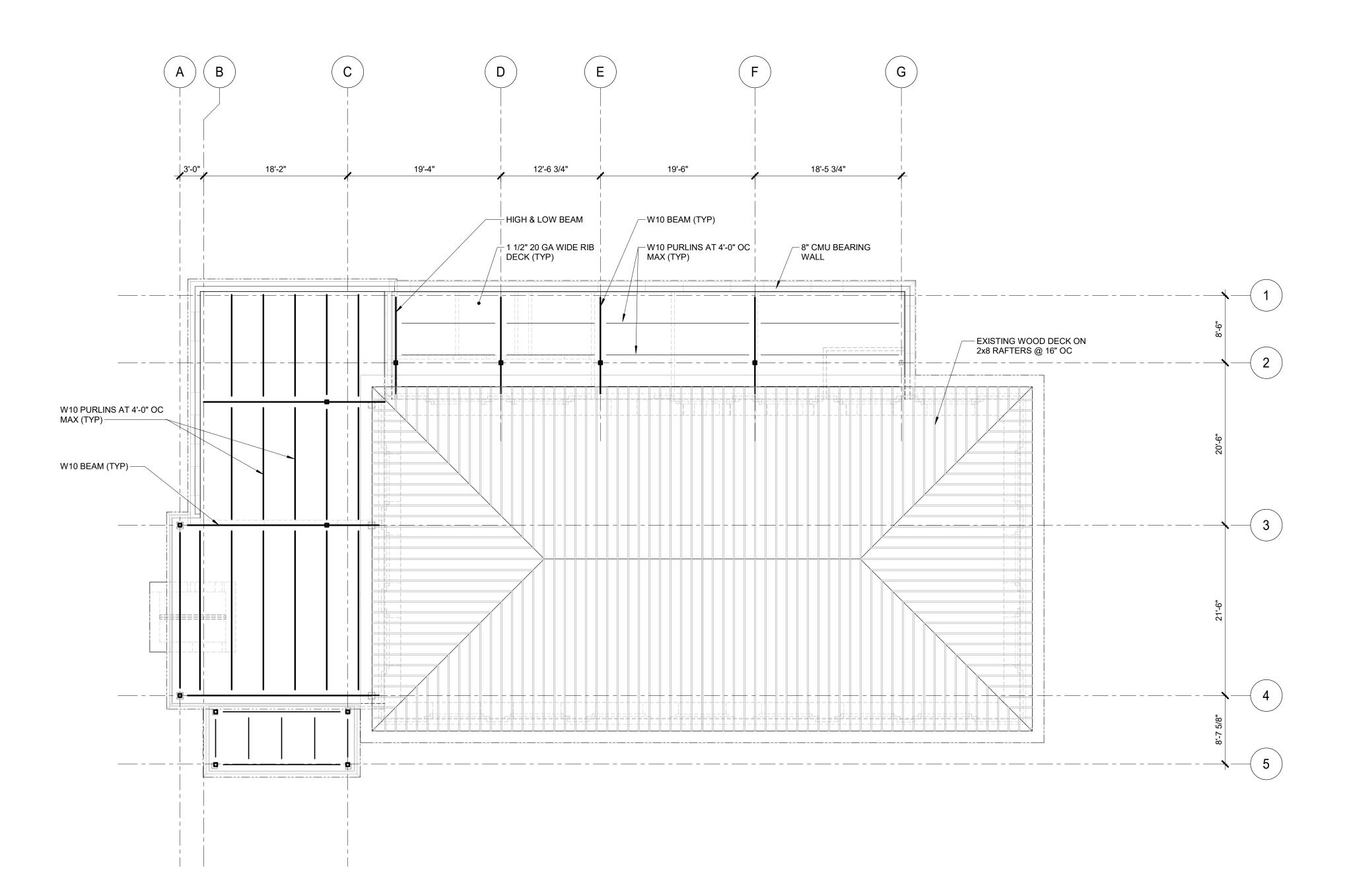


1 LEVEL 1 FRAMING PLAN

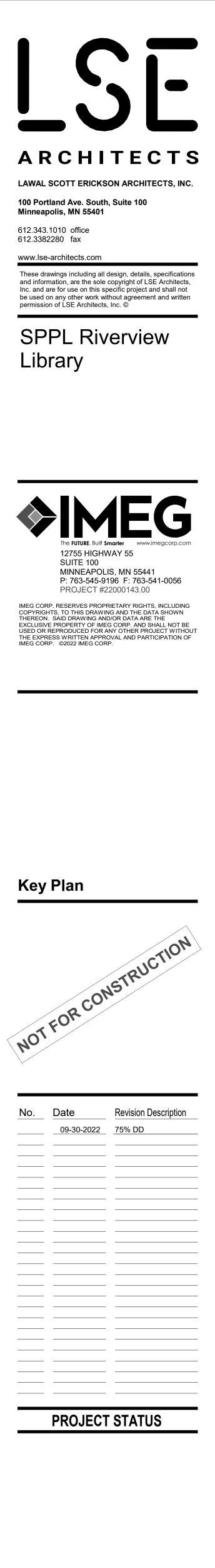


LEVEL 1 FRAMING PLAN

Project	21.1037.01	Drawing Number
Date	Issue Date	
Drawn by	Author	0004
Checked by	Checker	S201



1 ROOF FRAMING PLAN



ROOF FRAMING PLAN

Project	21.1037.01	Drawing Number
Date	Issue Date	
Drawn by	Author	0000
Checked by	Checker	S300

PROJECT DEMOLITION NOTES	PROJECT GENERAL NOTES
 REVIEW ALL EQUIPMENT WITH THE ENGINEER AND OWNER PRIOR TO DISPOSAL. ITEMS OR MATERIALS NOT RETAINED BY OWNER SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE REMOVED FROM THE PREMISIS. CONTRACTOR TO PERFORM DEMOLITION, REMOVAL, RELOCATION, REROUTING AND RECONNECTION OF EXISTING MECHANICAL FACILITIES, AS REQUIRED, SHOWN AND SPECIFIED HEREIN, TO ACCOMPLISH ALTERATION, RESTORATION AND TO ACCOMMODATE NEW CONSTRUCTION. THE DEMOLITION WORK SHALL INCLUDE BUT NOT BE LIMITED TO, DRAINING, DISCONNECTING, RELOCATING, REMOVING AND DISMANTLING, IN A NEAT AND WORKMANLIKE MANNER, THE ITEMS AND THEIR ACCESSORIES AS INDICATED OR SHOWN ON THE CONTRACT DRAWINGS. CUTTING, PATCHING AND REMOVAL SHALL BE PERFORMED BY WORKERS SKILLED IN THE SPECIFIC TRADES INVOLVED. JOB CONDITIONS: PRIOR TO START OF WORK, MAKE AN INSPECTION ACCOMPANIED BY THE OWNER, CONSTRUCTION MANGAGER OR GENERAL. CONTRACTOR. TO DETERMINE PHYSICAL CONDITION OF ADJACENT CONSTRUCTION THAT IS TO REMAIN. TORCH CUTTING OF DIUCTWORK WILL NOT BE PERMITTED. TORCH CUTTING OF OTHER MECHANICAL EQUIPMENT WILL BE PERMITTED ONLY WITH APPROVAL OF THE OWNER, CONSTRUCTION MANGAGER OR GENERAL CONTRACTOR. ANY CUTTING METHOD, WHICH MAY CREATE SPARKS, MUST INCLUDE 'FIRE WATCH' AS REQUIRED BY THE FIRE CODE AND/OR OWNER'S FIRE INSURANCE CARRIER. SUBMIT FIRE WATCH PROCEDURES FOR APPROVAL. DRAINING OPERATIONS MUST NOT DAMAGE BUILDING COMPONENTS. ADEQUATELY SIZED RUBBISH CONTAINERS PROR TO THE PROPER AND SAFE DISPOSAL OF ALL DEBRIS. CONSTRUCT TEMPORARY PARTITIONS PRIOR TO ANY DEMOLITION WORK ENCLOSING RESPECTIVE WORK. ERECT TEMPORARY FENCING AND SIGNAGE AROUND DEMOLISHED MATERIALS. PROTECT EXISTING MATERIALS AND EQUIPMENT WHICH ARE NOT TO BE DEMOLISHED. PREVENT MOVEMENT OF STRUCTURE, PROVIDE REQUIRED BRACING AND MANNER OF OPERATIONS HAVE BEEN APPROVED BY THE CONSTRUCTION MANGAGER OR GENERAL CONTRACTOR. ALL INTERRUPTIO	 A. REMOVE ALL UNUSED PIPING, DUCTWORK AND ACCESSORIES. B. THE MECHANICAL CONTRACTOR SHALL BE RESPONSIBLE FOR FIELD VERIFYING, PRIOR TO FINAL BID, ALL EXISTING CONDITIONS FOR PLUMBING AND MECHANICAL SYSTEMS WITHIN TENANT SPACE AND WITHIN CLOSE PROXIMITY OF TENANT SPACE. C. WHERE FLOOR DRAINS OCCUR WITHIN THE LIMITS OF CONSTRUCTION, PREVENT CONSTRUCTION DEBRIS FROM ENTERING DRAIN BODY BY SEALING DRAIN OPENING PRIOR TO START OF WORK. D. COORDINATE INSTALLATION OF PIPING, DUCTWORK, CONDUIT, LIGHTS, CABLE TRAY, STRUCTURE, AND EQUIPMENT TO PREVENT CONFLICTS. E. THE CONTRACTOR SHALL BE FAMILIAR WITH ALL THE CONDITIONS BOTH EXISTING AND THOSE ILLUSTRATED BY THESE DOCUMENTS AS WELL AS THOSE WHICH CAN BE REASONABLY ANTICIPATED INCLUDING, BUT NOT LIMITED TO ARCHITECTURAL, ELECTRICAL VENTILATION, PLUMBING, AND OTHER SYSTEMS INVOLVED ON THIS PROJECT. F. FINAL PRODUCT SHALL BE A COMPLETE AND FUNCTIONING SYSTEM, AND SHALL CONFORM TO ALL REQUIREMENTS OF APPLICABLE FEDERAL, STATE, AND LOCAL CODES, INCLUDING BUT NOT LIMITED TO THE INTERNATIONAL BUILDING CODE AND INTERNATIONAL MECHANIC CODE. G. LOCATE EQUIPMENT REQUIRING ACCESS 2'-0" MAXIMUM ABOVE CEILING. H. ALL ROOF MOUNTED EQUIPMENT SHALL BE A MINIMUM 10'-0" FROM EDGE OF ROOF. I. LOCATE DUCTWORK, PIPING AND MECHANICAL EQUIPMENT AWAY FROM THE SPACE ABOVE ELECTRICAL PANELS. TRANSFORMERS AND OTHER ELECTRICAL EQUIPMENT. J. FIRE SEAL AROUND DUCT AND PIPING PENETRATIONS OF FIRE RATED WALLS. REFER TO SPECIFICATION. K. ADJUST PIPING AND DUCTWORK SIZES TO PROPERLY CONNECT TO MECHANICAL EQUIPMENT. J. REFER TO PLUMBING SERIES DRAWINGS FOR GAS AND A.C. CONDENSATE DRAIN PIPING. M. PIPE SIZES SHOWN SHALL BE CONTINUED IN THE DIRECTION OF FLOW UNTIL ANOTHER SIZ IS SHOWN. N. FOR DETAILS, EQUIPMENT CONNECTIONS, AND PIPE SIZES NOT SHOWN ON THE SEGMENT REFER TO DETAILS, SCHEDULES, AND SPECIFICATIONS.

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TES	HVAC GENERAL NOTES	PLUMBING GENERAL NOTES
 K AND ACCESSORIES. E RESPONSIBLE FOR FIELD VERIFYING, PRIOR TO R PLUMBING AND MECHANICAL SYSTEMS WITHIN MITY OF TENANT SPACE. HE LIMITS OF CONSTRUCTION, PREVENT G DRAIN BODY BY SEALING DRAIN OPENING PRIOR DUCTWORK, CONDUIT, LIGHTS, CABLE TRAY, NT CONFLICTS. ITH ALL THE CONDITIONS BOTH EXISTING AND NTS AS WELL AS THOSE WHICH CAN BE BUT NOT LIMITED TO ARCHITECTURAL, ELECTRICAL, STEMS INVOLVED ON THIS PROJECT. ND FUNCTIONING SYSTEM, AND SHALL CONFORM EDERAL, STATE, AND LOCAL CODES, INCLUDING L BUILDING CODE AND INTERNATIONAL MECHANICAL 2'-0" MAXIMUM ABOVE CEILING. BE A MINIMUM 10'-0" FROM EDGE OF ROOF. NICAL EQUIPMENT AWAY FROM THE SPACE ABOVE ND OTHER ELECTRICAL EQUIPMENT. NETRATIONS OF FIRE RATED WALLS. REFER TO D PROPERLY CONNECT TO MECHANICAL FOR GAS AND A.C. CONDENSATE DRAIN PIPING. D IN THE DIRECTION OF FLOW UNTIL ANOTHER SIZE AND PIPE SIZES NOT SHOWN ON THE SEGMENTS, PECIFICATIONS. E WITH THE RESPECTIVE MANUFACTURER'S AT A LEVEL OF QUALITY AND WORKMANSHIP EQUIPMENT AS INDICATED ON THE DRAWING, ARE DJUSTMENTS IN THE FIELD. WORK SHALL BE TO AVOID INTERFERENCE IN THE FIELD. 	 A. SUPPLY AND RETURN PIPING TO COILS ARE THE SAME SIZE. B. CONTRACTOR SHALL LOCATE THERMOSTATS 4'-0" AFF AND TEMPERATURE SENSORS AT 5'-0" AFF, A MINIMUM OF 8" FROM LIGHT SWITCH. C. REFER TO PIPING DRAWINGS FOR THERMOSTAT AND TEMPERATURE SENSOR LOCATIONS. D. CONDENSATE DRAINS SHALL BE SUPPLIED FOR ALL COOLING EQUIPMENT. CONTRACTOR SHALL ENSURE PROPER INSTALLATION AND DRAINAGE AS REQUIRED BY FEDERAL, STATE, AND LOCAL CODES. CONDENSATE PIPING SHALL BE TYPE 'L' COPPER. E. PROVIDE A 4" HOUSEKEEPING PAD FOR EACH PIECE OF MECHANICAL EQUIPMENT. COORDINATE SIZES WITH MECHANICAL EQUIPMENT SELECTED. F. ALL SUPPLY, RETURN, AND EXHAUST DUCTWORK SHALL BE RATED FOR PRESSURE CLASS OF 2' W.G. UNLESS NOTED OTHERWISE. G. THIS CONTRACTOR SHALL BE REQUIRED TO REPLACE FILTERS ON HVAC EQUIPMENT AFTER ALL DUST PRODUCING CONSTRUCTION HAS BEEN COMPLETED AND PRIOR TO THE FINAL PUNCH. 	 A. FIELD VERIFY ALL NEW WATER, WASTE, AND VENT PIPING CONNECTIONS AND F CONNECTIONS AS REQUIRED FOR PROPERLY OPERATING SYSTEMS. B. PITCH STORM PIPING 3" AND GREATER AT 1/8" PER FOOT, UNLESS OTHERWISE C. PITCH UNDERFLOOR AND ABOVE FLOOR SANITARY WASTE PIPING AT 1/4" PER F OTHERWISE NOTED OR APPROVED BY AUTHORITY HAVING JURISDICTION. D. FIELD VERIFY LOCATION AND INVERTS OF SITE UTILITIES PRIOR TO INSTALLATI E. ROUTE DOMESTIC WATER, FIRE PROTECTION, SANITARY SEWER, AND STORM S SERVICES TO SITE UTILITIES 5".0" FROM BUILDING UNLESS NOTED OTHERWISE. CIVIL PLANS. F. WASTE AND VENT PIPING BELOW FLOOR AND THROUGH FLOOR SHALL BE 2" MII G. PROVIDE CLEANOUT IN ACCESSIBLE LOCATION AT THE BASE OF ALL PLUMBING



	F	RE PROTECTION GENERAL NOTES
D PROVIDE NEW	A.	PROVIDE ALTERATIONS TO THE EXISTING FIRE PROTECTION SYSTEM AS REQUIRED TO ACCOMMODATE THE NEW FLOOR PLAN AND NEW CEILING TYPES. PROVIDE A COMPLETE WET TYPE SYSTEM INCLUDING NEW MAINS, BRANCHES, HEADS, VALVES, AND ACCESSORIES AS
R FOOT UNLESS		REQUIRED. REUSE EXISTING SYSTEM EQUIPMENT WHERE APPLICABLE. THE SYSTEM SHALL BE INSTALLED ACCORDING TO MANUFACTURER'S SPECIFICATIONS AND RECOMMENDATIONS
TION. I SEWER		AND AS PER REQUIREMENTS OF THE STATE BUILDING CODE, LOCAL FIRE DEPARTMENT, AND ALL FEDERAL, STATE, AND LOCAL AUTHORITIES, NFPA, AND FACTORY MUTUAL.
E. REFER TO	В.	THE BUILDINGS COMPLETE OPERATIONAL FIRE PROTECTION SYSTEMS SHALL REMAIN IN PLACE. THIS CONTRACTOR SHALL REPAIR ANY DAMAGE TO THIS SYSTEM CREATED BY THE
MINIMUM. NG RISERS.	C.	REMOVAL OF ANY OTHER MECHANICAL SYSTEMS OR COMPONENTS. THIS CONTRACTOR SHALL COORDINATE PHASING OF SPRINKLER WORK WITH THE GENERAL
	D.	CONTRACTOR PRIOR TO STARTING WORK. PROVIDE A COMPLETE WET TYPE FIRE PROTECTION SYSTEM AS REQUIRED TO
		ACCOMMODATE THE FLOOR PLAN AND CEILING TYPES INCLUDING MAINS, BRANCHES, HEADS, VALVES, AND ACCESSORIES AS REQUIRED. THE SYSTEM SHALL BE INSTALLED
		ACCORDING TO MANUFACTURER'S SPECIFICATIONS AND RECOMMENDATIONS OF THE STATE BUILDING CODE, LOCAL FIRE DEPARTMENT, AND ALL FEDERAL, STATE, AND LOCAL AUTHORITIES, NFPA, AND FACTORY MUTUAL.
	E.	THE SPRINKLER SYSTEM SHALL BE DESIGNED BASED UPON ACTUAL WATER FLOW TEST DATA OBTAINED AT OR NEAR THE JOB SITE.
	F.	REFER TO REFLECTED CEILING PLANS FOR ADDITIONAL INFORMATION REGARDING SPRINKLER HEAD LOCATION AND PIPE, UNLESS NOTED OTHERWISE.
	G.	DIVISION 21 CONTRACTOR SHALL COORDINATE WITH THE ELECTRICAL CONTRACTOR FOR PROPER INSTALLATION OF THE FIRE PROTECTION SYSTEMS ALARM DEVICES INVOLVED WITH
	Н.	FIRE SPRINKLER SYSTEM. ALL SPRINKLER SYSTEM PIPING SHALL BE CONCEALED ABOVE THE SUSPENDED CEILING
		SYSTEM, UNLESS NOTED OTHERWISE. WRITTEN AUTHORIZATION SHALL BE OBTAINED FROM THE ARCHITECT PRIOR TO EXPOSING ANY PIPING IN ANY ROOM WHICH HAS A SUSPENDED CEILING.
	1.	THIS CONTRACTOR SHALL PROVIDE ALL ADDITIONAL SPRINKLER HEADS AS REQUIRED TO ENSURE AN APPROVED FIRE PROTECTION SYSTEM AT NO ADDITIONAL COST TO THE OWNER.
	J.	AUXILIARY DRAINS SHALL BE EXPOSED WITH 1" DRAIN VALVES. WHEN 5 OR MORE GALLONS ARE TRAPPED, THIS CONTRACTOR SHALL PROVIDE FIXED PIPING TO AN ADEQUATELY SIZED RECEPTOR WHICH IS CAPABLE OF ACCEPTING THE FULL FLOW OF THE DRAIN. WHEN LESS
	К.	THAN 5 GALLONS ARE TRAPPED, A HOSE BIB SHALL BE PROVIDED AT THE DRAIN VALVE. AUXILIARY DRAINS SHALL NOT BE LOCATED ABOVE PLASTER OR GYPSUM BOARD CEILING SYSTEMS. ONLY BY A SPECIFIC WRITTEN INSTRUCTION FROM THE ENGINEER WILL A VARIANCE BE PROVIDED.
	L.	AN INSPECTOR'S TEST CONNECTION SHALL BE PROVIDED FOR EACH FIRE SPRINKLER ZONE. THIS CONTRACTOR SHALL PROVIDE FIXED PIPING FROM THE TEST CONNECTION TO AN ADEQUATELY SIZED RECEPTOR WHICH IS CAPABLE OF ACCEPTING THE FULL FLOW OF THE
		TEST. EXTERIOR DISCHARGE OF THE TEST CONNECTION SHALL BE PERMITTED ONLY BY SPECIFIC WRITTEN INSTRUCTION FROM THE ENGINEER.
		SHOW ALL ROOM NUMBERS ON SHOP DRAWING PLANS. FLOW TEST DATA FROM #/#/# INDICATES THE FOLLOWING: STATIC PRESSURE # PSI.
		RESIDUAL PRESSURE: # PSI AT ## GPM. THE HYDRANTS TESTED ARE APPROXIMATELY ### FEET AWAY FROM THE CENTER OF THE SITE LOCATED OFF THE ##" WATER MAIN IN ## STREET AT AN ELEVATION OF ### FEET ABOVE SEA LEVEL. SEE CIVIL PLANS FOR HYDRANT
		LOCATION. THE CONTRACTOR SHALL PERFORM A FIRE FLOW TEST IN ACCORDANCE WITH NFPA 291 TO VERIFY THE FLOW TEST DATA GIVEN ABOVE. THE DATA GIVEN ABOVE SHALL BE
		THE BASIS OF DESIGN UNLESS THE AVAILABLE PRESSURE OR FLOW HAS DECREASED. NOTIFY OWNERS REPRESENTATIVE IF FLOW TEST DATA DIFFERS FROM THE DATA ABOVE. A
		FIRE PROTECTION ENGINEER OR AN ENGINEER EXPERIENCED IN WATER FLOW TESTING SHALL PERFORM OR WITNESS THE REQUIRED FLOW TESTING AND SIGN THE REPORT PRIOR TO THE FIRST SPRINKLER SYSTEM SUBMITTAL.
	0.	ROUTE SPRINKLER PIPING SUCH THAT IT DOES NOT RUN ABOVE ELECTRICAL PANELS, SWITCHGEAR, OR SIMILAR EQUIPMENT. SPRINKLER MAINS SHALL NOT RUN THROUGH ELECTRICAL OR COMMUNICATION ROOMS. SPRINKLER HEADS IN THESE ROOMS SHALL BE
		SERVED BY A DEDICATED BRANCH LINE FOR EACH ROOM.
	P.	THIS DRAWING INDICATES A GENERAL PIPING ARRANGEMENT AND SUGGESTED SIZING ONLY. THIS CONTRACTOR SHALL DETERMINE THE ACTUAL PIPE SIZING REQUIRED AND
	Q.	COORDINATE WORK WITH ALL OTHER TRADES TO AVOID CONFLICTS. THIS CONTRACTOR SHALL PREPARE HYDRAULIC CALCULATIONS BASED UPON THE CONFIGURATION OF THE ACTUAL SYSTEM DESIGN AS SHOWN ON THIS CONTRACTOR'S SHOP
		DRAWINGS.

MECHANICAL SHEET INDEX

M901 MECHANICAL SCHEDULES

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Date	9/30/2022	
Drawn by	Mech Designer	
Checked by	Mech Proj Eng	M001

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	GENERAL ABB	REVIA1	TIONS	PLUMB	NG PIPE SYSTEMS
ACT (V.)	ACOUSTICAL CEILING TILES FIELD VERIFY	HORZ ID	HORIZONTAL INSIDE DIMENSION	СА	COMPRESSED AIR
AD ADA	ACCESS DOOR AMERICANS WITH DISABILITIES ACT	JST LOC	JOIST LOCATION	CD	CONDENSATE DRAINAG
ADJ	ADJACENT	MAG	MAGNETIC	D##W	DOMESTIC WATER AT S
ADJ AFF	ADJUSTABLE ABOVE FINISHED FLOOR	MAX MC	MAXIMUM MECHANICAL CONTRACTOR		DOMESTIC COLD WATER
	ACCESS PANEL APPROXIMATE	MECH MEZZ	MECHANICAL MEZZANINE	DHW	DOMESTIC HOT WATER
ARCH AUTO	ARCHITECT AUTOMATIC	MFR MIN	MANUFACTURER MINIMUM	DI	DEIONIZED WATER
B/G BLDG	BELOW GRADE BUILDING	MTD NIC	MOUNTED NOT IN CONTRACT	DTW	DOMESTIC TEMPERED V
BSMT CFCI	BASEMENT CONTR. FURNISHED, CONTR. INSTALLED	NO NTS	NUMBER NOT TO SCALE	N	NITROGEN
CL CLG	CENTER LINE CEILING	OC OD	ON CENTER OUTSIDE DIMENSION	NPW	NON-POTABLE WATER
CONN	CONNECTION	OFCI	OWNER FURNISHED, CONTR. INSTALLED	0	OXYGEN
CONT CONTR	CONTINUATION CONTRACTOR	OPG PT	OPENING POINT	PC	PUMPED CONDENSATE
DET DIA	DETAIL DIAMETER	RCP REF	REFLECTED CEILING PLAN REFERENCE	PW	POTABLE WATER
DN DTL	DOWN DETAIL	reqd RM	REQUIRED ROOM	RO	REVERSE OSMOSIS WA
DWG EA	DRAWING EACH	SHT SPECS	SHEET SPECIFICATIONS		RAIN WATER LEADER
ELEC	ELECTRICAL ELEVATION	SQ STD	SQUARE STANDARD	ORWL	OVERFLOW RAIN WATE
ELEV	ELEVATOR	STRUC		SAN	SANITARY SEWER
EQUIP EXIST	EQUIPMENT EXISTING	TEMP TEMP	TEMPERATURE	SCW	SOFTENED COLD WATE
EXP FF	EXPLOSION FINISHED FLOOR	TYP UG	TYPICAL UNDERGROUND	SHW	SOFTENED HOT WATER
FL FTG	FLOOR FOOTING	UNO VCT	UNLESS NOTED OTHERWISE VINYL COMPOSITE TILE	SWR	SPRAY WATER RETURN
FV GC	FIELD VERIFY GENERAL CONTRACTOR	VEST VIB	VESTIBULE VIBRATION	SWS-	SPRAY WATER SUPPLY
HCP	HANDICAPPED LP	W/ W/O	WITH WITHOUT	TW	TEMPERED WATER SANITARY VENT
				vac	VACUUM
	MECHANICAL AB	BREVI	ATIONS	-	
AFMS BAS	AIR FLOW MEASURING STATION BUILDING AUTOMATION SYSTEM	INSUL INV	INSULATION INVERT		
BD BO	BALANCE DAMPER BLOW OFF	ISO LAT	ISOLATION LEAVING AIR TEMPERATURE	MECHAN	ICAL PIPE SYSTEMS
BWV CLG	BACKWATER VALVE COOLING	LDB LP	LEAVING DRY BULB LOW PRESSURE	BD	BLOWDOWN
CO COND	CLEAN OUT CONDENSATE	LPG LWB	LIQUID PETROLEUM - PROPANE LEAVING WET BULB	BFW	BOILER FEED WATER
CV DISCH	CONSTANT VOLUME DISCHARGE	LWT MAT	LEAVING WATER TEMPERATURE MIXED AIR TEMPERATURE	CTR	CONDENSER WATER RE
DMPR	DAMPER	NC	NOISE CRITERIA	CTS	CONDENSER WATER SU
DOAP DP	DEDICATED OUTSIDE AIR PATH DIFFERENTIAL PRESSURE	NC NO	NORMALLY CLOSED NORMALLY OPEN NEG NEGATIVE	CWR	CHILLED WATER RETUR
DR DS	DRAIN DOWNSPOUT	OA OBD	OUTSIDE AIR OPPOSED BLADE DAMPER	DTR	DUAL TEMPERATURE W
DSN EA	DOWNSPOUT NOZZLE EXHAUST AIR	ord PBD	OVERFLOW ROOF DRAIN PARALLEL BLADE DAMPER	DTS	DUAL TEMPERATURE W
EAT EDB	ENTERING AIR TEMPERATURE ENTERING DRY BULB	PC PE	PLUMBING CONTRACTOR PNEUMATIC-ELECTRIC	FOR	FUEL OIL RETURN
EFF EG	EFFICIENCY ETHYLENE GLYCOL	PI PG	PRESSURE INDICATOROR GAUGE PROPYLENE GLYCOL	FOS	FUEL OIL SUPPLY
EMS	ENERGY MANAGEMENT SYSTEM	PLBG	PLUMBING	FOV	FUEL OIL VENT
EP E ESP	LECTRIC-PNEUMATIC EXTERNAL STATIC PRESSURE	POS PT	POSITIVE PRESS PRESSURE PRESSURE TRANSMITTER	HPC	HIGH PRESSURE CONDI
EWB EWT	ENTERING WET BULB ENTERING WATER TEMPERATURE	PVC RA	POLY VINYL CHLORIDE RETURN AIR	HPS	HIGH PRESSURE STEAM
EXH EXP	EXHAUST EXPANSION	RECIRC RET	RECIRCULATING RETURN	HWR	HEATING WATER RETUR
F&T FD	FLOAT & THERMOSTATIC FIRE DAMPER	RFG RH	REFRIGERATION RELATIVE HUMIDITY	LPC	LOW PRESSURE CONDE
FDC FHC	FIRE DEPARTMENT CONNECTION	SA SP	SUPPLY AIR	LPS	LOW PRESSURE STEAM
FHR	FIRE HOSE CABINET FIRE HOSE RACK FLEX FLEXIBLE	STM	STATIC PRESSURE STEAM	NG	NATURAL GAS
FM FP	FIRE MAIN FIRE PROTECTION	TA TCC	TRANSFER AIR TEMPERATURE CONTROLS CONTRACTOR	PCWS	PRIMARY CHILLED WATI
FV GA	FACE VELOCITY GAUGE	TD TDH	TEMPERATURE DIFFERENCE TOTAL DYNAMIC HEAD	PCWR-	PRIMARY CHILLED WATI
GRD GRD	GROUND GRILLES, REGISTERS & DIFFUSERS	TDL TI	TOTAL DEVELOPED LENGTH TEMPERATURE INDICATOROR GAUGE		REFRIGERANT LIQUID
HD HOA	HEAD HANDS-OFF-AUTOMATIC		THERMOSTAT TEMPERATURE TRANSMITTER	RS	REFRIGERANT SUCTION
HTG	HEATING	V	VENT	SV	STEAM VENT
HTR HVAC	HEATER HEATING, VENTILATING &	VD VEL	VOLUME DAMPER VELOCITY		STEAM SPECIFIED PRES
HYD	AIR-CONDITIONING HYDRANT	VSD VAV	VARIABLE SPEED DRIVE VARIABLE AIR VOLUME		
	EQUIPMENT AB		TIONS	-	
A1111 #				-	
AHU-# ANB-#	AIR HANDLING UNIT ACID NEUTRALIZING BASIN	HRU-# HST-#	HEAT RECOVERY UNIT HYDRONIC STORAGE TANK		
AS-# ATT-#	AIR SEPERATOR SOUND ATTENUATOR	HU-# HWB-#	HUMIDIFIERS HOT WATER BOILER		
В-# ВТ-#	BOILER BUFFER TANK	HX-# IDU-#	HEAT EXCHANGER INDUCTION DISPLACEMENT UNIT		
CB-# CC-#	CHILLED BEAM COOLING COIL	IR-# IH-#	INFRARED HEATER INTAKE HOOD		
CO-# CH-#	CLEAN OUT CHILLER	LAV-# MAU-#	LAVATORY MAKE-UP AIR UNIT		
CT-# CP-#	CLAY TRAP CONDENSATE PUMP	MH-# MS-#	MARE-OF AIR ONT MAN HOLE MOP SINK / SERVICE SINK		
CRU-#	COMPUTER ROOM UNIT	P-#	PUMPS	GENERAL N	IECHANICAL SYMBO
CT-# CU-#	COOLING TOWER CONDENSING UNITS	PR-# PRV-#	PANEL RADIATOR POWER ROOF VENTILATOR	Δ	
CUH-# CV-#	CABINET UNIT HEATER CONTROL VALVE	RF-# R-#	RETURN FAN RETURN DIFFUSER OR GRILLE		JMBER - SHOWN ON PLANS
CVR-# DC-#	CONVECTOR DRY COOLER	RTU-# RH-#	ROOF TOP UNIT RELIEF HOOD		RE NEW CONNECTS TO EXI
DF-# DHC-#	DRINKING FOUNTAIN DUCT HEATING COIL	RD-# RPZ-#	ROOF DRAIN REDUCED PRESSURE ZONE BFP		DETAIL ON SHEET
E-# EAV-#	EXHAUST DIFFUSER OR GRILLE EXHAUST AIR VALVE	S-# S-#	SUPPLY DIFFUSER OR GRILLE SINK		SHEET WHERE DETAIL AP
EEW-#	EMERGENCY EYEWASH	SB-#	STEAM BOILER	(1) KEYNOTE	
	EXHAUST FAN ENERGY RECOVERY UNIT	SF-# SH-#	SUPPLY FAN SHOWER		
ET-# EWC-#	EXPANSION TANK ELECTRIC WATER COOLER	SSEW-# SSF-#	SAFETY SHOWER/EYEWASH SIDE STREAM FILTER	CONTINUAT	ON SYMBOL
FCO-# FD-#	FLOOR CLEAN OUT FLOOR DRAIN	T-# TF-#	TRANSFER DIFFUSER OR GRILLE TRANSFER FAN	2"	PIPE SIZE TAG (DIAMET
FCU-# FLC-#	FAN COIL UNIT FLUID COOLER	UH-# UR-#	UNIT HEATERS URINAL		ABOVE GROUND PIPING
FPVAV-#	# FAN POWERED VAV	VAV-#	VARIABLE AIR VOLUME UNIT	1/0" / 10"01 005	PIPE SLOPE TAG
FTR-# FWT-#	FIN TUBE RADIATION FLAMABLE WASTE TRAP	VTR-# WB-#	VENT THROUGH ROOF WALL / VALVE BOX	1/8" / 12"SLOPE	BELOW GROUND PIPING
GCO-# GI-#	GRADE CLEAN OUT GREASE INTERCEPTOR	WC-# WC0-#	WATER CLOSET WALL CLEAN OUT	INVERT: -3'-1"	PIPE INVERT ELEVATIO
GRV-# GT-#	GRAVITY ROOF VENTILATOR GAS TURRET	WF <i>-</i> # WH-#	WASH FOUNTAIN WALL HYDRANT		
HB-# HC-#	HOSE BIBB HEATING COIL	WH-# WS-#	WATER HEATERS WATER SOFTENER UNIT		
HC-# HP-#	HEAT PUMP	··O-#			
				1	

	HVAC SYMBOLS	BAS CONTROL POINT LABELS	
Œ	COMBUSTION AIR	(ALM)ALARM(OAD)OUTSIDE AIR DAMPER(BLDP)BUILDING PRESSURE(OAD)OUTSIDE AIR FLOW	
SPECIFIED TEMP	EA EXHAUST AIR	BYPV BYPASS VALVE OAH OUTSIDE AIR HUMIDITY CAP CAPACITY OAT OUTSIDE AIR TEMPERATION CES CLOSED END SWITCH OES OPEN END SWITCH	JRE
R	FLUE FLUE	CHWF CHILLED WATER FLOW PWR CHWP CHILLED WATER PRESSURE RAD RETURN AIR DAMPER	
RECIRCULATION	GREASE EXHAUST TYPE	CHWT) CHILLED WATER TEMPERATURE CLGV COOLING VALVE COMMAND	
WATER	LA RELIEF AIR	CMD COMMAND RAP RETURN AIR PRESSURE CRT CURRENT RAQ RETURN AIR QUALITY (CO (CWF) CONDENSER WATER FLOW RAT RETURN AIR TEMPERATU	
WATER	MIXED AIR	CWP CONDENSER WATER PRESSURE SAD SUPPLY AIR DAMPER CWT CONDENSER WATER TEMPERATURE SAF SUPPLY AIR FLOW	
		DADDISCHARGE AIR DAMPERSAHSUPPLY AIR HUMIDITYDAFDISCHARGE AIR FLOWSAPSUPPLY AIR PRESSURE(DAH)DISCHARGE AIR HUMIDITYSATSUPPLY AIR TEMPERATU	DE
	RETURN AIR	DAP DISCHARGE AIR PRESSURE (SMK) SMOKE DETECTOR (DAT) DISCHARGE AIR TEMPERATURE (SPD) SPEED	NE
TED	SUPPY AIR	EAD EXHAUST AIR DAMPER SPT SETPOINT EAF EXHAUST AIR FLOW STS STATUS	
ITER	TA TRANSER AIR	EAHEXHAUST AIR HUMIDITYZNHZONE HUMIDITYDAPEXHAUST AIR PRESSUREZNOZONE OCCUPANCY SENSEATEXHAUST AIR TEMPERATUREZNPZONE PRESSURE	OR
	SQUARE DUCT SIZE TAG (WIDTH x HEIGHT)	ENRG ELECTRICAL ENERGY CONSUMPTION ZNQ ZONE QUALITY (CO2) (FBK) FEEDBACK ZNT ZONE TEMPERATURE	
RLEADER	OVAL DUCT SIZE TAG (WIDTH / HEIGHT)	(FIRE) FIRE ALARM (FRZ) FREEZESTAT (GAS) NATURAL GAS CONSUMPTION	ATIONS
R	ROUND DUCT SIZE TAG (DIAMETER)	HIP HIGH PRESSURE SAFETY (HTGV) HEATING VALVE AI ANALOG INPUT	
ξ Ι	(E) EXISTING DUCT TAG	HWF HOT WATER FLOW AO ANALOG OUTPUT (HWP) HOT WATER PRESSURE DI DIGITAL/BINARY INPUT (HWT) HOT WATER TEMPERATURE DO DIGITAL/BINARY OUTPUT	Ŧ
	DROP	(HWT)HOT WATER TEMPERATUREDODIGITAL/BINARY OUTPUT(ISOV)ISOLATION VALVEINTINTEGRATION POINT(LOP)LOW PRESSURE SAFETYNETNETWORK POINT	I
	DROP 🔇 🔅 ROUND SUPPLY/OUTSIDE AIR DUCT RISE	MAF MIXED AIR FLOW R READABLE POINT MAP MIXED AIR PRESSURE R/W READABLE AND WRITEA	
	DROP	MAT MIXED AIR TEMPERATURE # TOTAL NUBER OF POINT THAT TYPE THAT TYPE	5 UF
	DROP	BAS CONTROL DEVICES & SYMBOLS	
	DROP	TT TT TT TEMPERATURE SENSORS OS OCCUPANCY SWITCH	H
	DROP 🖄 ROUND EXHAUST/RELIEF AIR DUCT RISE	(BULB, AVERAGING, WELL)	
ETURN	PHASE KEY - NEW, EXISTING & DEMO VISIBILITY	LOW TEMPERATURE SWITCH (JT) b POWER METER	
JPPLY		MT LOW TEMPERATURE SWITCH POWER METER	
RN .Y		HUMIDITY SENSOR	R
ATER RETURN			
IATER SUPPLY		AIR QUALITY SENSOR (CO2, CO, ETC.)	
		(PDT) PRESSURE SENSORS (CV) (CV) CONTROL VALVES	
ENSATE RETURN	GRILLES, REGISTERS, AND DIFFUSERS TAG	(TWO-WAY, THREE-V	√AY)
М	SUPPLY OUTLET RETURN/EXHAUST INLET Supply outles R1-400-24x12	PSLPSH PRESSURE SQITCHES COOLING COILS (WA	
RN LY			
ENSATE RETURN	CFM TYPE (SEE SCHEDULE)	(FT (FSL) FLOW SENSORS & SWITCH HCGCEC HEATING COILS (WATER, AIR, SWITCH) (WATER, GAS, ELECT)	ſRIC)
1	(SEE SCHEDULE)		
ER SUPPLY	LINEAR DIFFUSER TAG	CURRENT SENSOR & SWITCH VFD MS VARIABLE FREQUEN MOTOR STARTER	CY DRIVE,
ER RETURN	TYPE (SEE SCHEDULE) CFM	INSTRUMENTATION	
Ν	NECK SIZE 4'-0" / 2 LINEAR LENGTH	SCHEMATICS PLAN VIEWS	
SSURE		TI TEMPERATURE INDICATOR	
		TT TEMPERATURE TRANSMITTER TT	
		TE TEMPERATURE ELEMENT (TE)	
		(PI) PRESSURE INDICATOR (PI)	
		(PT) PRESSURE TRANSMITTER (PT)	
		(MT) MOISTURE TRANSMITTER (MT)	
	SPACE SENSORS - PLAN VIEW		
DLS		GT GAS TRANSMITTER GT	
	CARBON DIOXIDE SENSOR (CO2) (TH) TEMPERATURE & HUMIDITY SENSOR	(FIT) FLOW INDICATING TRANSMITTER (FIT)	
ISTING		PSV PRESSURE SAFETY VALVE	
	NITROGEN DIOXIDE SENSOR (NO2) T THERMOSTAT HUMIDITY SENSOR (HS) (MS) MANUAL SWITCH	(PD) DIFFERENTIAL PRESSURE SWITCH (PD)	
PEARS	HUMIDISTAT (H) (S) SENSOR		
	DAMPERS - PLAN / SECTION VIEW		
		(PDT) DIFFERENTIAL PRESSURE TRANSMITTER (D)	
ER)		AFS AIRFLOW MEASURING STATION AFS	
3	SMOKE DAMPER SD G BACKDRAFT DAMPER	T THERMOSTAT T	
G	MOTORIZED DAMPER M FS COMBINATION FIRE/SMOKE		
N TAG			

Μ \sim \triangleright \bigcirc Ч E 8 T TA $\overline{\top}$ \sim \square \sum \equiv \square \square E] ı⊢— N \sim \parallel \sim ------ $- \times$ 0— $\overline{}$ -<u>^</u>____ (S) S S

U	MASS FLOW/DENSITY ELEMENT	\geq	НАТСН	\bowtie	GATE VALVE	HEAT EXC	HANGERS	PUMPS / BLOV	VERS / FANS
Μ	MAGNETIC FLOW		пател		BALL VALVE	(I		<i>Δ</i>	CENTRIFUGAL
			LIGHTED LEVEL GAUGE		GLOBE VALVE		BOILER		PUMP BASE MTD
\sim	SONIC FLOW ELEMENT		WEIR		BUTTERFLY VALVE			н Суч	INLINE PUMP
\triangleright	VORTEX FLOW ELEMENT		VENTRUI TUBE		CHECK VALVE SPRING LOADED		CHILLER WATER COOLED		AIR DIAPHRAGM PUMP
$\overline{\mathbf{c}}$	FLOW INDICATOR ELEMENT								CENTRIFUGAL
5	TARGET TYPE FLOW ELEMENT	\land	FLUME		VALVE DIAPHRAGM VALVE		CHILLER AIR COOLED	\square	FAN / BLOWER
	PILOT TUBE FLOW		FLOW NOZZLE		VEE BALL VALVE				EXTENDED LIFT OR
	ELEMENT TUBE FLOW		RESTRICTING ORIFICE		SAMPLE VALVE		COOLING TOWER		SUMP PUMP
	ELEMENT	Â	QUICK CHANGE		PLUG VALVE	H		\bigcirc	SUMP PUMP
E	AVERAGING PILOT FLOW ELEMENT		RESTRICTIONG OFIFICE	F	QUICK OPEN VALVE	r L			METERING OR PROPORTIONING
8	TURBINE FLOW ELEMENT	\mathbf{r}	Y-TYPE STRAINER		ANGLE VALVE		DRY COOLER		PUMP
	FLOW ORIFICE	s	BASKET STRAINER		THREE=WAY VALVE	·	FLUID COOLER	$\bigcirc \bigcirc$	COMPRESSOR OR VACUUM PUMP
ss	IN-LINE STEAM) _⊃	THERMOWELL		VALVE				
Т	SEPARATOR STEAM TRAP	$ $ \vee	SPOT DRAIN		FOUR-WAY BALL VALVE		SHELL & TUBE HEAT EXCHANGER		SCREW PUMP
TA	STEAM TRAP				VACUUM SAFETY				DOSING PUMP
\bigcirc	ASSEMBLY SIGHT GLASS		ROOF VENT		RELIEF VALVE		PLATE & FRAME HEAT EXCHANGER	н <mark>л</mark> енц	EDUCTOR OR JET
	MANWAY OR		TANK VENT		PRESSURE SAFETY RELIEF VALVE			-	
	FLANGED CONNECTION			*	VACUUM/PRESSURE		SPIRAL HEAT EXCHANGER	Q	POSITIVE DISPLACEMENT PUMP OR BLOWER
\sim	FEED MAGNET		NITROGEN SPARGER		SAFETY RELIEF VALVE			\bigcap "	
\square	RUPTURE DISK PRESSURE RELIEF		PLUGGED VALVE		NORMALLY OPEN (ALLTYPES)	# <u></u>	HAIRPIN HEAT EXCHANGER		VERTICAL TURBINE PUMP
\sum	RUPTURE DISK VACUUM RELIEF		THREADED CONNECTION		NORMALLY CLOSED (ALL TYPES)		AIR HEATER OR		
	FLAME ARRESTOR		FLOWMETER		SELF CONTAINED		INTERCHANGER		
\square	CONCENTRIC REDUCER		FLOW INDICATOR		BACK PRESSURE CONTROL VALVE	FILTERS / CO	DLLECTORS	TANKS AND	VESSELS
	ECCENTRIC REDUCER	Ŗ			SELF CONTAINED PRESSURE				TANK OR VESSEL
E	CAPPED END FEMALE HOSE		SPEC BLIND		CONTROL VALVE		HYDRONIC FILTER		HEAT JACKETED
]	CONNECTION MALE HOSE	AV	THERMOSTATIC AIR VENT		BACK PRESSURE CONTROL VALVE				TANK OR VESSEL
	CONNECTION		AUTOMATIC DRAIN		SELF OPERATED PRESSURE		HYDRONIC AIR SEPARARTOR		TANK OR VESSEL WITH SPIRAL COIL
M	FLEX CONNECTION		ZU VALVE		CONTROL VALVE PRESSURE REDUCING	Ĭ			TANK OR VESSEL
	CONNECTION				VALVE	\bigotimes	AIR FILTER		WITH CAGE COIL
∽ ⊫	HOSE BLIND FLANGE				BALANCING VALVE PRESSURE REGULATOR		VERTICAL LEAF		STORAGE TANK OR VESSEL
	DIAPHRAGM SEAL				TRIPLE DUTY VALVE	\ominus	FILTER		
	WALL HYDRANT/HOSE BIBB			BG SG	BLAST GATE		HORIZONTAL LEAF FILTER		CONE BOTTOM TANK OR VESSEL
					SLIDE GATE TWO-WAY DIVERTER		PLATE & FRAME FILTER	\bigvee	
$\overline{\frown}$	PIPE GUIDE ELBOW UP				THREE-WAY DIVERTER		ROTARY		ROTARY VESSEL / DRYER
<u> </u>	ELBOW DOWN				BACKFLOW PREVENTER (RPZ)		FILTER	╵╫┈╫╵╵	
	TEE DOWN				FLANGED VALVE	<u>и</u> 	BAG OR CARTRIDGE		
<u>^</u>	PIPE CAP VALVE IN RISER				BACKWATER VALVE	Ų	FILTER		
9	SIPHON UNDER PRESSURE GAUGE						BAGHOUSE		
$\langle s \rangle s \rangle$	SAFETY SHOWER & EYE WASH								
<u> √</u> √	DOWNSPOUT						CYCLONE		
	FLOW DIRECTION					V			
	FLOW SLOPE								
\bigcirc	CONNECT TO EXISTING								
							DTES ON THIS SHEET ARE	DTE * TO BE APPLIED TO ALL O	
						THIS SET.THE SYMBO	OLS AND ABBREVIATIONS USED IN THIS SE	SHOWN ON THIS SHEET M T OF DRAWINGS.	IAY OR MAY NOT BE

VALVES - SYMBOLS



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EQUIPMENT SYMBOLS

HEAT EXCHANGERS

PUMPS / BLOWERS / FANS

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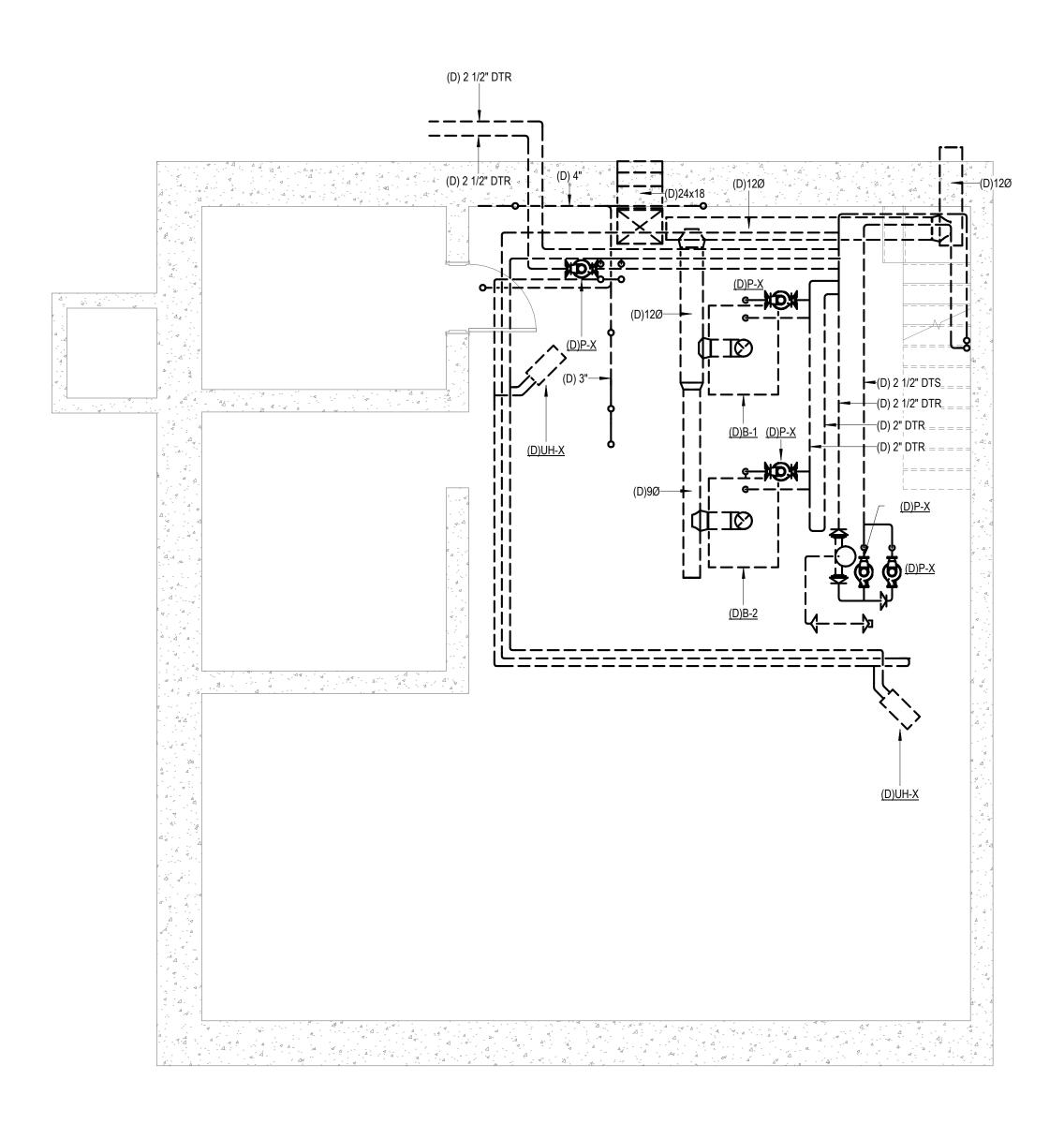


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No.	Date	Revision Description
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Checked by Mech Proj Eng	1002

1BASEMENT HVAC DEMOLITION PLANM1011/4" = 1'-0"





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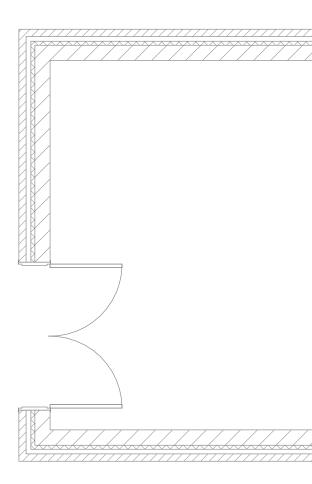
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Date	9/30/2022	
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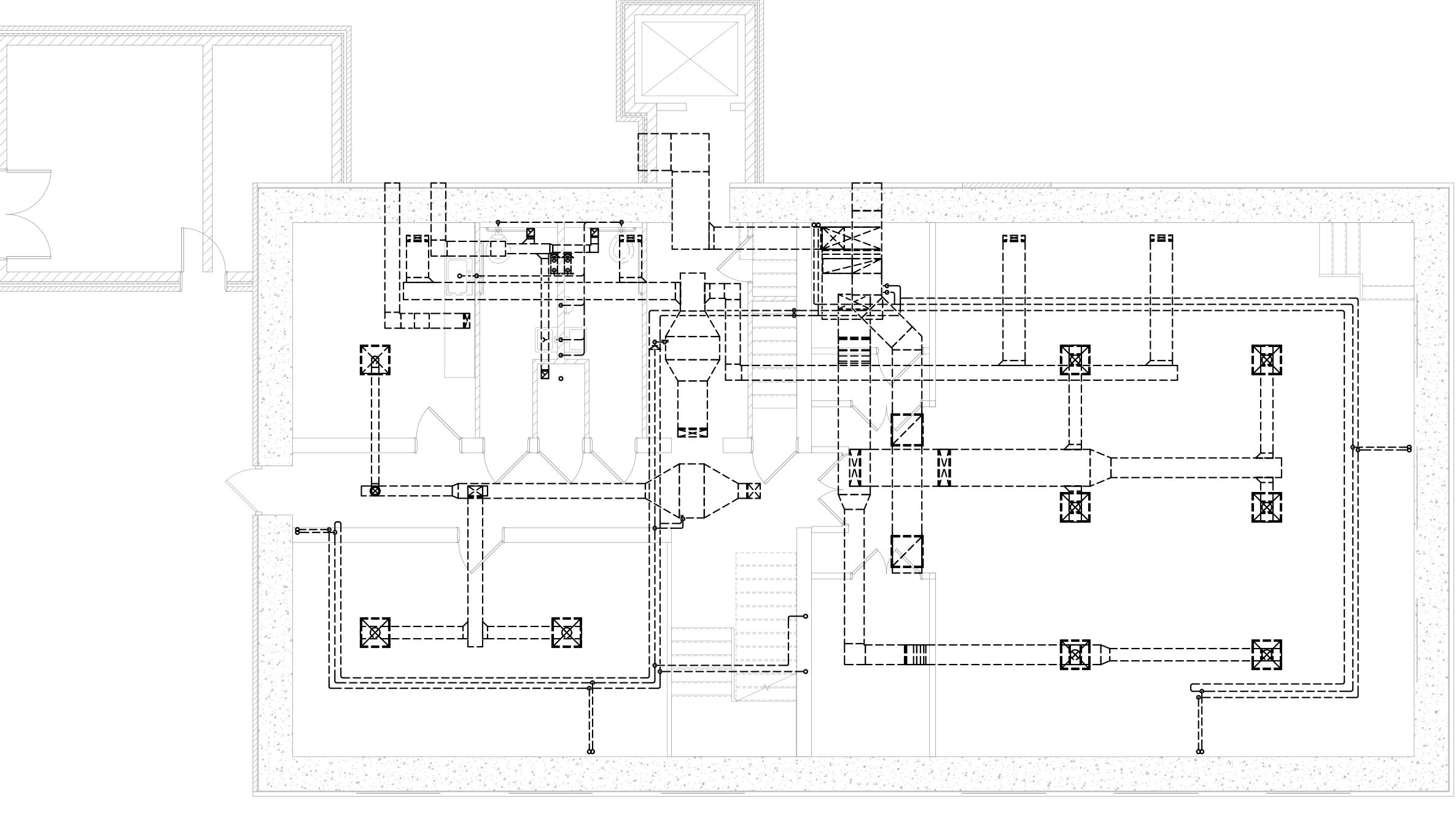
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ving Number





1 LEVEL 1 HVAC DEMOLITION PLAN - AREA A M111 1/4" = 1'-0"





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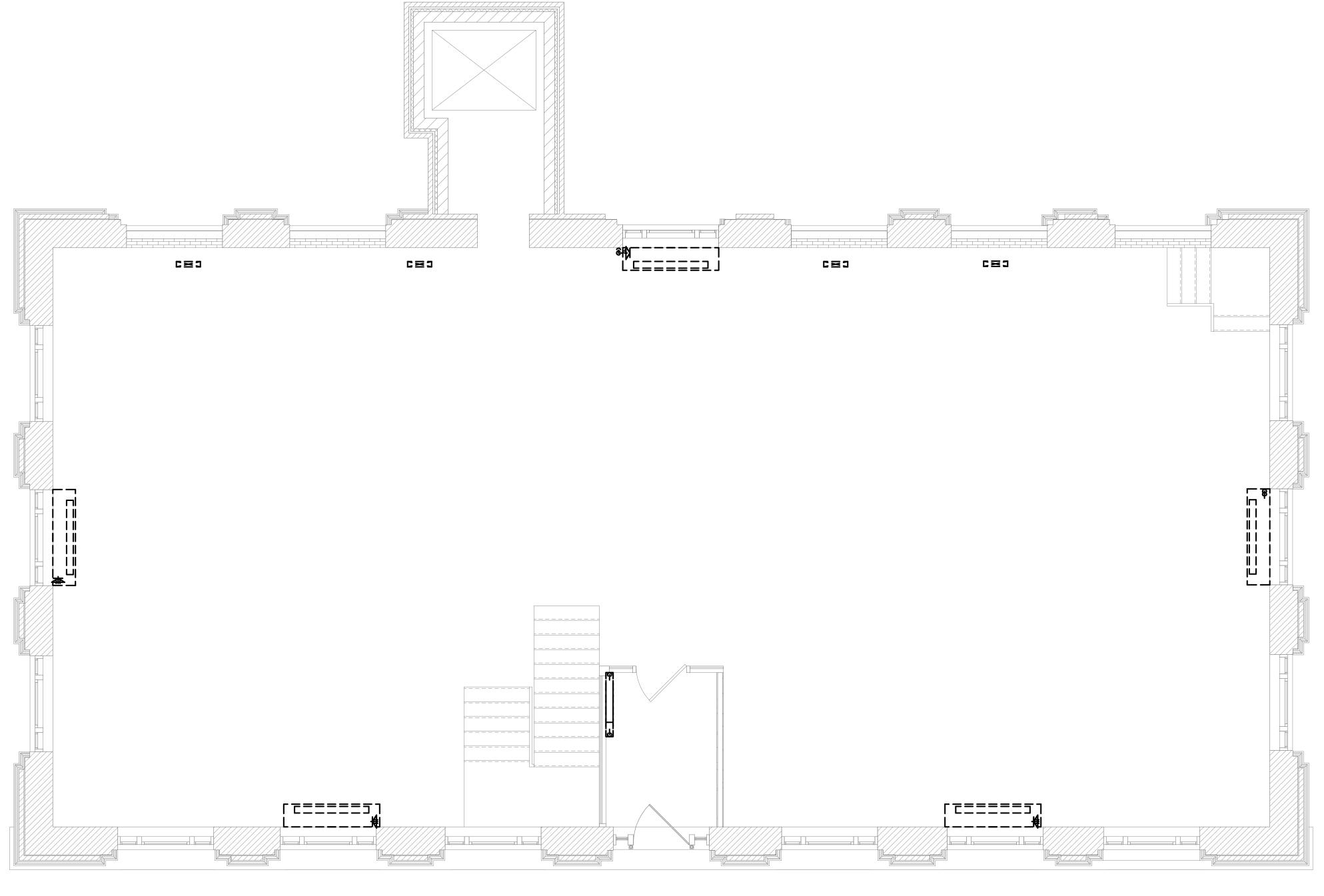
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Checked by	Mech Proj Eng	M111
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1 LEVEL 2 HVAC DEMOLITION PLAN - AREA A M121 1/4" = 1'-0"





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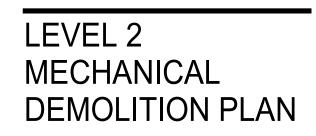


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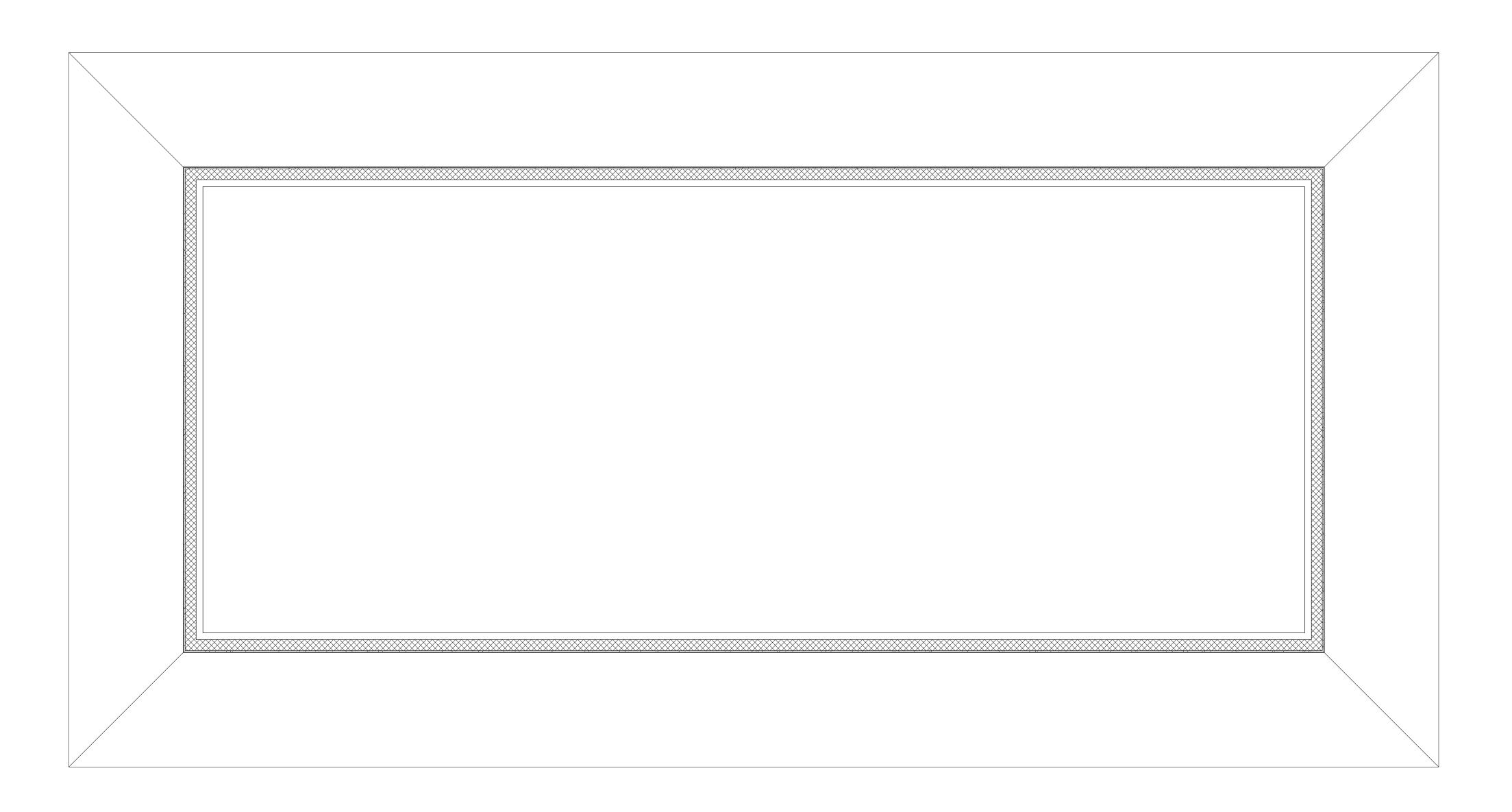
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Checked by	Mech Proj Eng	M121

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1 ROOF MECHANICAL DEMOLITION PLAN - AREA A M161 1/4" = 1'-0"





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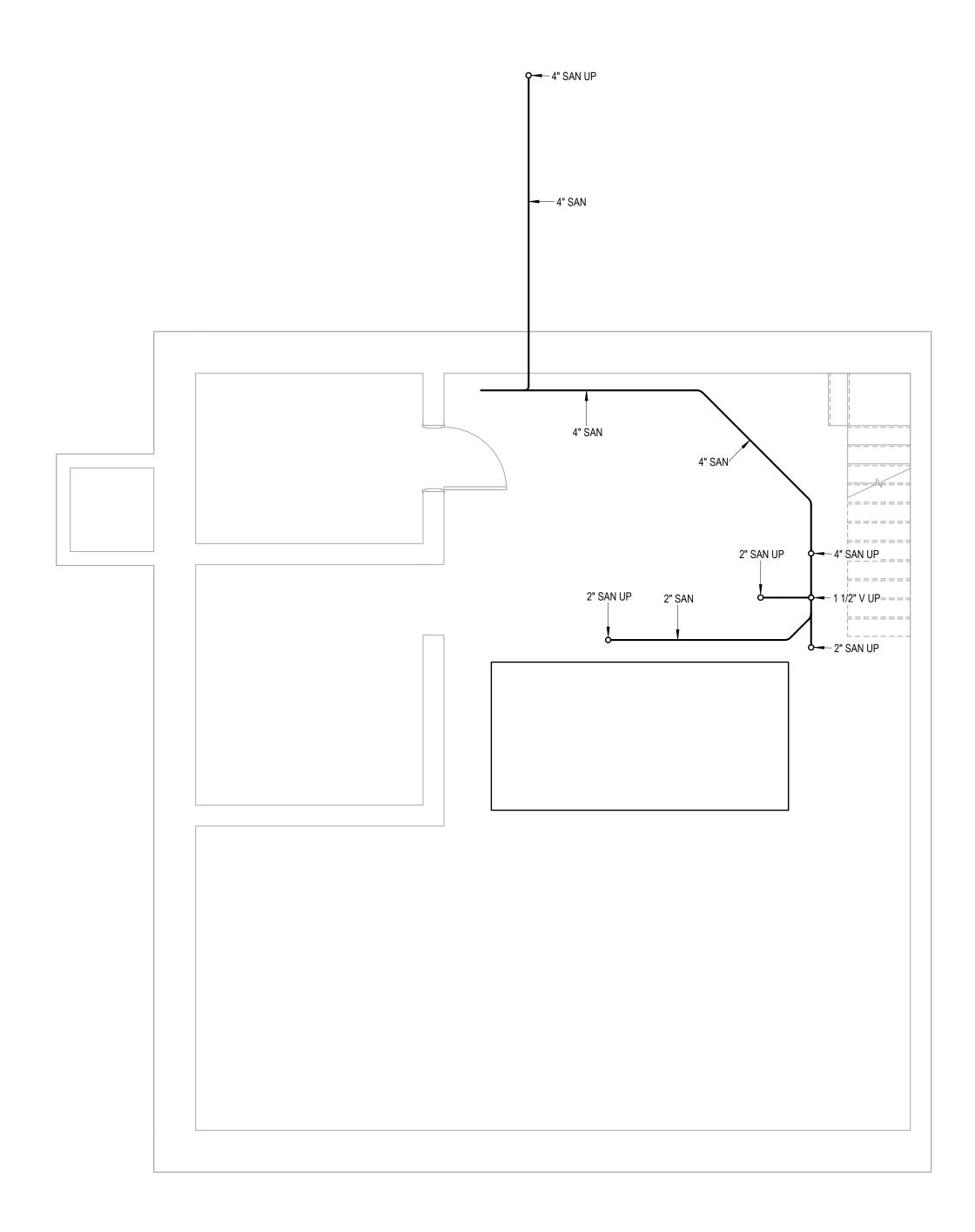
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Checked by	Mech Proj Eng	M161

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1 BASEMENT PLUMBING PLAN - AREA A M201 1/4" = 1'-0"





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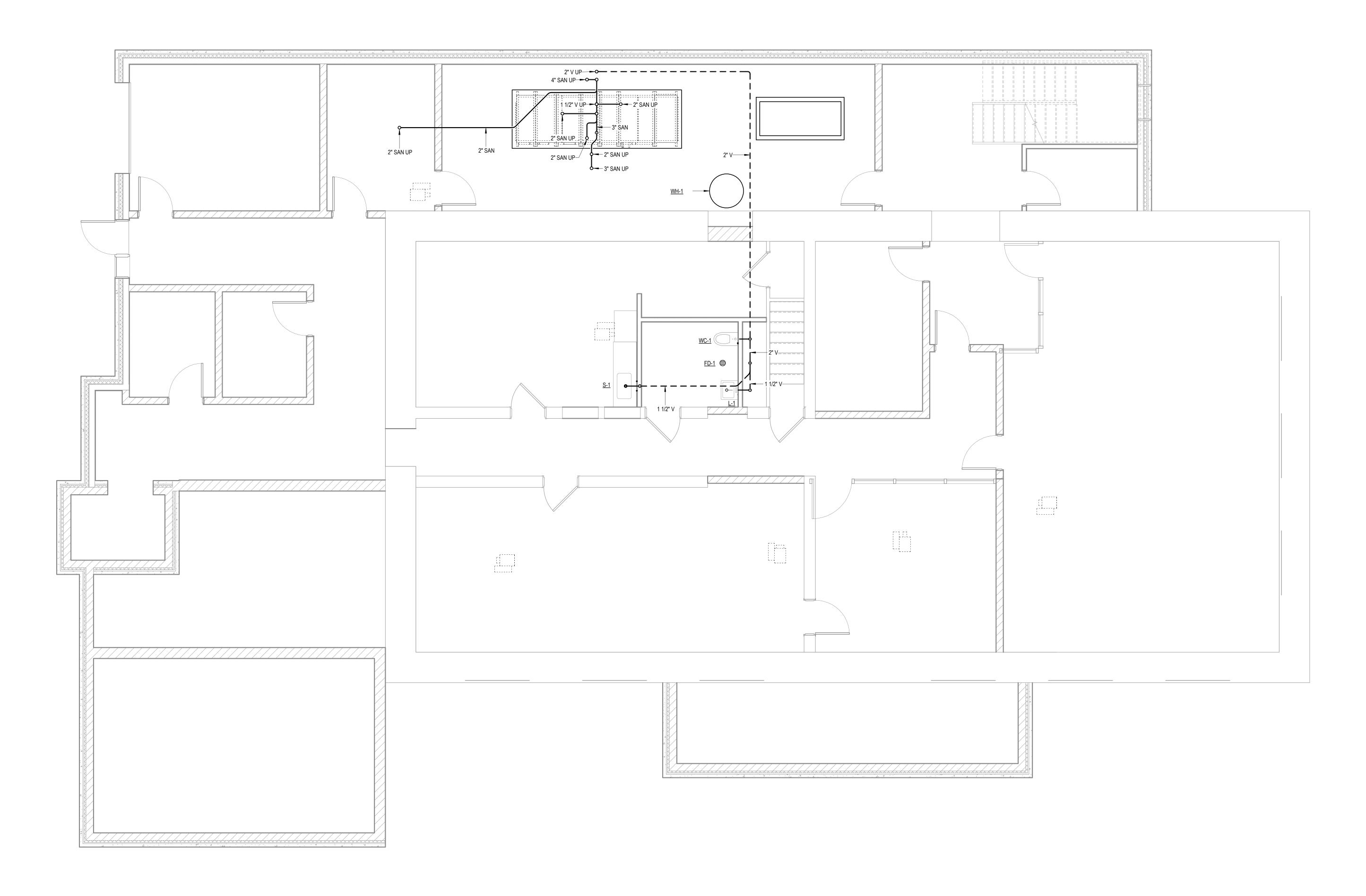


Key Plan Key Pl

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No.	Date	Revision Description



Project	XX-XXXX.XX	Drawing Number
Date	9/30/2022	
Drawn by	Mech Designer	NA004
Checked by	Mech Proj Eng	M201



1 LEVEL 1 PLUMBING PLAN - AREA A M211 1/4" = 1'-0"



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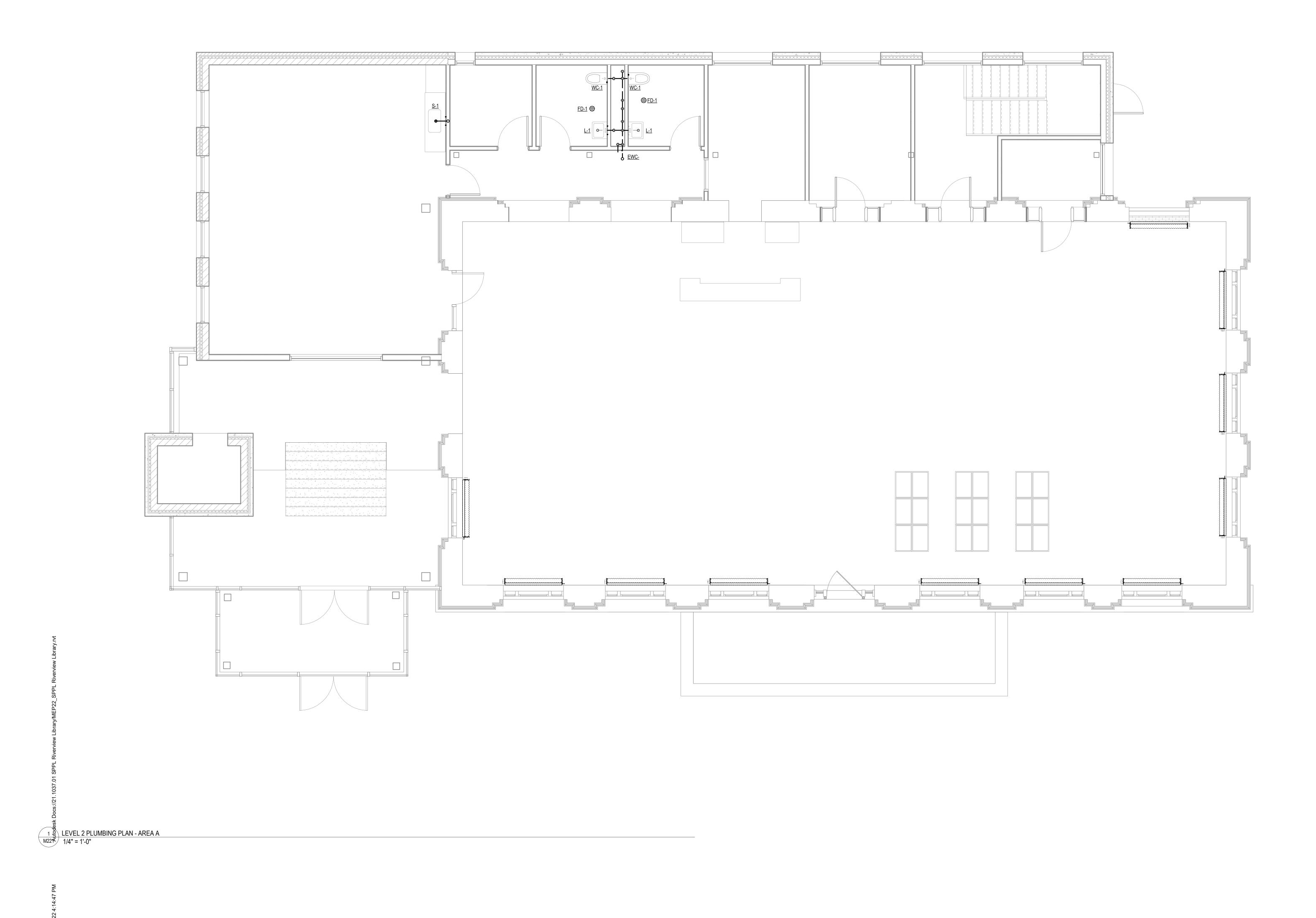




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LEVEL 1 PLUMBING PLAN

Project	XX-XXXX.XX	Drawing Number
Date	9/30/2022	
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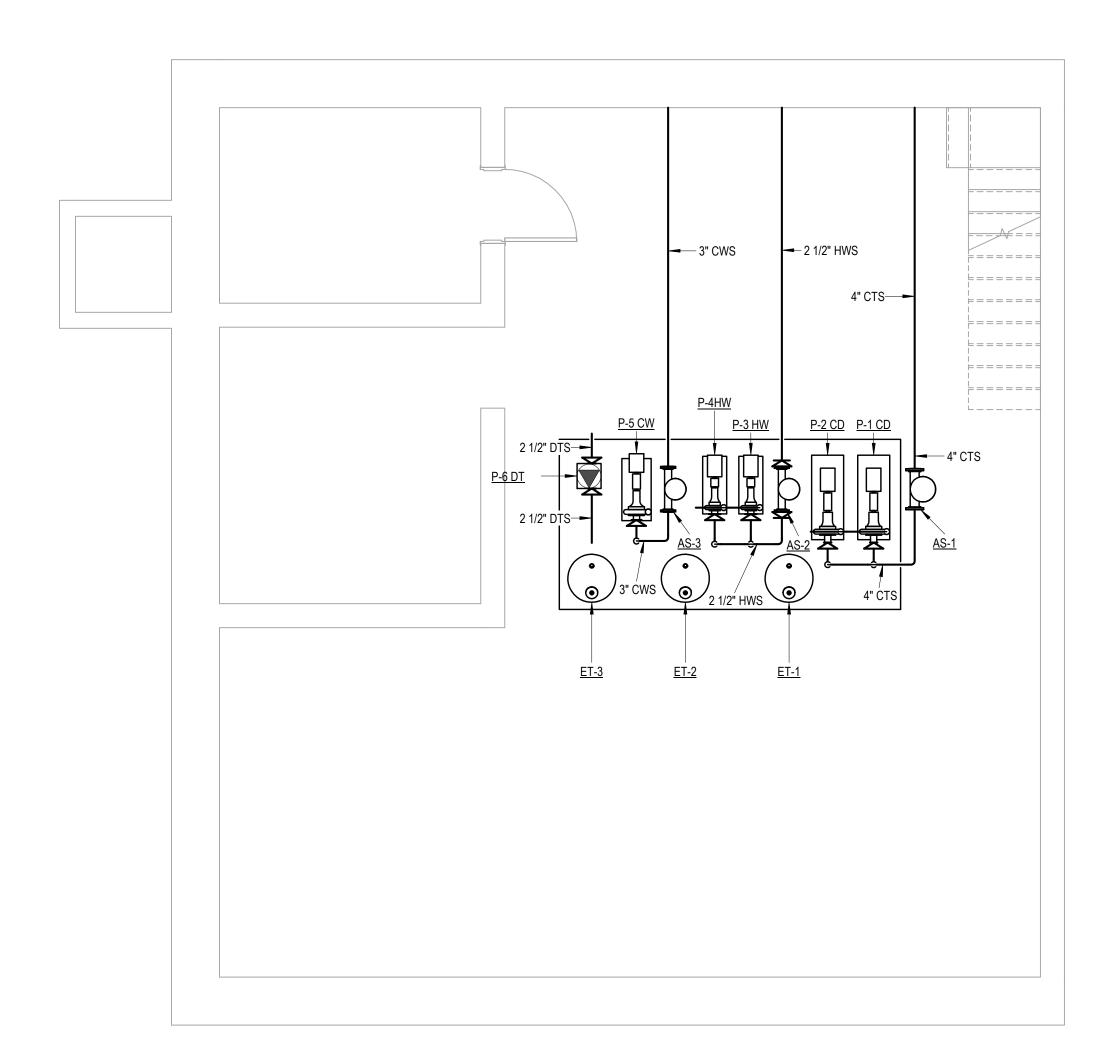
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No.	Date	Revision Description

75% DESIGN DEVELOPEMENT



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Date	9/30/2022	
Drawn by	Mech Designer	NA004
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1 BASEMENT HYDRONIC PLAN - AREA A M301 1/4" = 1'-0"





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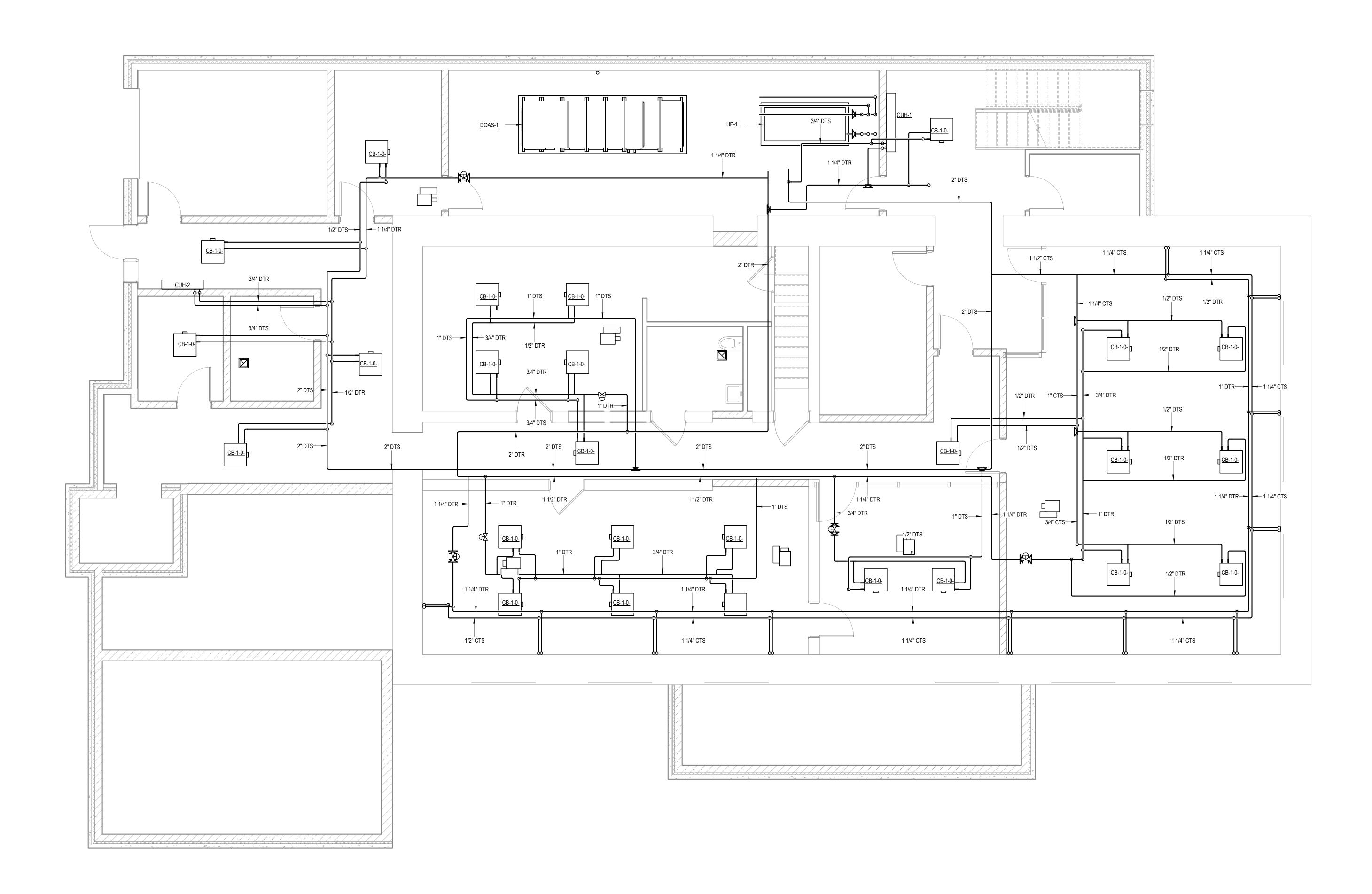
Key Plan RUCTION I HEREBY CERTIFY THAT THIS PLAN, PICIFICATION OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA. PRINT NAME: MARIA D. PFEFFER

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BASEMENT HYDRONIC PLAN

Project	XX-XXXX.XX	Drawing Number
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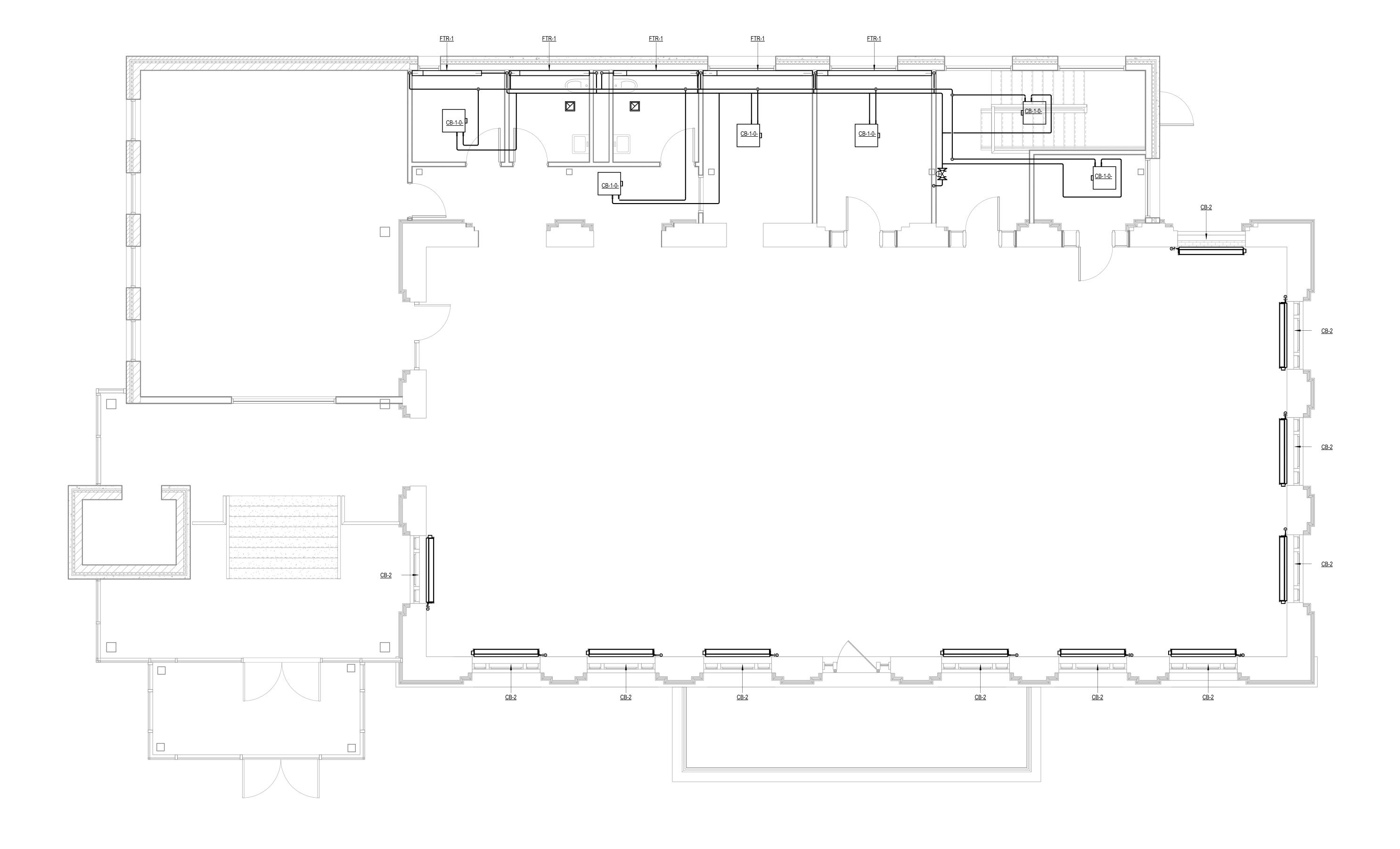


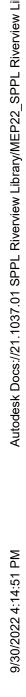
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No.	Date	Revision Description

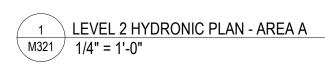
LEVEL 1 HYDRONIC PLAN

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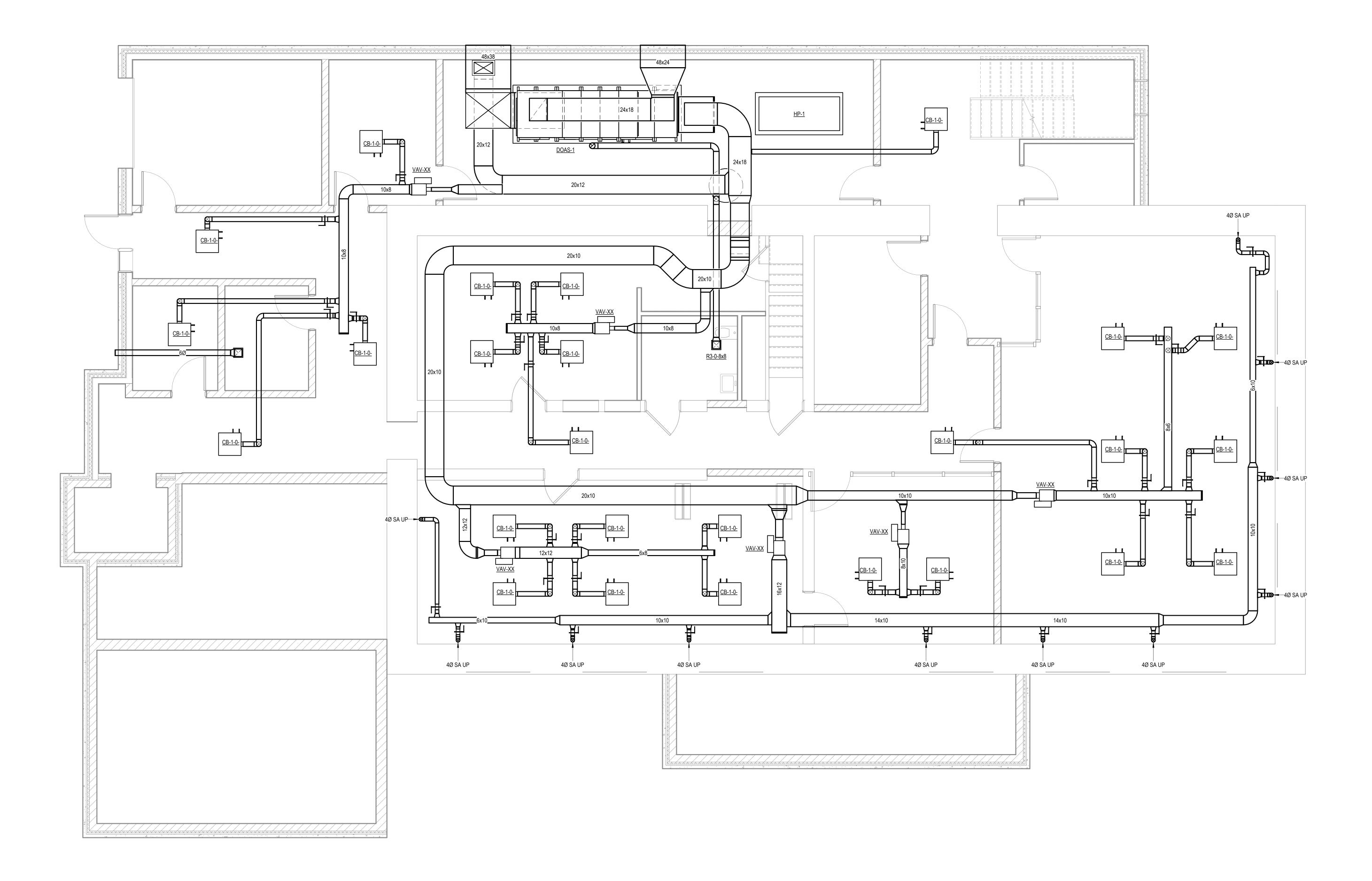
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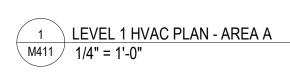


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LEVEL 2 HYDRONIC PLAN

Project	XX-XXXX.XX	Drawing Number
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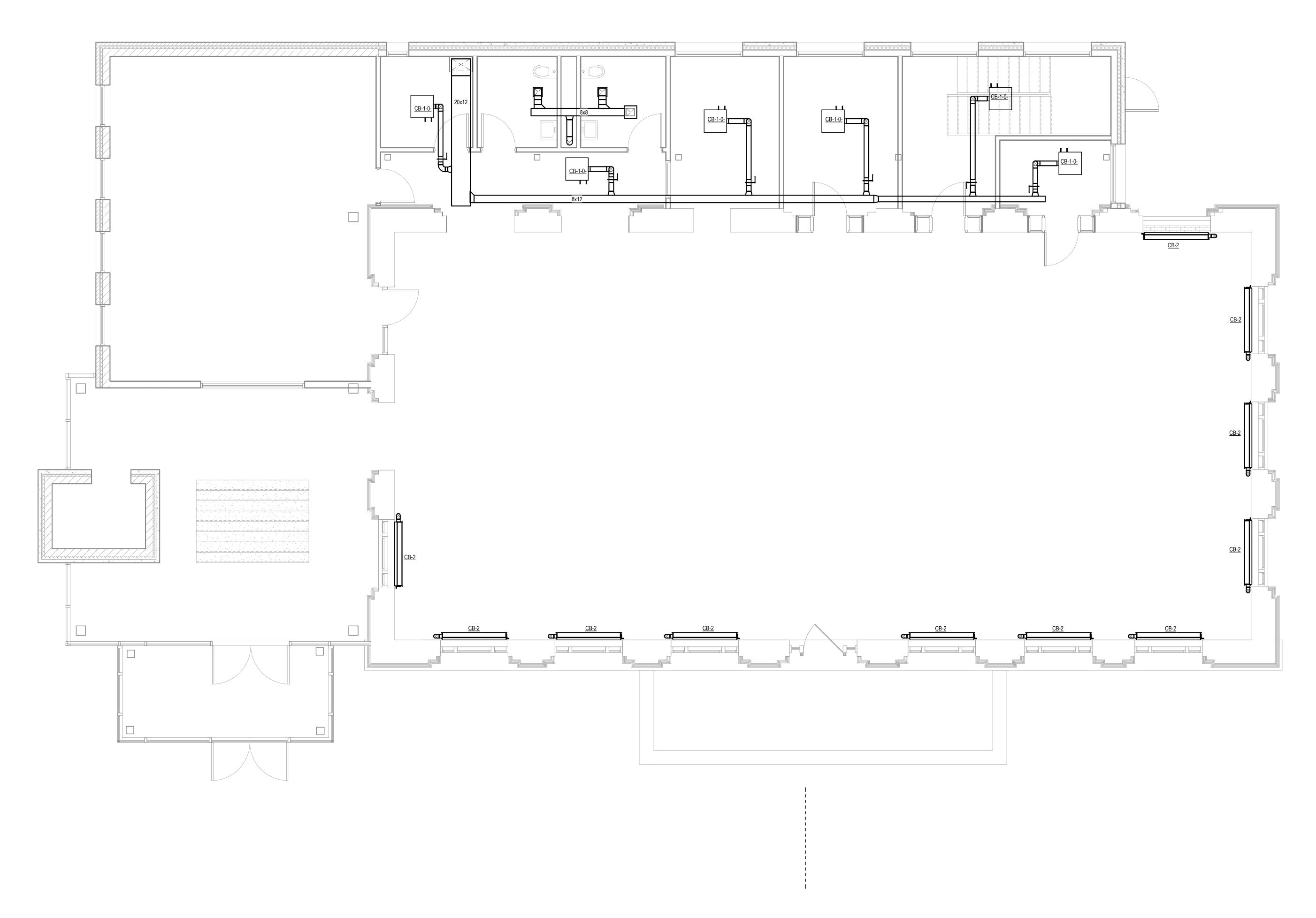


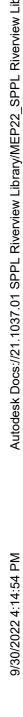
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LEVEL 1 HVAC PLAN

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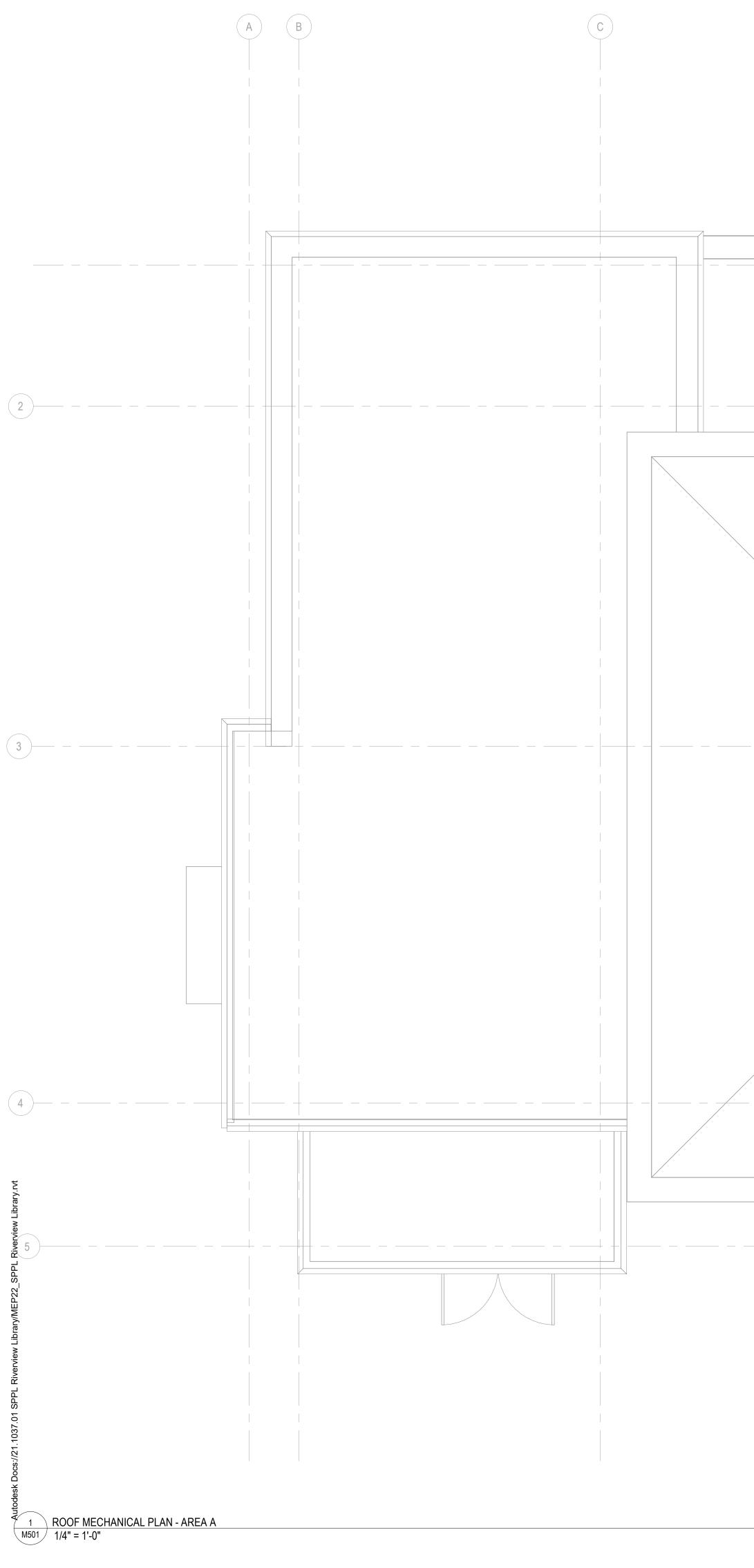


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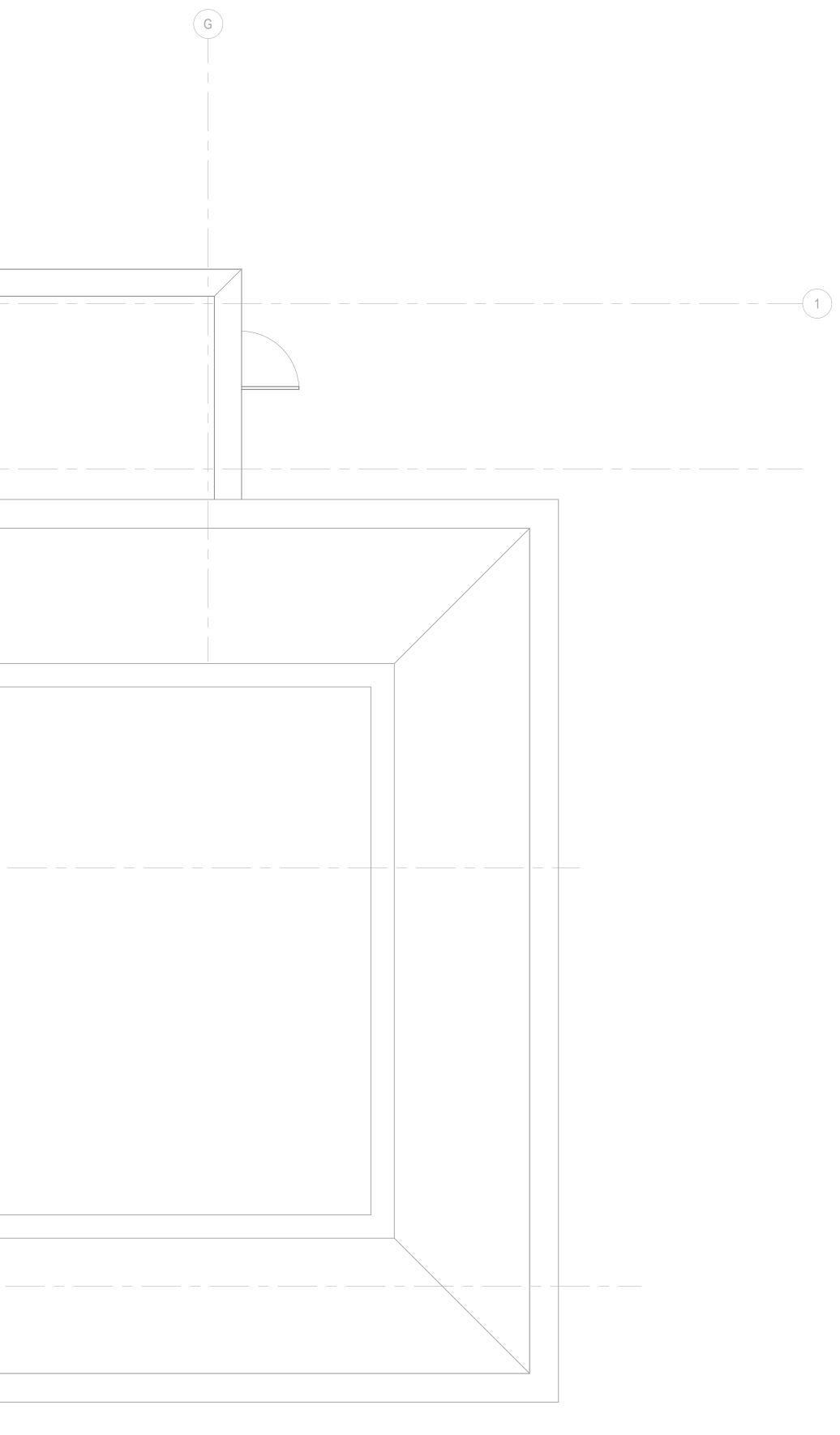
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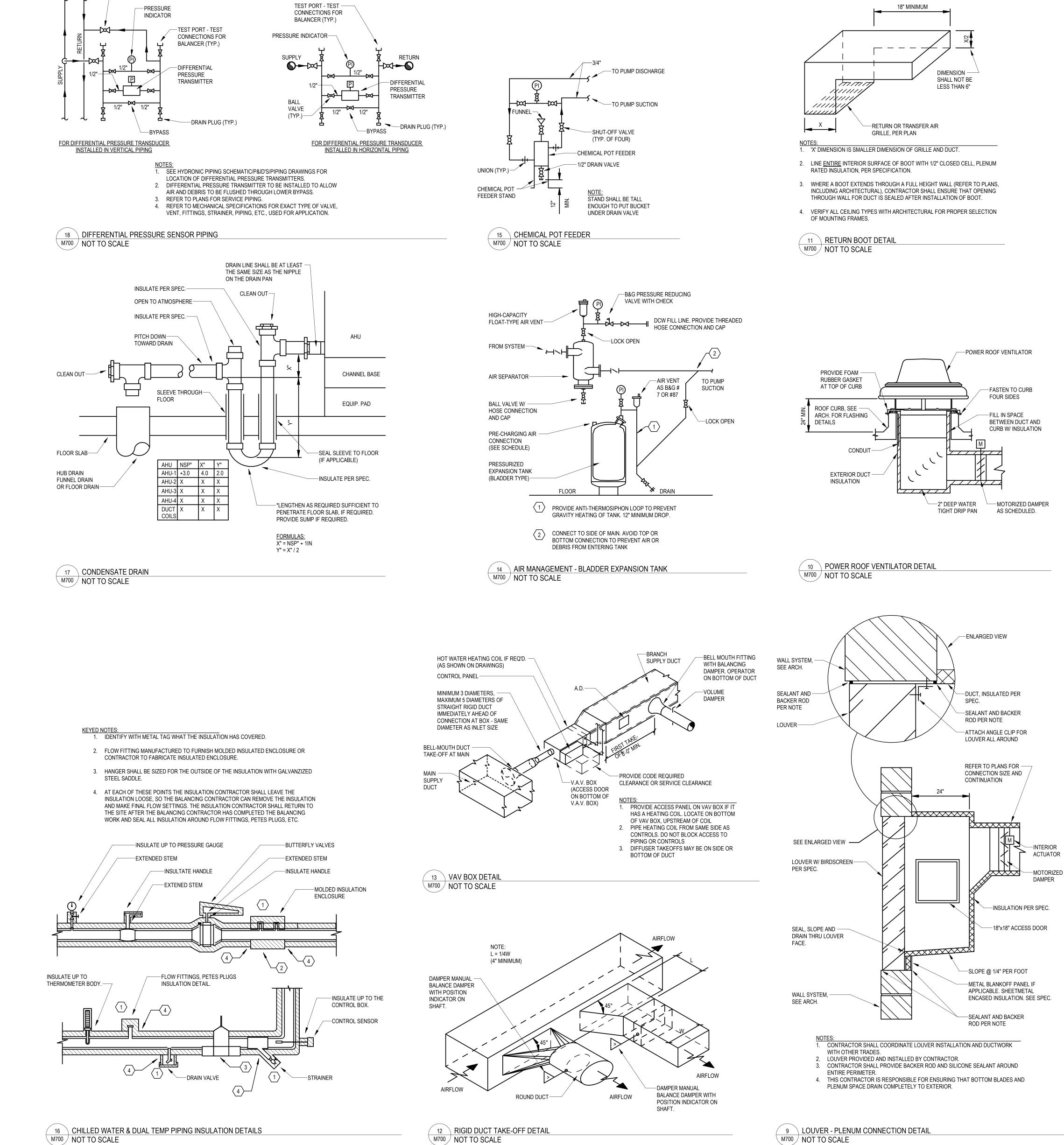




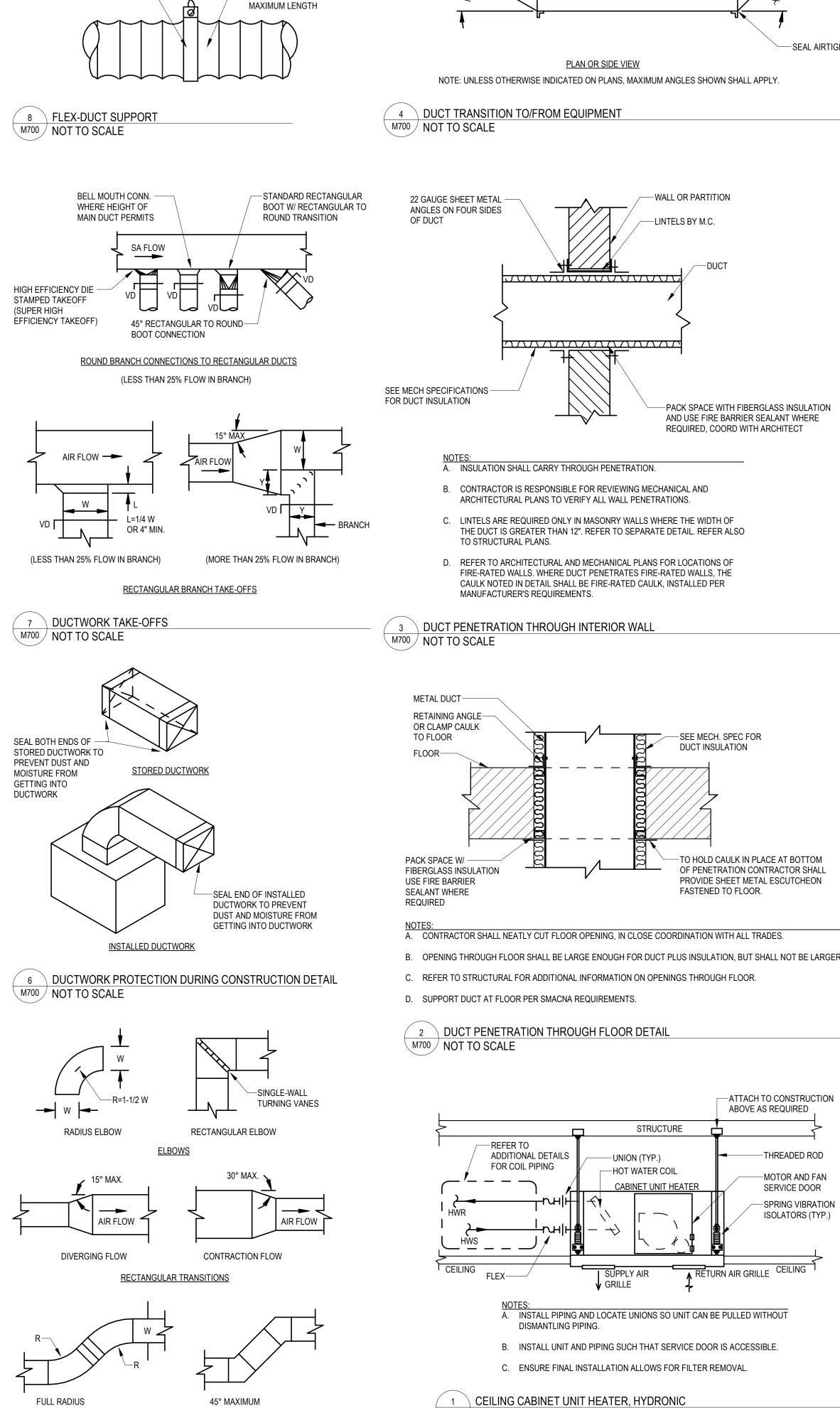
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ROOF MECHANICAL PLAN

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9/30/2022	
Mech Designer	
Mech Proj Eng	M501
	9/30/2022 Mech Designer



-BALL VALVE (TYP.)



STRUCTURE

2" WIDE SUPPORT -

MAXIMUM SPACING

STRAP - 3'-0"

-HANGER WIRE

-FLEXIBLE DUCT 5'-0"

ANGLES

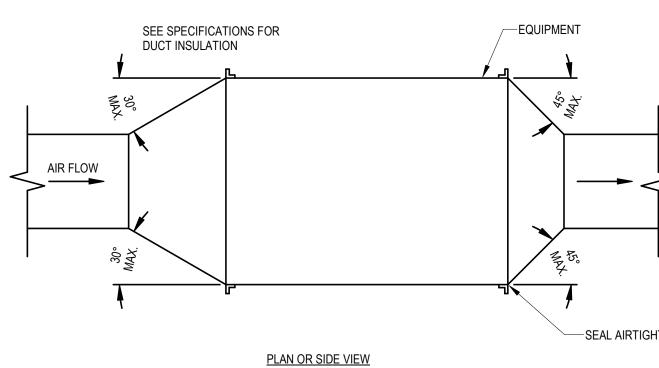
5 DUCTWORK ELBOWS, TRANSITIONS, & ANGLES M700 NOT TO SCALE

WHERE POSSIBLE (R=W)

M700 NOT TO SCALE

(ONLY PERMITTED WHERE FULL

RADIUS NOT POSSIBLE)





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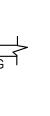
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-MOTOR AND FAN SERVICE DOOR -SPRING VIBRATION ISOLATORS (TYP.)

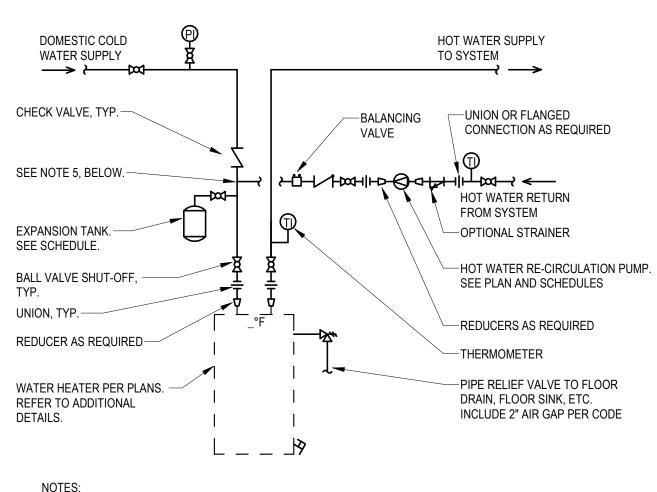
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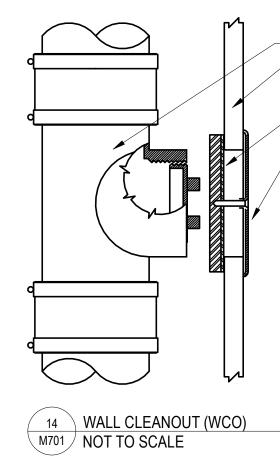


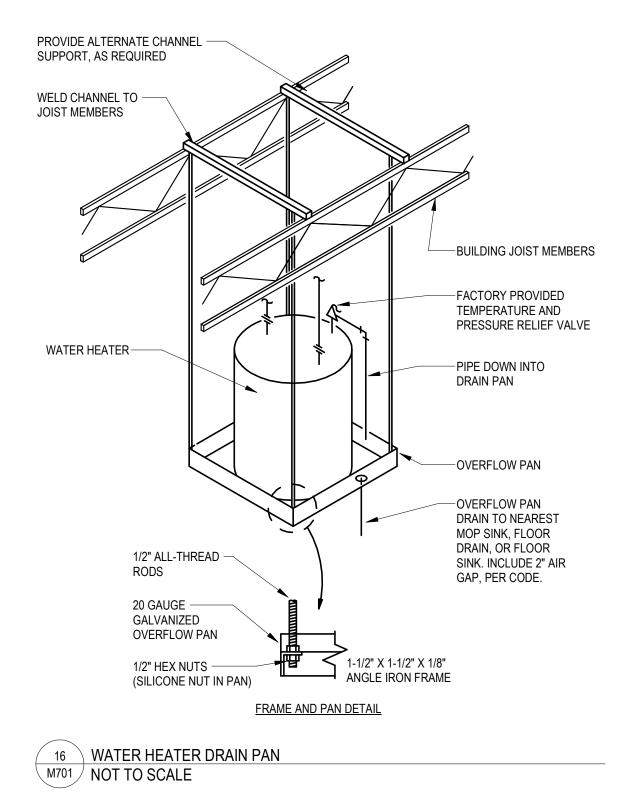
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Date	9/30/2022	
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Checked by	Mech Proj Eng	M700

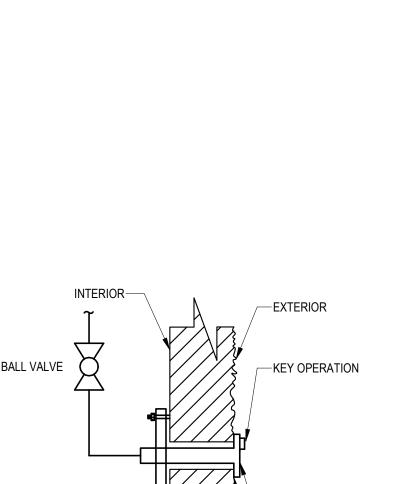
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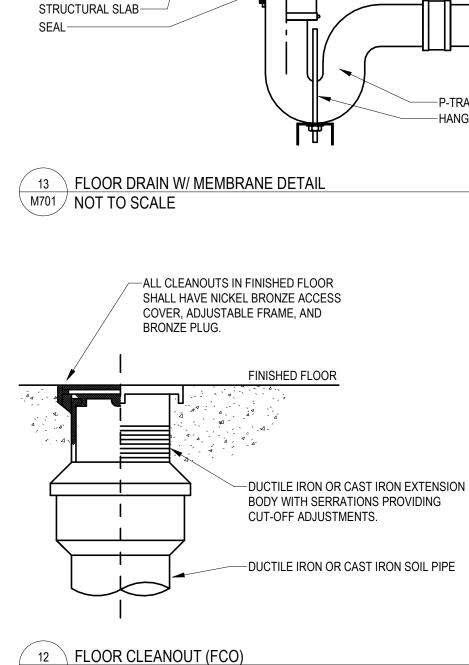


- REFER TO SPECIFICATIONS AND PLANS FOR RE-CIRCULATION PUMP CONTROL INTENT. INSTALL ALL VALVES TO BE ACCESSIBLE; INSTALL ALL TEMPERATURE/PRESSURE GAUGES TO BE VISIBLE. REFER TO ISOMETRICS FOR PIPE SIZING INFORMATION. 4. CONNECT RECIRCULATION WATER BACK TO COLD WATER INLET OF TANK, AS SHOWN. ALTERNATIVELY, TEMPERED WATER CONNECTION MAY BE MADE DIRECTLY INTO STORAGE TANK, IF THE STORAGE TANK HAS THE ADDITIONAL INLET PORT FACTORY-PROVIDED.
- 17 WATER HEATER PIPING SINGLE TANK SINGLE TEMP. RE-CIRCULATING PUMP M701 NOT TO SCALE









NOTES: FLOOR DRAINS

BOLT FLANGE THROUGH -

WATERPROOF MEMBRANE

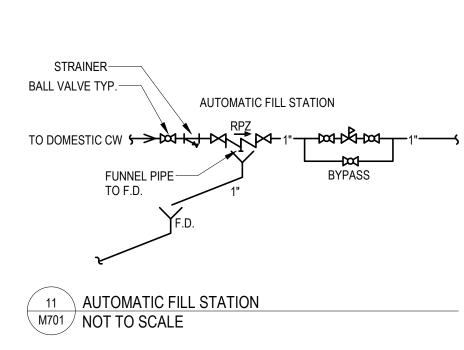
WATERPROOF -

MEMBRANE

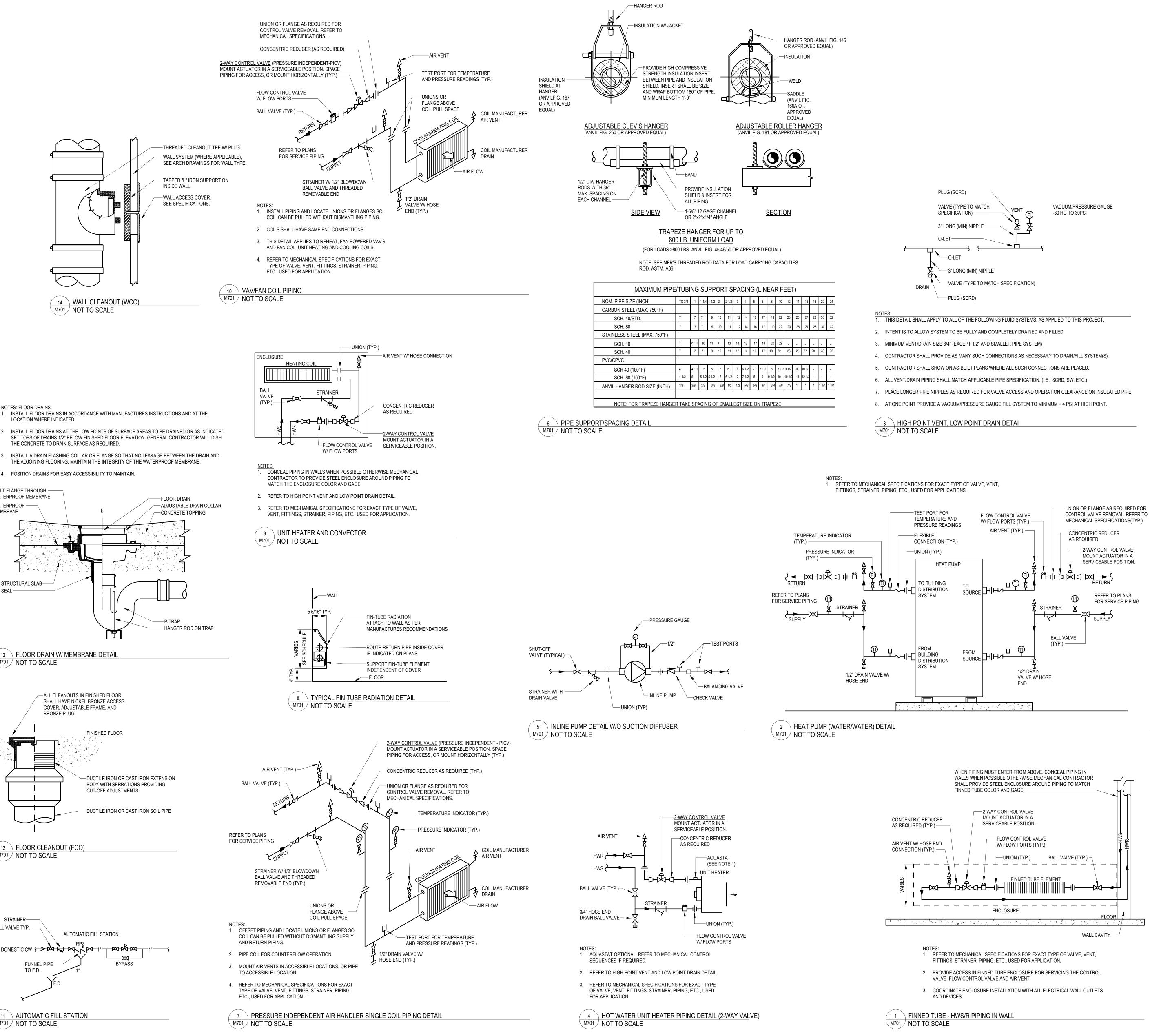
LOCATION WHERE INDICATED.

THE CONCRETE TO DRAIN SURFACE AS REQUIRED.

4. POSITION DRAINS FOR EASY ACCESSIBILITY TO MAINTAIN.



M701 / NOT TO SCALE



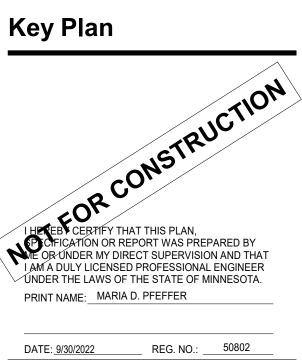


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Mech Designer	
Mech Proj Eng	M701
	9/30/2022 Mech Designer

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WAIER IO WAIER H	EAT PUMP SCH	EDULE																										
							COOLING MODE	1								HEATING M	ODE							ELECTRICAL D	ΔΑΤΑ			
				SOU	JRCE SIDE				LOAD SIDE				SOUF	RCE SIDE				LOAD SID				COMPRESSOR				POWER		1
EQUIP NO. MANUFACTURER	MODEL NO.	WEIGHT	EWT	LWT	GPM	PD PSI	EWT	LWT	GPM	PD PSI	MBH	EWT	LWT	GPM	PD PSI	EWT	LWT	GPM	PD PSI	HEATING CAPACITY	RLA	LRA	QUANTITY	FLA	MCA	VOLTAGE PHA	ASE KW RATING	NC
HP-1 MFR	MODEL	0	-459.7	-459.7	0	0						-459.7	-459.7	0	0						0 A		0		0 A	0 0	,	1
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AIR HANDLING UNIT SCHEDULE

				PHYSIC	AL	
SERVES	MANUFACTURER	MODEL NO.	OPERATING WEIGHT	LENGTH	WIDTH	HEIG
CHILLED BEAMS	DAIKIN APPLIED	CAH	0 lb	14' - 2"	4' - 2"	5' - 9 3
			·			
		EDULE FOR MIN S	SCCR			
	IN SECTION					
	S					
KE DETECTORS BY	DIV 26, INSTALLED BY	Y DIV. 23				
OUND SCI	HEDULE					
	CHILLED BEAMS ELECTRICAL MOTO EEPING PAD BY DIV ER FOR SUPPLY FA ONE SIDE ACCESS HANNEL BASE RAIL EFFICIENCY MOTOR KE DETECTORS BY	CHILLED BEAMS DAIKIN APPLIED ELECTRICAL MOTOR & EQUIPMENT SCHI (EEPING PAD BY DIV. 23 ER FOR SUPPLY FAN SECTION ONE SIDE ACCESS HANNEL BASE RAIL (FFICIENCY MOTORS	CHILLED BEAMS DAIKIN APPLIED CAH ELECTRICAL MOTOR & EQUIPMENT SCHEDULE FOR MIN S EEEPING PAD BY DIV. 23 ER FOR SUPPLY FAN SECTION ONE SIDE ACCESS HANNEL BASE RAIL EFFICIENCY MOTORS KE DETECTORS BY DIV 26, INSTALLED BY DIV. 23	SERVES MANUFACTURER MODEL NO. WEIGHT CHILLED BEAMS DAIKIN APPLIED CAH 0 lb ELECTRICAL MOTOR & EQUIPMENT SCHEDULE FOR MIN SCCR CEEPING PAD BY DIV. 23 ER FOR SUPPLY FAN SECTION ONE SIDE ACCESS HANNEL BASE RAIL EFFICIENCY MOTORS KE DETECTORS BY DIV 26, INSTALLED BY DIV. 23	SERVESMANUFACTURERMODEL NO.OPERATING WEIGHTLENGTHCHILLED BEAMSDAIKIN APPLIEDCAH0 lb14' - 2"ELECTRICAL MOTOR & EQUIPMENT SCHEDULE FOR MIN SCCR (EEPING PAD BY DIV. 23 ER FOR SUPPLY FAN SECTION ONE SIDE ACCESS HANNEL BASE RAIL EFFICIENCY MOTORS KE DETECTORS BY DIV 26, INSTALLED BY DIV. 23Image: Comparison of the second	SERVESMANUFACTURERMODEL NO.OPERATING WEIGHTLENGTHWIDTHCHILLED BEAMSDAIKIN APPLIEDCAH0 lb14' - 2"4' - 2"ELECTRICAL MOTOR & EQUIPMENT SCHEDULE FOR MIN SCCR (EEPING PAD BY DIV. 23 ER FOR SUPPLY FAN SECTION ONE SIDE ACCESS HANNEL BASE RAIL EFFICIENCY MOTORS KE DETECTORS BY DIV 26, INSTALLED BY DIV. 23Image: Constant of the second

			SUP	PLY AIR	DISCHAR	GE (dB)					R	ETURN A
EQUIP NO.	63 Hz	125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	8000 Hz	63 Hz	125 Hz	250 Hz	500 Hz
DOAS-1	0	0	0	0	0	0	0	0	0	0	0	0

			ENERGY		UNIT		PRE-F	FILTER	FINAL-	FILTER				SUP	PLY FANS								RETU	JRN/RELIEF FAN	S				ELECTR	RICAL	
	CHILLED WATER COOLING COIL	RE-HEAT COIL	RECOVERY WHEEL	UNIT MAX CFM	DESIGN CFM	DESIGN OA CFM	TYPE	EFFICIENCY	TYPE	EFFICIENCY	NO. OF FANS	FAN CFM	EXT SP (IN)	BLADE TYPE	WHEEL DIA.	CLASS	FAN RPM	BHP (EACH)	HP (EACH)	NO. OF FANS	FAN CFM	EXT SP (IN)	BLADE TYPE	WHEEL DIA.	CLASS	FAN RPM	BHP (EACH)	HP (EACH)	VOLTAGE	PHASE	N
- 9 3/32"	CC-1			0	0	0		MERV 8		MERV 13	0	0	0.00		0"		0	0	0	0	0	0.00		0"		0	0	0	480	3	

N AIR INTAKE (dB) Iz | 1000 Hz | 2000 Hz | 4000 Hz | 8000 Hz 0 0 0 0

AHU ENERGY RECOVERY WHEEL SCHEDULE

						SI	JMMER								WINT	ER					ELECTRICAL		1
		(OUTSIDE AIR		I	RETURN AIR						OUTSIDE AIR		R	eturn Air							1	1
		AIRFLOW	E/	AT	AIRFLOW	E	AT	ENERGY RECOVERY	SUPPLY APD	RETURN APD	AIRFLOW	EA	T		E	EAT	ENERGY RECOVERY	SUPPLY APD	RETURN			ļ	1
EQUIP. N	D. AHU NO.	(CFM)	DB	WB	(CFM)	DB	WB	WHEEL PERFORMANCE	(IN WC)	(IN WC)	(CFM)	DB	WB	AIRFLOW (CFM)	DB	WB	WHEEL PERFORMANCE	(IN WC)	APD (IN WC)	MOTOR HP	VOLTAGE	PHASE	1
	DOAS-1	0	0	0	0	0	0	0 Btu/h	0.00	0.00	0	0	0	0	0	0	0 Btu/h	0.00	0.00	0	120	1	

NOTES: 1. 120V/1PH POWER CONNECTION FOR ENERGY WHEEL, BY ELECTRICAL. 2. ENERGY RECOVERY WHEEL TO HAVE MINIMUM WHEEL ROTATION CONTROL DURING LOW FLOW. 3. PROVIDE MANUFACTURERS DISCONNECT AND VFD FOR ENERGY RECOVERY WHEEL OPERATION. 4. VFD INSTALLED BY DIV 26.

									AIR DATA				FLUI	D DATA				
0.	AHU NO.	MAX CFM	NO. OF COILS	FLUID	ROWS	FINS/IN	A.P.D. I (IN W.C.)	ACE VELOCITY	EAT DB V	ILA IB DB	T WB	EWT	LWT	GPM	W.P.D. (FT)	TOTAL CAPACITY	SENSIBLE CAPACITY	
0.	DOAS-1	0	0		0	12	0.00	0) 0	0	42	54	169.1	0.0	0 Btu/h	0 Btu/h	
NNEC O DR	CTIONS AND D RAWINGS FOR		L BE SAME SIDI ATION/SIDE OF	CONNECTIONS														
ONNEC TO DR	CTIONS AND D RAWINGS FOR	RAIN PAN SHAL REQUIRED LOC	L BE SAME SIDI ATION/SIDE OF	CHEDUL						AIR DATA				FL	UID DATA			
ONNEC TO DR	CTIONS AND D RAWINGS FOR	RAIN PAN SHAL REQUIRED LOC	L BE SAME SIDI ATION/SIDE OF COIL S	CHEDUL NO. OF	E	ROWS	FINS/	N HEATING CFI	MAX APD (IN W.C.)	FACE VELOCITY	EAT	LAT	EWT			W.P.D. (FT)	CAPACITY	
NNEC	CTIONS AND D RAWINGS FOR	RAIN PAN SHAL REQUIRED LOC	L BE SAME SIDI ATION/SIDE OF	CHEDUL		ROWS 0	FINS/ 0	N HEATING CFM			EAT 0	LAT 0	EWT 140	FL LWT 120	UID DATA GPM 0	W.P.D. (FT) 0.0	CAPACITY 0 Btu/h	
NNEC	CTIONS AND D RAWINGS FOR	RAIN PAN SHAL REQUIRED LOC EATING AHU NO.	L BE SAME SIDI ATION/SIDE OF COIL SO MAX CFM	CHEDUL NO. OF COILS	E				(IN W.C.)	FACE VELOCITY (FPM)				LWT	GPM			

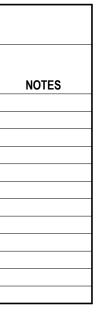
									MECH	IANICAL						ELEC	TRICAL		
EQUIP NO.	APPLICATION	MANUFACTURER	MODEL NO.	OPERATING WEIGHT	TYPE	FLUID	GPM	TOTAL DISCHARGE HEAD (FT)	NPSHR (FT)	BHP	MOTOR RPM	IMPELLER SIZE (IN)	SUCTION SIZE (IN)	DISCHARGE SIZE (IN)	HP	VFD	VOLTAGE	PHASE	
P-1 CD	GEOTHERMAL	BELL & GOSSETT	2 EB	0 lb			130	60.0	0.0	0.00	0		0"	0"		Yes	0	0	
P-2 CD		BELL & GOSSETT	2 EB	0 lb			130	60.0	0.0	0.00	0		0"	0"		Yes	0	0	
P-3 HW		BELL & GOSSETT	1.25 AD	0 lb			55	40.0	0.0	0.00	0		0"	0"		Yes	0	0	
P-4HW		BELL & GOSSETT	1.25 AD	0 lb			55	40.0	0.0	0.00	0		0"	0"		Yes	0	0	
P-5 CW		BELL & GOSSETT	2 BD	0 lb			110	50.0	0.0	0.00	0		0"	0"		Yes	0	0	
P-6 DT	CHILLED BEAMS	BELL & GOSSETT	1.25AAB	0 lb			50	30.0	0.0	0.00	0		0"	0"		Yes	0	3	
P-X		BELL & GOSSETT	1.5x1.5x7C	0 lb			0	0.0	0.0	0.00	0		0"	0"		Yes	0	0	-
P-X		BELL & GOSSETT	1.5x1.5x7C	0 lb			0	0.0	0.0	0.00	0		0"	0"		Yes	0	0	-
P-X		BELL & GOSSETT	1.5x1.5x7C	0 lb			0	0.0	0.0	0.00	0		0"	0"		Yes	0	0	-
P-X		BELL & GOSSETT	1.5x1.5x7C	0 lb			0	0.0	0.0	0.00	0		0"	0"		Yes	0	0	
P-X		BELL & GOSSETT	1.5x1.5x7C	0 lb			0	0.0	0.0	0.00	0		0"	0"		Yes	0	0	

VARIABLE AIR VOLUME BOX SCHEDULE

					HEATING COIL	N.C. PER A.R.	I. STANDARDS
EQUIP NO.	MANUFACTURER	MODEL NO.	TYPE	INLET SIZE (IN)	DESIGN CFM	RAD	DISC
VAV-XX	TITUS	DESV	SINGLE DUCT	4		0	0
VAV-XX	TITUS	DESV	SINGLE DUCT	6		0	0
VAV-XX	TITUS	DESV	SINGLE DUCT	4		0	0
VAV-XX	TITUS	DESV	SINGLE DUCT	6		0	0
VAV-XX	TITUS	DESV	SINGLE DUCT	4		0	0
VAV-XX	TITUS	DESV	SINGLE DUCT	8		0	0
			1	1	L I		1

NOTES: 1. W/ BOTTOM ACCESS PANEL 2. FIBER FREE LINING 3. AIR PRESSURE DROP AT FULL FLOW CONDITION SHALL INCLUDE COIL AND UNIT







Key Plan

NOTES	
	_
	_
	-

	VINDER MY DIA DULY LICENSE	EPORT WAS PRE RECT SUPERVISIO D PROFESSIONAL THE STATE OF M D. PFEFFER	N AND THAT
DATE:	9/30/2022	REG. NO.: _	50802
No.	Date	Revisior	n Descriptio

_____ _____ _____ _____ _____ 75% DESIGN DEVELOPEMENT

MECHANICAL SCHEDULES

Project	XX-XXXX.XX	Drawing Number
Date	9/30/2022	
Drawn by	Mech Designer	NA000
Checked by	Mech Proj Eng	M900

FI FCTRIC WATER HEATER SCHEDUI F

	LOC	ATION					PHYSICAL							GPH			HEATING			ELECTRICA	<u> </u>	
EQUIP NO.	NAME	NUMBER	SERVES	MANUFACTURER	MODEL NO.	OPERATING WEIGHT	HEIGHT	DIAMETER	FUEL TYPE	STORAGE CAPACITY (GAL)	INPUT	OUTPUT	THERMAL EFFICIENCY	RECOVERY 100° RISE	POWER	NUMBER OF ELEMENTS	ELEMENT CAPACITY	FLUE SIZE	VOLTAGE	PHASE	FREQUENCY	NOTES
WH-1						0 lb	56 3/4"	36"	ELECTRIC	0	0 Btu/h	0 Btu/h	0%	0	0 kW	0	0 kW	0"	120 V	1	60 Hz	
ES:																						

2. TEMPERATURE AND PRESSURE RELIEF VALVE PIPED TO 16 IN AFF 3. SEALED COMBUSTION - PROVIDE VENT KIT

4. SPARK TO PILOT IGNITION SYSTEM 5. REFER TO ELECTRICAL MOTOR & EQUIPMENT SCHEDULE FOR MIN SCCR

	LOC	ATION						HYDRONIC				AIR DATA						ELECTRICA	L		
EQUIP NO.	NAME	NUMBER	SERVES	MANUFACTURER	MODEL NO.	CAPACITY	FLOW GPM	FLUID TYPE	EWT	LWT	CFM	EAT	LAT	FAN SPEEDS	ARRANGEMENT	HP	FLA	VOLTAGE	PHASE	FREQUENCY	NOTES
CUH-1				RITTLING		0 Btu/h	0		140	-459.7	0	60	-459.7	0		0.00	0 A	120 V	1	60 Hz	
CUH-2				RITTLING		0 Btu/h	0		140	-459.7	0	60	-459.7	0		0.00	0 A	120 V	1	60 Hz	
UH-X						0 Btu/h	0		-459.7	-459.7	0	-459.7	-459.7	0		0.00	0 A	120 V	1	60 Hz	
UH-X						0 Btu/h	0		-459.7	-459.7	0	-459.7	-459.7	0		0.00	0 A	120 V	1	60 Hz	
										1											

VANDAL PROOF ACCESS DOOR
 14 GAGE STEEL CABINET WITH END POCKETS
 INCLUDE WALL SEAL FRAME
 FACTORY DISCONNECT
 STD. FACTORY COLOR SELECTED BY ARCHITECT

6. TWO ROW COIL

7. MOUNT THERMOSTAT ON UNIT 8. REFER TO ELECTRICAL MOTOR & EQUIPMENT SCHEDULE FOR MIN SCCR

FAN SC	HEDULE															
						MEC	HANICAL						ELECTRICA	L		
EQUIP NO.	MANUFACTURER	MODEL NO.	CFM	ESP	RPM	TYPE	DRIVE	INLET dBA	INTERLOCK	WEIGHT	BHP	HP	VOLTAGE	PHASE	FREQUENCY	NOTES
EF-1	COOK	ACED-100	0	0.00	0		DIRECT	0		0	0	0	120	1	60	
OTES:																
PROVIDE W	ITH FACTORY DISCON	NECT SWITCH														
ALL ALUMIN	UM CONSTRUCTION															
-	CTORY CURB 24".															
)P'D DAMPER; TIGHT S			UCT. REFER T	O DETAIL											
	NGED CONNECTION A															
PROVIDE LC	DRENIZED FINISH OR E	QUIVALENT. PRO	VIDE COLOR C	CHART TO ARC	HITECT FOR (COLOR SELECTIO	N.									

CHILLE	ED BEAM S	CHEDL	JLE														
								COOLI	NG CAPACITY	/			HEATIN	G CAPACITY	1		
EQUIP NO.	MANUFACTURER	MODEL	TYPE	LENGTH	WIDTH	CFM	COIL CAPACITY	EAT(DB)	EWT	LWT	GPM	COIL CAPACITY	EAT(DB)	EWT	LWT	GPM	NOTES
CB-1	TITUS	CBAM	2-PIPE	2' - 0"	2' - 0"	0	0 Btu/h	0	0	0	0	0 Btu/h	0	0	0	0	
	HUT OFF VALVES AND OUNTING BRACKETS				_												

CHILLED BEAM SCHEDULE																	
								HEATING CAPACITY									
EQUIP NO.	MANUFACTURER	MODEL	TYPE	LENGTH	WIDTH	CFM	COIL CAPACITY	EAT(DB)	EWT	LWT	GPM	COIL CAPACITY	EAT(DB)	EWT	LWT	GPM	NOTES
CB-1	TITUS	CBAM	2-PIPE	2' - 0"	2' - 0"	0	0 Btu/h	0	0	0	0	0 Btu/h	0	0	0	0	
																	ł
NOTES:																	
	HUT OFF VALVES AND				-												
2. PROVIDE M	OUNTING BRACKETS	FOR ASSOCI	ATED CEILIN	GIYPE													

						AVG	AVG	ELEMENT									
EQUIP NO.	MANUFACTURER	MODEL NO.	FLUID TYPE	EWT	LWT	WATER TEMP	BTUH / FT	PIPE MATERIAL	PIPE SIZE	WIDTH	HEIGHT	FINS / FT	FIN MATERIAL	COVER GAUGE	ENCLOSURE HEIGHT	NO. OF ROWS	NOTES
FTR-	RITTLING	FT5-24		140	120	130 °F	1,141 Btu/h		3/4"	4 1/4"	4 1/4"	32	ALUMINUM	16	24"	3	
FTR-1	RITTLING	FSOS5-18		140	120	130 °F	539 Btu/h		3/4"	4 1/4"	4 1/4"	32	ALUMINUM	16	18"	1	
FTR-1	RITTLING	FS5-14		140	120	130 °F	581 Btu/h		3/4"	4 1/4"	4 1/4"	32	ALUMINUM	16	14"	1	
. Seal Back . Wall Mou . Pedestal		WALL TRIM AND F	ILLER SLEEV	ES REQUIR	ED FOR CC	DMPLETE INS	TALLATION										

EQUIP NO.	FIXTURE DESCRIPTION	FAUCET / TRIM DESCRIPTION	NOTES
ELECTRIC W/	ATER COOLERS		
EWC-	ELECTRIC WATER COOLER - DUAL HEIGHT	WITH BOTTLE FILLER	
LAVATORIES			
L-	LAVATORY - WALL HUNG	MANUAL FAUCET	
L-1	LAVATORY - WALL HUNG	SENSORED FAUCET - BATTERY	
SINKS			
MS-	MOP SINK	MANUAL FAUCET	
S-1	SINK - SINGLE	MANUAL FAUCET	
URINALS			
UR-	URINAL - WALL HUNG	MANUAL FLUSH VALVE	
WATER CLOS	SETS		
WC-	WATER CLOSET - WALL HUNG	MANUAL FLUSH VALVE	
WC-1	WATER CLOSET - WALL HUNG	SENSORED FLUSH VALVE - BATTERY	

PLUME	BING SPECIALTIES SCHEDULE	
EQUIP NO.	FIXTURE DESCRIPTION	NOTES
FD-1	FLOOR DRAIN	

PROVIDE LORENZED FINISH OR EQUIVALENT. FROMDE COLOR CHART TO ARCHITECT FOR COLOR SELECTION.
 DESTRATIFICATION FAN WITH CORD & PLUG, VARIABLE SPEED CONTROL BY MANUFACTURER, DIV 26 TO PROVIDE CONDUIT PER SPEC FOR CONTROL WIRING
 VFD FURNISHED BY DIV 23, INSTALLED BY DIV 26
 REFER TO ELECTRICAL MOTOR & EQUIPMENT SCHEDULE FOR MIN SCCR

EXPANSION TANK SCHEDULE

					PHYSICAL						
EQUIP NO.	SERVES	MANUFACTURER	MODEL NO.	HEIGHT	WIDTH	WEIGHT	OPERATING WEIGHT	TANK VOLUME (GAL.)	ACCEPTANCE VOLUME (GAL.)	PRECHARGE PRESSURE (PSI)	NOTES
ET-1		BELL & GOSSETT	B-200	36 7/8"	24"	192 lb	629 lb	53	53	12	
ET-2		BELL & GOSSETT	B-200	36 7/8"	24"	192 lb	629 lb	53	53	12	
ET-3		BELL & GOSSETT	B-200	36 7/8"	24"	192 lb	629 lb	53	53	12	
	OR TO FIELD CHARGE	E TANK TO SCHEDULED	PRESSURE								

3. INCLUDE GAGE GLASS, COMP. AIR INLET, MANUAL AIR VENT AND TANK DRAIN 4. PROVIDE CHARGING VALVE CONNECTION

5. ASME CERTIFIED

6. NSF APPROVED 7. TANK IS REMOVABLE BLADDER TYPE

EQUIP NO.	SERVES	MANUFACTURER	MODEL NO.	WEIGHT	OPERATING WEIGHT	GPM	WATER CONN SIZE (IN)	NOTES
AS-1		BELL & GOSSETT	R-3F	130 lb	188 lb	190	3"	
AS-1		BELL & GOSSETT	R-4F	170 lb	278 lb	300	4"	
AS-2		BELL & GOSSETT	R-3F	130 lb	188 lb	190	3"	
AS-3		BELL & GOSSETT	R-3F	130 lb	188 lb	190	3"	

3. W/ SUPPORTS AND GUSSETS 4. SEDIMENT REMOVAL SEPARATOR W/ INTERNAL STRAINER 5. 90° INLET & OUTLET CONFIGURATION

Equip No.	SERVICE	MANUFACTURER	MODEL	ТҮРЕ	MATERIAL	NOTES
R1	RETURN	Titus	50F	EGGCRATE RETURN GRILLE	ALUMINUM	
R2	EXHAUST	Titus	355RS	LOUVERED FILTER GRILLE	STEEL	
R3	EXHAUST	Titus	355RL	LOUVERED GRILLE	STEEL	
S	SUPPLY	TITUS	TMS	3-CONE DIFFUSER	STEEL	
ERIFY LAY II	N VS. SURFACE MO ALL GRILLES, REC	BORDER TYPES FOR DUCT	ATIONS W/ LIGHTS SHO	DWN ON REFLECTED CEILING PLAN LING/WALL INSTALLATION PROVIDE TRANSITIONS	AS NECESSARY TO ACCOMP	LISH CONNECTION



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DATE:	9/30/2022	_ REG. NO.: <u>50802</u>
No.	Date	Revision Description

MECHANICAL SCHEDULES

Project	XX-XXXX.XX	Drawing Number
Date	9/30/2022	
Drawn by	Mech Designer	
Checked by	Mech Proj Eng	M901

	GENERAL				LIGHTING SYSTEMS			FIRE ALARM SYSTE
				$\supset \frac{A}{3}$	LUMINAIRE DESIGNATION (APPLICABLE TO ALL L A - LUMINAIRE TYPE	UMINAIRES)	HF	MANUAL STATION
E100	SHEET NUMBER		a	<u> </u>	3 - CIRCUIT NUMBER a - SWITCHING			WALL MOUNTED HORN
(#)	ELECTRICAL KEYED NOTE NUMBER				SOILD HATCHING (FULL OR PARTIAL) INDICATES	LIFE	F	CEILING MOUNTED HORN
	INDICATES ALL DEVICES UNDER ONE COVERF	PLATE		● ≫	SAFETY CROSS HATCHING (FULL OR PARTIAL) INDICATES	S CRITICAL	HF	WALL MOUNTED STROBE LIGHT
	RACEWAY SYSTEMS	I			CIRCUIT		F	CEILING MOUNTED STROBE LIGHT
	CONDUIT CONCEALED IN WALL OR CEILING			C	SURFACE MOUNTED LUMINAIRE	CEILING	HE	WALL MOUNTED HORN AND STRO
/ ```	CONDUIT CONCEALED IN / UNDER FLOOR			\sim	RECESSED MOUNTED LUMINAIRE	CEILING	Ē⊲	CEILING MOUNTED HORN AND STR
	CONDUIT RUN EXPOSED		•	•	LINEAR PENDANT LUMINAIRE	VERIFY	⊢F◀	WALL MOUNTED SPEAKER
0	CONDUIT TRANSITION UP			\supset	PENDANT LUMINAIRE	VERIFY	F	CEILING MOUNTED SPEAKER
•	CONDUIT TRANSITION DOWN						HĒ◀	WALL MOUNTED SPEAKER AND ST
J	JUNCTION BOX	VER	FY)	SURFACE MOUNTED DOWNLIGHT LUMINAIRE	CEILING	F	CEILING MOUNTED SPEAKER AND
J	JUNCTION BOX - FLOOR MOUNTED	FLO		2	LUMINAIRE FL	USH CEILING	H F ■ MB	WALL MOUNTED SPEAKER AND ST WITH MESSAGE BOARD
H H	JUNCTION BOX - WALL MOUNTED	VERI	FY C	2	WALL MOUNTED LUMINAIRE	VERIFY	F ◀ MB	CEILING MOUNTED SPEAKER AND
	PULL BOX	VERI	FY H	— —	STRIP LUMINAIRE	VERIFY		LIGHT WITH MESSAGE BOARD
	MAN HOLE	VER	FY Z		TRACK LIGHTING AND TRACK LUMINAIRE HEADS	VERIFY		WALL MOUNTED CHIME AND STRC
T T	HAND HOLE	VERI			EXIT LIGHT OUTLET IN CEILING, SHADED QUADRANT DEMOTES FACE DIRECTION. ARROV			WALL MOUNTED BELL WALL MOUNTED REMOTE RESET F
	POWER SYSTEMS			•	INDICATES DIRECTION OF TRAVEL			DETECTOR
	DISTRIBUTION PANEL	ТОР	72" H		EXIT LIGHT OUTLET IN WALL, SHADED QUADRAN DEMOTES FACE DIRECTION. ARROW INDICATES	ABOVE	HF	FIRE ALARM DEVICE
	TRANSFORMER	VER	FY	► ►	DIRECTION OF TRAVEL EXIT LIGHT WITH EMERGENCY LIGHTING UNIT IN	DOOR 8"	-	F/S - FIRE / SMOKE DAMPER H - HEAT DETECTOR
	120/208V SURFACE MOUNTED PANELBOARD	ТОР	72" H	Ź.	WALL, SHADED QUADRANT DEMOTES FACE DIRECTION. ARROW INDICATES DIRECTION OF	ABOVE DOOR		H/S - HEAT / SMOKE DETECTOR IR - INFRARED SENSOR
	480/277V SURFACE MOUNTED PANELBOARD	ТОР	72"	-	TRAVEL	DOOR	FIRE ALARM	MD - MAGNETIC DOOR HOLDER R - INTELLIGENT CONTROL RELA
	120/208V FLUSH MOUNTED PANELBOARD	ТОР	72"		BATTERY POWERED EMERGENCY LIGHTING UNI	T 7'-6"	LEGEND	S - SMOKE DETECTOR
	480/277V FLUSH MOUNTED PANELBOARD	ТОР	72"		REMOTE BATTERY POWERED HEAD	VERIFY		SD - SMOKE DAMPER SR - SMOKE DETECTOR WITH RE
	MOTOR STARTER SWITCH	VERI			LIGHTING CONTROL SYSTEMS			SS - FIRE SUPRESSION SYSTEM
↔ SC	VARIABLE SPEED CONTROL SWITCH WITH ON				2 - DOUBLE POLE SWITCH 3 - THREE WAY SWITCH		HFIT	BEAM DETECTOR TRANSMITTER
	NON-FUSED SAFETY SWITCH	,			4 - FOUR WAY SWITCH K - KEYED SWITCH		FR	BEAM DETECTOR RECEIVER
	CONTROLLER OR STARTER			TCH	P - SWITCH WITH PILOT LIGHT		F F FS	FLOW SWITCH
	COMINATION STARTER / DISCONNECT SWITCH	4	LEG	END	IL - SWITCH WITH ILLUMINATED TOGGLE TS - TIME SWITCH			FLOW SWITCH
	VARIABLE FREQUENCY DRIVE WITH DISCONNE				LV - LOW VOLTAGE SWITCH LV-2 - LOW VOLTAGE SWITCH (NUMBER INDICA	TES	FACP	FIRE ALARM CONTROL PANEL - SU
	RELAY	VERI			QUANTITY OF CONTROL BUTTONS)			FIRE ALARM CONTROL - FLUSH MO
	ELECTRIC THERMOSTAT (OPERABLE)	VERI		\$	SINGLE POLE SWITCH	48"	VCA	FIRE ALARM VOICE COMMAND ANNUNCIATOR - SEMI-FLUSH MOU
	PUSH PLATE	33	¢	\$_	RECESSED WALL BOX (WITH SWITCH NUMBER	48"		AUDIO VIDEO SYSTE
					AND TYPES AS SHOWN ON PLANS)	40"	H AV	AUDIO VIDEO OUTLET - SINGLE GA
Ψ		18			WALL MOUNTED OCCUPANCY SENSOR	48"		ACCESSIBLE CEILING SPACE
\bigcirc	DUPLEX RECEPTACLE	18) D	CEILING MOUNTED OCCUPANCY SENSOR	CEILING	AV1	AUDIO VIDEO OUTLET - TWO GANG GANG MUD RING, 1 1/4" CONDUIT
	QUAD RECEPTACLE	18	SEN	IPANC NSOR				
	ARC FAULT DUPLEX RECEPTACLE	18		SEND	U - ULTRASONIC		AV2	AUDIO VIDEO OUTLET - TWO GANG GANG MUD RING, 1 1/4" CONDUIT
M	SPLIT OR HALF SWITCHED DUPLEX RECEPTAD				CEILING MOUNTED VACANCY SENSOR	CEILING		CEILING SPACE AUDIO VIDEO OUTLET - THREE GA
	SPECIAL PURPOSE OUTLET OR CONNECTION	18 NTERIOR - 1	~	P		BOVE CEILING	HAV3	GANG MUD RING, (2) 1 1/4" CONDU ACCESSIBLE CEILING SPACE
		TERIOR - 24	' WP		LIGHT SENSOR (DAYLIGHT HARVESTING)	VERIFY		RECESSED SERVICE POWER / DAT
Ø	ABOVE COUNTER RECEPTACLE	6" ABOVE COUNTER			PHOTOCELL	VERIFY	Ним	VIDEO WALL BOX
Ø	ABOVE COUNTER GFCI RECEPTACLE	6" ABOVE COUNTER		C	TIME CONTROL SWITCH (TIME CLOCK)	48"		TV OUTLET
\bigcirc	CEILING MOUNTED RECEPTACLE	LUSH CEILIN	IG		SECURITY SYSTEMS	421.011/		HORN SPEAKER
	FLUSH FLOOR BOX (WITH	FLUSH FLOC			CCTV CAMERA (1D UNLESS NOTED OTHERWISE)	13'-0" / CEILING	HS A	WALL SPEAKER
	RECEPTACLE TYPE SHOWN ON PLANS) CORD DROP (WITH RECEPTACLE TYPE		CAM	IERA	180 - 180 DEGREE VIEW RANGE 270 - 270 DEGREE VIEW RANGE		(S) A	CEILING SPEAKER
	SHOWN ON PLANS) POKE THROUGH FLOOR BOX (WITH	CEILING	LEG		360 - 360 DEGREE VIEW RANGE			A - SURFACE MOUNTED PUBLIC A B - RECESSED 2' X 2' PUBLIC ANN
	RECEPTACLE TYPE SHOWN ON PLANS)	FLUSH FLOC		S _{CR}	PTZ - PAN, TILT, ZOOM WALL MOUNTED SECURITY DEVICE	SEE BELOW	SPEAKER LEGEND	C - RECESSED ROUND PUBLIC A D - RECESSED SOUND REINFOR
✓ P1		ORDINATE V MECHANICA			AI - INTERCOM	48"		E - SURFACE SOUND REINFORCI F - SURFACE SUBWOOFER
Р	POWER POLE	VERI	FY		CR - CARD READER DC - DOOR CONTACT	42" VERIFY		WP - WEATHERPROOF
4000	THREE BUTTON MOTOR CONTROL STATION	48	"		EL - ELECTRIC LOCK ES - ELECTRIC STRIKE	VERIFY VERIFY	K	SPEAKER VOLUME CONTROL
		AS			GB - GLASS BREAK DETECTOR	VERIFY	K	MICROPHONE OUTLET
	(SPACING AS SPECIFIED) GROUND BAR	NOT VERI	VV/	ALL JRITY	KB/F - KNOX BOX KP - KEY PAD	VERIFY 48"	Kŝ>	P.A. SELECTOR SWITCH
	TECHNOLOGY SYSTEMS		LEG		KS - KEYED SWITCH LM - LATCH MONITOR	48" VERIFY	VP	VIDEO PROJECTOR - CEILING SHO
DATA	BLANK - 2 DATA				LD - LOCKDOWN STROBE ML - MAGNETIC LOCK	VERIFY VERIFY	IR	INFRARED RECEIVER FOR SOUND REINFORCEMENT
OUTLET	1D - 1 DATA 2D - 2 DATA				PB - PANIC BUTTON REX - REQUEST TO EXIT 6"	VERIFY ABOVE DOOR		PANELBOARD IDENTIFI
LEGEND	3D - 3 DATA				RR - REMOTE DOOR RELEASE VI - VIDEO INTERCOM STATION	ABOVE BOOK ABOVE COUNTER		SYSTEMS DESIGNATION:
		18			XP - EXIT PUSHBUTTON	48"		EMERGENCY CRITICAL POWER
			n I		XS - EXIT SENSOR	48"		OPTIONAL STANDBY
T	DATA / PHONE OUTLET (TYPICAL)	18				VERIFY	-	
\mathbf{V}	DATA / PHONE OUTLET (TYPICAL) CEILING DATA OUTLET	CEILI	NG	S DE	SECURITY DEVICE			UNINTRRUPTIBLE POWER
	DATA / PHONE OUTLET (TYPICAL) CEILING DATA OUTLET TELEPHONE OUTLET - (W = WALL MOUNT AT 4	CEILI 8") 18	NG	JRITY	SECURITY DEVICE DE - DELAYED EGRESS	VERIFY SEE BELOW CEILING	-	UNINTRRUPTIBLE POWER EQUIPMENT DESIGNATION: MAIN DISTRIBUTION SWITCHBOA
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					DE 7. RE	VICES.	SPACE FOR ALL AUDIO TION DRAWINGS AND S TION.
			ELECTRICAL AE	BREVIATI	ONS		
&	AND	EA	EACH	LV	LOW VOLTAGE	S/D	SMOKE DAMPER
@	AT	EM	EMERGENCY	LFC	LIQUID TIGHT FLEXIBLE CONDU		SQUARE FOOT
¢	CENTERLINE	ELEV	ELEVATOR	L/LT	LIGHT	SHT	SHEET
0	DEGREE (S)	EQUIP	EQUIPMENT	LTS	LIGHTS	SM	SURFACE MOUNTE
Ø	PHASE OR ROUND	EWC	ELECTRIC WATER COOLER	LTG	LIGHTING	SP	SUMP PUMP
#	POUND OR NUMBER	EXT	EXTERIOR			SPEC	SPECIFICATIONS
				MATV	MASTER ANTENNA TELEVISION	STD	STANDARD
AFCI	ARC FAULT CURRENT INTERRUPTER	FAA	FIRE ALARM ANNUNCIATOR PANEL	MAX	MAXIMUM	SUSP	SUSPENDED
AFF	ABOVE FINISHED FLOOR	FACP	FIRE ALARM CONTROL PANEL	MCC	MOTOR CONTROL CENTER	SW	SWITCH
AFG	ABOVE FINISHED GRADE			MECH	MECHANICAL	SW. BD	SWITCHBOARD
APP	ALARM ANNUNCIATOR PANEL	GC	GENERAL CONTRACTOR	MEZZ	MEZZININE	SW. GR	SWITCHGEAR
AL	ALUMINUM	GEN	GENERATOR	MFR	MANUFACTURER		
AMP	AMPERE	GFCI	GROUND FAULT CIRCUIT INTERRUPTER	MIN	MINIMUM	TEL	TELEPHONE
APPROX	APPROXIMATE	G/GND	GROUND	MISC	MISCELLANEOUS	TERM	TERMINAL
ARCH	ARCHITECT/ARCHITECTURAL	GMB	GROUNDING MAIN BUS BAR	MS	MOTOR STARTER	TGMB	TELECOMMUNICAT
ATS	AUTOMATIC TRANSFER SWITCH			MSP	MOTOR STARTER PANEL		MAIN BUS BAR
AUTO	AUTOMATIC	Н	HEIGHT	MSS	MOTOR STARTER SWITCH	TV	TELEVISION
		HP	HORSE POWER			TYP	TYPICAL
BAS	BUILDING AUTOMATION SYSTEM	HZ	HERTZ	N/A	NOT APPLICABLE	UG	UNDERGROUND
BOT	BOTTOM			NL	NIGHT LIGHT	UNO	UNLESS NOTED OT
501		INT	INTERIOR	N.T.S	NOT TO SCALE		
С	CONDUIT					V	VOLTAGE
CAB	CABINET	JB	JUNCTION BOX	PF	POWER FACTOR	VA	VOLT AMPERE
CB	CIRCUIT BREAKER			PIV	POST INDICATOR VALVE		
CCTV	CLOSED CIRCUIT TELEVISION	KV	KILOVOLT	PNL	PANEL	W	WATT (S)
CLG	CEILING	KVA	KILOVOLT AMPS	PVC	POLYVINYL CHLORIDE	W	WIDTH
C/T	CURRENT TRANSFORMER	KW	KILOWATT			W/	WITH UNIT
0/1				R/RECEPT	RECEPTACLE	WG	WIRE GUARD
D	DEPTH	L	LENGTH	RM	ROOM	WP	WEATHERPROOF
DIV	DIVISION	LF	LINEAL FOOT	SCHED	SCHEDULE		
DWG	DRAWING	LS	LIFE SAFETY	SECT	SECTION	XFRM	TRANSFORMER

PROVIDE 4-11/16" SQUARE BOX WITH 1

	FIRE A	LARM SYSTEMS								
	MANUAL STATION		48"							
	CEILING MOUNTE		CEILI							
-F	WALL MOUNTED		80"							
F	CEILING MOUNTE	ED STROBE LIGHT	CEILI	NG						
Ē	WALL MOUNTED	HORN AND STROBE LIGHT	80"							
Ē⊲		ED HORN AND STROBE LIGHT	CEILIN			GENERAL	ELECTRICAL	PLAN NOT	ES	
F ∎	WALL MOUNTED		80" CEILII	A		CTRICAL WORK IN A				
		SPEAKER AND STROBE LIGHT	80"		FEDERAL LA	WS AND ORDINANCE	ES GOVERNING 1	THE PROJECT.	IF THE PLANS	AND
	CEILING MOUNTE	ED SPEAKER AND STROBE LIGH	IT CEILIN	NG	PLANS AND/	ENGINEER OF CONF OR SPECIFICATIONS	. WORK SHALL B	E PERFORMED	UNDER THE S	UPERVISION
МВ	WALL MOUNTED WITH MESSAGE E	SPEAKER AND STROBE LIGHT BOARD	80"		OF A LICENS OCCUR.	ED MASTER ELECTF	RICIAN, LICENSEI	D IN THE STATE	E IN WHICH THE	E WORK WILL
MB	CEILING MOUNTE	ED SPEAKER AND STROBE SAGE BOARD	CEILI	NG B		CUIT CONDUITS, JU				
FH		CHIME AND STROBE LIGHT	80"		INDICATED (-	SYSTEM AND CO	INDUCTORS AS	REQUIRED FO	IN THE
Ē	WALL MOUNTED		80"	C		FEEDER AND BRANC OVIDE A COMPLETE				
FRS	WALL MOUNTED DETECTOR	REMOTE RESET FOR DUCT	48"	D		RCUITS SHALL BE 0				
F	FIRE ALARM DEV		SEE BELO	W	20A/1P CIRC	UIT BREAKER IN DES IERUN REPRESENT I	SIGNATED PANEL	. THE NUMBER	S SHOWN AT E	EACH
	F/S - FIRE / SMC H - HEAT DETEC H/S - HEAT / SM	CTOR	48" CEILING CEILING	E		UMINAIRE/DEVICE C				
FIRE	IR - INFRARED S MD - MAGNETIC	SENSOR	VERIFY			20A/1P CIRCUIT BRI E REPRESENT BRAN				SHOWN AT
LARM GEND	R - INTELLIGEN S - SMOKE DET	T CONTROL RELAY MODULE ECTOR	VERIFY CEILING	F.		T AND WIRING SIZES RGER AS REQUIRED				
		TECTOR WITH RELAY	VERIFY CEILING		OTHER DER					λL, ΟΙ
F (T	SS - FIRE SUPR	ESSION SYSTEM	VERIFY		. WIRE AND R FOR ENTIRE	ACEWAY SIZES INDI LENGTH.	CATED ON HOME	RUNS/CIRCUIT	'S SHALL BE CO	ONTINUOUS
			VERI		. A MAXIMUM	OF THREE CIRCUITS	S SHALL BE INST	ALLED IN A COM	NDUIT.	
	FLOW SWITCH		VERI		PROVIDE DE	DICATED NEUTRAL I	FOR EACH SINGL	E PHASE CIRC	UIT.	
	FLOW SWITCH		VERI			SHALL BE LIMITED T			NDUCTORS (TH	IREE PHASE
ACP	FIRE ALARM CON	TROL PANEL - SURFACE MOUN	IT TOP 7			NEUTRALS) AND GR				
	FIRE ALARM CON		MAX TOP 7			RS MUST BE DERATE E CURRENT CARRYIN				
VCA	ANNUNCIATOR -	SEMI-FLUSH MOUNT	MAX TOP 7	72" L.		RING CONCEALED IN GS. NO SURFACE RA				
	AUDIO VIDEO OU	VIDEO SYSTEMS TLET - SINGLE GANG BOX,		M		AT IS NOT IN CONDU				1 SHALL BE
AV	ACCESSIBLE CEI		18"			TED. REFER TO MEC				T1 '
AV1	GANG MUD RING	TLET - TWO GANG BOX, SINGLE , 1 1/4" CONDUIT TO ACCESSIBI				TALL ELECTRICAL EC OF MECHANICAL EQI			ILEKFERES WI	ιΠ
		TLET - TWO GANG BOX, TWO	_	— o		. CONDUITS, WIRING				
AV2	CEILING SPACE	, 1 1/4" CONDUIT TO ACCESSIBI				ECTRICAL OUTLET P				
AV3	GANG MUD RING	TLET - THREE GANG BOX, TWO , (2) 1 1/4" CONDUITS TO	18"			CTRICAL BOXES ON E		S AND INTERIO	R WALLS BETW	/EEN
MM		ICE POWER / DATA / AUDIO	VERI	Q	. PROVIDE UN	IIVERSAL BLANK PLU	JGS ON SPARE C	ONDUITS SIZE	D FOR CONDUI	Т.
	VIDEO WALL BOX	<u>.</u>	VERI	R		JITS AT THE LAST ST				
 S⊲	HORN SPEAKER		90"			CONDUITS ENTER A RE CONDUITS.	A BUILDING. INST	TALL IN FLOID PU	ILL STRING ANI	JFUUTAGE
SA	WALL SPEAKER		90"	S		ND WIRING INDICATE				
SA	CEILING SPEAKE		CEILI	NG	ROUTING.					
	B - RECESSED	OUNTED PUBLIC ANNOUNCEME 2' X 2' PUBLIC ANNOUNCEMENT ROUND PUBLIC ANNOUNCEMEN		T.	INCREASED	ANCH CIRCUITS OVI ONE WIRE SIZE OVE	R CIRCUIT AMPA	CITY AND CIRC		
eaker Gend	D - RECESSED	SOUND REINFORCEMENT	N I			R LENGTH SHALL BE				
	F - SURFACE SU	JBWOOFER			INCREASED	ANCH CIRCUITS OVI ONE WIRE SIZE OVE R LENGTH SHALL BE	R CIRCUIT AMPA	CITY AND CIRC		
$\hat{\mathbb{V}}$	SPEAKER VOLUM		48"	V		S AND HEIGHTS ON E			ECIFICATIONS	ARF
\sim	MICROPHONE OU	ITLET	18"		APPROXIMA	TE. FOR WALL MOUN	NTED DEVICES R	EFER TO ARCH	ITECTURAL EL	EVATIONS.
	P.A. SELECTOR S		48"		CEILING PLA					
VP	VIDEO PROJECTO INFRARED RECEI	DR - CEILING SHOWN	CEILI	``		S TO MECHANICAL I S TO ELECTRICAL IN				
(IR)		ARD IDENTIFICATION	GEILII					R BOXES ARE \	ISIBLE IN FINIS	SHED
	SYSTEMS DESIG		DDE:	v		ORDINATE WITH OTI				ER THIS
	EMERGENCY CRITICAL POWE				CONTRACT.	W, TIKOT GOALITTIK				
	OPTIONAL STAN		S JPS	Z	SPACING IN	TALL OUTLETS BACK FIRE RATED WALLS.	MOUNT LOW VC	LTAGE AND PC	OWER OUTLETS	S IN
	EQUIPMENT DES		<u>ODE:</u> MDS		JUNCTION B	STUD WALL CAVITIES	ISTALLED WITHIN	THE SAME ST	UD WALL CAVI	TY AS
	DISTRIBUTION F	ANELBOARD (480/277V)	DH DL		PADS WHER	UTLET OR JUNCTION E REQUIRED TO MAI	INTAIN THE FIRE			
	PANELBOARD 3 PANELBOARD 3	Ø, 4W, 480/277V Í	H			HE WALL OR FINISH.				
EQUIP	LIGHTING CONT		_CP				RAL POWER			
DESIG SYSTE	NATION M	FLOOR OF ST	RUCTURE	A	WIRING DEV	E LOCATION OF ELE ICES, ETC. WITH AR(ORK. REQUEST CLA	CHITECTURAL PL	ANS, ELEVATIO	ONS AND DETA	ILS PRIOR TO
DESIG	NATION			В		IOTOR & EQUIPMENT				
		EL-1-1A		В	MECHANICA	L (HVAC, PLUMBING, SCIPLINE'S SHOP D	FIRE PROTECTI	ON, ETC.) AND	OTHER EQUIPM	
	L SYMBOLS LEGE			<u>_</u>		NTS OF EQUIPMENT				
May Af	PPEAR ON THESE	RISE A STANDARD LIST, NOT AL DRAWINGS. DICATED ARE FOR STUD WALL	LOTMBOL	S C	NON-GFCI R	CI TYPE PROTECTIC	EPTACLE IS DESI	GNATED GFI BL	JT IS NOT REAL	DILY
CONST	RUCTION. WHEN	BLOCK OR BRICK CONSTRUCT		D,		E (SUCH AS BEING LO ES A TOOL OR LADDE			INSTALLED EC	QUIPMENT
RUNNI MOUN	NG JOINT. FING HEIGHTS AR	E TO CENTER OF DEVICE ABOV	E FINISHE	D D		E LOCATION OF JUN ORDINATE WITH TH				
FLOOR INDICA	UNLESS NOTED	OTHERWISE. MOUNTING HEIGH CTURAL WALL ELEVATIONS OR	HTS			RING FROM JUNCTIO				
SHALL		CE OVER MOUNTING HEIGHTS		E	DATA/TELEP	E LOCATION OF MOI HONE ENTRANCE LO				то
1"C MIN	NIMUM STUBBED I	E BOX WITH SINGLE DEVICE MI NTO ACCESSIBLE CEILING SPA IN OF LOW VOLTAGE/ TECHNO	CE AS		CONSTRUCT	TION.				
SYSTE	M OUTLET LOCAT				LOAD SERVE	CATED BY CIRCUIT NED HAS PROVISIONS	FOR, OR REQUI	RES A NEUTRA	L. TYPICALLY, I	FEEDERS
	SIBLE CEILING SF	PACE FOR ALL AUDIO-VIDEO OL		D		H CIRCUITS WILL RE				
REFER		ON DRAWINGS AND SCHEDULE ON.	SFOR	G	NO MORE TH	HAN 6 RECEPTACLES	S (YOKES) ARE O			
] н	. FOR RECEP	TACLES, DEVICES, A	ND JUNCTION BO			
NDUIT	S/D SF	SMOKE DAMPER SQUARE FOOT			'EQC', 'AV' O OR DRAWIN	R 'AP14') REFER TO S GS FOR LOADS REQI	SPECIFICATION (UIRED OR SPECI	OF MECH, ARCH AL PURPOSE R	H, OR OTHER D	NEEDED. IF
	SHT SM	SHEET SURFACE MOUNTED			SIZE AND RE	NOT SHOWN ON PLAN EQUIREMENTS PER E	EQUIPMENT SUP	PLIER. PROVID	e individual/d	DEDICATED
	SP SPEC	SUMP PUMP SPECIFICATIONS				RCUIT IF LOAD IS NO E WITH EQUIPMENT				
SION	STD SUSP SW	STANDARD SUSPENDED SWITCH		I.		PECIFICATIONS AND SUBMIT POWER STU				
	SW SW. BD SW. GR	SWITCH SWITCHBOARD SWITCHGEAR			GEAR (SWIT AUTOMATIC	CHBOARDS, PANELB TRANSFER SWITCHI	BOARDS, TRANSF ES, ETC). THE EL	ORMERS, CIRO ECTRICAL EQU	CUIT BREAKERS	S, _ BE
	TEL	TELEPHONE				RATED FOR THE AVA				
	TERM TGMB	TERMINAL TELECOMMUNICATION GROU	NDING							
	TV	MAIN BUS BAR TELEVISION				CONDUIT RC		SEPARATIC	DN	
	TYP UG UNO	TYPICAL UNDERGROUND UNLESS NOTED OTHERWISE			GRC			B 6" [152 mm]	C	D
	V	VOLTAGE			А Е	3	ADJACENT -	6" [152 mm] -	12" [305 mm] 12" [305 mm]	12" [305 mm] 6" [152 mm]
	VA	VOLT AMPERE			С С)	-	-	ADJACENT -	6" [152 mm] ADJACENT
	W W W/	WATT (S) WIDTH WITH UNIT			CONTROL,		36" [914 mm]	12" [305 mm]	6" [152 mm]	12" [305 mm]
	W/ WG WP	WITH UNIT WIRE GUARD WEATHERPROOF		SWI	TCHED POWER CURRENT \$ (120V, 40A OF					

T SPECIFICALLY 10, 1#10 GROUND GENERAL ELECTRICAL DEMOLITION NOTES BERS SHOWN AT A. DRAWINGS ARE DIAGRAMMATIC ONLY AND ARE NOT INTENDED TO INDICATE ALL DEVICES OR CONDITIONS ASSOCIATED WITH DEMOLITION. IT SHALL BE THE CONTRACTOR'S EXACT ROUTING. RESPONSIBILITY TO FIELD VERIFY ACTUAL CONDITIONS INVOLVED IN THE DEMOLITION AND SUBSEQUENT RECONSTRUCTION REQUIRED TO COMPLETE THE ELECTRICAL INSTALLATION. E CONTINUOUS B. SEE ARCHITECTURAL/GENERAL DRAWINGS AND SPECIFICATIONS FOR PHASES OF DEMOLITION. C. CIRCUIT CONTINUITY SHALL BE MAINTAINED TO ELECTRICAL LIGHTING, DEVICES, AND EQUIPMENT REMAINING, BUT AFFECTED BY DEMOLITION. PROVIDE NEW CONDUIT AND WIRING AS NECESSARY TO MAINTAIN CONTINUITY TO EXISTING EQUIPMENT AND DEVICES. FIELD VERIFICATION OF BRANCH CIRCUIT CONFIGURATION SHALL BE THE RESPONSIBILITY G (THREE PHASE OF THE ELECTRICAL CONTRACTOR. D. IN AREAS OF DEMOLITION, REMOVE ASSOCIATED JUNCTION BOXES, SUPPORTS, CONDUIT AND WIRING TO THE POINT OF ORIGIN FOR LIGHTING, DEVICES AND EQUIPMENT NOT BEING REUSED. WALLS, FLOORS FOR CIRCUITS/HOMERUNS WITH ONLY A PORTION DEMOLISHED, REMOVE CONDUIT AND INISHED WALLS. CONDUCTORS BACK TO THE NEAREST JUNCTION BOX FEEDING CIRCUITS BUT MAINTAIN POWER TO EQUIPMENT AND RECEPTACLES THAT WILL REMAIN AFTER DEMOLITION OR REQUIRE POWER DURING DEMOLITION AND CONSTRUCTION. F. FOR CIRCUITS/HOMERUNS WITH ALL DEVICES DEMOLISHED, REMOVE CONDUIT AND CONDUCTORS BACK TO THE PANELBOARD SERVING CIRCUIT(S). G. DASHED ELECTRICAL DEVICES INDICATE DEVICES THAT ARE TO BE DEMOLISHED. AIR ENCLOSURE SOLID/BOLD LINED ELECTRICAL DEVICES INDICATE DEVICES THAT ARE NEW. SCREENED/LIGHT LINED ELECTRICAL DEVICES INDICATE DEVICES THAT ARE EXISTING TO REMAIN AND ARE SHOWN FOR REFERENCE ONLY. H. WALLS, CEILINGS, AND GENERAL MATERIALS SHALL BE DEMOLISHED BY GENERAL/DEMOLITION CONTRACTOR. DEMOLISH ELECTRICAL LUMINAIRES, DEVICES, AND EQUIPMENT PRIOR TO REMOVAL OF WALLS AND CEILINGS. RELOCATE SYSTEMS AS INDICATED ON DRAWINGS OR AS REQUIRED FOR INSTALLATION OF NEW WALLS OR CEILINGS. COORDINATE WITH STRUCTURAL INSTALLATION, ARCHITECTURAL, MECHANICAL, AND OTHER TRADES. PROVIDE TEMPORARY LIGHTING AND POWER FOR AND FOOTAGE ELECTRICAL ITEMS IN THE VARIOUS AREAS OF CONSTRUCTION. LUMINAIRES THAT ARE DESIGNATED FOR REUSE SHALL BE CLEANED AND REINSTALLED. IBLE FOR EXACT J. EXISTING CONDUIT HOLES OR SLEEVES INSTALLED IN CONCRETE FLOORS OR WALLS THAT ARE ABANDONED AFTER DEMOLITION SHALL HAVE CONDUIT REMOVED AND HOLES FILLED AND PATCHED. PROVIDE PATCHING AND PAINTING AS REQUIRED. SEE ARCHITECTURAL TYPICAL DETAIL. K. COORDINATE THE DEMOLITION OF LUMINAIRES, DEVICES, AND EQUIPMENT WITH OTHER CONTRACTORS. DEMOLISH POWER, FIRE ALARM, ELECTRICAL CONTROLS, AND INSTRUMENTATION WIRING OF EQUIPMENT BEING DEMOLISHED. RELOCATE, EXTEND, AND RECONNECT POWER, FIRE ALARM, ELECTRICAL CONTROLS, AND INSTRUMENTATION WIRING OF EQUIPMENT BEING RELOCATED. COORDINATE REMOVAL AND RELOCATION OF H. POWER AND CONTROLS OF MECHANICAL EQUIPMENT WITH RESPECTIVE CONTRACTORS. VERIFY EXISTING CONDITIONS BEFORE COMMENCING DEMOLITION OF AN AREA. WHERE NEEDED DURING CONSTRUCTION FOR PHASING, TEMPORARILY RECONNECT CIRCUITS AND DEVICES AFTER DEMOLITION UNTIL PERMANENT INSTALLATION IS COMPLETED. DEMOLISH AFTER INSTALLATION IS COMPLETED. M. COORDINATE DEMOLITION OF EXISTING WALLS, CEILINGS AND FLOORS WITH DEMOLITION CONTRACTOR. N. SEAL OPENINGS IN BOXES AND ENCLOSURES THAT HAVE CONDUIT REMOVED AND OPENINGS THAT ARE NOT REUSED. PROVIDE BLANK COVER PLATES ON ALL JUNCTION BOXES AND ENCLOSURES THAT HAVE DEVICES DEMOLISHED BUT BOXES ARE EXISTING TO REMAIN. O. PROVIDE MULTI-POLE CIRCUIT BREAKER(S) OR REPLACE WIRING WITH DEDICATED NEUTRALS WHERE EXISTING MULTI-WIRE CIRCUITS ARE MODIFIED. . PROVIDE PUTTY P. DEMOLISH ALL ELECTRICAL DEVICES AND BOXES AS NECESSARY WHERE NEW WALL TRANSMISSION CONSTRUCTION WILL INTERSECT AN EXISTING WALL. Q. DEMOLISH ALL EQUIPMENT IN A MANNER THAT WILL NOT DESTROY OR DAMAGE EQUIPMENT OR DEVICES THAT ARE TO BE SALVAGED, EXISTING TO REMAIN, OR BE RELOCATED. ETAILS PRIOR TO R. REPLACE ALL CONDUITS AND RACEWAYS THAT ARE DAMAGED DURING CONSTRUCTION.) INSTALLATION. S. DEMOLISH OR RELOCATE LIGHTING CONTROLS, EXIT SIGNAGE, AND ACCESS CONTROLS AS NECESSARY TO ACCOMMODATE NEW DOOR CONFIGURATIONS. UIPMENT. REFER T. PROVIDE CONDUIT AND COMMUNICATIONS/DATA CABLING AS NECESSARY FOR A COMPLETE CABLING SYSTEM TO DEVICE LOCATIONS EXISTING TO REMAIN AFTER DEMOLITION. FEED A NORMAL U. DO NOT REUSE MATERIALS (CONDUIT, CABLING, WIRING, DEVICES, SUPPORTS, EQUIPMENT EQUIPMENT, ETC...) UNLESS SPECIFICALLY INDICATED OR APPROVED BY THE ENGINEER. ALL CONDUIT, PATHWAYS, AND WIRING SHALL BE NEW UNLESS SPECIFICALLY INDICATED AS "EXISTING TO REMAIN" OR "EXISTING TO BE REUSED". V. DUE TO DEMOLITION AND REMODELING, ELECTRICAL CONTRACTOR SHALL CONSIDER MINOR CIRCUIT MODIFICATIONS AND REROUTING AS INCLUDED IN THE SCOPE. MAJOR CONCEALED CONDITIONS IN WHICH THE CONTRACTOR COULD NOT ANTICIPATE THE EFFORT LEVEL REQUIRED SHALL BE BROUGHT PROMPTLY TO THE ENGINEER'S ATTENTION. IF THE CONTRACTOR WILL REQUEST A CHANGE IN THE CONTRACT AMOUNT OR CONTRACT TIME DUE TO CONDITION, THEN THE CONTRACTOR SHALL SUBMIT DIGITAL PHOTOGRAPHS OF THE EXISTING CONDITIONS WITH A PROPOSED RESOLUTION. FAILURE FRAL WHEN THE TO DO SO IMPLIES THE CONTRACTOR HAS ASSUMED THE WORK EFFORT TO BE INCLUDED IN THEIR BID. ENGINEER WILL PROMPTLY REVIEW INFORMATION AND MAKE RECOMMENDATIONS TO THE OWNER IN AN ATTEMPT TO MAINTAIN CONSTRUCTION SCHEDULE. LES SUCH THAT O THE NEAREST CONDUIT/CIRCUIT GROUP DIVISION BANDWIDTH GROUF DESCRIPTION LEVEL

SIZE AND REQUIREMENTS PER EQUIPMENT SUPPLIER. PROVIDE INDIVIDUAL/DEDICATED					. •					
120V, 20A CIRCUIT IF LOAD IS NOT KNOWN OR AVAILABLE FROM EQUIPMENT SUPPLIER. COORDINATE WITH EQUIPMENT SUPPLIERS AND OTHER CONTRACTORS AS REQUIRED.				С	SPEAKER LEVEL AUDIO CIF INCLUDING BOTH LOW IMP AND HIGH IMPEDANCE (70	EDANCE	GREATER THAN +	24dBu	20 Hz TO 20 KHz	
I. REFER TO SPECIFICATIONS AND PROVIDE POWER SYSTEMS STUDIES AS A PART OF THIS CONTRACT. SUBMIT POWER STUDIES RESULTS WITH THE SUBMITTAL OF ELECTRICAL GEAR (SWITCHBOARDS, PANELBOARDS, TRANSFORMERS, CIRCUIT BREAKERS, AUTOMATIC TRANSFER SWITCHES, ETC). THE ELECTRICAL EQUIPMENT SHALL BE PROPERLY RATED FOR THE AVAILABLE FAULT CURRENT AND FULLY COORDINATED WHERE REQUIRED.				D	VIDEO CONTROL CIRCUITS DATA CIRCUITS	, VOICE, OR	1 VOLT PEAK TO PE 75 Ohms 0-28 VOLT INTO 50 2 VOLT PEAK TO PE 100 Ohms	COhms	0 Hz TO 250 MHz 0 Hz TO 100 MHz	
						JUNCTION BOX	K (NOMINAL	TRADE SIZE) SC	HEDULE	
CONDUIT RO	UTING AND	SEPARATIO	N	-			•		MINUN	
						J-BOX TRADE SIZE	J-BOX	ACTUAL SIZE		IUM VOLUME NEC 314.16A)
GROUP	А	В	С	D	1-GAN	IG	4" x 3" x 2-1/	8"	21.0 C	UBIC INCHES
Α	ADJACENT	6" [152 mm]	12" [305 mm]	12" [305 mm]	2-GAN	IG	4-11/16" x 4-	11/16" x 3-1/2"	42.0 C	UBIC INCHES
В	-	-	12" [305 mm]	6" [152 mm]	3-GAN	IG	8-5/8" x 4-1/2	2" x 3-1/2"	63.0 C	UBIC INCHES
С	-	-	ADJACENT	6" [152 mm]	4-GAN	IG	10-7/16" x 4-	1/2" x 3-1/2"	84.0 C	UBIC INCHES
D	-	-	-	ADJACENT	5-GAN	IG	12-1/4" x 4-1	/2" x 3-1/2"	105.0 (CUBIC INCHES
277V, 480V ELECTRONIC DIMMER	36" [914 mm]	12" [305 mm]	6" [152 mm]	12" [305 mm]	6-GAN	IG	14-1/16" x 4-	1/2" x 3-1/2"	126.0 (CUBIC INCHES
CONTROL, LIGHTING,					4" SQ	UARE x 1-1/4"D	4" x 4" x 1-1/	4"	18.0 C	UBIC INCHES
SWITCHED POWER SOURCES & HIGH					4" SQ	UARE x 1-1/2"D	4" x 4" x 1-1/	2"	21.0 C	UBIC INCHES
CURRENT SOURCES (120V, 40A OR GREATER)					4" SQ	UARE x 2-1/8"D	4" x 4" x 2-1/	8"	30.3 C	UBIC INCHES
					4-11/1	6" SQUARE x 1-1/4"D	4-11/16" x 4-	11/16" x 1-1/4"	25.5 C	UBIC INCHES
120V, 20A POWER SERVICE	12" [305 mm]	6" [152 mm]	ADJACENT	6" [152 mm]	4-11/1	6" SQUARE x 1-1/2"D	4-11/16" x 4-	11/16" x 1-1/2"	29.5 C	UBIC INCHES
ALL OTHER POWER SOURCES	24" [610 mm]	12" [305 mm]	6" [152 mm]	12" [305 mm]	4-11/1	6" SQUARE x 2-1/8"D	4-11/16" x 4-	11/16" x 2-1/8"	42.0 C	UBIC INCHES

A MICROPHONE LEVEL AUDIO CIRCUITS

B LINE LEVEL AUDIO CIRCUITS

COMMUNICATIOINS CIRCUITS

BELOW -30 dBu

-30dBu TO +24dBu

20 Hz TO 20 KHz

20 Hz TO 20 KHz

ELECTRICAL SHEET INDEX

E000	ELECTRICAL SYMBOLS AND ABBREVIATIONS
E101	BASEMENT ELECTRICAL DEMOLITION PLAN - AREA A
E111	LEVEL 1 ELECTRICAL DEMOLITION PLAN - AREA A
E121	LEVEL 2 ELECTRICAL DEMOLITION PLAN - AREA A
E201	BASEMENT LIGHTING PLAN - AREA A
E211	LEVEL 1 LIGHTING PLAN - AREA A
E221	LEVEL 2 LIGHTING PLAN - AREA A
E301	BASEMENT POWER PLAN - AREA A
E311	LEVEL 1 POWER PLAN - AREA A
E321	LEVEL 2 POWER PLAN - AREA A
F401	BASEMENT TECHNOLOGY PLAN - AREA A

- E401 BASEMENT LECHNOLOGY PLAN AREA A
- E411 LEVEL 1 TECHNOLOGY PLAN AREA A
- E421 LEVEL 2 TECHNOLOGY PLAN AREA A E601 ELECTRICAL SINGLE LINE DIAGRAM
- E801 LUMINAIRE SCHEDULES E802 MOTOR & EQUIPMENT SCHEDULES

INSTALLATION. REFER TO TECHNOLOGY DRAWINGS FOR TELECOMMUNICATIONS, SECURITY, AUDIO/VIDEO, FIRE ALARM, AND OTHER SYSTEMS AS SHOWN. PROVIDE REQUIRED RACEWAYS FOR THESE SYSTEMS FOR A COMPLETE INSTALLATION. REFER TO ELECTRICAL, TELECOMMUNICATIONS, SECURITY AND AUDIO/VISUAL SPECIFICATIONS AND DRAWINGS FOR ADDITIONAL REQUIREMENTS. COORDINATE LOCATION OF JUNCTION BOXES FOR EQUIPMENT THAT IS FURNISHED BY OTHERS. COORDINATE WITH THE EQUIPMENT SUPPLIER PRIOR TO INSTALLATION. PROVIDE ALL CABLING FROM JUNCTION BOX TO EQUIPMENT CONNECTION AS REQUIRED. COORDINATE LOCATION OF MODULAR SYSTEMS FURNITURE DATA/TELEPHONE ENTRANCE LOCATIONS WITH FURNITURE SUPPLIER PRIOR TO CONSTRUCTION. PROVIDE MODULAR FACEPLATES AS REQUIRED FOR FURNITURE SUPPLIED. G. COORDINATE REQUIREMENTS AND LOCATIONS OF FLOORBOXES AND TABLE BOXES WITH FLOORBOX SUPPLIER PRIOR TO CONSTRUCTION. PROVIDE MODULAR FACEPLATES AS REQUIRED FOR BOX OPENINGS AVAILABLE. WHERE WIRELESS ACCESS POINTS ARE LOCATED WITHIN AN INACCESSIBLE (GYP OR OTHER) CEILING, PROVIDE 1 GANG J-BOX IN CEILING WITH 0.75" CONDUIT TO NEAREST ACCESSIBLE CEILING. COORDINATE EXACT LOCATIONS IN CEILING WITH OWNER PRIOR TO INSTALL. FOR TECHNOLOGY DEVICE LOCATIONS, PROVIDE TWO-GANG BOX MIN WITH SINGLE GANG MUD RING AND 1" CONDUIT MIN INTO ACCESSIBLE CEILING SPACE. FOR AUDIO/VIDEO INPUT AND OUTPUT DEVICE LOCATIONS, PROVIDE 4-11/16" X 4-11/16" BOX MIN WITH 1.25" CONDUIT MIN INTO ACCESSIBLE CEILING SPACE. PROVIDE MUD RING SIZED AS NEEDED FOR DEVICES. NOT ALL TECHNOLOGY PATHWAYS ARE SHOWN ON DRAWINGS IN ORDER TO ALLOW CONTRACTOR TO ROUTE AS NEEDED. PROVIDE ADDITIONAL CONDUITS, SLEEVES, AND PATHWAYS FOR A FULL AND COMPLETE INSTALLATION. TYPICALLY, ROUTE PATHWAYS TO LIMIT CABLE DISTANCE. PROVIDE ADDITIONAL PATHWAYS IF REQUIRED TO MAINTAIN PERMANENT LINK UTP CABLE DISTANCE OF 295'-0" FROM PATCH PANEL TO OUTLET. NO UTP CABLE DISTANCE MAY BE LONGER THAN 295'-0" UNLESS SPECIFICALLY NOTED. PROVIDE 30% SPARE CABLE FILL CAPACITY MINIMUM IN PATHWAYS. TYPICALLY, NOT ALL ACCESS CONTROL DEVICES ARE SHOWN ON FLOOR PLANS. PROVIDE CONDUIT AND CONNECTIONS FOR ALL ELECTRONIC DOOR HARDWARE AT ANY LOCATIONS SHOWING DOOR CONTACTS OR CARD READERS OR SHOWN IN ARCH DWGS/SPECS. TYPICALLY OTHER DEVICES (ELECTRIC STRIKES, ELECTRONIC LOCKS, MAG LOCKS, REQUEST-TO-EXITS, ELECTRIC HINGES, DOOR OPENERS, ETC..) WILL ALSO BE REQUIRED AS PER THE EXACT LOCATION AS PER THE ARCH DOOR HARDWARE SCHEDULE AND DIV 8 SPECIFICATIONS. PROVIDE ALL CONNECTIONS REQUIRED AND REFER TO ELEC DETAILS FOR TYPICAL CONNECTION REQUIREMENTS. COORDINATE ALL REQUIREMENTS WITH DIV 8 SUPPLIER. FIRE ALARM SYSTEM WIRING IS NOT SHOWN. PROVIDE CONDUIT AND WIRING NECESSARY FOR A COMPLETE AND OPERATING SYSTEM. FIRE ALARM DEVICES TO BE WIRED BACK INTO EXISTING FIRE ALARM SYSTEM. ALL CAMERAS SHALL BE CEILING/CANOPY MOUNTED WHERE LOCATED IN A CEILING/CANOPY AREA. WALL MOUNTED CAMERAS SHALL MATCH HEIGHT OF WALL LIGHT FIXTURES ~12' ABOVE FINISHED GRADE BUT SHALL BE 84" AFF MIN ABOVE FINISH GRADE. ADJUST HEIGHT HIGHER AS NEEDED TO CENTER WITHIN BLOCK COURSE. GENERAL ELECTRICAL SITE NOTES A. NOTIFY AFFECTED UTILITY PROVIDERS AND LOCATE CUSTOMER OWNED UNDERGROUND UTILITIES PRIOR TO COMMENCEMENT OF WORK. . THE LOCATION AND QUANTITY OF EXISTING UNDERGROUND UTILITIES SHOWN ARE APPROXIMATE. CONTRACTOR SHALL BE RESPONSIBLE FOR DAMAGES DUE TO FAILURE TO LOCATE AND PRESERVE UNDERGROUND UTILITIES (INCLUDING CUSTOMER OWNED SITE UTILITIES). C. PROVIDE ALL TRENCHING AND BACKFILLING AS PER DIVISION 02. D. RESTORE TO ORIGINAL GRADE AND PROVIDE SOD/GRASS IN ALL DISTURBED AREAS. E. PROVIDE ALL CONCRETE PADS FOR ELECTRICAL EQUIPMENT AS PER DIVISION 03. CIRCUIT. F. MAINTAIN MINIMUM OF 24" FROM FINISHED GRADE TO TOP OF UNDERGROUND DUCT BANKS AND UNDERGROUND CONDUIT RUNS. SAME VOLTAGE SERVING THE AREA SHOWN. CONNECT SUCH THAT NO MORE THAN G. EXISTING CONDUIT, WIRING, ETC. ROUTED THROUGH AREAS TO BE EXCAVATED SHALL BE 1600VA PER 20A, 120V CIRCUIT OR 3800VA PER 20A, 277V CIRCUIT IS CONNECTED. RE-ROUTED AS REQUIRED TO ENSURE CONTINUITY OF EXISTING CIRCUITS. SWITCHES OR LIGHTING CONTROLS IN A SPACE SHALL CONTROL LIGHTING IN THAT H. REMOVE ABANDONED ELECTRICAL CONDUCTORS AND CONDUITS IN AREAS TO BE SPACE UNLESS NOTED OTHERWISE. EXCAVATED. REMOVE ALL CONDUCTORS ABANDONED THROUGH THIS CONTRACT. WHERE CONDUIT IS NOT IN AN AREA BEING EXCAVATED, CONDUIT MAY BE ABANDONED IN PLACE AND CAPPED. EXISTING UTILITIES SHALL REMAIN TO SERVE EXISTING STRUCTURES UNTIL THEY ARE VACATED. PROVIDE TEMPORARY SERVICES AS REQUIRED. PROVIDE EMPTY CONDUITS WITH NYLON PULL STRINGS AND METALLIC CAPS. K. REFER TO SITE ARCHITECTURAL, LANDSCAPING AND CIVIL ENGINEERING PLANS FOR ADDITIONAL INFORMATION, DETAILS AND LOCATIONS OF EQUIPMENT. WHERE PVC CONDUIT, WHETHER DIRECT BURIED OR IN DUCT BANK, TERMINATES WITHIN A BUILDING OR UTILITY STRUCTURE, THE PVC CONDUIT SHALL TRANSITION TO RIGID METAL CONDUIT AT LEAST 10 FEET PRIOR TO ENTERING THE BUILDING OR UTILITY STRUCTURE. KFI ENGINEERS M. ALL SITE CONDUITS SHALL FOLLOW THE CONTOUR OF THE CURB / SIDEWALKS WHENEVER Phone: (651) 771-0880 POSSIBLE. ROUTE ALL SITE LIGHTING AND SECURITY SYSTEM CONDUIT WITHIN 12" OF Fax No: (651) 771-0878 THE EDGE OF THE CURB / SIDEWALK. Contact: Xxxxx X. Xxxxxxxx E-mail: xxxxxxx@kfi-eng.com N. ALL UNDERGROUND RACEWAY SHALL BE 2 INCH PVC SCHEDULE 40 CONDUIT (MINIMUM), UNLESS REQUIRED TO BE LARGER. ALL ELBOWS SHALL BE RIGID METAL CONDUIT. 0. PROVIDE GPS COORDINATES ON AS-BUILT DRAWINGS FOR ALL MANHOLES, HANDHOLES, POLES, AND ELECTRICAL EQUIPMENT.

GENERAL TECHNOLOGY NOTES

TO INSTALLATION.

SYSTEM. REFER TO SPECIFICATIONS.

COORDINATE LOCATION OF ELECTRICAL DEVICES WITH ARCHITECTURAL PLANS, ELEVATIONS

AND DETAILS PRIOR TO START OF WORK, REQUEST CLARIFICATIONS FROM ARCHITECT PRIOR

TECHNOLOGY CABLING, EQUIPMENT, OR DEVICES OF CERTAIN SYSTEMS MAY BE SPECIFIED,

OTHERWISE IN SPECIFICATIONS, PROVIDE COMPLETE SYSTEMS INCLUDING BUT NOT LIMITED TO CABLING, EQUIPMENT, DEVICES, PROGRAMMING, LICENSES, INTERFACES, EXTENDERS,

UPS UNITS, SWITCHES, STORAGE, COORDINATION, JACKS, ETC... REQUIRED FOR A COMPLETE

CABLE TRAY SHALL BE CONTINUOUS. INTERRUPTIONS IN CABLE TRAY RUNS SHALL ONLY BE ALLOWED FOR SLEEVES THROUGH WALLS, FLOORS, AND FOR TRANSITION TO SLEEVES FOR

CORRIDOR CEILINGS WITH MECHANICAL EQUIPMENT, PIPING, ELECTRICAL CONDUIT, CEILING

COORDINATION WITH OTHER EQUIPMENT IS DIFFICULT OR WAS NOT COMPLETED PRIOR TO

ROUTING ABOVE INACCESSIBLE CEILINGS. COORDINATE CABLE TRAY ROUTING ABOVE

PLANES, AND ELECTRICAL DEVICES. ADJUST CABLE TRAY ROUTING AS REQUIRED. CABLE

TRAY RUN SHALL BE CONTINUOUS AND SHALL NOT BE INTERRUPTED MERELY BECAUSE

FURNISHED, INSTALLED, PROGRAMMED, OR PROVIDED BY OTHERS. UNLESS NOTED

- CONTACTS ELECTRICAL ENGINEER
- K. WHERE CIRCUITING IS NOT SHOWN, CONNECT TO NEAREST LIGHTING CIRCUIT OF THE
- INSTALL CONDUIT AND WIRING FOR EXTERIOR BUILDING MOUNTED DEVICES AND CONNECT UNDERCABINET LIGHTING TO LOCAL CONVENIENCE BRANCH RECEPTACLE
- LUMINAIRES CONCEALED WITHIN THE BUILDING, NOT EXPOSED ON BUILDING EXTERIOR.
- ILLUMINATION LEVELS THROUGHOUT THE SPACE AND AT ALL WALKWAYS.
- ARE SHOWN FOR QUANTITY ONLY. COORDINATE LUMINAIRE LOCATIONS WITH THE
- MECHANICAL EQUIPMENT, DUCTWORK, PIPING, ETC. TO GIVE ADEQUATE DISTRIBUTED
- TO RELAY, FOR AC CIRCUIT MONITORING PROVIDE POWER CIRCUITING THAT IS AREA SUCH THAT LUMINAIRE ILLUMINATES UPON FAILURE OF LOCAL LIGHTING POWER. LUMINAIRES IN SERVICE SPACES SUCH AS MECHANICAL ROOMS AND TELECOM ROOMS
- B. FOR EVERY SWITCHED OR DIMMED LUMINAIRE CONNECTED TO A GENERATOR/INVERTER CIRCUIT, PROVIDE UL 924 RELAY. IN ADDITION TO CIRCUIT FROM GENERATOR/INVERTER CONNECTED AHEAD OF SWITCH LEGS ON NORMAL BRANCH CIRCUITS SERVING THE SAME
- CONTINUOUS CHARGING AND AC CIRCUIT MONITORING SUCH THAT LUMINAIRE ILLUMINATES UPON FAILURE OF LOCAL POWER.
- WIRE EMERGENCY BATTERY UNITS AND BATTERY DRIVERS AHEAD OF SWITCH LEGS ON LOCAL EMERGENCY LIGHTING BRANCH CIRCUITS SERVING THE SAME AREA FOR
- HAVE CONTINUOUS ILLUMINATION CHARGING AND AC CIRCUIT MONITORING. CONNECT LUMINAIRES NOTED WITH THE SUBSCRIPT 'NL' (NIGHT LIGHT) FOR CONTINUOUS NON-SWITCHED ILLUMINATION.
- VOLTAGE SWITCHES OR CONTROLS WIRING. PROVIDE REQUIRED WIRING FOR SWITCHING AND CONTROL OF LIGHTING. CONNECT EXIT SIGNS AND RESCUE ASSISTANCE SIGNS TO THE LINE SIDE OF THE LIFE SAFETY (EMERGENCY) LIGHTING CIRCUIT SERVING THE SAME AREA, SUCH THAT THEY
- A. REFER TO ARCHITECTURAL REFLECTED CEILING PLAN DRAWINGS FOR LOCATION OF LUMINAIRES AND CEILING MOUNTED ELECTRICAL DEVICES. B. REFER TO ARCHITECTURAL ELEVATIONS AND DETAILS FOR LOCATION OF WALL MOUNTED LUMINAIRES, TASK LIGHTING, DISPLAY LIGHTING, AND COVE LIGHTING. C. SWITCHING SHOWN ON PLANS DO NOT SHOW SWITCH LEG/TRACER WIRE BETWEEN LINE-
- **GENERAL LIGHTING NOTES**



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ELECTRICAL SYMBOLS AND ABBREVIATIONS

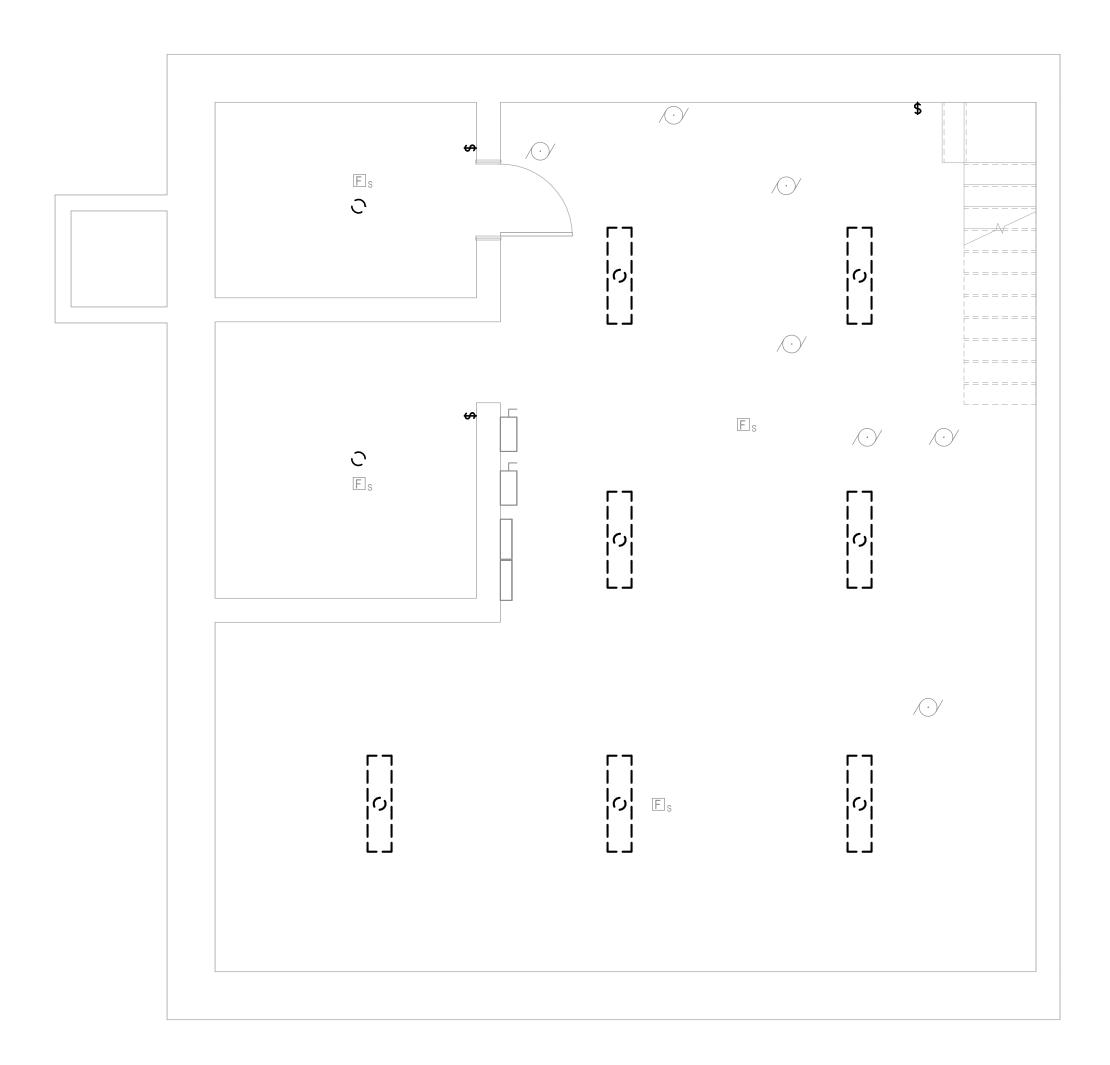
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	XX/XX/2021 Author

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1 BASEMENT ELECTRICAL DEMOLITION PLAN - AREA A E101 1/4" = 1'-0"

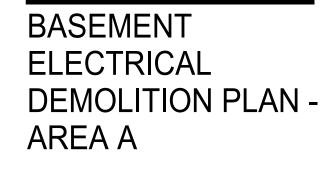




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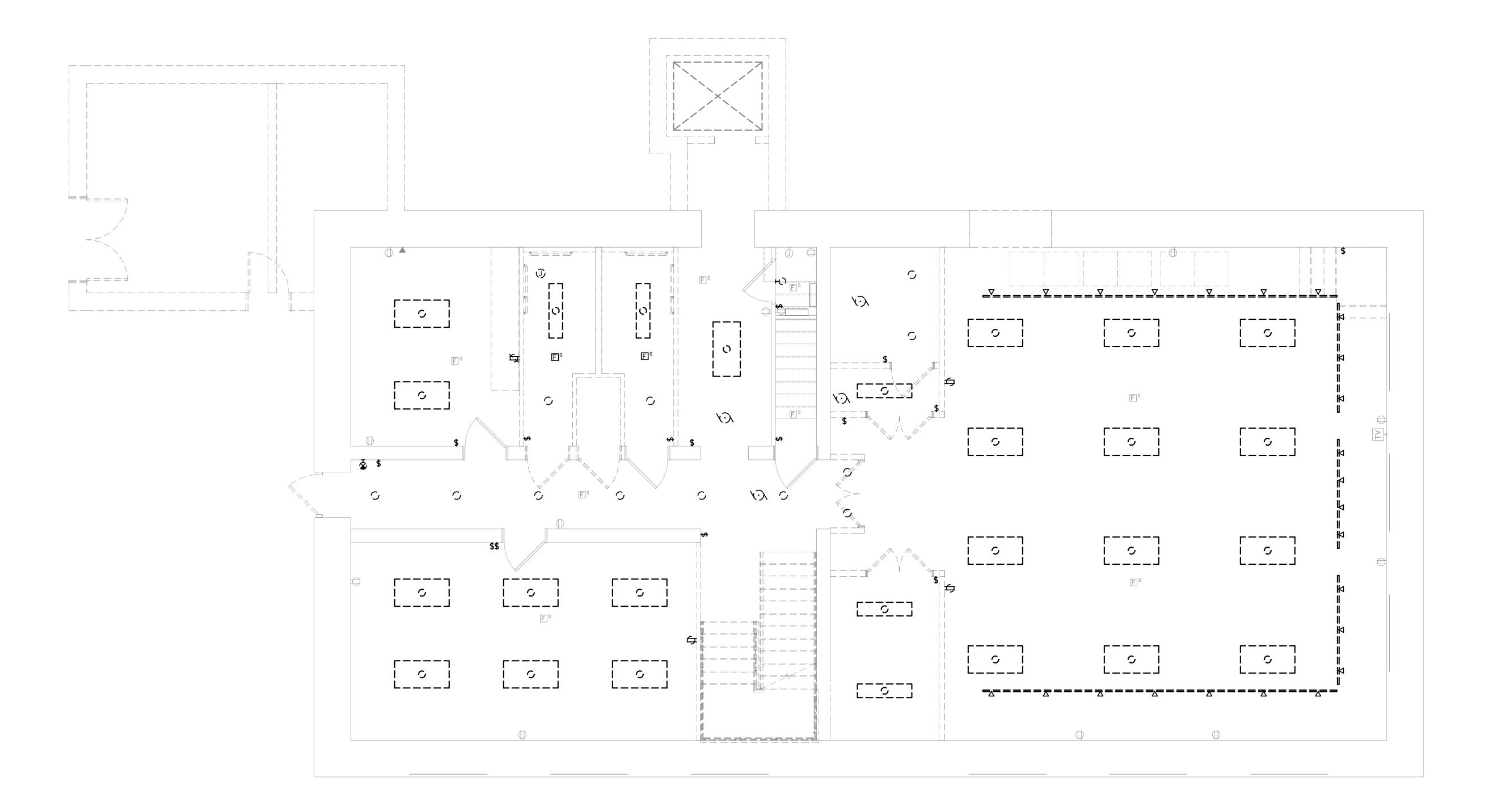
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1 LEVEL 1 ELECTRICAL DEMOLITION PLAN - AREA A E111 1/4" = 1'-0"





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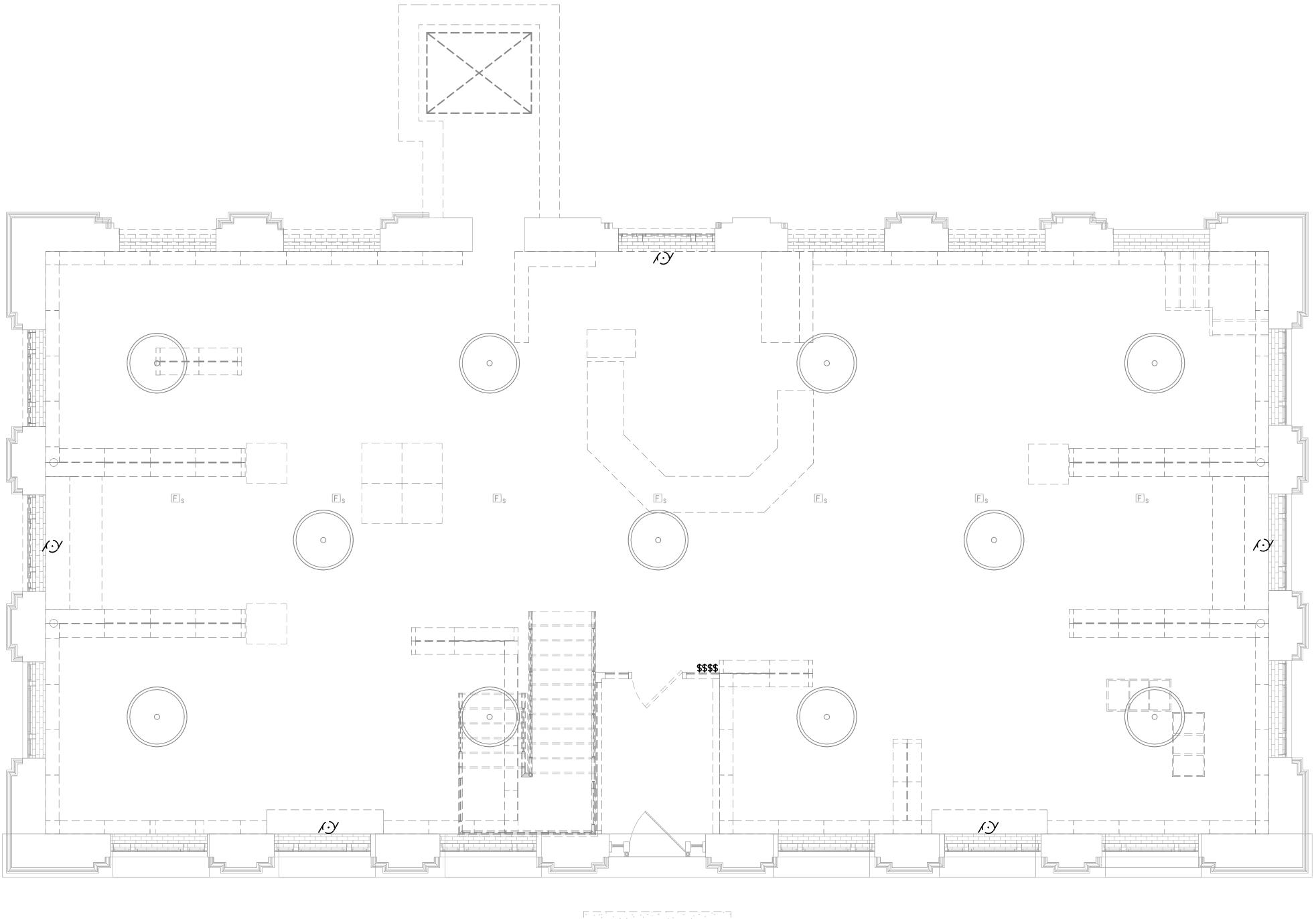
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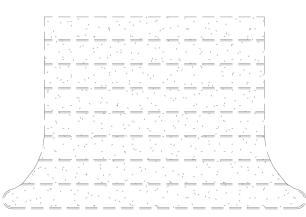
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1 LEVEL 2 ELECTRICAL DEMOLITION PLAN - AREA A E121 1/4" = 1'-0"



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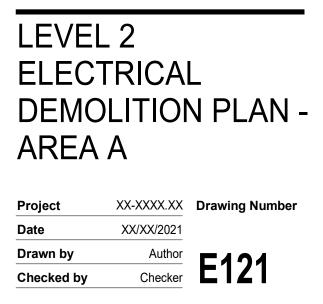


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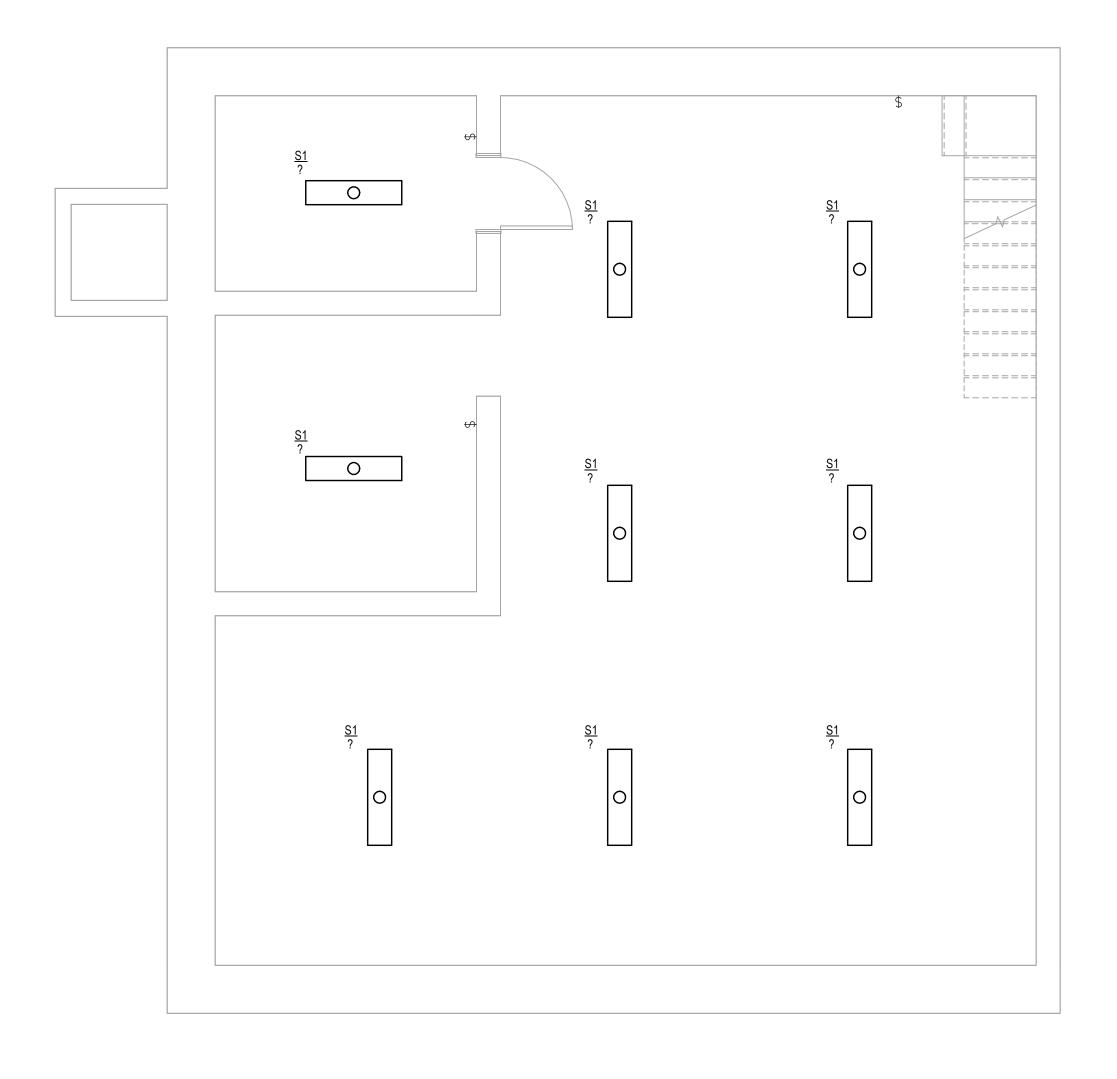
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1 BASEMENT LIGHTING PLAN - AREA A E201 1/4" = 1'-0"





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BASEMENT LIGHTING PLAN -AREA A

Project	XX-XXXX.XX	Drawing Number
Date	XX/XX/2021	
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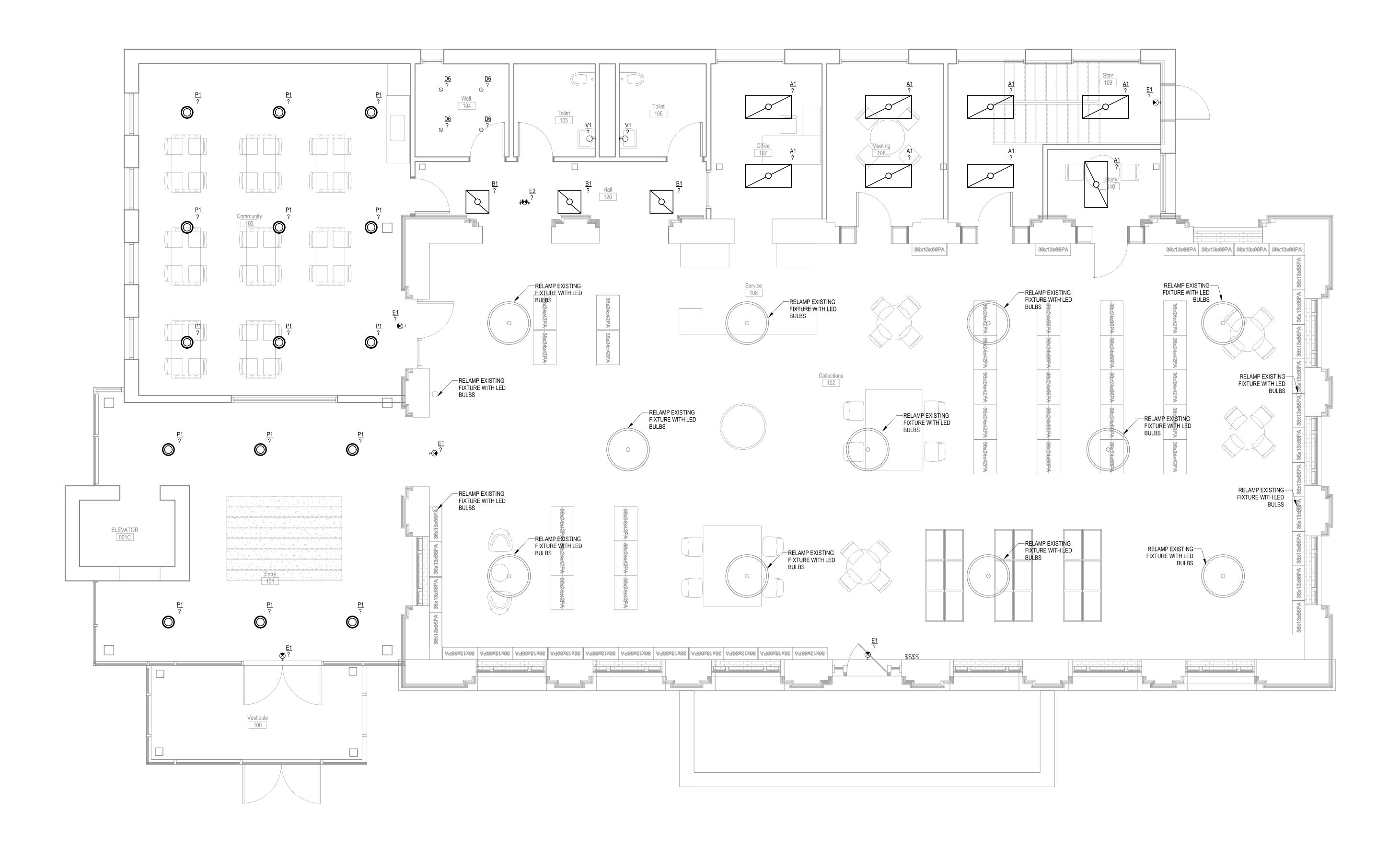
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LEVEL 1 LIGHTING PLAN - AREA A

Project	XX-XXXX.XX	Drawing Number
Date	XX/XX/2021	
Drawn by	Author	F 044
Checked by	Checker	E211

1 LEVEL 2 LIGHTING PLAN - AREA A E221 1/4" = 1'-0"





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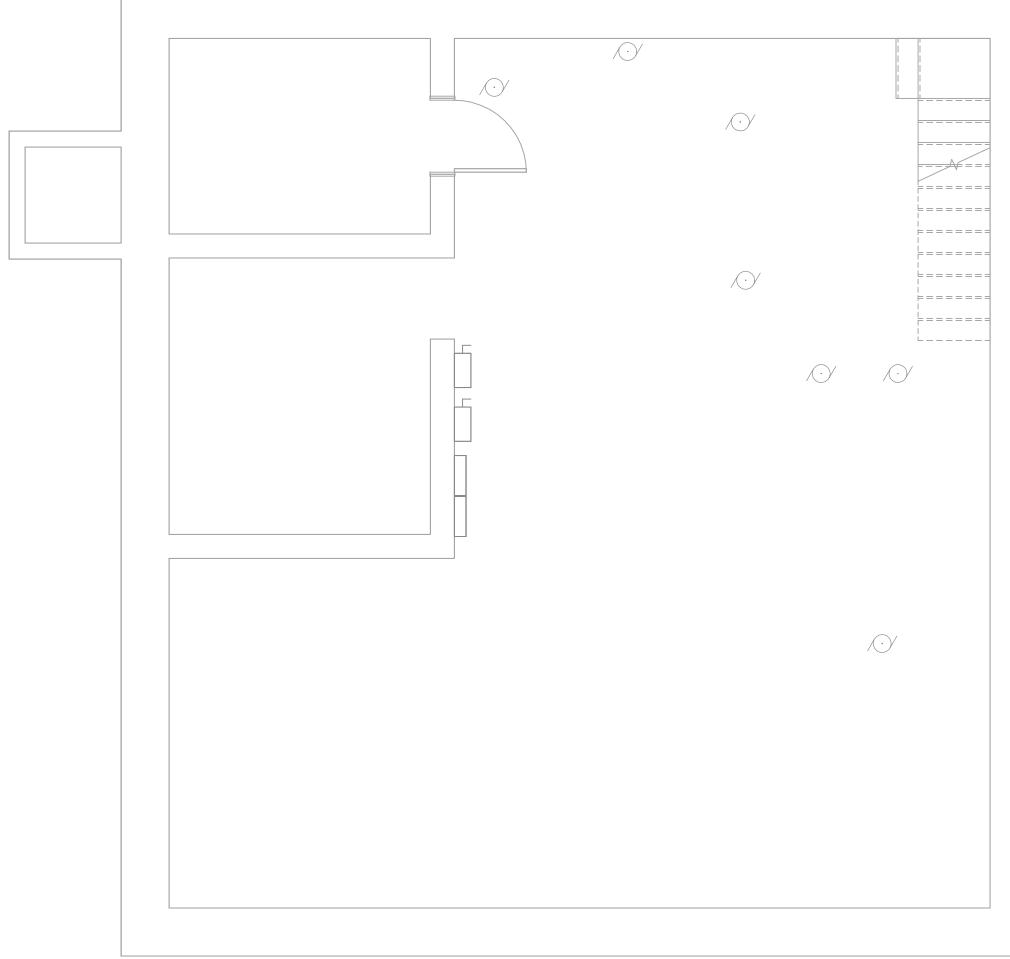
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LEVEL 2 LIGHTING PLAN - AREA A

Project	XX-XXXX.XX	Drawing Number
Date	XX/XX/2021	
Drawn by	Author	F004
Checked by	Checker	E221



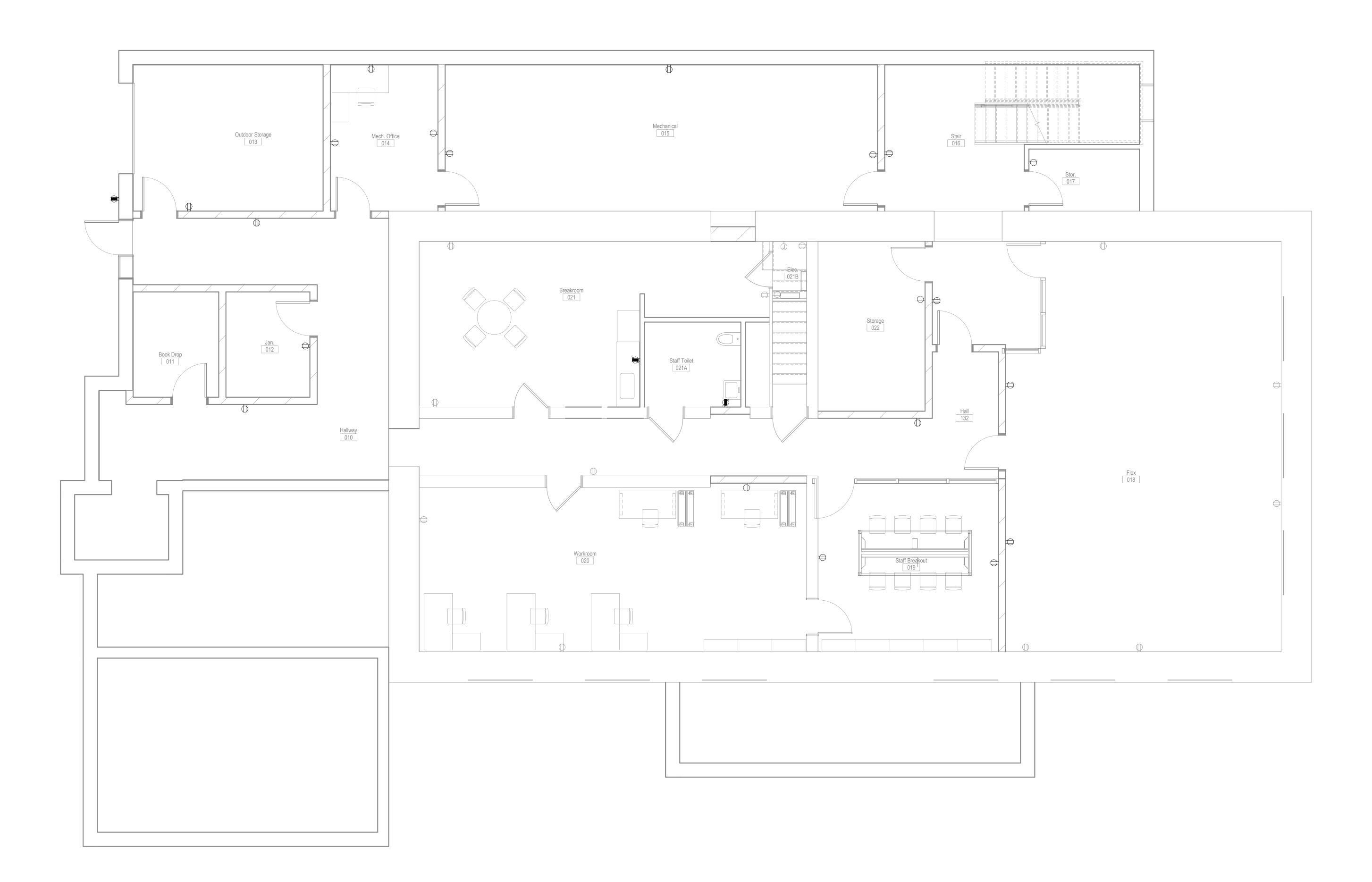


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No.	Date	Revision Description

BASEMENT POWER PLAN - AREA A

Project	XX-XXXX.XX	Drawing Number
Date	XX/XX/2021	
Drawn by	Author	F204
Checked by	Checker	E301



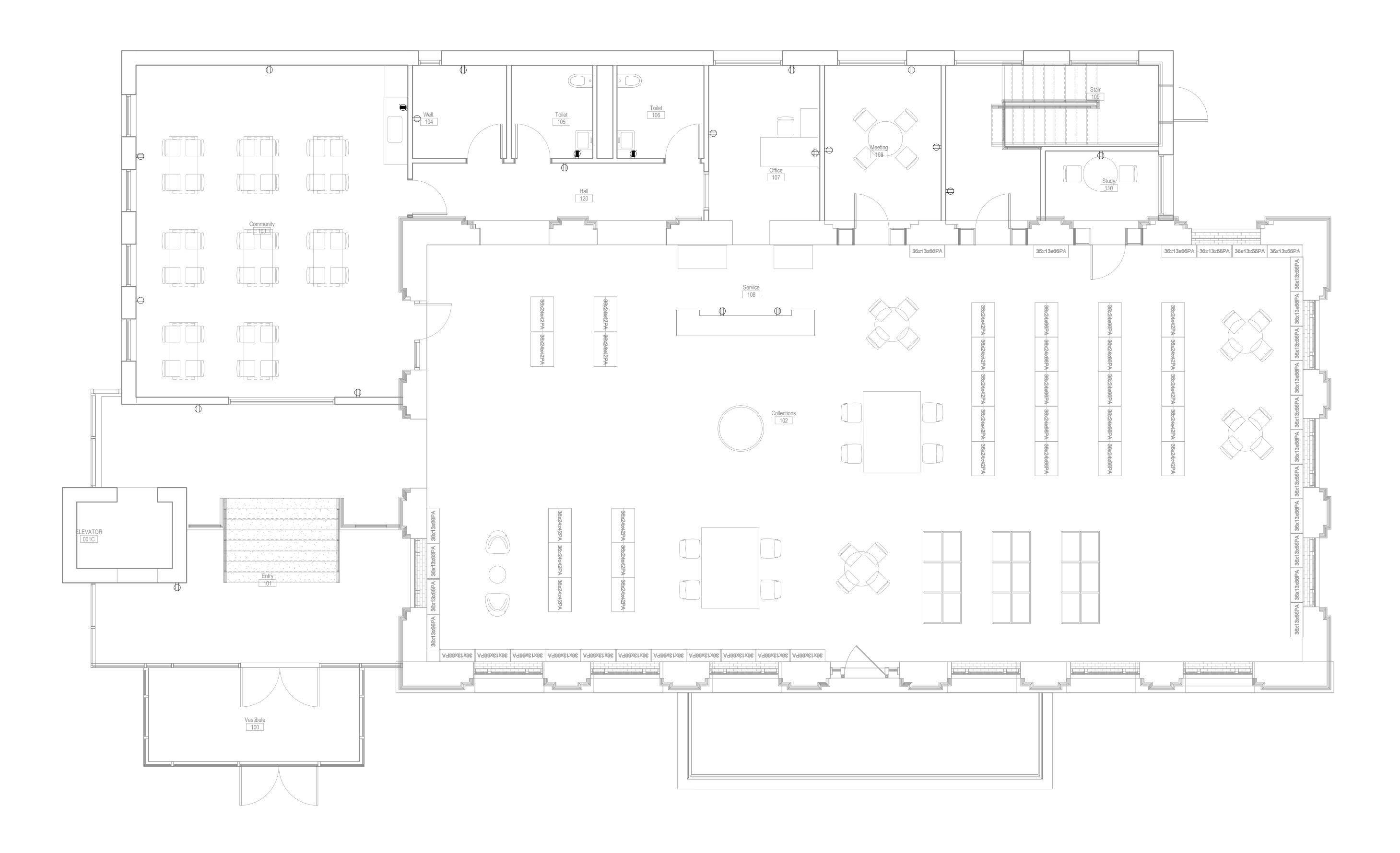


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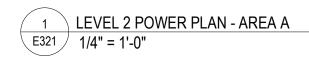
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Project	XX-XXXX.XX	Drawing Number
Date	XX/XX/2021	
Drawn by	Author	F 044
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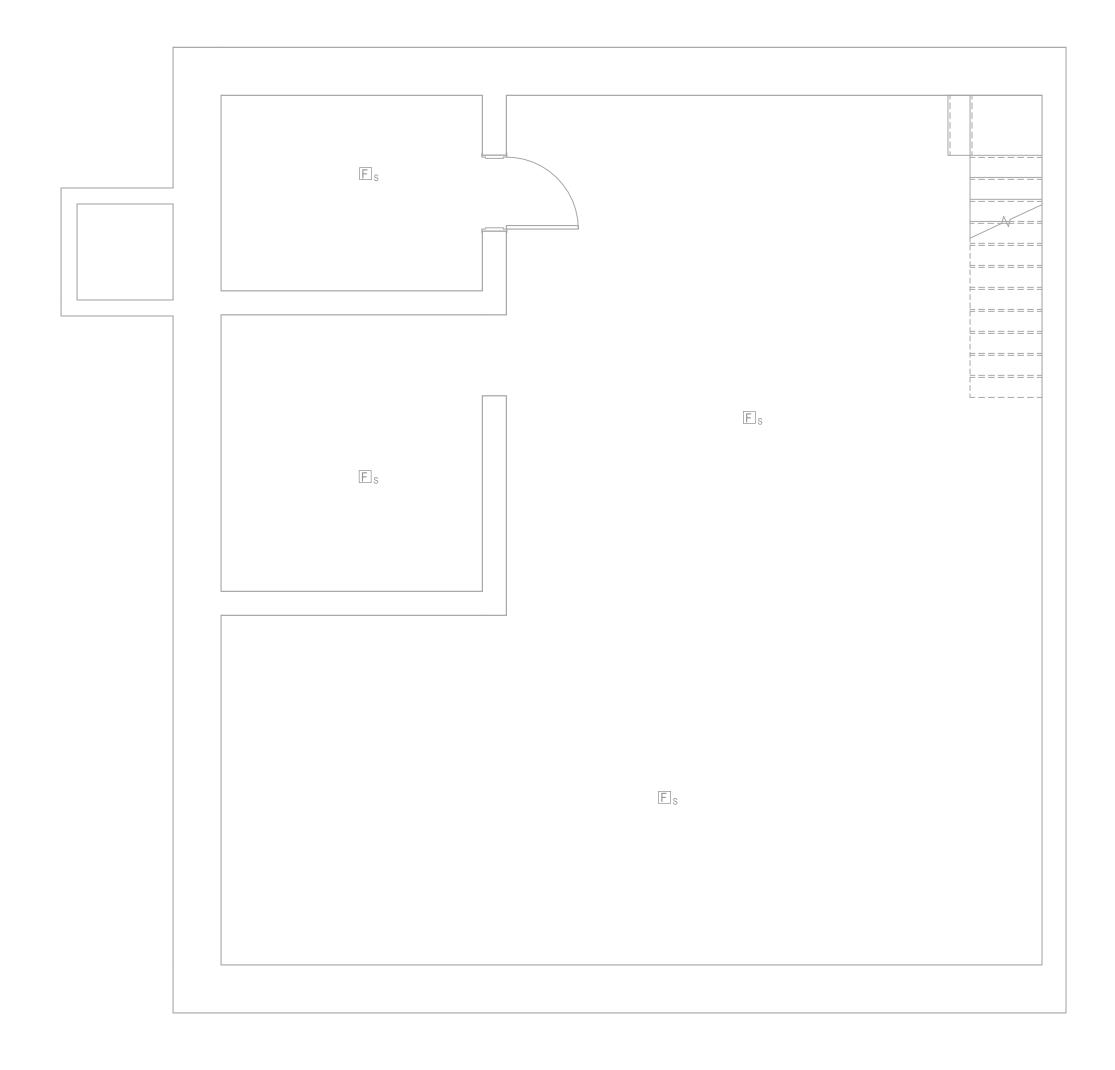
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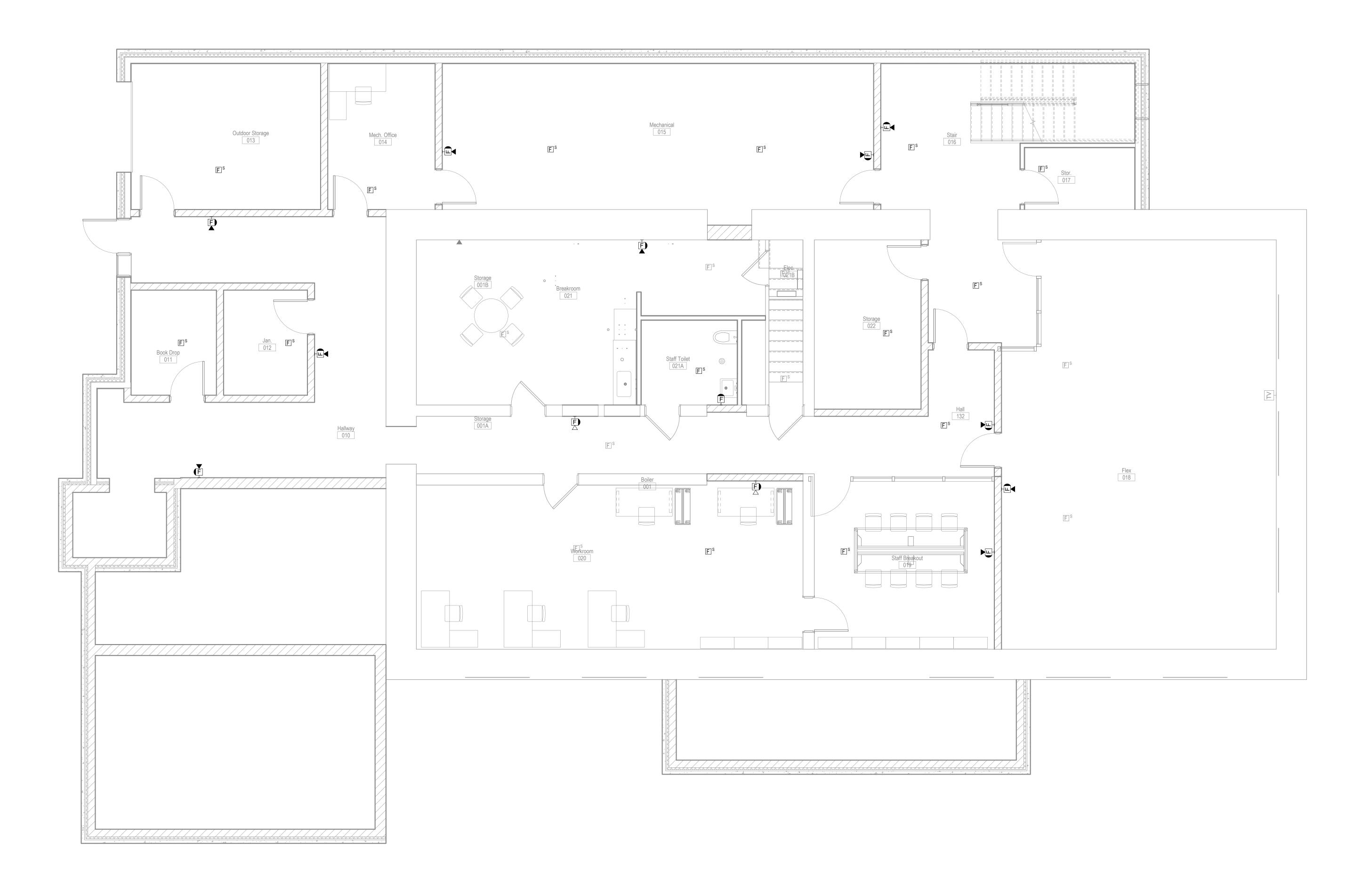


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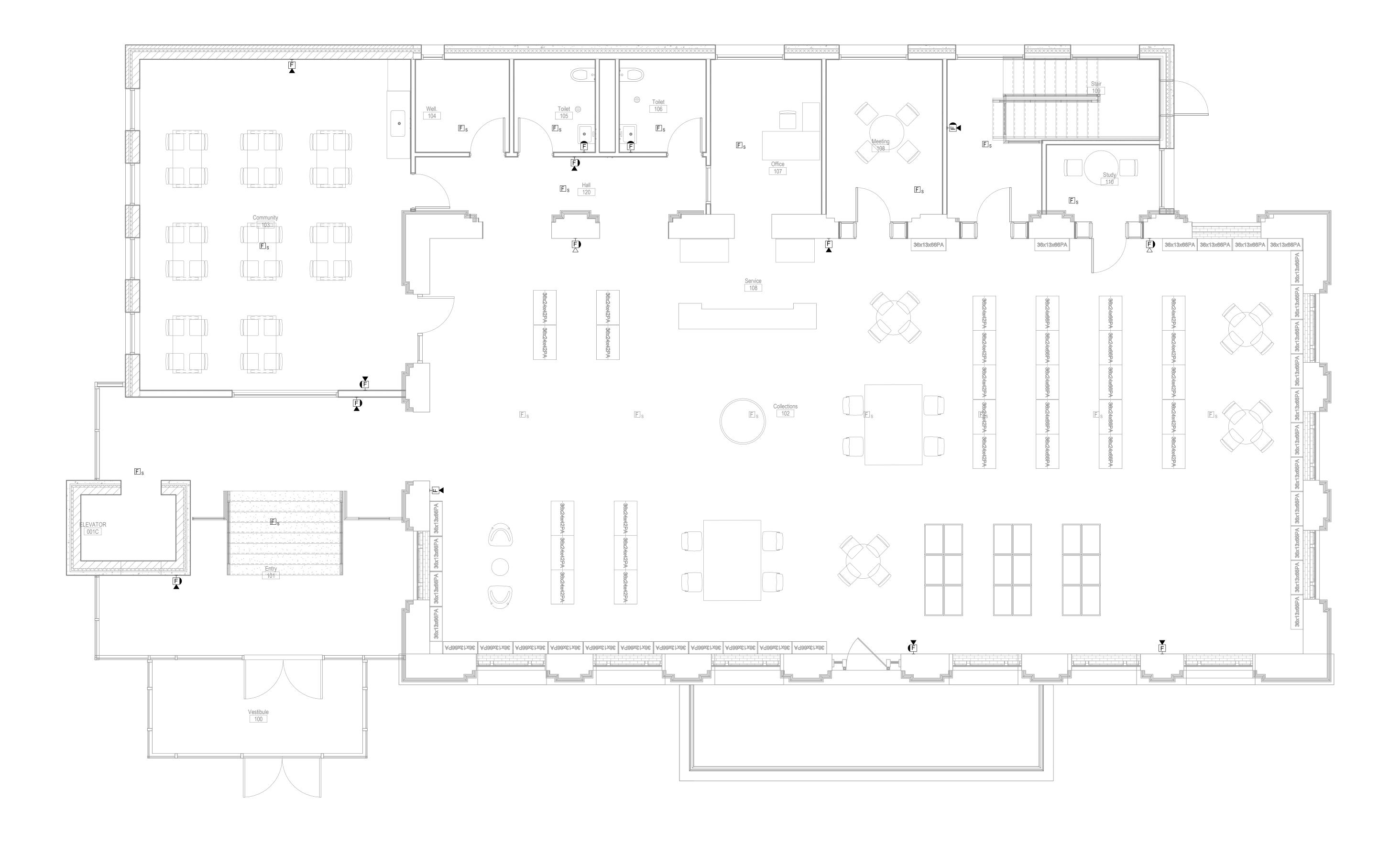


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LEVEL 1 TECHNOLOGY PLAN - AREA A

Project	XX-XXXX.XX	Drawing Number
Date	XX/XX/2021	
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LEVEL 2 TECHNOLOGY PLAN - AREA A

Project	XX-XXXX.XX	Drawing Number
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Drawn by	Author	F 404
Checked by	Checker	E421

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GENERAL NOTES - SINGLE LINE

- A. OVERCURRENT DEVICES OF ENTIRE DISTRIBUTION SYSTEM SHALL MEET STATED FAULT CURRENT VALUES WITH FULLY RATED EQUIPMENT.
- B. CONDUCTOR LENGTHS INDICATED ON THE SINGLE LINE DIAGRAM ARE FOR FAULT CURRENT CALCULATIONS ONLY. ACTUAL LENGTH SHALL BE DETERMINED BY FIELD CONDITIONS AND ACTUAL ROUTES OF FEEDERS.
- C. REFER TO SWITCHBOARD SCHEDULES AND DISTRIBUTION PANEL SCHEDULES FOR ADDITIONAL REQUIREMENTS. WHERE A DISCREPANCY EXISTS BETWEEN EQUIPMENT ON THE SINGLE LINE DIAGRAM AND THE DETAILED SCHEDULES, THE ITEM OR ARRANGEMENT WITH BETTER QUALITY, GREATER QUANTITY, OR HIGHER COST SHALL BE USED.
- D. ALL DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER.
- E. REFER TO THE MOTOR AND SPECIAL CONNECTION SCHEDULE FOR ALL FEEDERS DESIGNATED "EQ".
- F. GROUNDING ELECTRODE CONDUCTORS SIZES ARE NOT INDICATED ON THE SINGLE LINE DIAGRAM ARE. REFER TO THE GROUNDING RISER DIAGRAM FOR CONNECTIONS AND CONDUCTOR SIZES.



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ELECTRICAL SINGLE LINE DIAGRAM

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		:	SWITCH FUCTION	S	SENSOR FUNCTIONS	ILLUMINATION LEVEL	POSITION OF MEASUREMENT
TYPICAL LIGHTING AREA	SWITCH TYPE	MANUAL ON	MANUAL OFF	MANUAL DIMMING	VACANCY	(FOOT-CANDLES)	(HORIZONTAL PLANE)
BREAK ROOM/ STAFF LOUNGE	(1) LOW VOLTAGE SWITCH	YES	YES	YES	YES	30	TABLE (2.5' ABOVE THE FLOOR)
CLASSROOM	(1) LOW VOLTAGE SWITCH	YES	YES	YES	YES	40	TABLE (2.5' ABOVE THE FLOOR)
CLASSROOM - SPECIAL ED	(2) LOW VOLTAGE SWITCH	YES	YES	YES	YES	40	TABLE (2.5' ABOVE THE FLOOR)
CORRIDORS/ MAIN LOBBY	OCCUPANY SENSORS	NO	NO	NO	NO	20	FLOOR
COT AREA	(1) LOW VOLTAGE SWITCH PER COT	YES	YES	YES	NO	50	TABLE (2.5' ABOVE THE FLOOR)
DATA	LINE VOLTAGE	YES	YES	NO	NO	20	FLOOR
DISHWASHING ROOM	(1) LOW VOLTAGE SWITCH	YES	YES	NO	NO	50	COUNTER TOP (2.5' ABOVE THE FLOOR)
LEC	LINE VOLTAGE	YES	YES	NO	NO	20	FLOOR
EXTERIOR - ENTRANCE/ EXIT	ASTRONOMICAL TIME CONTROL SWITCH W/ OVERRIDE SWITCH					5-10	FINISHED GRADE
NDIVIDUAL TOILET	WALL SENSOR	NO	NO	NO	NO	20	FLOOR
KITCHEN	(2) LOW VOLTAGE SWITCH	YES	YES	NO	NO	50	COUNTER TOP (2.5' ABOVE THE FLOOR)
UNCH ROOM	(4) LOW VOLTAGE SWITCH	YES	YES	YES	NO	30	TABLE (2.5' ABOVE THE FLOOR)
/ECH	LINE VOLTAGE	YES	YES	NO	NO	20	FLOOR
IEDIA CENTER	(4) LOW VOLTAGE SWITCH	YES	YES	YES	YES	40	TABLE (2.5' ABOVE THE FLOOR)
IURSE WORK AREA	(1) LOW VOLTAGE SWITCH	YES	YES	YES	YES	30	TABLE (2.5' ABOVE THE FLOOR)
RIVATE OFFICES - INTERIOR	(1) LOW VOLTAGE SWITCH	YES	YES	YES	YES	30	TABLE (2.5' ABOVE THE FLOOR)
RIVATE OFFICES - PERIMETER	(1) LOW VOLTAGE SWITCH	YES	YES	YES	YES	30	TABLE (2.5' ABOVE THE FLOOR)
SMALL - OPEN OFFICE	(1) LOW VOLTAGE SWITCH	YES	YES	YES	NO	30	TABLE (2.5' ABOVE THE FLOOR)
STAFF / STUDENT TOILET	OCCUPANCY SENSORS	NO	NO	NO	NO	20	FLOOR
STORAGE	(1) LOW VOLTAGE SWITCH	YES	YES	NO	NO	20	FLOOR

LIGHTING FIXTURE SCHEDULE

YPE	DESCRIPTION	CIRCUIT VOLTAGE	MOUNTING	LAMP	LUMENS	CRI	COLOR TEMPERATURE	CONNECTED (VA)	EFFICACY	BALLAST/DRIVER	LENS/LOUVER	MANUFACTURER	CATALOG SERIES	N
A1	2X4 RECESSED, TROFFER, EXTRUDED ALUMINUM AND NARROW FRAME WITH MATTE WHITE FINISH	120 V	RECESSED, ACT CEILING	LED	4800 lm	80	3500 K	42 VA	97 lm/W	0-10V DIMMING TO 1%	FLAT ACRYLIC LENS	MARK LIGHTING, OR APPROVED EQUAL BY LUMENWERX, FOCAL POINT - EQUATION 2, METALUX, LEDALITE	WHSPR LCTR-2X4-4800LM-35K -80CR1-MIN1-ZT-MVO LT-SWC	
B1	2X2 RECESSED, TROFFER, EXTRUDED ALUMINUM AND NARROW FRAME WITH MATTE WHITE FINISH	120 V	RECESSED, ACT CEILING	LED	3300 lm	80	3500 K	30 VA	100 lm/W	0-10V DIMMING TO 1%	FLAT ACRYLIC LENS	MARK LIGHTING, OR APPROVED EQUAL BY LUMENWERX, FOCAL POINT - EQUATION 2, METALUX, LEDALITE	WHSPR LCTR-2X2-3300LM-35K -80CR1-MIN1-ZT-MVO LT-SWC	
D6	6" DIAMETER DIMMABLE LED DOWNLIGHT	120 V	RECESSED	LED	2000 lm	80	3500 K	20 VA	97 lm/W	0-10V DIMMING TO 1%	PHOSPHOR LENS ASSEMBLY AND COMFORT CLEAR DIFFUSE REFLECTOR	GOTHAM, OR APPROVED EQUAL BY LIGHTOLIER, USAI, PORTFOLIO, PRESCOLITE, FOCAL POINT		
E1	SINGLE FACE LED EXIT SIGN, DIE-CAST ALUMINUM HOUSING, BRUSHED ALUMINUM FACEPLATE WITH MATTE WHITE TRIM FINISH, UNIVERSAL DIRECTIONAL ARROWS SINGLE FACE ARROWS AS INDICATED ON DRAWINGS	120 V	UNIVERSAL MOUNT	LED	15 lm	N/A	3500 K	1 VA	149 lm/W	LITHIUM ION PHOSPHATE BATTERY	WHITE DIE-CAST STENCIL FACE, GREEN LETTERS	LITHONIA, OR APPROVED EQUAL BY BEGHELLI, ISOLITE, SURELITES, LIGHTALARM	LE-S-W-1-G	1
E2	SINGLE FACE LED EXIT SIGN, DIE-CAST ALUMINUM HOUSING, BRUSHED ALUMINUM FACEPLATE WITH MATTE WHITE TRIM FINISH, UNIVERSAL DIRECTIONAL ARROWS SINGLE FACE ARROWS AS INDICATED ON DRAWINGS	120 V	UNIVERSAL MOUNT	LED	15 lm	N/A	3500 K	1 VA	97 lm/W	LITHIUM ION PHOSPHATE BATTERY	WHITE DIE-CAST STENCIL FACE, GREEN LETTERS	LITHONIA, OR APPROVED EQUAL BY BEGHELLI, ISOLITE, SURELITES, LIGHTALARM	LE-S-W-1-G	
P1	DECORATIVE LED GLOBE PENDANT	120 V	SURFACE, CEILING	LED	0 lm	80+	3500 K	0 VA	97 lm/W	0-10V DIMMING TO 1%	WHITE FROSTED GLOBE	TBD	TBD	
S1	1X4 SURFACE, MOUNT STRIP FIXTURE	120 V	SURFACE, CEILING	LED	4000 lm	80	3500 K	32 VA	97 lm/W	0-10V DIMMING TO 1%	ROUND ACRYLIC LENS	LITHONIA, OR APPROVED EQUAL BY COLUMBIA, METALUX, DAYBRITE	CLX-L48-4000LM-SEF- FDL-MVOLT-GZ10-35K -80CRI	

A. LUMINAIRE MANUFACTURERS INDICATED BY SERIES SHALL MATCH LUMINAIRE MANUFACTURER WITH FULL CATALOG NUMBER GIVEN. B. ALL LUMINAIRES SHALL BE PAINTED AFTER FABRICATION (PAF). D. ACRYLIC LENS SHALL BE .125 MINIMUM THICKNESS. D. LED DRIVERS SHALL BE ELECTRONIC, PROGRAM RAPID START, BY ADVANCE OR EQUIVALENT. E. LED DRIVERS SHALL BE MULTI-VOLTAGE TYPE WHEN AVAILABLE. F. EXPOSED SURFACES OF LUMINAIRES SHALL BE WHITE, PAINTED AFTER FABRICATION (PAF), UNLESS NOTED OTHERWISE.

NOTES:

TYPE	DESCRIPTION	CIRCUIT VOLTAGE	MOUNTING	LAMP	LUMENS	CRI	COLOR TEMPERATURE	CONNECTED (VA)	EFFICACY	BALLAST/DRIVER	LENS/LOUVER	MANUFACTURER	CATALOG SERIES	NOT
														1
ENERAL NOTES:					1	1								
	URERS INDICATED BY SERIES SHALL M	ATCH LUMINAIRE MANU	FACTURER WITH	I FULL CATALOO	S NUMBER GIVEN.									
	L BE PAINTED AFTER FABRICATION (PAR													
	BE .125 MINIMUM THICKNESS.	,-												
	E ELECTRONIC, PROGRAM RAPID STAR	T. BY ADVANCE OR EQU	JIVALENT.											
	E MULTI-VOLTAGE TYPE WHEN AVAILAB	LE.												



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LUMINAIRE SCHEDULES

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MOTOR & EQ		LOCATION		
UNIT NO. / TAG	DESCRIPTION	NAME	NUMBER	H.P.
UNIT NO. / TAG	DESCRIPTION	NAME	NUNDER	п.г.
B. DIVISION 22 OR C. DIVISION 26 CC D. DUCT SMOKE D E. DUCT SMOKE D	NTRACTOR TO VERIFY EQUIPMENT SPEC 23 CONTRACTOR SHALL BE RESPONSIBL INTRACTOR TO SHALL BE RESPONSIBLE F DETECTORS SHALL BE PROVIDED ON BOT DETECTORS SHALL BE FURNISHED AND W T SIZES, LOADS, HP RATINGS, CIRCUIT BR	E FOR HANDLING, INSTALLATION FOR PROVIDING REQUIRED ELEC H THE SUPPLY AND RETURN DU IRED BY DIVISION 26 CONTRACT	N, CONTROLS AND (CTRICAL INTERCON CT WHEN INDICATE OR, INSTALLED BY	CONTROL WIRING O NECTING POWER W D ON SCHEDULE. DIVISION 23 CONTR
NOTES: 1. PROVIDE DEDIC 2	CATED 120 VOLT, 20 AMP CIRCUIT TO UNIT	FOR GENERAL PURPOSE GFCI	OUTLETS AND GEN	ERAL LIGHTING.

WATT'S (W) VOLTAGE(V) PHASE FLA (A) MCA (A) MOCP (A) MIN. S.C.C.R (A) TYPE STARTER SIZE FURN/INSTALLED BY CONTROLLED BY DETECTION QUANTITY PANEL CIRCUIT #	WATT'S (W) VOLTAGE(V) PHASE FLA (A) MCA (A) MOCP (A) MIN. S.C.C. (A) TYPE STARTER SIZE FURN/INSTALED BY NEMA RATING SIZE FURN/INSTALLED BY CONTROLLED BY DETECTION QUANTITY PANEL CIRCUIT #	S AND SHOP DRAWINGS PRIOR TO INSTALLATION. L MECHANICAL EQUIPMENT LISTED UNLESS NOTED OTHERWISE. G BETWEEN STARTER/VFD'S, DISCONNECTS AND CONNECTIONS TO MECHANICAL EQUIPMENT LISTED UNLESS NOTED OTHERWISE. OR.		CONNECTED							CONTROLLER			DISCONNEC	T		DUCT SMOKE	CONDUIT & WIRE SIZE &			
	OF ALL MECHANICAL EQUIPMENT LISTED UNLESS NOTED OTHERWISE. WIRING BETWEEN STARTER/VFD'S, DISCONNECTS AND CONNECTIONS TO MECHANICAL EQUIPMENT LISTED UNLESS NOTED OTHERWISE. RACTOR.	L MECHANICAL EQUIPMENT LISTED UNLESS NOTED OTHERWISE. G BETWEEN STARTER/VFD'S, DISCONNECTS AND CONNECTIONS TO MECHANICAL EQUIPMENT LISTED UNLESS NOTED OTHERWISE. OR.	WATT'S (W)	VOLTAGE(V)	PHASE	FLA (A)	MCA (A)	MOCP (A)	MIN. S.C.C.R (A)	TYPE	STARTER SIZE	FURN/INSTALED BY	NEMA RATING	SIZE	FURN/INSTALLED BY	CONTROLLED BY	DETECTION	QUANTITY	PANEL	CIRCUIT #	NOTE
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No.	Date	Revision Description

MOTOR & EQUIPMENT SCHEDULES

Project	XX-XXXX.XX	Drawing Number
Date	XX/XX/2021	
Drawn by	Author	
Checked by	Checker	E802

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- 00 01 05 Certifications Page
- 00 01 10 Table of Contents Volume 1 of 2 Architectural

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- 00 31 26 Existing Hazardous Materials Information With Attachment 1. Report
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00 43 22 Unit Prices Form

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Specifier: Verify the following with the Owner and insert AIA document or other document accordingly. 00 52 00 Agreement Form

With Attachment

AIA Document B [insert t document number, title, and year edition]

00 61 13 Performance and Payment Bond Form With Attachment 1. A312B2010, Performance Bond and Payment Bond

- 00 72 00 General Conditions of the Contract With Attachment 1. AIA Document A201-2007, General Conditions to the Contract for Construction
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DIVISION 23 - HEATING, VENTILATING, AND AIR-CONDITIONING (HVAC)

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DIVISION 25 - INTEGRATED AUTOMATION

Refer to Project Manual - Volume 2 of 2 - Engineering for Specifications to this Division of the Work

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Refer to Project Manual - Volume 2 of 2 - Engineering for Specifications to this Division of the Work

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Refer to Project Manual - Volume 1 of 2 - Architectural for Procurement Requirements which apply to the entire Project.

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LANDSCAPE

LANDSCAPE

Estimated Costs Worksheet

Saint Paul Public Library

Riverview Library		2024 Const	ion Start	2025 Construction Start				
	Lo	w	Hig	h	Low		Hi	gh
Estimated Construction Cost	\$	5,278,950	\$	5,410,924	\$	5,674,871	\$	5,952,016.13
Estimated FFE	\$	500,000	\$	512,500	\$	537,500	\$	563,750.00
Owner's Contingency	\$	263,948	\$	270,546	\$	283,744	\$	297,600.81
Estimated Design, Commisioning,								
Testing and Inspections & Owner Fees	\$	850,000	\$	871,250	\$	913,750	\$	958,375.00
Project Cost	\$	6,892,897.50	\$	7,065,219.94	\$7	7,409,864.81	\$	7,771,741.93

*Low assumes 7.5% inflation in 2023-2024 and 5% inflation in 2024-2025. High assumes 10% inflation each year.

ESTIMATE of PROBABLE COST - DETA	IL 75% DES	IGN Development - v1.1							
	EDEN Job No:	22108 SPPL							
		St. Paul Public Libraries			and the second se	-		-	Contraction of the local division of the loc
RESOURCES	Date:	20-Oct-22						1	-
BUILDING FUTURE FORWARD	Prepared for:	LSE Architects			-	-			States and
	Prepared by:	EDEN Resources		-				-	
In	Care of/Owner:	City of Saint Paul	5					1.1.1.1	A REAL PROPERTY OF
	Avg., Building:	10,56	1	111			RIVENERUPPLE		8 8 8
	Avg., Site:		0	S					
	Location:	St. Paul, MN 551xx	_				Contraction of the local division of the loc	and the	
			1	-	X		The And The	2	
Basis of Estimate - EOPC Design Development, commission plans, by LSE Architects dated 9/2!) to 10/2/2022						- Allin Man	-16	the second
Building & Site ESTIMATE - Hamline Midway / Hayden Heights / F		s		- (-					
		CSI-Div	Q	uantity	UoM		\$/Unit	В	udgeted (\$)
Description of Work ST. PAUL PUBIC LIBRARIES - MULTI-SITE				0 196 65			pansion (W/N), Renova	tion 2 c	tony
ST. PAOL POBIC LIBRARIES - MIDELI-SITE					-				-
							de: sitework, earthworl nry, steel, Exterior - cur		
							ofing, Mechanical, Elect		
							ression, LV-Security, FFI		
GENERAL CONSTRUCTION		INFLATION INCL.		5.00%	9,18				
SITE/EARTHWORK & DEMOLITION		DIV 31	\$	10.70	SF	\$	98,279		
SITE - ENVIRONMENTALS, SOIL REMEDIATION PH-II / NA		31230		0	CY	\$	43.55	\$	
SITE - PROTECTION, EROSION CONTROL MEASURES		31230		1	LS	\$	11,500.00		11,50
SITE - CLEARING, GRUBBING		31100		1	ACRE	\$	7,270.00	\$	7,27
SITE - BUILDING, LOW RISE DEMO		02510		0	WK	\$		\$	
SITE -BUILDING INTERIOR, SELECTIVE DEMO COMPLETE		02510		4,481	SF	\$	3.50	\$	15,68
SITE - REMOVALS FLATWORK, LOTS, PERIMETER WALKS		31230		1,785	SF	\$	3.88	\$	6,92
SITE -REMOVALS, DEMO UG, EXCAVATION, TRENCH, BACKFILL		31230		183	CY	\$	69.00	\$	12,65
SITE - GRADING, FINISH GRADE		31230		8,800	SF	\$	4.50	\$	39,60
SITE - BUILDING SOG, SAND, SOILS		31230		0	SF	\$	2.62	\$	
FACTOR - INFLATION, DESIGN CONTINGENCY		31230		5.0	PERC	\$	4,650.00	\$	4,65
SITE UTILITIES		DIV 33	Ş	8.28	SF	\$	76,019		
UTILITIES - WATER, STORM, SANITARY, GAS		33110		155	LF	\$	92.94	\$	14,40
UTILITIES - ELECTRIC, POWER, FIBER, OPTICS		33110		1	LS	\$	6,500.00	\$	6,50
UTILITIES - TIE-IN, PRIMARY S/W/S CONNECTIONS		33110		4	EA	\$	7,733.75	\$	30,93
UTILITIES - BELOW GRADE, SWR - PERIMETER DRAINTILE		33110		656	LF	\$	9.83	\$	6,44
UTILITIES - MISC & MISC. MANHOLES		33110		3	EA	\$	1,860.00	\$	5,58
UTILITIES - U/G TANKS, DISC/RECONNECT		33110		1	EA	\$	8,500.00	\$	8,50
UTILITIES - METERS, CODE, REGULATORY - LOCAL		33110		0	LS	\$	-	\$	
FACTOR - INFLATION, DESIGN CONTINGENCY		33110	~	5.0	PERC	\$	3,650.00	\$	3,65
SITE IMPROVEMENTS		DIV 32	Ş	12.95	SF	\$	118,962		
CONCRETE PAVING		32120		1,238	SF	\$	14.25	\$	17,63
CONCRETE EXTERIOR PADS, 6" - 8" EQUIP'T PAD		32120		225	SF	\$	17.20		3,87
ASPHALT PAVING		32120		520	SY	\$	33.00	\$	17,16
SITE PAVERS, PERVIOUS PAVING - BITUMINOUS (HAML-M)		32120		1,335	SF	\$	13.15	\$	17,55
SITE PEDESTRIAN, WALK, CONC. BENCH		32120		0	EA	\$	2,125.00	\$	
CONCRETE CURBS, ISLANDS, APRON, BUMPERS, BOLLARDS - PREFAB		32120		2	EA	\$	1,055.00	\$	2,11
PARKING LOT STRIPING		32120		0	EA	\$	705.00	\$	
PARKING LOT SIGNAGE		32120		0	LS	\$	3,500.00	\$	
PERIMETER SITE IMPROVEMENTS, FENCING INCL. IN MISC-M		32120		0	LF	\$	235.00	\$	
SITE LANDSCAPING		32120		1,225	SF	\$	18.00	\$	22,05
PLANTER LANDSCAPING		32120		80	EA	\$	45.00	\$	3,60
UNDERGROUND IRRIGATION SYSTEMS		32120		0.5	ACRE	\$	22,255.00	\$	11,12
PLANTER IRRIGATION		32120		1	ALLW	\$	1,550.00	\$	1,55
SITE TRASH ENCLOSURE -AHJ, SAINT PAUL, VERIFY		32120		1	EA	\$		\$	12,55
SITE LIGHTING - BUILDING DOWNLIGHTING, PAVER UPLIGHTS		32120		1	ALLW	\$	4,000.00	\$	4,00
FACTOR - INFLATION, DESIGN CONTINGENCY		31230		5.0	PERC	\$	5,750.00	L é	5,75

ESTIMATE of PROBABLE COST - DETAIL 75% DE						
	22108 SPPL St. Paul Public Libraries	-	100 Mar			
RESOURCES Date:	20-Oct-22	1000				and the second
BUILDING FUTURE FORWARD Prepared for						100 million (1990)
Prepared by						
In Care of/Owner				-11		2 2 2
Avg., Building			- /		RIVERVIEW LIBRARY	111111
Avg., Site	: St. Paul, MN 551xx					
Location	St. Paul, IVIN 551XX		. 1			A COLORED OF
Basis of Estimate - EOPC			- AN			1 04
esign Development, commission plans, by LSE Architects dated 9/29 to 10/3/2022		1. K	122	County of the	All and a second se	10
Building & Site ESTIMATE - Hamline Midway / Hayden Heights / Riveriew Librarie	es		00			
Description of Work	CSI-Div	Quantit	y Uo	М	\$/Unit	Budgeted (\$)
ST. PAUL PUBIC LIBRARIES - MULTI-SITE		9,186	GSF RIVE	RVIEW	Expansion (W/N), Renova	ation, 2-story
					clude: sitework, earthwor	
		substruct	ure - concr	ete, ma	sonry, steel, Exterior - cur	tainwall
					Roofing, Mechanical, Elect	
GENERAL CONSTRUCTION		-			upression, LV-Security, FF	E/MFE T
GENERAL CONSTRUCTION	INFLATION INCL.	5.00%		9,186		
SUBSTRUCTURE - (CONCRETE, MASONRY)	DIV 3	\$ 33.0	08 SI	F :	\$ 303,892.23	
SUBSTRUCTURE - FOOTINGS, PAD	03310	10	.0 C	Y Ş	\$ 881.45	\$ 8,
SUBSTRUCTURE - FOOTINGS , CONTINOUS STRIP	03310	2	.6 C	Y S	\$ 953.15	\$ 2,
SUBSTRUCTURE - FOOTINGS, STRIP CONTINUOUS	03310	16			\$ 569.75	
CONCRETE STOOPS - ENTRY ADD ALT: DEDUCT ALT	03310		.3 E/		\$ 14,755.00	
SUBSTRUCTURE-DEPRESSED, ENH. SLAB AT ELEVATOR, MACHINE RM	03310		30 SI		\$ 27.31	\$ 3,
BUILDNG CONC. 4" SLAB ON GRADE, VB	03310	2,9			\$ 6.55	
BUILDING CONCRETE SOMD, ELEVATED SLAB, 6" - 8" REINF.	03310	2,50			\$ 10.50	\$ 26,
BUILDING CONCRETE	03310		0 SI		\$ 13.85	
ADJUSTMENT - DESIGN OPTION VE/S: REDUCE MECH'L PH SF	03310		0 SI 0 FL		\$- \$4,335.00	\$
PRECAST ORNAMENTAL, STAIR/S - N/A PRECAST WALL PANELS	03480 03480	1	.0 FL		\$ 4,335.00 \$ 32,555.00	\$ \$ 33,
MASONRY - CMU, EXTERIOR/CORE WALLS UTILITY	03480	2,24			\$ 52,555.00 \$ 45.00	\$ 33, \$ 100,
MASONRI - CINO, EXTERIOR, CORE WALLS OTHERT MASONRY - EXTERIOR, FACE BRICK RE-USE HAML-M/HAYD-Y / <5%	04200	10,00			\$ 2.75	\$ 27,
ADJUSTMENT - DESIGN OPTION VE/S: REDUCE BRICK, INT'R	04211	10,00	0 SI		\$\$	\$ 27,
SUBGRADE THERMAL INSULATION, WATER VAPOR BARRIER	07440	6,33			\$ 6.15	
FACTOR - INFLATION, DESIGN CONTINGENCY	07210		.0 PEI		\$ 14,450.00	
STRUCTURAL	DIV 5	\$ 36.0			\$ 336,729.75	÷,
STRUCTURE - STRUCTURAL STEEL FURNISH	05120		40 TO	NS	\$ 3,975.00	\$ 158,
STRUCTURE - STRUCTURAL STEEL INSTALL	05105		40 ТО	NS	\$ 1,450.00	\$ 57,
STRUCTURE - STEEL FIREPROOFING, BEAMS - NA	05105		0 LI	F :	\$ 67.50	\$
STRUCTURAL METALS, TESTING & INSPECTIONS	05105	9,18	36 SI	F :	\$ 1.50	\$ 13,
METALS - INTERIORS	05500	2	50 SI	F :	\$ 60.00	\$ 15,
ORNAMENTAL METALS - UNISTRUT, LINTELS, RAILINGS EXT'R	05500	39	99 LI	F (\$ 156.75	\$ 62,
MISC. METALS - DECORATIVE	05500		1 ALL	W	\$ 12,950.00	\$ 12,
FACTOR - INFLATION, DESIGN CONTINGENCY	31230	5	.0 PEI	RC	\$ 16,000.00	\$ 16,
	511/2	¢		_		\$
CARPENTRY ROUGH CARPENTRY - LABOR	DIV 6 06100	\$ 20.9	20 SI 12 WI		\$ 191,945.40 \$ 7,139.20	\$ 85,
FINISH CARPENTRY - LABOR	06100		12 WI 11 WI		\$ 7,139.20 \$ 4,500.00	
MISC CARPENTRY	06400		11 VVI 1 LS		\$ 4,500.00 \$ 10,050.00	
	06400	1,50			\$ 10,030.00	
CARPENTRY - MATERIALS, BUILT-INS	30700	1,5				
CARPENTRY - MATERIALS, BUILT-INS MISC CARPENTRY	06400	80	12 OC	F (5 15.00	15 17
CARPENTRY - MATERIALS, BUILT-INS MISC CARPENTRY MILLWORK, CASEWORK	06400 06400	80	00 SI 50 LI		\$ 15.00 \$ 77.00	

ESTIMATE of PROBABLE COST - DETAIL 75% I	DESIGN Development - v1.1						
EDEN Job	No: 22108 SPPL						
	me: St. Paul Public Libraries		and the second s	10		-	
Date	e: 20-Oct-22	of the local division of the local divisiono					at any
	for: LSE Architects			1000			and and
	by: EDEN Resources						
	ner: City of Saint Paul			-	and the second	1 1 1 1 1	-
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Avg.,			and the second second				
Locat	ion: St. Paul, MN 551xx				a distance (m	STOR!	
		A CONTRACTOR OF	1.1.1	ALC: N	main 🖉 🗠	2	
Basis of Estimate - EOPC				-	- Children Martine		(14)
esign Development, commission plans, by LSE Architects dated 9/29 to 10/3/202		2 - 0		and the first open			
Building & Site ESTIMATE - Hamline Midway / Hayden Heights / Riveriew Libr	aries	L					-
Description of Work	CSI-Div	Quantity	UoM		\$/Unit	Bu	dgeted (\$)
ST. PAUL PUBIC LIBRARIES - MULTI-SITE		9,186 GSI	RIVERVIE	EW Expa	nsion (W/N), Renova	tion, 2-st	ory
		Building &	Site Systems	s include	: sitework, earthworl	. utilties	
		-			y, steel, Exterior - cur		
					ng, Mechanical, Elect		
					ssion, LV-Security, FFI		
GENERAL CONSTRUCTION	INFLATION INCL.	5.00%	9,18	-	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		
GENERAL CONSTRUCTION	INFLATION INCL.	5.00%	9,180	0			
MOISTURE, THERMAL PROTECTION	DIV 7	\$ 48.40	SF	\$	444,615.91		
EXTERIOR WATERPROOFING, INSULATION VAPOR-AIR BARRIER	07100	3,062	SF	\$	5.05	\$	15,4
EXTERIOR WALL	07210	0	SF	\$	25.00	\$	13,4
SPECIAL EXTERIOR - STONEWOOD, PANELIZED	07400	0	SF	\$	55.00	\$	
SUBSTRATE ON CMU BLOCK WALL, FURR/BLOCKING	07400	1,000	SF	\$	9.75	\$	9,7
METAL PANEL SIDING - SPNDR'LS, PARAPET, PH	07400	2,755	SF	\$	49.95	\$	137,6
METAL PANEL SIDING - IMPRESSION, UPGRADE	07400	0	SF	\$	15.55	\$	
MEMBRANE ROOFING-1 BASE, SHEET ROOFING, TPO, EPDM	07500	3,700	SF	\$	18.00	\$	66,6
MEMBRANE ROOFING-2 - SLATE ROOF	07500	5,500	SF	\$	33.33	\$	183,3
SPRAY FIREPROOFING, FIRESTOP VERTICAL PENETR	07820	1	ALLW	\$	6,500.00	\$	6,5
					,		
JOINT SEALING	07900	3,674	SF	\$	1.15	\$	4,22
FACTOR - INFLATION, DESIGN CONTINGENCY	31230	5.0	PERC	\$	21,150.00	\$	21,1
OPENINGS - DOORS, ENTRANCES	DIV 8	\$ 65.52	SF	\$	601,889.75		
DOORS FRAMES HARDWARE	08110	32	EA	\$	1,550.00	\$	49,6
SPECIAL DOORS	08300	1	EA	\$	2,500.00	s	2,50
	08360	0	EA	\$	12,500.00	\$	2,50
SECTIONAL OVERHEAD DOORS							70.0
ENTRANCES & STOREFRONTS, FIXED INSUL. GLAZING	08400	800	SF	\$	87.98	\$	70,3
EXTERIOR CURTAINWALL	08804	2,545	SF	\$	92.55	\$	235,5
EXTERIOR CURTAINWALL - TO SPEC NOTE: LOW-E	08804	0	SF	\$	42.45	\$	
GLAZING - SKYLIGHT, DAYLIGHTING ADD ALT-HAYH	08804	0	SF	\$	72.00	\$	
NTERIOR GLASS, GLAZING, TRANSLUCENTS	08804	0	SF	\$	65.00	\$	
INTERIOR GLAZING, HM FRAMES, SIDELITES	08804	1	ALLW	\$	33,400.00	\$	33,4
EXTERIOR LOUVERS, MECHANICAL PH	08804	2	EA	\$	4,885.00	\$	9,7
FACTOR - INFLATION, DESIGN CONTINGENCY	31230	5.0	PERC	\$	200,700.00	\$	200,7
INISHES	DIV 9	\$ 28.96	SF	\$	266,072.20		
NTERIOR PLASTER, STUCCO	09200	0	LS	\$	-	\$	
DRYWALL, FRAMING LEVEL 4 FINISH COMPLETE	09250	3,529	SF	\$	15.95	\$	56,2
DRYWALL, FRAMING LEVEL 3 FINISH MISC.	09250	3,529	SF	\$	13.75	\$	48,5
CERAMIC TILE - WALLS	09310	1,050	SF	\$	16.00	\$	16,8
							10,0
	09310	0	SF	\$	25.00	\$	26.5
ACOUSTICAL CEILING TILE	09510	3,114	SF	\$	6.50	Ş	20,2
RESILIENT FLOORING - LVT, VCT	09650	3,300	SF	\$	5.15	\$	16,9
RESILIENT FLOORING - LVT, PLANK - SPECIALIZED	09650	0	SF	\$	-	\$	
CARPET FLOORING	09680	795	YDS	\$	49.29	\$	39,1
SPECIAL FLOORING	09690	0	ALLW	\$	12,500.00	\$	
PAINTING EXTERIOR	09900	0	SF	\$	2.15	\$	
PAINTING - HPC	09900	2,650	LF	\$	15.00	Ś	39,7
						é	
PAINTING - INTERIOR	09900	10,889	SF	\$	2.00	\$	21,7
PAINTING - MISC. SPECIALIZED, METALS	09900	1	LS	\$	6,500.00	Ş	6,5
			SF	\$	2.00	\$	
MISC. FINISHES - FRP WALLS	09949	0	35	Ļ	2.00	Ŧ	
MISC. FINISHES - FRP WALLS ADJUSTMENT - DESIGN OPTION VE/S: REDUCE WD CEILING/WAINSCOTT	09949 06400	0	SF	\$	-	\$	

ESTIMATE of PROBABLE COST - DETAIL 75%	DESIGN Development - v1.1				
	b No: 22108 SPPL				
	ame: St. Paul Public Libraries	-	and the second second	Sh	
nesources	ate: 20-Oct-22	Contraction of the local division of the loc	Margar.		and the second
· · · · · · · · · · · · · · · · · · ·	d for: LSE Architects	-			
	ed by: EDEN Resources				-
	wner: City of Saint Paul				3 3 4 4
Avg., Bui	-			RIVERVIEW LIBRARY	
	., Site: 17,50 ation: St. Paul, MN 551xx				
					State of the second second
Basis of Estimate - EOPC		and the second s			A Press
besign Development, commission plans, by LSE Architects dated 9/29 to 10/3/2	022		R. A. Manuate	Contraction of the local division of the loc	-
Building & Site ESTIMATE - Hamline Midway / Hayden Heights / Riveriew Li		0			
Description of Work	CSI-Div	Quantity	UoM	\$/Unit	Budgeted (\$)
ST. PAUL PUBIC LIBRARIES - MULTI-SITE		9,186 GSF	RIVERVIEW	Expansion (W/N), Renova	ition, 2-story
		Building & S	Site Systems ind	clude: sitework, earthwor	k, utilties
				sonry, steel, Exterior - cur	
				Roofing, Mechanical, Elect	
		_		upression, LV-Security, FF	E/MFE
GENERAL CONSTRUCTION	INFLATION INCL.	5.00%	9,186		
SPECIAL EQUIPMENT	DIV 10	\$ 2.65		\$ 24,325.00	
MISC. SPECIALTIES	10100	1		\$ 3,500.00	\$ 3,500
TOILET PARTITIONS	10160	0		\$ 12,555.00	\$
RESTROOM SPECIALTIES - RECESSED STAINLESS STEEL DISPOSALS	10160	0		\$ 28,125.00	\$
ACCESS FLOORING	10270	0	LS S		\$
LOADING DOCK EQUIPMENT	11160	0	LS S		\$
LOUVERS, WALL VENTS, SCREENINGS - INTERIORS	10290	5		\$ 3,955.00	\$ 19,77
FACTOR - INFLATION, DESIGN CONTINGENCY	31230	5.0		\$ 1,050.00	\$ 1,050
CONVEYING SYSTEMS	DIV 14	\$ 15.49	-	\$ 142,250.00	
ELEVATORS - 3,500-5,000 LBS, HYDRAULIC or TRACTION (FLR-1,2)	14200	1		\$ 135,500.00	\$ 135,500
ELEVATORS - MISC. INTERIOR CAB UPGRADE, STAINLESS PANELS-FULL	14200	0		\$ 33,450.00	\$
ESCALATORS	14300	0	LS		\$
MISC. CONVEYORS	14310	0	LS		\$
FACTOR - INFLATION, DESIGN CONTINGENCY	31230	5.0		\$ 6,750.00	\$ 6,750
PLUMBING	DIV 15	\$ 9.48		\$ 87,064.44	
BASIC BUILDING PLUMBING - COMPLETE	15400	6,797	SF		\$ 81,564
MISC. PLUMBING NOTE: INCL. HYDRONIC-P	15450	0		\$ 5.00	\$
FACTOR - INFLATION, DESIGN CONTINGENCY	31230	5.0		\$ 5,500.00	\$ 5,500
FIRE PROTECTION FIRE PROTECTION SYSTEMS - COMPLETE NOTE: DRY-PIPE	DIV 21 21000	\$ 5.40 9,176		\$ 49,610.80 \$ 4.55	¢ 41.75
	21000	9,176		\$ 4.55 \$ 5,500.00	\$ 41,75: \$ 5.50
FIRE PROTECTION - CONNECTIONS, AHJ. & RISERS W-STAIR FACTOR - INFLATION, DESIGN CONTINGENCY	31230	5.0		\$ 5,500.00 \$ 2,360.00	\$ 5,500 \$ 2,360
MECHANICAL	DIV 23	\$ 49.65	SF SF		\$ 2,50
REFRIGERATION	23000	÷ 49.05	LS		e e
HVAC - COMPLETE (RETRO'S, HIGH-EFFICIENCY SYSTEM PACKAGE)	23000	9,186	SF S		\$ 354,120
HVAC - BASE+	23000	0	SF		\$ 334,12
HVAC - DASET HVAC - INCREMENTAL ADD ALTERNATE-1: ACQUAF / GEOTHERMAL	23000	0		\$ 300,000.00	
Misc. HVAC #1 - BUILDING ESCAL. METALS, INSUL.	23000	9,186	SF SF		\$ 10,10
Misc. HVAC #2 - HYDRONIC PIPING SYSTEM	23000	9,186	LS		\$ 50,52
ТАВ, СхА	23000	9,186	LS		\$ 18,37
ADJUSTMENT - DESIGN OPTION VE/S: REDUCE MECH'L PH SF	03310	0	SF		\$
FACTOR - INFLATION, DESIGN CONTINGENCY	31230	5.0		\$ 23,000.00	\$ 23,00
ELECTRICAL	DIV 26	\$ 26.05	SF		
POWER SYSTEMS - COMPLETE	DIV 26	9,186	SF S	\$ 17.25	\$ 158,45
ELECTRICAL LIGHTING	16050	9,186	SF	\$ 5.55	\$ 50,98
ELECTRICAL EQUIPMENT - RENTAL/REPAIR/ACCESS	16050	0	LS		\$
GENERATOR SYSTEM EXCL. EMERGENCY BACK-UP, NA	16620	0	LS	\$ 125,000.00	\$
ELECTRICAL - FIRE ALARM	16720	9,186	SF	\$ 1.95	\$ 17,91
MISC ELECTRICAL - RENEWABLES ADD ALTERNATE-2: PV PANELS	16890	0	КW	\$ 3,300.00	\$
MISC ELECTRICAL	16890	0	LS S	\$-	\$

ESTIMATE of PROBABLE COST - DETAIL 75% D	ESIGN Development - v1.1							
Job Nam Date: Prepared for Prepared b In Care of/Owne Avg., Suildin Avg., Suildin Avg., Si Locatio Basis of Estimate - EOPC Design Development, commission plans, by LSE Architects dated 9/29 to 10/3/2022	r: LSE Architects y: EDEN Resources r: City of Saint Paul g: 10,5 te: 17,5 n: St. Paul, MN 551xx	Concerns of the second s						
Building & Site ESTIMATE - Hamline Midway / Hayden Heights / Riveriew Librar	CSI-Div	Quar	ntity	UoM		\$/Unit	в	udgeted (\$)
Description of Work ST. PAUL PUBIC LIBRARIES - MULTI-SITE						ansion (W/N), Renova		
		Build substru glazing Plumbi	ling & Si ucture - g, arch'd ing, Cor	ite System concrete, I CWall, Sla iveying, Fin	s include masonr ate Roofi re Supre	e: sitework, earthwork y, steel, Exterior - cur ing, Mechanical, Elect ssion, LV-Security, FFE	k, utiltie tainwall rical,	5
GENERAL CONSTRUCTION	INFLATION INCL.	5.00	0%	9,18	6			
SAFETY, SECURITY, COMMUNICATIONS - OWNER FFE/MFE	DIV 27	\$	4.47	SF	\$	41,019.00		
SECURITY BUILDING SYSTEM - COMPLETE	27000		0	SF	\$	1.25	\$	
LOW VOLTAGE - TELECOM, CABLE, DIGITAL, WIRELESS, ACCESS	27730		9,186	SF	\$	4.00	\$	36,744
SOFTWARE, HARDWARE, PROGRAMMING	27730		0.25	WK	\$	8,500.00	\$	2,125
CONTRACTOR LABOR, CXA	27730		0	LS	\$	12,000.00	\$	-
CABLE SYSTEMS, TRAY, RIGGING	27730		0	LS	\$	-	\$	-
FACTOR - INFLATION, DESIGN CONTINGENCY	27730		5.0	PERC	\$	2,150.00	\$	2,150
FF&E, SIGNAGE	DIV 50	\$	2.58	SF	\$	23,699.88		
EXTERIOR SIGNAGE - MONUMENT, PYLON	50005		0	LS	\$	-	\$	-
EXTERIOR BUILDING SIGNS	50010		0	LS	\$	-	\$	-
SIGN CONSULTING / DESIGN SERVICES	50018		0	LS	\$	-	\$	-
INTERIOR SIGNAGE, WAYFINDING	50005		9,186	SF	\$	1.50	\$	13,779
FURNITURE & FIXTURES, FREESTANDING - EXCLUDED, BY OWNER	50800		0	LS	\$	-	\$	-
EQUIPMENT - EXCLUDED, PURCHASE BY OWNER; INSTALL BY GC	50800		9,186	SF	\$	1.08	\$	9,921
ART & MISC DÉCOR FF&E: BY OWNER, EXCL. FF&E COORDINATION MOVE-STORAGE-INSTALL, BY OWNER, EXCL.	50800		0	ALLW	\$	22,500.00	\$	-
FREE COORDINATION MOVE-STORAGE-INSTALL, BY OWNER, EACL.	50800		0.0	WK 6 GSF RIV	\$ //ED1///EN4	6,500.00	\$	
Building & Site Construction SUB-TOTAL			9,18	0 03F KI	VERVIÉV	V	Ś	3,524,658
CONTRACTOR - GENERAL CONDITIONS	DIV 01	\$ 3	83.70	SF			Ŷ	3,324,038
PUBLIC ARTWORK, 1% min.	EXCL. OWNER FFE	÷ 5	1.0	PERC	\$	35,246.58	\$	35,247
GENERAL CONTRACTOR - FEE	EXCL. OWNERTTE		6.95%	Ś	\$	245,314.15	Ś	245,314
SUBTOTAL-II			14.24	SF	7	,5115	\$	3,805,219
CONTRACTOR - GENERAL CONDITIONS		-						
GENERAL CONTRACTOR - SUPERVISION, MGMT, OH	01500		43	WK	\$	15,500.00	\$	667,275
CONTINGENCY, CONSTRUCTION (5% - 10%)			5.0	PERC	\$	176,232.91		176,233
ESCALATION, BEYOND 12/2023 (INCL. 2024, 2025)			5%	INCL.		, -		
ESCALATION, BETOND 12/2023 (INCL. 2024, 2023)								

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SPPL - Transforming Libraries - Survey #1

- 1. Which library would you like to answer for?
 - O Hamline Midway Library
 - O Hayden Heights Library
 - O Riverview Library

SPPL - Transforming Libraries - Survey #1 Hamline Midway Library

2. Do you use the Hamline Midway Library?

◯ Yes

O No

SAINT PAUL LSE

SPPL - Transforming Libraries - Survey #1

3. If not, why not? Select all that apply.

] I don't know about it

☐ The space does not meet my needs/my family's needs

☐ The services do not meet my needs/my family's needs

] I don't feel welcome there

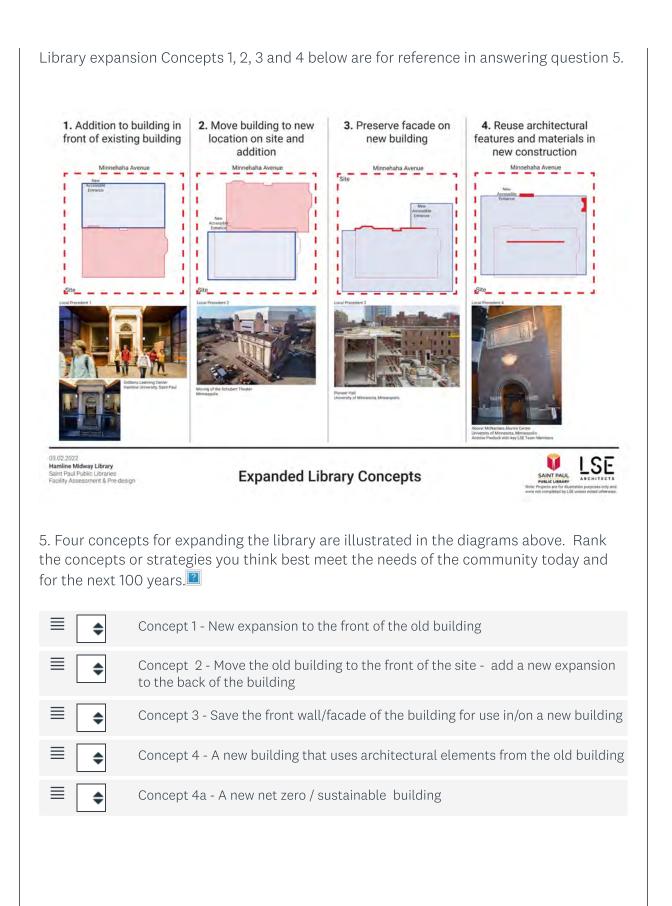
Accessibility

other

4. The Hamline Midway Library has received funding for a significant library transformation. The goal for the design is to co-create with neighbors a safe, inviting, affirming, and comfortable library for people of all cultures, abilities, and communities.

From the list below, choose the 5 that are most important to meet the needs of the community.

- A space that reflects the cultures in my community
- Improve accessibility for people with mobility challenges
- Provide access to social service programs
- Create sustainable and environmentally friendly libraries
- Preserve architectural design elements
- Add community meeting/program spaces and study rooms
- Separate quiet and loud spaces acoustically
 - Enhance play and learn in children's areas
- Improve technology in meeting rooms and for working/studying at the library
 - Create dedicated teen space
 - Increased access to books, movies and music



6. What do you like about the existing building? Rank in order.

≣	Memories of going to the library
≣	Entry arch
≣	Fireplace
≣	Big windows
≣	Woodwork
≡ 🔶	Brick exterior

7. What excited you about the concepts?

8. What didn't you like about the concepts?

SAINT PAUL LISE

SPPL - Transforming Libraries - Survey #1 Hayden Heights Library

9. Do you use the Hayden Heights Library?

◯ Yes

O No

SAINT PAUL LSE

SPPL - Transforming Libraries - Survey #1

10. If not, why not?

] I don't know about it

☐ The space does not meet my needs/my family's needs

☐ The services do not meet my needs/my family's needs

] I don't feel welcome there

Accessibility

other

11. Hayden Heights Library has received funding to cover the cost of the design for a significant library transformation. This is an important step is securing the funding necessary for the transformational renovation to take place. The goal for the design is to co-create with neighbors a safe, inviting, affirming, and comfortable library for people of all cultures, abilities, and communities.

From the list below, choose the 5 that are most important to meet the needs of the community.

Reflect the cultures in my community in the space.
Improve accessibility for people with mobility challenges
Provide access to social service programs
Create sustainable and environmentally friendly libraries
Preserve architectural design elements
Add community meeting/program spaces and study rooms
Separate quiet and loud spaces acoustically
Enhance play and learn in children's areas
Improve technology in meeting rooms and for working/studying at the library
Create dedicated teen space
Increase access to books, movies and music

12. How do you feel about the possibility of adding outdoor green space for reading, relaxing, working, or programming?

- O Extremely interested
- Very interested
- \bigcirc Somewhat interested
- \bigcirc Not so interested
- Not at all interested

13. Currently, and since the early 2000s the Hayden Heights Library has been home to the SPPL Automotive Special Collection. Which statement best describes how you feel.

O I feel strongly that the Automotive Collection should remain at the Hayden Heights Library

🔘 I like having the Automotive Collection at the Hayden Heights Library

🔘 I do not like the Automotive Collection being at the Hayden Heights Library

 \bigcirc I have no opinion on this

14. Libraries are Resilience Centers. This means that they respond to a wide range of needs within the community. Which of the following would be beneficial to the Hayden Heights community. Check all that apply:

Social Services that improve the well-being of individuals, families, and communities

Community-based health services

Employment and training services for job seekers and businesses

Technology Resource Center

All of the above

SPPL - Transforming Libraries - Survey #1 Riverview Library

15. Do you use the Riverview Library?

◯ Yes

O No

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SPPL - Transforming Libraries - Survey #1

16. If not, why not?

] I don't know about it

☐ The space does not meet my needs/my family's needs

☐ The services do not meet my needs/my family's needs

] I don't feel welcome there

Accessibility

other

17. Riverview Library has received funding to cover the cost of the design for a significant library transformation. This is an important step is securing the funding necessary for the transformational renovation to take place. The goal for the design is to co-create with neighbors a safe, inviting, affirming, and comfortable library for people of all cultures, abilities, and communities.

From the list below, choose the 5 that are most important to meet the needs of the community.

Reflect the cultures in my community in the space.
Improve accessibility for people with mobility challenges
Provide access to social service programs
Create sustainable and environmentally friendly libraries
Preserve architectural design elements
Add community meeting/program spaces and study rooms
Separate quiet and loud spaces acoustically
Enhance play and learn in children's areas
Improve technology in meeting rooms and for working/studying at the library
Create dedicated teen space

Increase access to books, movies and music

18. How do you feel about the possibility of adding outdoor green space for reading, relaxing, working, or programming?

- O Extremely interested
- Very interested
- Somewhat interested
- \bigcirc Not so interested
- \bigcirc Not at all interested

19. The current lower level entry does not meet accessibility, ADA (American with Disabilities Act). What ideas do you have to make Riverview Library accessible to all?

 \bigcirc I support an addition along Humboldt to meet accessibility requirements

O I support an addition to meet accessibility requirements and additional space to accommodate improvements such as a new meeting room and main level restrooms.

 \bigcirc I support modifications of the main entry to meet accessibility

Other (please specify)

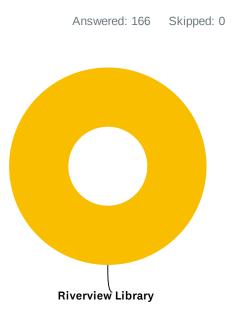
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SPPL - Transforming Libraries - Survey #1

20. SPPL is committed to engaging with and hearing the voices of our diverse community. By collecting the demographic information we are better able to identify where we have work to do to hear those voices that may be underrepresented. Thank you for providing your information in the following 4 questions.

Gender: How do you self identify?	
◯ Female	
◯ Male	
○ Non-binary/trans	
○ Choose not to answer	
Self-describe:	
21. In which neighborhood do you live?	
🔿 Como Park	○ Payne-Phalen
◯ Dayton's Bluff	🔿 Saint Anthony Park
O Downtown	🔿 Summit Hill
Eastside, Conway, Battle Creek, Highwood Hill	O Summit-University
	O Union Park
O Frogtown (Thomas-Dale)	○ West Seventh/Fort Road
◯ Greater East Side	🔿 West Side
◯ Hamline Midway	○ Other
◯ Highland Park	🔿 I don't know
O Macalester-Groveland	
○ North End	

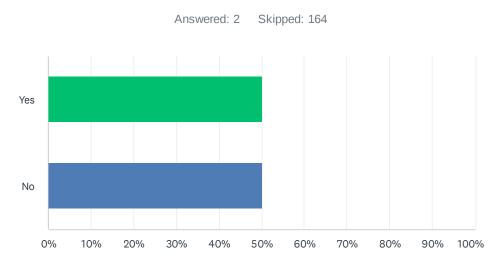
22. What is your racial or ethnic identity? (Select all that apply.)
🗌 African-American/Black (including Somali, Nigerian, Oromo, Ethiopian)
Asian (including Hmong, Cambodian, Vietnamese, Karen)
Hispanic/Latinx
Middle Eastern
American Indian or Alaskan Native
Native Hawaiian or Pacific Islander
White
Multiracial
Choose not to respond
Other (please specify)
23. What is your current age?
🔿 Under 18
0 18-29
○ 30-39
○ 40-49
○ 50-59
0 60-69
○ 70-79
○ 80-89
○ 90 or older
○ I choose not to respond



Q1 Which library would you like to answer for?

ANSWER CHOICES	RESPONSES
Hamline Midway Library	0.00% 0
Hayden Heights Library	0.00% 0
Riverview Library	100.00% 166
TOTAL	166

Q2 Do you use the Hamline Midway Library?



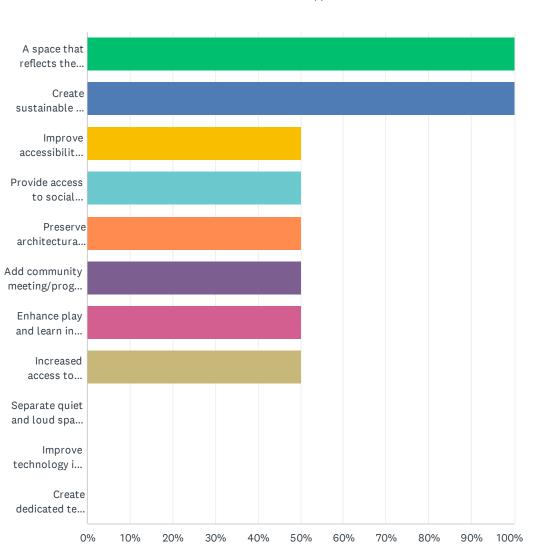
ANSWER CHOICES	RESPONSES	
Yes	50.00%	1
No	50.00%	1
TOTAL		2

Q3 If not, why not? Select all that apply.

Answered: 0 Skipped: 166

ANSWER CHOICES	RESPONSES
I don't know about it	0.00% 0
The space does not meet my needs/my family's needs	0.00% 0
The services do not meet my needs/my family's needs	0.00% 0
I don't feel welcome there	0.00% 0
Accessibility	0.00% 0
other	0.00% 0
Total Respondents: 0	

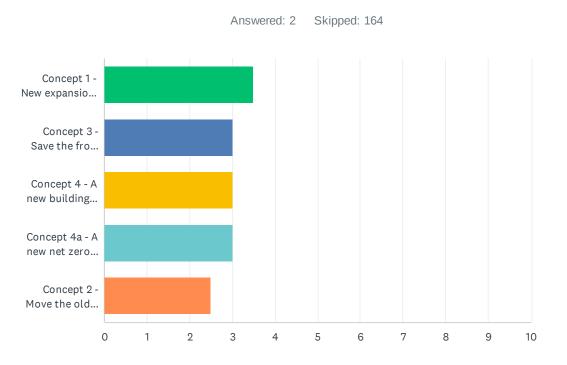
Q4 The Hamline Midway Library has received funding for a significant library transformation. The goal for the design is to co-create with neighbors a safe, inviting, affirming, and comfortable library for people of all cultures, abilities, and communities. From the list below, choose the 5 that are most important to meet the needs of the community.



Answered: 2 Skipped: 164

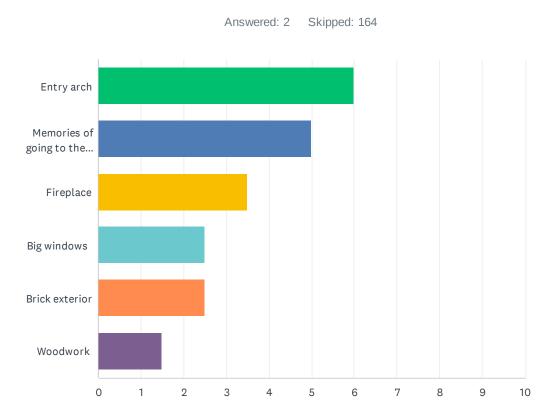
ANSWER CHOICES	RESPONSES	
A space that reflects the cultures in my community	100.00%	2
Create sustainable and environmentally friendly libraries	100.00%	2
Improve accessibility for people with mobility challenges	50.00%	1
Provide access to social service programs	50.00%	1
Preserve architectural design elements	50.00%	1
Add community meeting/program spaces and study rooms	50.00%	1
Enhance play and learn in children's areas	50.00%	1
Increased access to books, movies and music	50.00%	1
Separate quiet and loud spaces acoustically	0.00%	0
Improve technology in meeting rooms and for working/studying at the library	0.00%	0
Create dedicated teen space	0.00%	0
Total Respondents: 2		

Q5 Four concepts for expanding the library are illustrated in the diagrams above. Rank the concepts or strategies you think best meet the needs of the community today and for the next 100 years.



	1	2	3	4	5	TOTAL	SCORE
Concept 1 - New expansion to the front of the old building	50.00%	0.00%	0.00%	50.00%	0.00%		
	1	0	0	1	0	2	3.50
Concept 3 - Save the front wall/facade of the building for	0.00%	0.00%	100.00%	0.00%	0.00%		
use in/on a new building	0	0	2	0	0	2	3.00
Concept 4 - A new building that uses architectural	0.00%	50.00%	0.00%	50.00%	0.00%		
elements from the old building	0	1	0	1	0	2	3.00
Concept 4a - A new net zero / sustainable building	50.00%	0.00%	0.00%	0.00%	50.00%		
	1	0	0	0	1	2	3.00
Concept 2 - Move the old building to the front of the site	0.00%	50.00%	0.00%	0.00%	50.00%		
- add a new expansion to the back of the building	0	1	0	0	1	2	2.50

Q6 What do you like about the existing building? Rank in order.



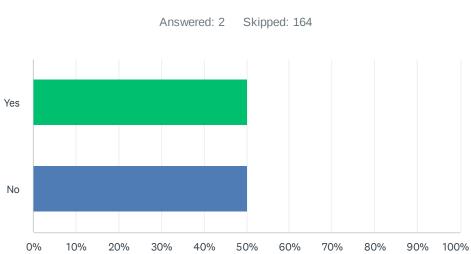
	1	2	3	4	5	6	TOTAL	SCORE
Entry arch	100.00%	0.00%	0.00%	0.00%	0.00%	0.00%		
	2	0	0	0	0	0	2	6.00
Memories of going to the library	0.00%	100.00%	0.00%	0.00%	0.00%	0.00%		
	0	2	0	0	0	0	2	5.00
Fireplace	0.00%	0.00%	50.00%	50.00%	0.00%	0.00%		
	0	0	1	1	0	0	2	3.50
Big windows	0.00%	0.00%	0.00%	50.00%	50.00%	0.00%		
	0	0	0	1	1	0	2	2.50
Brick exterior	0.00%	0.00%	50.00%	0.00%	0.00%	50.00%		
	0	0	1	0	0	1	2	2.50
Woodwork	0.00%	0.00%	0.00%	0.00%	50.00%	50.00%		
	0	0	0	0	1	1	2	1.50

Q7 What excited you about the concepts?

Answered: 1 Skipped: 165

Q8 What didn't you like about the concepts?

Answered: 1 Skipped: 165



Q9 Do you	use the H	layden l	Heights	Library?
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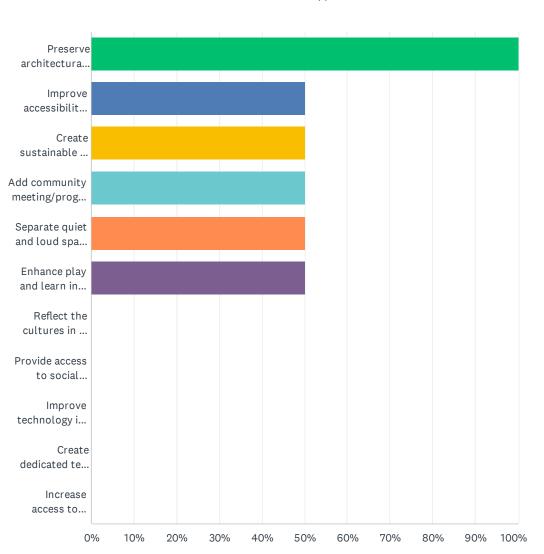
ANSWER CHOICES	RESPONSES	
Yes	50.00%	1
No	50.00%	1
TOTAL		2

Q10 If not, why not?

Answered: 0 Skipped: 166

ANSWER CHOICES	RESPONSES
I don't know about it	0.00% 0
The space does not meet my needs/my family's needs	0.00% 0
The services do not meet my needs/my family's needs	0.00% 0
I don't feel welcome there	0.00% 0
Accessibility	0.00% 0
other	0.00% 0
Total Respondents: 0	

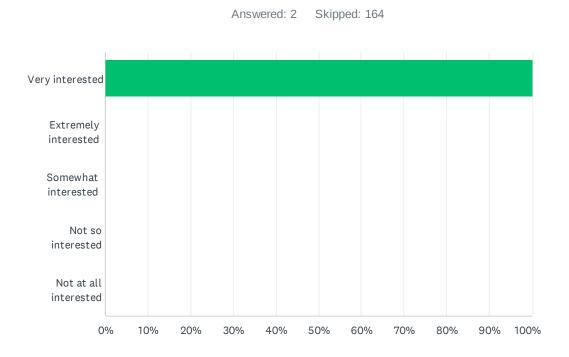
Q11 Hayden Heights Library has received funding to cover the cost of the design for a significant library transformation. This is an important step is securing the funding necessary for the transformational renovation to take place. The goal for the design is to co-create with neighbors a safe, inviting, affirming, and comfortable library for people of all cultures, abilities, and communities. From the list below, choose the 5 that are most important to meet the needs of the community.



Answered: 2 Skipped: 164

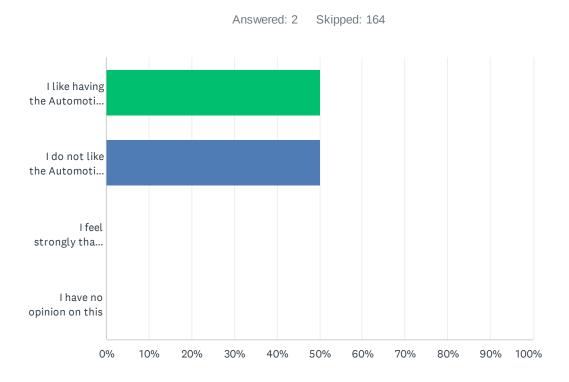
ANSWER CHOICES	RESPONSES	
Preserve architectural design elements	100.00%	2
Improve accessibility for people with mobility challenges	50.00%	1
Create sustainable and environmentally friendly libraries	50.00%	1
Add community meeting/program spaces and study rooms	50.00%	1
Separate quiet and loud spaces acoustically	50.00%	1
Enhance play and learn in children's areas	50.00%	1
Reflect the cultures in my community in the space.	0.00%	0
Provide access to social service programs	0.00%	0
Improve technology in meeting rooms and for working/studying at the library	0.00%	0
Create dedicated teen space	0.00%	0
Increase access to books, movies and music	0.00%	0
Total Respondents: 2		

Q12 How do you feel about the possibility of adding outdoor green space for reading, relaxing, working, or programming?



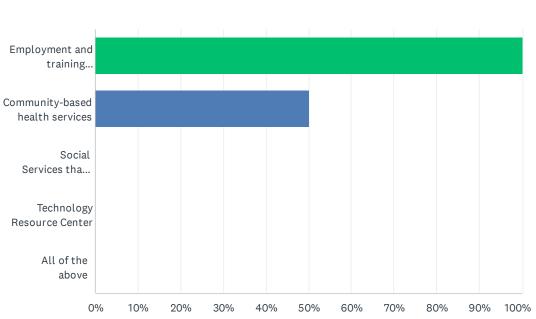
ANSWER CHOICES	RESPONSES	
Very interested	100.00%	2
Extremely interested	0.00%	0
Somewhat interested	0.00%	0
Not so interested	0.00%	0
Not at all interested	0.00%	0
TOTAL		2

Q13 Currently, and since the early 2000s the Hayden Heights Library has been home to the SPPL Automotive Special Collection. Which statement best describes how you feel.



ANSWER CHOICES	RESPONSES	
I like having the Automotive Collection at the Hayden Heights Library	50.00%	1
I do not like the Automotive Collection being at the Hayden Heights Library	50.00%	1
I feel strongly that the Automotive Collection should remain at the Hayden Heights Library	0.00%	0
I have no opinion on this	0.00%	0
TOTAL		2

Q14 Libraries are Resilience Centers. This means that they respond to a wide range of needs within the community. Which of the following would be beneficial to the Hayden Heights community. Check all that apply:

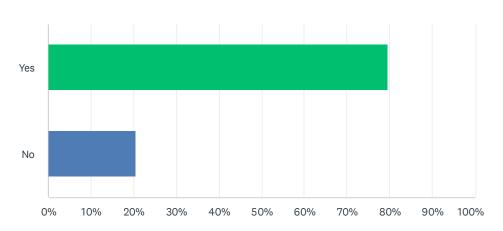


ANSWER CHOICES	RESPONSES	
Employment and training services for job seekers and businesses	100.00%	2
Community-based health services	50.00%	1
Social Services that improve the well-being of individuals, families, and communities	0.00%	0
Technology Resource Center	0.00%	0
All of the above	0.00%	0
Total Respondents: 2		

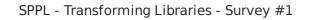
Answered: 2 Skipped: 164

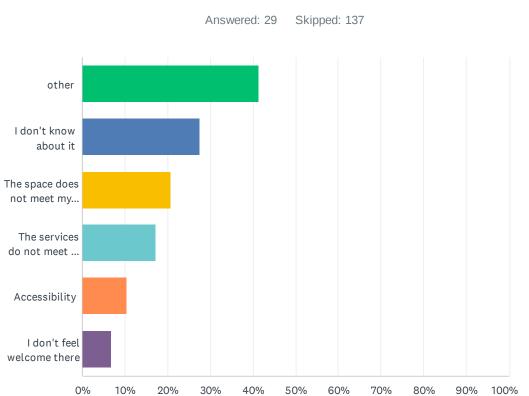
Q15 Do you use the Riverview Library?

Answered: 161 Skipped: 5



ANSWER CHOICES	RESPONSES	
Yes	79.50%	128
No	20.50%	33
TOTAL		161

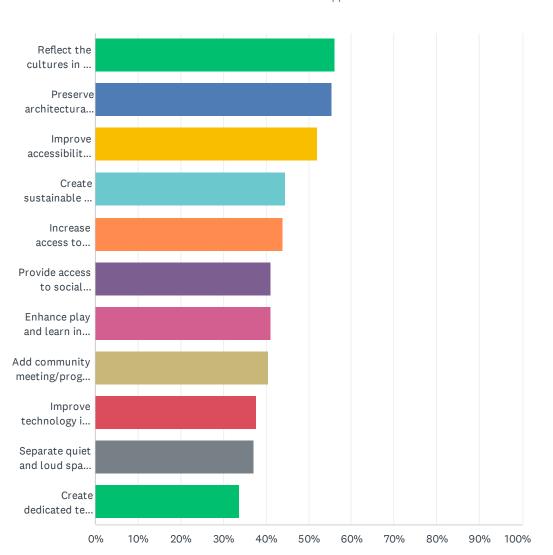




ANSWER CHOICES	RESPONSES	
other	41.38%	12
I don't know about it	27.59%	8
The space does not meet my needs/my family's needs	20.69%	6
The services do not meet my needs/my family's needs	17.24%	5
Accessibility	10.34%	3
I don't feel welcome there	6.90%	2
Total Respondents: 29		

Q16 If not, why not?

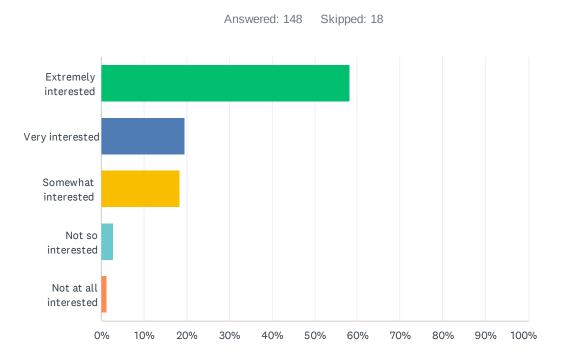
Q17 Riverview Library has received funding to cover the cost of the design for a significant library transformation. This is an important step is securing the funding necessary for the transformational renovation to take place. The goal for the design is to co-create with neighbors a safe, inviting, affirming, and comfortable library for people of all cultures, abilities, and communities. From the list below,choose the 5 that are most important to meet the needs of the community.



Answered: 148 Skipped: 18

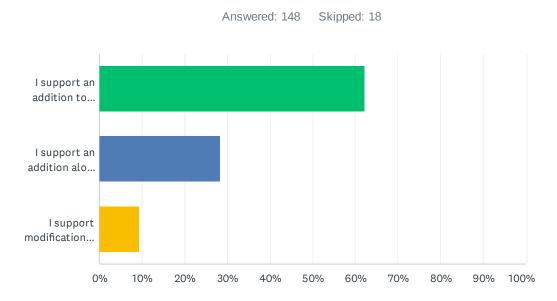
ANSWER CHOICES	RESPONSES	
Reflect the cultures in my community in the space.	56.08%	83
Preserve architectural design elements	55.41%	82
Improve accessibility for people with mobility challenges	52.03%	77
Create sustainable and environmentally friendly libraries	44.59%	66
Increase access to books, movies and music	43.92%	65
Provide access to social service programs	41.22%	61
Enhance play and learn in children's areas	41.22%	61
Add community meeting/program spaces and study rooms	40.54%	60
Improve technology in meeting rooms and for working/studying at the library	37.84%	56
Separate quiet and loud spaces acoustically	37.16%	55
Create dedicated teen space	33.78%	50
Total Respondents: 148		

Q18 How do you feel about the possibility of adding outdoor green space for reading, relaxing, working, or programming?



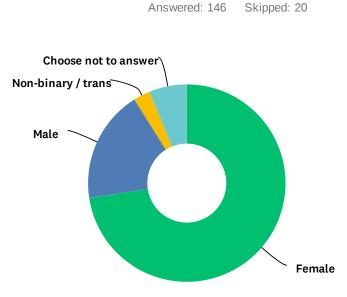
ANSWER CHOICES	RESPONSES
Extremely interested	58.11% 86
Very interested	19.59% 29
Somewhat interested	18.24% 27
Not so interested	2.70% 4
Not at all interested	1.35% 2
TOTAL	148

Q19 The current lower level entry does not meet accessibility, ADA (American with Disabilities Act). What ideas do you have to make Riverview Library accessible to all?

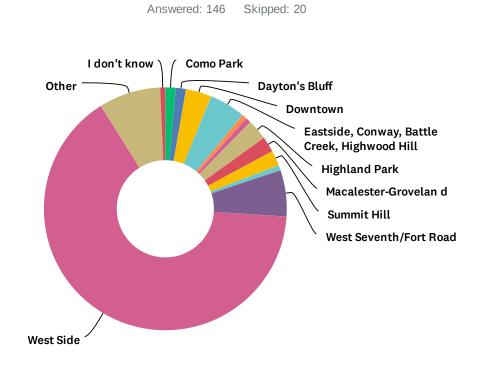


ANSWER CHOICES	RESPON	ISES
I support an addition to meet accessibility requirements and additional space to accommodate improvements such as a new meeting room and main level restrooms.	62.16%	92
I support an addition along Humboldt to meet accessibility requirements	28.38%	42
I support modifications of the main entry to meet accessibility	9.46%	14
TOTAL		148

Q20 SPPL is committed to engaging with and hearing the voices of our diverse community. By collecting the demographic information we are better able to identify where we have work to do to hear those voices that may be underrepresented. Thank you for providing your information in the following 4 questions.Gender: How do you self identify?

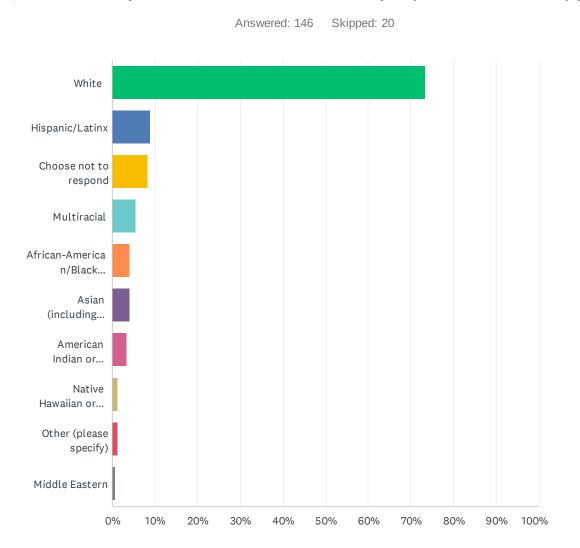


ANSWER CHOICES	RESPONSES	
Female	72.60%	106
Male	18.49%	27
Non-binary / trans	2.74%	4
Choose not to answer	6.16%	9
TOTAL		146



Q21 In which neighborhood do you live?

ANSWER CHOICES	RESPONSES	
Como Park	1.37%	2
Dayton's Bluff	1.37%	2
Downtown	3.42%	5
Eastside, Conway, Battle Creek, Highwood Hill	4.79%	7
Frogtown (Thomas-Dale)	0.68%	1
Greater East Side	0.00%	0
Hamline Midway	0.68%	1
Highland Park	2.74%	4
Macalester-Groveland	2.05%	3
North End	0.00%	0
Payne-Phalen	0.00%	0
Saint Anthony Park	0.00%	0
Summit Hill	2.05%	3
Summit-University	0.68%	1
Union Park	0.00%	0
West Seventh/Fort Road	6.16%	9
West Side	65.07%	95
Other	8.22%	12
I don't know	0.68%	1
TOTAL		146

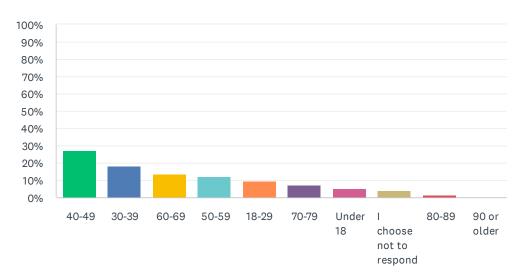


Q22 What is your racial or ethnic identity? (Select all that apply.)

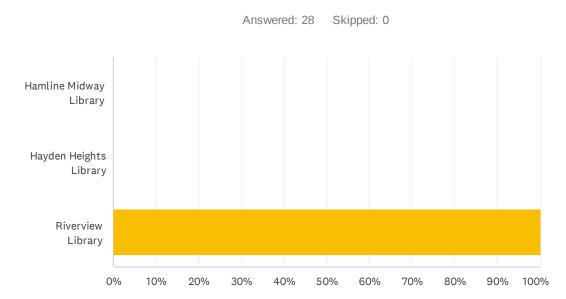
ANSWER CHOICES	RESPONSES	
White	73.29%	107
Hispanic/Latinx	8.90%	13
Choose not to respond	8.22%	12
Multiracial	5.48%	8
African-American/Black (including Somali, Nigerian, Oromo, Ethiopian)	4.11%	6
Asian (including Hmong, Cambodian, Vietnamese, Karen)	4.11%	6
American Indian or Alaskan Native	3.42%	5
Native Hawaiian or Pacific Islander	1.37%	2
Other (please specify)	1.37%	2
Middle Eastern	0.68%	1
Total Respondents: 146		

Q23 What is your current age?

Answered: 146 Skipped: 20



ANSWER CHOICES	RESPONSES	
40-49	27.40%	40
30-39	18.49%	27
60-69	13.70%	20
50-59	12.33%	18
18-29	9.59%	14
70-79	7.53%	11
Under 18	5.48%	8
I choose not to respond	4.11%	6
80-89	1.37%	2
90 or older	0.00%	0
TOTAL		146



Q1 Which library would you like to answer for?

ANSWER CHOICES	RESPONSES	
Hamline Midway Library	0.00%	0
Hayden Heights Library	0.00%	0
Riverview Library	100.00%	28
TOTAL		28

Q2 Do you use the Hamline Midway Library?

Answered: 0 Skipped: 28

ANSWER CHOICES	RESPONSES	
Yes	0.00%	0
No	0.00%	0
TOTAL		0

Q3 If not, why not? Select all that apply.

Answered: 0 Skipped: 28

ANSWER CHOICES	RESPONSES
I don't know about it	0.00% 0
The space does not meet my needs/my family's needs	0.00% 0
The services do not meet my needs/my family's needs	0.00% 0
I don't feel welcome there	0.00% 0
Accessibility	0.00% 0
other	0.00% 0
Total Respondents: 0	

Q4 The Hamline Midway Library has received funding for a significant library transformation. The goal for the design is to co-create with neighbors a safe, inviting, affirming, and comfortable library for people of all cultures, abilities, and communities. From the list below, choose the 5 that are most important to meet the needs of the community.

Answered: 0 Skipped: 28

ANSWER CHOICES	RESPONSES	
A space that reflects the cultures in my community	0.00%	0
Improve accessibility for people with mobility challenges	0.00%	0
Provide access to social service programs	0.00%	0
Create sustainable and environmentally friendly libraries	0.00%	0
Preserve architectural design elements	0.00%	0
Add community meeting/program spaces and study rooms	0.00%	0
Separate quiet and loud spaces acoustically	0.00%	0
Enhance play and learn in children's areas	0.00%	0
Improve technology in meeting rooms and for working/studying at the library	0.00%	0
Create dedicated teen space	0.00%	0
Increased access to books, movies and music	0.00%	0
Total Respondents: 0		

Q5 Four concepts for expanding the library are illustrated in the diagrams above. Rank 1-5 concepts or strategies you think best meet the needs of the community today and for the next 100 years, with 1 being what you think best meets the needs.

Answered: 0 Skipped: 28

	1	2	3	4	5	TOTAL	SCORE
Concept 1 - New expansion to the front of the old building	0.00% 0	0.00% 0	0.00% 0	0.00% 0	0.00% 0	0	0.00
Concept 2 - Move the old building to the front of the site - add a new expansion to the back of the building	0.00% 0	0.00% 0	0.00% 0	0.00% 0	0.00% 0	0	0.00
Concept 3 - Save the front wall/facade of the building for use in/on a new building	0.00% 0	0.00% 0	0.00% 0	0.00% 0	0.00% 0	0	0.00
Concept 4 - A new building that uses architectural elements from the old building	0.00% 0	0.00% 0	0.00% 0	0.00% 0	0.00% 0	0	0.00
Concept 4a - A new net zero / sustainable building	0.00% 0	0.00% 0	0.00% 0	0.00% 0	0.00% 0	0	0.00

Q6 What do you like about the existing building?

Answered: 0 Skipped: 28

ANSWER CHOICES	RESPONSES	
Memories of going to the library	0.00%	0
Entry arch	0.00%	0
Fireplace	0.00%	0
Big windows	0.00%	0
Woodwork	0.00%	0
Brick exterior	0.00%	0
Total Respondents: 0		

Q7 What excited you about the concepts?

Answered: 0 Skipped: 28

Q8 What didn't you like about the concepts?

Answered: 0 Skipped: 28

Q9 Do you use the Hayden Heights Library?

Answered: 0 Skipped: 28

ANSWER CHOICES	RESPONSES	
Yes	0.00%	0
No	0.00%	0
TOTAL		0

SPPL - Transforming Libraries - Survey #1. (Paper Input Ranked HM Question 5)

Q10 If not, why not?

Answered: 0 Skipped: 28

ANSWER CHOICES	RESPONSES
I don't know about it	0.00% 0
The space does not meet my needs/my family's needs	0.00% 0
The services do not meet my needs/my family's needs	0.00% 0
I don't feel welcome there	0.00% 0
Accessibility	0.00% 0
other	0.00% 0
Total Respondents: 0	

Q11 Hayden Heights Library has received funding to cover the cost of the design for a significant library transformation. This is an important step is securing the funding necessary for the transformational renovation to take place. The goal for the design is to co-create with neighbors a safe, inviting, affirming, and comfortable library for people of all cultures, abilities, and communities. From the list below, choose the 5 that are most important to meet the needs of the community.

Answered: 0 Skipped: 28

A No matching responses.

ANSWER CHOICES	RESPONSES	
Reflect the cultures in my community in the space.	0.00%	0
Improve accessibility for people with mobility challenges	0.00%	0
Provide access to social service programs	0.00%	0
Create sustainable and environmentally friendly libraries	0.00%	0
Preserve architectural design elements	0.00%	0
Add community meeting/program spaces and study rooms	0.00%	0
Separate quiet and loud spaces acoustically	0.00%	0
Enhance play and learn in children's areas	0.00%	0
Improve technology in meeting rooms and for working/studying at the library	0.00%	0
Create dedicated teen space	0.00%	0
Increase access to books, movies and music	0.00%	0
Total Respondents: 0		

Q12 How do you feel about the possibility of adding outdoor green space for reading, relaxing, working, or programming?

Answered: 0 Skipped: 28

▲ No matching responses.

ANSWER CHOICES	RESPONSES	
Extremely interested	0.00%	0
Very interested	0.00%	0
Somewhat interested	0.00%	0
Not so interested	0.00%	0
Not at all interested	0.00%	0
TOTAL		0

Q13 Currently, and since the early 2000s the Hayden Heights Library has been home to the SPPL Automotive Special Collection. Which statement best describes how you feel.

Answered: 0 Skipped: 28

▲ No matching responses.

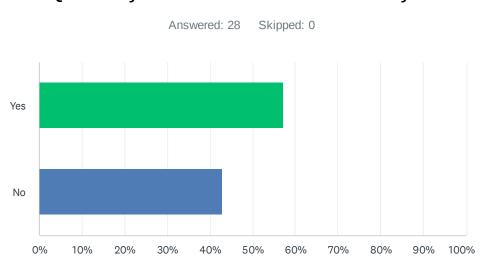
ANSWER CHOICES	RESPONSES	
I feel strongly that the Automotive Collection should remain at the Hayden Heights Library	0.00%	0
I like having the Automotive Collection at the Hayden Heights Library	0.00%	0
I do not like the Automotive Collection being at the Hayden Heights Library	0.00%	0
I have no opinion on this	0.00%	0
TOTAL		0

Q14 Libraries are Resilience Centers. This means that they respond to a wide range of needs within the community. Which of the following would be beneficial to the Hayden Heights community. Check all that apply:

Answered: 0 Skipped: 28

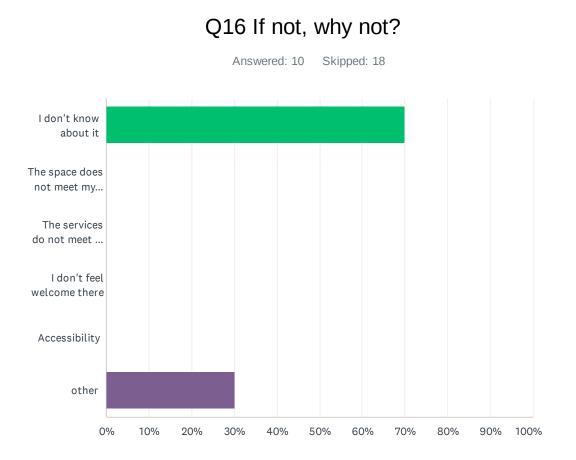
▲ No matching responses.

ANSWER CHOICES	RESPONSES	
Social Services that improve the well-being of individuals, families, and communities	0.00%	0
Community-based health services	0.00%	0
Employment and training services for job seekers and businesses	0.00%	0
Technology Resource Center	0.00%	0
All of the above	0.00%	0
Total Respondents: 0		



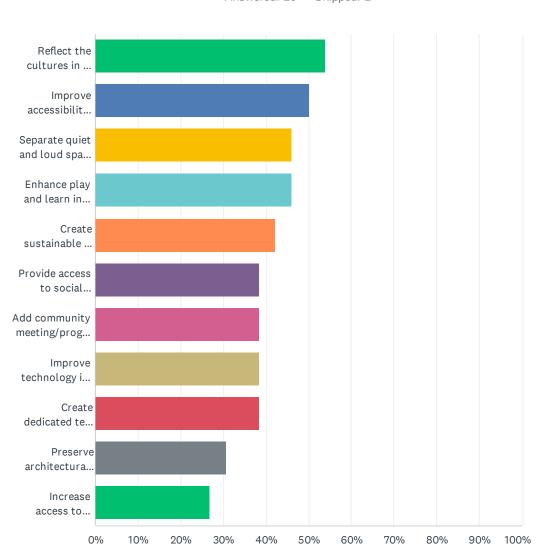
ANSWER CHOICES	RESPONSES	
Yes	57.14%	16
No	42.86%	12
TOTAL		28

Q15 Do you use the Riverview Library?



ANSWER CHOICES	RESPONSES
I don't know about it	70.00% 7
The space does not meet my needs/my family's needs	0.00% 0
The services do not meet my needs/my family's needs	0.00% 0
I don't feel welcome there	0.00% 0
Accessibility	0.00% 0
other	30.00% 3
Total Respondents: 10	

Q17 Riverview Library has received funding to cover the cost of the design for a significant library transformation. This is an important step is securing the funding necessary for the transformational renovation to take place. The goal for the design is to co-create with neighbors a safe, inviting, affirming, and comfortable library for people of all cultures, abilities, and communities. From the list below,choose the 5 that are most important to meet the needs of the community.

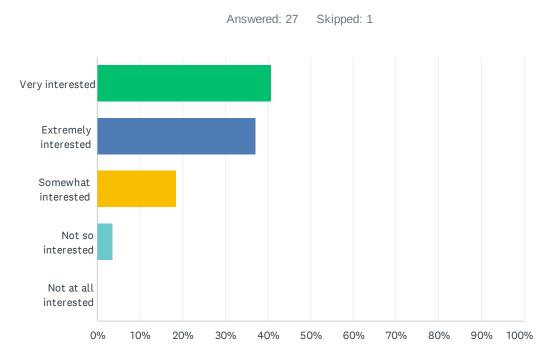


Answered: 26 Skipped: 2

SPPL - Transforming Libraries - Survey #1. (Paper Input Ranked HM Question 5)

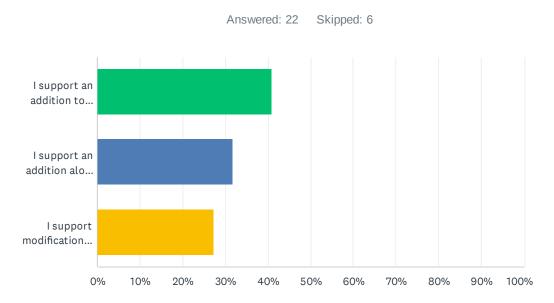
ANSWER CHOICES	RESPONSES	
Reflect the cultures in my community in the space.	53.85%	14
Improve accessibility for people with mobility challenges	50.00%	13
Separate quiet and loud spaces acoustically	46.15%	12
Enhance play and learn in children's areas	46.15%	12
Create sustainable and environmentally friendly libraries	42.31%	11
Provide access to social service programs	38.46%	10
Add community meeting/program spaces and study rooms	38.46%	10
Improve technology in meeting rooms and for working/studying at the library	38.46%	10
Create dedicated teen space	38.46%	10
Preserve architectural design elements	30.77%	8
Increase access to books, movies and music	26.92%	7
Total Respondents: 26		

Q18 How do you feel about the possibility of adding outdoor green space for reading, relaxing, working, or programming?



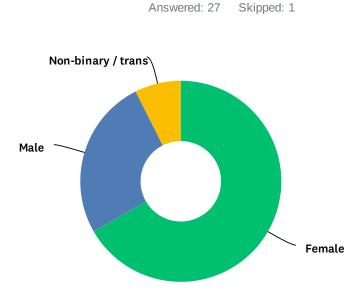
ANSWER CHOICES	RESPONSES	
Very interested	40.74%	L1
Extremely interested	37.04%	LO
Somewhat interested	18.52%	5
Not so interested	3.70%	1
Not at all interested	0.00%	0
TOTAL	2	27

Q19 The current lower level entry does not meet accessibility, ADA (American with Disabilities Act). What ideas do you have to make Riverview Library accessible to all?



ANSWER CHOICES	RESPON	SES
I support an addition to meet accessibility requirements and additional space to accommodate improvements such as a new meeting room and main level restrooms.	40.91%	9
I support an addition along Humboldt to meet accessibility requirements	31.82%	7
I support modifications of the main entry to meet accessibility	27.27%	6
TOTAL		22

Q20 SPPL is committed to engaging with and hearing the voices of our diverse community. By collecting the demographic information we are better able to identify where we have work to do to hear those voices that may be underrepresented. Thank you for providing your information in the following 4 questions.Gender: How do you self identify?



ANSWER CHOICES	RESPONSES	
Female	66.67%	18
Male	25.93%	7
Non-binary / trans	7.41%	2
Choose not to answer	0.00%	0
TOTAL		27

Q21 In which neighborhood do you live?

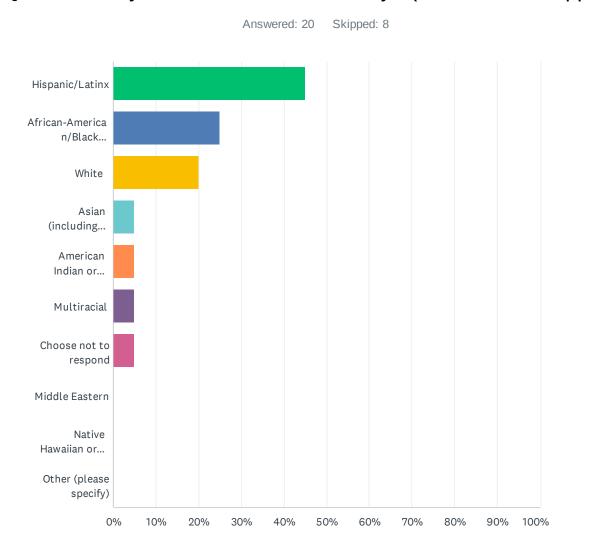
Answered: 21 Skipped: 7

SPPL - Transforming Libraries - Survey #1. (Paper Input Ranked HM Question 5)



SPPL - Transforming Libraries - Survey #1. (Paper Input Ranked HM Question 5)

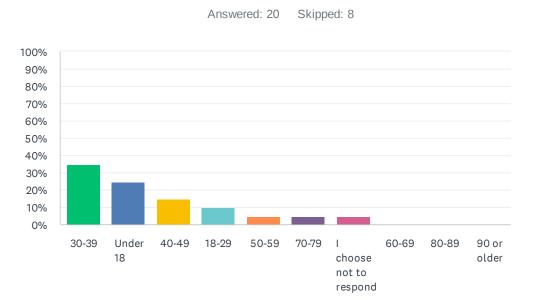
ANSWER CHOICES	RESPONSES	
Como Park	0.00%	0
Dayton's Bluff	4.76%	1
Downtown	0.00%	0
Eastside, Conway, Battle Creek, Highwood Hill	0.00%	0
Frogtown (Thomas-Dale)	0.00%	0
Greater East Side	0.00%	0
Hamline Midway	0.00%	0
Highland Park	0.00%	0
Macalester-Groveland	0.00%	0
North End	0.00%	0
Payne-Phalen	0.00%	0
Saint Anthony Park	0.00%	0
Summit Hill	0.00%	0
Summit-University	4.76%	1
Union Park	0.00%	0
West Seventh/Fort Road	0.00%	0
West Side	52.38%	11
Other	38.10%	8
I don't know	0.00%	0
TOTAL		21



Q22 What is your racial or ethnic identity? (Select all that apply.)

SPPL - Transforming Libraries - Survey #1. (Paper Input Ranked HM Question 5)

ANSWER CHOICES	RESPONSES	
Hispanic/Latinx	45.00%	9
African-American/Black (including Somali, Nigerian, Oromo, Ethiopian)	25.00%	5
White	20.00%	4
Asian (including Hmong, Cambodian, Vietnamese, Karen)	5.00%	1
American Indian or Alaskan Native	5.00%	1
Multiracial	5.00%	1
Choose not to respond	5.00%	1
Middle Eastern	0.00%	0
Native Hawaiian or Pacific Islander	0.00%	0
Other (please specify)	0.00%	0
Total Respondents: 20		



ANSWER CHOICES	RESPONSES	
30-39	35.00%	7
Under 18	25.00%	5
40-49	15.00%	3
18-29	10.00%	2
50-59	5.00%	1
70-79	5.00%	1
I choose not to respond	5.00%	1
60-69	0.00%	0
80-89	0.00%	0
90 or older	0.00%	0
TOTAL		20

SAINT PAUL LSE

Saint Paul Public Library | Transforming Libraries: Final Design Concepts Feedback Form

1. Which library would you like to provide feedback for?

O Hamline Midway Library

O Hayden Heights Library

O Riverview Library

SAINT PAUL LSE

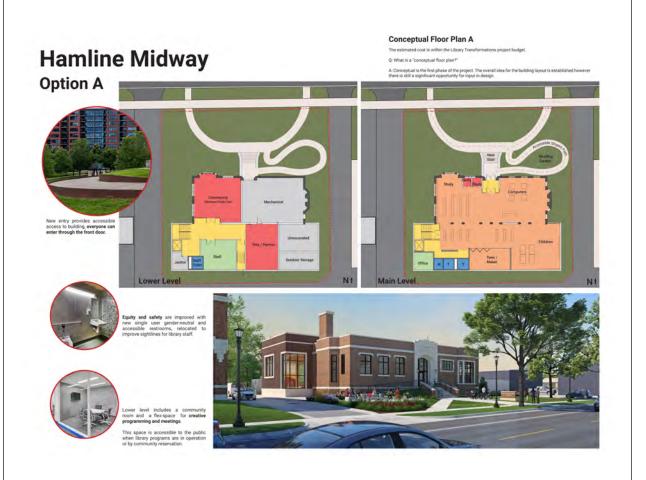
Saint Paul Public Library | Transforming Libraries: Final Design Concepts Feedback Form

Hamline Midway Library has received funding for a significant library transformation.

In response to community engagement, the design team has developed two options, both that address the goal to for a safe, inviting, affirming, and comfortable library for people of all cultures, abilities, and communities, to varying degrees.

Options A and Option B are provided for review and reference in answering the questions below.









Which features are most important to you? What excites you about either option?

What questions do you have?

Option A

Share your comments here



The surveys showed a preference for moving the existing building forward and expanding to the back of the existing building. After pricing each of the concepts, moving the building forward was not in budget. The option shown here, like that option, maintains the existing library reading room and expands to the back. Main public level has 6,200 SF which is 2,000 SF more than the current library.

This option has improved accessibility with a 1:20 sloped walkway to the Main Entry. This allows everyone to enter through the front door.

Having the staff Workroom, and the book drop on the lower level of the library is inefficient for staff and material management. Having the community room on the lower level will mean mediated use only.

By replacing the rear portion of the building, the basement of the new addition could be built at the level of the existing community room eliminating the need for a second lift and provides additional ceiling height to allow for mechanical venilitation, however this will require significant modification to the existing structure.

Materials used for the rear addition could be selected to compliment the existing brick and precast.

The existing building envelope (foundation, slab, walls and roof) and mechanical systems do not meet today's energy code and will require significant investment to meet the Saint Paul's Sustainable Building Policy

This option eliminates parking behind the building. Street parking is available.

nts here Option B



The survey indicated that the preferred option for expanding the library to a new larger library was to incorporate features of the existing building's elements from the existing building (front fracade). Main public level has 9,400 SF which is 3,200 SF more than Option A and 5,200 SF more than the current building.

This option improves accessibility with a single level library where everyone enters the through the same pathway and front door.

The materials for the new library could include reuse of existing materials such as the arched entry and salvaged brick and precast. In this option we could reuse historical materials and also reference the diversity of cultures in the community today with added patterning in the brick and precast.

The staff workroom and book drop on a single level supports staff efficiencies and improves security.

The community room on the main level increases flexible use of that space. This allows the community room to be utilized throughout the day for programs such as storytime, guest author readings, large group meetings, educational programs and more. When it is not reserved, the operable doors could remain open for library patrons to utilize for quiet reading or focused work. Added community and meeting space was the top request we heard during engagement.

A new library will be designed to meet Saint Paul's Sustainable Building Policy and has greater opportunity to achieve a Net Zero status if desired.

The option shown maintains the current parking.



2. What features are most important to you?

3. What excites you about either option?

4. What questions do you have?

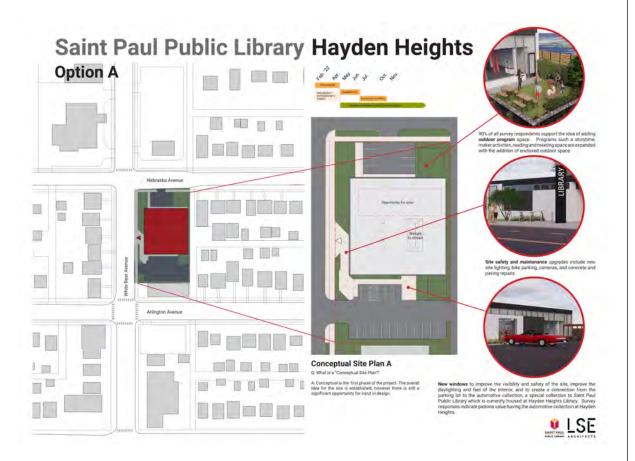
SAINT PAUL LSE

Saint Paul Public Library | Transforming Libraries: Final Design Concepts Feedback Form

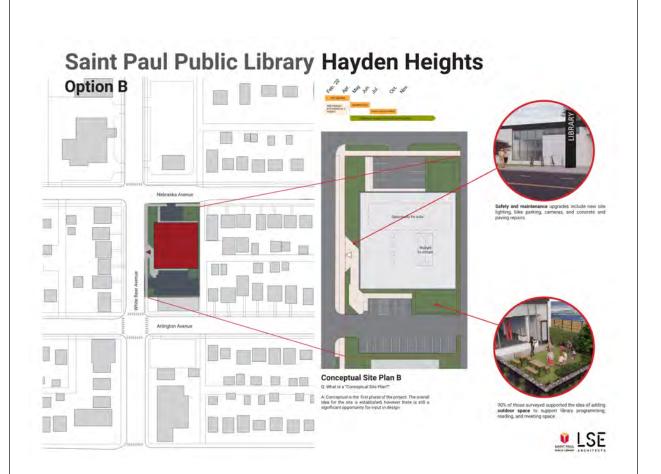
The Hayden Heights Library has received funding for the design of a significant library transformation. SPPL is currently seeking funding for the construction of this important project.

In response to community engagement, the design team has developed two options, both that address the goal to for a safe, inviting, affirming, and comfortable library for people of all cultures, abilities, and communities, to varying degrees.

Options A and Option B are provided for review and reference in answering the questions below.









Which features are most important to you? What excites you about either option?

What questions do you have?

Option A

Share your comments here



Based on Surveys, more than 90% of all respondents support the idea of developing outdoor library program space. Option A shows the opportunity for two separate outdoor spaces. One is located adjacent to, and accessed through, the Children's area to support use for story time, play and learn, and maker activities. The second is located adjacent to the Teen area but accessible for all library users, providing an acoustically separated space.

The community room is shown in the center of the library, with operable walls that open into both the Children's and the Teen areas. This flexibility allows the community room to be utilized throughout the day for programs such as storytime, guest author readings, large group meetings, educational programs and more. When it is not reserved, the operable wall could remain open for library patrons to utilize for quiet reading or focused work. Added community and meeting space was the top request we heard during engagement.

In support of Libraries as Resilience Centers, a flex/partner space has been included. Needs for flexible and potential partner space can be met by providing access to a classroom/large group meeting space, technology, striks, smail consultation rooms, and a potential private or transaction type space.

Added and expanded windows which improve the visibility of the library, create amore comfortable and velcoming environment, and contribute to the overall safety of the site. This option suggest a seating and work area be located at the new expansive corner window.

A parking spot is indicated outside of an area that the automotive collection may be located within the library. This adjacently allows for additional automotive related programs to be supported at this site. For respondents aware of the Saint Paul Public Library Automotive Collection, it is an appreciated and valued resource. Option B



Based on Surveys, more than 90% of all respondents support the idea of developing outdoor library program space. Option B shows the opportunity for two separate outdoor spaces. One is located adjacent to, and accessed through, the Children's area to support use for story time, play and learn, and maker activities. The second is located adjacent to the Community Room which has the potential of expanding event space, while also support all library users and providing an acoustically separated space for patrons.

The community room is shown in this option adjacent to an exterior wall to support the option for a connection to outdoor space and an option for after hour use should that be desired at some point in the future. When it is not reserved, the operable wall could remain open for library patrons to utilize for quiet reading or focused work. Added community and meeting space was the top request we heard during engagement.

In support of Libraries as Resilience Centers, a Flex/Partner space has been located near the front door in this option. Needs for flexible and potential partner space can be met by providing access to a classroom/large group meeting space, technology, sinks, small consultation rooms, and a potential private or transaction type space.

Added and expanded windows which improve the visibility of the library, create a more comfortable and welcoming environment, and contribute to the overall safety of the site.

Thenewexpansive corner windowactivates White BearAvenue with views into a new Teen Space. Youth led engagement shared a desire for a Teen space that is separated from younger kids.



5. What features are most important to you?

6. What excites you about either option?

7. What questions do you have?

SAINT PAUL LSE

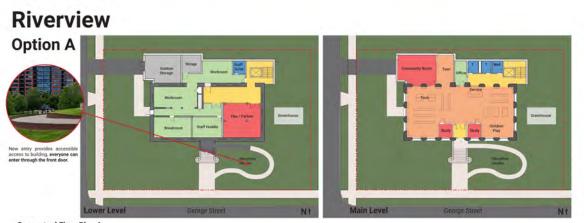
Saint Paul Public Library | Transforming Libraries: Final Design Concepts Feedback Form

The Riverview Library has received funding for the design of a significant library transformation. SPPL is currently seeking funding for the construction of this important project.

In response to community engagement, the design team has developed two options, both that address the goal to for a safe, inviting, affirming, and comfortable library for people of all cultures, abilities, and communities, to varying degrees.

Options A and Option B are provided for review and reference in answering the questions below.





Conceptual Floor Plan A The estimated cost is within the Library Transformations project budget Q: What does it mean this is a "Conceptual" floor plan?

A: Conceptual is the first phase of the project. The overall idea for the building layo is established however there is still a significant opportunity for input in design.



Equity and safety are improved with new single user gender-neutral and accessible restrooms, relocated to improve sightlines for library staff.



nded teen and meeting space is in on main level to provide increased intunities for programming.







Conceptual Floor Plan B The estimated cost is within the Library Transformations Q: What does it mean this is a "Conceptual" floor plan?

A: Conceptual is the first phase of the project. The overall idea for the building lay is established however there is still a significant opportunity for input in design.



Equity and safety are improved with new single user gender-neutral and accessible restrooms, relocated to improve sightlines for library staff.





Which features are most important to you? What excites you about either option?

What questions do you have?

Option A

Share your comments here



Based on Surveys, respondents support the idea of expanding the Riverview Carnegie Library to deliver a more equitable accessibility entry and provide additional program space.

Because the 1916 Riverview Carnegie Library is on the National Register for Historical Places, any additions or alterations will need to be reviewed by the Saint Paul Heritage Preservation. In terms of the materials for the new addition, the guidelines state the following: "Historic buildings exterior alterations, or related new construction shall not destroy historic materials that characterize the property. The new work shall be differentiated from the old and shall be compatible with the massing, size, scale, and architectural features to protect the historic integrity of the property and its environment."

In Option A, the original entry is maintained and a new exterior stair and 1:20 sloped walkway have been added, to allow all patrons to enter through the main entry.

An addition to the previously altered North elevation of the building allows for a new main level community room. This allows the community room to be utilized throughout the day for programs such as storytime, guest author readings, large group meetings, and educational programs. When not being used for programs, this room provides a space for quiet reading or focus work space. The addition would add 1,900 SF per level.

A dedicated teen space is also shown as part of the addition. Youth Engagement indicates teens want a dedicated space for collections, soft seating, technology and collaboration.

Accessibility, equity and safety are improved with the addition of new main level gender inclusive restrooms.

In addition to the outdoor storytime and reading a location for a green house has been identified.

The existing building envelope (foundation, slab, walls and roof) and mechanical systems do not meet today's energy code and will require significant investment to meet the Saint Pau's Sustainable Building Policy where allowed by the Saint Pau's Preservation commission. Option B



In Option B, the main entry is moved to an addition and circulation occurs in the addition with a new elevator and stairs allowing all patrons to enter through the new entry. The original entry is re-imagined as a raised plaza that is accessed from the inside of the library.

Because the 1916 Riverview Carnegie Library is on the National Register for Historical Places, any additions or alterations will need to be reviewed by the Saint Paul Heritage Preservation.

The addition sits on the previously-altered west facade allows for a new main level community room. This allows the main level community room to be utilized throughout the day for programs such as storytime, guest author readings, large group meetings, and educational programs. When not being used for programs, this room provides a space for quiet reading or focus work space.

The addition would add 1,400 SF at the main level and 500 SF for the entry at the ground level.

The existing reading room is reorganized to fit an expanded teen area and a children's area with declcated play activities. Youth Engagement indicates teens want a declcated space for collections, soft seating, technology and collaboration.

Accessibility, equity and safety are improved with the addition of new main level gender inclusive restrooms.

In addition to the outdoor storytime and reading a location for a green house has been identified.

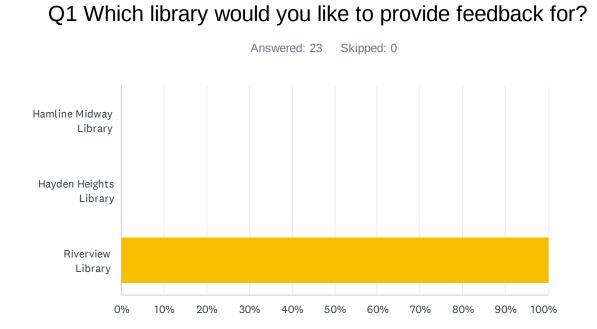
The existing building envelope (foundation, stab, walls and roof) and mechanical systems do not meet today's energy code and will require significant investment to meet the Saint Pau's Sustainable Building Policy where allowed by the Saint Paul Heritage Preservation commission.



8. What features are most important to you?

9. What excites you about either option?

10. What questions do you have?



ANSWER CHOICES	RESPONSES
Hamline Midway Library	0.00% 0
Hayden Heights Library	0.00% 0
Riverview Library	100.00% 23
TOTAL	23

Q2 What features are most important to you?

Answered: 0 Skipped: 23

Q3 What excites you about either option?

Answered: 0 Skipped: 23

Q4 What questions do you have?

Q5 What features are most important to you?

Q6 What excites you about either option?

Q7 What questions do you have?

Q8 What features are most important to you?

Q9 What excites you about either option?

Q10 What questions do you have?



WHAT: Now that design directions for Hamline Midway, Hayden Heights, and Riverview libraries have been determined, we continue our design work and are seeking more specific input from community members on the interior and exterior design elements of each library building.

WHY: In this survey we are looking to learn your hopes for the look and feel of the library, specifics about community room spaces, and how to celebrate cultures within our neighborhoods.

HOW: Please complete this survey; your input will inform the next set of library designs that will be shared with the community later this summer. Surveys are also available in print at Hamline Midway, Hayden Heights, and Riverview libraries through June 30, 2022.

Visit **sppl.org/transform** for the online survey and to sign up for the newsletter to learn about future opportunities to provide feedback and share.

1. Which library would you like to provide feedback for?

O Hamline Midway Library

O Hayden Heights Library

○ Riverview Library



2. Please share three words that describe the look and feel of a library where you would feel welcome and comfortable. Think about what you see, hear, feel, and smell.

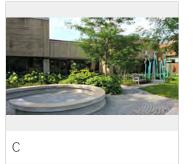
Α.	
В.	
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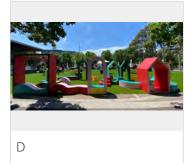
3. Sustainability is a high priority for the library design. Connections to nature and outdoor space contribute to this goal as well as contribute to creating a healthy and inviting space. Which of these feels inviting to you? Select all that apply.

Please note scale & use of these inspirational images will range greatly.





















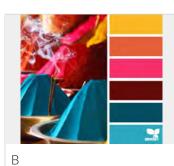
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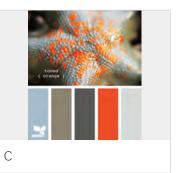
4. What else would you like us to know about the exterior design of your library?

5. In what ways could we celebrate the cultures represented in your communities in the design of your library?

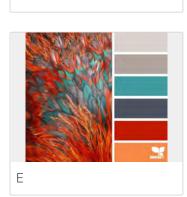
6. What ideas for color inspiration are you drawn to for your library? Pick up to two.















7. What are the reasons you would want to use a room at the library? Check all that apply.

Studying or working alone
Studying or working with others
Meeting with someone
Hosting a program or event
Quiet space for video or phone call
Hanging out with friends
Calming down or helping someone calm down
Prayer
Breastfeeding support
Other (please specify)

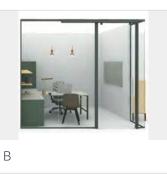
8. For a medium-sized meeting room, which one do you prefer? Select your preference.

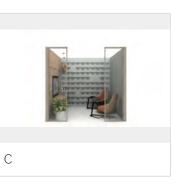




9. For a small-sized meeting room, which do you prefer? Select your preference.

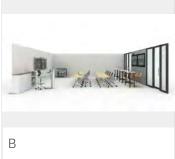






10. For a large-sized meeting room, which one do you prefer? Select your preference.





-	
L	Dimmable lights
	Cleanable surfaces
	Wi-Fi
	Projector/monitor
	Computer/laptop
	Green screen wall
	Soundproofing/noise blocking
	Sink
	White board
	Moveable furniture
	Other (please specify)
2. W	hat might be missing from these meeting rooms?

13. What would help you or your family be comfortable in your experience at the library? Choose all that apply.

	-		
Sensory room		Soft floors	
Low shelf heights	5	Uisual guide kiosks and signage	
	coop to get books on	Prayer room	
bottom shelf	sina	Nursing room	
Assistive technol		Multilingual signs	
Other (please spe	ecify)		
your transformed libra	-	SE Architects to know about the design o	
	ansformation of librar	rk and invitations to future opportunities ies in Saint Paul? Join our Transforming below.	to
Email Address			



Demographics (optional)

SPPL is committed to engaging with and hearing the voices of our diverse community. By collecting this information, we can identify how to better hear voices that are underrepresented. Thank you for providing that information in the following questions. You may choose not to respond.

16. (Gender:	How	do	you	identify?	Choose	one.
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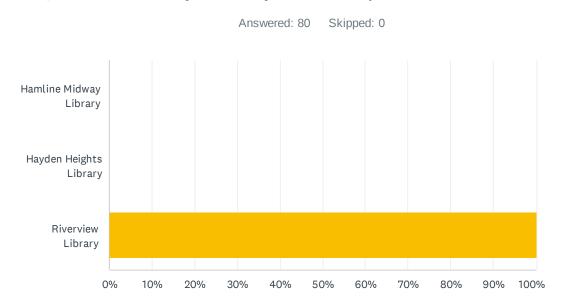
	\bigcirc	Female
--	------------	--------

- 🔿 Male
- Non-binary/trans
- \bigcirc Self-described:

17. In which neighborhood do you live? Choose one.

🔿 Como Park	○ Payne-Phalen
O Dayton's Bluff	🔿 Saint Anthony Park
⊖ Downtown	🔿 Summit Hill
Eastside, Conway, Battle Creek, Highwood	O Summit-University
Hill	🔘 Union Park
○ Frogtown (Thomas-Dale)	○ West Seventh/Fort Road
🔿 Greater East Side	
⊖ Hamline Midway	🔘 West Side
	○ Other
◯ Highland Park	○ I don't know
O Macalester-Groveland	
○ North End	

18. What is your racial or ethnic identity? Ch	oose one.
 African American / Black (including Somali, Nigerian, Oromo, Ethiopian) Asian (including Hmong, Cambodian, Vietnamese, Karen) Hispanic/Latinx Middle Eastern Other (please specify) 	 American Indian or Alaskan Native Native Hawaiian or Pacific Islander White Multiracial
19. What is your current age? Choose one.	
O Under 18	0 60-69
○ 18-29	0 70-79
○ 30-39	0 80-89
○ 40-49	🔘 90 or older
○ 50-59	
20. Are you or someone in your household li Yes No	iving with a disability? Choose one.
21. Is there anything you would like us to know you/your family can comfortably use the librar	0



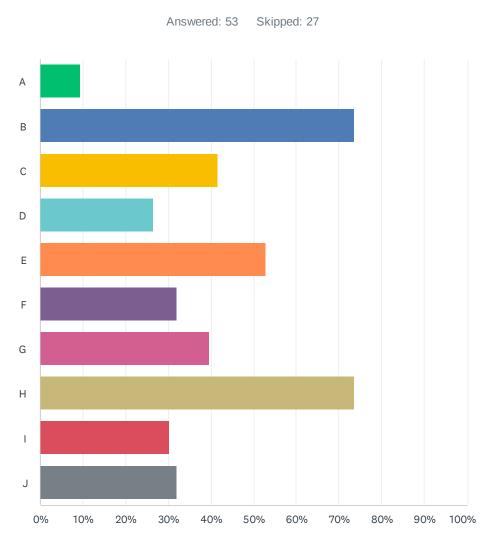
Q1 Which library would you like to provide feedback for?

ANSWER CHOICES	RESPONSES
Hamline Midway Library	0.00%
Hayden Heights Library	0.00%
Riverview Library	100.00% 80
TOTAL	80

Q2 Please share three words that describe the look and feel of a library where you would feel welcome and comfortable. Think about what you see, hear, feel, and smell.

ANSWER CHOICES	RESPONSES	
Α.	100.00%	52
В.	100.00%	52
C.	100.00%	52

Q3 Sustainability is a high priority for the library design. Connections to nature and outdoor space contribute to this goal as well as contribute to creating a healthy and inviting space. Which of these feels inviting to you? Select all that apply. Please note scale & use of these inspirational images will range greatly.

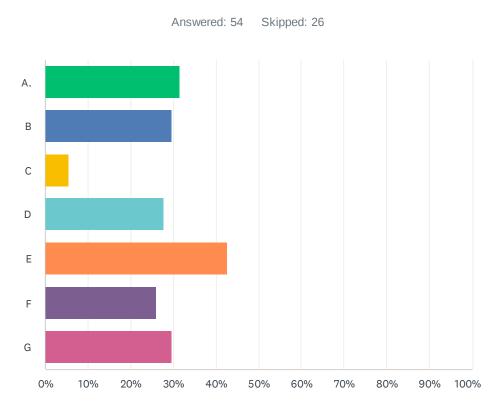


ANSWER CHOICES	RESPONSES	
A	9.43%	5
В	73.58%	39
С	41.51%	22
D	26.42%	14
E	52.83%	28
F	32.08%	17
G	39.62%	21
Н	73.58%	39
I	30.19%	16
J	32.08%	17
Total Respondents: 53		

Q4 What else would you like us to know about the exterior design of your library?

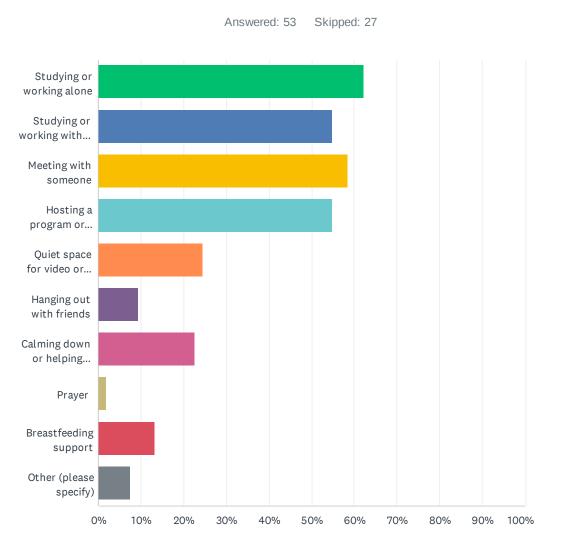
Q5 In what ways could we celebrate the cultures represented in your communities in the design of your library?

Q6 What ideas for color inspiration are you drawn to for your library? Pick up to two.



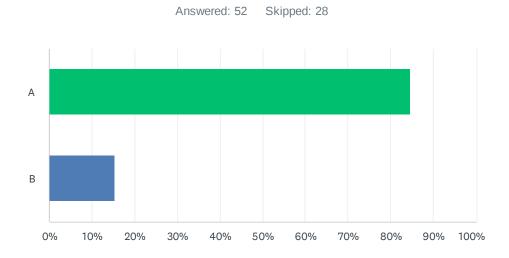
ANSWER CHOICES	RESPONSES	
Α.	31.48%	17
В	29.63%	16
С	5.56%	3
D	27.78%	15
E	42.59%	23
F	25.93%	14
G	29.63%	16
Total Respondents: 54		

Q7 What are the reasons you would want to use a room at the library? Check all that apply.



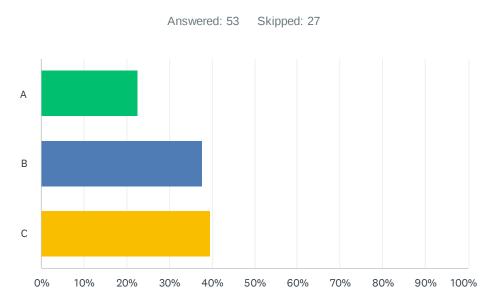
ANSWER CHOICES	RESPONSES	
Studying or working alone	62.26%	33
Studying or working with others	54.72%	29
Meeting with someone	58.49%	31
Hosting a program or event	54.72%	29
Quiet space for video or phone call	24.53%	13
Hanging out with friends	9.43%	5
Calming down or helping someone calm down	22.64%	12
Prayer	1.89%	1
Breastfeeding support	13.21%	7
Other (please specify)	7.55%	4
Total Respondents: 53		

Q8 For a medium-sized meeting room, which one do you prefer? Select your preference.



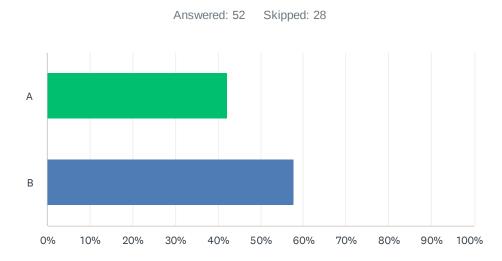
ANSWER CHOICES	RESPONSES	
A	84.62%	44
В	15.38%	8
TOTAL		52

Q9 For a small-sized meeting room, which do you prefer? Select your preference.



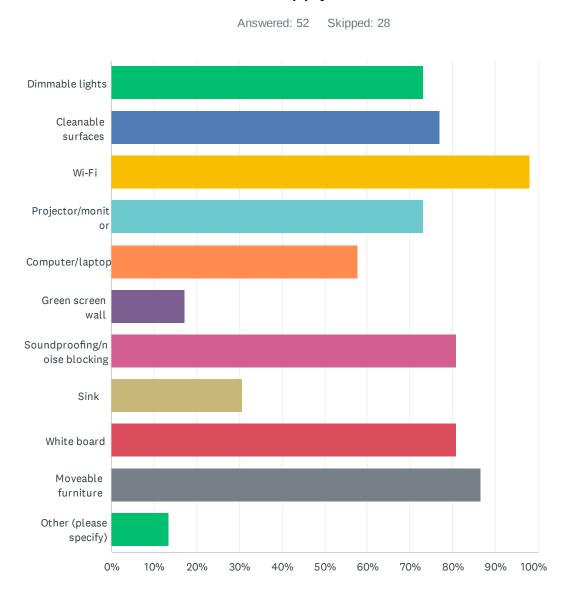
ANSWER CHOICES	RESPONSES	
A	22.64%	12
В	37.74%	20
С	39.62%	21
TOTAL		53

Q10 For a large-sized meeting room, which one do you prefer? Select your preference.



ANSWER CHOICES	RESPONSES	
A	42.31%	22
В	57.69%	30
TOTAL		52

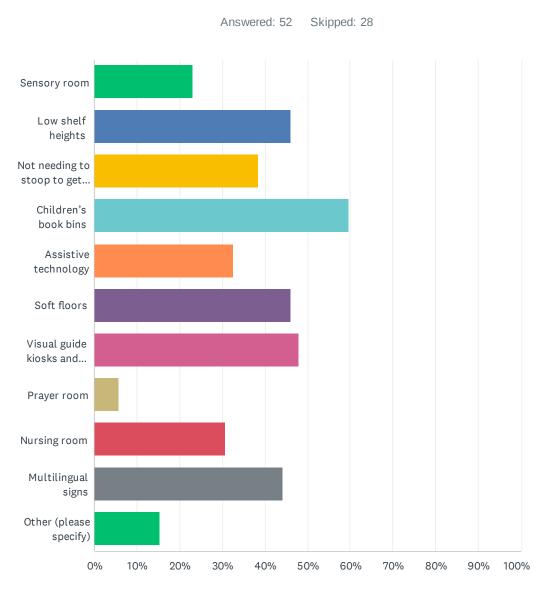
Q11 What features would you use in a meeting room? Choose all that apply.



ANSWER CHOICES	RESPONSES	
Dimmable lights	73.08%	38
Cleanable surfaces	76.92%	40
Wi-Fi	98.08%	51
Projector/monitor	73.08%	38
Computer/laptop	57.69%	30
Green screen wall	17.31%	9
Soundproofing/noise blocking	80.77%	42
Sink	30.77%	16
White board	80.77%	42
Moveable furniture	86.54%	45
Other (please specify)	13.46%	7
Total Respondents: 52		

Q12 What might be missing from these meeting rooms?

Q13 What would help you or your family be comfortable in your experience at the library? Choose all that apply.

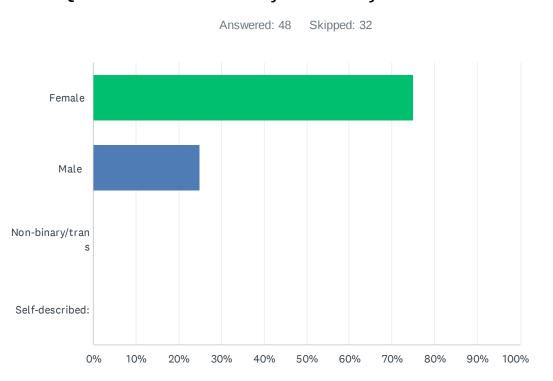


ANSWER CHOICES	RESPONSES	
Sensory room	23.08%	12
Low shelf heights	46.15%	24
Not needing to stoop to get books on bottom shelf	38.46%	20
Children's book bins	59.62%	31
Assistive technology	32.69%	17
Soft floors	46.15%	24
Visual guide kiosks and signage	48.08%	25
Prayer room	5.77%	3
Nursing room	30.77%	16
Multilingual signs	44.23%	23
Other (please specify)	15.38%	8
Total Respondents: 52		

Q14 What else do you want Library staff and LSE Architects to know about the design of your transformed library?

Q15 Would you like updates on our capital work and invitations to future opportunities to provide input for the transformation of libraries in Saint Paul? Join our Transforming Libraries newsletter by providing your email below.

ANSWER CHOICES	RESPONSES	
Name	0.00%	0
Company	0.00%	0
Address	0.00%	0
Address 2	0.00%	0
City/Town	0.00%	0
State/Province	0.00%	0
ZIP/Postal Code	0.00%	0
Country	0.00%	0
Email Address	100.00%	21
Phone Number	0.00%	0

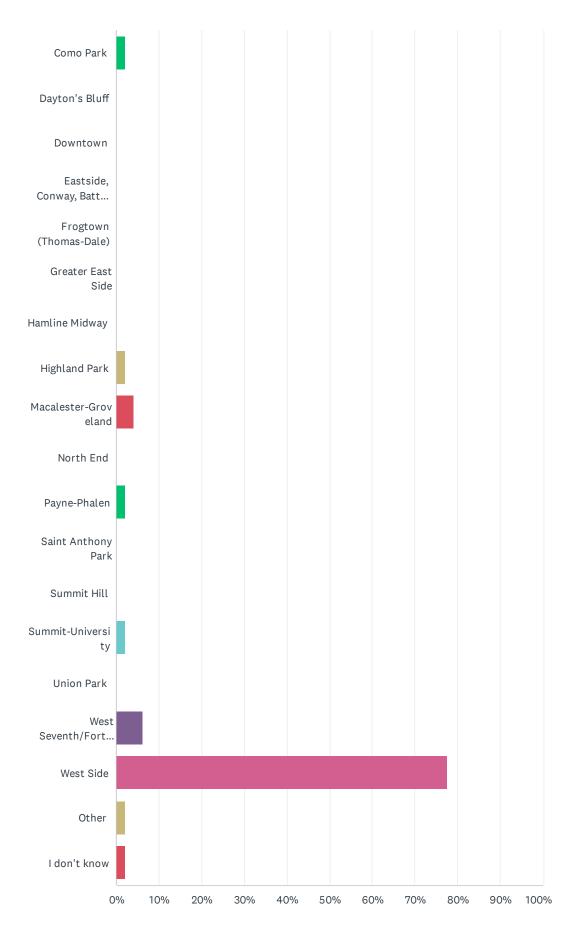


ANSWER CHOICES	RESPONSES	
Female	75.00%	36
Male	25.00%	12
Non-binary/trans	0.00%	0
Self-described:	0.00%	0
TOTAL		48

Q17 In which neighborhood do you live? Choose one.

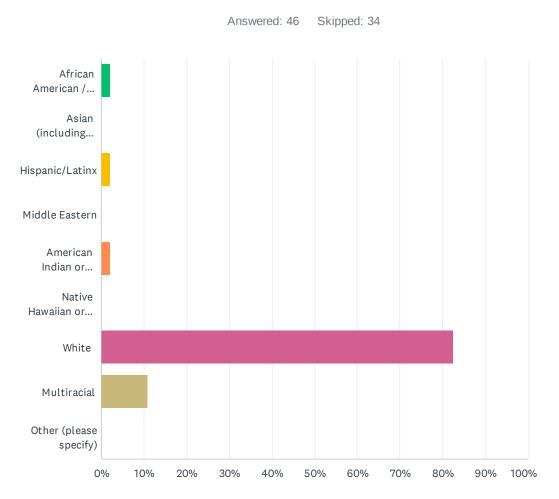
Answered: 49 Skipped: 31

TRANSFORMING LIBRARIES: Community Survey #2



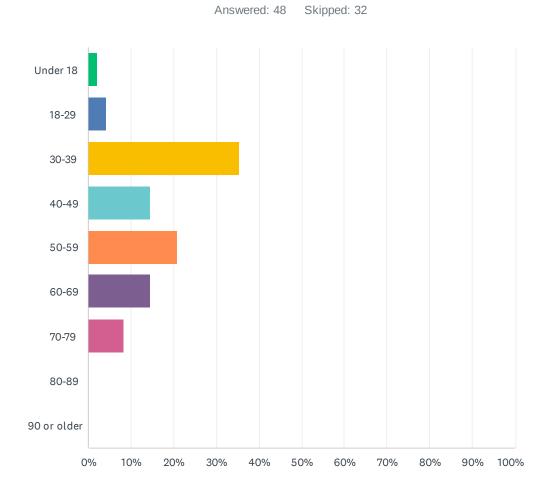
TRANSFORMING LIBRARIES: Community Survey #2

ANSWER CHOICES	RESPONSES	
Como Park	2.04%	1
Dayton's Bluff	0.00%	0
Downtown	0.00%	0
Eastside, Conway, Battle Creek, Highwood Hill	0.00%	0
Frogtown (Thomas-Dale)	0.00%	0
Greater East Side	0.00%	0
Hamline Midway	0.00%	0
Highland Park	2.04%	1
Macalester-Groveland	4.08%	2
North End	0.00%	0
Payne-Phalen	2.04%	1
Saint Anthony Park	0.00%	0
Summit Hill	0.00%	0
Summit-University	2.04%	1
Union Park	0.00%	0
West Seventh/Fort Road	6.12%	3
West Side	77.55%	38
Other	2.04%	1
I don't know	2.04%	1
TOTAL		49



Q18 What is your racial or ethnic identity? Choose one.

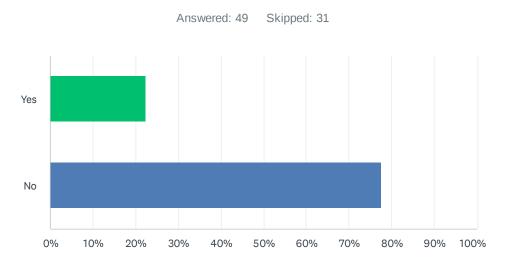
ANSWER CHOICES	RESPONSES	
African American / Black (including Somali, Nigerian, Oromo, Ethiopian)	2.17%	1
Asian (including Hmong, Cambodian, Vietnamese, Karen)	0.00%	0
Hispanic/Latinx	2.17%	1
Middle Eastern	0.00%	0
American Indian or Alaskan Native	2.17%	1
Native Hawaiian or Pacific Islander	0.00%	0
White	82.61%	38
Multiracial	10.87%	5
Other (please specify)	0.00%	0
TOTAL		46



Q19 What is your current age? Choose one.

ANSWER CHOICES	RESPONSES	
Under 18	2.08%	1
18-29	4.17%	2
30-39	35.42%	17
40-49	14.58%	7
50-59	20.83%	10
60-69	14.58%	7
70-79	8.33%	4
80-89	0.00%	0
90 or older	0.00%	0
TOTAL		48

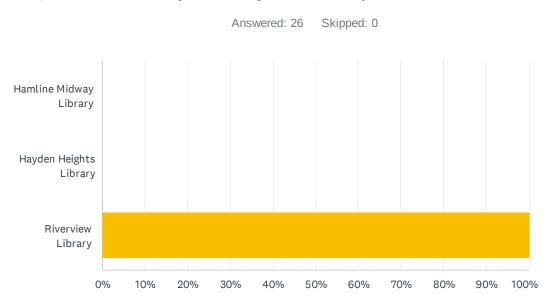
Q20 Are you or someone in your household living with a disability? Choose one.



ANSWER CHOICES	RESPONSES	
Yes	22.45%	11
No	77.55%	38
TOTAL		49

Q21 Is there anything you would like us to know about how to design a library that ensures you/your family can comfortably use the library?

Answered: 18 Skipped: 62



Q1 Which library would you like to provide feedback for?

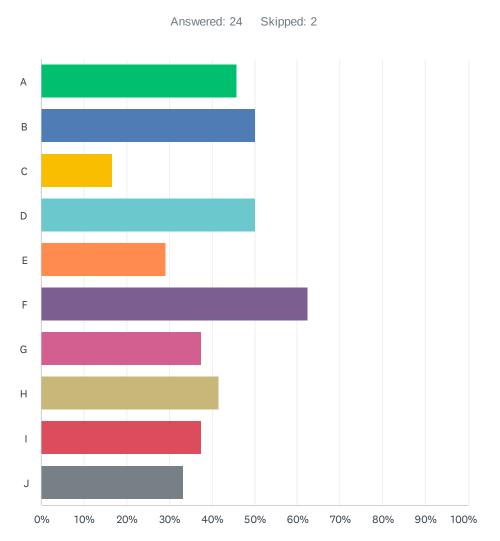
ANSWER CHOICES	RESPONSES	
Hamline Midway Library	0.00%	0
Hayden Heights Library	0.00%	0
Riverview Library	100.00%	26
TOTAL		26

Q2 Please share three words that describe the look and feel of a library where you would feel welcome and comfortable. Think about what you see, hear, feel, and smell.

Answered: 25 Skipped: 1

ANSWER CHOICES	RESPONSES	
Α.	100.00%	25
В.	96.00%	24
С.	88.00%	22

Q3 Sustainability is a high priority for the library design. Connections to nature and outdoor space contribute to this goal as well as contribute to creating a healthy and inviting space. Which of these feels inviting to you? Select all that apply. Please note scale & use of these inspirational images will range greatly.



Copy of TRANSFORMING LIBRARIES: Community Survey #2 - Hard Copy Entry

ANSWER CHOICES	RESPONSES	
A	45.83%	11
В	50.00%	12
С	16.67%	4
D	50.00%	12
E	29.17%	7
F	62.50%	15
G	37.50%	9
Н	41.67%	10
1	37.50%	9
J	33.33%	8
Total Respondents: 24		

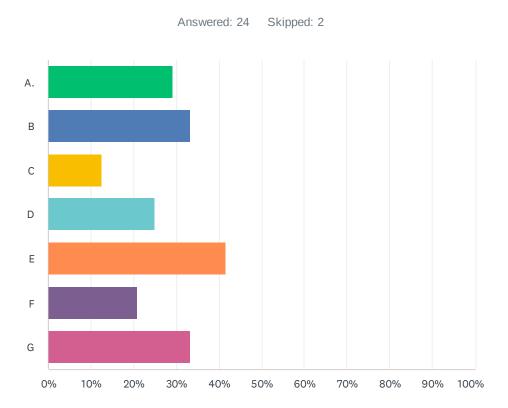
Q4 What else would you like us to know about the exterior design of your library?

Answered: 14 Skipped: 12

Q5 In what ways could we celebrate the cultures represented in your communities in the design of your library?

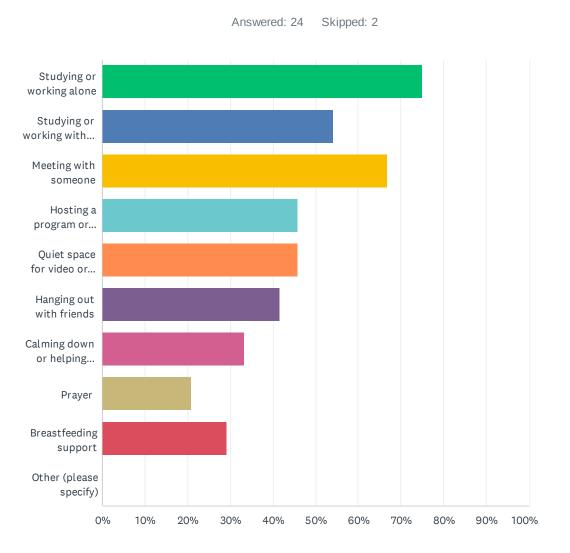
Answered: 9 Skipped: 17

Q6 What ideas for color inspiration are you drawn to for your library? Pick up to two.



ANSWER CHOICES	RESPONSES	
Α.	29.17%	7
В	33.33%	8
С	12.50%	3
D	25.00%	6
E	41.67%	10
F	20.83%	5
G	33.33%	8
Total Respondents: 24		

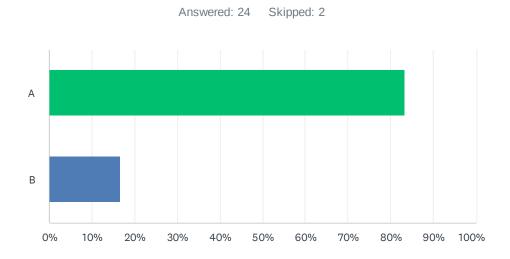
Q7 What are the reasons you would want to use a room at the library? Check all that apply.



Copy of TRANSFORMING LIBRARIES: Community Survey #2 - Hard Copy Entry

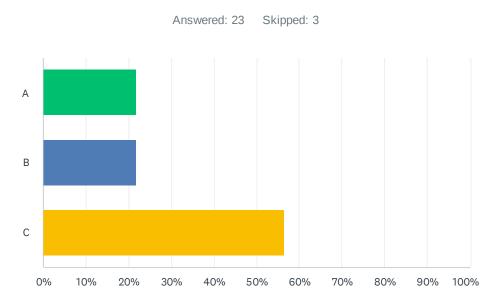
ANSWER CHOICES	RESPONSES	
Studying or working alone	75.00%	18
Studying or working with others	54.17%	13
Meeting with someone	66.67%	16
Hosting a program or event	45.83%	11
Quiet space for video or phone call	45.83%	11
Hanging out with friends	41.67%	10
Calming down or helping someone calm down	33.33%	8
Prayer	20.83%	5
Breastfeeding support	29.17%	7
Other (please specify)	0.00%	0
Total Respondents: 24		

Q8 For a medium-sized meeting room, which one do you prefer? Select your preference.



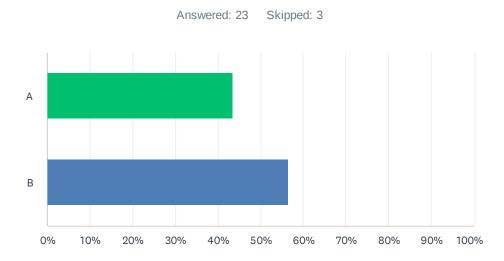
ANSWER CHOICES	RESPONSES	
A	83.33%	20
В	16.67%	4
TOTAL		24

Q9 For a small-sized meeting room, which do you prefer? Select your preference.



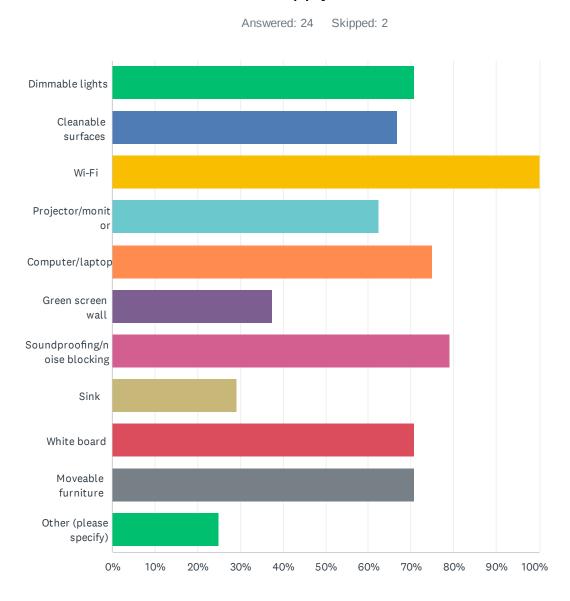
ANSWER CHOICES	RESPONSES	
A	21.74% 5	5
В	21.74% 5	5
С	56.52% 13	3
TOTAL	23	3

Q10 For a large-sized meeting room, which one do you prefer? Select your preference.



ANSWER CHOICES	RESPONSES	
A	43.48%	10
В	56.52%	13
TOTAL		23

Q11 What features would you use in a meeting room? Choose all that apply.



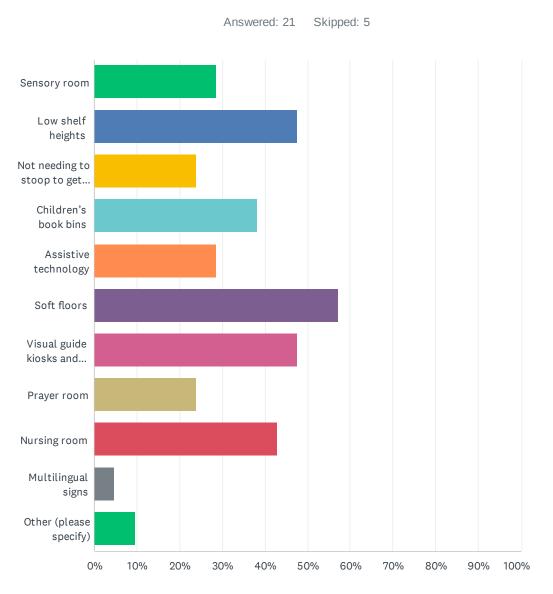
Copy of TRANSFORMING LIBRARIES: Community Survey #2 - Hard Copy Entry

ANSWER CHOICES	RESPONSES	
Dimmable lights	70.83%	17
Cleanable surfaces	66.67%	16
Wi-Fi	100.00%	24
Projector/monitor	62.50%	15
Computer/laptop	75.00%	18
Green screen wall	37.50%	9
Soundproofing/noise blocking	79.17%	19
Sink	29.17%	7
White board	70.83%	17
Moveable furniture	70.83%	17
Other (please specify)	25.00%	6
Total Respondents: 24		

Q12 What might be missing from these meeting rooms?

Answered: 9 Skipped: 17

Q13 What would help you or your family be comfortable in your experience at the library? Choose all that apply.



Copy of TRANSFORMING LIBRARIES: Community Survey #2 - Hard Copy Entry

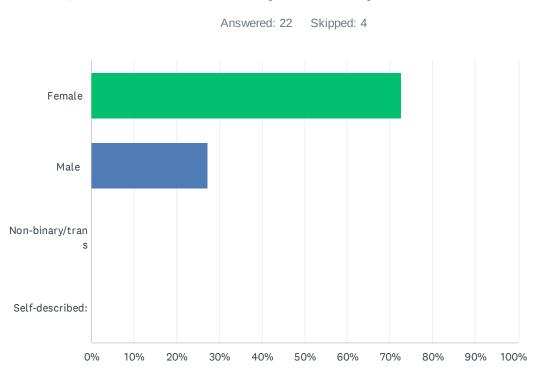
ANSWER CHOICES	RESPONSES	
Sensory room	28.57%	6
Low shelf heights	47.62%	10
Not needing to stoop to get books on bottom shelf	23.81%	5
Children's book bins	38.10%	8
Assistive technology	28.57%	6
Soft floors	57.14%	12
Visual guide kiosks and signage	47.62%	10
Prayer room	23.81%	5
Nursing room	42.86%	9
Multilingual signs	4.76%	1
Other (please specify)	9.52%	2
Total Respondents: 21		

Q14 What else do you want Library staff and LSE Architects to know about the design of your transformed library?

Answered: 7 Skipped: 19

Q15 Would you like updates on our capital work and invitations to future opportunities to provide input for the transformation of libraries in Saint Paul? Join our Transforming Libraries newsletter by providing your email below.

Answered: 11 Skipped: 15 **ANSWER CHOICES** RESPONSES 0.00% 0 Name 0.00% 0 Company 0.00% 0 Address 0.00% 0 Address 2 0.00% 0 City/Town 0.00% 0 State/Province 0.00% 0 **ZIP/Postal Code** 0.00% 0 Country 100.00% 11 Email Address 0.00% 0 Phone Number



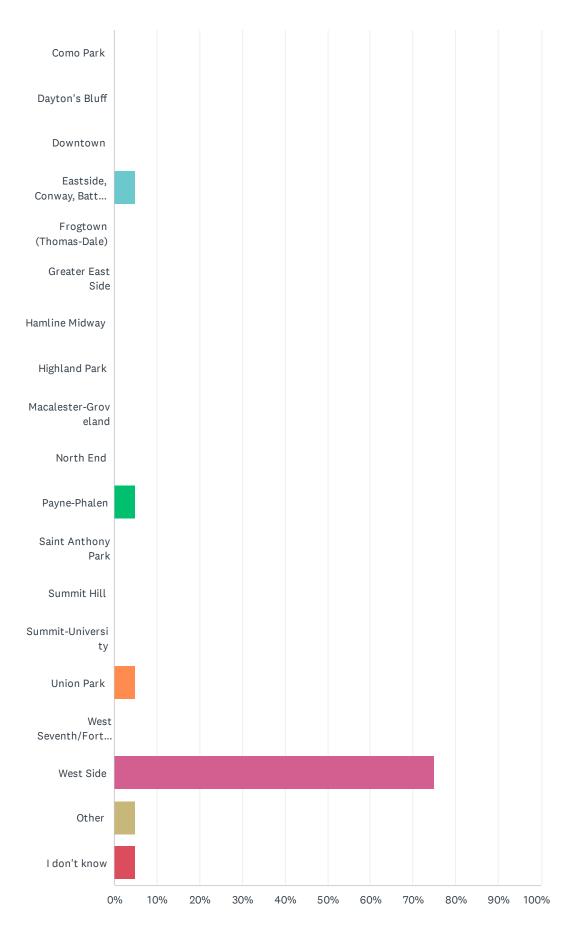
ANSWER CHOICES	RESPONSES
Female	72.73% 16
Male	27.27% 6
Non-binary/trans	0.00% 0
Self-described:	0.00% 0
TOTAL	22

Q16 Gender: How do you identify? Choose one.

Q17 In which neighborhood do you live? Choose one.

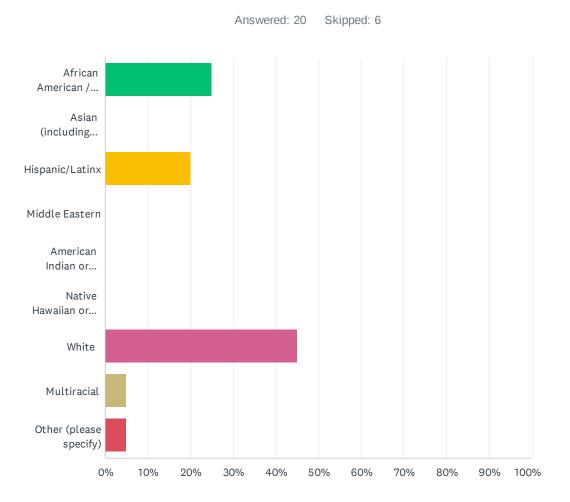
Answered: 20 Skipped: 6

Copy of TRANSFORMING LIBRARIES: Community Survey #2 - Hard Copy Entry



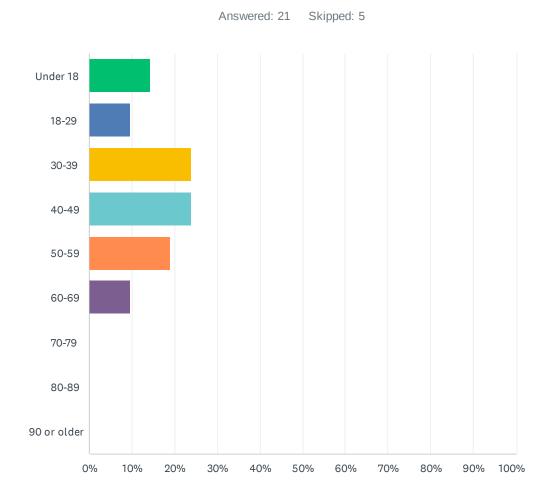
Copy of TRANSFORMING LIBRARIES: Community Survey #2 - Hard Copy Entry

ANSWER CHOICES	RESPONSES	
Como Park	0.00%	0
Dayton's Bluff	0.00%	0
Downtown	0.00%	0
Eastside, Conway, Battle Creek, Highwood Hill	5.00%	1
Frogtown (Thomas-Dale)	0.00%	0
Greater East Side	0.00%	0
Hamline Midway	0.00%	0
Highland Park	0.00%	0
Macalester-Groveland	0.00%	0
North End	0.00%	0
Payne-Phalen	5.00%	1
Saint Anthony Park	0.00%	0
Summit Hill	0.00%	0
Summit-University	0.00%	0
Union Park	5.00%	1
West Seventh/Fort Road	0.00%	0
West Side	75.00%	15
Other	5.00%	1
I don't know	5.00%	1
TOTAL		20



Q18 What is your racial or ethnic identity? Choose one.

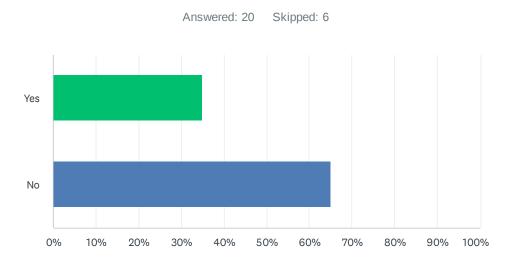
ANSWER CHOICES	RESPONSES	
African American / Black (including Somali, Nigerian, Oromo, Ethiopian)	25.00%	5
Asian (including Hmong, Cambodian, Vietnamese, Karen)	0.00%	0
Hispanic/Latinx	20.00%	4
Middle Eastern	0.00%	0
American Indian or Alaskan Native	0.00%	0
Native Hawaiian or Pacific Islander	0.00%	0
White	45.00%	9
Multiracial	5.00%	1
Other (please specify)	5.00%	1
TOTAL		20



Q19 What is your current age? Choose one.

ANSWER CHOICES	RESPONSES	
Under 18	14.29%	3
18-29	9.52%	2
30-39	23.81%	5
40-49	23.81%	5
50-59	19.05%	4
60-69	9.52%	2
70-79	0.00%	0
80-89	0.00%	0
90 or older	0.00%	0
TOTAL		21

Q20 Are you or someone in your household living with a disability? Choose one.



ANSWER CHOICES	RESPONSES	
Yes	35.00%	7
No	65.00%	13
TOTAL		20

Q21 Is there anything you would like us to know about how to design a library that ensures you/your family can comfortably use the library?

Answered: 4 Skipped: 22



TRANSFORMING LIBRARIES: Community Survey #3

Based on what we have heard from residents in Saint Paul about their wants, needs, and dreams for their libraries, Saint Paul Public Library (SPPL) has set a vision to create libraries that are safe, inviting, affirming, and comfortable libraries for people of all cultures, abilities and communities.

Through extensive community engagement earlier this year, design directions have been determined for three libraries we seek to transform: Hamline Midway, Hayden Heights, and Riverview. Each library's building direction will focus on maximizing accessibility, environmental sustainability, safety, and transformative equity in design.

We are continuing to refine and evolve the building designs with your input as well as technical guidance from the project team and consultants.

Please complete this short survey. Your input will inform the next set of library designs that will be shared with the community this fall.

Visit **sppl.org/transform** for the online survey and to sign up for the newsletter to learn about future opportunities to provide feedback and share.

1. Which library would you like to provide feedback for?

O Hamline Midway Library

O Hayden Heights Library

O Riverview Library



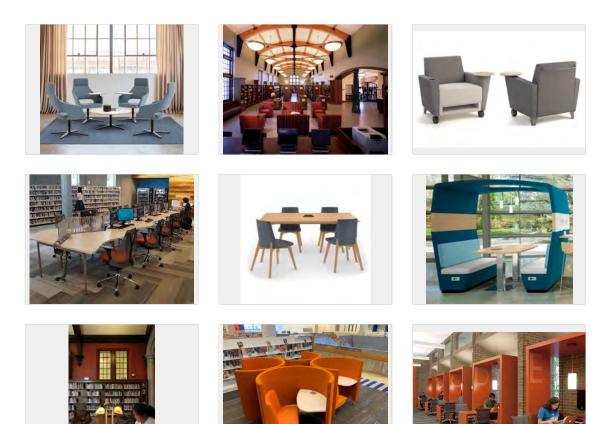
TRANSFORMING LIBRARIES: Community Survey #3

2. Which of the following have you participated in ?

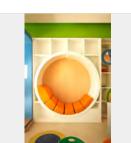
SPPL Strategic Planning

- Community Open Houses, Design Workshops
 - Office Hours, Listening Sessions
- Surveys
- Dream Boards displayed at my library
- Other community conversations
- This is my first engagement in this process

3. Which of the types of furnishings below would you most like to see at your library? Choose all that apply.



4. Which of following types of Play and Learn activities would you most like to see in the Children's area of your library? Choose all that apply.





















5. What types of art would you like to see incorporated into your new library	/? Choose all
that apply.	

Murals	
Mosaics	
Textiles Fabrics	
Interactive	
🗌 Digital	
Sculpture	
Photography	
Other (please specify)	
6. What types of themes would you like to se apply.	ee featured in artworks? Choose all that
Nature and Land	Youth Stories
Community Values	Celebration of Books and Reading
Neighborhood History & Stories	
Other (please specify)	
7. Would you like updates on our capital work t our Transforming Libraries newsletter by provi	

Email Address



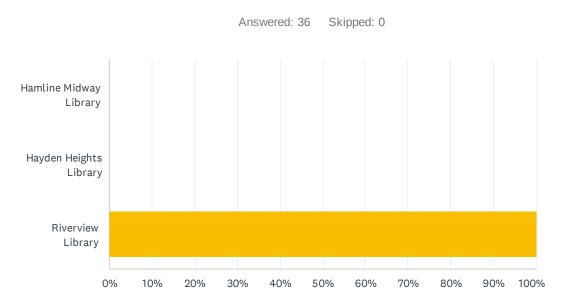
TRANSFORMING LIBRARIES: Community Survey #3

Demographics (optional)

SPPL is committed to engaging with and hearing the voices of our diverse community. By collecting this information, we can identify how to better hear voices that are underrepresented. Thank you for providing that information in the following questions. You may choose not to respond.

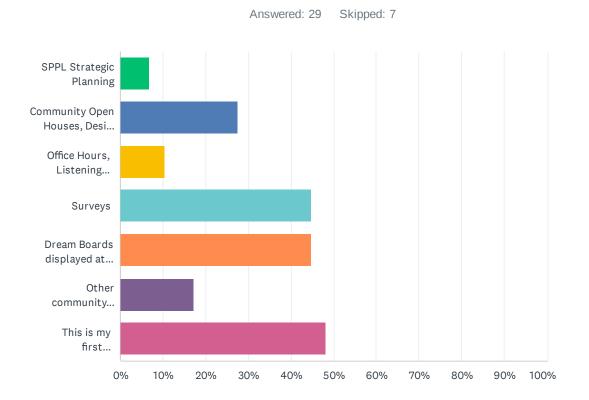
8. Gender: How do you identify? Choose one	
◯ Female	◯ Trans Male
◯ Male	○ Non-binary
◯ Trans Female	
○ Self-described:	
9. In which neighborhood do you live? Choos	se one.
🔿 Como Park	○ Payne-Phalen
🔿 Dayton's Bluff	🔿 Saint Anthony Park
O Downtown	🔿 Summit Hill
C Eastside, Conway, Battle Creek, Highwood	O Summit-University
Hill	🔿 Union Park
) Frogtown (Thomas-Dale)	○ West Seventh/Fort Road
) Greater East Side	🔿 West Side
○ Hamline Midway	◯ Other
◯ Highland Park	○ I don't know
O Macalester-Groveland	
○ North End	

10. What is your racial or ethnic identity? Choose one.			
African American / Black (including Company)	O American Indian or Alaskan Native		
Somali, Nigerian, Oromo, Ethiopian)	O Native Hawaiian or Pacific Islander		
 Asian (including Hmong, Cambodian, Vietnamese, Karen) 	○ White		
◯ Hispanic/Latinx	O Multiracial		
O Middle Eastern			
Other (please specify)			
11. What is your current age? Choose one.			
🔿 Under 18	0 60-69		
○ 18-29	0 70-79		
○ 30-39	0 80-89		
0 40-49	🔘 90 or older		
○ 50-59			
12. Are you or someone in your household l	iving with a disability? Choose one.		
⊖ Yes			
◯ No			



Q1 Which library would you like to provide feedback for?

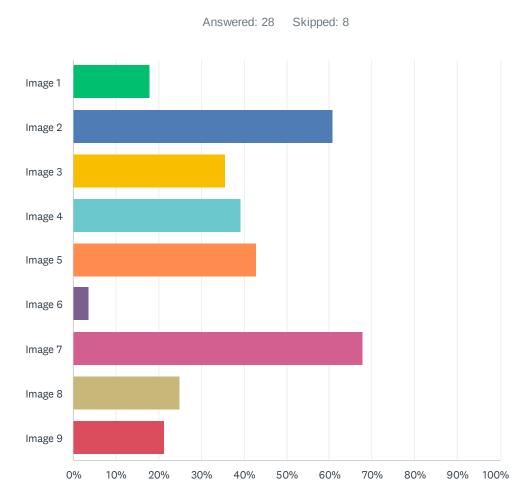
ANSWER CHOICES	RESPONSES	
Hamline Midway Library	0.00%	0
Hayden Heights Library	0.00%	0
Riverview Library	100.00%	36
TOTAL		36



Q2 Which of the following have you participated in ?

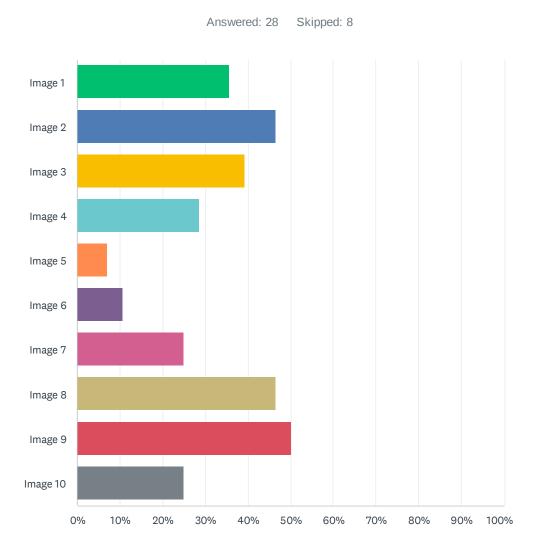
ANSWER CHOICES	RESPONSES	
SPPL Strategic Planning	6.90%	2
Community Open Houses, Design Workshops	27.59%	8
Office Hours, Listening Sessions	10.34%	3
Surveys	44.83%	13
Dream Boards displayed at my library	44.83%	13
Other community conversations	17.24%	5
This is my first engagement in this process	48.28%	14
Total Respondents: 29		

Q3 Which of the types of furnishings below would you most like to see at your library? Choose all that apply.



ANSWER CHOICES	RESPONSES	
Image 1	17.86%	5
Image 2	60.71%	17
Image 3	35.71%	10
Image 4	39.29%	11
Image 5	42.86%	12
Image 6	3.57%	1
Image 7	67.86%	19
Image 8	25.00%	7
Image 9	21.43%	6
Total Respondents: 28		

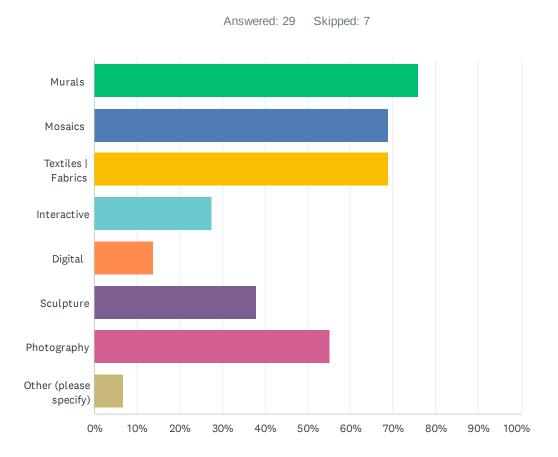
Q4 Which of following types of Play and Learn activities would you most like to see in the Children's area of your library? Choose all that apply.



TRANSFORMING LIBRARIES: Community Survey #3

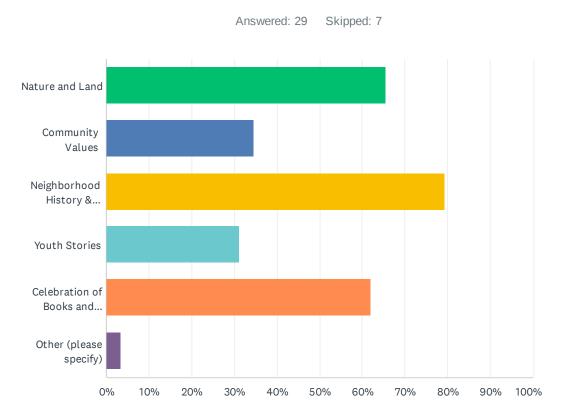
ANSWER CHOICES	RESPONSES	
Image 1	35.71%	10
Image 2	46.43%	13
Image 3	39.29%	11
Image 4	28.57%	8
Image 5	7.14%	2
Image 6	10.71%	3
Image 7	25.00%	7
Image 8	46.43%	13
Image 9	50.00%	14
Image 10	25.00%	7
Total Respondents: 28		

Q5 What types of art would you like to see incorporated into your new library? Choose all that apply.



ANSWER CHOICES	RESPONSES	
Murals	75.86%	22
Mosaics	68.97%	20
Textiles Fabrics	68.97%	20
Interactive	27.59%	8
Digital	13.79%	4
Sculpture	37.93%	11
Photography	55.17%	16
Other (please specify)	6.90%	2
Total Respondents: 29		

Q6 What types of themes would you like to see featured in artworks? Choose all that apply.

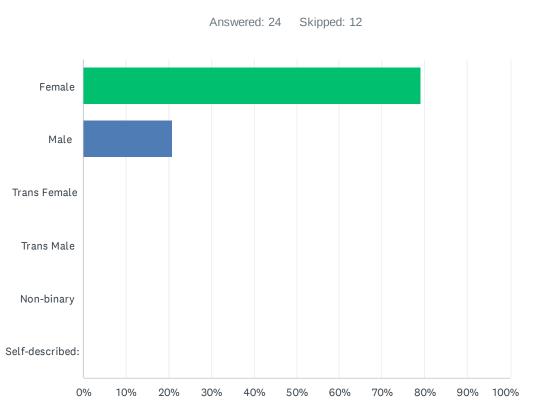


ANSWER CHOICES	RESPONSES	
Nature and Land	65.52%	19
Community Values	34.48%	10
Neighborhood History & Stories	79.31%	23
Youth Stories	31.03%	9
Celebration of Books and Reading	62.07%	18
Other (please specify)	3.45%	1
Total Respondents: 29		

Q7 Would you like updates on our capital work to transform libraries in Saint Paul? Join our Transforming Libraries newsletter by providing your email below.

Answered: 5 Skipped: 31

ANSWER CHOICES	RESPONSES	
Name	0.00%	0
Company	0.00%	0
Address	0.00%	0
Address 2	0.00%	0
City/Town	0.00%	0
State/Province	0.00%	0
ZIP/Postal Code	0.00%	0
Country	0.00%	0
Email Address	100.00%	5
Phone Number	0.00%	0

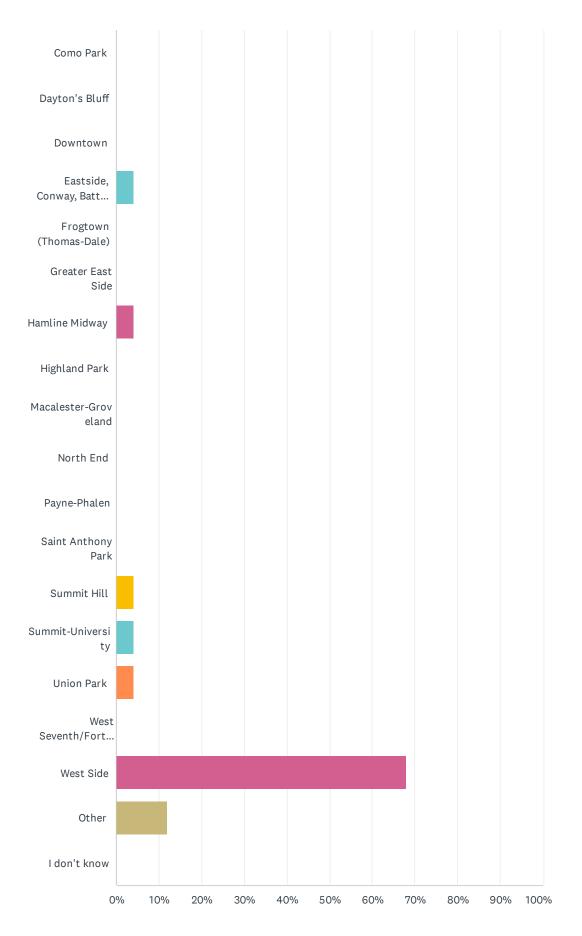


ANSWER CHOICES	RESPONSES	
Female	79.17%	19
Male	20.83%	5
Trans Female	0.00%	0
Trans Male	0.00%	0
Non-binary	0.00%	0
Self-described:	0.00%	0
TOTAL		24

Q9 In which neighborhood do you live? Choose one.

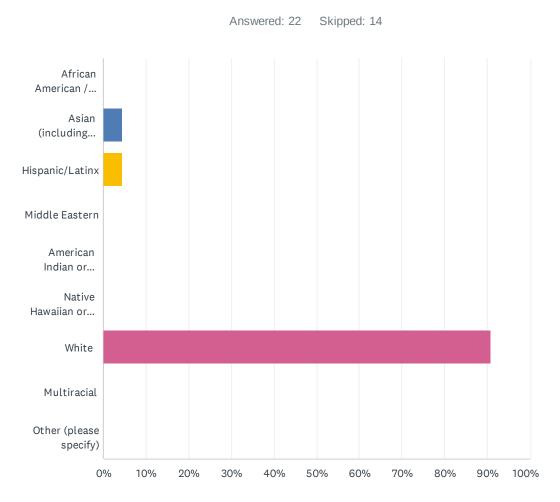
Answered: 25 Skipped: 11

TRANSFORMING LIBRARIES: Community Survey #3



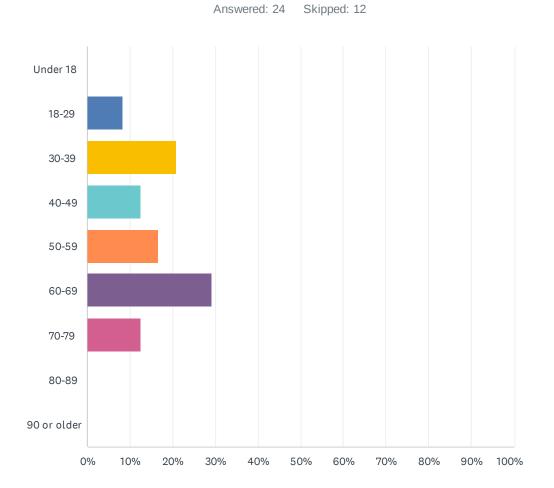
TRANSFORMING LIBRARIES: Community Survey #3

ANSWER CHOICES	RESPONSES	
Como Park	0.00%	0
Dayton's Bluff	0.00%	0
Downtown	0.00%	0
Eastside, Conway, Battle Creek, Highwood Hill	4.00%	1
Frogtown (Thomas-Dale)	0.00%	0
Greater East Side	0.00%	0
Hamline Midway	4.00%	1
Highland Park	0.00%	0
Macalester-Groveland	0.00%	0
North End	0.00%	0
Payne-Phalen	0.00%	0
Saint Anthony Park	0.00%	0
Summit Hill	4.00%	1
Summit-University	4.00%	1
Union Park	4.00%	1
West Seventh/Fort Road	0.00%	0
West Side	68.00%	17
Other	12.00%	3
I don't know	0.00%	0
TOTAL		25



Q10 What is your racial or ethnic identity? Choose one.

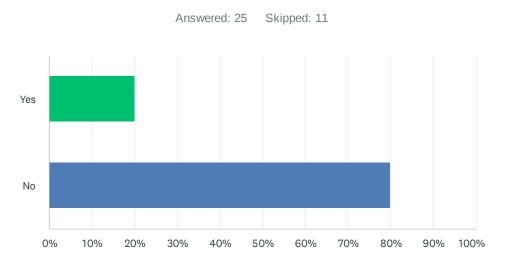
ANSWER CHOICES	RESPONSES	
African American / Black (including Somali, Nigerian, Oromo, Ethiopian)	0.00%	0
Asian (including Hmong, Cambodian, Vietnamese, Karen)	4.55%	1
Hispanic/Latinx	4.55%	1
Middle Eastern	0.00%	0
American Indian or Alaskan Native	0.00%	0
Native Hawaiian or Pacific Islander	0.00%	0
White	90.91%	20
Multiracial	0.00%	0
Other (please specify)	0.00%	0
TOTAL		22



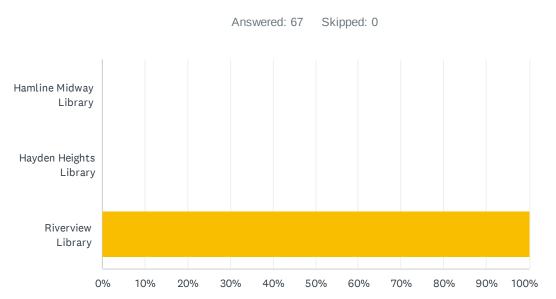
Q11 What is your current age? Choose one.

ANSWER CHOICES	RESPONSES	
Under 18	0.00%	0
18-29	8.33%	2
30-39	20.83%	5
40-49	12.50%	3
50-59	16.67%	4
60-69	29.17%	7
70-79	12.50%	3
80-89	0.00%	0
90 or older	0.00%	0
TOTAL		24

Q12 Are you or someone in your household living with a disability? Choose one.

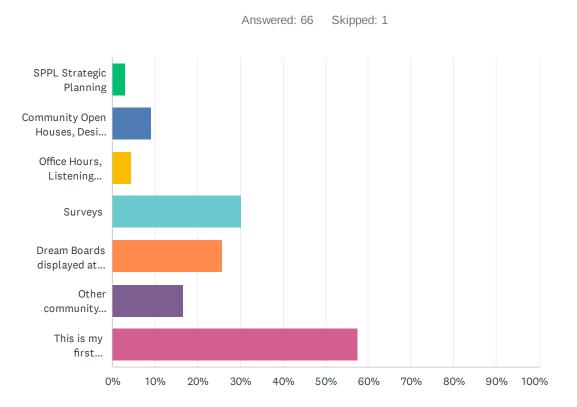


ANSWER CHOICES	RESPONSES	
Yes	20.00%	5
No	80.00%	20
TOTAL		25



Q1 Which library would you like to provide feedback for?

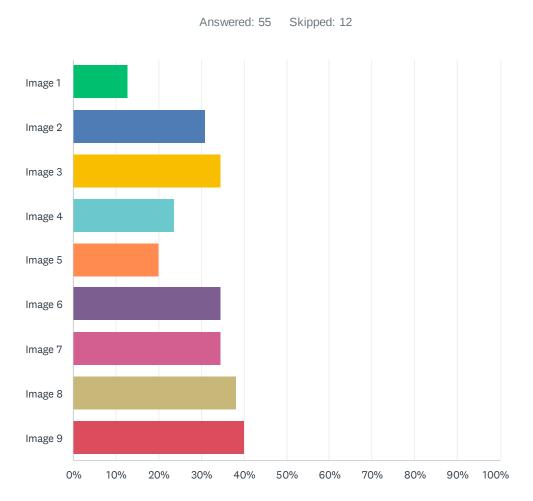
ANSWER CHOICES	RESPONSES	
Hamline Midway Library	0.00%	0
Hayden Heights Library	0.00%	0
Riverview Library	100.00%	67
TOTAL		67



Q2 Which of the following have you participated in ?

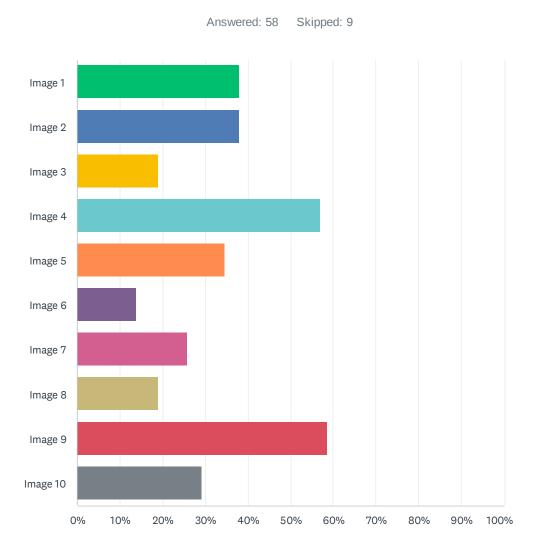
ANSWER CHOICES	RESPONSES	
SPPL Strategic Planning	3.03%	2
Community Open Houses, Design Workshops	9.09%	6
Office Hours, Listening Sessions	4.55%	3
Surveys	30.30%	20
Dream Boards displayed at my library	25.76%	17
Other community conversations	16.67%	11
This is my first engagement in this process	57.58%	38
Total Respondents: 66		

Q3 Which of the types of furnishings below would you most like to see at your library? Choose all that apply.



ANSWER CHOICES	RESPONSES	
Image 1	12.73%	7
Image 2	30.91%	17
Image 3	34.55%	19
Image 4	23.64%	13
Image 5	20.00%	11
Image 6	34.55%	19
Image 7	34.55%	19
Image 8	38.18%	21
Image 9	40.00%	22
Total Respondents: 55		

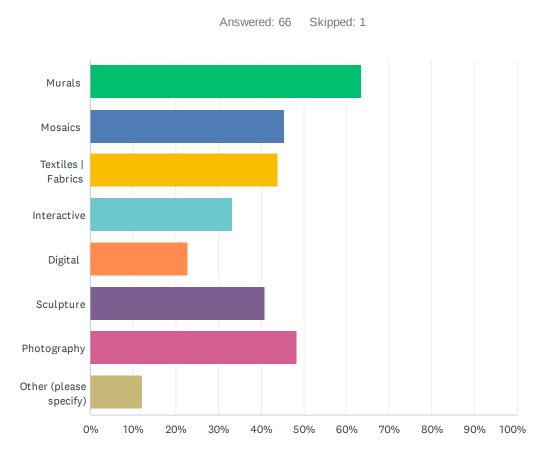
Q4 Which of following types of Play and Learn activities would you most like to see in the Children's area of your library? Choose all that apply.



POP UP VERSION - TRANSFORMING LIBRARIES: Community Survey #3

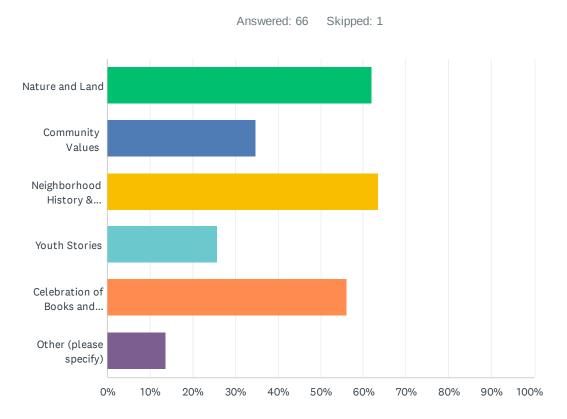
ANSWER CHOICES	RESPONSES	
Image 1	37.93%	22
Image 2	37.93%	22
Image 3	18.97%	11
Image 4	56.90%	33
Image 5	34.48%	20
Image 6	13.79%	8
Image 7	25.86%	15
Image 8	18.97%	11
Image 9	58.62%	34
Image 10	29.31%	17
Total Respondents: 58		

Q5 What types of art would you like to see incorporated into your new library? Choose all that apply.



ANSWER CHOICES	RESPONSES	
Murals	63.64%	42
Mosaics	45.45%	30
Textiles Fabrics	43.94%	29
Interactive	33.33%	22
Digital	22.73%	15
Sculpture	40.91%	27
Photography	48.48%	32
Other (please specify)	12.12%	8
Total Respondents: 66		

Q6 What types of themes would you like to see featured in artworks? Choose all that apply.

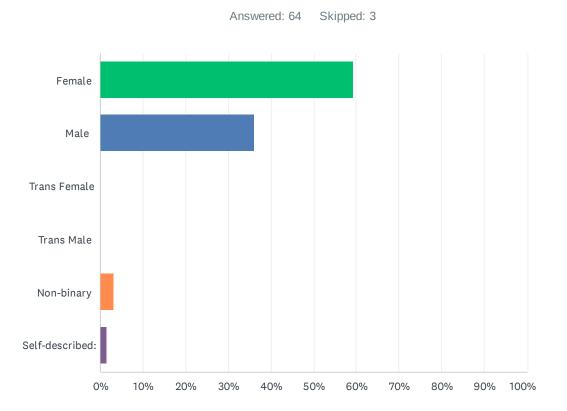


ANSWER CHOICES	RESPONSES	
Nature and Land	62.12%	41
Community Values	34.85%	23
Neighborhood History & Stories	63.64%	42
Youth Stories	25.76%	17
Celebration of Books and Reading	56.06%	37
Other (please specify)	13.64%	9
Total Respondents: 66		

Q7 Would you like updates on our capital work to transform libraries in Saint Paul? Join our Transforming Libraries newsletter by providing your email below.

Answered: 19 Skipped: 48

ANSWER CHOICES	RESPONSES	
Name	0.00%	0
Company	0.00%	0
Address	0.00%	0
Address 2	0.00%	0
City/Town	0.00%	0
State/Province	0.00%	0
ZIP/Postal Code	0.00%	0
Country	0.00%	0
Email Address	100.00%	19
Phone Number	0.00%	0

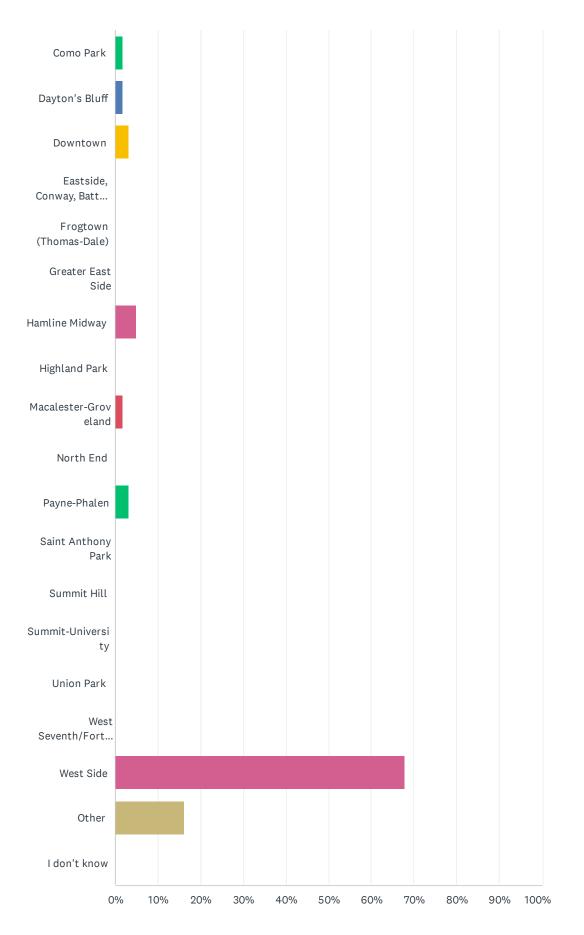


ANSWER CHOICES	RESPONSES	
Female	59.38%	38
Male	35.94%	23
Trans Female	0.00%	0
Trans Male	0.00%	0
Non-binary	3.13%	2
Self-described:	1.56%	1
TOTAL		64

Q9 In which neighborhood do you live? Choose one.

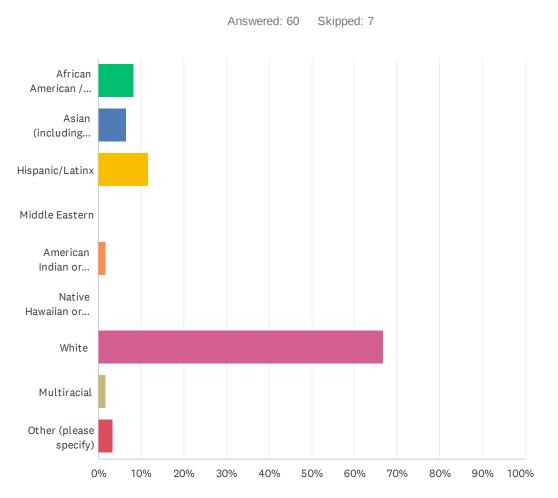
Answered: 62 Skipped: 5

POP UP VERSION - TRANSFORMING LIBRARIES: Community Survey #3



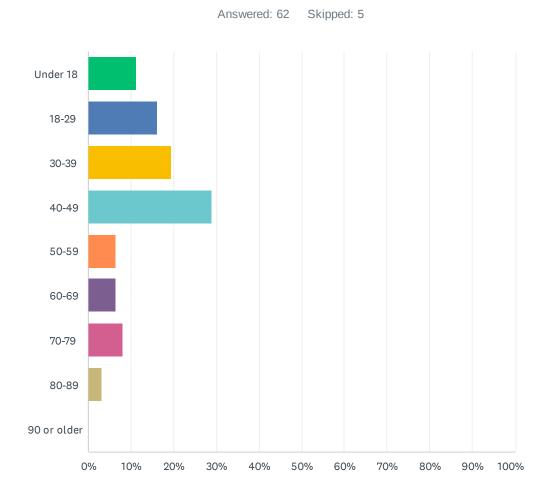
POP UP VERSION - TRANSFORMING LIBRARIES: Community Survey #3

ANSWER CHOICES	RESPONSES	
Como Park	1.61%	1
Dayton's Bluff	1.61%	1
Downtown	3.23%	2
Eastside, Conway, Battle Creek, Highwood Hill	0.00%	0
Frogtown (Thomas-Dale)	0.00%	0
Greater East Side	0.00%	0
Hamline Midway	4.84%	3
Highland Park	0.00%	0
Macalester-Groveland	1.61%	1
North End	0.00%	0
Payne-Phalen	3.23%	2
Saint Anthony Park	0.00%	0
Summit Hill	0.00%	0
Summit-University	0.00%	0
Union Park	0.00%	0
West Seventh/Fort Road	0.00%	0
West Side	67.74%	42
Other	16.13%	10
I don't know	0.00%	0
TOTAL		62



Q10 What is your racial or ethnic identity? Choose one.

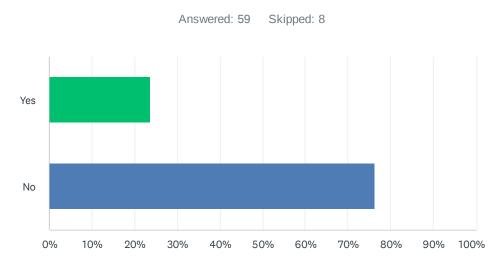
ANSWER CHOICES	RESPONSES	
African American / Black (including Somali, Nigerian, Oromo, Ethiopian)	8.33%	5
Asian (including Hmong, Cambodian, Vietnamese, Karen)	6.67%	4
Hispanic/Latinx	11.67%	7
Middle Eastern	0.00%	0
American Indian or Alaskan Native	1.67%	1
Native Hawaiian or Pacific Islander	0.00%	0
White	66.67%	40
Multiracial	1.67%	1
Other (please specify)	3.33%	2
TOTAL		60



Q11 What is your current age? Choose one.

ANSWER CHOICES	RESPONSES	
Under 18	11.29%	7
18-29	16.13%	10
30-39	19.35%	12
40-49	29.03%	18
50-59	6.45%	4
60-69	6.45%	4
70-79	8.06%	5
80-89	3.23%	2
90 or older	0.00%	0
TOTAL		62

Q12 Are you or someone in your household living with a disability? Choose one.



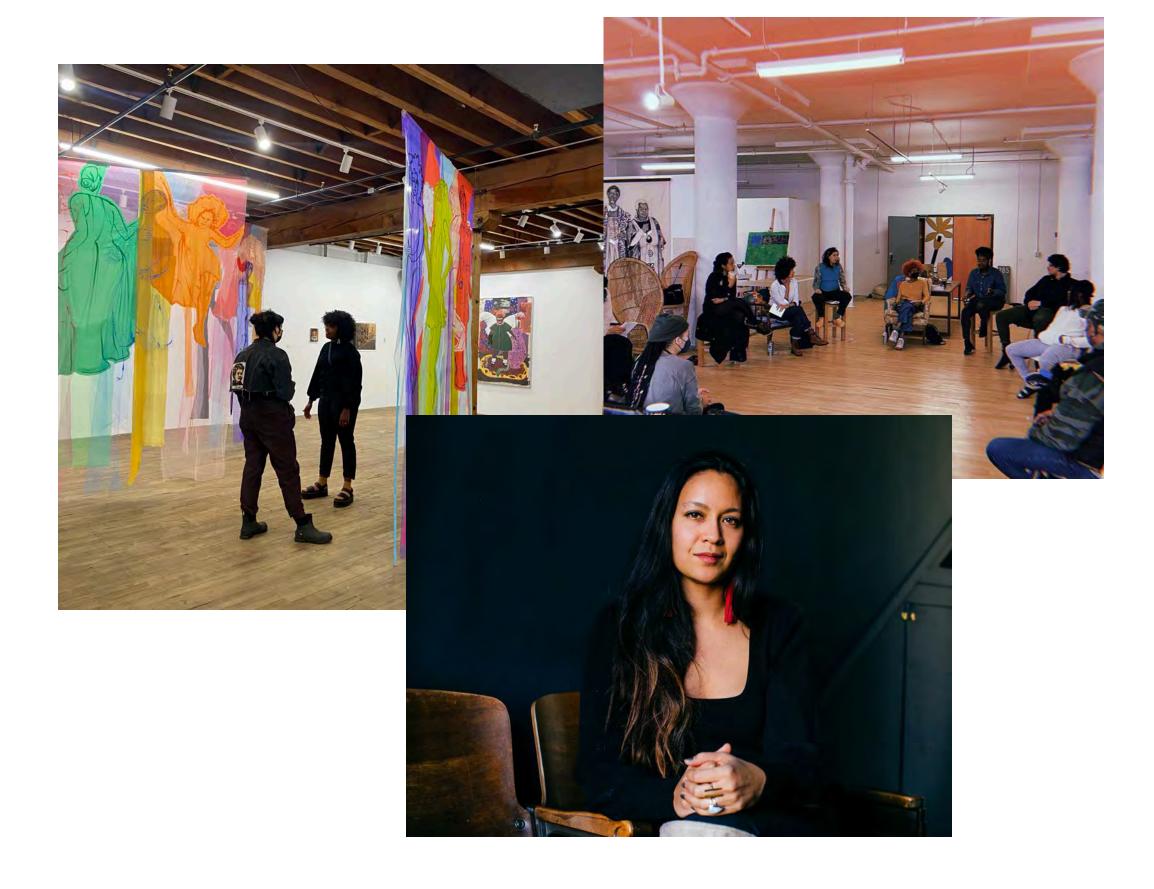
ANSWER CHOICES	RESPONSES	
Yes	23.73%	14
No	76.27%	45
TOTAL		59

The Artist Advisory Cohort participated in the ongoing community engagement effort for the design of the Hamline Midway, Hayden Heights and Riverview Libraries.

Their work included:

- Examining data collected to date through previous engagement efforts.
- Research visits to area libraries.
- Participation in pop-ups and open house events with community.
- Ideation on creative engagement sessions with LSE.
- Reflections on their own experience as St. Paul artists and community members to creatively inspire dialogue about the future of libraries.
- Recommendations for arts engagement and/or incorporation of public artworks

• Regular meetings and events with LSE and SPPL, as well as monthly work sessions as a cohort.



LSE worked with Curatorial Consultant: Tricia Heuring to design the artist cohort

Tricia Heuring is a Thai American curator, arts organizer, and educator. She supports emerging BIPOC artists to develop resources, studio practice, and exhibitions. Advocating for an equitable and inclusive MSP arts sector has led to collaborative work, consulting and teaching within grant-making, public art, and academic organizations. Tricia is a graduate of Macalester College and holds an M.A. in arts management from St. Mary's University.

How the Artist Cohort was selected:

- Skilled in facilitation
- History of working with the public
- Well suited to designing and carrying out public engagement that is creative and effective.
- Connection to populations otherwise difficult to engage in a participatory planning process.
- Authentic connection to St. Paul the places, neighborhood and context of each library
- Well versed and experienced in contexts that require cultural understanding and empathy
- Practices a Community-engaged arts approach + Public Art practice/experience



Bayou

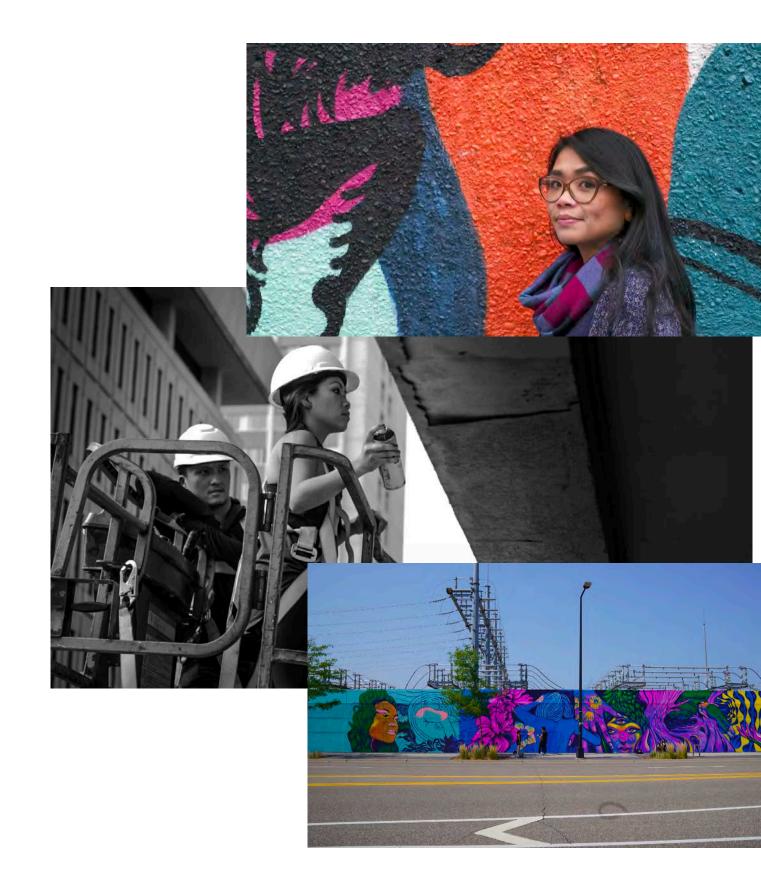
Bayou also creates murals and digital illustrations, design digital and print materials, and works as a teaching artist. His intention is to use his talents in art, design, and idea connecting to generate and support community-driven creative works that center healing, empowerment, liberation, collaboration.





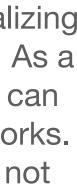
Rebekah Crisanta Ybarra

Rebekah Crisanta de Ybarra is an Indigenous-Salvadoran-Norwegian-American interdisciplinary contemporary artist, musician, and culture bearer whose work is rooted in Indigenous Futurisms. Her interdisciplinary social practice (visual art, music, theatre, dance, literature, puppetry & public art) often speaks about shared and erased ancient histories.



Xee Reiter

Xee Reiter is a self-taught artist specializing in watercolor, pen and ink illustrations. As a first generation Hmong American, you can largely find cultural influences in her works. Her artistic exploration includes but is not limited to portraiture, children's book illustrations, art journaling, mural art, typography and calligraphy works.















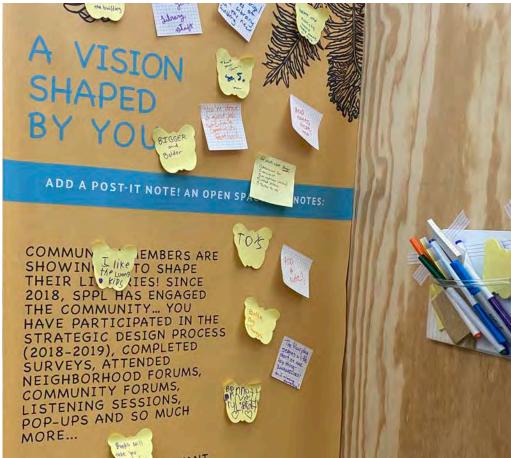












in the

AND YET... WE WANT TO MAKE SURE ALL VOICES, IDEAS AND FEEDBACK IS HEARD!

WHETHER YOU HAVE DARTICIPATED ALL ALONG, DARTICIPATED ALL ALONG, SHARE

Key Outcomes + Learnings

- Embedding artists early in the design process leads to an integrated strategy for art in library spaces.
- not typically present.
- involved.
- Artists helped made complex planning concepts accessible to a range of community members.
- Artists made the process fun and attracted people to the project.
- Artists provided opportunities for people to share information who would not otherwise share.
- Artists uncovered different perspectives, making way for viewing challenges in different light.

• Artists threaded community accountability and voice through the end of the process and in meetings where community is

• Involving artists expanded the horizon of what is possible and desirable in a process, as well as the range of who is