

PROJECT TITLE: _____

TOWN OF CHESHIRE - DOOLITTLE ELEMENTARY SCHOOL TOILET ROOM UPGRADES

735 CORNWALL AVENUE
CHESHIRE, CONNECTICUT 06410

PROJECT LOCATION: _____



DRAWING LIST

- COVER SHEET
- ARCHITECTURAL:**
 - A001 GENERAL NOTES, LEGENDS & ABBREVIATIONS
 - A101 TOILET ROOM FLOOR PLANS & NOTES
 - A102 TOILET ROOM INTERIOR ELEVATIONS
 - A103 INTERIOR ELEVATIONS
 - A250 SCHEDULES & DETAILS
- FIRE PROTECTION:**
 - FP001 FIRE PROTECTION COVER SHEET
 - FP101 FIRE PROTECTION PLANS, DETAILS & SCHEDULES
- PLUMBING:**
 - P001 PLUMBING COVER SHEET
 - P101 PLUMBING PLANS
 - P801 PLUMBING DETAILS
 - P901 PLUMBING SCHEDULES
- MECHANICAL:**
 - M001 MECHANICAL NOTES, LEGENDS & ABBREVIATIONS
 - M101 MECHANICAL TOILET ROOM PLANS & NOTES
 - M201 MECHANICAL DETAILS & SCHEDULES
- ELECTRICAL:**
 - E001 ABBREVIATIONS, NOTES, SYMBOLS & LIGHTING SCHED.
 - E101 TOILET ROOM ELECTRICAL PLANS & NOTES

ARCHITECT

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ISSUED FOR BID: MARCH 14, 2022
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GENERAL NOTES

- PERFORM CONSTRUCTION WORK PER DIVISION 01 REQUIREMENTS.
- DO NOT SCALE OR MEASURE ANY DRAWING. REFER TO DIMENSIONS AND NOTES ON DRAWINGS TO LOCATE WALLS AND CONSTRUCTION ITEMS. VERIFY THE FIGURES AND DIMENSIONS SHOWN ON THE DRAWINGS BEFORE STARTING ANY LAYOUT OF THE WORK.
- REPORT ANY ERRORS, INACCURACIES, MISSING DIMENSIONAL REQUIREMENTS, OR CONFLICTS TO THE ARCHITECT IMMEDIATELY AND IN WRITING BEFORE BEGINNING ANY WORK.
- WORK SHALL COMPLY WITH ALL APPLICABLE STATE AND LOCAL CODES, LAWS AND STATUTES AS REQUIRED. STRICTLY ADHERE TO MANUFACTURERS' PRINTED INSTRUCTIONS.
- REFER TO PLANS AND FLOOR/CEILING ASSEMBLIES FOR PARTITIONS REQUIRED TO HAVE FIRE RESISTANT RATINGS.
- REFER TO FURNITURE/EQUIPMENT PLANS FOR EQUIPMENT, FURNITURE AND FURNITURE ACCESSORY LOCATIONS. FURNITURE TO BE FURNISHED & INSTALLED BY OWNER UNLESS SPECIFIED OTHERWISE IN THE PROJECT MANUAL & IS NOT A PART OF THIS CONTRACT.
- LOCATION OF STAGING AREAS, VEHICULAR AND PEDESTRIAN ACCESS TO THE SITE AND CONTRACTOR PARKING SHALL BE FINALIZED DURING THE PRE-CONSTRUCTION MEETING. BUILDING AND SITE CHECK-IN PROCEDURES FOR CONSTRUCTION PERSONNEL WILL BE ADDRESSED AT THAT TIME.
- PROVIDE ALL NECESSARY BARRIERS AND STRUCTURES REQUIRED TO KEEP THE CONSTRUCTION AREA FREE FROM UNAUTHORIZED VISITORS.
- VERIFY THE LOCATIONS OF ALL EXISTING CONSTRUCTION INCLUDING EXISTING UTILITIES, BUILDINGS, SITE IMPROVEMENTS, TREES, ETC. AT THE JOB SITE. NOTIFY THE ARCHITECT IMMEDIATELY FOR CLARIFICATION IF ANY EXISTING CONDITIONS CONFLICT WITH THE DESIGN INTENT SHOWN ON THESE DRAWINGS.
- DISPOSE OF ALL UNWANTED MATERIALS AND OTHER DEBRIS OFF SITE AS REQUIRED IN A LEGAL MANNER.
- VERIFY IN WRITING, AND RECEIVE WRITTEN AUTHORIZATION FROM THE ARCHITECT PRIOR TO COMMENCEMENT OF ANY CHANGES TO THE WORK.
- DIMENSIONS SHOWN ON ARCHITECTURAL FLOOR PLANS AND ENLARGED PLAN DETAILS ARE TO FACE OF FINISH, FACE OF MASONRY, FACE OF CONCRETE, OR TO THE CENTERLINE OF COLUMN UNLESS NOTED OTHERWISE.
- INSTALL ADDITIONAL NONCOMBUSTIBLE, CONCEALED, HORIZONTAL AND/OR VERTICAL BLOCKING AND STRAPPING AS REQUIRED WITHIN STUD AND JOIST SPACES FOR THE SECURE ANCHORAGE OF ALL ITEMS TO BE MOUNTED ON FLOOR, WALL AND CEILING SURFACES. COORDINATE THE REQUIRED BLOCKING WITH THE ACTUAL ITEMS SELECTED. REFER TO ARCHITECTURAL MILLWORK, FURNITURE/EQUIPMENT, M.E.P./F.F. DRAWINGS FOR ALL ITEMS TO BE WALL/CEILING/FLOOR MOUNTED. ALL WOOD BLOCKING, FRAMING MEMBERS, STUDS, PLYWOOD SHEATHING, ETC. SHALL BE FIRE RETARDANT TREATED PER 2003 IBC/2005 CT, SECTION 603.1.
- COORDINATE THE DIMENSIONS FOR FRAMED OPENINGS FOR ALL BUILT-IN ITEMS, INCLUDING EQUIPMENT AND FIXTURES, CASEWORK AND ACCESSORIES, ETC. BASED ON THE ACTUAL ITEMS SELECTED BEFORE INSTALLATION.
- SECTIONS, DETAILS, NOTES, DIMENSIONS AND CONDITIONS ARE APPLICABLE AT OTHER LOCATIONS WHERE CONDITIONS AND DETAILS ARE SIMILAR BUT NOT SPECIFICALLY NOTED AS SUCH OR ARE NOT SHOWN.
- FIRESTOPPING MUST CONSIST OF APPROVED NONCOMBUSTIBLE MATERIALS SECURELY FASTENED IN PLACE.
- LOCATIONS FOR REQUIRED FIRESTOPPING WILL INCLUDE, BUT NOT BE LIMITED TO, THE FOLLOWING AREAS:
 1. IN CONCEALED SPACES OF STUD WALLS AND PARTITIONS, AT THE CEILING AND FLOOR OR ROOF LEVELS.
 2. AT CONCEALED SPACES BETWEEN STAIRWAY STRINGERS AT THE TOP AND BOTTOM OF THE RUN.
 3. AT OPENINGS AROUND ELEMENTS PENETRATING FIRE RESISTIVE CONSTRUCTION.
 4. IN THE SPACES BEHIND COMBUSTIBLE TRIM AND FINISH AND ALL OTHER HOLLOW SPACES WHERE PERMITTED IN FIRE RESISTANCE RATED CONSTRUCTION AT 1-FOOT INTERVALS, OR THE SPACE SHALL BE SOLIDLY FILLED WITH NONCOMBUSTIBLE MATERIALS.
- WHERE DIFFERENT FLOOR TYPES MEET AND NO SADDLE IS INDICATED, LOCATE THE TRANSITION DIRECTLY BELOW THE CENTER OF THE DOOR.
- ALL MATERIALS & EQUIPMENT ARE NEW UNLESS OTHERWISE NOTED AS "EXISTING".
- DIMENSIONS & EQUIPMENT & EQUIPMENT LOCATIONS ARE APPROXIMATE - CONTRACTOR SHALL FIELD VERIFY EXACT LOCATIONS IN FIELD.
- CONTRACTOR IS RESPONSIBLE FOR REPLACING ANY DAMAGED ITEMS & EQUIPMENT DURING CONSTRUCTION AT NO ADDITIONAL COST TO THE OWNER.
- ALL RATED DOORS & DOORS FRONTING A CORRIDOR SHALL HAVE POSITIVE LATCHING LOCKSETS UNLESS OTHERWISE INDICATED ON DOOR SCHEDULE.
- PROVIDE TACTILE WARNING AT ALL DOORS LEADING TO HAZARDOUS AREAS.
- PROVIDE PANIC EXIT DEVICES AT ALL DOORS WITH AN EXIT CAPACITY OF 50 PERSONS OR MORE.
- PROVIDE ADA ACCESSIBLE DOOR HARDWARE AT ALL ACCESSIBLE MEANS OF EGRESS TO COMPLY WITH UNIFORM FEDERAL ACCESSIBILITY STANDARDS.
- ROOMS WITHIN THE PROJECT SCOPE OF WORK WILL BE TURNED OVER TO THE CONTRACTOR TO FACILITATE WORK CONCURRENTLY IN ALL LOCATIONS.

ARCHITECTURAL ABBREVIATION LIST

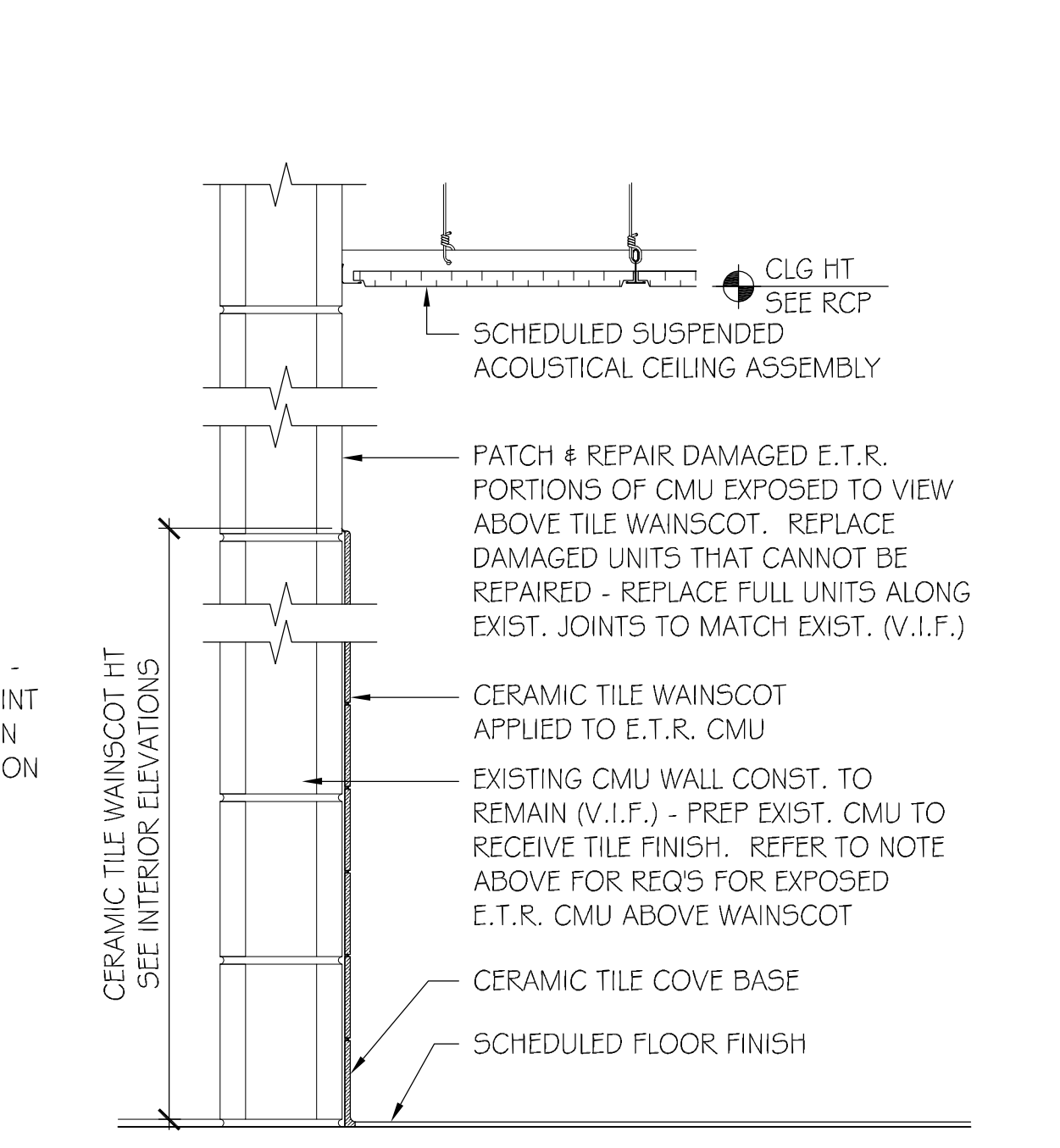
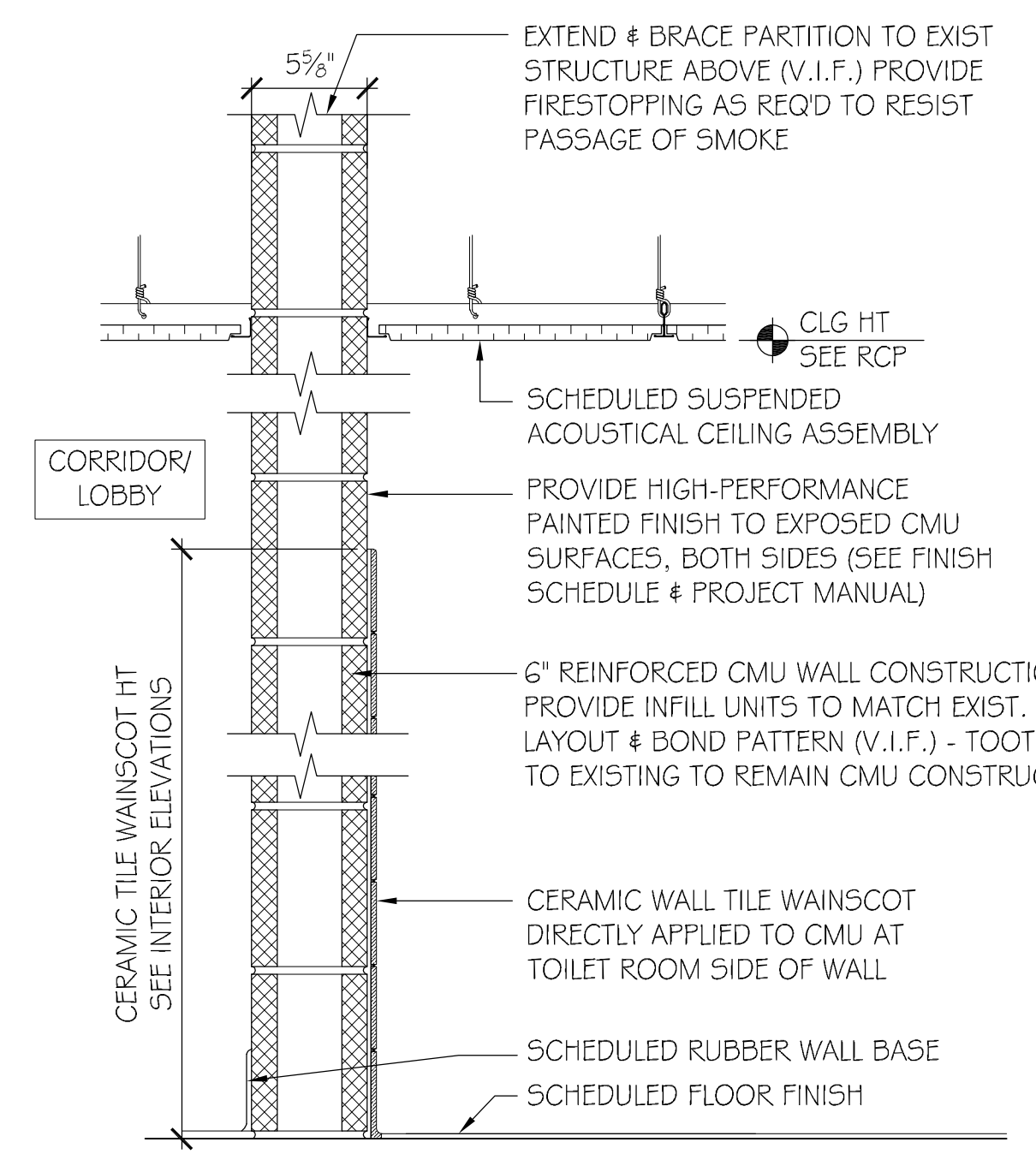
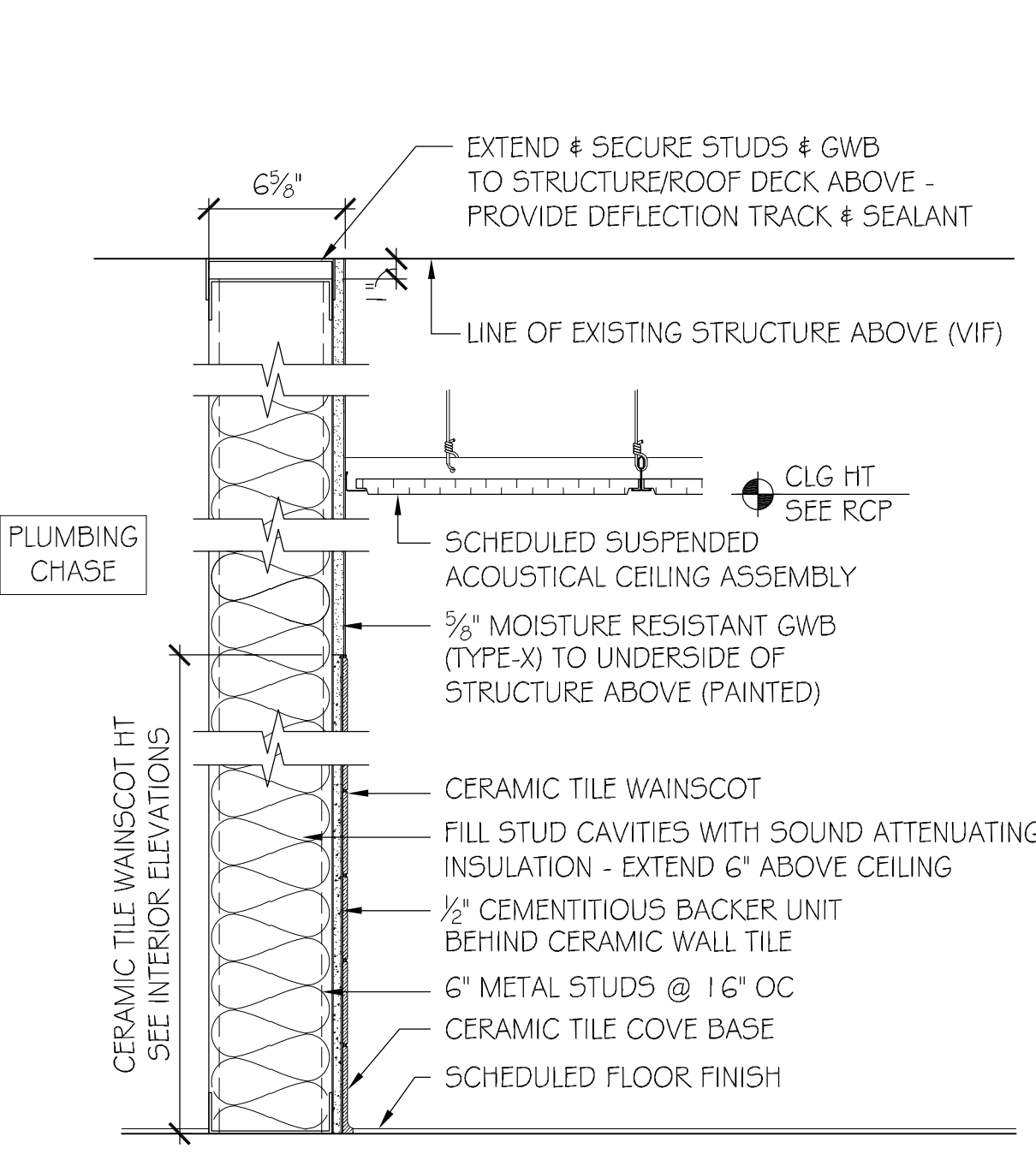
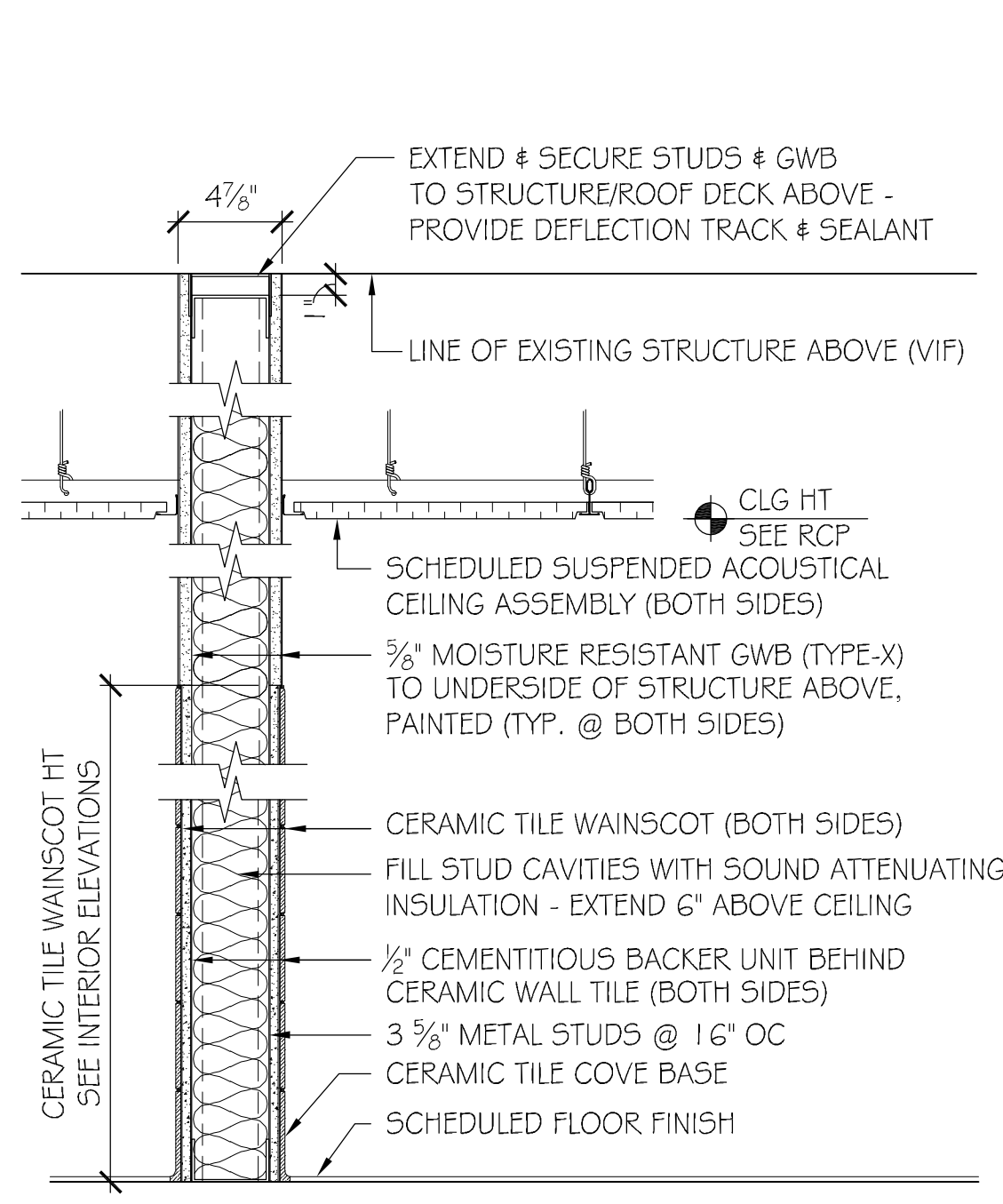
ABBREV	ABBREVIATION(S)	EA	EACH	JT	JOINT	RH	RIGHT HAND
ABV	ABOVE	EXH	EXHAUST FAN	LBL	LABEL	RM	ROOM
ACMU	ACOUSTICAL CMU	EJ, EXP JT	EXPANSION JOINT	LAV	LAVATORY	RO	ROUGH OPENING
ACP	ACOUSTICAL CEILING PANEL	ELEC	ELECTRICAL	LL	LIVE LOAD	RT	RESILIENT TILE
ACT	ACOUSTICAL CEILING TILE	ELEV	ELEVATION(S)	LKR	LOCKER(S)	SAN	SANITARY
ACPVL	VINYL LAMINATE ACOUSTICAL CEILING PANEL	EQ	EQUIPMENT	LLV	LONG LEG VERTICAL	SCHED	SCHEDULE
ACU, A/C	AIR CONDITIONING UNIT	EQUIP	EQUIPMENT	MAINT	MAINTENANCE	SD	SOAP DISPENSER
ADD	ADDITIONAL	ETR	EXISTING TO REMAIN	MANUF, MFR	MANUFACTURE(R)(D)	SF	SQUARE FEET
AIE	ARCHITECT/ENGINEER	EWC	ELECTRIC WATER COOLER	MAT	MATERIAL(S)	SFM	SANITARY FORCE MAIN
AFF	ABOVE FINISHED FLOOR	EWC-H	ELECTRIC WATER COOLER- HANDICAP/ACCESSIBLE	MAX	MAXIMUM	SHT	SHEET
AHU	AIR HANDLING UNIT	EXIST	EXISTING	MCH	MECHANICAL	SIM	SIMILAR
ALUM	ALUMINUM	EXP	EXPOSED	MEMB	MEMBRANE	SPEC	SPECIFICATION(S)
APPROX	APPROXIMATE(LY)	FD	FLOOR DRAIN	MET, MTL	METAL	SQ	SQUARE
ARCH	ARCHITECTURE(L)UR(L)	FEC	FIRE EXTINGUISHER CABINET	MDO	MEDIUM DENSITY OVERLAY	SS	STAINLESS STEEL
ARGWB	ABUSE RESISTANT GYPSUM WALLBOARD	FFL	FINISH FLOOR LINE	MIN	MINIMUM, MINUTE	STD	STUD
ASPH	ASPHALT	FF	FINISH FLOOR	MIR	MIRROR	STL	STEEL
AUTO	AUTOMATIC	FFH	FIRE HYDRANT	MISC	MISCELLANEOUS	STOR	STORAGE
BD	BOARD	FIN	FINISH(F)	MO	MASONRY OPENING	STRUCT	STRUCTURE(A)
BIT	BITUMINOUS	FIXT	FIXTURE(S)	MTD	MOUNTED	SUSP	SUSPENDED
BLDG	BUILDING	FLUOR	FLUORESCENT	MWP	METAL WALL PANEL	SYM	SYMMETRY(CAL)
BLK, BLKG	BLOCKING	FP	FIRE PROTECTION	NA	NOT APPLICABLE	SYS	SYSTEM
BM	BENCH MARK	FURR	FURRING	NIC	NOT IN CONTRACT	TAG, TAG	TONGUE AND GROOVE
BO	BOTTOM OF	FLEX	FLEXIBLE	NO, #	NUMBER	TB	TOUPE BAR
BOT	BOTTOM OF	FLR	FLOOR	NOM	NOMINAL	TEL	TELEPHONE
CAB	CABINET	FFE	FINISH FLOOR ELEVATION	NRC	NOISE REDUCTION COEFFICIENT	THK	THICKNESS
CB	CATCH BASIN	FF&E	FURNITURE, FIXTURES & EQUIPMENT	NTS	NOT TO SCALE	T.O.	TOP OF
CAC	COMMON ACCESS CARD	FO	FACE OF	OC	ON CENTER	TOS	TOP OF STEEL
CBU	CEMENTITIOUS BACKER UNIT	FT, FTG	FOOTING, FEET.	OD	OUTSIDE DIAMETER	TPD	TOILET PAPER DISPENSER
CIR	CIRCLE	FRP	FIBERGLASS REINFORCED PLASTIC	OH	OVERHEAD	TS	TUBE STEEL
CER	CERAMIC	GA	GAGE, GAUGE	OPER	OPERATOR	TYP	TYPICAL
CIP	CAST IN PLACE	GALV	GALVANIZED	OPH	OPPOSITE HAND	UG	UNDERGROUND
CHEM	CHEMICAL	GL	GLASS, GLAZE(D)(ING)	OPP	OPPOSITE	UNF	UNFINISHED
CJ	CONTROL/CONSTRUCTION	GB	GRAB BAR	OS	OVERFLOW SCUPPER	UON	UNLESS OTHERWISE NOTED
CL	JOINT	GWB	GYPSUM WALL BOARD	FEB	PRE-ENGINEERED BUILDING	VCT	VINYL COMPOSITION TILE
CLG	CENTERLINE	GYP	GYPSUM	FED	PREFORMED EXPANSION	VERT	VERTICAL
CLQ	CEILING	HDPE	HIGH DENSITY POLYETHYLENE	FEJ	JOINT	VEST	VESTIBULE
CLR	CLEAR	HWDR	HARDWARE	FL	PLATE	VIF	VERIFY IN FIELD
CMU	CONCRETE MASONRY UNIT	HGT, HT	HEIGHT	FLAM	PLASTIC LAMINATE	VMF	VEHICLE MAINTENANCE FACILITY
COL	COLUMN	HORIZ	HORIZONTAL	FLYWD	PLYWOOD	WVC	VINYL WALL COVERING
CONC	CONCRETE	HP	HIGH POINT	FOL	PETROLEUM, OIL & LUBRICATION	W	WOOD
CONT	CONTINUOUS	HR	HOUR	FRT	PORCELAIN TILE	WH	WAREHOUSE
CORR	CORRIDOR	HVAC	HEATING, VENTILATION & AIR CONDITIONING	PT	PRESSURE TREATED	WH1, WH5	WINDOW
CPT	CARPET	ID	INSIDE DIAMETER	PREFAB	PRE-FABRICATED	WN	WITHOUT
CT	CERAMIC TILE	INFO	INFORMATION	PREFIN	PRE-FINISHED	WO	WORK POINT
DEMO	DEMOLISH, DEMOLITION	INFL	INFILTRATION	FTD	PAINTED	WPT	WATER RESISTANT GYPSUM WALLBOARD
DET, DTL	DETAIL	INSL	INSULATED(ION)	RA	RADIUS	WRGWB	WELDED WIRE FABRIC
DIA	DIAMETER	INT	INTERIOR	RAD	ROOF DRAIN	WWF	
DIAG	DIAGONAL	JAW	IN ACCORDANCE WITH	RD	RECESSED		
DIM(DIMS)	DIMENSION(S)	INV	INVERT	REC	REFERENCE		
DISP	DISPENSER	IR	IMPACT RESISTANT	REF	REFERENCE		
DN	DOWN	IRGWB	IMPACT RESISTANT GYPSUM WALLBOARD	REINF	REINFORCE(D)(ING)		
DS	DOWNSPOUT	DWG	DRAWING(S)	REV	REVISE(D)(ION)		
DSC	DOWNSPOUT SCUPPER			RES	RESILIENT		
DWG	DRAWING(S)			REQ, REQD	REQUIRE(D)		

SYMBOLS LEGEND

	ELEVATION/BULLET
	KEY NOTE TAG
	WALL/PARTITION TYPE IDENTIFICATION
	DOOR IDENTIFICATION TAG
	CEILING HEIGHT TAG
	TOILET ACCESSORY IDENTIFICATION TAG
	COLUMN GRID TAG
	DETAIL TAG
	SECTION TAG
	INTERIOR ELEVATION TAG
	REVISION TAG/ REVISION CLOUD
	OFFICE ROOM NAME/NUMBER IDENTIFICATION TAG

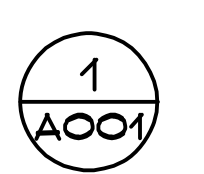
HATCH PATTERNS

	CONCRETE MASONRY UNIT
	CONCRETE
	BRICK
	METAL
	GRATING AND/OR RIGID INSULATION
	SIDING AND/OR STANDING SEAM MTL ROOF SYSTEM
	ROUGH WOOD
	FINISHED WOOD
	PLYWOOD
	BATT INSULATION
	GYPSUM BOARD AND/OR GRAVEL SURFACE
	POROUS FILL AND/OR GRAVEL
	UNDISTURBED SURROUNDING EARTH
	COMPACTED FILL

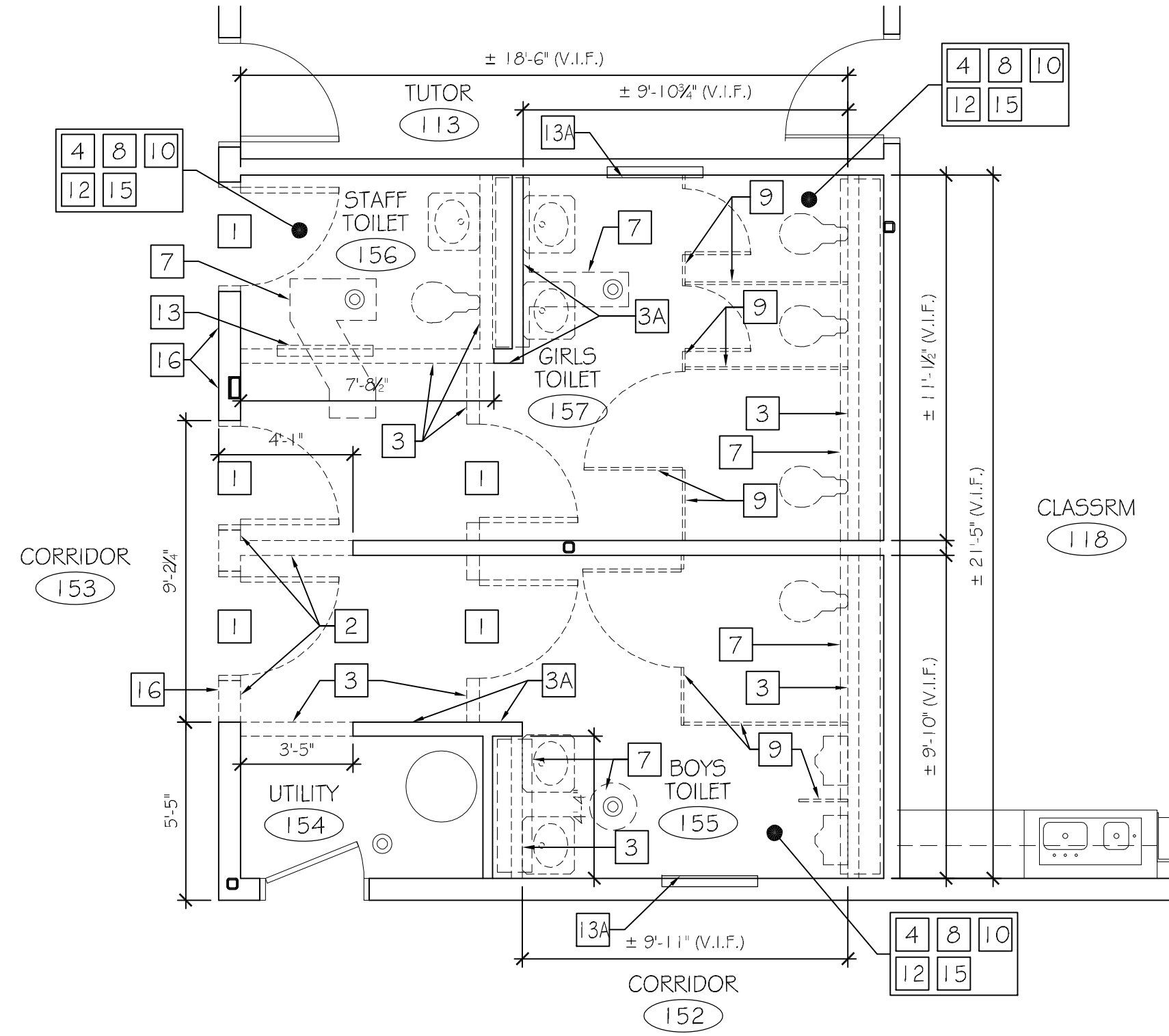


WALL TYPES

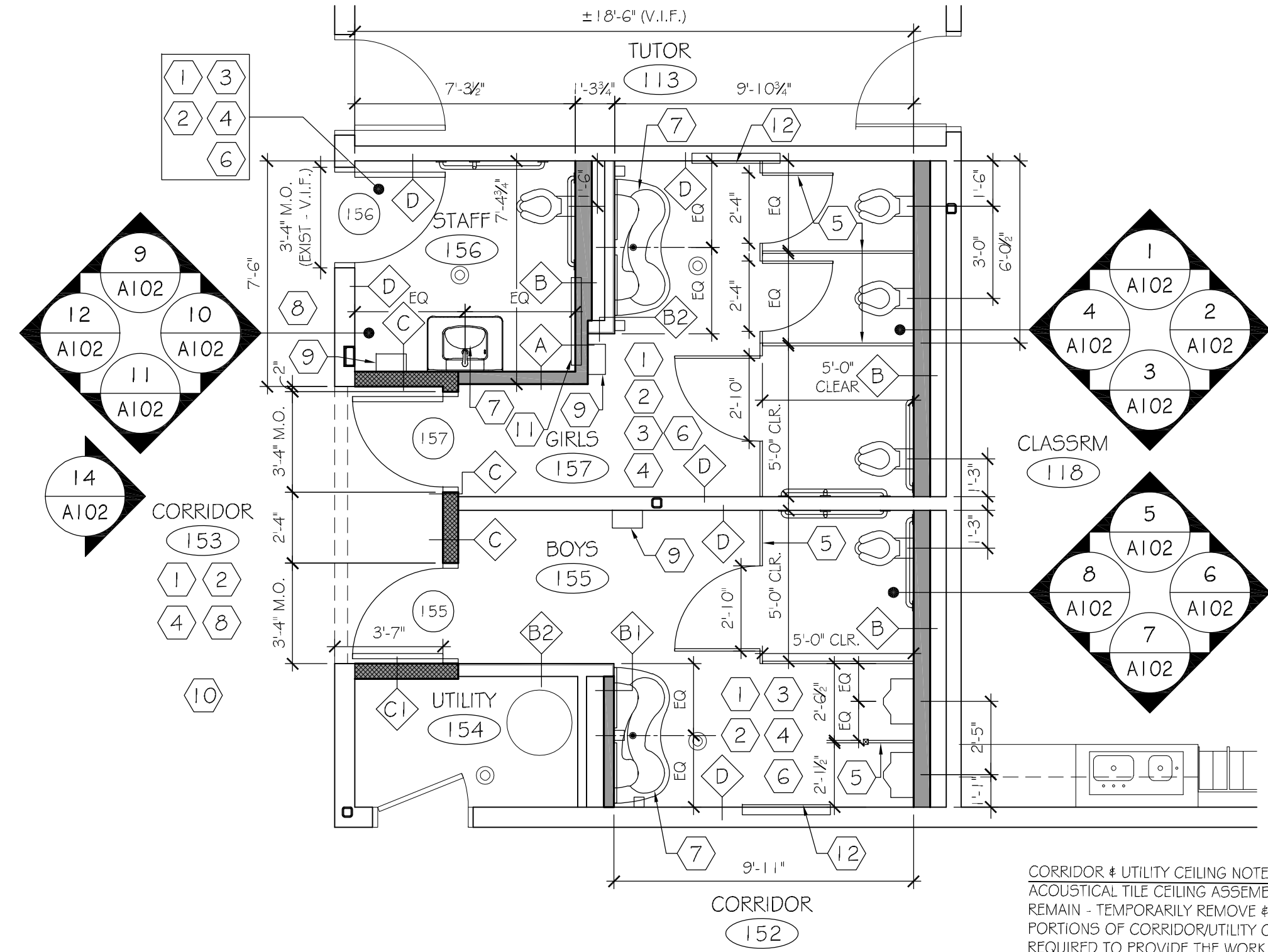
SCALE: 1-1/2" = 1'-0"



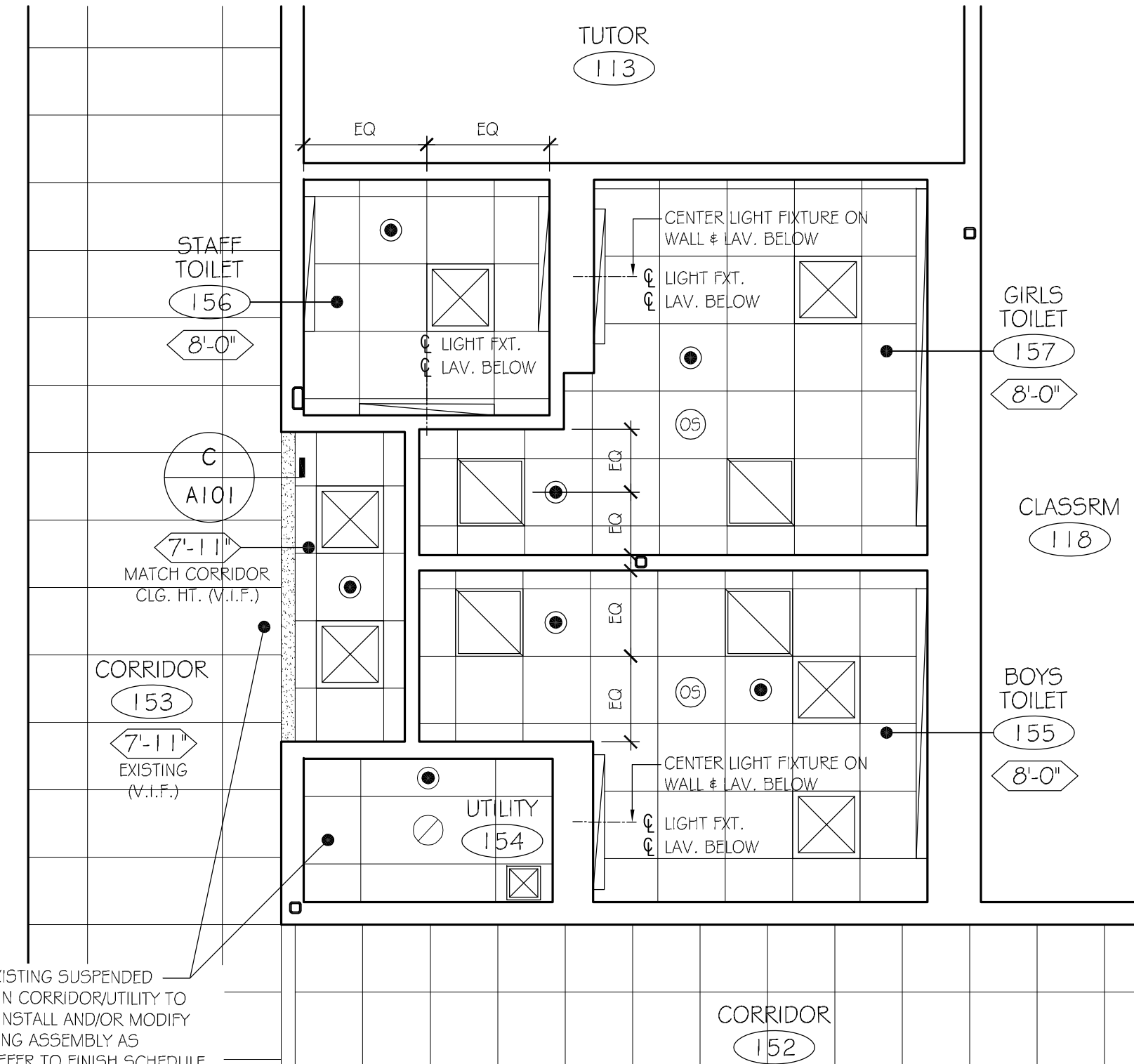
- A1 PROVIDE 3/8" GWB FULL HEIGHT IN LIEU OF CERAMIC TILE & C.B.U. ON CLASSROOM SIDE. PROVIDE SCHEDULED RUBBER WALL BASE.
- B1 PROVIDE 3-3/8" METAL STUDS IN LIEU OF 6".
- B2 EXISTING METAL FRAMING TO REMAIN - MODIFY & REPLACE AS REQUIRED TO SUIT NEW WORK.
- B3 PROVIDE 3-3/8" METAL STUDS IN LIEU OF 6". PROVIDE FULL HEIGHT 3/8" GWB IN LIEU OF CBU & CWT FINISHES. PROVIDE SCHEDULED RUBBER WALL BASE.



TOILET ROOM DEMOLITION PLAN
SCALE: 1/4" = 1'-0"
BASE BID A101

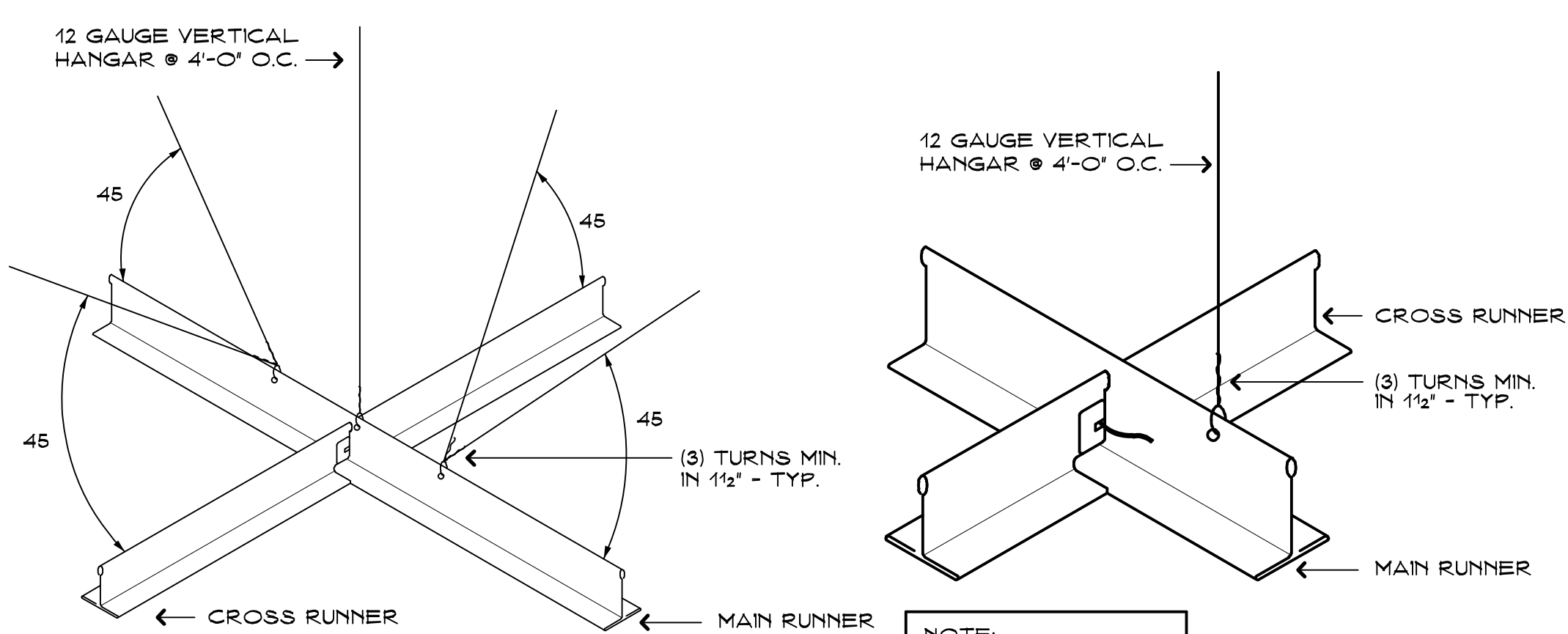


TOILET ROOM FLOOR PLAN
SCALE: 1/4" = 1'-0"
BASE BID A101

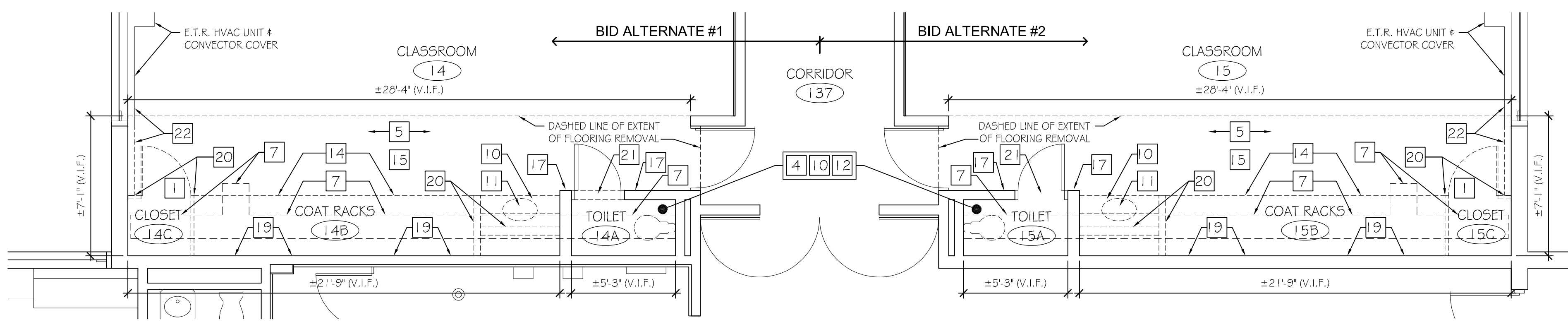


TOILET ROOM CEILING PLAN
SCALE: 1/4" = 1'-0"
BASE BID A101

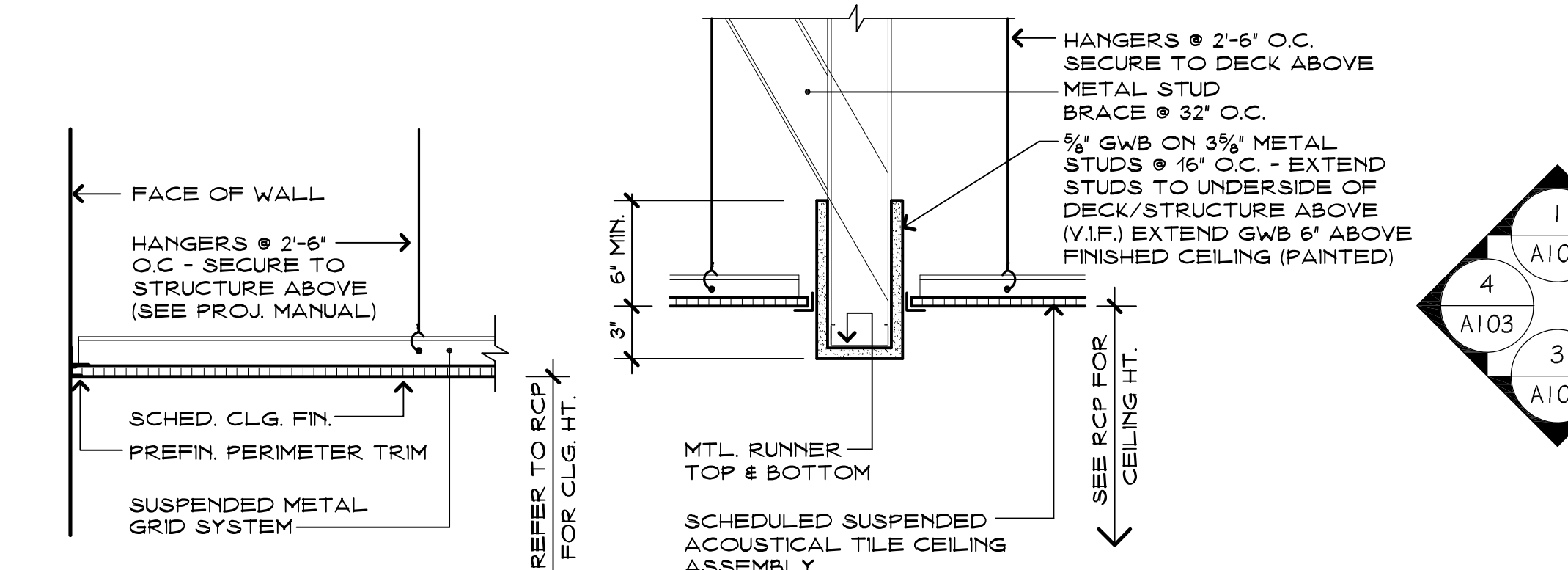
- DEMOLITION KEY NOTES**
- REMOVE EXIST. DOOR & FRAME ASSY. & ASSOCIATED COMPONENTS.
 - REMOVE EXISTING FULL-HEIGHT CMU WALL CONSTRUCTION.
 - REMOVE EXISTING FULL-HEIGHT GWB & METAL STUD WALL CONSTRUCTION.
 - REMOVE EXISTING FULL-HEIGHT GWB FROM E.T.R. METAL FRAMING.
 - REMOVE EXISTING CERAMIC TILE FLOORING & WALL BASE DOWN TO EXIST. CONCRETE SUBSTRATE - PREP EXISTING SUBSTRATE TO RECEIVE SCHEDULED FINISHES.
 - REMOVE EXISTING RESILIENT TILE FLOORING ASSEMBLY DOWN TO EXISTING CONCRETE SUBSTRATE - PREP EXISTING SUBSTRATE TO RECEIVE SCHEDULED FINISHES.
 - REMOVE EXISTING RUBBER WALL BASE FROM CORRIDOR WALL & PREP WALL SURFACE TO RECEIVE SCHEDULED WALL BASE.
 - SAWCUT & REMOVE PORTION OF EXIST. CONCRETE SLAB AS REQ'D TO PROVIDE PLUMBING WORK. COORDINATE LOCATIONS & EXTENT OF SLAB REMOVAL WITH PLUMBING WORK. REFER TO PLUMBING DRAWINGS FOR MORE INFO.
 - REMOVE EXISTING ACOUSTICAL TILE SUSPENDED CEILING SYSTEM & ALL ASSOCIATED COMPONENTS, FIXTURES & DEVICES - COORDINATE WITH M/E/P/F DRAWINGS.
 - REMOVE EXISTING FLOOR MOUNTED, OVERHEAD BRACED (V/F) TOILET PARTITION & URINAL SCREEN ASSEMBLIES.
 - REMOVE EXISTING TOILET ACCESSORIES, INCLUDING (BUT NOT LIMITED TO) DISPENSERS, DISPOSALS, MIRRORS & GRAB BARS - SALVAGE & TURN OVER TO OWNER.
 - REMOVE EXISTING CLASSROOM SINK, COUNTER, AND BASE & WALL CABINET ASSEMBLIES.
 - REMOVE EXISTING PLUMBING FIXTURES - COORDINATE WITH PLUMBING DRAWINGS.
 - REMOVE EXISTING CABINET CONVECTOR ASSEMBLY - COORD. WITH MECHANICAL DRAWINGS.
 - REMOVE & SALVAGE EXISTING CABINET CONVECTOR ASSEMBLY COVERS - PROTECT, SCRAPE & PREP FOR REPAINTING AND REINSTALLATION.
 - REMOVE PORTION OF EXISTING GWB SOFFIT ASSEMBLY ABOVE EXISTING COAT RACK AND CLOSET AREA AT NEW TOILET ROOM AREA. BALANCE OF EXISTING SOFFIT FRAMING TO REMAIN, MODIFY AS REQUIRED TO SUIT NEW LAYOUT. EXISTING GWB AT AREAS OF SOFFIT TO REMAIN SHALL BE PATCHED AND PAINTED TO MATCH EXISTING.
 - REMOVE EXISTING WALL MOUNTED FURNISHINGS - PROTECT & TURN OVER TO OWNER.
 - REMOVE EXISTING ROOM SIGNAGE.
 - REMOVE EXISTING RUBBER WALL BASE.
 - REMOVE EXIST. ROOF MOUNTED EXHAUST FAN & CURB ASSEMBLIES. PROTECT EXIST. ROOFING TO REMAIN & MAINTAIN WEATHER-TIGHTNESS THROUGHOUT CONSTRUCTION. REFER TO MECH. DRAWINGS FOR ADDITIONAL INFO. & COORDINATE WITH HAZMAT.
 - REMOVE EXISTING COAT HOOK AND SHELVING ASSEMBLIES IN COAT RACK ALCOVE - SALVAGE & PROTECT FOR INSTALLATION IN MODIFIED COAT RACK AREA IN CONFIGURATION TO MATCH EXISTING
 - REMOVE EXISTING WOOD-CLAD WALL CONSTRUCTION (V.I.F.).
 - REMOVE EXISTING STONE THRESHOLD FROM E.T.R. DOOR ASSEMBLY, PREP CONCRETE SUBSTRATE TO RECEIVE SCHEDULED FINISH.
 - REMOVE PORTION OF EXISTING METAL CONVECTOR ASSEMBLY COVER AND MODIFY TO PROVIDE FINISHED TERMINATION UP AGAINST NEW WORK.



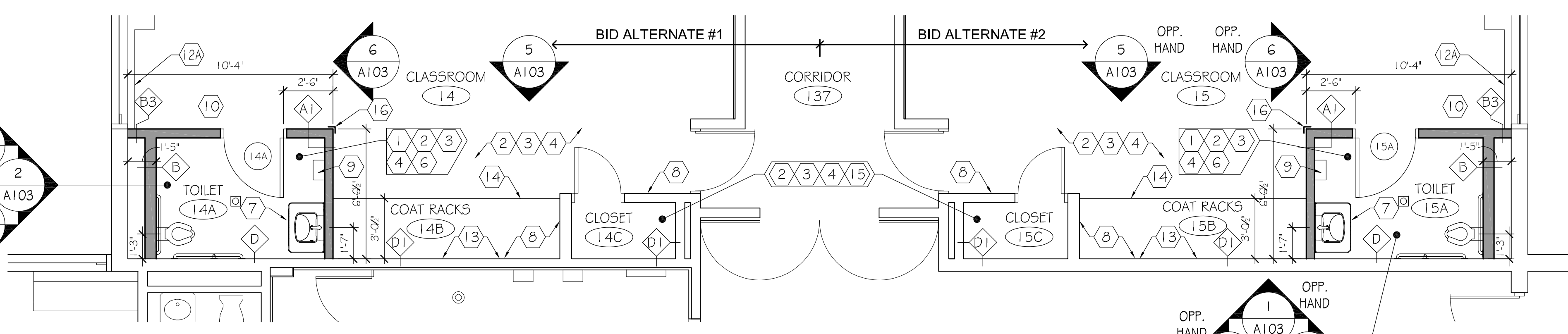
SEISMIC BRACING DETAIL
SCALE: NONE
NOTE: BRACING TO OCCUR @ 4'-0" O.C. - TYP.



CR 14 & 15 TOILET ROOM DEMOLITION PLAN
SCALE: 1/4" = 1'-0"
BID ALTERNATE 1 + 2 A101

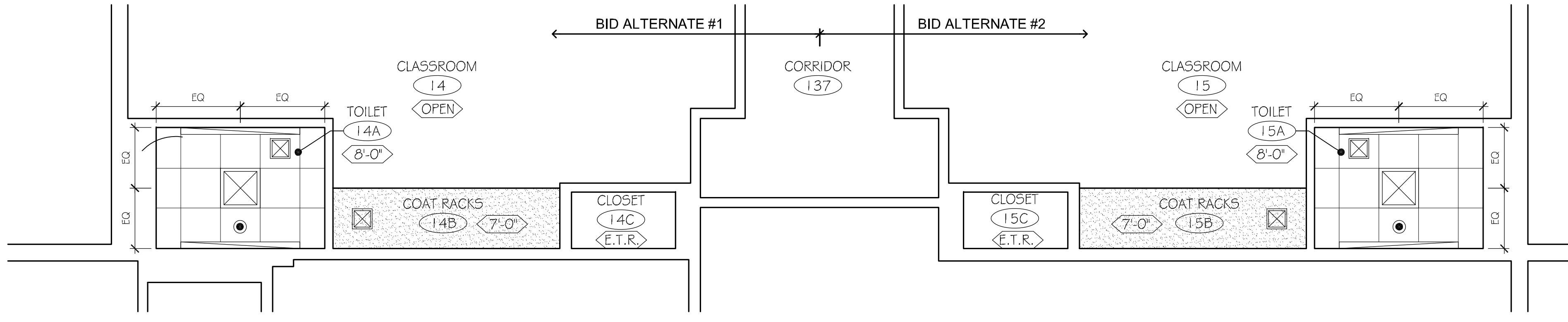
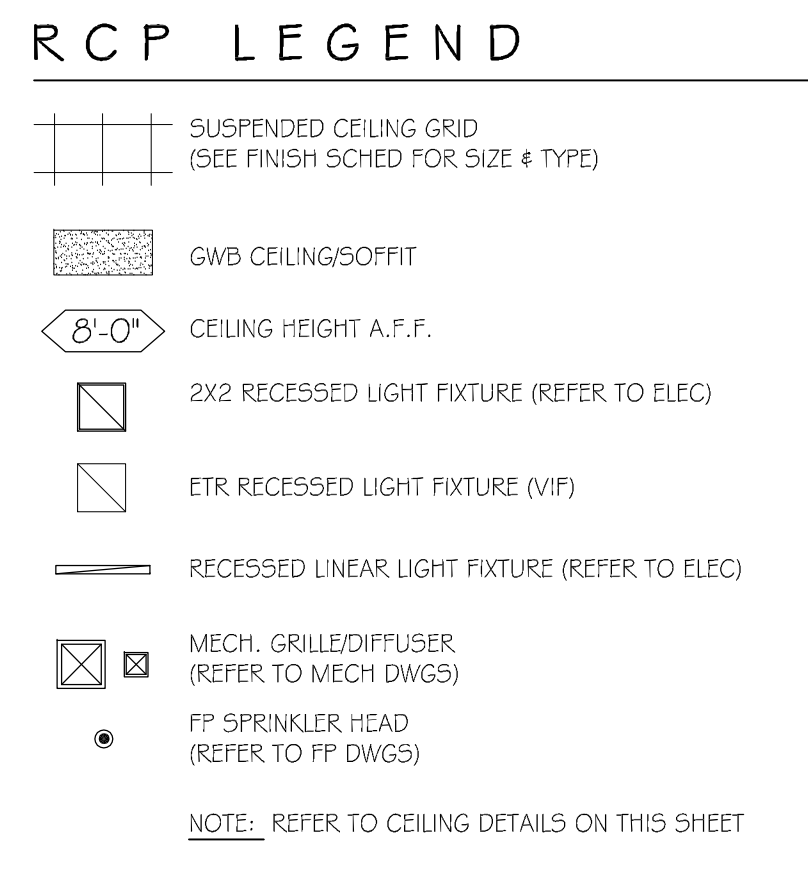


CEILING DETAIL B
SCALE: 1/2" = 1'-0"
A101



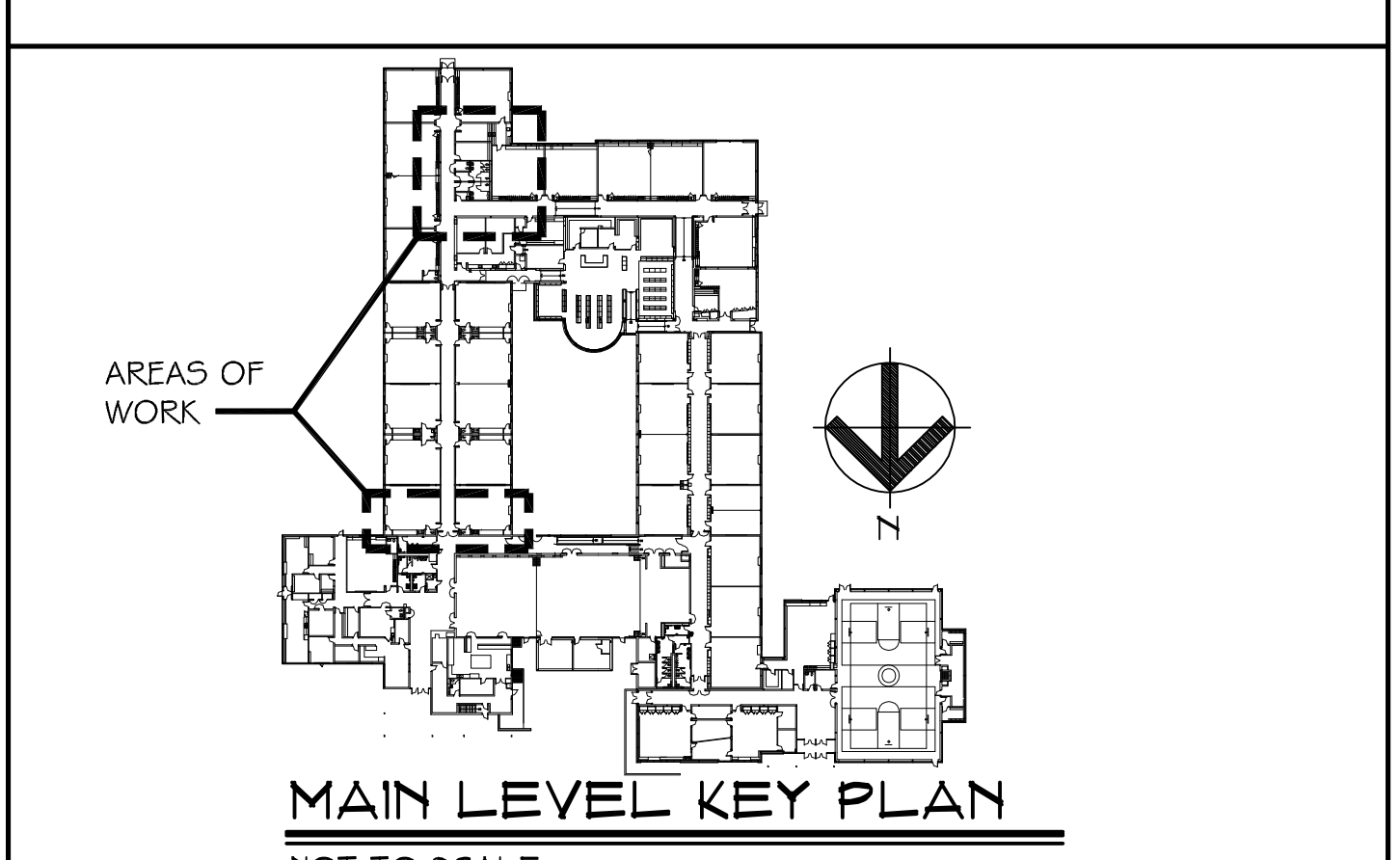
CR 14 & 15 TOILET ROOM FLOOR PLAN
SCALE: 1/4" = 1'-0"
BID ALTERNATE 1 + 2 A101

- ROOF NOTES:**
- BASED ON 1991 AS-BUILT DRAWINGS BY GALLIHER & BAIER ARCHITECTS & PLANNERS, THE EXISTING ROOF CONSTRUCTION APPEARS TO BE COMPRISED OF SINGLE-PLY MEMBRANE ROOFING (HYFALON) OVER ± 3" THICK RIGID INSULATION, OVER GYPSUM/CONCRETE DECK, OVER FORM BOARD, OVER SLOPED STEEL STRUCTURE. CONTRACTOR SHALL VERIFY EXISTING CONDITIONS IN FIELD.
 - PROVIDE WORK AT ROOF AS REQ'D TO PRESERVE EXISTING WEATHER-TIGHTNESS.
 - ROOF WORK MUST BE COMPATIBLE WITH THE EXISTING ROOFING SYSTEM - MATCH EXISTING TYPE & COLOR (V.I.F.)
 - CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFYING EXISTING ROOF SLOPE & FIELD CONDITIONS AS REQ'D TO PROVIDE ROOF CURB ASSEMBLIES FABRICATED TO MATCH EXISTING ROOF SLOPE.
 - REFER TO MECHANICAL DRAWINGS FOR INFORMATION REGARDING ROOF CURB & EXHAUST FAN SCOPE OF WORK.



CR 14 & 15 TOILET ROOM CEILING PLAN
SCALE: 1/4" = 1'-0"
BID ALTERNATE 1 + 2 A101

- CONSTRUCTION KEY NOTES**
- PROVIDE SUSPENDED ACOUSTICAL TILE CEILING ASSEMBLY - REFER TO CEILING PLAN & COORD WITH M/E/P.
 - PREP EXISTING CONCRETE SUBSTRATE AS REQ'D TO RECEIVE SCHEDULED TILE FLOOR FINISH. REFER TO FINISH SCHEDULE.
 - PROVIDE REINFORCED CONCRETE SLAB INFILL TO MATCH EXISTING AT AREAS OF SLAB TRENCHING & REMOVAL.
 - PREP EXISTING WALL SUBSTRATE AS REQ'D TO RECEIVE SCHEDULED FINISHES. PATCH, REPAIR & PAINT EXISTING WALL FINISHES TO REMAIN. REFER TO FINISH SCHEDULE.
 - PROVIDE FLOOR MOUNTED, OVERHEAD BRACED TOILET PARTITION/PRIVACY SCREEN ASSEMBLY.
 - PROVIDE TOILET ACCESSORIES - REFER TO INTERIOR ELEVATIONS & TOILET ACCESSORY SCHEDULE FOR MORE INFO.
 - PROVIDE LAVATORY SYSTEM INTEGRAL SOLID SURFACE COUNTERTOP, FIXTURES & SENSORS - REFER TO PLUMBING DRAWINGS & PROJECT MANUAL FOR MORE INFORMATION.
 - PROVIDE WALL BASE AT AREAS OF CORRIDOR WALL BASE REMOVAL - REFER TO FINISH SCHEDULE. (MATCH EXIST. - V.I.F.)
 - PROVIDE ELECTRIC HAND DRYERS - REFER TO ELECTRICAL DRAWINGS, INTERIOR ELEVATIONS AND PROJECT MANUAL FOR MORE INFO.
 - PROVIDE PRE-FAB ROOF CURB ASSEMBLIES & EXHAUST FANS - REFER TO MECH. DRAWINGS & DETAILS. (V.I.F.). MODIFY EXIST. OPENINGS IN ROOF AS REQ'D TO ACCOMMODATE NEW COMPONENTS. PATCH ROOFING & ROOF DECK AS REQ'D TO PROVIDE WEATHERTIGHT SEAL. COORD. WORK WITH HAZMAT.
 - PROVIDE RECESSED CABINET CONVECTOR ASSEMBLY - REFER TO MECH. DWGS.
 - SCRAPE, PREP & PAINT EXISTING METAL CONVECTOR COVER ASSEMBLIES.
 - MODIFY EXISTING METAL CONVECTOR COVER ASSEMBLY TO SUIT NEW WORK, INSTALL TO MATCH EXISTING CONFIGURATION WITH ALL TRIM PIECES. SCRAPE, PRIME & PAINT TO MATCH EXISTING.
 - MODIFY & INSTALL EXISTING COAT HOOK AND SHELVING ASSEMBLIES TO FIT WITHIN MODIFIED COAT HOOK SPACE BETWEEN NEW TOILET RM. & CLOSET. SPACE BRACKETS EQUALLY WITHIN OPENING - COORDINATE LAYOUT WITH OWNER.
 - MODIFY EXISTING SOFFIT FRAMING AS REQ'D TO SUIT NEW WORK, PROVIDE 3/4" GWB OVER EXISTING FRAMING AT VERTICAL & HORIZONTAL SURFACES, PAINTED.
 - PATCH & REPAIR EXISTING GWB/PLASTER CEILING ASSEMBLY AT FORMER TOILET ROOM AS REQ'D TO SUIT NEW WORK (V.I.F.).
 - PROVIDE STAINLESS STEEL CORNER GUARD (REFER TO PROJECT MANUAL).



Project Title:
Town of Cheshire - Doolittle Elementary School
Toilet Room Upgrades
735 Cornwall Avenue
Cheshire, Connecticut 06410

SILVER PETRUCELLI + ASSOCIATES
3190 WHITNEY AVENUE HAMDEN CT 06518
311 STATE STREET NEW LONDON CT 06320
203 230 9007 silverpetrucelli.com

Revision	Description	Date	Revised By
-	ISSUED FOR REBID	10-31-2022	SP+A

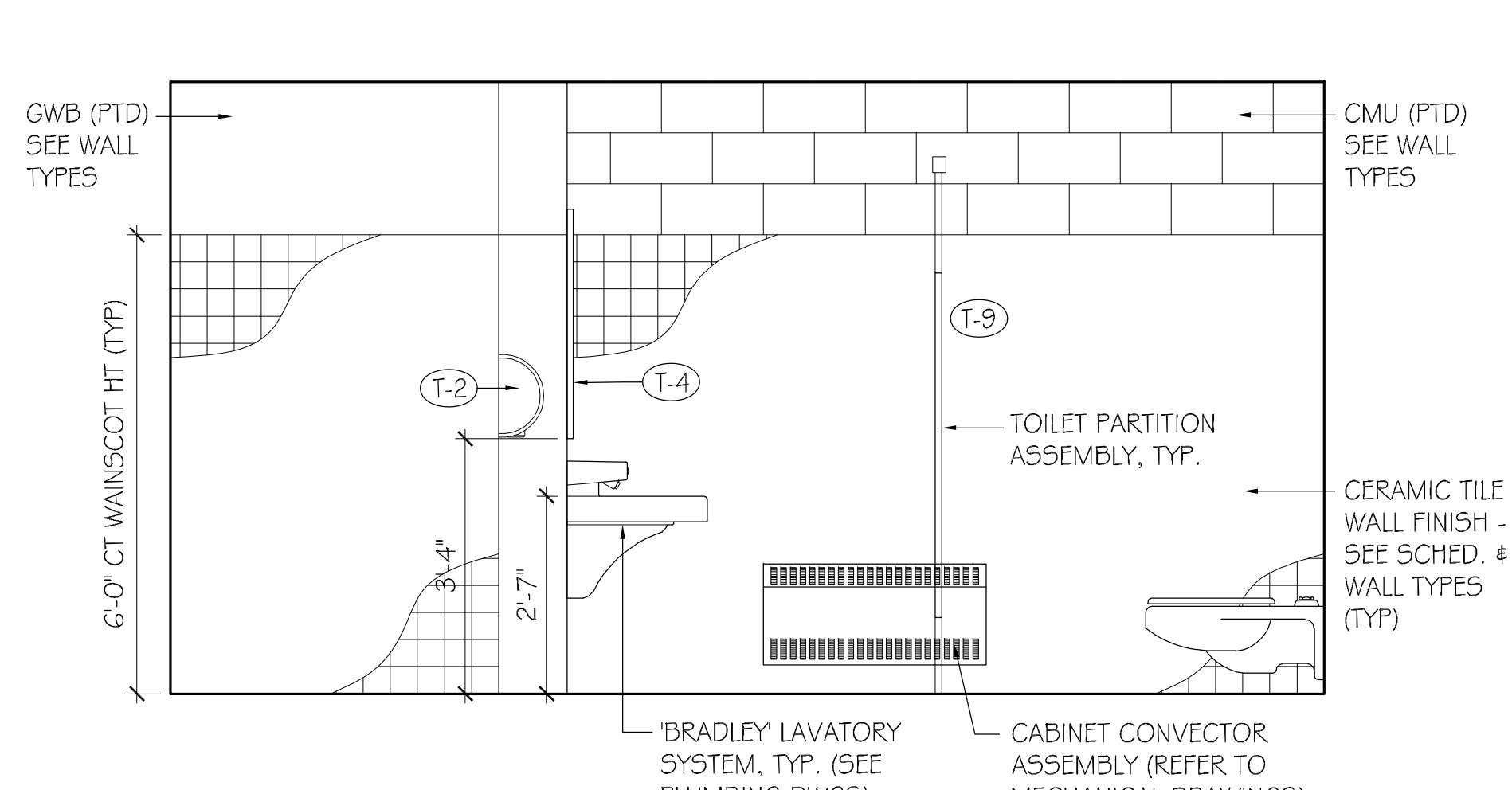
Drawing Title:
Toilet Room Floor Plans & Notes
A101

Date:
MARCH 14, 2022

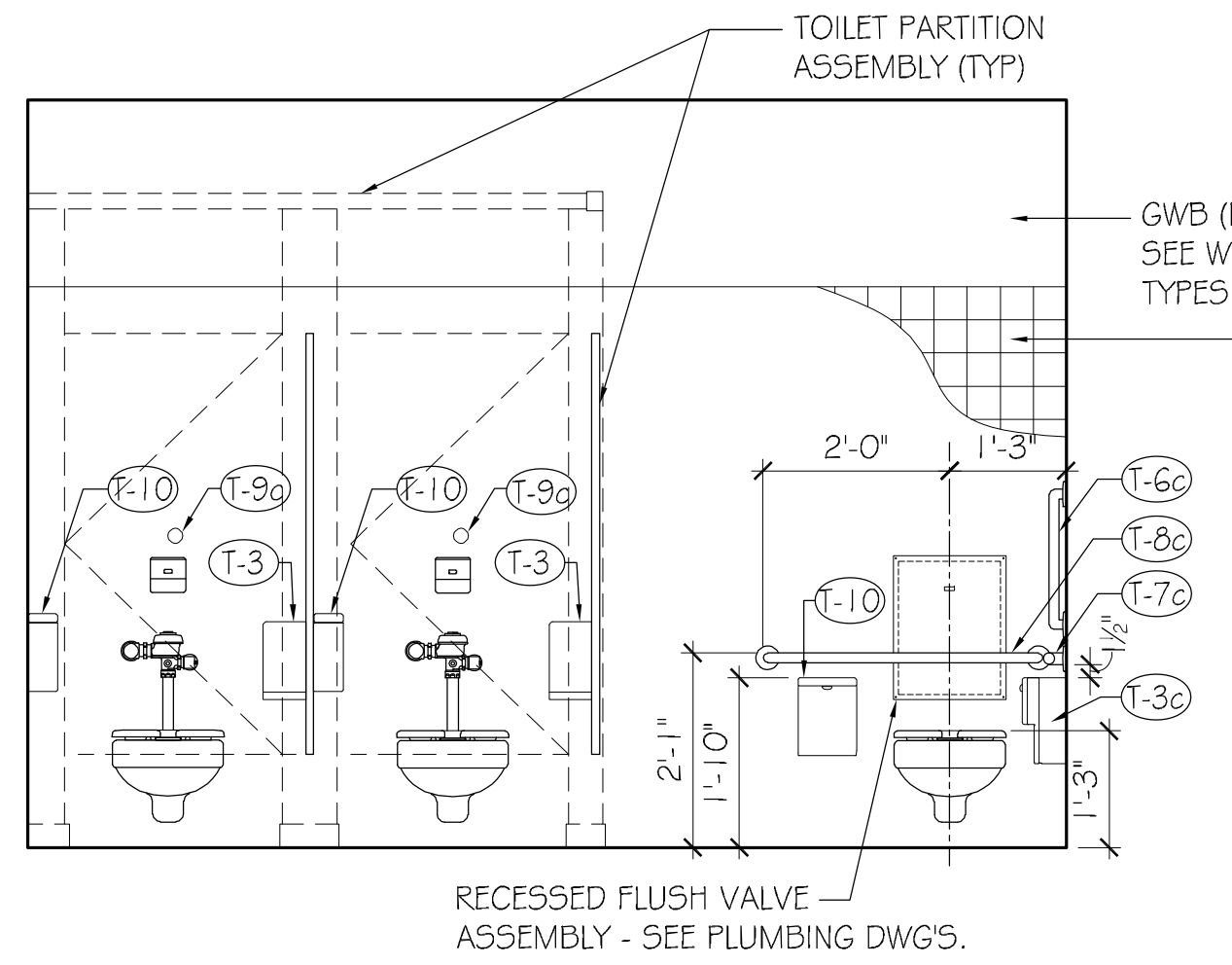
Scale:
AS NOTED

Drawn By:
RH

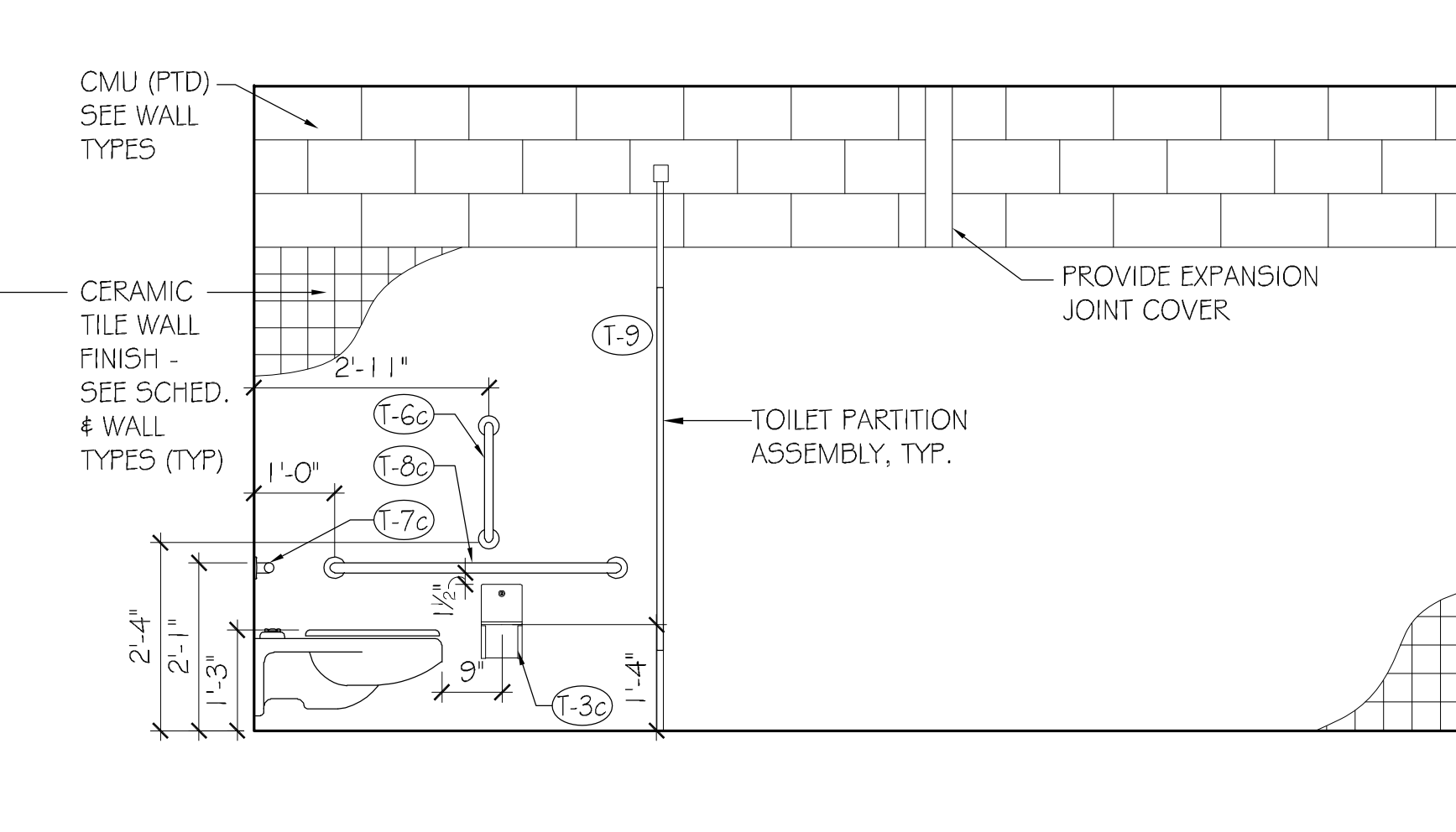
Project Number: Bid Number:
21-336 2223-09



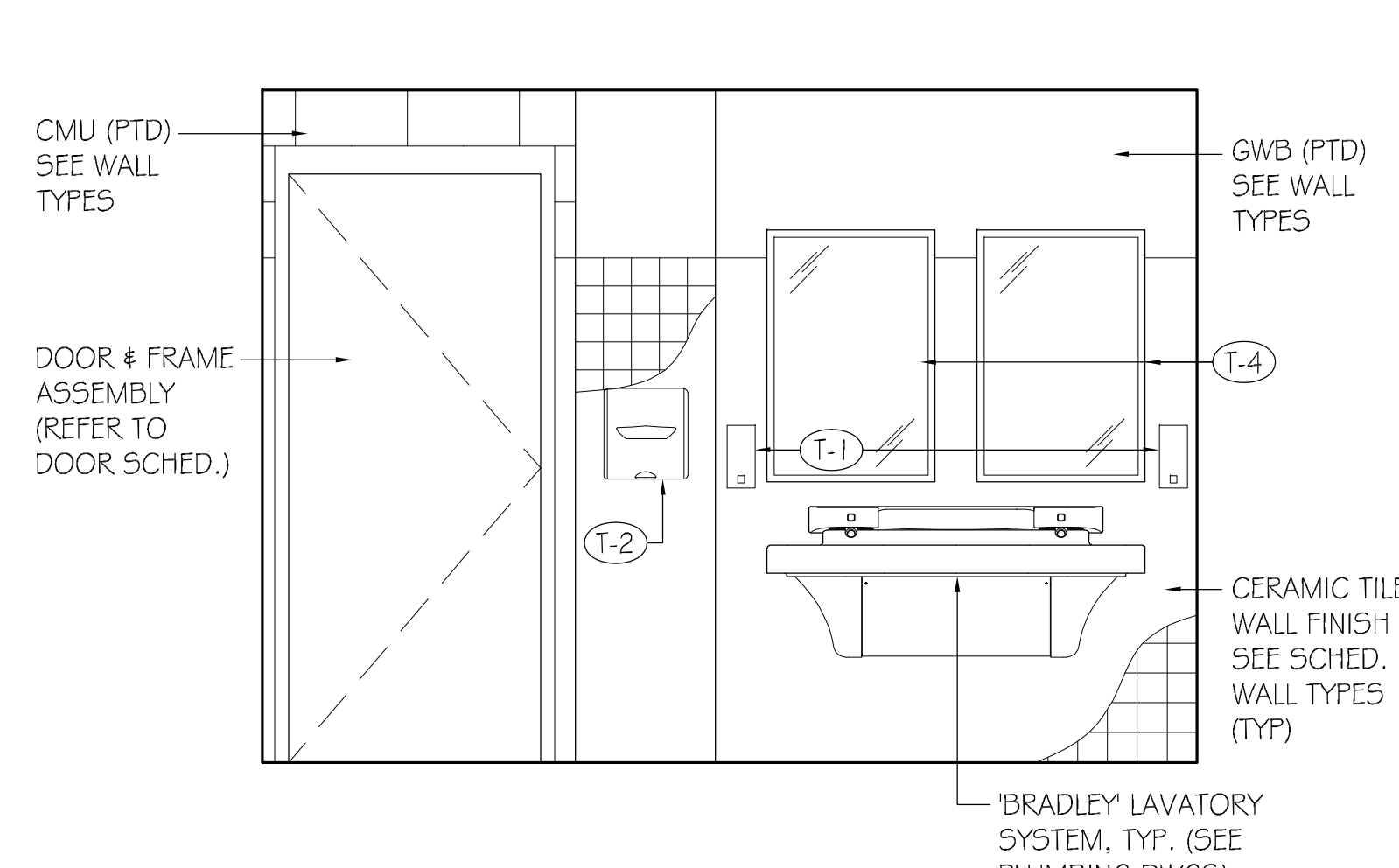
**GIRLS TOILET #157
INTERIOR ELEVATION** 1
SCALE: 1/2" = 1'-0"



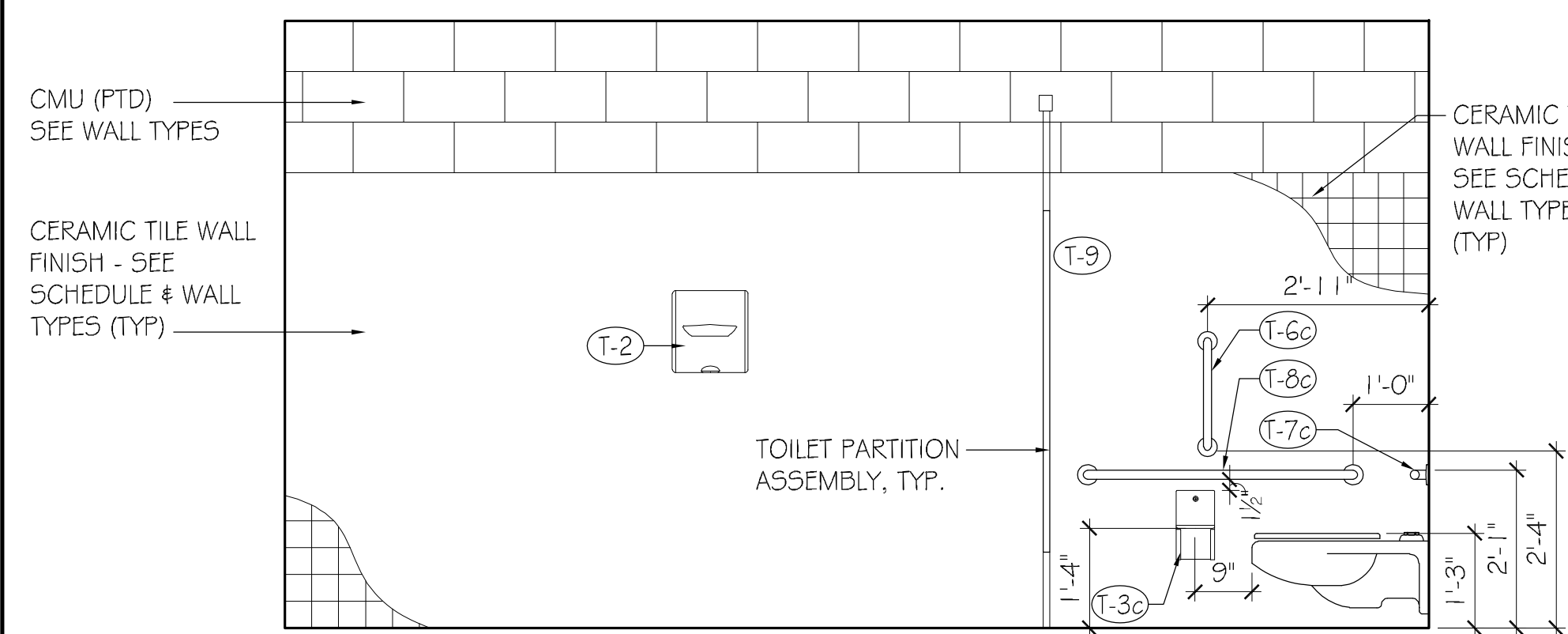
**GIRLS TOILET #157
INTERIOR ELEVATION** 2
SCALE: 1/2" = 1'-0"



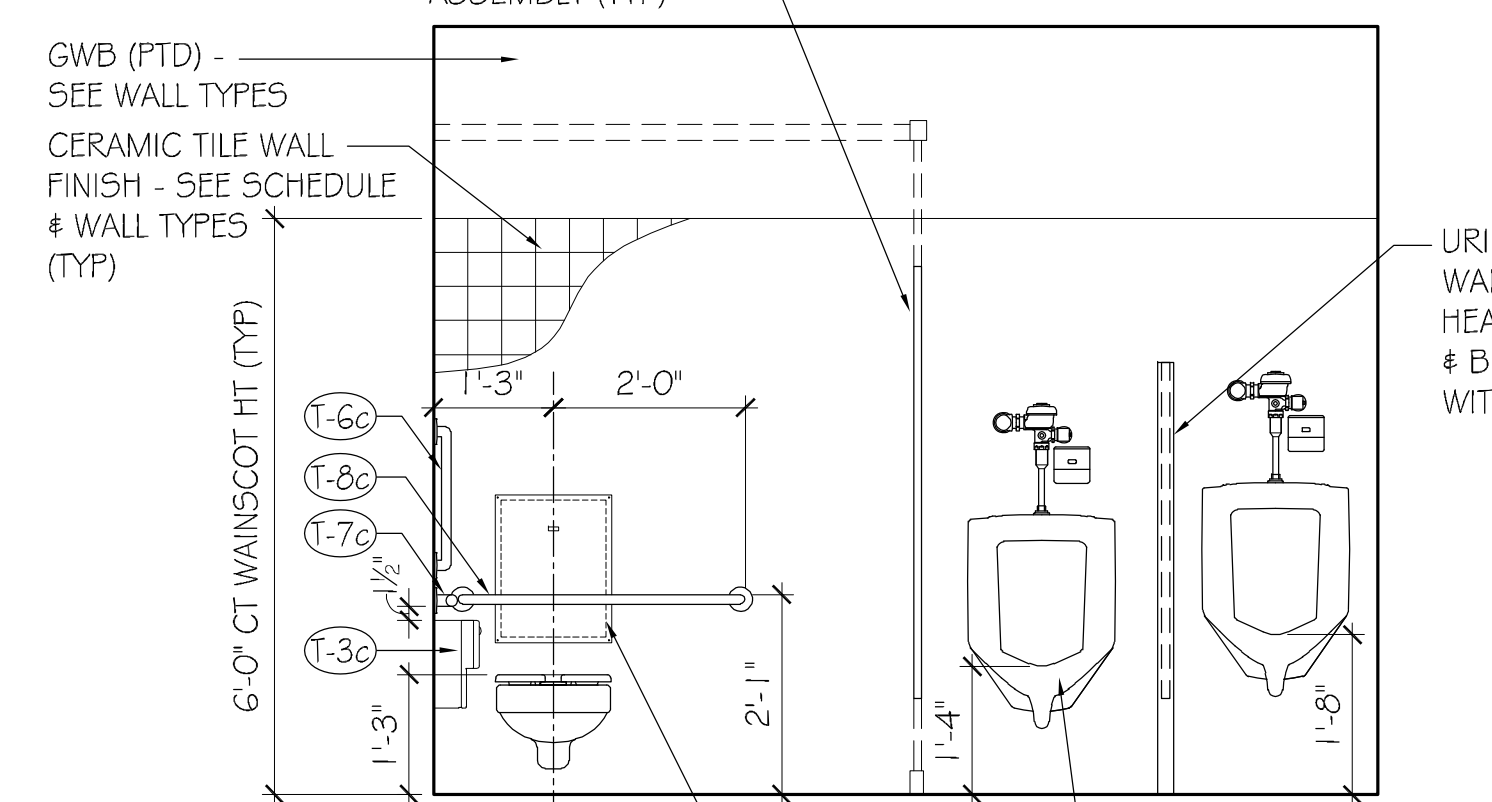
**GIRLS TOILET #157
INTERIOR ELEVATION** 3
SCALE: 1/2" = 1'-0"



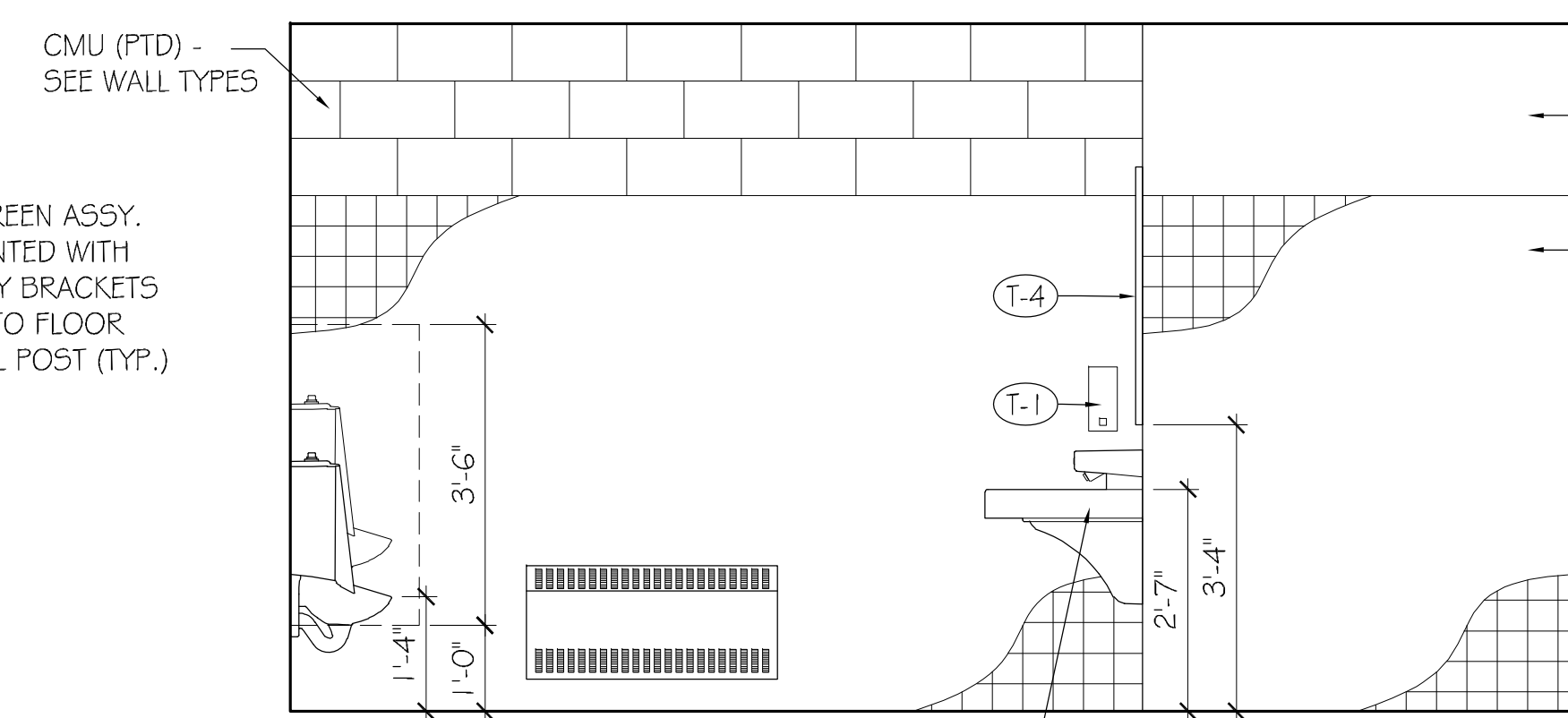
**GIRLS TOILET #157
INTERIOR ELEVATION** 4
SCALE: 1/2" = 1'-0"



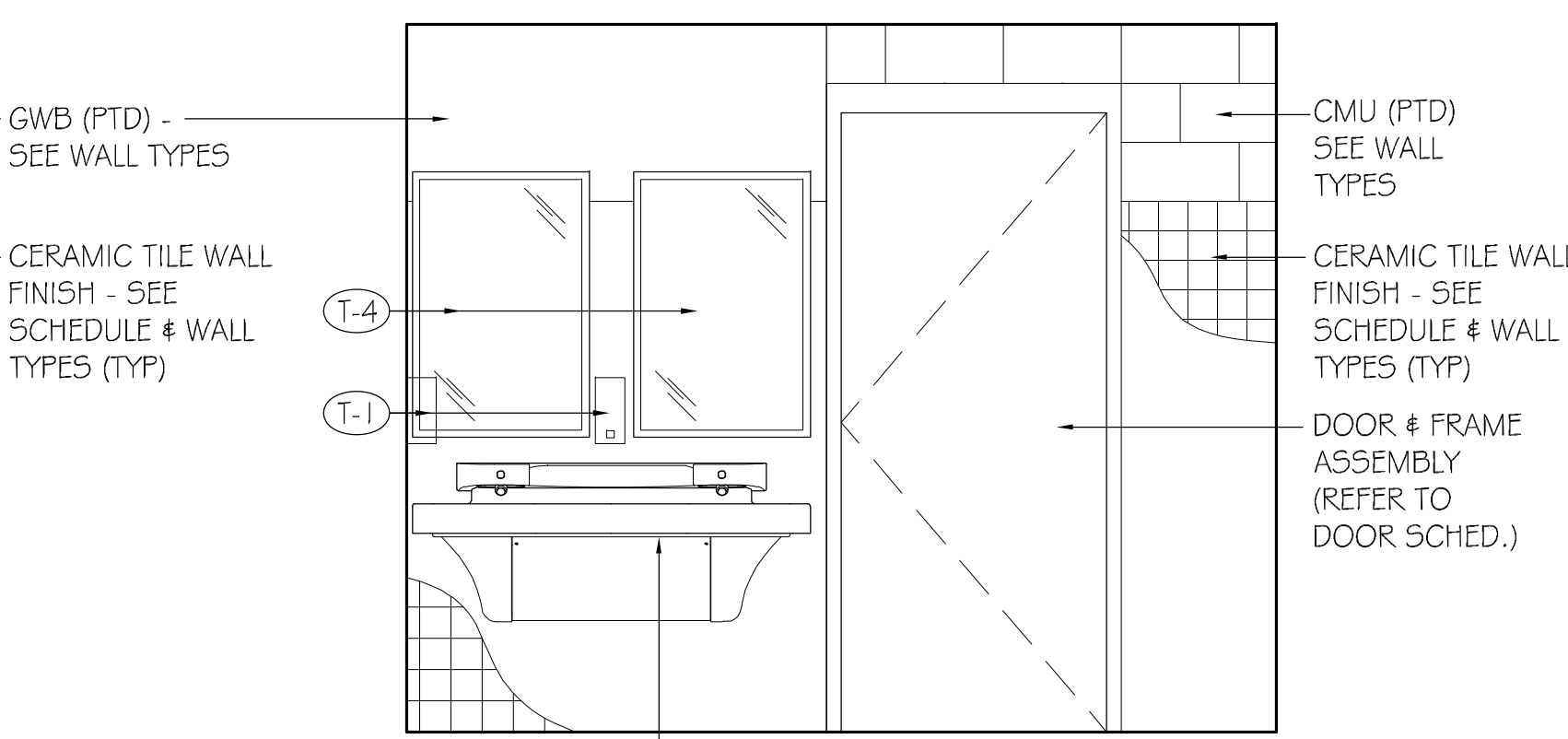
**BOYS TOILET #155
INTERIOR ELEVATION** 5
SCALE: 1/2" = 1'-0"



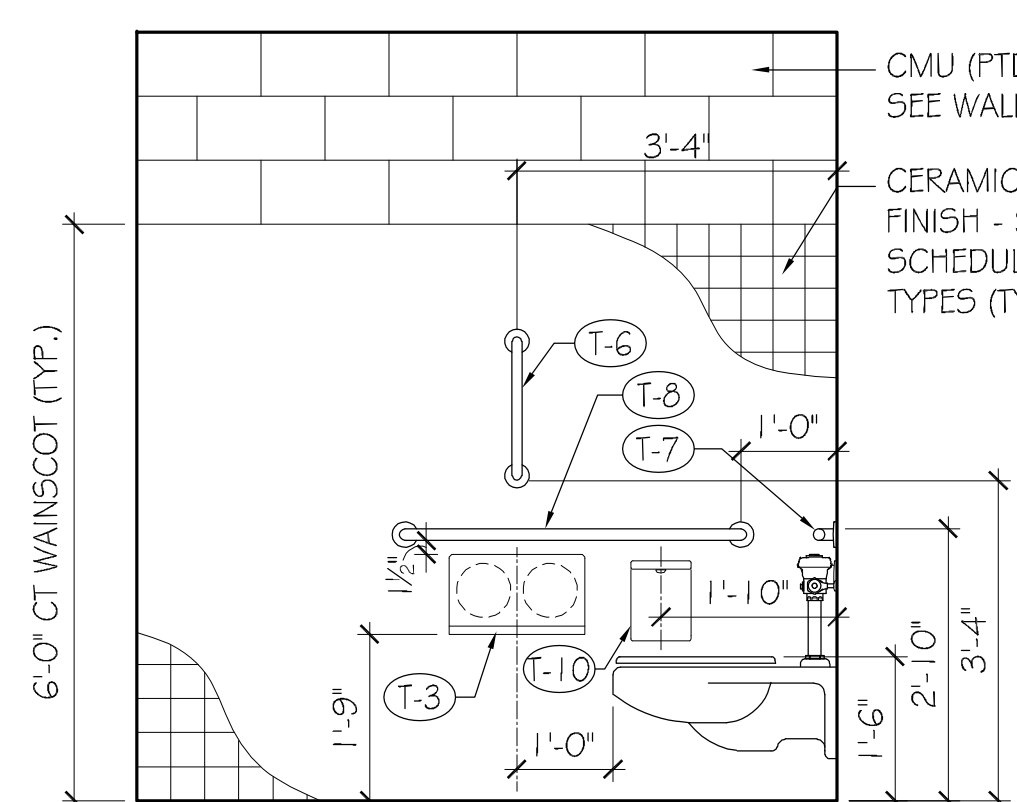
**BOYS TOILET #155
INTERIOR ELEVATION** 6
SCALE: 1/2" = 1'-0"



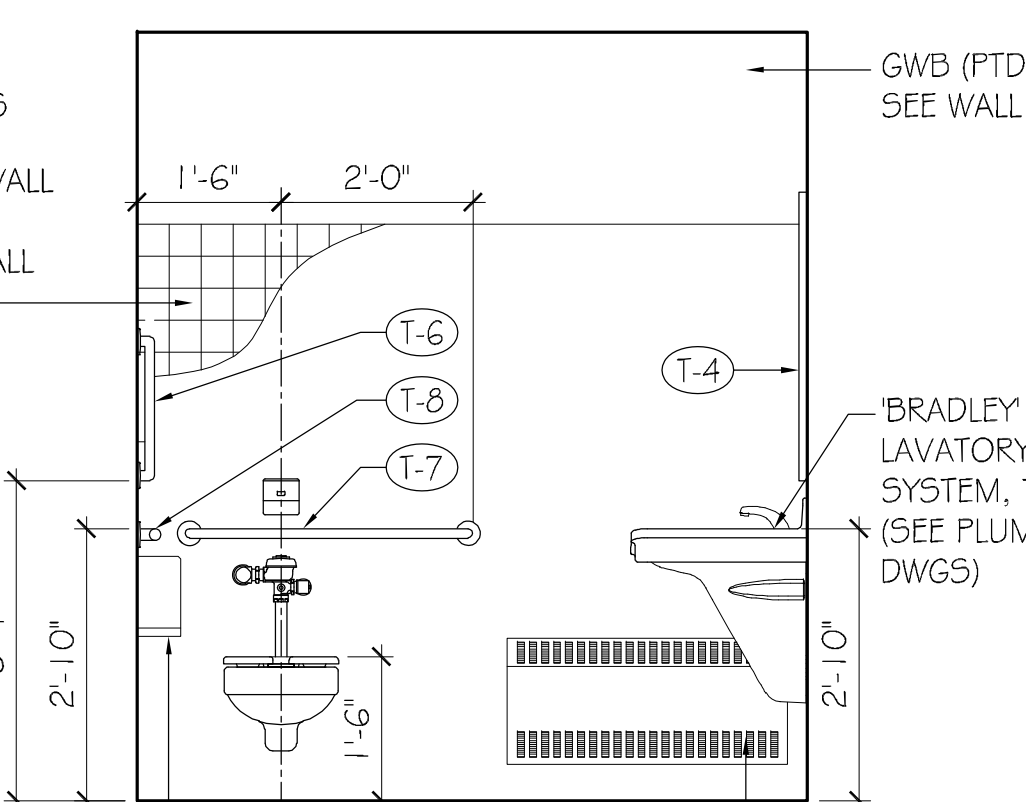
**BOYS TOILET #155
INTERIOR ELEVATION** 7
SCALE: 1/2" = 1'-0"



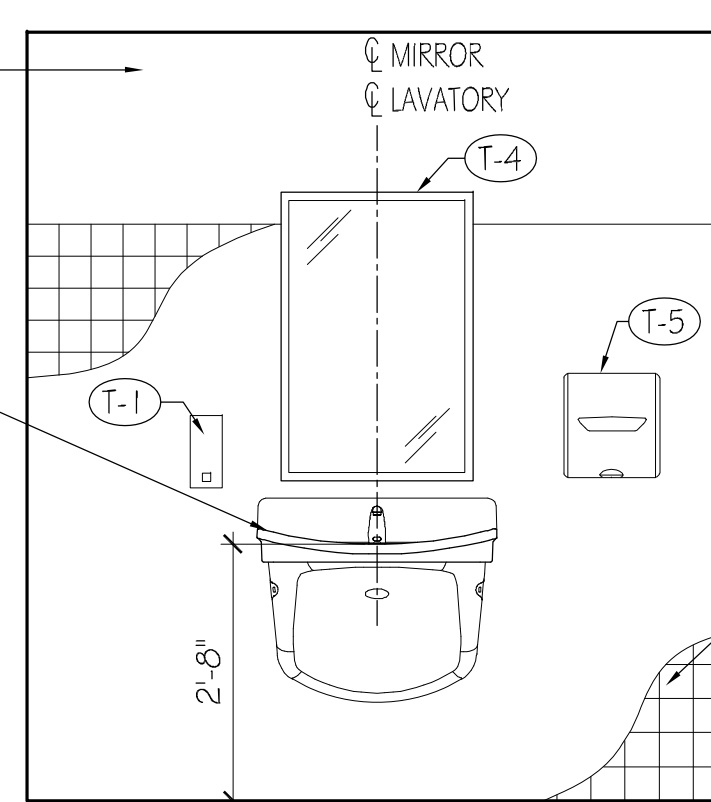
**BOYS TOILET #155
INTERIOR ELEVATION** 8
SCALE: 1/2" = 1'-0"



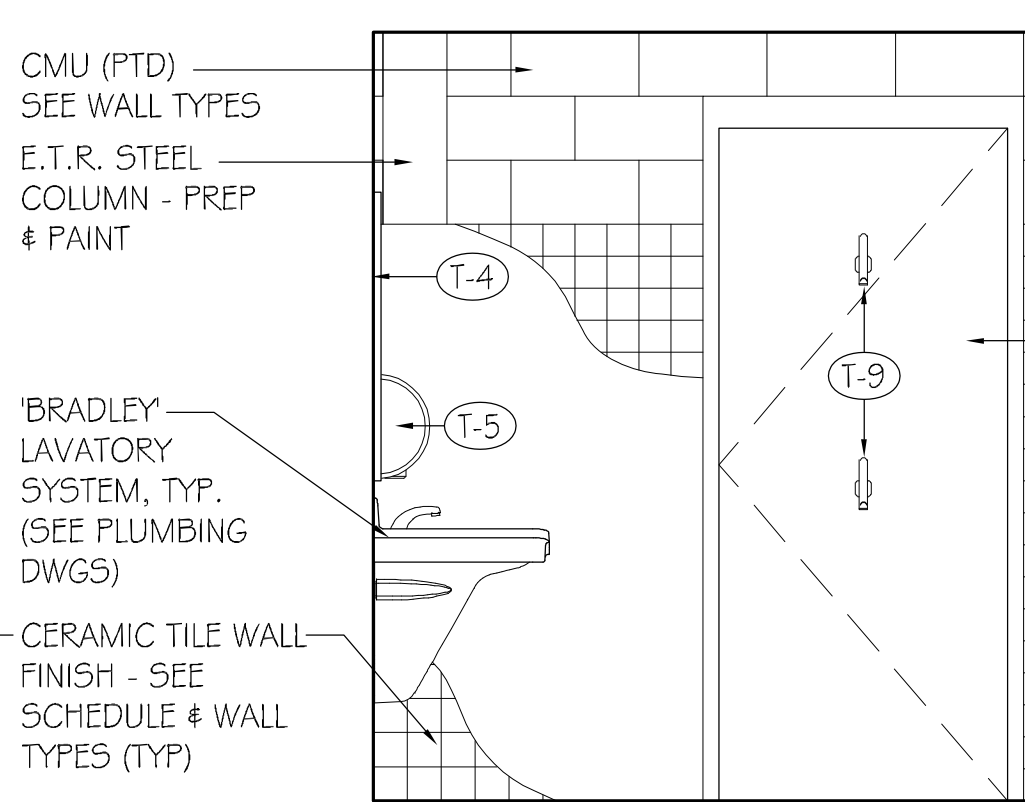
**STAFF TOILET #156
INTERIOR ELEVATION** 9
SCALE: 1/2" = 1'-0"



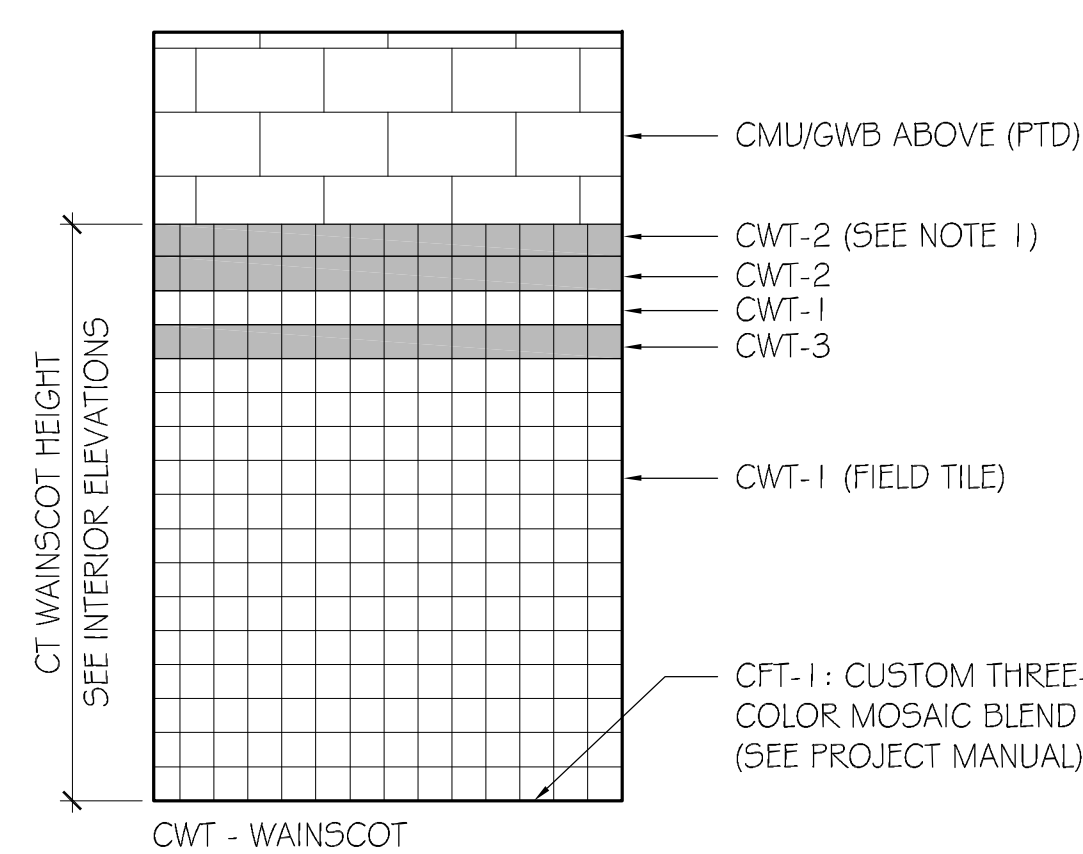
**STAFF TOILET #156
INTERIOR ELEVATION** 10
SCALE: 1/2" = 1'-0"



**STAFF TOILET #156
INTERIOR ELEVATION** 11
SCALE: 1/2" = 1'-0"

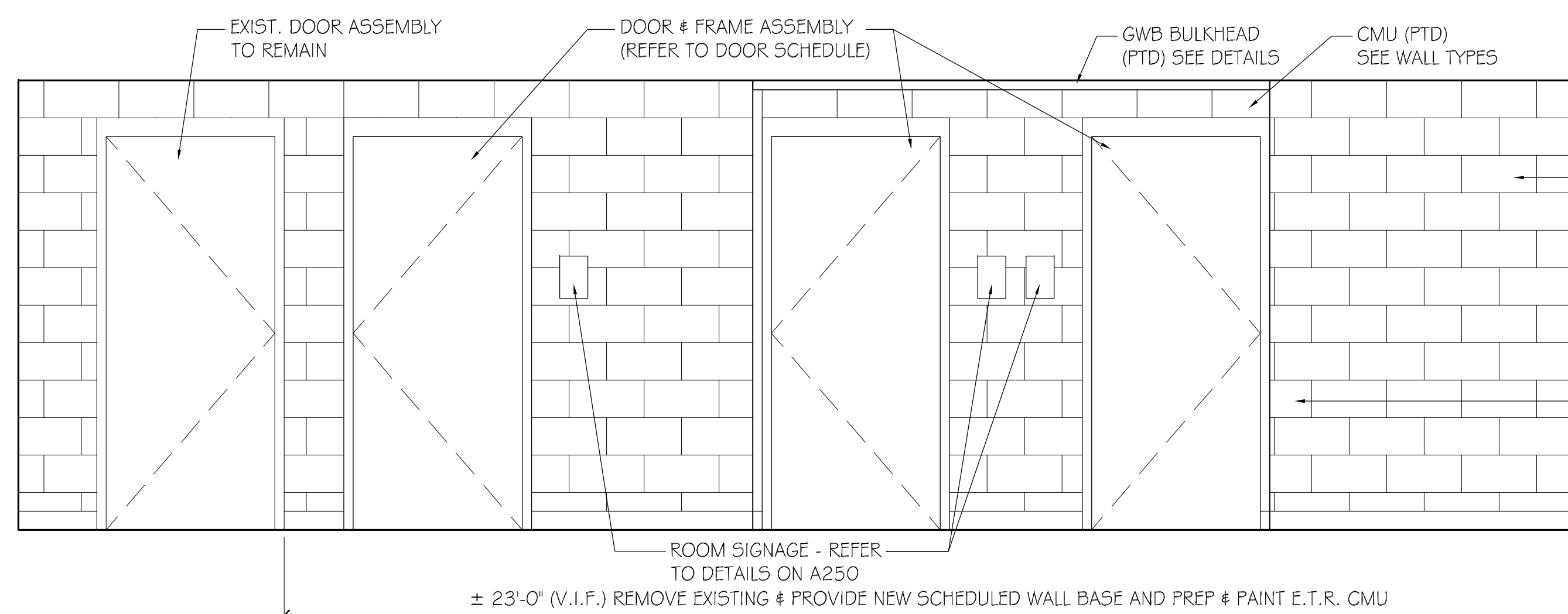


**STAFF TOILET #156
INTERIOR ELEVATION** 12
SCALE: 1/2" = 1'-0"



WALL TILE PATTERN DIAGRAM 13
SCALE: 1/2" = 1'-0"

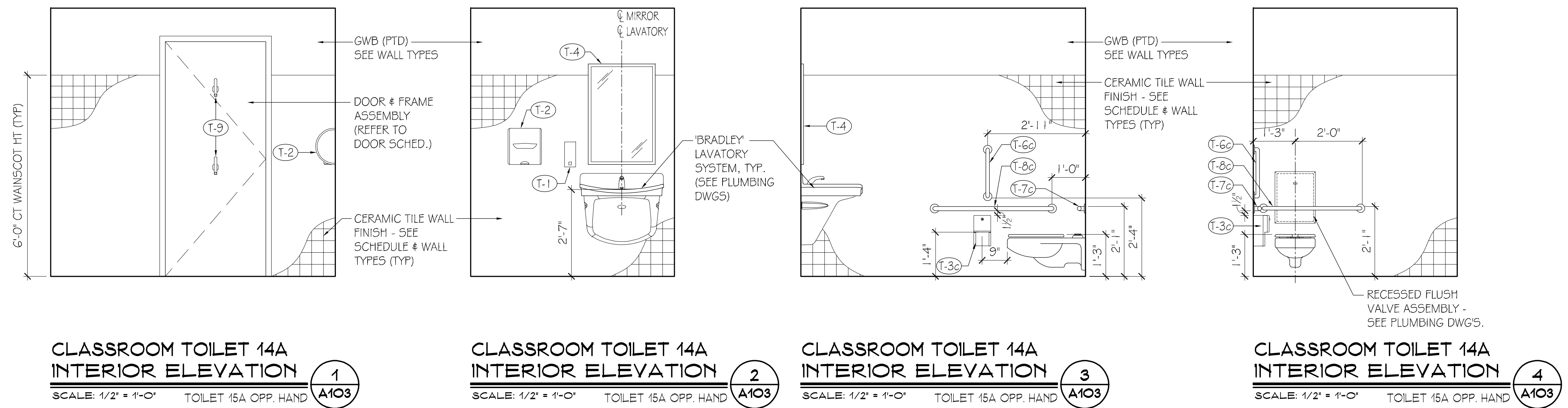
- NOTES:**
- BULLNOSE TILE REQUIRED ONLY AT WAINSCOT LOCATIONS.
 - MITER BULLNOSE TILES THAT MEET ON OUTSIDE CORNERS.
 - REFER TO PROJECT MANUAL FOR "CWT" COLOR DESIGNATIONS.



CORRIDOR #153 INTERIOR ELEVATION 14
SCALE: 1/2" = 1'-0"

SCHEDULE OF TOILET ROOM ACCESSORIES			
SYMBOL	ITEM	MOUNTING HEIGHT AFF	REMARKS
(T-1)	SOAP DISPENSER	42" TO OPERABLE PART	NOTE 1
(T-2)	ELECTRIC HAND DRYER	40" TO BOTTOM	CHILD HEIGHT
(T-3)	TOILET TISSUE DISPENSER	21" TO DISPENSING LOC.	NOTES 1 & 2 (SEE INT. ELEV'S)
(T-3c)	TOILET TISSUE DISPENSER (CHILD)	17" TO DISPENSING LOC.	CHILD HT. (SEE INT. ELEV'S MORE INFO)
(T-4)	24" X 36" MIRROR	40" TO B.O. REFLECTIVE SURFACE	-
(T-5)	ELECTRIC HAND DRYER	44" TO BOTTOM	ADULT HEIGHT
(T-6)	18" GRAB BAR	40" TO BOTTOM (VERT)	ADULT HEIGHT
(T-6c)	18" GRAB BAR (CHILD)	29" TO BOTTOM (VERT)	CHILD HEIGHT
(T-7)	36" GRAB BAR	34" TO TOP	ADULT HEIGHT
(T-7c)	36" GRAB BAR (CHILD)	25" TO TOP	CHILD HEIGHT
(T-8)	42" GRAB BAR	34" TO TOP	ADULT HEIGHT
(T-8c)	42" GRAB BAR (CHILD)	25" TO TOP	CHILD HEIGHT
(T-9)	COAT HOOK	48" & 68" TO C	PROVIDE (2) CENTERED ON DOOR
(T-9c)	COAT HOOK (CHILD)	40" TO C	PROVIDE (1) AT EA. TOILET COMP.
(T-10)	SANITARY NAPKIN DISPOSAL	30" TO TOP	-

- TOILET ACCESSORY NOTES:**
- TOILET ACCESSORY IS OWNER FURNISHED, CONTRACTOR INSTALLED.
 - CONTRACTOR MUST CONFIRM THAT THE SIZE & CONFIGURATION OF THE OWNER-FURNISHED TOILET TISSUE DISPENSER HAS THE DISPENSING LOCATION 42" MAXIMUM FROM THE PLUMBING WALL (V.I.F.) AS REQ PER ADA.

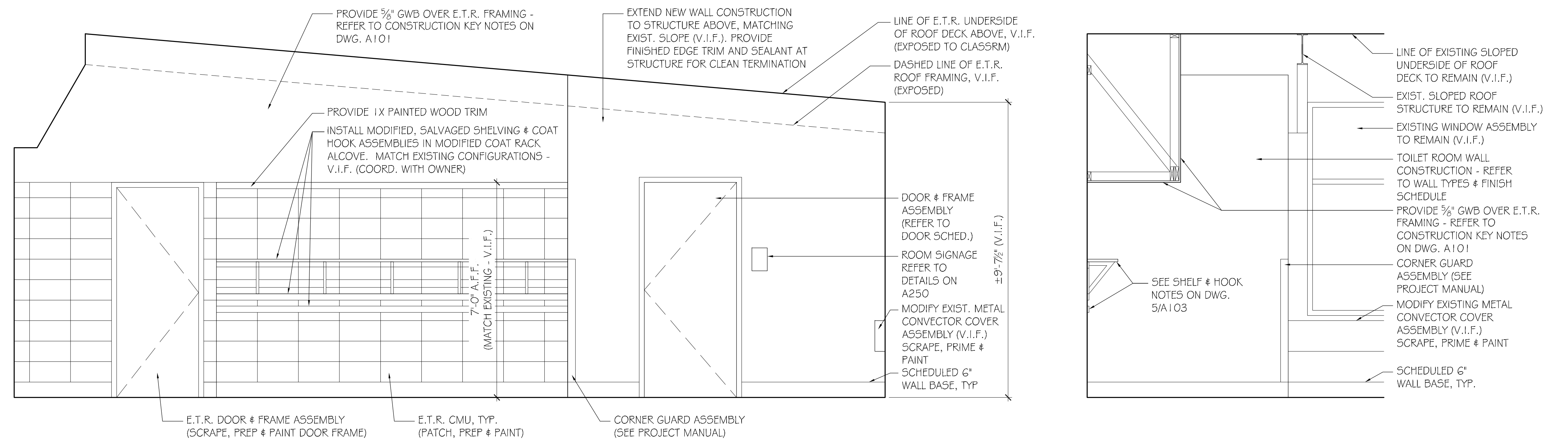


**CLASSROOM TOILET 14A
INTERIOR ELEVATION**
SCALE: 1/2" = 1'-0" TOILET 15A OPP. HAND **1**
A103

**CLASSROOM TOILET 14A
INTERIOR ELEVATION**
SCALE: 1/2" = 1'-0" TOILET 15A OPP. HAND **2**
A103

**CLASSROOM TOILET 14A
INTERIOR ELEVATION**
SCALE: 1/2" = 1'-0" TOILET 15A OPP. HAND **3**
A103

**CLASSROOM TOILET 14A
INTERIOR ELEVATION**
SCALE: 1/2" = 1'-0" TOILET 15A OPP. HAND **4**
A103



**CLASSROOM 14
INTERIOR ELEVATION**
SCALE: 1/2" = 1'-0" CLASSROOM 15 OPP. HAND **5**
A103

**CLASSROOM 14
INTERIOR ELEVATION**
SCALE: 1/2" = 1'-0" CLASSROOM 15 OPP. HAND **6**
A103

SCHEDULE OF TOILET ROOM ACCESSORIES			
SYMBOL	ITEM	MOUNTING HEIGHT AFF	REMARKS
(T-1)	SOAP DISPENSER	42" TO OPERABLE PART	NOTE 1
(T-2)	ELECTRIC HAND DRYER	40" TO BOTTOM	CHILD HEIGHT
(T-3)	TOILET TISSUE DISPENSER	21" TO DISPENSING LOC.	NOTES 1 & 2 (SEE INT. ELEV'S)
(T-3c)	TOILET TISSUE DISPENSER (CHILD)	17" TO DISPENSING LOC.	CHILD HT. (SEE INT. ELEV'S MORE INFO)
(T-4)	24" X 36" MIRROR	40" TO B.O. REFLECTIVE SURFACE	-
(T-5)	ELECTRIC HAND DRYER	44" TO BOTTOM	ADULT HEIGHT
(T-6)	18" GRAB BAR	40" TO BOTTOM (VERT)	ADULT HEIGHT
(T-6c)	18" GRAB BAR (CHILD)	29" TO BOTTOM (VERT)	CHILD HEIGHT
(T-7)	36" GRAB BAR	34" TO TOP	ADULT HEIGHT
(T-7c)	36" GRAB BAR (CHILD)	25" TO TOP	CHILD HEIGHT
(T-8)	42" GRAB BAR	34" TO TOP	ADULT HEIGHT
(T-8c)	42" GRAB BAR (CHILD)	25" TO TOP	CHILD HEIGHT
(T-9)	COAT HOOK	48" & 68" TO $\bar{\ell}$	PROVIDE (2) CENTERED ON DOOR
(T-9c)	COAT HOOK (CHILD)	40" TO $\bar{\ell}$	PROVIDE (1) AT EA. TOILET COMP.
(T-10)	SANITARY NAPKIN DISPOSAL	30" TO TOP	-

- TOILET ACCESSORY NOTES:**
- TOILET ACCESSORY IS OWNER FURNISHED, CONTRACTOR INSTALLED.
 - CONTRACTOR MUST CONFIRM THAT THE SIZE & CONFIGURATION OF THE OWNER-FURNISHED TOILET TISSUE DISPENSER HAS THE DISPENSING LOCATION 42" MAXIMUM FROM THE PLUMBING WALL (V.I.F.) AS REQD PER ADA.

ROOM FINISH SCHEDULE										
ROOM		FLOOR		WALL FINISH			CEILING		NOTES	
NO.	ROOM NAME	FLR FIN	BASE	NORTH	SOUTH	EAST	WEST	MAT'L	FINISH	
14	CLASSROOM	VCT	RB	GW/B/CMU	-	-	-	ACT-1	-	NOTES 3, 5, 6
14A	TOILET	CFT-1	CWB	CWT/GWB	CWT/GWB	CWT/GWB	CWT/GWB	ACT-1	-	NOTE 3
14B	COAT RACKS	VCT	RB	ETR CMU	-	GWB	ETR CMU	GWB	PT	NOTES 3, 5, 6
14C	CLOSET	VCT	RB	ETR CMU	ETR CMU	ETR CMU	ETR CMU	PT		PATCH, PREP AND PAINT EXISTING CMU & GLAZED CMU
15	CLASSROOM	VCT	RB	GW/B/CMU	-	-	-	ACT-1	-	NOTES 3, 5, 6
15A	TOILET	CFT-1	CWB	CWT/GWB	CWT/GWB	CWT/GWB	CWT/GWB	ACT-1	-	NOTE 3
15B	COAT RACKS	VCT	RB	ETR CMU	-	GWB	ETR CMU	GW/B	PT	NOTES 3, 5, 6
15C	CLOSET	VCT	RB	ETR CMU	ETR CMU	ETR CMU	ETR CMU	PT		PATCH, PREP AND PAINT EXISTING CMU & GLAZED CMU
153	CORRIDOR	ETR VCT	RB	-	-	-	CMU	ACT-1	-	NOTES 1, 2, 3, 4
154	UTILITY	VCT	RB	-	CMU/GWB	-	-	ACT-1	-	NOTES 1, 3, 4
155	BOYS TOILET	CFT-1	CWB	CWT/CMU	CWT/CMU	CWT/GWB	CWT/CMU	ACT-1	-	NOTE 3
156	STAFF TOILET	CFT-1	CWB	CWT/GWB	CWT/CMU	CWT/CMU	CWT/GWB	ACT-1	-	NOTE 3
157	GIRLS TOILET	CFT-1	CWB	CWT/CMU	CWT/CMU	CWT/GWB	CWT/GWB	ACT-1	-	NOTE 3

GENERAL FINISH NOTES

- CONTRACTOR SHALL FIELD VERIFY ALL CONDITIONS & DIMENSIONS AND NOTIFY ARCHITECT IMMEDIATELY OF ANY DISCREPANCIES.
- REFER TO REFLECTED CEILING PLANS FOR CEILING HEIGHTS.
- PREP & PAINT NEW & ETR CMU BRICK MASONRY & GWB FINISHES, UNLESS OTHERWISE NOTED.
- PROVIDE EPOXY (HIGH-PERFORMANCE) PAINT FINISHES AT TOILET ROOM LOCATIONS ONLY.

FINISH SCHEDULE LEGEND:

- ACT - ACOUSTICAL CEILING TILE
- ETR - EXISTING TO REMAIN
- CWT - CERAMIC WALL TILE
- CFT - CERAMIC FLOOR TILE
- CWB - CERAMIC WALL BASE
- CMU - CONCRETE MASONRY UNIT (PAINTED)
- GW/B - GYPSUM WALLBOARD (PAINTED)

FINISH SCHEDULE NOTES

- REPLACE EXIST. VCT FLOORING & WALL BASE ALONG CORRIDOR SIDE OF TOILET ROOM WALLS TWO FULL TILES FROM WALL TO MATCH EXISTING (VIF).
- PAINT EXISTING CMU WALLS AT CORRIDOR/LOBBY SIDE OF TOILET ROOM WALLS & EXTEND PAINTING 24" BEYOND AREA OF WORK (COORD WITH EXTENTS SHOWN ON INTERIOR ELEVATIONS) - PROTECT ETR FINISHES & FURNISHINGS (VIF).
- REFER TO WALL TYPES & INTERIOR ELEVATIONS FOR MORE INFORMATION ON EXTENT OF FINISHES.
- REMOVE TWO FULL EXISTING CEILING TILES AT PERIMETER OF TOILET ROOM WALLS AND PROVIDE NEW ACT TO MATCH EXISTING TYPE & SIZES (VIF). TEMPORARILY REMOVE PORTION OF EXISTING SUSPENDED CEILING GRID ASSEMBLY AS REQD TO PROVIDE WORK ABOVE & ADJACENT TO EXISTING CEILING ASSEMBLY. UPON COMPLETION OF ADJACENT/ABOVE CEILING WORK, REINSTALL SUSPENDED CEILING GRID ASSEMBLY AS REQD TO MATCH EXISTING LAYOUT/CONFIGURATION. REPLACE SUSPENDED CEILING GRID ASSEMBLY COMPONENTS THAT CANNOT BE REUSED/REINSTALLED.
- PROVIDE VCT FLOORING AT AREA OF FLOORING REMOVAL IN CLASSROOM TO MATCH EXIST. PORTION TO REMAIN - REMOVAL AND NEW VCT WORK SHALL ALIGN WITH AN EXISTING VCT JOINT (VIF).
- INTENT AT WORK OCCURRING WITHIN CLASSROOMS IS THAT ALL NEW AND EXISTING SUBSTRATES ARE TO BE PREPPED AND PROVIDED WITH PAINTED FINISH. PATCH ALL HOLES WITHIN ETR SUBSTRATES AND PREP TO RECEIVE PAINTED FINISH.

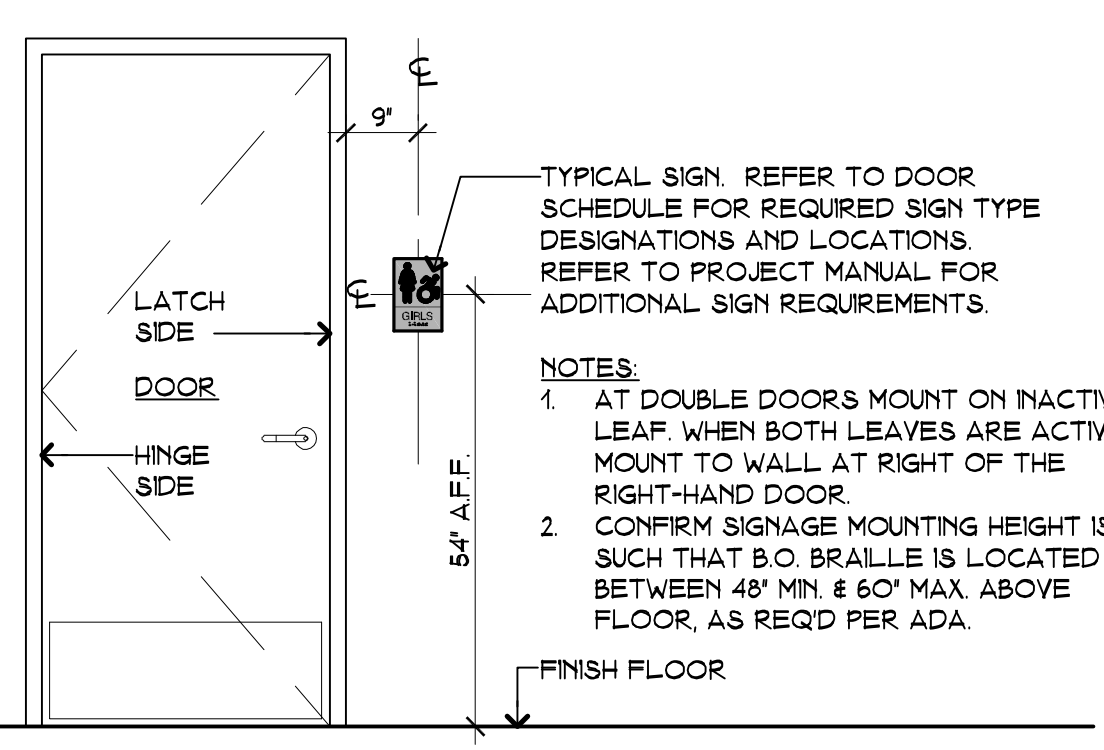
DOOR SCHEDULE																
			DOOR		FRAME			FIRE		HARDWARE - SEE PROJECT MANUAL		REMARKS				
DOOR NUMBER	ROOM NUMBER	ROOM NAME	SIZE	DOUBLE LEAF DOOR	CABED OPENING	3'-0" X 6'-0" MATCH EXIST HT - VIF	3'-0" X 7'-0" MATCH EXIST HT - VIF	DOOR TYPE - SEE 1/A250	MATERIAL	GLAZING	SEE DWG A250		RATING	FIRE CODE	ACCESSIBILITY REQ'S	REMARKS
											MATERIAL	HEAD DETAIL				
14A	14	TOILET									A	MTL	7	7	3	
15A	15	TOILET									A	MTL	7	7	3	
155	155	BOYS TOILET									A	MTL	4	5	3	REMARK 1
156	156	STAFF TOILET									A	MTL	6	6	3	REMARK 1
157	157	GIRLS TOILET									A	MTL	4	5	3	REMARK 1

GENERAL DOOR NOTES

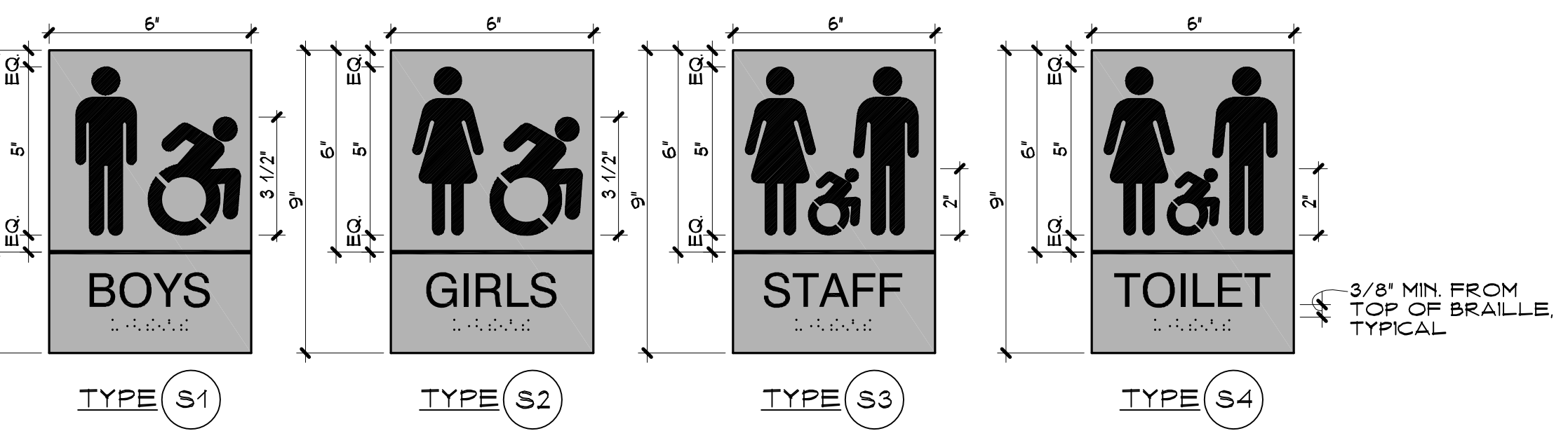
- CONTRACTOR SHALL FIELD VERIFY ALL CONDITIONS & DIMENSIONS AND NOTIFY ARCHITECT IMMEDIATELY OF ANY DISCREPANCIES.
- PROVIDE 16" HIGH KICK PLATES CENTERED ON DOOR & OFFSET 6" FROM BOTTOM & SIDE EDGES OF DOOR, UNLESS OTHERWISE NOTED. REFER TO PROJECT MANUAL.
- PROVIDE FULLY WELDED METAL DOOR FRAMES AT ALL NEW & EXISTING MASONRY WALL CONSTRUCTION.
- REFER TO PROJECT MANUAL FOR ADDITIONAL DOOR HARDWARE REQUIREMENTS.
- PROVIDE DOOR FRAMES WITH PAINTED FINISH, COLOR SELECTED BY ARCHITECT.
- ROOM SIGNAGE COLOR TO MATCH SCHOOL STANDARD COLOR, AS SELECTED BY ARCHITECT.

SCHEDULE REMARKS

- PROVIDE WOOD DOORS TO MATCH WOOD SPECIES & STAIN COLOR AT ADJACENT EXISTING DOORWAYS, AND PROVIDE FACTORY TRANSPARENT FINISH. SEE PROJECT MANUAL. COLOR & SPECES TO BE APPROVED BY ARCHITECT & OWNER.



TYPICAL SIGNS MOUNTING DETAILS
SCALE: 1/2" = 1'-0"
A A250

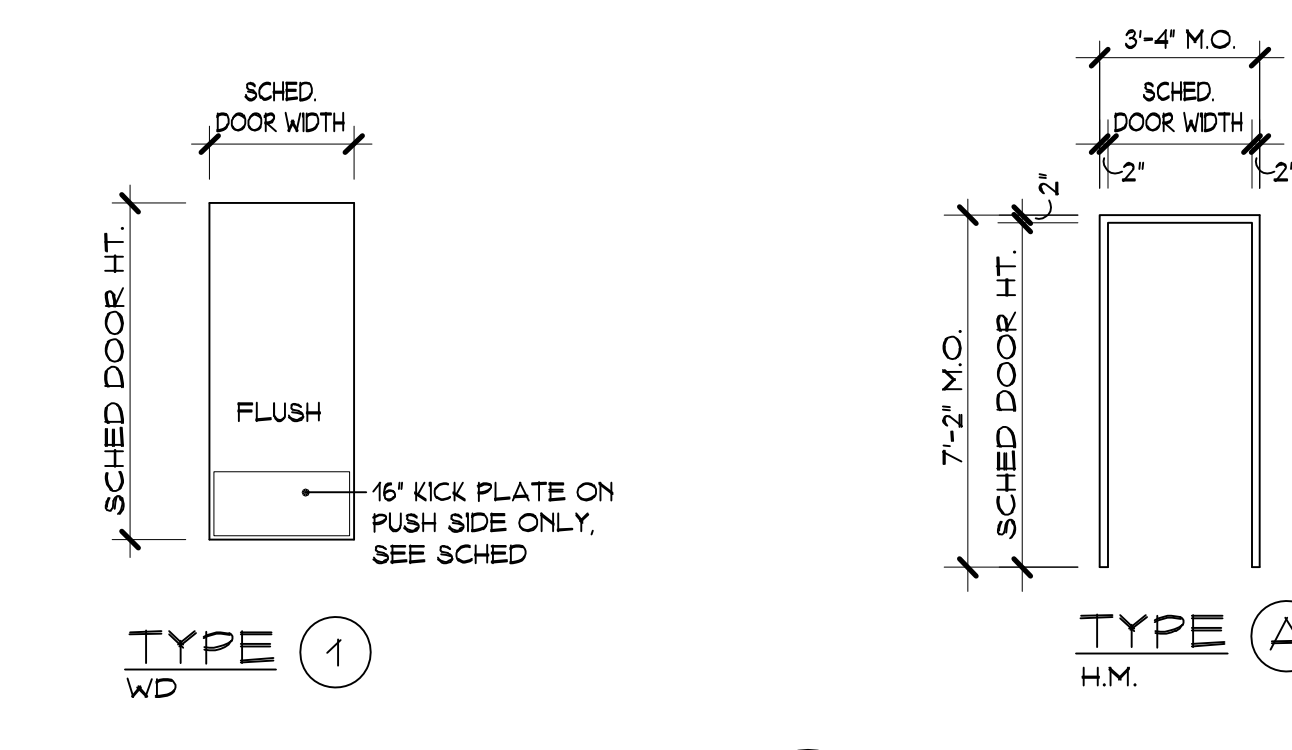


SIGNAGE TYPES
SCALE: 3" = 1'-0"
B A250

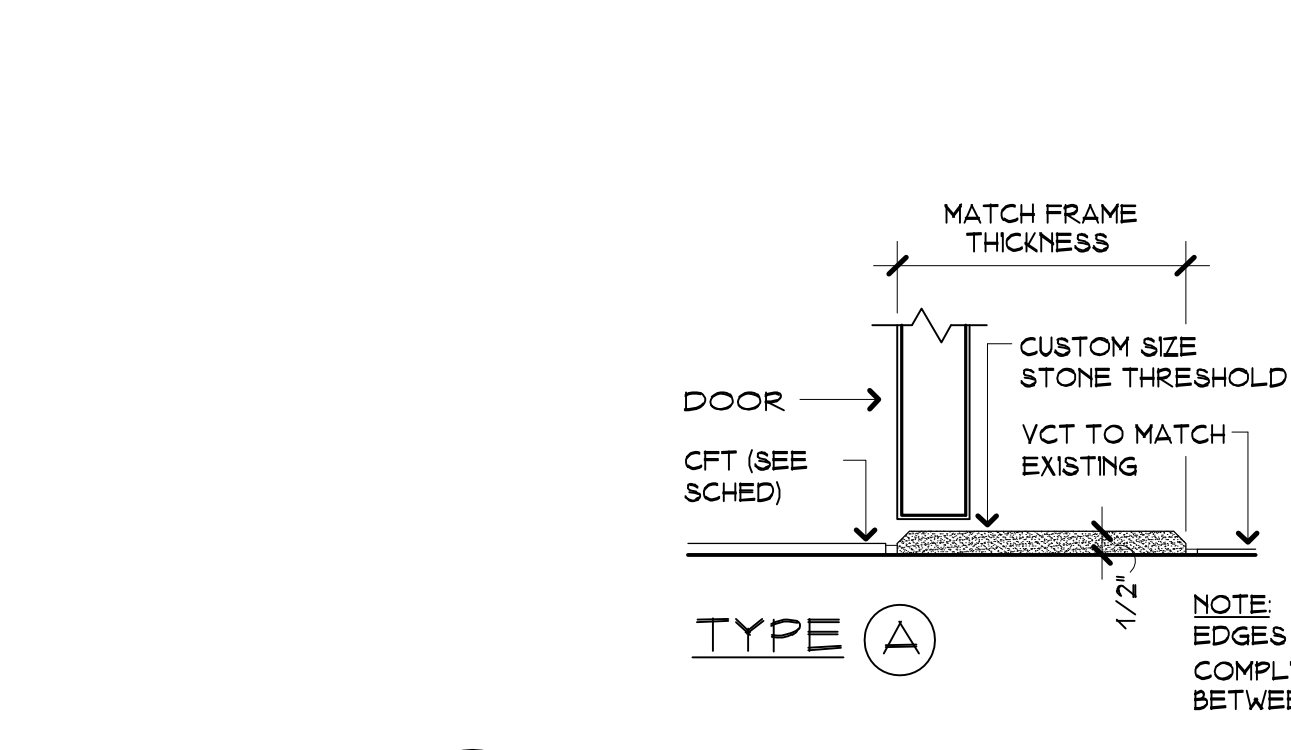
- SIGNAGE NOTES:**
- SIGNS SHALL COMPLY WITH CURRENT BUILDING CODE, ANSI STANDARDS, ADA REGULATIONS & SUBELEMENTS AND ALL OTHER APPLICABLE REGULATIONS.
 - TEXT ON SIGNS SHALL BE COORDINATED IN FIELD TO REFLECT ROOM USE, AND SHALL BE APPROVED BY ARCHITECT AND OWNER PRIOR TO FABRICATION.
 - REFER TO TYPICAL SIGN DETAIL AND TYPICAL SIGN MOUNTING DETAILS ON THIS DRAWING.
 - SIGNAGE SHALL BE PROVIDED WITH GRADE 2 BRAILLE.



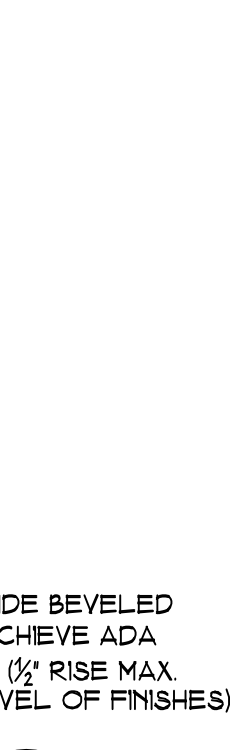
TYP. DOOR HEAD DETAIL
SCALE: 3" = 1'-0"
4 A250



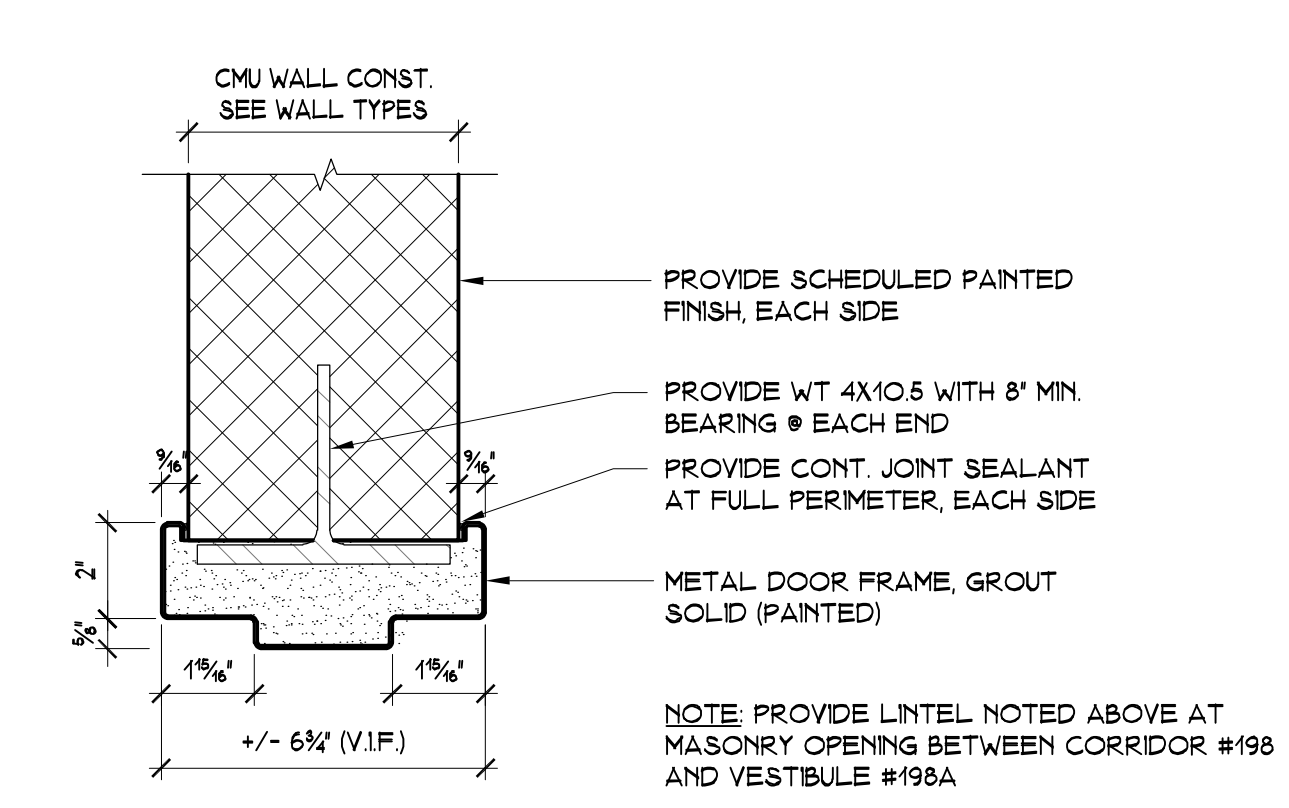
DOOR TYPES
SCALE: 1/4" = 1'-0"
1 A250



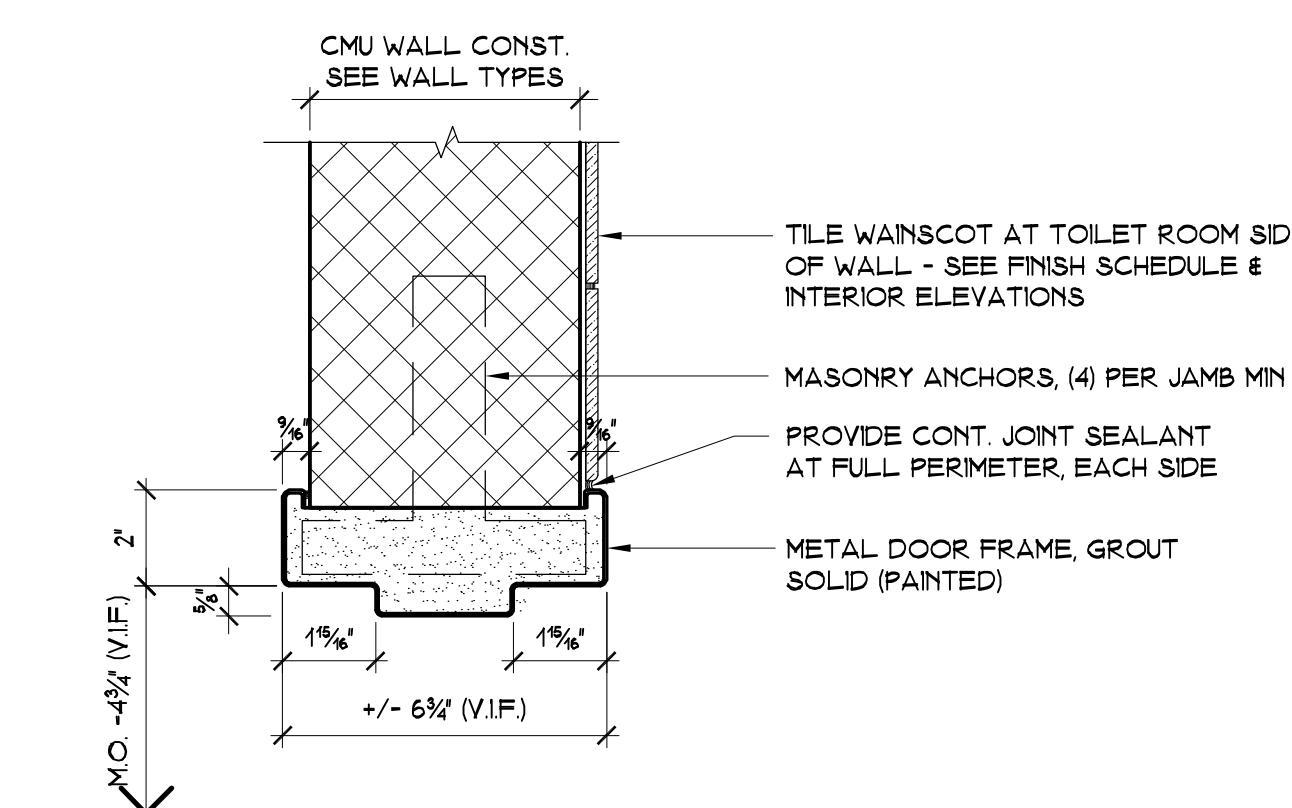
DOOR FRAME TYPES
SCALE: 1/4" = 1'-0"
2 A250



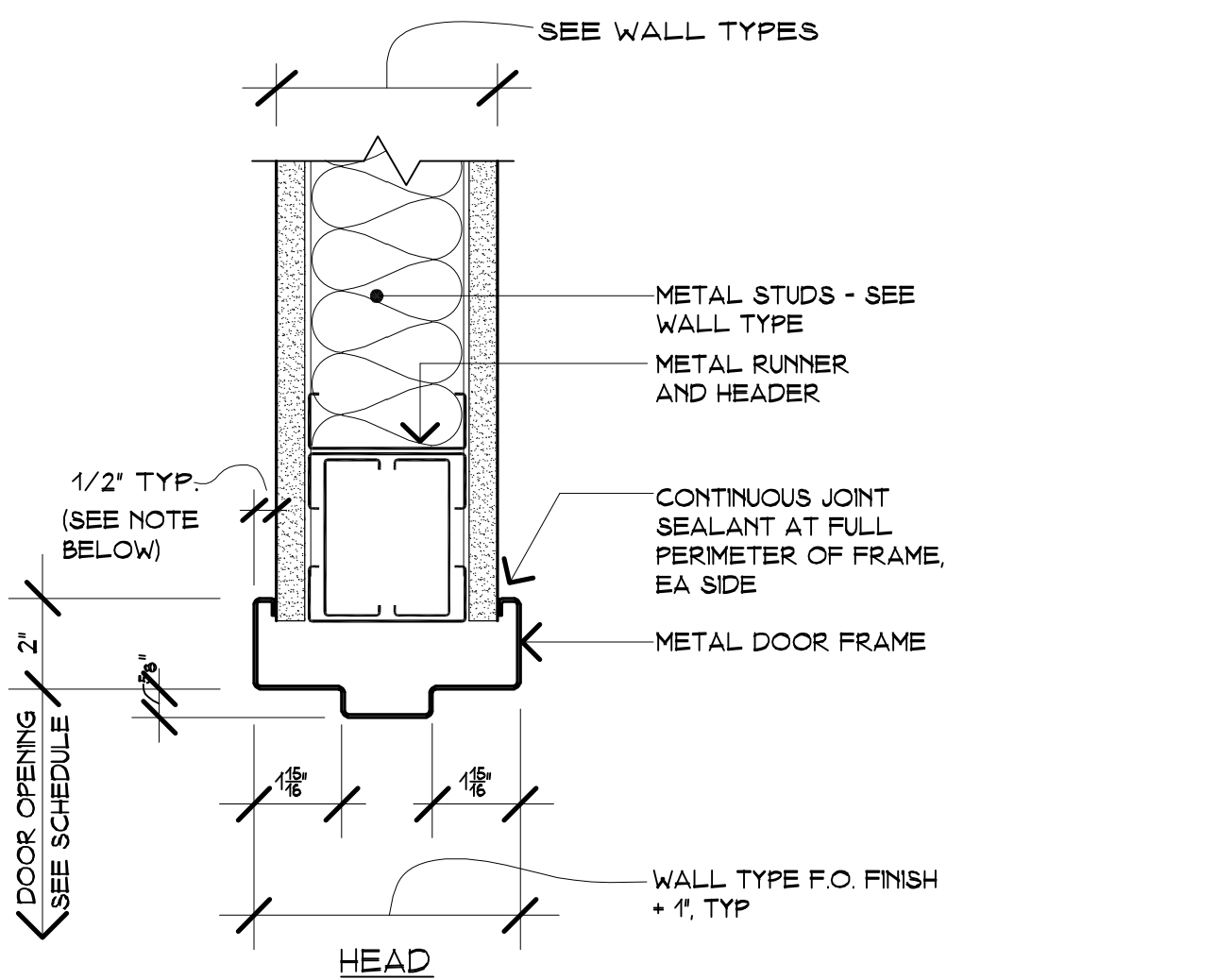
SADDLE DETAILS
SCALE: 3" = 1'-0"
3 A250



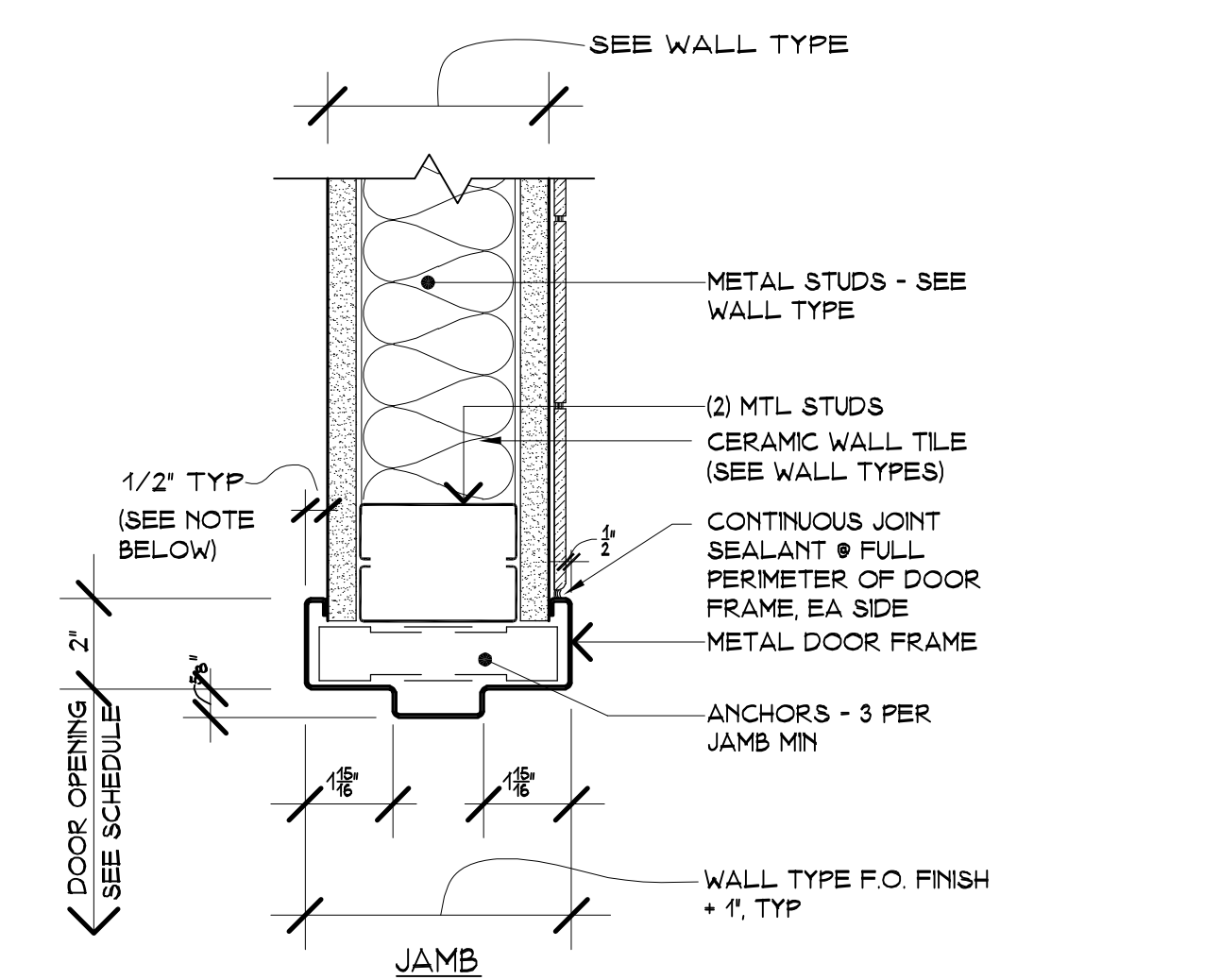
TYP. DOOR JAMB DETAIL
SCALE: 3" = 1'-0"
5 A250



TYP. JAMB DETAIL @ EXIST MASONRY CONSTRUCTION
SCALE: 3" = 1'-0"
6 A250



TYPICAL DOOR DETAILS
SCALE: 3" = 1'-0"
7 A250



TYPICAL DOOR DETAILS
SCALE: 3" = 1'-0"
7 A250

FIRE PROTECTION GENERAL NOTES

GENERAL

UTILIZE CONCEALED PENDENT SPRINKLERS AND PIPING IN AREAS WITH FINISHED CEILINGS, AND EXPOSED PIPING AND UPRIGHT SPRINKLERS IN AREAS WITHOUT CEILINGS. CONCEALED SPRINKLER HEADS LOCATED IN ACOUSTICAL TILES TO UTILIZE FLEX HOSE PIPING 6' IN LENGTH, PROVIDE AND INSTALL SPRINKLERS UNDER AND ABOVE ALL OBSTRUCTIONS IN ACCORDANCE WITH NFPA 13.

FIRE PROTECTION PLANS ARE INTENDED TO INDICATE TOTAL COVERAGE AND MAY OR MAY NOT INDICATE ALL SPRINKLER HEADS. SPRINKLER HEADS INDICATED ON DRAWINGS ARE DIAGRAMMATIC AND SHALL NOT BE COUNTED FOR BID IT IS NOT THE INTENT OF THESE DRAWINGS TO SHOW ENTIRE PIPING LAYOUT. PROPOSED MAINS AND DEVICES INDICATED ONLY. THE CONTRACTOR SHALL PROVIDE A COMPLETE SPRINKLER SYSTEM WITH COMPLETE SPRINKLER COVERAGE INDICATED OR NOT. ITEMS AND SERVICES NOT SHOWN ON DRAWINGS OR SPECIFICATIONS BUT REQUIRED TO RENDER THE WORK COMPLETE IN ACCORDANCE WITH NFPA, INSURANCE COMPANY REQUIREMENTS AND OWNERS, READY FOR OPERATION SHALL BE PROVIDED AND INSTALLED. THE CONTRACTOR SHALL PROVIDE COMPLETE SPRINKLER COVERAGE AS REQUIRED INCLUDING BUT NOT LIMITED TO: CRAWL SPACES, CONCEALED COMBUSTIBLE SPACES, SHAFTS, AND ALL CLOSETS.

DRAWINGS ARE DIAGRAMMATIC AND INDICATE A GENERAL ARRANGEMENT OF WORK AND ARE NOT TO BE CONSIDERED SUBCONTRACTOR DOCUMENTS. IT IS THE INTENT OF THESE DOCUMENTS TO INCLUDE THE PROVISION AND INSTALLATION OF ALL NECESSARY WORK AND MATERIALS FOR COMPLETE, OPERATIONAL AND CODE COMPLIANT SYSTEMS BY THE CONTRACTOR. GENERAL DESIGN CONCEPTS INDICATED MUST BE FOLLOWED OR BETTERED. THE BID SHALL INCLUDE ADDITIONAL PIPING, VALVES AND EQUIPMENT AND COMPONENTS AS REQUIRED TO MEET CONSTRUCTION CONDITIONS FOR PROPER OPERATION. DO NOT SCALE DRAWINGS. CONSULT ARCHITECTURAL AND STRUCTURAL DRAWINGS FOR SPACE CONDITIONS AND ADDITIONAL REQUIREMENTS.

WHEN A CONFLICT BETWEEN THE DRAWINGS, NOTES AND/OR SPECIFICATIONS OCCUR, THE MORE STRINGENT, AND/OR LARGER QUANTITY AND/OR MORE EXPENSIVE SHALL APPLY. THE REQUIREMENTS LISTED WITHIN NOTES OR SPECIFICATIONS SHALL BE REQUIRED, PROVIDED AND INSTALLED WHETHER SPECIFICALLY INDICATED ON THE DRAWINGS OR NOT.

THE CONTRACTOR SHALL COORDINATE SPRINKLER HEAD LOCATIONS WITH THE LATEST ARCHITECTURAL REFLECTED CEILING PLANS. ANY DISCREPANCIES SHALL BE BROUGHT BACK TO THE ARCHITECT/ENGINEER. DO NOT SCALE DRAWINGS FOR DIMENSIONS NOT INDICATED. REFER TO ARCHITECT FOR RESOLUTION FOR ANY DIMENSIONS NOT INDICATED.

IT IS THE INTENTION OF THE SPECIFICATIONS AND DRAWINGS TO PROVIDE FOR FINISHED WORK, TESTED AND READY FOR OPERATION.

THE DESIGN OF ALL FIRE SUPPRESSION SYSTEMS WILL BE IN ACCORDANCE WITH THE LOCAL AND STATE BUILDING CODE, NFPA 13 FM GLOBAL USE ONLY UL/FM SPRINKLERS, MATERIALS AND DEVICES, UNLESS NOTED OTHERWISE.

CONCEALED SPRINKLERS AND PIPING SHALL BE INSTALLED IN AREAS WITH FINISHED CEILINGS. AREAS WITH EXPOSED CONSTRUCTION SHALL HAVE EXPOSED PIPING AND SPRINKLERS (CUSTOM COLOR).

THE SPRINKLER CONTRACTOR IS REQUIRED TO VISIT THE SITE AT THE TIME OF BID, TO EXAMINE CONDITIONS AND BECOME FAMILIAR WITH THE JOB. NOTING DEGREE OF DIFFICULTY IN GETTING EQUIPMENT (INCLUDING LIFTS AND SCAFFOLDS) IN AND OUT OF THE BUILDING. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT OR ENGINEER IN WRITING PRIOR TO SUBMITTING A BID.

NOTIFY PROPER AUTHORITIES (INCLUDING BUT NOT LIMITED TO: THE LOCAL A.H.J., INSURANCE COMPANY, ETC.) OF ANY FIRE PROTECTION 'SHUT DOWNS'. SCHEDULE ALL WORK TO MINIMIZE THE LENGTH OF TIME THAT THE FIRE PROTECTION SYSTEM(S) WILL BE OUT OF SERVICE. RETURN THE SPRINKLER SYSTEM BACK IN SERVICE AT THE END OF EACH WORKING DAY. IF A FIRE WATCH IS REQUIRED BY THE LOCAL A.H.J. BUILDING MANAGER, ETC. IT SHALL BE PROVIDED BY THE GENERAL CONTRACTOR. FIRE WATCH SCHEDULING AND PERSONNEL SHALL BE COORDINATED WITH THE LOCAL A.H.J. BUILDING MANAGER AND INSURANCE COMPANY.

ARRANGE PIPING TO FACILITATE FLUSHING. PROVIDE READILY ACCESSIBLE DRAIN AND FLUSHING CONNECTIONS AS REQUIRED BY NFPA 13. PROVIDE AND INSTALL AUXILIARY DRAINS WITH PROVISIONS FOR COMPLETE DRAINAGE PIPE ALL DRAINS TO AN APPROVED LOCATION.

INSPECTORS TEST CONNECTIONS, DRAIN VALVES AND CONTROL VALVES SHALL BE READILY ACCESSIBLE AND INSTALLED NOT OVER +/-7'-0" ABOVE THE FINISHED FLOOR. PROVIDE ALL VALVES WITH IDENTIFICATION SIGNS. SUPERVISORY SWITCHES SHALL BE ON ALL CONTROL

VALVES. PIPE ALL DRAIN PIPING, INSPECTORS TEST CONNECTIONS, ETC. TO THE EXTERIOR. ENSURE DRAINAGE DOES NOT CAUSE DAMAGE TO BUILDING OR SITE.

INSTALL A PRESSURE GAUGE WITH A BLEEDER MAINTENANCE VALVE AT THE TOP OF ALL RISERS.

PROVIDE A HEAD GUARD ON SPRINKLERS IN AREAS SUBJECT TO MECHANICAL DAMAGE (IE. SPRINKLERS IN MECHANICAL ROOMS, ETC.)

REFER TO ADDITIONAL NOTES ON ARCHITECTURAL DRAWINGS.

THE CONTRACTOR SHALL COORDINATE SPRINKLER WORK WITH THE OWNER'S PHASING SCHEDULE PRIOR TO COMMENCEMENT OF ANY WORK. ALL PHASED SECTIONS OF WORK SHALL COMPLY WITH THE OWNER'S SCHEDULE AND BE TESTED, INSPECTED, READY FOR OPERATION IN ACCORDANCE WITH NFPA, OWNERS INSURANCE COMPANY AND A.H.J. REQUIREMENTS.

THE CONTRACTOR SHALL PROVIDE COMPLETE SIGNED AND SEALED (BY LICENSED P.E.) DRAWINGS INDICATING ALL PIPING AND SPRINKLER HEADS. CONTRACTOR SHALL SECURE AND PAY COSTS OF PERMITS, CERTIFICATES, LICENSES, INSPECTIONS AND APPROVALS.

INSTALL SPRINKLERS BELOW DUCTS, AND/OR COMBINATIONS OF DUCTS/EQUIPMENT IN ACCORDANCE WITH THE OBSTRUCTION REQUIREMENTS OF NFPA 13.

PROVIDE SPRINKLER PROTECTION IN ORDER TO AVOID ALL OBSTRUCTIONS IN ACCORDANCE WITH NFPA 13, INCLUDING: LIGHTING, CEILING FIXTURES, STRUCTURAL MEMBERS, ETC. WITHIN ALL HAZARD OCCUPANCIES.

ALL DRAIN PIPING AND ANY PIPING SUBJECT TO ALTERNATE WETTING AND DRYING SHALL BE GALVANIZED.

ALL SYSTEM COMPONENTS SHALL BE CAPABLE OF WITHSTANDING A MINIMUM WORKING PRESSURE OF 175 PSI.

THE CONTRACTOR SHALL SEAL AROUND ALL NEW PENETRATIONS THROUGHOUT THE BUILDING WITH SEALANT OF FIRE AND/OR SMOKE RETARDANT TYPE EQUAL IN FIRE RATING TO THE STRUCTURE BEING PENETRATED. SEALANT SHALL BE A UL LISTED ASSEMBLY.

WORK OF THIS SECTION SHALL BE GOVERNED BY THE CONTRACT DOCUMENTS. PROVIDE MATERIALS, LABOR, EQUIPMENT AND SERVICES NECESSARY TO FURNISH, DELIVER AND INSTALL ALL WORK AS SPECIFIED AND AS REQUIRED BY JOB CONDITIONS. WHERE A CONFLICT EXISTS BETWEEN THESE NOTES, THE DRAWINGS AND THE SPECIFICATIONS, THE MORE STRINGENT REQUIREMENT SHALL APPLY.

PERFORM THE WORK IN ACCORDANCE WITH THE REQUIREMENTS OF THE CONTRACT GENERAL CONDITIONS AND WITH THE PROVISIONS OF ALL APPLICABLE LOCAL, STATE, AND FEDERAL CODES AND LAWS.

WORK SHALL INCLUDE ALL INCIDENTALS, LABOR, MATERIAL, EQUIPMENT, APPLIANCES, SERVICES, HOISTING, SCAFFOLDING, SUPPORTS, TOOLS, CONSUMABLE ITEMS, FEES, LICENSES, AND ADMINISTRATIVE TASKS REQUIRED TO COMPLETE AND MAKE OPERABLE WORK SHOWN ON THE DRAWINGS, SPECIFIED HEREIN AND AS REQUIRED FOR A COMPLETE AND OPERATIONAL SYSTEM.

STORE MATERIALS INSIDE AND PROTECTED FROM DEBRIS, WEATHER AND MOISTURE.

THIS CONTRACTOR SHALL PROVIDE AND INSTALL ALL POWER AND CONTROL WIRING REQUIRED FOR EQUIPMENT OPERATION NOT SPECIFICALLY PROVIDED BY OTHERS BUT REQUIRED FOR A COMPLETE AND OPERATIONAL SYSTEM. THIS CONTRACTOR SHALL PROVIDE MOTOR STARTERS FOR INSTALLATION BY OTHERS. COORDINATION REQUIREMENTS.

ALTERATION WORK AND DEMOLITION

EXISTING PIPING AND SPRINKLERS SHOWN DO NOT NECESSARILY REFLECT EXACT FIELD CONDITIONS. FIELD VERIFY EXTENT AND LOCATION OF WORK TO BE REMOVED.

ALL EQUIPMENT, PIPING, ETC. TO BE REMOVED SHALL BE DISPOSED OF, TURNED OVER TO THE OWNER, OR SALVAGED AS DIRECTED BY THE OWNER. EQUIPMENT, PIPING, DEVICES, ETC. SHALL NOT BE REMOVED FROM THE PREMISES WITHOUT THE OWNER'S APPROVAL.

NO EXISTING PIPE MAY BE CUT OR DAMAGED WHEN ENCOUNTERED ALONG ROUTE DESIGNED FOR NEW SERVICE. ANY EXISTING PIPING SEVERED OR DAMAGED SHALL BE REPLACED INCLUDING DAMAGED AREAS. ANY UNUSED OUTLETS SHALL BE PROPERLY CAPPED.

UPON COMPLETION OF REMOVALS AND MODIFICATIONS, ALL PIPING TO REMAIN SHALL BE PROPERLY PLUGGED, VALVED, CAPPED AND/OR BY PASSED SUCH THAT UPON COMPLETION OF WORK ALL SYSTEMS TO REMAIN REMAIN OPERATIONAL.

REMOVE & REPLACE ANY EXISTING SPRINKLER PIPING WHICH DOES NOT PASS THE REQUIRED HYDROSTATIC PRESSURE TESTS CONDUCT VISUAL INTERNAL INSPECTIONS ON AT LEAST 5% OF ANY EXISTING PIPING TO REMAIN. NO DEAD

ENDS SHALL BE LEFT ON ANY PIPING SYSTEMS UPON COMPLETION OF WORK.

EXISTING EXPOSED PIPING SYSTEMS NOT TO BE REUSED, AND NOT SPECIFICALLY NOTED FOR REMOVAL SHALL BE COMPLETELY REMOVED.

ALL SYSTEMS SHALL BE LEFT IN WORKING ORDER TO THE SATISFACTION OF THE OWNER UPON COMPLETION OF ALL NEW WORK.

ALL EXISTING EXPOSED, UNNECESSARY PIPING RELATED TO NEW WORK SHALL BE COMPLETELY REMOVED.

RE-ROUTE OR REMOVE ALL EXISTING PIPING AND SYSTEMS RETURNED FROM ENGINEER EITHER 'REVIEWED' OR 'FURNISH AS CORRECTED' PRIOR TO BEING USED AS BASIS FOR COORDINATION DRAWINGS.

COORDINATION DRAWINGS

DEVELOP AND SUBMIT COORDINATION DRAWINGS AS OUTLINED.

SHEET METAL, PLUMBING AND FIRE PROTECTION SHOP DRAWINGS THAT HAVE BEEN COORDINATED WITH ARCHITECTURAL AND STRUCTURAL DRAWINGS SHALL BE SUBMITTED TO ENGINEER FOR REVIEW. DRAWINGS MUST BE RETURNED FROM ENGINEER EITHER 'REVIEWED' OR 'FURNISH AS CORRECTED' PRIOR TO BEING USED AS BASIS FOR COORDINATION DRAWINGS.

AFTER SHEET METAL AND PIPING DRAWINGS HAVE BEEN RECEIVED PER ENGINEERS COMMENTS, REPRODUCIBLE COPIES SHALL BE SENT TO THE TRADES IN THE FOLLOWING SEQUENCE FOR THE INCLUSION OF THEIR WORK:

- MECHANICAL SHEET METAL
- PLUMBING PIPING
- MECHANICAL PIPING
- SPRINKLER PIPING
- ELECTRICAL WORK

AFTER ALL TRADES HAVE INCLUDED THEIR WORK ON THE COORDINATION DRAWING AND NOTED CONFLICTS, ALL TRADES SHALL MEET TO RESOLVE CONFLICTS AND AGREE TO ACCEPTABLE SOLUTIONS. EACH TRADE SHALL SIGN COORDINATION DRAWINGS. ITEMS NOT SHOWN ON COORDINATION DRAWING IS RESPONSIBILITY OF OMITTING CONTRACTOR AND CONTRACTOR IS SUBJECT TO ADDITIONAL COSTS INCURRED BY OTHER TRADES.

THE ARCHITECT AND ENGINEER ARE NOT PART OF THE COORDINATION DRAWING PROCESS. THE ENGINEER WILL PROVIDE ASSISTANCE FOR NOTED CONFLICTS ONLY. COORDINATION DRAWINGS ARE NOT TO BE CONSIDERED PIPING OR DUCT SHOP DRAWINGS. THE CONTRACTOR IS REQUIRED TO SUBMIT INDIVIDUAL PIPING AND DUCTWORK SHOP DRAWINGS FOR REVIEW BY THE ENGINEER. PIPING AND DUCTWORK SHOP DRAWINGS SHALL FOLLOW THE DESIGN INTENT OF THE CONTRACT DOCUMENTS.

SUBMIT FINAL SIGNED COORDINATION DRAWING TO ENGINEER FOR REVIEW. ENGINEER WILL REVIEW COORDINATION DRAWINGS FOR GENERAL ARRANGEMENT AND FOR NOTED CONFLICTS ONLY. SPECIFIC INSTALLATION REQUIREMENTS WILL BE REVIEWED ONLY IN INDIVIDUAL TRADE SHOP DRAWINGS. SOLUTIONS TO CONFLICTS SHALL NOT BEAR ADDITIONAL COST TO THE OWNER.

WHERE CONFLICTS OCCUR BETWEEN DRAWINGS AND SPECIFICATIONS OR WITHIN EITHER DOCUMENT, THE CONTRACTOR SHALL ASK FOR AND OBTAIN A WRITTEN CLARIFICATION FROM THE ENGINEER PRIOR TO SUBMITTING HIS BID. OTHERWISE, THE ITEMS OR ARRANGEMENTS OF SUPERIOR QUALITY, GREATER QUANTITY OR HIGHER COST SHALL PREVAIL AND BE INCLUDED IN THE CONTRACT PRICE.

ANY WORK FABRICATED OR INSTALLED PRIOR TO SIGN OFF BY ALL TRADES WHICH IS DEEMED TO BE IN CONFLICT WITH COORDINATION DRAWINGS SHALL BE REMOVED AND RE-INSTALLED IN CONFORMANCE WITH COORDINATION DRAWINGS AT NO ADDITIONAL COST TO THE OWNER.

EACH CONTRACTOR (MENTIONED ABOVE) IS RESPONSIBLE FOR THE COORDINATION OF HIS SUB-CONTRACTORS.

AS-BUILT DRAWINGS

PROVIDE A COMPLETE SET OF AS-BUILT DRAWINGS REFLECTING AS INSTALLED CONDITIONS. AS-BUILT DRAWINGS SHALL INDICATE ALL INSTALLED CONDITIONS OF SYSTEMS WITHIN THIS DISCIPLINE. DRAWINGS SHALL BE OF SIMILAR SCALE AS THE CONSTRUCTION DOCUMENTS AND INCLUDE DETAILS AS NECESSARY TO CLEARLY REFLECT THE INSTALLED CONDITION. DRAWINGS SHALL BE BOUND IN A COMPLETE AND CONSECUTIVE SET. SUPPLEMENTAL SKETCHES AND LOOSE PAPERWORK WILL NOT BE ACCEPTABLE AND WILL BE RETURNED FOR REVISION. THE CONTRACTOR SHALL COMPLY WITH THE ENGINEERS COMMENTS TO PRODUCE A CLEAR AND CONCISE SET OF DRAWINGS. DRAWINGS SHALL BE SUBMITTED IN BOTH HARD COPY AND ELECTRONIC (AUTO-CAD AND/ VERSION AS REQUIRED BY THE OWNER) VERSION. NUMBER OF COPIES OF EACH AS REQUESTED BY THE OWNER.

INCLUDE ALL CHANGES OF ALL DEVIATIONS BETWEEN THE WORK INDICATED AND THE WORK INSTALLED INCLUDING APPROVED CONTRACT MODIFICATIONS AND SUBSTITUTIONS.

INDICATE VALVES AND CONTROL DEVICES LOCATED AND NUMBERED COORDINATED WITH SUBMITTED VALVE CHARTS. SUBMIT A COMPLETE MAINTENANCE MANUAL OF ALL EQUIPMENT INSTALLED UNDER THIS CONTRACT.

PROVIDE AND INSTALL ACCESS DOORS FOR EACH VALVE, DRAIN, OR FIRE PROTECTION DEVICE REQUIRING ACCESS. ACCESS DOORS SHALL BE RIGID CONSTRUCTION WITH TWO HINGES AND A LATCH. IN PLENUM CEILINGS, PROVIDE FELT BETWEEN THE DOOR AND FRAME TO MAKE AN AIR TIGHT SEAL. ACCESS DOORS SHALL BE RATED TO THE SAME OR GREATER RATING OF THE PARTITION IN WHICH THEY ARE INSTALLED. ACCESS DOORS SHALL BE FLUSH MOUNTED, PRIME COATED WITH RUST INHIBITIVE PAINT, CONCEALED FRAME, FLUSH SCREW DRIVER OPERATED LOCKS WITH METAL CAMS AND ANCHORS AS REQUIRED.

ACCESS DOOR SIZES SHALL BE:
12' X 12' AT EASILY ACCESSIBLE ITEMS
16' X 16' WHERE PARTIAL BODY ACCESS IS REQUIRED
24' X 24' WHERE FULL BODY ACCESS IS REQUIRED

HANGERS AND SUPPORT
SPRINKLER PIPING IN A SUBSTANTIAL MANNER FROM BUILDING STRUCTURE, AND INDEPENDENT OF THE CEILING SYSTEM. PROVIDE EARTHQUAKE/SEISMIC BRACING IN ACCORDANCE WITH NFPA 13 AND THE LOCAL CODE. DO NOT USE SPRINKLER PIPING OR HANGERS TO SUPPORT NON-SYSTEM COMPONENTS.

SEISMIC RESTRAINT: PROVIDE SEISMIC RESTRAINT AND EXPANSION OF ALL FIRE PROTECTION EQUIPMENT AND SYSTEMS IN ACCORDANCE WITH APPLICABLE NFPA STANDARDS, OWNERS INSURANCE COMPANY, STATE, FEDERAL AND LOCAL BUILDING CODE REQUIREMENTS. SUBMIT SHOP DRAWINGS SIGNED AND SEALED BY A LICENSED PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF THE PROJECT INDICATING ALL NECESSARY COMPONENT CUTS, PLAN LOCATIONS AND CALCULATIONS FOR A COMPLETE SYSTEM.

PROVIDE ALL NECESSARY STRUCTURAL MEMBERS INCLUDING ADDITIONAL STRUCTURAL SUPPORT TO SUPPORT PIPING AND EQUIPMENT. HANGERS AND SUPPORTS SHALL BE OF AN APPROVED DESIGN NECESSARY TO SUPPORT PIPING EQUIPMENT AND TO KEEP PIPING IN PROPER ALIGNMENT AND PREVENT TRANSMISSION OF INJURIOUS THRUSTS AND VIBRATIONS. IN ALL CASES WHERE HANGERS, BRACKETS, ETC. ARE SUPPORTED FROM CONCRETE CONSTRUCTION, DO NOT WEAKEN CONCRETE OR PENETRATE WATERPROOFING. ALL HANGERS AND SUPPORTS SHALL BE CAPABLE OF SCREW ADJUSTMENT AFTER PIPING IS ERRECTED. HANGERS SUPPORTING PIPING EXPANDING INTO LOOPS, BENDS AND OFFSETS SHALL BE SECURED TO THE BUILDING STRUCTURE IN SUCH A MANNER THAT HORIZONTAL ADJUSTMENT PERPENDICULAR TO THE RUN OF PIPING SUPPORTED MAY BE MADE TO ACCOMMODATE DISPLACEMENT DUE TO EXPANSION. ALL SUCH HANGERS SHALL BE FINALLY ADJUSTED BOTH IN THE VERTICAL AND HORIZONTAL DIRECTION, AS REQUIRED.

PROVIDE ADDITIONAL SUPPORT FOR PIPING AND EQUIPMENT WHEN DECK IS NOT CAPABLE OF SUPPORT.

BEAM CLAMPS - HANGERS SUPPORTED FROM STEEL SHALL BE CENTER LOADING BEAM CLAMPS FOR HANGERS SUPPORTING PIPING 2 INCHES. FOR PIPING 2-1/2 INCHES AND LARGER, I BEAM CLAMPS SHALL BE FORGED STEEL. 'C' CLAMPS ARE PERMITTED ONLY WHEN PROVIDED WITH RESTRAINING STRAP. BAR JOIST HANGERS SHOULD BE UTILIZED WHEN HANGING FROM BAR JOIST CONSTRUCTION.

ALL HANGERS AND SUPPORTS SHALL BE HOT DIPPED GALVANIZED. ALL THREADED ROD AND HARDWARE SHALL BE HOT DIPPED GALVANIZED.

PROVIDE AND INSTALL EXPANSION COMPENSATION FOR ALL PIPING. SUBMIT PLANS, CALCULATIONS AND EQUIPMENT DATA.

FIRE PROTECTION DESIGN CRITERIA

WORK STARTS AT AREAS INDICATED, INCLUDING BUT NOT LIMITED TO: REMOVAL OF EXISTING SPRINKLER PIPING, HEADS, HANGERS, ETC. AND INSTALLATION OF NEW SPRINKLER HEADS, SPRINKLER PIPING OFFSETS, ETC. AS NECESSARY TO PROVIDE COMPLETE SPRINKLER PROTECTION IN THE RENOVATED AREAS.

THE DESIGN OF ALL FIRE SUPPRESSION SYSTEMS WILL BE IN ACCORDANCE WITH THE 2005 STATE OF CONNECTICUT BUILDING & FIRE CODE, LOCAL CODE AND THE OWNER'S INSURANCE COMPANY REQUIREMENTS. USE ONLY UL/FM APPROVED SPRINKLERS, MATERIALS AND DEVICES, ETC.

WORK SHALL ALSO INCLUDE PROVIDING PIPING, FITTINGS, ETC. AS NECESSARY TO SUPPLY EXISTING, ADJACENT SPRINKLERS OUTSIDE OF RENOVATED AREA

CONTRACTOR RESPONSIBLE FOR DOCUMENTING SIZE AND LENGTH OF EXISTING WATER SUPPLY INCLUDING SIZE OF ANY EXISTING FIRE PUMP ETC. AS NECESSARY IN ORDER TO SUBMIT A COMPLETE DESIGN.

THE CONTRACTOR SHALL PROVIDE SPRINKLER COVERAGE OF ALL SPACES FORMED OF CONCEALED COMBUSTIBLE CONSTRUCTION.

THE CONTRACTOR SHALL COMPLY WITH THE OWNER'S INSURANCE INSTALLATION DETAILS, DESIGN CRITERIA, AND INSURANCE APPROVAL SUBMISSION (INCLUDING COMMENTS). ANY DEVIATIONS AS A RESULT OF THE OWNER'S INSURANCE COMPANIES REQUIREMENTS SHALL BE PROVIDED AT NO ADDITIONAL COST.

USE OF HEAD SPACING OFF WALL IN EXCESS OF 7'-6", ETC. (AS NOTED IN NFPA 13) IS NOT PERMITTED.

PIPE SCHEDULE DESIGN CRITERIA

CONTRACTOR TO SUBMIT UNIT COST PER SPRINKLER HEAD (INCLUDING: PIPING, FITTINGS, HANGERS, SPRINKLER HEAD, LABOR, ETC.) INSTALLED AND OPERATIONAL WITH BID IN ACCORDANCE WITH THE GENERAL CONDITIONS.

DESIGN CRITERIA FOR PIPE SCHEDULE SYSTEMS:

LIGHT HAZARD AREAS:
OFFICES, HALLWAYS, LOBBIES, ETC. MAXIMUM COVERAGE PER SPRINKLER HEAD IS 196 SQ.FT.

ORDINARY HAZARD (GROUP II) AREAS:
MECHANICAL ROOMS, ELECTRICAL ROOMS, ETC. MAXIMUM COVERAGE PER SPRINKLER HEAD IS 130 SQ.FT.

ORDINARY HAZARD (GROUP III) AREAS:
STORAGE ROOMS, MAXIMUM COVERAGE PER SPRINKLER HEAD IS 130 SQ.FT.

ALL FIRE PROTECTION EQUIPMENT SHALL BE FM APPROVED AND UL-LISTED. EQUIPMENT SHALL CONFORM TO THE CORRESPONDING FM GLOBAL DATA SHEETS.

FIRE PROTECTION DEMOLITION NOTES

1. NOTIFY PROPER AUTHORITIES (INCLUDING BUT NOT LIMITED TO: THE LOCAL A.H.J., INSURANCE COMPANY, ETC.) OF ANY FIRE PROTECTION 'SHUT DOWNS'. SCHEDULE ALL WORK TO MINIMIZE THE LENGTH OF TIME THAT THE FIRE PROTECTION SYSTEM(S) WILL BE OUT OF SERVICE. RETURN THE SPRINKLER SYSTEM BACK IN SERVICE AT THE END OF EACH WORKING DAY.
2. THIS JOB IS A RENOVATION OF EXISTING FACILITY.
3. THE CONTRACTOR SHALL VISIT THE SITE AND BECOME THOROUGHLY FAMILIAR WITH ALL EXISTING CONDITIONS. THE CONTRACTOR SHALL BE HELD RESPONSIBLE FOR ANY ASSUMPTIONS, OMISSIONS, OR ERRORS HE MAKES AS A RESULT OF HIS FAILURE TO BECOME FULLY FAMILIAR WITH EXISTING CONDITIONS.
4. THE SPRINKLER CONTRACTOR SHALL REMOVE AND PROPERLY DISPOSE OF ALL EXISTING SPRINKLER PIPING, HANGERS, HEADS, ETC. AS INDICATED (VERIFY IN FIELD). CAP ANY UNUSED OUTLETS.
5. THE CONTRACTOR SHALL PROPERLY CAP AND TERMINATE ANY UNUSED DRAIN AND FIRE PROTECTION WATER SUPPLIES IN ACCORDANCE WITH LOCAL WATER AUTHORITY REQUIREMENTS).

FIRE PROTECTION ABBREVIATIONS

ABBREVIATION	DESCRIPTION
A.F.F.	ABOVE FINISHED FLOOR
A.F.G.	ABOVE FINISHED GRADE
B.F.F.	BELOW FINISHED FLOOR
B.V.	BUTTERFLY INDICATING VALVE
BUILD	BUILDING
CONT	CONTINUED
CV	CHECK VALVE
DN	DIAMETER
DN	DOWN
DWG	DRAWING
EA	EACH
EX	EXISTING
F.F.	FINISHED FLOOR
F.F.E.	FINISHED FLOOR ELEVATION
FLR.	FLOOR
FT	FEET
GPM	GALLONS PER MINUTE
MAX.	MAXIMUM
MIN	MINIMUM
MISC.	MISCELLANEOUS
NC	NORMALLY CLOSED
NFPA	NATIONAL FIRE PROTECTION ASSOCIATION
NIC	NOT IN CONTRACT
NO	NORMALLY OPEN
NTS	NOT TO SCALE
OSY	OUTSIDE SCREW AND YOKE
PSI	POUNDS PER SQUARE INCH
RAI	RADIATION
SF	SQUARE FEET
SS	SANITARY SEWER STACK
TB	THRUST BLOCK
TP	TYPICAL
UON	UNLESS OTHERWISE NOTED
VIF	VERIFY IN FIELD

NOTE: SOME SYMBOLS AND ABBREVIATIONS SHOWN MAY NOT PERTAIN TO THIS PROJECT

FIRE PROTECTION SYMBOL LEGEND

SYMBOL	DESCRIPTION
●	BALL VALVE
N	CHECK VALVE
⋈	GATE VALVE
⊕	OSY VALVE
⊕	POINT OF NEW CONNECTION
⊕	POINT OF DISCONNECTION
AF	ANTIFREEZE CHARGING LOOP
○	SPRINKLER PIPE UP
—	CAPPED PIPE
—	PIPE OR EQUIPMENT TO BE DEMOLISHED

SPRINKLER SYMBOL LEGEND

EXISTING	NEW	DESCRIPTION
○	○	UPRIGHT
⊙	●	PENDENT
⊙	⊙	PENDENT - SEMI RECESSED
⊙	⊙	PENDENT - RECESSED
⊙	⊙	PENDENT - CONCEALED
▷	▷	SDEWALL

NOTE: SOME SYMBOLS AND ABBREVIATIONS SHOWN MAY NOT PERTAIN TO THIS PROJECT.

FIRE PROTECTION DRAWING INDEX

SHEET	DESCRIPTION
FOO1	FIRE PROTECTION COVER SHEET
F401	FIRE PROTECTION PLANS, DETAILS & SCHEDULES

Project Title:
Town of Cheshire - Doolittle Elementary School
Toilet Room Upgrades
735 Cornwall Avenue
Cheshire, Connecticut 06410

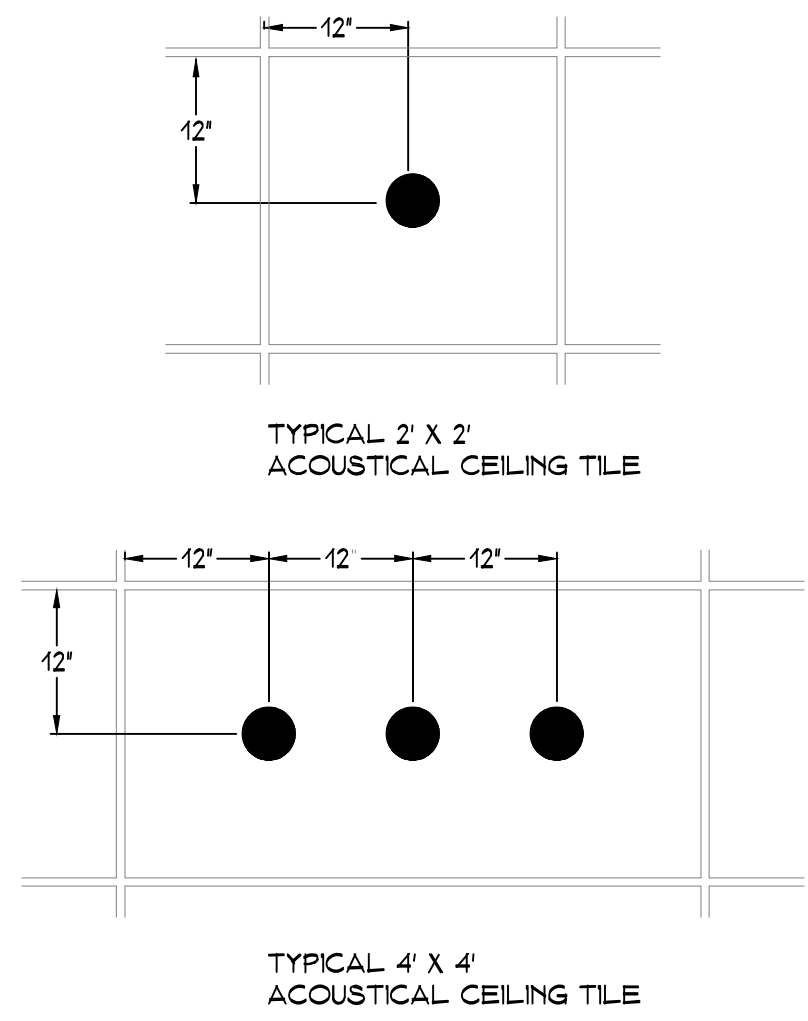


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Revision:	Description:	Date:	Revised By:
-	ISSUED FOR REBID	10-31-2022	SP+A

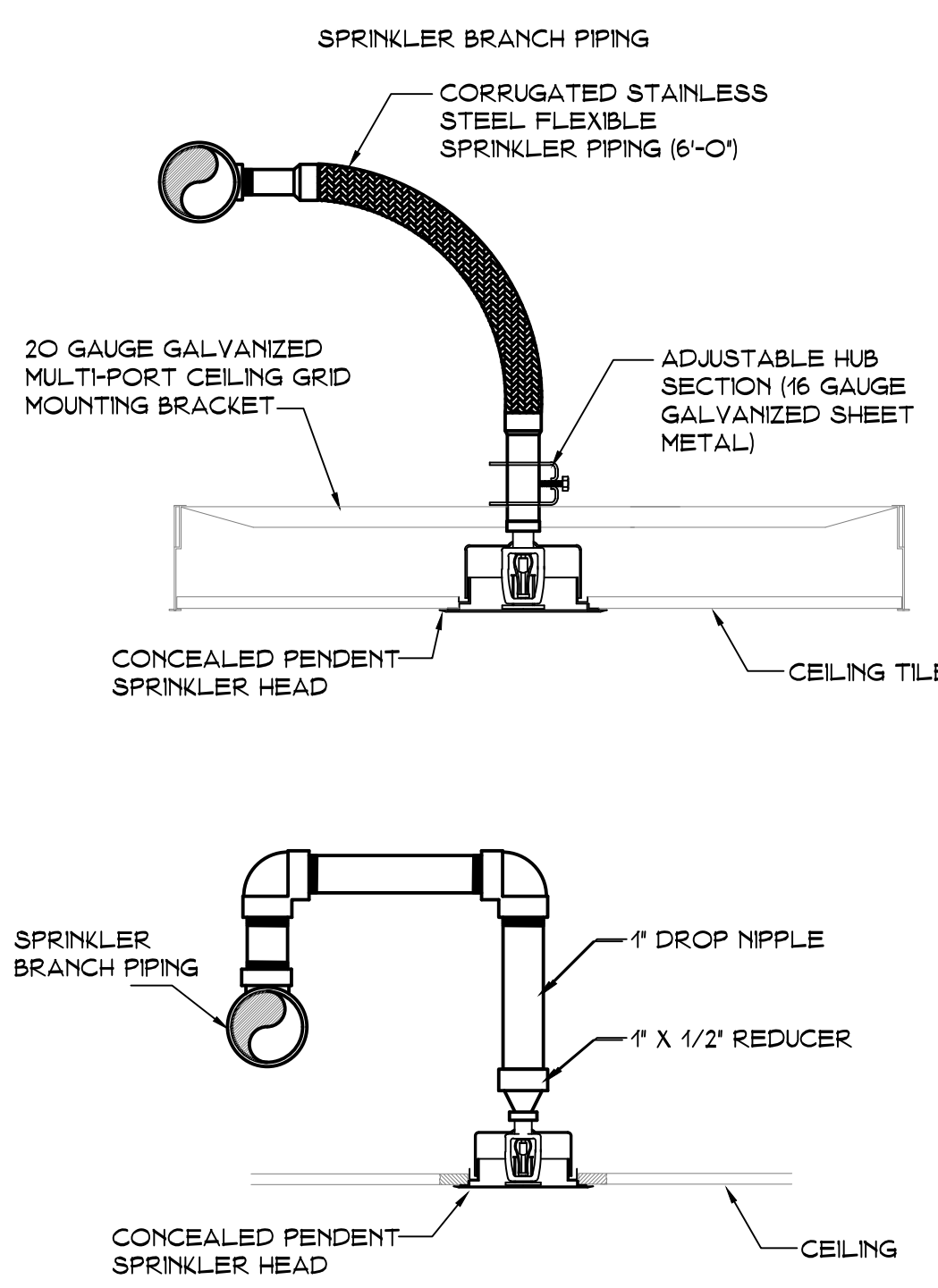
Drawing Title:
Fire Protection Cover Sheet
Date:
MARCH 14, 2022
Scale:
AS NOTED
Drawn By:
JES
Project Number: Bid Number:
21-336 2223-09

FP001



LOCATION OF SPRINKLER HEADS IN GRID SHALL CONFORM TO ONE (1) OF THE LOCATION INDICATED, EXCEPT WHERE SPECIFICALLY DIMENSIONED ON PLANS.

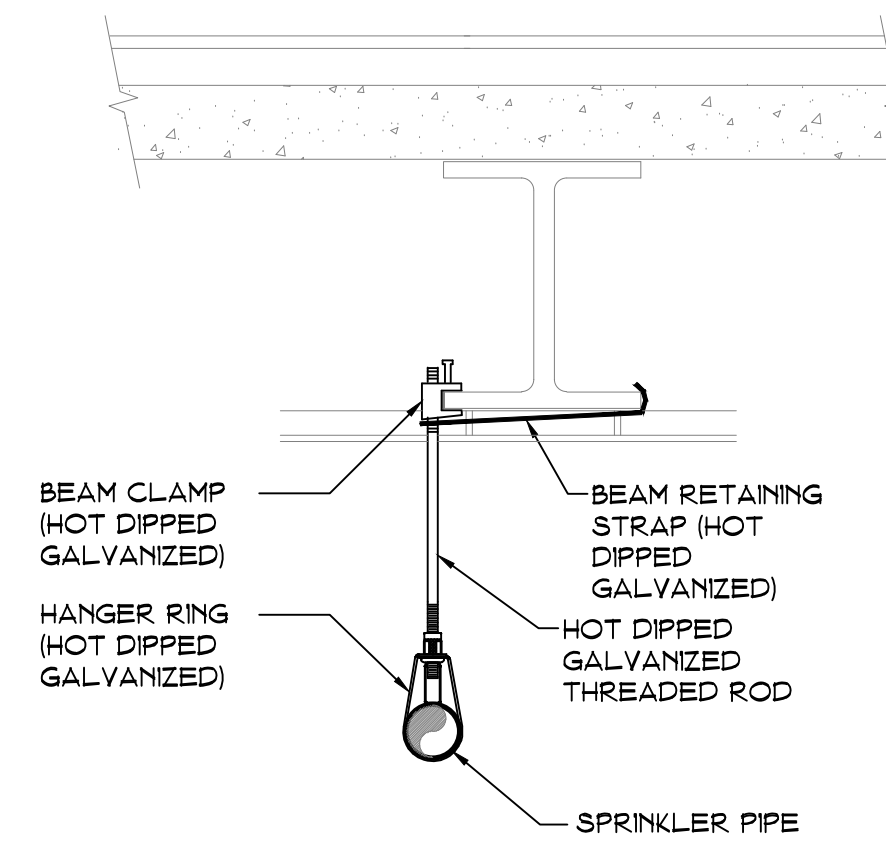
SUSPENDED CEILING SPRINKLER HEAD LOCATION DETAIL
NOT TO SCALE



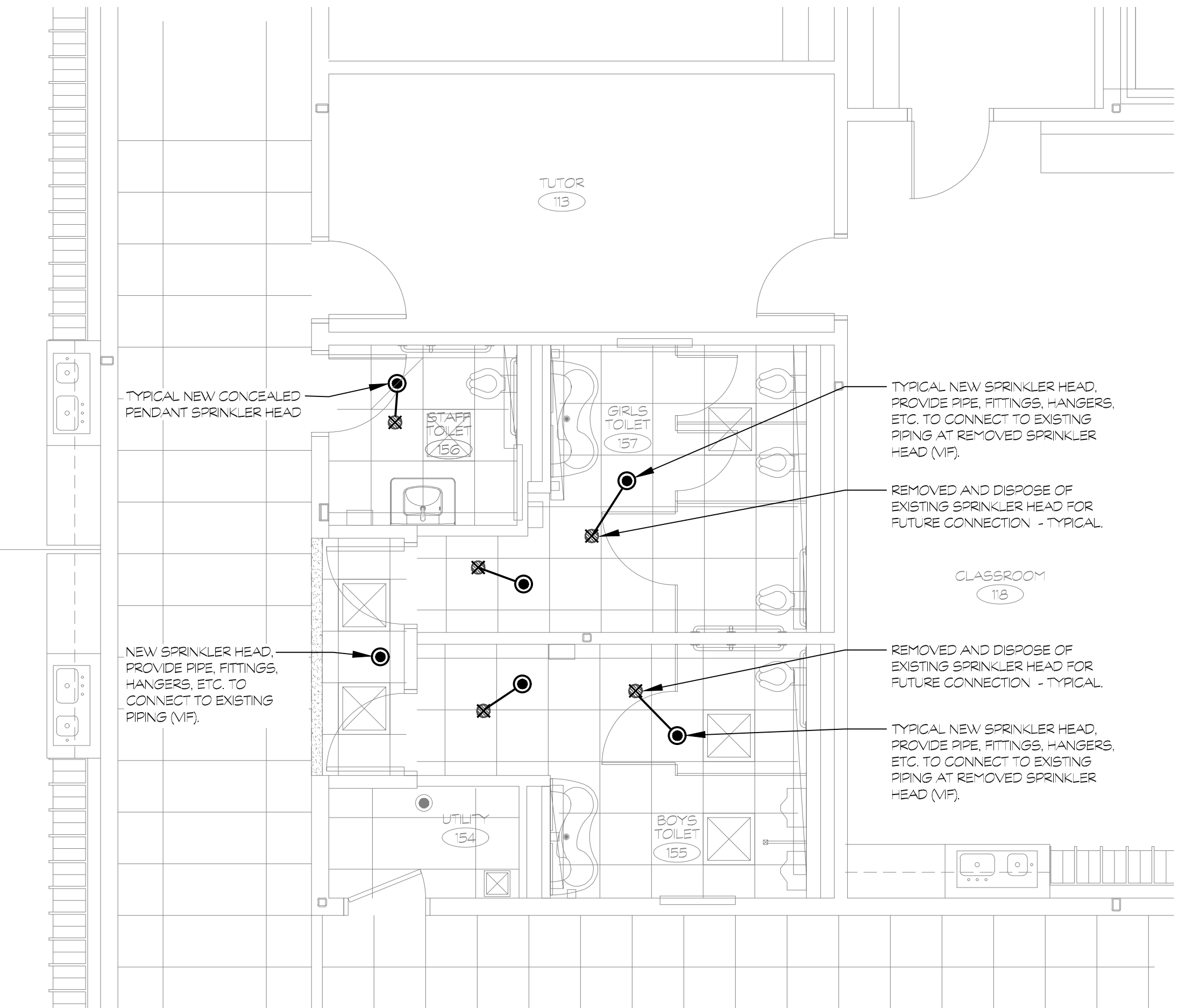
CONTRACTOR SHALL PROVIDE ALL PIPING, FITTINGS, HANGERS, ETC. AS REQUIRED TO PROVIDE A COMPLETE SPRINKLER SYSTEM IN ACCORDANCE WITH NFPA 13.

CONTRACTOR SHALL UTILIZE CONCEALED PENDENT SPRINKLERS AND PIPING IN AREAS WITH FINISHED CEILINGS, AND EXPOSED PIPING AND UPRIGHT SPRINKLERS IN AREAS WITHOUT CEILINGS. PROVIDE AND INSTALL SPRINKLERS UNDER AND ABOVE ALL OBSTRUCTIONS IN ACCORDANCE WITH NFPA 13.

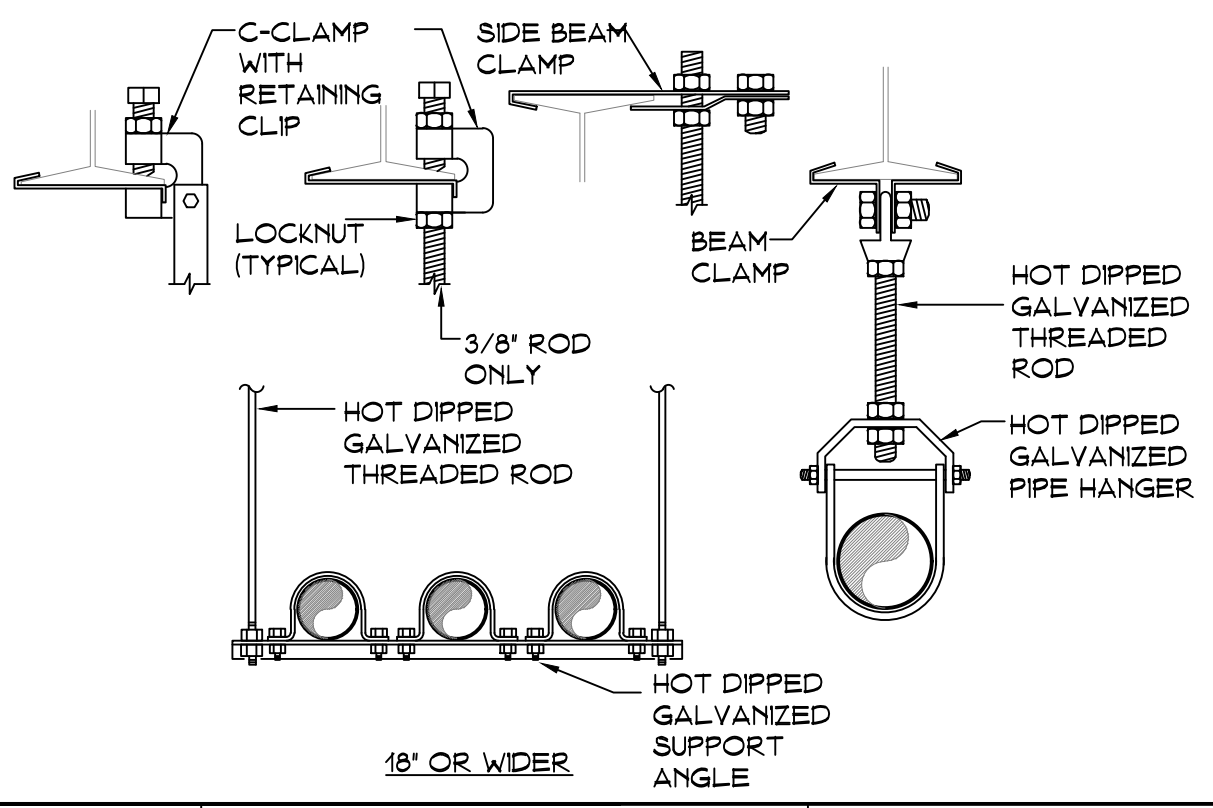
CONCEALED PENDENT SPRINKLER HEAD DETAILS
NOT TO SCALE



PIPE HANGER TO BEAM DETAIL
NOT TO SCALE



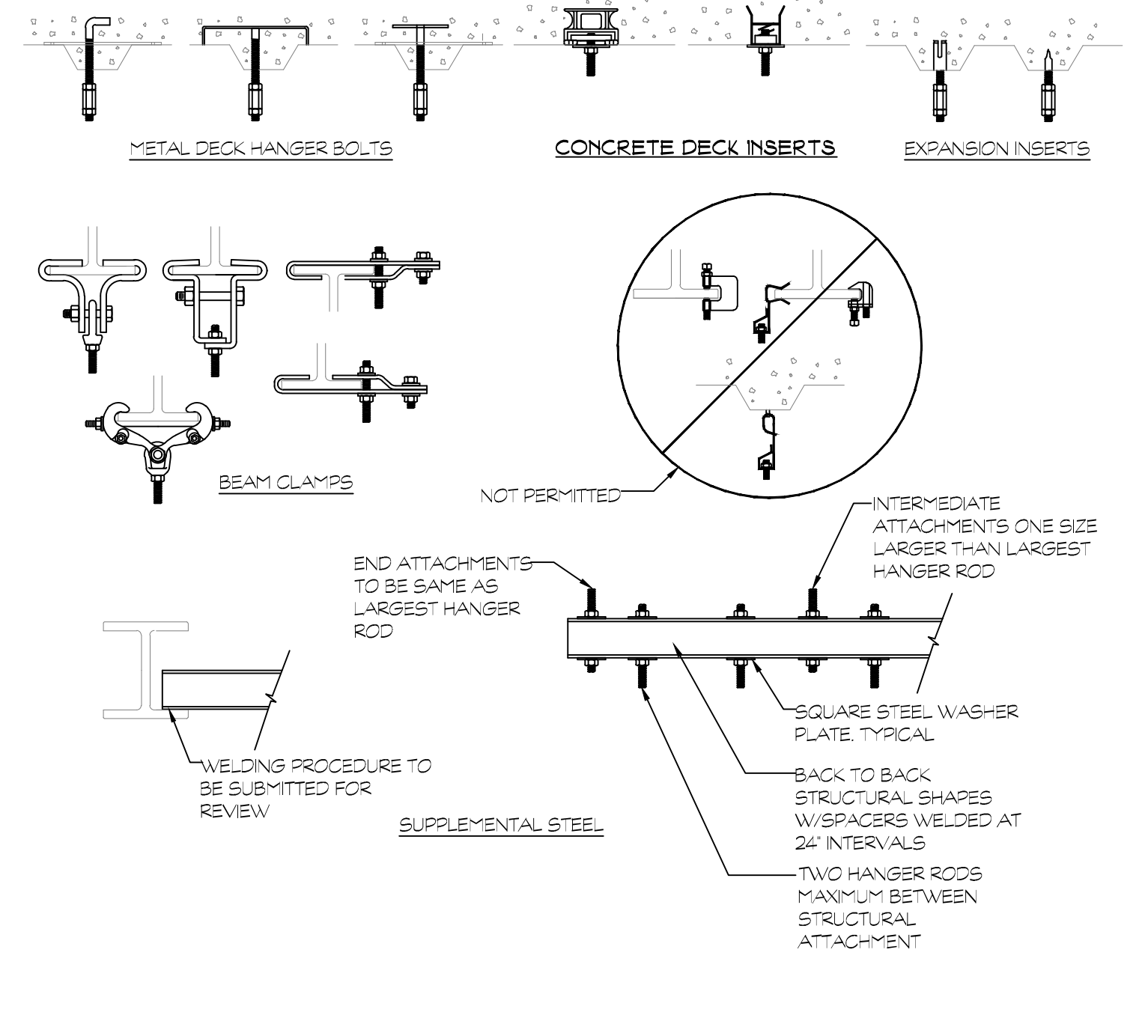
TOILET ROOM FLOOR PLAN
SCALE: 1/4" = 1'-0"
1 FP101



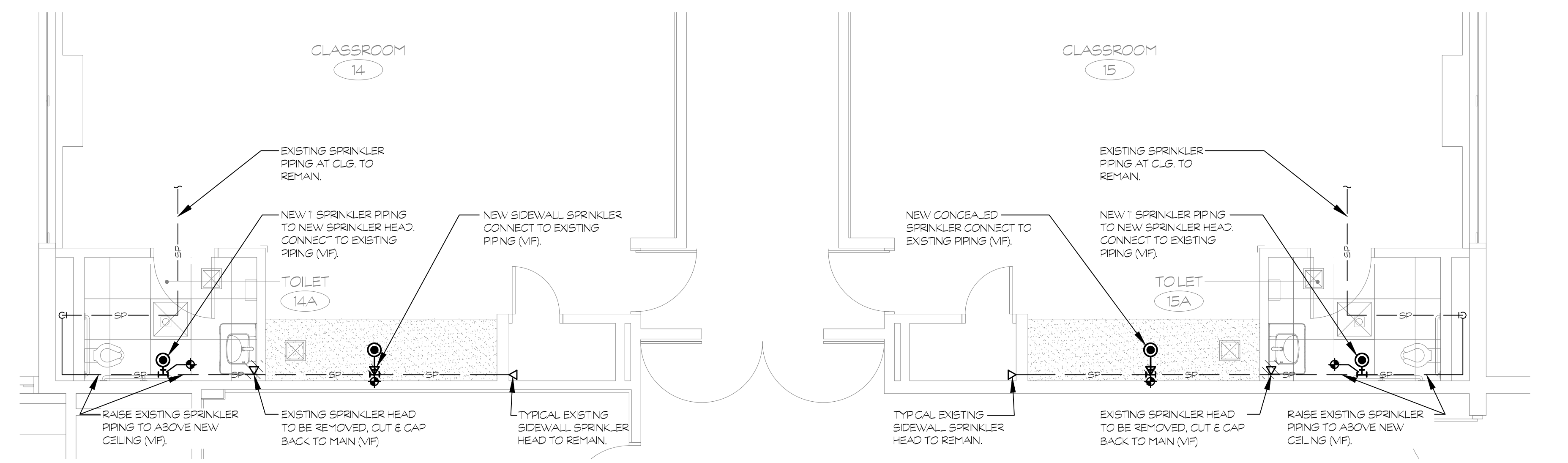
PIPE SIZE	MAX SPACING STEEL PIPE EXCEPT THREADED LIGHTWALL	MAX SPACING STEEL PIPE THREADED LIGHTWALL
1", 1-1/4"	12'-0"	12'-0"
1-1/2", 2", 2-1/2", 3"	15'-0"	12'-0"
4", 6", 8"	15'-0"	N/A

INSTALL HANGERS IN ACCORDANCE WITH NFPA 13 AND STRUCTURAL REQUIREMENTS

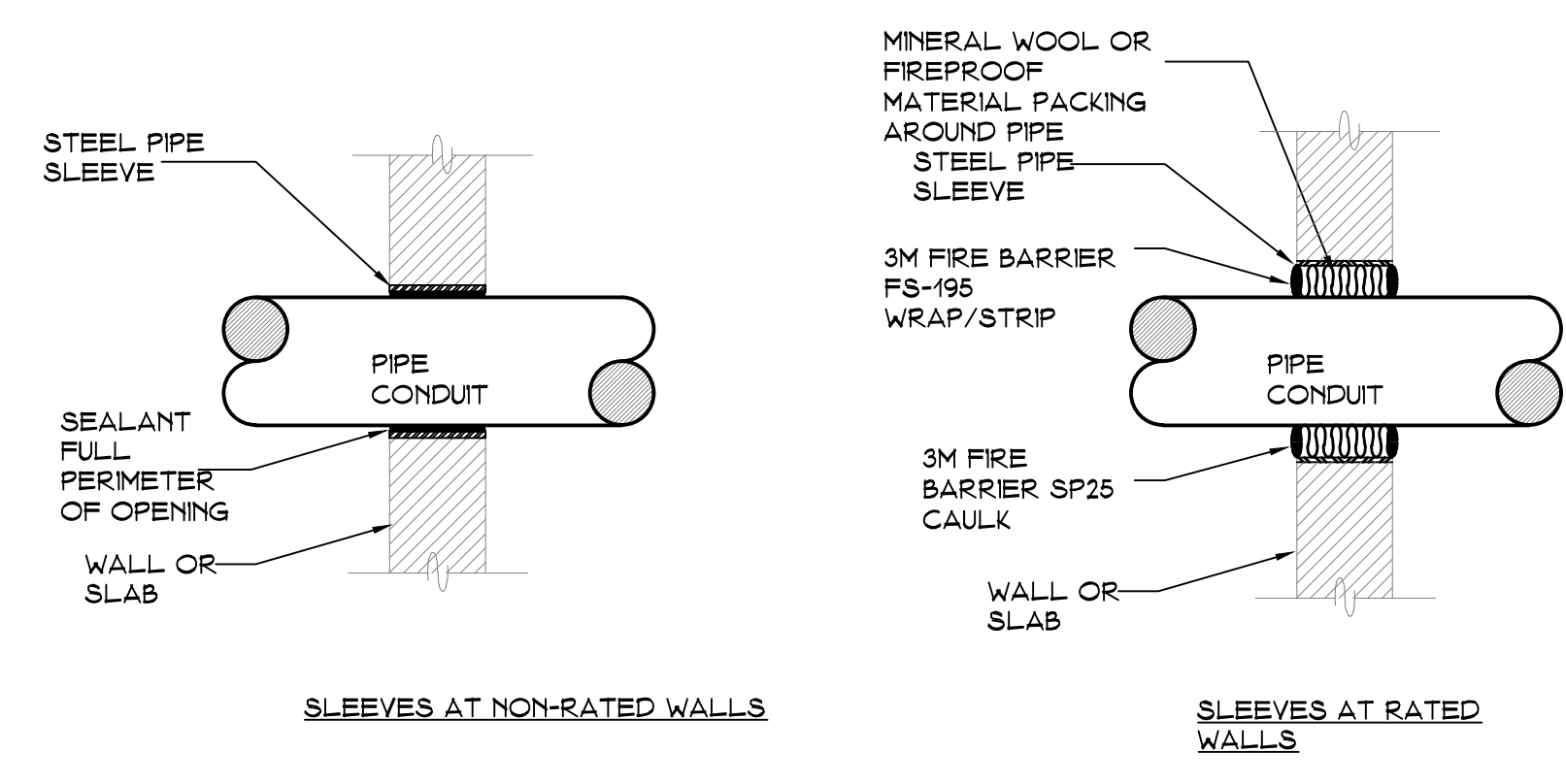
PIPE SUPPORT DETAIL
NOT TO SCALE



PIPE HANGER ATTACHMENT DETAIL
NOT TO SCALE



TOILET ROOMS FLOOR PLANS
SCALE: 1/4" = 1'-0"
2 FP101



GENERAL NOTES:
 PROVIDE UL LISTED, FM APPROVED FIRE/SMOKE PENETRATION ASSEMBLIES IN ACCORDANCE WITH UL1479, ASTM E 184 REQUIREMENTS FOR WALL TYPE, RATING AND PIPE SIZES.
 PRESTOPPING SHALL HAVE A RATING EQUAL TO OR GREATER THAN THE WALL BEING PENETRATED. REFER TO ARCHITECTURAL DRAWINGS FOR WALL RATINGS.
 FOR WALL PENETRATIONS AT RATED WALLS SEE SPECIFICATION SECTION "PRESTOPPING".

PIPE PENETRATION DETAIL
NOT TO SCALE

TYPE	STYLE	RESPONSE	COVERAGE	COLOR	DISCHARGE COEFFICIENT (K)	ORIFICE	TEMP.	MANUFACTURER		REMARKS
								MODEL	SN	
PENDENT	CONCEALED	QUICK	STANDARD	WHITE	5.6K	1/2"	155 F	V38	V3802	--

NOTES:
 1. FINAL COLORS TO BE SELECTED BY ARCHITECT.
 2. IN AREAS WITH FINISHED CEILINGS CONCEALED, PENDENT SPRINKLER HEADS AND CONCEALED PIPING SHALL BE UTILIZED, UNLESS OTHERWISE INDICATED ON PLANS.
 3. IN AREAS WITHOUT CEILINGS EXPOSED UPRIGHT SPRINKLER HEADS AND EXPOSED PIPING SHALL BE UTILIZED. UL-LISTED HEAD GUARDS SHALL BE PROVIDED IN AREAS SUBJECT TO DAMAGE (IE MECHANICAL ROOMS, GYMS, ETC.).
 4. FLEXIBLE SPRINKLER HEAD ASSEMBLIES SHALL BE 6' IN LENGTH UL-LISTED AND HAVE A STAINLESS STEEL BRAID SIMILAR TO VICTAULIC 'VCFLEX' AQ8 BRAIDED SERIES. FLEXIBLE SPRINKLER ASSEMBLY EQUIVALENT LENGTH MUST BE TAKEN INTO ACCOUNT WHEN PRODUCING HYDRAULIC CALCULATIONS.

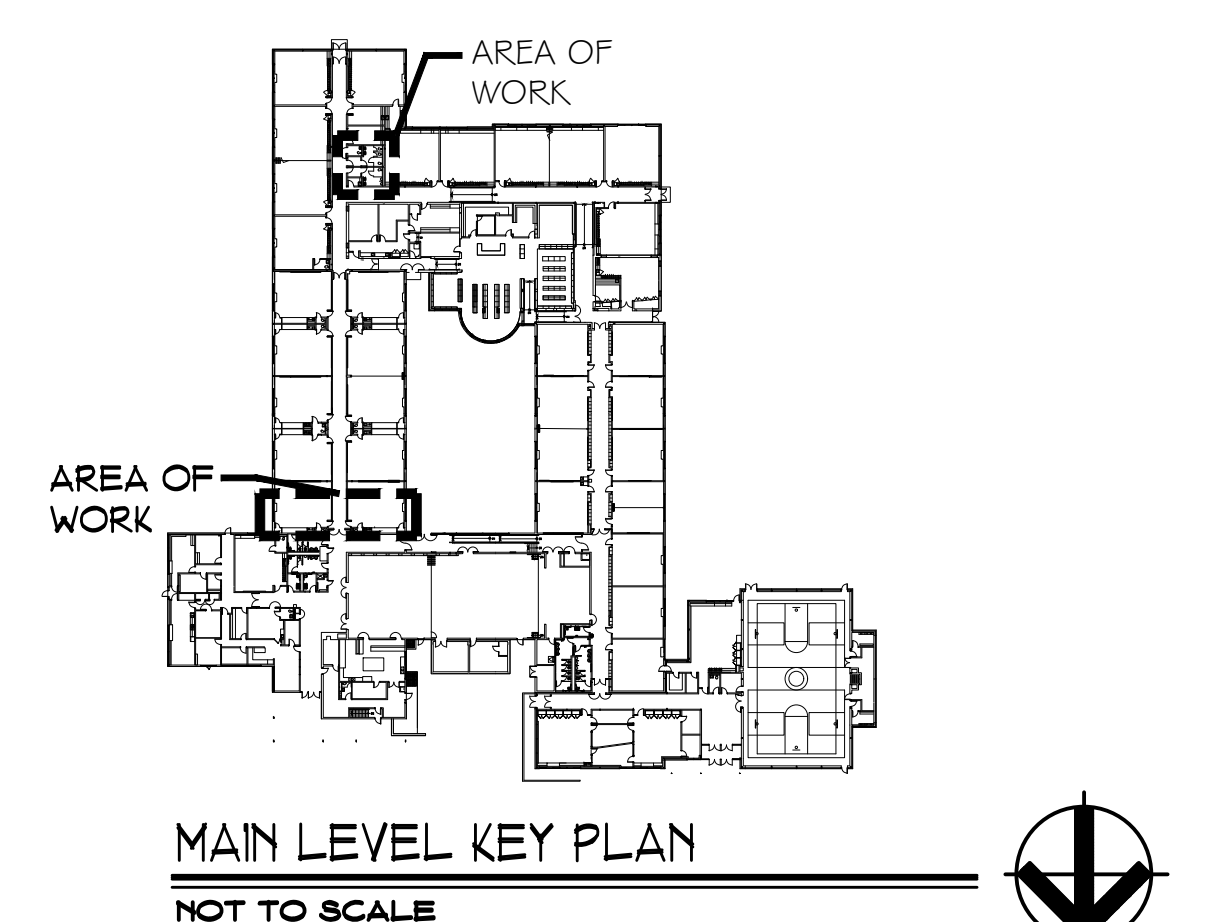
DESCRIPTION	SIZE	PIPE		FITTING		REMARKS
		TYPE	SCHEDULE	TYPE	RATING	
WET SPRINKLER PIPING	2" AND SMALLER	STL-BLK	40	MIT	STD	--
WET SPRINKLER PIPING	2-1/2" AND LARGER	STL-BLK	10	GRV	STD	--

NOTES:
 1. ALL EXPOSED PIPING AND FITTINGS WITHIN FINISHED AREAS SHALL BE CUSTOM PAINTED IN ACCORDANCE WITH NFPA OWNER'S PAINTING REQUIREMENTS AND COORDINATED WITH ARCHITECT.
 2. ALL PIPING IN RETURN AIR CEILING PLENUM INSTALLATIONS SHALL BE UL-LISTED FOR THIS APPLICATION.

ABBREVIATIONS	DESCRIPTION	ABBREVIATIONS	DESCRIPTION
GRV	GROOVED JOINT SYSTEM FITTINGS/COUPLINGS	STD	STANDARD
MIT	MALLEABLE IRON THREADED	STL-BLK	BLACK STEEL

FIRE PROTECTION DEMOLITION NOTES

- NOTIFY PROPER AUTHORITIES (INCLUDING BUT NOT LIMITED TO: THE LOCAL A.H.J., INSURANCE COMPANY, ETC.) OF ANY FIRE PROTECTION 'SHUT DOWNS'. SCHEDULE WORK TO MINIMIZE THE LENGTH OF TIME THAT THE FIRE PROTECTION SYSTEM(S) WILL BE OUT OF SERVICE. RETURN THE SPRINKLER SYSTEM BACK IN SERVICE AT THE END OF EACH WORKING DAY.
- THIS PROJECT IS A RENOVATION OF EXISTING FACILITY.
- THE CONTRACTOR SHALL VISIT THE SITE AND BECOME THOROUGHLY FAMILIAR WITH ALL EXISTING CONDITIONS. THE CONTRACTOR SHALL BE HELD RESPONSIBLE FOR ANY ASSUMPTIONS, OMISSIONS, OR ERRORS HE MAKES AS A RESULT OF HIS FAILURE TO BECOME FULLY FAMILIAR WITH EXISTING CONDITIONS.
- THE SPRINKLER CONTRACTOR SHALL REMOVE AND PROPERLY DISPOSE OF ALL EXISTING SPRINKLER PIPING, HANGERS, HEADS, ETC. AS INDICATED (VERIFY IN FIELD). CAP ANY UNUSED OUTLETS.
- THE CONTRACTOR SHALL PROPERLY CAP AND TERMINATE ANY UNUSED DRAIN AND FIRE PROTECTION WATER SUPPLIES IN ACCORDANCE WITH LOCAL WATER AUTHORITY REQUIREMENTS.



MAIN LEVEL KEY PLAN
NOT TO SCALE

Project Title:
 Town of Cheshire - Doolittle Elementary School
Toilet Room Upgrades
 735 Cornwall Avenue
 Cheshire, Connecticut 06410

SILVER PETRUCELLI + ASSOCIATES
 3190 WHITNEY AVENUE HAMDEN CT 06518
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Revision: Description: Date: Revised By:
 - ISSUED FOR REBID 10-31-2022 SPA

Drawing Title: **Fire Protection Plans, Details & Schedules**
 Date: MARCH 14, 2022
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 Drawn By: JES
 Project Number: 21-336 Bid Number: 2223-09
FP101

PLUMBING GENERAL NOTES

GENERAL
THE INTENT OF THESE CONTRACT DOCUMENTS (SPECIFICATIONS AND DRAWINGS) IS FOR THE CONTRACTOR TO FURNISH AND INSTALL COMPLETE PLUMBING SYSTEMS. ALL SYSTEMS SHALL BE COMPLETE IN ALL RESPECTS, OPERATING, TESTED, ADJUSTED, APPROVED BY THE AUTHORITIES HAVING JURISDICTION AND READY FOR BENEFICIAL USE BY THE OWNER.

WHEN A CONFLICT BETWEEN THE DRAWINGS, NOTES AND/OR SPECIFICATIONS OCCURS, THE MORE STRINGENT, AND/OR LARGER QUANTITY AND/OR MORE EXPENSIVE SHALL APPLY. THE REQUIREMENTS LISTED WITHIN NOTES OR SPECIFICATIONS SHALL BE REQUIRED, PROVIDED AND INSTALLED WHETHER SPECIFICALLY NOTICED ON THE DRAWINGS OR NOT.

ITEMS AND SERVICES NOT SHOWN ON DRAWINGS OR SPECIFICATIONS BUT REQUIRED TO RENDER THE WORK COMPLETE AND READY FOR OPERATION SHALL BE PROVIDED WITHOUT ADDITIONAL COST.

WORK OF THIS SECTION SHALL BE GOVERNED BY THE CONTRACT DOCUMENTS. PROVIDE MATERIALS, LABOR, EQUIPMENT AND SERVICES NECESSARY TO FURNISH, DELIVER AND INSTALL ALL WORK AS SPECIFIED AND AS REQUIRED BY JOB CONDITIONS. WHERE A CONFLICT EXISTS BETWEEN THESE NOTES, THE DRAWINGS AND THE SPECIFICATIONS, THE MORE STRINGENT REQUIREMENT SHALL APPLY.

DRAWINGS ARE DIAGRAMMATIC AND INDICATE A GENERAL ARRANGEMENT OF WORK AND ARE NOT TO BE CONSIDERED SUB-CONTRACTOR DOCUMENTS. IT IS THE INTENT OF THESE DOCUMENTS TO INCLUDE THE PROVISION AND INSTALLATION OF ALL NECESSARY WORK AND MATERIALS FOR COMPLETE, OPERATIONAL AND CODE COMPLIANT SYSTEMS BY THE CONTRACTOR. GENERAL DESIGN CONCEPTS INDICATED MUST BE FOLLOWED OR BETTERED. THE BID SHALL INCLUDE OFFSETS, ADDITIONAL PIPING, VALVES AND EQUIPMENT AND COMPONENTS AS REQUIRED TO MEET CONSTRUCTION CONDITIONS FOR PROPER OPERATION. DO NOT SCALE DRAWINGS. CONSULT ARCHITECTURAL AND STRUCTURAL DRAWINGS FOR SPACE CONDITIONS AND ADDITIONAL REQUIREMENTS.

PERFORM THE WORK IN ACCORDANCE WITH THE REQUIREMENTS OF THE CONTRACT GENERAL CONDITIONS AND WITH THE PROVISIONS OF ALL APPLICABLE LOCAL, STATE, AND FEDERAL CODES AND LAWS.

WORK SHALL INCLUDE ALL INCIDENTALS, LABOR, MATERIAL, EQUIPMENT, APPLIANCES, SERVICES, HOISTING, SCAFFOLDING, SUPPORTS, TOOLS, CONSUMABLE ITEMS, FEES, LICENSES, AND ADMINISTRATIVE TASKS REQUIRED TO COMPLETE AND MAKE OPERABLE WORK SHOWN ON THE DRAWINGS, SPECIFIED HEREIN AND AS REQUIRED FOR A COMPLETE AND OPERATIONAL SYSTEM.

ALL EQUIPMENT, MATERIALS AND RELATED SYSTEMS COMPONENTS SHALL BE NEW UNLESS SPECIFICALLY NOTED OTHERWISE.

STORE MATERIALS INSIDE AND PROTECTED FROM DEBRIS, WEATHER AND MOISTURE.

THIS CONTRACTOR SHALL PROVIDE AND INSTALL ALL POWER AND CONTROL WIRING REQUIRED FOR EQUIPMENT OPERATION REQUIRED FOR A COMPLETE AND OPERATIONAL SYSTEM. THIS CONTRACTOR SHALL PROVIDE MOTOR STARTERS FOR INSTALLATION. COORDINATE REQUIREMENTS.

PROVIDE AND INSTALL INDIRECT CONDENSATE WASTE PIPING AND TRAP TO FLOOR DRAIN OR DRAIN RECEPTOR FROM ALL HVAC EQUIPMENT. PROVIDE ADDITIONAL FLOOR DRAINS WITH TRAP PRIMERS OR DRAIN RECEPTORS AS REQUIRED.

PLUMBING DEVICES, FAUCETS, VALVES AND FITTINGS REQUIRED FOR SPECIALTY SERVICE EQUIPMENT SHALL BE PROVIDED BY THIS CONTRACTOR UNLESS OTHERWISE SPECIFIED. THIS CONTRACTOR SHALL PROVIDE AND INSTALL PIPING CONNECTIONS, DEVICES, VALVES AND EQUIPMENT REQUIRED FOR PROPER OPERATION. COORDINATE REQUIREMENTS.

ALL EXPOSED PIPING, STOPS, COCKS, AND WASTES WHICH ARE VISIBLE SHALL BE CHROME PLATED.

REPAIR AND/OR REPLACE AT NO COST TO OWNER ALL EQUIPMENT AND MATERIALS DAMAGED DURING CONSTRUCTION.

ALTERATION WORK AND DEMOLITION
ALL EQUIPMENT, FIXTURES, PIPING, ETC. TO BE REMOVED, SHALL BE DISPOSED OF, TURNED OVER TO THE OWNER, OR SALVAGED AS DIRECTED BY THE OWNER. EQUIPMENT, FIXTURES, PIPING, DEVICES, ETC. SHALL NOT BE REMOVED FROM THE PREMISES WITHOUT THE OWNER'S APPROVAL.

UPON COMPLETION OF REMOVALS AND MODIFICATIONS, ALL PIPING TO REMAIN SHALL BE PROPERLY PLUGGED, VALVED, CAPPED AND/OR BY PASSED SUCH THAT UPON COMPLETION OF WORK ALL SYSTEMS TO REMAIN, REMAIN OPERATIONAL.

NO DEAD ENDS SHALL BE LEFT ON ANY PIPING SYSTEMS UPON COMPLETION OF WORK.

EXISTING EXPOSED PIPING SYSTEMS NOT TO BE REUSED, AND NOT SPECIFICALLY NOTED FOR REMOVAL SHALL BE COMPLETELY REMOVED.

ALL SYSTEMS SHALL BE LEFT IN WORKING ORDER TO THE SATISFACTION OF THE OWNER UPON COMPLETION OF ALL NEW WORK.

ALL EXISTING EXPOSED, UNNECESSARY PIPING RELATED TO NEW WORK SHALL BE COMPLETELY REMOVED.

RE-ROUTE OR REMOVE ALL EXISTING PIPING AND SYSTEMS WHERE NECESSARY TO AVOID NEW EQUIPMENT, STRUCTURAL, OR MASONRY WORK AS REQUIRED BY THE PROPOSED ALTERATIONS.

COORDINATION
THE CONTRACTOR SHALL OBTAIN AND REVIEW ALL CONTRACT DOCUMENTS, INCLUDING PROJECT MANUAL, PLANS AND SPECIFICATIONS OF ALL TRADES BEFORE SUBMITTING BID. REFER TO SPECIFICATIONS, PROJECT MANUAL AND PLANS, INCLUDING ALL EQUIPMENT SCHEDULES FOR INFORMATION. CONTRACTOR SHALL WALK THROUGH BUILDING PRIOR TO SUBMITTING BID WHEN AVAILABLE.

ALL OF THE CONTRACT DRAWINGS AND SPECIFICATIONS ARE COMPLEMENTARY TO FORM A TOTAL DESIGN PACKAGE. IT IS THE RESPONSIBILITY OF THE GENERAL CONTRACTOR/CONSTRUCTION MANAGER TO DETERMINE WHICH TRADE CONTRACTOR IS RESPONSIBLE FOR VARIOUS PORTIONS OF THE WORK.

ALL WORK AND ACTION DEPICTED AND DESCRIBED SHALL BE PERFORMED BY THE CONTRACTOR UNLESS SPECIFICALLY NOTED OTHERWISE.

CONTRACTORS SHALL COORDINATE THEIR WORK WITH ALL OWNER-FURNISHED EQUIPMENT, INCLUDING REQUIRED SERVICE CONNECTIONS, RECEPTACLES, ETC. BEFORE INSTALLATION.

THE DRAWINGS ARE DIAGRAMMATIC AND INDICATE THE GENERAL ARRANGEMENT OF SYSTEMS AND WORK INCLUDED IN THE CONTRACT. THE CONTRACTOR SHALL COORDINATE LOCATIONS OF EQUIPMENT WITH ALL TRADES BEFORE STARTING CONSTRUCTION. ANY MODIFICATIONS TO THE EQUIPMENT LAYOUT REQUIRED FOR INSTALLATION ARE TO BE PERFORMED AT NO ADDITIONAL COST TO THE OWNER.

DEVELOP AND SUBMIT COORDINATION DRAWINGS AS OUTLINED.

SHEET METAL, PLUMBING AND FIRE PROTECTION SHOP DRAWINGS THAT HAVE BEEN COORDINATED WITH ARCHITECTURAL AND STRUCTURAL DRAWINGS MUST BE RETURNED FROM THE ENGINEER FOR REVIEW. DRAWINGS AND INSTALLATION RETURNED FROM ENGINEER EITHER "REVIEWED" OR "FURNISH AS CORRECTED" SHOULD BE USED AS BASIS FOR COORDINATION DRAWINGS. AFTER SHEET METAL AND PIPING DRAWINGS HAVE BEEN REVISED PER ENGINEER'S COMMENTS, REPRODUCIBLE COPIES SHALL BE SENT TO THE TRADES IN THE FOLLOWING SEQUENCE FOR THE INCLUSION OF THEIR WORK:

- MECHANICAL SHEET METAL
- PLUMBING PIPING
- MECHANICAL PIPING
- SPRINKLER PIPING
- ELECTRICAL WORK

AFTER ALL TRADES HAVE INCLUDED THEIR WORK ON THE COORDINATION DRAWING AND NOTED CONFLICTS, ALL TRADES SHALL MEET TO RESOLVE CONFLICTS AND AGREE TO ACCEPTABLE SOLUTIONS. EACH TRADE SHALL SIGN COORDINATION DRAWINGS. ITEMS NOT SHOWN ON COORDINATION DRAWINGS IS RESPONSIBILITY OF OMITTING CONTRACTOR AND CONTRACTOR IS SUBJECT TO ADDITIONAL COSTS INCURRED BY OTHER TRADES.

THE ARCHITECT AND ENGINEER ARE NOT PART OF THE COORDINATION DRAWING PROCESS. THE ENGINEER WILL PROVIDE ASSISTANCE FOR NOTED CONFLICTS ONLY. COORDINATION DRAWINGS ARE NOT TO BE CONSIDERED PIPING OR DUCT SHOP DRAWINGS. THE CONTRACTOR IS REQUIRED TO SUBMIT INDIVIDUAL PIPING AND DUCTWORK SHOP DRAWINGS FOR REVIEW BY THE ENGINEER. PIPING AND DUCTWORK SHOP DRAWINGS SHALL FOLLOW THE DESIGN INTENT OF THE CONTRACT DOCUMENTS.

SUBMIT FINAL SIGNED COORDINATION DRAWINGS TO ENGINEER FOR REVIEW. ENGINEER WILL REVIEW COORDINATION DRAWINGS FOR GENERAL ARRANGEMENT AND FOR NOTED CONFLICTS ONLY. SPECIFIC INSTALLATION REQUIREMENTS WILL BE REVIEWED ONLY IN INDIVIDUAL TRADE SHOP DRAWINGS.

ANY WORK FABRICATED OR INSTALLED PRIOR TO SIGN OFF BY ALL TRADES WHICH IS DEEMED TO BE IN CONFLICT WITH COORDINATION DRAWINGS SHALL BE REMOVED AND RE-INSTALLED IN CONFORMANCE WITH COORDINATION DRAWINGS. EACH CONTRACTOR (MENTIONED ABOVE) IS RESPONSIBLE FOR THE COORDINATION OF HIS SUB-CONTRACTORS.

SHOP DRAWINGS
CONTRACTOR SHALL SUBMIT SHOP DRAWINGS TO BE APPROVED, REVISED, OR RESUBMITTED AS PER THE ENGINEER'S COMMENTS, PRIOR TO CONSTRUCTION. INCLUDING BUT NOT LIMITED TO THE FOLLOWING:

- PLUMBING FIXTURES
- CLEAN OUTS
- DRAINS
- FITTINGS
- PIPE SEALS
- COMPRESSORS
- BRAZING
- HANGERS/SUPPORTS
- INSULATION
- THERMOSTATIC MIXING VALVES
- EXPANSION TANKS
- WATERS HEATERS

AS-BUILT DRAWINGS
PROVIDE A COMPLETE SET OF AS-BUILT DRAWINGS REFLECTING AS INSTALLED CONDITIONS. AS-BUILT DRAWINGS SHALL INDICATE ALL INSTALLED CONDITIONS OF SYSTEMS WITHIN THIS DISCIPLINE. DRAWINGS SHALL BE OF SIMILAR SCALE AS THE CONSTRUCTION DOCUMENTS AND INCLUDE DETAILS AS NECESSARY TO CLEARLY REFLECT THE INSTALLED CONDITION. DRAWINGS SHALL BE BOUND IN A COMPLETE AND CONSECUTIVE SET. SUPPLEMENTAL SKETCHES AND LOCUS PAPERWORK WILL NOT BE ACCEPTABLE AND WILL BE RETURNED FOR REVISION. THE CONTRACTOR SHALL COMPLY WITH THE ENGINEER'S COMMENTS TO PROVIDE A CLEAR AND CONCISE SET OF DRAWINGS. DRAWINGS SHALL BE SUBMITTED IN BOTH HARD COPY AND ELECTRONIC (AUTO-CAD VERSION AS REQUIRED BY THE OWNER) VERSION. NUMBER OF COPIES OF EACH AS REQUESTED BY THE OWNER.

PROVIDE "AS-BUILT DRAWINGS" INDICATING IN A NEAT AND ACCURATE MANNER A COMPLETE RECORD OF ALL COPIES OF THE ORIGINAL DESIGN OF THE WORK. INDICATE THE FOLLOWING INSTALLED CONDITIONS:

INCLUDE ALL CHANGES AND AN ACCURATE RECORD, ON REPRODUCTIONS OF THE CONTRACT DRAWINGS OR APPROPRIATE SHOP DRAWINGS, OF ALL DEVIATIONS, BETWEEN THE WORK SHOWN AND WORK INSTALLED.

MANS AND BRANCHES OF PIPING SYSTEMS, WITH VALVES AND CONTROL DEVICES LOCATED AND NUMBERED, CONCEALED

UNIONS LOCATED, AND WITH ITEMS REQUIRING MAINTENANCE LOCATED I.E. TRAPS, STRAINERS, EXPANSION COMPENSATORS, TANKS ETC.). VALVE LOCATION DIAGRAMS, COMPLETE WITH VALVE TAG CHART. EQUIPMENT LOCATIONS EXPOSED AND CONCEALED, DIMENSIONED FROM PROMINENT BUILDING LINES.

APPROVED SUBSTITUTIONS, CONTRACT MODIFICATIONS, AND ACTUAL EQUIPMENT AND MATERIALS INSTALLED.

CONTRACT MODIFICATIONS, ACTUAL EQUIPMENT AND MATERIALS INSTALLED.

SUBMIT FOR REVIEW PDFS OF THE REQUIRED DRAWINGS, MANUALS AND OPERATING INSTRUCTIONS.

SUBMIT A COMPLETE MAINTENANCE MANUAL OF ALL EQUIPMENT INSTALLED UNDER THIS CONTRACT.

HANGERS AND SUPPORTS
SEISMIC RESTRAINT: PROVIDE SEISMIC RESTRAINT AND EXPANSION OF ALL PLUMBING EQUIPMENT AND SYSTEMS IN ACCORDANCE WITH STATE AND FEDERAL BUILDING CODE REQUIREMENTS. SUBMIT SHOP DRAWINGS SIGNED AND SEALED BY A LICENSED PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF CONNECTICUT INDICATING ALL NECESSARY COMPONENT CUTS, PLAN LOCATIONS AND CALCULATIONS FOR A COMPLETE SYSTEM.

PROVIDE ALL NECESSARY STRUCTURAL MEMBERS INCLUDING ADDITIONAL STRUCTURAL SUPPORT TO SUPPORT PIPING AND EQUIPMENT. HANGERS AND SUPPORTS SHALL BE OF AN APPROVED DESIGN NECESSARY TO SUPPORT PIPING EQUIPMENT AND TO KEEP PIPING IN PROPER ALIGNMENT AND PREVENT TRANSMISSION OF INJURIOUS THRUSTS AND VIBRATIONS. IN ALL CASES WHERE HANGERS, BRACKETS, ETC., ARE SUPPORTED FROM CONCRETE CONSTRUCTION, DO NOT WEAKEN CONCRETE OR PENETRATE WATERPROOFING. ALL HANGERS AND SUPPORTS SHALL BE CAPABLE OF SCREW ADJUSTMENT AFTER PIPING IS ERECTED. HANGERS SUPPORTING PIPING EXPANDING INTO LOOPS, BENDS AND OFFSETS SHALL BE SECURED TO THE BUILDING STRUCTURE IN SUCH A MANNER THAT HORIZONTAL ADJUSTMENT PERPENDICULAR TO THE RUN OF PIPING SUPPORTED MAY BE MADE TO ACCOMMODATE DISPLACEMENT DUE TO EXPANSION. ALL SUCH HANGERS SHALL BE FINALLY ADJUSTED BOTH IN THE VERTICAL AND HORIZONTAL DIRECTION AS REQUIRED. HANGERS IN CONTACT WITH COPPER OR BRASS PIPE SHALL BE DIELECTRIC, COMPATIBLE WITH COPPER AND BRASS ALLOY OR PROVIDED WITH FELT SLEEVE.

PROVIDE ADDITIONAL SUPPORT FOR PIPING AND EQUIPMENT WHEN DECK IS NOT CAPABLE OF SUPPORT.

BEAM CLAMPS - HANGERS SUPPORTED FROM STEEL SHALL BE CENTER LOADING BEAM CLAMPS FOR HANGERS SUPPORTING PIPING 1 INCHES FOR PIPING 2-1/2 INCHES AND LARGER. BEAM CLAMPS SHALL BE FORGED STEEL. "C" CLAMPS ARE NOT TO BE USED.

BAND IRON, THE WIRE, METAL STRAPPING OR WIRE STRAPPING SHALL NOT BE PERMITTED TO SUPPORT PIPING OR EQUIPMENT.

PIPE SEALS
SEAL ALL PIPING PASSING THROUGH ALL FIRE AND/OR SMOKE RATED PARTITIONS AND WALLS WITH A UL-LISTED, APPROVED AND TESTED FIRE AND/OR SMOKE SEALING MATERIAL INSTALLED IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS.

ALL PIPING PENETRATING A SLAB ON GRADE OR FOUNDATION WALL BELOW GRADE AND IN CONTACT WITH EARTH SHALL BE PROVIDED WITH A POURED IN PLACE SCHEDULE 80 GALVANIZED STEEL WATER TIGHT SLEEVE WITH INTEGRAL WATER STOP AND SEAL EQUAL TO "LINK SEAL".

FURNISH AND SET STEEL PIPE SLEEVES OF SCHEDULE 40 BLACK STEEL FOR ALL LOCATIONS OF INTERIOR PARTITIONS, WALLS AND FLOORS PROVIDING AT LEAST 1/2" CLEARANCE BETWEEN PIPE INSULATION AND SLEEVE OR PIPE AND SLEEVE. WALL SLEEVES SHALL BE SMOOTH CUT AND SET FLUSH WITH FINISHED WALLS. FLOOR SLEEVES SHALL EXTENDED 2" ABOVE THE FINISHED FLOOR.

ALL PIPING THROUGH WALLS, FLOORS OR CEILINGS SHALL HAVE SLEEVES AND ESCUTCHEONS. PROVIDE A TWO PIECE CHROME ESCUTCHEON WHERE PIPING PASSES THROUGH WALLS OR FLOORS OF FINISHED SPACES.

PLUMBING FIXTURES
PLUMBING FIXTURES SHALL BE NEW, COMPLETE WITH TRIMMINGS AND FITTINGS, INCLUDING FAUCETS, CARRIERS, SUPPLIES, STOPS, TRAPS, TAILPIECES, WASTE PLUGS, CASINGS, HANGERS, PLATES, BRACKETS, ANCHORS, SUPPORTS, HARDWARE AND FASTENING DEVICES. NOTE: ALL FIXTURES SHALL BE OF SAME MANUFACTURER. TRIMMINGS AND FITTINGS SHALL BE CONSTRUCTED OF FORGED CAST BRASS OR BRONZE, BRASS OR BRONZE KNOBS, AND OTHER ACCESSIBLE AND NON-CORROSIVE PARTS. DESIGNED WITH EASILY RENEWABLE PARTS THAT ARE SUBJECT TO WEAR OR DETERIORATION. NO DIE CASTINGS AND STAMPINGS OTHER THAN BRASS OR STAINLESS STEEL. PROVIDE PLUMBING FIXTURES AND TRIM WITH ALL NECESSARY TRIM DEVICES AND ACCESSORIES REQUIRED FOR PROPER OPERATIONS SPECIFICALLY NOTED OR NOT.

ESCUTCHEONS SHALL BE ONE-PIECE CHROME PLATED CAST BRASS OR STAINLESS STEEL.

P-TRAPS SHALL BE ONE-PIECE CHROME PLATED CAST BRASS WITH CLEANOUT PLUG.

EXAMPLE ROUGH-IN WORK OF POTABLE WATER AND WASTE PIPING SYSTEMS TO VERIFY ACTUAL LOCATIONS OF PIPING CONNECTIONS PRIOR TO INSTALLING FIXTURES. CORRECT ANY INADEQUATE LOCATION OF PIPING AND UNSATISFACTORY CONNECTIONS FOR INSTALLATION OF PLUMBING FIXTURES. DO NOT PROCEED WITH WORK UNTIL UNSATISFACTORY CONDITIONS HAVE BEEN CORRECTED IN A MANNER ACCEPTABLE TO THE ENGINEER. ALL ROUGH-IN TO PLUMBING FIXTURES SHALL CONFORM TO FIXTURE MANUFACTURER PUBLISHED ROUGH-IN DIMENSIONS AND REQUIREMENTS.

UPON COMPLETION OF INSTALLATION OF PLUMBING FIXTURES AND AFTER UNITS ARE WATER PRESSURIZED, TEST FIXTURES TO DEMONSTRATE CAPABILITY AND COMPLIANCE WITH REQUIREMENTS. CORRECT MALFUNCTIONING UNITS AT SITE, THEN RETEST TO DEMONSTRATE COMPLIANCE; OTHERWISE, REMOVE AND REPLACE WITH NEW UNITS AND PROCEED WITH RETESTING.

CLEAN PLUMBING FIXTURES, TRIM AND STRAINERS OF DIRT AND DEBRIS UPON COMPLETION OF INSTALLATION.

ADJUST WATER PRESSURE AT DRINKING FOUNTAINS, FAUCETS, SHOWER VALVES, AND FLUSH VALVES TO PROVIDE PROPER FLOW STREAM AND SPECIFIED GPM.

SET FIXTURES LEVEL AND UNFORMLY, WITH CONNECTIONS AT RIGHT ANGLES TO WALL, AND PROPERLY CENTERED. LAY OUT ROUGHING ACCURATELY AND IN COORDINATION WITH SPACE AND FINISH REQUIREMENTS.

LOCATE WASTE OUTLETS AND WATER SUPPLIES AT CONSTANT HORIZONTAL LEVELS, WITH WASTE OUTLET CENTERED ON FUTURE DRAIN CONNECTION AND WATER SUPPLIES SPACED EQUALLY TO RIGHT AND LEFT.

REFER TO THE ARCHITECTURAL DRAWINGS FOR THE EXACT LOCATION AND MOUNTING HEIGHTS OF EQUIPMENT. COLORS SHALL BE COORDINATED WITH THE ARCHITECT. CONTACT ARCHITECT FOR CLARIFICATION IF INFORMATION IS NOT CONTAINED IN THE DRAWINGS.

DRAINS AND CLEANOUTS

PROVIDE ALL MANUFACTURED BRONZE OUTLET FITTING FOR ALL SECONDARY ROOF DRAIN OUTLETS.

INSTALL EXTERIOR CLEANOUTS WITH A 18" SQUARE X 6" THICK CONCRETE APRON.

COORDINATE FLOOR DRAIN LOCATIONS WITH RESPECT TO EQUIPMENT HOUSEKEEPING PADS. PLACE DRAINS SUCH THAT EDGE OF THE FLOOR GRATE EXTENDS NO FURTHER THAN 2 INCHES FROM THE SIDE OF THE PAD. CLEANOUT PLUGS SHALL BE BRASS OR PLASTIC, OR OTHER APPROVED MATERIALS. BRASS CLEANOUT PLUGS SHALL BE UTILIZED WITH METALLIC DRAIN WASTE AND VENT PIPING ONLY, AND SHALL CONFORM TO ASTM A 74 ASME A19.231 OR ASME A19.36.2M. CLEANOUTS WITH PLATE STYLE ACCESS COVERS SHALL BE FITTED WITH CORROSION-RESISTING FASTENERS. PLUGS SHALL HAVE RAISED SQUARE OR COUNTERSINK SQUARE HEADS. COUNTERSINK HEADS SHALL BE INSTALLED WHERE RAISED HEADS ARE A TRIP HAZARD. CLEANOUT PLUGS WITH BOROSILICATE GLASS SYSTEMS SHALL BE OF BOROSILICATE GLASS.

PROVIDE TRAP GUARDS FOR EACH FLOOR DRAIN.

CLEANOUTS SHALL BE LOCATED AT MINIMUM INTERVALS OF 50 FEET FOR PIPING NPS 4" AND SMALLER AND 100 FEET FOR LARGER PIPING.

BUILDING SEWERS SHALL BE PROVIDED WITH CLEANOUTS LOCATED NOT MORE THAN 100 FEET APART MEASURED FROM THE UPSTREAM ENTRANCE OF THE CLEANOUT. FOR BUILDING SEWERS 8 INCHES AND LARGER, MANHOLES SHALL BE PROVIDED AND LOCATED NOT MORE THAN 300 FEET FROM THE JUNCTION OF THE BUILDING DRAIN AND BUILDING SEWER, AT EACH CHANGE IN DIRECTION AND AT INTERVALS OF NOT MORE THAN 400 FEET APART. MANHOLES AND MANHOLE COVERS SHALL BE OF AN APPROVED TYPE.

CLEANOUTS SHALL BE INSTALLED AT EACH CHANGE OF DIRECTION OF THE BUILDING DRAIN OR HORIZONTAL WASTE OR SOIL LINES GREATER THAN 45 DEGREES (INCLUDING P-TRAPS), WHERE MORE THAN ONE CHANGE OF DIRECTION OCCURS IN A RUN OF PIPING. ONLY ONE (1) CLEANOUT SHALL BE REQUIRED FOR EACH 400 FEET OF DEVELOPED LENGTH OF THE DRAINAGE PIPING.

A CLEANOUT SHALL BE PROVIDED AT THE BASE OF EACH WASTE OR SOIL STACK.

THERE SHALL BE A CLEANOUT NEAR THE JUNCTION OF THE BUILDING DRAIN AND THE BUILDING SEWER. THE CLEANOUT SHALL BE EITHER INSIDE OR OUTSIDE THE BUILDING WALL AND SHALL BE BROUGHT UP TO THE FINISHED FLOOR LEVEL. THE CLEANOUT AT THE JUNCTION OF THE BUILDING DRAIN AND BUILDING SEWER SHALL NOT BE REQUIRED IF THE CLEANOUT ON A 4 INCH OR LARGER DIAMETER SOIL STACK IS LOCATED WITHIN A DEVELOPED LENGTH OF 40 FEET OF THE BUILDING DRAIN AND BUILDING SEWER CONNECTION.

CONCEALED PIPING, CLEANOUTS ON CONCEALED PIPING OR PIPING UNDER A FLOOR SLAB OR IN A CRAWL SPACE OF LESS THAN 24 INCHES IN HEIGHT OR A PLENUM SHALL BE EXTENDED THROUGH AND TERMINATE FLUSH WITH THE FINISHED WALL, FLOOR OR GROUND SURFACE OR SHALL BE EXTENDED TO THE OUTSIDE OF THE BUILDING. CLEANOUT PLUGS SHALL NOT BE COVERED WITH CEMENT, PLASTER OR ANY OTHER PERMANENT FINISH MATERIAL, WHERE IT IS NECESSARY TO CONCEAL A CLEANOUT OR TO TERMINATE A CLEANOUT IN AN AREA SUBJECT TO REGULAR TRAFFIC, THE COVERING PLATE, ACCESS DOOR OR CLEANOUT SHALL BE OF AN APPROVED TYPE DESIGNED AND INSTALLED FOR THIS PURPOSE.

MINIMUM SIZE: CLEANOUTS SHALL BE THE SAME NOMINAL SIZE AS THE PIPE THEY SERVE UP TO 4 INCHES. FOR PIPES LARGER THAN 4 INCHES NOMINAL SIZE, THE MINIMUM SIZE OF THE CLEANOUT SHALL BE 4 INCHES.

CAST-IRON CLEANOUT SIZING SHALL BE IN ACCORDANCE WITH ASTM A 74 FOR HUB AND SPIGOT FITTINGS OR ASTM A 688 OR CSPI 301 FOR HUBLESS FITTINGS.

ACCESS SHALL BE PROVIDED TO ALL CLEANOUTS.

PROVIDE CONDENSATE DRAINAGE FOR EACH COOLING COIL. CONDENSATE PUMP DISCHARGE SHALL BE CONNECTED VIA INDIRECT WASTE CONNECTION TO BUILDING SANITARY/WASTE PIPING SYSTEM. COORDINATE PUMP WIRING WITH PROJECT ELECTRICAL. IF GRAVITY DRAINAGE IS POSSIBLE WITHIN THE CONSTRAINTS OF PIPING PITCH, CONCEALMENT ABOVE CEILINGS, AND ONLY AFTER COMPLETE COORDINATION WITH STRUCTURE AND OTHER TRADES, THE CONTRACTOR MAY SUBMIT SKETCH

PROPOSALS FOR GRAVITY ROUTING FOR REVIEW/APPROVAL.

MISCELLANEOUS SPECIALTIES
ALL EQUIPMENT, VALVES, STRAINERS, UNIONS, TRAPS, FLANGES AND OTHER APPURTENANCES REQUIRING ACCESS SHALL BE LOCATED IN ACCESSIBLE LOCATIONS. WHEN A PIECE OF EQUIPMENT MUST BE LOCATED ABOVE AN ACCESSIBLE CEILING OR WALL, THEN THE APPROPRIATE ACCESS DOOR SHALL BE PROVIDED. SUCH EQUIPMENT INCLUDES, BUT IS NOT LIMITED TO, CLEANOUTS, WATER HAMMER ARRESTORS AND VALVES. THESE SHALL BE COORDINATED WITH THE ARCHITECT. ACCESS DOORS SHALL BE RIGID CONSTRUCTION WITH TWO (2) INCHES AND A LATCH. IN PLENUM CEILINGS, PROVIDE FELT BETWEEN THE DOOR AND FRAME TO MAKE AN AIR TIGHT SEAL. ACCESS DOORS SHALL BE RATED TO THE SAME OR GREATER RATING OF THE PARTITION IN WHICH THEY ARE INSTALLED. ACCESS DOORS SHALL BE FLUSH MOUNTED, PRIME COATED WITH RUST INHIBITIVE PAINT, CONCEALED FRAME, FLUSH SCREW DRIVER OPERATED LOCKS WITH METAL CAMS AND ANCHORS AS REQUIRED.

ACCESS DOOR SIZES SHALL BE:
12" X 12" AT EASILY ACCESSIBLE ITEMS
40" X 40" WHERE PARTIAL BODY ACCESS IS REQUIRED
24" X 24" WHERE FULL BODY ACCESS IS REQUIRED

PROVIDE AND INSTALL DRIP PANS WITH WATER DETECTOR AND DRAIN FOR PIPING REQUIRED BY ACTUAL FIELD CONDITIONS WHERE PIPING PASSES OVER INCLUDING AREA WITHIN 3'-0" OF ELECTRICAL EQUIPMENT.

DO NOT INSTALL AIR GAP BACKFLOW PREVENTERS IN CONCEALED SPACES OR IN AREAS WHERE SPLASHING WATER WILL DAMAGE FINISHES. PROVIDE AND INSTALL AN OVERSIZED COPPER FUNNEL WITH AIR GAP DIRECTLY BELOW RPD PRESSURE RELIEF PORT. PIPE FUNNEL TO SPILL AS AN INDIRECT WASTE TO AN APPROVED DRAIN LOCATION.

PROVIDE FLEXIBLE CONNECTIONS IN ALL PIPING SYSTEMS CONNECTED TO PUMPS AND OTHER EQUIPMENT WHICH REQUIRES VIBRATION ISOLATION EXCEPT WATER COILS. FLEXIBLE CONNECTIONS SHALL BE PROVIDED AS CLOSE TO THE EQUIPMENT AS POSSIBLE.

PIPING GENERAL
NO PIPING SHALL BE COVERED UNTIL TESTED AND APPROVED BY THE AUTHORITIES HAVING JURISDICTION.

ALL PIPING SHALL BE RUN PERPENDICULAR AND/OR PARALLEL TO FLOORS, INTERIOR WALLS, ETC. PIPING AND VALVES SHALL BE GROUPED NEATLY AND SHALL BE RUN AS TO MAXIMIZE HEADROOM OR PASSAGE CLEARANCE. ALL VALVES, CONTROLS AND ACCESSORIES CONCEALED IN FURRED SPACES AND REQUIRING ACCESS FOR OPERATION AND MAINTENANCE SHALL BE ARRANGED TO ASSURE THE USE OF A MINIMUM NUMBER OF ACCESS DOORS.

ALL PIPE LINES MADE WITH SCREWED FITTINGS MUST BE PROVIDED WITH A SUFFICIENT NUMBER OF FLANGES AND/OR UNIONS TO ALLOW FOR EASY AND CONVENIENT DISMANTLING OF THE SYSTEM WITHOUT BREAKING FITTINGS.

ALL PIPING SHALL RUN CONCEALED IN FURRED SPACES OF OCCUPIED AREAS OR CHASES. CONTRACTOR SHALL OBTAIN PERMISSION TO RUN ANY EXPOSED PIPES.

CAP ALL PIPE AND EQUIPMENT OUTLETS DURING CONSTRUCTION AND KEEP LINES AND INSIDE OF EQUIPMENT FREE OF FOREIGN MATERIALS.

PROVIDE FOR EXPANSION WITHOUT WARPING OR DISLOCATING LINES OR STRAINING CONNECTED EQUIPMENT. INSTALL PIPING TO CLEAR BUILDING CONSTRUCTION AND TO AVOID INTERFERENCE WITH OTHER WORK. THE CONTRACTOR SHALL PROVIDE AND INSTALL COMPLETE PIPING EXPANSION SYSTEM INCLUDING SEISMIC JOINT EXPANSION AND DEVICES AS REQUIRED FOR PROPER EXPANSION COMPENSATION STAMPED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF THE PROJECT.

THE DRAWINGS INDICATE SCHEMATICALLY THE SIZE AND LOCATION OF PIPING. PIPING SHALL BE SET UP AND DOWN AND OFFSET AS REQUIRED TO MEET CONSTRUCTION CONDITIONS.

THIS CONTRACTOR SHALL INFORM HIMSELF FROM THE GENERAL CONSTRUCTION SPECIFICATIONS AND PLANS, OF THE EXACT DIMENSION OF FINISHED WORK AND OF THE HEIGHT OF FINISHED CEILINGS IN ALL ROOMS WHERE EQUIPMENT OR PIPES ARE TO BE PLACED AND ARRANGE HIS WORK IN ACCORDANCE WITH THE SCHEDULE OF INTERIOR FINISHES, AS INDICATED ON THE ARCHITECTURAL DRAWINGS.

PIPE PIPING SHALL BE RUN FREE OF TRAPS AND UNNECESSARY BENDS. ANY TRAPS FORMED SHALL BE PROVIDED WITH HOSE END DRAIN VALVES WITH THREADED CAP AND CHAIN TO COMPLETELY DRAIN THE SYSTEM.

PROVIDE SECTION CUT-OFF VALVES ON ALL MAINS AND BRANCHES. PITCH AND VALVE ALL WATER PIPING FOR CONVENIENT DRAINAGE.

UNIONS AND/OR FLANGES SHALL BE INSTALLED AT EACH PIECE OF EQUIPMENT, IN BY-PASSES AND IN LONG PIPING RUNS (100 FEET OR MORE) TO PERMIT DISASSEMBLY FOR ALTERATION AND REPAIRS.

WHEREVER DISSIMILAR METALS ARE JOINED TOGETHER AN APPROVED DIELECTRIC FITTING SHALL BE USED. THE DIELECTRIC FITTING SHALL BE A LISTED ASSEMBLY.

RUN ALL SOIL, WASTE AND VENT PIPING SHOWN OR REQUIRED BY LOCAL CODES. PIPING SHOWN IS MINIMUM AND IN ACCORDANCE WITH STATE AND FEDERAL CODES. IF LOCAL CODES REQUIRE ADDITIONAL VENTING OR LARGER SIZES, PROVIDE AS REQUIRED.

MAKE ALL CONNECTIONS THROUGH TRAPS. EACH TRAP TO BE VENTED, EITHER BY CIRCUIT, LOOP, OR INDIVIDUAL VENT, AS REQUIRED, BUT NOT LESS THAN SHOWN OR AS REQUIRED BY LOCAL CODE.

ALL UNDERGROUND PIPING SHALL BE LAID ON 6" SAND AND BACKFILLED WITH CLEAN FINE EARTH COMPACTED TO 12" ABOVE PIPE. COMPLETE BACKFILL WITH AVAILABLE EARTH FREE OF LARGE BouldERS AND SHARP ROCKS. TAMP BACKFILL IN 6" ELEVATIONS AND OVERFILL TO ALLOW FOR SETTLEMENT.

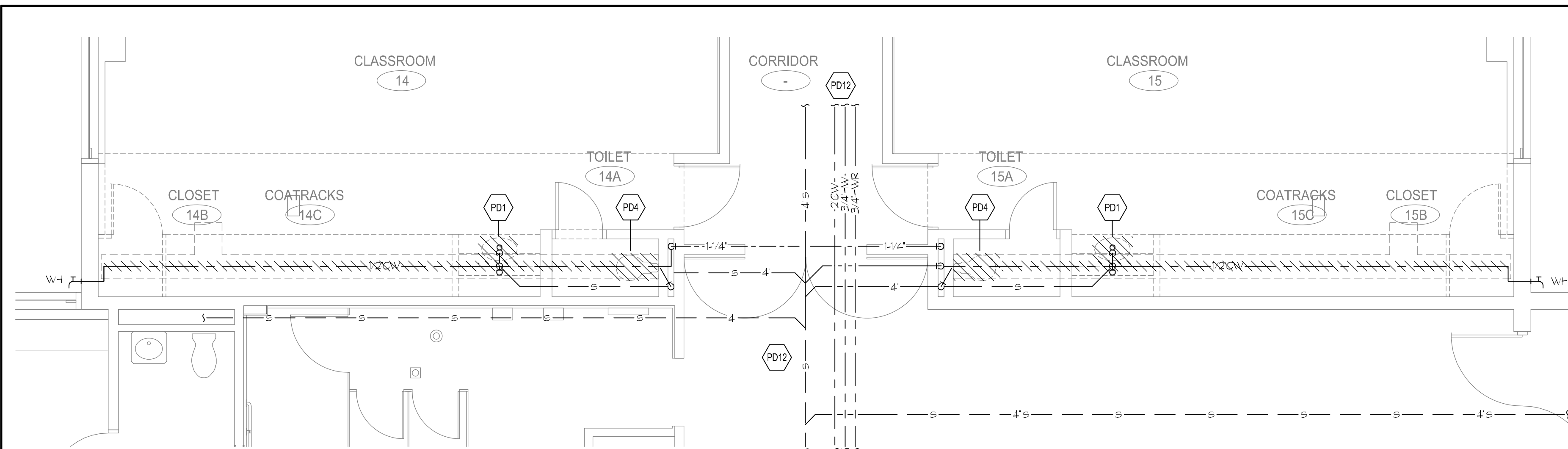
SET AND PROPERLY CONNECT ALL FIXTURES WITH HOT AND COLD WATER, VENT AND DRAINAGE PIPING AS REQUIRED AND PROTECT FIXTURES UNTIL ACCEPTANCE AND TEST. CLEAN ALL FLUSH VALVES AFTER TWO (2) WEEKS OF OPERATION.

PLUMBING DEMOLITION NOTES:

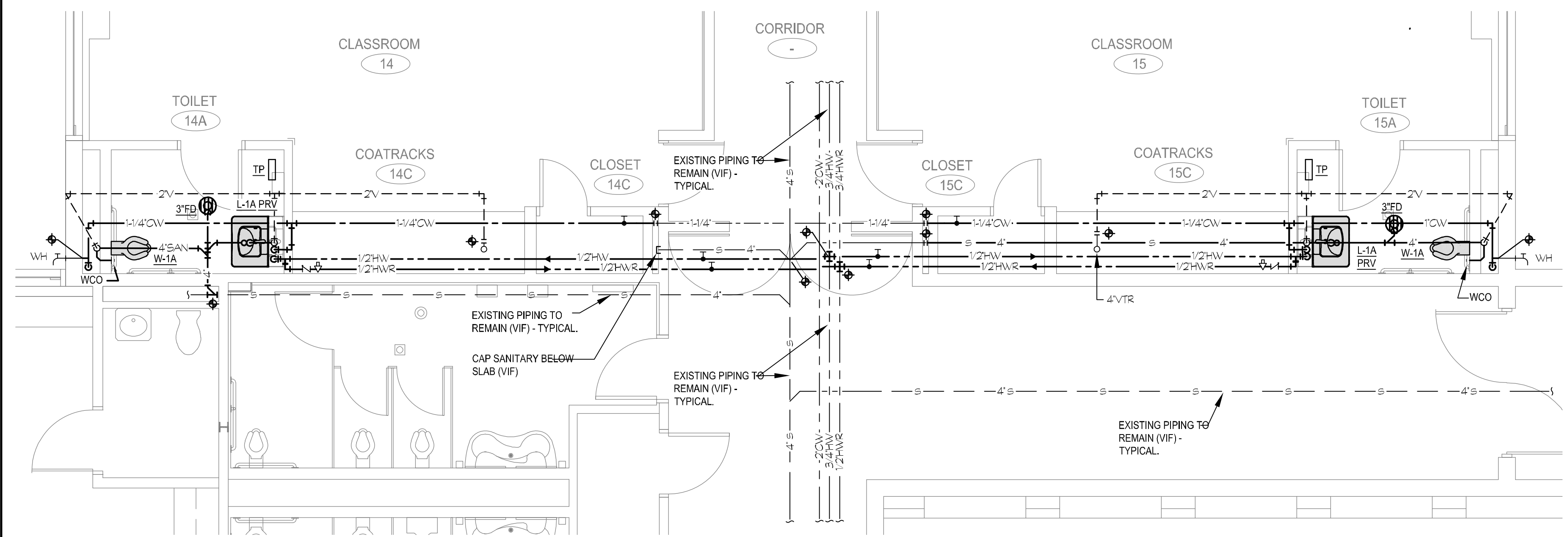
- THIS PROJECT IS A PARTIAL DEMOLITION TO AN EXISTING FACILITY.
- ALL WORK SHALL BE PERFORMED PER CURRENT STATE APPLICABLE CODES, ORDINANCES AND PER REQUIREMENTS OF STATE AND LOCAL REGULATORY AGENCIES AND THE AUTHORITY HAVING JURISDICTION.
- REFER TO THE ARCHITECTURAL DEMOLITION DRAWINGS AND SPECIFICATIONS FOR ADDITIONAL INFORMATION AND REQUIREMENTS. THE FULL EXTENT OF THE DEMOLITION AND RECONSTRUCTION SCOPE OF WORK SHALL BE DETERMINED BY THE ENTIRE SET OF BID DOCUMENTS.
- BEFORE SUBMITTING BID, THE CONTRACTOR SHALL VISIT THE JOB SITE AND BECOME FULLY FAMILIAR WITH THE EXISTING CONDITIONS AND THE DOCUMENTS OF OTHER TRADES UNDER WHICH HIS WORK WILL BE ACCOMPLISHED. THE CONTRACTOR SHALL BE HELD RESPONSIBLE FOR ANY ASSUMPTIONS, OMISSIONS OR ERRORS HE MADE AS A RESULT OF FAILURE TO BECOME FAMILIAR WITH THE EXISTING CONDITIONS.
- LOCATION OF EXISTING EQUIPMENT AND PIPING SHOWN ON FLOOR PLANS IS BASED ON THE BEST AVAILABLE INFORMATION. THE CONTRACTOR SHALL VERIFY EXACT LOCATIONS OF EXISTING EQUIPMENT, APPURTENANCES AND PIPING IN THE FIELD PRIOR TO COMMENCEMENT OF CONSTRUCTION.
- DEMOLITION DRAWINGS ARE STRICTLY DIAGRAMMATIC AND SHOW GENERAL ARRANGEMENT OF EXISTING MECHANICAL AND ELECTRICAL EQUIPMENT LOCATION. IT IS NOT THE INTENT OF THE DRAWINGS TO SHOW THE ENTIRE EXISTING MECHANICAL OR ELECTRICAL SYSTEMS.
- MAJOR COMPONENTS AND MAINS OF SYSTEMS ARE USUALLY INDICATED. FIELD VERIFY LAYOUT AND LOCATIONS OF MISCELLANEOUS SYSTEMS, REMOVE MISCELLANEOUS ITEMS IN THE RENOVATED AREA.
- IT IS NOT THE INTENT OF THESE DRAWINGS TO SHOW ALL EQUIPMENT, PIPING OR CONDUIT TO BE REMOVED. EQUIPMENT NOT BEING REUSED SHALL BE REMOVED, INCLUDING ALL ASSOCIATED HANGERS, SUPPORTS, PIPES, DUCTS, CONDUITS, WIRES, AND CONTROLS BACK TO THE POINT OF ORIGIN.
- ALL EXISTING EQUIPMENT, FIXTURES AND DEVICES TO BE REMOVED SHALL BE FIELD VERIFIED FOR EXACT QUANTITY. NO EQUIPMENT, PIPING, DUCTWORK OR CONDUIT SHALL BE ABANDONED IN PLACE, UNLESS SPECIFICALLY NOTED.
- THE CONTRACTORS SHALL COORDINATE THE DEMOLITION SCOPE OF WORK PRIOR TO COMMENCEMENT OF WORK. CARE MUST BE TAKEN SO AS NOT TO DESTROY, REMOVE OR DEMOLISH ANY EQUIPMENT, APPURTENANCES OR DEVICES INTENDED TO REMAIN.
- INCLUDE ALL WORK REQUIRED TO ALLOW PARTIAL DEMOLITION AS REQUIRED. COORDINATE WITH TOWN FOR CONSTRUCTION PHASING REQUIREMENTS, PROVIDE TEMPORARY SERVICES AND SYSTEM MODIFICATIONS AS NECESSARY.
- SHOULD THE CONTRACTOR ENCOUNTER DURING DEMOLITION OF EXISTING WALLS OR CHASES, ANY PIPING OR CONDUIT WHICH MUST REMAIN ACTIVE, HE SHALL IMMEDIATELY GIVE NOTICE TO THE ENGINEER, GENERAL CONTRACTOR, AND OWNER'S REPRESENTATIVE.
- ALL SALVAGEABLE MATERIALS OR EQUIPMENT TO BE REMOVED SHALL BE TURNED OVER TO THE OWNER AT THE END OF EACH DAY. ITEMS REMOVED AND NOT REUSED OR CLAIMED BY THE OWNER SHALL BECOME PROPERTY OF THE TRADE CONTRACTOR AND SHALL BE TRANSPORTED FROM THE SITE. SITE STORAGE OF REMOVED ITEMS WILL NOT BE PERMITTED.
- PROPERLY DISPOSE OF ALL DEMOLISHED EQUIPMENT IN COMPLIANCE WITH CODES AND REGULATIONS; THIS APPLIES TO HAZARDOUS MATERIALS AND CONTAMINATED ITEMS TO BE DEMOLISHED.
- ALL SYSTEMS TO BE REMOVED SHALL BE REMOVED BACK TO THE POINT OF SOURCE. THE CONTRACTOR SHALL VERIFY WHICH SYSTEMS MUST REMAIN ACTIVE TO SERVE ADJACENT SPACES DURING CONSTRUCTION.
- ALL PIPING ASSOCIATED WITH THE PLUMBING FIXTURE OR EQUIPMENT INDICATED TO BE REMOVED OR RELOCATED SHALL BE DISCONNECTED AND REMOVED INCLUDING HANGERS, INSULATION, AND OTHER COMPONENTS) UP TO NEAREST EXISTING ACTIVE MAIN OR BRANCH LINE AND CAPPED AS CLOSE TO THE ACTIVE LINE AS POSSIBLE.
- DEMOLITION DRAWINGS ARE STRICTLY DIAGRAMMATIC AND SHOW THE GENERAL ARRANGEMENT OF EQUIPMENT LOCATION & PIPING. IT IS NOT THE INTENT OF THE DEMOLITION CONTRACT DRAWINGS TO SHOW ENTIRE EXISTING PIPING SYSTEM AND EQUIPMENT LAYOUT. ONLY MAJOR PIPING MAINS AND COMPONENTS ARE USUALLY INDICATED.
- THE LOCATION OF EXISTING PLUMBING AND MECHANICAL SYSTEMS, SHOWN ON FLOOR PLANS, IS BASED ON THE BEST AVAILABLE INFORMATION. THE CONTRACTOR SHALL FIELD VERIFY LOCATIONS OF BRANCH PIPING ASSOCIATED WITH THE FIXTURES OR EQUIPMENT TO BE REMOVED AND ADJUST AS NECESSARY.
- LICENSED PLUMBERS WILL BE REQUIRED TO PERFORM THE DISCONNECTS AND RESPONSIBLE FOR ANY APPLICABLE PERMITS/INSPECTIONS. SEE SPECIFICATIONS FOR MORE INFORMATION.

PLUMBING ABBREVIATIONS

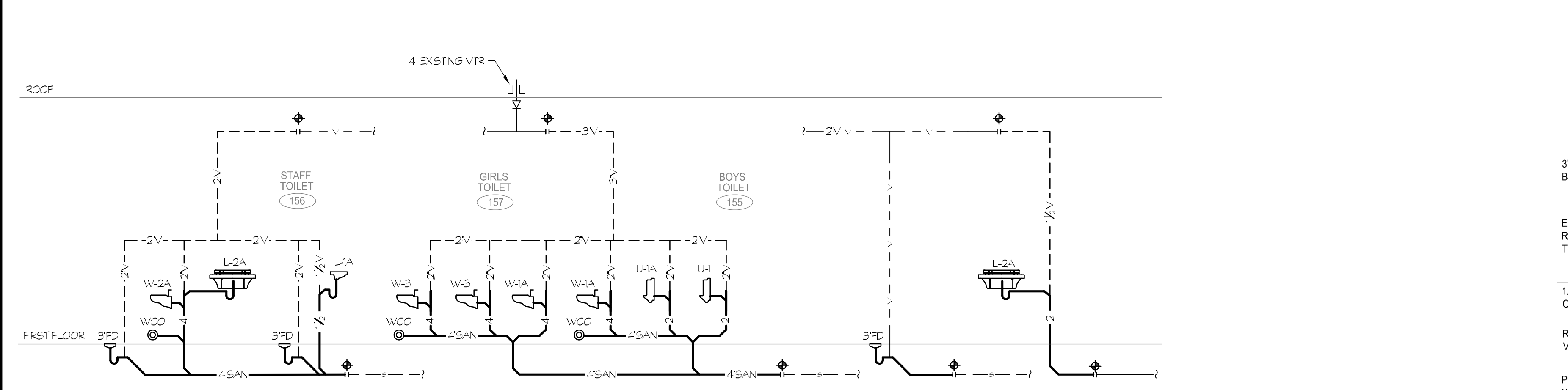
ABBREVIATION	DESCRIPTION
ADA	AMERICAN DISABILITIES ACT
A.F.F.	ABOVE FINISHED FLOOR
A.F.G.	ABOVE FINISHED GRADE
B.F.P.	BACKFLOW PREVENTER
B.V.	BUTTERFLY INDICATING VALVE
B.L.O.G.	BUILDING
BTU	BRITISH THERMAL UNIT
BTU/H	BRITISH THERMAL UNITS PER HOUR
C.E.	CONTINUED
CGMT	CLEANOUT
CCP	CLEANOUT PLUG
CPVC	CHLORINATED POLYVINYL CHLORIDE
CV	CHECK VALVE
CW	COLD WATER
D.F.U.	DRAINAGE FIXTURE UNITS
DA	DIAMETER
DN	DOWN
DWG	DRAWING
EA	EACH
EC	ELECTRICAL CONTRACTOR
EW	ELECTRIC WATER HEATER
EX	EXISTING
FCO	FLOOR CLEANOUT
FD	FLOOR DRAIN
FFP	FLOOR DRAIN WITH FUNNEL
FFR	FLOOR DRAIN WITH ROUND FUNNEL
FF	FINISHED FLOOR
FFE	FINISHED FLOOR ELEVATION
FLR	FLOOR
F.P.C.	FIRE PROTECTION CONTRACTOR
FS	FLOOR SINK



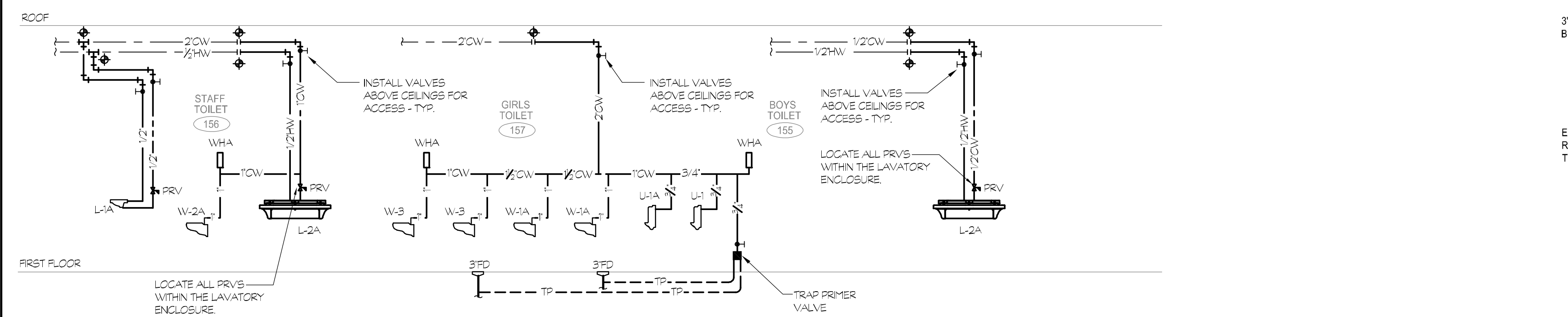
TOILET ROOM DEMOLITION PLAN
SCALE: 1/4" = 1'-0"
1 P101



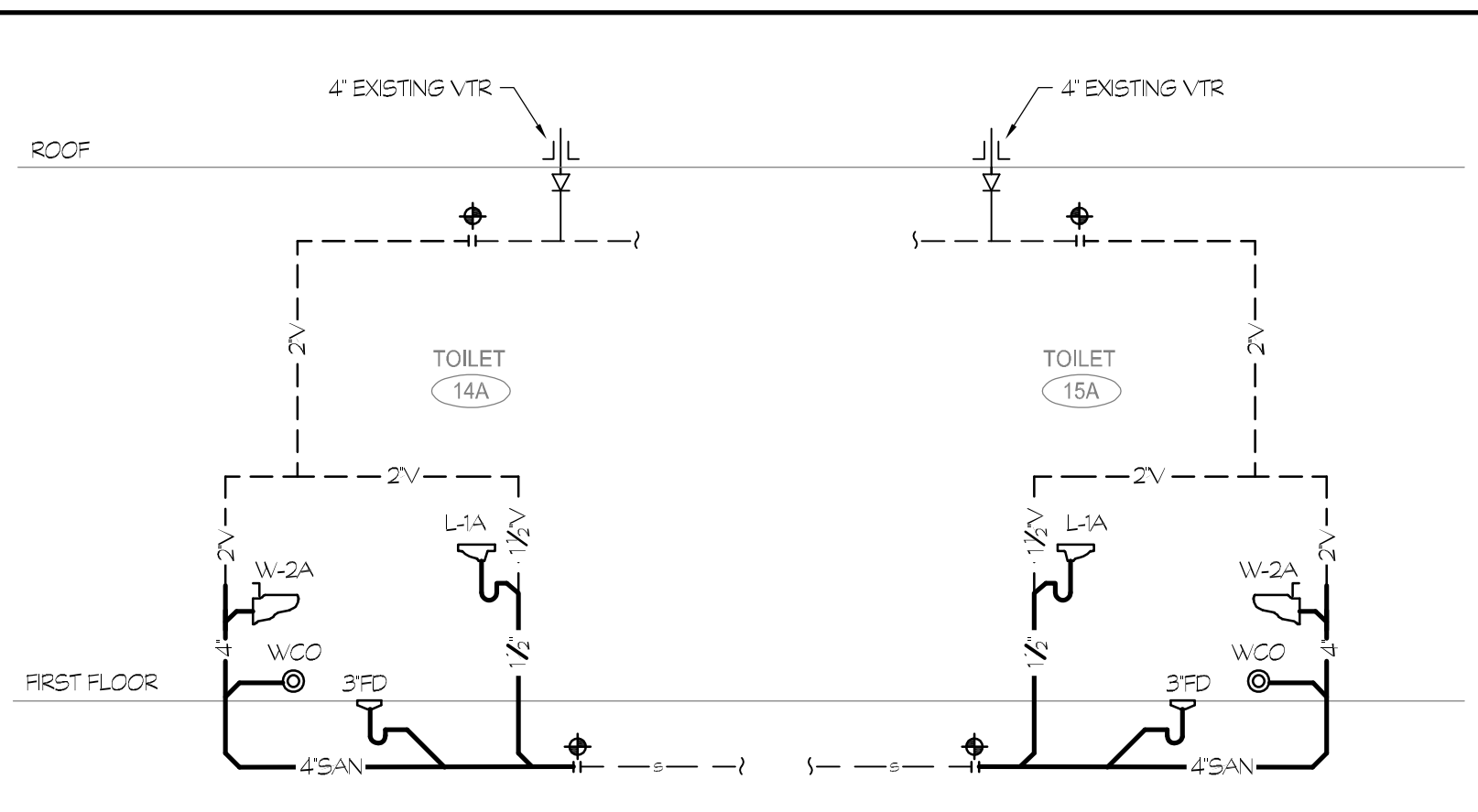
TOILET ROOM FLOOR PLAN
SCALE: 1/4" = 1'-0"
2 P101



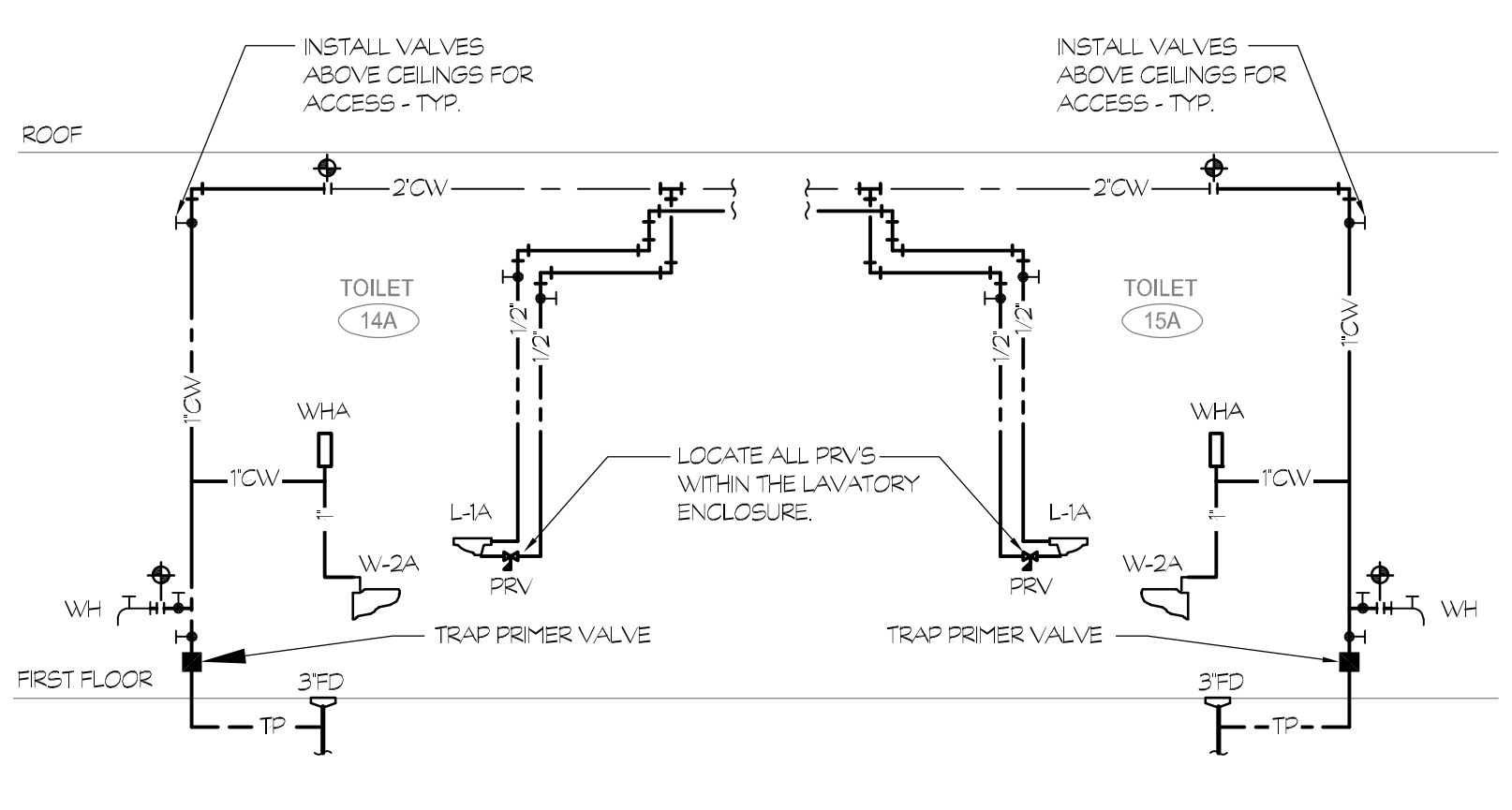
SANITARY RISER DIAGRAM
SCALE: NONE
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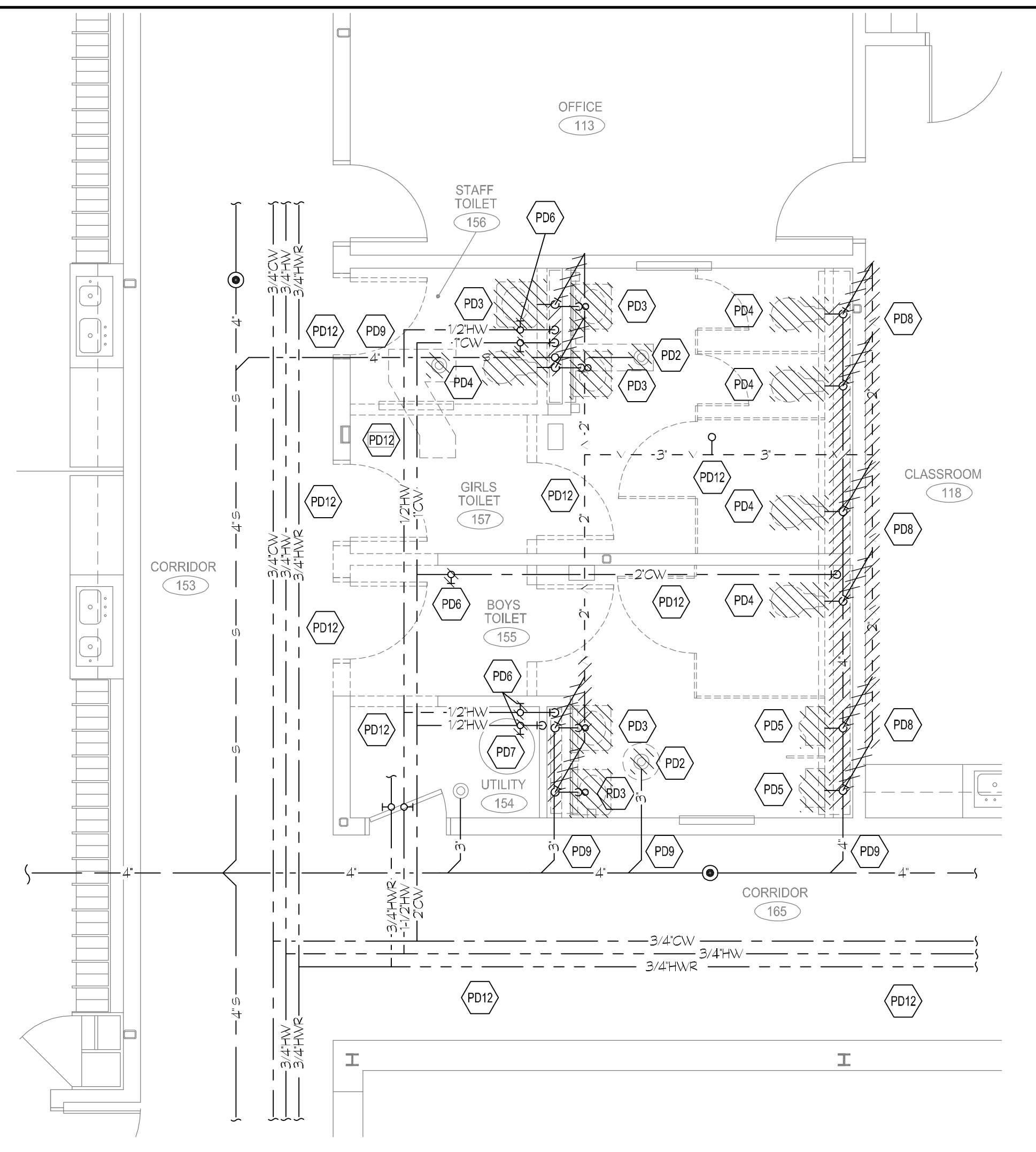
WATER RISER DIAGRAM
SCALE: NONE
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SANITARY RISER DIAGRAM
SCALE: NONE
7 P101



WATER RISER DIAGRAM
SCALE: NONE
8 P101

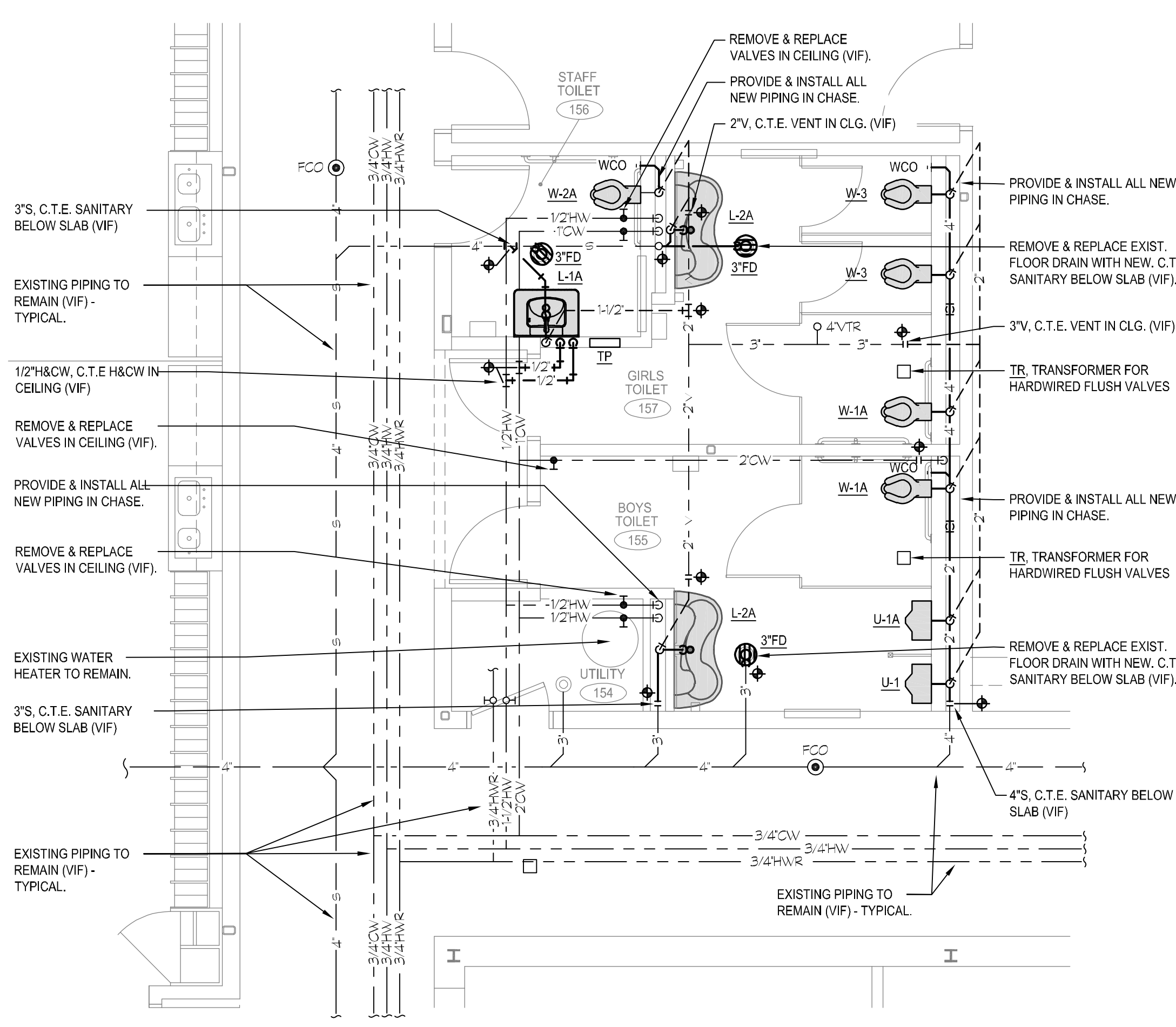


TOILET ROOM DEMOLITION PLAN
SCALE: 1/4" = 1'-0"
3 P101

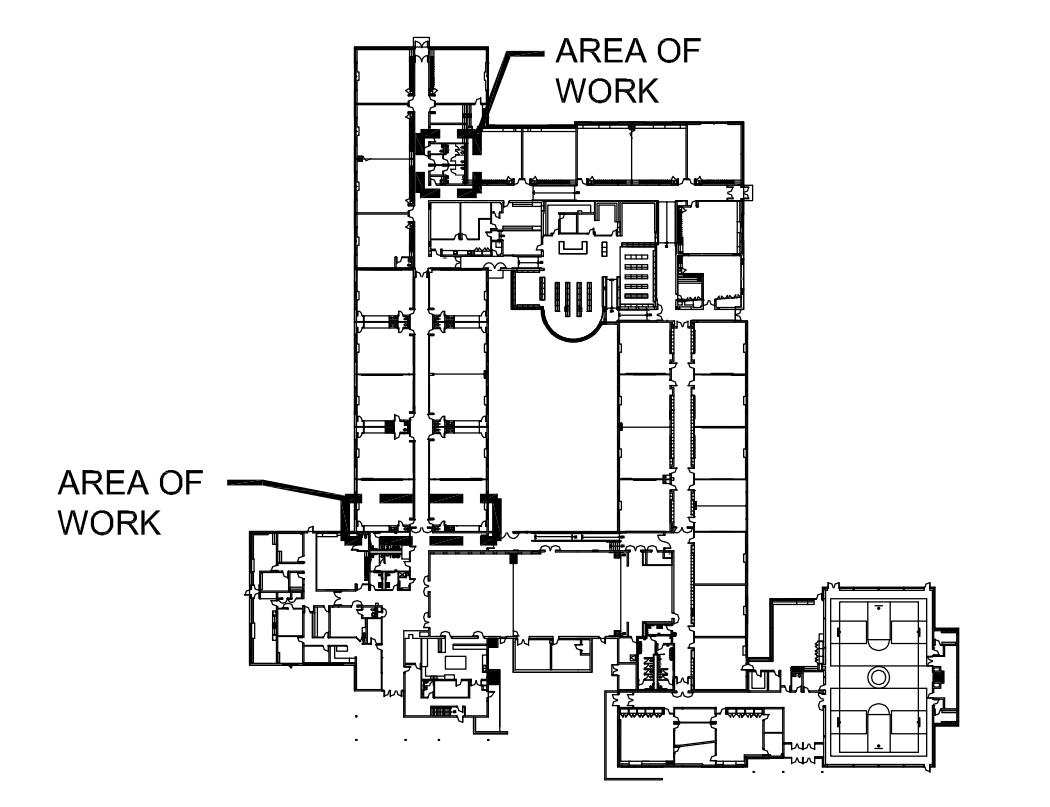
DEMOLITION LEGEND	
SYMBOL	DESCRIPTION
	EXISTING PIPING OR EQUIPMENT TO REMAIN
	EXISTING PIPING OR EQUIPMENT TO BE REMOVED
	EXISTING PIPING OR EQUIPMENT TO BE REMOVED

DEMOLITION KEY NOTES:

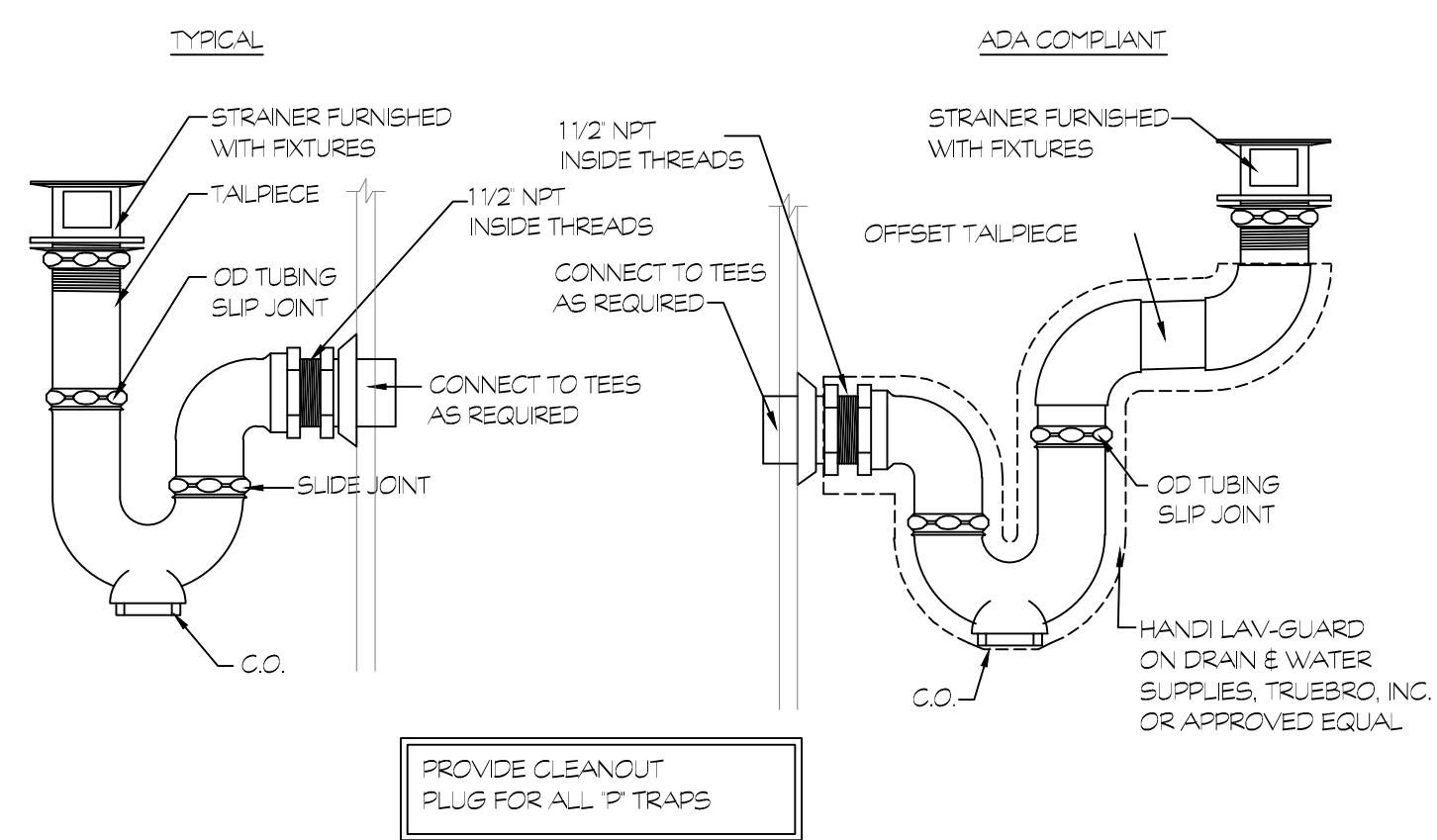
- REMOVE AND DISPOSE OF EXISTING SINK. REMOVE ALL EXISTING EXPOSED WATER, WASTE AND VENT PIPING. CAP PIPING BELOW FLOOR, CEILING AND WALL WITHIN 2 FT OF HANG.
- REMOVE AND DISPOSE OF EXISTING FLOOR DRAIN. REMOVE ALL EXISTING EXPOSED WATER AND VENT PIPING. CAP PIPING BELOW FLOOR, CEILING AND WALL WITHIN 2 FT OF HANG.
- REMOVE AND DISPOSE OF EXISTING LAVATORY. REMOVE ALL EXISTING EXPOSED WATER, WASTE AND VENT PIPING. CAP PIPING BELOW FLOOR, CEILING AND WALL WITHIN 2 FT OF HANG.
- REMOVE AND DISPOSE OF EXISTING WATER CLOSET. REMOVE ALL EXISTING EXPOSED WATER, WASTE AND VENT PIPING. CAP PIPING BELOW FLOOR, CEILING AND WALL WITHIN 2 FT OF HANG.
- REMOVE AND DISPOSE OF EXISTING URINAL. REMOVE ALL EXISTING EXPOSED WATER, WASTE AND VENT PIPING. CAP PIPING BELOW FLOOR, CEILING AND WALL WITHIN 2 FT OF HANG.
- REMOVE AND DISPOSE OF EXISTING VALVES IN CEILING.
- EXISTING WATER HEATER TO BE REMAIN IN PLACE.
- REMOVE AND DISPOSE OF EXISTING WASTE AND VENT PIPING. CAP PIPING BELOW FLOOR, CEILING AND WALL WITHIN 2 FT OF HANG.
- EXISTING SANITARY PIPING BELOW GRADE TO BE REMAIN. SINK, CLEAN, AND LET ALL EXISTING PIPING WHEN COMPLETE. CAMERA INSPECT WITH A VIDEO CAMERA. PROVIDE REPORT.
- REMOVE AND DISPOSE OF EXISTING FLOOR CLEANOUT BELOW SLAB. CAP PIPING BELOW FLOOR, CEILING AND WALL WITHIN 2 FT OF HANG.
- REMOVE AND DISPOSE OF EXISTING HOSE BIBS. REMOVE ALL EXISTING WATER PIPING. CAP PIPING BELOW FLOOR, CEILING AND WALL WITHIN 2 FT OF HANG.
- EXISTING PIPING TO REMAIN. PROTECT DURING CONSTRUCTION.



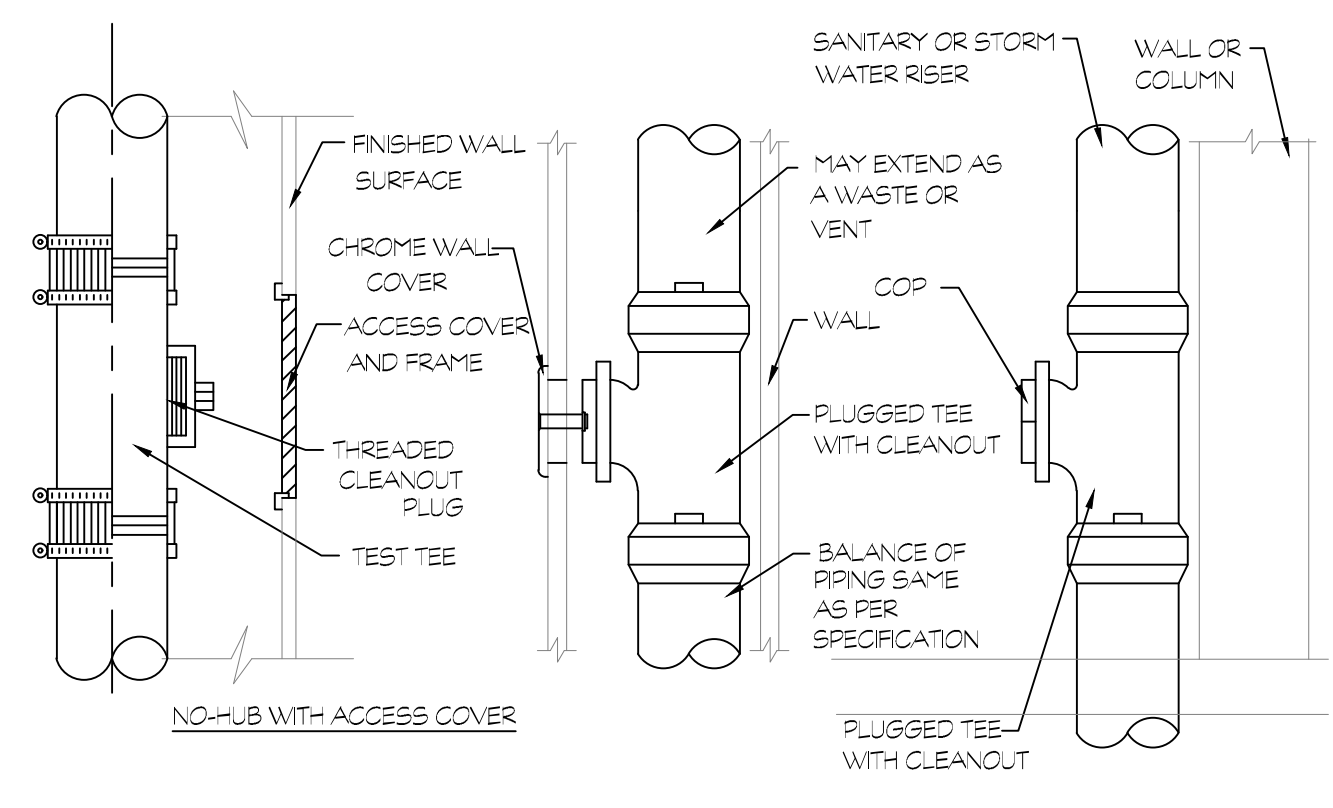
TOILET ROOM FLOOR PLAN
SCALE: 1/4" = 1'-0"
4 P101



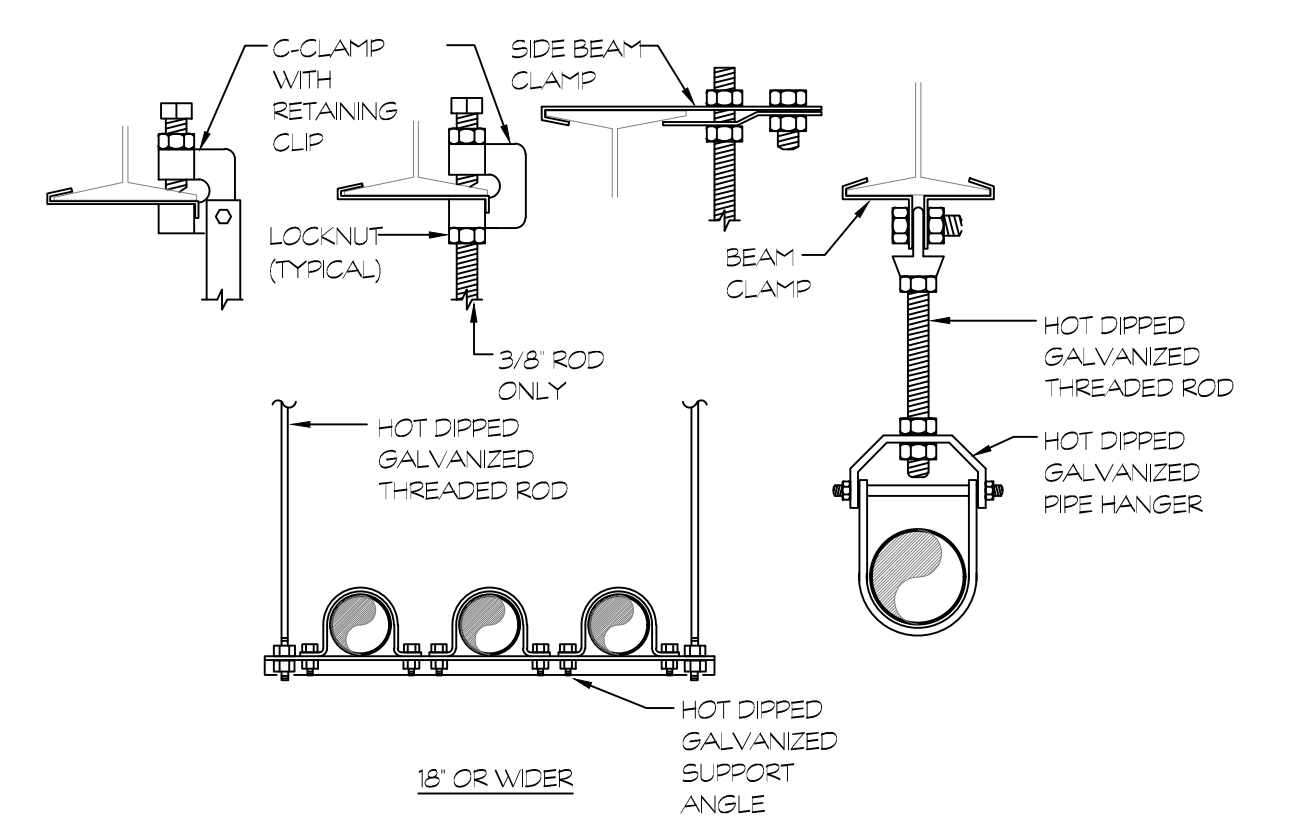
MAIN LEVEL KEY PLAN
NOT TO SCALE



P TRAP WITH CLEANOUT DETAIL
NOT TO SCALE



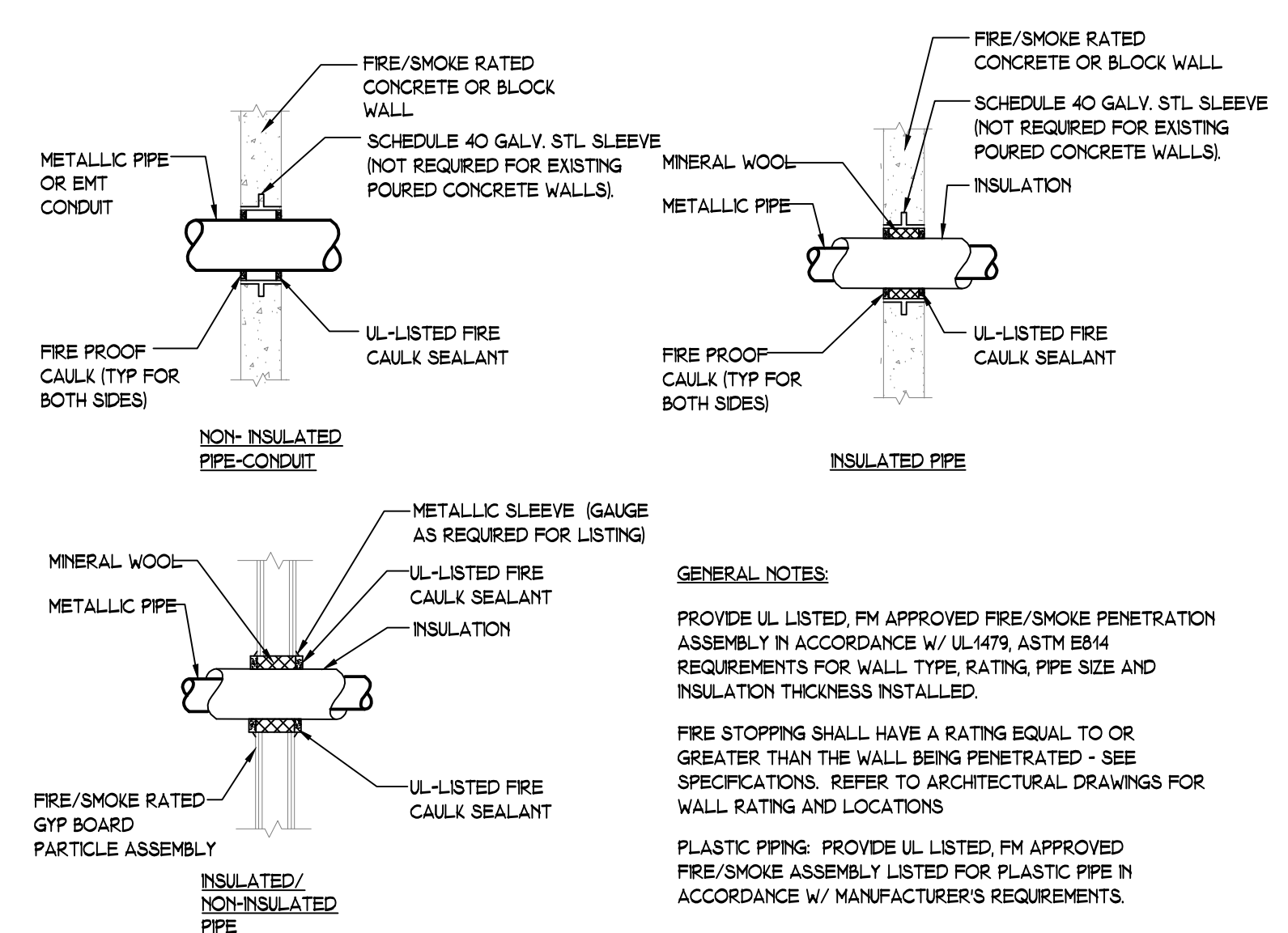
WALL AND RISER CLEANOUT DETAIL
NOT TO SCALE



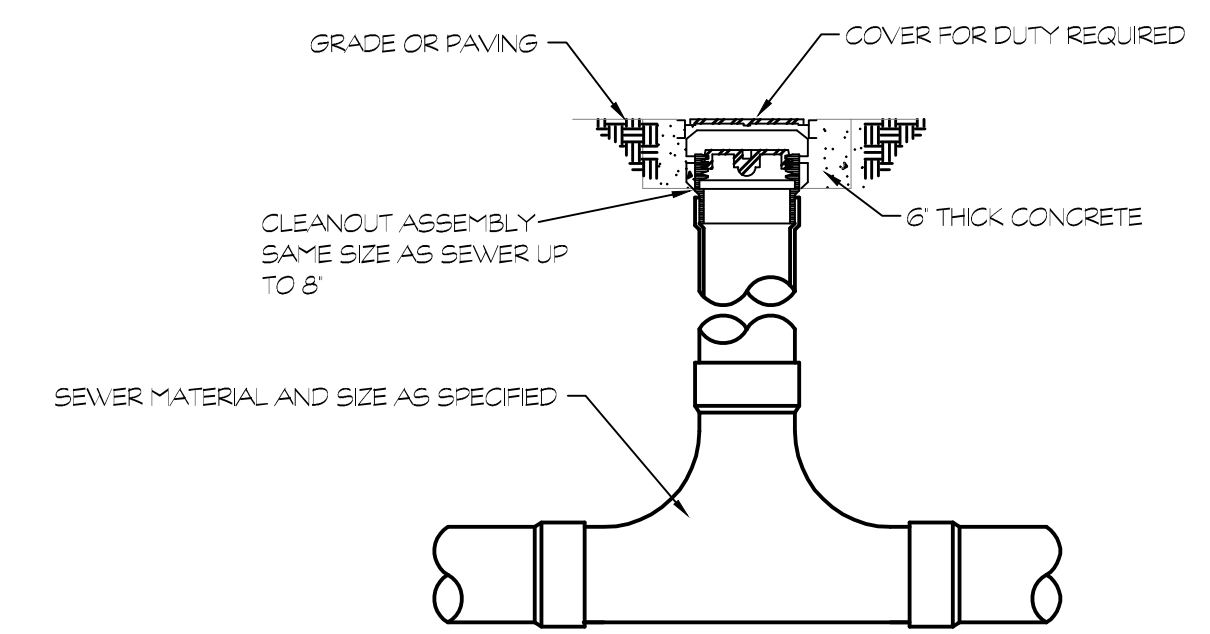
PIPE SIZE	MAX SPACING STEEL PIPE EXCEPT THREADED LIGHTWALL	MAX SPACING STEEL PIPE THREADED LIGHTWALL
1, 1-1/4"	12'-0"	12'-0"
1-1/2, 2, 2-1/2, 3"	18'-0"	12'-0"
4, 6, 8"	18'-0"	N/A

INSTALL HANGERS IN ACCORDANCE WITH NFPA 19 AND STRUCTURAL REQUIREMENTS

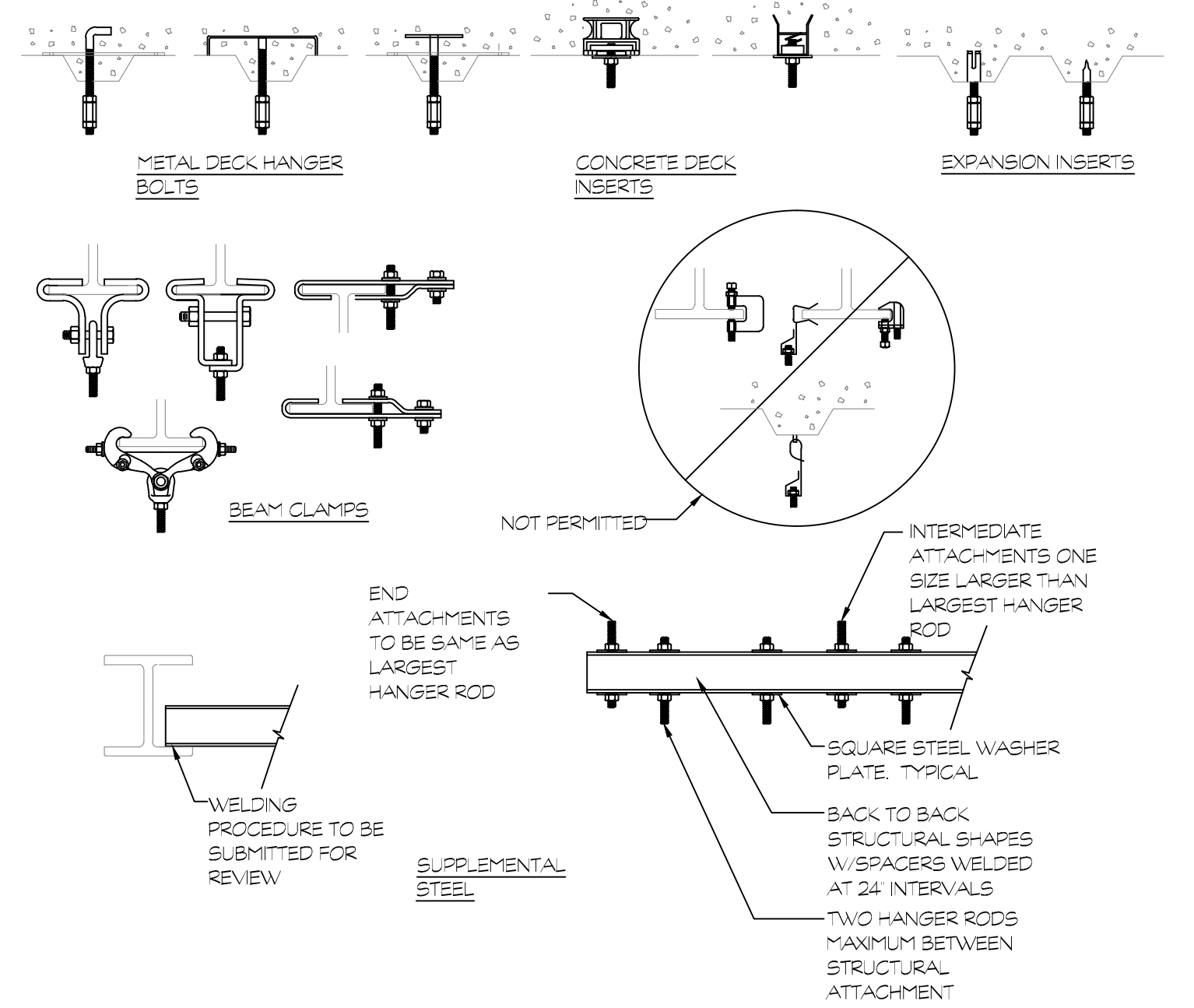
PIPE SUPPORT DETAIL
NOT TO SCALE



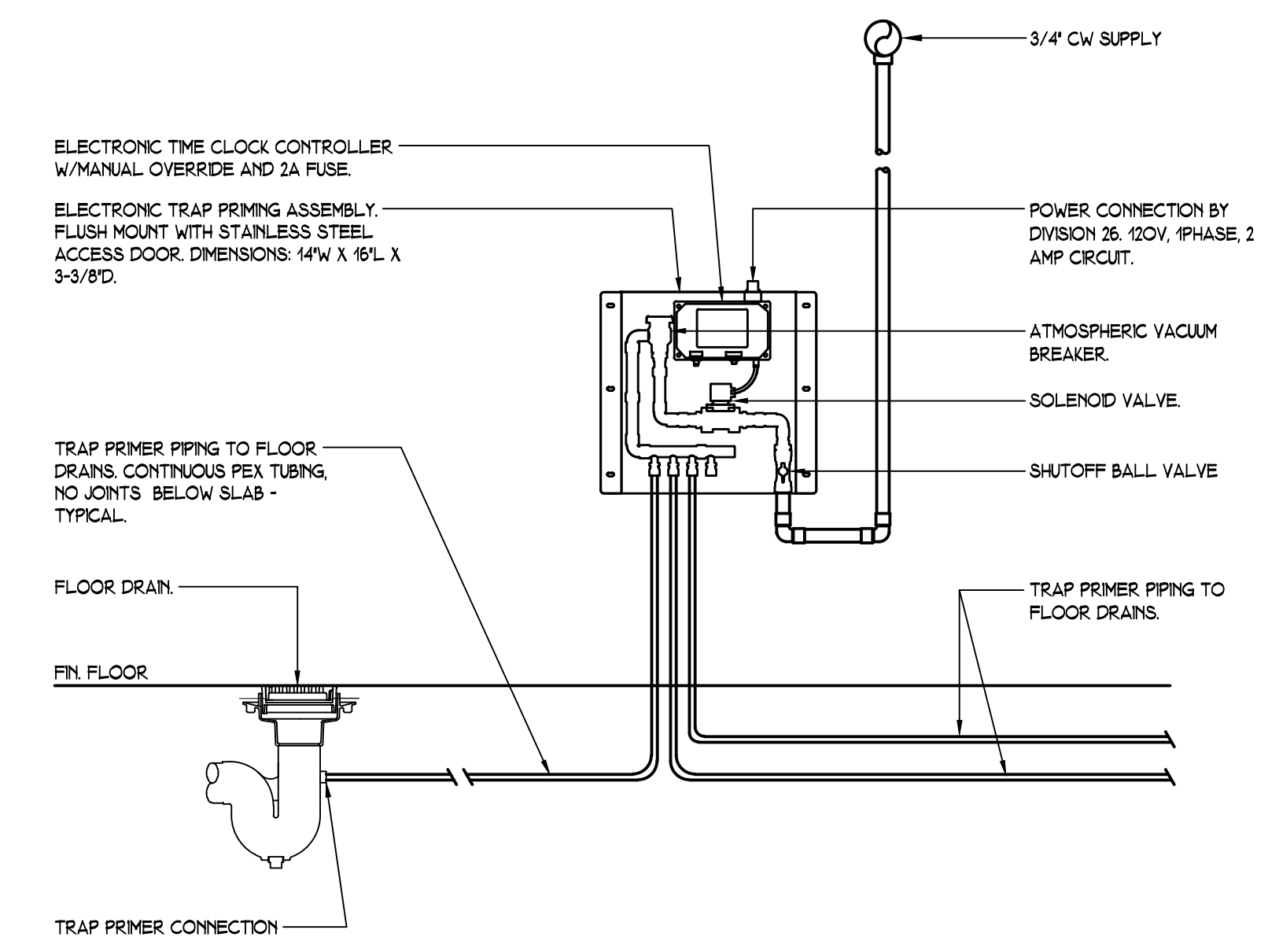
PIPE PENETRATION WITH FIRE/SMOKE SEAL
NOT TO SCALE



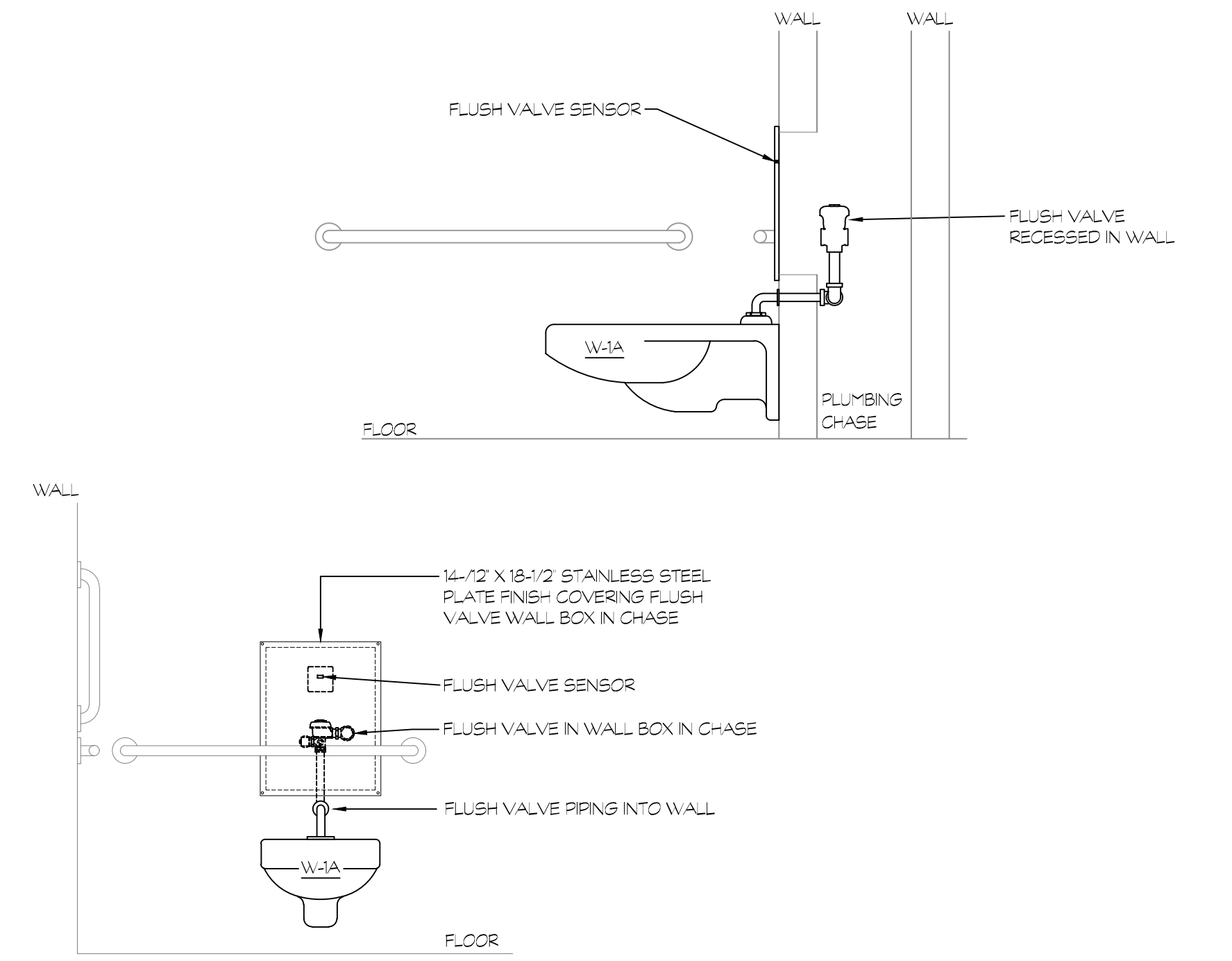
FLOOR AND YARD CLEANOUT DETAIL
NOT TO SCALE



PIPE HANGER ATTACHMENT DETAIL
NOT TO SCALE



ELECTRONIC TRAP PRIMER DETAIL
NOT TO SCALE



RECESSED FLUSH VALVE AT CHILD HEIGHT TOILET DETAIL
NOT TO SCALE

INSULATION SCHEDULE					
SYSTEM	PIPE SIZE	INSULATION TYPE	INSULATION THICKNESS	FITTINGS, VALVES, FLANGES INSULATION TYPE	REMARKS
DOMESTIC COLD WATER	ALL	MINERAL FIBER, ASJ, SSL	1/2"	MOLDED, PRE-FORMED MINERAL FIBER WITH PVC JACKET	TYPE 1
DOMESTIC HOT WATER	ALL	MINERAL FIBER, ASJ, SSL	1"	MOLDED, PRE-FORMED MINERAL FIBER WITH PVC JACKET	TYPE 1
EXTERIOR PIPE	ALL	CELLULAR GLASS (FOAM GLASS)	2"	CELLULAR GLASS (FOAM GLASS)	ALUMINUM JACKET WITH HEAT TRACE

NOTES:
1. FIBERGLASS INSULATION THERMAL CONDUCTIVITY 22 TO 28BTU X IN/H X FT X F W/ 100 F MEAN TEMP. THICKNESS BASED ON ASHRAE 90.1, 1999 6.2.4.5.
2. REFER TO SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.

THERMOSTATIC MIXING VALVE SCHEDULE										
	EQUIPMENT BEING SERVED (IE. WATER HEATER, ETC.)	AREA SERVED	FLOW RATE # (OPS) DIFFERENTIAL	MINIMUM FLOW RATE GPM	INLET TEMP.	OUTLET TEMP.	INLET SIZE	OUTLET SIZE	MANUFACTURER MODEL	REMARKS
TMV	POINT OF USE WATER HEATER	---	19GPM	25GPM	120 F	110 F	1/2"	1/2"	ACORN S70CP-12	---

NOTES:
1. MAXIMUM PRESSURE DIFFERENTIAL SHALL BE 10PSI FOR MIXING VALVE WITH DIAL THERMOMETER, ADJUSTABLE SET POINT, INTEGRAL STRAINER CHECKSTOPS ON INLETS, PROVIDE SHUTOFFS/ARRESTORS AT ALL CONNECTIONS.
2. MINIMUM LOW RATE WHEN VALVE IS INSTALLED AT OR NEAR HOT WATER SOURCE WITH RECIRCULATED TEMPERED WATER AND CONTINUOUSLY OPERATING CIRCULATION PUMP.

DRAIN SCHEDULE					
MARK	FIXTURE, MODEL NUMBER AND DESCRIPTION	ROUGH-IN			
		TRAP	WASTE	VENT	
FD	FLOOR DRAIN (TOILET ROOM), JOSAM 30000-S, CAST IRON BODY, BOTTOM OUTLET, 6"x6" SQUARE NICKEL BRONZE TOP, TRAP PRIMER CONNECTION, SEEPAGE PAN AND COMBINATION MEMBRANE FLASHING CLAMP.	AS NOTED ON DWGS.	AS NOTED ON DWGS.	AS NOTED ON DWGS.	AS NOTED ON DWGS.

NOTES:
1. PROVIDE TRAP PRIMERS FOR ALL DRAINS, DRAINS INCORPORATING A CONSTANT AND REGULAR WASTE ARE NOT REQUIRED TO INTEGRATE TRAP PRIMERS (IE. SHOWER DRAINS, KITCHEN DRAINS, ETC).
2. TRANSITION COUPLINGS AND NO-HUB PIPE SHALL NOT BE INSTALLED BELOW SLAB OR IN ANY BURIED CONDITIONS IN CONTACT WITH EARTH.

CLEANOUT SCHEDULE			
MARK		TRAP SIZE	REMARKS
FCO	FLOOR CLEANOUT (ALL INTERIOR AREAS EXCEPT CARPETED AREAS), JOSAM 55000-HSD, ADJUSTABLE ROUND SCORRIATED HEAVY DUTY NICKEL BRONZE SECURED TOP WITH FRAME, CAST IRON BODY, FLASHING FLANGE AND CLAMP, BRONZE PLUG, PROVIDE WITH VANDAL PROOF SCREWS, PROVIDE NICKEL BRONZE FRAME IN WET AREAS.	AS NOTED ON DWGS.	---
WCO	WALL PLATE CLEANOUT COVER, JOSAM 58500-CO, PROVIDE AT CAST IRON CLEANOUTS WITH COUNTERSUNK BRASS PLUG AND STAINLESS STEEL COVER, SECURED WITH VANDAL PROOF SCREWS.	---	---

NOTES:
1. TRANSITION COUPLINGS AND NO-HUB PIPE SHALL NOT BE INSTALLED BELOW SLAB OR IN ANY BURIED CONDITIONS IN CONTACT WITH EARTH.
2. PROVIDE ALL POURED IN PLACE CLEANOUTS WITH 24"x24" FLASHING.

BRANCH PIPE SIZING SCHEDULE					
FIXTURE	SAN/WASTE	VENT	HOT WATER	COLD WATER	REMARKS
WC-FV	4"	2"	--	1"	--
LAV	1 1/2"	1 1/2"	1/2"	1/2"	--
UR	2"	1 1/2"	--	3/4"	--

PIPE HANGER SPACING TABLE			
PIPE MATERIAL	PIPE SIZES (INCHES)	HORIZONTAL PIPE MAX HANGER DISTANCE (FT)	VERTICAL PIPE MAX HANGER DISTANCE (FEET)
COPPER & COPPER ALLOY TUBING	1/4" & SMALLER	6'-0"	10'-0"
COPPER & COPPER ALLOY TUBING	1/2" & LARGER	10'-0"	10'-0"
COPPER & COPPER ALLOY PIPE	ALL	12'-0"	10'-0"
CAST IRON PIPE	ALL	5'-0"	15'-0"

NOTES:
1. MAXIMUM HORIZONTAL SPACING OF CAST IRON PIPE HANGERS SHALL BE INCREASED TO 10'-0" WHERE 10'-0" LENGTHS OF PIPE ARE USED.
2. MASTORY GUIDE FOR SIZES 2" AND SMALLER.
NOT ALL PIPE MATERIALS ON THIS TABLE WILL PERTAIN TO THIS PROJECT.

PLUMBING FIXTURE/EQUIPMENT SCHEDULE					
MARK	FIXTURE, MODEL NUMBER AND DESCRIPTION	ROUGH-IN			
		WASTE/SANITARY	VENT	CW	HW
W-1A	WATER CLOSET, STUDENTS - ADA COMPLIANT, WALL HUNG, KOHLER KINGSTON K-4325-O, VITREOUS CHINA, ELONGATED BOWL, 1-1/2" TOP SPUD, SIPHON JET TOILET WITH WALL SUPPLY, SLOAN 63 ESS HARDWIRED-128-BSS-OR-WB-2-10-3/4-LDM-HW (CODE #3461654) 128 GPF RECESSED SENSOR FLUSH VALVE WITH WALL BOX AND ACCESS PANEL, KOHLER K-4751-O OPEN FRONT SEAT, PROVIDE ALL ITEMS REQUIRED FOR COMPLETE INSTALLATION, REFER TO ARCHITECTURAL FOR CHILD HEIGHT ADA MOUNTING HEIGHT.	4"	2"	1"	--
W-2A	WATER CLOSET, STAFF - ADA COMPLIANT, WALL HUNG, KOHLER KINGSTON K-4325-O, VITREOUS CHINA, ELONGATED BOWL, 1-1/2" TOP SPUD, SIPHON JET TOILET WITH WALL SUPPLY, SLOAN ROYAL 111 ESS HARDWIRED-128-TNO 128 GPF EXPOSED SENSOR FLUSH VALVE, KOHLER K-4751-O OPEN FRONT SEAT, PROVIDE ALL ITEMS REQUIRED FOR COMPLETE INSTALLATION, REFER TO ARCHITECTURAL FOR ADA MOUNTING HEIGHT.	4"	2"	1"	--
W-3	WATER CLOSET, STUDENTS - WALL HUNG, KOHLER KINGSTON K-4325-O, VITREOUS CHINA, ELONGATED BOWL, 1-1/2" TOP SPUD, SIPHON JET TOILET WITH WALL SUPPLY, SLOAN ROYAL 111 ESS HARDWIRED-128-TNO 128 GPF EXPOSED SENSOR FLUSH VALVE, KOHLER K-4751-O OPEN FRONT SEAT, PROVIDE ALL ITEMS REQUIRED FOR COMPLETE INSTALLATION.	4"	2"	1"	--
U-1A	URINAL, A.D.A. COMPLIANT, WALL HUNG, KOHLER BARDON K-4991-ER-SS-O, VITREOUS CHINA 3/4" INLET TOP SPUD WASHOUT URINAL WITH FULLY ENCLOSED P-TRAP, SLOAN ROYAL 106 ESS HARDWIRED-128-DBP-TNO-HW EXPOSED SENSOR FLUSH VALVE, 125 GPF, PROVIDE ALL ITEMS REQUIRED FOR COMPLETE INSTALLATION, REFER TO ARCHITECTURAL FOR CHILD HEIGHT ADA MOUNTING.	2"	1 1/2"	3/4"	--
L-1A	LAVATORY, WALL HUNG, BRADLEY 'CONCAVE' FL-L-NSD-PT-TMA-CW, MOLDED ONE-PIECE DESIGN WITH INTEGRAL BOWL, TRAP AND TRANSITION COVER, ENCLOSURE AND CENTER SHANK CAPACITIVE SENSING FAUCET WITH HARDWARE 1/10 VOLT OPERATION, 0.8 GPM, PROVIDE WITH 'TMA' MIXING VALVE ASSEMBLY, 1-1/2" CHROME PLATED CAST BRASS P-TRAP, SUPPLIES, BRASS ANGLE STOPS WITH LOOSE KEY OPERATION, GRID DRAIN, ETC. FOR COMPLETE INSTALLATION, COORDINATE MOUNTING HEIGHTS WITH ARCHITECT PRIOR TO INSTALLATION, FURNISH WITH PRV VALVES, REDUCE PRESSURE TO: 40 - 70 PSI.	1 1/2"	1 1/2"	1/2"	1/2"
L-2A	LAVATORY, WALL HUNG, BRADLEY 'MG-2' R/P-NSD-TMA-S-CHROME TWO STATION HARDWIRED 1/10 VOLT CONTINUOUS FINISH MANUFACTURER BRASS CRAFT OR APPROVED EQUAL, TRAP AND TRANSITION COVER ENCLOSURE AND INDEPENDENT IR SENSOR FOR SPRAYHEADS, 0.8 GPM, PROVIDE WITH 'TMA' MIXING VALVE ASSEMBLY, 1-1/2" CHROME PLATED CAST BRASS P-TRAP, SUPPLIES, BRASS ANGLE STOPS WITH LOOSE KEY OPERATION, GRID DRAIN, ETC. FOR COMPLETE INSTALLATION, COORDINATE MOUNTING HEIGHTS WITH ARCHITECT PRIOR TO INSTALLATION, FURNISH WITH PRV VALVES, REDUCE PRESSURE TO: 40 - 70 PSI, TERRECON BOWL: 'S-MIST'.	2"	1 1/2"	1/2"	1/2"
WHA	WATER HAMMER ARRESTOR, PRECISION PLUMBING PRODUCTS (PPP) SC SERIES, 1/2"-1", SIZE PER MANUFACTURE RECOMMENDATIONS AND REQUIREMENTS	--	--	1/2"-1"	--
TR	SLOAN EL-54 TRANSFORMER FOR HARDWIRED FLUSH VALVES	--	--	--	--
TP	ELECTRIC TRAP PRIMER, PRECISION PLUMBING PRODUCTS (PPP) PT SERIES, CONSISTING OF CIRCUIT BREAKER (MIN. 2 AMP), SWITCH TIMER, SOLENOID VALVE, ANTI-SIPHON ATMOSPHERIC VACUUM BREAKER, 120V, SINGLE PHASE, FLUSH MOUNT CABINET BASED ON WALL CONDITIONS REFER TO DWGS) COORDINATE ACCESS PANEL, FINISH WITH ARCHITECT, COORDINATE NUMBER OF OUTLETS AS REQUIRED BY QUANTITY OF DRAINS, INSTALL PER MANUFACTURER'S REQUIREMENTS AND RECOMMENDATIONS	--	--	3/4"	--

NOTES:
1. LAVATORY & WATER COOLERS SUPPLY SHALL BE BRASS W/BRASS ANGLE STOPS FOR 1/2" WATER SUPPLY LINES, W/LOOSE KEY (W/CAP) AND WALL FLANGE. ALL COMPONENTS SHALL BE POLISHED CHROME FINISH MANUFACTURER BRASS CRAFT OR APPROVED EQUAL.
2. CAST BODY 1" TRAP 1-1/2" X 1-1/2" WITH HEAVY CAST J-BEND & FLAT CLEANOUT PLUG, SLIP NUTS AND WALL FLANGE. ALL COMPONENTS SHALL BE POLISHED CHROME FINISH MANUFACTURER BRASS CRAFT OR APPROVED EQUAL.
3. STRAINERS SHALL BE FURNISHED WITH FIXTURES AS REQUIRED, FOR H/C LAVATORY OR SINKS PROVIDE OFFSET TAIL-PIECE.
4. PROVIDE TRIBEBO MODEL 103 (WHITE ANTIMICROBIAL HAND LAV-GUARDS INSTALLATION KIT FOR ALL WHEELCHAIR LAVATORY & SINKS FOR WATER SUPPLIES & WASTE LINE.
5. PROVIDE WATER SUPPLY & 1" TRAP & OPTIONAL WATER FILTERS FOR ELECTRIC WATER COOLERS AS PER MANUFACTURER'S RECOMMENDATIONS.
6. THE PLUMBING FIXTURES VENDOR SHALL COORDINATE WITH THE PLUMBING AND GENERAL CONTRACTOR ALL PLUMBING FIXTURES ROUGH IN DIMENSIONS BEFORE CONSTRUCTION BEGINS.
7. UNLESS SHOWN ABOVE, PLUMBING FIXTURES MANUFACTURER, TRIM COLOR AND FINISH SHALL BE FURNISHED AS DIRECTED BY OWNER/ARCHITECT.
8. REFER TO ARCHITECTURAL DRAWINGS FOR STANDARD ADA MOUNTING AND CHILD HEIGHTS.
9. CONTRACTOR TO PROVIDE AN EXTRA 10% OF BATTERIES, AERATORS, CARTRIDGE, ETC.
10. ALL HARD WIRE FAUCETS TO A HAVE BOX MOUNTED TRANSFORMER ABOVE CEILING. REFER TO ELECTRICAL DOCUMENTS FOR LOCATIONS AND CONNECTION POINT. CONTRACTOR SHALL PROVIDE A MINIMUM OF TWO (2) SLOAN EL-54 TRANSFORMERS.
11. PROVIDE PRESSURE REDUCING VALVES FOR BRADLEY LAVATORIES TO ACCOMMODATE MANUFACTURER'S RECOMMENDED WORKING PRESSURES, HONEYWELL DS06-100-SUT-LF, NO EXCEPTIONS.

PIPE AND FITTING SCHEDULE						
DESCRIPTION	SIZE	PIPE		FITTING		REMARKS
		TYPE	SCHEDULE	TYPE	RATING	
SOIL, WASTE AND VENT ABOVE GROUND	ALL	CI/CH	SV	CI	SV	1" SAND FOR 4" AND SMALLER 6" SAND FOR LARGER THAN 4"
SOIL, WASTE AND VENT BELOW GROUND	ALL	CI/HES	SV	CI	SV	--
DOMESTIC COLD WATER WITHIN BUILDING	ALL	COPPER	TYPE L	CUS	STD	HARD TEMPERED
DOMESTIC HOT WATER WITHIN BUILDING	ALL	COPPER	TYPE L	CUS	STD	HARD TEMPERED
DOMESTIC HOT WATER RECIRCULATION WITHIN BUILDING	ALL	COPPER	TYPE L	CUS	STD	HARD TEMPERED
TRAP PRIMER PIPING	ALL	PEX	--	--	--	NO JOINTS ALLOWED BELOW SLAB

NOTES:
1. TRANSITION COUPLINGS AND NO-HUB PIPE SHALL NOT BE INSTALLED BELOW SLAB OR IN ANY BURIED CONDITIONS IN CONTACT WITH EARTH.
2. ALL PIPING IN RETURN AIR CEILING PLENUM INSTALLATIONS SHALL BE UL-LISTED FOR THIS APPLICATION.
3. MECHANICAL JOINTS ARE ALLOWED FOR SERVICE, PURPOSED ONLY IN WALLS AND CEILINGS BUT MUST BE READILY ACCESSIBLE. 15/50 PVDF IS UL-LISTED FOR RETURN AIR CEILING PLENUM INSTALLATIONS.

ABBREVIATIONS	DESCRIPTION	ABBREVIATIONS	DESCRIPTION
CI	CAST IRON	PEX	PEX PIPING
CUS	WROUGHT COPPER SOLDER (95/5)	STD	STANDARD
HES	HUB AND SPIGOT	SV	SERVICE WEIGHT
NH	NO HUB W/SUPER DUTY HUSKY SD 4000 CLAMP		

VALVE SCHEDULE									
DESCRIPTION	SIZE	TYPE						CLASS	REMARKS
		GATE	GLOBE	CHECK	BALL	PRV	BALANCE		
DOMESTIC COLD WATER	3" AND SMALLER	--	--	CVT	BYT	PRV	--	125PSI	--
DOMESTIC HOT WATER	3" AND SMALLER	--	--	CVT	BYT	PRV	CBV	125PSI	--

NOTES:
1. PRESSURE REDUCING VALVE: WATTS LF168-GG, BRONZE, NSF, LEAD FREE WITH INTEGRAL STRAINER & PRESSURE GAUGE.
2. CALIBRATED PRESSURE RELIEF VALVE: INSTALL A MINIMUM OF 12" ABOVE WATER HEATER AND PIPE DISCHARGE TO ADEQUATE LOCATION, WATTS MODEL 640C.

ABBREVIATION	DESCRIPTION	ABBREVIATION	DESCRIPTION
BYT	BALL VALVE THREADED - 2-PIECE, FULL PORT, 400PSI BRONZE	CVT	CHECK VALVE THREADED - BRONZE
CBV	CALIBRATED BALANCING VALVE - BRONZE	PRV	PRESSURE REDUCING VALVE - BRONZE

Project Title:
Town of Cheshire - Doolittle Elementary School
Toilet Room Upgrades
735 Cornwall Avenue
Cheshire, Connecticut 06410



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Date:
MARCH 14, 2022

Drawing Number:
P901

AS NOTED
Drawn By:
JES
Project Number: Bid Number:
21-336 2223-09

ABBREVIATIONS

(NOT ALL SYMBOLS ARE USED)

(##)	CPM	FA	FACE AREA	NO	NORMALLY OPEN
ABV	ABOVE	FBO	FURNISHED BY OTHERS	NTS	NOT TO SCALE
AC	AIR COMPRESSOR		INSTALLED BY HVAC SUBCONTRACTOR	OA	OUTSIDE AIR
ACQ-#	AIR CONDITIONING UNIT	FC	FORWARD CURVE	OAT	OUTDOOR AIR TEMPERATURE
AD	ACCESS DOOR	FDU	FAN COIL UNIT	OA	OUTDOOR AIR INTAKE
AF	AIRPOLL	FD/AD	FIRE DAMPER WITH ACCESS DOOR	OBD	OPPOSED BLADE DAMPER
AFG	ADJUSTABLE FREQUENCY CONTROLLER	FF	FINAL FILTER	OD	OUTSIDE DIMENSION
AF#	ABOVE FINISHED FLOOR	FBO	FURNISHED AND INSTALLED BY OTHERS	O.E.T.D.	OPEN END TRANSFER DUCT
AFMS	AIR FLOW MEASURING STATION	FN FL	FINISH FLOOR	P-#	PUMP
AHJ-#	AIR HANDLING UNIT	FL	FLOOR	PB	PUSH BUTTON
AL	ACOUSTIC LINING	FL-A	FULL LEAD AMPERES	PBD	PARALLEL BLADE DAMPER
ALD	AUTOMATIC LOUVER DAMPER	FLBX	FLEXIBLE	PD	PRESSURE DROP
ARD	AIR PRESSURE DROP	FPF	FIBER PAPER FOOT	PF	PREFILTER
AUTO	AUTOMATIC	FPV	FAN POWERED VAV BOX	PH	PHASE
B-#	BOLTER	FT	FEET	PHC	PREHEAT COIL
BC	BACKWARD CURVED	F.T.	FLOAT & THERMOSTATIC TRAP	PPH	POUND PER HOUR
BD	BELT DRIVE	FTR	FIN TUBE RADIATION	PRV	PRESSURE REDUCING VALVE
BMCS	BUILDING MANAGEMENT & CONTROL SYSTEM	FV	FACE VELOCITY	PSI	POUND PER SQUARE INCH
BT	INVERTED BUCKET TRAP	GC	GENERAL CONTRACTOR	RA	RETURN AIR
BTU	BRITISH THERMAL UNIT	GH	GRAVITY INTAKE HOOD	RAF-#	RETURN AIR FAN
C-#	CHILLER	GRH	GALLONS PER HOUR	RAT	RETURN AIR TEMPERATURE
CAP	CAPACITY	GPM	GALLONS PER MINUTE	RE	RELOCATE EXISTING
CB-#	CHILLED BEAM	GWL/R	GEOTHERMAL WATER LOOP SUPPLY/RETURN	REG	REGISTER
CC	CEILING DIFFUSER	H/C	HEATING/COOLING	RH	RELATIVE HUMIDITY
CFM	CUBIC FEET PER MINUTE	H#	HUMIDIFIER	RHM	ROOM
CG	CEILING GRILLE	HCA	HAND-OFF-AUTOMATIC	RP	RADIANT PANEL
CLS	CEILING	HC-#	HEATING COIL	RPM	REVOLUTIONS PER MINUTE
CONV-#	HOT WATER CONVERTOR	H	FEET OF HEAD	RS	ROOFTOP AIR CONDITIONING UNIT
CR	CONDENSATE RECEIVER/PUMPING SYSTEM	HP	HORSEPOWER	RTU-#	ROOFTOP AIR CONDITIONING UNIT
CR	CEILING REGISTER	HTG	HEATING	SA	SUPPLY AIR
CT-#	COOLING TOWER	HTR	HEATER	SAP-#	SUPPLY AIR FAN
CTD	CEILING TRANSFER DUCT	HV-#	HEATING AND VENTILATING UNIT	SAT	SUPPLY AIR TEMPERATURE
CU-#	CABINET UNIT HEATER/HOT WATER	HVAC	HEATING, VENTILATING & AIR CONDITIONING	SB	SECURITY BARS
CV	CONTROL VALVE	HX-#	HEAT EXCHANGER CONVERTOR	VSC	VERTICAL SPLIT CASE
CV	COLD WATER	D	DIAMETER	HSC	HORIZONTAL SPLIT CASE
DET	DRIP AND TRAP	I	INSIDE DIMENSION	SD	SMOKE DAMPER
dB	DECIBELS	N	INCHES	SG	SUPPLY GRILLE
DB	DRY BULB	I	INLET GUIDE VANES	SP	STATIC PRESSURE
DD	DIRECT DRIVE	L	LINE	SG FT	SQUARE FOOT (AREA)
DDC	DIRECT DIGITAL CONTROL	KW	KILOWATT	SP	SINGLE POLE SWITCH
DIFF	DIFFUSER	KWH	KILOWATT HOUR	SWR	W/THERMAL OVERLOAD
DL	DOOR LOUVER	LAT	LEAVING AIR TEMPERATURE	TSTAT	TEMPERATURE DIFFERENCE
DN	DOWN	LD	LINEAR DIFFUSER	TD	TEMPERATURE DIFFERENCE
DOAS	DEDICATED OUTDOOR AIR SYSTEM	LN	LINEAR	TEMP	TEMPERATURE
DP	DEWPOINT TEMPERATURE	LRA	LOCKED ROTOR AMPERES	TS	AIR TRANSFER GRILLE
DR	DROP	LPR	LOW PRESSURE RETURN	TOT	TOTAL
DTWS	DUAL TEMPERATURE WATER SUPPLY	LPS	LOW PRESSURE SUPPLY	TNHR	TON HOUR REFRIGERATION
DTWR	DUAL TEMPERATURE WATER RETURN	LVG	LEAVING	TRD	TRANSFER DUCT
DX	DIRECT EXPANSION	LWT	LEAVING WATER TEMPERATURE	TT	THERMOSTATIC TRAP
ER-#	EXHAUST FAN	MAN	MANUAL	TTYP	TYPICAL
EAT	ENTERING AIR TEMPERATURE	MAT	MIXED AIR TEMPERATURE	UC	UNDERCUT DOOR
EER	ENERGY EFFICIENCY RATIO	MAX	MAXIMUM	UH-#	UNIT HEATER HOT WATER
EG	EXHAUST GRILLE	MBH	1000 BTUS	UV-#	UNIT VENTILATOR
EHC-#	ELECTRIC HEATING COIL	MCA	MINIMUM CIRCUIT AMPACITY	VAV-#	VARIABLE AIR VOLUME
ENT	ENTERING	MD	MOTORIZED DAMPER	VD	VOLUME DAMPER
HEPA	HIGH EFFICIENCY PARTICULATE FILTER	MEZZ	MEZZANINE	VE	VOLUME EXTRACTOR
ER	EXHAUST REGISTER	MIN	MINIMUM	VFD	VARIABLE FREQUENCY DRIVE
ES	END SUCTION	MJ	MEDIUM	VI	VIBRATION ISOLATOR
ESP	EXTERNAL STATIC PRESSURE	MOT	MOTOR	VVF	VARIABLE SPEED FAN SWITCH
ET-#	EXPANSION TANK	MUA	MAKEUP AIR	W	WITH
EUH-#	ELECTRIC UNIT HEATER	MV	MOTORIZED VALVE	WET	WET BULB
EWT	ENTERING WATER TEMPERATURE	NC	NORMALLY CLOSED	WFM	WATER FLOW MEASURING STATION
EXT	EXTERNAL	NG	NOISE CRITERIA	WMS	WIRE MESH SCREEN
EX	EXISTING	NFA	NET FREE AREA	WPD	WATER PRESSURE DROP
EXH	EXHAUST	NC	NOT IN THIS CONTRACT	WT	WEIGHT (LBS)
F	DEGREES FAHRENHEIT			ZD	ZONE DAMPER
FEB	FACE & BYPASS DAMPER				

SYMBOL LEGEND

(NOT ALL SYMBOLS ARE USED)

	PRESSURE/TEMPERATURE PORT		PIPE UNION		MECHANICAL NOTE REFERENCE, NUMBER INDICATES NOTE
	TEMPERATURE GAUGE/TEMPERATURE INDICATOR		AIR VENT, AUTOMATIC		CUBIC FEET PER MINUTE
	PRESSURE GAUGE		AIR VENT, MANUAL		MECHANICAL DEMOLITION
	BUTTERFLY VALVE		PUMP OR FAN		VOLUME DAMPER
	SHUT-OFF VALVE		STRAINER		BACKDRAFT DAMPER
	ANGLE GATE VALVE		STRAINER BLOW OFF		DUCT STATIC PRESSURE SENSOR
	GLOBE VALVE		T DOOR UNDERCUT		MOTORIZED DAMPER
	BALL OR BUTTERFLY VALVE		RETURN GRILLE		SUPPLY OR OUTSIDE AIR DUCT UP OR CSD
	ANGLE GLOBE VALVE		THERMOSTAT OR SPACE TEMPERATURE SENSOR		SUPPLY OR OUTSIDE AIR DUCT DOWN
	TWO WAY MOTORIZED CONTROL VALVE		PRESSURE SENSOR		RETURN OR EXHAUST DUCT UP OR CRG/CRR
	THREE WAY MOTORIZED CONTROL VALVE		DIRECTION OF FLOW		RETURN OR EXHAUST DUCT DOWN
	CHECK VALVE		METER		FLEXIBLE CONNECTION
	OS & Y		DIAMETER		DUCT TRANSITION
	SAFETY RELIEF VALVE (PRESS. & TEMP.)		THERMOMETER		RECTANGULAR TO ROUND TRANSITION
	DRAIN VALVE W/ HOSE COUPLING W/CAP		PIPE TEE, OUTLET UP		DUCT WORK, DIRECTION OF FLOW
	CAP		PIPE ELBOW, TURNED UP		POSITIVE PRESSURE DUCT
	PIPE CONNECTION BOTTOM		PIPE TEE, OUTLET DOWN		NEGATIVE PRESSURE DUCT
	PIPE CONNECTION TOP		HOT WATER SUPPLY		CHANGE OF ELEVATION, RISE (R) DROP (D)
	PIPE COUPLING (JOINT)		HOT WATER RETURN		LINED DUCT WORK
	ELBOW, 90°		CONDENSER WATER SUPPLY		SINGLE LINE LINED DUCT WORK
	PIPE ELBOW, TURNED DOWN		CONDENSER WATER RETURN		CHANGE IN DUCT ELEVATION
	PIPE TEE		POINT OF CONNECTION		DIRECTION OF RETURN OR EXHAUST AIR
	CALIBRATED BALANCING VALVE		RETURN OR EXHAUST DUCT UP		AIR TERMINAL UNIT
	HUMIDISTAT/HUMIDITY SENSOR		SUPPLY OR OUTSIDE AIR DUCT UP		DUCT SMOKE DETECTOR
	DUCT MOUNTED HUMIDITY SENSOR		SMOKE DAMPER WITH ACCESS DOOR		FIRE DAMPER WITH ACCESS DOOR AS REQUIRED
	DUCT MOUNTED CARBON DIOXIDE SENSOR		COMBINATION FIRE AND SMOKE DAMPER		DUCT ACCESS DOOR
	HOT WATER SUPPLY		45° CHILLED WATER SYSTEM SUPPLY		87° CHILLED WATER SYSTEM SUPPLY
	HOT WATER RETURN		45° CHILLED WATER SYSTEM RETURN		87° CHILLED WATER SYSTEM RETURN
	PIPE ANCHOR		PIPE GUIDE		FIRE DAMPER W/ ACCESS DOOR

MECHANICAL BALANCING NOTE

AFTER COMPLETION OF MECHANICAL WORK, CONTRACTOR SHALL PROVIDE TESTING AND BALANCING SERVICES IN FULL FOR THE WORK PERFORMED. AIR OUTLETS AND INLETS SHALL BE BALANCED TO THE CFM READINGS ON THE DRAWINGS. PROVIDE OWNER AND ARCHITECT WITH COMPLETED AND SIGNED REPORT. CONNECTORS TO BE BALANCED PER THE SCHEDULED GPM.

GENERAL NOTES

- THE INTENT OF THESE CONTRACT DOCUMENTS IS FOR THE CONTRACTOR TO FURNISH AND INSTALL COMPLETE MECHANICAL EQUIPMENT. ALL WORK SHALL COMPLY WITH THE LATEST NPPA, NEC, ASHRAE, SMACNA AND ALL LOCAL, STATE AND FEDERAL REGULATIONS. THIS INCLUDES ROOF MOUNTED MECHANICAL EQUIPMENT, DUCTWORK, FITTINGS, FRAMING, SUPPORTS, VALVES, PIPING, INSULATION, ETC. ALL SYSTEMS SHALL BE COMPLETE IN ALL RESPECTS. OPERATING, TESTED, ADJUSTED, APPROVED BY THE AUTHORITIES HAVING JURISDICTION AND READY FOR BENEFICIAL USE BY THE OWNER.
- THE CONTRACTOR SHALL OBTAIN AND REVIEW ALL CONTRACT DOCUMENTS, INCLUDING PROJECT MANUAL, PLANS AND SPECIFICATIONS OF ALL TRADES BEFORE SUBMITTING BID. REFER TO SPECIFICATIONS, PROJECT MANUAL AND PLANS, INCLUDING ALL EQUIPMENT SCHEDULES FOR MECHANICAL AND ELECTRICAL INFORMATION. CONTRACTOR SHALL WALK THROUGH BUILDING PRIOR TO SUBMITTING BID.
- ALL OF THE CONTRACT DRAWINGS AND SPECIFICATIONS ARE COMPLEMENTARY TO FORM A TOTAL DESIGN PACKAGE. IT IS THE RESPONSIBILITY OF THE GENERAL CONTRACTOR/CONSTRUCTION MANAGER TO DETERMINE WHICH TRADE CONTRACTOR IS RESPONSIBLE FOR VARIOUS PORTIONS OF THE WORK.
- ALL WORK AND ACTION DEPICTED AND DESCRIBED SHALL BE PERFORMED BY THE CONTRACTOR UNLESS SPECIFICALLY NOTED OTHERWISE.
- PROVIDE SUPPORT/BRACING OF EQUIPMENT AND BUILDING SERVICES FOR SEISMIC RESTRAINT AS REQUIRED BY CODE.
- OBTAIN AND PAY FOR ALL REQUIRED PERMITS AND INSPECTIONS.
- ALL EQUIPMENT, MATERIALS AND RELATED SYSTEMS COMPONENTS SHALL BE NEW UNLESS SPECIFICALLY NOTED OTHERWISE.
- REPAIR AND/OR REPLACE AT NO COST TO OWNER ALL EQUIPMENT, BUILDING ELEMENTS, TREES SHRUBS, ETC. AND MATERIALS DAMAGED DURING CONSTRUCTION.
- THE DRAWINGS ARE DIAGRAMMATIC AND INDICATE THE GENERAL ARRANGEMENT OF SYSTEMS AND WORK INCLUDED IN THE CONTRACT. THE CONTRACTOR SHALL COORDINATE AND VERIFY LOCATION AND FIT OF EQUIPMENT WITH ALL TRADES BEFORE ORDERING EQUIPMENT AND STARTING CONSTRUCTION. ANY MODIFICATIONS TO THE EQUIPMENT LAYOUT REQUIRED FOR INSTALLATION ARE TO BE PERFORMED AT NO ADDITIONAL COST TO THE OWNER.
- ALL WORK SHALL BE PERFORMED IN COMPLIANCE WITH THE APPLICABLE CODES IN THE ORDINANCES AND THE REGULATORY AGENCIES HAVING JURISDICTION.
- WHEN CONFLICTS OCCUR BETWEEN THE DRAWINGS AND/OR SPECIFICATIONS IT SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER. THE CONTRACTOR SHALL CARRY AS PART OF THE BID THE LARGER QUANTITY AND/OR MORE EXPENSIVE ITEM(S).
- CONTRACTORS SHALL COORDINATE THEIR WORK WITH WORK OF OTHER TRADES.
- PROVIDE VIBRATION ISOLATION FOR ALL MECHANICAL EQUIPMENT.
- LOCATE ALL TEMPERATURE, PRESSURE AND FLOW MEASURING DEVICES IN ACCESSIBLE LOCATIONS WITH STRAIGHT SECTION OF PIPE OR DUCT UP/DOWN STREAM AS RECOMMENDED BY THE MANUFACTURER FOR GOOD ACCURACY.
- PROVIDE ACCESS PANELS FOR INSTALLATION IN WALLS AND CEILINGS, WHERE REQUIRED, TO SERVICE DAMPERS, VALVES, SMOKE DETECTORS AND OTHER CONCEALED MECHANICAL EQUIPMENT.
- ALL EQUIPMENT, PIPING, DUCTWORK, ETC. SHALL BE SUPPORTED AS DETAILED, SPECIFIED AND REQUIRED TO PROVIDE A VIBRATION FREE INSTALLATION.
- LOCATION AND SIZES OF ALL FLOOR, WALL AND ROOF PENETRATIONS SHALL BE COORDINATED WITH ALL OTHER TRADES INVOLVED.
- INSTALL COMPLETE OPERATING SYSTEMS. PROVIDE ALL COMPONENTS, DEVICES, CONTROLS, RELAYS, TRANSFORMERS, ETC., WHETHER INDICATED OR NOT, FOR COMPLETE SYSTEMS AS INTENDED BY THE CONSTRUCTION DOCUMENTS.

HVAC NOTES

- ALL SHEET METAL DUCTWORK, UNLESS OTHERWISE SPECIFIED, SHALL BE GALVANIZED STEEL CONSTRUCTED PER SMACNA STANDARDS FOR 3" W.G. PRESSURE.
- ALL FITTING JOINTS, SEAMS AND CONNECTIONS SHALL BE MADE UP IN ACCORDANCE WITH STANDARD RECOMMENDED PRACTICE PER THE LATEST ASHRAE GUIDE, AND SMACNA STANDARDS.
- THE CONTRACTOR SHALL TEST DUCTWORK TO VERIFY INTEGRITY OF DUCTWORK SEALS BEFORE INSTALLING INSULATION. SUBMIT SHOP DRAWINGS FOR SHEET METAL CONSTRUCTION, DUCT ACCESSORIES, INSULATION, DUCT WRAP, HVAC EQUIPMENT, ETC.
- PROVIDE VOLUME DAMPERS AT ALL SUPPLY DIFFUSERS, RETURN GRILLES, AND EXHAUST GRILLES AS REQUIRED.
- PROVIDE ALL 90 DEGREE SQUARE ELBOWS WITH DOUBLE RADIUS TURNING VANES UNLESS OTHERWISE INDICATED. ELBOWS SHALL BE UNVANED SMOOTH RADIUS CONSTRUCTION WITH A RADIUS EQUAL TO 1/2 TIMES THE WIDTH OF THE DUCT. PROVIDE ACCESS DOORS UPSTREAM OF ALL ELBOWS WITH TURNING VANES.
- COORDINATE DIFFUSER, REGISTER AND GRILLE LOCATIONS WITH ARCHITECTURAL REFLECTED CEILING PLANS, LIGHTING AND OTHER CEILING ITEMS. PROVIDE FLEXIBLE CONNECTIONS IN ALL DUCTWORK SYSTEMS CONNECTED TO AIR HANDLING UNITS, FANS AND OTHER EQUIPMENT WHICH REQUIRE VIBRATION ISOLATION. FLEXIBLE CONNECTIONS SHALL BE AT THE POINT OF CONNECTION TO THE EQUIPMENT UNLESS OTHERWISE INDICATED.

HVAC PIPING NOTES

- UNLESS OTHERWISE NOTED, ALL PIPING IS OVERHEAD, TIGHT TO UNDERSIDE OF STRUCTURE OR SLAB, WITH SPACE FOR INSULATION.
- INSTALL PIPING SO THAT ALL VALVES, STRAINERS, UNIONS, TRAPS, FLANGES AND OTHER APPURTENANCES REQUIRING ACCESS ARE ACCESSIBLE.
- UNIONS AND/OR FLANGES SHALL BE INSTALLED AT EACH PECE OF EQUIPMENT, IN BYPASSES AND IN LONG PIPING RUNS (100 FEET OR MORE) TO PERMIT DISASSEMBLY FOR ALTERATION AND REPAIRS.
- ALL PIPING WORK SHALL BE COORDINATED WITH ALL TRADES INVOLVED. OFFSETS IN PIPING AROUND OBSTRUCTIONS SHALL BE PROVIDED AT NO ADDITIONAL COST TO THE OWNER.
- ALL PENETRATIONS THRU RATED WALLS, FLOORS & CEILINGS SHALL BE SEALED USING U.L. LISTED METHODS APPROPRIATE FOR INDICATED RATING.
- PROVIDE SWING JOINTS AT ALL BRANCH CONNECTIONS TO WATER SUPPLY AND RETURN. PROVIDE ISOLATION VALVES AT ALL BRANCH CONNECTIONS.
- PROVIDE AIR VENTS AT ALL HIGH POINTS.
- INSTALL DRAIN VALVES WITH HOSE CONNECTION AT ALL LOW POINTS.
- PROVIDE HOSE END CAPS WITH CHAIN ON ALL DRAIN VALVES.
- CONTRACTOR SHALL PROVIDE A SET OF FULLY COORDINATED DRAWINGS THAT CLEARLY INDICATE ALL LIGHTING, CONDUIT, STRUCTURE ETC. EXACT ROUTING OF PIPING SUBJECT TO ENGINEERS APPROVAL IN FIELD. REROUTE/RELOCATE AS REQUIRED TO COORDINATE WITH OTHER TRADES AND FIT WITHIN BUILDING CONSTRAINTS.
- NO PIPE SHALL BE SMALLER THEN 3/4" DIA. CONTRACTOR SHALL TRANSITION TO FINAL EQUIPMENT CONNECTION WITH APPROPRIATE FITTINGS AS REQUIRED WITH NO ADDITIONAL COST TO THE OWNER.
- CONTRACTOR SHALL CORE DRILL, AS REQUIRED, COORDINATE WITH WORK OF OTHER TRADES. CONTRACTOR SHALL FILL UNUSED SPACE WITH MATERIAL TO MAINTAIN THE EXISTING FIRE AND SMOKE RATINGS OF DRILLED WALL, CEILING, FLOOR, ETC.



HVAC NOTES

1. REFER TO NOTES ON DRAWING M001.

HVAC PIPING NOTES

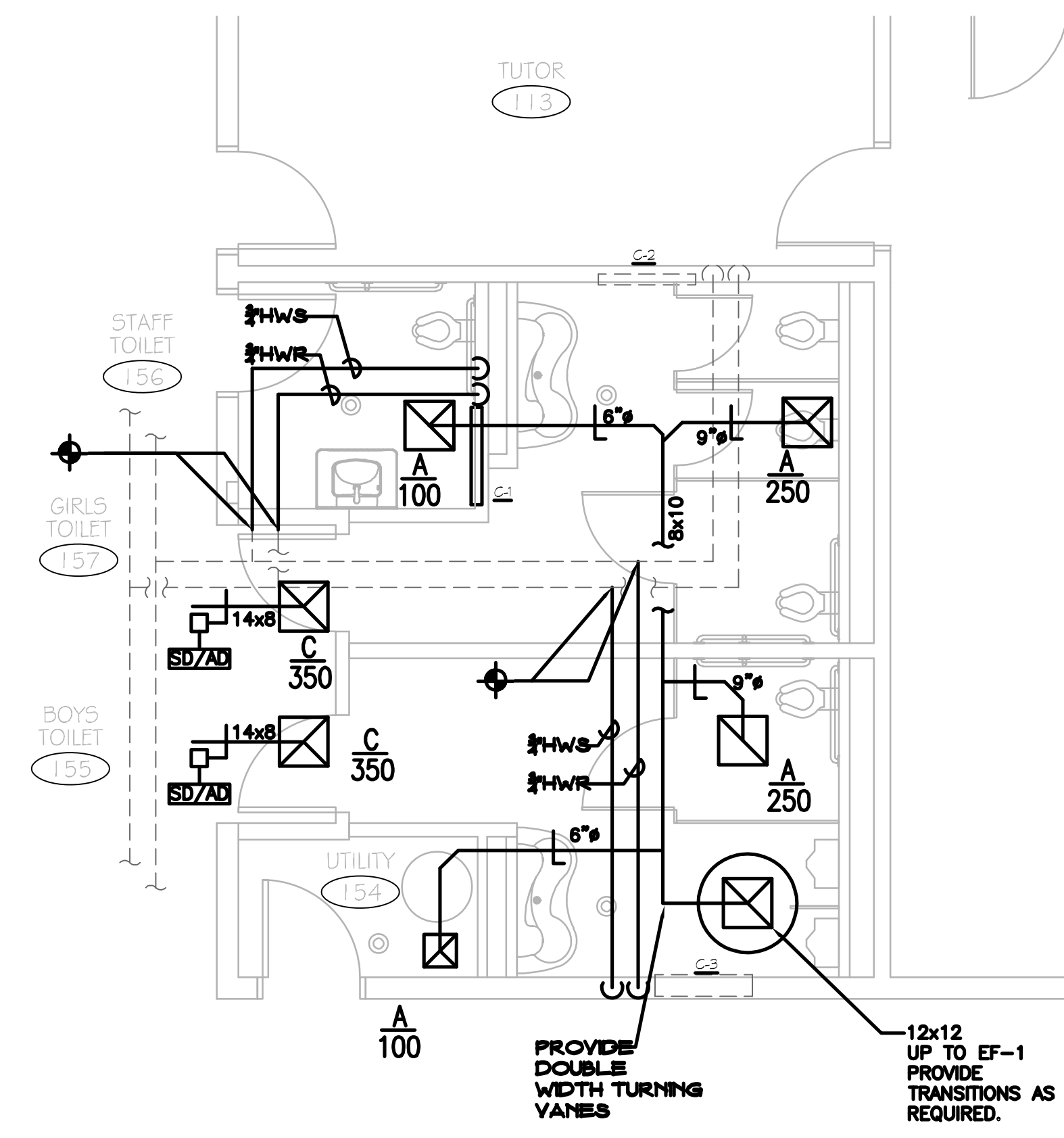
1. REFER TO NOTES ON DRAWING M001.

DEMOLITION NOTES

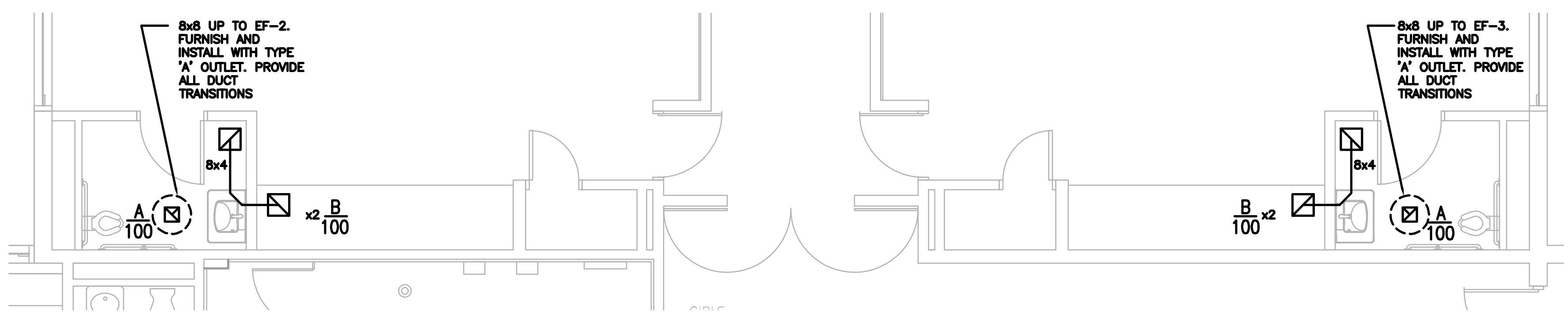
1. REMOVE EXISTING AIR OUTLET/INLET AND ASSOCIATED DUCTWORK, INSULATION, SUPPORTS, HANGERS, ETC.
2. REMOVE EXISTING ROOF MOUNTED EXHAUST FAN, CURB & ASSOCIATED DUCTWORK. COORDINATE FAN REMOVAL WITH ELECTRICAL. COORDINATE WITH ARCHITECTURAL.
3. REMOVE EXISTING INSULATION, MASTIC, AND COVERINGS ON EXPOSED PIPING.
4. REMOVE EXISTING HOT WATER CONNECTORS.
5. REMOVE EXISTING THERMOSTAT AND ASSOCIATED CONTROL WIRING.
6. REMOVE EXISTING SMOKE DAMPERS. COORDINATE WITH ELECTRICAL AND BUILDING FIRE ALARM SYSTEM.

HVAC NOTES:

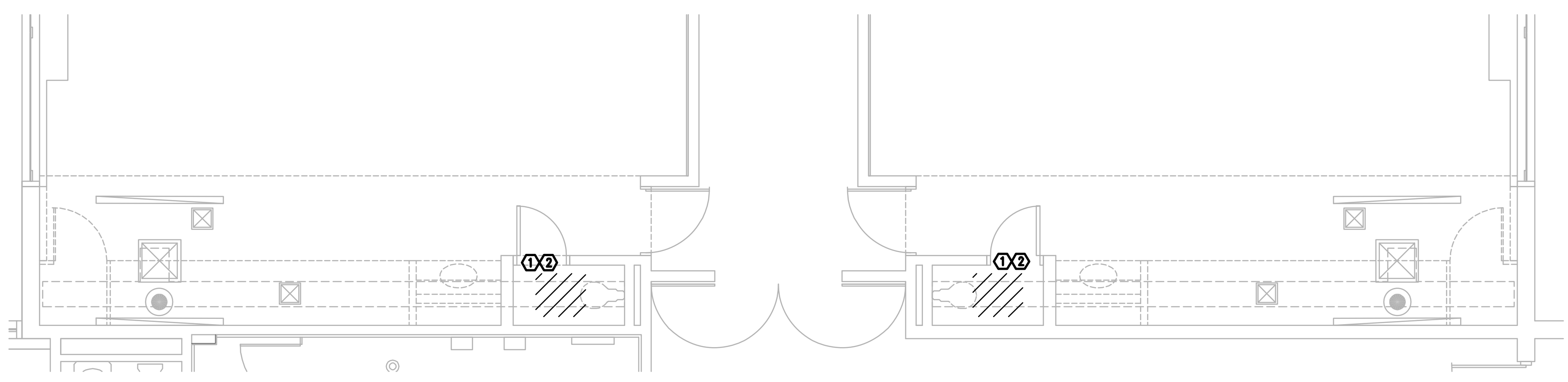
1. REFER TO DWG. M001 FOR GENERAL AND HVAC NOTES.
2. PROVIDE ALL OFF-SETS AS REQUIRED FOR DUCTWORK TO CLEAR ALL DEVICES, STRUCTURAL MEMBERS, ASSOCIATED PIPING ETC.
3. TRANSITION NEW DUCTS AT CONNECTIONS TO FANS AND AIR OUTLETS/INLETS TO MATCH CONNECTING SIZES.
4. ALL DUCTWORK SHALL BE SHEET METAL AND TO SMACNA STANDARDS.
5. PROVIDE VOLUME DAMPERS ON ALL EXHAUST BRANCH TAKE-OFF.
6. PROVIDE FIRE DAMPERS AND/OR SMOKE DAMPERS IN ALL RATED WALLS, CONFIRM ALL WALL RATING WITH ARCHITECTURAL.
7. PROVIDE SLEEVES FOR ALL PENETRATIONS THROUGH WALLS. PACK WITH FIRE CAULK FOR RATED WALLS. CORE DRILL WALLS AS REQUIRED.
8. THIS CONTRACTOR SHALL NOTE THAT FULLY COORDINATED DUCTWORK SHOP DRAWINGS MUST CLEARLY INDICATE ALL LIGHTING, CONDUIT, STRUCTURAL, ROUTING OF ALL DUCTWORK SUBJECT TO ARCHITECT APPROVAL.
9. CONTRACTOR TO NOTE THAT FINAL ARRANGEMENT FOR DUCTWORK LAYOUT SUBJECT TO ENGINEER AND ARCHITECT APPROVAL.
10. CONTRACTOR TO ENSURE ALL MOTOR EFFICIENCIES ARE PROVIDED AT MAXIMUM.
11. CONTRACTOR TO NOTE THAT ALL EXPOSED PRODUCTS SHALL BE PROVIDED WITH CUSTOM COLORS AS SELECTED BY ARCHITECT.



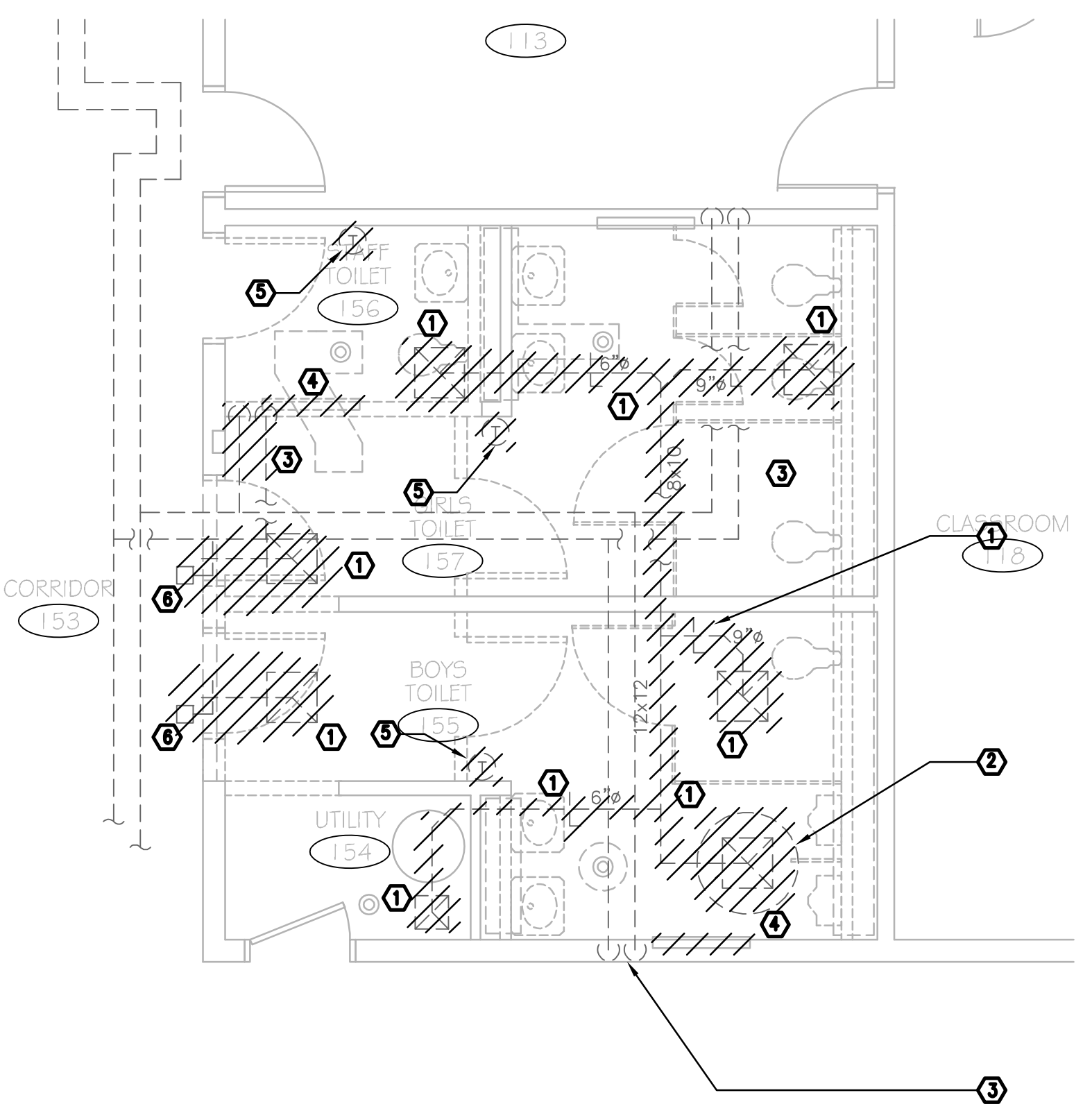
TOILET ROOM FLOOR PLAN
SCALE: 1/4" = 1'-0" (2) M101



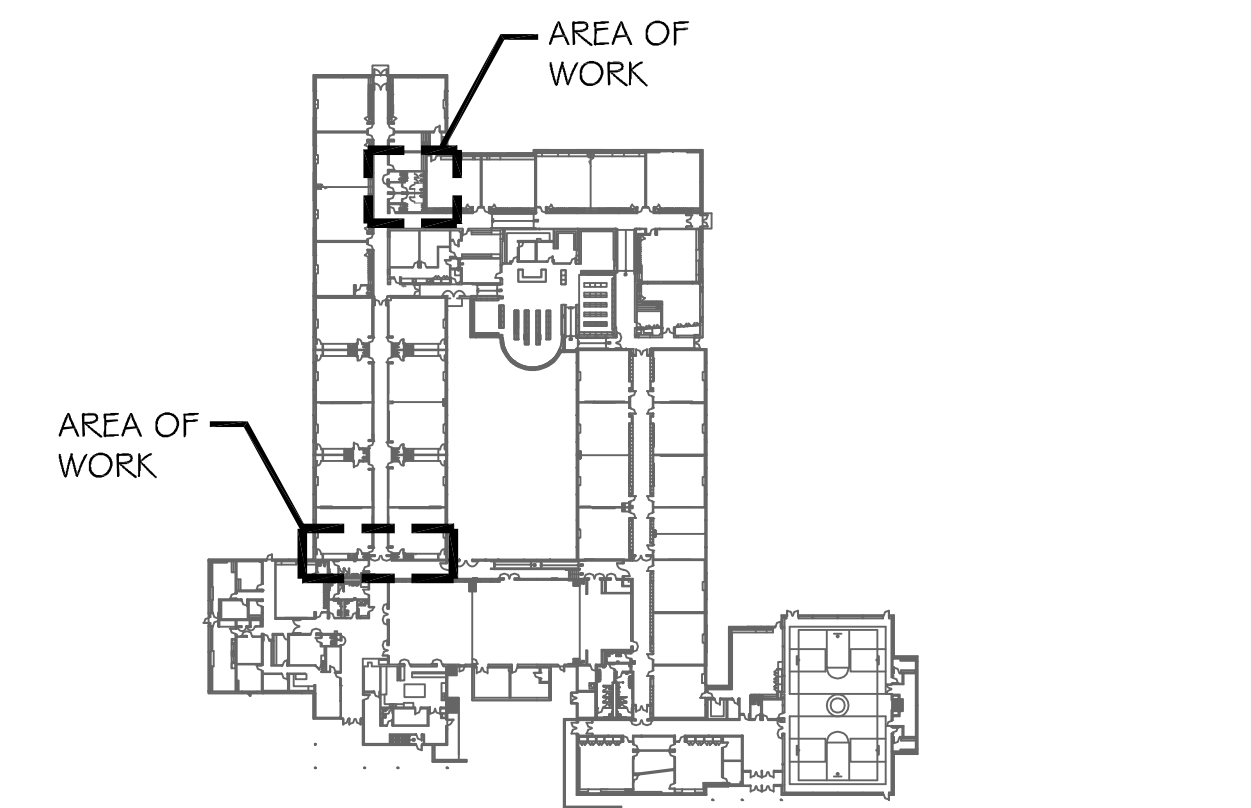
TOILET ROOM FLOOR PLAN
SCALE: 1/4" = 1'-0" (4) M101



TOILET ROOM FLOOR PLAN-DEMOLITION
SCALE: 1/4" = 1'-0" (3) M101



TOILET ROOM FLOOR PLAN-DEMOLITION
SCALE: 1/4" = 1'-0" (1) M101



MAIN LEVEL KEY PLAN
NOT TO SCALE

TRANSFER / EXHAUST GRILLE SCHEDULE							
TAG	SIZE	CFM RANGE	TYPE	STATIC PRESS (IN. W.G.)	MODEL	MANUFACTURER	NOTES
A	10x10	100 - 275	EXHAUST	.10	355	TITUS	12.3.5
B	10x10	75 - 300	TRANSFER	.10	50 R	TITUS	12.4.5
C	18x8	300-560	TRANSFER	.10	50 R	TITUS	12.4.5
D	18x8	600-1000	TRANSFER	.10	50 R	TITUS	12.4.5

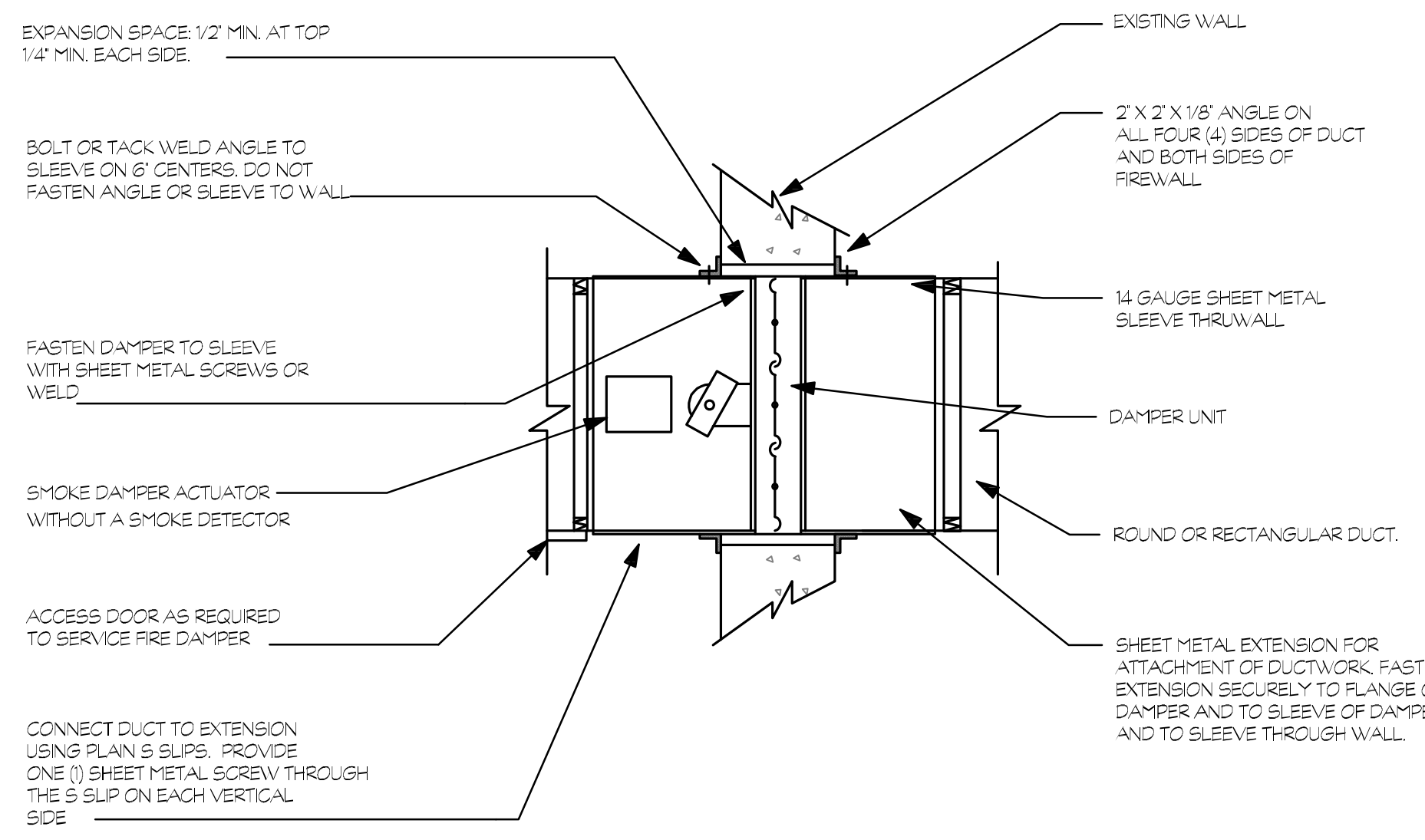
- NOTES:
- PROVIDE WITH OPTIONAL OPPOSED BLADE DAMPER.
 - STANDARD FINISH SHALL BE B26 WHITE.
 - MATERIAL SHALL BE ALUMINUM.
 - MATERIAL SHALL BE STEEL BORDER WITH ALUMINUM GRID.
 - PROVIDE WITH DUCT TRANSITIONS AS REQUIRED.

EXHAUST FAN SCHEDULE										
SYMBOL	AREA SERVED	CFM	EXHAUST STATIC PRESS (IN. W.G.)	ELECTRICAL		FRPM	L MAX (SCNES)	DRIVE	MODEL	NOTES
				VOLTS/Ø	HP/(V)					
EF-1	GRLS / BOYS / STAFF	700	.5	151	1/8	1826	9.7	DIRECT	G-025AV	12.3.4.5.6
EF-2	CLASSROOM	100	.25	151	1/10	1477	1.3	DIRECT	G-025AV	12.3.4.6.7
EF-3	CLASSROOM	100	.25	151	1/10	1477	1.3	DIRECT	G-025AV	12.3.4.6.7

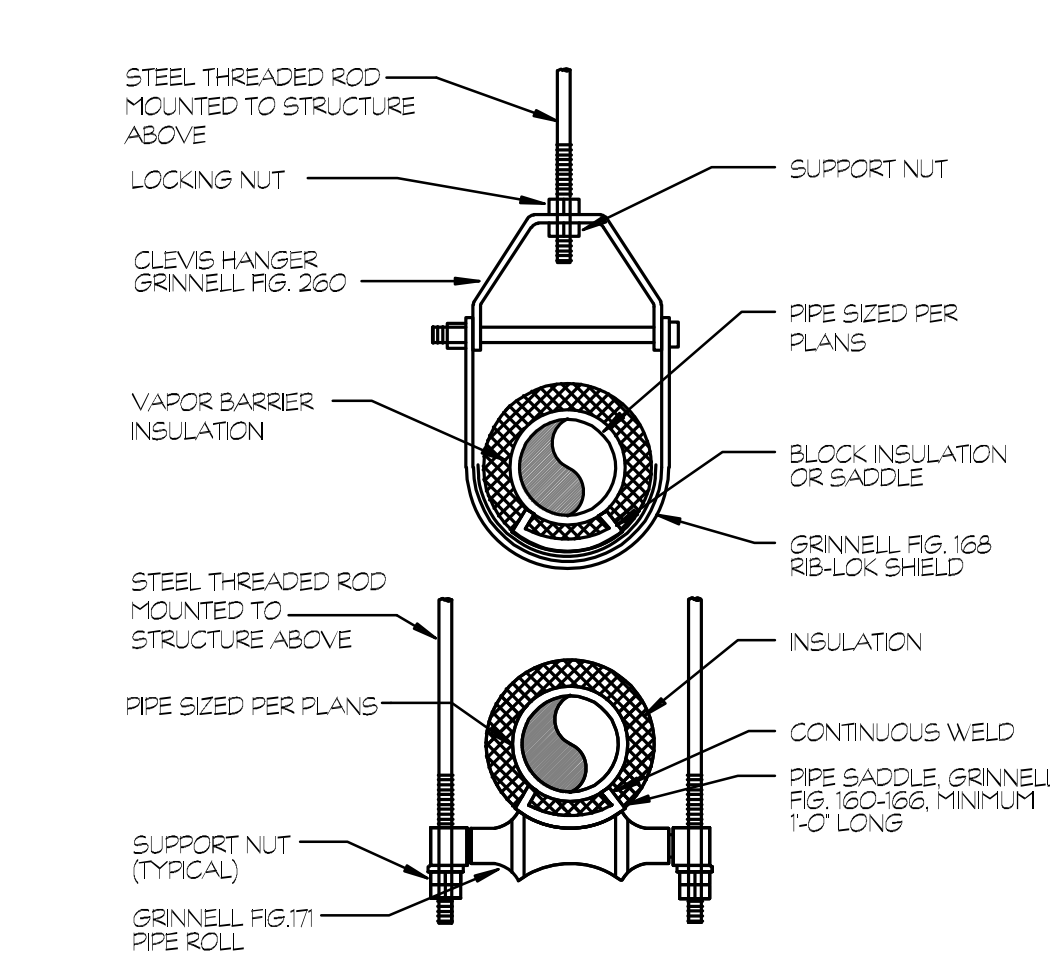
- NOTES:
- BASED ON GREENHECK CONTRACTOR TO VERIFY PITCH OF ROOF. CONTRACTOR TO MODIFY ROOF AS REQUIRED FOR DUCT CURB PENETRATION. COORD. WITH HAZMAT.
 - PROVIDE WITH VAR-GREEN EC MOTOR WITH DIAL. CONNECT OCCUPANCY SENSORS TO START FAN WHEN ACTIVATED.
 - PROVIDE WITH NEWMAN TOGGLE SWITCH.
 - PROVIDE WITH ROOF CURB. GPP1718 WITH T INSULATION. CURB SIZE SHALL MATCH THE EXISTING CURB SIZE. PROVIDE SHEET METAL TRANSITION AS REQUIRED.
 - PROVIDE WITH ACCESS DOORS IN THE FRONT PANEL.
 - PROVIDE WITH ALLEN KEY CONTROL DAMPER.
 - PROVIDE WITH DAMPER CONTROL KNOB.
 - PROVIDE WITH NEW THERMOSTATIC CONTROL VALVE.
 - CONTRACTOR SHALL REMOVE EXISTING COVER. CLEAN SURFACE PREP AND PAINT AS REQUIRED. COLOR CHOICE BY ARCHITECT.

CONVECTOR SCHEDULE											
SYMBOL	MANUFACTURER/ MODEL #	BWT (F)	LWT (F)	CAPACITY (MBH)	ØPM	FLUID PRESS. DROP (FT.W.G.)	UNIT DIMENSIONS (IN)			TYPE	NOTES
							HEIGHT	LENGTH	DEPTH		
C-1	RITTLING / PL-20-38-04	50	66	2.8	5	2	20	36	4	FULLY RECESSED	12.3.4.5.6.7.8
C-2	EXISTING TO REMAIN	...	...	...	...	...	...	...	...	...	8.9
C-3	EXISTING TO REMAIN	...	...	...	...	...	...	...	...	...	8.9

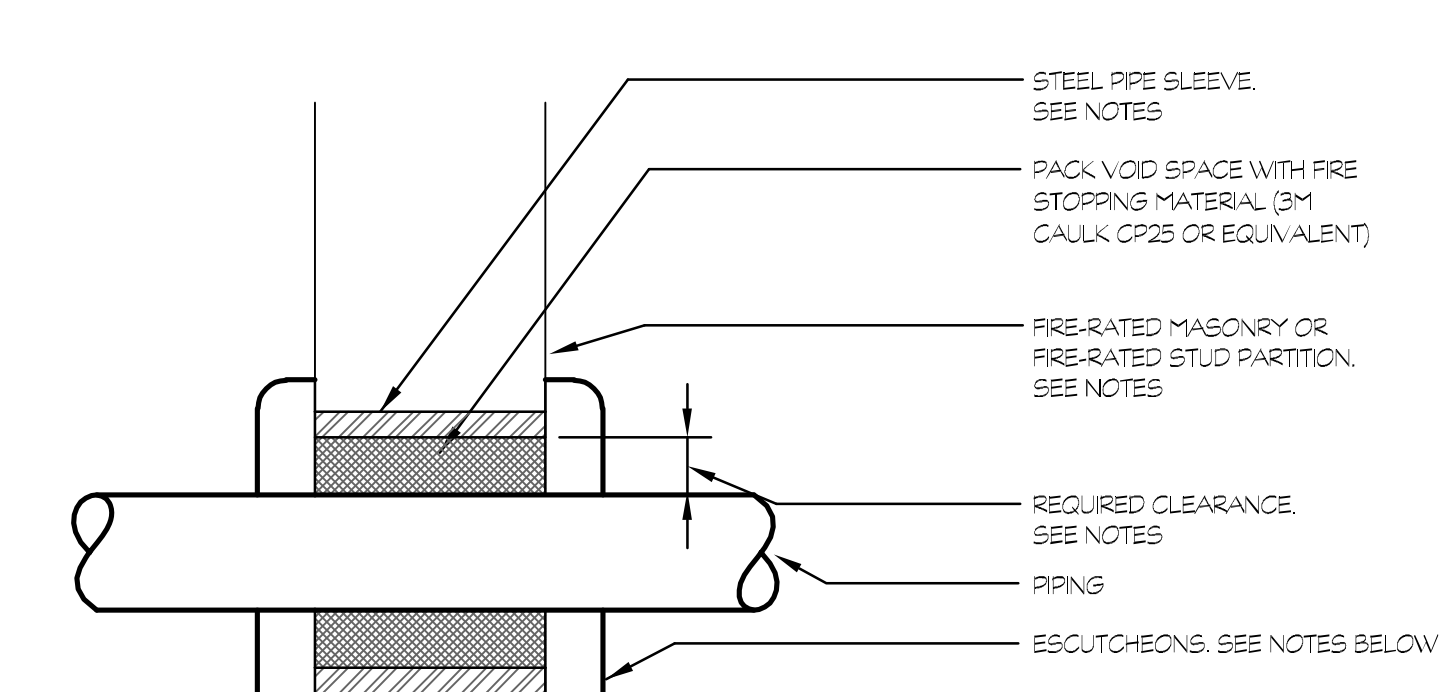
- NOTES:
- UNIT IS RECESSED.
 - PROVIDE WITH 1/4 GAUGE SHEET METAL.
 - PROVIDE WITH FRONT INLET AND OUTLET LOUVERS.
 - PROVIDE WITH ALLEN KEY FASTENERS.
 - PROVIDE WITH ACCESS DOORS IN THE FRONT PANEL.
 - PROVIDE WITH ALLEN KEY CONTROL DAMPER.
 - PROVIDE WITH DAMPER CONTROL KNOB.
 - PROVIDE WITH NEW THERMOSTATIC CONTROL VALVE.
 - CONTRACTOR SHALL REMOVE EXISTING COVER. CLEAN SURFACE PREP AND PAINT AS REQUIRED. COLOR CHOICE BY ARCHITECT.



6 SMOKE DAMPER DETAIL
M201 SCALE: N.T.S

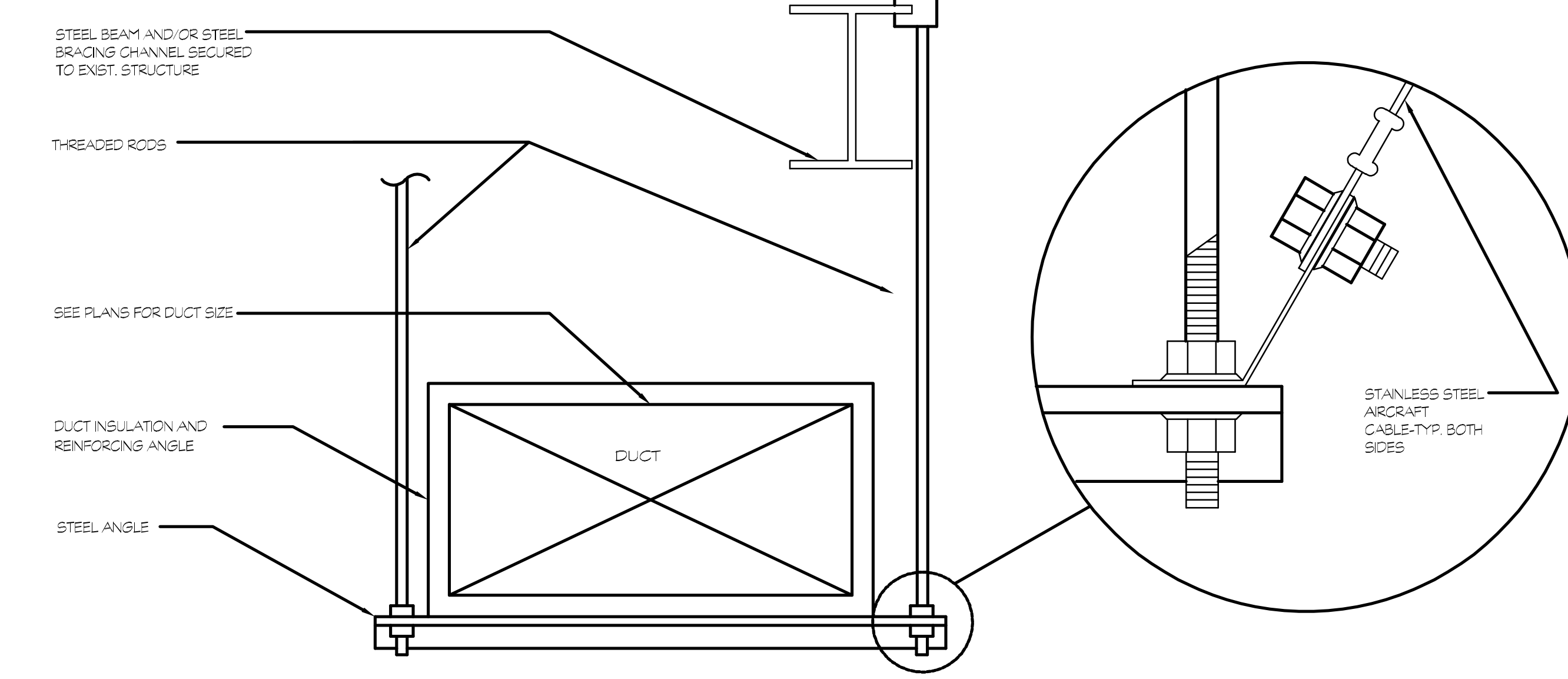


5 PIPE SUPPORT DETAIL
M201 SCALE: N.T.S



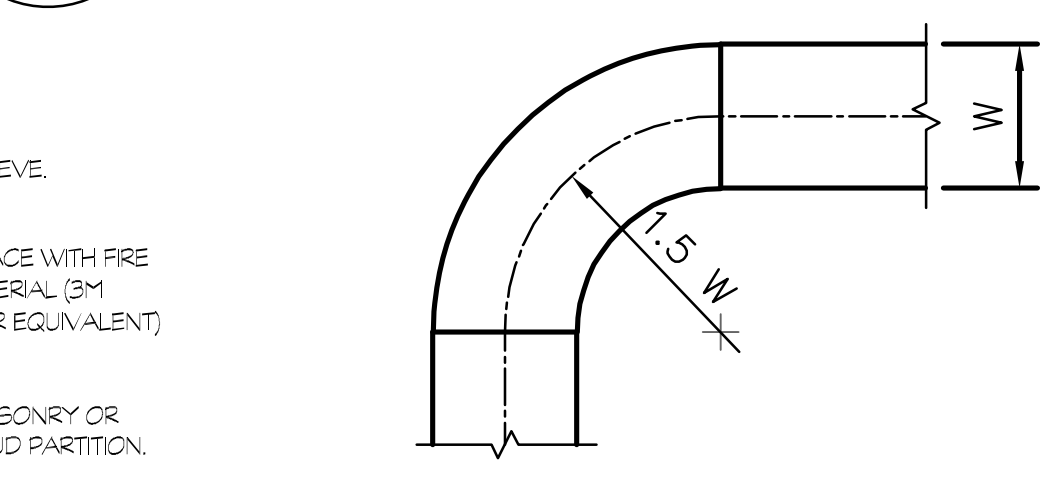
- NOTES:
- PIPE SLEEVES THROUGH FIRE-RATED MASONRY PARTITIONS OR FOUNDATION WALLS SHALL BE SCHEDULE 40 BLACK STEEL WITH MINIMUM OF 1/2\"/>
 - PIPE SLEEVES THROUGH FIRE-RATED STUD PARTITIONS SHALL BE #16 GAGE GALVANIZED STEEL WITH MINIMUM OF 1\"/>
- ESCUTCHEONS:
- ESCUTCHEONS IN FINISHED SPACES SHALL BE ANODIZED ALUMINUM OR CHROME-PLATED BRASS.
 - ESCUTCHEONS IN UNFINISHED SPACES SHALL BE PLAN BRASS, ALUMINUM, GALVANIZED STEEL, OR CAST IRON.
 - ESCUTCHEONS SHALL BE HELD IN PLACE BY INTERNAL SPRING TENSION OR SET SCREW.

7 WALL PENETRATION DETAIL
M201 SCALE: NOT TO SCALE

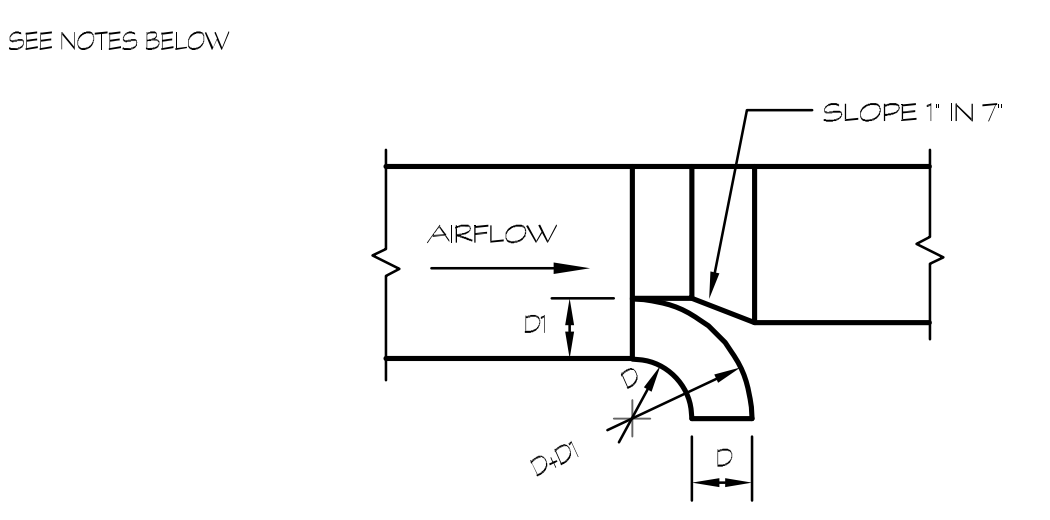


4 DUCT SUPPORT DETAIL
M201 SCALE: N.T.S

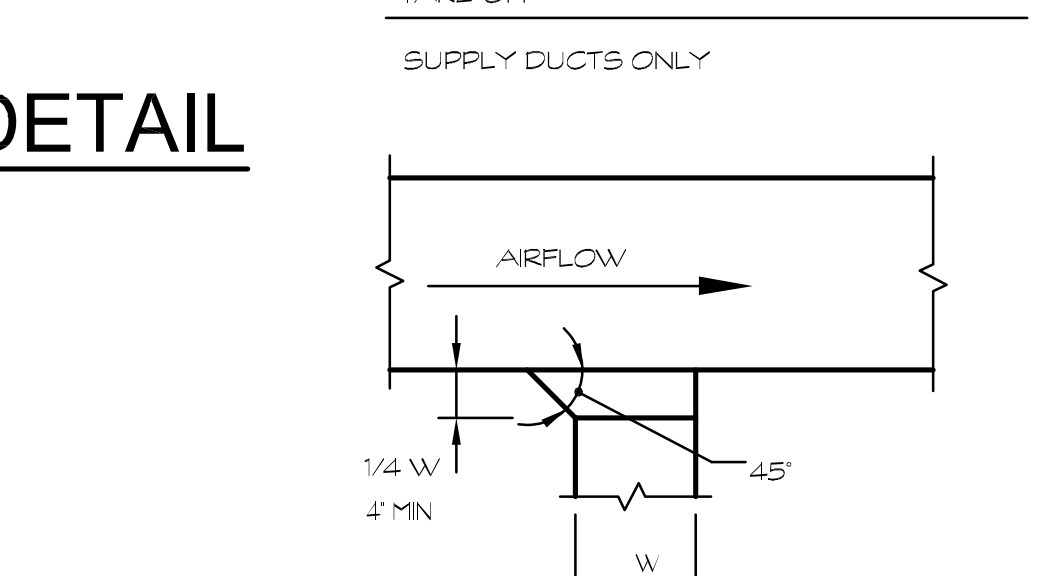
8 CONVECTOR PIPING DET.
M201 SCALE: NOT TO SCALE



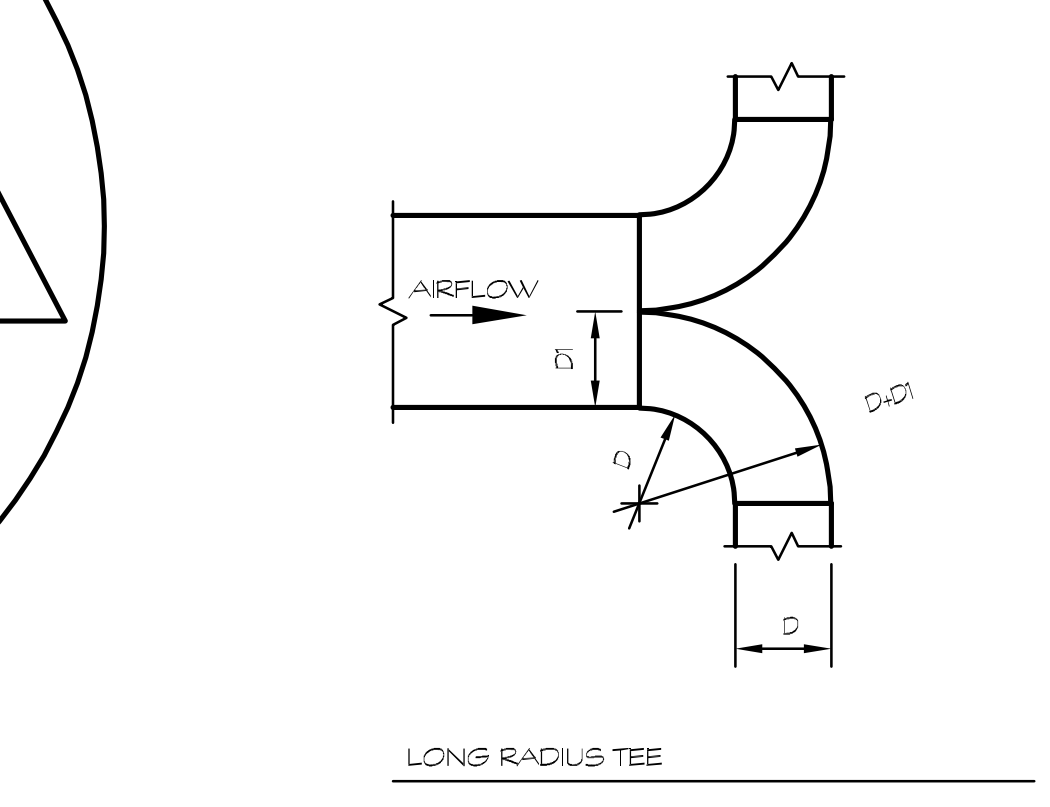
9 TAKE-OFF
SUPPLY DUCTS ONLY



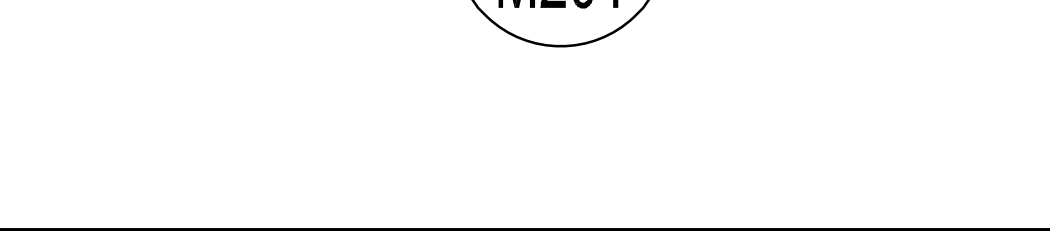
10 TAKE-OFF
SUPPLY DUCTS ONLY



11 TAKE-OFF
SUPPLY DUCTS ONLY

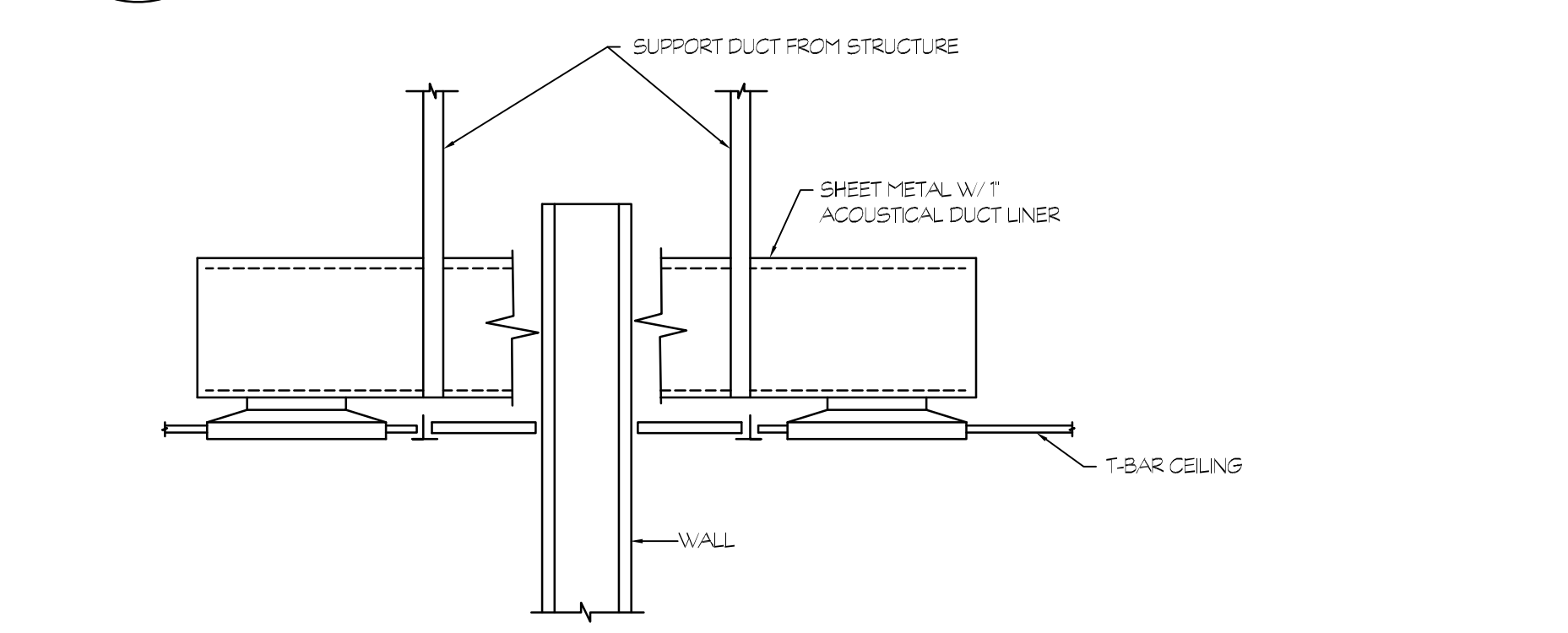


12 TAKE-OFF
SUPPLY DUCTS ONLY



3 TYPICAL DUCT DETAIL
M201 SCALE: N.T.S

2 ROOF EXHAUST FAN DETAIL
M201 SCALE: N.T.S



1 TRANSFER DUCT DETAIL
M201 SCALE: N.T.S



GENERAL NOTES

GENERAL

- WHEN A CONFLICT BETWEEN THE DRAWINGS, NOTES AND/OR SPECIFICATIONS OCCUR, THE MORE STRINGENT, AND/OR LARGER QUANTITY AND/OR MORE EXPENSIVE SHALL APPLY. THE REQUIREMENTS LISTED WITHIN NOTES OR SPECIFICATIONS SHALL BE REQUIRED, PROVIDED AND INSTALLED WHETHER SPECIFICALLY INDICATED ON THE DRAWINGS OR NOT.
- ALL WORK AND ACTION DEPICTED AND DESCRIBED SHALL BE PERFORMED BY THE CONTRACTOR UNLESS SPECIFICALLY NOTED OTHERWISE.
- REPAIR AND/OR REPLACE AT NO COST TO OWNER ALL EQUIPMENT AND MATERIALS DAMAGED DURING CONSTRUCTION.
- ALL EQUIPMENT SHALL BE LOCATED IN ACCESSIBLE LOCATIONS, WHEN A PIECE OF EQUIPMENT MUST BE LOCATED ABOVE AN INACCESSIBLE CEILING OR WALL THEN THE APPROPRIATE ACCESS DOOR SHALL BE PROVIDED. THESE SHALL BE COORDINATED WITH THE ARCHITECT.

WIRING & RACEWAY

- THE DRAWINGS SHOW THE GENERAL LAYOUT AND TYPICAL DETAILS. PROVIDE COMPLETE SYSTEMS. DRAWINGS ARE BASED ON THE SPECIFIED EQUIPMENT RACEWAY LAYOUTS, BOXES, AND WIRING OF THE SYSTEMS ARE SUBJECT TO APPROVED SHOP DRAWINGS.
- ENSURE THAT ITEMS TO BE FURNISHED FIT THE SPACE AVAILABLE. MAKE NECESSARY FIELD MEASUREMENTS TO ASCERTAIN SPACE REQUIREMENTS, INCLUDING THOSE FOR CONNECTIONS, AND PROVIDE SUCH SIZES AND SHAPES OF EQUIPMENT THAT FINAL INSTALLATION SHALL SATISFY THE INTENT OF THE DRAWINGS AND SPECIFICATIONS.
- LOCATIONS OF OUTLETS, SWITCHES, APPLIANCES, ETC. AS SHOWN ON ELECTRICAL PLANS ARE APPROXIMATE. COORDINATE WITH ARCHITECTURAL AND MECHANICAL PLANS AND DETAILS, AND WITH JOB CONDITIONS. INSTALL SWITCHES WITH OFF POSITION DOWN. INSTALL RECEPTACLES WITH GROUNDING POLE IN THE UP POSITION FOR VERTICAL MOUNTING AND AT RIGHT FOR HORIZONTAL MOUNTING.
- LOCATE AND INSTALL ELECTRICAL EQUIPMENT, JUNCTION AND PULL BOXES, PANELBOARDS, SWITCHES, CONTROLS, AND OTHER APPARATUS REQUIRING MAINTENANCE, INSPECTION, AND OPERATION SO AS TO BE READILY ACCESSIBLE.

RACEWAY INSTALLATION

- IN ALL ARCHITECTURALLY FINISHED SPACES, CONDUITS AND CABLES SHALL BE RUN CONCEALED IN HUNG OR FURRED CEILINGS, SLABS, MASONRY, AND PARTITIONS UNLESS OTHERWISE INDICATED. SAW CUTTING AND FINISHED PARTITIONS SHALL BE REQUIRED IN EXISTING SLABS AND MASONRY WALLS. IN UNFINISHED SPACES, RACEWAYS MAY BE RUN EXPOSED.
- UNLESS OTHERWISE INDICATED, EXACT ROUTING OF RACEWAYS SHALL BE DETERMINED BY THE CONTRACTOR TO SUIT PROJECT REQUIREMENTS AND FIELD CONDITIONS.
- CONTRACTORS SHALL PROVIDE ALL REQUIRED SLEEVES AND SEALS FOR PIPES OR CONDUIT PENETRATING WALLS OR FLOOR SLABS WITH UL LISTED FIRE STOPPING SEALANT WHERE REQUIRED.
- ELECTRICAL CONDUITS AND BOXES TO BE CONCEALED IN WALLS OR ABOVE CEILINGS WHEREVER POSSIBLE. SURFACE CONDUIT IS UNACCEPTABLE.

WIRING INSTALLATION

- DO NOT USE WIRE SMALLER THAN NO. 12 AWG FOR ANY POWER OR LIGHTING CIRCUIT. USE LARGER SIZES WHERE INDICATED, AS REQUIRED BY CODES.
- MINIMUM HOMERUN AND BRANCH CIRCUIT WIRING SIZES AND MAXIMUM HOMERUN CONDUIT FILL FOR 120 VOLT, 1,20 AMPERE CIRCUITS SHALL BE AS FOLLOWS:

LENGTH	CIRCUIT WIRE SIZE	HOMERUN WIRE SIZE	CONDUIT SIZE (8 WIRES/CONDUIT)
0 TO 50'	#12	#12	3/4"
51 TO 100'	#12	#10	3/4"
101 TO 200'	#10	#8	1"

GREATER THAN 200' - REQUEST DIRECTION FROM ARCHITECT.

NOTE: PROVIDE DERATING PER CODE WHEN INSTALLING MORE THAN 3 CURRENT CARRYING CONDUCTORS IN CONDUIT.

- DO NOT USE WIRE SMALLER THAN NO. 14 AWG FOR CONTROL CIRCUITS UNLESS OTHERWISE RECOMMENDED BY THE EQUIPMENT OR SYSTEM MANUFACTURER ON WIRING SHOP DRAWINGS, AND SO APPROVED BY THE ARCHITECT.
- WHERE GREATER THAN THREE (3) CURRENT-CARRYING CONDUCTORS ARE INSTALLED IN ANY ONE CONDUIT OR CABLE, CONDUCTORS MUST BE DERATED AND SIZES INCREASED, IF NEEDED, TO ACCOMMODATE CONDUCTOR DERATING AS REQUIRED BY NEC ARTICLE 310.
- CONDUCTORS SHALL BE COMPLETELY INSTALLED AND CONNECTED. PROVIDE ALL TERMINALS, LUGS, AND CONNECTORS TO SUIT THE APPLICATION, AND IN COMPLIANCE WITH EQUIPMENT MANUFACTURERS RECOMMENDATIONS.
- UNDER NO CIRCUMSTANCES SHALL ANY SWITCH OR CIRCUIT BREAKER BREAK A NEUTRAL CONDUCTOR.
- NEUTRALS SHALL BE INSTALLED IN COMPLIANCE WITH ARTICLE 210.4.B OF THE NEC. EACH MULTIWIRE BRANCH CIRCUIT SHALL BE PROVIDED WITH A MEANS THAT WILL SIMULTANEOUSLY DISCONNECT ALL UNGROUNDED CONDUCTORS AT THE POINT WHERE THE BRANCH CIRCUIT ORIGINATES.

GROUNDING INSTALLATION

- EQUIPMENT GROUNDING
- INSTALL AN INSULATED GROUND CONDUCTOR, RUN IN THE RACEWAY WITH THE PHASE CONDUCTORS, FOR EACH FEEDER SERVING PANELBOARDS, LIGHTING DIMMER BOARDS, MOTOR CONTROL CENTERS, MOTORS, EQUIPMENT AND APPLIANCES UNLESS OTHERWISE NOTED.
- INCLUDE AN INSULATED GROUND CONDUCTOR IN ALL CONDUIT RUNS CONTAINING SECTIONS OF FLEXIBLE CONDUIT UNLESS OTHERWISE NOTED.

TELECOMMUNICATIONS CLOSET GROUNDING

- PROVIDE A #4 AWG GROUND CONDUCTOR RISE IN 1" EMT CONDUIT TO EACH TELECOMMUNICATIONS CLOSET GROUNDING BUSBAR (TGB) FROM THE TELECOMMUNICATIONS MAIN GROUNDING BUSBAR (TMGB), AND TO MAIN SERVICE GROUNDING ELECTRODE SYSTEM.
- CONNECT THE GROUND RISER TO TMGB AND TGB'S PER TABLE A STANDARD 607 - 1994.
- PROVIDE ADDITIONAL #4 AWG GROUND CABLE CONNECTIONS FROM EACH TGB AND TGB TO THE CLOSEST BUILDING STEEL AND TO THE GROUND BUS IN THE ELECTRIC PANEL, FEEDING THE OUTLETS AND EQUIPMENT IN THE ASSOCIATED TELECOMMUNICATIONS ROOM/CLOSET.

RACEWAYS FOR TELECOMMUNICATION SYSTEMS

- PROVIDE CONDUIT SYSTEMS FOR TELECOMMUNICATION WORK.
- WHEN COMPLETED THE CONDUIT SYSTEMS SHALL BE READY FOR THE INSTALLATION OF WIRING AND EQUIPMENT.
- FROM EACH OUTLET PROVIDE EMT CONDUIT ROUTED INTO THE CEILING CAVITY OR TO THE CLOSEST TELECOMMUNICATIONS CLOSET, PROVIDE A DRAG LINE IN EACH RUN AND TERMINATE IN A BUSHED ELBOW.

DEMOLITION

- ELECTRICAL DEMOLITION TO BE SUPERVISED BY LICENSED ELECTRICAL CONTRACTOR. EACH CIRCUIT SHALL BE VERIFIED 'COLD' & DISCONNECTED FROM ELECTRICAL SERVICE PRIOR TO COMMENCING REMOVAL.
- REMOVE EXISTING ELECTRICAL EQUIPMENT & MATERIALS AS REQUIRED TO ACCOMMODATE ARCHITECTURAL WORK AND AS SPECIFICALLY NOTED ON THE DEMOLITION DRAWINGS.
- ALL MATERIALS BEING REMOVED SHALL BE HANDLED IN A MANNER COMPLYING WITH ALL PERTINENT LAWS, CODES AND ENVIRONMENTAL REGULATIONS.
- WHERE ELECTRICAL EQUIPMENT & DEVICES ARE BEING REMOVED, COORDINATE AND FIELD VERIFY IF BRANCH CIRCUIT FEEDS THROUGH TO EQUIPMENT/DEVICES TO REMAIN. BRANCH CIRCUITS SHALL BE SPliced OR RELOCATED TO MAINTAIN CONTINUATION OF SERVICES.
- WHERE EXISTING DEVICES ARE REMOVED & NO NEW DEVICES ARE INSTALLED IN THE SAME LOCATION, REMOVE ALL WIRING FROM BOX & PROVIDE PROPERLY SIZED BLANK COVER PLATE.
- CONTRACTOR SHALL REMOVE ALL FLUORESCENT LIGHT FIXTURE BALLASTS & IDENTIFY THOSE CONTAINING PCB'S. THESE SHALL BE TURNED OVER TO THE OWNER FOR DISPOSAL.
- ALL REMOVED COMPONENTS SHALL BE LEGALLY DISPOSED OF BY CONTRACTOR UNLESS SPECIFICALLY NOTED OTHERWISE.
- ELECTRICAL COMPONENTS SHOWN ON THE DEMOLITION DRAWINGS, AND THE ASSOCIATED CONDUIT, WIRE & BOXES ARE TO BE REMOVED AND DISPOSED OF UNLESS SPECIFICALLY NOTED OTHERWISE.

COORDINATION DRAWINGS

- DEVELOP AND SUBMIT COORDINATION DRAWINGS AS OUTLINED.
- SHEET METAL AND PLUMBING SHOP DRAWINGS THAT HAVE BEEN COORDINATED WITH ARCHITECTURAL AND STRUCTURAL DRAWINGS SHALL BE SUBMITTED TO ENGINEER FOR REVIEW. DRAWINGS MUST BE RETURNED FROM ENGINEER EITHER 'REVIEWED' OR 'FURNISH AS CORRECTED' PRIOR TO BEING USED AS BASIS FOR COORDINATION DRAWINGS.
- AFTER SHEET METAL AND PIPING DRAWINGS HAVE BEEN REVISED PER ENGINEER'S COMMENTS, REPROducible COPIES SHALL BE SENT TO THE TRADES IN THE FOLLOWING SEQUENCE FOR THE INCLUSION OF THEIR WORK:
 - MECHANICAL SHEET METAL
 - PLUMBING PIPING
 - MECHANICAL PIPING
 - ELECTRICAL WORK
- AFTER ALL TRADES HAVE INCLUDED THEIR WORK ON THE COORDINATION DRAWING AND NOTED CONFLICTS, ALL TRADES SHALL MEET TO RESOLVE CONFLICTS AND AGREE TO ACCEPTABLE SOLUTIONS. EACH TRADE SHALL SIGN COORDINATION DRAWINGS. ITEMS NOT SHOWN ON COORDINATION DRAWINGS IS RESPONSIBILITY OF CONTRACTOR AND CONTRACTOR IS SUBJECT TO ADDITIONAL COSTS INCURRED BY OTHER TRADES.
- THE ARCHITECT AND ENGINEER ARE NOT PART OF THE COORDINATION DRAWING PROCESS. THE ENGINEER WILL PROVIDE ASSISTANCE FOR NOTED CONFLICTS ONLY. COORDINATION DRAWINGS ARE NOT TO BE CONSIDERED PIPING OR DUCT SHOP DRAWINGS. THE CONTRACTOR IS REQUIRED TO SUBMIT INDIVIDUAL PIPING AND DUCTWORK SHOP DRAWINGS FOR REVIEW BY THE ENGINEER. PIPING AND DUCTWORK SHOP DRAWINGS SHALL FOLLOW THE DESIGN INTENT OF THE CONTRACT DOCUMENTS.
- SUBMIT FINAL SIGNED COORDINATION DRAWINGS TO ENGINEER FOR REVIEW. ENGINEER WILL REVIEW COORDINATION DRAWINGS FOR GENERAL ARRANGEMENT AND FOR NOTED CONFLICTS ONLY. SPECIFIC INSTALLATION REQUIREMENTS WILL BE REVIEWED ONLY IN INDIVIDUAL TRADE SHOP DRAWINGS.
- ANY WORK FABRICATED OR INSTALLED PRIOR TO SIGN OFF BY ALL TRADES WHICH IS DEEMED TO BE IN CONFLICT WITH COORDINATION DRAWINGS SHALL BE REMOVED AND RE-INSTALLED IN CONFORMANCE WITH COORDINATION DRAWINGS.
- EACH CONTRACTOR (MENTIONED ABOVE) IS RESPONSIBLE FOR THE COORDINATION OF HIS SUB-CONTRACTORS.
- THE OVERALL COORDINATION OF THE COORDINATION PROCESS IS THE RESPONSIBILITY OF THE CONTRACTOR. THE ENGINEER IS NOT RESPONSIBLE FOR THE COORDINATION PROCESS. THE ENGINEER WILL RESPOND TO QUESTIONS THAT ARISE FROM THE COORDINATION PROCESS. DRAWINGS SUBMITTED WILL BE REVIEWED FOR CLEARLY IDENTIFIED CONFLICTS ONLY. SOLUTIONS TO CONFLICTS WILL NOT BEAR ADDITIONAL COST.

AS-BUILT DRAWINGS

- PROVIDE A COMPLETE SET OF AS-BUILT DRAWINGS REFLECTING AS INSTALLED CONDITIONS. AS-BUILT DRAWINGS SHALL INDICATE ALL INSTALLED CONDITIONS OF SYSTEMS WITHIN THIS DISCIPLINE. DRAWINGS SHALL BE OF SIMILAR SCALE AS THE CONSTRUCTION DOCUMENTS AND INCLUDE DETAILS AS NECESSARY TO CLEARLY REFLECT THE INSTALLED CONDITION. DRAWINGS SHALL BE BOUND IN A COMPLETE AND CONSECUTIVE SET, SUPPLEMENTAL SKETCHES AND LOOSE PAPERWORK WILL NOT BE ACCEPTABLE AND WILL BE RETURNED FOR REVISION. THE CONTRACTOR SHALL COMPLY WITH THE ENGINEER'S COMMENTS TO PRODUCE A CLEAR AND CONCISE SET OF DRAWINGS. DRAWINGS SHALL BE SUBMITTED IN BOTH HARD COPY AND ELECTRONIC (AUTO-CAD) VERSION AS REQUIRED BY THE OWNER. NUMBER OF COPIES OF EACH AS REQUESTED BY THE OWNER.
- PROVIDE 'AS-BUILT DRAWINGS' INDICATING IN A NEAT AND ACCURATE MANNER A COMPLETE RECORD OF ALL REVISIONS OF THE ORIGINAL DESIGN OF THE WORK. INDICATE THE FOLLOWING INSTALLED CONDITIONS:
 - INCLUDE ALL CHANGES AND AN ACCURATE RECORD ON REPRODUCTIONS OF THE CONTRACT DRAWINGS OR APPROPRIATE SHOP DRAWINGS, OF ALL DEVIATIONS, BETWEEN THE WORK SHOWN AND WORK INSTALLED.
 - EQUIPMENT LOCATIONS (EXPOSED AND CONCEALED), DIMENSIONED FROM PROMINENT BUILDING LINES.
 - APPROVED SUBSTITUTIONS, CONTRACT MODIFICATIONS, AND ACTUAL EQUIPMENT AND MATERIALS INSTALLED.
 - CONTRACT MODIFICATIONS, ACTUAL EQUIPMENT AND MATERIALS INSTALLED.
 - SUBMIT FOR REVIEW BOUND SETS OF THE REQUIRED DRAWINGS, MANUALS AND OPERATING INSTRUCTIONS.
 - SUBMIT A COMPLETE MAINTENANCE MANUAL OF ALL EQUIPMENT INSTALLED UNDER THIS CONTRACT.

ELECTRICAL SYMBOLS

- RECESSED FIXTURE, REFER TO LIGHTING SCHEDULE FOR MORE INFORMATION
- FIXTURE W/EMERGENCY BATTERY PACK
- RECESSED LINEAR PERIMETER FIXTURE
- SURFACE MOUNTED LIGHT FIXTURE
- PENDANT MOUNTED LIGHT FIXTURE
- CEILING MOUNTED OCCUPANCY SENSOR
- SINGLE POLE TOGGLE SWITCH
- OCCUPANCY SENSOR SWITCH
- KEYED SWITCH
- FIRE ALARM HORN/STROBE
- FIRE ALARM STROBE
- DUCT SMOKE DETECTOR
- JUNCTION BOX
- DUPLEX RECEPTACLE
- GFCI RECEPTACLE
- HAND DRYER
- CALL FOR AID PULL STRING
- CALL FOR AID CORRIDOR DOME LIGHT
- PA SPEAKER
- CIRCUIT HOMERUN PANEL/BREAKER SLOT, CIRCUIT BREAKER SIZE

ABBREVIATIONS

- ETR EXISTING TO REMAIN
- ER EXISTING RELOCATED
- R REMOVE
- RE RELOCATE EXISTING

LIGHTING FIXTURE SCHEDULE

DESIGNATION	DESCRIPTION	MANUFACTURER/ MODEL NUMBER	LAMP			ELECTRICAL			NOTES
			TYPE	COLOR TEMP	DRIVER	VOLTAGE	WATTS		
A1	LED RECESSED LINEAR WITH HIGH TRANSMISSION ACRYLIC 4' FIXTURE	MERCURY ARCHITECTURAL LIGHTING MLS3-G-48-400-40K-HTA18-U	LED	4000K	0-10V DIMMING	UNIVERSAL	14	⊙	
A1E	LED RECESSED LINEAR WITH HIGH TRANSMISSION ACRYLIC 4' FIXTURE W/INTEGRAL BATTERY	MERCURY ARCHITECTURAL LIGHTING MLS3-G-48-400-40K-HTA18-U-EM7	LED	4000K	0-10V DIMMING	UNIVERSAL	14	⊙⊙	
A2	LED RECESSED LINEAR WITH HIGH TRANSMISSION ACRYLIC 6' FIXTURE W/INTEGRAL BATTERY	MERCURY ARCHITECTURAL LIGHTING MLS3-G-72-400-40K-HTA18-U-EM7	LED	4000K	0-10V DIMMING	UNIVERSAL	20	⊙⊙	
A3	LED RECESSED LINEAR WITH HIGH TRANSMISSION ACRYLIC 8' FIXTURE	MERCURY ARCHITECTURAL LIGHTING MLS3-G-96-400-40K-HTA18-U	LED	4000K	0-10V DIMMING	UNIVERSAL	27	⊙	
A4	LED RECESSED LINEAR WITH HIGH TRANSMISSION ACRYLIC 10' FIXTURE	MERCURY ARCHITECTURAL LIGHTING MLS3-G-120-400-40K-HTA18-U	LED	4000K	0-10V DIMMING	UNIVERSAL	34	⊙	
B1	LED RECESSED T-GRID TROFFER 2x2 W/INTEGRAL BATTERY	MERCURY ARCHITECTURAL LIGHTING LRS02-228-2200-40K-18-U-EM7	LED	4000K	0-10V DIMMING	UNIVERSAL	19	⊙⊙	
C1	SURFACE MOUNTED 10" ROUND LED FIXTURE	LIGHTOLIER S10R840G2N20U	LED	4000K	0-10V DIMMING	UNIVERSAL	23	⊙	

SCHEDULE NOTES:

- ⊙ FURNISH WITH ALL CONNECTORS, FEEDS AND HARDWARE REQUIRED FOR COMPLETE INSTALLATION.
- ⊙ FURNISH FIXTURE WITH EMERGENCY BATTERY PACK, 1000 LUMENS MINIMUM ACCEPTABLE (WHERE NOTED).

Project Title:
Town of Cheshire - Doolittle Elementary School
Toilet Room Upgrades
735 Cornwall Avenue
Cheshire, Connecticut 06410



SILVER PETRUCELLI + ASSOCIATES
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311 STATE STREET NEW LONDON CT 06320
203 230 9007 silverpetrucelli.com

Revision:	Description:	Date:	Revised By:
-	ISSUED FOR REBID	10-31-2022	SP+A

Drawing Title:
**Abbreviations, Notes,
Symbols & Lighting Sched.**

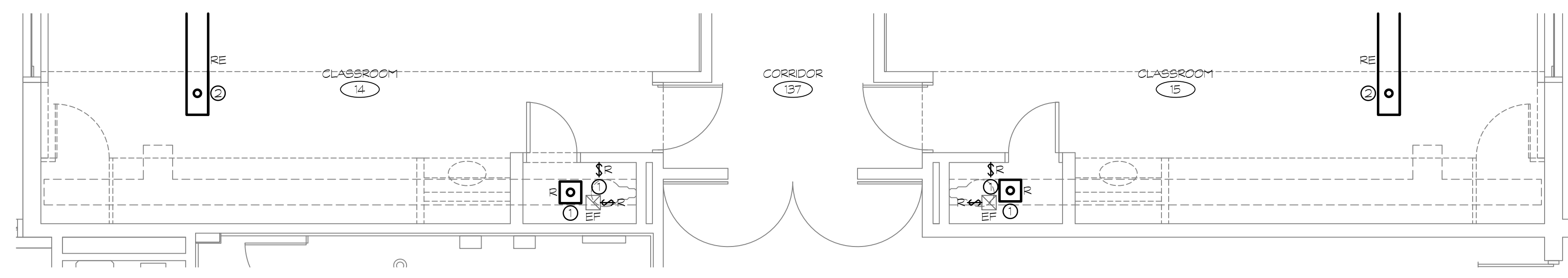
Date:
MARCH 14, 2022

Scale:
AS NOTED

Drawn By:
MTC

Project Number: 21-336 Bid Number: 2223-09

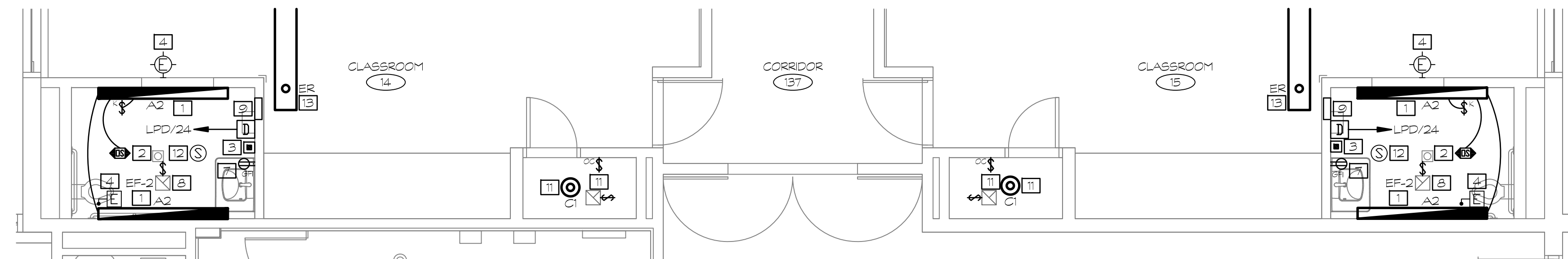
Drawing Number:
E001



CLASSROOM 14 & 15 DEMOLITION PLAN

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

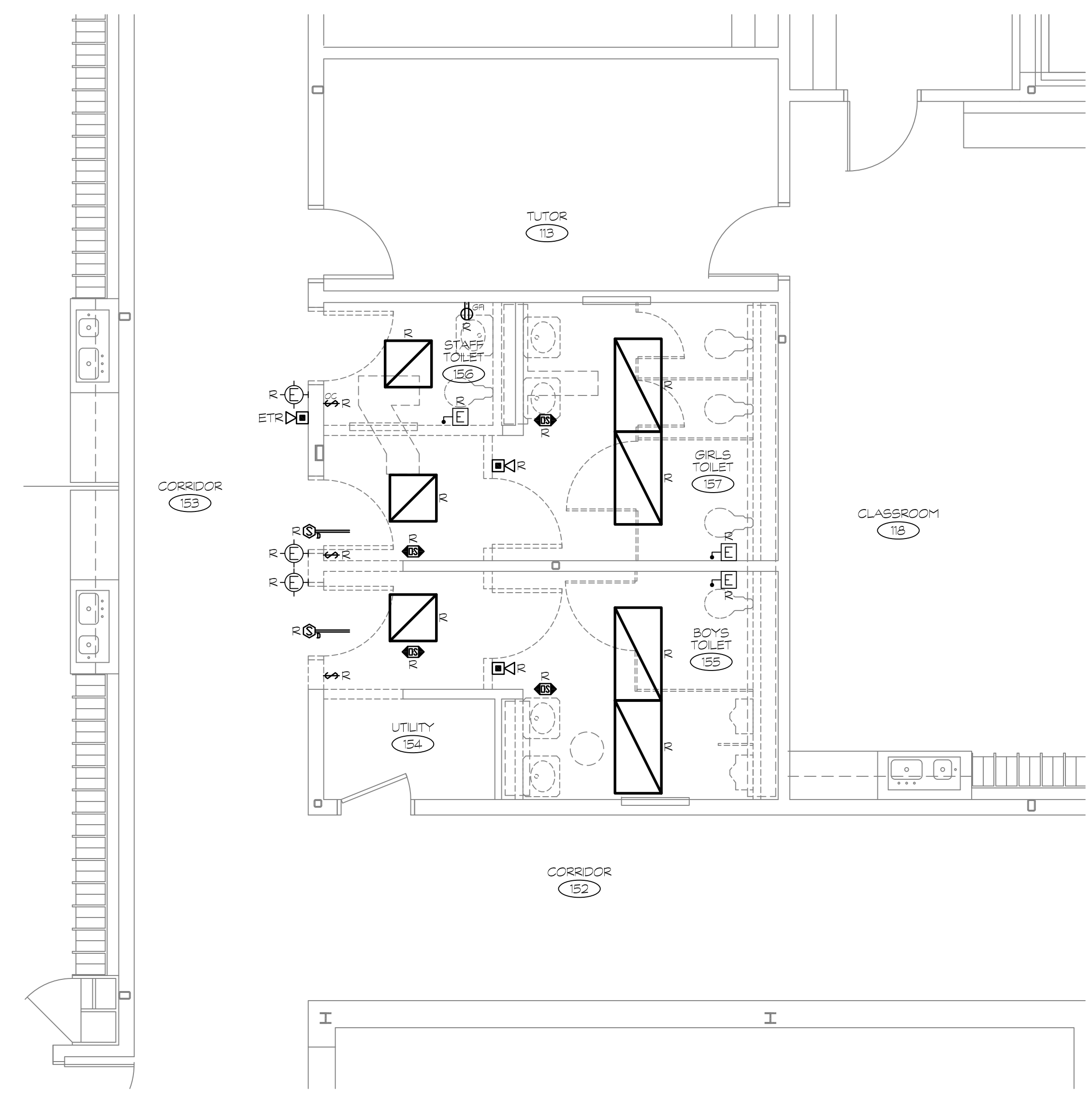
1
E101



CLASSROOM 14 & 15 FLOOR PLAN

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

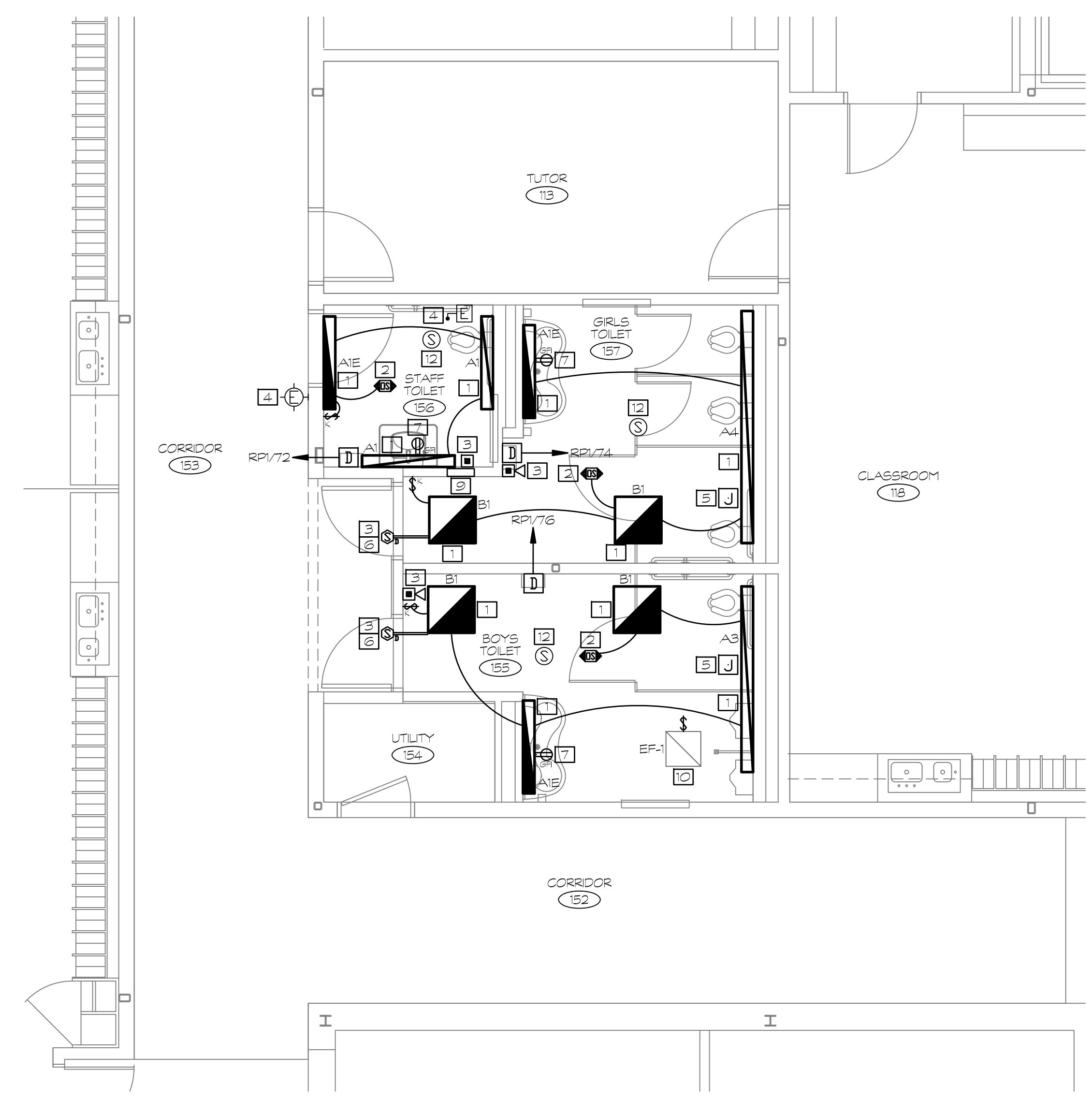
2
E101



TOILET ROOM DEMOLITION PLAN

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

3
E101



TOILET ROOM FLOOR PLAN

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

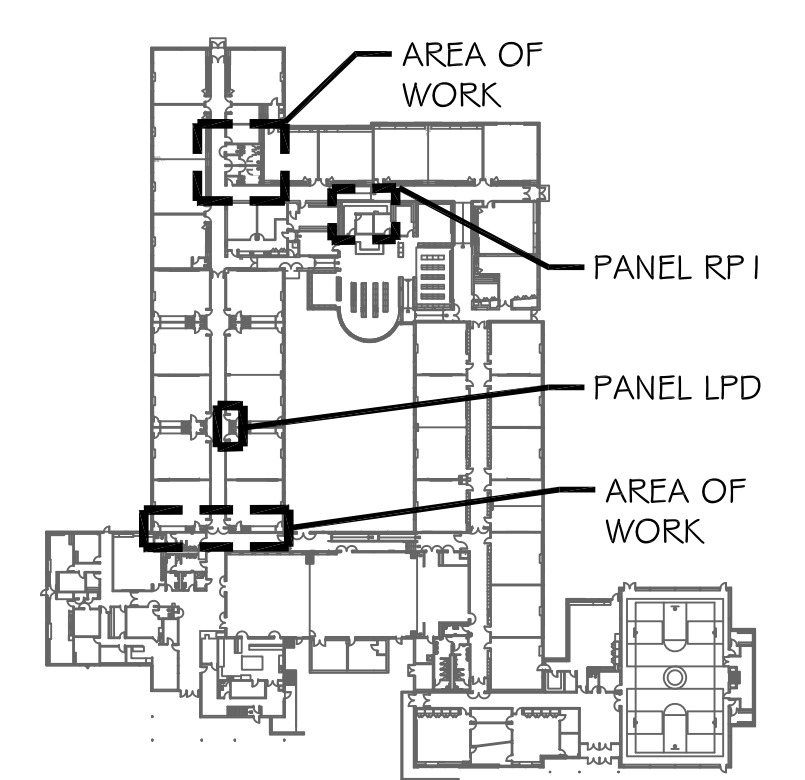
4
E101

DEMOLITION NOTES

- REMOVE DEVICES SHOWN & LEAVE EXISTING WIRING, RACEWAY & BOXES IN LOCATIONS TO BE REUSED IN THE CONSTRUCTION PHASE.
- CONFIRM EXISTING PENDANT FIXTURE WILL CURRENTLY BE LOCATED WITHIN THE NEW BATHROOM. IF SO, PENDANT WILL NEED TO BE RELOCATED & WIRING/RACEWAY EXTENDED.

CONSTRUCTION NOTES

- PROVIDE LIGHT FIXTURES IN LOCATIONS SHOWN ON PLANS. FIXTURES SHALL BE WIRED TO EXISTING LIGHT CIRCUIT SERVING THE AREA/CLASSROOM. FIXTURES W/EMERGENCY BATTERY PACKS SHALL BE WIRED TO UNSWITCHED POWER FOR THE CIRCUIT.
- PROVIDE OCCUPANCY SENSORS W/AUXILIARY CONTACTS. INTERLOCK W/EXHAUST FAN SERVING THE SPACE SUCH THAT THE ASSOCIATED EXHAUST FAN WILL TURN ON WHEN THE LIGHTS ARE ON IN THE TOILET ROOMS. OCCUPANCY SENSORS SHALL BE WIRED TO LIGHTING CIRCUIT SERVING THE SPACE.
- PROVIDE FIRE ALARM DEVICES IN LOCATIONS SHOWN. FIRE ALARM DEVICES SHALL BE COMPATIBLE W/EXISTING FIRE ALARM CONTROL PANEL (V.I.F.)
- PROVIDE CALL-FOR-AID DEVICES. POWER FOR DEVICES SHALL COME FROM NEAREST GENERAL PURPOSE RECEPTACLE CIRCUIT.
- TRANSFORMER FOR HARDWIRED FLUSH VALVES. POWER SHALL COME FROM NEAREST GENERAL PURPOSE RECEPTACLE CIRCUIT. COORDINATE LOCATION W/PLUMBING CONTRACTOR.
- POWER TO DAMPER SHALL COME FROM NEARBY AREA RECEPTACLE CIRCUIT. PROVIDE DUCT SMOKE & FIRE ALARM RELAY. WIRING OF DAMPER SHALL CLOSE ON DETECTION OF SMOKE & DETECTORS/RELAYS SHALL BE WIRED TO FIRE ALARM SYSTEM. COORDINATE W/MECHANICAL CONTRACTOR.
- POWER FOR GFI RECEPTACLES SERVING LAVS SHALL COME FROM CLOSEST GENERAL PURPOSE RECEPTACLE CIRCUIT.
- POWER FOR EXHAUST FANS (EF-2) ON ROOF SHALL COME FROM PANEL LPD CIRCUIT #28. FANS WILL NEED TO BE INTERLOCKED W/AUXILIARY CONTACTS IN OCCUPANCY SENSORS. COORDINATE W/MECHANICAL CONTRACTOR.
- POWER FOR TRAP PRIMER SHALL COME FROM NEAREST GENERAL PURPOSE RECEPTACLE CIRCUIT. COORDINATE LOCATION W/PLUMBING CONTRACTOR.
- POWER FOR EXHAUST FAN (EF-1) ON ROOF SHALL COME FROM PANEL RP1 CIRCUIT #78. FAN WILL NEED TO BE INTERLOCKED W/AUXILIARY CONTACTS IN OCCUPANCY SENSORS FOR GIRLS, BOYS & STAFF BATHROOMS. COORDINATE W/MECHANICAL CONTRACTOR.
- INSTALL LIGHT FIXTURES & SWITCHES IN SAME LOCATIONS AS REMOVED PIECE. REUSE EXISTING WIRING IN PLACE.
- INSTALL NEW PA SPEAKERS IN LOCATIONS SHOWN. SPEAKERS SHALL MATCH EXISTING CORRIDOR SPEAKERS. EXTEND CORRIDOR SPEAKER CIRCUIT TO NEW BATHROOM SPEAKERS. PROVIDE ALL MATERIALS NECESSARY FOR A COMPLETE INSTALLATION.
- RELOCATE EXISTING PENDANT FIXTURE TO LOCATION SHOWN. EXTEND WIRING & RACEWAY. KEEP FIXTURE ON SAME CIRCUIT & LIGHTING CONTROLS.



MAIN LEVEL KEY PLAN

NOT TO SCALE

