IFB 3090 - ATTACHMENT 1

ROANOKE CITY PUBLIC SCHOOLS
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RUFFNER CAREER AND TECHNICAL EDUCATION CENTER

3601 FERNCLIFF AVENUE N.W.
ROANOKE, VIRGINIA 24017

GENERAL PRO□ECT NOTES

1	DRAWINGS AND SPECIFICATIONS ARE INTENDED TO PROVIDE THE BASIS FOR PROPER COMPLETION OF THE WOR□ SUITABLE FOR THE INTENDED USE OF THE OWNER. ANYTHING NOT EXPRESSLY SET FORTH BUT WHICH IS REASONABLY IMPLIED OR NECESSARY FOR PROPER PERFORMANCE OF THE PRO□ECT SHALL BE INCLUDED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANALY□ING THE DOCUMENTS TO FULLY UNDERSTAND THE SCOPE OF THE CONSTRUCTION PRO□ECT. ALL CONDITIONS OF THE CONSTRUCTION HAVE NOT NECESSARILY BEEN DESCRIBED□DETAILED OR DRAWN.
2	CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR THE DEMOLITION MEANS□METHODS□TECHNI□UES□ SE□UENCING□AND PROCEDURES RE□UIRED FOR THE SAFE EXECUTION AND COMPLETION OF THE WOR□□AND FOR INITIATING□MAINTAINING AND SUPERVISING ALL SAFETY PRECAUTIONS AND PROGRAMS IN CONNECTION WITH THE WOR□.
3	ALL DIMENSIONS ON ARCHITECTURAL PLANS ARE TO THE FACE OF MASONRY□CONCRETE□OR FACE OF STUD□ UNLESS NOTED OTHERWISE.
4	ANY OMISSIONS OR INCONSISTENCIES IN THE DRAWINGS OR ANY VARIATIONS OR AMBIGUITIES BETWEEN THESE DRAWINGS AND ACTUAL SITE□EXISTING BUILDING OR CONSTRUCTION CONDITIONS AND/OR RE□UIREMENTS SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT IN WRITING AND RESOLVED AND DOCUMENTED IN WRITING BEFORE CONTINUING WITH THE WOR□ AFFECTED.
5	THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND GRADES. DO NOT SCALE DRAWINGS. NOTIFY THE ARCHITECT OF ANY DISCREPENCIES PRIOR TO THE CONSTRUCTION.
6	THE CONTRACTOR SHALL PERFORM ANY RE□UIRED DEMOLITION WOR□ IN ACCORDANCE WITH ALL APPLICABLE LOCAL□STATE AND FEDERAL CODES AND REGULATIONS AND NOTIFY THE ARCHITECT OF ANY CONFLICT DISCOVERED BETWEEN THE CONTRACT DOCUMENTS AND THESE CODES.
7	ASBESTOS CONTAINING MATERIALS □ACM'□□HAVE BEEN IDENTIFIED AND SHALL BE REMOVED FROM THE BUILDING BY THE DEMOLITION CONTRACTOR. SEE HA□ARDOUS MATERIAL SURVEY REPORT PROVIDED BY OWNER FOR ADDITIONAL INFORMATION.
8	IN CASE OF INCONSISTENCY BETWEEN THE DRAWINGS AND SPECIFICATIONS OR WITHIN EITHER DOCUMENT NOT CLARIFIED BY ADDENDUM□THE BETTER □UALITY OR GREATER □UANTITY OF WOR□ SHALL BE PROVIDED IN ACCORDANCE WITH THE ARCHITECT'S INTERPRETATION.
9	IT SHALL BE THE RESPONSIBILITY OF THE DEMOLITION CONTRACTOR TO FULLY EXAMINE AND BECOME FAMILIAR WITH THE SITE BEFORE COMMENCING THE WOR□. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AS WELL AS VERIFY THE CONDITION AND NATURE OF THE CONSTRUCTION□MATERIALS□AND AVAILABLE UTILITIES AND STRUCTURAL ELEMENTS AND TO NOTIFY THE ARCHITECT IN WRITING OF ANY AND ALL DISCREPENANCES BETWEEN THE SAID EXISTING CONDITIONS AND THE CONTRACT DOCUMENTS.
10	THE □OB SITE IS TO BE □EPT CLEAN DURING CONSTRUCTION AND THE CONTRACTOR SHALL PERIODICALLY REMOVE A DEBRIS FROM THE SITE INCLUSIVE OF BOXES□CRATES OR TRASH OF INSTALLED ITEMS.
11	"NIC" INDICATES WOR□ AND/OR MATERIALS NOT IN THE CONTRACT HOWEVER THIS DOES NOT RELIEVE THE DEMOLITION CONTRACTOR OF THE RESPONSIBILITY OF COORDINATION.
12	THE CONTRACTOR SHALL OBTAIN ALL PERMITS UNLESS OTHERWISE RE□UIRED BY THE OWNER AND SHALL VERIFY ALL PERMITS HAVE BEEN APPROVED BY THE APPROPRIATE AGENCIES PRIOR TO COMMENCING WITH DEMOLITION. FAILURE TO OBTAIN APPROVAL SHALL CAUSE THE CONTRACTOR TO ASSUME FULL RESPONSIBILITY FOR ANY SUBSE□UENT MODIFICATIONS OF THE WOR□ RE□UIRED BY THE OWNER OR ANY REGULATORY AUTHORITY.
13	CONTRACTOR IS RESPONSIBLE FOR REVIEWING ALL DEMOLITION DOCUMENTS □DRAWINGS□SPECIFICATIONS□ SUPPLEMENTAL INFORMATION□CLARIFICATIONS□ETC.□. IF CONFLICTS EXIST WITHIN AND BETWEEN THE CONSTRUCTION DOCUMENTS□THE CONTRACTOR SHALL CONSULT ARCHITECT FOR CLARIFICATION. CONTRACTOR SHALL NOT PROCEED WITH ASSOCIATED WOR□ WITHOUT OBTAINING SUCH CLARIFICATION.
14	THE DESIGN NOTED WITHIN THESE DOCUMENTS IS BASED ON VISUAL OBSERVATIONS AND INFORMATION FOUND WITHIN THE ORIGINAL BUILDING CONSTRUCTION DRAWINGS PROVIDED. NO DESTRUCTIVE INVESTIGATIONS OF EXISTING CONDITIONS WERE PERFORMED AND THE DESIGNER ASSUMES THE INFORMATION NOTED IN THE ORIGINAL DRAWINGS PROVIDED TO BE AN ACCURATE DEPICTION OF EXISTING CONDITIONS. THE CONTRACTOR SHALL VERIFY DIMENSIONS OF AS□BUILT CONDITIONS AND NOTIFY THE ARCHITECT IN WRITING OF ANY DISCREPENCIES.
15	THE CONTRACTOR SHALL NOTIFY THE OWNER IN WRITING OF ANY CONSTRUCTION DEFECTS FOUND IN UNCOVERING EXISTING CONSTRUCTION.
16	CONTRACTOR SHALL PROTECT EXISTING CONSTRUCTION AND RESTORE ALL FINISH SURFACES TO THEIR ORIGINAL CONDITION WHERE DAMAGED.
17	ALL INTERIOR DOORS ARE SOLID WOOD WITH HOLLOW METAL FRAMES AND ARE TO BE REMOVED UNLESS NOTED OTHERWISE.
18	ALL EXISTING FLOORING IS TERRA□□O AND SHALL REMAIN UNLESS NOTED OTHERWISE. WHERE INTERIOR MASONRY WALLS ARE REMOVED□FILL VOID WHERE WALL WAS REMOVED AND FINISH LEVEL W/ AD□ACENT TERRA□□O SURFACE.
19	INTERIOR FACE OF EXTERIOR WALL SHALL BE PATCHED AND REPAIRED TO MATCH AD□ACENT WALL SURFACE WHERE INTERSECTING INTERIOR WALL IS REMOVE UNLESS NOTED OTHERWISE.
20	SURFACES OF ALL EXISTING EXTERIOR EXPOSED METAL MEMBERS □LINTELS□ETC.□OTHER THAN PREFIN METAL SURFACES SHALL BE PREPARED AND PAINTED□TYP. UNO
21	CONTRACTOR SHALL CLEAN AND PREPARE EXISTING TERRA□□O AND CONCRETE FLOORS IN ACCORDANCE WITH NEW FLOOR MANUFACTURER'S RE□UIREMENTS PRIOR TO INSTALLING NEW FLOORING.
22	VERIFY SI□E□LOCATION AND CHARACTERISTICS OF ALL WOR□ AND E□UIPMENT TO BE INSTALLED OR RELOCATED WHETHER FURNISHED BY OWNER OR BY CONTRACTOR BEFORE ANY CONSTRUCTION PERTAINING TO THE SAME BEGINS.
23	VERIFY AND COORDINATE THE SI□E AND LOCATION OF ALL OPENINGS FOR STRUCTURAL□MECHANICAL AND ELECTRICAL WOR□ AND E□UIPMENT WITH ALL TRADES INVOLVED.
24	CEILING HEIGHTS INDICATED ON REFLECTED CEILING PLANS ARE TA□EN FROM FINISH FLOOR ELEVATION. THE SI□E□LOCATION AND CHARACTERISTICS OF ALL MECHANICAL□ELECTRICAL AND STRUCTURAL ITEMS SHALL BE COORDINATED AND VERIFIED BY THE GENERAL CONTRACTOR BEFORE CEILING CONSTRUCTION IS STARTED. COORDINATE WITH ALL TRADES TO MAINTAIN SCHEDULED CEILING HEIGHTS.
□□	THE FIRE ALARM CONTACTOR SHALL VERIFY THE RE□UIREMENTS OF THE LOCAL REGULATORY AGENCIES PRIOR TO THE COMMENCEMENT OF DESIGN OR INSTALLATION. THE FINAL DESIGN AS RE□UIRED TO MEET APPLICABLE STANDARDS□SHALL BE THE RESPONSIBILITY OF THE FIRE ALARM CONTRACTOR□AND SHALL BE SUBMITTED TO THE AUTHORIES HAVING □URISTICTION FOR APPROVAL. SUBMIT A COPY OF THE APPROVED SYSTEM LAYOUT FOR REVIEW BY ARCHITECT PRIOR TO COMMENCING WITH CONSTRUCTION.
1	VERIFY THAT RE□UIRED OPERATION AND MAINTENANCE CLEARANCES ARE PROVIDED FOR ALL E□UIPMENT ITEMS. INSTALL ALL ITEMS IN ACCORDANCE WITH MANUFACTURERS RE□UIREMENTS. WRITTEN INSTRUCTIONS□EXCEPT THAT THE SPECIFICATIONS□ WHERE MORE STRINGNET□SHALL SUPERSEDE. NOTIFY THE ARCHITECT IN WRITING OF ANY CONFLICTS.
2	THE CONTRACTOR SHALL CONSTRUCT THE PRO□ECT IN ACCORDANCE WITH ALL APPLICABLE LOCAL□STATE AND FEDERAL CODES AND REGULATIONS AND NOTIFY THE ARCHITECT OF ANY CONFLICT DISCOVERED BETWEEN THE CONTRACT DOCUMENTS AND THESE CODES.
3	CAUL□ING AND SEALANT IS RE□UIRED AT EXTERIOR □OINTS AROUND WINDOWS AND DOOR FRAMES□ BETWEEN WALL AND FOUNDATIONS□BETWEEN EXTERIOR WALL SYSTEMS□AT PENETRATIONS OR UTILITY SERVICES THROUGH WALLS□AND ALL OTHER OPENINGS IN THE EXTERIOR ENVELOPE AND AS INDICATED IN THE DRAWINGS. SEAL WITH APPROPRIATE SEALANT AS RECOMMENDED BY MANUFACTURERS OF SUB□ECT MATERIAL AND AS SPECIFIED IN THE DRAWINGS AND/OR PRO□ECT MANUAL SPECIFICATIONS.
4	THE CONTRACTOR SHALL NOTIFY THE OWNER IN WRITING OF ANY CONSTRUCTION DEFECTS FOUND IN UNCOVERING EXISTING CONSTRUCTION.

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COVER SHEET AND PRO□ECT NOTES

CS

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GREGORY M. CUPKA
Lic. No. 8001
17 2022
ARCHITECT

RUFFNER CAREER AND TECHNICAL EDUCATION CENTER
ROANOKE, VIRGINIA

ROANOKE CITY PUBLIC SCHOOLS
Strong Students. Strong Schools. Strong City.

REVISIONS

No.	DATE	DESCRIPTION
x	x	x

DRAWN BY:	
REV'D BY:	GC
DATE:	6/17/22
SCALE:	AS SHOWN

INDEX OF DRAWINGS

G3

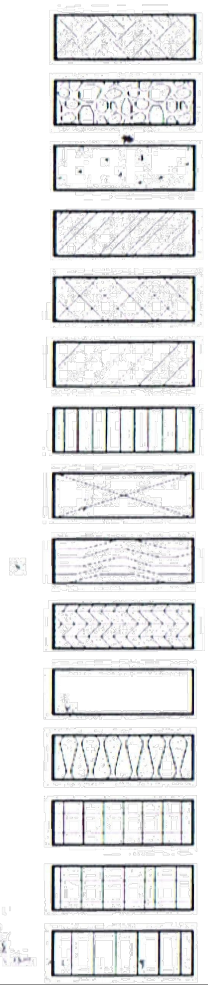
SHEET ______ of ______

ABBREVIATIONS

A	AMPERES	DR	DOOR	INCL.	"INCLUDE, INCLUSIVE"	R	RADIUS
A.B.	ANCHOR BOLT	E.A.	EXPANSION ANCHOR	INSUL.	INSULATION	R.D.L.	ROOF DRAIN LEADER
A.F.F.	ABOVE FINISHED FLOOR	E.F.	EXHAUST FAN	INT.	INTERIOR	R.D.O.	ROOF DRAIN OVERFLOW
A.F.G.	ABOVE FINISHED GRADE	E.J.	EXPANSION JOINT	J-BOX	JUNCTION BOX	R.O.	ROUGH OPENING
A/C	AIR CONDITIONING	E.N.	END NAILING	JCT	JUNCTION	R.O.W. or R/W	RIGHT OF WAY
ABC	AGGREGATE BASE COURSE	E.W.	EACH WAY	JST.	JOIST	REF	REFRIGERATOR
ABS	ACRYLONITRILE-BUTADIENE-STYRENE	EA.	EACH	JT.	JOINT	REF.	REFERENCE
ABV.	ABOVE	EL	ELEVATION	K-D	KNOCK DOWN	REINF.	REINFORCED
ACB	ASBESTOS-CEMENT BOARD	ELECT.	"ELECTRIC, ELECTRICAL"	KD	KILN DRIED	REQ'D.	REQUIRED
ACOU.	ACOUSTIC	ELEV.	ELEVATOR	KO	KNOCK OUT	RET.	RETURN
ACT	ACOUSTICAL CEILING TILE	EMC	ELECTRICAL METALLIC CONDUIT	L.E.D.	LIGHT EMITTING DIODE	REV.	REVISION
ADD.	ADDITION or ADDENDUM	EMT	ELECTRICAL METALLIC TUBING	L.FT.	LINEAR FEET	RM	ROOM
AG	ABOVE GRADE	ENT	ELECTRICAL NON-METALLIC TUBING	LAM	LAMINATE	RMV.	REMOVE
AHU	AIR HANDLER UNIT	EQ.	EQUAL	LAT.	LATERAL	S.C.	SOLID CORE
AL. or ALUM.	ALUMINUM	EQUIP.	EQUIPMENT	LAV	LAVATORY	S.D.	SMOKE DETECTOR
ALT.	ALTERNATE	EST.	ESTIMATE	LD.	LEAD	S.O.V.	SHUT OFF VALVE
ANL	ANNEALED	EVAP.	EVAPORATIVE COOLER	LIN.	LINEAR	S/L	SKYLIGHT
ASPH.	ASPHALT	EWC	ELECTRIC DRINKING COOLER	LINO.	LINOLEUM	S/S	STAINLESS STEEL
AVG	AVERAGE	EXC	EXCAVATE	LT.	LIGHT	SC	SELF CLOSING
AWG	AMERICAN WIRE GAUGE	EXH.	EXHAUST	LTG.	LIGHTING	SCHED.	SCHEDULE
∡	ANGLE	EXIST. or E	EXISTING	LVL	LAMINATED VENEER LUMBER	SECT.	SECTION
B.M.	BENCH MARK	EXT.	EXTERIOR	M.B.	MACHINE BOLT	SES	SERVICE ENTRANCE SECTION
B.N.	BOUNDARY NAILING	F.A.	FIRE ALARM	M.H.	MANHOLE	SH	SHEET
B.O.	BOTTOM OF	F.C.	FAN COIL	M.I.	MALLEABLE IRON	SHT'G.	SHEATHING
B.O.F.	BOTTOM OF FOOTING	F.C.O.	FLOOR CLEAN OUT	M.O.	MASONRY OPENING	SIM.	SIMILAR
B.U.	BUILT UP	F.D.	FLOOR DRAIN	MAR.	MARBLE	SPA.	SPACE
B/C	BACK OF CURB	F.E.	FIRE EXTINGUISHER	MAS.	MASONRY	SPECS	SPECIFICATIONS
BD.	BOARD	F.N.	FIELD NAILING	MAT'L	MATERIAL	SPKR.	SPEAKER
BLDG	BUILDING	F.O.	FACE OF	MAX.	MAXIMUM	SQ. FT.	SQUARE FEET
BLK.	BLOCK	F.S.	FLOOR SINK	MECH.	MECHANICAL	SQ. IN.	SQUARE INCHES
BLKG.	BLOCKING	F/G	FIBERGLASS	MED.	MEDIUM	STC	SOUND TRANSMISSION CLASS
BM.	BEAM	FAB.	FABRICATE	MFG.	MANUFACTURING	STD.	STANDARD
BR	BRASS	FACP	FIRE ALARM CONTROL PANEL	MFR.	MANUFACTURER	STL.	STEEL
BRG.	BEARING	FDC	FIRE DEPARTMENT CONNECTION	MIN.	MINIMUM	SUSP.	SUSPENDED
BRZ	BRONZE	FDN.	FOUNDATION	MISC.	MISCELLANEOUS	SW	SWITCH
C.A.P.	CONCRETE ASBESTOS PIPE	FHC	FIRE HOSE CABINET	MOD	MODULAR	SYM	SYMMETRICAL
C.D.	CONSTRUCTION DOCUMENTS	FIN.	FINISH	MTL.	METAL	SYS.	SYSTEM
C.I.P.	CAST IN PLACE	FL	FLOOR	MUL	MULLION	T & G	TONGUE AND GROOVE
C.J.	CONTROL JOINT	FLG.	FLOORING	N.I.C.	NOT IN CONTRACT	T.B.	THROUGH BOLT
C.O.	CLEAN OUT	FLUOR.	FLUORESCENT	N.T.S.	NOT TO SCALE	T.M.B.	TELEPHONE MOUNTING BOARD
C.T.	CERAMIC TILE	FP	FIRE PROOF	NCM	NON-CORROSIVE METAL	T.O.	TOP OF
CAB	CABINET	FTG.	FOOTING	NFC	NOT FOR CONSTRUCTION	T.O.B.	TOP OF BEAM
CAM.	CAMBER	FURN.	FURNISH	NLR.	NAILER	T.O.C.	TOP OF CURB
CCTV	CLOSED CIRCUIT TELEVISION	G.I.	GALVANIZED IRON	NO.	NUMBER	T.O.F.	TOP OF FOOTING
CEM.	CEMENT	GA.	GAUGE	NOM.	NOMINAL	T.O.J.	TOP OF JOIST
CER	CERAMIC	GALV.	GALVANIZED	O.C.	ON CENTER	T.O.M.	TOP OF MASONRY
CFM	CUBIC FEET PER MINUTE	GAR.	GARAGE	O.D.	OUTSIDE DIAMETER	T.O.S.	TOP OF SLAB
CH or ⊏	CHANNEL	GFCI	GROUND FAULT CIRCUIT INTERRUPTER	O.H.	OVER HANG	T.O.W.	TOP OF WALL
CKT. BKR.	CIRCUIT BREAKER	GFI	GROUND FAULT INTERRUPTER	O.I.	ORNAMENTAL IRON	T.S.	TUBE STEEL
CL or ℄	CENTERLINE	GL	GLASS	O.R.	OUTSIDE RADIUS	T.V.	TELEVISION OUTLET
CLG.	CEILING	GLB	GLUE LAMINATED BEAM	OAI	OUTSIDE AIR INTAKE	TEL.	TELEPHONE
CLKG.	CAULKING	GM	GRADE MARK	OH	OVER HEAD	TH.	THRESHOLD
CLO.	CLOSET	GM	GATE VALVE	OPNG.	OPENING	THD.	THREADED
CLR.	CLEAR	GRC	GALVANIZED RIGID TUBING	OPPO.	OPPOSITE	THK.	THICK
CMU	CONCRETE MASONRY UNIT	GYP.	GYPSUM	P.C.	PRECAST CONCRETE	THRU	THROUGH
CNTRD.	CENTERED	GYP. BD.	GYPSUM BOARD	P.L. or ⅊	PROPERTY LINE	TLT.	TOILET
COL.	COLUMN	H.B.	HOSE BIBB	P.LAM.	PLASTIC LAMINATE	TRANS.	TRANSFORMER
COMB.	COMBINATION	H.C.	HOLLOW CORE	P.O.C.	POINT OF CONNECTION	TYP.	TYPICAL
CONC.	CONCRETE	H.M.	HOLLOW METAL	PERF.	PERFORATED	UNF.	UNFINISHED
CONST.	CONSTRUCTION	H/C	HANDICAPPED	PERP. or ⊥	PERPENDICULAR	UR	URINAL
CONT.	CONTINUOUS	HDBD.	HARDBOARD	PH or ø	PHASE	V.B.	VAPOR BARRIER
CONTR.	CONTRACTOR	HDW	HARDWARE	PL.	PLASTER	V.I.F.	VERIFY IN FIELD
CU	COPPER	HGT.	HEIGHT	PL. or ⅊	PLATE	VA	VOLT AMPERE
d	PENNY	HOR.	HORIZONTAL	PLAS.	PLASTIC	VCT	VINYL COMPOSITION TILE
D.F.	DRINKING FOUNTAIN	HTR	HEATER	PLUMB.	PLUMBING	VERT.	VERTICAL
D.G.	DECOMPOSED GRANITE	HVAC	"HEATING, VENTILATING & AIR CONDITIONING"	PLYWD.	PLYWOOD	W/C	WATER CLOSET
D.S.	DOWN SPOUT	HW	HOT WATER	PORC.	PORCELAIN	WDW	WINDOW
D/W	DISHWASHER	HYD.	HYDRAULIC	PREFAB.	PREFABRICATED	WCT	WAINSCOT
DBL.	DOUBLE	I.C.	INTERCOM OUTLET	PSF	POUNDS PER SQUARE FOOT	WP	WEATHER PROOF
DEMO	DEMOLITION	I.D.	INSIDE DIAMETER	PSI	POUNDS PER SQUARE INCH	WT.	WEIGHT
DIA. or ø	DIAMETER	I.F.	INSIDE FACE	PTN.	PARTITION	W/	WITH
DIAG.	DIAGONAL	ID	IDENTIFICATION	PVC	POLYVINYLCLORIDE	W/O	WITHOUT
DIM.	DIMENSION	IG	ISOLATED GROUND	PWR.	POWER	WD.	WOOD
DL	DEAD LOAD	IMC	INTERMEDIATE METALLIC CONDUIT	Q.T.	QUARRY TILE	W.I.	WROUGHT IRON
DN.	DOWN	IMPG	IMPREGNATED	QTY.	QUANTITY	YD.	YARD

LEGENDS

MATERIALS



EARTH
CRUSHED STONE
CONCRETE
STEEL
CONCRETE MASONRY UNITS
BRICK
ACOUSTICAL TILE
ROUGH WOOD
FINISH WOOD
PLYWOOD
PLASTER OR GWB
BATT INSULATION
RIGID INSULATION
COMPRESSIBLE FILLER
VOID FORM

DRAWING CONVENTIONS

PLAN SHEET NUMBERING

AD101A

- DISCIPLINE DESIGNATION (1 OR 2 CHARACTERS)
- PLAN SHEET
- KEYPLAN AREA
- LEVEL OR FLOOR
- STATUS (E FOR EXISTING) (D FOR DEMOLITION)

SHEET NUMBERING

A401

- SHEET TYPE
- SEQUENCE
- DISCIPLINE DESIGNATION

G	GENERAL	I	INTERIORS
HA	ASBESTOS ABATEMENT	QF	FOOD SERVICE
V	SURVEY	FA	FIRE ALARM
B	GEOTECHNICAL	FP	FIRE PROTECTION
C	CIVIL	P	PLUMBING
L	LANDSCAPE	DQ	MATERIAL HANDLING
S	STRUCTURAL	M	MECHANICAL
LS	LIFE SAFETY	E	ELECTRICAL
A	ARCHITECTURAL	T	TELECOMMUNICATIONS

C2Architecture
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ABBREVIATIONS AND SYMBOLS

G3

SHEET ______ of ______

CP22-0012 - SITE PLANS

3601 FERNCLIFF AVENUE, NW

REPURPOSING OF RUFFNER OPERATIONS CENTER

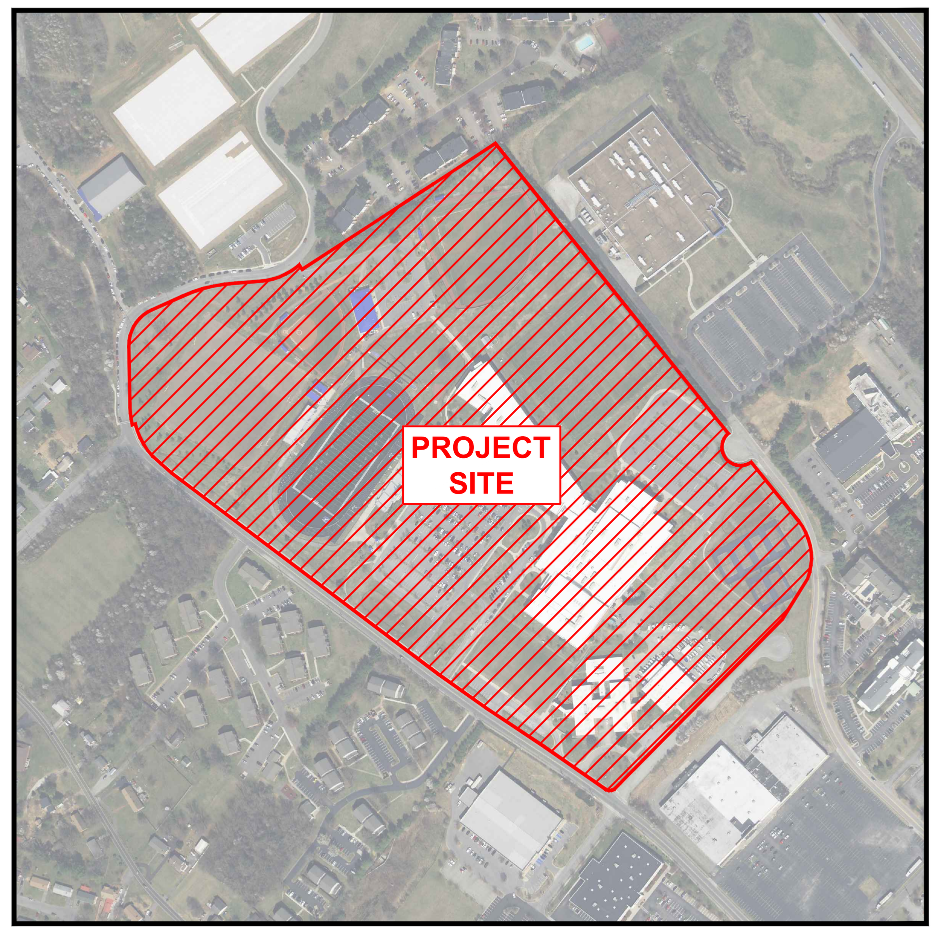
APRIL 22, 2022

LAST REVISION: JUNE 17, 2022

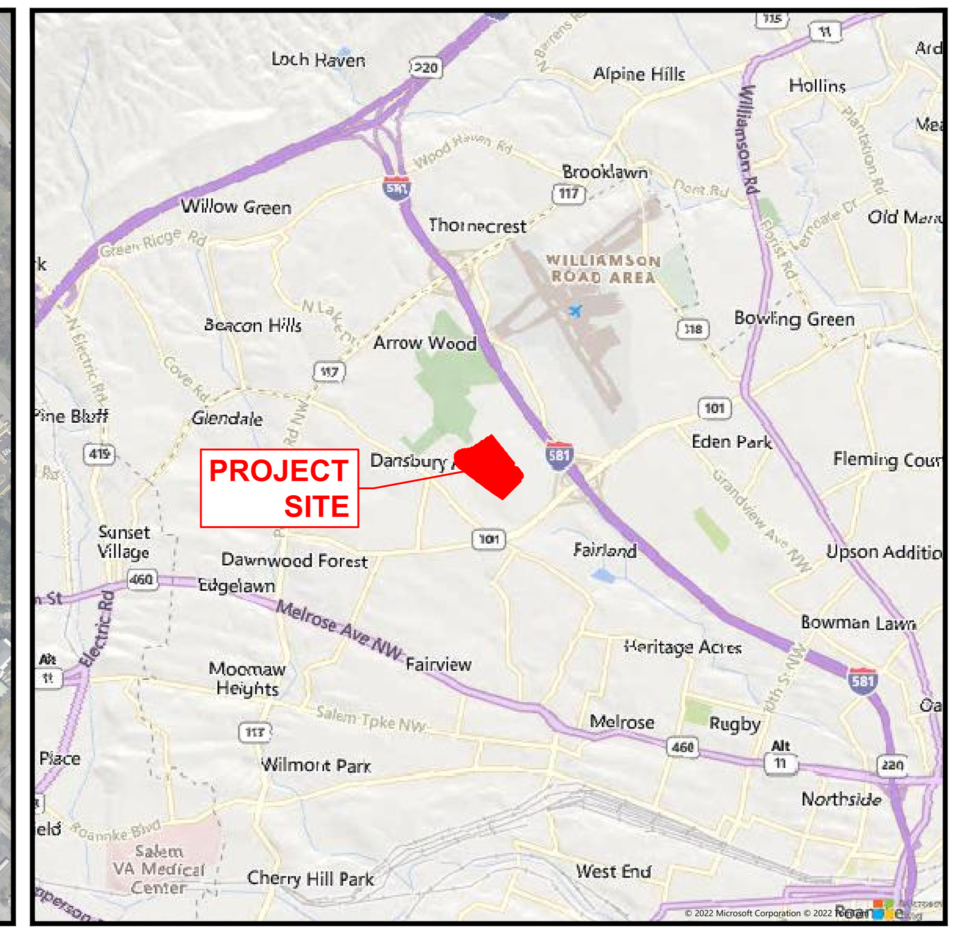
ROANOKE CITY CONSTRUCTION PROCEDURE REQUIREMENTS:

1. **RIGHT-OF-WAY EXCAVATION PERMIT** - PRIOR TO THE COMMENCEMENT OF ANY DIGGING, ALTERATION OR CONSTRUCTION WITHIN THE PUBLIC RIGHT-OF-WAY (STREETS, ALLEYS, PUBLIC EASEMENTS), A RIGHT-OF-WAY EXCAVATION PERMIT SHALL BE APPLIED FOR AND OBTAINED BY THE CONTRACTOR FROM THE CITY OF ROANOKE.
2. **LAND DISTURBANCE PERMIT** - AN APPROVED EROSION AND SEDIMENT CONTROL PLAN FOR ANY BORROW/FILL SITES ASSOCIATED WITH THE PROJECT MUST BE SUBMITTED PRIOR TO THE ISSUANCE OF A LAND DISTURBANCE PERMIT.
3. **PLANS AND PERMITS** - A COPY OF THE PLANS AS APPROVED BY THE CITY (SIGNED BY THE PROPER CITY OFFICIALS) AND ALL PERMITS ISSUED BY THE CITY SHALL BE AVAILABLE AT THE CONSTRUCTION SITE AT ALL TIMES OF ONGOING CONSTRUCTION.
4. **LOCATION OF UTILITIES** - THE CONTRACTOR SHALL VERIFY THE LOCATION OF ALL EXISTING UTILITIES PRIOR TO THE COMMENCEMENT OF ANY CONSTRUCTION.
5. **CONSTRUCTION ENTRANCE** - THE CONTRACTOR SHALL INSTALL AN ADEQUATE CONSTRUCTION ENTRANCE FOR ALL CONSTRUCTION RELATED EGRESS FROM THE SITE. SIZE AND COMPOSITION OF CONSTRUCTION ENTRANCE SHALL BE AS SHOWN ON THE PLANS.
6. **STREETS TO REMAIN CLEAN** - IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO INSURE THAT THE PUBLIC STREET ADJACENT TO THE CONSTRUCTION ENTRANCE REMAINS FREE OF MUD, DIRT, DUST, AND/OR ANY TYPE OF CONSTRUCTION MATERIALS OR LITTER AT ALL TIMES.
7. **BARRICADES/DITCHES** - THE CONTRACTOR SHALL MAINTAIN THE INTEGRITY OF ALL EXCAVATED DITCHES AND SHALL FURNISH AND ENSURE THAT ALL BARRICADES PROPER AND NECESSARY FOR THE SAFETY OF THE PUBLIC ARE IN PLACE.
8. **SEWER AND PAVEMENT REPLACEMENT** - CONSTRUCTION OF SANITARY SEWERS AND THE REPLACEMENT OF PAVEMENT SHALL BE IN ACCORDANCE WITH APPROVED STANDARDS AND SPECIFICATIONS OF THE CITY OF ROANOKE AND THE WESTERN VIRGINIA WATER AUTHORITY
9. **APPROVED PLANS/CONSTRUCTION CHANGES** - ANY CHANGE OR VARIATION FROM CONSTRUCTION DESIGN AS SHOWN ON THE OFFICIALLY APPROVED PLANS SHALL BE APPROVED BY THE EROSION AND SEDIMENT CONTROL AGENT PRIOR TO SAID CHANGES OR VARIATION IN CONSTRUCTION BEING MADE.
10. **FINAL ACCEPTANCE/CITY** - THE OWNER OR DEVELOPER SHALL FURNISH THE CITY OF ROANOKE'S PLANNING BUILDING AND DEVELOPMENT DEPARTMENT WITH A FIELD SURVEYED FINAL CORRECT SET OF AS-BUILT PLANS OF THE NEWLY CONSTRUCTED STORM RAIN AND/OR STORMWATER MANAGEMENT FACILITIES PRIOR TO FINAL ACCEPTANCE AND ISSUANCE OF A CERTIFICATE OF OCCUPANCY BY THE CITY. AS-BUILT PLANS SHALL BE PROVIDED IN THE STATE PLANE VIRGINIA SOUTH COORDINATE SYSTEM, NAD 1983, FIPS 4502 FEET, US SURVEY FEET, DATUM NA 83, IN THE FORM OF 1 PAPER COPY AND 1 DIGITAL AUTOCAD FILE.
11. **RIGHT-OF-WAY CONSTRUCTION** - "WORK IN THIS AREA IS TO BE PERFORMED PER THE CITY OF ROANOKE RIGHT OF WAY EXCAVATION AND RESTORATION STANDARDS".

CITY APPROVALS



VICINITY MAP
1" = 500'



VICINITY MAP
1" = 5,000'

CONTACT INFORMATION:

Engineer/ Surveyor:	**Parker Design Group, Inc** **2122 Carolina Ave SW** **Roanoke, VA 24014** **PH: (540) 387-1153**
Architect:	**C2 ARCHITECTURE, LLC** **14205 DENVER WEST CIRCLE, UNIT 4309** **LAKEWOOD, CO 80401**
Owner:	**CITY OF ROANOKE** **C/O BOB COWELL - CITY MANAGER** **215 CHURCH AVENUE, ROOM 364** **ROANOKE, VA 24011** **PH: (540) 853-2333**
Developer:	**ROANOKE CITY PUBLIC SCHOOLS** **C/O CHRIS PERKINS** **40 DOUGLASS AVENUE, N.W.** **ROANOKE, VA 24012** **PH: (540) 853-2382**

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PLAN LEGEND:

BUILDING
BUILDING CANOPY/ OVERHEAD
CONCRETE SIDEWALK
ASPHALT - STANDARD
ASPHALT - HEAVY DUTY
CONCRETE PAVEMENT
RETAINING WALL
1001 CONTOUR - MINOR
1000 CONTOUR - MAJOR
10.55 SPOT ELEVATION
LOD LIMITS OF DISTURBANCE
X GENERIC FENCE LINE
CHAIN LINK FENCE
WOOD PANEL FENCE
CURB AND GUTTER
EDGE OF PAVEMENT
ROAD CENTERLINE
UGE UNDERGROUND ELECTRIC
UGT UNDERGROUND TELECOM
UGE/UGT UNDERGROUND ELECTRIC/TELECOM
CATV CATV (CABLE)
FO FIBER OPTICS LINE
G NATURAL GAS
W WATER LINE
UTILITY EASEMENT
SS SANITARY SEWER PIPE
STORM SEWER PIPE

ADA PARKING SYMBOL
SIGN - 1 POST
SIGN - 2 POST
SIGN - 3 POST
CONCRETE WHEEL STOP
BOLLARD
TRAFFIC ARROW
10 PARKING COUNT
GENERIC WATER VALVE
WATER GATE VALVE
WATER PIPE FITTINGS
WATER METER
WATER BLOW OFF VALVE
AIR RELEASE VALVE
YARD HYDRANT
FIRE HYDRANT
W WATER MANHOLE
STORM MANHOLE
STORM INLETS
CLEANOUT
SANITARY MANHOLE
1 STORM STRUCTURE KEY
A SANITARY STRUCTURE KEY

ABBREVIATIONS AND SYMBOLS

SYMBOLS

@	AT
℄	CENTERLINE
℘	PLATE
ø	DIAMETER
°	DEGREE

ABBREVIATIONS

A	AREA
AC	ACRE(S)
BC	BACK OF CURB
BLDG	BUILDING
BOTT.	BOTTOM
BS	BOTTOM OF STEP
BW.	BOTTOM OF WALL
CF	CUBIC FEET
CG	CURB AND GUTTER
C.I.	CAST IRON
CI	CURB INLET
CIP	CAST IN PLACE
CJ	CONSTRUCTION JOINT
CLR.	CLEAR
C.O.	CLEANOUT
CONC.	CONCRETE
CONT.	CONTINUOUS
CY	CUBIC YARD(S)
D.B.	DEED BOOK
D.I.	DUCTILE IRON
DI	DROP INLET
DIA.	DIAMETER
DS	DOWNSPOUT
EA.	EACH
E.F.	EACH FACE
ELEV.	ELEVATION
EX.	EXISTING
EXP.	EXPANSION
E.W.	EACH WAY
FC	FACE OF CURB
FF	FINISHED FLOOR
FL	FLOW LINE
FT	FOOT (FEET)
GA	GAUGE
GALV.	GALVANIZED
GS	GROUND SHOT
GV	GATE VALVE
ID	INSIDE DIAMETER
INV.	INVERT
JT.	JOINT
LAT	LATERAL
LB	POUND
LBS	POUNDS
LF	LINEAR FOOT (FEET)
MAT'L.	MATERIAL
MAX.	MAXIMUM
MFR.	MANUFACTURER
MH	MANHOLE
MIN.	MINIMUM
M.J.	MECHANICALLY JOINED
O.C.	ON CENTER
OD	OUTSIDE DIAMETER
PB	PLAT BOOK
PL	PROPERTY LINE
PSI	POUNDS PER SQUARE INCH
PT	POINT OF TANGENCY
PVC	POLYVINYL CHLORIDE
R	RADIUS
RCP	REINFORCED CONCRETE PIPE
RD	ROOF DRAIN
REQ'D.	REQUIRED
R/W	RIGHT-OF-WAY
SS	SANITARY SEWER
SF	SQUARE FOOT (FEET)
SPEC.	SPECIFICATION
SPECS	SPECIFICATIONS
SQ.	SQUARE
STM	STORM
STD.	STANDARD
SW	SIDEWALK
SWM	STORM WATER MANAGEMENT
SY	SQUARE YARD(S)
TDC	TURNED DOWN CURB
TEMP.	TEMPORARY
TS.	TOP OF STEP
TW.	TOP OF WALL
TYP.	TYPICAL
UNO	UNLESS NOTED OTHERWISE
VAR.	VARIABLE
VDOT	VIRGINIA DEPARTMENT OF TRANSPORTATION
VESCH	VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK
WV	WATER VALVE
WWF	WELDED WIRE FABRIC

BEFORE YOU DIG CALL
ALWAYS CALL BEFORE YOU DIG
CALL "MISS UTILITY"
KEEP VIRGINIA SAFE
MISS UTILITY OF VIRGINIA

VIRGINIA LAW REQUIRES CONTRACTOR TO CONTACT MISS UTILITY (811) IN ADVANCE OF PLANNED WORK.

ADVANCE TIME PERIOD SHALL BE AT LEAST 48 HOURS (www.missutilityofvirginia.com).

CONTACT THE CITY OF ROANOKE ENVIRONMENTAL REVIEWER, CITY CONSTRUCTION COORDINATOR, AND MISS UTILITY 48 HOURS IN ADVANCE OF ANY CONSTRUCTION ACTIVITY.

C2 Architecture
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parker DESIGN GROUP
ENGINEERS • SURVEYORS
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COMMONWEALTH OF VIRGINIA
JACK D. ELLINWOOD
Lic. No. 001107
06/17/2022
LANDSCAPE ARCHITECT

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REVISIONS		
No.	DATE	DESCRIPTION
1	06/17/22	1ST CITY REVIEW

DRAWN BY:	JMD
REV'D BY:	JDE
DATE:	04/22/2022
SCALE:	AS SHOWN

COVER SHEET

C01

SHEET ______ of __X__

SITE INFORMATION

PROPERTY OWNER: CITY OF ROANOKE
PROPERTY ADDRESS: 3601 FERNCLIFF AVENUE, NW
PARCEL ID#: 6460102
PROPERTY ZONING: INPUD - ORDINANCE 42264-011822
DESIGN OVERLAY: N|A
EXISTING USE: INPUD - WILLIAM FLEMING CAMPUS & RUFFNER OPERATIONS CENTER
SITE AREA: 58.83 - ACRES
PROPOSED USE: RENOVATION OF THE RUFFNER OPERATIONS CENTER FOR NEW CENTER FOR TECHNICAL EDUCATION. EDUCATIONAL FACILITY.

LIST OF PERMITTED SITE USES:

- GOVERNMENT OFFICES OR OTHER GOVERNMENT FACILITY NOT OTHERWISE LISTED
- OFFICE, GENERAL OR PROFESSIONAL
- RECREATION, OUTDOOR
- SPORTS STADIUM, ARENA, OR COLISEUM
- EDUCATION FACILITIES: ELEMENTARY/MIDDLE/SECONDARY - COLLEGE / UNIVERSITY - BUSINESS SCHOOL OR NON-INDUSTRIAL TRADE SCHOOL - SCHOOL FOR THE ARTS.
- ACCESSORY USES, NOT OTHERWISE LISTED
- OUTDOOR RECREATION FACILITY LIGHTING OR SPORTS STADIUM LIGHTING BY SPECIAL EXCEPTION ONLY (EXISTING APPROVED BY SPECIAL EXCEPTION)

BUILDINGS ON SITE:

• WILLIAM FLEMING HIGH SCHOOL	297,000 S.F.
• RCPS OPERATIONS CENTER	56,952 S.F.
• GYMNASIUM (OLD RUFFNER)	17,356 S.F.
• STADIUM FIELD HOUSE	8,385 S.F.
• STADIUM SUPPORT BUILDINGS	5,000 S.F.
• TOTAL AREA:	384,693 S.F. (8.8 ACERS)

BUILDING MATERIALS INCLUDE BRICK, PRECAST CONCRETE, GLASS, METAL PANELS, ARCHITECTURAL CMU

BUILDING HEIGHTS:

• WILLIAM FLEMING HIGH SCHOOL	40 FEET
• RCPS OPERATIONS CENTER	32 FEET
• GYMNASIUM (OLD RUFFNER)	32 FEET
• STADIUM FIELD HOUSE	24 FEET
• STADIUM SUPPORT BUILDINGS	20 FEET

FLOOR AREA RATIO: 0.15 (8.8 ACRES\58.83 ACRES)

IMPERVIOUS SURFACE RATIO: 0.37 (PER CITY GIS IMPERVIOUS ASSESSMENT)
ADDED IMPERVIOUS AREA 0.4 ACRES = 0.38 RATIO

EXISTING PARKING: FLEMING HIGH-SCHOOL

• STUDENT EVENT LOT	316
• FACULTY - STAFF - BUS LOT	161
• ATHLETIC EVENT LOT	53
• VISITOR LOT	30
• TOTAL	560 SPACES

REQUIRED PARKING: (SECONDARY) = 1\7 STUDENTS = 1697\7 = 243 SPACES + 1\2000 S.F. ATHLETIC FIELD AREA = 575,545 S.F.\2000 = 288 SPACES = 531 SPACES.

EXISTING RCPS OPERATIONS CENTER

ON SITE	126
OFF SITE	17 (FERNDALE DRIVE, NW)
TOTAL	143 SPACES

EXISTING COMBINED ONSITE TOTAL PARKING FOR CAMPUS = 703

EXISTING PARKING, AS PREVIOUSLY APPROVED FOR THE INPUD, IS ADEQUATE FOR ALL EXISTING AND PROPOSED USES ONSITE. NO ADDITIONAL PARKING IS REQUIRED TO ACCOMMODATE CENTER FOR TECHNOLOGY EDUCATION INTEGRATION AT THE WILLIAM FLEMING CAMPUS. STUDENTS ATTENDING CTE CLASSES WILL BE BUSED TO THE FACILITY. 25 STAFF SPACES AND 38 EXISTING OPERATIONS STAFF SPACES ARE REQUIRED.

REDUCTION FOR PROXIMITY TO PUBLIC TRANSIT. WHERE A USE IS LOCATED WITHIN ONE THOUSAND TWO HUNDRED (1,200) FEET OF A PUBLIC TRANSIT ROUTE, THE TOTAL NUMBER OF REQUIRED OFF-STREET PARKING SPACES, UNASSIGNED TO SPECIFIC PERSONS, MAY BE REDUCED TO EIGHTY (80) PERCENT OF THAT OTHERWISE REQUIRED AS SET FORTH IN TABLE 652-2. NEAREST VALLEY METRO STOP AT WILLIAM FLEMING.

LANDSCAPING:
- NO BUFFERS REQUIRED
- TREE CANOPY REQUIRED: EXEMPT FOR SCHOOL CAMPUS
- PARKING LOT LANDSCAPING SEE SHEETS C24-C25.

SITE LIGHTING: EXISTING LIGHTING TO REMAIN. 6 NEW POLE MOUNTED LIGHTS PROPOSED IN REAR COURTYARD. MAXIMUM HEIGHT 12'. COURTYARD SURROUNDED ON ALL SIDES BY BUILDINGS - LIGHTS ARE BELOW ROOF LINE AND ARE TOP SHIELDED (ACORN STYLE LIGHTS). SEE BUILDING PERMIT PLANS FOR LIGHTING INFORMATION.

WESTERN VIRGINIA WATER AUTHORITY NOTES

1. ALL CONSTRUCTION METHODS AND MATERIALS SHALL CONFORM TO THE LATEST EDITION OF THE DESIGN AND CONSTRUCTION STANDARDS AND SPECIFICATIONS OF THE WESTERN VIRGINIA WATER AUTHORITY (WVWA) AVAILABLE AT WWW.WESTERNVAWATER.ORG OR BY CONTACTING THE AUTHORITY AT 540-853-5700. THE PROJECT SHALL ALSO COMPLY WITH THE GOVERNING JURISDICTION'S STANDARDS AND OTHER AGENCY STANDARDS (E.G., VDOT, DEQ, DCR, VDH, ETC.) WHERE APPLICABLE.
2. WHILE NOT REQUIRED ON EVERY WVWA PROJECTS, WATER SERVICE AND METER REPLACEMENT SHOULD BE DISCUSSED PRIOR TO CONSTRUCTION, THE AUTHORITY WILL INSTALL ALL NEW WATER METERS AND REMOVE ALL EXISTING WATER METERS. THE CONTRACTOR SHALL INSTALL COMPLETE NEW WATER SERVICES INCLUDING THE METER SETTER AND BOX. CONTRACTOR SHALL CONFIRM AND VERIFY THE EXISTING METER SIZE AND SETTER TYPE. (CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING CORRECT METER SETTER TO MATCH EXISTING METER SIZE AND TYPE). FOLLOWING METER REPLACEMENT BY THE AUTHORITY, THE CONTRACTOR SHALL DEMOLISH THE EXISTING WATER METER SETTER AND BOX. THE CONTRACTOR SHALL COORDINATE EXISTING METER REMOVAL AND NEW METER INSTALLATION DIRECTLY WITH THE AUTHORITY. THE CONTRACTOR SHALL PROVIDE AT LEAST THREE (3) BUSINESS DAYS ADVANCE NOTICE TO THE AUTHORITY PRIOR TO NEEDING METER INSTALLATIONS. THE CONTRACTOR SHALL SEQUENCE CONSTRUCTION ACTIVITY TO RECEIVE NEW METERS BEFORE CONTACTING THE AUTHORITY FOR WATER METER REPLACEMENT.
3. ALL CONNECTIONS TO EXISTING WATERLINES SHALL BE PERFORMED BY THE WVWA. THE CONTRACTOR SHALL PROVIDE FULL STAINLESS STEEL TAPPING SLEEVE(S) AND VALVE(S). THE CONTRACTOR SHALL EXCAVATE TO THE EXISTING WATERLINE, SHORE THE TRENCH PER OSHA REQUIREMENTS, CLEAN THE EXISTING WATERLINE, AND INSTALL THE TAPPING SLEEVE AND VALVE PRIOR TO THE AUTHORITY PERFORMING THE TAP. THE CONTRACTOR SHALL NOTIFY THE WVWA INSPECTOR AT LEAST SEVENTY-TWO (72) HOURS PRIOR TO REQUIRING THE CONNECTION.
4. ALL CONNECTIONS TO EXISTING SANITARY SEWERLINES SHALL BE PERFORMED BY THE AUTHORITY. THE CONTRACTOR SHALL EXCAVATE TO THE EXISTING SEWERLINE, SHORE THE TRENCH PER OSHA REQUIREMENTS, AND CLEAN THE EXISTING SEWERLINE PRIOR TO THE AUTHORITY PERFORMING THE TAP. THE CONTRACTOR SHALL NOTIFY THE WVWA INSPECTOR AT LEAST SEVENTY-TWO (72) HOURS PRIOR TO REQUIRING THE CONNECTION.
5. THE CONTRACTOR SHALL PERFORM ALL MANHOLE CONNECTIONS. THE CORING AND BOOT INSTALLATION SHALL BE INSPECTED AND APPROVED BY AN AUTHORITY CONSTRUCTION INSPECTOR PRIOR TO ACTIVATING SEWER SERVICE. THE CONTRACTOR SHALL CONTACT THE AUTHORITY'S CONSTRUCTION INSPECTOR RESPONSIBLE FOR THE PROJECT AT LEAST ONE (1) DAY PRIOR TO INITIATING THE MANHOLE CONNECTION.
6. PRIOR TO CONSTRUCTION IN THE RIGHT-OF-WAY, ALL APPLICABLE PERMIT(S) FROM THE GOVERNING JURISDICTION AND/OR AGENCY MUST BE OBTAINED AND A COPY KEPT ON THE PROJECT SITE.
7. FOR PROJECTS REQUIRING TRAFFIC CONTROL IN THE CITY OF ROANOKE, OR FOR FOR A LANE CLOSURE PERMIT IN THE CITY OF ROANOKE, CONTACT THE TRAFFIC ENGINEER, HONG LIU, AT 540-853-2686 AT LEAST TWO WEEKS IN ADVANCE OF REQUIRING TRAFFIC CONTROL. IN ROANOKE, BOTETOURT OR FRANKLIN COUNTIES, TRAFFIC CONTROL REQUIREMENTS ARE APPROVED BY VDOT, PLEASE CONTACT THE LOCAL VDOT OFFICE FOR ADDITIONAL REQUIREMENTS. TRAFFIC CONTROL SHALL BE PROVIDED IN ACCORDANCE WITH THE MOST RECENT MUTCD MANUAL AND THE VDOT WORK AREA PROTECTION MANUAL UNLESS OTHERWISE SPECIFIED BY THE CITY.
8. THE CONTRACTOR SHALL NOTIFY THE WVWA ENGINEERING COORDINATOR, MARK SINK, AT 540-537-3460 AT LEAST THREE (3) DAYS PRIOR TO CONSTRUCTION.
9. A PRE-CONSTRUCTION CONFERENCE SHALL BE SCHEDULED AT LEAST ONE (1) DAY PRIOR TO ANY CONSTRUCTION.
10. THE CONTRACTOR SHALL HAVE A VALID MISS UTILITY TICKET PRIOR TO EXCAVATION. CONTACT MISS UTILITY AT 1-800-552-7001.
11. ALL EXISTING UTILITIES MAY NOT BE SHOWN OR MAY NOT BE SHOWN IN THEIR EXACT LOCATION. CONTRACTOR SHALL LOCATE ALL UTILITIES AND DETERMINE ALL INVERTS PRIOR TO CONSTRUCTION TO ALLOW FOR ADJUSTMENTS DUE TO CONFLICTS WITH OTHER UTILITIES. THE CONTRACTOR SHALL COMPLY WITH THE VIRGINIA STATE WATER WORKS REGULATIONS, SECTION 12VAC5-590-1150, AND THE VIRGINIA STATE SEWAGE COLLECTION AND TREATMENT REGULATIONS WHERE LINES CROSS.
12. AN APPROVED SET OF PLANS AND PERMITS MUST BE AVAILABLE AT THE CONSTRUCTION SITE AT ALL TIMES.
13. CONSTRUCTION DEBRIS SHALL BE CONTAINERIZED IN ACCORDANCE WITH THE VIRGINIA LITTER CONTROL ACT.
14. THE CONTRACTOR'S CERTIFIED RESPONSIBLE LAND DISTURBER SHALL BE RESPONSIBLE TO IMPLEMENT ALL EROSION & SEDIMENT CONTROLS REQUIRED. ALL EROSION AND SEDIMENT CONTROL MEASURES MUST BE IN ACCORDANCE WITH THE LATEST EDITION OF THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK AND SHALL BE INSTALLED PRIOR TO CONSTRUCTION. THE WVWA MAY REQUIRE CHANGES TO AN APPROVED PLAN IN THE FOLLOWING CASES WHERE INSPECTION HAS REVEALED THAT THE PLAN IS INADEQUATE TO SATISFY APPLICABLE REGULATIONS.
15. THE CONTRACTOR SHALL PROVIDE ADEQUATE MEANS OF CLEANING ALL VEHICLES AND EQUIPMENT PRIOR TO ENTERING PUBLIC STREETS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ENSURE THAT THE STREETS ARE KEPT IN A CLEAN, MUD- AND DUST-FREE CONDITION AT ALL TIMES.
16. FIELD CHANGES SHALL BE APPROVED BY THE AUTHORITY'S ENGINEERING DIVISION PRIOR TO SUCH CONSTRUCTION. NO ADDITIONAL PAYMENTS SHALL BE MADE TO CONTRACTOR FOR WORK PERFORMED WITHOUT PRIOR APPROVAL FROM AUTHORITY'S PROJECT MANAGER.
17. THE CONTRACTOR SHALL MAKE PROVISIONS TO PROVIDE ACCESS TO ALL PROPERTIES DURING CONSTRUCTION AND SHALL MAINTAIN SAFE ACCESSIBILITY TO FIRE HYDRANTS AT ALL TIMES.
18. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING AND UNCOVERING ALL MANHOLES AFTER PAVING. MANHOLE RIMS SHALL BE INSTALLED TO GRADE AND FLUSH WITH THE FINAL PAVEMENT.
19. UNREPAIRED ROADWAYS OPENED TO TRAFFIC SHALL HAVE, AT A MINIMUM, COMPACTED AGGREGATE MATERIAL VDOT 21A OR 21B FLUSH WITH THE ADJACENT ROADWAY SURFACE AND SHALL BE INSPECTED AND REPAIRED ON A DAILY BASIS. SOME AREAS MAY REQUIRE A TEMPORARY PATCH UNTIL FINAL PAVING CAN BE COMPLETED.
20. THE CONTRACTOR SHALL NOT EXCAVATE MORE TRENCH LENGTH THAN CAN BE RESTORED WITHIN THE SAME WORK DAY. ALL TRENCHES SHALL BE BACKFILLED OR PLATED AT THE END OF EACH WORK DAY OR WHEN THE CONTRACTOR IS NOT ON SITE.
21. THE CONTRACTOR SHALL SUPPLY THE AUTHORITY WITH CORRECT AS-BUILT PLANS BEFORE SUBSTANTIAL COMPLETION WILL BE GRANTED.
22. HORIZONTAL & VERTICAL BENDS SHOWN IN THE PLAN ARE APPROXIMATE. CONTRACTOR TO BE AWARE THAT ALL HORIZONTAL AND/OR VERTICAL BEND FITTINGS MAY NOT BE SHOWN IN THE PLANS.

ROAD AND DRAINAGE STANDARD NOTES

1. ALL CONSTRUCTION AND MATERIALS SHALL CONFORM WITH THE VIRGINIA DEPARTMENT OF TRANSPORTATION STANDARDS AND SPECIFICATIONS, LATEST EDITION.
2. STORM SEWER SHALL CONFORM TO THE REQUIREMENTS OF THE PC-1 STANDARD FOUND IN VDOT'S ROAD AND BRIDGE STANDARDS, LATEST EDITION.
3. ALL DRAINAGE STRUCTURES SHALL BE EITHER PRECAST OR CAST-IN-PLACE.
4. ALL CURB AND GUTTER SHALL BE VDOT CG-6 AND CG-2 WHERE NOTED.
5. A DROP INLET ON GRADE SHALL BE POURED WITH THE THROAT ON THE SAME GRADE AS THE ADJOINING CURB AND GUTTER.
6. THE PAVEMENT DESIGN IS SUBJECT TO CHANGE DUE TO SOIL CONDITIONS AT THE TIME OF CONSTRUCTION, AS DETERMINED BY THE GEOTECHNICAL ENGINEER.
7. ALL UTILITY POLES WITHIN THE PUBLIC RIGHT-OF-WAY WHICH ARE IN CONFLICT WITH PROPOSED IMPROVEMENTS TO THE RIGHT-OF-WAY, SUCH AS, CURB AND GUTTER, DRAINAGE ITEMS, OR PAVEMENT WIDENING, SHALL BE RELOCATED AT THE OWNER'S DIRECTION AND EXPENSE PRIOR TO STAKING OF ANY OF THE IMPROVEMENTS BY THE CONTRACTOR.

SITE STORM SEWER

1. ALL STORM SEWER MATERIAL, JOINTS, AND INSTALLATION SHALL COMPLY WITH 2016 VDOT ROAD AND BRIDGE STANDARDS & SPECIFICATIONS.

DEMOLITION WITHIN PUBLIC RIGHT-OF-WAYS

1. WORK WITHIN THE PUBLIC RIGHT-OF-WAY FOR UTILITY CONNECTIONS OR REPAIR/REPLACEMENT OF EXISTING IMPROVEMENTS MUST ADHERE TO THE REQUIREMENTS OF THE ROW EXCAVATION STANDARDS OF THE CITY OF ROANOKE.

GENERAL NOTES

1. THE CONTRACTOR SHALL SECURE ALL NECESSARY PERMITS FOR THIS PROJECT FROM THE CITY OF ROANOKE AND OTHER APPLICABLE STATE AND FEDERAL AGENCIES PRIOR TO CONSTRUCTION.
2. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATION OF ALL SUPPORT UTILITY CONNECTIONS TO THE NEW FACILITY (AEP, ROANOKE GAS, FIBER OPTIC AND COMMUNICATION). CONNECTION POINTS AND EXTENSION ROUTES MAY CHANGE BASED ON REQUIRED SUPPLY LOAD INFORMATION. COORDINATE WITH THE MECHANICAL, ELECTRICAL AND PLUMBING PLANS FOR EXACT POINTS OF CONNECTION AT THE BUILDING. SITE CONTRACTOR SHALL BE RESPONSIBLE FOR UTILITY CONNECTIONS FIVE FEET OUTSIDE BUILDING FACE.
3. ALL WORK SHALL BE COMPLETED UNDER THE REQUIREMENTS OF USACE NATIONWIDE PERMIT 3 AND VADEQ SECTION 401 PERMIT NWP3 CONDITIONS FOR WORK WITHIN JURISDICTIONAL STREAMS AND/OR NON-TIDAL WETLANDS.
4. ANY PERMITS WHICH MUST BE OBTAINED SHALL BE THE CONTRACTOR'S RESPONSIBILITY AND AT HIS EXPENSE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ABIDING BY ALL CONDITIONS AND REQUIREMENTS OF THE PERMITS.
5. ALL CONSTRUCTION SHALL BE PERFORMED IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS, THE VIRGINIA DEPARTMENT OF TRANSPORTATION STANDARDS AND SPECIFICATIONS, LATEST EDITION, THE VIRGINIA WORK AREA PROTECTION MANUAL, AND THE CITY OF ROANOKE MANUAL OF SPECIFICATIONS AND STANDARD DETAILS LATEST EDITION, AND ROANOKE CITY CODE. THE MORE STRINGENT SPECIFICATION SHALL APPLY.
6. THE CONTRACTOR SHALL CONTACT "MISS UTILITY" AT 811 A MINIMUM OF 72 HOURS PRIOR TO CONSTRUCTION FOR MARKING OF PUBLIC UTILITIES.
7. A PRE-CONSTRUCTION CONFERENCE SHALL BE SCHEDULED WITH THE CITY OF ROANOKE TO BE HELD AT LEAST TWO (2) WEEKS PRIOR TO ANY CONSTRUCTION.
8. THE LOCATION OF EXISTING SEWER, WATER OR GAS LINES, CONDUITS OR OTHER STRUCTURES/UTILITIES ACROSS, UNDERNEATH, OR OTHERWISE ALONG THE LINE OF PROPOSED WORK ARE NOT NECESSARILY SHOWN ON THE PLANS, AND, IF SHOWN, ARE ONLY APPROXIMATE. CONTRACTOR SHALL VERIFY LOCATION AND ELEVATION OF ALL UNDERGROUND UTILITIES SHOWN ON THE PLANS IN AREAS OF CONSTRUCTION PRIOR TO STARTING WORK. CONTACT ENGINEER IMMEDIATELY IF LOCATION OR ELEVATION IS DIFFERENT FROM THAT SHOWN ON THE PLANS, IF THERE APPEARS TO BE A CONFLICT, OR UPON DISCOVERY OF ANY UTILITY NOT SHOWN ON THE PLANS.
9. WHERE PAVEMENT IS BEING REMOVED, THE CONTRACTOR SHALL CONFIRM SUITABILITY OF AGGREGATE SUBBASE WITH THE GEOTECHNICAL INSPECTOR PRIOR TO REMOVAL .
10. DAMAGE TO UTILITIES (INCLUDING UNDERGROUND) OR PROPERTY OF OTHERS BY CONTRACTOR DURING CONSTRUCTION SHALL BE REPAIRED TO PRE-CONSTRUCTION CONDITIONS BY CONTRACTOR AT NO COST TO OWNER.
11. EXISTING PAVEMENT AND OTHER SURFACES DISTURBED BY CONTRACTOR (WHICH ARE NOT TO BE REMOVED) SHALL BE REPAIRED TO LIKE-NEW CONDITION. ANY EXISTING DRAINAGE OR PAVEMENT STRUCTURE ON PUBLIC RIGHT-OF-WAY THAT IS DAMAGED DURING THE COURSE OF THE PERMITTED WORK SHALL BE REPAIRED OR REPLACED TO THE SATISFACTION OF THE CITY OF ROANOKE. REPLACEMENT SHALL BE THE SELECTED METHOD UNLESS FIELD CONDITIONS DICTATE REPAIRS, AS APPROVED BY THE CITY OF ROANOKE.
12. THE CONTRACTOR IS REQUIRED TO MAINTAIN ALL DITCHES, PIPES, AND OTHER DRAINAGE STRUCTURES FREE FROM OBSTRUCTION UNTIL WORK IS ACCEPTED BY THE OWNER. THE CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGES CAUSED BY FAILURE TO MAINTAIN DRAINAGE STRUCTURE IN OPERABLE CONDITION.
13. THE CONTRACTOR SHALL HAVE A SET OF APPROVED PLANS, STORMWATER POLLUTION PREVENTION PLAN, AND PERMITS AVAILABLE AT THE SITE AT ALL TIMES WHEN WORK IS BEING PERFORMED. THE CONTRACTOR SHALL DESIGNATE A RESPONSIBLE EMPLOYEE THAT SHALL BE AVAILABLE FOR CONTACT BY THE CITY OF ROANOKE, VDOT, AND THE OWNERS INSPECTORS.
14. ALL UNDERGROUND UTILITIES (WATER, SANITARY SEWER, ETC.) SHALL BE INSTALLED AND TESTED SATISFACTORILY PRIOR TO COMMENCING ANY PAVING OPERATIONS WHERE SUCH UTILITIES ARE WITHIN THE LIMITS OF PAVEMENT.
15. ALL GROUND COVER AND LANDSCAPING SHALL BE PROPERLY MAINTAINED IN A HEALTHY CONDITION AT ALL TIMES. DEAD PLANT MATERIALS SHALL BE REMOVED IN A REASONABLE TIME AND REPLACED DURING THE NORMAL PLANTING SEASON.
16. THE CONTRACTOR AND/OR THE DEVELOPER IS RESPONSIBLE FOR THE COST OF REPAIR OR REPLACEMENT OF ANY TRAFFIC CONTROL DEVICES THAT EITHER NEED TO BE RELOCATED OR THAT IS DAMAGED AS A RESULT OF THIS WORK. ANY WORK INVOLVING THE TRAFFIC CONTROL DEVICES SHALL BE COORDINATED THROUGH THE VIRGINIA DEPARTMENT OF TRANSPORTATION.
17. ALL EXCAVATION FOR UNDERGROUND PIPE INSTALLATION MUST COMPLY WITH OSHA STANDARDS FOR THE CONSTRUCTION INDUSTRY (29 CFR PART 1926).
18. VERIFY THE PROPOSED LAYOUT WITH ITS RELATIONSHIP TO THE EXISTING SITE SURVEY. ALSO VERIFY ALL DIMENSIONS, SITE CONDITIONS, AND MATERIAL SPECIFICATIONS AND NOTIFY THE OWNER AND ENGINEER OF ANY ERRORS, OMISSIONS, OR DISCREPANCIES BEFORE COMMENCING OR PROCEEDING WITH WORK.
19. DEVIATIONS FROM, OR CHANGES TO THESE PLANS WILL NOT BE ALLOWED, UNLESS OTHERWISE APPROVED BY THE ENGINEER.
20. MAKE EXPLORATORY EXCAVATIONS AND LOCATE EXISTING UTILITIES SUFFICIENTLY AHEAD OF CONSTRUCTION TO PERMIT REVISIONS TO THE PLANS IF NECESSARY. THE EXISTENCE AND/OR LOCATION OF UTILITIES SHOWN ON THESE PLANS MAY BE ONLY APPROXIMATELY CORRECT AND TAKE PRECAUTIONARY MEASURES TO PROTECT THE UTILITIES SHOWN HEREON AND ANY OTHER EXISTING UTILITIES NOT OF RECORD OR NOT SHOWN ON THESE PLANS. REPAIR AT YOUR OWN EXPENSE, ANY EXISTING UTILITIES DAMAGED DURING CONSTRUCTION. IF A UTILITY IS DAMAGED DURING CONSTRUCTION, STOP WORK IMMEDIATELY AND NOTIFY THE ENGINEER.
21. PROPERLY SECURE THE CONSTRUCTION AREA AT ALL TIMES AGAINST UNAUTHORIZED ENTRY AND ADEQUATELY PROTECT EQUIPMENT, MATERIALS, AND COMPLETED WORK FROM THEFT AND VANDALISM. THE OWNER IS NOT RESPONSIBLE FOR THE LOSS OF ANY MATERIAL STORED AT THE SITE.
22. THE CONTRACTOR IS TO ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THIS PROJECT. INCLUDING SAFETY OF ALL PERSONS AND PROPERTY; THAT THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS; AND SHALL DEFEND, INDEMNIFY, AND HOLD THE OWNER AND THE ENGINEER HARMLESS FROM ANY AND ALL LIABILITY, REAL AND ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPTING FOR LIABILITY ARISING FROM "THE SOLE NEGLIGENCE OF THE OWNER OR THE ENGINEER."
23. ALL TURF AREAS OR LANDSCAPING IMPACTED OR DISTURBED BY VEHICLES, EQUIPMENT, OR ACTIVITY SHALL BE REPAIRED, REGRADED, AND RE-SEEDED TO THE SATISFACTION OF THE OWNER.
24. IT IS THE CONTRACTOR'S RESPONSIBILITY TO MEET COMPLIANCE REQUIREMENTS WITH SECTION 59.1-406, ET SEQ. OF THE CODE OF VIRGINIA (OVERHEAD HIGH VOLTAGE LINES SAFETY ACT).
25. THE DEVELOPER OR CONTRACTOR SHALL SUPPLY THE CITY OF ROANOKE WITH CORRECT AS-BUILT PLANS BEFORE FINAL ACCEPTANCE.
26. FIELD CORRECTIONS SHALL BE APPROVED BY THE CITY OF ROANOKE PRIOR TO SUCH CONSTRUCTION.
27. ALL HANDICAP SITE FEATURES SHALL BE INSTALLED IN CONFORMANCE WITH WITH ALL FEDERAL, STATE AND LOCAL CODES.
28. PAVEMENT AND CONCRETE SECTIONS SHALL COMPLY WITH THE MINIMUM REQUIREMENTS OF THE GEOTECHNICAL REPORT.

DEMOLITION NOTES

1. UNLESS OTHERWISE INDICATED, DEMOLITION WASTE BECOMES PROPERTY OF THE CONTRACTOR. THE CONTRACTOR IS RESPONSIBLE FOR DISPOSAL OF WASTE MATERIALS.
2. THE CONTRACTOR SHALL CONTACT RESPECTIVE UTILITY COMPANIES PRIOR TO DEMOLITION TO COORDINATE DISCONNECTION OF EXISTING UTILITIES WITHIN THE AREA OF WORK.
3. HISTORIC ITEMS, RELICS, ANTIQUES, AND SIMILAR OBJECTS INCLUDING BUT NOT LIMITED TO CORNERSTONES, COMMEMORATIVE PLAQUES, AND OTHER ITEMS OF INTEREST OR VALUE TO THE OWNER THAT MAY BE UNCOVERED DURING DEMOLITION REMAIN THE PROPERTY OF THE OWNER.
4. CONTRACTOR SHALL COMPLY WITH HAULING AND DISPOSAL REGULATIONS OF AUTHORITIES HAVING JURISDICTION.
5. ALL DEMOLITION ACTIVITY SHALL BE IN COMPLIANCE WITH ASSP A10.6 AND NFPA 241.
6. CONTRACTOR SHALL LIMIT SPREAD OF DUST, DIRT, AND SEDIMENT BEYOND THE LIMITS OF CONSTRUCTION.
7. DEMOLISHED MATERIALS SHALL ONLY BE STORED WITHIN SAFETY FENCING LIMITS, SECURE FROM THE PUBLIC.
8. WASTE MATERIAL SHALL NOT BE BURNED ON SITE.
9. THE PURPOSE OF THIS DRAWING IS TO CONVEY THE OVERALL SCOPE OF WORK AND IT IS NOT INTENDED TO COVER ALL DETAILS OR SPECIFICATIONS REQUIRED TO COMPLY WITH GENERALLY ACCEPTED DEMOLITION PRACTICES. THE CONTRACTOR SHALL THOROUGHLY BECOME FAMILIARIZED WITH THE SITE, SCOPE OF WORK, AND ALL EXISTING CONDITIONS AT THE JOB SITE PRIOR TO BIDDING AND COMMENCING WITH THE WORK. THE DEMOLITION CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR MEANS, METHODS, TECHNIQUES, OR PROCEDURES USED TO COMPLETE THE WORK IN ACCORDANCE WITH THE CONSTRUCTION DOCUMENTS.
10. EXISTING TREES TO REMAIN MUST BE PROTECTED FROM DEMOLITION WORK AND SITE CONSTRUCTION OPERATIONS.

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06/17/2022
LANDSCAPE ARCHITECT

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REVISIONS

No.	DATE	DESCRIPTION
1	06/17/22	1ST CITY REVIEW

DRAWN BY:	JMD
REV'D BY:	JDE
DATE:	04/22/2022
SCALE:	AS SHOWN

GENERAL NOTES

C02

SHEET ______ of X

STATE MINIMUM STANDARDS FOR EROSION & SEDIMENT CONTROL

AN EROSION AND SEDIMENT CONTROL PROGRAM ADOPTED BY A DISTRICT OR LOCALITY MUST BE CONSISTENT WITH THE FOLLOWING CRITERIA, TECHNIQUES AND METHODS:

MS-1 YES — PERMANENT OR TEMPORARY SOIL STABILIZATION SHALL BE APPLIED TO DENUDED AREAS WITHIN SEVEN DAYS AFTER FINAL GRADE IS REACHED ON ANY PORTION OF THE SITE. TEMPORARY SOIL STABILIZATION SHALL BE APPLIED WITHIN SEVEN DAYS TO DENUDED AREAS THAT MAY NOT BE AT FINAL GRADE BUT WILL REMAIN DORMANT (UNDISTURBED) FOR LONGER THAN 14 DAYS. PERMANENT STABILIZATION SHALL BE APPLIED TO AREAS THAT ARE TO BE LEFT DORMANT FOR MORE THAN ONE YEAR.

MS-2 YES — DURING CONSTRUCTION OF THE PROJECT, SOIL STOCKPILES SHALL BE STABILIZED OR PROTECTED WITH SEDIMENT TRAPPING MEASURES. THE CONTRACTOR IS RESPONSIBLE FOR THE TEMPORARY PROTECTION AND PERMANENT STABILIZATION OF ALL SOIL STOCKPILES ON SITE AS WELL AS SOIL INTENTIONALLY TRANSPORTED FROM THE PROJECT SITE.

MS-3 YES — A PERMANENT VEGETATIVE COVER SHALL BE ESTABLISHED ON DENUDED AREAS NOT OTHERWISE PERMANENTLY STABILIZED. PERMANENT VEGETATION SHALL NOT BE CONSIDERED ESTABLISHED UNTIL A GROUND COVER IS ACHIEVED THAT, IN THE OPINION OF THE DIVISION OF SOIL AND WATER CONSERVATION OF THE DEPARTMENT OF CONSERVATION AND RECREATION, IS UNIFORM, MATURE ENOUGH TO SURVIVE AND WILL INHIBIT EROSION.

MS-4 YES — SEDIMENT BASINS AND TRAPS, PERIMETER DIKES, SEDIMENT BARRIERS, AND OTHER MEASURES INTENDED TO TRAP SEDIMENT SHALL BE CONSTRUCTED AS A FIRST STEP IN ANY LAND DISTURBING ACTIVITY, AND SHALL BE MADE FUNCTIONAL BEFORE UPSLOPE LAND DISTURBANCE TAKES PLACE.

MS-5 YES — STABILIZATION MEASURES SHALL BE APPLIED TO EARTHEN STRUCTURES SUCH AS DAMS, DIKES AND DIVERSIONS IMMEDIATELY AFTER INSTALLATION.

MS-6 YES — SEDIMENT TRAPS AND SEDIMENT BASINS SHALL BE DESIGNED AND CONSTRUCTED BASED UPON THE TOTAL DRAINAGE AREA TO BE SERVED BY THE TRAP OR BASIN.

A. THE MINIMUM STORAGE CAPACITY OF A SEDIMENT TRAP SHALL BE 134 CUBIC YARDS PER ACRE OF DRAINAGE AREA AND THE TRAP SHALL ONLY CONTROL DRAINAGE AREAS LESS THAN THREE ACRES.

B. THE SURFACE RUNOFF FROM DISTURBED AREAS THAT IS COMPRISED OF FLOW FROM DRAINAGE AREAS GREATER THAN OR EQUAL TO THREE ACRES SHALL BE CONTROLLED BY A SEDIMENT BASIN. THE MINIMUM STORAGE CAPACITY OF A SEDIMENT BASIN SHALL BE 134 CUBIC YARDS PER ACRE OF DRAINAGE AREA. THE OUTFALL SYSTEM SHALL, AT A MINIMUM, MAINTAIN THE STRUCTURAL INTEGRITY OF THE BASIN DURING A TWENTY-FIVE YEAR STORM OF 24-HOUR DURATION. RUNOFF COEFFICIENTS USED INRUNOFF CALCULATIONS SHALL CORRESPOND TO A BARE EARTH CONDITION OR THOSE CONDITIONS EXPECTED TO EXIST WHILE THE SEDIMENT BASIN IS UTILIZED.

MS-7 YES — CUT AND FILL SLOPES SHALL BE DESIGNED AND CONSTRUCTED IN A MANNER THAT WILL MINIMIZE EROSION. SLOPES THAT ARE FOUND TO BE ERODING EXCESSIVELY WITHIN ONE YEAR OF PERMANENT STABILIZATION SHALL BE PROVIDED WITH ADDITIONAL SLOPE STABILIZING MEASURES UNTIL THE PROBLEM IS CORRECTED.

MS-8 YES — CONCENTRATED RUNOFF SHALL NOT FLOW DOWN CUT OR FILL SLOPES UNLESS CONTAINED WITHIN AN ADEQUATE TEMPORARY OR PERMANENT CHANNEL, FLUME OR SLOPE DRAIN STRUCTURE.

MS-9 YES — WHENEVER WATER SEEPS FROM A SLOPE FACE, ADEQUATE DRAINAGE OR OTHER PROTECTION SHALL BE PROVIDED.

MS-10 YES — ALL STORM SEWER INLETS THAT ARE MADE OPERABLE DURING CONSTRUCTION SHALL BE PROTECTED SO THAT SEDIMENT-LADEN WATER CANNOT ENTER THE CONVEYANCE SYSTEM WITHOUT FIRST BEING FILTERED OR OTHERWISE TREATED TO REMOVE SEDIMENT.

MS-11 YES — BEFORE NEWLY CONSTRUCTED STORMWATER CONVEYANCE CHANNELS OR PIPES ARE MADE OPERATIONAL, ADEQUATE OUTLET PROTECTION AND ANY REQUIRED TEMPORARY OR PERMANENT CHANNEL LINING SHALL BE INSTALLED IN BOTH THE CONVEYANCE CHANNEL AND RECEIVING CHANNEL.

MS-12 N/A — WHEN WORK IN A LIVE WATERCOURSE IS PERFORMED, PRECAUTIONS SHALL BE TAKEN TO MINIMIZE ENCROACHMENT, CONTROL SEDIMENT TRANSPORT AND STABILIZE THE WORK AREA TO THE GREATEST EXTENT POSSIBLE DURING CONSTRUCTION. NONERODIBLE MATERIAL SHALL BE USED FOR THE CONSTRUCTION OF CAUSEWAYS AND COFFERDAMS. EARTHEN FILL MAY BE USED FOR THESE STRUCTURES IF ARMORED BY NONERODIBLE COVER MATERIALS.

MS-13 N/A — WHEN A LIVE WATERCOURSE MUST BE CROSSED BY CONSTRUCTION VEHICLES MORE THAN TWICE IN ANY SIX-MONTH PERIOD, A TEMPORARY VEHICULAR STREAM CROSSING CONSTRUCTED OF NONERODIBLE MATERIAL SHALL BE PROVIDED.

MS-14 N/A — ALL APPLICABLE FEDERAL, STATE AND LOCAL REGULATIONS PERTAINING TO WORKING IN OR CROSSING LIVE WATERCOURSES SHALL BE MET.

MS-15 N/A — THE BED AND BANKS OF A WATERCOURSE SHALL BE STABILIZED IMMEDIATELY AFTER WORK IN THE WATERCOURSE IS COMPLETED.

MS-16 YES — UNDERGROUND UTILITY LINES SHALL BE INSTALLED IN ACCORDANCE WITH THE FOLLOWING STANDARDS IN ADDITION TO OTHER APPLICABLE CRITERIA:

A. NO MORE THAN 500 LINEAR FEET OF TRENCH MAY BE OPENED AT ONE TIME.
B. EXCAVATED MATERIAL SHALL BE PLACED ON THE UPHILL SIDE OF TRENCHES.
C. EFFLUENT FROM DEWATERING OPERATIONS SHALL BE FILTERED OR PASSED THROUGH AN APPROVED SEDIMENT TRAPPING DEVICE, OR BOTH, AND DISCHARGED IN A MANNER THAT DOES NOT ADVERSELY AFFECT FLOWING STREAMS OR OFF-SITE PROPERTY.
D. MATERIAL USED FOR BACKFILLING TRENCHES SHALL BE PROPERLY COMPACTED IN ORDER TO MINIMIZE EROSION AND PROMOTE STABILIZATION.
E. RESTABILIZATION SHALL BE ACCOMPLISHED IN ACCORDANCE WITH THESE REGULATIONS.
F. APPLICABLE SAFETY REGULATIONS SHALL BE COMPLIED WITH.

MS-17 YES — WHERE CONSTRUCTION VEHICLE ACCESS ROUTES INTERSECT PAVED PUBLIC ROADS, PROVISIONS SHALL BE MADE TO MINIMIZE THE TRANSPORT OF SEDIMENT BY VEHICULAR TRACKING ONTO THE PAVED SURFACE. WHERE SEDIMENT IS TRANSPORTED ONTO A PUBLIC ROAD SURFACE, THE ROAD SHALL BE CLEANED THOROUGHLY AT THE END OF EACH DAY. SEDIMENT SHALL BE REMOVED FROM THE ROADS BY SHOVELING OR SWEEPING AND TRANSPORTED TO A SEDIMENT CONTROL DISPOSAL AREA. STREET WASHING SHALL BE ALLOWED ONLY AFTER SEDIMENT IS REMOVED IN THIS MANNER. THIS PROVISION SHALL APPLY TO INDIVIDUAL SUBDIVISION LOTS AS WELL AS TO LARGER LAND-DISTURBING ACTIVITIES.

MS-18 YES — ALL TEMPORARY EROSION CONTROL MEASURES SHALL BE REMOVED WITHIN 30 DAYS AFTER FINAL SITE STABILIZATION, OR AFTER THE TEMPORARY MEASURES ARE NO LONGER NEEDED UNLESS OTHERWISE AUTHORIZED BY THE VESCP ADMINISTRATOR. TRAPPED SEDIMENT AND THE DISTURBED SOIL AREAS RESULTING FROM THE DISPOSITION OF TEMPORARY MEASURES SHALL BE PERMANENTLY STABILIZED TO PREVENT FURTHER EROSION AND SEDIMENTATION.

MS-19 YES — PROPERTIES AND WATERWAYS DOWNSTREAM FROM DEVELOPMENT SITES SHALL BE PROTECTED FROM SEDIMENT DEPOSITION, EROSION AND DAMAGE DUE TO INCREASES IN VOLUME, VELOCITY AND PEAK FLOW RATE OF STORMWATER RUNOFF FOR THE STATED FREQUENCY STORM OF 24-HOUR DURATION IN ACCORDANCE WITH THE FOLLOWING STANDARDS AND CRITERIA. STREAM RESTORATION AND RELOCATION PROJECTS THAT INCORPORATE NATURAL CHANNEL DESIGN CONCEPTS ARE NOT MAN-MADE CHANNELS AND SHALL BE EXEMPT FROM ANY FLOW RATE CAPACITY AND VELOCITY REQUIREMENTS FOR NATURAL OR MAN-MADE CHANNELS:

A. CONCENTRATED STORMWATER RUNOFF LEAVING A DEVELOPMENT SITE SHALL BE DISCHARGED DIRECTLY INTO AN ADEQUATE NATURAL OR MAN-MADE RECEIVING CHANNEL, PIPE OR STORM SEWER SYSTEM. FOR THOSE SITES WHERE RUNOFF IS DISCHARGED INTO A PIPE OR PIPE SYSTEM, DOWNSTREAM STABILITY ANALYSES AT THE OUTFALL OF THE PIPE OR PIPE SYSTEM SHALL BE PERFORMED.

B. ADEQUACY OF ALL CHANNELS AND PIPES SHALL BE VERIFIED IN THE FOLLOWING MANNER:

(1) THE APPLICANT SHALL DEMONSTRATE THAT THE TOTAL DRAINAGE AREA TO THE POINT OF ANALYSIS WITHIN THE CHANNEL IS ONE HUNDRED TIMES GREATER THAN THE CONTRIBUTING DRAINAGE AREA OF THE PROJECT IN QUESTION; OR

(2)(A) NATURAL CHANNELS SHALL BE ANALYZED BY THE USE OF A TWO-YEAR STORM TO VERIFY THAT STORMWATER WILL NOT OVERTOP CHANNEL BANKS NOR CAUSE EROSION OF CHANNEL BED OR BANKS.

(2) ALL PREVIOUSLY CONSTRUCTED MAN-MADE CHANNELS SHALL BE ANALYZED BY THE USE OF A TEN-YEAR STORM TO VERIFY THAT STORMWATER WILL NOT OVERTOP ITS BANKS AND BY THE USE OF A TWO-YEAR STORM TO DEMONSTRATE THAT STORMWATER WILL NOT CAUSE EROSION OF CHANNEL BED OR BANKS; AND

(2) PIPES AND STORM SEWER SYSTEMS SHALL BE ANALYZED BY THE USE OF A TEN-YEAR STORM TO VERIFY THAT STORMWATER WILL BE CONTAINED WITHIN THE PIPE OR SYSTEM.

C. IF EXISTING NATURAL RECEIVING CHANNELS OR PREVIOUSLY CONSTRUCTED MAN-MADE CHANNELS OR PIPES ARE NOT ADEQUATE, THE APPLICANT SHALL:

(1) IMPROVE THE CHANNELS TO A CONDITION WHERE A TEN-YEAR STORM WILL NOT OVERTOP THE BANKS AND A TWO-YEAR STORM WILL NOT CAUSE EROSION TO CHANNEL THE BED OR BANKS; OR

(2) IMPROVE THE PIPE OR PIPE SYSTEM TO A CONDITION WHERE THE TEN-YEAR STORM IS CONTAINED WITHIN THE APPURTENANCES;

(3) DEVELOP A SITE DESIGN THAT WILL NOT CAUSE THE PRE-DEVELOPMENT PEAK RUNOFF RATE FROM A TWO-YEAR STORM TO INCREASE WHEN RUNOFF OUTFALLS INTO A NATURAL CHANNEL OR WILL NOT CAUSE THE PRE-DEVELOPMENT PEAK RUNOFF RATE FROM A TEN-YEAR STORM TO INCREASE WHEN RUNOFF OUTFALLS INTO A MAN-MADE CHANNEL; OR

(4) PROVIDE A COMBINATION OF CHANNEL IMPROVEMENT, STORMWATER DETENTION OR OTHER MEASURES WHICH IS SATISFACTORY TO THE VESCP AUTHORITY TO PREVENT DOWNSTREAM EROSION.

D. THE APPLICANT SHALL PROVIDE EVIDENCE OF PERMISSION TO MAKE THE IMPROVEMENTS.
E. ALL HYDROLOGIC ANALYSES SHALL BE BASED ON THE EXISTING WATERSHED CHARACTERISTICS AND THE ULTIMATE DEVELOPMENT CONDITION OF THE SUBJECT PROJECT.
F. IF THE APPLICANT CHOOSES AN OPTION THAT INCLUDES STORMWATER DETENTION, HE SHALL OBTAIN APPROVAL FROM THE VESCP OF A PLAN FOR MAINTENANCE OF THE DETENTION FACILITIES. THE PLAN SHALL SET FORTH THE MAINTENANCE REQUIREMENTS OF THE FACILITY AND THE PERSON RESPONSIBLE FOR PERFORMING THE MAINTENANCE.
G. OUTFALL FROM A DETENTION FACILITY SHALL BE DISCHARGED TO A RECEIVING CHANNEL, AND ENERGY DISSIPATORS SHALL BE PLACED AT THE OUTFALL OF ALL DETENTION FACILITIES AS NECESSARY TO PROVIDE A STABILIZED TRANSITION FROM THE FACILITY TO THE RECEIVING CHANNEL.
H. ALL ON-SITE CHANNELS MUST BE VERIFIED TO BE ADEQUATE.
I. INCREASED VOLUMES OF SHEET FLOWS THAT MAY CAUSE EROSION OR SEDIMENTATION ON ADJACENT PROPERTY SHALL BE DIVERTED TO A STABLE OUTLET, ADEQUATE CHANNEL, PIPE OR PIPE SYSTEM, OR TO A DETENTION FACILITY.
J. IN APPLYING THESE STORMWATER MANAGEMENT CRITERIA, INDIVIDUAL LOTS OR PARCELS IN A RESIDENTIAL, COMMERCIAL OR INDUSTRIAL DEVELOPMENT SHALL NOT BE CONSIDERED TO BE SEPARATE DEVELOPMENT PROJECTS. INSTEAD, THE DEVELOPMENT, AS A WHOLE, SHALL BE CONSIDERED TO BE A SINGLE DEVELOPMENT PROJECT. HYDROLOGIC PARAMETERS THAT REFLECT THE ULTIMATE DEVELOPMENT CONDITION SHALL BE USED IN ALL ENGINEERING CALCULATIONS.
K. ALL MEASURES USED TO PROTECT PROPERTIES AND WATERWAYS SHALL BE EMPLOYED IN A MANNER WHICH MINIMIZES IMPACTS ON THE PHYSICAL, CHEMICAL AND BIOLOGICAL INTEGRITY OF RIVERS, STREAMS AND OTHER WATERS OF THE STATE.
L. ANY PLAN APPROVED PRIOR TO JULY 1, 2014, THAT PROVIDES FOR STORMWATER MANAGEMENT THAT ADDRESSES ANY FLOW RATE CAPACITY AND VELOCITY REQUIREMENTS FOR NATURAL OR MAN-MADE CHANNELS SHALL SATISFY THE FLOW RATE CAPACITY AND VELOCITY REQUIREMENTS FOR NATURAL OR MAN-MADE CHANNELS IF THE PRACTICES ARE DESIGNED TO (I) DETAIN THE WATER QUALITY VOLUME AND TO RELEASE IT OVER 48 HOURS; (II) DETAIN AND RELEASE OVER A 24-HOUR PERIOD THE EXPECTED RAINFALL RESULTING FROM THE ONE YEAR, 24-HOUR STORM; AND (III) REDUCE THE ALLOWABLE PEAK FLOW RATE RESULTING FROM THE 1.5, 2, AND 10-YEAR, 24-HOUR STORMS TO A LEVEL THAT IS LESS THAN OR EQUAL TO THE PEAK FLOW RATE FROM THE SITE ASSUMING IT WAS IN A GOOD FORESTED CONDITION, ACHIEVED THROUGH MULTIPLICATION OF THE FORESTED PEAK FLOW RATE BY A REDUCTION FACTOR THAT IS EQUAL TO THE RUNOFF VOLUME FROM THE SITE WHEN IT WAS IN A GOOD FORESTED CONDITION DIVIDED BY THE RUNOFF VOLUME FROM THE SITE IN ITS PROPOSED CONDITION, AND SHALL BE EXEMPT FROM ANY FLOW RATE CAPACITY AND VELOCITY REQUIREMENTS FOR NATURAL OR MAN-MADE CHANNELS AS DEFINED IN ANY REGULATIONS PROMULGATED PURSUANT TO § 10.1-562 OR 10.1-570 OF THE ACT.
M. FOR PLANS APPROVED ON AND AFTER JULY 1, 2014, THE FLOW RATE CAPACITY AND VELOCITY REQUIREMENTS OF § 10.1-561 A OF THE ACT AND THIS SUBSECTION SHALL BE SATISFIED BY COMPLIANCE WITH WATER QUANTITY REQUIREMENTS IN THE STORMWATER MANAGEMENT ACT (§ 10.1-603.2 ET SEQ. OF THE CODE OF VIRGINIA) AND ATTENDANT REGULATIONS, UNLESS SUCH LAND-DISTURBING ACTIVITIES ARE IN ACCORDANCE WITH 9VAC25-870-48 OF THE VIRGINIA STORMWATER MANAGEMENT PROGRAM (VSMP) PERMIT REGULATIONS.
N. COMPLIANCE WITH THE WATER QUANTITY MINIMUM STANDARDS SET OUT IN 9VAC25-870-66 OF THE VIRGINIA STORMWATER MANAGEMENT PROGRAM (VSMP) PERMIT REGULATIONS SHALL BE DEEMED TO SATISFY THE REQUIREMENTS OF MINIMUM STANDARD 19.

GENERAL EROSION AND SEDIMENT CONTROL NOTES

ES-1 — UNLESS OTHERWISE INDICATED, ALL VEGETATIVE AND STRUCTURAL EROSION AND SEDIMENT CONTROL PRACTICES WILL BE CONSTRUCTED AND MAINTAINED ACCORDING TO MINIMUM STANDARDS AND SPECIFICATIONS OF THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK (VESCH) AND VIRGINIA REGULATIONS 4VAC50-30 EROSION AND SEDIMENT CONTROL REGULATIONS. A COPY OF THE APPROVED EROSION AND SEDIMENT CONTROL PLAN SHALL BE MAINTAINED ON THE SITE AT ALL TIMES.

ES-2 — THE CITY OF ROANOKE DEPARTMENT OF ENGINEERING & GIS MUST BE NOTIFIED ONE WEEK PRIOR TO THE PRE-CONSTRUCTION CONFERENCE, ONE WEEK PRIOR TO THE COMMENCEMENT OF LAND DISTURBING ACTIVITY, AND ONE WEEK PRIOR TO THE FINAL INSPECTION.

ES-3 — ALL EROSION AND SEDIMENT CONTROL MEASURES ARE TO BE PLACED PRIOR TO OR AS THE FIRST STEP IN CLEARING, GRADING OR LAND-DISTURBING AND SEQUENCE OF CONSTRUCTION APPROVED.

ES-4 — A COPY OF THE APPROVED EROSION AND SEDIMENT CONTROL PLAN SHALL BE MAINTAINED ON THE SITE AT ALL TIMES.

ES-5 — PRIOR TO LAND DISTURBING ACTIVITIES IN AREAS OTHER THAN INDICATED ON THESE PLANS OR OFF-SITE BORROW ACTIVITIES, THE CONTRACTOR SHALL SUBMIT A SUPPLEMENTARY EROSION CONTROL PLAN TO THE OWNER FOR REVIEW AND FOR APPROVAL BY THE CITY OF ROANOKE DEPARTMENT OF ENGINEERING & GIS.

ES-6 — THE CONTRACTOR IS RESPONSIBLE FOR INSTALLATION OF ANY ADDITIONAL EROSION CONTROL MEASURES NECESSARY TO PREVENT EROSION AND SEDIMENTATION AS DETERMINED BY THE CITY OF ROANOKE.

ES-7 — SITE GRADING IS TO DRAIN TO THE PERIMETER CONTROLS AT ALL TIMES DURING LAND DISTURBING ACTIVITIES AND DURING CONSTRUCTION, UNTIL FINAL STABILIZATION IS ACHIEVED.

ES-8 — DURING DEWATERING OPERATIONS, WATER WILL BE PUMPED INTO AN APPROVED FILTERING DEVICE.

ES-9 — THE CONTRACTOR SHALL INSPECT ALL EROSION CONTROL MEASURES AT LEAST ONCE EVERY FIVE BUSINESS DAYS AND NO LATER THAN 24 HOURS FOLLOWING A MEASURABLE STORM EVENT (IF THERE ARE MORE THAN 48-HRS BETWEEN BUSINESS DAYS, CONDUCT THE INSPECTION THE NEXT BUSINESS DAY).

EROSION & SEDIMENT CONTROL NOTES

1. THE CONTRACTOR SHALL INSTALL ALL EROSION AND SEDIMENT CONTROL DEVICES AS REQUIRED DURING CONSTRUCTION IN ACCORDANCE WITH THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK, LATEST EDITION. ALL DEVICES REFERRED TO IN THESE PLANS CAN BE FOUND IN THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK.
2. THE MINIMUM MEASURES ARE INDICATED WITHIN THESE PLANS. THE CONTRACTOR IS RESPONSIBLE FOR IMPLEMENTATION AND MAINTENANCE OF THESE MINIMUM REQUIREMENTS AND ALL OTHER MEASURES NECESSARY TO CONTROL, FILTER, AND PREVENT SEDIMENT FROM LEAVING THE SITE. EROSION CONTROL MEASURES SHALL BE PLACED PRIOR TO COMMENCEMENT OF UPSLOPE EARTHWORK ACTIVITIES. IN NO CASE DURING CONSTRUCTION SHALL WATER RUNOFF BE DIVERTED OR ALLOWED TO FLOW TO LOCATIONS WHERE ADEQUATE PROTECTION HAS NOT BEEN PROVIDED. EROSION AND SEDIMENT CONTROL MEASURES SHALL BE MAINTAINED UNTIL UPSLOPE DISTURBED AREAS ARE STABILIZED AND THE LOCAL INSPECTOR AUTHORIZES THEIR REMOVAL.
3. ALL DISTURBED AREAS SHALL BE PERMANENTLY SEEDED AND MULCHED WITHIN 7 DAYS OF REACHING FINAL GRADE. AREAS WHICH HAVE BEEN DISTURBED AND HAVE NOT REACHED FINAL GRADE, BUT WHICH ARE TO REMAIN UNDISTURBED FOR LONGER THAN 14 DAYS ARE TO BE TEMPORARILY SEEDED AND MULCHED WITHIN 7 DAYS. AS UPSTREAM AREAS ARE STABILIZED, DOWNSTREAM TEMPORARY DEVICES ARE TO BE REMOVED.
4. THE CONTRACTOR SHALL INSTALL ADDITIONAL EROSION AND SEDIMENT CONTROL DEVICES IF DURING THE COURSE OF CONSTRUCTION THE LOCAL AUTHORITY DETERMINES THAT THEY ARE REQUIRED.
5. SILT SHALL BE REMOVED FROM SILT FENCES WHEN THE SILT REACHES APPROXIMATELY ONE-HALF THE HEIGHT OF THE BARRIER.
6. THE CONTRACTOR SHALL PERIODICALLY TOP DRESS THE CONSTRUCTION ENTRANCE WITH CLEAN STONE. IF THE CONSTRUCTION ENTRANCE FAILS TO REMOVE DIRT FROM THE TIRES OF VEHICLES ENTERING A PUBLIC RIGHT-OF-WAY A WASH RACK SHALL BE INSTALLED AND THE TIRES WASHED. THE CONTRACTOR SHALL PROVIDE ANY REQUIRED WATER FOR THE WASHING OF TIRES AND DIRECT TO WASH-OUT PIT OR A SEDIMENT FILTRATION MEASURE. DIRT TRACKED ONTO THE PUBLIC RIGHT-OF-WAYS SHALL BE REMOVED IMMEDIATELY BY THE CONTRACTOR.
7. ALL EROSION AND SEDIMENT CONTROL MEASURES ARE TO BE PLACED PRIOR TO OR AS THE FIRST STEP IN GRADING.
8. ENTRANCE LOCATIONS THAT ARE INDICATED MAY BE SHIFTED TO FIT FIELD CONDITIONS. THE CONTRACTOR SHALL PERIODICALLY TOP-DRESS THE CONSTRUCTION ENTRANCE WITH CLEAN STONE. VEHICLES' TIRES SHALL BE WASHED IF THE CONSTRUCTION ENTRANCE FAILS TO REMOVE SOIL FROM THE TIRES OF VEHICLES ENTERING THE PAVED STREET. WASH WATER SHALL BE CARRIED AWAY FROM THE ENTRANCE TO AN APPROVED SETTLING AREA TO REMOVE SEDIMENT. WHERE SEDIMENT IS TRANSPORTED ONTO A PAVED ROAD SURFACE, THE ROAD SHALL BE CLEANED THOROUGHLY AT THE END OF EACH DAY BY THE CONTRACTOR. SEDIMENT SHALL BE REMOVED FROM ROADS BY SHOVELING OR SWEEPING, AND THEN TRANSPORTED TO A TRAPPING DISPOSAL AREA.
9. ALL UTILITY LINES NOT IN STREETS ARE TO BE MULCHED AND SEEDED WITHIN SEVEN DAYS AFTER BACKFILL. NO MORE THAN FIVE HUNDRED FEET ARE TO BE OPEN AT ONE TIME.
10. ALL TEMPORARY EARTH BERMS, DIVERSIONS, AND SILT DAMS ARE TO BE MULCHED AND SEEDED FOR VEGETATIVE COVER IMMEDIATELY AFTER GRADING. STRAW OR HAY MULCH IS REQUIRED. THE SAME APPLIES TO STOCKPILES ON SITE AS WELL AS SOIL (INTENTIONALLY) TRANSPORTED FROM THE PROJECT SITE.
11. THE CONTRACTOR IS RESPONSIBLE FOR APPOINTING DESIGNATED "RESPONSIBLE LAND DISTURBER" (RLD) WHO SHALL BE RESPONSIBLE FOR INSPECTING AND MAINTAINING ALL EROSION CONTROL MEASURES. SIMON L. RUTROUGH, P.E. WILL BE THE INTERIM RLD UNTIL CONSTRUCTION BEGINS AND THE CONTRACTOR DESIGNATES AN RLD FOR CONSTRUCTION. THE RLD SHALL BE CERTIFIED IN VIRGINIA.
12. ALL DISTURBED AREAS ARE TO DRAIN TO APPROVED SEDIMENT CONTROL MEASURES AT ALL TIMES DURING LAND DISTURBING ACTIVITIES AND DURING SITE DEVELOPMENT UNTIL FINAL STABILIZATION IS ACHIEVED.
13. A PRE-CONSTRUCTION MEETING IS REQUIRED PRIOR TO ISSUANCE OF A LAND DISTURBANCE PERMIT. THE CONTRACTOR SHALL SCHEDULE THE MEETING WITH THE CITY OF ROANOKE EROSION CONTROL INSPECTOR ASSIGNED TO THE PROJECT.
14. ALL VEGETATIVE AND STRUCTURAL EROSION AND SEDIMENT CONTROL PRACTICES WILL BE CONSTRUCTED AND MAINTAINED ACCORDING TO MINIMUM STANDARDS AND SPECIFICATIONS OF THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK AND VIRGINIA REGULATION VR 625-02-00.
15. SOIL STABILIZATION BLANKETS AND MATTING SHALL BE INSTALLED WITHIN THE BANKS OF ALL STORMWATER CONVEYANCE CHANNELS AND ON 3H:1V SLOPES OR STEEPER; SLOPES STEEPER THAN 3:1 SHALL ALSO RECEIVE SURFACE ROUGHENING.
16. THE LIMITS OF DISTURBANCE SHALL BE CLEARLY MARKED IN THE FIELD BY STAKES, FENCING, SIGNS, ETC.. ANY ENCROACHMENT OVER THE LIMITS OF DISTURBANCE MUST BE IMMEDIATELY REPAIRED AND STABILIZED TO MATCH THE EXISTING CONDITIONS.
17. THE CONTRACTOR IS RESPONSIBLE FOR THE COORDINATION OF A SEPARATE EROSION CONTROL PLAN REQUIRED FOR EXCAVATED MATERIAL FROM, OR IMPORT MATERIAL TO THE SITE FOR ANY OFF-SITE LOCATION. THE CONTRACTOR SHALL GAIN APPROVAL FROM THE CITY OF ROANOKE OR LOCALITY WITH JURISDICTION OF THESE LOCATIONS PRIOR TO IMPLEMENTATION.
18. TOPSOIL SHALL NOT BE PLACED WHILE IN A FROZEN OR MUDDY CONDITION, WHEN TOPSOIL OR SUBGRADE IS EXCESSIVELY WET, OR IN A CONDITION THAT MAY OTHERWISE BE DETRIMENTAL TO PROPER GRADING OR PROPOSED SODDING OR SEEDING. TOPSOIL SHALL BE UNIFORMLY DISTRIBUTED TO A MINIMUM COMPACTED DEPTH OF 4 INCHES. (SEE TABLE 3.30-A).
19. ANY OFF-SITE LOCATION THAT IS USED AS A SOURCE OF BORROW SOIL MATERIALS OR RECEIVES WASTE SOIL MATERIALS FROM THE SITE MUST BE APPROVED BY THE EROSION & SEDIMENT CONTROL ADMINISTRATOR OF THE JURISDICTION IN WHICH THAT OFF-SITE AREA IS LOCATED. OTHERWISE, PRIOR TO COMMENCING LAND DISTURBING ACTIVITIES IN AREAS OTHER THAN INDICATED ON THESE PLANS (INCLUDING, BUT NOT LIMITED TO, OFF-SITE BORROW OR WASTE AREAS), THE CONTRACTOR MUST SUBMIT A SUPPLEMENTARY E&SC PLAN TO THE OWNER FOR REVIEW AND APPROVAL BY THE AUTHORITY WITH JURISDICTION..

SOIL EROSION CONTROL NARRATIVE

PROJECT DESCRIPTION:

THIS PROJECT IS COMPRISED OF THE REPURPOSING OF THE RUFFNER OPERATIONS CENTER TO PROVIDE A NEW CENTER FOR TECHNICAL EDUCATION ON THE WILLIAM FLEMING CAMPUS. EXTERIOR WORK WILL INCLUDE RENOVATION OF COURTYARD SPACES, MAIN ENTRANCE APPROACH WITH ENTRANCE CANOPY, CTE AND OPERATIONS PARKING EXPANSION, UTILITY UPGRADES AND STORMWATER MANAGEMENT IMPROVEMENTS. IT IS ANTICIPATED THIS SITE WILL DISTURB ±2.8-ACRES.

EXISTING SITE CONDITIONS:

THE EXISTING SITE FORMERLY HOUSED RUFFNER MIDDLE SCHOOL AND IS CURRENTLY HOME TO THE ROANOKE PUBLIC SCHOOLS OPERATIONS CENTER. THE FACILITIES HAVE BEEN IN USE SINCE THE 1960'S. THE LAST RENOVATION INCLUDED THE ADDITION OF THE ADMINISTRATIVE ANNEX. MOST EFFECTED AREAS ARE LARGELY DEVELOPED AS EXTERIOR COURTYARDS, WALKWAYS, PARKING SPACES \ TRAVEL WAYS AND SUPPORTING UTILITIES.

ADJACENT PROPERTY:

SURROUNDING PARCELS ARE COMPRISED OF ROS - RECREATION AND OPEN SPACE & RMF - RESIDENTIAL MULTIFAMILY DISTRICT (NORTH); CLS - COMMERCIAL - LARGE SITE DISTRICT (SOUTH); I-1 LIGHT INDUSTRIAL DISTRICT & CLS - LARGE SITE DISTRICT (EAST); RMF - RESIDENTIAL MULTIFAMILY DISTRICT, RM-2 - RESIDENTIAL MIXED DENSITY DISTRICT, & INPUD - INSTITUTIONAL PLANNED UNIT DEVELOPMENT (WEST). ALL ADJOINING LAND IS DEVELOPED.

OFF-SITE AREAS:

THIS PROJECT DOES NOT ANTICIPATE OFF-SITE WASTE/BORROW AREAS SHOULD THE PROJECT REQUIRE OFF-SITE WASTE AREAS OR BORROW AREAS, THE LOCATION OF THESE AREAS SHALL BE SUBMITTED TO THE GOVERNING AUTHORITY. EROSION CONTROL PLANS OR MEASURES WILL BE REQUIRED FOR THESE OFF-SITE LOCATIONS OR MAY ALREADY BE IN PLACE. THE DEMOLITION ITEMS SHALL BE DISPOSED IN ACCORDANCE WITH LOCAL GOVERNING REQUIREMENTS.

SOILS:

SEE APPENDIX A OF THE STORMWATER MANAGEMENT PACKAGE (INCLUDED WITH THIS PLAN) FOR SITE & DRAINAGE AREA SOIL DATA. THE MAJORITY OF THE SITE AREA IS COMPRISED OF THE URBAN LAND COMPLEX WHICH IS HYDROLOGIC SOILS UNIT TYPE "D" SOILS.

CRITICAL EROSION AREAS:

STEEP SLOPES/CRITICAL EROSION AREAS WILL NOT BE DISTURBED DURING CONSTRUCTION FOR THIS PROJECT. SHOULD EROSION BECOME EVIDENT IN OTHER AREAS, CONTRACTOR SHALL STABILIZE THEM WITH TEMPORARY SEEDING, BLANKET MATTING AND/OR HYDRO-MULCHING.

EROSION & SEDIMENT CONTROL MEASURES:

UNLESS OTHERWISE INDICATED, ALL VEGETATIVE AND STRUCTURAL EROSION AND SEDIMENT CONTROL PRACTICES WILL BE CONSTRUCTED AND MAINTAINED ACCORDING TO THE MINIMUM STANDARDS AND SPECIFICATIONS OF THE "VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK", THIRD EDITION. ADDITIONAL REFERENCE IS DIRECTED TO THE SUBMITTAL PACKAGE FOR THE PROJECT DESCRIBING EACH EROSION & SEDIMENT CONTROL MEASURE, AND WHETHER THAT MEASURE IS ANTICIPATED WITH THIS PROJECT.

1. REGARDLESS OF FUTURE DEVELOPMENT PLANS, THE CONTRACTOR SHALL IMMEDIATELY INSTALL EROSION AND SEDIMENT CONTROL DEVICES AS SHOWN ON THE PLANS. THIS WORK SHALL BE COORDINATED IN ORDER OF THE WORK WHICH IS TO FOLLOW: CONTROL AT CENTERS OF FLOW, AND OTHER POINTS OF CONCENTRATION SHOWN SHALL BE CONSTRUCTED IN PLACE FIRST.
2. AFTER THE INSTALLED CONTROL DEVICES ARE FOUND TO BE FUNCTIONAL, THE CONTRACTOR SHALL IMMEDIATELY PROCEED WITH DEMOLITION, CLEARING, AND PRELIMINARY GRADING OPERATIONS. ALL EXPOSED DENUDED AREAS SHALL BE SEEDED WITHIN SEVEN (7) DAYS AFTER FINAL GRADING, AND SHALL BE ACCOMPLISHED IN STRICT ACCORDANCE WITH THE "VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK", THIRD EDITION.
3. IN GENERAL, ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSPECTED WEEKLY AND AFTER EACH SIGNIFICANT RAINFALL. IN PARTICULAR:
   A. MEASURES SHALL BE MAINTAINED TO PREVENT TRACKING OR FLOW OF MUD ONTO PUBLIC RIGHT-OF-WAYS.
   B. ALL SILT FENCE BARRIERS AND INLET PROTECTIONS SHALL BE CHECKED REGULARLY FOR UNDERMINING AND SEDIMENT BUILDUP.
   C. ALL SEEDED AREAS WILL BE CHECKED REGULARLY TO SEE THAT A GOOD STAND IS MAINTAINED. AREAS SHALL BE FERTILIZED AND RESEEDED AS NEEDED.
4. FOLLOWING THE COMPLETION OF DEVELOPMENT AND STABILIZATION OF ALL AREAS (AFTER IT HAS BEEN DETERMINED THAT EROSION OR SEDIMENTATION IS NO LONGER OCCURRING ON THE SITE OR AT ITS BOUNDARIES AND THAT DRAINAGE FLOWS ARE FUNCTIONING ACCORDING TO DESIGN), AND WITH APPROVAL OF A CITY OF ROANOKE SITE INSPECTOR, THE CONTRACTOR MAY THEN BEGIN TO REMOVE THE TEMPORARY EROSION AND SEDIMENT CONTROL DEVICES. THIS WORK SHALL BE DONE IN A CAREFUL, NEAT, ORGANIZED MANNER.

STRUCTURAL PRACTICES

- TEMPORARY CONSTRUCTION ENTRANCE (3.02) - A STONE PAD, LOCATED AT POINTS OF VEHICULAR INGRESS AND EGRESS ON A CONSTRUCTION SITE, TO REDUCE THE SOIL TRANSPORTED ONTO PUBLIC ROADS AND OTHER PAVED AREAS. MAINTENANCE INCLUDES: 1) MAINTAIN ENTRANCE IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOW OF MUD ONTO PUBLIC RIGHT OF WAYS; 2) PROVIDE PERIODIC TOP DRESSING WITH ADDITIONAL STONE OR WASHING AND REWORKING STONE; 3) WHERE APPLICABLE, CLEAN OUT ANY STRUCTURES USED TO TRAP SEDIMENT; AND 4) REMOVE MATERIALS SPILLED, DROPPED, WASHED, OR TRACKED FROM VEHICLES ONTO ROADWAYS OR INTO STORM DRAINS.
- SILT FENCE (3.05) - A TEMPORARY SEDIMENT BARRIER CONSTRUCTED OF POSTS, FILTER FABRIC AND, IN SOME CASES, A WIRE SUPPORT FENCE, PLACED ACROSS OR AT THE TOE OF A SLOPE OR IN A MINOR DRAINAGE WAY TO INTERCEPT AND DETAIN SEDIMENT AND DECREASE FLOW VELOCITIES FROM DRAINAGE AREAS OF LIMITED SIZE; APPLICABLE WHERE SHEET AND RILL EROSION OR SMALL CONCENTRATED FLOWS MAY BE A PROBLEM. MAXIMUM EFFECTIVE LIFE OF 6 MONTHS. MAINTENANCE INCLUDES: 1) INSPECTION AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL. IMMEDIATELY REPAIR AS NECESSARY; 2) REPAIR DAMAGED SILT FENCE RESULTING FROM END RUNS AND UNDERCUTTING; 3) REPLACE FABRIC THAT IS DECOMPOSING OR BECOMING INEFFECTIVE PRIOR TO END OF USABLE LIFE; 4) REMOVE SEDIMENT DEPOSITS AFTER EACH STORM EVENT AND WHEN DEPOSITS REACH ONE HALF OF THE BARRIER HEIGHT; 5) DRESS SEDIMENT DEPOSITS TO CONFORM TO EXISTING GRADE, PREPARE AND SEED ONCE SILT FENCE IS NO LONGER NEEDED.
- STORM DRAIN INLET PROTECTION (3.07) - THE INSTALLATION OF VARIOUS KINDS OF SEDIMENT TRAPPING MEASURES AROUND DROP INLETS OR CURB INLET STRUCTURES PRIOR TO PERMANENT STABILIZATION OF THE DISTURBED AREA; LIMITED TO DRAINAGE AREAS NOT EXCEEDING ONE ACRE, AND NOT INTENDED TO CONTROL LARGE, CONCENTRATED STORMWATER FLOWS. MAINTENANCE INCLUDES: 1) INSPECT AFTER EACH RAIN EVENT AND PROVIDE REPAIRS AS NEEDED; 2) REMOVED SEDIMENT AND RESTORE TRAP TO ORIGINAL DIMENSIONS ONCE SEDIMENT HAS REACHED ONE HALF OF TRAP DEPTH; AND 3) REMOVE PROTECTION ONLY AFTER UPSTREAM DRAINAGE AREA HAS BEEN STABILIZED.
- TEMPORARY RIGHT-OF-WAY DIVERSION (3.11) - A RIDGE OF COMPACTED SOIL OF LOOSE GRAVEL CONSTRUCTED ACROSS A DISTURBED RIGHT-OF-WAY OR SIMILAR SLOPING AREA TO SHORTEN THE FLOW LENGTH WITHIN THE DISTURBED STRIP AND DIVERT THE RUNOFF TO A STABILIZED OUTLET. EARTHEN DIVERSIONS ARE APPLICABLE WHERE THERE WILL BE LITTLE OR NO CONSTRUCTION TRAFFIC WITHIN THE RIGHT-OF-WAY, AND GRAVEL STRUCTURES ARE APPLICABLE WHERE VEHICULAR TRAFFIC MUST BE ACCOMMODATED. MAINTENANCE INCLUDES: 1) INSPECT AFTER EACH RAIN EVENT AND MAKE REPAIRS AS NECESSARY; 2) INSPECT EVERY TWO WEEKS IF NO RAIN AND REPAIR AS NECESSARY; AND 3) RESHAPE AT THE END OF EACH WORKING DAY.
- TEMPORARY SEDIMENT TRAP (3.13) - A SMALL PONDING AREA, FORMED BY CONSTRUCTING AN EARTHEN EMBANKMENT WITH A STONE OUTLET ACROSS A DRAINAGE SWALE, TO DETAIN SEDIMENT-LADEN RUNOFF FROM SMALL, DISTURBED AREAS FOR ENOUGH TIME TO ALLOW MOST OF THE SUSPENDED SOLIDS TO SETTLE OUT. MAXIMUM EFFECTIVE LIFE IS 18 MONTHS. MAINTENANCE INCLUDES: 1) REMOVE SEDIMENT AND RESTORE ORIGINAL DIMENSIONS ONCE ONE HALF OF WET STORAGE VOLUME IS REACHED. PLACE SEDIMENT IN AN AREA TO AVOID EROSION AND STABILIZE; 2) CHECK FILTER STONE AND REPLACE STONE THAT IS CHOKED WITH SEDIMENT.
- TOPSOILING (3.30) - PRESERVING AND USING TOPSOIL TO PROVIDE A SUITABLE GROWTH MEDIUM FOR VEGETATION USED TO STABILIZE DISTURBED AREAS. APPLICABLE WHERE PRESERVATION OR IMPORTATION OF TOPSOIL IS MOST COST-EFFECTIVE METHOD OF PROVIDING A SUITABLE GROWTH MEDIUM; NOT RECOMMENDED FOR SLOPES STEEPER THAN 2:1 UNLESS ADDITIONAL MEASURES ARE TAKEN TO PREVENT SLOUGHING AND EROSION. NO MAINTENANCE ITEMS INCLUDED SPECIFICALLY FOR THIS MEASURE; HOWEVER, MAINTENANCE OF PERIMETER CONTROLS AND STABILIZATION APPLY.
- TEMPORARY SEEDING (3.31) - ESTABLISHMENT OF TEMPORARY VEGETATIVE COVER ON DISTURBED AREAS THAT WILL NOT BE BROUGHT TO FINAL GRADE FOR PERIODS OF 30 DAYS TO ONE YEAR BY SEEDING WITH APPROPRIATE RAPIDLY-GROWING PLANTS. MAINTENANCE INCLUDES RESEEDING UNTIL ADEQUATE VEGETATIVE COVER IS ESTABLISHED TO PREVENT RILL EROSION.
- PERMANENT SEEDING (3.32) - ESTABLISHMENT OF PERENNIAL VEGETATIVE COVER BY PLANTING SEED ON ROUGH-GRADED AREAS THAT WILL NOT BE BROUGHT TO FINAL GRADE FOR A YEAR OR MORE OR WHERE PERMANENT, LONG-LIVED VEGETATIVE COVER IS NEEDED ON FINE-GRADED AREAS. MAINTENANCE INCLUDES RE-SEEDING UNTIL ADEQUATE, HEALTHY VEGETATIVE COVER IS ESTABLISHED.
- MULCHING (3.35) - APPLICATION OF PLANT RESIDUES OR OTHER SUITABLE MATERIALS TO DISTURBED SURFACES TO PREVENT EROSION AND REDUCE OVERLAND FLOW VELOCITIES. FOSTERS PLAN GROWTH BY INCREASING AVAILABLE MOISTURE AND PROVIDING INSULATION AGAINST EXTREME HEAT OR COLD. SHOULD BE APPLIED TO ALL SEEDING OPERATIONS, THEMSELVES, AND BARE AREAS WHICH CANNOT BE SEEDED DUE TO THE SEASON BUT WHICH STILL NEED PROTECTION TO PREVENT SOIL LOSS. MAINTENANCE INCLUDES: 1) INSPECT PERIODICALLY (ESPECIALLY AFTER RAIN EVENTS) AND CHECK FOR EROSION; 2) ADD MULCH WHERE NECESSARY; 3) INSPECT NETS AND MATS FOR DISLOCATION OR FAILURE; 4) INSPECT UNTIL GRASSES ARE FIRMLY ESTABLISHED; 5) REPAIR AS NECESSARY.
- TREE PRESERVATION AND PROTECTION (3.38) - PROTECTING EXISTING TREES FROM MECHANICAL AND OTHER INJURY DURING LAND-DISTURBING AND CONSTRUCTION ACTIVITY TO ENSURE THE SURVIVAL OF DESIRABLE TREES WHERE THEY WILL BE EFFECTIVE FOR EROSION AND SEDIMENT CONTROL AND PROVIDE OTHER ENVIRONMENTAL AND AESTHETIC BENEFITS.
- DUST CONTROL (3.39) - REDUCING SURFACE AND AIR MOVEMENT OF DUST DURING LAND DISTURBANCE, DEMOLITION OR CONSTRUCTION ACTIVITIES IN AREAS SUBJECT TO DUST PROBLEMS IN ORDER TO PREVENT SOIL LOSS AND REDUCE THE PRESENCE OF POTENTIALLY HARMFUL AIRBORNE SUBSTANCE.

STORMWATER CONSIDERATIONS:

THE SITE IS EVALUATED AS FOLLOWS:

- CHANNEL PROTECTION IS BEING MET PER 9VAC25-870-66(B)(1)(a).
- FLOOD PROTECTION IS BEING MET PER 9VAC25-870-66(C)(1).
- ONSITE QUALITY TREATMENT SHALL BE ADDRESSED THROUGH THE INSTALLATION OF AN ADS BAYFILTER FILTRATION SYSTEM AND ADS STORMTECH CHAMBERS, ACCOUNTING FOR THE TREATMENT OF 1.39 LBS OF POLLUTANT LOAD. SEE APPENDIX "J" OF THE COMPREHENSIVE SWPPP FOR THE VRRM CALCULATIONS AND STORMWATER MANAGEMENT CALCULATIONS.

MAINTENANCE:

ALL SEDIMENT AND EROSION CONTROL MEASURES SHALL BE CHECKED DAILY AND AFTER ALL SIGNIFICANT RAINFALL. IN PARTICULAR:

1. SILT FENCE AND INLET PROTECTION SHALL BE CHECKED REGULARLY TO ENSURE THAT THE FABRIC HAS NOT BEEN UNDERMINED OR HAS DETERIORATED. SEDIMENT SHALL BE REMOVED WHEN LEVEL OF BUILDUP REACHES HALFWAY UP THE BARRIER.
2. AREAS WHICH HAVE RECEIVED SEEDING SHALL BE CHECKED REGULARLY TO ENSURE THAT A GOOD STAND OF GRASS IS MAINTAINED. AREAS SHALL BE FERTILIZED AND RE-SEEDED AS REQUIRED.

SPECIFIC REQUIREMENTS RELATED TO INSPECTION AND MAINTENANCE OF EACH EROSION CONTROL MEASURE ARE DISCUSSED IN THE VESCH STANDARDS AND SPECIFICATIONS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTENANCE OF ALL EROSION CONTROL MEASURES TO THE SATISFACTION OF LOCAL REVIEWING AUTHORITIES, AS WELL AS THE INSTALLATION OF ADDITIONAL MEASURES AS NEEDED TO ENSURE THAT SEDIMENT LADEN RUNOFF DOES NOT LEAVE THE SITE.

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E&SC NARRATIVE

C03

SHEET ______ of X

STORM SEWER TABLE

STM-01
MH TOP = 1097.29'
INVIN 18" RCP = 1090.1'
INVO 18" RCP = 1090.0'

STM-02
MH TOP = 1100.13'
INVIN 18" RCP = 1091.3'
INVO 18" RCP = 1091.2'

STM-03
POSSIBLE MANHOLE
UNDER ASPHALT

STM-04
POSSIBLE MANHOLE
UNDER ASPHALT

STM-05
GRATE TOP = 1100.8'
INVIN = 1098.8'
INVO 15" RCP = 1098.6'

STM-06
GRATE TOP = 1100.9'
INVIN 10" RCP = ????.?'
INVIN 15" RCP = 1093.0'
INVO 18" RCP = 1092.7'

STM-07
GRATE TOP = 1101.4'
INVIN 10" RCP = 1095.6'
INVO 10" RCP = ????.?'

STM-08
GRATE TOP = 1101.2'
INVIN 4" TC = 1099.2'
INVIN 4" TC = 1096.4'
INVIN 6" CONC = 1096.4'
INVIN 10" = 1097.5'
INVIN 10" RCP = 1096.1'
INVO 10" METAL = 1096.1'

STM-09
GRATE TOP = 1099.9'
INVIN 10" RCP = 1097.5'
INVO 10" RCP = 1097.3'

STM-10
GRATE TOP = 1101.2'
INVIN 8" = 1096.4'
INVIN 12" = 1094.8'
INVIN 12" = 1094.7'
INVO 15" RCP = 1094.6'

STM-11
GRATE TOP = 1101.5'
INVIN 12" RCP = 1095.1'
INVO 12" RCP = 1095.2'

STM-12
GRATE TOP = 1101.0'
INVIN 8" RCP = 1095.6'
INVIN 12" RCP = 1095.5'
INVO 12" RCP = 1095.4'

STM-13
GRATE TOP = 1100.3'
INVIN 4" TC = 1097.7'
INVO 8" CONC = 1097.5'

STM-14
GRATE TOP = 1106.6'
INVO 4" TC = 1098.2'

STM-15
MH TOP = 1105.91'
INVIN 10" PVC = 1101.4'
INVIN 18" RCP = 1099.5'
INVO 36" RCP= 1099.4'

STM-16
18" RCP
INV =1095.6'

STM-17
MH TOP = 1101.01'
INVO 15" RCP = 1096.0'

STM-18
15" RCP
INV =1094.4'

STM-19
MH TOP = 1099.41'
INVIN 36" RCP= 1091.2'
INVO 36" RCP= 1091.1'

STM-20
36" RCP
INV =1091.4'

STM-21
GRATE TOP = 1099.2'
INVO 15" RCP = 1096.7'

STM-22
GRATE TOP = 1099.4'
INVIN 15" RCP = 1095.5'
INVO 15" RCP = 1095.4'

STM-23
15" RCP
INV =1094.5'

STM-24
MH TOP = 1095.66'
INVO 18" RCP= 1091.0'

STM-25
MH TOP = 1094.79'
INVIN 15" RCP = 1088.4'
INVIN 18" RCP = 1088.3'
INVO 18" RCP= 1088.2'

STM-26
TOP = 1097.38'
INVIN 2" PVC = 1089.5'

STM-27
MH TOP = 1093.72'
INVIN 15" RCP = 1083.8'
INVIN 18" RCP = 1083.8'
INVO 24" RCP = 1083.7'

STM-28
MH TOP = 1092.92'
INVO 15" RCP = 1087.6'

STM-29
MH TOP = 1092.16'
INVIN 24" RCP = 1084.2'
INVIN 18" RCP = 1083.6'
INVO 24" RCP = 1083.4'

STM-30
MH TOP = 1091.21'
INVIN 15" RCP = 1085.6'
INVO 15" RCP = 1085.6'

STM-31
MH TOP = 1090.74'
INVIN 15" RCP = 1086.6'
INVO 15" RCP = 1086.5'

STM-32
MH TOP = 1097.52'
INVO 15" RCP = 1090.9'

SAN SEWER TABLE

SAN-01
MH TOP = 1100.58'
INVIN 8" RCP = 1089.0'
INVO 8" RCP = 1088.9'

SAN-02
MH TOP = 1100.58'
INVIN 8" RCP = 1090.9'
INVO 8" RCP = 1090.8'

SAN-03
MH TOP = 1100.40'
INVIN 8" RCP = 1093.1'
INVO 8" RCP = 1093.0'

SAN-04
MH TOP = 1101.95'
INVIN 4" TC = 1094.9'
INVIN 8" = 1094.9'
INVIN 8" = 1095.6'
INVIN 8" RCP = 1094.9'
INVO 8" RCP = 1094.9'

SAN-05
MH TOP = 1102.28'
INVIN 8" RCP = 1096.2'
INVO 8" RCP = 1096.1'

SAN-06
MH TOP = 1107.75'
INVIN 8" RCP = 1098.8'
INVO 8" RCP = 1098.7'

TOPOGRAPHY CERTIFICATION:
THIS TOPOGRAPHIC SURVEY WAS COMPLETED UNDER THE DIRECT AND RESPONSIBLE CHARGE OF STEVEN C. BARBA, FROM AN ACTUAL GROUND SURVEY MADE UNDER MY SUPERVISION; THAT THE IMAGERY AND/OR ORIGINAL DATA WAS OBTAINED FEBRUARY 02, 2022 THROUGH FEBRUARY 22, 2022, AND THAT THIS PLAT, MAP OR DIGITAL GEOSPATIAL DATA INCLUDING METADATA MEETS THE MINIMUM ACCURACY STANDARDS UNLESS OTHERWISE NOTED.

GENERAL NOTES:
1. THIS PLAT WAS PREPARED WITHOUT BENEFIT OF A TITLE REPORT AND IS SUBJECT THERETO. THEREFORE, THERE MAY EXIST ENCUMBRANCES WHICH AFFECT THE PROPERTY NOT SHOWN HEREON.
2. THE SUBJECT PROPERTY IS WITHIN THE LIMITS OF ZONE "X-UNSHADED" AS SHOWN ON THE FEMA FLOOD INSURANCE RATE MAPS 51161C0161 G, EFFECTIVE DATE OF SEPTEMBER 28, 2007. THIS DETERMINATION IS BASED ON SAID MAP AND HAS NOT BEEN VERIFIED BY ACTUAL FIELD ELEVATIONS.

UTILITY NOTE:
THE UTILITIES SHOWN HEREON BY PARKER DESIGN GROUP ARE BASED ON FIELD LOCATION OF OBSERVED EVIDENCE OF UTILITIES, MARKINGS MADE BY MISS UTILITY TICKET #A204202360. PER VIRGINIA LAW, REMARKING OF UTILITIES ARE REQUIRED BEFORE PERFORMING ANY EXCAVATION WORK.

DEMOLITION NOTES:
1. CONTRACTOR SHALL COMPLETE UTILITY DISCONNECTING AND SEALING, WITH WRITTEN VERIFICATION FROM UTILITY PROVIDERS PRIOR TO DEMOLITION AT CONNECTIONS TO BUILDINGS.
2. WATER & SEWER PIPES TO BE ABANDONED IN ACCORDANCE WITH WVWA STANDARDS AND SPECIFICATIONS. REMOVE ALL ASSOCIATED APPURTENANCES.
3. SANITARY AND STORM PIPE SHALL BE CAPPED AND THEN REMOVED TO THE NEAREST DOWNSTREAM STRUCTURE. INVERT SHALL BE SEALED PER PIPE ABANDONMENT DETAIL.
4. ELECTRICAL, CABLE, TELECOM, AND OTHER UTILITIES SHALL BE REMOVED TO THE NEAREST PULL-BOX OR MANHOLE. REMOVE ALL OVERHEAD UTILITY LINES WHERE INDICATED, REMOVE POWER POLES TO PLAN SUBGRADE ELEVATION, & REMOVE ALL ASSOCIATE POLE GUY WIRES.
5. ALL HARDSCAPE AND PRINCIPAL STRUCTURES TO BE DEMOLISHED SHALL BE EXCAVATED TO SUBGRADE AND BACKFILLED PER THE GRADING PLAN. EXCAVATE AFTER TESTING AND INSPECTION OF SUBGRADES BY GEOTECHNICAL ENGINEER.
6. IF FIRE HYDRANTS ARE TO BE REMOVED, THEY MUST BE REMOVED BY WVWA PERSONNEL. CONTRACTOR SHALL COORDINATE ASSOCIATED WATERLINE ABANDONMENT WITH WVWA.
7. CONTRACTOR TO REMOVE FENCING AS NECESSARY FOR CONSTRUCTION.

PHASE I SEQUENCE OF CONSTRUCTION:
CONSTRUCTION WILL BE SEQUENCED TO INSTALL INITIAL EROSION AND SEDIMENT CONTROL MEASURES PRIOR TO DEMOLITION.
- CONTRACTOR SHALL INSTALL CONSTRUCTION ENTRANCE AS SHOWN ON PLANS. CONTRACTOR SHALL MAINTAIN THE CONSTRUCTION ENTRANCE PER VA ESCH STD. & SPEC 3.02.
- CONTRACTOR SHALL INSTALL ALL PERIMETER EROSION & SEDIMENT CONTROLS AS SHOWN.
- CONTRACTOR SHALL INSTALL INITIAL ESC MEASURES.
- AFTER THE INITIAL MEASURES ARE INSTALLED, THE CONTRACTOR SHALL REVIEW GENERAL CONSTRUCTION SEQUENCE AND/OR 2ND PHASE EROSION CONTROL MEASURES.
- ALL DISTURBED AREAS ARE TO DRAIN TO APPROVED SEDIMENT CONTROL MEASURES AT ALL TIMES DURING LAND DISTURBING ACTIVITIES AND DURING SITE DEVELOPMENT UNTIL FINAL STABILIZATION IS REACHED.
- THE CONTRACTOR IS RESPONSIBLE FOR THE INSTALLATION OF ANY ADDITIONAL EROSION CONTROL MEASURES NECESSARY TO PREVENT EROSION AND SEDIMENTATION AS DETERMINED BY THE LOCAL AUTHORITY.
- ONCE THE PERIMETER AND PHASE I E&SC MEASURES ARE INSTALLED AND VERIFIED BY THE CITY OF ROANOKE SITE INSPECTOR; DEMOLITION, GRADING, AND OTHER SITE WORK MAY BEGIN.
- THE CONTRACTOR SHALL INSPECT ALL EROSION CONTROL MEASURES PERIODICALLY AND AFTER EACH RUNOFF PRODUCING RAINFALL EVENT. ANY NECESSARY REPAIRS OR CLEANUP TO MAINTAIN THE EFFECTIVENESS OF THE EROSION CONTROL DEVICES SHALL BE MADE IMMEDIATELY.
- ANY EXISTING WATER OR SEWER CONNECTION SERVING THIS PROPERTY NOT UTILIZED FOR THIS DEVELOPMENT SHALL BE ABANDONED AT THE MAIN BY THE DEVELOPER.

EROSION & SEDIMENT CONTROL NOTES:
CONSTRUCTION WILL BE SEQUENCED TO INSTALL INITIAL EROSION AND SEDIMENT CONTROL MEASURES PRIOR TO DEMOLITION.
- TOPSOIL STOCKPILING MAY OCCUR IN SUITABLE LOCATIONS DETERMINED BY THE CONTRACTOR. SILT FENCE SHALL BE PLACED AROUND THE PERIMETER OF THE STOCKPILE. TEMPORARY SEEDING MEASURES APPLY TO STOCKPILES.
- THE CONTRACTOR SHALL CHECK AND VERIFY ALL EXISTING PERIMETER EROSION AND SEDIMENT CONTROL MEASURES AROUND THE SITE. ANY PERIMETER EROSION CONTROL MEASURES THAT ARE DAMAGED SHALL BE REPAIRED TO CONTROL SEDIMENT LADEN RUNOFF FROM ENTERING ADJACENT PROPERTIES AND/OR STREAMS AND SWALES.
- IN ANY AREAS WHERE SEDIMENT LADEN WATER IS BEING PUMPED FROM A LOCATION, THE PUMPED RUNOFF SHALL BE FILTERED THROUGH A "FILTER BAG" BEFORE BEING RELEASED.
- THE CONTRACTOR SHALL KEEP MATERIALS AND EQUIPMENT ON-SITE TO KEEP DUST LEVELS AT A MINIMUM.
- THE CONTRACTOR SHALL MAINTAIN THE EROSION AND SEDIMENT CONTROL MEASURES AS IDENTIFIED UNDER THE "MAINTENANCE" SECTION OF THIS DOCUMENT.
- SEDIMENT SHALL BE REMOVED FROM MEASURES PRIOR TO SEDIMENT REACHING ONE-HALF THE BARRIER FOR SILT FENCE.
- ALL VEGETATIVE AND STRUCTURAL EROSION AND SEDIMENT CONTROL PRACTICES WILL BE CONSTRUCTED AND MAINTAINED ACCORDING TO MINIMUM STANDARDS AND SPECIFICATIONS OF THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK (VA ESCH) AND 9VAC25-840-40.

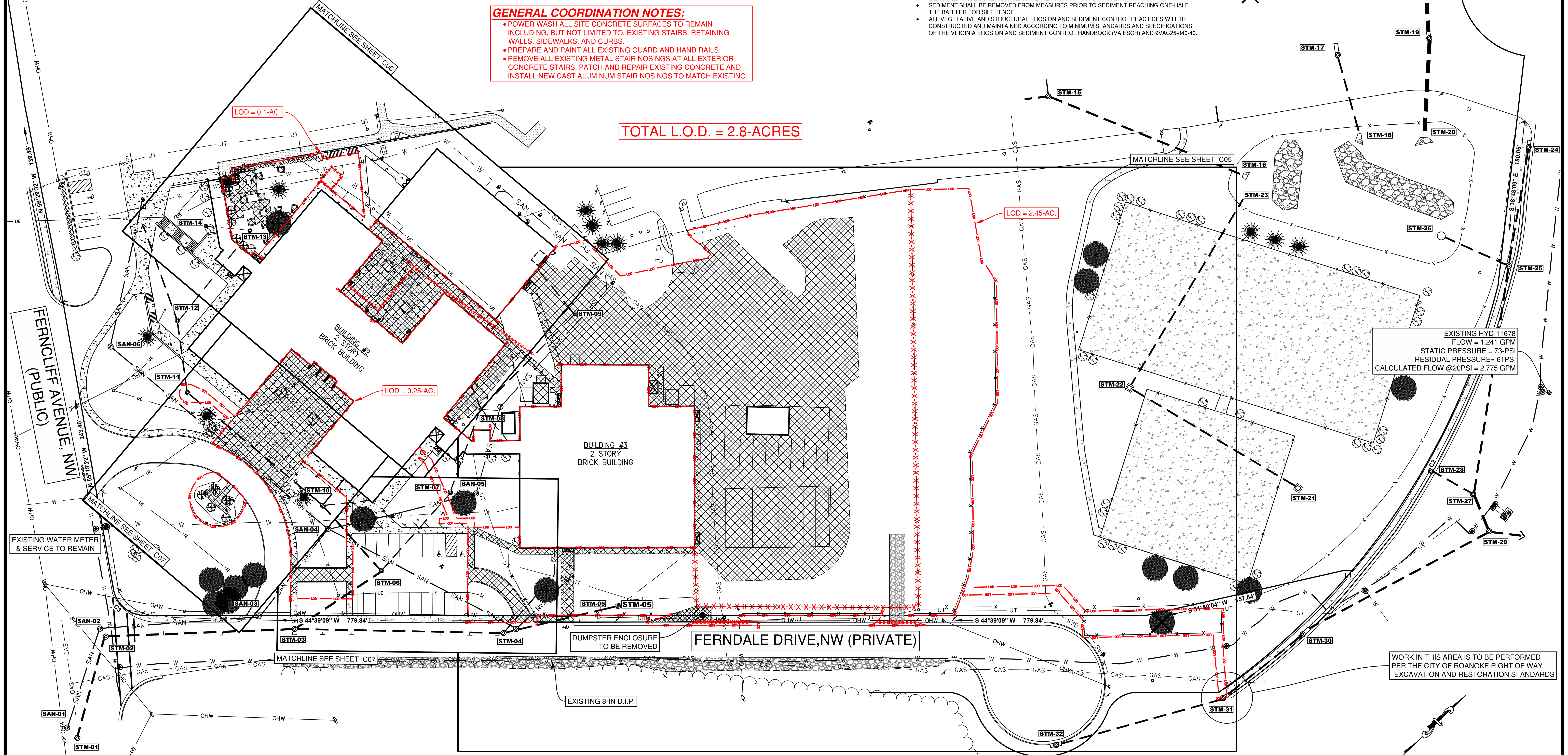
EROSION AND SEDIMENT CONTROL MEASURES:
PROVIDE THE FOLLOWING AS REQUIRED PER PHASE:

- CE — CONSTRUCTION ENTRANCE MEETING VA ESCH STD. & SPEC. 3.02
- SF — SILT FENCE MEETING VA ESCH STD. & SPEC. 3.05
- IP — INLET PROTECTION MEETING VA ESCH STD. & SPEC. 3.18
- TS — TEMPORARY SEEDING MEETING VA ESCH STD. & SPEC. 3.31
- MU — MULCHING MEETING VA ESCH STD. & SPEC. 3.35
- DC — DUST CONTROL MEETING VA ESCH STD. & SPEC. 3.39

DEMOLITION LEGEND

- HARDSCAPE (PAVING, BUILDINGS, CONCRETE, & GRAVEL) TO BE REMOVED
- –/–/–/–/– ITEM IS TO BE ABANDONED IN PLACE.
- –X-X-X-X-X-X– ITEM IS TO BE DEMOLISHED AND REMOVED FROM SITE.
- X VEGETATION TO BE REMOVED FROM SITE.

GENERAL COORDINATION NOTES:
- POWER WASH ALL SITE CONCRETE SURFACES TO REMAIN INCLUDING, BUT NOT LIMITED TO, EXISTING STAIRS, RETAINING WALLS, SIDEWALKS, AND CURBS.
- PREPARE AND PAINT ALL EXISTING GUARD AND HAND RAILS.
- REMOVE ALL EXISTING METAL STAIR NOSINGS AT ALL EXTERIOR CONCRETE STAIRS. PATCH AND REPAIR EXISTING CONCRETE AND INSTALL NEW CAST ALUMINUM STAIR NOSINGS TO MATCH EXISTING.



CURVE TABLE						
CURVE #	LENGTH	RADIUS	TANGENT	DELTA	CHORD DIRECTION	CHORD LENGTH
C1	184.25'	60.50'	1256.59'	174°29'14"	S 38°48'09" E	120.86'
C2	251.69'	550.00'	128.09'	26°13'11"	S 18°14'24" E	249.50'
C3	35.59'	25.00'	21.57'	81°34'00"	S 85°25'50" W	32.66'

LINE TABLE		
LINE #	DIRECTION	LENGTH
L1	S 44°39'09" W	6.67'

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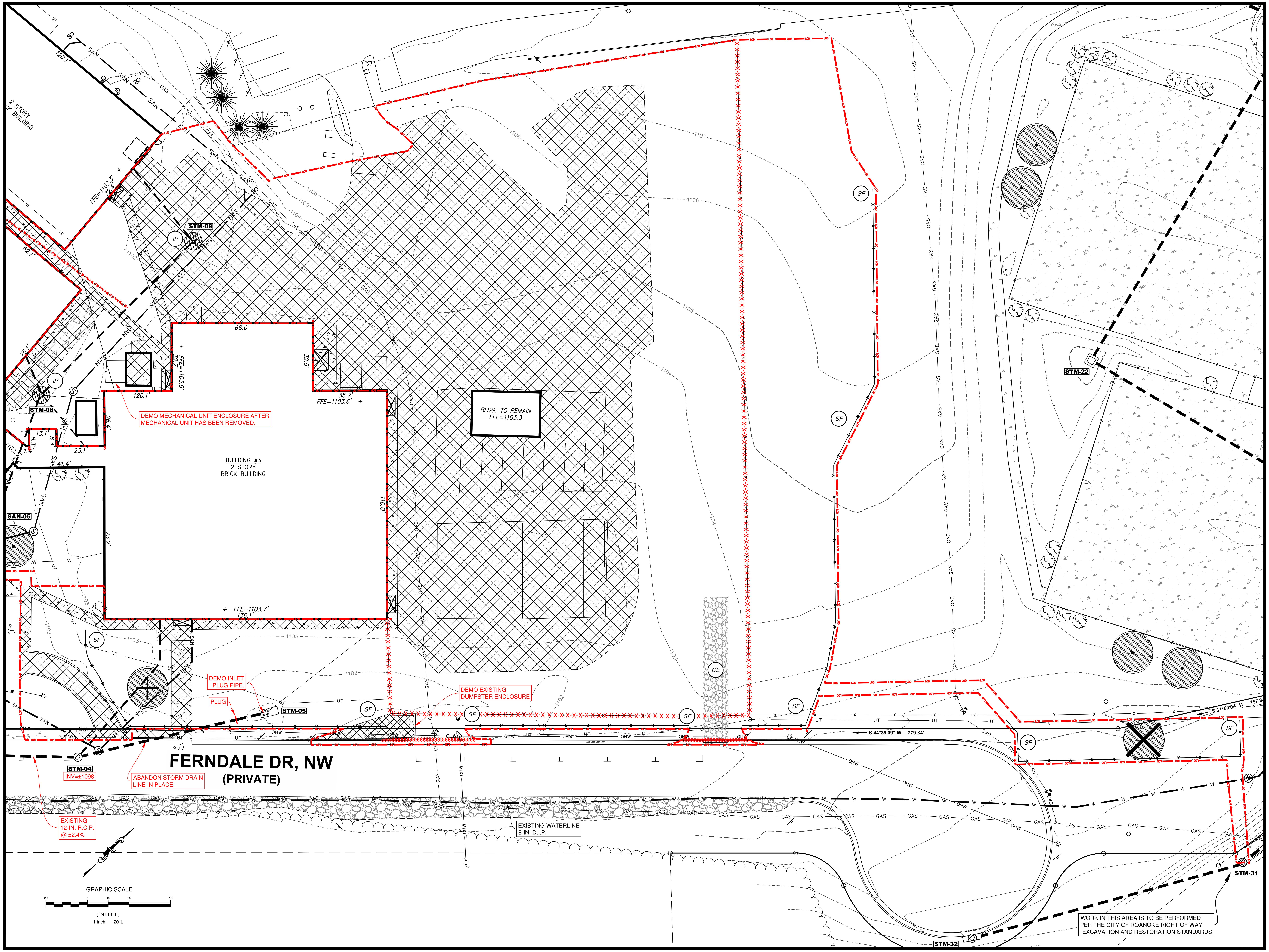
OVERALL EXISTING CONDITIONS AND E&SC PLAN NOTES

C04

SHEET ______ of X



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EX. CONDITIONS, DEMOLITION, & PHASE I E&SC PLAN

C05

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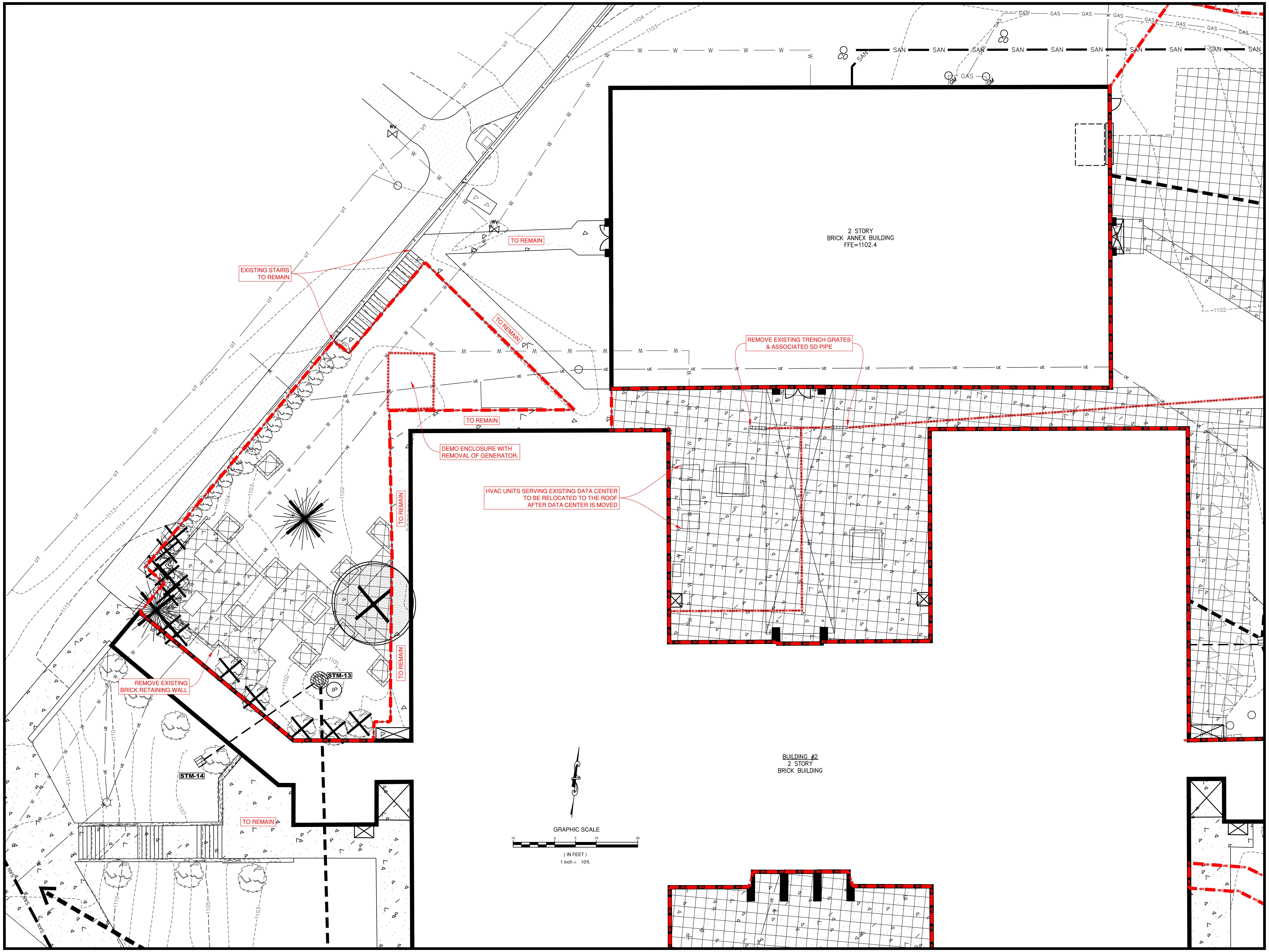

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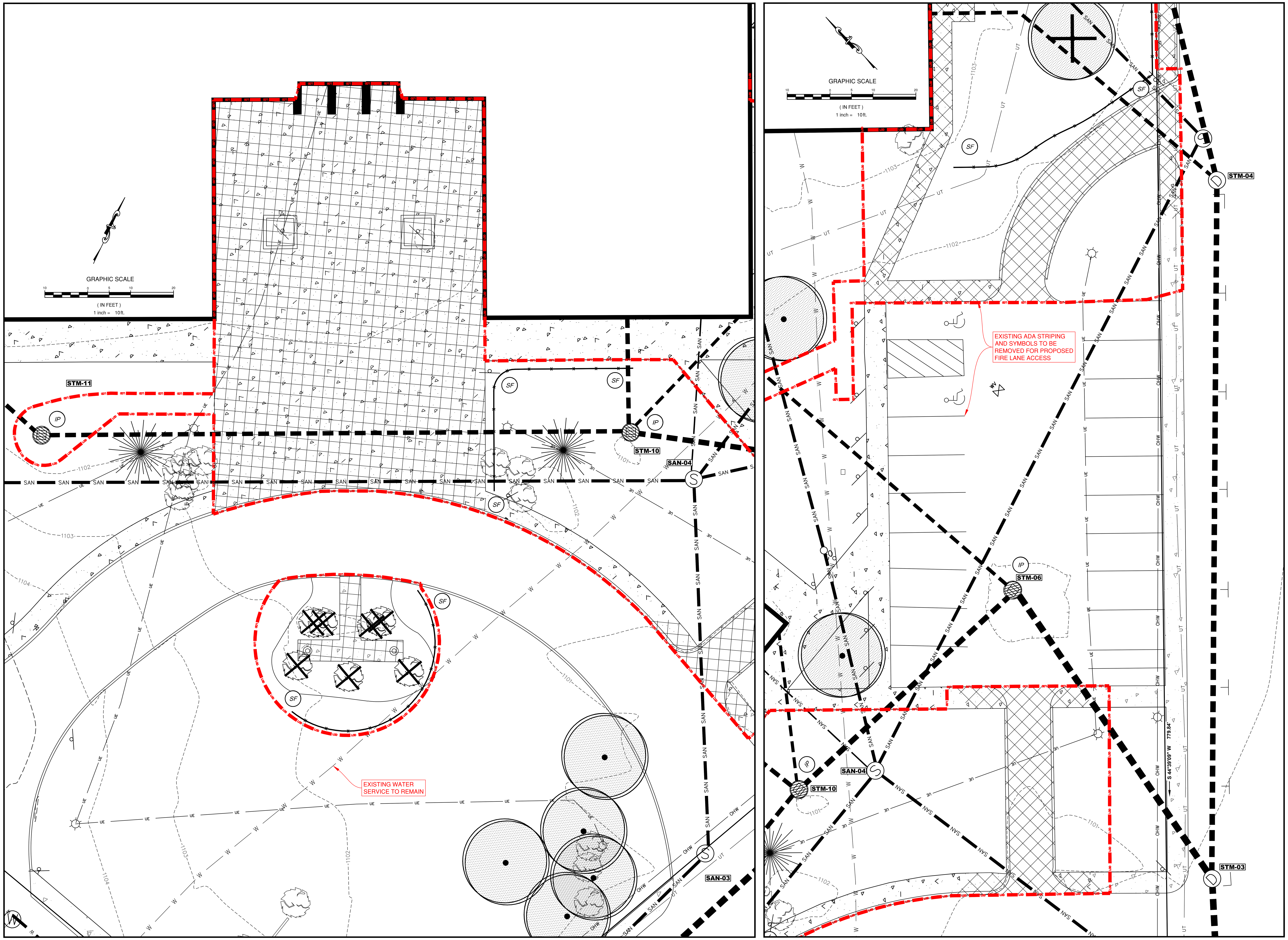

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EX. CONDITIONS, DEMOLITION, & PHASE I E&SC PLAN

C07

SHEET ______ of ___X___

STRC. NUMBER	STRC. DATA
1	DI-2A, L=2.2' TOP: 1101.80 INV. OUT: 1097.80 (TO #2, 15" HDPE,NE)
2	VDOT STD. DI-1 TOP: 1101.50 INV. IN: 1097.10 (FROM #1, 15" HDPE, SW) INV. OUT: 1097.00 (TO #3, 15" HDPE,NE)
3	VDOT STD. DI-2A (L=6-FT) TOP: 1102.50 INV. IN: 1096.30 (FROM #2, 15" HDPE, SW) INV. IN: 1096.30 (FROM #4, 15" HDPE, W) INV. OUT: 1096.20 (TO #5, 15" HDPE,NE)
4	VDOT STD. DI-2A (L=6-FT) TOP: 1104.50 INV. OUT: 1100.00 (TO #3, 15" HDPE,E)
5	ADS BARACUDA MAX STORMWATER SEPERATOR TOP: 1101.15 INV. IN: 1095.00 (FROM #3, 15" HDPE, SW) INV. OUT: 1094.90 (TO #6, 15" HDPE,E)
6	VDOT STD. MH-1 (48-IN DIA.) TOP: 1100.12 INV. IN: 1094.10 (FROM #5, 15" HDPE, W) INV. OUT: 1093.10 (TO #7, 18" HDPE,SE)
8	VDOT STD. MH-1 (48-IN DIA) TOP: 1098.60 INV. IN: 1093.00 (FROM #7, 48" HDPE, SW) INV. OUT: 1093.00 (TO #STM-31, 15" HDPE,SE)
9A	ADS N12 TEE (18"X8") TOP: 1092.73 INV. IN: 1092.00 (FROM #9, 8" HDPE, W)
9	24" DIA GRATE NYLOPLAST INLINE DRAIN TRAFFIC BEARING TOP: 1100.60 INV. OUT: 1096.00 (TO #9A, 8" HDPE,E)

STORM SEWER STRUCTURE SCHEDULE

STRC. NUMBER	STRC. DATA
10	24" DIA GRATE NYLOPLAST INLINE DRAIN TOP: 1101.50 INV. OUT: 1099.50 (TO #11, 8" HDPE,W)
11A	ADS N12 TEE (12"X8") TOP: 1095.82 INV. IN: 1095.09 (FROM #11, 8" HDPE, N)
11	24" DIA GRATE NYLOPLAST INLINE DRAIN TOP: 1101.50 INV. IN: 1099.00 (FROM #10, 8" HDPE, E) INV. OUT: 1099.00 (TO #11A, 8" HDPE,S)
12	NYLOPLAST (2'X3') CURB INLET TOP: 1101.50 INV. OUT: 1099.50 (TO #13, 8" HDPE,E)
13	NYLOPLAST (2'X3') CURB INLET TOP: 1101.50 INV. IN: 1099.20 (FROM #12, 8" HDPE, W) INV. OUT: 1099.20 (TO #14, 8" HDPE,N)
14	BEND TOP: 1102.00 INV. IN: 1098.72 (FROM #13, 8" HDPE, S) INV. OUT: 1098.72 (TO #15, 8" HDPE,NE)
15	BEND TOP: 1102.00 INV. IN: 1098.49 (FROM #14, 8" HDPE, SW) INV. OUT: 1098.49 (TO #16, 8" HDPE,E)
16	24" DIA. NYLOPLAST INLINE DRAIN GRATE TOP: 1101.70 INV. IN: 1098.05 (FROM #15, 8" HDPE, W) INV. OUT: 1098.05 (TO #17, 8" HDPE,E)
17	ADS N-12 TEE W/ 24" DIA. DRAIN COVER TOP: 1097.48 INV. IN: 1096.75 (FROM #16, 8" HDPE, W)

STORM SEWER STRUCTURE SCHEDULE

STRC. NUMBER	STRC. DATA
18	24" DIA. INLINE DRAIN TOP: 1101.50 INV. OUT: 1098.50 (TO #19, 8" HDPE,SW)
19	24" DIA. INLINE DRAIN TOP: 1101.50 INV. IN: 1098.15 (FROM #18, 8" HDPE, NE) INV. OUT: 1098.15 (TO #20, 8" HDPE,S)
20	24" DIA. INLINE DRAIN TOP: 1101.50 INV. IN: 1097.79 (FROM #19, 8" HDPE, N) INV. OUT: 1097.79 (TO #STM-13, 8" HDPE,S)

SAN SEWER TABLE

SAN-01
MH TOP = 1100.58'
INVIN 8" RCP = 1089.0'
INVO 8" RCP = 1088.9'

SAN-02
MH TOP = 1100.58'
INVIN 8" RCP = 1090.9'
INVO 8" RCP = 1090.8'

SAN-03
MH TOP = 1100.40'
INVIN 8" RCP = 1093.1'
INVO 8" RCP = 1093.0'

SAN-04
MH TOP = 1101.95'
INVIN 4" TC = 1094.9'
INVIN 8" = 1094.9'
INVIN 8" = 1095.6'
INVIN 8" RCP = 1094.9'
INVO 8" RCP = 1094.9'

SAN-05
MH TOP = 1102.28'
INVIN 8" RCP = 1096.2'
INVO 8" RCP = 1096.1'

SAN-06
MH TOP = 1107.75'
INVIN 8" RCP = 1098.8'
INVO 8" RCP = 1098.7'

STORM SEWER TABLE

STM-03
POSSIBLE MANHOLE
UNDER ASPHALT

STM-04
POSSIBLE MANHOLE
UNDER ASPHALT

STM-06
GRATE TOP = 1100.9'
INVIN 10" RCP = ????.?'
INVIN 15" RCP = 1093.0'
INVO 18" RCP = 1092.7'

STM-08
GRATE TOP = 1101.2'
INVIN 4" TC = 1099.2'
INVIN 4" TC = 1096.4'
INVIN 6" CONC = 1096.4'
INVIN 10" = 1097.5'
INVIN 10" RCP = 1096.1'
INVO 10" METAL = 1096.1'

STM-09
GRATE TOP = 1099.9'
INVIN 10" RCP = 1097.5'
INVO 10" RCP = 1097.3'

STM-10
GRATE TOP = 1101.2'
INVIN 8" = 1096.4'
INVIN 12" = 1094.8'
INVIN 12" = 1094.7'
INVO 15" RCP = 1094.6'

STM-11
GRATE TOP = 1101.5'
INVIN 12" RCP = 1095.1'
INVO 12" RCP = 1095.2'

STM-13
GRATE TOP = 1100.3'
INVIN 4" TC = 1097.7'
INVO 8" CONC = 1097.5'

STM-31
MH TOP = 1090.74'
INVIN 15" RCP = 1086.6'
INVO 15" RCP = 1086.5'

FIRE MARSHALL REQUIREMENTS

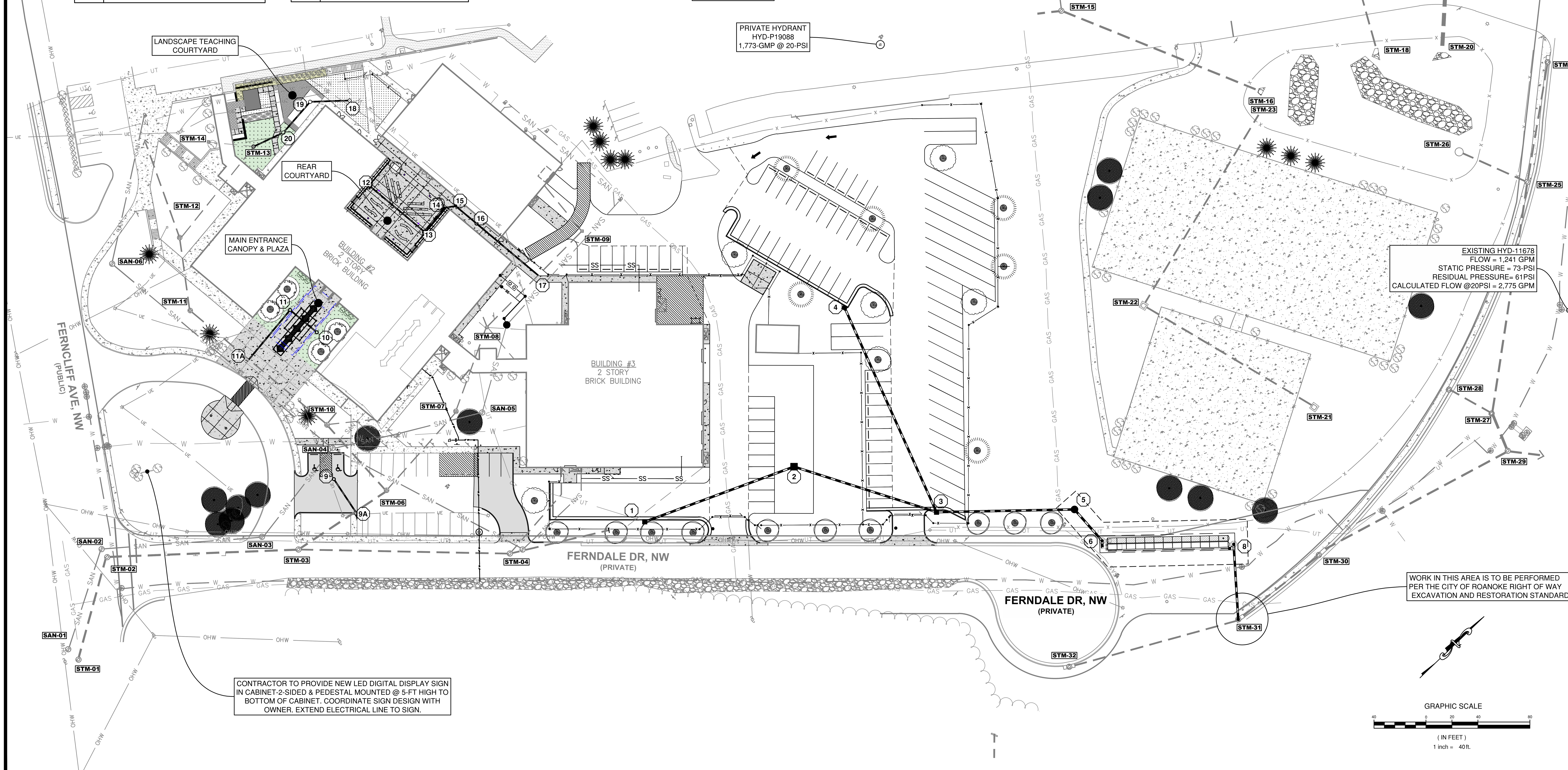
- THE EXISTING BUILDINGS FALL UNDER USE GROUP E (EDUCATIONAL).
- USE GROUP E UP TO TWO STORIES SHALL PROVIDE 2,000-GPM FIRE FLOW FOR TWO HOURS AT A MINUMUM RESIDUAL PRESSURE OF 20 PSI.
- CALCULATED FLOW AT HYDRANT #11678 = 2775 GPM @ 20 PSI (WVWA TEST CONDUCTED 02/03/2022)
  - FLOW TEST 1,244 GPM - 73 PSI STATIC - 61 PSI RESIDUAL
  - ANTICIPATED FLOW AT PROPOSED HYDRANT IS APPROXIMATELY 1,848 GPM @ 20 PSI
  - PRIVATE HYDRANT P19088 WAS CALCULATED AT 1,773 GPM @ 20 PSI
- SECURITY GATES MAY BE INSTALLED ACROSS FIRE APPARATUS ACCESS ROADS WHEN APPROVED BY THE FIRE MARSHAL OR HIS/HER DESIGNEE. SECURITY GATES MAY BE AUTOMATICALLY OR MANUALLY OPERATED IN ACCORDANCE WITH THIS SECTION.
- WHERE A SECURITY GATE SERVES AS THE ONLY MEANS OF ACCESSING A BUILDING, THE SECURITY GATE MUST BE CAPABLE OF AUTOMATIC OPERATION AND EQUIPPED WITH AN ELECTRIC KEY SWITCH THAT IS COMPATIBLE WITH THE KNOX RAPID ENTRY SYSTEM ADOPTED BY ROANOKE FIRE-EMS (SEE POLICY FP-02, KNOX RAPID ENTRY SYSTEM FOR FURTHER DETAILS AND REQUIREMENTS). WHERE A SECURITY GATE ONLY CONTROLS ACCESS TO A PORTION OF THE BUILDING AND WITH THE EXPRESS APPROVAL OF THE FIRE MARSHAL OR HIS/HER DESIGNEE, THE SECURITY GATE MAY BE MANUALLY OPERATED AND EQUIPPED WITH A PADLOCK THAT IS COMPATIBLE WITH THE KNOX RAPID ENTRY SYSTEM ADOPTED BY ROANOKE FIRE-EMS. HOWEVER, THE FIRE MARSHAL OR HIS/HER DESIGNEE MAY REQUIRE ANY SECURITY GATE UNDER THIS SECTION TO HAVE AUTOMATIC OPERATION WHERE SUCH GATE WOULD BE NECESSARY FOR LIFESAVING OR FIREFIGHTING PURPOSES.
- SECURITY GATE TO BE EQUIPPED WITH A KNOX 3501 OR 3502 SERIES ELECTRICAL KEY SWITCH THAT IS CONFIGURED TO OVERRIDE THE GATE CONTROLLER AND HOLD THE GATE OPEN FOR FIRE DEPARTMENT ACCESS. CONTRACTOR TO COORDINATE KNOX-BOX LOCATIONS WITH ARCHITECT & CITY OF ROANOKE FIRE MARSHAL'S OFFICE PRIOR TO CONSTRUCTION.
- CONTRACTOR TO ENSURE ALL ELECTRIC AND MANUAL GATES THROUGHOUT THE COMPLEX WILL INCLUDE KNOX BOX SYSTEMS AS REQUIRED PER THE FIRE MARSHALL'S OFFICE. CONTACT THE FIRE MARSHALL FOR APPROVED KNOX-BOX DEVICES BEFORE INSTALLATION.

UTILITY CONNECTION NOTES:

- NO NEW SANITARY CONNECTION IS REQUIRED - EXISTING 6" LATERAL TO REMAIN.
- EXISTING WATER METER AND DOMESTIC SERVICE TO REMAIN. EXISTING INTERIOR FIXTURES UNCHANGED.
- SITE CONTRACTOR SHALL CONNECT WATER AT 5' OUTSIDE BUILDING FACE.
- ANY EXISTING WATER OR SEWER CONNECTION SERVING THIS PROPERTY NOT UTILIZED FOR THIS DEVELOPMENT SHALL BE ABANDONED AT THE MAIN BY THE DEVELOPER.
- ANY EXISTING SUMP PUMP CONNECTIONS OR OTHER SOURCES OF GROUNDWATER COLLECTION TIED DIRECTLY TO THE SANITARY SEWER SHALL BE DISCONNECTED.
- SEWER AND WATER UTILITIES INSIDE THE RIGHT-OF-WAY ARE PUBLIC. UTILITIES OUTSIDE THE RIGHT-OF-WAY ARE PRIVATE.
- INTERNAL PLUMBING SEDIMENT TRAPS DETAILED ON PLUMBING PLANS - 4-IN. PVC FROM PLUMBING SEDIMENT TRAPS SHOWN ON SHEETS C08 & C09.
- ALL NEW OR RELOCATED UTILITY SERVICE LATERALS OR SERVICE LINES SHALL BE LOCATED UNDERGROUND.

MISCELLANEOUS SITE NOTES

1. PAVEMENT SHALL BE SAWCUT AT LIMITS SHOWN FOR DEMOLITION.
2. INSTALL CONCRETE WHEEL STOPS AT ALL PARKING SPACES WHERE THERE IS NO CURB AND GUTTER.
3. PAINT PARKING SPACE LINES AND NO PARKING ZONES PER VDOT SPECIFICATIONS.
4. COORDINATE DECORATIVE FENCE SELECTION WITH OWNER AND ARCHITECT. INSTALL ALL FENCING COMPONENTS PER MANUFACTURERS SPECIFICATIONS.
5. COORDINATE SITE FURNISHING SELECTION WITH OWNER AND ARCHITECT.
6. COORDINATE GATE REMOTE ACCESS \ CARD READER SYSTEM WITH OWNER. INSTALL POWER CONDUITS AS NEEDED TO SYSTEM COMPONENTS - COORDINATE WITH ELECTRICAL SITE PLAN.
7. NEW FENCING ALONG FERNDALE DRIVE SHALL BE DECORATIVE, EXTRUDED ALUMINUM - COLOR BLACK. MANUFACTURER - AMETCO (SATURN LOUVERED FENCE - 6' HIGH) OR APPROVED EQUAL. COORDINATE CANTILEVER ACCESS GATE COMPONENTS WITH MANUFACTURER (CARRIAGE SYSTEM AND MONORAIL TRACK SYSTEM AND HARDWARE). NEW CHAIN LINK FENCE, WHERE SPECIFIED, SHALL MATCH EXISTING.
8. SEE ELECTRICAL PLANS FOR BUILDING AND SITE LIGHTING INFORMATION.
9. SEE SHEET C20 FOR DETENTION SYSTEM DETAILS.



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JACK D. ELLINWOOD
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06/17/2022
LANDSCAPE ARCHITECT

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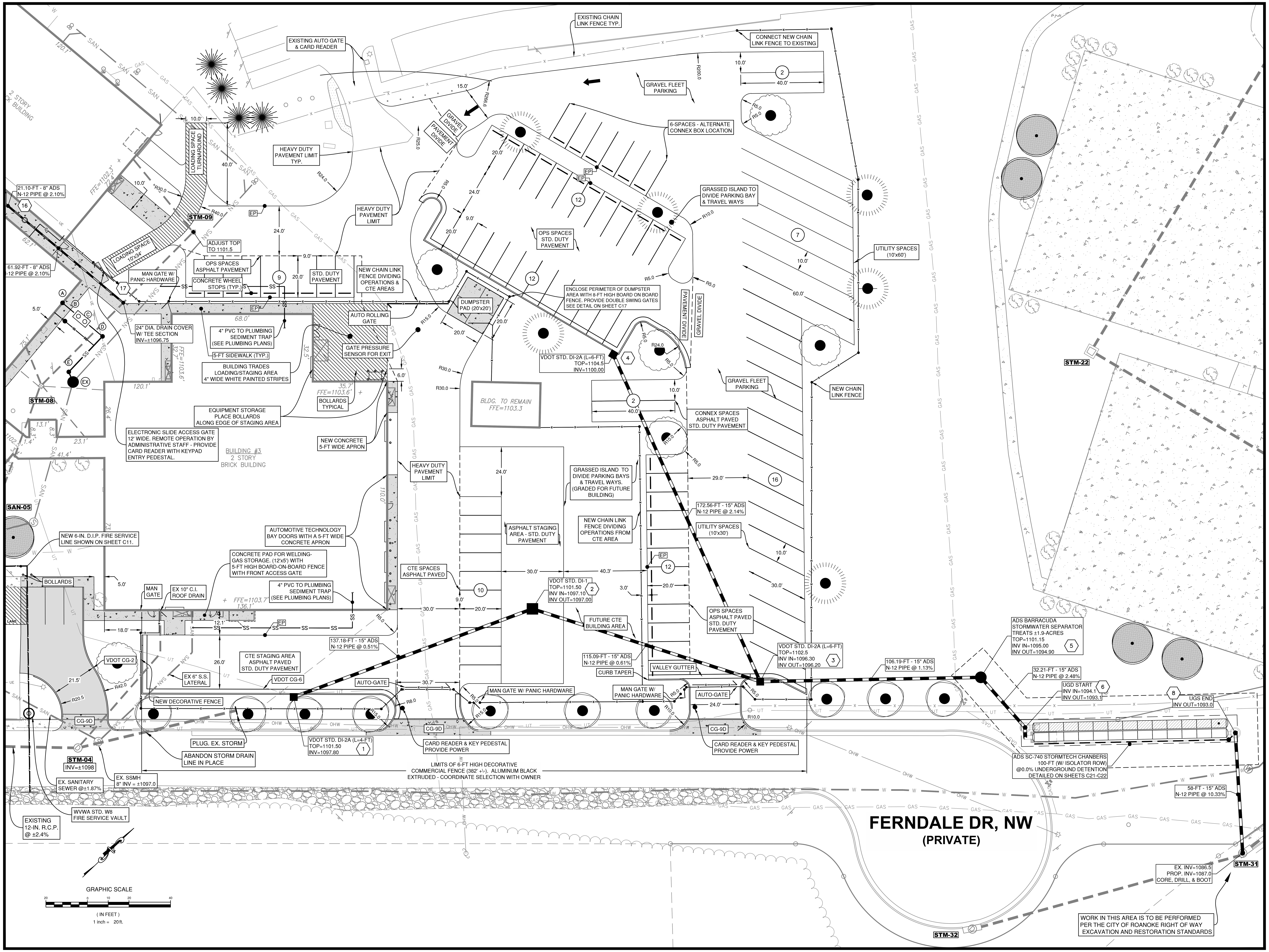
REVISIONS		
No.	DATE	DESCRIPTION
1	06/17/22	1ST CITY REVIEW

DRAWN BY:	JMD
REV'D BY:	JDE
DATE:	04/22/2022
SCALE:	AS SHOWN

LAYOUT - OVERALL

C08

SHEET ______ of X



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LAYOUT & DIMENSIONAL PLAN PT. I

C09

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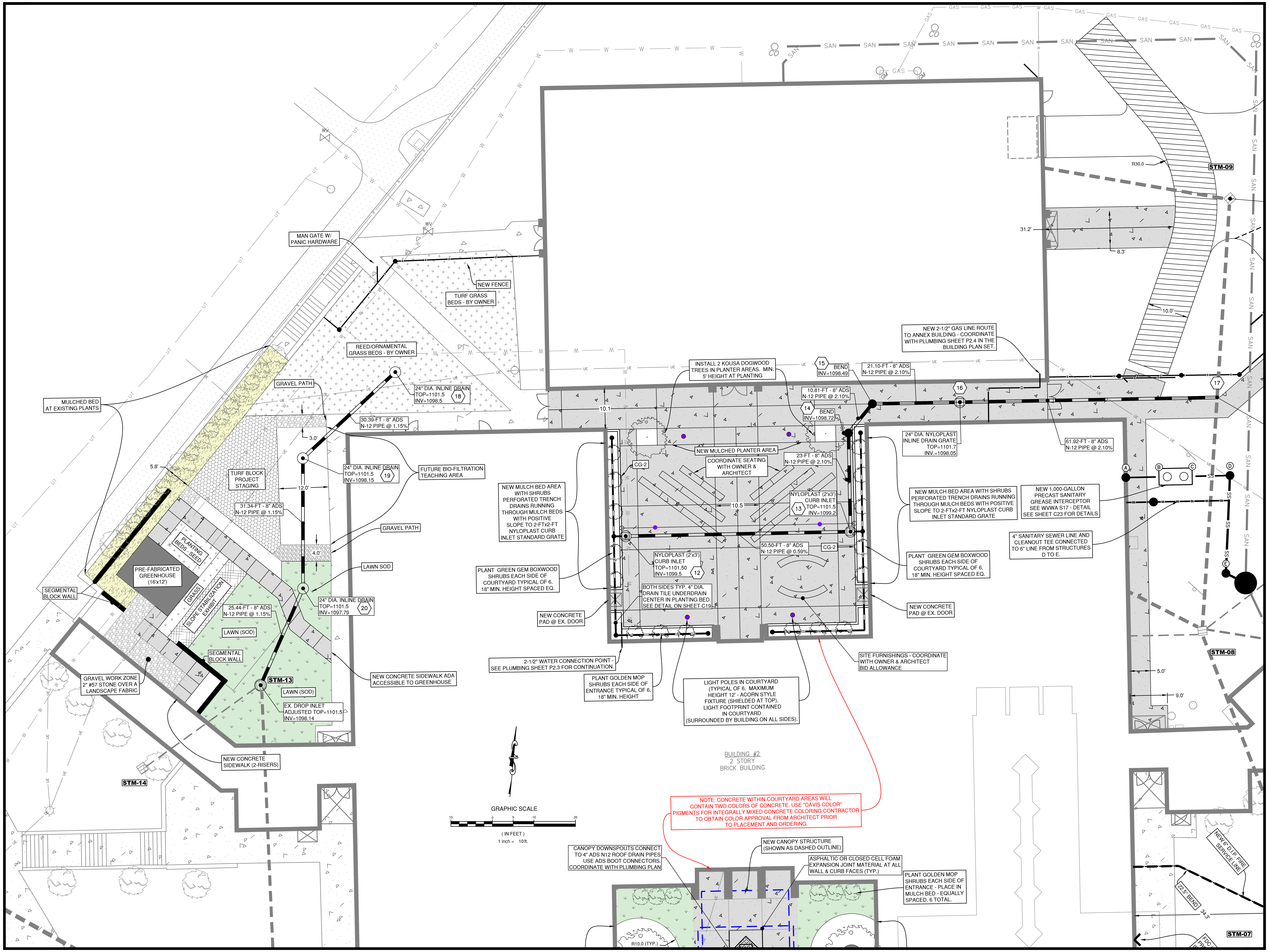

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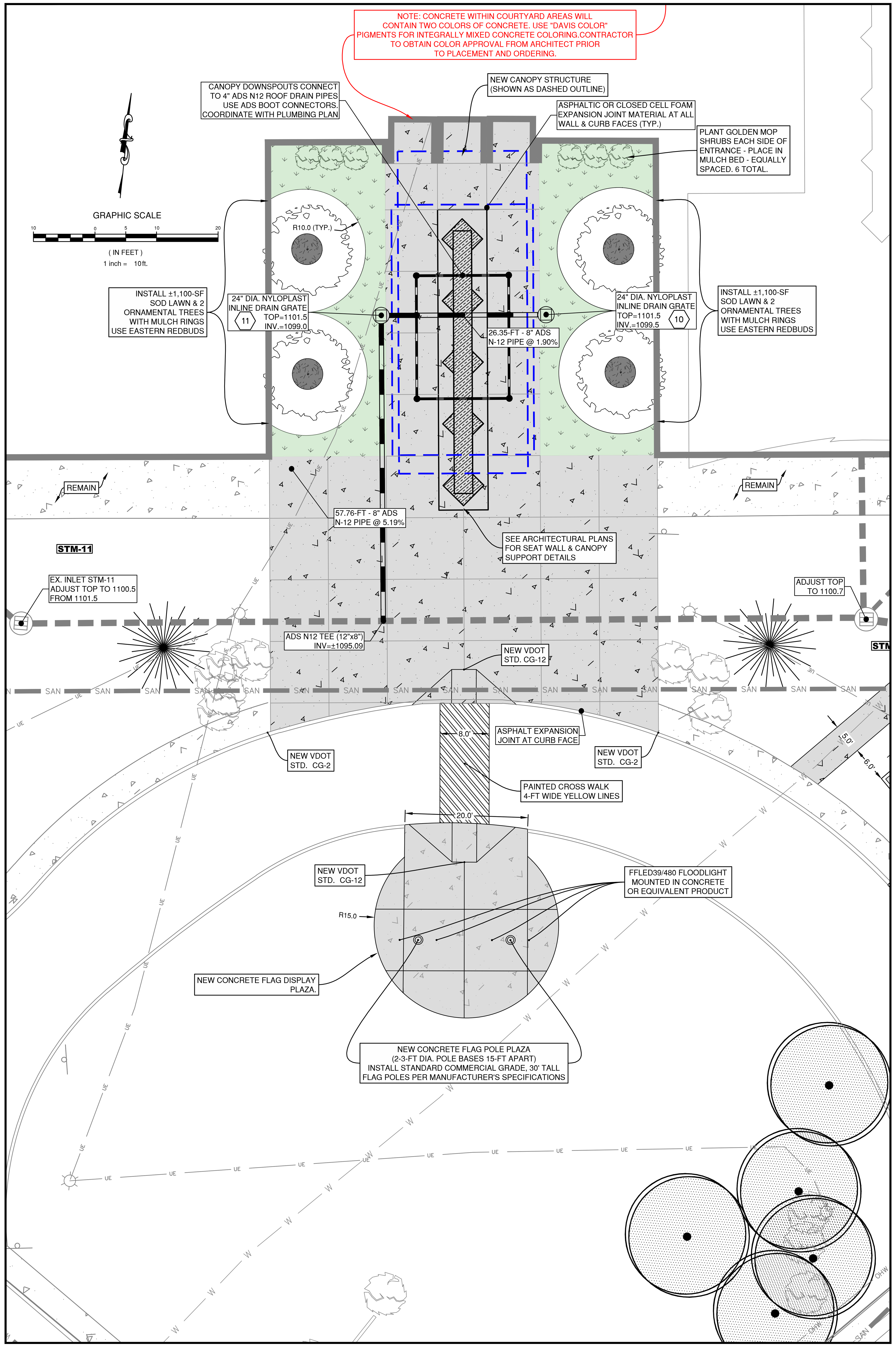
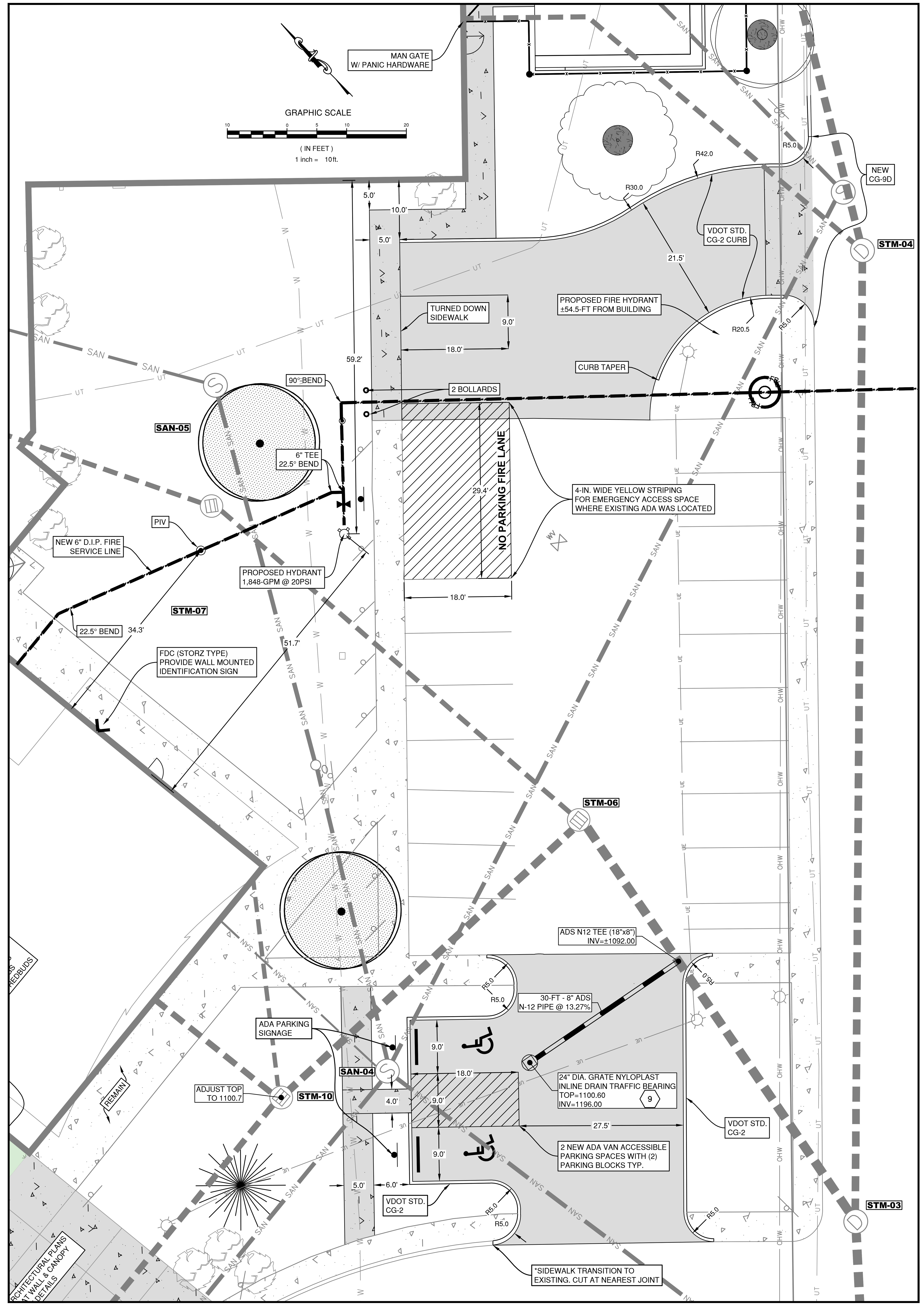
LAYOUT & DIMENSIONAL PLAN PT. II

C10

SHEET ______ of __X__





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1	06/17/22	1ST CITY REVIEW

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SCALE:	AS SHOWN

LAYOUT & DIMENSIONAL PLAN PT. III

C11

SHEET ____ of __X__

STRC. NUMBER	STRC. DATA
1	DI-2A, L=2.2' TOP: 1101.80 INV. OUT: 1097.80 (TO #2, 15" HDPE,NE)
2	VDOT STD. DI-1 TOP: 1101.50 INV. IN: 1097.10 (FROM #1, 15" HDPE, SW) INV. OUT: 1097.00 (TO #3, 15" HDPE,NE)
3	VDOT STD. DI-2A (L=6-FT) TOP: 1102.50 INV. IN: 1096.30 (FROM #2, 15" HDPE, SW) INV. IN: 1096.30 (FROM #4, 15" HDPE, W) INV. OUT: 1096.20 (TO #5, 15" HDPE,NE)
4	VDOT STD. DI-2A (L=6-FT) TOP: 1104.50 INV. OUT: 1100.00 (TO #3, 15" HDPE,E)
5	ADS BARACUDA MAX STORMWATER SEPERATOR TOP: 1101.15 INV. IN: 1095.00 (FROM #3, 15" HDPE, SW) INV. OUT: 1094.90 (TO #6, 15" HDPE,E)
6	VDOT STD. MH-1 (48-IN DIA.) TOP: 1100.12 INV. IN: 1094.10 (FROM #5, 15" HDPE, W) INV. OUT: 1093.10 (TO #7, 18" HDPE,SE)
8	VDOT STD. MH-1 (48-IN DIA) TOP: 1098.60 INV. IN: 1093.00 (FROM #7, 48" HDPE, SW) INV. OUT: 1093.00 (TO #STM-31, 15" HDPE,SE)
9A	ADS N12 TEE (18"X8") TOP: 1092.73 INV. IN: 1092.00 (FROM #9, 8" HDPE, W)
9	24" DIA GRATE NYLOPLAST INLINE DRAIN TRAFFIC BEARING TOP: 1100.60 INV. OUT: 1096.00 (TO #9A, 8" HDPE,E)

STORM SEWER STRUCTURE SCHEDULE

STRC. NUMBER	STRC. DATA
10	24" DIA GRATE NYLOPLAST INLINE DRAIN TOP: 1101.50 INV. OUT: 1099.50 (TO #11, 8" HDPE,W)
11A	ADS N12 TEE (12"X8") TOP: 1095.82 INV. IN: 1095.09 (FROM #11, 8" HDPE, N)
11	24" DIA GRATE NYLOPLAST INLINE DRAIN TOP: 1101.50 INV. IN: 1099.00 (FROM #10, 8" HDPE, E) INV. OUT: 1099.00 (TO #11A, 8" HDPE,S)
12	NYLOPLAST (2'X3') CURB INLET TOP: 1101.50 INV. OUT: 1099.50 (TO #13, 8" HDPE,E)
13	NYLOPLAST (2'X3') CURB INLET TOP: 1101.50 INV. IN: 1099.20 (FROM #12, 8" HDPE, W) INV. OUT: 1099.20 (TO #14, 8" HDPE,N)
14	BEND TOP: 1102.00 INV. IN: 1098.72 (FROM #13, 8" HDPE, S) INV. OUT: 1098.72 (TO #15, 8" HDPE,NE)
15	BEND TOP: 1102.00 INV. IN: 1098.49 (FROM #14, 8" HDPE, SW) INV. OUT: 1098.49 (TO #16, 8" HDPE,E)
16	24" DIA. NYLOPLAST INLINE DRAIN GRATE TOP: 1101.70 INV. IN: 1098.05 (FROM #15, 8" HDPE, W) INV. OUT: 1098.05 (TO #17, 8" HDPE,E)
17	ADS N-12 TEE W/ 24" DIA. DRAIN COVER TOP: 1097.48 INV. IN: 1096.75 (FROM #16, 8" HDPE, W)

STORM SEWER STRUCTURE SCHEDULE

STRC. NUMBER	STRC. DATA
18	24" DIA. INLINE DRAIN TOP: 1101.50 INV. OUT: 1098.50 (TO #19, 8" HDPE,SW)
19	24" DIA. INLINE DRAIN TOP: 1101.50 INV. IN: 1098.15 (FROM #18, 8" HDPE, NE) INV. OUT: 1098.15 (TO #20, 8" HDPE,S)
20	24" DIA. INLINE DRAIN TOP: 1101.50 INV. IN: 1097.79 (FROM #19, 8" HDPE, N) INV. OUT: 1097.79 (TO #STM-13, 8" HDPE,S)

SAN SEWER TABLE

SAN-01
MH TOP = 1100.58'
INVIN 8" RCP = 1089.0'
INVO 8" RCP = 1088.9'

SAN-02
MH TOP = 1100.58'
INVIN 8" RCP = 1090.9'
INVO 8" RCP = 1090.8'

SAN-03
MH TOP = 1100.40'
INVIN 8" RCP = 1093.1'
INVO 8" RCP = 1093.0'

SAN-04
MH TOP = 1101.95'
INVIN 4" TC = 1094.9'
INVIN 8" = 1094.9'
INVIN 8" = 1095.6'
INVIN 8" RCP = 1094.9'
INVO 8" RCP = 1094.9'

SAN-05
MH TOP = 1102.28'
INVIN 8" RCP = 1096.2'
INVO 8" RCP = 1096.1'

SAN-06
MH TOP = 1107.75'
INVIN 8" RCP = 1098.8'
INVO 8" RCP = 1098.7'

STORM SEWER TABLE

STM-03
POSSIBLE MANHOLE
UNDER ASPHALT

STM-04
POSSIBLE MANHOLE
UNDER ASPHALT

STM-06
GRATE TOP = 1100.9'
INVIN 10" RCP = ????.?'
INVIN 15" RCP = 1093.0'
INVO 18" RCP = 1092.7'

STM-08
GRATE TOP = 1101.2'
INVIN 4" TC = 1099.2'
INVIN 4" TC = 1096.4'
INVIN 6" CONC = 1096.4'
INVIN 10" = 1097.5'
INVIN 10" RCP = 1096.1'
INVO 10" METAL = 1096.1'

STM-09
GRATE TOP = 1099.9'
INVIN 10" RCP = 1097.5'
INVO 10" RCP = 1097.3'

STM-10
GRATE TOP = 1101.2'
INVIN 8" = 1096.4'
INVIN 12" = 1094.8'
INVIN 12" = 1094.7'
INVO 15" RCP = 1094.6'

STM-11
GRATE TOP = 1101.5'
INVIN 12" RCP = 1095.1'
INVO 12" RCP = 1095.2'

STM-13
GRATE TOP = 1100.3'
INVIN 4" TC = 1097.7'
INVO 8" CONC = 1097.5'

STM-31
MH TOP = 1090.74'
INVIN 15" RCP = 1086.6'
INVO 15" RCP = 1086.5'

PHASE II SEQUENCE OF CONSTRUCTION:

CONSTRUCTION WILL BE SEQUENCED TO INSTALL INITIAL EROSION AND SEDIMENT CONTROL MEASURES PRIOR TO DEMOLITION.

- CONTRACTOR SHALL MAINTAIN THE CONSTRUCTION ENTRANCE PER VA ESCH STD. & SPEC 3.02.
- CONTRACTOR SHALL MAINTAIN PERIMETER CONTROLS INSTALLED AS PART OF PHASE I SEQUENCE OF CONSTRUCTION.
- INSTALL TEMPORARY SEDIMENT TRAP PRIOR TO GRADING OPERATIONS. ONCE UPSLOPE AND ADJACENT AREAS DRAINING TO THE SEDIMENT TRAP ARE STABILIZED, CONTRACTOR SHALL RECEIVE APPROVAL FROM CITY OF ROANOKE INSPECTOR PRIOR TO REMOVAL OF THE SEDIMENT TRAP.
- INSTALL INLET PROTECTION IMMEDIATELY FOLLOWING INSTALLATION OF DRAINAGE INLETS.
- INSTALL OUTLET PROTECTION AS SOON AS PIPE SYSTEMS BECOME FUNCTIONAL.
- APPLY TOPSOIL, SEEDING AND MULCH (WITH TACKIFIER) IMMEDIATELY UPON REACHING FINAL GRADE. APPLY TEMPORARY SEEDING IF GRADED AREAS ARE NOT BROUGHT TO FINAL GRADE WITHIN 14 DAYS.
- THE CONTRACTOR IS RESPONSIBLE FOR THE INSTALLATION OF ANY ADDITIONAL EROSION CONTROL MEASURES NECESSARY TO PREVENT EROSION AND SEDIMENTATION AS DETERMINED BY THE LOCAL AUTHORITY.
- APPLY PERMANENT SEEDING AND STABILIZATION ONCE FINAL GRADE IS ACHIEVED.
- THE CONTRACTOR SHALL INSPECT ALL EROSION CONTROL MEASURES PERIODICALLY AND AFTER EACH RUNOFF PRODUCING RAINFALL EVENT. ANY NECESSARY REPAIRS OR CLEANUP TO MAINTAIN THE EFFECTIVENESS OF THE EROSION CONTROL DEVICES SHALL BE MADE IMMEDIATELY.
- REMOVE EROSION AND SEDIMENT CONTROL MEASURES AFTER PERMANENT STABILIZATION HAS BEEN ACHIEVED THROUGHOUT THE SITE, AND WITH THE PERMISSION OF THE CITY OF ROANOKE SITE INSPECTOR.

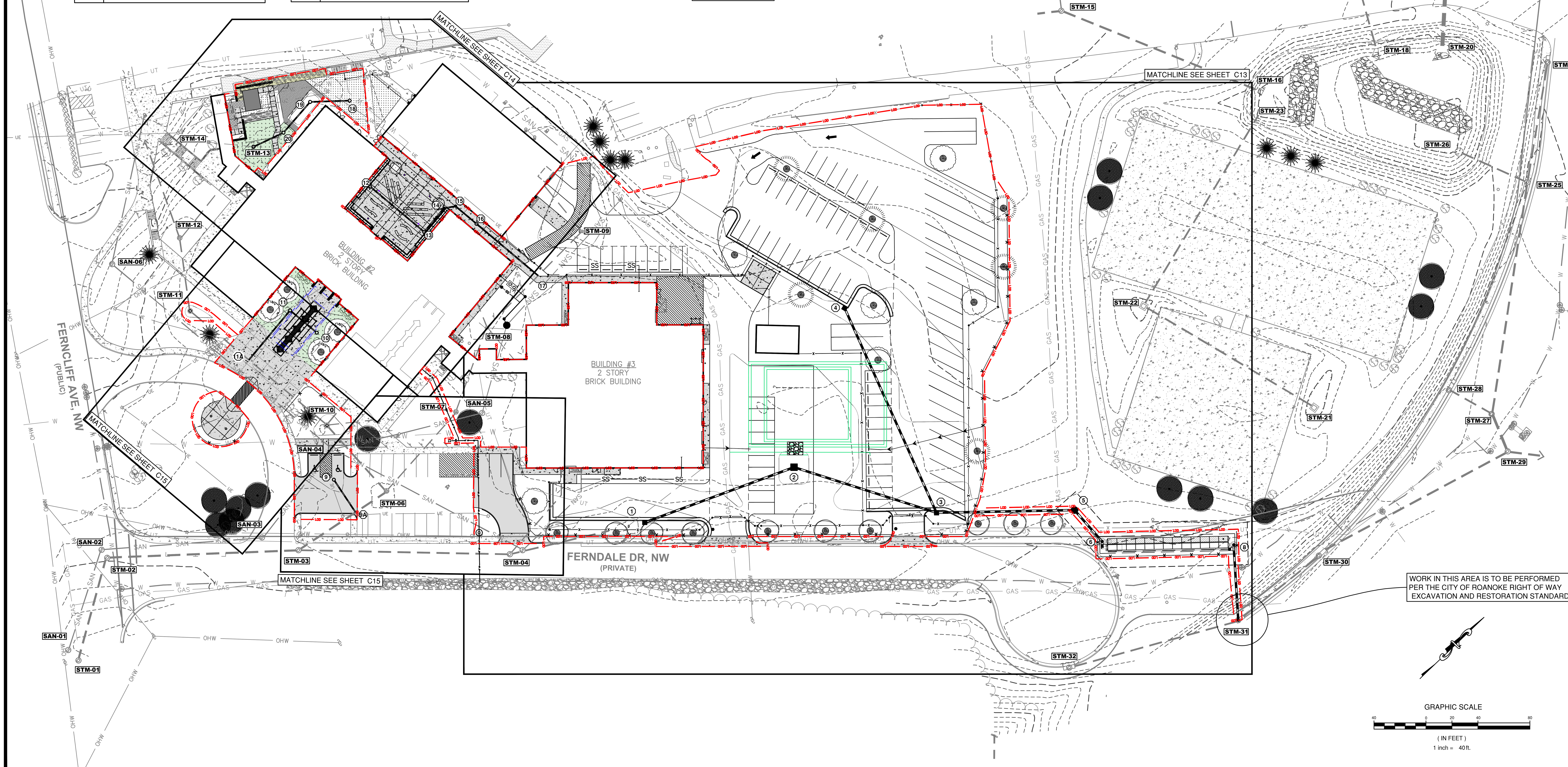
EROSION & SEDIMENT CONTROL NOTES

- TOPSOIL STOCKPILING MAY OCCUR IN A SUITABLE LOCATION AS DETERMINED BY THE CONTRACTOR. SILT FENCE SHALL BE PLACED AROUND THE PERIMETER OF THE STOCKPILE. TEMPORARY SEEDING MEASURES APPLY TO STOCKPILES.
- THE CONTRACTOR SHALL CHECK AND VERIFY ALL EXISTING PERIMETER EROSION AND SEDIMENT CONTROL MEASURES AROUND THE SITE. ANY PERIMETER EROSION CONTROL MEASURES THAT ARE DAMAGED SHALL BE REPAIRED TO CONTROL SEDIMENT LADEN RUNOFF FROM ENTERING ADJACENT PROPERTIES AND/OR STREAMS AND SWALES.
- IN ANY AREAS WHERE SEDIMENT LADEN WATER IS BEING PUMPED FROM A LOCATION, THE PUMPED RUNOFF SHALL BE FILTERED THROUGH A "FILTER BAG" BEFORE BEING RELEASED.
- THE CONTRACTOR SHALL KEEP MATERIALS AND EQUIPMENT ON-SITE TO KEEP DUST LEVELS AT A MINIMUM.
- THE CONTRACTOR SHALL MAINTAIN THE EROSION AND SEDIMENT CONTROL MEASURES AS IDENTIFIED UNDER THE "MAINTENANCE" SECTION OF THIS DOCUMENT.
- SEDIMENT SHALL BE REMOVED FROM MEASURES PRIOR TO SEDIMENT REACHING ONE-HALF THE BARRIER FOR SILT FENCE.
- ALL VEGETATIVE AND STRUCTURAL EROSION AND SEDIMENT CONTROL PRACTICES WILL BE CONSTRUCTED AND MAINTAINED ACCORDING TO MINIMUM STANDARDS AND SPECIFICATIONS OF THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK (VA ESCH) AND 9VAC25-840-40.
- ALL DISTURBED AREAS ARE TO DRAIN TO APPROVED SEDIMENT CONTROL MEASURES AT ALL TIMES DURING LAND DISTURBING ACTIVITIES AND DURING SITE DEVELOPMENT UNTIL FINAL STABILIZATION IS REACHED.

EROSION AND SEDIMENT CONTROL MEASURES:

PROVIDE THE FOLLOWING AS REQUIRED PER PHASE:

CE CONSTRUCTION ENTRANCE MEETING VA ESCH STD. & SPEC. 3.02
SF SILT FENCE MEETING VA ESCH STD. & SPEC. 3.05
IP INLET PROTECTION MEETING VA ESCH STD. & SPEC. 3.07
RWD TEMPORARY RIGHT-OF-WAY DIVERSION MEETING VA ESCH STD. & SPEC. 3.11
OP OUTLET PROTECTION MEETING VA ESCH STD. & SPEC. 3.18
TO TOPSOILING MEETING VA ESCH STD. & SPEC. 3.30
TS TEMPORARY SEEDING MEETING VA ESCH STD. & SPEC. 3.31
PS PERMANENT SEEDING MEETING VA ESCH STD. & SPEC. 3.32
MU MULCHING MEETING VA ESCH STD. & SPEC. 3.35
DC DUST CONTROL MEETING VA ESCH STD. & SPEC. 3.39



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Lic. No. 001107
06/17/2022
LANDSCAPE ARCHITECT

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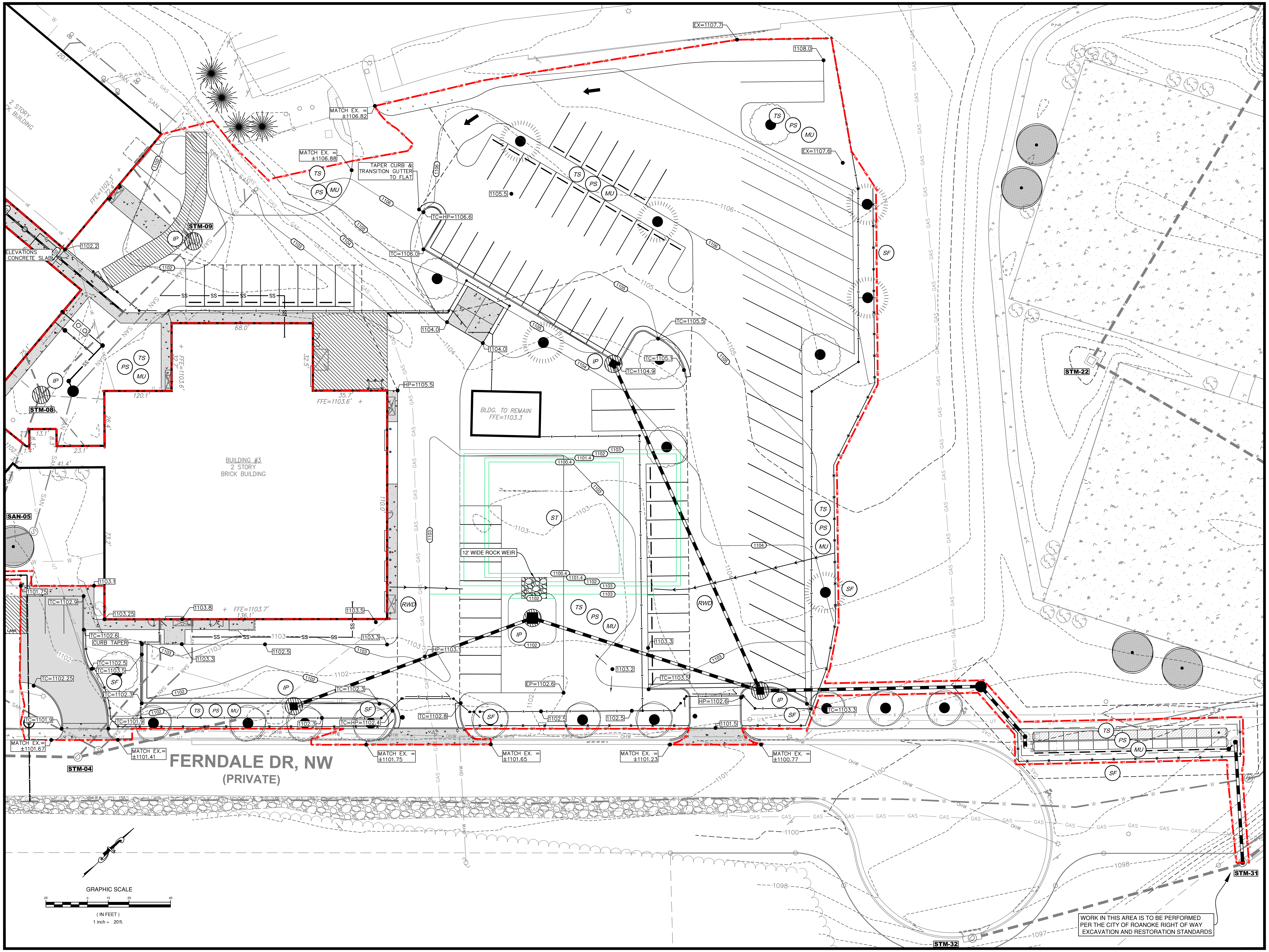
No.	DATE	DESCRIPTION
1	06/17/22	1ST CITY REVIEW

DRAWN BY:	JMD
REV'D BY:	JDE
DATE:	04/22/2022
SCALE:	AS SHOWN

OVERALL GRADING PLAN AND E&SC PLAN NOTES

C12

SHEET ______ of X



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GRADING & PHASE II E&SC PLAN

C13

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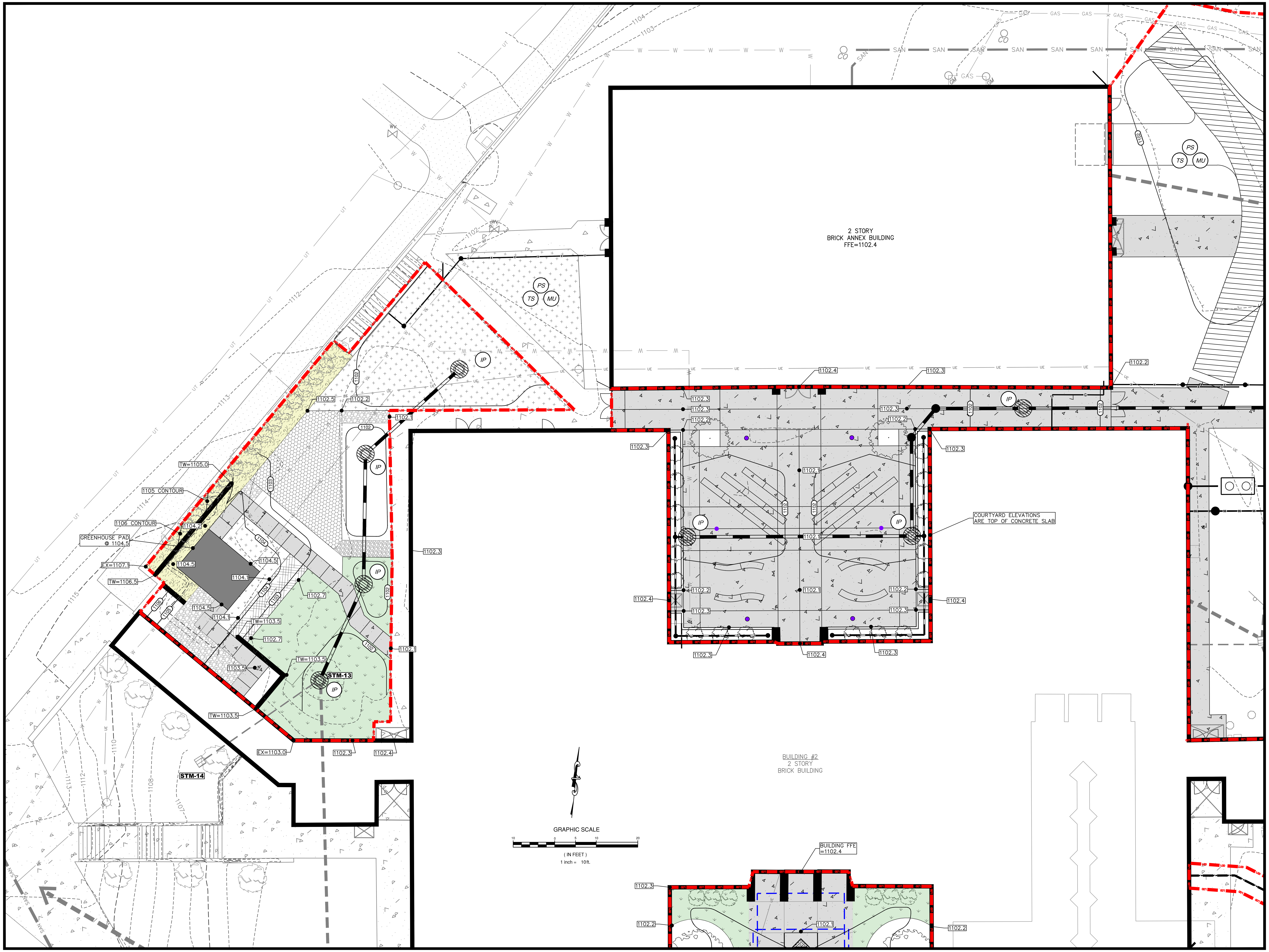

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GRADING & PHASE II E&SC PLAN

C14

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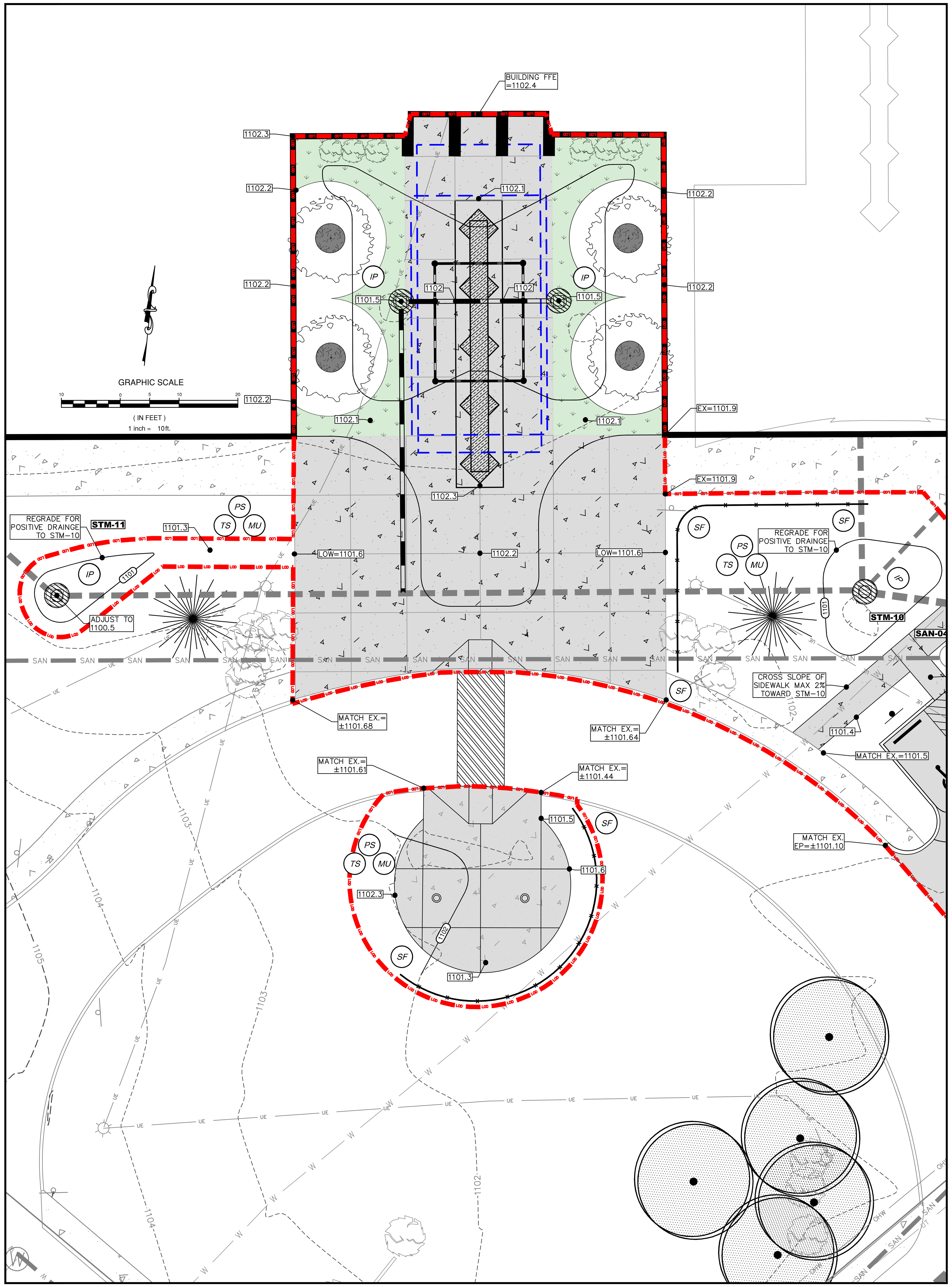

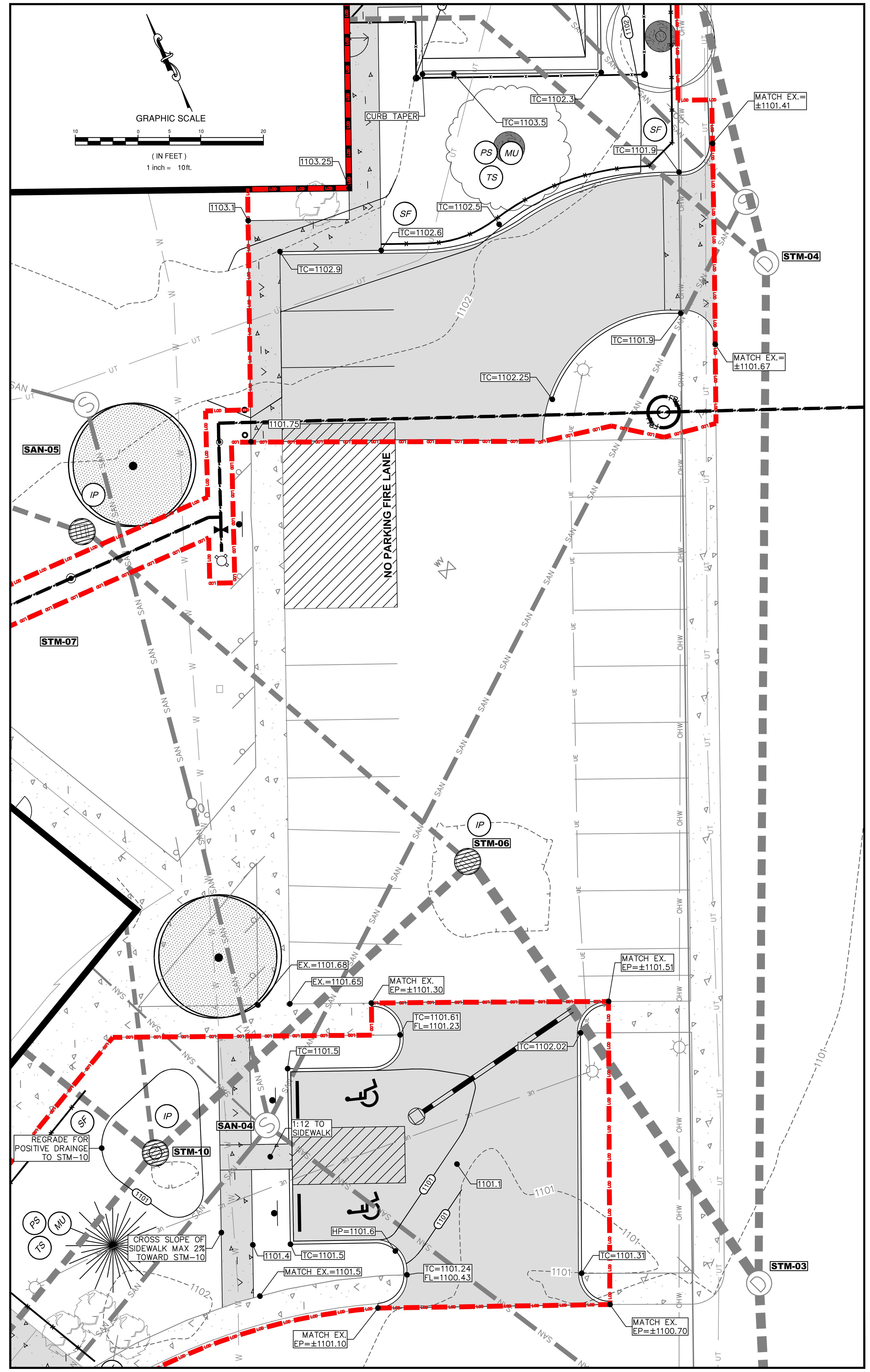

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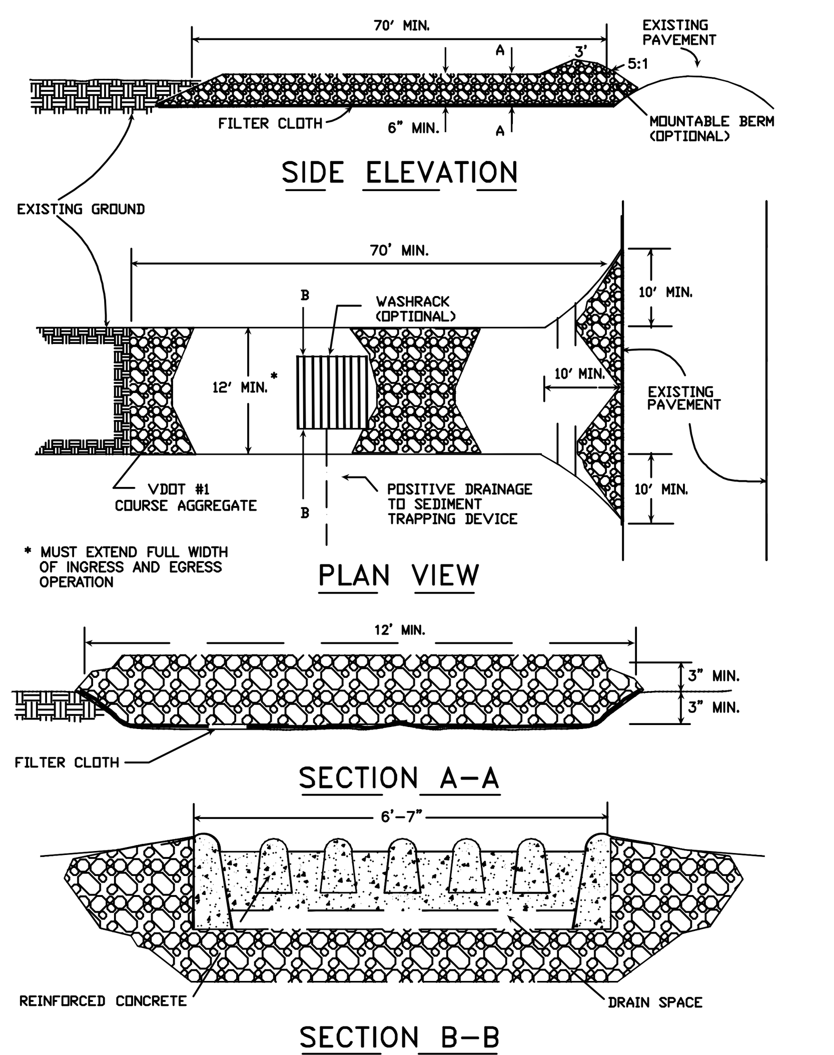
GRADING & PHASE II E&SC PLAN

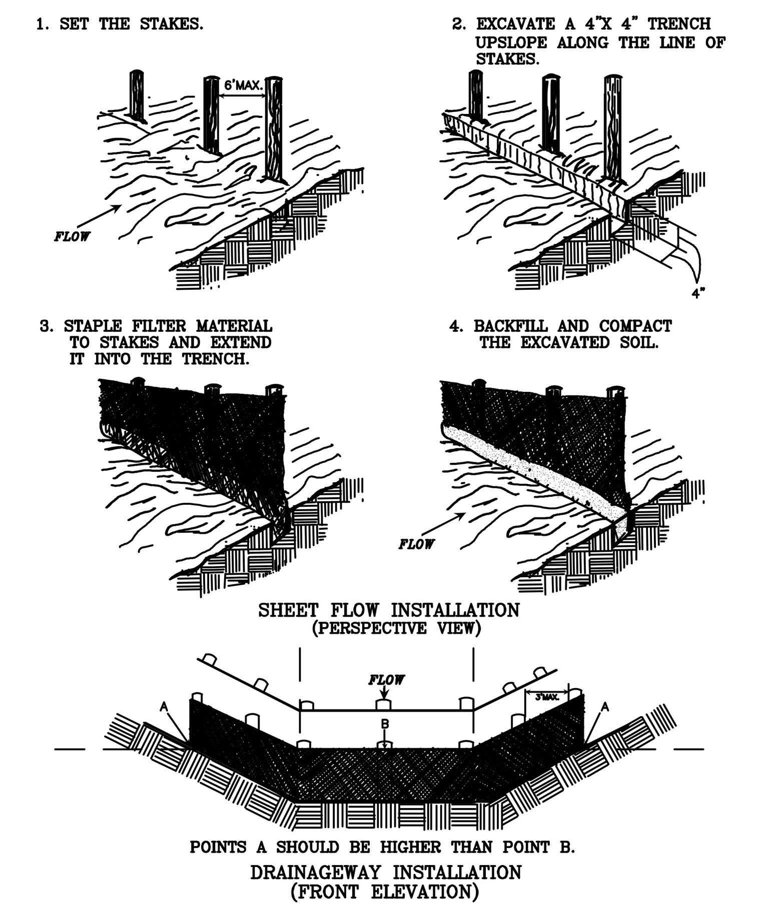
C15

SHEET ______ of __X__

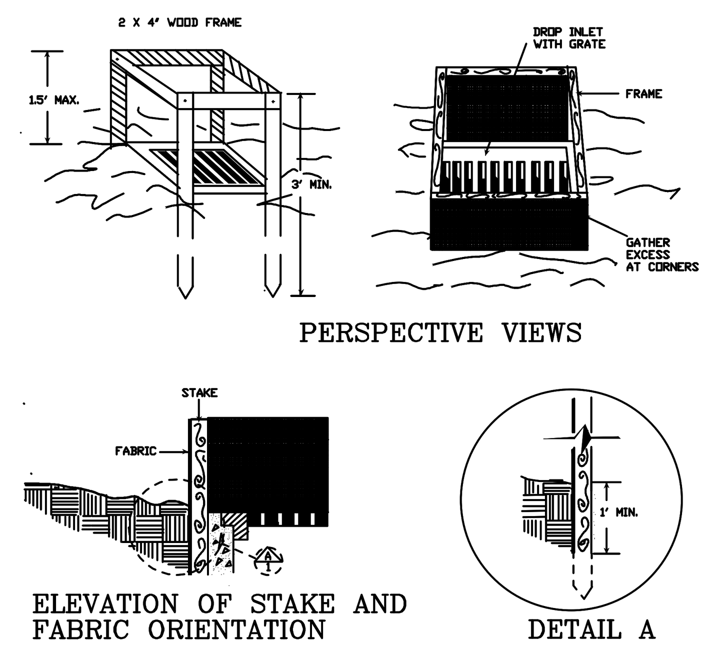
STONE CONSTRUCTION ENTRANCE



CONSTRUCTION OF A SILT FENCE (WITHOUT WIRE SUPPORT)



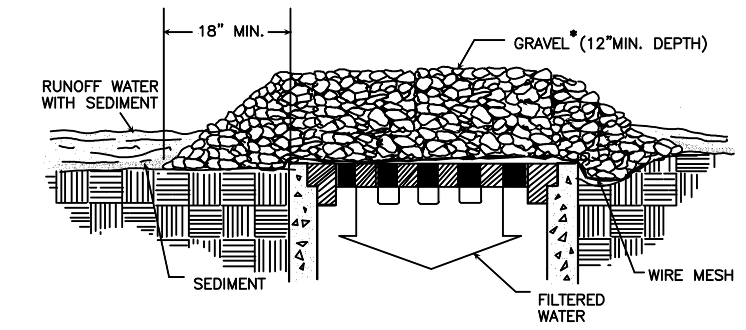
SILT FENCE DROP INLET PROTECTION



SPECIFIC APPLICATION

THIS METHOD OF INLET PROTECTION IS APPLICABLE WHERE THE INLET DRAINS A RELATIVELY FLAT AREA (SLOPE NO GREATER THAN 5%) WHERE THE INLET SHEET OR OVERLAND FLOWS (NOT EXCEEDING 1 C.F.S.) ARE TYPICAL. THE METHOD SHALL NOT APPLY TO INLETS RECEIVING CONCENTRATED FLOWS, SUCH AS IN STREET OR HIGHWAY MEDIANS.

GRAVEL AND WIRE MESH DROP INLET SEDIMENT FILTER

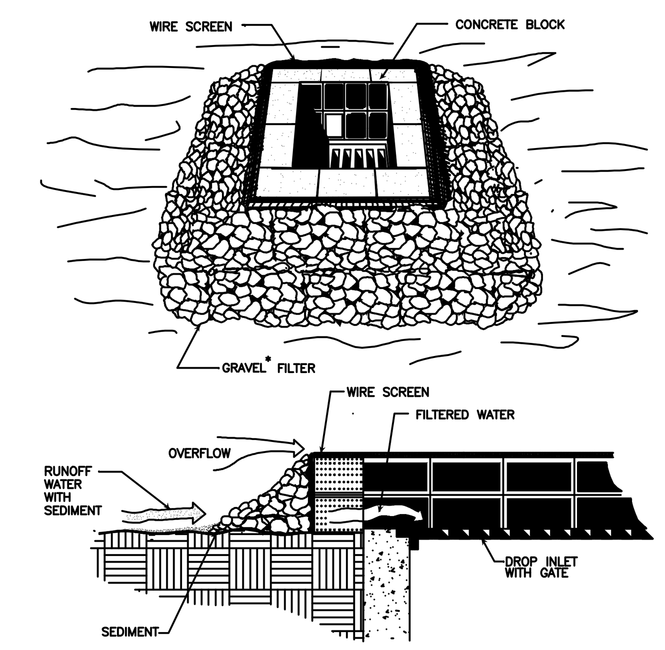


SPECIFIC APPLICATION

THIS METHOD OF INLET PROTECTION IS APPLICABLE WHERE HEAVY CONCENTRATED FLOWS ARE EXPECTED, BUT NOT WHERE PONDING AROUND THE STRUCTURE MIGHT CAUSE EXCESSIVE INCONVENIENCE OR DAMAGE TO ADJACENT STRUCTURES AND UNPROTECTED AREAS.

* GRAVEL SHALL BE VDOT #3, #357 OR #5 COARSE AGGREGATE.

BLOCK AND GRAVEL DROP INLET SEDIMENT FILTER

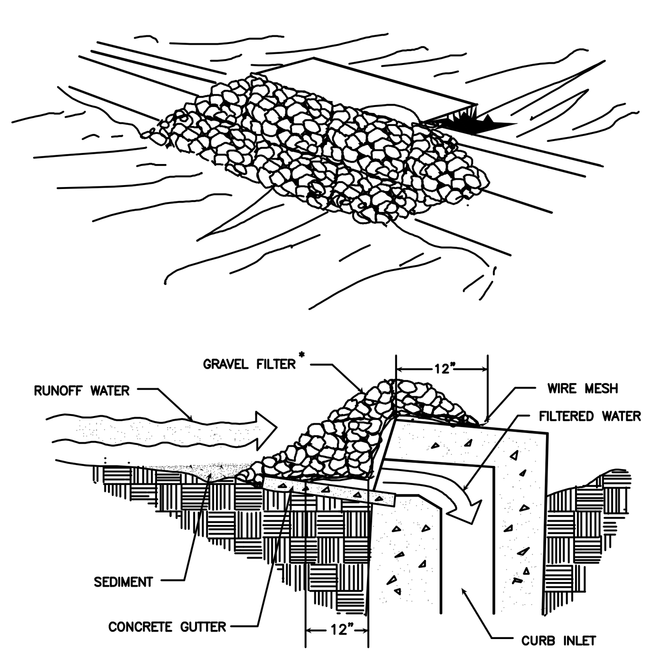


SPECIFIC APPLICATION

THIS METHOD OF INLET PROTECTION IS APPLICABLE WHERE HEAVY FLOWS ARE EXPECTED AND WHERE AN OVERFLOW CAPACITY IS NECESSARY TO PREVENT EXCESSIVE PONDING AROUND THE STRUCTURE.

* GRAVEL SHALL BE VDOT #3, #357 OR #5 COARSE AGGREGATE.

GRAVEL CURB INLET SEDIMENT FILTER

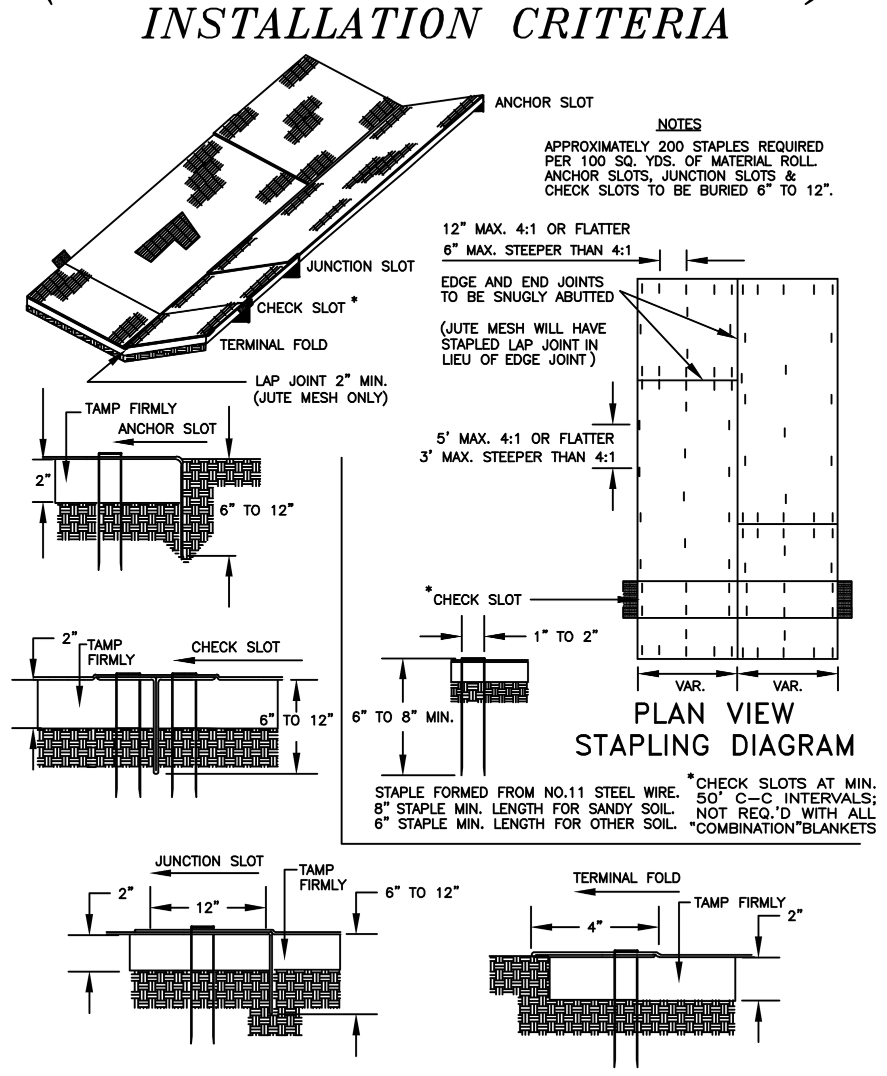


SPECIFIC APPLICATION

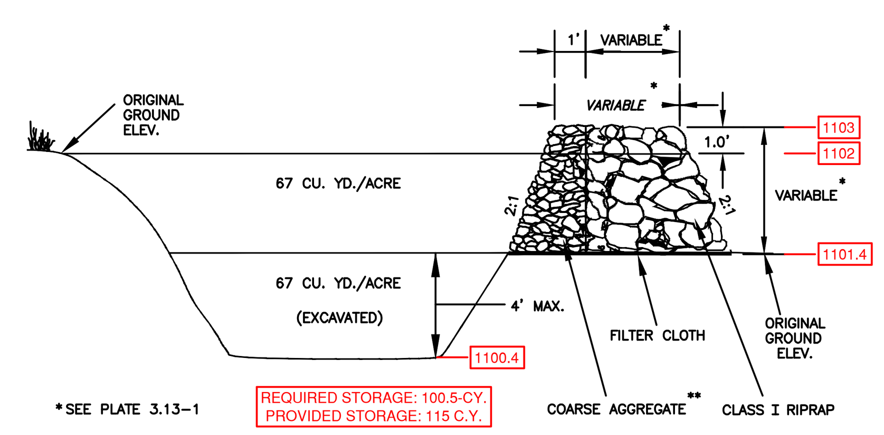
THIS METHOD OF INLET PROTECTION IS APPLICABLE AT CURB INLETS WHERE PONDING IN FRONT OF THE STRUCTURE IS NOT LIKELY TO CAUSE INCONVENIENCE OR DAMAGE TO ADJACENT STRUCTURES AND UNPROTECTED AREAS.

* GRAVEL SHALL BE VDOT #3, #357 OR 5 COARSE AGGREGATE.

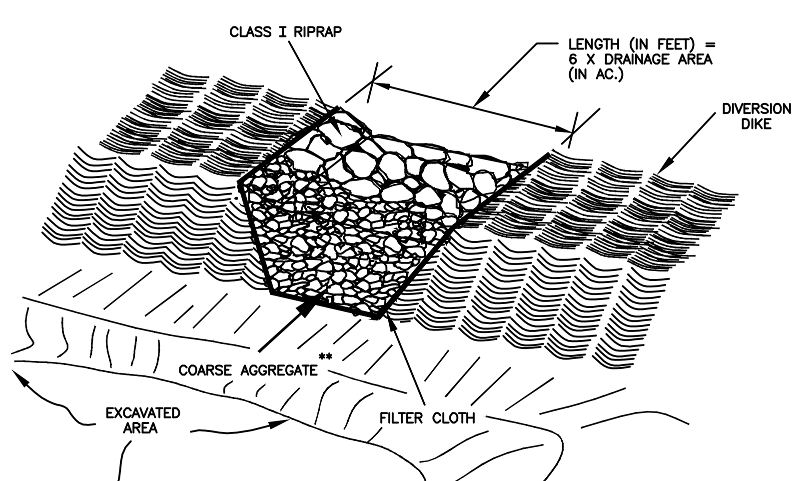
TYPICAL TREATMENT - 1 (SOIL STABILIZATION BLANKET) INSTALLATION CRITERIA



TEMPORARY SEDIMENT TRAP



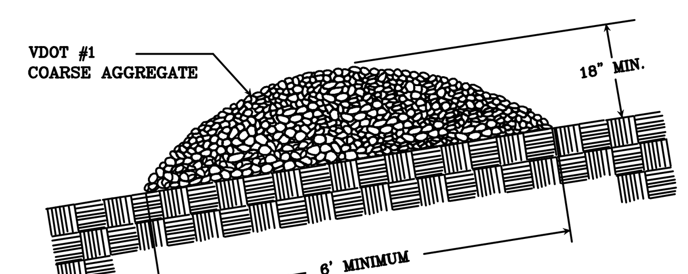
CROSS SECTION OF OUTLET



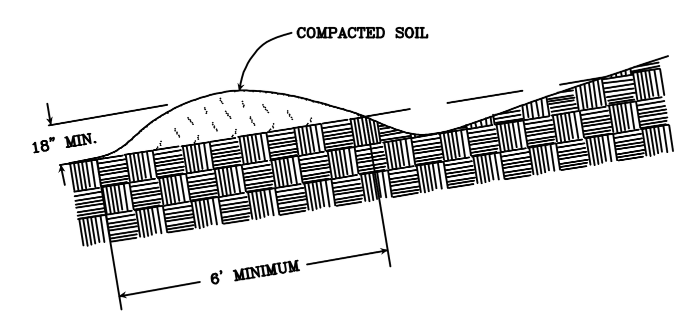
**COARSE AGGREGATE SHALL BE VDOT #3, #357 OR #5

OUTLET (PERSPECTIVE VIEW)

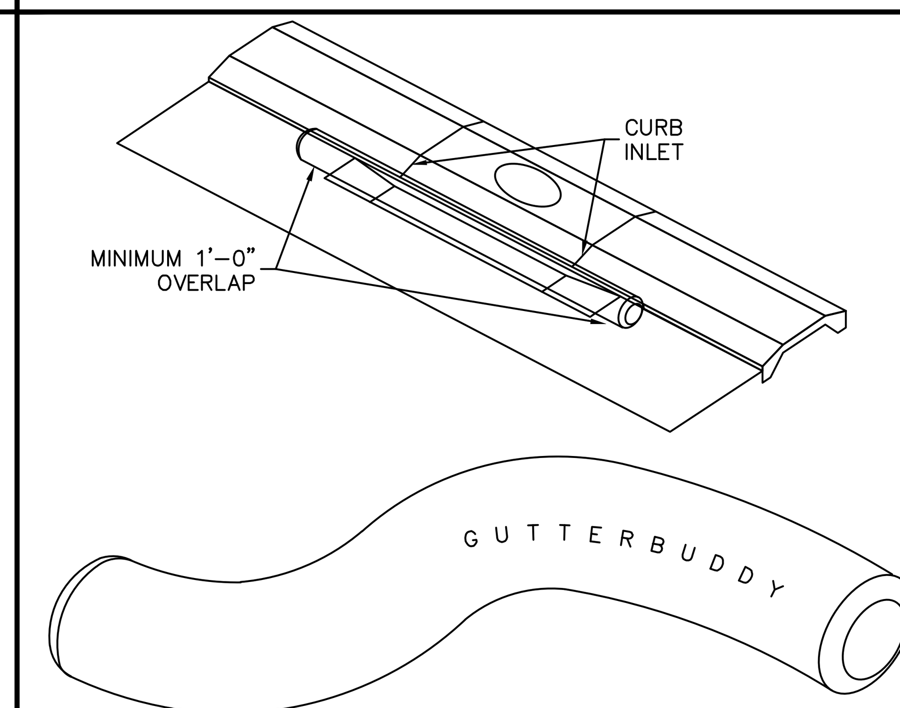
TEMPORARY RIGHT-OF-WAY DIVERSIONS



TYPICAL GRAVEL STRUCTURE



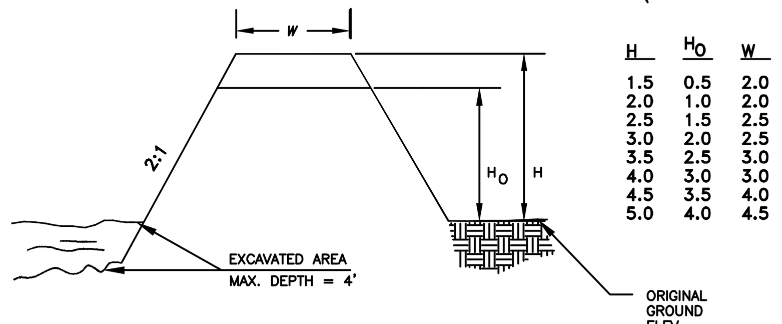
TYPICAL EARTHEN STRUCTURE



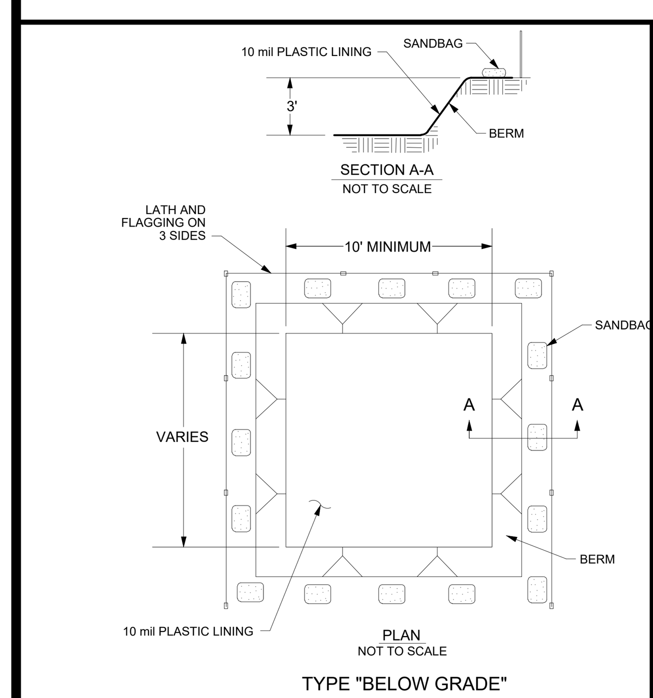
NOTE: USE GUTTER BUDDY INLET SEDIMENT FILTER OR APPROVED EQUAL; SEE PRODUCT SPECIFICATIONS FOR DETAILS. CONTRACTOR MUST RECEIVE APPROVAL OF PROPRIETARY MANUFACTURED MEASURES PRIOR TO INSTALLATION.

IP **GUTTER BUDDY INLET PROTECTION**
NOT TO SCALE

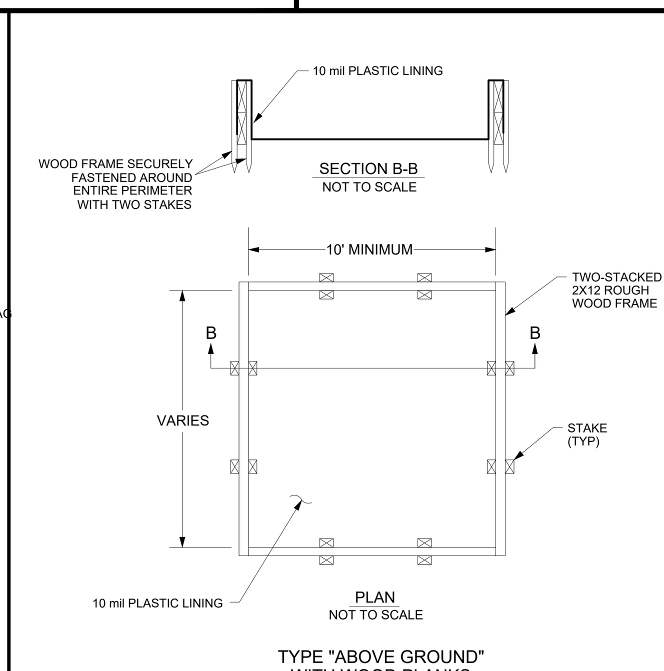
MINIMUM TOP WIDTH (W) REQUIRED FOR SEDIMENT TRAP EMBANKMENTS ACCORDING TO HEIGHT OF EMBANKMENT (FEET)



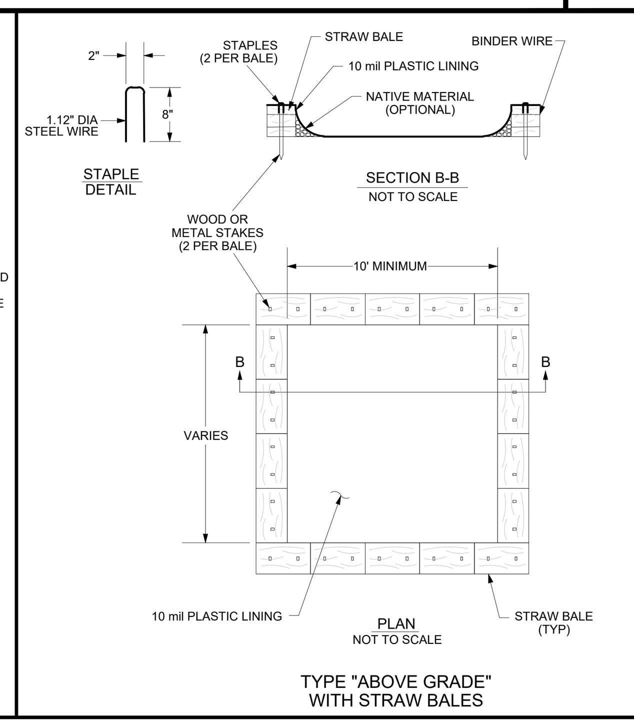
H	H_O	W
1.5	0.5	2.0
2.0	1.0	2.0
2.5	1.5	2.5
3.0	2.0	2.5
3.5	2.5	3.0
4.0	3.0	3.0
4.5	3.5	4.0
5.0	4.0	4.5



TYPE "BELOW GRADE"



TYPE "ABOVE GROUND" WITH WOOD PLANKS



TYPE "ABOVE GRADE" WITH STRAW BALES

NOTES:
1. ACTUAL LAYOUT TO BE DETERMINED IN THE FIELD.
2. A CONCRETE WASHOUT SIGN SHALL BE INSTALLED WITHIN 30' OF THE TEMPORARY CONCRETE WASHOUT FACILITY.
3. MATERIALS USED TO CONSTRUCT TEMPORARY CONCRETE WASHOUT FACILITIES SHALL BE REMOVED FROM THE SITE OF THE WORK AND DISPOSED OF OR RECYCLED.
4. HOLES, DEPRESSIONS OR OTHER GROUND DISTURBANCE CAUSED BY THE REMOVAL OF THE TEMPORARY CONCRETE WASHOUT FACILITIES SHALL BE BACKFILLED, REPAIRED, AND STABILIZED TO PREVENT EROSION.
5. MUST BE LOCATED >50 FT AWAY FROM INLETS/WATERWAYS UNLESS THERE IS NO OTHER PRACTICAL ALTERNATIVE.

CONCRETE WASHOUT DETAILS
NOT TO SCALE

TABLE 3.32-C
(Revised June 2003)
PERMANENT SEEDING SPECIFICATIONS
APPALACHIAN/MOUNTAIN REGION

SEED[1]

LAND USE	SPECIES	APPLICATION PER ACRE
Minimum Care Lawn (Commercial or Residential)	Tall Fescue[1] Perennial Ryegrass[2] Kentucky Bluegrass[1]	90-100% 0-10% 0-10% TOTAL: 200-250 lbs.
High-Maintenance Lawn	Minimum of three (3) up to five (5) varieties of Kentucky Bluegrass from approved list for use in Virginia[1]	TOTAL: 125 lbs.
General Slope (3:1 or less)	Tall Fescue[1] Red Top Grass or Creeping Red Fescue Seasonal Nurse Crop[3]	128 lbs. 2 lbs. 20 lbs. TOTAL: 150 lbs.
Low-Maintenance Slope (Steeper than 3:1)	Tall Fescue[1] Red Top Grass or Creeping Red Fescue Seasonal Nurse Crop[3] Crownvetch[4]	108 lbs. 2 lbs. 20 lbs. 20 lbs. TOTAL: 150 lbs.

1 - When selecting varieties of turfgrass, use the Virginia Crop Improvement Association (VCIA) recommended turfgrass variety list. Quality seed will bear a label indicating that they are approved by VCIA. A current turfgrass variety list is available at the local County Extension office or through VCIA at 804-748-4884.
2 - Perennial Ryegrass will germinate faster and at lower soil temperatures than Tall Fescues, thereby providing cover and erosion resistance for seedbed.
3 - Use seasonal nurse crop in accordance with seeding dates as stated below

March, April - May 15th	Annual Rye
May 16th - August 15th	Foxtail Millet
August 16th - September, October	Annual Rye
November - February	Winter Rye

4 - All legume seed must be properly inoculated. If Flatpea is used, increase to 30 lbs/acre. If Weeping Lovegrass is used, include any slope or low maintenance mixture during warmer seeding periods, increase to 30-40 lbs/acre.

FERTILIZER & LIME

Apply 10-20-10 **fertilizer** at a rate of **500** lbs. / acre (or 12 lbs. / 1,000 sq. ft.)
Apply **Pulverized Agricultural Limestone** at a rate of 2 tons/acre (or 90 lbs. / 1,000 sq. ft.)

NOTE:
1. A soil test is necessary to determine the actual amount of lime required to adjust the soil pH of the site.
2. Incorporate the lime and fertilizer into the top 4 - 6 inches of the soil by disking or other means.
3. When applying Slowly Available Nitrogen, use rates available in Erosion & Sediment Control Technical Bulletin #4, 2003 Nutrient Management for Development Sites.

TABLE 3.31-B
(Revised June 2003)
TEMPORARY SEEDING SPECIFICATIONS
QUICK REFERENCE FOR ALL REGIONS

SEED:

APPLICATION DATES	SPECIES	APPLICATION RATES
Sept. 1 - Feb. 15	50/50 Mix of Annual Ryegrass (lolium multi-florum) & Cereal (Winter) Rye (Secale cereale)	50 - 100 lbs/acre
Feb. 16 - Apr. 30	Annual Ryegrass (lolium multi-florum)	60 - 100 lbs/acre
May 1 - Aug. 31	German Millet	50 lbs/acre

FERTILIZER & LIME

Apply 10-10-10 **fertilizer** at a rate of 450 lbs. / acre (or 10 lbs. / 1,000 sq. ft.)
Apply **Pulverized Agricultural Limestone** at a rate of 2 tons/acre (or 90 lbs. / 1,000 sq. ft.)

NOTE:
1. A soil test is necessary to determine the actual amount of lime required to adjust the soil pH of the site.
2. Incorporate the lime and fertilizer into the top 4 - 6 inches of the soil by disking or other means.
3. When applying Slowly Available Nitrogen, use rates available in Erosion & Sediment Control Technical Bulletin #4, 2003 Nutrient Management for Development Sites.

TABLE 3.30-A
TOPSOIL REQUIRED FOR APPLICATION TO VARIOUS DEPTHS

Depth (inches)	Per 1,000 Square Feet (cubic yards)	Per Acre (cubic yards)
1	3.1	134
2	6.2	268
3	9.3	403
4	12.4	537
5	15.5	672
6	18.6	806

TABLE 3.35-A
ORGANIC MULCH MATERIALS AND APPLICATION RATES

MULCHES:	RATES: Per Acre	RATES: Per 1000 sq. ft.	NOTES:
Straw or Hay	1.5 - 2 tons (Min. 2 tons for winter cover)	70 - 90 lbs.	Free from weeds and coarse matter. Must be anchored. Spread with mulch blower or by hand.
Fiber Mulch	Min. 1500 lbs.	35 lbs.	Do not use as mulch for winter cover or during hot, dry periods.* Apply as slurry.
Corn Stalks	4 - 6 tons	185 - 275 lbs.	Cut or shredded in 4-6" lengths. Air-dried. Do not use in fine turf areas. Apply with mulch blower or by hand.
Wood Chips	4 - 6 tons	185 - 275 lbs.	Free of coarse matter. Air-dried. Treat with 12 lbs nitrogen per ton. Do not use in fine turf areas. Apply with mulch blower, chip handler, or by hand.
Bark Chips or Shredded Bark	50 - 70 cu. yds.	1-2 cu. yds.	Free of coarse matter. Air-dried. Do not use in fine turf areas. Apply with mulch blower, chip handler, or by hand.

*When fiber mulch is the only available mulch during periods when straw should be used, apply at a minimum rate of 2000 lbs./ac. or 45 lbs./1000 sq. ft.

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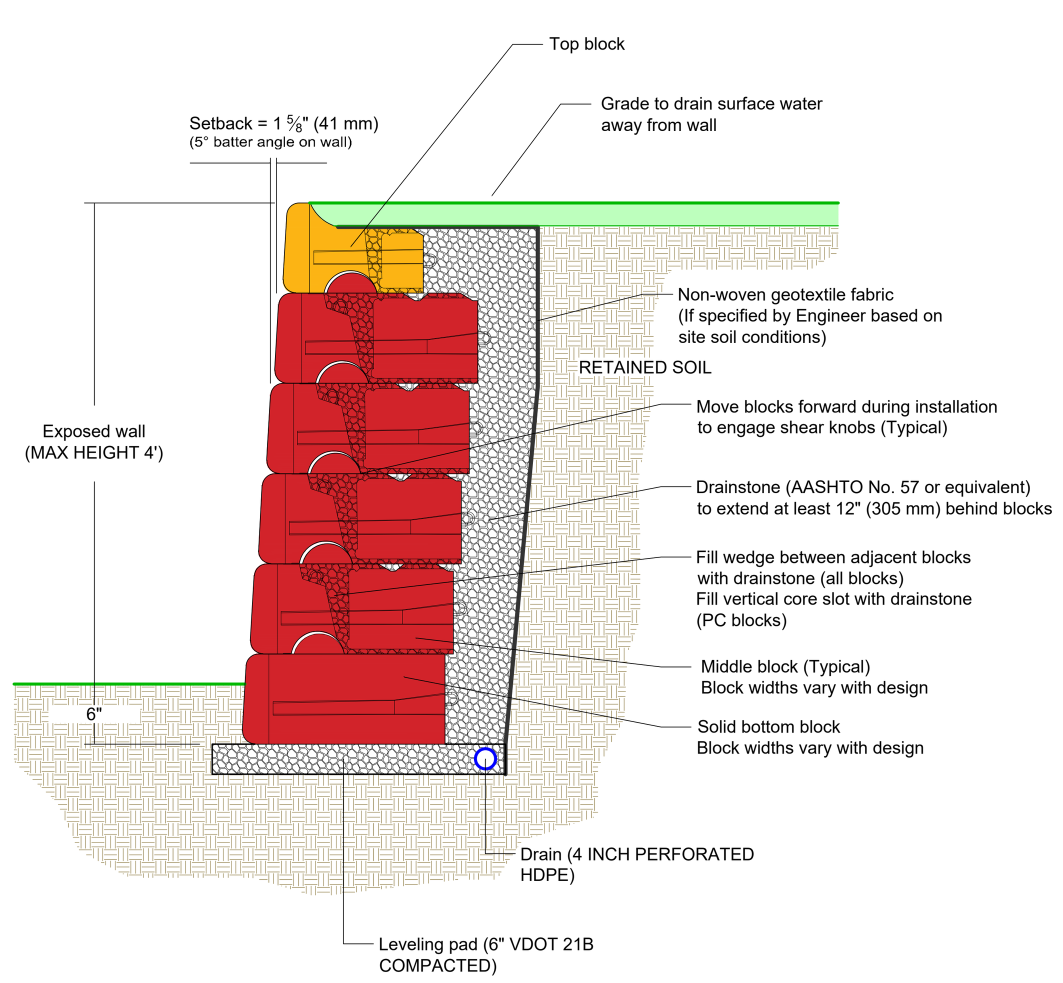
E&SC DETAILS

C16

SHEET ______ of X

Typical Gravity Wall Section



This drawing is for reference only. Determination of the suitability and/or manner of use of any details contained in this document is the sole responsibility of the design engineer of record. Final project designs, including all construction details, shall be prepared by a licensed professional engineer using the actual conditions of the proposed site.

DRAWN BY:	JRJ	TITLE:	Typical Gravity Wall Detail
APPROVED BY:	JRJ		
DATE:	17MAR2016		
SHEET:	1 of 1	FILE:	1 Typical Gravity Wall Detail 031716.dwg

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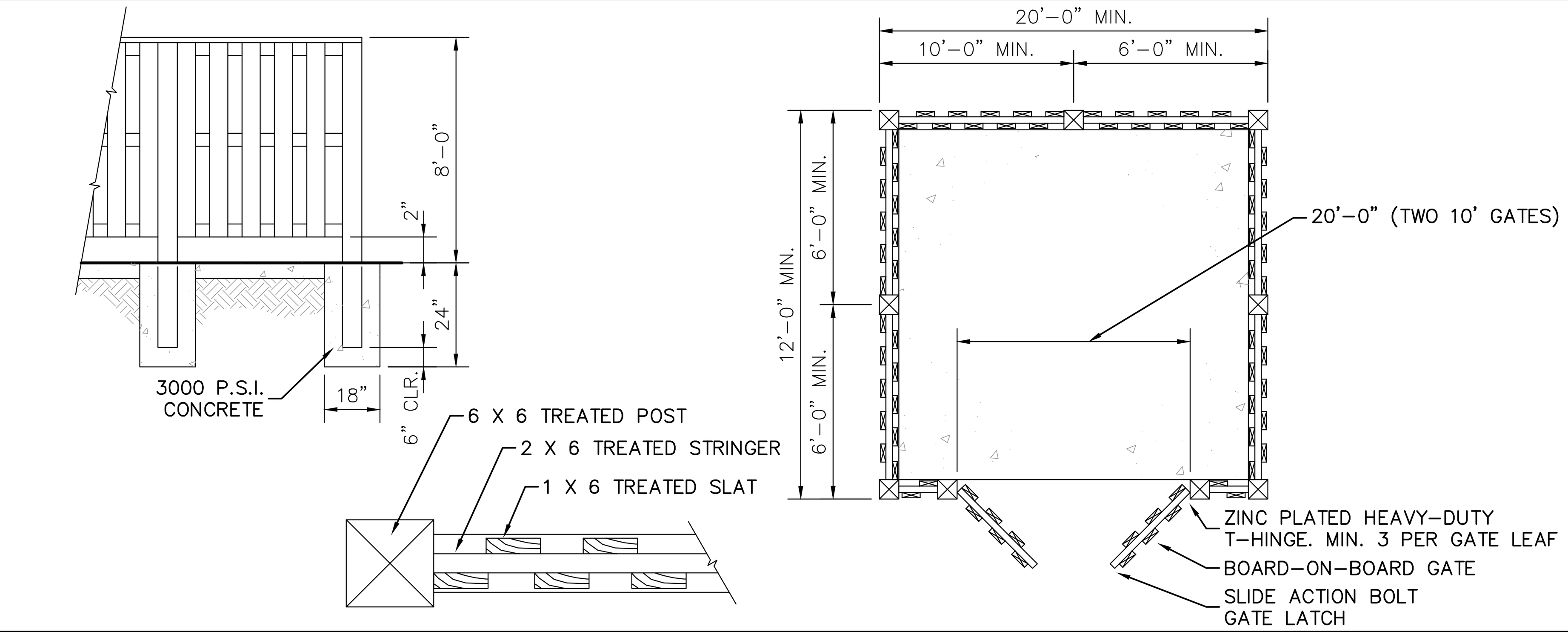
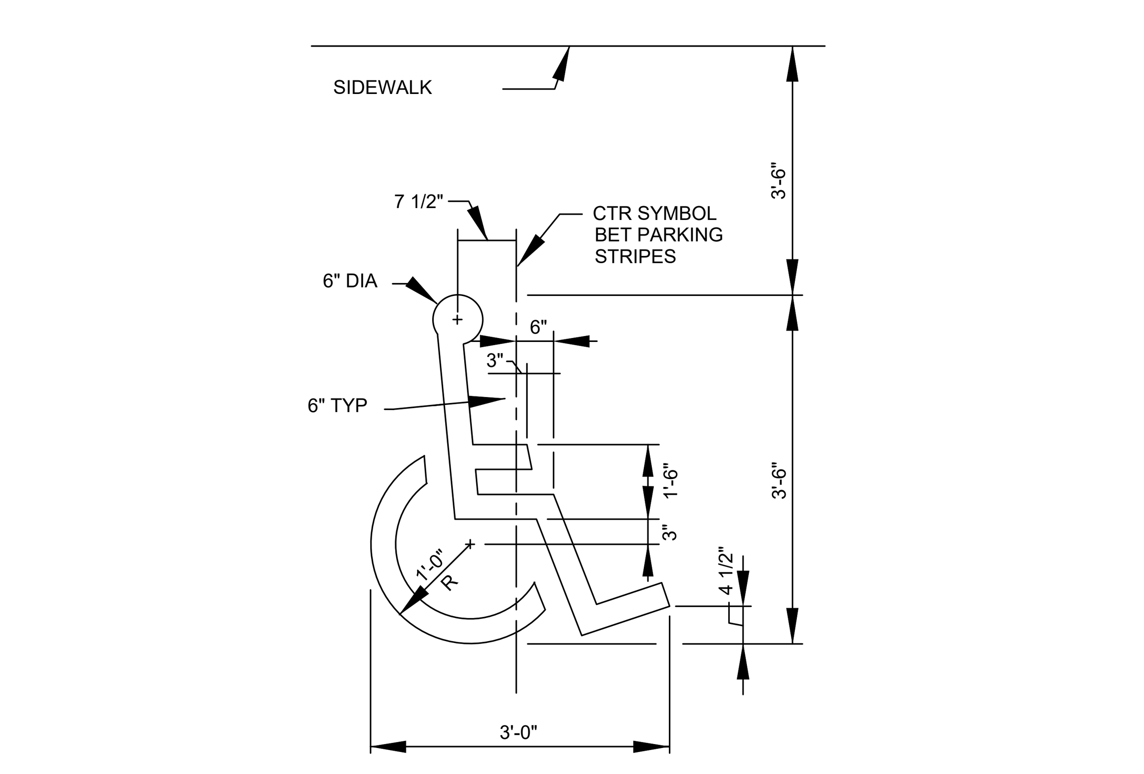
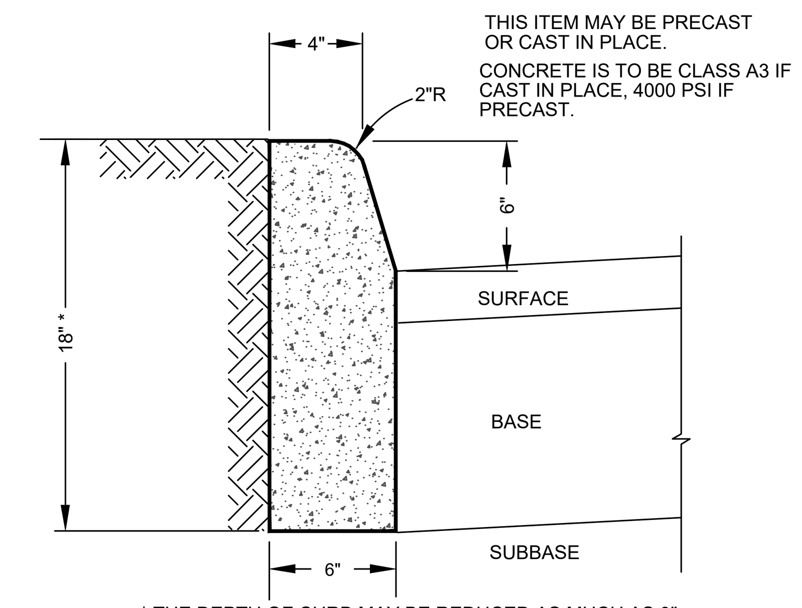


BOARD ON BOARD DUMPSTER ENCLOSURE DETAIL
NOT TO SCALE

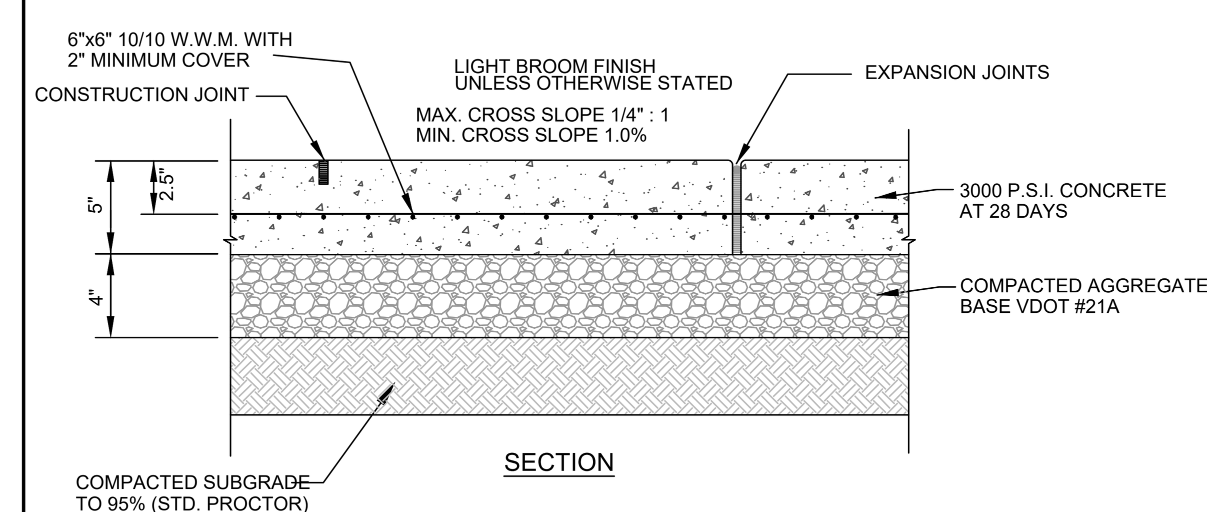


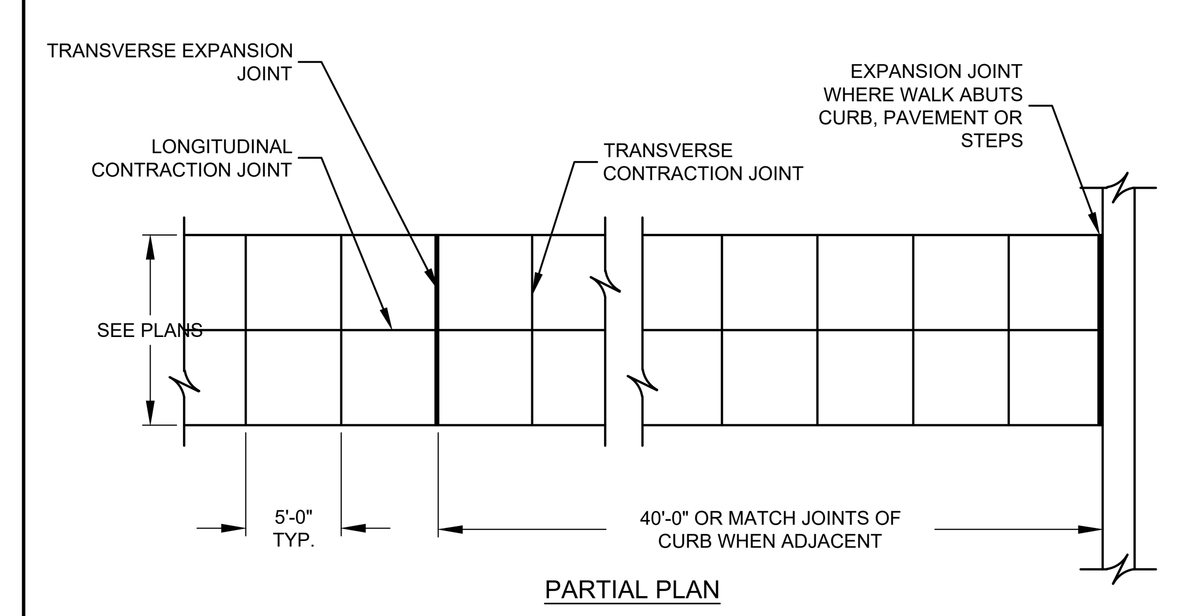
HANDICAPPED SYMBOL DETAIL
NOT TO SCALE



* THE DEPTH OF CURB MAY BE REDUCED AS MUCH AS 3" (15" DEPTH) OR INCREASED AS MUCH AS 3" (21" DEPTH) IN ORDER THAT THE BOTTOM OF CURB WILL COINCIDE WITH THE TOP OF A COURSE OF THE PAVEMENT SUBSTRUCTURE. OTHERWISE THE DEPTH IS TO BE 18" AS SHOWN.

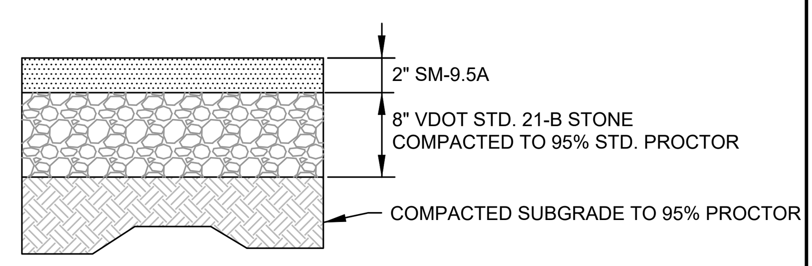
STANDARD CG-2
NOT TO SCALE



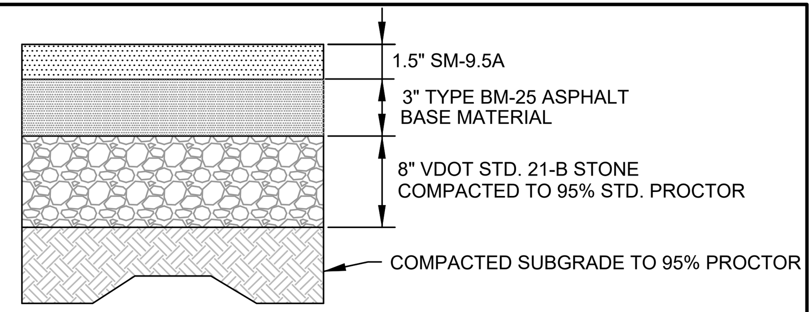


WALK WIDTH	LONGITUDINAL CONTRACTION JOINT
< 5'-11"	NONE
6'-0" - 7'-11"	ONE ALONG WALK AT CENTERLINE
8'-0" - 12'-0"	TWO ALONG WALK AT THIRD POINTS

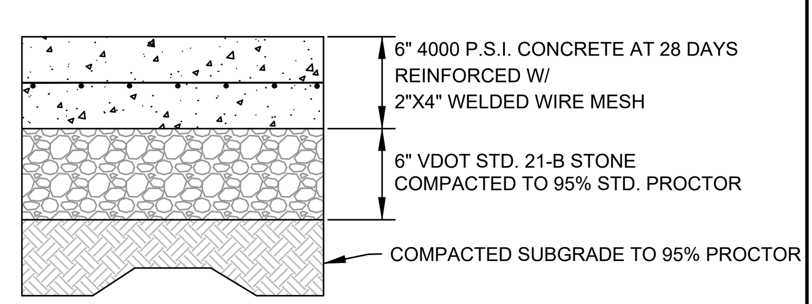
CONCRETE SIDEWALK DETAIL
NOT TO SCALE
NOTE: PAVEMENT SECTION TO BE VERIFIED BY SOIL TESTING PRIOR TO CONSTRUCTION.



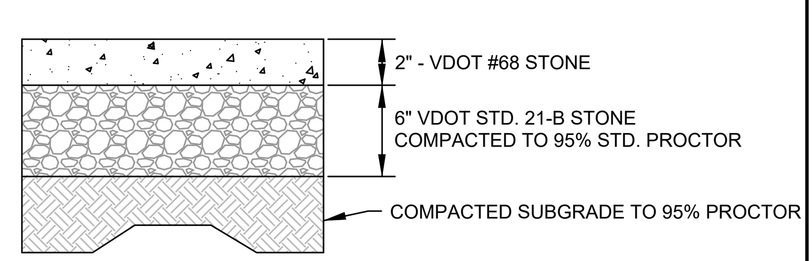
STANDARD DUTY PAVEMENT DETAIL
NOT TO SCALE
NOTE: PAVEMENT SECTION TO BE VERIFIED BY SOIL TESTING PRIOR TO CONSTRUCTION.



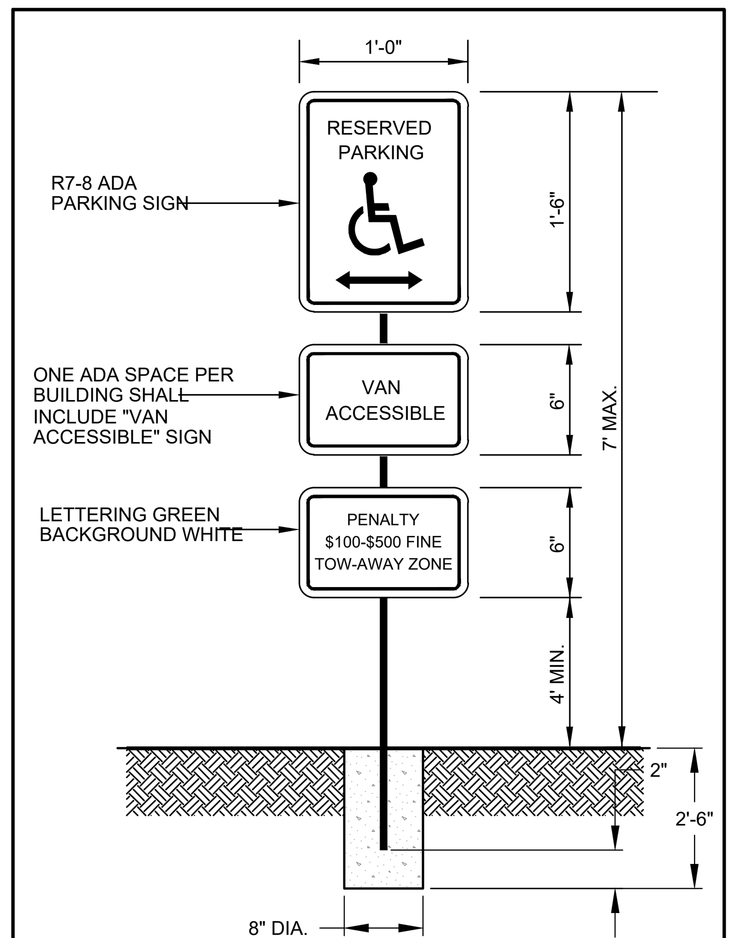
HEAVY DUTY PAVEMENT DETAIL
NOT TO SCALE
NOTE: PAVEMENT SECTION TO BE VERIFIED BY SOIL TESTING PRIOR TO CONSTRUCTION.



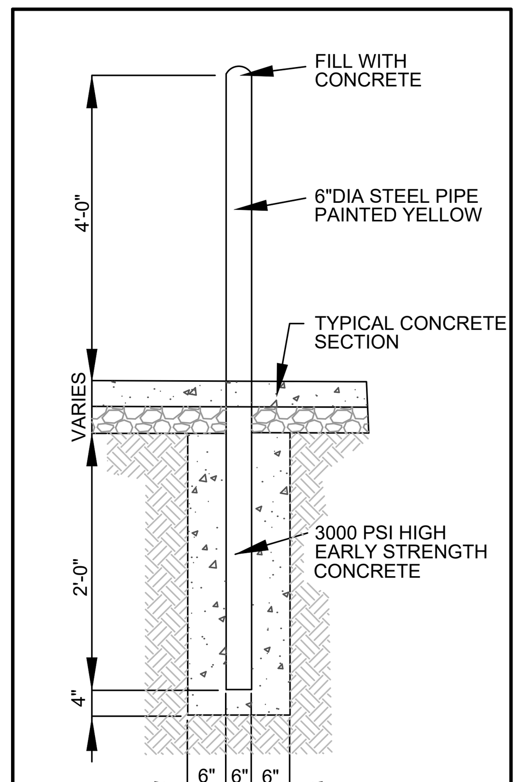
DUMPSTER PAD DETAIL
NOT TO SCALE
NOTE: PAVEMENT SECTION TO BE VERIFIED BY SOIL TESTING PRIOR TO CONSTRUCTION.



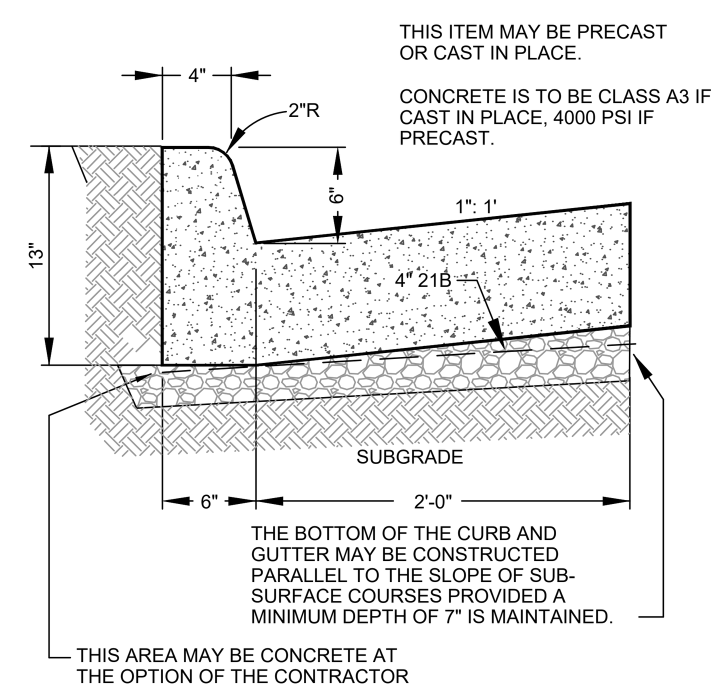
GRAVEL SECTION DETAIL
NOT TO SCALE
NOTE: PAVEMENT SECTION TO BE VERIFIED BY SOIL TESTING PRIOR TO CONSTRUCTION.



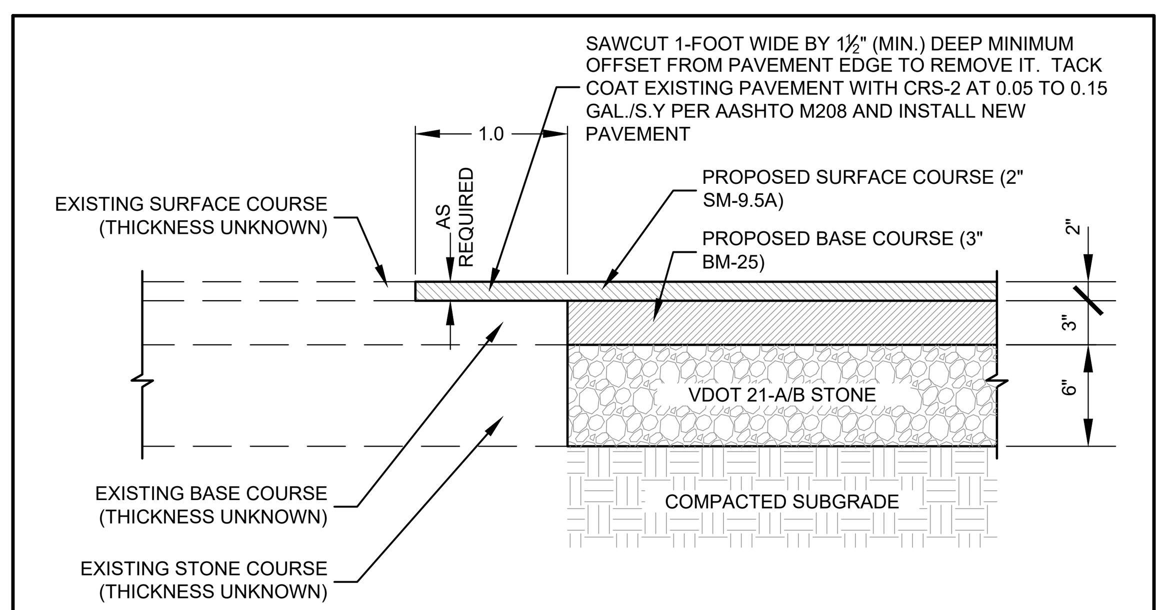
ADA VAN ACCESSIBLE SIGN DETAIL
NOT TO SCALE



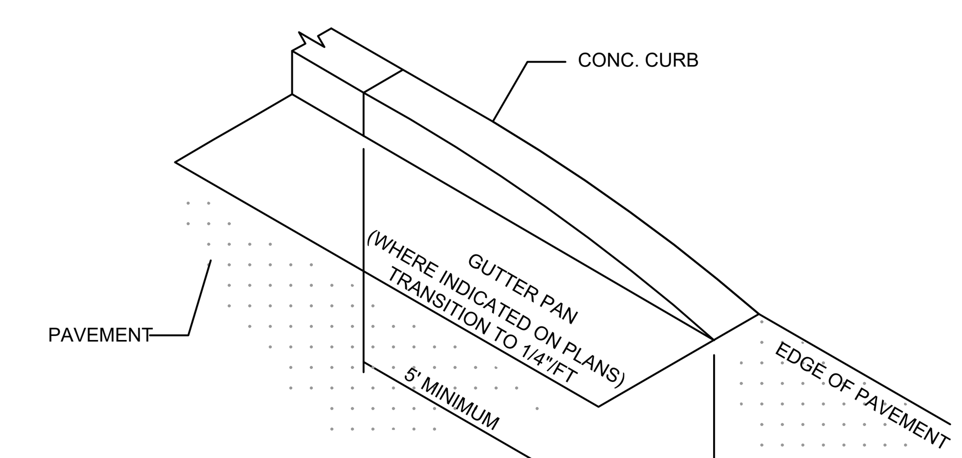
BOLLARD DETAIL
NOT TO SCALE



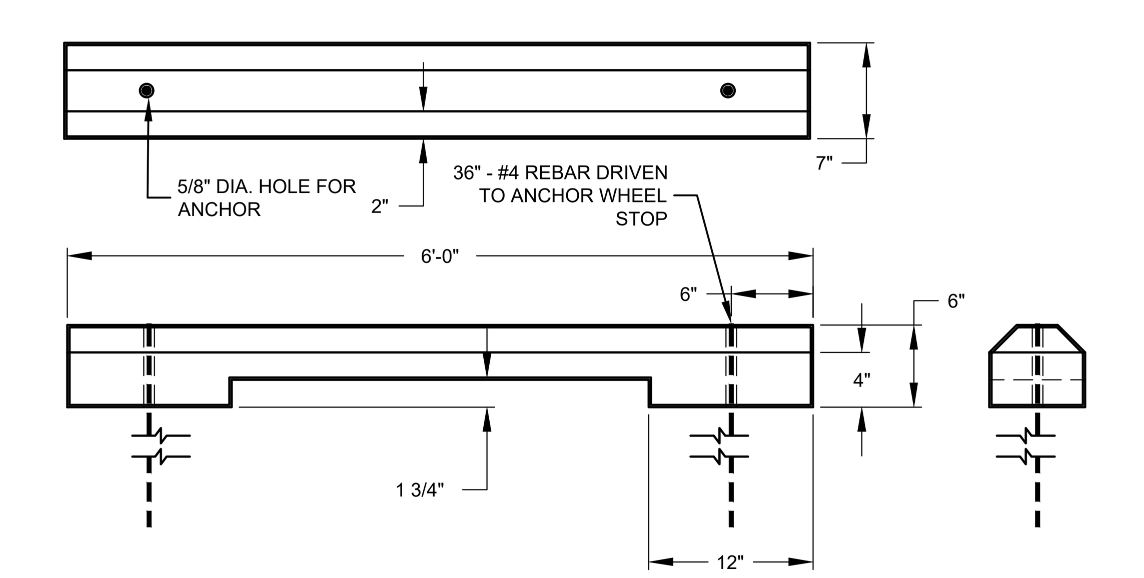
STANDARD CG-6
NOT TO SCALE



PAVEMENT JOINT DETAIL
NOT TO SCALE



CURB TAPER DETAIL
NOT TO SCALE



PRE-CAST WHEEL STOP DETAIL
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COMMONWEALTH OF VIRGINIA
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06/17/2022
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RUFFNER CAREER AND TECHNICAL EDUCATION CENTER

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REVISIONS

No.	DATE	DESCRIPTION
1	06/17/22	1ST CITY REVIEW

DRAWN BY:	JMD
REV'D BY:	JDE
DATE:	04/22/2022
SCALE:	AS SHOWN

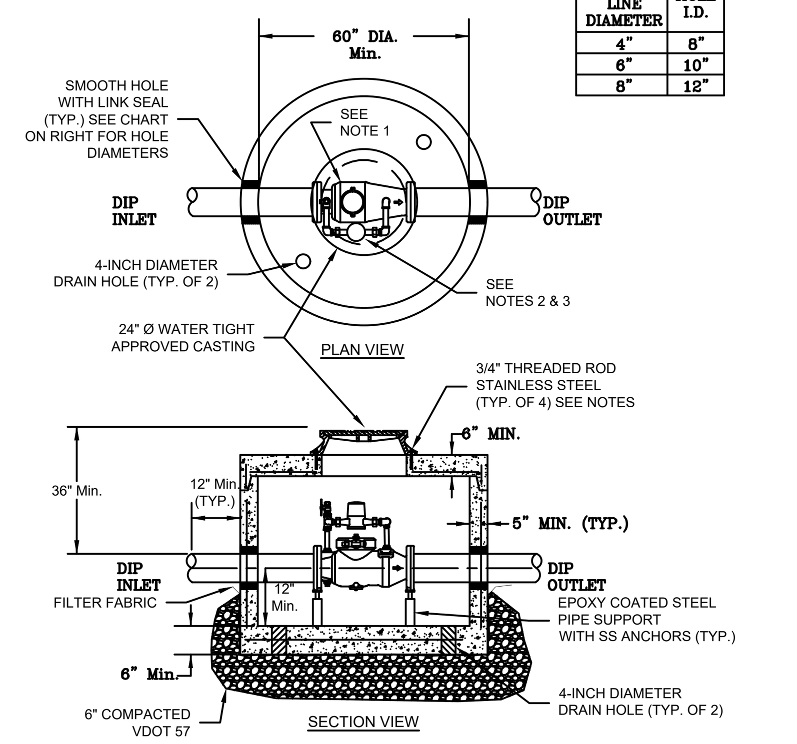
SITE DETAILS

C17

SHEET ____ of __X__

1. SINGLE DETECTOR CHECK VALVE SHALL BE WILKINS MODEL 310 DALM, WATTS ES-SS07F-BP, OR APPROVED EQUAL WITH FLANGED END CONNECTIONS AND BYPASS ASSEMBLY.
2. BYPASS ASSEMBLY SHALL INCLUDE 2 BALL VALVES TO ISOLATE METER.
3. BYPASS METER TO BE SUPPLIED BY OWNER AND INSTALLED BY VENDOR.
4. MANHOLE SECTIONS MUST MEET ASTM C478, AASHTO M-199 REQUIREMENTS.
5. "UNI FLANGE" ADAPTOR FLANGE, OR APPROVED EQUAL, OR FLANGED - PLAIN END PIPING REQUIRED FOR INLET AND OUTLET PIPING
6. 3/4" THREADED ROD TO BE EMBEDDED A MINIMUM OF 4" INTO CONCRETE AND TO BE FIRMLY SECURED WITH EPOXY.

SERVICE LINE DIAMETER	HOLE I.D.
4"	8"
6"	10"
8"	12"

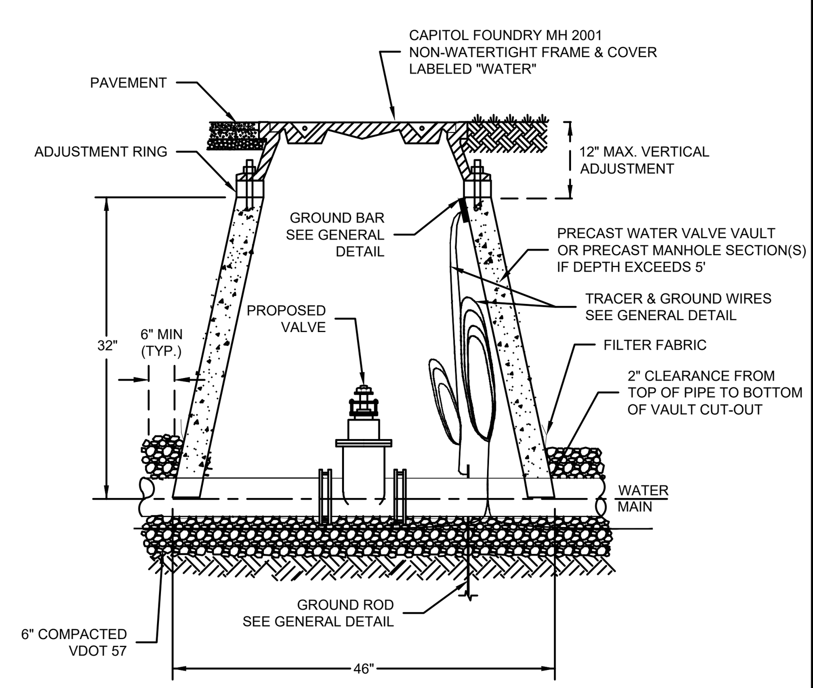


WESTERN VIRGINIA REGIONAL – CONSTRUCTION DETAIL

FIRE SERVICE VAULT FOR PRIVATE HYDRANT

02/10/15 W-8

1. FILTER FABRIC TO BE INSTALLED BETWEEN BOTTOM OF PIPE AND STONE BEDDING. FABRIC TO EXTEND VERTICALLY A MINIMUM OF 6" FROM BOTTOM OF VAULT (FULL CIRCUMFERENCE).

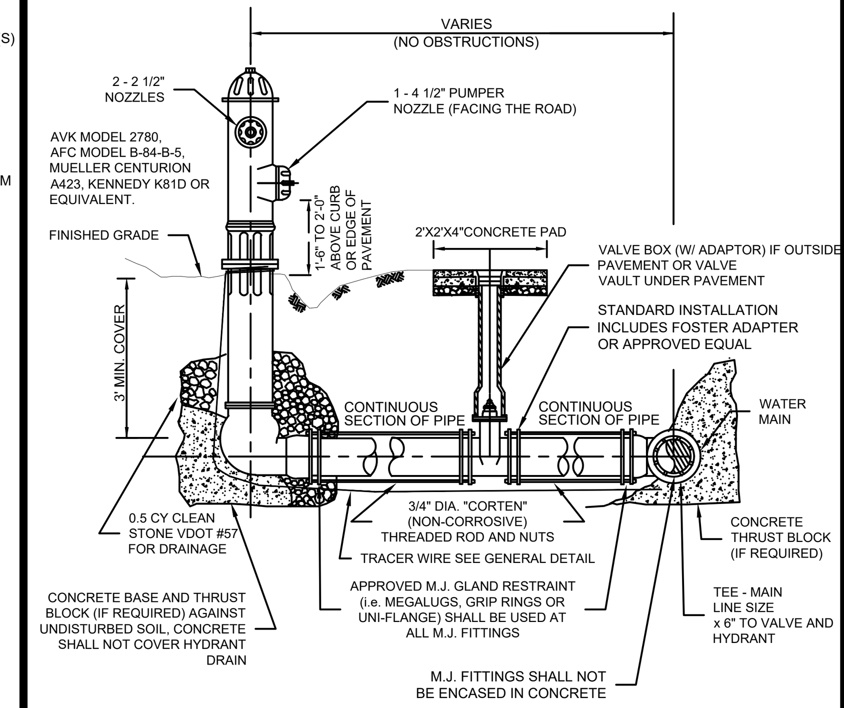


WESTERN VIRGINIA REGIONAL – CONSTRUCTION DETAIL

WATER LINE VALVE & VAULT

01/01/14 W-9

1. PUBLIC HYDRANTS SHALL BE PAINTED SILVER WITH AN OIL-BASED PAINT. PRIVATE HYDRANTS SHALL ALSO BE PAINTED SILVER WITH AN OIL-BASED PAINT UNLESS OTHERWISE SPECIFIED BY THE JURISDICTIONAL FIRE MARSHALL.
2. FIRE HYDRANT SHALL BE INSTALLED 2' MIN. AND 4' MAX. FROM BACK OF CURB OR 6' MIN. AND 12' MAX. FROM EDGE OF PAVEMENT WHEN CURB IS NOT PRESENT. FIRE HYDRANT TO BE INSTALLED WITHIN RIGHT-OF-WAY OR EASEMENT LINE.
3. AREA AROUND HYDRANT AT A RADIUS OF 4' TO BE LEVEL AND UNOBSTRUCTED.
4. WATERPROOF BAGS OR OUT OF SERVICE RINGS SHALL BE PLACED OVER ALL NEWLY INSTALLED FIRE HYDRANTS.
5. HYDRANT ASSEMBLIES SHALL BE RODDED AND RESTRAINED WITH APPROVED M.J. GLAND RESTRAINTS. HIGH PRESSURE (OVER 150 PSI) ALSO REQUIRES CONCRETE THRUST BLOCKS AS SHOWN BELOW.
6. IF DURING CONSTRUCTION THE SEASONAL WATER LEVEL IS NOTED TO BE ABOVE THE DRAIN OUTLETS OF THE PROPOSED HYDRANT. THE PARTICIPATING UTILITY WILL BE NOTIFIED IMMEDIATELY SO THAT THE HYDRANT CAN BE RELOCATED TO A SUITABLE LOCATION, OMITTED, OR THE DRAIN HOLE PLUGGED.
7. TWO WRAPS OF TRACER WIRE SHALL BE WRAPPED AROUND BASE OF HYDRANT.
8. APPROVED MODELS - AVK MODEL 2780, AFC MODEL B-84-B-5, MUELLER CENTURION A423, KENNEDY K81D OR EQUIVALENT.
9. WHERE HYDRANT LATERAL(S) IS APPROVED BY THE PARTICIPATING UTILITY TO BE LONGER IN LENGTH, MAKING THE CONTINUOUS SECTION OF PIPE ON EACH SIDE OF THE GATE VALVE UNFEASIBLE, RESTRAINED PIPE JOINTS SHALL BE INSTALLED BETWEEN THE TEE AND GATE VALVE IN LIEU OF RODDING. HOWEVER, A RODDED CONTINUOUS SECTION OF PIPE SHALL ALWAYS BE INSTALLED BETWEEN THE GATE VALVE AND HYDRANT.



WESTERN VIRGINIA REGIONAL – CONSTRUCTION DETAIL

FIRE HYDRANT ASSEMBLY

02/10/15 W-17

INSTALLATION OF DUCTILE IRON WATER MAINS
TABLE 3 AWWA C600-05
Maximum Joint Deflection Full Length of Pipe - Push on Type Joint

Nominal Pipe Size (inches)	Deflection Angle - θ (degree)	Maximum Offset - S* (inches): Joint Length 18-Feet	Maximum Offset - S* (inches): Joint Length 20-Feet	Approximate Radius of Curve - R* Produced by Succession of Joints: Joint Length 18-Feet	Approximate Radius of Curve - R* Produced by Succession of Joints: Joint Length 20-Feet
3	5°	19	21	205	230
4	5°	19	21	205	230
6	5°	19	21	205	230
8	5°	19	21	205	230
10	5°	19	21	205	230
12	5°	19	21	205	230
14	3°	11	12	340	380
16	3°	11	12	340	380
18	3°	11	12	340	380
20	3°	11	12	340	380
24	3°	11	12	340	380
30	3°	11	12	340	380

* SEE FIGURE 4.
For 14-inch and larger push-on joints, maximum deflection angle may be larger than shown above. Consult the manufacturer.

INSTALLATION OF DUCTILE IRON WATER MAINS
TABLE 4 AWWA C600-05
Maximum Joint Deflection Full Length of Pipe - Mechanical Joint Pipe

Nominal Pipe Size (inches)	Deflection Angle - θ (degree)	Maximum Offset - S* (inches): Joint Length 18-Feet	Maximum Offset - S* (inches): Joint Length 20-Feet	Approximate Radius of Curve - R* Produced by Succession of Joints: Joint Length 18-Feet	Approximate Radius of Curve - R* Produced by Succession of Joints: Joint Length 20-Feet
3	8°-18'	31	35	125	140
4	8°-18'	31	35	125	140
6	7°-07'	27	30	145	160
8	5°-21'	20	22	195	220
10	5°-21'	20	22	195	220
12	5°-21'	20	22	195	220
14	3°-35'	13.5	15	285	320
16	3°-35'	13.5	15	285	320
18	3°-00'	11	12	340	380
20	3°-00'	11	12	340	380
24	2°-23'	9	10	450	500

* SEE FIGURE 4

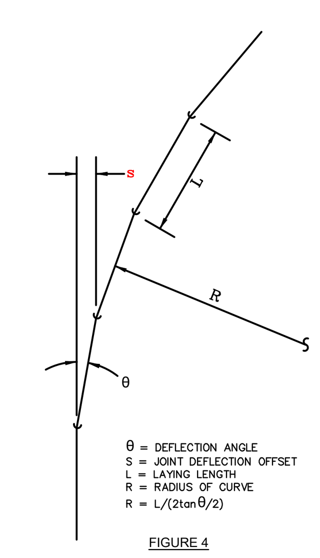


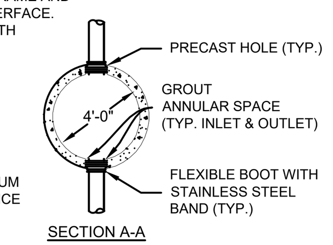
FIGURE 4

WESTERN VIRGINIA REGIONAL – CONSTRUCTION DETAIL

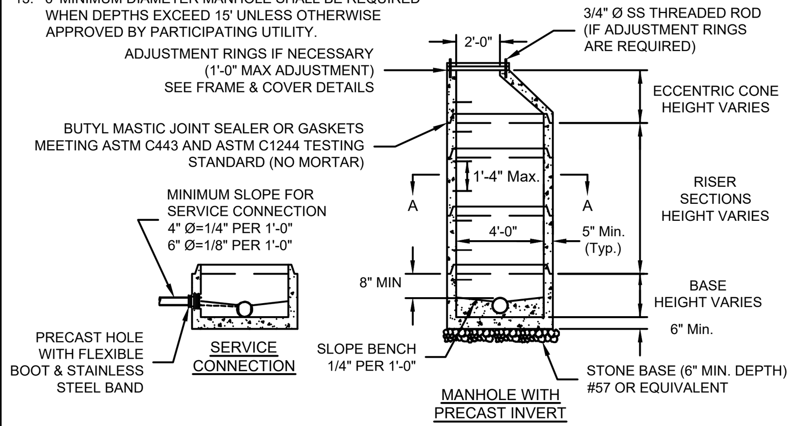
DUCTILE IRON PIPE DEFLECTION ALLOWANCE TABLES

01/01/14 W-22

1. MATERIALS AND FABRICATION IN ACCORDANCE WITH ASTM C478-09.
2. WHEN USED AS SAMPLING MANHOLE FLOW SHALL PASS STRAIGHT THROUGH, i.e., 180°.
3. STEPS SHALL BE VERTICALLY ALIGNED. FIRST STEP SHALL BE WITHIN 12" OF COVER, BOTTOM STEP SHALL BE WITHIN 24" OF BOTTOM OF MANHOLE.
4. FRAME AND COVER SHALL BE PROPERLY ALIGNED WITH THE 2 FOOT OPENING OF THE MANHOLE STRUCTURE AND BOLTED IN PLACE.
5. FLAT TOP MANHOLES MAY ONLY BE SUBSTITUTED WITH THE PERMISSION OF THE PARTICIPATING UTILITY.
6. FLEXIBLE JOINT MANHOLE CONNECTION SHALL BE AS MANUFACTURED BY PRES-SEAL GASKET CORPORATION OR EQUAL.
7. GROUT ANNULAR SPACE BETWEEN PIPE AND PRECAST MANHOLE ON INSIDE OF MANHOLE.
8. WHEN REPLACING AN EXISTING MANHOLE OR INSTALLING A NEW PRECAST MANHOLE ON AN EXISTING SEWER, A MINIMUM OF SIX FEET (6') OF EXISTING PIPE SHALL BE REMOVED AND REPLACED WITH NEW MATERIAL ON INLET AND OUTLET OF MANHOLE.
9. MANHOLES WHERE THE INVERT IS LOWER THAN THE NORMAL GROUNDWATER ELEVATION (I.E., ALONG CREEKS, RIVERS, LOW-LYING AREAS, ETC.) SHALL HAVE A FULL EXTERIOR COATING AND JOINT WRAP APPLIED IN ADDITION TO JOINT SEALANT. SEE NOTES 10 & 11.
10. IF REQUIRED EXTERIOR VERTICAL WALL SURFACES SHALL BE FACTORY COATED IN ACCORDANCE WITH THE MANUFACTURERS RECOMMENDATION. COATING SHALL BE HIGH BUILD COAL TAR EPOXY MEETING ASTM D1227. COATING SHALL BE APPLIED IN TWO COATS TO A MINIMUM TOTAL THICKNESS OF 16 MILS.
11. IF REQUIRED ALL MANHOLES SHALL UTILIZE AN EXTERNAL FRAME AND JOINT SEAL AT ALL JOINTS AND AT THE FRAME/CHIMNEYINTERFACE. SEAL SHALL BE MADE OF EPDM RUBBER INACCORDANCE WITH ASTM D412 OR POLYOLEFIN BACKED EXTERIOR JOINT WRAP IN ACCORDANCE WITH ASTM E-1745, C-877, AND C-990. EDM SEAL SHALL HAVE A MINIMUM THICKNESS OF 60 MILS. POLYOLEFIN BACKED EXTERIOR JOINT WRAP SHALL HAVE A BACKING BAND ELEMENT WITH MINIMUM THICKNESS OF 4 MILS. AND BUTYL ROLLER ADHESIVE WITH MINIMUM THICKNESS OF 60 MILS. SEAL SHALL AGGRESSIVELY BOND TO CONCRETE AND METAL STRUCTURES.
12. FOR PIPE LARGER THAN 15 INCHES IN DIAMETER, THE MINIMUM INSIDE DIAMETER OF THE MANHOLE SHALL BE IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS BASED ON PIPE SIZE AND ANGLE BETWEEN INLET AND OUTLET PIPING.
13. 6' MINIMUM DIAMETER MANHOLE SHALL BE REQUIRED WHEN DEPTHS EXCEED 15' UNLESS OTHERWISE APPROVED BY PARTICIPATING UTILITY.



SECTION A-A

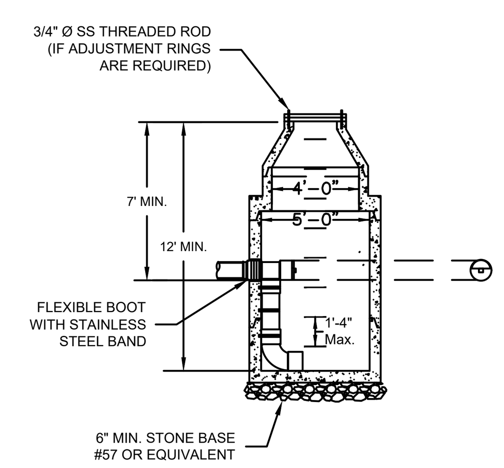


WESTERN VIRGINIA REGIONAL – CONSTRUCTION DETAIL

4' STANDARD MANHOLE FOR PIPE 15" OR SMALLER (FOR DEPTHS UP TO 15 FEET)

08/01/15 S-1

1. MATERIALS AND FABRICATION IN ACCORDANCE WITH ASTM C478-09.
2. STEPS SHALL BE VERTICALLY ALIGNED. FIRST STEP SHALL BE WITHIN 12" OF COVER, BOTTOM STEP SHALL BE WITHIN 24" OF BOTTOM OF MANHOLE.
3. THE FRAME AND COVER SHALL BE PROPERLY ALIGNED WITH THE 2 FOOT OPENING OF THE MANHOLE STRUCTURE AND BOLTED IN PLACE.
4. RELINER BY DURAN INSIDE DROP BOWLS AND PIPE BRACKETS WILL BE ALLOWED.
5. GROUT ANNULAR SPACE BETWEEN PIPE AND PRECAST MANHOLE ON INSIDE OF MANHOLE.
6. STEPS SHALL BE A MINIMUM OF 90 DEGREES FROM DROP & ALIGNED VERTICALLY.
7. INSIDE DROP ONLY ALLOWED WHEN DEPTH EXCEEDS 12' AND APPROVED BY PARTICIPATING UTILITY.
8. 6' MINIMUM DIAMETER MANHOLE REQUIRED FOR TWO OR MORE INSIDE DROP CONNECTIONS (MAIN LINE OR LATERAL).
9. SEE FRAME AND COVER DETAIL.
10. SEE DETAIL S-01 FOR EXTERIOR COATING AND JOINT SEAL REQUIREMENTS.

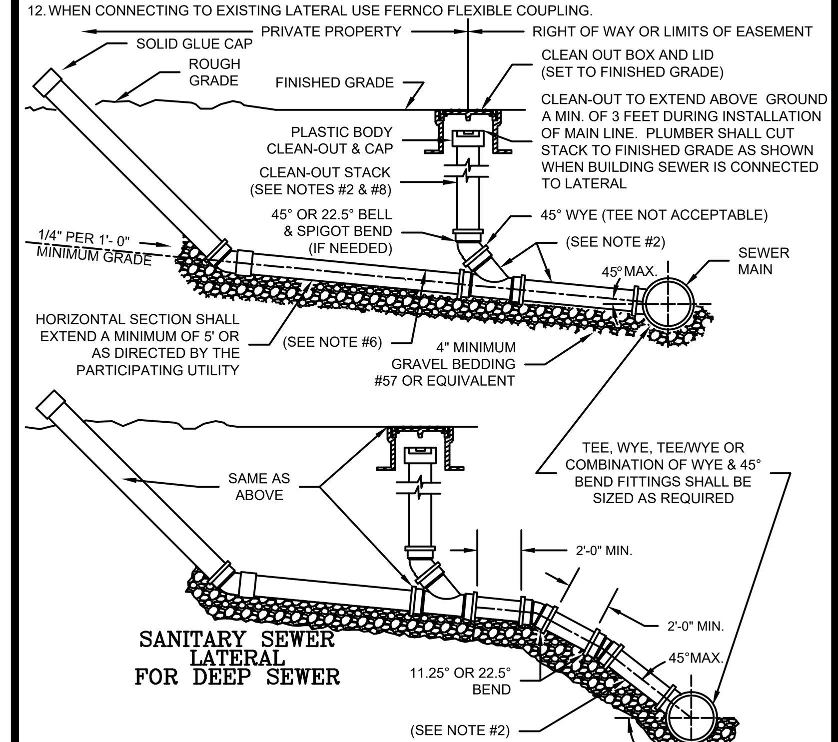


WESTERN VIRGINIA REGIONAL – CONSTRUCTION DETAIL

INSIDE DROP MANHOLE

01/01/14 S-3

1. TRAFFIC BEARING BOX AND LID REQUIRED IN TRAFFIC AREAS (CAPITOL FOUNDRY VB-9*S).
2. SEWER LATERAL AND CLEANOUT PIPING SHALL BE ASTM D3034 SDR 26. SEWER LATERAL FITTINGS SHALL BE OF SAME SDR RATING AS THE SEWER MAIN. SCHEDULE 40 SOLVENT WELD PIPE AND FITTINGS MAY BE USED FOR THE SEWER LATERAL AND CLEANOUT ASSEMBLY WITH APPROVAL FROM THE PARTICIPATING UTILITY.
3. ALL PIPE SHALL BE OF SAME SIZE.
4. NO BENDS ARE ALLOWED IN THE LATERAL FROM THE MAIN TO THE CLEANOUT STACK WYE. (EXCEPT FOR DEEP SEWER, AS SHOWN BELOW).
5. ALL MAIN LINE TAPS ON ACTIVE MAINS SHALL BE PERFORMED BY PARTICIPATING UTILITY.
6. PIPING ON PRIVATE SIDE OF CLEANOUT TO BE INSTALLED PER GOVERNING JURISDICTION REQUIREMENTS.
7. MINIMUM LATERAL SIZE: 4" FOR RESIDENTIAL SERVICE, 6" FOR NON-RESIDENTIAL SERVICE.
8. SEWER CLEANOUTS SHALL BE SAME SIZE AS SEWER LATERAL.
9. MINIMUM COVER FOR ALL SEWER LATERALS SHALL BE THREE (3') FEET.
10. PROPERTY OWNER RESPONSIBLE FOR INSTALLING CLEANOUT ON PROPERTY LINE (IN ACCORDANCE WITH THIS DETAIL) WHEN MAINTENANCE OCCURS.
11. LOWEST SERVED FINISHED FLOOR ELEVATION SHALL BE A MINIMUM OF THREE FEET (3') ABOVE THE TOP OF THE MAIN AT THE POINT WHERE THE SERVICE LATERAL CONNECTS TO THE MAIN.
12. WHEN CONNECTING TO EXISTING LATERAL USE FERNCO FLEXIBLE COUPLING.

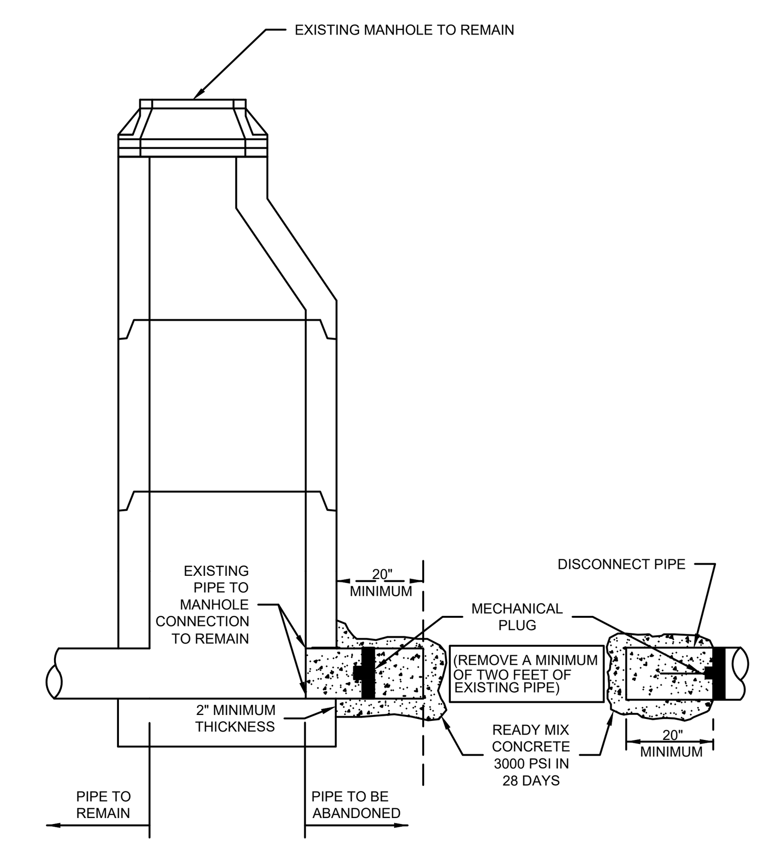


WESTERN VIRGINIA REGIONAL – CONSTRUCTION DETAIL

SANITARY SEWER LATERAL

01/01/14 S-6

1. FOR PIPES 18" AND LARGER PROVIDE A MASONRY BULKHEAD IN LIEU OF MECHANICAL PLUGS.

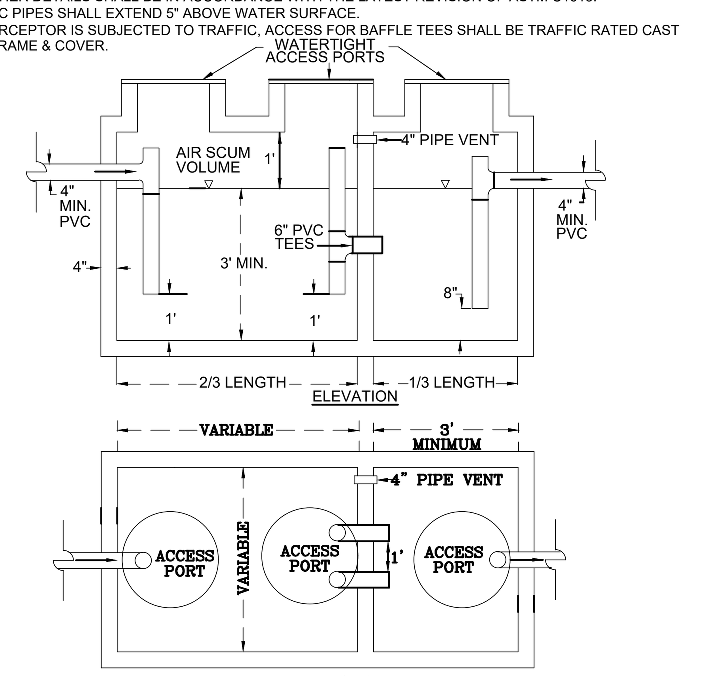


WESTERN VIRGINIA REGIONAL – CONSTRUCTION DETAIL

SANITARY SEWER PIPE ABANDONMENT AT A MANHOLE

01/01/14 S-15

NOTES:
1. MINIMUM RETENTION TIME SHOULD BE 30 MINUTES AT PEAK FLOW.
2. GREASE INTERCEPTOR SHOULD BE DESIGNED TO WITHSTAND TRAFFIC LOADS IF APPLICABLE.
3. FRAMES AND COVERS SHALL BE CAST IRON & WATERTIGHT. NO PLASTIC COVERS SHALL BE ALLOWED. "GREASE" SHALL BE CAST INTO COVER.
4. A NON - MONOLITHIC UNIT SHALL HAVE THE FOLLOWING INSTALLED PER MANUFACTURER'S SPEC:
   A.) A CONSEAL CS - 102 BUTYL RUBBER SEALANT (OR EQUIVALENT) IN THE JOINT.
   B.) 24" CONSEAL CS - 212 POLYOLEFIN BACKED EXTERIOR WRAP (OR EQUIVALENT) CENTERED OVER THE EXTERIOR OF THE JOINT.
5. GREASE INTERCEPTOR SHALL BE INSPECTED AND APPROVED BY THE PARTICIPATING UTILITY PRIOR TO SITE RECEIVING WATER SERVICE CONNECTION.
6. FORTY-EIGHT (48) HOURS PRIOR TO INSTALLATION, THE CONTRACTOR SHALL COMPLETE THE FOLLOWING:
   A.) CONTACT PARTICIPATING UTILITY TO DETERMINE PROPER SUBMITTAL AND INSPECTION PROCEDURE.
   B.) FOR UNITS INSTALLED INTO THE WESTERN VIRGINIA WATER AUTHORITY'S SYSTEM:
      1.) SUBMIT SHOP DRAWINGS TO C. ALTICE, 601 S JEFFERSON ST, SUITE 300, ROANOKE, VA 24011.
      2.) CALL (540) 537-3460 TO SCHEDULE GREASE INTERCEPTOR INSPECTION. THE INSPECTION SHALL OCCUR PRIOR TO THE CONTRACTOR COVERING THE GREASE INTERCEPTOR.
7. CONCRETE SHALL BE TYPE III AND CONFORM TO ASTM C150.
8. ALL OTHER DETAILS SHALL BE IN ACCORDANCE WITH THE LATEST REVISION OF ASTM C1613.
9. ALL PVC PIPES SHALL EXTEND 5" ABOVE WATER SURFACE.
10. IF INTERCEPTOR IS SUBJECTED TO TRAFFIC, ACCESS FOR BAFFLE TEES SHALL BE TRAFFIC RATED CAST IRON FRAME & COVER.



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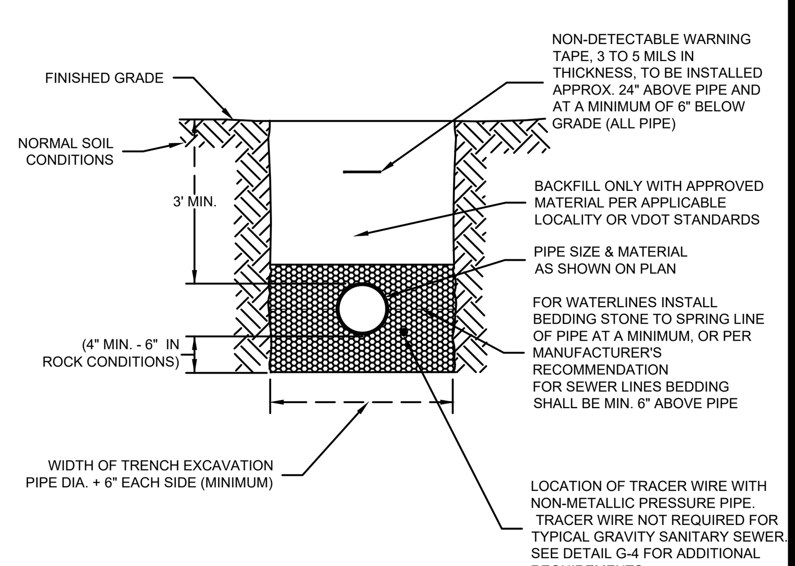
WESTERN VIRGINIA REGIONAL – CONSTRUCTION DETAIL

GREASE INTERCEPTOR

01/01/14 S-17

1. BEDDING, HAUNCHING AND INITIAL BACKFILL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THIS DETAIL AND MANUFACTURER'S RECOMMENDATION.
2. ALL PVC PIPE SHALL BE BEDDED IN COMPACTED VDOT #57 OR #68 STONE, OR CRUSHER RUN.
3. IN AREAS SUBJECTED TO VEHICULAR TRAFFIC, BEDDING STONE AND FILL SHALL BE PLACED IN 6" LIFTS FROM BOTTOM OF TRENCH TO 1' ABOVE THE PIPE AND THE REMAINING SHALL BE PLACED IN 10" LIFTS AND SHALL BE COMPACTED TO AT LEAST 90% OF MAXIMUM DENSITY AS DETERMINED BY ASTM D 698.
4. BEDDING REQUIREMENTS FOR DUCTILE IRON WATER LINE ARE DEPENDENT ON MANUFACTURER'S BEDDING CRITERIA.
5. ALL EXCAVATIONS SHALL COMPLY WITH OSHA TECHNICAL MANUAL, CHAPTER 2, TITLED "EXCAVATIONS: HAZARD RECOGNITION IN TRENCHING AND SHORING."
6. THE TRACER WIRE SHALL BE PLACED ALONG THE LOWER QUADRANT OF THE PIPE. THE WIRE SHALL NOT TOUCH THE PIPE, BUT SHALL BE A MAXIMUM OF 6" FROM THE PIPE. NON-METALLIC SPACERS MAY BE USED TO MAINTAIN A SET DISTANCE FROM THE UTILITY.

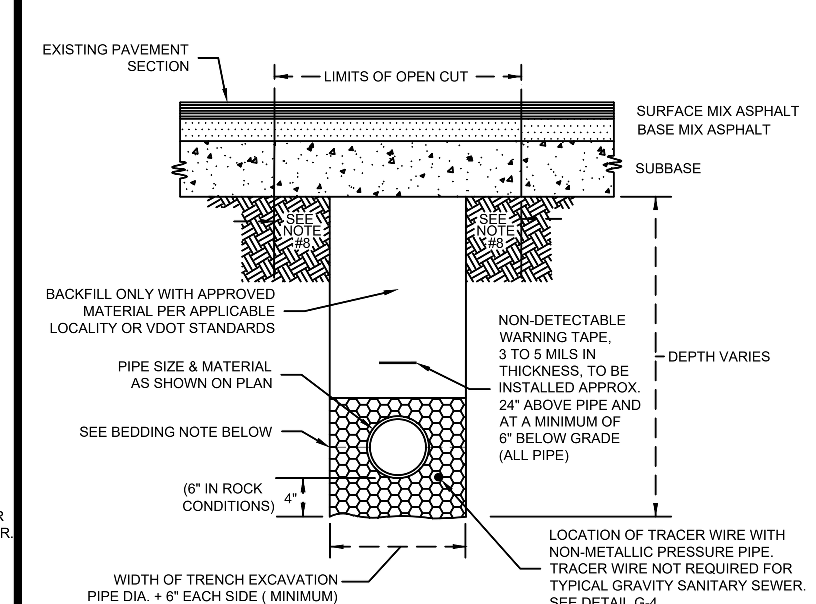


WESTERN VIRGINIA REGIONAL – CONSTRUCTION DETAIL

BEDDING AND BACKFILL OUTSIDE OF PAVED AREAS

08/01/15 G-11

1. BEDDING, HAUNCHING AND INITIAL BACKFILL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THIS DETAIL AND MANUFACTURER'S RECOMMENDATION.
2. ALL PVC PIPE SHALL BE BEDDED IN COMPACTED VDOT #57 OR #68 STONE.
3. IN VDOT ROW, THE CONTRACTOR SHALL REPLACE THE PAVEMENT AS REQUIRED AND SPECIFIED BY VDOT. IN ROANOKE CITY, CONTRACTOR SHALL REPLACE PAVEMENT AS REQUIRED BY CITY OF ROANOKE RIGHT OF WAY EXCAVATION AND RESTORATION STANDARDS, LATEST EDITION.
4. ALL CONSTRUCTION WITHIN THE PUBLIC RIGHT-OF-WAY SHALL BE AS SPECIFIED BY VDOT OR APPLICABLE LOCALITY.
5. PRIOR TO CONSTRUCTION, CONTRACTOR IS RESPONSIBLE FOR SECURING ALL REQUIRED PERMITS FROM VDOT AND/OR APPLICABLE LOCALITY.
6. IN AREAS SUBJECTED TO VEHICULAR TRAFFIC, BEDDING STONE AND FILL SHALL BE PLACED IN 6" LIFTS AND SHALL BE COMPACTED TO AT LEAST 95% OF MAXIMUM DENSITY AS DETERMINED BY ASTM D 698.
7. ALL SEWER LINE PIPE SHALL BE BEDDED IN COMPACTED GRANULAR MATERIAL. BEDDING REQUIREMENTS FOR DUCTILE SEWER LINE ARE DEPENDENT ON MANUFACTURER'S BEDDING CRITERIA.
8. BENCH CUT ON EACH SIDE OF PAVEMENT SHALL BE IN ACCORDANCE WITH VDOT OR APPLICABLE LOCALITY'S SPECIFICATIONS.
9. ALL EXCAVATIONS SHALL COMPLY WITH OSHA TECHNICAL MANUAL, CHAPTER 2, TITLED "EXCAVATIONS: HAZARD RECOGNITION IN TRENCHING AND SHORING."
10. THE TRACER WIRE SHALL BE PLACED ALONG THE LOWER QUADRANT OF THE PIPE. THE WIRE SHALL NOT TOUCH THE PIPE, BUT SHALL BE A MAXIMUM OF 6" FROM THE PIPE. NON-METALLIC SPACERS MAY BE USED TO MAINTAIN A SET DISTANCE FROM THE UTILITY.

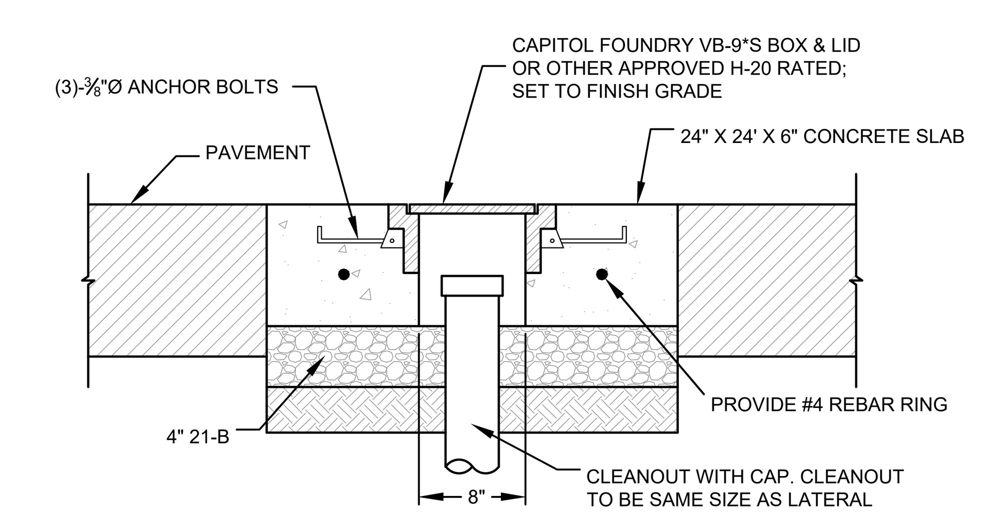


BEDDING: FOR WATERLINES, INSTALL BEDDING STONE TO SPRING LINE OF PIPE AT A MINIMUM, OR PER MANUFACTURER'S RECOMMENDATION. FOR SEWER LINES, BEDDING SHALL BE MINIMUM 6" ABOVE PIPE.

WESTERN VIRGINIA REGIONAL – CONSTRUCTION DETAIL

BEDDING AND BACKFILL UNDER PAVEMENT AND IN RIGHT-OF-WAY

08/01/15 G-12



TRAFFIC BEARING CLEANOUT DETAIL

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06/17/2022
LANDSCAPE ARCHITECT

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REVISIONS

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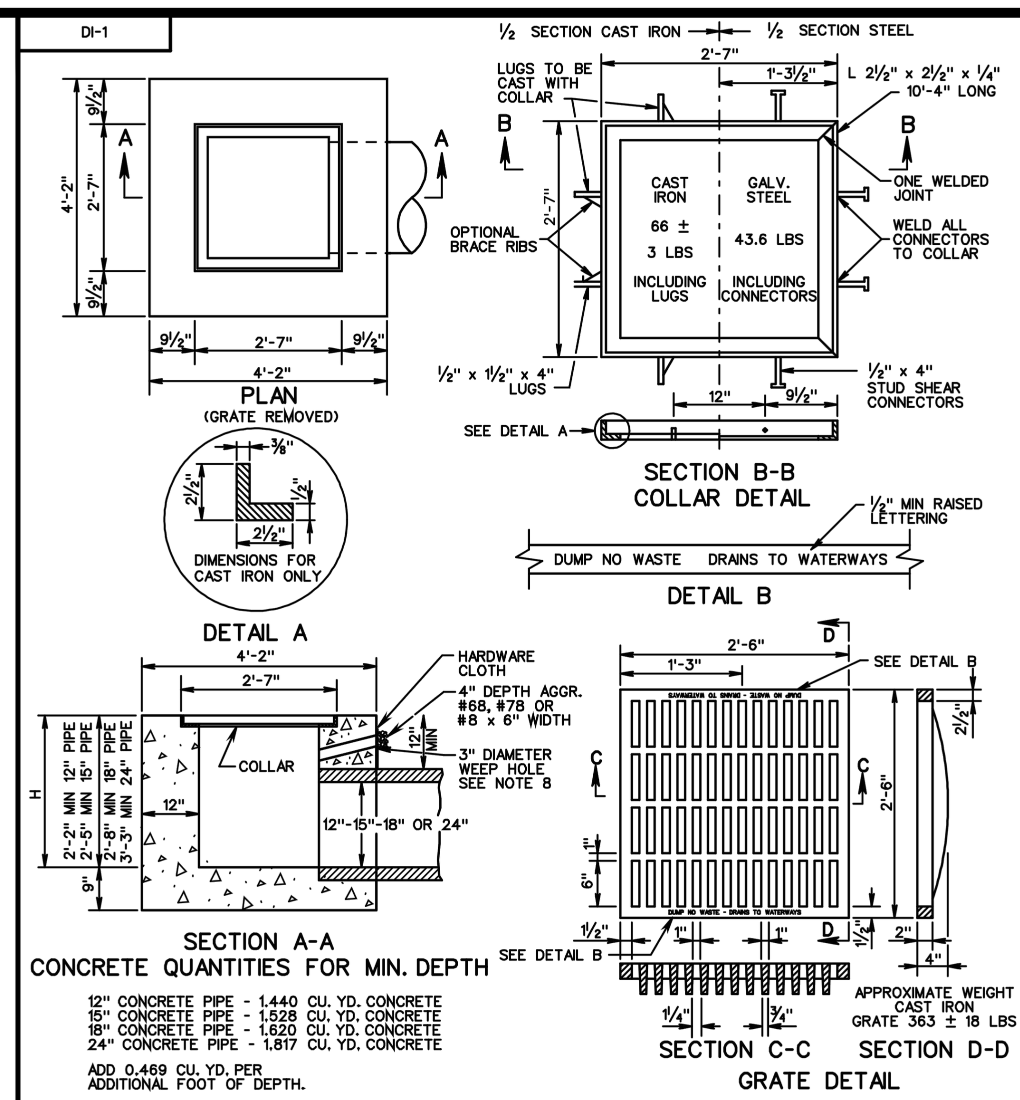
1	06/17/22	1ST CITY REVIEW

DRAWN BY:	JMD
REV'D BY:	JDE
DATE:	04/22/2022
SCALE:	AS SHOWN

WATER & SEWER DETAILS

C18

SHEET ____ of X

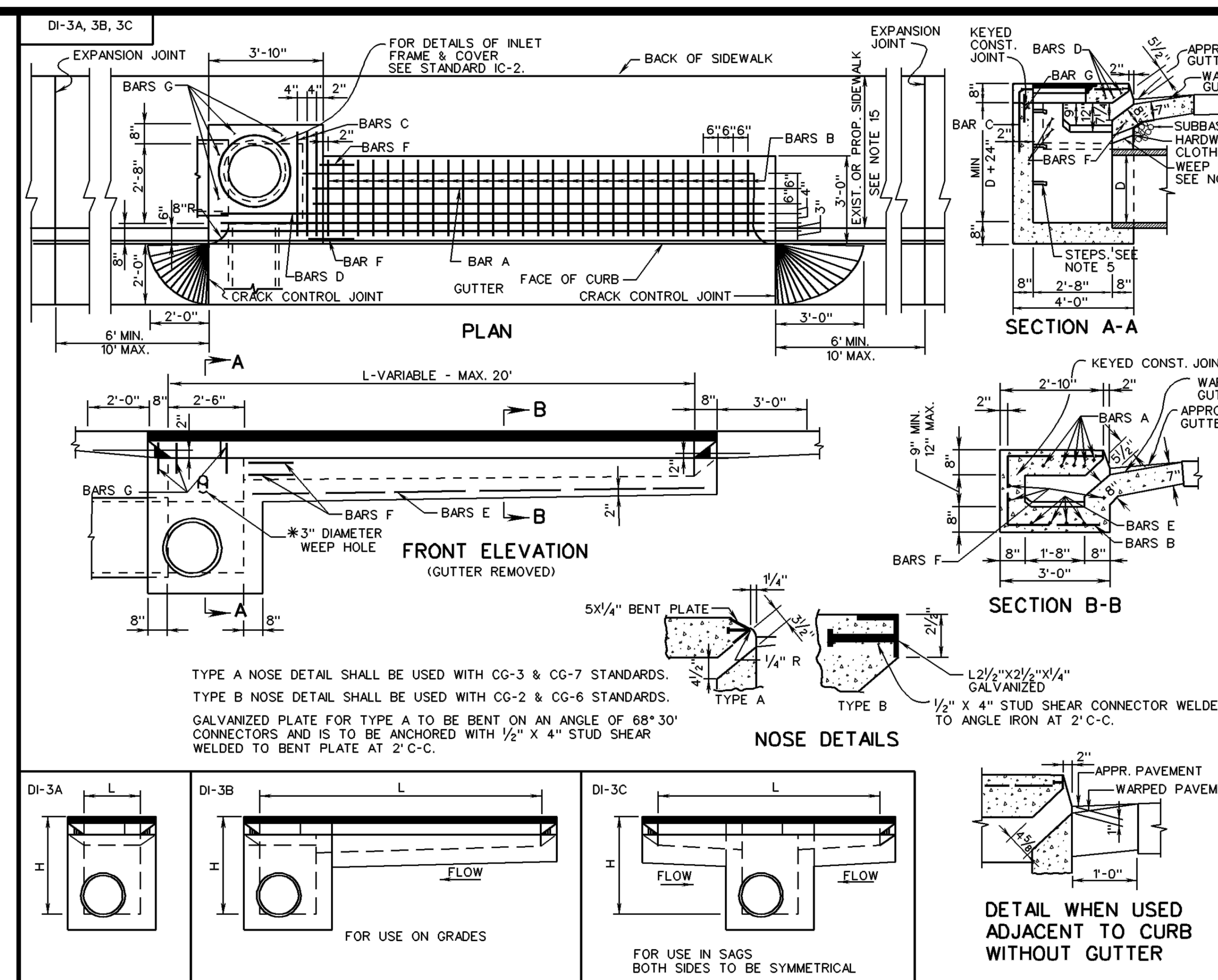


NOTES

1. DEPTH OF INLET (H) TO BE SHOWN ON PLANS. FOR DEPTH GREATER THAN 10' USE STANDARD DI-1A
2. THE "H" DIMENSION SHOWN ON THE STANDARDS AND SPECIFIED ON THE PLANS WILL BE MEASURED FROM THE INVERT OF THE OUTFALL PIPE TO THE TOP OF THE STRUCTURE. PLAN "H" DIMENSIONS ARE APPROXIMATE ONLY FOR ESTIMATING PURPOSES AND THE ACTUAL DIMENSIONS SHALL BE DETERMINED BY THE CONTRACTOR FROM FIELD CONDITIONS.
3. WHEN SPECIFIED ON THE PLANS THE INVERT IS TO BE SHAPED IN ACCORDANCE WITH STANDARD IS-1. THE COST OF FURNISHING AND PLACING ALL MATERIALS INCIDENTAL TO THE SHAPING IS TO BE INCLUDED IN THE BID PRICE FOR THE STRUCTURE.
4. IN THE EVENT THE INVERT OF THE OUTFALL PIPE IS HIGHER THAN THE BOTTOM OF THE STRUCTURE, THE INVERT OF THE STRUCTURE SHALL BE SHAPED WITH CEMENT MORTAR TO PREVENT STANDING OR PONDING OF WATER IN THE STRUCTURE. THE COST OF FURNISHING AND PLACING ALL MATERIALS INCIDENTAL TO INLET SHAPING IS TO BE INCLUDED IN THE BID PRICE FOR THE STRUCTURE.
5. STEPS ARE TO BE PROVIDED WHEN H IS 4'-0" OR GREATER. FOR DETAILS SEE STANDARD ST-1.
6. THIS ITEM MAY BE PRECAST OR CAST-IN-PLACE.
7. #4 X 8" SMOOTH DOWELS AT APPROXIMATELY 12" C-C TO BE PLACED IN ALL AREAS ADJACENT TO ABUTTING CONCRETE TO PREVENT SETTLEMENT. IN LIEU OF DOWELS A 2"X4" NOTCH MAY BE PROVIDED. SEE STANDARD T-DI-3, 4 FOR ALTERNATE DESIGN.
8. 3" DIAMETER WEEP HOLE WITH 12"X12" PLASTIC HARDWARE CLOTH 1/4" MESH OR GALVANIZED STEEL WIRE, MINIMUM WIRE DIAMETER 0.03", NUMBER 4 MESH HARDWARE CLOTH ANCHORED FIRMLY TO THE OUTSIDE OF THE STRUCTURE.
9. CAST IN PLACE CONCRETE IS TO BE CLASS A3 (3000 PSI). PRECAST CONCRETE IS TO BE 4000 PSI.
10. ANY ALTERNATE METHODS OF ANCHORAGE MEETING THE APPROVAL OF THE ENGINEER MAY BE SUBSTITUTED FOR THE CAST IRON LUGS AS SHOWN HEREON.
11. DUMP NO WASTE DRAINS TO WATERWAY LETTERING IS REQUIRED ON ALL DI-1 GRATES. LOCATION OF LETTERING MAY VARY BY MANUFACTURER.

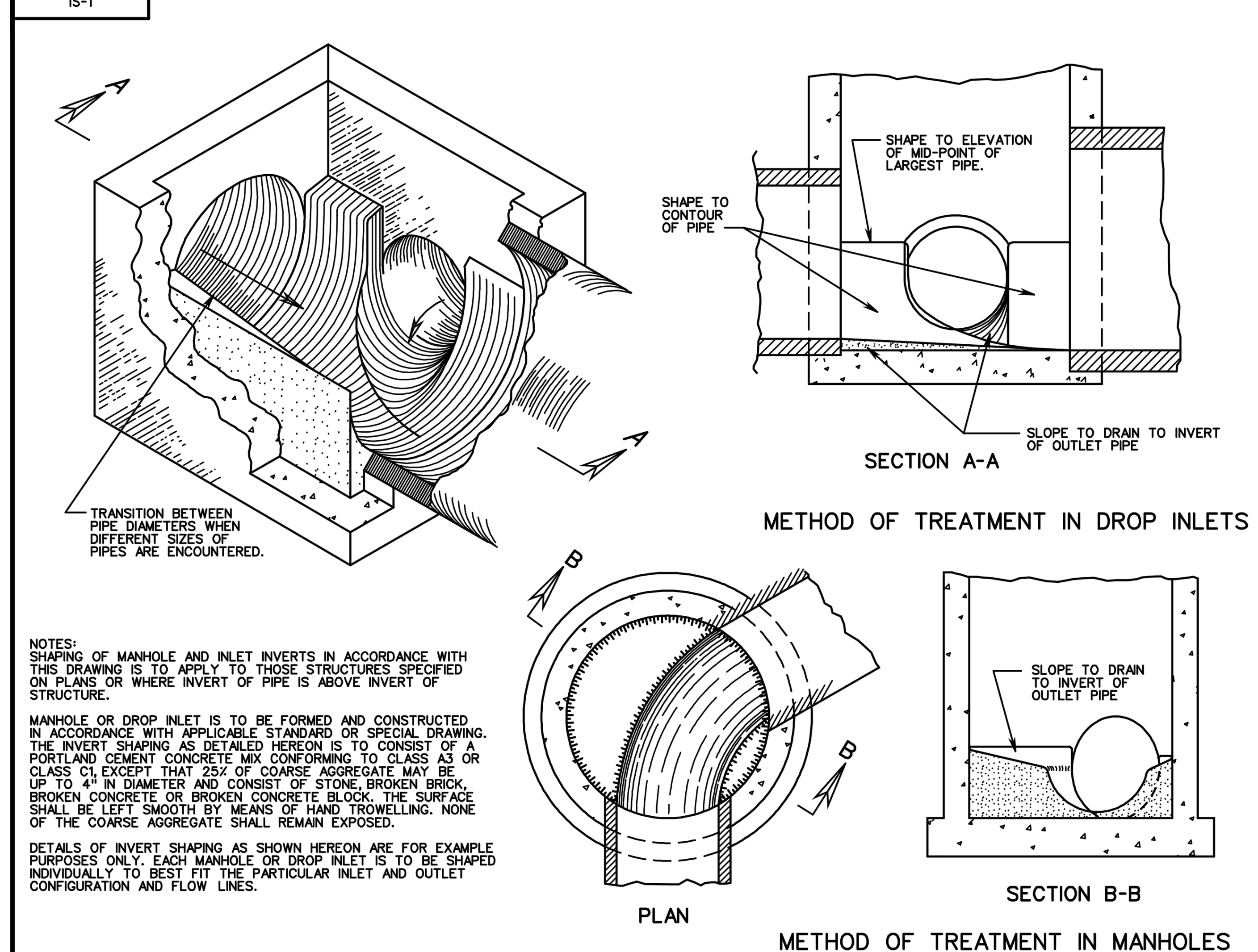
VDOT ROAD AND BRIDGE STANDARDS — SHEET 1 OF 1 — REVISION DATE — 104.01

STANDARD DROP INLET
12" - 24" PIPE: MAXIMUM DEPTH (H) = 10'
VIRGINIA DEPARTMENT OF TRANSPORTATION
SPECIFICATION REFERENCE 233 302



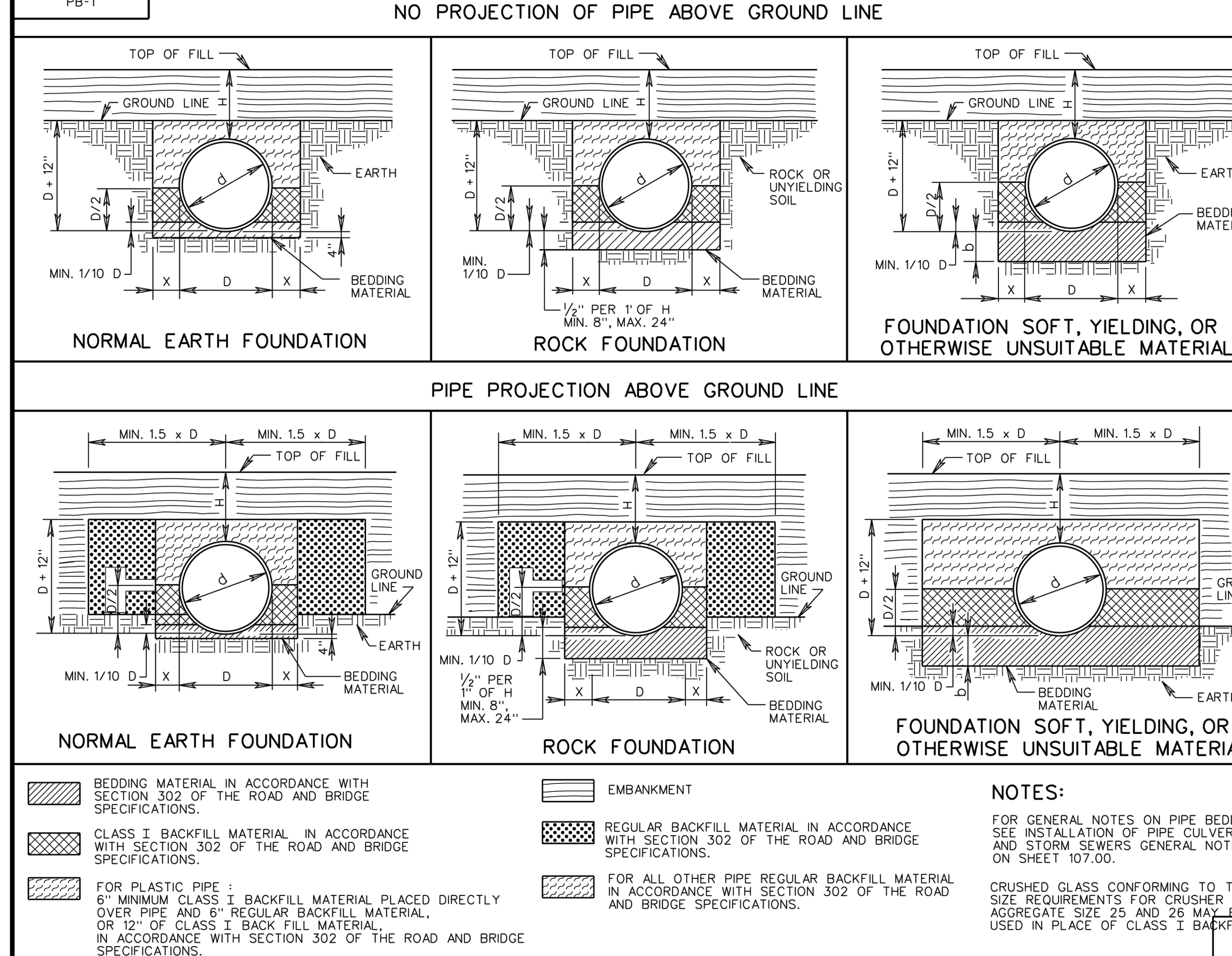
VDOT ROAD AND BRIDGE STANDARDS — SHEET 1 OF 2 — REVISION DATE 08/10 — 104.09

STANDARD CURB DROP INLET
12" - 30" PIPE: MAXIMUM DEPTH (H) = 8'
VIRGINIA DEPARTMENT OF TRANSPORTATION
SPECIFICATION REFERENCE 233 302



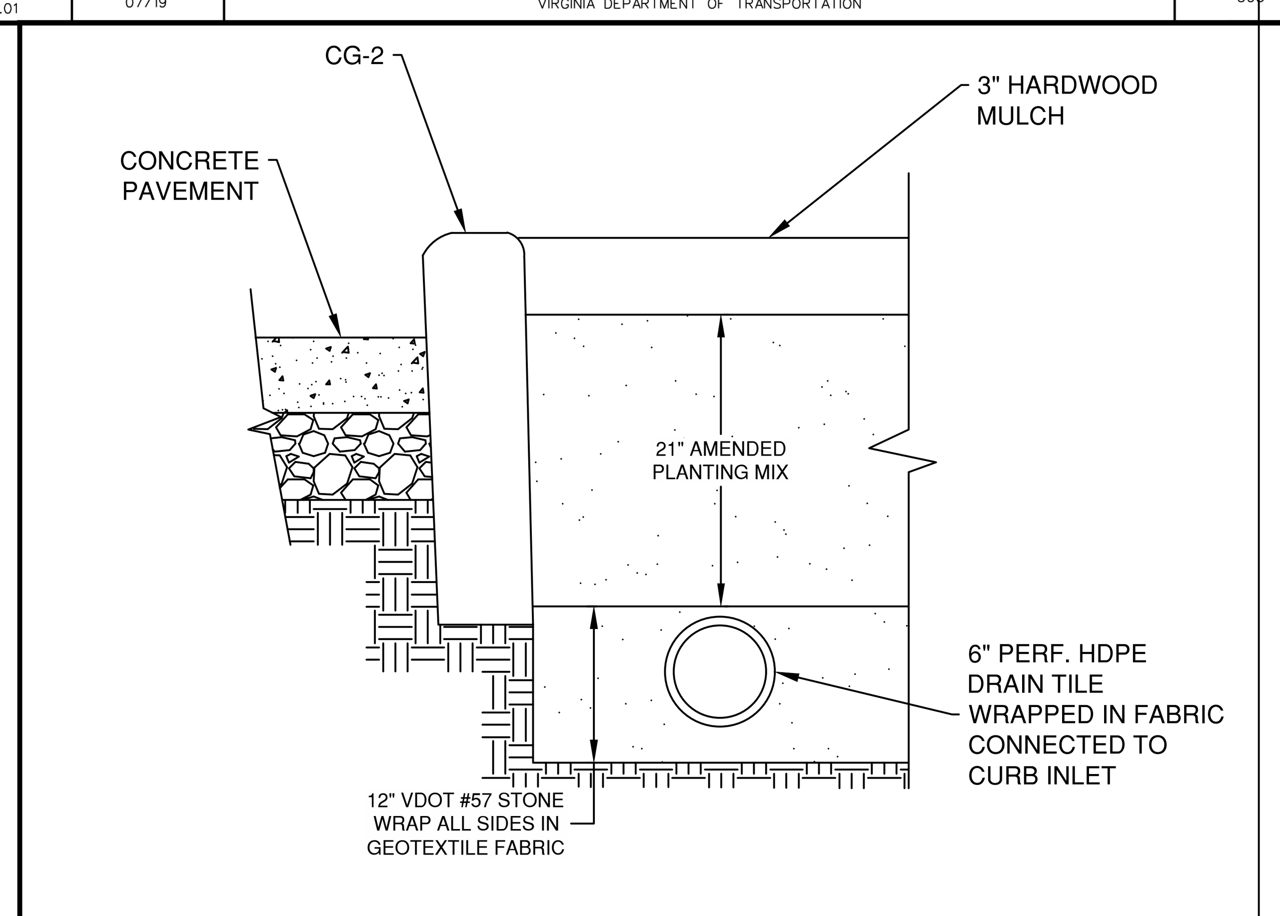
VDOT ROAD AND BRIDGE STANDARDS — SHEET 1 OF 1 — REVISION DATE — 106.08

STANDARD METHOD OF SHAPING MANHOLE & INLET INVERTS
VIRGINIA DEPARTMENT OF TRANSPORTATION
SPECIFICATION REFERENCE 302



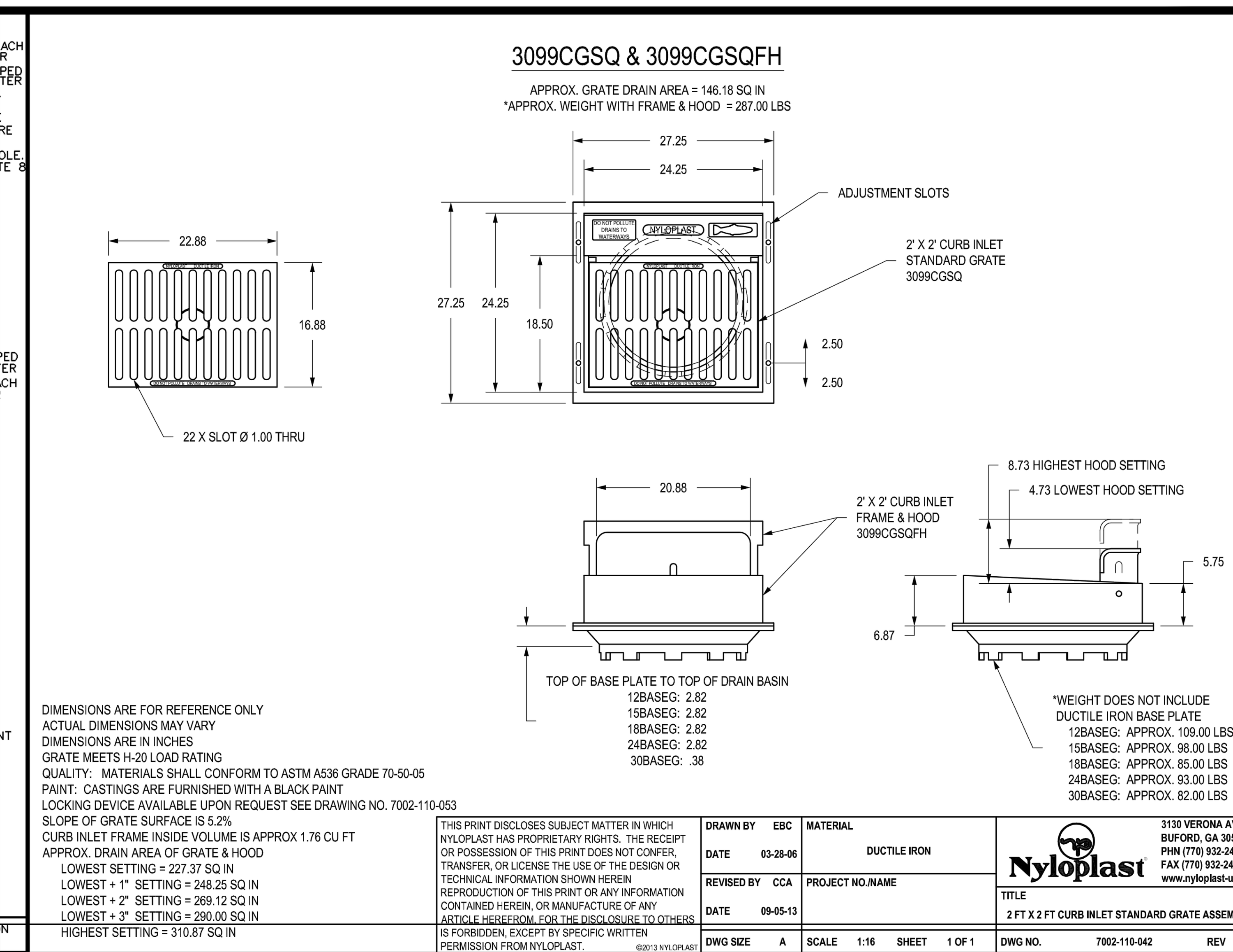
VDOT ROAD AND BRIDGE STANDARDS — SHEET 1 OF 4 — REVISION DATE 07/19 — 107.01

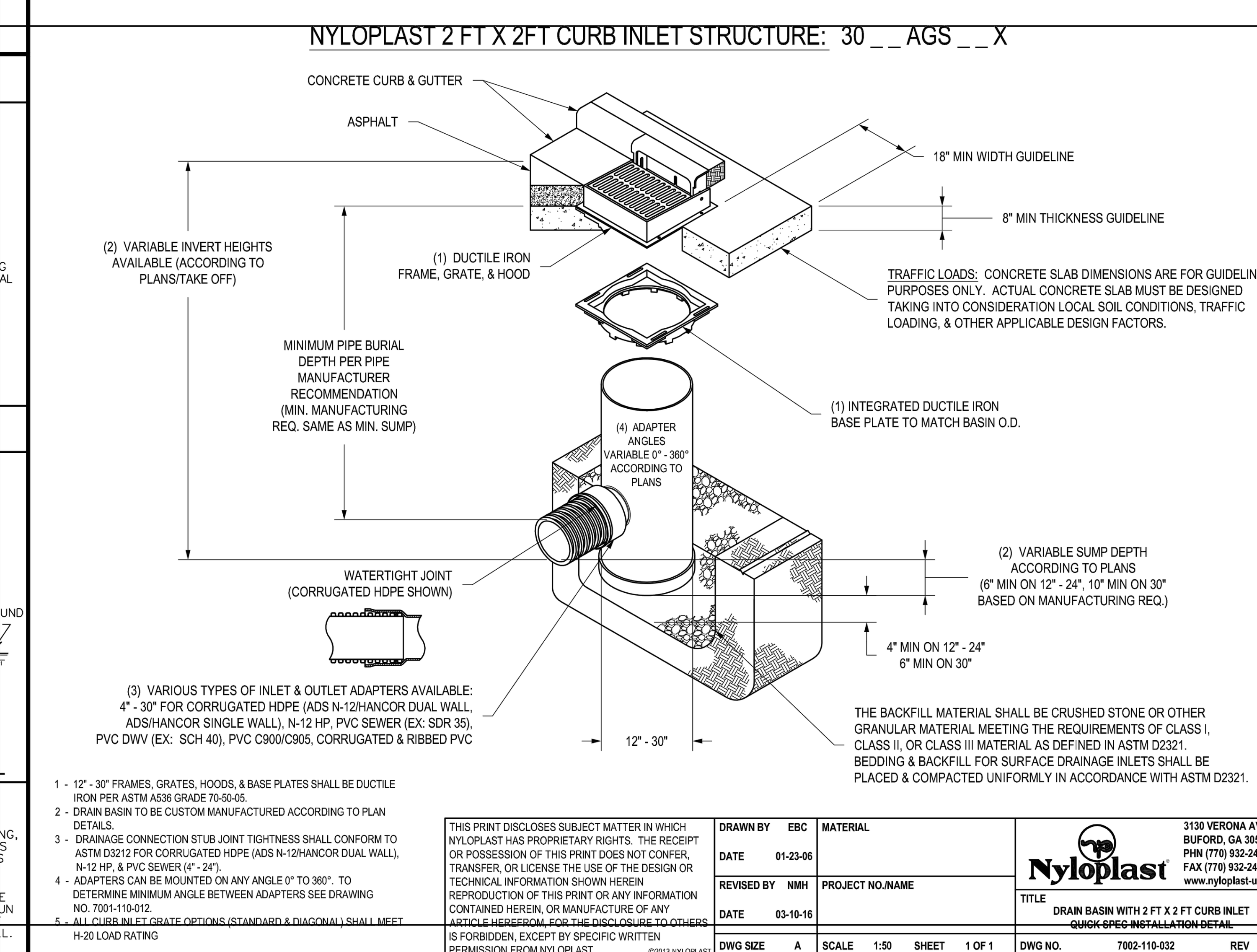
INSTALL. OF PIPE CULVERTS AND STORM SEWERS
CIRC. PIPE BEDDING AND BACKFILL - METHOD "A"
VIRGINIA DEPARTMENT OF TRANSPORTATION
SPECIFICATION REFERENCE 302 303



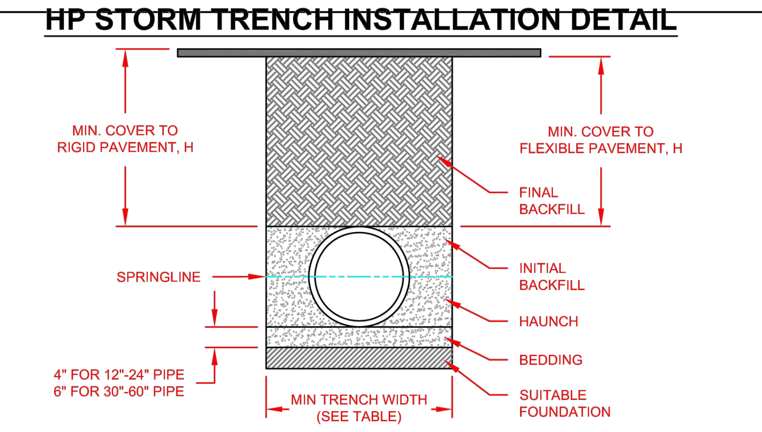
6" UNDERDRAIN & PLANTING BED DETAIL

NOT TO SCALE





HP STORM TRENCH INSTALLATION DETAIL



NOTES:

1. ALL PIPE SYSTEMS SHALL BE INSTALLED IN ACCORDANCE WITH ASTM D2321, "STANDARD PRACTICE FOR UNDERGROUND INSTALLATION OF THERMOPLASTIC PIPE FOR SEWERS AND OTHER GRAVITY FLOW APPLICATIONS", LATEST ADDITION, WITH THE EXCEPTION THAT THE INITIAL BACKFILL MAY EXTEND TO THE CROWN OF THE PIPE. SOIL CLASSIFICATIONS ARE PER THE LATEST VERSION OF ASTM D2321. CLASS IVB MATERIALS (MH, CH) AS DEFINED IN PREVIOUS VERSIONS OF ASTM D2321 ARE NOT APPROPRIATE BACKFILL MATERIALS.
2. MEASURES SHOULD BE TAKEN TO PREVENT MIGRATION OF NATIVE FINES INTO BACKFILL MATERIAL, WHEN REQUIRED.
3. FOUNDATION: WHERE THE TRENCH BOTTOM IS UNSTABLE, THE CONTRACTOR SHALL EXCAVATE TO A DEPTH REQUIRED BY THE ENGINEER AND REPLACE WITH SUITABLE MATERIAL AS SPECIFIED BY THE ENGINEER. AS AN ALTERNATIVE AND AT THE DISCRETION OF THE DESIGN ENGINEER, THE TRENCH BOTTOM MAY BE STABILIZED USING A GEOTEXTILE MATERIAL.
4. BEDDING: SUITABLE MATERIAL SHALL BE CLASS I, II, III, OR IV. THE CONTRACTOR SHALL PROVIDE DOCUMENTATION FOR MATERIAL SPECIFICATION TO ENGINEER. COMPACTION SHALL BE SPECIFIED BY THE ENGINEER IN ACCORDANCE WITH TABLE 3 FOR THE APPLICABLE FILL HEIGHTS LISTED. UNLESS OTHERWISE NOTED BY THE ENGINEER, MINIMUM BEDDING THICKNESS SHALL BE 4" (100mm) FOR 12"-24" (300mm-600mm) DIAMETER PIPE; 6" (150mm) FOR 30"-60" (750mm-1500mm) DIAMETER PIPE. THE MIDDLE 1/3 BENEATH THE PIPE INVERT SHALL BE LOOSELY PLACED. PLEASE NOTE, CLASS IV MATERIAL HAS LIMITED APPLICATION AND CAN BE DIFFICULT TO PLACE AND COMPACT; USE ONLY WITH THE APPROVAL OF A SOIL EXPERT.
5. INITIAL BACKFILL: SUITABLE MATERIAL SHALL BE CLASS I, II, III, OR IV IN THE PIPE ZONE EXTENDING TO THE CROWN OF THE PIPE. THE CONTRACTOR SHALL PROVIDE DOCUMENTATION FOR MATERIAL SPECIFICATION TO ENGINEER. MATERIAL SHALL BE INSTALLED AS REQUIRED IN ASTM D2321, LATEST EDITION. COMPACTION SHALL BE SPECIFIED BY THE ENGINEER IN ACCORDANCE WITH TABLE 3 FOR THE APPLICABLE FILL HEIGHTS LISTED. PLEASE NOTE, CLASS IV MATERIAL HAS LIMITED APPLICATION AND CAN BE DIFFICULT TO PLACE AND COMPACT; USE ONLY WITH THE APPROVAL OF A SOIL EXPERT.
6. MINIMUM COVER: MINIMUM COVER, H, IN NON-TRAFFIC APPLICATIONS (GRASS OR LANDSCAPE AREAS) IS 12" (300mm) FROM THE TOP OF PIPE TO GROUND SURFACE. ADDITIONAL COVER MAY BE REQUIRED TO PREVENT FLOTATION. FOR TRAFFIC APPLICATIONS; CLASS I OR II MATERIAL COMPACTED TO 90% SPD AND CLASS III COMPACTED TO 95% SPD IS REQUIRED. FOR TRAFFIC APPLICATIONS, MINIMUM COVER, H, IS 12" (300mm) UP TO 48" (1200mm) DIAMETER PIPE AND 24" (600mm) OF COVER FOR 60" (1500mm) DIAMETER PIPE, MEASURED FROM TOP OF PIPE TO BOTTOM OF FLEXIBLE PAVEMENT OR TO TOP OF RIGID PAVEMENT.
7. FOR ADDITIONAL INFORMATION SEE TECHNICAL NOTE 2.04.

TABLE 1, RECOMMENDED MINIMUM TRENCH WIDTHS

PIPE DIAM.	MIN. TRENCH WIDTH
12" (300mm)	30" (762mm)
15" (375mm)	34" (864mm)
18" (450mm)	39" (991mm)
24" (600mm)	48" (1219mm)
30" (750mm)	56" (1422mm)
36" (900mm)	64" (1626mm)
42" (1050mm)	72" (1829mm)
48" (1200mm)	80" (2032mm)
60" (1500mm)	96" (2438mm)

TABLE 2, MINIMUM RECOMMENDED COVER BASED ON VEHICLE LOADING CONDITIONS

PIPE DIAM.	SURFACE LIVE LOADING CONDITION: H-25	HEAVY CONSTRUCTION (75T AXLE LOAD) *
12" - 48" (300mm - 1200mm)	12" (305mm)	48" (1219mm)
60" (1500mm)	24" (610mm)	60" (1524mm)

* VEHICLES IN EXCESS OF 75T MAY REQUIRE ADDITIONAL COVER

TABLE 3, MAXIMUM COVER FOR ADS HP STORM PIPE, ft

PIPE DIA	CLASS I COMPACTED	CLASS II 95%	CLASS II 90%	CLASS II 85%	CLASS III 95%	CLASS III 90%	CLASS IV 95%
12" (300mm)	41 (12.5m)	28 (8.5m)	21 (6.4m)	16 (4.9m)	20 (6.1m)	16 (4.9m)	16 (4.9m)
15" (375mm)	42 (12.8m)	29 (8.8m)	21 (6.4m)	16 (4.9m)	21 (6.4m)	16 (4.9m)	16 (4.9m)
18" (450mm)	44 (13.4m)	30 (9.1m)	21 (6.4m)	16 (4.9m)	22 (6.7m)	17 (5.2m)	16 (4.9m)
24" (600mm)	37 (11.3m)	26 (7.9m)	18 (5.5m)	14 (4.3m)	19 (5.8m)	14 (4.3m)	14 (4.3m)
30" (750mm)	39 (11.9m)	27 (8.2m)	19 (5.8m)	14 (4.3m)	19 (5.8m)	15 (4.6m)	14 (4.3m)
36" (900mm)	28 (8.5m)	20 (6.1m)	14 (4.3m)	10 (3.0m)	14 (4.3m)	11 (3.4m)	10 (3.0m)
42" (1050mm)	30 (9.1m)	21 (6.4m)	14 (4.3m)	10 (3.0m)	15 (4.6m)	11 (3.4m)	10 (3.0m)
48" (1200mm)	29 (8.8m)	20 (6.1m)	14 (4.3m)	9 (2.7m)	14 (4.3m)	10 (3.0m)	10 (3.0m)
60" (1500mm)	29 (8.8m)	20 (6.1m)	14 (4.3m)	9 (2.7m)	14 (4.3m)	10 (3.0m)	9 (2.7m)

FILL HEIGHT TABLE GENERATED USING AASHTO SECTION 12, LOAD RESISTANCE FACTOR DESIGN (LRFD) PROCEDURE WITH THE FOLLOWING ASSUMPTIONS:
NO HYDROSTATIC PRESSURE
UNIT WEIGHT OF SOIL (γ_s) = 120 PCF

REV.	DESCRIPTION	BY	MM/DD/YY	CHK'D
6	REV. MAXIMUM COVER HEIGHTS	RWD	01/11/17	

TRENCH INSTALLATION DETAIL (HP STORM) — DRAWING NUMBER: STD-101D — ADS ADVANCED DRAINAGE SYSTEMS, INC., 4640 TRUEMAN BLVD, HILLIARD, OHIO 43026 — DRAWN BY: JAB — DATE: 01/29/09 — SCALE: NTS — SHEET 1 OF 1

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COMMONWEALTH OF VIRGINIA — JACK D. ELLINWOOD Lic. No. 001107 — 06/17/2022 — LANDSCAPE ARCHITECT

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REVISIONS

No.	DATE	DESCRIPTION
1	06/17/22	1ST CITY REVIEW

DRAWN BY:	JMD
REV'D BY:	JDE
DATE:	04/22/2022
SCALE:	AS SHOWN

STORM SEWER DETAILS

C19

SHEET ____ of X

PROJECT INFORMATION	
ENGINEERED PRODUCT MANAGER:	JIM CLARK 240-463-0124 JAMES.CLARK@ADSPIPE.COM
ADS SALES REP:	DAVID CAMDEN 434-238-4751 DAVID.CAMDEN@ADSPIPE.COM
PROJECT NO:	S290403

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RUFFNER CAREER AND TECHNICAL EDUCATION CENTER

ROANOKE, VA

SC-740 STORMTECH CHAMBER SPECIFICATIONS

1. CHAMBERS SHALL BE STORMTECH SC-740.
2. CHAMBERS SHALL BE ARCH-SHAPED AND SHALL BE MANUFACTURED FROM VIRGIN, IMPACT-MODIFIED POLYPROPYLENE COPOLYMERS.
3. CHAMBERS SHALL MEET THE REQUIREMENTS OF ASTM F2418, "STANDARD SPECIFICATION FOR POLYPROPYLENE (PP) CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".
4. CHAMBER ROWS SHALL PROVIDE CONTINUOUS, UNOBSTRUCTED INTERNAL SPACE WITH NO INTERNAL SUPPORTS THAT WOULD IMPEDE FLOW OR LIMIT ACCESS FOR INSPECTION.
5. THE STRUCTURAL DESIGN OF THE CHAMBERS, THE STRUCTURAL BACKFILL, AND THE INSTALLATION REQUIREMENTS SHALL ENSURE THAT THE LOAD FACTORS SPECIFIED IN THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, SECTION 12.12, ARE MET FOR: 1) LONG-DURATION DEAD LOADS AND 2) SHORT-DURATION LIVE LOADS, BASED ON THE AASHTO DESIGN TRUCK WITH CONSIDERATION FOR IMPACT AND MULTIPLE VEHICLE PRESENCES.
6. CHAMBERS SHALL BE DESIGNED, TESTED AND ALLOWABLE LOAD CONFIGURATIONS DETERMINED IN ACCORDANCE WITH ASTM F2787, "STANDARD PRACTICE FOR STRUCTURAL DESIGN OF THERMOPLASTIC CORRUGATED WALL STORMWATER COLLECTION CHAMBERS". LOAD CONFIGURATIONS SHALL INCLUDE: 1) INSTANTANEOUS (<1 MIN) AASHTO DESIGN TRUCK LIVE LOAD ON MINIMUM COVER 2) MAXIMUM PERMANENT (75-YR) COVER LOAD AND 3) ALLOWABLE COVER WITH PARKED (1-WEEK) AASHTO DESIGN TRUCK.
7. REQUIREMENTS FOR HANDLING AND INSTALLATION:
   - TO MAINTAIN THE WIDTH OF CHAMBERS DURING SHIPPING AND HANDLING, CHAMBERS SHALL HAVE INTEGRAL, INTERLOCKING STACKING LUGS.
   - TO ENSURE A SECURE JOINT DURING INSTALLATION AND BACKFILL, THE HEIGHT OF THE CHAMBER JOINT SHALL NOT BE LESS THAN 2”.
   - TO ENSURE THE INTEGRITY OF THE ARCH SHAPE DURING INSTALLATION, a) THE ARCH STIFFNESS CONSTANT SHALL BE GREATER THAN OR EQUAL TO 550 LBS/FT/%. THE ASC IS DEFINED IN SECTION 6.2.8 OF ASTM F2418. AND b) TO RESIST CHAMBER DEFORMATION DURING INSTALLATION AT ELEVATED TEMPERATURES (ABOVE 73° F / 23° C), CHAMBERS SHALL BE PRODUCED FROM REFLECTIVE GOLD OR YELLOW COLORS.
8. ONLY CHAMBERS THAT ARE APPROVED BY THE SITE DESIGN ENGINEER WILL BE ALLOWED. UPON REQUEST BY THE SITE DESIGN ENGINEER OR OWNER, THE CHAMBER MANUFACTURER SHALL SUBMIT A STRUCTURAL EVALUATION FOR APPROVAL BEFORE DELIVERING CHAMBERS TO THE PROJECT SITE AS FOLLOWS:
   - THE STRUCTURAL EVALUATION SHALL BE SEALED BY A REGISTERED PROFESSIONAL ENGINEER.
   - THE STRUCTURAL EVALUATION SHALL DEMONSTRATE THAT THE SAFETY FACTORS ARE GREATER THAN OR EQUAL TO 1.95 FOR DEAD LOAD AND 1.75 FOR LIVE LOAD, THE MINIMUM REQUIRED BY ASTM F2787 AND BY SECTIONS 3 AND 12.12 OF THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS FOR THERMOPLASTIC PIPE.
   - THE TEST DERIVED CREEP MODULUS AS SPECIFIED IN ASTM F2418 SHALL BE USED FOR PERMANENT DEAD LOAD DESIGN EXCEPT THAT IT SHALL BE THE 75-YEAR MODULUS USED FOR DESIGN.
9. CHAMBERS AND END CAPS SHALL BE PRODUCED AT AN ISO 9001 CERTIFIED MANUFACTURING FACILITY.

IMPORTANT - NOTES FOR THE BIDDING AND INSTALLATION OF THE SC-740 SYSTEM

1. STORMTECH SC-740 CHAMBERS SHALL NOT BE INSTALLED UNTIL THE MANUFACTURER'S REPRESENTATIVE HAS COMPLETED A PRE-CONSTRUCTION MEETING WITH THE INSTALLERS.
2. STORMTECH SC-740 CHAMBERS SHALL BE INSTALLED IN ACCORDANCE WITH THE "STORMTECH SC-310/SC-740/DC-780 CONSTRUCTION GUIDE".
3. CHAMBERS ARE NOT TO BE BACKFILLED WITH A DOZER OR AN EXCAVATOR SITUATED OVER THE CHAMBERS. STORMTECH RECOMMENDS 3 BACKFILL METHODS:
   - STONESHOOTER LOCATED OFF THE CHAMBER BED.
   - BACKFILL AS ROWS ARE BUILT USING AN EXCAVATOR ON THE FOUNDATION STONE OR SUBGRADE.
   - BACKFILL FROM OUTSIDE THE EXCAVATION USING A LONG BOOM HOE OR EXCAVATOR.
4. THE FOUNDATION STONE SHALL BE LEVELED AND COMPACTED PRIOR TO PLACING CHAMBERS.
5. JOINTS BETWEEN CHAMBERS SHALL BE PROPERLY SEATED PRIOR TO PLACING STONE.
6. MAINTAIN MINIMUM - 6" (150 mm) SPACING BETWEEN THE CHAMBER ROWS.
7. EMBEDMENT STONE SURROUNDING CHAMBERS MUST BE A CLEAN, CRUSHED, ANGULAR STONE 3/4-2" (20-50 mm).
8. THE CONTRACTOR MUST REPORT ANY DISCREPANCIES WITH CHAMBER FOUNDATION MATERIALS BEARING CAPACITIES TO THE SITE DESIGN ENGINEER.
9. ADS RECOMMENDS THE USE OF "FLEXSTORM CATCH IT" INSERTS DURING CONSTRUCTION FOR ALL INLETS TO PROTECT THE SUBSURFACE STORMWATER MANAGEMENT SYSTEM FROM CONSTRUCTION SITE RUNOFF.

NOTES FOR CONSTRUCTION EQUIPMENT

1. STORMTECH SC-740 CHAMBERS SHALL BE INSTALLED IN ACCORDANCE WITH THE "STORMTECH SC-310/SC-740/DC-780 CONSTRUCTION GUIDE".
2. THE USE OF CONSTRUCTION EQUIPMENT OVER SC-740 CHAMBERS IS LIMITED:
   - NO EQUIPMENT IS ALLOWED ON BARE CHAMBERS.
   - NO RUBBER TIRED LOADERS, DUMP TRUCKS, OR EXCAVATORS ARE ALLOWED UNTIL PROPER FILL DEPTHS ARE REACHED IN ACCORDANCE WITH THE "STORMTECH SC-310/SC-740/DC-780 CONSTRUCTION GUIDE".
   - WEIGHT LIMITS FOR CONSTRUCTION EQUIPMENT CAN BE FOUND IN THE "STORMTECH SC-310/SC-740/DC-780 CONSTRUCTION GUIDE".
3. FULL 36" (900 mm) OF STABILIZED COVER MATERIALS OVER THE CHAMBERS IS REQUIRED FOR DUMP TRUCK TRAVEL OR DUMPING.

USE OF A DOZER TO PUSH EMBEDMENT STONE BETWEEN THE ROWS OF CHAMBERS MAY CAUSE DAMAGE TO THE CHAMBERS AND IS NOT AN ACCEPTABLE BACKFILL METHOD. ANY CHAMBERS DAMAGED BY THE "DUMP AND PUSH" METHOD ARE NOT COVERED UNDER THE STORMTECH STANDARD WARRANTY.

CONTACT STORMTECH AT 1-888-892-2694 WITH ANY QUESTIONS ON INSTALLATION REQUIREMENTS OR WEIGHT LIMITS FOR CONSTRUCTION EQUIPMENT.

BAYSAVER BARRACUDA SPECIFICATIONS

MATERIALS AND DESIGN

CONCRETE STRUCTURES: DESIGNED FOR H-20 TRAFFIC LOADING AND APPLICABLE SOIL LOADS OR AS OTHERWISE DETERMINED BY A LICENSED PROFESSIONAL ENGINEER. THE MATERIALS AND STRUCTURAL DESIGN OF THE DEVICES SHALL BE PER ASTM C857 AND ASTM C858.

48" HP MANHOLE STRUCTURES: MADE FROM AN IMPACT MODIFIED COPOLYMER POLYPROPYLENE MEETING THE MATERIAL REQUIREMENTS OF ASTM F2764. THE ECCENTRIC CONE REDUCER SHALL BE MANUFACTURED FROM POLYETHYLENE MATERIAL MEETING ASTM D3350 CELL CLASS 213320C. GASKETS SHALL BE MADE OF MATERIAL MEETING THE REQUIREMENTS OF ASTM F477.

SEPARATOR INTERNALS SHALL BE SUBSTANTIALLY CONSTRUCTED OF STAINLESS STEEL, POLYETHYLENE, OR OTHER THERMOPLASTIC MATERIAL APPROVED BY THE MANUFACTURER.

PERFORMANCE

THE STORMWATER TREATMENT UNIT SHALL BE AN INLINE UNIT CAPABLE OF CONVEYING 100% OF THE DESIGN PEAK FLOW. IF PEAK FLOW RATES EXCEED MAXIMUM HYDRAULIC RATE, THE UNIT SHALL BE INSTALLED OFFLINE.

THE STORMWATER TREATMENT UNIT INTERNALS SHALL CONSIST OF(1)SEPARATOR CONE ASSEMBLY, AND (1)SUMP ASSEMBLY WHICH INCLUDES(4) LEGS WITH "TEETH".

THE BARRACUDA UNIT SHALL BE DESIGNED TO REMOVE AT LEAST 80% OF THE SUSPENDED SOLIDS ON AN ANNUAL AGGREGATE REMOVAL BASIS. SAID REMOVAL SHALL BE BASED ON FULL-SCALE THIRD PARTY TESTING USING OK-110 MEDIA GRADATION OR EQUIVALENT AND 300 mg/L INFLUENT CONCENTRATION. SAID FULL SCALE TESTING SHALL HAVE INCLUDED SEDIMENT CAPTURE BASED ON ACTUAL TOTAL MASS COLLECTED BY THE STORMWATER TREATMENT UNIT.

-OR -

THE BARRACUDA UNIT SHALL BE DESIGNED TO REMOVE AT LEAST 50% OF TSS USING A MEDIA MIX WITH d_{50}=75 MICRON AND 200 MG/L INFLUENT CONCENTRATION.

-OR -

THE BARRACUDA UNIT SHALL BE DESIGNED TO REMOVE AT LEAST 50% OF TSS PER CURRENT NJDEP/NJCAT HDS PROTOCOL .

MANUFACTURER

EACH STORMWATER TREATMENT SYSTEM SHALL BE A BARRACUDA SYSTEM AS MANUFACTURED BY BAYSAVER, LLC, 1030 DEER HOLLOW DR., MOUNT AIRY, MD 21771, PHONE (301) 829-6470, FAX (301) 829-3747, TOLL FREE 1-800-229-7283 (1-800-BAYSAVER), EMAIL INFO@BAYSAVER.COM

BARRACUDA MAINTENANCE

BARRACUDA SYSTEMS MUST BE INSPECTED AND MAINTAINED PERIODICALLY. INSPECTION IS MADE BY CHECKING THE DEPTH OF SEDIMENT IN EACH MANHOLE WITH A GRADE STICK OR SIMILAR DEVICE. MAINTENANCE IS REQUIRED WHEN THE SEDIMENT DEPTH IN EXCEEDS 20 INCHES. MINIMUM INSPECTION IS RECOMMENDED TWICE A YEAR TO MAINTAIN OPERATION AND FUNCTION OF THE UNIT.

MAINTENANCE INSTRUCTIONS

1. REMOVE THE MANHOLE COVER TO PROVIDE ACCESS TO THE POLLUTANT STORAGE. POLLUTANTS ARE STORED IN THE SUMP, BELOW THE BOWL ASSEMBLY VISIBLE FROM THE SURFACE. YOU’LL ACCESS THIS AREA THROUGH THE 10” DIAMETER ACCESS CYLINDER.
2. USE A VACUUM TRUCK OR OTHER SIMILAR EQUIPMENT TO REMOVE ALL WATER, DEBRIS, OILS AND SEDIMENT.
3. USE A HIGH PRESSURE HOSE TO CLEAN THE MANHOLE OF ALL THE REMAINING SEDIMENT AND DEBRIS. THEN, USE THE VACUUM TRUCK TO REMOVE THE WATER.
4. FILL THE CLEANED MANHOLE WITH WATER UNTIL THE LEVEL REACHES THE INVERT OF THE OUTLET PIPE.
5. REPLACE THE MANHOLE COVER.
6. DISPOSE OF THE POLLUTED WATER, OILS, SEDIMENT AND TRASH AT AN APPROVED FACILITY.
   - LOCAL REGULATIONS PROHIBIT THE DISCHARGE OF SOLID MATERIAL INTO THE SANITARY SYSTEM. CHECK WITH THE LOCAL SEWER AUTHORITY FOR AUTHORITY TO DISCHARGE THE LIQUID.
   - SOME LOCALITIES TREAT THE POLLUTANTS AS LEACHATE. CHECK WITH LOCAL REGULATORS ABOUT DISPOSAL REQUIREMENTS.
   - ADDITIONAL LOCAL REGULATIONS MAY APPLY TO THE MAINTENANCE PROCEDURE.

BARRACUDA INSTALLATION NOTES

INSTALLATION OF THE STORMWATER TREATMENT UNIT(S) SHALL BE PERFORMED PER MANUFACTURER'S INSTALLATION INSTRUCTIONS. SUCH INSTRUCTIONS CAN BE OBTAINED BY CALLING ADVANCED DRAINAGE SYSTEMS AT (800) 821-6710 OR BY LOGGING ON TO WWW.ADS-PIPE.COM OR WWW.BAYSAVER.COM.

PROPOSED LAYOUT

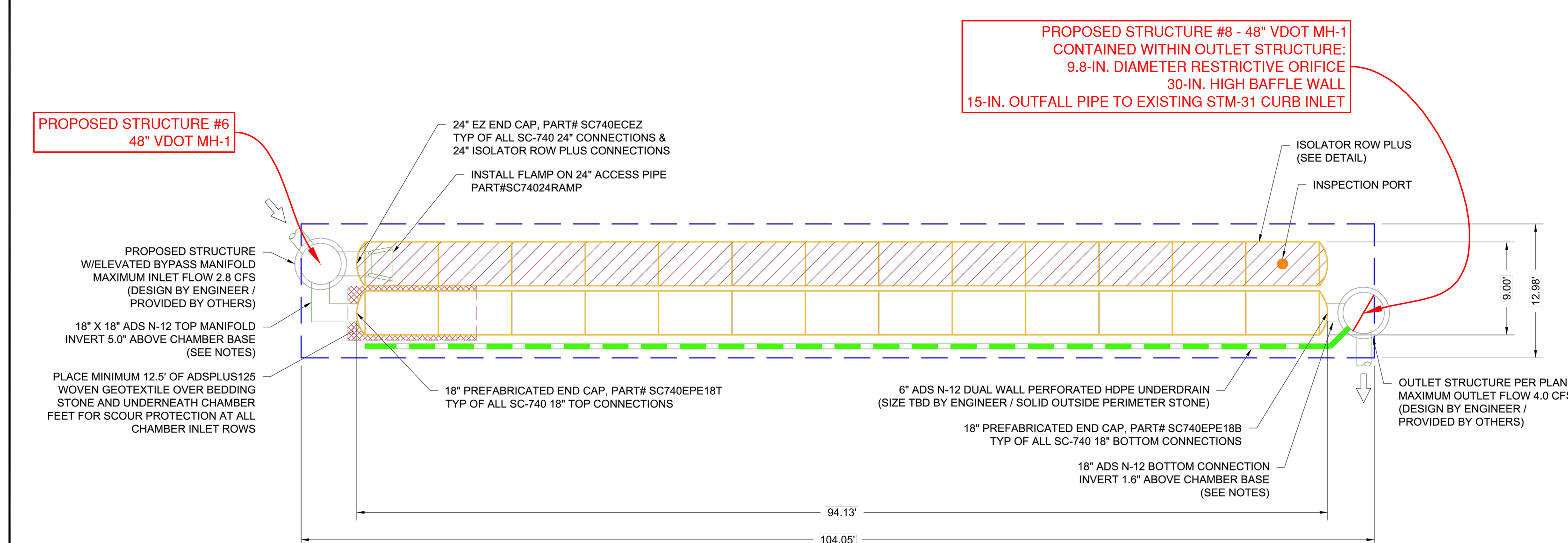
26	STORMTECH SC-740 CHAMBERS
4	STORMTECH SC-740 END CAPS
6	STONE ABOVE (in)
12	STONE BELOW (in)
40	% STONE VOID
2,607	**INSTALLED SYSTEM VOLUME (CF) ABOVE ELEVATION 1093.50 (PERIMETER STONE INCLUDED)**
3.4	**ISOLATOR ROW PLUS TREATMENT FLOW (CFS)**
1350	SYSTEM AREA (ft^2)
234	SYSTEM PERIMETER (ft)

PROPOSED ELEVATIONS

1104.50	MAXIMUM ALLOWABLE GRADE (TOP OF PAVEMENT/UNPAVED)
1098.50	MINIMUM ALLOWABLE GRADE (UNPAVED WITH TRAFFIC)
1098.00	MINIMUM ALLOWABLE GRADE (UNPAVED NO TRAFFIC)
1098.00	MINIMUM ALLOWABLE GRADE (BASE OF FLEXIBLE PAVEMENT)
1098.00	MINIMUM ALLOWABLE GRADE (TOP OF RIGID PAVEMENT)
1097.00	TOP OF STONE
1096.50	TOP OF SC-740 CHAMBER
1094.42	18" TOP MANIFOLD INVERT
1094.13	18" BOTTOM CONNECTION INVERT
1094.01	24" ISOLATOR ROW PLUS CONNECTION INVERT
1094.00	BOTTOM OF SC-740 CHAMBER
1093.50	UNDERDRAIN INVERT
1093.00	BOTTOM OF STONE

NOTES

- MANIFOLD SIZE TO BE DETERMINED BY SITE DESIGN ENGINEER. SEE TECHNICAL NOTE 6.32 FOR MANIFOLD SIZING GUIDANCE.
- DUE TO THE ADAPTATION OF THIS CHAMBER SYSTEM TO SPECIFIC SITE AND DESIGN CONSTRAINTS, IT MAY BE NECESSARY TO CUT AND COUPLE ADDITIONAL PIPE TO STANDARD MANIFOLD COMPONENTS IN THE FIELD.
- THE SITE DESIGN ENGINEER MUST REVIEW ELEVATIONS AND IF NECESSARY ADJUST GRADING TO ENSURE THE CHAMBER COVER REQUIREMENTS ARE MET.
- THIS CHAMBER SYSTEM WAS DESIGNED WITHOUT SITE-SPECIFIC INFORMATION ON SOIL CONDITIONS OR BEARING CAPACITY. THE SITE DESIGN ENGINEER IS RESPONSIBLE FOR DETERMINING THE SUITABILITY OF THE SOIL AND PROVIDING THE BEARING CAPACITY OF THE INSITU SOILS. THE BASE STONE DEPTH MAY BE INCREASED OR DECREASED ONCE THIS INFORMATION IS PROVIDED.



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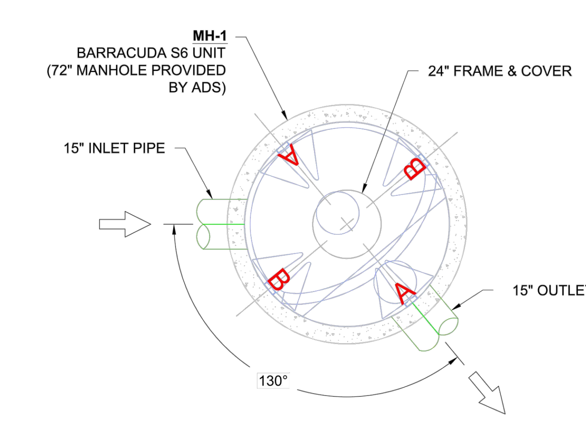
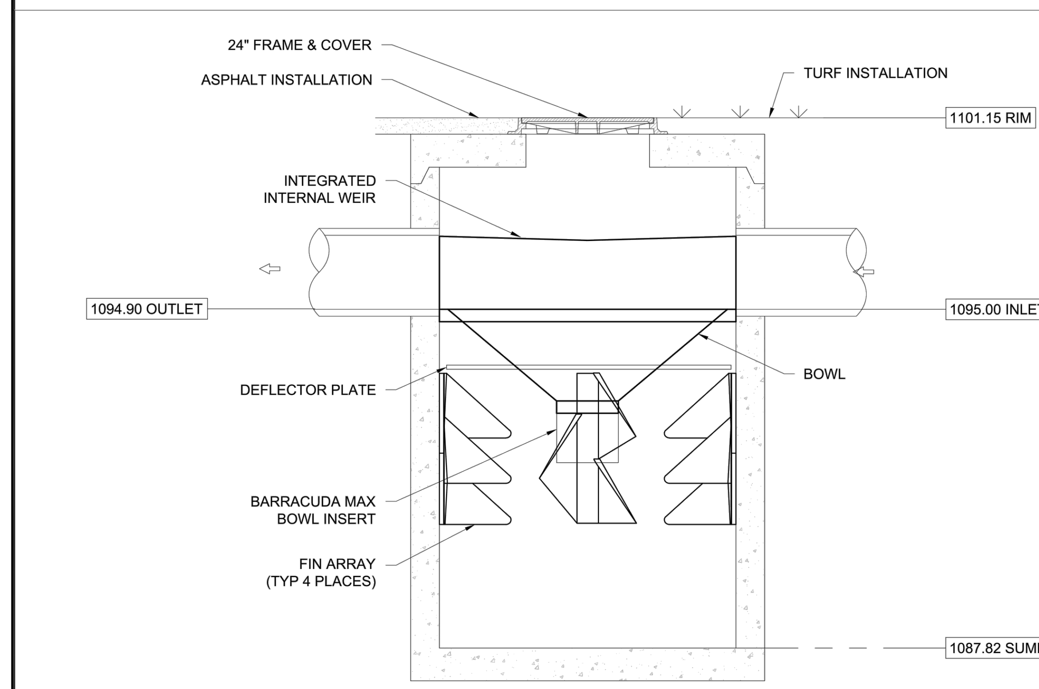
DATE: 04/13/22	DRAWN: NSL
PROJECT #: S290403	CHECKED: CJD
SHEET 3 OF 7	

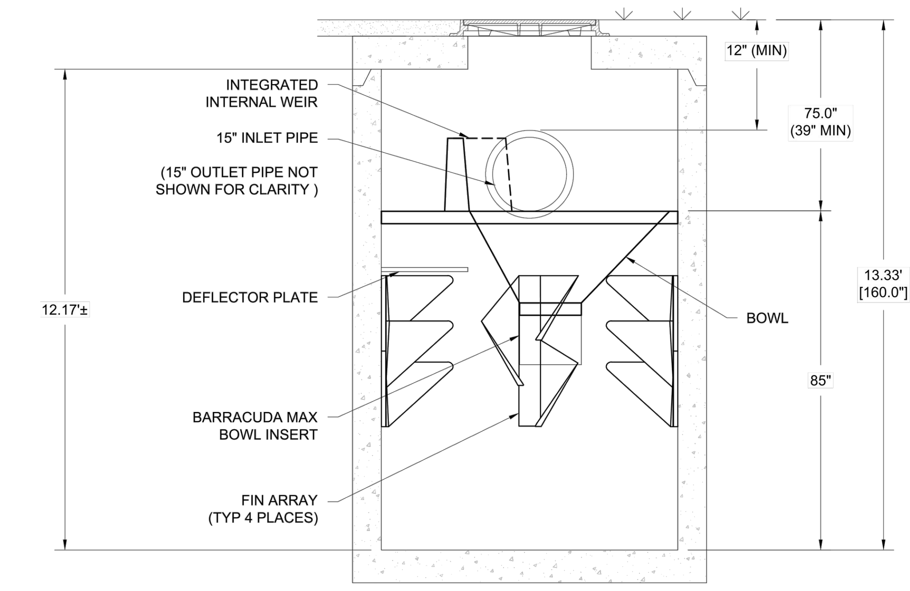
BARRACUDA MAX S6	
UNIT ID	MH-1
PEAK FLOW RATE(CFS)	
TREATMENT FLOW RATE (CFS)	3.40



PLAN VIEW
NTS



SECTION VIEW A-A
NTS



SECTION VIEW B-B
NTS

4640 TRUEMAN BLVD HILLIARD, OH 43026	NOT TO SCALE
Barracuda Max Stormwater Separator	
RUFFNER CAREER AND TECHNICAL EDUCATION CENTER	ROANOKE, VA
DATE: 04/13/22	DRAWN: NSL
PROJECT #: S290403	CHECKED: CJD
SHEET 4 OF 7	

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STORM SEWER DETAILS

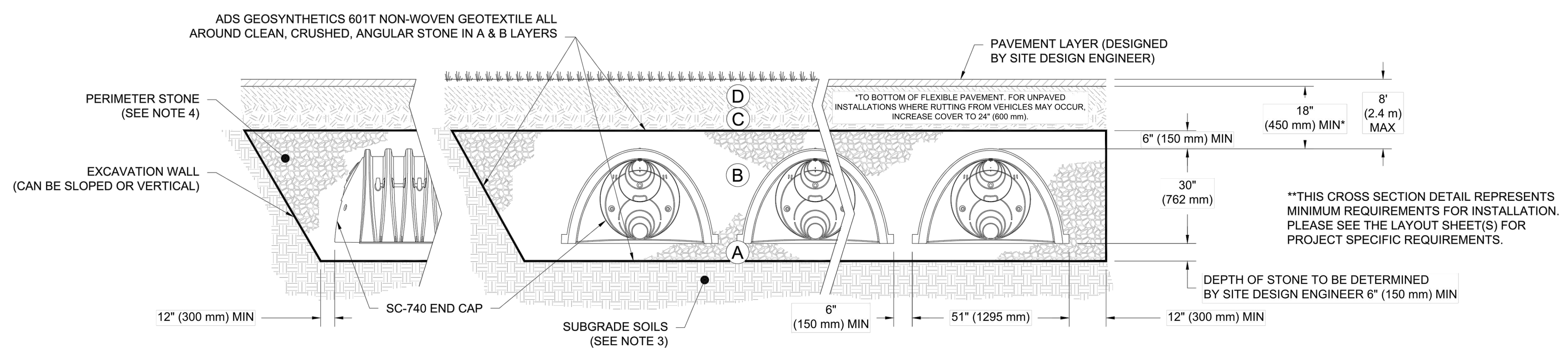
C20

SHEET _____ of X

ACCEPTABLE FILL MATERIALS: STORMTECH SC-740 CHAMBER SYSTEMS

MATERIAL LOCATION		DESCRIPTION	AASHTO MATERIAL CLASSIFICATIONS	COMPACTION / DENSITY REQUIREMENT
D	**FINAL FILL:** FILL MATERIAL FOR LAYER 'D' STARTS FROM THE TOP OF THE 'C' LAYER TO THE BOTTOM OF FLEXIBLE PAVEMENT OR UNPAVED FINISHED GRADE ABOVE. NOTE THAT PAVEMENT SUBBASE MAY BE PART OF THE 'D' LAYER.	ANY SOIL/ROCK MATERIALS, NATIVE SOILS, OR PER ENGINEER'S PLANS. CHECK PLANS FOR PAVEMENT SUBGRADE REQUIREMENTS.	N/A	PREPARE PER SITE DESIGN ENGINEER'S PLANS. PAVED INSTALLATIONS MAY HAVE STRINGENT MATERIAL AND PREPARATION REQUIREMENTS.
C	**INITIAL FILL:** FILL MATERIAL FOR LAYER 'C' STARTS FROM THE TOP OF THE EMBEDMENT STONE ('B' LAYER) TO 18" (450 mm) ABOVE THE TOP OF THE CHAMBER. NOTE THAT PAVEMENT SUBBASE MAY BE A PART OF THE 'C' LAYER.	GRANULAR WELL-GRADED SOIL/AGGREGATE MIXTURES, <35% FINES OR PROCESSED AGGREGATE. MOST PAVEMENT SUBBASE MATERIALS CAN BE USED IN LIEU OF THIS LAYER.	AASHTO M145¹ A-1, A-2-4, A-3 OR AASHTO M43¹ 3, 357, 4, 467, 5, 56, 57, 6, 67, 68, 7, 78, 8, 89, 9, 10	BEGIN COMPACTIONS AFTER 12" (300 mm) OF MATERIAL OVER THE CHAMBERS IS REACHED. COMPACT ADDITIONAL LAYERS IN 6" (150 mm) MAX LIFTS TO A MIN. 95% PROCTOR DENSITY FOR WELL GRADED MATERIAL AND 95% RELATIVE DENSITY FOR PROCESSED AGGREGATE MATERIALS. ROLLER GROSS VEHICLE WEIGHT NOT TO EXCEED 12,000 lbs (53 kN). DYNAMIC FORCE NOT TO EXCEED 20,000 lbs (89 kN).
B	**EMBEDMENT STONE:** FILL SURROUNDING THE CHAMBERS FROM THE FOUNDATION STONE ('A' LAYER) TO THE 'C' LAYER ABOVE.	CLEAN, CRUSHED, ANGULAR STONE	AASHTO M43¹ 3, 357, 4, 467, 5, 56, 57	NO COMPACTION REQUIRED.
A	**FOUNDATION STONE:** FILL BELOW CHAMBERS FROM THE SUBGRADE UP TO THE FOOT (BOTTOM) OF THE CHAMBER.	CLEAN, CRUSHED, ANGULAR STONE	AASHTO M43¹ 3, 357, 4, 467, 5, 56, 57	PLATE COMPACT OR ROLL TO ACHIEVE A FLAT SURFACE.[2,3]

PLEASE NOTE:
1. THE LISTED AASHTO DESIGNATIONS ARE FOR GRADATIONS ONLY. THE STONE MUST ALSO BE CLEAN, CRUSHED, ANGULAR. FOR EXAMPLE, A SPECIFICATION FOR #4 STONE WOULD STATE: "CLEAN, CRUSHED, ANGULAR NO. 4 (AASHTO M43) STONE".
2. STORMTECH COMPACTION REQUIREMENTS ARE MET FOR 'A' LOCATION MATERIALS WHEN PLACED AND COMPACTED IN 6" (150 mm) (MAX) LIFTS USING TWO FULL COVERAGES WITH A VIBRATORY COMPACTOR.
3. WHERE INFILTRATION SURFACES MAY BE COMPROMISED BY COMPACTION, FOR STANDARD DESIGN LOAD CONDITIONS, A FLAT SURFACE MAY BE ACHIEVED BY RAKING OR DRAGGING WITHOUT COMPACTION EQUIPMENT. FOR SPECIAL LOAD DESIGNS, CONTACT STORMTECH FOR COMPACTION REQUIREMENTS.
4. ONCE LAYER 'C' IS PLACED, ANY SOIL/MATERIAL CAN BE PLACED IN LAYER 'D' UP TO THE FINISHED GRADE. MOST PAVEMENT SUBBASE SOILS CAN BE USED TO REPLACE THE MATERIAL REQUIREMENTS OF LAYER 'C' OR 'D' AT THE SITE DESIGN ENGINEER'S DISCRETION.



NOTES:

1. CHAMBERS SHALL MEET THE REQUIREMENTS OF ASTM F2418, "STANDARD SPECIFICATION FOR POLYPROPYLENE (PP) CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".
2. SC-740 CHAMBERS SHALL BE DESIGNED IN ACCORDANCE WITH ASTM F2787 "STANDARD PRACTICE FOR STRUCTURAL DESIGN OF THERMOPLASTIC CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".
3. THE SITE DESIGN ENGINEER IS RESPONSIBLE FOR ASSESSING THE BEARING RESISTANCE (ALLOWABLE BEARING CAPACITY) OF THE SUBGRADE SOILS AND THE DEPTH OF FOUNDATION STONE WITH CONSIDERATION FOR THE RANGE OF EXPECTED SOIL MOISTURE CONDITIONS.
4. PERIMETER STONE MUST BE EXTENDED HORIZONTALLY TO THE EXCAVATION WALL FOR BOTH VERTICAL AND SLOPED EXCAVATION WALLS.
5. REQUIREMENTS FOR HANDLING AND INSTALLATION:
   - TO MAINTAIN THE WIDTH OF CHAMBERS DURING SHIPPING AND HANDLING, CHAMBERS SHALL HAVE INTEGRAL, INTERLOCKING STACKING LUGS.
   - TO ENSURE A SECURE JOINT DURING INSTALLATION AND BACKFILL, THE HEIGHT OF THE CHAMBER JOINT SHALL NOT BE LESS THAN 2".
   - TO ENSURE THE INTEGRITY OF THE ARCH SHAPE DURING INSTALLATION, a) THE ARCH STIFFNESS CONSTANT AS DEFINED IN SECTION 6.2.8 OF ASTM F2418 SHALL BE GREATER THAN OR EQUAL TO 550 LBS/FT/%. AND b) TO RESIST CHAMBER DEFORMATION DURING INSTALLATION AT ELEVATED TEMPERATURES (ABOVE 73° F / 23° C), CHAMBERS SHALL BE PRODUCED FROM REFLECTIVE GOLD OR YELLOW COLORS.

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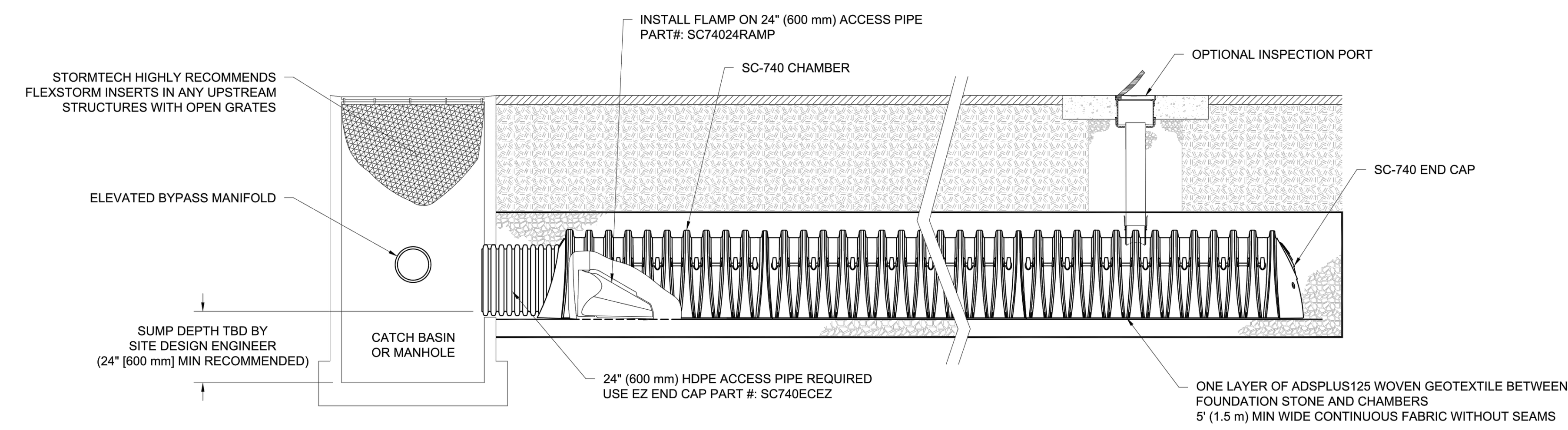
SHEET 5 OF 7



SC-740 ISOLATOR ROW PLUS DETAIL
NTS

INSPECTION & MAINTENANCE

STEP 1) INSPECT ISOLATOR ROW PLUS FOR SEDIMENT
- A. INSPECTION PORTS (IF PRESENT)
  - A.1. REMOVE/OPEN LID ON NYLOPLAST INLINE DRAIN
  - A.2. REMOVE AND CLEAN FLEXSTORM FILTER IF INSTALLED
  - A.3. USING A FLASHLIGHT AND STADIA ROD, MEASURE DEPTH OF SEDIMENT AND RECORD ON MAINTENANCE LOG
  - A.4. LOWER A CAMERA INTO ISOLATOR ROW PLUS FOR VISUAL INSPECTION OF SEDIMENT LEVELS (OPTIONAL)
  - A.5. IF SEDIMENT IS AT, OR ABOVE, 3" (80 mm) PROCEED TO STEP 2. IF NOT, PROCEED TO STEP 3.
- B. ALL ISOLATOR PLUS ROWS
  - B.1. REMOVE COVER FROM STRUCTURE AT UPSTREAM END OF ISOLATOR ROW PLUS
  - B.2. USING A FLASHLIGHT, INSPECT DOWN THE ISOLATOR ROW PLUS THROUGH OUTLET PIPE
    - i) MIRRORS ON POLES OR CAMERAS MAY BE USED TO AVOID A CONFINED SPACE ENTRY
    - ii) FOLLOW OSHA REGULATIONS FOR CONFINED SPACE ENTRY IF ENTERING MANHOLE
  - B.3. IF SEDIMENT IS AT, OR ABOVE, 3" (80 mm) PROCEED TO STEP 2. IF NOT, PROCEED TO STEP 3.

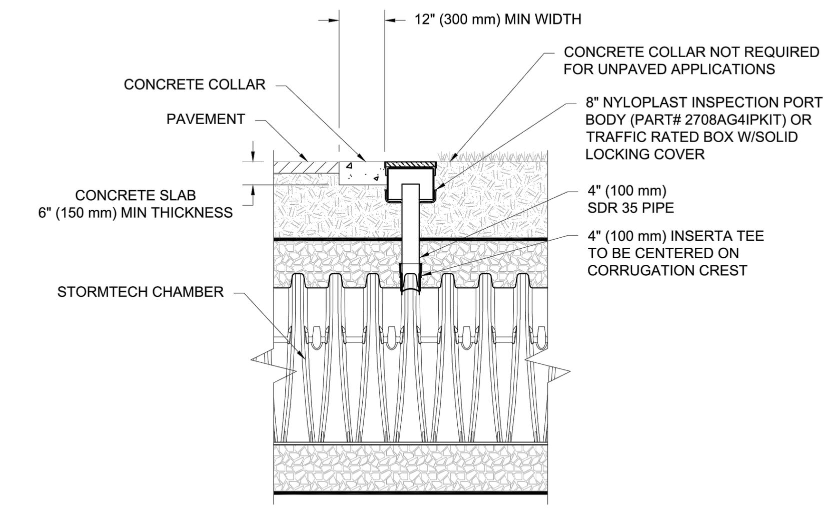
STEP 2) CLEAN OUT ISOLATOR ROW PLUS USING THE JETVAC PROCESS
- A. A FIXED CULVERT CLEANING NOZZLE WITH REAR FACING SPREAD OF 45" (1.1 m) OR MORE IS PREFERRED
- B. APPLY MULTIPLE PASSES OF JETVAC UNTIL BACKFLUSH WATER IS CLEAN
- C. VACUUM STRUCTURE SUMP AS REQUIRED

STEP 3) REPLACE ALL COVERS, GRATES, FILTERS, AND LIDS; RECORD OBSERVATIONS AND ACTIONS.

STEP 4) INSPECT AND CLEAN BASINS AND MANHOLES UPSTREAM OF THE STORMTECH SYSTEM.

NOTES

1. INSPECT EVERY 6 MONTHS DURING THE FIRST YEAR OF OPERATION. ADJUST THE INSPECTION INTERVAL BASED ON PREVIOUS OBSERVATIONS OF SEDIMENT ACCUMULATION AND HIGH WATER ELEVATIONS.
2. CONDUCT JETTING AND VACTORING ANNUALLY OR WHEN INSPECTION SHOWS THAT MAINTENANCE IS NECESSARY.



NOTE:
INSPECTION PORTS MAY BE CONNECTED THROUGH ANY CHAMBER CORRUGATION CREST.

4" PVC INSPECTION PORT DETAIL (SC SERIES CHAMBER)
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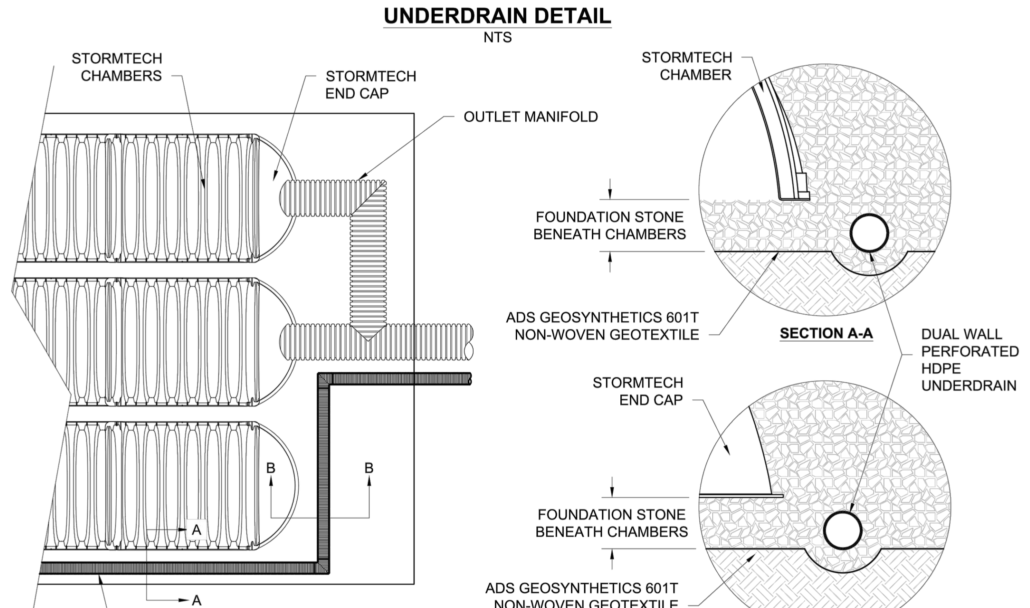
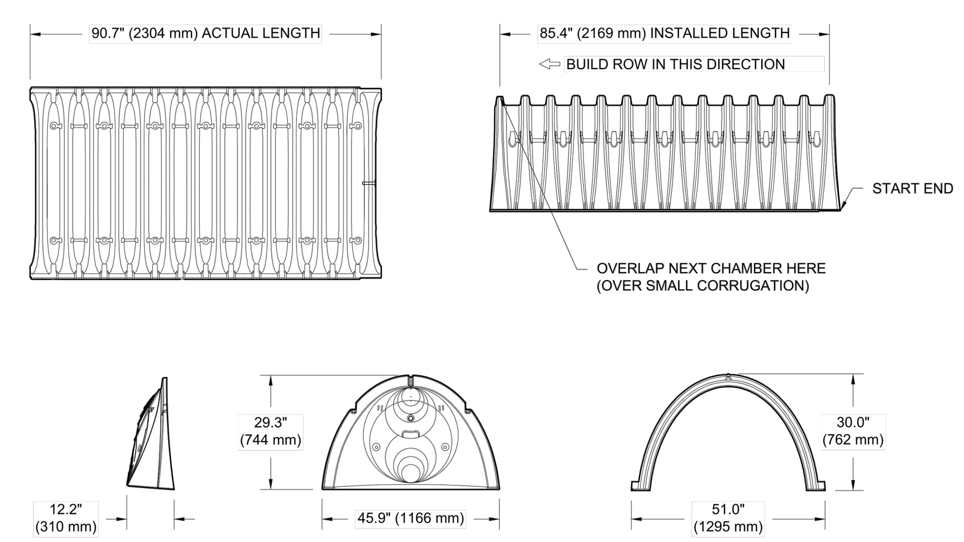
UNDERDRAIN DETAIL
NTS



NUMBER AND SIZE OF UNDERDRAINS PER SITE DESIGN ENGINEER
4" (100 mm) TYP FOR SC-310 & SC-160LP SYSTEMS
6" (150 mm) TYP FOR SC-740, DC-780, MC-3500, MC-4500 & MC-7200 SYSTEMS

SC-740 TECHNICAL SPECIFICATION
NTS

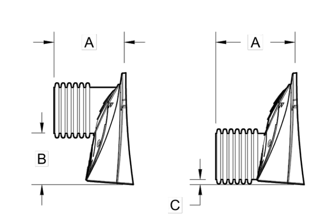


NOMINAL CHAMBER SPECIFICATIONS

SIZE (W X H X INSTALLED LENGTH)	51.0" X 30.0" X 85.4"	(1295 mm X 762 mm X 2169 mm)
CHAMBER STORAGE	45.9 CUBIC FEET	(1.30 m³)
MINIMUM INSTALLED STORAGE*	74.9 CUBIC FEET	(2.12 m³)
WEIGHT	75.0 lbs.	(33.6 kg)

*ASSUMES 6" (152 mm) STONE ABOVE, BELOW, AND BETWEEN CHAMBERS

PRE-FAB STUBS AT BOTTOM OF END CAP FOR PART NUMBERS ENDING WITH "B"
PRE-FAB STUBS AT TOP OF END CAP FOR PART NUMBERS ENDING WITH "T"
PRE-CORED END CAPS END WITH "PC"



PART #	STUB	A	B	C
SC740EPE06T / SC740EPE06TPC	6" (150 mm)	10.9" (277 mm)	18.5" (470 mm)	---
SC740EPE06B / SC740EPE06BPC			---	0.5" (13 mm)
SC740EPE08T /SC740EPE08TPC	8" (200 mm)	12.2" (310 mm)	16.5" (419 mm)	---
SC740EPE08B / SC740EPE08BPC			---	0.6" (15 mm)
SC740EPE10T / SC740EPE10TPC	10" (250 mm)	13.4" (340 mm)	14.5" (368 mm)	---
SC740EPE10B / SC740EPE10BPC			---	0.7" (18 mm)
SC740EPE12T / SC740EPE12TPC	12" (300 mm)	14.7" (373 mm)	12.5" (318 mm)	---
SC740EPE12B / SC740EPE12BPC			---	1.2" (30 mm)
SC740EPE15T / SC740EPE15TPC	15" (375 mm)	18.4" (467 mm)	9.0" (229 mm)	---
SC740EPE15B / SC740EPE15BPC			---	1.3" (33 mm)
SC740EPE18T / SC740EPE18TPC	18" (450 mm)	19.7" (500 mm)	5.0" (127 mm)	---
SC740EPE18B / SC740EPE18BPC			---	1.6" (41 mm)
SC740ECEZ*	24" (600 mm)	18.5" (470 mm)	---	0.1" (3 mm)

ALL STUBS, EXCEPT FOR THE SC740ECEZ ARE PLACED AT BOTTOM OF END CAP SUCH THAT THE OUTSIDE DIAMETER OF THE STUB IS FLUSH WITH THE BOTTOM OF THE END CAP. FOR ADDITIONAL INFORMATION CONTACT STORMTECH AT 1-888-892-2694.

* FOR THE SC740ECEZ THE 24" (600 mm) STUB LIES BELOW THE BOTTOM OF THE END CAP APPROXIMATELY 1.75" (44 mm). BACKFILL MATERIAL SHOULD BE REMOVED FROM BELOW THE N-12 STUB SO THAT THE FITTING SITS LEVEL.

NOTE: ALL DIMENSIONS ARE NOMINAL

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Project: Ruffner Career and Technical Education Center

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A division of ADS

Chamber Model -	SC-740	
Units -	Imperial	Click Here for Metric
Number of chambers -	26	
Voids in the stone (porosity) -	40	%
Base of Stone Elevation -	1093.00	ft
Amount of Stone Above Chambers -	6	in
Amount of Stone Below Chambers -	12	in
Area of system -	1350	sf Min. Area - 879 sf min. area

☑ Include Perimeter Stone in Calculations

Height of System (inches)	Incremental Single Chamber (cubic feet)	Incremental Total Chamber (cubic feet)	Incremental Stone (cubic feet)	Incremental Ch & St (cubic feet)	Cumulative Chamber (cubic feet)	Elevation (feet)
48	0.00	0.00	45.00	45.00	2876.83	1097.00
47	0.00	0.00	45.00	45.00	2831.83	1096.92
46	0.00	0.00	45.00	45.00	2786.83	1096.83
45	0.00	0.00	45.00	45.00	2741.83	1096.75
44	0.00	0.00	45.00	45.00	2696.83	1096.67
43	0.00	0.00	45.00	45.00	2651.83	1096.58
42	0.05	1.43	44.43	45.86	2606.83	1096.50
41	0.16	4.24	43.31	47.54	2560.98	1096.42
40	0.28	7.33	42.07	49.40	2513.43	1096.33
39	0.60	15.70	38.72	54.42	2464.04	1096.25
38	0.80	20.84	36.66	57.51	2409.61	1096.17
37	0.95	24.72	35.11	59.83	2352.11	1096.08
36	1.07	27.94	33.83	61.76	2292.28	1096.00
35	1.18	30.69	32.72	63.42	2230.51	1095.92
34	1.27	32.91	31.84	64.74	2167.10	1095.83
33	1.36	35.23	30.91	66.14	2102.35	1095.75
32	1.45	37.81	29.88	67.68	2036.22	1095.67
31	1.52	39.64	29.14	68.79	1968.53	1095.58
30	1.58	41.14	28.54	69.68	1899.75	1095.50
29	1.64	42.70	27.92	70.62	1830.06	1095.42
28	1.70	44.19	27.33	71.51	1759.44	1095.33
27	1.75	45.58	26.77	72.35	1687.93	1095.25
26	1.80	46.87	26.25	73.12	1615.58	1095.17
25	1.85	48.23	25.71	73.94	1542.46	1095.08
24	1.89	49.22	25.31	74.53	1468.52	1095.00
23	1.93	50.28	24.89	75.17	1393.99	1094.92
22	1.97	51.35	24.46	75.81	1318.82	1094.83
21	2.01	52.26	24.10	76.35	1243.01	1094.75
20	2.04	53.17	23.73	76.90	1166.65	1094.67
19	2.07	53.95	23.42	77.37	1089.75	1094.58
18	2.10	54.73	23.11	77.84	1012.38	1094.50
17	2.13	55.43	22.83	78.26	934.55	1094.42
16	2.15	56.00	22.60	78.60	856.29	1094.33
15	2.18	56.60	22.36	78.96	777.69	1094.25
14	2.20	57.16	22.14	79.29	698.73	1094.17
13	2.21	57.39	22.04	79.43	619.43	1094.08
12	0.00	0.00	45.00	45.00	540.00	1094.00
11	0.00	0.00	45.00	45.00	495.00	1093.92
10	0.00	0.00	45.00	45.00	450.00	1093.83
9	0.00	0.00	45.00	45.00	405.00	1093.75
8	0.00	0.00	45.00	45.00	360.00	1093.67
7	0.00	0.00	45.00	45.00	315.00	1093.58
6	0.00	0.00	45.00	45.00	270.00	1093.50
5	0.00	0.00	45.00	45.00	225.00	1093.42
4	0.00	0.00	45.00	45.00	180.00	1093.33
3	0.00	0.00	45.00	45.00	135.00	1093.25
2	0.00	0.00	45.00	45.00	90.00	1093.17
1	0.00	0.00	45.00	45.00	45.00	1093.08

2606.83cf above elevation 1093.5

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STORM SEWER DETAILS

C21

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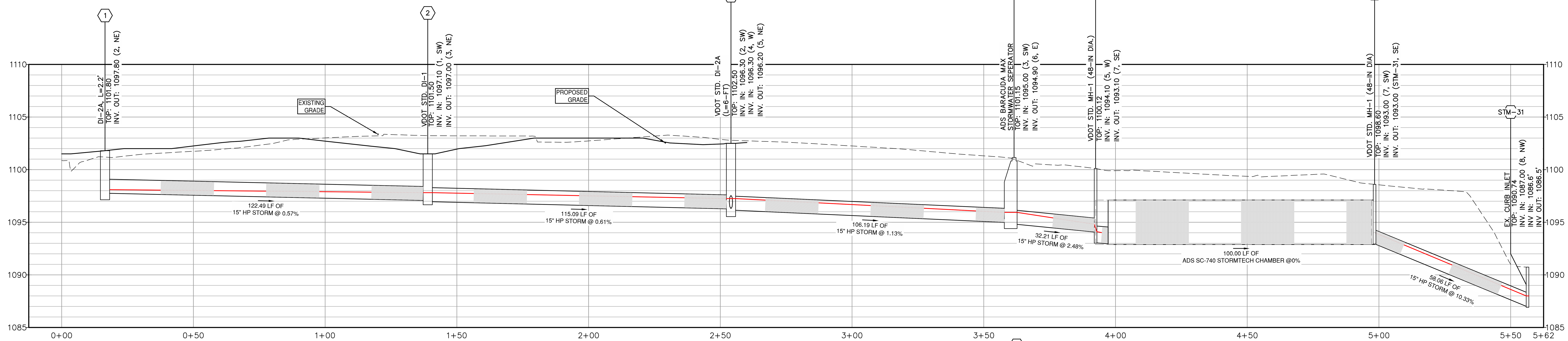
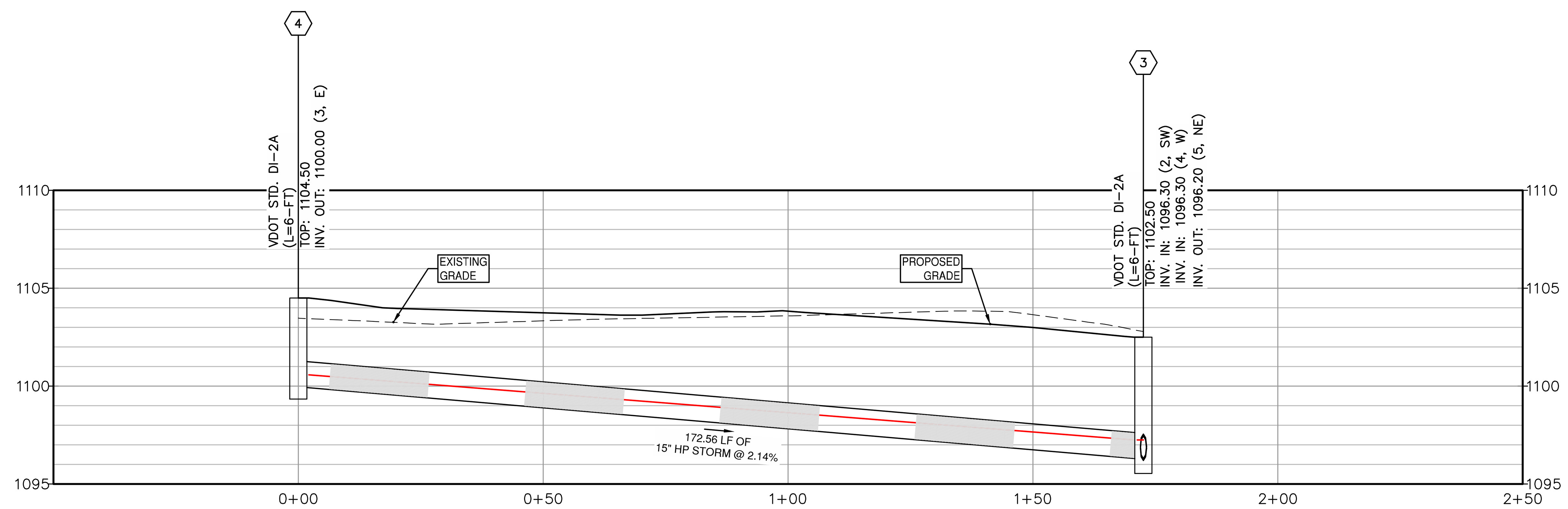
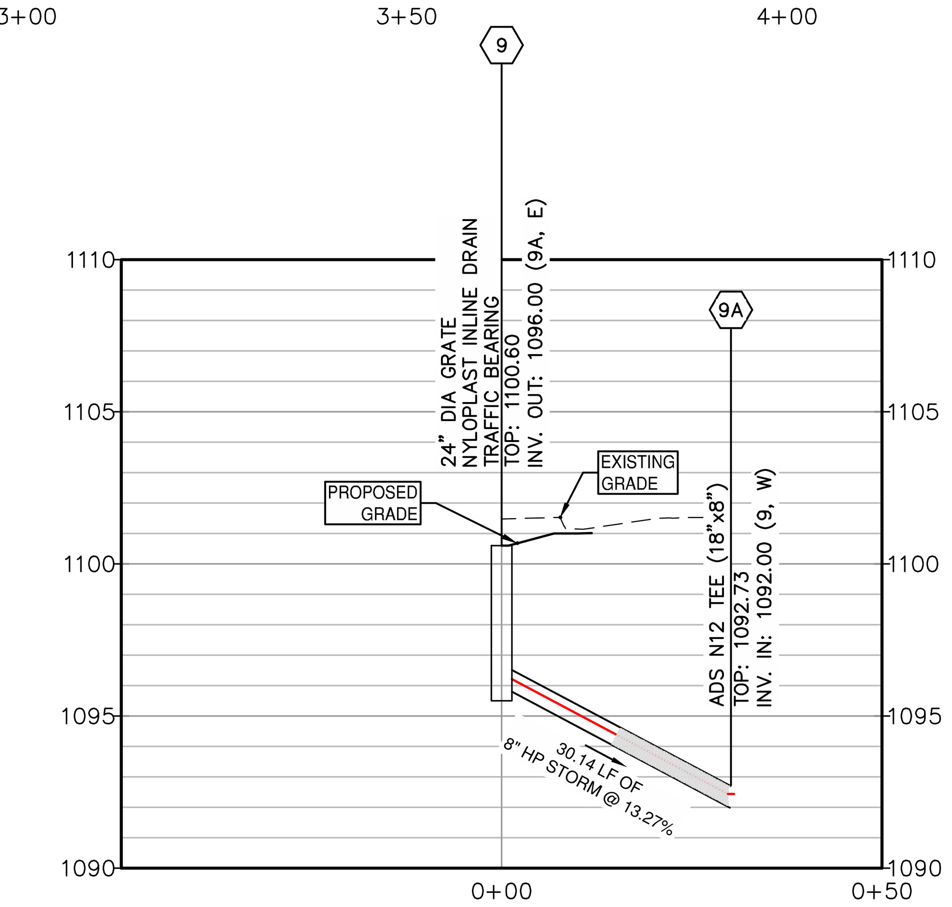


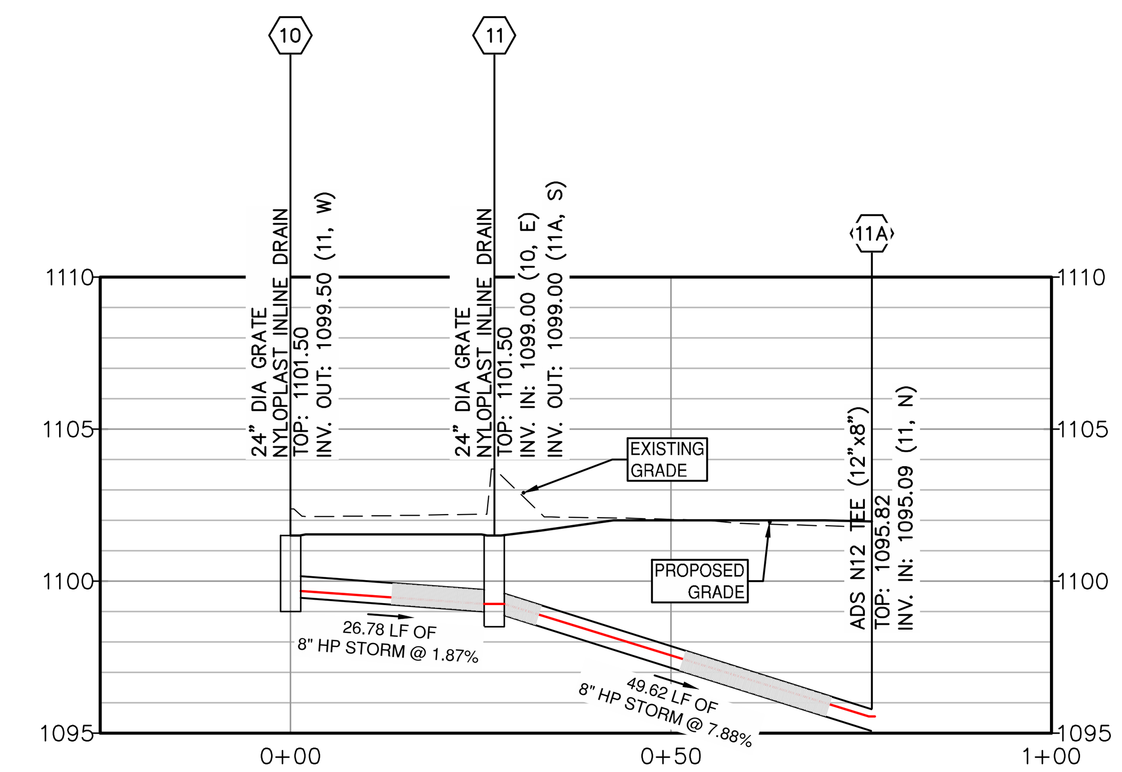
STORM RUN PT. I - Scale: H: 1"=20', V: 1"=5'



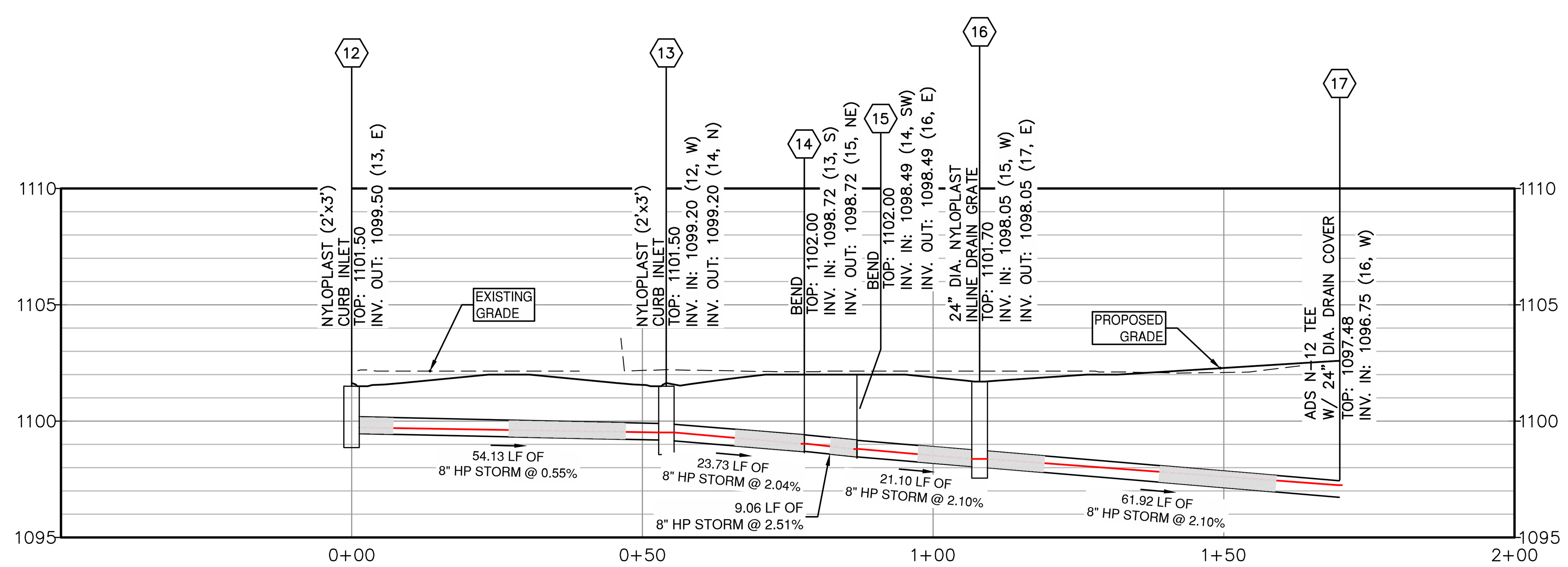
STORM RUN PT. II - Scale: H: 1"=20', V: 1"=5'



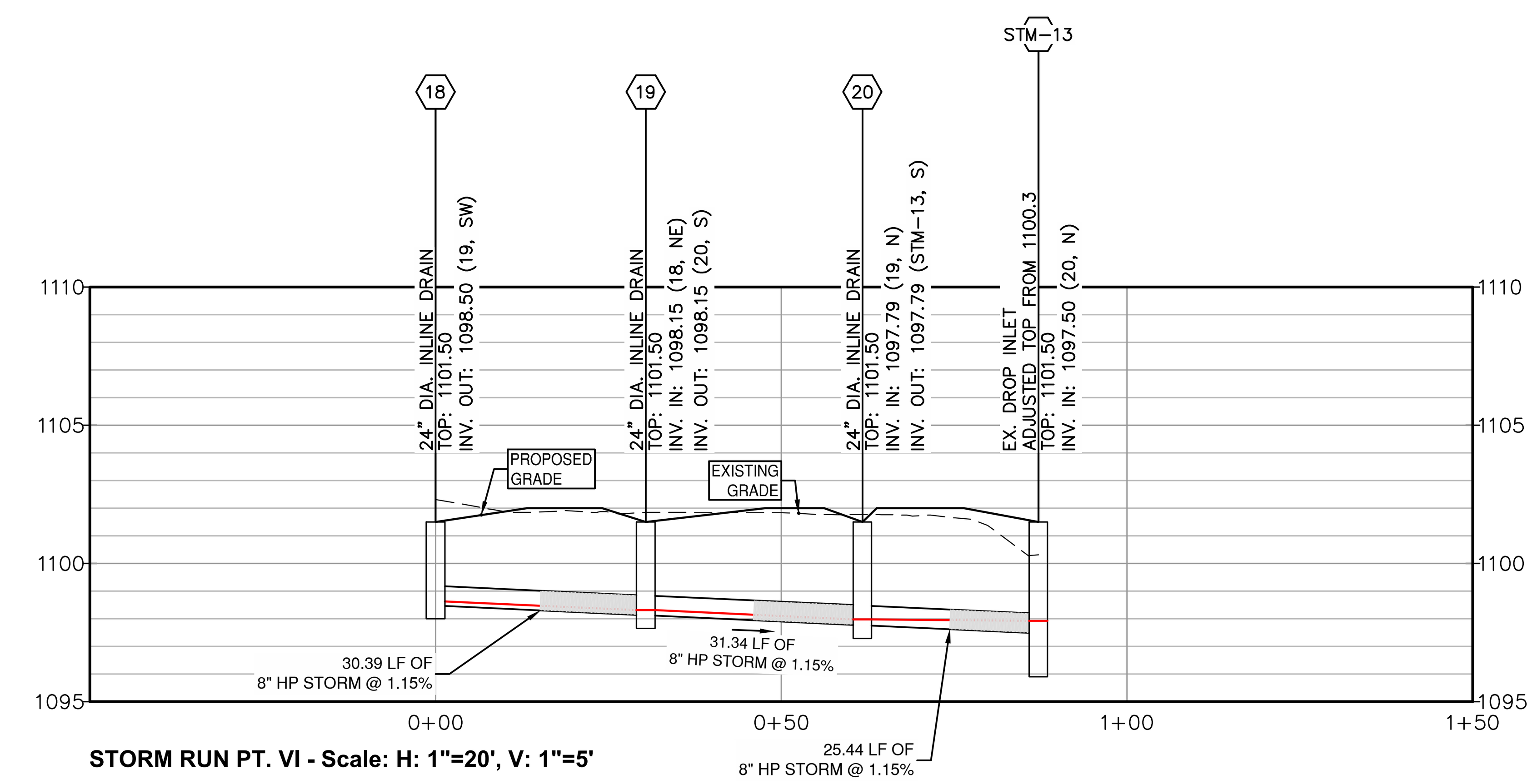
STORM RUN PT. III - Scale: H: 1"=20', V: 1"=5'



STORM RUN PT. IV - Scale: H: 1"=20', V: 1"=5'



STORM RUN PT. V - Scale: H: 1"=20', V: 1"=5'



STORM RUN PT. VI - Scale: H: 1"=20', V: 1"=5'

REFER TO SHEETS C21-C22 FOR ADS STORMTECH DETAILS &
REFER TO APPENDIX D FOR PIPE HGL CALCULATIONS.

C2A architecture

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06/17/2022
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STORM SEWER PROFILES

C22

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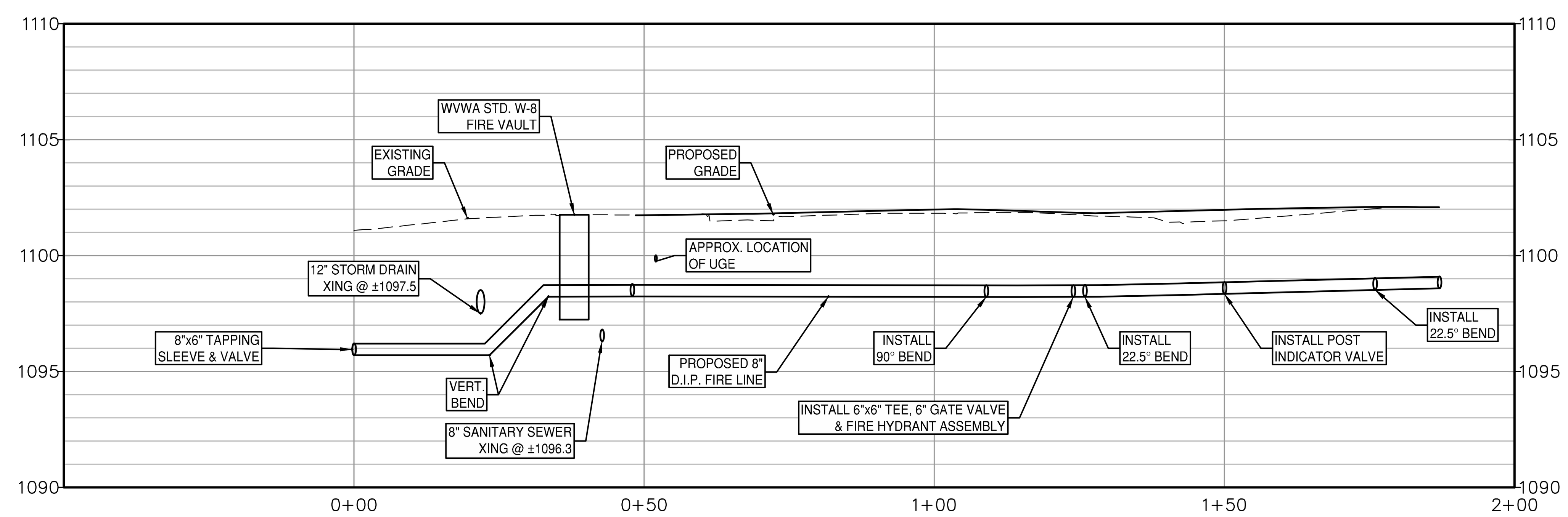
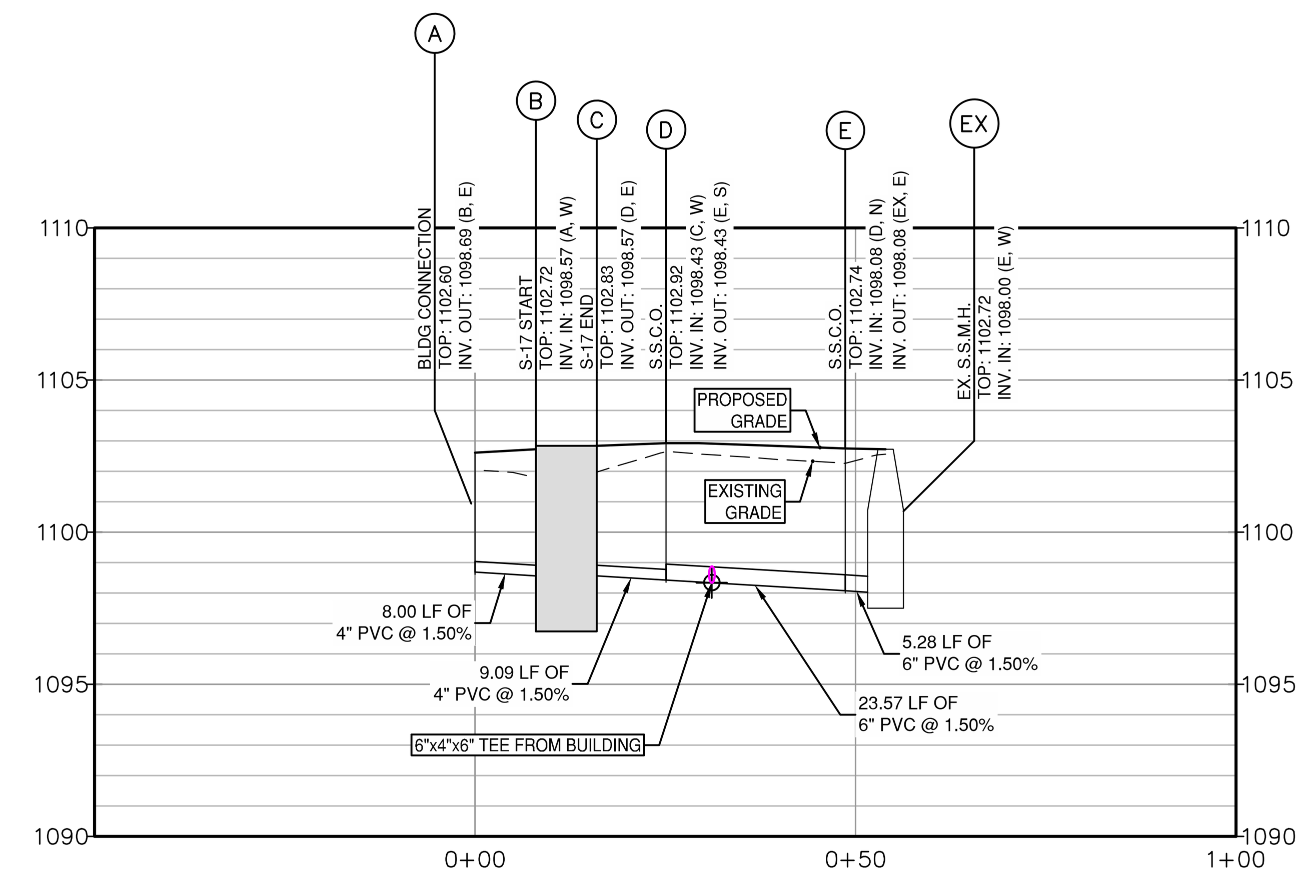


PROPOSED WATERLINE - Scale: H: 1"=20', V: 1"=5'



GREASE TRAP CONNECTION-1 - Scale: H: 1"=20', V: 1"=5'

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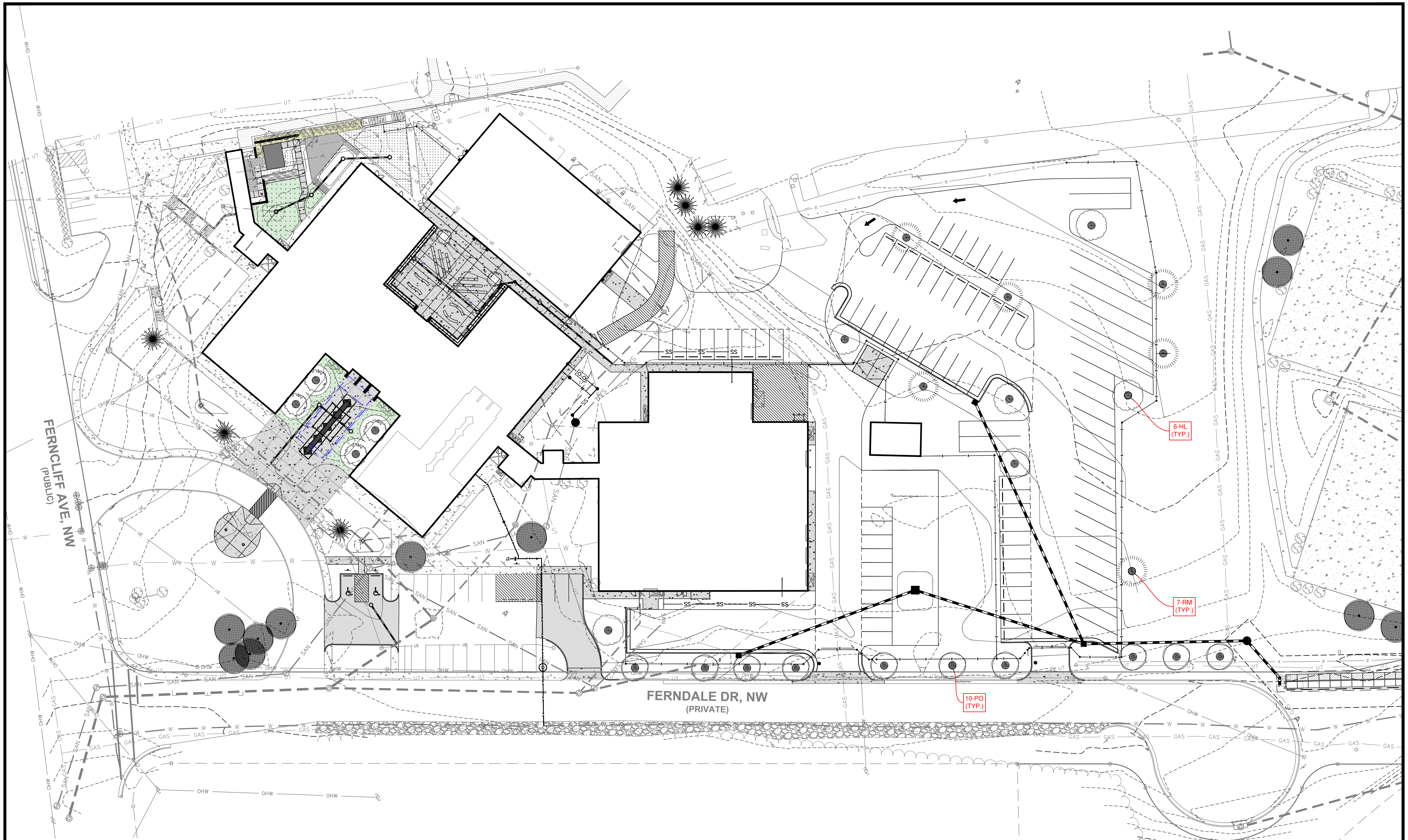
WATER & SANITARY SEWER PROFILES

C23

SHEET ______ of X



PLANTING LEGEND:
SEE CANOPY CALCULATIONS ON SHEET C25

HL - HONEY LOCUST "SHADEMASTER"
20-YEAR CANOPY = 314-SF
6-TOTAL

RM - RED MAPLE
20-YEAR CANOPY = 314-SF
6-TOTAL

PO - PIN OAK
20-YEAR CANOPY = 254-SF
10-TOTAL

GRAPHIC SCALE
40 0 20 40 80
(IN FEET)
1 inch = 40 ft.

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06/17/2022
LANDSCAPE ARCHITECT

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PARKING LANDSCAPING PLAN

C24

SHEET ______ of X

SOIL REQUIREMENTS AND AMENDMENTS:

1. SOIL REQUIREMENTS

   A. SOIL FOR PLANTING BEDS SHOULD BE DOUBLE-DUG 6 TO 8 INCHES DEEP. PRIOR TO SOIL PREPARATION, A REPRESENTATIVE SAMPLE SHOULD BE TAKEN FROM EACH AREA AND ANALYZED AT A UNIVERSITY OR COMMERCIAL SOIL TESTING LABORATORY. TOP SOIL SHOULD BE DRY, LOOSE, AND FREE OF DEBRIS. WHERE HARDPAN EXISTS BENEATH THE PREPARED BED, DEEPER PREPARATION MAY BE SPECIFIED. THE LANDSCAPE CONTRACTOR SHOULD IMMEDIATELY NOTIFY THE LANDSCAPE ARCHITECT OR LANDSCAPE DESIGNER IF ANY BEDS DO NOT DRAIN PROPERLY.

   B. A REPRESENTATIVE SOIL SAMPLE SHOULD BE TESTED FOR PH, ORGANIC MATTER CONTENT, POUNDS PER ACRE AVAILABLE P205 (PHOSPHATE) AND POUNDS PER ACRE AVAILABLE K20 (POTASH). BASED ON THE LABORATORY REPORT, THE SOIL SHOULD BE AMENDED TO THE FOLLOWING MINIMUM STANDARDS, UNLESS OTHERWISE NOTED:
   PH 5.5 TO 6.5
   ORGANIC MATTER: 5%
   PHOSPHATE: 50 LB./ACRE
   POTASH: 120 LB./ACRE

2. AMENDMENTS

   A. ORGANIC MATTER SHALL BE COMPOST, OR LOCALLY AVAILABLE ORGANIC WASTE. ORGANIC MATTER SHOULD BE FREE FROM DEBRIS, WEED SEEDS, AND INSECTS WHICH MAY BE HARMFUL TO THE INTENDED PLANTING.

   B. SYNTHETIC FERTILIZERS, IF PREFERRED BY THE CONTRACTOR, SHOULD BE SPECIFIED TO PR0V1DE THE NUTRIENTS AS REQUIRED BY THE SOIL TEST. THEY SHOULD BE DELIVERED TO THE JOB SITE IN THEIR ORIGINAL PACKAGING WITH LEGIBLE, INTACT LABELS INDICATING NUTRIENT CONTENT AND SOURCE. LABELS SHOULD BE CHECKED PRIOR TO USE AND A SAMPLE MAY BE REQUESTED FOR LABORATORY ANALYSIS.

   C. NATURAL FERTILIZERS INCLUDE MINERALS, SUCH AS ROCK PHOSPHATE OR GREENS AND AS WELL AS THOSE USUALLY MARKETED AS ORGANIC . WHEN THESE SOURCES OF NUTRIENTS ARE PREFERRED, THEY SHALL BE SPECIFIED IN TYPE AND QUANTITY TO PROVIDE THE NUTRIENTS AS SHOWN NECESSARY BY THE LABORATORY SOIL TEST. STANDARDIZED, COMMERCIAL FERTILIZERS SHALL BE DELIVERED TO THE SITE IN THEIR ORIGINAL PACKAGING WITH LEGIBLE INTACT LABELS SHOWING NUTRIENT ANALYSIS. WHERE NON-COMMERCIALLY PROCESS MANURE OR OTHER ORGANIC WASTE IS SPECIFIED FOR ITS ASSUMED NUTRIENT CONTENT, SAMPLES MUST BE SUBMITTED BY THE LANDSCAPE CONTRACTOR TO A COMMERCIAL LABORATORY FOR ANALYSIS SO THE NUTRIENT LEVELS CAN BE ASSESSED PRIOR TO APPLICATION AND A PROPER APPLICATION RATE CAN BE DETERMINED.

   D. SULFUR, WHERE REQUIRED TO LOWER PH, MAY BE SPECIFIED AS EITHER GROUND SULFUR (FLOWERS OF OR IRON SULFATE WHERE TOXICITY IS NOT A PROBLEM. THE LANDSCAPE CONTRACTOR SHALL DELIVER THE SULFUR TO THE SITE IN ITS ORIGINAL CONTAINER WITH LEGIBLE LABEL INDICATING ITS QUALITY. A SAMPLE MAY BE REQUIRED FOR LABORATORY VERIFICATION.

   E. LIMESTONE SHALL BE EITHER GROUND AGRICULTURE LIMESTONE OR DOLOMITE LIMESTONE WHERE MAGNESIUM DEFICIENCIES EXIST. LIMESTONE PROVIDED AT THE SITE BY THE LANDSCAPE CONTRACTOR SHALL BE PROVIDED IN THE ORIGINAL PACKAGING, LEGIBLY LABELED WITH FINENESS AND LIMING ABILITY SHOWN. A SAMPLE MAY BE REQUESTED FOR LABORATORY ANALYSIS.

   F. STALITE PERMATILL, CU SOIL, OR APPROVED EQUAL STRUCTURAL SOIL HORTICULTURAL AMENDMENT TO BE USED TO CONDITION TREE HOLE. BACKFILL IN ACCORDANCE WITH SUPPLIER'S INSTRUCTIONS.

PLANTING AND LANDSCAPE SPECIFICATIONS:

1. ALL TREES SHALL BE PLANTED IN GOOD CONDITION AND MEET 'AMERICAN STANDARD FOR NURSERY STOCK' ANSI 260.1-1990, AS MAY BE AMENDED.
2. ALL TREES OF THE SAME SPECIES SHALL BE UNIFORM IN SIZE AND STRUCTURE AND SHALL COME FROM THE SAME SOURCE.
3. THE PLANTING OF TREES SHALL BE DONE IN ACCORDANCE WITH THE STANDARDIZED LANDSCAPE SPECIFICATION JOINTLY ADOPTED BY THE VA NURSERYMAN'S ASSOCIATION AND THE VA SOCIETY OF LANDSCAPE DESIGNERS.
4. REFER TO DRAWINGS FOR VARIETIES, LAYOUT, AND SPACING OF PLANT MATERIALS. HAVE TREE LOCATIONS STAKED AND GROUNDCOVER BEDS PREPARED AND SPRAY-PAINT OUTLINED ON THE GROUND FOR APPROVAL BY OWNER'S REPRESENTATIVE PRIOR TO PLANT INSTALLATION. QUANTITIES SHOWN ON DRAWINGS SHALL TAKE PRECEDENCE OVER QUANTITIES SHOWN ON THE PLANT LIST. FIELD ADJUSTMENTS NECESSARY TO WORK AROUND UNKNOWN UTILITIES MAY BE REQUIRED.
5. ALL PLANT MATERIALS MUST BE APPROVED AND INSPECTED BY OWNER'S REPRESENTATIVE AND ACCEPTED PRIOR TO INSTALLATION. NOTIFY OWNER'S REPRESENTATIVE 48 HOURS PRIOR TO ARRIVAL TO SITE.
6. PLANTING TIMING: UNLESS OTHERWISE SHOWN ON THE PLANS OR DIRECTED BY THE OWNER'S REPRESENTATIVE, THE PLANTING SHALL BE DONE DURING THE FOLLOWING SEASONS FOR ALL TREES, SHRUBS, AND GROUNDCOVERS:
   - 6.1. SEPTEMBER 15 TO DECEMBER 1 OR
   - 6.2. MARCH 1 TO MAY 1.
   - 6.3. PLANTING AT OTHER DATES WILL BE SUBJECT TO APPROVAL BY THE OWNER'S REPRESENTATIVE AND MAY REQUIRE SPECIAL PROCEDURES.
7. ALL DISTURBED AREAS NOT OTHERWISE TREATED, ARE TO BE SEEDED AS SPECIFIED.
8. SEED MIX AREAS SHALL BE SEEDED WITH A SEEDING MIXTURE CONSISTING OF 90% TALL FESCUES (IMPROVED VARIETIES) AND 10% PERENNIAL RYEGRASS (IMPROVED VARIETIES) AS RECOMMENDED ON THE MOST CURRENT VIRGINIA CROP IMPROVEMENT ASSOCIATION (VCIA) TURFGRASS LIST. CERTIFIED SEED WILL BE USED FOR ALL PERMANENT SEEDING. SEEDING AREAS SHALL BE PREPARED IN ACCORDANCE WITH THE ABOVE CITED SPECIFICATION INCLUDING NECESSARY SOIL AMENDMENTS. THE RA TIE OF COVERAGE FOR BOTH SEED AND AMENDMENTS SHALL BE AS RECOMMENDED BY VCIA.
9. MOVE AND LIFT TREES, SHRUBS, AND PLANTS BY THE ROOTBALL ONLY AND NEVER BY THE TRUNK OR STALK.
10. IF SYNTHETIC OR METAL WRAPPING IS USED ON ANY ROOTBALL, REMOVE IT ENTIRELY BEFORE PLANTING. METAL CAGES MUST ALSO BE REMOVED ENTIRELY FROM THE ROOTBALL.
11. CUT, TRIM AND REMOVE THE TOP 6"-9" OF NATURAL BURLAP WRAPPING FROM ROOTBALL PRIOR TO FINAL PLANTING SOIL BACKFILLING.
12. WATERING OF PLANTS: WATERING IS TO PROVIDE V1GOROUS PLANT GROWTH AND SHALL BE SUFFICIENT TO MAINTAIN MOISTURE IN THE ENTIRE ROOT ZONE.
    - 12.1. WATERING OF PLANT MATERIAL SHALL OCCUR IMMEDIATELY AFTER PLANTING AND WITHIN IN 24 HOURS OF INSTALLATION. THE FIRST WATERING SHALL FLOOD THE PLANTING HOLE TO REMOVE AIR POCKETS AND SATURATE THE SOIL.
    - 12.2. WATERING SHALL CONTINUE EACH DAY FOR ONE WEEK FROM INSTALLATION AT A RATE OF 2 GALLONS PER INCH TREE CALIPER.
    - 12.3. AFTER THE FIRST WEEK OF WATERING, WATERING SHALL CONTINUE ON A WEEKLY BASIS UNTIL PLANTS ARE FULLY ESTABLISHED. WEEKLY WATERING SHALL BE AT A RATE OF 2 GALLONS PER INCH OF TREE CALIPER.
13. UNLESS OTHERWISE DIRECTED IN THE SPECIFICATIONS, ALL PLANTS SHALL BE GUARANTEED TO REMAIN ALIVE AND HEALTHY FOR A PERIOD OF ONE YEAR BEGINNING FROM THE DATE OF INSPECTION BY THE OWNER'S REPRESENTATIVE AND A WRITTEN FIELD REPORT STATING OWNER ACCEPTANCE FOR PLANTS THAT MEET QUALITY STANDARDS, PLANTING SPECIFICATIONS, PROPER LAYOUT PLACEMENT, AND EXHIBIT A HEAL THY VIGOROUS GROWTH.
    - 13.1. PLANTS THAT ARE EXHIBITING 25 PERCENT OR MORE DEAD GROWTH OR DO NOT MEET THE PLANT MATERIAL QUALITY SPECIFICATIONS SHALL BE REPLACED IMMEDIATELY OR UPON THE NEXT PLANTING SEASON WHICHEVER IS SOONER.
    - 13.2. NEW PLANTS, REQUIREMENTS, ETC. AND METHOD OF PLACING SHALL COMPLY WITH THESE SPECIFICATIONS AND DRAWINGS. PLANTS REPLACING DEAD PLANTS SHALL RECEIVE THE SAME CARE AND MEET SPECIFICATIONS.
    - 13.3. WARRANTY SHALL BE LIMITED TO ONE REPLACEMENT PER PLANT.
    - 13.4. CONFORMANCE OF PLANTING LAYOUT TO PLANTING PLAN MUST BE APPROVED BY THE OWNER'S REPRESENTATIVE PRIOR TO INSTALLATION. PLANTS NOT PROPERLY LOCATED AS SHOWN ON THE PLANTING PLAN SHALL BE REPLANTED TO THE PROPER LOCATION AT THE EXPENSE OF THE CONTRACTOR.
14. PLANTING HOLE SHALL BE 3 TIMES LARGER THAN THE SIZE OF THE ROOT BALL DIAMETER. SCARIFY BOTTOM AND EDGES OF PLANTING PIT SUFFICIENTLY TO ALLOW BONDING OF THE PLANTING SOIL AND EXISTING SOIL.
15. ALL PLANTS SHALL BE MULCHED WITH A 3" MULCH LAYER WITHIN 24 HOURS OF PLANTING. MULCH SHALL BE DOUBLE-SHREDDED HARDWOOD BARK MULCH AND SHALL COVER THE PLANTING BED ENTIRELY, EXCEPT FOR A ONE INCH CLEAR SPACE AROUND THE TRUNK SHALL REMAIN FREE FROM MULCH.
16. WATERING BERM: CONSTRUCT A 4" MIN. SOIL BERM AROUND EVERY TREE PLANTING, SAUCERS WILL BE ESTABLISHED AT PLANTING TO HOLD WATERING, SAUCERS ARE TO BE MAINTAINED UNTIL PLANTS ARE FULLY ESTABLISHED, 2 YEARS.
17. TREE STAKING SHALL BE REQUIRED FOR PLANTS TALLER THAN 6 FEET AND WITH A TREE CALIPER GREATER THAN 1". USE TWO 3" DIA. OR 2"X2" WOOD STAKES, 6'-0" LENGTH. STAKES SHALL BE PLACED A MIN. OF 18" INTO ADJACENT GROUND. TREE GUYS SHALL BE "ARBORTIE", A UV DEGRADABLE NYLON WEBBING AND INSTALLED PER MANUFACTURERS RECOMMENDATIONS.
18. STRUCTURAL SOIL MIX, IF SHOWN, SHALL BE PREPARED AND INSTALLED IN ACCORDANCE WITH WRITTEN SPECIFICATIONS. ALL PLANTING AREAS (TREE PITS AND PLANTING BEDS) SHALL BE PROVIDED WITH STRUCTURAL SOIL MIX.

PLANTING SCHEDULE

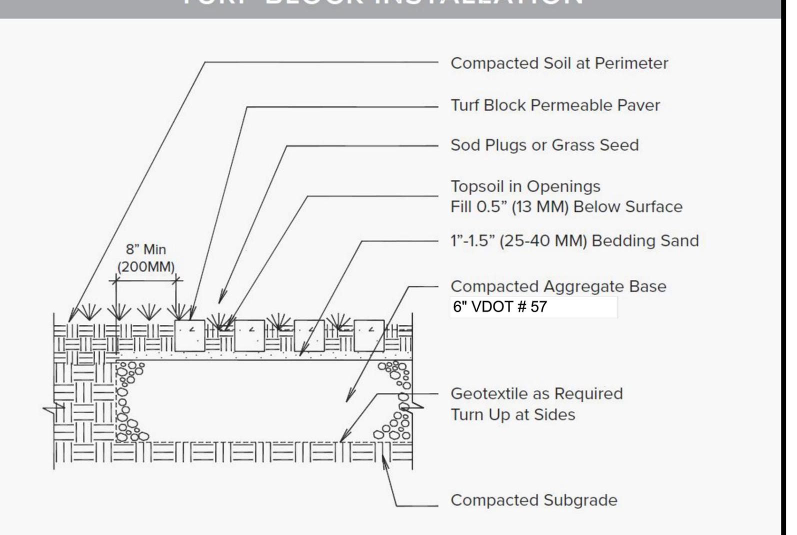
	KEY	CATEGORY	SCIENTIFIC NAME	COMMON NAME	SIZE (MIN.)	QUANTITY (Ea)	20-YR CANOPY (SF)	CANOPY (SF)	TYPE	NOTES
TREES	ER	ORNAMENTAL	Cercis canadensis	EASTERN REDBUD	2" caliper	4			DECIDUOUS	BALL & BURLAP
	KD	ORNAMENTAL	Cournus kousa	KOUSA DOGWOOD	2" caliper	4			DECIDUOUS	BALL & BURLAP
	PO	DECIDUOUS	Quercus palustris	PIN OAK	2" caliper	10	254	2540	DECIDUOUS	BALL & BURLAP
SHRUBS	RM	DECIDUOUS	Acer rubrum	RED MAPLE	2" caliper	6	314	1884	DECIDUOUS	BALL & BURLAP
	HL	DECIDUOUS	Gleditsia triacanthos "Shademaster"	HONEY LOCUST "SHADEMASTER"	2" caliper	6	314	1884	DECIDUOUS	BALL & BURLAP
							TOTAL CANOPY	6308		
	GM	SHRUB	Chamaecyparis pisifera	JAPANESE FALSECYPRESS	24" MIN.	13			EVERGREEN	5 GAL CONT.
	GG	SHRUB	Buxus 'Green Gem'	BOXWOOD	24" MIN.	12			EVERGREEN	5 GAL CONT.

B&B - BALL AND BURLAP

ALL PLANTINGS TO BE IN SHREDDED PINE BARK MULCH BED OR RINGS AS SHOWN.

REQUIRED PARKING AREA LANDSCAPING PER 36.2 – 648 = 20% CANOPY FOR EXPANDED PARKING AREA
EXPANDED PARKING AREA = 29,500 S.F. X 0.2 = 5900 S.F. CANOPY REQUIRED
PARKING AREA CANOPY PROVIDED = 6,308 S.F.

TURF BLOCK INSTALLATION



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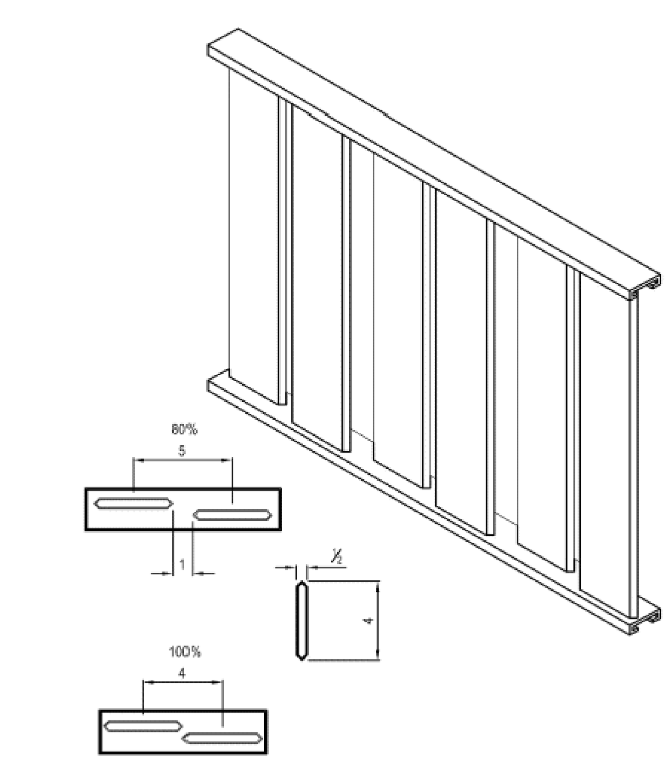
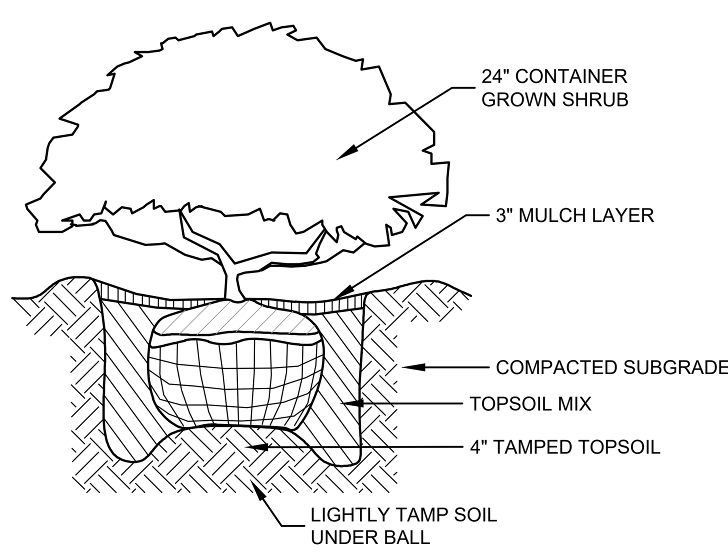


NOTES:
1. THE 4" ALUMINUM EXTRUSION CAN RUN EITHER HORIZORTALLY OR VERTICALLY.
2. INSTALLATION TO BE COMPLETED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.
3. ALL DIMENSIONS ARE CONSIDERED TRUE AND REFLECT MANUFACTURER'S SPECIFICATIONS.
4. AMETCO'S ALUMNIUM FENCING SYSTEM IS 100 % MANUFACTURED IN THE UNITED STATES.
5. DO NOT SCALE DRAWINGS.
6. CONTRACTOR'S NOTE: FOR PRODUCT AND COMPANY INFORMATION VISIT www.CADdetails.com/info REFERENCE NUMBER 048-088

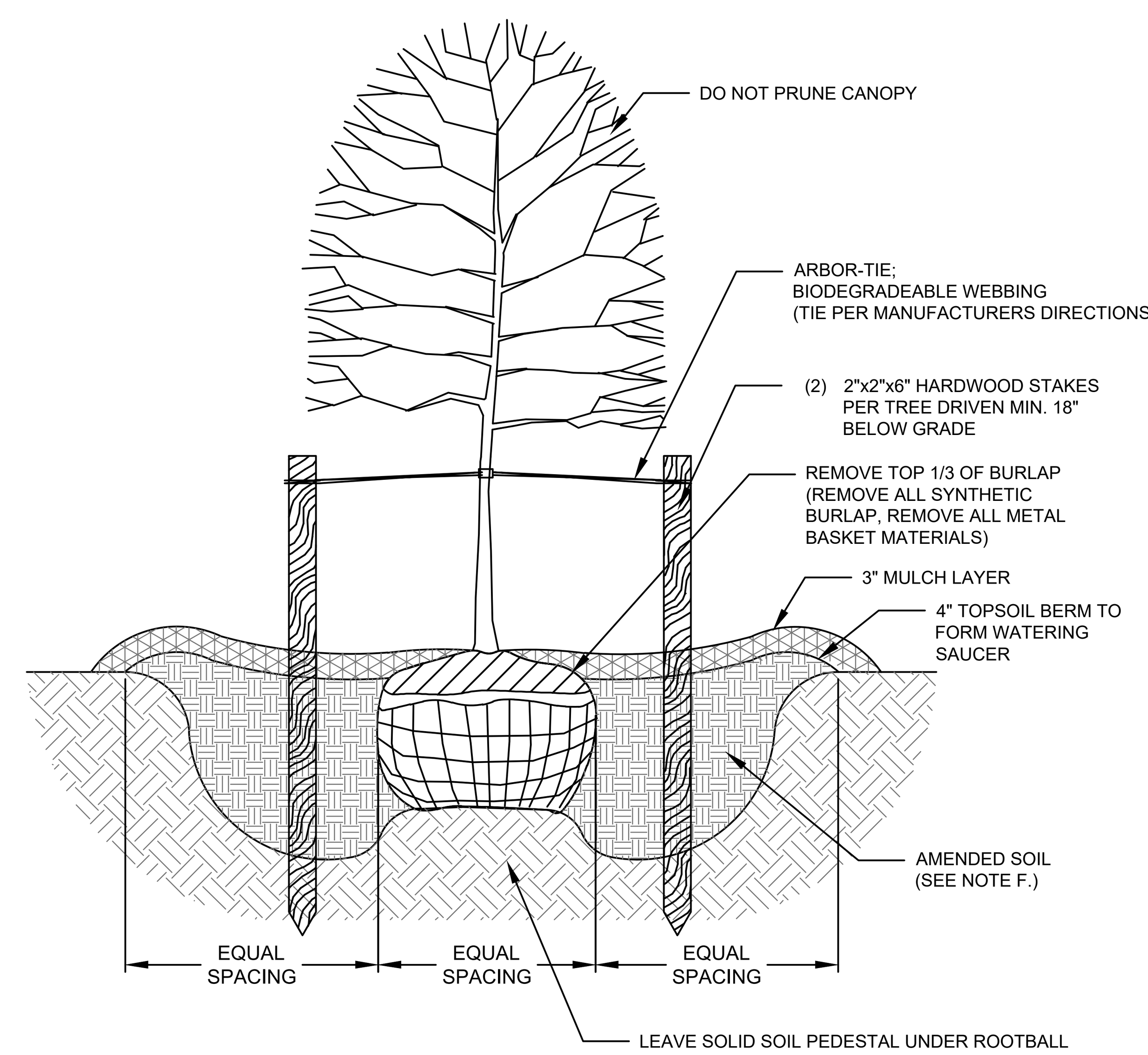
ALUMINUM FENCE SYSTEMS
SATURN DESIGN ALUMINUM FENCE SYSTEM

048-088

www.CADdetails.com



SHRUB PLANTING DETAIL
NOT TO SCALE



TREE PLANTING DETAIL
NOT TO SCALE

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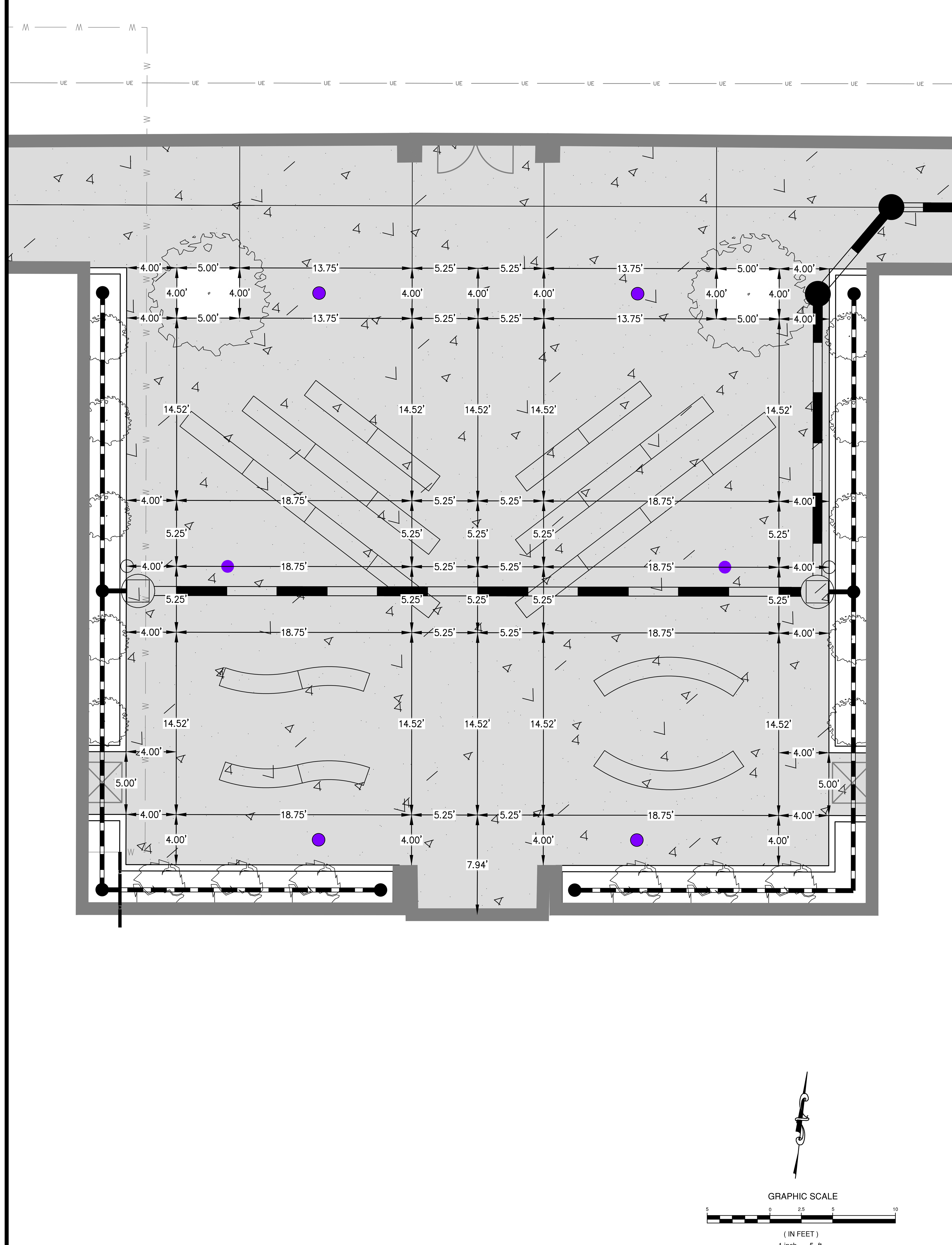
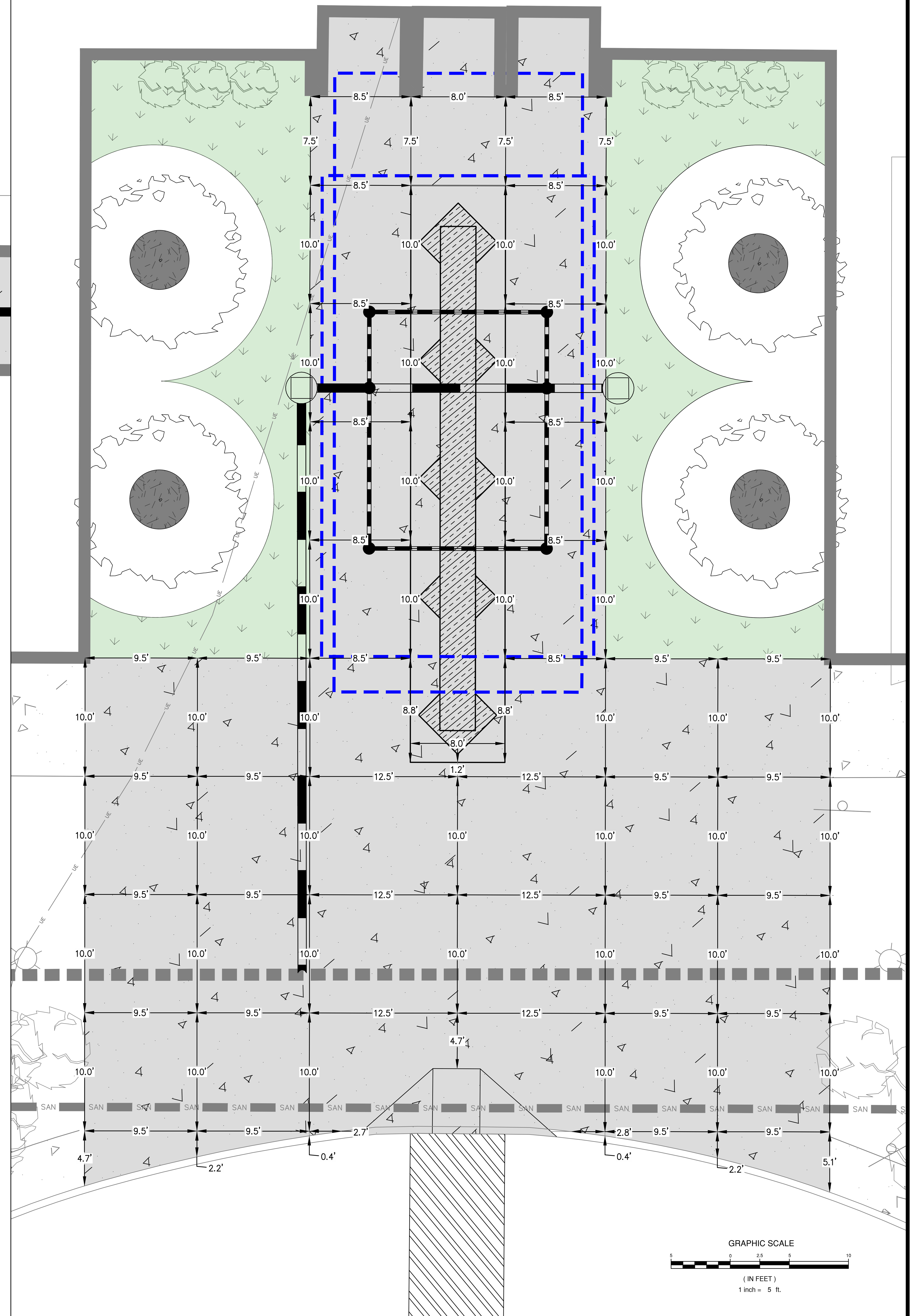
LANDSCAPING NOTES & DETAILS

C25

SHEET ______ of X





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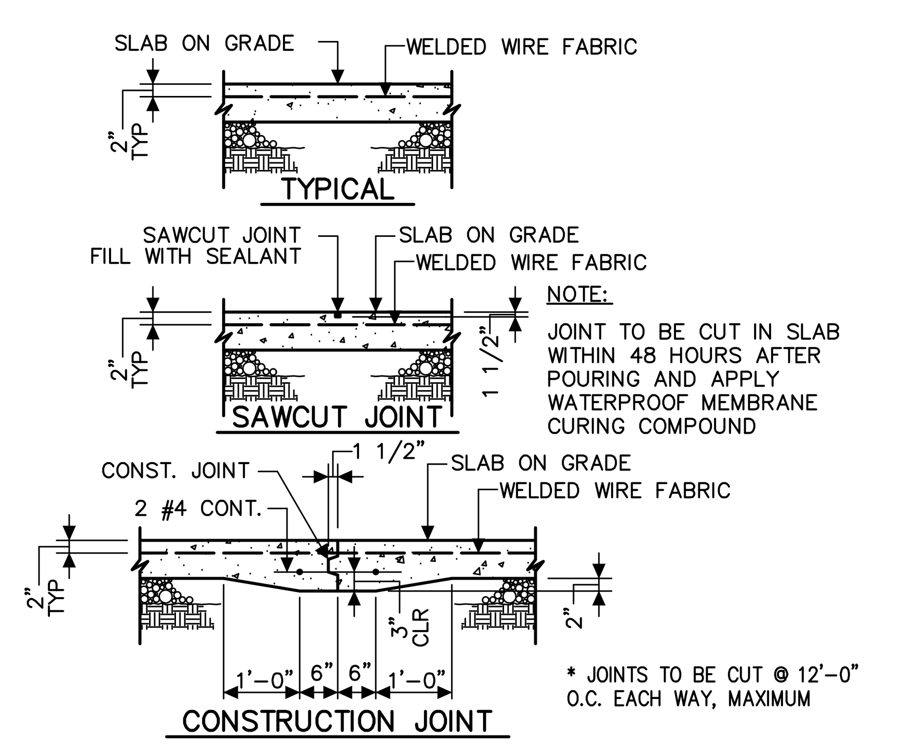
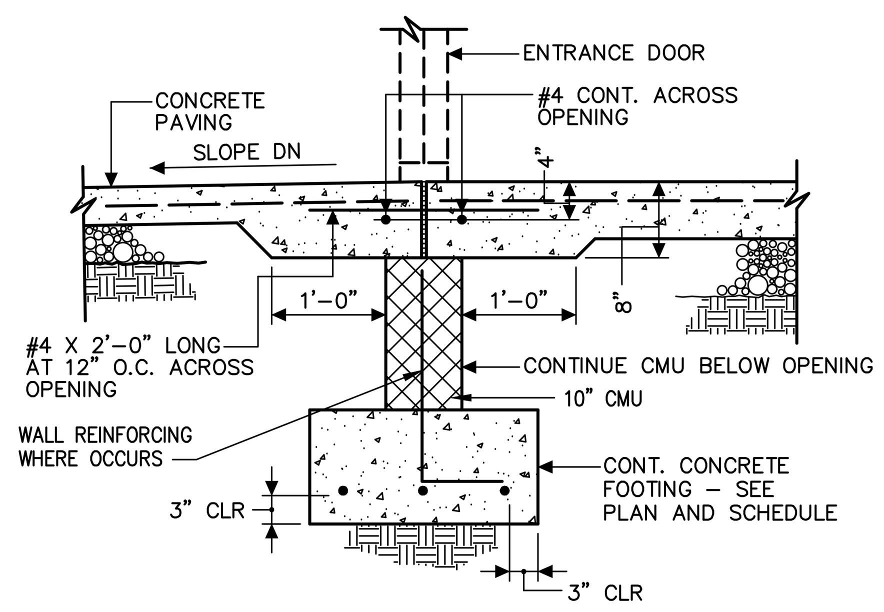
COURTYARD SCORE JOINT DIMENSION PLAN

C26

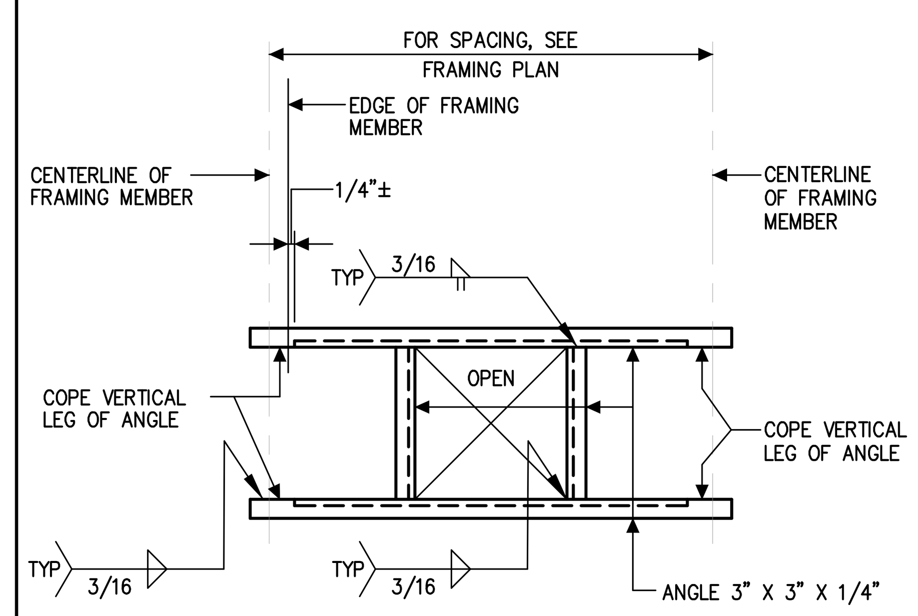
SHEET ____ of X



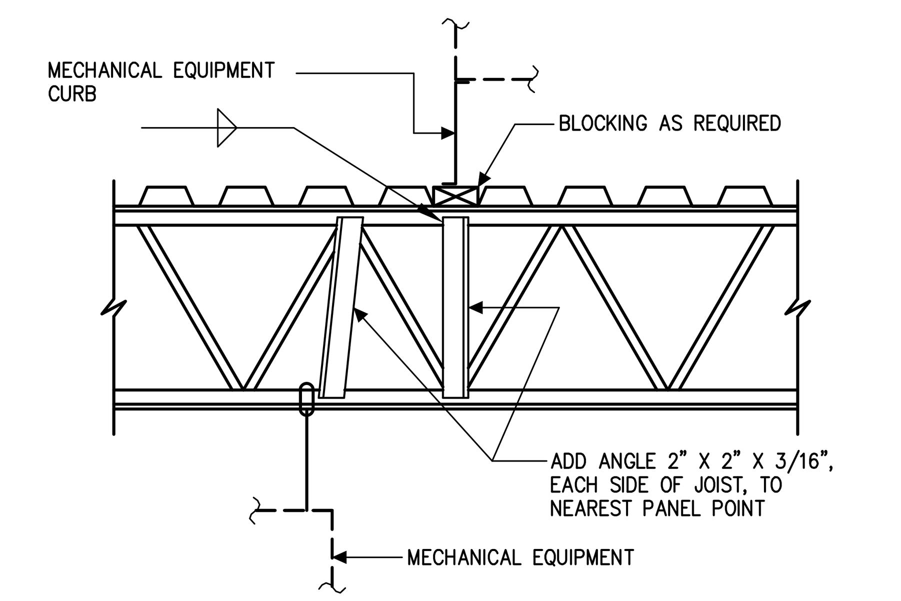
1 / S1.0 TYPICAL SLAB CONSTRUCTION DETAIL
SCALE: N.T.S.



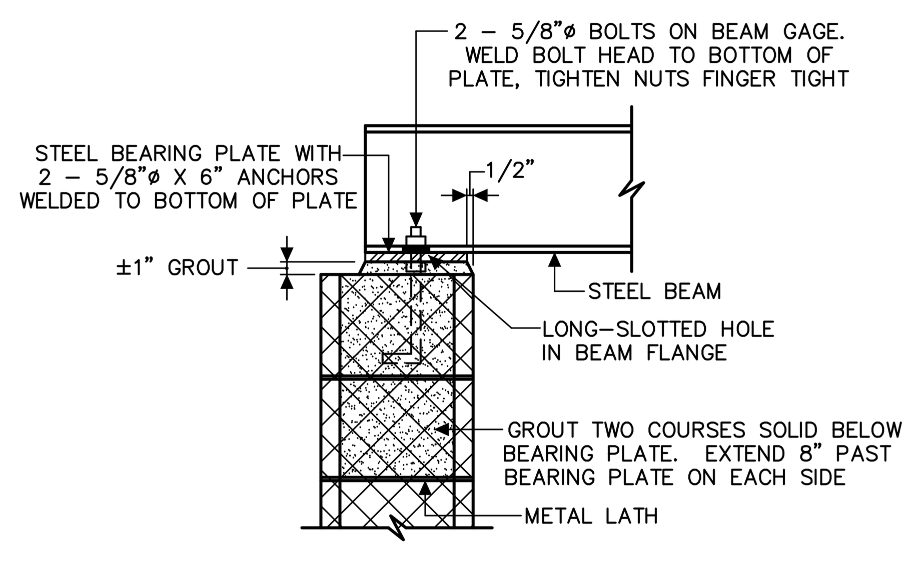
2 / S1.0 TYPICAL ENTRANCE SLAB DETAIL
SCALE: N.T.S.



3 / S1.0 TYPICAL FLOOR/ROOF OPENING FRAME
SCALE: N.T.S.

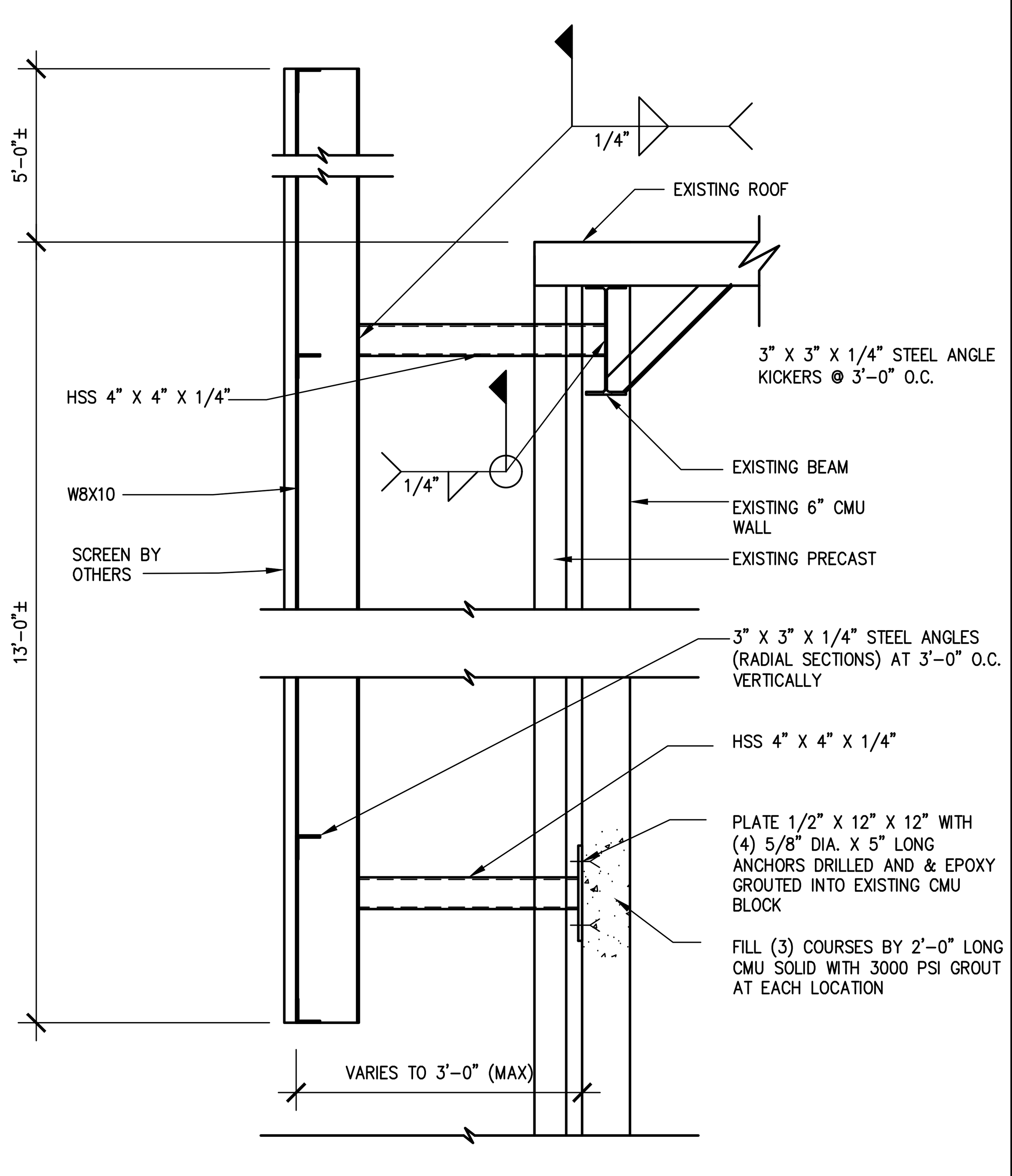


4 / S1.0 TYPICAL JOIST REINFORCMENT AT MECHANICAL EQUIPMENT
SCALE: N.T.S.



NOTE: LONG DIMENSION OF PLATE SHALL BE PARALLEL TO BEARING WALL. AT CORNERS, PLATE SHALL BE PARALLEL TO BEAM.

5 / S1.0 TYPICAL BEAM BEARING
SCALE: N.T.S.



6 / S1.0 SECTION
SCALE: N.T.S.

LINTEL SCHEDULE

MARK	TYPE	SIZE	REMARKS
L1		W8X24 W/ 3/8" X 1'-1" CONTINUOUS BOTTOM PLATE WITH 1/4" STIFF PLATE AT 2'-0" O.C.	-----
L2		(3) 5" X 3 1/2" X 3/8" (LLV) STEEL ANGLES	-----
L3		W16X26 W/ 3/8" X 11" CONT. BOTTOM PLATE	-----
L4		W8X24 W/ 3/8" X 11" CONTINUOUS BOTTOM PLATE WITH 1/4" STIFF PLATE AT 2'-0" O.C.	
L5		8" CMU BOND BEAM LINTEL REINFORCED WITH (2) #5'S CONTINUOUS – FILL SOLID WITH 3000 PSI GROUT	
L6		W8X24 W/ 1/4" X 7" CONT. BOTTOM PLATE	-----

LINTEL NOTES:

1. ALL LINTELS SHALL CONFORM TO ARCHITECTURAL HEAD DETAILS.
2. UNLESS OTHERWISE NOTED PROVIDE ONE ANGLE 3 1/2" X 3 1/2" X 5/16" (LLV) FOR SPANS LESS THAN 6'-0" AND ANGLE 6" X 3 1/2" X 3/8" (LLV) FOR SPANS GREATER THAN 6'-0" FOR EACH NOMINAL 4" WALL THICKNESS AS LINTELS OVER ALL OPENINGS IN BEARING AND NON-BEARING WALLS REQUIRED FOR DOORS, DUCTS, RECESSED HEATING UNITS, PANELS, GRILLES, ETC. NOT SHOWN.
3. PROVIDE MINIMUM 8" BEARING ON SOLID GROUTED MASONRY AT EACH END OF ALL LINTELS, UNLESS NOTED OTHERWISE.
4. PROVIDE BEARING PLATE BP-1 AT EACH END OF "W" SHAPED LINTELS – SEE DETAIL 5/S1.0
5. G.C. FILED VERIFY REQUIRED WIDTH OF ALL LINTELS.

SCHEDULES

FOOTING SCHEDULE

MARK	SIZE	REINFORCING	REMARKS
F1	1'-0" X 4'-0" X 8'-0"	#5'S @ 12" E.W. TOP AND BOTTOM	-----
F2	1'-0" X 5'-0" X CONT.	#5'S @ 12" E.W.	-----

COLUMN SCHEDULE

MARK	SIZE	BASEPLATE	ANCHOR BOLTS	REMARKS
C1	HSS 8" X 8" X 1/4"	3/4" X 14" X 14"	4 – 3/4"ø	NOTE 1

COLUMN NOTES:

1. PROVIDE ANCHORS BOLTS WITH 9" EMBEDMENT WITH 3" LEG.
2. PROVIDE 1/4" FILLET WELD ALL AROUND BASE PLATE.
3. ANCHOR BOLTS SHALL BE ASTM F1554 GRADE 36 KSI.
4. PROVIDE MINIMUM 3" ANCHOR BOLTS PROJECTION ABOVE TOP OF BASE PLATE.
5. PROVIDE 1/4" COLUMN CAP PLATES FOR ALL COLUMNS.

PIER SCHEDULE

MARK	SIZE	REINFORCING	REMARKS
P1	CONCRETE – 16" X 16"	12 #5'S VERTICAL #3 TIES AT 6" O.C.	

PIER NOTES:

1. DOWEL ALL PIER REINFORCING TO FOUNDATIONS – TYPICAL.

BEARING PLATE SCHEDULE

MARK	THICKNESS	WIDTH	LENGTH	REMARKS
BP1	3/8"	8"	5"	NOTE 1

BEARING PLATE NOTES:

1. FILL (2) COURSES OF CMU SOLID WITH 3000 PSI GROUT BELOW BEARING PLATE. SEE SECTION 7/S1.0.

REBAR LAP LENGTHS

BAR SIZE	LAP LENGTH (MIN.)	REMARKS
#4	24"	-----
#5	30"	-----
#6	36"	-----
#7	42"	-----
#8	48"	-----
#9	52"	-----

NOTES:
1. ALL FOOTING DOWELS SHALL BE EMBEDDED TO WITHIN (3") OF THE BOTTOM OF FOOTING WITH A MINIMUM 3" LEG.

GENERAL STRUCTURAL NOTES

CODE: 2015 VIRGINIA CONSTRUCTION CODE
RISK CATEGORY : III

DESIGN LOADS:

ROOF LIVE LOAD = 20 PSF (SNOW DRIFT APPLIED PER CODE)
MAIN LEVEL FLOOR LIVE LOAD = 100 PSF
SECOND FLOOR OFFICE LIVE LOAD = 40 PSF CLASS ROOM
80 PSF CORRIDORS

WIND LOADS:
BASIC WIND SPEED = 115 MPH (3 SECOND GUST)
EXPOSURE 'B'
K = 1.0
Gcpi = ± 0.18
ROOF UPLIFT = 20 PSF (NET)
Kz = 34.0 PSF
COMPONENTS AND CLADDING PRESSURE = 25 PSF

GROUND SNOW LOAD = 30 PSF
I = 1.0
Ce = 1.0
Ct = 1.1
Pf = 23 PSF

SEISMIC LOADS:
Ss = 0.233g
Si = 0.069g
SEISMIC DESIGN CATEGORY 'B'
SITE CLASSIFICATION 'D'
I = 1.25
Sds = 0.248g
SDi = 0.111g
Cs = 0.136
R = 2.0
Cs = 0.101
EQUIVALENT LATERAL FORCE PROCEDURE

SHEETS S1.0 THRU S2.1 ARE STRUCTURAL DESIGN DRAWINGS ONLY (REQUIRED FOR THE FOUNDATION PLAN, ROOF FRAMING PLAN, DETAILS AND SCHEDULES). ANY REFERENCE TO ARCHITECTURAL MATERIALS, SYSTEMS, OR CONCEPTS IS FOR CLARITY ONLY.

ALL FILL AND UNSUITABLE FOUNDATION MATERIAL SHALL BE REMOVED AND FOOTINGS SHALL REST ON UNDISTURBED SOIL OR ENGINEERED FILL AS DIRECTED BY THE GEOTECHNICAL ENGINEER.

FOOTINGS ARE DESIGNED FOR A MINIMUM ASSUMED SOIL BEARING CAPACITY OF 1500 PSF.

ALL EXTERIOR CONCRETE EXPOSED TO WEATHER SHALL BE 4000 PSI, AIR-ENTRAINED. ALL OTHER CONCRETE SHALL BE 4000 PSI. ALL MATERIALS AND PROCESSES TO THIS END SHALL CONFORM IN GENERAL TO ACI RECOMMENDED PRACTICE FOR THE DESIGN OF CONCRETE MIXES. (ACI-613 LAST REVISED).

PROVIDE 3/4" CHAMFER ON EXPOSED CONCRETE EDGES.

CONTRACTOR SHALL PLACE 1/2" ASPHALT IMPREGNATED FIBER BOARD IN JOINTS OF CONCRETE SLAB ON GRADE AGAINST VERTICAL SURFACES.

STEEL REINFORCING SHALL BE BILLET STEEL ASTM A-615, GRADE 60.

MESH SHALL BE WELDED WIRE FABRIC ASTM A-185.

ROUND STEEL PIPE SHALL CONFORM TO THE REQUIREMENTS OF ASTM A-501. SQUARE AND RECTANGULAR STEEL TUBING SHALL CONFORM TO THE REQUIREMENTS OF ASTM A-500, GRADE B. ALL STRUCTURAL STEEL BEAMS SHALL CONFORM TO THE REQUIREMENTS OF ASTM A992, Fy= 50KSI. ALL OTHER STRUCTURAL STEEL SHALL CONFORM TO THE REQUIREMENTS OF ASTM A-36. ALL STEEL SHALL RECEIVE ONE COAT OF SHOP PAINT, UNLESS NOTED OTHERWISE.

ALL BOLTS SHALL BE 3/4" DIAMETER, ASTM A-325 TYPE N, UNLESS OTHERWISE SHOWN OR NOTED.

CUTS, HOLES, COPINGS, ETC. IN STRUCTURAL STEEL MEMBERS REQUIRED BY WORK OF OTHER TRADES SHALL BE MADE IN THE SHOP AND SHALL BE SHOWN ON THE SHOP DRAWINGS. BURNING OF HOLES OR CUTS IN THE FIELD WILL NOT BE PERMITTED WITHOUT SPECIFIC APPROVAL OF THE ENGINEER.

FOR OPENINGS IN THE ROOF, SEE ARCHITECTURAL AND MECHANICAL DRAWINGS.

UNLESS NOTED OTHERWISE, ALL BEAM SHEAR CONNECTIONS SHALL BE DESIGNED FOR ONE HALF THE ALLOWABLE UNIFORMLY DISTRIBUTED LOADING IN ACCORDANCE WITH THE UNIFORM LOAD CONSTANTS AS TABULATED IN THE AISC MANUAL (FOURTEENTH EDITION) FOR THE INDICATED SPAN PLUS 2 KIPS.

ALL LIGHT GAGE BEARING WALL METAL STUDS SHALL BE FORMED OF SHEET STEEL CONFORMING TO ASTM A-446 OR A-570. ALL 14 AND 16 GAGE METAL STUDS SHALL HAVE A MINIMUM YIELD POINT OF 50,000 PSI. ALL 18 AND 20 GAGE METAL STUDS SHALL HAVE A MINIMUM YIELD POINT OF 33,000 PSI. ALL SHEAR WALL STRAPPING MATERIAL SHALL HAVE A MINIMUM YIELD POINT OF 50,000 PSI. FINISH FOR ALL LIGHT GAGE MATERIAL SHALL BE HOT-DIPPED GALVANIZED COMPLYING WITH ASTM A-525 FOR A MINIMUM G60 FINISH.

METAL STUD BEARING WALL INSTALLER SHALL PROVIDE ALL STEEL TRACKS, BLOCKING, LINTELS, CLIP ANGLES, SHOES, STIFFENERS, FASTENERS, AND ACCESSORIES AS INDICATED OR AS RECOMMENDED BY THE MATERIAL MANUFACTURER TO PROVIDE A COMPLETE METAL FRAMING SYSTEM.

METAL STUDS SPECIFIED ON THESE DRAWINGS ARE BASED ON THE PROPERTIES OF STUDS MANUFACTURED BY DIETRICH. ALL STUDS PROVIDED FOR CONSTRUCTION SHALL MEET THOSE MINIMUM PROPERTIES.

ALL METAL STUD CONSTRUCTION SHALL COMPLY WITH THE STEEL STUD MANUFACTURER'S ASSOCIATION (SSMA).

f'm MASONRY SHALL BE 2200 PSI (MINIMUM).

ALL GROUT SHALL BE 3000 PSI (MINIMUM).

PROVIDE 9 GAUGE HORIZONTAL JOINT REINFORCEMENT IN CMU WALLS AT 1'-4" O.C.

METAL DECK ATTACHEMENT PATTERN:

ROOF:

36/7 5/8" PUDDLE WELDS AT SUPPORTS
#10 TEK SCREWS AT 1'-0" O.C. SIDELAPS

OR

36/7 #12 TEK SCREWS AT SUPPORTS
#10 TEK SCREWS AT 1'-0" O.C. SIDELAPS

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GENERAL STRUC. NOTES SCHEDULES AND TYP. SECTIONS

S1.0

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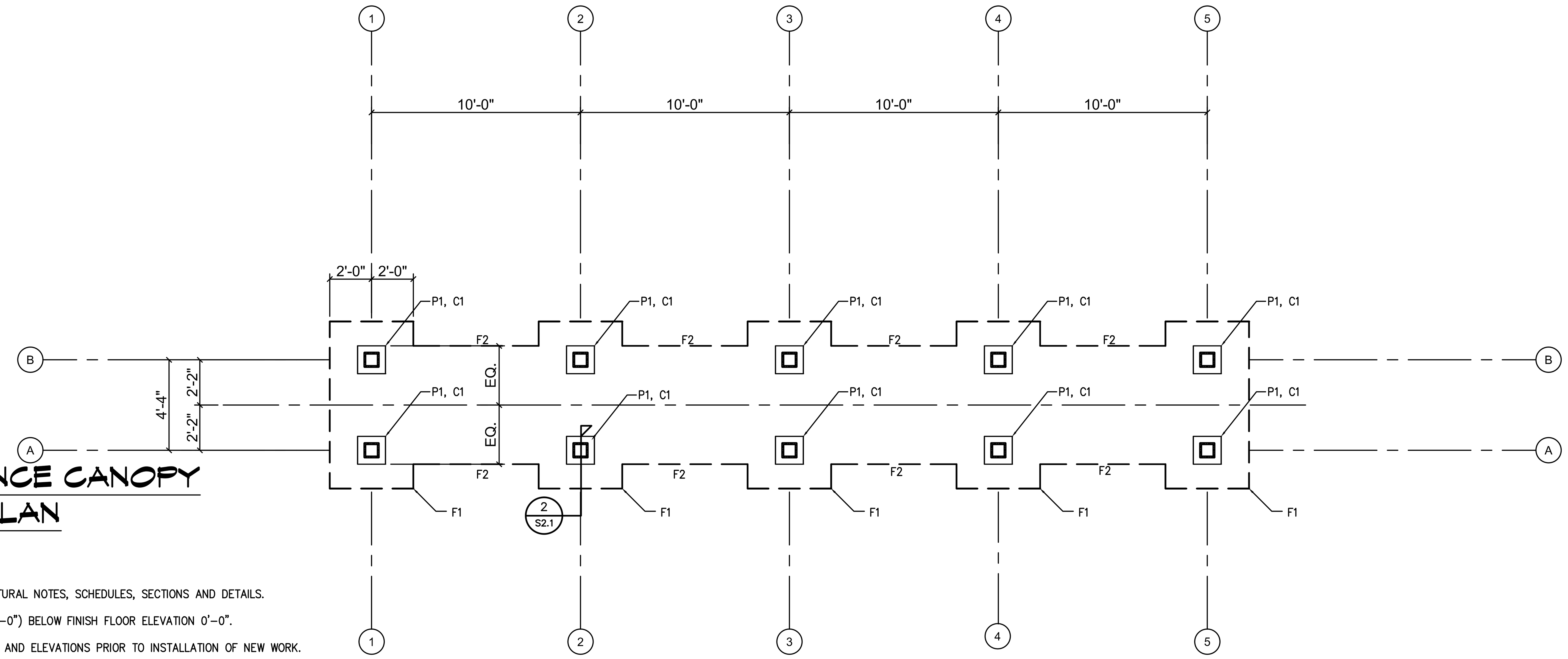
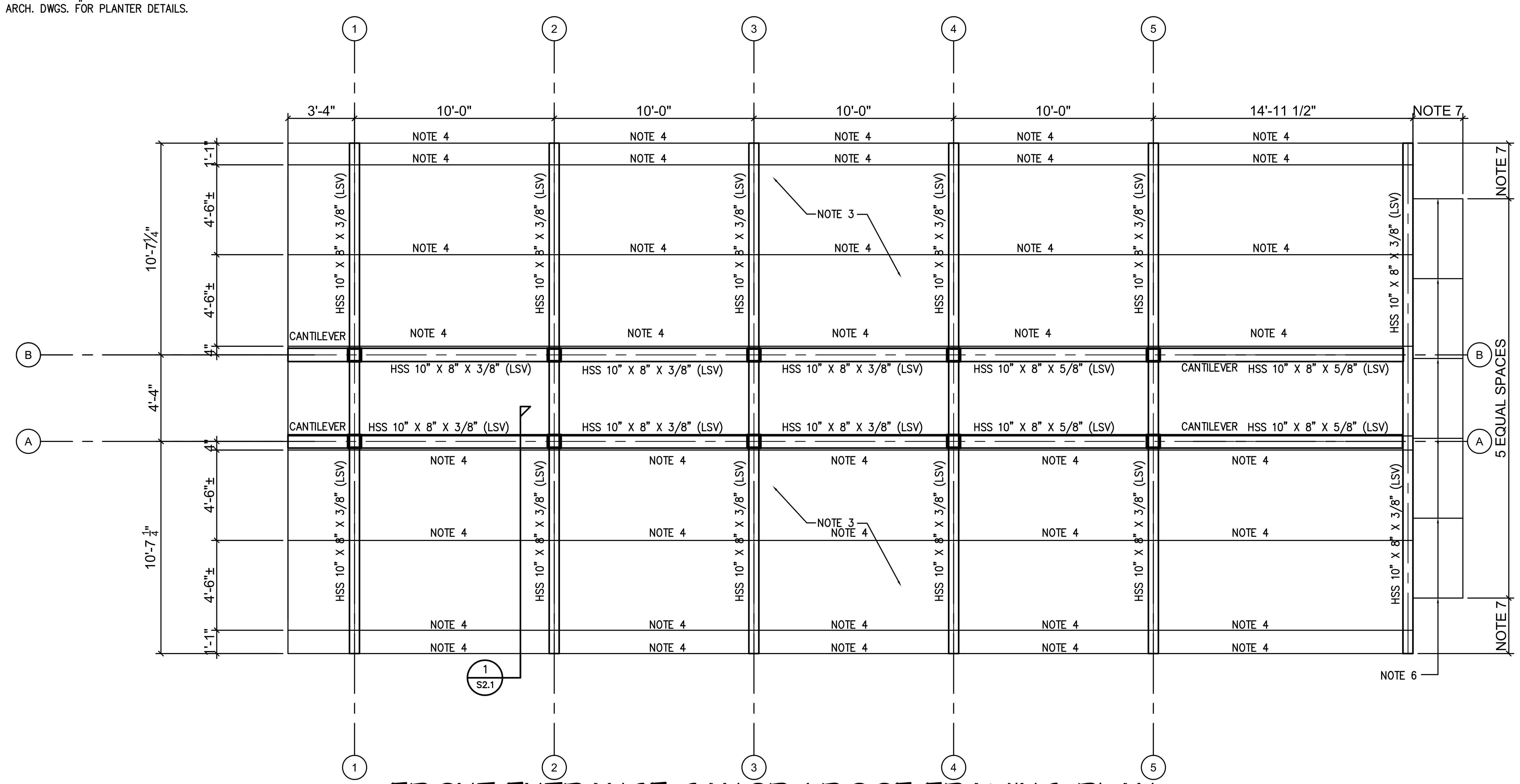


FRONT ENTRANCE CANOPY FOUNDATION PLAN

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

FOUNDATION PLAN NOTES:

1. SEE SHEET S1.0 FOR GENERAL STRUCTURAL NOTES, SCHEDULES, SECTIONS AND DETAILS.
2. TOP OF ALL FOOTINGS SHALL BE (-2'-0") BELOW FINISH FLOOR ELEVATION 0'-0".
3. G.C. TO FIELD VERIFY ALL DIMENSIONS AND ELEVATIONS PRIOR TO INSTALLATION OF NEW WORK.
4. FOR DISCREPANCIES IN DIMENSIONS, ARCHITECTURAL DIMENSIONS CONTROL.
5. TOP OF ALL PIERS SHALL BE (-0'-8") BELOW REFERENCE ELEVATION 0'-0".
6. REINFORCE ALL 8" CMU WALLS FOR PLANTERS WITH #4'S AT 2'-0" O.C. FULL HEIGHT OF WALL, IN FULLY GROUTED CELLS. SEE ARCH. DWGS. FOR PLANTER DETAILS.



FRONT ENTRANCE CANOPY ROOF FRAMING PLAN

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

ROOF FRAMING PLAN NOTES:

1. SEE SHEET S1.0 FOR GENERAL STRUCTURAL NOTES, SCHEDULES, SECTIONS AND DETAILS.
2. TOP OF STEEL TUBES (+12'-2") ABOVE REFERENCE FINISH FLOOR ELEVATION 0'-0".
3. 1 1/2" X 22 GAUGE METAL ROOF DECK.
4. C10X15.3 STEEL CHANNEL – TO OF STEEL CHANNEL (+12'-2").
5. STEEL TUBE CANOPY IS ALL WELDED CONSTRUCTION.
6. HSS 6" X 2" X 1/4" (LSV).
7. G.C. FIELD VERIFY DIMENSIONS BASED ON FIELD CONDITIONS.

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FRONT ENTRANCE CANOPY FOUND. & ROOF FRAMING PLANS

S1.1

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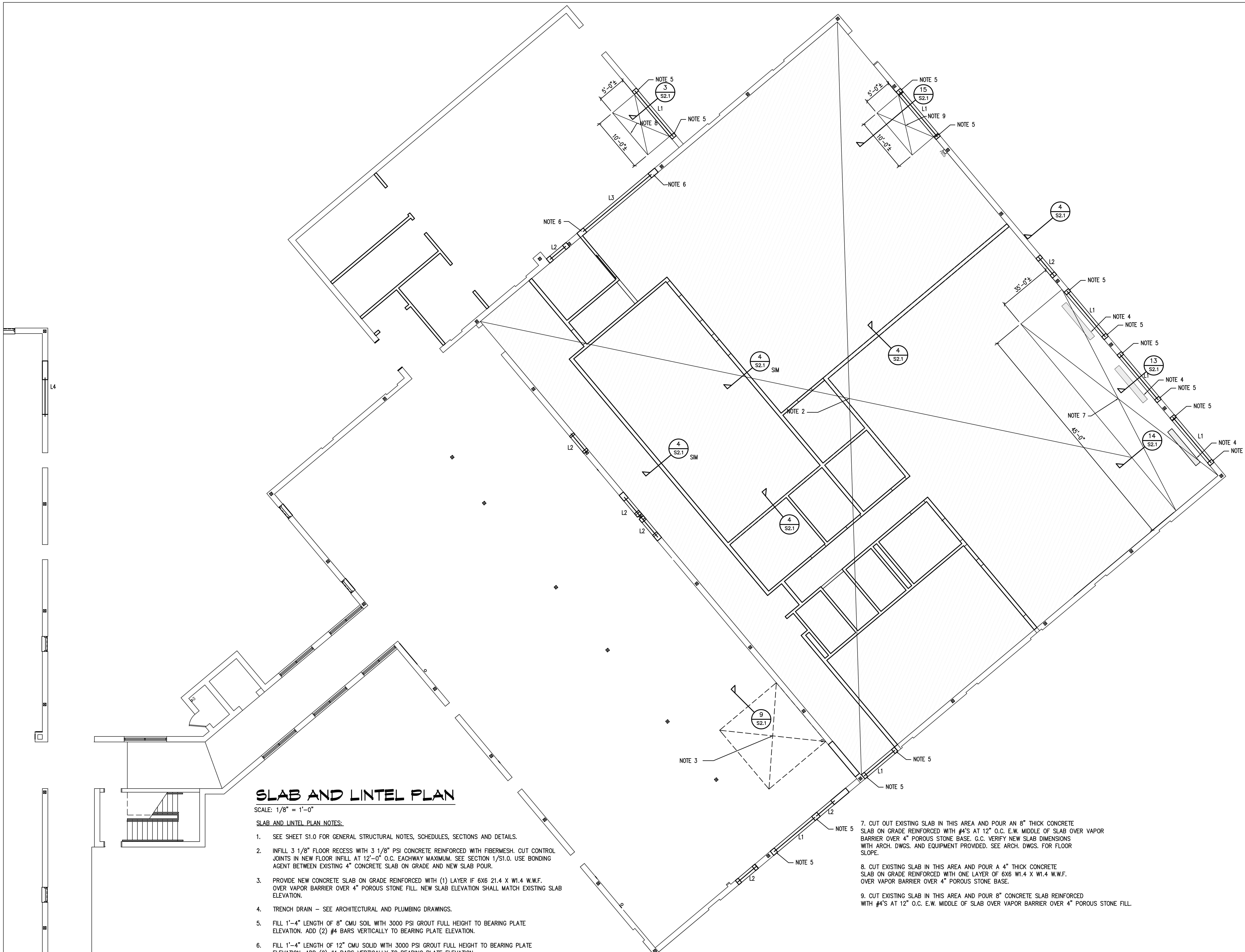

SLAB AND LINTEL PLAN

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

SLAB AND LINTEL PLAN NOTES:

1. SEE SHEET S1.0 FOR GENERAL STRUCTURAL NOTES, SCHEDULES, SECTIONS AND DETAILS.
2. INFILL 3 1/8" FLOOR RECESS WITH 3 1/8" PSI CONCRETE REINFORCED WITH FIBERMESH. CUT CONTROL JOINTS IN NEW FLOOR INFILL AT 12'-0" O.C. EACHWAY MAXIMUM. SEE SECTION 1/S1.0. USE BONDING AGENT BETWEEN EXISTING 4" CONCRETE SLAB ON GRADE AND NEW SLAB POUR.
3. PROVIDE NEW CONCRETE SLAB ON GRADE REINFORCED WITH (1) LAYER IF 6X6 21.4 X W1.4 W.W.F. OVER VAPOR BARRIER OVER 4" POROUS STONE FILL. NEW SLAB ELEVATION SHALL MATCH EXISTING SLAB ELEVATION.
4. TRENCH DRAIN – SEE ARCHITECTURAL AND PLUMBING DRAWINGS.
5. FILL 1'-4" LENGTH OF 8" CMU SOIL WITH 3000 PSI GROUT FULL HEIGHT TO BEARING PLATE ELEVATION. ADD (2) #4 BARS VERTICALLY TO BEARING PLATE ELEVATION.
6. FILL 1'-4" LENGTH OF 12" CMU SOLID WITH 3000 PSI GROUT FULL HEIGHT TO BEARING PLATE ELEVATION. ADD (2) #4 BARS VERTICALLY TO BEARING PLATE ELEVATION.
7. CUT OUT EXISTING SLAB IN THIS AREA AND POUR AN 8" THICK CONCRETE SLAB ON GRADE REINFORCED WITH #4'S AT 12" O.C. E.W. MIDDLE OF SLAB OVER VAPOR BARRIER OVER 4" POROUS STONE BASE. G.C. VERIFY NEW SLAB DIMENSIONS WITH ARCH. DWGS. AND EQUIPMENT PROVIDED. SEE ARCH. DWGS. FOR FLOOR SLOPE.
8. CUT EXISTING SLAB IN THIS AREA AND POUR A 4" THICK CONCRETE SLAB ON GRADE REINFORCED WITH ONE LAYER OF 6X6 W1.4 X W1.4 W.W.F. OVER VAPOR BARRIER OVER 4" POROUS STONE BASE.
9. CUT EXISTING SLAB IN THIS AREA AND POUR 8" CONCRETE SLAB REINFORCED WITH #4'S AT 12" O.C. E.W. MIDDLE OF SLAB OVER VAPOR BARRIER OVER 4" POROUS STONE FILL.

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BUILDING NO. 2
SLAB AND LINTEL PLAN

S1.2

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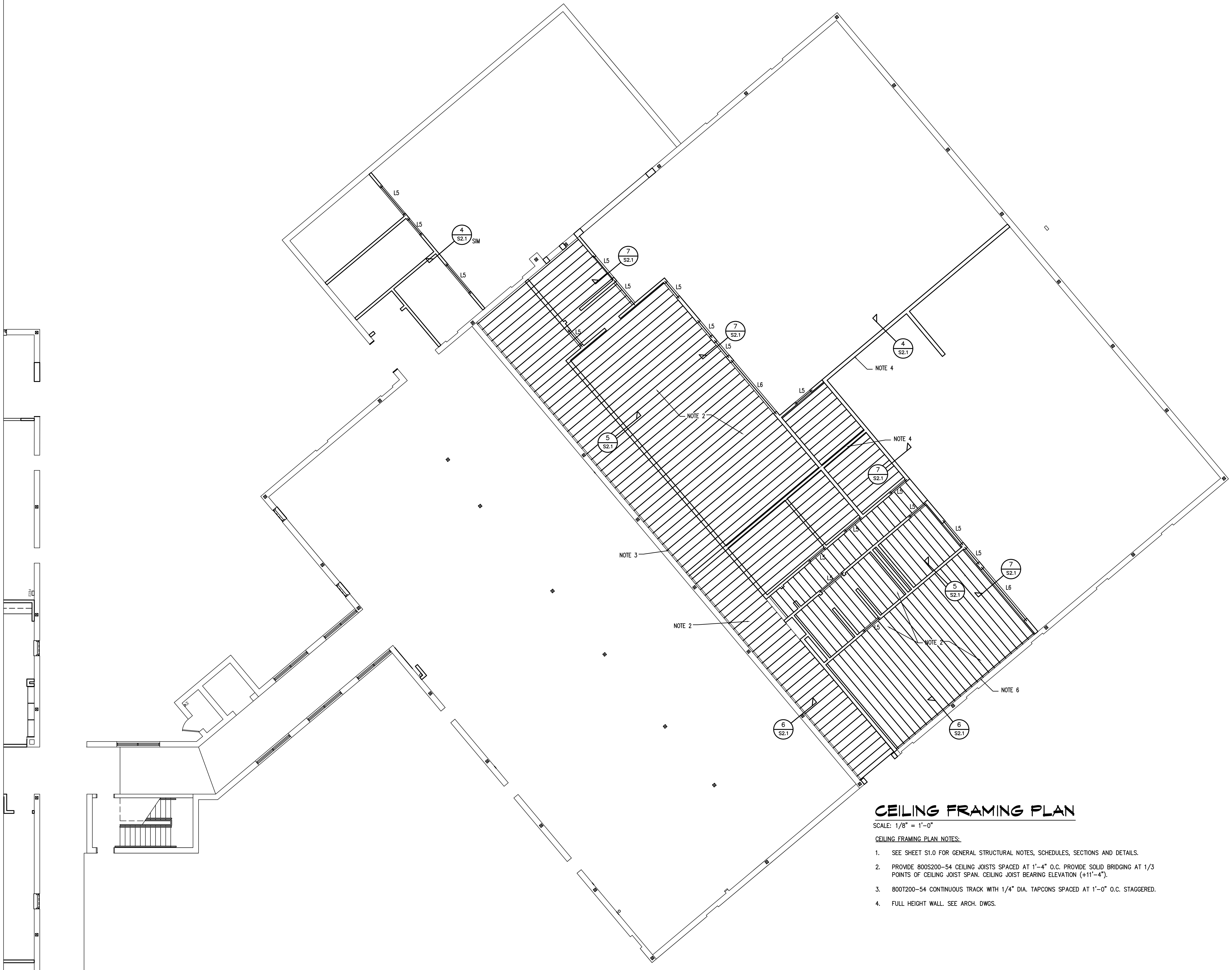

CEILING FRAMING PLAN

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

CEILING FRAMING PLAN NOTES:

1. SEE SHEET S1.0 FOR GENERAL STRUCTURAL NOTES, SCHEDULES, SECTIONS AND DETAILS.
2. PROVIDE 800S200-54 CEILING JOISTS SPACED AT 1'-4" O.C. PROVIDE SOLID BRIDGING AT 1/3 POINTS OF CEILING JOIST SPAN. CEILING JOIST BEARING ELEVATION (+11'-4").
3. 800T200-54 CONTINUOUS TRACK WITH 1/4" DIA. TAPCONS SPACED AT 1'-0" O.C. STAGGERED.
4. FULL HEIGHT WALL. SEE ARCH. DWGS.

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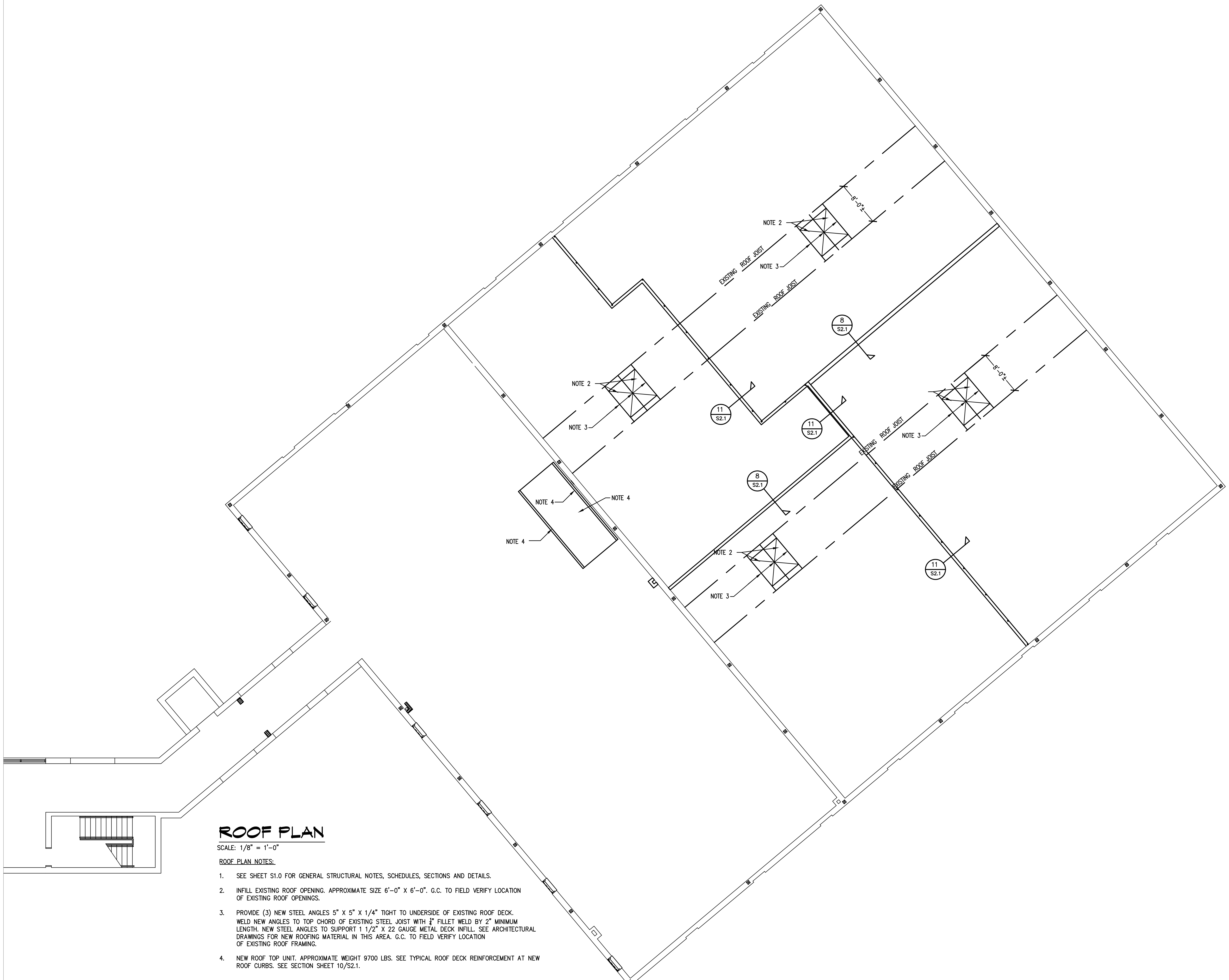
BUILDING NO. 2
CEILING FRAMING PLAN

S1.3

SHEET ______ of X



ROOF PLAN

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

ROOF PLAN NOTES:

1. SEE SHEET S1.0 FOR GENERAL STRUCTURAL NOTES, SCHEDULES, SECTIONS AND DETAILS.
2. INFILL EXISTING ROOF OPENING. APPROXIMATE SIZE 6'-0" X 6'-0". G.C. TO FIELD VERIFY LOCATION OF EXISTING ROOF OPENINGS.
3. PROVIDE (3) NEW STEEL ANGLES 5" X 5" X 1/4" TIGHT TO UNDERSIDE OF EXISTING ROOF DECK. WELD NEW ANGLES TO TOP CHORD OF EXISTING STEEL JOIST WITH $\frac{1}{4}$" FILLET WELD BY 2" MINIMUM LENGTH. NEW STEEL ANGLES TO SUPPORT 1 1/2" X 22 GAUGE METAL DECK INFILL. SEE ARCHITECTURAL DRAWINGS FOR NEW ROOFING MATERIAL IN THIS AREA. G.C. TO FIELD VERIFY LOCATION OF EXISTING ROOF FRAMING.
4. NEW ROOF TOP UNIT. APPROXIMATE WEIGHT 9700 LBS. SEE TYPICAL ROOF DECK REINFORCEMENT AT NEW ROOF CURBS. SEE SECTION SHEET 10/S2.1.

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BUILDING NO. 2
ROOF PLAN

S1.4

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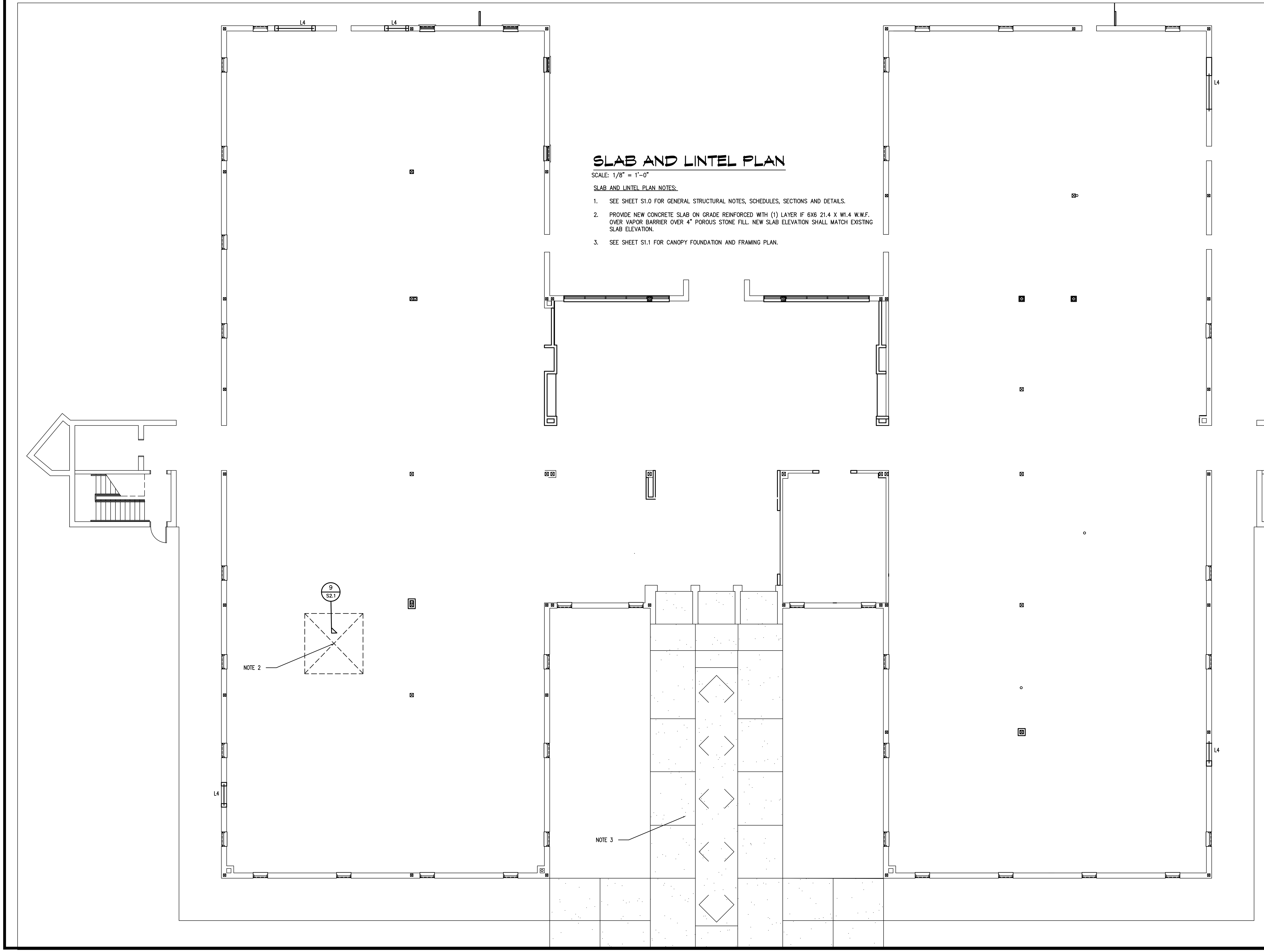

SLAB AND LINTEL PLAN

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

SLAB AND LINTEL PLAN NOTES:

1. SEE SHEET S1.0 FOR GENERAL STRUCTURAL NOTES, SCHEDULES, SECTIONS AND DETAILS.
2. PROVIDE NEW CONCRETE SLAB ON GRADE REINFORCED WITH (1) LAYER IF 6X6 21.4 X W1.4 W.W.F. OVER VAPOR BARRIER OVER 4" POROUS STONE FILL. NEW SLAB ELEVATION SHALL MATCH EXISTING SLAB ELEVATION.
3. SEE SHEET S1.1 FOR CANOPY FOUNDATION AND FRAMING PLAN.

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BUILDING NO. 3
SLAB AND LINTEL PLAN

S1.5

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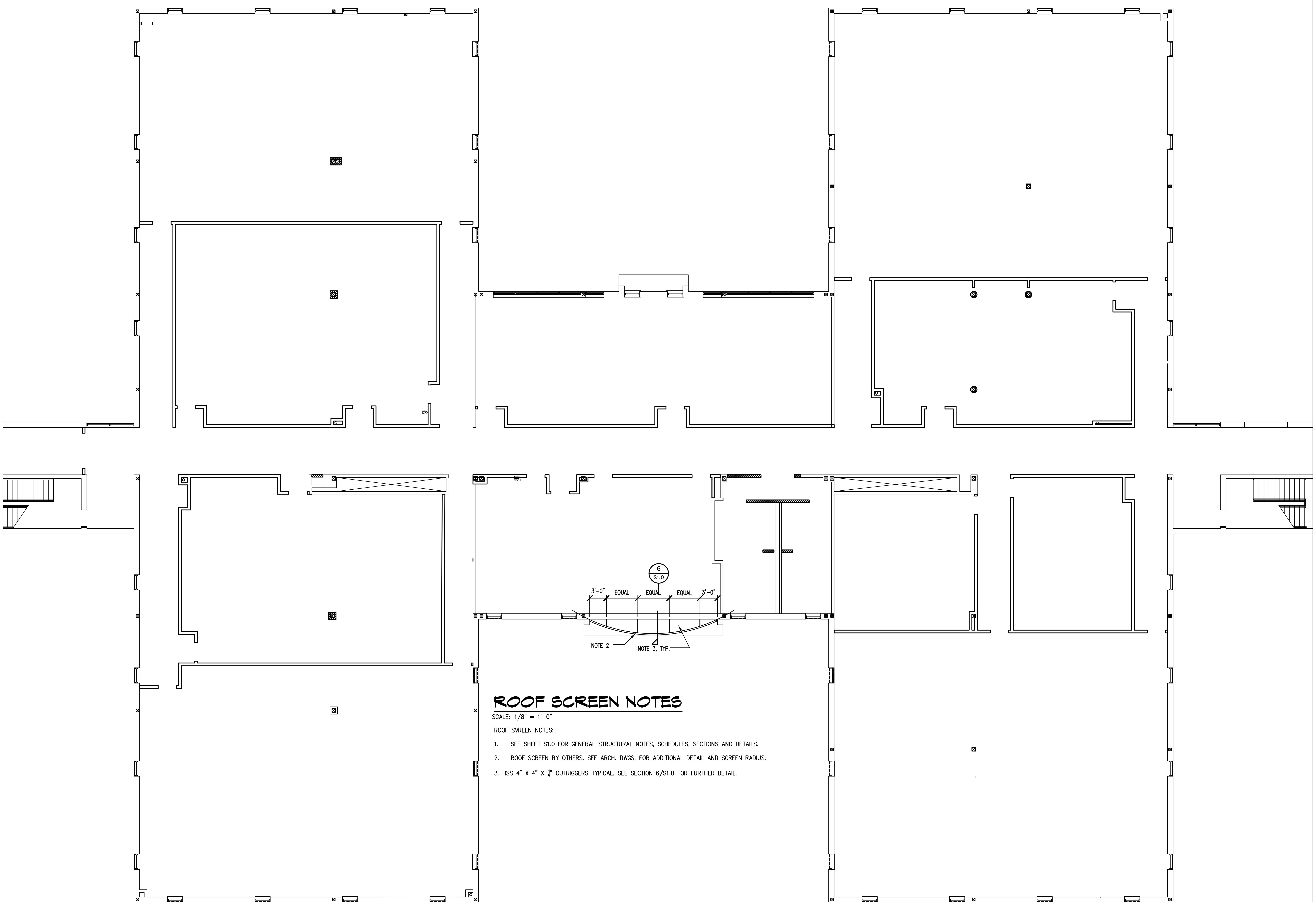

ROOF SCREEN NOTES

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

ROOF SVREEN NOTES:

1. SEE SHEET S1.0 FOR GENERAL STRUCTURAL NOTES, SCHEDULES, SECTIONS AND DETAILS.
2. ROOF SCREEN BY OTHERS. SEE ARCH. DWGS. FOR ADDITIONAL DETAIL AND SCREEN RADIUS.
3. HSS 4" X 4" X 1/4" OUTRIGGERS TYPICAL. SEE SECTION 6/S1.0 FOR FURTHER DETAIL.

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BUILDING NO. 3
ROOF SCREEN

S1.6

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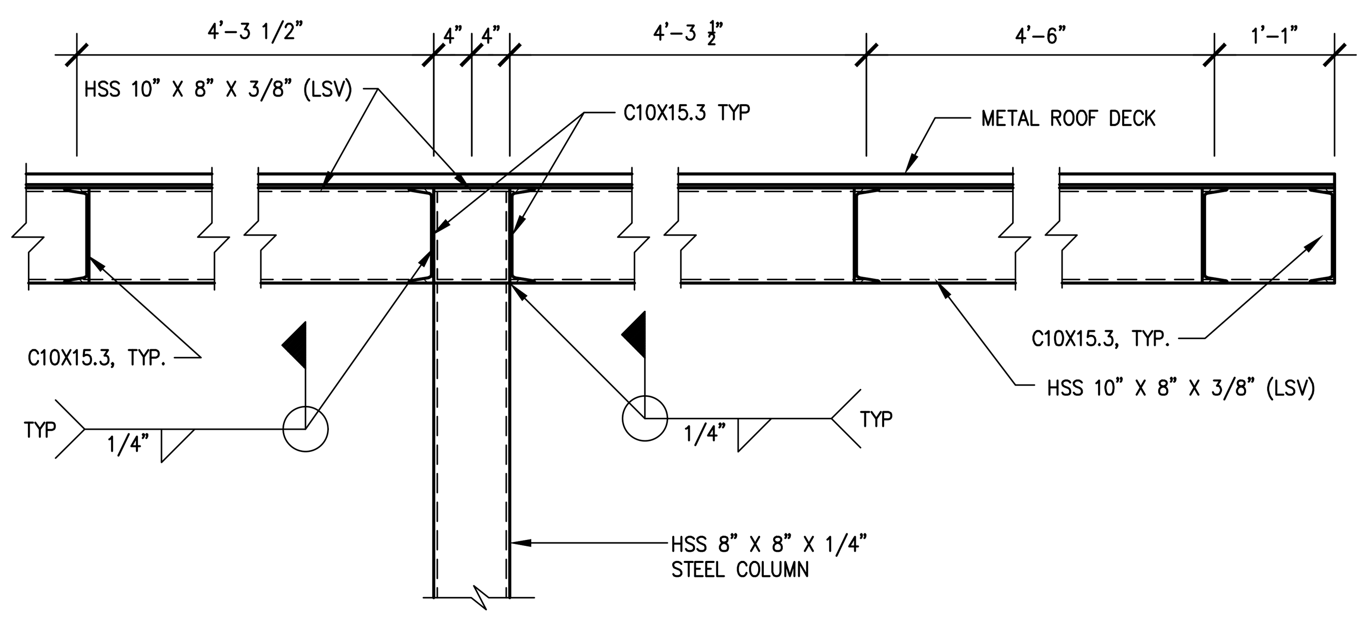
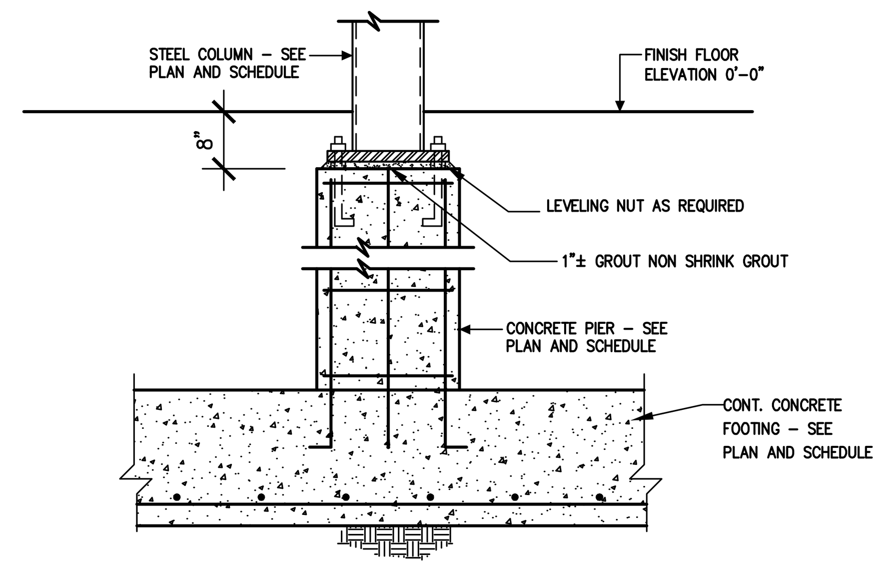


1 SECTION S2.1 SCALE: N.T.S.



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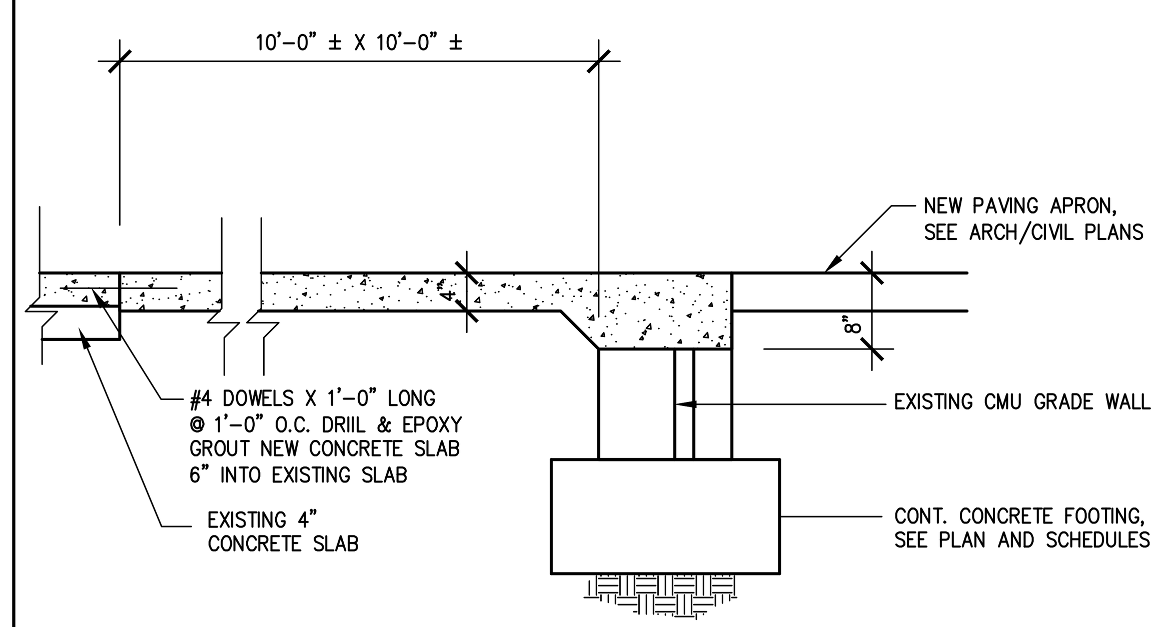
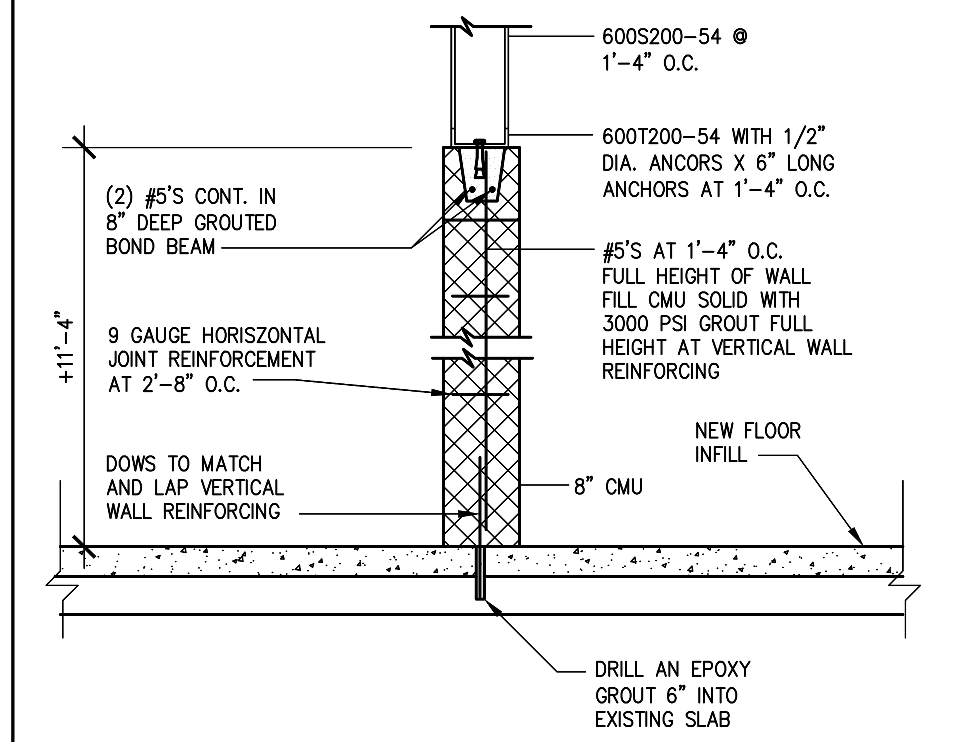


3 SECTION S2.1 SCALE: N.T.S.



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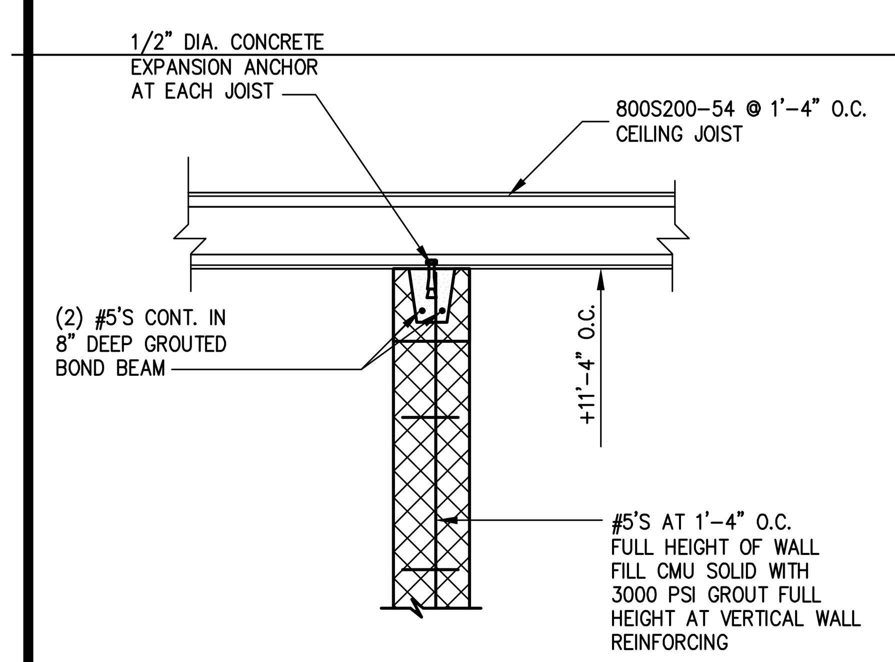
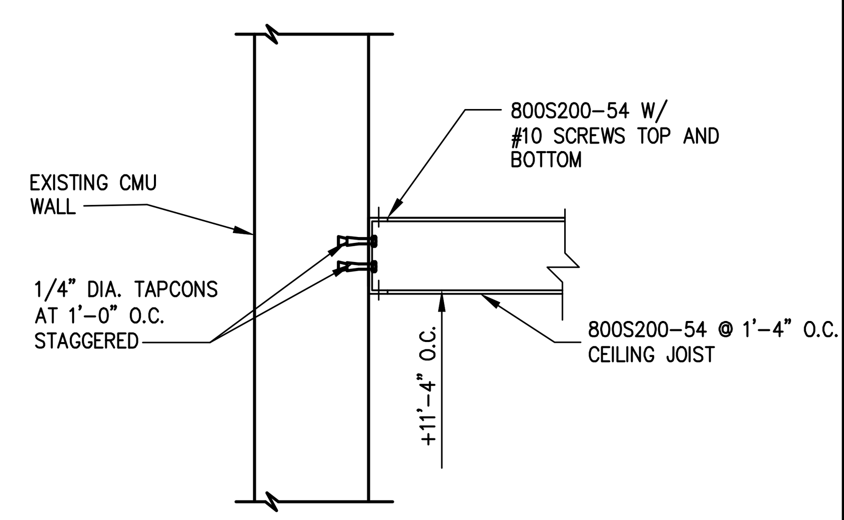


5 SECTION S2.1 SCALE: N.T.S.



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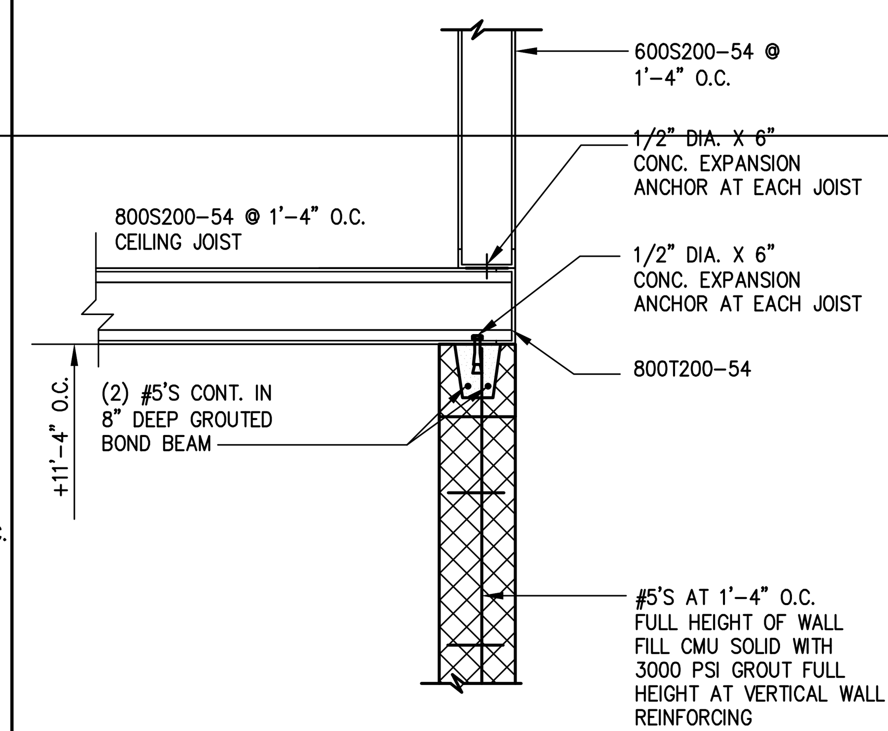

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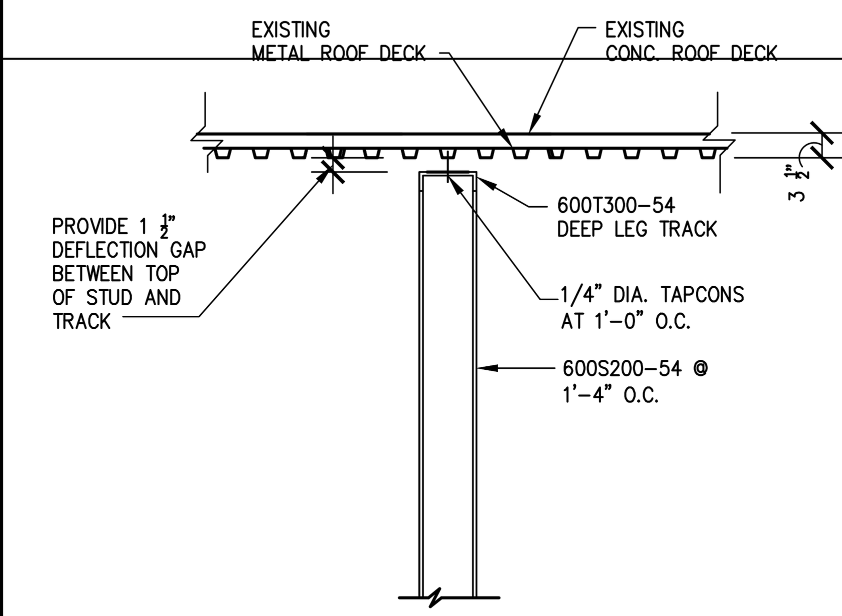
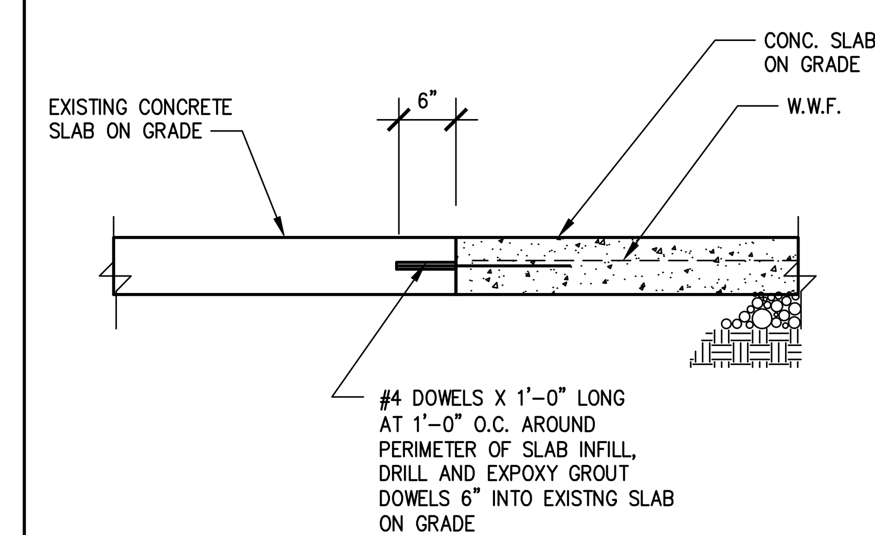


8 SECTION S2.1 SCALE: N.T.S.



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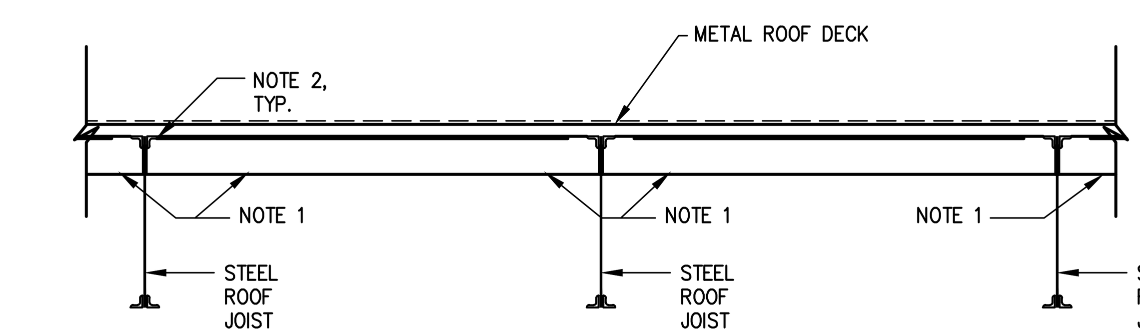
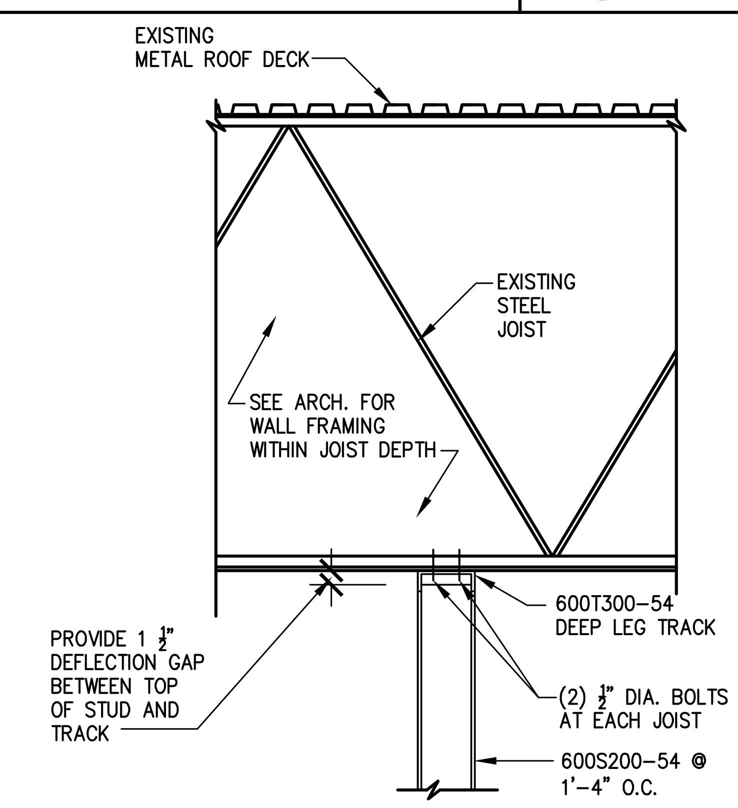


10 TYPICAL ROOF DECK REINFORCEMENT BENEATH RTU ROOF CURB S2.1 SCALE: N.T.S.

NOTE:

1. PROVIDE STEEL ANGLES 4" X 4" X 1/4" WELDED BETWEEN TOP CHORDS OF STEEL ROOF JOISTS TIGHT TO UNDERSIDE OF METAL ROOF DECK. USE 1/4" FILLET WELDS AT EACH ANGLE TO TOP FLANGE OF BEAM. MINIMUM WELD LENGTH = 1" EACH SIDE OF 4" X 4" ANGLE.
2. COPE ANGLE LEG TO ALLOW WELDING OF ANGLE TO TOP FLANGE OF BEAM.
3. STEEL ANGLES TO ALIGN TIGHT TO UNDERSIDE OF ROOF DECK BENEATH ROOF CURB.



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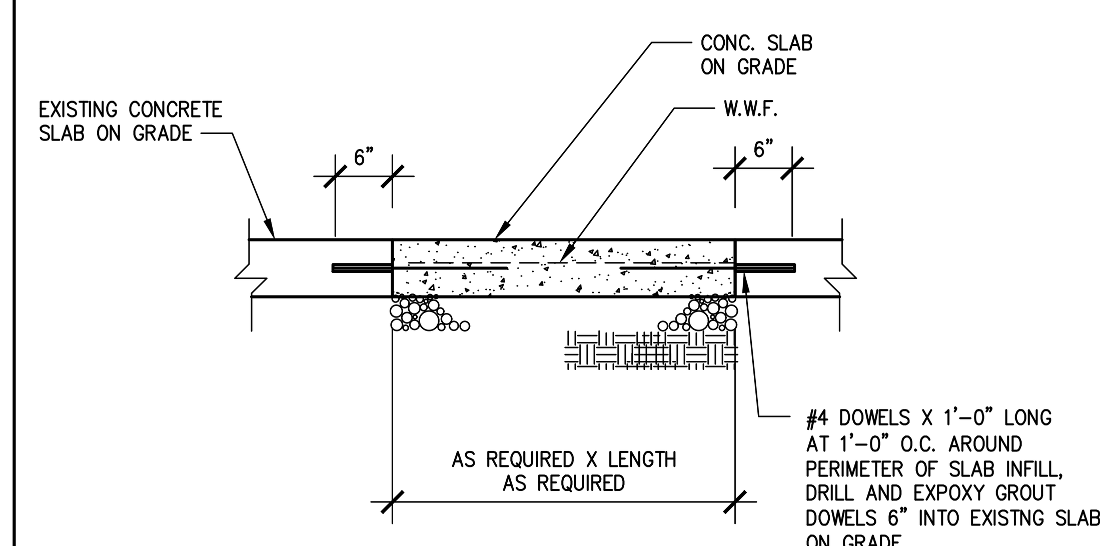
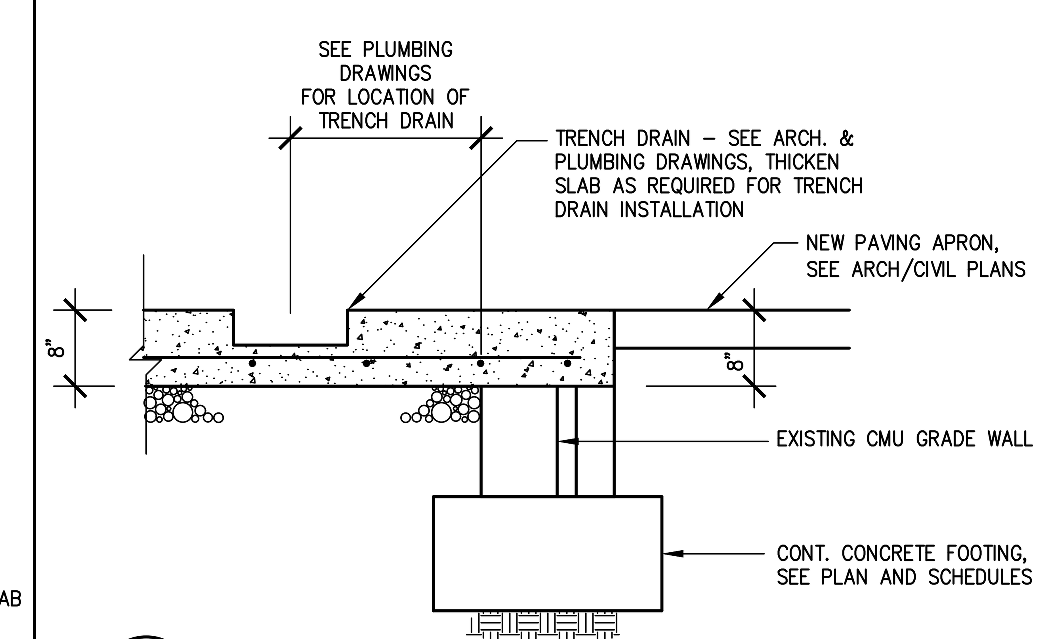
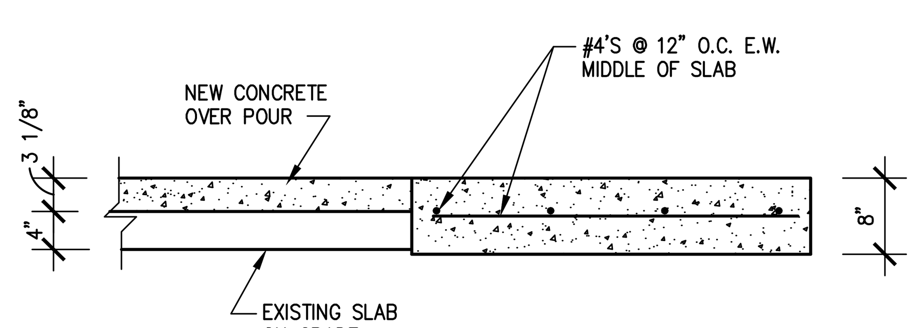


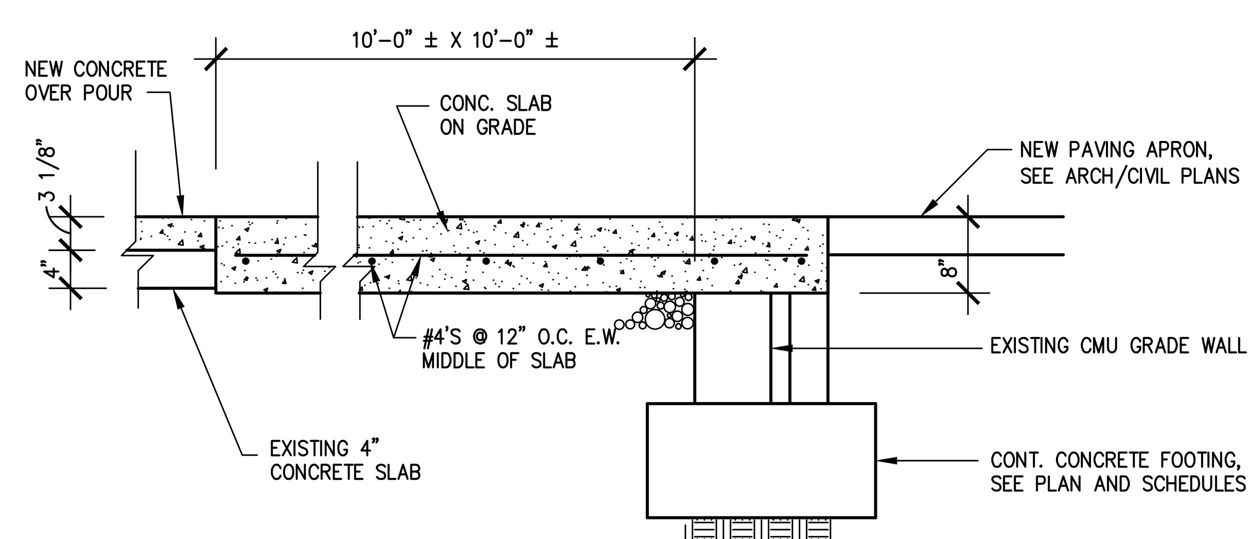
12 TYPICAL SLAB INFILL S2.1 SCALE: N.T.S.



13 SECTION S2.1 SCALE: N.T.S.



14 SECTION S2.1 SCALE: N.T.S.



15 SECTION S2.1 SCALE: N.T.S.

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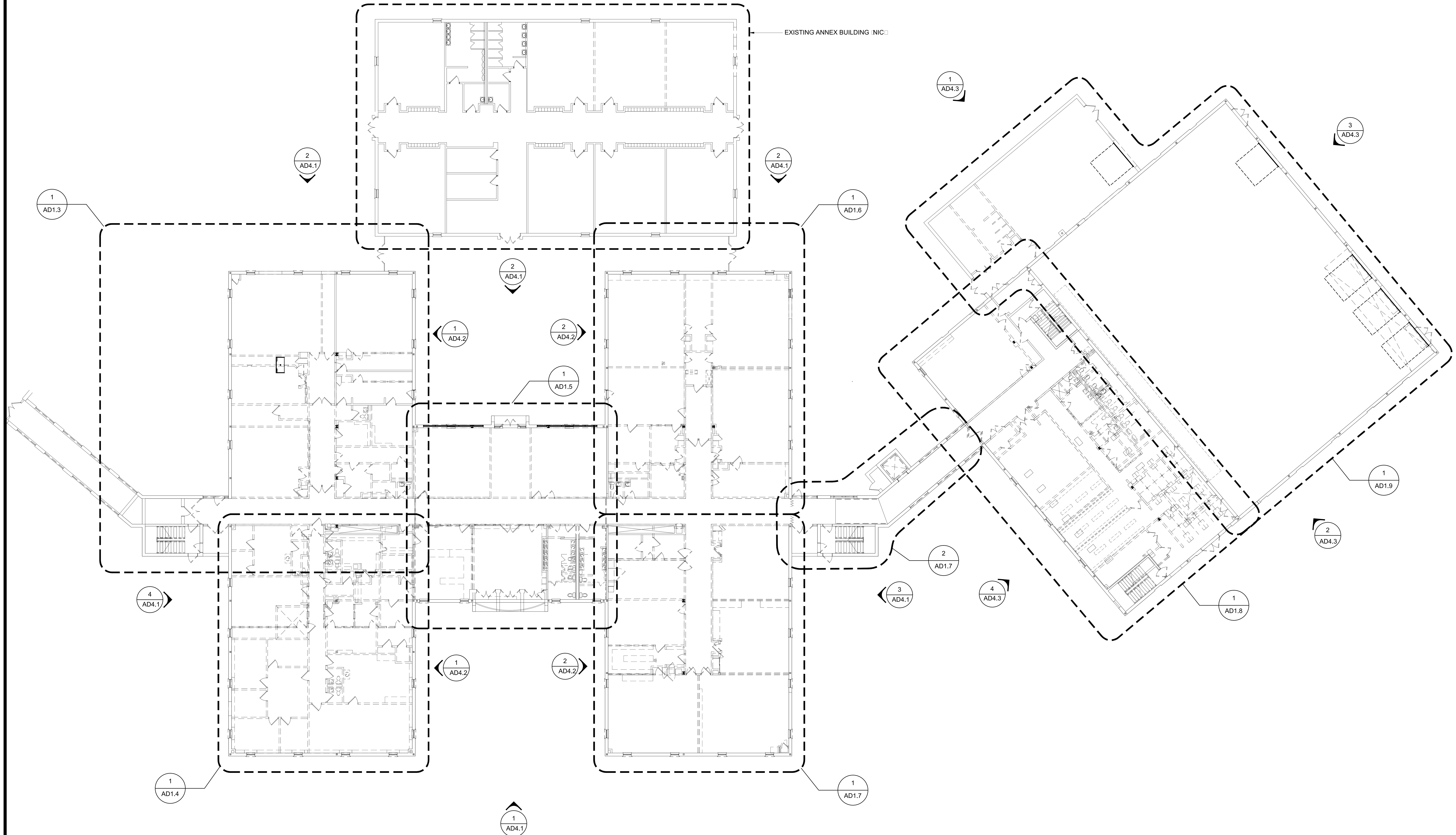

GROUND FLOOR OVERALL DEMOLITION PLAN

1 AD1.1 SCALE: 1/16" = 1'-0"

0 8' 16' 32'

PLAN NORTH

TRUE NORTH

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GREGORY M. CUPKA
Lic. No. 8001
17 2022
ARCHITECT

RUFFNER CAREER AND TECHNICAL EDUCATION CENTER

ROANOKE, VIRGINIA

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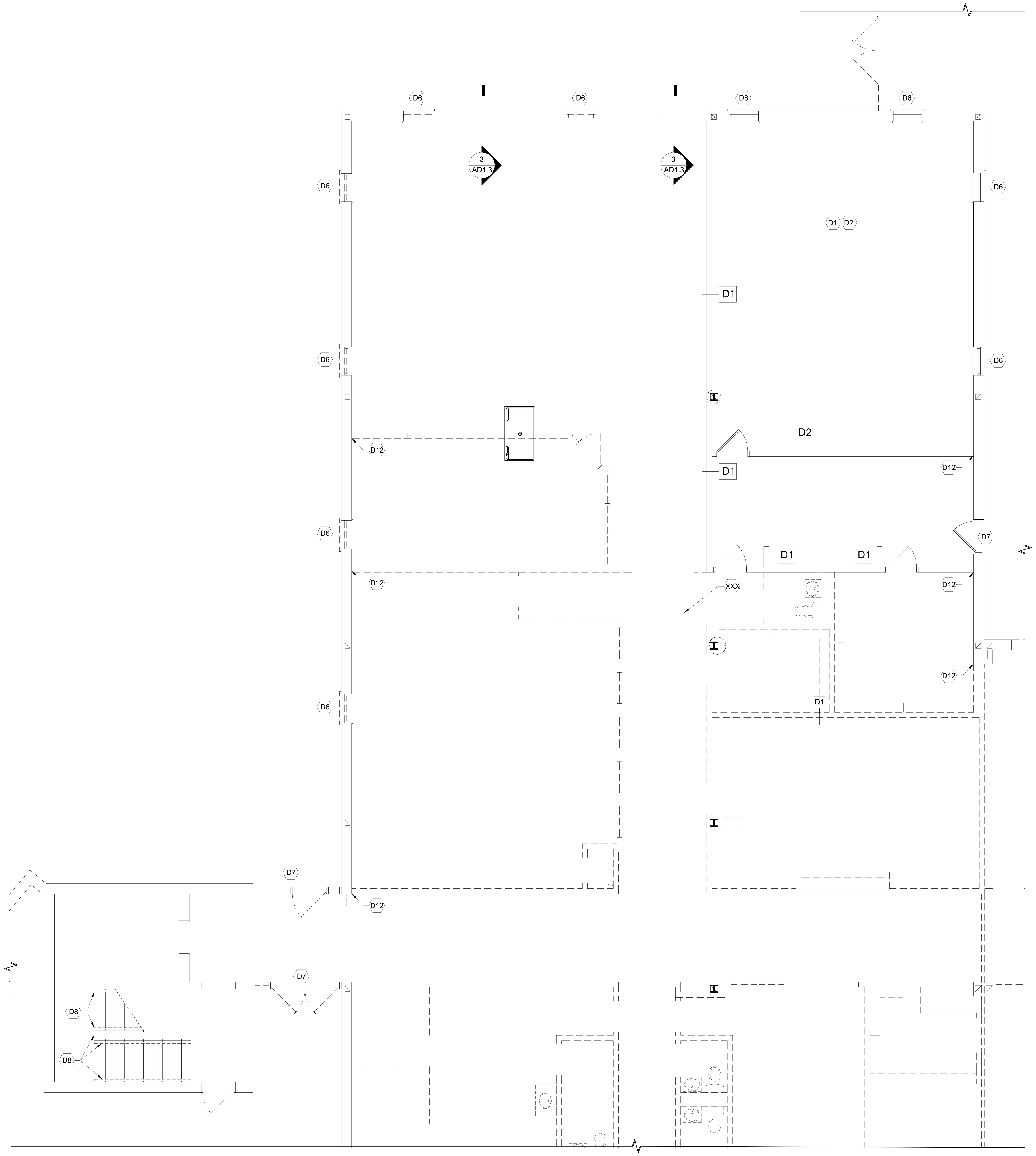
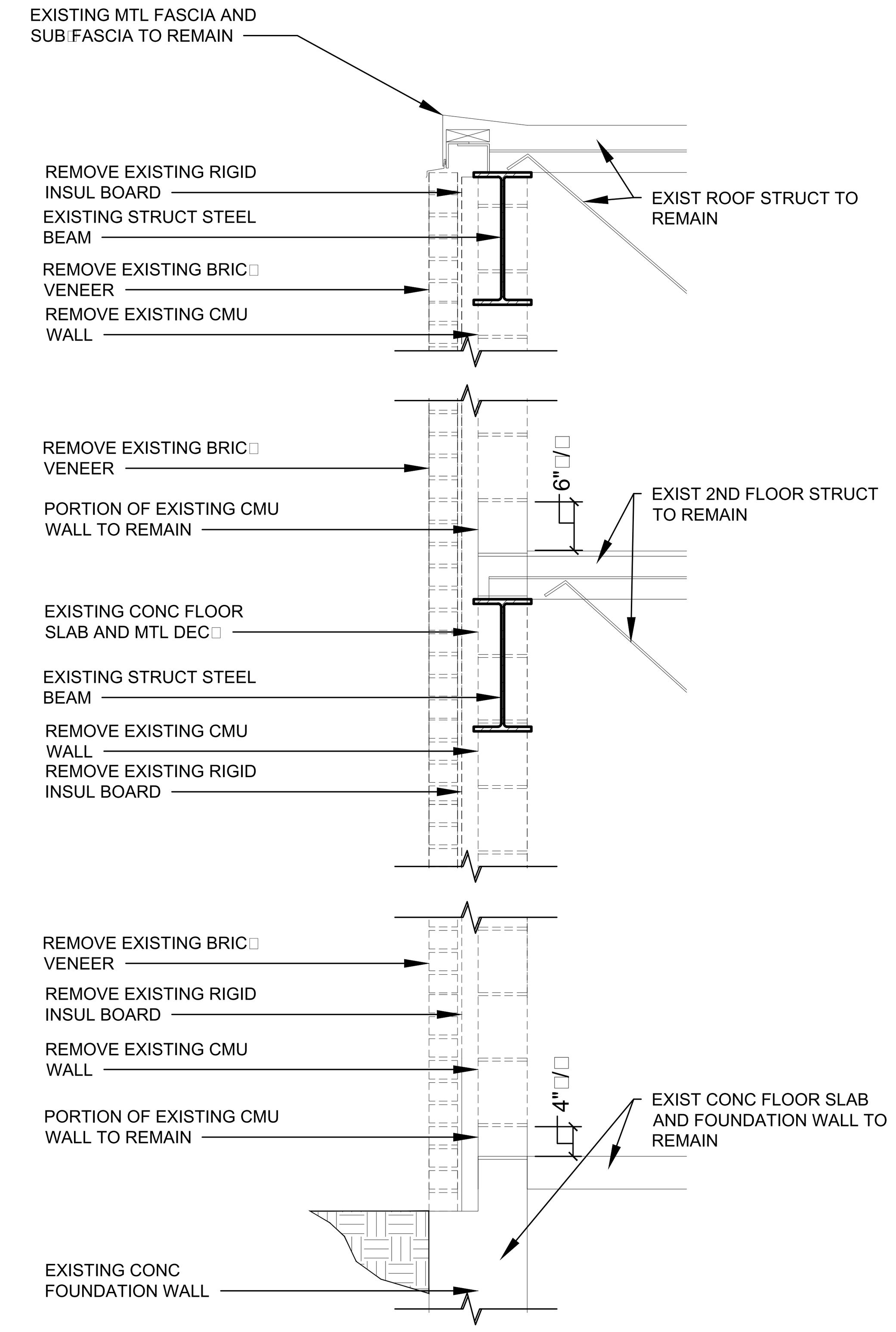
GROUND FLOOR OVERALL DEMOLITION PLAN

AD1.1

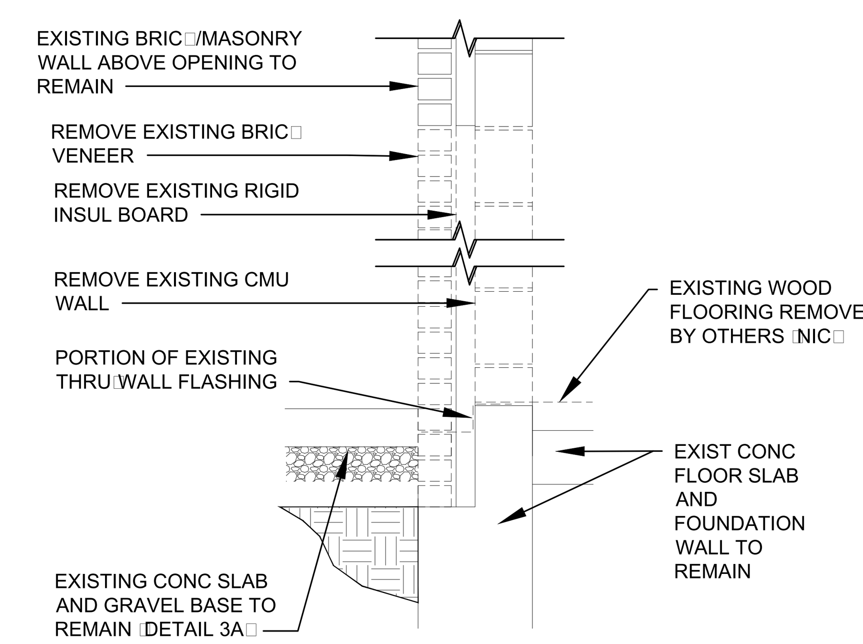
SHEET _____ of _____



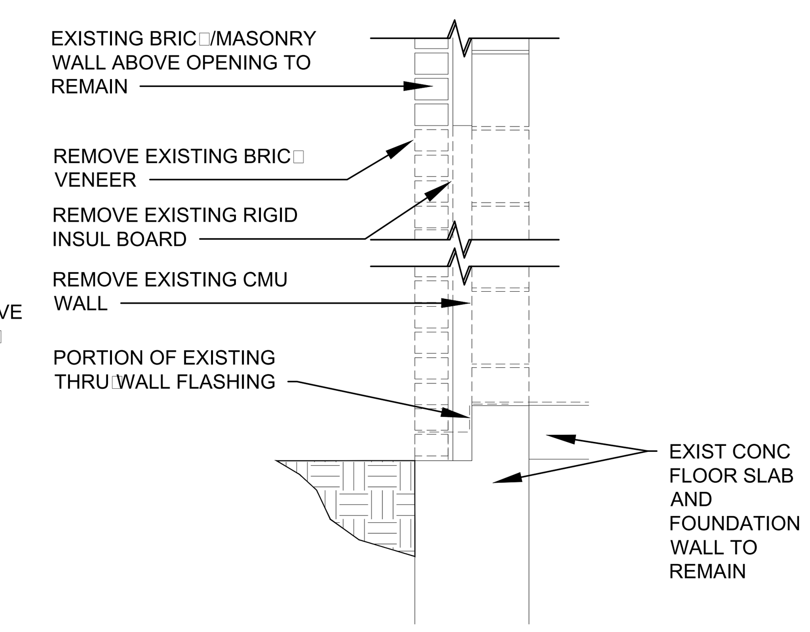
1 AD1.3 PARTIAL GROUND FLOOR DEMO PLAN - AREA A
SCALE: 3/16" = 1'-0"



2 AD1.3 EXTERIOR WALL DEMOLITION SECTION
SCALE: 3/4" = 1'-0"



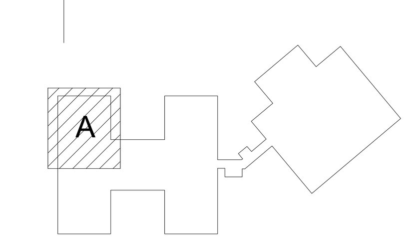
3 AD1.3 DEMO WALL SECTION
SCALE: 3/4" = 1'-0"



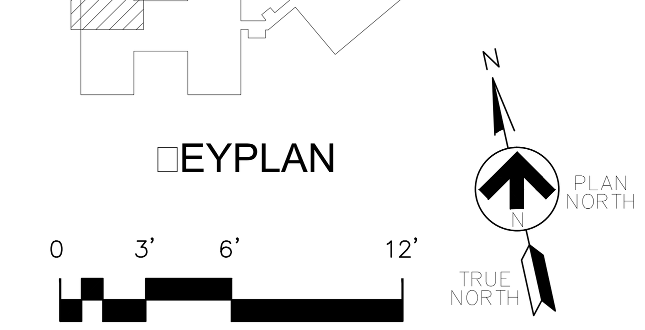
4 AD1.3 DEMO WALL SECTION
SCALE: 3/4" = 1'-0"

D1 DEMOLITION NOTE

D1 DEMOLITION WALL TYPE



KEYPLAN



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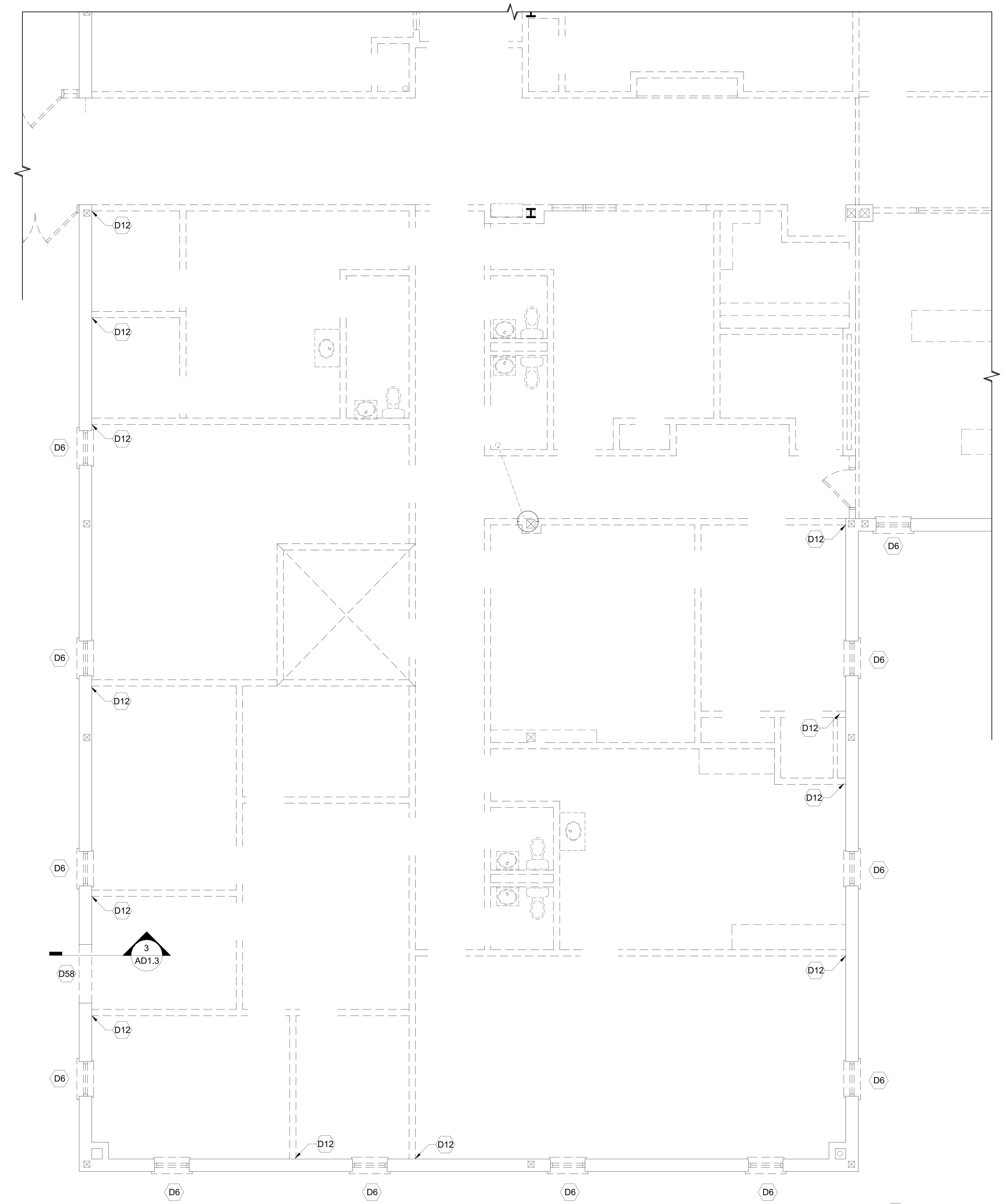
PARTIAL GROUND FLOOR DEMO PLAN - AREA A

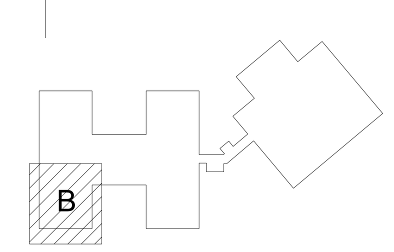
AD1.3

SHEET ______ of ______

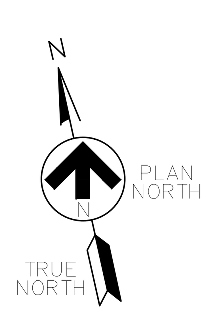


1 AD1.4 **PARTIAL GROUND FLOOR DEMO PLAN □AREA B**
SCALE: 3/16" □ 1'0"

D1	DEMOLITION NOTE
D1	DEMOLITION WALL TYPE



□EYPLAN



0 3' 6' 12'

DEMOLITION NOTES

D1	EXISTING TERRA□□O FLOORING REMAIN. PREPARE AND PATCH WHERE INTERIOR WALLS ARE REMOVED FOR INSTALLATION OF NEW FLOORING □SEE NEW WOR□.
D2	REMOVE EXISTING SUSPENDED ACOUSTIC CEILING. REMOVE ALL DEVICES □LIGHTS□DIFFUSERS□SPEA□ERS□ETC.□UNLESS NOTED OTHERWISE □SEE MECH AND ELEC DEMO DRAWINGS.
D3	REMOVE EXISTING WOOD CASEWOR□ AND DOORS□TYP. UNLESS NOTED OTHERWISE.
D4	REMOVE EXISTING DOOR□S□FRAME□S□THRESHOLD□S□AND HARDWARE UNLESS NOTED OTHERWISE□TYP.
D5	REMOVE EXISTING TOILET AND LAVATORY FIXTURES□TOILET ACCESSORIES AND HANDRAILS
D6	REMOVE EXISTING EXTERIOR WINDOWS□GLA□ING AND SILL FLASHING. PATCH AND PREPARE OPENING FOR INSTALLATION OF NEW WINDOWS □SEE NEW WOR□.
D7	REMOVE EXISTING METAL STOREFRONT DOORS□FRAME AND THRESHOLD. PATCH AND PREPARE HEAD□AMB AND THRESHOLD FOR NEW STOREFRONT ENTRANCE □SEE NEW WOR□.
D8	REMOVE EXISTING GUARDRAIL AND HANDRAIL. PATCH AND PREPARE EXISTING STEEL STAIR STRINGER AND WALL SURFACE FOR NEW GUARDRAIL AND HANDRAIL □SEE NEW WOR□.
D9	REMOVE EXISTING EXTERIOR METAL GATE AND FENCING. PATCH AND REPAIR HOLES IN EXISTING BRIC□ VENEER TO MATCH AD□ACENT SURFACES.
D10	EXISTING ROOF DRAIN LINE TO REMAIN □SEE PLUMBING DWGS.
D11	EXISTING STRUCTURAL STEEL COLUMN TO REMAIN□TYP.
D12	PATCH AND REPAIR INTERIOR FACE OF EXISTING MASORY WALL WITH NEW CMU AS RE□UIRED WHERE INTERSECTING INTERIOR CMU WALL IS REMOVED□TYP. ALL LOCATIONS. FINISH NEW CMU TO MATCH AD□ACENT WALL FINISH.
D13	EXISTING ROOF DRAIN TO BE REROUTED □SEE PLUMBING DWGS.
D14	PATCH AND REPAIR INTERIOR FACE OF EXTERIOR WALL WHERE EXISTING GWB INTERIOR OR METAL STOREFRONT WALL IS REMOVED. FINISH TO MATCH AD□ACENT WALL FINISH□ TYP.
D15	REMOVE EXISTING GWB OR PLASTER CEILING AND SUPPORT FRAMING. REMOVE ALL CEILING DEVICES □LIGHTS□DIFFUSERS□ SPEA□ERS□ETC.□UNLESS NOTED OTHERWISE □SEE MECH AND ELEC DEMO DRAWINGS.
D16	REMOVE EXISTING TOILET□URINAL AND LAVATORY FIXTURES□ TOILET PARTITIONS□AND TOILET ACCESSORIES□TYP
D17	REMOVE ALL EXISTING WALL AND FLOOR TILE. PATCH AND PREPARE FACE OF WALL SURFACES TO REMAIN FOR INSTALLATION OF NEW TILE.. PATCH FLOOR SLAB FOR INSTALLATION OF NEW TILE FLOORING □SEE NEW WOR□
D18	REMOVE EXISTING EXPANSION □OINT COVER PLATES □ WALLS□ FLOOR AND CEILING. PREPARE EXISTING □OINTS FOR INSTALLATION OF NEW COVER PLATE
D19	REMOVE EXISTING WATER FOUNTAIN □SEE PLUMBING DWGS
D20	REMOVE EXISTING ROOF DRAIN AND REROUTE. SEE PLUMBING DWGS
D21	REMOVE EXISTING WALL TILE FROM INTERIOR FACE OF EXTERIOR WALL. PATCH AND REPAIR WALL FACE FOR NEW FINISH □SEE NEW WOR□
D22	REMOVE EXISTING ELEVATOR CAB□DOOR□DOOR FRAME□ CONTROLS AND E□UIPMENT. PATCH AND REPAIR ALL SURFACES FOR NEW ELEVATOR □SEE NEW WOR□
D23	REMOVE EXISTING DOOR AND FRAME. PATCH AND REPAIR WALL AND FLOOR SURFACE FOR INSTALLATION OF NEW DOOR AND FRAME □SEE NEW WOR□
D24	REMOVE EXISTING LOC□ERS□LOC□ER BASE□METAL LOC□ER CAPS□EXPANDED METAL WALL ABOVE□AND WOOD BENCHES□TYP. PATCH AND PREPARE FLOOR FOR NEW FLOORING □SEE NEW WOR□
D25	REMOVE PORTION OF EXISTING MASONRY WALL FOR INSTALLATION OF NEW DOOR AND FRAME
D26	REMOVE PORTION OF EXISTING CMU AND BRIC□ VENEER EXTERIOR WALL FOR INSTALLATION OF NEW DOOR AND FRAME □SEE NEW WOR□. INSTALL NEW BRIC□ AND CMU FOR NEW OPENING □SEE NEW WOR□.
D27	REMOVE PORTION OF EXISTING CMU□BRIC□ VENEER AND PRECAST CONC PANEL □ EXTERIOR WALL FOR INSTALLATION OF NEW OVERHEAD□MAN DOOR AND FRAME□STOREFRONT OR WINDOW. INSTALL NEW BRIC□ AND CMU FOR NEW ROUGH OPENING □SEE NEW WOR□ DWGS.
D28	REMOVE EXISTING HOLLOW METAL DOORS□FRAME□ THRESHOLD AND HARDWARE. PREPARE EXISTING OPENING AND CONC FLOOR FOR INSTALLATION OF NEW DOOR AND FRAME □SEE NEW WOR□
D29	REMOVE ALL EXISTING SUSPENDED BAS□ETBALL E□UIPMENT□ SPEA□ERS□LIGHT FIXTURES□WALL MOUNTED CLOC□S□ ELECTRONIC SCOREBOARDS□WALL MOUNTED FIRE EXTINGUISHERS□HVAC E□UIPMENT STEEL PLATFORMS AND SUPPORT FRAMING FROM WITHIN EXISTING GYMNASIUM. STORE OR DISPOSE OF AS DIRECTED BY OWNER. SEE MECH AND ELEC DEMOLITION DWGS FOR DETAILS.
D30	REMOVE EXISTING WOOD FLOORING□CONT METAL WALL BASE□ POWER OUTLETS AND CONDUIT. PREPARE EXISTING CONC SUB□FLOOR SLAB FOR CONC NEW TOPPING SLAB □SEE NEW WOR□.
D31	CLEAN□PATCH AND REPAIR DAMAGED AREAS OF EXISTING INTERIOR FACE □ EXTERIOR CMU WALL AND PREPARE FOR NEW FINISH □SEE NEW WOR□.
D32	REMOVE SUSP ACT AND METAL GRID FROM UNDERSIDE OF EXISTING METAL ROOF DEC□. CLEAN AND PREPARE SURFACE OF EXISTING ROOF FRAMING AND METAL DEC□ING FOR NEW FINISH. SEE NEW WOR□.
D33	EXISTING MOVEABLE WOOD BLEACHERS TO BE REMOVED BY OWNER □NIC□
D34	CLEAN AND PREPARE ALL SURFACES OF EXISTING INTERIOR FACE□ EXTERIOR CMU WALL AND PREPARE ENTIRE WALL SURFACE FOR NEW FINISH □SEE NEW WOR□.
D35	CUT OPENING IN EXISTING CONC FLOOR SLAB AND MTL DEC□ FOR INSTALLATION OF NEW DUCTWOR□ □SEE ARCH AND MECH DWGS FOR OPENING SI□E AND LOCATIONS.
D36	REMOVE PORTION OF EXISTING CONC FLOOR SLAB TO GRAVEL
D37	REMOVE GRANITE SHOWER PARTITION WALLS AND PLUMBING FIXTURES □SEE PLUMBING DWGS
D38	REMOVE EXISTING RETRACTABLE SECURITY GATES.
D39	REMOVE EXISTING HANDRAILS. PATCH AND REPAIR WALL AS RE□UIRED TO MATCH AD□ACENT SURFACE.
D40	REMOVE EXISTING VINYL TILE FLOORING. PREPARE SURFACE OF TERRA□□O SUBFLOORING FOR INSTALLATION OF NEW FLOORING □SEE NEW WOR□.
D41	REMOVE EXISTING CARPET TILE FLOORING. PREPARE SURFACE OF TERRA□□O SUBFLOORING FOR INSTALLATION OF NEW FLOORING □SEE NEW WOR□.
D42	REMOVE EXISTING CERAMIC TILE FLOORING. PATCH AND PREPARE SUBFLOORING FOR NEW FINISH FLOORING □SEE NEW WOR□.
D43	REMOVE EXISTING WOOD TILE FLOORING. PREPARE SURFACE OF TERRA□□O SUBFLOORING FOR INSTALLATION OF NEW FLOORING □SEE NEW WOR□.
D44	REMOVE EXISTING WALL MIRRORS AND STORE PER OWNERS INSTRUCTIONS.
D45	REMOVE EXISTING CONC SLAB AND INTERIOR CMU WALLS TO MINIMUM 6" BELOW BOTTOM OF EXISTING CONCRETE SLAB THIS AREA. BAC□FILL AND PREPARE SUBGRADE FOR INSTALLATION OF NEW CONCRETE SLAB WHERE WALL REMOVED.
D46	EXISTING CONSTRUCTION WITHIN THIS AREA TO REMAIN AS IS
D48	REMOVE EXISTING WINDOW.
D49	REMOVE PORTION OF WALL FROM EXISTING FF TO UNDERSIDE OF DEC□ ABOVE.
D50	REMOVE EXISTING GWB AND MTL STUD PILASTER TO FACE OF MASONRY WALL
D51	REMOVE EXISTING BASE CABINET AND COUNTERTOP. PATCH FACE OF WALL BEHIND AND PREPARE FOR NEW FINISH □SEE NEW WOR□
D52	REMOVE HOLLOW METAL STOREFRONT AND GLA□ING.
D53	REMOVE EXISTING BUILT□IN SHOWCASE
D54	REMOVE EXISTING WOOD SHELVING
D55	REMOVE EXISTING METAL SECURITY GATE
D56	REMOVE EXISTING DOOR□S□. PATCH AND PREPARE EXISTING DOOR FRAME FOR NEW FINISH AND INSTALLATION OF NEW DOOR□S□SEE NEW WOR□
D57	REMOVE CERAMIC WALL TILE FROM FACE OF EXISTING WALL. PATCH AND PREPARE FACE OF WALL FOR INSTALLATION OF NEW FINISH □SEE NEW WOR□
D58	DEMOLITION TO BE PERFORMED BY OTHERS □NIC□
D59	CLEAN EXISTING GLA□ED CMU BLOC□ □ INTERIOR FACE OF EXTERIOR GYM WALL.
D60	REMOVE EXISTING SUSPENDED STEEL PLATFORM AND MECH UNIT. PATCH AND REPAIR EXISTING WALL AND ROOF SURFACES AND FINISH TO MATCH AD□ACENT FINISH
D61	REMOVE PORTION OF EXISTING CONC SLAB FOR INSTALLATION OF NEW TRENCH DRAIN □SEE PLUMB AND STRUCT DWGS
D62	REMOVE PAINTING COATING AND PREPARE FACE OF EXISTING MASONRY WALL FOR INSTALLATION OF NEW CERAMIC TILE. SEE NEW WOR□ DRAWINGS FOR HEIGHT OF TILE.

GENERAL DEMOLITION NOTES

1	DASH LINES IN DEMOLITION FLOOR PLANS REPRESENT CONSTRUCTION REMOVED UNDER SEPARATE CONTRACT. CONTRACTOR SHALL PATCH OR INFILL DAMAGED EXISTING WALLS AND FLOORS TO REMAIN WHERE CONSTRUCTION HAS BEEN REMOVED WITH CONSTRUCTION TO MATCH AD□ACENT WALL OR FLOOR AND PREPARE FOR NEW FINISH□TYP ALL LOCATIONS UNO.
2	WHERE EXISTING DOOR AND FRAMES ARE REMOVED FROM WALL TO REMAIN□PATCH AND PREPARE ROUGH OPENING IN WALL FOR INSTALLATION OF NEW DOOR AND FRAME□TYP UNO.

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PARTIAL GROUND FLOOR DEMO PLAN □AREA B

AD1.4

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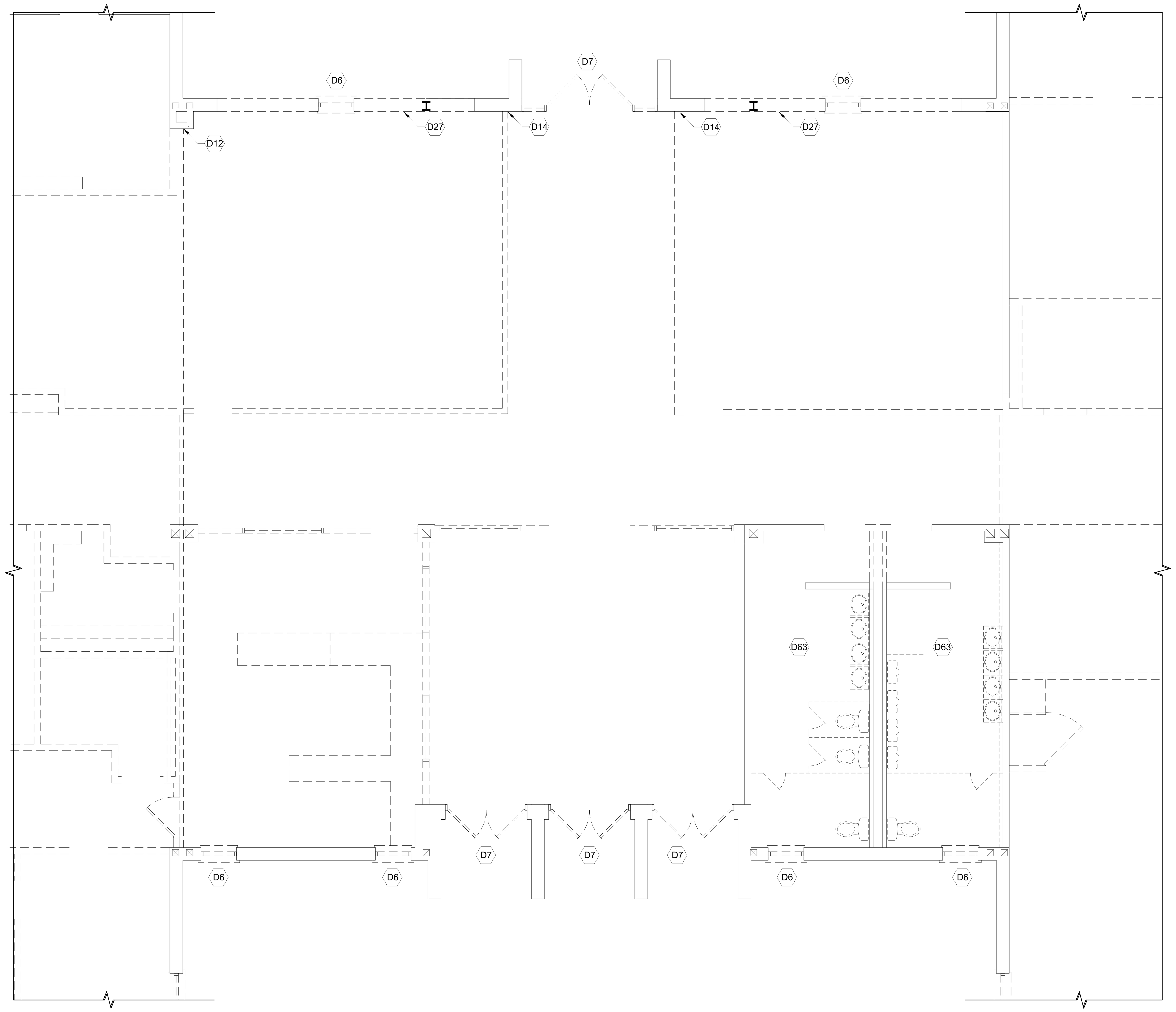
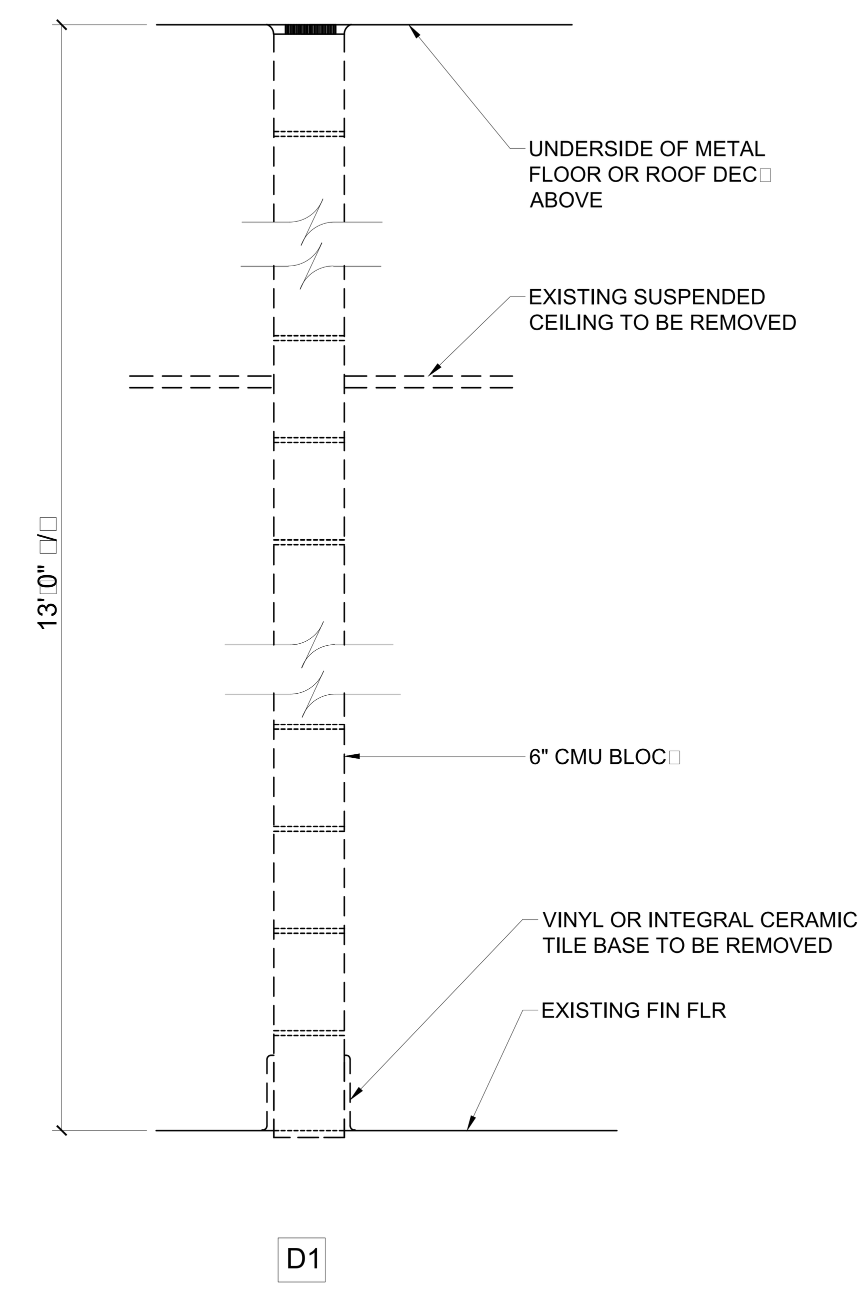
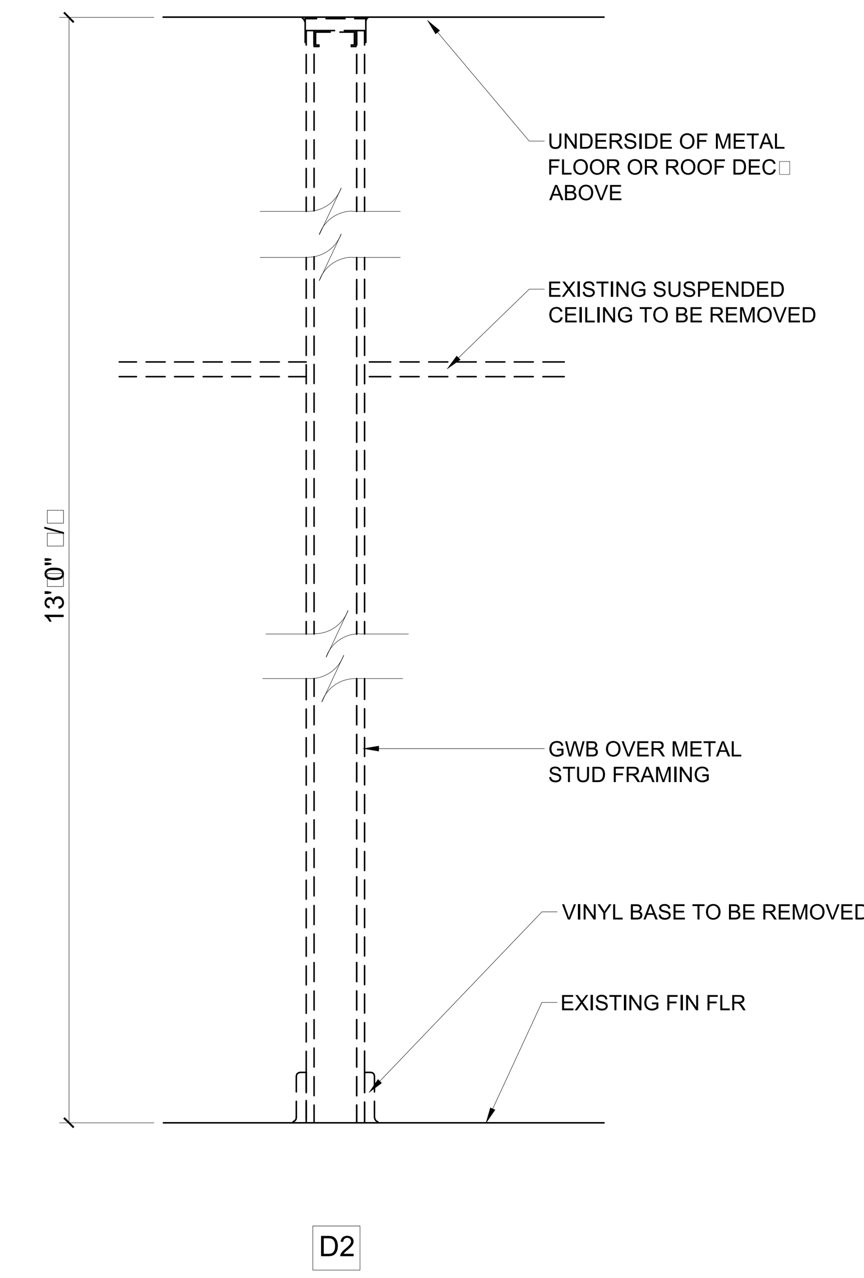


1 AD1.5 PARTIAL GROUND FLOOR DEMO PLAN □AREA C

SCALE: 3/16" □ 1'□0"



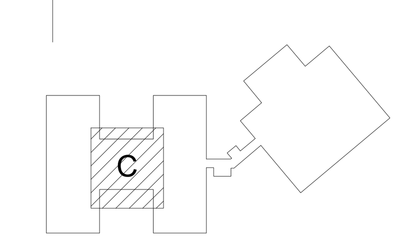


DEMOLITION WALL TYPES

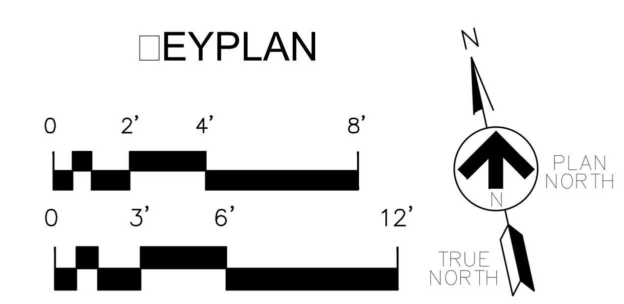
NOT TO SCALE

D1 DEMOLITION NOTE

D1 DEMOLITION WALL TYPE



□EYPLAN



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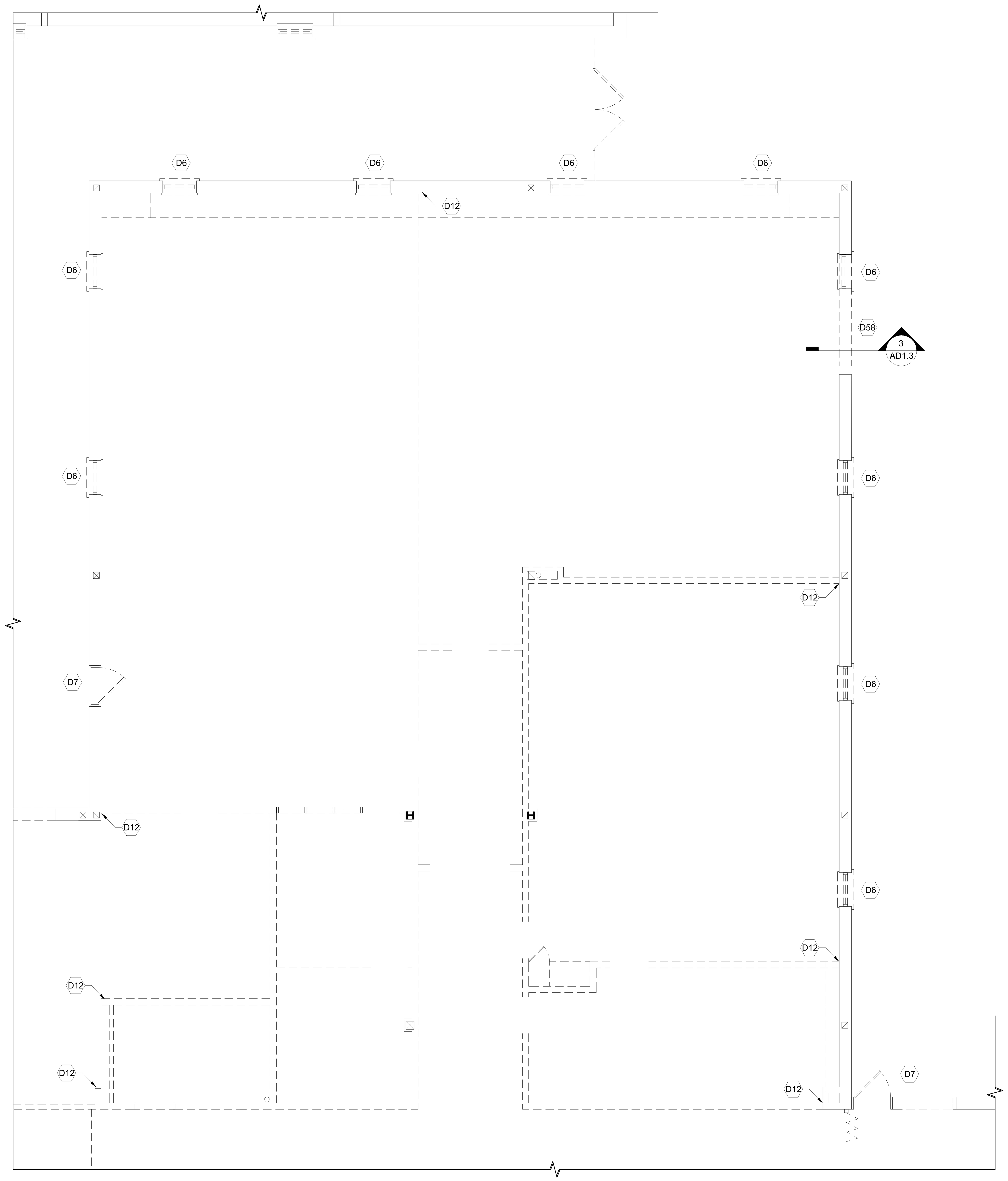
PARTIAL GROUND FLOOR DEMO PLAN □AREA C

AD1.5

SHEET ______ of ______



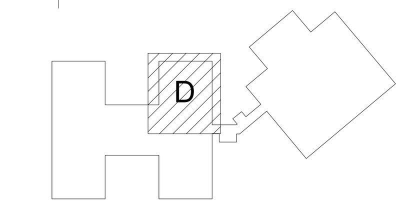
PARTIAL GROUND FLOOR DEMO PLAN □AREA D

1 / AD1.6

SCALE: 3/16" □ 1'□0"

D1 DEMOLITION NOTE

D1 DEMOLITION WALL TYPE



□EYPLAN

0 3' 6' 12'

PLAN NORTH

TRUE NORTH

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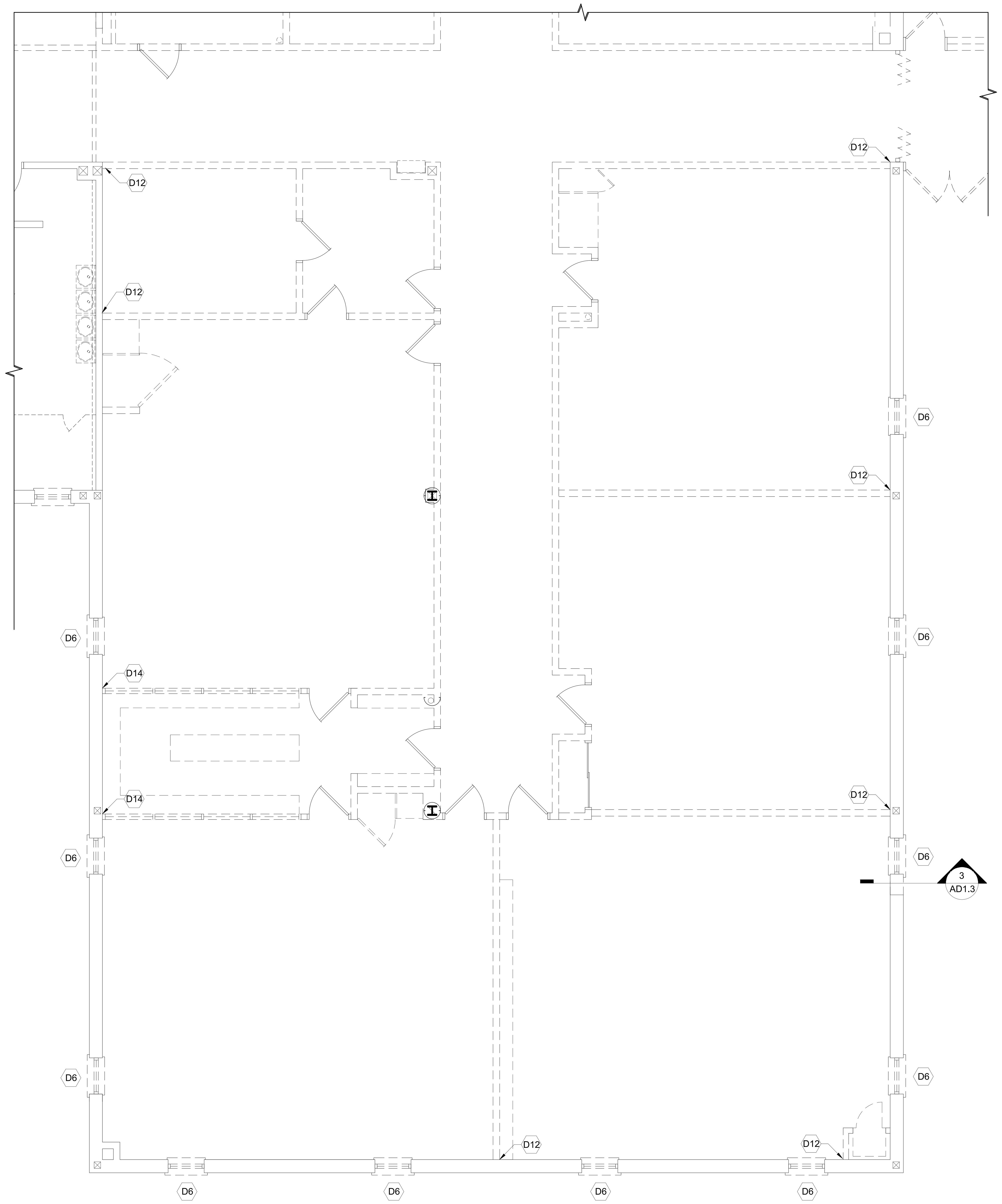
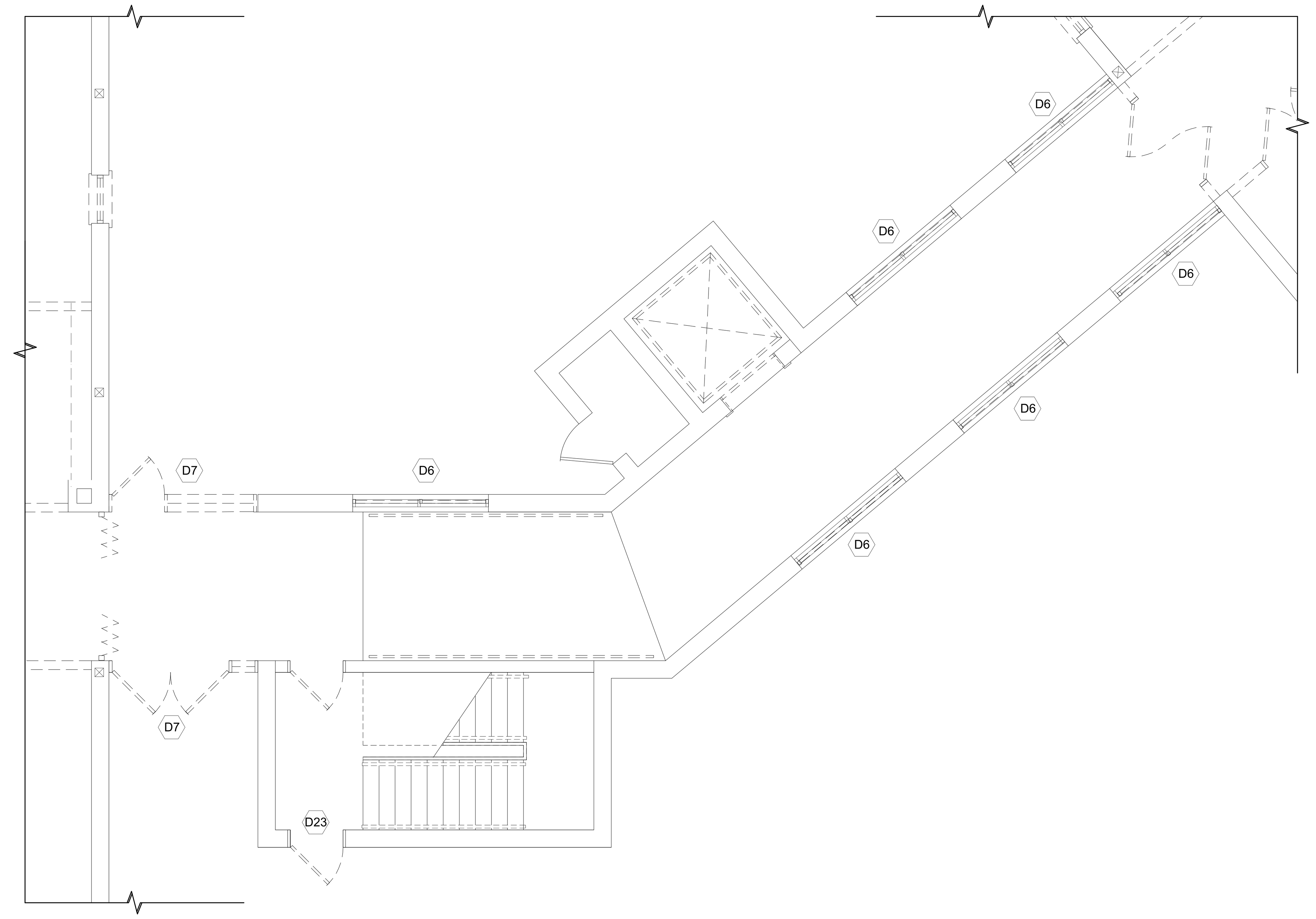
PARTIAL GROUND FLOOR DEMO PLAN □AREA D

AD1.6

SHEET ______ of ______



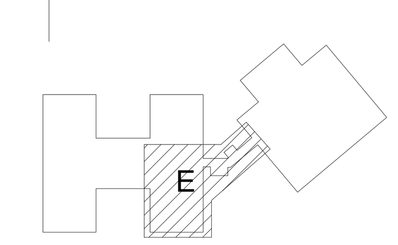
1
AD1.7
PARTIAL GROUND FLOOR DEMO PLAN □AREA E
SCALE: 3/16" □ 1'□0"



2
AD1.7
GROUND FLOOR ENLARGED PARTIAL DEMOLITION PLAN
SCALE: 3/16" □ 1'□0"

D1 DEMOLITION NOTE

D1 DEMOLITION WALL TYPE



□EYPLAN

0 4' 8' 16'

0 3' 6' 12'

N
PLAN NORTH
TRUE NORTH

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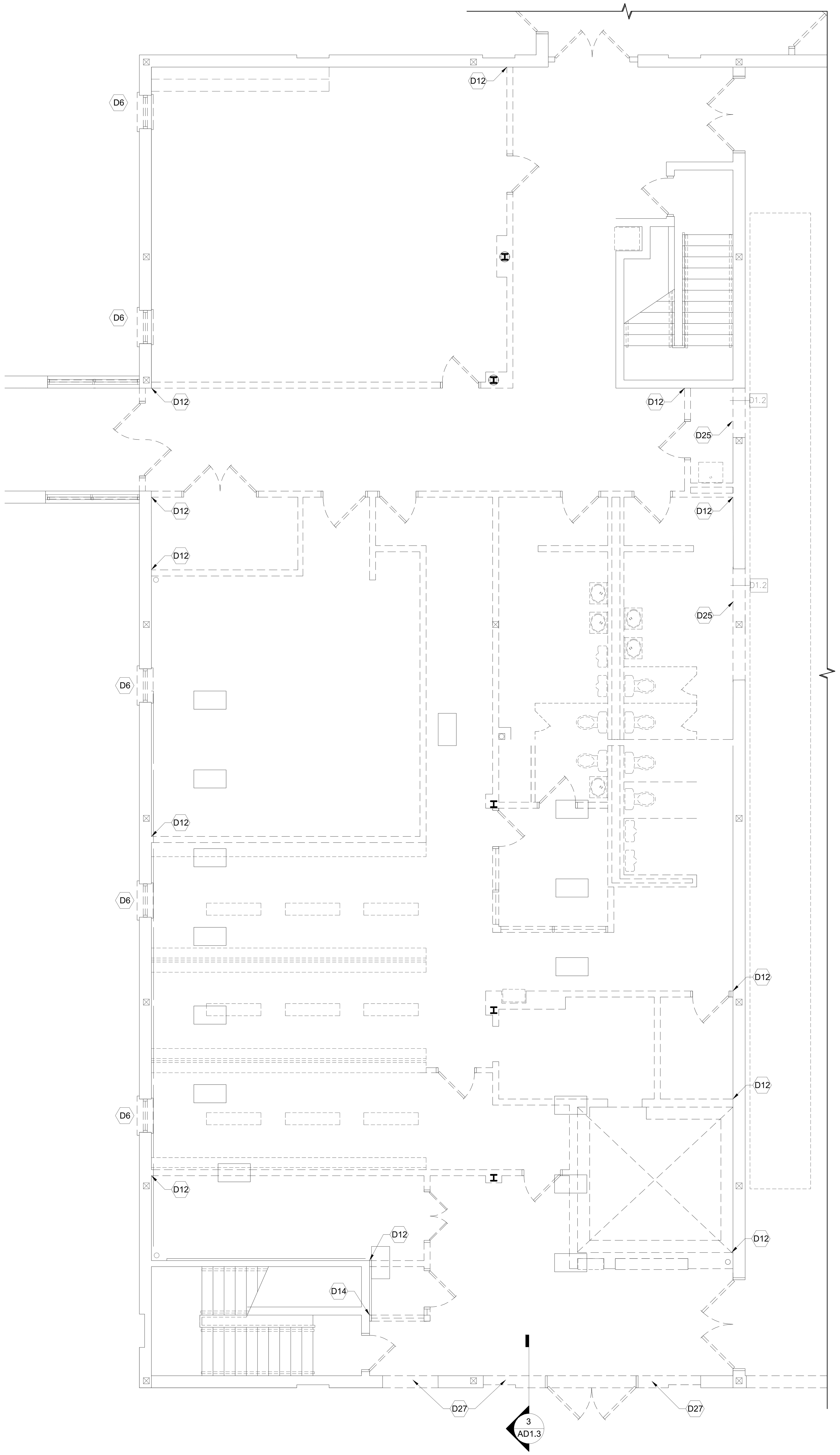
PARTIAL GROUND FLOOR DEMO PLAN □AREA E

AD1.7

SHEET ______ of ______

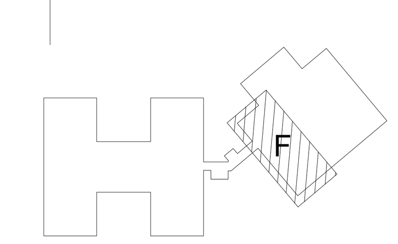


1 PARTIAL GROUND FLOOR DEMO PLAN □AREA F

AD1.8 SCALE: 3/16" □ 1'0"

D1 DEMOLITION NOTE

D1 DEMOLITION WALL TYPE



□EYPLAN

0 3' 6' 12'

PLAN NORTH
TRUE NORTH

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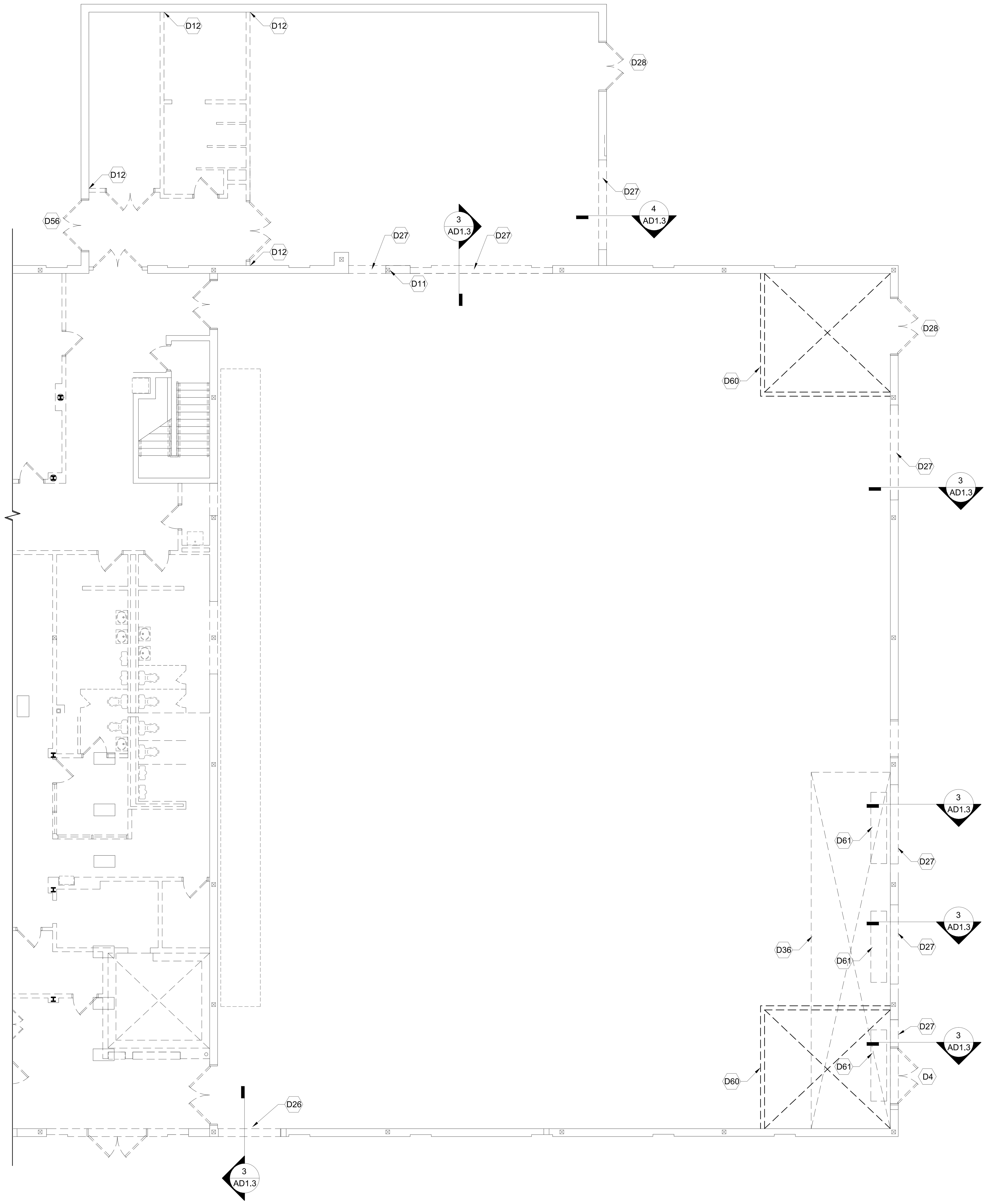
PARTIAL GROUND FLOOR DEMO PLAN □AREA F

AD1.8

SHEET ______ of ______



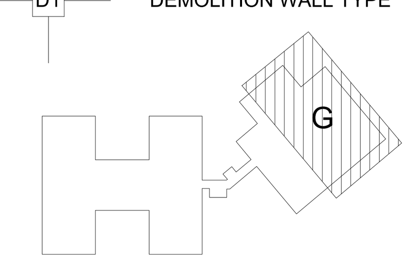
1
AD1.9

PARTIAL GROUND FLOOR DEMO PLAN □AREA G

SCALE: 1/8" □ 1'-0"

D1 DEMOLITION NOTE

D1 DEMOLITION WALL TYPE



□EYPLAN

0 4' 8' 16'

N
PLAN NORTH
TRUE NORTH

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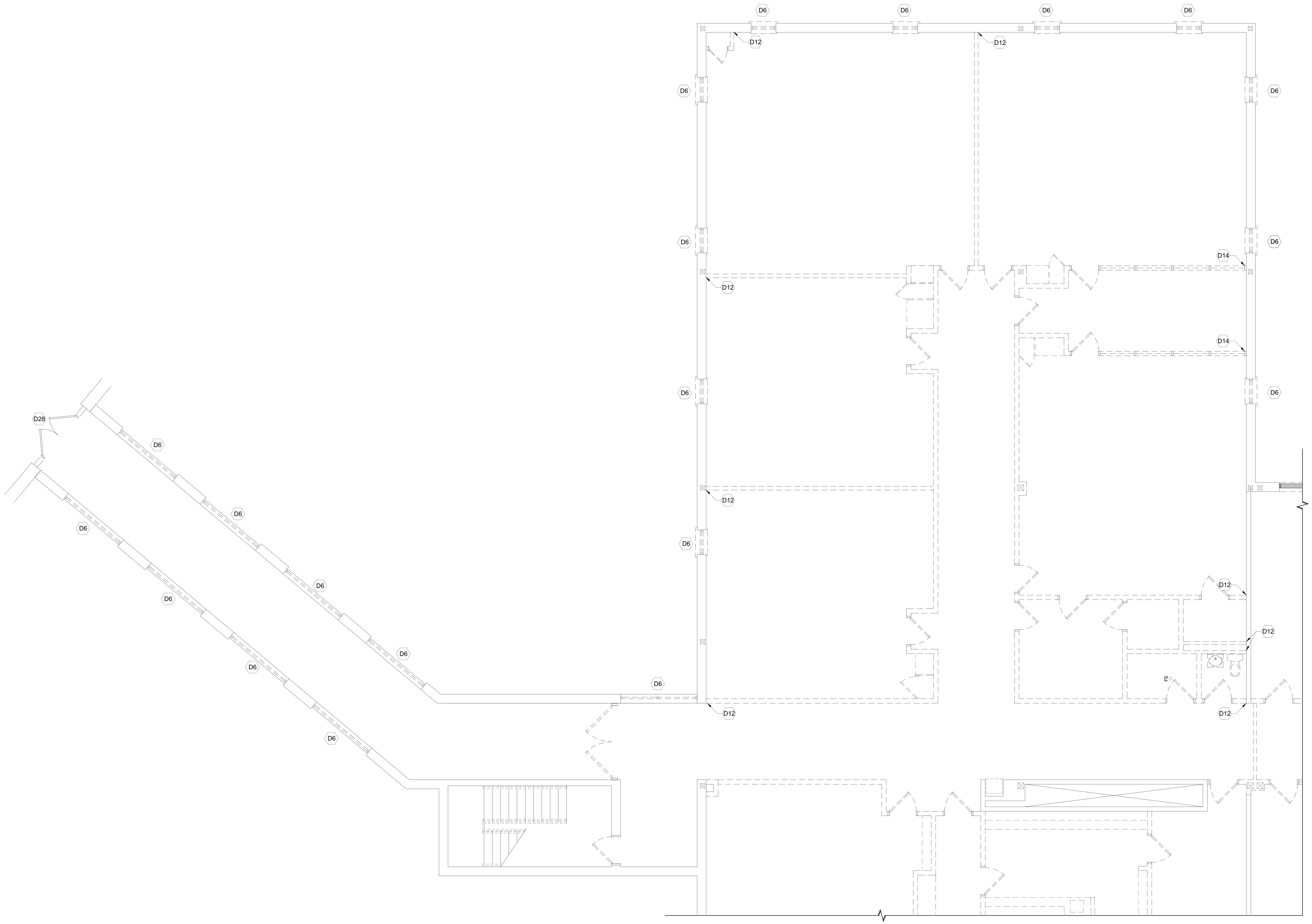
PARTIAL GROUND FLOOR DEMO PLAN □AREA G

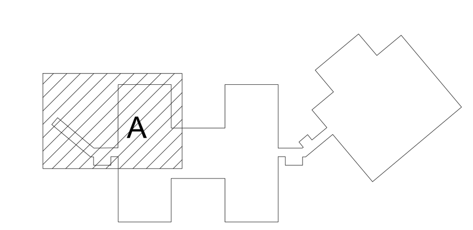
AD1.9

SHEET ______ of ______



PARTIAL SECOND FLOOR DEMO PLAN AREA A

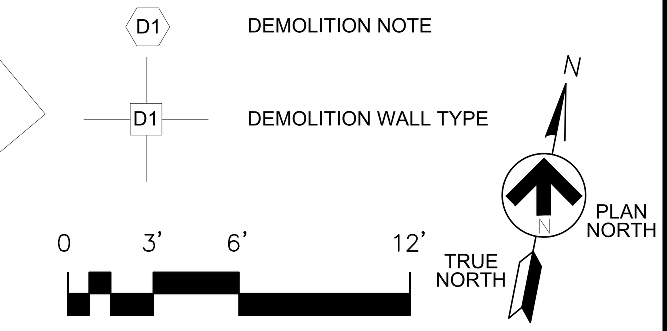
1
AD2.1
SCALE: 3/16" = 1'-0"



KEYPLAN

D1 DEMOLITION NOTE

D1 DEMOLITION WALL TYPE



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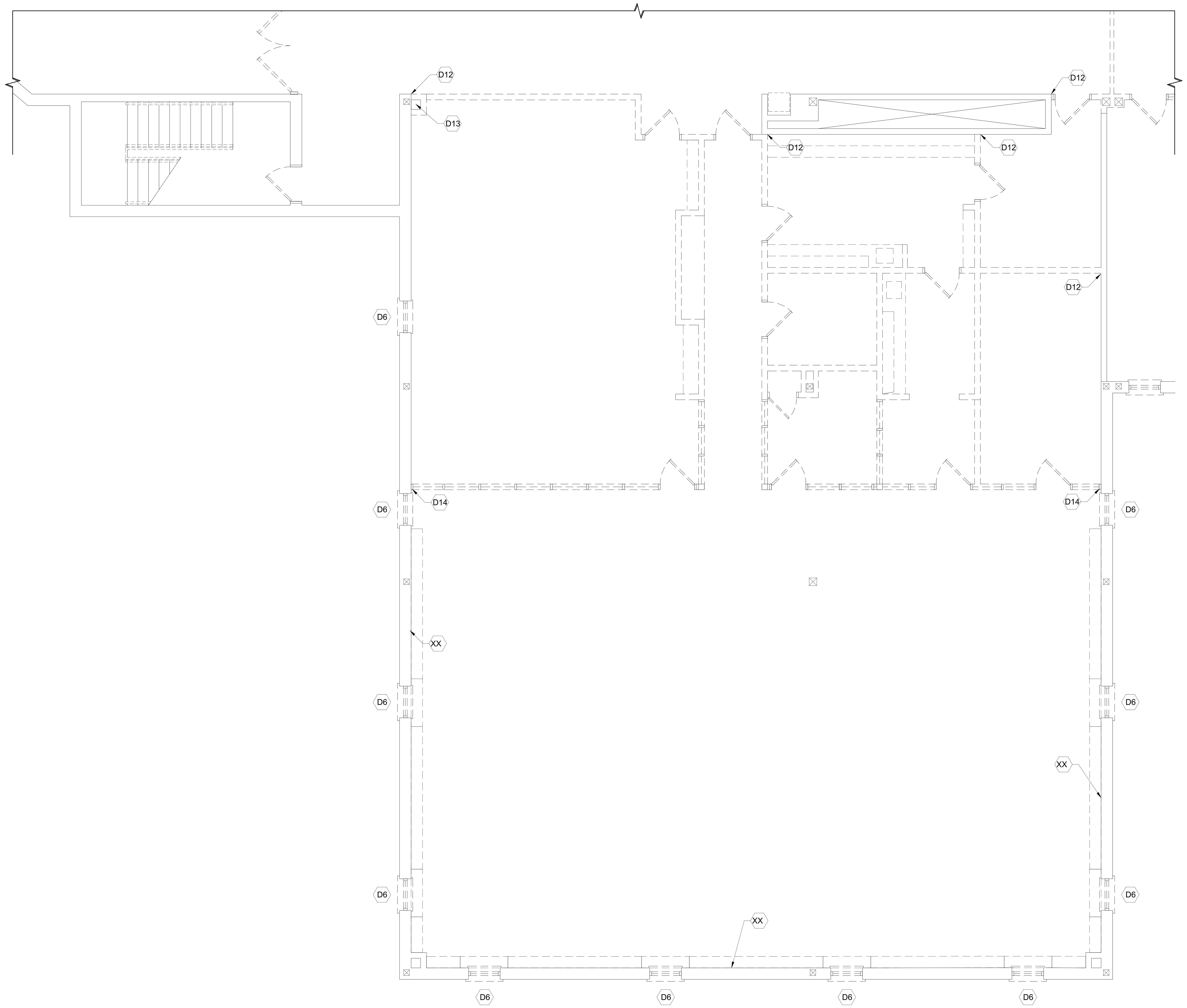
SCALE:	AS SHOWN

PARTIAL SECOND FLOOR DEMO PLAN AREA A

AD2.1

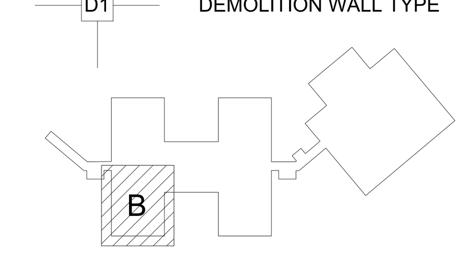
SHEET ______ of ______



1
AD2.2
PARTIAL SECOND FLOOR DEMO PLAN □AREA B
SCALE: 3/16" □ 1'-0"

D1 DEMOLITION NOTE

D1 DEMOLITION WALL TYPE



□EYPLAN

0 3' 6' 12'

TRUE NORTH

N

PLAN NORTH

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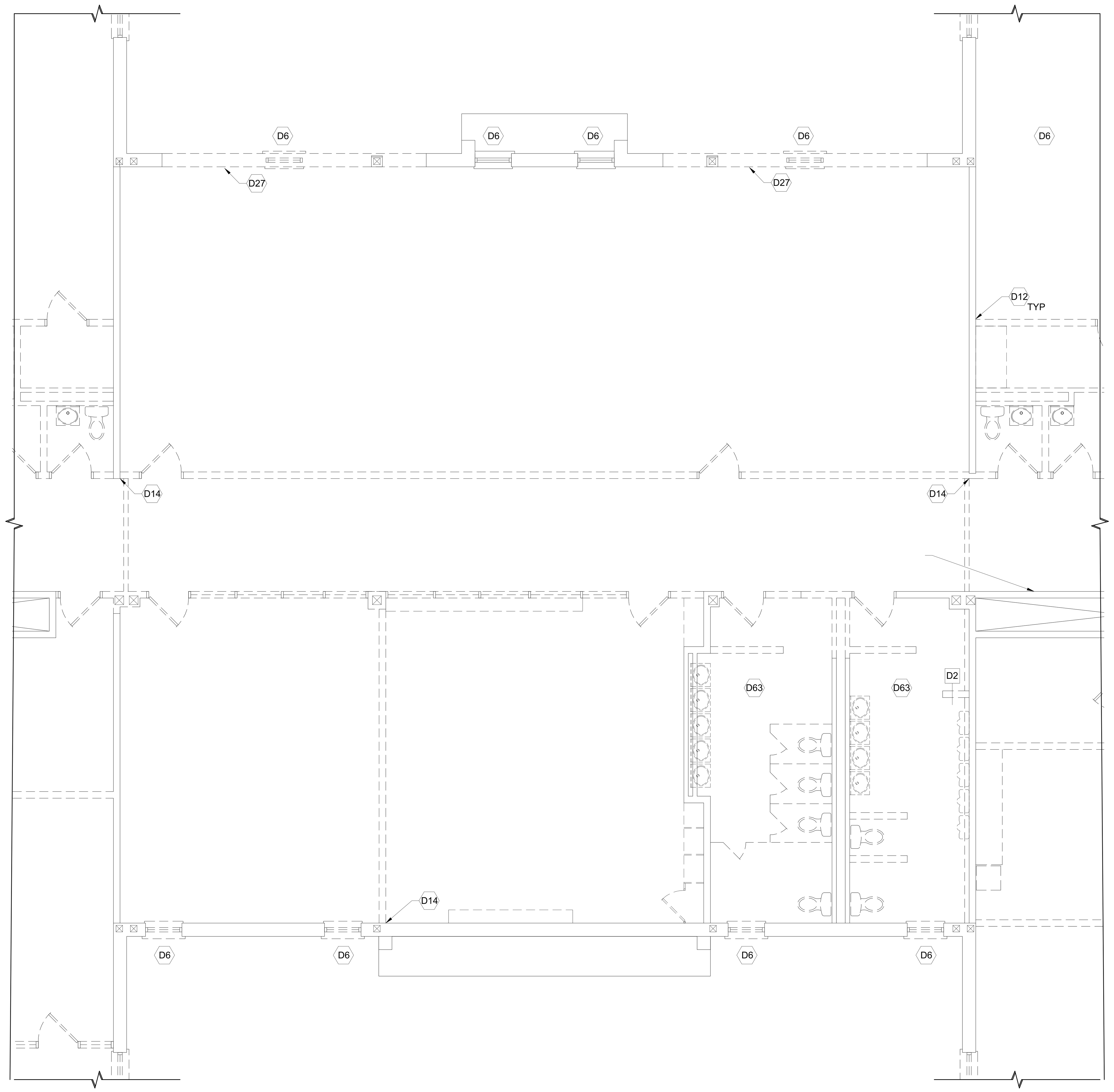
PARTIAL SECOND FLOOR DEMO PLAN □AREA B

AD2.2

SHEET ______ of ______

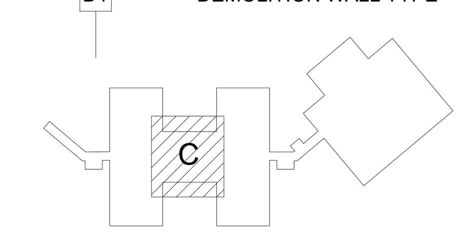


1 AD2.3 PARTIAL SECOND FLOOR DEMO PLAN AREA C

SCALE: 3/16" 1'0"

D1 DEMOLITION NOTE

D1 DEMOLITION WALL TYPE



EYPLAN

0 3' 6' 12'

TRUE NORTH

PLAN NORTH

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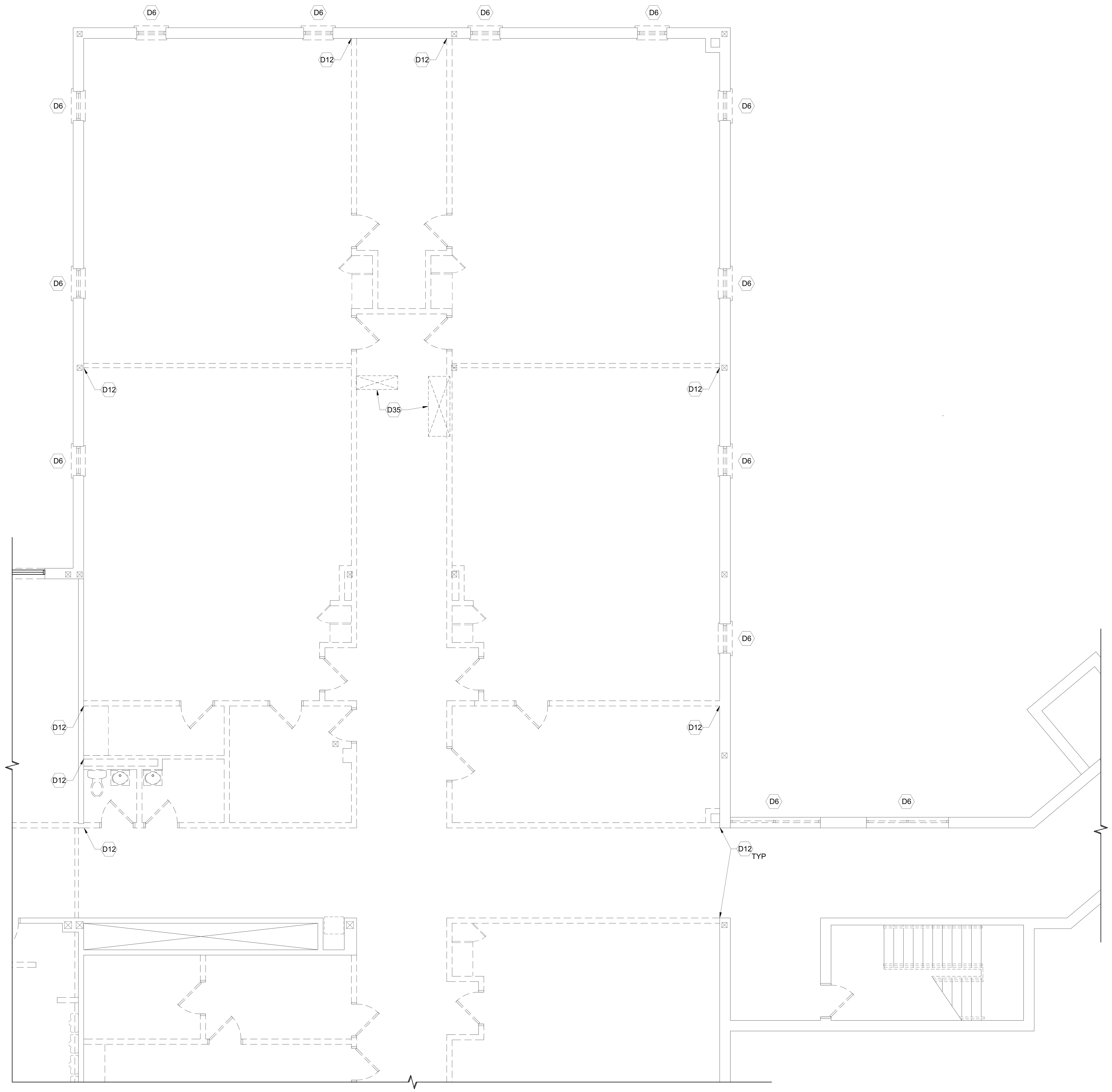
PARTIAL SECOND FLOOR DEMO PLAN AREA C

AD2.3

SHEET ______ of ______



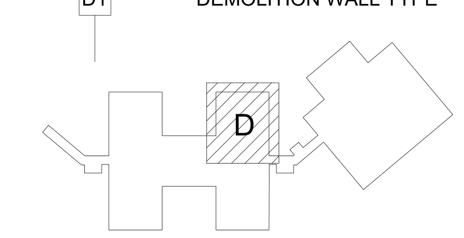
1
AD2.4

PARTIAL SECOND FLOOR DEMO PLAN □AREA D

SCALE: 3/16" □ 1'-0"

D1 DEMOLITION NOTE

D1 DEMOLITION WALL TYPE



□EYPLAN

0 3' 6' 12'

TRUE NORTH

PLAN NORTH

N

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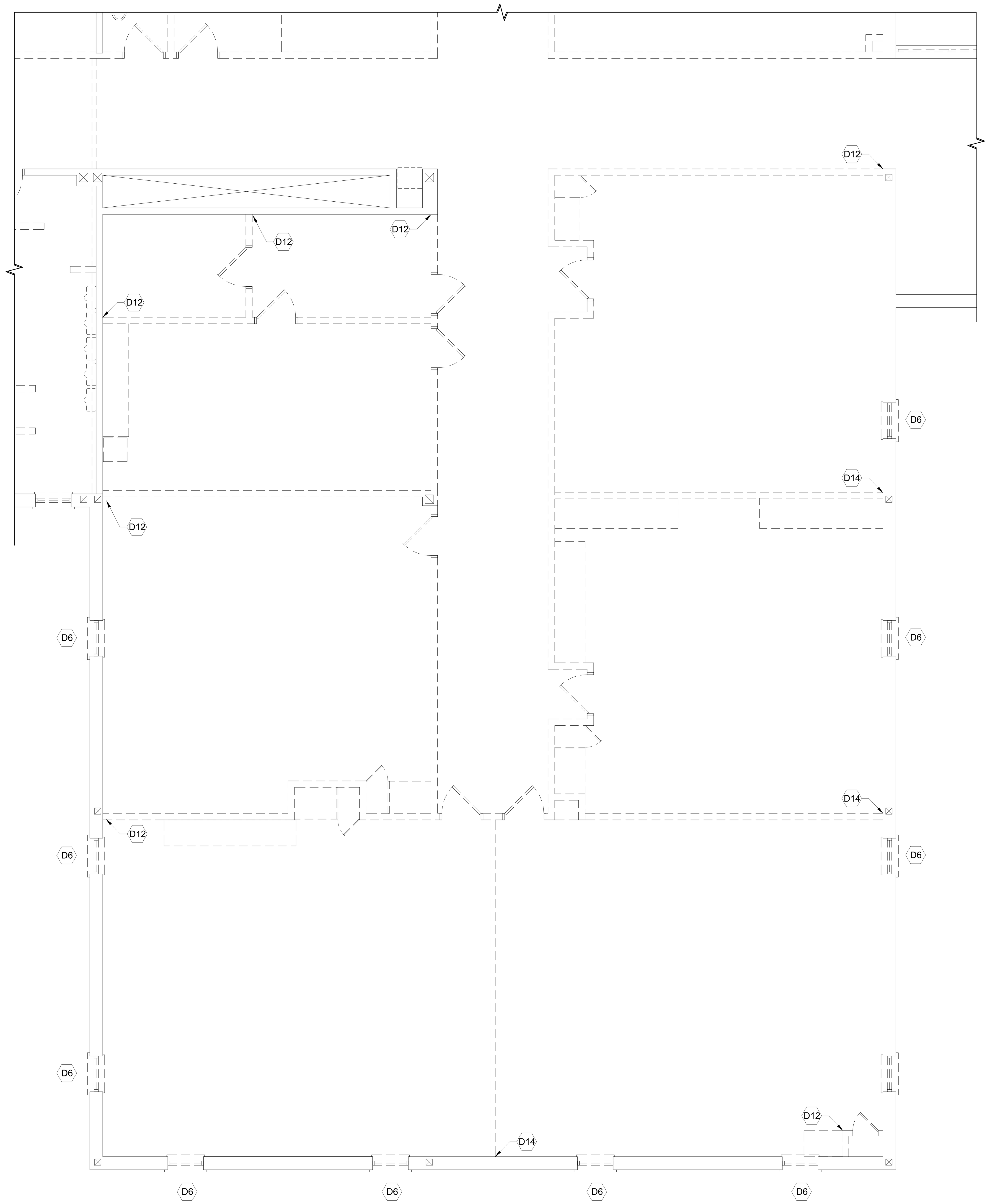
PARTIAL SECOND FLOOR DEMO PLAN □AREA D

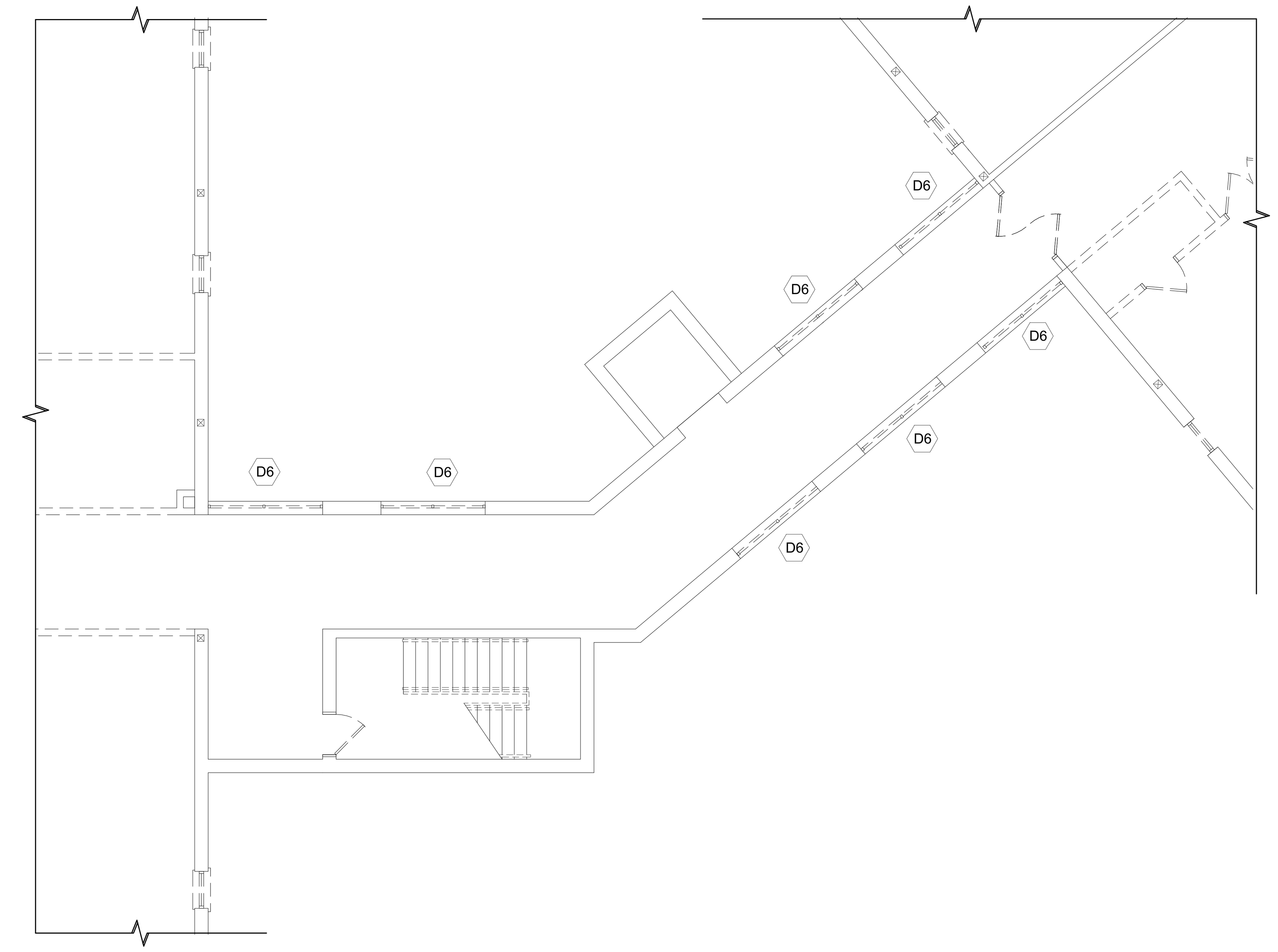
AD2.4

SHEET ______ of ______



1 AD2.5 PARTIAL SECOND FLOOR DEMO PLAN □AREA E

SCALE: 3/16" □ 1'-0"

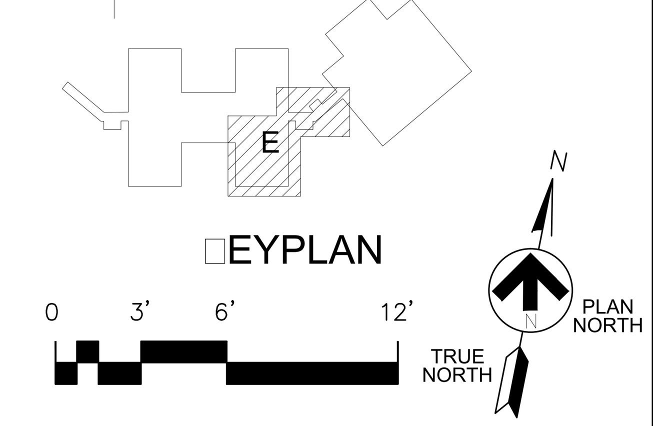


2 AD2.5 PARTIAL SECOND FLOOR DEMO PLAN □AREA E

SCALE: 3/16" □ 1'-0"

D1 DEMOLITION NOTE

D1 DEMOLITION WALL TYPE



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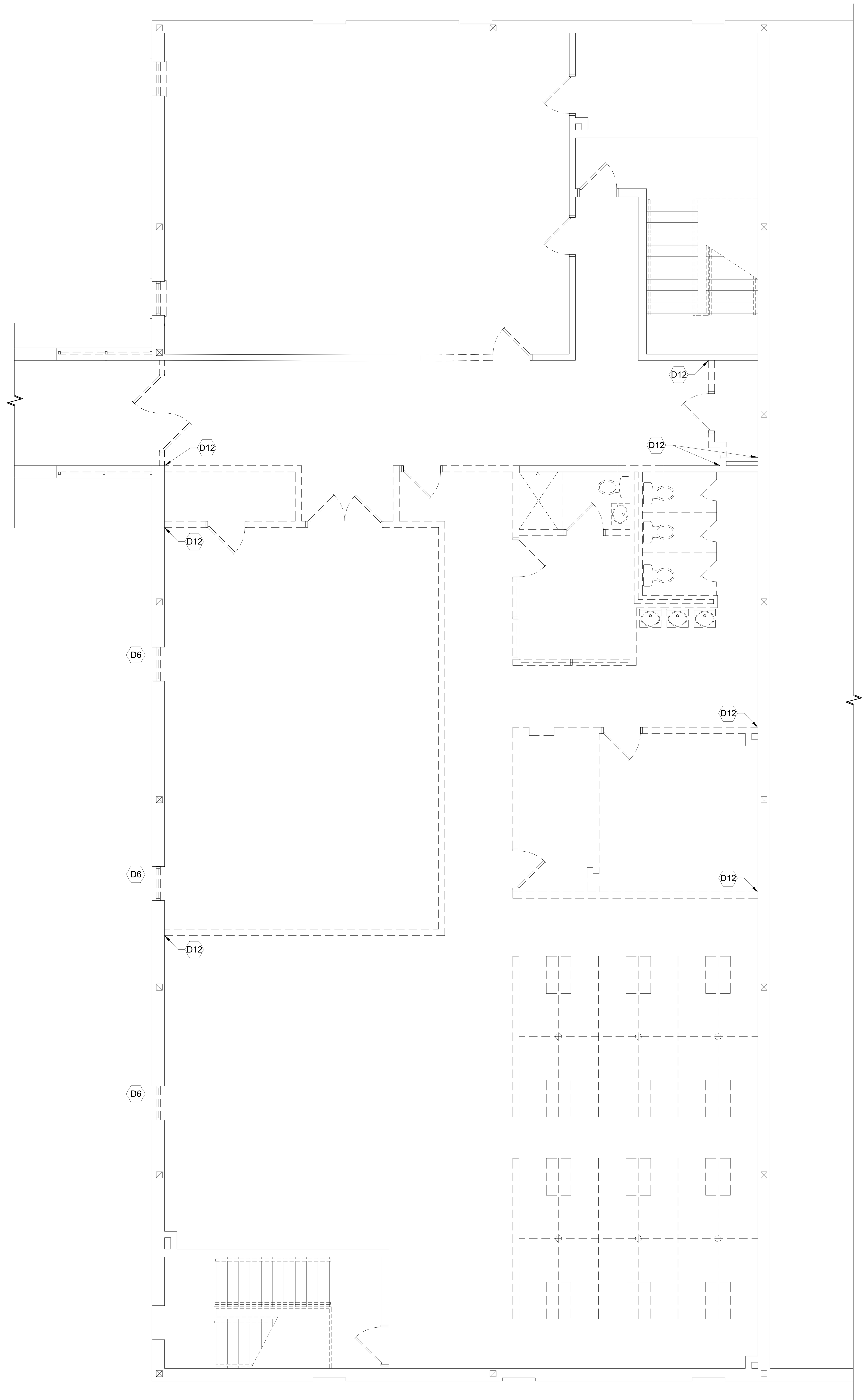
PARTIAL SECOND FLOOR DEMO PLAN □AREA E

AD2.5

SHEET _____ of _____



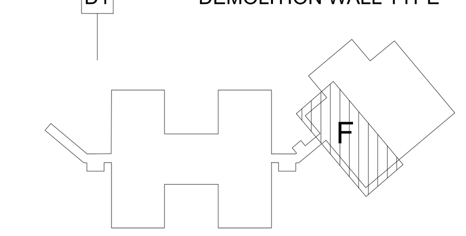
1
AD2.6

PARTIAL SECOND FLOOR DEMO PLAN – AREA F

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

D1 DEMOLITION NOTE

D1 DEMOLITION WALL TYPE



KEYPLAN

0 3' 6' 12'

TRUE NORTH

PLAN NORTH

N

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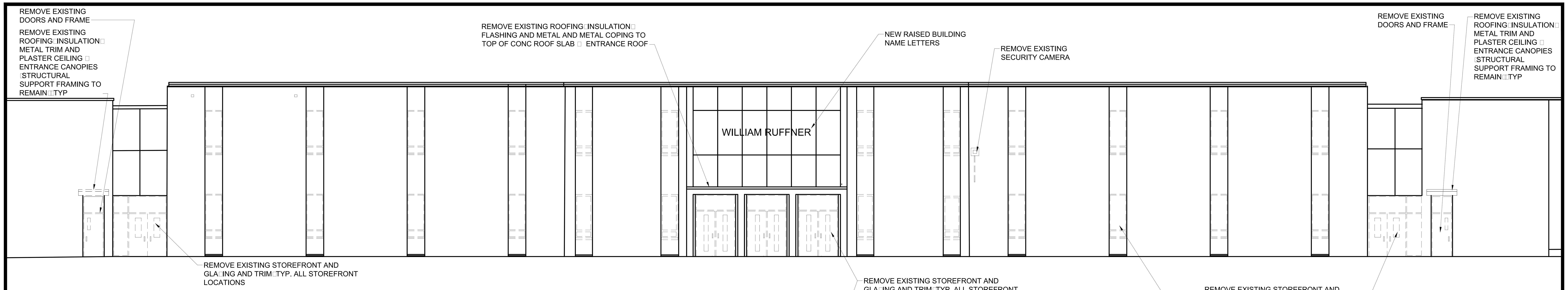
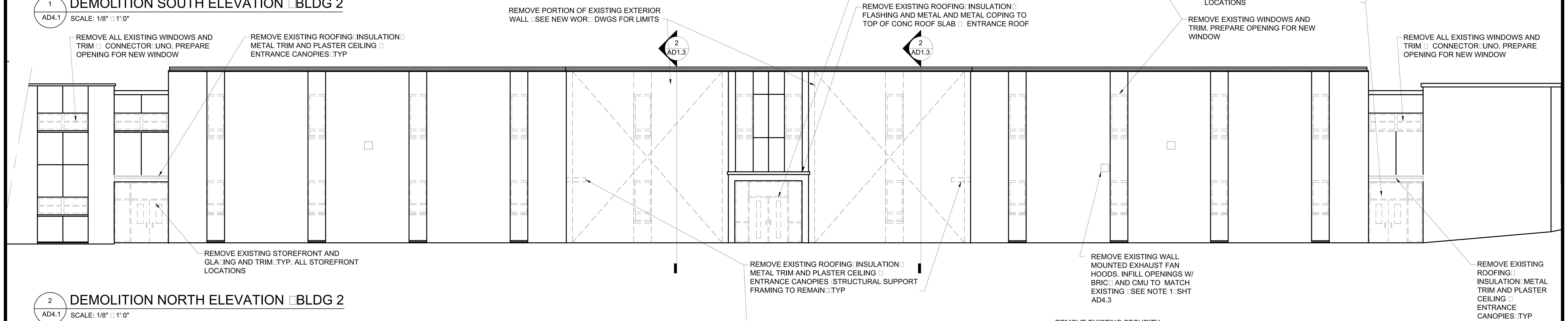
PARTIAL SECOND FLOOR DEMO PLAN – AREA F

AD2.6

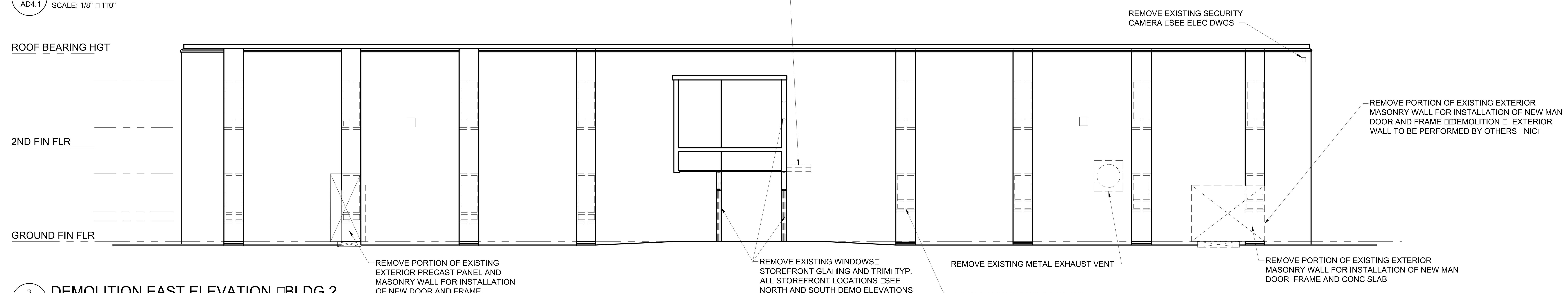
SHEET ______ of __X__



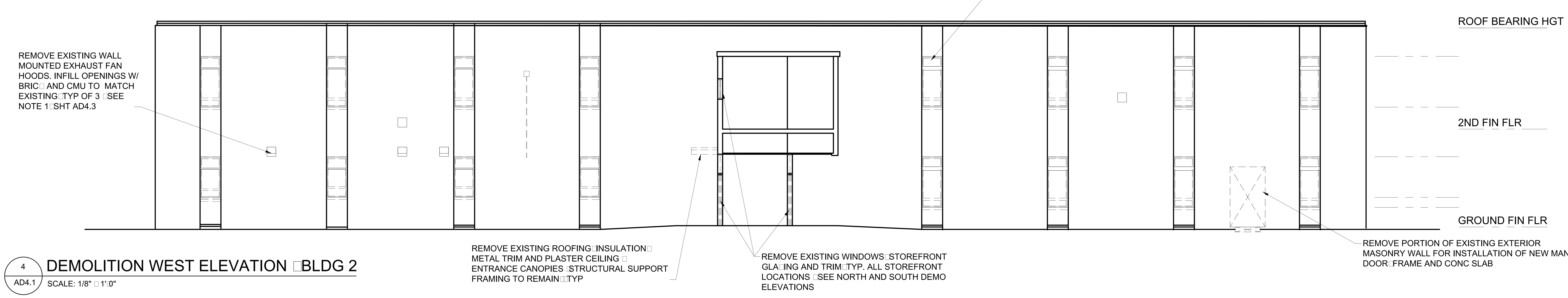
1 AD4.1 DEMOLITION SOUTH ELEVATION □BLDG 2
SCALE: 1/8" □ 1'0"



2 AD4.1 DEMOLITION NORTH ELEVATION □BLDG 2
SCALE: 1/8" □ 1'0"



3 AD4.1 DEMOLITION EAST ELEVATION □BLDG 2
SCALE: 1/8" □ 1'0"



4 AD4.1 DEMOLITION WEST ELEVATION □BLDG 2
SCALE: 1/8" □ 1'0"

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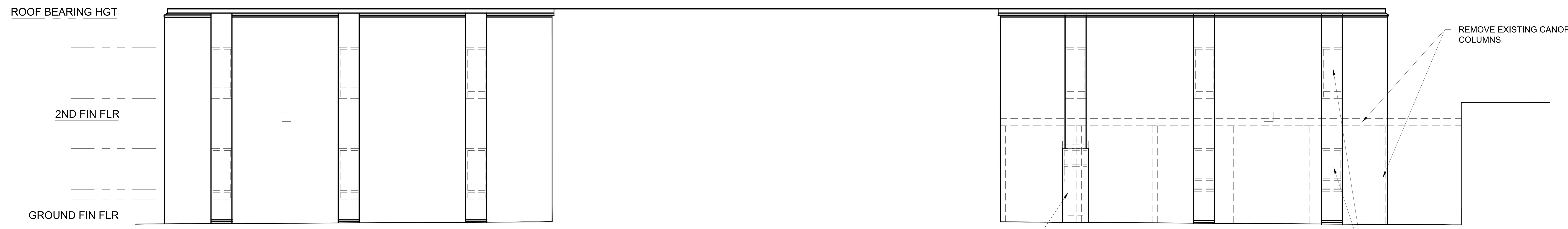
DEMOLITION ELEVATIONS □BUILDING 2

AD4.1

SHEET ______ of ______



1
AD4.2
WEST COURTYARDS DEMOLITION ELEVATION □BLDG 2
SCALE: 1/8" □ 1'□0"

2
AD4.2
EAST COURTYARD DEMOLITION ELEVATION □BLDG 2
SCALE: 1/8" □ 1'□0"

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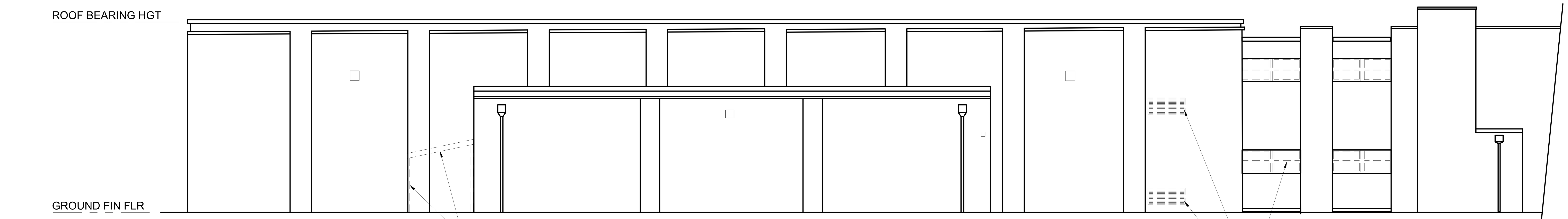
DEMOLITION ELEVATIONS □BUILDING 2

AD4.2

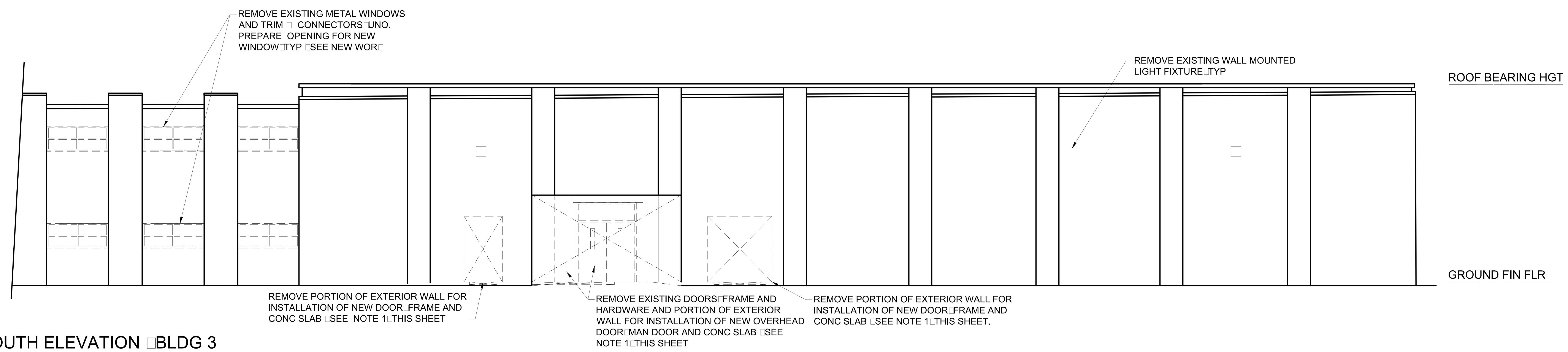
SHEET ______ of ______

DRAWING NOTES:

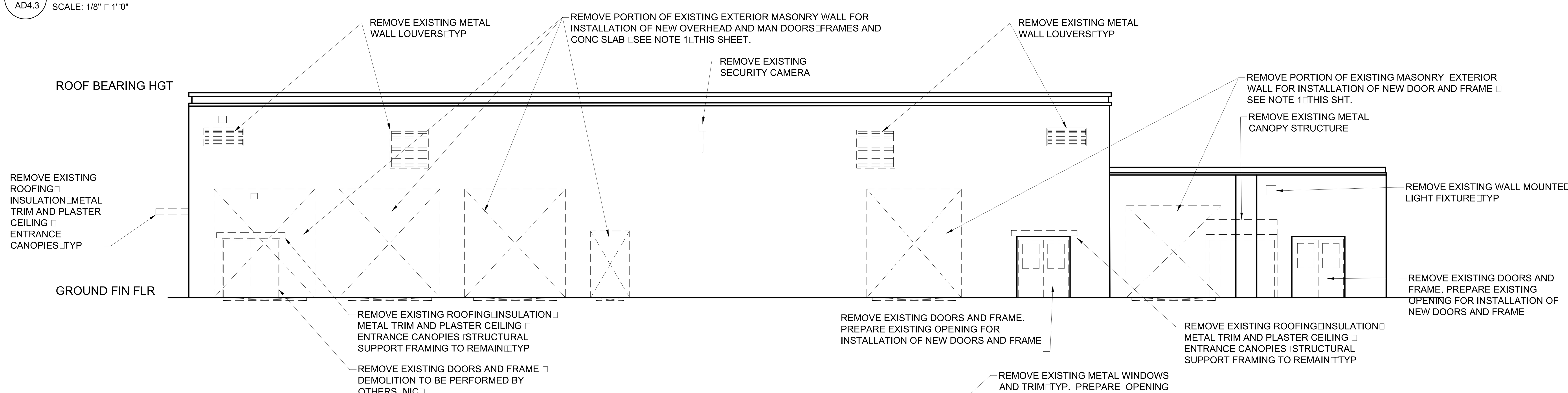
1. REMOVE PORTION OF EXTERIOR WALL AS RE□UIRED FOR INSTALLATION OF NEW MASONRY AND BRIC□ TO PROVIDE OPENING FOR NEW OVERHEAD OR MAN DOOR AND FRAME. CAREFULLY REMOVE BRIC□ AND BLOC□ FROM EXISTING WALL AND TOOTH NEW BRIC□ AND CMU INTO EXISTING WALL TO FORM NEW OPENING.



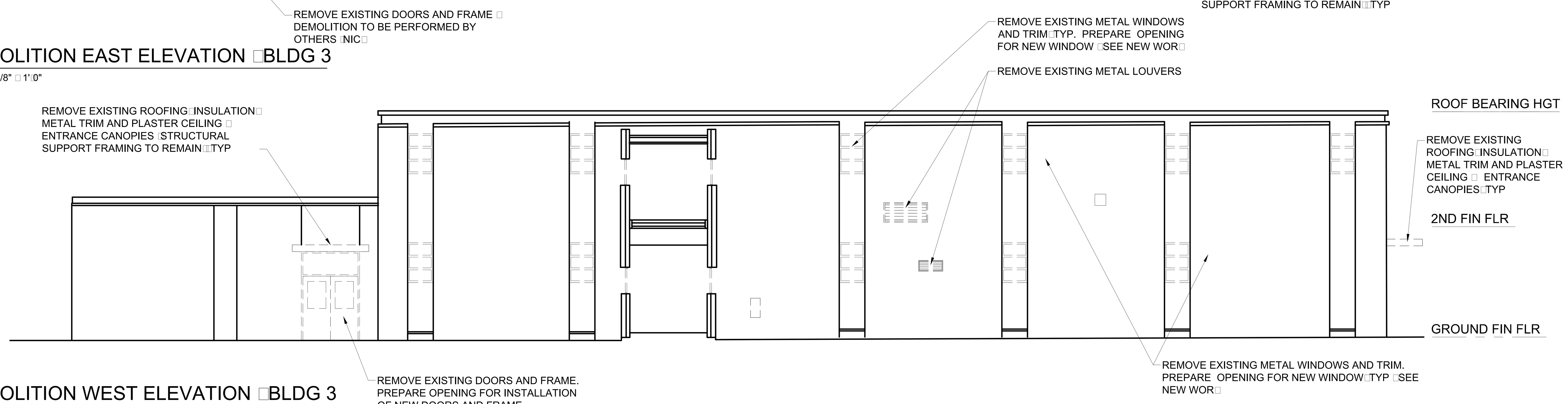
1 AD4.3 DEMOLITION NORTH ELEVATION □BLDG 3
SCALE: 1/8" □ 1'□0"



2 AD4.3 DEMOLITION SOUTH ELEVATION □BLDG 3
SCALE: 1/8" □ 1'□0"



3 AD4.3 DEMOLITION EAST ELEVATION □BLDG 3
SCALE: 1/8" □ 1'□0"



4 AD4.3 DEMOLITION WEST ELEVATION □BLDG 3
SCALE: 1/8" □ 1'□0"

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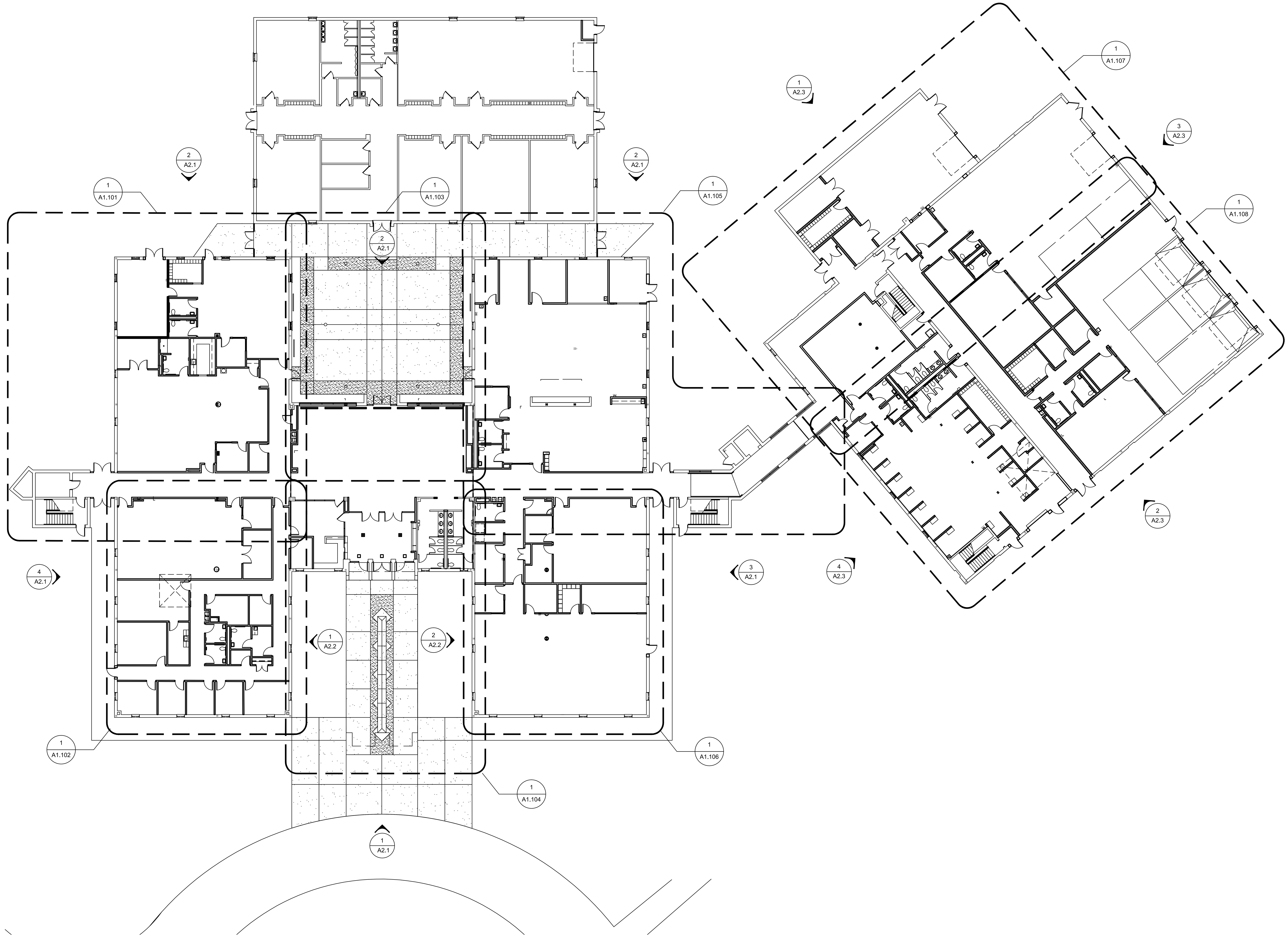
DEMOLITION ELEVATIONS □BUILDING 3

AD4.3

SHEET ______ of ______



GROUND FLOOR OVERALL NEW WOR□ PLAN

1 A1.1

SCALE: 3/16" □ 1'-0"

NOTE: SEE DRAWING A1.103 FOR NEW WOR□ GENERAL AND DRAWING NOTES

0 8' 16' 32'

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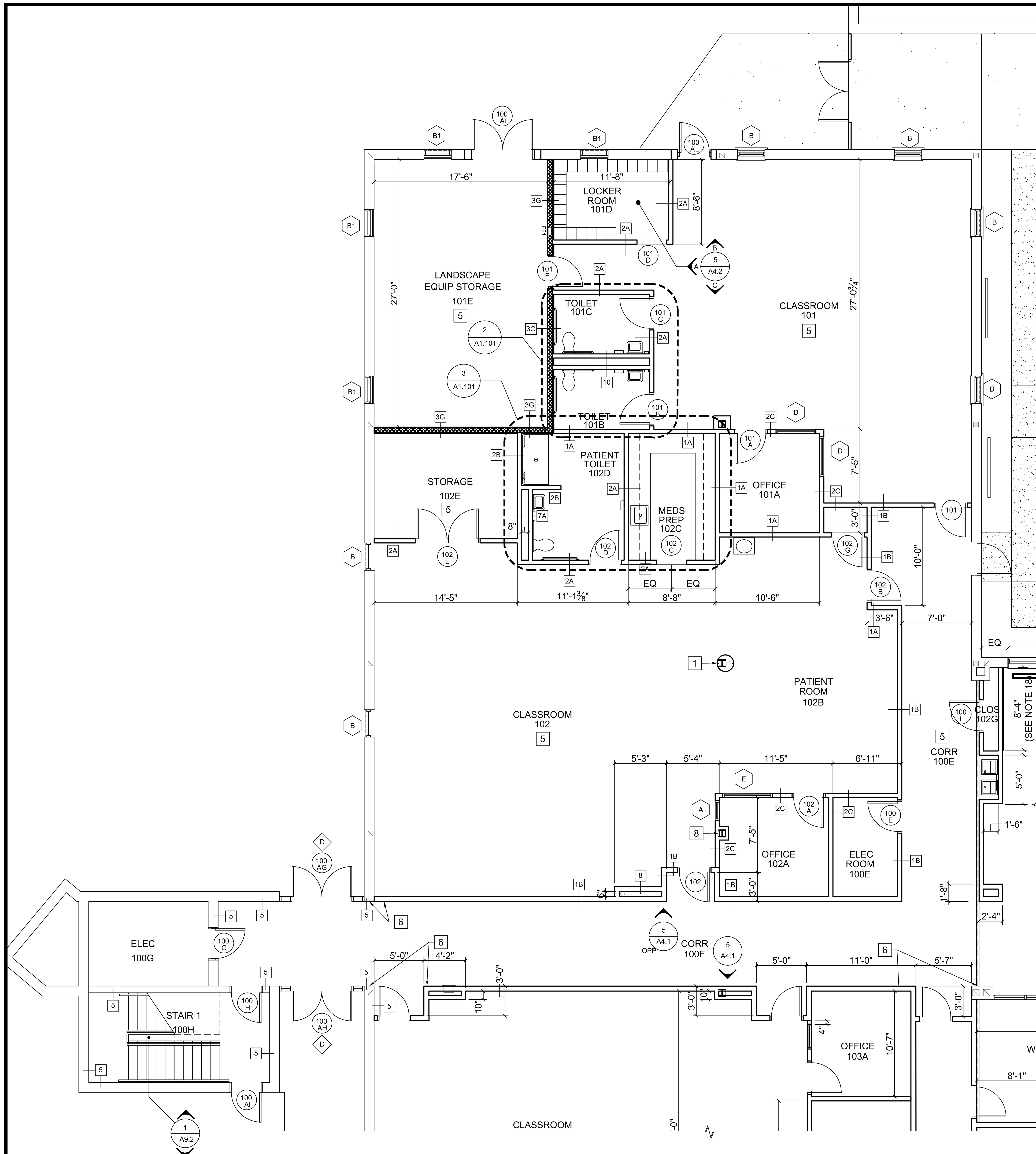
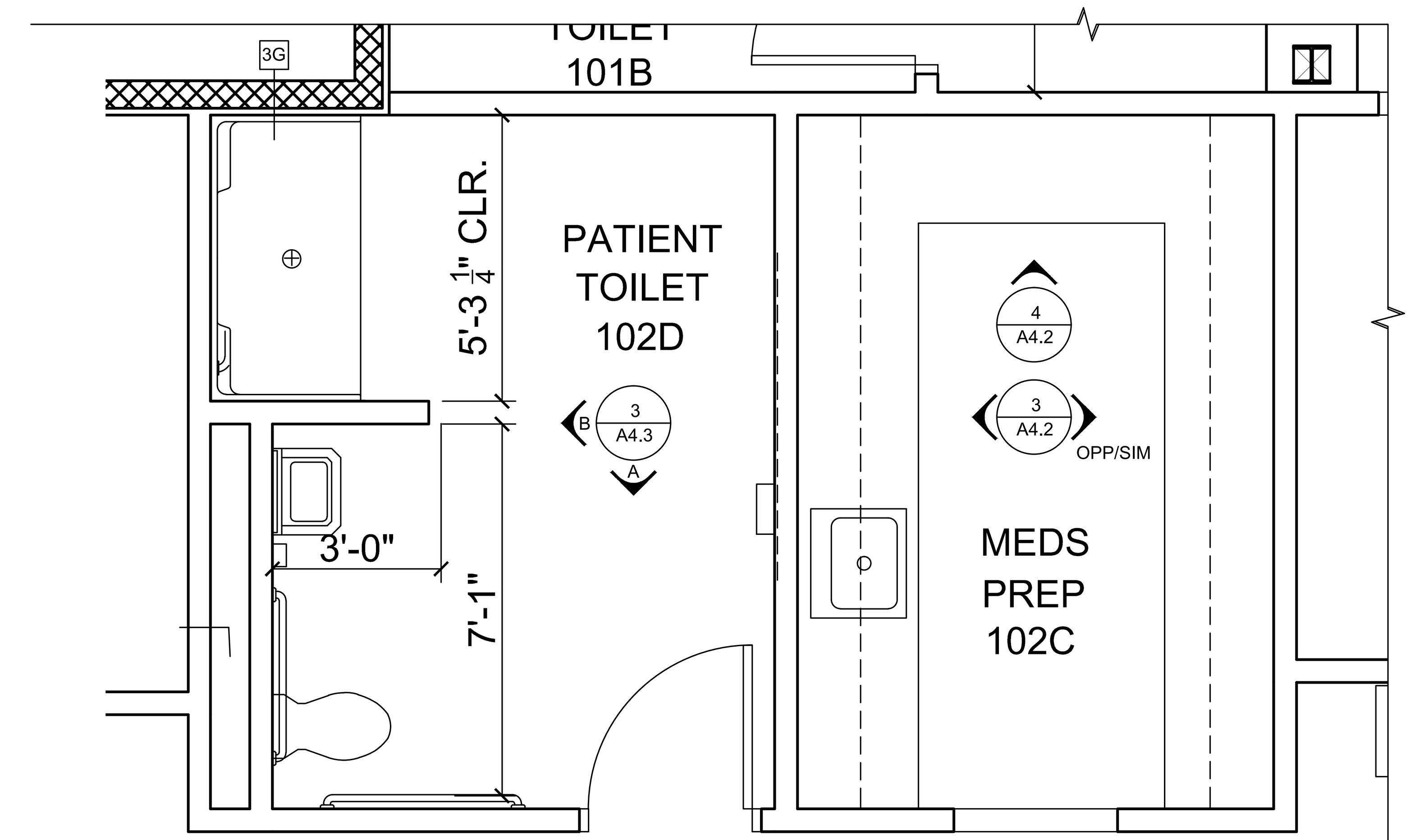
NEW WOR□ OVERALL GROUND FLOOR PLAN

A1.1

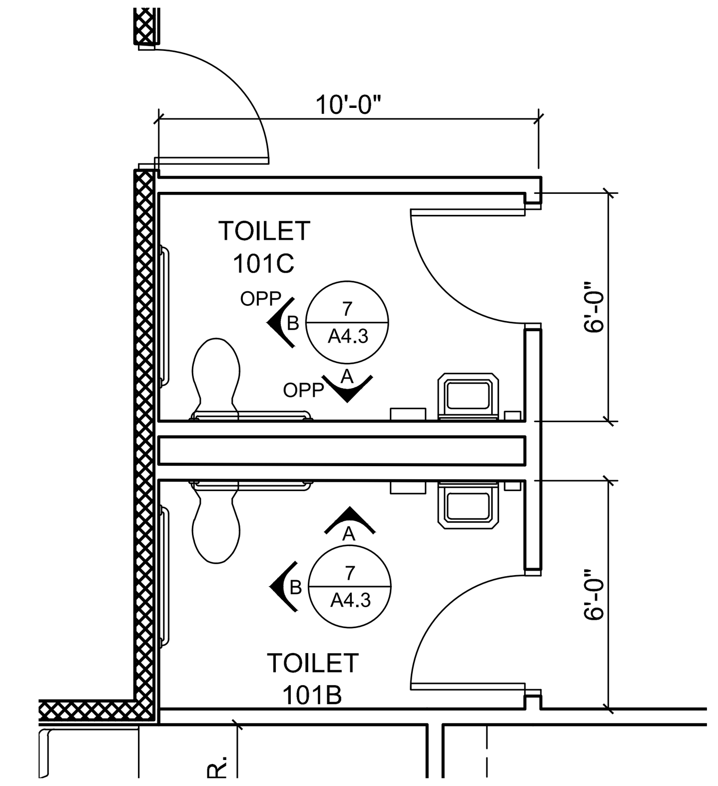
SHEET ______ of ______



1 GROUND FLOOR PARTIAL NEW WOR PLAN AREA A
A1.101 SCALE: 3/16" 1'0"



2 ENLARGED FLOOR PLAN
A1.101 SCALE: 1/4" 1'0"



3 ENLARGED TOILET PLAN
A1.101 SCALE: 1/4" 1'0"

NOTE: SEE DRAWING A1.103 FOR NEW WOR GENERAL AND DRAWING NOTES

PLAN NORTH
TRUE NORTH

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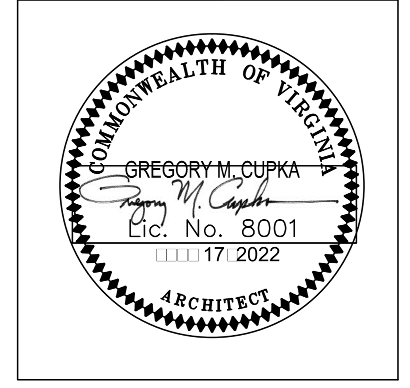

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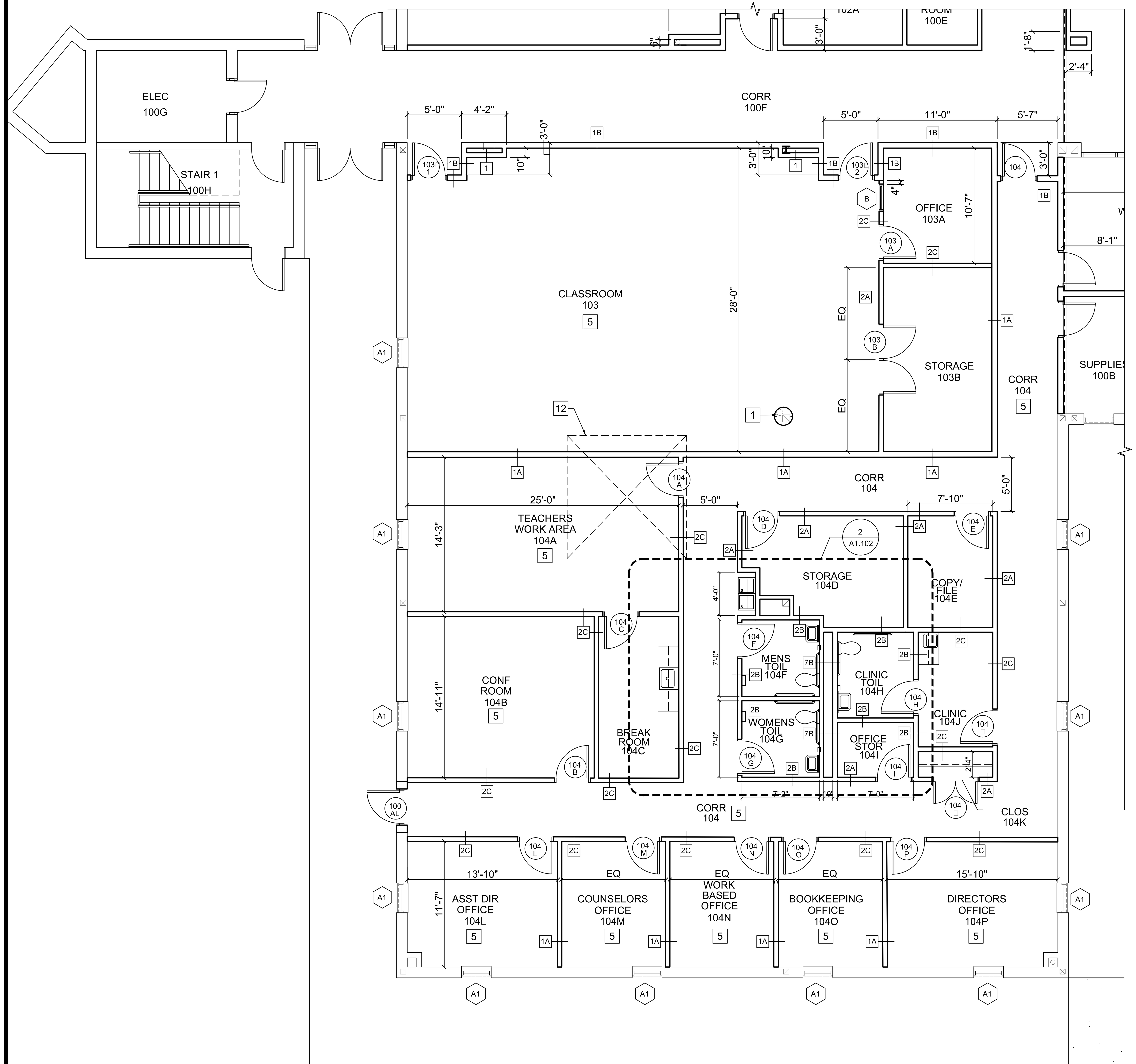
NEW WOR PARTIAL GROUND FLOOR PLAN AREA A

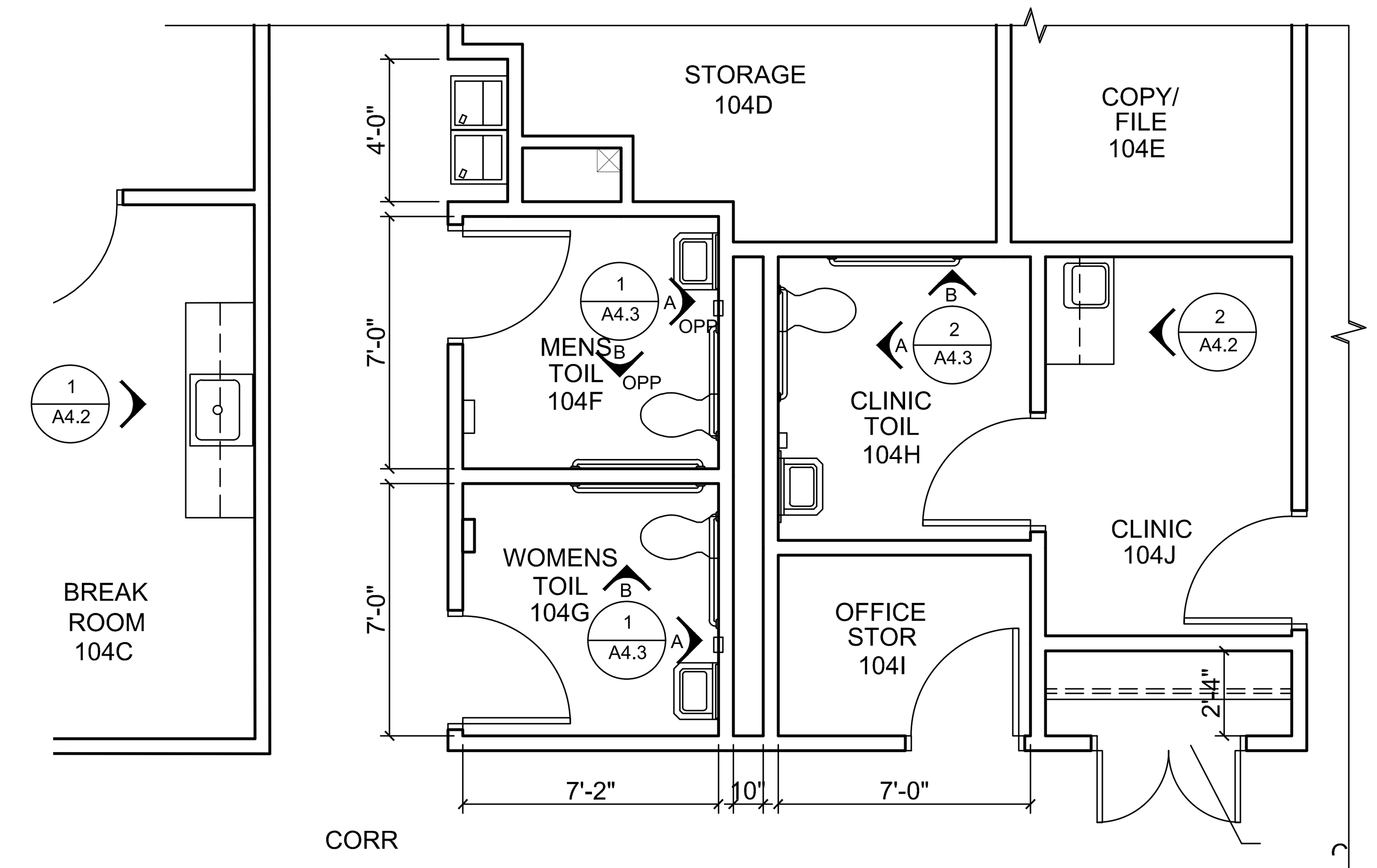
A1.101

SHEET ______ of ______



1 A1.102 GROUND FLOOR PARTIAL NEW WOR□ PLAN □AREA B

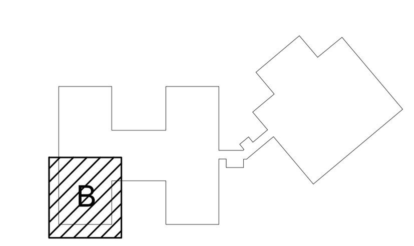
SCALE: 3/16" □ 1'0"



2 A1.102 ENLARGED PARTIAL NEW WOR□ PLAN

SCALE: 1/4" □ 1'0"

NOTE: SEE DRAWING A1.103 FOR NEW WOR□ GENERAL AND DRAWING NOTES



□EYPLAN

0 3' 6' 12'

PLAN NORTH

TRUE NORTH

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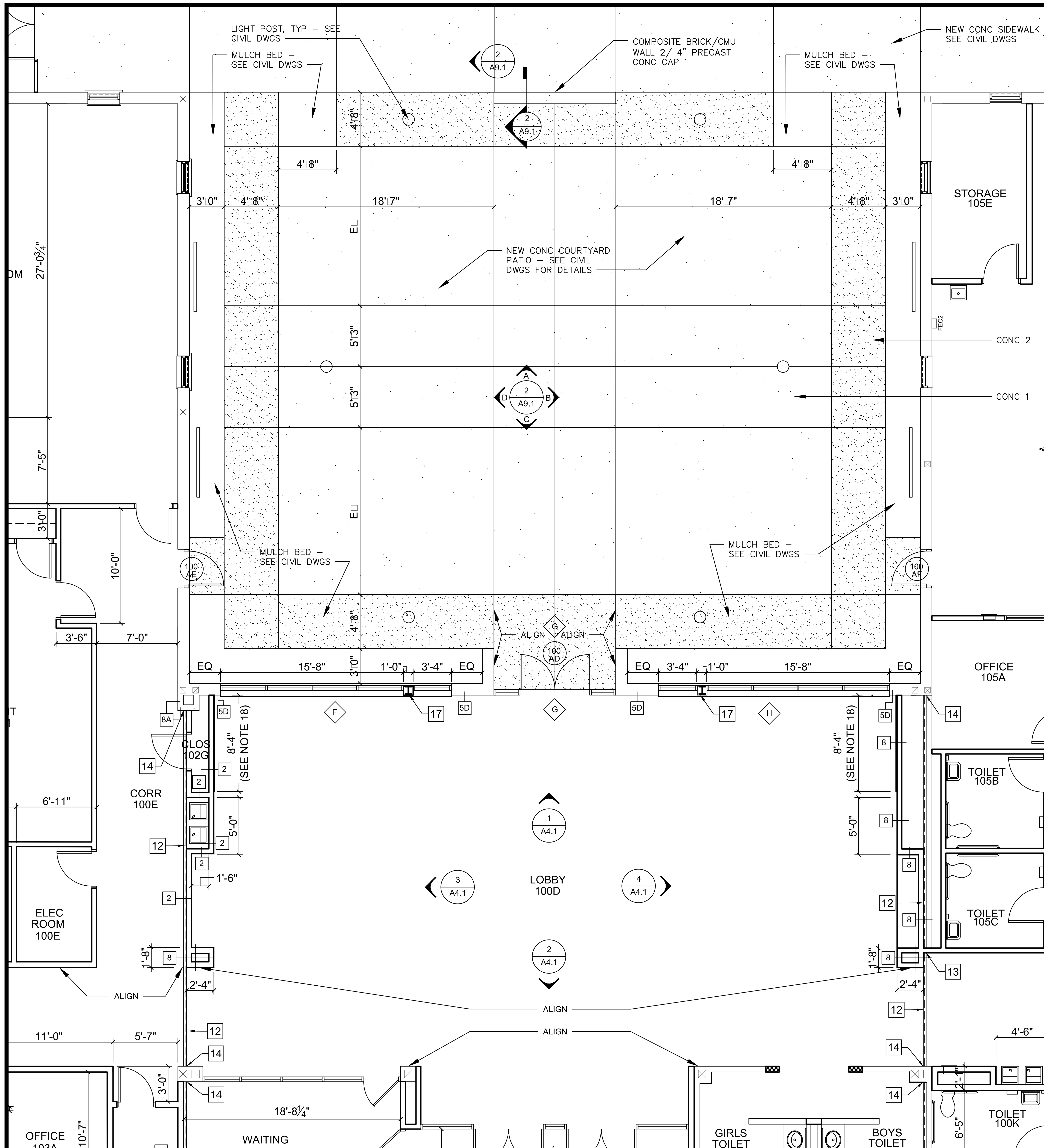
NEW WOR□ PARTIAL GROUND FLOOR PLAN □AREA B

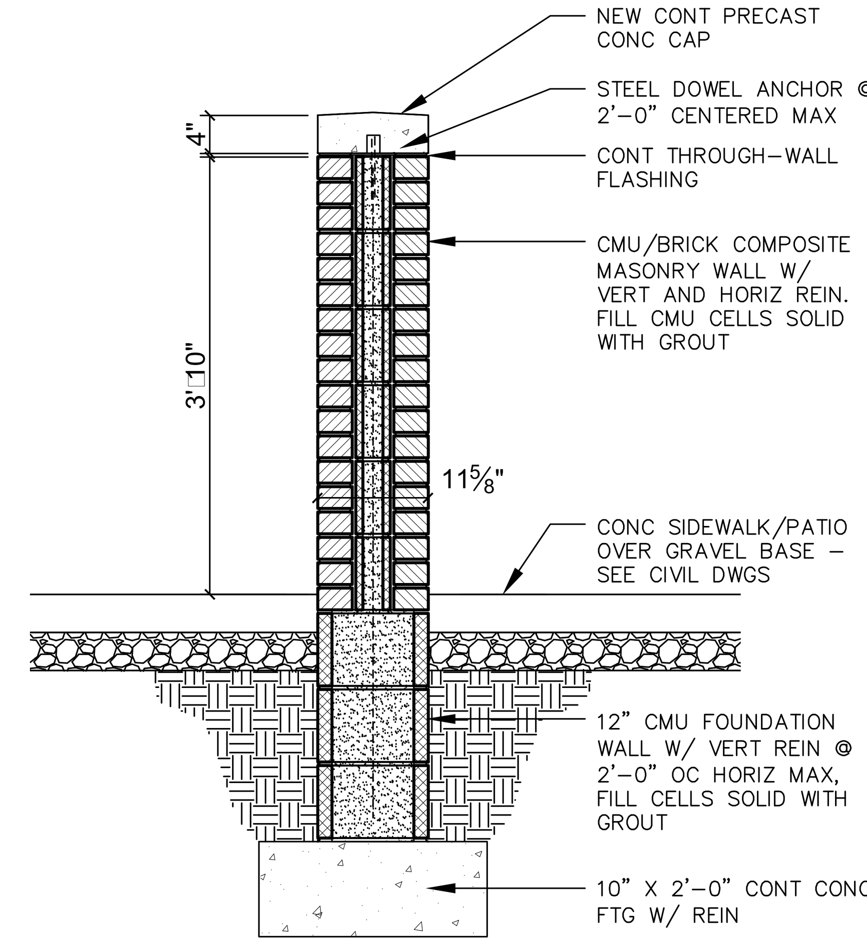
A1.102

SHEET ______ of ______



1 A1.103 GROUND FLOOR PARTIAL NEW WOR□ PLAN □AREA C

SCALE: 3/16" □ 1'□0"



2 A1.103 SECTION □ SITE WALL

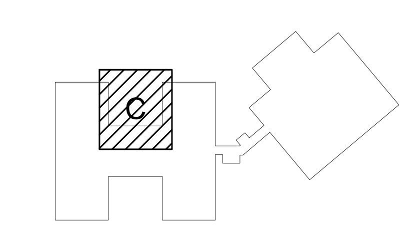
SCALE: 3/4" □ 1'□0"

GENERAL NEW WOR□ NOTES

1	PATCH□PREPARE AND PAINT ALL EXISTING INTERIOR WALL SURFACES UNLESS NOTED OTHERWISE.
2	ALL OUTSIDE CORNERS AT NEW CMU WALLS □INCLUDING□ BUT NOT LIMITED TO□WALL STOPS□INTERSECTING WALLS□AND WINDOW □AMBS□SHALL HAVE BULLNOSE CORNERS W/ 1" RADIUS UNO.

NEW WOR□ DRAWING NOTES

1	20" DIA METAL COLUMN ENCLOSURE POSITIONED AS RE□UIRED TO ENCLOSE EXISTING STEEL COLUMN AND DRAINAGE PIPE. GC TO VERIFY DIA. IS ADE□UATE TO ENCLOSE COL AND PIPING AND AD□UST IF NECESSARY.
2	14" DIA METAL COLUMN ENCLOSURE CENTERED ON STEEL COLUMN
3	10" DIA METAL COLUMN ENCLOSURE CENTERED ON STEEL COLUMN
4	14" DIA HALF□ROUND METAL COLUMN ENCLOSURE CENTERED ON STEEL COLUMN
5	PATCH AND PREPARE INTERIOR FACE OF ALL EXTERIOR CMU WALLS AND PAINT□TYP UNO
6	ALIGN FACE OF NEW GWB W/ FACE OF EXISTING CMU WALL
7	INFILL EXISTING OPENING WITH 8" REIN CMU WALL AND HOLLOW METAL FRAME □SEE DETAILS
8	INSTALL MTL STUD FRAMING TIGHT TO FACE OF COLUMN
9	INFILL OPENING IN WALL W/ CMU OF THIC□NESS TO MATCH EXISTING.
10	INSTALL NEW CMU TO MATCH EXISTING WHERE WALLS ARE MODIFIED FOR MEP MODIFICATIONS OR FOR NEW OPENINGS. PREPARE SURFACE AND INSTALL NEW FIN AS INDICATED.
11	METAL HANGING ROD W/ $\frac{3}{4}$" X 1'□0"D WOOD SHELF W/ PLAM FIN INSTALLED □ 36" AND 72" AFF.
12	PATCH AND PREPARE EXISTING FLOOR □OINT AND INSTALL NEW EXPANSION □OINT AND COVER. COORDINATE WITH FLOOR FIN MATERIAL.
13	INSTALL WALLTO□WALL EXPANSION □OINT AND COVER □ NEW GWB/MTL STUD WALLS. COORDINATE W/ WALL FIN MATERIAL
14	PATCH AND PREPARE EXISTING WALL □OINT AND INSTALL NEW WALL EXPANSION □OINT AND COVER. COORDINATE W/ WALL FINISH MATERIAL.
15	INSTALL NEW CEILING EXPANSION □OINT. COORDINATE W/ CEILING FIN MATERIAL.
16	NEW CONT ALUM HANDRAIL □ RAMP
17	NEW 12"W X 6"D ALUM COLUMN ENCLOSURE CENTERED ON STEEL COLUMN. VERIFY IN FIELD ACTUAL DEPTH RE□UIRED TO ENCLOSE COL.
18	INSTALL LINEAR WOOD PLAN□ SYSTEM □ FACE OF WALL FROM CEILING TO FF
19	REPAIR DAMAGED MORTAR □OINTS□PREPARE FACE OF EXISTING BRIC□ VENEER □ EXTERIOR WALL AND PAINT.



□EYPLAN

NOTE: SEE DRAWING A1.103 FOR NEW WOR□ GENERAL AND DRAWING NOTES

PLAN NORTH

TRUE NORTH

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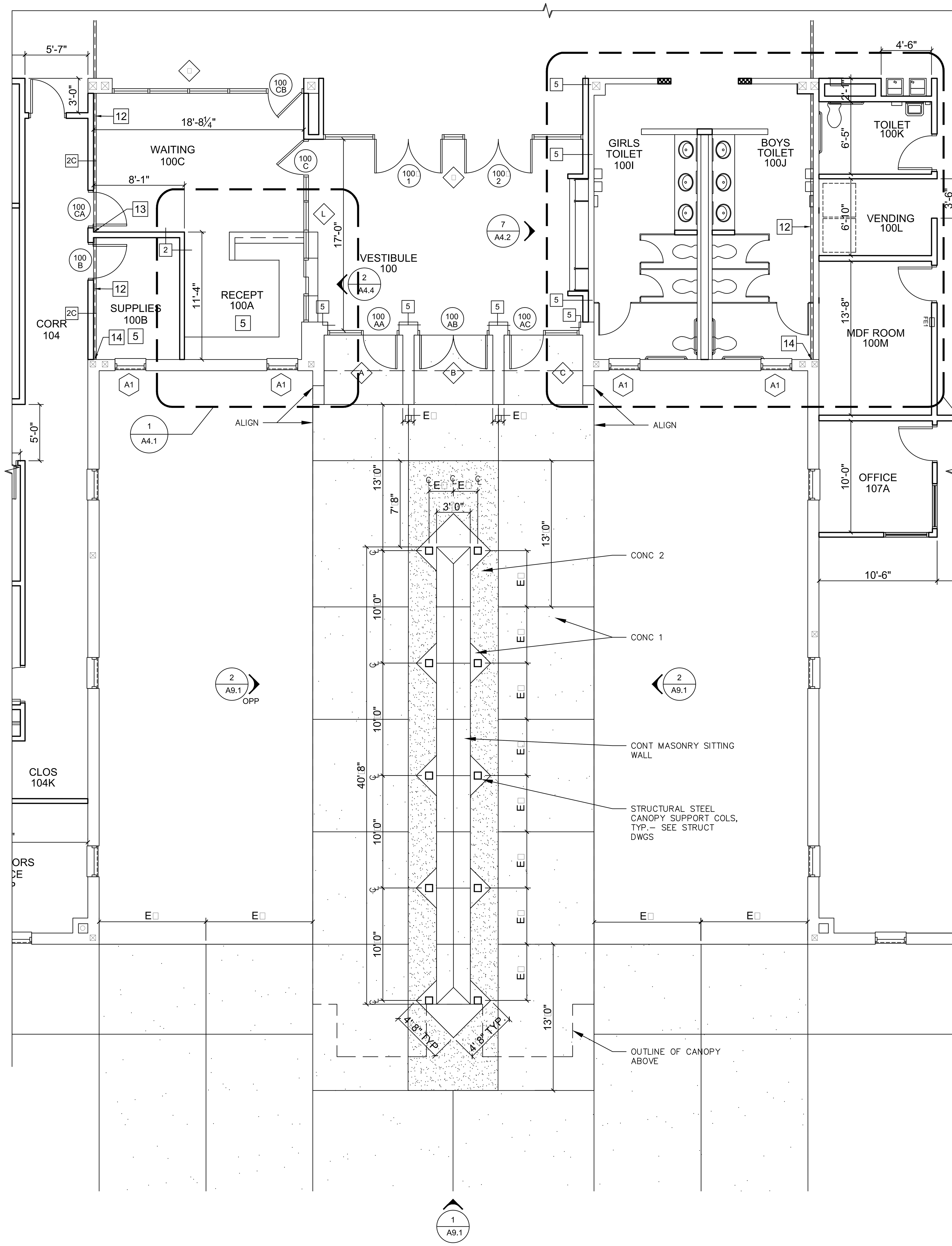
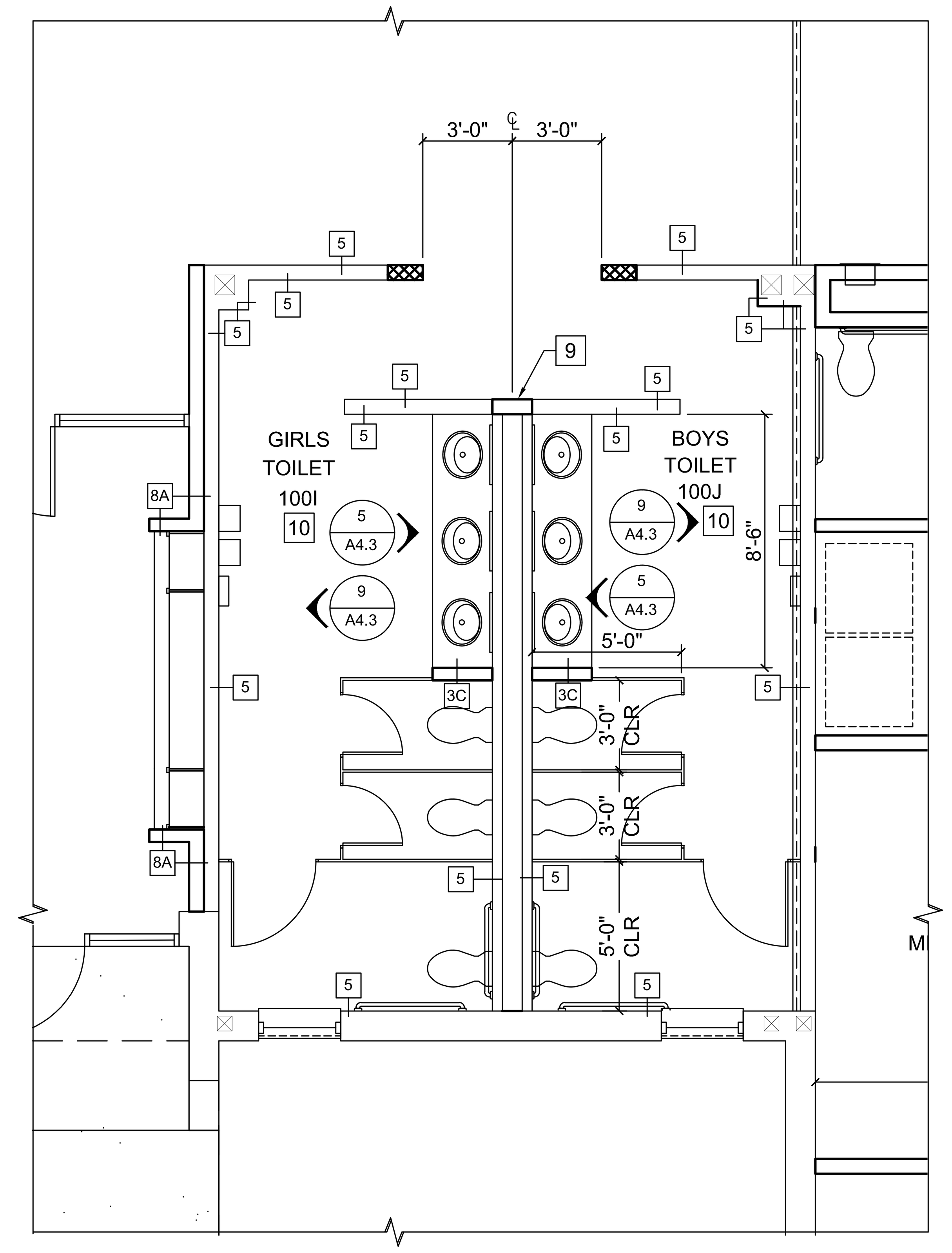
NEW WOR□ PARTIAL GROUND FLOOR PLAN □AREA C

A1.103

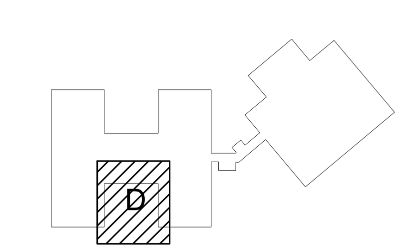
SHEET ______ of ______



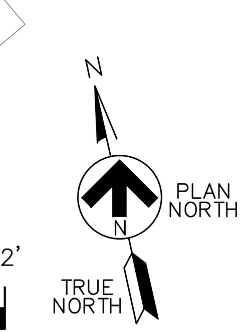
1
A1.104
GROUND FLOOR PARTIAL NEW WOR□ PLAN □AREA D
SCALE: 3/16" □ 1'-0"



2
A1.104
ENLARGED TOILET PLANS
SCALE: 1/4" □ 1'-0"



□EYPLAN



0 3' 6' 12'

NOTE: SEE DRAWING A1.103 FOR NEW WOR□ GENERAL AND DRAWING NOTES

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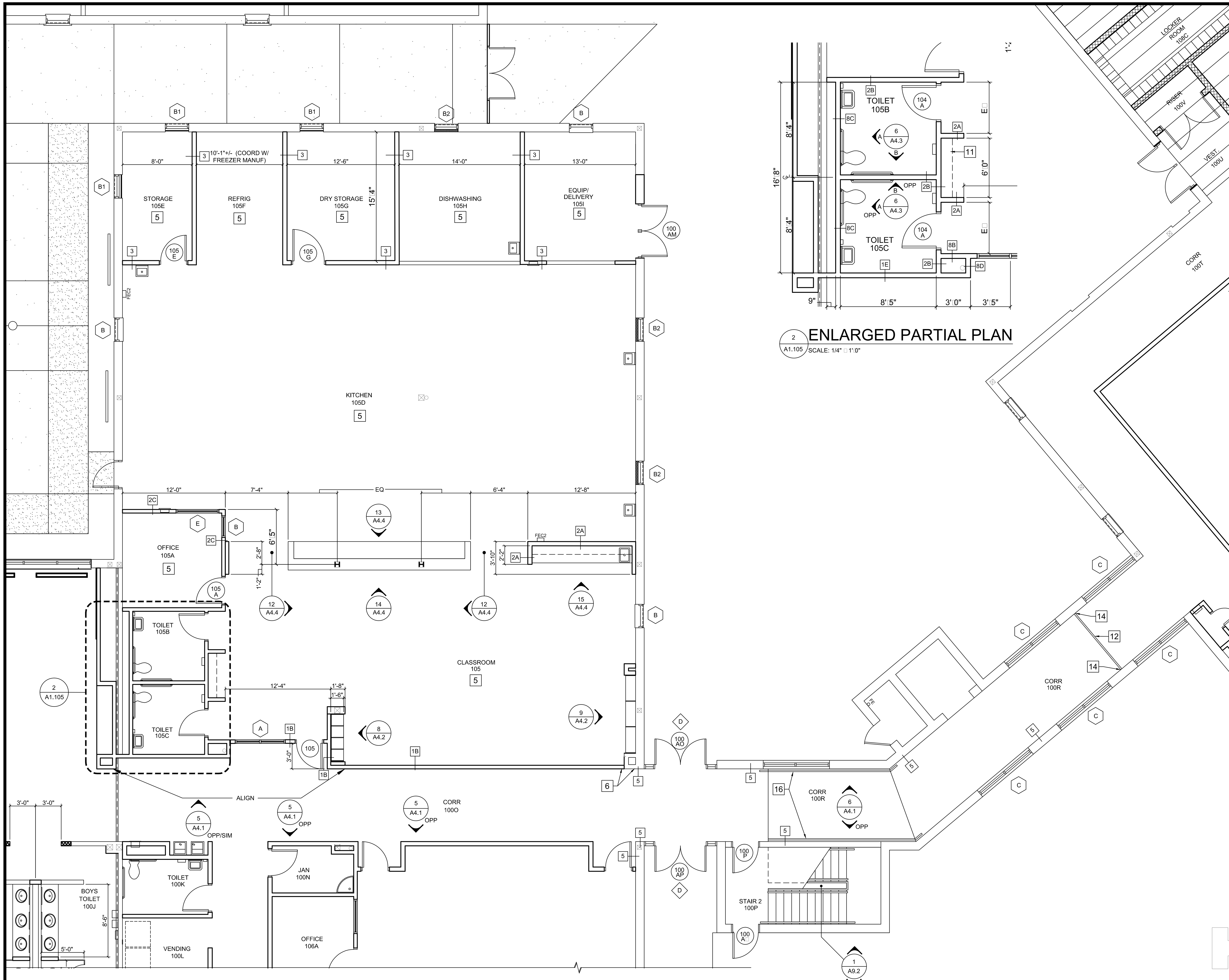
SCALE:	AS SHOWN

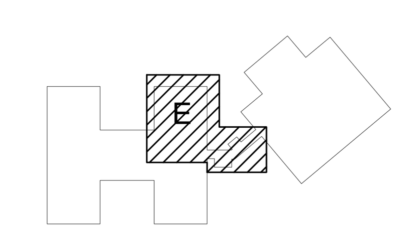
NEW WOR□ PARTIAL GROUND FLOOR PLAN □AREA D

A1.104

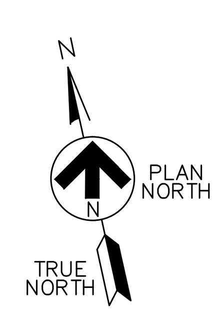
SHEET ______ of ______



1 A1.105 GROUND FLOOR PARTIAL NEW WOR□ PLAN □AREA E
SCALE: 3/16" □ 1'0"



□EYPLAN



NOTE: SEE DRAWING A1.103 FOR NEW WOR□ GENERAL AND DRAWING NOTES

0 3' 6' 12'

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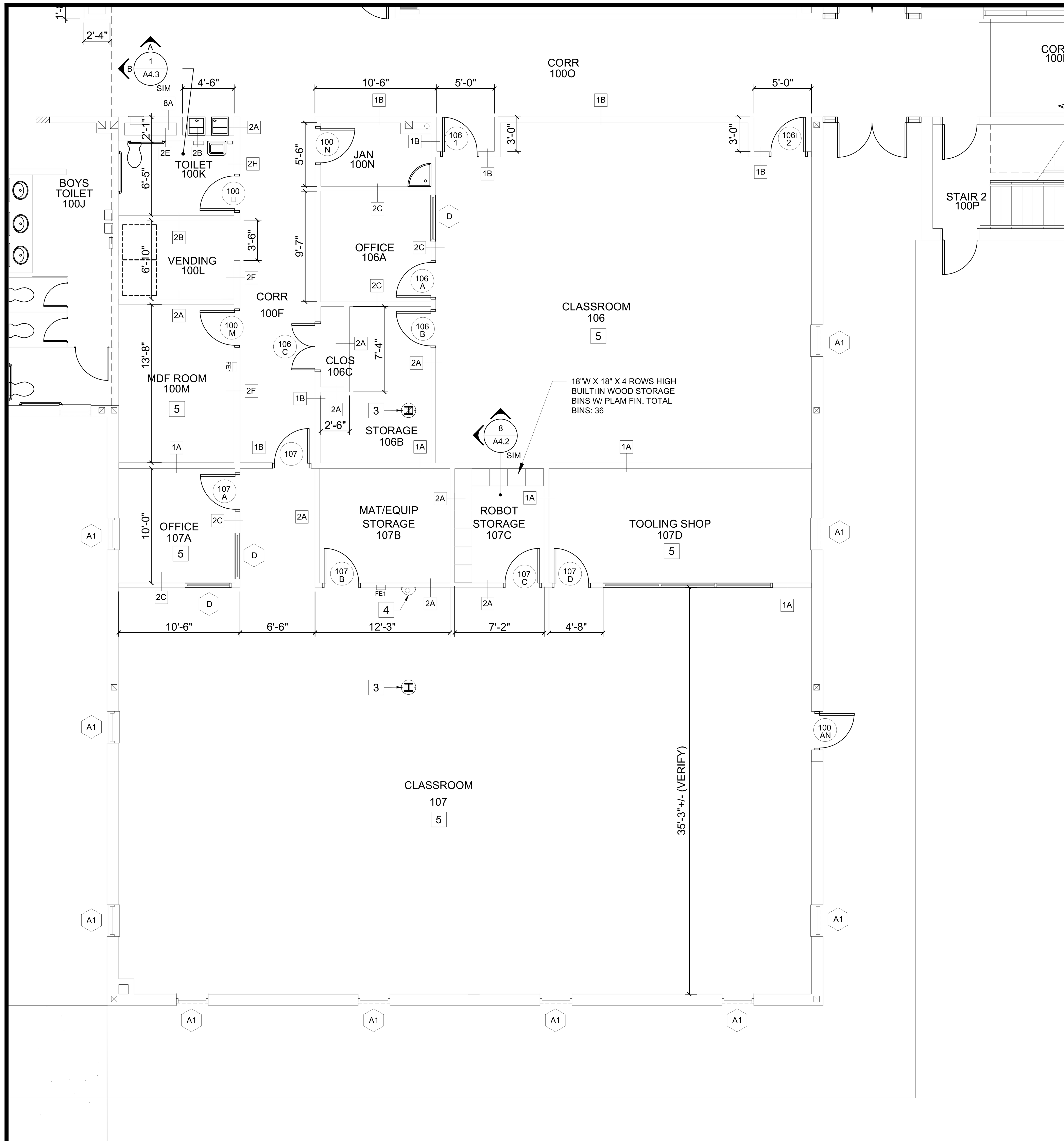
NEW WOR□ PARTIAL GROUND FLOOR PLAN □AREA E

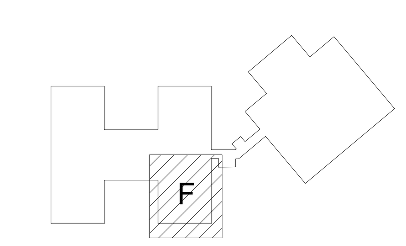
A1.105

SHEET ______ of ______



GROUND FLOOR PARTIAL NEW WOR PLAN AREA F

SCALE: 3/16" 1'-0"



EYPLAN

NOTE: SEE DRAWING A1.103 FOR NEW WOR GENERAL AND DRAWING NOTES

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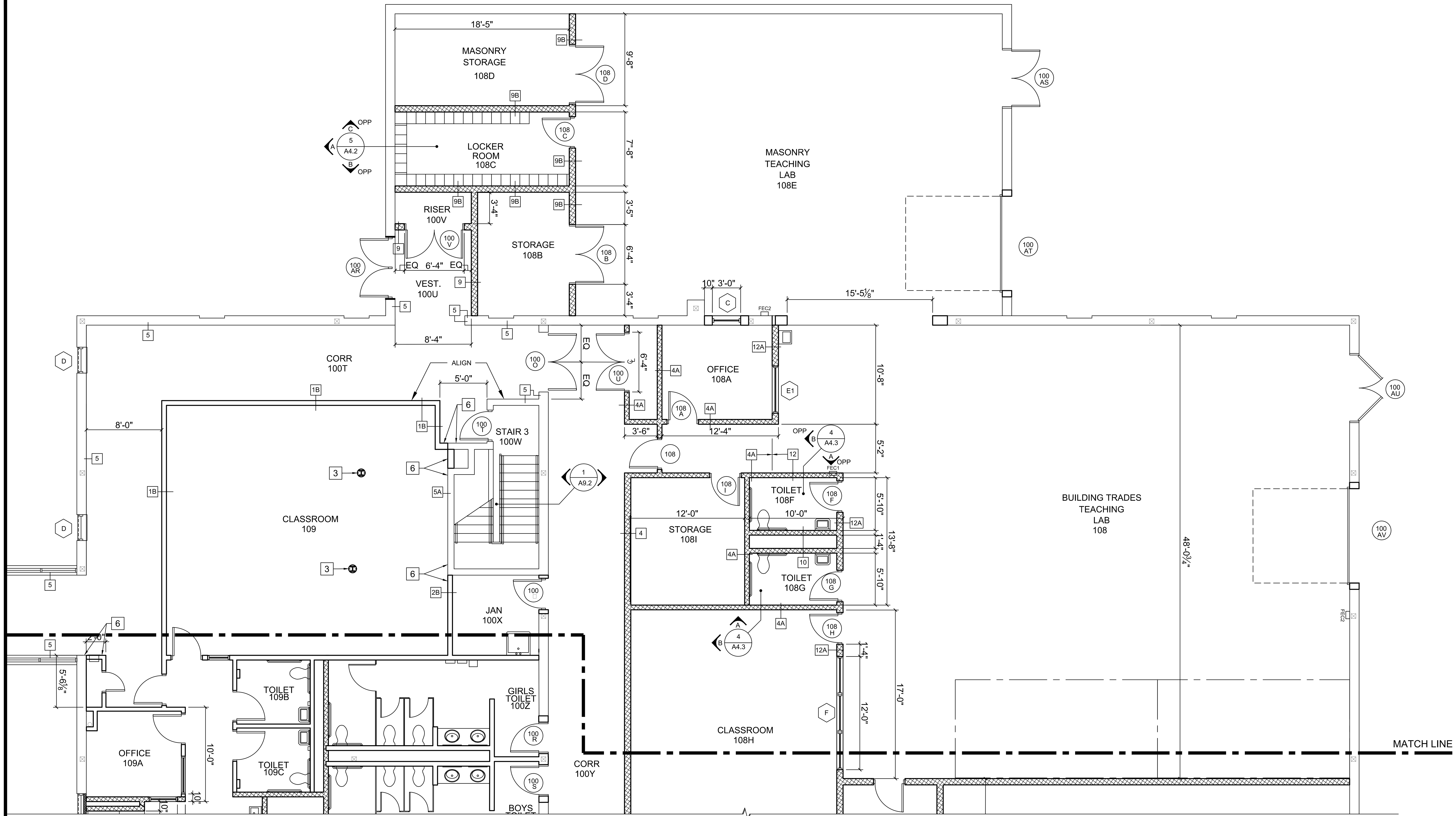
SCALE:	AS SHOWN

NEW WOR PARTIAL GROUND FLOOR PLAN AREA F

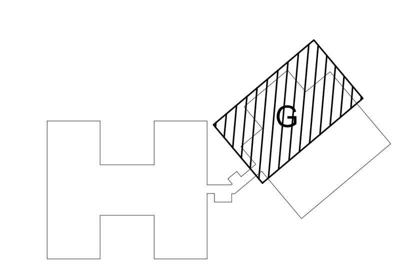
A1.106

SHEET ______ of ______



1 A1.107 GROUND FLOOR PARTIAL NEW WOR PLAN AREA H

SCALE: 3/16" 1'-0"



EYPLAN

NOTE: SEE DRAWING A1.103 FOR NEW WOR GENERAL AND DRAWING NOTES

0 3' 6' 12'

N PLAN NORTH TRUE NORTH

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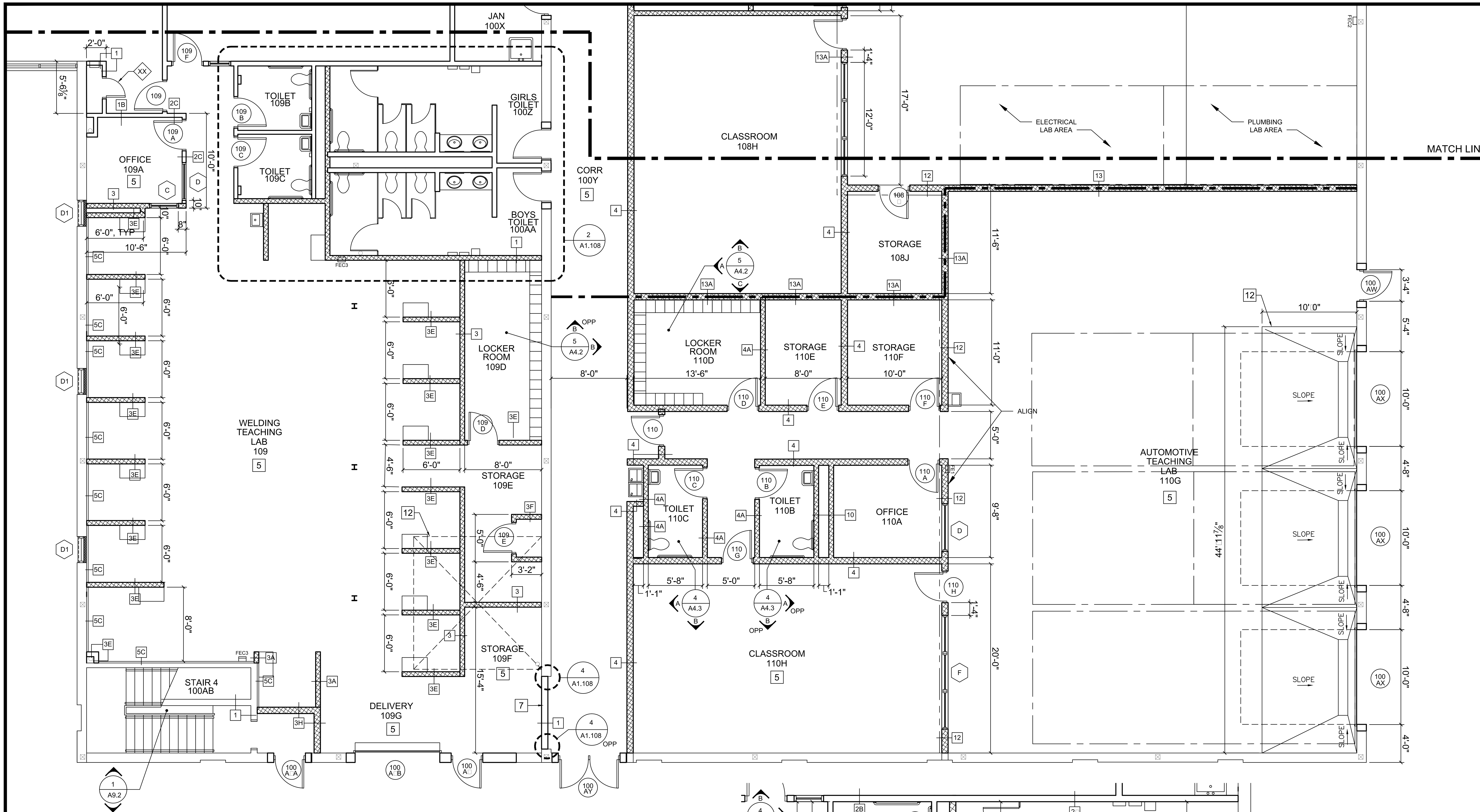
SCALE:	AS SHOWN

NEW WOR PARTIAL GROUND FLOOR PLAN AREA G

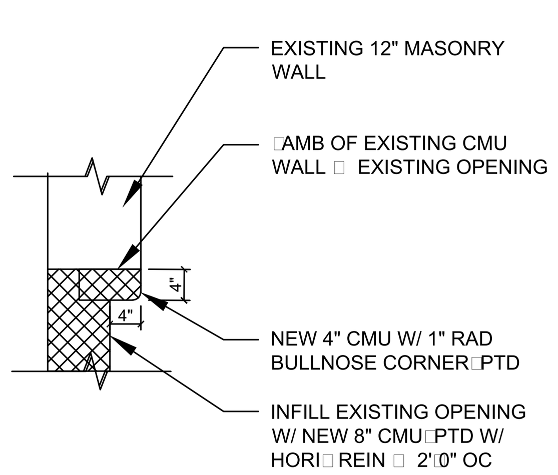
A1.107

SHEET ______ of ______



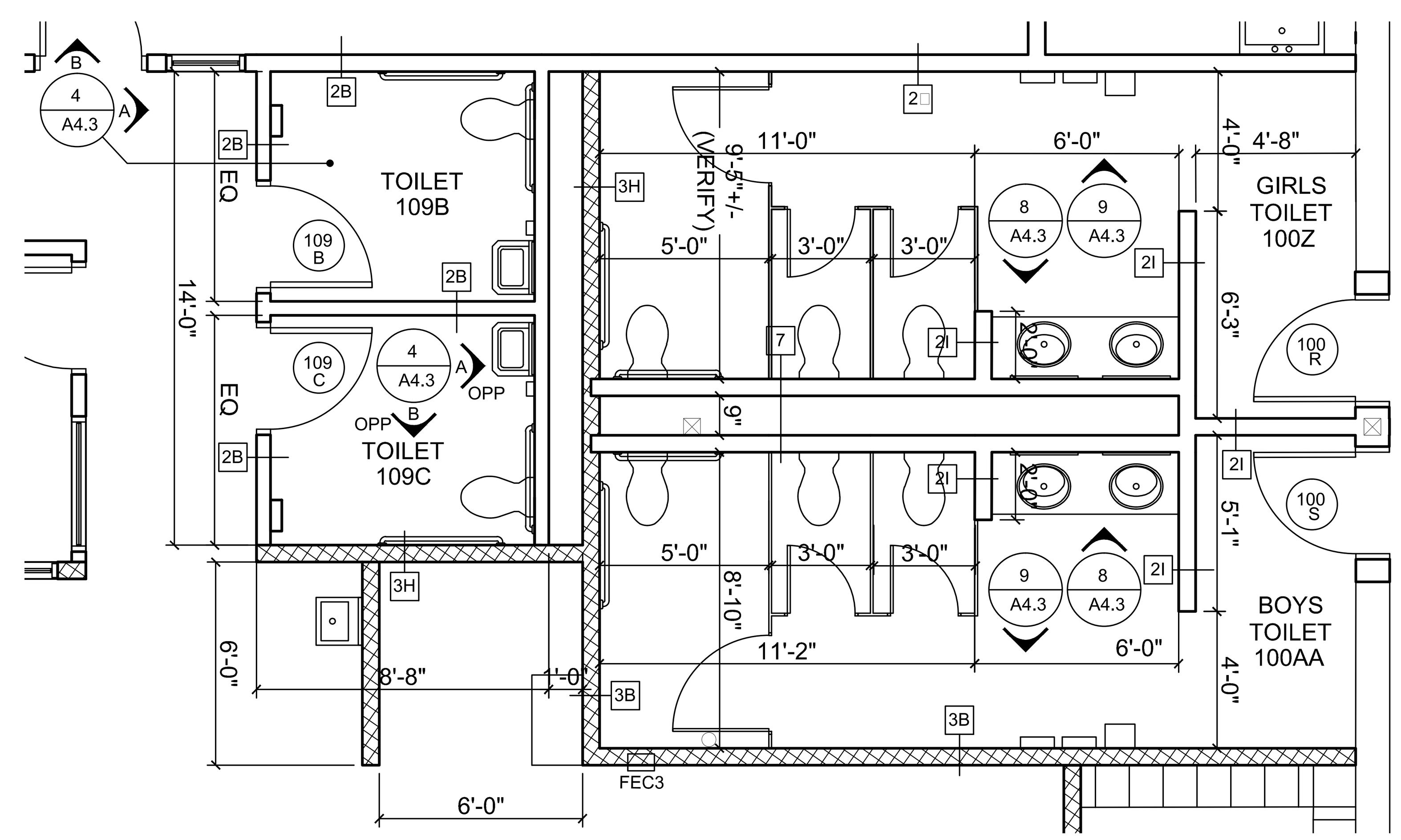
GROUND FLOOR PARTIAL NEW WOR□ PLAN □AREA H

1 A1.108 SCALE: 3/16" □ 1'0"



PLAN DETAIL

4 A1.108 SCALE: 1" □ 1'0"



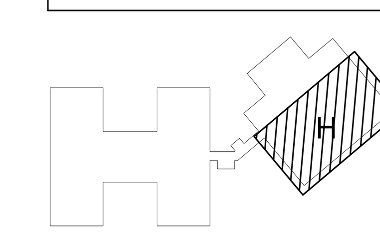
ENLARGED TOILET ROOM PLAN

2 A1.108 SCALE: 1/4" □ 1'0"

NOTE: SEE DRAWING A1.103 FOR NEW WOR□ GENERAL AND DRAWING NOTES

WALL TYPE DELINEATION

- WALL TYPE 12 AND 12A
- WALL TYPE 13 AND 13A



□EYPLAN

PLAN NORTH
TRUE NORTH

0 3' 6' 12'

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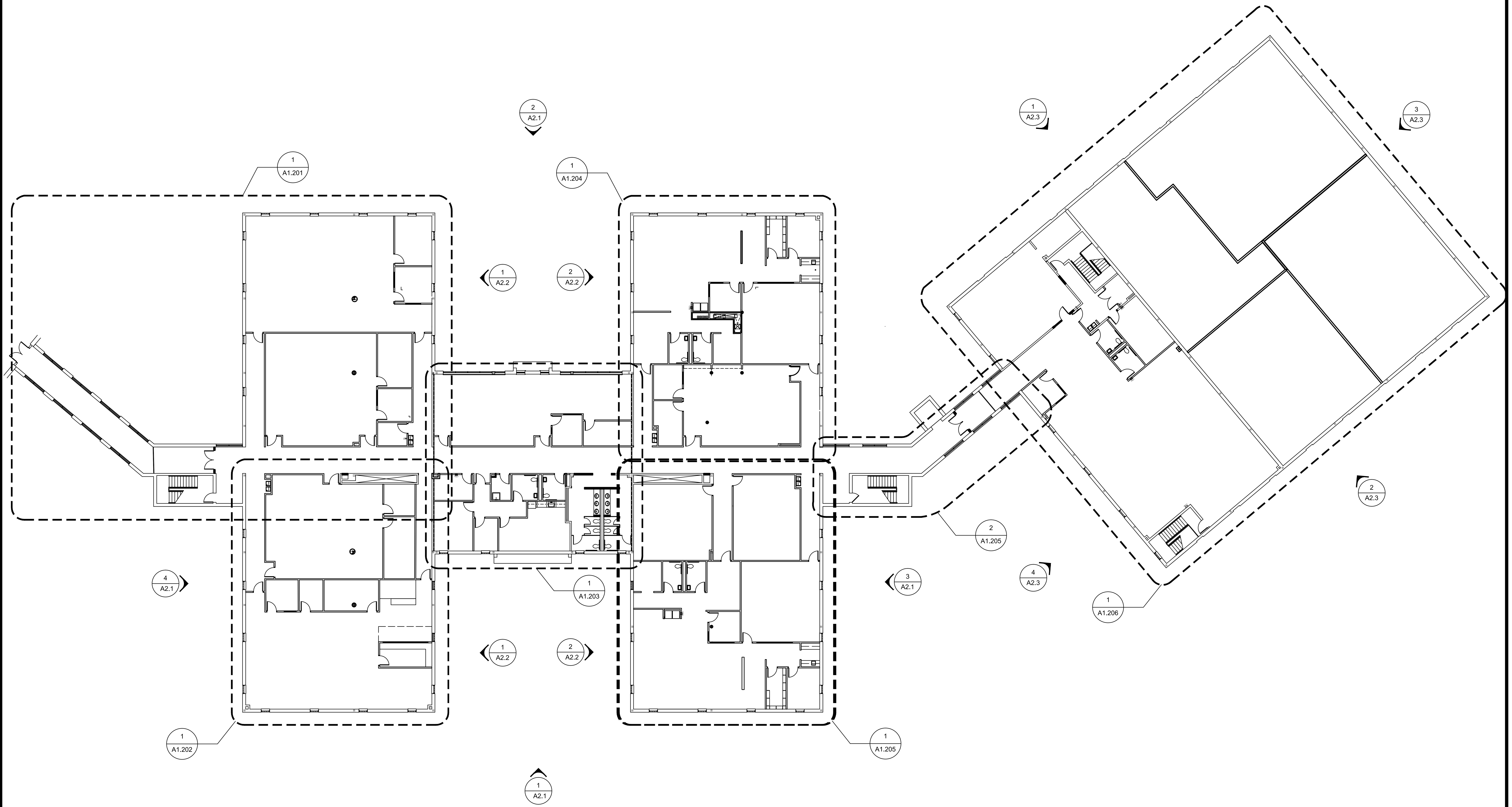
DATE:	6/17/22
SCALE:	AS SHOWN

NEW WOR□ PARTIAL GROUND FLOOR PLAN □AREA H

A1.108

SHEET ______ of ______



1 A1.2 SECOND FLOOR OVERALL NEW WOR□ FLOOR PLAN

SCALE: 1/16" □1'□0"

0 8' 16' 32'

N PLAN NORTH

TRUE NORTH

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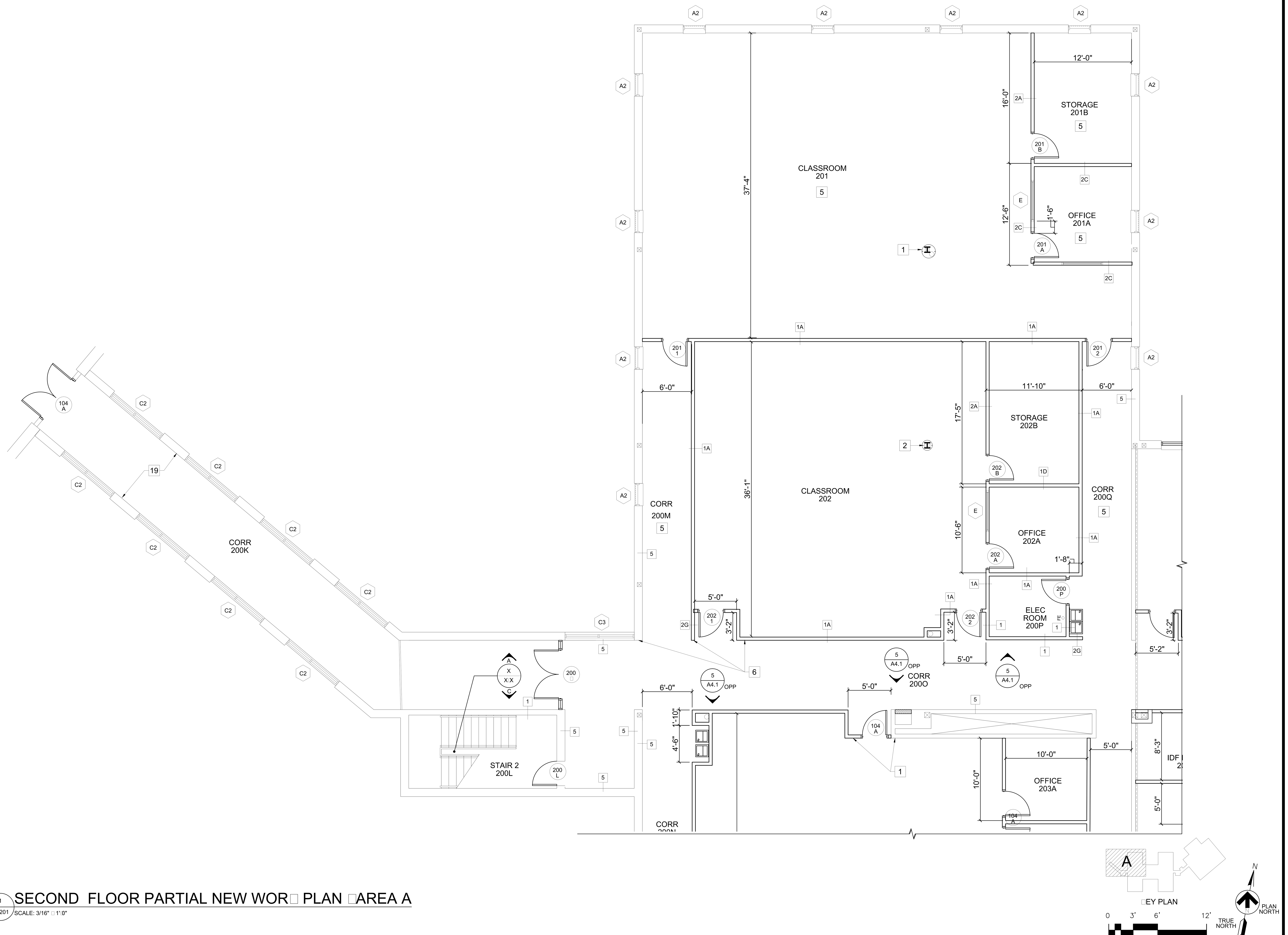
SCALE:	AS SHOWN

NEW WOR□ OVERALL SECOND FLOOR PLAN

A1.2

SHEET ______ of ______



SECOND FLOOR PARTIAL NEW WOR PLAN AREA A

SCALE: 3/16" 1'-0"

EY PLAN

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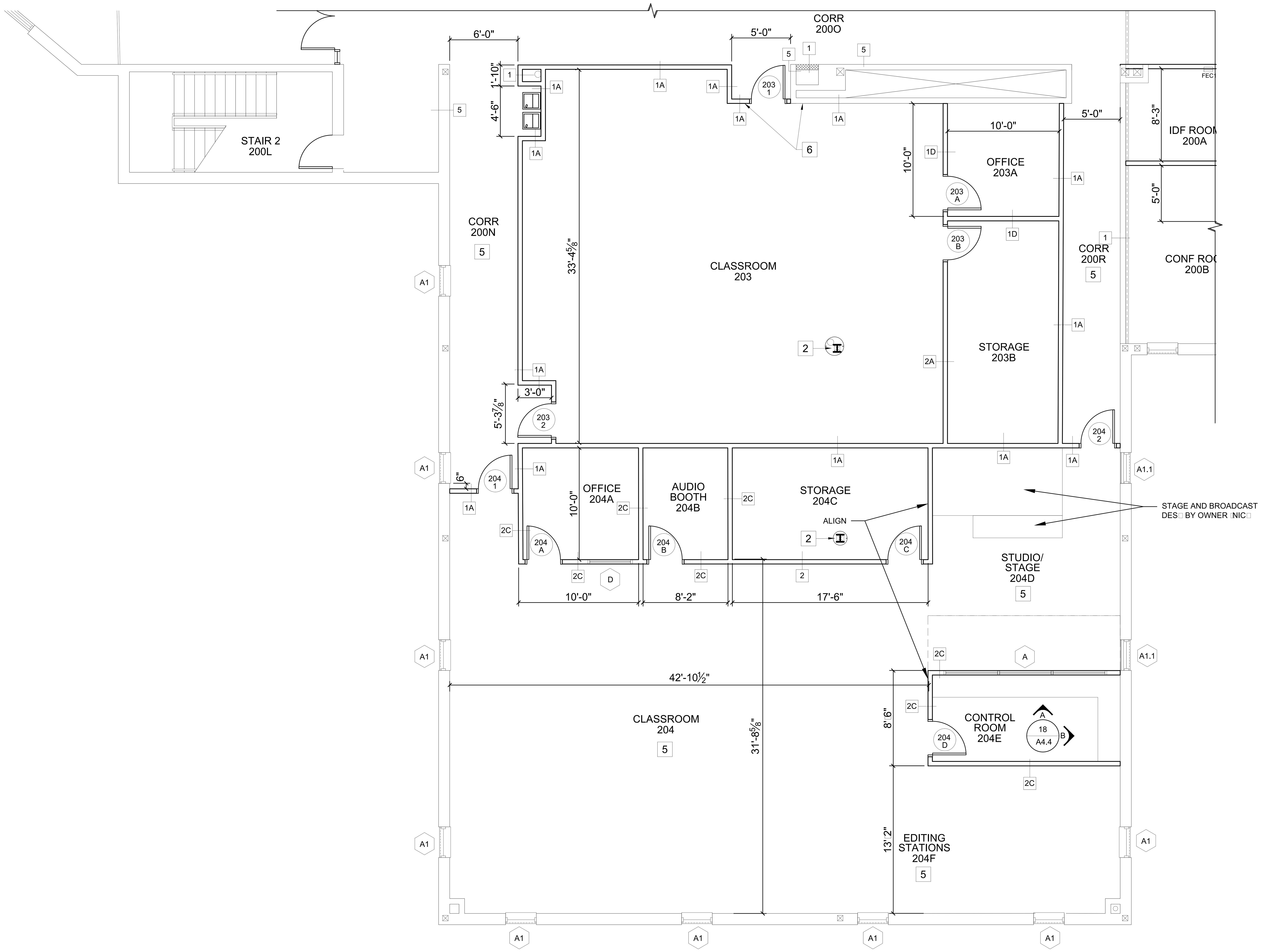
SCALE:	AS SHOWN

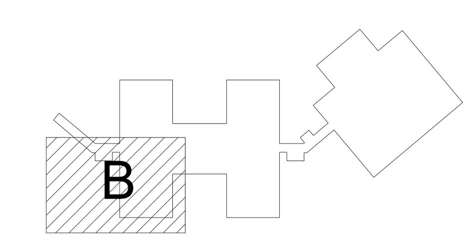
NEW WOR SECOND FLOOR PARTIAL PLAN AREA A

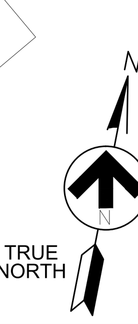
A1.201

SHEET ______ of ______



1
A1.202
SECOND FLOOR PARTIAL NEW WOR PLAN AREA B
SCALE: 3/16" 1'-0"





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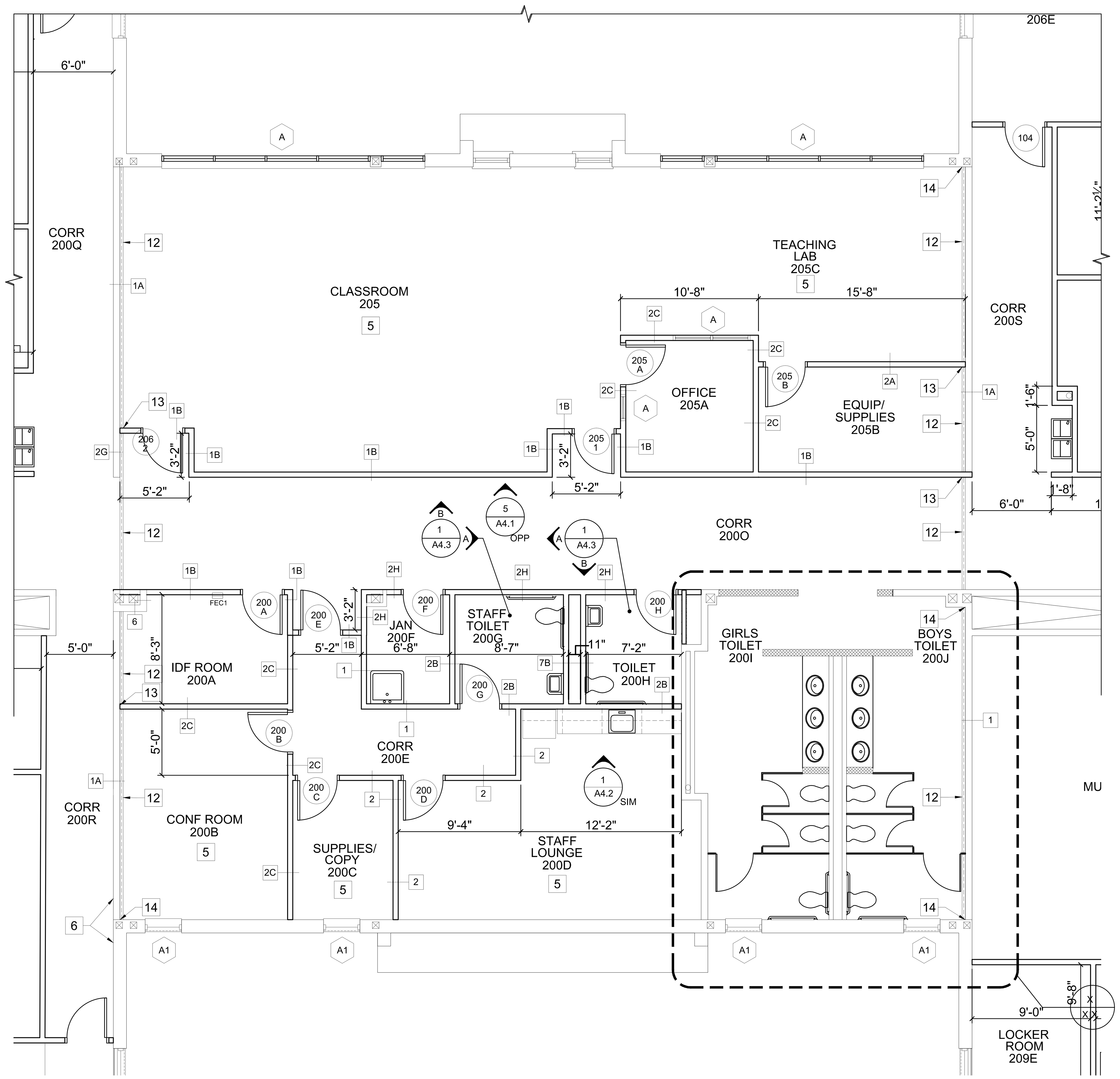
DATE:	3/1/22
SCALE:	AS SHOWN

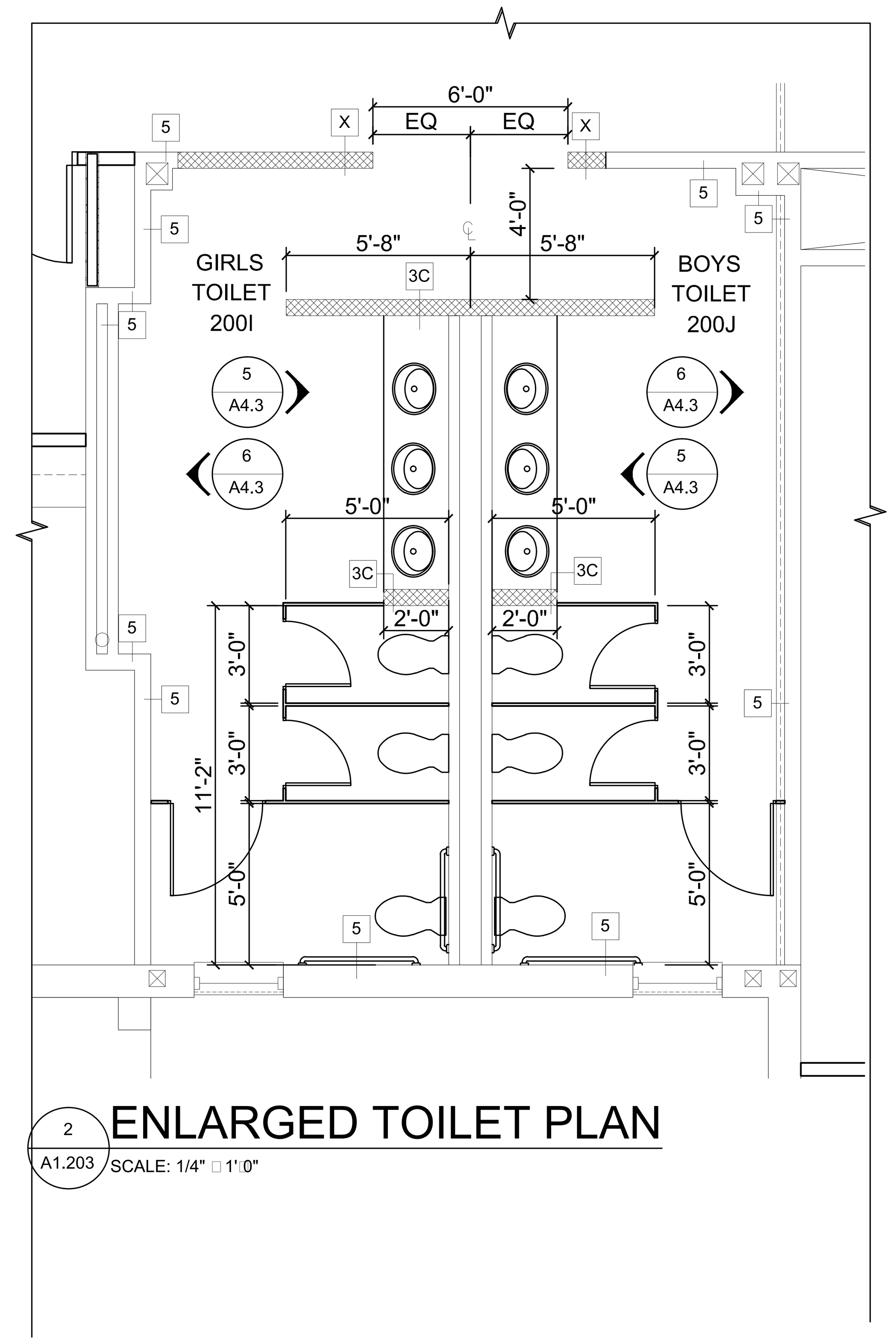
NEW WOR SECOND FLOOR
PARTIAL PLAN AREA B

A1.202

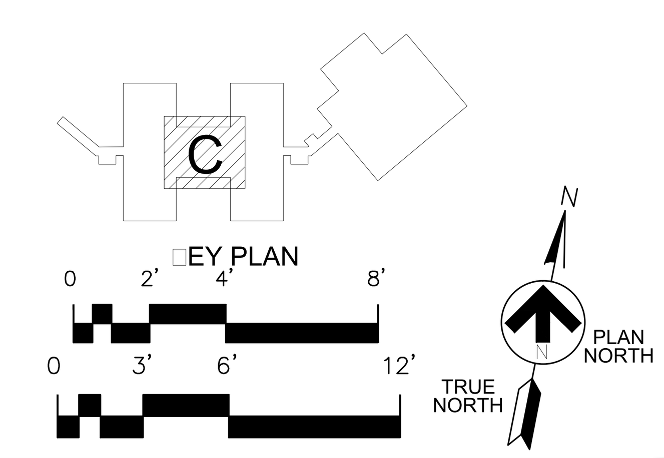
SHEET ______ of ______



1 A1.203 SECOND FLOOR PARTIAL NEW WOR□ PLAN □AREA C
SCALE: 3/16" □ 1'-0"



2 A1.203 ENLARGED TOILET PLAN
SCALE: 1/4" □ 1'-0"



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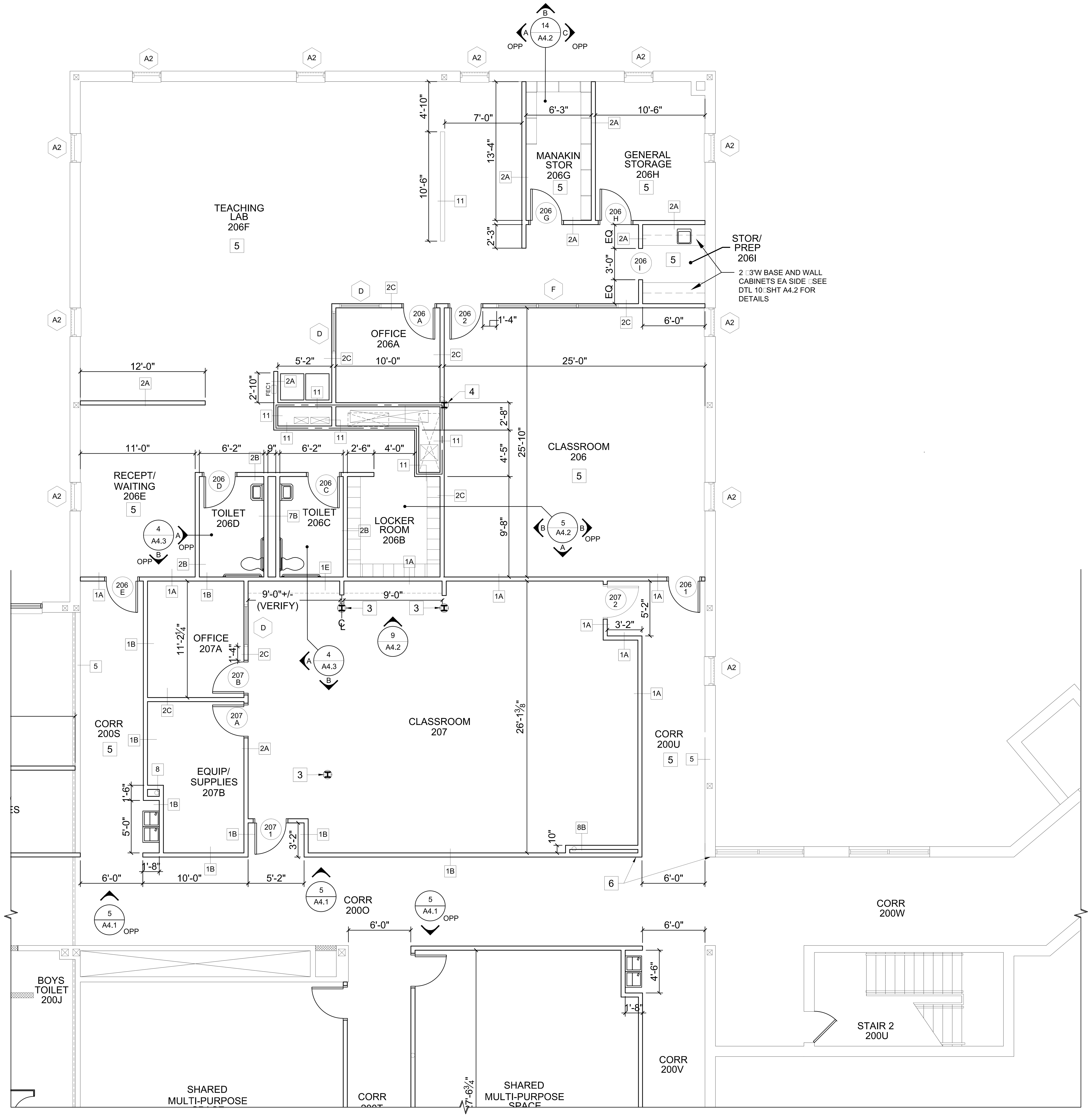
DATE:	4/1/22
SCALE:	AS SHOWN

NEW WOR□ SECOND FLOOR PARTIAL PLAN □AREA C

A1.203

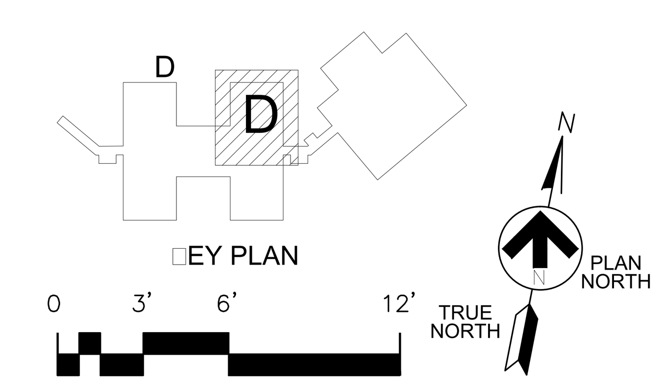
SHEET ______ of ______



1
A1.204

SECOND FLOOR PARTIAL NEW WOR□ PLAN □AREA D

SCALE: 3/16" □ 1'-0"



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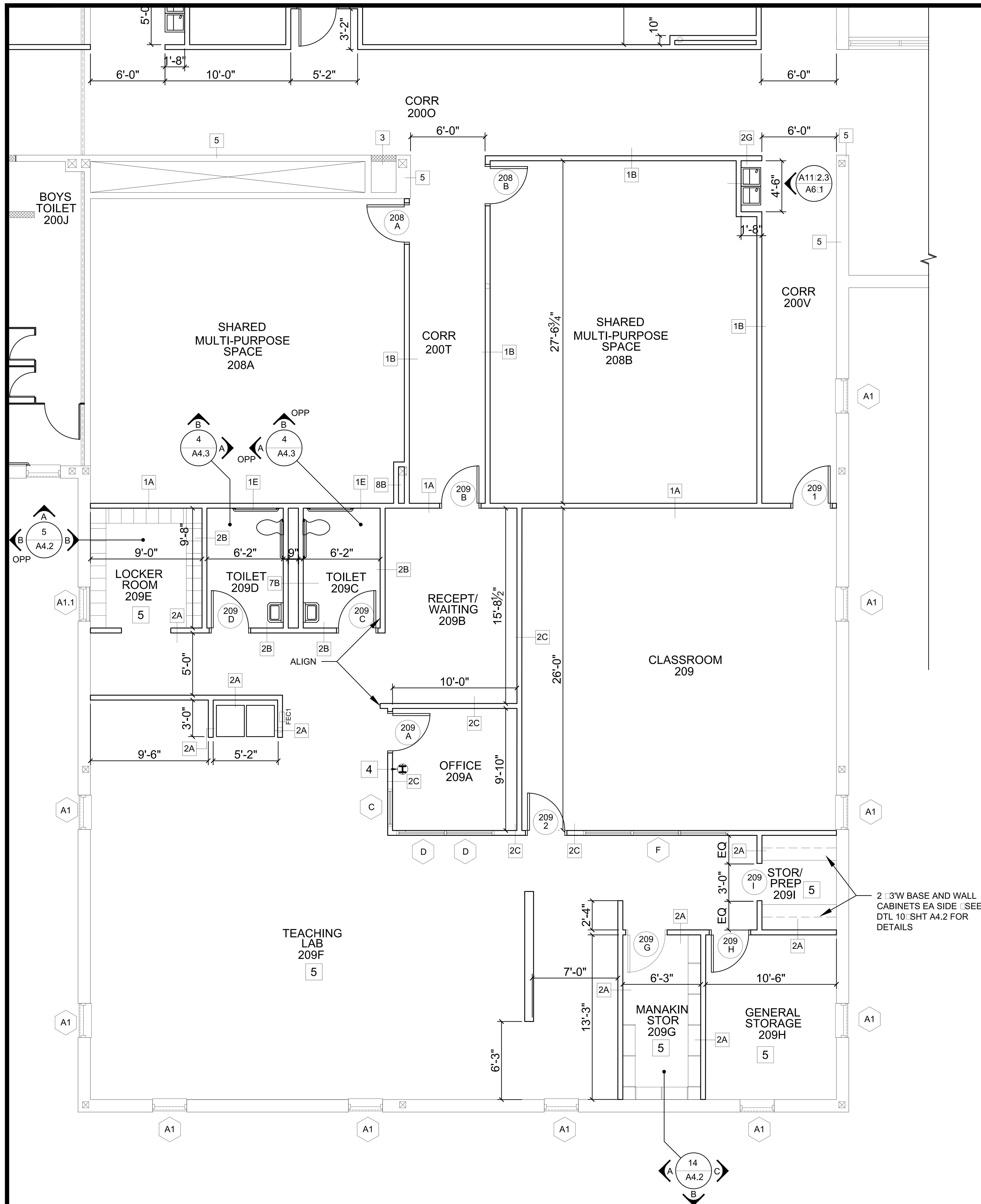
SCALE:	AS SHOWN

NEW WOR□ SECOND FLOOR PARTIAL PLAN □AREA D

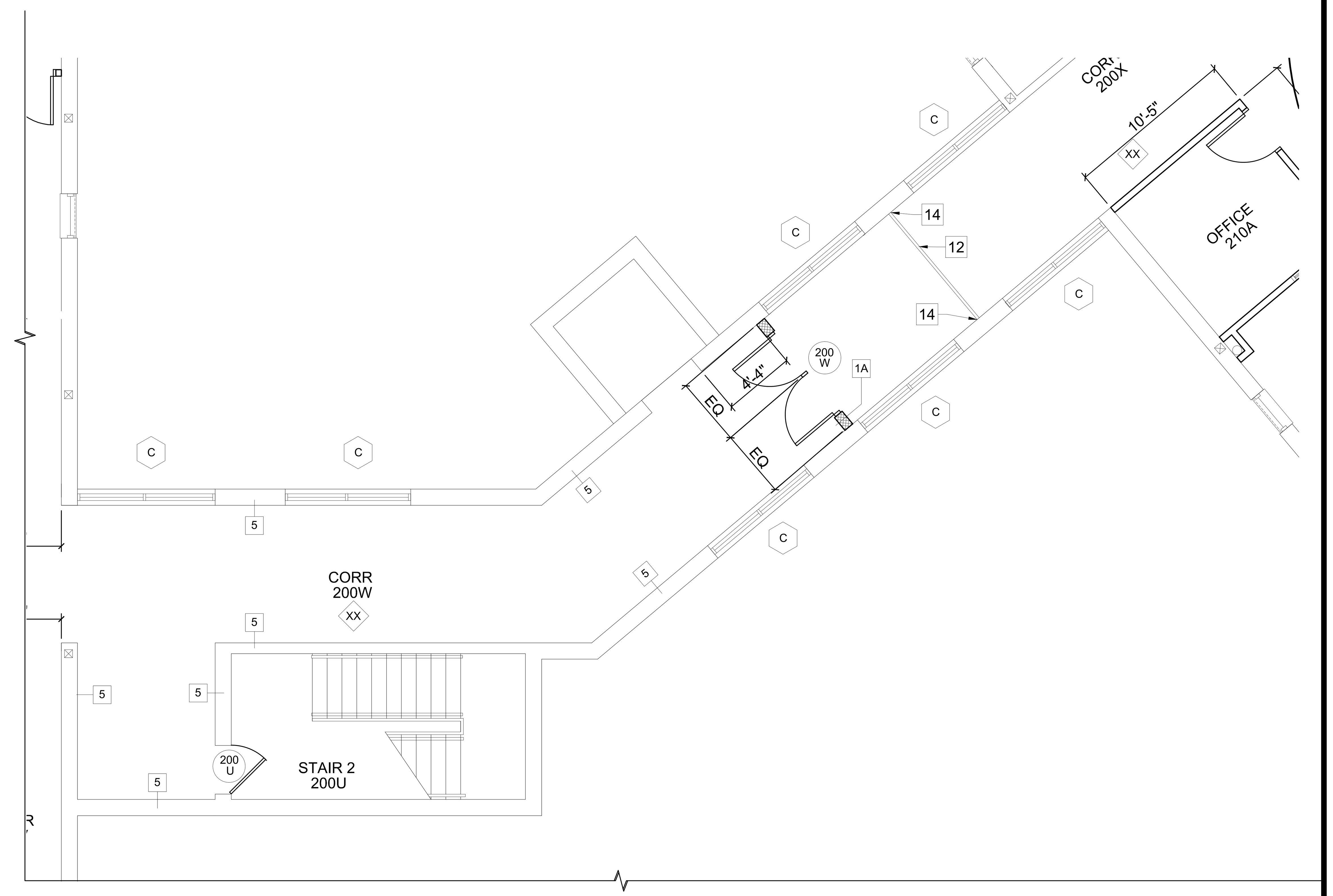
A1.204

SHEET ______ of ______



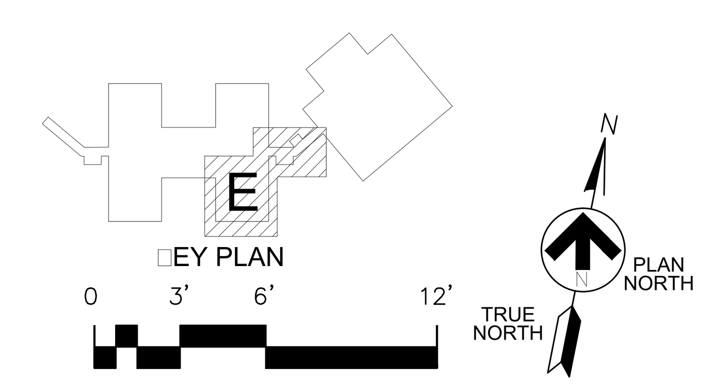
SECOND FLOOR PARTIAL NEW WOR PLAN AREA E

1
A1.205
SCALE: 3/16" 1'0"



SECOND FLOOR ENLARGED PARTIAL NEW WOR PLAN CONNECTOR

2
A1.205
SCALE: 3/16" 1'0"



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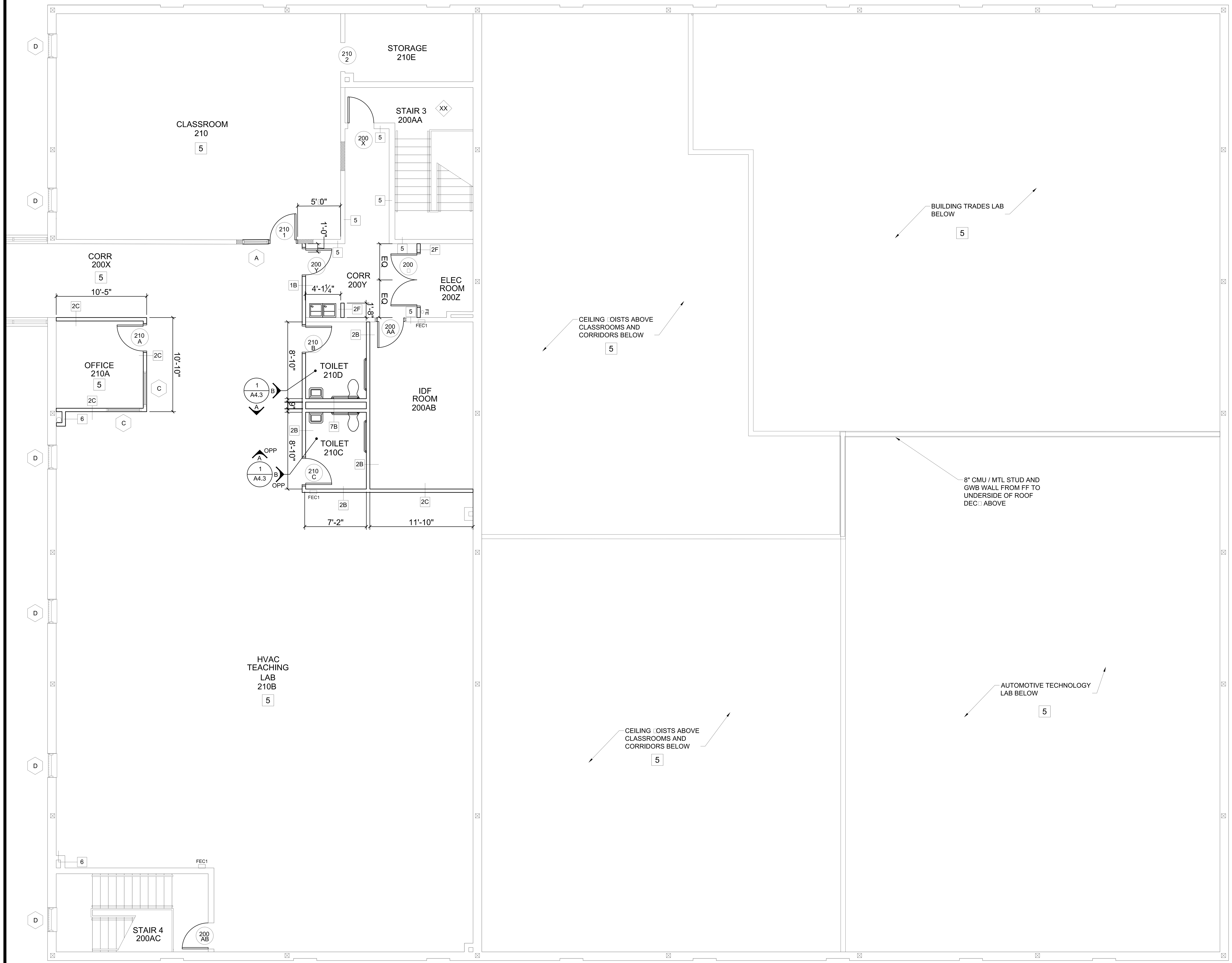
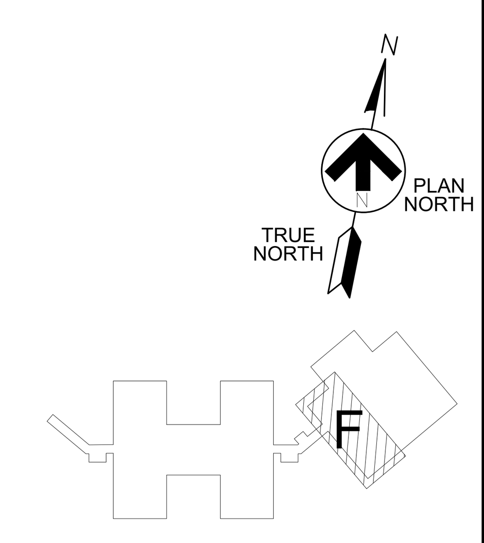
NEW WOR SECOND FLOOR PARTIAL PLAN AREA E

A1.205

SHEET ______ of ______





0 3' 6' 12'

1
A1.206
SECOND FLOOR PARTIAL NEW WOR□ PLAN □AREA F
SCALE: 3/16" □ 1'0"

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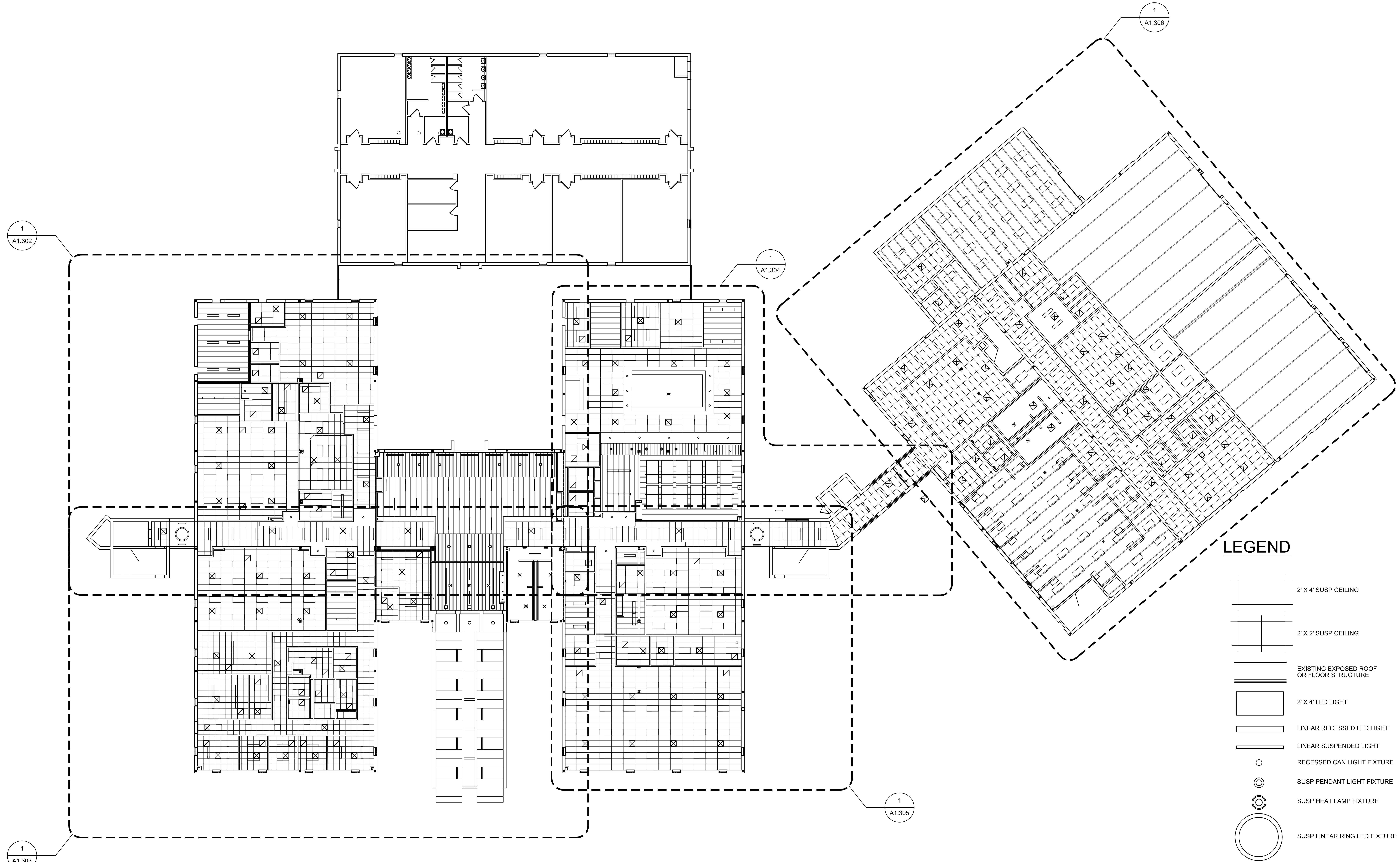
NEW WOR□ SECOND FLOOR PARTIAL PLAN □AREA F

A1.206

SHEET ______ of ______



GROUND FLOOR OVERALL REFLECTED CEILING PLAN

1
A1.301
SCALE: 1/16" □ 1'-0"

LEGEND

- 2' X 4' SUSP CEILING
- 2' X 2' SUSP CEILING
- EXISTING EXPOSED ROOF OR FLOOR STRUCTURE
- 2' X 4' LED LIGHT
- LINEAR RECESSED LED LIGHT
- LINEAR SUSPENDED LIGHT
- RECESSED CAN LIGHT FIXTURE
- SUSP PENDANT LIGHT FIXTURE
- SUSP HEAT LAMP FIXTURE
- SUSP LINEAR RING LED FIXTURE
- 2' X 2' SUPPLY AIR DIFFUSER
- 2' X 2' RETURN AIR REGISTER
- LINEAR AIR DIFFUSER

0 8' 16' 32'

PLAN NORTH

TRUE NORTH

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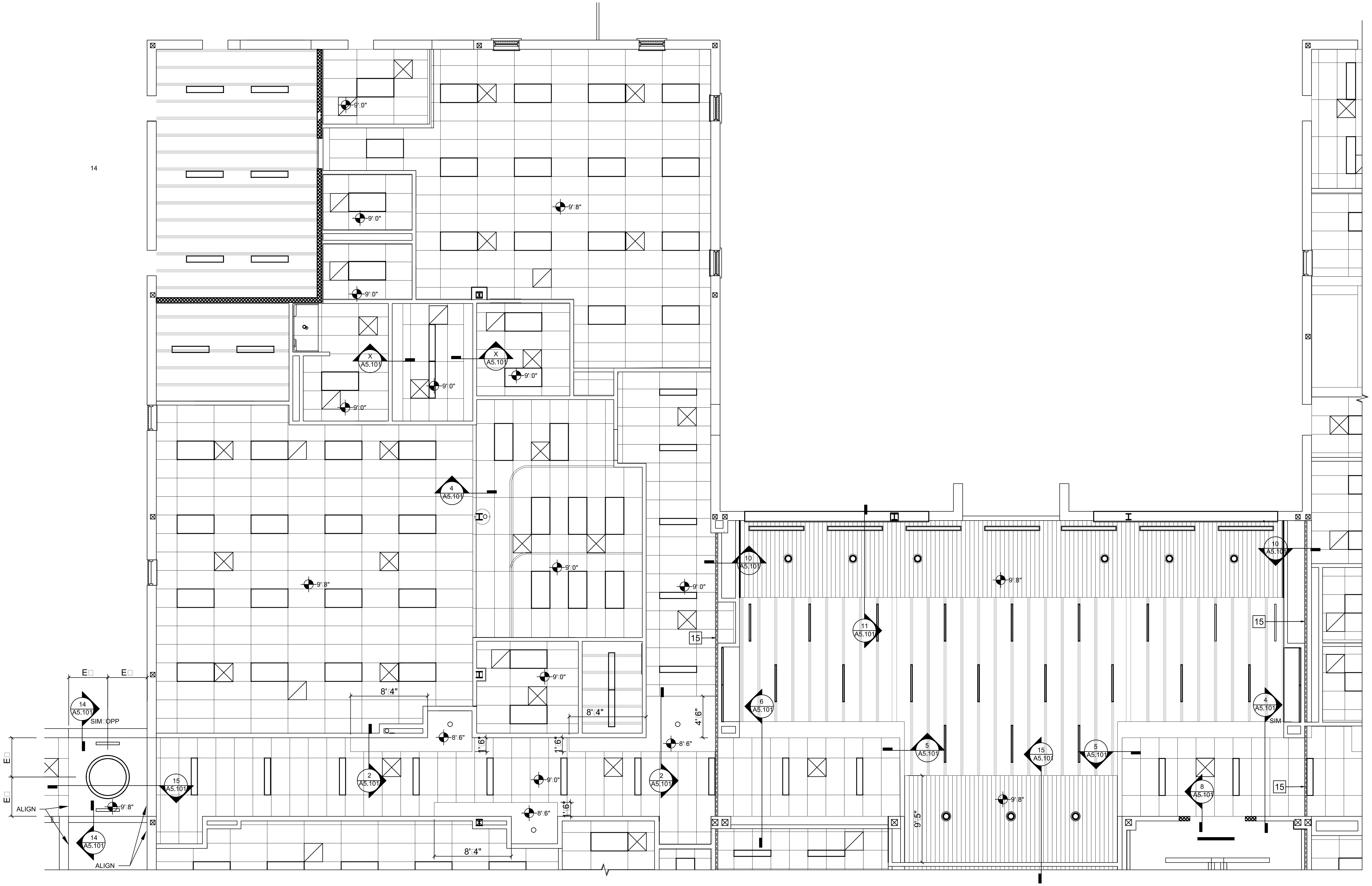
DRAWN BY:	
REV'D BY:	GC
DATE:	6/17/22
SCALE:	AS SHOWN

GROUND FLOOR OVERALL REFLECTED CEILING PLAN

A1.301

SHEET ______ of ______

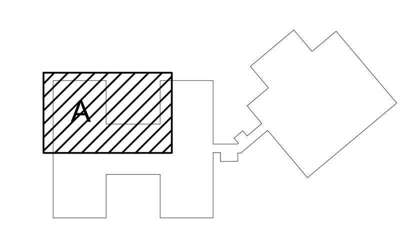


GROUND FLOOR PARTIAL REFLECTED CEILING PLAN AREA A

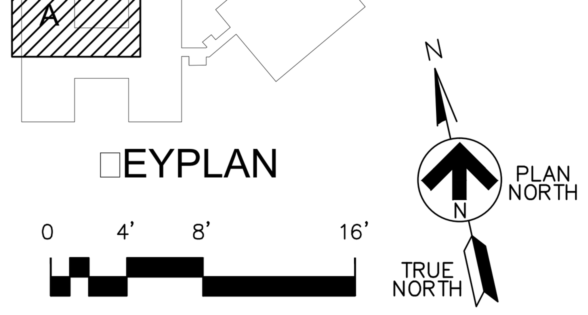
1 / A1.302 — SCALE: 1/8" = 1'-0"

DRAWING GENERAL NOTES:

1. SEE SHEET A2.301 FOR REFLECTED CEILING LEGEND.



KEYPLAN



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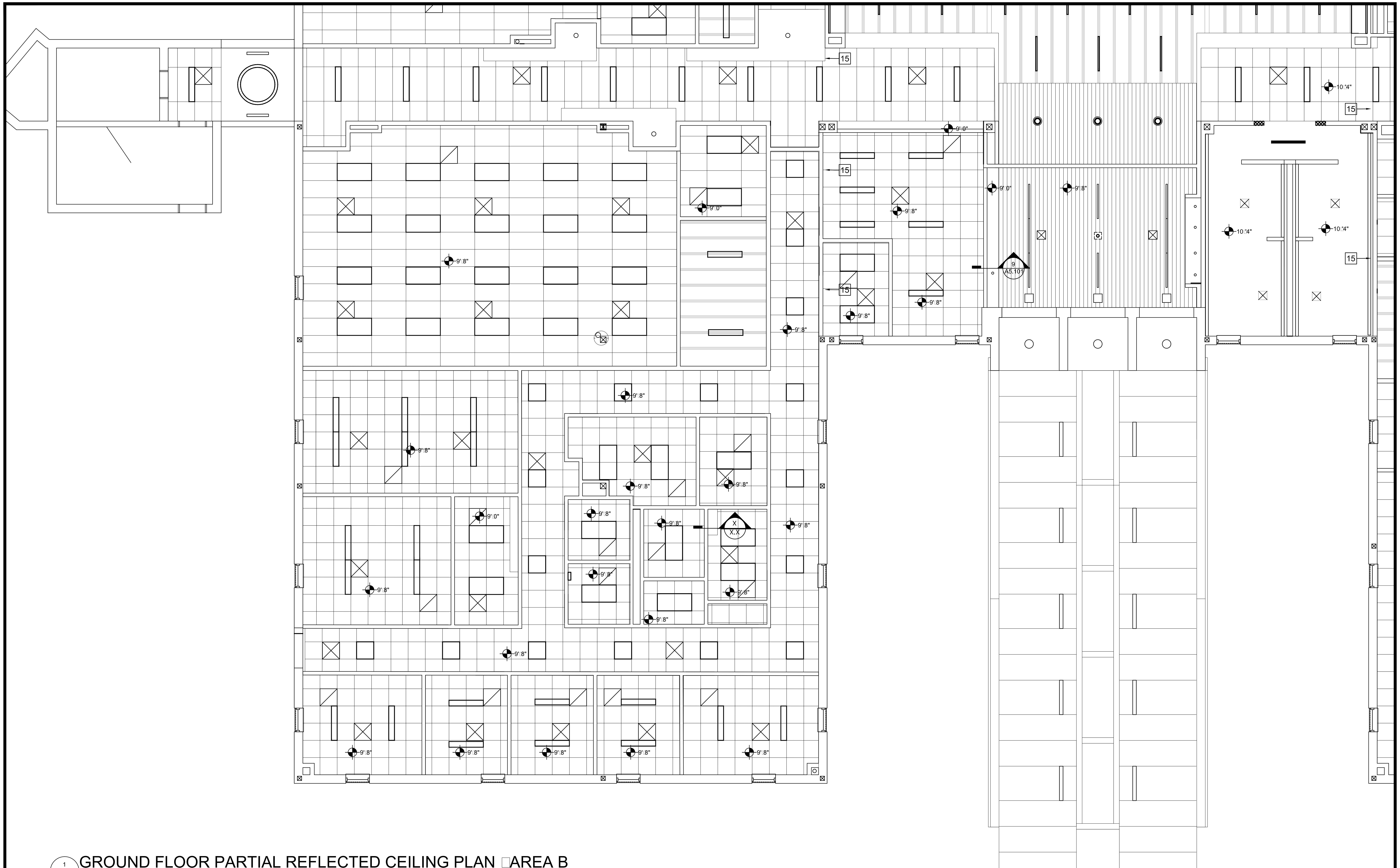
GROUND FLOOR PARTIAL REFLECTED CEILING PLAN AREA A

A1.302

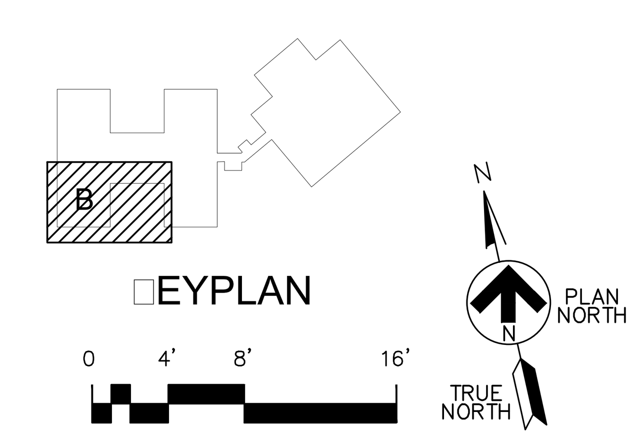
SHEET ____ of X



1 A1.303 GROUND FLOOR PARTIAL REFLECTED CEILING PLAN AREA B
SCALE: 1/8" = 1'-0"

DRAWING GENERAL NOTES:

1. SEE SHEET A2.301 FOR REFLECTED CEILING LEGEND.



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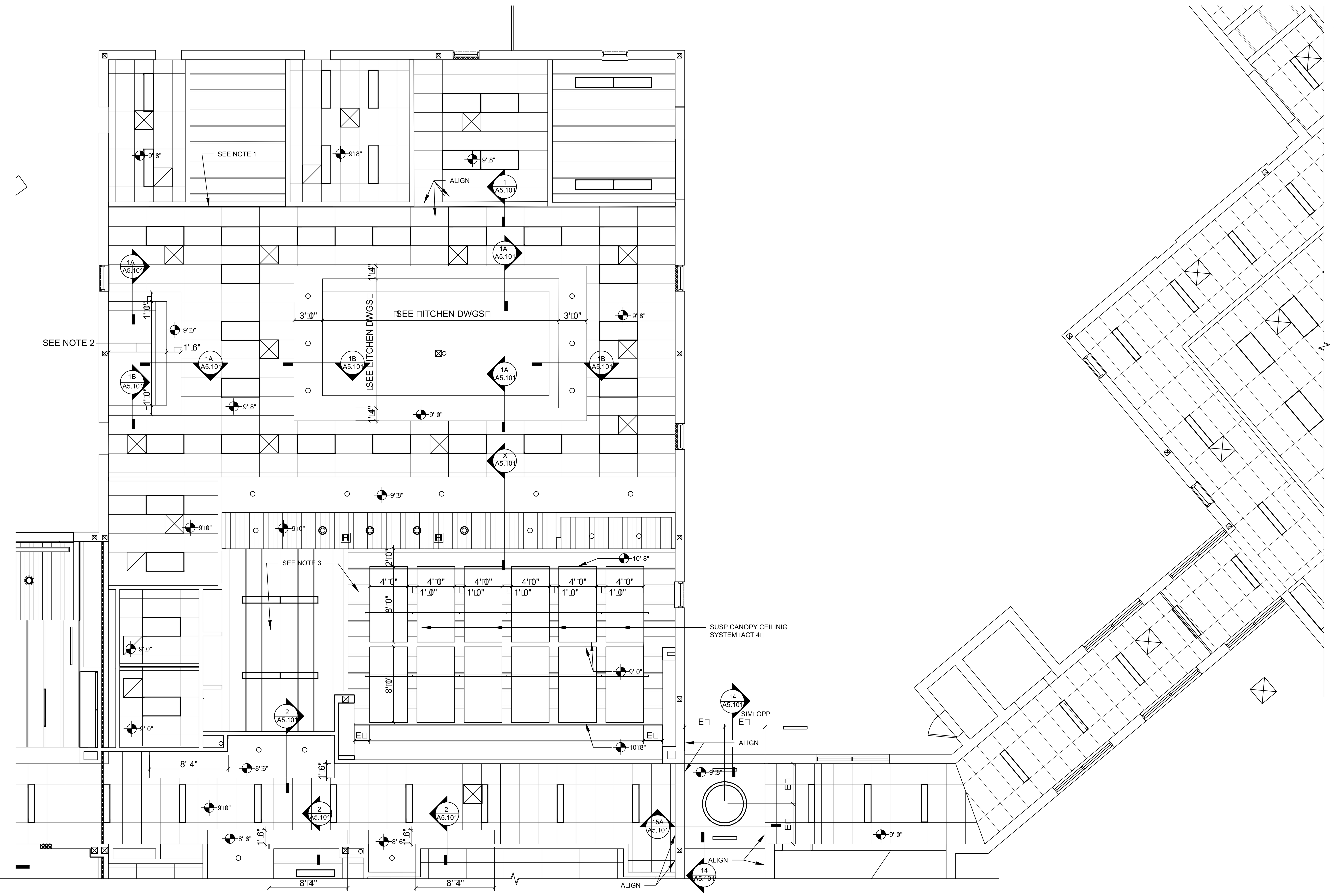
GROUND FLOOR PARTIAL REFL CLG PLAN AREA B

A1.303

SHEET ______ of ______



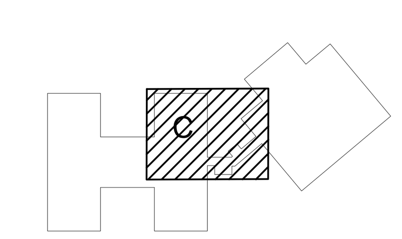
1 A1.304 GROUND FLOOR PARTIAL REFLECTED CEILING PLAN □AREA C
SCALE: 3/16" □ 1'0"

DRAWING GENERAL NOTES:

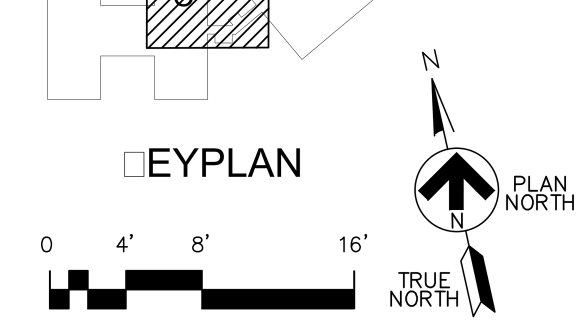
1. SEE SHEET A2.301 FOR REFLECTED CEILING LEGEND.

DRAWING NOTES:

1. CONTRACTOR TO COORDINATE BUL□HEAD HGT W/ WAL□□N COOLER MANUFACTURER
2. CONTRACTOR TO COORDINATE DIMENSIONS OF BUL□HEAD W/ EXHAUST HOOD MANUF AND INSTALLER.
3. EXPOSED STRUCTURE ABOVE TO BE PAINTED □SEE INTERIOR FINISH DRAWINGS.



□EYPLAN



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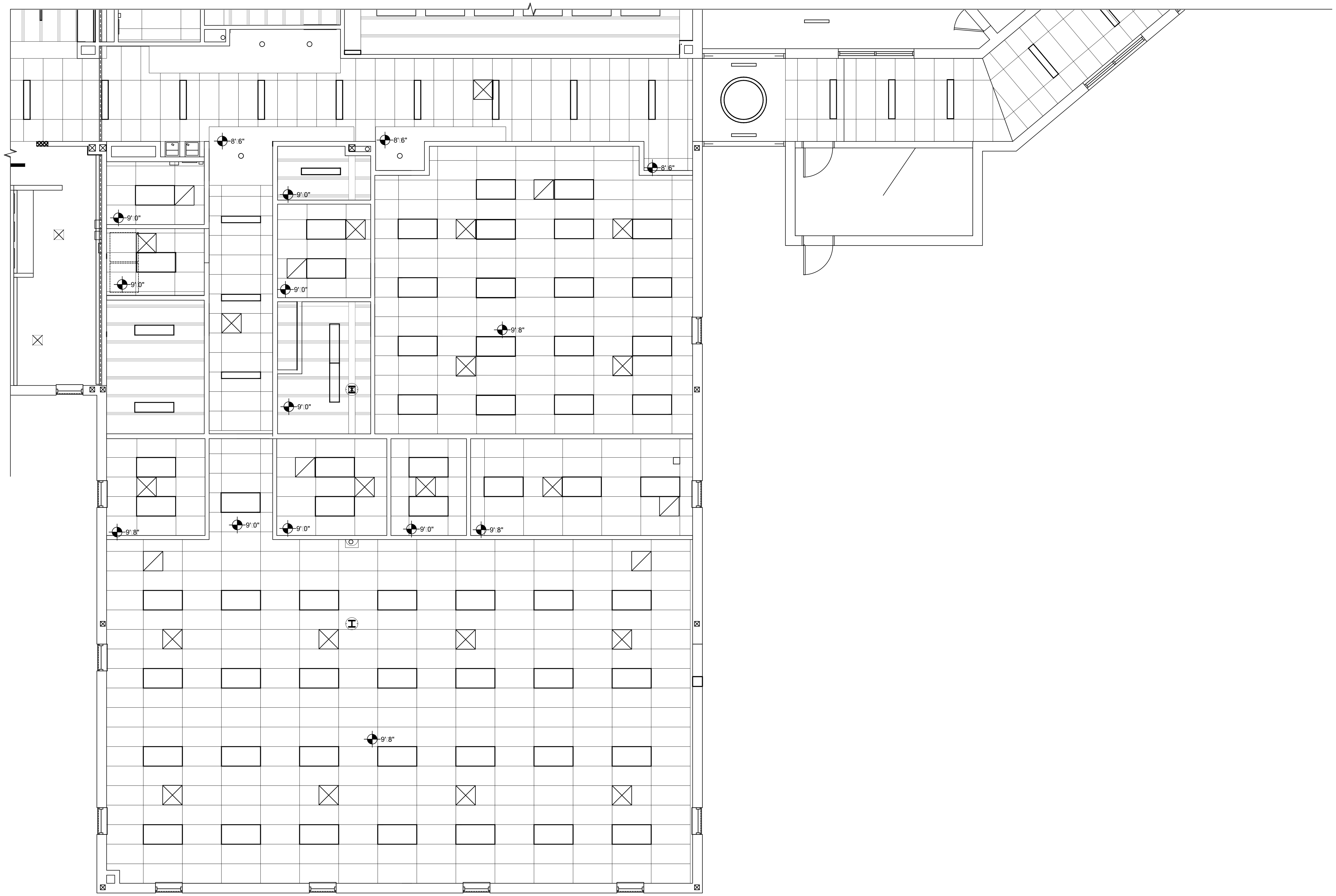
SCALE:	AS SHOWN

GROUND FLOOR PARTIAL REFL CLG PLAN □AREA C

A1.304

SHEET ______ of ______



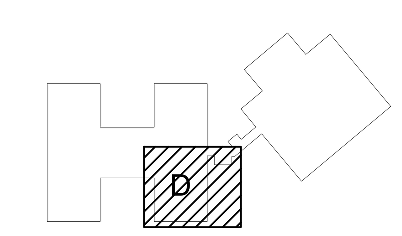
1
A1.305

GROUND FLOOR PARTIAL REFLECTED CEILING PLAN □AREA D

SCALE: 3/16" □ 1'-0"

DRAWING GENERAL NOTES:

1. SEE SHEET A2.301 FOR REFLECTED CEILING LEGEND.



□EYPLAN

0 3' 6' 12'

N
PLAN NORTH
TRUE NORTH

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GROUND FLOOR PARTIAL NEW WOR□ PLAN □AREA D

A1.305

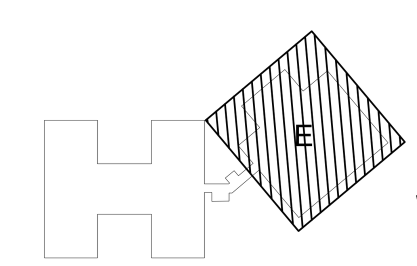
SHEET ______ of ______

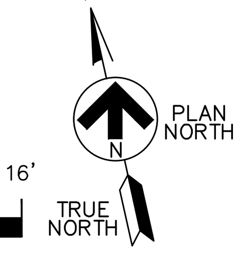
1 A1.306 GROUND FLOOR PARTIAL REFLECTED CEILING PLAN AREA E

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

DRAWING GENERAL NOTES:

1. SEE SHEET A2.301 FOR REFLECTED CEILING LEGEND.





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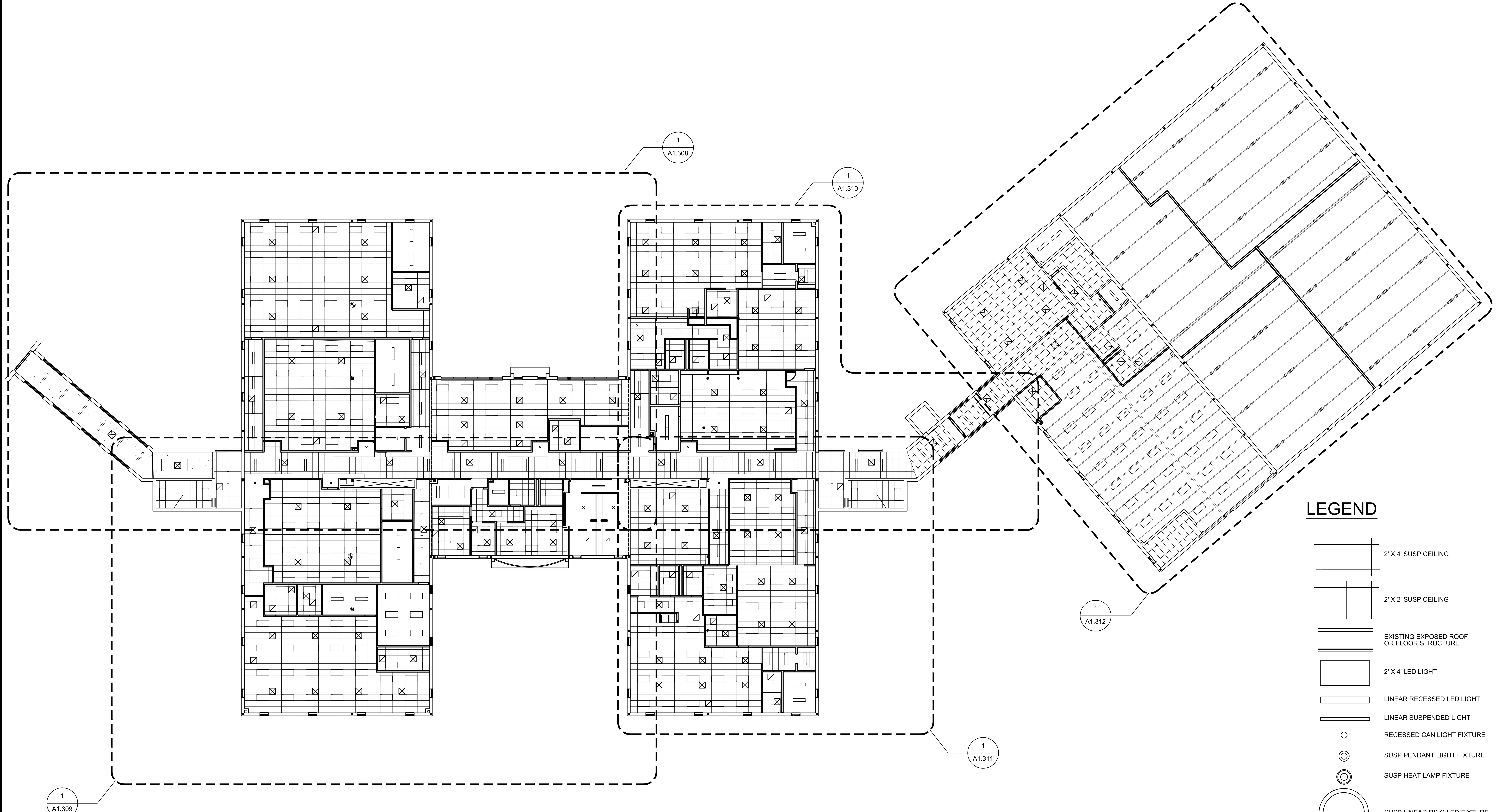
GROUND FLOOR PARTIAL NEW WORK PLAN AREA E

A1.306

SHEET ______ of ______



SECOND FLOOR OVERALL REFLECTED CEILING PLAN

1
A1.307
SCALE: 1/16" = 1'-0"

LEGEND

- 2' X 4' SUSP CEILING
- 2' X 2' SUSP CEILING
- EXISTING EXPOSED ROOF OR FLOOR STRUCTURE
- 2' X 4' LED LIGHT
- LINEAR RECESSED LED LIGHT
- LINEAR SUSPENDED LIGHT
- RECESSED CAN LIGHT FIXTURE
- SUSP PENDANT LIGHT FIXTURE
- SUSP HEAT LAMP FIXTURE
- SUSP LINEAR RING LED FIXTURE
- 2' X 2' SUPPLY AIR DIFFUSER
- 2' X 2' RETURN AIR REGISTER
- LINEAR AIR DIFFUSER

N

0 8' 16' 32'

PLAN NORTH
TRUE NORTH

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SCALE:	AS SHOWN

SECOND FLOOR OVERALL REFLECTED CEILING PLAN

A1.307

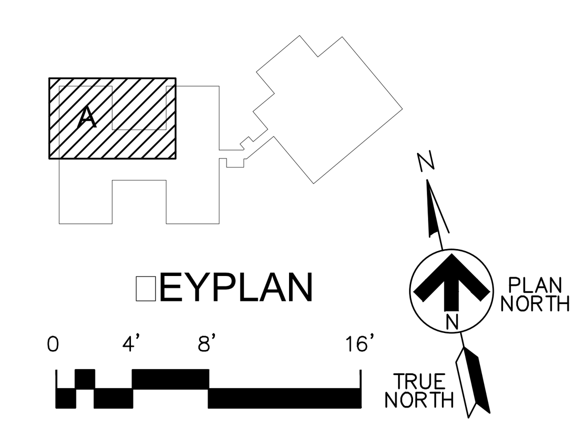
SHEET ______ of ______

1 A1.308 SECOND FLOOR PARTIAL REFLECTED CEILING PLAN AREA A

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

DRAWING GENERAL NOTES:

1. SEE SHEET A2.301 FOR REFLECTED CEILING LEGEND.



KEYPLAN

PLAN NORTH

TRUE NORTH

0 4' 8' 16'

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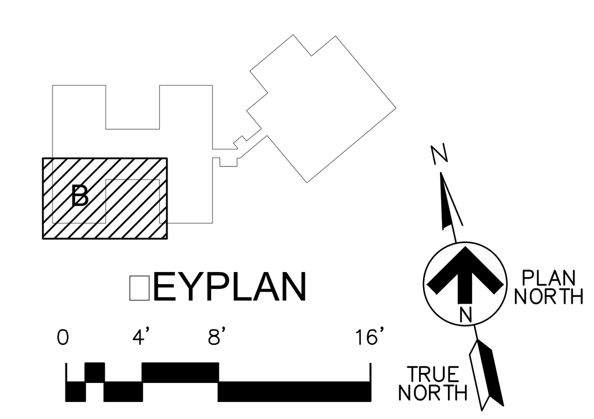
SECOND FLOOR PARTIAL REFL CLG PLAN AREA A

A1.308

SHEET ______ of ______

1
A1.309
SECOND FLOOR PARTIAL REFLECTED CEILING PLAN □AREA B
SCALE: 1/8" □ 1'-0"

DRAWING GENERAL NOTES:
1. SEE SHEET A2.301 FOR REFLECTED CEILING LEGEND.



□EYPLAN

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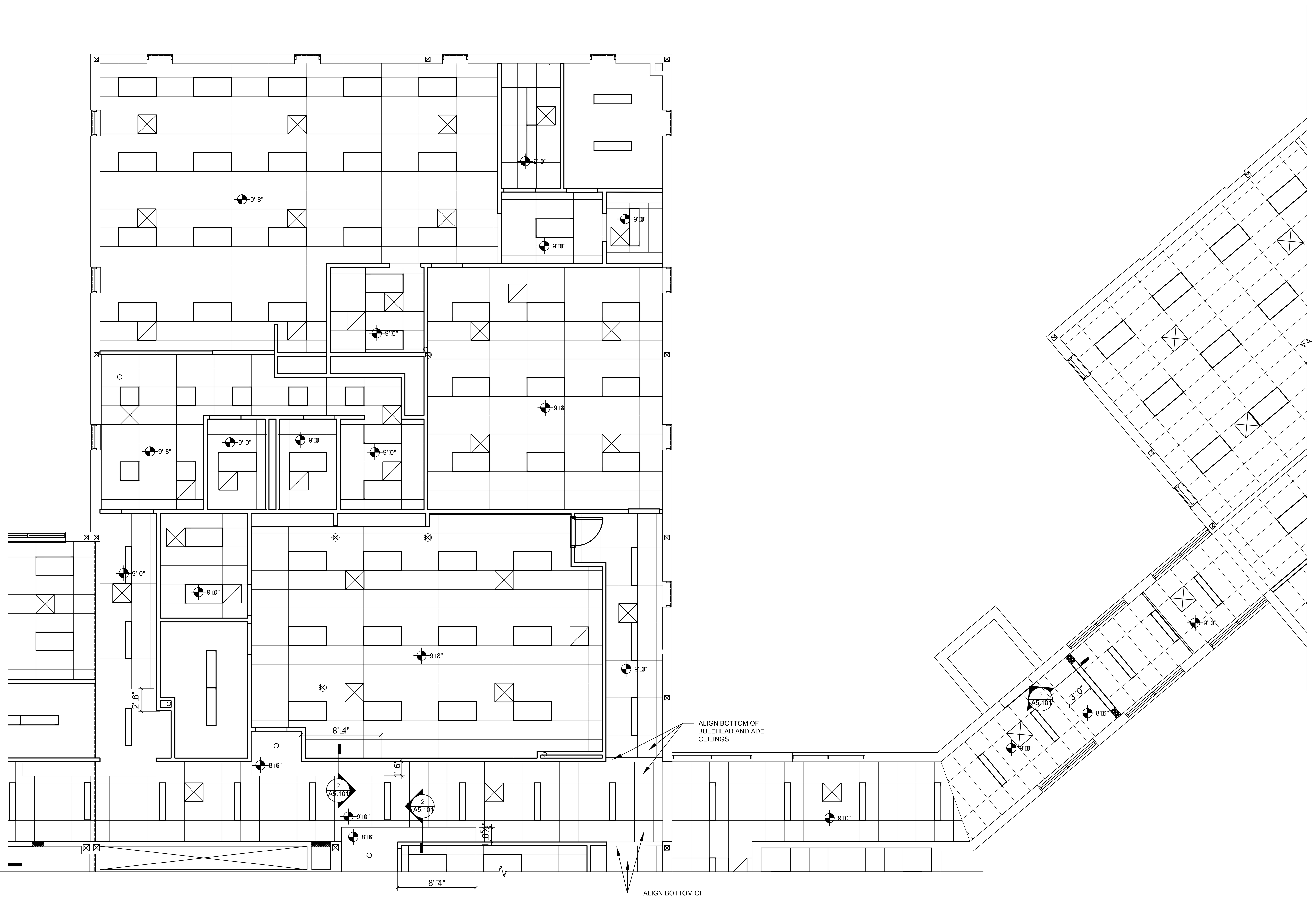
SECOND FLOOR PARTIAL
REFL CLG PLAN □AREA B

A1.309

SHEET ______ of ______



SECOND FLOOR PARTIAL REFLECTED CEILING PLAN - AREA C

1 A1.310 SCALE: 1/8" = 1'-0"

DRAWING GENERAL NOTES:

1. SEE SHEET A2.301 FOR REFLECTED CEILING LEGEND.

KEYPLAN

PLAN NORTH

TRUE NORTH

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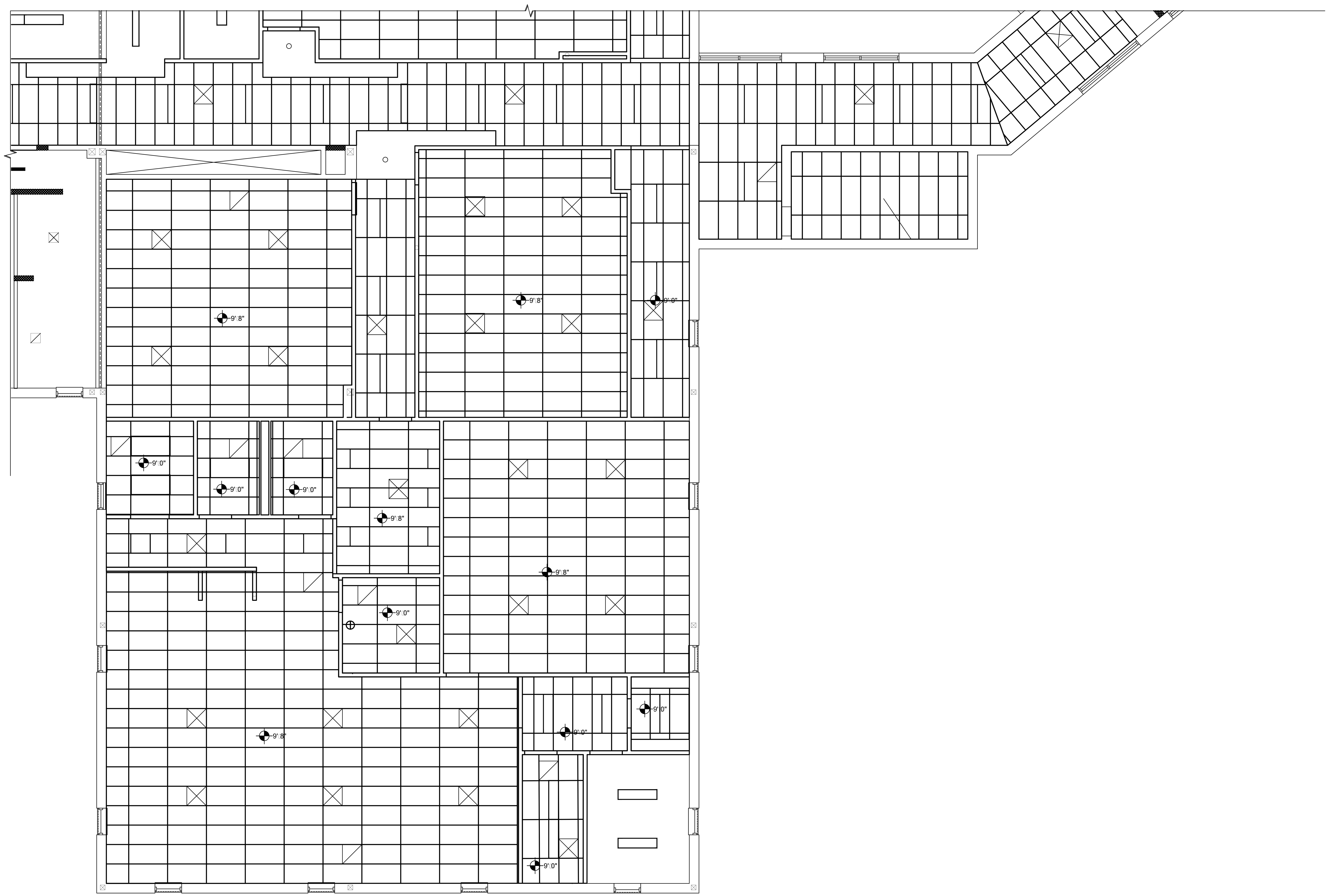
SCALE:	AS SHOWN

SECOND FLOOR PARTIAL REFL CLG PLAN - AREA C

A1.310

SHEET ______ of ______

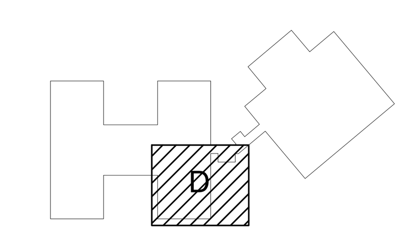


SECOND FLOOR PARTIAL REFLECTED CEILING PLAN AREA D

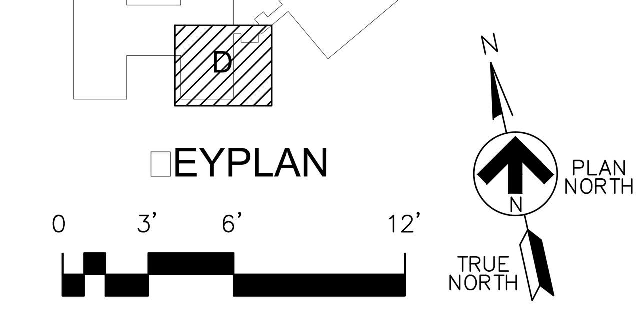
1
A1.311
SCALE: 1/8" 1'0"

DRAWING GENERAL NOTES:

1. SEE SHEET A2.301 FOR REFLECTED CEILING LEGEND.



EYPLAN



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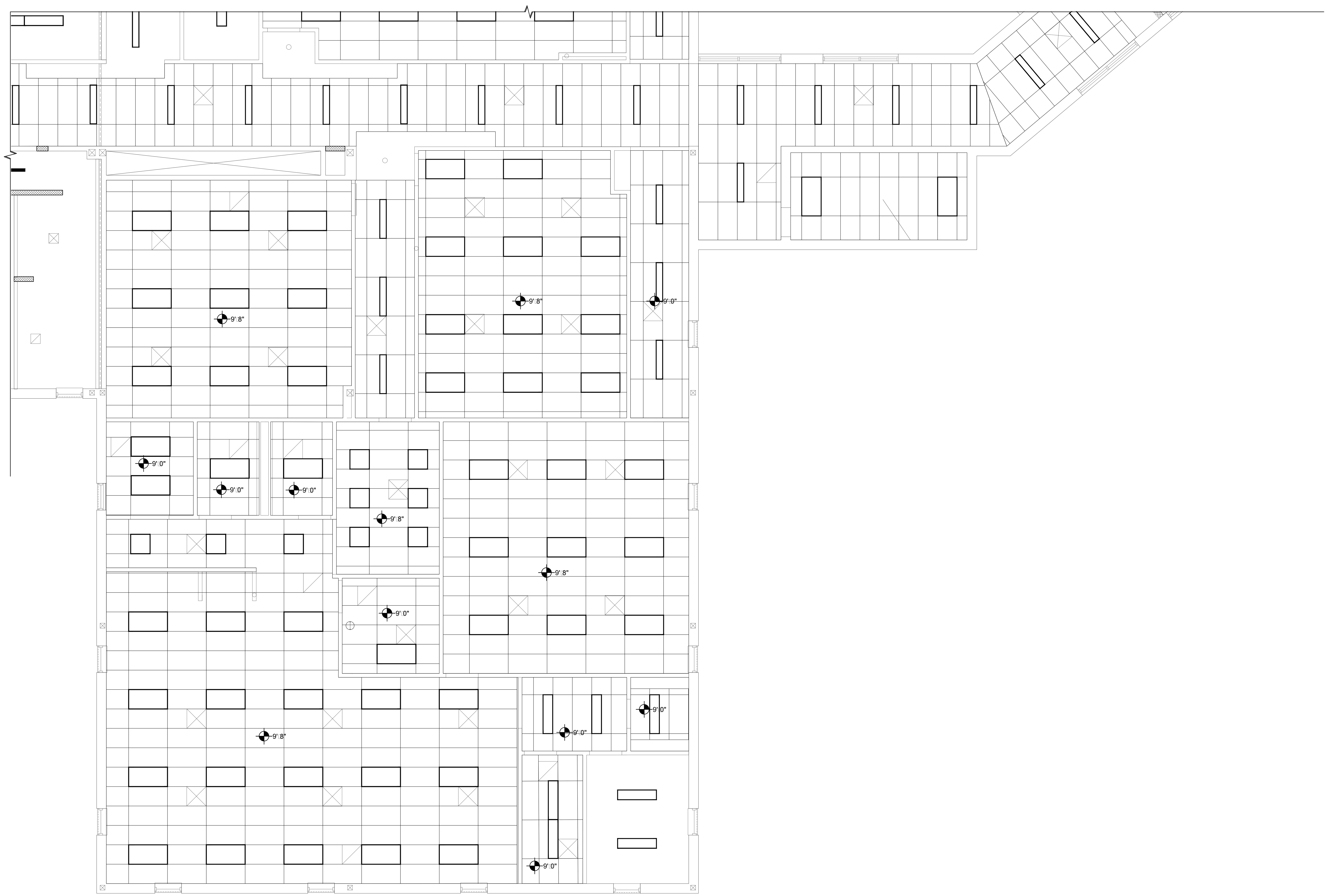
SCALE:	AS SHOWN

GROUND FLOOR PARTIAL NEW WOR PLAN AREA D

A1.311

SHEET ______ of ______



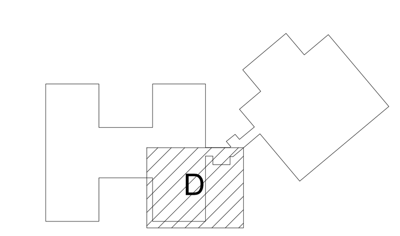
1
A1.311

SECOND FLOOR PARTIAL REFLECTED CEILING PLAN – AREA D

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

DRAWING GENERAL NOTES:

1. SEE SHEET A2.301 FOR REFLECTED CEILING LEGEND.



KEYPLAN

0 3' 6' 12'

N

PLAN NORTH

TRUE NORTH

CA Architecture

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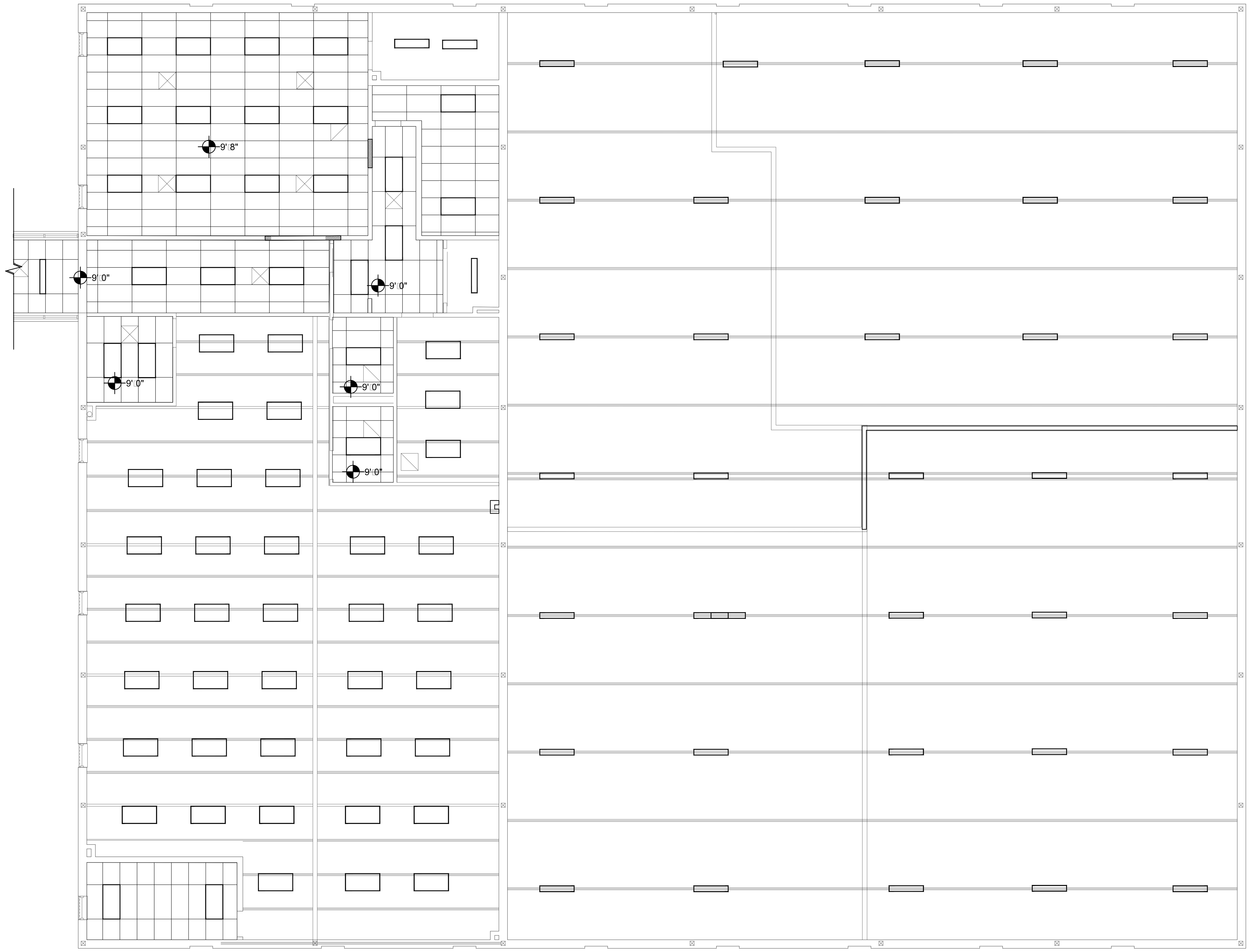
SCALE:	AS SHOWN

SECOND FLOOR PARTIAL NEW WORK PLAN – AREA D

A1.311

SHEET ______ of ______

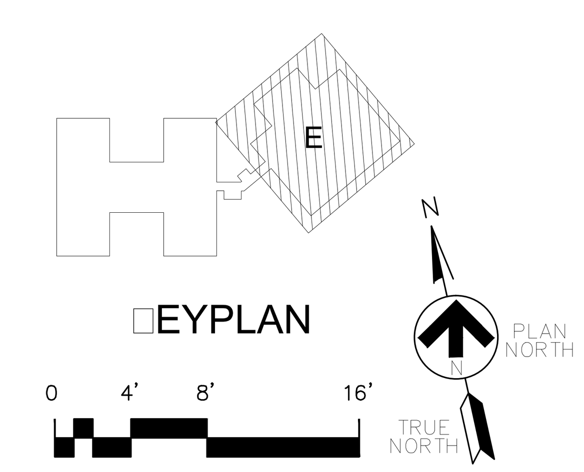


1 A1.312 SECOND FLOOR PARTIAL REFLECTED CEILIING PLAN AREA E

SCALE: 1/8" 1'-0"

DRAWING GENERAL NOTES:

1. SEE SHEET A2.301 FOR REFLECTED CEILING LEGEND.



KEYPLAN

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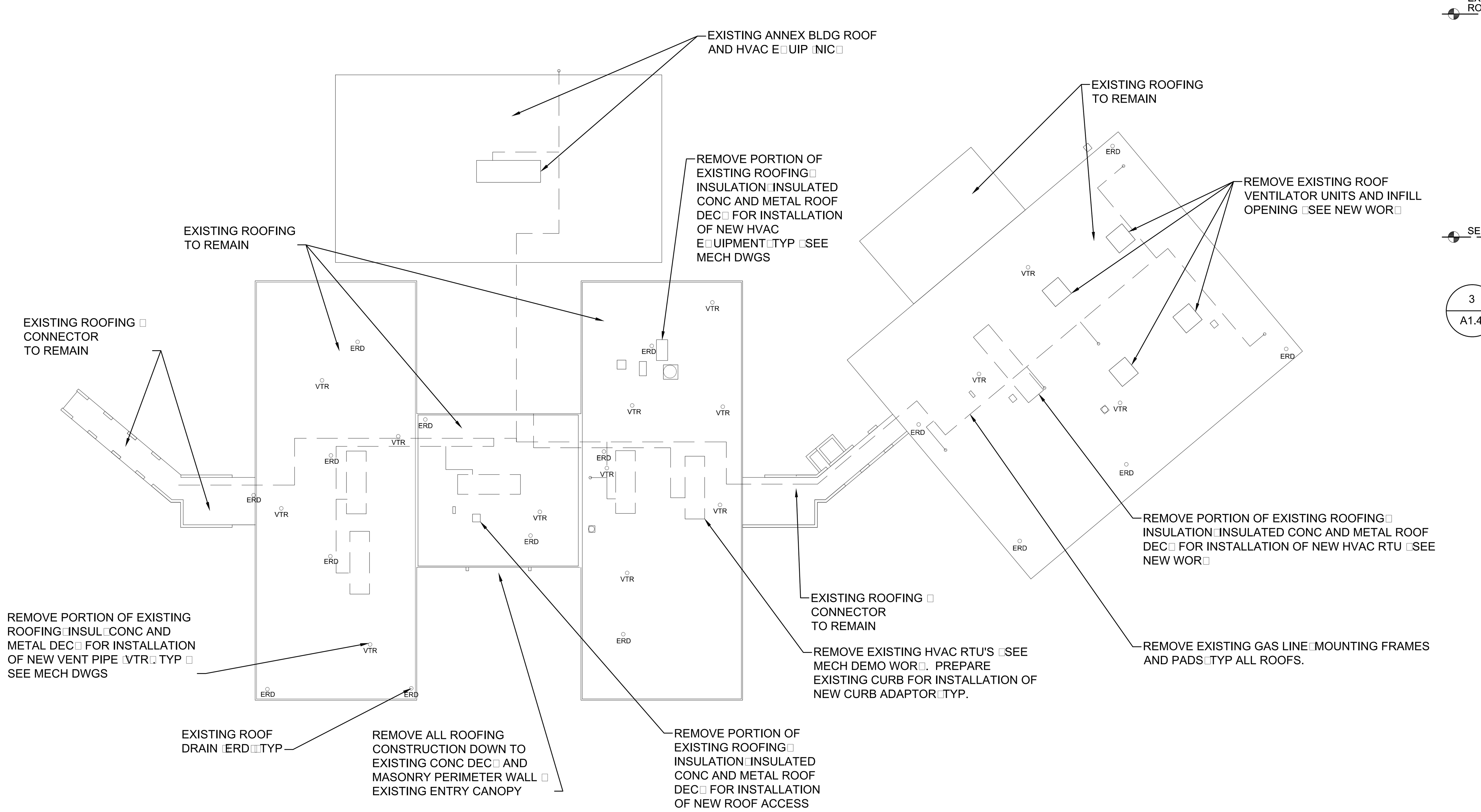
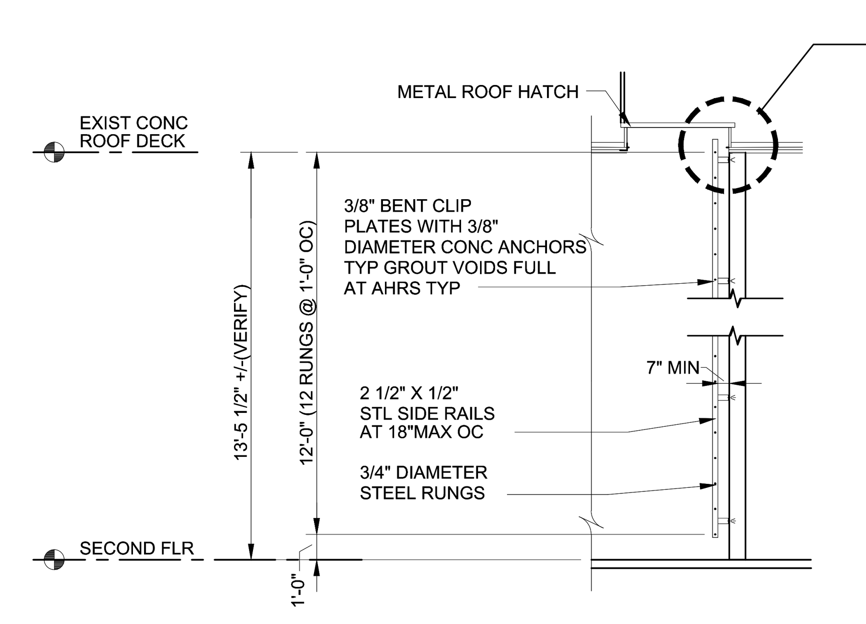
SECOND FLOOR PARTIAL REFL CLG PLAN AREA E

A1.312

SHEET ______ of ______



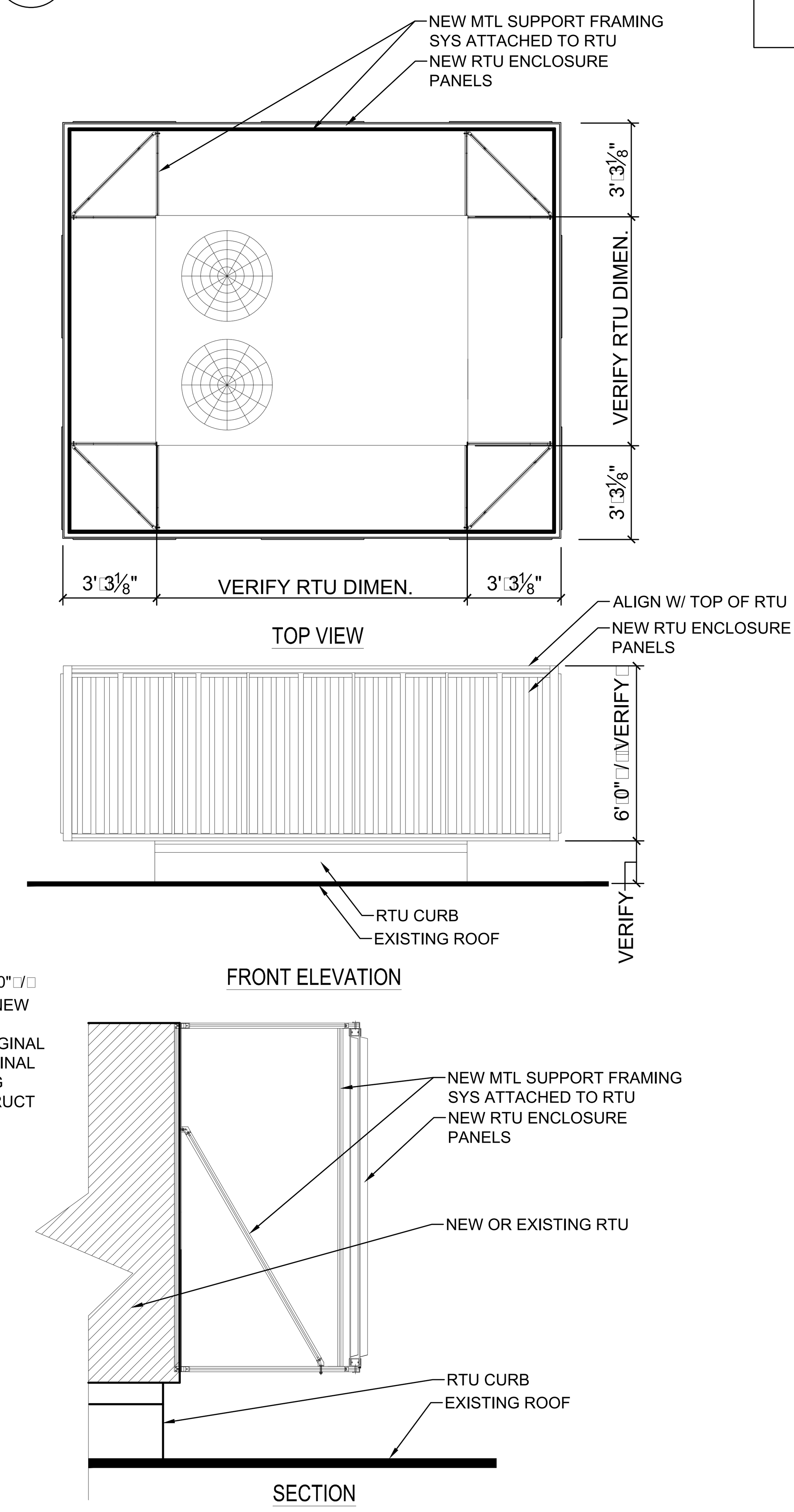
1 A1.4 DEMOLITION ROOF PLAN
SCALE: 1/32 □ 1'0"



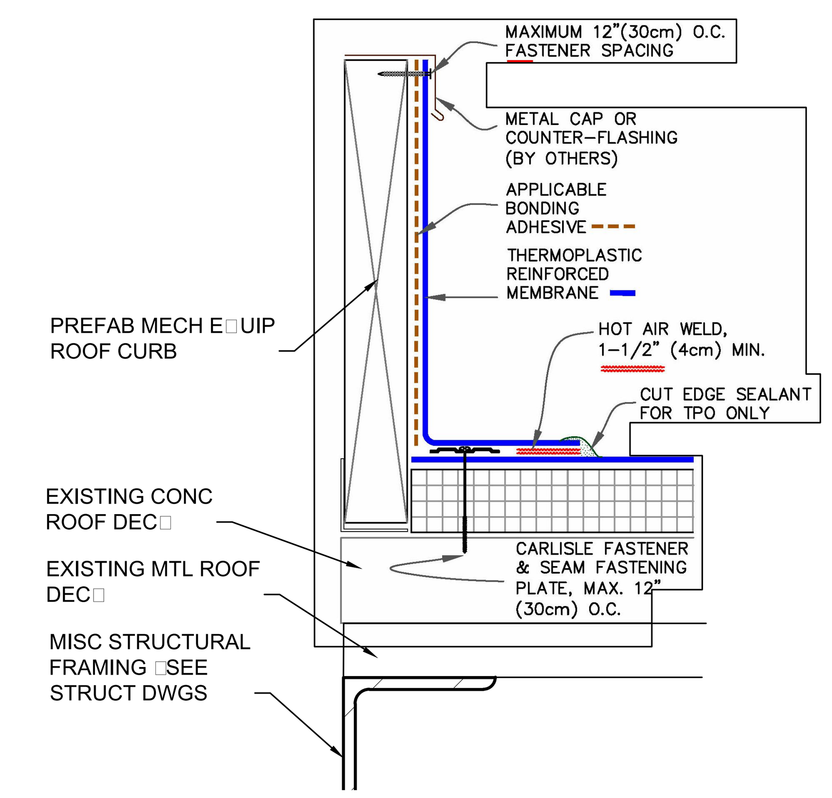
3 A1.4 ROOF HATCH □ LADDER DETAIL
SCALE: 1/4□ 1'0"

GENERAL NEW WOR□ ROOF PLAN NOTES

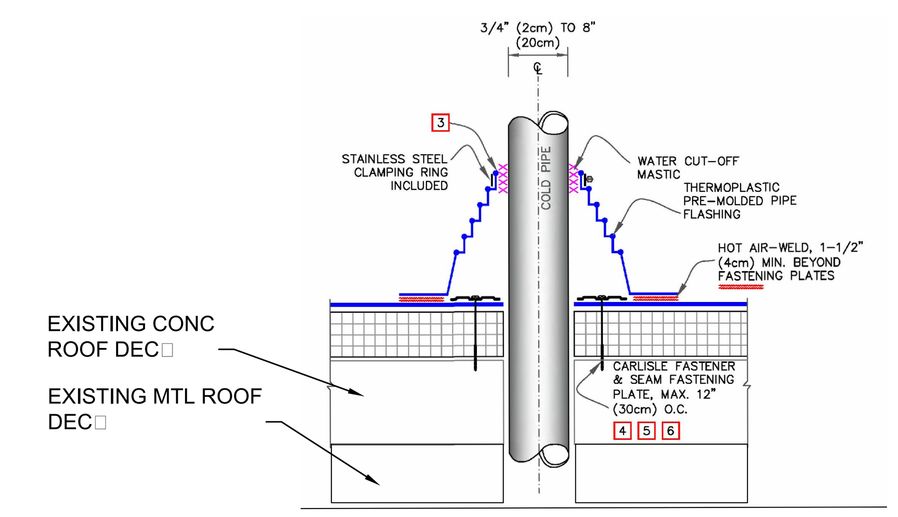
1	CONTRACTOR TO PATCH AND REPAIR ALL OPENINGS WHERE ABANDONED PLUMBING VENT PIPES□EXHAUST FANS□ETC ARE REMOVED WITH CONSTRUCTION TO MATCH EXISTING AD□ACENT CONDITIONS.
2	BUILDING EXISTING ROOFING IS A VENTILATED SYSTEM. ALL ROOF□MOUNTED VENTILATION DEVICES □NOT SHOWN□TO REMAIN UNO. CONTRACTOR TO COORDINATE FINAL PLACEMENT OF ALL NEW ROOF DEVICES WITH WITH ORIGINAL ROOFING MANUF AND INSTALLER AND VERIFY THEIR WILL BE NO IMPACT TO FUNCTIONALITY OF EXISTING ROOF SYSTEM.
3	ALL NEW ROOFING AND FLASHING AND DETAILS SHALL BE APPROVED AND WOR□ PERFORMED BY AN INSTALLER APPROVED BY ORIGINAL ROOFING MANUFACTER □CARLISLE ROOFING□
4	WHERE EXISTING ROOFTOP E□UIPMENT OR DEVICES ARE NOTED TO BE REMOVED□INFILL OPENING WITH METAL DEC□□INSULATED CONC□INSULATION BOARD AND COVER WITH MEMBRANE ROOFING TO MATCH EXISTING. SEE MECHANICAL DRAWINGS FOR LOCATION OF EXISTING E□UIPMENT IS TO BE REMOVED.



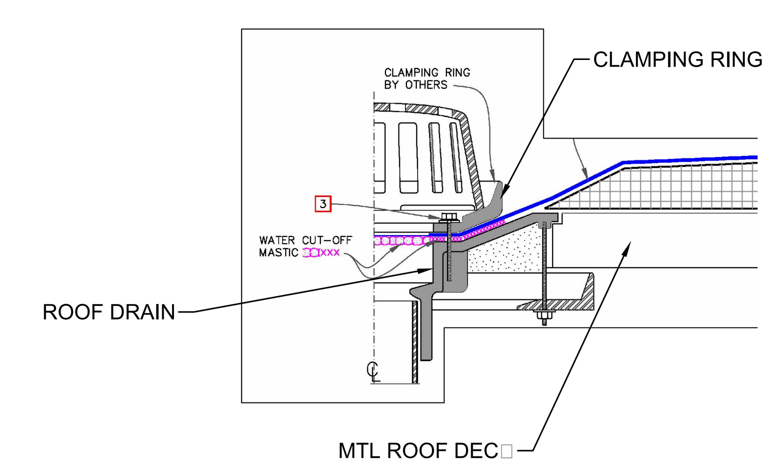
4 A1.4 RTU SCREEN WALL DETAILS
SCALE: 1/4□ 1'0"



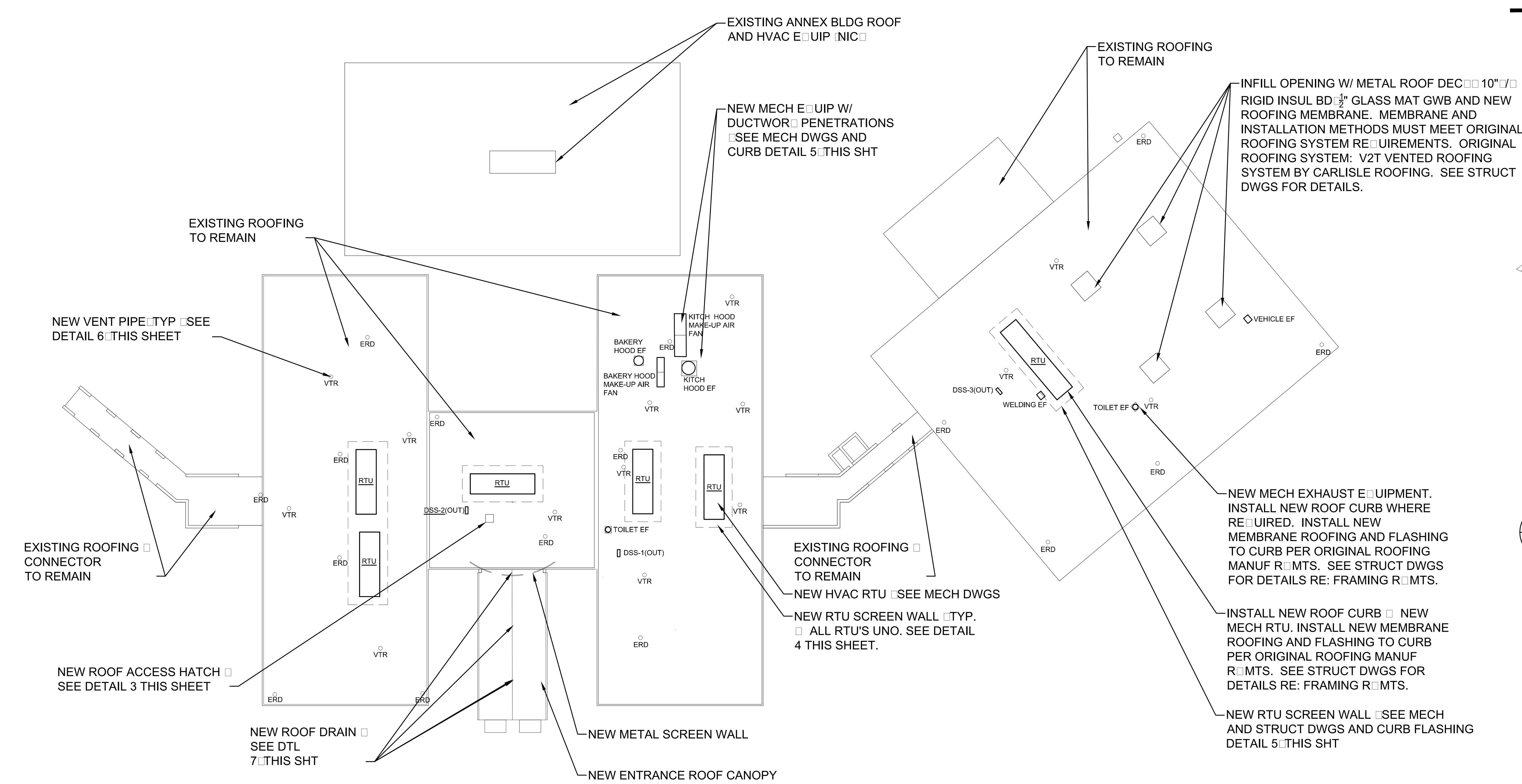
5 A1.4 CURB FLASHING DETAIL
SCALE: NTS



6 A1.4 TYP PIPE FLASHING DETAIL
SCALE: NTS



7 A1.4 ROOF DRAIN DETAIL
SCALE: NTS



2 A1.4 ROOF PLAN
SCALE: 1/32 □ 1'0"

PLAN NORTH
TRUE NORTH

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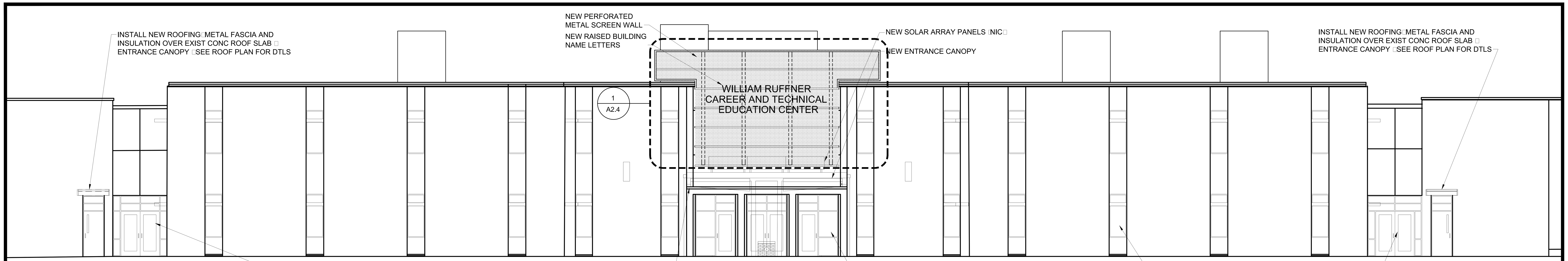
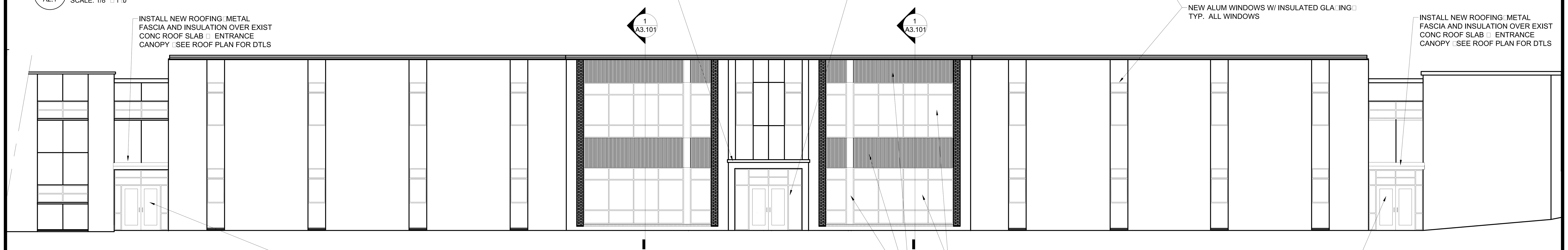
DEMO AND NEW WOR□ ROOF PLAN AND DETAILS

A1.4

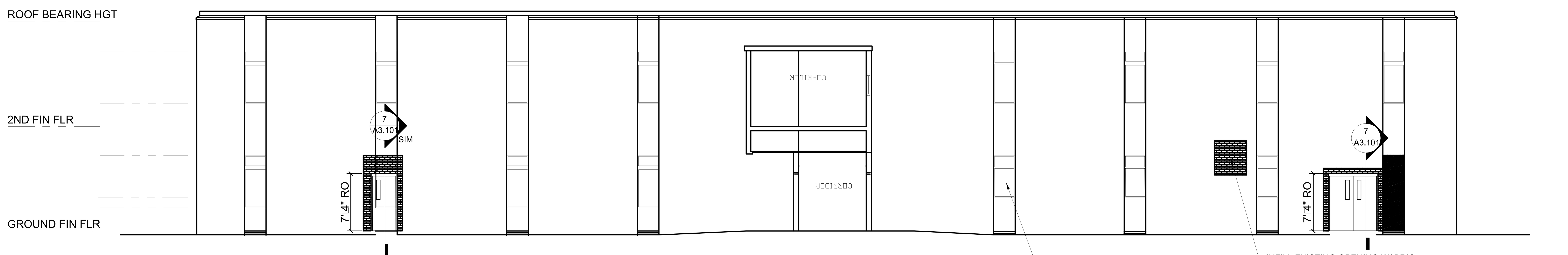
SHEET ______ of ______



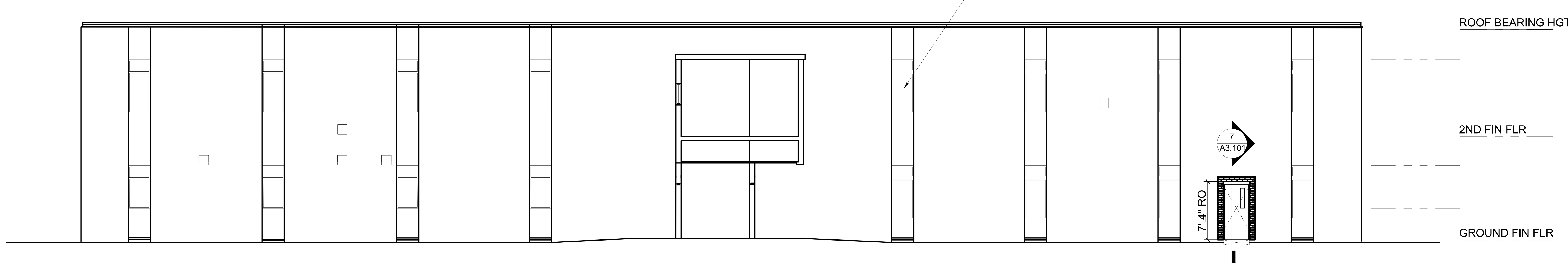
1 A2.1 NEW WOR□ SOUTH ELEVATION □BLDG 2
SCALE: 1/8" □ 1'-0"



2 A2.1 NEW WOR□ NORTH ELEVATION □BLDG 2
SCALE: 1/8" □ 1'-0"



3 A2.1 NEW WOR□ EAST ELEVATION □BLDG 2
SCALE: 1/8" □ 1'-0"



4 A2.1 NEW WOR□ WEST ELEVATION □BLDG 2
SCALE: 1/8" □ 1'-0"

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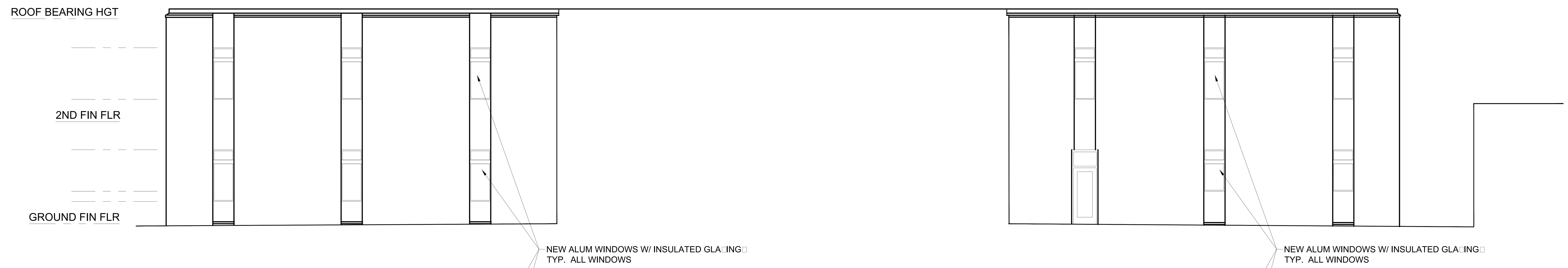
REV'D BY:	
DATE:	6/17/22
SCALE:	AS SHOWN

NEW WOR□ EXTEROIR ELEVATIONS □BLDG 2

A2.1

SHEET ______ of ______



1
AD3.3
NEW WOR□ WEST COURTYARD ELEVATIONS □BLDG 2
SCALE: 1/8" □ 1'0"

2
AD3.3
NEW WOR□ EAST COURTYARD ELEVATIONS □BLDG 2
SCALE: 1/8" □ 1'0"

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SCALE:	AS SHOWN

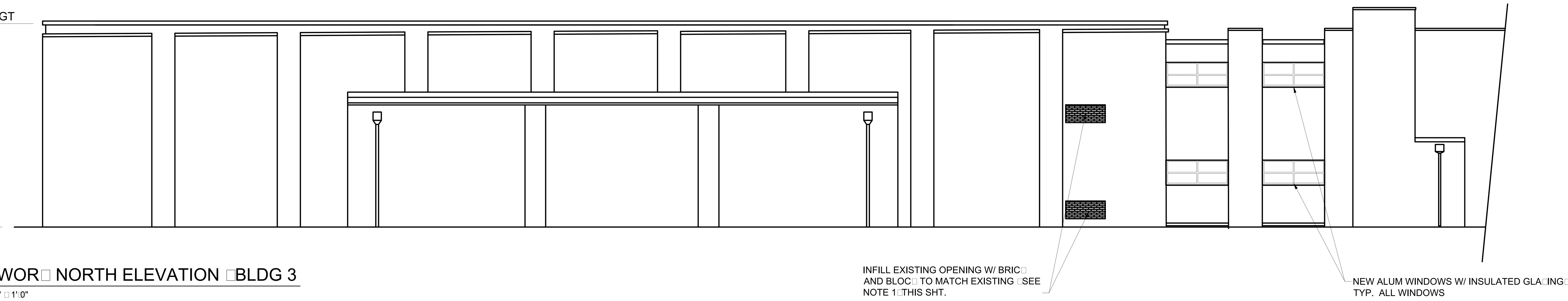
NEW WOR□ EXTEROIR ELEVATIONS □BLDG 2

A2.2

SHEET ______ of ______

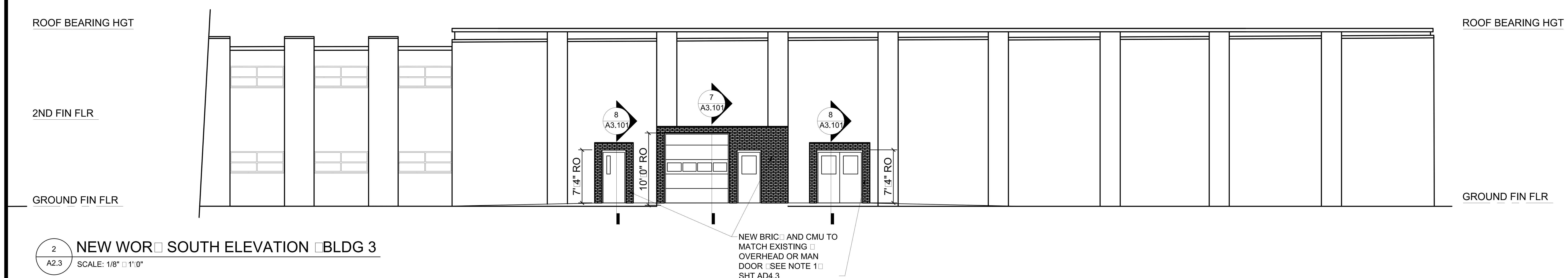
DRAWING NOTES:

1. TOOTH NEW BRIC□ AND CMU INTO BRIC□ AND CMU □ OPENING □AMB.



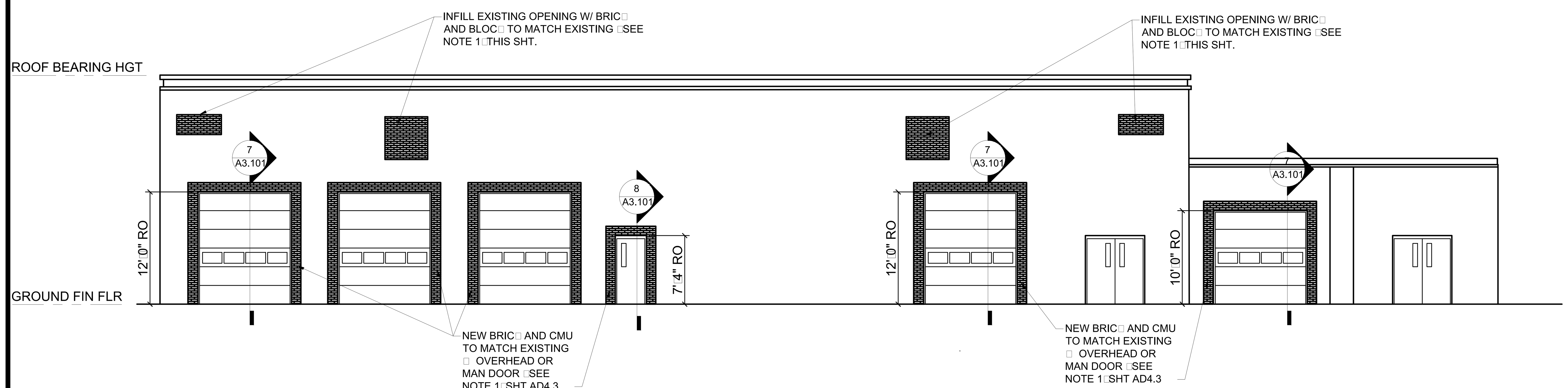
1 A2.3 NEW WOR□ NORTH ELEVATION □BLDG 3

SCALE: 1/8" □ 1'-0"



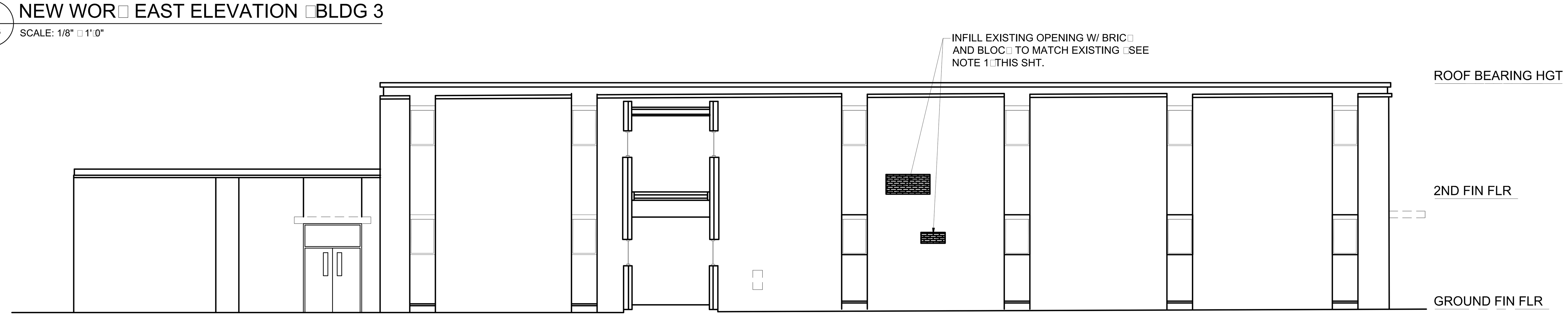
2 A2.3 NEW WOR□ SOUTH ELEVATION □BLDG 3

SCALE: 1/8" □ 1'-0"



3 A2.3 NEW WOR□ EAST ELEVATION □BLDG 3

SCALE: 1/8" □ 1'-0"



4 A2.3 NEW WOR□ WEST ELEVATION □BLDG 3

SCALE: 1/8" □ 1'-0"

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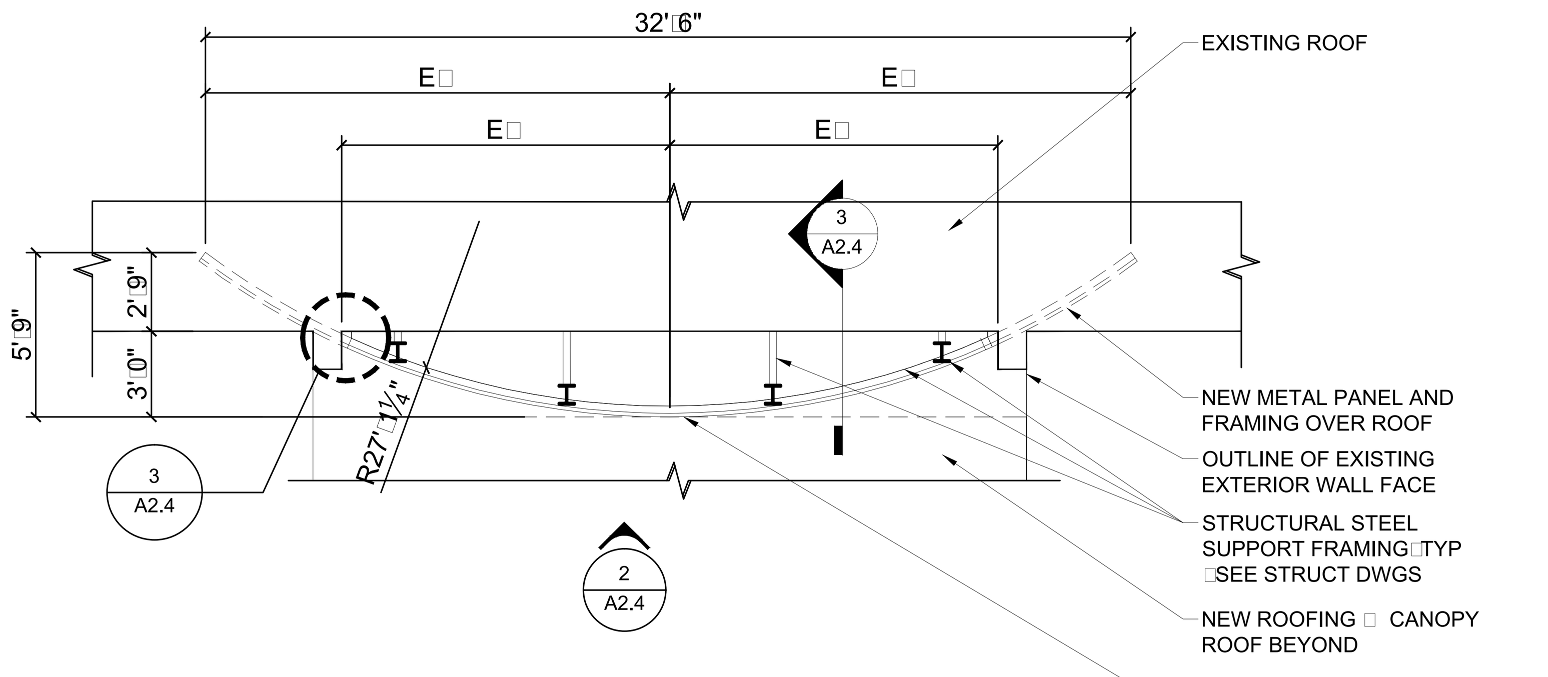
SCALE:	AS SHOWN

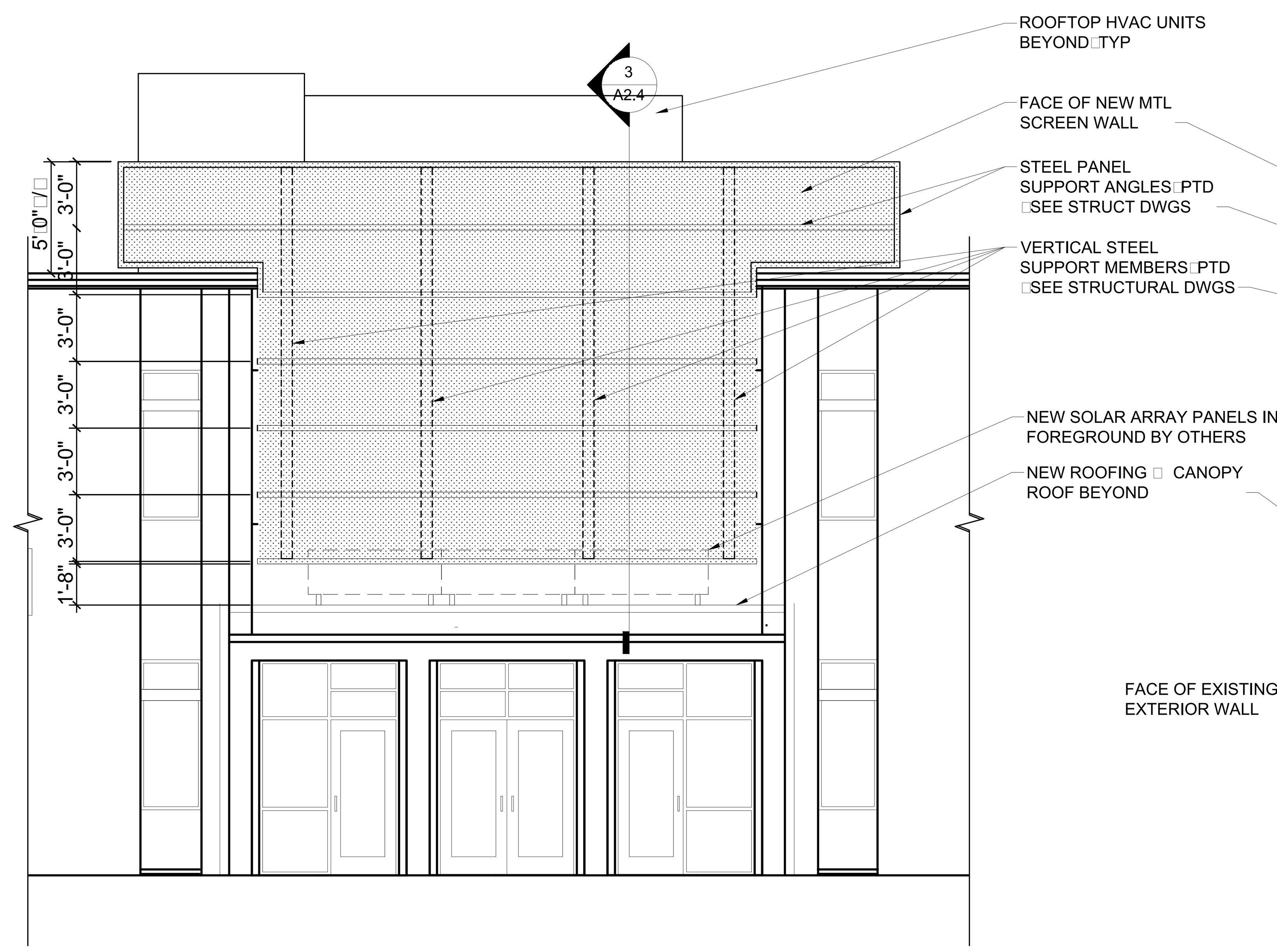
NEW WOR□ EXTEROIR ELEVATIONS □BLDG 3

A2.3

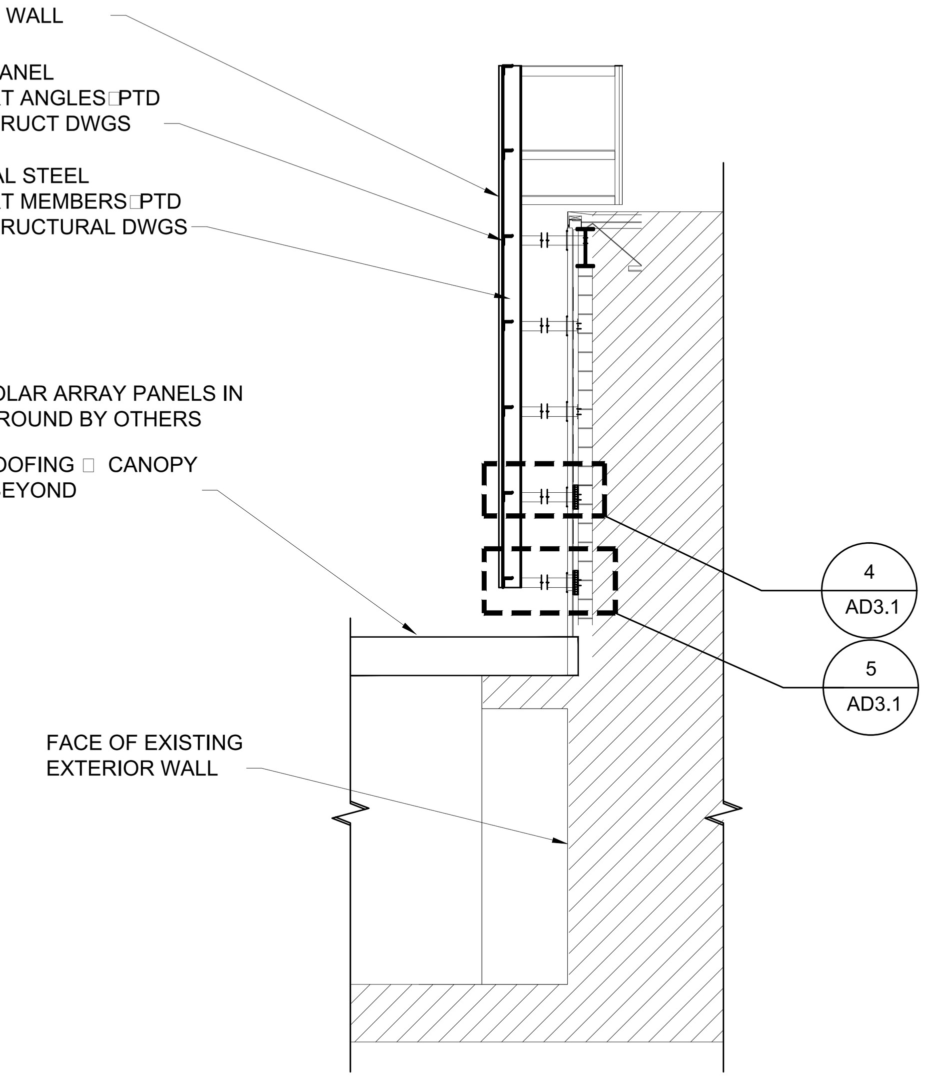
SHEET ______ of ______



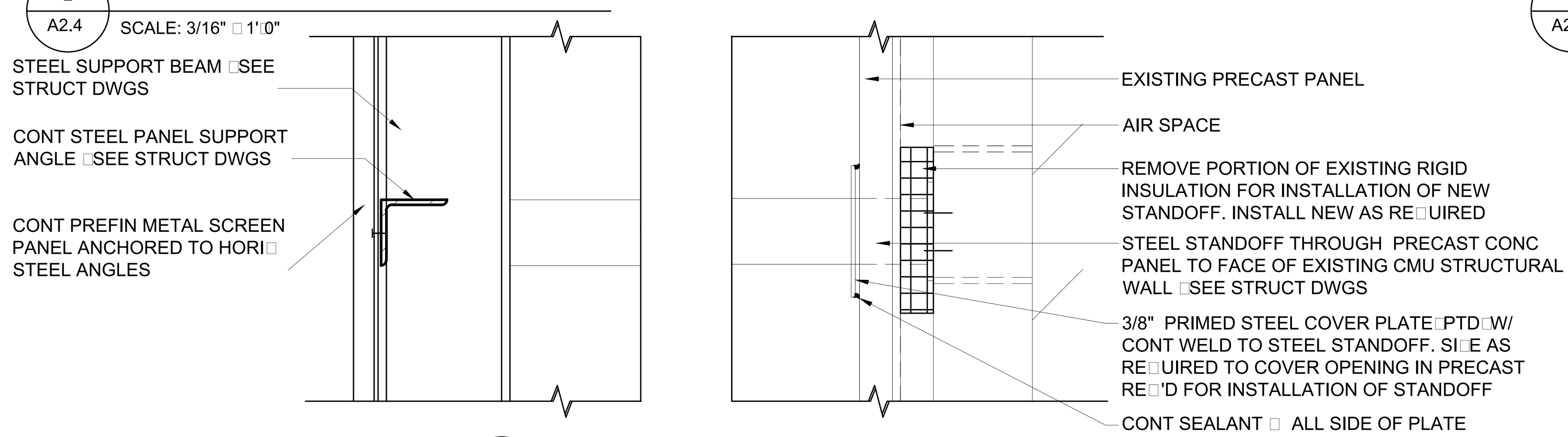
1 / A2.4 PARTIAL PLAN - SCREEN WALL
SCALE: 3/16" = 1'-0"



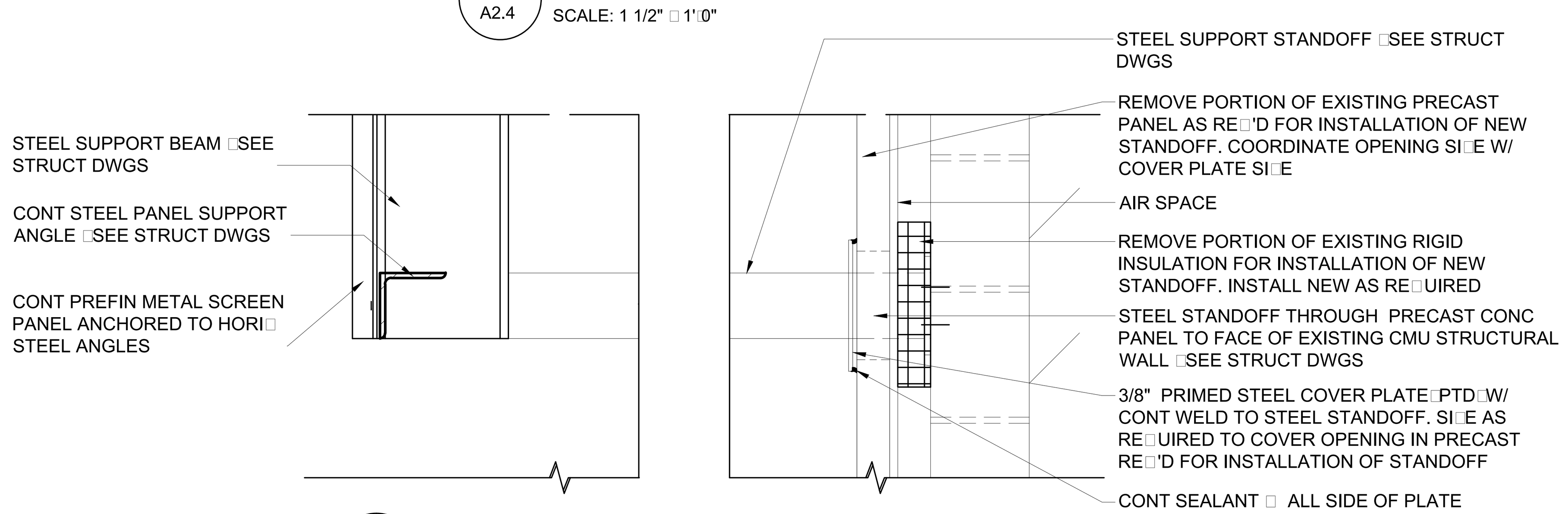
2 / A2.4 ELEVATION - SCREEN WALL
SCALE: 3/16" = 1'-0"



3 / A2.4 SECTION - SCREEN WALL
SCALE: 3/16" = 1'-0"



4 / A2.4 SECTION DETAIL - SCREEN WALL
SCALE: 1 1/2" = 1'-0"



4 / A2.4 SECTION DETAIL - SCREEN WALL
SCALE: 1 1/2" = 1'-0"

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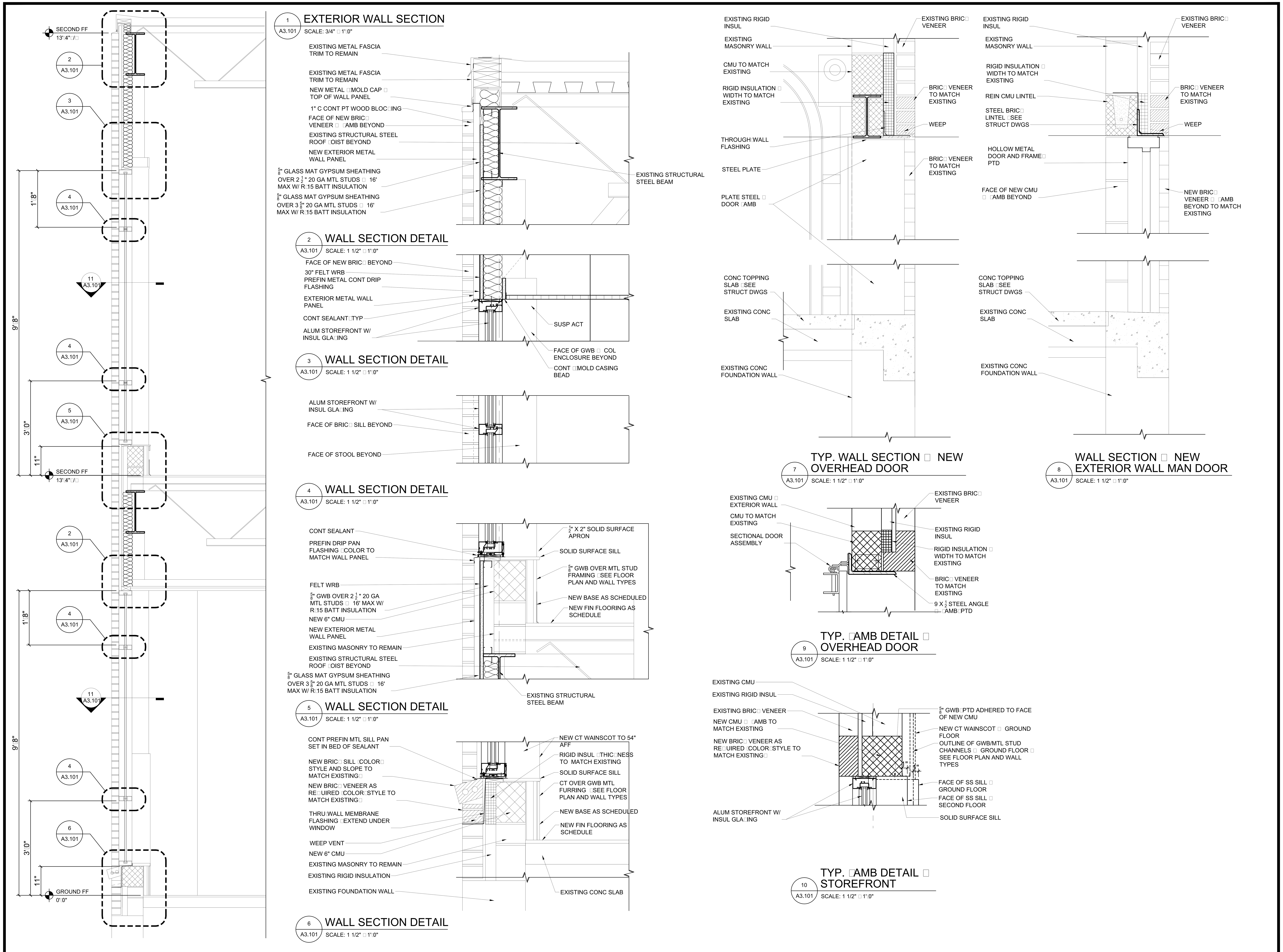
EXTERIOR SCREEN WALL ELEVATIONS AND DETAILS

A2.4

SHEET ______ of ______



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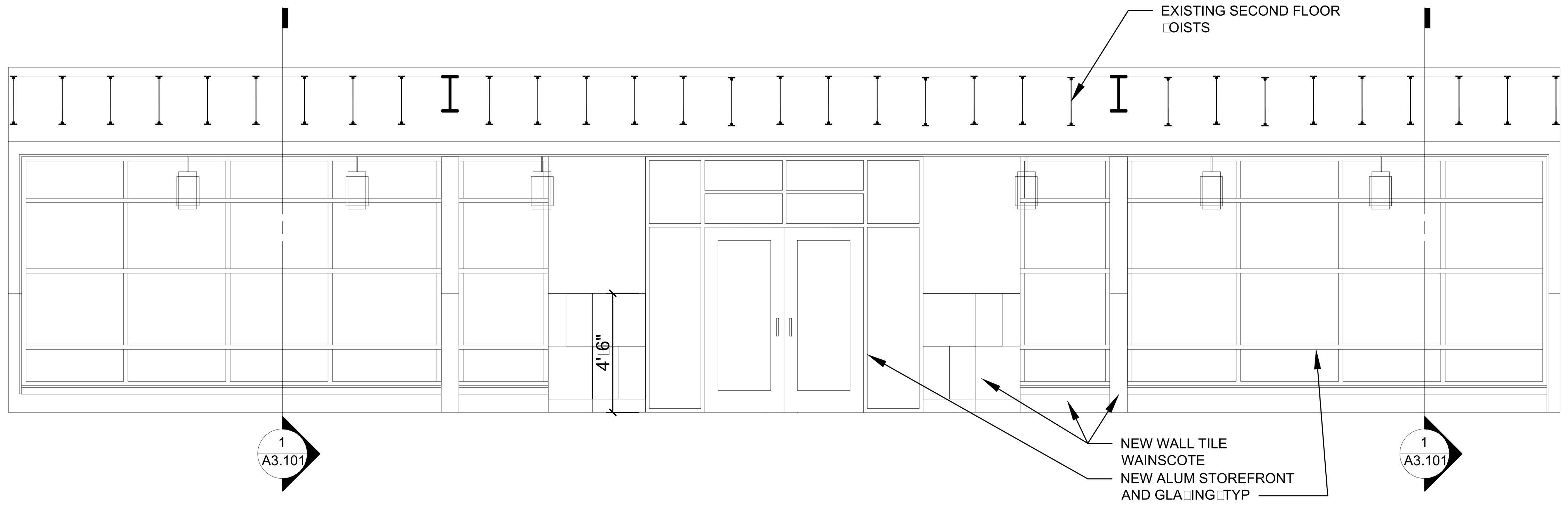
SCALE:	AS SHOWN

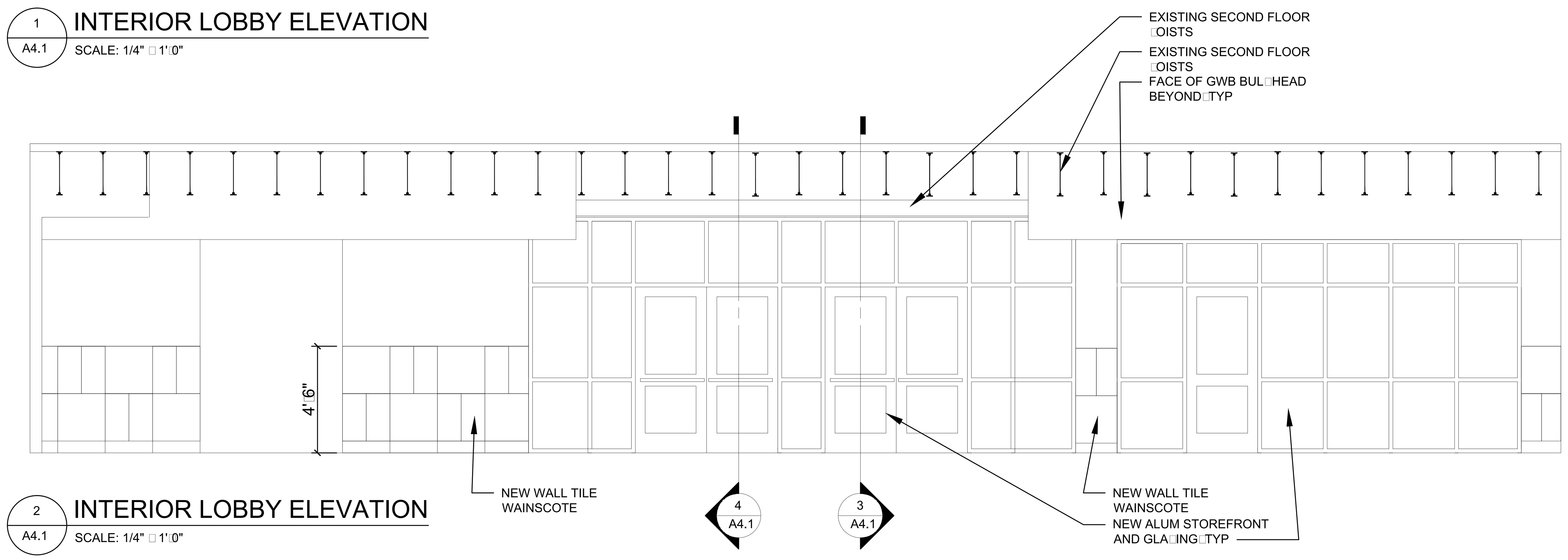
EXTERIOR WALL SECTIONS □ DETAILS

A3.101

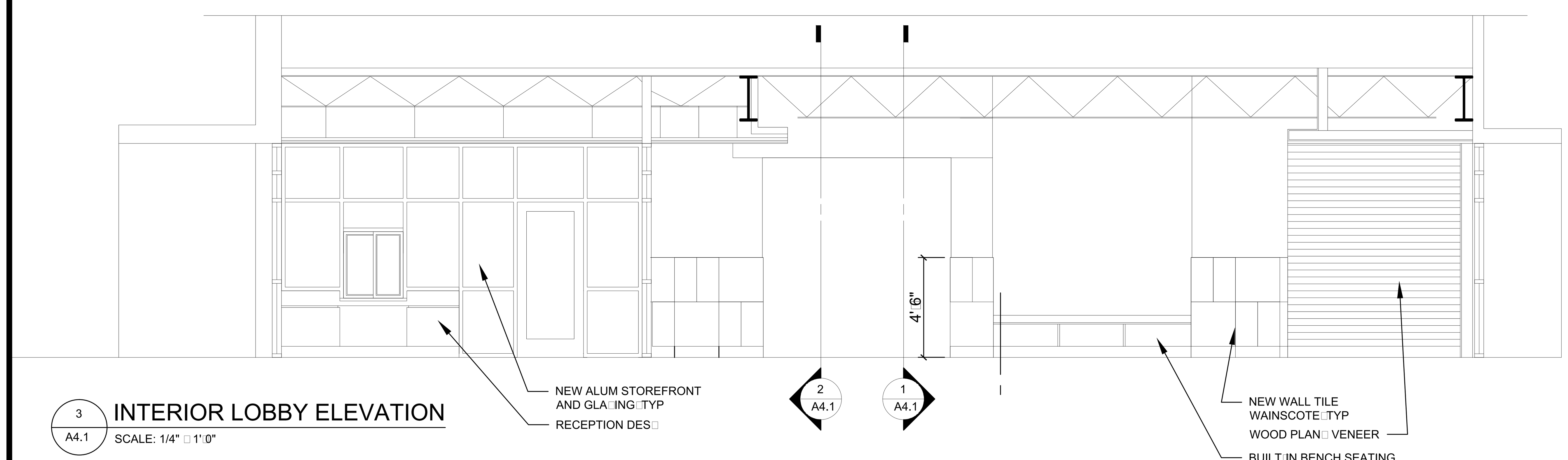
SHEET ______ of ______



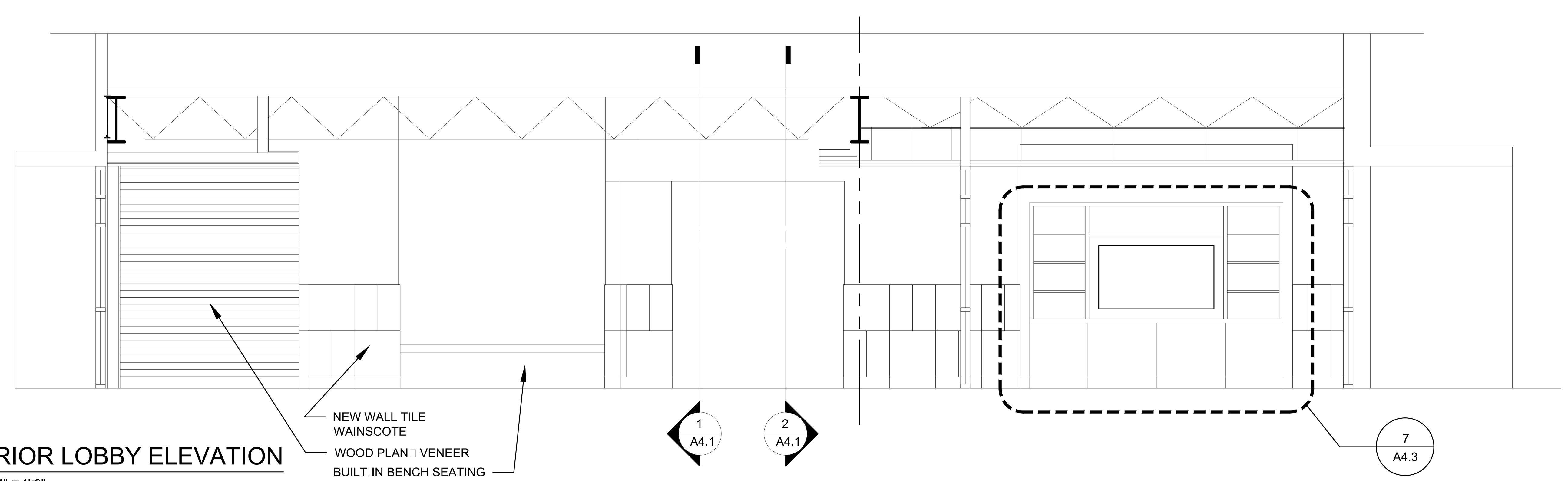
1 A4.1 INTERIOR LOBBY ELEVATION
SCALE: 1/4" = 1'-0"



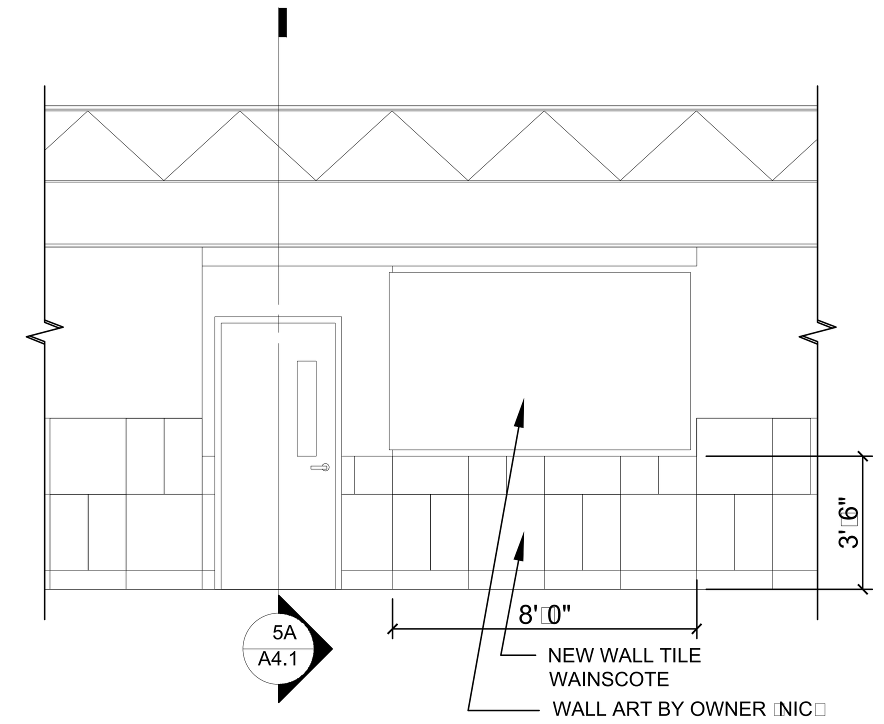
2 A4.1 INTERIOR LOBBY ELEVATION
SCALE: 1/4" = 1'-0"



3 A4.1 INTERIOR LOBBY ELEVATION
SCALE: 1/4" = 1'-0"

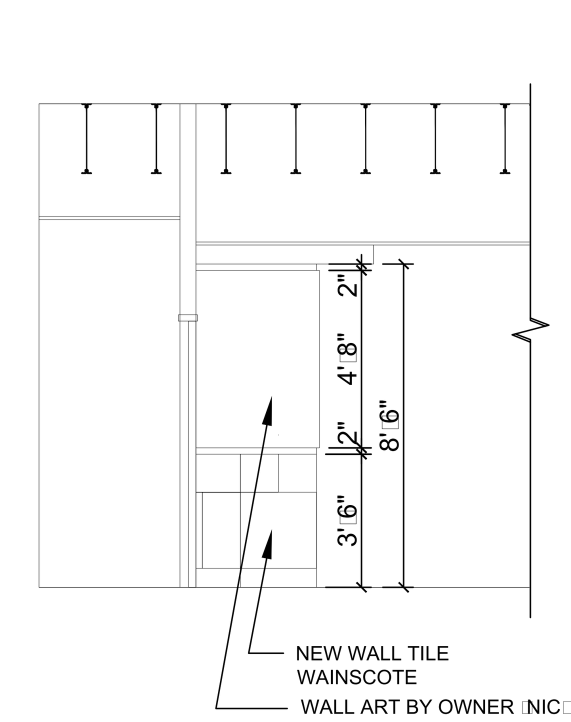


4 A4.1 INTERIOR LOBBY ELEVATION
SCALE: 1/4" = 1'-0"



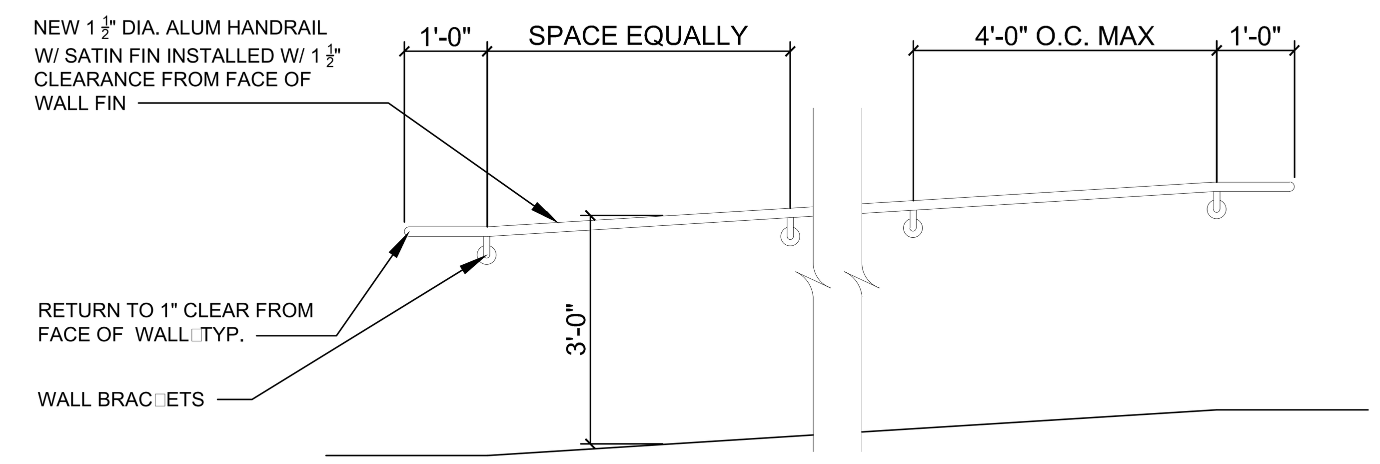
VIEW FROM CORRIDOR

5 A4.1 ELEV - TYP. CLASSROOM ENTRANCE
SCALE: 1/4" = 1'-0"



VIEW FROM CORRIDOR

5A A4.1 ELEV - TYP. CLASSROOM ENTRANCE
SCALE: 1/4" = 1'-0"



6 A4.1 ELEVATION - TYP. HANDRAIL
SCALE: 1/2" = 1'-0"

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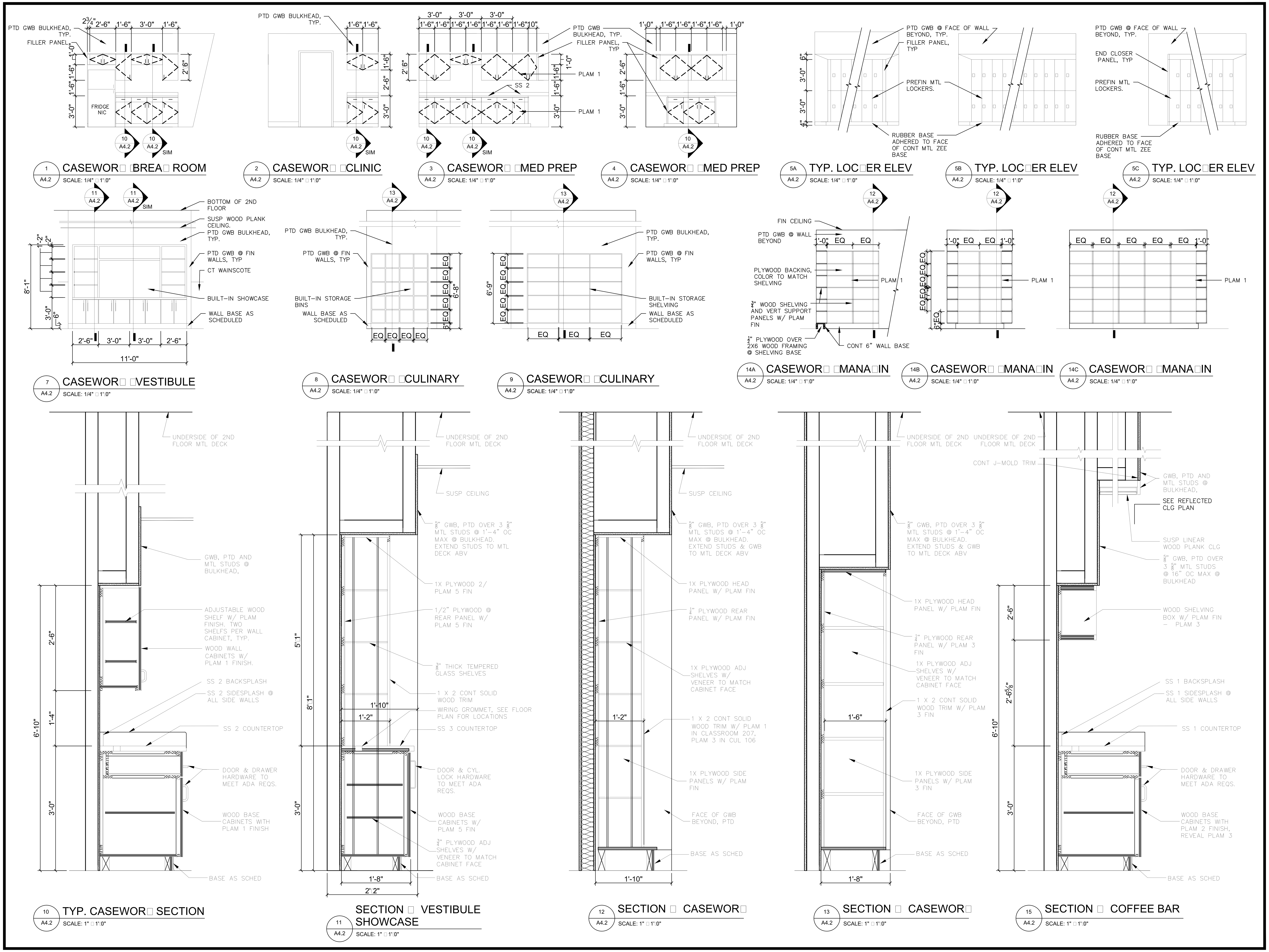
INTERIOR ELEVATIONS AND DETAILS

A4.1

SHEET ______ of ______



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INTERIOR ELEVATIONS AND DETAILS

A4.2

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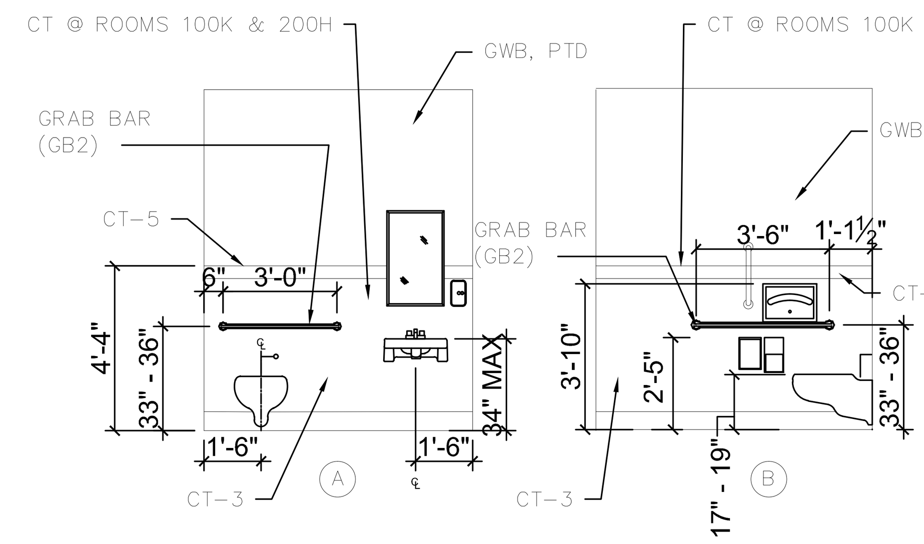
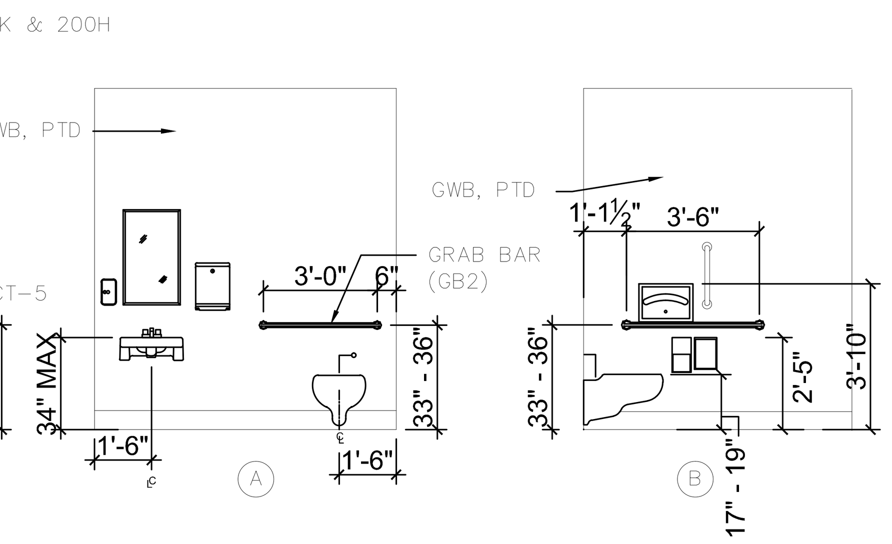
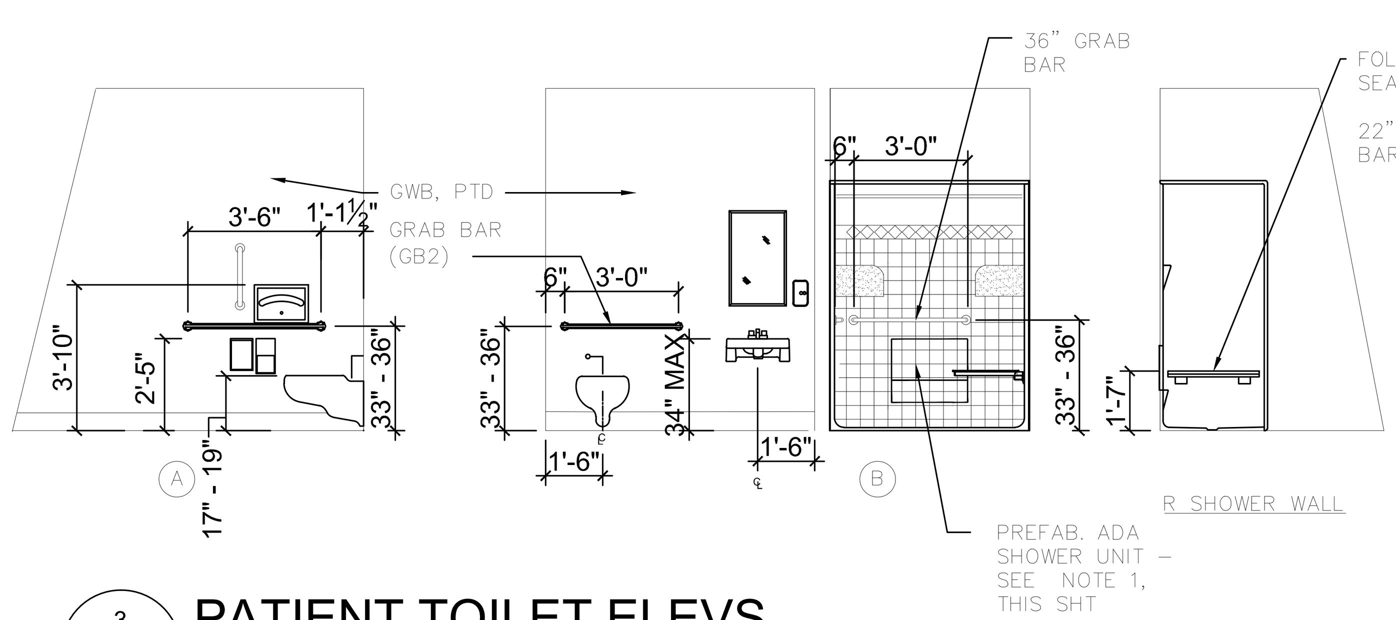


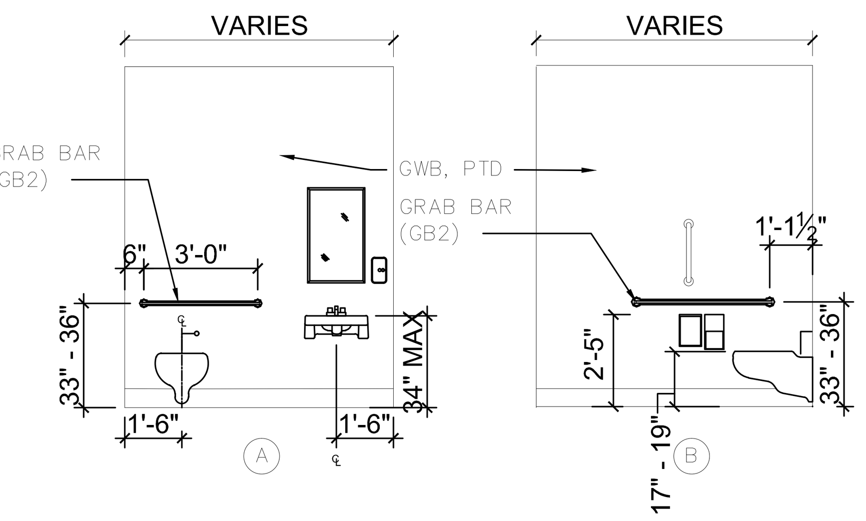
1 A4.3 PUBLIC/ STAFF TOIL ELEVS
SCALE: 1/4" □ 1'□0"



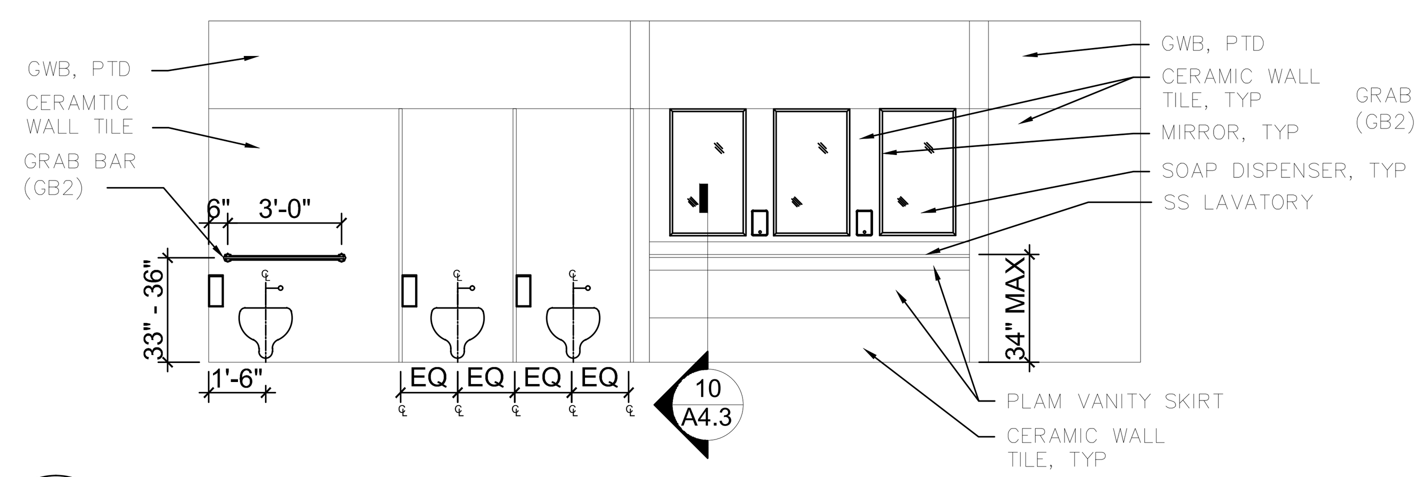
2 A4.3 CLINIC/WELDING TOILET ELEVS
SCALE: 1/4" □ 1'□0"



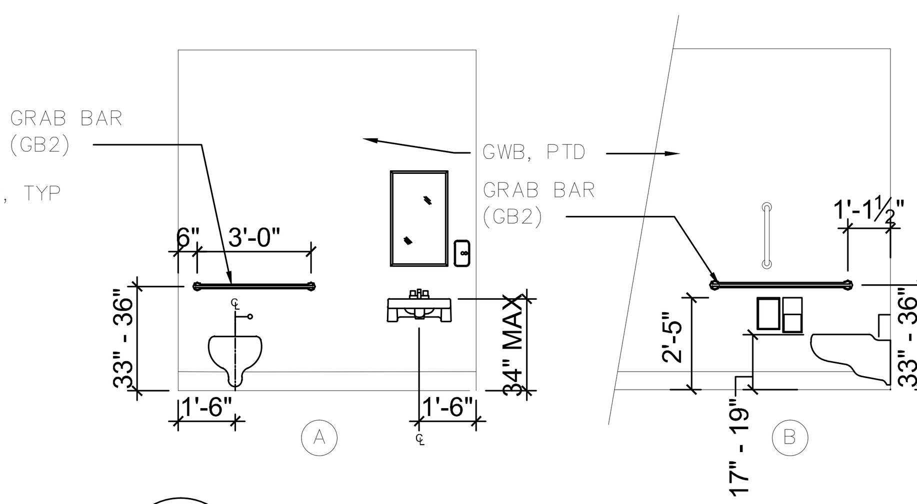
3 A4.3 PATIENT TOILET ELEVS
SCALE: 1/4" □ 1'□0"



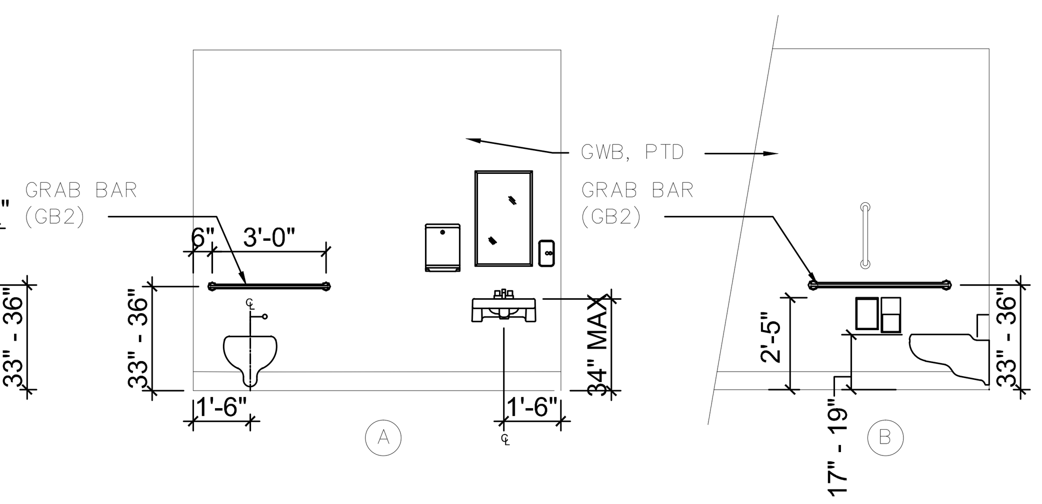
4 A4.3 TYP PROGRAM TOILET ELEVS
SCALE: 1/4" □ 1'□0"



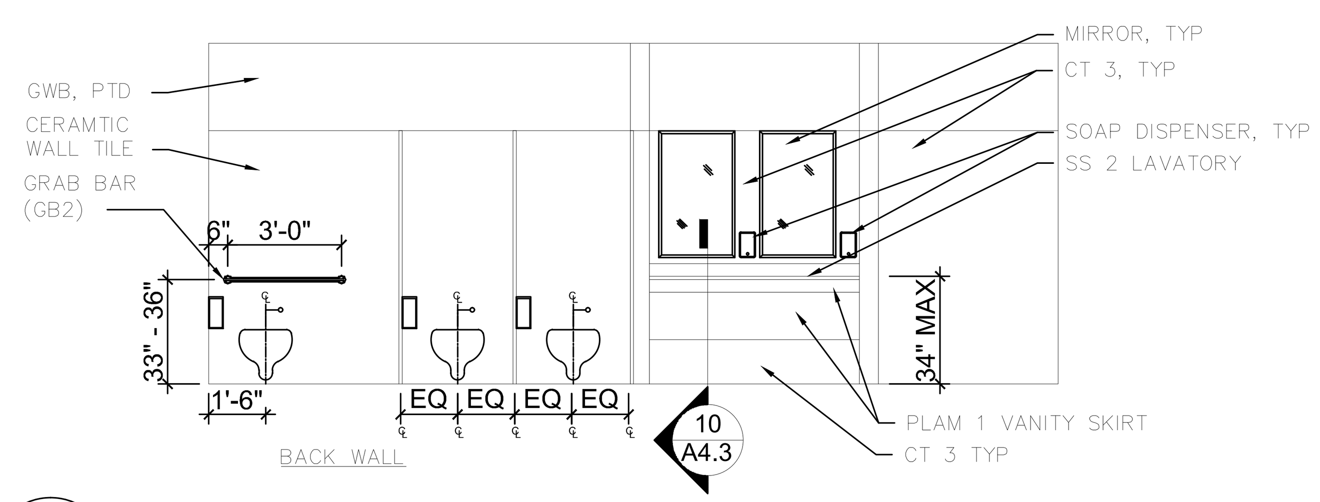
5 A4.3 TYP. GANG TOILET ELEVS
SCALE: 1/4" □ 1'□0"
NOTE: CERAMIC WALL TILE □ ALL TOILET ROOM WALLS IN BLDG 2 GANG TOILETS UNO



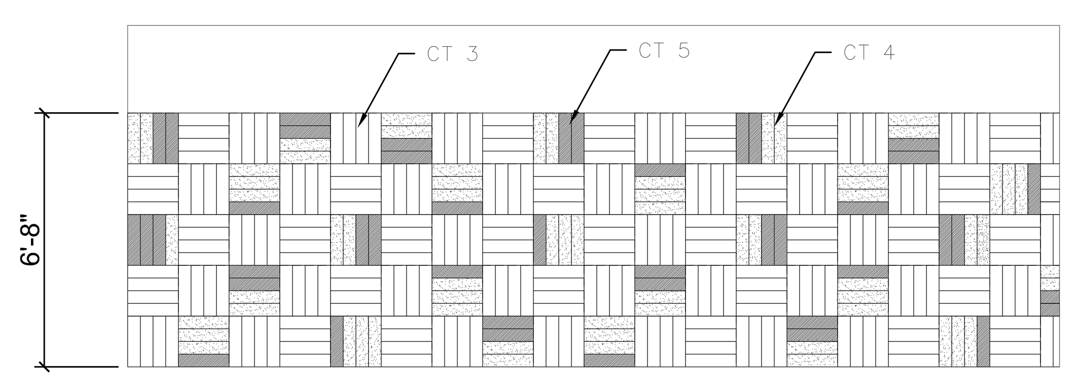
6 A4.3 CULINARY TOILET ELEVS
SCALE: 1/4" □ 1'□0"



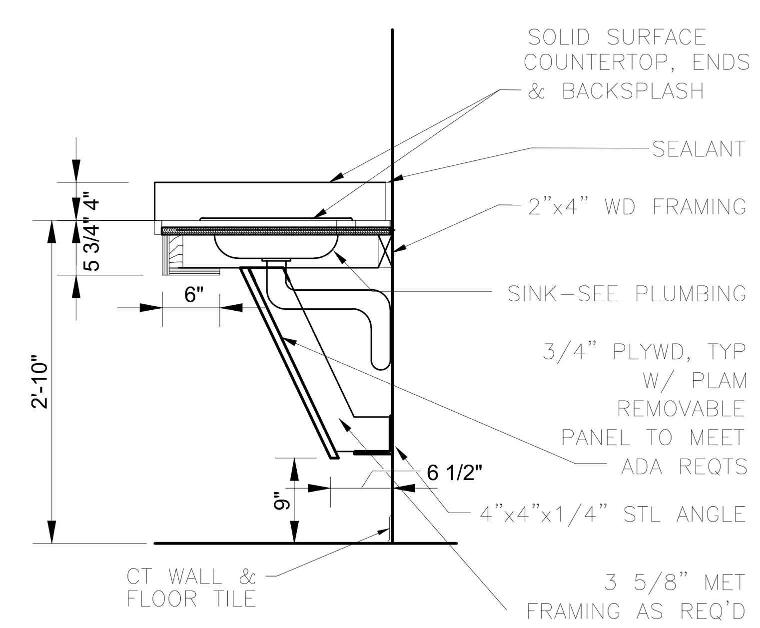
7 A4.3 LANDSCAPING□BUILDING TRADES□ □ AUTOMOTIVE TOILET ELEVS
SCALE: 1/4" □ 1'□0"



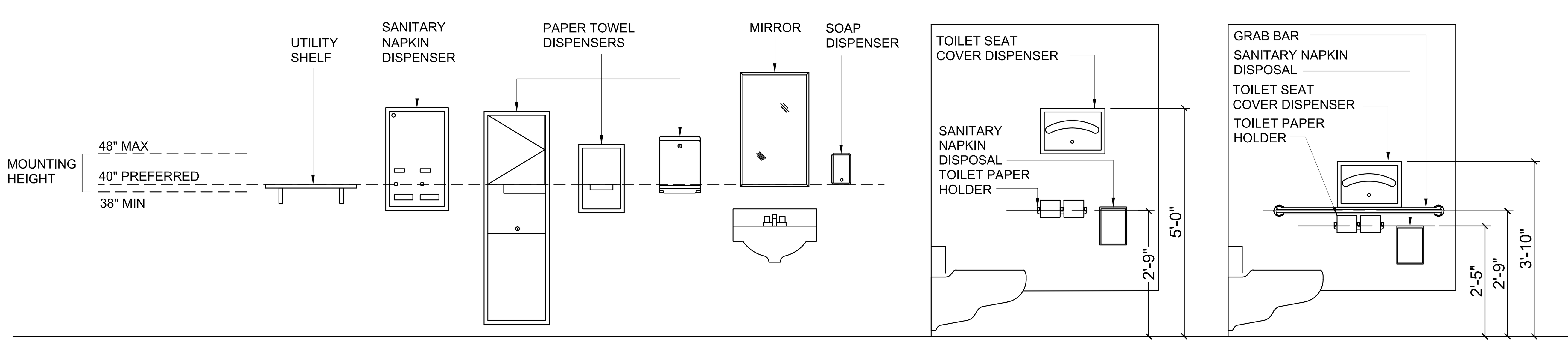
8 A4.3 BUILDING 3 GANG TOILET ELEVS
SCALE: 1/4" □ 1'□0"
NOTE: CERAMIC WALL TILE □ ALL TOILET ROOM WALLS IN BLDG 3 GANG TOILETS UNO



9 A4.3 WALL TILE PATTERN □GANG TOILET WALLS
SCALE: 1/4" □ 1'□0"



10 A4.3 SECTION □ LAVATORY □GANG TOILETS
SCALE: 1/4" □ 1'□0"



TOILET ACCESSORY MOUNTING HEIGHTS
SCALE: 1/2" □ 1'□0"

NOTE:

TOILET ACCESSORIES SHALL BE OWNER FURNISHED/CONTRACTOR INSTALLED. CONTRACTOR SHALL COORDINATE INSTALLATION AND MOUNTING RE□UIREMENTS W/ OWNER. TOILET ACCESSORIES SHOWN ARE FOR MOUNTING HEIGHT AND LOCATION PURPOSES ONLY.

DRAWING NOTES

1	PREFAB ADA ACCESSIBLE□FULLY REINFORCED ACRYLIC SHOWER STALL W/ BARRIER FREE THRESHOLD AND 30 YEAR LIMITED WARRANTY. BASIS OF DESIGN □MANUF OR E□UAL: FREEDOM SHOWERS□MODEL: APF□6337BF875R.

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TOILET ELEVATIONS AND DETAILS

A4.3

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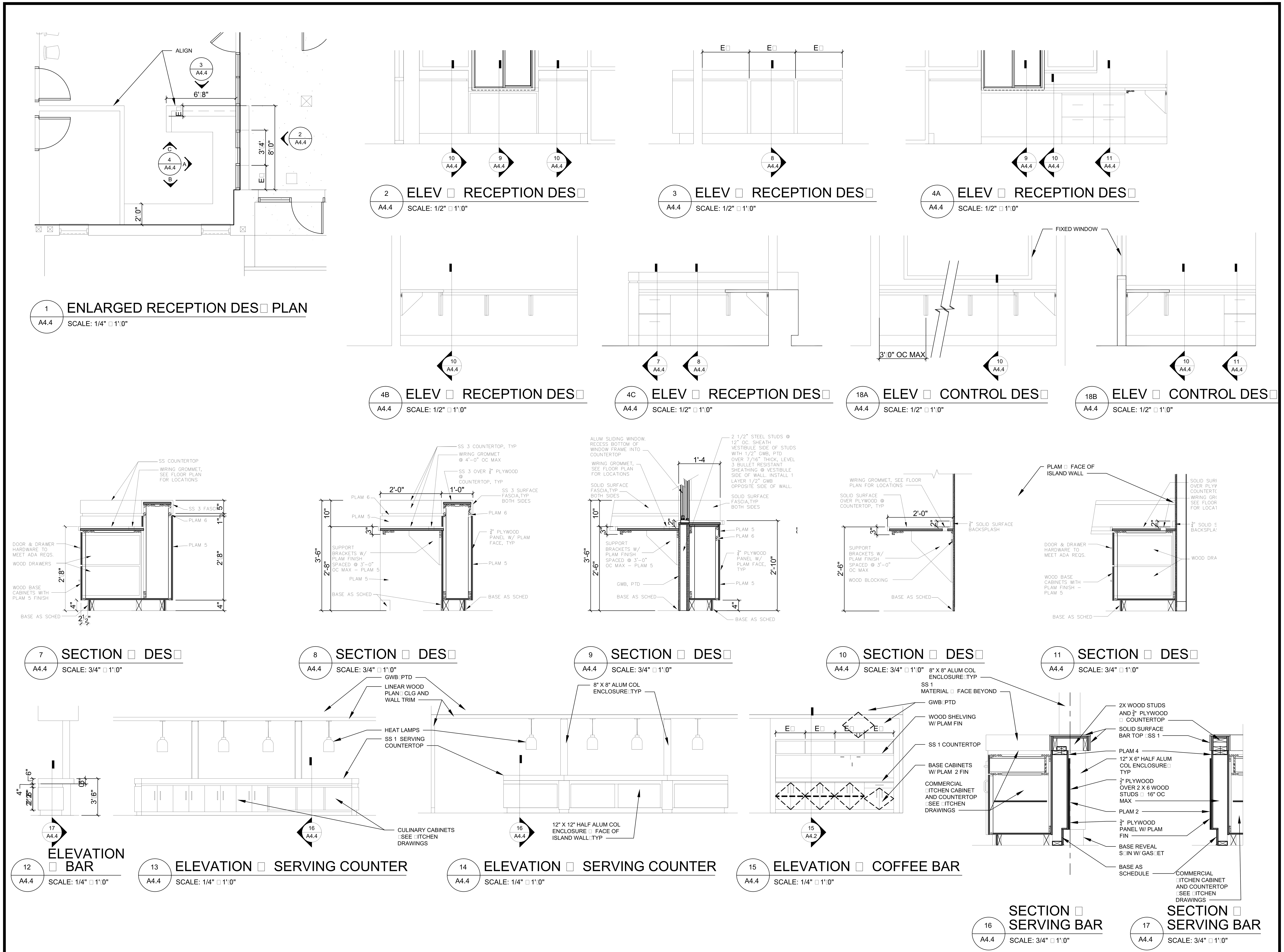

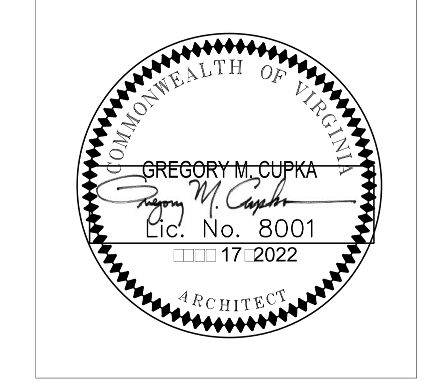

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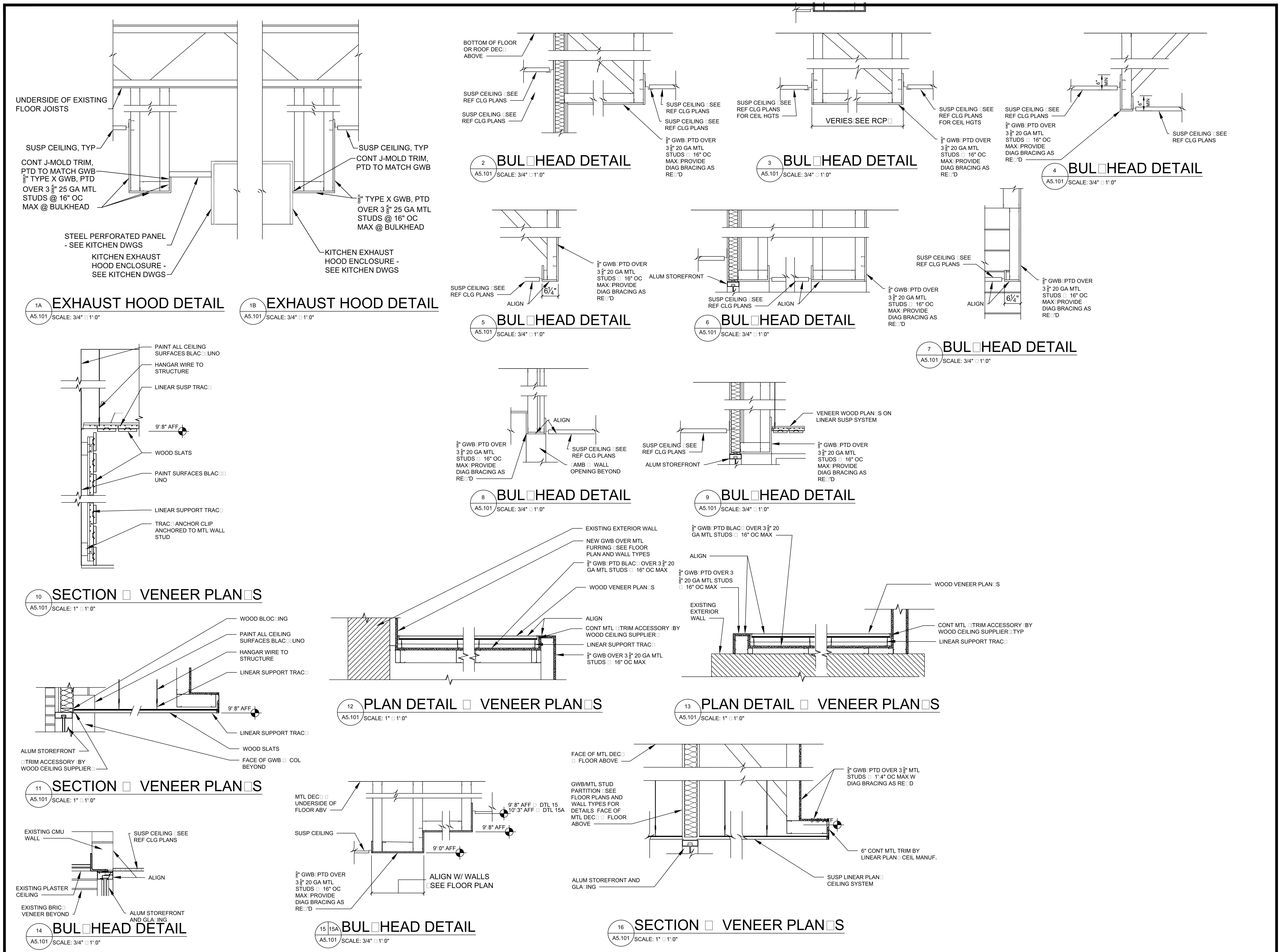
RECEPTION DES□ ELEVATIONS AND DETAILS

A4.4

SHEET ______ of ______



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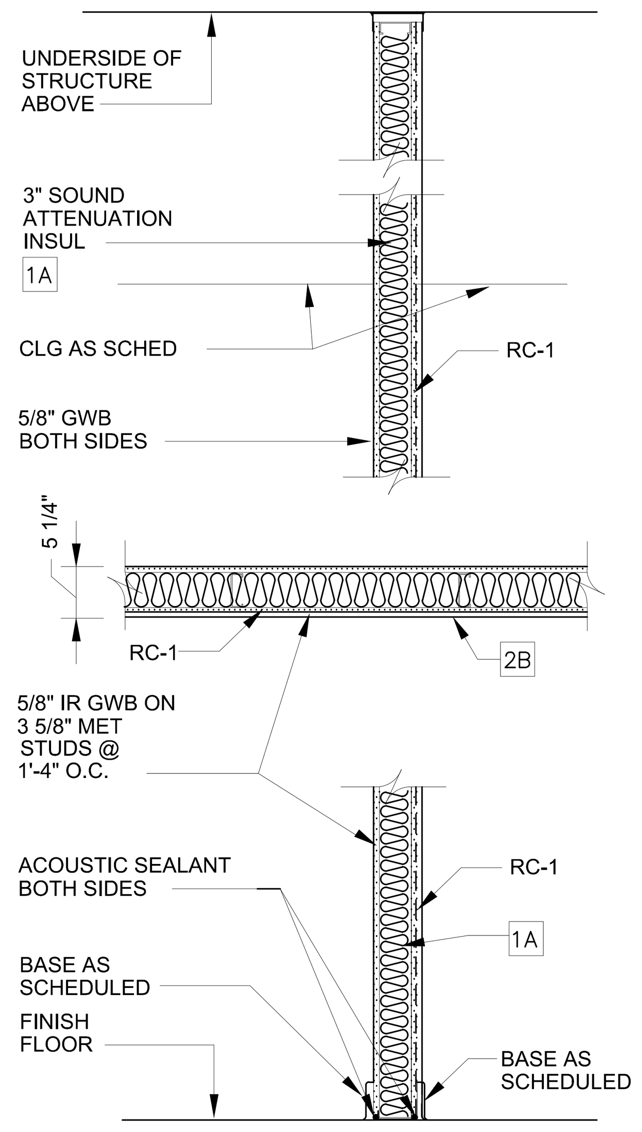
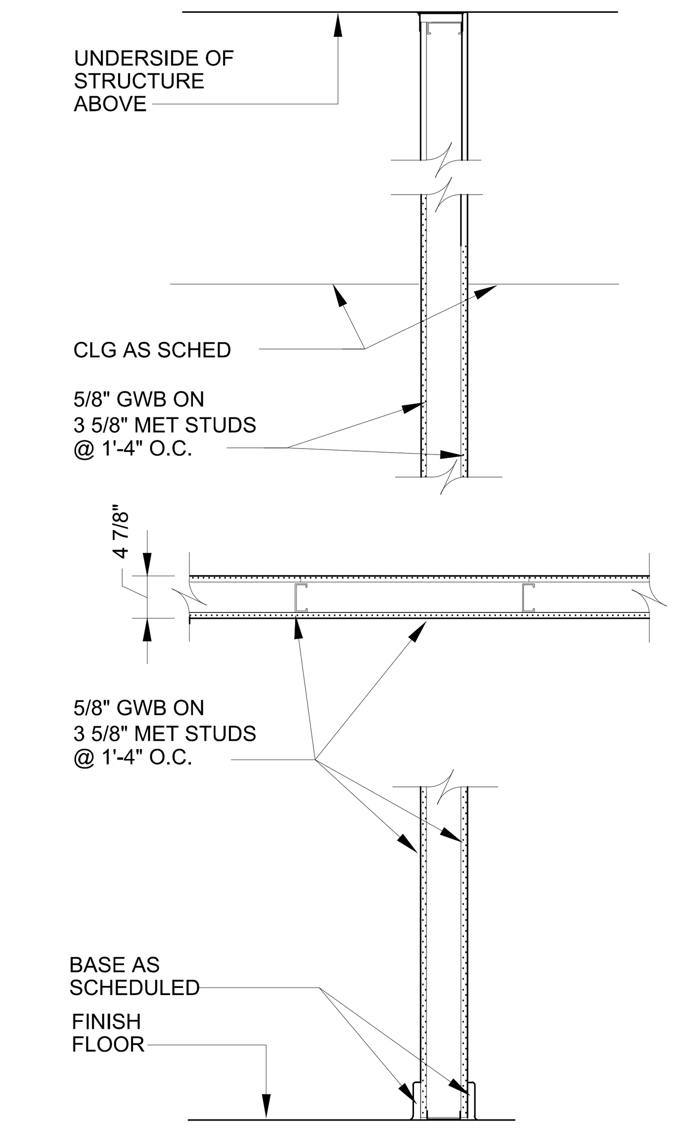
CEILING BUL□HEAD DETAILS

A5.101

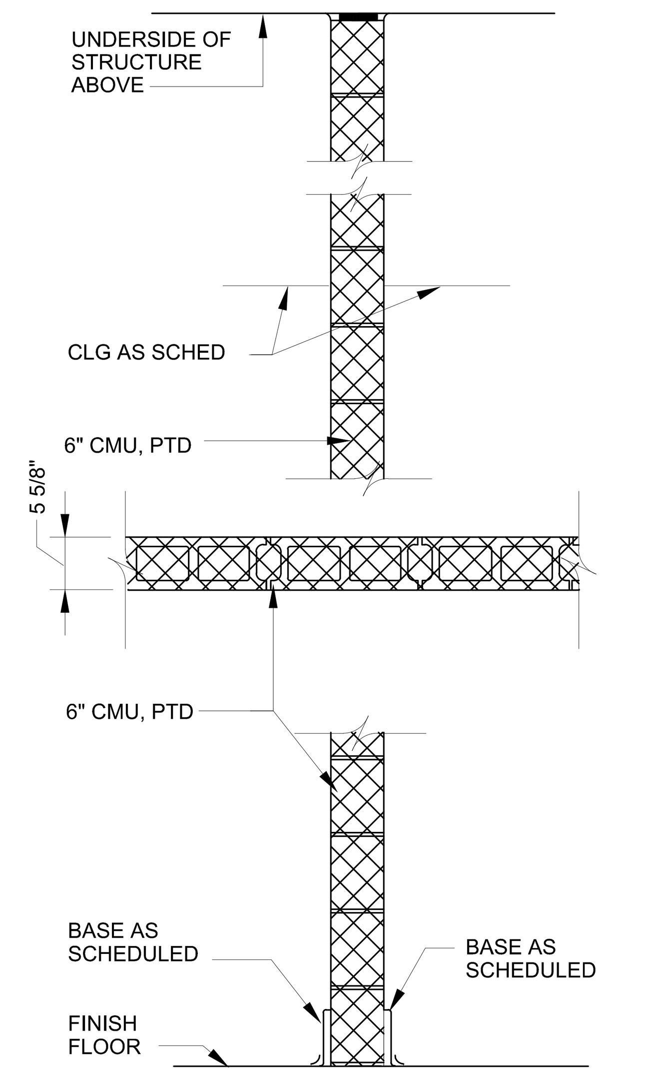
SHEET ______ of ______



1	5/8" IR GWB TO 8'-0"AFF MIN; 5/8" STD GWB ABOVE
1A	WALL TYPE 1: W/ 3" ACOUSTIC BATT INSUL STC 53 MIN, (NGC 2013026 OR EQUAL)
1B	WALL TYPE 1A: W/ 5/8" MR GWB AND CT TO 52" AFF @ CORRIDOR SIDE; IR GWB ABOVE
1C	WALL TYPE 1: EXTEND IR GWB TO 4" ABV CLG
1D	WALL TYPE 1A: EXTEND IR GWB TO 4" ABV CLG
1E	WALL TYPE 1A: 5/8" MR GWB @ WET SIDE OF WALL

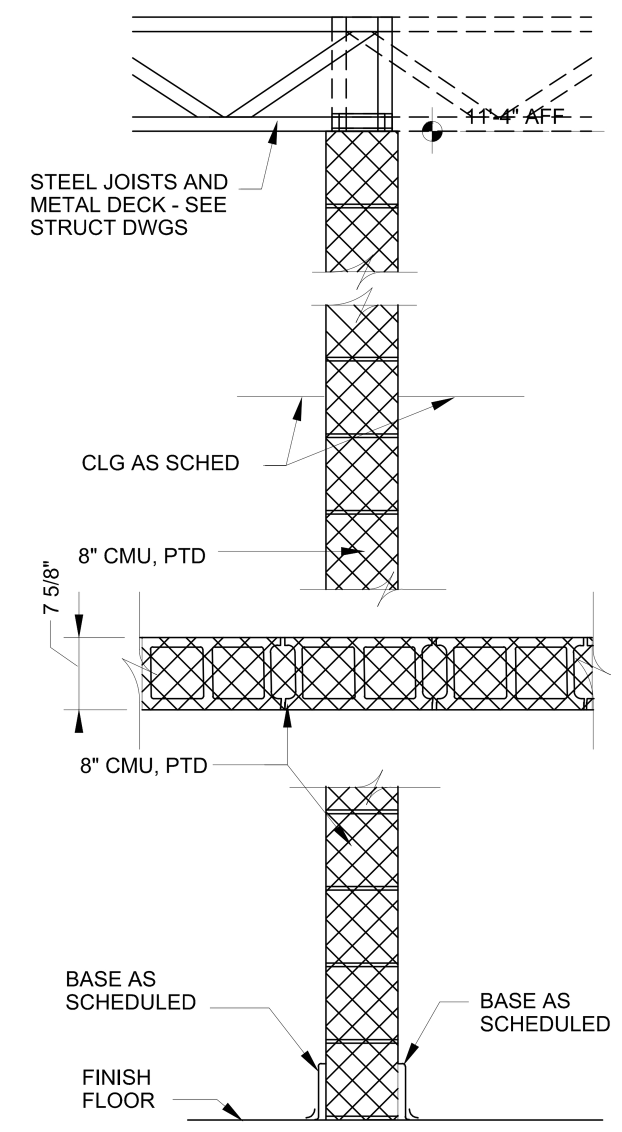


2A	WALL TYPE 2 W/ 5/8" IR GWB
2B	WALL TYPE 2A W/ 5/8" MR GWB @ WET SIDES OF WALL; 3" ACOUSTIC BATT INSUL
2C	WALL TYPE 2A W/ 3" ACOUSTIC BATT INSUL
2D	WALL TYPE 2; EXTEND GWB TO 4" ABV CLG
2E	WALL TYPE 2A; EXTEND 5/8" IR GWB TO 4" ABV FIN CEIL
2F	WALL TYPE 2A W/ 5/8" MR GWB AND CT TO 54" AFF @ CORRIDOR SIDE; IR GWB ABOVE; 3" ACOUST BATT INSUL
2G	WALL TYPE 2 W/ 5/8" IR GWB OVER 6" MTL STUDS @ 1'-4" OC MAX
2H	WALL TYPE 2A W/ 5/8" MR GWB AND CT TO 54" AFF @ CORRIDOR SIDE; IR GWB ABOVE. 5/8" MR GWB OTHER SIDE 3" ACOUST BATT INSUL
2I	WALL TYPE 2; 5/8" MR GWB AND CT BOTH SIDES OF WALL
2J	WALL TYPE 2A; CT OVER 5/8" MR GWB @ TOILET SIDE OF WALL



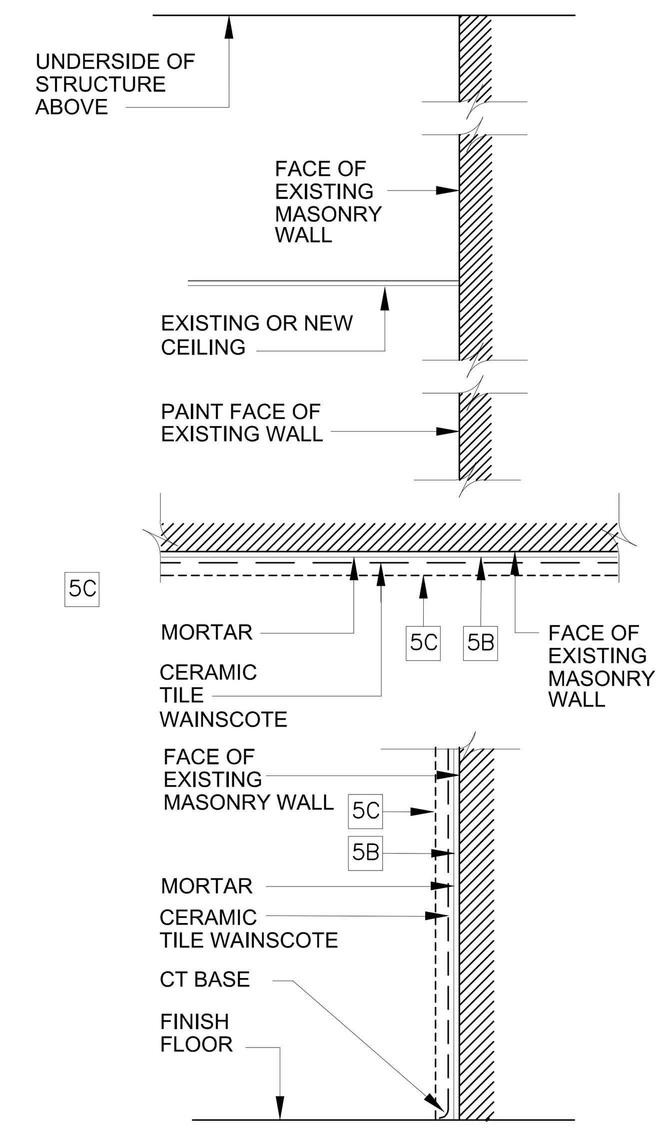
3A	WALL TYPE 3; 8" CMU, PTD
3B	WALL TYPE 3 W/ CT WAINSCOTE @ ONE SIDE OF WALL; SEE INTERIOR ELEVS FOR HGT
3C	WALL TYPE 3 W/ CT OVER MORTAR @ BOTH SIDES OF WALL; SEE INTERIOR ELEVS FOR HGT
3D	WALL TYPE 3; EXTEND CMU TO 10'-0" AFF; OMIT MTL STUD/GWB @ TOP OF WALL
3E	WALL TYPE 3; EXTEND CMU, PTD TO 8'-0" AFF
3F	1 HR FIRE RATED ASSSEMBLY (UL 906)
3G	WALL TYPE 3 W/ 5/8"GWB OVER 7/8" MTL RESILIENT CHANNELS @ 16" OC MAX, PTD. @ ONE (FINISHED) SIDE OF WALL
3H	WALL TYPE 3; W/ XT OVER 5/8" MR GWB OVER 7/8" MTL RESILIENT CHANNELS @ 16" OC MAX; CT TO 80" AFF

[MAX UNSUPPORTED HEIGHT OR LENGTH 18'-0"]



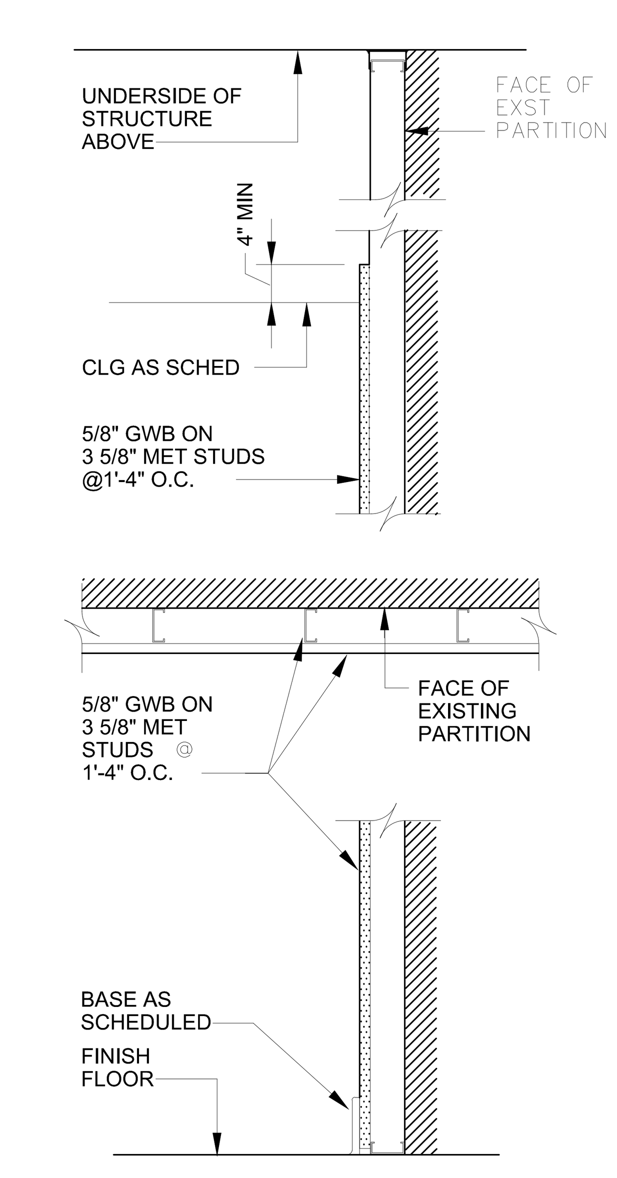
4A	WALL TYPE 4; 6" CMU, PTD TO 10'-0" AFF
4B	WALL TYPE 4 W/ CT OVER MORTAR @ ONE SIDE OF WALL TO XX" AFF
4B	WALL TYPE 4 W/ CT OVER MORTAR @ BOTH SIDES OF WALL TO XX" AFF

[MAX UNSUPPORTED HEIGHT OR LENGTH 18'-0"]



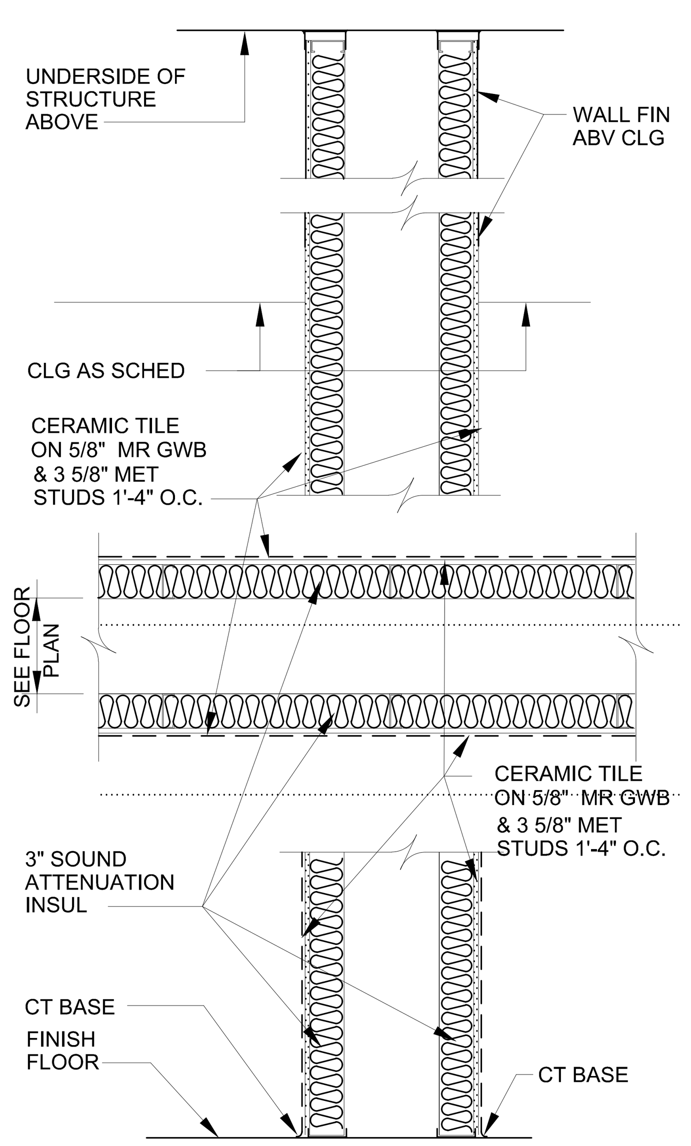
NOTE: REMOVE LOOSE MORTAR FROM FACE OF EXISTING MASONRY WALL. APPLY BONDING PRIMER TO FACE OF EXISTING MORTAR AND/OR MASONRY PRIOR TO INSTALLING THIN SET MORTAR AND CT.

5A	WALL TYPE 5 W/ 5/8" IR GWB, PTD OVER 7/8" MTL FURRING @ 1'-4" OC MAX @ FACE OF EXISTING WALL FROM FF TO 9'-4" AFF
5B	WALL TYPE 5 W/ 1/4" FRP WALL PANEL @ FACE OF EXISTING WALL TO 5'-4" AFF
5C	SEE NOTE 1, THIS SHEET.
5D	WALL TYPE 5 W/ CT OVER 5/8" MR GWB TO 54" AFF OVER 1 1/2" MTL FURRING @ 16" OC MAX. INSTALL 5/8" IR GWB FROM 54" AFF TO CEILING ABOVE.



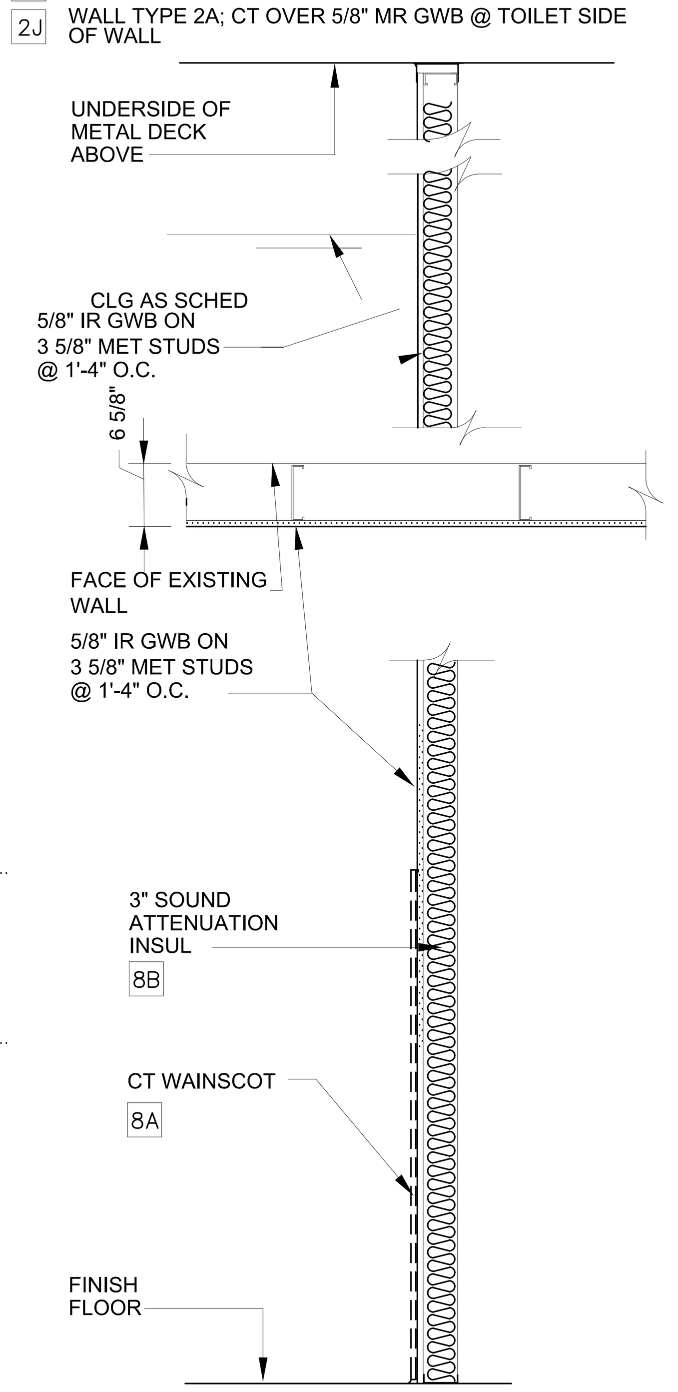
NOTES:

1. WALL TYPE 5 OMIT CT AND MORTAR BOND COAT PATCH AND PREPARE FACE OF WALL FOR INSTALLATION OF NEW CMU VENEER BOND NEW 8" X 16" X 2" THIC CMU VENEER TO FACE OF EXISTING MASONRY WALL. EXTEND NEW VENEER TO 64" AFF.

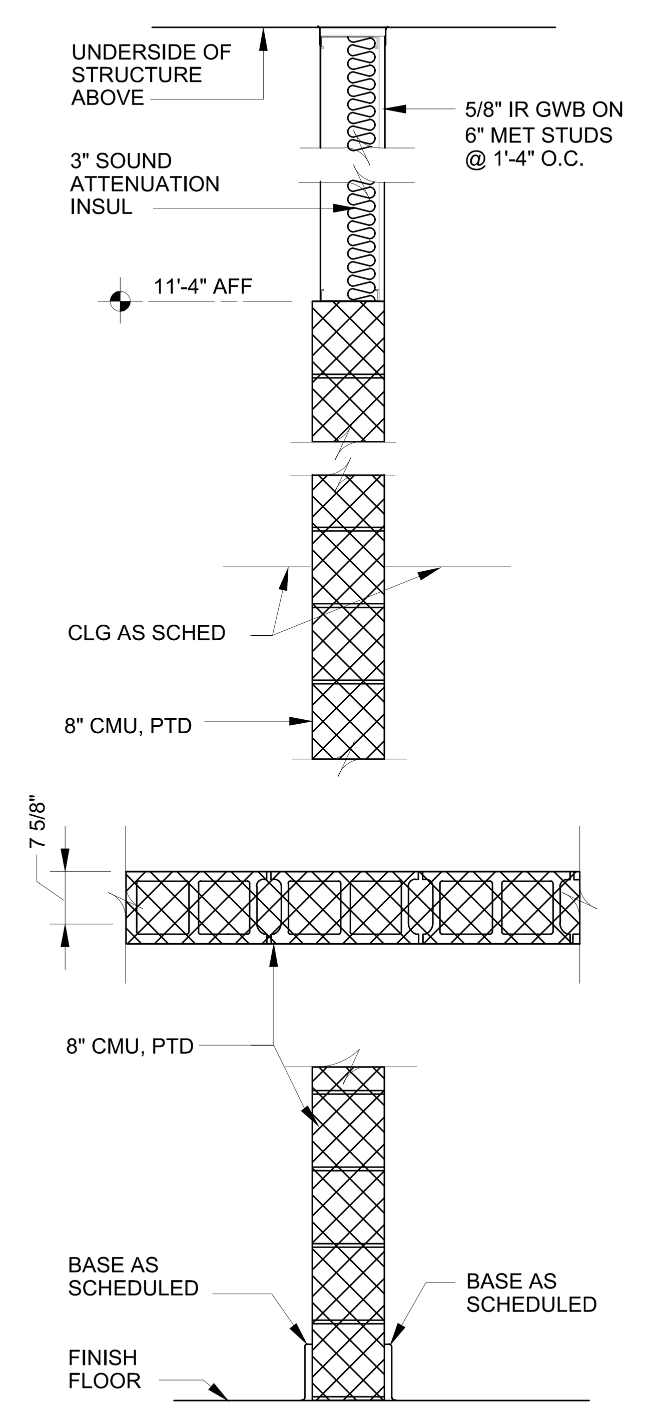


7A	MR GWB @ ONE (WET) SIDE OF CAVITY WALL ONLY; NO CT
7B	MR GWB @ BOTH SIDES OF CAVITY WALL; NO CT

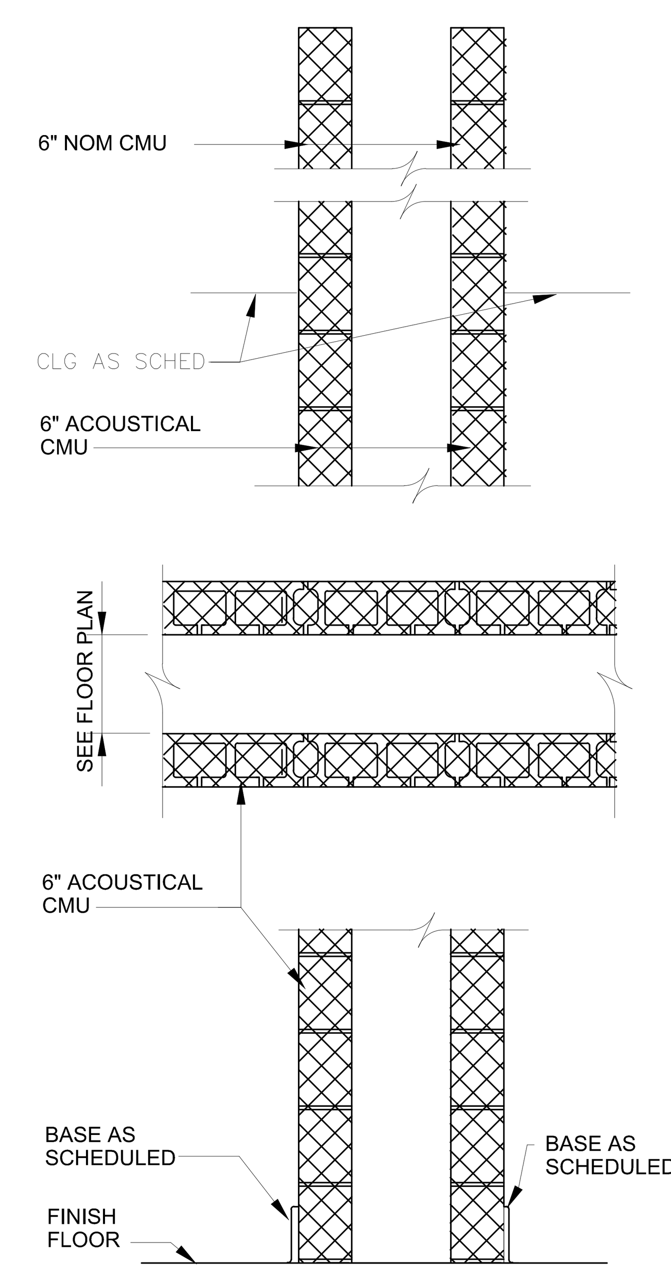
[NOTE: CONSULT GYPSUM CONSTRUCTION HANDBOOK FOR BRACING REQUIREMENTS BETWEEN ROWS OF STUDS AND SPECIFY REQ ON DWG.]

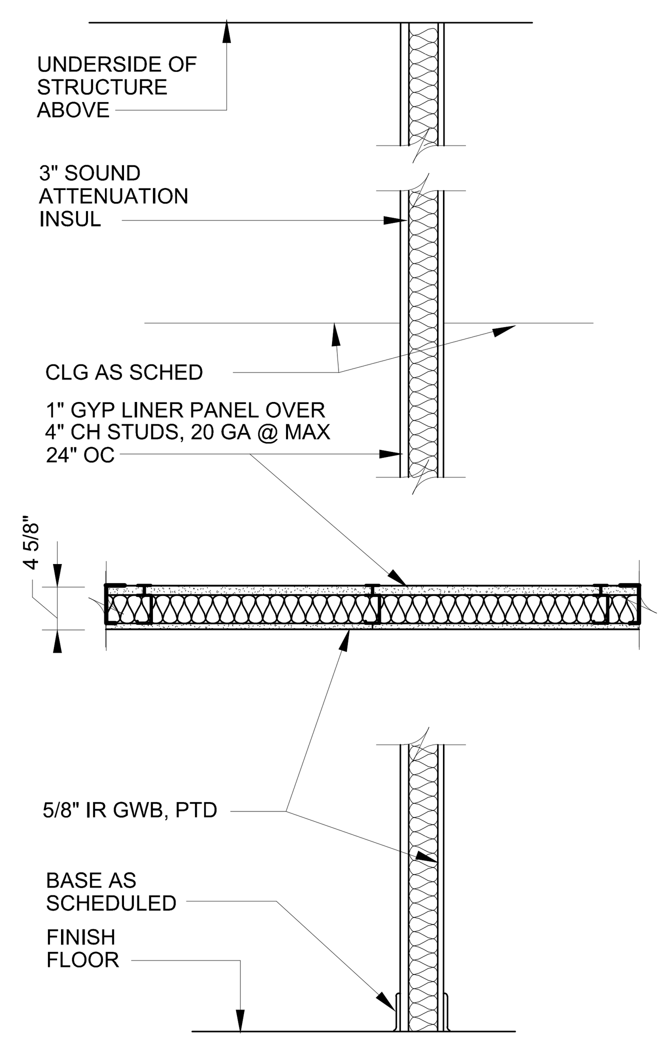


8A	WALL TYPE 8 W/ CT WAINSCOT OVER 5/8" MR GWB TO 54" AFF; 5/8" IR GWB ABV
8B	WALL TYPE 8 W/ 3" ACOUSTIC BATT INSUL
8C	WALL TYPE 8; 5/8" MR GWB;
8D	WALL TYPE 8A; 3" ACOUSTIC BATT INSUL
8E	WALL TYPE 8 W/ 5/8" MR GWB; 3" ACOUSTIC BATT INSUL

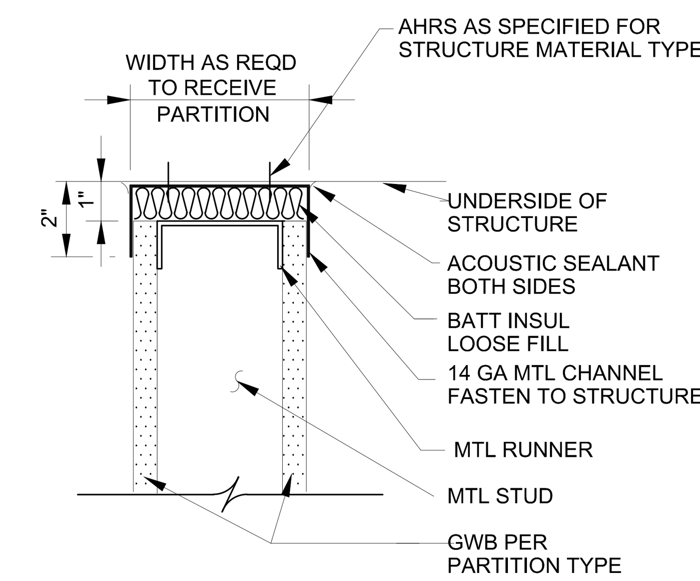


9A	WALL TYPE 9; 5/8" GWB @ BOTH SIDES OF 6" MTL STUDS @ 1'-4" OC MAX; 3" ACOUSTIC BATT INSUL @ TOP OF CMU WALL
9B	WALL TYPE 9; 5/8" GWB @ CORRIDOR SIDE OF 3 5/8" MTL STUDS @ 1'-4" OC MAX; 3" ACOUSTIC BATT BATT @ TOP OF CMU WALL
9C	WALL TYPE 9; 6" CMU TO 10'-0" AFF, OMIT MTL STUD/ GWB @ TOP OF CMU WALL

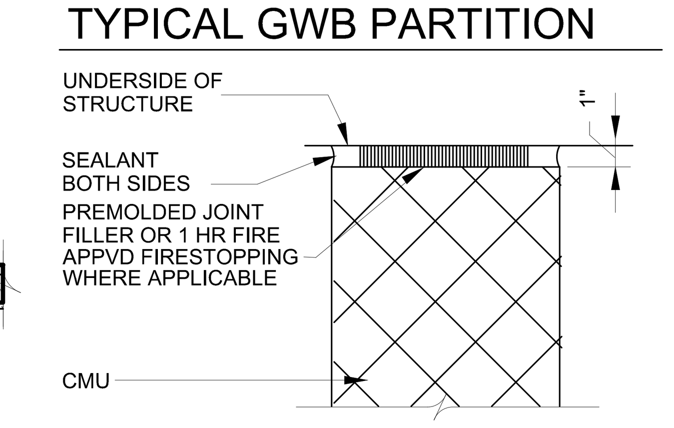




1 HOUR SHAFTWALL (UL U415A)



DETAIL AT TOP OF TYPICAL GWB PARTITION



DETAIL AT TOP OF TYPICAL CMU PARTITION

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ARCHITECT

RUFFNER CAREER AND TECHNICAL EDUCATION CENTER

ROANOKE, VIRGINIA

ROANOKE CITY PUBLIC SCHOOLS
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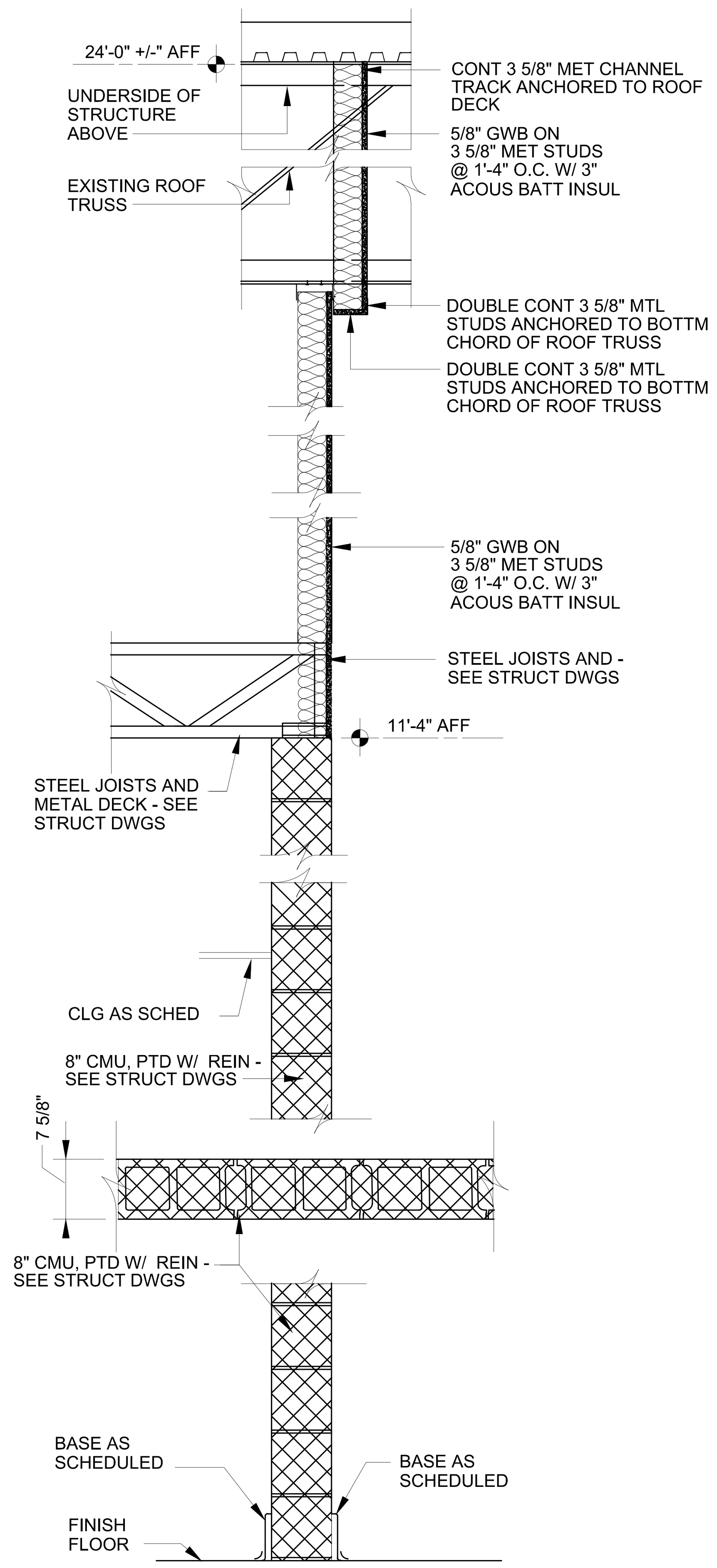
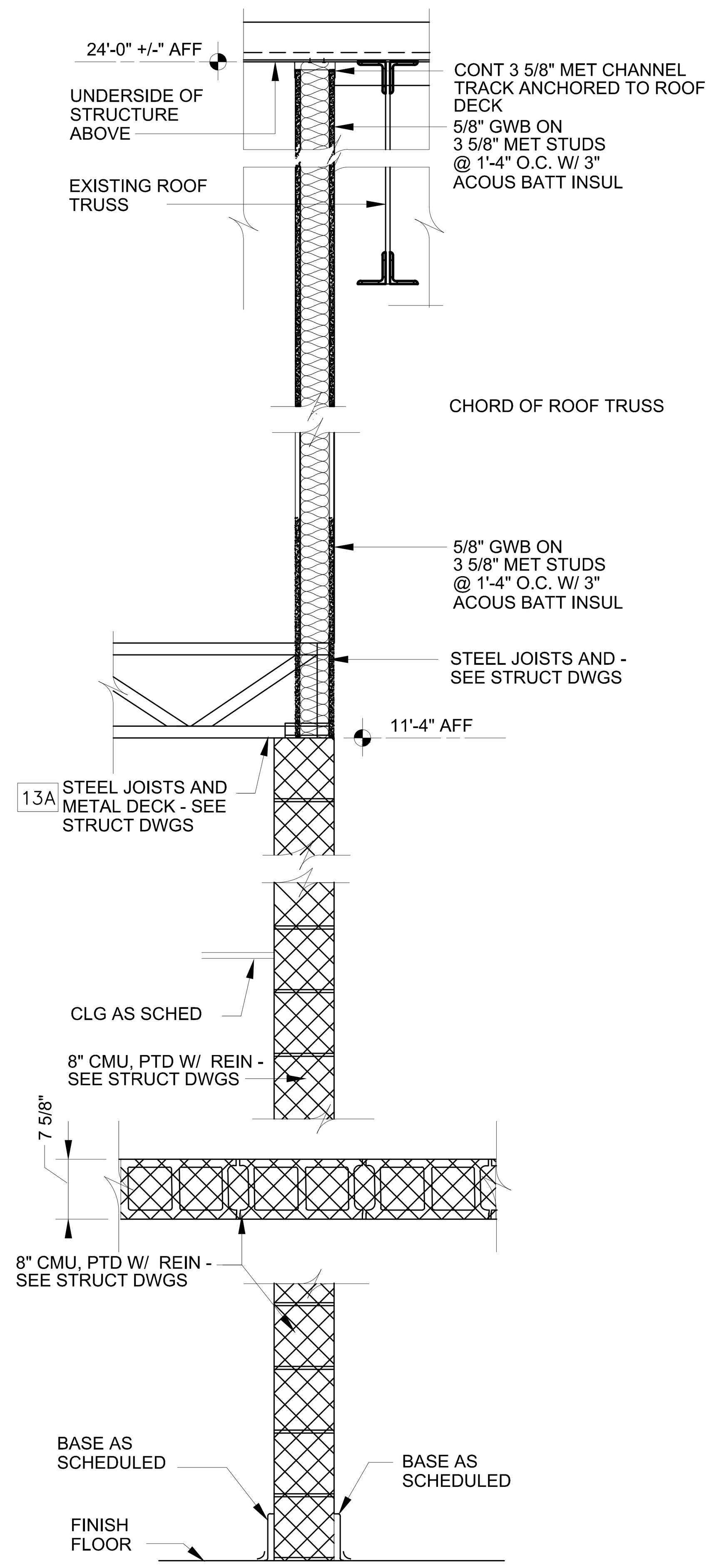
WALL TYPES

A6.1

SHEET ______ of ______



12



13

12A COLD FORMED LIGHT GAUGE CEILING JOIST BEARING ON CMU WALL - SEE STRUCT DWGS.

13A COLD FORMED LIGHT GAUGE CEILING JOIST BEARING ON CMU WALL - SEE STRUCT DWGS.

C2 Architecture
ARCHITECTURE INTERIORS PLANNING

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WALL TYPES

A6.2

SHEET ______ of X

DOOR SCHEDULE

DOOR						FRAME							
NO	TYPE	MATL	SI□E W X H	LOUVER OR UC	GLASS	TYPE	DEPTH	HEAD	□AMB	THRESH	FIRE RATING	HARD□ WARE	NOTES
100AA	H	ALUM	3'□0"□7'□0"	□	GL□4	A	4 1/2"	□	□	T1	□	2	SEE ALUM STORFRT DTLS
100AB	G	ALUM	6'□0"□7'□0"	□	GL□4	B	4 1/2"	□	□	T1	□	1	SEE ALUM STORFRT DTLS
100AC	H	ALUM	3'□0"□7'□0"	□	GL□4	C	4 1/2"	□	□	T1	□	2	SEE ALUM STORFRT DTLS
100AD	H	ALUM	6'□0"□7'□0"	□	GL□4	D	4 1/2"	□	□	T1	□	1	SEE ALUM STORFRT DTLS
100AE	E	HM	3'□0"□7'□0"	□	GL□2	F3	6"	DHC2	D□C2	T1	□	9	1" INSUL GLASS TRANSOM PANEL □GL□3□
100AF	E	HM	3'□0"□7'□0"	□	GL□2	F3	6"	DHC2	D□C2	T1	□	9	1" INSUL GLASS TRANSOM PANEL □GL□3□
100AG	H	ALUM	6'□0"□7'□0"	□	GL□4	D	4 1/2"	□	□	T1	□	1	SEE ALUM STORFRT DTLS
100AH	H	ALUM	6'□0"□7'□0"	□	GL□4	D	4 1/2"	□	□	T1	□	1	SEE ALUM STORFRT DTLS
100AI	E	HM	3'□0"□7'□0"	□	GL□2	F3	6"	DHC2	D□C2	T1	□	9	1" INSUL GLASS TRANSOM PANEL □GL□3□
100A□	D	HM	6'□0"□7'□0"	□	GL□2	F5	6"	DHC2	D□C2	T1	□	27	
100A□	E	HM	3'□0"□7'□0"	□	GL□2	F2	6"	DHC2	D□C2	T1	□	9	
100AL	E	HM	3'□0"□7'□0"	□	GL□2	F2	6"	DHC2	D□C2	T1	□	9	
100AM	D	HM	3'□0"□7'□0"	□	GL□2	F5	6"	DHC2	D□C2	T1	□	19	
100AN	E	HM	3'□0"□7'□0"	□	GL□2	F2	6"	DHC2	D□C2	T1	□	9	
100AO	H	ALUM	6'□0"□7'□0"	□	GL□4	D	4 1/2"	□	□	T1	□	1	SEE ALUM STORFRT DTLS
100AP	H	ALUM	6'□0"□7'□0"	□	GL□4	D	4 1/2"	□	□	T1		1	SEE ALUM STORFRT DTLS
100A□	E	HM	3'□0"□7'□0"	□	GL□2	F3	□	□	□	□	□	9	1" INSUL GLASS TRANSOM PANEL □GL□3□
100AR	D	HM	3'□0"□7'□0"	□	GL□2	F6	6"	DHC2	D□C2	T1	□	19	
100AS	D	HM	6'□0"□7'□0"	□	GL□2	F5	6"	DHC2	D□C2	T1	□	19	
100AT	OH	ALUM	10'□0" X 10'□0"	□	GL□3	□	□	□	□	□	□	23	
100AU	D	HM	6'□0"□7'□0"	□	GL□2	F5	6"	DHC2	D□C2	T1	□	19	
100AV	OH	ALUM	10'□0"W X 12'□0"H	□	GL□3	□	□	□	□	□	□	23	
100AW	E	HM	3'□0"□7'□0"	□	GL□2	F2	6"	DHC2	D□C2	T1	□	9	
100AX	OH	ALUM	10'□0"W X 12'□0"H	□	GL□3	□	□	□	□	□	□	23	
100AY	D	HM	6'□0"□7'□0"	□	GL□2	F5	6"	DHC2	D□C2	T1	□	19	
100A□	E	HM	3'□0"□7'□0"	□	GL□2	F2	6"	DHC2	D□C2	T1	□	9	
100A□A	E	HM	3'□0"□7'□0"	□	GL□2	F2	6"	DHC2	D□C2	T1	□	9	
100A□B	OH	ALUM	10'□0" X 10'□0"	□	GL□3	□	□	□	□	□	□	□	
100AB	A	WD	3'□0"□7'□0"	□	□	F1	□	□	□	□	□	□	
100AA	A	WD	3'□0"□7'□0"	□	□	F1	□	□	□	□	□	□	
100AB	A	WD	3'□0"□7'□0"	□	□	F1	□	□	□	□	□	□	
100AA	A	WD	3'□0"□7'□0"	□	□	F1	□	□	□	□	□	□	
100AB	A	WD	3'□0"□7'□0"	□	□	F1	□	□	□	□	□	□	
100AA	A	WD	3'□0"□7'□0"	□	□	F1	□	□	□	□	□	□	
100□1	H	ALUM	6'□0"□7'□0"	□	SEE NOTE	□	4 1/2"	□	□	□	□	3	SEE ALUM STORFRT DTLS□ LAMINATED SECURITY GLA□ING
100□2	H	ALUM	6'□0"□7'□0"	□	SEE NOTE	□	4 1/2"	□	□	□	□	3	SEE ALUM STORFRT DTLS□ LAMINATED SECURITY GLA□ING
100B	A	WD	3'□0"□7'□0"	□	□	F1	5 7/8"	DHG1	D□G1	□	□	6	
100C	G	ALUM	3'□0"□7'□0"	□	SEE NOTE	□	4 1/2"	□	□	□	□	4	SEE ALUM STORFRT DTLS□ LAMINATED SECURITY GLA□ING
100CA	C	WD	3'□0"□7'□0"	□	GL□2	F1	5 7/8"	DHG1	D□G1	T3	□	5	
100CB	G	ALUM	3'□0"□7'□0"	□	GL□1	□	4 1/2"	□	□	□	□	4	SEE ALUM STORFRT DTLS
100D	NOT USED												
100E	A	WD	3'□0"□7'□0"	□	□	F1	6 3/8"	DHG1	D□G1	T4	□	6	
100F	NOT USED												
100G	A	WD	3'□0"□7'□0"	□	□	F1	8 5/8" □VERIFY□	DHC1	D□C1	T4	□	□	
100H	C	WD	3'□0"□7'□0"	□	GL□1	F1	8 5/8" □VERIFY□	DHC1	D□C1	□	45 MIN	20	EXISTING OPENING
100I	C	WD	3'□0"□7'□0"	□	□	F1	5 7/8"	DHG1	D□G1	T4	□	□	
100□	NOT USED												
100□	A	WD	3'□0"□7'□0"	□	□	F1	5 7/8"	DHG1	D□G1	□	□	8	
100L	NOT USED												
100M	A	WD	3'□0"□7'□0"	□	□	F1	5 7/8"	DHG1	D□G1	□	□	6	
100N	A	WD	3'□0"□7'□0"	□	□	F1	6 3/8"	DHG1	D□G1	T4	□	6	
100O	D	WD	6'□0"□7'□0"	□	GL□1	F4	12 5/8" □VERIFY□	DHC1	D□C1	□	90 MIN	□	EXISTING OPENING
100P	C	WD	3'□0"□7'□0"	□	GL□1	F1	8 5/8" □VERIFY□	DHC1	D□C1	□	45 MIN	20	EXISTING OPENING
100□	A	WD	3'□0"□7'□0"	□	□	F1	12 5/8" □VERIFY□	DHC1	D□C1	□	90 MIN	26	
100R	A	WD	3'□0"□7'□0"	□	□	F1	12 5/8" □VERIFY□	DHC1	D□C1	T2	90 MIN	22	10" X 10" 90 MIN FIRE RATED LOUVER
100S	A	WD	3'□0"□7'□0"	□	□	F1	12 5/8" □VERIFY□	DHC1	D□C1	T2	90 MIN	22	10" X 10" 90 MIN FIRE RATED LOUVER

DOOR SCHEDULE □CONT.□

DOOR						FRAME							
NO	TYPE	MATL	SI□E W X H	LOUVER OR UC	GLASS □TYPE	TYPE	DEPTH	HEAD	□AMB	THRESH	FIRE RATING	HARD□ WARE	NOTES
100T	C	WD	3'□0"□7'□0"	□	GL□1	F1	8 5/8" □VERIFY□	DHC1	D□C1	T4	45 MIN	□	EXISTING OPENING
100U	B	WD	6'□0"□7'□0"	□	□	F5	6 5/8"	DHC1	D□C1	T4	□	25	
100V	B	WD	6'□0"□7'□0"	□	□	F5	8 5/8"	DHC1	D□C1	T4	□	25	
101	C	WD	3'□0"□7'□0"	□	GL□1	F1	6 3/8"	DHG1	D□G1	□	□	12	
101A	C	WD	3'□0"□7'□0"	□	GL□1	F1	5 7/8"	DHG1	D□G1	□	□	13	
101B	A	WD	3'□0"□7'□0"	3/4" U/C	□	F1	5 7/8"	DHG1	D□G1	□	□	8	
101C	A	WD	3'□0"□7'□0"	3/4" U/C	□	F1	5 7/8"	DHG1	D□G1	□	□	8	
101D	□	□	□	□	□	F1	□	□	□	□	□		CASED OPENING
101E	C	WD	3'□0"□7'□0"	□	GL□1	F1	8 5/8"	DHC1	D□C1	T4	□	□	
102	C	WD	3'□0"□7'□0"	□	GL□1	F1	6 3/8"	DHG1	D□G1	□	□	12	
102A	C	WD	3'□0"□7'□0"	□	GL□1	F1	5 7/8"	DHG1	D□G1	□	□	13	
102B	C	WD	3'□0"□7'□0"	□	GL□1	F1	6 3/8"	DHG1	D□G1	□	□	12	
102C		□	□	□	□	F1	□	□	□	□	□		CASED OPENING
102D	A	WD	3'□0"□7'□0"	3/4" U/C	□	F1	5 7/8"	DHG1	D□G1	□	□	8	
102E	B	WD	6'□0"□7'□0"	□	□	F4	5 7/8"	DHG1	D□G1	□	□	14	
102F	□RESERVED FOR ELEC ROOM□												
102G	NOT USED												
103□1	C	WD	3'□0"□7'□0"	□	GL□1	F1	6 3/8"	DHG1	D□G1	□	□	12	
103□2	C	WD	3'□0"□7'□0"	□	GL□1	F1	6 3/8"	DHG1	D□G1	□	□	12	
103A	A	WD	3'□0"□7'□0"	□	GL□1	F1	5 7/8"	DHG1	D□G1	□	□	13	
103B	B	WD	6'□0"□7'□0"	□	□	F4	5 7/8"	DHG1	D□G1	□	□	14	
104	C	WD	3'□0"□7'□0"	□	GL□1	F1	6 3/8"	DHG1	D□G1	T3	□	11	
104A	C	WD	3'□0"□7'□0"	□	GL□1	F1	5 7/8"	DHG1	D□G1	T3	□	5	
104B	C	WD	3'□0"□7'□0"	□	GL□1	F1	5 7/8"	DHG1	D□G1	□	□	10	
104C	A	WD	3'□0"□7'□0"	□	GL□1	F1	5 7/8"	DHG1	D□G1	□	□	10	
104D	A	WD	3'□0"□7'□0"	□	□	F1	5 7/8"	DHG1	D□G1	T3	□	6	
104E	A	WD	3'□0"□7'□0"	□	□	F1	5 7/8"	DHG1	D□G1	T3	□	5	
104F	A	WD	3'□0"□7'□0"	3/4" U/C	□	F1	5 7/8"	DHG1	D□G1	T3	□	15	
104G	A	WD	3'□0"□7'□0"	3/4" U/C	□	F1	5 7/8"	DHG1	D□G1	T3	□	15	
104H	A	WD	3'□0"□7'□0"	3/4" U/C	□	F1	5 7/8"	DHG1	D□G1	□	□	15	
104I	A	WD	3'□0"□7'□0"	□	□	F1	5 7/8"	DHG1	D□G1	T3	□	16	
104□	A	WD	3'□0"□7'□0"	□	□	F1	5 7/8"	DHG1	D□G1	T3		13	
104□	B	WD	4'□0"□7'□0"	□	□	F4	5 7/8"	DHG1	D□G1	□	□	17	
104L	C	WD	3'□0"□7'□0"	□	GL□1	F1	5 7/8"	DHG1	D□G1	□	□	13	
104M	C	WD	3'□0"□7'□0"	□	GL□1	F1	5 7/8"	DHG1	D□G1	□	□	13	
104N	C	WD	3'□0"□7'□0"	□	GL□1	F1	5 7/8"	DHG1	D□G1	□	□	13	
104O	C	WD	3'□0"□7'□0"	□	GL□1	F1	5 7/8"	DHG1	D□G1	□	□	13	
104P	C	WD	3'□0"□7'□0"	□	GL□1	F1	5 7/8"	DHG1	D□G1	□	□	13	
105	C	WD	3'□0"□7'□0"	□	GL□1	F1	6 3/8"	DHG1	D□G1	□	□	12	
105A	C	WD	3'□0"□7'□0"	□	GL□1	F1	5 7/8"	DHG1	D□G1	□	□	13	
105B	A	WD	3'□0"□7'□0"	□	□	F1	5 7/8"	DHG1	D□G1	□	□	8	
105C	A	WD	3'□0"□7'□0"	□	□	F1	5 7/8"	DHG1	D□G1		□	8	
105E	A	WD	3'□0"□7'□0"	□	□	F1	8 5/8"	DHC1	D□C1	□	□	5	
105F	NOT USED												
105G	A	WD	3'□0"□7'□0"	□	□	F1	8 5/8"	DHC1	D□C1	□	□	5	
106□1	C	WD	3'□0"□7'□0"	□	GL□1	F1	6 3/8"	DHG1	D□G1	□	□	12	
106□2	C	WD	3'□0"□7'□0"	□	GL□1	F1	6 3/8"	DHG1	D□G1	□	□	12	
106A	C	WD	3'□0"□7'□0"	□	□	F1	5 7/8"	DHG1	D□G1	□	□	13	
106B	A	WD	3'□0"□7'□0"	□	□	F1	5 7/8"	DHG1	D□G1	□	□	16	
106C	NOT USED												
107	C	WD	3'□0"□7'□0"	□	GL□1	F1	6 3/8"	DHG1	D□G1	□	□	12	
107A	C	WD	3'□0"□7'□0"	□	GL□1	F1	5 7/8"	DHG1	D□G1	□	□	13	
107B	A	WD	3'□0"□7'□0"	□	□	F1	5 7/8"	DHG1	D□G1	□	□	16	
107C	A	WD	3'□0"□7'□0"	□	□	F1	5 7/8"	DHG1	D□G1	□	□	16	
107D	C	WD	3'□0"□7'□0"	□	GL□1	F1	6 3/8"	DHG1	D□G1	□	□	16	

DOOR SCHEDULE NOTES

1	ALL DOOR FRAMES ARE HOLLOW METAL, PTD UNO
2	WHERE NEW DOORS AND/OR FRAMES ARE TO BE INSTALLED IN EXISTING WALL OPENINGS, CONTRACTOR SHALL VERIFY CLEAR WIDTH AND HEIGHT OF OPENING.

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COMMONWEALTH OF VIRGINIA
GREGORY M. CUPKA
Lic. No. 8001
□□□□ 17□2022
ARCHITECT

RUFFNER CAREER AND TECHNICAL EDUCATION CENTER

ROANOKE, VIRGINIA

ROANOKE CITY PUBLIC SCHOOLS
Strong Students. Strong Schools. Strong City.

REVISIONS

No.	DATE	DESCRIPTION
X	X	X

DRAWN BY:
REV'D BY:
DATE: 6/17/22
SCALE: AS SHOWN

DOOR□FRAME AND HARDWARE SCHEDULE

A7.1

SHEET ______ of ______

DOOR SCHEDULE □CONT.□

DOOR						FRAME					FIRE RATING	HARD□ WARE	NOTES
NO	TYPE	MATL	SI□E W X H	LOUVER OR UC	GLASS TYPE	TYPE	DEPTH	HEAD	□AMB	THRESH			
108	C	WD	3'□0"□7'□0"	□	GL□1	F2	6 5/8"	DHC1	D□C1	□	□	12	
108A	C	WD	3'□0"□7'□0"	□	GL□1	F2	6 5/8"	DHC1	D□C1	□	□	13	
108B	B	HM	6'□0"□7'□0"	□	□	F5	8 5/8"	DHC1	D□C1	□	□	24	
108C	A	HM	3'□0"□7'□0"	3/4" UC	□	F2	8 5/8"	DHC1	D□C1	□	□	5	
108D	B	HM	6'□0"□7'□0"	□	□	F5	8 5/8"	DHC1	D□C1	□	□	24	
108F	A	WD	3'□0"□7'□0"	3/4" UC	□	F2	8 5/8"	DHC1	D□C1	□	□	8	
108G	A	WD	3'□0"□7'□0"	3/4" UC	□	F2	8 5/8"	DHC1	D□C1	□	□	8	
108H	C	WD	3'□0"□7'□0"	□	GL□1	F2	8 5/8"	DHC1	D□C1	□	□	21	
108I	A	WD	3'□0"□7'□0"	□	□	F2	6 5/8"	DHC1	D□C1	□	□	16	
108□	A	HM	3'□0"□7'□0"	□	□	F2	6 5/8"	DHC1	D□C1	□	□	16	
109	C	WD	3'□0"□7'□0"	□	GL□1	F1	6 3/8"	DHG1	D□G1	□	□	12	
109A	C	WD	3'□0"□7'□0"	□	GL□1	F1	5 7/8"	DHG1	D□G1	□	□	13	
109B	A	WD	3'□0"□7'□0"	3/4" UC	□	F1	5 7/8"	DHG1	D□G1	□	□	8	
109C	A	WD	3'□0"□7'□0"	3/4" UC	□	F1	5 7/8"	DHG1	D□G1	□	□	8	
109D	A	WD	3'□0"□7'□0"	□	□	F2	6 5/8"	DHC1	D□C1	□	□	5	
109E	A	HM	3'□0"□7'□0"	□	□	F2	6 5/8"	DHC1	D□C1	□	45 MIN	6	
109F	A	WD	3'□0"□7'□0"	□	GL□1	F2	6 5/8"	DHC1	D□C1	□	□	21	
110	C	WD	3'□0"□7'□0"	□	GL□1	F5	6 5/8"	DHC1	D□C1	□	□	12	
110A	C	WD	3'□0"□7'□0"	□	GL□1	F2	8 5/8"	DHC1	D□C1	□	□	13	
110B	A	WD	3'□0"□7'□0"	3/4" UC	□	F2	6 5/8"	DHC1	D□C1	□	□	8	
110C	A	WD	3'□0"□7'□0"	3/4" UC	□	F2	6 5/8"	DHC1	D□C1	□	□	8	
110D	A	WD	3'□0"□7'□0"	3/4" UC	□	F2	6 5/8"	DHC1	D□C1	□	□	16	
110E	A	WD	3'□0"□7'□0"	□	□	F2	6 5/8"	DHC1	D□C1	□	□	16	
110F	A	WD	3'□0"□7'□0"	□	□	F2	6 5/8"	DHC1	D□C1	□	□	12	
110H	C	HM	3'□0"□7'□0"	□	GL□1	F2	8 5/8"	DHC1	D□C1	□	□	21	
110H	C	HM	3'□0"□7'□0"	□	GL□1	F2	8 5/8"	DHC1	D□C1	□	□	6	
200A	A	WD	3'□0"□7'□0"	□	□	F1	6 3/8"	DHG1	D□G1	□	□	6	
200B	C	HM	3'□0"□7'□0"	□	GL□1	F1	5 7/8"	DHG1	D□G1	T3	□	13	
200C	C	HM	3'□0"□7'□0"	□	□	F1	5 7/8"	DHG1	D□G1	□	□	6	
200D	C	HM	3'□0"□7'□0"	□	GL□1	F1	5 7/8"	DHG1	D□G1	□	□	13	
200E	C	HM	3'□0"□7'□0"	□	GL□1	F1	6 3/8"	DHG1	D□G1	□	□	11	
200F	A	WD	3'□0"□7'□0"	□	□	F1	5 7/8"	DHG1	D□G1	T4	□	6	
200G	A	WD	3'□0"□7'□0"	3/4" UC	□	F1	5 7/8"	DHG1	D□G1		□	8	
200H	A	WD	3'□0"□7'□0"	3/4" UC	□	F1	5 7/8"	DHG1	D□G1	□	□	8	
200I	NOT	USED											
200□	NOT	USED											
200□	G	ALUM	6'□0"□7'□0"	□	GL□1	D	4 1/2"	□	□	T4	□	29	SEE ALUM STORFRT DTLS
200L	C	WD	3'□0"□7'□0"	□	GL□1	F1	8 5/8"	DHC1	D□C1	T4	45 MIN	20	EXISTING OPENING
200M	NOT	USED											
200N	NOT	USED											
200O	NOT	USED											
200P	NOT	USED											
200□	NOT	USED											
200S	NOT	USED											
200T	NOT	USED											
200U	C	WD	3'□0"□7'□0"	□	GL□1	F1	8 5/8"	DHC1	D□C1	T4	45 MIN	20	EXISTING OPENING
200V	NOT	USED											
200W	B	HM	6'□0"□7'□0"	□	GL□1	F4	6 3/8"	DHG1	D□G1	□	□	32	
200X	C	WD	3'□0"□7'□0"	□	GL□1	F1	8 5/8"	DHC1	D□C1	T4	45 MIN	20	EXISTING OPENING
200Y	C	WD	3'□0"□7'□0"	□	GL□1	F1	6 3/8"	DHG1	D□G1	□	□	20	
200□	B	HM	6'□0"□7'□0"	□	□	F4	5 7/8"	DHG1	D□G1	T4	□	34	
200AA	A	WD	3'□0"□7'□0"	□	□	F1	6 5/8"	DHC1	D□C1	T4	□	26	EXISTING OPENING
200AB	C	WD	3'□0"□7'□0"	□	GL□1	F1	8 5/8"	DHC1	D□C1	T4	45 MIN	20	EXISTING OPENING
201□1	C	WD	3'□0"□7'□0"	□	GL□1	F1	6 3/8"	DHG1	D□G1	□	□	12	
201□2	C	WD	3'□0"□7'□0"	□	GL□1	F1	6 3/8"	DHG1	D□G1	□	□	12	

DOOR SCHEDULE □CONT.□

DOOR						FRAME					FIRE RATING	HARD□ WARE	NOTES
NO	TYPE	MATL	SI□E W X H	LOUVER OR UC	GLASS □TYPE	TYPE	DEPTH	HEAD	□AMB	THRESH			
201A	C	WD	3'□0"□7'□0"	□	GL□1	F1	5 7/8"	DHG1	D□G1	□	□	13	
201B	A	WD	3'□0"□7'□0"	□	□	F1	5 7/8"	DHG1	D□G1	□	□	16	
202□1	C	WD	3'□0"□7'□0"	□	GL□1	F1	6 3/8"	DHG1	D□G1	□	□	12	
202□2	C	WD	3'□0"□7'□0"	□	GL□1	F1	6 3/8"	DHG1	D□G1	□	□	12	
202A	A	WD	3'□0"□7'□0"	□	GL□1	F1	5 7/8"	DHG1	D□G1	□	□	13	
202B	A	WD	3'□0"□7'□0"	□	□	F1	5 7/8"	DHG1	D□G1	□	□	16	
203□1	C	WD	3'□0"□7'□0"	□	GL□1	F1	6 3/8"	DHG1	D□G1	□	□	12	
203□2	C	WD	3'□0"□7'□0"	□	GL□1	F1	6 3/8"	DHG1	D□G1	□	□	12	
203A	A	WD	3'□0"□7'□0"	□	GL□1	F1	5 7/8"	DHG1	D□G1	□	□	13	
203B	A	WD	3'□0"□7'□0"	□	□	F1	5 7/8"	DHG1	D□G1	□	□	16	
204□1	C	WD	3'□0"□7'□0"	□	GL□1	F1	6 3/8"	DHG1	D□G1	□	□	31	
204□2	C	WD	3'□0"□7'□0"	□	GL□1	F1	6 3/8"	DHG1	D□G1	□	□	31	
204A	A	WD	3'□0"□7'□0"	□	□	F1	5 7/8"	DHG1	D□G1	□	□	13	
204B	C	WD	3'□0"□7'□0"	□	GL□1	F1	5 7/8"	DHG1	D□G1	□	□	30	
204C	A	WD	3'□0"□7'□0"	□	□	F1	5 7/8"	DHG1	D□G1	□	□	16	
204D	C	WD	3'□0"□7'□0"	□	GL□1	F1	5 7/8"	DHG1	D□G1	□	□	30	
205□1	C	WD	3'□0"□7'□0"	□	GL□1	F1	6 3/8"	DHG1	D□G1	□	□		
205□2	C	WD	3'□0"□7'□0"	□	GL□1	F1	6 3/8"	DHG1	D□G1	□	□		
205A	A	WD	3'□0"□7'□0"	□	□	F1	5 7/8"	DHG1	D□G1	□	□		
205B	A	WD	3'□0"□7'□0"	□	□	F1	5 7/8"	DHG1	D□G1	□	□		
206□1	C	WD	3'□0"□7'□0"	□	GL□1	F1	6 3/8"	DHG1	D□G1	□	□	12	
206□2	C	WD	3'□0"□7'□0"	□	GL□1	F1	5 7/8"	DHG1	D□G1	□	□	12	
206A	C	WD	3'□0"□7'□0"	□	GL□1	F1	5 7/8"	DHG1	D□G1	□	□	13	
206B	NOT	USED											
206C	A	WD	3'□0"□7'□0"	3/4" UC	□	F1	5 7/8"	DHG1	D□G1	□	□	8	
206D	A	WD	3'□0"□7'□0"	3/4" UC	□	F1	5 7/8"	DHG1	D□G1	□	□	8	
206E	C	WD	3'□0"□7'□0"	□	GL□1	F1	6 3/8"	DHG1	D□G1	□	□	12	
206F	NOT	USED											
206G	A	WD	3'□0"□7'□0"	□	□	F1	5 7/8"	DHG1	D□G1	□	□	16	
206H	A	WD	3'□0"□7'□0"	□	□	F1	5 7/8"	DHG1	D□G1	□	□	16	
206I						F1							CASED OPENING
207□1	C	WD	3'□0"□7'□0"	□	GL□1	F1	6 3/8"	DHG1	D□G1	□	□	12	
207□2	C	WD	3'□0"□7'□0"	□	GL□1	F1	6 3/8"	DHG1	D□G1	□	□	12	
207A	A	WD	3'□0"□7'□0"	□	GL□1	F1	5 7/8"	DHG1	D□G1	□	□	16	
207B	A	WD	3'□0"□7'□0"	□	□	F1	5 7/8"	DHG1	D□G1	□	□	13	
208A	C	WD	3'□0"□7'□0"	□	GL□1	F1	6 3/8"	DHG1	D□G1	□	□	33	
208B	C	WD	3'□0"□7'□0"	□	GL□1	F1	6 3/8"	DHG1	D□G1	□	□	33	
209□1	C	WD	3'□0"□7'□0"	□	GL□1	F1	6 3/8"	DHG1	D□G1	□	□	12	
209□2	C	WD	3'□0"□7'□0"	□	GL□1	F1	5 7/8"	DHG1	D□G1	□	□	16	
209A	C	WD	3'□0"□7'□0"	□	GL□1	F1	5 7/8"	DHG1	D□G1	□	□	13	
209B	C	WD	3'□0"□7'□0"	□	GL□1	F1	6 3/8"	DHG1	D□G1	□	□	12	
209C	A	WD	3'□0"□7'□0"	3/4" UC	□	F1	5 7/8"	DHG1	D□G1	□	□	8	
209D	A	WD	3'□0"□7'□0"	3/4" UC	□	F1	5 7/8"	DHG1	D□G1	□	□	8	
209E						F1							CASED OPENING
209F	NOT	USED											
209G	A	WD	3'□0"□7'□0"	□	□	F1	5 7/8"	DHG1	D□G1	□	□	16	
209H	A	WD	3'□0"□7'□0"	□	□	F1	5 7/8"	DHG1	D□G1	□	□	16	
209I						F1							CASED OPENING
210□1	C	WD	3'□0"□7'□0"	□	GL□1	F1	5 7/8"	DHG1	D□G1	□	□	33	
210□2	A	WD	3'□0"□7'□0"	□	□	F1	5 7/8"	DHG1	D□G1	□	□	16	
210A	A	WD	3'□0"□7'□0"	□	GL□1	F1	5 7/8"	DHG1	D□G1	□	□	13	
210B	A	WD	3'□0"□7'□0"	□	□	F1	5 7/8"	DHG1	D□G1	□	□	8	
210C	A	WD	3'□0"□7'□0"	□	□	F1	5 7/8"	DHG1	D□G1	□	□	8	

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□□□□ 17□2022
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REVISIONS

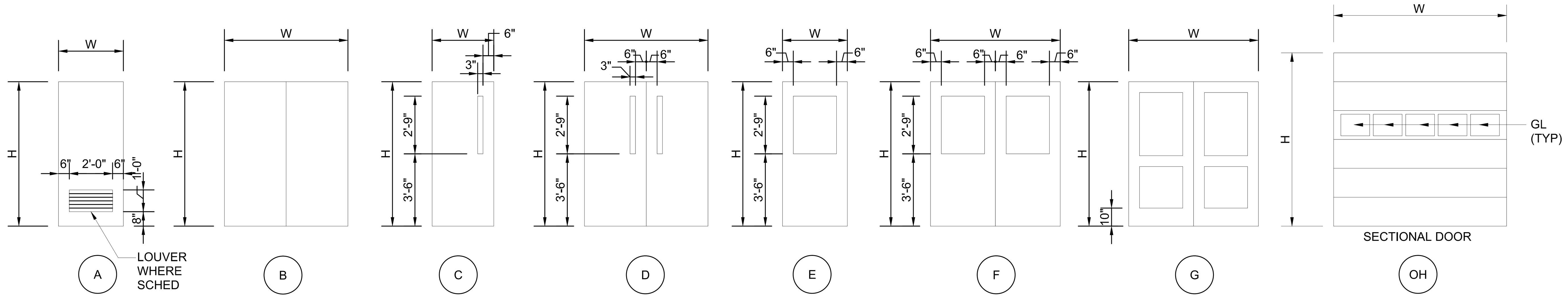
No.	DATE	DESCRIPTION
x	x	x

DRAWN BY:	
REV'D BY:	
DATE:	6/17/22
SCALE:	AS SHOWN

DOOR□FRAME AND HARDWARE SCHEDULE

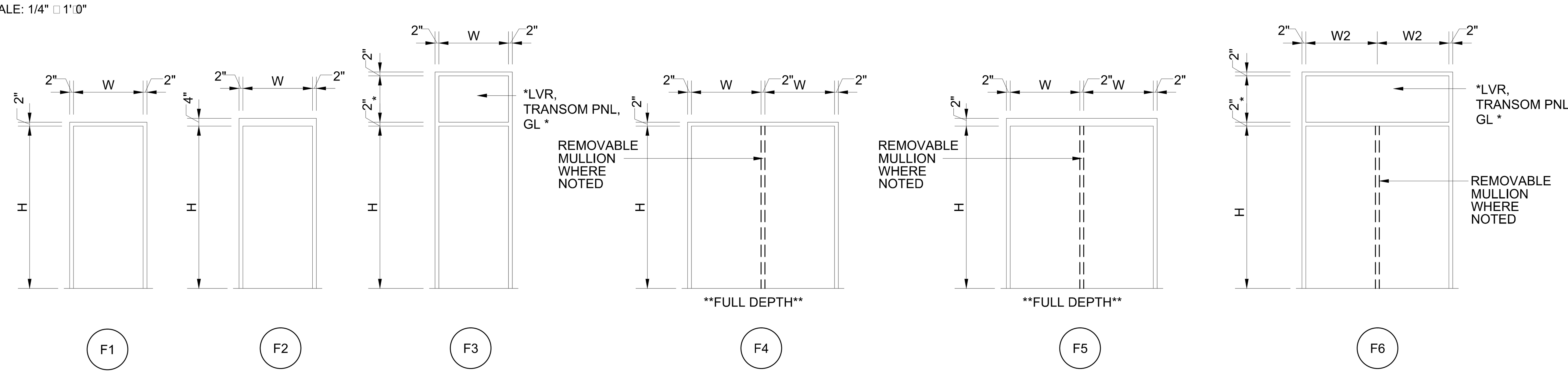
A7.2

SHEET ______ of ______



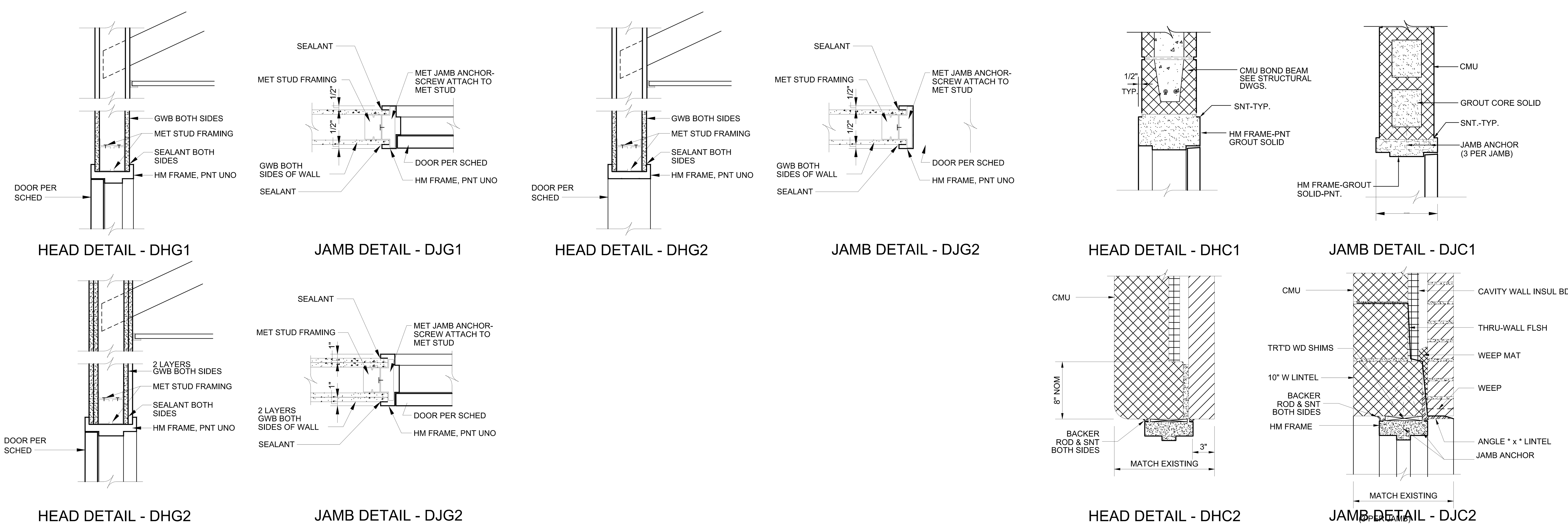
DOOR TYPES

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



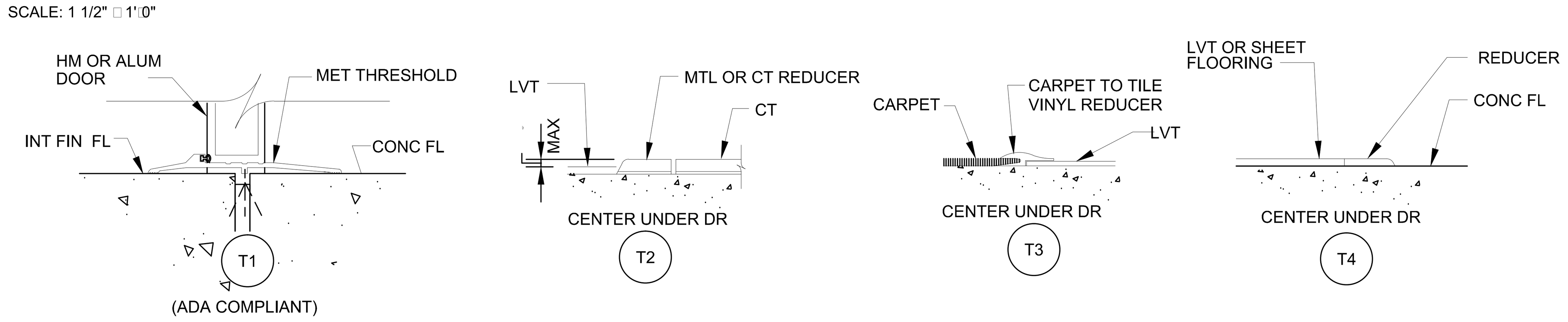
FRAME TYPES

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



DOOR HEAD/JAMB/THRESHOLD DETAILS

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



THRESHOLD TYPES

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

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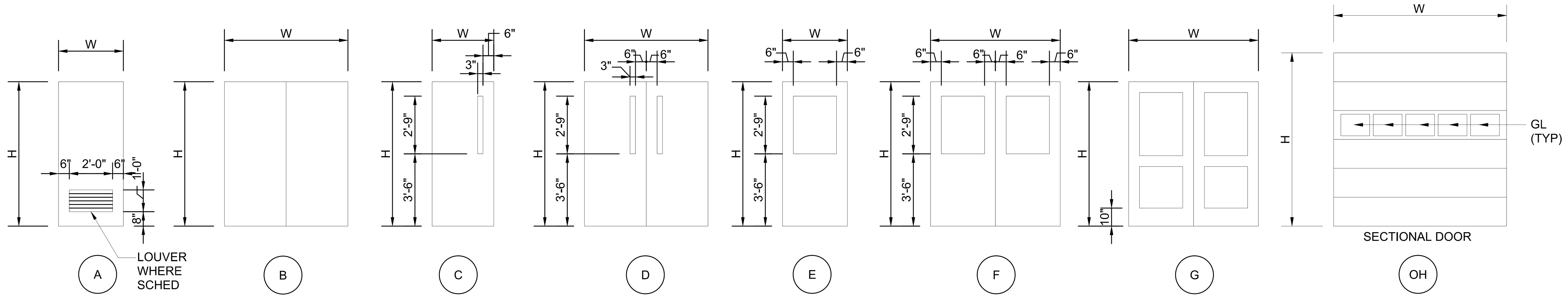
DRAWN BY:	
REV'D BY:	
DATE:	6/17/22
SCALE:	AS SHOWN

DOOR, FRAME AND WINDOW FRAME TYPES AND DETAILS

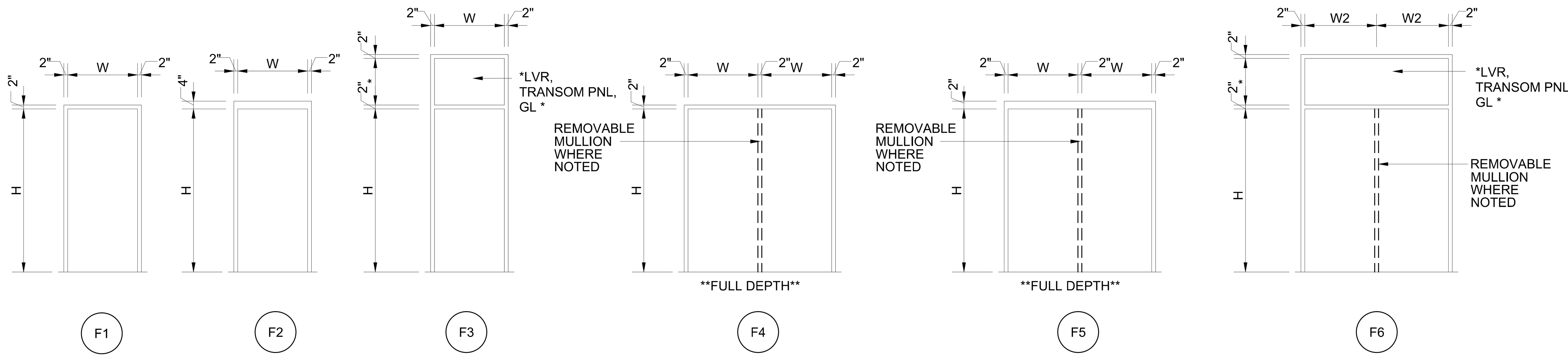
A7.3

SHEET ______ of ______



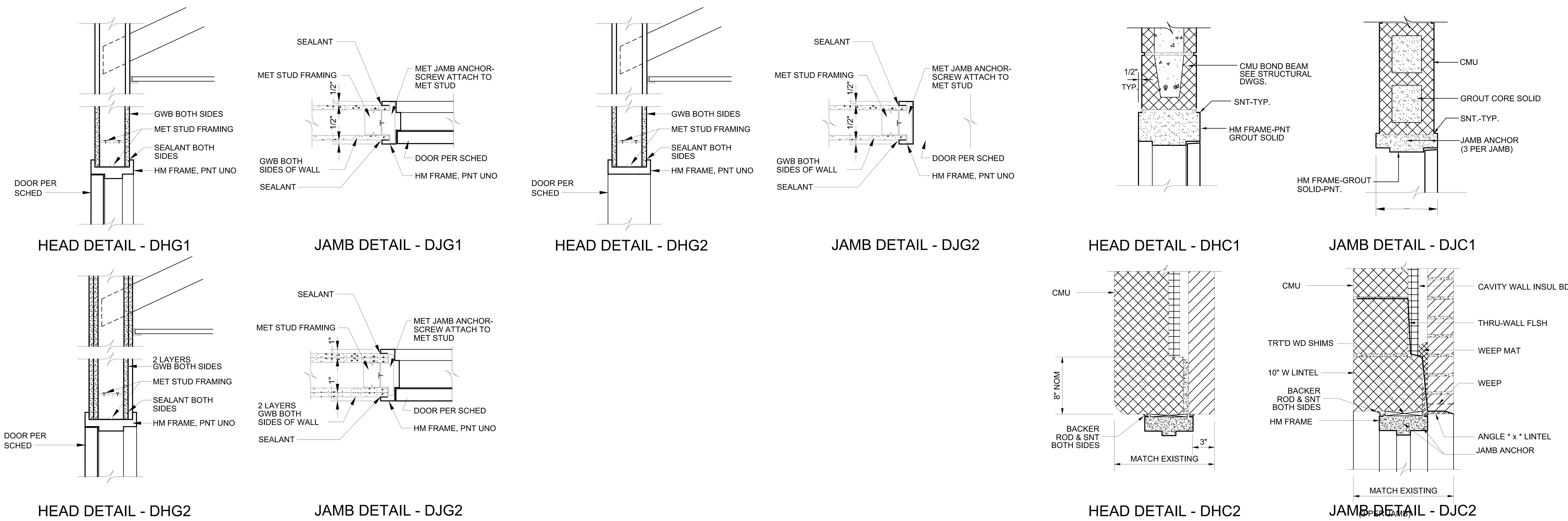
DOOR TYPES

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



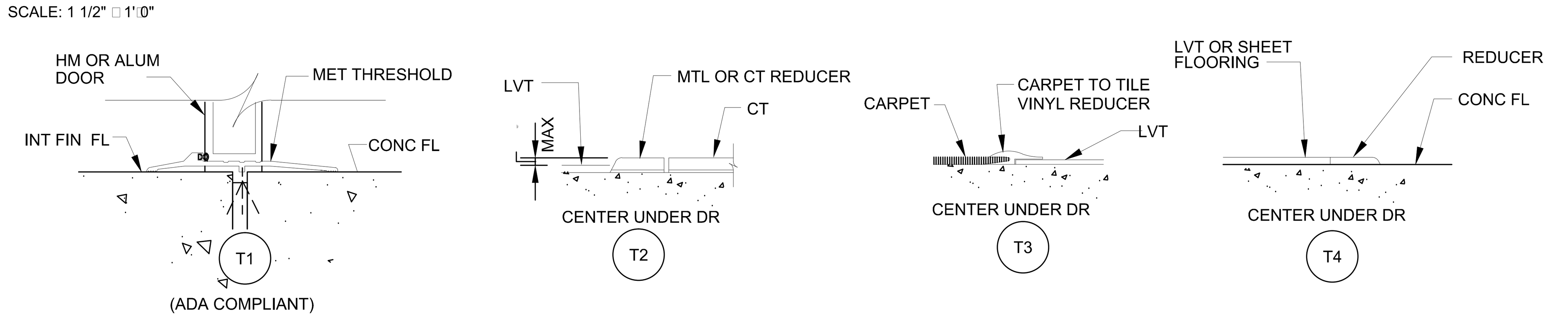
FRAME TYPES

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



DOOR HEAD/JAMB/THRESHOLD DETAILS

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



THRESHOLD TYPES

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

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No.	DATE	DESCRIPTION
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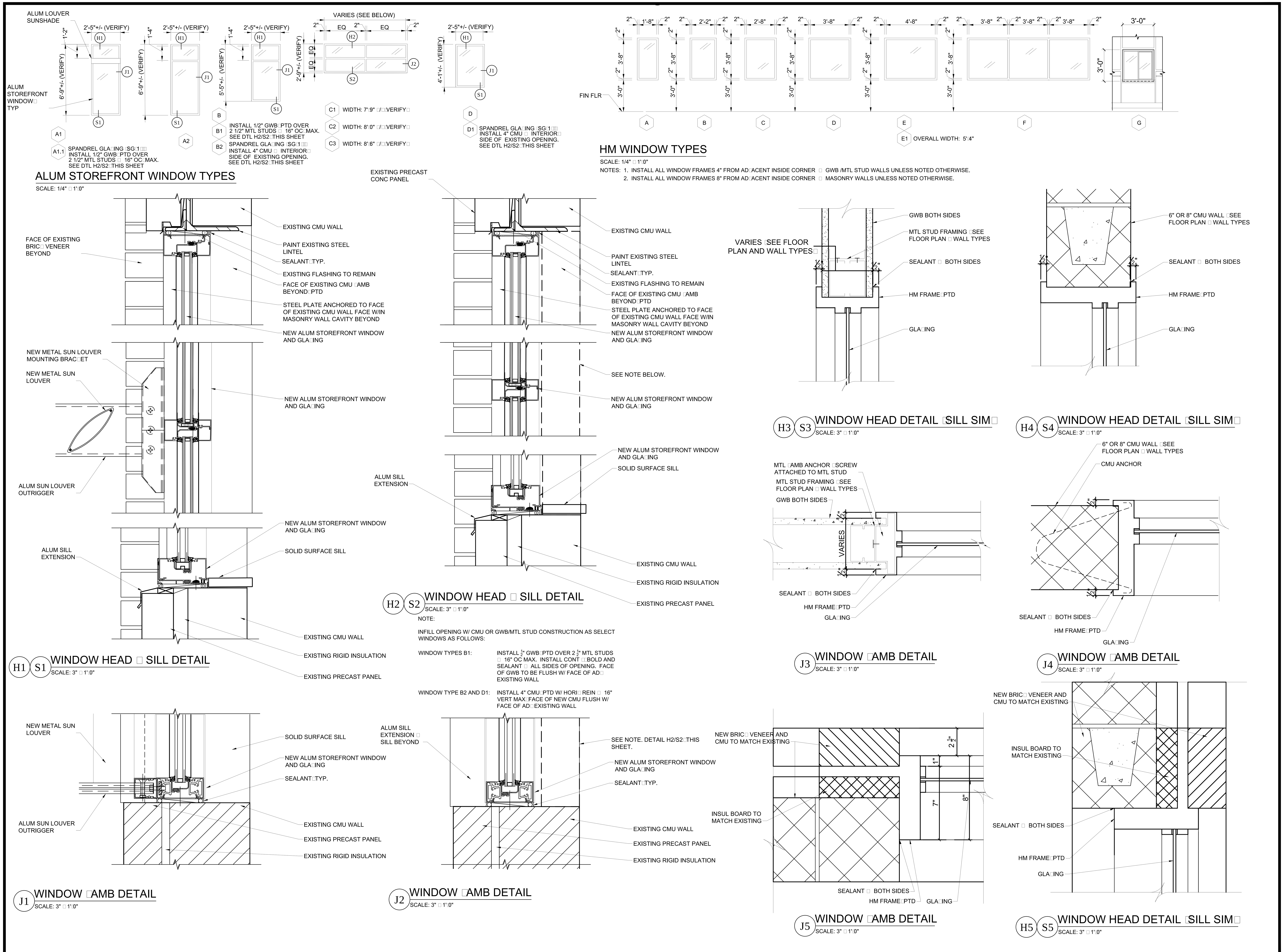
DRAWN BY:	
REV'D BY:	
DATE:	6/17/22
SCALE:	AS SHOWN

DOOR AND FRAME TYPES AND DETAILS

A7.3

SHEET ______ of ______



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REVISIONS

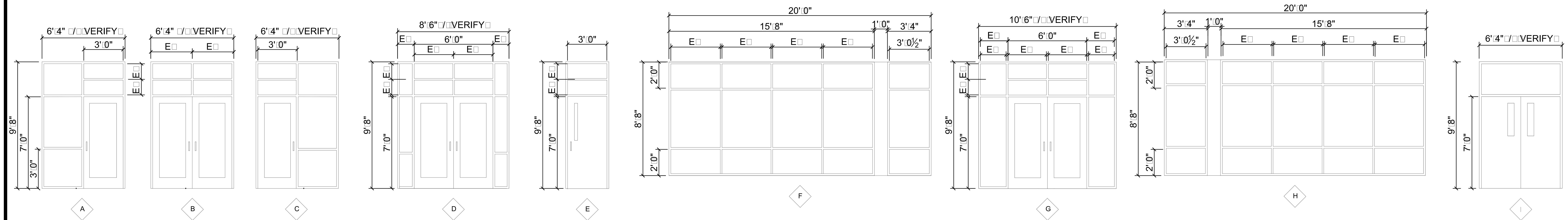
No.	DATE	DESCRIPTION
X	X	X

DRAWN BY:
REV'D BY:
DATE: 6/17/22
SCALE: AS SHOWN

WINDOW TYPES AND DETAILS

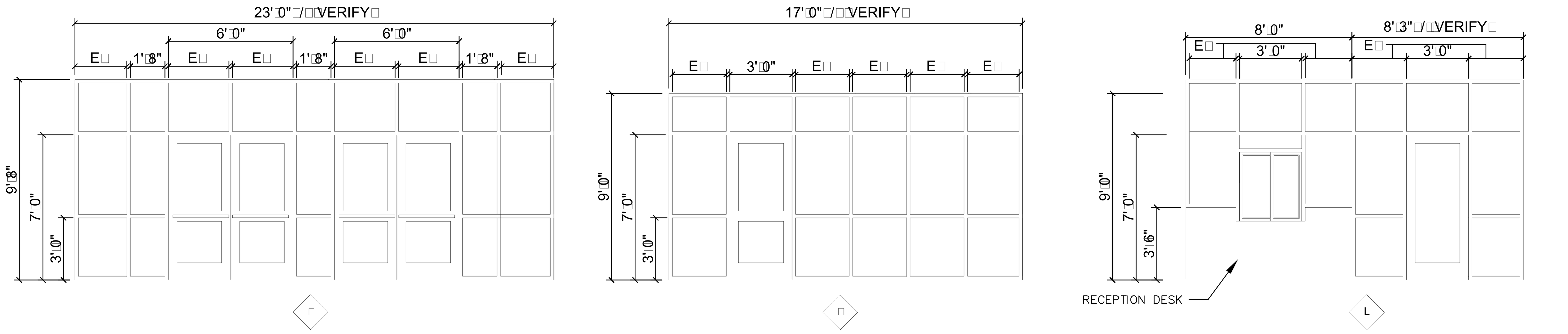
A7.4

SHEET ______ of ______



EXTERIOR STOREFRONT ELEVATIONS

SCALE: 1/4" = 1'0"



INTERIOR STOREFRONT ELEVATIONS

SCALE: 1/4" = 1'0"

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RUFFNER CAREER AND TECHNICAL EDUCATION CENTER DEMOLITION DRAWINGS

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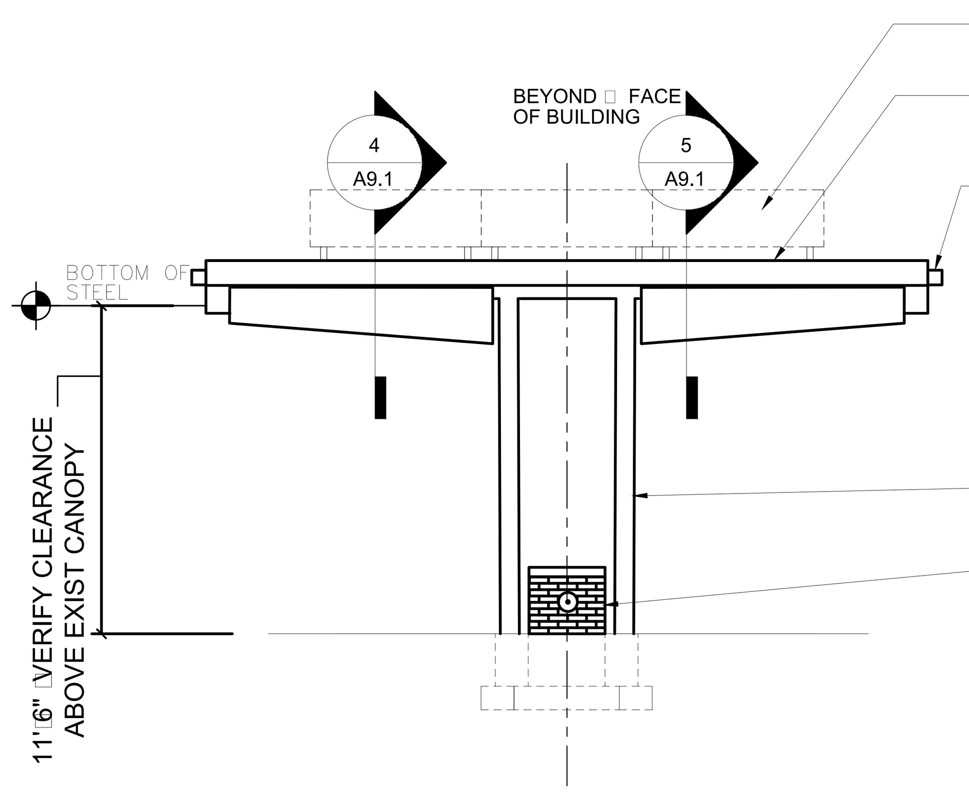
REV'D BY:	
DATE:	6/17/22
SCALE:	AS SHOWN

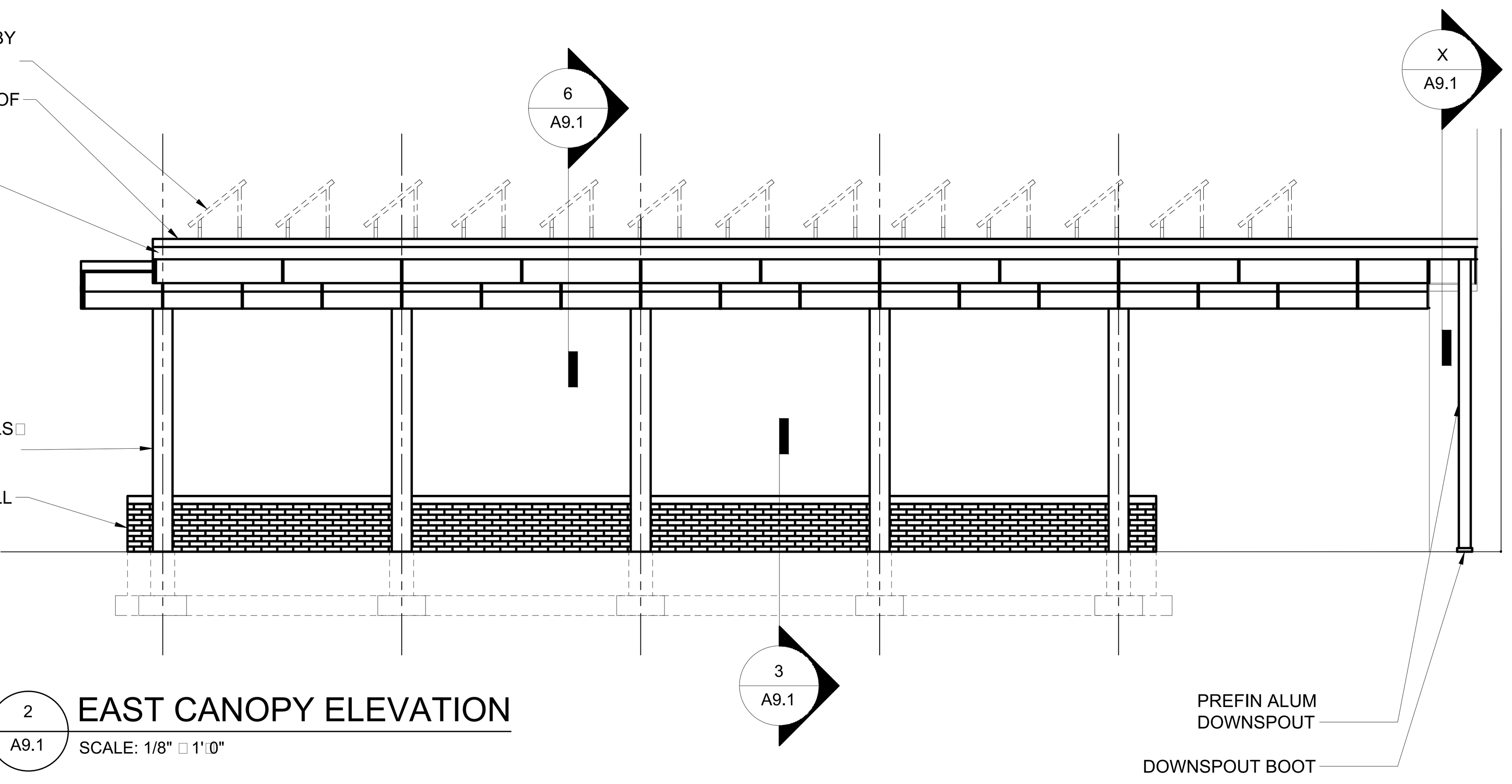
STOREFRONT ELEVS AND DETAILS

A8.1

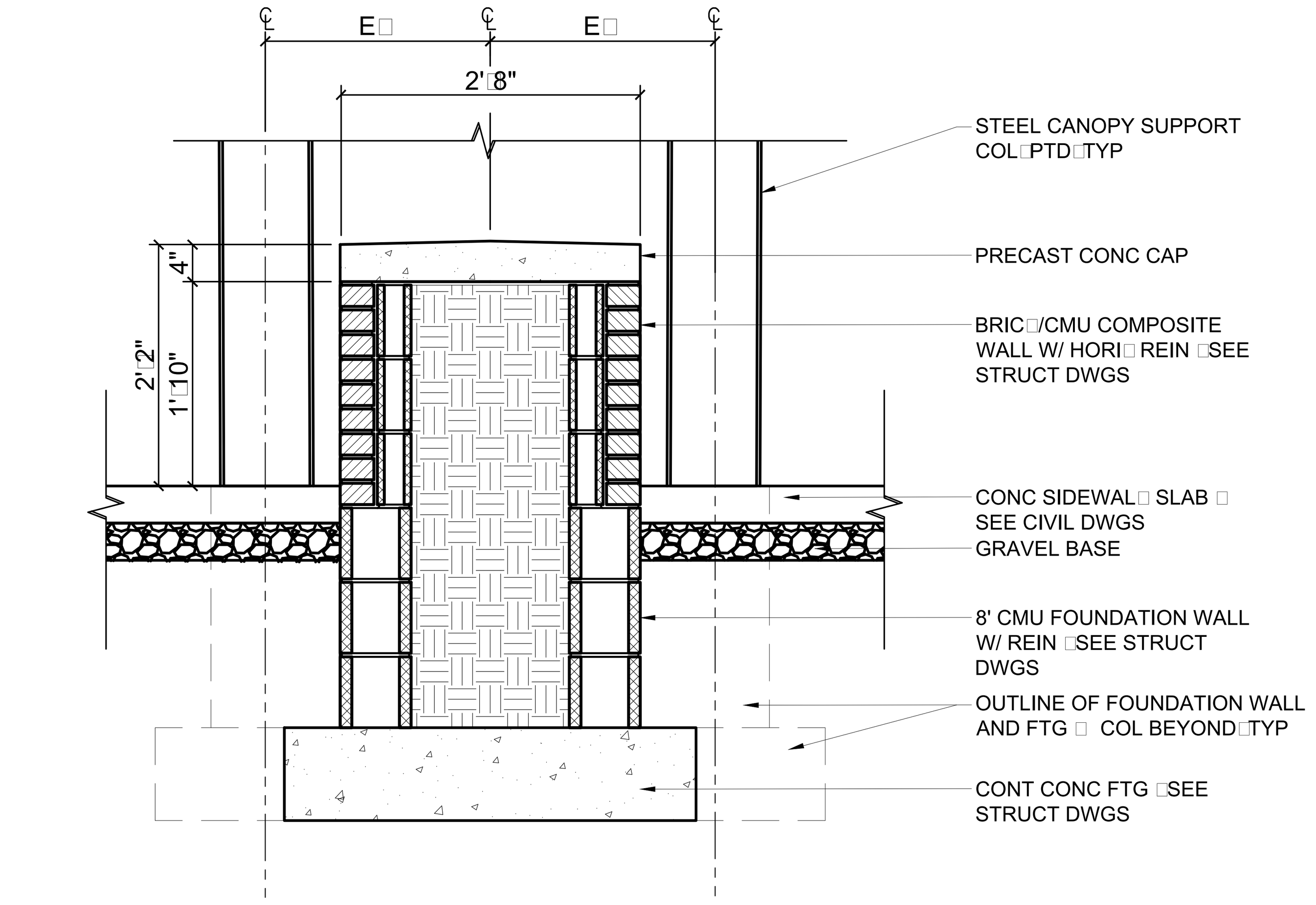
SHEET ______ of ______



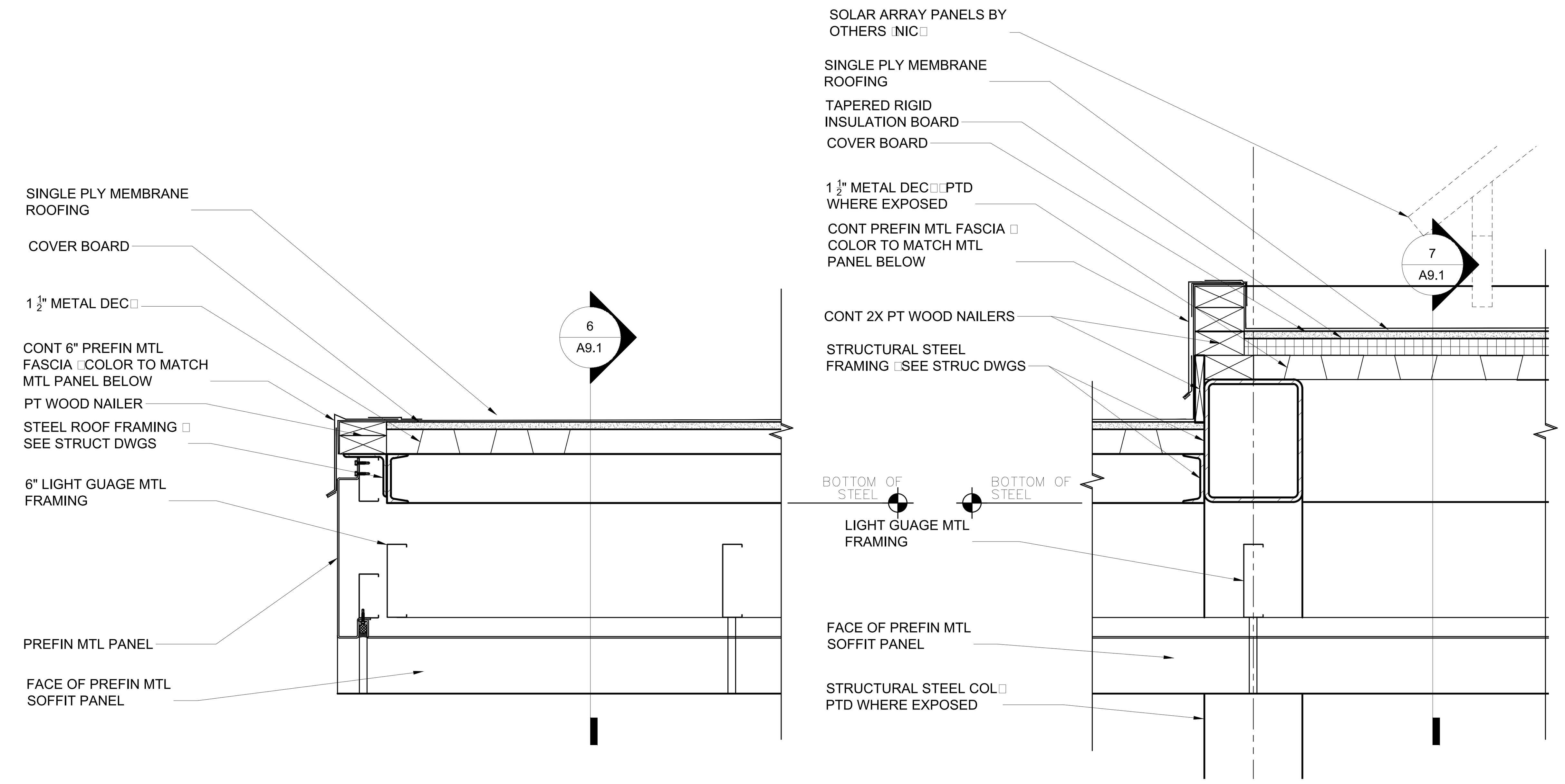
1 A9.1 SOUTH CANOPY ELEVATION
SCALE: 1/8" □ 1'0"



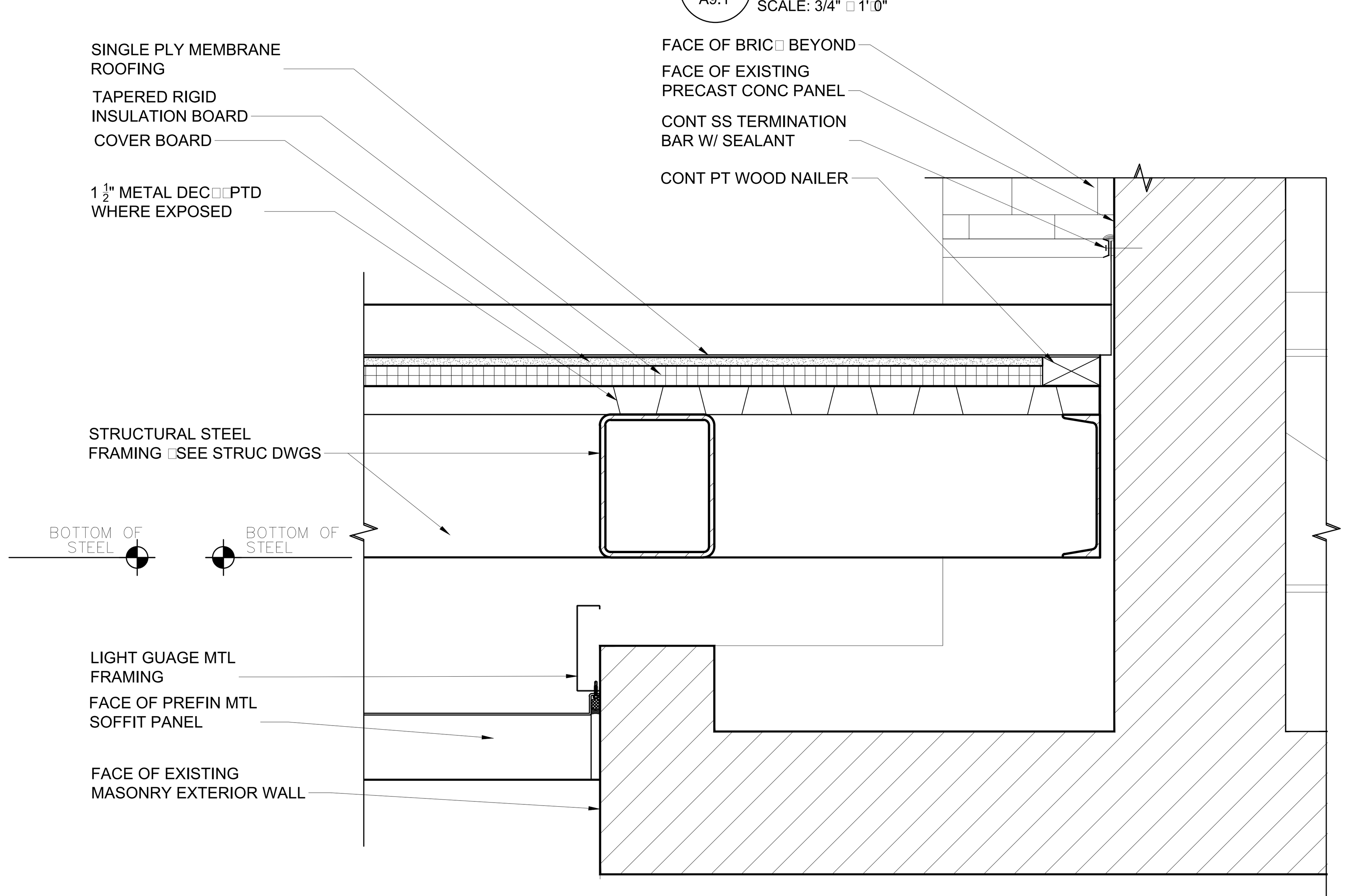
2 A9.1 EAST CANOPY ELEVATION
SCALE: 1/8" □ 1'0"



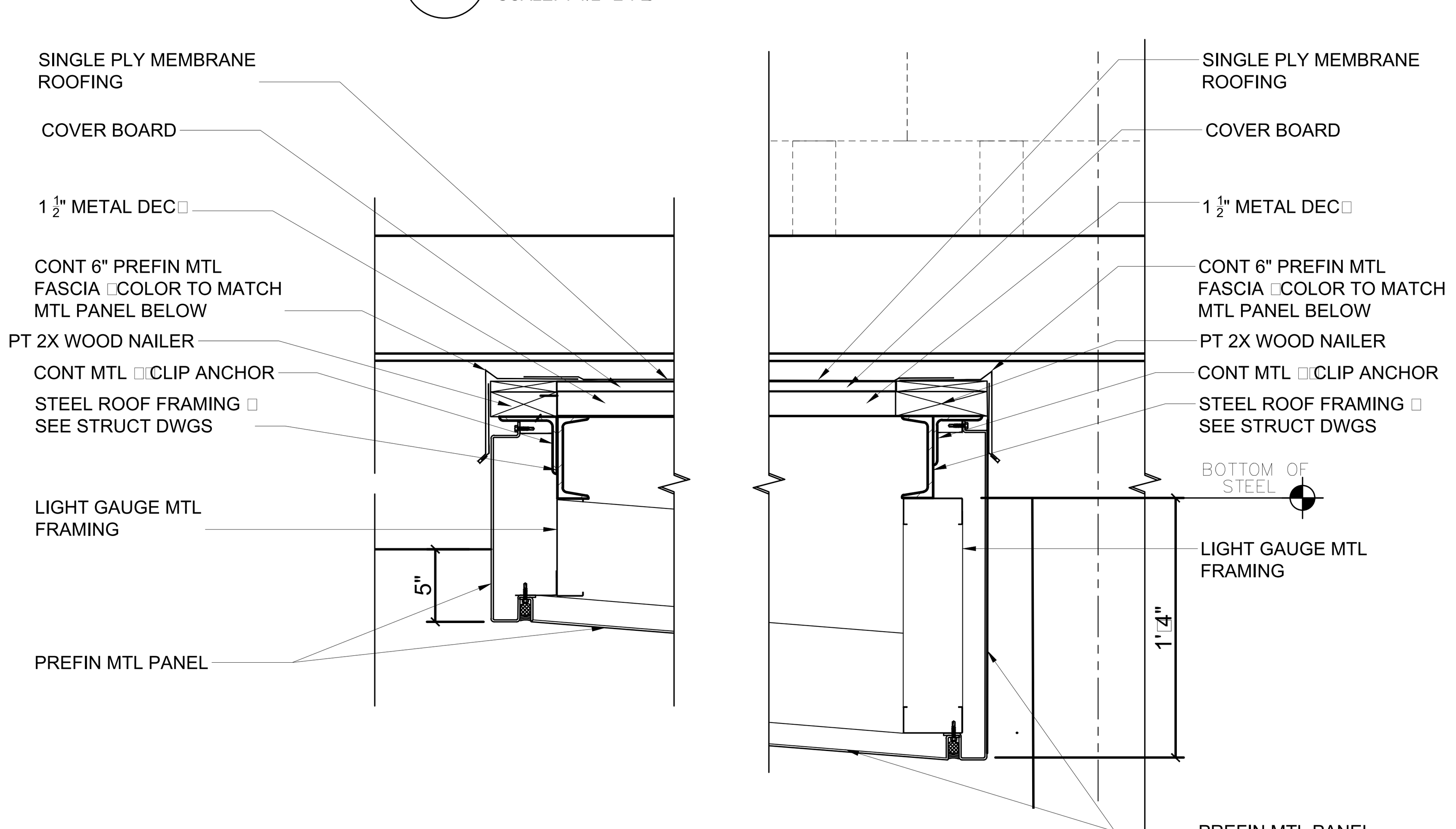
3 A9.1 SECTION □ LOW SITTING WALL
SCALE: 3/4" □ 1'0"



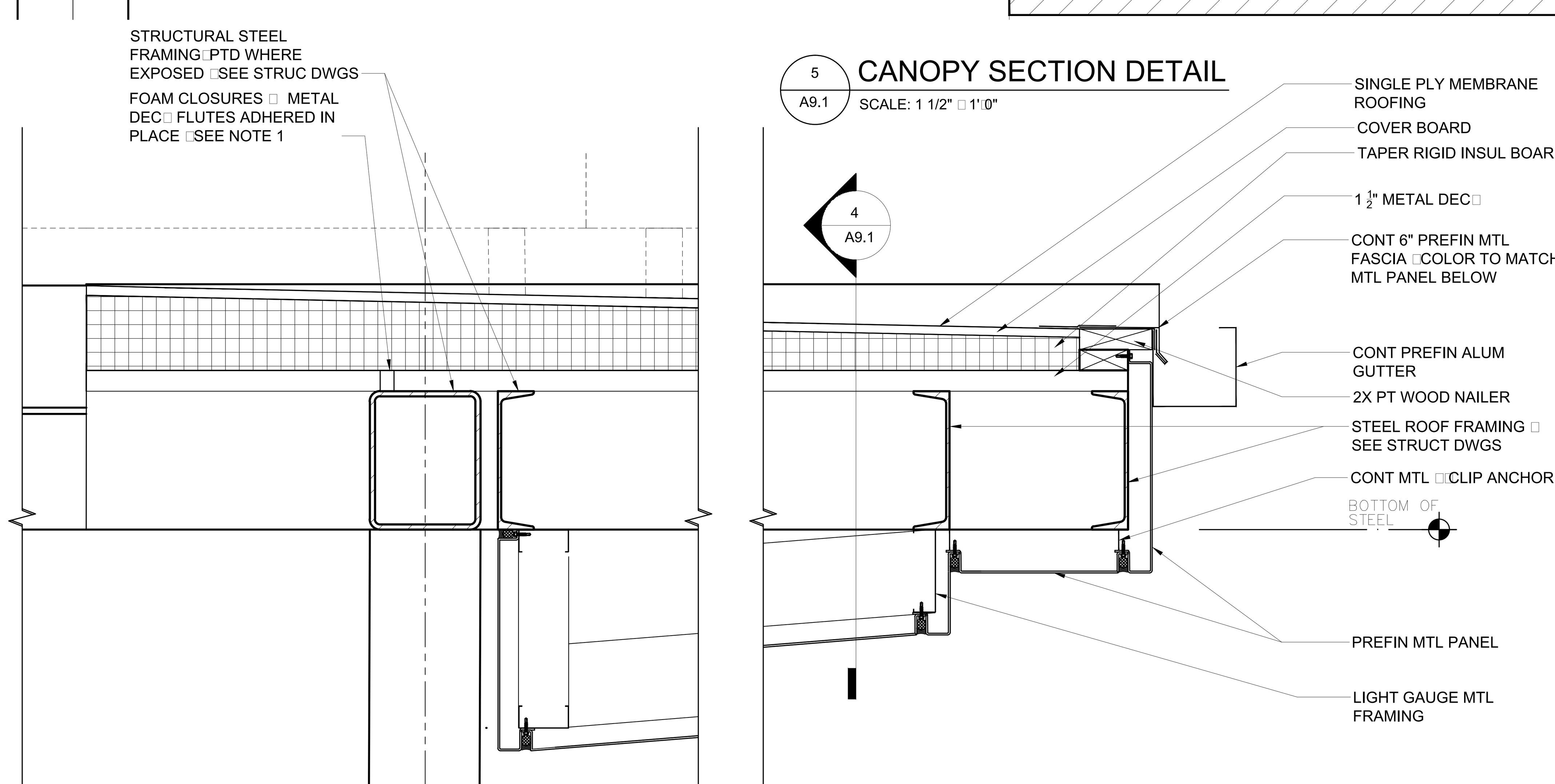
4 A9.1 CANOPY SECTION DETAIL
SCALE: 1 1/2" □ 1'0"



5 A9.1 CANOPY SECTION DETAIL
SCALE: 1 1/2" □ 1'0"



6 A9.1 CANOPY SECTION DETAIL
SCALE: 1 1/2" □ 1'0"



7 A9.1 CANOPY SECTION DETAIL
SCALE: 3/4" □ 1'0"

NOTES

1 INSTALL 1" THIC□ FOAM FLUTE CLOSURES MANUFACTURED BY METALDEC□.COM OR E□UAL □ ALL EXPOSED DEC□/STEELUBE CONNECTIONS.

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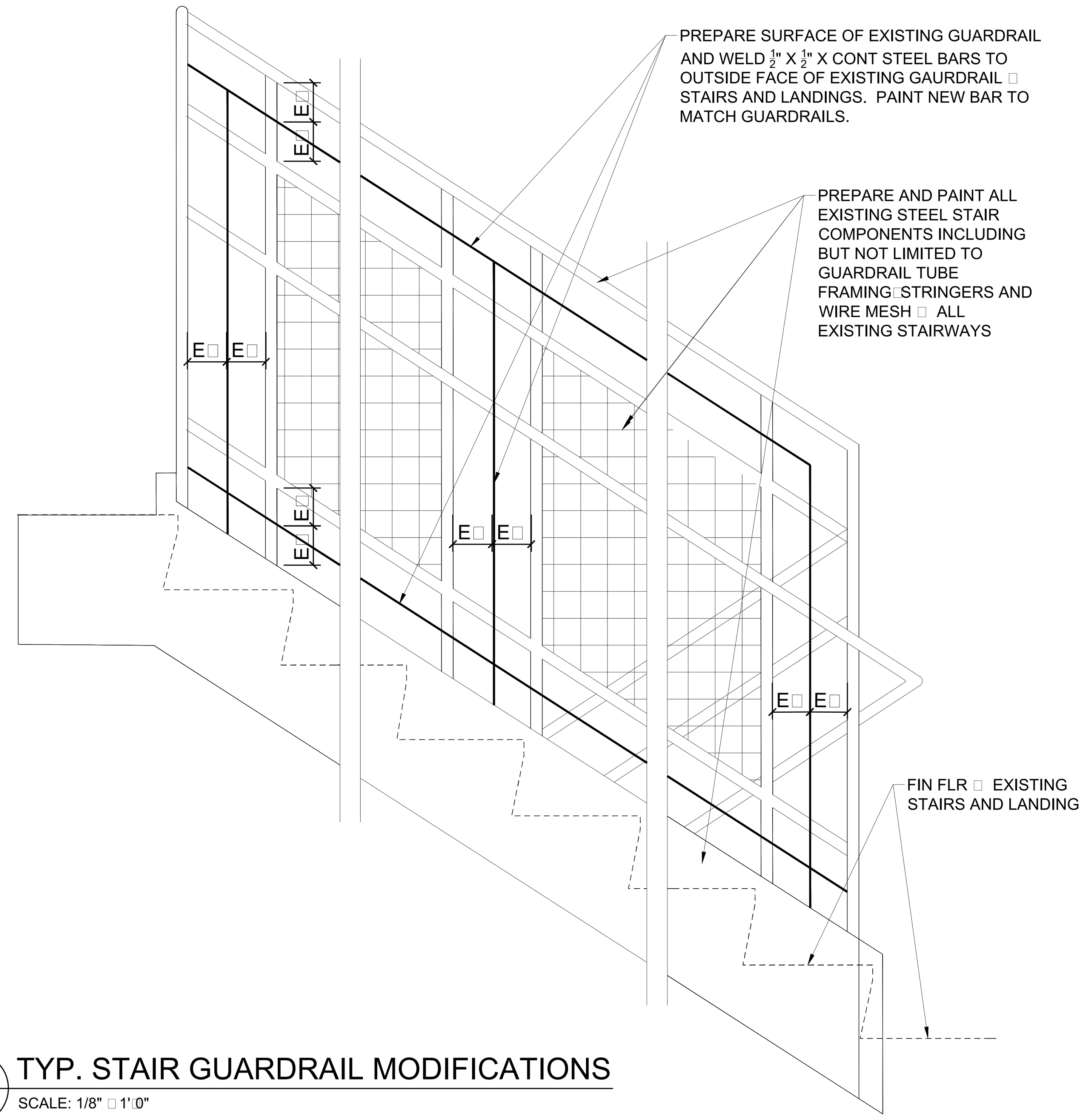
ENTRANCE CANOPY DETAILS

A9.1

SHEET ______ of ______



1 / A9.2 TYP. STAIR GUARDRAIL MODIFICATIONS

SCALE: 1/8" □ 1'□0"

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MISCELLANEOUS DETAILS

A9.2

SHEET ______ of ______

FiINISH LEGEND:

CEILING
WALL
BASE
FLOOR

CPT 1 - FIELD CARPET
MFR: MANNINGTON COMMERCIAL
COLLECTION: DISTRESSED SOLUTIONS
STYLE: T512 LAVA
COLOR: 51209 GLOW
SIZE: 24 X 24
INSTALL: ASHLAR

RB - RUBBER BASE
MFR: MANNINGTON
COLOR: 192 JET GRAY
SIZE: 6" ROLL

LVT 1 - FIELD LUXURY VINYL TILE ↔ PT 1
MFR: IMANNINGTON COMMERCIAL
COLLECTION: COLOR ANCHOR, STRIDE
COLOR: LONDON FOG C139
SIZE: 6" X 36"

PT 1 - WALL PAINT
MFR: SHERWIN WILLIAMS
COLOR:7056 RESERVED WHITE
FINISH: SATIN

LVT 2 - ACCENT LUXURY VINYL TILE ↔ PT 2
MFR: MANNINGTON COMMERCIAL
COLLECTION: COLOR ANCHOR, STRIDE
COLOR: MIDNIGHT TWINKLE C128
SIZE: 6" X 36"

PT 2 - ACCENT PAINT
MFR: SHERWIN WILLIAMS
COLOR: 6804 DIGNITY BLUE
FINISH: SATIN

LVT 3 - ACCENT LUXURY VINYL TILE ↔ PT 3
MFR: MANNINGTON COMMERCIAL
COLLECTION: COLOR ANCHOR, STRIDE
COLOR: SQUASH BLOSSOM C132
SIZE: 6" X 36"

PT 3 - ACCENT PAINT
MFR: SHERWIN WILLIAMS
COLOR: 6628 ROBUST ORANGE
FINISH: SATIN

LVT 4 - ACCENT LUXURY VINYL TILE ↔ PT 4
MFR: MANNINGTON COMMERCIAL
COLLECTION: COLOR ANCHOR, STRIDE
COLOR: GRASSY MEADOW C125
SIZE: 6" X 36"

PT 4 - ACCENT PAINT
MFR: SHERWIN WILLIAMS
COLOR: 6726 TALIPOT PALM
FINISH: SATIN

LVT 5 - ACCENT LUXURY VINYL TILE ↔ PT 5
MFR: MANNINGTON COMMERCIAL
COLLECTION: COLOR ANCHOR, STRIDE
COLOR: BUZZY YELLOW C124
SIZE: 6" X 36"

PT 5 - ACCENT PAINT
MFR: SHERWIN WILLIAMS
COLOR: 9019 GOLDEN PLUMERIA
FINISH: SATIN

LVT 6 - ACCENT LUXURY VINYL TILE ↔ PT 6
MFR: MANNINGTON COMMERCIAL
COLLECTION: COLOR ANCHOR, STRIDE
COLOR: SQUAWK BOX C127
SIZE: 6" X 36"

PT 6 - ACCENT PAINT
MFR: SHERWIN WILLIAMS
COLOR: 6494 LAKESHORE
FINISH: SATIN

LVT 7 - ACCENT LUXURY VINYL TILE ↔ PT 7
MFR: MANNINGTON COMMERCIAL
COLLECTION: COLOR ANCHOR, STRIDE
COLOR: SUGAR SNAP C126
SIZE: 6" X 36"

PT 7 - ACCENT PAINT
MFR: SHERWIN WILLIAMS
COLOR: 6711 PARAKEET
FINISH: SATIN

LVT 8 - ACCENT LUXURY VINYL TILE ↔ PT 8
MFR: MANNINGTON COMMERCIAL
COLLECTION: COLOR ANCHOR, STRIDE
COLOR: POPPY RED C123
SIZE: 6" X 36"

PT 8 - ACCENT PAINT
MFR: SHERWIN WILLIAMS
COLOR: 6866 HEARTTHROB
FINISH: SATIN

PT 9 - CEILING PAINT
MFR: SHERWIN WILLIAMS
COLOR: 7007 BRIGHT WHITE
FINISH: MATTE

LVT 9 - ACCENT LUXURY VINYL TILE
MFR: MANNINGTON COMMERCIAL
COLLECTION: COLOR ANCHOR, STRIDE
COLOR: STERLING GRAY
SIZE: 6" X 36"

PT 10 - CEILING PAINT (LOBBY & CULINARY)
MFR: SHERWIN WILLIAMS
COLOR: 7076 CYBERSPACE
FINISH: MATTE

LVT 10 - ACCENT LUXURY VINYL TILE
MFR: MANNINGTON COMMERCIAL
COLLECTION: COLOR ANCHOR, STRIDE
COLOR: KETTLE STEAM
SIZE: 6" X 36"

LVT 11 - FIELD LUXURY VINYL TILE
(ADMIN/STAFF/BREAK ROOM, COSMETOLOGY, BARBERING)
MFR: MANNINGTON COMMERCIAL
COLLECTION: MANNINGTON SELECT
COLOR: CHATHAM OAK HARBOR
SIZE: 7" X 48"

PLAM 1 - CASEWORK- BREAKROOM, CLINIC, RR
MFR: WILSONART
COLOR: STERLING ASH 7995-38

PLAM 2 - CASEWORK FRONT IN CULINARY ARTS
MFR: WILSONART
COLOR: VAPOR STRANDZ 4939K-18

PLAM 3 - SHELVING IN CULINARY ARTS
MFR: WILSONART
COLOR: FROSTY WHITE 1573-60

PLAM 4 - CABINETS IN CULINARY ARTS
MFR: WILSONART
COLOR: CEMENT D503-60

PLAM 5 - RECEPTION DESK FRONT & DISPLAY CASE
MFR: WILSONART
COLOR: FISHER OAK 17002K-57

PLAM 6 - RECEPTION DESK FRONT & DISPLAY CASE REVEAL
MFR: WILSONART
COLOR: PHANTOM COCOA 8213K-28

SV 1 - FIELD RUBBER FLOOR, CULINARY ARTS
MFR: ALTRO STRONGHOLD 30
COLOR: FST - DOLPHIN - K3010
TYPE: ROLL GOODS

SV 2 - ACCENT RUBBER FLOOR, CULINARY ARTS
MFR: ALTRO STRONGHOLD 30
COLOR: FST - LIME - K3086
TYPE: ROLL GOODS

CT 1 - LOBBY / STAIRS/ CORRIDOR WAINSCOT
MFR: DALTILE
COLLECTION: AMBASSADOR
COLOR: GLOBAL GREY AM35 UNPOLISHED
SIZE: 12 X 24, 24 X 24
GROUT: MAPEI, 27 SILVER
INSTALL: NOTE 2

CT 2 - PUBLIC RR FLOORS
MFR: DALTILE
COLLECTION: AMBASSADOR
COLOR: VOYAGER BLACK AM33 UNPOLISHED
SIZE: 12 X 24
GROUT: MAPEI, 47 CHARCOAL
INSTALL: BRICK ASHLAR

CT 3 - RR WALL TILE (FIELD)
MFR: DALTILE
COLLECTION: COLOR WHEEL LINEAR
COLOR: MATTE DESERT GRAY
SIZE: 4 X 16
GROUT: MAPEI, 20 PEWTER
INSTALL: NOTE 2

CT 4 - RR WALL TILE (ACCENT)
MFR: DALTILE
COLLECTION: COLOR WHEEL LINEAR
COLOR: MATTE SUEDE GRAY
SIZE: 4 X 16
GROUT: MAPEI, 20 PEWTER
INSTALL: NOTE 2

CT 5 - RR WALL TILE (ACCENT)
MFR: DALTILE
COLLECTION: COLOR WHEEL LINEAR
COLOR: SEA BREEZE
SIZE: 4 X 16
GROUT: MAPEI, 20 PEWTER
INSTALL: NOTE 2

SS 1 - SOLID SURFACE - CULINARY COUNTER TOP
MFR: WILSONART
COLOR: GREY BEOLA 9218CM

SS 2 - SOLID SURFACE - COUNTER TOP - BREAKROOM, CLINIC, RR
MFR: WILSONART
COLOR: BLUESTONE 9074EA

SS 3 - SOLID SURFACE - COUNTER TOP - RECEPT & DISPLAY
MFR: WILSONART
COLOR: SEA STONE 9202CS

DOORS - MFR: MASONITE
SERIES: ASPIRO
SPECIES: WHITE BIRCH (ROTARY)
STAIN COLOR: NUTMEG

ACT 1 - MFR: ARMSTRONG CEILING
SERIES: ULTIMA SQ LAYIN PANELS
SUSPENSION SYSTEM: PRELUDE $\frac{15}{16}$
SIZE: 2 X 4

ACT 2 - MFR: ARMSTRONG CEILING
SERIES: ULTIMA SQ LAYIN PANELS
SUSPENSION SYSTEM: PRELUDE $\frac{15}{16}$
SIZE: 2 X 2

ACT 3 - MFR: ARMSTRONG CEILING
SERIES: ULTIMA HEALTH ZONE
SUSPENSION SYSTEM: PRELUDE $\frac{15}{16}$
SIZE: 2 X 4

ACT 4 - MFR: ARMSTRONG CEILING (CULINARY CLASS ROOM)
SERIES: SOUNDSCAPES BASIC
SIZE: 4 X 8 RECTANGULAR FLAT PANELS
COLOR: WHITE

WOOD CLG - MFR: ARMSTRONG CEILING LOBBY
SERIES: WOODWORKS LINEAR
COLOR: NATURAL VARIATIONS OAK
*SEE SPEC'S FOR ADDITIONAL INFO

AC PANELS - MFR: ARMSTRONG CEILING
SERIES: TECTUM
COLOR: TBD
*SEE RCP FOR LOCATIONS

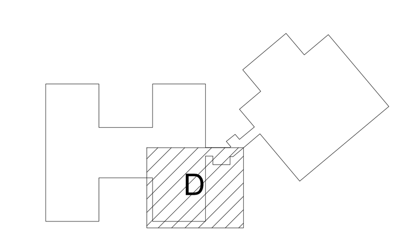
NOTES:

1. - LVT COLOR ON FLOOR TO REFLECT CORRESPONDING PAINT COLOROR ABOVE ON SOFFIT (IE. LVT 1, PNT 1)
2. - SEE ELEVATIONS SHEETS A4.1-A4.4
3. - LVT LOCATION IS RANDOM SIMILAR TO LAYOUT
4. - CT 3 - 52" AFF
   CT 5 - 4" BORDER ON TOP
5. - SEE REFECTED CEILING PLAN FOR ACP LOCATIONS

GENERAL NOTES:

1. ALL WALLS TO BE PAINTED UNLESS NOTED OTHERWISE

1 / AX.X FINISH LEGEND
SCALE: 1/8" □ 1'-0"



□EYPLAN

0 3' 6' 12'

N
PLAN NORTH
TRUE NORTH

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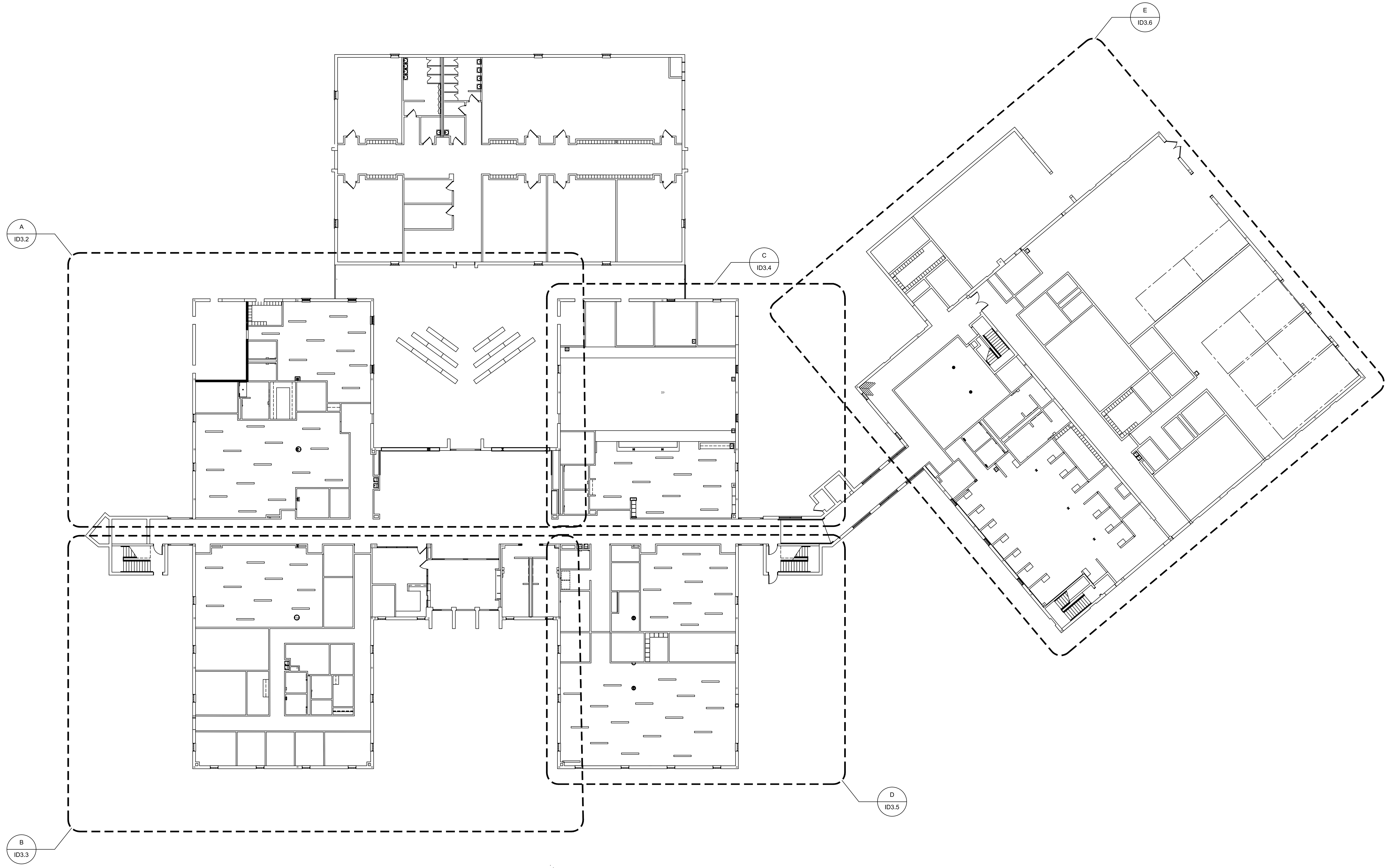
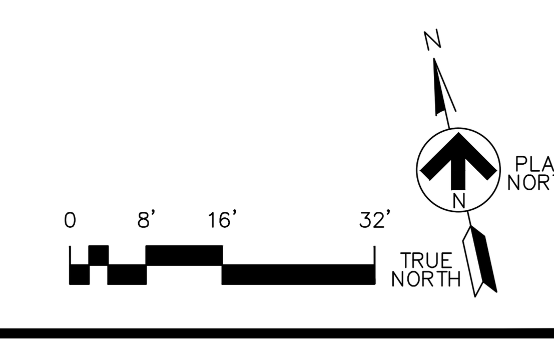
FINISH LEGEND

ID.1A

SHEET ______ of ______



1
ID3.1
OVERALL GROUND FLOOR PLAN
SCALE: 1/16" = 1'-0"



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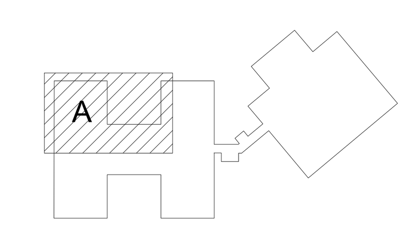
SCALE:	AS SHOWN

OVERALL GROUND FLOOR PLAN

ID1.1

SHEET ______ of ______

1
AX.X
GROUND FLOOR FINISHES ENLARGED PARTIAL PLAN AREA A
SCALE: 3/16" 1'0"



EYPLAN

0 4' 8' 16'

N
PLAN NORTH
TRUE NORTH

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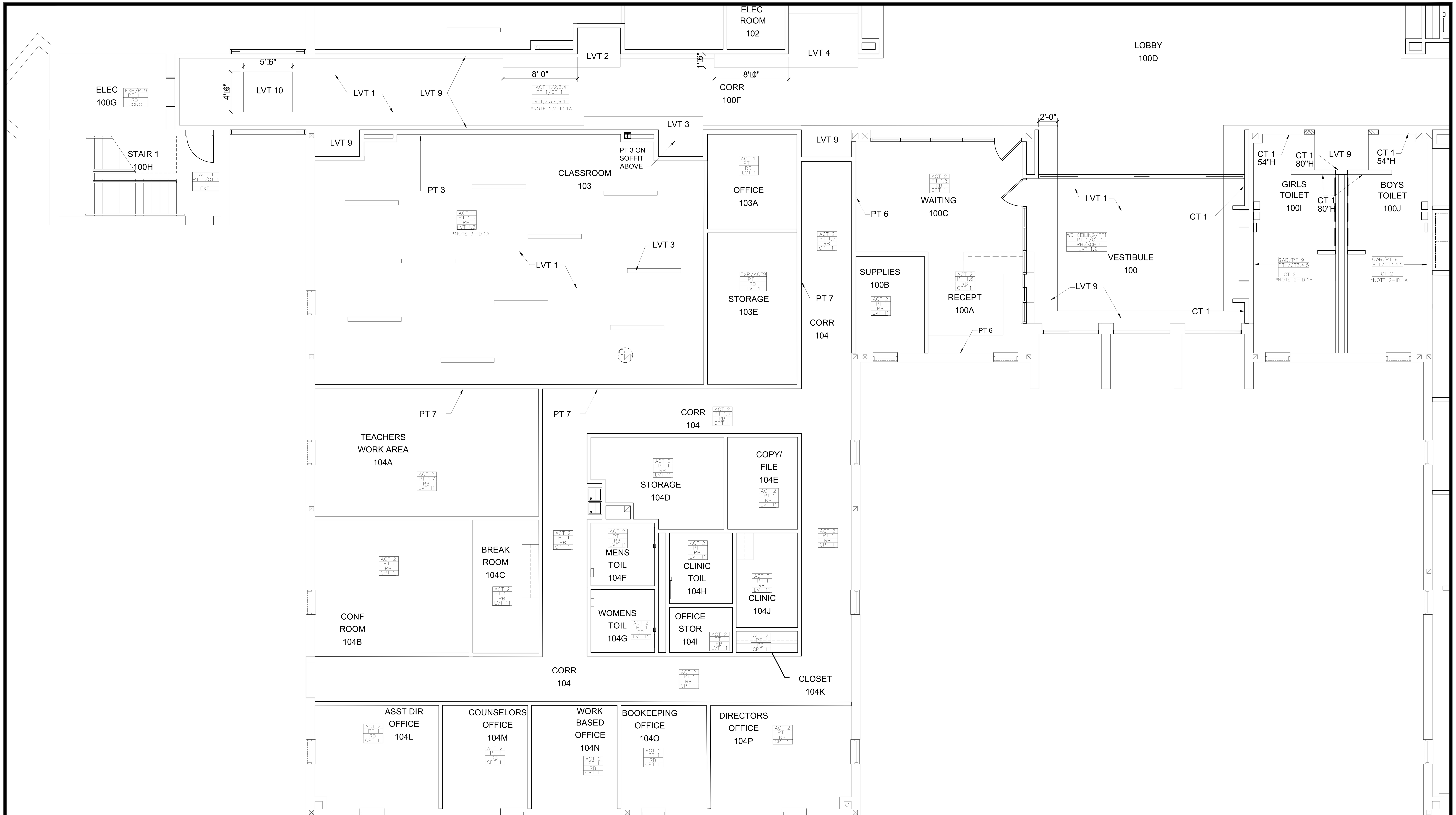
SCALE:	AS SHOWN

GROUND FLOOR FINISHES ENLARGED PARTIAL PLAN AREA A

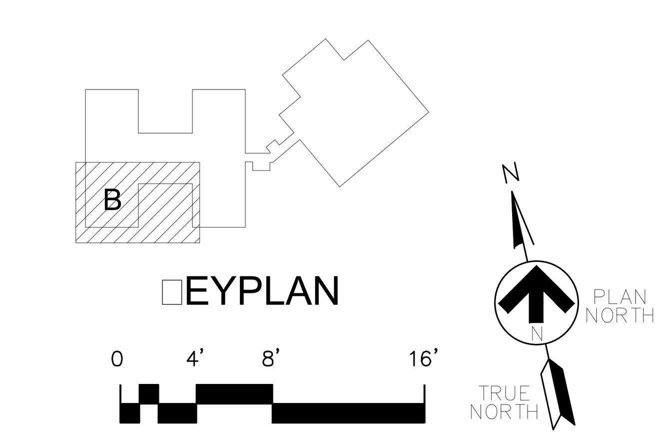
ID1.2

SHEET ______ of ______



1 AX.X GROUND FLOOR FINISHES ENLARGED PARTIAL PLAN AREA B

SCALE: 3/16" 1'0"



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SCALE:	AS SHOWN

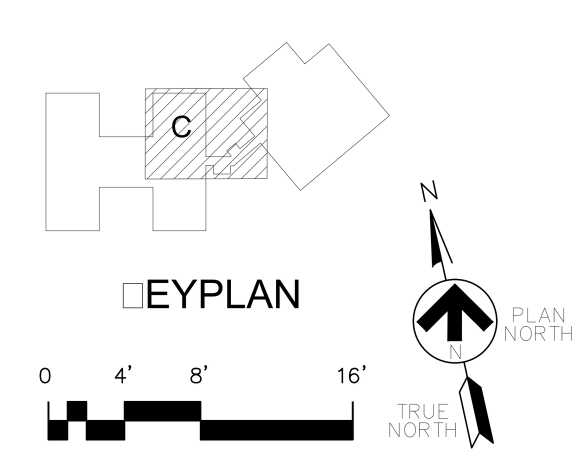
GROUND FLOOR FINISHES ENLARGED PARTIAL PLAN AREA B

ID1.3

SHEET ______ of ______

1 AX.X GROUND FLOOR FINISHES ENLARGED PARTIAL PLAN – AREA C

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



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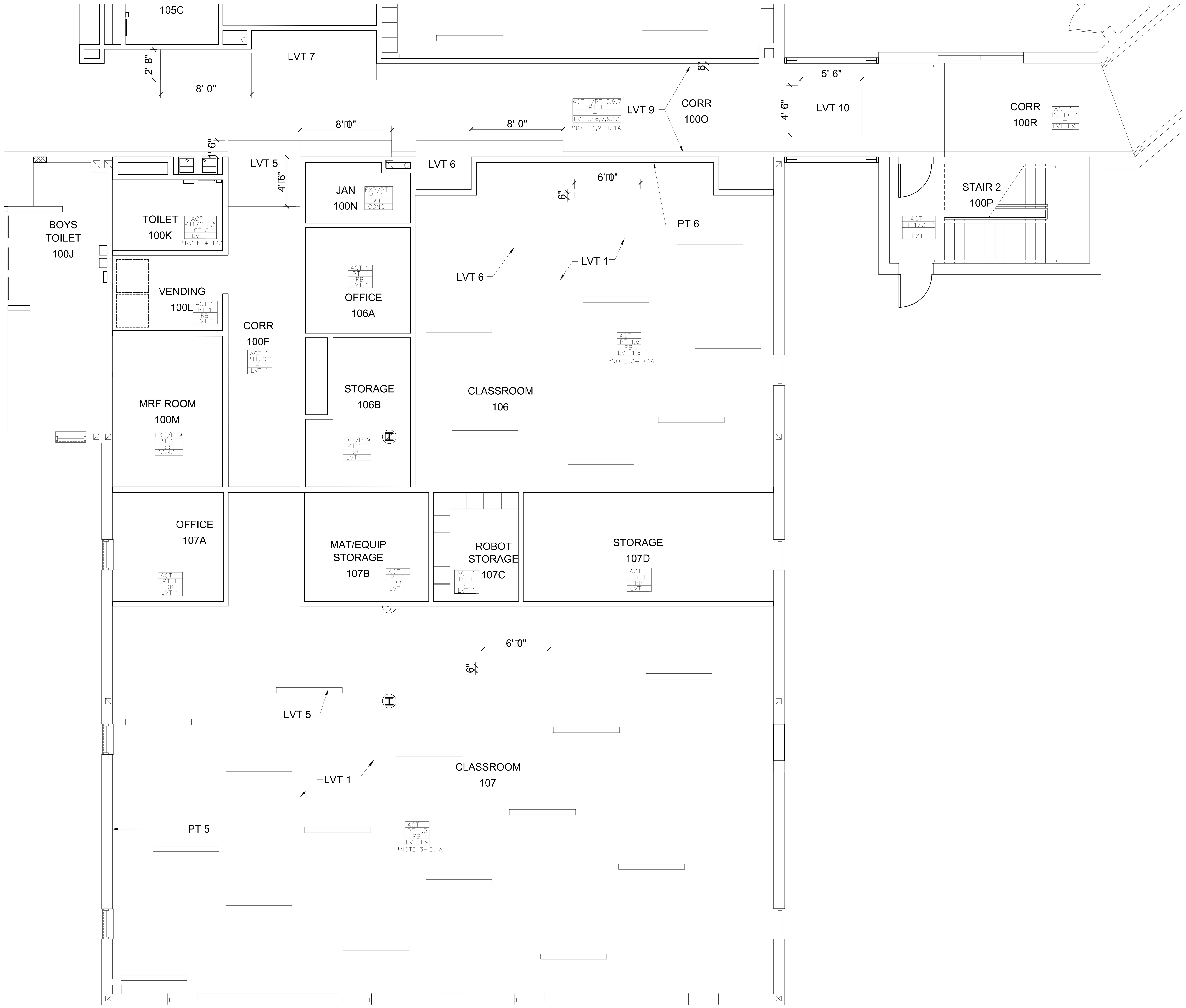
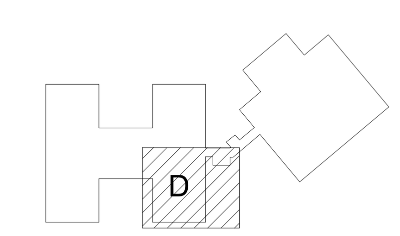
GROUND FLOOR FINISHES ENLARGED PARTIAL PLAN – AREA C

ID1.4

SHEET ______ of ______



1 ID3.5 **GROUND FLOOR FINISHES ENLARGED PARTIAL PLAN - AREA D**
SCALE: 3/16" = 1'-0"



KEYPLAN

0 3' 6' 12'

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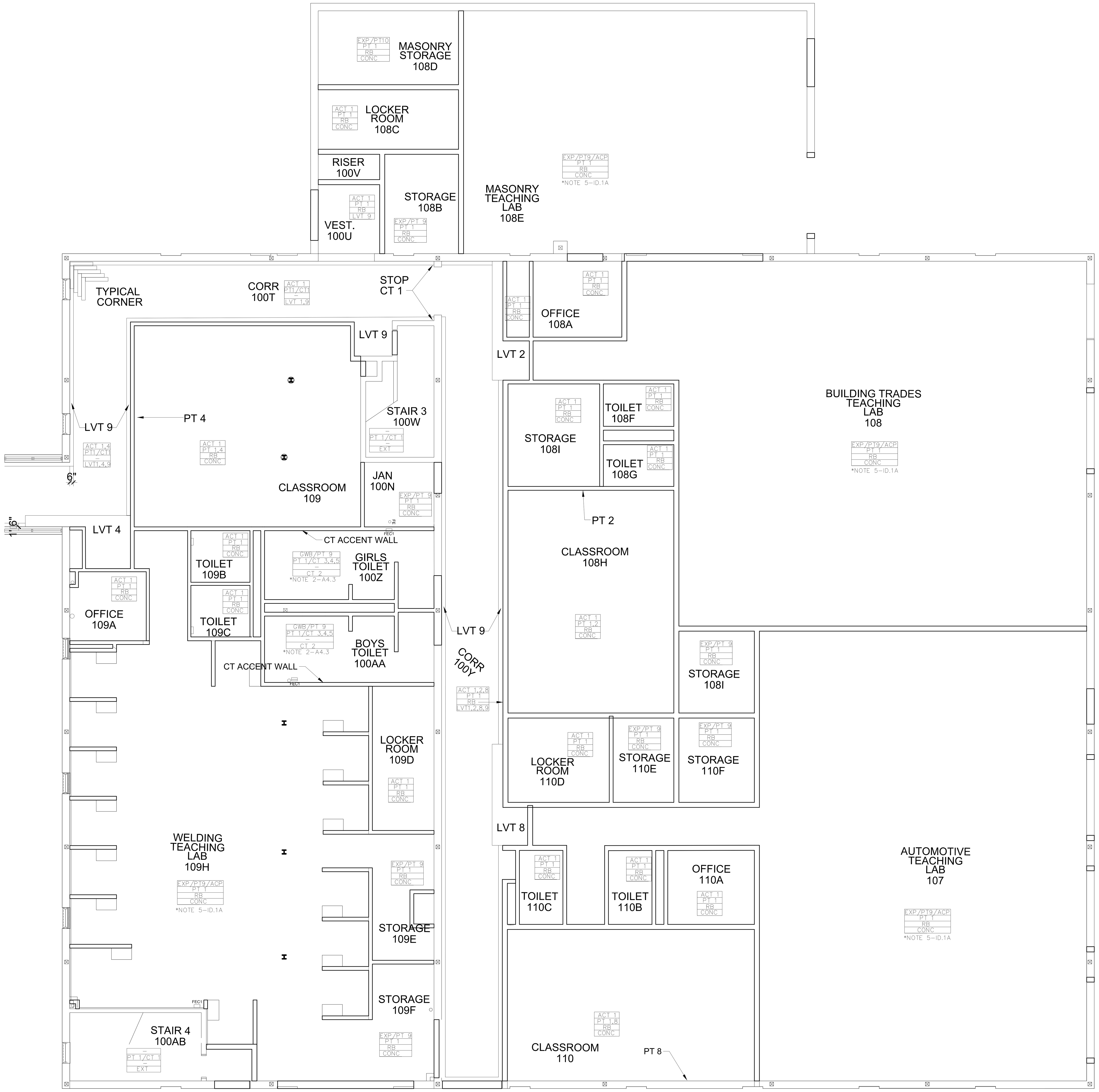
GROUND FLOOR FINISHES ENLARGED PARTIAL PLAN - AREA D

ID1.5

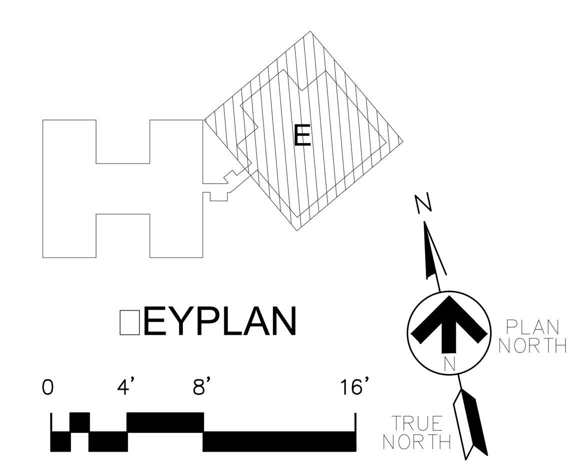
SHEET ______ of ______



1
ID3.6

GROUND FLOOR FINISHES ENLARGED PARTIAL PLAN AREA E

SCALE: 1/8" 1'-0"



KEYPLAN

0 4' 8' 16'

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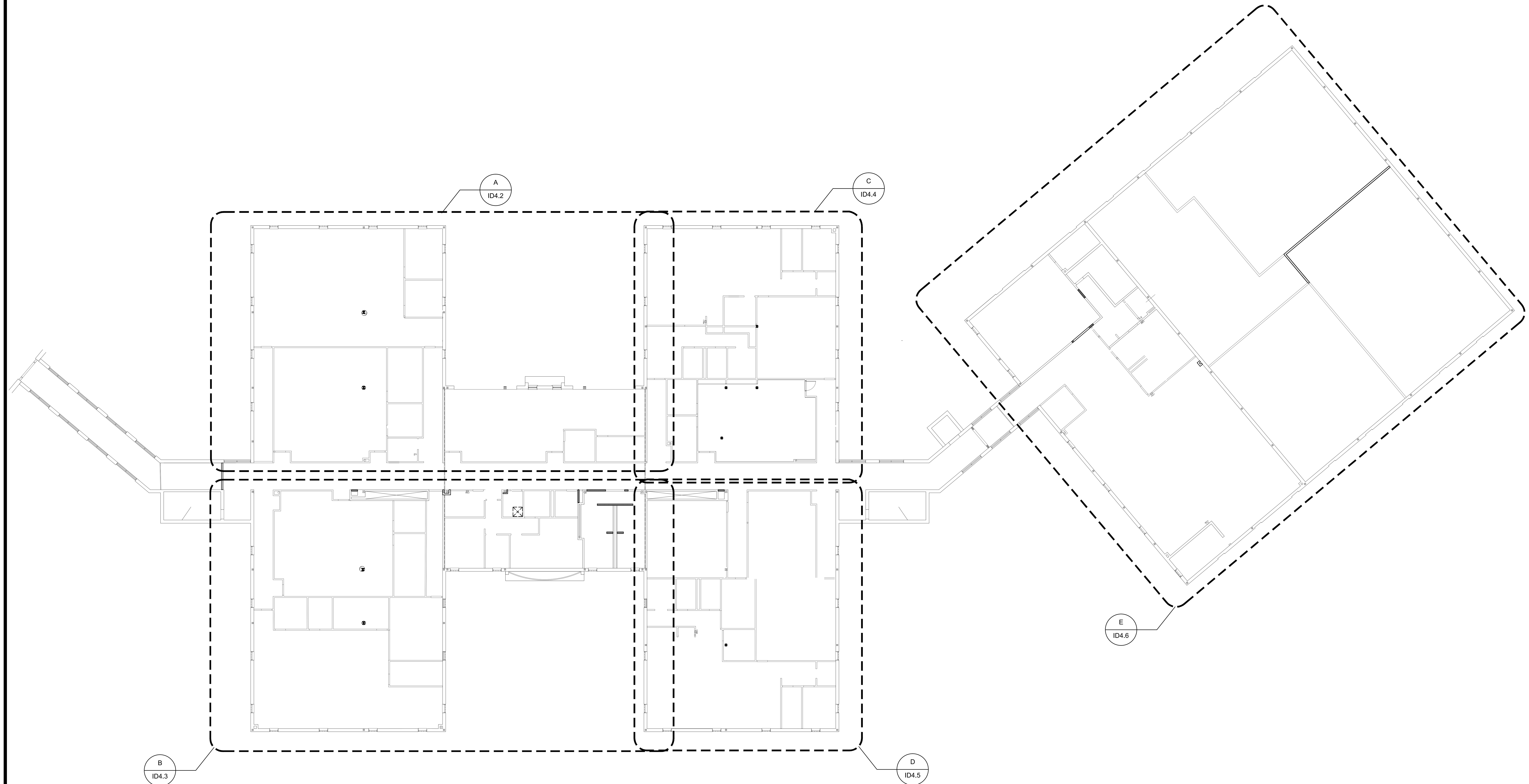
GROUND FLOOR FINISHES ENLARGED PARTIAL PLAN AREA E

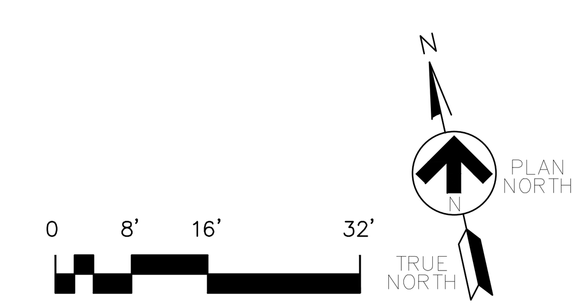
ID1.6

SHEET ______ of ______



SECOND FLOOR OVERALL FLOOR PLAN

1
AX.X
SCALE: 1/16" = 1'-0"



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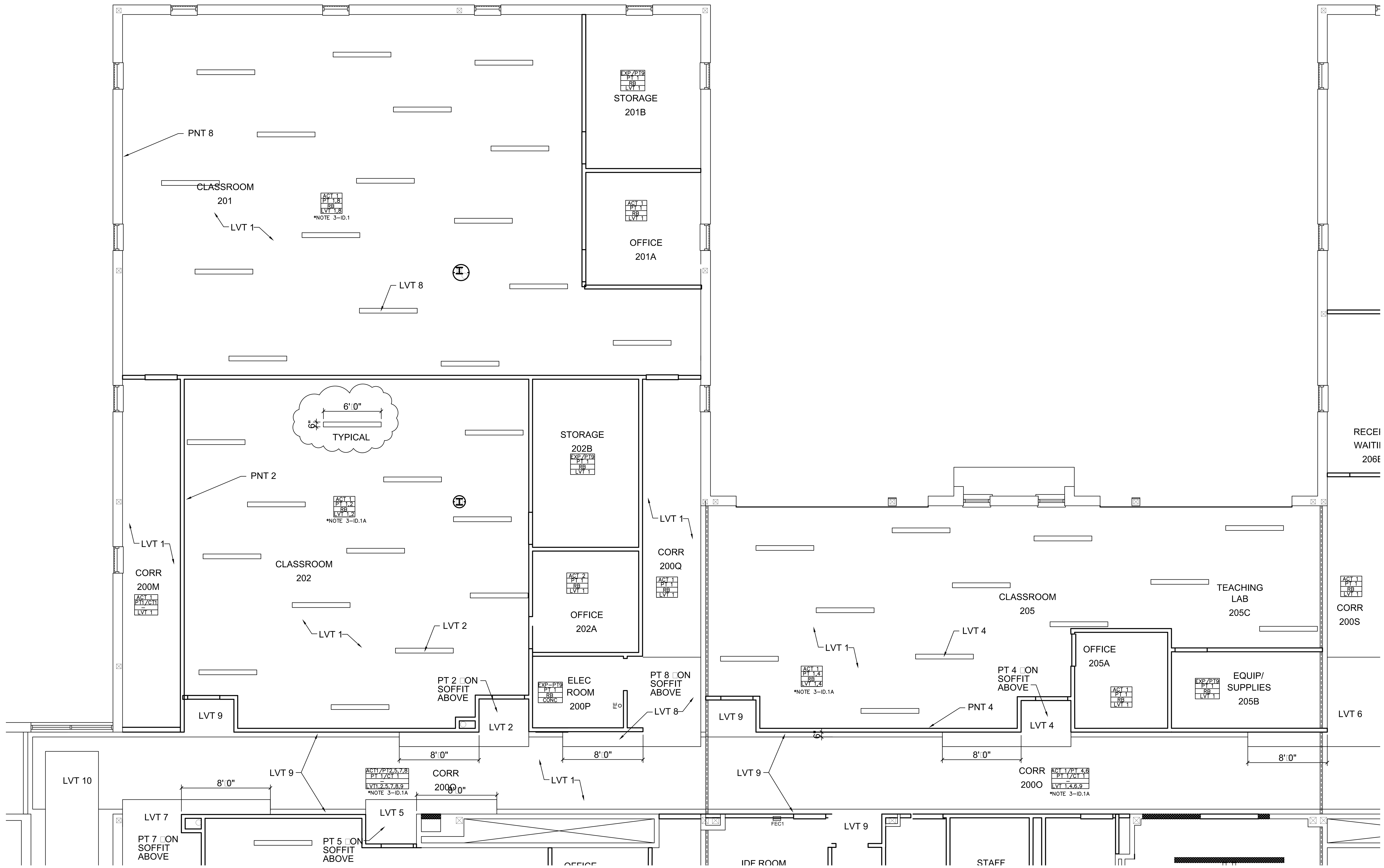
SCALE:	AS SHOWN

OVERALL SECOND FLOOR PLAN

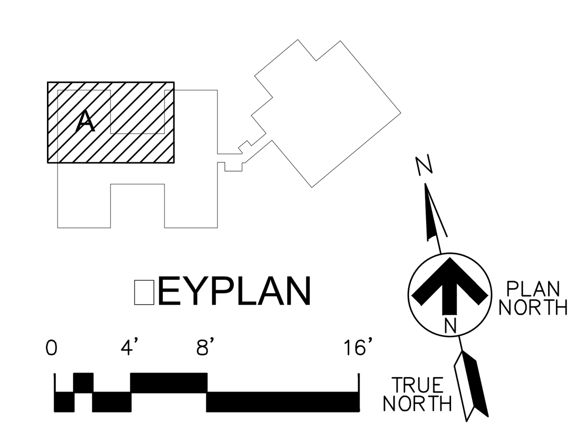
ID2.1

SHEET ______ of ______



1 ID4.2 SECOND FLOOR FINISHES PLAN ENLARGED PARTIAL PLAN AREA A

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



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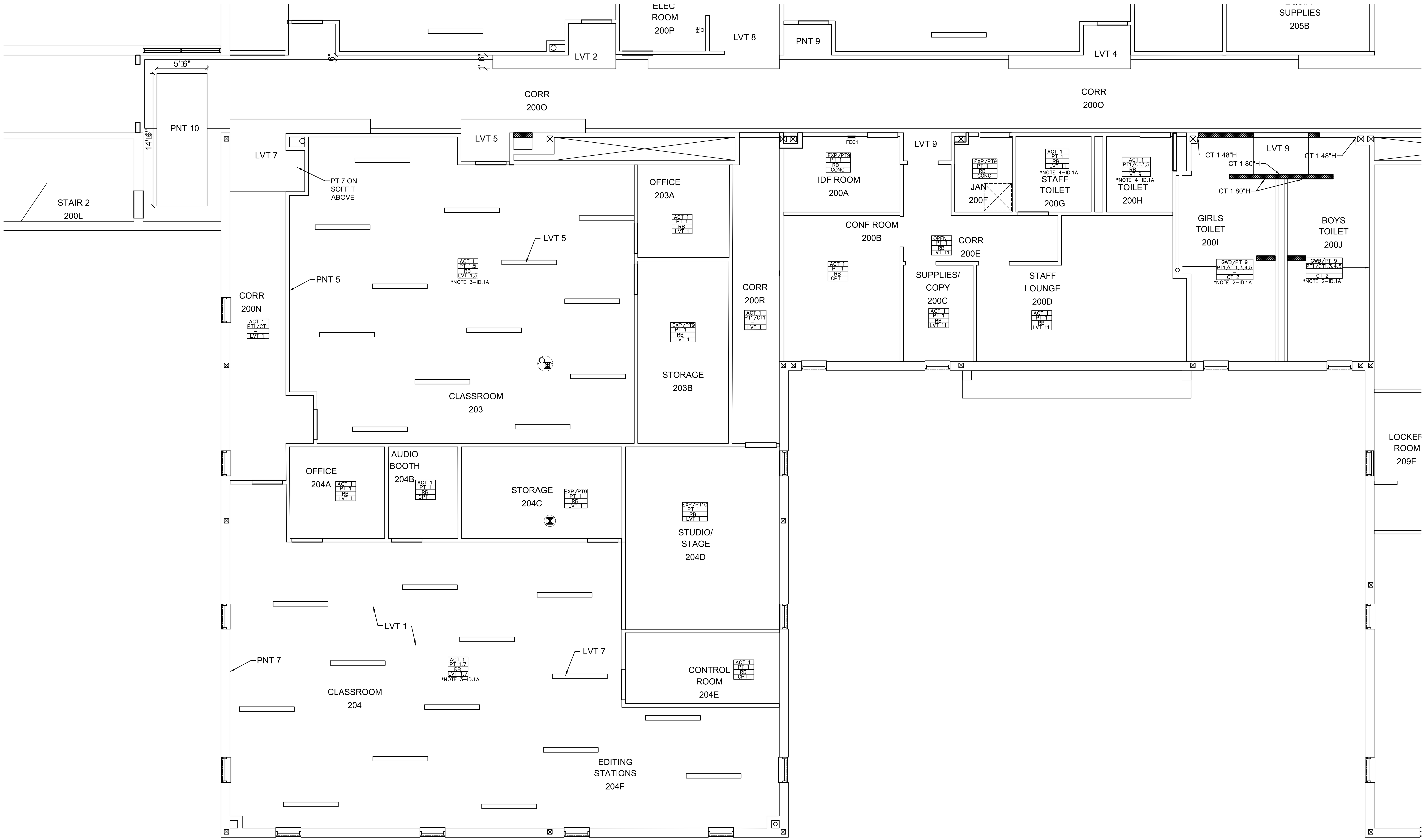
SECOND FLOOR FINISHES PLAN ENLARGED PARTIAL PLAN AREA A

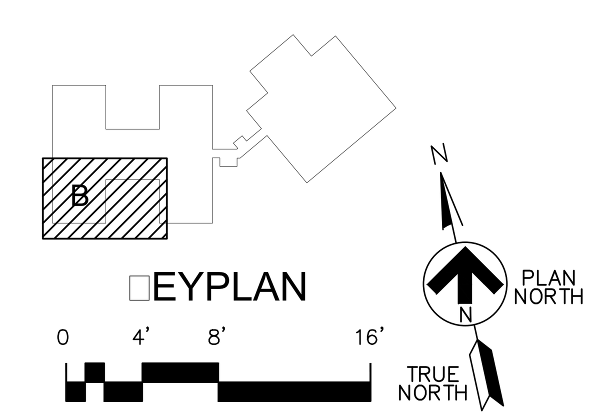
ID2.2

SHEET ______ of ______



SECOND FLOOR FINISHES PLAN ENLARGED PARTIAL PLAN AREA B

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



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X	X	X

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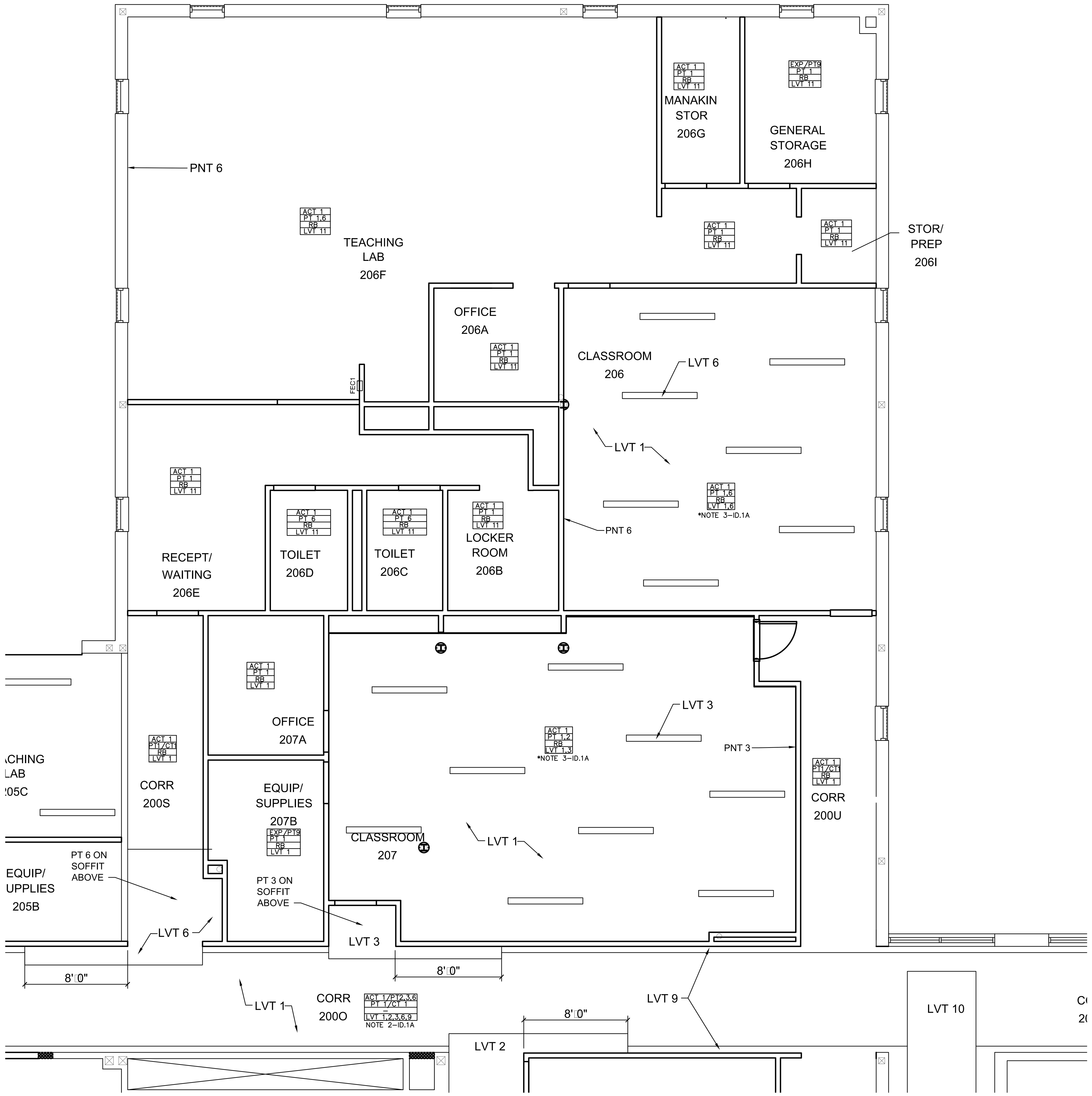
DATE:	6/17/22
SCALE:	AS SHOWN

SECOND FLOOR FINISHES PLAN ENLARGED PARTIAL PLAN AREA B

ID2.3

SHEET ______ of ______



1 ID4.4 SECOND FLOOR FINISHES PLAN ENLARGED PARTIAL PLAN AREA C

SCALE: 1/8" 1'0"

KEYPLAN

PLAN NORTH

TRUE NORTH

0 4' 8' 16'

C2 Architecture — ARCHITECTURE INTERIORS PLANNING

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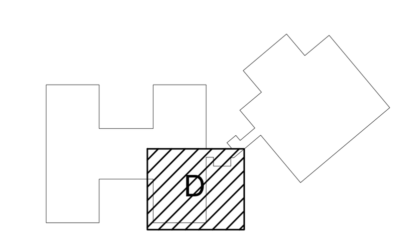
SECOND FLOOR FINISHES PLAN ENLARGED PARTIAL PLAN AREA C

ID2.4

SHEET ______ of ______

1 / ID4.5 SECOND FLOOR FINISHES ENLARGED PARTIAL PLAN AREA D

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



KEYPLAN

0 3' 6' 12'

PLAN NORTH

TRUE NORTH

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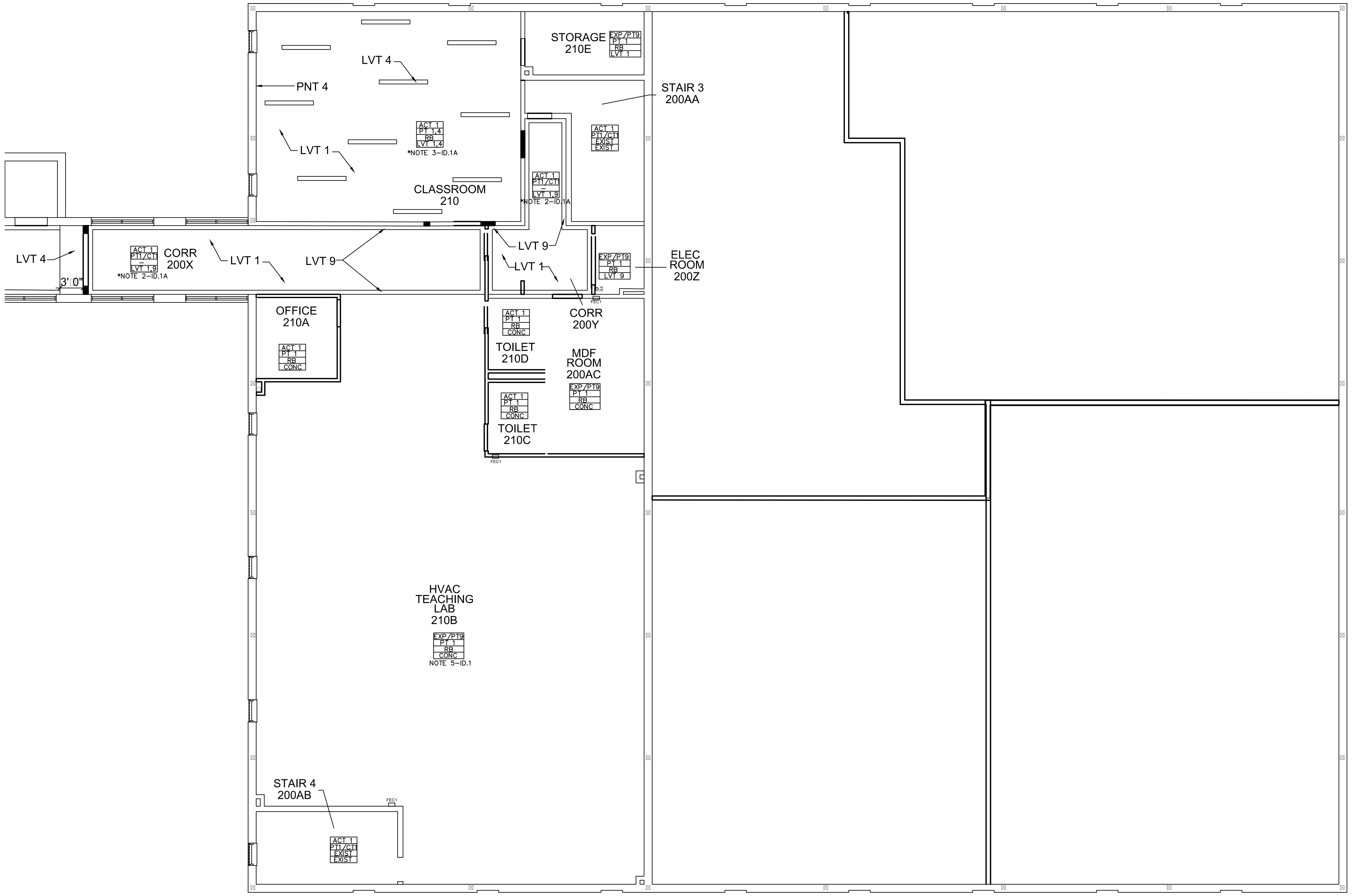
SECOND FLOOR FINISHES PLAN ENLARGED PARTIALPLAN AREA D

ID2.5

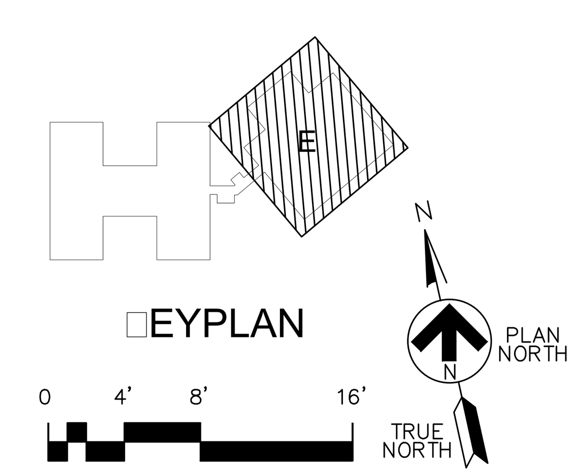
SHEET ______ of ______



1
ID4.6

SECOND FLOOR FINISHES PLAN ENLARGED PARTIAL PLAN AREA E

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



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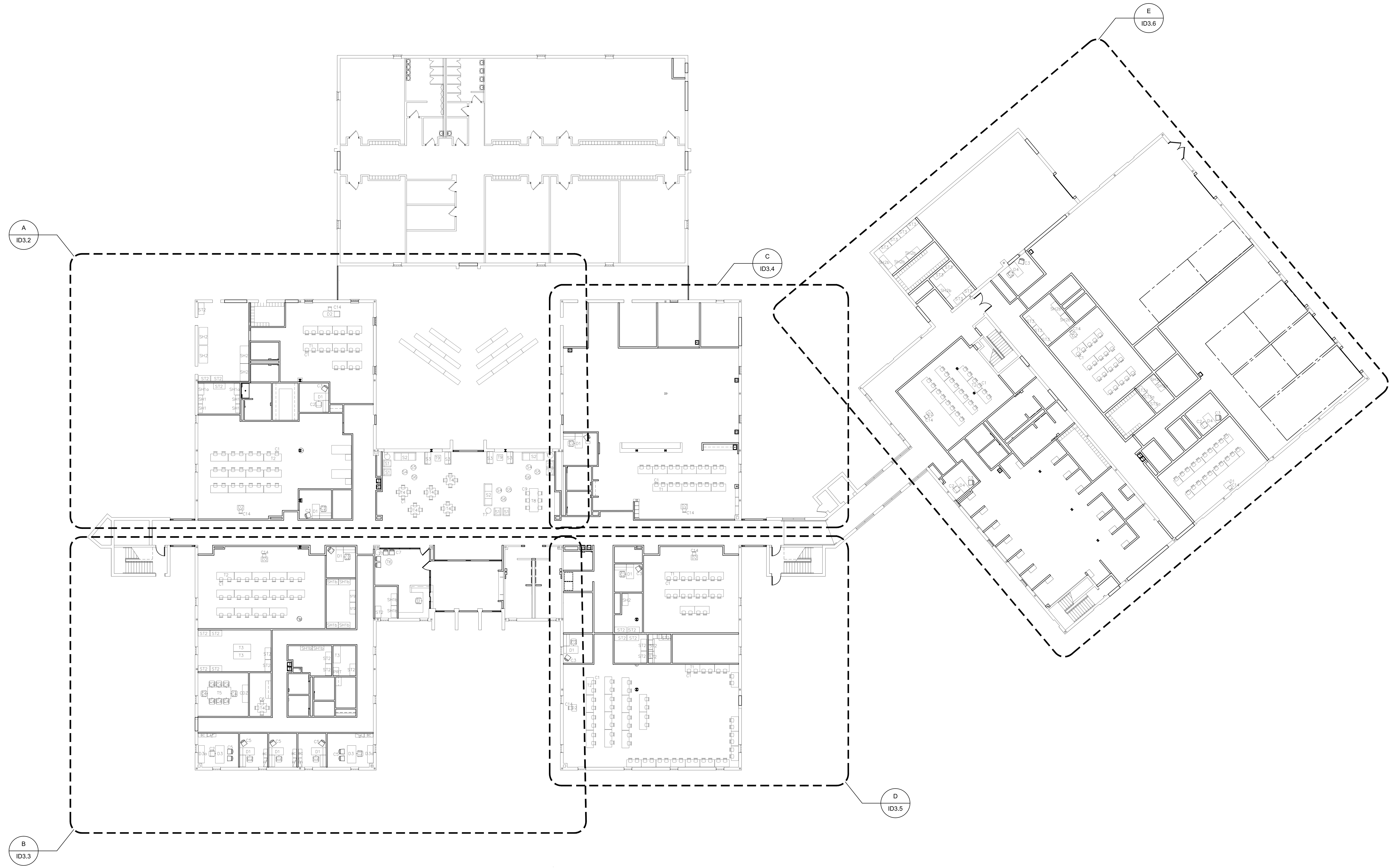
SCALE:	AS SHOWN

SECOND FLOOR FINISHES PLAN ENLARGED PARTIAL PLAN AREA E

ID2.6

SHEET ______ of ______



OVERALL GROUND FLOOR FURNITURE PLAN

1 ID3.1
SCALE: 1/16" = 1'-0"

0 8' 16' 32'

N
PLAN NORTH
TRUE NORTH

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DATE:	6/17/22
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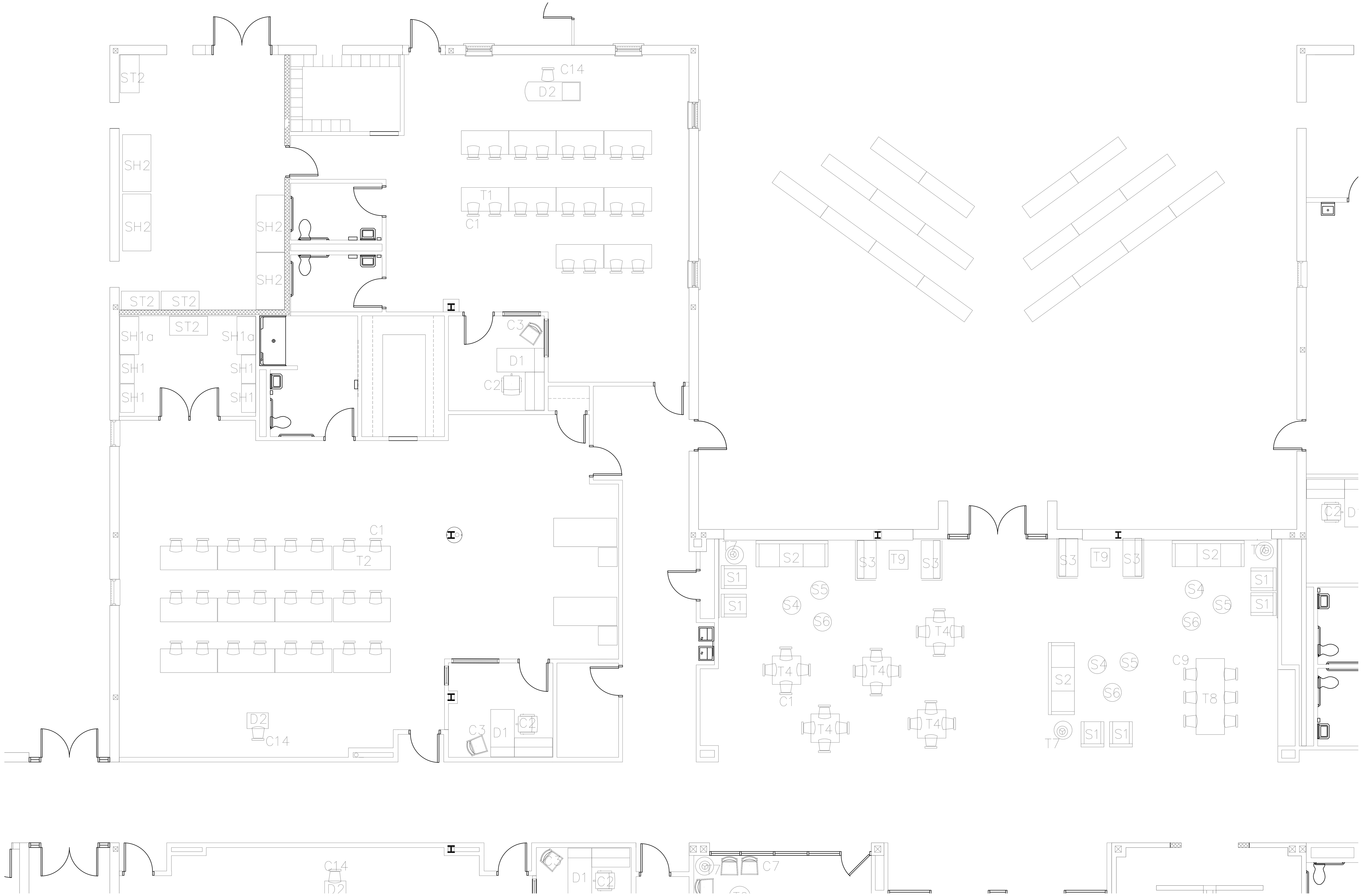
OVERALL GROUND FLOOR FURNITURE PLAN

ID3.1

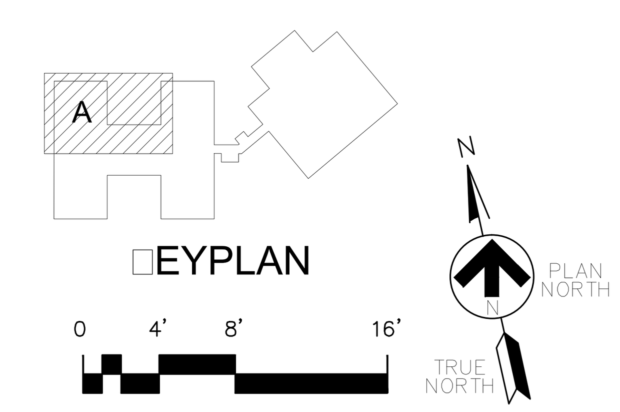
SHEET ______ of ______



1
AX.X

GROUND FLOOR FURNITURE ENLARGED PARTIAL PLAN □AREA A

SCALE: 3/16" □ 1'-0"



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x	x	x

DRAWN BY:	HBC
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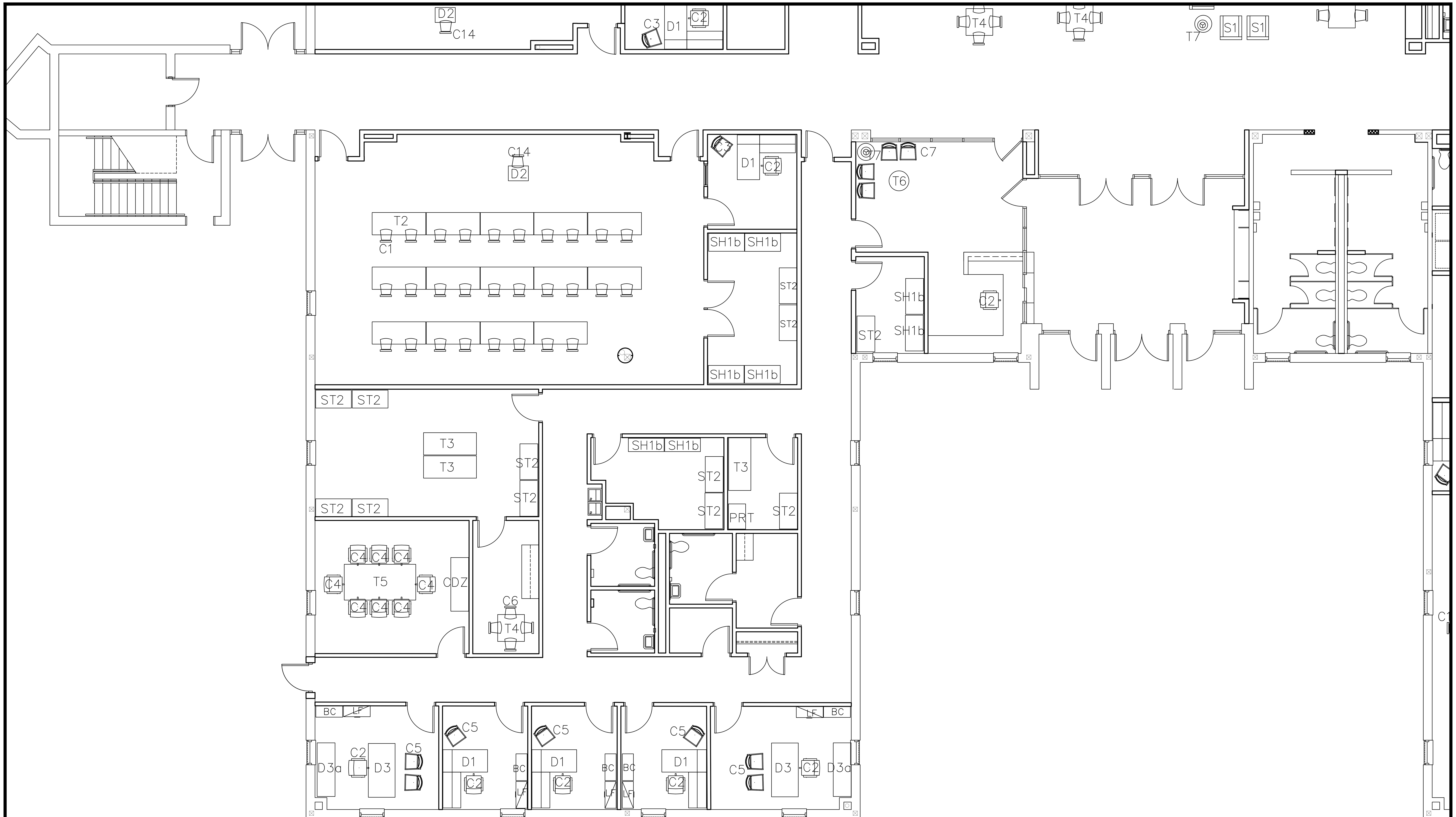
DATE:	6/17/22
SCALE:	AS SHOWN

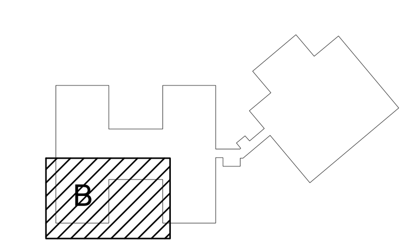
GROUND FLOOR FURNITURE ENLARGED PARTIAL PLAN □ AREA A

ID3.2

SHEET ______ of ______



1
AX.X
GROUND FLOOR FURNITURE ENLARGED PARTIAL PLAN AREA B
SCALE: 3/16" = 1'-0"



KEYPLAN

0 4' 8' 16'

PLAN NORTH
TRUE NORTH

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DATE:	6/17/22
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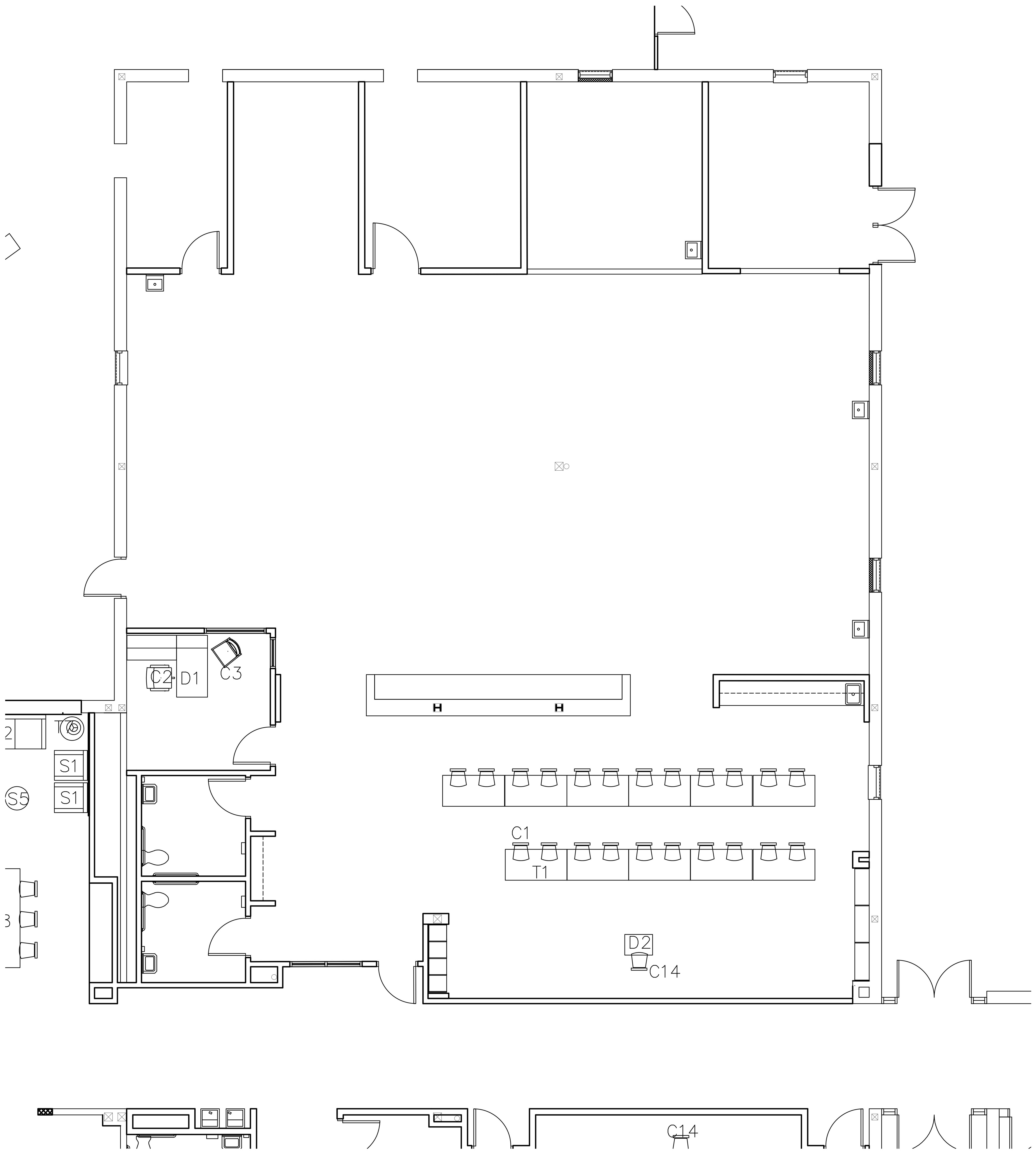
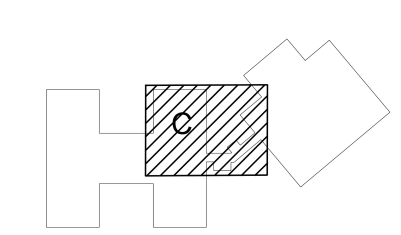
GROUND FLOOR FURNITURE ENLARGED PARTIAL PLAN AREA B

ID3.3

SHEET ______ of ______



1
AX.X
GROUND FLOOR FURNITURE ENLARGED PARTIAL PLAN - AREA C
SCALE: 3/16" = 1'-0"



KEYPLAN

0 4' 8' 16'
PLAN NORTH
TRUE NORTH

C2 Architecture
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DRAWN BY:	HBC
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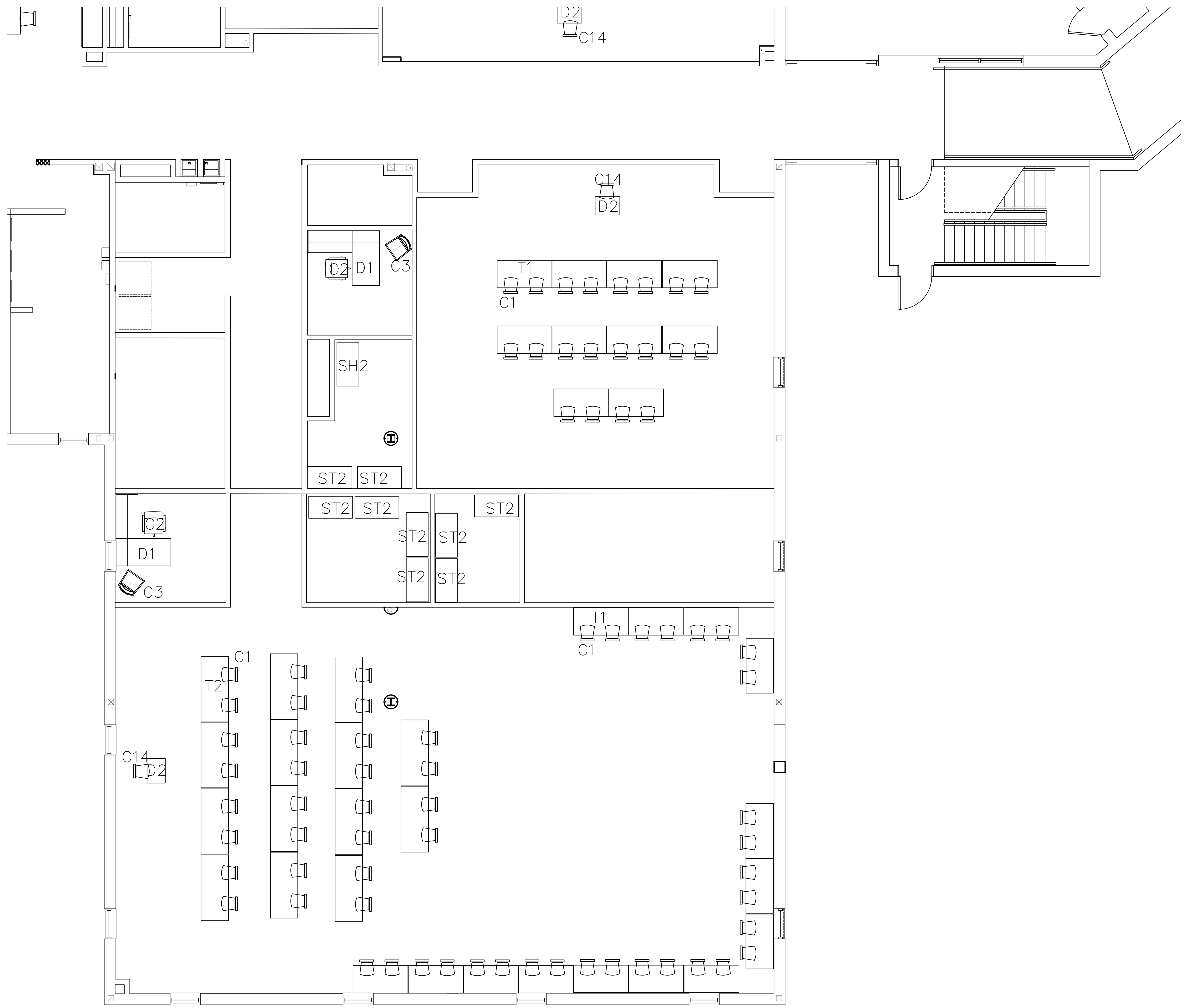
DATE:	6/17/22
SCALE:	AS SHOWN

GROUND FLOOR FURNITURE ENLARGED PARTIAL PLAN - AREA C

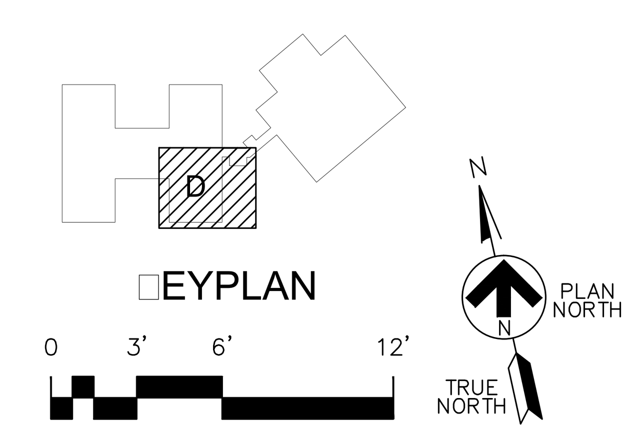
ID3.4

SHEET ______ of ______



1 ID3.5 GROUND FLOOR FURNITURE ENLARGED PARTIAL PLAN AREA D

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



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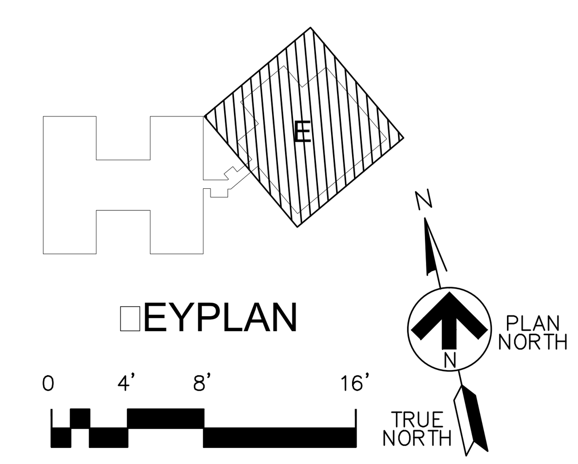
DATE:	6/17/22
SCALE:	AS SHOWN

GROUND FLOOR FURNITURE ENLARGED PARTIAL PLAN AREA D

ID3.5

SHEET ______ of ______

1 ID3.6 GROUND FLOOR FURNITURE ENLARGED PARTIAL PLAN AREA E
SCALE: 1/8" 1'-0"



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X	X	X

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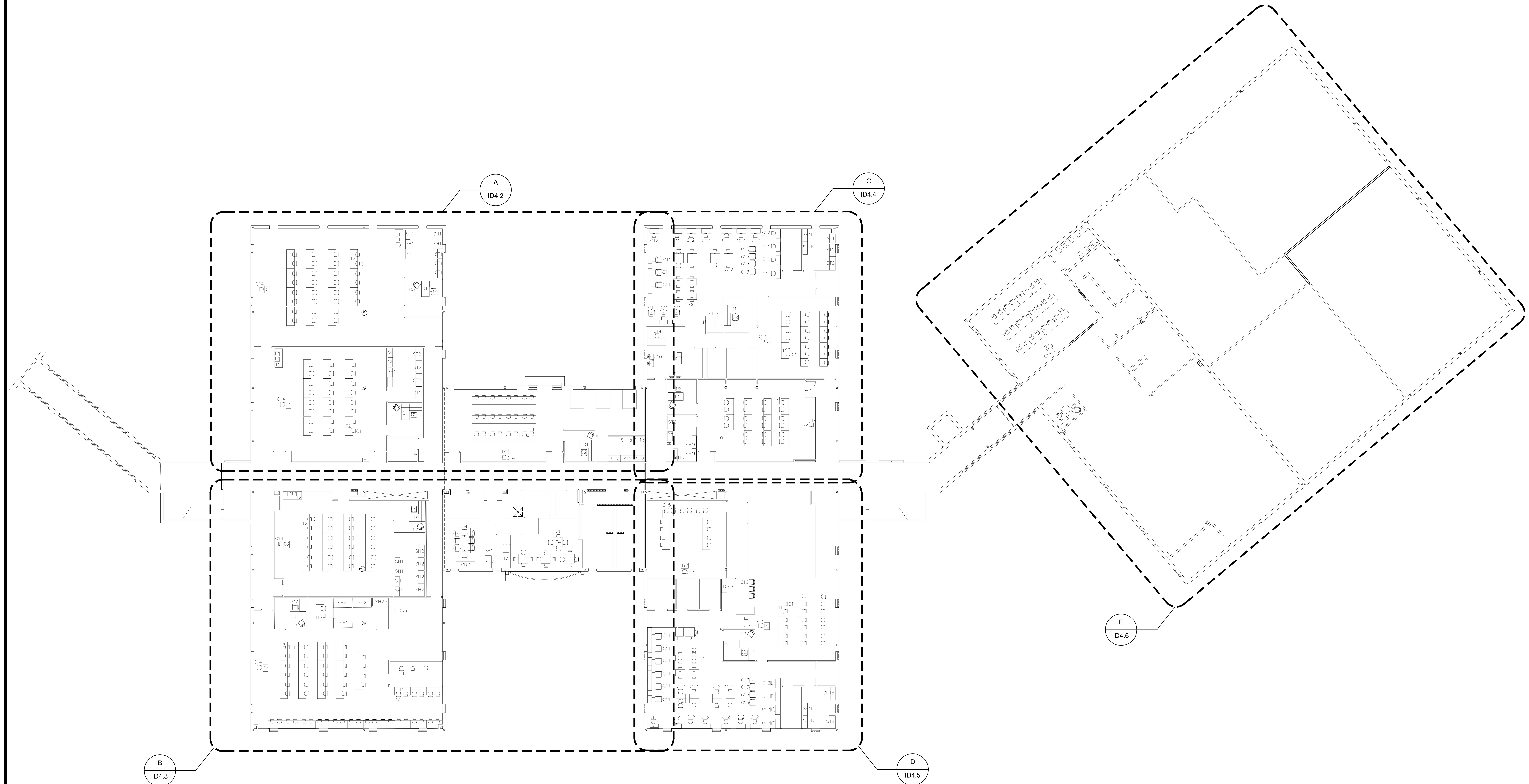
DATE:	6/17/22
SCALE:	AS SHOWN

GROUND FLOOR FURNITURE ENLARGED PARTIAL PLAN AREA E

ID3.6

SHEET ______ of ______



SECOND FLOOR OVERALL FURNITURE PLAN

1
AX.X
SCALE: 1/16" = 1'-0"

0 8' 16' 32'

N
PLAN NORTH
TRUE NORTH

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x	x	x

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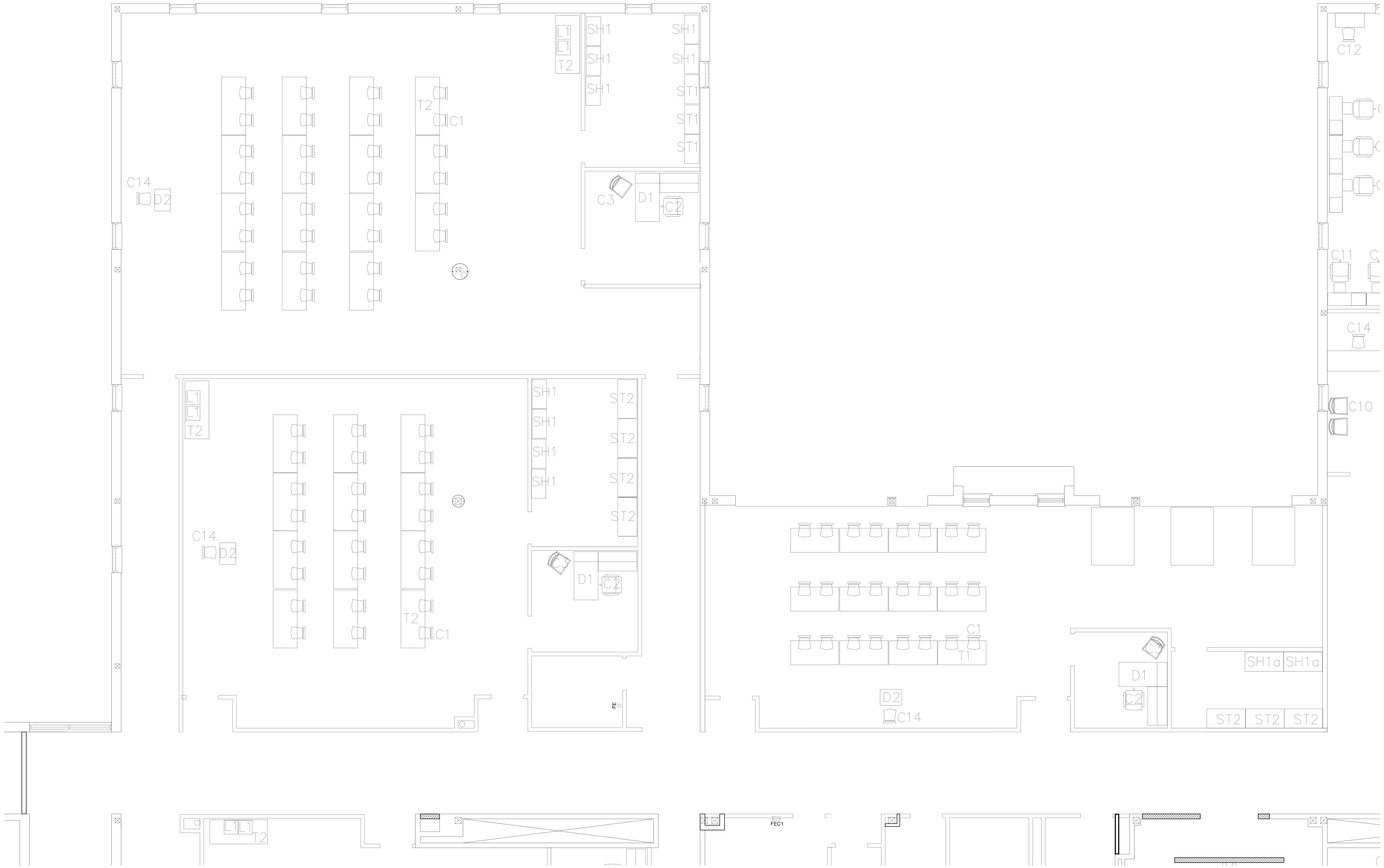
DATE:	6/17/22
SCALE:	AS SHOWN

SECOND FLOOR OVERALL FURNITURE PLAN

ID4.1

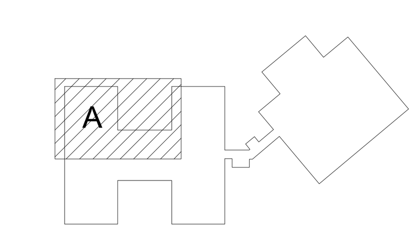
SHEET ______ of ______



1
ID4.2

SECOND FLOOR FURNITURE ENLARGED PARTIAL PLAN□AREA A

SCALE: 3/16" □ 1'-0"



□EYPLAN

0 4' 8' 16'

N
PLAN NORTH
TRUE NORTH

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No.	DATE	DESCRIPTION
x	x	x

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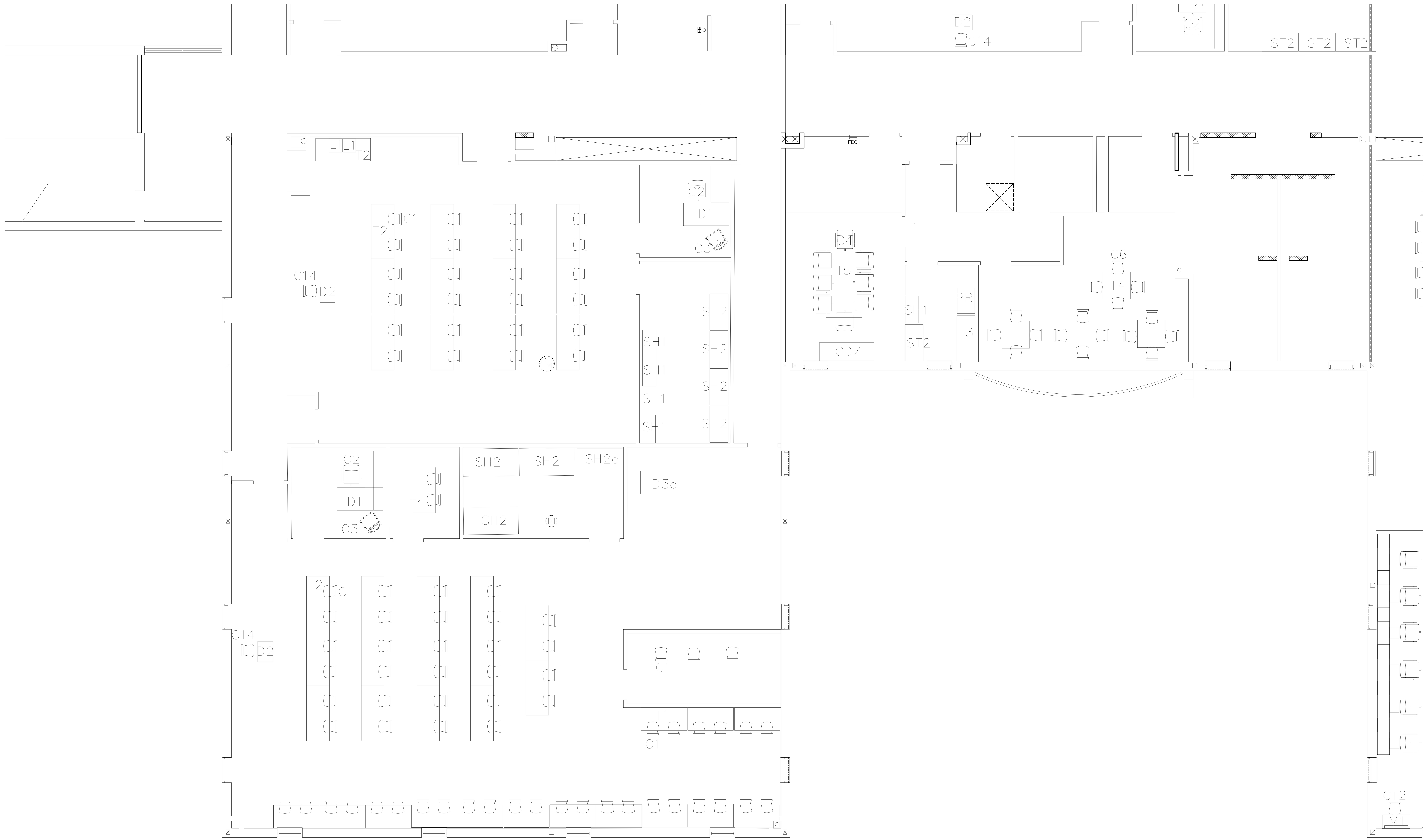
REV'D BY:	HBC
DATE:	6/17/22
SCALE:	AS SHOWN

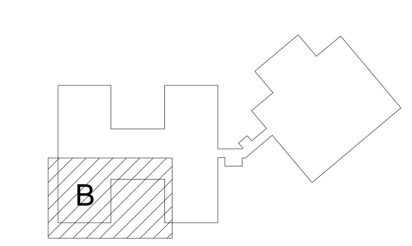
SECOND FLOOR FURNITURE ENLARGED PARTIAL PLAN □ AREA A

ID4.2

SHEET ______ of ______



1 AX.X SECOND FLOOR FURNITURE ENLARGED PARTIAL PLAN AREA B
SCALE: 1/8" 1'-0"



KEYPLAN

0 4' 8' 16'

PLAN NORTH
TRUE NORTH

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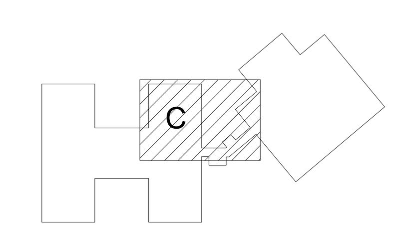
SECOND FLOOR FURNITURE ENLARGED PARTIAL PLAN AREA B

ID4.3

SHEET ______ of ______

1 ID4.4 SECOND FLOOR FURNITURE ENLARGED PARTIAL PLAN AREA C

SCALE: 1/8" 1'0"



KEYPLAN

0 4' 8' 16'

N PLAN NORTH TRUE NORTH

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SCALE:	AS SHOWN

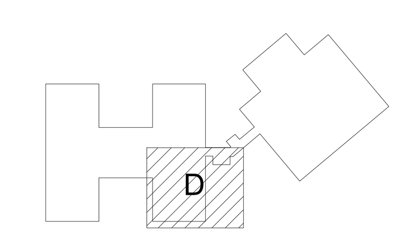
SECOND FLOOR FURNITURE ENLARGED PARTIAL PLAN AREA C

ID4.4

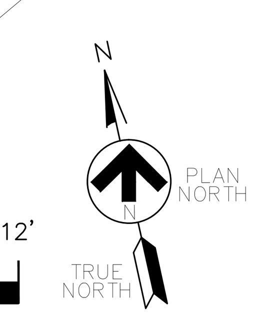
SHEET ______ of ______

1 ID4.5 **SECOND FLOOR FURNITURE ENLARGED PARTIAL PLAN AREA D**

SCALE: 1/8" 1'0"



EYPLAN



0 3' 6' 12'

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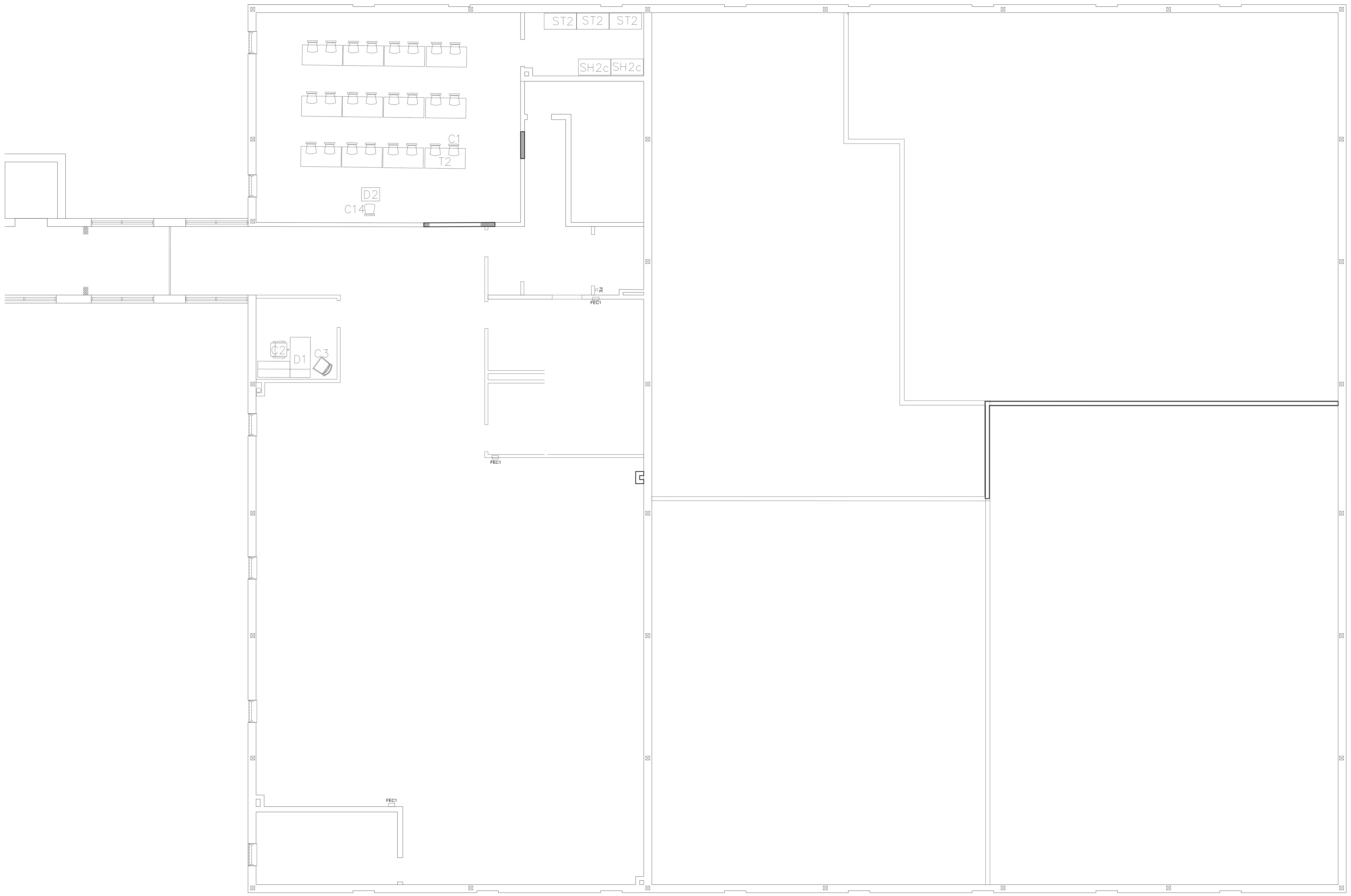
SCALE:	AS SHOWN

SECOND FLOOR FURNITURE ENLARGED PARTIAL PLAN AREA D

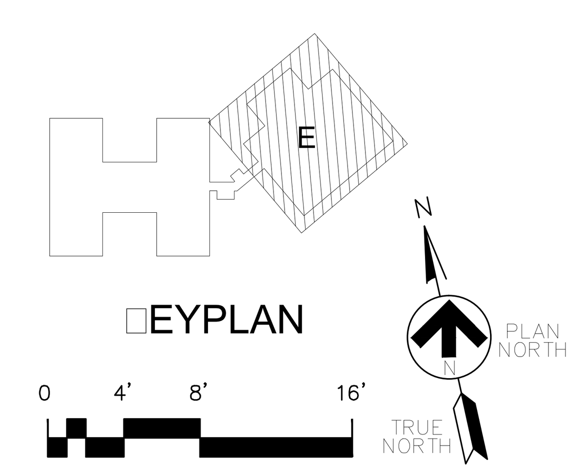
ID4.5

SHEET ______ of ______



1 / ID4.6 SECOND FLOOR FURNITURE ENLARGED PARTIAL PLAN AREA E

SCALE: 1/8" 1'-0"



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SCALE:	AS SHOWN

SECOND FLOOR FURNITURE ENLARGED PARTIAL PLAN AREA E

ID4.6

SHEET ______ of ______

FAN SCHEDULE

UNIT	CFM	S.P.	RPM	MOTOR WATTS	MOTOR VOLTS	MOTOR PH	SELECTION BASED ON GREENHECK	CONTROL	NOTES
EF-1	300	0.25	1120	80	120	1	CSP-A390	RUN DURING OCCUPANCY	1
EF-2	225	0.25	830	132	120	1	CSP-A200	RUN DURING OCCUPANCY	1
EF-3	600	0.50	1288	1/4 HP	120	1	CUBE-099	INTERLOCK WITH HOOD	2
EF-4	200	0.375	989	57	120	1	CSP-A250	WALL SWITCH	1
EF-5	200	0.375	989	57	120	1	CSP-A250	WALL SWITCH	1
EF-6	150	0.25	1250	33	120	1	SP-A190	RUN DURING OCCUPANCY	1
EF-7	1525	0.25	1380	1/4 HP	120	1	GB-120	RUN DURING OCCUPANCY	3
EF-8	250	0.25	1010	82	120	1	CSP-A290	RUN DURING OCCUPANCY	1
EF-9	1200	0.25	1140	82	120	1	GB-120	RUN DURING OCCUPANCY	3
EF-10	275	0.25	1050	93	120	1	CSP-A290	WALL SWITCH	1
EF-WELD	5250	2.5	1485	5 HP	460	3	TCBRU-2-22	WALL SWITCH	4
EF-VE	2500	4.0	2400	3 HP	460	3	MONOXIVENT BI-150	WALL SWITCH	4
EF-KH	10928	2.0	794	7.5 HP	460	3	CUBE-360HP-VGD	INTERLOCK WITH HOOD	3
EF-BH	2350	1.6	1349	1.5 HP	460	3	CUBE-180HP-VGD	INTERLOCK WITH HOOD	3
EF-SH	1125	0.50	1608	1/4 HP	120	1	CUBE-100	WALL SWITCH	3

REQUIREMENTS. EQUALS SHALL BE ACCEPTEDSCHEDULE NOTES:
1. PROVIDE WITH SPEED CONTROLLER, ELECTRICAL DISCONNECT AND WALL CAP. CONTROL AS INDICATED IN SCHEDULE.
2. PROVIDE WITH DISCONNECT, MOTOR OPERATED DAMPER, CONFIGURED FOR SIDEWALL MOUNTING.
3. PROVIDE WITH DISCONNECT, MOTOR OPERATED DAMPER, ROOF CURB.
4. PROVIDE WITH DISCONNECT, NO LOSS STACK HEAD, VIBRATION ISOLATION.
5. MODEL NUMBERS ARE USED TO ESTABLISH PERFORMANCE REQUIREMENTS. EQUALS SHALL BE ACCEPTED

ELECTRIC WALL HEATER SCHEDULE

MARK	MANUFACTURER & MODEL NO.	MBH	CFM	KW	VOLT/PH
WH-1	MARKEL E3323TTD-RP	5.1	400	1.5	120/1

NOTES:
- PROVIDE WITH DISCONNECT SWITCH & IN-BUILT THERMOSTAT
- MODEL NUMBERS ARE USED TO ESTABLISH PERFORMANCE REQUIREMENTS. EQUALS SHALL BE ACCEPTED

DUST COLLECTOR

DONALDSON UNIMASTER UMA450, 3350 CFM, 15 HP, 460/3ø
MODEL NUMBERS ARE USED TO ESTABLISH PERFORMANCE REQUIREMENTS. EQUALS SHALL BE ACCEPTED

MAKE-UP AIR UNIT SCHEDULE

MARK	MANUFACTURER & MODEL NO.	CFM	EVAP. FAN HP	VOLTS ø	S.P. IN WG EXT.	HEATING CAP INPUT, MBH	HEATING CAP OUTPUT, MBH	MCA/MOCP	WEIGHT
MAU-KH	GREENHECK DGX-118-H32	8742	7.5	460/3	0.75	572.6	526.8	14.6/25	1840 LBS.
MAU-KH	GREENHECK DGX-109-H12	1878	1.5	460/3	0.7	123.0	113.2	4.1/15	840 LBS.

NOTES:
- INCLUDE DISCHARGE AIR TEMPERATURE CONTROL KIT
- MODEL NUMBERS ARE USED TO ESTABLISH PERFORMANCE REQUIREMENTS. EQUALS SHALL BE ACCEPTED

GRILLES, REGISTERS AND DIFFUSERS SCHEDULE

MARK	MANUFACTURER & MODEL NO.	DESCRIPTION	MATERIAL	FINISH	ACCESSORIES & FEATURES
SUPPLY DIFFUSERS					
CD-1	METALAIRE 5700-6	24"X24" CEILING DIFFUSER WITH 6"ø NECK FOR LAY-IN CEILING	STEEL	WHITE	MODEL BDS DAMPER
CD-2	METALAIRE 5700-6	24"X24" CEILING DIFFUSER WITH 8"ø NECK FOR LAY-IN CEILING	STEEL	WHITE	MODEL BDS DAMPER
CD-3	METALAIRE 5700-6	24"X24" CEILING DIFFUSER WITH 10"ø NECK FOR LAY-IN CEILING	STEEL	WHITE	MODEL BDS DAMPER
CD-4	METALAIRE 5000-1	9"X9" DIRECTIONAL DIFFUSER FOR SURFACE MOUNTING	STEEL	WHITE	MODEL D5 DAMPER
SD-1	METALAIRE 6675-12-1	LINEAR SLOT DIFFUSER, 3'-0" LONG, 1 SLOT @ 3/4" WIDE EACH, 6"ø	ALUMINUM	WHITE	INSULATED BOOT PLENUM
SD-2	METALAIRE 6675-12-1	LINEAR SLOT DIFFUSER, 6'-0" LONG, 2 SLOTS @ 3/4" WIDE EACH, 10"ø	ALUMINUM	WHITE	INSULATED BOOT PLENUM
GRILLES & REGISTERS					
TR-1	METALAIRE V4004-1	6"X4" SIDEWALL SUPPLY REGISTER	STEEL	WHITE	MODEL OBD DAMPER
TR-2	METALAIRE V4004-1	10"X6" SIDEWALL SUPPLY REGISTER	STEEL	WHITE	MODEL OBD DAMPER
TR-3	METALAIRE V4004-1	6"X6" SIDEWALL SUPPLY REGISTER	STEEL	WHITE	MODEL OBD DAMPER
TR-4	METALAIRE V4004-1	10"X8" SIDEWALL SUPPLY REGISTER	STEEL	WHITE	MODEL OBD DAMPER
TR-5	METALAIRE V4004-1	12"X8" SIDEWALL SUPPLY REGISTER	STEEL	WHITE	MODEL OBD DAMPER
TR-6	METALAIRE V4004-1	14"X8" SIDEWALL SUPPLY REGISTER	STEEL	WHITE	MODEL OBD DAMPER
CR-1	METALAIRE 7500R-6	24"X24" CEILING GRILLE WITH 6"ø NECK FOR LAY-IN CEILING	STEEL	WHITE	--
CR-2	METALAIRE SRH-1	12"X8" CEILING EXHAUST REGISTER	STEEL	WHITE	OPPOSED BLADE DAMPER
CR-3	METALAIRE 7500R-6	24"X24" CEILING GRILLE WITH 8"ø NECK FOR LAY-IN CEILING	STEEL	WHITE	--
FCG-1	METALAIRE SRHF-6	24"X24" FILTER CLG GRILLE WITH 12"X12" NECK FOR LAY-IN CLG	STEEL	WHITE	1" MERV 13 FILTER
FCG-2	METALAIRE SRHF-6	24"X24" FILTER CLG GRILLE WITH 22"X22" NECK FOR LAY-IN CLG	STEEL	WHITE	1" MERV 13 FILTER

NOTES:
- MODEL NUMBERS ARE USED TO ESTABLISH PERFORMANCE REQUIREMENTS. EQUALS SHALL BE ACCEPTED

DUCTLESS SPLIT AIR CONDITIONING SYSTEM

MODEL NUMBERS ARE USED TO ESTABLISH PERFORMANCE REQUIREMENTS. EQUALS SHALL BE ACCEPTED

DSS-1: INDOOR WALL MOUNTED UNIT – MITSUBISHI PKA-A36KA7,
OUTDOOR CONDENSING UNIT – MITSUBISHI PUY-A36NKA7
A. 36,000 BTU/HR COOLING, 920 CFM, 18.8 SEER, R-410A.
B. 208 VOLTS, SINGLE PHASE, 31A MOCP, FEED TO OUTDOOR UNIT.
C. DC INVERTER COMPRESSOR.
D. WALL MOUNTED, HARD WIRED CONTROLLER.
E. PROVIDE LOW AMBIENT CONTROL TO 0 DEGREES F.
F. PROVIDE CONDENSATE PUMP AS REQUIRED.
G. AUTO RESTART ON POWER FAILURE.
H. COORDINATE INDOOR UNIT LOCATION WITH EQUIPMENT.

DSS-2: INDOOR WALL MOUNTED UNIT – MITSUBISHI PKA-A18HA,
OUTDOOR CONDENSING UNIT – MITSUBISHI PUY-A18NHA3
A. 18,000 BTU/HR COOLING, 425 CFM, 15.3 SEER, R-410A.
B. 208 VOLTS, SINGLE PHASE, 15A MOCP, FEED TO OUTDOOR UNIT.
C. DC INVERTER COMPRESSOR.
D. WALL MOUNTED, HARD WIRED CONTROLLER.
E. PROVIDE LOW AMBIENT CONTROL TO 0 DEGREES F.
F. PROVIDE CONDENSATE PUMP AS REQUIRED.
G. AUTO RESTART ON POWER FAILURE.
H. COORDINATE INDOOR UNIT LOCATION WITH EQUIPMENT.

DSS-3: INDOOR WALL MOUNTED UNIT – MITSUBISHI PKA-A18HA,
OUTDOOR CONDENSING UNIT – MITSUBISHI PUY-A18NHA3
A. 18,000 BTU/HR COOLING, 425 CFM, 15.3 SEER, R-410A.
B. 208 VOLTS, SINGLE PHASE, 15A MOCP, FEED TO OUTDOOR UNIT.
C. DC INVERTER COMPRESSOR.
D. WALL MOUNTED, HARD WIRED CONTROLLER.
E. PROVIDE LOW AMBIENT CONTROL TO 0 DEGREES F.
F. PROVIDE CONDENSATE PUMP AS REQUIRED.
G. AUTO RESTART ON POWER FAILURE.
H. COORDINATE INDOOR UNIT LOCATION WITH EQUIPMENT.

LEGEND

R	REFRIGERANT
12 x 6	RECTANGULAR DUCT
	FLEXIBLE CONNECTION
VD	VOLUME DAMPER
D	DROP IN DIRECTION OF AIRFLOW
R	RISE IN DIRECTION OF AIRFLOW
	SUPPLY DUCT UP (OR FROM ABOVE)
	SUPPLY DUCT DOWN (OR FROM BELOW)
	RETURN OR EXHAUST DUCT UP
	RETURN OR EXHAUST DUCT DOWN
	FLEXIBLE DUCT
MOD	MOTOR OPERATED DAMPER
	REDUCER
SDR	SMOKE DETECTOR, DUCT MOUNTED
T	THERMOSTAT OR TEMPERATURE SENSOR

ABBREVIATIONS

BTU	BRITISH THERMAL UNIT
CD	CEILING DIFFUSER
CFD	CEILING FIRE DAMPER
CFM	CUBIC FEET PER MINUTE
CG	CEILING GRILLE
COP	COEFFICIENT OF PERFORMANCE
CR	CEILING REGISTER
DB	DRY BULB TEMPERATURE
EAT	ENTERING AIR TEMPERATURE
EER	ENERGY EFFICIENCY RATIO
EFF	EFFICIENCY
EXT	EXTERNAL
F	DEGREES FAHRENHEIT
FPM	FEET PER MINUTE
FT	FEET
HP	HORSEPOWER
IN	INCH, INCHES
LAT	LEAVING AIR TEMPERATURE
MAX	MAXIMUM
MBH	THOUSAND BTU PER HOUR
VD	VOLUME DAMPER
MH	MOUNTING HEIGHT
MIN	MINIMUM
MOD	MOTOR OPERATED DAMPER
NC	NORMALLY CLOSED
NIC	NOT IN CONTRACT
NO	NORMALLY OPEN
OA	OUTSIDE AIR
PD	PRESSURE DROP
PS	PRESSURE SENSOR
PSI	POUNDS PER SQUARE INCH
PSIG	POUNDS PER SQUARE INCH GAGE
RA	RETURN AIR
SP	STATIC PRESSURE
TEMP	TEMPERATURE
TG	TOP GRILLE
TR	TOP REGISTER
TYP	TYPICAL
WB	WET BULB TEMPERATURE
WC, WG	WATER COLUMN
AFF	ABOVE FINISHED FLOOR
ABV	ABOVE
AD	ACCESS DOOR
BEL	BELOW
BET	BETWEEN
CLG	CEILING
CONN	CONNECT, CONNECTION
CONT	CONTINUED
DN	DOWN
EA	EACH
FL	FLOOR
FLEX	FLEXIBLE
FR	FROM
GALV	GALVANIZED
REQD	REQUIRED
SH	SHEET
SDR	DUCT MOUNTED SMOKE DETECTOR

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MECHANICAL LEGEND & SCHEDULES

M0.1

SHEET ______ of X

PACKAGED AIR CONDITIONING UNIT SCHEDULE

MARK	MANUFACTURER & MODEL NO.	SA CFM	OA CFM	EVAP. FAN HP	VOLTS ø	S.P. IN WG	COOLING SECTION			HEATING SECTION		MCA	MOCP	WEIGHT (LBS)
						EXT.	TOTAL CAP, MBH	SENS CAP, MBH	EAT	INPUT, MBH	OUTPUT, MBH			
RTU-20	TRANE RF0503342	18000	7050	30.0	480/3	2.0	622.9	484.8	81.0/67.6	850	688.5	155.4	175	9730
RTU-21	TRANE RF0303342	11105	3955	15.0	480/3	2.5	397.6	321.2	81.7/66.4	500	410.0	97.1	110	7230
RTU-22	TRANE RF0303342	12175	2890	15.0	480/3	2.5	397.7	310.0	79.1/65.9	500	410.0	97.1	100	7300
RTU-23	TRANE RF0202342	8025	1900	10.0	480/3	2.5	294.8	215.0	79.1/65.9	350	283.5	76.7	90	6950
RTU-24	TRANE RF0302342	10125	2950	15.0	480/3	2.5	402.7	314.3	80.1/66.6	350	283.5	97.1	110	7200
RTU-25	TRANE RF0202342	8050	2545	10.0	480/3	2.5	297.5	211.6	80.8/67.0	350	283.5	76.7	90	6950

1. UNITS TO HAVE ONE YEAR MANUFACTURER'S WARRANTY INCLUDING PARTS, LABOR AND REFRIGERANT, FIVE YEAR MANUFACTURER'S WARRANTY FOR COMPRESSORS.
2. UNIT TO HAVE HINGED ACCESS DOORS, NON-FUSED DISCONNECT SWITCH, CONDENSER COIL GUARDS, LOW AMBIENT CONTROL, LOW LEAKAGE OUTDOOR AIR DAMPERS, ECONOMIZER WITH DIFFERENTIAL ENTHALPY, MERV 14 FILTERS. THROUGH THE BASE ELECTRICAL, RELIEF FAN WITH FRESH AIR TRACKING, 120 V SERVICE RECEPTACLE, SMOKE DETECTOR, VAV WITH VFD WITH BYPASS WITH ACCESSORIES/CONTROLS, HOT GAS REHEAT, ADAPT-A-CURB, VIBRATION ISOLATION.
3. UNITS TO BE OWNER PROVIDED FOR CONTRACTOR COMPLETE, OPERABLE INSTALLATION.

FAN POWERED VAV BOX SCHEDULE

MARK	BOX SIZE	PD IN H20	PRIMARY AIR		UNIT FAN				HEATING COIL					ELECTRICAL		MODEL
			MAX CFM	MIN CFM	CFM	SP IN H20	HP	FAN SIZE	ENT AIR °F	MBH	KW	STAGES	VOLT/ PHASE	MCA	MOCP	
FP-20-1	14	0.36	2500	850	2500	0.26	0.5	06SQ	64.9	68.3	20.0	3	460/3	34.8	35	VSEF
FP-20-2	08	0.40	800	430	800	0.25	0.33	03SQ	62.0	25.6	7.5	3	460/3	13.3	15	VSEF
FP-20-3	14	0.40	2500	850	2500	0.25	0.5	06SQ	64.9	68.3	20.0	3	460/3	34.8	35	VSEF
FP-20-4	10	0.39	1190	400	1190	0.25	0.33	04SQ	65.0	34.2	10.0	3	460/3	17.5	20	VSEF
FP-20-5	14	0.40	2500	850	2500	0.25	0.5	06SQ	64.9	68.3	20.0	3	460/3	34.8	35	VSEF
FP-20-6	10	0.32	1010	480	1010	0.25	0.33	03SQ	62.9	30.7	9.0	3	460/3	15.5	20	VSEF
FP-20-7	10	0.35	1050	480	1050	0.25	0.33	03SQ	63.1	30.7	9.0	3	460/3	15.5	20	VSEF
FP-20-8	14	0.36	2480	690	2480	0.26	0.5	06SQ	65.8	68.3	20.0	3	460/3	34.8	35	VSEF
FP-20-9	14	0.40	2500	850	2500	0.25	0.5	06SQ	64.9	68.3	20.0	3	460/3	34.8	35	VSEF
FP-20-10	10	0.25	870	350	870	0.25	0.33	03SQ	64.0	25.6	7.5	3	460/3	13.3	15	VSEF
FP-21-1	12	0.21	1850	590	1850	0.26	0.5	06SQ	65.2	51.2	15.0	3	460/3	27.3	30	VSEF
FP-21-2	12	0.13	1620	570	1620	0.25	0.5	06SQ	64.7	47.8	15.0	3	460/3	25.8	30	VSEF
FP-21-3	10	0.39	1190	570	1190	0.25	0.33	04SQ	62.8	37.6	11.0	3	460/3	19.4	20	VSEF
FP-21-4	10	0.31	980	465	980	0.25	0.33	03SQ	62.9	30.7	9.0	3	460/3	15.5	20	VSEF
FP-21-5	10	0.31	980	465	980	0.25	0.33	03SQ	62.9	30.7	9.0	3	460/3	15.5	20	VSEF
FP-21-6	12	0.39	1600	560	1600	0.25	0.5	05SQ	64.8	44.4	13.0	3	460/3	22.6	25	VSEF
FP-21-7	12	0.27	2000	590	2000	0.26	0.5	06SQ	65.6	54.6	16.0	3	460/3	28.8	30	VSEF
FP-22-1	12	0.36	1540	690	1540	0.25	0.5	05SQ	63.3	47.8	14.0	3	460/3	24.1	25	VSEF
FP-22-2	10	0.33	1290	540	1290	0.25	0.5	05SQ	63.7	37.6	11.0	3	460/3	19.5	20	VSEF
FP-22-3	14	0.36	2500	750	2500	0.25	0.5	06SQ	65.5	68.3	20.0	3	460/3	34.8	35	VSEF
FP-22-4	14	0.37	2500	320	2500	0.25	0.5	06SQ	68.1	61.5	18.0	3	460/3	31.8	35	VSEF
FP-22-5	08	0.33	730	105	730	0.25	0.33	03SQ	67.8	18.8	5.5	3	460/3	10.3	15	VSEF
FP-22-6	14	0.37	2500	320	2500	0.25	0.5	06SQ	68.1	61.5	18.0	3	460/3	31.8	35	VSEF
FP-22-7	06	0.13	425	60	425	0.25	0.125	02SQ	67.9	10.2	3.0	1	277/1	14.4	15	VSEF

NOTES:
1. UNITS TO BE OWNER PROVIDED FOR CONTRACTOR COMPLETE, OPERABLE INSTALLATION.

FAN POWERED VAV BOX SCHEDULE

MARK	BOX SIZE	PD IN H20	PRIMARY AIR		UNIT FAN				HEATING COIL					ELECTRICAL		MODEL
			MAX CFM	MIN CFM	CFM	SP IN H20	HP	FAN SIZE	ENT AIR °F	MBH	KW	STAGES	VOLT/ PHASE	MCA	MOCP	
FP-23-1	14	0.36	2500	760	2500	0.25	0.5	06SQ	65.4	68.3	20.0	3	460/3	34.8	35	VSEF
FP-23-2	08	0.16	580	110	580	0.25	0.33	04SQ	67.2	15.4	4.5	3	460/3	9.3	15	VSEF
FP-23-3	10	0.32	1000	100	1000	0.25	0.33	03SQ	67.5	25.6	7.5	3	460/3	13.3	15	VSEF
FP-23-4	14	0.2	2040	585	2040	0.25	0.5	06SQ	65.7	54.6	16.0	3	460/3	28.8	30	VSEF
FP-23-5	06	0.14	440	80	440	0.25	0.125	02SQ	67.3	12.0	3.5	1	277/1	16.7	20	VSEF
FP-23-6	08	0.32	715	110	715	0.25	0.33	03SQ	67.7	18.8	5.5	3	460/3	10.3	15	VSEF
FP-24-1	14	0.35	2475	885	2475	0.25	0.5	06SQ	64.6	68.3	20.0	3	460/3	34.8	35	VSEF
FP-24-2	12	0.35	1520	600	1520	0.25	0.5	05SQ	64.1	44.4	13.0	3	460/3	22.6	25	VSEF
FP-24-3	10	0.37	1365	580	1365	0.25	0.5	05SQ	63.6	41.0	12.0	3	460/3	21.0	25	VSEF
FP-24-4	14	0.36	2500	670	2500	0.25	0.5	06SQ	66.0	68.3	20.0	3	460/3	34.8	35	VSEF
FP-24-5	06	0.14	430	90	430	0.25	0.125	02SQ	66.9	12.0	3.5	1	277/1	16.7	20	VSEF
FP-25-1	12	0.27	2000	995	2000	0.25	0.5	06SQ	64.8	58.0	17.0	3	460/3	30.3	35	VSEF
FP-25-2	05	0.07	310	45	310	0.25	0.125	02SQ	67.8	8.5	2.5	1	277/1	12.2	15	VSEF
FP-25-3	10	0.34	1310	405	1310	0.25	0.5	05SQ	65.4	37.5	11.0	3	460/3	19.5	20	VSEF
FP-25-4	12	0.33	1485	580	1485	0.25	0.5	05SQ	64.1	44.4	13.0	3	460/3	22.6	25	VSEF
FP-25-5	06	0.16	470	110	470	0.25	0.125	02SQ	66.5	13.7	4.0	3	460/3	8.5	15	VSEF
FP-25-6	06	0.10	360	110	360	0.25	0.125	02SQ	65.4	10.2	3.0	1	277/1	14.4	15	VSEF
FP-25-7	05	0.06	280	85	280	0.25	0.125	02SQ	65.4	8.5	2.5	1	277/1	12.2	15	VSEF
FP-25-8	06	0.18	485	130	485	0.25	0.125	02SQ	66.0	13.7	4.0	3	460/3	6.9	15	VSEF
FP-25-9	06	0.11	380	85	380	0.25	0.125	02SQ	66.6	10.2	3.0	1	277/1	14.4	15	VSEF
FP-25-10	04	0.03	200	80	200	0.25	0.125	02SQ	64.0	6.8	2.0	1	277/1	9.9	15	VSEF

NOTES:
1. UNITS TO BE OWNER PROVIDED FOR CONTRACTOR COMPLETE, OPERABLE INSTALLATION.

VAV TERMINAL UNIT SCHEDULE

MARK	COOLING		INLET SIZE, IN.	MIN SP. IN. WG	HEATING COIL					MODEL
	MAX CFM	MIN CFM			CFM	MBH	KW	VOLT/ PHASE	CONTROL STEPS	
VAV-20-1	820	135	08	0.1	135	3.4	1.0	277/1	1	VCEF
VAV-20-2	340	90	05	0.1	90	3.4	1.0	277/1	1	VCEF
VAV-21-1	885	135	08	0.1	135	3.4	1.0	277/1	1	VCEF
VAV-22-1	690	105	08	0.1	105	6.8	2.0	277/1	1	VCEF
VAV-23-1	300	90	05	0.1	90	3.4	1.0	277/1	1	VCEF
VAV-23-2	150	90	04	0.1	100	3.4	1.0	277/1	1	VCEF
VAV-23-3	300	90	05	0.1	90	3.4	1.0	277/1	1	VCEF
VAV-24-1	1835	600	12	0.1	600	23.9	7.0	480/3	1	VCEF
VAV-25-1	190	100	04	0.1	100	3.4	1.0	277/1	1	VCEF
VAV-25-2	410	90	06	0.1	90	3.4	1.0	277/1	1	VCEF
VAV-25-3	170	90	04	0.1	90	3.4	1.0	277/1	1	VCEF

NOTES:
1. UNITS TO BE OWNER PROVIDED FOR CONTRACTOR COMPLETE, OPERABLE INSTALLATION.

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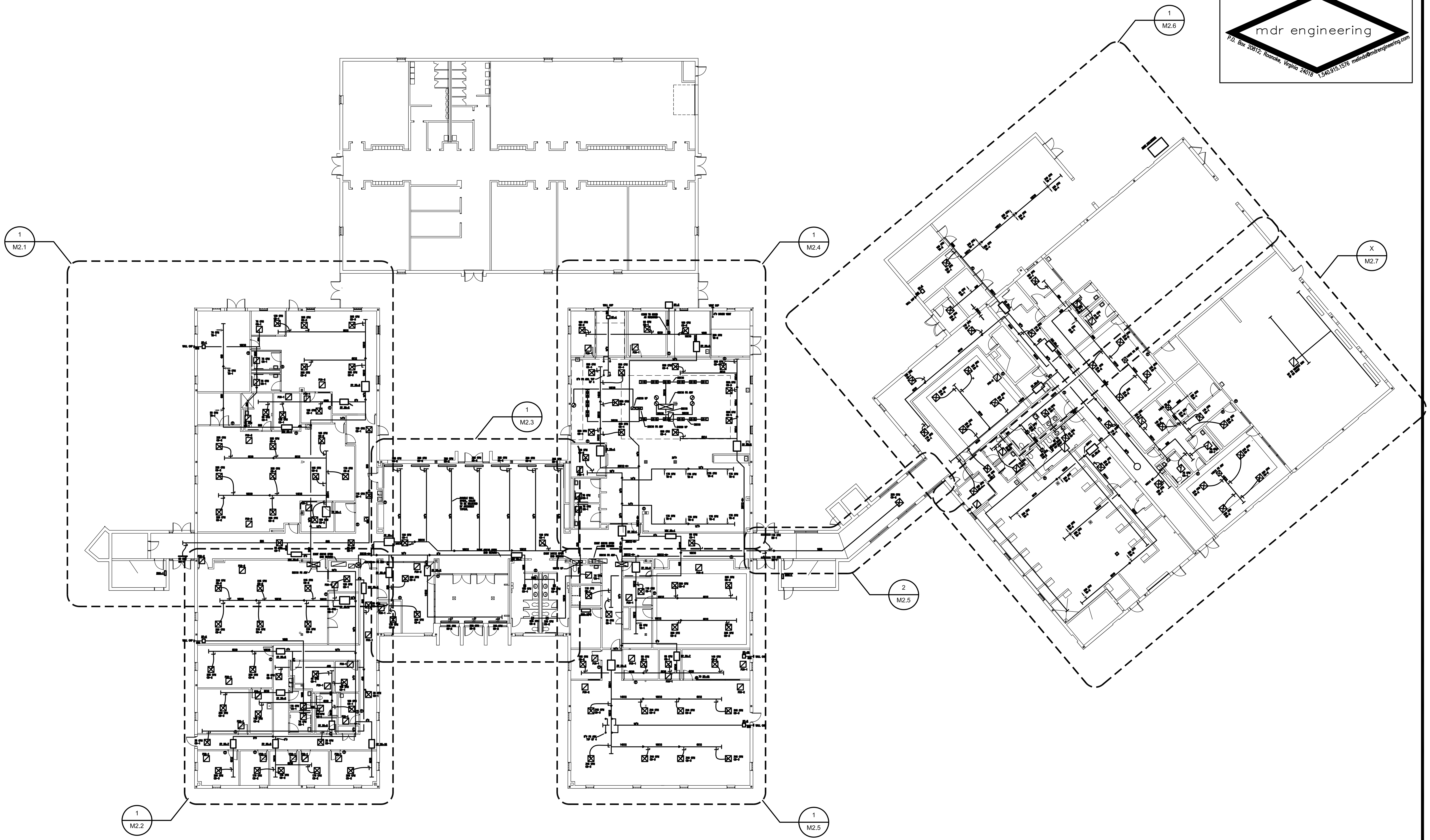
MECHANICAL SCHEDULES

M0.2

SHEET ______ of X



1 M1.1 GROUND FLOOR OVERALL MECHANICAL NEW WORK PLAN
SCALE: 1/16" = 1'-0"

0 8' 16' 32'

PLAN NORTH
TRUE NORTH

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GROUND FLOOR OVERALL MECHANICALNEW WORK PLAN

M1.1

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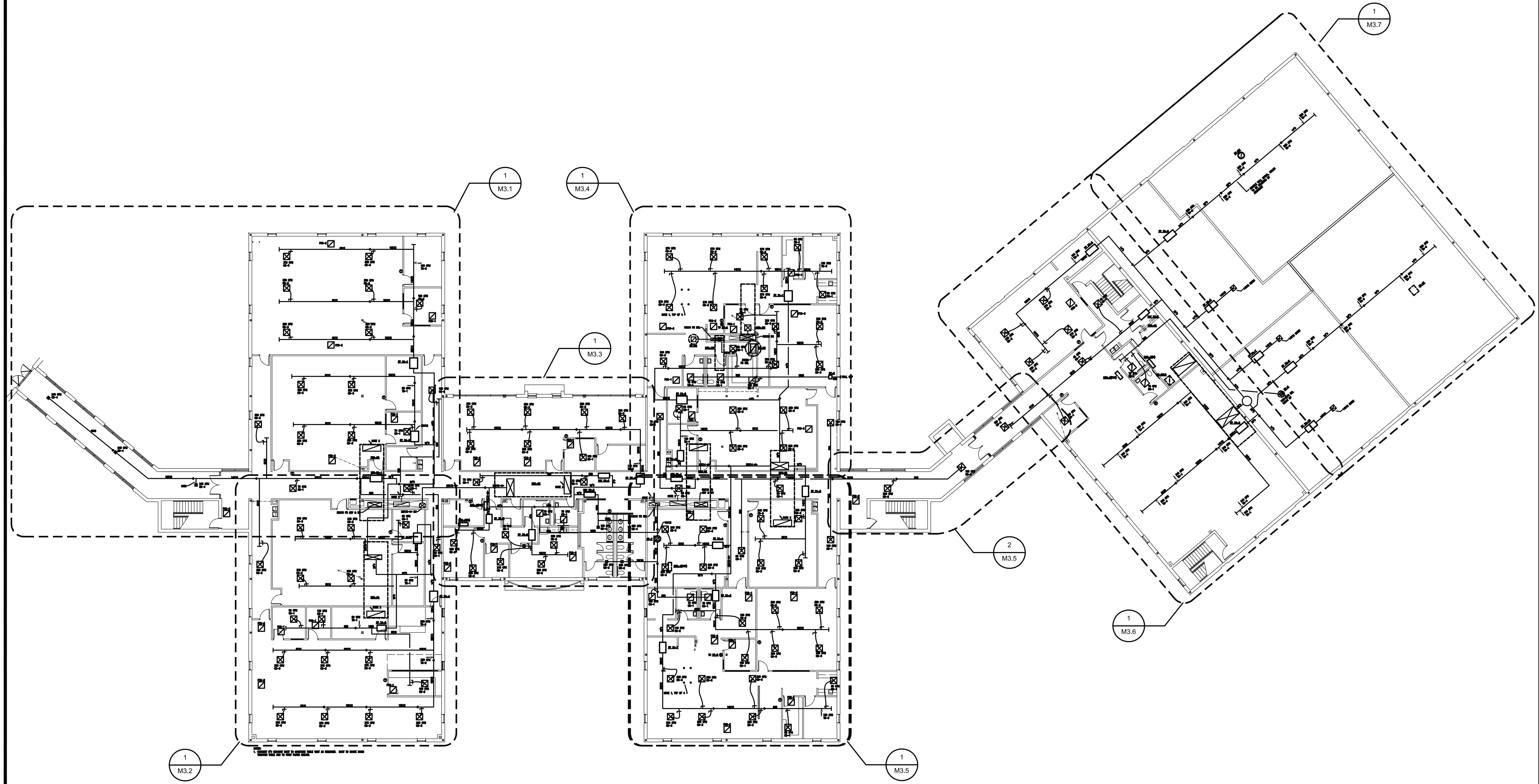

SECOND FLOOR OVERALL MECHANICAL NEW WORK PLAN

1 M1.2 SCALE: 1/16" = 1'-0"

0 8' 16' 32'

PLAN NORTH
TRUE NORTH

REVISIONS

No.	DATE	DESCRIPTION
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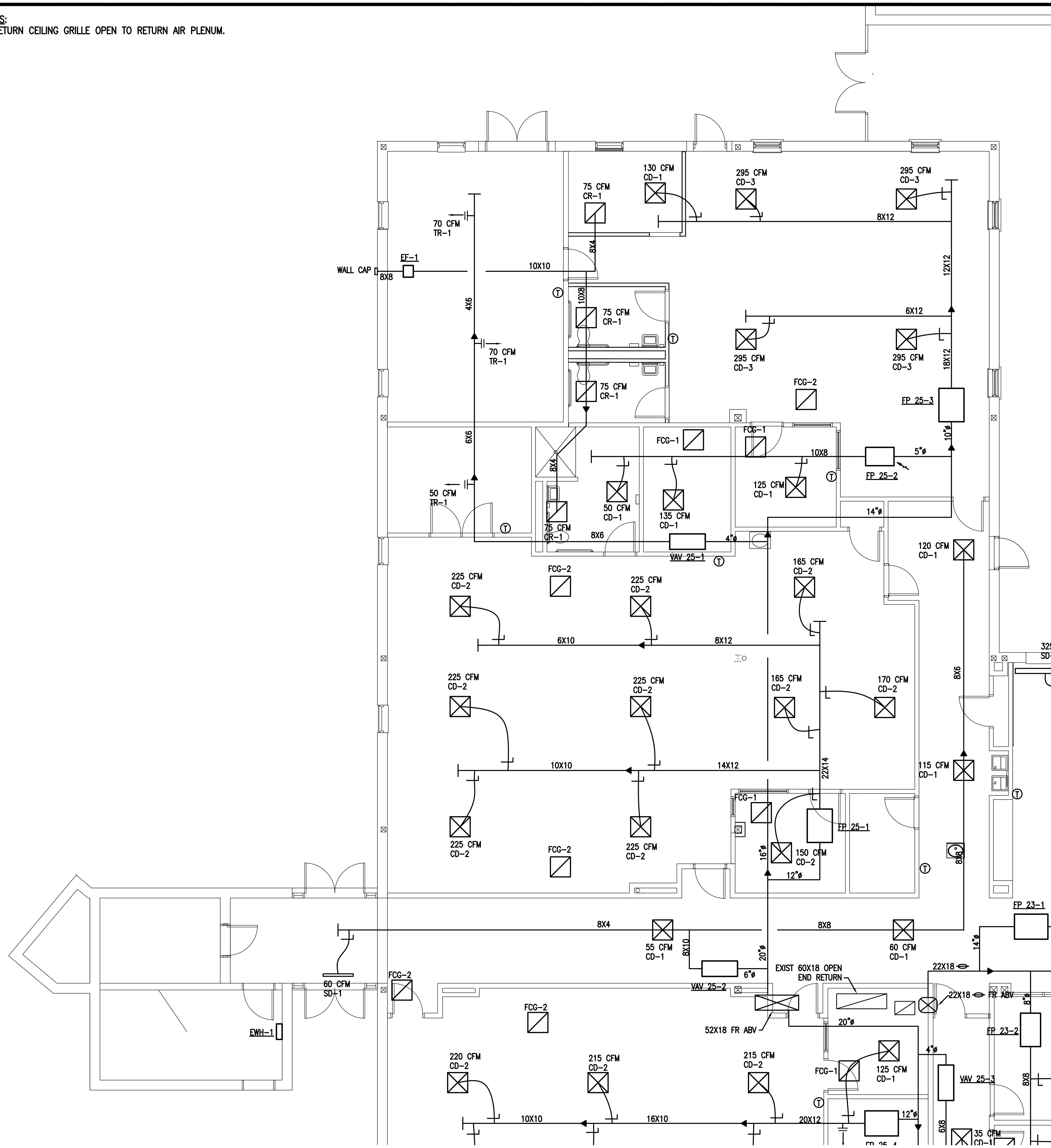
DATE:	6/17/22
SCALE:	AS SHOWN

SECOND FLOOR OVERALL MECHANICAL NEW WORK PLAN

M1.2

SHEET ______ of X

NOTES:
1. RETURN CEILING GRILLE OPEN TO RETURN AIR PLENUM.



GROUND FLOOR PARTIAL MECHANICAL NEW WORK PLAN - AREA A

1
M2.1
SCALE: 3/16" = 1'-0"

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KEYPLAN

0 3' 6' 12'

PLAN NORTH
TRUE NORTH

REVISIONS

No.	DATE	DESCRIPTION
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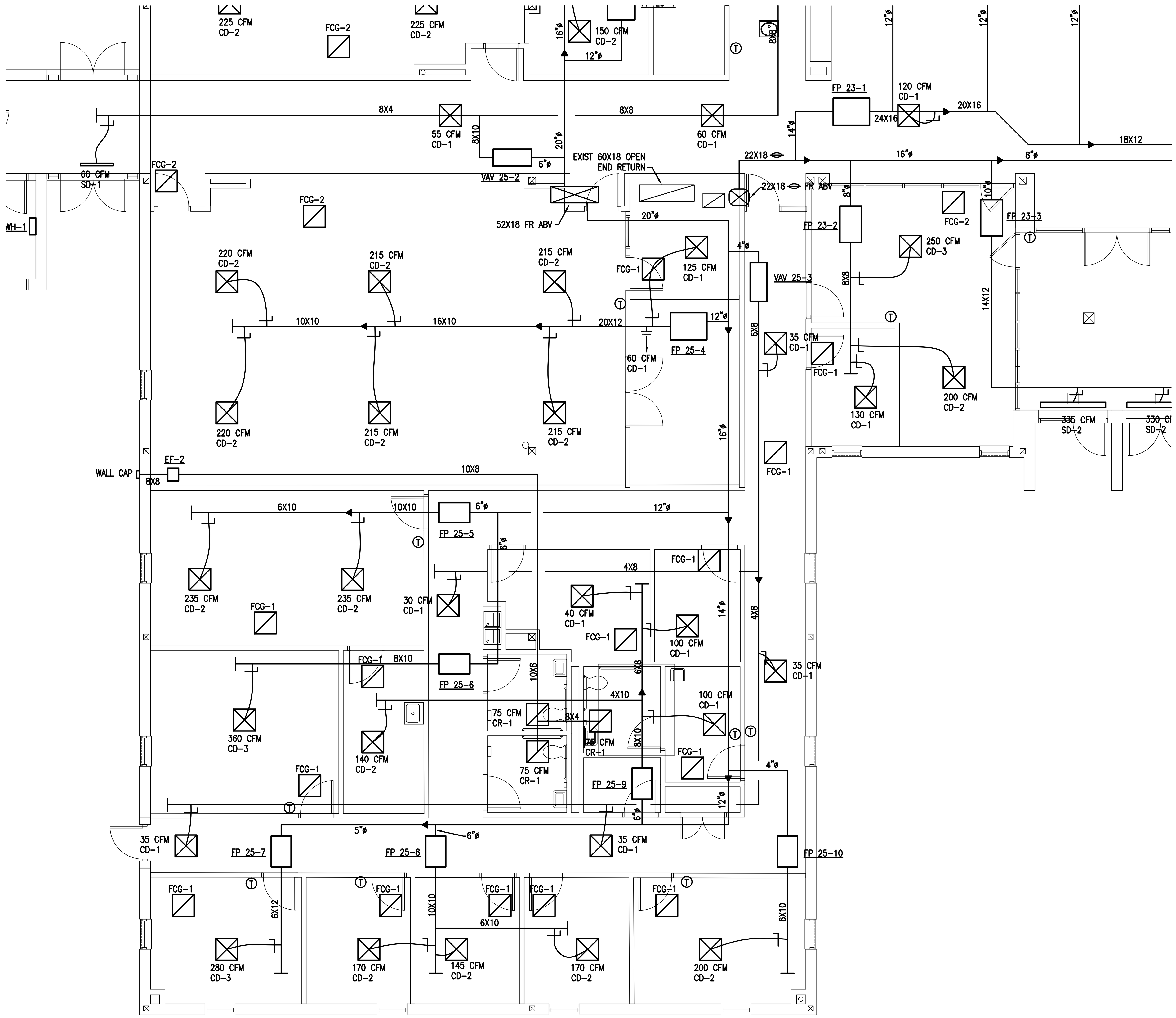
DATE:	6/17/22
SCALE:	AS SHOWN

GROUND FLOOR PARTIAL MECHANICAL NEW WORK PLAN - AREA A

M2.1

SHEET _____ of X



1 M2.2 GROUND FLOOR ENLARGED PARTIAL MECHANICAL NEW WORK PLAN

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

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MELINDA D. RUBLE
No. 028163
06.17.2022
PROFESSIONAL ENGINEER

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X	X	X

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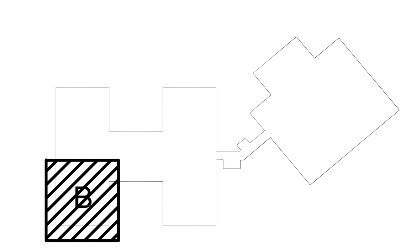
DATE:	6/17/22
SCALE:	AS SHOWN

GROUND FLOOR PARTIAL MECHANICAL NEW WORK PLAN - AREA B

M2.2

SHEET ______ of X



KEYPLAN

0 3' 6' 12'

N PLAN NORTH

TRUE NORTH

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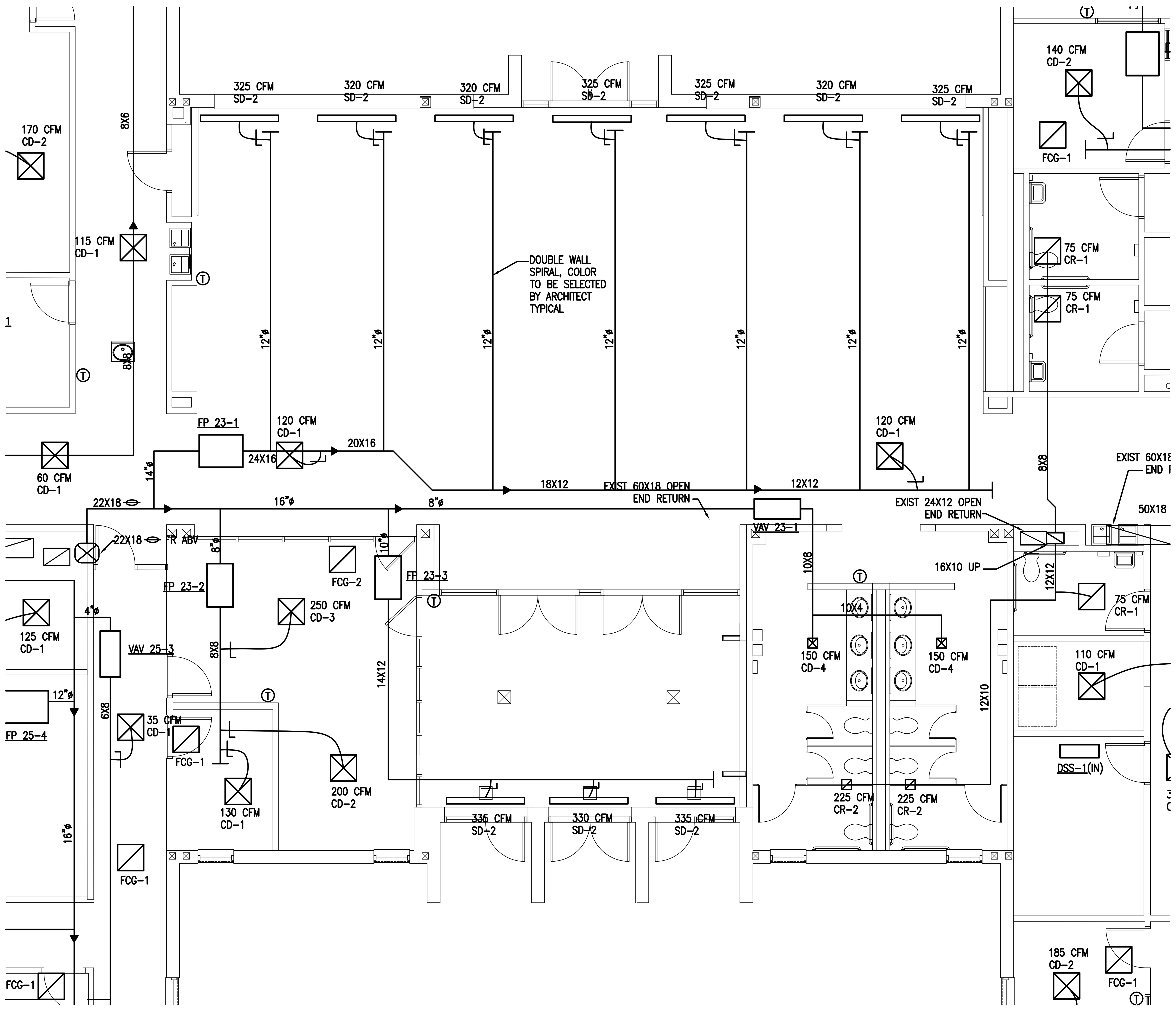
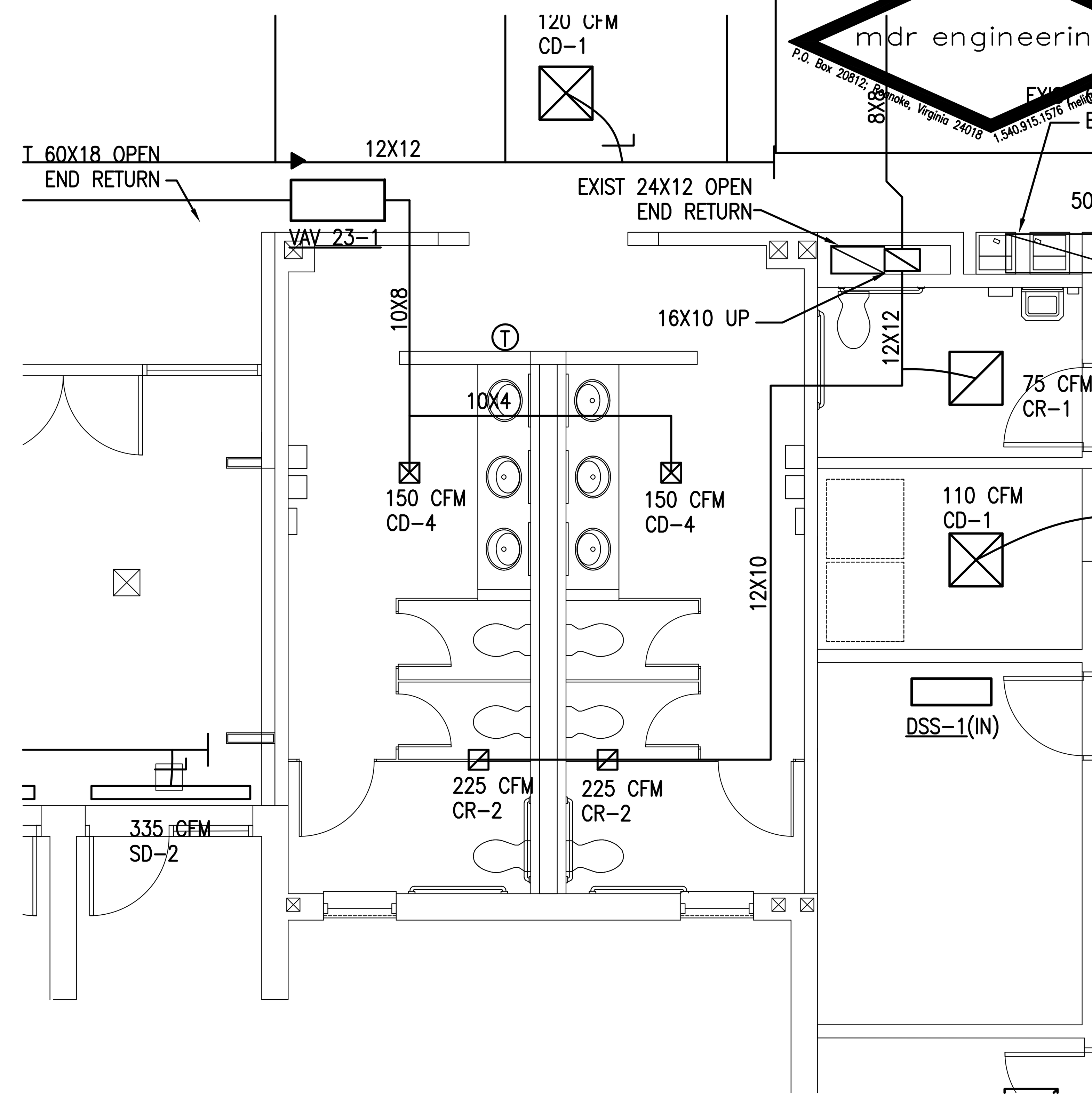
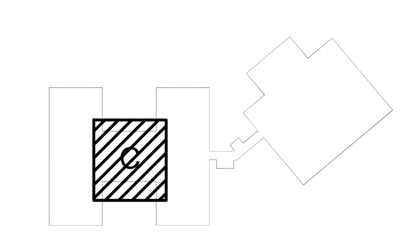


1 M2.3 GROUND FLOOR PARTIAL MECHANICAL NEW WORK PLAN - AREA C
SCALE: 3/16" = 1'-0"



2 M2.3 TOILET ROOM ENLARGED NEW WORK PLAN
SCALE: 1/4" = 1'-0"



KEYPLAN

0 2' 4' 8'
0 3' 6' 12'
PLAN NORTH
TRUE NORTH

REVISIONS		
No.	DATE	DESCRIPTION
X	X	X

DRAWN BY: MDR
REV'D BY: MDR
DATE: 6/17/22
SCALE: AS SHOWN

GROUND FLOOR PARTIAL MECHANICAL NEW WORK PLAN - AREA C

M2.3

SHEET ____ of X

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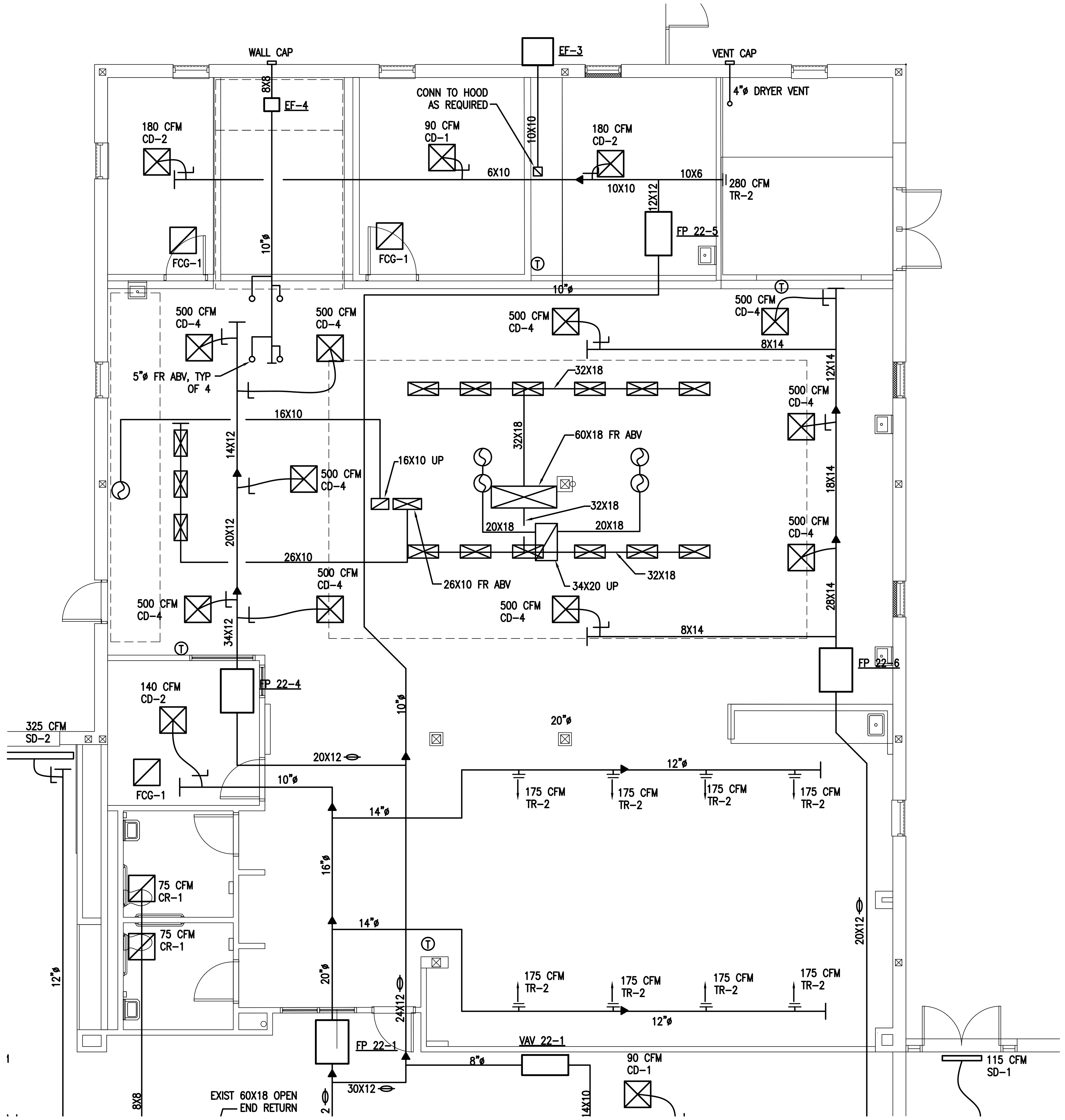
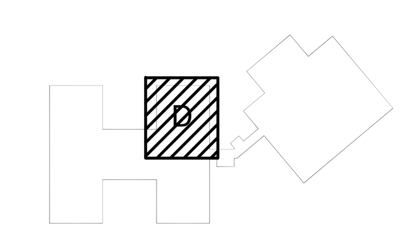


GROUND FLOOR PARTIAL MECHANICAL NEW WORK PLAN - AREA D

1 / M2.4

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



KEYPLAN

0 3' 6' 12'

PLAN NORTH

TRUE NORTH

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No.	DATE	DESCRIPTION
X	X	X

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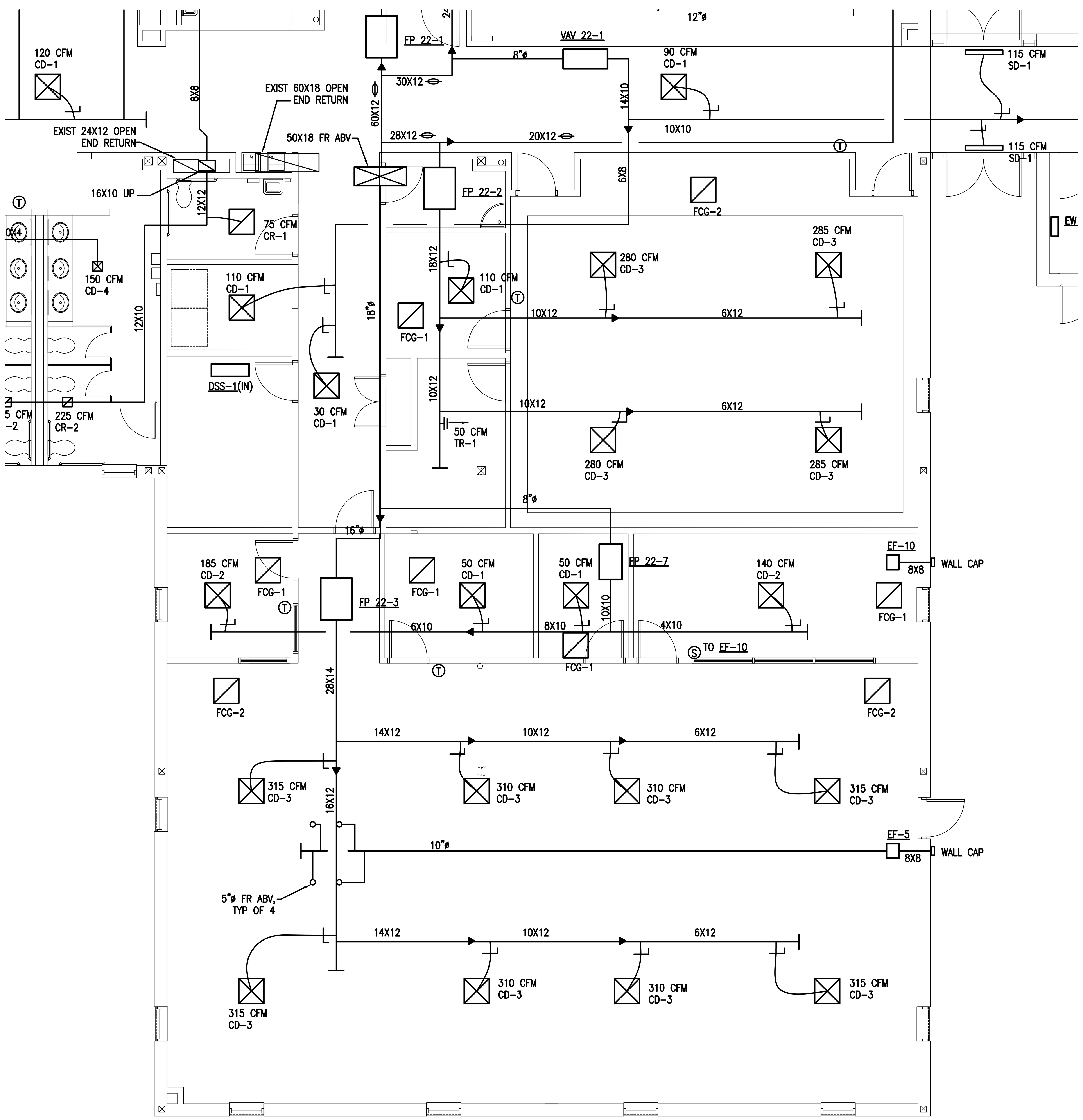
DATE:	6/17/22
SCALE:	AS SHOWN

GROUND FLOOR PARTIAL NEW WORK PLAN - AREA D

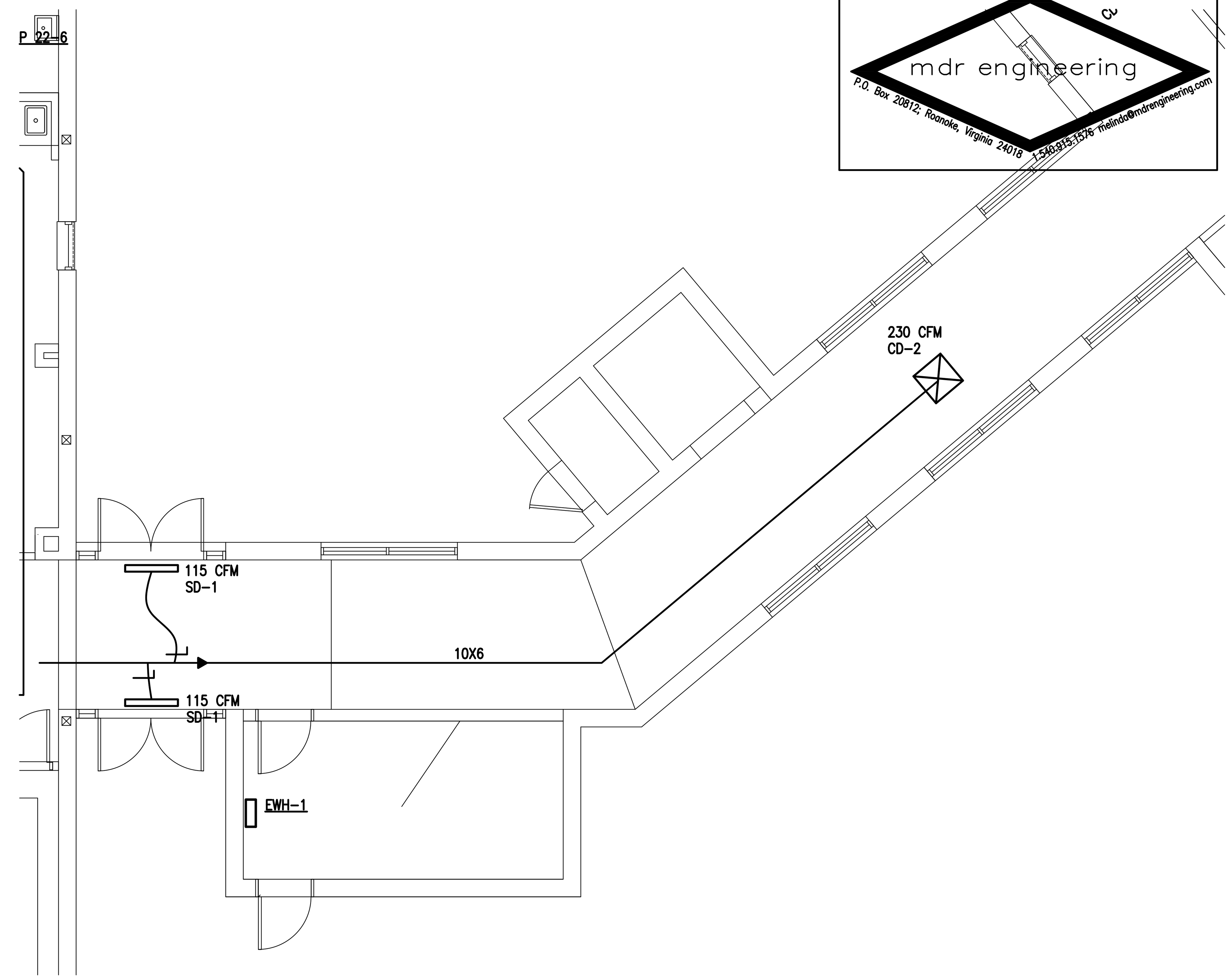
M2.4

SHEET ______ of X



2 M2.5 GROUND FLOOR PARTIAL MECHANICAL NEW WORK PLAN - AREA E

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



2 M2.5 GROUND FLOOR PARTIAL MECHANICAL NEW WORK PLAN - AREA E

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

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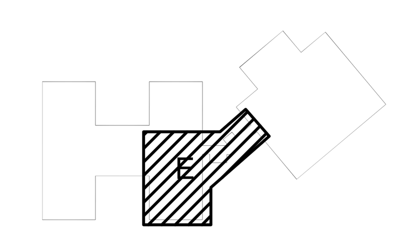

KEYPLAN

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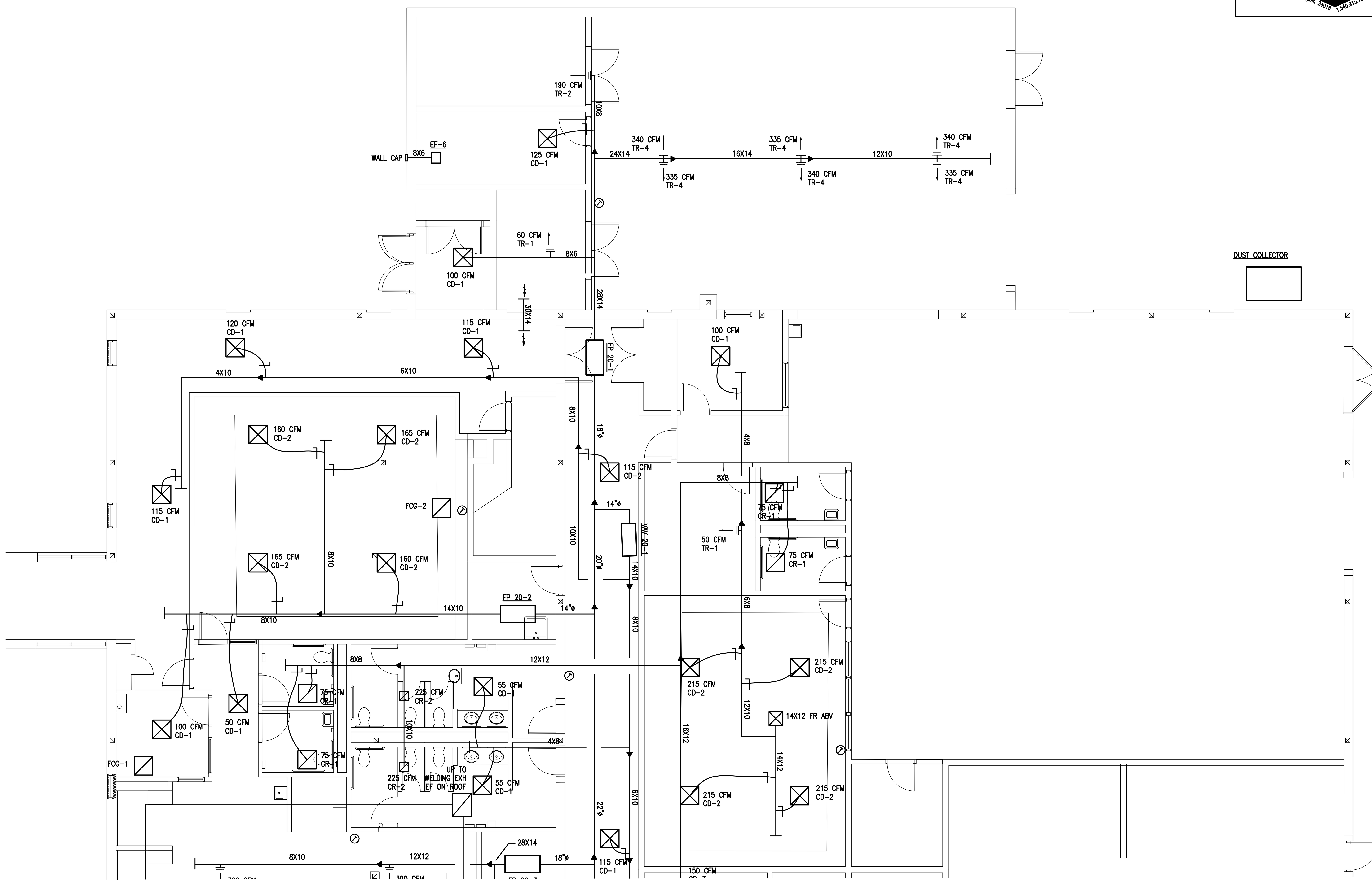
REV'D BY:	MDR
DATE:	6/17/22
SCALE:	AS SHOWN

GROUND FLOOR PARTIAL MECHANICAL NEW WORK PLAN - AREA E

M2.5

SHEET ____ of X



GROUND FLOOR PARTIAL MECHANICAL NEW WORK PLAN - AREA F

1
M2.6
SCALE: 3/16" = 1'-0"

KEYPLAN

0 3' 6' 12'

PLAN NORTH
TRUE NORTH

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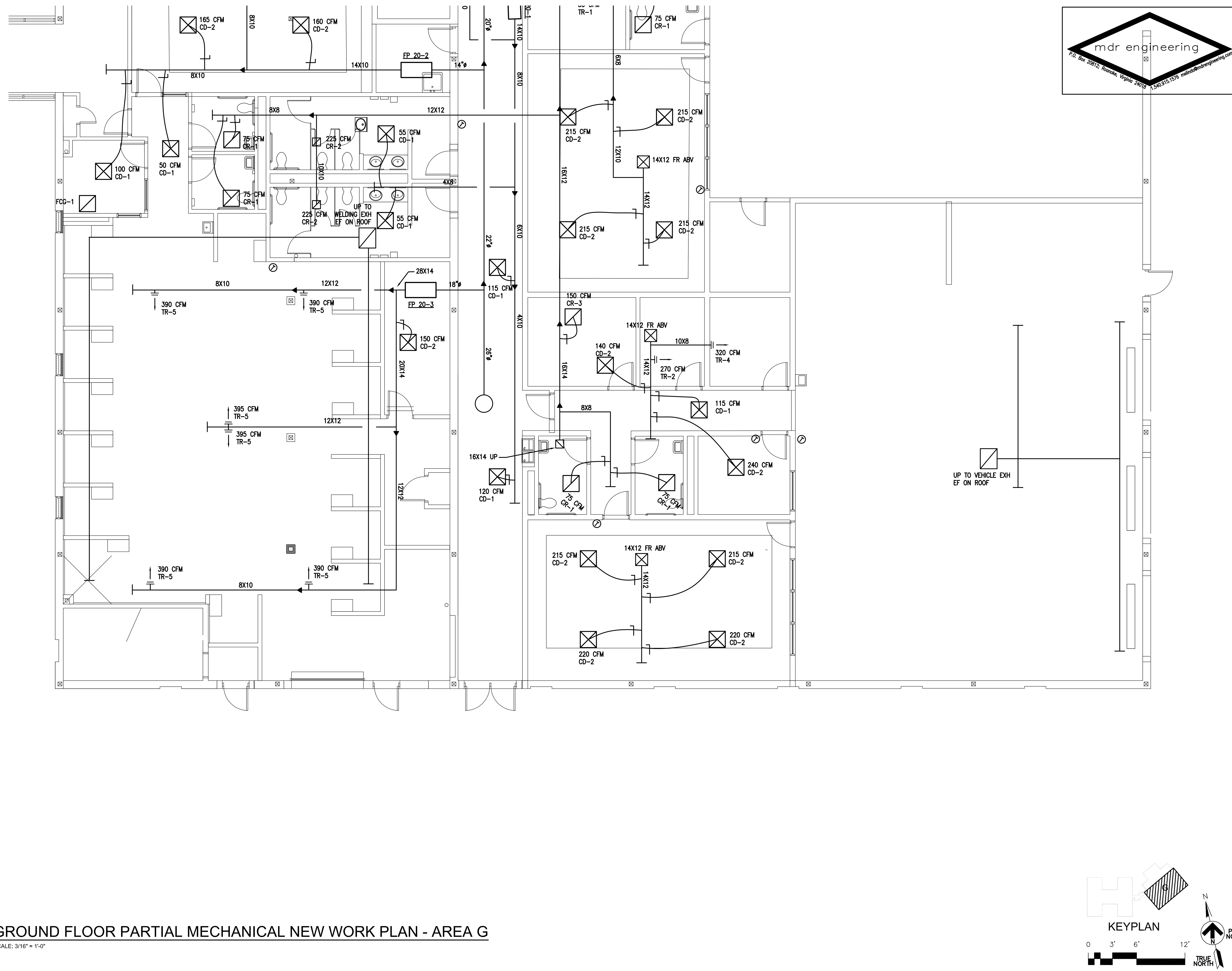
DATE:	6/17/22
SCALE:	AS SHOWN

GROUND FLOOR PARTIAL NEW WORK PLAN - AREA F

M2.6

SHEET ______ of X



1
M2.7
GROUND FLOOR PARTIAL MECHANICAL NEW WORK PLAN - AREA G
SCALE: 3/16" = 1'-0"

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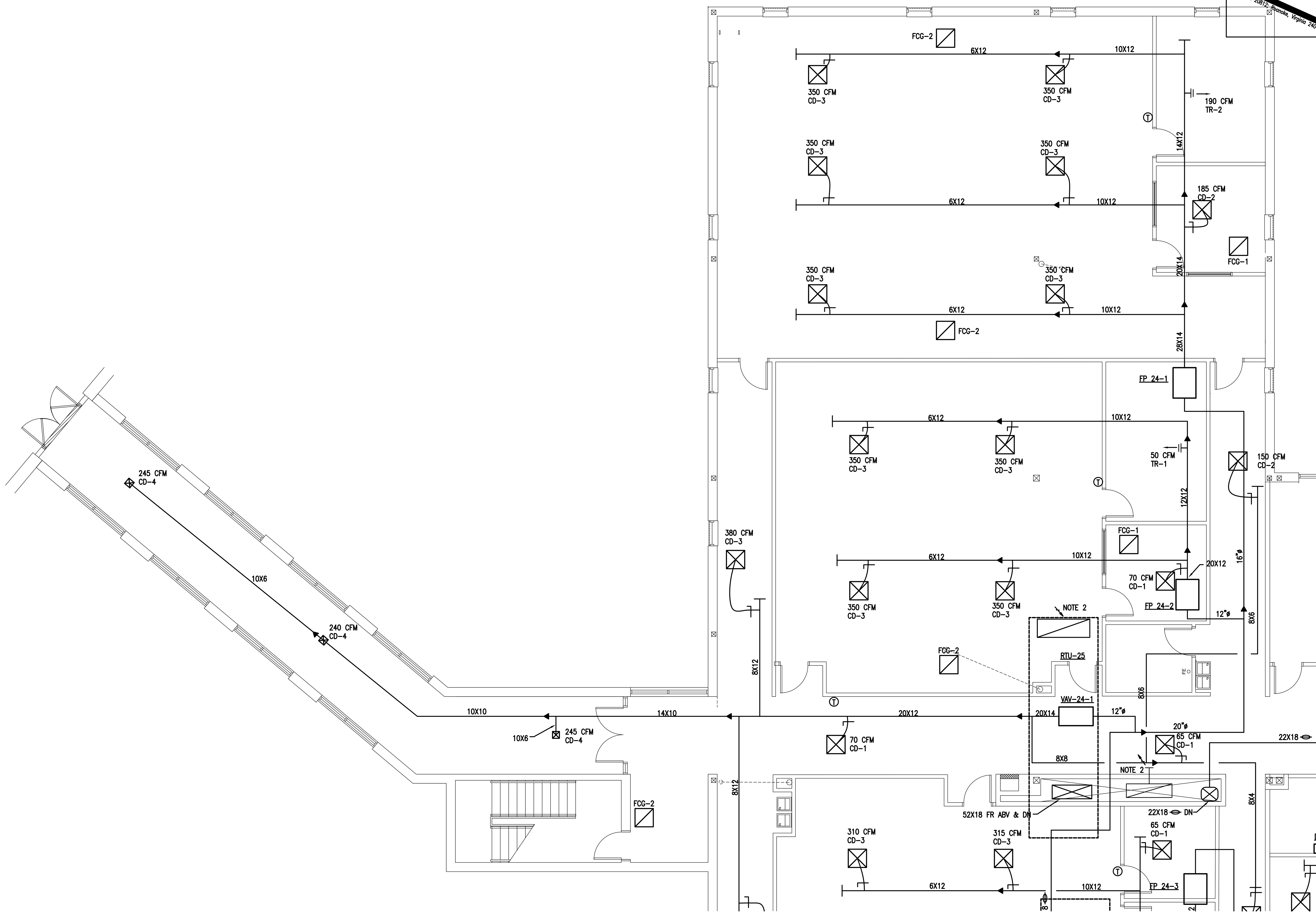
SCALE:	AS SHOWN

GROUND FLOOR PARTIAL MECHANICAL NEW WORK PLAN - AREA G

M2.7

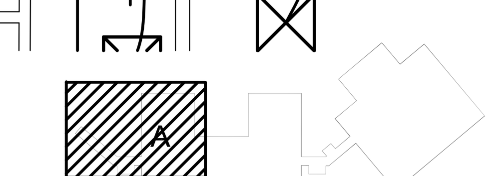
SHEET ______ of X

NOTES:
1. RETURN CEILING GRILLE OPEN TO RETURN AIR PLENUM.
2. OPEN END RETURN DUCT ABOVE CEILING. COVER WITH 1/2" WIRE MESH.



SECOND FLOOR PARTIAL MECHANICAL NEW WORK PLAN - AREA A

1
M3.1
SCALE: 3/16" = 1'-0"



KEYPLAN

0 3' 6' 12'

TRUE NORTH
PLAN NORTH

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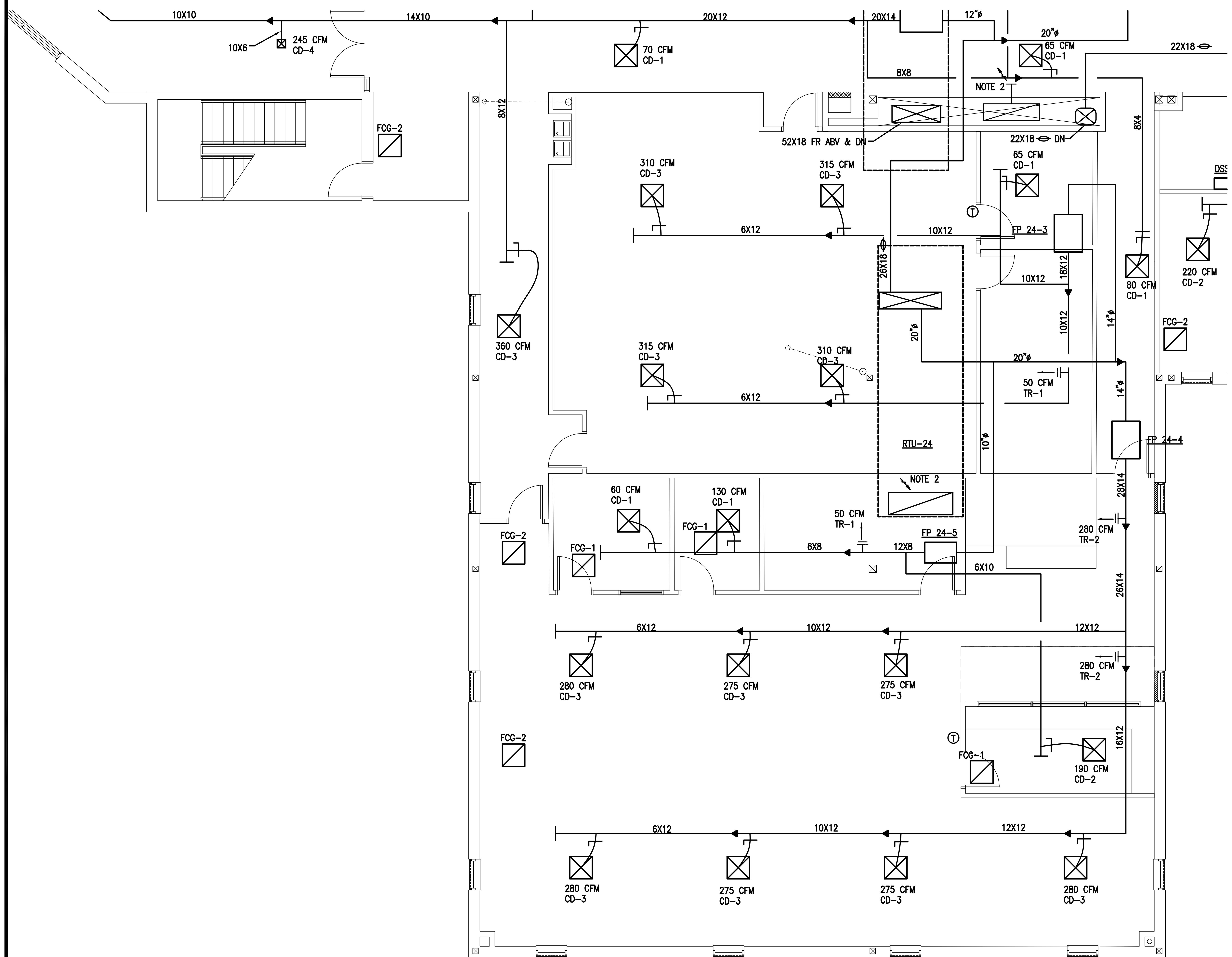
SCALE:	AS SHOWN

SECOND FLOOR PARTIAL MECHANICAL NEW WORK PLAN - AREA A

M3.1

SHEET ______ of __X__



NOTES:

1. CONNECT 5"ø EXHAUST DUCT TO MANICURE TABLE VENT AS REQUIRED. DUCT TO ROUTE DOWN THROUGH TABLE AND TO FIRST FLOOR CEILING.

1 / M3.2 SECOND FLOOR PARTIAL MECHANICAL NEW WORK PLAN - AREA B

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

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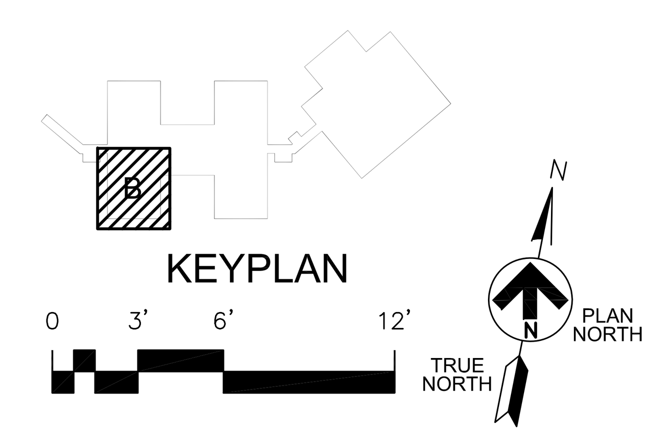
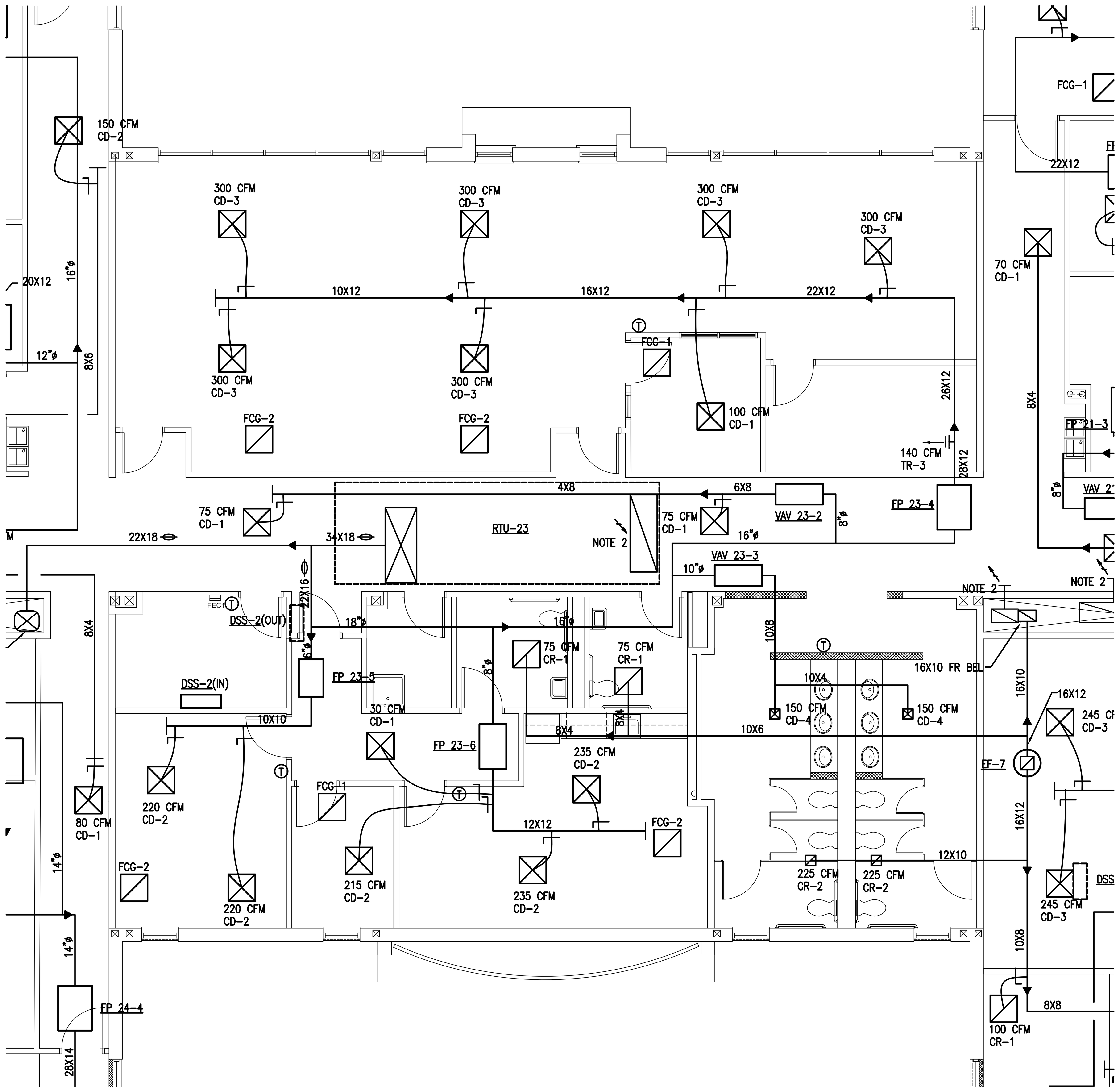
DATE:	6/17/22
SCALE:	AS SHOWN

SECOND FLOOR PARTIAL MECHANICAL NEW WORK PLAN - AREA B

M3.2



SHEET ______ of X



SECOND FLOOR PARTIAL MECHANICAL NEW WORK PLAN - AREA C

1
M3.3
SCALE: 3/16" = 1'-0"

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DATE:	6/17/22
SCALE:	AS SHOWN

SECOND FLOOR PARTIAL MECHANICAL NEW WORK PLAN - AREA C

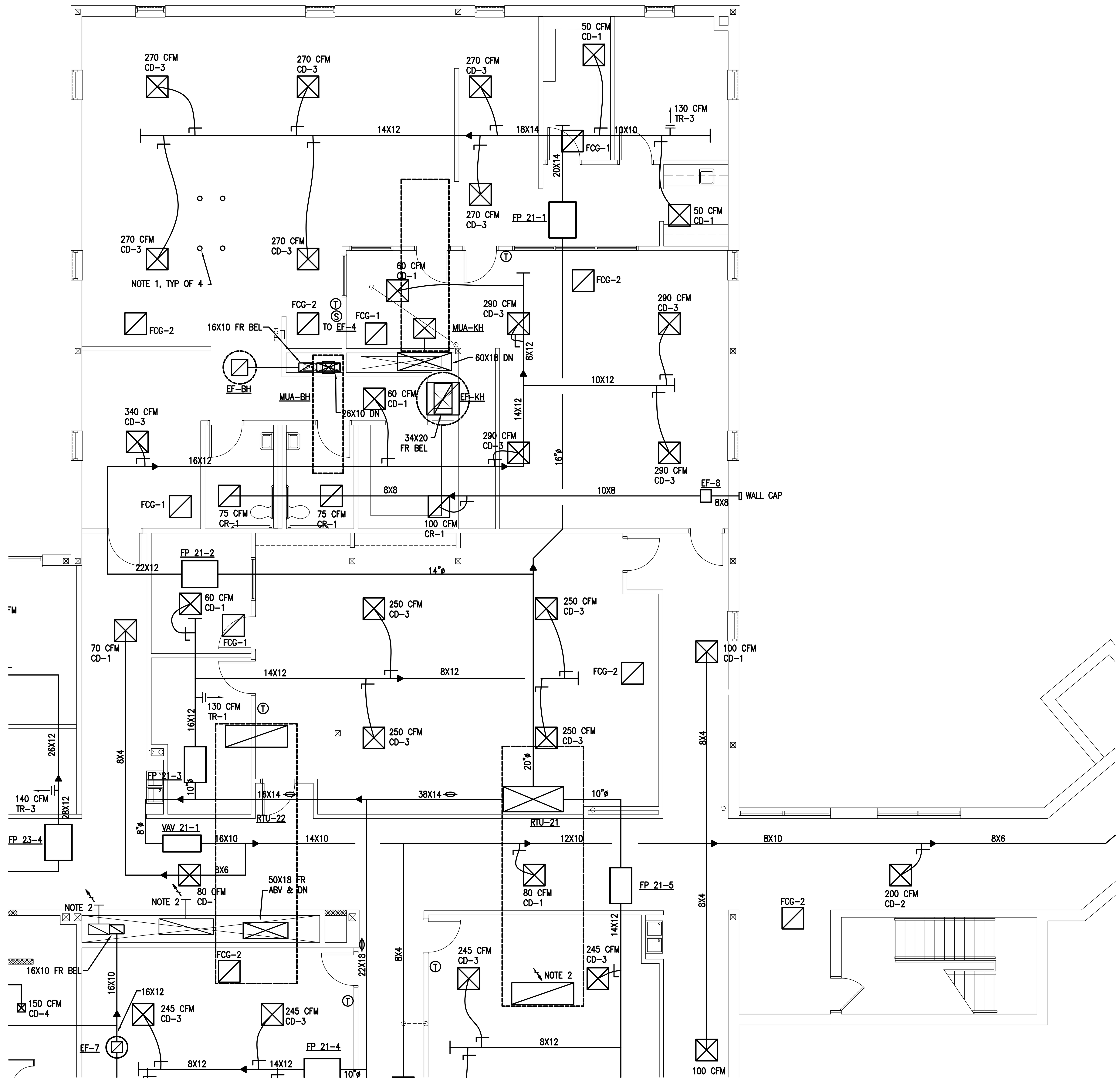
M3.3

SHEET ____ of X

KEYPLAN

0 3' 6' 12'

TRUE NORTH
PLAN NORTH



1 M3.4

SECOND FLOOR PARTIAL MECHANICAL NEW WORK PLAN - AREA D

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

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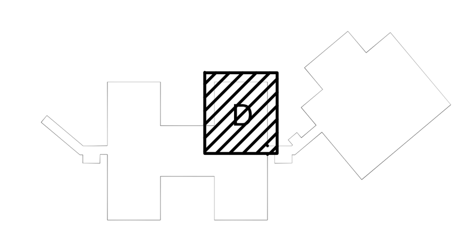
KEYPLAN



0 3' 6' 12'

TRUE NORTH PLAN NORTH

REVISIONS

No.	DATE	DESCRIPTION
X	X	X

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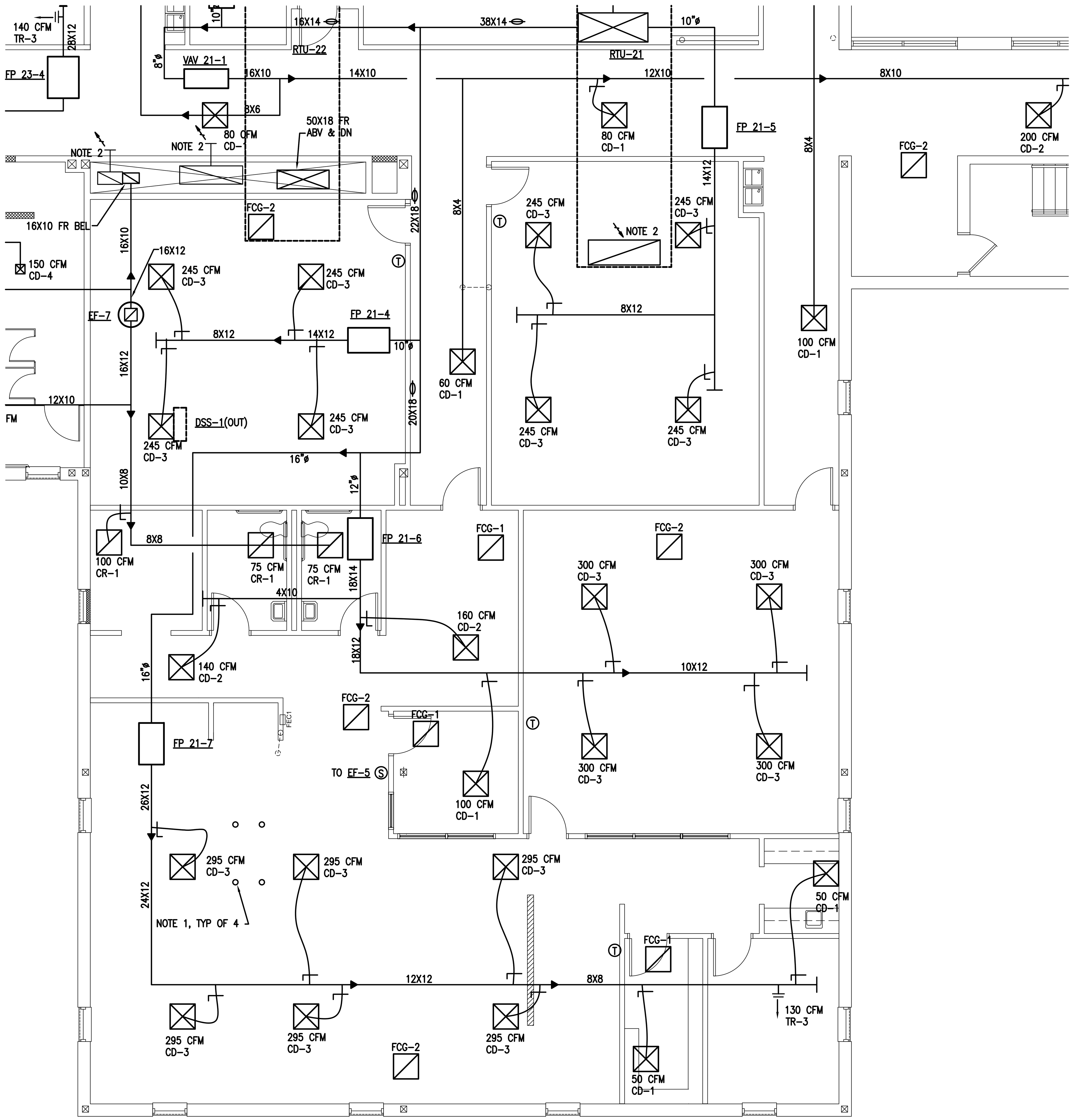
REV'D BY:	MDR
DATE:	6/17/22
SCALE:	AS SHOWN

SECOND FLOOR PARTIAL MECHANICAL NEW WORK PLAN - AREA D

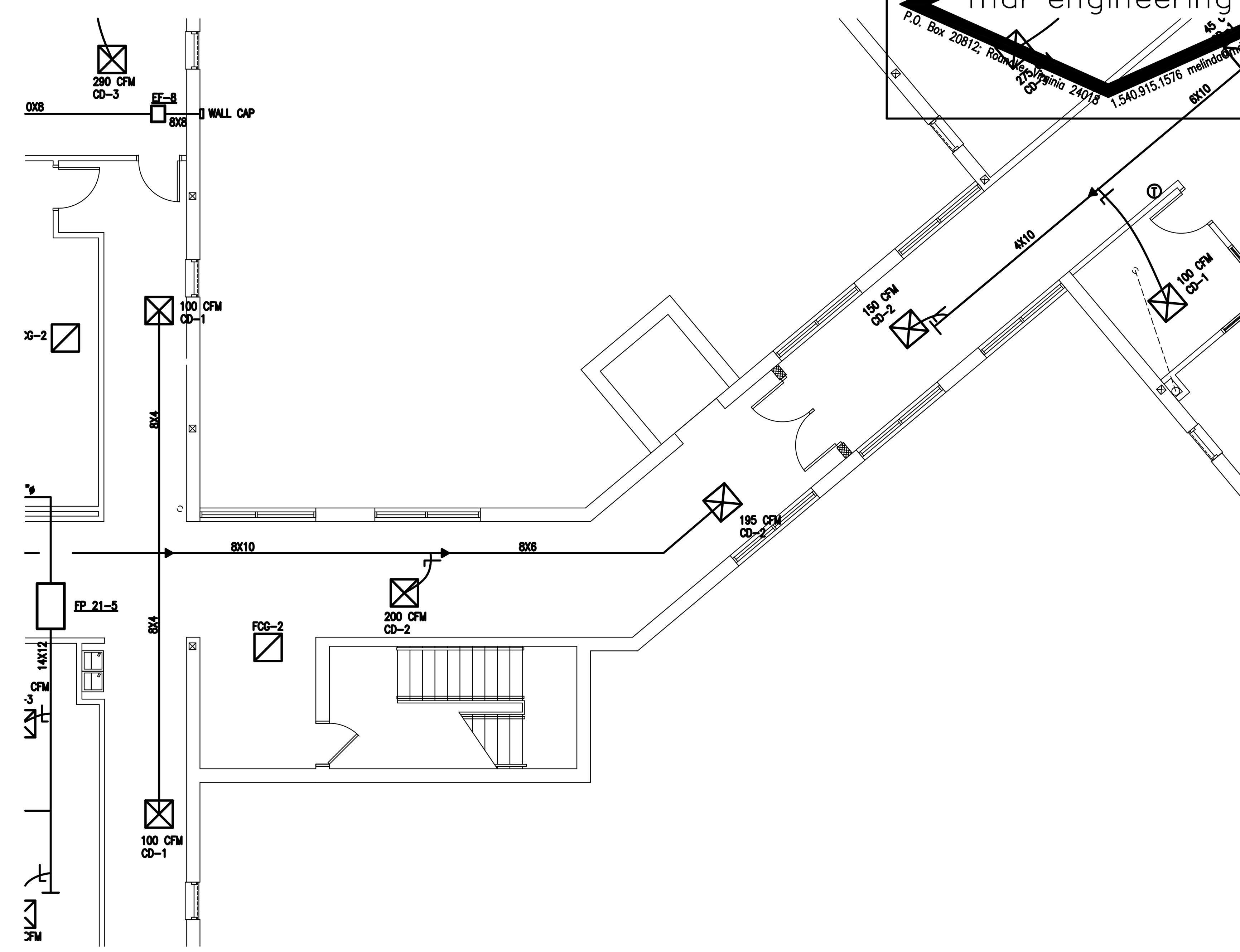
M3.4

SHEET ______ of X



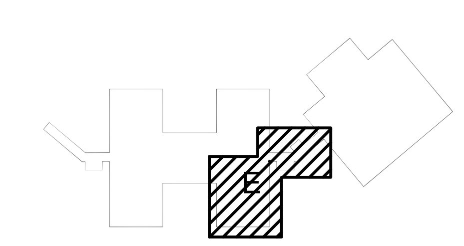
1 M3.5 SECOND FLOOR PARTIAL MECHANICAL NEW WORK PLAN - AREA E

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



2 M3.5 SECOND FLOOR PARTIAL MECHANICAL NEW WORK PLAN - AREA E

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



KEYPLAN

0 3' 6' 12'

TRUE NORTH PLAN NORTH

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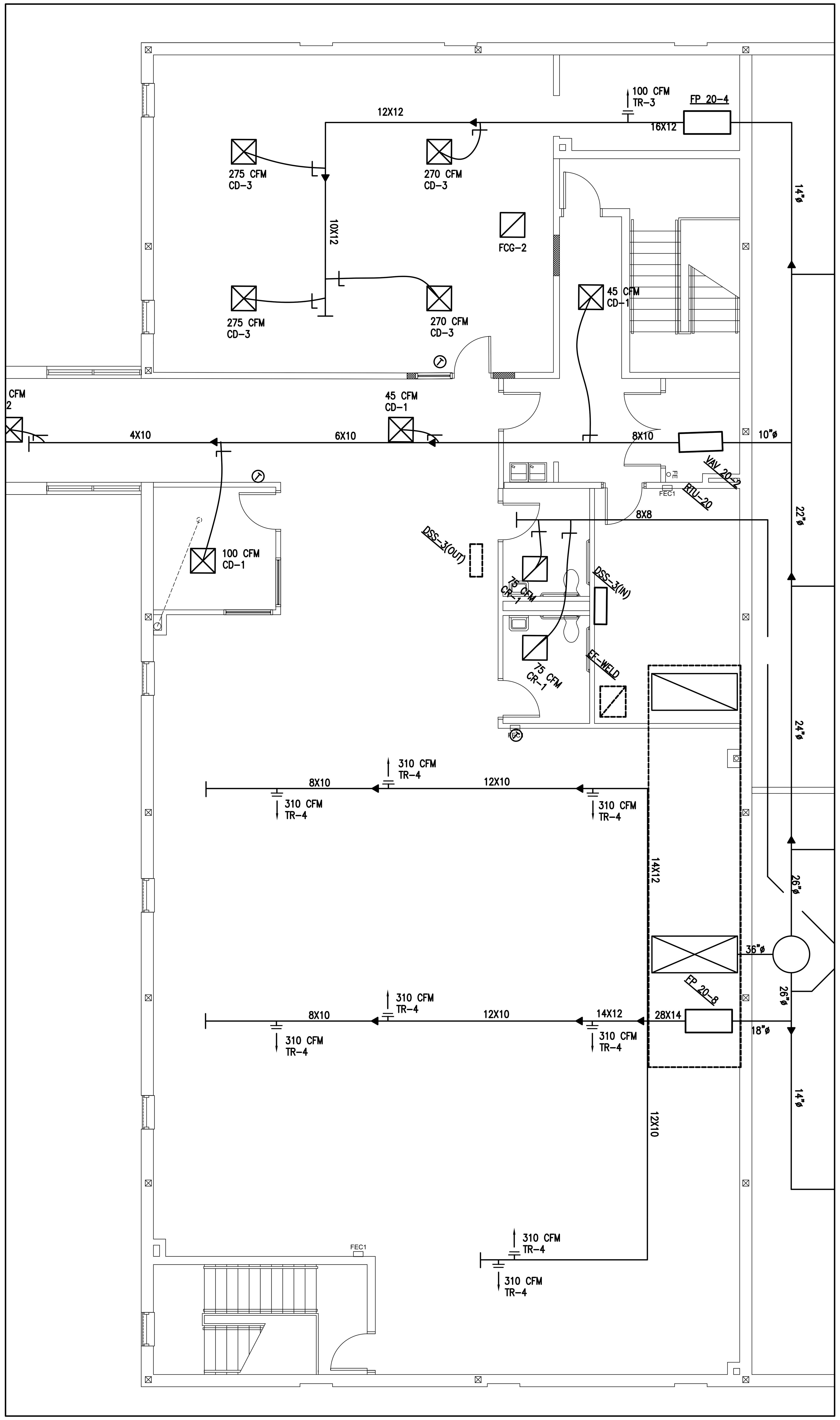
DATE:	6/17/22
SCALE:	AS SHOWN

SECOND FLOOR PARTIAL MECHANICAL NEW WORK PLAN - AREA E

M3.5

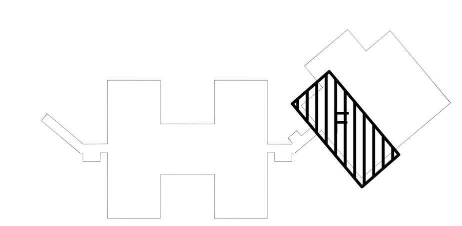
SHEET ______ of X



1
M3.6

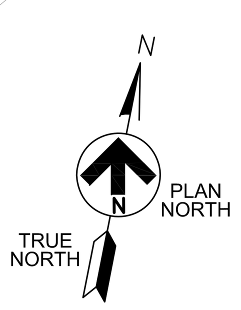
SECOND FLOOR PARTIAL NEW WORK PLAN - AREA F

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



KEYPLAN

0 3' 6' 12'



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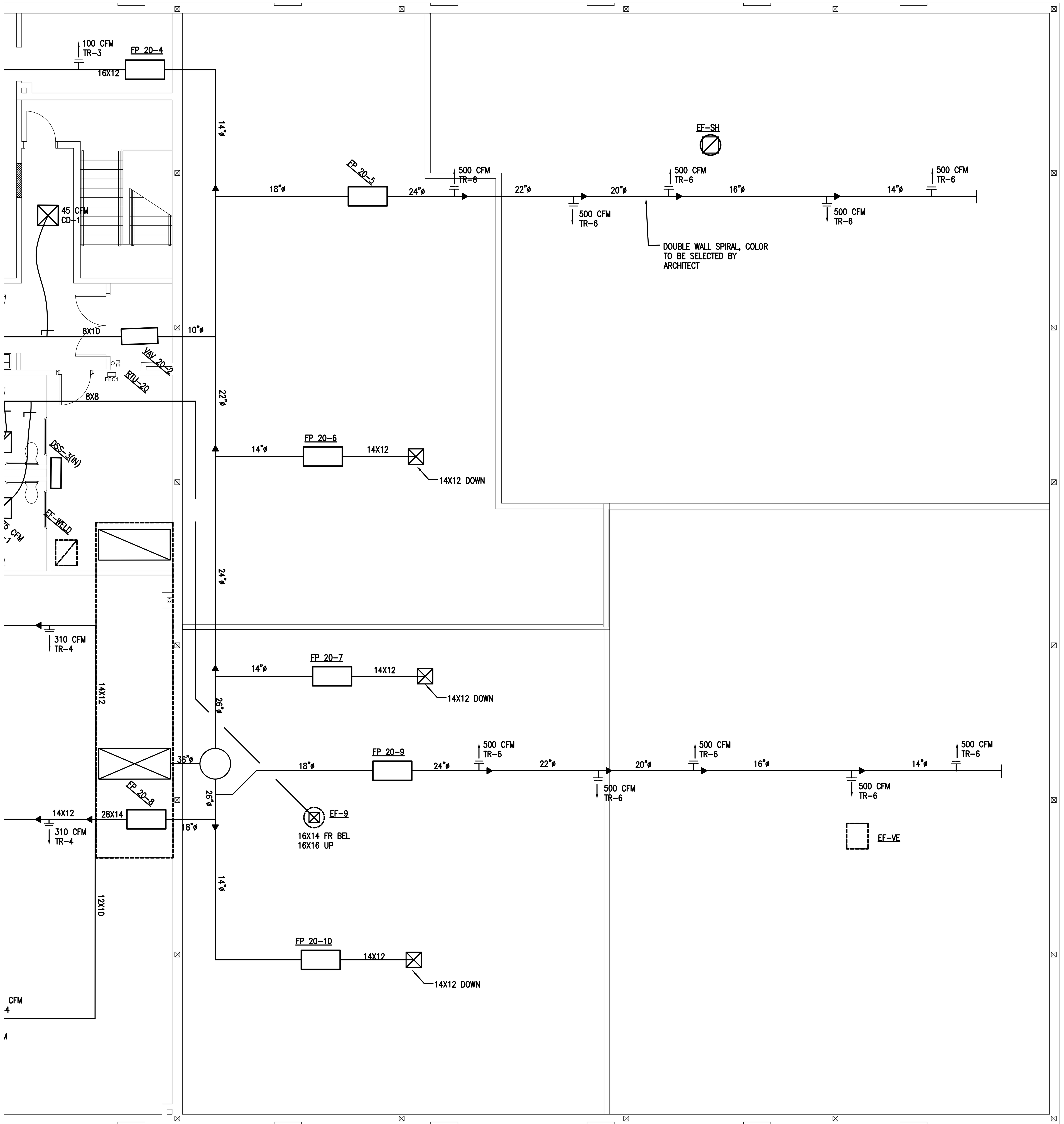
DATE:	6/17/22
SCALE:	AS SHOWN

SECOND FLOOR PARTIAL MECHANICAL NEW WORK PLAN - AREA F

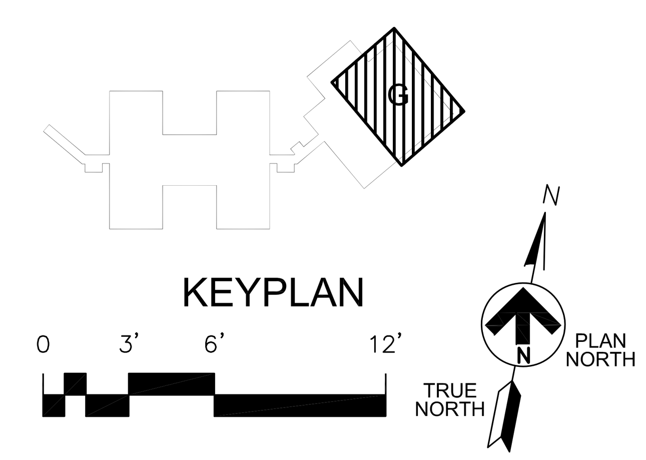
M3.6

SHEET ______ of X



1 M3.7 SECOND FLOOR PARTIAL NEW WORK PLAN - AREA G

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



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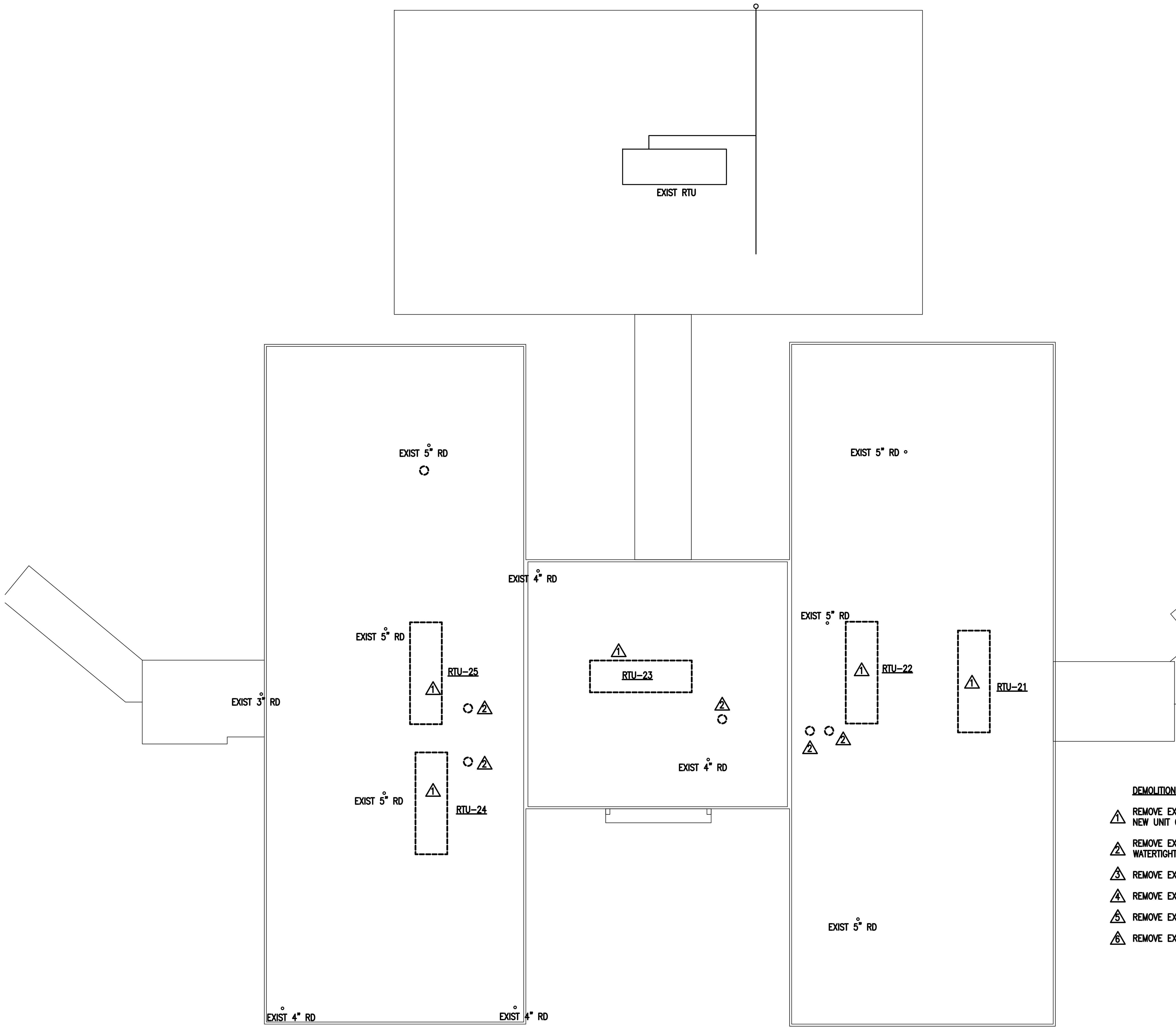
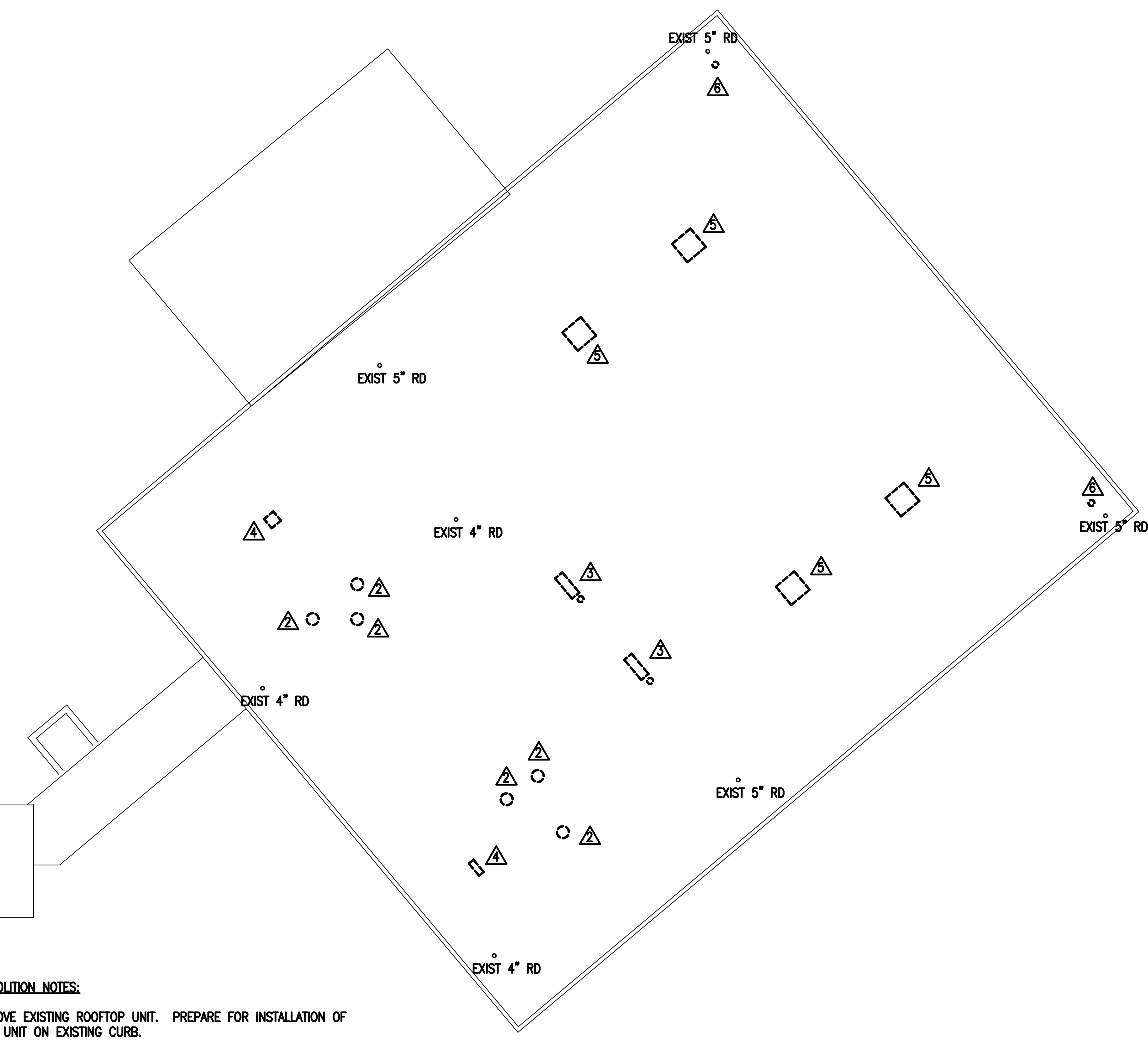
DATE:	6/17/22
SCALE:	AS SHOWN

SECOND FLOOR PARTIAL NEW WORK PLAN - AREA G

M3.7

SHEET _____ of X





DEMOLITION NOTES:

1. REMOVE EXISTING ROOFTOP UNIT. PREPARE FOR INSTALLATION OF NEW UNIT ON EXISTING CURB.
2. REMOVE EXISTING ROOFTOP EXHAUST FAN. CAP CURB WATERTIGHT.
3. REMOVE EXISTING H&V UNIT ROOF VENT AND GAS VENT.
4. REMOVE EXISTING ROOFTOP HEAT PUMP UNIT.
5. REMOVE EXISTING ROOF VENT.
6. REMOVE EXISTING GAS VENT.

1 / M4.1 MECHANICAL DEMOLITION ROOF PLAN

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

0 3' 6' 12'

TRUE NORTH — PLAN NORTH

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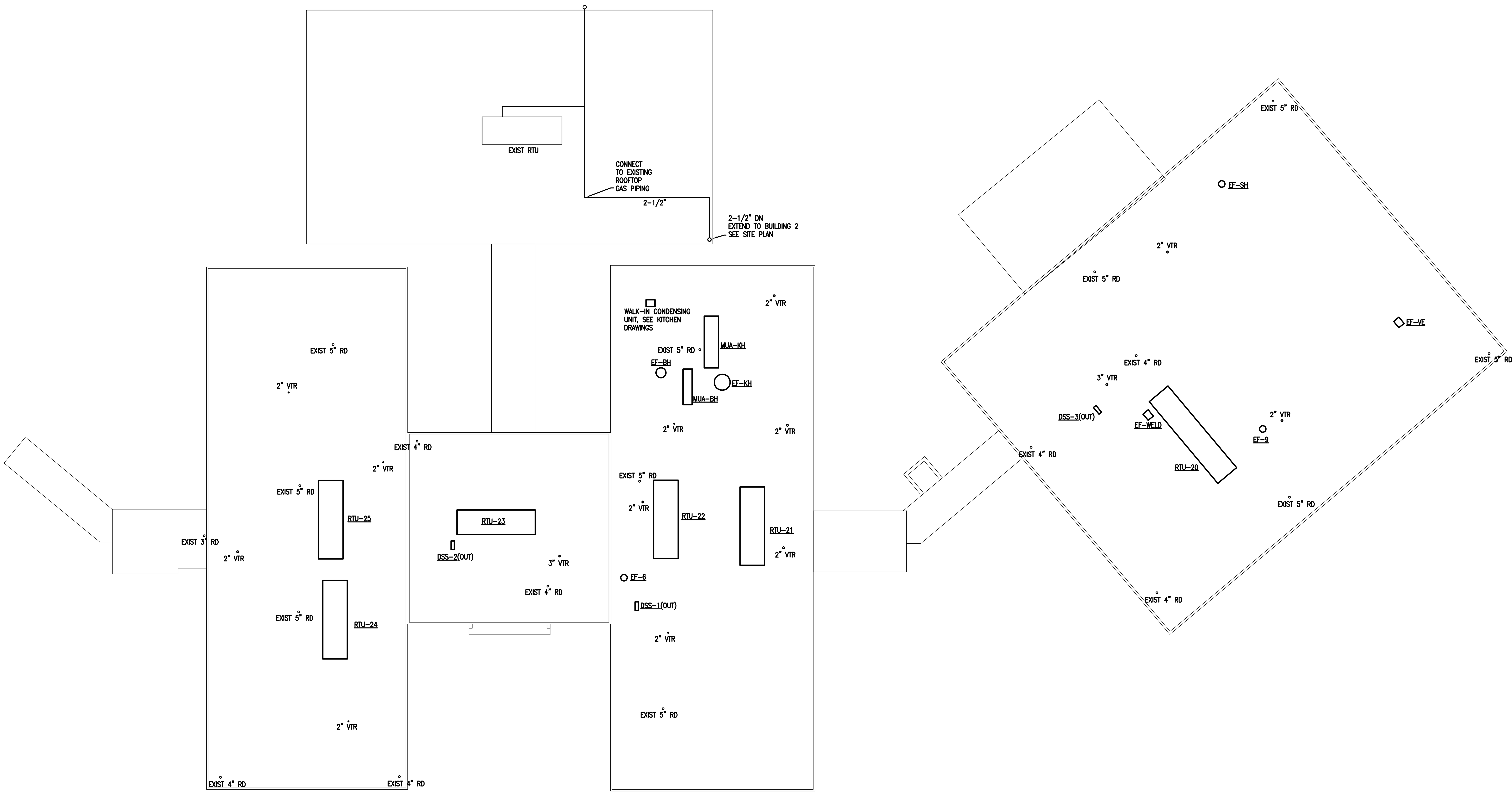
DATE:	6/17/22
SCALE:	AS SHOWN

MECHANICAL DEMOLITION ROOF PLAN

M4.1

SHEET ______ of __X__



1 M4.1 MECHANICAL NEW WORK ROOF PLAN
SCALE: 1/16" = 1'-0"

0 3' 6' 12'

N
TRUE NORTH
PLAN NORTH

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REVISIONS

No.	DATE	DESCRIPTION
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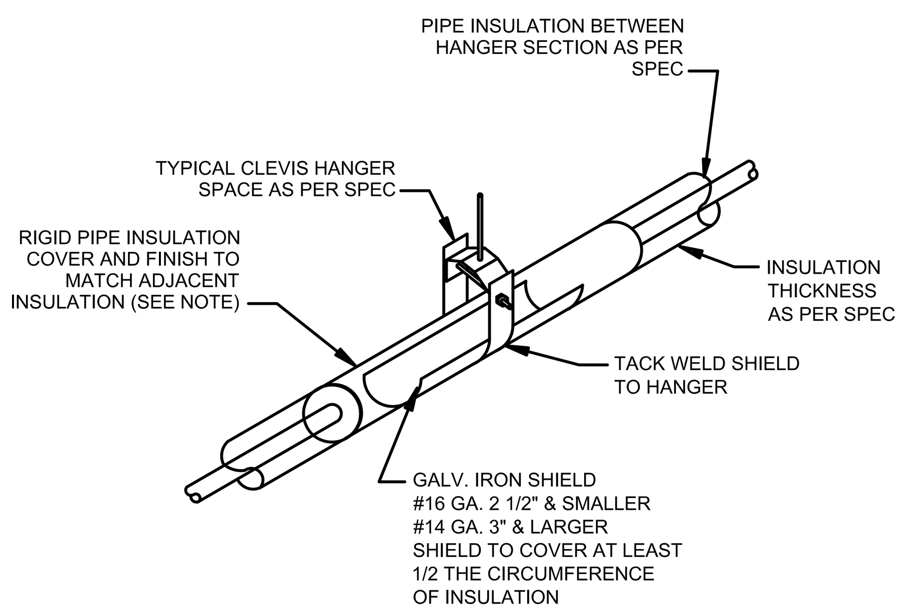
DRAWN BY:	MDR
REV'D BY:	MDR
DATE:	6/17/22
SCALE:	AS SHOWN

MECHANICAL NEW WORK ROOF PLAN

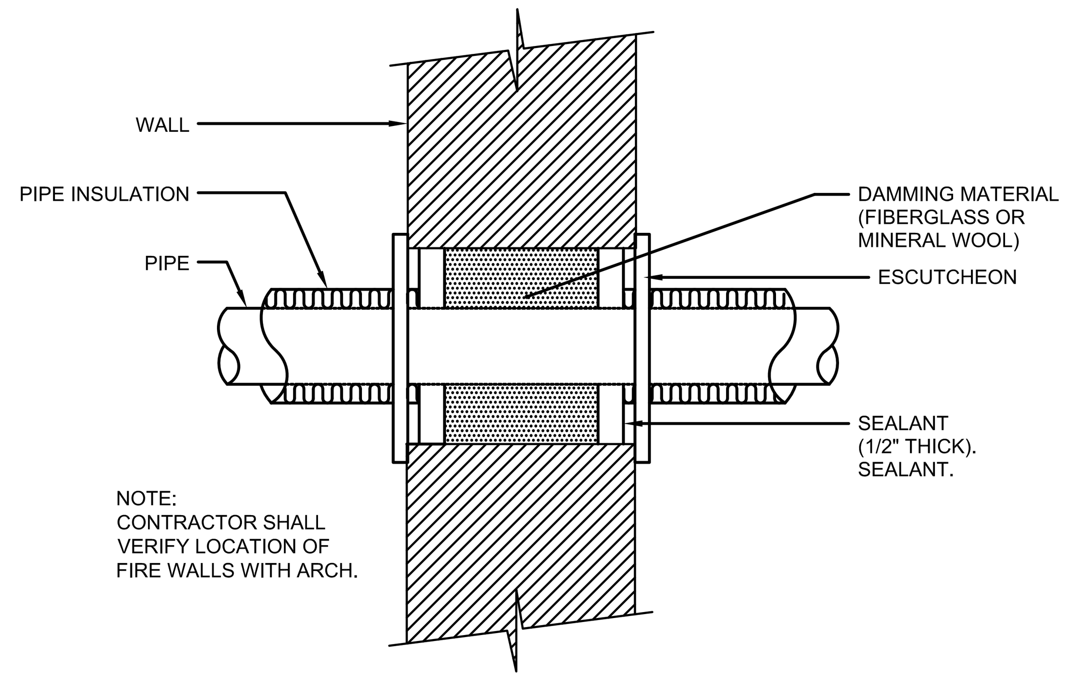
M4.2

SHEET _____ of X



NOTE:
WHERE THIS DETAIL IS USED FOR COLD PIPING, RIGID INSULATION AND COVERING SHALL BE SEALED TO PROVIDE CONTINUOUS VAPOR BARRIER

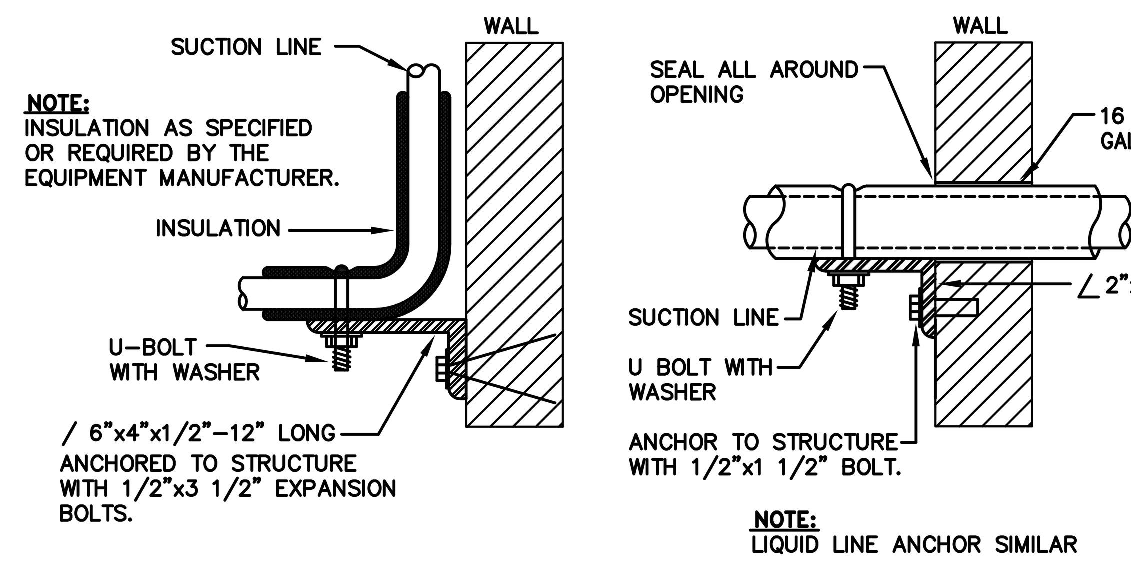
INSULATED PIPE HANGER DETAIL
NO SCALE



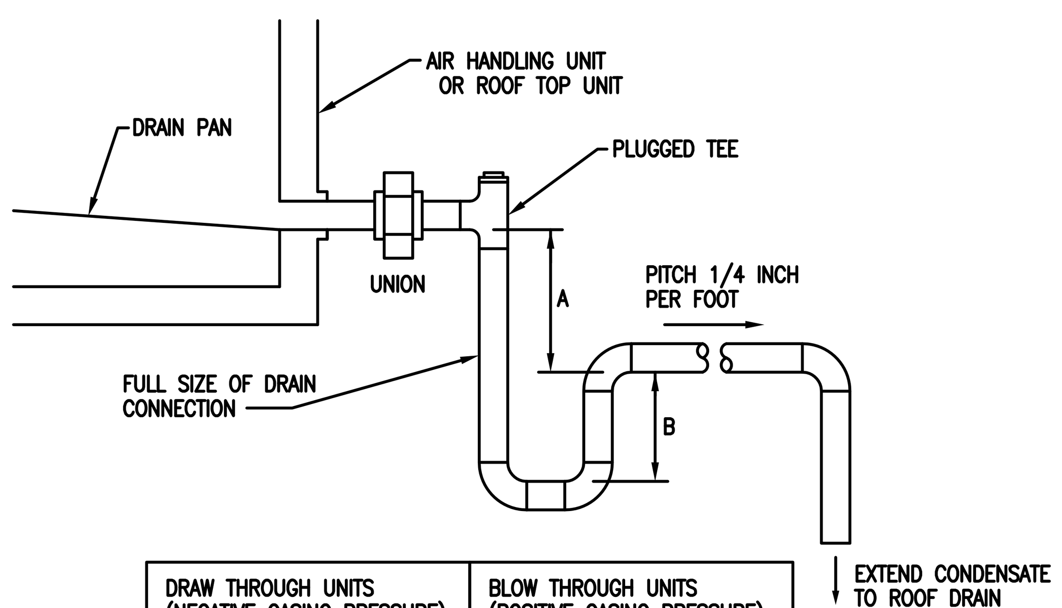
PIPE PENETRATION DETAIL
NOT TO SCALE

MISC. NOTES:

1. CONTRACTOR TO COORDINATE PENETRATION DETAILS WITH ARCHITECTURAL DRAWINGS AS APPLICABLE.

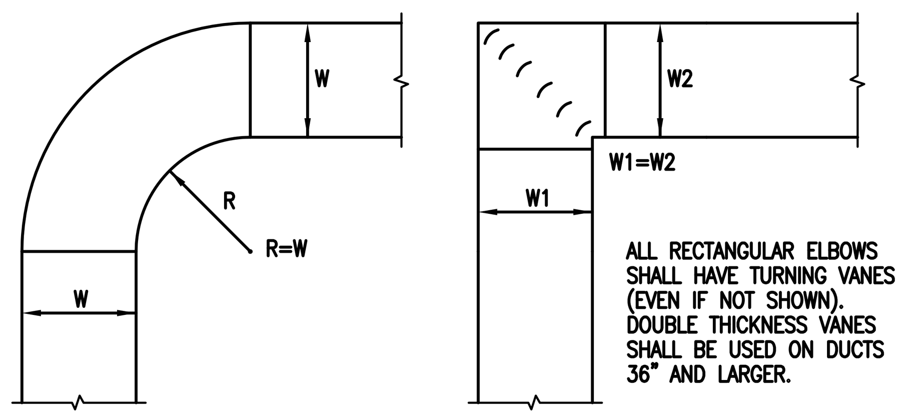


REFRIGERANT PIPE SUPPORTS AT WALL
NO SCALE

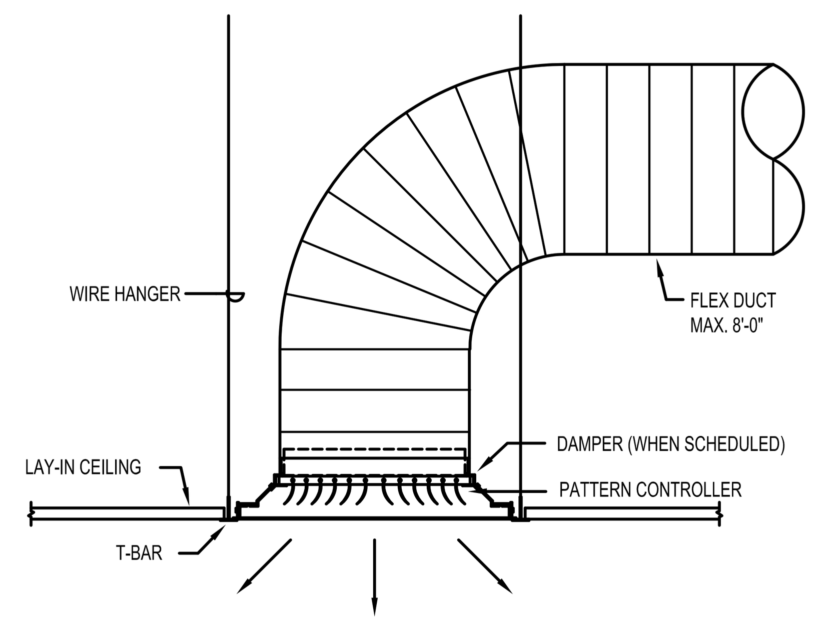


DRAW THROUGH UNITS (NEGATIVE CASING PRESSURE) A = 1 INCH PLUS MAXIMUM CASING STATIC PRESSURE B = A/2	BLOW THROUGH UNITS (POSITIVE CASING PRESSURE) A = 1 INCH MINIMUM B = 1 INCH PLUS MAXIMUM CASING STATIC PRESSURE

DETAIL – CONDENSATE DRAIN
NO SCALE



DETAIL – DUCT ELBOWS
NO SCALE

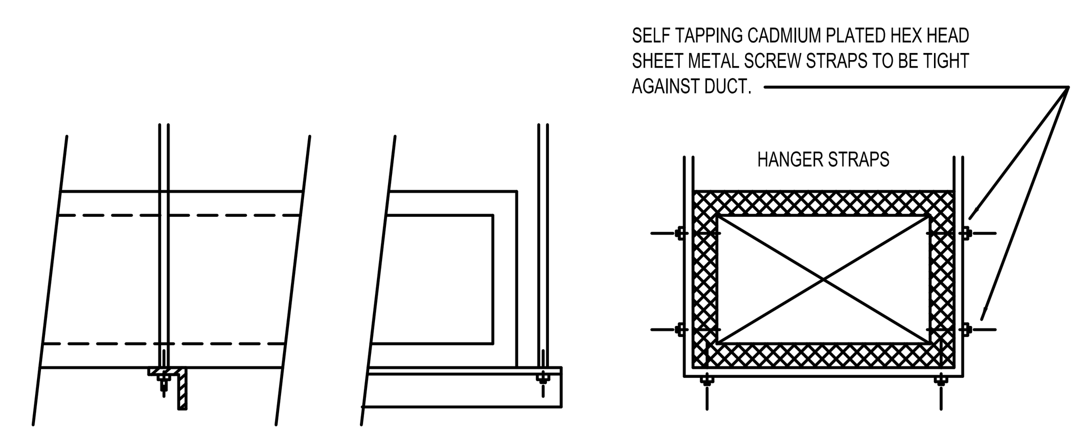


LAY–IN CEILING DIFFUSER DETAIL
NOT TO SCALE

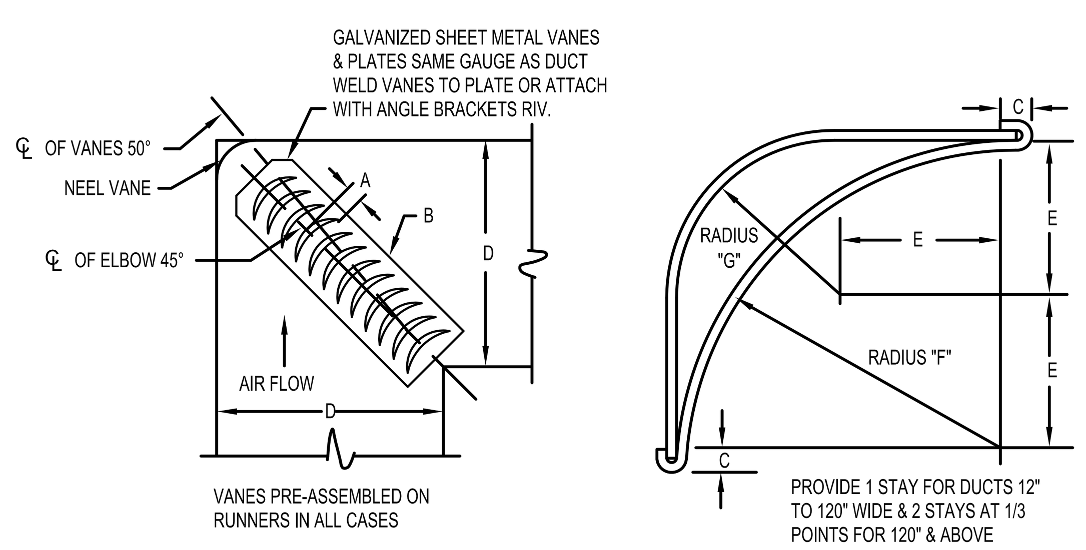
HANGER SIZES FOR RECTANGULAR DUCT			
MAX. SIDE	HANGER	HORIZONTAL SUPPORT ANGLE	MAXIMUM SPACING
30"	1"X18" GAGE STRAP	NONE REQUIRED	10'-0"

NOTE:
ALL SUPPLY AIR DUCT SHALL BE WRAPPED EXTERNALLY AS PER SPECIFICATIONS

NO POP RIVETS ALLOWED

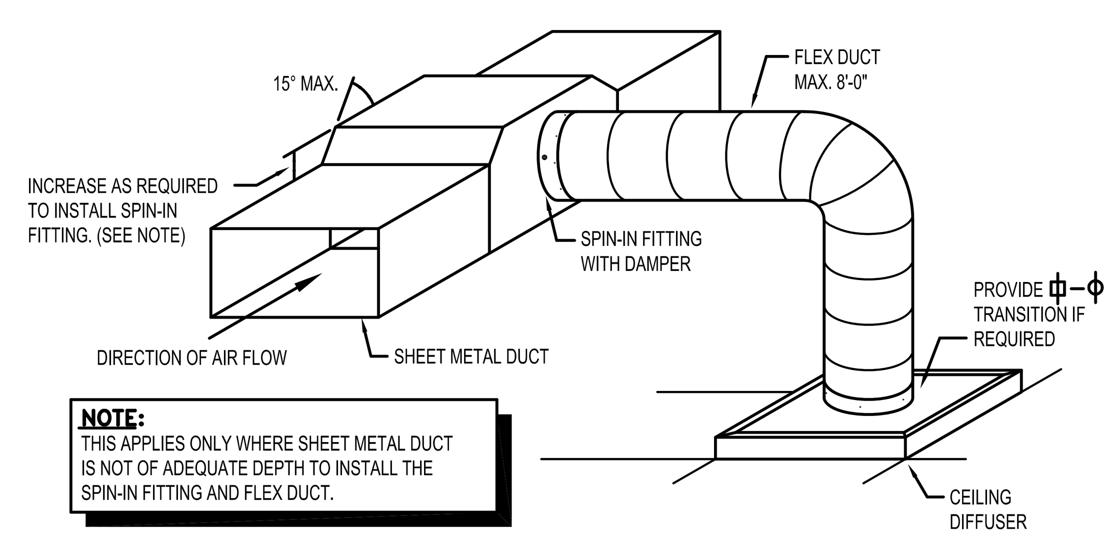


DUCT STRAP HANGER DETAIL
NOT TO SCALE



D & D UP TO 24"	A = 1-1/2"	B = 5"	TYPE "B" VANES
D & D OVER 24"	A = 3-1/4"	B = 9"	TYPE "A" VANES
TYPE "A" VANES	C = 1/2"	E = 2-1/4"	RADIUS "F" = 4-1/2" RADIUS "G" = 2-1/4"
TYPE "B" VANES	C = 1/4"	E = 1"	RADIUS "F" = 2" RADIUS "G" = 1"

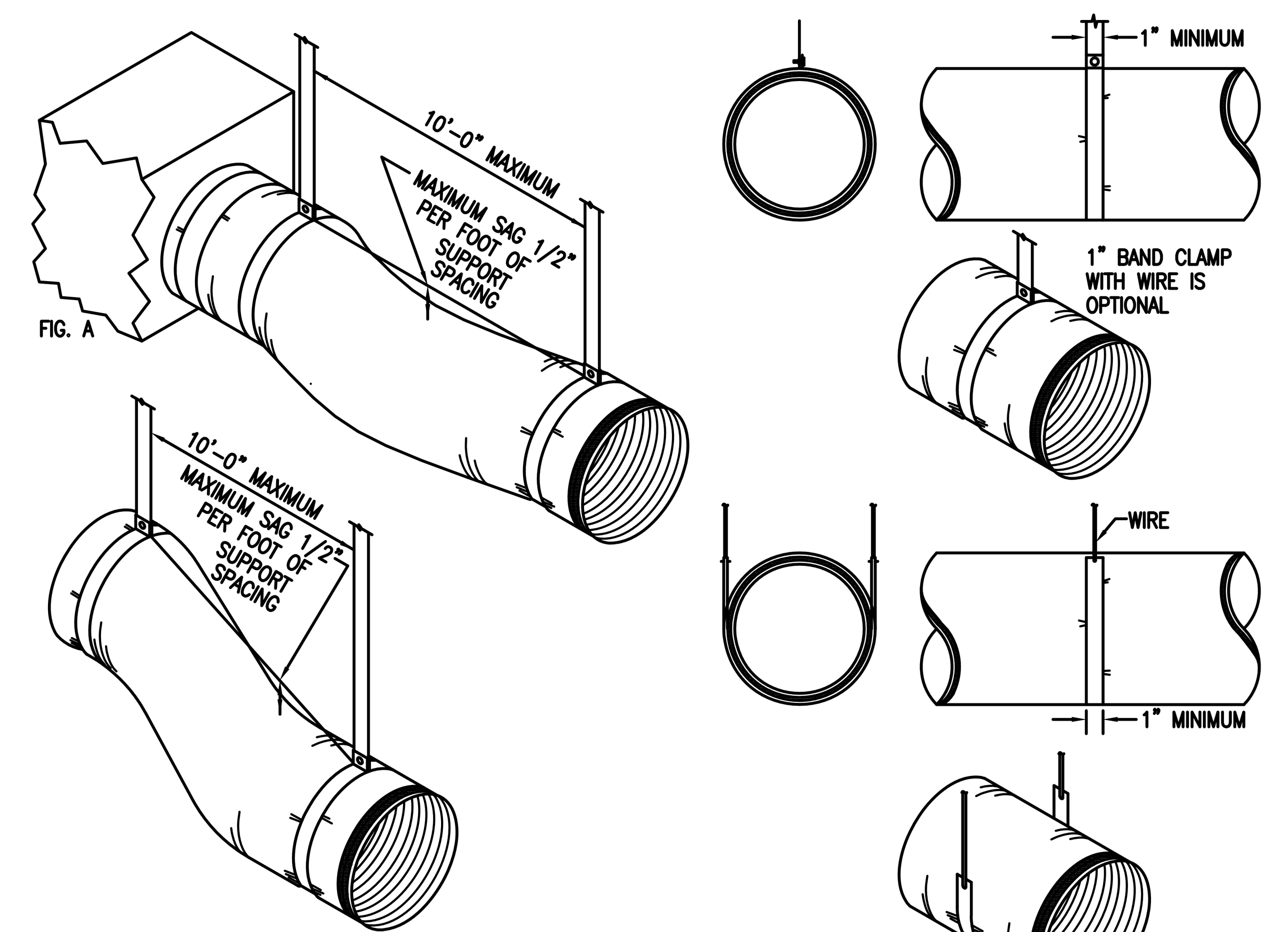
SQUARE ELBOW DETAIL
NOT TO SCALE



NOTE:
THIS APPLIES ONLY WHERE SHEET METAL DUCT IS NOT OF ADEQUATE DEPTH TO INSTALL THE SPIN-IN FITTING AND FLEX DUCT.

FLEX DUCT TAKE–OFF @ SHEET METAL DUCT DETAIL
NOT TO SCALE

FIG. A



SUPPORT SYSTEM MUST NOT DAMAGE DUCT OR CAUSE OUT OF ROUND SHAPE.

DETAIL – FLEXIBLE DUCT SUPPORTS
NO SCALE

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MECHANICAL DETAILS

M5.1

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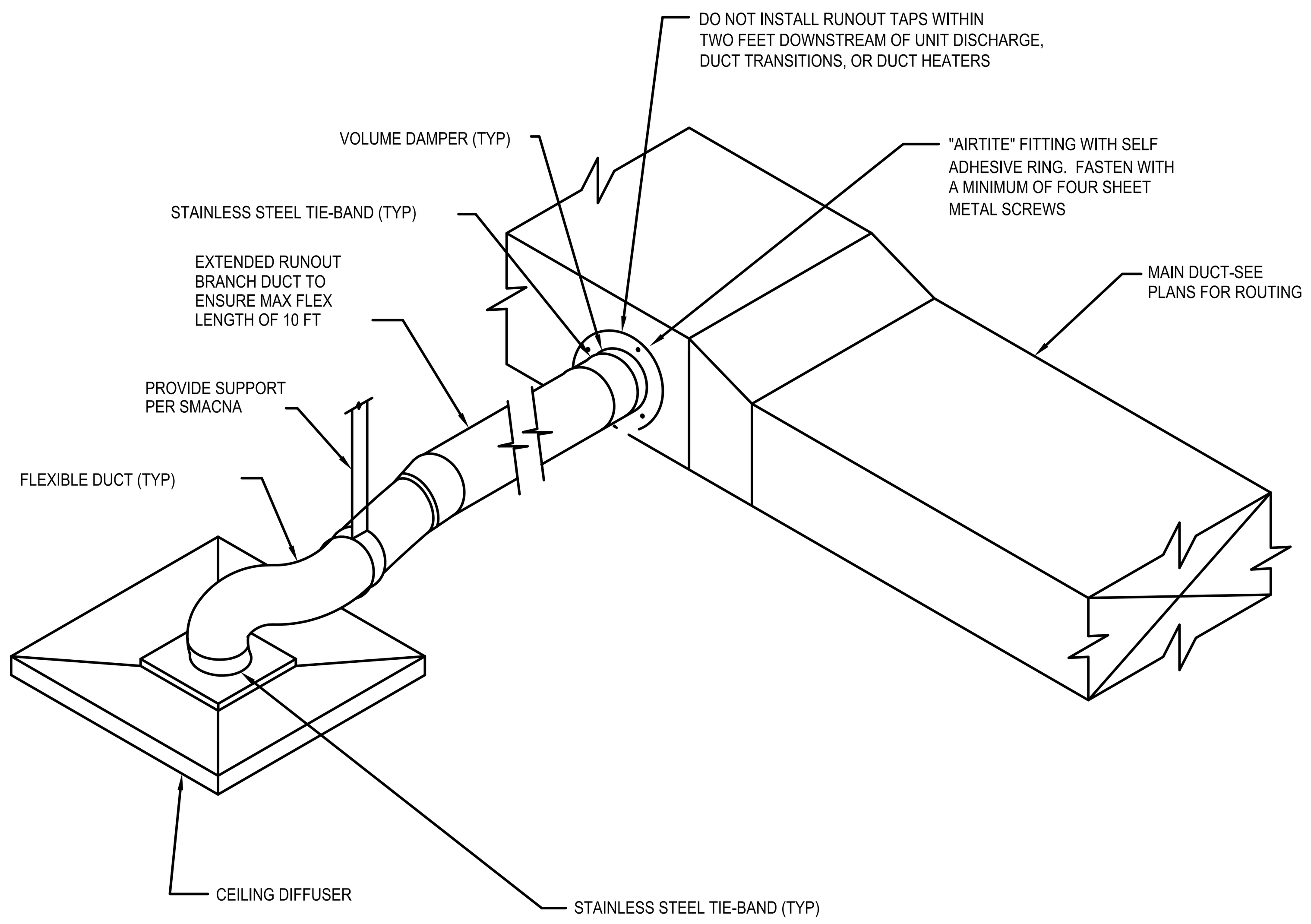
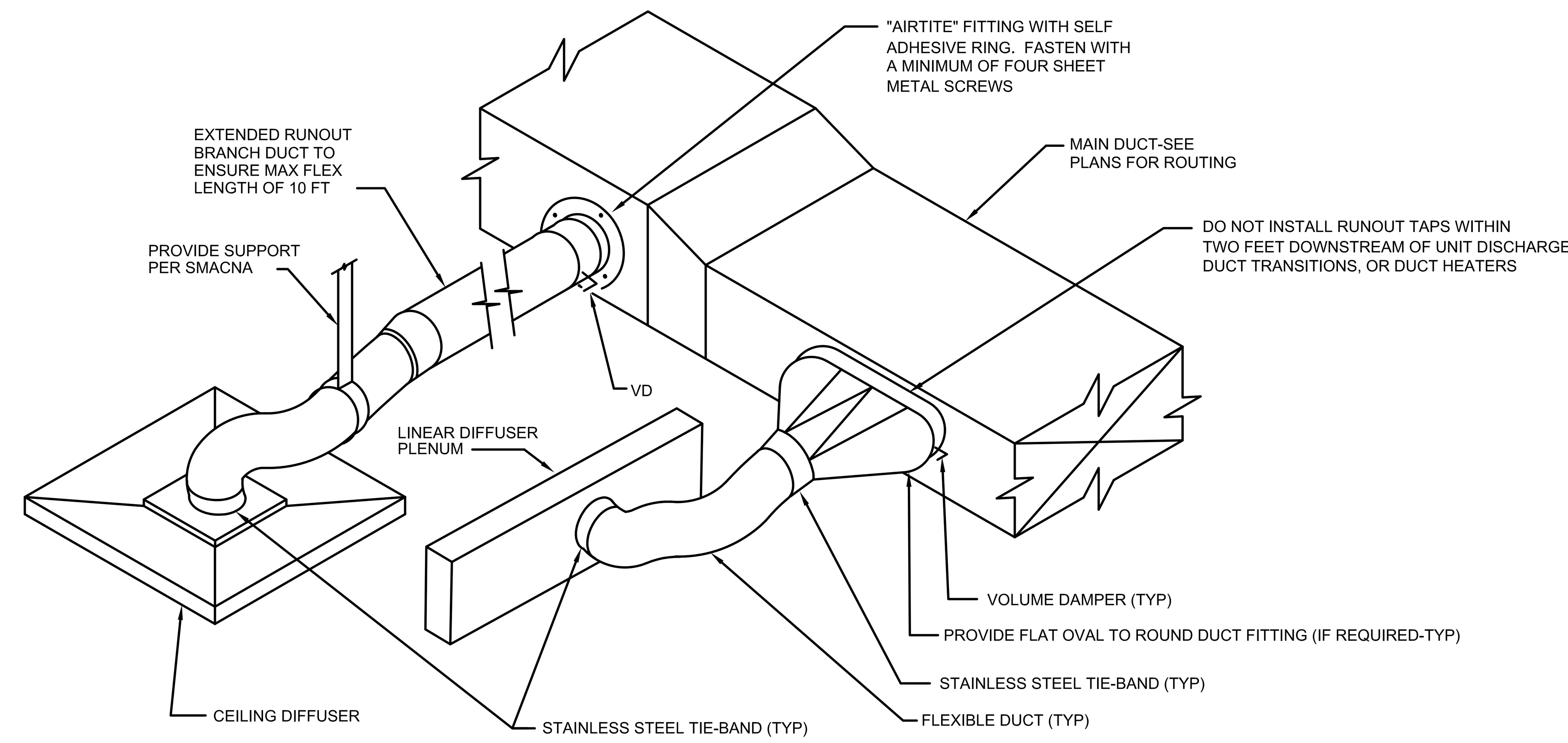


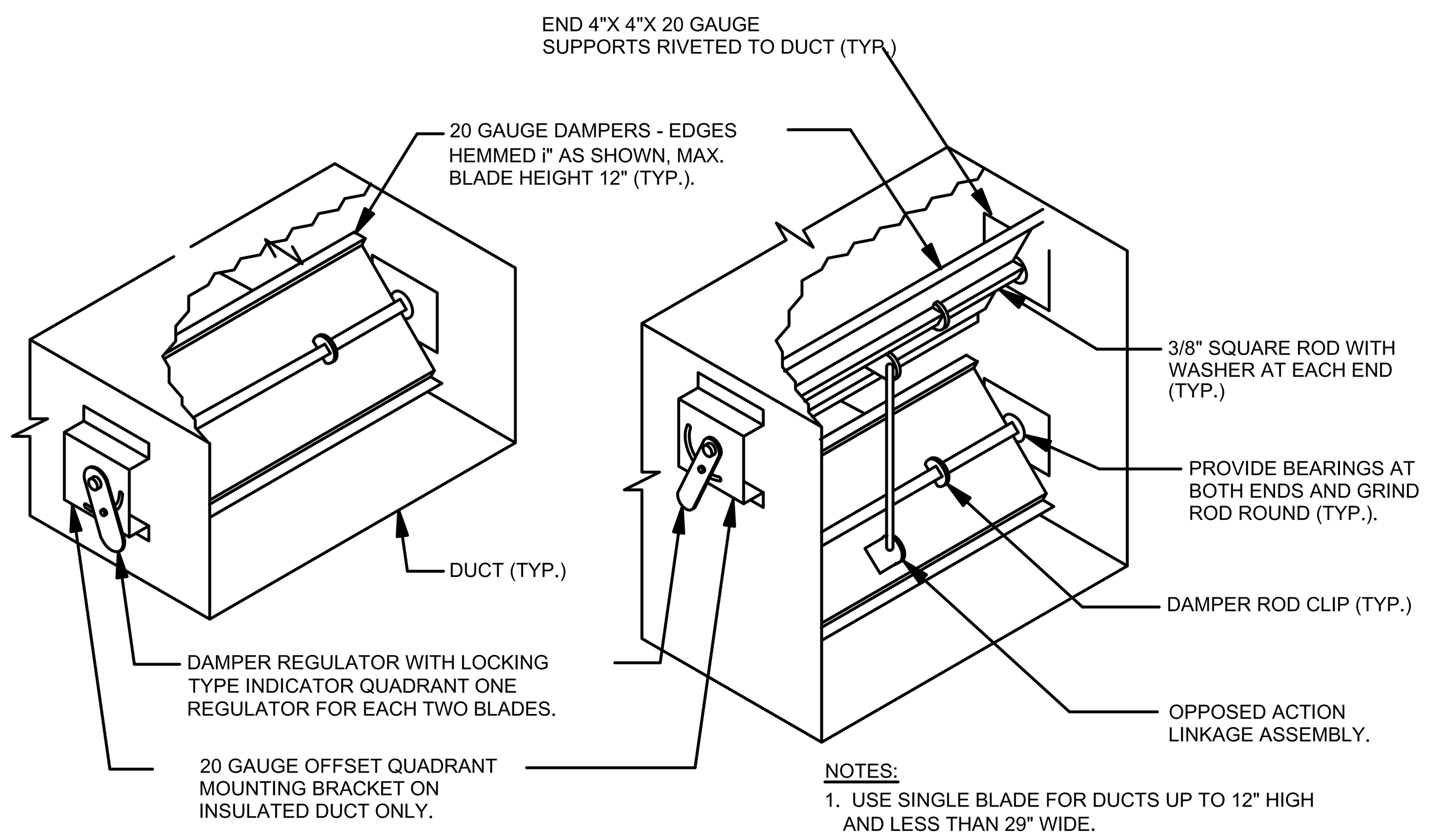
CEILING DIFFUSER HOOK-UP DETAIL

NO SCALE



CEILING DIFFUSER CONNECTION DETAIL

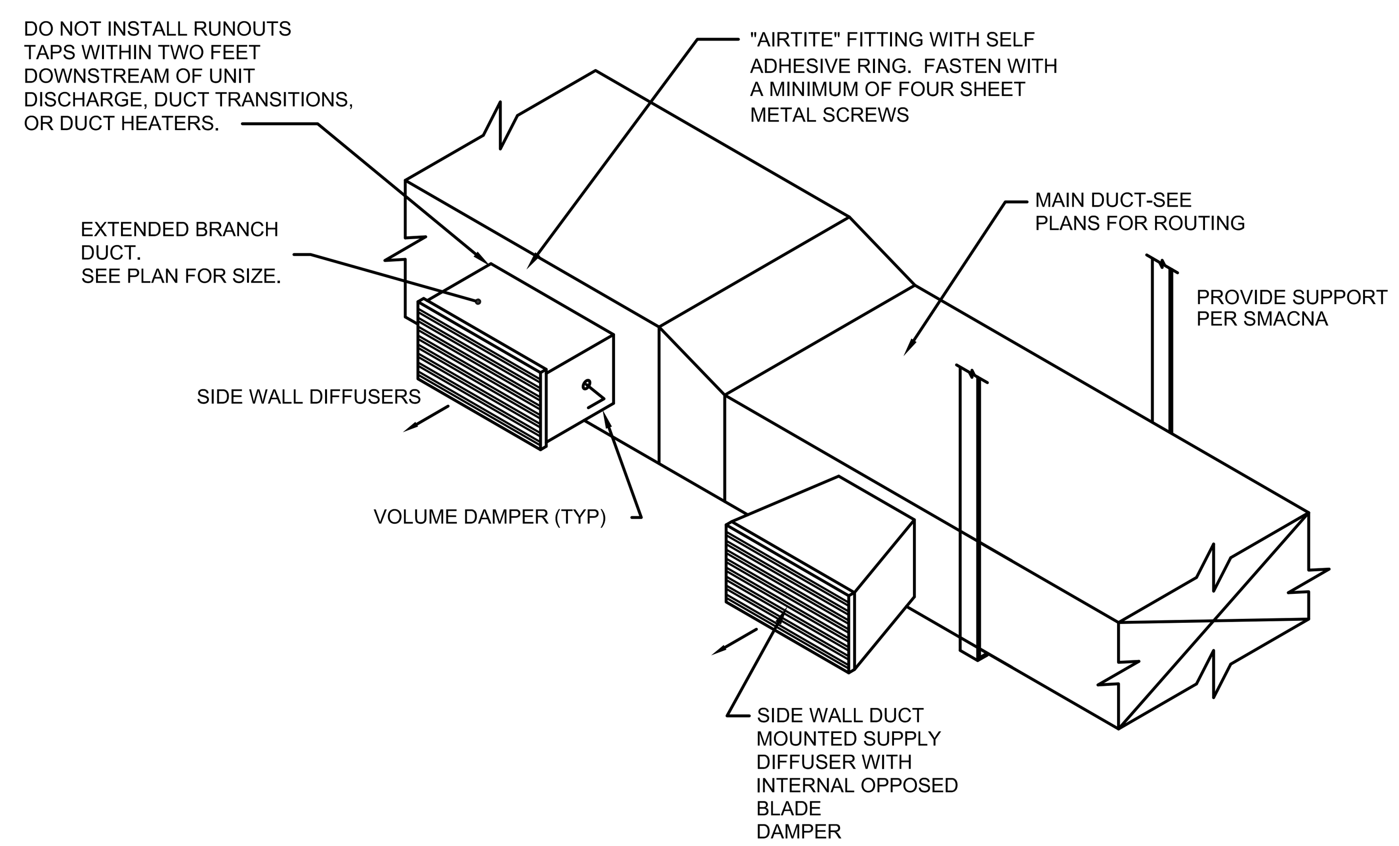
NO SCALE



NOTES:
1. USE SINGLE BLADE FOR DUCTS UP TO 12" HIGH AND LESS THAN 29" WIDE.
2. USE MULTIPLE BLADES FOR DUCTS GREATER THAN OR EQUAL TO 29" AND/OR OVER 12" HIGH.

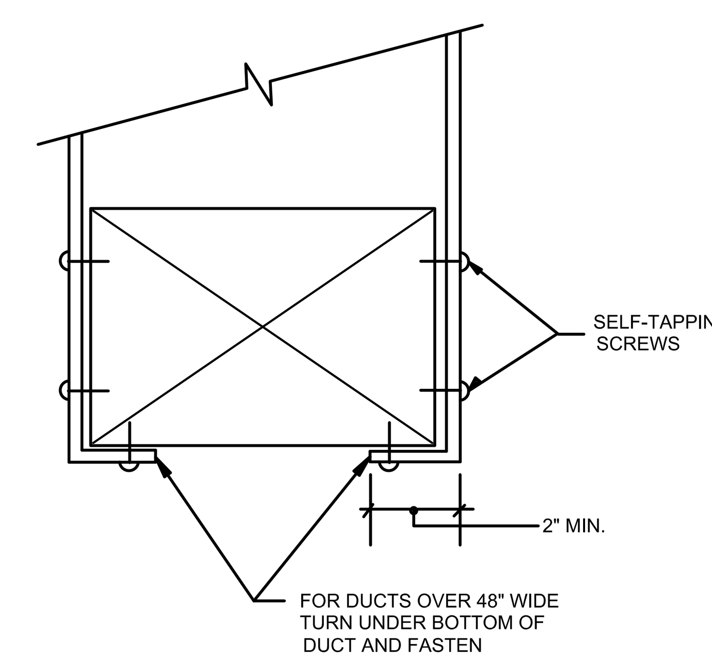
LOW PRESSURE BALANCING DAMPER

NO SCALE



DIFFUSER CONNECTION DETAIL

NO SCALE



DUCT SIZE	HANGER SIZE	MAX. SPACING
UP THRU 2 SQ. FT.	1" X 1/16"	8' - 0"
2 THRU 4 SQ. FT.	1" X 1/8"	8' - 0"
4 THRU 10 SQ. FT.	1" X 1/8"	6' - 0"
OVER 10 SQ. FT.	1" X 1/8"	4' - 0"

DUCT HANGING DETAIL AND SCHEDULE OF SUPPORTS

NO SCALE

NOTE: ALL PIPE HANGER AND SUPPORT DESIGN IS DELEGATE TO THE CONTRACTOR

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MECHANICAL DETAILS

M5.2

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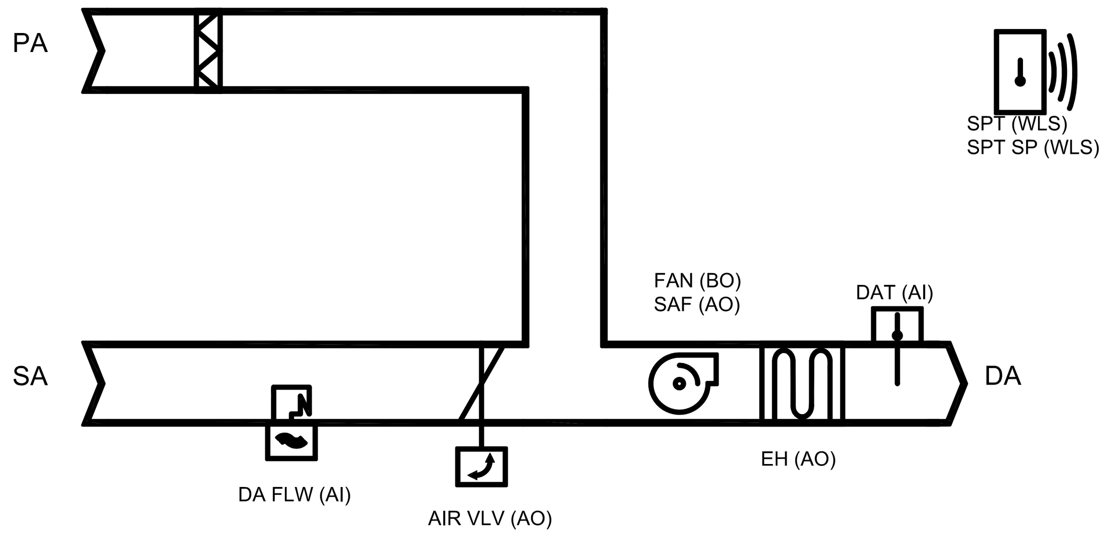
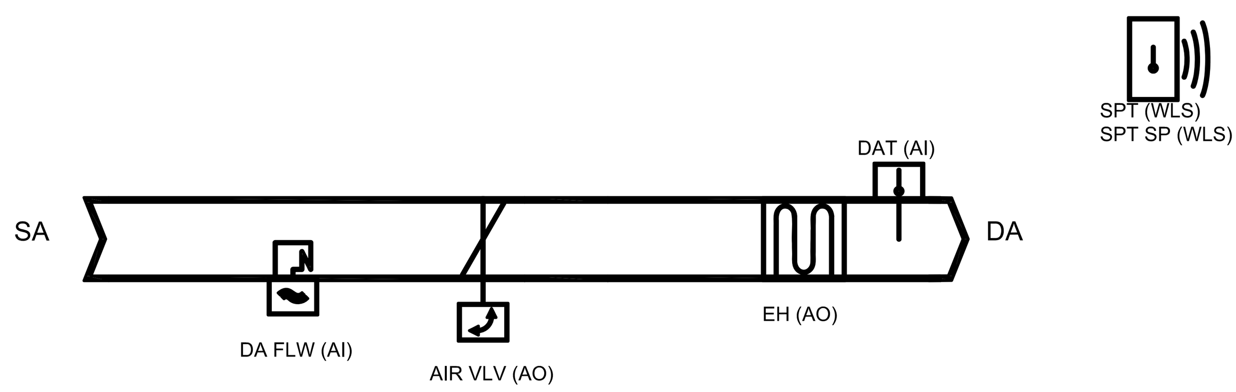
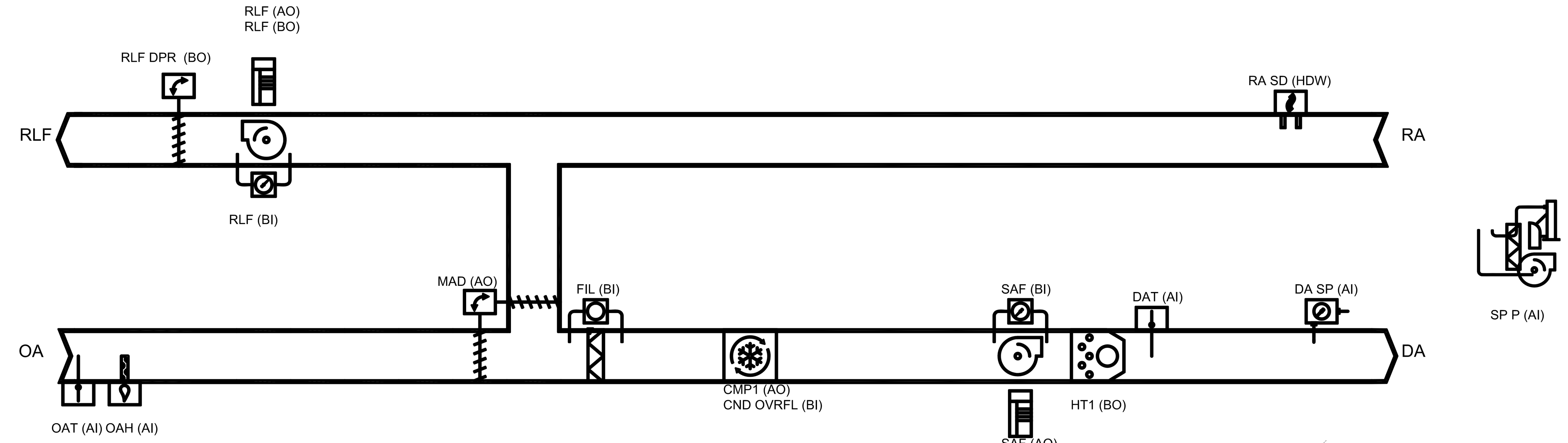


Flow Diagram: FAN POWERED VAV TERMINAL UNIT

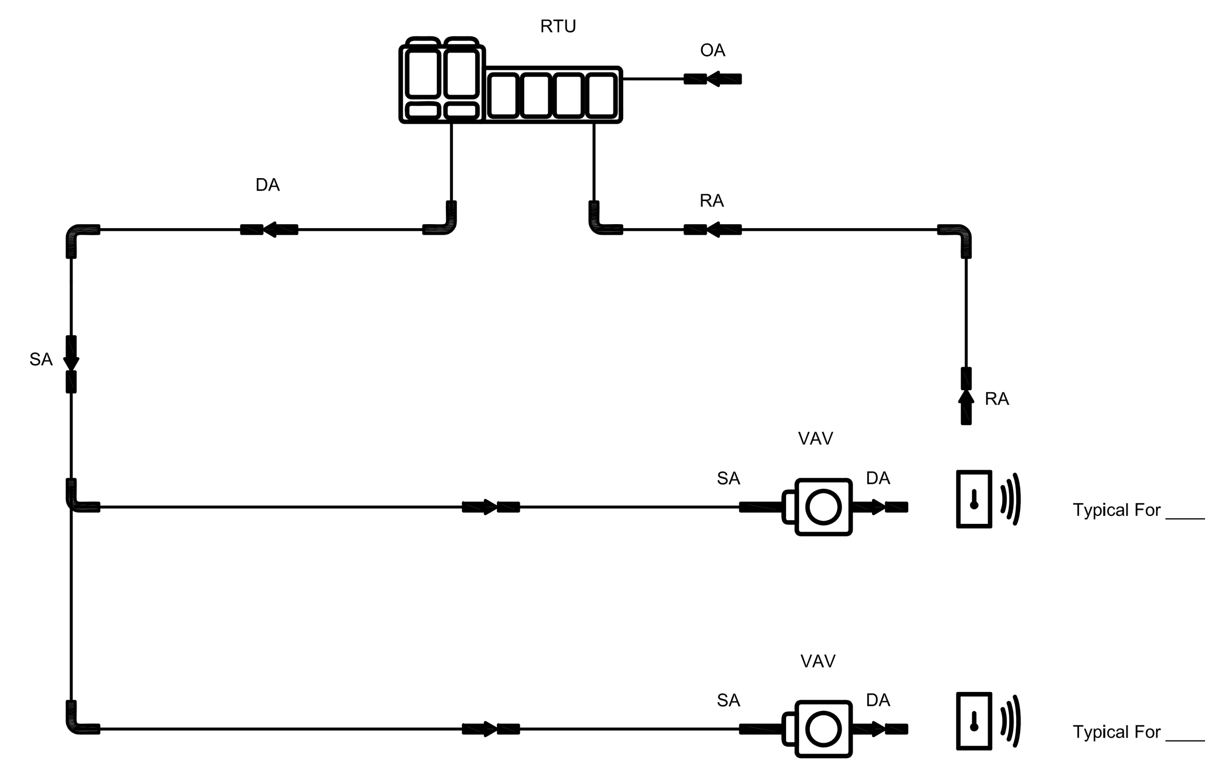
CONTROLS TO BE PROVIDED BY TRANE



Flow Diagram: VAV TERMINAL UNIT



Flow Diagram: PACKAGED RTU



Flow Diagram: VARIABLE AIR VOLUME SYSTEM

Multizone VAV Units

Optimal Start:
The BAS shall monitor the scheduled occupied time, occupied space setpoints and average space temperature to calculate when the optimal start occurs.

Morning Warm-Up Mode:
During optimal start, if the average space temperature is below the occupied heating setpoint a morning warm-up mode shall be activated. When morning warm-up is initiated the supply fan shall energize and the gas heat shall modulate fully open. Outside and exhaust air dampers shall remain closed. Exhaust fans shall remain off. When the average space temperature reaches the occupied heating setpoint, the unit shall transition to the occupied mode.

Pre-Cool Mode:
During optimal start, if the average space temperature is above the occupied cooling setpoint, pre-cool mode shall be activated. When pre-cool is initiated the supply fan shall energize. The DX cooling shall be at maximum output, unless economizing. Outside and exhaust air dampers shall remain closed, and the exhaust fan shall remain off, unless economizing. When the average space temperature reaches occupied cooling setpoint, the unit shall transition to the occupied mode.

Occupied:
During occupied periods (Temperature Schedule), the supply fan shall run continuously and its speed shall be modulated to maintain a maximum duct static pressure setpoint of 2.0 in wg (adj). If all VAV boxes are less than 80% open, the setpoint shall be reset downward in 0.1 in wg increments every three minutes (adj.) until at least one box is greater than 85% open or the minimum setpoint (0.5 in wg, adj) is reached. If a VAV box becomes more than 95% open, the setpoint shall be reset upwards in 0.1 in wg increments until all boxes are less than 90% open.

Discharge Air Temperature Control:
The discharge air temperature setpoint shall be reset between 55-65 Deg F based on a linear drop in outdoor air temperature from 80-65 Deg F. When the outside air dew point exceeds 58 Deg F, the discharge air temperature setpoint shall be overridden to 55 Deg F. Once the outside air dew point drops below 56 Deg F, this humidity override shall be disabled.

Ventilation Control:
The ventilation shall be on the separate Ventilation Schedule. When ventilation is enabled, the outside air damper shall open to its minimum position.

Economizer:
The controller will compare outside air humidity and temperature (global points) to return air humidity and return air temperature. Whenever the outside air enthalpy is less than the return air enthalpy, the controller will use the economizer cycle to satisfy a call for cooling. If the outside air damper is full open and the discharge air temperature remains above setpoint then mechanical cooling should engage as well.

Exhaust Fan:
Maintain Statitrac operation using 0.1 in wc as the setpoint.

Optimal Stop:
The BAS shall monitor the scheduled unoccupied time, occupied setpoints and average space temperature to calculate when the optimal stop occurs. When the optimal stop mode is active the unit controller shall maintain the average space temperature to the space temperature offset setpoint.

Unoccupied Mode

The individual VAV boxes shall control their respective rooms to the unoccupied heating setpoint.

When the average space temperature rises above the unoccupied cooling setpoint, the supply fan shall turn on. The DX cooling shall turn on to 100%, unless economizing conditions are favorable. The outside and exhaust air dampers shall remain closed, unless economizing. The exhaust fan shall remain off, unless economizing. When the average space temperature falls below the unoccupied cooling setpoint minus the unoccupied differential of 4.0 deg. F, the supply fan and DX cooling shall turn off, the outside and exhaust air dampers shall close, and the exhaust fan shall turn off.

Occupied Bypass:
The BAS shall monitor the status of the "on" and "cancel" buttons of the space temperature sensors. When an occupied bypass request is received, the unit shall enter occupied mode for 2 hours. The OA damper shall remain closed unless economizing.

Series Fan Powered Terminal Units – Electric Reheat

Optimal Start: When their respective AHU enters optimal start, the VAV damper shall open 100%, the VAV fan shall energize, and the electric heat shall be disabled until the unit transitions to occupied mode.

Occupied Mode: When their respective RTU is in occupied mode, the VAV fans shall be on continuously.

Cooling Mode:
The VAV controller shall maintain the space temperature at the occupied cooling setpoint by modulating the airflow between the minimum and maximum cooling airflow setpoints.

Heating Mode:
The VAV controller shall maintain the space temperature at the occupied heating setpoint by engaging the electric heat while maintaining the airflow at the heating airflow setpoint.

Optimal Stop:
When their respective rooftop unit enters optimal stop, the VAV fans shall be on and the electric heat shall be off.

Unoccupied Mode:
When the space drops below the unoccupied heating setpoint, the VAV fan shall energize and the electric heat shall energize to maintain the unoccupied setpoint.

When the respective AHU is energized to maintain the unoccupied cooling setpoint, the VAV damper shall open to 100% until the average space temperature falls 4.0 degrees below the unoccupied cooling setpoint and the AHU is de-energized.

Shutoff VAV Boxes – Electric Reheat

Optimal Start: When their respective RTU enters optimal start, the VAV damper shall open 100%, the VAV fan shall energize (where applicable), and the electric heat shall remain off during morning warmup.

Occupied Mode: The controller shall modulate the air valve and electric heat in the boxes and local convectors (if applicable).

Cooling Mode:
The VAV controller shall maintain the space temperature at the occupied cooling setpoint by modulating the airflow between the minimum and maximum cooling airflow setpoints.

Heating Mode:
With the VAV airflow at it's heating setpoint, the system shall stage the electric heat in the boxes to maintain the heating setpoint.

Unoccupied Mode:
When the respective RTU is energized to maintain the unoccupied heating setpoint, the VAV damper shall open to 100% and the electric heat shall remain off until the average space temperature rises 4.0 degrees above the unoccupied heating setpoint and the RTU is de-energized.

When the respective RTU is energized to maintain the unoccupied cooling setpoint, the VAV damper shall open to 100% until the average space temperature falls 4.0 degrees below the unoccupied cooling setpoint and the RTU is de-energized.

Split System (DSS-1, 2, 3)

Occupied:
During occupied periods, the supply fan shall be on. The DX cooling shall cycle to maintain the occupied cooling setpoint. The BAS shall monitor unit operation.

Electric Heaters

Units	Occupied Mode	Occupied Setpoint
WH-1, ECH-1	7 AM – 4 PM, M-F August – 1st week of June	70°

The BAS shall enable the wall heaters and electric ceiling heaters via electric panel RIBs according to the occupancy schedule. The heaters shall be controlled utilizing their internal thermostat.

Exhaust Fans

Toilet Exhaust Fans shall energize according to the building ventilation schedule.

All other fans shall be controlled by local switches and monitored by the BAS.

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MECHANICAL CONTROLS

M6.1

SHEET ______ of X

PLUMBING FIXTURE INSTALLATION SCHEDULE

FIXTURE	MARK	MH	CW	HW	VENT	WASTE
WATER CLOSET(HC)	WC-1	17"	1"	--	2"	4"
WATER CLOSET	WC-2	15"	1"	--	2"	4"
LAVATORY	L-1	34"	1/2"	1/2"	1-1/2"	2"
LAVATORY	L-2	COUNTER	1/2"	1/2"	1-1/2"	2"
JANITOR SINK	JS-1	FLOOR	1/2"	1/2"	1-1/2"	2"
SHOWER	SH-1	72"(A)	1/2"	1/2"	-	-
ELECTRIC WATER COOLER	EWC-1	36"(B)	1/2"	--	1-1/2"	2"
SINK	S-1	COUNTER	1/2"	1/2"	1-1/2"	2"
SINK	S-2	FLOOR	1/2"	1/2"	1-1/2"	2"

NOTES

1. SIZE GIVEN ARE FOR FIXTURE ONLY. EXCEPTIONS, IF ANY, ARE SHOWN ON PLANS.
2. MOUNTING HEIGHT DIMENSIONS ARE TO FLOOD LEVEL RIM OF FIXTURE, UNLESS NOTED OTHERWISE.
   - (A) MOUNTING HEIGHT TO SHOWER HEAD
   - (B) MOUNTING HEIGHT TO LOWER SPOUT OUTLET.
3. ALL PUBLIC FAUCETS SHALL BE PROVIDED WITH TEMPERING VALVE, WILKINS MODEL #ZW1070 OR EQUAL AS REQUIRED.

PLUMBING EQUIPMENT SCHEDULE

MODEL NUMBERS ARE USED TO ESTABLISH PERFORMANCE REQUIREMENTS. EQUALS SHALL BE ACCEPTED

WC-1	TOTO CT708E, ELONGATED VITREOUS CHINA WATER CLOSET (FLUSH VALVE WALL MTD., 1.28 GPF); SIPHON JET, BEMIS 1955SSCT ELONGATED SEAT, TOTO TET1LA32 SENSOR TOILET FLUSH VALVE; SIPHON JET CARRIER.
WC-2	TOTO CT708E, ELONGATED VITREOUS CHINA WATER CLOSET (FLUSH VALVE WALL MTD., 1.28 GPF); SIPHON JET, BEMIS 1955SSCT ELONGATED SEAT, TOTO TET1LA32 SENSOR TOILET FLUSH VALVE; SIPHON JET CARRIER.
L-1	AMERICAN STANDARD LUCERNE #0356.041, VITREOUS CHINA; MOEN 8210F15 FAUCET WITH WHEELCHAIR OFFSET GRID DRAIN STRAINER AND ANGLE SUPPLIES WITH LOOSE KEY STOPS; PROVIDE ZURN Z1231 CARRIER. PROVIDE THERMOSTATIC MIXING VALVE, WILKINS MODEL ZW1070 AND P-TRAP.
L-2	AMERICAN STANDARD AQUALYN 0475.020, VITREOUS CHINA; MOEN FAUCET MODEL NO. 8210F15 WITH WHEELCHAIR OFFSET; GRID DRAIN STRAINER, AND ANGLE SUPPLIES WITH LOOSE KEY STOPS. PROVIDE TRUBRO #102W PRE-MOLDED INSULATION KIT INSULATING BOTH SUPPLIES AND DRAIN. PROVIDE THERMOSTATIC MIXING VALVE, WILKINS MODEL ZW1070, ASSE 1070 COMPLIANT.
S-1	ELKAY #LRAD-2522 LUSTERSTONE STAINLESS STEEL SINGLE BOWL HANDICAP KITCHEN SINK, 18 GA., TYPE 304 STAINLESS SELF RIM, 4-HOLE, 6-1/2 DEEP; #420 DELTA FAUCET WITH 8" SPOUT, SINGLE LEVER CONTROL AND SPRAY ATTACHMENT, CHROME P-TRAP AND SUPPLIES, #LK35 STRAINERS.
S-2	FIAT FL-1 MOLDED STONE SERV-A-SINK; FIAT A-1 DECK MOUNTED FAUCET, CHROME P-TRAP AND SUPPLIES.
SH-1	FREEDOM SHOWERS APFQ6337BF875, 63X38 SHOWER COMPLETE PACKAGE TO INCLUDE CURTAIN ROD, SEAT, GRAB BARS, DRAIN; MOEN 2352 SINGLE HANDLE SHOWER VALVE WITH SHOWER HEAD, PRESSURE BALANCED. COLOR TO BE WHITE.
JS-1	FIAT #MSB-2424 MOLDED STONE MOP SERVICE BASIN, 24"x24"x10"; #830-AA WALL MTD FAUCET W/VACUUM BREAKER & BUCKET HOOK; #832-AA HOSE & BRACKET, #E-77-AA VINYL BUMPER GUARD. #889-CC MOP HANGER & #QDC-3-2 QUICK DRAIN CONNECTOR, #MSG2424 STAINLESS STEEL WALL GUARDS.
EWC-1	OASIS #PG8EBFSLTT TOUCHLESS TWO STATION ELECTRIC WATER COOLER, STAINLESS STEEL, LEAD FREE WORKING COMPONENTS; 8.0 GPH CAPACITY AND 4.6 AMPS.
HB-1	CHICAGO FAUCETS 293-E27CP INSIDE SILL FITTING, POLISHED CHROME PLATED FINISH SOLID BRASS BODY CONSTRUCTION, 2-1/4" TEE HANDLE, 1/2", NPT FEMALE INLET, 3/4" MALE GARDEN HOSE THREAD OUTLET, SLOW COMPRESSION RENEWABLE CARTRIDGE, VACUUM BREAKER.
FD-1	JOSAM #30000-5A-2-17 FLOOR DRAIN, SATIN FINISH BRONZE TOP, NON-CLOG STRAINER, SECURED GRATE; 4"DEEP SEAL TRAP. SET RIM FLUSH WITH FINISH FLOOR.
FD-2	JOSAM #30000-5A-2-17 FLOOR DRAIN, SATIN FINISH BRONZE TOP, NON-CLOG STRAINER, SECURED GRATE; 4"DEEP SEAL TRAP, CLAMPING RING. SET RIM FLUSH WITH FINISH FLOOR.
FS-1	JOSAM #49300 FLOOR SINK, 8" SQUARE CAST IRON WITH 5-7/8" DEEP SUMP, CLAMPING RING
CO	JOSAM CLEANOUT FLOOR — ROUND, SATIN BRONZE TOP, RECESSED PLUG. WALL — CHROME FLUSH WALL PLATE, RECESSED PLUG.
OIL/ SEDIMENT TRAP	ZURN Z1188 OIL INTERCEPTOR, 100 GPM. 110 GALLON
ST-1	ZURN Z1187-SI SEDIMENT INTERCEPTOR, 20 GPM FLOW RATE, 60 GALLON STATIC CAPACITY
EW-1	HAWS MODEL 7360B-7460B EMERGENCY EYE WASH OR EQUAL WITH THERMOSTATIC MIXING VALVE
WMB	ABS BOXES, ONE BOX WITH CENTER DRAIN AND ONE BOX WITH TWO WATER VALVES & WATER HAMMER ARRESTORS. PROVIDE FLANGED BOXES SUITABLE FOR DRYWALL INSTALLATION.
TD-1	ZURN Z884 4" WIDE TRENCH DRAIN SYSTEM, 3.25" THROAT; CHANNEL TO HAVE 1.04% BUILT-IN SLOPE & INVERT TO BE DETERMINED BY CONTRACTOR; PROVIDE WITH 2" END OUTLET, CAST IRON SLOTTED GRATE AND END CAP. TRENCH DRAIN TOTAL LENGTH SHALL BE 8'-0".
HWH-1	STATE PCE-6-10MSA-25 ELECTRIC WATER HEATER, SINGLE ELEMENT, 10 GAL. CAPACITY TANK, 10 GAL/HR RECOVERY AT 40 DEG. F. AND 100 DEG.F. RISE, 2500 W; 230/1; T&P RELIEF VALVE.
HWH-2	STATE PCE-6-10MSA-15 ELECTRIC WATER HEATER, SINGLE ELEMENT, 10 GAL. CAPACITY TANK, 6 GAL/HR RECOVERY AT 40 DEG. F. AND 100 DEG.F. RISE, 1500 W; 230/1; T&P RELIEF VALVE.
HWH-3	STATE PCE-20-10MSA-35 ELECTRIC WATER HEATER, SINGLE ELEMENT, 10 GAL. CAPACITY TANK, 14 GAL/HR RECOVERY AT 40 DEG. F. AND 100 DEG.F. RISE, 3500 W; 230/1; T&P RELIEF VALVE.
HWH-4	STATE SUF119-400E GAS FIRED WATER HEATER, 119 GALLON CAPACITY TANK, 460 GAL/HR RECOVERY AT 40 DEG. F. ENT. AND 100 DEG.F. RISE, 120V/1ø; 399.9 MBH; T&P RELIEF VALVE.
HWH-5	STATE PCE-40-20LSA-55 ELECTRIC WATER HEATER, SINGLE ELEMENT, 40 GAL. CAPACITY TANK, 23 GAL/HR RECOVERY AT 40 DEG. F. AND 100 DEG.F. RISE, 5500 W; 230/1; T&P RELIEF VALVE.
HWH-6	STATE PCE-20-10MSA-4 ELECTRIC WATER HEATER, SINGLE ELEMENT, 20 GAL. CAPACITY TANK, 17 GAL/HR RECOVERY AT 40 DEG. F. AND 100 DEG.F. RISE, 4000 W; 230/1; T&P RELIEF VALVE.
HWH-7	STATE PCE-40-20LSA-5 ELECTRIC WATER HEATER, SINGLE ELEMENT, 40 GAL. CAPACITY TANK, 21 GAL/HR RECOVERY AT 40 DEG. F. AND 100 DEG.F. RISE, 5000 W; 230/1; T&P RELIEF VALVE.
HWH-8	STATE PCE-40-20LSA-5 ELECTRIC WATER HEATER, SINGLE ELEMENT, 40 GAL. CAPACITY TANK, 21 GAL/HR RECOVERY AT 40 DEG. F. AND 100 DEG.F. RISE, 5000 W; 230/1; T&P RELIEF VALVE.
SP-1	ZOELLER N153 SUMP PUMP, 1/2 HP., 120/1 PHASE, 50 GPM AT 20 FT. HEAD, 1-1/2" EFFLUENT, DIAPHRAGM PRESSURE SWITCH, PROVIDE DISCONNECT. UNIT TO BE HYDRAULIC FLUID SENSING TYPE WITH ALARM PANEL.
RPZ	WATTS #909 REDUCED PRESSURE ZONE BACKFLOW PREVENTOR, BRONZE CONSTRUCTION, EPOXY COATED CAST IRON CHECK VALVE BODY WITH BRONZE SEATS, FDA APPROVED EPOXY COATED CAST IRON RELIEF VALVE WITH TRIM.

LEGEND

	BRANCH CONNECTION – BOTTOM OF MAIN
	BRANCH CONNECTION – SIDE OF MAIN
	BRANCH CONNECTION – TOP OF MAIN
	PIPE DOWN OR PIPE FROM BELOW
	PIPE UP OR PIPE FROM ABOVE
	DIRECTION OF FLOW
	DOMESTIC COLD WATER
	DOMESTIC HOT WATER
	SPRINKLER HEAD
	SANITARY SEWER OR DRAIN
	SANITARY VENT
RL	RAIN LEADER ABOVE LOWEST FLOOR
SD	STORM SEWER OR DRAIN
CO	CLEANOUT FLUSH WITH FLOOR
CO	CLEANOUT BELOW FLOOR
	HOSE BIBBS (PLAN & ELEVATION)
	GATE VALVE
	BALL VALVE
	THERMOMETER
	PRESSURE REDUCING VALVE (PRV)
R	RELIEF VALVE
	BACKFLOW PREVENTER (BFP)
	CONNECT TO EXISTING

ABBREVIATIONS

ABV	ABOVE
BTU	BRITISH THERMAL UNIT
BEL	BELOW
BET	BETWEEN
CLG	CEILING
CO	CLEANOUT
CONC	CONCRETE
CONN	CONNECT, CONNECTION
CW	COLD WATER
CONT	CONTINUED
DN	DOWN
EA	EACH
EWC	ELECTRIC WATER COOLER
F	DEGREES FARENHEIT
FD	FLOOR DRAIN
FL	FLOOR
FR	FROM
FT	FEET
GPM	GALLONS PER MINUTE
GV	GATE VALVE
HB	HOSE BIBB
HW	HOT WATER
IN	INCH, INCHES
MAX	MAXIMUM
MIN	MINUMUM
RD	ROOF DRAIN
REQD	REQUIRED
RL	ROOF LEADER
SH	SHEET
TEMP	TEMPERATURE
TYP	TYPICAL
V	SANITARY VENT
VTR	VENT THRU ROOF
W	SANITARY WASTE
WH	WALL HYDRANT

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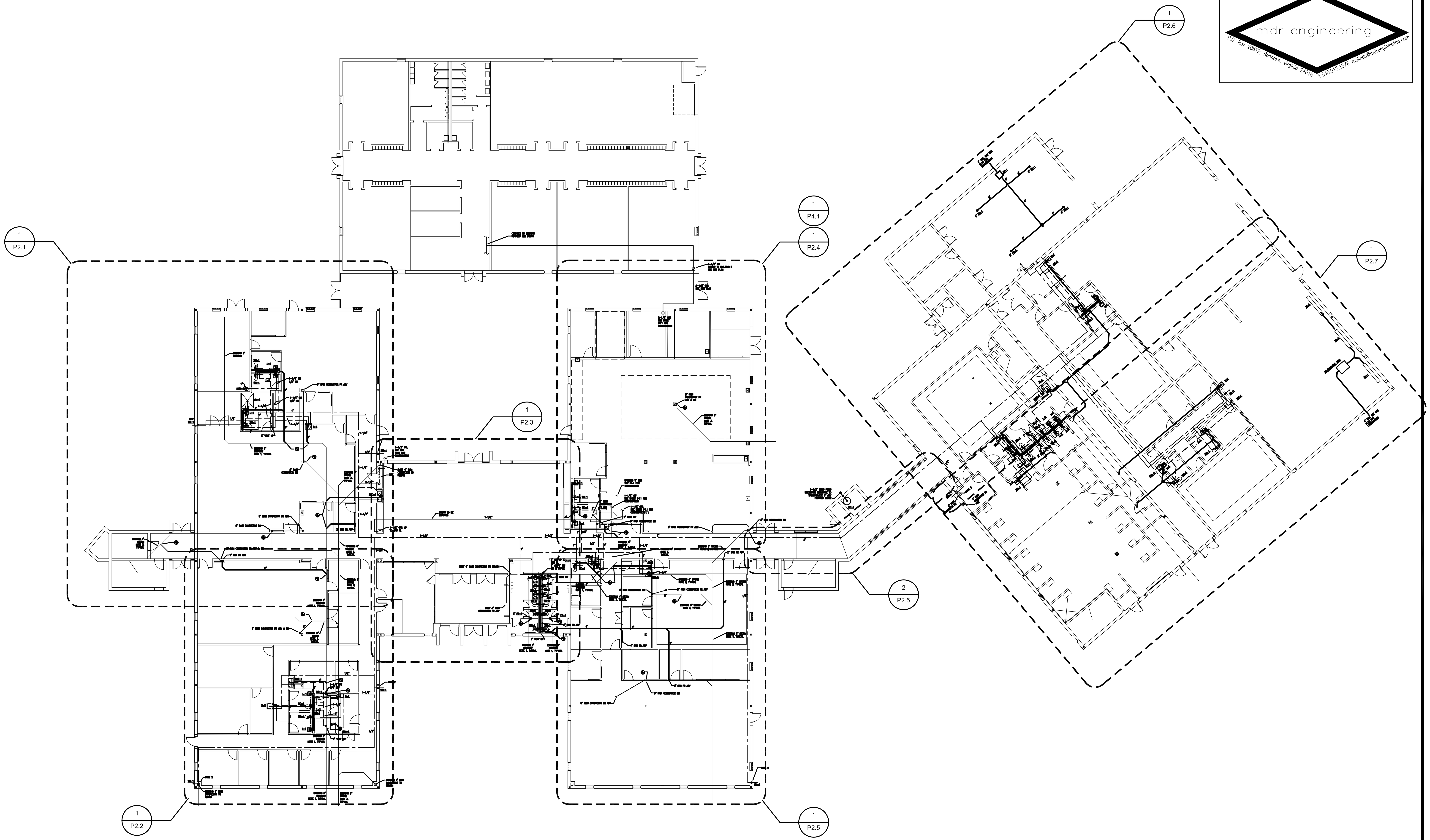
PLUMBING LEGEND & SCHEDULES

P0.1

SHEET ______ of X



1 P1.1 GROUND FLOOR OVERALL PLUMBING NEW WORK PLAN

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

0 8' 16' 32'

PLAN NORTH

TRUE NORTH

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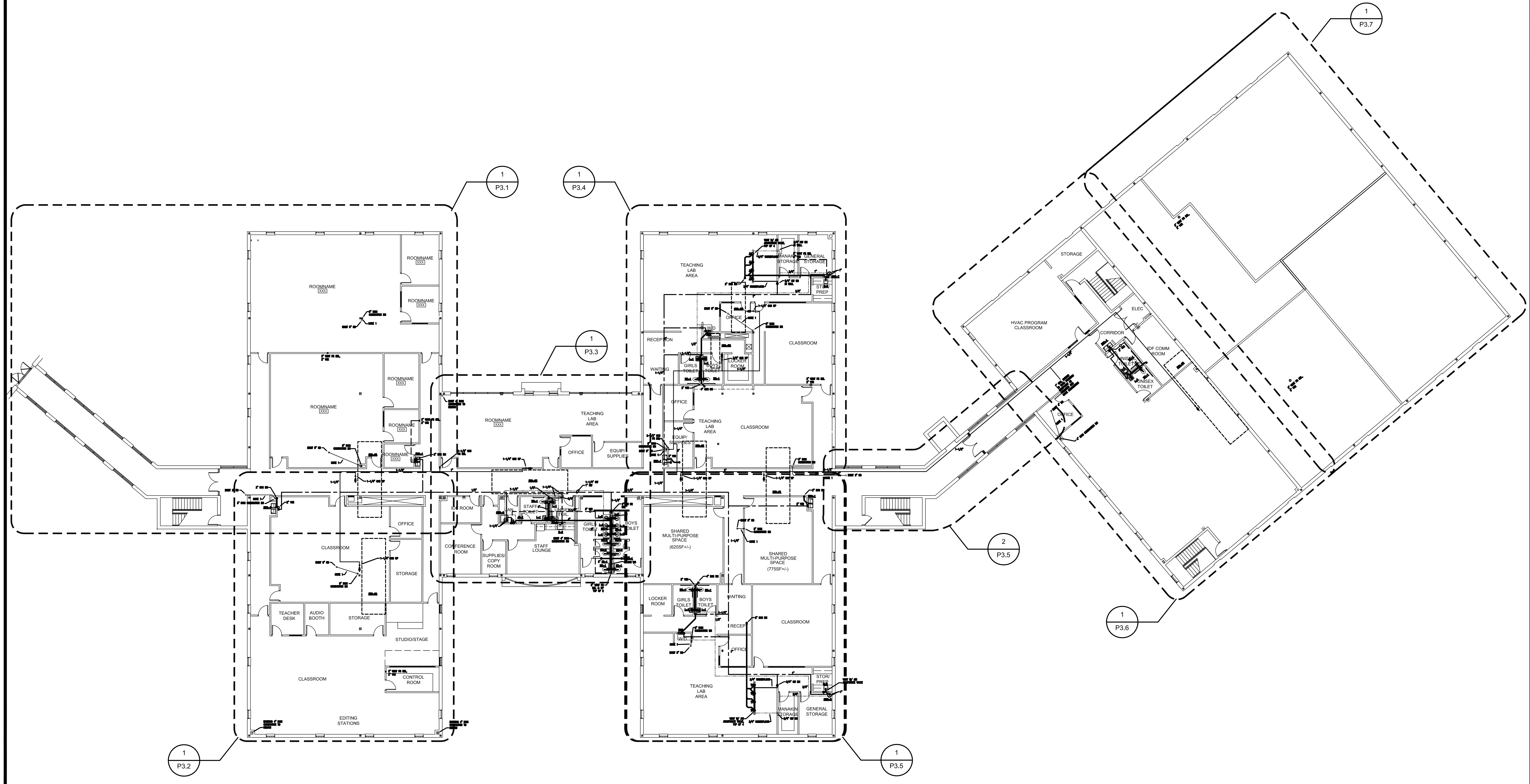
GROUND FLOOR OVERALL MECHANICALNEW WORK PLAN

P1.1

SHEET ______ of __X__



SECOND FLOOR OVERALL MECHANICAL NEW WORK PLAN

1
P1.2
SCALE: 1/16" = 1'-0"

0 8' 16' 32'

PLAN NORTH
TRUE NORTH

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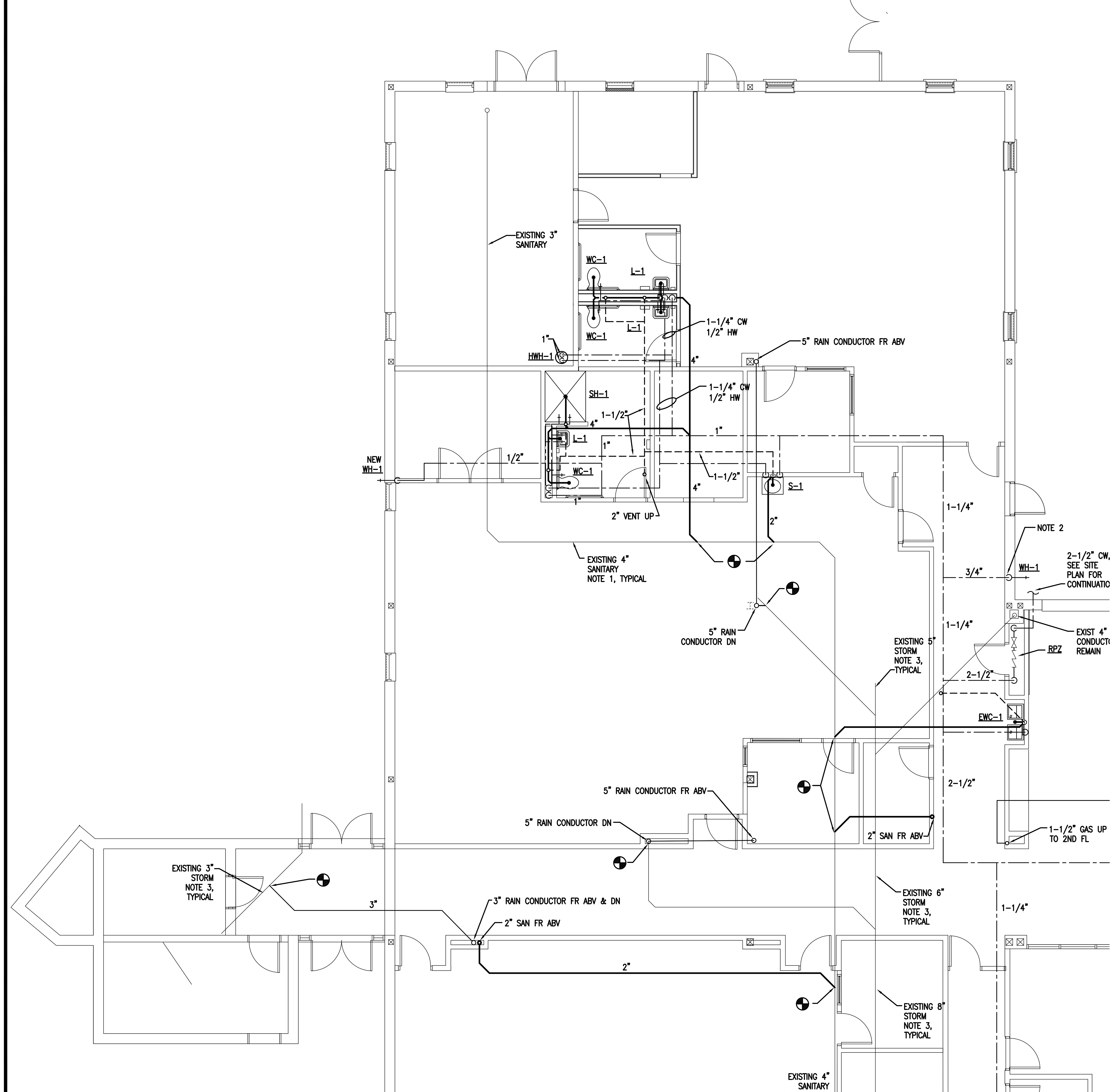
SCALE:	AS SHOWN

SECOND FLOOR OVERALL PLUMBING NEW WORK PLAN

P1.2

SHEET ______ of X

NOTES:
1. CONTRACTOR TO FIELD VERIFY LOCATION OF EXISTING SANITARY PIPING AND ADJUST TIE-IN LOCATIONS AS REQUIRED.
2. CONNECT TO EXISTING PIPING IN WALL TO SERVE NEW WALL HYDRANT.



1 P2.1 GROUND FLOOR PARTIAL PLUMBING NEW WORK PLAN - AREA A
SCALE: 3/16" = 1'-0"

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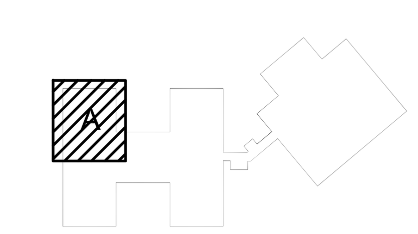

KEYPLAN

0 3' 6' 12'

N
PLAN NORTH
TRUE NORTH

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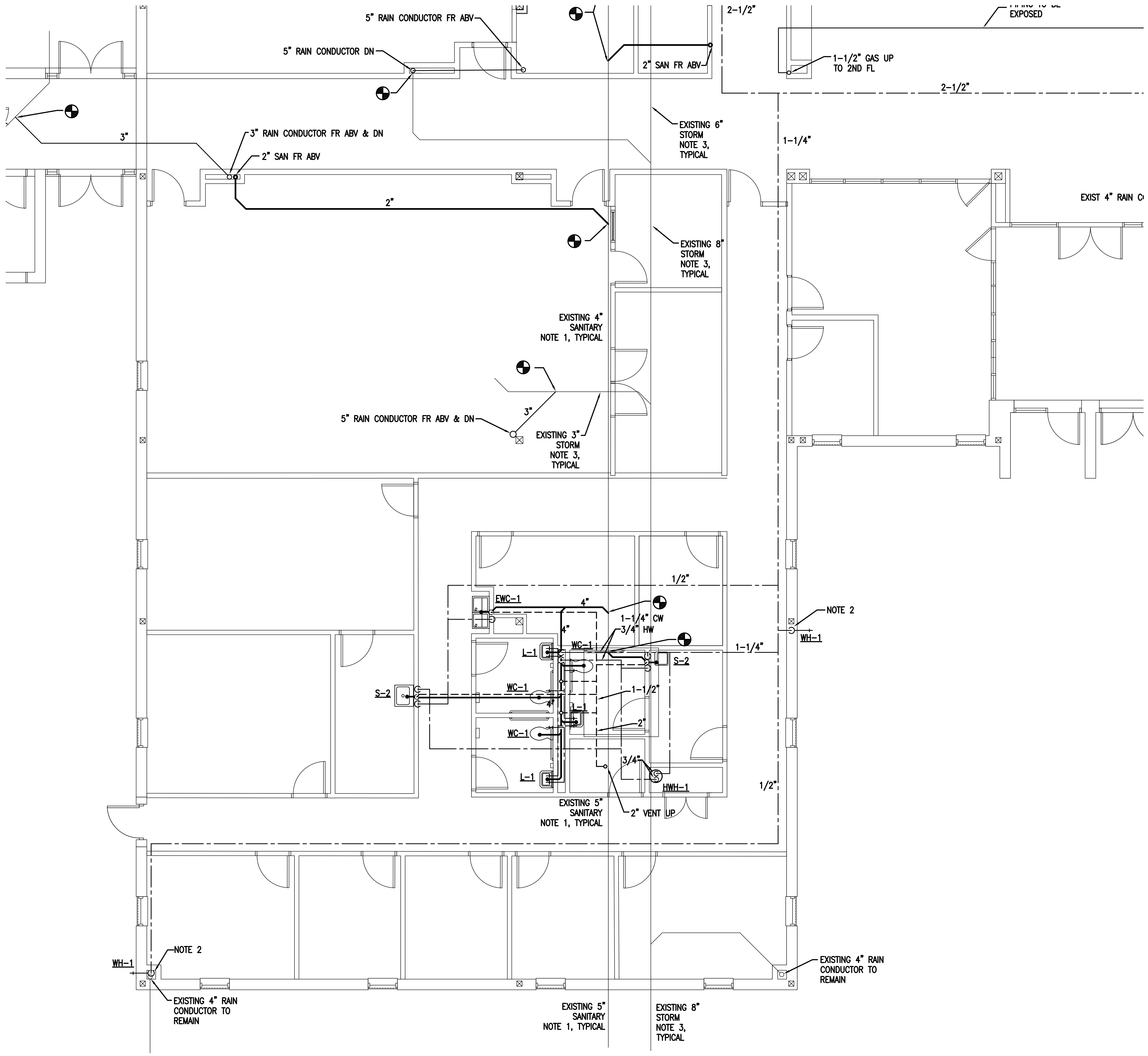
DATE:	6/17/22
SCALE:	AS SHOWN

GROUND FLOOR PARTIAL PLUMBING NEW WORK PLAN - AREA A

P2.1

SHEET ____ of X



1 P2.2 GROUND FLOOR ENLARGED PARTIAL PLUMBING NEW WORK PLAN

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

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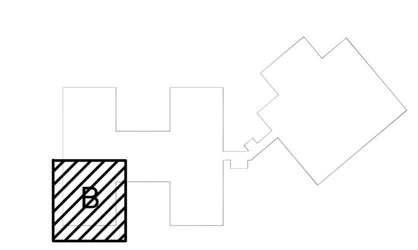

KEYPLAN

0 3' 6' 12'

PLAN NORTH

TRUE NORTH

REVISIONS

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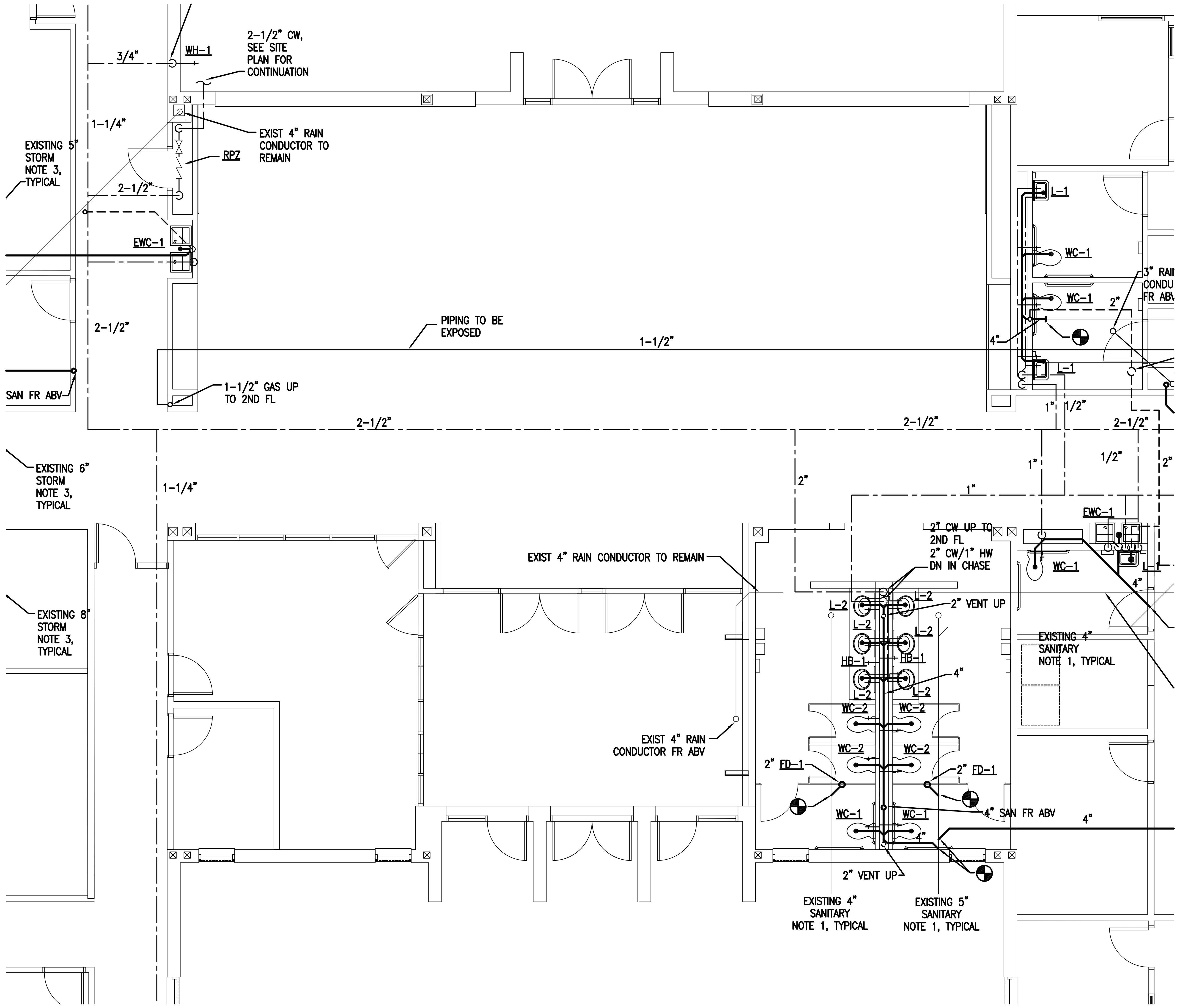
SCALE:	AS SHOWN

GROUND FLOOR PARTIAL PLUMBING NEW WORK PLAN - AREA B

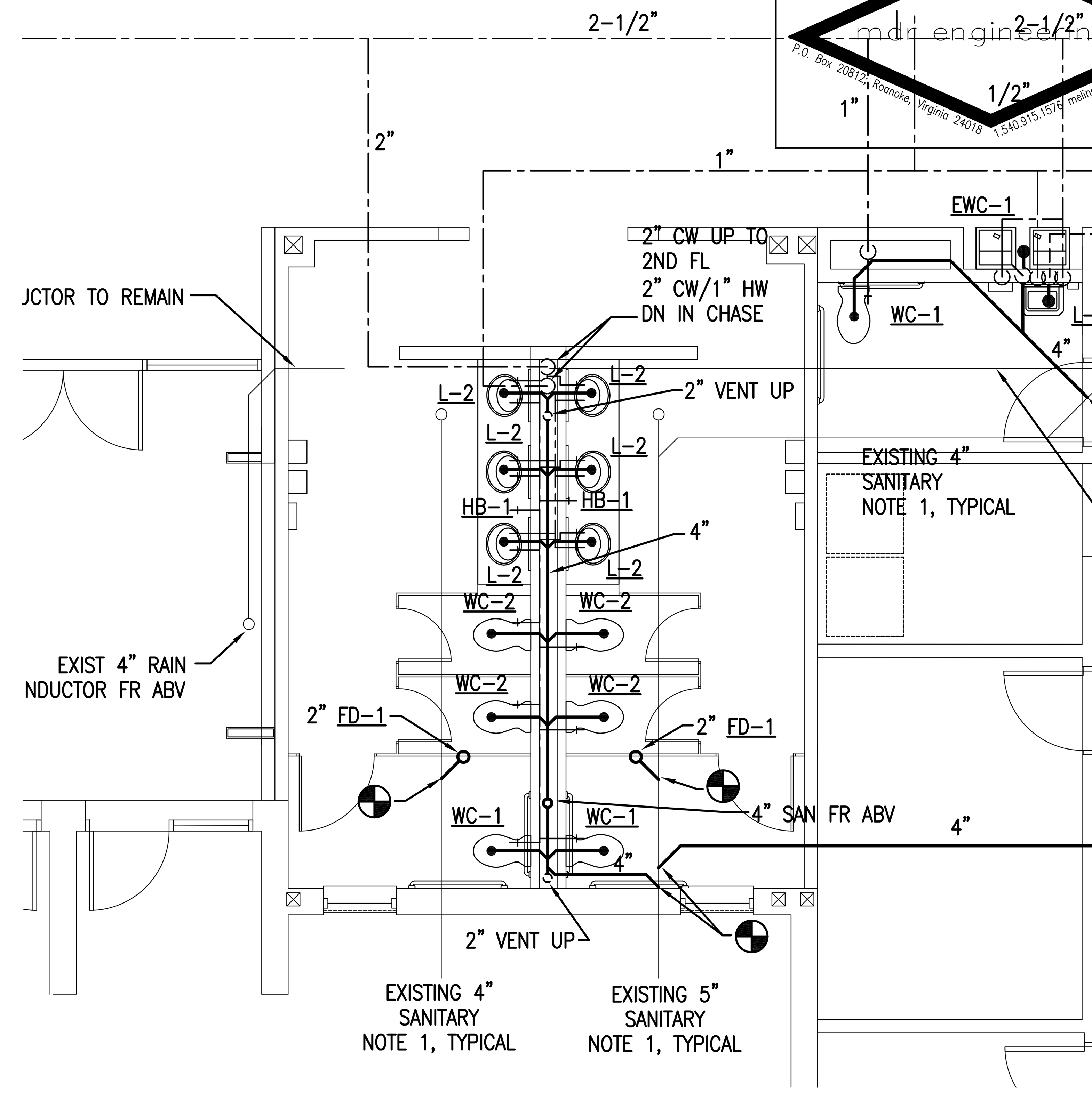
P2.2

SHEET ______ of X



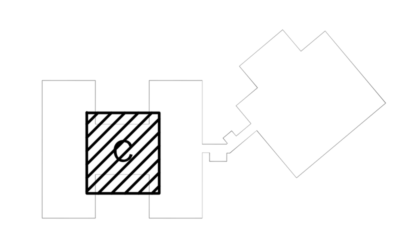
GROUND FLOOR PARTIAL MECHANICAL NEW WORK PLAN - AREA C

1 P2.3 SCALE: 3/16" = 1'-0"



TOILET ROOM ENLARGED NEW WORK PLAN

2 P2.3 SCALE: 1/4" = 1'-0"



KEYPLAN

0 2' 4' 8'

0 3' 6' 12'

PLAN NORTH

TRUE NORTH

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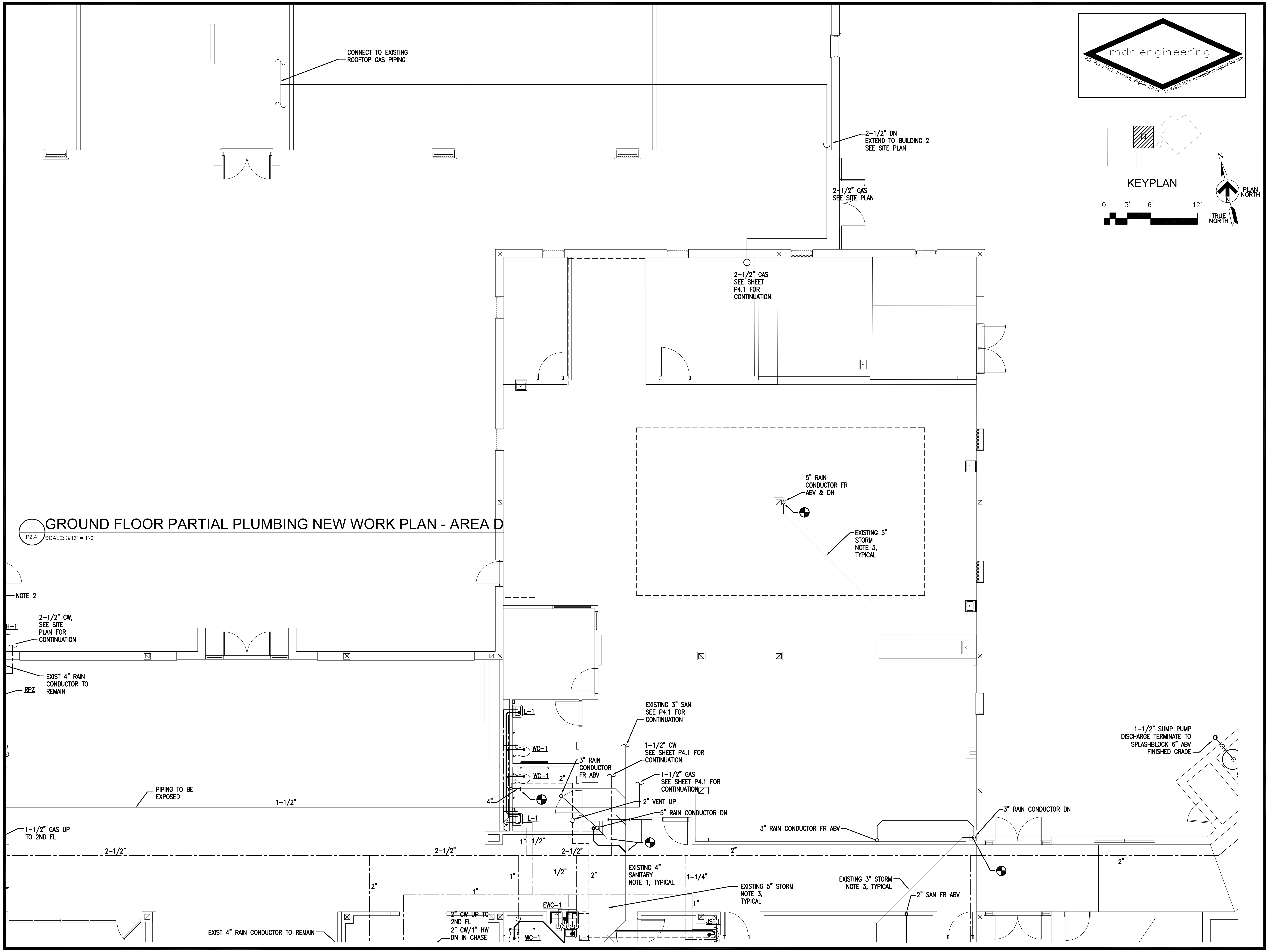
GROUND FLOOR PARTIAL PLUMBING NEW WORK PLAN - AREA C

P2.3

SHEET _____ of X



GROUND FLOOR PARTIAL PLUMBING NEW WORK PLAN - AREA D

1 P2.4

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

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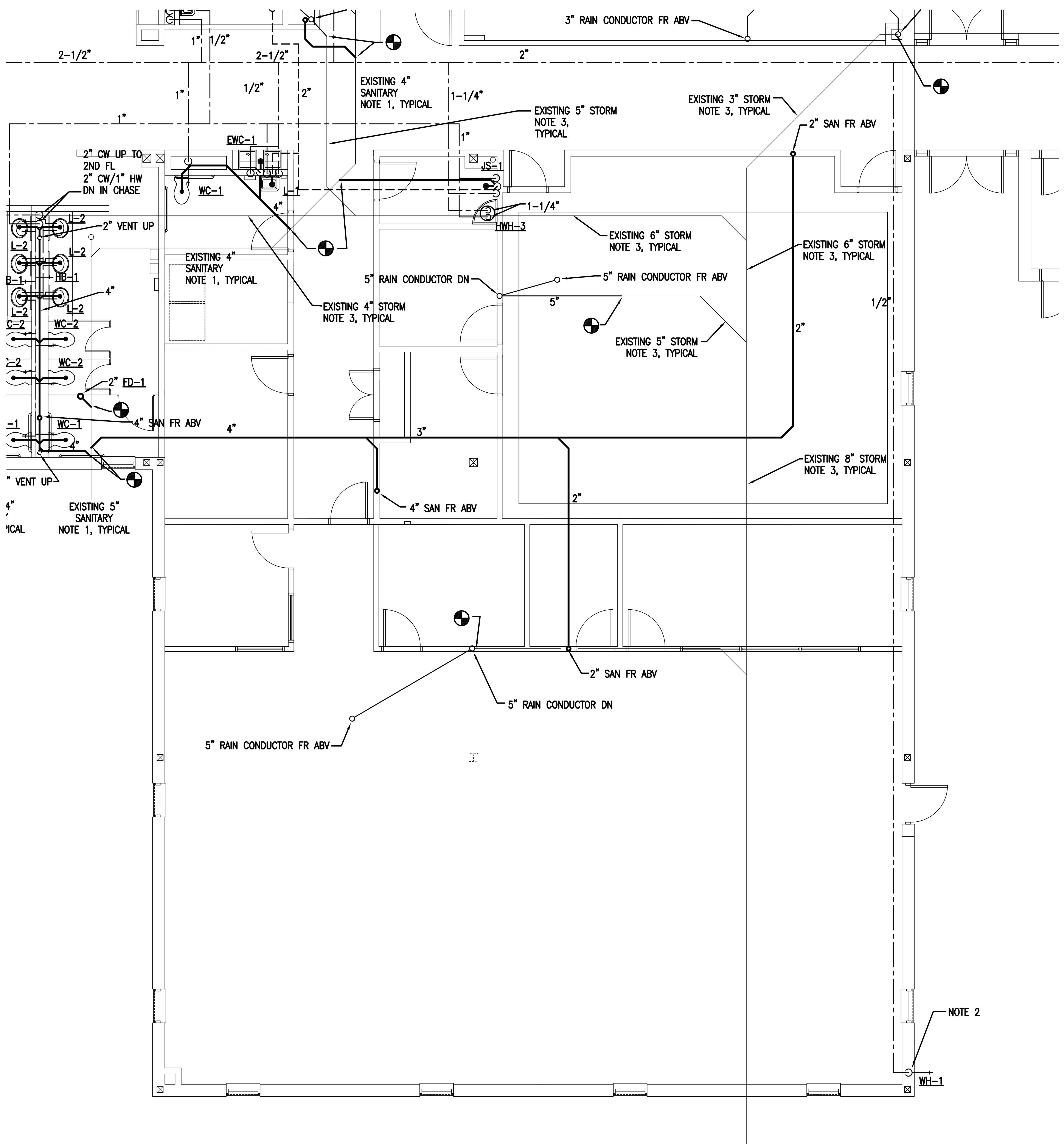
SCALE:	AS SHOWN

GROUND FLOOR PARTIAL PLUMBING NEW WORK PLAN - AREA D

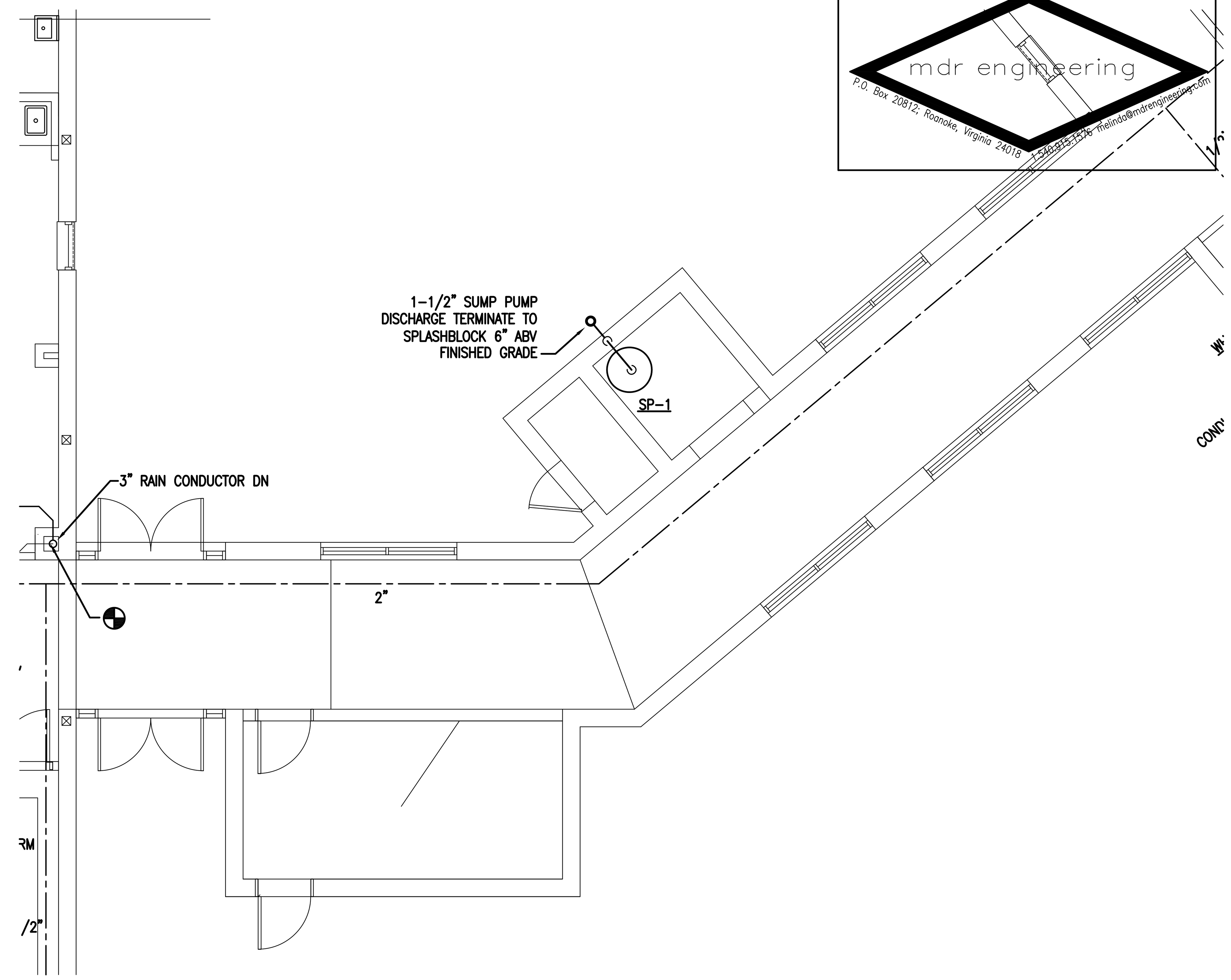
P2.4

SHEET ______ of __X__



GROUND FLOOR PARTIAL PLUMBING NEW WORK PLAN - AREA E

1 P2.5 SCALE: 3/16" = 1'-0"



GROUND FLOOR PARTIAL PLUMBING NEW WORK PLAN - AREA E

2 P2.5 SCALE: 1/4" = 1'-0"

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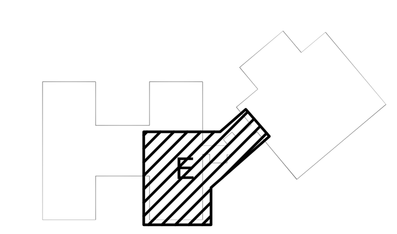

KEYPLAN

PLAN NORTH

TRUE NORTH

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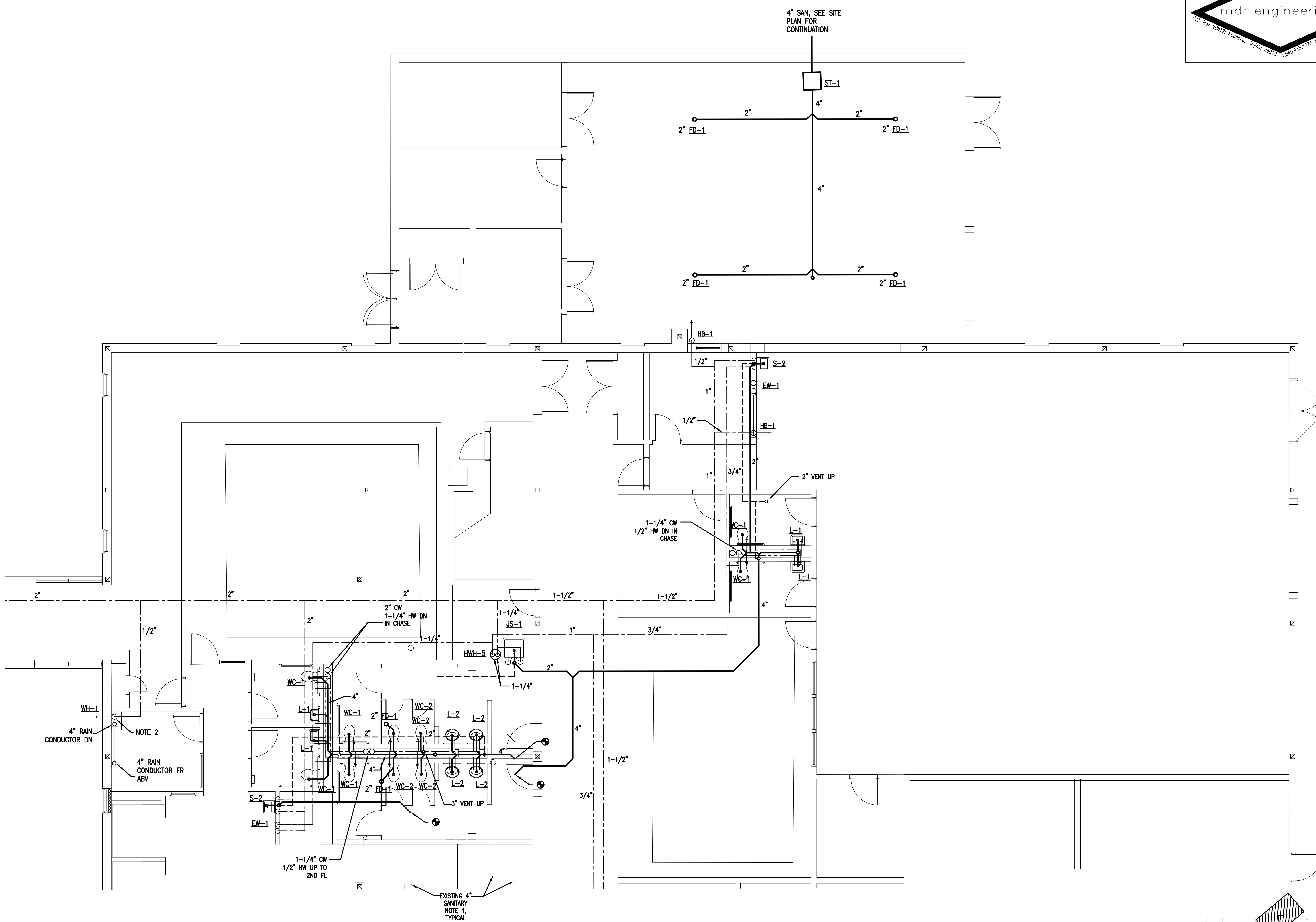
SCALE:	AS SHOWN

GROUND FLOOR PARTIAL PLUMBING NEW WORK PLAN - AREA E

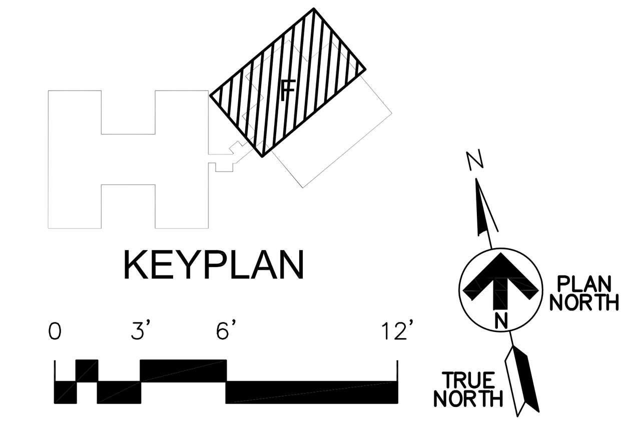
P2.5

SHEET ______ of __X__



1 / P2.6 **GROUND FLOOR PARTIAL PLUMBING NEW WORK PLAN - AREA F**

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



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GROUND FLOOR PARTIAL PLUMBING PLAN - AREA F

P2.6

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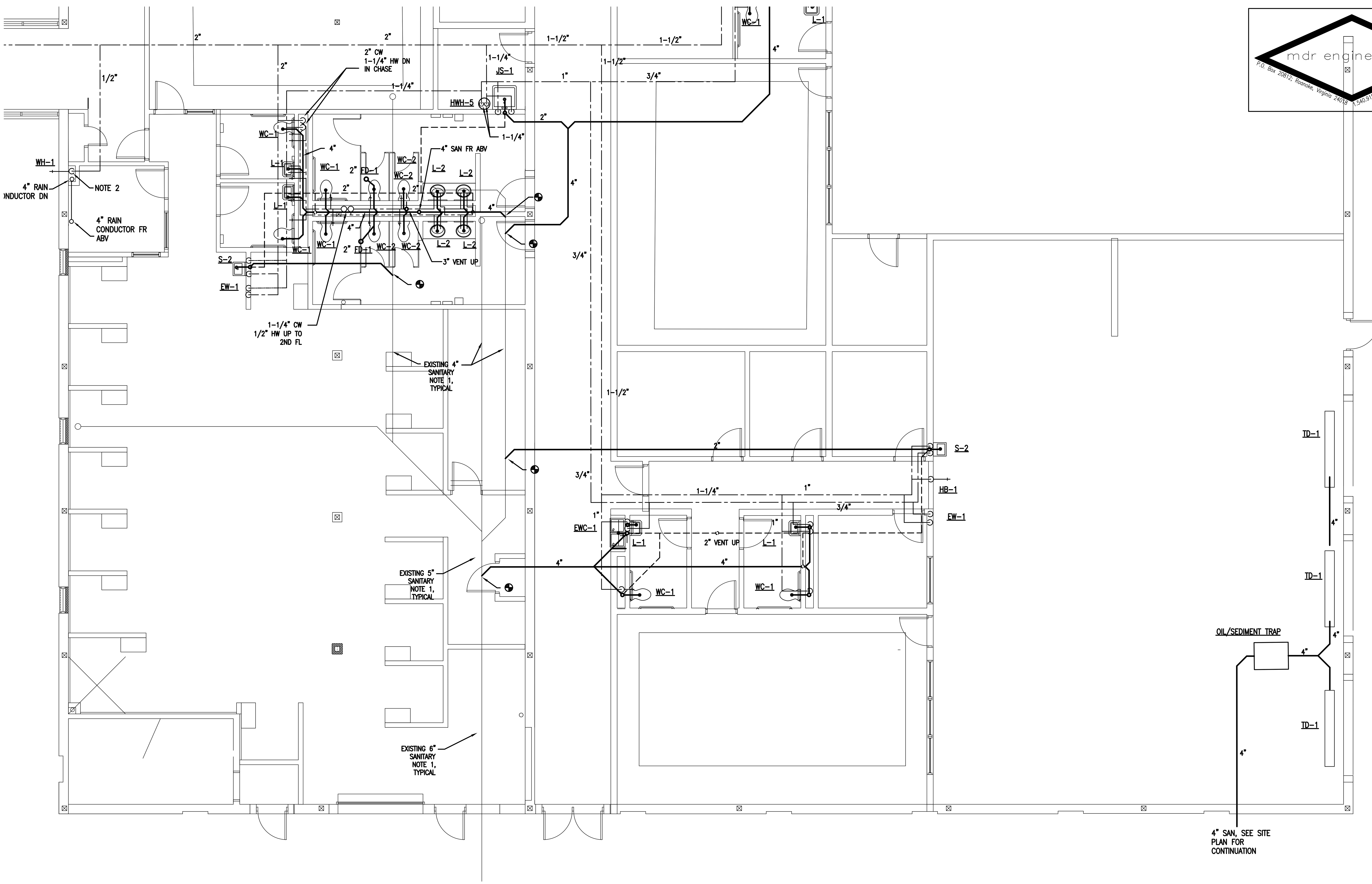
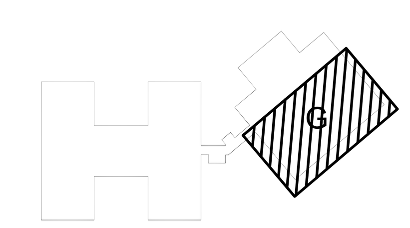


1
P2.7

GROUND FLOOR PARTIAL PLUMBING NEW WORK PLAN - AREA G

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



KEYPLAN

0 3' 6' 12'

PLAN NORTH

TRUE NORTH

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GROUND FLOOR PARTIAL PLUMBING NEW WORK PLAN - AREA G

P2.7

SHEET ______ of ___X___

NOTES:
1. EXTEND NEW RAIN CONDUCTOR FROM EXISTING ROOF DRAIN TO NEW RISER. RAIN CONDUCTOR TO BE SIZE OF ROOF DRAIN.

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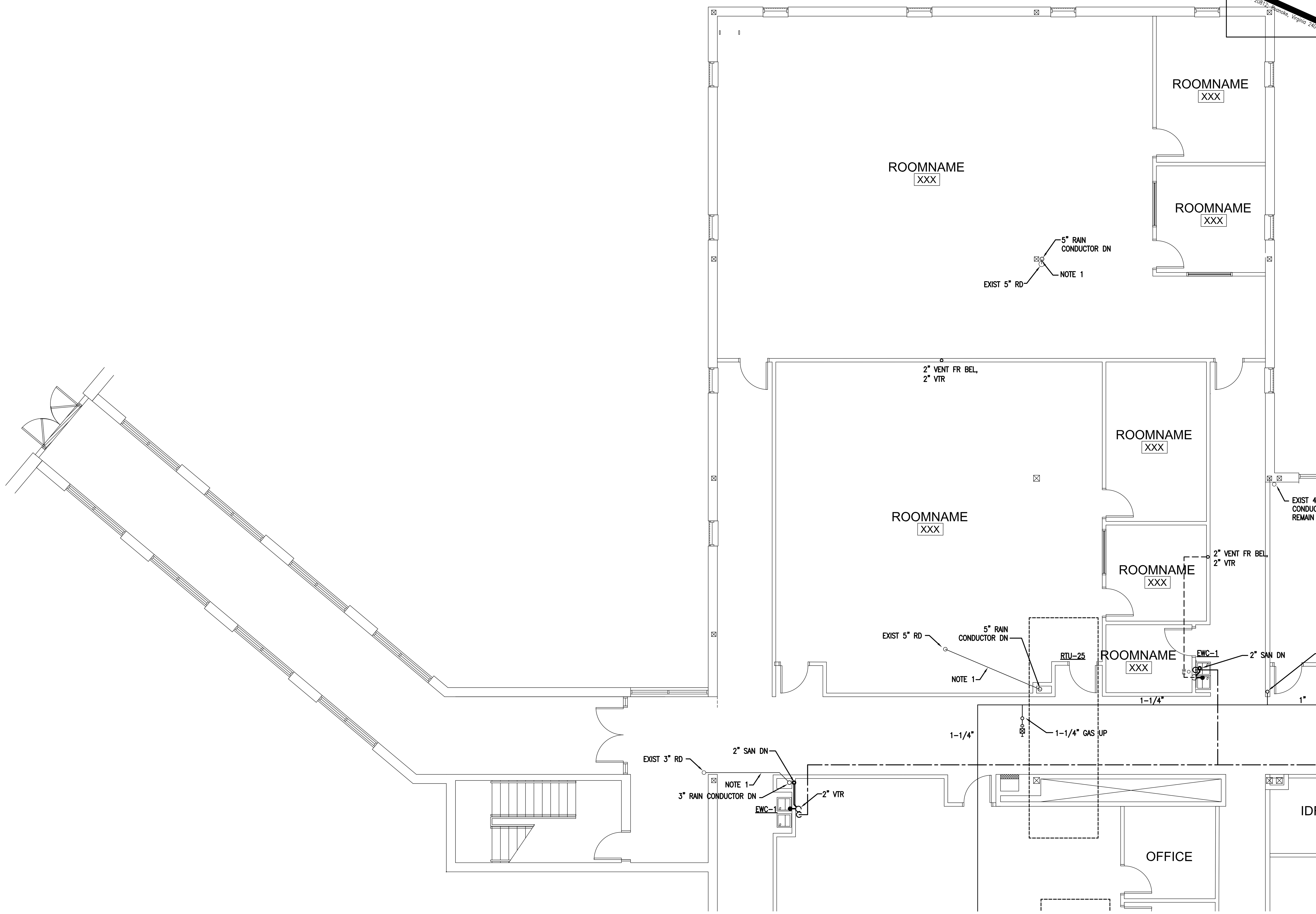
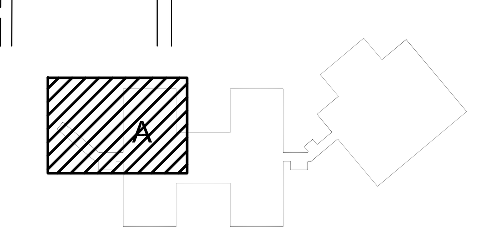


1 P3.1 SECOND FLOOR PARTIAL PLUMBING NEW WORK PLAN - AREA A
SCALE: 3/16" = 1'-0"



KEYPLAN

0 3' 6' 12'

TRUE NORTH

PLAN NORTH

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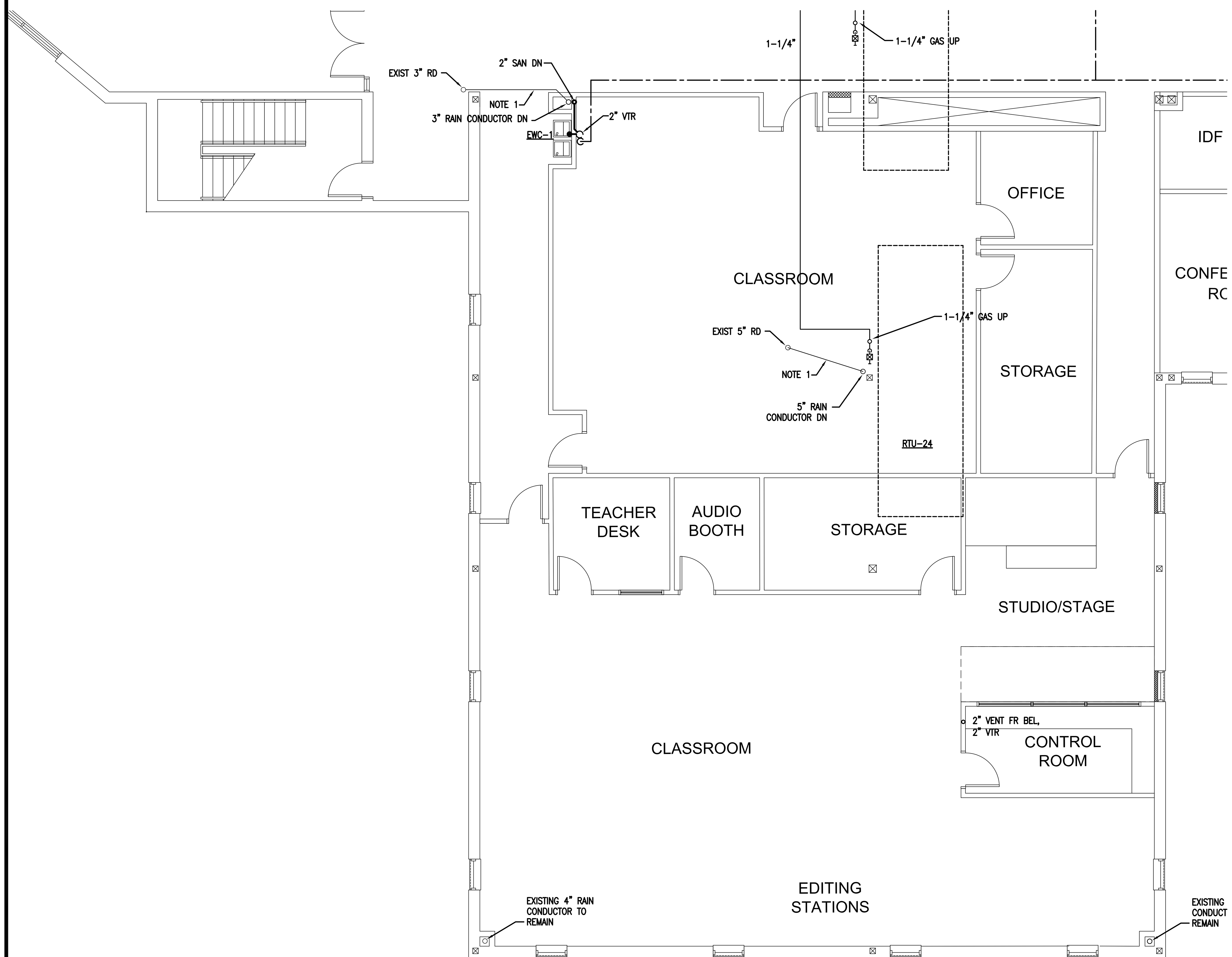
SECOND FLOOR PARTIAL PLUMBING NEW WORK PLAN - AREA A

P3.1

SHEET ______ of X



1
P3.2
SECOND FLOOR PARTIAL PLUMBING NEW WORK PLAN - AREA B
SCALE: 3/16" = 1'-0"

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SECOND FLOOR PARTIAL PLUMBING NEW WORK PLAN - AREA B

P3.2

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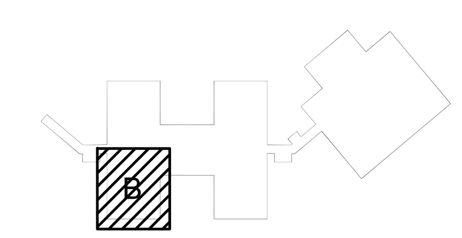
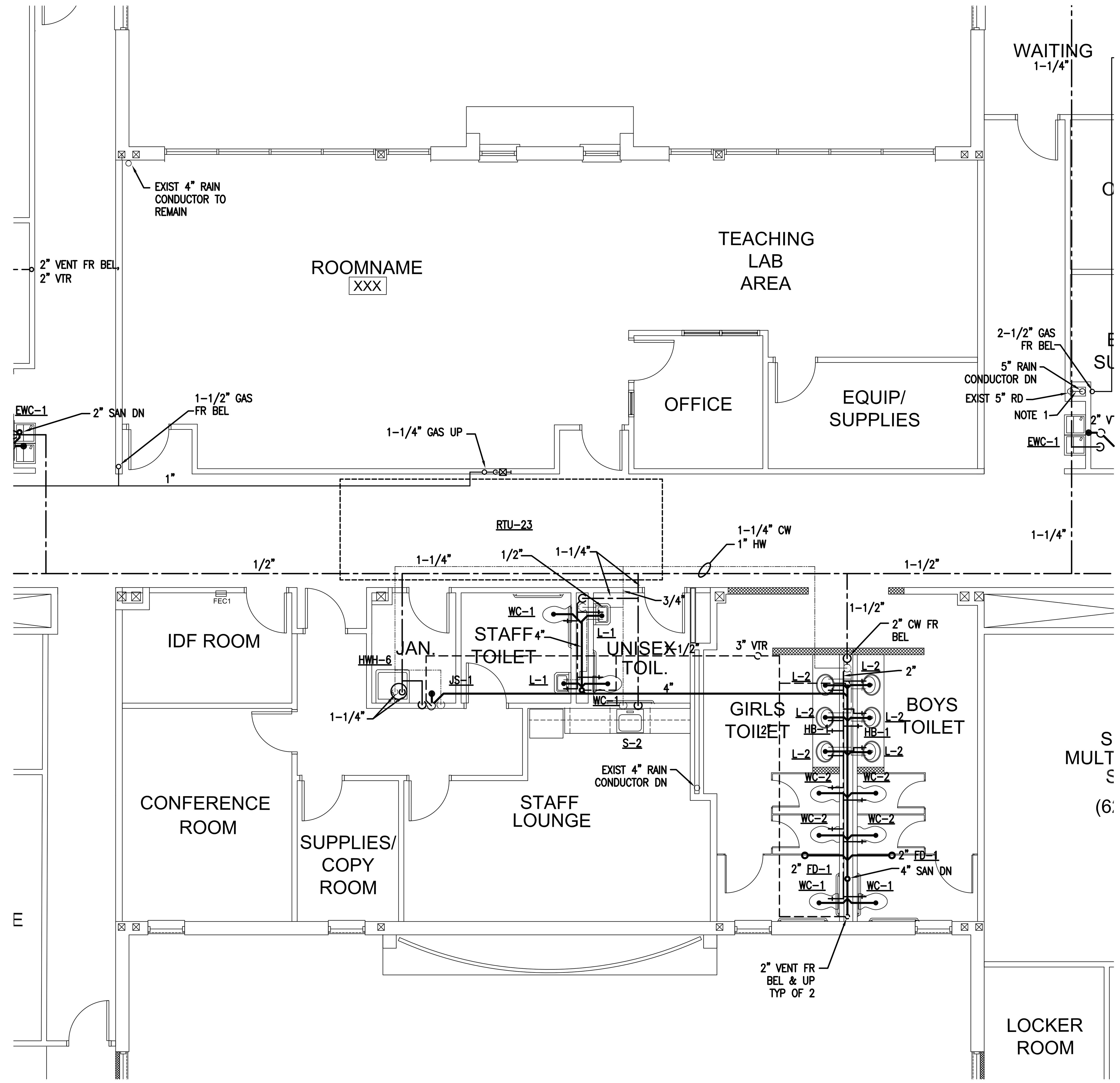


KEYPLAN

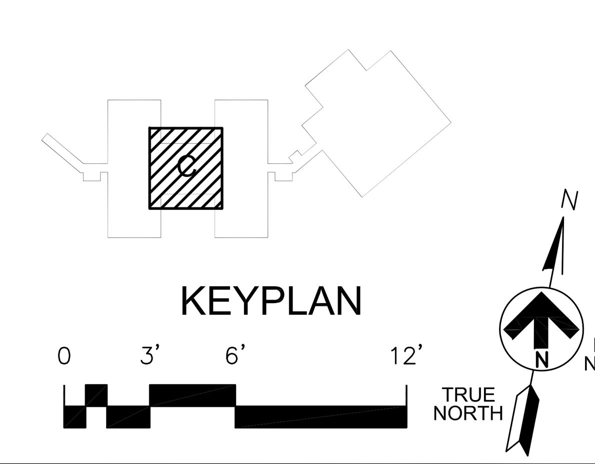
0 3' 6' 12'

TRUE NORTH
PLAN NORTH
N



1 P3.3 SECOND FLOOR PARTIAL PLUMBING NEW WORK PLAN - AREA C

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



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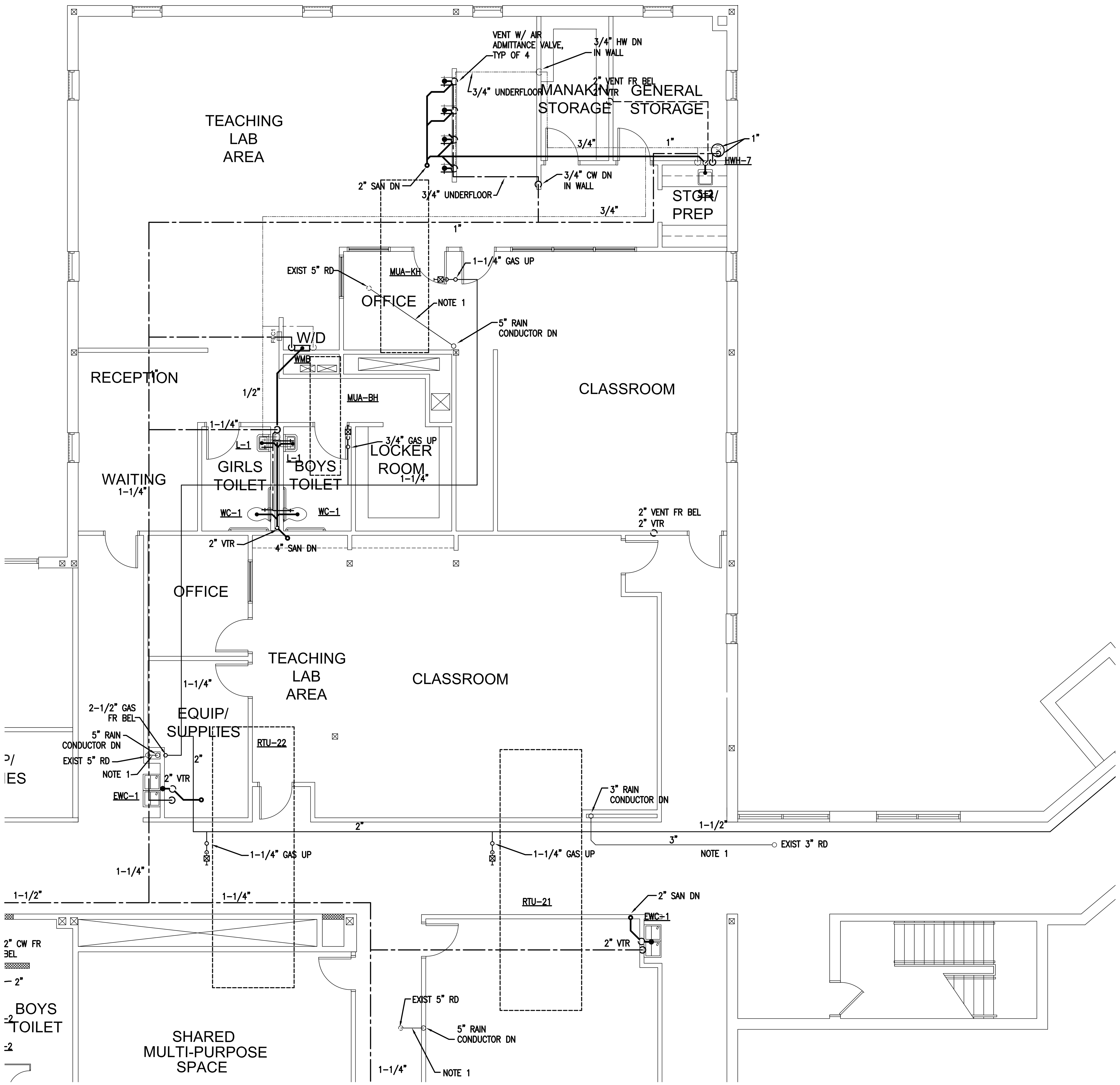
SECOND FLOOR PARTIAL PLUMBING NEW WORK PLAN - AREA C

P3.3

SHEET ______ of X



1 / P3.4 **SECOND FLOOR PARTIAL PLUMBING NEW WORK PLAN - AREA D**

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

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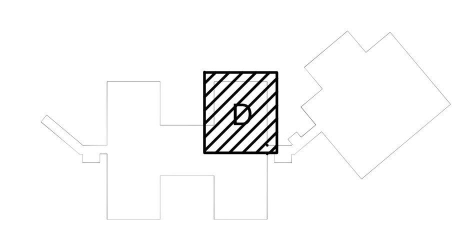

KEYPLAN

0 3' 6' 12'

N
PLAN NORTH
TRUE NORTH

REVISIONS

No.	DATE	DESCRIPTION
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SECOND FLOOR PARTIAL PLUMBING NEW WORK PLAN - AREA D

P3.4

SHEET ______ of X

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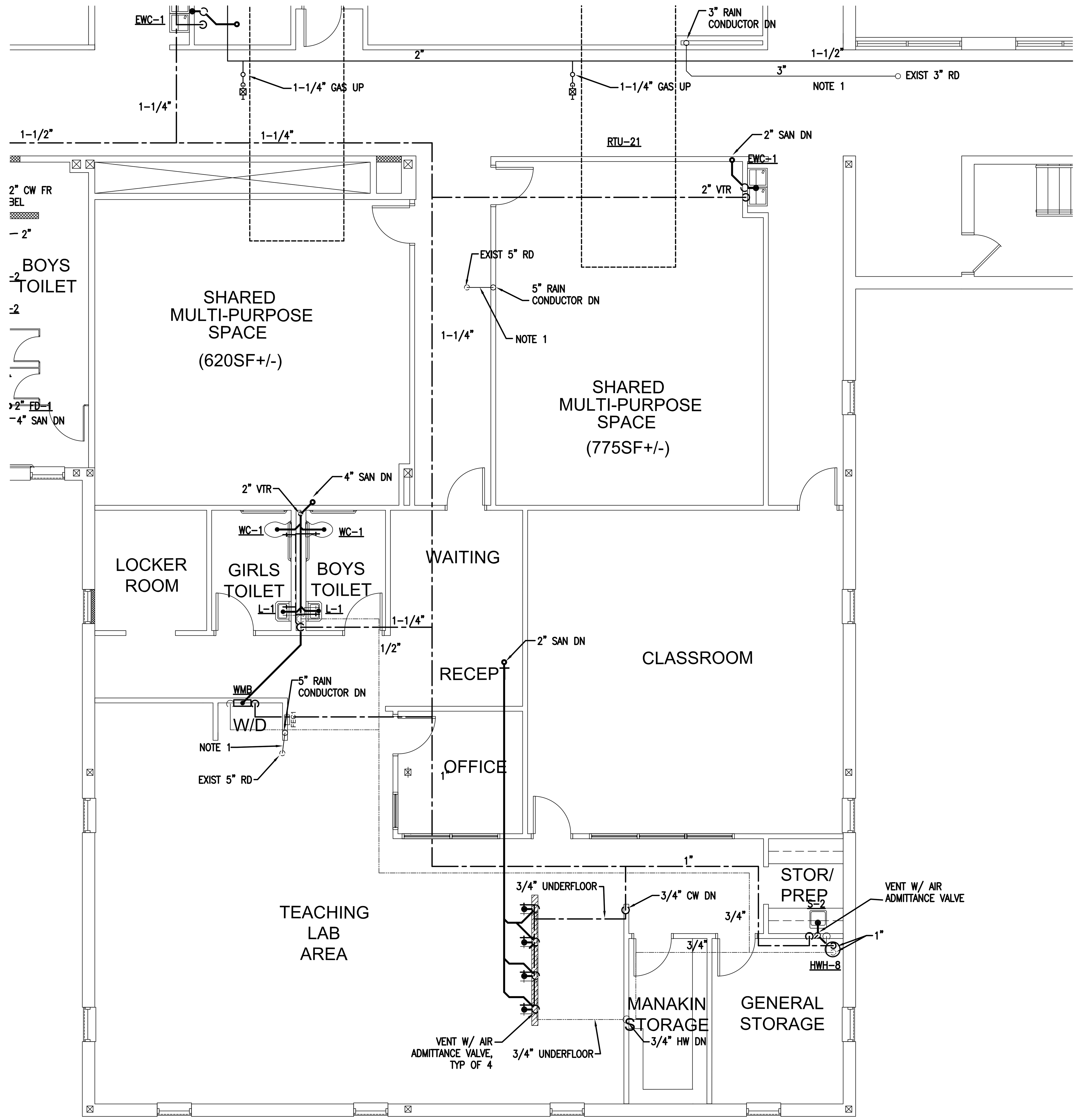
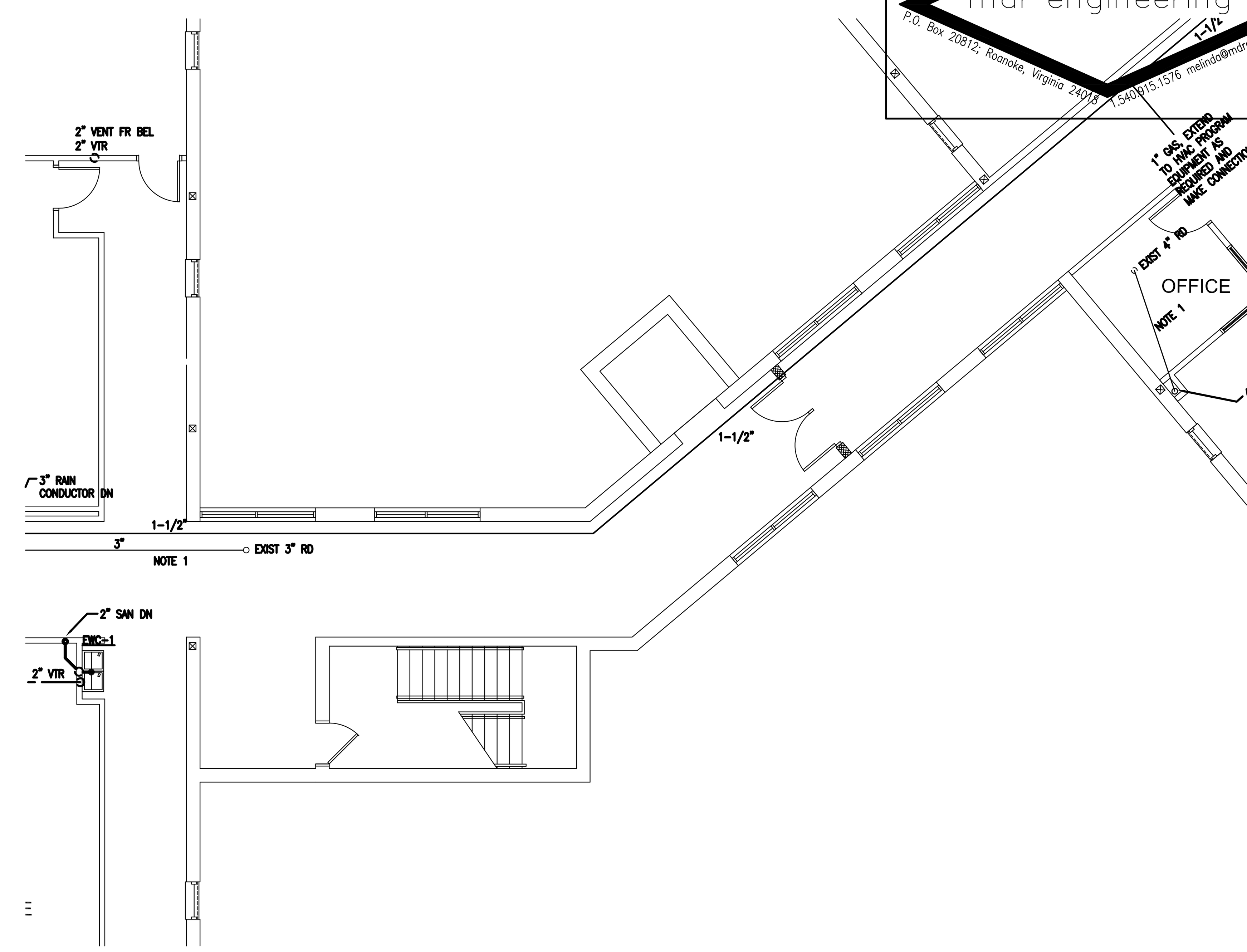
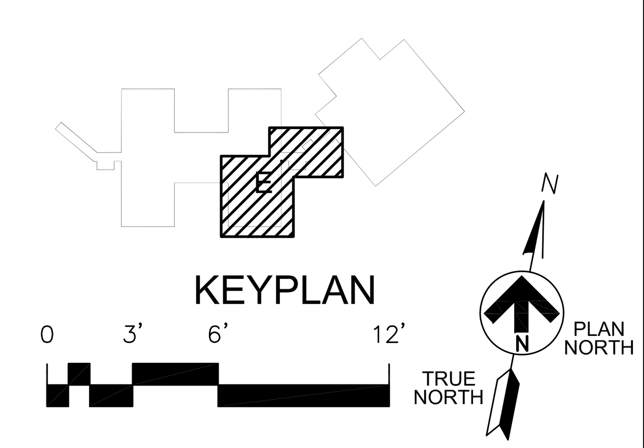


1 P3.5 SECOND FLOOR PARTIAL PLUMBING NEW WORK PLAN - AREA E
SCALE: 3/16" = 1'-0"



2 M3.5 SECOND FLOOR PARTIAL MECHANICAL NEW WORK PLAN - AREA E
SCALE: 3/16" = 1'-0"



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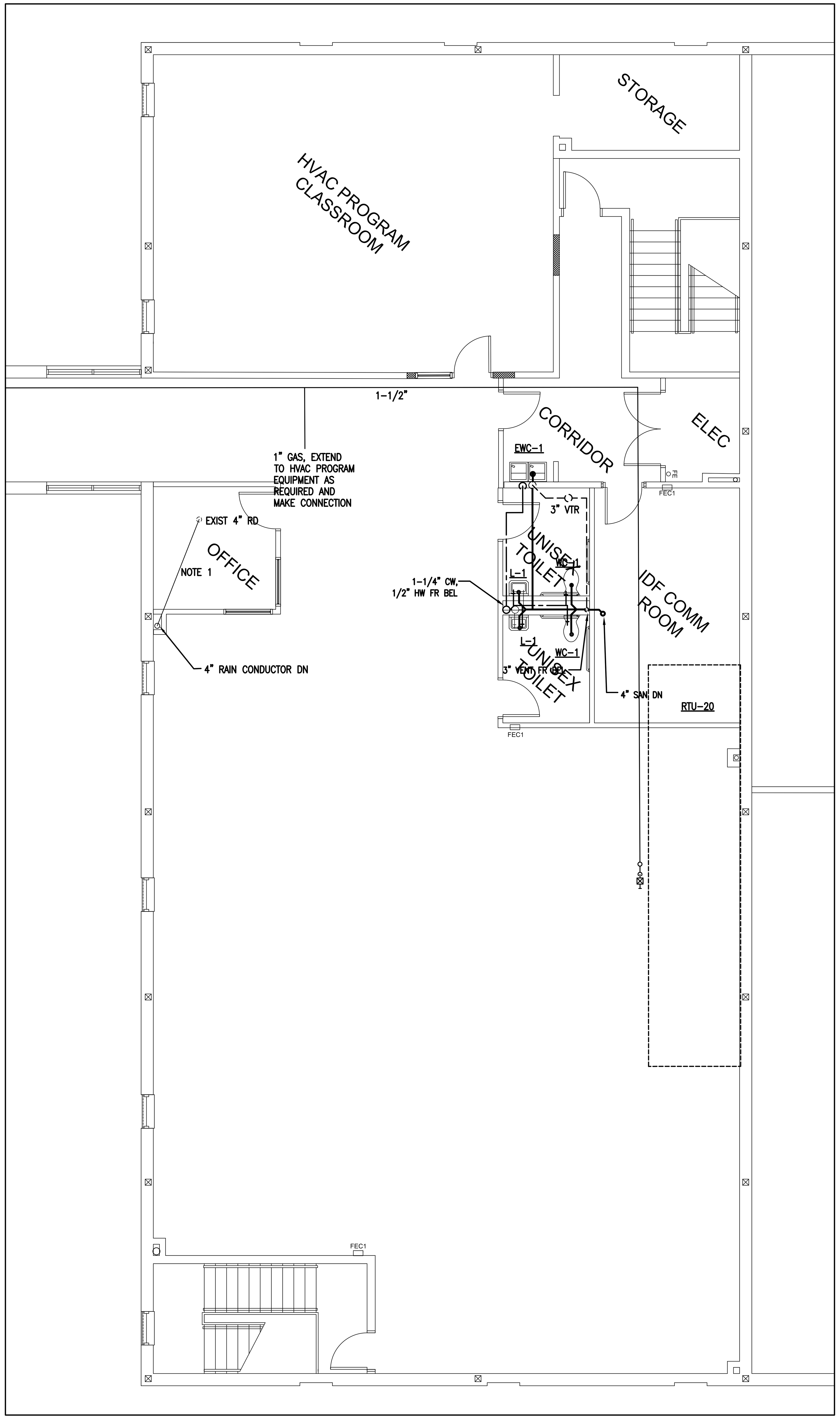
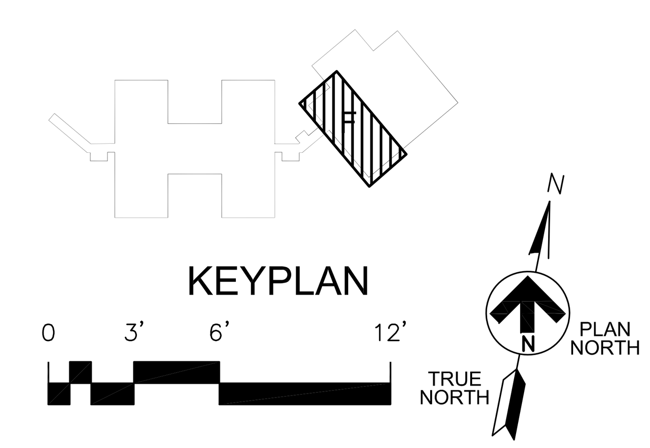
SECOND FLOOR PARTIAL PLUMBING NEW WORK PLAN - AREA E

P3.5

SHEET ______ of X



1 P3.6 SECOND FLOOR PARTIAL NEW WORK PLAN - AREA F
SCALE: 3/16" = 1'-0"



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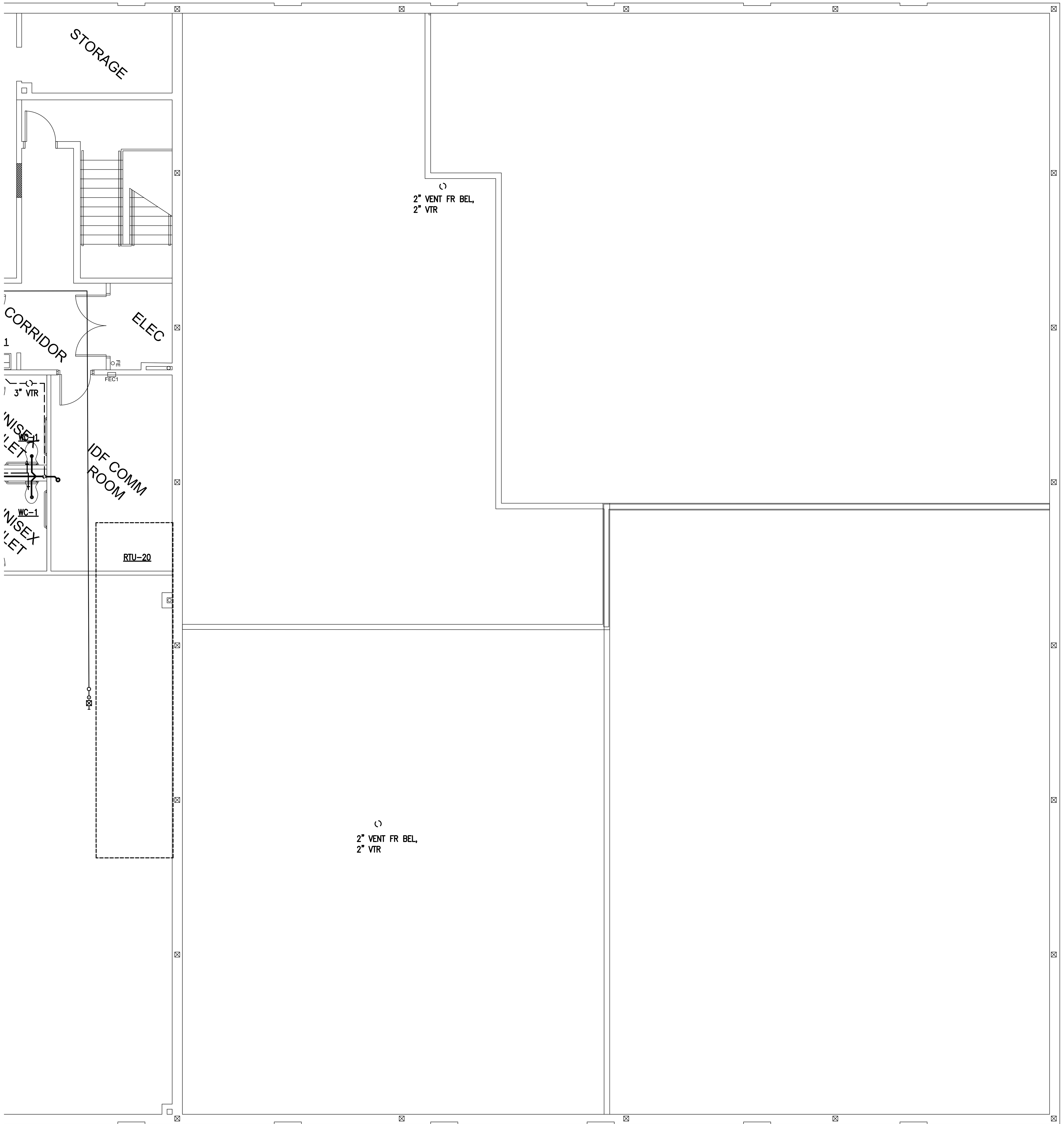
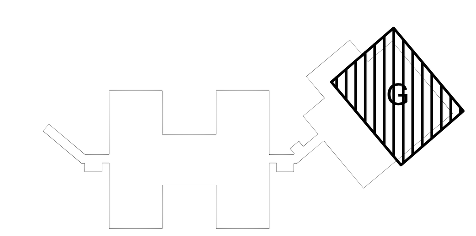
SECOND FLOOR PARTIAL PLUMBING NEW WORK PLAN - AREA F

P3.6

SHEET ______ of X



1 P3.7 SECOND FLOOR PARTIAL NEW WORK PLAN - AREA G
SCALE: 3/16" = 1'-0"



KEYPLAN

0 3' 6' 12'

TRUE NORTH
PLAN NORTH

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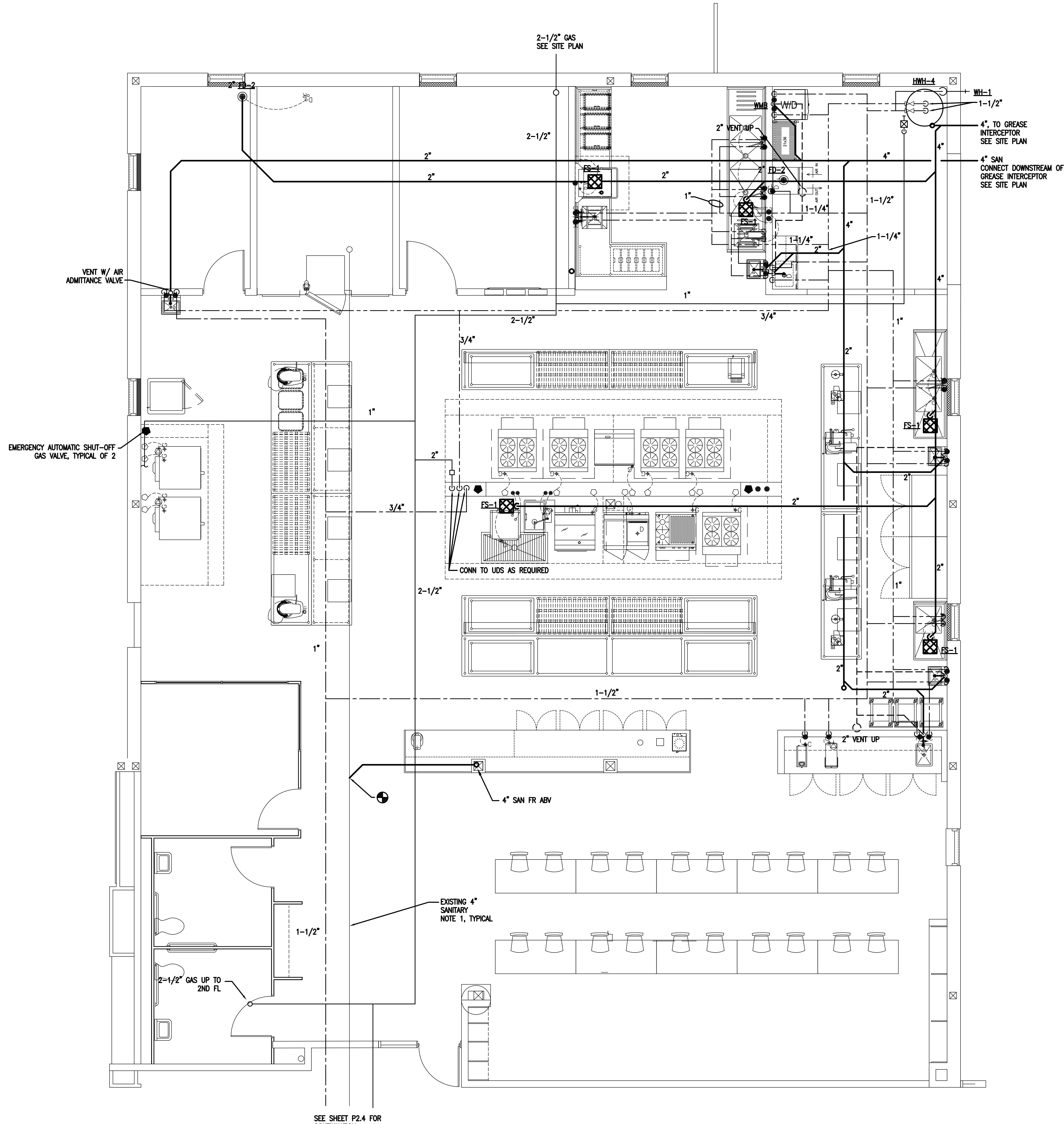
SECOND FLOOR PARTIAL PLUMBING NEW WORK PLAN - AREA G

P3.7

SHEET ____ of X



1
P4.1
GROUND FLOOR ENLARGED PLUMBING NEW WORK PLAN - AREA D
SCALE: 3/16" = 1'-0"

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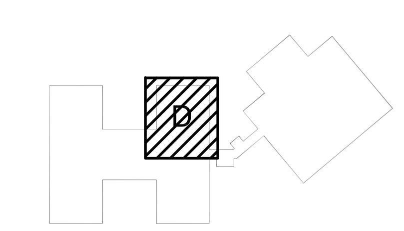
GROUND FLOOR ENLARGED
PLUMBING NEW WORK
PLAN - AREA D

P4.1

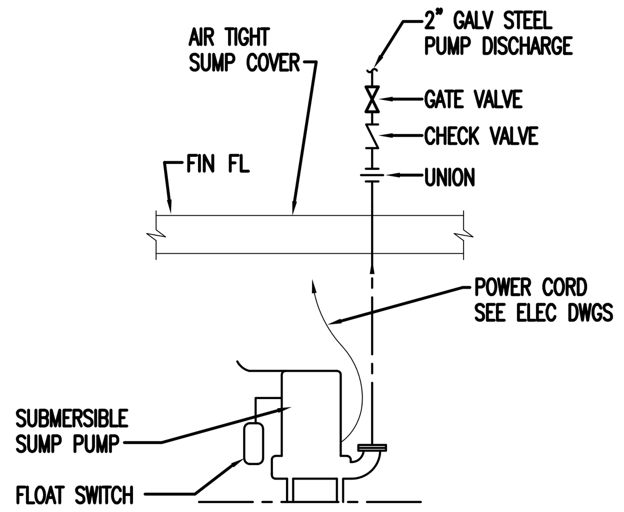
SHEET ______ of X



KEYPLAN

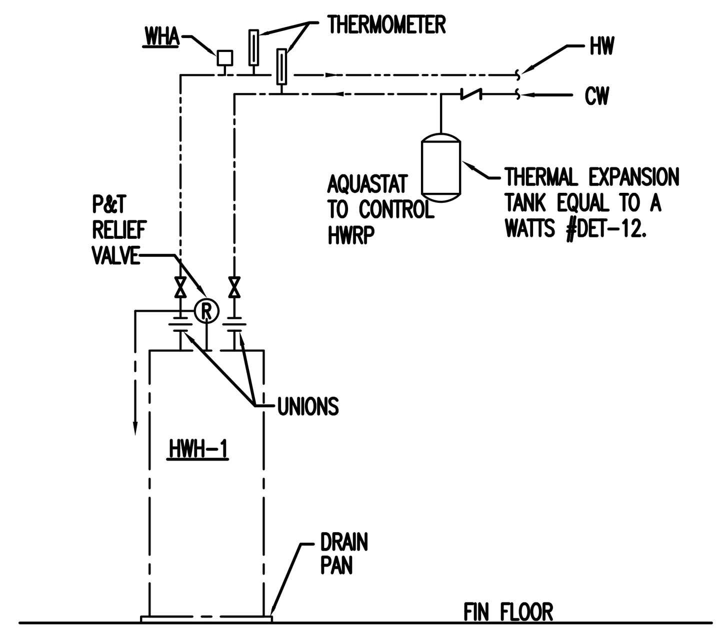
0 3' 6' 12'

N
PLAN NORTH
TRUE NORTH



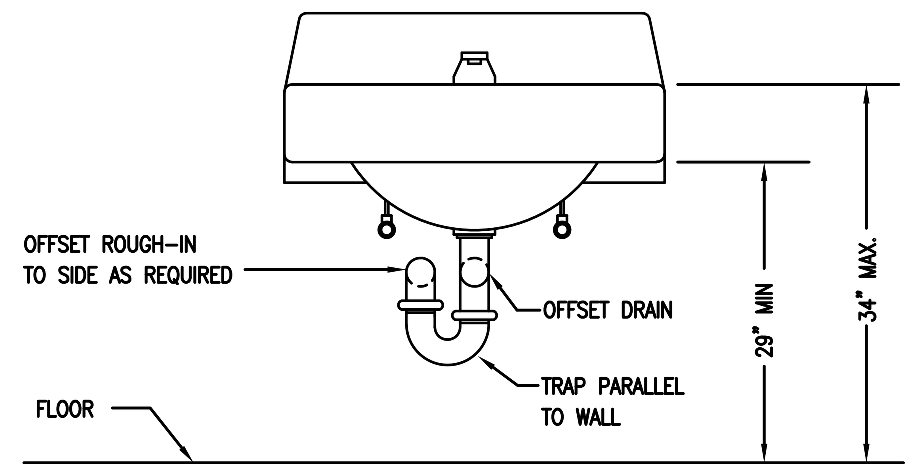
DETAIL – SUMP PUMP (SP–1)

SCHEMATIC



DETAIL – WATER HEATER

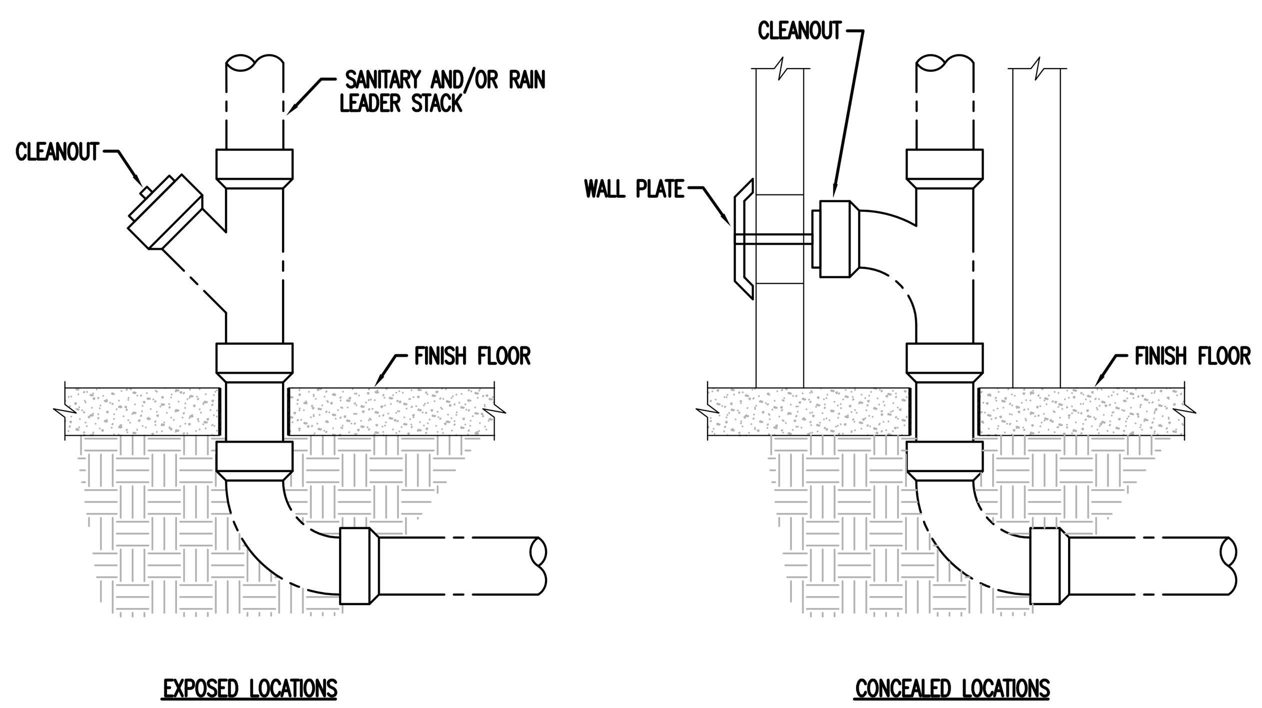
NO SCALE



DETAIL – LAVATORY L-1

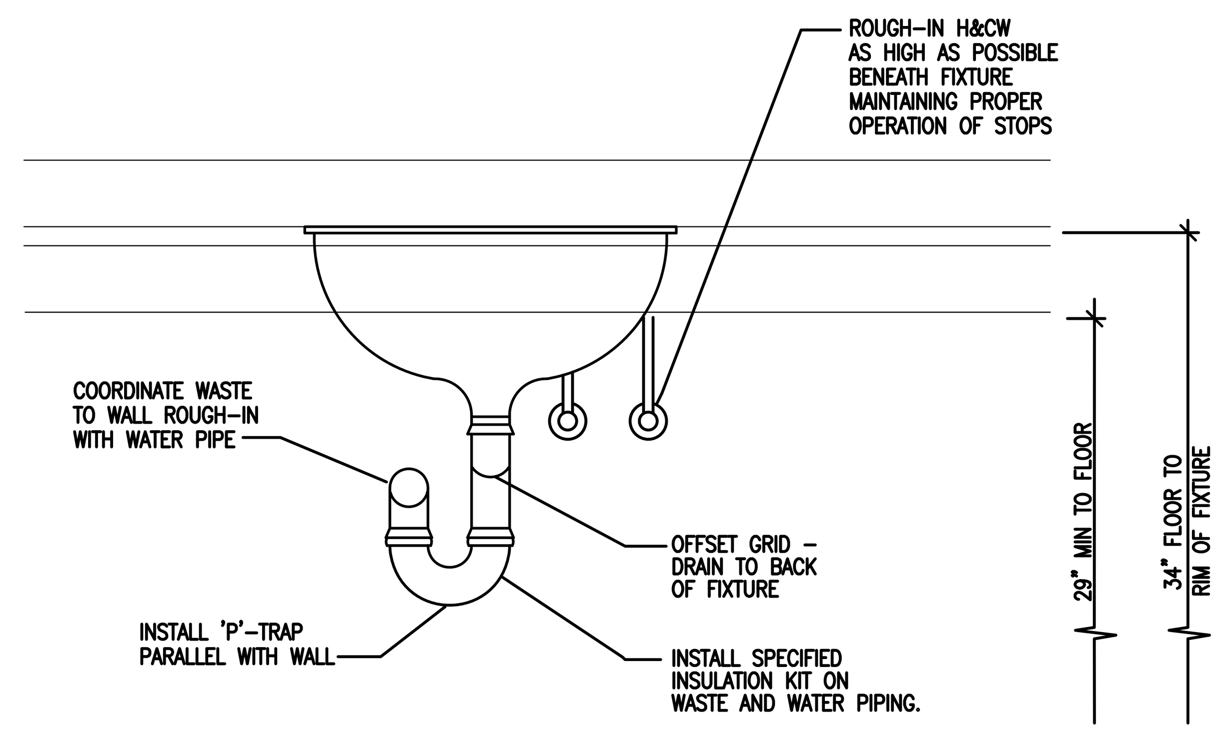
NO SCALE

NOTE: INSULATE TRAP & SUPPLIES AS SPECIFIED.



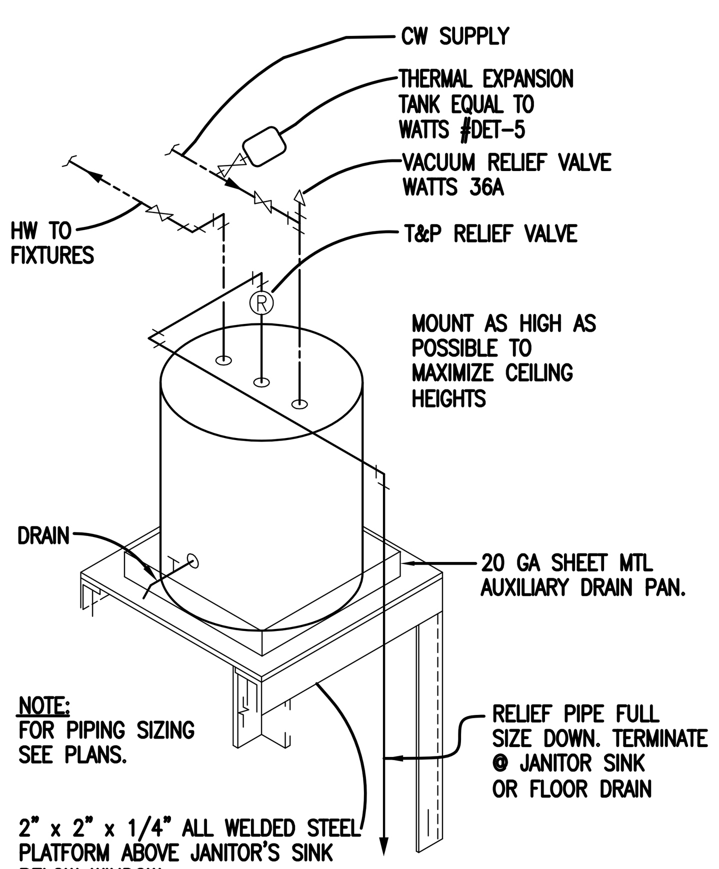
DETAIL–CLEANOUT @ STACK

NO SCALE



DETAIL – H.C. LAV FIXTURE L–2

NO SCALE



DETAIL – WATER HEATER

NO SCALE

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PLUMBING DETAILS

P5.1

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ELECTRICAL LEGEND

Symbol	Description
	PANELBOARD, 208Y/120-VOLT, 3-PHASE, 4-WIRE, MOUNTING HEIGHT = 6'-0" TO TOP. SEE PANELBOARD SCHEDULES.
	DISCONNECT SWITCH, EXTERNALLY OPERATED, 250V, 3-POLE UNLESS OTHERWISE NOTED. NOTATION, WHEN USED, INDICATES NUMBER OF POLES AND AMPERAGE CAPACITY. 'NF' INDICATES NON-FUSED. COORDINATE WITH MECHANICAL CONTRACTOR FOR DISCONNECTS TO BE PROVIDED WITH EQUIPMENT.
	BRANCH CIRCUIT HOME RUN TO PANELBOARD. NOTATION INDICATES PANELBOARD & BRANCH CIRCUIT CONNECTION.
	JUNCTION BOX. SEE NOTATION AND PANEL SCHEDULE FOR CONNECTED EQUIPMENT.
HP 1	MECHANICAL EQUIPMENT TAG. SEE MECHANICAL DRAWINGS FOR ADDITIONAL UNIT INFORMATION AND EXACT LOCATION.
	DUPLEX WALL RECEPTACLE, MOUNTING HEIGHT = 1'-6". 'GF' SUBSCRIPT INDICATES GROUND FAULT, 'WP' INDICATES GFI WEATHERPROOF, 'EWC' INDICATES GFI BEHIND ELECTRIC WATER COOLER, '*' INDICATES MOUNTED HEIGHT = 8" ABOVE COUNTER, 'USB' INDICATES DUPLEX WITH USB PORTS, 'REF' INDICATES REFRIGERATOR RECEPTACLE MOUNTED 36" AFF.
	QUAD-PLEX WALL RECEPTACLE WITH SURGE PROTECTION, MOUNTING HEIGHT = 1'-6". SEE DUPLEX OUTLET FOR SIMILAR SUBSCRIPT DESIGNATIONS.
	SPECIAL PURPOSE RECEPTACLE. COORDINATE WITH EQUIPMENT PROVIDER FOR CORRECT CORD AND PLUG COMBINATION.
	DATA SYSTEM OUTLET, MOUNTING HEIGHT = 1'-6" UNLESS INDICATED OTHERWISE. PROVIDE 1" CONDUIT FROM BOX TO ABOVE ACCESSIBLE CEILING. SEE DATA OUTLET CONFIGURATIONS ON SHEET E5.3. WHERE MOUNTED BESIDE COUNTER RECEPTACLE, MOUNT SAME HEIGHT AS RECEPTACLE.
AP	CEILING MOUNTED POE WIRELESS ACCESS POINT, PROVIDE CAT-6A CABLE BACK TO NEAREST NETWORK CONSOLIDATION POINT. COORDINATE EXACT LOCATIONS WITH OWNER. ACCESS POINTS ARE CFCI. SEE DATA OUTLET CONFIGURATIONS ON SHEET E5.3.
P	CEILING MOUNTED PROJECTOR LOCATION. PROVIDE DUPLEX RECEPTACLE AND TYPE 'P' DATA OUTLET IN CEILING TRAY. SEE DATA OUTLET CONFIGURATIONS ON SHEET E5.3. COORDINATE FINAL LOCATIONS AND ELEVATIONS OF PROJECTORS WITH OWNER PRIOR TO INSTALLATION.
ID	WALL MOUNTED INTERACTIVE DISPLAY BOARD LOCATION. PROVIDE QUAD RECEPTACLE AND TYPE 'ID' DATA OUTLET MOUNTED AT 48" AFF TO CENTER. SEE DATA OUTLET CONFIGURATIONS ON SHEET E5.3 AND TYPICAL CLASSROOM ELEVATION ON SHEET E5.2.
C:A1	NETWORK DATA CONSOLIDATION BOX. COORDINATE EXACT LOCATIONS WITH OWNER. PROVIDE RECEPTACLE IN ENCLOSURE CONNECTED TO CIRCUIT AS INDICATED.
FACP	FIRE ALARM SYSTEM CONTROL PANEL. MOUNTING HEIGHT = 5'-6" TO TOP.
FAA	FIRE ALARM ANNUNCIATION PANEL, MOUNTING HEIGHT=5'-0" TO TOP. COORDINATE EXACT LOCATION WITH LOCAL FIRE DEPARTMENT.
F	FIRE ALARM SYSTEM MANUAL PULL STATION. MOUNTING HEIGHT = 4'-0" TO TOP. 'WP' SUBSCRIPT WHEN USED INDICATES WEATHERPROOF DEVICE. 'WG' SUBSCRIPT WHEN USED INDICATES WIREGUARD.
F	FIRE ALARM SYSTEM ALARM HORN, WITH VISUAL ALARM, CEILING MOUNTED.
F	FIRE ALARM SYSTEM ALARM HORN, WITH VISUAL ALARM, WALL MOUNTED. 'WP' SUBSCRIPT WHEN USED INDICATES WEATHERPROOF DEVICE. 'WG' SUBSCRIPT WHEN USED INDICATES WIREGUARD.
V	FIRE ALARM SYSTEM VISUAL ALARM, CEILING MOUNTED.
V	FIRE ALARM SYSTEM VISUAL ALARM, WALL MOUNTED.
S	CEILING MOUNTED SMOKE DETECTOR. 'D' SUBSCRIPT INDICATES DUCT SMOKE DETECTOR. COORDINATE LOCATION OF DUCT SMOKE DETECTOR WITH MECHANICAL EQUIPMENT.
H	FIRE ALARM SYSTEM MAGNETIC HOLD OPEN.
	LED LIGHT. CEILING, SURFACE, GRID OR PENDANT MOUNTED. SEE FIXTURE SCHEDULE FOR TYPE. HATCH INDICATES INTEGRAL EMERGENCY BATTERY BALLAST.
	4' LINEAR STRIP UTILITY LIGHTING FIXTURE. SEE FIXTURE SCHEDULE FOR TYPE.
	EXTERIOR WALL MOUNTED FLOOD LIGHT, SEE FIXTURE SCHEDULE FOR TYPE.
	EXTERIOR CANOPY SURFACE MOUNTED LIGHTING FIXTURE, SEE FIXTURE SCHEDULE FOR TYPE.
	GROUND BOX MOUNTED, AIMABLE FLAGPOLE LIGHTING FIXTURE, SEE FIXTURE SCHEDULE FOR TYPE.
	EXIT SIGN LIGHTING FIXTURE, SURFACE WALL MOUNTED, DIRECTIONAL ARROWS AS INDICATED, TYPE 'X'.
	EXIT SIGN LIGHTING FIXTURE, SURFACE CEILING MOUNTED, DIRECTIONAL ARROWS AS INDICATED, TYPE 'X'.
OS	DUAL TECHNOLOGY, OCCUPANCY SENSOR FOR LIGHTING CONTROL.
S	SINGLE-POLE SWITCH, MOUNTING HEIGHT = 4'-0" TO TOP. LOWER CASE SUBSCRIPT, WHEN USED, INDICATES FIXTURES CONTROLLED. '3' SUBSCRIPT INDICATES THREE-WAY SWITCH, '4' INDICATES FOUR-WAY SWITCH, 'M' INDICATES MOTION CONTROLLED, 'D' INDICATES DIMMER SWITCH, 'WP' INDICATES WEATHERPROOF.
A	LIGHTING FIXTURE TYPE. SEE LIGHTING FIXTURE SCHEDULE.
SS	ROOM AMPLIFICATION SYSTEM CIRCUIT ABOVE CEILING, AMPLIFICATION SYSTEM DEVICES TO BE CONTRACTOR PROVIDED AND INSTALLED. TOPCAT (ACCESS) WITH FLEXMIKE (X2) AND MEDIA CONNECTOR PART (TCA-FF-M)
M	MICROPHONE INPUT CONNECTION FOR ROOM SOUND SYSTEM.
D	DIGITAL INPUT CONNECTION FOR ROOM SOUND SYSTEM.
V	WALL MOUNTED VOLUME CONTROL SWITCH FOR ROOM SPEAKER.
1	WALL MOUNTED ROOM SOUND SYSTEM SPEAKER.
PA	PUBLIC ADDRESS SYSTEM HEADEND, LOCATED IN FRONT OFFICE AREA.
S	CEILING GRID 2X2 DROP-IN TILE PUBLIC ADDRESS SPEAKER, CONNECTED TO PA HEADEND.
S	WALL MOUNTED PUBLIC ADDRESS SPEAKER, CONNECTED TO PA HEADEND.
C	WALL MOUNTED CLOCK, CONNECTED TO PA / MASTER CLOCK HEADEND. 2-FACED DIGITAL CLOCK IN ALL CORRIDORS, 1-FACED ANALOG CLOCK IN ALL OTHER AREAS OF THE BUILDING. 'WG' SUBSCRIPT WHEN USED INDICATES WIREGUARD.
	POE SECURITY CAMERA, PROVIDE CAT-6A CABLE BACK TO NEAREST CONSOLIDATION POINT. COORDINATE EXACT LOCATIONS WITH OWNER. SEE GENERAL NOTE 30.
M	SECURITY SYSTEM MOTION SENSOR.
	SECURITY SYSTEM ELECTRONIC KEYPAD.
AI	ACCESS CONTROL AI PHONE / CAMERA ENTRY SYSTEM. EXISTING TO BE RETAINED AND RELOCATED.
CR	ACCESS CONTROL CARD READER.
EL	ACCESS CONTROL ELECTRO-MAGNETIC LOCK. SEE GENERAL NOTE 29.
DC	ACCESS CONTROL DOOR CONTACT.

LEGEND NOTES

1. ALL MOUNTING HEIGHTS ARE TO CENTER OF DEVICE UNLESS INDICATED OTHERWISE.
2. LIGHTING FIXTURE CROSSHATCH INDICATES DUAL CONNECTION TO EMERGENCY CIRCUIT LISTED IN SHEET NOTES WITH GTD.
3. 'NL' SUBSCRIPT BY LIGHTING FIXTURE INDICATES NIGHTLIGHT TO REMAIN UNSWITCHED. DO NOT PROVIDE GTD FOR NIGHTLIGHT FIXTURES.

SPECIFICATIONS

1. PUBLIC ADDRESS SYSTEM AND CLOCKS SHALL BE VALCOM, NO EXCEPTIONS.
2. PROVIDE ALL CIRCUITS, CONDUIT, WIRING, JUNCTION BOXES REQUIRED WITH ELECTRONIC ACCESS CONTROL COMPONENTS.
3. EXTEND EXISTING ACCESS CONTROL SYSTEM TO COVER ADDITIONAL DOORS. REUSE EXISTING ACCESS CONTROL HARDWARE THAT IS DEMOLISHED FROM EXISTING DOORS.
4. PROVIDE WIRE GUARD OR PLASTIC GUARDS ON ALL FIRE ALARM, SPEAKERS, PUBLIC ADDRESS, SWITCHES, CAMERAS, CLOCKS OR ANY OTHER ANCILLARY DEVICES MOUNTED TO WALLS IN GYM.
5. PROVIDE ALL ELECTRICAL CONDUITS AND WIRING ASSOCIATED WITH ELECTRONIC ACCESS.
6. PROVIDE A NEW CAT 6 CABLE FROM DATA ROOM TO BOILER ROOM, FROM DATA ROOM TO KITCHEN FREEZER/COOLER AND FROM DATA ROOM TO SECURITY HEADEND FOR "VERN" SYSTEM.
7. PROVIDE NEW CAMERAS INDICATED AND A LICENSE WITH EACH CAMERA.

GENERAL NOTES

1. MOUNTING HEIGHT OF LIGHTING FIXTURES IS TO BOTTOM OF FIXTURE AND AWAY FROM FINISHED FLOOR OR GRADE.
2. MOUNT OUTLET BOXES SO THAT NONE OCCUR BACK TO BACK IN WALLS.
3. MECHANICAL EQUIPMENT IS SHOWN IN APPROXIMATE LOCATIONS. FOR EXACT LOCATIONS OF MECHANICAL EQUIPMENT AND PIPING, SEE MECHANICAL DRAWINGS.
4. FOR 120 VOLT, 20 AMP BRANCH CIRCUITS USE 12 AWG UP TO 60 FEET, 10 AWG FOR 61-95 FEET, AND 8 AWG FOR CIRCUITS LONGER THAN 96 FEET. WHETHER INDICATED IN PANEL SCHEDULES OR NOT. CONDUCTORS SHALL BE SAME SIZE FOR ENTIRE LENGTH OF RUN.
5. REVISE PANELBOARD SCHEDULES ON AS-BUILT-DRAWING AND PANEL DIRECTORIES TO REFLECT FINAL INSTALLATION CONDITIONS.
6. SEAL PENETRATIONS THROUGH FLOORS OR FIRE WALLS TO MAINTAIN THE INTEGRITY OF THE FIRE AND ACOUSTIC RATINGS OF THE WALLS AND FLOORS.
7. LOCATE ALL RACEWAYS TO AVOID INTERFERENCE WITH DUCTS, PIPES, MECHANICAL EQUIPMENT, WITH REMOVAL OF CEILING TILES, OR WITH ACCESS TO EQUIPMENT WHICH REQUIRES PERIODIC ADJUSTMENT OR MAINTENANCE.
8. PROVIDE NAMEPLATES ON THE EXTERIOR OF ALL ELECTRICAL PANELS, DISCONNECTS AND ENCLOSURES WITH THE DEVICE ID, RATING, POWER SOURCE AND INSTALLATION DATE AND BY WHICH SWITCH OR STARTER.
9. FIRE ALARM SYSTEM TO BE INSTALLED COMPLETE AND TO ALL APPLICABLE CODES.
10. LIGHT FIXTURE TYPE IS SHOWN ONLY ONCE AS TYPICAL FOR THE ENTIRE ROOM UNLESS SPECIFICALLY INDICATED OTHERWISE.
11. UNLESS INDICATED OTHERWISE, SIZE CONDUITS IN ACCORDANCE WITH NFPA 70.
12. COORDINATE WITH THE MECHANICAL CONTRACTOR TO ENSURE ALL WORKING CLEARANCE AND DEDICATED WORKING SPACE OF PANELBOARDS.
13. ALL UNDERGROUND CONDUITS NEED PULL CORDS / ROPES SUITABLE FOR WIRE TO BE INSTALLED.
14. PROVIDE A LABEL ON ALL RECEPTACLE FACE PLATES INDICATING WHICH PANELBOARD AND CIRCUIT FEEDS THAT RECEPTACLE.
15. COORDINATE WITH ACCESS CONTROL SYSTEM AND PROVIDE ALL NECESSARY CONNECTIONS FOR CONDUIT AND WIRE.
16. GROUNDING CONDUCTORS ARE NOT INDICATED IN BRANCH CIRCUIT RACEWAYS. PROVIDE GROUND CONDUCTORS AS REQUIRED BY NEC.
17. ALL LIGHT FIXTURE MANUFACTURES ARE LISTED TO ESTABLISH STANDARD REQUIREMENTS FOR PERFORMANCE, MATERIAL AND APPEARANCE. PROVIDE SPECIFIED FIXTURE OR EQUAL. COORDINATE ALL FIXTURE FINISHES WITH ARCHITECT.
18. CEILING GRID MOUNTED DEVICES ARE TO BE CENTERED WITHIN CEILING GRID TILES. INCLUDING, BUT NOT LIMITED TO, OCCUPANCY SENSORS, ACCESS POINTS, AND FIRE ALARM DEVICES.
19. OCCUPANCY SENSORS SHOULD CONTROL ALL LIGHTING IN ROOMS, UNLESS INDICATED OTHERWISE.
20. PROVIDE PLASTIC BUSHING ON THE END OF ALL CONDUIT.
21. NO SHARING OF NEUTRAL CONDUCTORS.
22. COORDINATE WORK SCHEDULE WITH OWNER FOR WORK TO BE COMPLETED THROUGH EXISTING OCCUPIED BUILDING SPACES.
23. EMERGENCY LIGHTING GTD OPERATION IS TO OVERRIDE LOCAL CONTROLS FOR EMERGENCY EGRESS. PROVIDE CONTROL CIRCUITING BACK TO LIFE SAFETY ATS TO DETERMINE EMERGENCY OPERATION.
24. COORDINATE WITH MECHANICAL CONTRACTOR TO PROVIDE POWER TO MOTORIZED DAMPERS WHERE REQUIRED. USE #12 WIRE FROM SPARE 20 AMP BREAKER IN NEAREST NORMAL POWER ELECTRICAL PANEL.
25. COORDINATE WITH UTILITY FOR MAXIMUM AVAILABLE FAULT CURRENT AT SERVICE ENTRANCE. PROVIDE RATING TO ENGINEER FOR APPROVAL PRIOR TO PURCHASING EQUIPMENT. FIELD MARK SERVICE ENTRANCE EQUIPMENT WITH RATING RECEIVED FROM UTILITY AND DATE CALCULATED.
26. NONE OF EXISTING PHONE SYSTEM WILL BE SALVAGED. MCPS TO PROVIDE NEW HANDSETS AND CONNECT TO EXISTING DATA DROPS AT EXISTING CLASSROOMS.
27. SURFACE RACEWAY IS TO BE USED FOR NEW DEVICES BEING INSTALL ON EXISTING WALLS. DUAL CHANNEL WIREMOLD 4000 RACEWAY IS TO BE USED WHERE BOTH NEW POWER AND DATA IS REQUIRED. SINGLE CHANNEL WIREMOLD RACEWAY IS TO BE USED FOR ALL OTHER PURPOSES, INCLUDING LIGHTING SWITCHING, COMMUNICATIONS AND POWER ONLY RUNS OR DATA ONLY RUNS.
28. SURFACE CONDUIT IS ACCEPTABLE IN LIEU OF SURFACE RACEWAYS IN MECHANICAL ROOMS, JANITOR CLOSETS AND STORAGE ROOMS.
29. PROVIDE 12O VOLT CIRCUIT FROM PANELBOARDS FOR ELECTRONIC ACCESS CONTROL OR MAGNETIC LOCK. SEE PANELBOARD SCHEDULES FOR ADDITIONAL INFORMATION. SEE PANELS E2 AND F2.
30. CONTRACTOR TO EXTEND EXISTING CAMERA SYSTEM. PROVIDE ADDITIONAL CAMERAS AND LICENSES TO MATCH EXISTING.

ELECTRICAL ABBREVIATIONS

AFF	ABOVE FINISHED FLOOR	G	GROUND	OS	OCCUPANCY SENSOR
C	CONDUIT	GF / GFI	GROUND FAULT INTERRUPTER	PNL	PANEL
CB	CIRCUIT BREAKER	GTD	GENERATOR TRANSFER DEVICE	REF	REFRIGERATOR
ELEC	ELECTRICAL	JB	JUNCTION BOX	SCH	SCHEDULE
EMG	EMERGENCY	LTG	LIGHTING	SWBD	SWITCHBOARD
EQUIP	EQUIPMENT	MECH	MECHANICAL	TYP	TYPICAL
EWC	ELECTRIC WATER COOLER	MCB	MAIN CIRCUIT BREAKER	WAP	WIRELESS ACCESS POINT
FA	FIRE ALARM	MLO	MAIN LUGS ONLY	WG	WIREGUARD
FAA	FIRE ALARM ANNUNCIATOR	NF	NON-FUSED	WP	WEATHERPROOF
FACP	FIRE ALARM CONTROL PANEL	NL	NIGHTLIGHT	XFMR	TRANSFORMER

CODES □ STANDARDS

NFPA 70: NATIONAL ELECTRICAL CODE	2014
NFPA 72: NATIONAL FIRE ALARM AND SIGNALING CODE	2010, 2013
VECC: VIRGINIA ENERGY CONSERVATION CODE	2015

1/8"=1'-0" 8' 0 8 16

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ELECTRICAL LEGEND, GENERAL NOTES AND ABBREVIATIONS

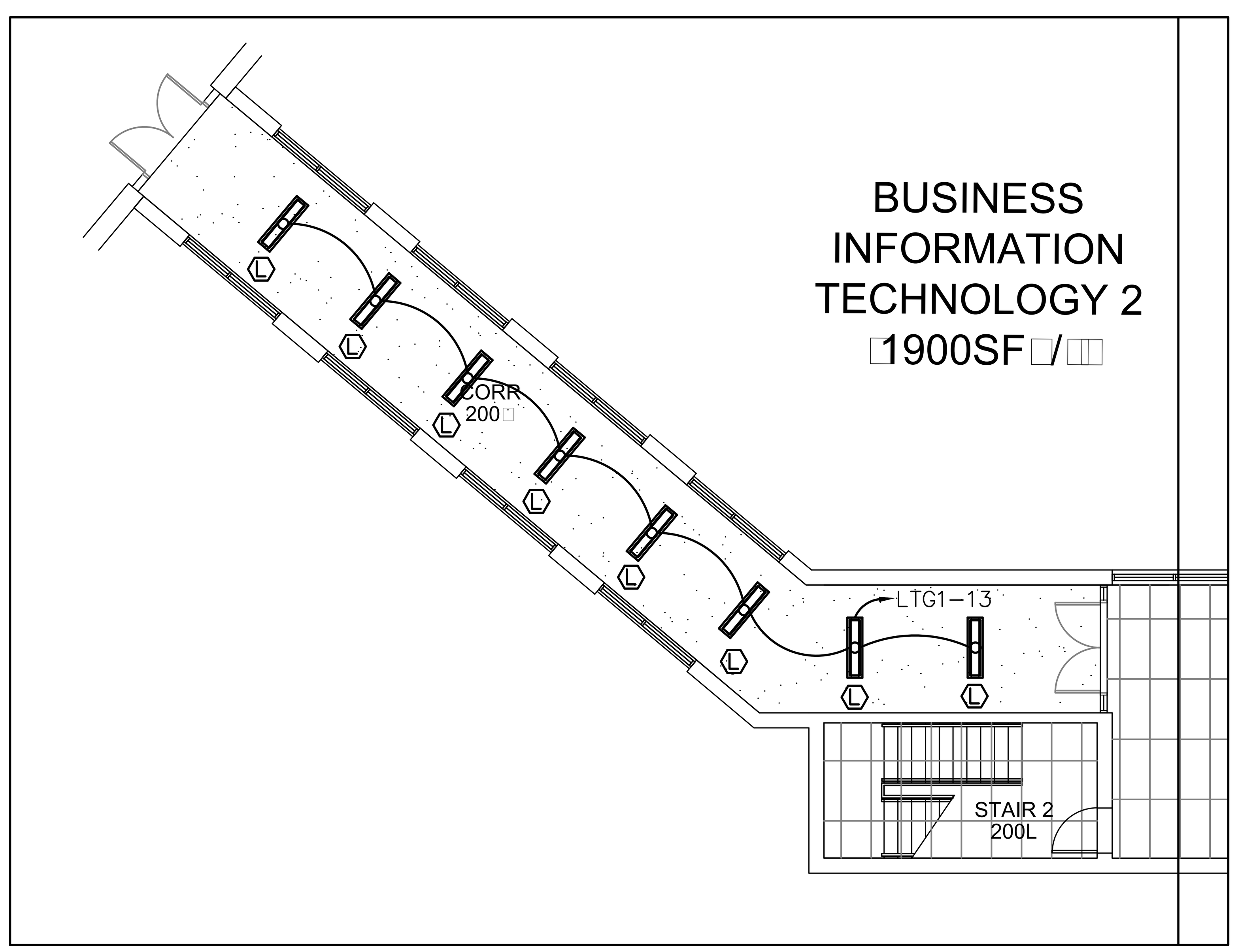
E-001

SHEET X of X

LIGHTING FIXTURE SCHEDULE

MARK	MANUFACTURER	MODEL NUMBER	INPUT VOLTAGE	LAMPS TYPE	TOTAL WATTS	MNTG.	REMARKS
A	LITHONIA	2GTL4 48L FW SWL EZB LP835 (EL7L)	MVOLT	LED	35.79	GRID	2X4 GRID MOUNTED, CLASSROOM/OFFICE FIXTURE
B	LITHONIA	2GTL4 40L FW SWL EZB LP835 (EL7L)	MVOLT	LED	29.83	GRID	2X4 GRID MOUNTED, CLASSROOM/OFFICE FIXTURE
C	LITHONIA	IBH 12000LM SD080 MD 0Z10 35K 80CRI	MVOLT	LED	112	PEND	HIGH BAY LED FIXTURE
D	LITHONIA	FEM L48 4000LM IMAFL WD MVOLT GZ10 40K 80CRI	MVOLT	LED	49	PEND	SUSPENDED 4' LIGHT FIXTURE
E	LITHONIA	LDN6 35/ 15 L06AR LSS MVOLT EZ10	MVOLT	LED	17.5	REC	6" DOWN LIGHT
F	LITHONIA	GTL 4 40L GZ10 LP835	MVOLT	LED	34.1	REC	1X4; CENTERED IN GRID
G	LITHONIA	2GTL2 40L FW SWL EZB LP835 (EL7L)	MVOLT	LED	35	REC	2X2 GRID MOUNTED, CLASSROOM/OFFICE FIXTURE
H	LITHONIA	WL2 18L EZ1 LP840	MVOLT	LED	17.5	SURF	WALL SCONCE OVER VANITY
J	MARK LIGHTING	S4LD 4FT MSL4 80CRI 40K MIN1 MVOLT	MVOLT	LED	37.3	PEND	
K	LITHONIA	CPANL 2X4 AL06 SWW7M2	MVOLT	LED	52.7	PEND	PENDANT OR SURFACE MOUNT
L	LITHONIA	SBL4 LP840 (CI-254RK)	MVOLT	LED	32.	SURF	
M1	MARK LIGHTING	SPRLED LOP 23FT6 RLP G9 80CRI 40K 800LMF MIN1 MVOLT Z	MVOLT	LED	8/FT	SURF	
M2	MARK LIGHTING	SPRLED LOP 20FT RLP G9 80CRI 40K 800LMF MIN1 MVOLT Z	MVOLT	LED	8/FT	SURF	
N	LUMETTA	SHADOW DRUM 18" PENDANT P2092	MVOLT	LED		PEND	MOUNT FIXTURE WITH TOP OF TRANSLUMENATE DIFFUSER AT 8" BELOW FINISHED WOOD CEILING (9'0" AFF)
P	SPI LIGHTING	NOVATO RING (AIP11849 60 INCH)	MVOLT	LED		PEND	MOUNT WITH TOP OF FIXTURE AT 9'0" AFF; 3500-4000K; 4-LINE SUSPENSION; MB02; WHITE
R	LITHONIA	WF6 ADJ LED 30K40K50K 90CRI MW	MVOLT	LED	9.7	REC	6" LED WAFER GIMBAL

NOTES:



CORRIDOR 200 LIGHTING PLAN
1/8" = 1'-0"

2100 LUBNA DR
CHRISTIANSBURG VA 24073
P. 540.998.6069

1/8"=1'-0" 8' 0 8 16

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RUFFNER CAREER AND TECHNICAL EDUCATION CENTER (DD DESIGN)
ROANOKE, VIRGINIA

ROANOKE CITY PUBLIC SCHOOLS
Strong Students. Strong Schools. Strong City.

REVISIONS

No.	DATE	DESCRIPTION
X	X	X

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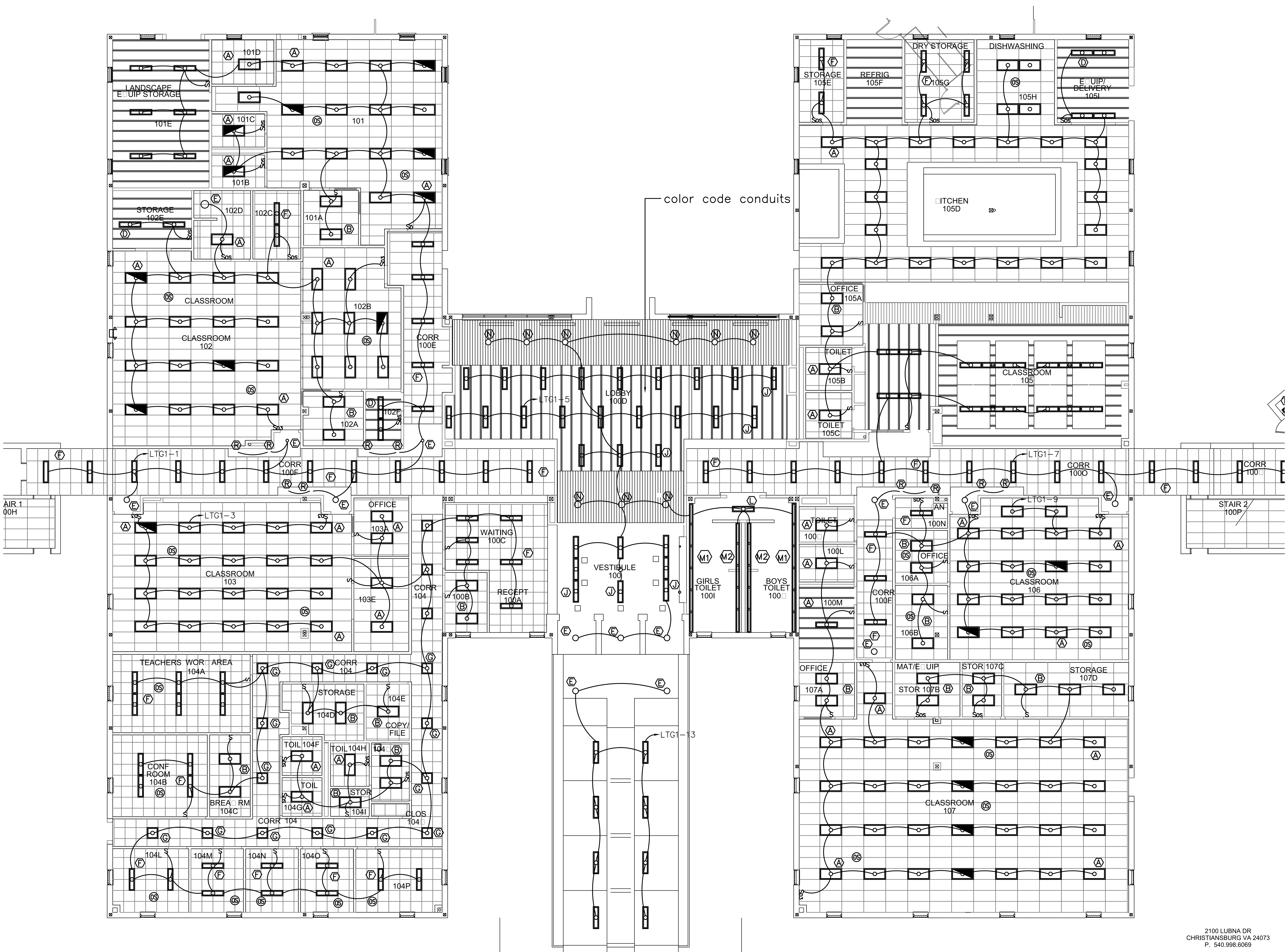
SCALE:	AS SHOWN

LIGHTING FIXTURE SCHEDULE

E-200

SHEET X of X



LIGHTING PLAN
1/8" = 1'-0"

1/8"=1'-0" 8' 0 8 16

2100 LUBNA DR
CHRISTIANSBURG VA 24073
P. 540.998.6069

C2A Architecture
ARCHITECTURE INTERIORS PLANNING

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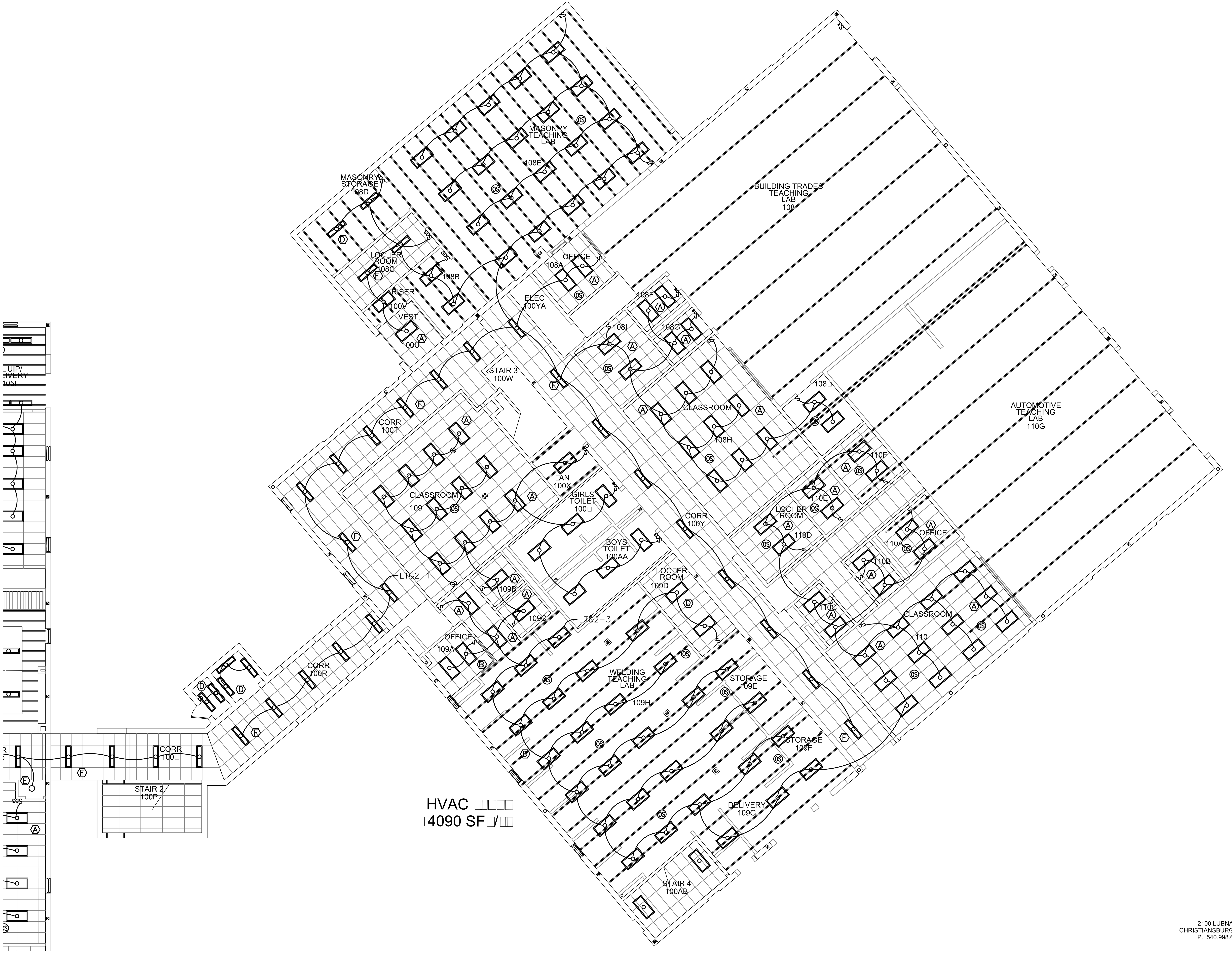
FIRST FLOOR PLAN

E-201

SHEET X of X



LIGHTING PLAN

1/8" = 1'-0"

1/8"=1'-0" 8' 0 8 16

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FIRST FLOOR PLAN

E-202

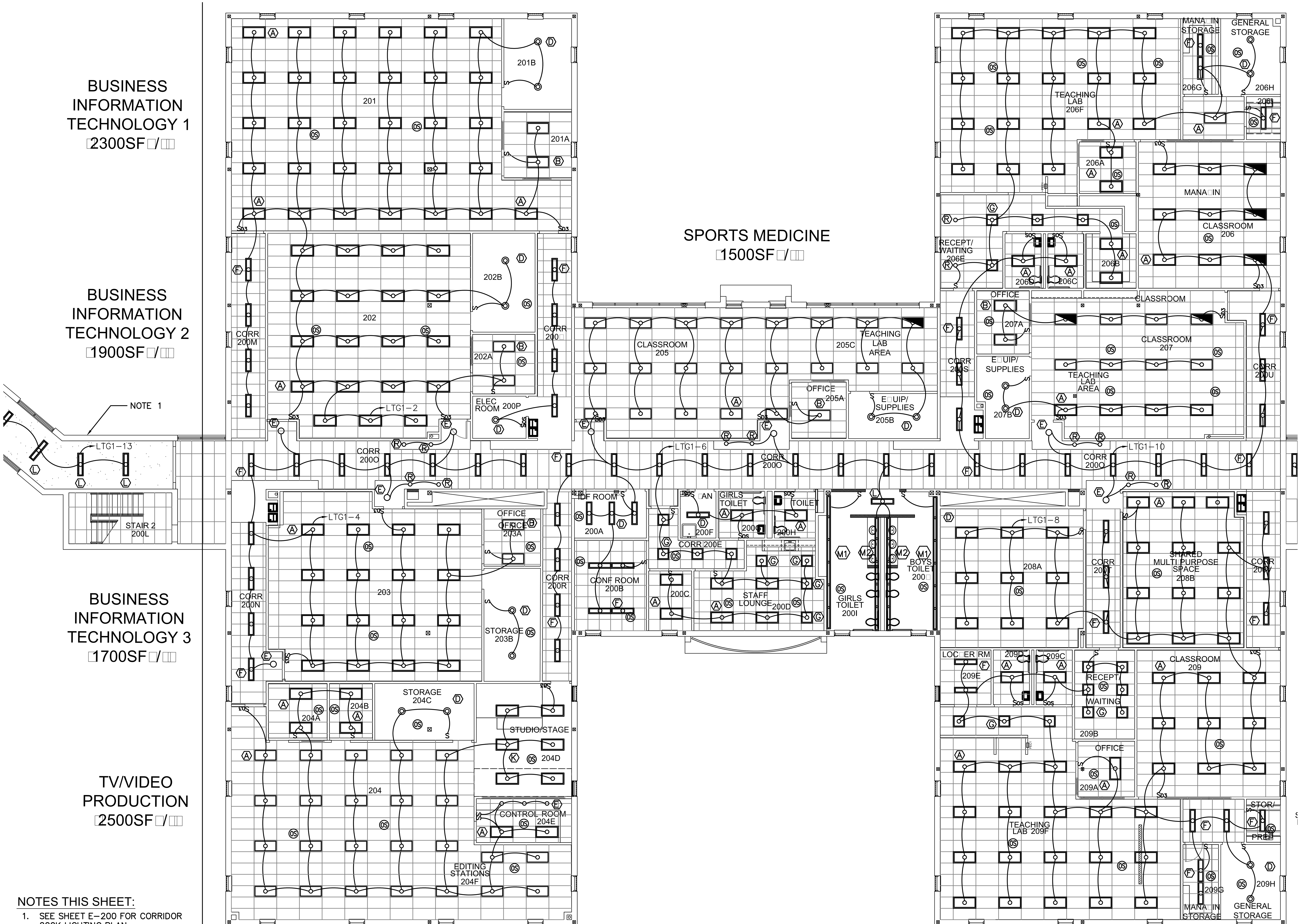
SHEET X of X

BUSINESS INFORMATION TECHNOLOGY 1
2300SF

BUSINESS INFORMATION TECHNOLOGY 2
1900SF

BUSINESS INFORMATION TECHNOLOGY 3
1700SF

TV/VIDEO PRODUCTION
2500SF



NOTES THIS SHEET:

1. SEE SHEET E-200 FOR CORRIDOR 200K LIGHTING PLAN.

LIGHTING PLAN
1/8" 1'0"

1/8"=1'-0" 8' 0 8 16

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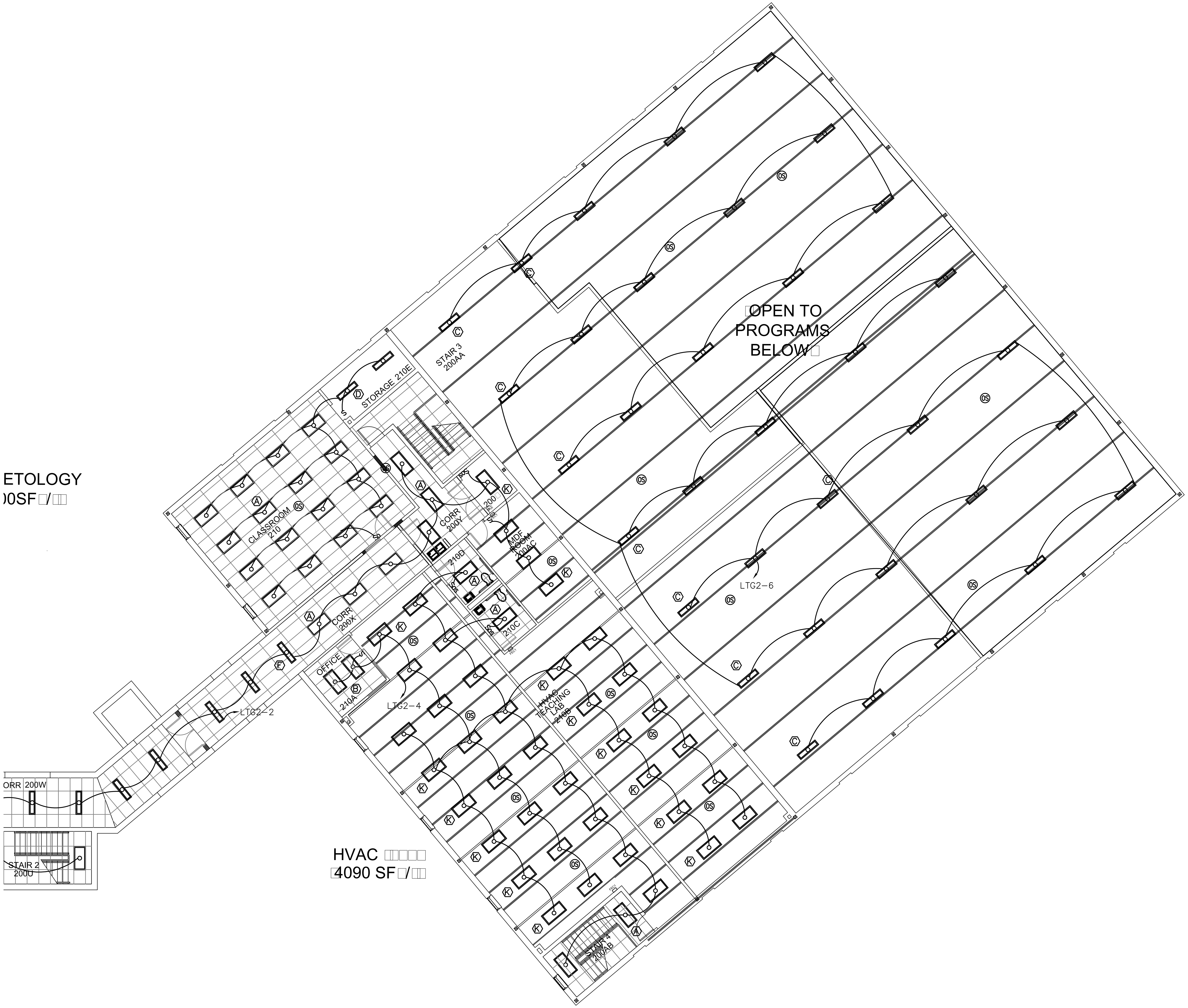
SECOND FLOOR PLAN

E-203

SHEET X of X



LIGHTING PLAN
1/8" = 1'-0"

2100 LUBNA DR
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P. 540.998.6069

1/8"=1'-0" 8' 0 8 16

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No.	DATE	DESCRIPTION
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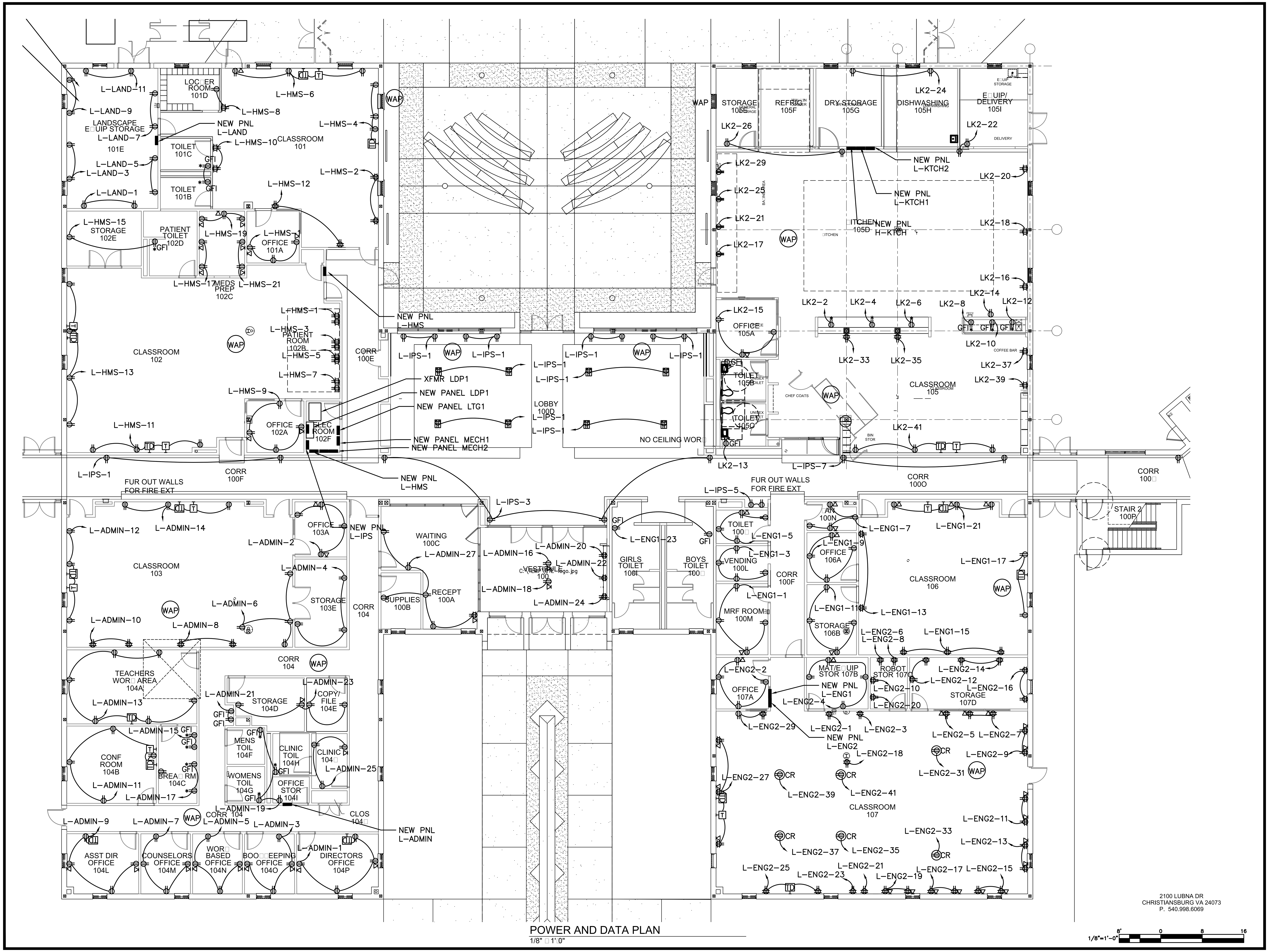
FIRST FLOOR PLAN

E-204

SHEET X of X



POWER AND DATA PLAN
1/8" = 1'-0"

2100 LUBNA DR
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1/8"=1'-0" 8' 0 8 16

G2 Architecture
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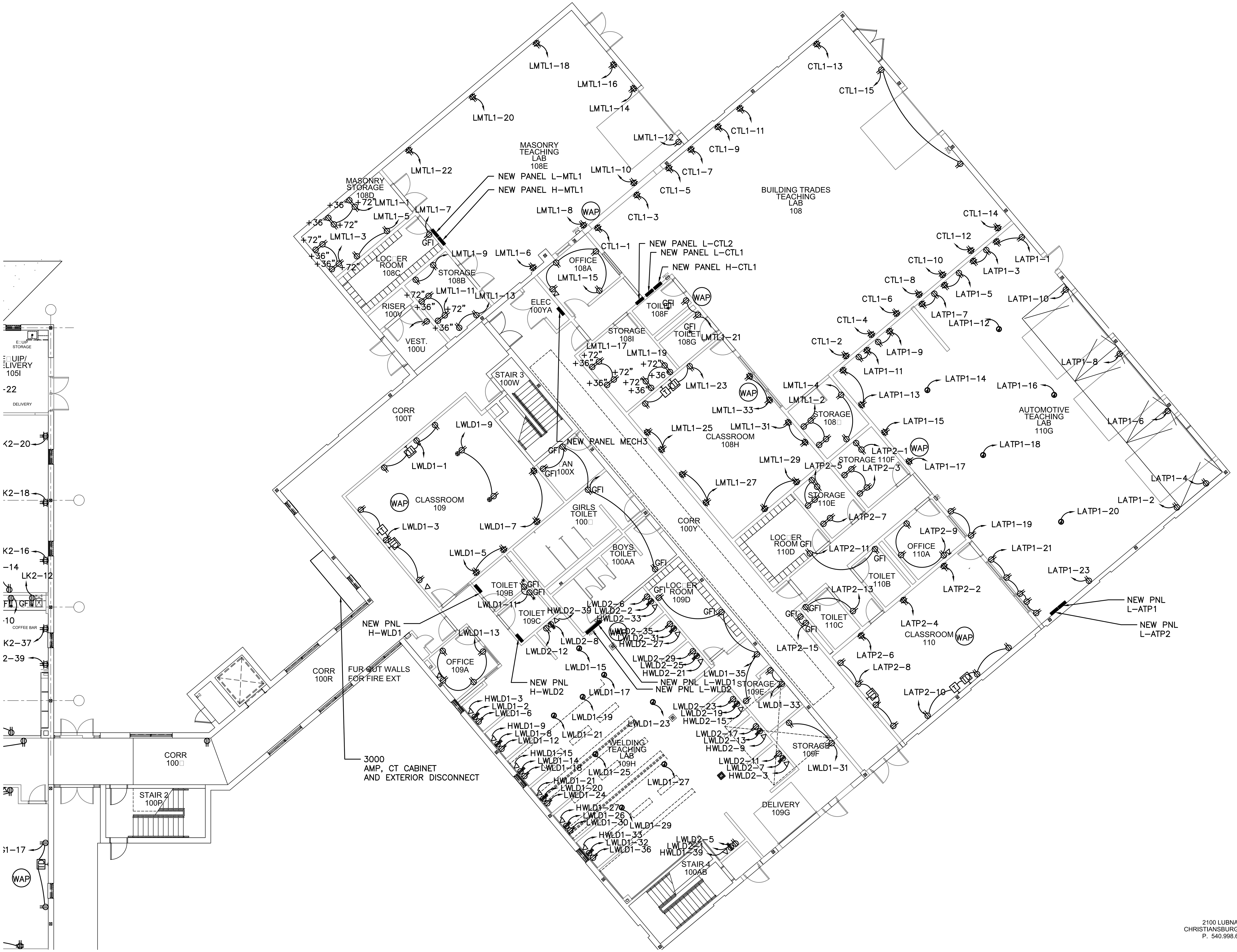
SCALE:	AS SHOWN

FIRST FLOOR PLAN

E-301

SHEET X of X



POWER AND DATA PLAN
1/8" = 1'-0"

1/8"=1'-0" 8' 0 8 16

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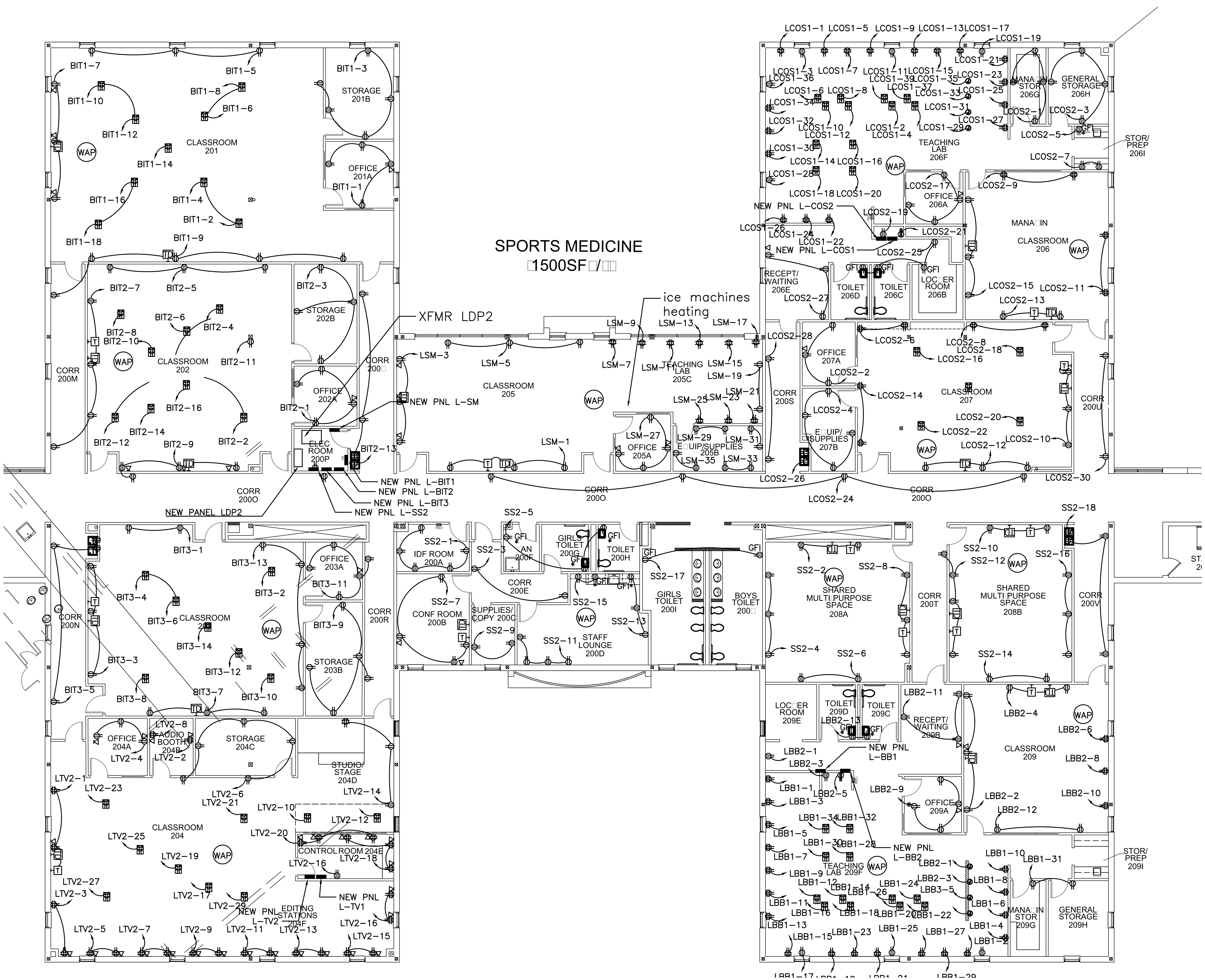
SCALE:	AS SHOWN

FIRST FLOOR PLAN

E-302

SHEET X of X



POWER AND DATA PLAN
1/8" = 1'0"

2100 LUBNA DR
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1/8"=1'-0" 8' 0 8 16

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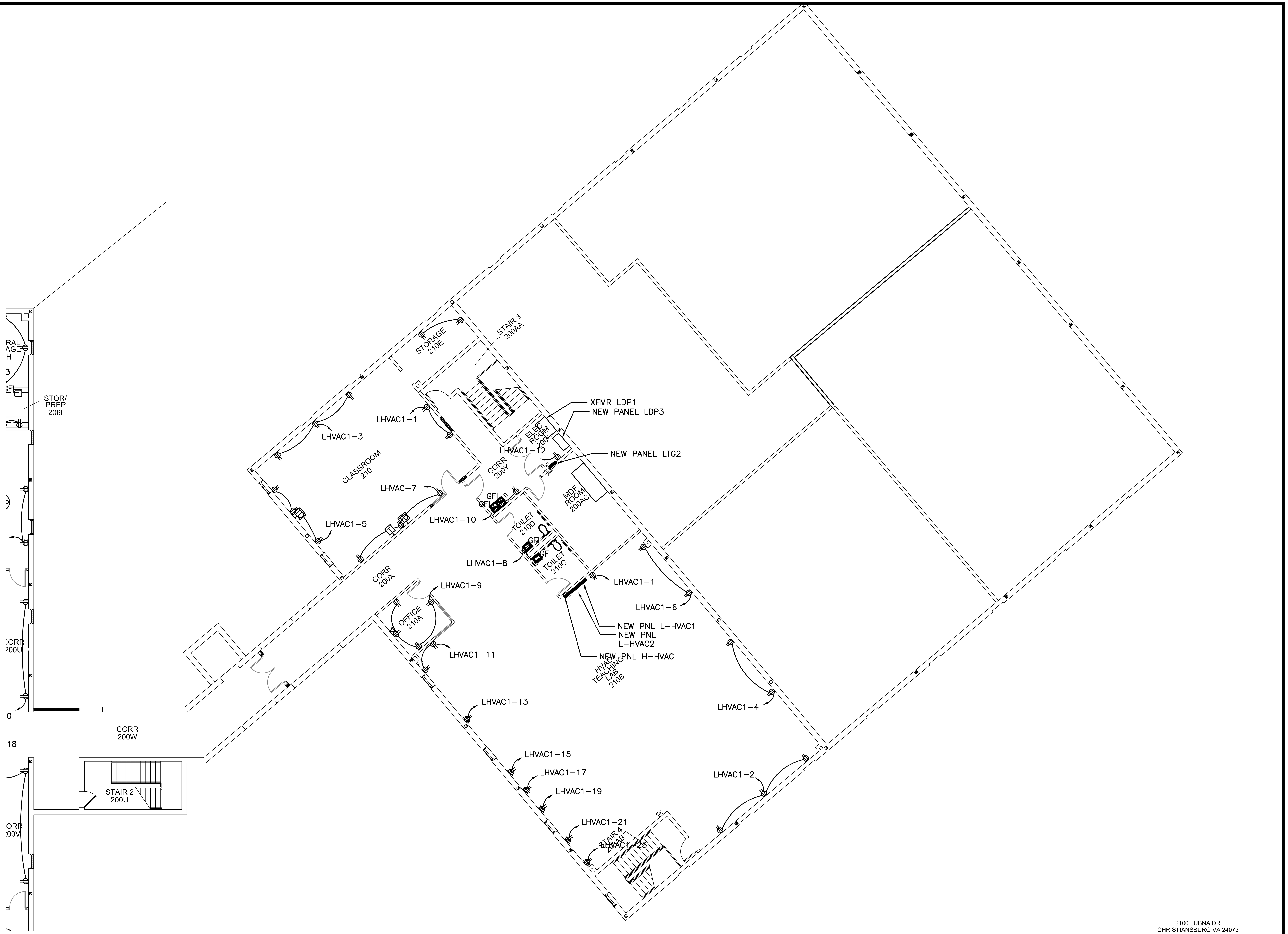
SECOND FLOOR PLAN

E-303

SHEET X of X



POWER AND DATA PLAN

1/8" = 1'-0"

1/8"=1'-0" 8' 0 8 16

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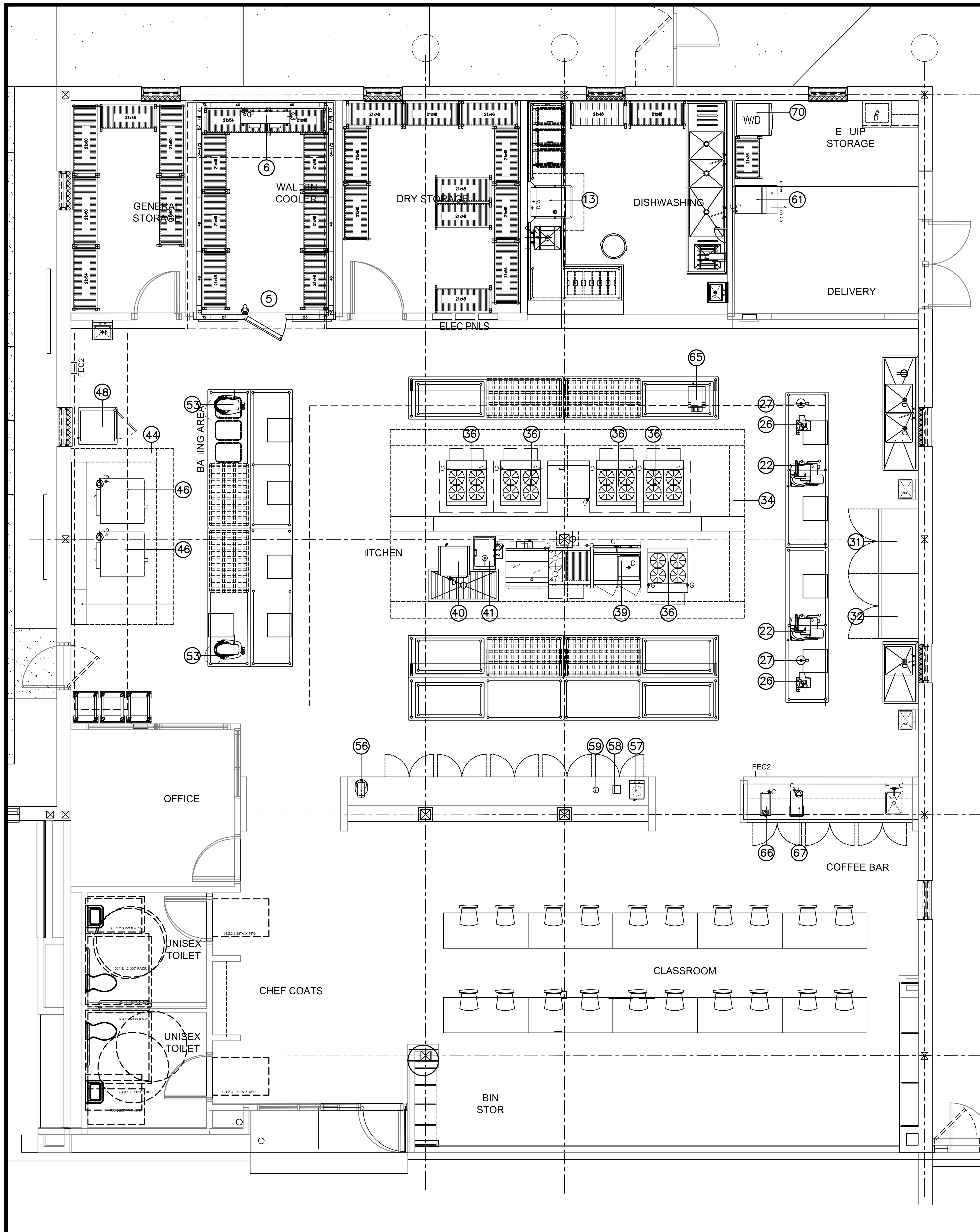
SECOND FLOOR PLAN

E-304

SHEET X of X



ENLARGED KITCHEN PLAN
1/4" = 1'-0"

ITEM	DESCRIPTION	CK #	NOTES
5	WALK-IN COOLER	LK1-1	
6	WALK-IN COOLER EVAP COIL	LK1-3	
7	WALK-IN COOLER COMPRESSOR	LK1-7	
13	DISHWASHER	LK1-13	REQUIRES ADDITIONAL 208/60/3, 54.8A CONN AT BOOSTER HTR (LK1-38)
22	SLICERS	LK1-27 LK1-29	NEMA 5-15P
26	FOOD PROCESSORS	LK1-25 LK1-31	NEMA 5-15P
27	ONE GALLON BLENDERS	LK1-23 LK1-33	NEMA 5-15P
31	2-DOOR REFRIDGERATOR	LK1-35	NEMA 5-15P
32	2-DOOR FREEZER	LK1-37	NEMA 5-15P
34	FIRE SUPPRESSION SYSTEM	LK1-20	
34		LK1-22	
36	4-BURNER RANGE		CONNECTS TO UDS
39	FRYERS W/FILTER SYSTEM		CONNECTS TO UDS
40	DOUBLE STEAMER		CONNECTS TO UDS
41	10-GALLON TILT SKILLET		CONNECTS TO UDS
44	FIRE SUPPRESSION SYSTEM	LK1-24	
46	DOUBLE CONVECTION OVENS		CONNECTS TO UDS
48	MOBILE PROOFER/WARMERS	LK1-14	NEMA 5-15P
53	20-QUART MIXERS	LK1-16 LK1-18	NEMA 5-15P
56	6-QUART MIXERS	LK1-12	NEMA 5-15P ONLY (10 ONE SHOWN, BALANCE ARE STORED IN BASE OF ENCLOSED STORAGE COUNTER
57	INDUCTION COOK TOPS	LK1-6	NEMA 5-15P ONLY (10 ONE SHOWN, BALANCE ARE STORED IN BASE OF ENCLOSED STORAGE COUNTER
58	INGREDIENT SCALES	LK1-8	NEMA 5-15P ONLY (10 ONE SHOWN, BALANCE ARE STORED IN BASE OF ENCLOSED STORAGE COUNTER; (3)C SIZE BATTERIES MAY BE USED IN LIEU OF C&P
59	IMMERSION BLENDERS	LK1-10	NEMA 5-15P ONLY (10 ONE SHOWN, BALANCE ARE STORED IN BASE OF ENCLOSED STORAGE COUNTER
61	ICE MACHINE	LK1-21	NEMA 5-15P
65	CONVEYOR TOASTER	LK1-26	NEMA 5-15P
66	ICE TEA BREWER	LK1-4	NEMA 5-15P
67	COFFEE BREWER	LK1-2	NEMA 5-15P
70	WASHER/DRYER	LK1-17	

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1/8"=1'-0" 8' 0 8 16

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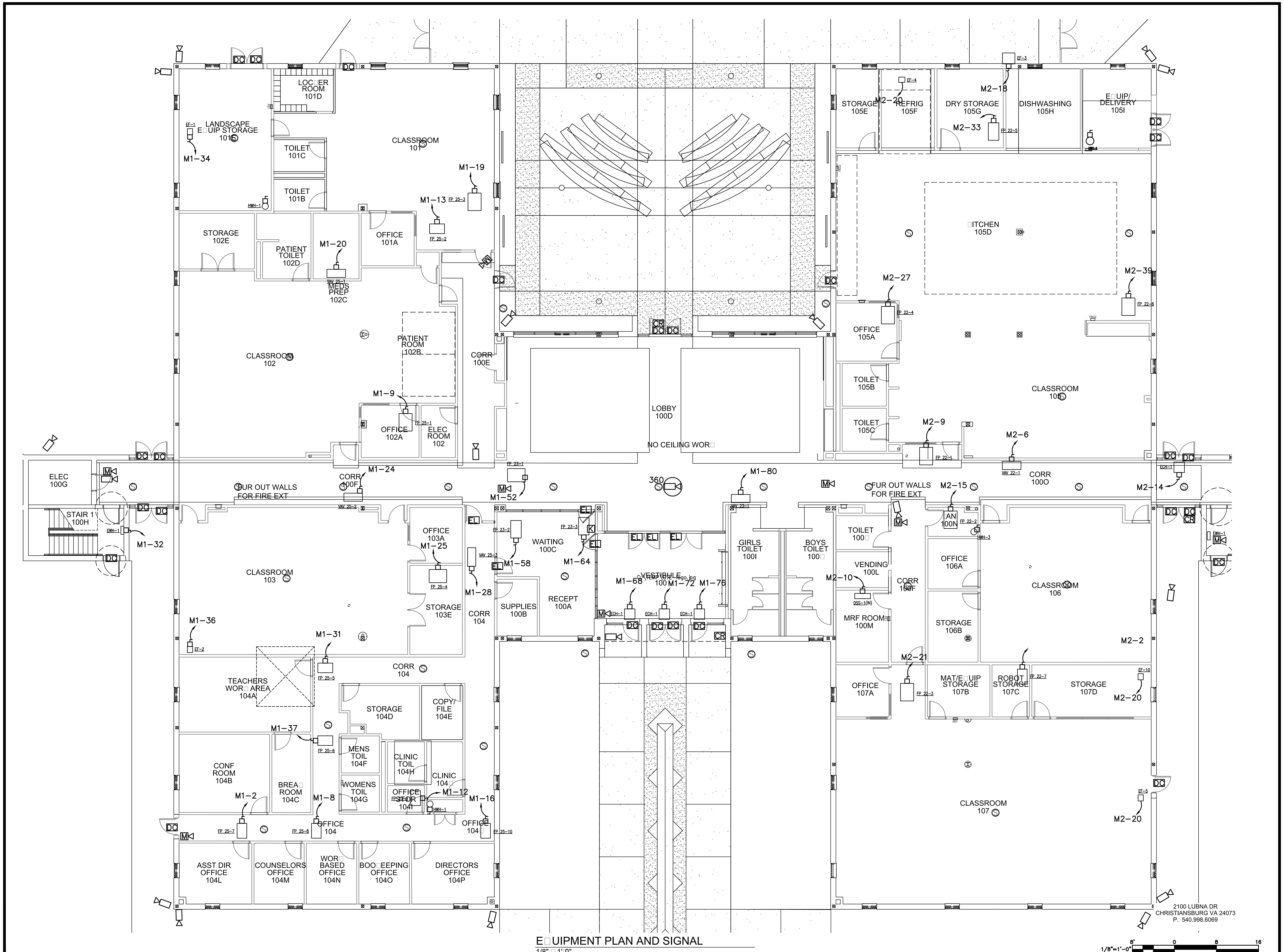
ENLARGED KITCHEN PLAN

E-305

SHEET X of X



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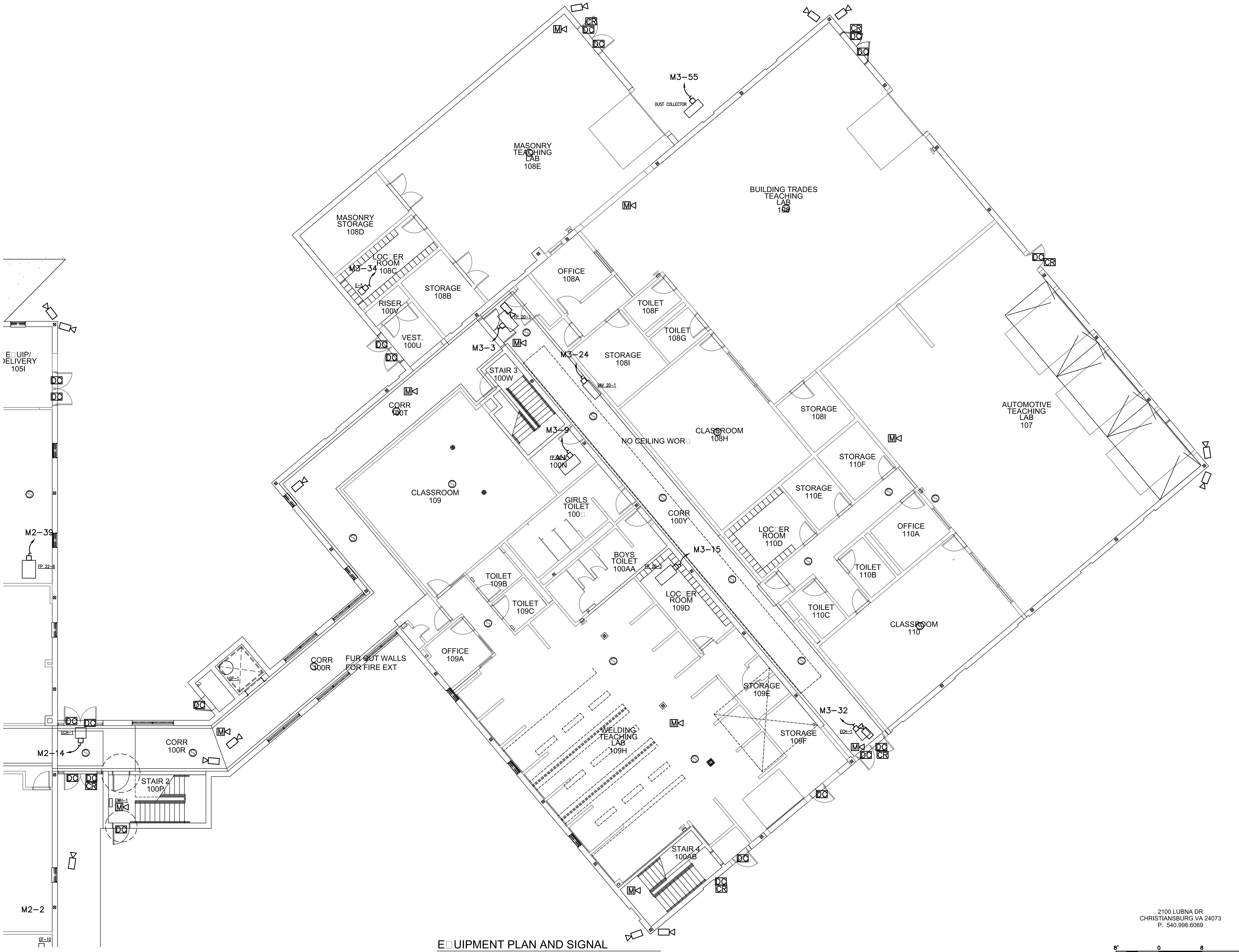
FIRST FLOOR PLAN

E-401

SHEET X of X



E□UIPMENT PLAN AND SIGNAL

1/8" □1'0"

1/8"=1'-0" 8' 0 8 16

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No.	DATE	DESCRIPTION
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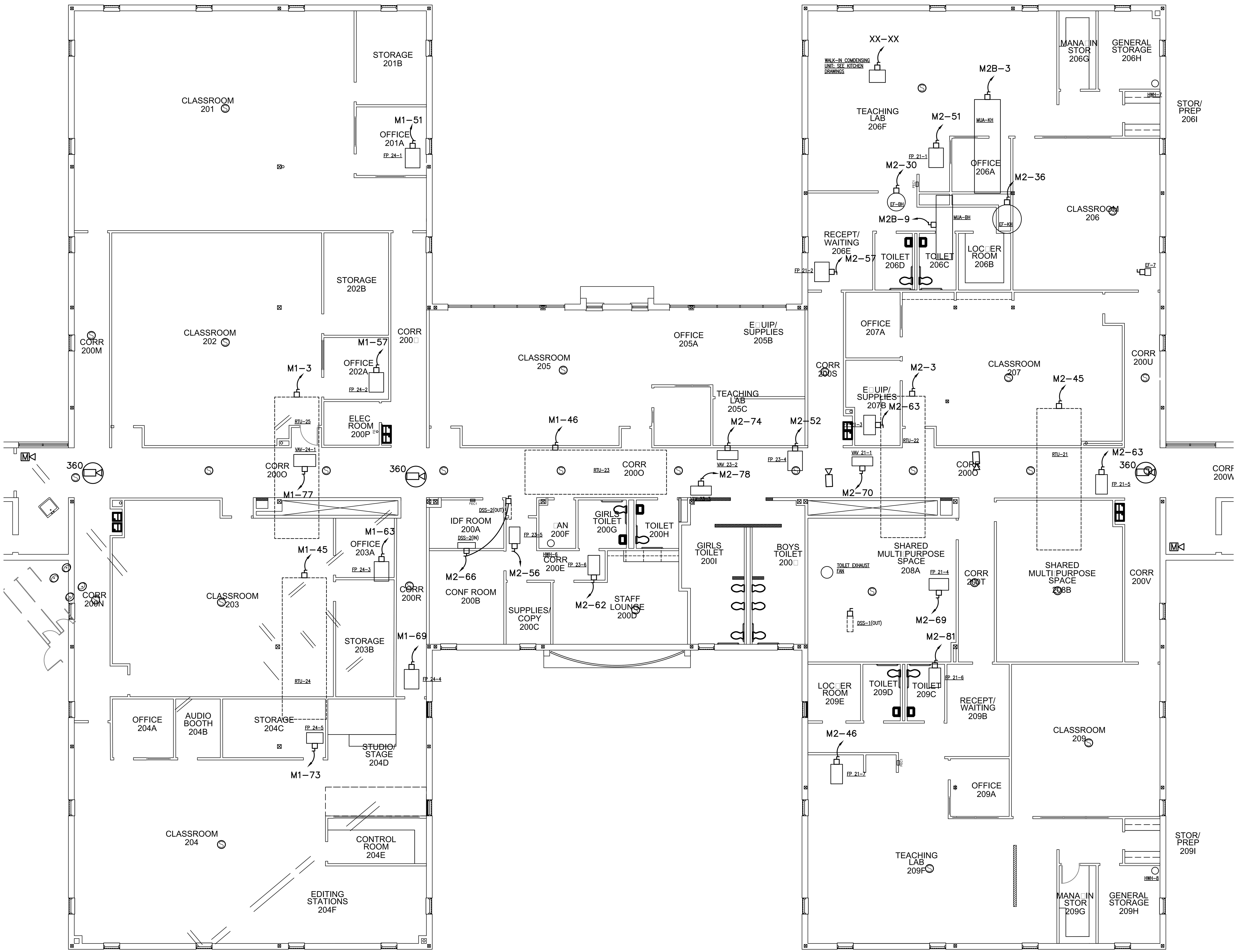
DATE:	06/17/2022
SCALE:	AS SHOWN

FIRST FLOOR PLAN

E-402

SHEET X of X



EQUIPMENT PLAN AND SIGNAL
1/8" = 1'-0"

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1/8"=1'-0" 8' 0 8 16

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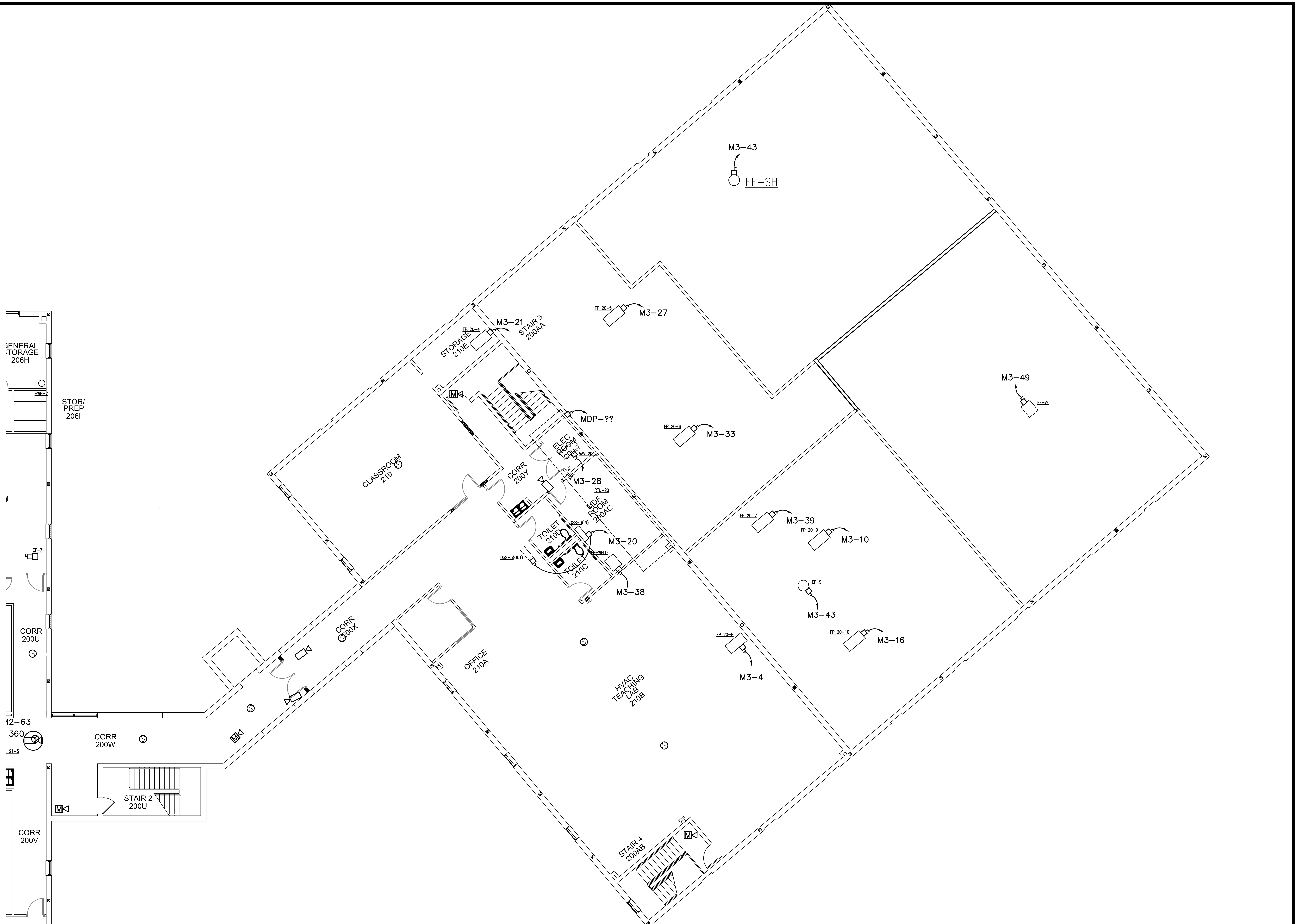
SECOND FLOOR PLAN

E-403

SHEET X of X



E□UIPMENT PLAN AND SIGNAL

1/8" □ 1'0"

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1/8"=1'−0" 8' 0 8 16

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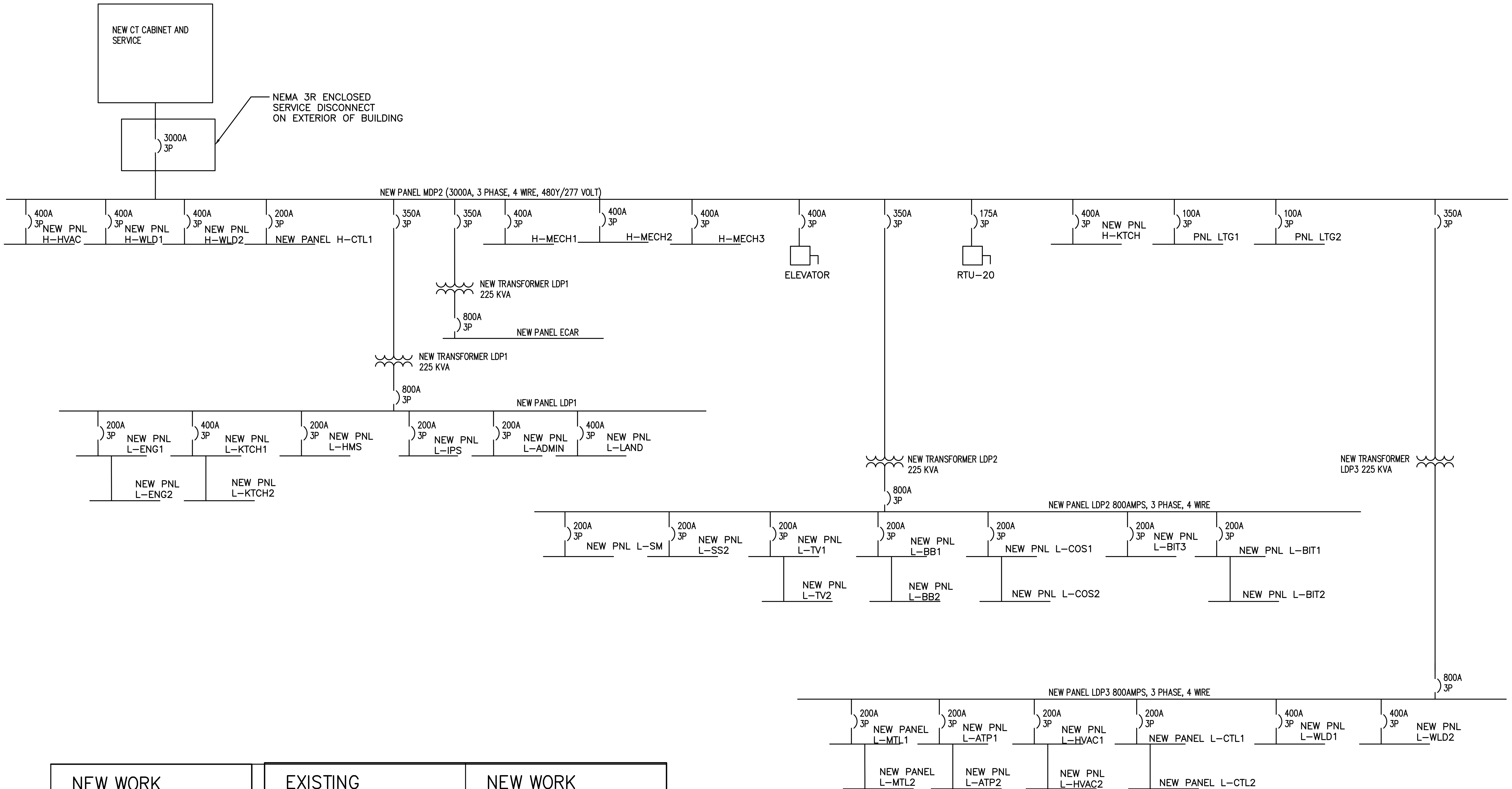
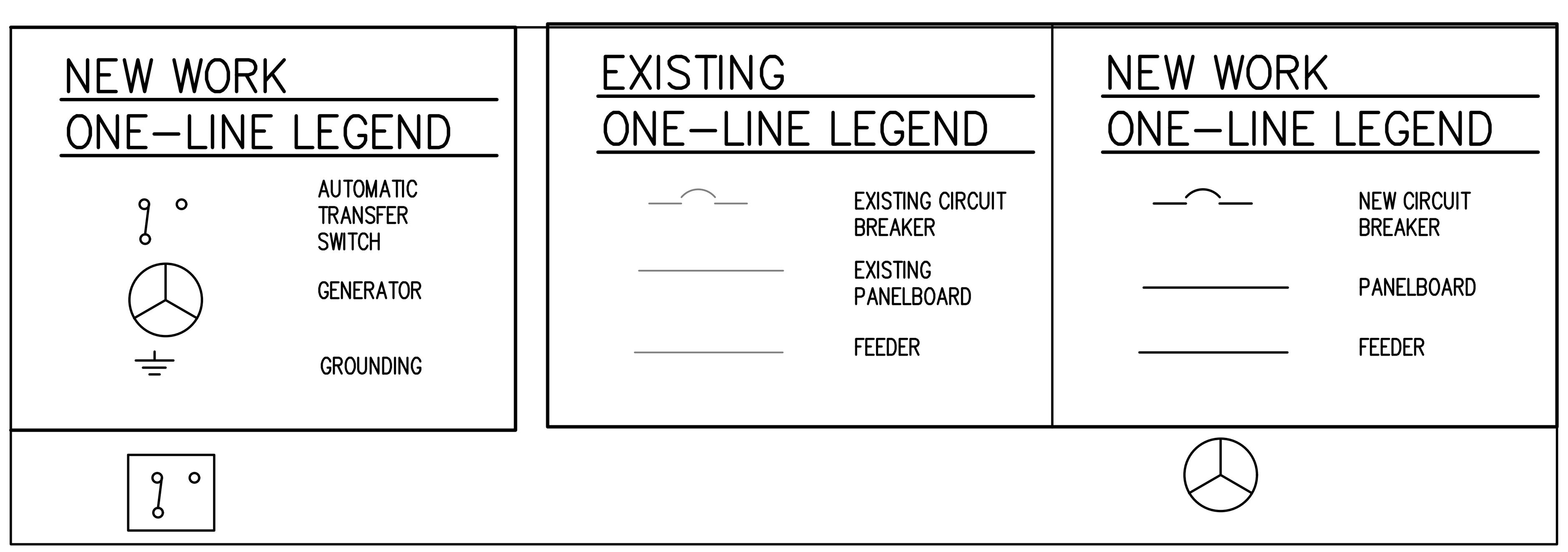
SECOND FLOOR PLAN

E−404

SHEET X of X





NEW ELECTRICAL SERVICE ONE LINE DIAGRAMS

NEW WORK NOTES

1. PROVIDE NEW ELECTRICAL SERVICE INDICATED

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ELECTRICAL ONE LINE
NEW WORK PLAN

E-501

SHEET X of X

PANEL M1

VOLTAGE: 208Y/120 PHASE: 3 WIRE: 4 BUS AMPS: 400A MAIN BREAKER AMPS: 400A [ ] SURFACE MOUNTED [X] FLUSH MOUNTED kAIC RATING: 22,000

CKT NO.	BRKR P	BRKR AMPS	WIRE NO	WIRE SZ	*	CIRCUIT DESCRIPTION	LOAD - KVA PHA	PHB	PHC	3 PH	CKT NO.	BRKR P	BRKR AMPS	WIRE NO	WIRE SZ	*	CIRCUIT DESCRIPTION	LOAD - KVA PHA	PHB	PHC	3 PH
											2	2	15				FP-25-7	1.4			
3	3	90				RTU-25				50.1									1.4		
											8	3	15				FP-25-8				4.3
9	3	35				FP-25-1				19.0											
											12	2	15				FP-25-9			1.0	
13	2	15				FP-25-2	1.4											1.0			
								1.4			16	2	15				FP-25-10		1.1		
																				1.1	
19	3	20				FP-25-3				12.2	20	2					VAV 25-1	0.5			
																			0.5		
											24	2					VAV 25-2			0.5	
25	3	25				FP-25-4				14.1								0.5			
											28	2					VAV 25-3		0.5		
																				0.5	
31	3	15				FP-25-5				5.3	32	1	30				EWH-1	1.5			
											34	1	20				EF-1				
											36	1	20				EF-2				
37	2	15				FP-25-6	1.0				38	1	20				SPARE				
								1.0			40	1	20				SPARE				
41											42	1	20				SPARE				

TOTAL LEFT SIDE 2.4 2.4 0.0 100.7 — TOTAL RIGHT SIDE 4.9 3.4 3.1 4.3
TOTAL RIGHT SIDE 4.9 3.4 3.1 4.3
TOTAL 7.2 5.8 3.1 105.0 — TOTAL CONNECTED LOAD 121.2

* NOTES

PANEL M1(2)

VOLTAGE: 208Y/120 PHASE: 3 WIRE: 4 BUS AMPS: 400A MAIN BREAKER AMPS: 400A [ ] SURFACE MOUNTED [X] FLUSH MOUNTED kAIC RATING: 22,000

CKT NO.	BRKR P	BRKR AMPS	WIRE NO	WIRE SZ	*	CIRCUIT DESCRIPTION	LOAD - KVA PHA	PHB	PHC	3 PH	CKT NO.	BRKR P	BRKR AMPS	WIRE NO	WIRE SZ	*	CIRCUIT DESCRIPTION	LOAD - KVA PHA	PHB	PHC	3 PH
43											44										
45	3	110				RTU-24				63.4	46	3	90				RTU-23				50.1
47											48										
49											50										
51	3	35				FP 24-1				21.8	52	3	35				FP-23-1				21.8
53											54										
55											56										
57	3	25				FP-24-2				14.1	58	3	15		20		FP-23-2				5.8
59											60										
61											62										
63	3	25				FP-24-3				13.1	64	3	15		20		FP-23-3				8.3
65											66										
67											68	2					ECH-1	1.0			
69	3	35				FP-24-4				21.8	70								1.0		
71											72	2					ECH-1			1.0	
73	2	20		12		FP-24-5	1.9				74							1.0			
75								1.9			76	2					ECH-1		1.0		
77	2	20		12		VAV-24-1			0.5		78									1.0	
79							0.5				80	2	20		12		VAV-23-1	0.5			
81	1	20				SPARE					82								0.5		
83	1	20				SPARE					84	1	20				SPARE				

TOTAL LEFT SIDE 2.4 1.9 0.5 134.2 — TOTAL RIGHT SIDE 2.5 2.5 2.0 86.1
TOTAL RIGHT SIDE 2.5 2.5 2.0 86.1
TOTAL 4.9 4.4 2.5 220.3 — TOTAL CONNECTED LOAD 232.0

* NOTES

PANEL M3

VOLTAGE: 208Y/120 PHASE: 3 WIRE: 4 BUS AMPS: 400A MAIN BREAKER AMPS: 400A [ ] SURFACE MOUNTED [X] FLUSH MOUNTED kAIC RATING: 22,000

CKT NO.	BRKR P	BRKR AMPS	WIRE NO	WIRE SZ	*	CIRCUIT DESCRIPTION	LOAD - KVA PHA	PHB	PHC	3 PH	CKT NO.	BRKR P	BRKR AMPS	WIRE NO	WIRE SZ	*	CIRCUIT DESCRIPTION	LOAD - KVA PHA	PHB	PHC	3 PH
1											2										
3	3	35				FP20-1				21.8	4	3	35				FP20-8				21.8
5											6										
7											8										
9	3	15				FP20-2				8.3	10	3	35				FP20-9				21.8
11											12										
13											14										
15	3	35				FP20-3				21.8	16	3	15				FP20-10				8.3
17											18										
19											20	2	15				DSS-3	1.3			
21	3	20				FP20-4				11.0	22								1.3		
23											24	2	20				VAV-20-1			0.5	
25											26							0.5			
27	3	35				FP20-5				21.8	28	2	20				VAV-20-2		0.5		
29											30									0.5	
31											32	2	20				ECH-1	1.0			
33	3	20				FP20-6				9.7	34								1.0		
35											36										
37											38	3	35				EF-WELD				5.9
39	3	20				FP20-7				9.7	40										
41											42	1	20								

TOTAL LEFT SIDE 0.0 0.0 0.0 104.1 — TOTAL RIGHT SIDE 2.8 2.8 1.0 57.8
TOTAL RIGHT SIDE 2.8 2.8 1.0 57.8
TOTAL 2.8 2.8 1.0 161.8 — TOTAL CONNECTED LOAD 168.3

* NOTES

PANEL M2

VOLTAGE: 208Y/120 PHASE: 3 WIRE: 4 BUS AMPS: 400A MAIN BREAKER AMPS: 400A [ ] SURFACE MOUNTED [X] FLUSH MOUNTED kAIC RATING: 22,000

CKT NO.	BRKR P	BRKR AMPS	WIRE NO	WIRE SZ	*	CIRCUIT DESCRIPTION	LOAD - KVA PHA	PHB	PHC	3 PH	CKT NO.	BRKR P	BRKR AMPS	WIRE NO	WIRE SZ	*	CIRCUIT DESCRIPTION	LOAD - KVA PHA	PHB	PHC	3 PH
1											2	2	15				FP-22-7	1.6			
3	3	100				RTU-22				63.4	4								1.6		
5											6	2	20				VAV-22-1			0.5	
7											8							0.5			
9	3	25				FP-22-1				15.1	10	2	20				DSS-1		1.6		
11											12									1.6	
13											14	2	20				ECH-1	1.0			
15	3	20				FP-22-2				12.2									1.0		
17											18	1	20	2	12		EF-3			0.7	
19											20	1	20	2	12		EF-4,EF-5,EF-10	0.2			
21	3	35				FP-22-3				21.8	22	1	20	2	12	1			0.2		
23											24		20	2	12		VAV-23-1			0.5	
25											26							0.5			
27	3	35				FP-22-4				19.9	28										
29											30	3	20				EF-BH				2.4
31											32										
33	3	15				FP-22-5				6.4	34										
35											36	3	20				EF-KH				8.6
37											38										
39	3	35				FP-22-6				19.9	40	1	20				SPARE				
41											42	1	20				SPARE				

TOTAL LEFT SIDE 0.0 0.0 0.0 158.7 — TOTAL RIGHT SIDE 3.8 4.4 3.3 11.0
TOTAL RIGHT SIDE 3.8 4.4 3.3 11.0
TOTAL 3.8 4.4 3.3 169.7 — TOTAL CONNECTED LOAD 181.1

* NOTES
1 - CONROL WITH WALL SWITCH; CONNECT TO LIGHT FOR THAT ROOM.

PANEL M2(2)

VOLTAGE: 208Y/120 PHASE: 3 WIRE: 4 BUS AMPS: 400A MAIN BREAKER AMPS: 400A [ ] SURFACE MOUNTED [X] FLUSH MOUNTED kAIC RATING: 22,000

CKT NO.	BRKR P	BRKR AMPS	WIRE NO	WIRE SZ	*	CIRCUIT DESCRIPTION	LOAD - KVA PHA	PHB	PHC	3 PH	CKT NO.	BRKR P	BRKR AMPS	WIRE NO	WIRE SZ	*	CIRCUIT DESCRIPTION	LOAD - KVA PHA	PHB	PHC	3 PH
43											44										
45	3	110				RTU-21				63.4	46	3	30				FP-21-7				18.0
47											48										
49											50										
51	3	30				FP-21-1				17.1	52	3	30				FP-23-4				18.0
53											54										
55											56	2	20				FP-23-5	1.9			
57	3	30				FP-21-2				16.1	58								1.9		
59											60										
61											62	3	15				FP-23-6				6.4
63	3	20				FP-21-3				12.1	64										
65											66	2	15				DSS-2			1.6	
67											68							1.6			
69	3	20				FP-21-4				9.7	70	2					VAV-21-1		0.5		
71											72									0.5	
73											74	2	20				VAV-23-2	0.5			
75	3	20				FP-21-5				9.7	76								0.5		
77											78	2	20				VAV-23-3			0.5	
79											80							0.5			
81	3	25				FP-21-6				14.1	82	1	20				SPARE				
83											84	1	20				SPARE				

TOTAL LEFT SIDE 0.0 0.0 0.0 142.3 — TOTAL RIGHT SIDE 4.5 2.9 2.6 42.5
TOTAL RIGHT SIDE 4.5 2.9 2.6 42.5
TOTAL 4.5 2.9 2.6 184.8 — TOTAL CONNECTED LOAD 194.8

* NOTES

PANEL M3 (2)

VOLTAGE: 208Y/120 PHASE: 3 WIRE: 4 BUS AMPS: 400A MAIN BREAKER AMPS: 400A [ ] SURFACE MOUNTED [X] FLUSH MOUNTED kAIC RATING: 22,000

CKT NO.	BRKR P	BRKR AMPS	WIRE NO	WIRE SZ	*	CIRCUIT DESCRIPTION	LOAD - KVA PHA	PHB	PHC	3 PH	CKT NO.	BRKR P	BRKR AMPS	WIRE NO	WIRE SZ	*	CIRCUIT DESCRIPTION	LOAD - KVA PHA	PHB	PHC	3 PH
43	1	20				EF-9	0.1				44	1	20								
45	1	20				EF-SH		0.7			46	1	20								
47											48	1	20								
49	3	20				EF-VE				3.8	50	1	20								
51											52	1	20								
53											54	1	20								
55	3	40				DUST COLLECTOR				16.4	56	1	20								
57											58	1	20								
59	1	20									60	1	20								
61	1	20									62	1	20								
63	1	20									64	1	20								
65	1	20									66	1	20								
67	1	20									68	1	20								
69	1	20									70	1	20								
71	1	20									72	1	20								
73	1	20									74	1	20								
75	1	20									76	1	20								
77	1	20									78	1	20				SPARE				
79	1	20									80	1	20				SPARE				
81	1	20									82	1	20				SPARE				
83	1	20									84	1	20				SPARE				

TOTAL LEFT SIDE 0.1 0.7 0.0 20.2 — TOTAL RIGHT SIDE 0.0 0.0 0.0 0.0
TOTAL RIGHT SIDE 0.0 0.0 0.0 0.0
TOTAL 0.1 0.7 0.0 20.2 — TOTAL CONNECTED LOAD 20.9

* NOTES

PANEL LTG1

VOLTAGE: 480Y/277 PHASE: 3 WIRE: 4 BUS AMPS: 100A MAIN BREAKER AMPS: 100A [ ] SURFACE MOUNTED [X] FLUSH MOUNTED kAIC RATING: 22,000

CKT NO.	BRKR P	BRKR AMPS	WIRE NO	WIRE SZ	*	CIRCUIT DESCRIPTION	LOAD - KVA PHA	PHB	PHC	3 PH	CKT NO.	BRKR P	BRKR AMPS	WIRE NO	WIRE SZ	*	CIRCUIT DESCRIPTION	LOAD - KVA PHA	PHB	PHC	3 PH
1	1	20	2	12		FIRST FLOOR LTG	3.9				2	1	20	2	12		SECOND FLOOR LTG	3.5			
3	1	20	2	12		FIRST FLOOR LTG		4.0			4	1	20	2	12		SECOND FLOOR LTG		3.6		
5	1	20	2	12		FIRST FLOOR LTG			3.1		6	1	20	2	12		SECOND FLOOR LTG			3.9	
7	1	20	2	12		FIRST FLOOR LTG	3.4				8	1	20	2	12		SECOND FLOOR LTG	3.7			
9	1	20	2	12		FIRST FLOOR LTG		3.7			10	1	20	2	12		SECOND FLOOR LTG		3.6		
11	1	20	2	12		EXTERIOR LTG			1.0		12	1	20								
13	1	20									14	1	20								
15	1	20									16	1	20								
17	1	20									18	1	20								
19	1	20									20	1	20								
21	1	20									22	1	20								
23	1	20									24	1	20								
25	1	20									26	1	20								
27	1	20									28	1	20								
29	1	20									30	1	20								
31	1	20									32	1	20								
33	1	20									34	1	20								
35	1	20									36	1	20				SPARE				
37	1	20									38	1	20				SPARE				
39	1	20									40	1	20				SPARE				
41	1	20									42	1	20				SPARE				

TOTAL LEFT SIDE 7.3 7.7 4.1 0.0 — TOTAL RIGHT SIDE 7.2 7.2 3.9 0.0
TOTAL RIGHT SIDE 7.2 7.2 3.9 0.0
TOTAL 14.4 14.8 7.9 0.0 — TOTAL CONNECTED LOAD 37.1

* NOTES

PANEL LTG2

VOLTAGE: 480Y/277 PHASE: 3 WIRE: 4 BUS AMPS: 100A MAIN BREAKER AMPS: 100A [ ] SURFACE MOUNTED [X] FLUSH MOUNTED kAIC RATING: 22,000

CKT NO.	BRKR P	BRKR AMPS	WIRE NO	WIRE SZ	*	CIRCUIT DESCRIPTION	LOAD - KVA PHA	PHB	PHC	3 PH	CKT NO.	BRKR P	BRKR AMPS	WIRE NO	WIRE SZ	*	CIRCUIT DESCRIPTION	LOAD - KVA PHA	PHB	PHC	3 PH
1	1	20	2	12		FIRST FLOOR LTG	3.7				2	1	20	2	12		SECOND FLOOR LTG	2.4			
3	1	20	2	12		FIRST FLOOR LTG		3.8			4	1	20	2	12		SECOND FLOOR LTG		2.6		
5	1	20									6	1	20	2	12		SECOND FLOOR LTG			2.6	
7	1	20									8	1	20								
9	1	20									10	1	20								
11	1	20									12	1	20								
13	1	20									14	1	20								
15	1	20									16	1	20								
17	1	20									18	1	20								
19	1	20									20	1	20								
21	1	20									22	1	20								
23	1	20									24	1	20								
25	1	20									26	1	20								
27	1	20									28	1	20								
29	1	20									30	1	20								
31	1	20									32	1	20								
33	1	20									34	1	20								
35	1	20									36	1	20				SPARE				
37	1	20									38	1	20				SPARE				
39	1	20									40	1	20				SPARE				
41	1	20									42	1	20				SPARE				

TOTAL LEFT SIDE 3.7 3.8 0.0 0.0 — TOTAL RIGHT SIDE 2.4 2.6 2.6 0.0
TOTAL RIGHT SIDE 2.4 2.6 2.6 0.0
TOTAL 6.1 6.4 2.6 0.0 — TOTAL CONNECTED LOAD 15.1

* NOTES

2100 LUBNA DR
CHRISTIANSBURG VA 24073
P. 540.998.6069

1/8"=1'-0" 8' 0 8 16

C2 Architecture
ARCHITECTURE INTERIORS PLANNING

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Lic. No. 44271
6-17-22
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REVISIONS

No.	DATE	DESCRIPTION
X	X	X

DRAWN BY:	DWG
REV'D BY:	DWG
DATE:	06/17/2022
SCALE:	AS SHOWN

PANEL SCHEDULES

E-502

SHEET X of X

PANEL LDP1

VOLTAGE: 480Y/277 — PHASE: 3 — WIRE: 4 — BUS AMPS: 800A — MAIN BREAKER AMPS: 800A — [ ] SURFACE MOUNTED — [X] FLUSH MOUNTED — kAIC RATING: 65,000

CKT	BRKR		WIRE		*	CIRCUIT	LOAD - KVA				CKT	BRKR		WIRE		*	CIRCUIT	LOAD - KVA			
NO.	P	AMPS	NO	SZ		DESCRIPTION	PHA	PHB	PHC	3 PH	NO.	P	AMPS	NO	SZ		DESCRIPTION	PHA	PHB	PHC	3 PH
3	3	200				PANEL L-ENG1					4	3	200				PANEL L-HMS				
9	3	200				PANEL L-ENG2					10	3	200				PANEL L-IPS				
15	3	400				PANEL L-KTCH1					16	3	200				PANEL L-ADMIN				
21	3	400				PANEL L-KTCH2					22	3	400				PANEL L-LAND				
27	3					SPACE					28	3					SPACE				
33	3					SPACE					34	3					SPACE				
39	3					SPACE					40	3					SPACE				
						TOTAL LEFT SIDE	0.0	0.0	0.0	0.0							TOTAL RIGHT SIDE	0.0	0.0	0.0	0.0
						TOTAL RIGHT SIDE	0.0	0.0	0.0	0.0											
						TOTAL	0.0	0.0	0.0	0.0							TOTAL CONNECTED LOAD				

* NOTES

PANEL L-ENG1

VOLTAGE: 208Y/120 — PHASE: 3 — WIRE: 4 — BUS AMPS: 200A — MAIN BREAKER AMPS: 200A — [ ] SURFACE MOUNTED — [X] FLUSH MOUNTED — kAIC RATING: 22,000

CKT	BRKR		WIRE		*	CIRCUIT	LOAD - KVA				CKT	BRKR		WIRE		*	CIRCUIT	LOAD - KVA			
NO.	P	AMPS	NO	SZ		DESCRIPTION	PHA	PHB	PHC	3 PH	NO.	P	AMPS	NO	SZ		DESCRIPTION	PHA	PHB	PHC	3 PH
1	1	20	2	12		MRF RM 100M	0.7				2	1	20								
3	1	20	2	12		VENDING 100L		0.7			4	1	20								
5	1	20	2	12		TOILET 100K			0.7		6	1	20								
7	1	20	2	12		JAN 100N	0.7				8	1	20								
9	1	20	2	12		OFFC 106A		0.7			10	1	20								
11	1	20	2	12		STOR 106B			0.7		12	1	20								
13	1	20	2	12		CLASSRM 106	0.7				14	1	20								
15	1	20	2	12		CLASSRM 106		1.1			16	1	20								
17	1	20	2	12		CLASSRM 106			0.5		18	1	20								
19	1	20	2	12		CLASSRM 106	0.9				20	1	20								
21	1	20	2	12		TOILETS 100 I-J		0.4			22	1	20								
23	1	20									24	1	20								
25	1	20									26	1	20								
27	1	20									28	1	20								
29	1	20									30	1	20								
31	1	20									32	1	20								
33	1	20									34	1	20								
35	1	20									36	1	20				SPARE				
37	1	20									38	1	20				SPARE				
39	1	20									40	1	20				SPARE				
41	1	20									42	1	20				SPARE				
						TOTAL LEFT SIDE	3.1	2.9	2.0	0.0							TOTAL RIGHT SIDE	0.0	0.0	0.0	0.0
						TOTAL RIGHT SIDE	0.0	0.0	0.0	0.0											
						TOTAL	3.1	2.9	2.0	0.0							TOTAL CONNECTED LOAD				7.9

* NOTES

PANEL L-ENG2

VOLTAGE: 208Y/120 — PHASE: 3 — WIRE: 4 — BUS AMPS: 200A — MAIN BREAKER AMPS: 200A — [ ] SURFACE MOUNTED — [X] FLUSH MOUNTED — kAIC RATING: 22,000

CKT	BRKR		WIRE		*	CIRCUIT	LOAD - KVA				CKT	BRKR		WIRE		*	CIRCUIT	LOAD - KVA			
NO.	P	AMPS	NO	SZ		DESCRIPTION	PHA	PHB	PHC	3 PH	NO.	P	AMPS	NO	SZ		DESCRIPTION	PHA	PHB	PHC	3 PH
1	1	20	2	12		CLASS RM 107	0.4				2	1	20	2	12		RM 107A	0.7			
3	1	20	2	12		CLASS RM 107		0.4			4	1	20	2	12		RM 107B		0.7		
5	1	20	2	12		CLASS RM 107			0.4		6	1	20	2	12		ROBOT STOR 107C			0.4	
7	1	20	2	12		CLASS RM 107	0.7				8	1	20	2	12		ROBOT STOR 107C	0.4			
9	1	20	2	12		CLASS RM 107		0.7			10	1	20	2	12		ROBOT STOR 107C		0.4		
11	1	20	2	12		CLASS RM 107			0.7		12	1	20	2	12		STOR 107D			0.7	
13	1	20	2	12		CLASS RM 107	0.7				14	1	20	2	12		STOR 107D	0.7			
15	1	20	2	12		CLASS RM 107		0.7			16	1	20	2	12		STOR 107D		0.7		
17	1	20	2	12		CLASS RM 107			0.7		18	1	20	2	12		RM 107 CNTR RCPT			0.4	
19	1	20	2	12		CLASS RM 107	0.7				20	1	20	2	12		ROBOT STOR 107C	0.4			
21	1	20	2	12		CLASS RM 107		0.4			22	1	20				SPARE				
23	1	20	2	12		CLASS RM 107			0.4		24	1	20				SPARE				
25	1	20	2	12		CLASS RM 107	0.5				26	1	20				SPARE				
27	1	20	2	12		CLASS RM 107		0.7			28	1	20				SPARE				
29	1	20	2	12		CLASS RM 107			0.7		30	1	20				SPARE				
31	1	20	2	12		CLASS RM 107	0.2				32	1	20				SPARE				
33	1	20	2	12		CLASS RM 107		0.2			34	1	20				SPARE				
35	1	20	2	12		CLASS RM 107			0.2		36	1	20				SPARE				
37	1	20	2	12		CLASS RM 107	0.2				38	1	20				SPARE				
39	1	20	2	12		CLASS RM 107		0.2			40	1	20				SPARE				
41	1	20	2	12		CLASS RM 107			0.2		42	1	20				SPARE				
						TOTAL LEFT SIDE	3.4	3.2	3.2	0.0							TOTAL RIGHT SIDE	2.2	1.8	1.4	0.0
						TOTAL RIGHT SIDE	2.2	1.8	1.4	0.0											
						TOTAL	5.6	5.0	4.7	0.0							TOTAL CONNECTED LOAD				15.3

* NOTES

NEW PANEL L-KTCH1 (LK1)

VOLTAGE: 208Y/120 — PHASE: 3 — WIRE: 4 — BUS AMPS: 400A — MAIN BREAKER AMPS: 400A — [ ] SURFACE MOUNTED — [X] FLUSH MOUNTED — kAIC RATING: 22,000

CKT	BRKR		WIRE		*	CIRCUIT	LOAD - KVA				CKT	BRKR		WIRE		*	CIRCUIT	LOAD - KVA			
NO.	P	AMPS	NO	SZ		DESCRIPTION	PHA	PHB	PHC	3 PH	NO.	P	AMPS	NO	SZ		DESCRIPTION	PHA	PHB	PHC	3 PH
1	1	20				WALK-N CLR	1.7				2	1	20	2	10		COFFEE BREWER	1.3			
3	1	20				WALK-N CLR COIL		0.2			4	1	20	2			ICE TEA BREWER		1.6		
											6	1	20	2			INDCTN COOK TOP			1.7	
7	3	20				WALK-N CLR COMP				2.5	8	1	20	2			SCALES	0.2			
											10	1	20	2			IMMER. BLENDER		0.3		
											12	1	20	2			6QT MIXER			0.3	
13	3	20				DISHWASHER				10.4	14	1	20	2			WARMERS	1.4			
											16	1	20	2			20QT MIXER		0.7		
17	2	20				W/D			3.6		18	1	20	2			20QT MIXER			0.7	
							3.6				20	1	20	2			ANSUL (ITEM #34)	1.7			
21	1	20				ICE MACHINE		0.8			22	1	20	2			ANSUL (ITEM #34)		1.7		
23	1	20				1-GAL BLENDER			1.4		24	1	20	2			ANSUL (ITEM #44)			1.7	
25	1	20				FOOD PROCESSOR	1.4				26	1	20	2			CNVYR TOASTER	1.7			
27	1	20				SLICER		0.4			28	1	20								
29	1	20				SLICER			0.4		30	1	20								
31	1	20				1-GAL BLENDER	1.4				32	1	20								
33	1	20				FOOD PROCESSOR		1.4			34	1	20								
35	1	20				2-DR FRIDGE			0.9												
37	1	20				2-DR FREEZER	1.7				38	3					DISHWASHER				
39	1	20				SPARE															
41	1	20				SPARE					42	1	20				SPARE				
						TOTAL LEFT SIDE	9.8	2.8	6.3	12.9							TOTAL RIGHT SIDE	6.4	4.4	4.5	0.0
						TOTAL RIGHT SIDE	6.4	4.4	4.5	0.0											
						TOTAL	16.2	7.1	10.8	12.9							TOTAL CONNECTED LOAD				47.0

* NOTES

NEW PANEL L-KTCH2 (LK2)

VOLTAGE: 208Y/120 — PHASE: 3 — WIRE: 4 — BUS AMPS: 400A — MAIN BREAKER AMPS: 400A — [ ] SURFACE MOUNTED — [X] FLUSH MOUNTED — kAIC RATING: 22,000

CKT	BRKR		WIRE		*	CIRCUIT	LOAD - KVA				CKT	BRKR		WIRE		*	CIRCUIT	LOAD - KVA			
NO.	P	AMPS	NO	SZ		DESCRIPTION	PHA	PHB	PHC	3 PH	NO.	P	AMPS	NO	SZ		DESCRIPTION	PHA	PHB	PHC	3 PH
1	1	20				WARMERS	1.4				2	1	20	2	12		KTCHN 105D	0.2			
3	1	20				20QT MIXER		0.7			4	1	20	2	12		KTCHN 105D		0.2		
5	1	20				20QT MIXER			0.7		6	1	20	2	12		KTCHN 105D			0.2	
7	1	20				ANSUL (ITEM #34)	1.7				8	1	20	2	12		CLASSRM 105	0.2			
9	1	20				ANSUL (ITEM #34)		1.7			10	1	20	2	12		CLASSRM 105		0.2		
11	1	20				ANSUL (ITEM #44)			1.7		12	1	20	2	12		CLASSRM 105			0.2	
13	1	20	2	12		TOILET 105-B-C					14	1	20	2	12		KTCHN 105D	0.2			
15	1	20	2	12		OFFC 105A					16	1	20	2	12		KTCHN 105D		0.4		
17	2	20				105D RCPT					18	1	20	2	12		KTCHN 105D			0.4	
19											20	1	20	2	12		KTCHN 105D	0.4			
21	2	20				105D RCPT					22	1	20	2	12		RCPT 105D-I		0.4		
23											24	1	20	2	12		RCPT 105G-H			0.4	
25	2	20				105D RCPT					26	1	20	2	12		RCPT 105D-E	0.4			
27											28	1	20				SPARE				
29	2	20				105D RCPT					30	1	20				SPARE				
31											32	1	20				SPARE				
33	1	20	2	12		CLASSRM 105		0.4			34	1	20				SPARE				
35	1	20	2	12		CLASSRM 105			0.4		36	1	20				SPARE				
37	1	20	2	12		CLASSRM 105	0.4				38	1	20				SPARE				
39	1	20	2	12		CLASSRM 105		0.4			40	1	20				SPARE				
41	1	20	2	12		CLASSRM 105			0.9		42	1	20				SPARE				
						TOTAL LEFT SIDE	3.5	3.1	3.7	0.0							TOTAL RIGHT SIDE	1.3	1.1	1.1	0.0
						TOTAL RIGHT SIDE	1.3	1.1	1.1	0.0											
						TOTAL	4.7	4.2	4.8	0.0							TOTAL CONNECTED LOAD				13.7

* NOTES

PANEL L-HMS

VOLTAGE: 208Y/120 — PHASE: 3 — WIRE: 4 — BUS AMPS: 200A — MAIN BREAKER AMPS: 200A — [ ] SURFACE MOUNTED — [X] FLUSH MOUNTED — kAIC RATING: 22,000

CKT	BRKR		WIRE		*	CIRCUIT	LOAD - KVA				CKT	BRKR		WIRE		*	CIRCUIT	LOAD - KVA			
NO.	P	AMPS	NO	SZ		DESCRIPTION	PHA	PHB	PHC	3 PH	NO.	P	AMPS	NO	SZ		DESCRIPTION	PHA	PHB	PHC	3 PH
1	1	20	2	12		RM 102B	0.7				2	1	20	2	12		CLASSRM 101	0.7			
3	1	20	2	12		RM 102B		0.7			4	1	20	2	12		CLASSRM 101		0.9		
5	1	20	2	12		RM 102B			0.7		6	1	20	2	12		CLASSRM 101			0.9	
7	1	20	2	12		RM 102B	0.7				8	1	20	2	12		CLASSRM 101	0.5			
9	1	20	2	12		OFFC 102A		0.7			10	1	20	2	12		CLASSRM 101		0.7		
11	1	20	2	12		CLASSRM 102			0.9		12	1	20	2	12		CLASSRM 101			0.7	
13	1	20	2	12		CLASSRM 102	0.9				14	1	20								
15	1	20	2	12		RR 102D/STOR 102E		0.4			16	1	20								
17	1	20	2	12		MED PREP 102C			0.4		18	1	20								
19	1	20	2	12		MED PREP 102C	0.4				20	1	20								
21	1	20	2	12		MED PREP 102C		0.4			22	1	20								
23	1	20									24	1	20								
25	1	20									26	1	20								
27	1	20									28	1	20								
29	1	20									30	1	20								
31	1	20									32	1	20								
33	1	20									34	1	20								
35	1	20									36	1	20				SPARE				
37	1	20									38	1	20				SPARE				
39	1	20									40	1	20				SPARE				
41	1	20									42	1	20				SPARE				
						TOTAL LEFT SIDE	2.7	2.2	2.0	0.0							TOTAL RIGHT SIDE	1.3	1.6	1.6	0.0
						TOTAL RIGHT SIDE	1.3	1.6	1.6	0.0											
						TOTAL	4.0	3.8	3.6	0.0							TOTAL CONNECTED LOAD				11.3

* NOTES

PANEL L-IPS

VOLTAGE: 208Y/120 — PHASE: 3 — WIRE: 4 — BUS AMPS: 200A — MAIN BREAKER AMPS: 200A — [ ] SURFACE MOUNTED — [X] FLUSH MOUNTED — kAIC RATING: 22,000

CKT	BRKR		WIRE		*	CIRCUIT	LOAD - KVA				CKT	BRKR		WIRE		*	CIRCUIT	LOAD - KVA			
NO.	P	AMPS	NO	SZ		DESCRIPTION	PHA	PHB	PHC	3 PH	NO.	P	AMPS	NO	SZ		DESCRIPTION	PHA	PHB	PHC	3 PH
1	1	20				MAIN HALL RCPT	0.4				2	1	20								
3	1	20				MAIN HALL RCPT		0.7			4	1	20								
5	1	20				MAIN HALL WTR FT			1.0		6	1	20								
7	1	20				MAIN HALL RCPT	0.4				8	1	20								
9	1	20									10	1	20								
11	1	20									12	1	20								
13	1	20									14	1	20								
15	1	20									16	1	20								
17	1	20									18	1	20								
19	1	20									20	1	20								
21	1	20									22	1	20								
23	1	20									24	1	20								
25	1	20									26	1	20								
27	1	20									28	1	20								
29	1	20									30	1	20								
31	1	20									32	1	20								
33	1	20									34	1	20								
35	1	20									36	1	20				SPARE				
37	1	20									38	1	20				SPARE				
39	1	20									40	1	20				SPARE				
41	1	20									42	1	20				SPARE				
						TOTAL LEFT SIDE	0.7	0.7	1.0	0.0							TOTAL RIGHT SIDE	0.0	0.0	0.0	0.0
						TOTAL RIGHT SIDE	0.0	0.0	0.0	0.0											
						TOTAL	0.7	0.7	1.0	0.0							TOTAL CONNECTED LOAD				2.4

* NOTES

PANEL L-ADMIN

VOLTAGE: 208Y/120 — PHASE: 3 — WIRE: 4 — BUS AMPS: 200A — MAIN BREAKER AMPS: 200A — [ ] SURFACE MOUNTED — [X] FLUSH MOUNTED — kAIC RATING: 22,000

CKT	BRKR		WIRE		*	CIRCUIT	LOAD - KVA				CKT	BRKR		WIRE		*	CIRCUIT	LOAD - KVA			
NO.	P	AMPS	NO	SZ		DESCRIPTION	PHA	PHB	PHC	3 PH	NO.	P	AMPS	NO	SZ		DESCRIPTION	PHA	PHB	PHC	3 PH
1	1	20	2	12		OFFC 104-P	0.7				2	1	20	2	12		OFFC 103A	0.7			
3	1	20	2	12		OFFC 104-O		0.7			4	1	20	2	12		STOR 103-E		0.5		
5	1	20	2	12		OFFC 104-N			0.7		6	1	20	2	12		CLASSRM 103			0.7	
7	1	20	2	12		OFFC 104-M	0.7				8	1	20	2	12		CLASSRM 103	0.7			
9	1	20	2	12		OFFC 104-L		0.7			10	1	20	2	12		CLASSRM 103		0.7		
11	1	20	2	12		CONF 104-B			0.9		12	1	20	2	12		CLASSRM 103			0.9	
13	1	20	2	12		WRK AREA 104-A	1.1				14	1	20	2	12		CLASSRM 103	0.9			
15	1	20	2	12		BRKRM 104-C		0.4			16	1	20	2	12		VESTIBULE 100		0.2		
17	1	20	2	12		BRKRM 104-C			0.4		18	1	20	2	12		VESTIBULE 100			0.2	
19	1	20	2	12		RM 104-F-G-H-I	0.7				20	1	20	2	12		VESTIBULE 100	0.4			
21	1	20	2	12		WATER COOLER		0.4			22	1	20	2	12		VESTIBULE 100		0.4		
23	1	20	2	12		STOR/FILE			0.7		24	1	20	2	12		VESTIBULE 100			0.4	
25	1	20	2	12		CLINIC 104-J	0.5				26	1	20				SPARE				
27	1	20	2	12		RM 100-A-B-C		1.2			28	1	20				SPARE				
29	1	20				SPARE					30	1	20				SPARE				
31	1	20				SPARE					32	1	20				SPARE				
33	1	20				SPARE					34	1	20				SPARE				
35	1	20				SPARE					36	1	20				SPARE				
37	1	20				SPARE					38	1	20				SPARE				
39	1	20				SPARE					40	1	20				SPARE				
41	1	20				SPARE					42	1	20				SPARE				
						TOTAL LEFT SIDE	3.8	3.3	2.7	0.0							TOTAL RIGHT SIDE	2.7	1.8	2.2	0.0
						TOTAL RIGHT SIDE	2.7	1.8	2.2	0.0											
						TOTAL	6.5	5.1	4.9	0.0							TOTAL CONNECTED LOAD				16.5

* NOTES

PANEL L-LAND

VOLTAGE: 208Y/120 — PHASE: 3 — WIRE: 4 — BUS AMPS: 400A — MAIN BREAKER AMPS: 400A — [ ] SURFACE MOUNTED — [X] FLUSH MOUNTED — kAIC RATING: 22,000

CKT	BRKR		WIRE		*	CIRCUIT	LOAD - KVA				CKT	BRKR		WIRE		*	CIRCUIT	LOAD - KVA			
NO.	P	AMPS	NO	SZ		DESCRIPTION	PHA	PHB	PHC	3 PH	NO.	P	AMPS	NO	SZ		DESCRIPTION	PHA	PHB	PHC	3 PH
1	1	20	2	12		STOR 101E	0.4				2	1	20								
3	1	20	2	12		STOR 101E		0.4			4	1	20								
5	1	20	2	12		STOR 101E			0.4		6	1	20								
7	1	20	2	12		STOR 101E	0.4				8	1	20								
9	1	20	2	12		STOR 101E		0.4			10	1	20								
11	1	20	2	12		STOR 101E			0.4		12	1	20								
13	1	20									14	1	20								
15	1	20									16	1	20								
17	1	20									18	1	20								
19	1	20									20	1	20								
21	1	20									22	1	20								
23	1	20									24	1	20								
25	1	20									26	1	20								
27	1	20									28	1	20								
29	1	20									30	1	20								
31	1	20									32	1	20								
33	1	20									34	1	20								
35	1	20									36	1	20				SPARE				
37	1	20									38	1	20				SPARE				
39	1	20									40	1	20				SPARE				
41	1	20									42	1	20				SPARE				
						TOTAL LEFT SIDE	0.7	0.7	0.7	0.0							TOTAL RIGHT SIDE	0.0	0.0	0.0	0.0
						TOTAL RIGHT SIDE	0.0	0.0	0.0	0.0											
						TOTAL	0.7	0.7	0.7	0.0							TOTAL CONNECTED LOAD				2.2

* NOTES

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1/8"=1'-0" — 8' 0 8 16

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X	X	X

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REV'D BY:	DWG
DATE:	06/17/2022
SCALE:	AS SHOWN

PANEL SCHEDULES

E-503

SHEET X of X

PANEL LDP2

VOLTAGE: 480Y/277 | PHASE: 3 | WIRE: 4 | BUS AMPS: 800A | MAIN BREAKER AMPS: 800A | [ ] SURFACE MOUNTED | [X] FLUSH MOUNTED | kAIC RATING: 65,000

CKT	BRKR		WIRE			CIRCUIT	LOAD - KVA				CKT	BRKR		WIRE			CIRCUIT	LOAD - KVA			
NO.	P	AMPS	NO	SZ	*	DESCRIPTION	PHA	PHB	PHC	3 PH	NO.	P	AMPS	NO	SZ	*	DESCRIPTION	PHA	PHB	PHC	3 PH
3	3	200				PNL L-SM					4	3	250				EXISTING SERVER ROOM				
9	3	200				PNL L-SS2					10	3	250				SPARE				
15	3					SPACE					16	3	200				SPARE				
21	3					SPACE					22	3					SPACE				
27	3					SPACE					28	3					SPACE				
33	3					SPACE					34	3					SPACE				
39	3					SPACE					40	3					SPACE				

TOTAL LEFT SIDE 0.0 0.0 0.0 0.0 — TOTAL RIGHT SIDE 0.0 0.0 0.0 0.0
TOTAL RIGHT SIDE 0.0 0.0 0.0 0.0
TOTAL 0.0 0.0 0.0 0.0 — TOTAL CONNECTED LOAD

* NOTES

PANEL L-SM

VOLTAGE: 208Y/120 | PHASE: 3 | WIRE: 4 | BUS AMPS: 200A | MAIN BREAKER AMPS: 200A | [ ] SURFACE MOUNTED | [X] FLUSH MOUNTED | kAIC RATING: 22,000

CKT	BRKR		WIRE			CIRCUIT	LOAD - KVA				CKT	BRKR		WIRE			CIRCUIT	LOAD - KVA			
NO.	P	AMPS	NO	SZ	*	DESCRIPTION	PHA	PHB	PHC	3 PH	NO.	P	AMPS	NO	SZ	*	DESCRIPTION	PHA	PHB	PHC	3 PH
1	1	20	2	12		CLASSRM 205	0.9				2	1	20				SPARE				
3	1	20	2	12		CLASSRM 205		0.9			4	1	20				SPARE				
5	1	20	2	12		CLASSRM 205			0.5		6	1	20				SPARE				
7	1	20	2	12		LAB 205C	0.4				8	1	20				SPARE				
9	1	20	2	12		LAB 205C		0.4			10	1	20				SPARE				
11	1	20	2	12		LAB 205C			0.4		12	1	20				SPARE				
13	1	20	2	12		LAB 205C	0.4				14	1	20				SPARE				
15	1	20	2	12		LAB 205C		0.4			16	1	20				SPARE				
17	1	20	2	12		LAB 205C			0.4		18	1	20				SPARE				
19	1	20	2	12		LAB 205C	0.4				20	1	20				SPARE				
21	1	20	2	12		LAB 205C		0.4			22	1	20				SPARE				
23	1	20	2	12		LAB 205C			0.4		24	1	20				SPARE				
25	1	20	2	12		LAB 205C	0.4				26	1	20				SPARE				
27	1	20	2	12		OFFC 205A		0.7			28	1	20				SPARE				
29	1	20	2	12		EQPT/SUPPL 205B			0.4		30	1	20				SPARE				
31	1	20	2	12		EQPT/SUPPL 205B	0.4				32	1	20				SPARE				
33	1	20	2	12		EQPT/SUPPL 205B		0.4			34	1	20				SPARE				
35	1	20	2	12		EQPT/SUPPL 205B			0.4		36	1	20				SPARE				
37	1	20				SPARE					38	1	20				SPARE				
39	1	20				SPARE					40	1	20				SPARE				
41	1	20				SPARE					42	1	20				SPARE				

TOTAL LEFT SIDE 2.7 3.1 2.3 0.0 — TOTAL RIGHT SIDE 0.0 0.0 0.0 0.0
TOTAL RIGHT SIDE 0.0 0.0 0.0 0.0
TOTAL 2.7 3.1 2.3 0.0 — TOTAL CONNECTED LOAD 8.1

* NOTES

PANEL L-SS2

VOLTAGE: 208Y/120 | PHASE: 3 | WIRE: 4 | BUS AMPS: 200A | MAIN BREAKER AMPS: 200A | [ ] SURFACE MOUNTED | [X] FLUSH MOUNTED | kAIC RATING: 22,000

CKT	BRKR		WIRE			CIRCUIT	LOAD - KVA				CKT	BRKR		WIRE			CIRCUIT	LOAD - KVA			
NO.	P	AMPS	NO	SZ	*	DESCRIPTION	PHA	PHB	PHC	3 PH	NO.	P	AMPS	NO	SZ	*	DESCRIPTION	PHA	PHB	PHC	3 PH
1	1	20	2	12		RM 200A	0.9				2	1	20	2	12		RM 208A	0.5			
3	1	20	2	12		CORR 200E		0.4			4	1	20	2	12		RM 208A		0.5		
5	1	20	2	12		RM 200 F-G-H			0.5		6	1	20	2	12		RM 208A			0.4	
7	1	20	2	12		RM 200B	0.9				8	1	20	2	12		RM 208A	0.9			
9	1	20	2	12		RM 200C		0.4			10	1	20	2	12		RM 208B		0.5		
11	1	20	2	12		RM 200 D			0.7		12	1	20	2	12		RM 208B			0.9	
13	1	20	2	12		RM 200D	0.5				14	1	20	2	12		RM 208B	0.4			
15	1	20	2	12		RM 200D		0.4			16	1	20	2	12		RM 208B		0.5		
17	1	20	2	12		RM 200 I-J			0.4		18	1	20	2	12		VORR 200V			0.7	
19	1	20				SPARE					20	1	20				SPARE				
21	1	20				SPARE					22	1	20				SPARE				
23	1	20				SPARE					24	1	20				SPARE				
25	1	20				SPARE					26	1	20				SPARE				
27	1	20				SPARE					28	1	20				SPARE				
29	1	20				SPARE					30	1	20				SPARE				
31	1	20				SPARE					32	1	20				SPARE				
33	1	20				SPARE					34	1	20				SPARE				
35	1	20				SPARE					36	1	20				SPARE				
37	1	20				SPARE					38	1	20				SPARE				
39	1	20				SPARE					40	1	20				SPARE				
41	1	20				SPARE					42	1	20				SPARE				

TOTAL LEFT SIDE 2.3 1.1 1.6 0.0 — TOTAL RIGHT SIDE 1.8 1.6 2.0 0.0
TOTAL RIGHT SIDE 1.8 1.6 2.0 0.0
TOTAL 4.1 2.7 3.6 0.0 — TOTAL CONNECTED LOAD 10.4

* NOTES

PANEL L-TV1

VOLTAGE: 208Y/120 | PHASE: 3 | WIRE: 4 | BUS AMPS: 200A | MAIN BREAKER AMPS: 200A | [ ] SURFACE MOUNTED | [X] FLUSH MOUNTED | kAIC RATING: 22,000

CKT	BRKR		WIRE			CIRCUIT	LOAD - KVA				CKT	BRKR		WIRE			CIRCUIT	LOAD - KVA			
NO.	P	AMPS	NO	SZ	*	DESCRIPTION	PHA	PHB	PHC	3 PH	NO.	P	AMPS	NO	SZ	*	DESCRIPTION	PHA	PHB	PHC	3 PH
1	1	20				SPARE					2	1	20				SPARE				
3	1	20				SPARE					4	1	20				SPARE				
5	1	20				SPARE					6	1	20				SPARE				
7	1	20				SPARE					8	1	20				SPARE				
9	1	20				SPARE					10	1	20				SPARE				
11	1	20				SPARE					12	1	20				SPARE				
13	1	20				SPARE					14	1	20				SPARE				
15	1	20				SPARE					16	1	20				SPARE				
17	1	20				SPARE					18	1	20				SPARE				
19	1	20				SPARE					20	1	20				SPARE				
21	1	20				SPARE					22	1	20				SPARE				
23	1	20				SPARE					24	1	20				SPARE				
25	1	20				SPARE					26	1	20				SPARE				
27	1	20				SPARE					28	1	20				SPARE				
29	1	20				SPARE					30	1	20				SPARE				
31	1	20				SPARE					32	1	20				SPARE				
33	1	20				SPARE					34	1	20				SPARE				
35	1	20				SPARE					36	1	20				SPARE				
37	1	20				SPARE					38	1	20				SPARE				
39	1	20				SPARE					40	1	20				SPARE				
41	1	20				SPARE					42	1	20				SPARE				

TOTAL LEFT SIDE 0.0 0.0 0.0 0.0 — TOTAL RIGHT SIDE 0.0 0.0 0.0 0.0
TOTAL RIGHT SIDE 0.0 0.0 0.0 0.0
TOTAL 0.0 0.0 0.0 0.0 — TOTAL CONNECTED LOAD 0.0

* NOTES

PANEL L-TV2

VOLTAGE: 208Y/120 | PHASE: 3 | WIRE: 4 | BUS AMPS: 200A | MAIN BREAKER AMPS: 200A | [ ] SURFACE MOUNTED | [X] FLUSH MOUNTED | kAIC RATING: 22,000

CKT	BRKR		WIRE			CIRCUIT	LOAD - KVA				CKT	BRKR		WIRE			CIRCUIT	LOAD - KVA			
NO.	P	AMPS	NO	SZ	*	DESCRIPTION	PHA	PHB	PHC	3 PH	NO.	P	AMPS	NO	SZ	*	DESCRIPTION	PHA	PHB	PHC	3 PH
1	1	20	2	12		CLASSRM 204	0.9				2	1	20	2	12		RM 204B	0.4			
3	1	20	2	12		EDITING STATION		0.7			4	1	20	2	12		RM 204A		0.4		
5	1	20	2	12		EDITING STATION			0.7		6	1	20	2	12		RM 204C			0.9	
7	1	20	2	12		EDITING STATION	0.7				8	1	20	2	12		RM 204B	0.4			
9	1	20	2	12		EDITING STATION		0.7			10	1	20	2	12		RM 204D FLOOR BOX		0.4		
11	1	20	2	12		EDITING STATION			0.7		12	1	20	2	12		RM 204D FLOOR BOX			0.4	
13	1	20	2	12		EDITING STATION	0.7				14	1	20	2	12		RM 204D	0.7			
15	1	20	2	12		EDITING STATION		0.7			16	1	20	2	12		CNTRL RM 204E		0.2		
17	1	20	2	12		RM 204 FLOOR BOX			0.4		18	1	20	2	12		CNTRL RM 204E			1.1	
19	1	20	2	12		RM 204 FLOOR BOX	0.4				20	1	20	2	12		CNTRL RM 204E	1.1			
21	1	20	2	12		RM 204 FLOOR BOX		0.4			22	1	20				SPARE				
23	1	20	2	12		RM 204 FLOOR BOX			0.4		24	1	20				SPARE				
25	1	20	2	12		RM 204 FLOOR BOX	0.4				26	1	20				SPARE				
27	1	20	2	12		RM 204 FLOOR BOX		0.4			28	1	20				SPARE				
29	1	20	2	12		RM 204 FLOOR BOX			0.4		30	1	20				SPARE				
31	1	20				SPARE					32	1	20				SPARE				
33	1	20				SPARE					34	1	20				SPARE				
35	1	20				SPARE					36	1	20				SPARE				
37	1	20				SPARE					38	1	20				SPARE				
39	1	20				SPARE					40	1	20				SPARE				
41	1	20				SPARE					42	1	20				SPARE				

TOTAL LEFT SIDE 3.1 2.9 2.5 0.0 — TOTAL RIGHT SIDE 2.5 0.9 2.3 0.0
TOTAL RIGHT SIDE 2.5 0.9 2.3 0.0
TOTAL 5.6 3.8 4.9 0.0 — TOTAL CONNECTED LOAD 14.2

* NOTES

PANEL L-BIT3

VOLTAGE: 208Y/120 | PHASE: 3 | WIRE: 4 | BUS AMPS: 200A | MAIN BREAKER AMPS: 200A | [ ] SURFACE MOUNTED | [X] FLUSH MOUNTED | kAIC RATING: 22,000

CKT	BRKR		WIRE			CIRCUIT	LOAD - KVA				CKT	BRKR		WIRE			CIRCUIT	LOAD - KVA			
NO.	P	AMPS	NO	SZ	*	DESCRIPTION	PHA	PHB	PHC	3 PH	NO.	P	AMPS	NO	SZ	*	DESCRIPTION	PHA	PHB	PHC	3 PH
1	1	20	2	12		CLASSRM 203	0.4				2	1	20	2	12		FLOOR BOX	0.4			
3	1	20	2	12		CLASSRM 203		0.9			4	1	20	2	12		FLOOR BOX		0.4		
5	1	20	2	12		CORR 200N			0.7		6	1	20	2	12		FLOOR BOX			0.4	
7	1	20	2	12		CLASSRM 203	0.9				8	1	20	2	12		FLOOR BOX	0.4			
9	1	20	2	12		STOR 203B		1.1			10	1	20	2	12		FLOOR BOX		0.4		
11	1	20	2	12		OFFC 203A			1.1		12	1	20	2	12		FLOOR BOX			0.4	
13	1	20				SPARE					14	1	20				SPARE				
15	1	20				SPARE					16	1	20				SPARE				
17	1	20				SPARE					18	1	20				SPARE				
19	1	20				SPARE					20	1	20				SPARE				
21	1	20				SPARE					22	1	20				SPARE				
23	1	20				SPARE					24	1	20				SPARE				
25	1	20				SPARE					26	1	20				SPARE				
27	1	20				SPARE					28	1	20				SPARE				
29	1	20				SPARE					30	1	20				SPARE				
31	1	20				SPARE					32	1	20				SPARE				
33	1	20				SPARE					34	1	20				SPARE				
35	1	20				SPARE					36	1	20				SPARE				
37	1	20				SPARE					38	1	20				SPARE				
39	1	20				SPARE					40	1	20				SPARE				
41	1	20				SPARE					42	1	20				SPARE				

TOTAL LEFT SIDE 1.3 2.0 1.8 0.0 — TOTAL RIGHT SIDE 0.7 0.7 0.7 0.0
TOTAL RIGHT SIDE 0.7 0.7 0.7 0.0
TOTAL 2.0 2.7 2.5 0.0 — TOTAL CONNECTED LOAD 7.2

* NOTES

PANEL L-BB1

VOLTAGE: 208Y/120 | PHASE: 3 | WIRE: 4 | BUS AMPS: 200A | MAIN BREAKER AMPS: 200A | [ ] SURFACE MOUNTED | [X] FLUSH MOUNTED | kAIC RATING: 22,000

CKT	BRKR		WIRE			CIRCUIT	LOAD - KVA				CKT	BRKR		WIRE			CIRCUIT	LOAD - KVA			
NO.	P	AMPS	NO	SZ	*	DESCRIPTION	PHA	PHB	PHC	3 PH	NO.	P	AMPS	NO	SZ	*	DESCRIPTION	PHA	PHB	PHC	3 PH
1	1	20	2	12		LAB 209F	0.4				2	1	20	2	12		LAB 209F	0.2			
3	1	20	2	12		LAB 209F		0.4			4	1	20	2	12		LAB 209F		0.4		
5	1	20	2	12		LAB 209F			0.4		6	1	20	2	12		LAB 209F			0.4	
7	1	20	2	12		LAB 209F	0.4				8	1	20	2	12		LAB 209F	0.4			
9	1	20	2	12		LAB 209F		0.4			10	1	20	2	12		LAB 209F		0.4		
11	1	20	2	12		LAB 209F			0.4		12	1	20	2	12		LAB 209F FLOOR BOX			0.4	
13	1	20	2	12		LAB 209F	0.4				14	1	20	2	12		LAB 209F FLOOR BOX	0.4			
15	1	20	2	12		LAB 209F		0.4			16	1	20	2	12		LAB 209F FLOOR BOX		0.4		
17	1	20	2	12		LAB 209F			0.2		18	1	20	2	12		LAB 209F FLOOR BOX			0.4	
19	1	20	2	12		LAB 209F	0.4				20	1	20	2	12		LAB 209F FLOOR BOX	0.4			
21	1	20	2	12		LAB 209F		0.2			22	1	20	2	12		LAB 209F FLOOR BOX		0.4		
23	1	20	2	12		LAB 209F			0.4		24	1	20	2	12		LAB 209F FLOOR BOX			0.4	
25	1	20	2	12		LAB 209F	0.4				26	1	20	2	12		LAB 209F FLOOR BOX	0.4			
27	1	20	2	12		LAB 209F		0.4			28	1	20	2	12		LAB 209F FLOOR BOX		0.4		
29	1	20	2	12		LAB 209F			0.4		30	1	20	2	12		LAB 209F FLOOR BOX			0.4	
31	1	20	2	12		RM 209 G-H	0.4				32	1	20	2	12		LAB 209F FLOOR BOX	0.4			
33	1	20				SPARE					34	1	20	2	12		LAB 209F FLOOR BOX		0.4		
35	1	20				SPARE					36	1	20				SPARE				
37	1	20				SPARE					38	1	20				SPARE				
39	1	20				SPARE					40	1	20				SPARE				
41	1	20				SPARE					42	1	20				SPARE				

TOTAL LEFT SIDE 2.2 1.6 1.6 0.0 — TOTAL RIGHT SIDE 2.0 2.2 1.8 0.0
TOTAL RIGHT SIDE 2.0 2.2 1.8 0.0
TOTAL 4.1 3.8 3.4 0.0 — TOTAL CONNECTED LOAD 11.3

* NOTES

PANEL L-BB2

VOLTAGE: 208Y/120 | PHASE: 3 | WIRE: 4 | BUS AMPS: 200A | MAIN BREAKER AMPS: 200A | [ ] SURFACE MOUNTED | [X] FLUSH MOUNTED | kAIC RATING: 22,000

CKT	BRKR		WIRE			CIRCUIT	LOAD - KVA				CKT	BRKR		WIRE			CIRCUIT	LOAD - KVA			
NO.	P	AMPS	NO	SZ	*	DESCRIPTION	PHA	PHB	PHC	3 PH	NO.	P	AMPS	NO	SZ	*	DESCRIPTION	PHA	PHB	PHC	3 PH
1	1	20	2	12		LAB 209F	0.2				2	1	20	2	12		CLASSRM 209	0.7			
3	1	20	2	12		LAB 209F		0.2			4	1	20	2	12		CLASSRM 209		0.5		
5	2	30	2	10		LAB 209F			1.0		6	1	20	2	12		CLASSRM 209			0.4	
							1.0				8	1	20	2	12		CLASSRM 209	0.4			
9	1	20	2	12		OFFC 209A		0.7			10	1	20	2	12		CLASSRM 209		0.4		
11	1	20	2	12		WAITING 209B			0.5		12	1	20	2	12		CLASSRM 209			0.4	
13	1	20	2	12		TOILET 209 C-D	0.4				14	1	20				SPARE				
15	1	20				SPARE					16	1	20				SPARE				
17	1	20				SPARE					18	1	20				SPARE				
19	1	20				SPARE					20	1	20				SPARE				
21	1	20				SPARE					22	1	20				SPARE				
23	1	20				SPARE					24	1	20				SPARE				
25	1	20				SPARE					26	1	20				SPARE				
27	1	20				SPARE					28	1	20				SPARE				
29	1	20				SPARE					30	1	20				SPARE				
31	1	20				SPARE					32	1	20				SPARE				
33	1	20				SPARE					34	1	20				SPARE				
35	1	20				SPARE					36	1	20				SPARE				
37	1	20				SPARE					38	1	20				SPARE				
39	1	20				SPARE					40	1	20				SPARE				
41	1	20				SPARE					42	1	20				SPARE				

TOTAL LEFT SIDE 1.5 0.9 1.5 0.0 — TOTAL RIGHT SIDE 1.1 0.9 0.7 0.0
TOTAL RIGHT SIDE 1.1 0.9 0.7 0.0
TOTAL 2.6 1.8 2.3 0.0 — TOTAL CONNECTED LOAD 6.7

* NOTES

Architecture
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DANIEL W. GIBSON
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REVISIONS

No.	DATE	DESCRIPTION
X	X	X

DRAWN BY:	DWG
REV'D BY:	DWG
DATE:	06/17/2022
SCALE:	AS SHOWN

PANEL SCHEDULES

2100 LUBNA DR
CHRISTIANSBURG VA 24073
P. 540.998.6069

1/8"=1'-0" 8' 0 8 16

E-504

SHEET X of X

PANEL L-COS1

VOLTAGE: 208Y/120 PHASE: 3 WIRE: 4 BUS AMPS: 200A MAIN BREAKER AMPS: 200A

☐ SURFACE MOUNTED
X FLUSH MOUNTED

kAIC RATING: 22,000

CKT	BRKR		WIRE			CIRCUIT	LOAD - KVA				CKT	BRKR		WIRE			CIRCUIT	LOAD - KVA			
NO.	P	AMPS	NO	SZ	*	DESCRIPTION	PHA	PHB	PHC	3 PH	NO.	P	AMPS	NO	SZ	*	DESCRIPTION	PHA	PHB	PHC	3 PH
1	1	20	2	12		WRK STATION	0.4				2	1	20	2	12		FLOOR BOX	0.4			
3	1	20	2	12		WALL RCPT		0.2			4	1	20	2	12		FLOOR BOX		0.4		
5	1	20	2	12		WRK STATION			0.4		6	1	20	2	12		FLOOR BOX			0.4	
7	1	20	2	12		WRK STATION	0.4				8	1	20	2	12		FLOOR BOX	0.4			
9	1	20	2	12		WRK STATION		0.4			10	1	20	2	12		FLOOR BOX		0.4		
11	1	20	2	12		WALL RCPT			0.2		12	1	20	2	12		FLOOR BOX			0.4	
13	1	20	2	12		WRK STATION	0.4				14	1	20	2	12		FLOOR BOX	0.4			
15	1	20	2	12		WRK STATION		0.4			16	1	20	2	12		FLOOR BOX		0.4		
17	1	20	2	12		WRK STATION			0.4		18	1	20	2	12		FLOOR BOX			0.4	
19	1	20	2	12		WALL RCPT	0.2				20	1	20	2	12		FLOOR BOX	0.4			
21	1	20	2	12		WRK STATION		0.4			22	1	20	2	12		WRK STATION		0.4		
23	1	20	2	12		WRK STATION			0.4		24	1	20	2	12		WRK STATION			0.4	
25	1	20	2	12		WRK STATION	0.4				26	1	20	2	12		WRK STATION	0.4			
27	1	20	2	12		WRK STATION		0.4			28	1	20	2	12		WALL RCPT		0.2		
29	1	20	2	12		CHAIR					30	1	20	2	12		WRK STATION			0.4	
31	1	20	2	12		CHAIR					32	1	20	2	12		WRK STATION	0.4			
33	1	20	2	12		CHAIR					34	1	20	2	12		WRK STATION		0.4		
35	1	20	2	12		CHAIR					36	1	20	2	12		WALL RCPT			0.2	
37	1	20	2	12		FLOOR BOX	0.4				38	1	20				SPARE				
39	1	20	2	12		FLOOR BOX		0.4			40	1	20				SPARE				
41	1	20									42	1	20				SPARE				
						TOTAL LEFT SIDE	2.0	2.0	1.3	0.0							TOTAL RIGHT SIDE	2.2	2.0	2.0	0.0
						TOTAL RIGHT SIDE	2.2	2.0	2.0	0.0											
						TOTAL	4.1	4.0	3.2	0.0							TOTAL CONNECTED LOAD				11.3

* NOTES

PANEL L-COS2

VOLTAGE: 208Y/120 PHASE: 3 WIRE: 4 BUS AMPS: 200A MAIN BREAKER AMPS: 200A

☐ SURFACE MOUNTED
X FLUSH MOUNTED

kAIC RATING: 22,000

CKT	BRKR		WIRE			CIRCUIT	LOAD - KVA				CKT	BRKR		WIRE			CIRCUIT	LOAD - KVA			
NO.	P	AMPS	NO	SZ	*	DESCRIPTION	PHA	PHB	PHC	3 PH	NO.	P	AMPS	NO	SZ	*	DESCRIPTION	PHA	PHB	PHC	3 PH
1	1	20	2	12		STORAGE 206G	0.7				2	1	20	2	12		OFFC 207A	0.5			
3	1	20	2	12		STORAGE 206H		0.7			4	1	20	2	12		EQP/SUPPL 207B		0.7		
5	1	20	2	12		STOR/PREP 2061			0.2		6	1	20	2	12		CLASSRM 207			0.7	
7	1	20	2	12		STOR/PREP 2061	0.4				8	1	20	2	12		CLASSRM 207	0.7			
9	1	20	2	12		CLASSRM 206		0.7			10	1	20	2	12		CLASSRM 207		0.9		
11	1	20	2	12		CLASSRM 206			0.7		12	1	20	2	12		CLASSRM 207			0.9	
13	1	20	2	12		CLASSRM 206	0.9				14	1	20	2	12		CLASSRM 207	0.7			
15	1	20	2	12		CLASSRM 206		0.9			16	1	20	2	12		FLOOR BOX		0.4		
17	1	20	2	12		OFFC 206A			0.7		18	1	20	2	12		FLOOR BOX			0.4	
19	1	20	2	12		HALL RCPT	0.2				20	1	20	2	12		FLOOR BOX	0.4			
21	2	20	2	12		HALL RCPT					22	1	20	2	12		FLOOR BOX		0.4		
23											24	1	20	2	12		CORR 200O			,72	
25	1	20	2	12		206B-C-D	0.5				26	1	30	2	10		WTR CLR	0.5			
27	1	20	2	12		RECEP/WTNG 206E		0.5			28	1	20	2	12		CORR 200S		0.4		
29	1	20				SPARE			0.4		30	1	20	2	12		CORR 200U			0.4	
31	1	20				SPARE					32	1	20				SPARE				
33	1	20				SPARE					34	1	20				SPARE				
35	1	20				SPARE					36	1	20				SPARE				
37	1	20				SPARE					38	1	20				SPARE				
39	1	20				SPARE					40	1	20				SPARE				
41	1	20				SPARE					42	1	20				SPARE				
						TOTAL LEFT SIDE	2.7	2.9	2.0	0.0							TOTAL RIGHT SIDE	2.8	2.7	2.3	0.0
						TOTAL RIGHT SIDE	2.8	2.7	2.3	0.0											
						TOTAL	5.5	5.6	4.3	0.0							TOTAL CONNECTED LOAD				15.4

* NOTES

PANEL L-BIT1

VOLTAGE: 208Y/120 PHASE: 3 WIRE: 4 BUS AMPS: 200A MAIN BREAKER AMPS: 200A

☐ SURFACE MOUNTED
X FLUSH MOUNTED

kAIC RATING: 22,000

CKT	BRKR		WIRE			CIRCUIT	LOAD - KVA				CKT	BRKR		WIRE			CIRCUIT	LOAD - KVA			
NO.	P	AMPS	NO	SZ	*	DESCRIPTION	PHA	PHB	PHC	3 PH	NO.	P	AMPS	NO	SZ	*	DESCRIPTION	PHA	PHB	PHC	3 PH
1	1	20	2	12		OFFC 201A	0.7				2	1	20	2	12		RM 201 FLOOR BOX	0.4			
3	1	20	2	12		STOR 201B		0.9			4	1	20	2	12		RM 201 FLOOR BOX		0.4		
5	1	20	2	12		CLASSRM 201			0.5		6	1	20	2	12		RM 201 FLOOR BOX			0.4	
7	1	20	2	12		CLASSRM 201	0.7				8	1	20	2	12		RM 201 FLOOR BOX	0.4			
9	1	20	2	12		CLASSRM 201		0.9			10	1	20	2	12		RM 201 FLOOR BOX		0.4		
11	1	20				SPARE					12	1	20	2	12		RM 201 FLOOR BOX			0.4	
13	1	20				SPARE					14	1	20	2	12		RM 201 FLOOR BOX	0.4			
15	1	20				SPARE					16	1	20	2	12		RM 201 FLOOR BOX		0.4		
17	1	20				SPARE					18	1	20	2	12		RM 201 FLOOR BOX			0.4	
19	1	20				SPARE					20	1	20				SPARE				
21	1	20				SPARE					22	1	20				SPARE				
23	1	20				SPARE					24	1	20				SPARE				
25	1	20				SPARE					26	1	20				SPARE				
27	1	20				SPARE					28	1	20				SPARE				
29	1	20				SPARE					30	1	20				SPARE				
31	1	20				SPARE					32	1	20				SPARE				
33	1	20				SPARE					34	1	20				SPARE				
35	1	20				SPARE					36	1	20				SPARE				
37	1	20				SPARE					38	1	20				SPARE				
39	1	20				SPARE					40	1	20				SPARE				
41	1	20				SPARE					42	1	20				SPARE				
						TOTAL LEFT SIDE	1.4	1.8	0.5	0.0							TOTAL RIGHT SIDE	1.1	1.1	1.1	0.0
						TOTAL RIGHT SIDE	1.1	1.1	1.1	0.0											
						TOTAL	2.5	2.9	1.6	0.0							TOTAL CONNECTED LOAD				7.0

* NOTES

BASE PANEL L-BIT2

VOLTAGE: 208Y/120 PHASE: 3 WIRE: 4 BUS AMPS: 200A MAIN BREAKER AMPS: 200A

☐ SURFACE MOUNTED
X FLUSH MOUNTED

kAIC RATING: 22,000

CKT	BRKR		WIRE			CIRCUIT	LOAD - KVA				CKT	BRKR		WIRE			CIRCUIT	LOAD - KVA			
NO.	P	AMPS	NO	SZ	*	DESCRIPTION	PHA	PHB	PHC	3 PH	NO.	P	AMPS	NO	SZ	*	DESCRIPTION	PHA	PHB	PHC	3 PH
1	1	20	2	12		OFFC 202A	1.1				2	1	20	2	12		RM 202 FLOOR BOX	0.4			
3	1	20	2	12		STOR 202B		1.1			4	1	20	2	12		RM 202 FLOOR BOX		0.4		
5	1	20	2	12		CLASSRM 202			0.5		6	1	20	2	12		RM 202 FLOOR BOX			0.4	
7	1	20	2	12		CLASSRM 202	1.1				8	1	20	2	12		RM 202 FLOOR BOX	0.4			
9	1	20	2	12		CLASSRM 202		0.9			10	1	20	2	12		RM 202 FLOOR BOX		0.4		
11	1	20	2	12		CLASSRM 202			0.2		12	1	20	2	12		RM 202 FLOOR BOX			0.4	
13	1	20	2	12		CORR 200Q	0.7				14	1	20	2	12		RM 202 FLOOR BOX	0.4			
15	1	20				SPARE					16	1	20	2	12		RM 202 FLOOR BOX		0.4		
17	1	20				SPARE					18	1	20				SPARE				
19	1	20				SPARE					20	1	20				SPARE				
21	1	20				SPARE					22	1	20				SPARE				
23	1	20				SPARE					24	1	20				SPARE				
25	1	20				SPARE					26	1	20				SPARE				
27	1	20				SPARE					28	1	20				SPARE				
29	1	20				SPARE					30	1	20				SPARE				
31	1	20				SPARE					32	1	20				SPARE				
33	1	20				SPARE					34	1	20				SPARE				
35	1	20				SPARE					36	1	20				SPARE				
37	1	20				SPARE					38	1	20				SPARE				
39	1	20				SPARE					40	1	20				SPARE				
41	1	20				SPARE					42	1	20				SPARE				
						TOTAL LEFT SIDE	2.9	2.0	0.7	0.0							TOTAL RIGHT SIDE	1.1	1.1	0.7	0.0
						TOTAL RIGHT SIDE	1.1	1.1	0.7	0.0											
						TOTAL	4.0	3.1	1.4	0.0							TOTAL CONNECTED LOAD				8.5

* NOTES

PANEL L-BIT3

VOLTAGE: 208Y/120 PHASE: 3 WIRE: 4 BUS AMPS: 200A MAIN BREAKER AMPS: 200A

☐ SURFACE MOUNTED
X FLUSH MOUNTED

kAIC RATING: 22,000

CKT	BRKR		WIRE			CIRCUIT	LOAD - KVA				CKT	BRKR		WIRE			CIRCUIT	LOAD - KVA			
NO.	P	AMPS	NO	SZ	*	DESCRIPTION	PHA	PHB	PHC	3 PH	NO.	P	AMPS	NO	SZ	*	DESCRIPTION	PHA	PHB	PHC	3 PH
1	1	20	2	12		CLASSRM 203	0.4				2	1	20	2	12		FLOOR BOX	0.4			
3	1	20	2	12		CLASSRM 203		0.9			4	1	20	2	12		FLOOR BOX		0.4		
5	1	20	2	12		CORR 200N			0.7		6	1	20	2	12		FLOOR BOX			0.4	
7	1	20	2	12		CLASSRM 203	0.9				8	1	20	2	12		FLOOR BOX	0.4			
9	1	20	2	12		STOR 203B		1.1			10	1	20	2	12		FLOOR BOX		0.4		
11	1	20	2	12		OFFC 203A			1.1		12	1	20	2	12		FLOOR BOX			0.4	
13	1	20				SPARE					14	1	20				SPARE				
15	1	20				SPARE					16	1	20				SPARE				
17	1	20				SPARE					18	1	20				SPARE				
19	1	20				SPARE					20	1	20				SPARE				
21	1	20				SPARE					22	1	20				SPARE				
23	1	20				SPARE					24	1	20				SPARE				
25	1	20				SPARE					26	1	20				SPARE				
27	1	20				SPARE					28	1	20				SPARE				
29	1	20				SPARE					30	1	20				SPARE				
31	1	20				SPARE					32	1	20				SPARE				
33	1	20				SPARE					34	1	20				SPARE				
35	1	20				SPARE					36	1	20				SPARE				
37	1	20				SPARE					38	1	20				SPARE				
39	1	20				SPARE					40	1	20				SPARE				
41	1	20				SPARE					42	1	20				SPARE				
						TOTAL LEFT SIDE	1.3	2.0	1.8	0.0							TOTAL RIGHT SIDE	0.7	0.7	0.7	0.0
						TOTAL RIGHT SIDE	0.7	0.7	0.7	0.0											
						TOTAL	2.0	2.7	2.5	0.0							TOTAL CONNECTED LOAD				7.2

* NOTES

2100 LUBNA DR
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1/8"=1'-0" 8' 0 8 16

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REVISIONS

No.	DATE	DESCRIPTION
X	X	X

DRAWN BY:	DWG
REV'D BY:	DWG
DATE:	06/17/2022
SCALE:	AS SHOWN

PANEL SCHEDULES

E-505

SHEET X of X

PANEL LDP3

VOLTAGE: 480Y/277 PHASE: 3 WIRE: 4 BUS AMPS: 800A MAIN BREAKER AMPS: 800A ☐ SURFACE MOUNTED X FLUSH MOUNTED kAIC RATING: 65,000

CKT	BRKR		WIRE		*	CIRCUIT	LOAD - KVA				CKT	BRKR		WIRE		*	CIRCUIT	LOAD - KVA			
NO.	P	AMPS	NO	SZ	*	DESCRIPTION	PHA	PHB	PHC	3 PH	NO.	P	AMPS	NO	SZ	*	DESCRIPTION	PHA	PHB	PHC	3 PH
3	3	400				EXIST PNL 4DP					4	3	250				EXISTING SERVER ROOM				
9	3	250				PANEL LDP VIA XFMR					10	3	250				SPARE				
15	3					SPACE					16	3	200				SPARE				
21	3					SPACE					22	3					SPACE				
27	3					SPACE					28	3					SPACE				
33	3					SPACE					34	3					SPACE				
39	3					SPACE					40	3					SPACE				

	PHA	PHB	PHC	3 PH
TOTAL LEFT SIDE	0.0	0.0	0.0	0.0
TOTAL RIGHT SIDE	0.0	0.0	0.0	0.0
TOTAL	0.0	0.0	0.0	0.0

TOTAL RIGHT SIDE 0.0 0.0 0.0 0.0

TOTAL CONNECTED LOAD

* NOTES

PANEL L-MTL1

VOLTAGE: 208Y/120 PHASE: 3 WIRE: 4 BUS AMPS: 200A MAIN BREAKER AMPS: 200A ☐ SURFACE MOUNTED X FLUSH MOUNTED kAIC RATING: 22,000

CKT	BRKR		WIRE		*	CIRCUIT	LOAD - KVA				CKT	BRKR		WIRE		*	CIRCUIT	LOAD - KVA			
NO.	P	AMPS	NO	SZ	*	DESCRIPTION	PHA	PHB	PHC	3 PH	NO.	P	AMPS	NO	SZ	*	DESCRIPTION	PHA	PHB	PHC	3 PH
1	1	20	2	12		STOR 108D	0.7				2	1	20				STOR 108J	0.7			
3	1	20	2	12		STOR 108D		0.7			4	1	20				STOR 108J		0.4		
5	1	20	2	12		STOR 108D			0.4		6	1	20				LAB 108E			0.4	
7	1	20	2	12		LOCKER RM 108C	0.2				8	1	20				LAB 108E	0.4			
9	1	20	2	12		STOR 108B		0.4			10	1	20				LAB 108E		0.4		
11	1	20	2	12		STOR 108B			0.7		12	1	20				LAB 108E			0.4	
13	1	20	2	12		STOR 108B	0.4				14	1	20				LAB 108E	0.4			
15	1	20	2	12		OFFC 108A		0.7			16	1	20				LAB 108E		0.4		
17	1	20	2	12		STOR 108I			0.7		18	1	20				LAB 108E			0.4	
19	1	20	2	12		STOR 108I	0.7				20	1	20				LAB 108E	0.4			
21	1	20	2	12		TOILET 108F-G		0.4			22	1	20				LAB 108E		0.4		
23	1	20	2	12		CLASSRM 108H			0.5		24	1	20								
25	1	20	2	12		CLASSRM 108H	0.7				26	1	20								
27	1	20	2	12		CLASSRM 108H		0.7			28	1	20								
29	1	20	2	12		CLASSRM 108H			0.7		30	1	20								
31	1	20	2	12		CLASSRM 108H	0.7				32	1	20								
33	1	20	2	12		CLASSRM 108H		0.7			34	1	20								
35	1	20				SPARE					36	1	20				SPARE				
37	1	20				SPARE					38	1	20				SPARE				
39	1	20				SPARE					40	1	20				SPARE				
41	1	20				SPARE					42	1	20				SPARE				

	PHA	PHB	PHC	3 PH
TOTAL LEFT SIDE	3.4	3.6	3.1	0.0
TOTAL RIGHT SIDE	1.8	1.4	1.1	0.0
TOTAL	5.2	5.0	4.1	0.0

TOTAL RIGHT SIDE 1.8 1.4 1.1 0.0

TOTAL CONNECTED LOAD 14.4

* NOTES

PANEL L-MTL2

VOLTAGE: 208Y/120 PHASE: 3 WIRE: 4 BUS AMPS: 200A MAIN BREAKER AMPS: 200A ☐ SURFACE MOUNTED X FLUSH MOUNTED kAIC RATING: 22,000

CKT	BRKR		WIRE		*	CIRCUIT	LOAD - KVA				CKT	BRKR		WIRE		*	CIRCUIT	LOAD - KVA			
NO.	P	AMPS	NO	SZ	*	DESCRIPTION	PHA	PHB	PHC	3 PH	NO.	P	AMPS	NO	SZ	*	DESCRIPTION	PHA	PHB	PHC	3 PH
1	1	20									2	1	20								
3	1	20									4	1	20								
5	1	20									6	1	20								
7	1	20									8	1	20								
9	1	20									10	1	20								
11	1	20									12	1	20								
13	1	20									14	1	20								
15	1	20									16	1	20								
17	1	20									18	1	20								
19	1	20									20	1	20								
21	1	20									22	1	20								
23	1	20									24	1	20								
25	1	20									26	1	20								
27	1	20									28	1	20								
29	1	20									30	1	20								
31	1	20									32	1	20								
33	1	20									34	1	20								
35	1	20									36	1	20				SPARE				
37	1	20									38	1	20				SPARE				
39	1	20									40	1	20				SPARE				
41	1	20									42	1	20				SPARE				

	PHA	PHB	PHC	3 PH
TOTAL LEFT SIDE	0.0	0.0	0.0	0.0
TOTAL RIGHT SIDE	0.0	0.0	0.0	0.0
TOTAL	0.0	0.0	0.0	0.0

TOTAL RIGHT SIDE 0.0 0.0 0.0 0.0

TOTAL CONNECTED LOAD 0.0

* NOTES

PANEL L-ATP1

VOLTAGE: 208Y/120 PHASE: 3 WIRE: 4 BUS AMPS: 200A MAIN BREAKER AMPS: 200A ☐ SURFACE MOUNTED X FLUSH MOUNTED kAIC RATING: 22,000

CKT	BRKR		WIRE		*	CIRCUIT	LOAD - KVA				CKT	BRKR		WIRE		*	CIRCUIT	LOAD - KVA			
NO.	P	AMPS	NO	SZ	*	DESCRIPTION	PHA	PHB	PHC	3 PH	NO.	P	AMPS	NO	SZ	*	DESCRIPTION	PHA	PHB	PHC	3 PH
1	1	20	2	12		LAB 110G	0.5				2	1	20	2	12		LAB 110G	0.2			
3	1	20	2	12		LAB 110G		0.5			4	1	20	2	12		LAB 110G		0.2		
5	1	20	2	12		LAB 110G			0.5		6	1	20	2	12		LAB 110G			0.2	
7	1	20	2	12		LAB 110G	0.5				8	1	20	2	12		LAB 110G	0.2			
9	1	20	2	12		LAB 110G		0.5			10	1	20	2	12		LAB 110G		0.2		
11	1	20	2	12		LAB 110G			0.5		12	1	20	2	12		LAB 110G J-BOX			0.2	
13	1	20	2	12		LAB 110G	0.7				14	1	20	2	12		LAB 110G J-BOX	0.2			
15	1	20	2	12		LAB 110G		0.4			16	1	20	2	12		LAB 110G J-BOX		0.2		
17	1	20	2	12		LAB 110G			0.4		18	1	20	2	12		LAB 110G J-BOX			0.2	
19	1	20	2	12		LAB 110G	0.4				20	1	20	2	12		LAB 110G J-BOX	0.2			
21	1	20	2	12		LAB 110G					22	1	20				SPARE				
23	1	20	2	12		LAB 110G					24	1	20				SPARE				
25	1	20				SPARE					26	1	20				SPARE				
27	1	20				SPARE					28	1	20				SPARE				
29	1	20				SPARE					30	1	20				SPARE				
31	1	20				SPARE					32	1	20				SPARE				
33	1	20				SPARE					34	1	20				SPARE				
35	1	20				SPARE					36	1	20				SPARE				
37	1	20				SPARE					38	1	20				SPARE				
39	1	20				SPARE					40	1	20				SPARE				
41	1	20				SPARE					42	1	20				SPARE				

	PHA	PHB	PHC	3 PH
TOTAL LEFT SIDE	2.2	1.4	1.4	0.0
TOTAL RIGHT SIDE	0.7	0.5	0.5	0.0
TOTAL	2.9	2.0	2.0	0.0

TOTAL RIGHT SIDE 0.7 0.5 0.5 0.0

TOTAL CONNECTED LOAD 6.9

* NOTES

PANEL L-ATP2

VOLTAGE: 208Y/120 PHASE: 3 WIRE: 4 BUS AMPS: 200A MAIN BREAKER AMPS: 200A ☐ SURFACE MOUNTED X FLUSH MOUNTED kAIC RATING: 22,000

CKT	BRKR		WIRE		*	CIRCUIT	LOAD - KVA				CKT	BRKR		WIRE		*	CIRCUIT	LOAD - KVA			
NO.	P	AMPS	NO	SZ	*	DESCRIPTION	PHA	PHB	PHC	3 PH	NO.	P	AMPS	NO	SZ	*	DESCRIPTION	PHA	PHB	PHC	3 PH
1	1	20	2	12		STOR 110F	0.4				2	1	20	2	12		CLASSRM 110				
3	1	20	2	12		STOR 110F		0.7			4	1	20	2	12		CLASSRM 110				
5	1	20	2	12		STOR 110E			0.7		6	1	20	2	12		CLASSRM 110				
7	1	20	2	12		STOR 110E	0.4				8	1	20	2	12		CLASSRM 110				
9	1	20	2	12		OFFC 110A		0.7			10	1	20	2	12		CLASSRM 110				
11	1	20	2	12		TLT 110B/110D			0.4		12	1	20				SPARE				
13	1	20	2	12		TLT 110C/HALL	0.4				14	1	20				SPARE				
15	1	20	2	12		WTR CLR		0.4			16	1	20				SPARE				
17	1	20				SPARE					18	1	20				SPARE				
19	1	20				SPARE					20	1	20				SPARE				
21	1	20				SPARE					22	1	20				SPARE				
23	1	20				SPARE					24	1	20				SPARE				
25	1	20				SPARE					26	1	20				SPARE				
27	1	20				SPARE					28	1	20				SPARE				
29	1	20				SPARE					30	1	20				SPARE				
31	1	20				SPARE					32	1	20				SPARE				
33	1	20				SPARE					34	1	20				SPARE				
35	1	20				SPARE					36	1	20				SPARE				
37	1	20				SPARE					38	1	20				SPARE				
39	1	20				SPARE					40	1	20				SPARE				
41	1	20				SPARE					42	1	20				SPARE				

	PHA	PHB	PHC	3 PH
TOTAL LEFT SIDE	1.1	1.8	1.1	0.0
TOTAL RIGHT SIDE	0.0	0.0	0.0	0.0
TOTAL	1.1	1.8	1.1	0.0

TOTAL RIGHT SIDE 0.0 0.0 0.0 0.0

TOTAL CONNECTED LOAD 4.0

* NOTES

PANEL L-HVAC1

VOLTAGE: 208Y/120 PHASE: 3 WIRE: 4 BUS AMPS: 200A MAIN BREAKER AMPS: 200A ☐ SURFACE MOUNTED X FLUSH MOUNTED kAIC RATING: 22,000

CKT	BRKR		WIRE		*	CIRCUIT	LOAD - KVA				CKT	BRKR		WIRE		*	CIRCUIT	LOAD - KVA			
NO.	P	AMPS	NO	SZ	*	DESCRIPTION	PHA	PHB	PHC	3 PH	NO.	P	AMPS	NO	SZ	*	DESCRIPTION	PHA	PHB	PHC	3 PH
1	1	20	2	12		CLASSRM 210	0.4				2	1	20	2	12		LAB 210B	0.5			
3	1	20	2	12		CLASSRM 210		0.5			4	1	20	2	12		LAB 210B		0.4		
5	1	20	2	12		CLASSRM 210			0.9		6	1	20	2	12		LAB 210B			0.4	
7	1	20	2	12		CLASSRM 210	0.9				8	1	20	2	12		TOILET 210 C-D	0.4			
9	1	20	2	12		OFFC 210A		0.7			10	1	20	2	12		CORR 200Y WTR CLR		0.5		
11	1	20	2	12		LAB 210B			0.5		12	1	20	2	12		PNL RCPT			0.2	
13	1	20	2	12		LAB 210B	0.4				14	1	20				SPARE				
15	1	20	2	12		LAB 210B		0.4			16	1	20				SPARE				
17	1	20	2	12		LAB 210B			0.4		18	1	20				SPARE				
19	1	20	2	12		LAB 210B	0.4				20	1	20				SPARE				
21	1	20	2	12		LAB 210B		0.4			22	1	20				SPARE				
23	1	20	2	12		LAB 210B			0.4		24	1	20				SPARE				
25	1	20				SPARE					26	1	20				SPARE				
27	1	20				SPARE					28	1	20				SPARE				
29	1	20				SPARE					30	1	20				SPARE				
31	1	20				SPARE					32	1	20				SPARE				
33	1	20				SPARE					34	1	20				SPARE				
35	1	20				SPARE					36	1	20				SPARE				
37	1	20				SPARE					38	1	20				SPARE				
39	1	20				SPARE					40	1	20				SPARE				
41	1	20				SPARE					42	1	20				SPARE				

	PHA	PHB	PHC	3 PH
TOTAL LEFT SIDE	2.0	2.0	2.2	0.0
TOTAL RIGHT SIDE	0.9	0.9	0.5	0.0
TOTAL	2.9	2.9	2.7	0.0

TOTAL RIGHT SIDE 0.9 0.9 0.5 0.0

TOTAL CONNECTED LOAD 8.5

* NOTES

PANEL L-HVAC2

VOLTAGE: 208Y/120 PHASE: 3 WIRE: 4 BUS AMPS: 200A MAIN BREAKER AMPS: 200A ☐ SURFACE MOUNTED X FLUSH MOUNTED kAIC RATING: 22,000

CKT	BRKR		WIRE		*	CIRCUIT	LOAD - KVA				CKT	BRKR		WIRE		*	CIRCUIT	LOAD - KVA			
NO.	P	AMPS	NO	SZ	*	DESCRIPTION	PHA	PHB	PHC	3 PH	NO.	P	AMPS	NO	SZ	*	DESCRIPTION	PHA	PHB	PHC	3 PH
1	1	20				SPARE					2	1	20				SPARE				
3	1	20				SPARE					4	1	20				SPARE				
5	1	20				SPARE					6	1	20				SPARE				
7	1	20				SPARE					8	1	20				SPARE				
9	1	20				SPARE					10	1	20				SPARE				
11	1	20				SPARE					12	1	20				SPARE				
13	1	20				SPARE					14	1	20				SPARE				
15	1	20				SPARE					16	1	20				SPARE				
17	1	20				SPARE					18	1	20				SPARE				
19	1	20				SPARE					20	1	20				SPARE				
21	1	20				SPARE					22	1	20				SPARE				
23	1	20				SPARE					24	1	20				SPARE				
25	1	20				SPARE					26	1	20				SPARE				
27	1	20				SPARE					28	1	20				SPARE				
29	1	20				SPARE					30	1	20				SPARE				
31	1	20				SPARE					32	1	20				SPARE				
33	1	20				SPARE					34	1	20				SPARE				
35	1	20				SPARE					36	1	20				SPARE				
37	1	20				SPARE					38	1	20				SPARE				
39	1	20				SPARE					40	1	20				SPARE				
41	1	20				SPARE					42	1	20				SPARE				

	PHA	PHB	PHC	3 PH
TOTAL LEFT SIDE	0.0	0.0	0.0	0.0
TOTAL RIGHT SIDE	0.0	0.0	0.0	0.0
TOTAL	0.0	0.0	0.0	0.0

TOTAL RIGHT SIDE 0.0 0.0 0.0 0.0

TOTAL CONNECTED LOAD 0.0

* NOTES

PANEL L-CTL1

VOLTAGE: 208Y/120 PHASE: 3 WIRE: 4 BUS AMPS: 200A MAIN BREAKER AMPS: 200A ☐ SURFACE MOUNTED X FLUSH MOUNTED kAIC RATING: 22,000

CKT	BRKR		WIRE		*	CIRCUIT	LOAD - KVA				CKT	BRKR		WIRE		*	CIRCUIT	LOAD - KVA			
NO.	P	AMPS	NO	SZ	*	DESCRIPTION	PHA	PHB	PHC	3 PH	NO.	P	AMPS	NO	SZ	*	DESCRIPTION	PHA	PHB	PHC	3 PH
1	1	20	2	12		LAB 108	0.4				2	1	20	2	12		LAB 108	0.4			
3	1	20	2	12		LAB 108		0.4			4	1	20	2	12		LAB 108		0.4		
5	1	20	2	12		LAB 108			0.4		6	1	20	2	12		LAB 108			0.4	
7	1	20	2	12		LAB 108	0.4				8	1	20	2	12		LAB 108	0.4			
9	1	20	2	12		LAB 108		0.4			10	1	20	2	12		LAB 108		0.4		
11	1	20	2	12		LAB 108			0.4		12	1	20	2	12		LAB 108			0.4	
13	1	20	2	12		LAB 108	0.4				14	1	20	2	12		LAB 108	0.4			
15	1	20	2	12		LAB 108		0.4			16	1	20				SPARE				
17	1	20				SPARE					18	1	20				SPARE				
19	1	20				SPARE					20	1	20				SPARE				
21	1	20				SPARE					22	1	20				SPARE				
23	1	20				SPARE					24	1	20				SPARE				
25	1	20				SPARE					26	1	20				SPARE				
27	1	20				SPARE					28	1	20				SPARE				
29	1	20				SPARE					30	1	20				SPARE				
31	1	20				SPARE					32	1	20				SPARE				
33	1	20				SPARE					34	1	20				SPARE				
35	1	20				SPARE					36	1	20				SPARE				
37	1	20				SPARE					38	1	20				SPARE				
39	1	20				SPARE					40	1	20				SPARE				
41	1	20				SPARE					42	1	20				SPARE				

	PHA	PHB	PHC	3 PH
TOTAL LEFT SIDE	1.1	1.1	0.7	0.0
TOTAL RIGHT SIDE	1.1	0.7	0.7	0.0
TOTAL	2.2	1.8	1.4	0.0

TOTAL RIGHT SIDE 1.1 0.7 0.7 0.0

TOTAL CONNECTED LOAD 5.4

* NOTES

PANEL L-CTL2

VOLTAGE: 208Y/120 PHASE: 3 WIRE: 4 BUS AMPS: 200A MAIN BREAKER AMPS: 200A ☐ SURFACE MOUNTED X FLUSH MOUNTED kAIC RATING: 22,000

CKT	BRKR		WIRE		*	CIRCUIT	LOAD - KVA				CKT	BRKR		WIRE		*	CIRCUIT	LOAD - KVA			
NO.	P	AMPS	NO	SZ	*	DESCRIPTION	PHA	PHB	PHC	3 PH	NO.	P	AMPS	NO	SZ	*	DESCRIPTION	PHA	PHB	PHC	3 PH
1	1	20									2	1	20								
3	1	20									4	1	20								
5	1	20									6	1	20								
7	1	20									8	1	20								
9	1	20									10	1	20								
11	1	20									12	1	20								
13	1	20									14	1	20								
15	1	20									16	1	20								
17	1	20									18	1	20								
19	1	20									20	1	20								
21	1	20									22	1	20								
23	1	20									24	1	20								
25	1	20									26	1	20								
27	1	20									28	1	20								
29	1	20									30	1	20								
31	1	20									32	1	20								
33	1	20									34	1	20								
35	1	20									36	1	20				SPARE				
37	1	20									38	1	20				SPARE				
39	1	20									40	1	20				SPARE				
41	1	20									42	1	20				SPARE				

	PHA	PHB	PHC	3 PH
TOTAL LEFT SIDE	0.0	0.0	0.0	0.0
TOTAL RIGHT SIDE	0.0	0.0	0.0	0.0
TOTAL	0.0	0.0	0.0	0.0

TOTAL RIGHT SIDE 0.0 0.0 0.0 0.0

TOTAL CONNECTED LOAD 0.0

* NOTES

2100 LUBNA DR
CHRISTIANSBURG VA 24073
P. 540.998.6069

1/8"=1'-0" 8' 0 8 16

C2 Architecture
ARCHITECTURE INTERIORS PLANNING

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6-17-22
PROFESSIONAL ENGINEER

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REVISIONS

No.	DATE	DESCRIPTION
X	X	X

DRAWN BY:	DWG
REV'D BY:	DWG
DATE:	06/17/2022
SCALE:	AS SHOWN

PANEL SCHEDULES

E-506

SHEET X of X

PANEL L-WLD1

VOLTAGE: 208Y/120 | PHASE: 3 | WIRE: 4 | BUS AMPS: 400A | MAIN BREAKER AMPS: 400A | [ ] SURFACE MOUNTED | [X] FLUSH MOUNTED | kAIC RATING: 22,000

CKT NO.	BRKR P	BRKR AMPS	WIRE NO	WIRE SZ	*	CIRCUIT DESCRIPTION	LOAD - KVA PHA	PHB	PHC	3 PH	CKT NO.	BRKR P	BRKR AMPS	WIRE NO	WIRE SZ	*	CIRCUIT DESCRIPTION	LOAD - KVA PHA	PHB	PHC	3 PH
1	1	20	2	12		CLASSRM 109	0.7				2	2	20				BOOTH 1				
3	1	20	2	12		CLASSRM 109		0.9			4										
5	1	20	2	12		CLASSRM 109			0.7		6	1	20				BOOTH 1				
7	1	20	2	12		CLASSRM 109	0.7				8	2	20				BOOTH 2				
9	1	20	2	12		CLASSRM 109		0.4			10										
11	1	20	2	12		TOILET 109B-C			0.4		12	1	20				BOOTH 2				
13	1	20	2	12		OFFC 109A	0.7				14	2	20				BOOTH 3				
15	1	20	2	12		LAB 109H J-BOX		0.2			16										
17	1	20	2	12		LAB 109H J-BOX			0.2		18	1	20				BOOTH 3				
19	1	20	2	12		LAB 109H J-BOX	0.2				20	2	20				BOOTH 4				
21	1	20	2	12		LAB 109H J-BOX		0.2			22										
23	1	20	2	12		LAB 109H J-BOX			0.2		24	1	20				BOOTH 4				
25	1	20	2	12		LAB 109H J-BOX	0.2				26	2	20				BOOTH 5				
27	1	20	2	12		LAB 109H J-BOX		0.2			28										
29	1	20	2	12		LAB 109H J-BOX			0.2		30	1	20				BOOTH 5				
31	1	20	2	12		STOR 109F	0.4				32	2	20				BOOTH 6				
33	1	20	2	12		STOR 109E		0.4			34										
35	1	20	2	12		LOCKERRM 109D			0.7		36	1	20				BOOTH 6				
37	1	20				SPARE					38	1	20				SPARE				
39	1	20				SPARE					40	1	20				SPARE				
41	1	20				SPARE					42	1	20				SPARE				
						TOTAL LEFT SIDE	2.9	2.2	2.3	0.0							TOTAL RIGHT SIDE	0.0	0.0	0.0	0.0
						TOTAL RIGHT SIDE	0.0	0.0	0.0	0.0											
						TOTAL	2.9	2.2	2.3	0.0							TOTAL CONNECTED LOAD				7.4

* NOTES

PANEL L-WLD2

VOLTAGE: 208Y/120 | PHASE: 3 | WIRE: 4 | BUS AMPS: 400A | MAIN BREAKER AMPS: 400A | [ ] SURFACE MOUNTED | [X] FLUSH MOUNTED | kAIC RATING: 22,000

CKT NO.	BRKR P	BRKR AMPS	WIRE NO	WIRE SZ	*	CIRCUIT DESCRIPTION	LOAD - KVA PHA	PHB	PHC	3 PH	CKT NO.	BRKR P	BRKR AMPS	WIRE NO	WIRE SZ	*	CIRCUIT DESCRIPTION	LOAD - KVA PHA	PHB	PHC	3 PH
1	2	20				BOOTH 7					2	2	20				BOOTH 13				
3											4										
5	1	20				BOOTH 7					6	1	20				BOOTH 13				
7	2	20				BOOTH 8					8	2	20				BOOTH 14				
9											10										
11	1	20				BOOTH 8					12	1	20				BOOTH 14				
13	2	20				BOOTH 9					14	1	20				SPARE				
15											16	1	20				SPARE				
17	1	20				BOOTH 9					18	1	20				SPARE				
19	2	20				BOOTH 10					20	1	20				SPARE				
21											22	1	20				SPARE				
23	1	20				BOOTH 10					24	1	20				SPARE				
25	2	20				BOOTH 11					26	1	20				SPARE				
27											28	1	20				SPARE				
29	1	20				BOOTH 11					30	1	20				SPARE				
31	2	20				BOOTH 12					32	1	20				SPARE				
33											34	1	20				SPARE				
35	1	20				BOOTH 12					36	1	20				SPARE				
37	1	20				SPARE					38	1	20				SPARE				
39	1	20				SPARE					40	1	20				SPARE				
41	1	20				SPARE					42	1	20				SPARE				
						TOTAL LEFT SIDE	0.0	0.0	0.0	0.0							TOTAL RIGHT SIDE	0.0	0.0	0.0	0.0
						TOTAL RIGHT SIDE	0.0	0.0	0.0	0.0											
						TOTAL	0.0	0.0	0.0	0.0							TOTAL CONNECTED LOAD				0.0

* NOTES

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1/8"=1'-0" 8' 0 8 16

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X	X	X

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DATE:	06/17/2022
SCALE:	AS SHOWN

PANEL SCHEDULES

E-507

SHEET X of X

NEW PANEL MDP2

VOLTAGE: 480Y/277 | PHASE: 3 | WIRE: 4 | BUS AMPS: 3000A | MAIN BREAKER AMPS: 3000A | [ ] SURFACE MOUNTED | [X] FLUSH MOUNTED | kAIC RATING: 65,000

CKT NO.	BRKR P	BRKR AMPS	WIRE NO	WIRE SZ	*	CIRCUIT DESCRIPTION	LOAD - KVA PHA	PHB	PHC	3 PH	CKT NO.	BRKR P	BRKR AMPS	WIRE NO	WIRE SZ	*	CIRCUIT DESCRIPTION	LOAD - KVA PHA	PHB	PHC	3 PH
3	3	400				PNL H-HVAC					4	3	250								
9	3	400				PNL H-WLD1					10	3	250				SPARE				
15	3	400				PNL H-WLD2					16	3	200				SPARE				
21	3	200				PNL H-CTL1					22	3					SPACE				
27	3					SPACE					28	3					SPACE				
33	3					SPACE					34	3					SPACE				
39	3					SPACE					40	3					SPACE				

	PHA	PHB	PHC	3 PH
TOTAL LEFT SIDE	0.0	0.0	0.0	0.0
TOTAL RIGHT SIDE	0.0	0.0	0.0	0.0
TOTAL	0.0	0.0	0.0	0.0

TOTAL RIGHT SIDE 0.0 0.0 0.0 0.0

TOTAL CONNECTED LOAD

* NOTES

PANEL H-HVAC

VOLTAGE: 208Y/120 | PHASE: 3 | WIRE: 4 | BUS AMPS: 400A | MAIN BREAKER AMPS: 400A | [ ] SURFACE MOUNTED | [X] FLUSH MOUNTED | kAIC RATING: 22,000

CKT NO.	BRKR P	BRKR AMPS	WIRE NO	WIRE SZ	*	CIRCUIT DESCRIPTION	LOAD - KVA PHA	PHB	PHC	3 PH	CKT NO.	BRKR P	BRKR AMPS	WIRE NO	WIRE SZ	*	CIRCUIT DESCRIPTION	LOAD - KVA PHA	PHB	PHC	3 PH
1	1	20									2	1	20								
3	1	20									4	1	20								
5	1	20									6	1	20								
7	1	20									8	1	20								
9	1	20									10	1	20								
11	1	20									12	1	20								
13	1	20									14	1	20								
15	1	20									16	1	20								
17	1	20									18	1	20								
19	1	20									20	1	20								
21	1	20									22	1	20								
23	1	20									24	1	20								
25	1	20									26	1	20								
27	1	20									28	1	20								
29	1	20									30	1	20								
31	1	20									32	1	20								
33	1	20									34	1	20								
35	1	20									36	1	20				SPARE				
37	1	20									38	1	20				SPARE				
39	1	20									40	1	20				SPARE				
41	1	20									42	1	20				SPARE				

	PHA	PHB	PHC	3 PH
TOTAL LEFT SIDE	0.0	0.0	0.0	0.0
TOTAL RIGHT SIDE	0.0	0.0	0.0	0.0
TOTAL	0.0	0.0	0.0	0.0

TOTAL RIGHT SIDE 0.0 0.0 0.0 0.0

TOTAL CONNECTED LOAD 0.0

* NOTES

PANEL H-WLD1

VOLTAGE: 208Y/120 | PHASE: 3 | WIRE: 4 | BUS AMPS: 400A | MAIN BREAKER AMPS: 400A | [ ] SURFACE MOUNTED | [X] FLUSH MOUNTED | kAIC RATING: 22,000

CKT NO.	BRKR P	BRKR AMPS	WIRE NO	WIRE SZ	*	CIRCUIT DESCRIPTION	LOAD - KVA PHA	PHB	PHC	3 PH	CKT NO.	BRKR P	BRKR AMPS	WIRE NO	WIRE SZ	*	CIRCUIT DESCRIPTION	LOAD - KVA PHA	PHB	PHC	3 PH
1											2	1	20				SPARE				
3	3	20				BOOTH 1 WELDER					4	1	20				SPARE				
5											6	1	20				SPARE				
7											8	1	20				SPARE				
9	3	20				BOOTH 2 WELDER					10	1	20				SPARE				
11											12	1	20				SPARE				
13											14	1	20				SPARE				
15	3	20				BOOTH 3 WELDER					16	1	20				SPARE				
17											18	1	20				SPARE				
19											20	1	20				SPARE				
21	3	20				BOOTH 4 WELDER					22	1	20				SPARE				
23											24	1	20				SPARE				
25											26	1	20				SPARE				
27	3	20				BOOTH 5 WELDER					28	1	20				SPARE				
29											30	1	20				SPARE				
31											32	1	20				SPARE				
33	3	20				BOOTH 6 WELDER					34	1	20				SPARE				
35											36	1	20				SPARE				
37											38	1	20				SPARE				
39	3	20				BOOTH 7 WELDER					40	1	20				SPARE				
41											42	1	20				SPARE				

	PHA	PHB	PHC	3 PH
TOTAL LEFT SIDE	0.0	0.0	0.0	0.0
TOTAL RIGHT SIDE	0.0	0.0	0.0	0.0
TOTAL	0.0	0.0	0.0	0.0

TOTAL RIGHT SIDE 0.0 0.0 0.0 0.0

TOTAL CONNECTED LOAD 0.0

* NOTES

PANEL H-WLD2

VOLTAGE: 208Y/120 | PHASE: 3 | WIRE: 4 | BUS AMPS: 400A | MAIN BREAKER AMPS: 400A | [ ] SURFACE MOUNTED | [X] FLUSH MOUNTED | kAIC RATING: 22,000

CKT NO.	BRKR P	BRKR AMPS	WIRE NO	WIRE SZ	*	CIRCUIT DESCRIPTION	LOAD - KVA PHA	PHB	PHC	3 PH	CKT NO.	BRKR P	BRKR AMPS	WIRE NO	WIRE SZ	*	CIRCUIT DESCRIPTION	LOAD - KVA PHA	PHB	PHC	3 PH
1											2	1	20				SPARE				
3	3	20				BOOTH 8 WELDER					4	1	20				SPARE				
5											6	1	20				SPARE				
7											8	1	20				SPARE				
9	3	20				BOOTH 9 WELDER					10	1	20				SPARE				
11											12	1	20				SPARE				
13											14	1	20				SPARE				
15	3	20				BOOTH 10 WELDER					16	1	20				SPARE				
17											18	1	20				SPARE				
19											20	1	20				SPARE				
21	3	20				BOOTH 11 WELDER					22	1	20				SPARE				
23											24	1	20				SPARE				
25											26	1	20				SPARE				
27	3	20				BOOTH 12 WELDER					28	1	20				SPARE				
29											30	1	20				SPARE				
31											32	1	20				SPARE				
33	3	20				BOOTH 13 WELDER					34	1	20				SPARE				
35											36	1	20				SPARE				
37											38	1	20				SPARE				
39	3	20				BOOTH 14 WELDER					40	1	20				SPARE				
41											42	1	20				SPARE				

	PHA	PHB	PHC	3 PH
TOTAL LEFT SIDE	0.0	0.0	0.0	0.0
TOTAL RIGHT SIDE	0.0	0.0	0.0	0.0
TOTAL	0.0	0.0	0.0	0.0

TOTAL RIGHT SIDE 0.0 0.0 0.0 0.0

TOTAL CONNECTED LOAD 0.0

* NOTES

PANEL H-CTL-1

VOLTAGE: 208Y/120 | PHASE: 3 | WIRE: 4 | BUS AMPS: 200A | MAIN BREAKER AMPS: 200A | [ ] SURFACE MOUNTED | [X] FLUSH MOUNTED | kAIC RATING: 22,000

CKT NO.	BRKR P	BRKR AMPS	WIRE NO	WIRE SZ	*	CIRCUIT DESCRIPTION	LOAD - KVA PHA	PHB	PHC	3 PH	CKT NO.	BRKR P	BRKR AMPS	WIRE NO	WIRE SZ	*	CIRCUIT DESCRIPTION	LOAD - KVA PHA	PHB	PHC	3 PH
1	1	20									2	1	20								
3	1	20									4	1	20								
5	1	20									6	1	20								
7	1	20									8	1	20								
9	1	20									10	1	20								
11	1	20									12	1	20								
13	1	20									14	1	20								
15	1	20									16	1	20								
17	1	20									18	1	20								
19	1	20									20	1	20								
21	1	20									22	1	20								
23	1	20									24	1	20								
25	1	20									26	1	20								
27	1	20									28	1	20								
29	1	20									30	1	20								
31	1	20									32	1	20								
33	1	20									34	1	20								
35	1	20									36	1	20				SPARE				
37	1	20									38	1	20				SPARE				
39	1	20									40	1	20				SPARE				
41	1	20									42	1	20				SPARE				

	PHA	PHB	PHC	3 PH
TOTAL LEFT SIDE	0.0	0.0	0.0	0.0
TOTAL RIGHT SIDE	0.0	0.0	0.0	0.0
TOTAL	0.0	0.0	0.0	0.0

TOTAL RIGHT SIDE 0.0 0.0 0.0 0.0

TOTAL CONNECTED LOAD 0.0

* NOTES

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No.	DATE	DESCRIPTION
X	X	X

DRAWN BY:	DWG
REV'D BY:	DWG
DATE:	06/17/2022
SCALE:	AS SHOWN

PANEL SCHEDULES

E-508

SHEET X of X

APPLICABLE BUILDING CODES:

- ■ 2015 VIRGINIA CONSTRUCTION CODE (USBC PART 1, IBC 2015 W/ AMENDMENTS)
- □ 2015 VIRGINIA RESIDENTIAL CODE
- ■ 2015 VIRGINIA EXISTING BUILDING CODE (USBC PART 2, IEBC 2015 W/ AMENDMENTS)
- ■ 2015 VIRGINIA STATEWIDE FIRE PREVENTION CODE (SFPC, IFC 2015 W/ AMENDMENTS; IFC IS IBC REFERENCE ALSO)
- ■ 2015 VIRGINIA ENERGY CONSERVATION CODE
- ■ 2009 ICC A117.1 ACCESSIBLE AND USABLE BUILDINGS AND FACILITIES

GENERAL BUILDING INFORMATION

BUILDING ADDRESS: 3601 FERNCLIFF AVE. NW
JURISDICTION: CITY OF ROANOKE, VA
TAX MAP OR PARCEL NO: 6460102
ZONING: INPUD

BUILDING LOCATED IN HISTORIC DISTRICT NO ■ YES □
BUILDING IS LOCATED IN A FLOOD PLAIN NO ■ YES □
BUILDING WAS BUILT PRIOR TO 1977 NO □ YES ■
(ASBESTOS AND/OR LEAD-BASED PAINT REPORT SUBMITTED) NO □ YES ■ N/A
BUILDING CURRENTLY ACCESSIBLE PER CHAPTER 11 NO □ YES ■ N/A

NOTE: AS RENOVATIONS HAVE OCCURRED OVER THE LIFE OF THE BUILDING, THERE HAVE BEEN ACCESSIBILITY UPGRADES. EXISTING BUILDING WOULD NOT BE CONSIDERED FULLY ACCESSIBLE WITH CURRENT CODE HOWEVER.

ADDITIONAL DRAWINGS TO BE SUBMITTED AT A LATER DATE: ■ FIRE SPRINKLER SYS. ■ FIRE ALARM SYS.
(WORKING/SHOP DRAWINGS)

AUTOMATIC FIRE SPRINKLER SYSTEM WILL BE A DELEGATED DESIGN FOR WORKING (SHOP) DRAWINGS. SYSTEM TO BE IN ACCORDANCE WITH NFPA 13, 2013 AND THE VIRGINIA CONSTRUCTION CODE (VCC) - REFER TO FX SHEETS FOR ADDITIONAL INFORMATION. AUTOMATIC FIRE AIARM SYSTEM WILL BE A DELEGATED DESIGN FOR WORKING (SHOP) DRAWINGS. SYSTEM TO BE IN ACCORDANCE WITH NFPA 72, 2013 AND THE VIRGINIA CONSTRUCTION CODE (VCC) - REFER TO FA SHEETS FOR ADDITIONAL INFORMATION..

BUILDING RE-USE ANALYSIS - VEBC

NOTE: CODE DATA AND LIFE SAFETY DRAWINGS ARE FOR INFORMATION AND ANALYSIS PURPOSES ONLY. REFER TO DISCIPLINE DRAWINGS FOR COMPLIANCE WITH APPLICABLE REQUIREMENTS INDICATED IN THIS INFORMATIONAL SHEET.

CODE CONSIDERATIONS

CHANGE OF OCCUPANCY (VEBC 301.2, 701.1)

THE CURRENT BUILDING OCCUPANCY CLASSIFICATION IS CLASSIFIED AS MIXED OCCUPANCY, SEPARATED GROUP B, BUSINESS AND GROUP A-4, ASSEMBLY IN ACCORDANCE WITH THE CHANGE OF OCCUPANCY DRAWINGS (CLARK NEXSEN 02/02/2010 DRAWINGS, SHEET SP101). UNDER THE CURRENT EDITION OF THE VCC THESE EXISTING OCCUPANCIES WOULD ALSO BE CLASSEFIED CURRENTLY AS B/A-4, AS PRESCRIBED BY VEBC SECTION 301.2. THE MAJORITY OF THE EXISTING FACILITY WILL BE RE-CLASSIFIED AS EDUCATIONAL FOR STUDENTS UP TO THE TWELFTH GRADE, INCLUDING ALL VOCATIONAL SHOPS. ASSEMBLY SPACES (I.E., DISPLAY AREA, CONFERENCE, ADULT TRAINING AREAS, ETC.) ASSOCIATED WITH GROUP E USE ARE CONSIDERED PART OF THIS OCCUPANCY, PER VCC SECTION 303.1.3 OFFICE SPACES, MAINTENANCE STAFF AREAS AND THE LIKE ARE ANCILLARY TO TECHNICAL SCHOOL.

IN ACCORDANCE WITH VEBC SECTION 701.1, A CHANGE IN OCCUPANCY REQUIRES FURTHER ANALYSIS OF BUILDING HEIGHT/AREA, FIRE PROTECTION AND SAFETY, MEANS OF EGRESS, ACCESSIBILITY, MECHANICAL, ELECTRICAL, PLUMBING AND STRUCTURAL CONSIDERATIONS TO THE EXTENT PRESCRIBED IN CHAPTER 7 AND IN ALL CASES DOWS NOT REQUIRE FULL COMPLIANCE WITH THE CURRENT VCC REQUIREMENTS. FURTHER CONSIDERATIONS ARE PROVIDED IN VARIOUS SECTIONS OF THIS SHEET THAT DISCUSS EACH SECTION OF CHAPTER 7.

ALTERATIONS (VEBC 601.2, 603)

ALTERATIONS TO EXISTING OFFICE SPACES WOULD BE CONSIDERED A LEVEL 3 ALTERATION UNDER THE VEBC SECTION 601.2.3. ALL NEW CONSTRUCTION ELEMENTS WILL COMPLY WITH APPLICABLE PROVISIONS OF THE VCC, PER VEBC SECTION 603.2 AND 603.3.

AUTOMATIC FIRE SPRINKLER.

BUILDING WILL BE FULLY SPRINKLERED. THE REQUIREMENTS OF VEBC SECTION 603.5 ARE DEEMED TO BE MET. NEW SYSTEM INSTALLATION WILL BE MADE IN ACCORDANCE WITH VCC AND NFPA 13. REFER TO FX SHEETS FOR COMPLIANCE WITH THE VCC.

FIRE ALARM.

THE FIRE ALARM SYSTEM WILL BE REPLACED THROUGHOUT THE BUILDING TO MEET CURRENT VCC AND NFPA 72 REQUIREMENTS. VEBC SECTION 603.5.4 WILL BE MET. REFER TO FA SHEETS FOR COMPLIANCE. WITH THE VCC.

MEANS OF EGRESS

VEBC SECTION 705 REQUIRES MEANS OF EGRESS DESIGN TO MEET VCC CHAPTER 10, WHERE THERE IS AN INCREASE IN THE "RELATIVE HAZARD" OF THE OCCUPANCY CLASSIFICATION. SINCE GROUP E IS A GREATER HAZARD PER VEBC TABLE 705.2, FULL COMPLIANCE MUST BE MET WITH THE VCC FOR THIS OCCUPANCY, EXCEPT AS INDICATED BELOW:

1. EXISTING HANDRAILS ARE PERMISSIBLE TO MEET VEBC 603.6.8 (MIN. OF 1 HANDRAIL ON STAIRS). NEW HANDRAILS TO MEET VCC.
2. EXISTING GUARDS ARE PERMISSIBLE TO REMAIN AS-IS (VEBC 603.6.9). NEW GUARDS TO MEET VCC.
3. EXISTING STAIRS ARE NOT REQUIRED TO MEET CURRENT TREAD AND RISER HEIGHT REQUIREMENTS OF THE VCC. NEW STAIRS TO MEET VCC.

DUE TO CHANGE OF OCCUPANCY PROVISIONS, MEANS OF EGRESS WILL BE RECONFIGURED IN VARIOUS PLACES THROUGHOUT THE BUILDING TO MEET CURRENT VCC REQUIREMENTS - REFER TO G-101 THRU G-103 FOR ADDITIONAL INFORMATION. VEBC SECTION 603.6 WILL BE MET.

ADDITIONAL BUILDING CONSIDERATIONS

REFER TO A-SHEETS FOR COMPLIANCE WITH VEBC SECTION 712.
REFER TO E-SHEETS FOR COMPLIANCE WITH VEBC SECTION 708.
REFER TO M-SHEETS FOR COMPLIANCE WITH VEBC SECTION 709.
REFER TO P-SHEETS FOR COMPLIANCE WITH VEBC SECTION 710.
REFER TO S-SHEETS FOR COMPLIANCE WITH VEBC SECTION 711.

WORK PERFORMED TO CONFORM WITH CHAPTER 7 IS CATEGORIZED SEPARATELY FROM THE WORK AREA METHOD ALTERATIONS.

ALLOWABLE HEIGHTS & AREAS (VEBC 706; VCC 504, 506)

VEBC SECTION 706 REQUIRES BUILDING AREA AND HEIGHT LIMITATIONS TO MEET VCC CHAPTER 5, WHERE THERE IS AN INCREASE IN THE "RELATIVE HAZARD" OF THE OCCUPANCY CLASSIFICATION. SINCE E OCCUPANCY IS A GREATER HAZARD PER VEBC TABLE 706.2, COMPLIANCE MUST BE MET WITH THE VCC. SEPARATED MIXED USES MUST COMPLY WITH VCC FIRE RESISTANCE REQUIREMENTS, PER VEBC SECTION 706.5.

BUILDING SEPARATION AND EXPOSURE PROTECTION (VEBC 707; VCC TABLE 602)

VEBC SECTION 707 REQUIRES EXTERIOR WALL FIRE-RESISTANCE TO MEET VCC CHAPTER 6 AND 7 FOR EXTERIOR WALL PROTECTION, WHERE THERE IS AN INCREASE IN THE "RELATIVE HAZARD" OF THE OCCUPANCY CLASSIFICATION. SINCE GROUP E OCCUPANCY IS NOT A GREATER HAZARDS PER VEBC TABLE 707.1, COMPLIANCE IS NOT REQUIRED TO BE MET WITH THE VCC.

TYPE OF WORK

□ NEW BUILDING □ PRE-ENG. BUILDING ■ CHANGE OF OCCUPANCY
■ EXISTING BUILDING ■ ALTERATION □ LEVEL 1 □ LEVEL 2 ■ LEVEL 3

OCCUPANCY INFORMATION (CH. 3)

PRIMARY OCCUPANCIES:

ASSEMBLY A-1 □ A-2 □ A-3 □ A-4 □ A-5 □
B - BUSINESS □
E - EDUCATION ■
FACTORY F-1 □ F-2 □
HIGH-HAZARD H-1 □ H-2 □ H-3 □ H-4 □ H-5 □
INSTITUTIONAL I-1 □ I-2 □ I-3 □ I-4 □ I-2 COND. 1 □ I-2 COND. 2 □
MERCANTILE □
RESIDENTIAL R-1 □ R-2 □ R-3 □ R-4 □
STORAGE S-1 □ S-2 □
U - UTILITY □

OTHER USES:

ACCESSORY USES: ACCESSORY ASSEMBLY AREAS ARE CLASSIFIED AS PART OF EDUCATIONAL OCCUPANCY (VCC 303.1.3)
ACCESSORY BUSINESS USE AREA PERCENTAGE OF OVERALL AREA: <10%. BUSINESS OFFICES ARE CONSIDERED ACCESSORY TO EDUCATIONAL USE (VCC 508.2)

INCIDENTAL USES: N/A

SPECIAL OCCUPANCIES (CH 4)

□ 402 COVERED OR OPEN MALL □ 403 HIGH RISE □ 404 ATRIUM □ 405 UNDERGROUND
■ 406 MOTOR VEHICLE □ PRIVATE GARAGE ■ PUBLIC GARAGE
□ 407 GROUP I-2 □ 408 GROUP I-3 □ 409 PROJECTION □ 410 STAGE/PLATFORM
□ 413 COMBUSTIBLE STORAGE □ 414 HIGH-HAZARD □ 419 LIVE/WORK □ 422 AMBULATORY CARE

MIXED OCCUPANCY (508) □ SEPARATED (508.4) □ NON-SEPARATED (508.3)

REFER TO MAXIMUM ALLOWABLE QUANTITIES ANALYSIS PROVIDED ON THIS SHEET FOR ADDITIONAL INFORMATION RELATED TO ANTICIPATED HAZARDOUS MATERIAL THRESHOLDS.

BUILDING DATA - CH. 5 & 6

CONSTRUCTION TYPE (CH 6)

□ I-A □ I-B □ II-A ■ II-B □ III-A □ III-B □ IV HT □ V-A □ V-B

MIXED CONSTRUCTION ■ NO □ YES

AUTO SPRINKLER SYSTEM □ NO ■ YES ■ NFPA 13, 2013 □ NFPA 13R, 2013 □ NFPA 13D, 2013

BUILDING HEIGHT (CH 5)
ALLOWABLE: 75 FT; 3 STORIES (TABLES 504.3; 504.4)
ACTUAL: EXISTING - 28 FT.; 2 STORY (BASED ON ORIGINAL DRAWINGS)

BASEMENT ■ NO □ YES
MEZZANINE ■ NO □ YES
HIGH RISE ■ NO □ YES

HAZARDOUS MATERIALS ANALYSIS - MAXIMUM ALLOWABLE QUANTITIES (MAQ) - CH. 3
FURTHER OCCUPANCY CONSIDERATIONS

VCC/IBC/IFC CLASSIFICATION	CONTROL AREA NUMBER	MAXIMUM ALLOWABLE QUANTITIES (MAQ*) PER CONTROL AREA	EXCEEDING MAQ*	H-USE CLASSIFICATION IF EXCEEDING MAQ
FLAMMABLE GAS**	2 (WELDING STORAGE ROOM)	2,000 CU. FT. - STORAGE/CLOSED	NO	H-2
FLAMMABLE LIQUID COMBINATION (IA, IB, IC)	1	240 GAL - STORAGE/CLOSED	NO	H-2
COMBUSTIBLE LIQUIDS (II)	1	240 GAL - STORAGE/CLOSED	NO	NA
COMBUSTIBLE LIQUIDS (IIIA)	1	660 GAL - STORAGE/ CLOSED	NO	NA
COMBUSTIBLE LIQUIDS (IIIB)	1	26,400 GAL - STORAGE/CLOSED	NO	NA
OXIDIZER, CLASS 1	1	8,000 LBS - STORAGE/CLOSED	NO	NA
WATER REACTIVES, CLASS 1	1	NL	NL	NA
CORROSIVES	1	1,000 GAL - STORAGE/CLOSED	NO	H-4

*MAQ INCREASES ARE INCLUDED FOR SPRINKLER SYSTEM. CABINET ENCLOSURE (FOR LIQUIDS/GASES WHERE APPLICABLE) WOULD INCREASE AGGREGATE.
**CONTROL AREA 2 (WELDING TANK STORAGE ROOM) IS SEPARATED AS INDIVIDUAL CONTROL AREA. STORAGE ROOM IS SEPARATED BY 1-HOUR CONSTRUCTION TO MEET VCC 414.2 WITH MASONRY WALLS TO FLOOR-CEILING DECK ABOVE.

BUILDING AREA CALCULATIONS - CH. 5

BUILDING	STORY NO.	USE GROUP	BLDG AREA PER STORY (ACTUAL)	TABLE 506.2 ALLOWABLE AREA	% FRONTAGE INCREASE	INCREASED ALLOWABLE AREA	RATIO OF ACTUAL TO ALLOWABLE	REQUIRED SEPARATION RATING (T.508.4)
BUILDINGS 2&3	1	E	51,164 SF	43,500	75	54,375	N/A	0 HR.
BUILDING 1	1	B	8,267 SF	69,000	75	86,250	N/A	0 HR.

BUILDINGS 2 & 3 ARE PHYSICALLY ATTACHED AND ARE NOT SEPARATED BY FIRE WALL - THESE BUILDINGS ARE ANALYZED AS SINGLE BUILDING. BUILDING 1 IS PHYSICALLY SEPARATED FROM BUILDINGS 2&3 AND WILL NOT BE SPRINKLERED - IT IS ANALYZED SEPARATELY AND IS NOT PART OF THE SCOPE OF THIS PROJECT.
AREA PER FLOOR IS CALCULATED IN ACCORDANCE WITH VCC SECTIONS 506.2.3 (SINGLE OCCUPANCY, MULTI-STORY BUILDINGS), AND 506.3.3 – AREA INCREASES ARE PERMISSIBLE BASED ON FRONTAGE INCREASES WHERE:

If = [F/P – 0.25]*W/30
If = (1.0 - 0.25)*1 = 0.75

AND,
Aa = [AT + (NS X If)]x Sa

BUILDING INFO:	FULLY SPRINKLERED (903.3.1.1) - BUILDING 2 &3
ALLOWABLE:	54,375 SF/STORY; 108,750 SF AGGREGATE
ACTUAL:	51,164 SF (FIRST FLOOR) - LARGEST FLOOR (BUILDING 2&3)

TYPES OF CONSTRUCTION - CH. 6

TABLE 602. FIRE-RESISTANCE RATING REQUIREMENTS FOR EXTERIOR WALLS BASED ON FIRE SEPARATION DISTANCE.

FIRE SEPARATION DISTANCE = X (FEET)	CONST TYPE	OCCUPANCY GROUP E	OCCUPANCY GROUP B
X < 5	ALL	1 HR	1 HR
5 < X < 10	I A	1 HR	1 HR
10 < X < 20	I A	0 HR	0 HR
X > 20	ALL	0 HR	0 HR

NOTE: AS PART OF CHANGE OF OCCUPANCY, VEBC TABLE 707.1 AND SECTION 707.3 DO NOT REQUIRE COMPLIANCE WITH VCC TABLE 602.

FIRE RESISTANCE RATING REQUIREMENTS - CH. 7

BUILDING ELEMENT	REQUIRED RATING	RATING PROVIDED	DETAIL AND SHEET NO.	DESIGN NO. OF RATED ASSEMBLY
PRIMARY STRUCTURAL FRAME	0 HR	0 HR	NA	NA
EXTERIOR BEARING WALLS	0 HR	0 HR	NA	NA
INTERIOR BEARING WALLS	0 HR	0 HR	NA	NA
NON-BEARING WALLS & PARTITIONS (EXTERIOR)	0 HR	0 HR	NA	NA
NON-BEARING WALLS & PARTITIONS (INTERIOR)	0 HR	0 HR	NA	NA
FLOOR-CEILING ASSEMBLY (HORIZONTAL ASSEMBLY)	NA	NA	NA	NA
COLUMNS SUPPORTING FLOORS	NA	NA	NA	NA
ROOF CONSTRUCTION, INCLUDING BEAMS & JOISTS	0 HR	0 HR	NA	NA
ROOF/CEILING ASSEMBLY (HORIZONTAL ASSEMBLY)	0 HR	0 HR	NA	NA
SHAFTS -VERTICAL EXIT ENCLOSURES (FIRE BARRIER)	1 HR	1 HR	NA*	NA*
SHAFT - GREASE DUCT ENCLOSURE (FIRE BARRIER)	1 HR	1 HR	A6.1	UL U415
ELEVATOR HOISTWAY & ELEVATOR MACHINE ROOM	1 HR	1 HR	NA*	NA*
OTHER VERTICAL OPENINGS (FIRE BARRIER)	1 HR	2 HR	NA*	NA*
CORRIDOR SEPARATION (H-USE > 30 OCCUPANTS) - FIRE PARTITION	0 HR	0 HR	NA	NA
CORRIDOR SEPARATION (F-1/B-USE) - FIRE PARTITION	0 HR	0 HR	NA	NA
OCCUPANCY SEPARATION (FIRE BARRIER)	0 HR	0 HR	NA	NA
OCCUPANCY SEPARATION (HORIZONTAL ASSEMBLY)	0 HR	0 HR	NA	NA
OCCUPANCY SEPARATION (FLOOR SUPP. STRUCTURAL MEMBERS)	0 HR	0 HR	NA	NA
PARTY/FIRE WALL SEPARATION	NA	NA	NA	NA
INCIDENTAL USE SEPARATION (FIRE BARRIER)	NA	NA	NA	NA
DWELLING/SLEEPING UNIT SEPARATION (FIRE PARTITION)	NA	NA	NA	NA
TENANT SEPARATION (FIRE PARTITION)	NA	NA	NA	NA
CONTROL AREA (FIRE BARRIER)	1 HR	1 HR	A6.1	UL U906
CONTROL AREA (HORIZONTAL ASSEMBLY)	0 HR	0 HR	NA	NA
SMOKE COMPARTMENT SEPARATION (SMOKE BARRIER)	NA	NA	NA	NA
SMOKE PARTITION (INCIDENTAL USES)	0 HR	0 HR	A6.1	NA

*EXISTING CONSTRUCTION - EXISTING FIRE RESISTANCE RATED ELEMENTS TO BE REPAIRED AS NECESSARY (PENETRATIONS, ETC.)

INTERIOR FINISHES - CH. 8

TABLE 803.11 - INTERIOR WALL AND CEILING FINISH REQUIREMENTS BY OCCUPANCY

USE GROUP	SPRINKLERED		
	EXIT ENCLOSURES AND EXIT PASSAGEWAYS	CORRIDORS	ROOMS AND ENCLOSED SPACES
E	B	C	C

FIRE PROTECTION AND LIFE SAFETY SYSTEM REQUIREMENTS - CH. 9 & 10

	REQUIRED	PROVIDED
FIRE SUPPRESSION SYS. (903, 904)	NO □ YES ■	NO □ YES ■
STANDPIPE SYS. (905)	NO ■ YES □	NO ■ YES □
PORTABLE EXTINGUISHERS (906)*	NO □ YES ■	NO □ YES ■
FIRE ALARM SYS. (907.2)	NO □ YES ■	NO □ YES ■
FULL SMOKE DETECTION (907.2, 907.3)	NO ■ YES □	NO ■ YES □
VOICE EVACUATION SYS. (907.5.2.2)	NO ■ YES □	NO □ YES ■
SMOKE CONTROL SYS. (909)	NO ■ YES □	NO ■ YES □
SMOKE/HEAT VENTS (910)	NO ■ YES □	NO ■ YES □
CARBON MONOXIDE DETECTION (915)**	NO □ YES ■	NO □ YES ■
EMERGENCY LIGHTING (1008.3)	NO □ YES ■	NO □ YES ■
PANIC/FIRE EXIT HDW (1010.1.10) E -USE	NO □ YES ■	NO □ YES ■
EXIT SIGNS (1013)	NO □ YES ■	NO □ YES ■

*VCC SECTION 906.1 , EXCEPTION 1 EXEMPTS PORTABLE FIRE EXTINGUISHERS FROM BEING INSTALLED THROUGHOUT THE BUILDING WHERE FULLY SPRINKLERED WITH QUICK RESPONSE SPRINKLERS, AND ARE ONLY REQUIRED IN SPECIFIC HAZARDOUS AREAS AS PRESCRIBED IN SUB-ITEMS 2 - 6. THE FOLLOWING LOCATIONS ARE PROVIDED WITH PORTABLE EXTINGUISHERS TO MEET THIS REQUIREMENT (REFER TO FX SHEETS FOR ADDITIONAL INFORMATION):
AUTOMOTIVE TEACHING LAB, PER IFC 2311.6; BUILDING TRADES TEACHING LAB, PER IFC SECTION 2804.3.; COSMETOLOGY, PER IFC 5703.2.1; CULINARY TEACHING LAB, PER IFC 904.12.5., IDF/MDF, ELECTRICAL ROOMS ; ELEVATOR MACHINE ROOM, PER ASME A17.1; HVAC TEACHING LAB, WELDING TEACHING LAB, PER IFC SECTION 3504.2.6.

**CARBON MONOXIDE DETECTORS, AS PART OF FIRE ALARM/MASS NOTIFICATION SYSTEM, ARE INSTALLED IN CLASSROOMS (HVAC LAB, CULINARY TEACHING LAB) WITH FUEL-BURNING EQUIPMENT AND GARAGE (AUTOMOTIVE TEACHING LAB), PER VCC SECTIONS 915.3.

PLUMBING FIXTURE REQUIREMENTS - CH. 29 & VPC CH. 4

OCCUPANCY	WATER CLOSETS (MALE)	WATER CLOSETS (FEMALE)	URINALS	LAVS. (MALE)	LAVS. (FEMALE)	SHOWER/ TUBS	DRINKING FOUNTAIN (REG.)	SERVICE SINK
EDUCATIONAL (E) - MAIN (BLDG. 2 & 3)	1/50	1/50	50% SUB.	1/50	1/50	-	1/100; 1 ACCESS.	1
TOTAL REQUIRED (E)	17	17	-	17	17	-	18/ 9 ACCESS.	1
TOTAL PROVIDED (E)	19	19	-	19	19	-	18/ 9 ACCESS.	2

MEANS OF EGRESS - CH. 10

VCC 1004.1 - OCCUPANT LOAD FACTORS PER TABLE 1004.1.2 (SF/PERSON) ARE INDICATED ON THE LIFE SAFETY DRAWINGS.
VCC 1005 - CAPACITY OF MEANS OF EGRESS
CAPACITY FACTORS – MEANS OF EGRESS COMPONENTS WILL BE SIZED USING CALCULATED OCCUPANT LOADS MULTIPLIED BY THE FOLLOWING CAPACITY FACTORS FOR FULLY SPRINKLERED E OCCUPANCY CLASSIFICATION: 0.2 (STAIRWAYS 44" MINIMUM), AND 0.15 (LEVEL COMPONENTS AND RAMPS), BUT MUST BE A MINIMAL SIZE AS STATED BELOW:
1. AISLES, CORRIDORS, AND RAMPS – MIN. 72 IN. FOR GROUP E, EXCEPT WHERE SERVING OCCUPANT LOADS LESS THAN 50 (36 IN. MINIMUM) OR SPECIFICALLY SERVING MECHANICAL, ELECTRICAL AND/OR PLUMBING EQUIPMENT (24 IN.), PER VCC 1020.2.
2. DOORS –MINIMUM 32 IN. CLEAR WIDTH FOR DOORS, PER VCC 1010. PANIC/FIRE EXIT HARDWARE (WHERE APPLICABLE) IS REQUIRED ON ALL EGRESS DOORS SERVING E OCCUPANCY SERVING AN OCCUPANT LOAD GREATER THAN 50, PER VCC SECTION 1010.1.10.
3. STAIRS – MINIMUM OF 44 IN. PER VCC SECTION 1011.2.

VCC 1006 - NUMBER OF EXITS
REQUIRED: MINIMUM 2 EXITS. OCCUPANT LOADS IN EXCESS OF 500 OCCUPANTS ARE TO BE PROVIDED WITH THE MINIMUM NUMBER SPECIFIED IN VCC TABLE 1006.3.2.
PROVIDED: PLEASE REFER TO THE LIFE SAFETY DRAWINGS FOR THE LOCATIONS OF EXITS.

VCC 1007 - ARRANGEMENT OF MEANS OF EGRESS
REMOTENESS OF EXITS (VCC 1007.1): MINIMUM 1/4 OF THE MAXIMUM OVERALL DIAGONAL DIMENSION OF THE BUILDING OR AREA TO BE SERVED INCLUDING EXITS, EXIT ACCESS, AND EXIT DISCHARGE.
TRAVEL DISTANCE (VCC 1017) – FULLY SPRINKLERED BUILDING (REFER TO TABLE BELOW).
COMMON PATH OF TRAVEL (VCC 1006 - REFER TO TABLE BELOW).
DEAD-END CORRIDORS (VCC 1020 - REFER TO TABLE BELOW).
NOTE: EXISTING DEAD-END CORRIDORS IN GROUPS E/B: 70 FT MAXIMUM (VEBC 705.3.2, EXCEPTION 3)
CORRIDOR PROVISIONS (VCC 1020 - REFER TO TABLE BELOW).

MEANS OF EGRESS - ARRANGEMENT OF MEANS OF EGRESS - CH. 10

USE GROUP	COMMON PATH OF EGRESS TRAVEL (FT) SECTION 1006.2.1	SPACE WITH ONE MEANS OF EGRESS (MAX OCCUP LOAD) TABLE 1006.2.1	EXIT ACCESS TRAVEL DISTANCE (FT) TABLE 1017.2	DEAD END PERMITTED (FT) SECTION 1020.4
E	75	50	250	50 MAX - EXCEPTION 2

TABLE 1020.1 - CORRIDOR FIRE RESISTENCE RATING AND SECTION 1020.2 - CORRIDOR WIDTH AND CAPACITY

USE GROUP	OCCUPANT LOAD SERVED BY CORRIDORS	REQUIRED FIRE RESISTANCE RATING (HOURS) W/SPRINKLER SYSTEM	CORRIDOR WIDTH REQUIRED	CORRIDOR WIDTH PROVIDED
E	> 30	0	72" MIN	72"

VCC – 1008 - ILLUMINATION OF MEANS OF EGRESS (VCC 1008)
VEBC SECTION 705.4 REQUIRES ELECTRICAL SYSTEM MEET THE VCC NEW OCCUPANCY LIGHTING REQUIREMENTS. ILLUMINATION OF MEANS OF EGRESS IS REQUIRED AND WILL BE PROVIDED – REFER TO ELECTRICAL DRAWINGS FOR ADDITIONAL INFORMATION.
VEBC SECTION 705.4 REQUIRES ELECTRICAL SYSTEM MEET THE VCC NEW OCCUPANCY LIGHTING REQUIREMENTS. EMERGENCY LIGHTING IS REQUIRED FOR ALL PORTIONS OF THE MEANS OF EGRESS AND WILL BE PROVIDED – REFER TO ELECTRICAL DRAWINGS FOR ADDITIONAL INFORMATION.

VCC 1009 - ACCESSIBLE MEANS OF EGRESS
BUILDING WILL BE FULLY SPRINKLERED, STAIRWAYS OR AREAS OF REFUGE ARE NOT REQUIRED TO MEET ACCESSIBLE MEANS OF EGRESS REQUIREMENTS, PER EXCEPTIONS IN VCC SECTIONS 1009.3 OR 1009.6. TWOWAY COMMUNICATION SYSTEM IS REQUIRED TO MEET THIS SECTION, PER VCC 1009.8. REFER TO ELECTRICAL DRAWINGS FOR ADDITIONAL INFORMATION.

VCC 1013 - MARKING OF MEANS OF EGRESS
VEBC SECTION 705 REQUIRES MEANS OF EGRESS DESIGN TO MEET VCC CHAPTER 10, WHERE THERE IS AN INCREASE IN THE "RELATIVE HAZARD" OF THE OCCUPANCY CLASSIFICATION. SINCE E IS A GREATER HAZARD PER VEBC TABLE 705.2, FULL COMPLIANCE MUST BE MET WITH THE VCC FOR THIS OCCUPANCY AT A MINIMUM. MARKING OF ALL MEANS OF EGRESS IS REQUIRED AND WILL BE PROVIDED – REFER TO ELECTRICAL DRAWINGS FOR ADDITIONAL INFORMATION.

VCC 1016 - EGRESS THROUGH INTERVENING SPACES (VCC 1016.2, 1020.6)
CORRIDORS WILL NOT PROVIDE EXIT ACCESS THROUGH INTERVENING ROOMS OTHER THAN CORRIDORS, LOBBIES, AND OTHER SPACES PERMITTED TO BE OPEN TO THE CORRIDOR. INTERVENING ROOMS ARE PERMISSIBLE FOR EXIT ACCESS FROM ONE ROOM TO ADJACENT SPACE, BUT WILL BE FURTHER LIMITED BY COMMON PATH OF TRAVEL AND OVERALL TRAVEL DISTANCE LIMITATIONS. REFER TO SECTION 1.4.5 OF THIS REPORT ABOVE FOR ADDITIONAL INFORMATION.

VCC 1028 - DISCHARGE FROM EXITS
EXITS ARE REQUIRED TO DISCHARGE TO THE EXTERIOR OF THE BUILDING, EXCEPT THAT A MAXIMUM OF 50 PERCENT OF EXIT STAIRS ARE PERMITTED TO BE ON LEVEL OF EXIT DISCHARGE IN FULLY SPRINKLERED BUILDINGS, PER VCC SECTION 1028.1 EXCEPTION 1. REFER TO LIFE SAFETY DRAWINGS, G-101 AND G-102 FOR ADDITIONAL INFORMATION.
A PORTION OF EXIT DISCHARGE IS THROUGH FENCED-IN AREAS ARE DESIGNED TO MEET THE SAFE DISPERSAL AREA PROVISIONS OF 1028.5. REFER TO G-103 FOR ADDITIONAL INFORMATION.

ACCESSIBILITY - CH. 11

COMPLIANCE WITH VEBC SECTION 402 IS REQUIRED FOR CHANGE OF OCCUPANCY (VEBC 712.1).

NEW CONSTRUCTION ELEMENTS TO BE FULLY ACCESSIBLE AS REQUIRED BY THE VCC (VEBC 404.2). ALTERATIONS TO EXISTING ELEMENTS IN AN AREA CONTAINING A PRIMARY FUNCTION TO COMPLY WITH VEBC 404.3.

ENERGY EFFICIENCY - CH. 13

COMPLIANCE WITH THE VECC IS NOT REQUIRED FOR A CHANGE OF OCCUPANCY CLASSIFICATION. (VEBC CH. 7).

LEVEL 3 ALTERATIONS ARE PERMITTED WITHOUT REQUIRING ENTIRE BUILDING TO MEET THE VECC (VEBC 601.4). ALTERATIONS TO MEET APPLICABLE SECTIONS OF VECC - REFER TO MECHANICAL AND ELECTRICAL SHEETS FOR ADDITIONAL INFORMATION.

ELEVATORS AND CONVEYING SYSTEMS - CH. 30

SECTION 3003.2 - FIREFIGHTER'S EMERGENCY OPERATIONS:
PHASE I AND PHASE II IMPLEMENTED FOR ELEVATOR CAR REPLACEMENT.

SECTION 3005 - MACHINE ROOM VENTING PROVIDED. SHUNT TRIP TO BE PROVIDED TO MEET NFPA 72 AND A17.1 REQUIREMENTS.

3007 & 3008 - FIRE SERVICE ACCESS ELEVATOR AND OCCUPANT EVACUATION ELEVATOR REQUIREMENTS ARE NOT APPLICABLE TO THIS PROJECT.

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G-001

LIFE SAFETY GENERAL NOTES

1. DRAWING IS FOR INFORMATION AND ANALYSIS PURPOSES ONLY.

   REFER TO A-SHEETS FOR FLOOR LAYOUTS, FIRE AND SMOKE RESISTIVE FEATURES AND CONSTRUCTION.
   REFER TO E-SHEETS FOR ELECTRICAL WORK INCLUDING EXIT SIGNAGE, EGRESS LIGHTING AND ANY ELECTRICAL HAZARDOUS LOCATIONS.
   REFER TO FA-SHEETS FOR FIRE ALARM AND EMERGENCY ALARM WORK.
   REFER TO M-SHEETS FOR LOCATIONS OF FIRE AND/OR SMOKE DAMPER LOCATIONS AND ANY EXHAUST SYSTEMS FOR FIRE AND LIFE SAFETY PURPOSES AS APPLICABLE.

2. FIRE-RESISTANCE ASSEMBLY MARKING AND IDENTIFICATION (VCC SECTION 703.7):

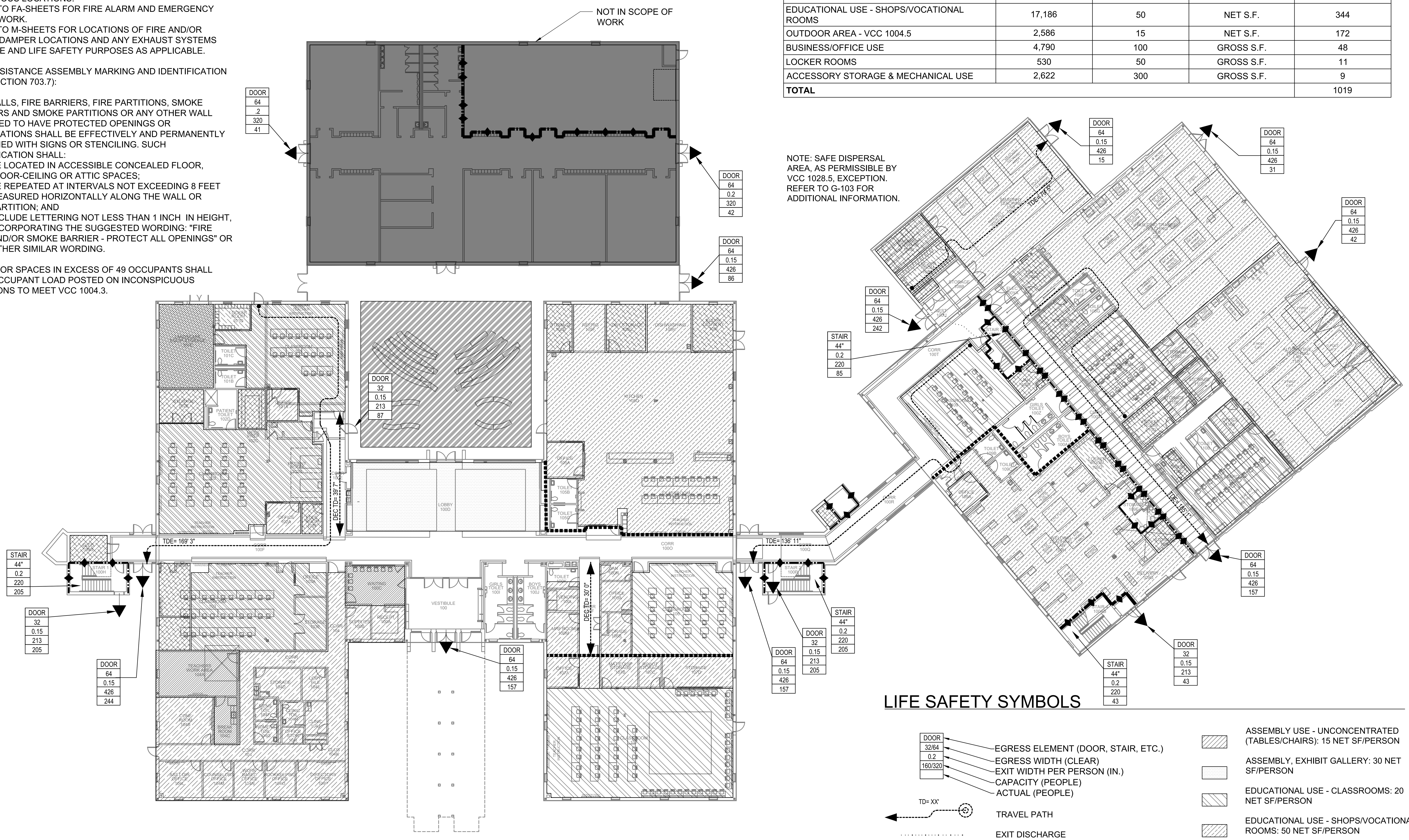
   FIRE WALLS, FIRE BARRIERS, FIRE PARTITIONS, SMOKE BARRIERS AND SMOKE PARTITIONS OR ANY OTHER WALL REQUIRED TO HAVE PROTECTED OPENINGS OR PENETRATIONS SHALL BE EFFECTIVELY AND PERMANENTLY IDENTIFIED WITH SIGNS OR STENCILING. SUCH IDENTIFICATION SHALL:
   A. BE LOCATED IN ACCESSIBLE CONCEALED FLOOR, FLOOR-CEILING OR ATTIC SPACES;
   B. BE REPEATED AT INTERVALS NOT EXCEEDING 8 FEET MEASURED HORIZONTALLY ALONG THE WALL OR PARTITION; AND
   C. INCLUDE LETTERING NOT LESS THAN 1 INCH IN HEIGHT, INCORPORATING THE SUGGESTED WORDING: "FIRE AND/OR SMOKE BARRIER - PROTECT ALL OPENINGS" OR OTHER SIMILAR WORDING.

3. ROOMS OR SPACES IN EXCESS OF 49 OCCUPANTS SHALL HAVE OCCUPANT LOAD POSTED ON INCONSPICUOUS LOCATIONS TO MEET VCC 1004.3.

OCCUPANT LOAD CALCULATIONS BASED ON VCC TABLE 1004.1.2 UNLESS OTHERWISE STATED - BUILDING 2 & 3

USE GROUP AND/OR SPACEDESIGNATION	AREA (S.F.)	AREA PER OCCUPANT (S.F./PERSON)	LOAD FACTOR TYPE (GROSS/NET SF)	NUMBER OF OCCUPANTS
ASSEMBLY USE, LESS-CONCENTRATED	782	15	NET S.F.	52
ASSEMBLY USE, EXHIBIT GALLERY	1,394	30	NET S.F.	46
EDUCATIONAL USE - CLASSROOMS	6,736	20	NET S.F.	337
EDUCATIONAL USE - SHOPS/VOCATIONAL ROOMS	17,186	50	NET S.F.	344
OUTDOOR AREA - VCC 1004.5	2,586	15	NET S.F.	172
BUSINESS/OFFICE USE	4,790	100	GROSS S.F.	48
LOCKER ROOMS	530	50	GROSS S.F.	11
ACCESSORY STORAGE & MECHANICAL USE	2,622	300	GROSS S.F.	9
TOTAL				1019

NOTE: SAFE DISPERSAL AREA, AS PERMISSIBLE BY VCC 1028.5, EXCEPTION. REFER TO G-103 FOR ADDITIONAL INFORMATION.



BUILDING 2 & 3
GROUND FLOOR LIFE SAFETY PLAN

1

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

LIFE SAFETY SYMBOLS

DOOR / 32/64 / 0.2 / 160/320
- EGRESS ELEMENT (DOOR, STAIR, ETC.)
- EGRESS WIDTH (CLEAR)
- EXIT WIDTH PER PERSON (IN.)
- CAPACITY (PEOPLE)
- ACTUAL (PEOPLE)

TD= XX'	TRAVEL PATH
	EXIT DISCHARGE
CPT	COMMON PATH OF TRAVEL
DEC	DEAD END CORRIDOR
TDE	TOTAL DISTANCE TO EXIT
	1-HOUR FIRE BARRIER
	2-HOUR FIRE BARRIER
	SMOKE PARTITION
	REQUIRED EXIT
	NOT IN SCOPE

- ASSEMBLY USE - UNCONCENTRATED (TABLES/CHAIRS): 15 NET SF/PERSON
- ASSEMBLY, EXHIBIT GALLERY: 30 NET SF/PERSON
- EDUCATIONAL USE - CLASSROOMS: 20 NET SF/PERSON
- EDUCATIONAL USE - SHOPS/VOCATIONAL ROOMS: 50 NET SF/PERSON
- OUTDOOR AREA (VCC 1004.5): 100 GROSS SF/PERSON
- BUSINESS: 100 GROSS SF/PERSON
- LOCKER ROOMS: 50 GROSS SF/PERSON
- INDUSTRIAL AREAS: 100 GROSS SF/PERSON
- ACCESSORY STORAGE/MECHANICAL AREAS: 300 GROSS SF/PERSON
- COMMON CIRCULATION SPACE: NO CALCULATED OCCUPANT LOAD FOR SERVING NET SF EDUCATION SPACES

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BUILDING 2 & 3 GROUND FLOOR LIFE SAFETY PLAN

G-101

SHEET 1 of 4

LIFE SAFETY SYMBOLS

1. DRAWING IS FOR INFORMATION AND ANALYSIS PURPOSES ONLY.

   REFER TO A-SHEETS FOR FLOOR LAYOUTS, FIRE AND SMOKE RESISTIVE FEATURES AND CONSTRUCTION.
   REFER TO E-SHEETS FOR ELECTRICAL WORK INCLUDING EXIT SIGNAGE, EGRESS LIGHTING AND ANY ELECTRICAL HAZARDOUS LOCATIONS.
   REFER TO FA-SHEETS FOR FIRE ALARM AND EMERGENCY ALARM WORK.
   REFER TO M-SHEETS FOR LOCATIONS OF FIRE AND/OR SMOKE DAMPER LOCATIONS AND ANY EXHAUST SYSTEMS FOR FIRE AND LIFE SAFETY PURPOSES AS APPLICABLE.

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   A. BE LOCATED IN ACCESSIBLE CONCEALED FLOOR, FLOOR-CEILING OR ATTIC SPACES;
   B. BE REPEATED AT INTERVALS NOT EXCEEDING 8 FEET MEASURED HORIZONTALLY ALONG THE WALL OR PARTITION; AND
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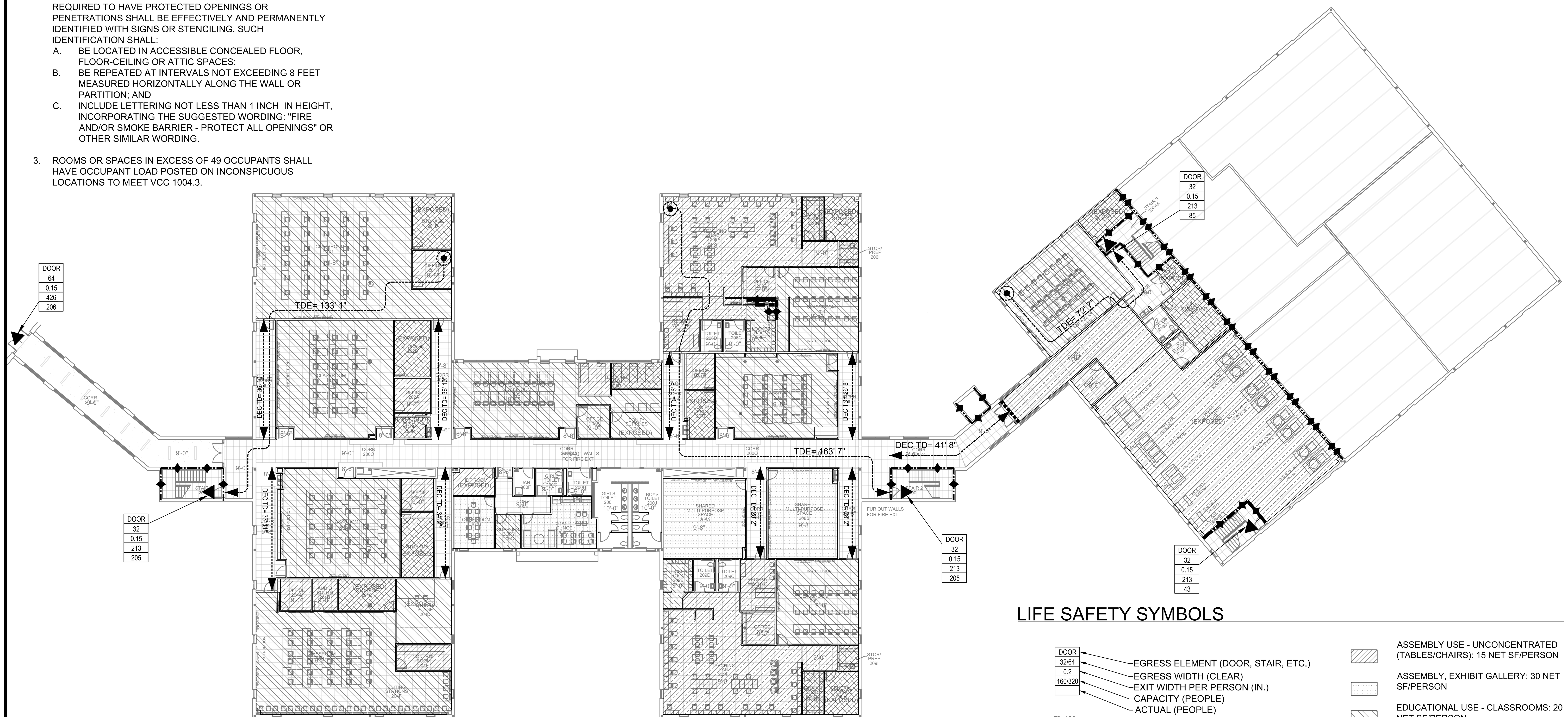
3. ROOMS OR SPACES IN EXCESS OF 49 OCCUPANTS SHALL HAVE OCCUPANT LOAD POSTED ON INCONSPICUOUS LOCATIONS TO MEET VCC 1004.3.

OCCUPANT LOAD CALCULATIONS BASED ON VCC TABLE 1004.1.2 UNLESS OTHERWISE STATED - BUILDING 2 & 3

USE GROUP AND/OR SPACEDESIGNATION	AREA (S.F.)	AREA PER OCCUPANT (S.F./PERSON)	LOAD FACTOR TYPE (GROSS/NET SF)	NUMBER OF OCCUPANTS
ASSEMBLY USE, LESS-CONCENTRATED	1,410	15	NET S.F.	94
ASSEMBLY USE, EXHIBIT GALLERY	430	30	NET S.F.	14
EDUCATIONAL USE - CLASSROOMS	9,917	20	NET S.F.	496
EDUCATIONAL USE - SHOPS/VOCATIONAL ROOMS	6,029	50	NET S.F.	121
BUSINESS/OFFICE USE - UNCONCENTRATED	1,330	150	GROSS S.F.	9
LOCKER ROOMS	258	50	GROSS S.F.	5
INDUSTRIAL USE		100	GROSS S.F.	0
ACCESSORY STORAGE & MECHANICAL USE	1,980	300	GROSS S.F.	7
TOTAL				745



LIFE SAFETY SYMBOLS

DOOR 32/64 0.2 160/320	EGRESS ELEMENT (DOOR, STAIR, ETC.) EGRESS WIDTH (CLEAR) EXIT WIDTH PER PERSON (IN.) CAPACITY (PEOPLE) ACTUAL (PEOPLE)
TD= XX'	TRAVEL PATH
	EXIT DISCHARGE
CPT	COMMON PATH OF TRAVEL
DEC	DEAD END CORRIDOR
TDE	TOTAL DISTANCE TO EXIT
	1-HOUR FIRE BARRIER
	2-HOUR FIRE BARRIER
	SMOKE PARTITION
	REQUIRED EXIT
	NOT IN SCOPE

- ASSEMBLY USE - UNCONCENTRATED (TABLES/CHAIRS): 15 NET SF/PERSON
- ASSEMBLY, EXHIBIT GALLERY: 30 NET SF/PERSON
- EDUCATIONAL USE - CLASSROOMS: 20 NET SF/PERSON
- EDUCATIONAL USE - SHOPS/VOCATIONAL ROOMS: 50 NET SF/PERSON
- OUTDOOR AREA (VCC 1004.5): 100 GROSS SF/PERSON
- BUSINESS: 100 GROSS SF/PERSON
- LOCKER ROOMS: 50 GROSS SF/PERSON
- INDUSTRIAL AREAS: 100 GROSS SF/PERSON
- ACCESSORY STORAGE/MECHANICAL AREAS: 300 GROSS SF/PERSON
- COMMON CIRCULATION SPACE: NO CALCULATED OCCUPANT LOAD FOR SERVING NET SF EDUCATION SPACES

1

BUILDING 2 & 3
SECOND FLOOR LIFE SAFETY PLAN

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

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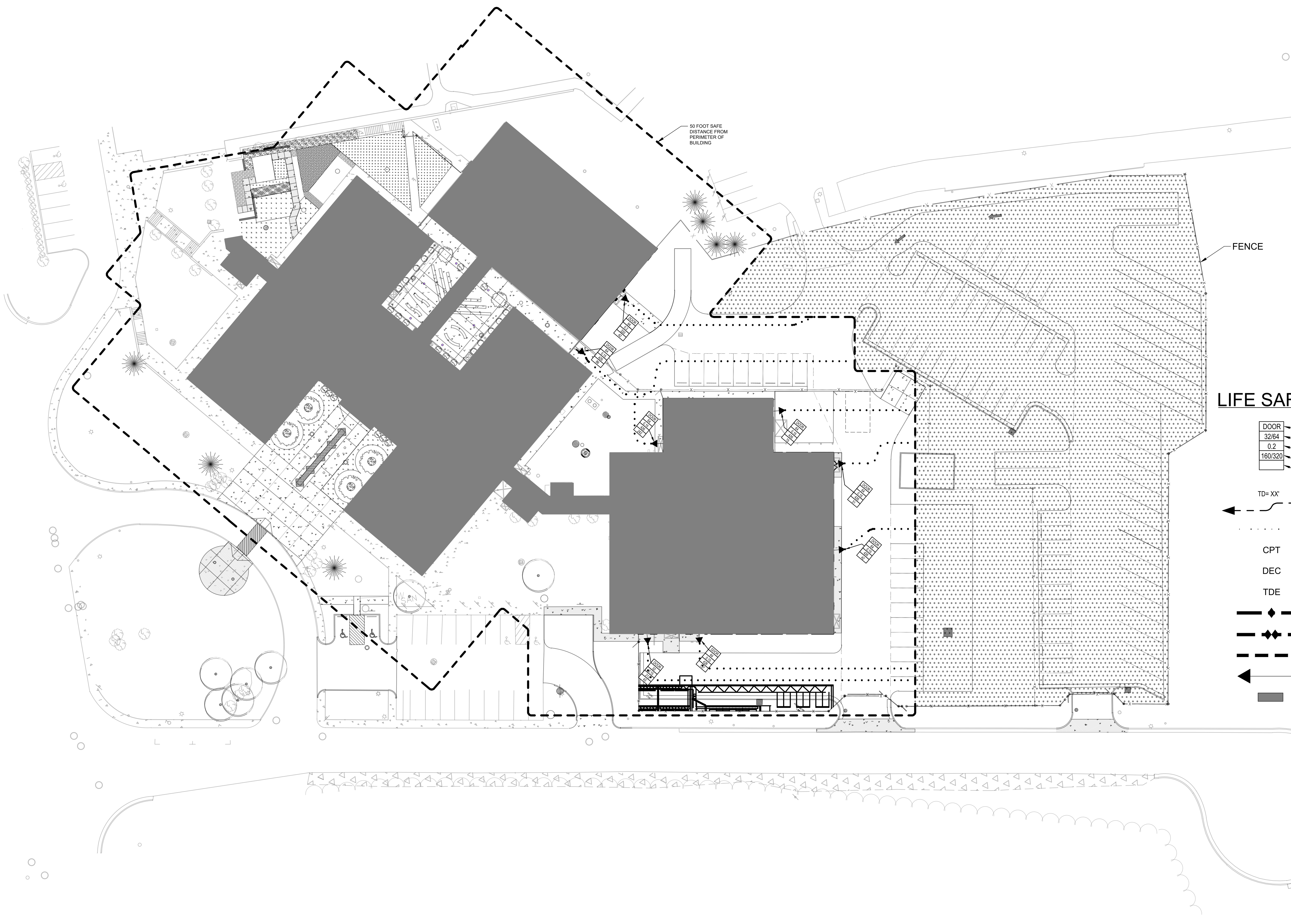
BUILDING 2 & 3 SECOND FLOOR LIFE SAFETY PLAN

G-102

SHEET 1 of 4 X



LIFE SAFETY SYMBOLS

DOOR	EGRESS ELEMENT (DOOR, STAIR, ETC.)
32/64	EGRESS WIDTH (CLEAR)
0.2	EXIT WIDTH PER PERSON (IN.)
160/320	CAPACITY (PEOPLE)
	ACTUAL (PEOPLE)
TD= XX'	TRAVEL PATH
	EXIT DISCHARGE
CPT	COMMON PATH OF TRAVEL
DEC	DEAD END CORRIDOR
TDE	TOTAL DISTANCE TO EXIT
	1-HOUR FIRE BARRIER
	2-HOUR FIRE BARRIER
	SMOKE PARTITION
	REQUIRED EXIT
	NOT IN SCOPE

SAFE DISPERSAL AREA - VCC 1028.5

HATCH	REFUGE AREA (SF)	OCCUPANT LOAD FACTOR	ALLOWABLE NUMBER OF PERSONS	ACTUAL NUMBER OF PERSONS
	58,896	5 SF/PERSON	11,779	658

1 LIFE SAFETY ARCHITECTURAL SITE PLAN

SCALE: 1/32" = 1'-0"

C2Architecture
ARCHITECTURE INTERIORS PLANNING

G+A CONSULTING
Fire + Life Safety Engineering
EMERSON GRAHAM + ASSOCIATES

COMMONWEALTH OF VIRGINIA
JUSTIN B. BILLER
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06/17/22

RUFFNER CAREER AND TECHNICAL EDUCATION CENTER

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ARCHITECTURAL LIFE SAFETY SITE PLAN

G-103

SHEET 4 of 4

GENERAL NOTES

1. FIRE ALARM SYSTEM SHALL COMPLY WITH THE FOLLOWING CODES AND STANDARDS:
    a. APPLICABLE CODE: VIRGINIA UNIFORM STATEWIDE BUILDING CODE, 2015 EDITION (VUSBC)
    b. 2015 VIRGINIA CONSTRUCTION CODE (VCC)
    c. 2014 NFPA 70, NATIONAL ELECTRICAL CODE (NEC)
    d. 2013 NFPA 72, NATIONAL FIRE ALARM AND SIGNALING CODE
    e. 2015 VIRGINIA EXISTING BUILDING CODE (VEBC)
    f. 2015 VIRGINIA MECHANICAL CODE (VMC)
    g. 2009 ANSI/ICC A117.1, ACCESSIBLE AND USABLE BUILDINGS AND FACILITIES
    h. 2010 AMERICANS WITH DISABILITIES ACT ACCESSIBILITY GUIDELINES (ADAAG)
    i. NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION (NEMA) STANDARDS
    j. INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS (IEEE) STANDARDS
2. ALL EQUIPMENT PROVIDED SHALL BE NEW, FROM A SINGLE MANUFACTURER, AND SHALL BE COMPATIBLE WITH, APPROVED FOR AND LISTED FOR THE INTENDED PURPOSE BY A NATIONALLY RECOGNIZED TESTING LABORATORY.
3. CONTRACTOR SHALL BE RESPONSIBLE FOR SUBMITTING FIRE ALARM SHOP DRAWINGS THAT INCLUDE THE FOLLOWING: PRODUCT DATA SHEETS FOR EACH SYSTEM COMPONENT WITH ALL OPTIONS AND COMPONENTS CLEARLY INDICATED (CONTRACTOR'S FAILURE TO INDICATE SELECTIONS WILL RESULT IN AN IMMEDIATE REJECTION OF THE SUBMITTAL); VOLTAGE DROP CALCULATIONS INCLUDING CONDUCTOR TYPES AND SIZES; BATTERY CALCULATIONS; MATRIX; RISER DIAGRAM INCLUDING ALL DEVICES WITH ADDRESS AND LOCATION AND CONNECTION METHOD FOR EACH DEVICE AND PIECE OF EQUIPMENT; FLOOR PLANS INDICATING EACH DEVICE AND RESPECTIVE ADDRESS; DETAILS OF INTERFACE FOR EACH FIRE SAFETY CONTROL FUNCTION. REFER TO SPECIFICATIONS FOR ADDITIONAL DETAILS ON SUBMITTAL REQUIREMENTS.
4. THE DRAWINGS AND SPECIFICATIONS PROVIDED AS PART OF THIS SET COMBINE TO FORM ONE SET OF DOCUMENTS. IN THE EVENT OF A DISCREPANCY BETWEEN THE DRAWINGS AND SPECIFICATIONS, CONTRACTOR SHALL INCLUDE IN HIS BID THE MORE STRINGENT OF THE REQUIREMENTS. QUESTIONS REGARDING DESIGN INTENT IN THE DRAWINGS OR SPECIFICATIONS SHALL IMMEDIATELY BE BROUGHT TO THE ATTENTION OF THE OWNER AND ENGINEER PRIOR TO ROUGH-IN.
5. ALL MANUAL PULL STATIONS SHALL BE MOUNTED NO MORE THAN 48 INCHES ABOVE FINISHED FLOOR TO CENTER. REFER TO SPECIFICATIONS FOR ADDITIONAL DETAILS. SELECTION OF COVER SHALL BE INCLUDED IN SHOP DRAWING SUBMISSION.
6. DO NOT LOCATE SMOKE DETECTORS WITHIN 3 FEET OF AIR SUPPLY OR RETURN GRILLS. DO NOT LOCATE SMOKE DETECTORS WITHIN 15 FEET OF COOKING APPARATUSES.
7. DO NOT LOCATE CARBON MONOXIDE DETECTORS WITHIN 20 FEET OF FUEL BURNING APPLIANCES.
8. EXISTING DUCT SMOKE DETECTORS SHALL BE REPLACED IN PLACE UNLESS OVERWISE NOTED. NEW DETECTORS SHALL BE EQUIPPED WITH REMOTE TEST STATION FOR EACH DUCT SMOKE DETECTOR.
9. STROBE NOTIFICATION APPLIANCE CIRCUITS SHALL BE SIZED SUCH AS NOT TO EXCEED A 10% VOLTAGE DROP. PROVIDE EACH STROBE NOTIFICATION APPLIANCE CIRCUIT WITH 25% SPARE CAPACITY.
10. AUDIBLE NOTIFICATION:

    PER NFPA 72 TABLE A.18.4.3, AVERAGE AMBIENT SOUND LEVEL FOR INDUSTRIAL OCCUPANCIES IS 80dBA, AND BUSINESS AND ASSEMBLY OCCUPANCIES IS 55 dBA. THEREFORE, THE DESIGN AVERAGE SOUND PRESSURE LEVEL IS 95 dBA FOR MANUFACTURING AND PLATING AREAS, AND IS 70 dBA FOR OFFICE AREAS, BREAKROOM, AUDITORIUM, ETC. CONTRACTOR SHALL SELECT THE APPROPRIATE HORN LEVEL SETTING TO ACHIEVE REQUIRED SOUND LEVEL. CONTRACTOR SHALL INCLUDE IN HIS BID PROVIDING FINAL ADJUSTMENTS TO AUDIBLE DEVICES, INCLUDING CHANGING HORN OUTPUT SETTING WHERE REQUIRED TO PROVIDE A MINIMUM SOUND LEVEL OF 15 dBA ABOVE AMBIENT SOUND LEVEL OR 5 dBA ABOVE THE MAXIMUM SOUND LEVEL EXCEEDING 60 SECONDS IN DURATION, WHICHEVER IS GREATER. AUDIBLE NAC CIRCUITS SHALL BE SIZED NOT TO EXCEED A 10% VOLTAGE DROP. PROVIDE EACH AUDIBLE NAC CIRCUIT WITH 25% SPARE CAPACITY.
11. ALL FIRE ALARM DEVICES (DETECTORS, ADDRESSABLE MODULES, PULL STATIONS, NOTIFICATION APPLIANCES, ETC.) SHALL BE PROVIDED WITH A TYPED LABEL ON THE FACE OF DEVICE OR COVER PLATE INDICATING ADDRESS AND NAC OR SLC NUMBER. SLC DEVICE ADDRESS SHALL MATCH THE ADDRESS DISPLAYED ON THE CONTROL PANEL SYSTEM DISPLAY.
12. CEILING MOUNTED DEVICES AND APPLIANCES LOCATED IN ACT CEILINGS SHALL BE SUPPORTED INDEPENDENT OF THE CEILING. LOCATE DEVICE CENTERED IN THE TILE.
13. FIRE ALARM INTERFACE WITH ELEVATORS WHERE APPLICABLE SHALL BE PER ASME/ANSI A17.1. ELEVATOR FIRE ALARM INTERFACE SHALL BE AS FOLLOWS: SMOKE DETECTORS IN ELEVATOR MACHINE ROOMS, LOBBIES AND ELEVATOR HOISTWAYS, WHEN IN ALARM STATUS, SHALL IMMEDIATELY SEND THE FIRE ALARM SYSTEM INTO ALARM AND SHALL IMMEDIATELY SEND A SIGNAL TO THE ELEVATOR CONTROLLER TO INITIATE PHASE I RECALL. PHASE I RECALL SHALL CAUSE THE ELEVATOR TO RETURN TO THE DESIGNATED OR ALTERNATE FLOOR, PACK AND OPEN DOORS. HEAT DETECTORS IN ELEVATOR MACHINE ROOMS SHALL BE 135 DEGREE F, AND WHEN IN ALARM STATUS, SHALL IMMEDIATELY SEND THE FIRE ALARM SYSTEM IN TO ALARM MODE AND INITIATE ELEVATOR RECALL. ACTIVATION OF ANY ELEVATOR MACHINE ROOM OR HOISTWAY OR PIT FLOW SWITCH SHALL IMMEDIATELY OPERATE THE ELEVATOR POWER BREAKER SHUNT TRIP AND SEND THE FIRE ALARM SYSTEM IN TO ALARM MODE. ALL ELEVATOR HOISTWAY, PIT AND MACHINE ROOM SMOKE AND HEAT DETECTORS SHALL HAVE AN EXTRA SET OF CONTACTS TO OPERATE THE IN-CAR FIRE HAT WHEN IN ALARM STATUS. CONTRACTOR SHALL INCLUDE IN HIS BID OBTAINING THE SERVICES OF THE ELEVATOR MANUFACTURER SPECIFIC AUTHORIZED SERVICE PROVIDER AND ENSURE ALL HARDWARE, PROGRAMMING AND INTERFACE REQUIRED IS PROVIDED.
14. EXISTING CABLING MAY BE RE-USED TO THE EXTENT PRACTICABLE. REMOVE ALL UN-USED EXISTING FIRE ALARM CABLING. ALL CIRCUITS SHALL HAVE A LEVEL 0 SURVIVABILITIY AS DEFINED BY NFPA 72. SIGNALING LINE CIRCUITS (SLC) AND NOTIFICATION APPLIANCE CIRCUITS (NAC) SHALL BE CLASS B. ALL VISUAL NAC CIRCUITS WITH VISUAL APPLIANCES LOCATED WITHIN SITE SHALL BE SYNCHRONIZED PER NFPA 72. MINIMUM CABLING FOR INITIATION CIRCUITS SHALL BE 14/2 AWG; 18/2 AWG TWISTED SHIELDED PAIR FOR SLC CIRCUITS; 12/2 AWG FOR NAC CIRCUITS (SHIELDED FOR VOICE SYSTEMS). SIZES LISTED ABOVE ARE MINIMUMS; ACTUAL SIZE SHALL BE AS DETERMINED BY CONTRACTOR BASED ON MANUFACTURER SPECIFIC REQUIREMENTS AND THE VOLTAGE DROP REQUIREMENTS OF THESE DOCUMENTS.
15. ALL EXPOSED FIRE ALARM CABLING SHALL BE INSTALLED IN CONDUIT. CONDUIT SHALL BE MINIMUM 3/4". THE PROJECT STANDARD IS EMT CONDUIT; HOWEVER, FLEXIBLE METAL CONDUIT (FMC) MAY BE UTILIZED IN EXISTING WALLS AND ABOVE HARD CEILINGS. SUPPORT ALL CONDUIT PER NEC. ALL NEW RACEWAYS SHALL BE RED. EXISTING RACEWAYS MAY BE REUSED WHERE FEASIBLE. WHERE AN EXISTING RACEWAY IS REUSED, ALSO PROVIDE NEW COMPONENTS AS REQUIRED FOR A COMPLETE, CODE COMPLIANT INSTALLATION. ALL RACEWAYS IN FINISHED AREAS SHALL BE CONCEALED. WHERE A NEW DEVICE IS INDICATED ON A GYPSUM BOARD WALL, CUT BOX IN WALL AND UTILIZE FLEXIBLE METAL CONDUIT TO FISH WALL AND CONCEAL RACEWAY. WHERE A RACEWAY CANNOT BE CONCEALED IN A FINISHED AREA DUE TO WALL AND/OR CEILING CONSTRUCTION, SURFACE RACEWAY MAY BE UTILIZED ONLY AFTER OBTAINING WRITTEN PERMISSION FROM THE OWNER. SURFACE CONDUIT MAY BE UTILIZED IN UNFINISHED AREAS, SUCH AS MECHANICAL AND ELECTRICAL ROOMS AND SIMILAR AREAS.
16. EXISTING OUTLET BOXES THAT ARE NOT REUSED SHALL HAVE THE OPENING PATCHED AND REPAIRED AND PAINTED TO MATCH THE SURROUNDING AREA. CONCEALED CONDUITS NOT REUSED MAY BE ABANDONED. PROVIDE A LABEL ON ABANDONED JUNCTION BOXES LABELING THEM AS SUCH.
17. EXPOSED CONDUITS AND SURFACE RACEWAYS SHALL BE PAINTED TO MATCH THE SURROUNDING SURFACE. FIRE ALARM JUNCTION BOXES SHALL BE PAINTED RED WITH THE WORD "FIRE" IN WHITE LETTERS. PROVIDE CONDUIT BANDS ON RACEWAYS LOCATED ABOVE CEILINGS INDICATING FIRE ALARM CONDUITS.
18. PROVIDE ALL 120V POWER REQUIRED FOR THE FIRE ALARM SYSTEM. PROVIDE CIRCUIT BREAKER LOCK-ON DEVICES FOR EACH CIRCUIT ASSOCIATED WITH THE FIRE ALARM SYSTEM AND PROVIDE RED BREAKER OR RED DOT ON BREAKER TO INDICATED CIRCUIT IS ASSOCIATED WITH FIRE ALARM. FIRE ALARM CIRCUITS SHALL BE DEDICATED. POWER SUPPLY REQUIREMENTS SHALL BE DETERMINED BY THE CONTRACTOR BASED ON MANUFACTURER SPECIFIC REQUIREMENTS AND SHALL BE INCLUDED IN HIS BID. ACCEPTABLE LOCATIONS FOR POWER SUPPLIES ARE INDICATED ON THE DRAWINGS. PROPOSED LOCATIONS OTHER THAN THOSE INDICATED ON THE DRAWINGS SHALL BE SUBMITTED IN WRITING TO THE OWNER AND ENGINEER FOR REVIEW AND APPROVAL. PROVIDE SPECIFIED SURGE PROTECTION DEVICES AT EACH PIECE OF EQUIPMENT CONNECTING TO 120V POWER.
19. ALL NEW BREAKERS PROVIDED AS PART OF THIS PROJECT SHALL BE OF SAME TYPE AND AIC RATING AS EXISTING BREAKERS AND SHALL BE COMPATIBLE WITH EXISTING PANEL. PROVIDE UPDATED, TYPED PANEL INDEXES FOR EACH PANEL AFFECTED BY THIS PROJECT.
20. ALL PENETRATIONS IN MASONRY AND BLOCK WALLS/FLOORS SHALL BE CORE-DRILLED AND SLEEVED.
21. FIRE RATINGS ARE INDICATED ON THE DRAWINGS. NEW PENETRATIONS IN FIRE RATED WALLS, PARTITIONS, FLOORS AND CEILINGS SHALL BE PROPERLY CLEANED AND SEALED WITH AN APPROVED FIRE STOPPING MATERIAL SO AS TO MAINTAIN FIRE RESISTANCE RATING OF THE SYSTEM. EACH FIRESTOP SYSTEM SHALL BE LABELED SO AS TO IDENTIFY THE FIRESTOP UL SYSTEM NUMBER, FIRESTOP RATING, DATE OF INSTALLATION AND CONTRACTOR'S CONTACT INFORMATION. REFER TO THE SPECIFICATIONS FOR DETAILS AND REQUIREMENTS.
22. LOCATION OF DEVICES AND EQUIPMENT INDICATED ON THE DRAWINGS IS APPROXIMATE AND IT SHALL THEREFORE BE THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY CONDITIONS AND LOCATIONS PRIOR TO ROUGH-IN. ANY DISCREPANCIES SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE ENGINEER AND / OR OWNER'S REPRESENTATIVE.
23. CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING WITH EXISTING BUILDING COMPONENTS, SUCH AS LIGHT FIXTURES, DUCTWORK, DIFFUSERS, SPRINKLERS, SIGNS, PIPING AND SIMILAR COMPONENTS. CONTRACTOR SHALL IMMEDIATELY NOTIFY ENGINEER AND / OR OWNER'S REPRESENTATIVE IF EXISTING BUILDING COMPONENTS PREVENT THE INSTALLATION OF DEVICES OR EQUIPMENT PER THE DOCUMENTS. THE CONTRACTOR SHALL VISIT THE SITE PRIOR TO SUBMITTING HIS BID SO AS TO VERIFY EXISTING CONDITIONS AND DETERMINE THE FULL EXTENT OF DEMOLITION REQUIRED. CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR COORDINATING WITH NEW AND EXISTING BUILDING COMPONENTS. NO CHANGE ORDERS WILL BE APPROVED FOR ADDITIONAL WORK DUE TO THE CONTRACTOR NEGLECTING TO VISIT THE SITE AND GATHER ALL NECESSARY INFORMATION.
24. PROVIDE OWNER AND AUTHORITY HAVING JURISDICTION WITH A RECORD OF COMPLETION.
25. ALL FIRE ALARM PANELS, INCLUDING COMMUNICATION, AND DACT PANELS SHALL BE HARD WIRED AND LOCATED ON A DEDICATED 120 VAC CIRCUIT, WHERE APPLICABLE.
26. CIRCUIT LOCKOUT DEVICES SHALL BE PROVIDED FOR ALL CIRCUITS DESIGNATED FOR THE FIRE ALARM SYSTEM, TO PREVENT UNAUTHORIZED ACCESS, OR ACCIDENTAL POWER SHUT-OFF. CIRCUIT WILL BE IDENTIFIED WITH RED MARKING IN ELECTRICAL PANEL IN ACCORDANCE WITH PANEL LISTING, PER NFPA 72.
27. SMOKE DETECTION SHALL BE SPACED AS PER REQUIREMENTS OF NFPA 72 AND THE MANUFACTURERS SPECIFICATIONS OF AREA COVERAGE PER SQUARE FOOT FOR DEVICES.
28. SMOKE DETECTORS SHALL NOT BE INSTALLED WITHIN 36" OF ANY AIR REGISTER (WHETHER SUPPLY OR RETURN AIR).
29. PROVIDE A DOCUMENTATION CABINET IN THE VICINITY OF THE FIRE ALARM CONTROL UNIT IN ACCORDANCE WITH NFPA 72 SECTION 7.7.2.. PROPER LABELING AND SECURITY OF THE CABINET SHALL FOLLOW NFPA 72 PARAMETERS.
30. INSTALLING CONTRACTOR SHALL MAINTAIN A SET OF CURRENT DRAWINGS MARKED UP TO INDICATE ACTUAL SYSTEM INSTALLATION CONDITIONS. RED SHALL BE USED TO INDICATE ADDITIONS TO THE DRAWINGS, GREEN SHALL BE USED TO INDICATE DELETIONS. THESE DRAWINGS WILL BE TURNED OVER TO THE SYSTEM DESIGNER AT PROJECT COMPLETION FOR PRODUCTION OF RECORD DOCUMENTATION.
31. FIRE ALARM SYSTEM DEVICES ARE SHOWN IN GENERAL LOCATIONS, EXACT LOCATIONS SHALL BE COORDINATED WITH OTHER TRADES, AND INSTALLED IN COMPLIANCE WITH NFPA 72 REQUIREMENTS BY THE INSTALLING CONTRACTOR.
32. INSTALLING CONTRACTOR SHALL ONLY USE DRAWINGS THAT ARE MARKED "ISSUED FOR CONSTRUCTION".
33. SMOKE DETECTORS SHALL NOT BE INSTALLED UNTIL AFTER THE CONSTRUCTION CLEANUP OF ALL TRADES IS COMPLETE AND FINAL IN ACCORDANCE WITH NFPA 72 REQUIREMENTS.
34. ALL RELAYS FOR CONTROL DEVICES SHALL BE LOCATED WITHIN 3' FT OF THE DEVICE PER NFPA 72 REQUIREMENTS.
35. HORNS AND/OR SPEAKERS SHALL BE TESTED TO BE IN COMPLIANCE WITH NFPA 72 REQUIREMENTS.
36. SURGE PROTECTION SHALL BE IN ACCORDANCE WITH NFPA 70 AND NFPA 72 REQUIREMENTS.
37. PROVIDE FIRE ALARM CONTROL PANEL INTERCONNECTION IN ACCORDANCE WITH NFPA 72 REQUIREMENTS.
38. DUCT DETECTORS SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURES TOLERANCES PER NFPA 72 REQUIREMENTS.
39. PRIOR TO FINAL ACCEPTANCE TESTING A COMPLETED RECORD OF COMPLETION, UPDATED DRAWINGS, AND OTHER DOCUMENTATION AS NEEDED SHALL BE PROVIDED TO THE INSPECTOR. CONTACT FOR ACCEPTANCE TESTING SHALL ONLY BE INITIATED BY THE FIRE ALARM CONTRACTOR WHEN HIS TESTING HAS BEEN COMPLETE.
40. FINAL ACCEPTANCE TESTING SHALL MEET NFPA 72 REQUIREMENTS.

CODE ANALYSIS - FIRE ALARM, DETECTION AND EMERGENCY ALARM REQUIREMENTS

1. **FIRE DETECTION, ALARM, AND VOICE EVACUATION**
VEBC SECTION 704.3 REQUIRES FIRE ALARM AND DETECTION SYSTEMS TO BE PROVIDED WHERE A BUILDING OCCUPANCY REQUIRES THIS SYSTEM AS PART OF CHANGE OF OCCUPANCY IN ACCORDANCE WITH VCC CHAPTER 9. THE EXISTING FIRE ALARM SYSTEM FUNCTIONS THROUGH A CEREBUS PYROTRONICS FIRE ALARM CONTROL PANEL (FACP) THAT WILL BE REPLACED TO MEET CURRENT VCC REQUIREMENTS.

2. **FIRE ALARM SYSTEM (VCC 907.2.3, 907.5.2.2)**
AN ADDRESSABLE FIRE ALARM SYSTEM DESIGNED, IN ACCORDANCE WITH NFPA 72, WILL BE PROVIDED TO REPLACE THE EXISTING SYSTEM IN ORDER TO SUPERVISE THE AUTOMATIC SPRINKLER SYSTEM, KITCHEN HOOD FIRE EXTINGUISHING SYSTEM, AND TO PROVIDE FOR OCCUPANT, FIRE DEPARTMENT, AND OPERATOR OR POLICE NOTIFICATION OF A FIRE ALARM CONDITION. OCCUPANT NOTIFICATION TO BE EQUIPPED BY EMERGENCY VOICE/ALARM COMMUNICATION SYSTEM MEETING THE PROVISIONS OF VCC SECTION 907.5.2.2 - SINCE VOICE EVACUATION SYSTEM IS CONSIDERED NON-REQUIRED BY VCC SECTION 103.3 AND 907.2.3, EMERGENCY POWER IS NOT REQUIRED TO BE SUPPLIED BY MEANS OF APPROVED SOURCE, AS WOULD BE NECESSITATED FOR A REQUIRED SYSTEM UNDER VCC SECTIONS 907.5.2.2.5 AND 2702. FIRE ALARM PULL STATIONS WILL BE OMITTED FROM THE BUILDING EXITS AND FOR THE MAJORITY OF THE BUILDING WHERE FULLY SPRINKLERED, EXCEPT THAT PULL STATIONS WILL BE PROVIDED IN THE MAIN CENTRAL OFFICE, AND IN THE FIRE SPRINKLER RISER ROOM(S), PER VCC 907.2.3, EXCEPTION 3.

3. **FIRE ALARM NOTIFICATION (VCC 907.5)**
BUILDING IS INTENDED TO EVACUATE OCCUPANTS AND NOTIFICATION IS REQUIRED TO BE PUBLIC OPERATING MODE THROUGHOUT THE PUBLIC AND COMMON SPACES OF THE BUILDING IN ACCORDANCE WITH NFPA 72 SECTIONS 3.3.185.2, 18.4.3 AND VCC SECTION 907.5.2. AUDIBLE ALARM IS REQUIRED TO BE DISTINCTIVE IN ACCORDANCE WITH NFPA 72 SECTION 18.4.2; VISUAL APPLIANCES WILL BE CLEAR-COLORED STROBE LENSES AND WILL BE MARKED WITH "ALERT" ON THE APPLIANCE, PER NFPA 72 SECTION 18.3.3.2. THIS WILL FURTHER FACILITATE A ONE-WAY IN-BUILDING MASS NOTIFICATION SYSTEM MEETING THE PROVISIONS OF NFPA 72 CHAPTER 24 FOR EMERGENCY COMMUNICATION SYSTEMS.

4. **FIRE DETECTION SYSTEMS (VCC 907.4.1)**
AUTOMATIC DETECTION WILL BE LIMITED IN USE WILL BE PROVIDED TO PROTECT FACP, NOTIFICATION ALARM CIRCUIT (NAC) PANELS, LOCAL OPERATING CONSOLES (LOC), AND THE FIRE ALARM ANNUNCIATING PANEL (FAA).

5. **DUCT SMOKE DETECTION (VCC 907.3.1, VMC 606)**
DUCT SMOKE DETECTORS WILL BE PROVIDED IN ACCORDANCE WITH VMC SECTION 606. AHU'S GREATER THAN 2,000 CFM OR WHERE SHARING A COMMON SUPPLY/RETURN GREATER THAN 2,000 CFM WILL BE PROVIDED WITH DETECTORS ON THE ON THE RETURN AIR LINES, PER VMC SECTION 606.2.1. AHU'S GREATER THAN 15,000 CFM WILL BE PROVIDED WITH DETECTORS ON BOTH THE SUPPLY AND RETURN DUCTS, PER VMC SECTION 606.2.3. SIGNAL WILL BE SUPERVISORY ONLY.

6. **AUTOMATIC HOLD-OPEN DEVICES**
SMOKE DETECTORS WILL ALSO BE PROVIDED FOR ANY FIRE PROTECTION DOORS HELD-OPEN IN ACCORDANCE WITH NFPA 80 AND NFPA 72.

7. **CIRCUITRY**
ALL PATHWAY WIRING, CABLE AND EQUIPMENT SHALL MEET NFPA 70, ARTICLE 760. PATHWAY SURVIVABILITY OF LEVEL 0 IS REQUIRED FOR THIS SYSTEM, PER NFPA 72. A SURVIVABILTY LEVEL OF 1 IS ACCOMMODATED FOR ALL CIRCUITS IN A FULLY SPRINKLERED BUILDING, PER NFPA 72 SECTION 12.4.2. INDIVIDUAL SIGNALING LINE CIRCUITS (SLC) SHALL BE LIMITED TO A MAXIMUM OF 50 ADDRESSABLE DEVICES PER NFPA 72 SECTION 23.6.1. MONITORING CIRCUITS FOR INTEGRITY SHALL MEET NFPA 72 SECTION 12.6. THE FOLLOWING PATHWAYS WILL BE DESIGNATED AS FOLLOWS, IN ACCORDANCE WITH NFPA 72 SECTION 12.3:
    - CLASS B SIGNALING LINE CIRCUITS
    - CLASS B NOTIFICATION APPLIANCE CIRCUITS

8. **FIRE ALARM SYSTEM FEATURES**
THE FOLLOWING ITEMS WILL BE THE BASIS OF DESIGN FOR THE FIRE ALARM SYSTEM DESIGN:
    - FIRE ALARM CONTROL PANEL
    - FIRE ALARM SUBPANELS (EMERGENCY ALARM FIRE ALARM CONTROL UNIT, NAC POWER BOOSTER PANELS AS APPLICABLE)
    - FIRE ALARM ANNUNCIATOR PANELS
    - FIRE ALARM TRANSMISSION TO THE MONITORING STATION (I.E., CENTRAL STATION, REMOTE STATION, ETC.)
    - SUPERVISION OF SUPPRESSION SYSTEMS (I.E., SPRINKLER SYSTEM, HOOD SUPPRESSION) ALARM AND SUPERVISORY DEVICES
    - SMOKE DETECTORS (SPOT-TYPE)
    - DUCT SMOKE DETECTORS
    - MANUAL FIRE ALARM STATIONS (LIMITED LOCATIONS, ONLY AS REQUIRED BY CODE FOR FULLY SPRINKLERED BUILDING)
    - AUDIBLE NOTIFICATION APPLIANCES
    - IN-BUILDING MASS NOTIFICATION LOCAL OPERATING CONSOLES
    - VISUAL NOTIFICATION APPLIANCES IN PUBLICLY ACCESSIBLE AREAS AND COMMON USE AREAS

ABBREVIATIONS

A	AMPERE	NTS	NOT TO SCALE
ACT	ACOUSTIC CEILING TILE	PNL	PANELBOARD
AFF	ABOVE FINISHED FLOOR	RB	RELAY BASE
AHJ	AUTHORITY HAVING JURISDICTION	RI	REMOTE INDICATOR
AHU	AIR-HANDLING UNIT	SB	SOUNDER BASE
AIC	AMPERES INTERRUPTING CAPACITY	SC	SMOKE CONTROL
AWG	AMERICAN WIRE GAUGE	SLC	SIGNAL LINE CIRCUIT
C	CEILING MOUNT	SV	SMOKE VENT
CKT	CIRCUIT	TYP	TYPICAL
CLG	CEILING	UNO	UNLESS NOTED OTHERWISE
DAL	DIGITAL AUDIO LOOP	V	VOLT
DR	DOOR RELEASE	VA	VOLT-AMPERE
DWG	DRAWING	W	WALL MOUNT
EM	EXISTING TO BE REMOVED	WP	WEATHERPROOF
ERC	ELEVATOR RECALL/CAPTURE		
ETR	EXISTING TO REMAIN		
EXIST	EXISTING		
EXP	EXPOSED		
FACP	FIRE ALARM CONTROL PANEL		
FACU	FIRE ALARM CONTROL UNIT		
FC			
FMC	FLEXIBLE METAL CONDUIT		
FRC	FIRE RATED CURTAIN		
GYP	GYPBOARD OR GYPSUM BOARD		
KVA	KILO-VOLT-AMPERES		
KW	KILO-WATTS		
NAC	NOTIFICATION APPLIANCE CIRCUIT		
NEC	NATIONAL ELECTRICAL CODE		

STANDARD SYMBOLS

	EXISTING TO BE REMOVED LINE TYPE
	EXISTING TO REMAIN LINE TYPE
	NEW LINE TYPE
	1 HOUR RATED WALL
	2 HOUR RATED WALL
8'-6"	CEILING HEIGHT / TYPE INDICATOR
#	KEY NOTE INDICATOR
AMP	AMPLIFIER RACK
ARCM	AREA OF REFUGE EMERGENCY COMMUNICATION SYSTEM - MASTER UNIT
DACT	DIGITAL ALARM COMMUNICATION TRANSMITTER
FAA	FIRE ALARM ANNUNCIATOR
FACP	FIRE ALARM CONTROL PANEL
FACU	FIRE ALARM CONTROL UNIT
GAP	GRAPHIC ANNUNCIATOR PANEL
NAC	NOTIFICATION CIRCUIT POWER BOOSTER, EXTENDER PANEL
PRE	PRE-ACTION SYSTEM/CONTROL UNIT
AIM	ADDRESSABLE INPUT MONITOR MODULE
AOM	ADDRESSABLE OUTPUT CONTROL MODULE
SB CO	CARBON MONOXIDE DETECTOR. 'SB' DENOTES SOUNDER BASE
R/F	HEAT DETECTOR. 'R' DENOTES RATE-OF-RISE. 'F' DENOTES FIXED TEMPERATURE.
WF	FLOW DETECTOR / SWITCH
TS	TAMPER SWITCH
PS	PRESSURE DETECTOR/SWITCH
F	PULL STATION / FIRE ALARM BOX
S ID	SMOKE DETECTOR - IN DUCT
S	SMOKE DETECTOR
CD C	COMBINATION HORN / VISIBLE. 'CD' DENOTES CANDELA RATING / SETTING. 'C' DENOTES CEILING MOUNTED (WALL MOUNTED OTHERWISE)
CD C	COMBINATION SPEAKER / VISIBLE. 'CD' DENOTES CANDELA RATING / SETTING. 'C' DENOTES CEILING MOUNTED (WALL MOUNTED OTHERWISE)
H	HORN ONLY. 'C' DENOTES CEILING MOUNTED (WALL MOUNTED OTHERWISE)
S C	SPEAKER ONLY. 'C' DENOTES CEILING MOUNTED (WALL MOUNTED OTHERWISE)
CD	VISIBLE ONLY (STROBE) - CEILING MOUNT CD = CANDELA RATING / SETTING
CD	VISIBLE ONLY (STROBE) - WALL MOUNT CD = CANDELA RATING / SETTING
DH W	DOOR HOLDER. 'W' DENOTES WALL. 'F' DENOTES FLOOR
	PANELBOARD
# ##	ELEVATION IDENTIFION BUBBLE. '#' ELEVATION NUMBER. '##' SHEET ELEVATION IS SHOWN ON
# ## ###	DETAIL IDENTIFICATION BUBBLE. '#' DETAIL NUMBER. '##' SHEET DETAIL IS SHOWN ON. '###' SHEET DETAIL IS TAKEN FROM.

DRAWING INDEX

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REVISIONS

No.	DATE	DESCRIPTION
X	X	X

DRAWN BY:	KNS
REV'D BY:	JBB
DATE:	6/17/22
SCALE:	AS SHOWN

FIRE ALARM CODE DATA

FA001

ACOUSTICALLY DISTINGUISHABLE SPACES (ADS) GROUND FLOOR

SPACE	CEILING HEIGHT (FT)	CEILING TYPE (SEE KEY)	ADS (Y/N - NOTIFICATION TYPE)#	PUBLIC OR PRIVATE MODE	AMBIENT SOUND PRESSURE (dBA)*	MIN. DESIGN SOUND PRESSURE (dB)	REMARKS
LANDSCAPE EQUIPMENT AND SUPPLIES STORAGE 101E		OPN	N	-	-	-	NON-OCCUPIABLE SPACE - VCC 907.5.2.1.1
LOCKER ROOM 101D	9' 0"	ACT	Y - SPEAKER	PUBLIC	55	70	
TOILET ROOM 101C	9' 0"	ACT	Y - SPEAKER	PUBLIC	45	60	
TOILET ROOM 101B	9' 0"	ACT	Y - SPEAKER	PUBLIC	45	60	
CLASSROOM 101	9' 8"	ACT	Y - SPEAKER	PUBLIC	45	60	
STORAGE 102E		OPN	N	-	-	-	NON-OCCUPIABLE SPACE - VCC 907.5.2.1.1
PATIENT TOILET 102D	9' 0"	ACT	Y - SPEAKER	PUBLIC	55	70	
MEDS PREP 102C	9' 0"	ACT	N	-	-	-	NON-OCCUPIABLE SPACE - VCC 907.5.2.1.1
OFFICE 101A	9' 0"	ACT	Y - SPEAKER	PUBLIC	55	70	
CLASSROOM 102 / PATIENT ROOM 102B	9' 8"	ACT	Y - SPEAKER	PUBLIC	45	60	
OFFICE 102A	9' 0"	ACT	Y - SPEAKER	PUBLIC	55	70	
ELECTRICAL ROOM 102		OPN	Y - SPEAKER	PUBLIC	80	95	
CORR 100E	9' 8"	ACT					
CORR 100F	9' 0"	ACT	Y - SPEAKER	PUBLIC	55	70	
ELEC 100G		OPN					
STAIR 1 100H		OPN	N	-	-	-	NOTIFICATION NOT REQUIRED - NFPA 72:23.8.6.2
STORAGE 103E		OPN	N	-	-	-	NON-OCCUPIABLE SPACE - VCC 907.5.2.1.1
OFFICE 103A	9' 0"	ACT	Y - SPEAKER	PUBLIC	55	70	
CLASSROOM 103	9' 8"	ACT	Y - SPEAKER	PUBLIC	55	70	
TEACHERS WORK AREA 104A	10' 0"	ACT	Y - SPEAKER	PUBLIC	55	70	
CONF. ROOM 104B	10' 0"	ACT	Y - SPEAKER	PUBLIC	55	70	
BREAK ROOM 104C	9' 0"	ACT	Y - SPEAKER	PUBLIC	55	70	
STORAGE 104D	9' 0"	ACT	N	-	-	-	NON-OCCUPIABLE SPACE - VCC 907.5.2.1.1
COPY / FILE 104E	9' 0"	ACT	Y - SPEAKER	PUBLIC	55	70	
WOMENS TOILET 104G	9' 0"	ACT	Y - SPEAKER	PUBLIC	55	70	
MENS TOILET 104F	9' 0"	ACT	Y - SPEAKER	PUBLIC	55	70	
CLINIC TOILET 104H	9' 0"	ACT	Y - SPEAKER	PUBLIC	55	70	
CLINIC 104J	9' 0"	ACT	Y - SPEAKER	PUBLIC	55	70	
OFFICE STORAGE 104I	9' 0"	ACT	N	-	-	-	NON-OCCUPIABLE SPACE - VCC 907.5.2.1.1
CLOSET 104K		ACT	N	-	-	-	NON-OCCUPIABLE SPACE - VCC 907.5.2.1.1
ASST. DIR OFFICE 104L	9' 8"	ACT	Y - SPEAKER	PUBLIC	55	70	
COUNSELOR OFFICE 104M	9' 8"	ACT	Y - SPEAKER	PUBLIC	55	70	
WORK BASED OFFICE 104N	9' 8:	ACT	Y - SPEAKER	PUBLIC	55	70	
BOOKING OFFICE 104O	9' 8"	ACT	Y - SPEAKER	PUBLIC	55	70	
DIRECTORS OFFICE 104P	9' 8"	ACT	Y - SPEAKER	PUBLIC	55	70	
CORRIDOR 104	9' 8"	ACT	Y - SPEAKER	PUBLIC	55	70	
WAITING ROOM 100C	9' 8"	ACT	Y - SPEAKER	PUBLIC	55	70	
RECEPT 100A	9' 8"	ACT	Y - SPEAKER	PUBLIC	55	70	
SUPPLIES 100B	9' 8"	ACT	N	-	-	-	NON-OCCUPIABLE SPACE - VCC 907.5.2.1.1
VESTIBULE 100	9' 8"	WPC	Y - SPEAKER	PUBLIC	55	70	
GIRLS TOILET 100I	10' 0"	GCB	Y - SPEAKER	PUBLIC	55	70	
BOYS TOILET 100J	10' 0"	GCB	Y - SPEAKER	PUBLIC	55	70	
LOBBY 100D	9' 8"	WPC	Y - SPEAKER	PUBLIC	55	70	
STORAGE 105E	9' 8"	ACT	N	-	-	-	NON-OCCUPIABLE SPACE - VCC 907.5.2.1.1
REFRIG 105F		OPN	N	-	-	-	NON-OCCUPIABLE SPACE - VCC 907.5.2.1.1
DRY STORAGE 105G	9' 8"	ACT	N	-	-	-	NON-OCCUPIABLE SPACE - VCC 907.5.2.1.1
DISHWASHING 105H	9' 8"	ACT	Y - SPEAKER	PUBLIC	80	95	
EQUIP/DELIVERY 105I		OPN	Y - SPEAKER	PUBLIC	80	95	
KITCHEN 105D	9' 8"	ACT	Y - SPEAKER	PUBLIC	80	95	
OFFICE 105A	9' 0"	ACT	Y - SPEAKER	PUBLIC	55	70	
TOILET 105B	9' 0"	ACT	Y - SPEAKER	PUBLIC	45	60	
TOILET 105C	9' 0"	ACT	Y - SPEAKER	PUBLIC	45	60	
CLASSROOM 105	9' 0"	GCB	Y - SPEAKER	PUBLIC	45	60	
CORR 100O	9' 0"	ACT					
TOILET 100K	9' 0"	ACT	Y - SPEAKER	PUBLIC	55	70	
JAN 100N		OPN	Y - SPEAKER	PUBLIC	55	70	
CORR 100F	9' 0"	ACT					
MRF ROOM 100M		OPN	Y - SPEAKER	PUBLIC	55	70	
OFFICE 106A	9' 0"	ACT	Y - SPEAKER	PUBLIC	55	70	
VENDING 100L	9' 0"	GCB		PUBLIC			
STORAGE 106B		OPN	N	-	-	-	NON-OCCUPIABLE SPACE - VCC 907.5.2.1.1
CLASSROOM 106	9' 8"	ACT	Y - SPEAKER	PUBLIC	45	60	
OFFICE 107A	9' 8"	ACT	Y - SPEAKER	PUBLIC	55	70	
MATERIAL / EQUIP. STORAGE 107B	9' 0"	ACT	N	-	-	-	NON-OCCUPIABLE SPACE - VCC 907.5.2.1.1
ROBOT STORAGE 107C	9' 0"	ACT	N	-	-	-	NON-OCCUPIABLE SPACE - VCC 907.5.2.1.1
STORAGE 107D	9' 8"	ACT	Y - SPEAKER	PUBLIC	80	95	
CLASSROOM 107	9' 8"	ACT	Y - SPEAKER	PUBLIC	45	60	
CORR 100Q	9' 8"	ACT					
CORR 100R	9' 0"	ACT	Y - SPEAKER	PUBLIC	55	70	
STAIR 2 100P		OPN	N	-	-	-	
ELEVATOR			N	-	-	-	NOTIFICATION NOT REQUIRED - NFPA 72:23.8.6.2
CORR 100T	9' 0"	ACT					
CLASSROOM 109	9' 8"	ACT	Y - SPEAKER	PUBLIC	45	60	
STAIR 3 100W		OPN	N	-	-	-	NOTIFICATION NOT REQUIRED - NFPA 72:23.8.6.2
JAN 100X		OPN	N	-	-	-	NON-OCCUPIABLE SPACE - VCC 907.5.2.1.1
OFFICE 109A	9' 0"	ACT	Y - SPEAKER	PUBLIC	55	70	
TOILET 109B	9' 0"	ACT	Y - SPEAKER	PUBLIC	45	60	
TOILET 109C	9' 0"	ACT	Y - SPEAKER	PUBLIC	45	60	
BOYS TOILET 100AA	10' 0"	GCB	Y - SPEAKER	PUBLIC	55	70	
GIRLS TOILET 100BB	10' 0"	GCB	Y - SPEAKER	PUBLIC	55	70	
WELDING TEACHING LAB 109H		OPN	Y - SPEAKER	PUBLIC	80	95	
STAIR 4 100AB		OPN	N	-	-	-	NOTIFICATION NOT REQUIRED - NFPA 72:23.8.6.2
STORAGE 109F		OPN					
STORAGE 109E		OPN					
LOCKER ROOM 109D	9' 0"	ACT					
MASONRY STORAGE 108D		OPN	N	-	-	-	NON-OCCUPIABLE SPACE - VCC 907.5.2.1.1
LOCKER ROOM 108C	9' 0"	ACT	Y - SPEAKER	PUBLIC	55	70	
VEST. 100U	9' 0"	ACT					
STORAGE 108B		OPN	N	-	-	-	NON-OCCUPIABLE SPACE - VCC 907.5.2.1.1
MASONRY TEACHING LAB 108E		OPN	Y - SPEAKER	PUBLIC	55	70	
OFFICE 108A	9' 0"	ACT	Y - SPEAKER	PUBLIC	55	70	
BUILDING TRADES TEACHING LAB 108		OPN	Y - SPEAKER	PUBLIC	55	70	
STORAGE 108I		OPN	N	-	-	-	NON-OCCUPIABLE SPACE - VCC 907.5.2.1.1
STORAGE 108J		OPN	N	-	-	-	NON-OCCUPIABLE SPACE - VCC 907.5.2.1.2
TOILET 108F	9' 0"	ACT	Y - SPEAKER	PUBLIC	45	60	
TOILET 108G	9' 0"	ACT	Y - SPEAKER	PUBLIC	45	60	
CLASSROOM 108H	9' 8"	ACT	Y - SPEAKER	PUBLIC	45	60	
LOCKER ROOM 110D	9' 0"	ACT	Y - SPEAKER	PUBLIC	55	70	
STORAGE 110E		OPN	N	-	-	-	NON-OCCUPIABLE SPACE - VCC 907.5.2.1.1
STORAGE 110F		OPN	N	-	-	-	NON-OCCUPIABLE SPACE - VCC 907.5.2.1.1
AUTOMOTIVE TEACHING LAB 107		OPN	Y	PUBLIC	80	95	
TOILET 110B	9' 0"	ACT	Y - SPEAKER	PUBLIC	45	60	
TOILET 110C	9' 0"	ACT	Y - SPEAKER	PUBLIC	45	60	
OFFICE 110A	9' 0"	ACT	Y - SPEAKER	PUBLIC	55	70	
CLASSROOM 110	9' 8"	ACT	Y - SPEAKER	PUBLIC	45	60	

ACOUSTICALLY DISTINGUISHABLE SPACE (ADS) DESIGNATION IS A FUNCTION OF THE INTELLIGIBILITY REQUIREMENTS FOR VOICE EVACUTION AND EMERGENCY COMMUNICATION SYSTEMS. REFER TO NFPA 72:18.4.10 FOR ADDITIONAL INFORMATION.

* TYPICAL AVERAGE AMBIENT SOUND LEVELS FOR ALARM TONES BASED ON NFPA 72 TABLE A.18.4.3. THIS SERVES AS A BASIS OF DESIGN, BUT SHOULD NOT BE USED IN LIEU OF SOUND LEVEL MEASUREMENTS WHERE OTHERWISE REQUIRED.

ACOUSTICALLY DISTINGUISHABLE SPACES (ADS) SECOND FLOOR

SPACE	CEILING HEIGHT (FT)	CEILING TYPE (SEE KEY)	ADS (Y/N - NOTIFICATION TYPE)#	PUBLIC OR PRIVATE MODE	AMBIENT SOUND PRESSURE (dBA)*	MIN. DESIGN SOUND PRESSURE (dB)	REMARKS
CLASSROOM 201	9' 8"	ACT	Y - SPEAKER	PUBLIC	45	60	
STORAGE 201B		OPN					NON-OCCUPIABLE
OFFICE 201A	9' 8"	ACT	Y - SPEAKER	PUBLIC	45	60	
CORR 200M	9' 8"	ACT					
CLASSROOM 202	9' 8"	ACT	Y - SPEAKER	PUBLIC	45	60	
STORAGE 202B		OPN					NON-OCCUPIABLE
OFFICE 202A	9' 0"	ACT	Y - SPEAKER	PUBLIC	45	60	
ELEC ROOM 200P		OPN	Y - SPEAKER	PUBLIC	80	95	
CORR 200Q	9' 8"	ACT					
CORR 200K	9' 0"	GCB	Y - SPEAKER	PUBLIC	55	70	
STAIR 2 200L		ACT	N	-	-	-	NOTIFICATION NOT REQUIRED - NFPA 72:23.8.6.2
CORR 200N	9' 8"	ACT					
CLASSROOM 203	9' 8"	ACT	Y - SPEAKER	PUBLIC	45	60	
OFFICE 203A	9' 0"	ACT	Y - SPEAKER	PUBLIC	55	70	
STORAGE 203B		OPN	N	-	-	-	NON-OCCUPIABLE SPACE - VCC 907.5.2.1.1
CORR 200R	9' 0"	ACT					
OFFICE 204A	9' 0"	ACT	Y - SPEAKER	PUBLIC	55	70	
AUDIO BOOTH 204B	9' 0"	ACT	Y - SPEAKER	PUBLIC	55	70	
STORAGE 204C		OPN	N	-	-	-	NON-OCCUPIABLE SPACE - VCC 907.5.2.1.1
CLASSROOM 204	9' 8"	ACT	Y - SPEAKER	PUBLIC	45	60	
STUDIO STAGE 204D		OPN	Y - SPEAKER	PUBLIC	45	60	
CONTROL ROOM 204E	9' 0"	ACT	Y - SPEAKER	PUBLIC	45	60	
EDITING STATIONS 204F	9' 8"	ACT					
CORR 200O	9' 0"	ACT	Y - SPEAKER	PUBLIC	55	70	
IDF ROOM 200A		OPN	Y - SPEAKER	PUBLIC	55	70	
CONFERENCE ROOM 200B	9' 0"	ACT	Y - SPEAKER	PUBLIC	55	70	
SUPPLIES / COPY 200C	9' 0"	ACT	Y - SPEAKER	PUBLIC	55	70	
CORR 200E	9' 0"	ACT					
JAN 200F		OPN	N	-	-	-	NON-OCCUPIABLE SPACE - VCC 907.5.2.1.1
GIRLS TOILET 200G	9' 0"	ACT	Y - SPEAKER	PUBLIC	45	60	
TOILET 200H	9' 0"	ACT	Y - SPEAKER	PUBLIC	45	60	
STAFF LOUNGE 200D	9' 0"	ACT	Y - SPEAKER	PUBLIC	55	70	
GIRLS TOILET 200I	10' 0"	GCB	Y - SPEAKER	PUBLIC	55	70	
BOYS TOILET 200J	10' 0"	GCB	Y - SPEAKER	PUBLIC	55	70	
CORR 200O	9' 0"	ACT	Y - SPEAKER	PUBLIC	55	70	
CLASSROOM 205	9' 8"	ACT	Y - SPEAKER	PUBLIC	45	60	
OFFICE 205A	9' 0"	ACT	Y - SPEAKER	PUBLIC	55	70	
EQUIP/ SUPPLIES 205B		OPN	N	-	-	-	NON-OCCUPIABLE SPACE - VCC 907.5.2.1.1
TEACHING LAB 205C	9' 8"	ACT	Y - SPEAKER	PUBLIC	45	60	
CORRIDOR 200S	9' 0"	ACT	Y - SPEAKER	PUBLIC	55	70	
TEACHING LAB 206F	9' 8"	ACT	Y - SPEAKER	PUBLIC	45	60	
MANAKIN STORAGE 206G	9' 0"	ACT	N	-	-	-	NON-OCCUPIABLE SPACE - VCC 907.5.2.1.1
GENERAL STORAGE 206H		OPN	N	-	-	-	NON-OCCUPIABLE SPACE - VCC 907.5.2.1.1
STOR/PREP ROOM 206I	9' 0"	ACT	N	-	-	-	NON-OCCUPIABLE SPACE - VCC 907.5.2.1.1
RECEPTION / WAITING ROOM 206E	9' 8"	ACT	Y - SPEAKER	PUBLIC	55	70	
TOILET 206D	9' 0"	ACT	Y - SPEAKER	PUBLIC	55	70	
TOILET 206C	9' 0"	ACT	Y - SPEAKER	PUBLIC	55	70	
LOCKER ROOM	9' 0"	ACT	Y - SPEAKER	PUBLIC	55	70	
OFFICE 206A	9' 0"	ACT	Y - SPEAKER	PUBLIC	45	60	
CLASSROOM 206	9' 8"	ACT	Y - SPEAKER	PUBLIC	45	60	
OFFICE 207A	9' 0"	ACT	Y - SPEAKER	PUBLIC	55	70	
EQUIP/ SUPPLIES 207B		OPN	N	-	-	-	NON-OCCUPIABLE SPACE - VCC 907.5.2.1.1
CLASSROOM 207	9' 8"	ACT	Y - SPEAKER	PUBLIC	45	60	
CORRIDOR 200U	9' 8"	ACT	Y - SPEAKER	PUBLIC	55	70	
SHARED MULTI-PURPOSE SPACE 208A	9' 8"	ACT	Y - SPEAKER	PUBLIC	45	60	
CORR 200T	9' 0"	ACT					
SHARED MULTI-PURPOSE SPACE 208B	9' 8"	ACT	Y - SPEAKER	PUBLIC	45	60	
CORR 200V	9' 8"	ACT					
LOCKER ROOM 209E	9' 0"	ACT	Y - SPEAKER	PUBLIC	55	70	
TOILET 209D	9' 0"	ACT	Y - SPEAKER	PUBLIC	55	70	
TOILET 209C	9' 0"	ACT	Y - SPEAKER	PUBLIC	55	70	
RECEPT/WAITING 209B	9' 8"	ACT	Y - SPEAKER	PUBLIC	55	70	
CLASSROOM 209	9' 8"	ACT	Y - SPEAKER	PUBLIC	45	60	
TEACHING LAB 209F	9' 8"	ACT	Y - SPEAKER	PUBLIC	45	60	
OFFICE 209A	9' 0"	ACT	Y - SPEAKER	PUBLIC	55	70	
STOR/PREP ROOM 209I	9' 0"	ACT	N	-	-	-	NON-OCCUPIABLE SPACE - VCC 907.5.2.1.1
MANAKIN STORAGE 209G	9' 0"	ACT	N	-	-	-	NON-OCCUPIABLE SPACE - VCC 907.5.2.1.1
GENERAL STORAGE 209H		OPN	N	-	-	-	NON-OCCUPIABLE SPACE - VCC 907.5.2.1.1
CORRIDOR 200W	9' 0"	ACT	Y - SPEAKER	PUBLIC	55	70	
STAIR 2 200U		ACT	N	-	-	-	NOTIFICATION NOT REQUIRED - NFPA 72:23.8.6.2
ELEVATOR			N	-	-	-	NOTIFICATION NOT REQUIRED - NFPA 72:23.8.6.2
CORR 200X	9' 0"	ACT					
CLASSROOM 210	9' 8"	ACT	Y - SPEAKER	PUBLIC	45	60	
STORAGE 210E		OPN	N	-	-	-	NON-OCCUPIABLE SPACE - VCC 907.5.2.1.1
STAIR 3 200AA		ACT	N	-	-	-	NOTIFICATION NOT REQUIRED - NFPA 72:23.8.6.2
CORRIDOR 200Y	9' 0"	ACT	Y - SPEAKER	PUBLIC	55	70	
ELECTICAL ROOM 200Z		OPN	Y - SPEAKER	PUBLIC	80	95	
OFFICE 210A	9' 0"	ACT	Y - SPEAKER	PUBLIC	55	70	
TOILET 210D	9' 0"	ACT	Y - SPEAKER	PUBLIC	45	60	
TOILET 210C	9' 0"	ACT	Y - SPEAKER	PUBLIC	45	60	
MDF ROOM 200AC		OPN	Y - SPEAKER	PUBLIC	55	70	
STAIR 4 200AB		ACT	N	-	-	-	NOTIFICATION NOT REQUIRED - NFPA 72:23.8.6.2
HVAC TEACHING LAB 210B		OPN	Y - SPEAKER	PUBLIC	80	95	

ACOUSTICALLY DISTINGUISHABLE SPACE (ADS) DESIGNATION IS A FUNCTION OF THE INTELLIGIBILITY REQUIREMENTS FOR VOICE EVACUTION AND EMERGENCY COMMUNICATION SYSTEMS. REFER TO NFPA 72:18.4.10 FOR ADDITIONAL INFORMATION.

* TYPICAL AVERAGE AMBIENT SOUND LEVELS FOR ALARM TONES BASED ON NFPA 72 TABLE A.18.4.3. THIS SERVES AS A BASIS OF DESIGN, BUT SHOULD NOT BE USED IN LIEU OF SOUND LEVEL MEASUREMENTS WHERE OTHERWISE REQUIRED.

MINIMUM SOUND LEVELS ARE DESIGNATED IN ACCORDANCE WITH NFPA 72:18.4.3.1, OR 5 DB ABOVE MAXIMUM SOUND LEVEL HAVING A DURATION OF AT LEAST 60 SECONDS AND MEASURED 5 FT ABOVE THE FLOOR. AT NO TIME SHALL SOUND LEVELS EXCEED 110 DBA AT THE MINIMUM HEARING DISTACE, PER NFPA 72:18.4.1.2.

ABBREVIATIONS LEGEND KEY:

ADS	ACOUSTICALLY DISTINGUISHABLE SPACE
ACT	ACOUSTICAL CEILING TILE
DB	DECIBEL SOUND LEVEL
DBA	AVERAGE DECIBEL SOUND LEVEL
GCB	GYPSUM CEILING BOARD
OPN	OPEN TO ROOF DECK

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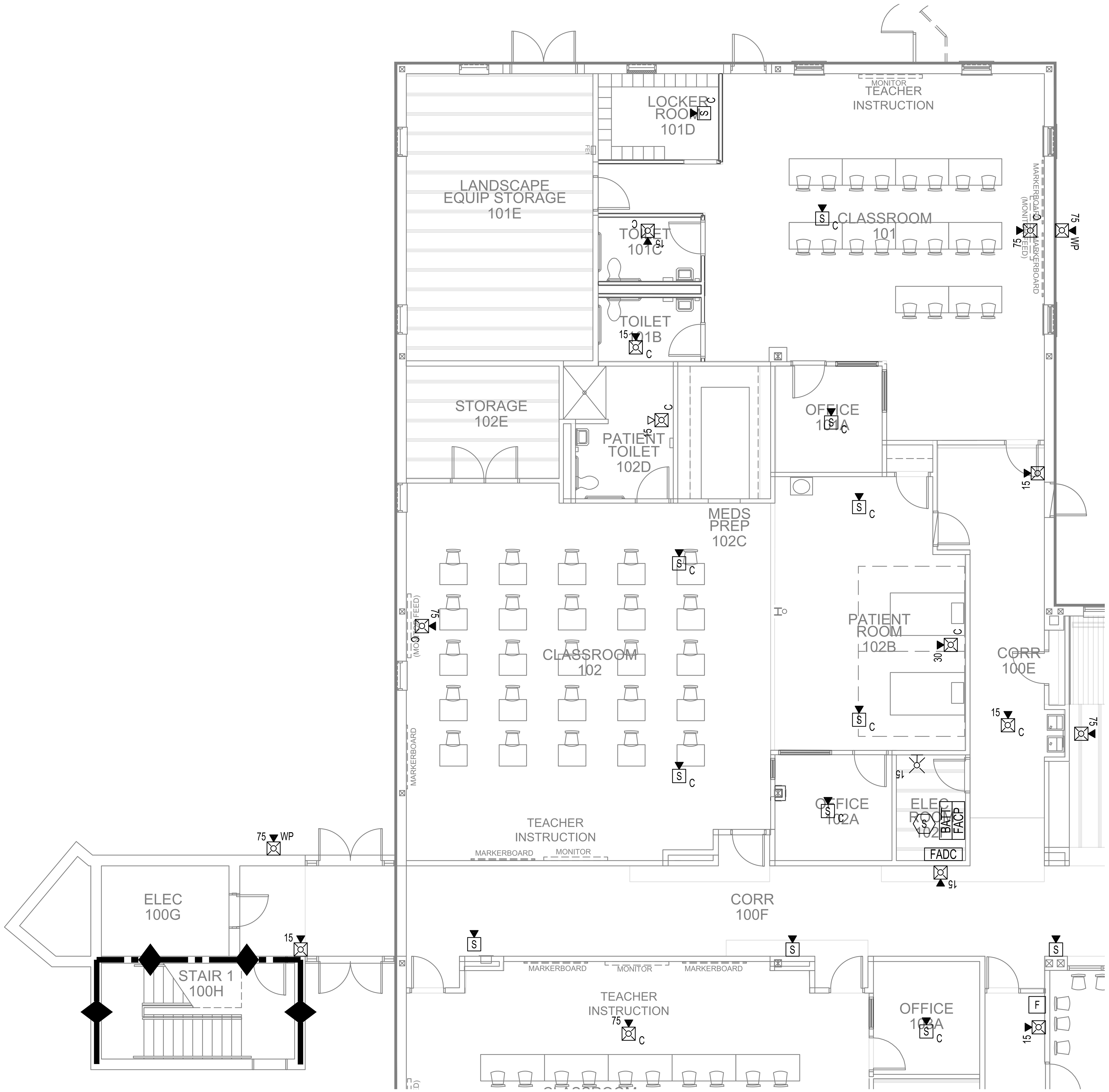
No.	DATE	DESCRIPTION
X	X	X

DRAWN BY:	KNS
REV'D BY:	JBB
DATE:	6/17/22
SCALE:	AS SHOWN

FIRE ALARM ROOM DESIGN DATA

FA002

SHEET 2 of 22



BUILDING 2 & 3 GROUND FLOOR FIRE ALARM ENLARGED PARTIAL PLAN - AREA 1

1

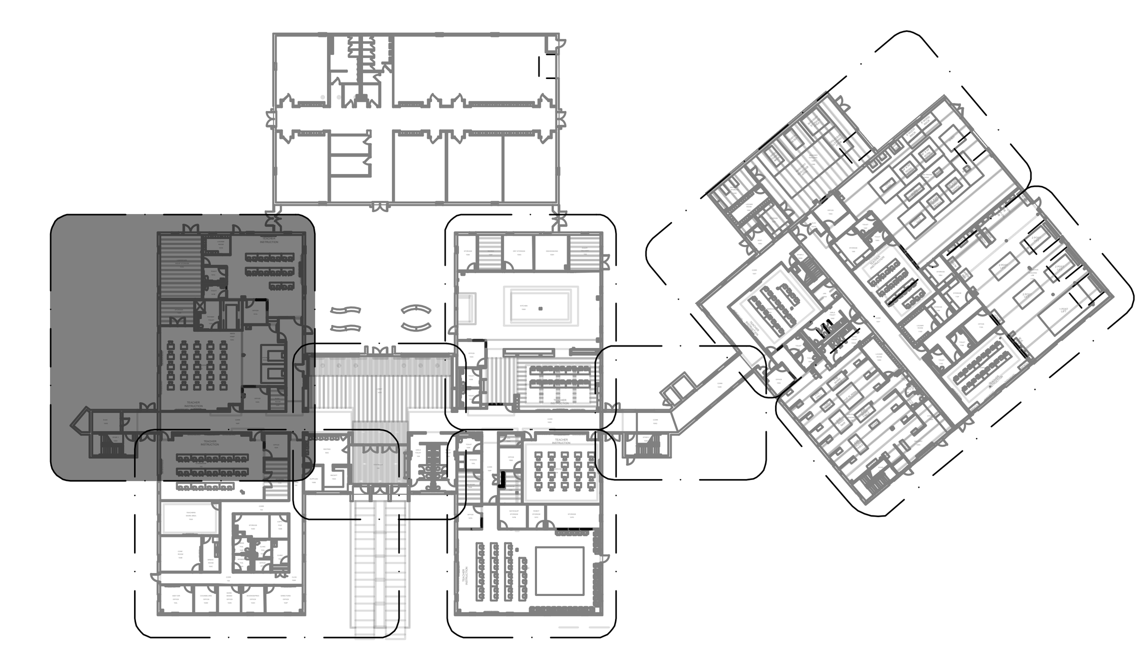
SCALE: 3/16" = 1'-0"

LEGEND

F	PULL STATION/FIRE ALARM BOX
S	SMOKE DETECTOR
S D	IN-DUCT SMOKE DETECTOR
RF	HEAT DETECTOR 'R' DENOTES RATE-OF-RISE. 'F' DENOTES FIXED TEMPERATURE.
S C	SPEAKER ONLY. 'C' DENOTES CEILING MOUNTED (WALL MOUNTED OTHERWISE)
CD	COMBINATION SPEAKER/VISIBLE - WALL MOUNT CD = CANDELA RATING/SETTING
CD C	COMBINATION SPEAKER/VISIBLE - CEILING MOUNT CD = CANDELA RATING/SETTING
CD WP	WEATHERPROOF HORN/VISIBLE - WALL MOUNT CD = CANDELA RATING/SETTING
CD	VISIBLE ONLY (STROBE) - WALL MOUNT CD = CANDELA RATING / SETTING
E	ELECTRIC BELL
CO	CARBON MONOXIDE DETECTOR
WF	FLOW SWITCH
DH	DOOR HOLDER
TS	TAMPER SWITCH
LOC	LOCAL OPERATING CONSOLE
FACP	FIRE ALARM CONTROL PANEL
FAA	FIRE ALARM ANNUNCIATOR
NAC	NOTIFICATION CIRCUIT POWER BOOSTER, EXTENDER PANEL
BATT	BATTERY CABINET
FADC	FIRE ALARM DOCUMENTATION CABINET
FATC	FIRE ALARM TERMINAL CABINET
	1-HOUR FIRE BARRIER
	2-HOUR FIRE BARRIER
	SMOKE BARRIER
	NOT IN SCOPE

KEYNOTES:

1. HEAT DETECTION SENSOR IN THE HOISTWAY AND ELEVATOR MACHINE ROOM TO BE ORDINARY TEMPERATURE (135 F) AND SHALL BE COMBINATION RATE OF RISE/FIXED TEMPERATURE SENSOR TO PROVIDE ELEVATOR SHUNT. SENSOR TO HAVE A HIGHER RTI (THERMAL SENSITIVITY) THAN THE SPRINKLERS IN THE HOISTWAY AND MACHINE ROOM WITH A LISTED SPACE RATING OF 25 FT. OR MORE. HEAT SENSORS TO BE PLACED WITHIN 2 FT. OF SPRINKLERS IN HOISTWAY AND MACHINE ROOM.
2. SMOKE DETECTION SENSORS LOCATED IN THE ELEVATOR LOBBY, MACHINE ROOM AND ELEVATOR HOISTWAY SHALL BE PROVIDED TO INITIATE PHASE I EMERGENCY ELEVATOR RECALL OPERATIONS.
3. NAC BOOSTER PANELS TO BE IMPLEMENTED AS NEEDED FOR FINAL DESIGN. BASIS OF DESIGN INCLUDES ANTICIPATED LOCATIONS WITH SMOKE SENSOR REQUIREMENTS. FINAL LOCATIONS TO BE DETERMINED AS PART OF SHOP DRAWING DEVELOPMENT. REFER TO SPECIFICATION 28 31 76 FOR ADDITIONAL INFORMATION.
4. PROVIDE TAMPER SWITCH FOR EXTERIOR LOCATED PIV.



KEY PLAN

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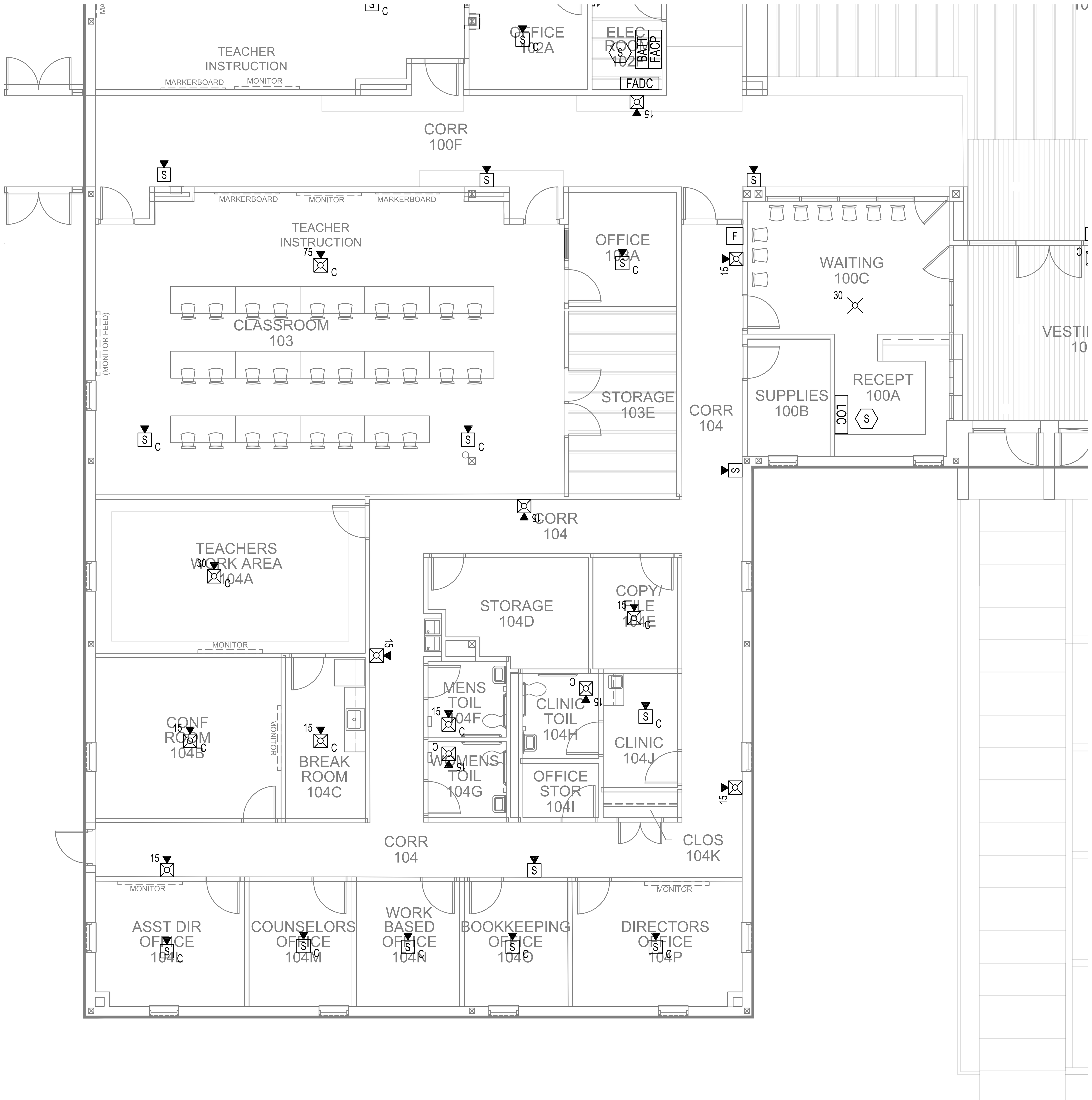
x	x	x

DRAWN BY:	KNS
REV'D BY:	JBB
DATE:	6/17/22
SCALE:	AS SHOWN

BUILDING 2 & 3 GROUND FLOOR FIRE ALARM ENLARGED PARTIAL PLAN - AREA 1

FA101.1

SHEET 4 of 22



BUILDING 2 & 3 GROUND FLOOR FIRE ALARM ENLARGED PARTIAL PLAN - AREA 2

1

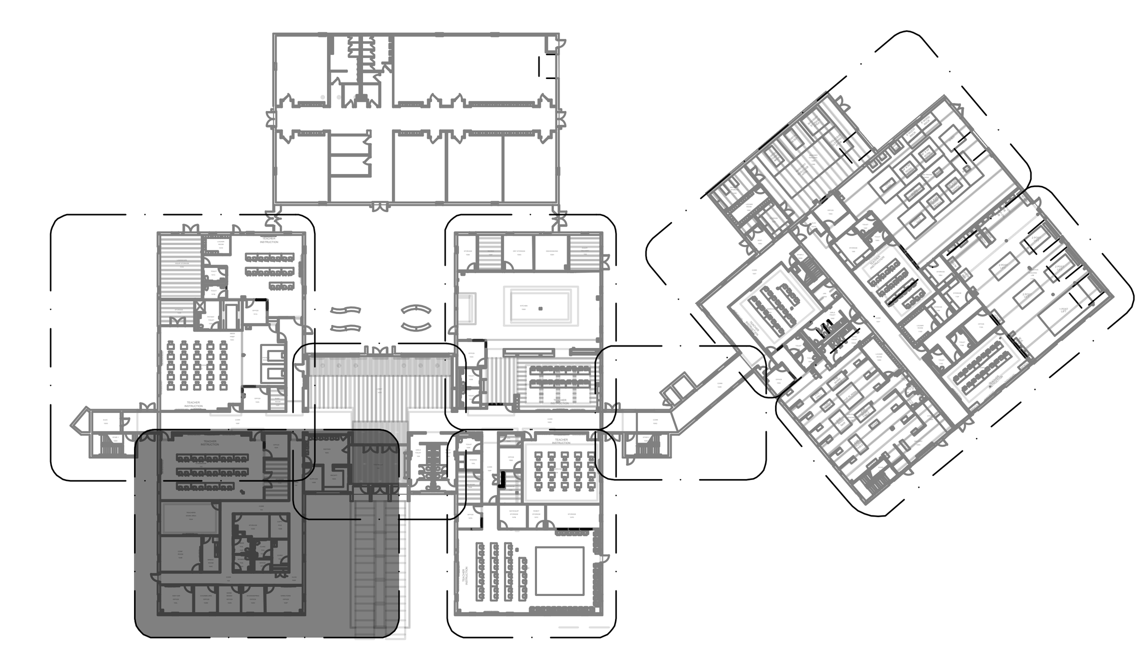
SCALE: 3/16" = 1'-0"

LEGEND

F	PULL STATION/FIRE ALARM BOX
S	SMOKE DETECTOR
S D	IN-DUCT SMOKE DETECTOR
RF	HEAT DETECTOR 'R' DENOTES RATE-OF-RISE. 'F' DENOTES FIXED TEMPERATURE.
S C	SPEAKER ONLY. 'C' DENOTES CEILING MOUNTED (WALL MOUNTED OTHERWISE)
CD	COMBINATION SPEAKER/VISIBLE - WALL MOUNT CD = CANDELA RATING/SETTING
CD C	COMBINATION SPEAKER/VISIBLE - CEILING MOUNT CD = CANDELA RATING/SETTING
CD WP	WEATHERPROOF HORN/VISIBLE - WALL MOUNT CD = CANDELA RATING/SETTING
CD	VISIBLE ONLY (STROBE) - WALL MOUNT CD = CANDELA RATING / SETTING
E	ELECTRIC BELL
CO	CARBON MONOXIDE DETECTOR
WF	FLOW SWITCH
DH	DOOR HOLDER
TS	TAMPER SWITCH
LOC	LOCAL OPERATING CONSOLE
FACP	FIRE ALARM CONTROL PANEL
FAA	FIRE ALARM ANNUNCIATOR
NAC	NOTIFICATION CIRCUIT POWER BOOSTER, EXTENDER PANEL
BATT	BATTERY CABINET
FADC	FIRE ALARM DOCUMENTATION CABINET
FATC	FIRE ALARM TERMINAL CABINET
	1-HOUR FIRE BARRIER
	2-HOUR FIRE BARRIER
	SMOKE BARRIER
	NOT IN SCOPE

KEYNOTES:

1. HEAT DETECTION SENSOR IN THE HOISTWAY AND ELEVATOR MACHINE ROOM TO BE ORDINARY TEMPERATURE (135 F) AND SHALL BE COMBINATION RATE OF RISE/FIXED TEMPERATURE SENSOR TO PROVIDE ELEVATOR SHUNT. SENSOR TO HAVE A HIGHER RTI (THERMAL SENSITIVITY) THAN THE SPRINKLERS IN THE HOISTWAY AND MACHINE ROOM WITH A LISTED SPACE RATING OF 25 FT. OR MORE. HEAT SENSORS TO BE PLACED WITHIN 2 FT. OF SPRINKLERS IN HOISTWAY AND MACHINE ROOM.
2. SMOKE DETECTION SENSORS LOCATED IN THE ELEVATOR LOBBY, MACHINE ROOM AND ELEVATOR HOISTWAY SHALL BE PROVIDED TO INITIATE PHASE I EMERGENCY ELEVATOR RECALL OPERATIONS.
3. NAC BOOSTER PANELS TO BE IMPLEMENTED AS NEEDED FOR FINAL DESIGN. BASIS OF DESIGN INCLUDES ANTICIPATED LOCATIONS WITH SMOKE SENSOR REQUIREMENTS. FINAL LOCATIONS TO BE DETERMINED AS PART OF SHOP DRAWING DEVELOPMENT. REFER TO SPECIFICATION 28 31 76 FOR ADDITIONAL INFORMATION.
4. PROVIDE TAMPER SWITCH FOR EXTERIOR LOCATED PIV.



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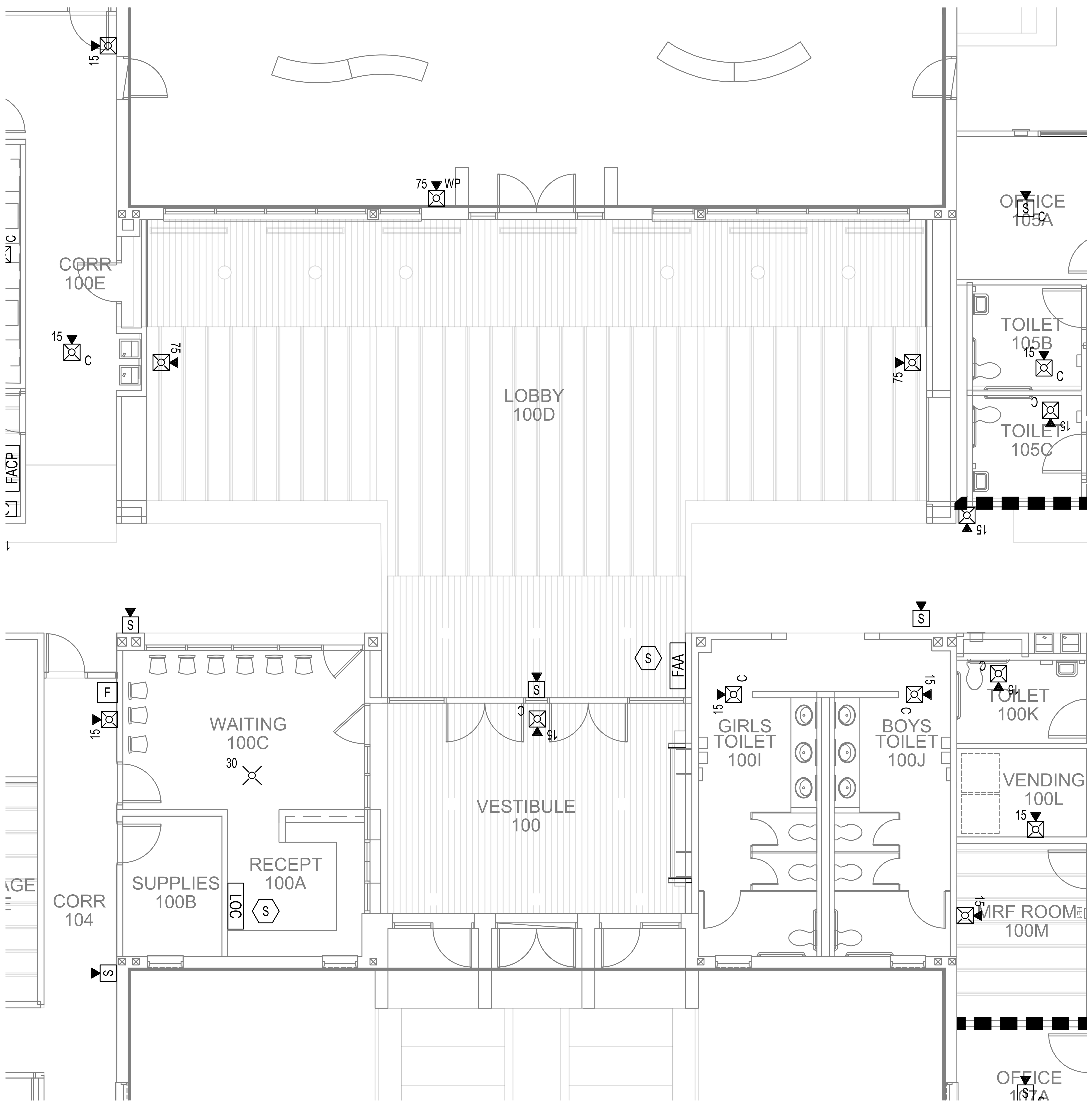
DATE:	6/17/22
SCALE:	AS SHOWN

BUILDING 2 & 3 GROUND FLOOR FIRE ALARM ENLARGED PARTIAL PLAN - AREA 2

FA101.2

SHEET 5 of 22



BUILDING 2 & 3 GROUND FLOOR FIRE ALARM ENLARGED PARTIAL PLAN - AREA 3

1

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

LEGEND

F	PULL STATION/FIRE ALARM BOX
S	SMOKE DETECTOR
S D	IN-DUCT SMOKE DETECTOR
RF	HEAT DETECTOR 'R' DENOTES RATE-OF-RISE. 'F' DENOTES FIXED TEMPERATURE.
S C	SPEAKER ONLY. 'C' DENOTES CEILING MOUNTED (WALL MOUNTED OTHERWISE)
CD	COMBINATION SPEAKER/VISIBLE - WALL MOUNT CD = CANDELA RATING/SETTING
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E	ELECTRIC BELL
CO	CARBON MONOXIDE DETECTOR
WF	FLOW SWITCH
DH	DOOR HOLDER
TS	TAMPER SWITCH
LOC	LOCAL OPERATING CONSOLE
FACP	FIRE ALARM CONTROL PANEL
FAA	FIRE ALARM ANNUNCIATOR
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BATT	BATTERY CABINET
FADC	FIRE ALARM DOCUMENTATION CABINET
FATC	FIRE ALARM TERMINAL CABINET
	1-HOUR FIRE BARRIER
	2-HOUR FIRE BARRIER
	SMOKE BARRIER
	NOT IN SCOPE

KEYNOTES:

1. HEAT DETECTION SENSOR IN THE HOISTWAY AND ELEVATOR MACHINE ROOM TO BE ORDINARY TEMPERATURE (135 F) AND SHALL BE COMBINATION RATE OF RISE/FIXED TEMPERATURE SENSOR TO PROVIDE ELEVATOR SHUNT. SENSOR TO HAVE A HIGHER RTI (THERMAL SENSITIVITY) THAN THE SPRINKLERS IN THE HOISTWAY AND MACHINE ROOM WITH A LISTED SPACE RATING OF 25 FT. OR MORE. HEAT SENSORS TO BE PLACED WITHIN 2 FT. OF SPRINKLERS IN HOISTWAY AND MACHINE ROOM.
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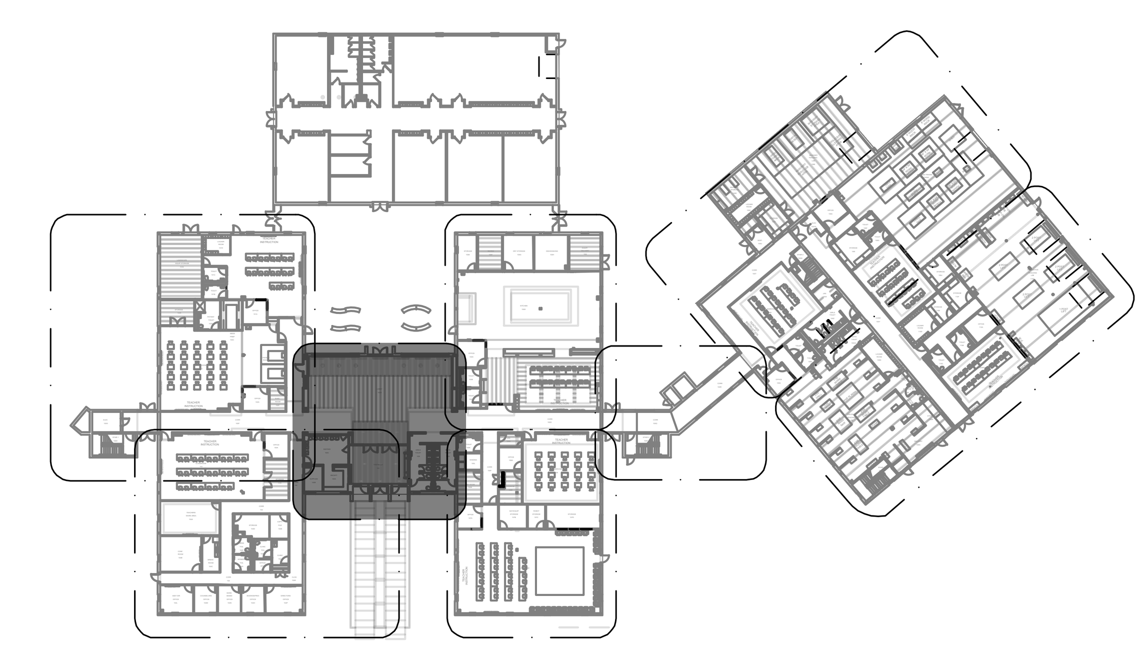

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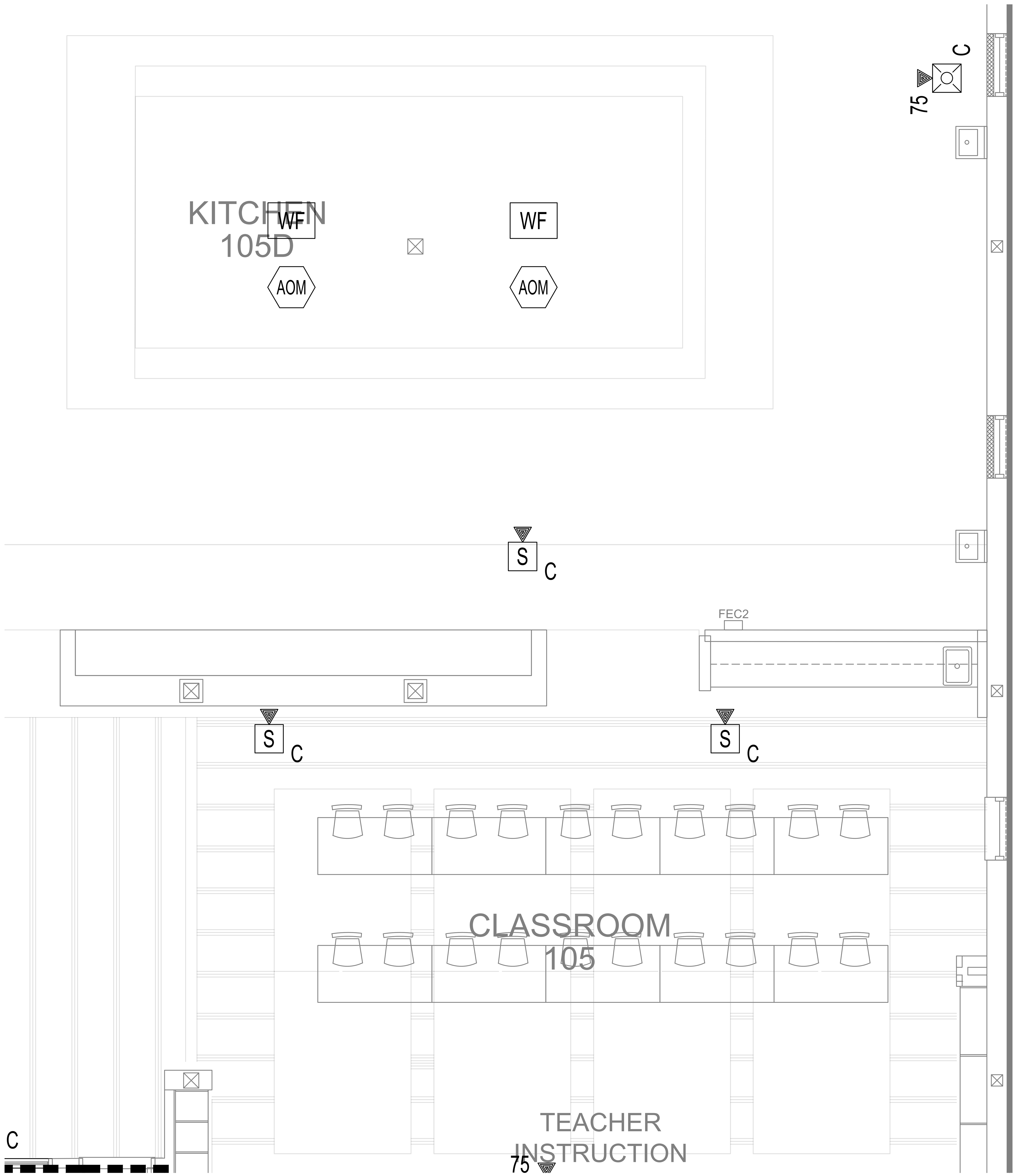
SCALE:	AS SHOWN

BUILDING 2 & 3 GROUND FLOOR FIRE ALARM ENLARGED PARTIAL PLAN - AREA 3

FA101.3

SHEET 6 of 22



BUILDING 2 & 3 GROUND FLOOR FIRE ALARM ENLARGED PARTIAL PLAN - AREA 4

1

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

LEGEND

F	PULL STATION/FIRE ALARM BOX
S	SMOKE DETECTOR
S D	IN-DUCT SMOKE DETECTOR
RF	HEAT DETECTOR 'R' DENOTES RATE-OF-RISE. 'F' DENOTES FIXED TEMPERATURE.
S C	SPEAKER ONLY. 'C' DENOTES CEILING MOUNTED (WALL MOUNTED OTHERWISE)
CD	COMBINATION SPEAKER/VISIBLE - WALL MOUNT CD = CANDELA RATING/SETTING
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CO	CARBON MONOXIDE DETECTOR
WF	FLOW SWITCH
DH	DOOR HOLDER
TS	TAMPER SWITCH
LOC	LOCAL OPERATING CONSOLE
FACP	FIRE ALARM CONTROL PANEL
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BATT	BATTERY CABINET
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FATC	FIRE ALARM TERMINAL CABINET
	1-HOUR FIRE BARRIER
	2-HOUR FIRE BARRIER
	SMOKE BARRIER
	NOT IN SCOPE

KEYNOTES:

1. HEAT DETECTION SENSOR IN THE HOISTWAY AND ELEVATOR MACHINE ROOM TO BE ORDINARY TEMPERATURE (135 F) AND SHALL BE COMBINATION RATE OF RISE/FIXED TEMPERATURE SENSOR TO PROVIDE ELEVATOR SHUNT. SENSOR TO HAVE A HIGHER RTI (THERMAL SENSITIVITY) THAN THE SPRINKLERS IN THE HOISTWAY AND MACHINE ROOM WITH A LISTED SPACE RATING OF 25 FT. OR MORE. HEAT SENSORS TO BE PLACED WITHIN 2 FT. OF SPRINKLERS IN HOISTWAY AND MACHINE ROOM.
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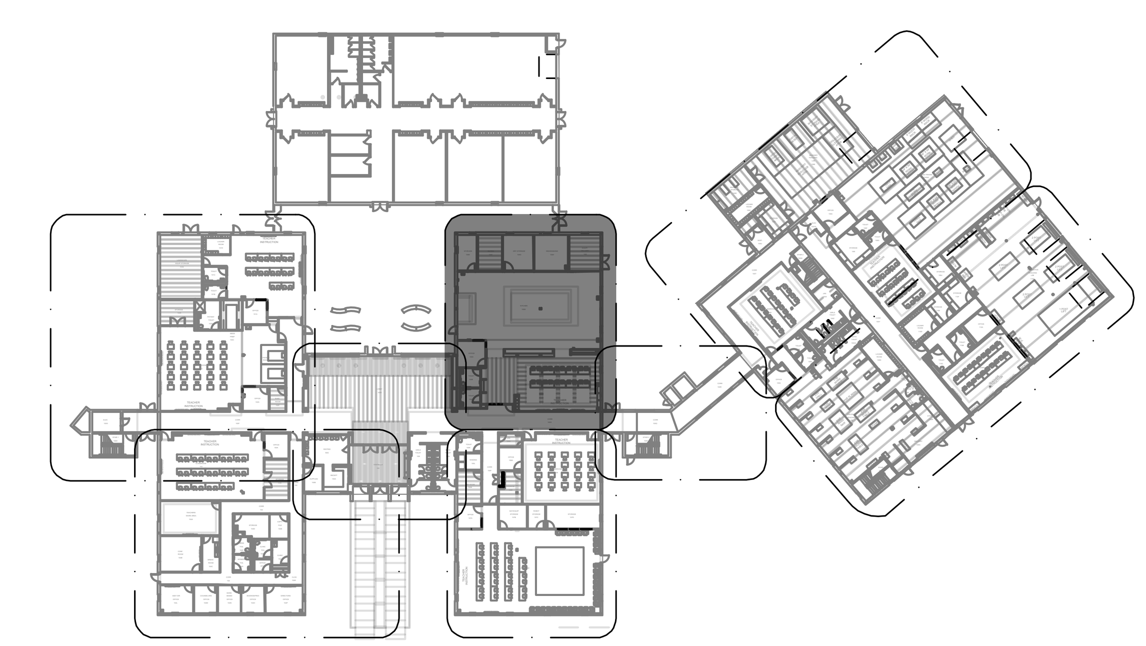

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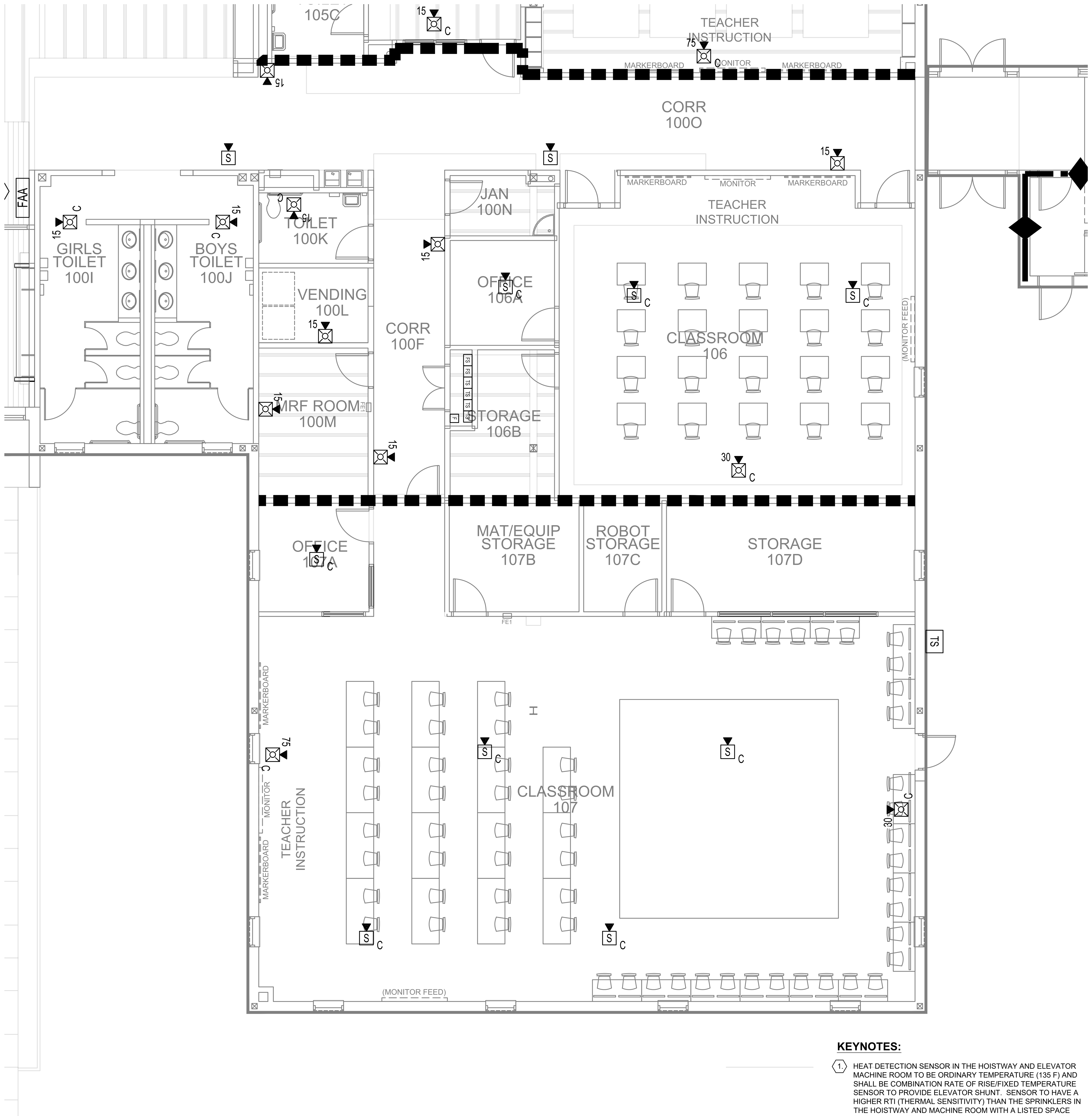
BUILDING 2 & 3 GROUND FLOOR FIRE ALARM ENLARGED PARTIAL PLAN - AREA 4

FA101.4

SHEET 7 of 22



1

BUILDING 2 & 3 GROUND FLOOR FIRE ALARM ENLARGED PARTIAL PLAN - AREA 5

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

KEYNOTES:

1. HEAT DETECTION SENSOR IN THE HOISTWAY AND ELEVATOR MACHINE ROOM TO BE ORDINARY TEMPERATURE (135 F) AND SHALL BE COMBINATION RATE OF RISE/FIXED TEMPERATURE SENSOR TO PROVIDE ELEVATOR SHUNT. SENSOR TO HAVE A HIGHER RTI (THERMAL SENSITIVITY) THAN THE SPRINKLERS IN THE HOISTWAY AND MACHINE ROOM WITH A LISTED SPACE RATING OF 25 FT. OR MORE. HEAT SENSORS TO BE PLACED WITHIN 2 FT. OF SPRINKLERS IN HOISTWAY AND MACHINE ROOM.
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4. PROVIDE TAMPER SWITCH FOR EXTERIOR LOCATED PIV.

LEGEND

Symbol	Description
F	PULL STATION/FIRE ALARM BOX
S	SMOKE DETECTOR
S D	IN-DUCT SMOKE DETECTOR
RF	HEAT DETECTOR 'R' DENOTES RATE-OF-RISE. 'F' DENOTES FIXED TEMPERATURE.
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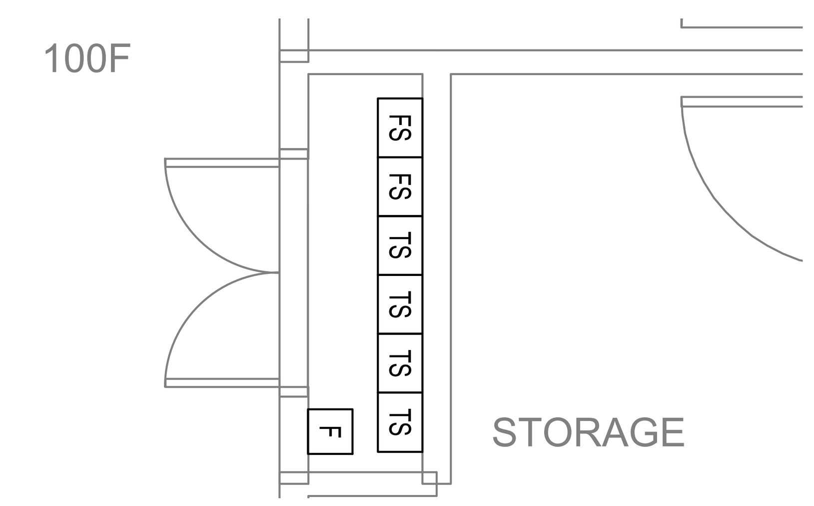
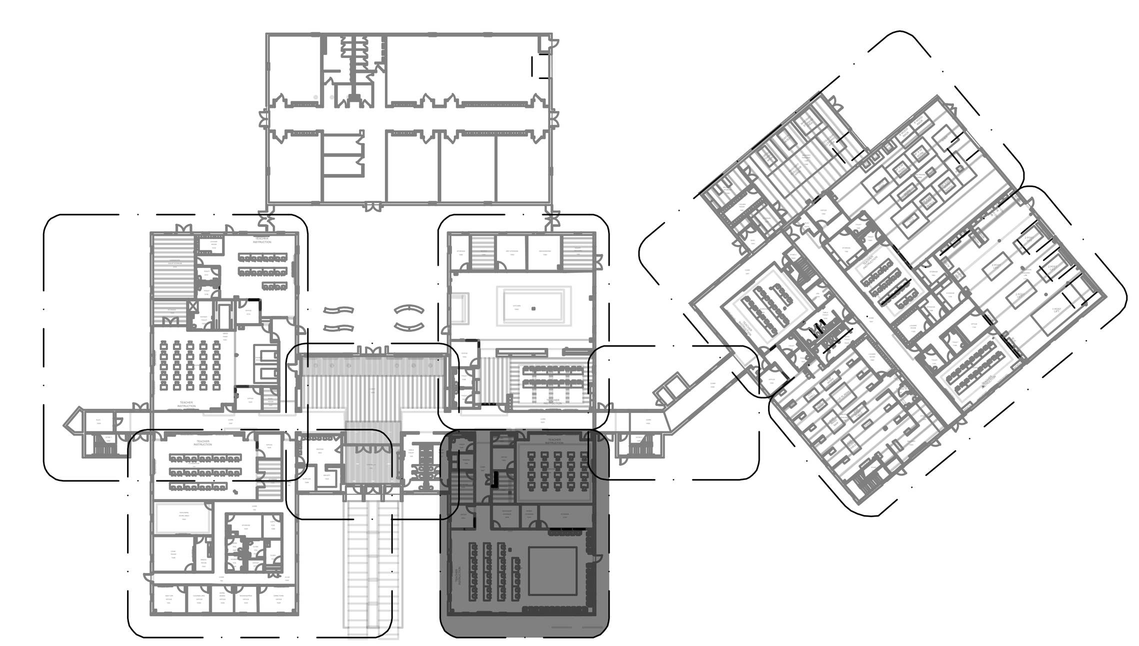
CO	CARBON MONOXIDE DETECTOR
WF	FLOW SWITCH
DH	DOOR HOLDER
TS	TAMPER SWITCH
LOC	LOCAL OPERATING CONSOLE
FACP	FIRE ALARM CONTROL PANEL
FAA	FIRE ALARM ANNUNCIATOR
NAC	NOTIFICATION CIRCUIT POWER BOOSTER, EXTENDER PANEL
BATT	BATTERY CABINET
FADC	FIRE ALARM DOCUMENTATION CABINET
FATC	FIRE ALARM TERMINAL CABINET
	1-HOUR FIRE BARRIER
	2-HOUR FIRE BARRIER
	SMOKE BARRIER
	NOT IN SCOPE



2 FIRE SPRINKLER RISER ENLARGED VIEW

SCALE: NTS



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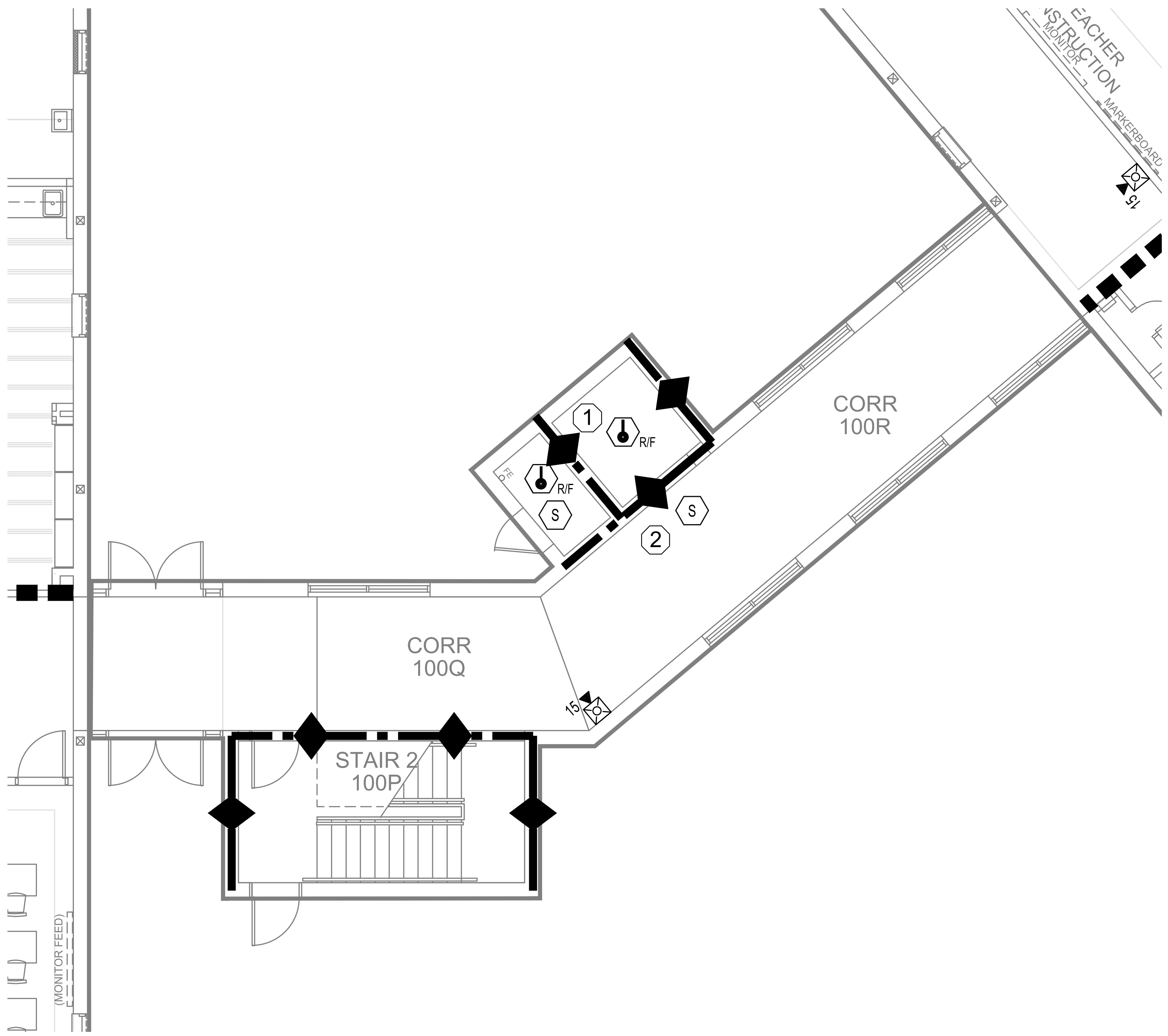
BUILDING 2 & 3 GROUND FLOOR FIRE ALARM ENLARGED PARTIAL PLAN - AREA 5

FA101.5



BUILDING 2 & 3 GROUND FLOOR FIRE ALARM ENLARGED PARTIAL PLAN - AREA 6

1

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

LEGEND

F	PULL STATION/FIRE ALARM BOX
S	SMOKE DETECTOR
S D	IN-DUCT SMOKE DETECTOR
RF	HEAT DETECTOR 'R' DENOTES RATE-OF-RISE. 'F' DENOTES FIXED TEMPERATURE.
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CO	CARBON MONOXIDE DETECTOR
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DH	DOOR HOLDER
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FACP	FIRE ALARM CONTROL PANEL
FAA	FIRE ALARM ANNUNCIATOR
NAC	NOTIFICATION CIRCUIT POWER BOOSTER, EXTENDER PANEL
BATT	BATTERY CABINET
FADC	FIRE ALARM DOCUMENTATION CABINET
FATC	FIRE ALARM TERMINAL CABINET
	1-HOUR FIRE BARRIER
	2-HOUR FIRE BARRIER
	SMOKE BARRIER
	NOT IN SCOPE

KEYNOTES:

1. HEAT DETECTION SENSOR IN THE HOISTWAY AND ELEVATOR MACHINE ROOM TO BE ORDINARY TEMPERATURE (135 F) AND SHALL BE COMBINATION RATE OF RISE/FIXED TEMPERATURE SENSOR TO PROVIDE ELEVATOR SHUNT. SENSOR TO HAVE A HIGHER RTI (THERMAL SENSITIVITY) THAN THE SPRINKLERS IN THE HOISTWAY AND MACHINE ROOM WITH A LISTED SPACE RATING OF 25 FT. OR MORE. HEAT SENSORS TO BE PLACED WITHIN 2 FT. OF SPRINKLERS IN HOISTWAY AND MACHINE ROOM.
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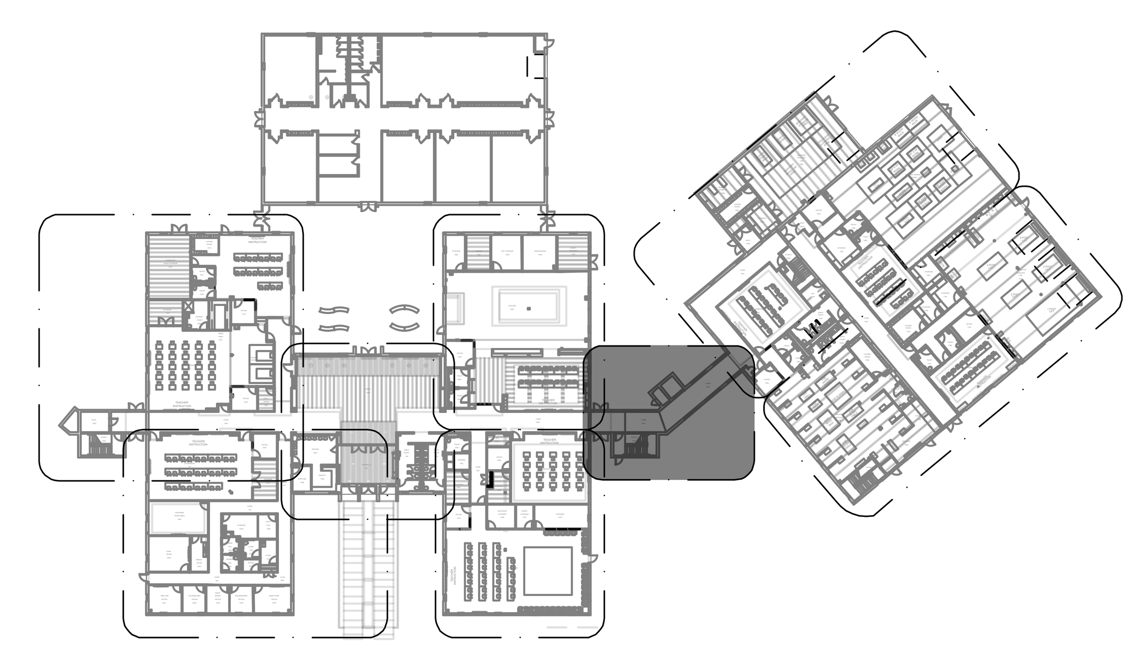

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BUILDING 2 & 3 GROUND FLOOR FIRE ALARM ENLARGED PARTIAL PLAN - AREA 6

FA101.6

SHEET 9 of 22

KEYNOTES:

1. HEAT DETECTION SENSOR IN THE HOISTWAY AND ELEVATOR MACHINE ROOM TO BE ORDINARY TEMPERATURE (135 F) AND SHALL BE COMBINATION RATE OF RISE/FIXED TEMPERATURE SENSOR TO PROVIDE ELEVATOR SHUNT. SENSOR TO HAVE A HIGHER RTI (THERMAL SENSITIVITY) THAN THE SPRINKLERS IN THE HOISTWAY AND MACHINE ROOM WITH A LISTED SPACE RATING OF 25 FT. OR MORE. HEAT SENSORS TO BE PLACED WITHIN 2 FT. OF SPRINKLERS IN HOISTWAY AND MACHINE ROOM.
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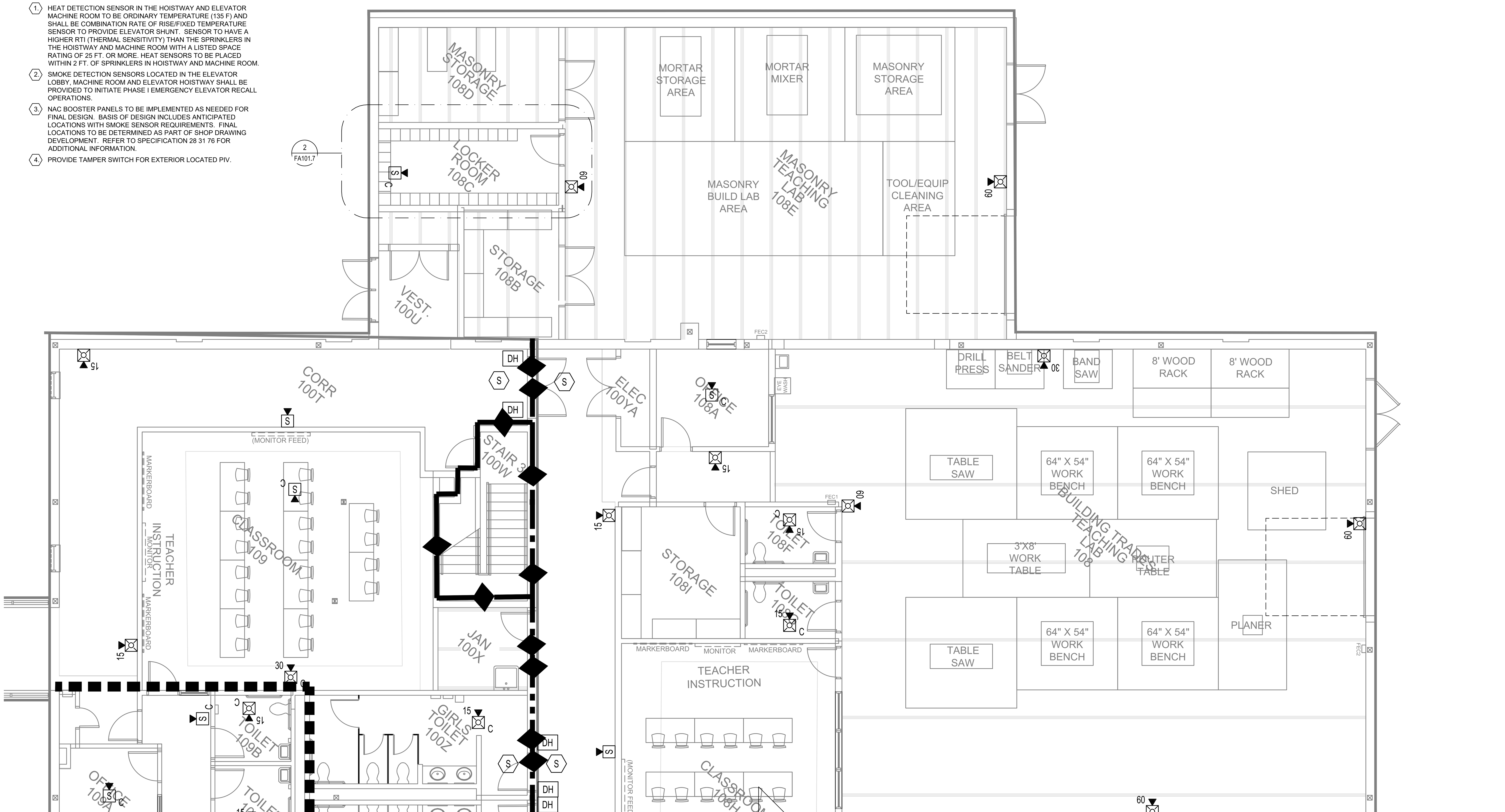

LEGEND

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RF	HEAT DETECTOR 'R' DENOTES RATE-OF-RISE. 'F' DENOTES FIXED TEMPERATURE.
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FADC	FIRE ALARM DOCUMENTATION CABINET
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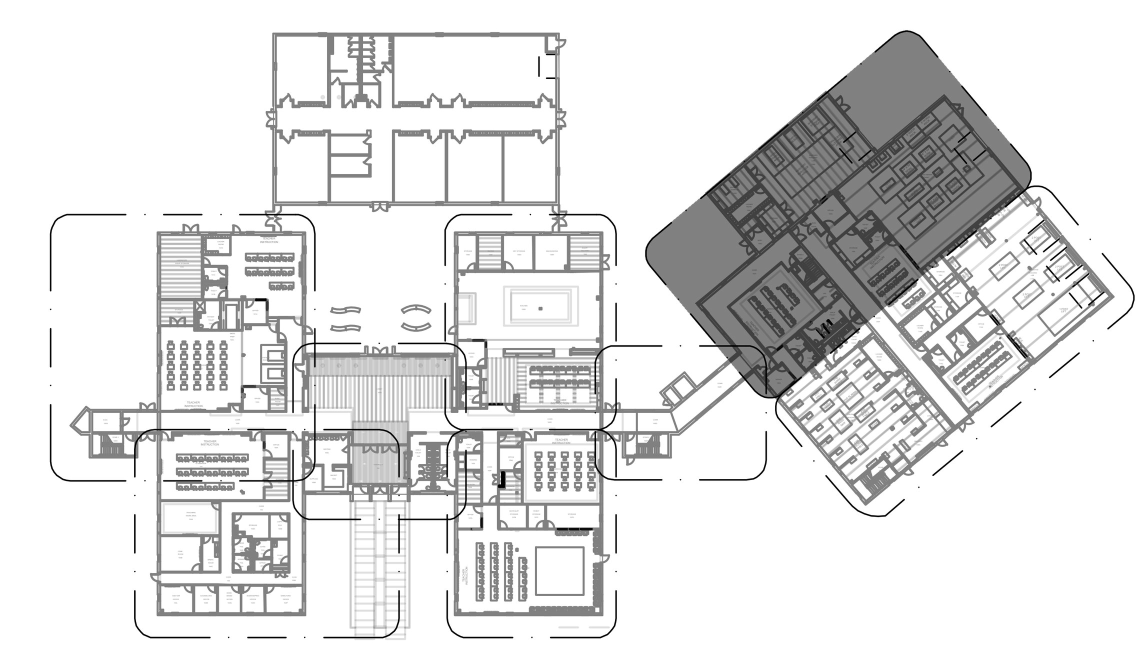
	1-HOUR FIRE BARRIER
	2-HOUR FIRE BARRIER
	SMOKE BARRIER
	NOT IN SCOPE

1

BUILDING 2 & 3 GROUND FLOOR FIRE ALARM ENLARGED PARTIAL PLAN - AREA 7

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



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DATE:	6/17/22
SCALE:	AS SHOWN

BUILDING 2 & 3 GROUND FLOOR FIRE ALARM ENLARGED PARTIAL PLAN - AREA 7

FA101.7

SHEET 10 of 22

KEYNOTES:

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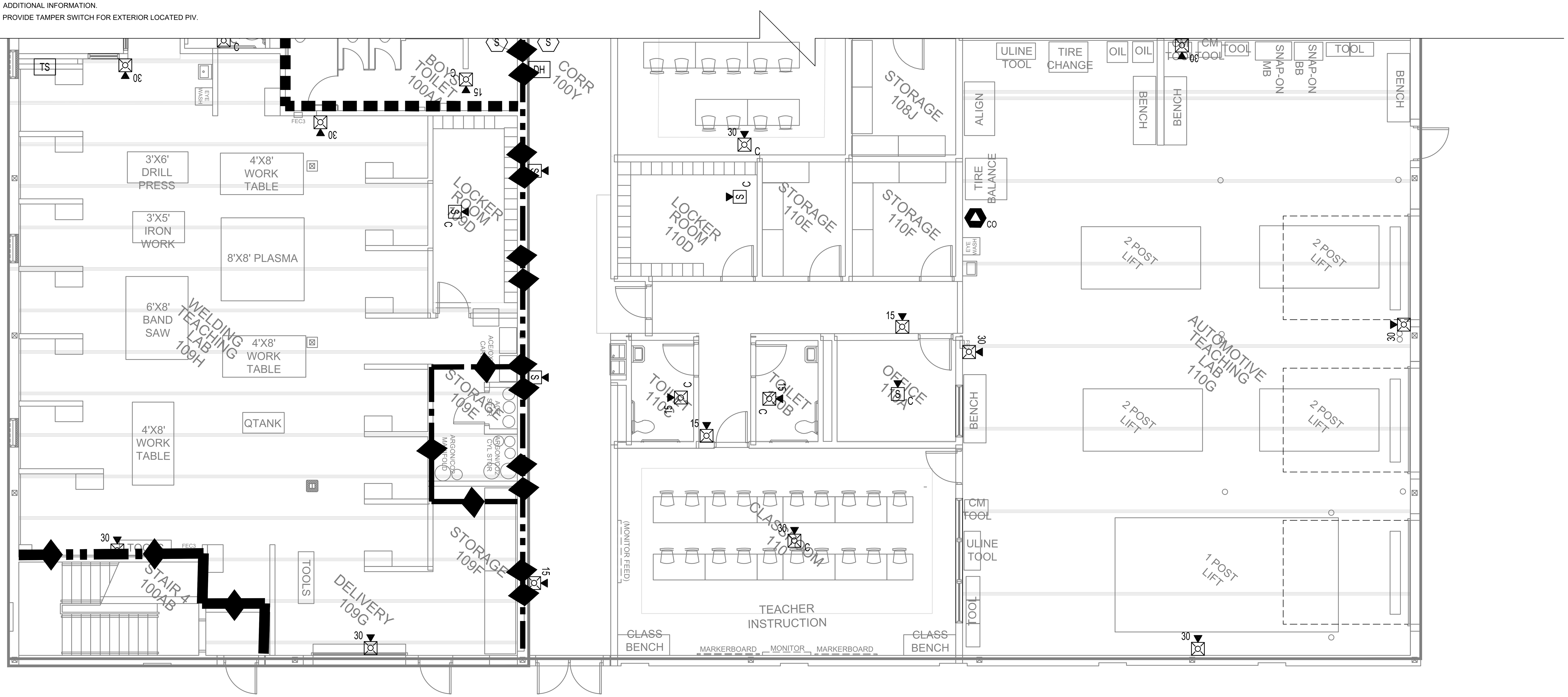

LEGEND

F	PULL STATION/FIRE ALARM BOX
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S_D	IN-DUCT SMOKE DETECTOR
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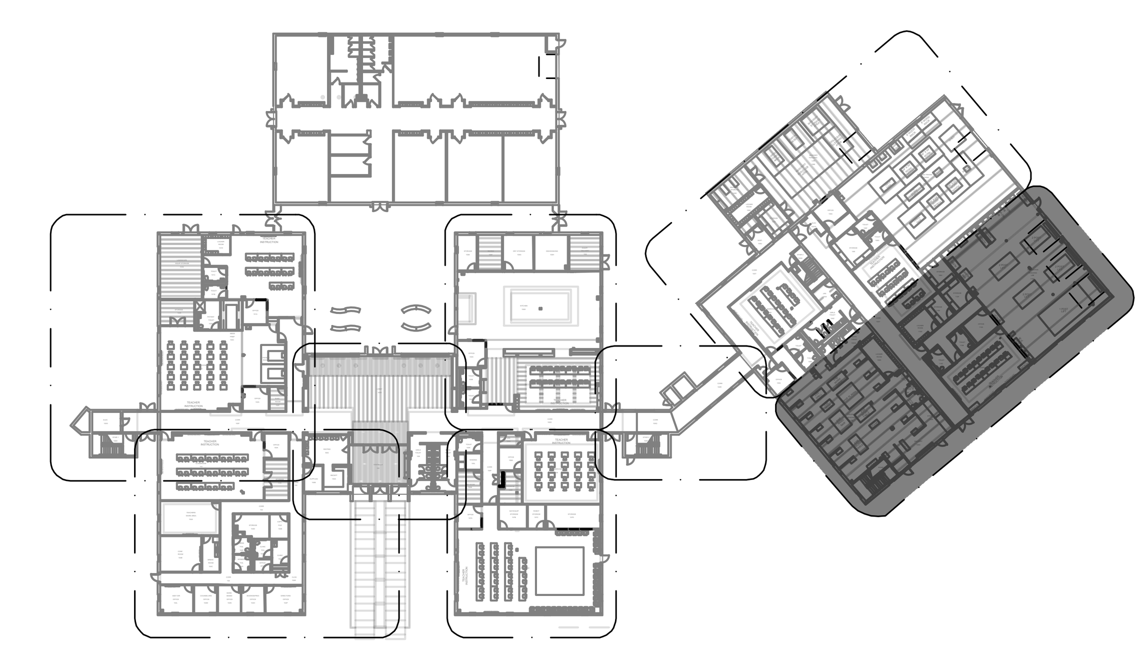
CD C	COMBINATION SPEAKER/VISIBLE - CEILING MOUNT CD = CANDELA RATING/SETTING
CD WP	WEATHERPROOF HORN/VISIBLE - WALL MOUNT CD = CANDELA RATING/SETTING
CD	VISIBLE ONLY (STROBE) - WALL MOUNT CD = CANDELA RATING / SETTING
	ELECTRIC BELL
CO	CARBON MONOXIDE DETECTOR
WF	FLOW SWITCH
DH	DOOR HOLDER
TS	TAMPER SWITCH
LOC	LOCAL OPERATING CONSOLE
FACP	FIRE ALARM CONTROL PANEL
FAA	FIRE ALARM ANNUNCIATOR
NAC	NOTIFICATION CIRCUIT POWER BOOSTER, EXTENDER PANEL
BATT	BATTERY CABINET
FADC	FIRE ALARM DOCUMENTATION CABINET
FATC	FIRE ALARM TERMINAL CABINET
	1-HOUR FIRE BARRIER
	2-HOUR FIRE BARRIER
	SMOKE BARRIER
	NOT IN SCOPE

1 BUILDING 2 & 3 GROUND FLOOR FIRE ALARM ENLARGED PARTIAL PLAN - AREA 8

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



KEY PLAN

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DATE:	6/17/22
SCALE:	AS SHOWN

BUILDING 2 & 3 GROUND FLOOR FIRE ALARM ENLARGED PARTIAL PLAN - AREA 8

FA101.8

SHEET 11 of 22

LEGEND

Symbol	Description
F	PULL STATION/FIRE ALARM BOX
S	SMOKE DETECTOR
S D	IN-DUCT SMOKE DETECTOR
RF	HEAT DETECTOR 'R' DENOTES RATE-OF-RISE. 'F' DENOTES FIXED TEMPERATURE.
S C	SPEAKER ONLY. 'C' DENOTES CEILING MOUNTED (WALL MOUNTED OTHERWISE)
CD	COMBINATION SPEAKER/VISIBLE - WALL MOUNT CD = CANDELA RATING/SETTING
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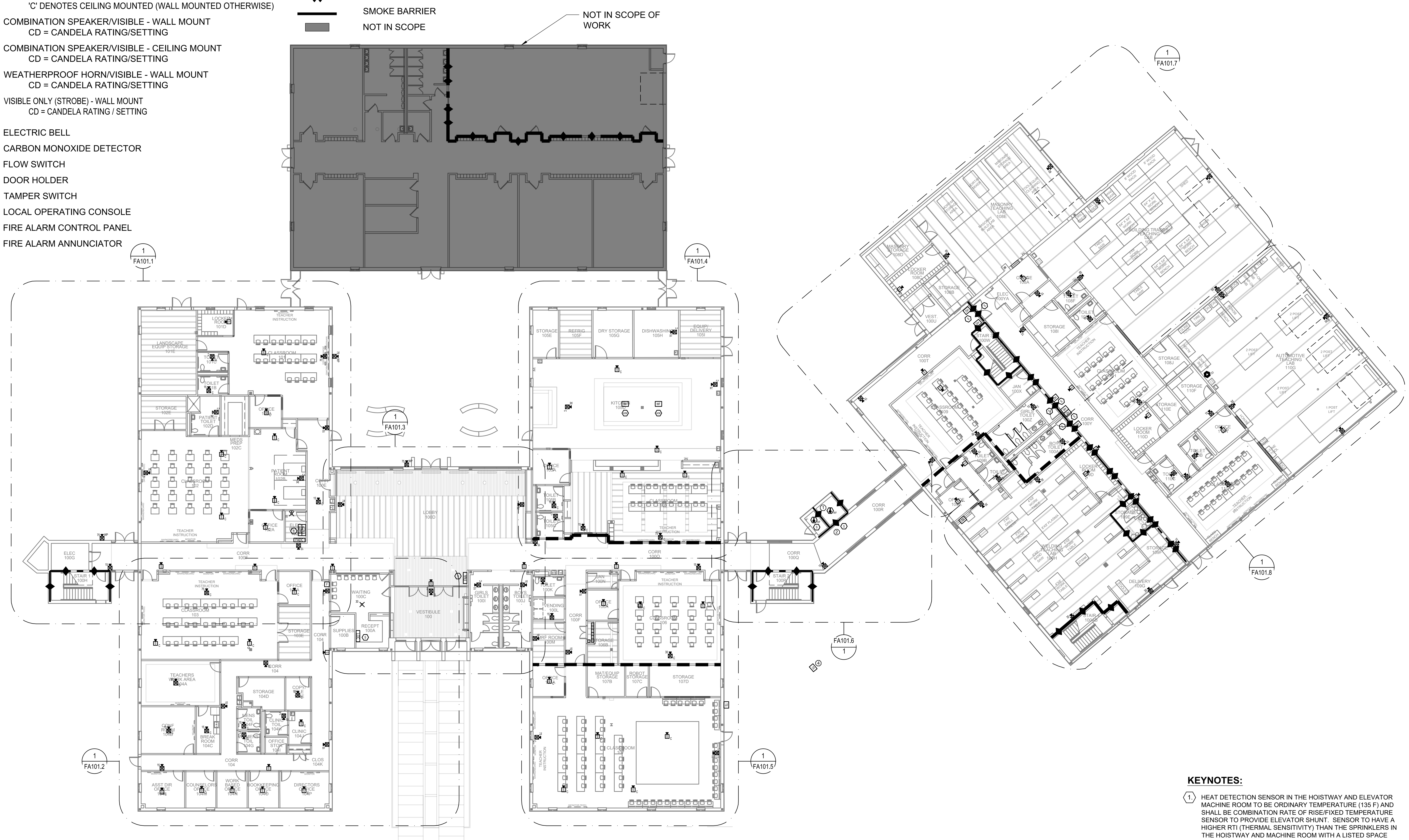
FATC	FIRE ALARM TERMINAL CABINET
	1-HOUR FIRE BARRIER
	2-HOUR FIRE BARRIER
	SMOKE BARRIER
	NOT IN SCOPE



1 BUILDING 2 & 3 GROUND FLOOR FIRE ALARM OVERALL PLAN

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

KEYNOTES:

1. HEAT DETECTION SENSOR IN THE HOISTWAY AND ELEVATOR MACHINE ROOM TO BE ORDINARY TEMPERATURE (135 F) AND SHALL BE COMBINATION RATE OF RISE/FIXED TEMPERATURE SENSOR TO PROVIDE ELEVATOR SHUNT. SENSOR TO HAVE A HIGHER RTI (THERMAL SENSITIVITY) THAN THE SPRINKLERS IN THE HOISTWAY AND MACHINE ROOM WITH A LISTED SPACE RATING OF 25 FT. OR MORE. HEAT SENSORS TO BE PLACED WITHIN 2 FT. OF SPRINKLERS IN HOISTWAY AND MACHINE ROOM.
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4. PROVIDE TAMPER SWITCH FOR EXTERIOR LOCATED PIV.

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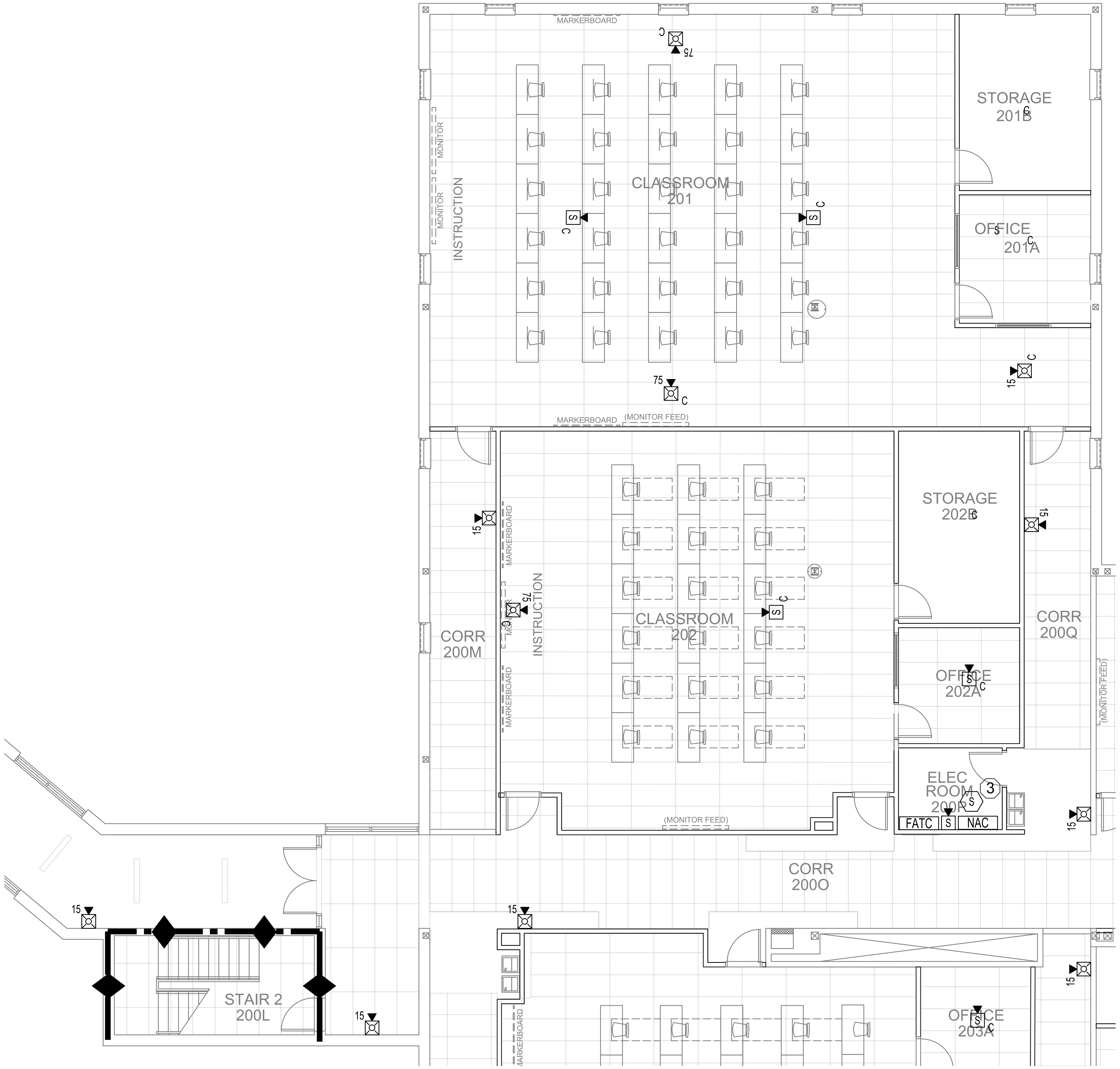
SCALE:	AS SHOWN

BUILDING 2 & 3 GROUND FLOOR OVERALL FIRE ALARM PLAN

FA101

SHEET 3 of 22



1 BUILDING 2 & 3 SECOND FLOOR FIRE ALARM ENLARGED PARTIAL PLAN - AREA 1

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

LEGEND

- F — PULL STATION/FIRE ALARM BOX
- S — SMOKE DETECTOR
- S_D — IN-DUCT SMOKE DETECTOR
- HEAT DETECTOR
  'R' DENOTES RATE-OF-RISE. 'F' DENOTES FIXED TEMPERATURE.
- SPEAKER ONLY.
  'C' DENOTES CEILING MOUNTED (WALL MOUNTED OTHERWISE)
- COMBINATION SPEAKER/VISIBLE - WALL MOUNT
  CD = CANDELA RATING/SETTING
- COMBINATION SPEAKER/VISIBLE - CEILING MOUNT
  CD = CANDELA RATING/SETTING
- WEATHERPROOF HORN/VISIBLE - WALL MOUNT
  CD = CANDELA RATING/SETTING
- VISIBLE ONLY (STROBE) - WALL MOUNT
  CD = CANDELA RATING / SETTING
- ELECTRIC BELL
- CO — CARBON MONOXIDE DETECTOR
- WF — FLOW SWITCH
- DH — DOOR HOLDER
- TS — TAMPER SWITCH
- LOC — LOCAL OPERATING CONSOLE
- FACP — FIRE ALARM CONTROL PANEL
- FAA — FIRE ALARM ANNUNCIATOR
- NAC — NOTIFICATION CIRCUIT POWER BOOSTER, EXTENDER PANEL
- BATT — BATTERY CABINET
- FADC — FIRE ALARM DOCUMENTATION CABINET
- FATC — FIRE ALARM TERMINAL CABINET
- 1-HOUR FIRE BARRIER
- 2-HOUR FIRE BARRIER
- SMOKE BARRIER
- NOT IN SCOPE

KEYNOTES:

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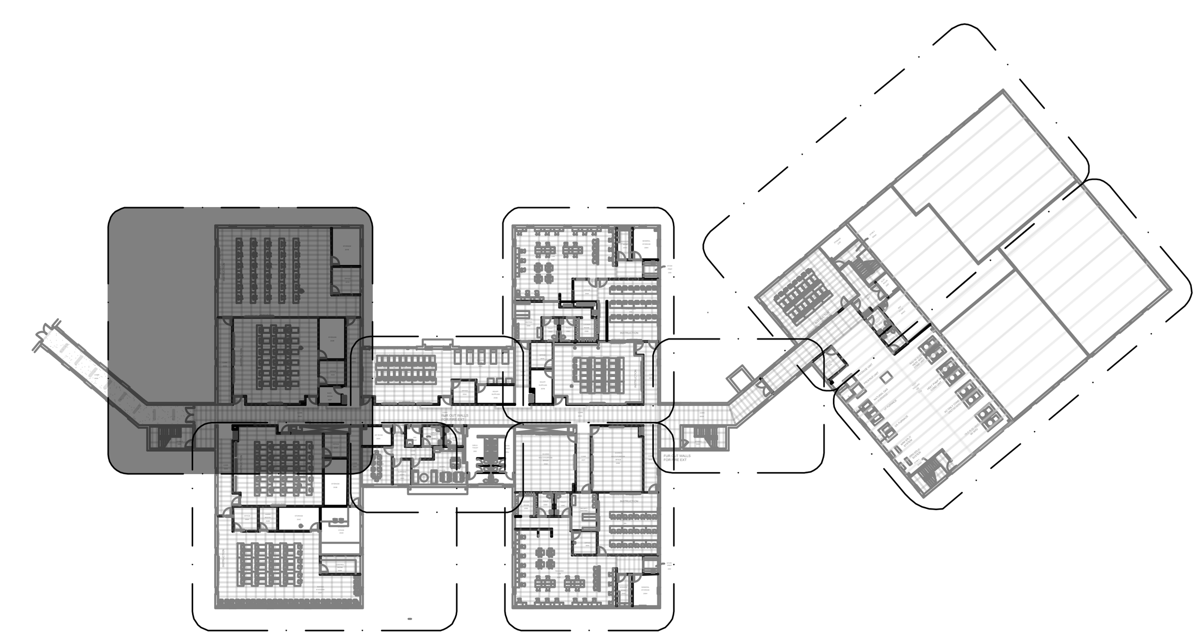
4. PROVIDE TAMPER SWITCH FOR EXTERIOR LOCATED PIV.



KEY PLAN

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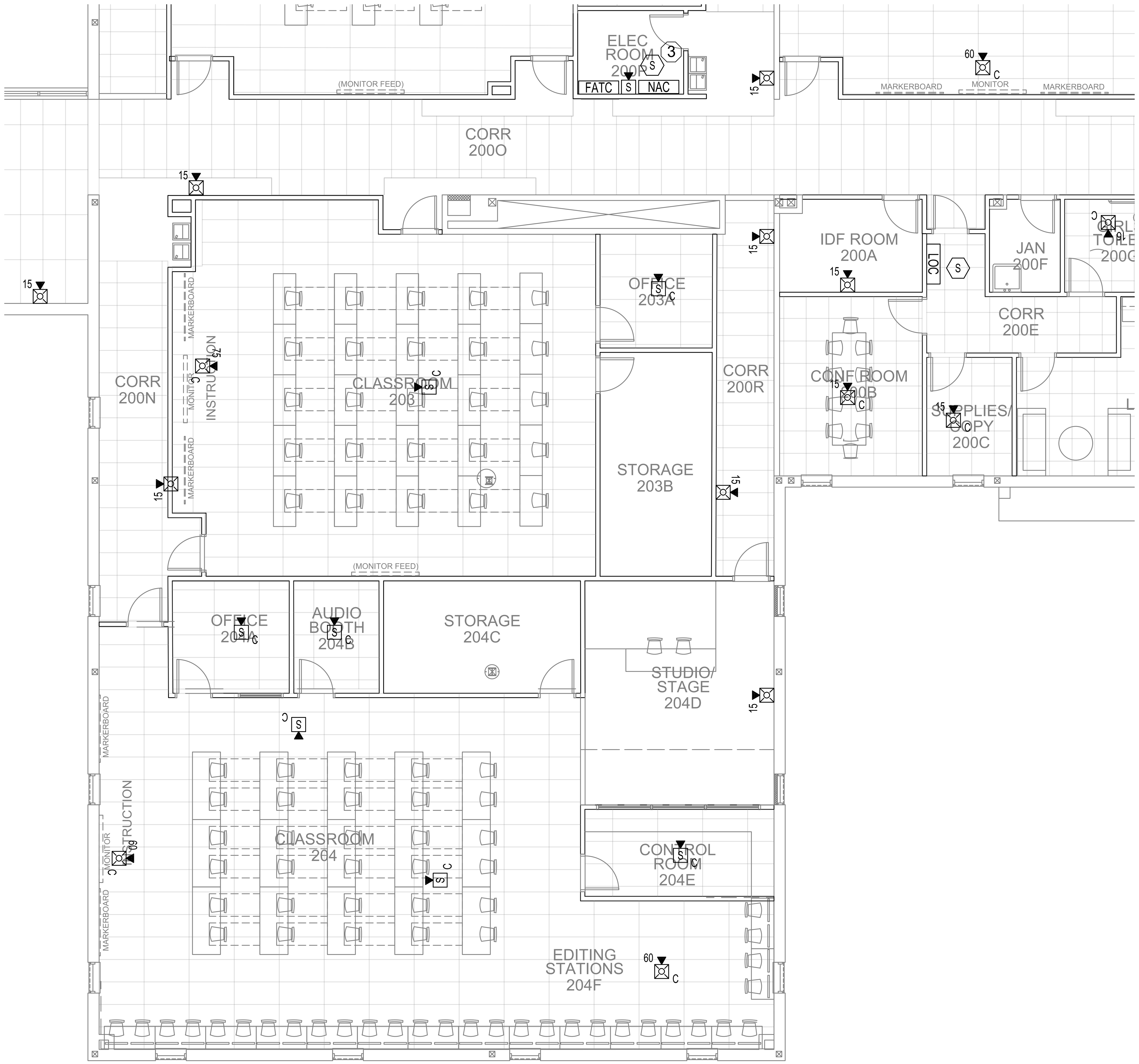
BUILDING 2 & 3 SECOND FLOOR FIRE ALARM ENLARGED PARTIAL PLAN - AREA 1

FA102.1



BUILDING 2 & 3 SECOND FLOOR FIRE ALARM ENLARGED PARTIAL PLAN - AREA 2

1

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

LEGEND

F	PULL STATION/FIRE ALARM BOX
S	SMOKE DETECTOR
S D	IN-DUCT SMOKE DETECTOR
RF	HEAT DETECTOR 'R' DENOTES RATE-OF-RISE. 'F' DENOTES FIXED TEMPERATURE.
S C	SPEAKER ONLY. 'C' DENOTES CEILING MOUNTED (WALL MOUNTED OTHERWISE)
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E	ELECTRIC BELL
CO	CARBON MONOXIDE DETECTOR
WF	FLOW SWITCH
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FADC	FIRE ALARM DOCUMENTATION CABINET
FATC	FIRE ALARM TERMINAL CABINET
	1-HOUR FIRE BARRIER
	2-HOUR FIRE BARRIER
	SMOKE BARRIER
	NOT IN SCOPE

KEYNOTES:

1. HEAT DETECTION SENSOR IN THE HOISTWAY AND ELEVATOR MACHINE ROOM TO BE ORDINARY TEMPERATURE (135 F) AND SHALL BE COMBINATION RATE OF RISE/FIXED TEMPERATURE SENSOR TO PROVIDE ELEVATOR SHUNT. SENSOR TO HAVE A HIGHER RTI (THERMAL SENSITIVITY) THAN THE SPRINKLERS IN THE HOISTWAY AND MACHINE ROOM WITH A LISTED SPACE RATING OF 25 FT. OR MORE. HEAT SENSORS TO BE PLACED WITHIN 2 FT. OF SPRINKLERS IN HOISTWAY AND MACHINE ROOM.
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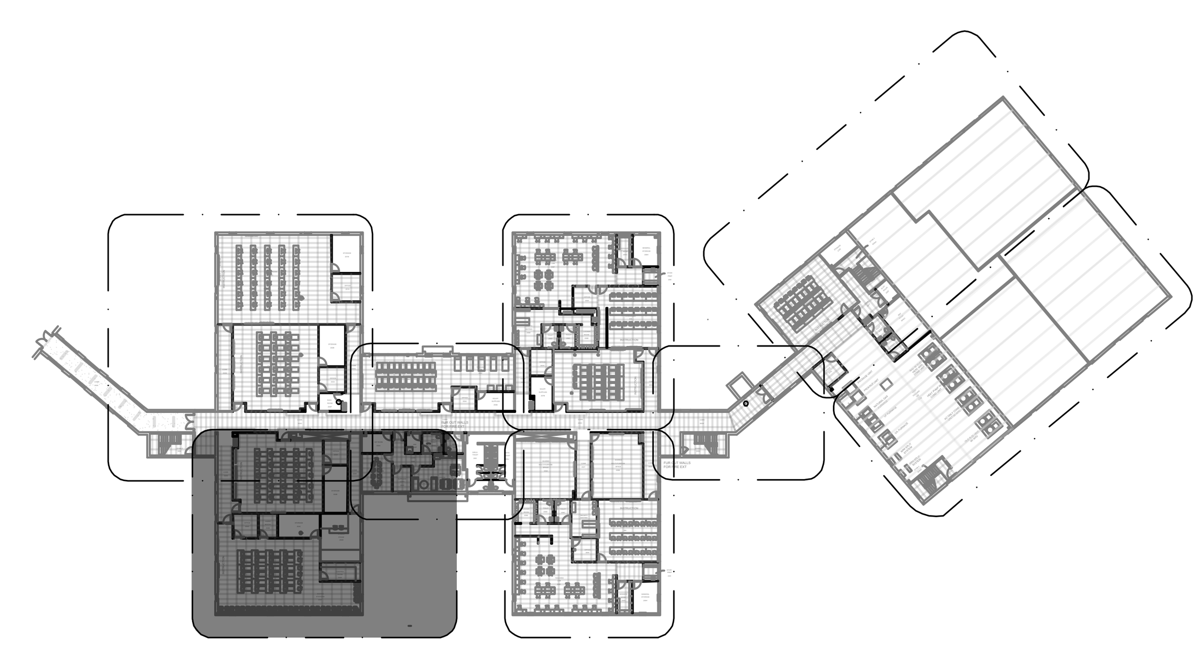

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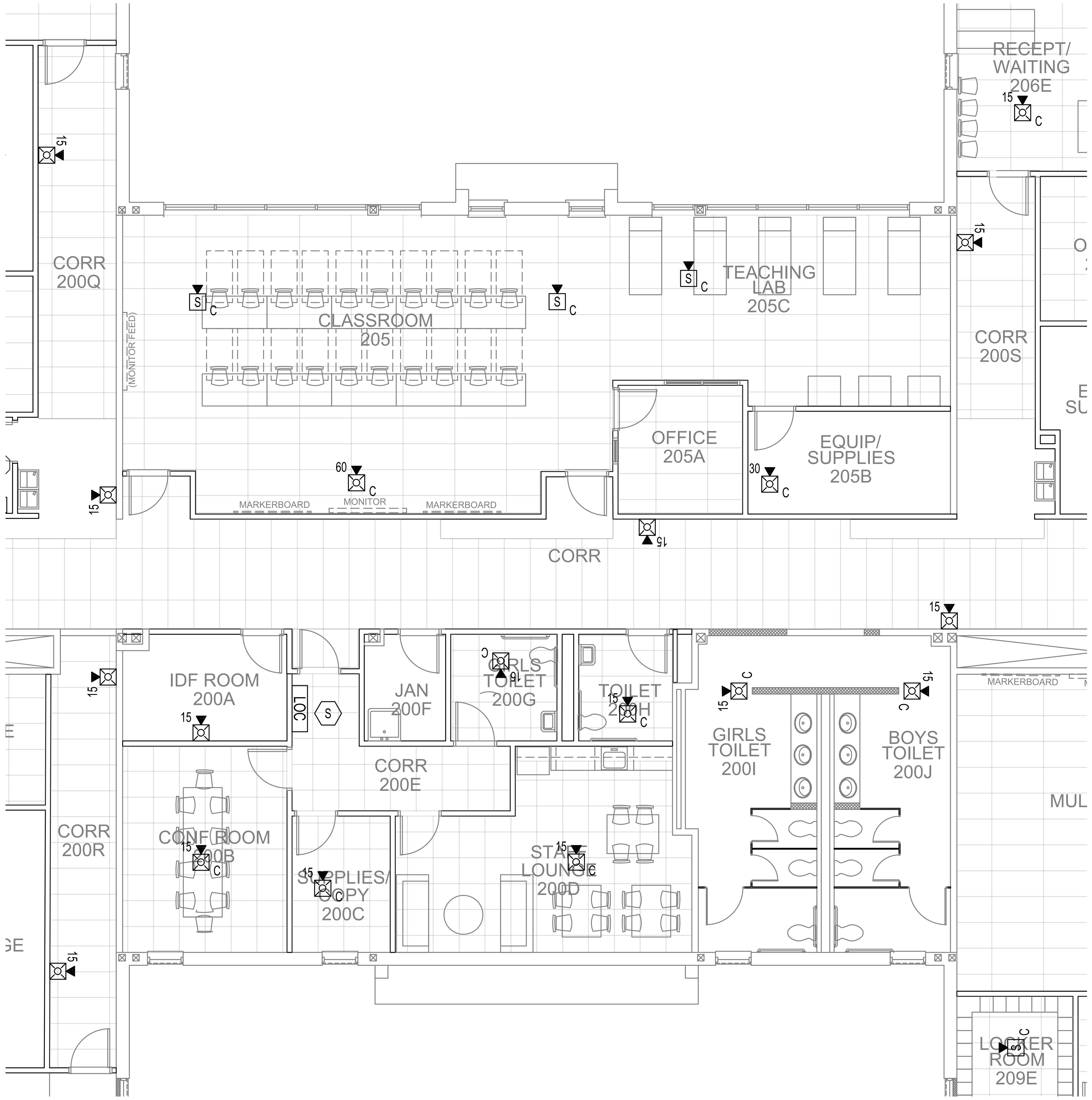
BUILDING 2 & 3 SECOND FLOOR FIRE ALARM ENLARGED PARTIAL PLAN - AREA 2

FA102.2



BUILDING 2 & 3 SECOND FLOOR FIRE ALARM ENLARGED PARTIAL PLAN - AREA 3

1

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

LEGEND

Symbol	Description
F	PULL STATION/FIRE ALARM BOX
S	SMOKE DETECTOR
S D	IN-DUCT SMOKE DETECTOR
RF	HEAT DETECTOR 'R' DENOTES RATE-OF-RISE. 'F' DENOTES FIXED TEMPERATURE.
S C	SPEAKER ONLY. 'C' DENOTES CEILING MOUNTED (WALL MOUNTED OTHERWISE)
CD	COMBINATION SPEAKER/VISIBLE - WALL MOUNT CD = CANDELA RATING/SETTING
CD C	COMBINATION SPEAKER/VISIBLE - CEILING MOUNT CD = CANDELA RATING/SETTING
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E	ELECTRIC BELL
CO	CARBON MONOXIDE DETECTOR
WF	FLOW SWITCH
DH	DOOR HOLDER
TS	TAMPER SWITCH
LOC	LOCAL OPERATING CONSOLE
FACP	FIRE ALARM CONTROL PANEL
FAA	FIRE ALARM ANNUNCIATOR
NAC	NOTIFICATION CIRCUIT POWER BOOSTER, EXTENDER PANEL
BATT	BATTERY CABINET
FADC	FIRE ALARM DOCUMENTATION CABINET
FATC	FIRE ALARM TERMINAL CABINET
	1-HOUR FIRE BARRIER
	2-HOUR FIRE BARRIER
	SMOKE BARRIER
	NOT IN SCOPE

KEYNOTES:

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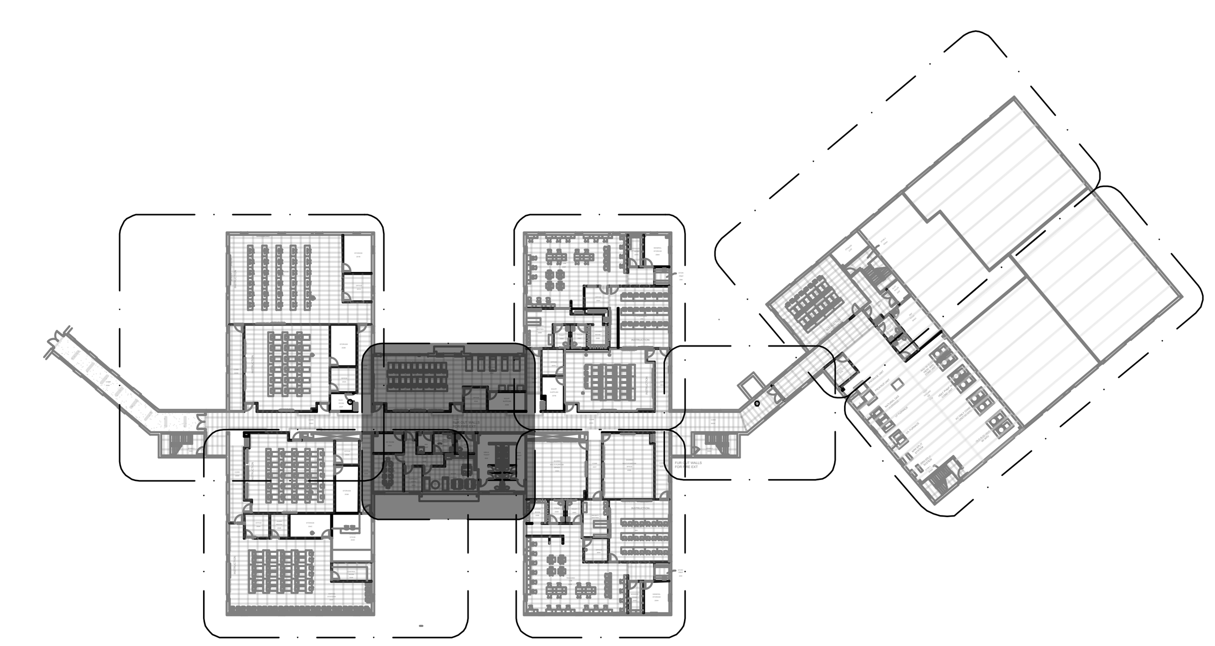

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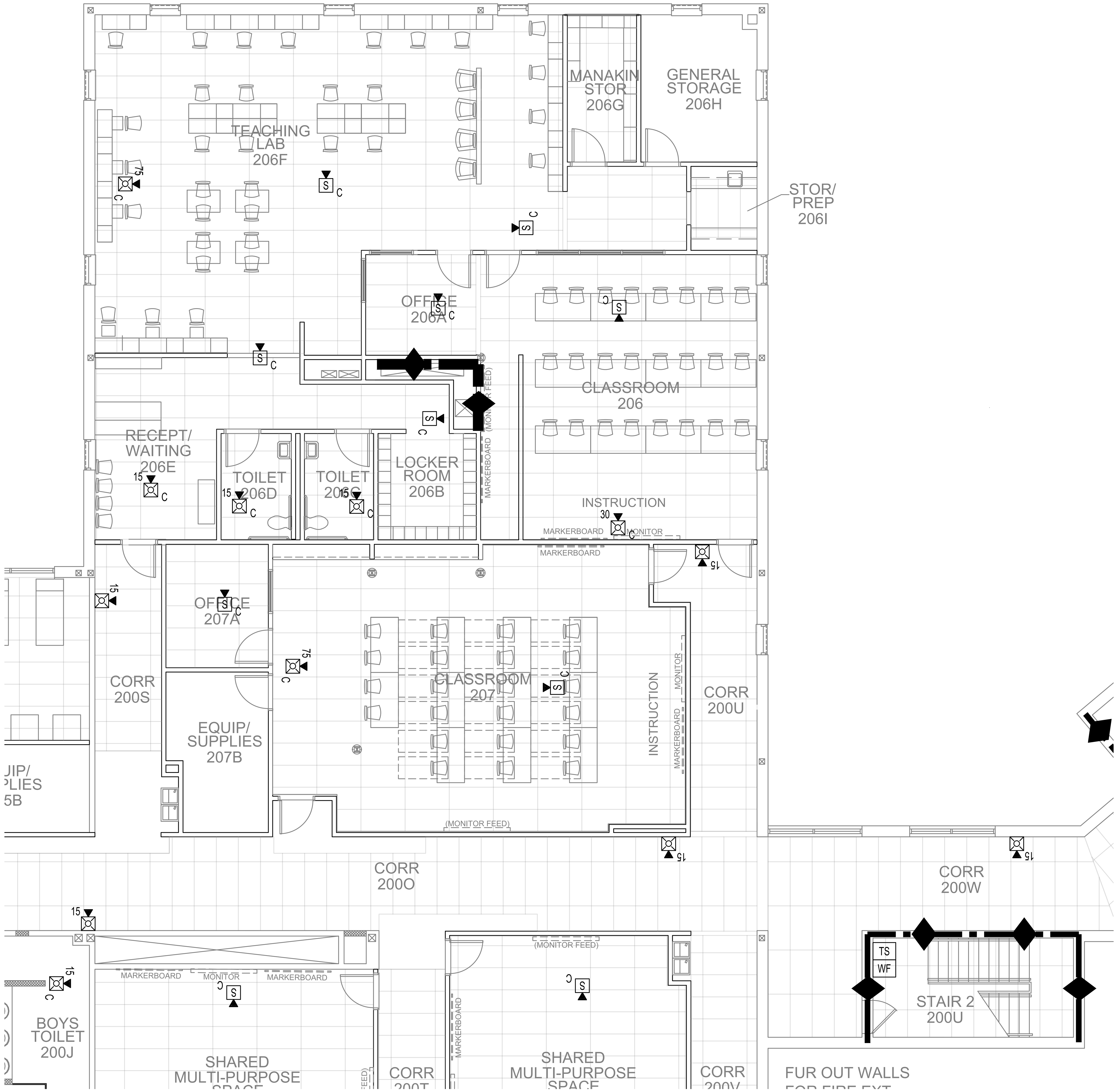
BUILDING 2 & 3 SECOND FLOOR FIRE ALARM ENLARGED PARTIAL PLAN - AREA 3

FA102.3

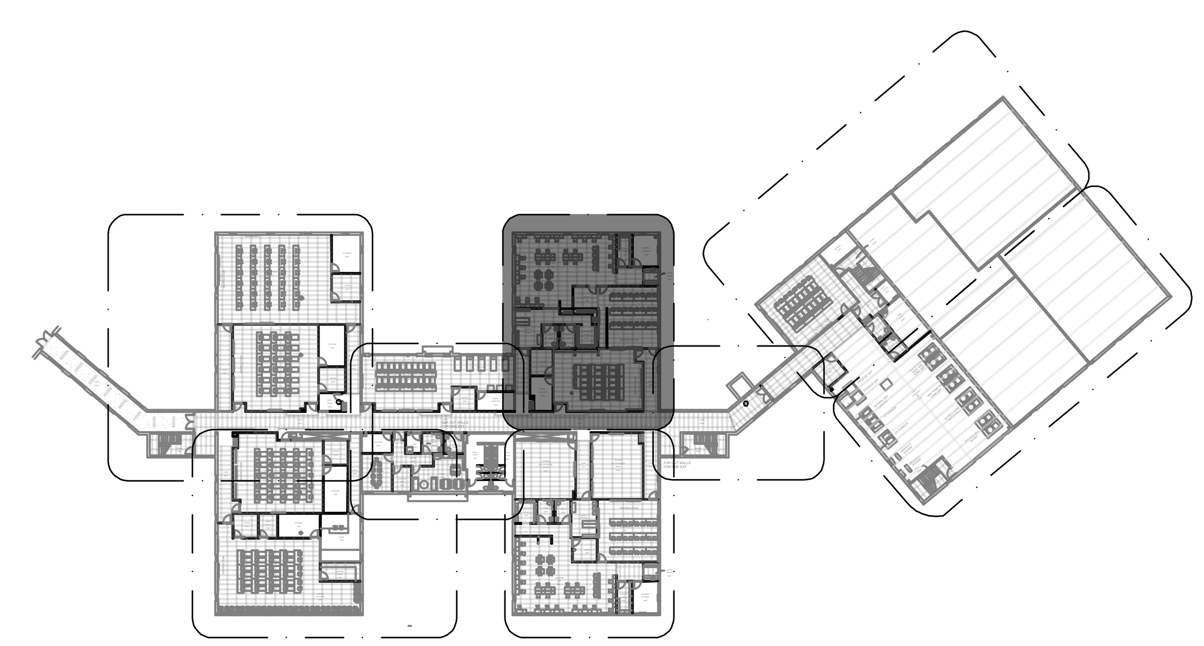
SHEET 15 of 22



BUILDING 2 & 3 SECOND FLOOR FIRE ALARM ENLARGED PARTIAL PLAN - AREA 4

1

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



KEY PLAN

LEGEND

F	PULL STATION/FIRE ALARM BOX
S	SMOKE DETECTOR
S D	IN-DUCT SMOKE DETECTOR
RF	HEAT DETECTOR 'R' DENOTES RATE-OF-RISE. 'F' DENOTES FIXED TEMPERATURE.
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FAA	FIRE ALARM ANNUNCIATOR
NAC	NOTIFICATION CIRCUIT POWER BOOSTER, EXTENDER PANEL
BATT	BATTERY CABINET
FADC	FIRE ALARM DOCUMENTATION CABINET
FATC	FIRE ALARM TERMINAL CABINET
	1-HOUR FIRE BARRIER
	2-HOUR FIRE BARRIER
	SMOKE BARRIER
	NOT IN SCOPE

KEYNOTES:

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BUILDING 2 & 3 SECOND FLOOR FIRE ALARM ENLARGED PARTIAL PLAN - AREA 4

FA102.4

SHEET 16 of 22

BUILDING 2 & 3 SECOND FLOOR FIRE ALARM ENLARGED PARTIAL PLAN - AREA 5

1

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

LEGEND

- PULL STATION/FIRE ALARM BOX
- SMOKE DETECTOR
- IN-DUCT SMOKE DETECTOR
- HEAT DETECTOR
  'R' DENOTES RATE-OF-RISE. 'F' DENOTES FIXED TEMPERATURE.
- SPEAKER ONLY.
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  CD = CANDELA RATING/SETTING
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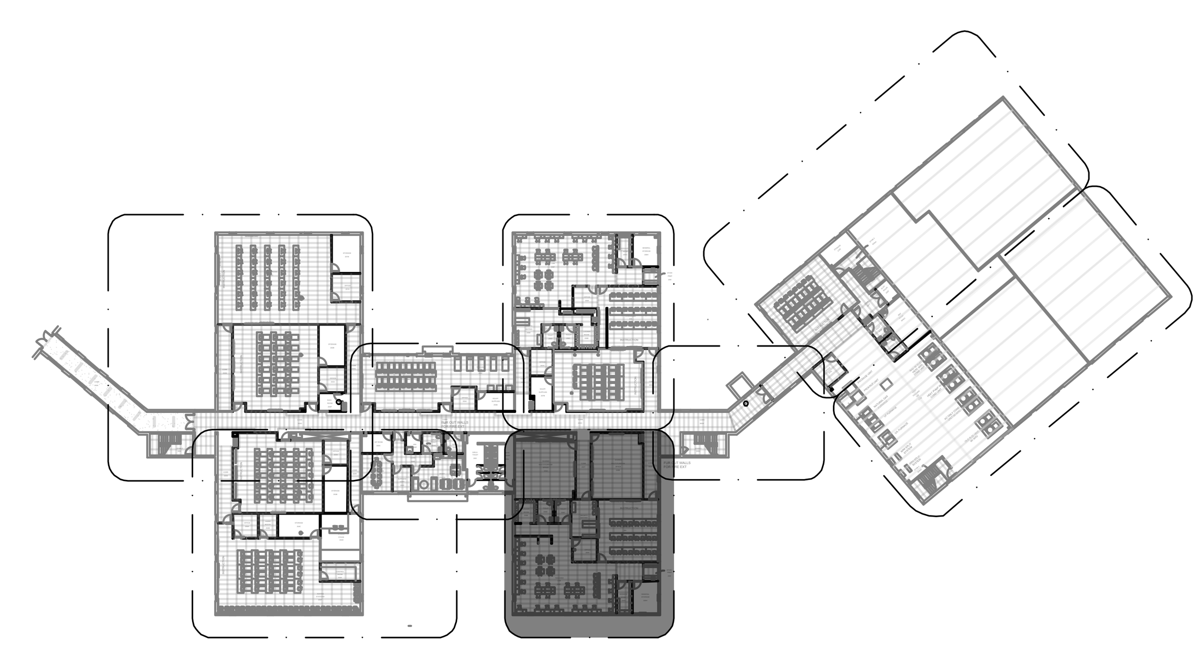

KEY PLAN

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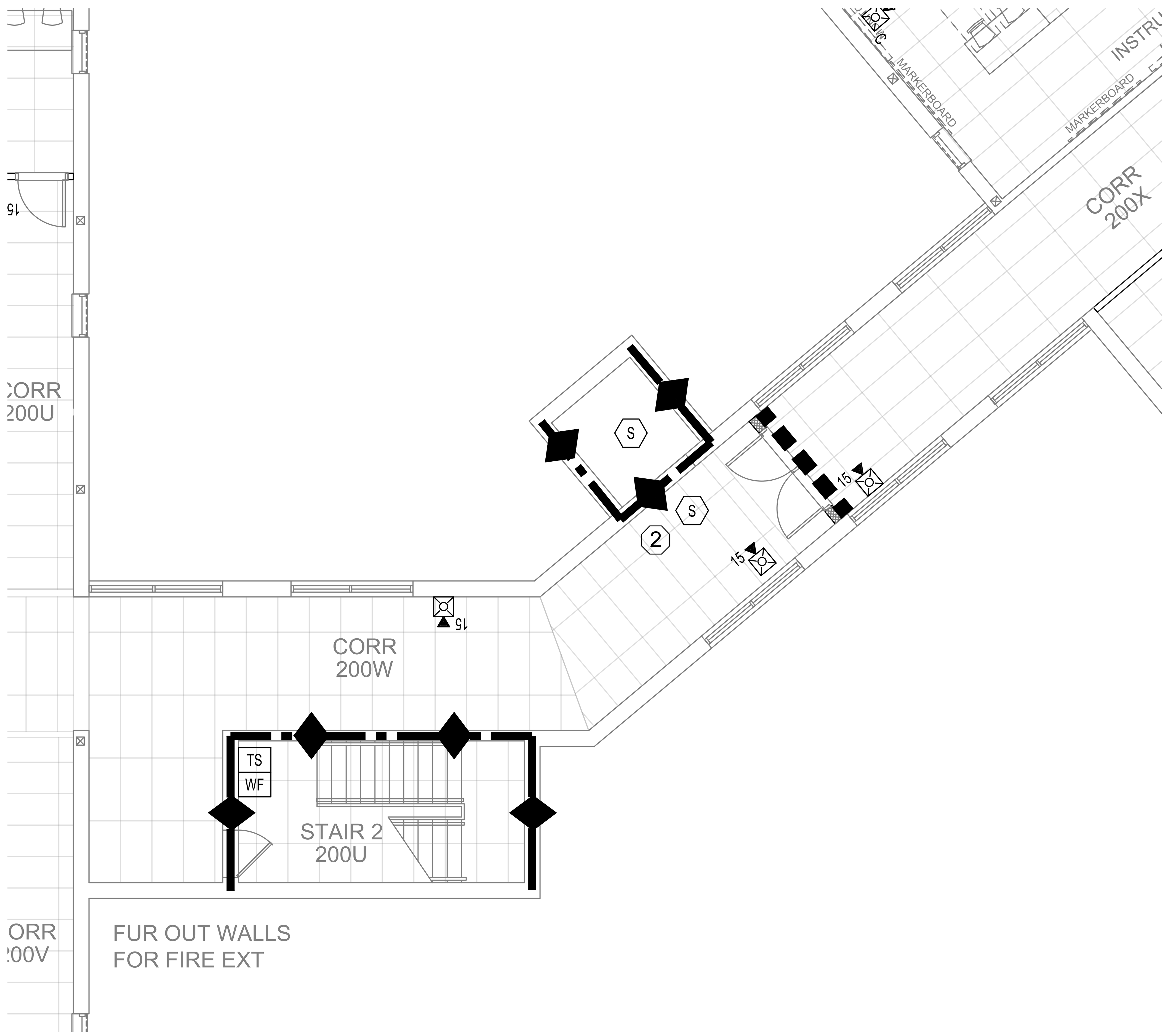
BUILDING 2 & 3 SECOND FLOOR FIRE ALARM ENLARGED PARTIAL PLAN - AREA 5

FA102.5

SHEET 17 of 22



BUILDING 2 & 3 SECOND FLOOR FIRE ALARM ENLARGED PARTIAL PLAN - AREA 6

1

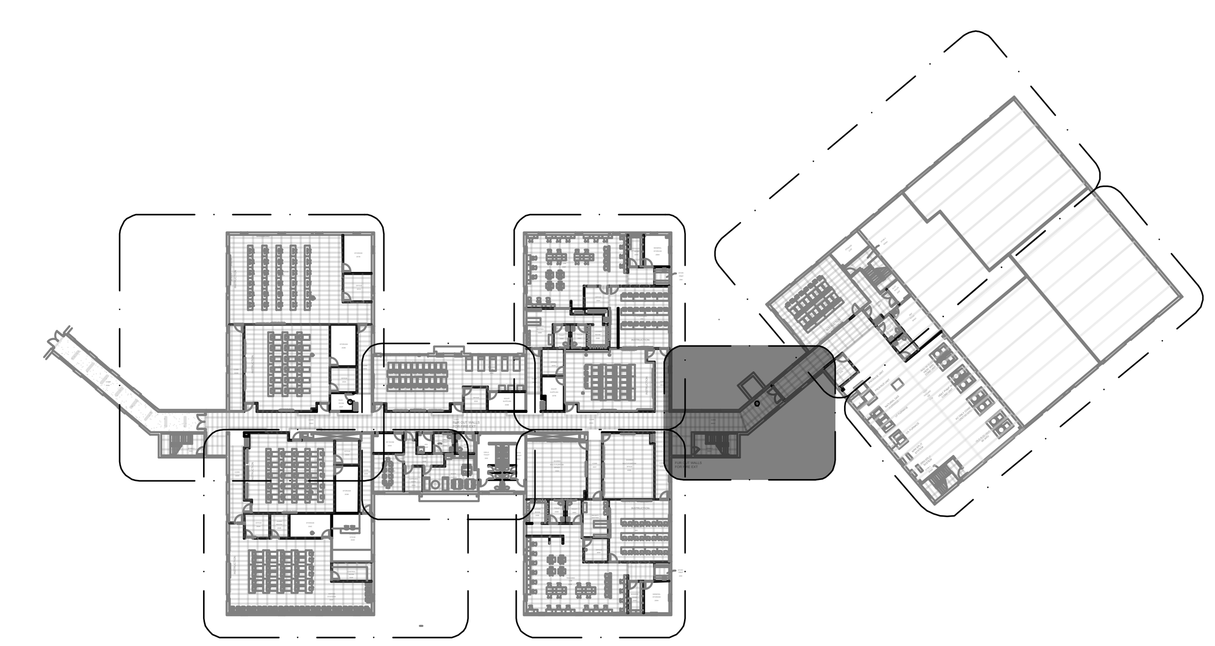
SCALE: 3/16" = 1'-0"

LEGEND

- PULL STATION/FIRE ALARM BOX
- SMOKE DETECTOR
- IN-DUCT SMOKE DETECTOR
- HEAT DETECTOR
  'R' DENOTES RATE-OF-RISE. 'F' DENOTES FIXED TEMPERATURE.
- SPEAKER ONLY.
  'C' DENOTES CEILING MOUNTED (WALL MOUNTED OTHERWISE)
- COMBINATION SPEAKER/VISIBLE - WALL MOUNT
  CD = CANDELA RATING/SETTING
- COMBINATION SPEAKER/VISIBLE - CEILING MOUNT
  CD = CANDELA RATING/SETTING
- WEATHERPROOF HORN/VISIBLE - WALL MOUNT
  CD = CANDELA RATING/SETTING
- VISIBLE ONLY (STROBE) - WALL MOUNT
  CD = CANDELA RATING / SETTING
- ELECTRIC BELL
- CARBON MONOXIDE DETECTOR
- WF — FLOW SWITCH
- DH — DOOR HOLDER
- TS — TAMPER SWITCH
- LOC — LOCAL OPERATING CONSOLE
- FACP — FIRE ALARM CONTROL PANEL
- FAA — FIRE ALARM ANNUNCIATOR
- NAC — NOTIFICATION CIRCUIT POWER BOOSTER, EXTENDER PANEL
- BATT — BATTERY CABINET
- FADC — FIRE ALARM DOCUMENTATION CABINET
- FATC — FIRE ALARM TERMINAL CABINET
- 1-HOUR FIRE BARRIER
- 2-HOUR FIRE BARRIER
- SMOKE BARRIER
- NOT IN SCOPE

KEYNOTES:

1. HEAT DETECTION SENSOR IN THE HOISTWAY AND ELEVATOR MACHINE ROOM TO BE ORDINARY TEMPERATURE (135 F) AND SHALL BE COMBINATION RATE OF RISE/FIXED TEMPERATURE SENSOR TO PROVIDE ELEVATOR SHUNT. SENSOR TO HAVE A HIGHER RTI (THERMAL SENSITIVITY) THAN THE SPRINKLERS IN THE HOISTWAY AND MACHINE ROOM WITH A LISTED SPACE RATING OF 25 FT. OR MORE. HEAT SENSORS TO BE PLACED WITHIN 2 FT. OF SPRINKLERS IN HOISTWAY AND MACHINE ROOM.
2. SMOKE DETECTION SENSORS LOCATED IN THE ELEVATOR LOBBY, MACHINE ROOM AND ELEVATOR HOISTWAY SHALL BE PROVIDED TO INITIATE PHASE I EMERGENCY ELEVATOR RECALL OPERATIONS.
3. NAC BOOSTER PANELS TO BE IMPLEMENTED AS NEEDED FOR FINAL DESIGN. BASIS OF DESIGN INCLUDES ANTICIPATED LOCATIONS WITH SMOKE SENSOR REQUIREMENTS. FINAL LOCATIONS TO BE DETERMINED AS PART OF SHOP DRAWING DEVELOPMENT. REFER TO SPECIFICATION 28 31 76 FOR ADDITIONAL INFORMATION.
4. PROVIDE TAMPER SWITCH FOR EXTERIOR LOCATED PIV.



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BUILDING 2 & 3 SECOND FLOOR FIRE ALARM ENLARGED PARTIAL PLAN - AREA 6

FA102.6

SHEET 18 of 22

KEYNOTES:

1. HEAT DETECTION SENSOR IN THE HOISTWAY AND ELEVATOR MACHINE ROOM TO BE ORDINARY TEMPERATURE (135 F) AND SHALL BE COMBINATION RATE OF RISE/FIXED TEMPERATURE SENSOR TO PROVIDE ELEVATOR SHUNT. SENSOR TO HAVE A HIGHER RTI (THERMAL SENSITIVITY) THAN THE SPRINKLERS IN THE HOISTWAY AND MACHINE ROOM WITH A LISTED SPACE RATING OF 25 FT. OR MORE. HEAT SENSORS TO BE PLACED WITHIN 2 FT. OF SPRINKLERS IN HOISTWAY AND MACHINE ROOM.
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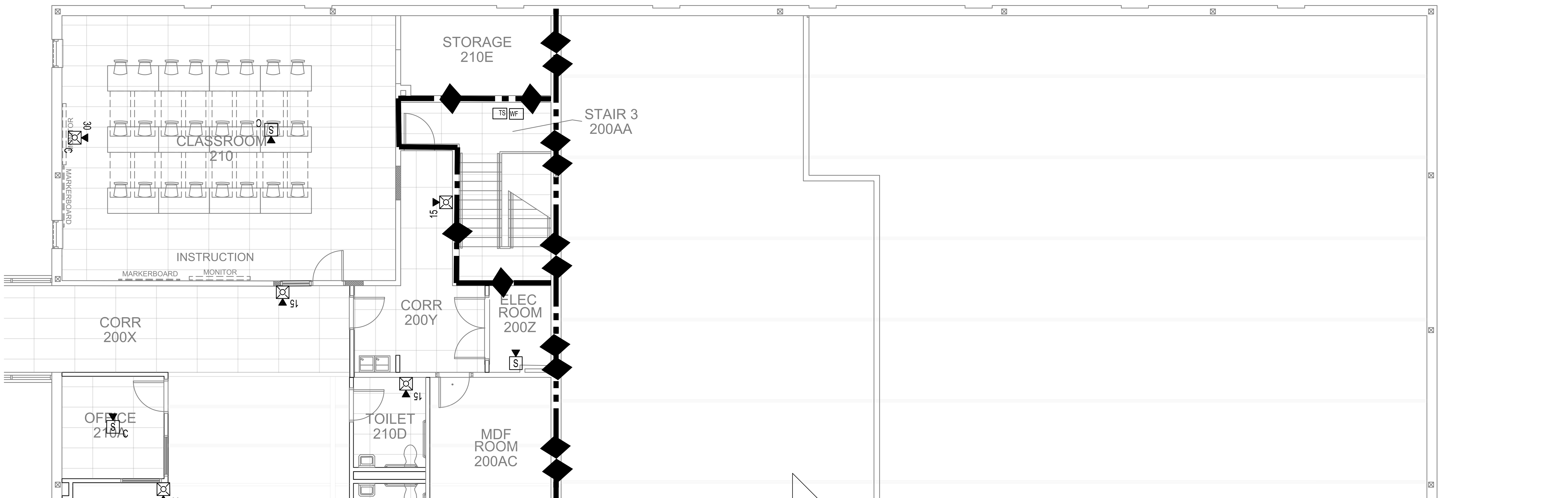


LEGEND

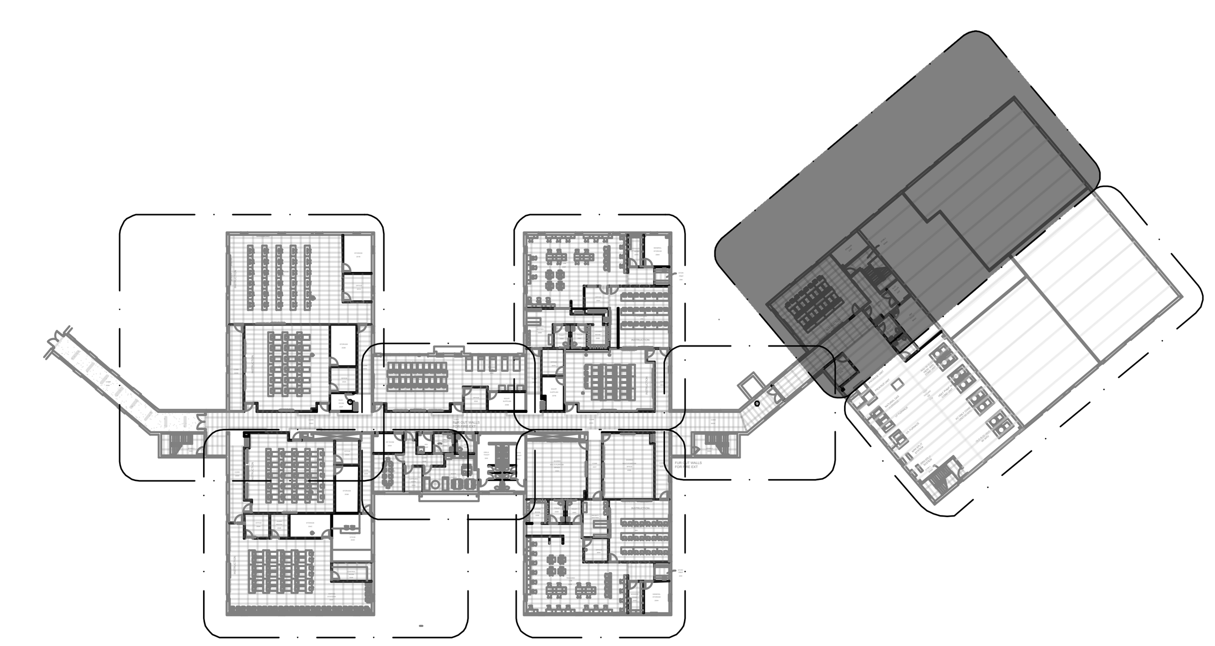
PULL STATION/FIRE ALARM BOX
SMOKE DETECTOR
IN-DUCT SMOKE DETECTOR
HEAT DETECTOR
'R' DENOTES RATE-OF-RISE. 'F' DENOTES FIXED TEMPERATURE.
SPEAKER ONLY.
'C' DENOTES CEILING MOUNTED (WALL MOUNTED OTHERWISE)
COMBINATION SPEAKER/VISIBLE - WALL MOUNT
CD = CANDELA RATING/SETTING
COMBINATION SPEAKER/VISIBLE - CEILING MOUNT
CD = CANDELA RATING/SETTING
WEATHERPROOF HORN/VISIBLE - WALL MOUNT
CD = CANDELA RATING/SETTING

VISIBLE ONLY (STROBE) - WALL MOUNT
CD = CANDELA RATING / SETTING
ELECTRIC BELL
CARBON MONOXIDE DETECTOR
WF FLOW SWITCH
DH DOOR HOLDER
TS TAMPER SWITCH
LOC LOCAL OPERATING CONSOLE
FACP FIRE ALARM CONTROL PANEL
FAA FIRE ALARM ANNUNCIATOR
NAC NOTIFICATION CIRCUIT POWER BOOSTER, EXTENDER PANEL
BATT BATTERY CABINET

FADC FIRE ALARM DOCUMENTATION CABINET
FATC FIRE ALARM TERMINAL CABINET
1-HOUR FIRE BARRIER
2-HOUR FIRE BARRIER
SMOKE BARRIER
NOT IN SCOPE

1 BUILDING 2 & 3 SECOND FLOOR FIRE ALARM ENLARGED PARTIAL PLAN - AREA 7

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



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BUILDING 2 & 3 SECOND FLOOR FIRE ALARM ENLARGED PARTIAL PLAN - AREA 7

FA102.7

SHEET 19 of 22

KEYNOTES:

1. HEAT DETECTION SENSOR IN THE HOISTWAY AND ELEVATOR MACHINE ROOM TO BE ORDINARY TEMPERATURE (135 F) AND SHALL BE COMBINATION RATE OF RISE/FIXED TEMPERATURE SENSOR TO PROVIDE ELEVATOR SHUNT. SENSOR TO HAVE A HIGHER RTI (THERMAL SENSITIVITY) THAN THE SPRINKLERS IN THE HOISTWAY AND MACHINE ROOM WITH A LISTED SPACE RATING OF 25 FT. OR MORE. HEAT SENSORS TO BE PLACED WITHIN 2 FT. OF SPRINKLERS IN HOISTWAY AND MACHINE ROOM.
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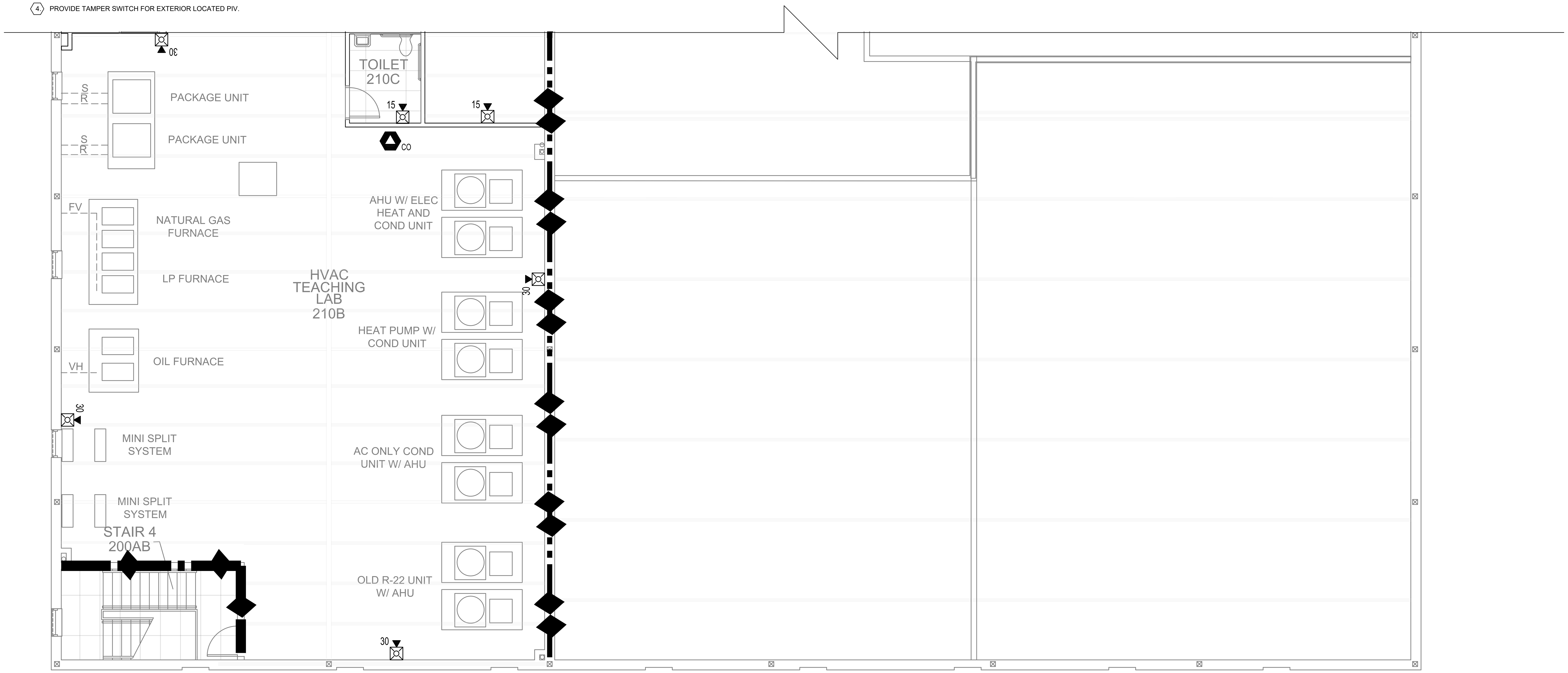
4. PROVIDE TAMPER SWITCH FOR EXTERIOR LOCATED PIV.



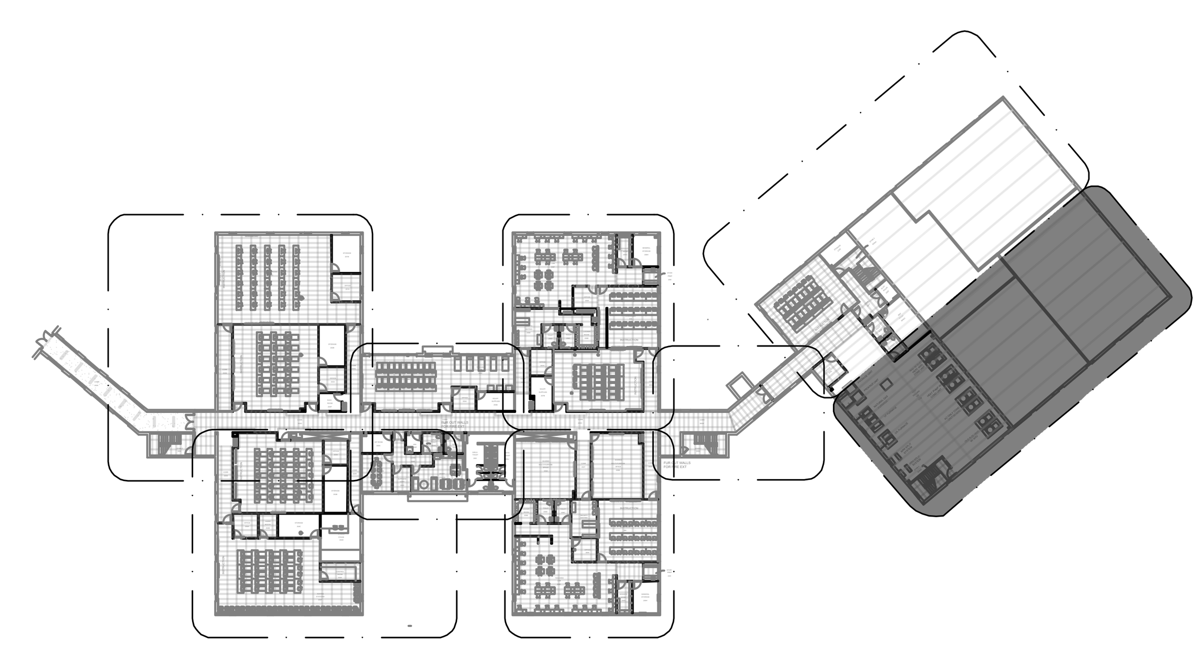
LEGEND

Symbol	Description
F	PULL STATION/FIRE ALARM BOX
S	SMOKE DETECTOR
S D	IN-DUCT SMOKE DETECTOR
RF	HEAT DETECTOR 'R' DENOTES RATE-OF-RISE. 'F' DENOTES FIXED TEMPERATURE.
S C	SPEAKER ONLY. 'C' DENOTES CEILING MOUNTED (WALL MOUNTED OTHERWISE)
CD	COMBINATION SPEAKER/VISIBLE - WALL MOUNT CD = CANDELA RATING/SETTING
CD C	COMBINATION SPEAKER/VISIBLE - CEILING MOUNT CD = CANDELA RATING/SETTING
CD WP	WEATHERPROOF HORN/VISIBLE - WALL MOUNT CD = CANDELA RATING/SETTING
CD	VISIBLE ONLY (STROBE) - WALL MOUNT CD = CANDELA RATING / SETTING
E	ELECTRIC BELL
CO	CARBON MONOXIDE DETECTOR
WF	FLOW SWITCH
DH	DOOR HOLDER
TS	TAMPER SWITCH
LOC	LOCAL OPERATING CONSOLE
FACP	FIRE ALARM CONTROL PANEL
FAA	FIRE ALARM ANNUNCIATOR
NAC	NOTIFICATION CIRCUIT POWER BOOSTER, EXTENDER PANEL
BATT	BATTERY CABINET
FADC	FIRE ALARM DOCUMENTATION CABINET
FATC	FIRE ALARM TERMINAL CABINET
	1-HOUR FIRE BARRIER
	2-HOUR FIRE BARRIER
	SMOKE BARRIER
	NOT IN SCOPE

1

BUILDING 2 & 3 SECOND FLOOR FIRE ALARM ENLARGED PARTIAL PLAN - AREA 8

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



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BUILDING 2 & 3 SECOND FLOOR FIRE ALARM ENLARGED PARTIAL PLAN - AREA 8

FA102.8

SHEET 20 of 22

LEGEND

Symbol	Description
F	PULL STATION/FIRE ALARM BOX
S	SMOKE DETECTOR
S D	IN-DUCT SMOKE DETECTOR
RF	HEAT DETECTOR 'R' DENOTES RATE-OF-RISE. 'F' DENOTES FIXED TEMPERATURE.
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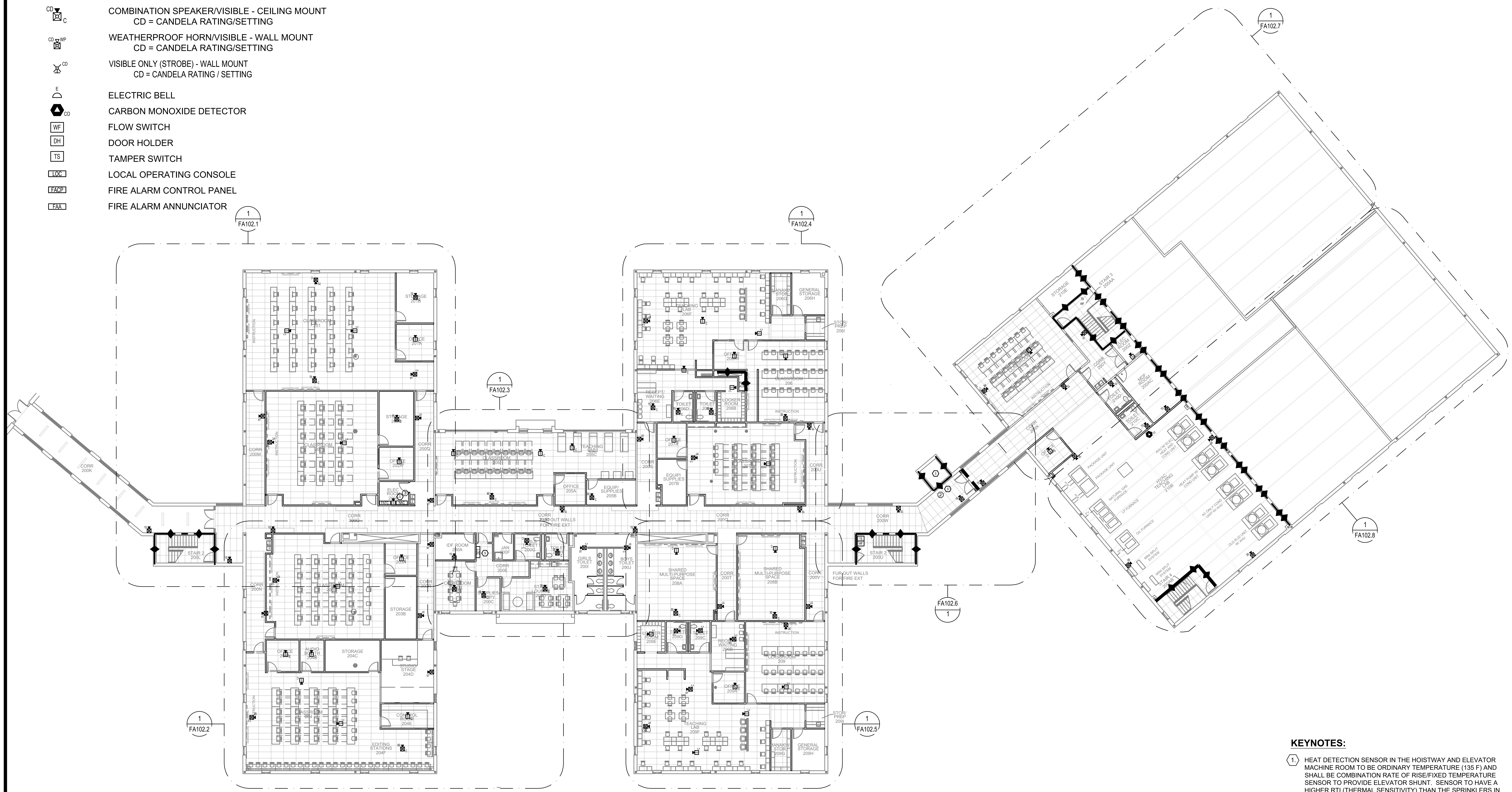
FATC	FIRE ALARM TERMINAL CABINET
	1-HOUR FIRE BARRIER
	2-HOUR FIRE BARRIER
	SMOKE BARRIER
	NOT IN SCOPE



BUILDING 2 & 3
SECOND FLOOR FIRE ALARM OVERALL PLAN

1

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

KEYNOTES:

1. HEAT DETECTION SENSOR IN THE HOISTWAY AND ELEVATOR MACHINE ROOM TO BE ORDINARY TEMPERATURE (135 F) AND SHALL BE COMBINATION RATE OF RISE/FIXED TEMPERATURE SENSOR TO PROVIDE ELEVATOR SHUNT. SENSOR TO HAVE A HIGHER RTI (THERMAL SENSITIVITY) THAN THE SPRINKLERS IN THE HOISTWAY AND MACHINE ROOM WITH A LISTED SPACE RATING OF 25 FT. OR MORE. HEAT SENSORS TO BE PLACED WITHIN 2 FT. OF SPRINKLERS IN HOISTWAY AND MACHINE ROOM.
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BUILDING 2 & 3 SECOND FLOOR FIRE ALARM OVERALL PLAN

FA102

SHEET 12 of 22

LEGEND

F	PULL STATION/FIRE ALARM BOX
	SMOKE DETECTOR
	IN-DUCT SMOKE DETECTOR
	HEAT DETECTOR 'R' DENOTES RATE-OF-RISE. 'F' DENOTES FIXED TEMPERATURE.
	SPEAKER ONLY. 'C' DENOTES CEILING MOUNTED (WALL MOUNTED OTHERWISE)
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LOC	LOCAL OPERATING CONSOLE
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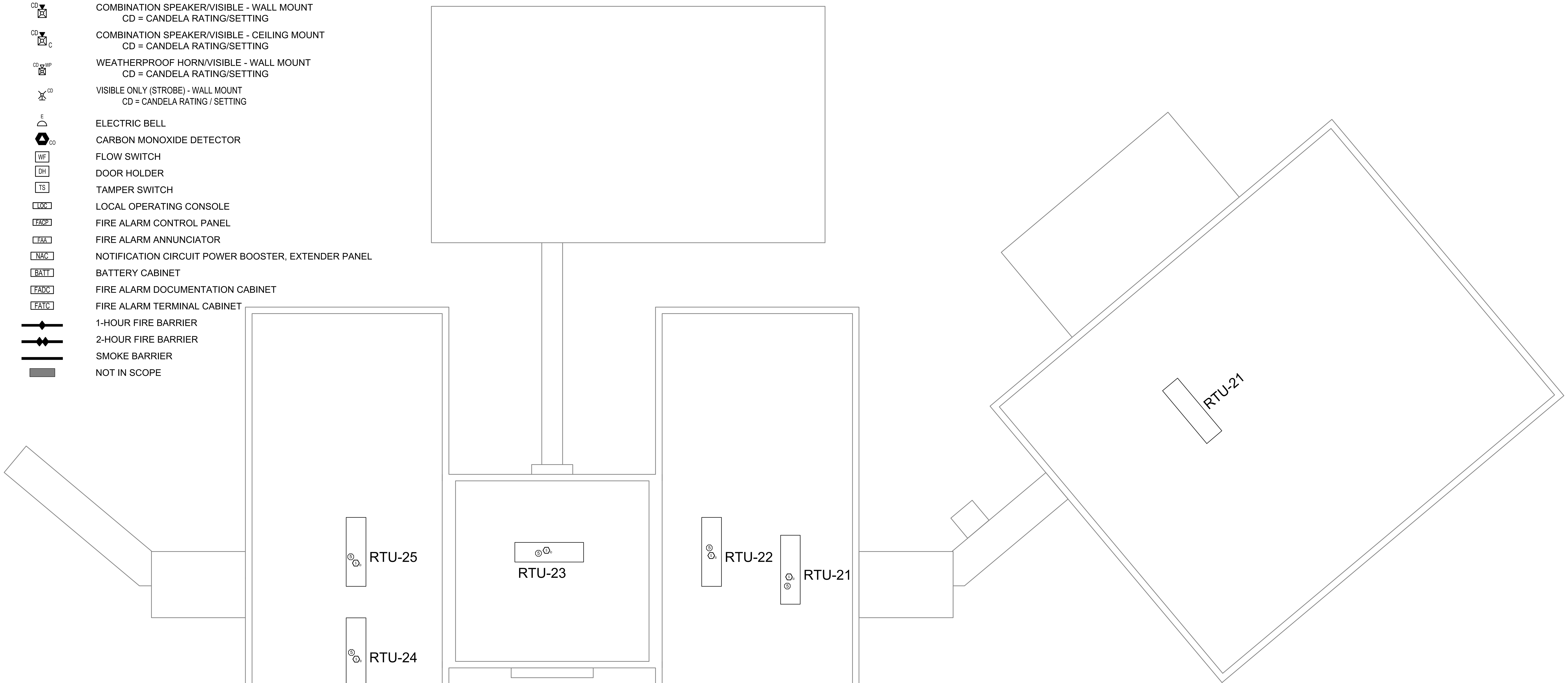
FADC	FIRE ALARM DOCUMENTATION CABINET
FATC	FIRE ALARM TERMINAL CABINET
	1-HOUR FIRE BARRIER
	2-HOUR FIRE BARRIER
	SMOKE BARRIER
	NOT IN SCOPE



BUILDING 2 & 3
FIRE ALARM ROOF PLAN

1

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

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4. PROVIDE TAMPER SWITCH FOR EXTERIOR LOCATED PIV.
5. PROVIDE NEW DUCT SMOKE DETECTOR. ACTIVATION OF DUCT SMOKE DETECTOR SHALL SHUT UNIT DOWN AND INITIATE SUPERVISORY SIGNAL. PROVIDE ALL REQUIRED HARDWARE, PROGRAMMING AND INTERFACE WITH HVAC CONTROLS. REVER TO FA301 AND PROJECT MANUAL SPECIFICATION SECTION 28 31 76 FOR ADDITIONAL INFORMATION.

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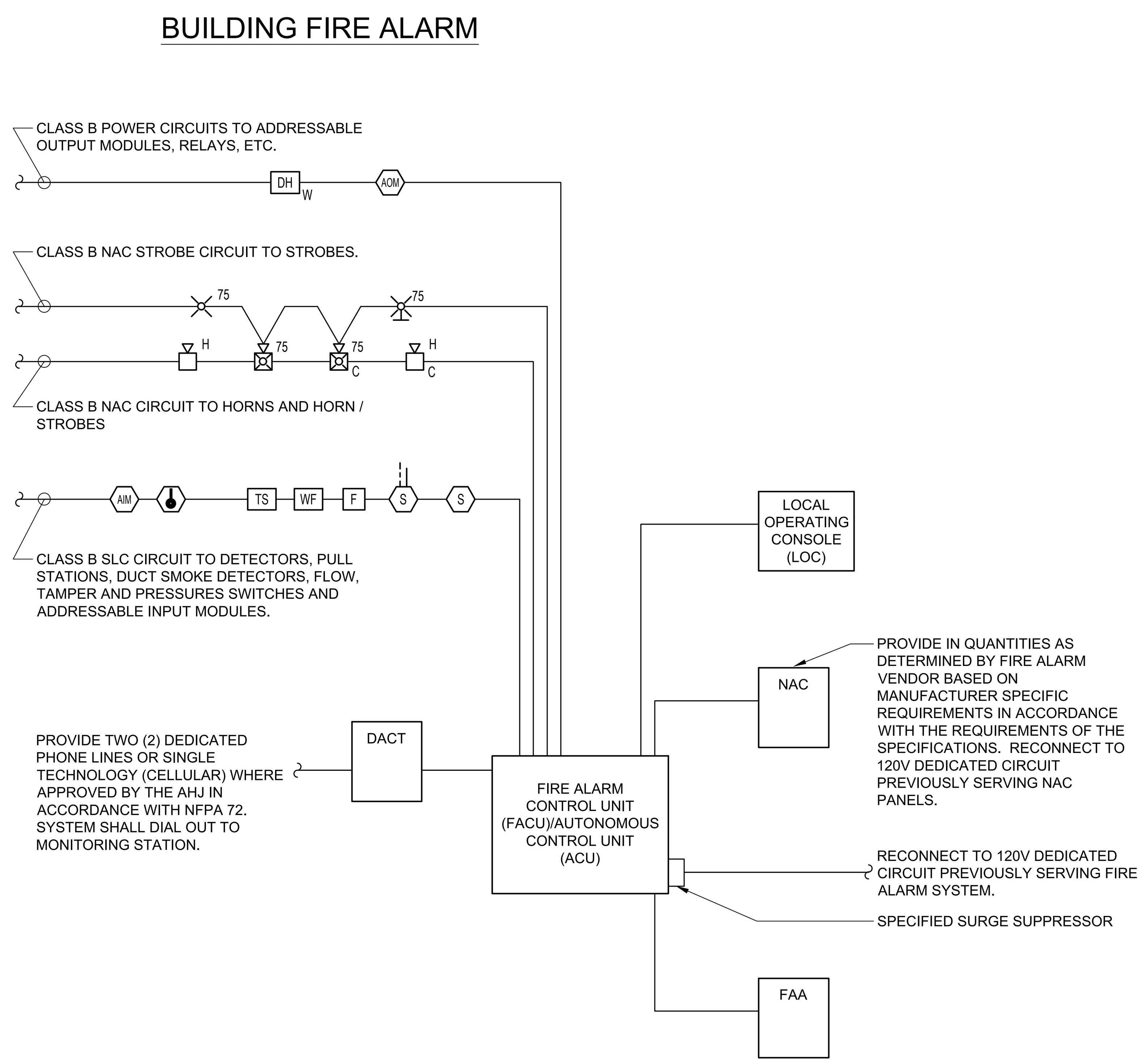
FIRE ALARM ROOF PLAN

FA103

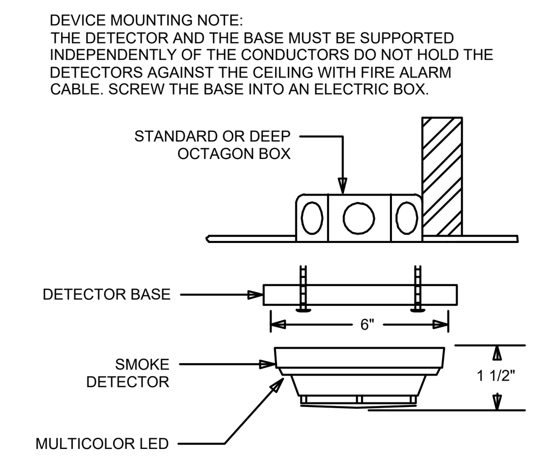
SHEET 21 of 22



1 COMBINET BUILDING FIRE ALARM & EMERGENCY ALARM RISER DIAGRAM

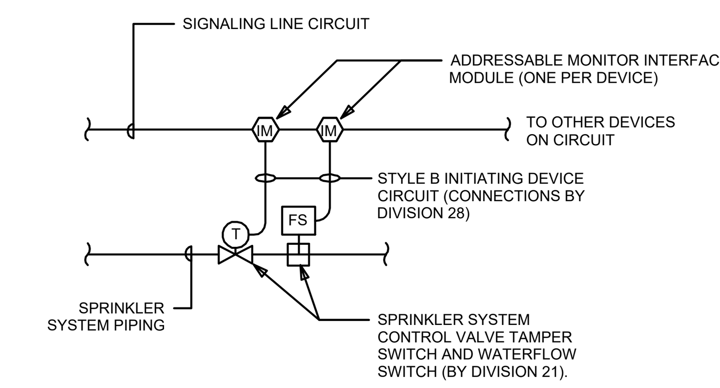
NTS

NOTE: THIS DETAIL IS DIAGRAMMATIC ONLY - FINAL LAYOUT TO BE COMPLETED DURING SHOP (WORKING) DRAWING PREPARATION.



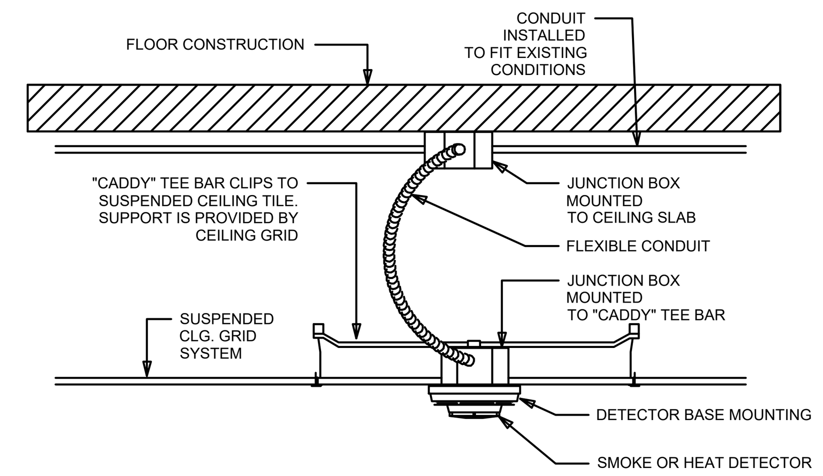
2 SMOKE DETECTOR INSTALLATION - DRYWALL CEILING

NTS



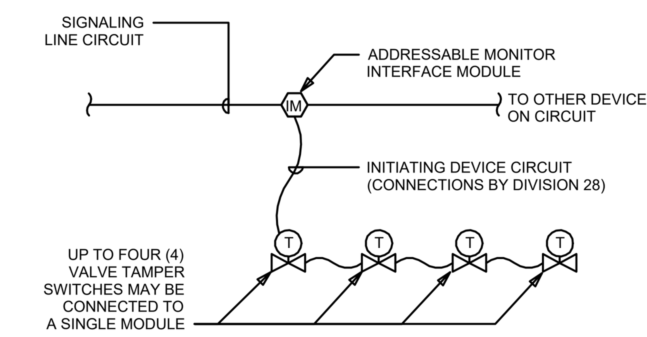
3 SPRINKLER SYSTEM INTERFACE

NTS



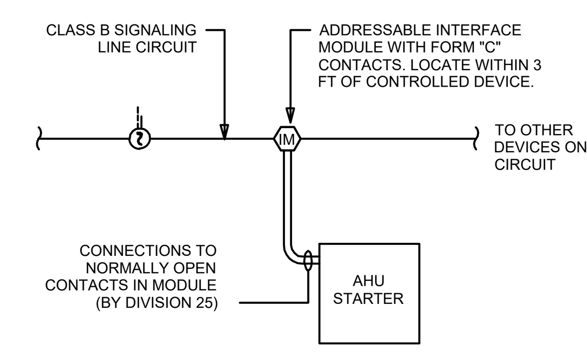
4 SMOKE DETECTOR INSTALLATION - ACOUSTICAL CEILING

NTS



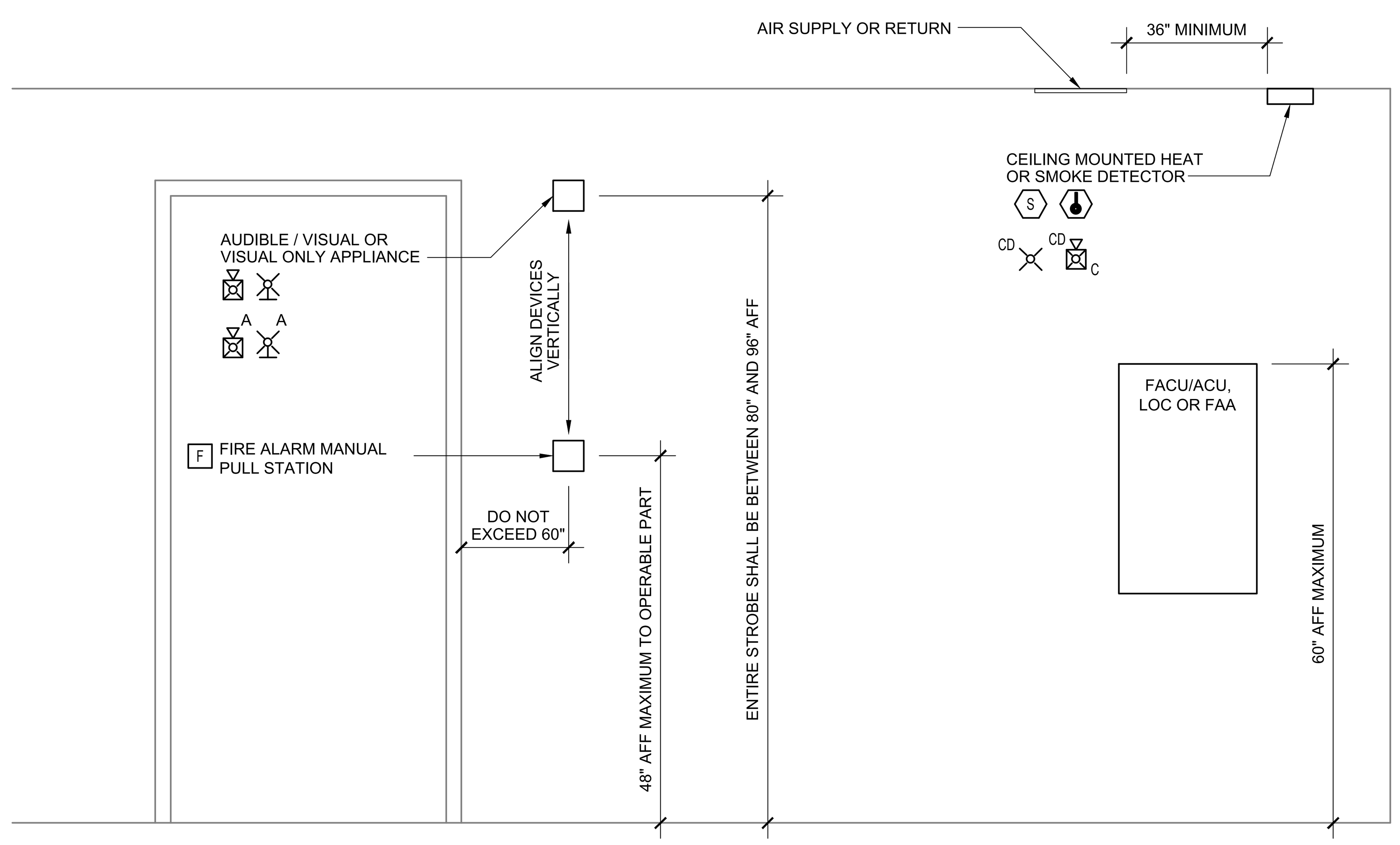
5 TAMPER SWITCH INTERFACE

NTS



6 AHU SHUTDOWN INTERFACE

NTS



7 TYPICAL DEVICE MOUNTING ELEVATION

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SYSTEM OUTPUTS

CONTROL UNIT ANNUNCIATION (A–F)
NOTIFICATION (G–L)
AUXILIARY FUNCTION/FIRE SAFETY CONTROL (M–S)

A ACTUATE COMMON ALARM SIGNAL INDICATOR
B ACTUATE AUDIBLE ALARM SIGNAL
C ACTUATE COMMON SUPERVISORY SIGNAL INDICATOR
D ACTUATE AUDIBLE SUPERVISORY SIGNAL INDICATOR
E ACTUATE COMMON TROUBLE SIGNAL INDICATOR
F ACTUATE AUDIBLE COMMON TROUBLE SIGNAL
G TRANSMIT FIRE ALARM SIGNAL TO SUPERVISORY STATION
H TRANSMIT SUPERVISORY SIGNAL TO SUPERVISING STATION
I TRANSMIT TROUBLE SIGNAL TO SUPERVISING STATION
J ACTUATE AUDIBLE EVACUATION SIGNAL
K ACTUATE VISIBLE EVACUATION SIGNAL
L EMERGENCY VOICE MESSAGE
M SHUT-DOWN ASSOCIATED AIR HANDLER UNIT (HVAC)
N OVER-RIDE FIRE ALARM MESSAGE (MNS ACTIVATION)
O RELEASE MAGNETICALLY HELD-OPEN DOORS
P ACTIVATE OUTSIDE SPRINKLER ELECTRIC BELL
Q RECALL ELEVATOR TO DESIGNATED OR ALTERNATE FLOOR LEVEL
R ACTUATE WARNING TO ELEVATOR CARS
S REMOVE POWER FROM ELEVATOR

	SYSTEM INPUTS	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	
1	MANUAL PULL STATION	●	●					●			●	●				●					1
2	SPOT-TYPE DETECTOR	●	●					●			●	●				●					2
3	AUTOMATIC DOOR CLOSING SMOKE DETECTOR			●	●			●			●	●				●					3
4	DUCT SMOKE DETECTOR	●	●					●						●							4
5	WATER FLOW SWITCH - SPRINKLER SYSTEM	●	●					●			●	●				●	●				5
6	HOOD SUPPRESSION FLOW SYSTEM	●	●					●			●	●				●					6
7	TAMPER SWITCH - SPRINKLER SYSTEM			●	●				●												7
8	TAMPER SWITCH - PIV/BACKFLOW SUPERV. (ETC.)			●	●				●												8
9	HOOD SUPPRESSION SUPERVISORY SWITCH			●	●				●												9
10	INCOMING FIRE LINE SUPERVISORY CONN.			●	●				●												10
11	ELEVATOR MACHINE ROOM SPOT SMOKE DETECTOR										●	●						●	●		11
12	ELEVATOR MACHINE ROOM OR HOISTWAY SPOT HEAT DETECTOR										●	●							●	●	12
13	ELEVATOR CONTROLLER POWER SHUNT TRIP STATUS			●	●																13
14	LIVE VOICE MESSAGE AT FACU (ACU) OR ANY LOC										●	●	●		●						14
15	MASS NOTIFICATION OPERATION										●	●	●		●						15
16	ANY LOC (LOCAL OPERATING CONSOLE) OPERATION										●	●	●		●						16
17	CARBON MONOXIDE DETECTOR			●	●						●	●	●		●						17
18	FIRE ALARM AC POWER FAILURE			●	●				●												18
19	FIRE ALARM SYSTEM LOW BATTERY					●	●			●											19
20	OPEN CIRCUIT					●	●			●											20
21	GROUND CIRCUIT					●	●			●											21
22	CIRCUIT SHORT					●	●			●											22

8 COMBINED BUILDING FIRE ALARM & EMERGENCY COMMUNICATION SYSTEM (MASS NOTIFICATION SYSTEM-MNS) SEQUENCE OF OPERATIONS MATRIX

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REV'D BY:	JBB
DATE:	6/17/22
SCALE:	AS SHOWN

FIRE ALARM DETAILS

FA301

SHEET 22 of 22

GENERAL NOTES:

1. DESIGN AND INSTALL WET-PIPE AUTOMATIC FIRE SPRINKLER SYSTEM IN ACCORDANCE WITH (IAW) THE CODE REQUIREMENTS LISTED BELOW IN ADDITION TO ANY SPECIFIC SYSTEM COMPONENT PRODUCT LISTING. THIS DESIGN SHALL INCLUDE INCLUSION OF THE APPLICABLE PROVISIONS OF THE FOLLOWING DOCUMENTS:
   A. VIRGINIA CONSTRUCTION CODE, 2015
   B. VIRGINIA STATEWIDE FIRE PREVENTION CODE, 2015
   C. INTERNATIONAL BUILDING CODE (IBC), 2015 WITH VIRGINIA AMENDMENTS
   D. INTERNATIONAL FIRE CODE (IFC), 2015 WITH STATE AMENDMENTS
   E. NFPA 13, STANDARD FOR THE INSTALLATION OF SPRINKLER SYSTEMS, 2013 EDITION - AS REF. BY 2015 VCC.
2. COORDINATE ALL WORK WITH OTHER BUILDING TRADES AND DESIGN DISCIPLINES. THE CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS AND ELEVATIONS IN THE AREA OR WORK PRIOR TO THE COMMENCEMENT OF WORK. REFER TO HVAC DRAWINGS FOR LAYOUT OF DUCTWORK AND PROVIDE SPRINKLER COVERAGE AS REQUIRED IN NFPA 13 FOR OBSTRUCTIONS 4 FT. AND WIDER.
3. DRAWINGS REPRESENT OVERALL DESIGN INTENT. PROVIDE FINAL DESIGN AND INSTALLATION OF AUTOMATIC FIRE SPRINKLER SYSTEM IN ACCORDANCE WITH NFPA 13.
4. SEAL ALL PENETRATIONS WITH APPROVED THROUGH-PENETRATION FIRESTOPPING SYSTEMS THROUGH FIRE BARRIER WALLS OR FIRE RESISTANCE CONSTRUCTION TO MAINTAIN THE INTEGRITY OF THE SEPARATION IN ACCORDANCE WITH IBC AND PRODUCT LISTINGS.
5. ALL SPRINKLER PIPING TO BE CONCEALED ABOVE CEILINGS, UNLESS OTHERWISE SPECIFICALLY INDICATED.
6. SPRINKLERS SHALL BE COORDINATED WITH ALL DIFFUSERS, LIGHTING FIXTURES AND CEILING SYSTEMS/SOFFITS AND ANY OTHER FIXED OBSTRUCTIONS AS REGULATED BY NFPA 13.
7. DESIGN AND PROVIDE THE SPRINKLER SYSTEM USING QUICK-RESPONSE SPRINKLERS MEETING DESIGN CRITERIA OF NFPA 13, UNLESS OTHERWISE SPECIFICALLY INDICATED. AUTOMATIC SPRINKLER TEMPERATURE RATINGS OF FUSIBLE ELEMENTS TO BE IN ACCORDANCE WITH NFPA 13 SECTIONS 6.1, 6.2 AND PRODUCT LISTING. REFER TO FX101 FOR ADDITIONAL DESIGN CRITERION INFORMATION.
8. NO PIPE PENETRATIONS OF STRUCTURAL MEMBERS, EXCEPT AS NOTED, ARE PERMITTED WITHOUT APPROVAL OF ARCHITECT AND/OR ENGINEER.
9. AVOID RUNNING PIPING ABOVE ELECTRICAL PANELS, SWITCHGEAR, AND SIMILAR EQUIPMENT INCLUDING TELECOMMUNICATION WHERE PRACTICAL, UNLESS THEY SERVE THE RESPECTIVE ROOMS.
10. ALL SPRINKLER PIPING AND EQUIPMENT SHALL BE SUPPORTED FROM INDEPENDENT STRUCTURAL SUPPORT SYSTEMS. HANGERS AND OTHER APPROVED PIPING SUPPORTS SHALL BE DESIGNED IN ACCORDANCE WITH NFPA 13 CHAPTER 9 AND PRODUCT LISTINGS.
11. PROVIDE ACCESS PANELS TO ALL VALVES ABOVE NON-ACCESSIBLE CEILING AND CHASES.
12. SYSTEM TO BE MONITORED WITH THE BUILDING FIRE ALARM SYSTEM FOR WATERFLOW ALARM AND CONTROL VALVE TAMPER SUPERVISORY SWITCHES IN ACCORDANCE WITH IBC SECTIONS 901.6.1 AND 903.4.1, NFPA 13 SECTION 8.17.1 AND 6.9. REFER TO FIRE ALARM DRAWINGS FOR COORDINATION.
13. SPRINKLER DESIGN SHALL FOLLOW HYDRAULIC CALCULATION PROCEDURES OF NFPA 13 CHAPTER 23 AND PROVIDE SUMMARY SHEET FOR HYDRAULIC CALCULATIONS MEETING NFPA 13. INCLUDE PLANS, ELEVATIONS, SECTIONS, DETAILS AND ATTACHMENTS EQUIVALENT TO "WORKING DRAWINGS" DEFINED BY NFPA 13. DESIGN AND HYDRAULIC CALCULATIONS SHALL BE PREPARED BY A QUALIFIED NICET LEVEL III OR IV CERTIFIED DESIGNER (WATER BASED SYSTEMS) OR EQUIVALENT, USING PERFORMANCE REQUIREMENTS AND DESIGN CRITERIA INDICATED. HYDRAULIC CALCULATIONS SHALL ACCOUNT FOR BOTH NORMAL AND VELOCITY PRESSURES. REFER TO NFPA 13, CH. 23 FOR ADDITIONAL INFORMATION.
14. ALL SPRINKLERS IN AREAS WITH FINISHED CEILINGS SHALL BE INSTALLED CENTER OF TILE AND ON RETURN BENDS.
15. PROVIDE A DRAIN ON THE SYSTEM SIDE OF CONTROL VALVE AND INSTALL VALVE FOR OPERATION OF DRAIN IN ACCORDANCE WITH NFPA 13. ARRANGE PIPING TO DRAIN TO SYSTEM RISER TO THE MAXIMUM EXTENT PRACTICABLE. PROVIDE INSPECTOR'S TEST CONNECTION IN ACCORDANCE WITH NFPA 13.
16. ALL CONTROL VALVES AND FLOW ALARM SWITCHES LOCATED ABOVE FINISHED CEILING SHALL BE ACCESSIBLE AND HAVE NOTIFICATION MARKING TAG FOR THE INSPECTOR.
17. IN AREAS WHERE SPRINKLER LOCATIONS ARE SHOWN (AS APPLICABLE) ON THESE DRAWINGS PROVIDE NUMBER OF SPRINKLERS SHOWN AS A MINIMUM. PROVIDE ADDITIONAL SPRINKLERS AS REQUIRED FOR A COMPLETE SPRINKLER SYSTEM INSTALLATION IN COMPLIANCE WITH NFPA 13. ADDITIONAL SPRINKLERS IN EXCESS OF QUANTITIES INDICATED ON DRAWINGS SHALL BE PROVIDED AT NO ADDITIONAL COST WHEN REQUIRED TO COMPLY WITH NFPA 13 OBSTRUCTION, LOCATION AND SPACING REQUIREMENTS.
18. REFER TO ARCHITECTURAL DRAWINGS FOR EXACT LOCATION OF WALLS, CEILING LAYOUT, LIGHTING AND HVAC DIFFUSER LOCATIONS.
19. SPRINKLER PIPING MATERIAL SHALL BE STEEL PIPING TO COMPLY WITH NFPA 13.
20. STANDARD-PRESSURE PIPING SYSTEM COMPONENTS SHALL BE USED UNLESS OTHERWISE SPECIFICIED, CONSISTING OF COMPONENTS LISTED FOR 175 PSIG MINIMUM WORKING PRESSURE. UNDERGROUND PIPING TO MEET WESTERN VIRGINIA WATER AUTHORITY (WVWA) REQUIREMENTS FOR INSTALLATION AND NFPA 13.
22. SYSTEM TO BE PROVIDED WITH FIRE DEPARTMENT CONNECTION AND OUTSIDE EXTERIOR ELECTRIC BELL TO MEET REQUIREMENTS OF THE AHJ, IBC SECTION 903.4.2. REFER TO FIRE ALARM DRAWINGS FOR COORDINATION.
23. BACKFLOW PREVENTER TO BE INSTALLED IN ACCORDANCE WITH NFPA 13 AND THE VIRGINIA PLUMBING CODE, 2015. PROVISIONS TO BE MADE IN PIPING TO ACCOMMODATE FORWARD FLOW TESTING, IN ACCORDANCE WITH NFPA 13.
24. ALL EQUIPMENT SHALL BE FM APPROVED AND/OR UL LISTED, UNLESS SPECIFICALLY IDENTIFIED OR AS ALLOWED BY NFPA 13.
25. WHERE SPRINKLERS ARE INSTALLED SUBJECT TO MECHANICAL INJURY, LISTED GUARDS SHALL BE PROVIDED IAW NFPA 13.

CODE ANALYSIS:

FIRE PROTECTION SYSTEMS (VEBC 704; VCC CH. 9)
E OCCUPANCY IS CONSIDERED A HIGHER RELATIVE HAZARD RATING THAN GROUP B, PER VEBC SECTION 704, VCC CHAPTER 9 MUST BE CONSIDERED FOR PROPOSED USE GROUPS. SPECIFIC REQUIREMENTS FOR AUTOMATIC FIRE SPRINKLER SYSTEM (VEBC SECTION 704.2) AND FIRE ALARM SYSTEM (VEBC SECTION 704.3) ARE CONSIDERED BELOW IN CONNECTION WITH THE EXISTING SYSTEMS.

WATER-BASED FIRE SUPPRESSION SYSTEMS (903.2.3, 903.3.1.1)

FIRE SPRINKLER REQUIREMENTS: AUTOMATIC SPRINKLER PROTECTION WILL BE RETROFITTED THROUGHOUT THE EXISTING BUILDING TO MEET GROUP E REQUIREMENTS WHERE GROUP E FIRE AREA IS ON A FLOOR OTHER THAN A LEVEL OF EXIT DISCHARGE. THE AUTOMATIC FIRE SPRINKLER SYSTEM WILL BE DESIGNED TO MEET HAZARD CRITERION OF NFPA 13. FIRE SPRINKLER HAZARD CLASSIFICATION: HAZARD CLASSIFICATIONS INCLUDE AREAS CONSIDERED AS LIGHT HAZARD, ORDINARY HAZARD IN ACCORDANCE WITH NFPA 13 SECTIONS 5.2 AND 5.3. THE DESIGN CRITERIA ARE PROVIDED ON FX101.

BACKFLOW PREVENTION: A NEW DOUBLE CHECK BACKFLOW PREVENTER SHALL BE PROVIDED FOR BUILDING SPRINKLER RISER.

FIRE SPRINKLERS: SPACING SHALL MEET NFPA 13 FOR HAZARD CLASSIFICATIONS.

FIRE SPRINKLER PIPING: FIRE SPRINKLER PIPING TO BE BLACK STEEL PIPE.

STANDPIPE SYSTEM (MANUAL OR AUTOMATIC) IS NOT REQUIRED FOR THIS BUILDING TYPE AND OCCUPANCY IN ACCORDANCE WITH THE IBC SECTION 905.3.1.

ALTERNATIVE FIRE SUPPRESSION SYSTEMS
KITCHEN HOOD SUPPRESSION SYSTEM (VCC 904.2.2, 904.5)
WET-CHEMICAL FIRE SUPPRESSION SYSTEM TO BE PROVIDED FOR ALL TYPE I HOODS (GREASE COLLECTION) IN ACCORDANCE WITH THE VMC CHAPTER 5 AND NFPA 17A. DESIGN BY OTHERS.

WATER FLOW TEST DATA:

DATE:	03/02/22
STATIC PRESSURE:	73 PSI
RESIDUAL PRESSURE:	61 PSI
FLOW:	1,244 GPM
TEST CONDUCTED BY:	WVWA
TEST HYDRANT:	WVWA #11678 - LOCATED AT ORDWAY DR.
FLOW HYDRANT:	WVWA #13433 - LOCATED AT FRONTAGE RD.

POC - ADJUSTED HYDRAULIC DATA AT FIRE SERVICE LINE / CITY WATER SERVICE POINT OF CONNECTION:

STATIC PRESSURE:	73 PSI
RESIDUAL PRESSURE:	52 PSI
FLOW	1,244 GPM

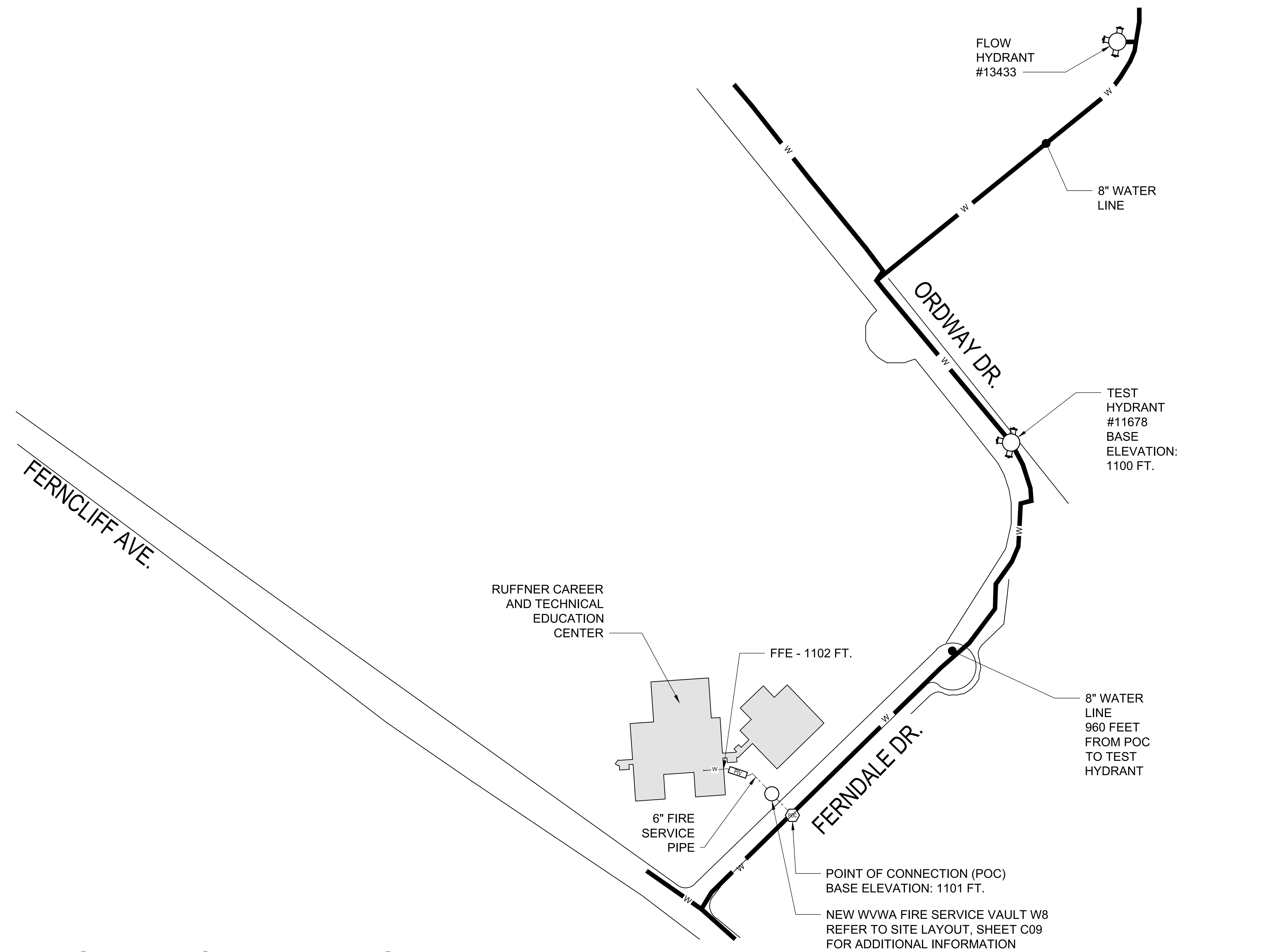
BASIS OF CALCULATION: DUCTILE IRON WATER SUPPLY PIPE (C 140)

FOR BIDDING PURPOSES UTILIZE THE FLOW TEST INFORMATION PROVIDED ON SHEET FX001. CONTRACTOR SHALL PERFORM A CONFIRMING WATER FLOW TEST PRIOR TO SYSTEM DESIGN WITHIN THE TIMEFRAMES PERMISSIBLE BY NFPA 13.

DRAWING INDEX

GENERAL PLAN SYMBOLS:

W — STANDPIPE PIPING
F — WET SPRINKLER PIPING
D — DRAIN LINE
W — WATER SERVICE UTILITY PIPING
NEW SIDEWALL SPRINKLER HEAD
NEW UPRIGHT SPRINKLER HEAD
NEW CONCEALED SPRINKLER HEAD
NEW SEMI-RECESSED SPRINKLER HEAD
ELECTRIC BELL
CHECK VALVE
SPRINKLER FLOOR CONTROL STATION
FIRE DEPARTMENT VALVE
VALVE IN DROP
SHUT-OFF VALVE
O.S.&Y. VALVE WITH TAMPER SWITCH
MONITORED FIRE VALVE
FLOW SWITCH
BACKFLOW PREVENTER
PRESSURE GAGE & CLOCK
DIRECTION OF FLOW
DIRECTION OF DRAINAGE
SIAMESE DIRE DEPARTMENT CONNECTION
STORZ FIRE DEPARTMENT CONNECTION
SERVICE RISER UP/DOWN
ELBOW DOWN
UNION OR FLANGED CONNECTION
PIPE CAP
POINT OF CONNECTION NEW TO EXISTING
TERMINATION OF DEMOLITION REMOVAL
STANDPIPE RISER DESIGNATION
STANDPIPE RISER DESIGNATION
FIRE HYDRANT
PIV — POST INDICATOR VALVE
8'-6" — CEILING HEIGHT
PORTABLE FIRE EXTINGUISHER 2-A (2.5 GAL.) WATER
K-TYPE (6 L.) WET CHEMICAL
20-B (5 LB.) DRY CHEMICAL
2-A:20-BC (15 LB.) MULT-PURPOSE DRY CHEMICAL ABC
2-C (5 LB.) CLEAN AGENT



1 SITE VICINITY DIAGRAM

SCALE: NTS

NOTE: ALL DIMENSIONS ON THIS DIAGRAM ARE APPROXIMATE. REFER TO CIVIL DRAWINGS FOR PRECISE MEASUREMENTS.

ABBREVIATIONS:

A.F.C.	ABOVE FINISHED CEILING	FDC	FIRE DEPARTMENT CONNECTION	N.T.S.	NOT TO SCALE
A.F.F.	ABOVE FINISHED FLOOR	FDV	FIRE DEPARTMENT VALVE	O.D.	OUTSIDE DIMENSION
A.F.G.	ABOVE FINISHED GRADE	FDVC	FIRE DEPARTMENT VALVE CABINET	OS&Y	OUTSIDE SCREW & YOKE
AHJ	AUTHORITY HAVING JURISDICTION	FEC	FIRE EXTINGUISHER CABINET	P.C.	PLUMBING CONTRACTOR
AHU	AIR HANDLING UNIT	FH	FIRE HYDRANT	PIV	POST INDICATOR VALVE
ARCH.	ARCHITECT	FHC	FIRE HOSE CABINET	PRV	PRESSURE REDUCING VALVE
BFP	BACK FLOR PREVENTER	FHR	FIRE HOSE RACK	PSI	POUNDS PER SQUARE INCH
BLK	BLACK	FL.	FLOOR	PT	PAINT
CL	CENTERLINE	FP	FIRE PUMP	REQ.	REQUIRED
CLG.	CEILING	FS	FLOW SWITCH	RPZ	REDUCED PRESSURE ZONE
CO	CLEANOUT	FUT.	FUTURE	SF	SQUARE FEET
CONC.	CONCRETE	GA.	GAUGE	SLV.	SLEEVE
CONN.	CONNECTION	G.C.	GENERAL CONTRACTOR	SP	STANDPIPE
CONST.	CONSTRUCTION	GPM	GALLON PER MINUTE	SPEC.	SPECIFICATION
CONTR.	CONTRACTOR	GWB	GYPSUM WALL BOARD	SPR	SPRINKLER
DEMO.	DEMOLITION	HP	HORSEPOWER	STD.	STANDARD
DIA.	DIAMETER	HT.	HEIGHT	SYS.	SYSTEM
DN	DOWN	HVAC	HEATING, VENTILATING, AIR CONDITIONING	TEMP.	TEMPERATURE
DW	DOMESTIC WATER	I.A.	INSIDE DIMENSION	TS	TAMPER SWITCH
DWG.	DRAWING	ITC	INSPECTORS TEST CONNECTION	TYP.	TYPICAL
DSP	DRY STANDPIPE	KW	KILOWATT	U.O.N.	UNLESS OTHERWISE NOTED
(E)	EXISTING	LT.	LIGHT	V	VOLT
E.C.	ELECTRICAL CONTRACTOR	MAX.	MAXIMUM	WHT	WHITE
ELEC.	ELECTRICAL	MFR.	MANUFACTURER	WP	WEATHERPROOF
ELEV.	ELEVATOR	MIN.	MINIMUM	WSP	WET STANDPIPE
(R)	EXISTING RELOCATED	MTD.	MOUNTED	*	DISTANCE DOWN FROM CEILING
EQUIP.	EQUIPMENT	(N)	NEW	+	DISTANCE ABOVE FINISHED FLOOR
EXP	EXPOSED	NC	NORMALLY CLOSED		
FD	FLOOR DRAIN	NIC	NOT IN CONTRACT		
		NO	NORMALLY OPEN		

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06/17/22

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X	X	X

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REV'D BY:	JBB
DATE:	6/17/22
SCALE:	AS SHOWN

FIRE SUPPRESSION CODE DATA

FX001

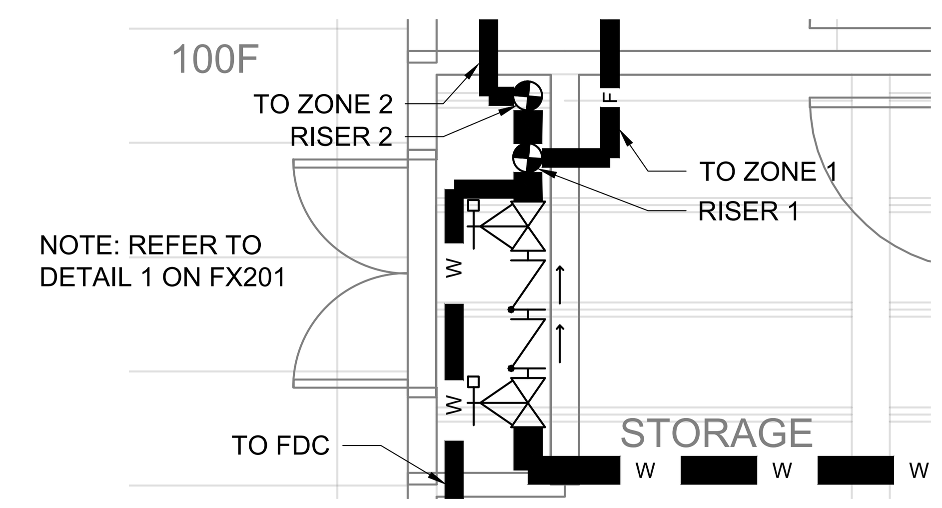
SHEET 1 of 4

GENERAL NOTES:

1. THIS IS A STANDARD SYMBOL LIST. ALL DEVICE SYMBOLS, SPRINKLER CONSTRUCTION NOTES AND ABBREVIATIONS MAY NOT NECESSARILY APPEAR ON THE FLOOR PLAN OR DETAIL SHEETS. ONLY THOSE SYMBOLS INDICATED ON THE FLOOR PLANS ARE USED FOR THIS PROJECT. ALL OTHERS ARE TO BE CONSIDERED NOT USED AND SHOULD BE DISREGARDED.
2. THE BUILDING SHALL BE FULLY SPRINKLERED.
3. THE FIRE SPRINKLER SYSTEM LAYOUT PRESENTED IN DRAWINGS IS FOR GENERAL PURPOSES ONLY. CONTRACTOR SHALL DETERMINE THE BEST LAYOUT BASED ON HYDRAULIC CALCULATIONS, NFPA 13, AND SPECIFICATIONS.
4. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS OF SPRINKLER LAYOUT, DETAILS AND HYDRAULIC CALCULATIONS FOR AHJ REVIEW AND APPROVAL ONCE APPROVED BY ARCHITECT/ENGINEER.
5. PROVIDE COMPLETE DRAINAGE FACILITIES AND INSPECTORS TEST CONNECTIONS AND ELECTRIC BELL IN ACCORDANCE WITH NFPA 13.
6. PIPE SUPPORTS SHALL CONFORM TO NFPA 13.
7. ALL FIRE PROTECTION EQUIPMENT, I.E. PIPING, VALVES, FITTINGS AND ACCESSORIES ETC., SHALL BE RATED FOR A MAXIMUM WORKING PRESSURE OF 175 P.S.I. UON.
8. ALL FIRE EQUIPMENT AND FIRE EQUIPMENT THREADS SHALL CONFORM TO LOCAL STANDARDS.
9. INSTALLATIONS OF SPRINKLER SYSTEMS SHALL BE COORDINATED WITH ALL MECHANICAL AND ELECTRICAL TRADES.
10. REFER TO ARCHITECTURAL AND STRUCTURAL DRAWINGS FOR BUILDING SECTIONS AND FRAMING.
11. PROVIDE PIPE SLEEVES AT ALL WALL AND FLOOR PENETRATIONS.
12. FIRE AND SMOKE RESISTIVE CONSTRUCTION, ALONG WITH DOORS ARE RATED AS SHOWN ON THE ARCHITECTURAL DRAWINGS.
13. SPRINKLER SYSTEMS SHALL BE WIRED TO BUILDING FIRE ALARM CONTROL PANEL. COORDINATE WITH BUILDING FIRE ALARM SYSTEM.
14. TYPE OF BUILDING CONSTRUCTION: NON-COMBUSTIBLE AS PER INTERNATIONAL BUILDING CODE AND NFPA 13.
15. FOR BIDDING PURPOSES UTILIZE THE FLOW TEST INFORMATION PROVIDED ON SHEET FX001.
16. CONTRACTOR SHALL PERFORM A CONFIRMING WATER FLOW TEST PRIOR TO SYSTEM DESIGN WITHIN THE TIMEFRAMES PERMISSIBLE BY NFPA 13.
17. SPRINKLERS SHALL BE THE FOLLOWING TYPE:
   - 17.1. PUBLIC LOBBIES, WAITING, OFFICES, HALLWAYS PROVIDE QUICK RESPONSE, CONCEALED IN CENTER OF TILES.
   - 17.2. ALL OTHER OCCUPIED AREAS PROVIDE SEMI RECESSED CHROME FINISHED QUICK RESPONSE SPRINKLERS IN CENTER OF TILES.
   - 17.3. AREAS WITHOUT FINISHED CEILINGS: PROVIDE AND INSTALL BRASS, UPRIGHT, OR PENDANT AUTOMATIC SPRINKLERS.
   - 17.4. TEMPERATURE RATINGS AND LOCATION OF SPRINKLERS NEAR HEAT SOURCES, SKYLIGHTS, UNINSULATED ROOFS, ETC TO BE PER NFPA 13 AND FM GLOBAL.

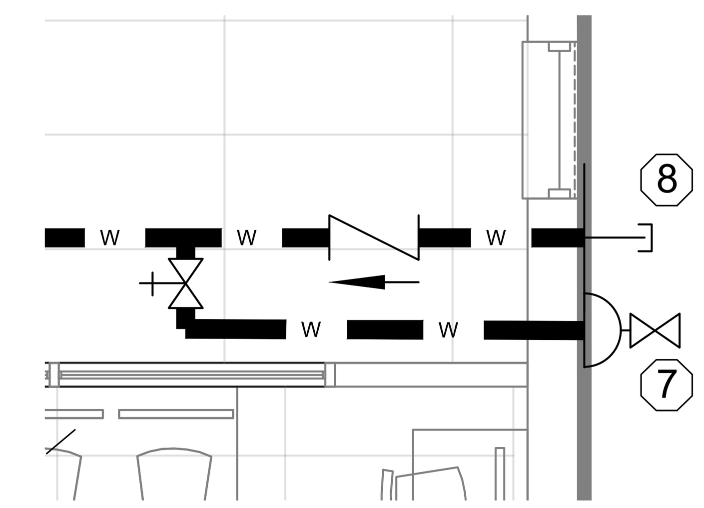
KEYNOTES:

1. TWO SEPARATE SPRINKLER ZONES SHALL BE PROVIDED FOR UP TO 52,000 SF SERVING LIGHT AND ORDINARY HAZARD WET-PIPE SYSTEMS, IAW NFPA 13:8.2.1.
2. SECOND FLOOR SHALL BE SEPARATELY ZONED WITH FLOOR VALVE CONTROL ASSEMBLY.
3. SPRINKLERS SHALL BE PROVIDED AT TOP OF STAIR RISER AND UNDER SECOND FLOOR LANDING AND STAIR FLIGHT. COVERAGE SHALL BE IAW NFPA 13 TABLE 8.6.2.2.1(A) FOR LIGHT HAZARD.
4. ELEVATOR PIT TO BE EQUIPPED WITH SIDEWALL SPRINKLER WITHIN 2 FEET MAXIMUM ABOVE THE BOTTOM OF THE FLOOR. SPRINKLERS IN HOISTWAY AND MACHINE ROOM TO BE STANDARD RESPONSE SPRINKLERS OF INTERMEDIATE TEMPERATURE RATING TYPE WITH A MINIMUM OF 175 F. SPRINKLER TO BE PROVIDED WITH LISTED GUARD TO PREVENT MECHANICAL DAMAGE.
5. HOOD SUPPRESSION SYSTEM DESIGNED BY OTHERS TO PROTECT TYPE I GREASE HOOD. NO SPRINKLER PROVIDED UNDER HOOD CANOPY.
6. EXTERIOR PORTE--COCHERE IS OF NON-COMBUSTIBLE CONSTRUCTION. NO SPRINKLER PROTECTION REQUIRED, WHERE NO COMBUSTIBLE MATERIAL IS STORED, PER NFPA 13 SECTIONS 8.15.7.2 AND 8.15.7.5.
7. 2-1/2 IN. HOSE VALVES TO ACCOMIDATE FORWARD FLOW BFP TEST - 1 VALVE FOR EACH250 GPM DEMAND FLOW.
8. 3 FOOT WORKING CLEARANCE TO BE PROVIDED FOR FIRE DEPARTMENT CONNECTION (FDC).
9. 6 IN. WATER SUPPLY UNDERFLOOR TRENCHING REQUIRED.
10. PROVIDE PERMANENT SIGN TO INDICATE THE FOLLOWING - "FIRESPRINKLER RISER ROOM." THE SIZE AND LOCATION ON DOOR TO BE APPROVED BY ROANOKE CITY FIRE MARSHAL'S OFFICE AND SFPC SECTION 509.



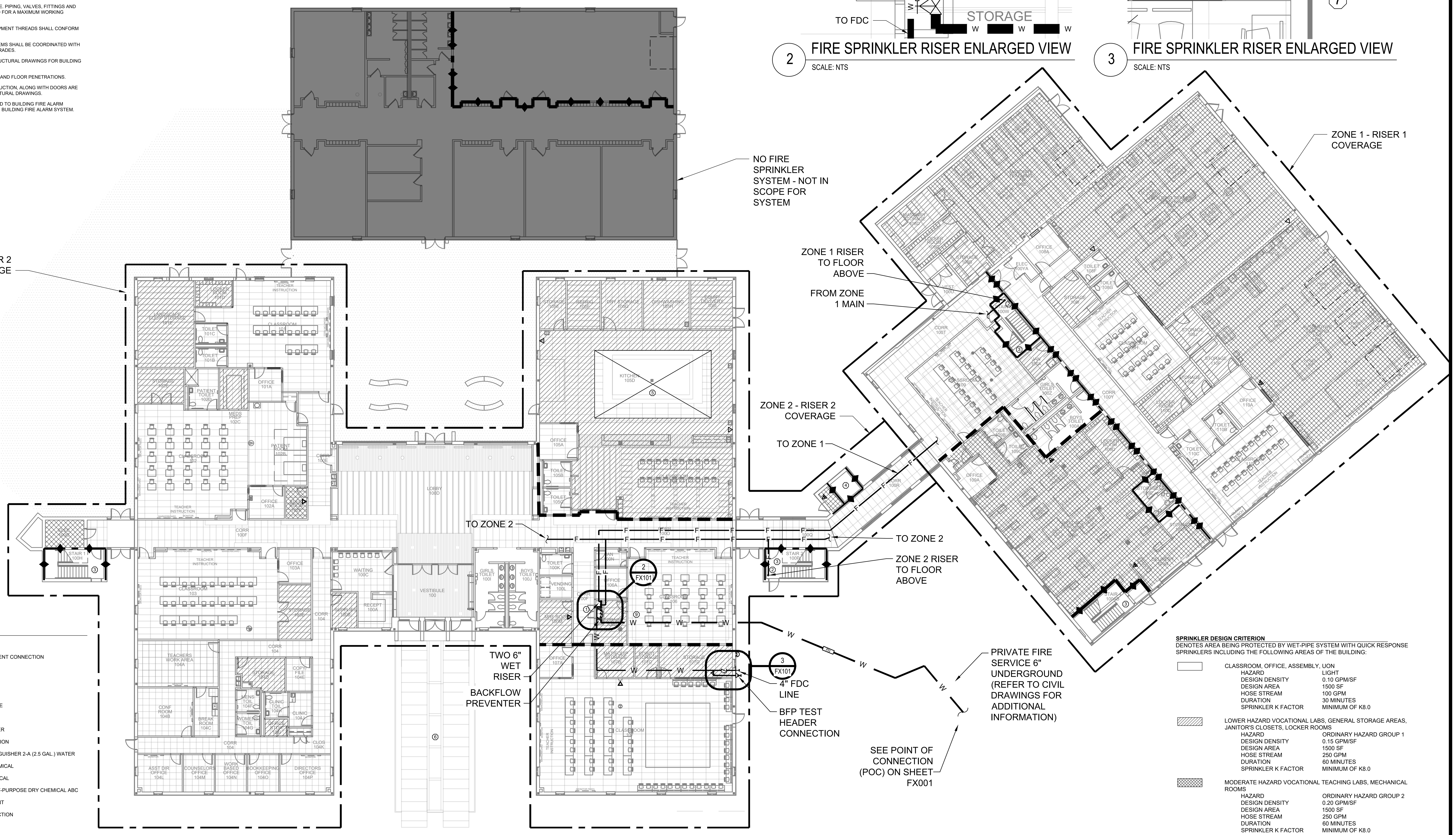
2 FIRE SPRINKLER RISER ENLARGED VIEW

SCALE: NTS



3 FIRE SPRINKLER RISER ENLARGED VIEW

SCALE: NTS



LEGEND

- CONTROL VALVE
- STORZ FIRE DEPARTMENT CONNECTION
- WET RISER
- WATER SUPPLY PIPE
- ZONE BOUNDARY
- POST INDICATOR VALVE
- SERVICE RISER
- BACK-FLOW PREVENTER
- FLOOR CONTROL STATION
- PORTABLE FIRE EXTINGUISHER 2-A (2.5 GAL.) WATER
- K-TYPE (6 L.) WET CHEMICAL
- 20-B (5 LB.) DRY CHEMICAL
- 2-A:20-BC (15 LB.) MULT-PURPOSE DRY CHEMICAL ABC
- 2-C (5 LB.) CLEAN AGENT
- TEST HEADER CONNECTION
- CHECK VALVE

BUILDING 2 & 3
GROUND FLOOR FIRE SUPPRESSION OVERALL PLAN

1

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

SPRINKLER DESIGN CRITERION

DENOTES AREA BEING PROTECTED BY WET-PIPE SYSTEM WITH QUICK RESPONSE SPRINKLERS INCLUDING THE FOLLOWING AREAS OF THE BUILDING:

CLASSROOM, OFFICE, ASSEMBLY, UON

HAZARD	LIGHT
DESIGN DENSITY	0.10 GPM/SF
DESIGN AREA	1500 SF
HOSE STREAM	100 GPM
DURATION	30 MINUTES
SPRINKLER K FACTOR	MINIMUM OF K8.0

LOWER HAZARD VOCATIONAL LABS, GENERAL STORAGE AREAS, JANITOR'S CLOSETS, LOCKER ROOMS

HAZARD	ORDINARY HAZARD GROUP 1
DESIGN DENSITY	0.15 GPM/SF
DESIGN AREA	1500 SF
HOSE STREAM	250 GPM
DURATION	60 MINUTES
SPRINKLER K FACTOR	MINIMUM OF K8.0

MODERATE HAZARD VOCATIONAL TEACHING LABS, MECHANICAL ROOMS

HAZARD	ORDINARY HAZARD GROUP 2
DESIGN DENSITY	0.20 GPM/SF
DESIGN AREA	1500 SF
HOSE STREAM	250 GPM
DURATION	60 MINUTES
SPRINKLER K FACTOR	MINIMUM OF K8.0

WELDING LAB TANK STORAGE AREA

HAZARD	SPECIAL OCCUPANCY HAZARD - 13:22.9
DESIGN DENSITY	0.25 GPM/SF
DESIGN AREA	3000 SF OR THE ROOM DESIGN METHOD IAW 13:11.2.3.3
HOSE STREAM	250 GPM
DURATION	60 MINUTES
SPRINKLER K FACTOR	MINIMUM OF K8.0

UNSPRINKLERED AREA

AREA IS UNCOVERED AND IS OPEN TO AMBIENT. NO SPRINKLER COVERAGE

NOT IN SCOPE

NOTE:
1. IT IS PERMISSIBLE TO REDUCE DESIGN AREA SIZE FOR QUICK RESPONSE SPRINKLERS IAW NFPA 13 SECTION 11.2.3.2.3.
2. WHERE ADJACENT HAZARDS ARE NOT PHYSICALLY SEPARATED BY BARRIERS OR PARTITIONS, THE MORE DEMANDING HAZARD DESIGN AREA SHALL EXTEND 15 FT. BEYOND ITS PERIMETER IAW 13:11.1.2.
3. HOSE STREAM AND DURATION FOR MULTIPLE HAZARD CLASSIFICATIONS SHALL BE IAW 13:11.1.6.

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DRAWN BY:	KNS
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BUILDING 2 & 3 GROUND FLOOR OVERALL FIRE SUPPRESSION PLAN

FX101

SHEET 2 of 4

GENERAL NOTES:

1. THIS IS A STANDARD SYMBOL LIST. ALL DEVICE SYMBOLS, SPRINKLER CONSTRUCTION NOTES AND ABBREVIATIONS MAY NOT NECESSARILY APPEAR ON THE FLOOR PLAN OR DETAIL SHEETS. ONLY THOSE SYMBOLS INDICATED ON THE FLOOR PLANS ARE USED FOR THIS PROJECT. ALL OTHERS ARE TO BE CONSIDERED NOT USED AND SHOULD BE DISREGARDED.
2. THE BUILDING SHALL BE FULLY SPRINKLERED.
3. THE FIRE SPRINKLER SYSTEM LAYOUT PRESENTED IN DRAWINGS IS FOR GENERAL PURPOSES ONLY. CONTRACTOR SHALL DETERMINE THE BEST LAYOUT BASED ON HYDRAULIC CALCULATIONS, NFPA 13, AND SPECIFICATIONS.
4. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS OF SPRINKLER LAYOUT, DETAILS AND HYDRAULIC CALCULATIONS FOR AHJ REVIEW AND APPROVAL ONCE APPROVED BY ARCHITECT/ENGINEER.
5. PROVIDE COMPLETE DRAINAGE FACILITIES AND INSPECTORS TEST CONNECTIONS AND ELECTRIC BELL IN ACCORDANCE WITH NFPA 13.
6. PIPE SUPPORTS SHALL CONFORM TO NFPA 13.
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8. ALL FIRE EQUIPMENT AND FIRE EQUIPMENT THREADS SHALL CONFORM TO LOCAL STANDARDS.
9. INSTALLATIONS OF SPRINKLER SYSTEMS SHALL BE COORDINATED WITH ALL MECHANICAL AND ELECTRICAL TRADES.
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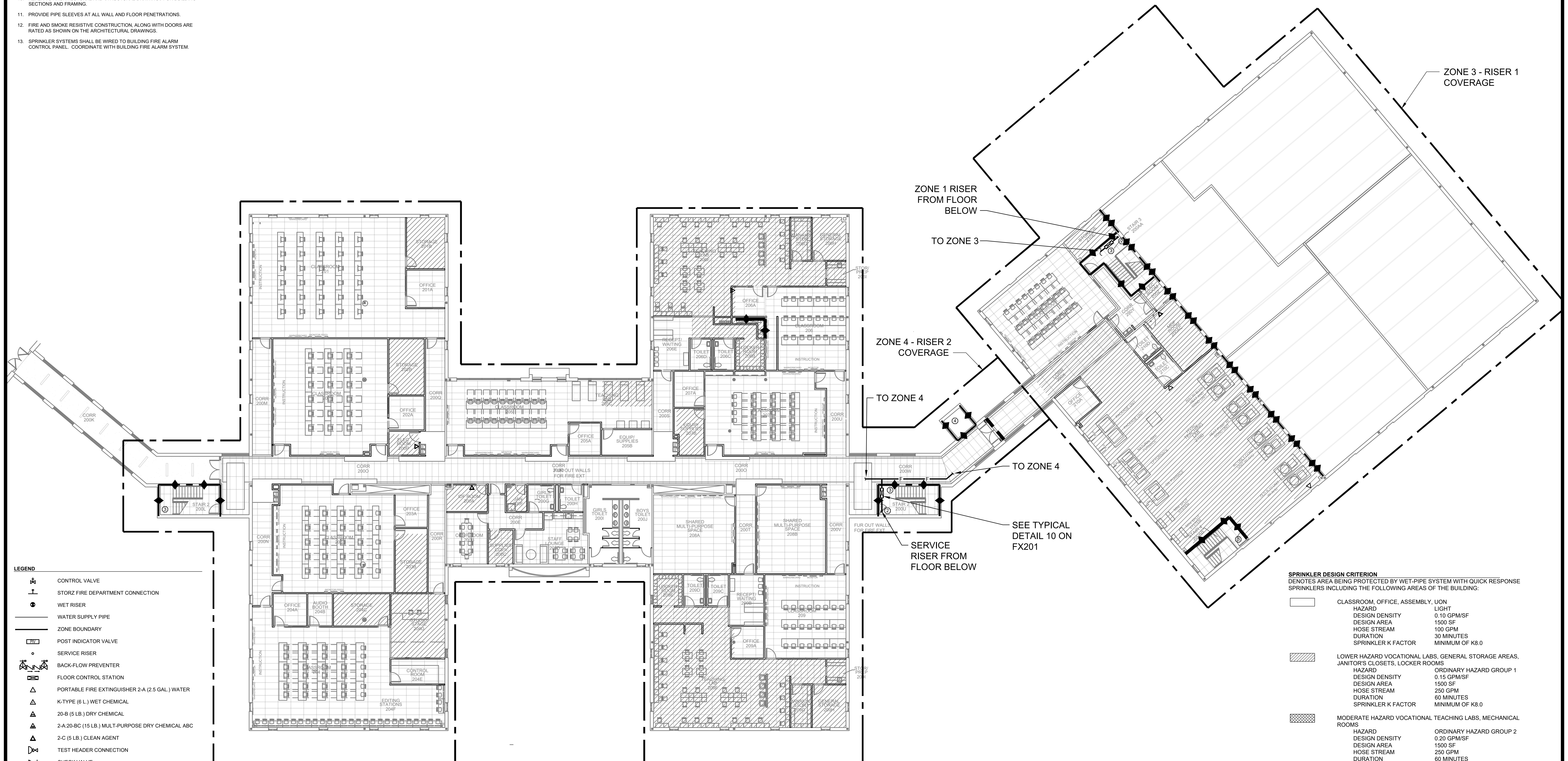
17. SPRINKLERS SHALL BE THE FOLLOWING TYPE:
   - 17.1. PUBLIC LOBBIES, WAITING, OFFICES, HALLWAYS PROVIDE QUICK RESPONSE, CONCEALED IN CENTER OF TILES.
   - 17.2. ALL OTHER OCCUPIED AREAS PROVIDE SEMI RECESSED CHROME FINISHED QUICK RESPONSE SPRINKLERS IN CENTER OF TILES.
   - 17.3. AREAS WITHOUT FINISHED CEILINGS: PROVIDE AND INSTALL BRASS, UPRIGHT, OR PENDANT AUTOMATIC SPRINKLERS.
   - 17.4. TEMPERATURE RATINGS AND LOCATION OF SPRINKLERS NEAR HEAT SOURCES, SKYLIGHTS, UNINSULATED ROOFS, ETC TO BE PER NFPA 13 AND FM GLOBAL.

KEYNOTES:

1. TWO SEPARATE SPRINKLER ZONES SHALL BE PROVIDED FOR UP TO 52,000 SF SERVING LIGHT AND ORDINARY HAZARD WET-PIPE SYSTEMS, IAW NFPA 13:8.2.1.
2. SECOND FLOOR SHALL BE SEPARATELY ZONED WITH FLOOR VALVE CONTROL ASSEMBLY.
3. SPRINKLERS SHALL BE PROVIDED AT TOP OF STAIR RISER AND UNDER SECOND FLOOR LANDING AND STAIR FLIGHT. COVERAGE SHALL BE IAW NFPA 13 TABLE 8.6.2.2.1(A) FOR LIGHT HAZARD.
4. ELEVATOR PIT TO BE EQUIPPED WITH SIDEWALL SPRINKLER WITHIN 2 FEET MAXIMUM ABOVE THE BOTTOM OF THE FLOOR. SPRINKLERS IN HOISTWAY AND MACHINE ROOM TO BE STANDARD RESPONSE SPRINKLERS OF INTERMEDIATE TEMPERATURE RATING TYPE WITH A MINIMUM OF 175 F. SPRINKLER TO BE PROVIDED WITH LISTED GUARD TO PREVENT MECHANICAL DAMAGE.
5. HOOD SUPPRESSION SYSTEM DESIGNED BY OTHERS TO PROTECT TYPE I GREASE HOOD. NO SPRINKLER PROVIDED UNDER HOOD CANOPY.
6. EXTERIOR PORTE--COCHERE IS OF NON-COMBUSTIBLE CONSTRUCTION. NO SPRINKLER PROTECTION REQUIRED, WHERE NO COMBUSTIBLE MATERIAL IS STORED, PER NFPA 13 SECTIONS 8.15.7.2 AND 8.15.7.5.
7. 2-1/2 IN. HOSE VALVES TO ACCOMIDATE FORWARD FLOW BFP TEST - 1 VALVE FOR EACH250 GPM DEMAND FLOW.
8. 3 FOOT WORKING CLEARANCE TO BE PROVIDED FOR FIRE DEPARTMENT CONNECTION (FDC).
9. 6 IN. WATER SUPPLY UNDERFLOOR TRENCHING REQUIRED.
10. PROVIDE PERMANENT SIGN TO INDICATE THE FOLLOWING - "FIRESPRINKLER RISER ROOM." THE SIZE AND LOCATION ON DOOR TO BE APPROVED BY ROANOKE CITY FIRE MARSHAL'S OFFICE AND SFPC SECTION 509.



LEGEND

- CONTROL VALVE
- STORZ FIRE DEPARTMENT CONNECTION
- WET RISER
- WATER SUPPLY PIPE
- ZONE BOUNDARY
- PIV — POST INDICATOR VALVE
- SERVICE RISER
- BACK-FLOW PREVENTER
- FLOOR CONTROL STATION
- PORTABLE FIRE EXTINGUISHER 2-A (2.5 GAL.) WATER
- K-TYPE (6 L.) WET CHEMICAL
- 20-B (5 LB.) DRY CHEMICAL
- 2-A:20-BC (15 LB.) MULT-PURPOSE DRY CHEMICAL ABC
- 2-C (5 LB.) CLEAN AGENT
- TEST HEADER CONNECTION
- CHECK VALVE

SPRINKLER DESIGN CRITERION

DENOTES AREA BEING PROTECTED BY WET-PIPE SYSTEM WITH QUICK RESPONSE SPRINKLERS INCLUDING THE FOLLOWING AREAS OF THE BUILDING:

CLASSROOM, OFFICE, ASSEMBLY, UON

HAZARD	LIGHT
DESIGN DENSITY	0.10 GPM/SF
DESIGN AREA	1500 SF
HOSE STREAM	100 GPM
DURATION	30 MINUTES
SPRINKLER K FACTOR	MINIMUM OF K8.0

LOWER HAZARD VOCATIONAL LABS, GENERAL STORAGE AREAS, JANITOR'S CLOSETS, LOCKER ROOMS

HAZARD	ORDINARY HAZARD GROUP 1
DESIGN DENSITY	0.15 GPM/SF
DESIGN AREA	1500 SF
HOSE STREAM	250 GPM
DURATION	60 MINUTES
SPRINKLER K FACTOR	MINIMUM OF K8.0

MODERATE HAZARD VOCATIONAL TEACHING LABS, MECHANICAL ROOMS

HAZARD	ORDINARY HAZARD GROUP 2
DESIGN DENSITY	0.20 GPM/SF
DESIGN AREA	1500 SF
HOSE STREAM	250 GPM
DURATION	60 MINUTES
SPRINKLER K FACTOR	MINIMUM OF K8.0

WELDING LAB TANK STORAGE AREA

HAZARD	SPECIAL OCCUPANCY HAZARD - 13:22.9
DESIGN DENSITY	0.25 GPM/SF
DESIGN AREA	3000 SF OR THE ROOM DESIGN METHOD IAW 13:11.2.3.3
HOSE STREAM	250 GPM
DURATION	60 MINUTES
SPRINKLER K FACTOR	MINIMUM OF K8.0

UNSPRINKLERED AREA
AREA IS UNCOVERED AND IS OPEN TO AMBIENT. NO SPRINKLER COVERAGE

NOT IN SCOPE

NOTE:
1. IT IS PERMISSIBLE TO REDUCE DESIGN AREA SIZE FOR QUICK RESPONSE SPRINKLERS IAW NFPA 13 SECTION 11.2.3.2.3.
2. WHERE ADJACENT HAZARDS ARE NOT PHYSICALLY SEPARATED BY BARRIERS/PARTITIONS, THE MORE DEMANDING HAZARD DESIGN AREA SHALL EXTEND 15 FT. BEYOND ITS PERIMETER IAW 13:11.1.2.
3. HOSE STREAM AND DURATION FOR MULTIPLE HAZARD CLASSIFICATIONS SHALL BE IAW 13:11.1.6.

1 BUILDING 2 & 3 SECOND FLOOR FIRE SUPPRESSION OVERALL PLAN

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

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COMMONWEALTH OF VIRGINIA
JUSTIN B. BILLER
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PROFESSIONAL ENGINEER
06/17/22

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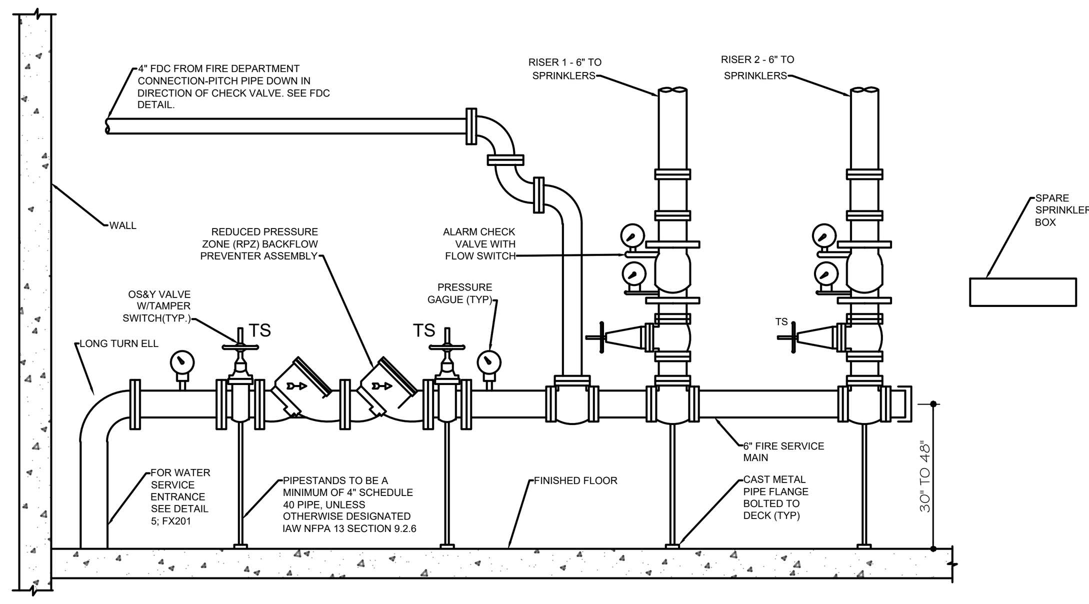
BUILDING 2 & 3 SECOND FLOOR OVERALL FIRE SUPPRESSION PLAN

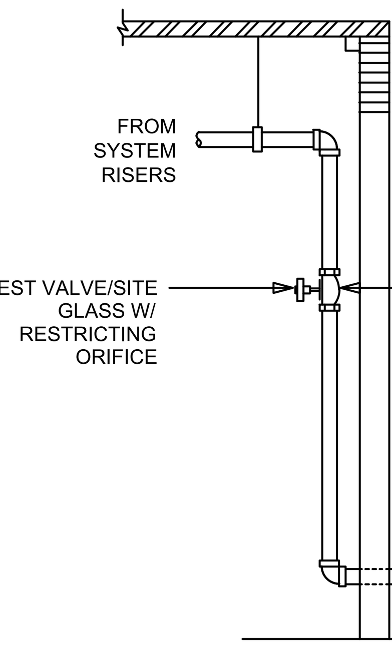
FX102

SHEET 3 of 4

NOTES:
1. PROVIDE SPARE PARTS KIT FOR BACKFLOW PREVENTER INCLUDING GASKETS, SPRINGS AND MAIN ASSEMBLIES.
2. THE CONTRACTOR SHALL OBTAIN ALL APPROVALS FROM LOCAL AND STATE AUTHORITIES. THE FIRE SPRINKLER CONTRACTOR SHALL SUBMIT ALL PLANS, SPECIFICATIONS, AND APPLICATIONS REQUIRED FOR APPROVAL AND SHALL PAY ALL FEES PERTINENT TO THESE SUBMISSIONS.
3. SEE FLOOR PLANS FOR SIZES NOT ON DETAIL.
4. MAINTAIN MINIMUM 1'-0" CLEARANCE BETWEEN WALL AND ITEMS SHOWN IN THIS DETAIL.
5. PAINT ONE COAT PRIMER AND ONE COAT EPOXY RESIN, COLOR RED.
6. ALL EXPOSED POWER AND WIRING SEE ELECTRICAL DRAWINGS.
7. FOR ELECTRIC POWER AND WIRING SEE ELECTRICAL DRAWINGS.
8. APPROVED MECHANICAL JOINT PIPE & FITTINGS MAY BE USED.
9. ELECTRIC ALARM BELL AND WIRING BY FIRE SPRINKLER CONTRACTOR.
10. FIRE DEPARTMENT SIAMESE CONNECTION SHALL BE FLUSH MOUNT, CHROME PLATED FINISH WITH INTEGRAL BALL DROP, CAPS AND CHAINS, LABELED FOR SPRINKLER SYSTEM.
11. ALL DRAINS FROM SPRINKLER ALARM VALVES AND BACKFLOW PREVENTER SHALL BE RUN BY THIS CONTRACTOR TO OPEN END DRAIN THAT IS A PART OF THE PLUMBING CONTRACT. SEE PLUMBING DRAWINGS FOR LOCATION OF OED.
12. ALL HOLES IN CONCRETE FOR THE PURPOSE OF HANGING PIPE OR ENHANCING ITS STRUCTURAL INTEGRITY SHALL BE DRILLED; INSERTERS FOR HOLES SHALL BE METALLIC ONLY.

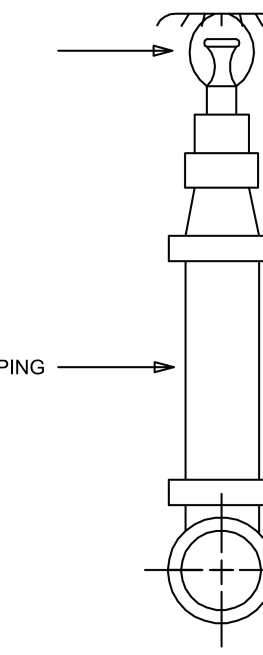


1 SPRINKLER RISER DIAGRAM
SCALE: NTS

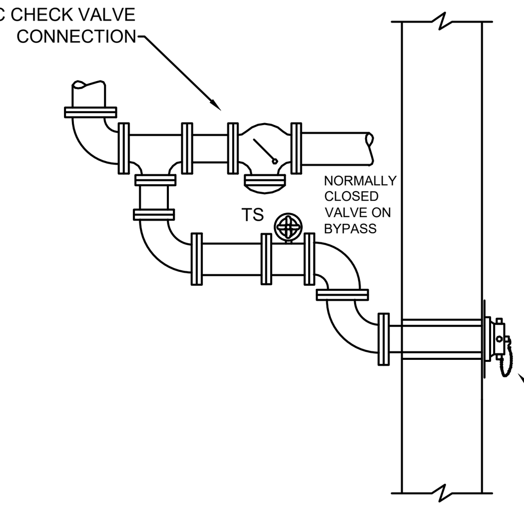


NOTES:
1. NOT LESS THAN 4-FT OF EXPOSED TEST PIPING IN WARM ROOM BEYOND VALVE WHEN PIPE EXTENDS THROUGH EXTERIOR WALL.

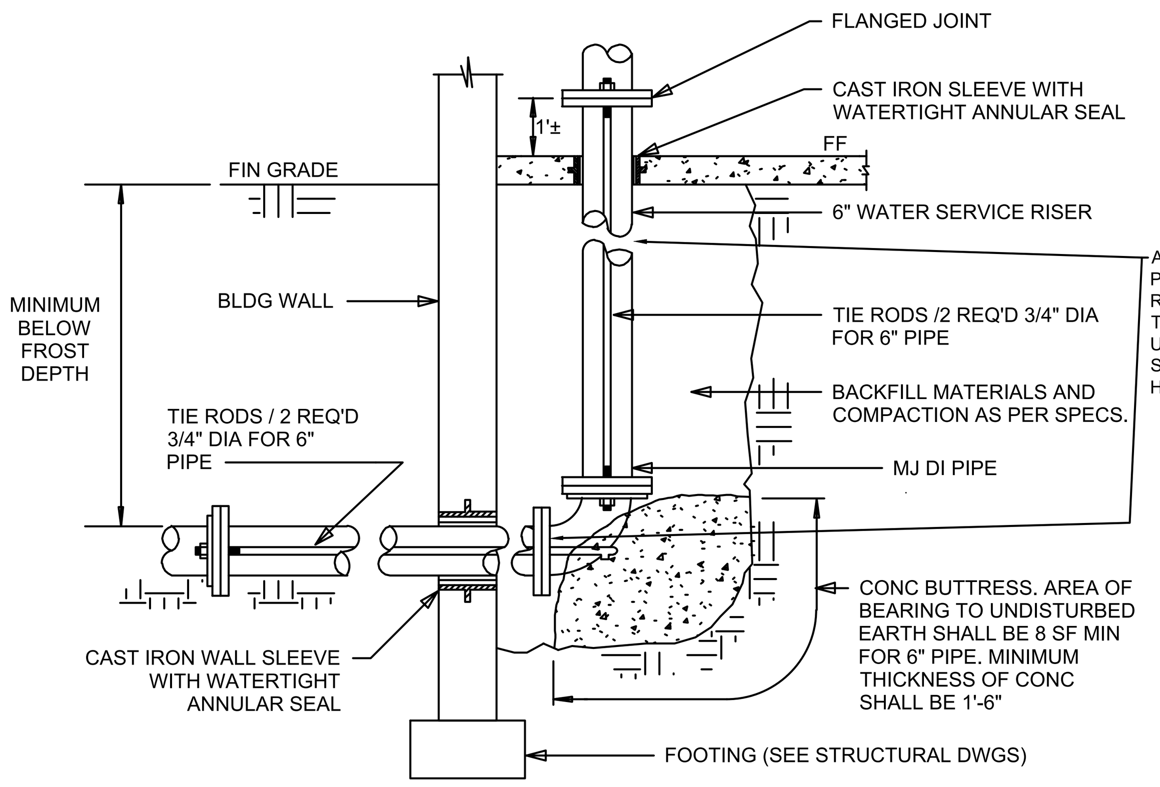
2 INSPECTOR'S TEST CONNECTION
SCALE: NTS



3 UPRIGHT SPRINKLER
SCALE: NTS



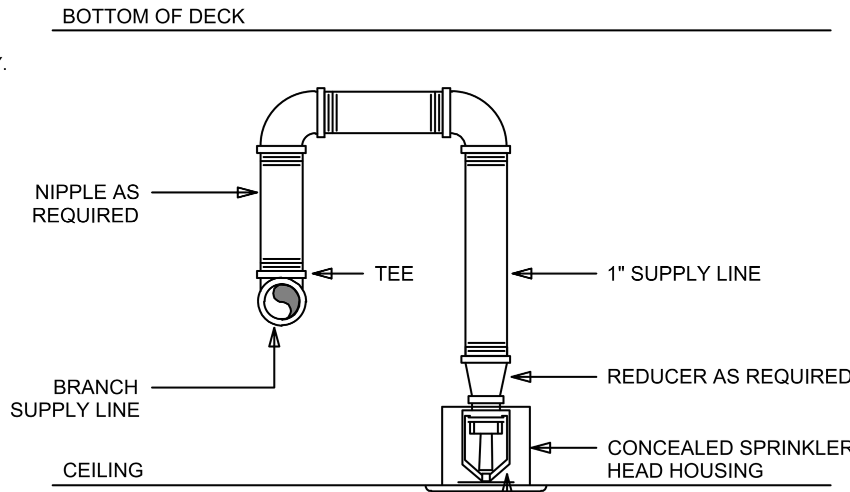
4 BACKFLOW PREVENTER FORWARD FLOW TEST MECHANISM
SCALE: NTS



NOTE:
UNDERGROUND PIPING WITHIN 5 FEET OF BLDG SHALL BE SPRINKLER CONTRACTOR'S RESPONSIBILITY.

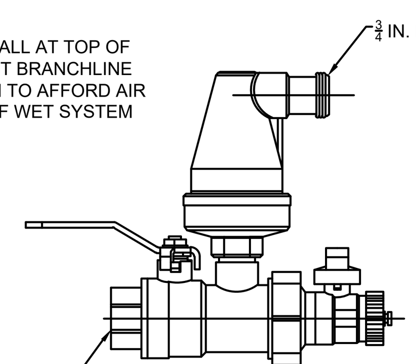
5 THRUST BLOCK FOR WATER MAIN INSIDE OF BUILDING
SCALE: NTS

NOTES:
1. WHEN ARM OVER IS MORE THEN 24" INCHES IN LENGTH, THE ARM OVER MUST BE SUPPORTED WITH A PIPE HANGER.
2. CONNECT ALL ARM-OVERS TO THE TOP THE BRANCH LINE PIPING.

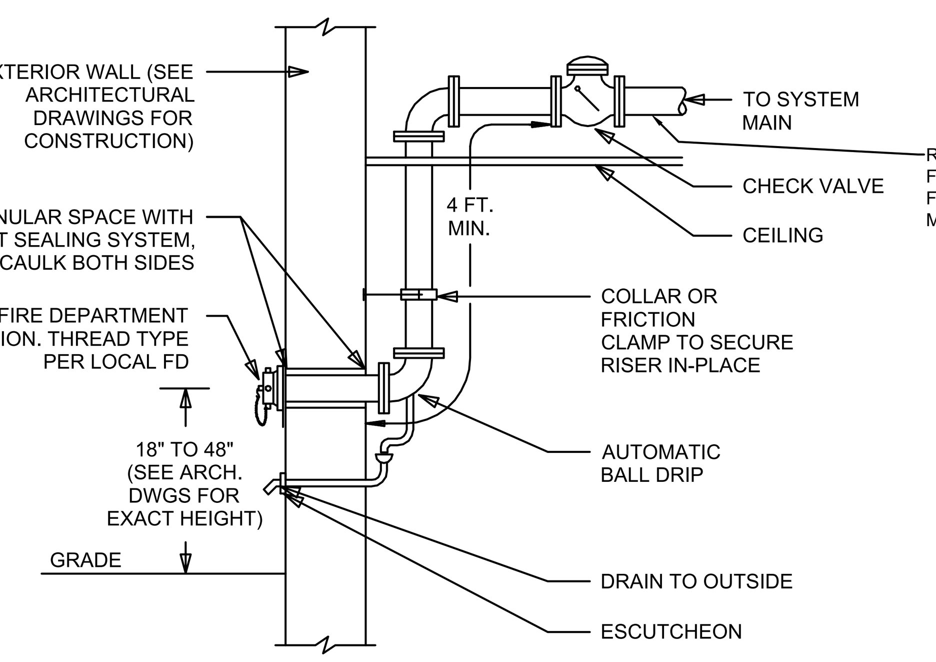


6 CONCEALED SPRINKLER
SCALE: NTS

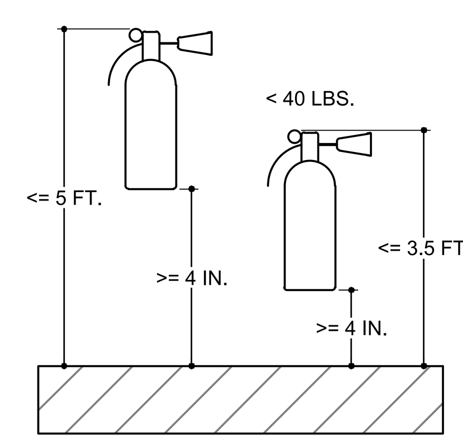
NOTE: INSTALL AT TOP OF UPPERMOST BRANCHLINE OF SYSTEM TO AFFORD AIR VENTING OF WET SYSTEM



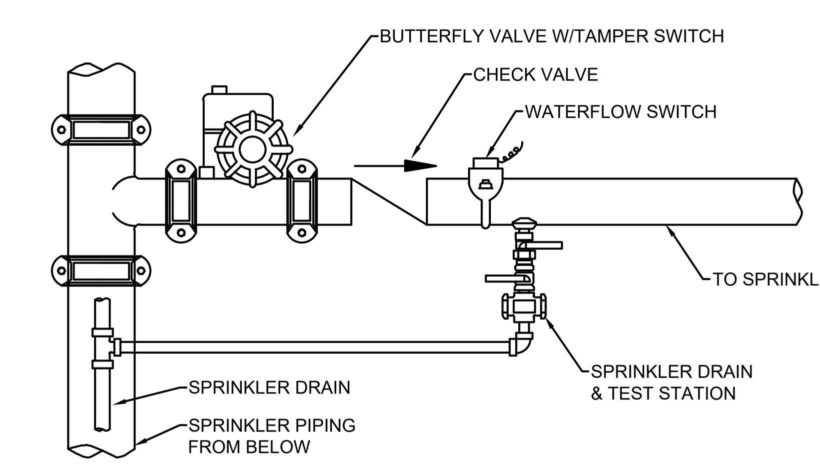
7 TYPICAL AUTOMATIC AIR VENT ASSEMBLY
SCALE: NTS



8 WALL MOUNTED FIRE DEPARTMENT CONNECTION
SCALE: NTS



9 TYPICAL MOUNTING FIRE EXTINGUISHER HEIGHTS
SCALE: NTS



10 FLOOR CONTROL VALVE ASSEMBLY
SCALE: NTS

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06/17/22

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FIRE SUPPRESSION DETAILS

FX201

SHEET 4 of 4

EQUIPMENT LIST

ITEM NO	QTY	DESCRIPTION
01	20	STUDENT LOCKERS
02	01	MOP SINK CABINET
03	17	MOBILE DRY STORAGE SHELVING
04	08	MOBILE WALK-IN SHELVING
05	01	WALK-IN COOLER
06	01	WALK-IN COOLER EVAP COIL
07	01	WALK-IN COOLER COMPRESSOR
08	01	SPARE NUMBER
09	01	SPARE NUMBER
10	01	SPARE NUMBER
11	01	SOILED DISHTABLE
12	01	PRE-RINSE SPRAY UNIT
13	01	DISHWASHER
14	01	DISHWASHER CONDENSATE HOOD
15	01	CLEAN DISHTABLE
16	04	HAND SINKS WITH SOAP AND TOWEL
17	01	THREE COMPARTMENT SINK
17A	02	FAUCETS
17B	03	ROTARY WASTE VALVES
18	01	WALL MOUNTED HOSE REEL AND CABINET
19	00	SPARE NUMBER
20	01	OVER SHELF
21	01	VEGETABLE PREP SINK
21A	01	FAUCETS
21B	02	ROTARY WASTE VALVES
22	02	SLICERS
23	01	COAT RACK SHELVING UNIT
24	00	SPARE NUMBER
25	02	WORK TABLES
26	02	FOOD PROCESSORS
27	02	ONE GALLON BLENDERS
28	01	MOBILE SHELVING UNIT
29	04	COOK'S TABLES W/UTENSIL RACKS
30	06	MOBILE NESTING TABLES
31	01	TWO DOOR REFRIGERATORS
32	01	TWO DOOR FREEZERS
33A	01	EXHAUST HOOD - MAIN
33B	01	EXHAUST HOOD - MAIN
34A	01	FIRE SUPPRESSION SYSTEM
34B	01	FIRE SUPPRESSION SYSTEM
35A	01	UTILITY DISTRIBUTION SYSTEM
35B	01	UTILITY DISTRIBUTION SYSTEM
36	05	FOUR BURNER RANGE
37	02	36" GRIDDLE
38	01	CHAR BROILER
39	01	FRYER WITH FILTER SYSTEM
40	01	DOUBLE STEAMER
41	01	10 GALLON TILT SKILLET WITH STAND
42	01	FLOOR TROUGHS
43	01	EXHAUST HOOD - BAKING
44	01	FIRE SUPPRESSION SYSTEM
45	00	SPARE NUMBER
46	02	MOBILE DOUBLE CONVECTION OVENS
47	00	SPARE NUMBER
48	01	MOBILE PROOFER / WARMERS
49	02	BAKERS TABLES
50	02	WORK TABLES
51	01	MOBILE SHELVING UNIT
52	01	INGREDIENT BINS
53	02	20 QUART MIXERS
54	02	WORK TABLES
55	05	S/S CORNER GUARDS
56	10	6 QT MIXERS WITH ATTACHMENTS
57	10	INDUCTION COOK TOPS
58	10	INGREDIENT SCALES
59	10	IMMERSION BLENDERS
60	03	MOBILE RACKS
61	01	ICE MACHINE WITH BIN & WATER FILTER
62	02	MOBILE POT AND PAN RACKS
63	03	DISH STORAGE CARTS
64	01	SINGLE COMPARTMENT SINK
64A	01	FAUCETS
64B	01	ROTARY WASTE VALVES
65	01	CONVEYOR TOASTER
66	01	ICE TEA BREWER
67	01	COFFEE BREWER
68	01	BEVERAGE COUNTER
69	01	ENCLOSED BASE STORAGE COUNTER
70	01	STACKED WASHER / DRYER

GENERAL NOTES

01 INSTALLATION OF BUY OUT ITEMS SHALL CONSIST OF THE FOLLOWING: RECEIVE, STORE, DELIVER, UNCRATE AND SET IN PLACE BUY OUT ITEMS, SET UP AND SEAL AS REQUIRED BY CODE, PROVIDE REFRIGERATION CONNECTIONS FOR WALK-INS, CASES, REFRIGERATED EQUIPMENT STAND AND ICE MACHINES. ALL UTILITY CONNECTIONS, I.E., GAS, STEAM, ELECTRIC, ETC. TO BUY OUT EQUIPMENT IS BY OTHERS. TRASH AND PAPER WILL BE REMOVED FROM JOB SITE BY KITCHEN EQUIPMENT CONTRACTOR. ALL WORK WILL BE PERFORMED DURING NORMAL WORKING HOURS AND SHALL BE PROVIDED IN A NEAT AND WORKMANLIKE MANNER.

02 KITCHEN EQUIPMENT CONTRACTOR AGREES TO FURNISH ALL LABOR, MATERIALS, EQUIPMENT AND INCIDENTAL WORK NECESSARY TO COMPLETE THE INSTALLATION IN STRICT ACCORDANCE WITH THE CONTRACT DOCUMENTS UNLESS DIRECTED OTHERWISE BY THE OWNER.

03 THE CONTRACTOR WILL FURNISH LABOR AND MATERIAL WARRANTIES FOR ALL EQUIPMENT SUPPLIED FOR A PERIOD OF ONE YEAR UNLESS A LONGER PERIOD IS AVAILABLE AT NO . ADDITIONAL COST TO THE OWNER.

04 KITCHEN EQUIPMENT CONTRACTOR TO FURNISH SHOP DRAWINGS ON ALL MILLWORK ITEMS LISTED FOR APPROVAL PRIOR TO FABRICATION.

05 KITCHEN EQUIPMENT CONTRACTOR TO FURNISH SHOP DRAWINGS ON ALL CUSTOM S/S EQUIPMENT FOR APPROVAL PRIOR TO FABRICATION. KEC SHALL FIELD VERIFY ALL CRITICAL OPENINGS AND/OR WALL TO WALL DIMENSIONS THAT MAY IMPACT HIS FABRICATED EQUIPMENT.

06 KITCHEN EQUIPMENT CONTRACTOR TO COORDINATE WITH GENERAL CONTRACTOR. ALL WALL SHELF UNITS REQUIRING BACKING BEHIND THE SHELF FOR SUPPORT.

07 WHERE FLOOR TROUGHS OR BUILT-IN CONTROL CABINETS ARE SPECIFIED, THE KITCHEN EQUIPMENT CONTRACTOR WILL PROVIDE THESE ITEMS EARLY ENOUGH TO BE INCORPORATED INTO THE BUILDING'S CONSTRUCTION SCHEDULE SO AS NOT TO DELAY THE PROJECT.

08 WHEN SPECIFIED, CUSTOM MILLWORK TO BE DESIGNED BY THE ARCHITECT, KEC TO PROVIDE SHOP DWGS

09 ALL CUSTOM EQUIPMENT TO BE FABRICATED IN COMPLIANCE WITH ANSI/NSF 2-1996.

10 ALL REFRIGERATION EQUIPMENT TO BE FABRICATED IN COMPLIANCE WITH ANSI/NSF 7-2001.

11 ALL EQUIPMENT TO BE FABRICATED IN COMPLIANCE WITH NSF STANDARDS.

12 ALL GAS EQUIPMENT TO BE FURNISHED IN NATURAL GAS.

13 PROVISIONS SHOULD BE MADE TO SOUND PROOF COMMON WALLS BY GC WHERE NOISY OR VIBRATION-PRODUCING EQUIPMENT IS LOCATED ADJACENT TO THE DINING ROOM.

14 GC TO PROVIDE ANY CUTS OR HOLES IN CEILING, WALLS AND ROOF.

15 ALL COOKING EQUIPMENT TO HAVE CASTERS AND FLEX DISCONNECTS FURNISHED BY THE KEC.

16 WHEN SPECIFIED, PLUMBING AND ELECTRICAL CONTRACTOR TO VERIFY ALL EXISTING EQUIPMENT PRIOR TO ROUGH IN OF UNIT TIES.

HEALTH DEPARTMENT NOTES

01 ELECTRICAL CONDUITS, PIPES, SODA LINES, DRAIN LINES AND ELECTRICAL CORDS SHALL BE 6" OFF FLOOR AND BEHIND AND/OR BELOW EQUIPMENT

02 LIGHTING LEVELS SHALL BE AS FOLLOWS: 50 FT CANDLES IN FOOD PREP AREAS, BARS, TOILETS, WARE WASHING, BEVERAGE AREA SERVICE ISLANDS, EQUIPMENT AND UTENSIL STORAGE ROOMS. PROVIDE A MINIMUM OF 50 FT CANDLES IN WALK-IN COOLERS AND FREEZERS, DRY STORAGE ROOMS, MOP CLOSETS, DINING ROOMS UTILITY ROOMS AND ALL OTHER AREAS. PROVIDE COVERED AND SHIELDED LIGHTING IN ALL AREAS.

03 ALL SHELVING IN DRY STORAGE AND REFRIGERATED STORAGE AREAS (WALK-INS) 10" (MINIMUM) OFF FLOOR

04 ALL PORTABLE EQUIPMENT, (ON COUNTER TOPS), SHALL BE INSTALLED ON 4" (MINIMUM) LEGS OR SEALED TO COUNTER TOP.

05 ALL CABINETS, COUNTERS, BARS AND RESTROOM VANITIES SHALL BE SMOOTH, DURABLE AND EASILY CLEANABLE. SEAL ALL CRACKS AND JOINTS, PAINT ALL BARE WOOD SURFACES WITH AN APPROVED FDA LIGHT COLORED PAINT.

06 WALL SURFACES AT THREE COMPARTMENT SINKS, DISHWASHERS, VEGETABLE PREP SINKS, MOP SINKS AND BEHIND COOKING EQUIPMENT WHEN COOKING EQUIPMENT IS INSTALLED AGAINST A WALL SHALL BE SMOOTH, DURABLE AND EASILY CLEANABLE. MATERIAL SHALL BE NON-ABSORBANT AND CONSIST OF CERAMIC TILE STAINLESS STEEL, FIBERGLASS REINFORCED PLASTIC WALL SURFACE OR EPOXY PAINTED CONCRETE BLOCK PROVIDED THAT WALL JOINTS ARE FLUSH AND SURFACE IS SMOOTH.

07 PROVIDE BACK FLOW PREVENTERS AT ALL EQUIPMENT. WHERE AN AIR GAP IS NOT PROVIDED AND A STEAM OR WATER LINE IS REQUIRED, BACKFLOW PREVENTERS SHALL ALSO BE PROVIDED. AT MOP SINK FAUCETS, HOSE BIBS AND ANY OTHER ITEM WHERE THERE IS A THREADED HOSE CONNECTION.

08 ICE CHESTS, BINS, VEGETABLE PREP SINKS, THREE COMPARTMENT SINKS AND DIPPER WELLS SHALL BE INSTALLED WITH AIR GAPS INTO FLOOR SINKS.

09 BASINS ON THREE COMPARTMENT SINKS SHALL BE DESIGNED AND CONSTRUCTED TO ACCEPT THE LARGEST UTENSIL OR PAN IN THE KITCHEN.

10 AISLES AND WORKING SPACES BETWEEN UNITS OF EQUIPMENT AND WALLS SHALL BE A MINIMUM OF 30".

11 CEILING SURFACES IN FOOD PREP AREAS, DISHWASHING, STORE ROOMS, JANITORS CLOSETS, RESTROOMS, BARS AND CUSTOMER SERVICE/BEV'G ISLANDS AND WALK-IN COOLERS AND FREEZERS SHALL BE SMOOTH, DURABLE, EASILY CLEANABLE AND NON-ABSORBANT. (NO FISSURED ACCOUSTICAL TILE.) IF CONCRETE CEILINGS ARE PROPOSED, JOINTS AND SURFACES MUST BE FLUSH AND GAPS SEALED BETWEEN WALLS, HOODS AND CEILING.

12 THE ENDS OF SODA LINE CONDUITS SHALL BE SEALED, SMOOTH, EASILY CLEANABLE AND DURABLE.

13 GAPS BETWEEN ABOVE GRADE GREASE TRAPS, MOP SINKS, HAND SINKS, EXHAUST HOODS, URINALS, THREE COMPARTMENT SINKS AND OTHER STATIONARY PIECES OF EQUIPMENT SHALL BE SEALED WITH SMOOTH, DURABLE, NON-ABSORBANT AND EASILY CLEANABLE FDA APPROVED SEALANTS.

14 WHERE HANDSINKS ARE INSTALLED IN COUNTER TOPS, THE SINKS SHALL BE FITTED WITH A SMOOTH, DURABLE, EASILY CLEANABLE 6" HIGH SPLASH GUARD ON THE SIDES AND BACK TO PROTECT FOOD OR FOOD ITEMS ADJACENT TO THE AREA.

15 ALL WALLS SHALL BE FITTED WITH A COVED BASE CONSISTING OF A NON-ABSORBANT FDA APPROVED VINYL OR TILE MATERIAL

16 PROVIDE SELF CLOSING DEVICES ON ALL RESTROOM AND EXTERIOR EXIT DOORS.

17 SPRAY TYPE DISHWASHERS SHALL HAVE A PRESSURE GAUGE TO PERMIT CHECKING OF FLOW RATE PRESSURE DURING FINAL RINSE CYCLE AND A TEMPERATURE GAUGE ACCURATE TO WITHIN 3 F DEGREES AND A PLACARD OF CHEMICAL AGENT TIMING AND TEMPERATURE REQUIREMENTS.

18 SET REFRIGERATION UNITS TO MAINTAIN FOOD AT 41 F DEGREES OR LESS IN COOLERS AND AT 0 F DEGREES OR LOWER IN FREEZERS. ALL REFRIGERATION UNITS SHALL HAVE A THERMOMETER ACCURATE TO WITHIN 3 F DEGREES IN AN EASILY READABLE LOCATION.

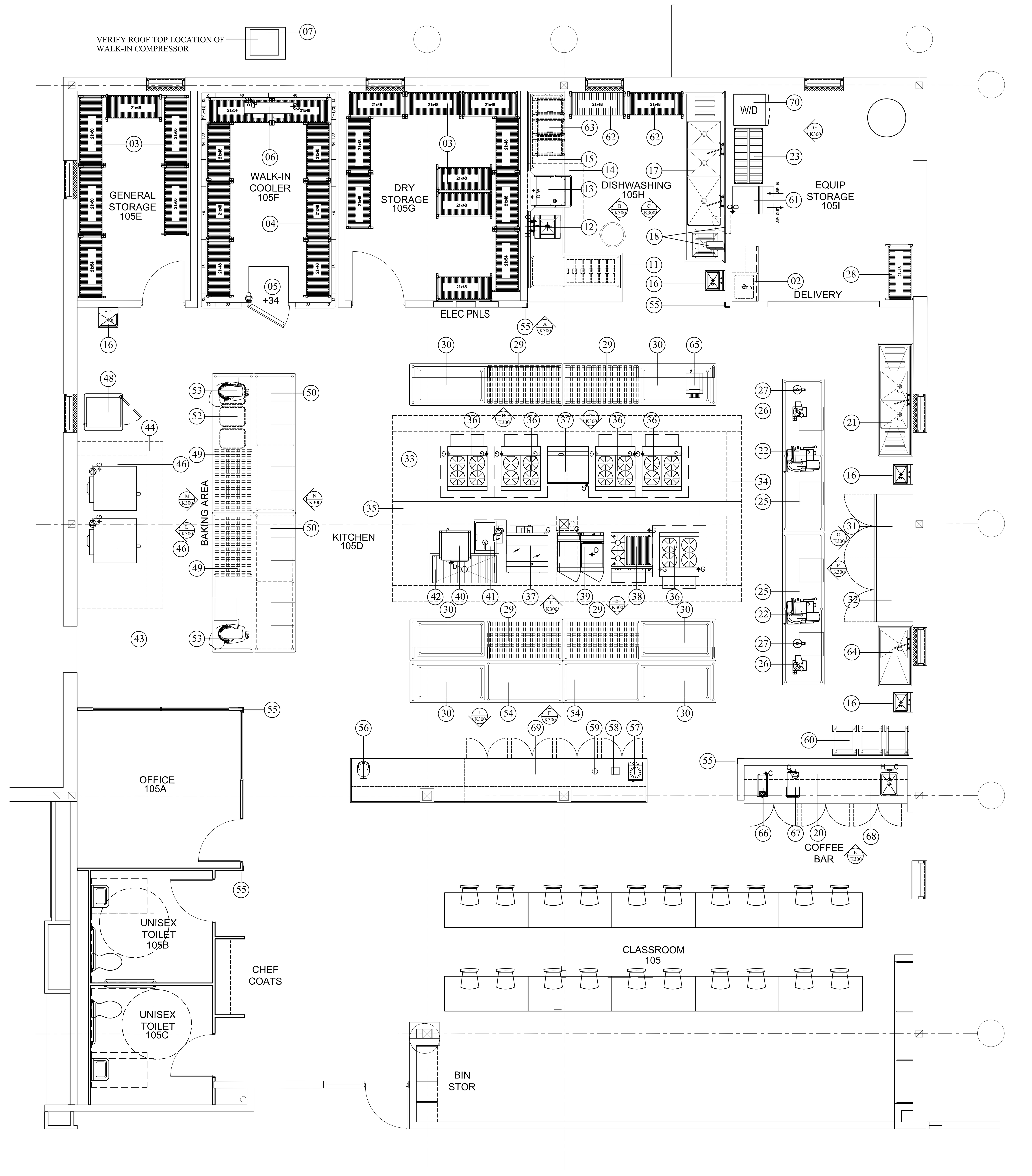
19 CONVENIENTLY LOCATE TRASH CONTAINERS NEAR HANDSINKS. PROVIDE A COVERED TRASH CONTAINER IN THE WOMEN'S RESTROOM.

20 WALL MOUNTED EQUIPMENT SUCH AS SHELVES, SINKS, COUNTERS, VANITIES, URINALS, COAT RACKS, MOP RACKS, WALL FAN MOUNTS AND HOSE REELS SHALL BE SEALED IN PLACE (UNLESS THE GAP IS LESS THAN 1/32 INCH). GAPS BETWEEN DOOR/WINDOW FRAMES/MOLDING & WALLS/FLOORS SHALL BE SEALED.

21 WINDOWS AND EXTERIOR DOORWAYS WHICH WILL BE PROPPED OPEN SHALL BE PROVIDED WITH SCREENING MATERIAL CONSISTING OF 1/16 INCH MESH OR LESS.

22 THE HOT WATER HEATER(S) SHALL BE CAPABLE OF PROVIDING ADEQUATE HOT WATER TO MEET THE MINIMUM MANUFACTURING TEMPERATURE AND QUANTITY REQUIREMENT OF MECHANICAL DISHWASHERS, BOOSTER HEATERS, STEAMERS AND OTHER FOODSERVICE EQUIPMENT REQUIRING HOT WATER. THE MINIMUM HOT WATER TEMPERATURE AT KITCHEN AND UTILITY SINKS SHALL BE 120 F DEGREES.

23 SOAP AND TOWEL DISPENSERS SHALL BE CONVENIENTLY LCOATED NEXT TO EACH SINK IN KITCHEN AND ALL RESTROOMS.



CULINARY ARTS - KITCHEN PLAN

1 K200 K200

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

CULINARY ARTS (4400SF+/-)

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REV'D BY:	SGD
DATE:	06.17.2022
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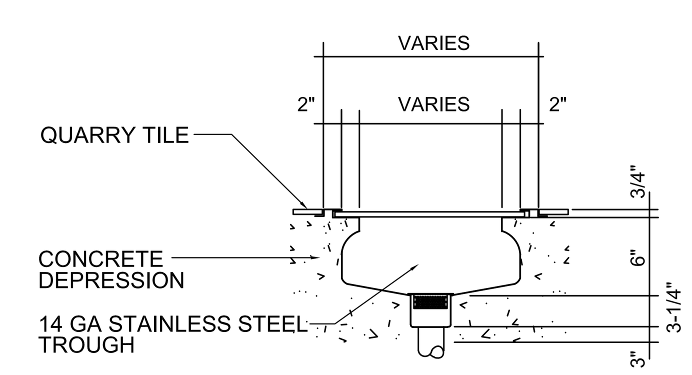
KITCHEN-FLOOR-PLAN

K100

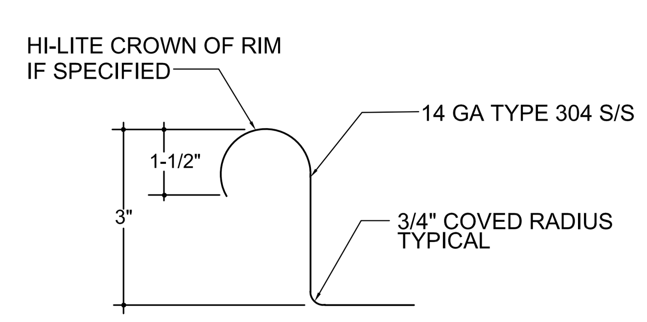
SHEET K100 of K900

FOODSERVICE EQUIPMENT SCHEDULE

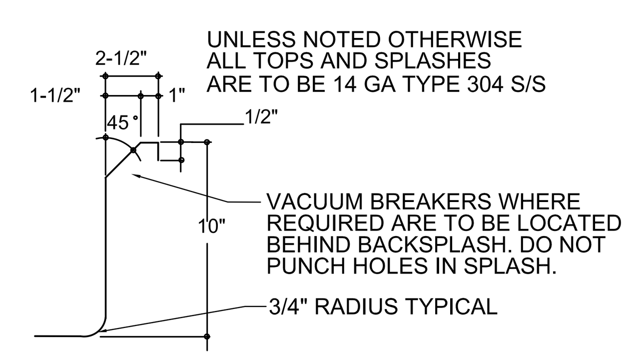
ITEM		DESCRIPTION	MFR	MODEL	STATUS		PLUMBING					ELECTRIC					GAS		VENTILATION		REMARKS
NO	QTY				NEW	EXST'G	HW	CW	IW	W	FD	HPM	A	KW	PH	VOLTS	S	MBTU	EX	MUA	
01	00	STUDENT LOCKERS BY OTHERS	-	-																	
02	01	MOP SINK CABINET	ADVANCE	9OPC-84-DR	●		1/2	1/2		3.0											
03	LOT	MOBILE DRY STORAGE SHELVING	CAMBRO	CAM SHELVING	●																
04	LOT	MOBILE WALK-IN SHELVING	CAMBRO	CAM SHELVING	●																
05	01	WALK-IN COOLER	BALLY	CUSTOM	●								15.0		1	115					ERECT WALK-IN ON TRANSIT LEVELED FLOOR
06	01	WALK-IN COOLER EVAP COIL	BALLY	AM26-073-1EC-PR-8	●				1.0		FD	1/20	01.6		1	115					
07	01	WALK-IN COOLER COMPRESSOR	BALLY	PC68MZOP-2E	●							3/4	07.0		3	208					UNIT LOCATED ON BUILDING ROOF, VERIFY LOCATION PRIOR TO ROUGH-IN
08	00	SPARE NUMBER	-	-																	
09	00	SPARE NUMBER	-	-																	
10	00	SPARE NUMBER	-	-																	
11	01	SOILED DISHTABLE	TITAN	72X84SDT-L-LSL	●					1.5	FLS										
12	01	PRE-RINSE SPRAY UNIT	FISHER	34401	●		1/2	1/2													
13	01	DISHWASHER	MEIKO	DV80.2	●		3/4			1.25	FLS	1.1	50.1		3	208					REQUIRES ADDITIONAL 208/60/3, 54.8 A CONN AT BOOSTER HTR
14	01	DISHWASHER CONDENSATE HOOD	CAPTIVE AIRE	VHB-G	●					1.0	FLS								600		12" DIA EXHAUST DUCT COLLAR
15	01	CLEAN DISHTABLE	TITAN	6CDT-R	●																
16	04	HAND SINKS WITH SOAP AND TOWEL	TITAN	QS-SHS-ESLR	●		1/2	1/2		1.5											
17	01	THREE COMPARTMENT SINK	TITAN	3C1824-2D18	●																
17A	02	FAUCETS	FISHER	60100	●		3/4	3/4													
17B	03	ROTARY WASTE VALVES WITH OVERFLOWS	FISHER	24104	●				(3)1.5		FLS										
18	01	WALL MOUNTED HOSE REEL AND CABINET	FISHER	2785 / 1801	●		1/2	1/2													
19	00	SPARE NUMBER	-	-																	
20	01	OVER SHELF	TITAN	12EWMS-12	●																
21	01	VEGETABLE PREP SINK	TITAN	2C24-2D24	●																
21A	01	FAUCETS	FISHER	34444	●		3/4	3/4													
21B	02	ROTARY WASTE VALVES	FISHER	24104	●				(3)1.5		FLS										
22	02	SLICERS	BIZERBA	GSP Hi 90	●							1/2	03.5		1	115					NEMA 5-15P
23	01	COAT RACK SHELVING UNIT	CAMBRO	CAMSHELF	●																
24	00	SPARE NUMBER	-	-																	
25	02	WORK TABLES	TITAN	11SLU-36	●																
26	02	FOOD PROCESSORS	ROBOT COUPE	R301 ULTRA	●							1.5	12.0		1	115					NEMA 5-15P
27	02	ONE GALLON BLENDERS	WARING	CB15-T	●							3.75	12.0		1	115					NEMA 5-15P
28	01	MOBILE SHELVING UNIT	CAMBRO	CAM SHELVING	●																
29	04	COOK'S TABLES W/UTENSIL RACKS	TITAN	11SLC-36	●																
30	06	MOBILE NESTING TABLES	TITAN	5SLC-30	●																
31	01	TWO DOOR REFRIGERATOR	HOSHIZAKI	R2A-FS	●							1/2	08.0		1	115					NEMA 5-15P
32	01	TWO DOOR FREEZER	HOSHIZAKI	F2A-FS	●							1.0	15.0		1	115					NEMA 5-15P
33	01	EXHAUST HOOD - MAIN	CAPTIVE AIRE	6024 ND-2-PSP-F	●													10928	8942		(4) 16" DIA EX DUCT COLLAR - 10928 TOTAL CFM (12) 12X28 SUPPLY AIR DUCT COLLARS - 8942 TOTAL CFM - SEE SHEET K700 FOR DETAILS
34	01	FIRE SUPPRESSION SYSTEM	ANSUL	R102	●								15.0		1	115					SEE SHEET K800 FOR DETAILS
													15.0		1	115					
35	01	UTILITY DISTRIBUTION SYSTEM	CAPTIVE AIRE	UDI	●		3/4	3/4					175.0		3	120/208	2.0	1195.7			SEE SHEET K900 FOR DETAILS, ALL UTILITIES DN FM ABOVE TO GAS AND WATER SHUT OFF VALVES PROVIDED
36	05	FOUR BURNER RANGE	GARLAND	MST44RE	●								01.0		1	115	3/4	155			CONNECTS TO UDS
37	02	36" GRIDDLE	VULCAN	S6S-36GN	●												3/4	095			CONNECTS TO UDS
38	01	CHAR BROILER	VULCAN	36S-2B24CBN	●												3/4	159			CONNECTS TO UDS
39	01	FRYER WITH FILTER SYSTEM	FRYMASTER	FMP155 / FPPH255	●								08.0		1	(2)115	1.0	71.7			CONNECTS TO UDS
40	01	DOUBLE STEAMER	ACCUTEMP	E2083E170DBL	●		3/4		3/4		FLS		47.0		3	(2)208					CONNECTS TO UDS
41	01	10 GALLON TILT SKILLET WITH STAND	CLEVELAND	SET-10 / STD28	●		1/2	1/2					26.5		3	208					CONNECTS TO UDS
42	01	FLOOR TROUGH	IMC TEDDY	CUSTOM	●																
43	01	EXHAUST HOOD - BAKING	CAPTIVE AIRE	6024 ND-2-PSP-F	●													2350	1880		16" DIA EX DUCT COLLAR - 2350 CFM (3) 12X24 SUPPLY AIR DUCT COLLARS - 1880 TOTAL CFM - SEE SHEET K700 FOR DETAILS
44	01	FIRE SUPPRESSION SYSTEM	ANSUL	R102	●								15.0		1	115					SEE SHEET K800 FOR DETAILS
45	00	SPARE NUMBER	-	-																	
46	02	DOUBLE CONVECTION OVENS	BLODGETT	DFG200-DBL	●							1/2	06.0		1	(4)115	1.0	(4)60			
47	00	SPARE NUMBER	-	-																	
48	01	MOBILE PROOFER / WARMERS	EAGLE	FSHPC-G	●								12.0		1	115					NEMA 5-15P
49	02	BAKERS TABLES	TITAN	114SLU-36	●																
50	02	WORK TABLES	TITAN	10SLU-36	●																
51	00	SPARE NUMBER	-	-																	
52	03	INGREDIENT BINS	PIPER	47-75	●																
53	02	20 QUART MIXERS	GLOBE	SP20	●							1/2	06.0		1	115					NEMA 5-15P
54	02	WORK TABLES	TITAN	10.5SLU-36	●																
55	05	S/S CORNER GUARDS	TITAN	CUSTOM	●																
56	10	6 QT MIXERS WITH ATTACHMENTS	KITCHEN AID	N50	●							1/6	02.9		1	115					NEMA 5-15P ONLY (1) ONE SHOWN, BALANCE ARE STORED IN BASE OF ITEM 69
57	10	INDUCTION COOK TOPS	SPRING	SM-181C	●								15.0		1	115					NEMA 5-15P ONLY (1) ONE SHOWN, BALANCE ARE STORED IN BASE OF ITEM 69
58	10	INGREDIENT SCALES	GLOBE	GPS-10	●								02.0		1	115					NEMA 5-15P ONLY (1) ONE SHOWN, BALANCE ARE STORED IN BASE OF ITEM 69 (3)C SIZE BATTERIES MY BE USED IN LIEU OF C&P
59	10	IMMERSION BLENDERS	GLOBE	WSB-40	●								03.0		1	115					NEMA 5-15P ONLY (1) ONE SHOWN, BALANCE ARE STORED IN BASE OF ITEM 69
60	03	MOBILE RACKS	CHANNEL	400A-OR	●																
61	01	ICE MACHINE WITH BIN & WATER FILTER	HOSHIZAKI	F-330BAJ-(-C)	●			1/2	3/4		FD		06.9		1	115					NEMA 5-15P - MOUNT FILTER ON WALL ABOVE UNIT
62	02	MOBILE POT AND PAN RACKS	CAMBRO	CAM SHELVING	●																
63	03	DISH STORAGE CARTS	CADDY	T140	●																
64	01	SINGLE COMPARTMENT SINK	TITAN	1C24-1D24	●		1/2	1/2													
64A	01	FAUCETS	FISHER	60100	●																
64B	01	ROTARY WASTE VALVES	FISHER	24104	●																
65	01	CONVEYOR TOASTER	HATCO	TQ-10	●								15.0		1	115					NEMA 5-15P
66	01	ICE TEA BREWER	BUNN	ITB-DBC	●			1/2					14.0		1	115					NEMA 5-15P
67	01	COFFEE BREWER	BUNN	CWT15-APS	●			1/2					11.4		1	115					NEMA 5-15P
68	01	BEVERAGE COUNTER	TITAN	CUSTOM	●		1/2	1/2	1.5												
69	01	ENCLOSED BASE STORAGE COUNTER	TITAN	CUSTOM	●																
70	01	STACKED WASHER / DRYER	GE	GTUN275 EM-GM	●		3/4	3/4		1.25			30.0		1	240					4" DIA EXHAUST



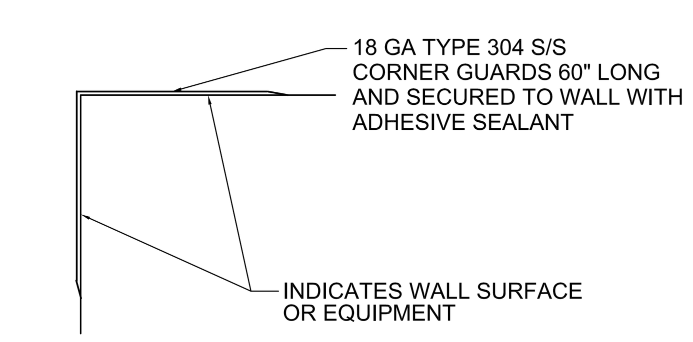
A K200 K200 **FLOOR TROUGH DETAIL**
SCALE - NONE



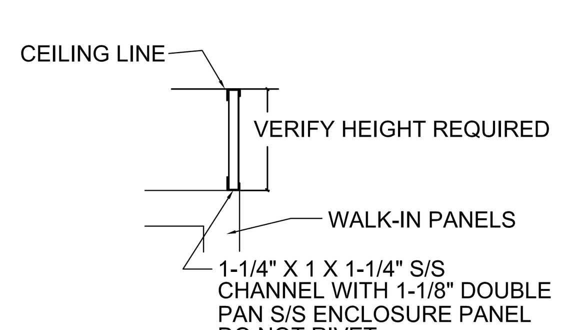
B K200 K200 **3" RAISED RIM DETAIL**
SCALE - NONE



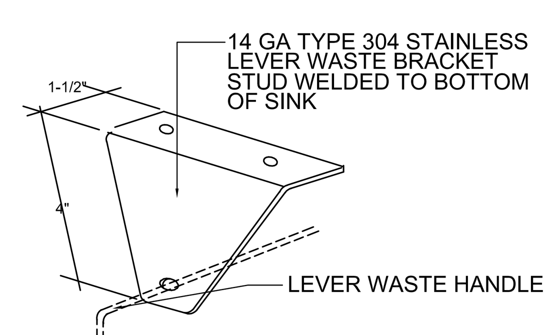
C K200 K200 **BACK SPLASH DETAIL**
SCALE - NONE



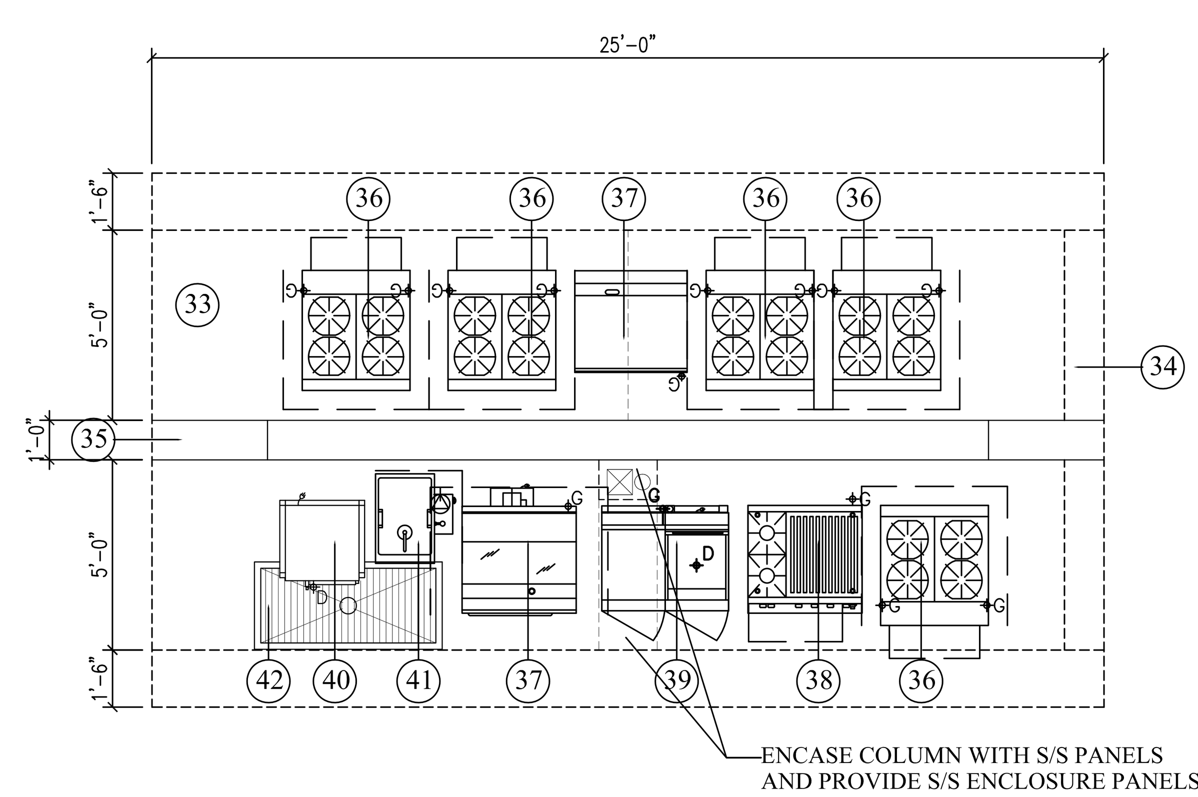
D K200 K200 **CORNER GUARD DETAIL**
SCALE - NONE



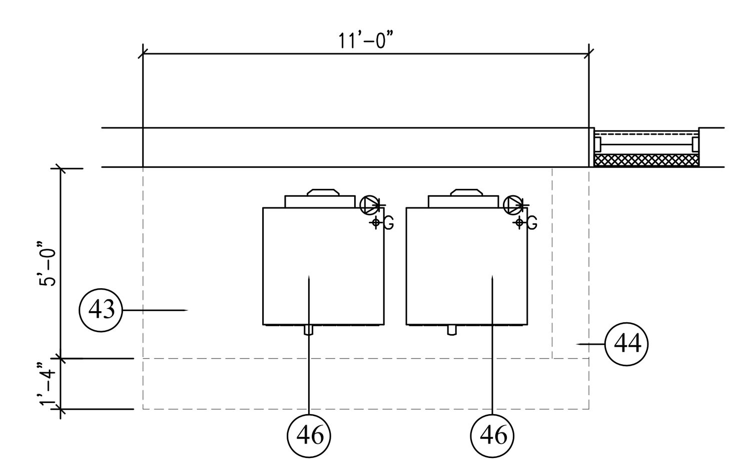
E K200 K200 **CLOSURE PANEL DETAIL**
SCALE - NONE



F K200 K200 **LEVER BRACKET DETAIL**
SCALE - NONE



SEE SHEET K700 FOR DETAILS
G K100 K200 **MAIN HOOD AND UDS LAYOUT**
SCALE - 1/4" = 1'-0"



SEE SHEET K700 FOR DETAILS
H K100 K200 **BAKERY HOOD**
SCALE - 1/4" = 1'-0"

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No.	DATE	DESCRIPTION
X	X	X

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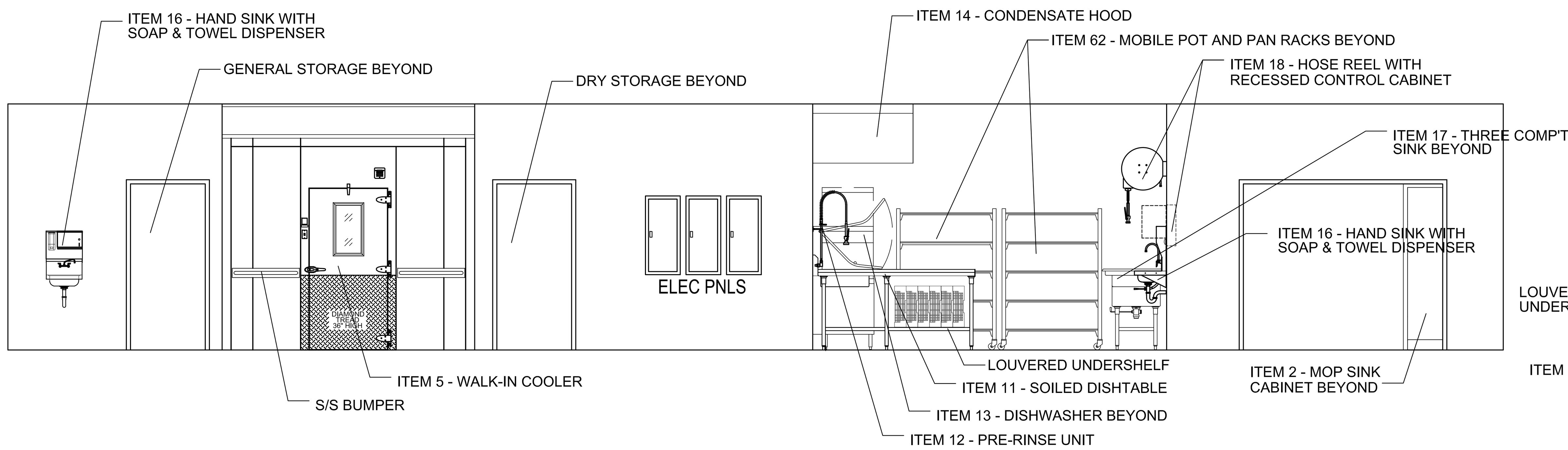
DATE:	06.17.2022
SCALE:	AS SHOWN

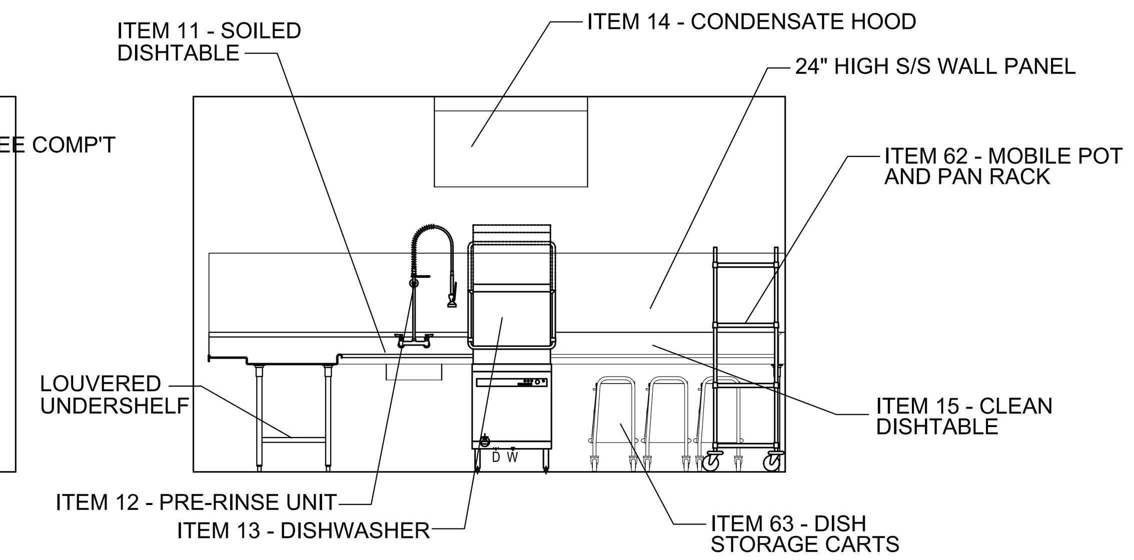
KITCHEN-EQUIPMENT SCHEDULE

K200

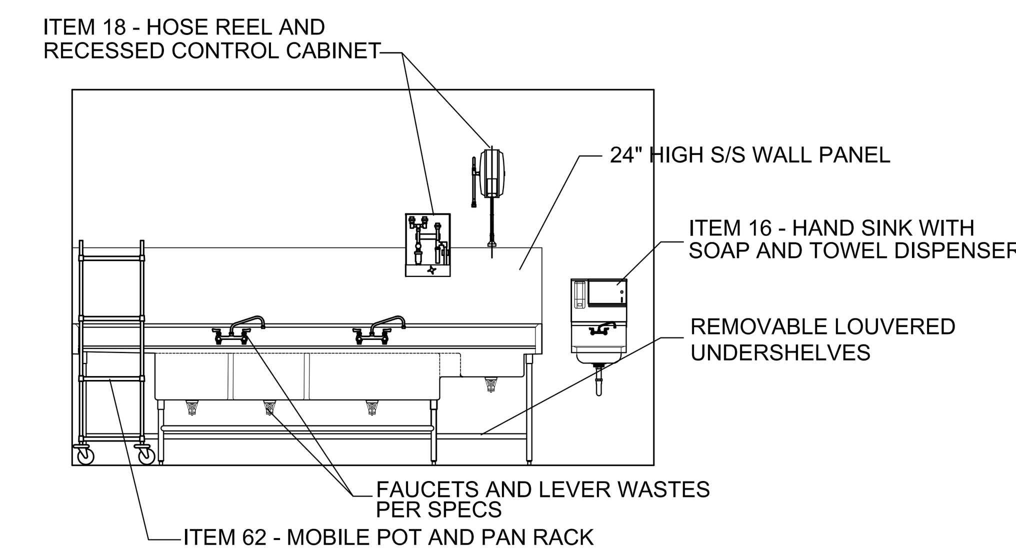
SHEET K200 of K900



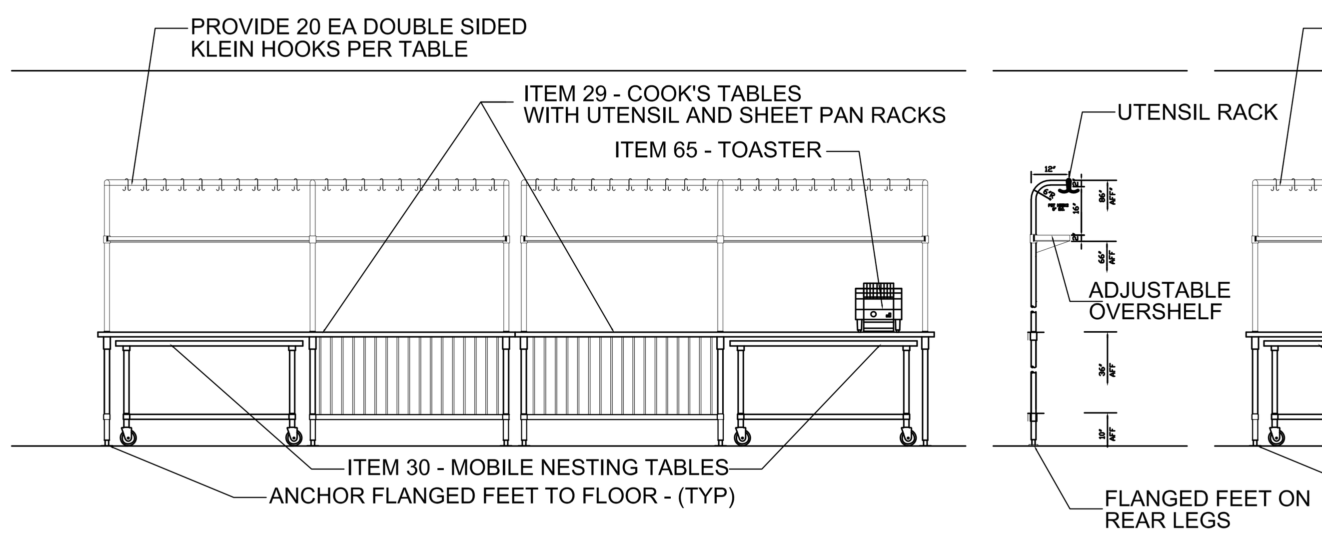
A K100 K300
ELEV - EQUIPMENT @ REAR WALL
SCALE - 1/4" = 1'-0"



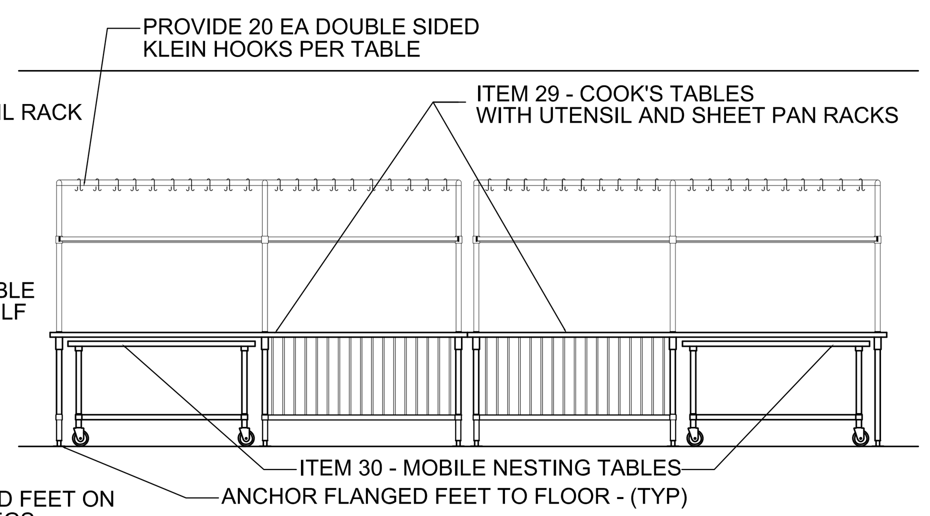
B K100 K300
SECTION THRU DISHROOM
SCALE - 1/4" = 1'-0"



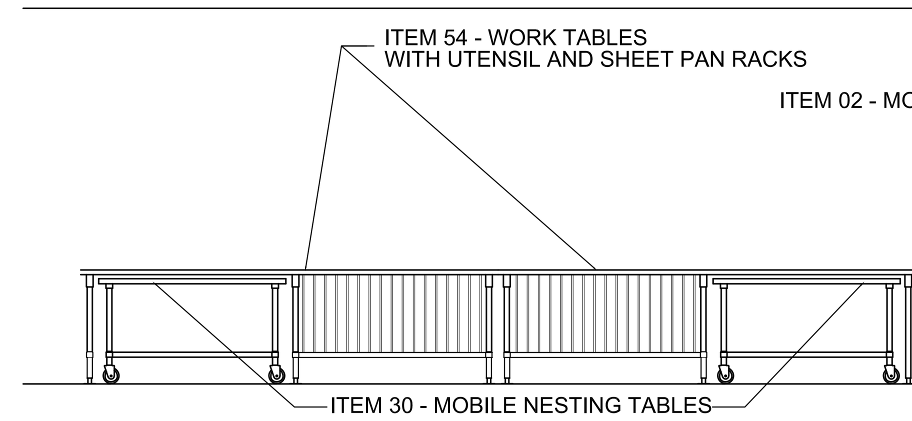
C K100 K300
SECTION THRU DISHROOM
SCALE - 1/4" = 1'-0"



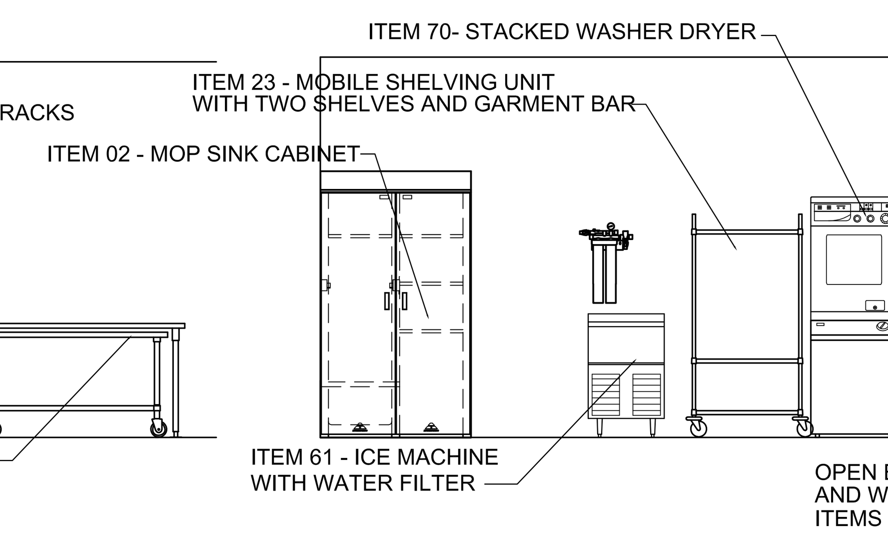
D K100 K300
ELEV @ COOK'S TABLES
SCALE - 1/4" = 1'-0"



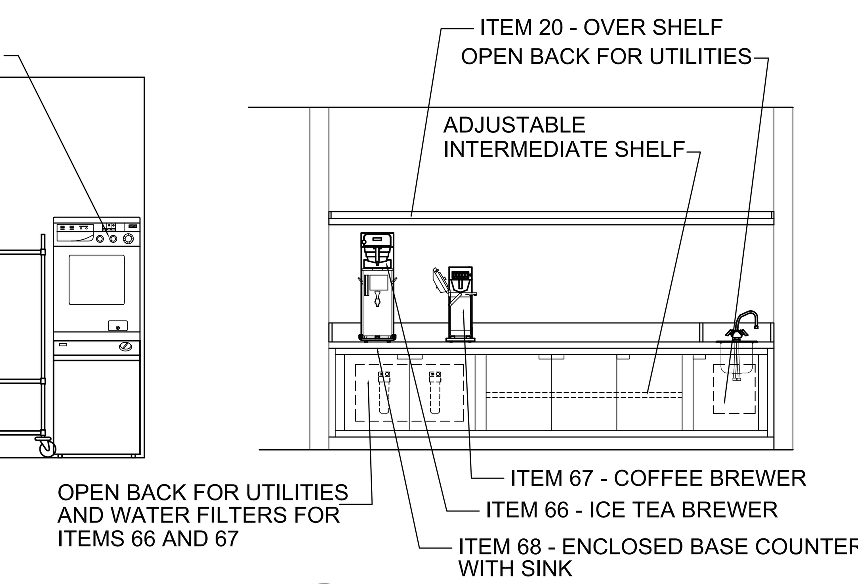
E K100 K300
ELEV @ COOK'S TABLES
SCALE - 1/4" = 1'-0"



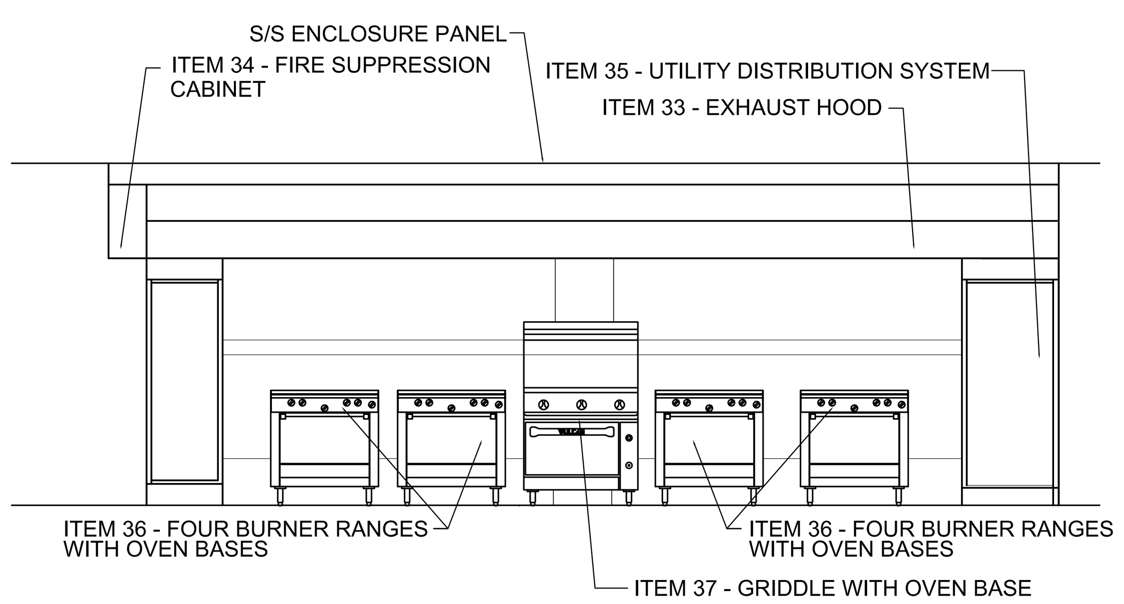
F K100 K300
ELEV @ COOK'S TABLES
SCALE - 1/4" = 1'-0"



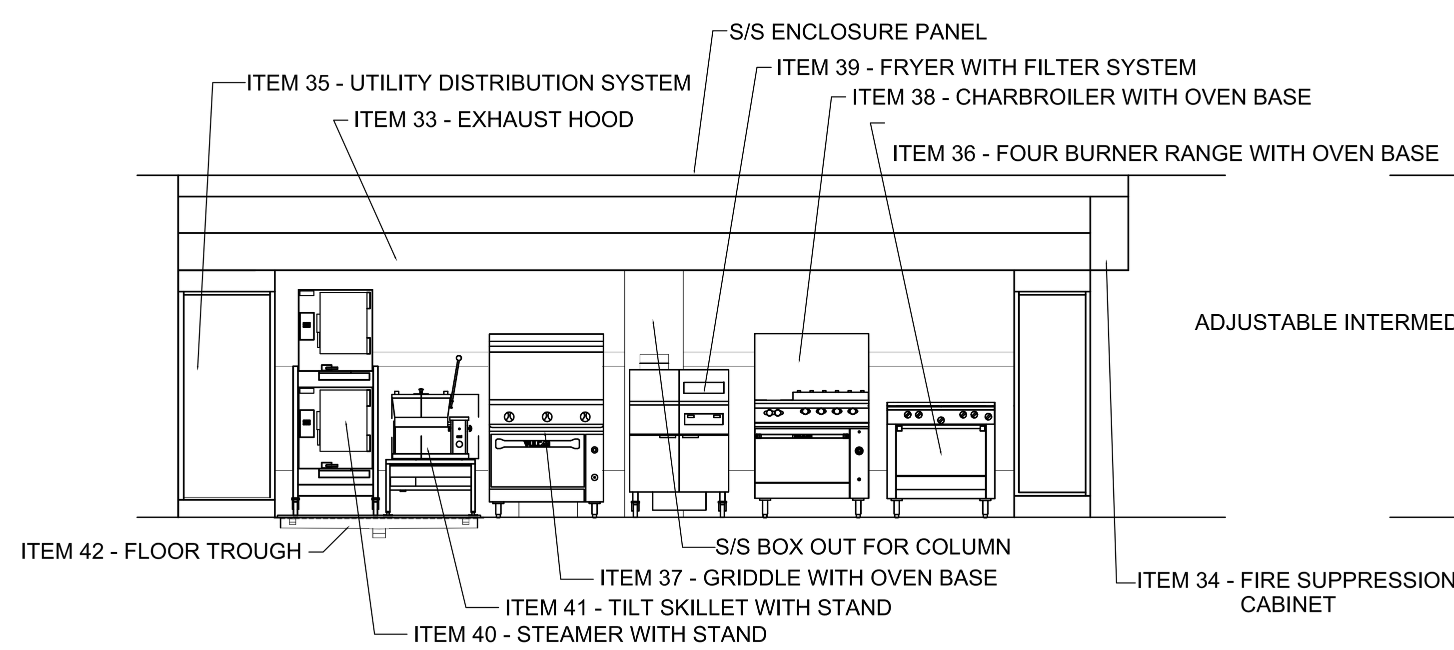
G K100 K300
ELEV @ RCVN'G AREA
SCALE - 1/4" = 1'-0"



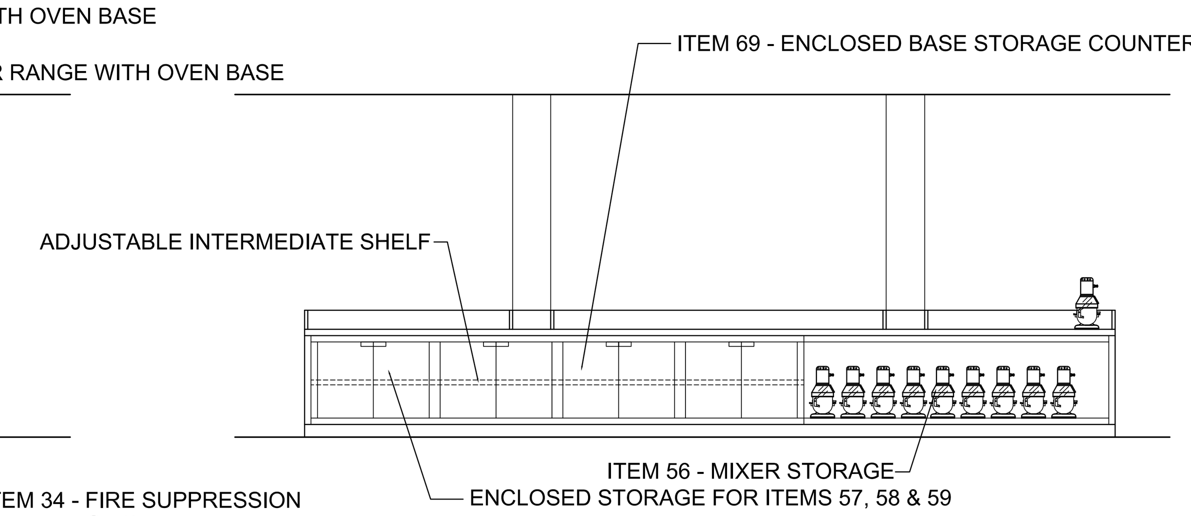
K K100 K300
ELEV @ BEV'G
SCALE - 1/4" = 1'-0"



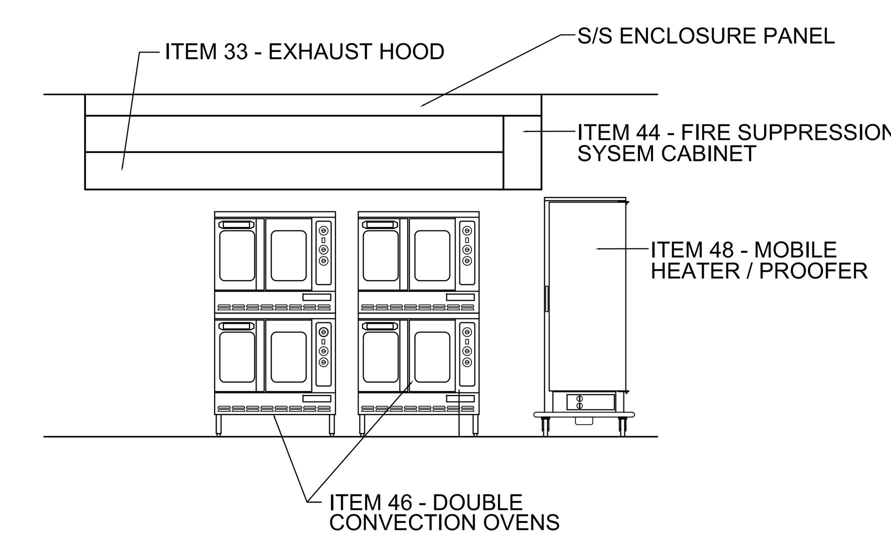
H K100 K300
ELEV @ COOKING BANK
SCALE - 1/4" = 1'-0"



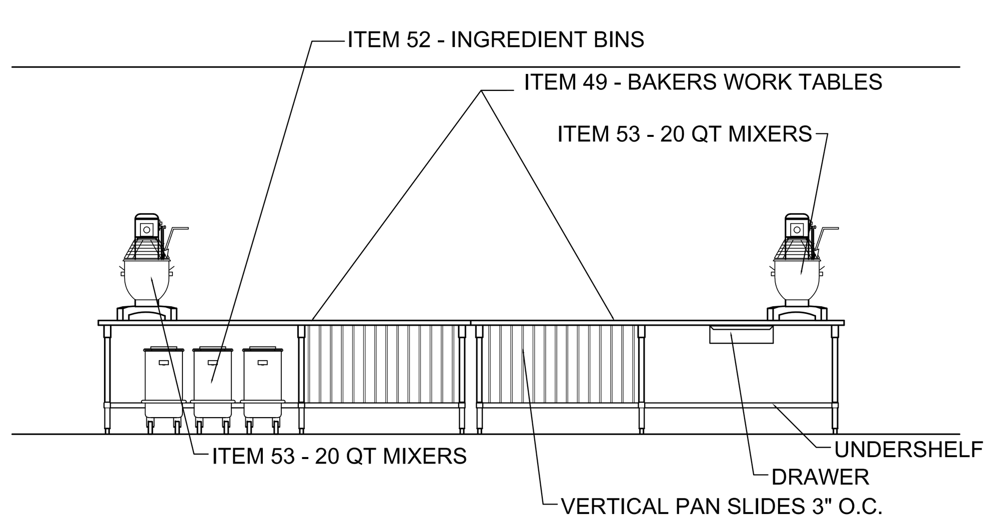
I K100 K300
ELEV @ COOKING BANK
SCALE - 1/4" = 1'-0"



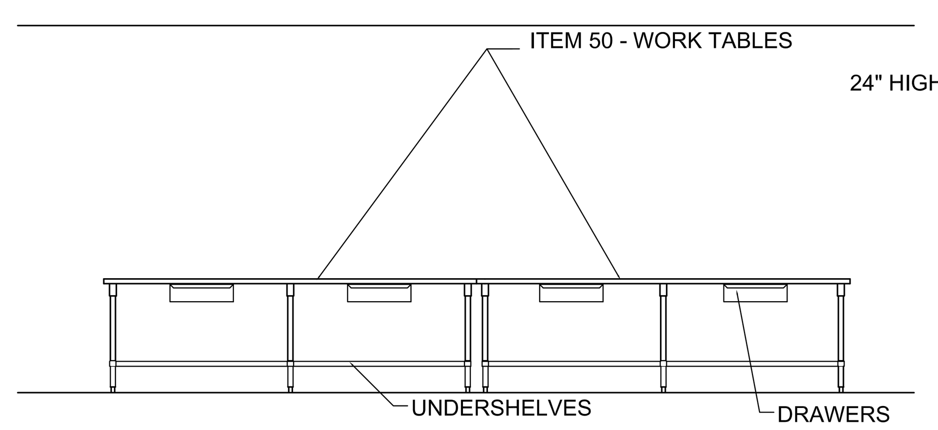
J K100 K300
ELEV @ STOR COUNTER
SCALE - 1/4" = 1'-0"



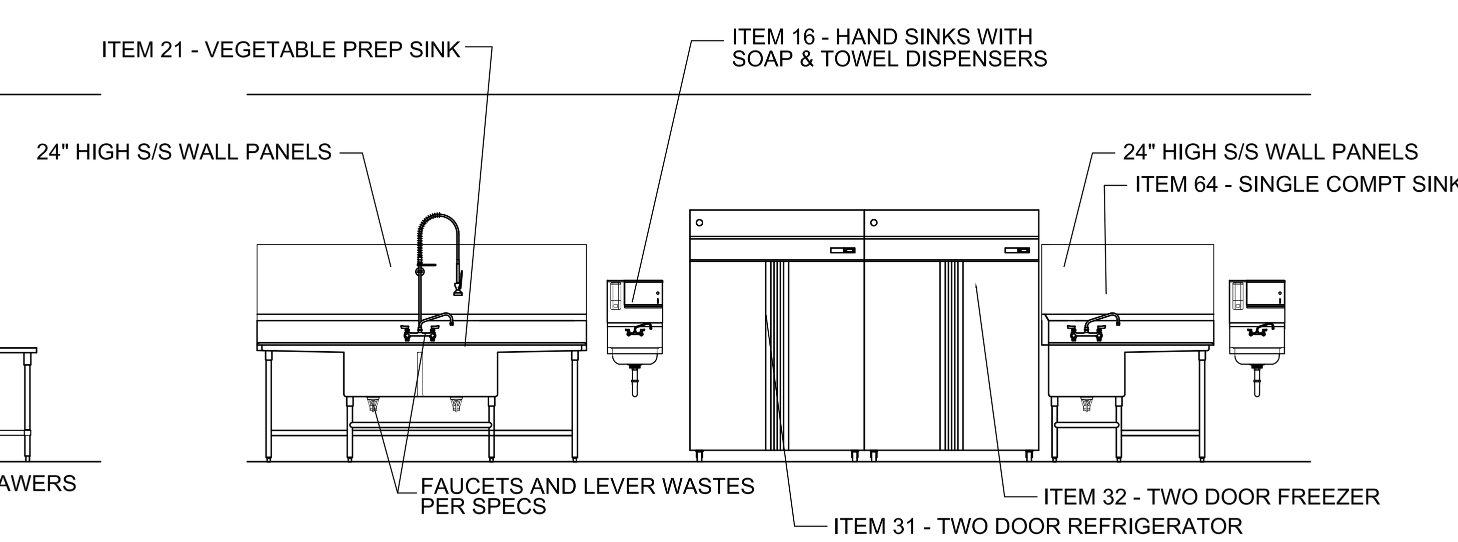
L K100 K300
ELEV @ BAKING EQUIP
SCALE - 1/4" = 1'-0"



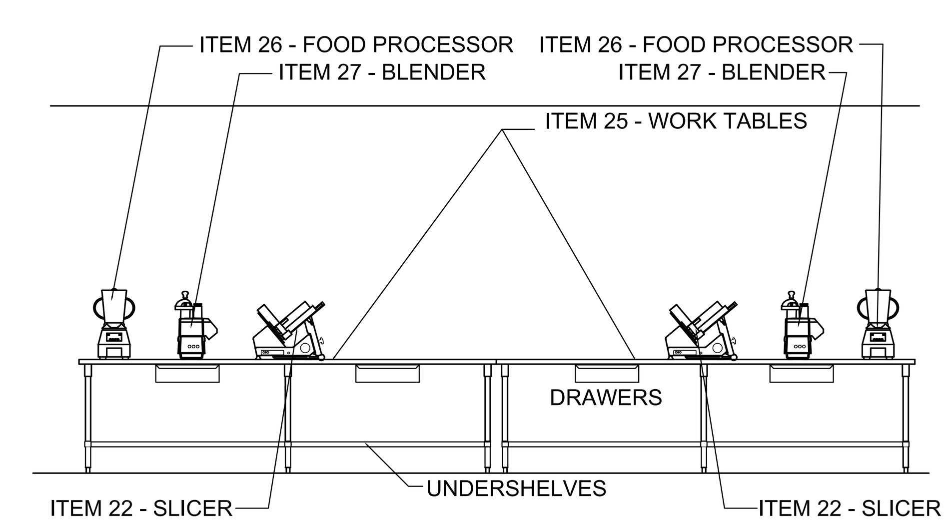
M K100 K300
ELEV @ BAKE PREP
SCALE - 1/4" = 1'-0"



N K100 K300
ELEV @ BAKE PREP
SCALE - 1/4" = 1'-0"



O K100 K300
ELEV @ VEGETABLE PREP
SCALE - 1/4" = 1'-0"



P K100 K300
ELEV @ PREP TABLES
SCALE - 1/4" = 1'-0"

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DATE:	06.17.2022
SCALE:	AS SHOWN

CULINARY-ARTS ELEVATIONS

K300

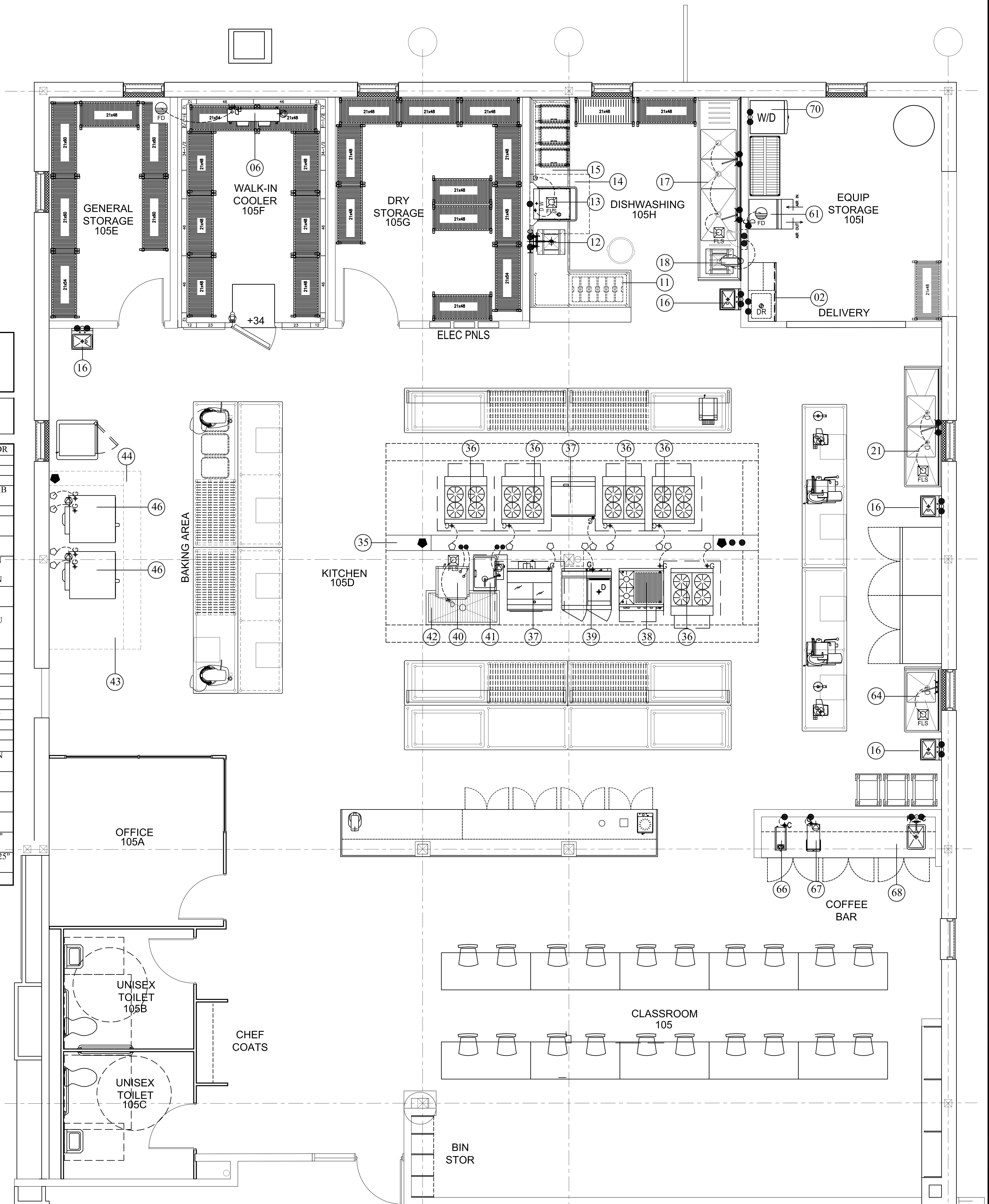
SHEET K300 of K900

LEGEND

	HOT OR COLD WATER STUB UP SIZE INDICATED AND BRANCH TO CONNECTION ON SPECIFIED EQUIPMENT INDICATED
	HOT OR COLD WATER STUB OUT FACE OF WALL AT HT INDICATED AND BRANCH BRANCH TO CONNECTION ON SPECIFIED EQUIPMENT INDICATED
	DRAIN WITH HALF GRATE
	FLOOR SINK
	MAIN NATURAL GAS SUPPLY LINE
	INDICATES GAS SUPPLY TO EQUIPMENT FROM MAIN GAS TRUNK LINE
CW	COLD WATER
HW	HOT WATER
W	WASTE
DR	DRAIN
IW	INDIRECT WASTE
FD	FLOOR DRAIN
FLS	FLOOR SINK
AFF	ABOVE FINISHED FLOOR
BTC	BRANCH TO CONNECTION
DFA	DOWN FROM ABOVE

PLUMBING CONNECTION SCHEDULE

ITEM		DESCRIPTION	MFR	MODEL	PLUMBING					GAS		NOTES
NO	QTY				HW	CW	IW	W	FD	S	MBTU	
02	01	MOP SINK CABINET	ADVANCE	9OPC-84-DR	1/2	1/2		3.0				1/2" H&CW, STUB OUT 36" AFF AND BTC AT FAUCET, 3" DR
06	01	WALK-IN COOLER EVAP COIL	BALLY	AM26-073-1EC-PR-8			1.0		FD			1" IW FROM EVAP COIL TO FD INDICATED
11	01	SOILED DISHTABLE	TITAN	CUSTOM				1.5	FLS			1.5" DR, STUB OUT 18" AFF AND BTC AT SCRAP SINK
12	01	PRE-RINSE SPRAY UNIT	FISHER	34401	1/2	1/2						1/2" H&CW, STUB OUT 24" AFF AND BTC AT PRE-RINSE
13	01	DISHWASHER	MEIKO	DV80.2	3/4			1.25	FLS			3/4" HW, STUB OUT 8" AFF AND BRANCH TO 3/4" HOSE BIB CONNECTION - 140F MIN
14	01	DISHWASHER COND HOOD	CAPTIVE AIRE	VHB-G				1.0	FLS			1" IW FROM CONDENSATE HOOD TO FD INDICATED
16	04	HAND SINKS	TITAN	QS-SHS-ESLR	1/2	1/2		1.5				1/2" H&CW, STUB OUT 24" AFF AND BTC AT FAUCET, 1.5" DR STUB OUT 18" AFF AND BTC AT P-TRAP PROVIDED
17	01	THREE COMPARTMENT SINK	TITAN	3C1824-2D18	1/2	1/2		1.5	FLS			3/4" H&CW, STUB OUT 24" AFF AND BTC AT FAUCETS, (3)1.5" DR COMMON MANIFOLD AND RUN TO FLS
18	01	HOSE REEL CABINET	FISHER	2785 / 1801	1/2	1/2						1/2" H&CW, DN IN WALL TO PRE-PIPED CONNECTIONS IN RECESSED CONTROL CABINET PROVIDED - DO NOT SURFACE MOUNT - DELIVER EARLY FOR INSTALLATION
21	01	VEGETABLE PREP SINK	TITAN	2C24-2D24	1/2	1/2		1.5	FLS			3/4" H&CW, STUB OUT 24" AFF AND BTC AT FAUCETS, (2)1.5" DR COMMON MANIFOLD AND RUN TO FLS
35	01	UDS	CAPTIVE AIRE	UDI	3/4	3/4						3/4" H&CW, DN FM ABOVE TO PRE-PIPED SHUT OFF VALVES IN PLUMBING RISER - 2" NAT GAS - 1195.7 MBTU DN FM ABOVE TO PRE-PIPED GAS SHUT OFF VALVES IN RISER
36	05	FOUR BURNER RANGE	GARLAND	MST44RE						3/4	(5)155	3/4" NAT GAS, 155 MBTU EACH CONNECTS TO UDS
37	02	36" GRIDDLE	VULCAN	S6S-36GN						3/4	(2)095	3/4" NAT GAS, 095 MBTU EACH CONNECTS TO UDS
38	01	CHAR BROILER	VULCAN	36S-2B24CBN						3/4	159	3/4" NAT GAS, 159 MBTU CONNECTS TO UDS
39	01	FRYERS WITH FILTER SYS	FRYMASTER	FMP155 / FPPH255						1.0	71.7	3/4" NAT GAS, 71.7 MBTU CONNECTS TO UDS
40	01	DOUBLE STEAMER	ACCUTEMP	E2083E170DBL	3/4		3/4		FLS			3/4" HW, CONNECTS TO UDS - 3/4" DR TO FLS INDICATED
41	01	10 GAL TILT SKILLET	CLEVELAND	SET-10 / STD28	1/2	1/2						1/2" H&CW, TO FILL FAUCET, CONNECTS TO UDS
42	01	FLOOR TROUGH	IMC TEDDY	CUSTOM			3.0					3.0" DR
46	02	DBL CONVECTION OVENS	BLODGETT	DFG200 DBL						(4)1.0	(4)60	(4)1.0" NAT GAS, 60 MBTU EACH
61	01	ICE MACHINE & FILTER	HOSHIZAKI	F-330BAJ-(-C)		1/2	3/4		FD			1/2" CW, STUB OUT 60" AFF AND BTC AT FILTER - 3/4" BIN DR AND CONDENSATE DR TO FD INDICATED
64	01	SINGLE COMPT SINK	TITAN	1C24-1D24	1/2	1/2		1.5	FLS			3/4" H&CW, STUB OUT 24" AFF AND BTC AT FAUCETS, (2)1.5" DR COMMON MANIFOLD AND RUN TO FLS
66	01	ICE TEA BREWER	BUNN	ITB-DBC		1/2						1/2" CW, STUB OUT AND PROVIDE SHUT OFF VALVE IN CAB'T BASE,BTC AT FILTER AND BREWER
67	01	COFFEE BREWER	BUNN	CWT15-APS		1/2						1/2" CW, STUB OUT AND PROVIDE SHUT OFF VALVE IN CAB'T BASE,BTC AT FILTER AND BREWER
68	01	BEVERAGE COUNTER	TITAN	CUSTOM	1/2	1/2	1.5					1/2" H&CW, STUB OUT 24" AFF AND BTC AT FAUCET - 1.5" DR, STUB OUT 18" AFF AND BTC AT P-TRAP PROVIDED
70	01	WASHER / DRYER	GE	GTUN275 EM-GM	3/4	3/4		1.25				1/2" H&CW, STUB OUT 36" AFF AND BTC AT WASHER - 1.25" DR, 36" AFF



1 K400 K400

CULINARY ARTS - PLUMBING ROUGH-INS

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

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CULINARY-ARTS PLUMBING-ROUGH-INS CONNECTION-SCHEDULE

K400

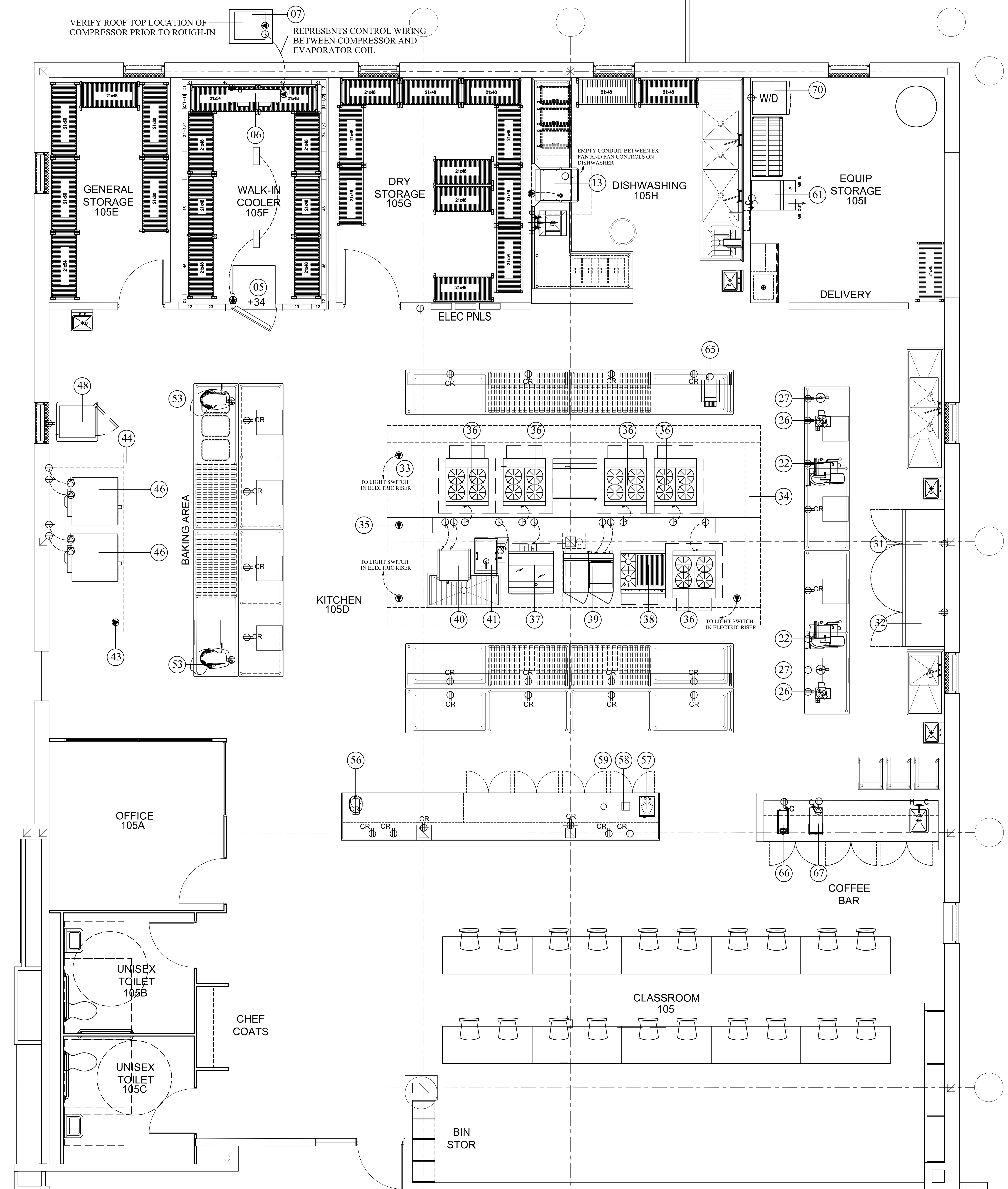
SHEET K400 of K900

LEGEND

ESC-ELECTRICAL SUPPLY CONDUIT RUN IN WALL AND OUT FACE AT HEIGHT INDICATED BRANCH TO CONNECTION AT J-BOX MTD IN OR ON EQUIPMENT SPECIFIED	ECSR-ELECTRICAL CONDUIT SINGLE RECEPTACLE
ESC-ELECTRICAL SUPPLY CONDUIT STUB UP WHERE INDICATED AND BRANCH TO CONNECTION AT J-BOX MTD IN OR ON EQUIPMENT SPECIFIED	ECDR-ELECTRICAL CONDUIT DUPLEX RECEPTACLE STUB UP AND MOUNT RECEPTACLE ON STANCHION AT HEIGHT INDICATED
ECSR-ELECTRICAL CONDUIT SINGLE RECEPTACLE	J JUNCTION BOX
ECDR-ELECTRICAL CONDUIT DUPLEX RECEPTACLE RUN IN WALL AND OUT FACE, MOUNTING RECEPTACLE AT HEIGHT INDICATED	A AMPERAGE
	KW KILOWATT
	AFF ABOVE FINISHED FLOOR
	BTC BRANCH TO CONNECTION
	PH PHASE
	HPM HORSE POWER MOTOR
	DFA DOWN FROM ABOVE
	CR CONVENIENCE RECEPTACLES

ELECTRICAL CONNECTION SCHEDULE

ITEM		DESCRIPTION	MFR	MODEL	ELECTRIC						NOTES
NO	QTY				HPM	A	KW	PH	VOLTS	NEMA	
05	01	WALK-IN COOLER	BALLY	CUSTOM		15.0		1	115		ESC 115/60/1, 15A, DN FM ABOVE TO J-BOX ON TOP OF WALK-IN (LIGHTS AND DOOR HEATER)
06	01	WALK-IN COOLER EVAP COIL	BALLY	AM26-073-1EC-PR-8	1/20	01.6		1	115		ESC 115/60/1, 1/20 HPM, 01.6A DN FM ABOVE TO J-BOX ON EVAPORATOR COIL
07	01	WALK-IN COOLER COMP	BALLY	PC68MZOP-2E	3/4	07.0		3	208		ESC 208/60/3, 3/4 HPM, 7.0A BTC AT J-BOX ON UNIT, VERIFY LOCATION OF REMOTE COMPRESSOR
13	01	DISHWASHER	MEIKO	DV80.2	1.1	50.1		3	208		ESC 208/60/3, 1.1 HPM, 50.1A STUB OUT 11" AFF AND BTC AT J-BOX
22	02	SLICERS	BIZERBA	GSP Hi 90	1/2	03.5		1	115	5-15P	ECDR 115/60/1, 1/2 HPM, 3.5A CORD REEL FM ABOVE
26	02	FOOD PROCESSORS	ROBOT COUPE	R301 ULTRA	1.5	12.0		1	115	5-15P	ECDR 115/60/1, 1.5 HPM, 12A CORD REEL FM ABOVE
27	02	ONE GALLON BLENDERS	WARING	CB15-T	3.75	12.0		1	115	5-15P	ECDR 115/60/1, 3.75 HPM, 12A CORD REEL FM ABOVE
31	01	TWO DOOR REFRIGERATORS	HOSHIZAKI	R2A-FS	1/2	08.0		1	115	5-15P	ECDR 115/60/1, 1/2 HPM, 8A MT RCPT 88" AFF
32	01	TWO DOOR FREEZERS	HOSHIZAKI	F2A-FS	1.0	15.0		1	115	5-15P	ECDR 115/60/1, 3.75 HPM, 15A MT RCPT 88" AFF
33	01	EXHAUST HOOD - MAIN	CAPTIVE AIRE	-		15.0		1	115		ESC 115/60/1, 15A, DN FM ABOVE TO SWITCH IN UDS
34	01	FIRE SUPPRESSION SYSTEM	ANSUL	R102		15.0		1	115		ESC 115/60/1, 15A, DN FM ABOVE TO FS CABINET
35	01	UDS	CAPTIVE AIRE	UDI		175.0		3	120/208		ESC 120-208/60/3, 175.0 A CAPACITY DN FM ABOVE TO PRE-WIRED PANEL IN RISER OF UDS - SEE SHEET K900 FOR DETAILS
36	05	FOUR BURNER RANGE	GARLAND	MST44R		01.0		1	115	5-15P	ECDR 115/60/1, 1A, CONNECTS TO UDS
39	01	FRYERS W/FILTER SYSTEM	FRYMASTER	2FQG60T		08.0		1	(2)115	5-15P	(2) ECDR 115/60/1, 8A, CONNECTS TO UDS
40	01	DOUBLE STEAMER	ACCUTEMP	E2083E170DBL		47.0		3	(2)208		(2) ECSR 208/60/3, 47A, CONNECTS TO UDS
41	01	10 GAL TILT SKILLET W/ STND	CLEVELAND	SET-10 / STD28		26.5		3	208		ECSR 208/60/3, 26.5A, CONNECTS TO UDS
43	01	EXHAUST HOOD - BAKING	CAPTIVE AIRE	-		15.0		1	115		ESC 115/60/1, 15A, DN FM ABOVE TO SWITCH IN UDS
44	01	FIRE SUPPRESSION SYSTEM	ANSUL	R102		15.0		1	115		ESC 115/60/1, 15A, DN FM ABOVE TO FS CABINET
46	02	DOUBLE CONVECTION OVENS	BLODGETT	DFG200-DBL	1/2	06.0		1	(4)115	5-15P	(4) ECDR 115/60/1, 6A, CONNECTS TO UDS
48	01	MOBILE PROOFER/WARMER	EAGLE	FSHPC-G		12.0		1	115	5-20-P	ECDR 115/60/1, 12A, STUB OUT AND MT RCPT 24" AFF
53	02	20 QUART MIXERS	GLOBE	SP20	1/2	06.0		1	115	5-15P	ECDR 115/60/1, 1/2 HPM, 6.0A CORD REEL FM ABOVE
56	10	6 QT MIXERS	KITCHEN AID	N50	1/6	02.9		1	115	5-15P	ECDR 115/60/1, 1/6 HPM, 2.9A CORD REEL FM ABOVE
57	10	INDUCTION COOK TOPS	SPRING	SM-181C		15.0		1	115	5-15P	ECDR 115/60/1, 15.0A CORD REEL FM ABOVE
58	10	INGREDIENT SCALES	GLOBE	GPS-10		02.0		1	115	5-15P	ECDR 115/60/1, 2.0A CORD REEL FM ABOVE
59	10	IMMERSION BLENDERS	GLOBE	WSB-40		03.0		1	115	5-15P	ECDR 115/60/1, 03.0A CORD REEL FM ABOVE
61	01	ICE MACHINE W/BIN & FILTER	HOSHIZAKI	F-330BAJ-(-C)		06.9		1	115	5-15P	ECDR 115/60/1, 6.9A STUB OUT AND MT RCPT 24" AFF
65	01	CONVEYOR TOASTER	HATCO	TQ-10		15.0		1	115	5-15P	ECDR 115/60/1, 15.0A CORD REEL FM ABOVE
66	01	ICE TEA BREWER	BUNN	ITB-DBC		14.0		1	115	5-15P	ECDR 115/60/1, 14.0A STUB OUT AND RUN IN CABT BASE. BTC AT RCPT INDICATED 48" AFF
67	01	COFFEE BREWER	BUNN	CWT15-APS		11.4		1	115	5-15P	ECDR 115/60/1, 11.4A STUB OUT AND RUN IN CABT BASE. BTC AT RCPT INDICATED 48" AFF
70	01	STACKED WASHER / DRYER	GE	GTUN275 EM-GM		30.0		1	240		ESC 240/60/1, 30A STUB OUT AND MT RCPT 48" AFF



CULINARY ARTS - ELECTRICAL ROUGH-INS

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

1 K500 K500

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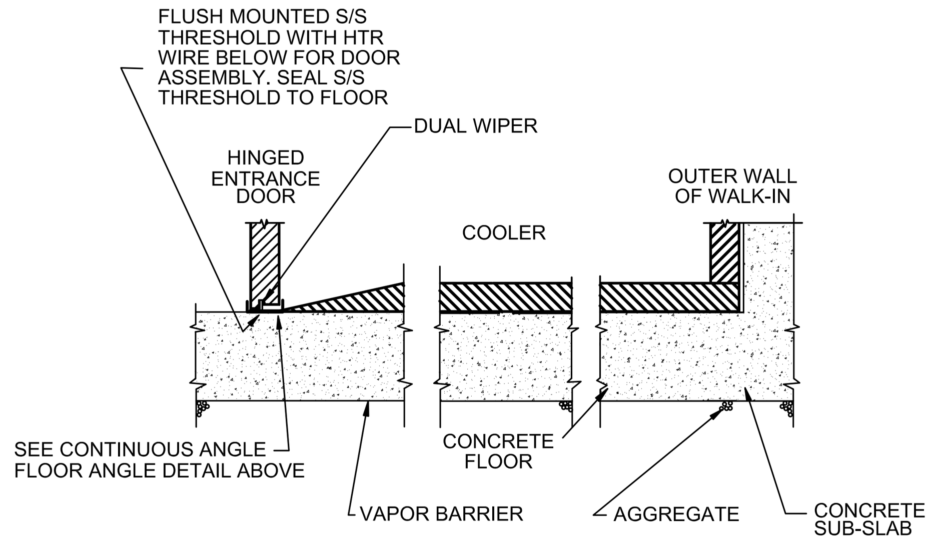
CULINARY-ARTS ELECTRICAL-ROUGH-INS CONNECTION-SCHEDULE

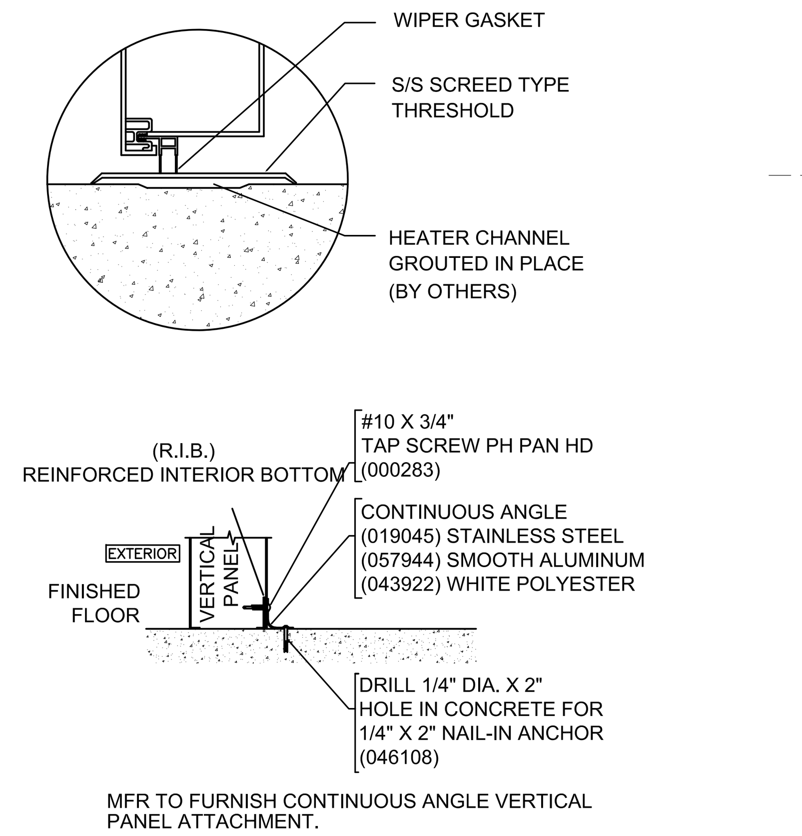
K500

SHEET K500 of K900

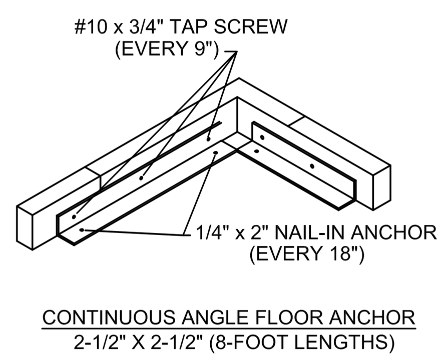


C K500 K500
TYP FLOOR SECTION DETAIL
SCALE - NONE

- NOTE A: 40" L X 4 1/2" W X 1 1/2" DEEP OPENING IN BUILDING FLOOR FOR DOOR SILL. BEFORE POURING TOP LAYER OF CONCRETE, PLACE PIECE OF WOOD INTO POSITION FOR THE REQUIRED OPENING, AFTER CONCRETE HAS HARDENED REMOVE WOOD
- NOTE B: STOP INSULATION BREAKER AND RUN CONCRETE THROUGH.
- NOTE: 2" PERIMETER OF INSULATION TO STOP WITHIN 2" ON EACH SIDE OF DOOR OPENING.
- NOTE: ALL DIMENSIONS INCLUDE ASSEMBLY ALLOWANCES.



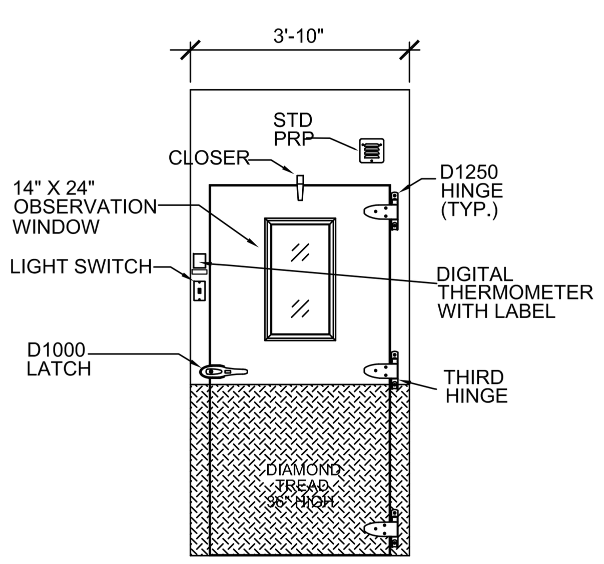
A K500 K500
SECTION THRU COOLER PANEL
SCALE - NONE



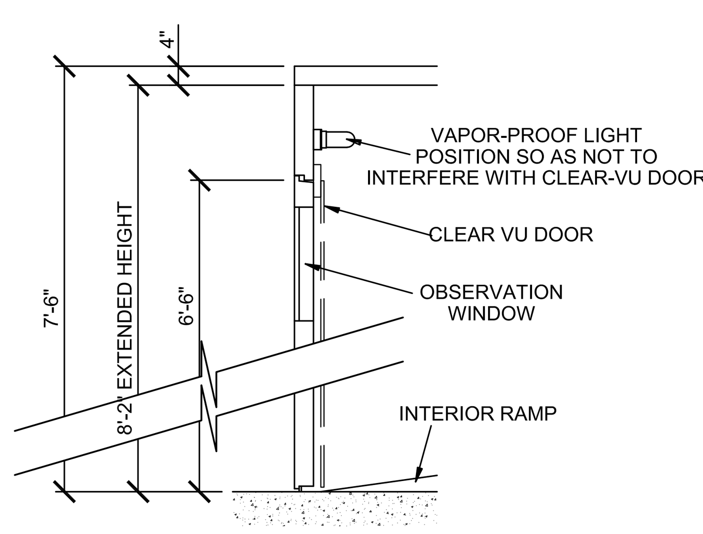
B K500 K500
SECTION THRU CONT ANGLE
SCALE - NONE

Door Closer, Dictator 1600 (ASHRAE 90.1 6.4.5 a)
Spring loaded, rising action hinges on doors to minimize infiltration (ASHRAE 90.1 6.4.5 b)
Wall and ceiling cooler insulation over R-25 (ASHRAE 90.1 6.4.5 c)
Wall and ceiling freezer insulation over R-32 (ASHRAE 90.1 6.4.5 c)
Freezer floor insulation over R-28 (ASHRAE 90.1 6.4.5 d)
Evaporator motors have ECMs(ASHRAE 90.1 6.4.5 e)
Our 9 watt LED bulb has an efficacy of over 80 w/lm.(ASHRAE 90.1 6.4.5 f)
N/A, there is no glass reach-in door.(ASHRAE 90.1 6.4.5 g)
N/A, there is no glass reach-in door.(ASHRAE 90.1 6.4.5 h)
N/A, there is no glass reach-in door.(ASHRAE 90.1 6.4.5 i)
N/A, there is no glass reach-in door.(ASHRAE 90.1 6.4.5 j)
Condensing unit fan motors are PSC standard, EC Motors are optional (ASHRAE 90.1 6.4.5 k)
SmartVap+ systems incorporated temperature based defrost control with time limiting .(ASHRAE 90.1 6.4.5 l)

ENERGY EFFICIENCY NOTES



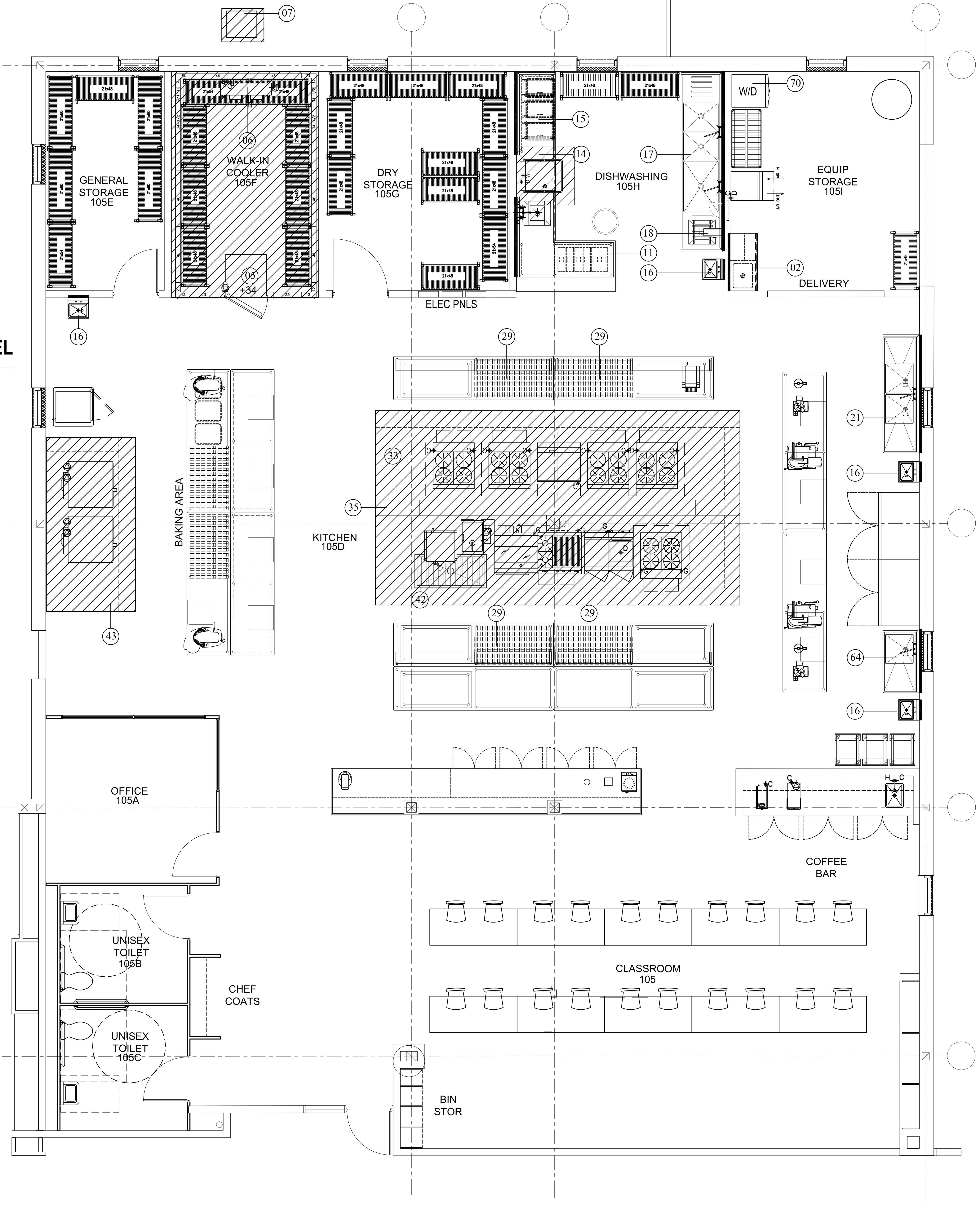
D K500 K500
DOOR ELEVATION
SCALE - NONE



E K500 K500
SECTION THRU FRZR WALL
SCALE - NONE

SPECIAL CONDITIONS SCHEDULE

ITEM NO	ITEM QTY	DESCRIPTION	MFR	MODEL	DESCRIPTION
02	01	MOP SINK CABINET	ADVANCE	9OPC-84-DR	ANCHOR CABINET TO WALL TO PREVENT TIPPING
05	01	WALK-IN COOLER	BALLY	CUSTOM	INSTALL ON TRANSIT LEVEL FLOOR PER MFR'S INSTALLATION INSTRUCTIONS
06	01	WALK-IN COOLER EVAP COIL	BALLY	AM26-073-1EC-PR-8	HANG FROM ABOVE USING NYLON THREADED ROD
07	01	WALK-IN COOLER COMPRESOR	BALLY	PC68MZOP-2E	VFY LOCATION AND PROVIDE 18" H GALVANIZED RACK FOR MOUNTING
11	01	SOILED DISHTABLE	TITAN	CUSTOM	ANCHOR BACKSPLASH TO WALL USING "Z" CLIPS
14	01	DISHWASHER COND HOOD	CAPTIVE AIRE	VHB-G	HANG FROM STRUCTURE ABOVE USING S/S THREADED ROD PER MFR'S INSTALLATION INSTRUCTIONS
15	01	CLEAN DISHTABLE	TITAN	CUSTOM	ANCHOR BACKSPLASH TO WALL USING "Z" CLIPS
16	04	HAND SINKS	TITAN	QS-SHS-ESLR	ANCHOR BACKSPLASH TO WALL USING "Z" CLIPS
17	01	THREE COMPARTMENT SINK	TITAN	3C1824-2D18	ANCHOR BACKSPLASH TO WALL USING "Z" CLIPS
18	01	WALL MTD HOSE REEL/CABT	FISHER	2785 / 1801	ANCHOR BACKSPLASH TO WALL USING "Z" CLIPS
21	01	VEGETABLE PREP SINK	TITAN	2C24-2D24	ANCHOR BACKSPLASH TO WALL USING "Z" CLIPS
29	04	COOK'S TABLES & RACK	TITAN	11SLC-36	ANCHOR FLANGED FEET TO FLOOR TO PREVENT TIPPING
33	01	EXHAUST HOOD - MAIN	CAPTIVE AIRE	-	HANG FROM STRUCTURE ABOVE USING S/S THREADED ROD PER MFR'S INSTALLATION INSTRUCTIONS
35	01	UDS	CAPTIVE AIRE	-	ANCHOR UDS TO FLOOR USING APPROPRIATE S/S ANCHORS
42	01	FLOOR TROUGH	IMC TEDDY	CUSTOM	DELIVER EARLY TO JOBSITE FOR INSTALLATION BY GC
43	01	EXHAUST HOOD - BAKING	CAPTIVE AIRE	-	HANG FROM STRUCTURE ABOVE USING S/S THREADED ROD PER MFR'S INSTALLATION INSTRUCTIONS
64	01	SINGLE COMPT SINK	TITAN	1C24-1D24	ANCHOR BACKSPLASH TO WALL USING "Z" CLIPS



1 K600 K600
CULINARY ARTS - SPECIAL CONDITIONS
SCALE - 1/4" = 1'-0"

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CULINARY-ARTS SPECIAL-CONDITIONS AND-DETAILS

K600

FOR QUESTIONS, CALL THE
Southern Virginia Office
REGION 28
PHONE: (804) 684-2700
EMAIL: reg28@captiveaire.com

PATENT NUMBERS

AC-PSP (UNITED STATES) - US PATENT 7963830 B2.
AC-PSP WALL (CANADA) - CA PATENT 2820509.
AC-PSP ISLAND (CANADA) - CA PATENT 2520330.

HOOD INFORMATION - JOB#5217915

HOOD NO	TAG	MODEL	MANUFACTURER	LENGTH	MAX COOKING TEMP	TYPE	APPLIANCE DUTY	DESIGN CFM/FT	TOTAL EXH CFM	EXHAUST PLENUM WIDTH	EXHAUST PLENUM LENG	EXHAUST PLENUM HEIGHT	RISER(S) DIA	RISER(S) CFM	RISER(S) VEL	RISER(S) SP	TOTAL SUPPLY CFM	HOOD CONSTRUCTION	HOOD CONFIG END TO END	HOOD CONFIG ROW
1	33A	6024 ND-2-PSP-F	CAPTIVEAIRE	11' 3"	600 DEG	I	HEAVY	235	2644			4"	16"	2644	1894	-1.328"	2115	304 SS WHERE EXPOSED	LEFT	FRONT
2	33B	6024 ND-2-PSP-F	CAPTIVEAIRE	11' 3"	600 DEG	I	HEAVY	235	2644			4"	16"	2644	1894	-1.328"	2115	304 SS WHERE EXPOSED	RIGHT	FRONT
3	33C	6024 ND-2-PSP-F	CAPTIVEAIRE	12' 0"	600 DEG	I	HEAVY	235	2820			4"	16"	2820	2020	-1.466"	2256	304 SS WHERE EXPOSED	LEFT	BACK
4	33D	6024 ND-2-PSP-F	CAPTIVEAIRE	12' 0"	600 DEG	I	HEAVY	235	2820			4"	16"	2820	2020	-1.466"	2256	304 SS WHERE EXPOSED	RIGHT	BACK
5	44	6024 ND-2-PSP-F	CAPTIVEAIRE	10' 0"	600 DEG	I	HEAVY	235	2350			4"	16"	2350	1683	-1.072"	1880	304 SS WHERE EXPOSED	ALONE	ALONE

HOOD INFORMATION

HOOD NO	TAG	FILTER(S) TYPE	FILTER(S) QTY	FILTER(S) HEIGHT	FILTER(S) LENGTH	FILTER(S) EFFICIENCY @ 7 MICRONS	LIGHT(S) QTY	LIGHT(S) TYPE	LIGHT(S) WIRE GUARD	UTILITY CABINET(S) LOCATION	UTILITY CABINET(S) SIZE	FIRE SYSTEM TYPE	FIRE SYSTEM SIZE	ELECTRICAL MODEL #	SWITCHES QUANTITY	FIRE SYSTEM PIPING	HOOD HANGING WEIGHT
1	33A	CAPTRATE SOLO FILTER	8	16"	16"	85% SEE FILTER SPEC	3	RECESSED ROUND	NO							YES	652 LBS
2	33B	CAPTRATE SOLO FILTER	8	16"	16"	85% SEE FILTER SPEC	3	RECESSED ROUND	NO	RIGHT	12"x60"x24"	ANSUL R-102	3.0/3.0	DCV-1111	1 LIGHT 1 FAN	YES	819 LBS
3	33C	CAPTRATE SOLO FILTER	9	16"	16"	85% SEE FILTER SPEC	3	RECESSED ROUND	NO	LEFT	12"x60"x24"			DCV-1111	1 LIGHT 1 FAN	YES	876 LBS
4	33D	CAPTRATE SOLO FILTER	9	16"	16"	85% SEE FILTER SPEC	3	RECESSED ROUND	NO							YES	734 LBS
5	44	CAPTRATE SOLO FILTER	12	16"	16"	85% SEE FILTER SPEC	4	RECESSED ROUND	NO	RIGHT	12"x60"x24"	ANSUL R-102	3.0/3.0			YES	1016 LBS

HOOD OPTIONS

HOOD NO	TAG	OPTION
1	33A	FIELD WRAPPER 18.00" HIGH FRONT, LEFT.
		RISER SENSOR INSTALL 6IN PLEN.
2	33B	FIELD WRAPPER 18.00" HIGH FRONT, RIGHT.
		RISER SENSOR INSTALL 6IN PLEN.
3	33C	FIELD WRAPPER 18.00" HIGH FRONT, LEFT.
		BACK STANDOFF (FLAT) 12" WIDE 156" LONG.
		RISER SENSOR INSTALL 6IN PLEN.
4	33D	FIELD WRAPPER 18.00" HIGH FRONT, RIGHT.
		BACK STANDOFF (FLAT) 12" WIDE 144" LONG.
		RISER SENSOR INSTALL 6IN PLEN.
5	44	FIELD WRAPPER 18.00" HIGH FRONT, LEFT, RIGHT.
		BACKSPLASH 80.00" HIGH X 132.00" LONG 304 SS VERTICAL.
		RISER SENSOR INSTALL 6IN PLEN.

PERFORATED SUPPLY PLENUM(S)

HOOD NO	TAG	POS	LENGTH	WIDTH	HEIGHT	TYPE	RISER(S) WIDTH	RISER(S) LENG	RISER(S) DIA	RISER(S) CFM	RISER(S) SP
1	33A	Front	135"	18"	6"	MUA	12"	28"		705	0.188"
						MUA	12"	28"		705	0.188"
						MUA	12"	28"		705	0.188"
2	33B	Front	147"	18"	6"	MUA	12"	28"		705	0.188"
						MUA	12"	28"		705	0.188"
						MUA	12"	28"		705	0.188"
3	33C	Front	156"	16"	6"	MUA	12"	28"		752	0.212"
						MUA	12"	28"		752	0.212"
						MUA	12"	28"		752	0.212"
4	33D	Front	144"	18"	6"	MUA	12"	28"		752	0.212"
						MUA	12"	28"		752	0.212"
						MUA	12"	28"		752	0.212"
5	44	Front	132"	16"	6"	MUA	12"	24"		626	0.175"
						MUA	12"	24"		626	0.175"
						MUA	12"	24"		626	0.175"

SPECIFICATION: CAPTRATE® GREASE-STOP® SOLO FILTER

THE CAPTRATE GREASE-STOP SOLO FILTER IS A SINGLE-STAGE FILTER FEATURING A UNIQUE S-BAFFLE DESIGN IN CONJUNCTION WITH A SLOTTED REAR BAFFLE DESIGN, TO DELIVER EXCEPTIONAL FILTRATION EFFICIENCY.

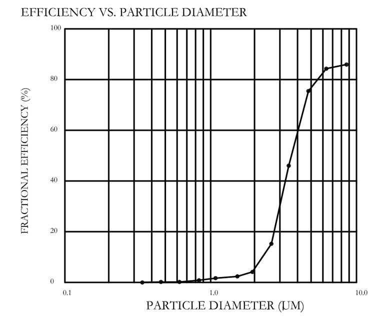
FILTER IS STAINLESS STEEL CONSTRUCTION, AND SIZED TO FIT INTO STANDARD 2-INCH DEEP HOOD CHANNEL(S).

UNITS SHALL INCLUDE STAINLESS STEEL HANDLES AND A FASTENING DEVICE TO SECURE THE TWO COMPONENTS WHEN ASSEMBLED.

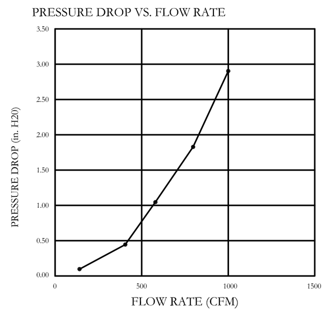
GREASE EXTRACTION EFFICIENCY PERFORMANCE SHALL REMOVE AT LEAST 75% OF GREASE PARTICLES FIVE MICRONS IN SIZE, AND 85% GREASE PARTICLES SEVEN MICRONS IN SIZE AND LARGER, WITH A CORRESPONDING PRESSURE DROP NOT TO EXCEED 1.0 INCHES OF WATER GAUGE.

THE CAPTRATE GREASE-STOP SOLO WAS TESTED TO ASTM STANDARD ASTM F2519-05. MANUFACTURER APPROVED FOR USE IN SOLID FUEL APPLICATIONS AS A SPARK ARRESTER.

EFFICIENCY VS. PARTICLE DIAMETER

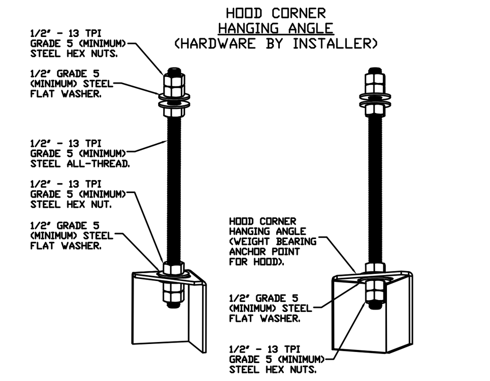


PRESSURE DROP VS. FLOW RATE



CAPTRATE FILTERS ARE BUILT IN COMPLIANCE WITH:
NFPA #96.
NSF STANDARD #2.
UL STANDARD #1046.
INT. MECH. CODE (IMC).
ULC-S649.

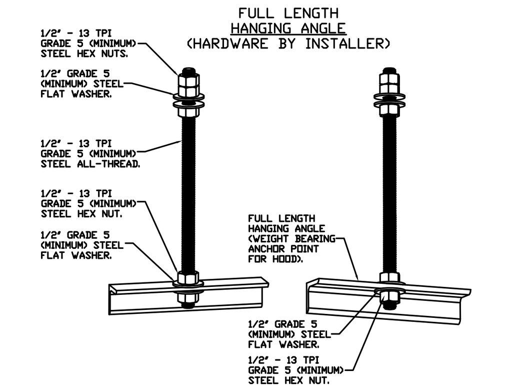
HOOD CORNER HANGING ANGLE (HARDWARE BY INSTALLER)



ASSEMBLY INSTRUCTIONS

HANGING ANGLE MUST BE SUPPORTED WITH 1/2" - 13 TPI GRADE 5 (MINIMUM) ALL-THREAD. SANDWICH HANGING ANGLES AND CEILING ANCHOR POINTS WITH 1/2" GRADE 5 (MINIMUM) STEEL FLAT WASHERS AND 1/2" - 13 TPI GRADE 5 (MINIMUM) HEX NUTS AS SHOWN. MUST USE DOUBLED HEX NUT CONFIGURATION BENEATH HOOD HANGING ANGLES AND ABOVE CEILING ANCHORS. MAINTAIN 1/4" OF EXPOSED THREADS BENEATH BOTTOM HEX NUT. TORQUE ALL HEX NUTS TO 57 FT-LBS.

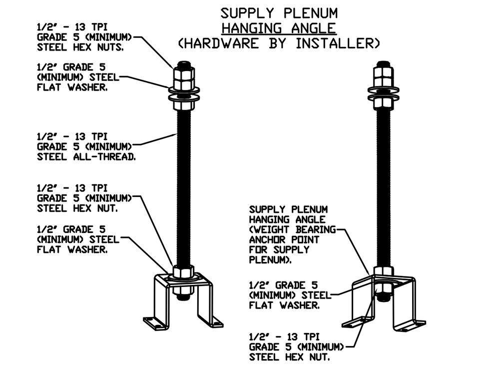
FULL LENGTH HANGING ANGLE (HARDWARE BY INSTALLER)



ASSEMBLY INSTRUCTIONS

HANGING ANGLE MUST BE SUPPORTED WITH 1/2" - 13 TPI GRADE 5 (MINIMUM) ALL-THREAD. SANDWICH HANGING ANGLES AND CEILING ANCHOR POINTS WITH 1/2" GRADE 5 (MINIMUM) STEEL FLAT WASHERS AND 1/2" - 13 TPI GRADE 5 (MINIMUM) HEX NUTS AS SHOWN. MUST USE DOUBLED HEX NUT CONFIGURATION ABOVE CEILING ANCHORS. SINGLE HEX NUT BENEATH HANGING ANGLE IS ACCEPTABLE FOR FULL LENGTH HANGING ANGLES. MAINTAIN 1/4" OF EXPOSED THREADS BENEATH BOTTOM HEX NUT. TORQUE ALL HEX NUTS TO 57 FT-LBS.

SUPPLY PLENUM HANGING ANGLE (HARDWARE BY INSTALLER)



ASSEMBLY INSTRUCTIONS

HANGING ANGLE MUST BE SUPPORTED WITH 1/2" - 13 TPI GRADE 5 (MINIMUM) ALL-THREAD. SANDWICH HANGING ANGLES AND CEILING ANCHOR POINTS WITH 1/2" GRADE 5 (MINIMUM) STEEL FLAT WASHERS AND 1/2" - 13 TPI GRADE 5 (MINIMUM) HEX NUTS AS SHOWN. MUST USE DOUBLED HEX NUT CONFIGURATION ABOVE CEILING ANCHORS. SINGLE HEX NUT BENEATH HANGING ANGLE IS ACCEPTABLE FOR PSP HANGING ANGLES. MAINTAIN 1/4" OF EXPOSED THREADS BENEATH BOTTOM HEX NUT. TORQUE ALL HEX NUTS TO 57 FT-LBS.

1 K700 K700

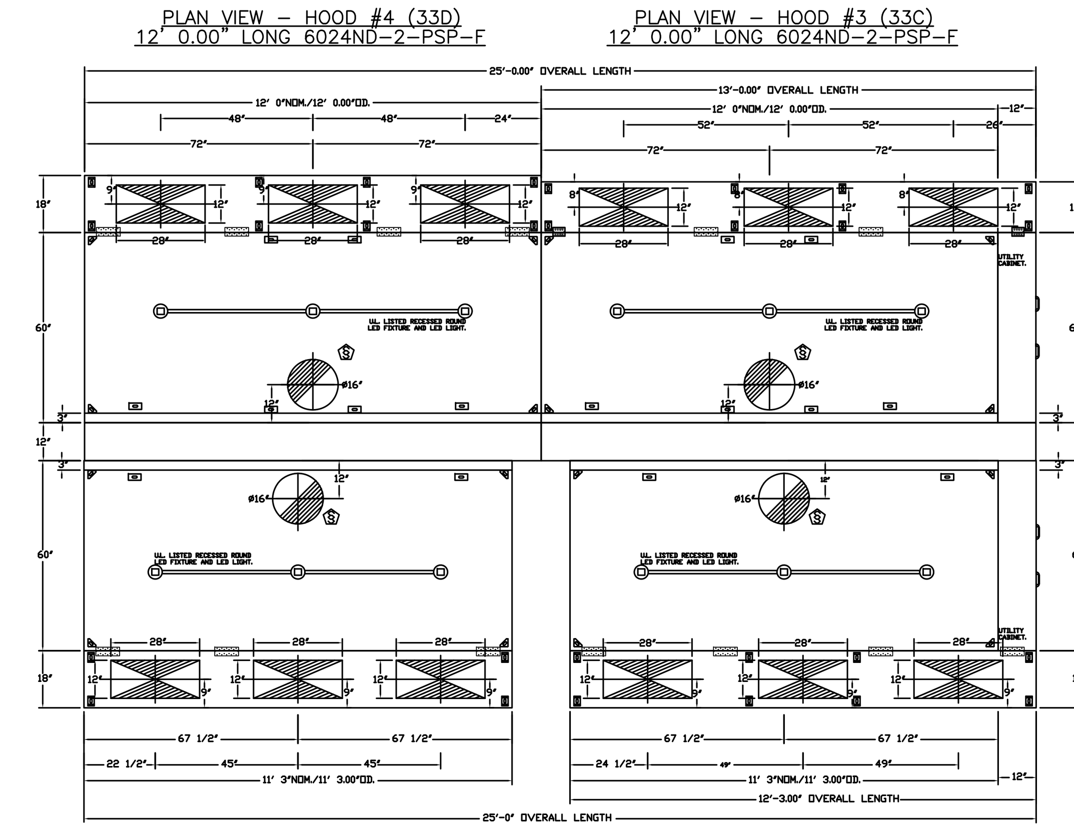
HANGING BRACKET DETAILS

SCALE - NONE

NOTE: ADDITIONAL HANGING ANGLES PROVIDED FOR HOODS 12' AND LONGER.

PLAN VIEW - HOOD #4 (33D) 12' 0.00" LONG 6024ND-2-PSP-F

PLAN VIEW - HOOD #3 (33C) 12' 0.00" LONG 6024ND-2-PSP-F



PLAN VIEW - HOOD #1 (33A) 11' 3.00" LONG 6024ND-2-PSP-F

PLAN VIEW - HOOD #2 (33B) 11' 3.00" LONG 6024ND-2-PSP-F

1 K700 K700

ITEM 33 - PLAN VIEW - EXHAUST HOODS

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

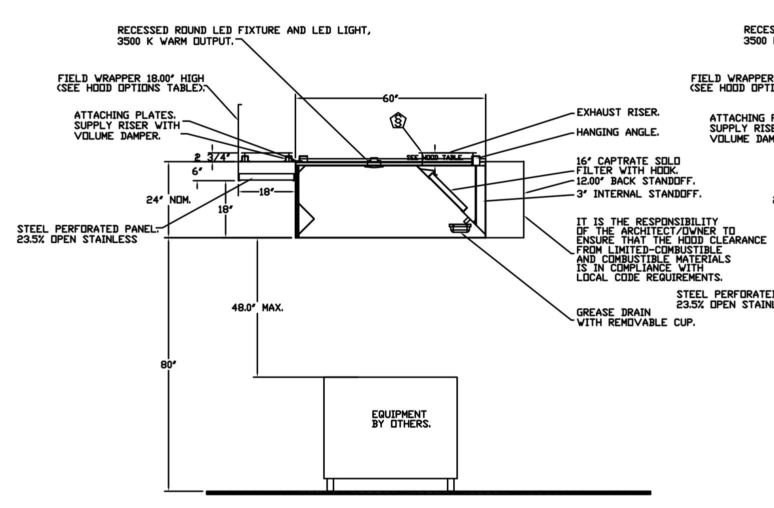
GREASE DUCT & CHIMNEY SPECIFICATIONS:
PROVIDE GREASE DUCT EQUAL TO CAPTIVEAIRE SYSTEMS MODEL "DW" ROUND 20 GAUGE 430 STAINLESS STEEL DUCTWORK. MODEL "DW" IS LISTED TO UL-1978 AND IS INSTALLED USING "V" CLAMP LOCKING CONNECTIONS SEALED WITH 3M FIRE BARRIER 2000 PLUS. MODEL "DW" DOES NOT REQUIRE WELDING PROVIDING IT HAS BEEN INSTALLED PER THE MANUFACTURES INSTALLATION GUIDE.
PROVIDE RATED ACCESS DOORS AT EVERY CHANGE IN DIRECTION AND EVERY 12' ON CENTER. PER MANUFACTURES LISTING MODEL "DW" HORIZONTAL RUNS LESS THAN 75 FT. CAN BE SLOPED 1/16" PER 12", HORIZONTAL RUNS MORE THAN 75 FT. CAN BE SLOPED 3/16" PER 12". DUCT SHOULD BE SLOPED AS MUCH AS POSSIBLE TO REDUCE THE CHANCE OF GREASE ACCUMULATION IN HORIZONTAL RUNS.

IF THE DUCT OR CHIMNEY IS WITHIN 18 INCHES OF COMBUSTIBLE MATERIAL, PROVIDE UL-2221 OR UL-103 HT LISTED DOUBLE WALL GREASE DUCT OR DOUBLE WALL CHIMNEY EQUAL TO CAPTIVEAIRE SYSTEMS MODEL "DW- 2R, 2R TYPE HT, 3R, OR 3Z" ROUND 20 GAUGE 430 STAINLESS INNER DUCT INSULATED WITH A 24 GAUGE 430 STAINLESS OUTER SHELL.

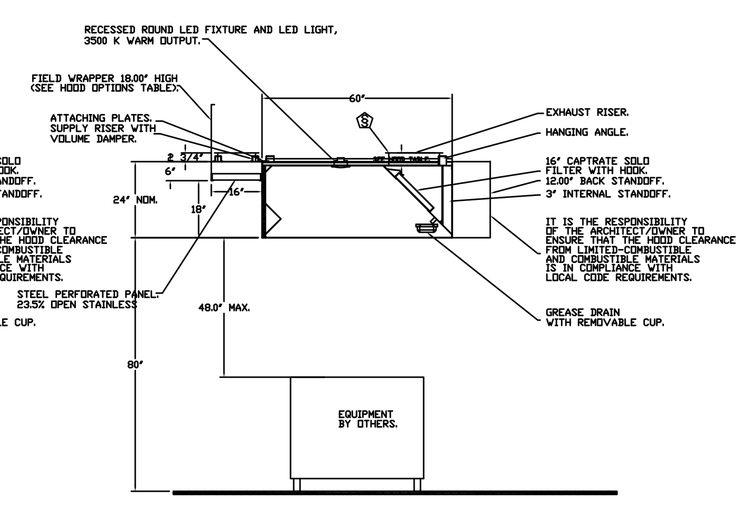
CAPTIVEAIRE SYSTEMS RECOMMENDS THE USE OF LISTED, PRE-FABRICATED ROUND GREASE EXHAUST DUCT TO REDUCE STATIC PRESSURE IN THE SYSTEM, MINIMIZE INSTALLATION AND INSPECTION TIMES, AND ENSURE DUCT IS LIQUID TIGHT

HVAC DISTRIBUTION NOTE

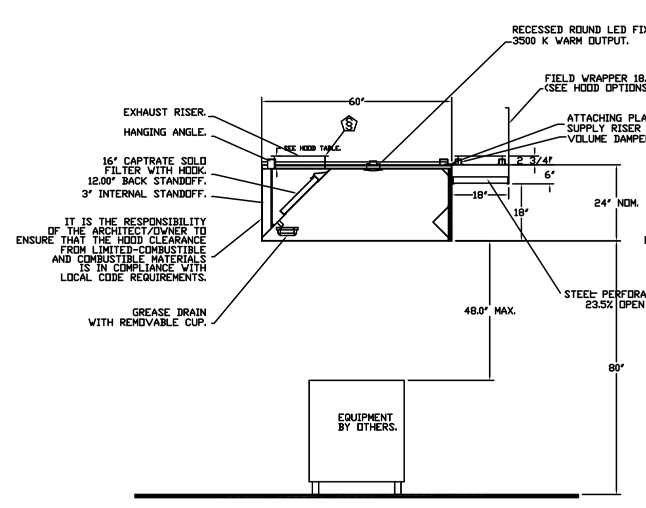
HIGH VELOCITY DIFFUSERS OR HVAC RETURNS SHOULD NOT BE PLACED WITHIN TEN (10) FEET OF THE EXHAUST HOOD. PERFORATED DIFFUSERS ARE RECOMMENDED.



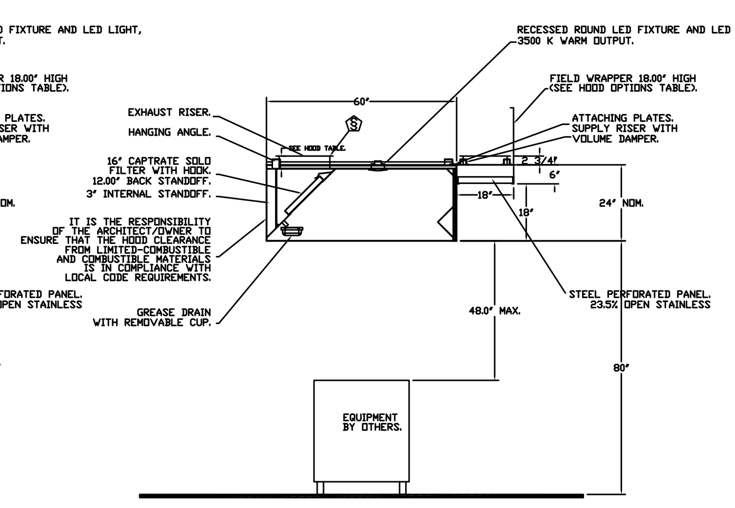
HOOD SECTION #1



HOOD SECTION #2



HOOD SECTION #3

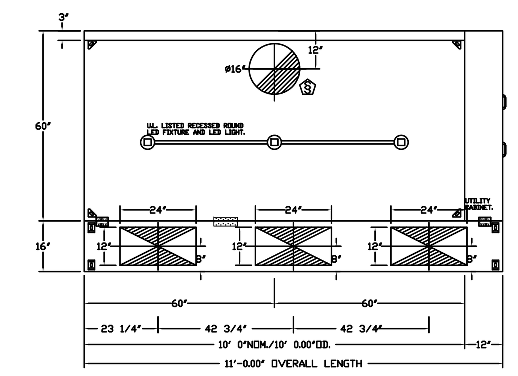


HOOD SECTION #4

1 K700 K700

ITEM 33 - EXHAUST HOOD - SECTIONS

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

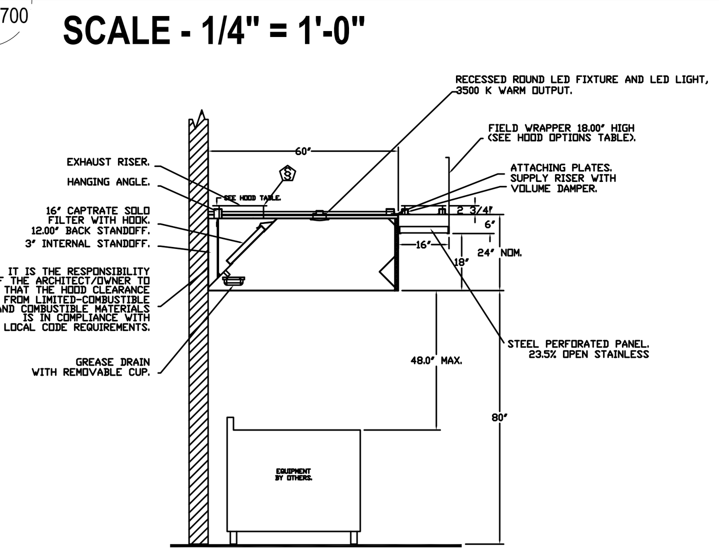


PLAN VIEW - HOOD #5 (44) 10' 0.00" LONG 6024ND-2-PSP-F

1 K700 K700

ITEM 44 - PLAN VIEW - EXHAUST HOOD

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



SECTION VIEW - MODEL 6024ND-2-PSP-F

1 K700 K700

ITEM 44 - EXHAUST HOOD - SECTION

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

SECTION 23 38 13 13

SPECIFICATIONS
TAG: Commercial Kitchen Ventilation Hoods, Listed Commercial Kitchen Hoods

PART 1 - GENERAL

1.1 SUMMARY

A. The ND2 series is a Type I, wall canopy hood for use over 600°F cooking surface temperatures. The aerodynamic design includes a mechanical baffle and performance enhancing lip for exceptional capture and containment.

B. The hood shall have the size, shape, and performance specified on drawings.

1.2 SUBMITTALS

A. The manufacturer assumes no liability for the use or results of use from this document. Specifications are to be reviewed by the engineer to confirm the project's requirements and meet Federal, State, and Local codes and regulations.

B. As the manufacturer continues product development, it reserves the right to change design and specifications without notice.

C. The manufacturer shall supply complete computer generated submittal drawings, including hood section view(s) and hood plan view(s). These drawings must be available to the engineer, architect, and owner for their use in construction, operation, and maintenance.

1.3 QUALITY ASSURANCE

A. This hood is ETL-listed to standard UL710, ULC710, and ULC-S646 when installed in accordance with these installation instructions and National Fire Protection Association Standard ?NFPA 96, Standard for Ventilation Control and Fire Protection of Commercial Cooking Operations.?

B. Built-in compliance with NSF/ANSI Standard 2.

C. The hood shall be ETL Listed as:

1. ?Exhaust Hood Without Exhaust Damper.?

2. ETL Sanitation Listed and built in accordance with NFPA 96.

3. The ETL label shall list temperature rating(s) and minimum CFM/ft rating(s).

1.4 WARRANTY

A. All units shall be provided with the following standard warranty:

1. This equipment is warranted to be free from defects in materials and workmanship, under normal use and service, for a period of 2-years from date of shipment.

B. The manufacturer shall not be liable for incidental and consequential losses and damages potentially attributable to malfunctioning equipment. Should any part of the equipment prove to be defective in material or workmanship within the 2-year warranty period, upon examination by the manufacturer, such part will be repaired or replaced by manufacturer at no charge. The buyer shall pay all labor costs incurred in connection with such repair or replacement. Equipment shall not be returned without manufacturer's prior authorization, and all returned equipment shall be shipped by the buyer, freight prepaid to a destination determined by the manufacturer.

C. Refer to Manufacturer's Operation, Installation, and Maintenance (OIM) Manual for detailed descriptions of what is/is not covered and contact information for warranty claims.

PART 2 - PRODUCTS

2.1 GENERAL

A. Construction shall be dependent on the structural application to minimize distortion and other defects. All seams, joints, and penetrations of the hood enclosure to the lower outermost perimeter, which directs and captures grease-laden vapor and exhaust gases, shall have a liquid-tight continuous external weld in accordance with NFPA 96.

B. Duct sizes, CFM, and static pressure requirements shall be as shown on drawings. Static pressure requirements shall be precise and accurate; air velocity and volume information shall be accurate within 1-ft increments along the length of the ventilator.

2.2 CONSTRUCTION

A. Construction shall be type 304 stainless steel.

B. Double wall insulated front to eliminate condensation and increase rigidity on wide sizes. The insulation shall have a flexural modulus of 475 EI, meet UL 181 requirements and be in accordance with NFPA 90A and 90B.

C. Hood shall be equipped with a minimum of four connections for hanger rods. Hood lengths greater than 12?will have added hangers.

D. Exhaust duct collar to be 4?high with flange.

E. The grease drain system shall be an enclosed integral part of the hood back and have slopes with an exposed, removable 1/2 grease cup to facilitate cleaning.

F. An integral baffle to direct grease laden vapors toward the exhaust filter bank.

G. Hood shall be furnished with UL classified filters, supplied in size and quantity as required by ventilator.

H. All seams shall be welded and have stainless steel on exposed surfaces.

2.3 LIGHTING

A. Recessed round LED fixture and LED light, 3500K Warm output.

2.4 FILTERS

A. Stainless Steel Captrate Solo filter with hook, ETL Listed. Particulate capture efficiency: 85% efficient at 9 microns, 76% efficient at 5 microns.

2.5 OPTIONS

A. Fire Suppression System: UL 300 fire suppression system.

B. Optional perforated supply plenum shall provide make-up air discharged below the cooking equipment.

1. Perforated diffuser plates shall be included in the design to provide even air distribution.

2. Unexposed surfaces shall be constructed of aluminized steel. Plenum shall be insulated to prevent condensation.

3. Perforated Supply Plenum (PSP)

C. Hood Mounted Utility Cabinet - Cabinet can store listed fire suppression system, listed components, pre-wired electrical controls.

2.6 ACCESSORIES

A. Standoff(s) selected:

1. Back Standoff

B. Wrapper(s) may be installed from the factory or field installed. Wrapper(s) selected:

1. Wrapper

C. Miscellaneous option(s) selected:

1. Riser Sensor Install ?Sensor set-up for 6?plenum.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine areas and conditions under which the system is installed. Do not proceed with work until unsatisfactory conditions have been corrected in a manner acceptable to Installer.

3.2 INSTALLATION

A. Install in accordance with manufacturer's instructions, drawings, written specifications, manufacturer's installation manual, and all applicable building codes.

Architecture Interiors Planning

EIS Incorporated

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REVISIONS

No.	DATE	DESCRIPTION
X	X	X

DRAWN BY:	LPH
REV'D BY:	SGD
DATE:	06.17.2022
SCALE:	AS SHOWN

CULINARY-ARTS EXHAUST-HOOD DETAILS

K700

SHEET K700 of K900

FIRE SYSTEM INFORMATION – JOB#5217915

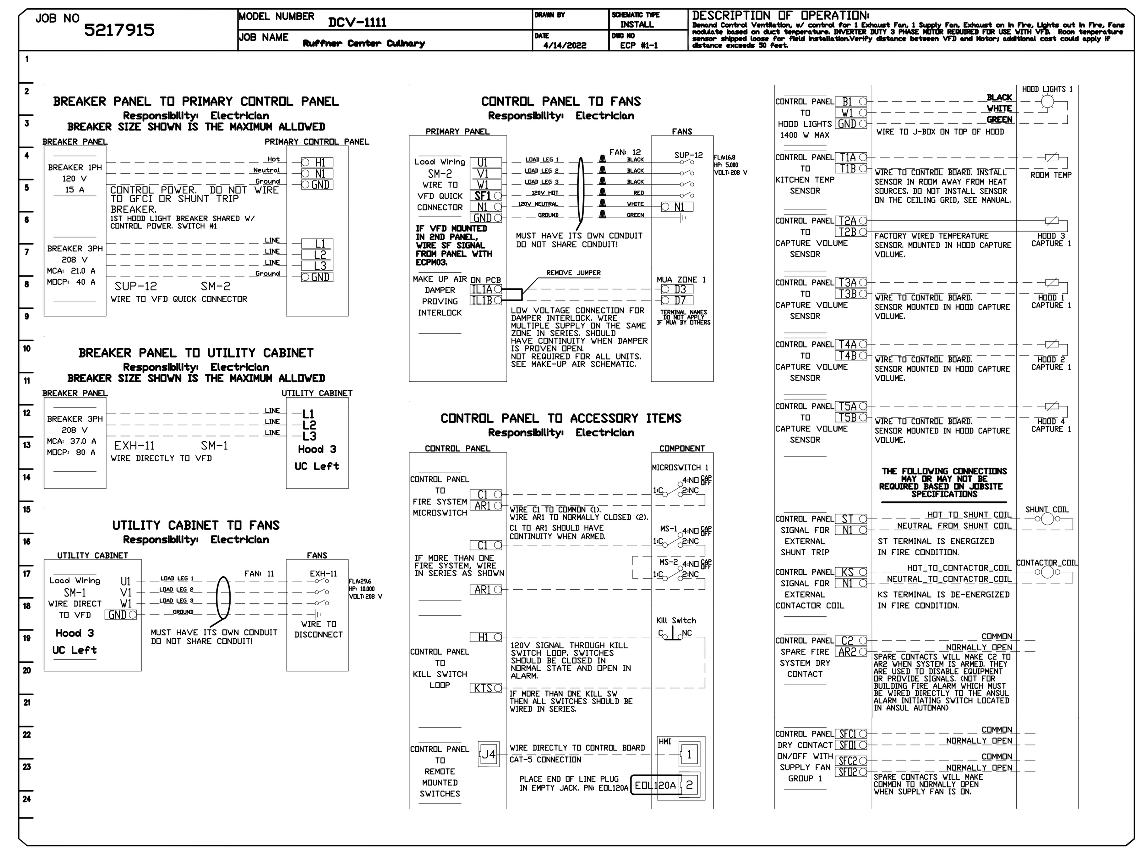
FIRE SYSTEM NO	TAG	TYPE	SIZE	FLOW POINTS	INSTALLATION	
					SYSTEM	LOCATION ON HOOD
1		ANSUL R102	3.0/3.0	12	FIRE CABINET RIGHT	RIGHT, HOOD 2
2		ANSUL R102	3.0/3.0	4	FIRE CABINET RIGHT	RIGHT, HOOD 5

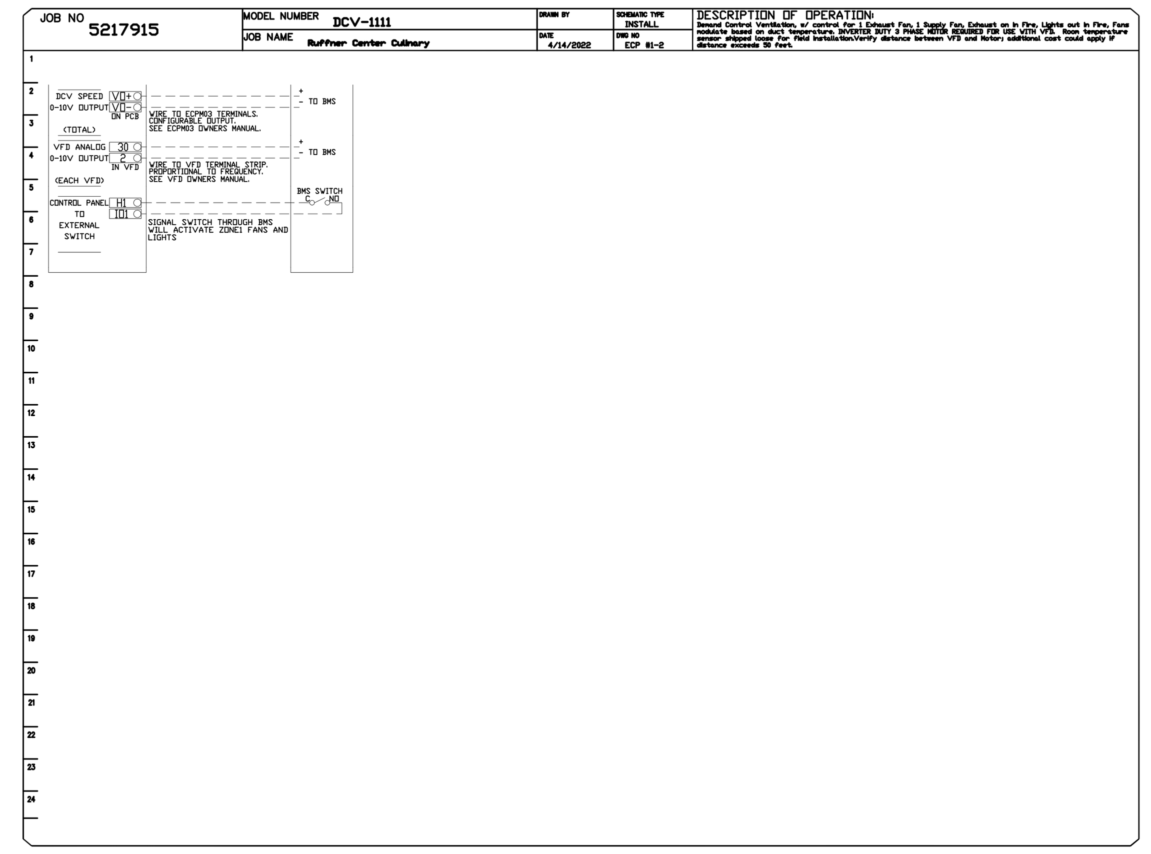
FIRE SYSTEM PARTS LIST KEY

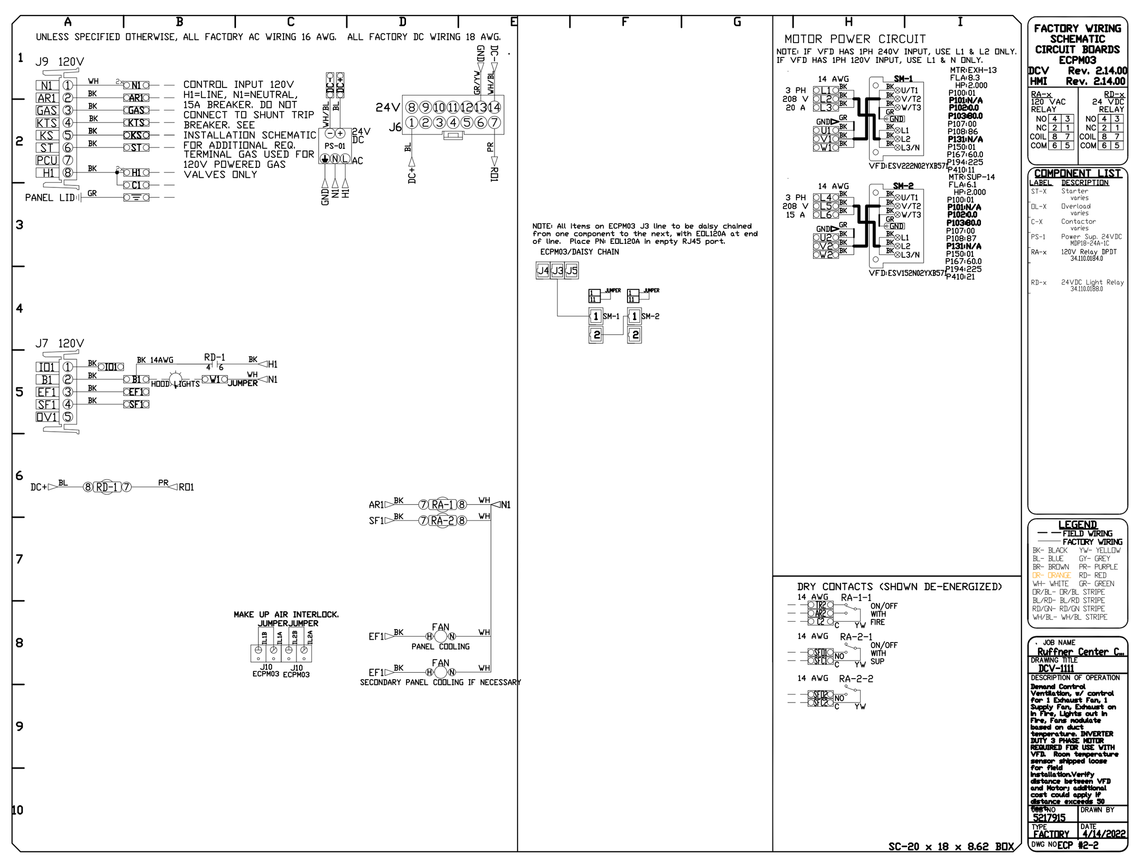
FIRE SYSTEM NO	TAG	KEY NUMBER – PART DESCRIPTION	QTY BY FACTORY	QTY BY DIST
1		0 – 0 – TANK STRAP TANK STRAP – USED FOR ANSUL TANKS.	2	0
		0 – 0 – UCTANKBRACKET TANK BRACKET FOR FIRE SYSTEM TANK INSTALLATION IN UTILITY CABINETS.	2	0
		1 – 1 – AT – 3.0 TANK(#1B) – 3.0 GALLON SS TANK (FOR USE WITH AUTOMAN RELEASE, ACTUATOR, OR SS ENCLOSURE (UL/ULC)) MACOLA # 01-429862.	2	0
		3 – 3 – ANS-OEM REGULATED RELEASE – ANSUL REGULATED MECHANICAL RELEASE/BRACKET ASSEMBLY, OEM, R-102, CARTRIDGE DETECTION INCLUDED, ANSUL PART # 79493.	1	0
		5 – 5 – LIQ-3.0 AGENT – ANSULEX LOW PH WET CHEMICAL AGENT, 3 GALLON (UL) 79372.	0	2
		9 – 9 – 101-30 CARTRIDGE – CARBON DIOXIDE, 101-30, CARTRIDGE (R-102) 19-15851.	0	1
		10 – 10 – TLINK LINK – TEST LINK (1 TEST LINK) ANSUL PART # 24916, MACOLA # 20-24916.	0	1
		11 – 11 – MICRO-SDA MICROSWITCH KIT- INCLUDES 2 SWITCHES AND MOUNTING HARDWARE. SINGLE DUAL ELECTRIC SWITCH, ONE STANDARD SWITCH, ONE ALARM DUTY SWITCH ANSUL PART # 437155, MACOLA # 08-437155.	1	0
		12 – 12 – HOSE HOSE – RUBBER HOSE.	1	0
		27 – 27 – QPSA-1/2 PULLEY SEAL – 1/2" HOOD SEAL (UL) ANSUL PART # 423253, MACOLA # 32-79768.	9	0
		34 – 34 – RPS-A REMOTE PULL STATION – RED COMPOSITE (WITHOUT WIRE ROPE) 434618 (OLD MACOLA #06-4835).	1	0
		35 – 35 – PE-LT PULLEY ELBOW – LOW TEMP. PULLEY ELBOW, SET SCREW TYPE ANSUL PART # 415670, MACOLA # 11-415671.	9	0
		36 – 36 – PE-HT PULLEY ELBOW – HIGH TEMP PULLEY ELBOW, COMPRESSION TYPE, ANSUL PART # 423251, MACOLA # 10-45771.	8	0
2		0 – 0 – TANK STRAP TANK STRAP – USED FOR ANSUL TANKS.	2	0
		0 – 0 – UCTANKBRACKET TANK BRACKET FOR FIRE SYSTEM TANK INSTALLATION IN UTILITY CABINETS.	2	0
		1 – 1 – AT – 3.0 TANK(#1B) – 3.0 GALLON SS TANK (FOR USE WITH AUTOMAN RELEASE, ACTUATOR, OR SS ENCLOSURE (UL/ULC)) MACOLA # 01-429862.	2	0
		3 – 3 – ANS-OEM REGULATED RELEASE – ANSUL REGULATED MECHANICAL RELEASE/BRACKET ASSEMBLY, OEM, R-102, CARTRIDGE DETECTION INCLUDED, ANSUL PART # 79493.	1	0
		5 – 5 – LIQ-3.0 AGENT – ANSULEX LOW PH WET CHEMICAL AGENT, 3 GALLON (UL) 79372.	0	2
		9 – 9 – 101-30 CARTRIDGE – CARBON DIOXIDE, 101-30, CARTRIDGE (R-102) 19-15851.	0	1
		10 – 10 – TLINK LINK – TEST LINK (1 TEST LINK) ANSUL PART # 24916, MACOLA # 20-24916.	0	1
		11 – 11 – MICRO-SDA MICROSWITCH KIT- INCLUDES 2 SWITCHES AND MOUNTING HARDWARE. SINGLE DUAL ELECTRIC SWITCH, ONE STANDARD SWITCH, ONE ALARM DUTY SWITCH ANSUL PART # 437155, MACOLA # 08-437155.	1	0
		12 – 12 – HOSE HOSE – RUBBER HOSE.	1	0
		27 – 27 – QPSA-1/2 PULLEY SEAL – 1/2" HOOD SEAL (UL) ANSUL PART # 423253, MACOLA # 32-79768.	1	0
		34 – 34 – RPS-A REMOTE PULL STATION – RED COMPOSITE (WITHOUT WIRE ROPE) 434618 (OLD MACOLA #06-4835).	1	0
		35 – 35 – PE-LT PULLEY ELBOW – LOW TEMP. PULLEY ELBOW, SET SCREW TYPE ANSUL PART # 415670, MACOLA # 11-415671.	2	0
		36 – 36 – PE-HT PULLEY ELBOW – HIGH TEMP PULLEY ELBOW, COMPRESSION TYPE, ANSUL PART # 423251, MACOLA # 10-45771.	1	0
		ADDITIONAL PARTS TO BE DETERMINED...		

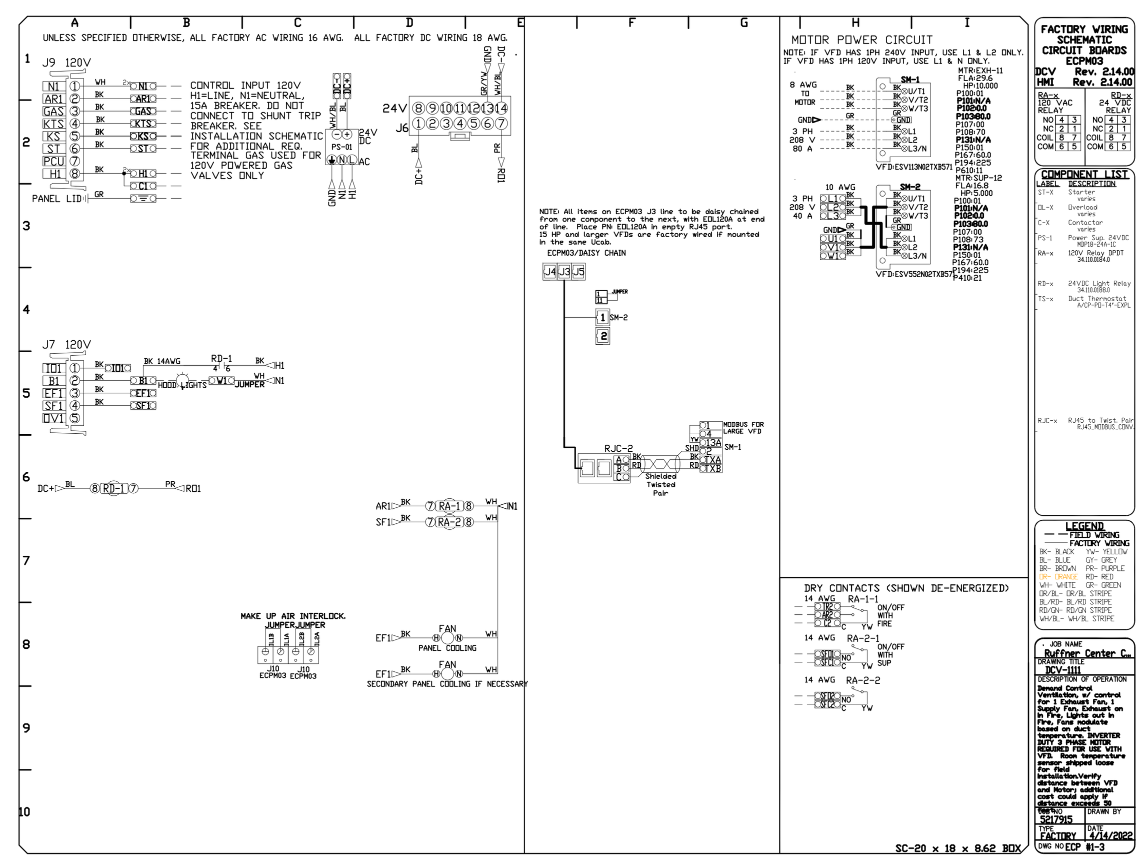
ELECTRICAL PACKAGE – JOB#5217915

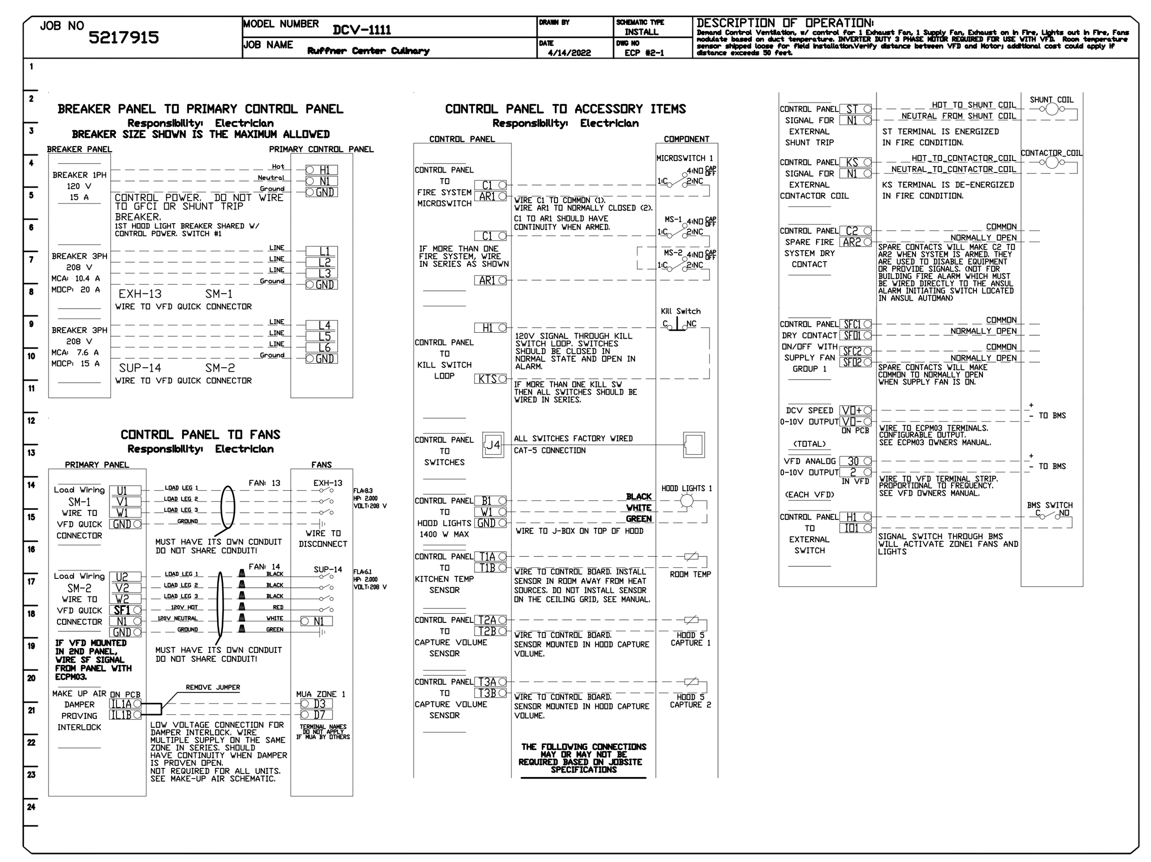
NO	TAG	PACKAGE #	LOCATION	SWITCHES		OPTION	FANS CONTROLLED				
				LOCATION	QUANTITY		TYPE	Φ	HP	VOLT	FLA
1		DCV-1111	UTILITY CABINET LEFT	10 – UDS	1 LIGHT	SMART CONTROLS DCV	EXHAUST	3	10.000	208	29.6
					1 FAN		SUPPLY	3	5.000	208	16.8
2		DCV-1111	UTILITY CABINET RIGHT	04 – UTILITY CABINET RIGHT	1 LIGHT	SMART CONTROLS DCV	EXHAUST	3	2.000	208	8.3
				HOOD # 2	1 FAN		SUPPLY	3	2.000	208	6.1





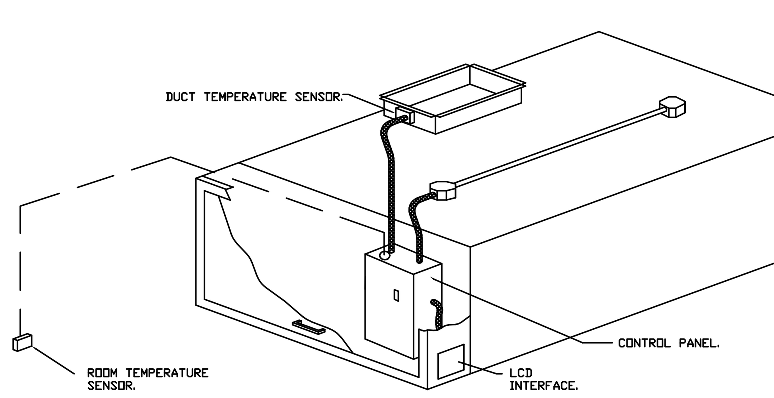






DEMAND CONTROL VENTILATION HOOD CONTROL PANEL SPECIFICATIONS:

- CONTROLS SHALL BE LISTED BY ETL (UL 508A) AND SHALL COMPLY WITH DEMAND VENTILATION SYSTEM TURNDOWN REQUIREMENTS OUTLINED IN IECC 403.2.8 (2015).
- THE CONTROL ENCLOSURE SHALL BE NEMA 1 RATED AND LISTED FOR INSTALLATION INSIDE OF THE EXHAUST HOOD UTILITY CABINET. THE CONTROL ENCLOSURE MAY BE CONSTRUCTED OF STAINLESS STEEL OR PAINTED STEEL.
- TEMPERATURE PROBE(S) LOCATED IN THE EXHAUST DUCT RISER(S) SHALL BE CONSTRUCTED OF STAINLESS STEEL.
- A DIGITAL CONTROLLER SHALL BE PROVIDED TO ACTIVATE THE HOOD EXHAUST FANS DYNAMICALLY BASED ON A FIXED DIFFERENTIAL BETWEEN THE AMBIENT AND DUCT TEMPERATURES SENSORS. THIS FUNCTION SHALL MEET THE REQUIREMENTS OF IMC 507.1.1.
- A DIGITAL CONTROLLER SHALL PROVIDE ADJUSTABLE HYSTERESIS SETTINGS TO PREVENT CYCLING OF THE FANS AFTER THE COOKING APPLIANCES HAVE BEEN TURNED OFF AND/OR THE HEAT IN THE EXHAUST SYSTEM IS REDUCED.
- A DIGITAL CONTROLLER SHALL PROVIDE AN ADJUSTABLE MINIMUM FAN RUN-TIME SETTING TO PREVENT FAN CYCLING.
- VARIABLE FREQUENCY DRIVES (VFDS) SHALL BE PROVIDED FOR FANS AS REQUIRED. THE DIGITAL CONTROLLER SHALL MODULATE THE VFDS BETWEEN A MINIMUM SETPOINT AND A MAXIMUM SETPOINT ON DEMAND. THE DUCT TEMPERATURE SENSOR INPUT(S) TO THE DIGITAL CONTROLLER SHALL BE USED TO CALCULATE THE SPEED REFERENCE SIGNAL.
- THE VFD SPEED RANGE OF OPERATION SHALL BE FROM 0% TO 100% FOR THE SYSTEM, WITH THE ACTUAL MINIMUM SPEED SET AS REQUIRED TO MEET MINIMUM VENTILATION REQUIREMENTS.
- AN INTERNAL ALGORITHM TO THE DIGITAL CONTROLLER SHALL MODULATE SUPPLY FAN VFD SPEED PROPORTIONAL TO ALL EXHAUST FANS THAT ARE LOCATED IN THE SAME FAN GROUP AS THE SUPPLY FAN.
- THE SYSTEM SHALL OPERATE IN PREP MODE DURING LIGHT COOKING LOAD OR COOL DOWN MODE WHEN SUFFICIENT HEAT REMAINS UNDERNEATH THE HOOD SYSTEM AFTER COOKING OPERATIONS HAVE COMPLETED. OPERATION DURING EITHER OF THESE PERIODS WILL DISABLE THE SUPPLY FANS AND PROVIDE AN EXHAUST FAN SPEED THAT IS EQUAL TO THE MINIMUM VENTILATION REQUIREMENT.
- A DIGITAL CONTROLLER SHALL DISABLE THE SUPPLY FAN(S), ACTIVATE THE EXHAUST FAN(S), ACTIVATE THE APPLIANCE SHUNT TRIP, AND DISABLE AN ELECTRIC GAS VALVE AUTOMATICALLY WHEN FIRE CONDITION IS DETECTED ON A COVERED HOOD.
- A DIGITAL CONTROLLER SHALL ALLOW FOR EXTERNAL BMS FAN CONTROL VIA DRY CONTACT (EXTERNAL CONTROL SHALL NOT OVERRIDE FAN OPERATION LOGIC AS REQUIRED BY CODE).
- AN LCD INTERFACE SHALL BE PROVIDED WITH THE FOLLOWING FEATURES:
  A. ON/OFF PUSH BUTTON FAN & LIGHT SWITCH ACTIVATION.
  B. INTEGRATED GAS VALVE RESET FOR ELECTRONIC GAS VALVES (NO RESET RELAY REQUIRED).
  C. VFD FAULT DISPLAY WITH AUDIBLE & VISUAL ALARM NOTIFICATION.
  D. DUCT TEMPERATURE SENSOR FAILURE DETECTION WITH AUDIBLE & VISUAL ALARM NOTIFICATION.
  E. MIS-WIRED DUCT TEMPERATURE SENSOR DETECTION WITH AUDIBLE & VISUAL ALARM NOTIFICATION.
  F. A SINGLE LOW VOLTAGE CAT-5 RJ45 WIRING CONNECTION.
  G. AN ENERGY SAVINGS INDICATOR THAT UTILIZES MEASURED KWH FROM THE VFDS.



TYPICAL HOOD CONTROL PANEL INSTALLATION

SEQUENCE OF OPERATIONS:

THE HOOD CONTROL PANEL IS CAPABLE OF OPERATING IN ONE OR MORE OF THE FOLLOWING STATES AT ANY GIVEN TIME:

- AUTOMATIC: THE SYSTEM OPERATES BASED ON THE DIFFERENTIAL BETWEEN ROOM TEMPERATURE AND THE TEMPERATURE AT THE HOOD CAVITY OR EXHAUST DUCT COLLAR. FANS ACTIVATE AT A CONFIGURABLE TEMPERATURE DIFFERENTIAL THRESHOLD. DEPENDING ON THE JOB CONFIGURATION EACH FAN ZONE CAN BE CONFIGURED AS STATIC OR DYNAMIC. THESE TERMS REFER TO WHETHER A VARIABLE MOTOR (SUCH AS EC MOTORS OR VFD DRIVEN MOTORS) MODULATE WITH TEMPERATURE. IF THE PANEL IS EQUIPPED WITH VARIABLE SPEED FANS AND THE ZONE IS DEFINED AS "DYNAMIC", THESE WILL MODULATE WITHIN A USER-DEFINED RANGE BASED ON THE TEMPERATURE DIFFERENTIAL. PANELS EQUIPPED WITH VARIABLE SPEED FANS AND A FAN ZONE DEFINED AS "STATIC", FANS WILL RUN AT A SET SPEED CALCULATED FOR THE DRIVE. DEMAND CONTROL VENTILATION SYSTEMS ARE CAPABLE OF MODULATING EXHAUST AND MAKE UP AIR FAN SPEEDS PER THE REQUIREMENTS OUTLINED IN IECC 403.2.8.
- MANUAL: THE SYSTEM OPERATES BASED ON HUMAN INPUT FROM AN HMI.
- SCHEDULE: A WEEKLY SCHEDULE CAN BE SET TO RUN FANS FOR A SPECIFIED PERIOD THROUGHOUT THE DAY. THERE ARE THREE OCCUPIED TIMES PER DAY TO ALLOW FOR THE USER TO SET UP A TIME THAT IS SUITABLE TO THEIR NEEDS. ANY TIME THAT IS WITHIN THE DEFINED OCCUPIED TIME, THE SYSTEM WILL RUN AT MODULATION MODE AND FOLLOW THE FAN PROCEDURE ALGORITHM BASED ON TEMPERATURE DURING THIS TIME. DURING UNOCCUPIED TIME, THE SYSTEM WILL HAVE AN EXTRA OFFSET TO PREVENT UNINTENDED ACTIVATION OF THE SYSTEM DURING A TIME WHERE THE SYSTEM IS NOT BEING OCCUPIED.
- OTHER: THE SYSTEM OPERATES BASED ON THE INPUT FROM AN EXTERNAL SOURCE (DDC, BMS OR HARD-WIRED INTERLOCK).
- FIRE: UPON ACTIVATION OF THE HOOD FIRE SUPPRESSION SYSTEM, THE EXHAUST FAN WILL COME ON OR CONTINUE TO TO RUN, THE HOOD MAKEUP AIR WILL SHUTDOWN, AND A SIGNAL WILL BE SENT FOR ACTIVATING THE SHUNT TRIP BREAKER PROVIDED BY THE ELECTRICIAN. FUEL GAS WILL SHUT OFF VIA A MECHANICAL/ELECTRICAL GAS VALVE ACTUATED BY THE HOOD FIRE SUPPRESSION SYSTEM.

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REVISIONS

No.	DATE	DESCRIPTION
X	X	X

DRAWN BY:	LPH
REV'D BY:	SGD
DATE:	06.17.2022
SCALE:	AS SHOWN

CULINARY-ARTS EXHAUST-HOOD FIRE-SUPPRESSION-SYSTEM

K800

IMPORTANT SPECIAL UDS PARTS/NOTES	
☆1	NEOPRENE BUMPER GUARDS.

UDS CONSTRUCTION TO BE
18 GA., TYPE 304 STAINLESS STEEL

UTILITY DISTRIBUTION SYSTEM MODEL UDI
IS LISTED UNDER ETL FILE NUMBER 3054803
CONFORMS TO UL STD 891
CERTIFIED TO CAN/CSA C22.2 No. 31–M89

PRIOR TO SCHEDULING UDS FOR PRODUCTION PLEASE PROVIDE APPROVED SUBMITTAL CUTSHEETS ON FINAL KITCHEN EQUIPMENT ASSOCIATED WITH THE UDS (NEW & USED) SO THAT CONNECTION SIZES, TYPES AND LOCATIONS CAN BE VERIFIED

ANY CHANGES TO SUBMITTAL DRAWING
MAY AFFECT PRICE AND PRODUCTION TIME
PLEASE FORWARD CHANGES ASAP

----NOTE----
NEC REQUIRES 36"
OF FIELD CLEARANCE
IN FRONT OF CIRCUIT
BREAKERS FOR ACCESS

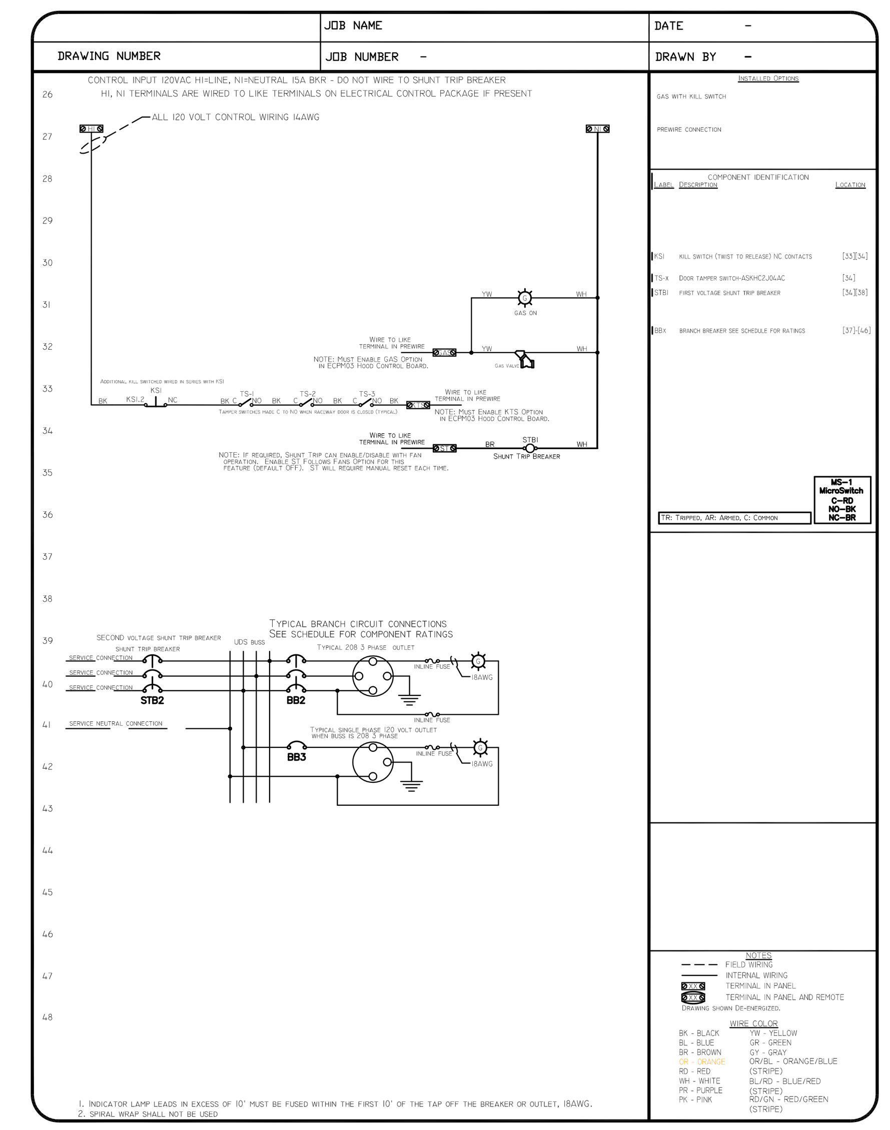
SYMBOL SCHEDULE
COLD WATER
HOT WATER
FILTERED WATER
NATURAL GAS
PROPANE
120 VAC 1 PHASE
208 VAC 1 PHASE
208 VAC 3 PHASE
480 VAC 3 PHASE
STEAM SUPPLY
STEAM CONDENSATE RETURN

STANDARD FLAG NOTES

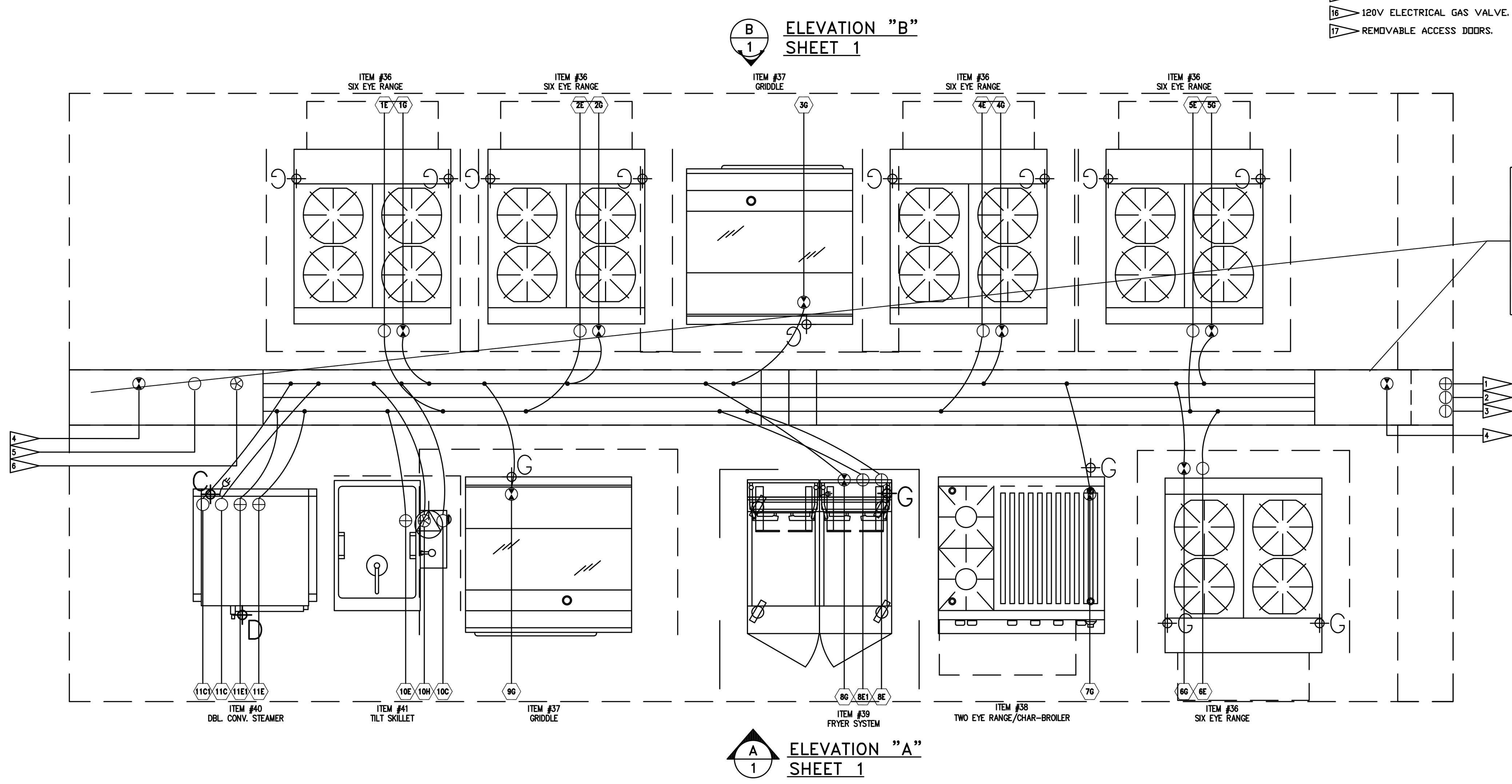
1. ELECTRICAL SERVICE FROM ABOVE, SEE SCHEDULE FOR DETAILS. PROVIDED BY ELECTICAL CONTRACTOR.
2. 120V/1PH/15A DEDICATED ELECTRICAL CIRCUIT INTO UDS TERMINALS "H1, N1" FOR FUEL/SHUNT CONTROL. (PROVIDED BY ELECTRICAL CONTRACTOR) SEE SCHEMATIC BELOW.
3. 3-WIRE ELECTRICAL CIRCUIT FROM HOOD CONTROL PACKAGE TERMINALS "GAS, ST & KTS" TO UDS LIKE TERMINALS "GAS, ST & KTS" FOR UDS SHUT DOWN IN A FIRE CONDITION. (PROVIDED BY ELECTRICAL CONTRACTOR). SEE SCHEMATIC BELOW.
4. GAS SERVICE FROM ABOVE, SEE SCHEDULE FOR SERVICE SIZE AND STYLE (PROVIDED BY PLUMBING CONTRACTOR)
5. COLD WATER SERVICE FROM ABOVE, SEE SCHEDULE FOR SERVICE SIZE (PROVIDED BY PLUMBING CONTRACTOR)
6. HOT WATER SERVICE FROM ABOVE, SEE SCHEDULE FOR SERVICE SIZE (PROVIDED BY PLUMBING CONTRACTOR)
7. SERVICE MAIN BREAKER W/SHUNT TRIP AND RESET HANDLE, SEE SCHEDULE FOR DETAILS.
8. STATUS INDICATOR LIGHTS.
9. EMERGENCY KILL SWITCH.
10. DCO RECEPTACLE W/ BREAKER & WEATHERPROOF COVER.
11. ELECTRICAL LOAD CENTER WITH INDIVIDUAL CIRCUIT BREAKERS.
12. ELECTRICAL WIRING TO APPLIANCES.
13. ELECTRICAL CONNECTION W/WEATHERPROOF COVER AS SPECIFIED ON THE EQUIPMENT SCHEDULE, SEE THIS SHEET.
14. PLUMBING CONNECTION AS SPECIFIED ON THE EQUIPMENT SCHEDULE, SEE THIS SHEET.
15. MANUAL SHUT OFF VALVE.
16. 120V ELECTRICAL GAS VALVE.
17. REMOVABLE ACCESS DOORS.

UTILITY DISTRIBUTION SYSTEM EQUIPMENT SCHEDULE

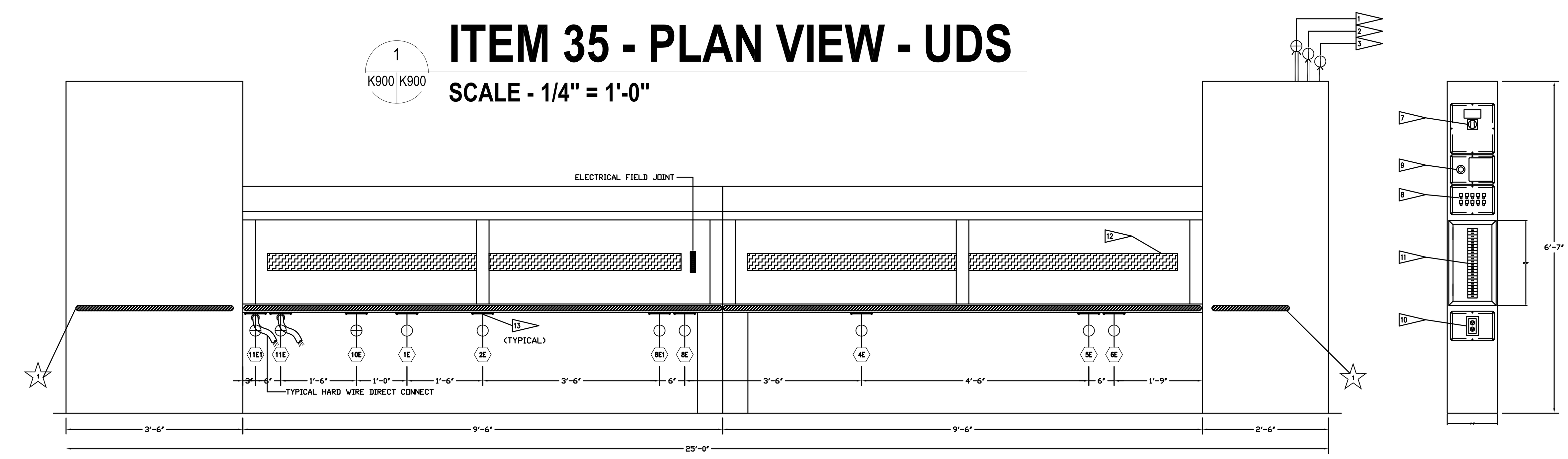
EQUIPMENT					ELECTRICAL					CIRCUIT BREAKER		RECEPTACLE	GAS		WATER		STEAM			CONNECTION		NOTES
CONN.#	ITEM	DESCRIPTION	MANUFACTURER	MODEL #	KW.	AMPS	HP	VOLT	PH	AMPS	POLES	PART #	SIZE	MBH	HOT	COLD	SUPPLY	COND. RETURN	LBS/HR	TYPE	LENGTH	
1E	36	FOUR EYE RANGE	GARLAND	MST44RE	0.0	0.1	-	120	1	20	1	DR20	-	-	-	-	-	-	-	SUPPLIED W/ EQUIP.	-	GFI BREAKER
1G	36	FOUR EYE RANGE	GARLAND	MST44RE	-	-	-	-	-	-	-	-	1-1/4"	155	-	-	-	-	-	QUICK DISCONNECT	5'	-
2E	36	FOUR EYE RANGE	GARLAND	MST44RE	0.0	0.1	-	120	1	20	1	DR20	-	-	-	-	-	-	-	SUPPLIED W/ EQUIP.	-	GFI BREAKER
2G	36	FOUR EYE RANGE	GARLAND	MST44RE	-	-	-	-	-	-	-	-	1-1/4"	155	-	-	-	-	-	QUICK DISCONNECT	5'	-
3G	37	GRIDDLE	VULCAN	36S-36GN	-	-	-	-	-	-	-	-	3/4"	95	-	-	-	-	-	QUICK DISCONNECT	5'	-
4E	36	FOUR EYE RANGE	GARLAND	MST44RE	0.0	0.1	-	120	1	20	1	DR20	-	-	-	-	-	-	-	SUPPLIED W/ EQUIP.	-	GFI BREAKER
4G	36	FOUR EYE RANGE	GARLAND	MST44RE	-	-	-	-	-	-	-	-	1-1/4"	155	-	-	-	-	-	QUICK DISCONNECT	5'	-
5E	36	FOUR EYE RANGE	GARLAND	MST44RE	0.0	0.1	-	120	1	20	1	DR20	-	-	-	-	-	-	-	SUPPLIED W/ EQUIP.	-	GFI BREAKER
5G	36	FOUR EYE RANGE	GARLAND	MST44RE	-	-	-	-	-	-	-	-	1-1/4"	155	-	-	-	-	-	QUICK DISCONNECT	5'	-
6E	36	FOUR EYE RANGE	GARLAND	MST44RE	0.0	0.1	-	120	1	20	1	DR20	-	-	-	-	-	-	-	SUPPLIED W/ EQUIP.	-	GFI BREAKER
6G	36	FOUR EYE RANGE	GARLAND	MST44RE	-	-	-	-	-	-	-	-	1-1/4"	155	-	-	-	-	-	QUICK DISCONNECT	5'	-
7G	38	TWO EYE RANGE/CHAR-BROILER	VULCAN	36S-2B24CBN	-	-	-	-	-	-	-	-	3/4"	159	-	-	-	-	-	QUICK DISCONNECT	5'	-
8E	39	FRYER SYSTEM	FRYMASTER	FMP155/FPPH255	1.0	8.0	-	120	1	20	1	DR20	-	-	-	-	-	-	-	SUPPLIED W/ EQUIP.	-	GFI BREAKER
8E1	39	FRYER SYSTEM	FRYMASTER	FMP155/FPPH255	1.0	8.0	-	120	1	20	1	DR20	-	-	-	-	-	-	-	SUPPLIED W/ EQUIP.	-	GFI BREAKER
8G	39	FRYER SYSTEM	FRYMASTER	FMP155/FPPH255	-	-	-	-	-	-	-	-	1"	71.7	-	-	-	-	-	QUICK DISCONNECT	5'	-
9G	37	GRIDDLE	VULCAN	36S-36GN	-	-	-	-	-	-	-	-	3/4"	95	-	-	-	-	-	QUICK DISCONNECT	5'	-
10E	41	TILT SKILLET	CLEVELAND	SET-10	7.4	20.5	-	208	3	30	3	L15-30R	-	-	-	-	-	-	-	CORD & PLUG	6'	GFI BREAKER
10C	41	TILT SKILLET	CLEVELAND	SET-10	-	-	-	-	-	-	-	-	-	-	-	1/2"	-	-	-	QUICK DISCONNECT	5'	-
10H	41	TILT SKILLET	CLEVELAND	SET-10	-	-	-	-	-	-	-	-	-	-	1/2"	-	-	-	-	QUICK DISCONNECT	5'	-
11E	40	DBL. CONV. STEAMER	ACCUTEMP	E2083E170 DBL	17.0	47.0	-	208	3	60	3	-	-	-	-	-	-	-	-	DIRECT	8'	CONDUIT & WIRE
11E1	40	DBL. CONV. STEAMER	ACCUTEMP	E2083E170 DBL	17.0	47.0	-	208	3	60	3	-	-	-	-	-	-	-	-	DIRECT	8'	CONDUIT & WIRE
11C	40	DBL. CONV. STEAMER	ACCUTEMP	E2083E170 DBL	-	-	-	-	-	-	-	-	-	-	-	3/4"	-	-	-	QUICK DISCONNECT	5'	-
11C1	40	DBL. CONV. STEAMER	ACCUTEMP	E2083E170 DBL	-	-	-	-	-	-	-	-	-	-	-	3/4"	-	-	-	QUICK DISCONNECT	5'	-
D1	-	DUPLEX OUTLET	-	-	-	-	-	120	1	20	1	DR20	-	-	-	-	-	-	-	FACTORY	-	GFI BREAKER
D2	-	DUPLEX OUTLET	-	-	-	-	-	120	1	20	1	DR20	-	-	-	-	-	-	-	FACTORY	-	GFI BREAKER
TOTAL CONNECTED LOAD:				43.4	KW.	120.4	AMP	0.0	KW.	0.0	AMP	1195.7	MBH		H.W.		STEAM SUPPLY			LEGEND MBH = BTU PER HOUR (1000S) SB = STRAIGHT BLADE PLUGS TL = TWIST LOCK PLUGS PS = PIN & SLEEVE PLUGS DCO = DUAL CONVENIENCE OUTLET DIRECT = CONDUIT & WIRE		
FUTURE AVAILABLE LOAD CAPACITY:				7.1	KW.	19.6	AMP	0.0	KW.	0.0	AMP	1154.3	MBH		3/4"		-					
SYSTEM CAPACITY:				50.4	KW.	140.0	AMP	0.0	KW.	0.0	AMP	2350	MBH		C.W.		COND. RETURN					
SERVICE SIZE:				120/208 V/ 3 PH/ 175 AMP				V/ PH/ AMP				2" IPS LOOPED			3/4"		-					



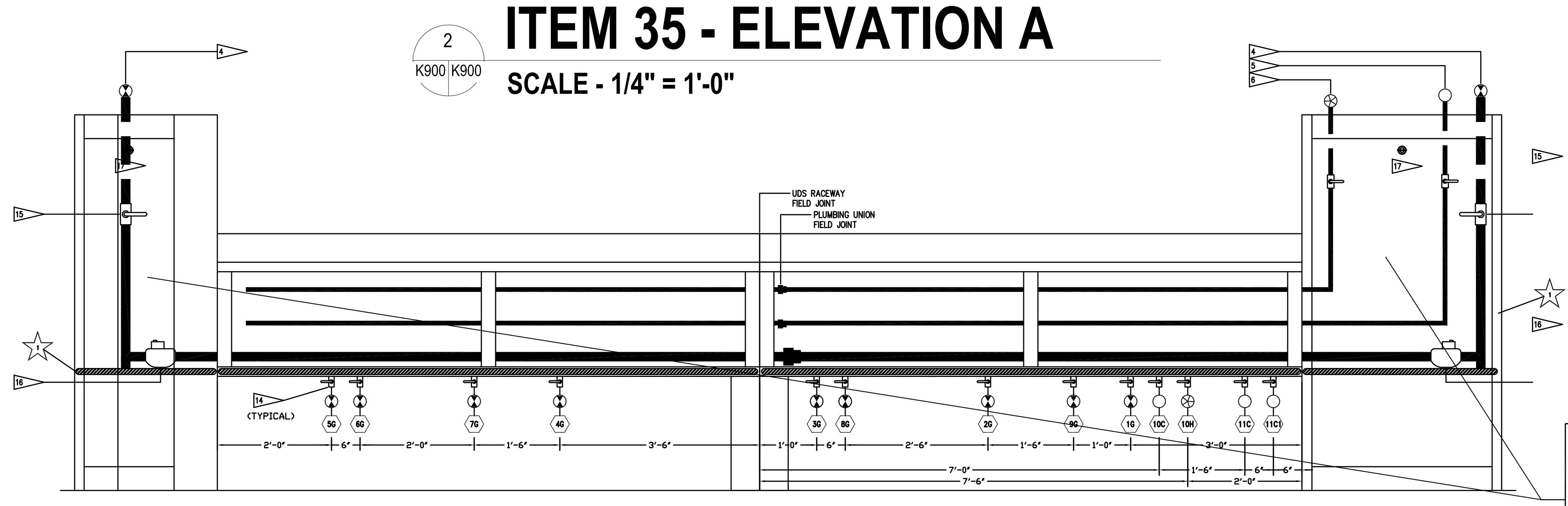
----NOTE----
ACCESS PANELS ARE LOCATED ON THIS SIDE OF EACH RISER



1 K900 K900
ITEM 35 - PLAN VIEW - UDS
SCALE - 1/4" = 1'-0"

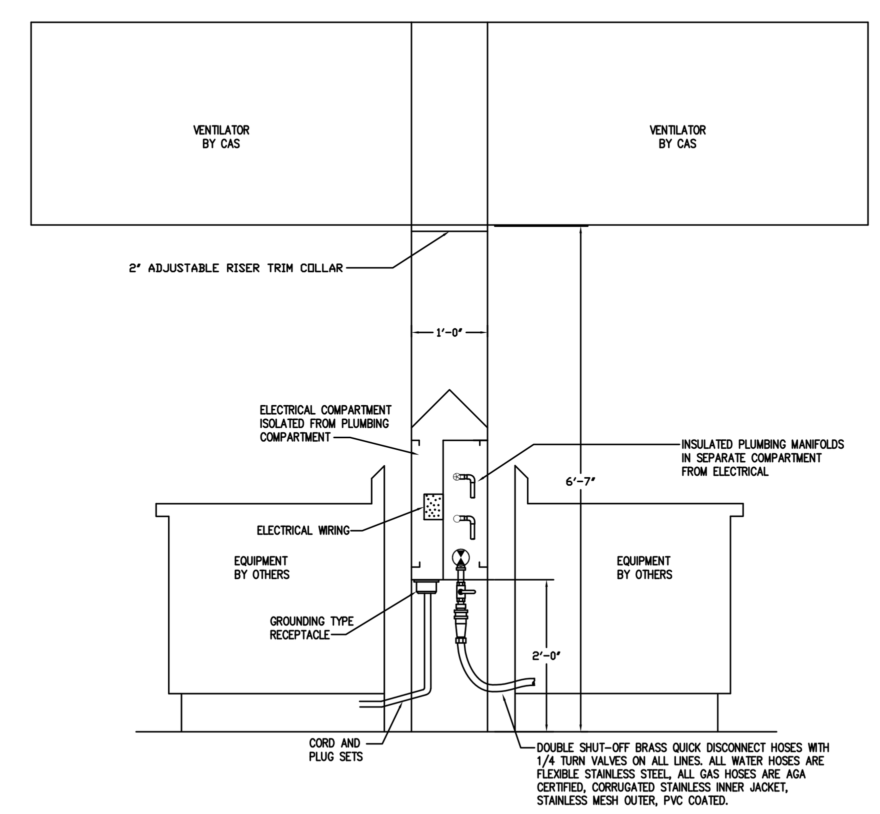


2 K900 K900
ITEM 35 - ELEVATION A
SCALE - 1/4" = 1'-0"



----NOTE----
ACCESS PANELS ARE LOCATED ON THIS SIDE OF EACH RISER

3 K900 K900
ITEM 35 - ELEVATION B
SCALE - 1/4" = 1'-0"



A K900 K900
ITEM 35 - SECTION
SCALE - 1/4" = 1'-0"

C2A architecture
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REVISIONS		
No.	DATE	DESCRIPTION
x	x	x

DRAWN BY:	LPH
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CULINARY-ARTS UTILITY-DISTRIBUTION SYSTEMS-AND-DETAILS

K900

SHEET K900 of K900