TASMG READINESS CENTER

1107TH THEATER AVIATION SUSTAINMENT MAINTENANCE GROUP
SPRINGFIELD, MISSOURI

NATIONAL GUARD BUREAU
PROJECT NO: 290186

MISSOURI NATIONAL GUARD
PROJECT NO:T1809-01

AVCRAD, SPRINGFIELD, MISSOURI

RENDERING - NOT FOR CONSTRUCTION

PROJECT LOCATION MAP

OWNER: STATE OF MISSOURI
MICHAEL L. PARSON, GOVERNOR

MISSOURI NATIONAL GUARD
OFFICE OF THE ADJUTANT GENERAL
FACILITIES MANAGEMENT OFFICE

PROJECT MANAGEMENT: STATE OF MISSOURI OFFICE OF ADMINISTRATION (OA)-DIVISION OF FACILITIES MANAGEMENT, DESIGN AND CONSTRUCTION (FMDC)

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TASMG
READINESS
CENTER

AVCRAD SITE
1107TH THEATER AVIATION
SUSTAINMENT MAINTENANCE
GROUP

MISSOURI NATIONAL GUARD
SPRINGFIELD, MISSOURI

NATIONAL GUARD BUREAU PROJECT #290186
MISSOURI NATIONAL GUARD PROJECT #T1809-01
SITE #9019
ASSET #8136270008

DRAWN BY: BS
CHECKED BY: ST
DESIGNED BY: JM

REVISION:
DATE:
REVISION:
DATE:
REVISION:
DATE:
ISSUED DATE: 26 FEBRUARY 2020

SHEET TITLE:

DRAWING INDEX

SHEET NUMBER:

G001

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SYMBOLS LEGEND

SIM A101 / SIM A101 — SECTION REFERENCE. UPPER NUMBER INDICATES DETAIL WORK. LOWER NUMBER INDICATES SHEET NUMBER.

SIM 1 A101 — DETAIL REFERENCE. UPPER NUMBER INDICATES DETAIL NUMBER. LOWER NUMBER INDICATES SHEET NUMBER.

1 A101 1 — INTERIOR ELEVATION SYMBOL - OUTER NUMBER INDICATES ELEVATION NUMBER. INNER NUMBER INDICATES SHEET NUMBER.

1/A101 — CASEWORK ELEVATION. UPPER NUMBER INDICATES CASEWORK ELEVATION NUMBER. LOWER NUMBER INDICATES SHEET NUMBER.

ROOM NAME & NUMBER - UPPER NUMBER INDICATES ROOM NUMBER. LOWER NUMBER INDICATES FINISH NOTES OR CEILING CODE

1 — KEYNOTE SYMBOL

A — WINDOW SYMBOL

CW1 — STOREFRONT/CURTAIN WALL SYMBOL

A200a — DOOR SYMBOL

FE1 — EQUIPMENT NUMBER

P1 — WALL TYPE

0 / 0 — COLUMN GRID SYMBOLS

NORTH ARROW

MAIN FLOOR EL 100'-0" — LEVEL LINE

DATUM MARK

SPECIAL NOTES:
IF A GRAPHIC SYMBOL OR ABBREVIATION USED ON THIS SET OF DOCUMENTS IS NOT IDENTIFIED IN THIS LEGEND THEN THE CONTRACTOR SHALL NOTIFY THE ARCHITECT FOR PROPER INTERPRETATION.

MATERIALS GRAPHICS

EARTH

CRUSHED ROCK OR DRAINAGE FILL

CONCRETE

MASONRY BLOCK

FACE BRICK

STONE, SIMULATED STONE

FINISH WOOD

PLYWOOD

CONTINUOUS WOOD BLOCKING OR ROUGH CARPENTRY

NONCONTINUOUS WOOD BLOCKING

STEEL/OTHER METALS

GYPSUM BOARD

ACOUSTICAL TILE

BATT INSULATION

SPRAY FOAM INSULATION

RIGID INSULATION

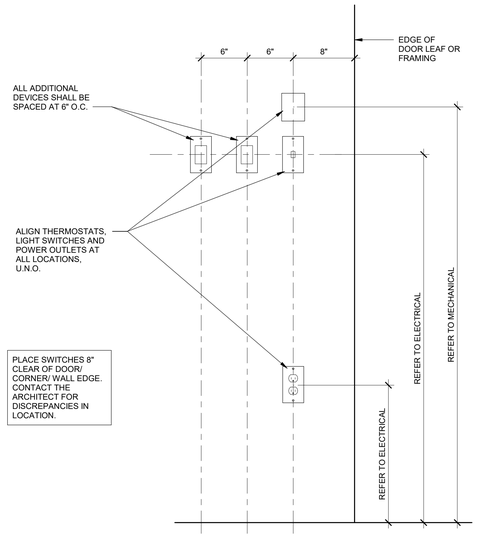
ABBREVIATIONS

ABBREVIATIONS APPLY TO ARCHITECTURAL SHEETS ONLY AND ARE TYPICAL AND MAY OR MAY NOT OCCUR ON THIS PROJECT. IF AN ABBREVIATION FOUND ON DOCUMENTS IS NOT LISTED, CONTRACTOR SHALL CONTACT ARCHITECT FOR INTERPRETATION.

ABV	ABOVE
AESS	ARCHITECTURAL EXPOSED STRUCTURAL STEEL
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
AP	ACCESS PANEL
AC BD	ACOUSTICAL BOARD
AC PLAS	ACOUSTICAL PLASTER
AC TILE	ACOUSTICAL TILE
ADH	ADHESIVE
ADJ	ADJUSTABLE
ADS	ADVANCED DRAINAGE SYSTEMS
AGG	AGGREGATE
A/C	AIR CONDITIONING
ALT	ALTERNATE
AL	ALUMINUM
AB	ANCHOR BOLT
ANOD	ANODIZED
ARCH	ARCHITECT(URAL)
AD	AREA DRAIN
ASPH	ASPHALT
@	AT
BSMT	BASEMENT
BRG	BEARING
BIT	BITUMINOUS
BLK(G)	BLOCK(ING)
BD	BOARD
BS	BOTH SIDES
BOT	BOTTOM
BRK	BREAK
BRZ	BRONZE
BLDG	BUILDING
B/U	BUILT UP
BBD	BULLETIN BOARD
CAB	CABINET
CPT	CARPET(ED)
CI	CAST IRON
CST	CAST STONE
CB	CATCH BASIN
CLG	CEILING
CAP	CEILING ACCESS PANEL
CHT	CEILING HEIGHT
CEM	CEMENT
CER(T)	CERAMIC(TILE)
CHBD	CHALKBOARD
CIP	CORRIGATED IRON PIPE
CIR	CIRCLE
CMT	CERAMIC MOSAIC TILE
CMP	CORRUGATED METAL PIPE
CO	CLEANOUT
CLR	CLEAR(ANCE)
COL	COLUMN
COMP	COMPOSITION
CONC	CONCRETE
CMU	CONCRETE MASONRY UNIT
CONST	CONSTRUCTION
CONT	CONTINUOUS OR CONTINUE
CONTR	CONTRACTOR
CJ	CONTROL JOINT
CG	CORNER GUARD
CTR	COUNTER
CS	COUNTERSINK
CT	CURTAIN TRACK
DP	DAMPPROOFING
DTL	DETAIL
DIAG	DIAGONAL
DIAM	DIAMETER
DIM	DIMENSION
DISP	DISPENSER
DIV	DIVISION
DR	DOOR
DH	DOUBLE HUNG
DN	DOWN
DS	DOWNSPOUT
DT	DRAPERY TRACK
DWR	DRAWER
DWG	DRAWING
DF	DRINKING FOUNTAIN
D	DEPTH
EA	EACH
EW	EACH WAY
ELEC	ELECTRIC(AL)
EP	ELECTRICAL PANELBOARD
EWC	ELECTRICAL WATER COOLER
EL	ELEVATION
ELEV	ELEVATOR
EMER	EMERGENCY
EQ	EQUAL
EQUIP	EQUIPMENT
EXIST.	EXISTING
EB	EXPANSION BOLT
EJ	EXPANSION JOINT
EXP	EXPOSED
EXT	EXTERIOR
FAMAB	FLUID APPLIED MEMBRANE AIR BARRIER
FIN	FINISH(ED)
FFE	FINISHED FLOOR ELEVATION
FA	FIRE ALARM
FDC	FIRE DEPARTMENT CONNECTION
FE	FIRE EXTINGUISHER
FEC	FIRE EXTINGUISHER CABINET
FHS	FIRE HOSE STATION
FP	FIREPROOF(ING)
FRAP	FIRE RATED ACCESS PANEL
FLASH	FLASHING
FLR(G)	FLOOR(ING)
FCO	FLOOR CLEANOUT
FD	FLOOR DRAIN
FLUOR	FLUORESCENT
FTG	FOOTING
FND	FOUNDATION
FRA	FRESH AIR
FRP	FIBERGLASS REINFORCED POLYESTER
GA	GAUGE
GALV	GALVANIZED
GC	GENERAL CONTRACTOR
GL	GLASS, GLAZING
GCMU	GLAZED CONCRETE MASONRY UNITS
GST	GLAZED STRUCTURAL TILE
GB	GRAB BAR
GYP	GYPSUM
GFR	GYPSUM FIBER REINFORCED
GWB	GYPSUM WALL BOARD
H	HEIGHT
HBD	HARDBOARD
HCDF	HANDICAPPED DRINKING FOUNTAIN
HDF	HANDICAPPED DRINKING FOUNTAIN
HDWR	HARDWARE
HD	HEAD
HDR	HEADER
HTG	HEATING
HVAC	HEATING/VENTILATING/AIR COND
HGT	HEIGHT
HC	HOLLOW CORE
HM	HOLLOW METAL
HORIZ	HORIZONTAL
HB	HOSE BIBB
HWH	HOT WATER HEATER
INCL	INCLUDE(D), (ING)
ID	INSIDE DIAMETER
INSUL	INSULATE(D)
INT	INTERIOR
IWS	ICE & WATER SHIELD (BITUTHENE)
JT	JOINT
JST	JOIST
KO	KNOCKOUT
LAM	LAMINATE(D)
LAV	LAVATORY
LH	LEFT HAND
LT	LIGHT
LWC	LIGHTWEIGHT CONCRETE
LTL	LINTEL
LVR	LOUVER
LD	LOUVERED DRAPE
L	LENGTH
LP	LIGHT POLE
MH	MANHOLE
MANUF	MANUFACTURE(ER)
MATL	MATERIAL
MBC	METAL BUILDING COMPANY
MBL	MARBLE
MAS	MASONRY
MO	MASONRY OPENING
MAX	MAXIMUM
MECH	MECHANIC(AL)
MED CAB	MEDICINE CABINET
MBR	MEMBER
MTL	METAL
MOD BIT	MODIFIED BITUMEN
MP	METAL PANEL(S)
MIN	MINIMUM
MISC	MISCELLANEOUS
M.B.	MOISTURE BARRIER
MOV	MOVABLE
MTD	MOUNTED
MULL	MULLION
MEP	MECHANICAL/ELECTRICAL/PLUMBING
NAT	NATURAL
NOM	NOMINAL
NIC	NOT IN CONTRACT
NTS	NOT TO SCALE
OBS	OBSCURE
OC	ON CENTER(S)
OPNG	OPENING
OJ	OPEN-WEB JOIST
OD	OUTSIDE DIAMETER
OHE	OVERHEAD ELECTRIC
PAF	POWDER ACTUATED FASTENER
PNT	PAINT(ED)
PNL	PANEL
PTD	PAPER TOWEL DISPENSER
PTR	PAPER TOWEL RECEPTOR
PRTN	PARTITION
PVMT	PAVEMENT
PERF	PERFORATE(D)
PLAS	PLASTER
P.LAM	PLASTIC LAMINATE
PLYWD	PLYWOOD
PVC	POLYVINYL CHLORIDE
PSF	POUNDS PER SQUARE FOOT
PSI	POUNDS PER SQUARE INCH
PREFAB	PREFABRICATE(D)
PREFIN	PREFINISHED
PL	PROPERTY LINE
PP	POWER POLE
QT	QUARRY TILE
RAD	RADIUS
REF	REFERENCE
REFR	REFRIGERATOR
REG	REGISTER
REINF	REINFORCE(D), (ING)
RCP	REINFORCED CONCRETE PIPE
REQD	REQUIRED
RA	RETURN AIR
REV	REVISION(S), REVISED
RH	RIGHT HAND
ROW	RIGHT OF WAY
R	RISER
RD	ROOF DRAIN
RFG	ROOFING
RM	ROOM
RO	ROUGH OPENING
RB	RUBBER BASE
RBT	RUBBER TILE
SCH	SCHEDULE
SCHED	SCHEDULE
SECT	SECTION
SSK	SERVICE SINK
SHTG	SHEATHING
SHT	SHEET
SHWR	SHOWER
SIM	SIMILAR
SC	SOLID CORE
SPEC	SPECIFICATION(S)
SQ	SQUARE
SV	STACK VENT
SS	STAINLESS STEEL
STD	STANDARD
STA	STATION
STL	STEEL
STOR	STORAGE
SD	STORM DRAIN
STR	STRUCTURAL
STRUCT	STRUCTURAL
SUSP	SUSPENDED
SYM	SYMMETRY(ICAL)
SYN	SYNTHETIC
TB	TACKBOARD
TEL	TELEPHONE
TV	TELEVISION
TEMP	TEMPERED
TERR	TERRAZZO
TG	TEMPERED GLASS
TH	THICKNESS)
THRS	THRESHOLD
TLT	TOILET
TPD	TOILET PAPER DISPENSER
T&G	TONGUE AND GROOVE
TOW	TOP OF WALL
TOS	TOP OF STEEL
TOM	TOP OF MASONRY
TB	TOWEL BAR
T	TREAD
TYP	TYPICAL
UNFIN.	UNFINISHED
UNO	UNLESS NOTED OTHERWISE
UR	URINAL
UGE	UNDERGROUND ELECTRIC
VERT	VERTICAL
VCT	VINYL COMPOSITION TILE
VB	VINYL BASE
VT	VINYL TILE
VWC	VINYL WALL COVERING
WSCT	WAINSCOT
WH	WALL HUNG
WC	WATER CLOSET
WP	WATERPROOFING
WS	WATERSTOP
WWF	WELDED WIRE FABRIC
WDW	WINDOW
W/O	WITHOUT
WD	WOOD
W	WIDTH
W/	WITH

GENERAL NOTES

1. NOTICE: DRAWINGS ARE NOT SET UP SPECIFICALLY ACCORDING TO TRADE AND EACH CONTRACTOR AND SUB-CONTRACTOR OR TRADE IS REQUIRED TO REVIEW THE DRAWINGS AS A WHOLE AND PROVIDE ANY MISC. ITEMS, MATERIALS, WORK, ETC. REQUIRED TO COMPLETE THE WORK AS SHOWN ON ALL THE DOCUMENTS. THIS REQUIREMENT APPLIES TO ALL TRADES. STRUCTURAL, MECHANICAL, ELECTRICAL AND PLUMBING REQUIREMENTS AND RELATED WORK ARE INDICATED THROUGHOUT THE SET OF DRAWINGS AND SHOULD BE REVIEWED WITH THE SPECIFIC MEP AND STRUCTURAL DRAWINGS FOR OVERALL SCOPE OF WORK.
2. ALL WORK SHALL CONFORM TO ALL APPLICABLE CODES AND ORDINANCES. THE MORE STRINGENT TO GOVERN, DISCREPANCIES BETWEEN CONTRACT DOCUMENTS AND CODES SHALL BE BROUGHT TO THE ARCHITECT'S ATTENTION PROMPTLY AND RESOLUTION OBTAINED BEFORE PROCEEDING.
3. THE GENERAL CONTRACTOR IS OBLIGATED TO INSPECT FOR EXISTING CONDITIONS & AVAILABLE INFORMATION PRIOR TO SUBMITTING A BID. REFER TO SPECIFICATIONS ALSO.
4. EXISTING CONDITIONS BASED UPON INFORMATION PROVIDED BY OTHERS. NOTIFY ARCHITECT IF EXISTING CONDITIONS DEVIATE SUBSTANTIALLY FROM THOSE INDICATED HEREIN. FIELD VERIFY EXISTING CONDITIONS BY DETAILED INSPECTION PRIOR TO BEGINNING CONSTRUCTION.
5. EXISTING UNDERGROUND INSTALLATIONS SUCH AS WATER MAINS/LINES, GAS MAINS/LINES, SEWER, TELEPHONE LINES, POWER LINES, AND BURIED STRUCTURES IN THE VICINITY OF THE WORK TO BE DONE HERE UNDER ARE INDICATED ON THE DRAWINGS ONLY TO THE EXTENT SUCH INFORMATION HAS BEEN MADE AVAILABLE TO OR DISCOVERED BY THE ENGINEER/ARCHITECT IN PREPARING THE DRAWINGS. THERE IS NO GUARANTEE AS TO THE ACCURACY OR COMPLETENESS OF SUCH INFORMATION, AND ALL RESPONSIBILITY FOR THE ACCURACY AND COMPLETENESS THEREOF IS EXPRESSLY DISCLAIMED. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR LOCATING ALL EXISTING UNDERGROUND INSTALLATIONS, INCLUDING SERVICE CONNECTIONS, IN ADVANCE OF EXCAVATING OR TRENCHING, BY CONTACTING THE OWNERS THEREOF AND PROSPECTING. THE CONTRACTOR SHALL USE HIS OWN INFORMATION AND NOT RELY UPON ANY INFORMATION SHOWN ON THE DRAWINGS CONCERNING EXISTING UNDERGROUND INSTALLATIONS. ANY DELAY, ADDITIONAL WORK, OR EXTRA COST TO THE CONTRACTOR CAUSED BY OR RESULTING FROM DAMAGE TO EXISTING UNDERGROUND INSTALLATIONS SHALL NOT CONSTITUTE A CLAIM FOR EXTRA WORK, ADDITIONAL PAYMENT OR DAMAGES.
6. DRAWINGS ARE NOT TO BE SCALED. DIMENSIONAL DATA SHALL BE OBTAINED FROM WRITTEN INFORMATION ONLY. VERIFY ALL DIMENSIONS BEFORE PROCEEDING. ANY DIMENSIONAL DEVIATION FROM THAT SHOWN ON THE DRAWINGS, WHICH MAY AFFECT INTENT OF DESIGN OR PROPER INCORPORATION OF ELEMENTS, SHALL BE BROUGHT TO THE ARCHITECT'S ATTENTION PROMPTLY AND RESOLUTION OBTAINED BEFORE PROCEEDING.
7. SHOULD A DISCREPANCY BETWEEN CONTRACT DOCUMENTS AND SPECIFICATIONS OCCUR, CONTRACTOR SHOULD IMMEDIATELY NOTIFY ARCHITECT FOR RESOLUTION BEFORE PROCEEDING WITH WORK.
8. ALL DIMENSIONS INDICATED IN CONTRACT DOCUMENTS ARE FROM FACE OF STUD TO FACE OF STUD FOR INTERIOR PARTITIONS, FACE OF EXISTING STRUCTURE OR FINISH, FACE OF CONCRETE OR BLOCK, OR TO STRUCTURAL LINE, EXCEPT AS NOTED OTHERWISE. EXTERIOR DIMENSIONS ARE TO FACE OF BRICK OR FACE OF EIFS. DIMENSIONS OF EXISTING STRUCTURE, ETC. ARE ± AND SHOULD BE FIELD VERIFIED PRIOR TO COMMENCEMENT OF WORK AND ARCHITECT NOTIFIED OF ANY DISCREPANCIES.
9. GENERAL CONTRACTOR SHALL COORDINATE ALL MECHANICAL, ELECTRICAL & PLUMBING WORK AND PROVIDE ALL NECESSARY CONSTRUCTION TO FACILITATE SAID WORK INCLUDING, BUT NOT LIMITED TO ROUGH OPENINGS, EQUIPMENT SUPPORTS, BACKING AND COORDINATION OF FINISH WORK, WHETHER OR NOT SPECIFICALLY INDICATED ON CONTRACT DOCUMENTS.
10. SPECIAL HAZARDOUS MATERIALS NOTE: AN ENVIRONMENTAL INSPECTION HAS NOT BEEN PERFORMED ON THIS PROJECT. IF CONTRACTOR ENCOUNTERS SUSPECTED HAZARDOUS MATERIALS, WORK IN IMMEDIATE AREA TO BE SUSPENDED AND CONTRACTOR TO NOTIFY OWNER FOR MATERIALS TESTING.
11. ALL CONTRACTORS SHALL USE NON-COMBUSTIBLE BUILDING MATERIALS FOR SUBSTRATES WHERE POSSIBLE. WOOD SHOULD ONLY BE USED WHEN METAL IS NOT FEASIBLE OR PRACTICAL.
12. WHERE ITEMS/ASSEMBLIES ARE INDICATED TO BE REMOVED AND RELOCATED, THE REMOVAL INCLUDES ALL SURFACE MOUNTED BRACKETS, ANCHORAGE DEVICES AND SURFACE BLOCKING.
13. FOR WALLS THAT ARE TO BE INFILLED, PATCHED, OR A NEW WALL THAT IS AN EXTENSION OF AN EXISTING WALL: RESTORE FINISH SURFACES TO BE FLUSH WITH EXISTING SURFACES AND MATCH AND BLEND WITH THE EXISTING SURROUNDING SURFACES. IF THE PAINTING DOES NOT BLEND WITH THE SURROUNDING SURFACES THEN THE CONTRACTOR IS TO PAINT ENTIRE WALL FROM INSIDE CORNER TO INSIDE CORNER.
14. GENERAL CONTRACTOR SHALL COORDINATE AND PROVIDE NECESSARY TEMPORARY ENCLOSURE AND DUST CONTROL MEASURES TO MAINTAIN A CLEAN AND SECURE WORK ENVIRONMENT AND AREAS ADJACENT TO CONSTRUCTION ZONES. PROVIDE NECESSARY WEATHER PROTECTION DURING DEMOLITION AND CONSTRUCTION WORK.
15. PROVIDE TEMPORARY SHORING OR BRACING OF EXISTING STRUCTURAL SYSTEMS AS REQUIRED FOR INSTALLATION OF NEW CONSTRUCTION.
16. ANY SURFACES THAT BECOME EXPOSED DUE TO REMOVING OF EQUIPMENT, CEILING, OR WALLS ARE TO BE REFINISHED AND PAINTED TO MATCH AND BLEND WITH SURROUNDING SURFACES.
17. PROVIDE SOLID BLOCKING AS REQUIRED TO INSTALL EQUIPMENT, MILLWORK, ETC.
18. SEE SHEET G200 FOR RATED WALLS, JOINTS AND PENETRATIONS AT ALL RATED WALLS SHALL BE SEALED AND PROTECTED PER SPECIFICATIONS, U.L. TESTED ASSEMBLIES AND CODE REQUIREMENTS.
19. METAL STUDS: SEE STRUCTURAL FOR DESIGN CRITERIA AND NOTES FOR GAUGE AND SPACING.
20. SEE MEP SHEETS FOR LOCATIONS OF DUCTWORK AND OTHER MEP ITEMS PENETRATING EXISTING WALLS. SEE STRUCTURAL SHEETS FOR THE STRUCTURAL REQUIREMENTS AT NEW WALL PENETRATIONS. CONTRACTOR IS RESPONSIBLE FOR LOCATING ALL PENETRATIONS AND COORDINATING THE WALL PENETRATIONS BETWEEN THE DIFFERENT TRADES.



GENERAL NOTES

1. INTENT OF DRAWING IS TO SHOW RELATIONSHIPS BETWEEN VARIOUS ITEMS TO BE MOUNTED IN THE WALL. NOT ALL ITEMS MAY OCCUR AT EACH LOCATION. *
2. REFER TO INTERIOR ELEVATIONS FOR LOCATIONS OF ITEMS NOT ADJACENT TO DOOR FRAMES.
3. IF ONE OR MORE DEVICES SHOWN DO NOT EXIST AT A GIVEN LOCATION THEN THE DEVICES THAT DO EXIST SHIFT OVER TO OCCUPY THE SPACE CLOSEST TO THE DOOR FRAME.
4. IN LOCATIONS WHERE CARD ACCESS AND OTHER DEVICES ARE LOCATED ADJACENT TO A DOOR FRAME, DEVICES ASSOCIATED w/ OPENING THE DOOR OR CONTACTING SOMEONE ARE LOCATED CLOSEST TO THE FRAME.
5. ALL DIMS. LISTED ARE TO CENTERLINE OF BACKBOX. U.N.O.
6. FOR MULT-SWITCH LIGHT SWITCHES, THE FIRST SWITCH WILL LAY ON THE VERTICAL AND HORIZONTAL ALIGNMENT GRID. ANY OTHER DEVICES WILL BE LOCATED AT THE NEXT GRID INTERSECTION.
7. CONFIRM MOUNTING HEIGHTS OF ITEMS NOT SHOWN w/ ARCHITECT PRIOR TO INSTALLATION.
8. CONFIRM ALL MOUNTING HEIGHT LOCATIONS w/ ARCHITECT PRIOR TO INSTALLATION.

* DRAWING ALSO ONLY SHOWS MOUNTING HEIGHTS AND PLACEMENT. REFER TO OTHER TRADE DRAWINGS FOR BACK BOX SIZE/ TYPE, CONDUIT SIZE/ LOCATIONS AND OTHER INFORMATION RELATED TO THE SPECIFIC CONSTRUCTION REQUIREMENTS OF EACH DEVICE.

1 TYPICAL ELECTRICAL POWER DEVICE ELEVATION
1 1/2" = 1'-0"

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Architect of Record
STATE OF MISSOURI
MICHAEL JAMES SAPP
NUMBER A-5051
REGISTERED ARCHITECT
2-25-2020

Michael James Sapp, Architect MO A-5051

TASMG READINESS CENTER

AVCRAD SITE
1107TH THEATER AVIATION SUSTAINMENT MAINTENANCE GROUP

MISSOURI NATIONAL GUARD
SPRINGFIELD, MISSOURI

NATIONAL GUARD BUREAU PROJECT #290186
MISSOURI NATIONAL GUARD PROJECT #T1809-01
SITE #9019
ASSET #8136270008

DRAWN BY: BS
CHECKED BY: ST
DESIGNED BY: JM

REVISION:
DATE:
REVISION:
DATE:
REVISION:
DATE:
ISSUED DATE: 26 FEBRUARY 2020

SHEET TITLE:

SYMBOLS & ABBREVIATIONS

SHEET NUMBER:

G100

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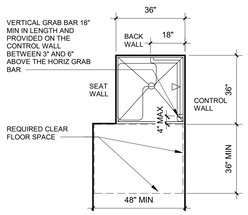
GENERAL NOTES

1. THESE FIXTURE AND ACCESSORY MOUNTING DETAILS & REQUIREMENTS ARE TYPICAL AND APPLY TO REQUIRED ACCESSIBLE INSTALLATIONS ONLY. REFER TO PLANS FOR LOCATIONS AND TYPES OF LAYOUTS. EQUIPMENT & DETAILS SHOWN THIS SHEET MAY OR MAY NOT APPEAR ON THIS PROJECT. IF A ROOM IS IN QUESTION AS TO BEING A REQUIRED ACCESSIBLE ROOM OR A REQUIRED DETAIL THIS PROJECT, CONTACT ARCHITECT FOR RESOLUTION.
2. PROVIDE IN ALL LOCATIONS OF REQUIRED ACCESSORIES, ADEQUATE SOLID BLOCKING CAPABLE OF WITHSTANDING 250 LB. FORCE (SHEAR & BENDING). GRAB BARS SHALL NOT ROTATE. FASTENERS SHALL BE OF A TYPE TO WITHSTAND REQUIRED FORCE AND TYPED FOR TYPE OF WALL CONSTRUCTION.
3. ALL EXTERIOR RAMPS SHALL HAVE A NON-SKID FINISH AS SPECIFIED. ALL INTERIOR RAMPS SHALL HAVE FLOOR MATERIAL OF NON-SKID MATERIAL (SEE SPECIFICATIONS). IF NO FINISH IS INDICATED ON DRAWINGS, PROVIDE RUBBER RADIAL TILE ON FINISH FLOOR SURFACE OF INTERIOR RAMPS.
4. ANY METAL FLOOR GRATINGS OR DRAINAGE GRATINGS IN AN ACCESSIBLE PATH SHALL HAVE SPACES NO GREATER THAN 1/2" WIDE IN ONE DIRECTION. LONG DIMENSION SHALL BE PERPENDICULAR TO THE DOMINANT DIRECTION OF TRAVEL.
5. ACCESSIBLE DOORS: SWEEP PERIOD OF DOOR CLOSERS ON ACCESSIBLE DOORS SHALL BE ADJUSTED SO THAT FROM OPEN POSITION OF 70°, DOOR WILL TAKE A MINIMUM OF 3 SECONDS TO MOVE TO A POINT 3" FROM THE LATCH. DOORS SHALL REQUIRE NO MORE THAN 5 LB. OF FORCE TO OPEN. ADJUST CLOSERS ACCORDINGLY.
6. SEE DOOR SCHEDULE FOR MINIMUM REQUIRED CLEAR AREA AT LATCH SIDE OF DOOR.
7. THRESHOLDS AT DOORWAYS SHALL NOT EXCEED 1/2" IN HEIGHT WITH MAX. 1:2 SLOPE EACH SIDE AND 1/4" MAX VERTICAL LIP AT EDGE.

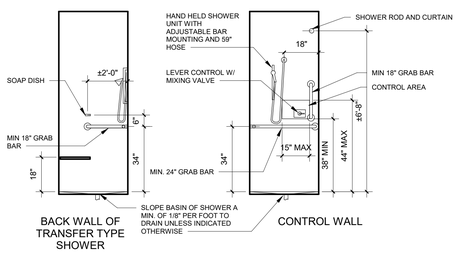
MISC. ACCESSIBLE MOUNTING HEIGHTS

FIRE EXTINGUISHERS:	48" MAX TO CENTERLINE OF CONTROLS
VISUAL DISPLAY BOARDS:	VERIFY WITH OWNER
WALL MOUNTED TELEPHONES:	48" MAX TO TOP OF KEYPAD
CLOSET/SHELF ROD:	60" TO TOP OF NON-ACCESSIBLE SHELF 48" TO TOP OF ACCESSIBLE SHELF
KNOX BOX:	5'-0" MAX, INSTALL PER FIRE DEPARTMENT REQUIREMENTS. COORDINATE LOCATION AND HEIGHT WITH FIRE DEPARTMENT.

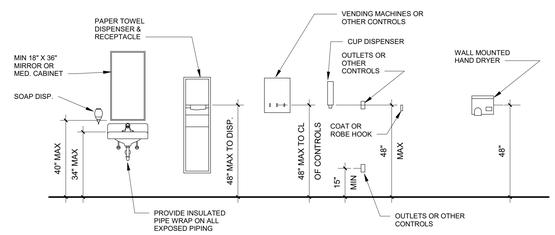


TRANSFER TYPE SHOWER

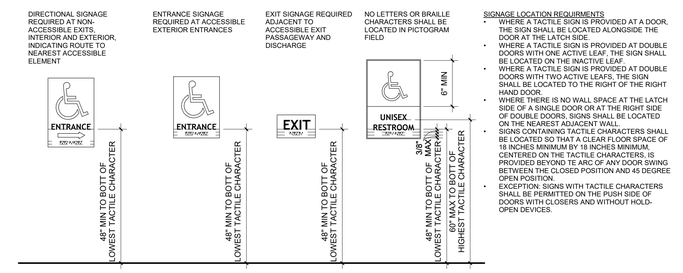
12 TYPICAL ACCESSIBLE SHOWERS
3/8" = 1'-0"



11 DETAILS FOR ACCESSIBLE SHOWERS
3/8" = 1'-0"

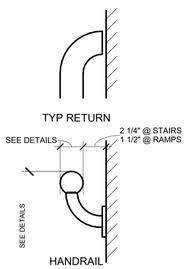


10 MISC. ACCESSIBLE ACCESSORIES
3/8" = 1'-0"



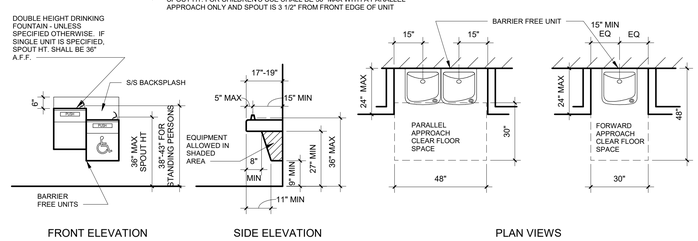
SIGNAGE LOCATION REQUIRMENTS
- WHERE A TACTILE SIGN IS PROVIDED AT A DOOR, THE SIGN SHALL BE LOCATED ALONGSIDE THE DOOR AT THE LATCH SIDE.
- WHERE A TACTILE SIGN IS PROVIDED AT DOUBLE DOORS WITH ONE ACTIVE LEAF, THE SIGN SHALL BE LOCATED ON THE INACTIVE LEAF.
- WHERE A TACTILE SIGN IS PROVIDED AT DOUBLE DOORS WITH TWO ACTIVE LEAFS, THE SIGN SHALL BE LOCATED TO THE RIGHT OF THE RIGHT HAND DOOR.
- WHERE THERE IS NO WALL SPACE AT THE LATCH SIDE OF A SINGLE DOOR OR AT THE RIGHT SIDE OF DOUBLE DOORS, SIGNS SHALL BE LOCATED ON THE NEAREST ADJACENT WALL.
- SIGNS CONTAINING TACTILE CHARACTERS SHALL BE LOCATED SO THAT A CLEAR FLOOR SPACE OF 18 INCHES MINIMUM BY 18 INCHES MINIMUM, CENTERED ON THE TACTILE CHARACTERS, IS PROVIDED BEYOND TE ARC OF ANY DOOR SWING BETWEEN THE CLOSED POSITION AND 45 DEGREE OPEN POSITION.
- EXCEPTION: SIGNS WITH TACTILE CHARACTERS SHALL BE PERMITTED ON THE PUSH SIDE OF DOORS WITH CLOSERS AND WITHOUT HOLD-OPEN DEVICES.

9 INTERIOR SIGNAGE DETAIL
1 1/2" = 1'-0"

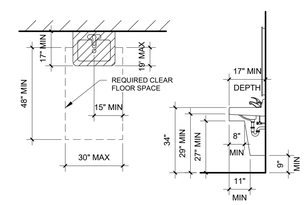


8 HANDRAILS/GRAB BARS
3" = 1'-0"

- SPOUT HT. INDICATED BELOW IS FOR ADULTS AND IS TYPICAL UNLESS NOTED OTHERWISE
- SPOUT HT. FOR CHILDREN'S USE SHALL BE 30" MAX WITH A PARALLEL APPROACH ONLY AND SPOUT IS 3 1/2" FROM FRONT EDGE OF UNIT

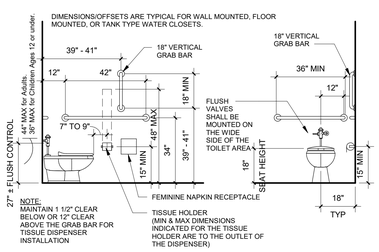


7 ACCESSIBLE DRINKING FOUNTAIN
3/8" = 1'-0"

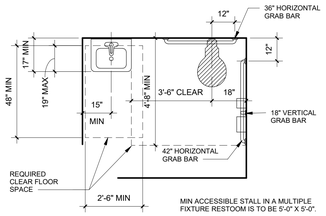


NOTE: COUNTERTOP MOUNTED LAVATORIES ARE TO BE MOUNTED WITH SAME CLEARANCES, REQUIREMENTS, ETC.

5 ACCESSIBLE LAVATORY
3/8" = 1'-0"



4 ACCESSIBLE WATER CLOSETS
3/8" = 1'-0"

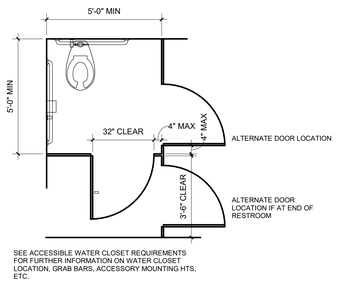


PLAN VIEW

NOTE: SEE FLOOR PLANS FOR EXACT LAYOUT OF TOILET ROOMS OR ANY REQUIRED TOILET ROOM STALLS.

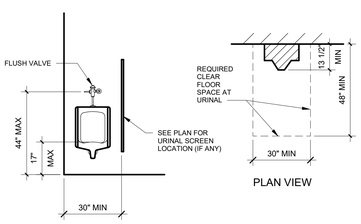
MIN ACCESSIBLE STALL IN A MULTIPLE FIXTURE RESTOOM IS TO BE 5'-0" X 5'-0".

3 AMBULATORY COMPARTMENT
3/8" = 1'-0"



SEE ACCESSIBLE WATER CLOSET REQUIREMENTS FOR FURTHER INFORMATION ON WATER CLOSET LOCATION, GRAB BARS, ACCESSORY MOUNTING HTS, ETC.

2 ACCESSIBLE COMPARTMENT
3/8" = 1'-0"



NOTE: A MIN OF ONE URINAL PER EACH MEN'S ACCESSIBLE RESTROOM SHALL BE MOUNTED AT 17" HEIGHT IF MORE THAN ONE URINAL IS PROVIDED.

1 ACCESSIBLE URINAL
3/8" = 1'-0"

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Michael James Sapp, Architect MO A-5051

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DRAWN BY: BS
CHECKED BY: ST
DESIGNED BY: JM

REVISION:
DATE:
REVISION:
DATE:
REVISION:
DATE:
ISSUED DATE: 26 FEBRUARY 2020

SHEET TITLE:

STANDARD ACCESSIBLITY DETAILS

SHEET NUMBER:

G101

4 OF 131 SHEETS

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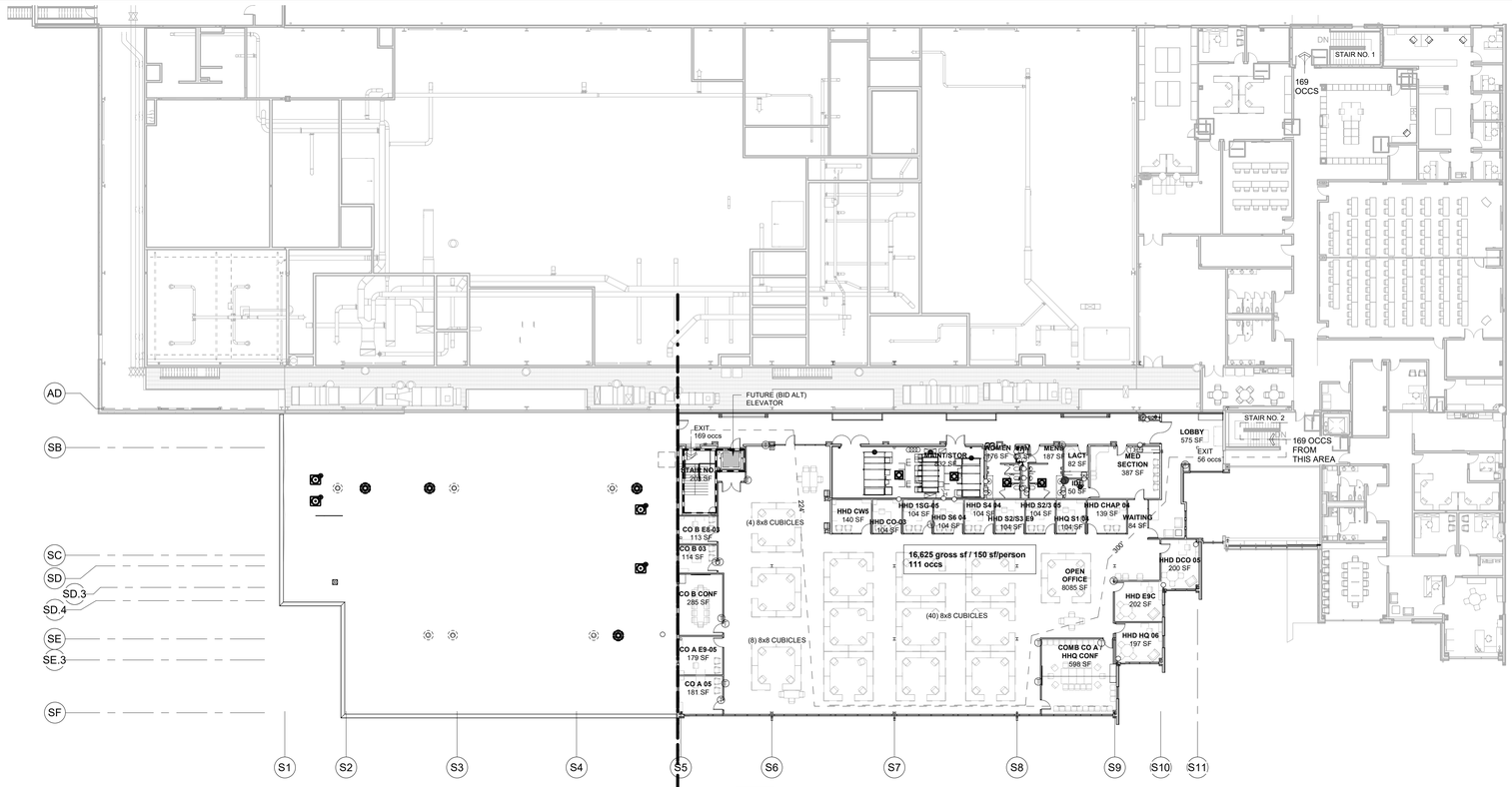
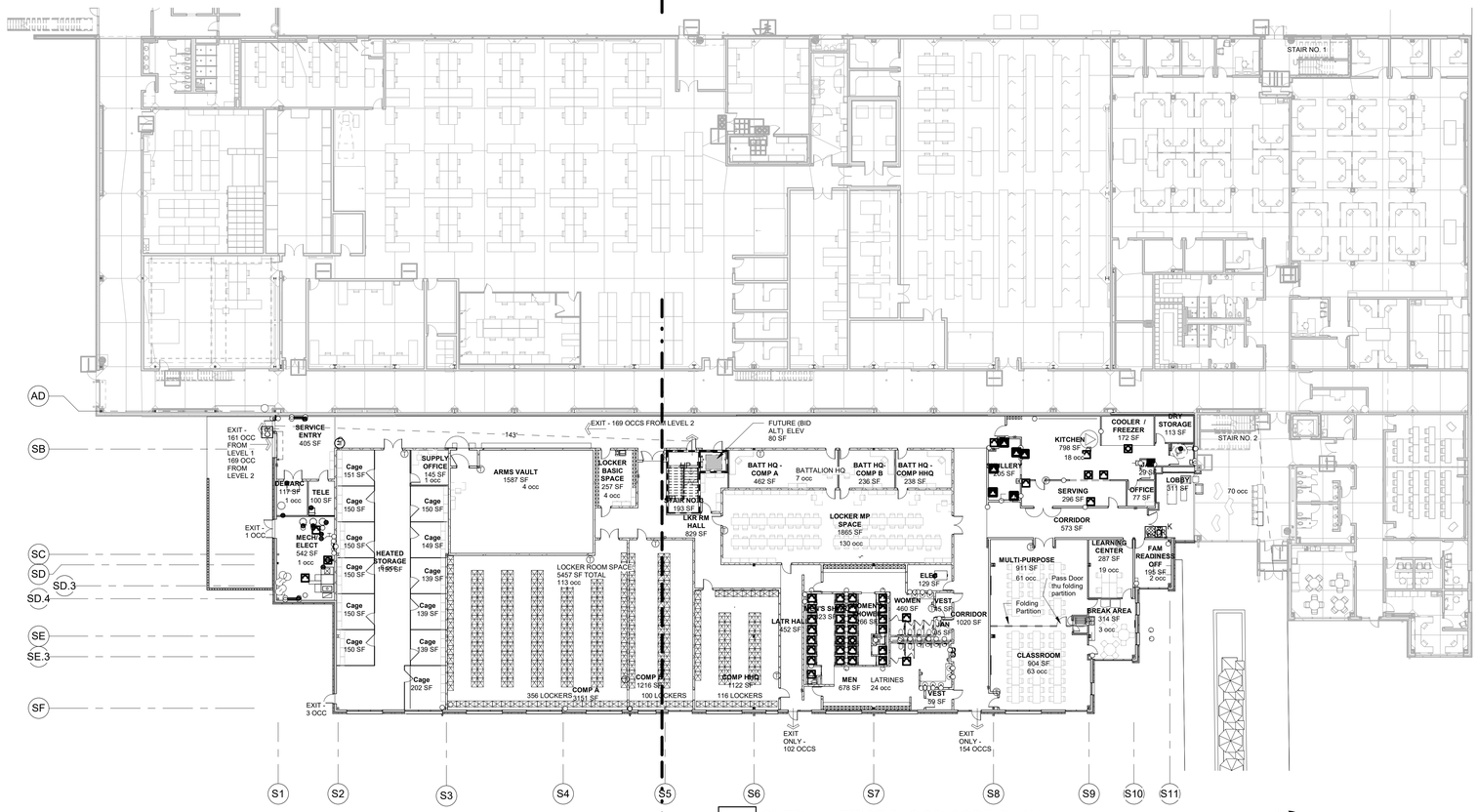


2 OVERALL SECOND FLOOR PLAN

1" = 20'-0"



1 OVERALL FIRST FLOOR CODE PLAN

1" = 20'-0"

KEYNOTES

CODE SUMMARY

PROJECT IDENTIFICATION: TASMG READINESS CENTER
AVCRAD SITE
1107th THEATER AVIATION
SUSTAINMENT MAINTENANCE GROUP
MISSOURI NATIONAL GUARD
SPRINGFIELD, MISSOURI

CODES AND STANDARDS:

UNIFIED FACILITIES CRITERIA (UFC) 1-200-01, DESIGN: GENERAL BUILDING REQUIREMENTS,

UFC 3-600-01, DESIGN: FIRE PROTECTION ENGINEERING FOR FACILITIES. IN CASE OF CONFLICTS BETWEEN THIS UFC AND ANY OTHER DOD DOCUMENT, REFERENCED CODE, STANDARD, OR PUBLICATION, THIS UFC MUST TAKE PRECEDENCE.

UFC 4-010-01 DOD MINIMUM ANTITERRORISM STANDARDS FOR BUILDINGS.

UFC 4-021-01 DESIGN AND O&M: MASS NOTIFICATION SYSTEMS.

ARMY INSTALLATION DESIGN STANDARDS, ACSIM.

INTERNATIONAL BUILDING CODE (IBC) (2015 EDITION) FOR FIRE RESISTANCE REQUIREMENTS, ALLOWABLE FLOOR AREA, BUILDING HEIGHT LIMITATIONS AND BUILDING SEPARATION DISTANCE REQUIREMENTS, EXCEPT AS MODIFIED BY UFC 3-600-01

NFPA 101, LIFE SAFETY CODE (2015 EDITION)

NFPA 13, INSTALLATION OF SPRINKLER SYSTEMS

NFPA 24, STANDARD FOR THE INSTALLATION OF PRIVATE FIRE SERVICE MAINS AND THEIR APPURTENANCES

NFPA 72, NATIONAL FIRE ALARM AND SIGNALING CODE

IN ACCORDANCE WITH UFC 1-200-01 (GENERAL BUILDING REQUIREMENTS), 2-11, THE DESIGN IS DIRECTED TO USE ABA ACCESSIBILITY STANDARD FOR DEPARTMENT OF DEFENSE FACILITIES AS ADOPTED BY THE DEPUTY SECRETARY OF DEFENSE MEMORANDUM DATED OCTOBER 31, 2008.

OCCUPANCY: MIXED USE - NON-SEPARATED OCCUPANCIES (USES B, A3 AND S1)

PROPOSED USE: READINESS CENTER - ADDITION TO EXISTING AVCRAD FACILITY

CONSTRUCTION TYPE: TYPE 2B - TWO STORY

BUILDING HEIGHT: ALLOWABLE: 75', 3-STORY
ACTUAL: 40', 2-STORY

ALLOWABLE AREA: (TABLE 507)

ALLOWABLE AREA = UNLIMITED AREA

ACTUAL AREA

MAIN FLOOR	28,859 SF
SECOND FLOOR	16,621 SF
TOTAL AREA	45,480 SF

AUTOMATIC SPRINKLER SYSTEM:
BUILDING IS FULLY SPRINKLED PER NFPA 13, IBC CHAPTER 9 AND UFC 3-600-01

STORAGE ROOMS:
SEPARATION OF STORAGE ROOMS NOT REQUIRED SINCE BUILDING IS PROTECTED THROUGHOUT WITH AUTOMATICE FIRE SPRINKLER SYSTEM. STORAGE ROOMS SHALL BE CAPABLE O FRESISITING SMOKE PASSAGE TO OTHER INTERIOR ROOMS

FIRE ALARM & DETECTION SYSTEMS: REQUIRED PER SECTION 907 AND NFPA 72

MAX. TRAVEL DISTANCE FOR EXITS ALLOWED:
250 LF, PER 2015 IBC (TABLE 1016.2)

EXIT SEPARATION - MINIMUM SEPARATION IS 1/3 OF THE MAXIMUM DIAGONAL OF THE AREA OF FLOOR MEASURED BETWEEN EXITS PER SECTION 1015.2.1

DESIGN OCCUPANT LOAD (IBC 2015, SECT 1004):
TABLE 1004.1.2

BUILDING OCCUPANCY LOAD:
456 TOTAL OCCUPANTS - FIRST FLOOR
111 TOTAL OCCUPANTS - SECOND FLOOR
567 TOTAL BOTH LEVELS

PROVIDE EGRESS:
4 SINGLE DOORS X 174 = 696 OCCS TOTAL EXIT CAPACITY

PLUMBING FIXTURES:

WATER CLOSETS - LEVEL 1 (406 OCCUPANTS)		
REQUIRED 1/25 FOR FIRST 50 + 1/50 FOR REMAINDER = 2 + 7 = 9 REQ'D		17
PROVIDED	10	
WATER CLOSETS - LEVEL 2 (142 OCCUPANTS)		
REQUIRED - 1/25 FOR FIRST 50 + 1/50 FOR REMAINDER = 2 + 2 = 4 REQ'D		
PROVIDED	6	
LAVATORIES - LEVEL 1 (406 OCCUPANTS)		
REQUIRED 1/40 FOR FIRST 80 + 1/80 FOR REMAINDER = 2 + 4 = 6 REQ'D		17
PROVIDED	8	
LAVATORIES - LEVEL 2 (406 OCCUPANTS)		
REQUIRED 1/40 FOR FIRST 80 + 1/80 FOR REMAINDER = 2 + 1 = 3 REQ'D		17
PROVIDED	4	
DRINKING FOUNTAINS		
REQUIRED 1/100	6 (4 ON LEVEL 1 AND 2 ON LEVEL 2)	
PROVIDED	6	
SERVICE SINK		
REQUIRED	1	
PROVIDED	1 EACH LEVEL	

COORDINATE WITH OWNER & ARCHITECT FOR FINAL LOCATION OF ALL SIGNAGE.

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ISSUED DATE: 26 FEBRUARY 2020

SHEET TITLE:

OVERALL CODE PLAN & CODE SUMMARY

SHEET NUMBER:

G200

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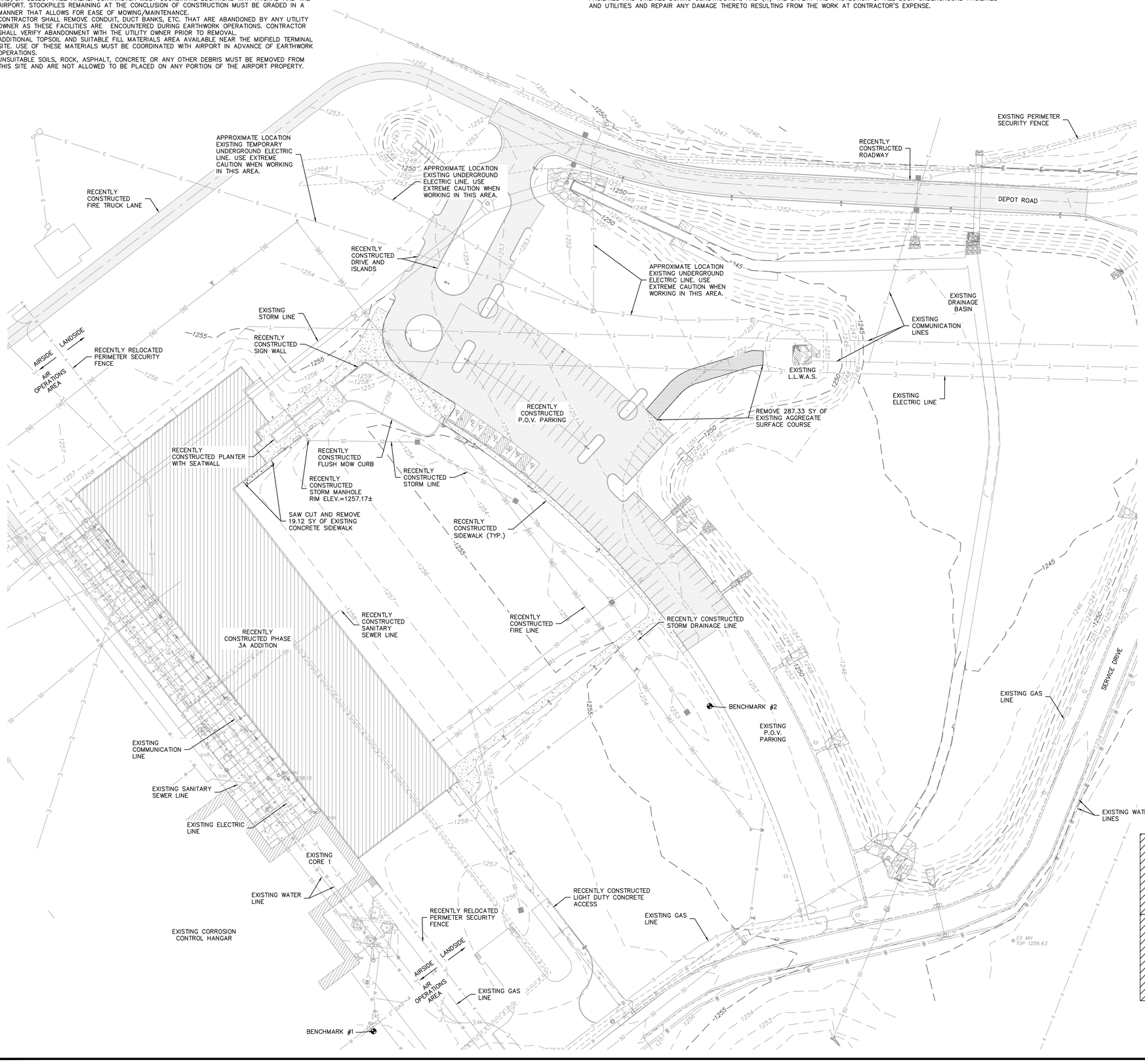
NOTES:

1. FENCING MAY BE REQUIRED TO SECURE THE CONTRACTOR'S FACILITY. ADDITIONAL FENCING MAY BE REQUIRED TO SECURE THE CONTRACTOR'S WORK AREA. THIS IS INCIDENTAL TO OTHER WORK AND NOT A BID ITEM.
2. REFER TO STORM WATER POLLUTION PREVENTION PLAN (SWPPP) FOR ADDITIONAL REQUIREMENTS AND INFORMATION.
3. EXCESS SUITABLE MATERIALS SHALL BE STOCK PILED ON SITE IN ACCORDANCE WITH FFA PART 77 AND/OR OBJECT FREE AREAS. CONTRACTOR MUST COORDINATE LOCATIONS WITH AVCRAD AND THE AIRPORT. STOCKPILES REMAINING AT THE CONCLUSION OF CONSTRUCTION MUST BE GRADED IN A MANNER THAT ALLOWS FOR EASE OF MOWING/MAINTENANCE.
4. CONTRACTOR SHALL REMOVE CONDUIT, DUCT BANKS, ETC. THAT ARE ABANDONED BY ANY UTILITY OWNER AS THESE FACILITIES ARE ENCOUNTERED DURING EARTHWORK OPERATIONS. CONTRACTOR SHALL VERIFY ABANDONMENT WITH THE UTILITY OWNER PRIOR TO REMOVAL.
5. ADDITIONAL TOPSOIL AND SUITABLE FILL MATERIALS AREA AVAILABLE NEAR THE MIDFIELD TERMINAL SITE. USE OF THESE MATERIALS MUST BE COORDINATED WITH AIRPORT IN ADVANCE OF EARTHWORK OPERATIONS.
6. UNSUITABLE SOILS, ROCK, ASPHALT, CONCRETE OR ANY OTHER DEBRIS MUST BE REMOVED FROM THIS SITE AND ARE NOT ALLOWED TO BE PLACED ON ANY PORTION OF THE AIRPORT PROPERTY.

THE INFORMATION AND DATA SHOWN OR INDICATED ON THESE IMPROVEMENT PLANS WITH RESPECT TO EXISTING AND RECENTLY CONSTRUCTED UNDERGROUND FACILITIES AND UTILITIES AT OR CONTIGUOUS TO THE SITE IS BASED ON INFORMATION AND DATA FURNISHED BY THE OWNERS OF SUCH UNDERGROUND FACILITIES AND UTILITIES OR BY OTHERS. NO GUARANTEE IS IMPLIED AS TO THE ACCURACY OR COMPLETENESS OF ANY SUCH INFORMATION OR DATA; AND CONTRACTOR SHALL HAVE FULL RESPONSIBILITY FOR (i) REVIEWING AND CHECKING ALL SUCH INFORMATION AND DATA (ii) LOCATING ALL UNDERGROUND FACILITIES AND UTILITIES SHOWN OR INDICATED ON THE IMPROVEMENT PLANS; (iii) COORDINATION OF THE WORK WITH THE OWNERS OF SUCH UNDERGROUND FACILITIES AND UTILITIES DURING CONSTRUCTION, AND (iv) THE SAFETY AND PROTECTION OF ALL SUCH UNDERGROUND FACILITIES AND UTILITIES AND REPAIR ANY DAMAGE THERETO RESULTING FROM THE WORK AT CONTRACTOR'S EXPENSE.



LEGEND

910	EXISTING CONTOUR
T	EXIST. COMMUNICATION LINE
G	EXIST. GAS LINE
SD	EXIST. STORM PIPE
W	EXIST. WATER LINE
SS	EXIST. SANITARY SEWER LINE
X	EXISTING CHAIN LINK FENCE
E	EXIST. UNDERGROUND ELECTRIC
	EXIST. TREE
WV	EXIST. WATER VALVE
	EXIST. FIRE HYDRANT AND VALVE
	EXIST. SANITARY SEWER MANHOLE
CO	EXIST. SANITARY CLEANOUT
GM	EXIST. GAS METER
	EXIST. CURB INLET
	EXIST. STORM MANHOLE
	EXIST. FLARED END SECTION
	EXIST. SIGN
	EXIST. ELECTRIC BOX
	EXIST. POWER POLE
	EXIST. LIGHT POLE
	EXIST. COMMUNICATION BOX

BENCHMARK DATUM

BENCHMARK #1
EAST BOLT ON FIRE HYDRANT
N: 517402.23
E: 1381432.43
ELEVATION:=1260.23

BENCHMARK #2
CUT SQUARE WEST SIDE OF CONCRETE LIGHT POST
N: 517725.67
E: 1381766.66
ELEVATION=1256.90

GRID BEARINGS, NAD83(2011), MISSOURI CENTRAL ZONE 2402, BASED UPON GPS OBSERVATIONS UTILIZING THE MODOT VRS. VERTICAL DATUM: (GEOID11 NAVD88)

EXISTING TOPOGRAPHY PROVIDED BY JACOBS FACILITIES. OLSSON MAKES NO GUARANTEE AS TO THE ACCURACY OF THIS INFORMATION.

CONTRACTOR – AIRPORT SECURITY
THE CONTRACTOR MUST NOT REMOVE ANY PERIMETER SECURITY FENCING WITHOUT PRIOR APPROVAL OF THE DIRECTOR OF AVIATION FOR THE SPRINGFIELD–BRANSON NATIONAL AIRPORT (SGF). THE CONTRACTOR MUST SUBMIT HIS CONSTRUCTION PLAN AND SCHEDULE TO THE DIRECTOR A MINIMUM OF 30 DAYS PRIOR TO ANY ACTIVITY WITHIN THE AIR OPERATIONS AREA (AOA). BY FEDERAL MANDATE/LAW THE DIRECTOR MUST SUBMIT THIS PLAN AND SCHEDULE TO THE TRANSPORTATION SECURITY ADMINISTRATION (TSA) FOR THEIR APPROVAL OF THE NEW SECURE PERIMETER OF THE AOA.

CONTRACTOR – USE EXTREME CAUTION
WORK ON THIS PROJECT IS ON OR ADJACENT TO A COMMERCIALLY ACTIVE NATIONAL AIRPORT. THERE MAY BE SEVERE CONSEQUENCES FOR THE INTERRUPTION OF ANY AVIATION RELATED SERVICES CAUSED BY CONSTRUCTION ACTIVITIES.

THE CONTRACTOR MUST COMPLY WITH THE FAA ADVISORY CIRCULAR AC NO. 150/5370–2E *OPERATIONAL SAFETY ON AIRPORTS DURING CONSTRUCTION*

CONTRACTOR MUST MONITOR SPRINGFIELD GROUND CONTROL AT 121.900Mhz.

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PROFESSIONAL ENGINEER
2-26-2020

PROFESSIONAL ENGINEER - RYAN V. JEPPSON
MISSOURI PE # 2012024241

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DRAWN BY: RPJ
CHECKED BY: JLR
DESIGNED BY: JKE

REVISION:
DATE:
REVISION:
DATE:
REVISION:
DATE:
ISSUED DATE: 26 FEBRUARY 2020

SHEET TITLE:

EXISTING CONDITONS AND DEMOLITION PLAN

SHEET NUMBER:

C100

6 OF 131 SHEETS

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DWG: F:\2018\2501-3000\018-2772\40-design\AutoCAD\final plans\Sheets\ONG\C_EXC_82772.dwg USER: rjungbauer
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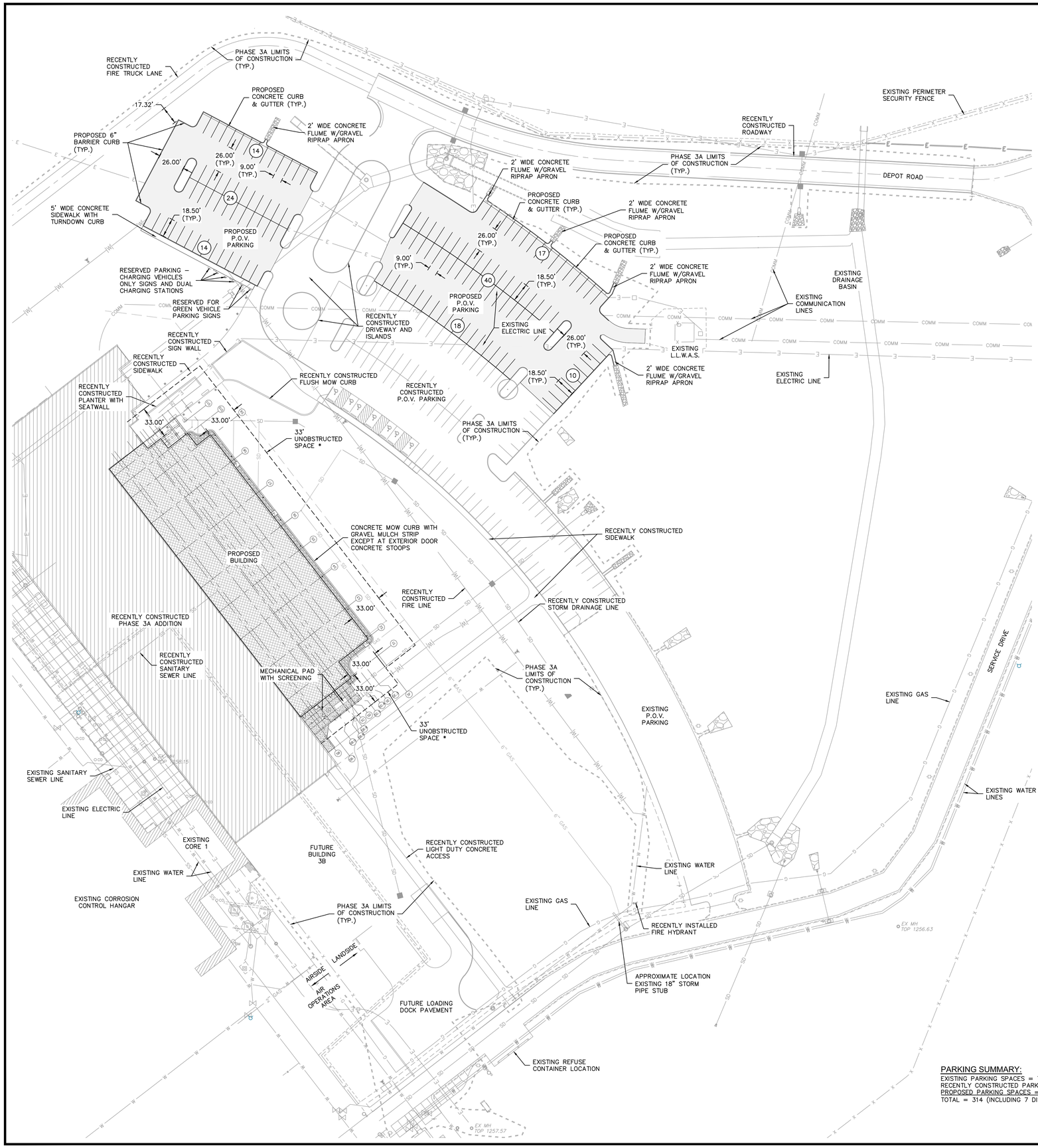

N

0' 20' 40' 80'
SCALE IN FEET

LEGEND

910	EXISTING CONTOUR
COMM	EXIST. COMMUNICATION LINE
G	EXIST. GAS LINE
SD	EXIST. STORM PIPE
W	EXIST. WATER LINE
SS	EXIST. SANITARY SEWER LINE
X	EXISTING CHAIN LINK FENCE
E	EXIST. UNDERGROUND ELECTRIC
	EXIST. TREE
	EXIST. WATER VALVE
	EXIST. FIRE HYDRANT AND VALVE
	EXIST. SANITARY SEWER MANHOLE
CO	EXIST. SANITARY CLEANOUT
GM	EXIST. GAS METER
	EXIST. CURB INLET
	EXIST. STORM MANHOLE
	EXIST. FLARED END SECTION
	EXIST. SIGN
	EXIST. ELECTRIC BOX
	EXIST. POWER POLE
	EXIST. LIGHT POLE
	EXIST. COMMUNICATION BOX
	PHASE 3 LIMITS OF CONSTRUCTION

PAVEMENT MARKING NOTES:

1. DO NOT APPLY PAVEMENT MARKING PAINT UNTIL LAYOUT, COLORS AND PLACEMENT HAVE BEEN VERIFIED WITH THE OWNER.

2. ALLOW CONCRETE PAVING TO AGE FOR 28 DAYS BEFORE MARKING.

3. SWEEP AND CLEAN SURFACE.

4. ALL PAVEMENT MARKINGS SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (M.U.T.C.D.).

5. ALL PARKING LOT STRIPING SHALL BE SINGLE LINE 4" WIDE AS PER THE SITE PLANS.

6. PAINT FOR MARKING PAVEMENT SHALL CONFORM TO FEDERAL HIGHWAY MARKING STANDARDS. USE SHERWIN WILLIAMS PROFESSIONAL FAST DRY ACRYLIC LATEX TRAFFIC MARKING PAINT OR EQUAL, USE WHITE, BLUE OR YELLOW, WHERE APPROPRIATE. UNLESS OTHERWISE DIRECTED, USE THE FOLLOWING:
A. BLACKTOP OR BITUMINOUS ASPHALT PAVING: USE WHITE COLOR.
B. PORTLAND CEMENT CONCRETE PAVING: USE WHITE COLOR.
C. HANDICAPPED ACCESSIBLE PARKING AND ENTRYWAYS: USE BLUE COLOR.
D. PROVIDE PAINTED CURBS AT FIRE LANE DESIGNATIONS PER FIRE MARSHAL REQUIREMENTS.

7. APPLY ALL MARKINGS USING APPROVED MECHANICAL EQUIPMENT (WITH PROVISIONS FOR CONSTANT AGITATION OF PAINT), CAPABLE OF APPLYING THE MARKING WIDTHS AS SHOWN. PROVIDE A MINIMUM WET FILM THICKNESS OF 15 MILS. USE PNEUMATIC SPRAY GUNS FOR HAND APPLICATION OF PAINT. ALL PAINTING EQUIPMENT AND OPERATIONS SHALL BE UNDER THE CONTROL OF EXPERIENCED TECHNICIANS THOROUGHLY FAMILIAR WITH EQUIPMENT AND MATERIALS AND MARKING LAYOUTS.

8. DETAIL PAVEMENT MARKINGS SHALL BE THAT MARKING, EXCLUSIVE OF ACTUAL TRAFFIC LANE MARKING, AT EXIT AND ENTRANCE ISLANDS AND TURNOUTS, ON CURBS, AT CROSSWALKS, AT PARKING BAYS AND AT SUCH OTHER LOCATIONS AS SHOWN. HANDICAPPED PARKING SPACES SHALL BE MARKED BY THE INTERNATIONAL HANDICAPPED SYMBOL AT INDICATED PARKING SPACES. USE A SUITABLE TEMPLATE THAT WILL PROVIDE A PAVEMENT MARKING WITH TRUE, SHARP EDGES AND ENDS.

*UNOBSTRUCTED SPACE

PER UFC 4-010-01, 12 DECEMBER 2018 STANDARD 1, STANDOFF DISTANCE, SECTION 3-2, "STANDOFF DISTANCES ONLY APPLY TO DISTANCES TO INSTALLATION PERIMETERS FOR NEW CONSTRUCTION AND ADDITIONS TO EXISTING BUILDINGS THAT ARE REQUIRED TO COMPLY WITH THESE STANDARDS."

PER STANDARD 2, UNOBSTRUCTED SPACE, SECTION 3-3, "WHERE BUILDINGS ARE REQUIRED TO MEET THESE STANDARDS, THE UNOBSTRUCTED SPACE MUST EXTEND 33 FEET OUT FROM THE BUILDING, OR TO THE INSTALLATION PERIMETER AS ESTABLISHED BY STANDARD 1."

EXISTING TOPOGRAPHY PROVIDED BY JACOBS FACILITIES. OLSSON MAKES NO GUARANTEE AS TO THE ACCURACY OF THIS INFORMATION.

PARKING SUMMARY:

EXISTING PARKING SPACES = 70
RECENTLY CONSTRUCTED PARKING SPACES = 107
PROPOSED PARKING SPACES = 137
TOTAL = 314 (INCLUDING 7 DISABLED PARKING SPACES)

CONTRACTOR – AIRPORT SECURITY
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RYAN V. JEPPSON NUMBER PE-2012024241 PROFESSIONAL ENGINEER
2-26-2020
PROFESSIONAL ENGINEER - RYAN V. JEPPSON
MISSOURI PE # 2012024241

TASMG READINESS CENTER

AVCRAD SITE
1107TH THEATER AVIATION SUSTAINMENT MAINTENANCE GROUP

MISSOURI NATIONAL GUARD
SPRINGFIELD, MISSOURI

NATIONAL GUARD BUREAU PROJECT #290186
MISSOURI NATIONAL GUARD PROJECT #T1809-01
SITE #9019
ASSET #8136270008

DRAWN BY: RPJ
CHECKED BY: JLR
DESIGNED BY: JKE

REVISION:
DATE:
REVISION:
DATE:
REVISION:
DATE:
ISSUED DATE: 26 FEBRUARY 2020

SHEET TITLE:

GENERAL LAYOUT PLAN

SHEET NUMBER:

C200

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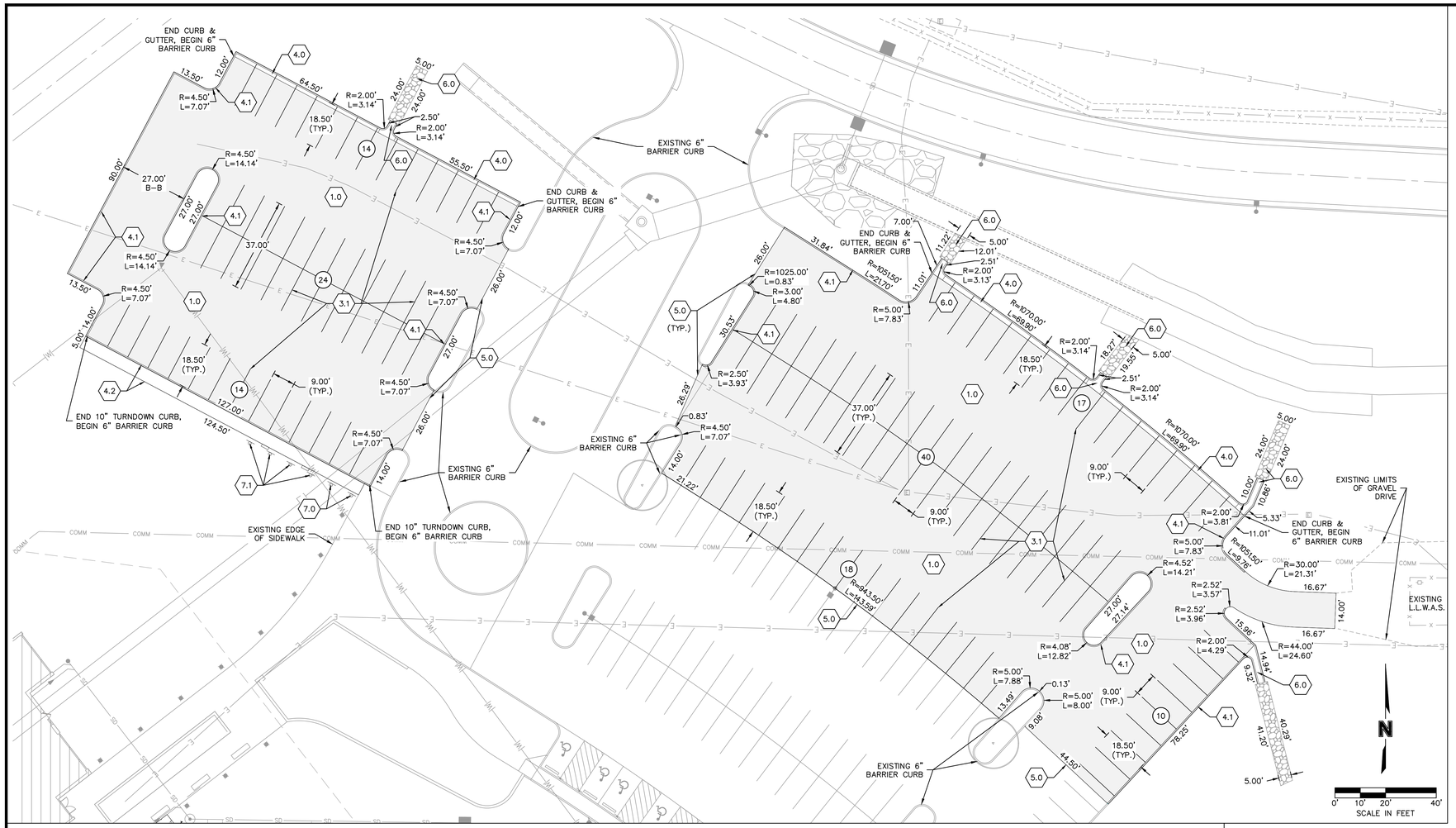

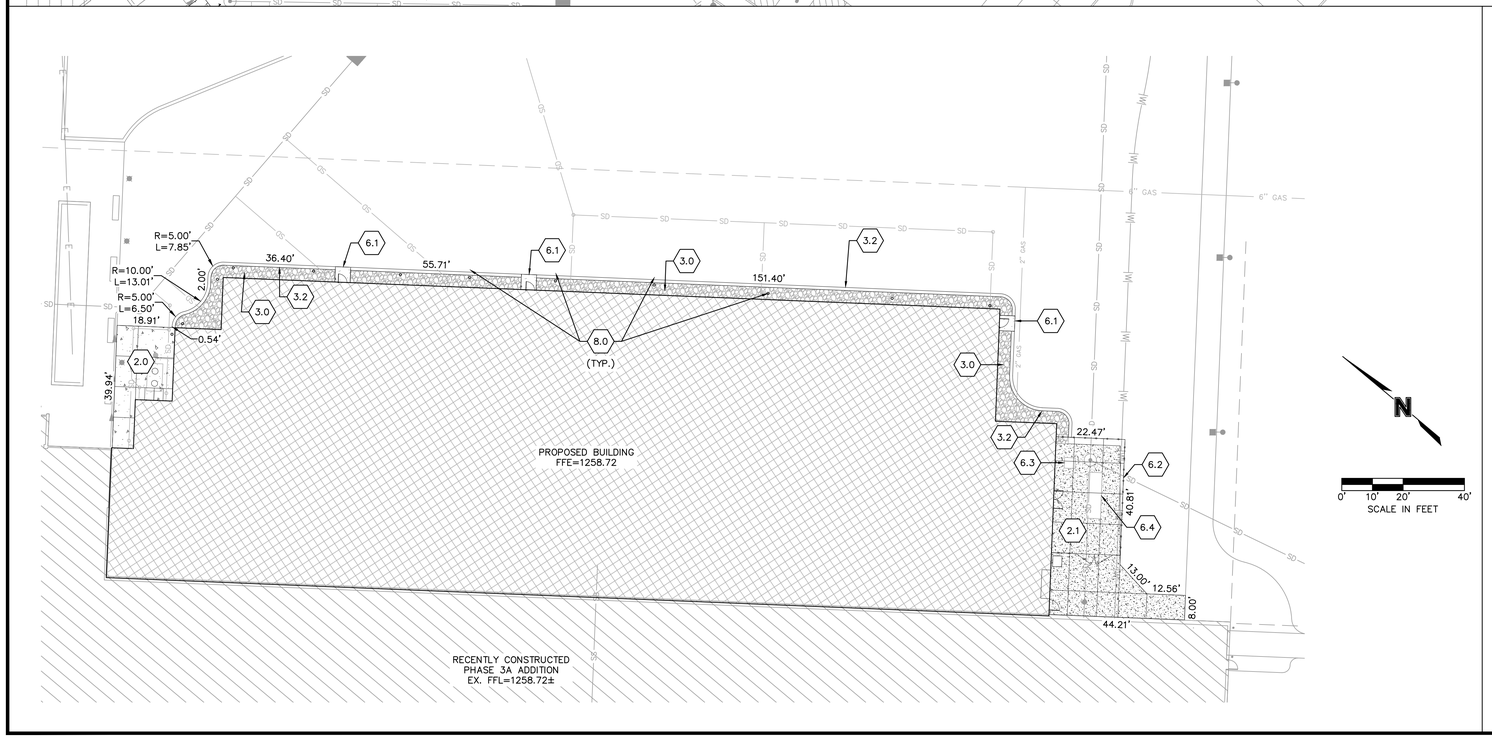

LEGEND

COMM	EXIST. COMMUNICATION LINE
G	EXIST. GAS LINE
SD	EXIST. STORM PIPE
W	EXIST. WATER LINE
SS	EXIST. SANITARY SEWER LINE
X	EXISTING CHAIN LINK FENCE
E	EXIST. UNDERGROUND ELECTRIC
	EXIST. TREE
	EXIST. WATER VALVE
	EXIST. FIRE HYDRANT AND VALVE
	EXIST. SANITARY SEWER MANHOLE
	EXIST. SANITARY CLEANOUT
	EXIST. GAS METER
	EXIST. CURB INLET
	EXIST. STORM MANHOLE
	EXIST. FLARED END SECTION
	EXIST. SIGN
	EXIST. ELECTRIC BOX
	EXIST. POWER POLE
	EXIST. LIGHT POLE
	EXIST. COMMUNICATION BOX
	PROP. STORM SEWER LINE
W	PROP. WATER LINE
FP	PROP. FIRE PROTECTION LINE
E	PROP. UNDERGROUND ELECTRIC
2" GAS	PROP. 2" GAS LINE
6" GAS	PROP. 6" GAS LINE
	PROP. FENCE
	6" BARRIER CURB
	STANDARD CURB & GUTTER
B–B	BACK OF CURB TO BACK OF CURB

KEYNOTES:

1.0	INSTALL ASPHALT PAVEMENT, LIGHT DUTY (SEE DETAIL A4, SHEET C800) IF BID ALTERNATE #4 IS TAKEN, THIS PAVEMENT WILL BE LIGHT DUTY CONCRETE PAVEMENT (SEE DETAIL B2, SHEET C800).
2.0	CONSTRUCT CONCRETE SIDEWALK (SEE DETAIL B3, SHEET C800)
2.1	CONSTRUCT LIGHT DUTY CONCRETE PAVEMENT (SEE DETAIL B2, SHEET C800)
3.0	GRAVEL MULCH STRIP. (SEE DETAIL B1, SHEET C800)
3.1	PAVEMENT STRIPPING, 4" SINGLE SOLID WHITE STRIPE. (TYP.) (REFER TO SHEET C200 FOR PAVEMENT MARKING NOTES AND DETAIL A1, SHEET C800)
3.2	CONSTRUCT CONCRETE MOW CURB (SEE DETAIL B1, SHEET C800)
4.0	CONSTRUCT "STANDARD" CURB & GUTTER (SEE DETAIL B5, SHEET C800)
4.1	CONSTRUCT 6" BARRIER CURB (SEE DETAIL C1, SHEET C800)
4.2	CONSTRUCT CONCRETE SIDEWALK WITH 10" TURNDOWN CURB (SEE DETAIL A2, SHEET C800)
5.0	IF BID ALTERNATE #4 IS TAKEN, INSTALL EXPANSION JOINT WHERE ABUTTING WITH EXISTING CONCRETE PAVEMENT AND/OR CURB
6.0	CONSTRUCT 2' WIDE CONCRETE FLUME (SEE DETAIL B4, SHEET C800) WITH GRAVEL RIP–RAP APRON (SEE DETAIL C4, SHEET C800)
6.1	CONSTRUCT 5'x 5' CONCRETE STOOP (REFER TO STRUCTURAL PLANS FOR DETAILS)
6.2	SCREEN WALL AND TWO 6' WIDE GATES (REFER TO ARCHITECTURAL PLANS)
6.3	CONDENSING UNIT PAD (REFER TO MECHANICAL PLANS)
6.4	GENERATOR PAD (REFER TO STRUCTURAL AND MEP PLANS)
7.0	INSTALL RESERVED PARKING FOR LOW–EMITTING/FUEL EFFICIENT/CARPOOL VEHICLE SIGNS (SEE DETAIL C2, SHEET C800)
7.1	INSTALL RESERVED PARKING FOR LOW–EMITTING/FUEL EFFICIENT/CARPOOL VEHICLE SIGN (SEE DETAIL C2, SHEET C800). IF BID ALTERNATE #4 IS TAKEN, THEN INSTALL RESERVED PARKING FOR CHARGING VEHICLE SIGNS (SEE DETAIL C3, SHEET C800) IN LIEU OF OTHER SIGNS.
8.0	"UP–LIGHTS". REFER TO ELECTRIC PLANS FOR DETAILS.

PAVEMENT NOTES:

1. ALL EXTERIOR CONCRETE SHALL HAVE A MINIMUM 28–DAY COMPRESSIVE STRENGTH OF 4000 PSI AND BE AIR ENTRAINED. FLY ASH IS NOT A SUITABLE REPLACEMENT FOR PORTLAND CEMENT.
2. CONCRETE PAVEMENT JOINTS SHALL BE CONSTRUCTED AS FOLLOWS

   A. CONTROL JOINTS SPACED AT INTERVALS NOT GREATER THAN 12 FEET AND TOOLED TO 1/3 THE SLAB THICKNESS.

   B. CONSTRUCTION JOINTS AT THE END OF EACH POUR AND WHEN PAVING OPERATIONS ARE SUSPENDED FOR 30 MINUTES OR MORE.

   C. ISOLATION JOINTS PLACE WHERE THE PAVEMENT ABUTS THE BUILDING, DRAINAGE STRUCTURES AND OTHER FIXED STRUCTURES, CONSTRUCTED WITH A 1/2" NON–EXTRUDING FILLER, CLOSED–CELL FOAM RUBBER OR A BITUMEN–TREATED FIBER–BOARD, AND WITH A THICKENED EDGE, INCREASED BY 20 PERCENT, TAPERED TO THE REGULAR THICKNESS IN 5 FEET.

   D. ALL EXPANSION JOINTS SHALL BE FILLED AND SEALED WITH A PLASTIC JOINT SEALANT MATERIAL.

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SITE #9019
ASSET #8136270008

DRAWN BY: RPJ
CHECKED BY: JLR
DESIGNED BY: JKE

REVISION:
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ISSUED DATE: 26 FEBRUARY 2020

SHEET TITLE:

SITE PLAN

SHEET NUMBER:

C201

8 OF 131 SHEETS

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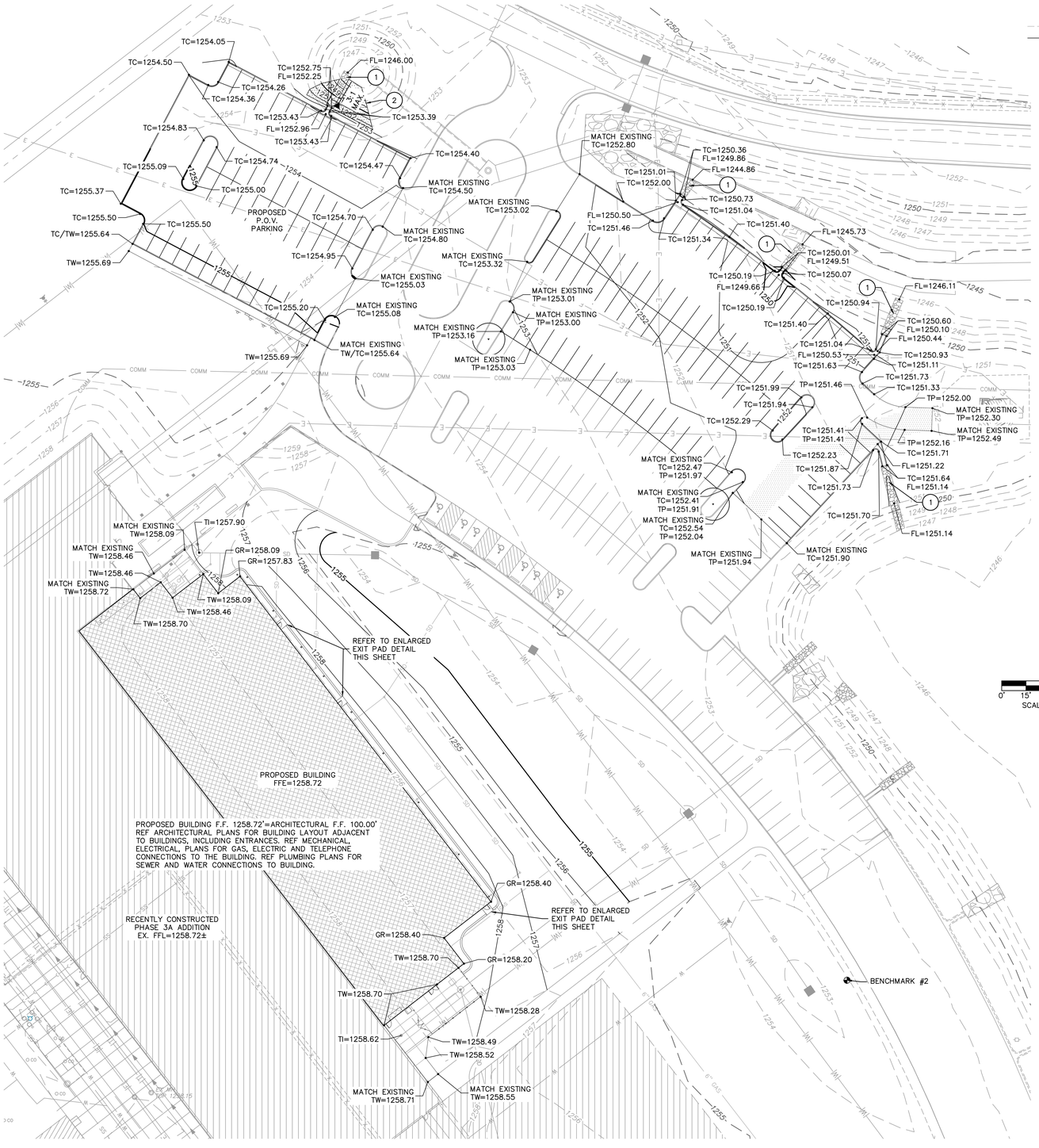


LEGEND

1280	EXISTING CONTOUR
1280	PROPOSED CONTOUR
TP=1280.00	TOP OF PAVEMENT
TC=1280.00	TOP OF CURB
TW=1280.00	TOP OF SIDEWALK
TCP=1280.00	TOP OF CONCRETE PAD
TV=1280.00	TOP OF VAULT
TI=1280.00	TOP OF INLET
GR=1280.00	FINISHED GROUND
FL=1280.00	FLOW LINE
	FLOW LINE
HP	HIGH POINT
LP	LOW POINT
	6" BARRIER CURB
	"STANDARD" CURB & GUTTER
	RIPRAP APRON, SEE DETAIL C4, SHEET C800
	110 S.F. OF EROSION CONTROL BLANKET, SEE DETAIL B3, SHEET C701

KEY NOTES:

1. INSTALL RIPRAP (SEE DETAIL C4, SHEET C800)
2. EROSION CONTROL BLANKET. REFER TO SHEET C700.

IN LOCATIONS WHERE EROSION CONTROL MATTING IS NOTED ON PLANS, IT MAY BE DELETED IF ALL OF THE FOLLOWING CONDITIONS ARE MET:
- LOCATIONS ARE NOT DORMANT FROM GRADING FOR 14 OR MORE DAYS,
- FINAL GRADING HAS BEEN ACHIEVED,
- SOD IS INSTALLED PER THE SPECIFICATION UTILIZING PINS FOR SLOPES 3:1 OR STEEPER,
- SOD IS MAINTAINED AND ESTABLISHED PER THE SOD SPECIFICATION.

GRADING NOTES:

1. CONTRACTOR SHALL USE CAUTION AROUND ANY EXISTING UTILITIES LOCATED ON-SITE. THEY SHALL BE RESPONSIBLE FOR THE REPAIRS OF SUCH STRUCTURES WHEN BROKEN OR OTHERWISE DAMAGED BY THE NEW CONSTRUCTION.

2. THE PROPOSED CONTOURS REPRESENT TOP OF ASPHALT OR CONCRETE IN PAVEMENT AREAS AND FINISHED GRADE IN ALL OTHER AREAS. QUANTITIES DO NOT TAKE INTO ACCOUNT CORE-OUT OR ANY OVER-EXCAVATION. REFER TO GEOTECHNICAL INVESTIGATION FOR SUBGRADE AND FILL REQUIREMENTS.

3. CONTRACTOR SHALL ADDRESS ANY GRADING RECOMMENDATIONS IDENTIFIED IN THE GEOTECHNICAL INVESTIGATION. PRIOR TO MOVING OFF THE JOB THE CONTRACTOR SHALL NOTIFY THE ENGINEER TO CONDUCT A FINAL WALK-THROUGH OF THE CONSTRUCTION SITE.

4. THE EXISTENCE AND LOCATION OF UNDERGROUND UTILITIES, PIPES AND STRUCTURES SHOWN ON THESE PLANS WERE OBTAINED BY A SEARCH OF AVAILABLE RECORDS AND TO THE BEST OF OUR KNOWLEDGE CONSTITUTES ALL KNOWN FACILITIES. HOWEVER, THE CONTRACTOR IS REQUIRED TO TAKE DUE PRECAUTIONARY MEASURES TO PROTECT ANY EXISTING UTILITIES OR STRUCTURES LOCATED AT THE WORK SITE. IT IS THE CONTRACTOR'S RESPONSIBILITY TO CONTACT AN UNDERGROUND LOCATE SERVICE IN ADVANCE OF ANY EXCAVATION FOR THE MARK-OUT OF THE LOCATION OF UTILITIES AND NOTIFICATION OF COMMENCEMENT OF WORK.

5. BEFORE EXCAVATING FOR THIS CONTRACT, THE CONTRACTOR SHALL FIELD VERIFY LOCATION OF UNDERGROUND UTILITIES. CONTRACTOR SHALL MAKE EXPLORATION EXCAVATIONS AND LOCATE EXISTING UNDERGROUND UTILITIES SUFFICIENTLY AHEAD OF CONSTRUCTION TO PERMIT REVISIONS TO PLANS IF REVISIONS ARE NECESSARY BECAUSE OF ACTUAL LOCATION OF EXISTING FACILITIES.

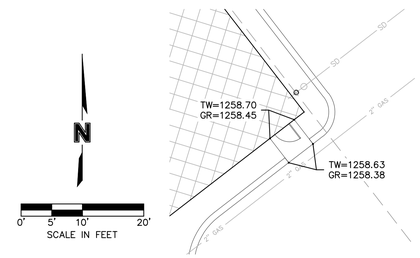
6. CONTRACTOR IS REQUIRED TO TAKE PRECAUTIONARY MEASURES TO PROTECT THE UTILITY LINES SHOWN AND ANY OTHER EXISTING LINES NOT OF RECORD OR NOT SHOWN ON THESE PLANS.

7. CONTRACTOR SHALL BE RESPONSIBLE FOR THE MAINTENANCE OF THE SEDIMENT CONTROL BARRIERS FOR A PERIOD OF 1 YEAR OR UNTIL THEY ARE RELEASED FROM THIS RESPONSIBILITY BY THE ENGINEER, WHICHEVER PERIOD IS SHORTER.

8. ALL SIDEWALKS SHALL BE ADA ACCESSIBLE WITH RUNNING SLOPE BEING NO STEEPER THAN 5.00% AND CROSS SLOPES NO STEEPER THAN 2.00%. ALL LANDINGS OUTSIDE OF EXTERIOR ENTRANCES/EXITS SHALL BE NO STEEPER THAN 2.00% FOR THE FIRST 5'-0".

9. CONTRACTOR SHALL FINISH GRADE SLOPES AS SHOWN NO STEEPER THAN 1 FOOT VERTICAL IN 3 FEET HORIZONTAL.

10. ALL FINISH GRADES AROUND BUILDING SHALL BE 6" BELOW FINISH FLOOR UNLESS SPECIFIED OTHERWISE. CONTRACTOR SHALL FINISH GRADE TO PROVIDE POSITIVE DRAINAGE AWAY FROM BUILDING.



TYPICAL EXIT PAD

SCALE: 1"=10'

NOTES:

1. EXCESS SUITABLE MATERIALS SHALL BE STOCKPILED ON SITE IN ACCORDANCE WITH FAA PART 77 AND/OR OBJECT FREE AREAS. CONTRACTOR MUST COORDINATE LOCATIONS WITH AVCRAD AND THE AIRPORT. STOCKPILES REMAINING AT THE CONCLUSION OF CONSTRUCTION MUST BE GRADED IN A MANNER THAT ALLOWS FOR EASE OF MOWING/MAINTENANCE.

2. UNSUITABLE SOILS, ROCK, ASPHALT, CONCRETE OR ANY OTHER DEBRIS MUST BE REMOVED FROM THIS SITE AND ARE NOT ALLOWED TO BE PLACED ON ANY PORTION OF THE AIRPORT PROPERTY.

BENCHMARK DATUM

BENCHMARK #1
EAST BOLT ON FIRE HYDRANT
N: 517402.23
E: 1381432.43
ELEVATION:=1260.23

BENCHMARK #2
CUT SQUARE WEST SIDE OF CONCRETE LIGHT POST
N: 517725.67
E: 1381766.66
ELEVATION=1256.90

GRID BEARINGS, NAD83(2011), MISSOURI CENTRAL ZONE 2402, BASED UPON GPS OBSERVATIONS UTILIZING THE MODOT VRS. VERTICAL DATUM: (GEOID11 NAVD88)

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SHEET TITLE:

GRADING PLAN

SHEET NUMBER:

C300

9 OF 131 SHEETS

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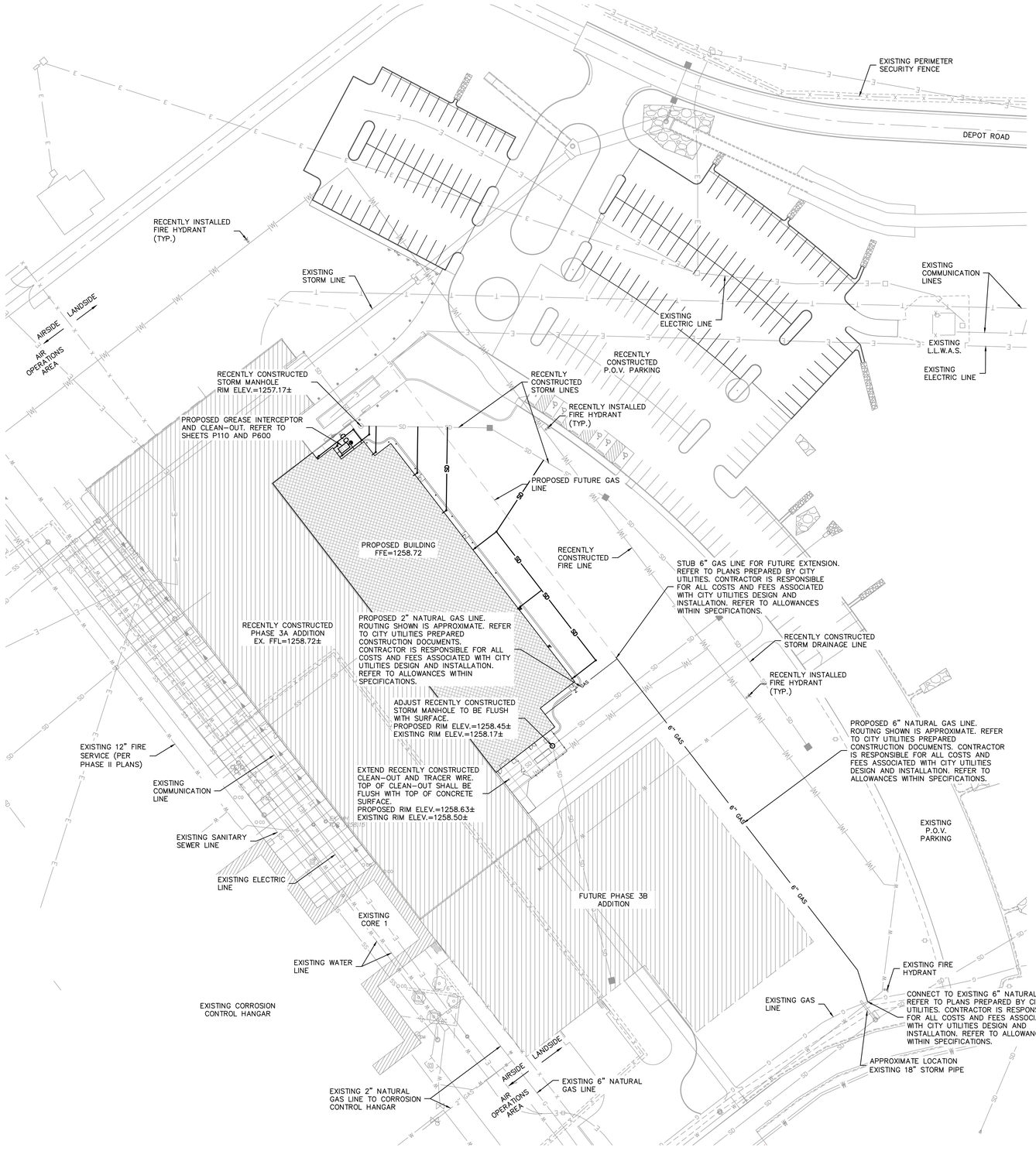

N

0' 20' 40' 80'
SCALE IN FEET

LEGEND

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6" GAS	PROP. 6" GAS LINE
	PROP. FENCE
SD	PROP. STORM SEWER
T	EXIST. COMMUNICATION LINE
G	EXIST. 6" GAS LINE
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	EXIST. WATER VALVE
	EXIST. FIRE HYDRANT AND VALVE
	EXIST. SANITARY SEWER MANHOLE
	EXIST. SANITARY CLEANOUT
	EXIST. GAS METER
	EXIST. CURB INLET
	EXIST. STORM MANHOLE
	EXIST. FLARED END SECTION
	EXIST. SIGN
	EXIST. ELECTRIC BOX
	EXIST. POWER POLE
	EXIST. LIGHT POLE
	EXIST. COMMUNICATION BOX

NOTES:

1. CONTRACTOR SHALL AVOID CONFLICT WITH FOUNDATION WHEN INSTALLING DRAINAGE AND UTILITY CONNECTIONS.
2. CONTRACTOR SHALL RELOCATE (AT CONTRACTOR'S EXPENSE) EXISTING UTILITIES, AS NEEDED, DUE TO EARTHWORK, UNDERGROUND UTILITY INSTALLATION, AND ANY BELOW GRADE STRUCTURES.
3. REFERENCE ARCHITECTURAL AND PLUMBING DRAWINGS FOR DOWNSPOUT AND ROOF DRAIN COLLECTOR LOCATIONS.
4. ALL EXPOSED PVC ROOF DRAIN BOOTS SHALL EXTEND SIX INCHES ABOVE FINISH GRADE OR FINISH PAVEMENT, AND SHALL BE COLORED WHITE, FREE OF ALL MARKINGS.
5. MAINTAIN UNIFORM GRADE BETWEEN GIVEN ELEVATIONS UNLESS OTHERWISE NOTED. MINIMUM GRADE FOR ALL DOWNSPOUT COLLECTION PIPING IS 2.00%.
6. MARK THE END OF EACH DUCTILE IRON OR PVC STUBBED PIPE WITH 6 FOOT STEEL FENCE POST AT END OF STUB LOCATED WITH THE TOP OF THE POST FLUSH WITH THE FINISH GROUND SURFACE.

CONTRACTOR – AIRPORT SECURITY
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2-26-2020

PROFESSIONAL ENGINEER - RYAN V. JEPPSON
MISSOURI PE # 2012024241

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SPRINGFIELD, MISSOURI

NATIONAL GUARD BUREAU PROJECT #290186
MISSOURI NATIONAL GUARD PROJECT #T1809-01
SITE #9019
ASSET #8136270008

DRAWN BY: RPJ
CHECKED BY: JLR
DESIGNED BY: JKE

REVISION:
DATE:
REVISION:
DATE:
REVISION:
DATE:
ISSUED DATE: 26 FEBRUARY 2020

SHEET TITLE:

UTILITY PLAN

SHEET NUMBER:

C400

10 OF 131 SHEETS

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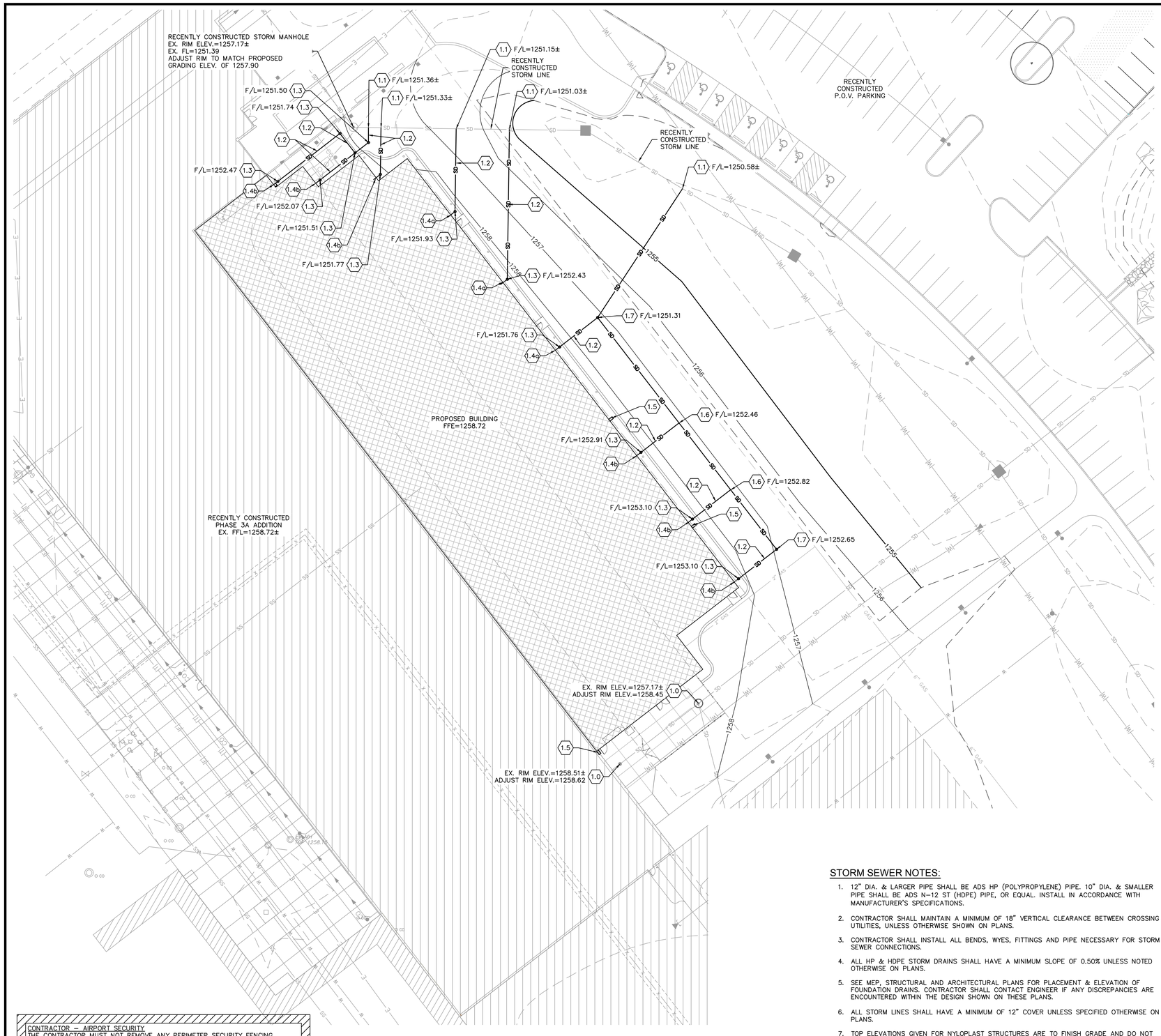

LEGEND

	PROP. SIGN
2" GAS	PROP. 2" GAS LINE
6" GAS	PROP. 6" GAS LINE
	PROP. FENCE
910	EXISTING CONTOUR
910	PROPOSED CONTOUR
SD	PROP. STORM SEWER
T	EXIST. COMMUNICATION LINE
G	EXIST. 6" GAS LINE
2" GAS	EXIST. 2" GAS LINE
SD	EXIST. STORM PIPE
W	EXIST. WATER LINE
	EXIST. SANITARY SEWER LINE
X	EXISTING CHAIN LINK FENCE
E	EXIST. UNDERGROUND ELECTRIC
	EXIST. TREE
	EXIST. WATER VALVE
	EXIST. FIRE HYDRANT AND VALVE
	EXIST. SANITARY SEWER MANHOLE
	EXIST. SANITARY CLEANOUT
	EXIST. GAS METER
	EXIST. CURB INLET
	EXIST. STORM MANHOLE
	EXIST. FLARED END SECTION
	EXIST. SIGN
	EXIST. ELECTRIC BOX
	EXIST. POWER POLE
	EXIST. LIGHT POLE
	EXIST. COMMUNICATION BOX

STORM SEWER KEYNOTES - SERIES 1

1.0	CONTRACTOR SHALL ADJUST RIM ELEVATION AS NECESSARY & INSTALL DEETER 1932 INLET GRATE OR APPROVED EQUAL
1.1	CONNECT ROOF DRAIN PIPE TO PREVIOUSLY INSTALLED STORM SEWER WITH INSERTA-TEE PER MANUFACTURES SPECIFICATIONS. F/L = (SEE PLAN)
1.2	INSTALL 8" HDPE STORM SEWER PIPE AT 1.00% MINIMUM
1.3	INSTALL STORM SEWER CLEANOUT. SEE DETAIL A5 ON SHEET C801 F/L = (SEE PLAN)
1.4a	CONTRACTOR SHALL CONNECT TO EXTERNAL BUILDING DOWNSPOUT USING STORM SEWER ROOF DRAIN BOOT. (SEE DETAIL C5 ON SHEET C801) SEE MEP / ARCHITECTURAL PLANS FOR CONTINUATION TO BUILDING F/L = 1253.73
1.4b	CONTRACTOR SHALL CONNECT TO UNDERSLAB BUILDING DOWNSPOUT. CONTRACTOR SHALL PROVIDE ALL NECESSARY FITTINGS TO COMPLETE CONNECTION. SEE MEP / ARCHITECTURAL PLANS FOR CONTINUATION TO BUILDING F/L = 1253.73
1.5	INSTALL 30" CONCRETE DOWNSPOUT SPLASH BLOCK FOR ROOF DRAIN OVERFLOW (REFER TO ARCHITECTURAL PLANS)
1.6	CONNECT ROOF DRAIN PIPE TO PROPOSED STORMLINE 400 WITH INSERTA-TEE PER MANUFACTURES SPECIFICATIONS
1.7	SEE SHEET C501 FOR STORM PIPE PLAN AND PROFILE

STORM SEWER NOTES:

1. 12" DIA. & LARGER PIPE SHALL BE ADS HP (POLYPROPYLENE) PIPE. 10" DIA. & SMALLER PIPE SHALL BE ADS N-12 ST (HDPE) PIPE, OR EQUAL. INSTALL IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.
2. CONTRACTOR SHALL MAINTAIN A MINIMUM OF 18" VERTICAL CLEARANCE BETWEEN CROSSING UTILITIES, UNLESS OTHERWISE SHOWN ON PLANS.
3. CONTRACTOR SHALL INSTALL ALL BENDS, WYES, FITTINGS AND PIPE NECESSARY FOR STORM SEWER CONNECTIONS.
4. ALL HP & HDPE STORM DRAINS SHALL HAVE A MINIMUM SLOPE OF 0.50% UNLESS NOTED OTHERWISE ON PLANS.
5. SEE MEP, STRUCTURAL AND ARCHITECTURAL PLANS FOR PLACEMENT & ELEVATION OF FOUNDATION DRAINS. CONTRACTOR SHALL CONTACT ENGINEER IF ANY DISCREPANCIES ARE ENCOUNTERED WITHIN THE DESIGN SHOWN ON THESE PLANS.
6. ALL STORM LINES SHALL HAVE A MINIMUM OF 12" COVER UNLESS SPECIFIED OTHERWISE ON PLANS.
7. TOP ELEVATIONS GIVEN FOR NYLOPLAST STRUCTURES ARE TO FINISH GRADE AND DO NOT INCLUDE HEIGHT OF DOME LIDS OR OTHER CASTINGS.
8. ALL NYLOPLAST STRUCTURES SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.
9. SEE DETAIL SHEET C801 FOR STORM SEWER DETAILS.
10. SEE DETAIL SHEET C801 FOR STORM PIPE BEDDING.
11. CONTRACTOR SHALL FIELD VERIFY EXIST. PIPE LOCATION, ELEVATION & SIZE PRIOR TO ORDERING PRECAST JUNCTION BOX.
12. CONTRACTOR SHALL NOTIFY THE ENGINEER OF ANY CONDITIONS THAT AFFECT THE DESIGN SHOWN ON THESE PLANS.

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N

0' 10' 20' 40'
SCALE IN FEET

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MISSOURI NATIONAL GUARD PROJECT #T1809-01
SITE #9019
ASSET #8136270008

DRAWN BY: RPJ
CHECKED BY: JLR
DESIGNED BY: JKE

REVISION:
DATE:
REVISION:
DATE:
REVISION:
DATE:
ISSUED DATE: 26 FEBRUARY 2020

SHEET TITLE:

STORM WATER
DRAINAGE PLAN

SHEET NUMBER:

C500

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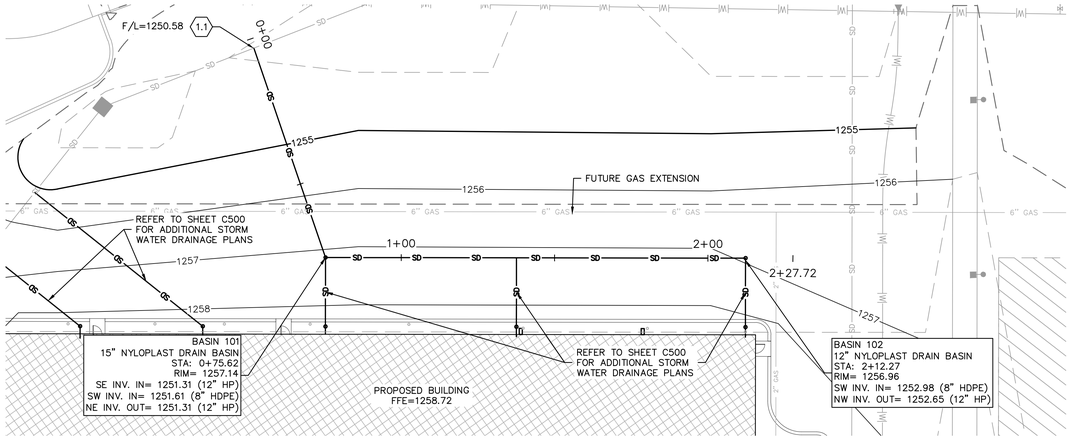
STORM SEWER KEYNOTES - SERIES 1

1.1 CONNECT ROOF DRAIN PIPE TO PREVIOUSLY INSTALLED STORM SEWER WITH INSERTA-TEE PER MANUFACTURES SPECIFICATIONS. F/L = (SEE PLAN)



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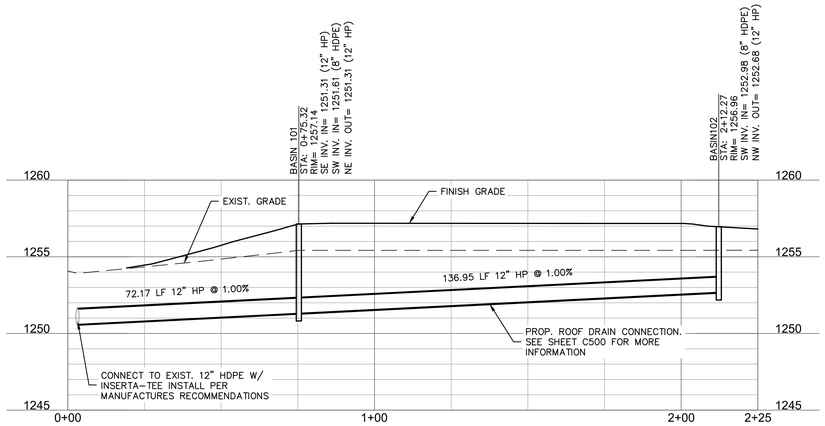

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LEGEND

- 910 — EXISTING CONTOUR
- 910 — PROPOSED CONTOUR
- SD — PROP. STORM SEWER
- G — EXIST. 6" GAS LINE
- SD — EXIST. STORM PIPE
- W — EXIST. WATER LINE
- EXIST. SANITARY SEWER LINE
- E — EXIST. UNDERGROUND ELECTRIC

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N

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SPRINGFIELD, MISSOURI

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MISSOURI NATIONAL GUARD PROJECT #T1809-01
SITE #9019
ASSET #8136270008

DRAWN BY: RPJ
CHECKED BY: JLR
DESIGNED BY: JKE

REVISION:
DATE:
REVISION:
DATE:
REVISION:
DATE:
ISSUED DATE: 26 FEBRUARY 2020

SHEET TITLE:

STORM WATER PLAN & PROFILE

SHEET NUMBER:

C501

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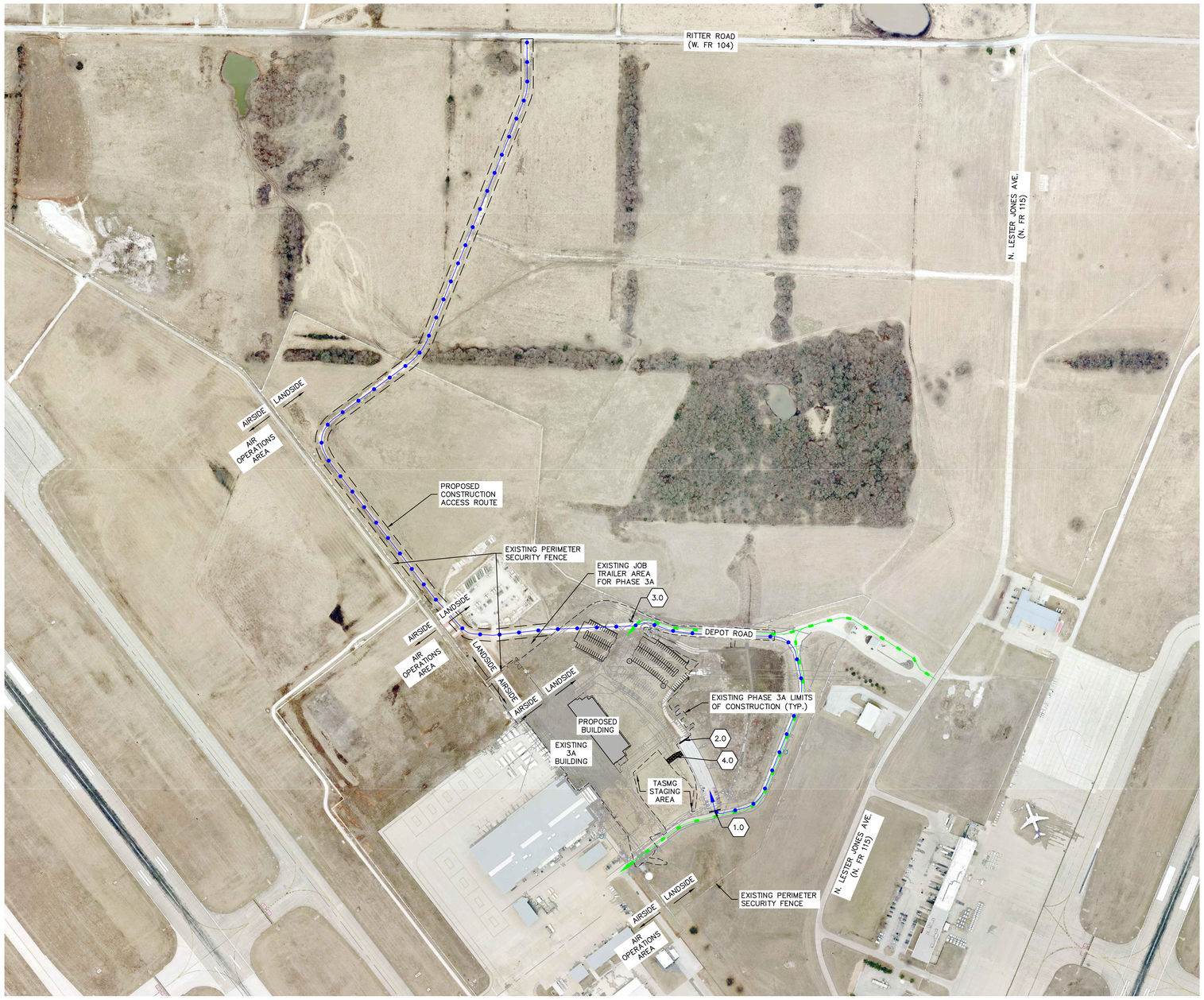

LEGEND

CONSTRUCTION TRAFFIC FLOW

POV TRAFFIC FLOW

KEYNOTES:

1.0 INSTALL BARRICADE AND SIGN. SIGN SHALL READ: "CONSTRUCTION PARKING AND USE ONLY".

2.0 INSTALL BARRICADE AND SIGN. SIGN SHALL READ: "NO VEHICULAR ACCESS BEYOND THIS POINT".

3.0 INSTALL SIGN. SIGN SHALL READ: "NO CONSTRUCTION ACCESS HERE".

4.0 INSTALL GRAVEL CONSTRUCTION ENTRY/EXIT PAD BETWEEN ASPHALT LOT AND STAGING AREA (REFER TO DETAIL A3 ON SHEET C701)

N

0' 100' 200' 400'
SCALE IN FEET

NOTES:
REFER TO SHEET C100 FOR FULL REPRESENTATION OF EXISTING AND RECENTLY CONSTRUCTED ITEMS.

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DESIGNED BY: JKE

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DATE:
ISSUED DATE: 26 FEBRUARY 2020

SHEET TITLE:

CONSTRUCTION ACCESS PLAN

SHEET NUMBER:

C600

13 OF 131 SHEETS

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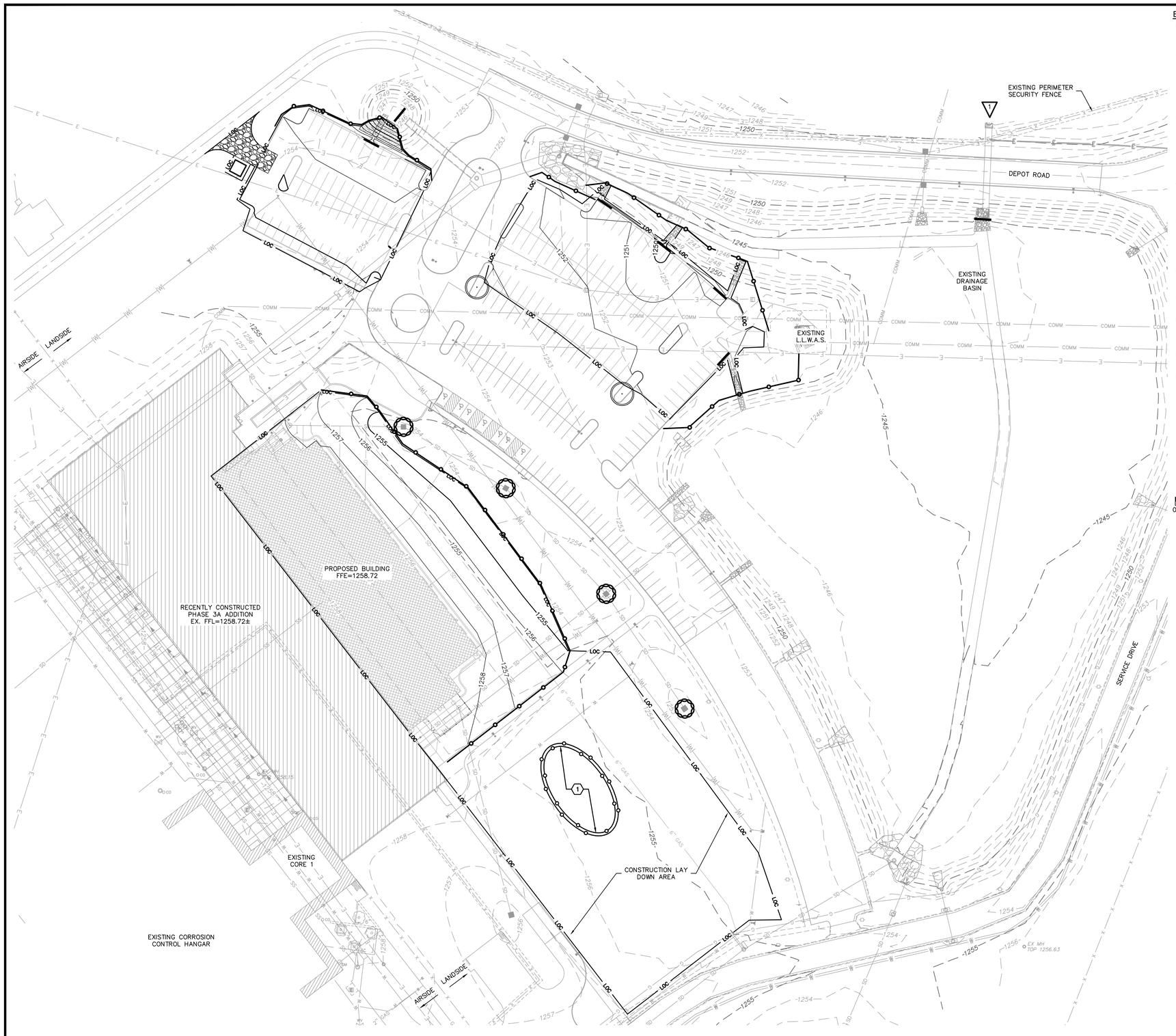

EROSION CONTROL NOTES:

1. ALL EROSION CONTROL WORK SHALL COMPLY WITH THE SPRINGFIELD MISSOURI DEPARTMENT OF NATURAL RESOURCES "PROTECTING WATER QUALITY" FIELD GUIDE, AND THE NOTES AND DETAILS CONTAINED IN THESE PLANS.
2. STRICTLY ADHERE TO ALL NATIONAL POLLUTION DISCHARGE ELIMINATION SYSTEM PERMIT REQUIREMENTS.
3. PROVIDE FOR INGRESS AND EGRESS FROM THE SITE ONTO PUBLIC RIGHTS-OF-WAY BY CONSTRUCTING A STABILIZED CONSTRUCTION ENTRANCE AS SHOWN IN THE DETAILS. SOILS TRACKED OFF SITE ONTO ADJACENT PAVEMENTS SHALL BE RECOVERED BY STREET SWEEPING OR OTHER MEANS WITHIN 48 HOURS OF A STORM EVENT (72 HOURS IF A STORM EVENT OCCURS ON A WEEKEND).
4. ALL DISTURBED EARTH SURFACES THAT WILL HAVE BARE SOIL FOR LONGER THAN 45 DAYS SHALL BE TEMPORARILY SEEDED. TEMPORARY SEEDING SHALL BE ADHERED TO THE "TEMPORARY SEEDING" SECTION OF THE MDNR GUIDE. SEED SHALL BE PLACED AT A RATE IN ACCORDANCE WITH TABLE 6.3 OF THIS SAME SECTION.
5. FILTER BARRIERS SHALL BE INSPECTED AT LEAST WEEKLY AND WITHIN 48 HOURS OF A STORM EVENT (72 HOURS IF A STORM EVENT OCCURS ON A WEEKEND). SEDIMENT DEPOSITS SHOULD BE REMOVED AFTER EACH STORM EVENT.
6. ALL DISTURBED AREAS SHALL BE FINE-GRADED, FERTILIZED, SEEDED AND MULCHED. SEEDING AND MULCHING SHALL BE PERFORMED IN ACCORDANCE WITH THE "MULCHING AND HYDROMULCH", "TEMPORARY SEEDING", AND "PERMANENT SEEDING" OF THE MDNR GUIDE. SEEDING SHALL TAKE PLACE AS SOON AS FINISH GRADING OPERATIONS ARE COMPLETE.
7. FURNISH, TRANSPORT AND PLACE MULCH OR EROSION CONTROL BLANKET OVER THE SEEDED AREA. THE METHOD, PROCEDURES AND MATERIALS APPLIED FOR EROSION CONTROL BLANKETS SHALL CONFORM TO THE REQUIREMENTS OF THE "EROSION CONTROL BLANKETS" SECTION OF THE MDNR GUIDE. EROSION CONTROL BLANKET CAN REPLACE MULCHING AS METHOD FOR EROSION CONTROL. FOR GROUND SLOPES GREATER THAN 3:1 (H:V), EROSION CONTROL BLANKET SHALL BE USED FOR EROSION CONTROL.
8. ALL ON-SITE STORM DRAIN INLETS SHALL BE PROTECTED AGAINST SEDIMENTATION WITH FILTER FABRIC OR SEDIMENT BAGS MEETING ACCEPTED DESIGN CRITERIA, STANDARDS, AND SPECIFICATIONS FOR THAT PURPOSE.
9. ALL TEMPORARY AND PERMANENT EROSION CONTROL MEASURES SHALL COMPLY WITH THE GUIDELINES OF THE PROTECTING WATER QUALITY FIELD GUIDE, LATEST EDITION.
10. PUBLIC ROADWAYS SHALL BE KEPT CLEAR OF ACCUMULATED SEDIMENT. BULK CLEARING OF ACCUMULATED SEDIMENT SHALL NOT INCLUDE FLUSHING THE AREA WITH WATER. CLEARED SEDIMENT SHALL BE TO THE POINT OF LIKELY ORIGIN OR OTHER SUITABLE LOCATIONS. STREET SWEEPING SHALL BE PROVIDED AS NECESSARY.
11. SEDIMENT BUILDUP SHALL BE REMOVED FROM ALL EROSION CONTROL MEASURES WHEN THEY BECOME 1/3 FULL, OR AFTER EACH MAJOR RAIN EVENT AS NEEDED.
12. REFER TO SHEET C701 FOR ADDITIONAL NOTES AND DETAILS.

N

0' 20' 40' 80'
SCALE IN FEET

KEYNOTES:

(1) APPROX. LOCATION OF TEMPORARY STOCKPILE AREA

LEGEND

1260	EXISTING CONTOUR
1260	PROPOSED CONTOUR
LOC	LIMITS OF CONSTRUCTION/DISTURBANCE
	COMPOST FILTER SOCKS, DETAIL A1, SHEET C701
	GRAVEL CONSTRUCTION ENTRANCE/EXIT, DETAIL A3, SHEET C701.
	CONCRETE WASH-OUT PIT, DETAIL A2, SHEET C701.
	AREA INLET PROTECTION, DETAIL C1, SHEET C701.
	CURB INLET PROTECTION, DETAIL A5, SHEET C701.
	TREES TO BE PRESERVED (REFER TO DETAIL C2 ON SHEET C701 FOR ACTUAL LIMITS OF TREE PROTECTION BASED ON TREE CANOPY)
	CULVERT INLET PROTECTION, DETAIL B1, SHEET C701.
	STORM OUTFALL
	EROSION CONTROL BLANKET, SEE DETAIL B3, SHEET C701

IN LOCATIONS WHERE EROSION CONTROL MATTING IS NOTED ON PLANS, IT MAY BE DELETED IF ALL OF THE FOLLOWING CONDITIONS ARE MET:
- LOCATIONS ARE NOT DORMANT FROM GRADING FOR 14 OR MORE DAYS,
- FINAL GRADING HAS BEEN ACHIEVED,
- SOD IS INSTALLED PER THE SPECIFICATION UTILIZING PINS FOR SLOPES 3:1 OR STEEPER,
- SOD IS MAINTAINED AND ESTABLISHED PER THE SOD SPECIFICATION.

SOD VS TRM NOTES:

IN LOCATIONS WHERE EROSION CONTROL MATTING IS NOTED ON PLANS, IT MAY BE DELETED IF ALL OF THE FOLLOWING CONDITIONS ARE MET:
- LOCATIONS ARE NOT DORMANT FROM GRADING FOR 14 OR MORE DAYS,
- FINAL GRADING HAS BEEN ACHIEVED,
- SOD IS INSTALLED PER THE SPECIFICATION UTILIZING PINS FOR SLOPES 3"1 OR STEEPER,
- SOD IS MAINTAINED AND ESTABLISHED PER THE SOD SPECIFICATION.

CONTRACTOR – AIRPORT SECURITY
THE CONTRACTOR MUST NOT REMOVE ANY PERIMETER SECURITY FENCING WITHOUT PRIOR APPROVAL OF THE DIRECTOR OF AVIATION FOR THE SPRINGFIELD-BRANSON NATIONAL AIRPORT (SGF). THE CONTRACTOR MUST SUBMIT HIS CONSTRUCTION PLAN AND SCHEDULE TO THE DIRECTOR A MINIMUM OF 30 DAYS PRIOR TO ANY ACTIVITY WITHIN THE AIR OPERATIONS AREA (AOA). BY FEDERAL MANDATE/LAW THE DIRECTOR MUST SUBMIT THIS PLAN AND SCHEDULE TO THE TRANSPORTATION SECURITY ADMINISTRATION (TSA) FOR THEIR APPROVAL OF THE NEW SECURE PERIMETER OF THE AOA.

CONTRACTOR – USE EXTREME CAUTION
WORK ON THIS PROJECT IS ON OR ADJACENT TO A COMMERCIALLY ACTIVE NATIONAL AIRPORT. THERE MAY BE SEVERE CONSEQUENCES FOR THE INTERRUPTION OF ANY AVIATION RELATED SERVICES CAUSED BY CONSTRUCTION ACTIVITIES.

THE CONTRACTOR MUST COMPLY WITH THE FAA ADVISORY CIRCULAR AC NO. 150/5370-2E *OPERATIONAL SAFETY ON AIRPORTS DURING CONSTRUCTION*

CONTRACTOR MUST MONITOR SPRINGFIELD GROUND CONTROL AT 121.900Mhz.

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STATE OF MISSOURI
RYAN V. JEPPSON
NUMBER
PE-2012024241
PROFESSIONAL ENGINEER
2-26-2020

PROFESSIONAL ENGINEER - RYAN V. JEPPSON
MISSOURI PE # 2012024241

TASMG READINESS CENTER

AVCRAD SITE
1107TH THEATER AVIATION SUSTAINMENT MAINTENANCE GROUP

MISSOURI NATIONAL GUARD
SPRINGFIELD, MISSOURI

NATIONAL GUARD BUREAU PROJECT #290186
MISSOURI NATIONAL GUARD PROJECT #T1809-01
SITE #9019
ASSET #813627000 8

DRAWN BY: RPJ
CHECKED BY: JLR
DESIGNED BY: JKE

REVISION:
DATE:
REVISION:
DATE:
REVISION:
DATE:
ISSUED DATE: 26 FEBRUARY 2020

SHEET TITLE:

EROSION CONTROL PLAN

SHEET NUMBER:

C700

14 OF 131 SHEETS

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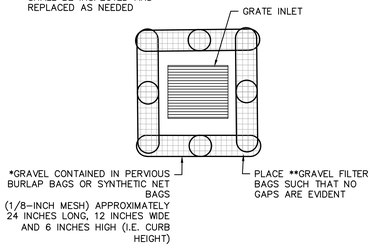
DWG: F:\2018\2501-3000\018-2772\40-design\AutoCAD\final plans\Sheets\GNCV\C_ERC_82772.dwg USER: rjungbauer
DATE: Feb 17, 2020 - 1:17pm XREFS: VEJ_BASE_82772 C_PBASE_82772 c_title_82772

NOTE:

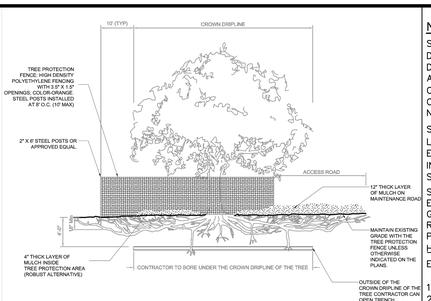
GRAVEL BAGS (**FILTER SOCKS) SHALL BE INSPECTED AND REPLACED AS NEEDED



* 5/8 – 1 1/2" CRUSHED LIMESTONE

** COMPOST FILTER SOCKS MAY BE USED IN LIEU OF GRAVEL BAGS

C1 / C701 GRATE INLET PROTECTION (NOT TO SCALE)



NOTES:
1- MAINTAIN TREE PROTECTION FENCING 10' BEYOND DRIPLINE (IN ALL DIRECTIONS).

2- NO EQUIPMENT, MATERIALS AND/OR DEBRIS SHALL BE STORED WITHIN THE TREE PROTECTION FENCING. THIS INCLUDES DURING FENCE INSTALLATION AND REMOVAL.

3- NO PRUNING SHALL BE PERFORMED EXCEPT BY OR IN THE PRESENCE OF AN APPROVED ARBORIST.

4- IF PROJECT REQUIRES AN ACCESS ROAD WITHIN THE DRIPLINE OF A TREE, PROVIDE A MINIMUM 12" OF MULCH FOR THE ACCESS ROAD.

5- IF CONSTRUCTION ACTIVITIES REQUIRE WORK TO CROSS THE DRIPLINE, BORE MINIMUM 4' BELOW GROUND SURFACE THE ENTIRE WIDTH OF THE TREE. IF BORING 4' CANNOT BE ACHIEVED CONTACT ARBORIST IMMEDIATELY TO MONITOR WORK.

ROOT PRUNING NOTES:
1- ROOT PRUNING SHOULD BE COORDINATED WITH THE TREE PROTECTION FENCING. IN SOME CASES, THAT FENCE LINE IS ON THE ROOT CUT, AND PROVISIONS FOR ROOT PRUNING MAY NEED TO BE ACCOMMODATED BEFORE FENCE IS ERECTED.

2- CAREFULLY EXPOSE ROOTS WITHIN THE LIMITS OF CONSTRUCTION AND MARK FOR PRUNING. PROPOSED ROOT CUTS SHOULD BE REVIEWED BY ARBORIST PRIOR TO TRENCHING, EXCAVATING, OR CUTTING TO DETERMINE THE IMPACT ON ANY STRUCTURAL CRITICAL ROOTS AND THE CLOSEST POINT TO THE TREES THAT SOIL MAY BE DISTURBED.

3- ROOT PRUNING CAN BE ACCOMPLISHED WITH CIRCULAR SAWS OF VARYING TYPES AND/OR A ROTARY TYPE STUMP GRINDER TO A DEPTH OF 18" OR TO THE MAXIMUM DEPTH OF THE REQUIRED GRADING CUT WHICHEVER IS LESS. SAW BLADE AND GRINDER TEETH SHOULD BE SHARPENED PRIOR TO USE. TRENCHING MACHINES ARE NOT ALLOWED IN ROOT PRUNING OPERATIONS.

4- ROOTS OVER 1 INCH IN DIAMETER MUST BE CLEANLY AND SHARPLY CUT WITH A HAND SAW.

5- PRUNING CUTS SHOULD BE MADE PERPENDICULAR TO THE TRENCH CLOSEST TO THE TREE.

6- AN ARBORIST SHOULD REVIEW ANY ROOTS OVER 2 INCHES IN DIAMETER ENCOUNTERED DURING EXCAVATION AND/OR CONSTRUCTION ACTIVITIES TO DETERMINE STRUCTURAL STABILITY OF THE TREE.

C2 / C701 TREE PROTECTION FENCING (NOT TO SCALE)

NOTES:

STORMWATER TASMG READINESS CENTER CONSTRUCTION WILL REQUIRE A MDNR NPDES LAND DISTURBANCE PERMIT AND STORM WATER POLLUTION PREVENTION PLAN (SWPPP) FOR LAND DISTURBANCE ACTIVITIES. CONTRACTOR WILL BE RESPONSIBLE FOR OBTAINING THE NPDES PERMIT AND SWPPP. CONTRACTOR WILL ALSO BE RESPONSIBLE FOR COMPLIANCE WITH THE REQUIREMENTS OF THE NPDES PERMIT AND SWPPP, INCLUDING INSPECTIONS (WEEKLY AND AFTER RAIN EVENTS). A COPY OF THE NPDES PERMIT AND SWPPP SHOULD BE FORWARDED TO NGMO–EM POC IS ANGELA NEAL AT 573–638–9802.

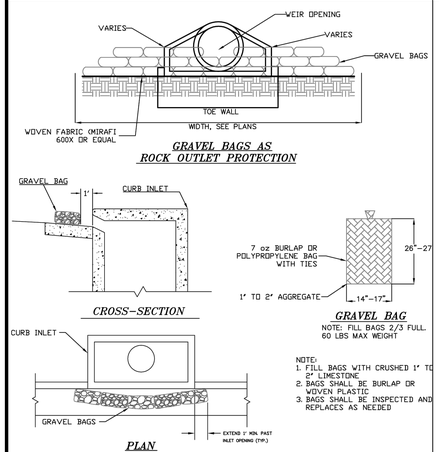
SPILL PLAN: AVCRAD IS A SPILL PREVENTION CONTROL AND COUNTERMEASURE PLAN (SPCCP) LOCATION DUE TO PETROLEUM OIL AND LUBRICANT (POL) STORAGE CAPACITY THRESHOLDS. ANY EQUIPMENT INSTALLED DURING TASMG READINESS CENTER CONSTRUCTION THAT HAS POL STORAGE IN EXCESS OF 55 GALLONS (ELEVATOR HYDRAULIC FLUID, ETC…) MUST HAVE SPCCP COMPLIANT SECONDARY CONTAINMENT. NGMO–EM POC IS ANGELA NEAL AT 573–638–9802.

SUSTAINABILITY: PER PRESIDENTIAL EXECUTIVE ORDER 13693, FEDERAL AGENCIES ARE REQUIRED TO ENHANCE EFFORTS TOWARDS SUSTAINABLE BUILDINGS AND COMMUNITIES BY INCORPORATING THE GUIDING PRINCIPLES FOR SUSTAINABLE FEDERAL BUILDINGS INTO ALL NEW CONSTRUCTION, MAJOR RENOVATION, OR REPAIR AND ALTERNATION OF FEDERAL BUILDINGS. THIS SET OF GUIDING PRINCIPLES IS LOCATED AT
HTTPS: //WWW4.EERE.ENERGY.GOV/FEMP /REQUIREMENTS /GUIDELINES_FILTERING

ENDANGERED SPECIES:

1. FOLLOW OZARK CAVEFISH MANAGEMENT PLAN FOR SPILL PREVENTION AND SOIL STABILIZATION.
2. THERE WILL BE NO REFUELING OR PERFORM MAINTENANCE ON EQUIPMENT WHILE THE EQUIPMENT IS LOCATED WITHIN ANY VISIBLE STREAM CHANNELS (WET OR DRY).
3. EQUIPMENT SHALL NOT BE PARKED IN ANY VISIBLE STREAM CHANNELS.
4. BEST MANAGEMENT PRACTICES WILL BE USED WHILE FUELING AND MAINTAINING EQUIPMENT TO PREVENT SPILLS AND TO CATCH ANY MATERIAL THAT IS ACCIDENTLY SPILLED.
5. MOARNG WILL ASSURE THAT THE CONTRACTOR ADHERES TO MOARNG APPROVED STATE OPERATING PERMIT AND POLLUTION PREVENTION PLAN THROUGHOUT THE COURSE OF THE PROJECT.
6. EQUIPMENT WILL BE MAINTAINED TO AVOID VEHICLE FLUID SPILLS CAUSED BY BURST HOSES AND CONNECTIONS. THE CONTRACTOR WILL INSPECT HOSES AND FITTINGS ON EQUIPMENT BEFORE IT IS BROUGHT TO THE JOB SITE AND WILL REPLACE OR REPAIR ANY FITTINGS AND HOSES THAT ARE LOOSE, STRESSED, OR FATIGUED.
7. THE MISSOURI DEPARTMENT OF NATURAL RESOURCES SPILL RESPONSE NUMBER (573–634–2436) IS READILY AVAILABLE ON THE JOB SITE AT ALL TIMES AND THE MOARNG IS RESPONSIBLE FOR CALLING THE NUMBER IN THE EVENT OF A SPILL.
8. THE CONTRACTOR WILL FOLLOW THE SITE'S SPILL PLAN.
9. MOBILE SPILL–KITS WILL BE ON–SITE THROUGHOUT COURSE OF PROJECT.
10. ALL EMPTY CONTAINERS FROM LUBRICANTS, FUELS, AND SOLVENTS SHALL BE PROPERLY DISPOSED.

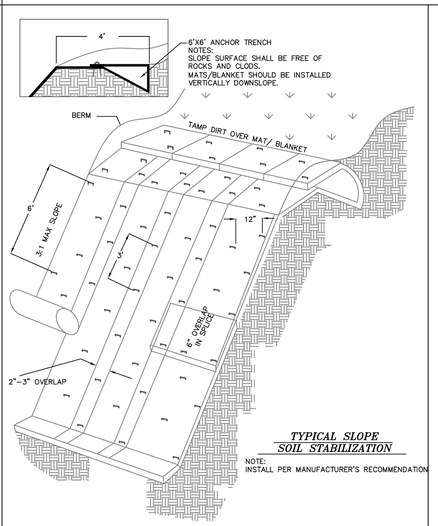
C3 / C701 NOTES (NOT TO SCALE)



NOTE:
1. FILL BAGS WITH CRUSHED 1" TO 2" LIMESTONE
2. BAGS SHALL BE BURLAP OR WOVEN PLASTIC
3. BAGS SHALL BE INSPECTED AND REPLACES AS NEEDED

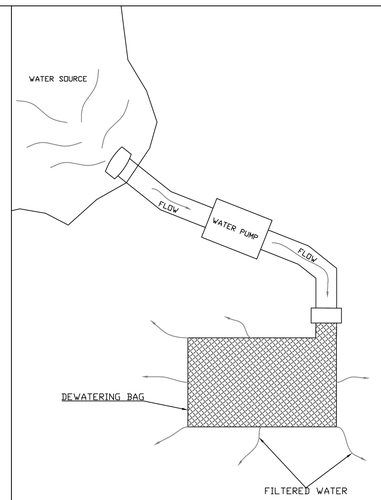
NOTE:
COMPOST FILTER SOCK MAY BE USED AS INLET PROTECTION BUT MUST BE STAKED AT EDGES AND IN THE CENTER. USE 8" OR 12" SOCK SIZE DEPENDING ON ROADWAY CLASSIFICATION.

B1 / C701 GRAVEL BAGS (NOT TO SCALE)

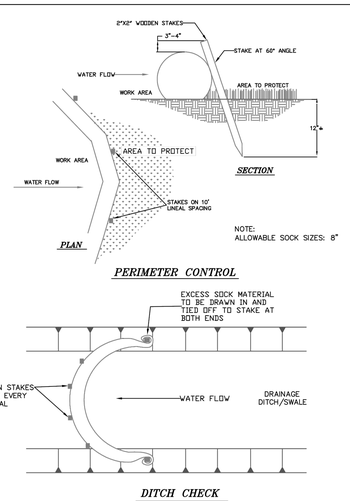


NOTE:
INSTALL PER MANUFACTURER'S RECOMMENDATION

B3 / C701 EROSION CONTROL BLANKETS (NOT TO SCALE)



B5 / C701 DEWATERING BAG (NOT TO SCALE)

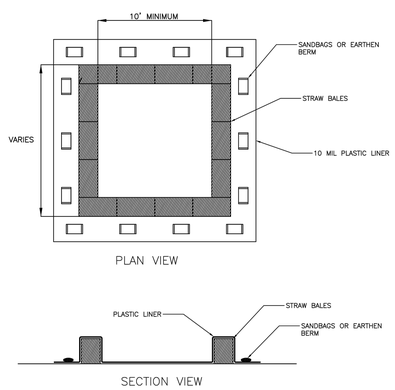


NOTE: FOLLOW MANUFACTURER'S SPECIFICATION

A1 / C701 COMPOST FILTER SOCK (NOT TO SCALE)

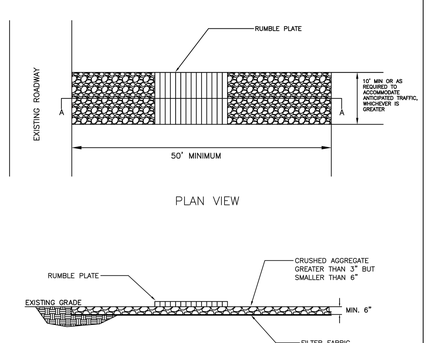
NOTES:
1. WASHOUT CONTAINMENT SHALL BE INSTALLED FOR DURATION OF CONCRETE WORK AND RETAIN CONCRETE AND OTHER WASHOUT LIQUIDS UNTIL EVAPORATION OR REMOVAL BY PUMP.
2. CONTAINMENT SHALL BE SIZED FOR EXPECTED WASHOUT VOLUMES.
3. AVOID PLACING NEAR STORM DRAINS, STREAMS, SINKHOLES, OUTFALLS OR OTHER LOW AREAS WHERE WATER PONDS OR FLOWS.
4. OTHER APPROVED LEAK–PROOF CONTAINMENT IS ACCEPTABLE.
5. TRAPS SHALL BE ROUTINELY MAINTAINED AT 75% CAPACITY AND REPLACED AS NECESSARY TO PERFORM.
6. THE WASHOUT PIT SHALL BE COVERED BEFORE PREDICTED RAIN EVENTS TO PREVENT OVERFLOW.
7. THE CONCRETE WASHOUT SIGN SHALL BE INSTALLED WITHIN 30FT OF THE TEMPORARY CONCRETE WASHOUT FACILITY.

SIGNAGE

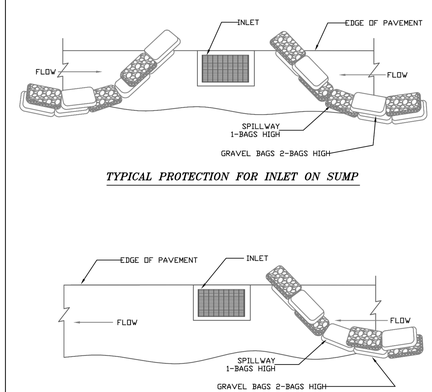


A2 / C701 CONCRETE WASHOUT - ABOVE GRADE (NOT TO SCALE)

NOTES:
1. RUMBLE STRIPS ARE RECOMMENDED FOR LARGER SITES.
2. RUMBLE STRIPS SHALL BE A MINIMUM LENGTH OF 20' OR AS NEEDED TO REMOVE SEDIMENT FROM TIRES.
3. AVOID PLACING EXITS IN AN OUTFALL AREA OR OTHER LOW AREAS WHERE WATER PONDS OR FLOWS.
4. A CULVERT SHALL BE INSTALLED IF EXIT CROSSES A DITCH.
5. ROCK APRON INSTALLATION SHALL BE WIDE ENOUGH TO ACCOMODATE TURNING VEHICLES.
6. ADD NEW ROCK OR RAKE EXISTING ROCK WHEN VOIDS FILL WITH SEDIMENT.
7. ANY MUD, ROCK OR DEBRIS TRACKED ONTO PAVED SURFACES AND ACCUMULATED IN CURBS SHALL BE REMOVED IMMEDIATELY USING A SWEEPER, SHOVEL, ETC.
8. REMOVE EXIT WHEN VEHICLES AND EQUIPMENT WILL NO LONGER ACCESS UNPAVED AREAS.



A3 / C701 CONSTRUCTION ENTRANCE/EXIT (NOT TO SCALE)



A5 / C701 CURBED GUTTER INLET PROTECTION - GRAVEL BAGS (NOT TO SCALE)

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SPRINGFIELD, MISSOURI

NATIONAL GUARD BUREAU PROJECT #290186
MISSOURI NATIONAL GUARD PROJECT #T1809-01
SITE #9019
ASSET #8136270008

DRAWN BY: RPJ
CHECKED BY: JLR
DESIGNED BY: JKE

REVISION:
DATE:
REVISION:
DATE:
REVISION:
DATE:
ISSUED DATE: 26 FEBRUARY 2020

SHEET TITLE:

EROSION CONTROL DETAILS

SHEET NUMBER:

C701

15 OF 131 SHEETS

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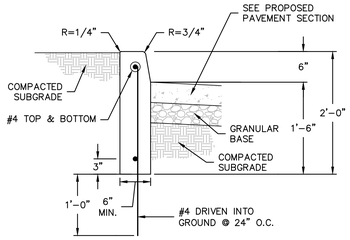
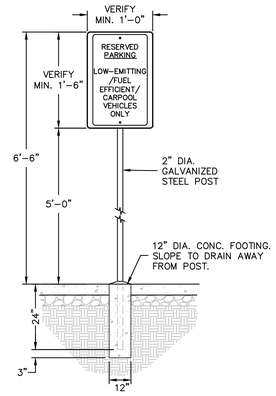
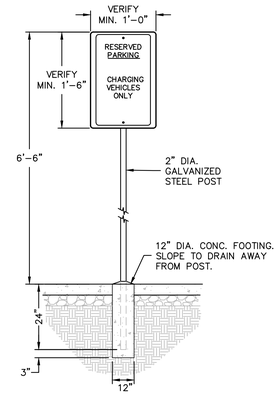


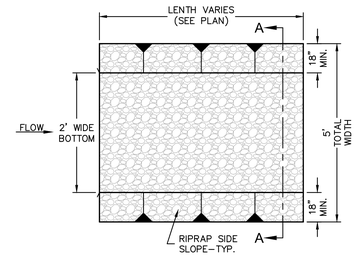
C1 / C800 6" BARRIER CURB
(NOT TO SCALE)



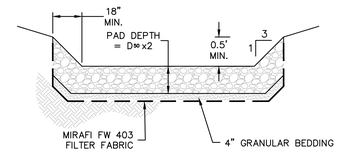
C2 / C800 RESERVED PARKING SIGNAGE
(NOT TO SCALE)



C3 / C800 RESERVED PARKING SIGNAGE-VEHICLE CHARGING BID ALTERNATE #4
(NOT TO SCALE)



PLAN VIEW



SECTION A-A

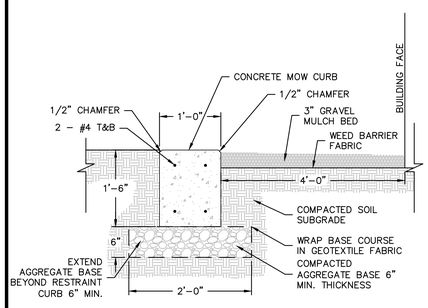
C4 / C800 RIPRAP APRON DETAIL
(NOT TO SCALE)

CLASSIFICATION & GRADATION OF RIPRAP CHANNEL LINING			
RIPRAP DESIGNATION	PERCENT (%) SMALLER THAN GIVEN BY WEIGHT	INTERMEDIATE ROCK DIMENSION (INCHES)	D_{50} (INCHES)*
TYPE L	70–100 50–70 35–50 2–10	15 12 9 3	9
TYPE II AGGREGATE BASE	90–100 20–90 3–20 0–3	3 3/4 #4 #200	N/A

*D_{50} = MEAN PARTICLE SIZE (INTERMEDIATE DIMENSION).

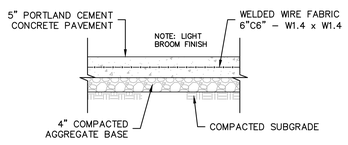
NOTES:

1.
2. RIPRAP LINING SHALL BE PLACED IN SUCH A MANNER AS TO AVOID SEGREGATION OF VARIOUS SIZES OF ROCK AND DISTRIBUTED SO THAT THERE WILL BE NO LARGE ACCUMULATION OF EITHER THE LARGER OR SMALLER SIZES OF STONE.
3. INDIVIDUAL ROCKS SHALL BE PLACED IN TIGHT CONTACT WITH ONE ANOTHER IN SUCH A WAY TO PRODUCE THE LEAST AMOUNT OF VOID SPACES.
4. RIPRAP SHALL BE SOLID, NON-FRACTURED ROCK OR CONCRETE, BULKY IN SHAPE WITH SHARP, ANGULAR EDGES.
5. INSTALL FILTER FABRIC ACCORDING TO MANUFACTURER'S RECOMMENDATIONS.

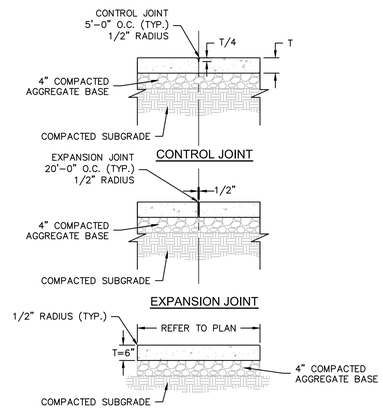


NOTES:
1. PROVIDE EXPANSION JOINTS EVERY 20' MINIMUM AND AT EVERY CHANGE IN DIRECTION.

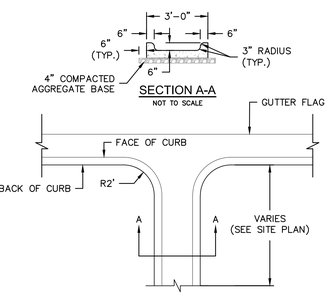
B1 / C800 GRAVEL MULCH STRIP WITH CONCRETE MOW CURB
(NOT TO SCALE)



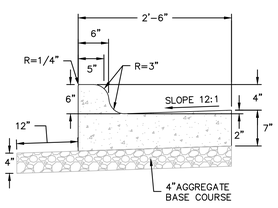
B2 / C800 CONCRETE PAVEMENT - LIGHT DUTY
(NOT TO SCALE)



B3 / C800 CONCRETE SIDEWALK - SECTION AND JOINTS DETAILS
(NOT TO SCALE)



B4 / C800 CONCRETE FLUME
(NOT TO SCALE)



B5 / C800 STANDARD CONCRETE CURB
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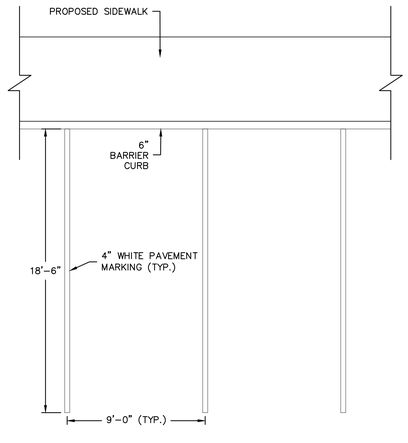
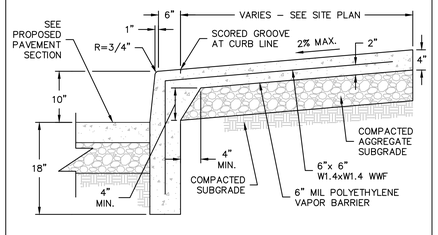
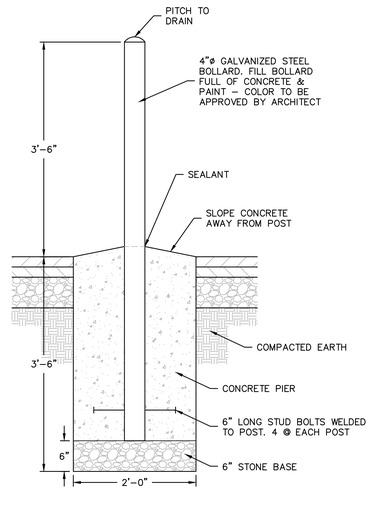


A1 / C800 PARKING SPACE DETAIL
(NOT TO SCALE)

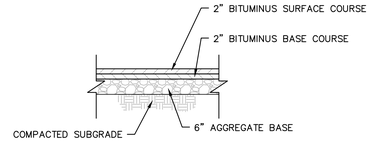


NOTES:
PROVIDE CONTROL JOINTS AT 6' INTERVALS AND EXPANSION JOINTS AT 100' INTERVALS

A2 / C800 10" TURNDOWN CURB
(NOT TO SCALE)



A3 / C800 PIPE BOLLARD DETAIL
(NOT TO SCALE)



A4 / C800 P.O.V. PARKING - LIGHT DUTY ASPHALT PAVEMENT SECTION
(NOT TO SCALE)

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Missouri State Certificate of Authority #000607

RYAN V. JEPPSON NUMBER PE-2012024241 PROFESSIONAL ENGINEER MISSOURI
2-26-2020

PROFESSIONAL ENGINEER - RYAN V. JEPPSON
MISSOURI PE # 2012024241

TASMG READINESS CENTER

AVCRAD SITE
1107TH THEATER AVIATION SUSTAINMENT MAINTENANCE GROUP

MISSOURI NATIONAL GUARD
SPRINGFIELD, MISSOURI

NATIONAL GUARD BUREAU PROJECT #290186
MISSOURI NATIONAL GUARD PROJECT #T1809-01
SITE #9019
ASSET #8136270008

DRAWN BY: RPJ
CHECKED BY: JLR
DESIGNED BY: JKE

REVISION:
DATE:
REVISION:
DATE:
REVISION:
DATE:
ISSUED DATE: 26 FEBRUARY 2020

SHEET TITLE:

SITE DETAILS

SHEET NUMBER:

C800

16 OF 131 SHEETS

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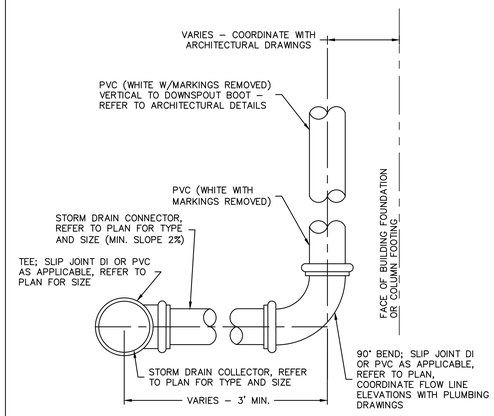
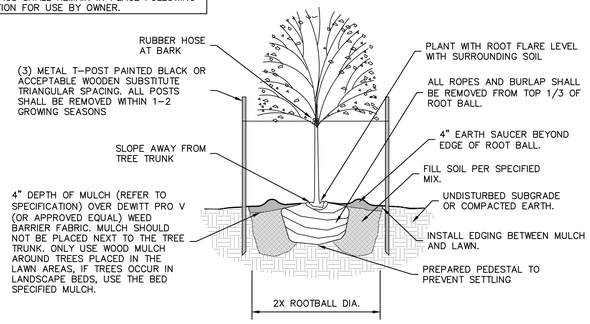


C5 / C801 STORM SEWER - ROOF DRAIN BOOT
(NOT TO SCALE)

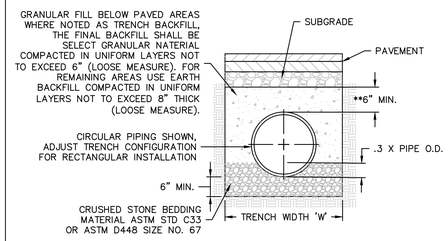
NOTE:
CONTRACTOR SHALL PROVIDE, INSTALL AND UTILIZE WATERING BAGS FOR ALL NEW TREES. EACH TREE SHALL INCLUDE ONE TREE WATERING BAG, OR APPROVED EQUIVALENT. BAGS SHALL REMAIN IN PLACE FOLLOWING FINAL COMPLETION FOR USE BY OWNER.



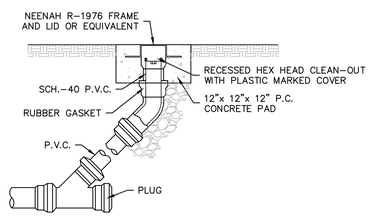
NOTES:
1. DO NOT ALLOW AIR POCKETS TO FORM WHEN BACKFILLING
2. IN AREAS OF TURF, SURROUND BED WITH 6' DIAMETER OF MULCH

B1 / C801 DECIDUOUS TREE PLANTING DETAIL
(NOT TO SCALE)

TRENCH WIDTH 'W'=
PIPE O.D. PLUS 24" FOR PIPE I.D. 36" AND SMALLER; PIPE O.D. PLUS 36" FOR PIPE I.D. LARGER THAN 36" AND ALL CAST IN PLACE AND PRECAST BOXES
NOTE:
GRANULAR FILL SHALL BE USED FULL DEPTH UNDER ALL PAVED AREAS; SELECT EARTH FILL MATERIAL MAY BE USED FROM A POINT 6" (MIN.) ABOVE THE TOP OF THE PIPE TO THE POINT INDICATED FOR BOTTOM OF TOPSOIL PLACEMENT.



B4 / C801 STORM SEWER BEDDING DETAIL
(NOT TO SCALE)



A5 / C801 STORM SEWER CLEANOUT DETAIL
(NOT TO SCALE)

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SPRINGFIELD, MISSOURI

NATIONAL GUARD BUREAU PROJECT #290186
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CHECKED BY: JLR
DESIGNED BY: JKE

REVISION:
DATE:
REVISION:
DATE:
REVISION:
DATE:
ISSUED DATE: 26 FEBRUARY 2020

SHEET TITLE:

SITE DETAILS

SHEET NUMBER:

C801

17 OF 131 SHEETS

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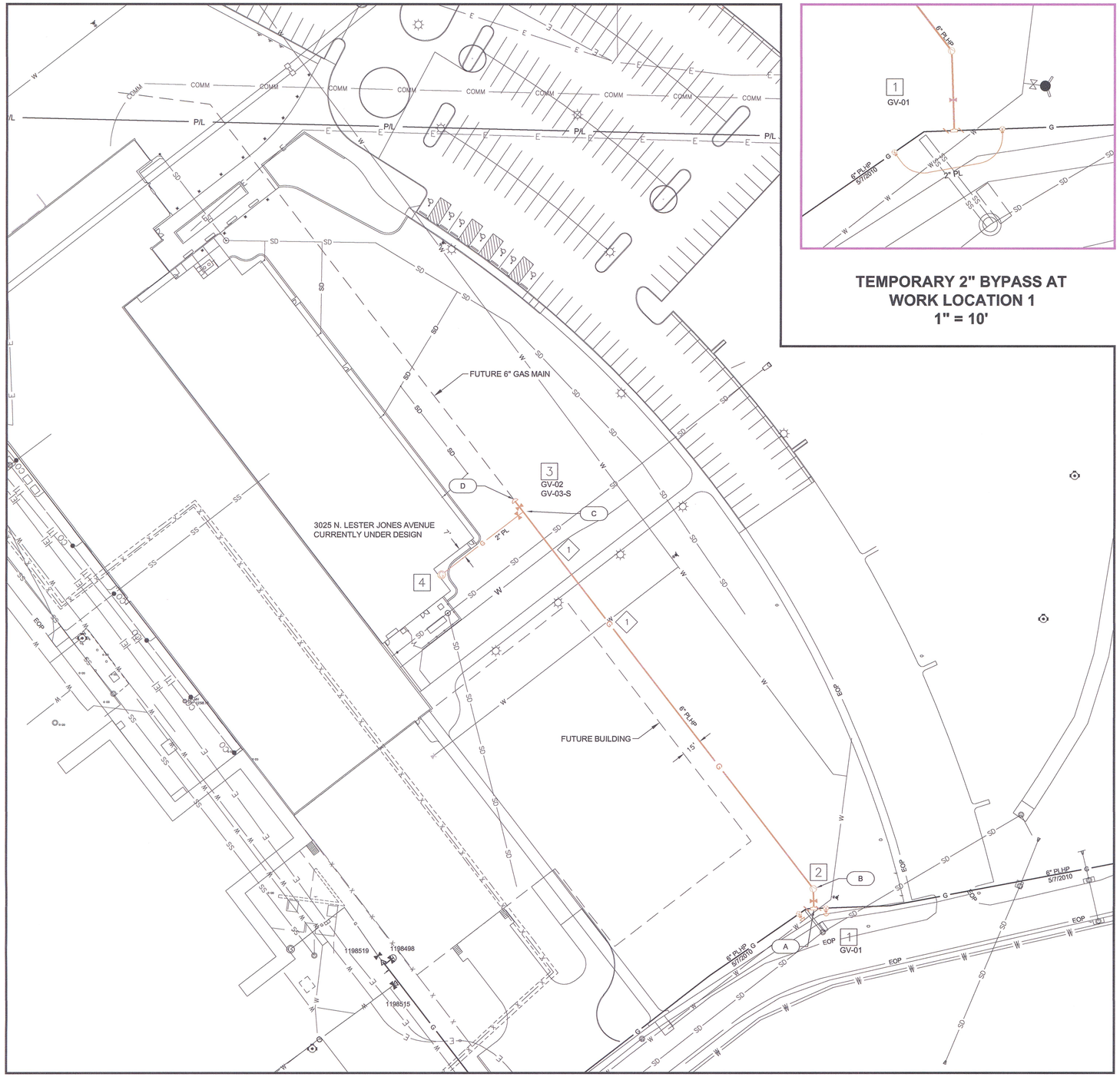
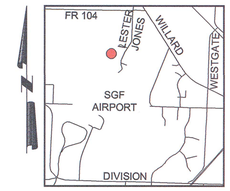


TEMPORARY 2" BYPASS AT WORK LOCATION 1
1" = 10'

GAS SERVICE CONSTRUCTION NOTES:

1. CONTACT BUILDING SUPERINTENDENT AT JOB SITE FOR "SUB GRADE" AT RISER. AREA BETWEEN GAS MAIN AND BUILDING MUST BE TO SUB GRADE PRIOR TO INSTALLATION OF GAS SERVICE.
2. JOB SITE SUPERINTENDENT IS RESPONSIBLE FOR EXCESS SPOIL REMOVAL FROM GAS SERVICE INSTALLATION.
3. BACKFILL WITH BASE STONE UNDER FUTURE PAVING.
4. WHEN LOCATED IN CONCRETE OR ASPHALT, LEAVE 1' X 1' SQUARE OPENING OF UNPAVED AREA FILLED WITH CHAT AT RISER.



CAUTION NOTES:

1 UTILITY CROSSING: CROSS OVER OR UNDER EXISTING UTILITY AND MAINTAIN A MINIMUM OF 12 INCHES OF CLEARANCE, WHILE MAINTAINING A MINIMUM OF 36 INCHES OF COVER OVER THE 6 INCH GAS MAIN.

WL	Activity	CU ID	Qty	UOM	CU Description	Manufacturer / Batch	Depth
1	G01 - 786636 (6" PL GAS)	G1596MT	2	Each	6" X 2" PLASTIC EF MAIN TAP TEE		
		G1226H	30	Feet	2" HP PLASTIC MAIN - STICKS		
		G1544EF	2	Each	2" PLASTIC END CAP - ELECTROFUSION		
		G1610TEE	1	Each	6" PLASTIC TEE - BUTT FUSION		
		G1556EF	2	Each	6" PLASTIC COUPLING ELECTROFUSION		
		G13131LV	1	Each	6" PLASTIC INLINE VALVE		
2	G01 - 786636 (6" PL GAS)	G1638ELL	1	Each	6" PLASTIC 45 DEG ELL - BUTT FUSION		
1-3	G01 - 786636 (6" PL GAS)	G1235H	369	Feet	6" HP PLASTIC MAIN - STICKS		
3	G01 - 786636 (6" PL GAS)	G13131LV	1	Each	6" PLASTIC INLINE VALVE		
		G1546BF	1	Each	6" PLASTIC END CAP - BUTT FUSED		
	G10 - 714924 (2" PL GAS)	G1596ST	1	Each	6" X 2" PLASTIC EF TAP TEE		
		G13111LV	1	Each	2" PLASTIC INLINE VALVE		
3-4	G10 - 714924 (2" PL GAS)	G2020TR	75	Feet	2" PLASTIC SERVICE LINE		
4	G10 - 714924 (2" PL GAS)	G2500	1	Each	2" FLANGED ANODELESS RISER		
	G13 - 787093 (2" PL GAS)	G365A	1	Each	5M OR 7M ROTARY METER HP @ 2 PSI		

GAS SERVICE INSTALLATION INFORMATION
Address:__3025 N. LESTER JONES AVENUE_____ Serv. pt. ID._____
Address:_____ Serv. pt. ID._____
Address:_____ Serv. pt. ID._____
Service Installed by (circle one): CU / Contractor
CU Employee/Contractor Company name: _____
Service Installation Date:_____ Checked by:_____
NEW SERVICE INFORMATION:
Installation Method (circle one): Trenched / Inserted
Pipe Batch Num: _____Pipe Manufacturer:_____
Steel Coating Type: epoxy (If Other specify) _____
Total New Service pipe installed : _____ ft Total length of service: _____ft.
Dimensions to Service Tap:
____ft. ____of _____bldg. Corner, ____ft. ____of ____bldg. corner
Service Enters Prop.: _____ft. _____ from _____Side P/L
Service Tap Info (circle one): New tap installed Existing tap used
New EFV Installed(circle one): Yes / No EFV Manuf:_____ model (e.g. 550):_____
Casing Diameter _____
Casing Material (circle one): Bare Steel/ Coated steel/ pink plastic/ yellow plastic
Below ground pipe between meter header and building?(circle one): None / New / Existing

FOR INFORMATION ONLY

INSTALLATION BY CITY UTILITIES

REFER TO ALLOWANCE SECTION 012100

FITTING LOCATION POINTS

A

POINT LOCATION	NORTHING / EASTING	FITTING AT LOCATION
A	1381794, 517507	6" PL TEE
B	1381794, 517521	6" PL 90° ELL
C	1381583, 517794	6" X 2" PL TAP TEE
D	1381578, 517801	6" END CAP

DEVELOPER:
MO AVCRAD
GAS ONLY

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REVISIONS
- -

STATE OF MISSOURI MARK A. LOGAN NUMBER E-2002004364 8/1/19 REGISTERED PROFESSIONAL ENGINEER
Mark A. Logan Professional Engineer MO# E-2002004364

CU FACILITY DESIGN BASED ON PLANS PROVIDED BY:
DESIGN FIRM: OLSSON ASSOC.
PLAN NO.: XXXXXXX
DATE SEALED: MM/DD/YYYY
REV. DATE: MM/DD/YYYY

CONTRACTOR/CITY UTILITIES
NAME:
DATE STARTED:
DATE COMPLETED:
INSPECTOR/SUPERVISOR
SIGNATURE

PIPE JOINING QUALIFICATIONS
CHECK ALL WORK THAT WAS PERFORMED PER PERSON HEAT FUSION(HF), ELECTROFUSION(EF), WELDING(W).

JOINERS NAME	GAS HF	GAS EF	GAS W	WATER HF	WATER EF
	☐	☐	☐	☐	☐
	☐	☐	☐	☐	☐
	☐	☐	☐	☐	☐
	☐	☐	☐	☐	☐
	☐	☐	☐	☐	☐

GAS PIPE MANUFACTURER AND BATCH NUMBER

SEGMENT	MANUFACTURER	BATCH NUMBER
1		
2		
3		
4		
5		

GAS PRESSURE TEST

SEGMENT	TEST PRESSURE (PSIG)	LENGTH OF TEST (MIN)	DATE OF TEST	TESTED BY	TEST RESULTS
A	90	60			☐NO LEAKS
B					☐NO LEAKS
C					☐NO LEAKS
D					☐NO LEAKS

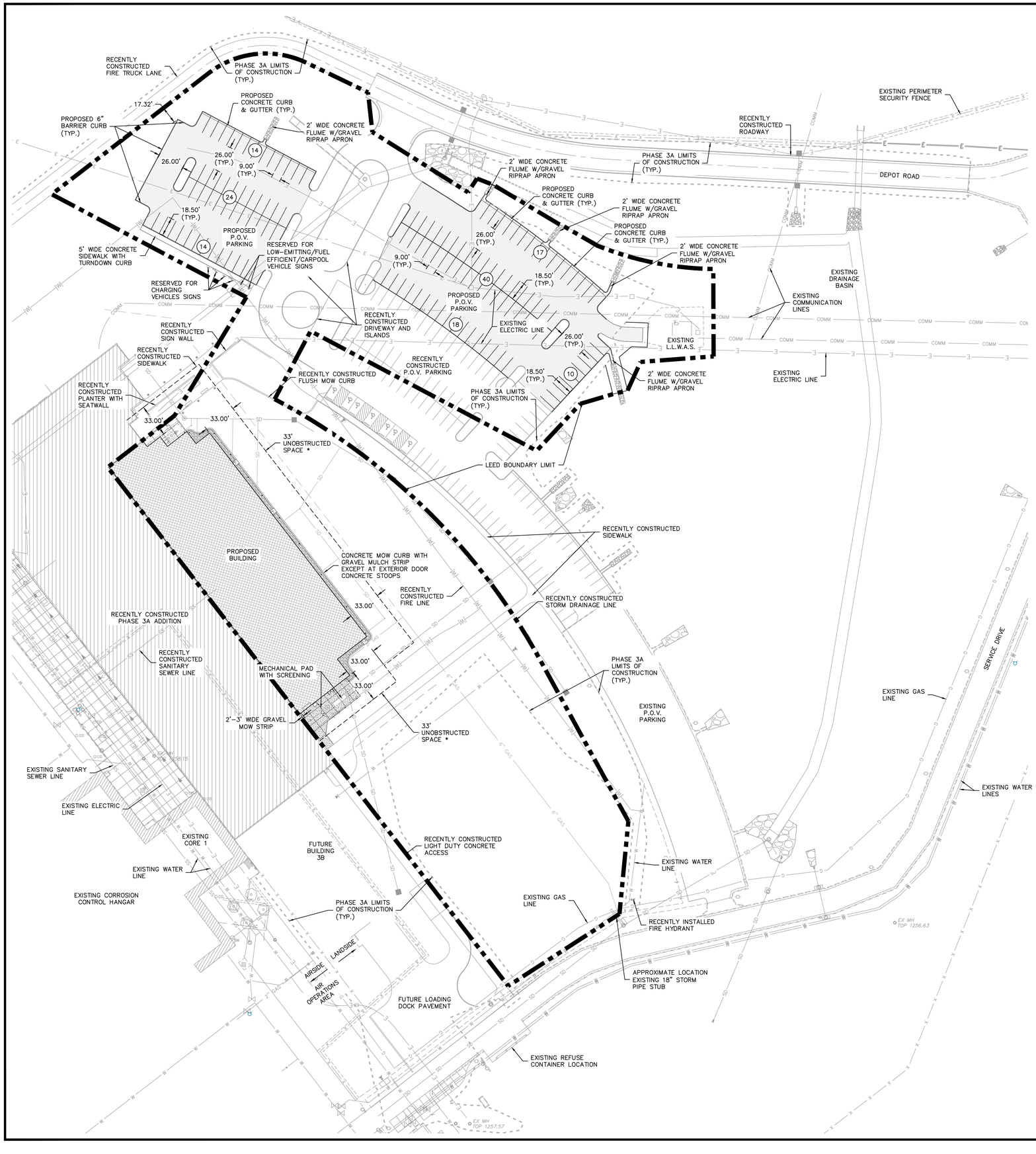
☐ ALL FINAL TIE-INS LEAK TESTED BY: _____

City Utilities Connecting Our Community

NATURAL GAS & WATER ENGINEERING

3025 N. LESTER JONES AVENUE
BLUNT READINESS CENTER
6" GAS MAIN EXT. &
2" SERVICE W/ 5M METER

DESIGNER: MARK LOGAN		APPROVED BY: SLB 8-1-19	MAP NO.: NW – G09
PLOT DATE: 8/1/2019		APPLICATION NO.: B90842	SCALE: 1" = 40'
CONSTRUCTED BY: CITY UTILITIES	CONSTRUCTION COMPLETE DATE:	SHEET 1 OF 1	DRAWING NO.: 80258–D



LEGEND

910	EXISTING CONTOUR
COMM	EXIST. COMMUNICATION LINE
G	EXIST. GAS LINE
SD	EXIST. STORM PIPE
W	EXIST. WATER LINE
SS	EXIST. SANITARY SEWER LINE
X	EXISTING CHAIN LINK FENCE
E	EXIST. UNDERGROUND ELECTRIC
	EXIST. TREE
	EXIST. WATER VALVE
	EXIST. FIRE HYDRANT AND VALVE
	EXIST. SANITARY SEWER MANHOLE
CO	EXIST. SANITARY CLEANOUT
GM	EXIST. GAS METER
	EXIST. CURB INLET
	EXIST. STORM MANHOLE
	EXIST. FLARED END SECTION
	EXIST. SIGN
	EXIST. ELECTRIC BOX
	EXIST. POWER POLE
	EXIST. LIGHT POLE
	EXIST. COMMUNICATION BOX
	PHASE 3 LIMITS OF CONSTRUCTION
	LEED BOUNDARY LIMITS

INSTALL ASPHALT PAVEMENT, LIGHT DUTY (SEE DETAIL A4, SHEET C800) IF BID ALTERNATE #4 IS TAKEN, THIS PAVEMENT WILL BE LIGHT DUTY CONCRETE PAVEMENT (SEE DETAIL C3, SHEET C800).

CONSTRUCT CONCRETE SIDEWALK (SEE DETAIL B3, SHEET C800)

CONSTRUCT LIGHT DUTY CONCRETE PAVEMENT (SEE DETAIL C3, SHEET C800)

GRAVEL MULCH STRIP. (SEE DETAIL B1, SHEET C800)

EXISTING TOPOGRAPHY PROVIDED BY JACOBS FACILITIES. OLSSON MAKES NO GUARANTEE AS TO THE ACCURACY OF THIS INFORMATION.

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2-26-2020

PROFESSIONAL ENGINEER - RYAN V. JEPPSON
MISSOURI PE # 2012024241

TASMG READINESS CENTER

AVCRAD SITE
1107TH THEATER AVIATION SUSTAINMENT MAINTENANCE GROUP

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SPRINGFIELD, MISSOURI

NATIONAL GUARD BUREAU PROJECT #290186
MISSOURI NATIONAL GUARD PROJECT #T1809-01
SITE #9019
ASSET #8136270008

DRAWN BY: RPJ
CHECKED BY: JLR
DESIGNED BY: JKE

REVISION:
DATE:
REVISION:
DATE:
REVISION:
DATE:
ISSUED DATE: 26 FEBRUARY 2020

SHEET TITLE:

LEED BOUNDARY LIMIT

SHEET NUMBER:

EX-1

19 OF 131 SHEETS

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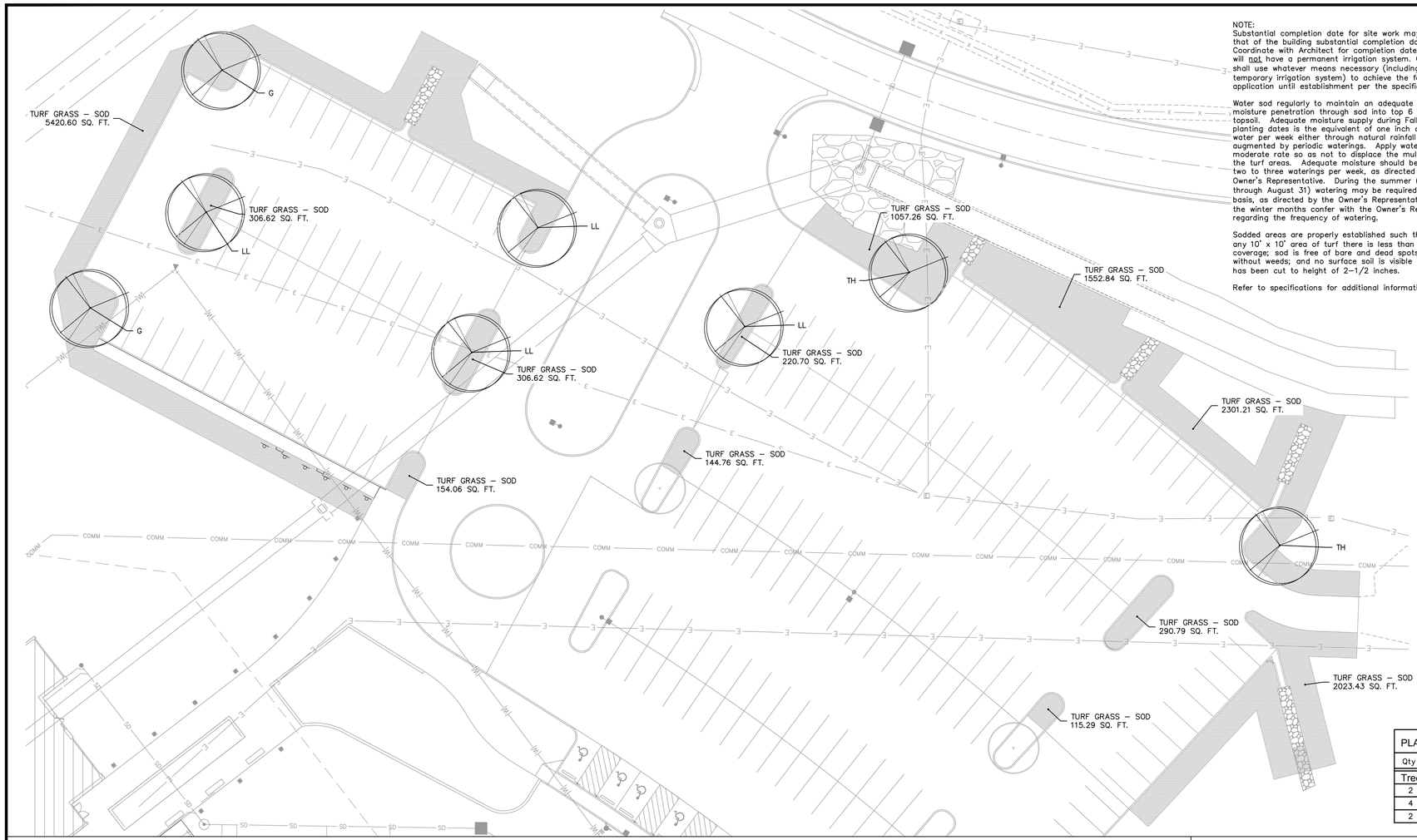


NOTE:
Substantial completion date for site work may vary from that of the building substantial completion date. Coordinate with Architect for completion dates. This site will not have a permanent irrigation system. Contractor shall use whatever means necessary (including a temporary irrigation system) to achieve the following water application until establishment per the specification.

Water sod regularly to maintain an adequate supply of moisture penetration through sod into top 6 inches of topsoil. Adequate moisture supply during Fall and Spring planting dates is the equivalent of one inch of absorbed water per week either through natural rainfall or augmented by periodic waterings. Apply water at a moderate rate so as not to displace the mulch or flood the turf areas. Adequate moisture should be divided into two to three waterings per week, as directed by the Owner's Representative. During the summer (June 2 through August 31) watering may be required on a daily basis, as directed by the Owner's Representative. During the winter months confer with the Owner's Representative regarding the frequency of watering.

Sodded areas are properly established such that within any 10' x 10' area of turf there is less than 5% weed coverage; sod is free of bare and dead spots and is without weeds; and no surface soil is visible when grass has been cut to height of 2–1/2 inches.

Refer to specifications for additional information.

LANDSCAPE LEGEND

TREES TO BE PRESERVED. (REFER TO DETAIL C2 ON SHEET C701 FOR ACTUAL LIMITS OF TREE PROTECTION BASED ON THE TREE CANOPY)

NEW CANOPY/STREET TREE (REFER TO DETAIL B1 ON SHEET C801 FOR TREE PLANTING DETAIL)

HATCH LEGEND

TURF GRASS–SOD

GRAVEL MULCH STRIP

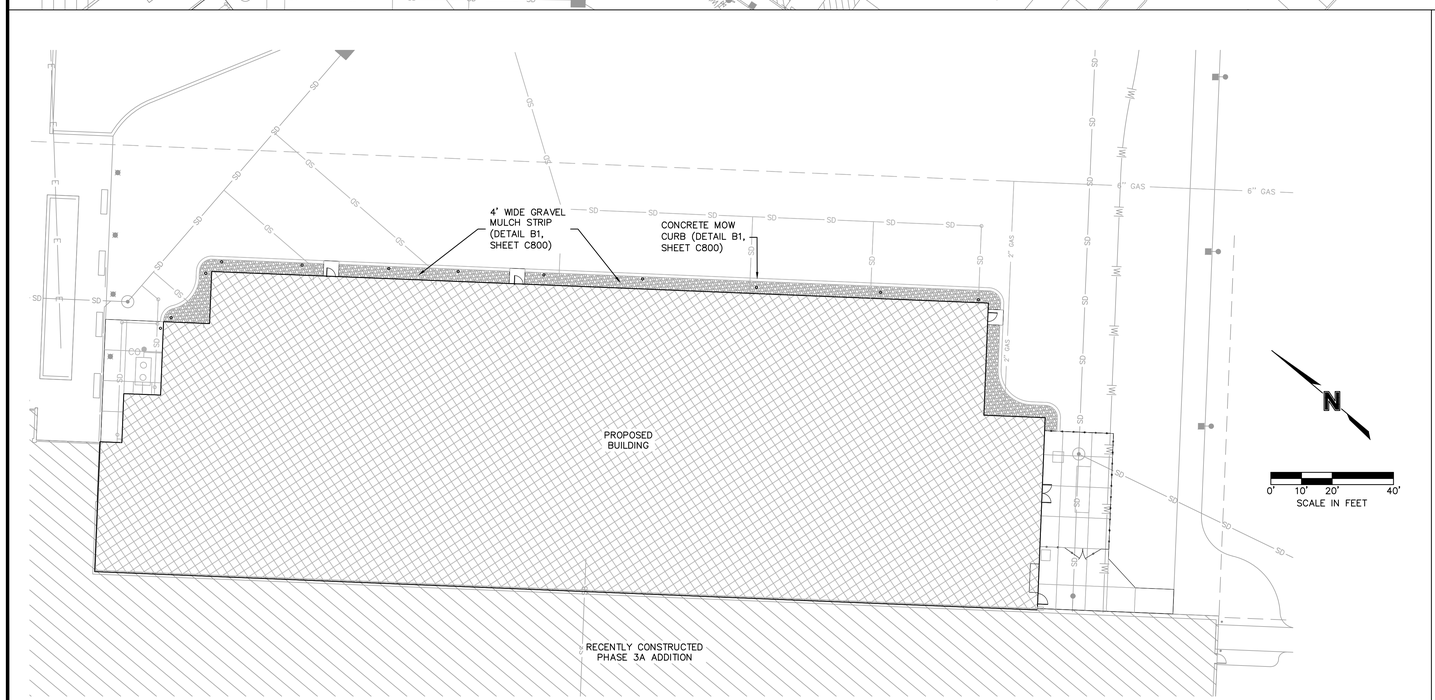
RIP–RAP – REFER TO STORM DRAINAGE AND GRADING PLANS

IN LOCATIONS WHERE EROSION CONTROL MATTING IS NOTED ON PLANS, IT MAY BE DELETED IF ALL OF THE FOLLOWING CONDITIONS ARE MET:
– LOCATIONS ARE NOT DORMANT FROM GRADING FOR 14 OR MORE DAYS,
– FINAL GRADING HAS BEEN ACHIEVED,
– SOD IS INSTALLED PER THE SPECIFICATION UTILIZING PINS FOR SLOPES 3:1 OR STEEPER,
– SOD IS MAINTAINED AND ESTABLISHED PER THE SOD SPECIFICATION.

NOTE:
CONTRACTOR SHALL PROVIDE, INSTALL AND UTILIZE WATERING BAGS FOR ALL NEW TREES. EACH TREE SHALL INCLUDE ONE TREE WATERING BAG. BAGS SHALL REMAIN IN PLACE FOLLOWING FINAL COMPLETION FOR USE BY OWNER.

PLANT LIST

Qty	Abbrev.	Scientific Name	Common Name	Size	Notes
Trees					
2	G	Ginko biloba	Ginko	2" Caliper	Canopy
4	LL	Tilia cordata	Littleleaf Linden	2" Caliper	Canopy
2	TH	Gleditsia triacanthos var. inermis	Thornless Honeylocust	2" Caliper	Canopy

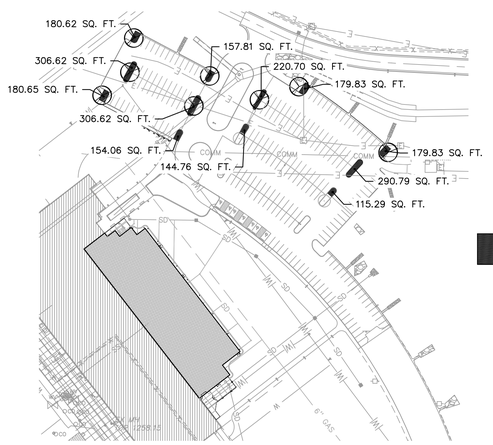


LANDSCAPE CALCULATIONS:

BUFFERYARD – NONE REQUIRED

PERIMETER GREEN – NONE REQUIRED, THE PARKING LOT IS MORE THAN 50' FROM RIGHT–OF–WAY.

INTERIOR GREEN – NEW PAVED AREA = 46,397.33 SF
5% MIN. INTERIOR GREEN REQUIRED = 2,319.87 SF
PROVIDED = 2,417.57 SF
ALTHOUGH THIS PROJECT IS NOT REQUIRED TO COMPLY WITH THE CITY OF SPRINGFIELD, THE STATE'S INTENT IS TO FOLLOW LOCAL CODE WHEN ACHIEVABLE.



INTERIOR GREEN EXHIBIT
SCALE:1"=100'

INTERIOR GREEN EXHIBIT
FOR PLAN REVIEWER ONLY
-
NOT FOR CONTRACTOR

HATCH LEGEND

INTERIOR GREEN SPACE

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STATE OF MISSOURI
JANE K. DONEY EARNHART
NUMBER LA-00013
LANDSCAPE ARCHITECT

PROFESSIONAL LANDSCAPE ARCHITECT
JANE K. DONEY EARNHART
MISSOURI # LA-00013

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LANDSCAPE PLAN

SHEET NUMBER:

LP100

20 OF 131 SHEETS

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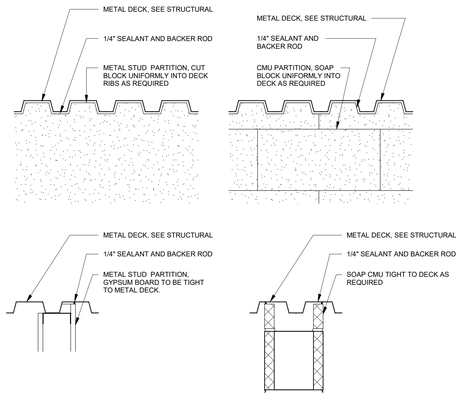
GENERAL NOTES

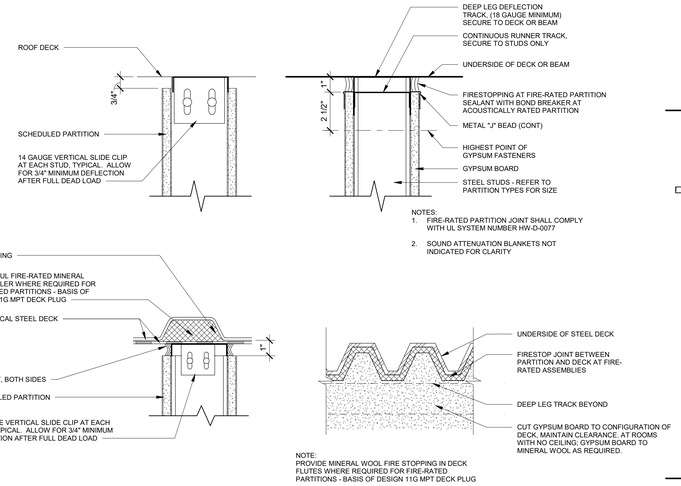
1. EXTERIOR WALL CONSTRUCTION IS DESCRIBED BY WALL SECTIONS. ALL GYP BD ON INTERIOR SIDE OF EXTERIOR WALLS SHALL BE 5/8" ABUSE RESISTANT GYP BD UP TO 8'-0" A.F.F. AND REGULAR GYP BD ABOVE EXTENDED UP TO BOTTOM OF DECK.
2. INTERIOR WALL TYPES ARE DESCRIBED BY THIS SCHEDULE. ANY WALL NOT INDICATED OR KEYED FOR TYPE AND CONSTRUCTION SHALL BE CLARIFIED BY INTERPRETATION FROM THE ARCHITECT.
3. ALL WALLS INCLUDING GYP BD SHEATHING SHALL EXTEND TO UNDERSIDE OF ROOF DECKING, UNLESS INDICATED OTHERWISE.
4. THESE TYPES INDICATE PRIMARY WALL TYPES. OVERLAID VENEERS, WAINSCOT, PILASTERS AND OTHER VARIANTS AND SPECIAL CONDITIONS ARE INDICATED ON THE PLANS AND DETAILS.
5. JOINTS AND PENETRATIONS AT ALL RATED WALLS SHALL BE SEALED AND PROTECTED PER SPECIFICATIONS, U.L. TESTED ASSEMBLIES AND CODE REQUIREMENTS.
6. ALL GYP BD/MTL STUD WALLS W/ PLUMBING FIXTURES SHALL RECEIVE MOISTURE RESISTANT GYP BD.
7. CUT GYPSUM BOARD TO ALLOW FOR A MINIMUM 1/4 IN GAP BETWEEN GYPSUM BOARD AND FLOOR TO PREVENT POTENTIAL WICKING.
8. LOCATE GYPSUM BOARD JOINTS AT OPENINGS SO THAT NO JOINT WILL OCCUR WITHIN 12 IN OF THE EDGES OF THE OPENING UNLESS INSTALLING CONTROL JOINTS AT THESE LOCATIONS. STAGGER VERTICAL END JOINTS. JOINTS ON OPPOSITE SIDES OF A PARTITION SHOULD NOT OCCUR ON THE SAME STUD.



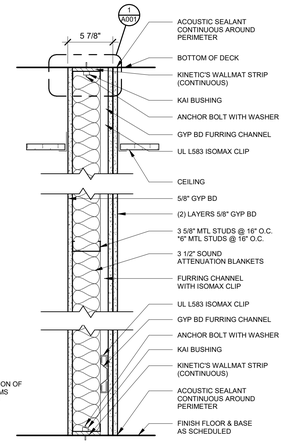
METAL STUD PARTITION **CMU PARTITION**

AT ROOMS WITHOUT A CEILING, PARTITIONS THAT EXTEND TO THE DECK SHALL EXTEND INTO THE DECK RIBS AS REQUIRED.

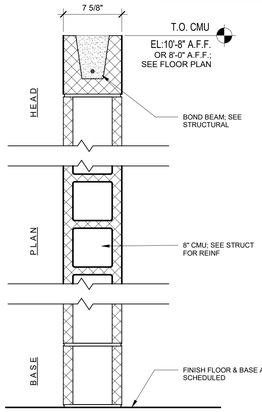
2 Wall/Deck Detail
1 1/2" = 1'-0"



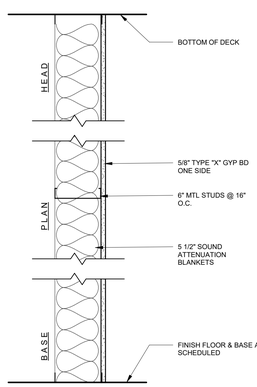
1 DETAILS
NOT TO SCALE



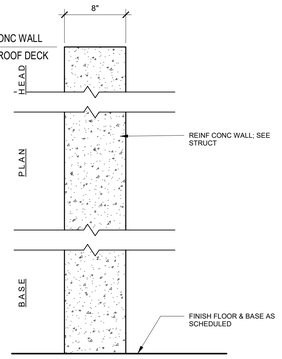
P18
ACOUST GYP BD ASSEMBLY



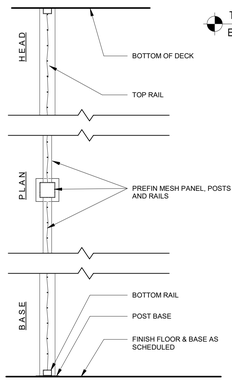
P17
CMU ASSEMBLY



P16
GYPSUM BOARD ASSEMBLY



P15
POURED CONCRETE



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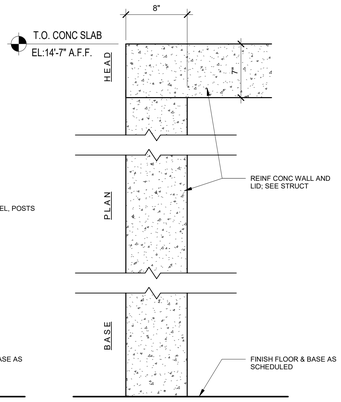
WIRE MESH PANEL



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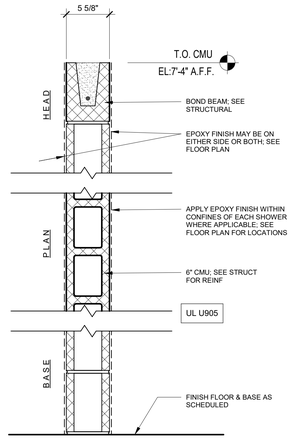
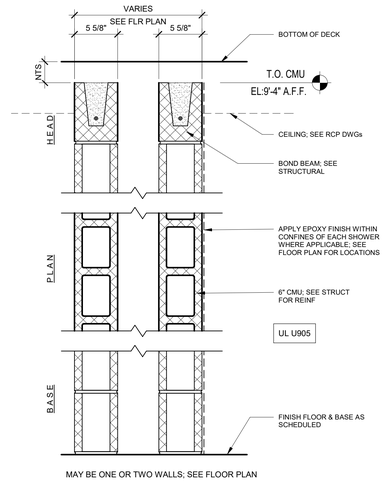
POURED CONCRETE



P12
CMU ASSEMBLY



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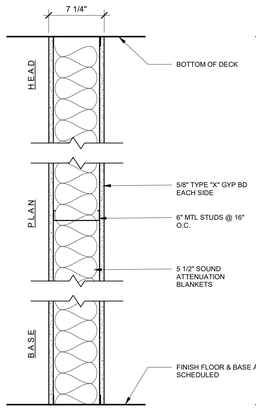
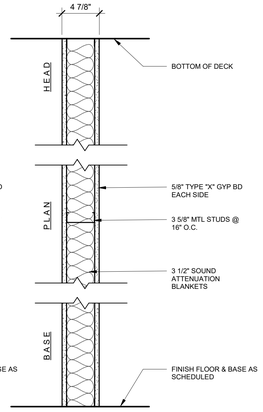
CMU ASSEMBLY



P10
GYPSUM BOARD ASSEMBLY



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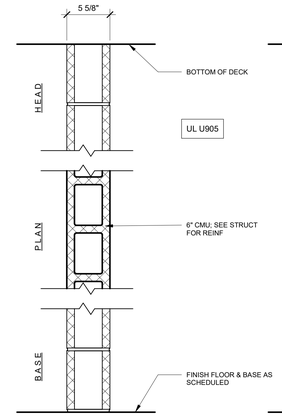
GYPSUM BOARD ASSEMBLY



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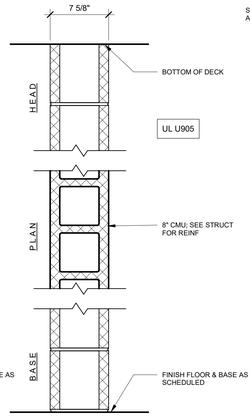
CMU ASSEMBLY



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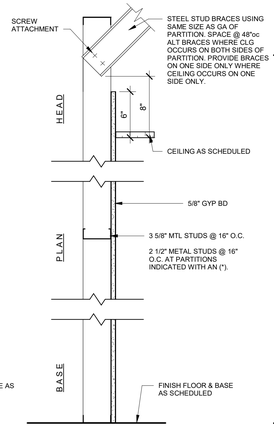
CMU ASSEMBLY



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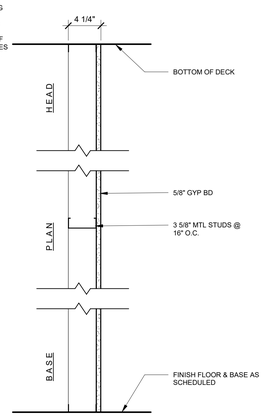
GYPSUM BOARD ASSEMBLY



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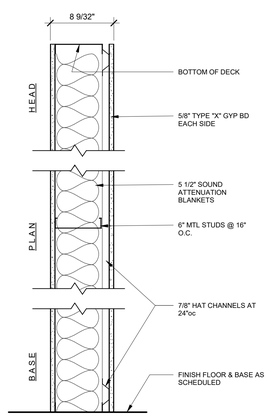
GYPSUM BOARD ASSEMBLY



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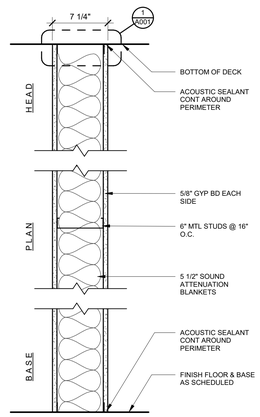
GYPSUM BOARD ASSEMBLY



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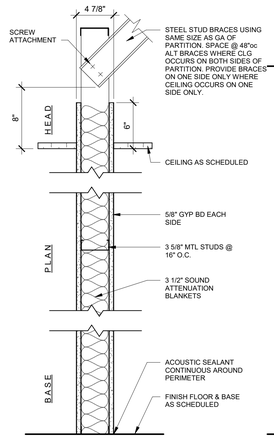
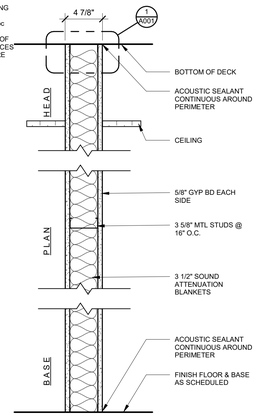
GYPSUM BOARD ASSEMBLY



P2
GYPSUM BOARD ASSEMBLY



P1
GYPSUM BOARD ASSEMBLY

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Architect of Record
MICHAEL JAMES SAPP
NUMBER A-5051
REGISTERED ARCHITECT
2-25-2020
Michael James Sapp, Architect MO A-5051

TASMG READINESS CENTER

AVCRAD SITE
1107TH THEATER AVIATION SUSTAINMENT MAINTENANCE GROUP

MISSOURI NATIONAL GUARD
SPRINGFIELD, MISSOURI

NATIONAL GUARD BUREAU PROJECT #290186
MISSOURI NATIONAL GUARD PROJECT #T1809-01
SITE #9019
ASSET #8136270008

DRAWN BY: BS
CHECKED BY: ST
DESIGNED BY: JM

REVISION:
DATE:
REVISION:
DATE:
REVISION:
DATE:
ISSUED DATE: 26 FEBRUARY 2020

SHEET TITLE:

PARTITION TYPES

SHEET NUMBER:

A001

21 OF 131 SHEETS

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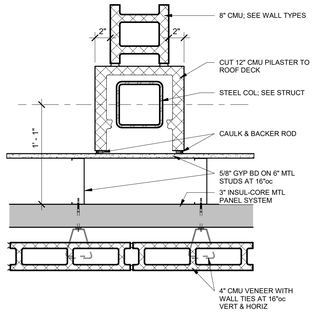
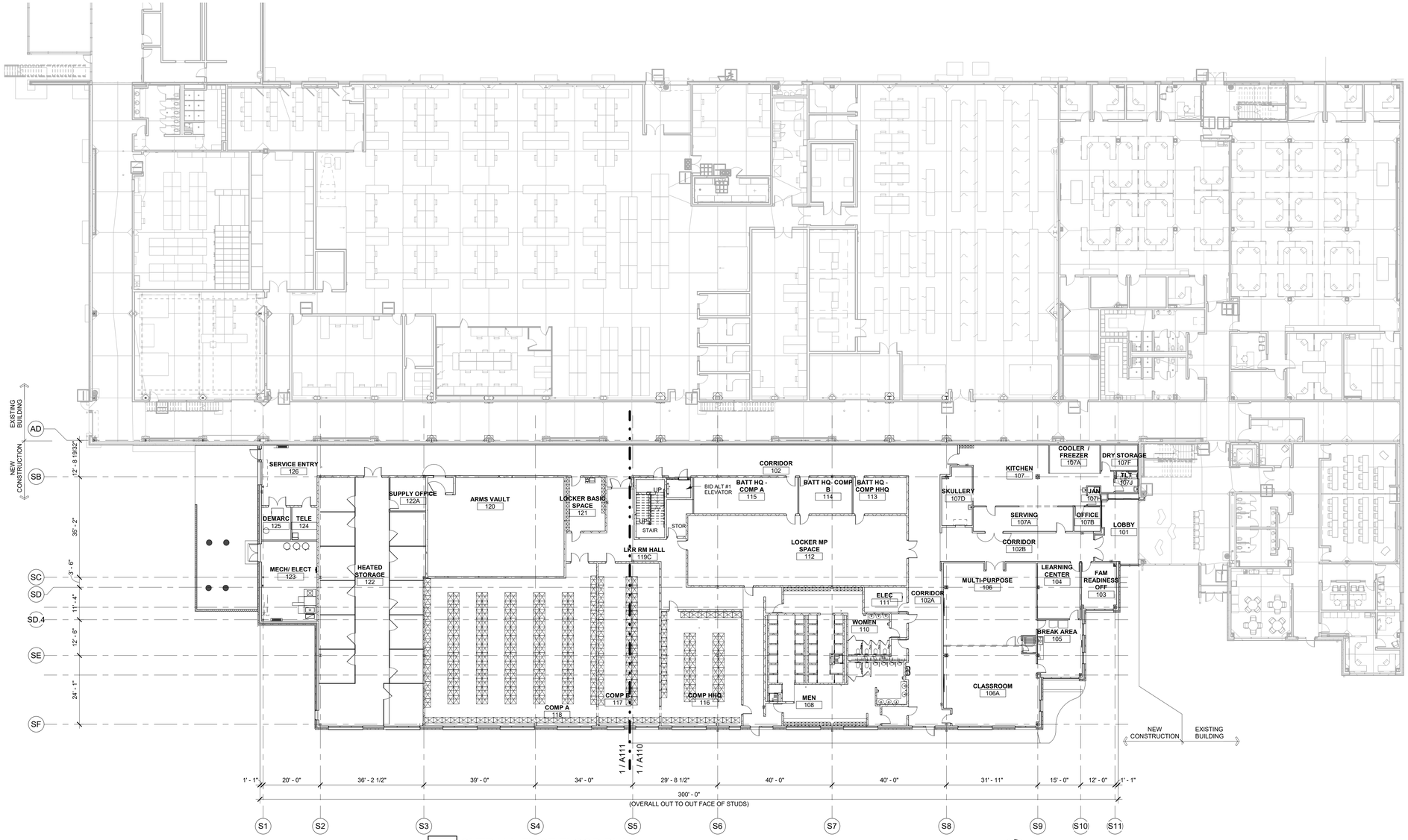
GENERAL NOTES

1. ALL DIMENSIONS INDICATED IN CONTRACT DOCUMENTS ARE FROM FACE OF STUD TO FACE OF STUD FOR INTERIOR PARTITIONS, FACE OF EXISTING STRUCTURE OR FINISH, FACE OF CONCRETE OR BLOCK, OR TO STRUCTURAL LINE, EXCEPT AS NOTED OTHERWISE. EXTERIOR DIMENSIONS ARE TO FACE OF CMU. DIMENSIONS OF EXISTING STRUCTURE, ETC. ARE ± AND SHOULD BE FIELD VERIFIED PRIOR TO COMMENCEMENT OF WORK AND ARCHITECT NOTIFIED OF ANY DISCREPANCIES.
2. SEE GENERAL NOTES ON G100 FOR WORK PERTAINING TO EXISTING CONDITIONS, DIMENSIONS, ETC.



2 COL IN 8" CMU @ EXT WALL
1 1/2" = 1'-0"



1 OVERALL FIRST FLOOR PLAN
1/16" = 1'-0"

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ISSUED DATE: 26 FEBRUARY 2020

SHEET TITLE:

OVERALL FIRST FLOOR PLAN

SHEET NUMBER:

A100

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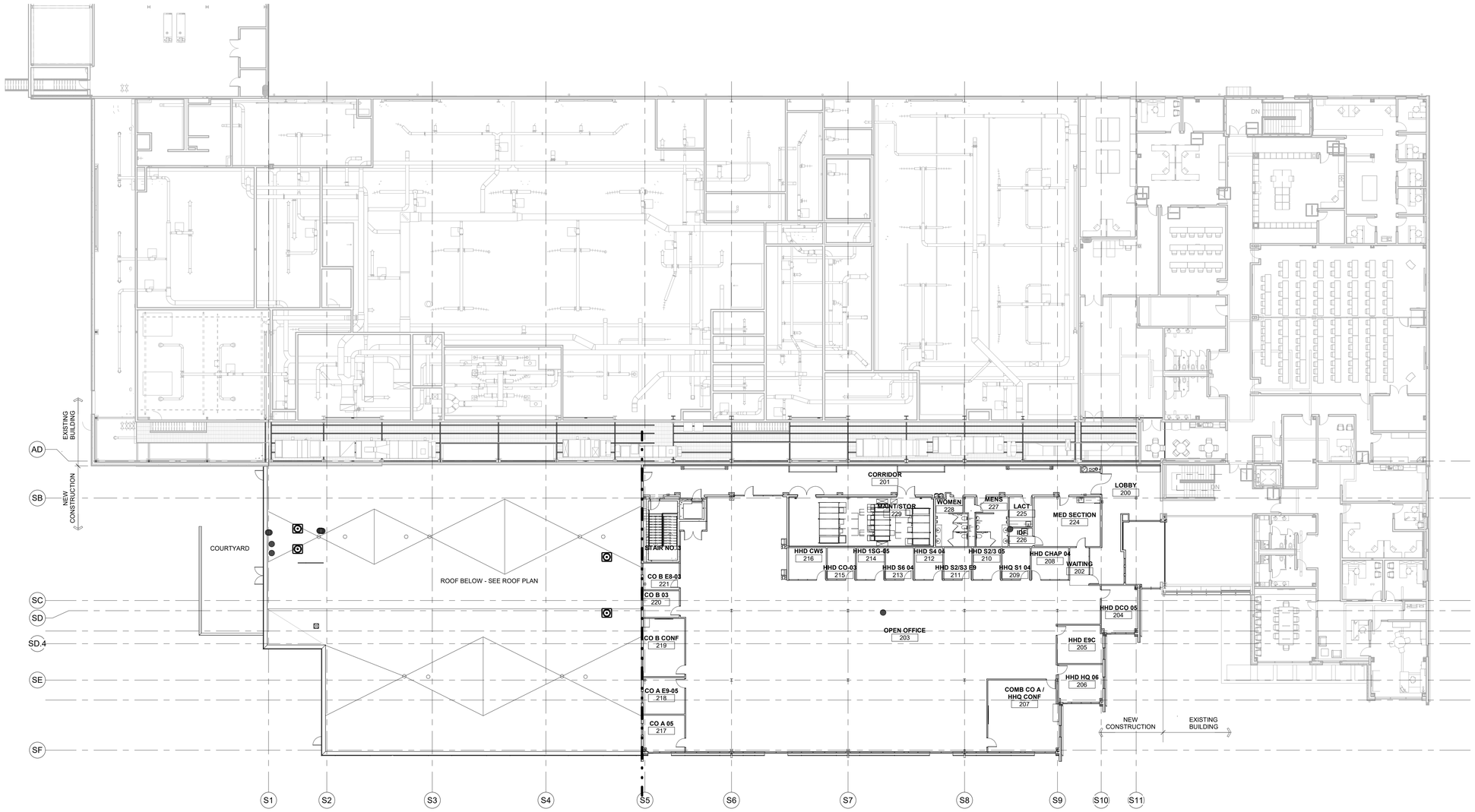

1 **OVERALL SECOND FLOOR PLAN**
1/16" = 1'-0"

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ISSUED DATE: 26 FEBRUARY 2020

SHEET TITLE:

OVERALL SECOND FLOOR PLAN

SHEET NUMBER:

A101

23 OF 131 SHEETS

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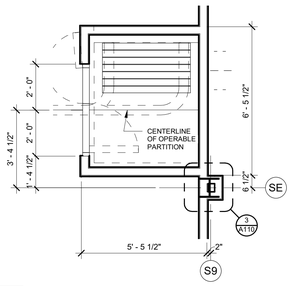
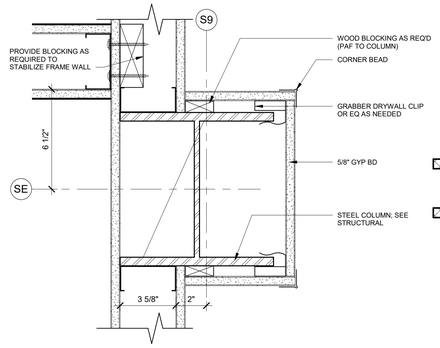
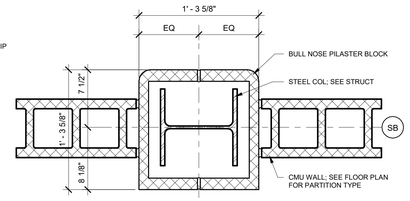


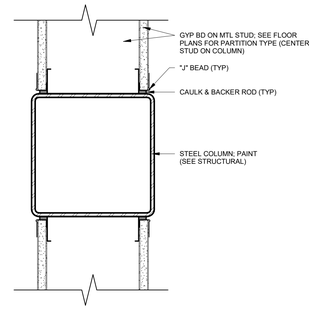
2 PLAN - OPERABLE PARTITION ALCOVE
3/8" = 1'-0"



3 DETAIL
3" = 1'-0"



4 DETAIL
1 1/2" = 1'-0"



5 TUBE COL & GYP BD WALLS
3" = 1'-0"

EQUIPMENT SCHEDULE

TYPE MARK	DESCRIPTION	COMMENTS
FE	4-A,80-B:C FIRE EXTINGUISHER - DRY CHEMICAL	
FEC	FIRE EXTINGUISHER W/ SEMI RECESSED CABINET	
GB1	36" BACK WALL, 42" SIDE WALL & 18" VERT ON SIDE WALL INTEGRAL GRAB BARS	
GB2	SHOWER GRAB BARS. (1) L SHAPED HORIZ AND (1) VERT	
HD	ELECTRIC HAND DRYER - SEE SPEC	
M1	ANGLE-FRAME MIRROR, WELDED CORNERS, 18"x36"	
SD	SOAP DISPENSER - BY OWNER; INSTALLED BY CONTRACTOR	
SH	SHOWER CURTAIN AND ROD - SEE SPECS	
SN	FEMININE NAPKIN DISPOSAL	
SS	REVERSIBLE PHENOLIC SHOWER SEAT	
TP	TOILET PARTITION	
TPD	TOILET PAPER DISPENSER - BY OWNER; INSTALLED BY CONTRACTOR	
TV	SMART TV	TV AND WALL MOUNTING BRACKET FURN BY OWNER; SUPPORT BLOCKING IN WALL BY CONTRACTOR
UP-1	WALL MOUNTED URINAL PARTITION	

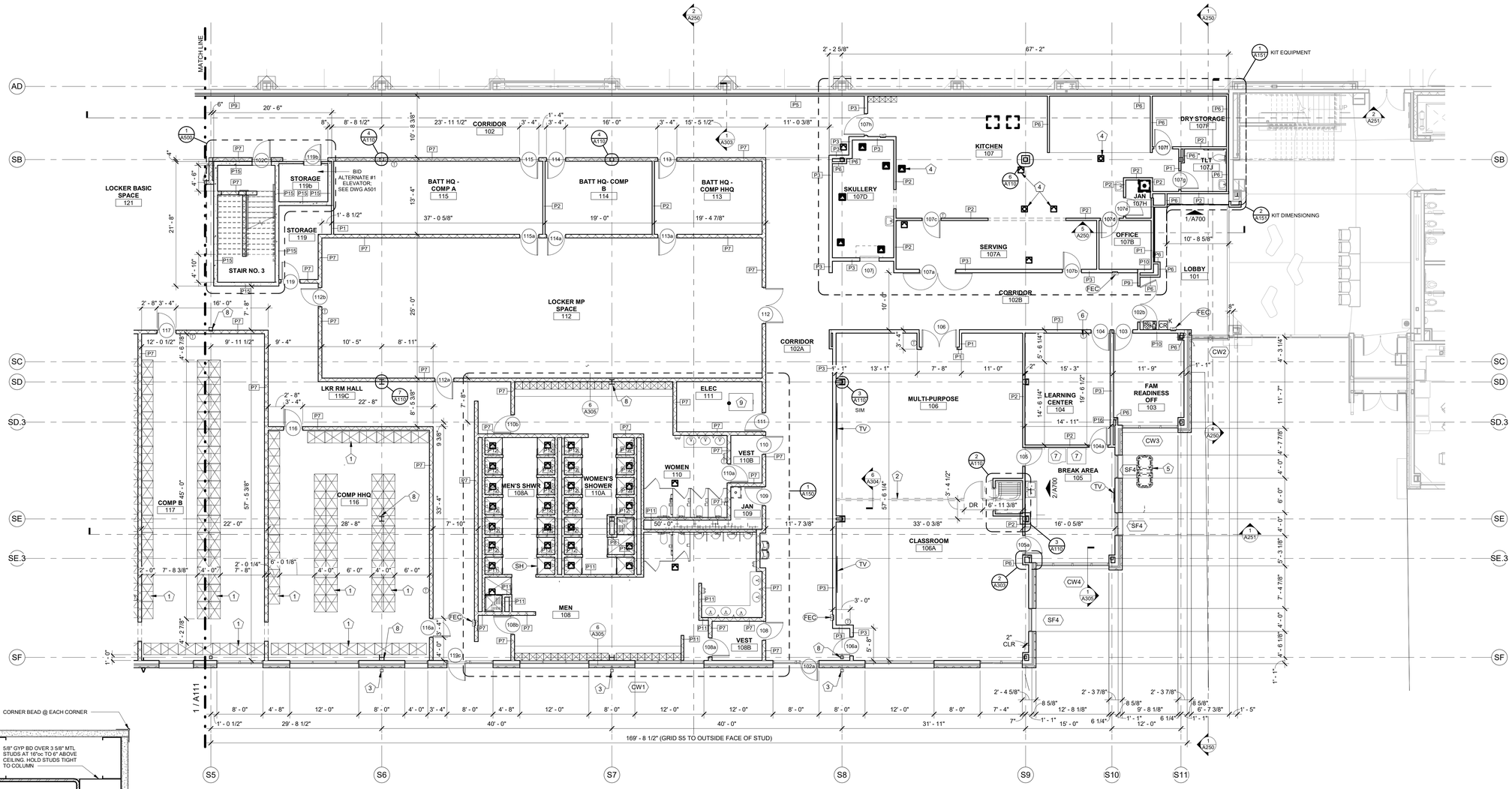
KEYNOTES

1

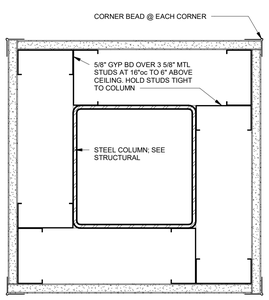
1	OCIE LOCKER TYPE 1; 24"X36"X36" TALL AND 2 TIERS HIGH WITH 4" BASE AND SLOPED TOP; SEE SPEC
2	OPERABLE FOLDING PARTITION WITH PASSAGE DOOR; SEE SPECS
3	PREFINISHED 6"X6" METAL DOWNSPOUT TO UNDERGROUND STORM WATER SYSTEM
4	FLOOR DRAIN - SEE PLUMBING, TYP
5	GREASE INTERCEPTOR - SEE PLUMBING
6	THERMOSTAT, SEE MEP. TYP
7	EQUIPMENT - BY OWNER
8	ARCHITECTURALLY EXPOSED STRUCTURAL STEEL, CATEGORY 2. PAINT.
9	MECHANICAL EQUIPMENT - SEE MEP

GENERAL NOTES

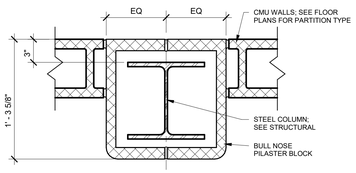
PROVIDE EXTRA LAYER OF GYP BD AS REQUIRED TO CONCEAL COLUMNS IN PARTITIONS.



1 FIRST FLOOR PLAN - AREA A
1/8" = 1'-0"



6 DETAIL
3" = 1'-0"



7 DETAIL
1 1/2" = 1'-0"

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SHEET TITLE:

FIRST FLOOR PLAN - AREA A

SHEET NUMBER:

A110

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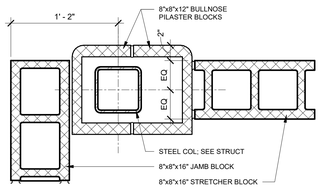
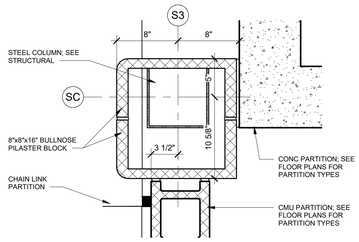
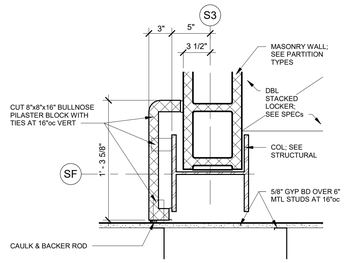


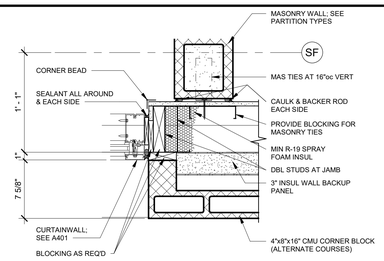
2 DETAIL
1 1/2" = 1'-0"



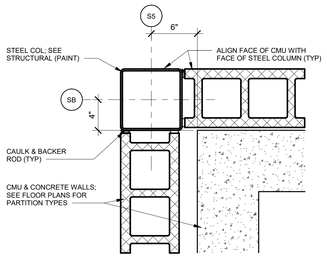
3 DETAIL
1 1/2" = 1'-0"



4 DETAIL
1 1/2" = 1'-0"



5 DETAIL
1 1/2" = 1'-0"



6 DETAIL
1 1/2" = 1'-0"

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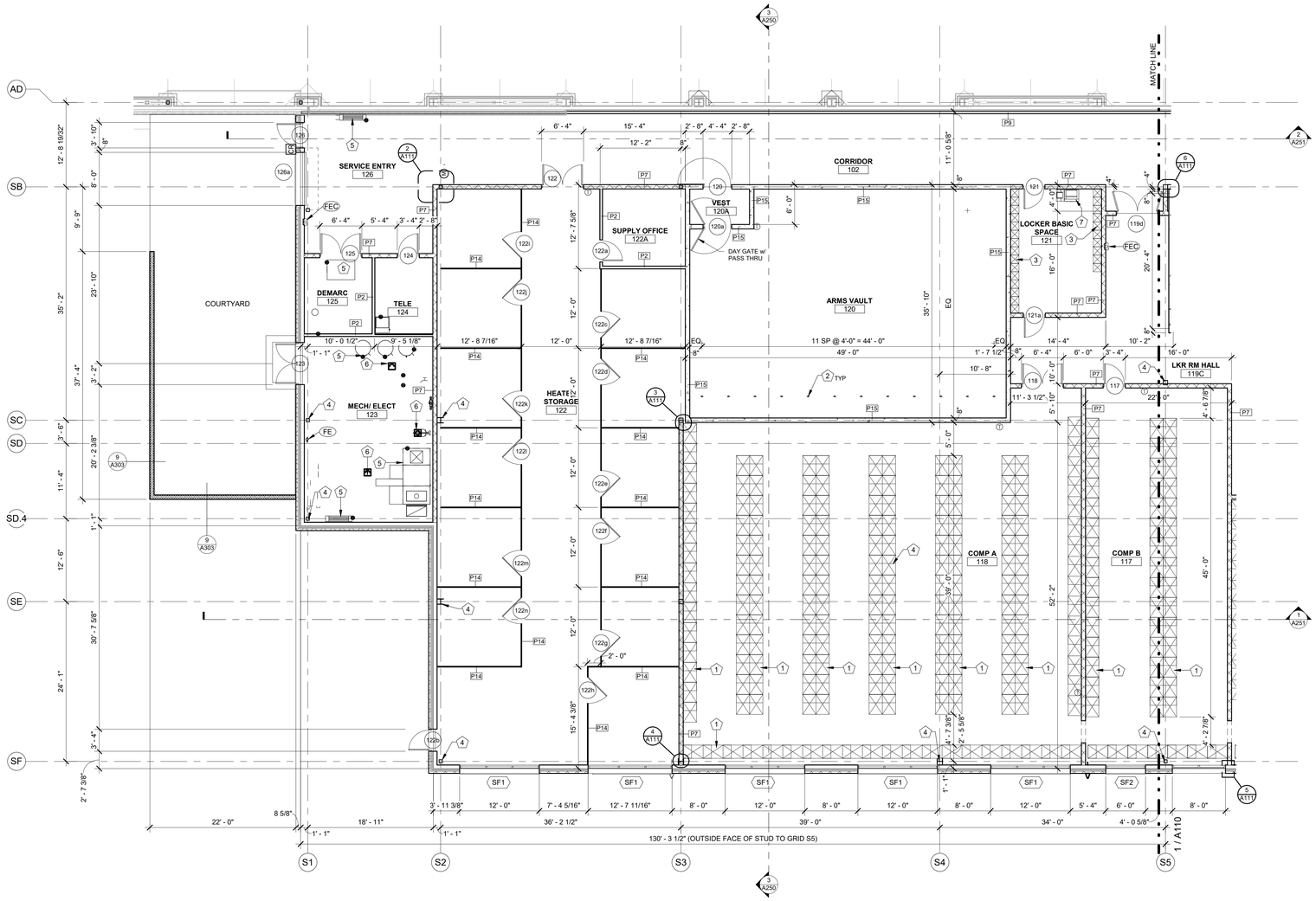
SD	SOAP DISPENSER - BY OWNER; INSTALLED BY CONTRACTOR	
SH	SHOWER CURTAIN AND ROD - SEE SPECS	
SN	FEMININE NAPKIN DISPOSAL	
SS	REVERSIBLE PHENOLIC SHOWER SEAT	
TP	TOILET PARTITION	
TPD	TOILET PAPER DISPENSER - BY OWNER; INSTALLED BY CONTRACTOR	
TV	SMART TV	TV AND WALL MOUNTING BRACKET FURN BY OWNER; SUPPORT BLOCKING IN WALL BY CONTRACTOR
UP-1	WALL MOUNTED URINAL PARTITION	

KEYNOTES

1	OCIE LOCKER TYPE 1; 24"X36"X36" TALL AND 2 TIERS HIGH WITH 4" BASE AND SLOPED TOP; SEE SPEC
2	RECESSED FLOOR ANCHOR MODEL AN2004 SIZE B BY ANCHOR MFR FROM EAGAN, MN OR APPROVED EQ. CONTRACTOR IS TO CONSULT WITH OWNER REGARDING ORIENTATION AND LOCATION OF ANCHOR PRIOR TO INSTALLATION
3	15"X15"X72" LOCKERS WITH 4" BASE AND SLOPED TOP LOCKER ACCESSORIES
4	ARCHITECTURALLY EXPOSED STRUCTURAL STEEL, CATEGORY 2. PAINT.
5	MECHANICAL EQUIPMENT - SEE MEP
6	FLOOR DRAIN - SEE PLUMBING, TYP
7	EQUIPMENT - BY OWNER

GENERAL NOTES

PROVIDE EXTRA LAYER OF GYP BD AS REQUIRED TO CONCEAL COLUMNS IN PARTITIONS.



1 FIRST FLOOR PLAN - AREA B
1/8" = 1'-0"

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2-25-2020

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1107TH THEATER AVIATION SUSTAINMENT MAINTENANCE GROUP

MISSOURI NATIONAL GUARD
SPRINGFIELD, MISSOURI

NATIONAL GUARD BUREAU PROJECT #290186
MISSOURI NATIONAL GUARD PROJECT #T1809-01
SITE #9019
ASSET #8136270008

DRAWN BY: BS
CHECKED BY: ST
DESIGNED BY: JM

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REVISION:
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SHEET TITLE:

FIRST FLOOR PLAN - AREA B

SHEET NUMBER:

A111

25 OF 131 SHEETS

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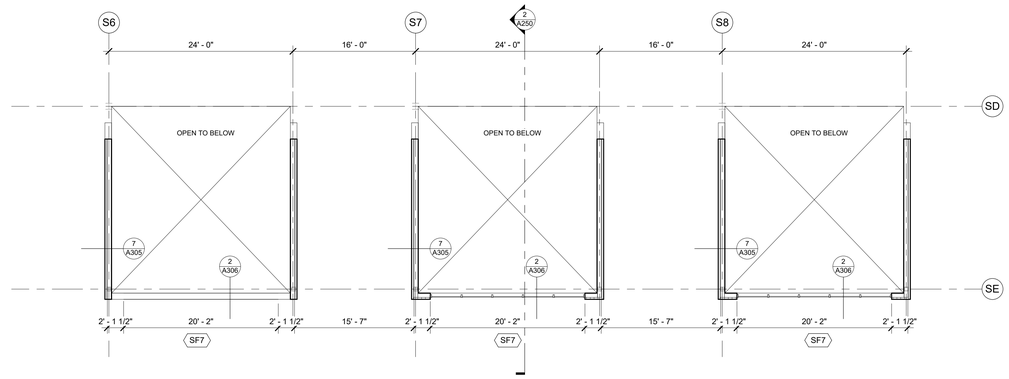


2 CLERESTORY
1/8" = 1'-0"

EQUIPMENT SCHEDULE

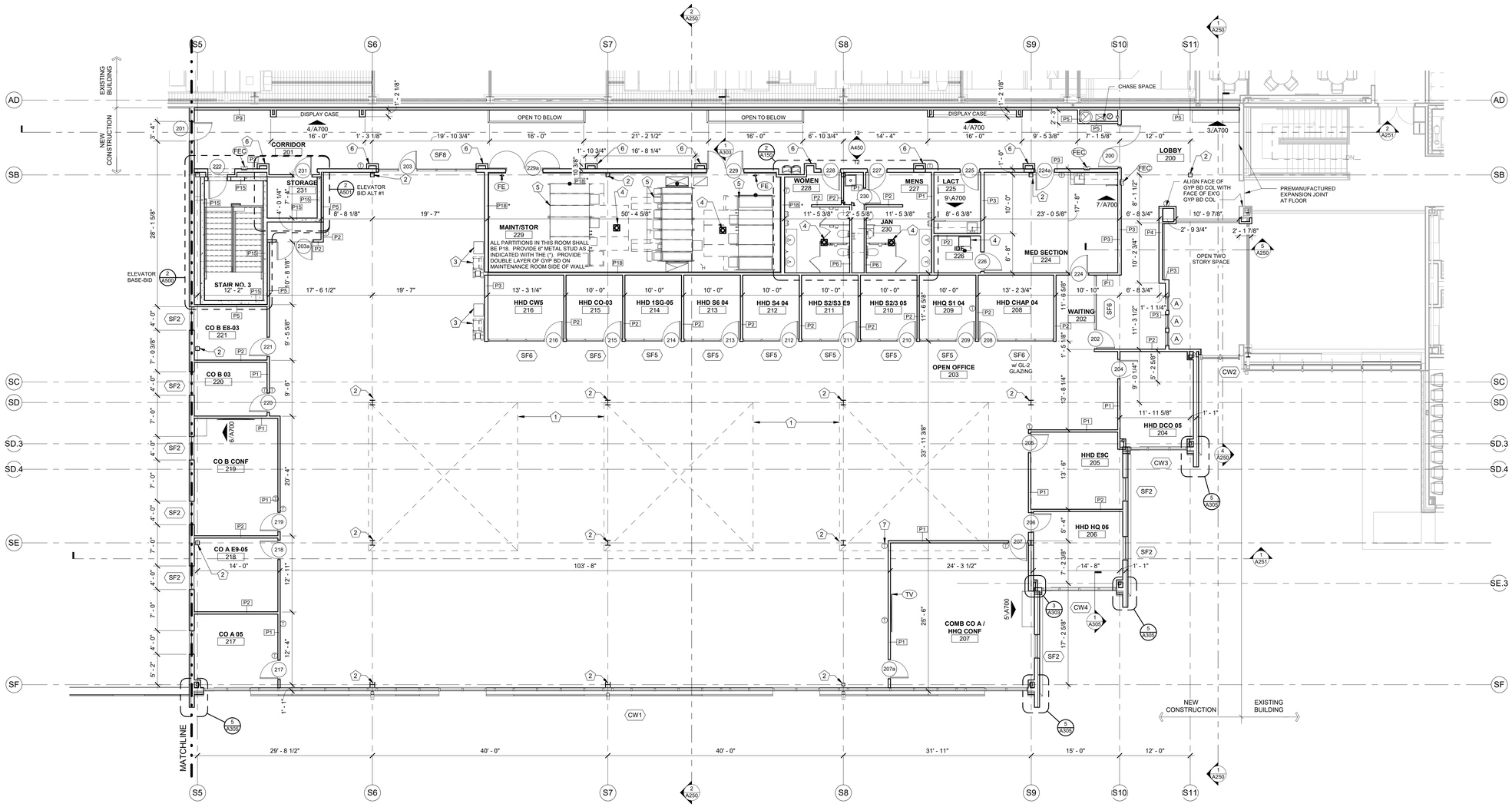
TYPE MARK	DESCRIPTION	COMMENTS
FE	4-A,80-B,C FIRE EXTINGUISHER - DRY CHEMICAL	
FEC	FIRE EXTINGUISHER W/ SEMI RECESSED CABINET	
GB1	36" BACK WALL, 42" SIDE WALL & 18" VERT ON SIDE WALL INTEGRAL GRAB BARS	
GB2	SHOWER GRAB BARS. (1) L SHAPED HORIZ AND (1) VERT	
HD	ELECTRIC HAND DRYER - SEE SPEC	
M1	ANGLE-FRAME MIRROR, WELDED CORNERS, 18"x36"	
SD	SOAP DISPENSER - BY OWNER; INSTALLED BY CONTRACTOR	
SH	SHOWER CURTAIN AND ROD - SEE SPECS	
SN	FEMININE NAPKIN DISPOSAL	
SS	REVERSIBLE PHENOLIC SHOWER SEAT	
TP	TOILET PARTITION	
TPD	TOILET PAPER DISPENSER - BY OWNER; INSTALLED BY CONTRACTOR	
TV	SMART TV	TV AND WALL MOUNTING BRACKET FURN BY OWNER; SUPPORT BLOCKING IN WALL BY CONTRACTOR
UP-1	WALL MOUNTED URINAL PARTITION	

KEYNOTES

1	SOFFIT ABOVE, SEE REFLECTED CEILING PLANS, TYP.
2	ARCHITECTURALLY EXPOSED STRUCTURAL STEEL, CATEGORY 2. PAINT.
3	EQUIPMENT - BY OWNER
4	FLOOR DRAIN - SEE PLUMBING, TYP
5	MECHANICAL EQUIPMENT - SEE MEP
6	PARTITION BUMP OUT, TYP.
7	THERMOSTAT, SEE MEP. TYP

GENERAL NOTES

PROVIDE EXTRA LAYER OF GYP BD AS REQUIRED TO CONCEAL COLUMNS IN PARTITIONS.



1 SECOND FLOOR PLAN
1/8" = 1'-0"

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SECOND FLOOR PLAN

SHEET NUMBER:

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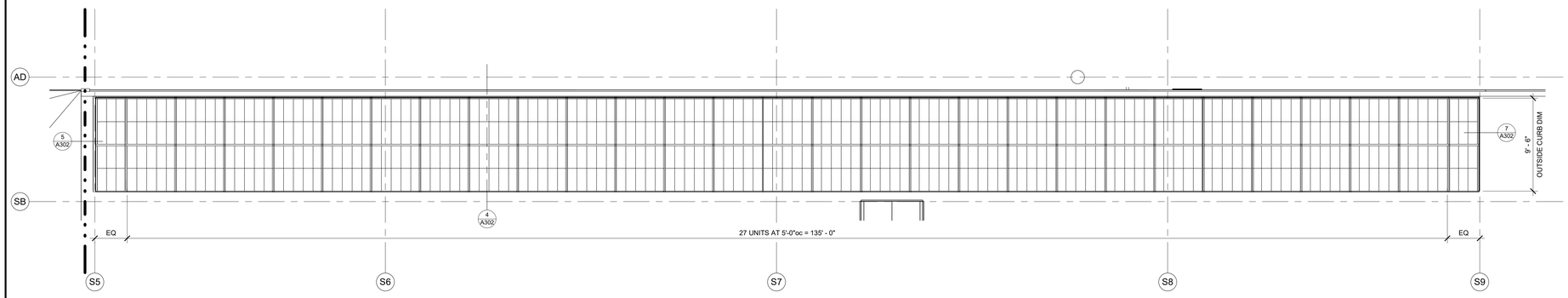
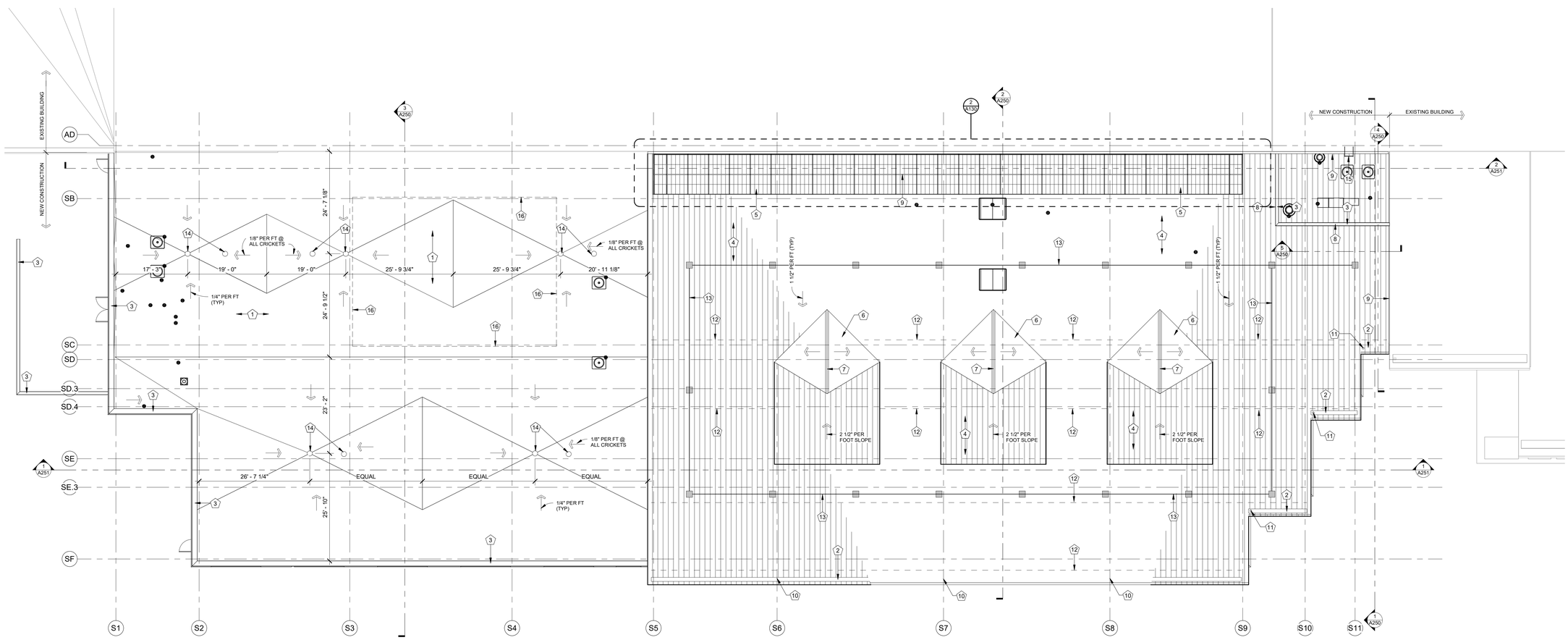


2 SKYLIGHT PLAN
3/16" = 1'-0"

ROOF PLAN KEYNOTES

1	TPO ROOF SYSTEM OVER TAPERED INSUL. SLOPE TO ROOF DRAINS.
2	GALV SHEET METAL CONCEALED GUTTER
3	PREFINISHED METAL PARAPET CAP
4	PREFIN STANDING SEAM METAL ROOF
5	KALWALL SKYLIGHT - SEE SPEC
6	PREFIN METAL ROOF OVER TAPERED RIGID INSUL CRICKET
7	PREFINISHED METAL RIDGE CAP
8	PREFINISHED VERTICAL METAL PANEL MECHANICAL SCREEN
9	EXPANSION JOINT
10	6" SQUARE PREFIN MTL EXTERIOR DOWNSPOUT
11	6" ROUND GALV METAL INTERIOR DOWNSPOUT
12	SNOW GUARDS; SEE SPEC
13	ROOFTOP FALL ARREST SYSTEM; SEE SPEC
14	ROOF DRAIN AND ROOF OVERFLOW DRAIN - SEE PLBG
15	EXISTING ROOF ACCESS LADDER; SEE DETAIL 5/A306. FIELD VERIFY EXACT LOCATION WITH MEP
16	OUTLINE OF EXT FACE OF CONC WALLS OF ARMORY VAULT BELOW ROOF



1 ROOF PLAN
3/32" = 1'-0"

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ROOF PLAN

SHEET NUMBER:

A130

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EQUIPMENT SCHEDULE

TYPE MARK	DESCRIPTION	COMMENTS
FE	4-A,80-B:C FIRE EXTINGUISHER - DRY CHEMICAL	
FEC	FIRE EXTINGUISHER W/ SEMI RECESSED CABINET	
GB1	36" BACK WALL, 42" SIDE WALL & 18" VERT ON SIDE WALL INTEGRAL GRAB BARS	
GB2	SHOWER GRAB BARS. (1) L SHAPED HORIZ AND (1) VERT	
HD	ELECTRIC HAND DRYER - SEE SPEC	
M1	ANGLE-FRAME MIRROR, WELDED CORNERS, 18"x36"	
SD	SOAP DISPENSER - BY OWNER; INSTALLED BY CONTRACTOR	
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SN	FEMININE NAPKIN DISPOSAL	
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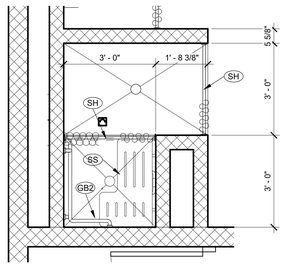
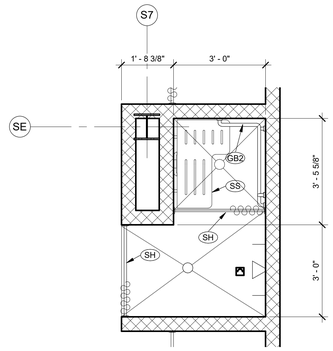
TP	TOILET PARTITION	
TPD	TOILET PAPER DISPENSER - BY OWNER; INSTALLED BY CONTRACTOR	
TV	SMART TV	TV AND WALL MOUNTING BRACKET FURN BY OWNER; SUPPORT BLOCKING IN WALL BY CONTRACTOR
UP-1	WALL MOUNTED URINAL PARTITION	

KEYNOTES

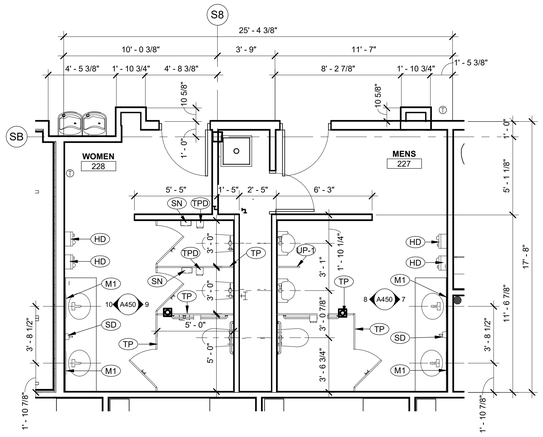
1	TYPE 2 LOCKERS: 15"X15"X36" TWO HIGH WITH SLOPE TOP; SEE SPEC
2	4" THICK X 30" DEEP CONCRETE BENCH 16"A.F.F.



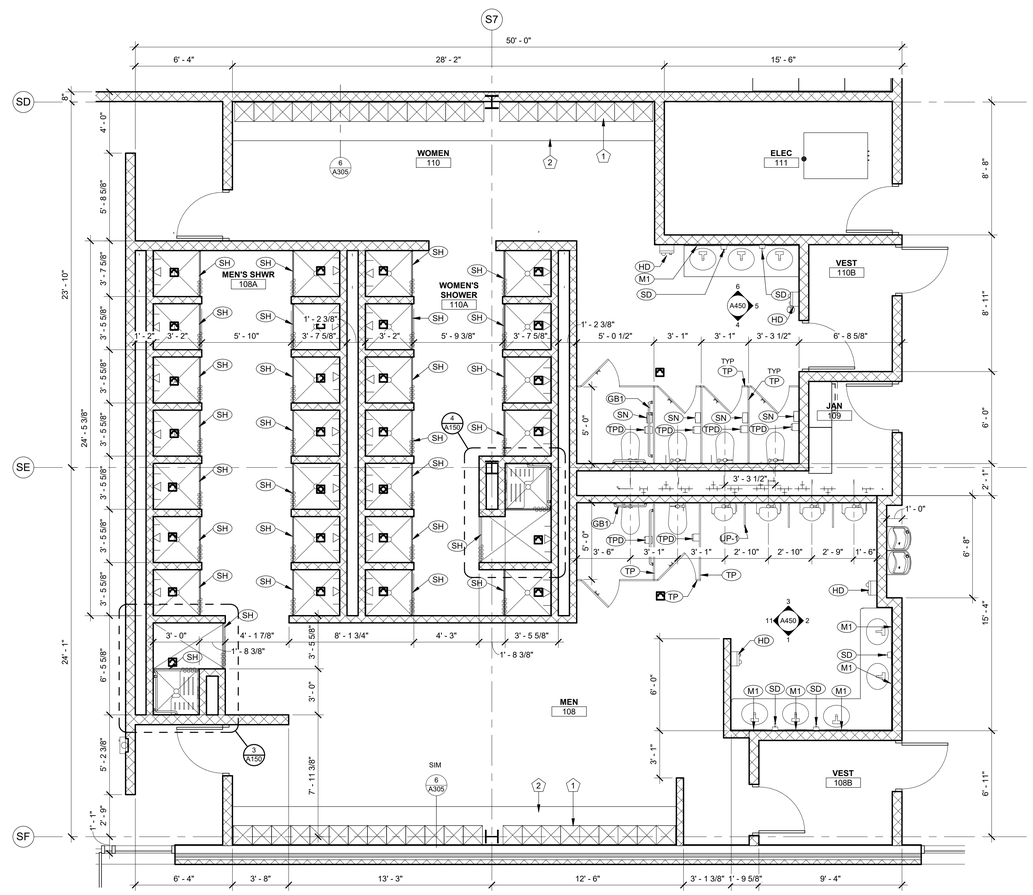
3 ENLARGED FLOOR PLAN
1/2" = 1'-0"



4 ENLARGED FLOOR PLAN
1/2" = 1'-0"



2 ENLARGED FLOOR PLAN
1/4" = 1'-0"



1 ENLARGED FLOOR PLAN
1/4" = 1'-0"

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SPRINGFIELD, MISSOURI

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CHECKED BY: ST
DESIGNED BY: JM

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SHEET TITLE:

ENLARGED RESTROOM PLANS

SHEET NUMBER:

A150

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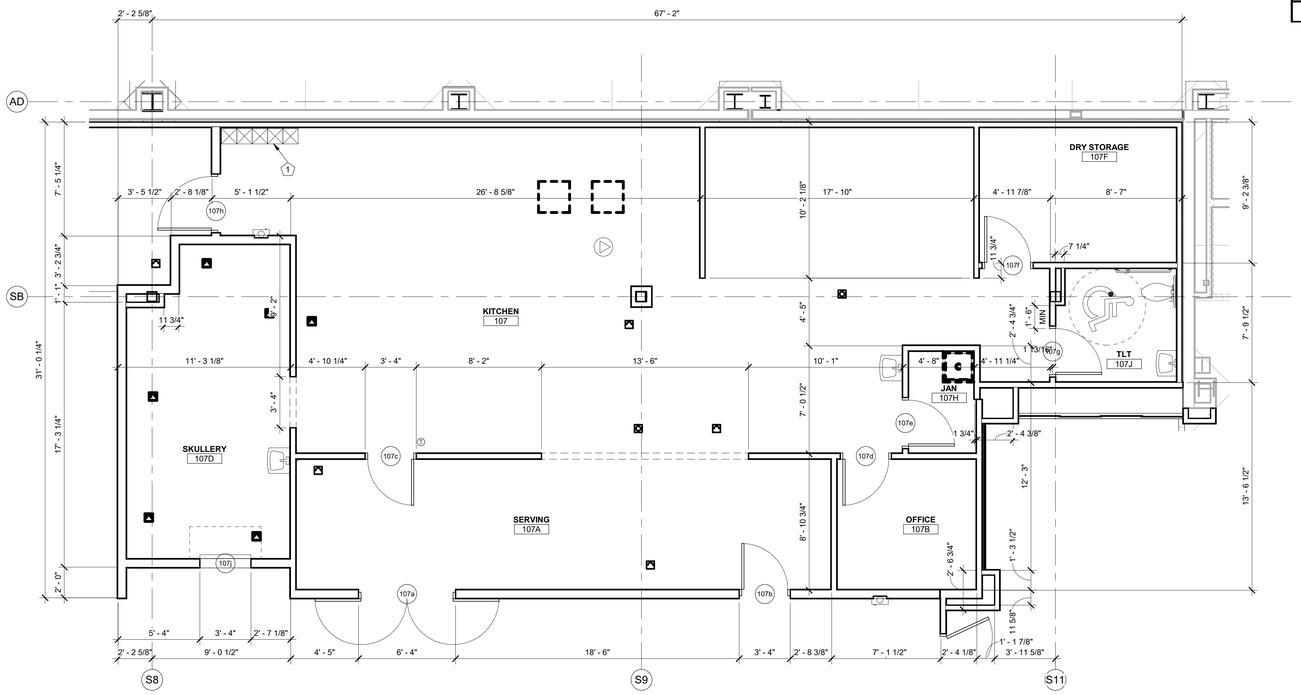
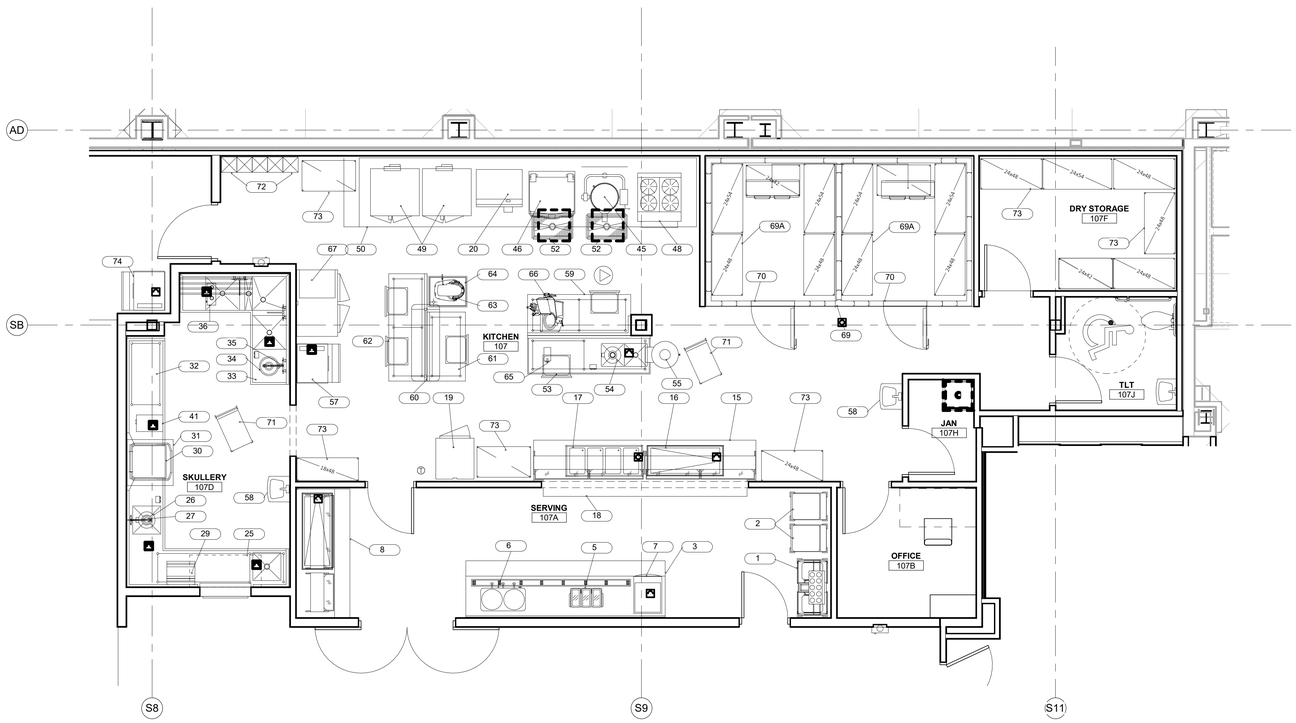
KEYNOTES

1	LOCKERS TYPE 3, 12"X12"X72" HIGH WITH 4" BASE AND SLOPED TOP; SEE SPEC



2 ENLARGED KITCHEN PLAN FOR DIMENSIONING
1/4" = 1'-0"



NOTE: KITCHEN EQUIPMENT SHOWN THIS PLAN IS FOR INFORMATION ONLY. IT IS NOT PART OF CONTRACT. MEP ROUGH-IN ONLY IS PART OF CONTRACT - SEE MEP SHEETS.

1 ENLARGED KITCHEN EQUIPMENT PLAN
1/4" = 1'-0"

EQUIPMENT SCHEDULE

ITEM NO	QTY	EQUIPMENT CATEGORY
1	1	DISPENSER, SELF-LEVELING TRAY
2	2	DISPENSER, SELF-LEVELING CUP/GLASS
3	1	BEVERAGE COUNTER
4	-	SPARE NUMBER
5	1	DISPENSER, BEVERAGE/NON-CARBONATED
6	1	COFFEE URN, AUTOMATIC
7	1	DISPENSER, ICE w/ GLASS FILL FAUCET
8	1	BUFFET/CAFETERIA, COLD FOOD STATION
9-14	-	SPARE NUMBERS
15	1	SERVING COUNTER
16	1	COLD FOOD STATION w/SNEEZE GUARD
17	1	HOT FOOD STATION w/ NO SNEEZER GUARD
18	1	TRAY SLIDE
19	1	CABINET, HEATED, REACH-IN
20	1	GRIDDLE, ELECTRIC
21	1	EXHAUST HOOD - BY HVAC - OMITTED
22-24	-	SPARE NUMBERS
25	1	SOILED TABLE
26	1	DISPOSER, GARBAGE
27	1	PRE-RINSE FAUCET, DECK MOUNT
28	-	SPARE NUMBER
29	1	DISHTABLE, SORTING SHELF
30	1	WAREWASHER, DOOR TYPE, HIGH TEMP
31	1	CONDENSATE HOOD - BY HVAC
32	1	CLEAN DISH TABLE
33	1	CORNER POT SINK
34	1	DISPOSER, GARBAGE
35	1	PRE-RINSE FAUCET, WALL MOUNT
36	1	SINK HEATER & SANITIZER
37-40	-	SPARE NUMBERS
41	1	WATER HEATER, BOOSTER, ELECTRIC
42-44	-	SPARE NUMBERS
45	1	KETTLE, STEAM JACKETED, FLOOR
46	1	TILT SKILLET, ELECTRIC
47	1	SPARE NUMBER
48	1	RANGE, HEAVY DUTY, GAS
49	2	OVEN, CONVECTION, GAS
50	1	EXHAUST HOOD - BY HVAC
51	-	SPARE NUMBER
52	2	FLOOR TROUGH - BY PLUMB.
53	1	PREP TABLE
54	1	DISPOSER, GARBAGE
55	1	PEELER, POTATO/VEGETABLE w/BASE
56	-	SPARE NUMBER
57	1	ICE MAKER w/ BIN & FILTER
58	2	HAND SINK, WALL MOUNT - BY PLUMB.
59	1	PREP TABLE
60	1	POT RACK, TABLE MOUNT. PART OF #62
61	1	PREP TABLE
62	1	WORK TABLE
63	1	MIXER, COUNTER - 20 QT.
64	1	STAND, MIXER
65	1	CAN OPENER - ELECTRIC
66	1	SLICER, FOOD
67	1	REFRIGERATOR, REACH-IN
68	-	SPARE NUMBER
69	1	WALK-IN COOLER/FREEZER
69A	LOT	COOLER/FREEZER SHELVING
70	2	STRIP CURTAIN
71	2	CART, UTILITY
72	LOT	EMPLOYEE LOCKERS - BY OWNER
73	LOT	SHELVING UNITS (QTY. CHANGES)
74	1	EXISTING ICE MACHINE - VERIFY

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ENLARGED KITCHEN PLAN

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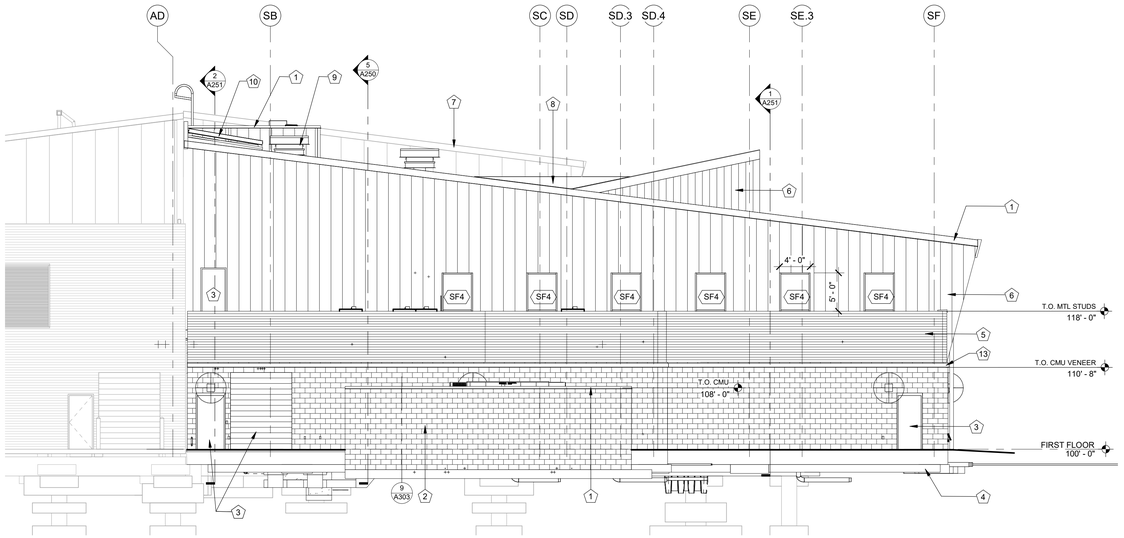
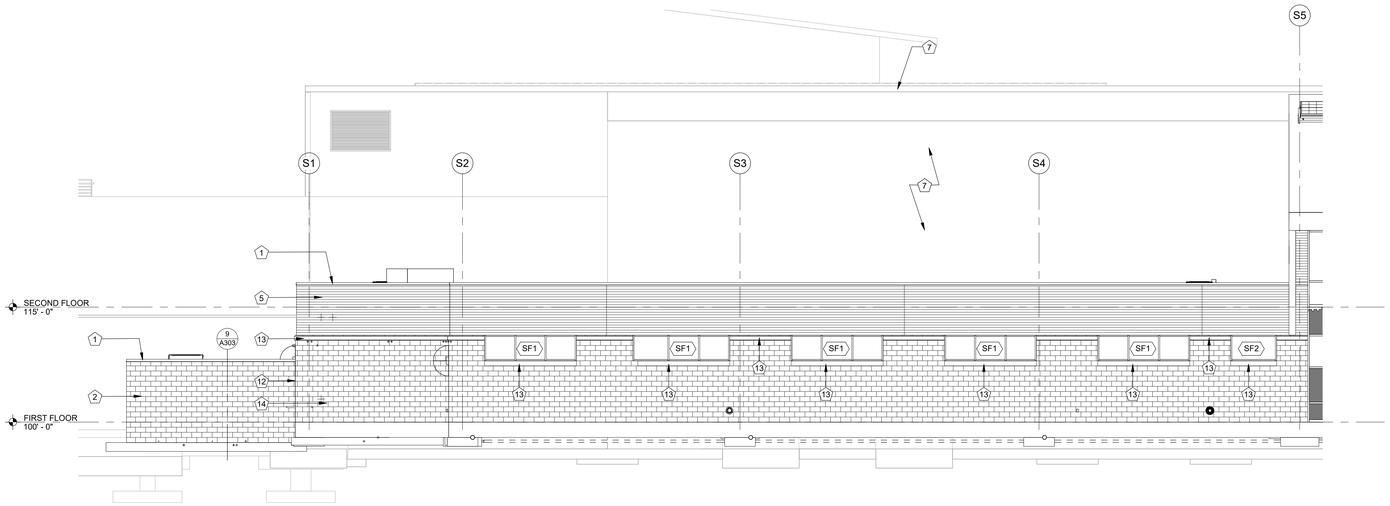
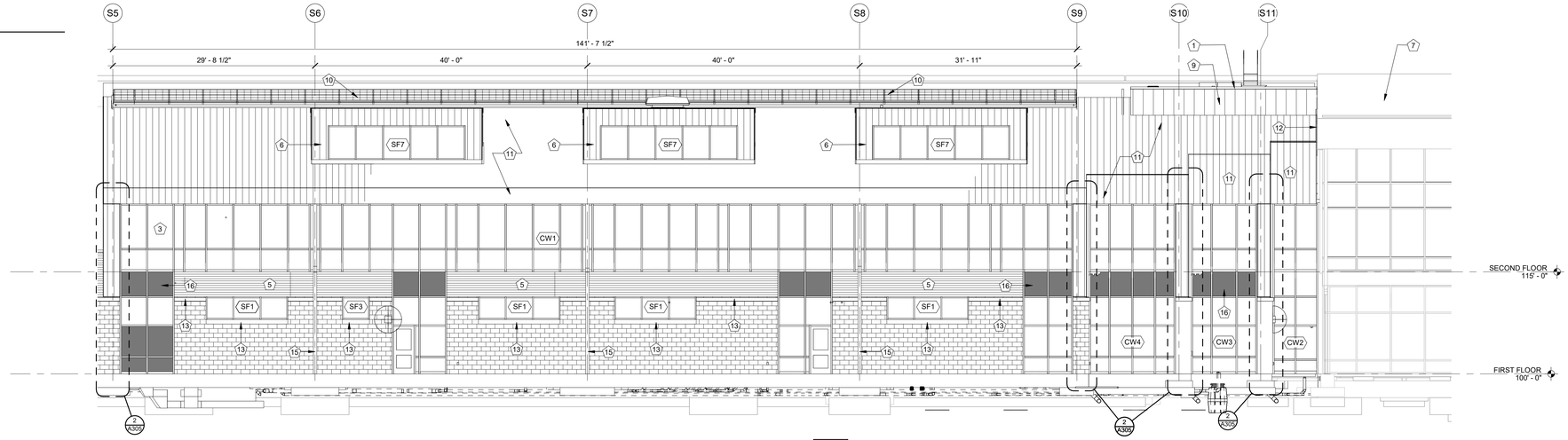


2 SOUTH ELEVATION
1/8" = 1'-0"



3 EAST ELEVATION - AREA B
1/8" = 1'-0"



1 EAST ELEVATION - AREA A
1/8" = 1'-0"

KEYNOTES

1	PREFINISHED METAL ROOF EDGE TRIM
2	8"X8"X16" CMU SCREEN WALL (INTEGRAL COLOR "IVORY" TO MATCH EXISTING). T.O. MAS 108'-0"
3	WINDOWS, DOORS, DOOR FRAMES & STOREFRONT SEE DOOR & WINDOW SCHEDULES
4	LINE OF CONC FOOTING - SEE STRUCT
5	MP2 FORMED HORIZ METAL WALL PANEL
6	MP3 INSULATED VERTICAL METAL WALL PANEL
7	LINE OF ROOF AND/OR BUILDING BEYOND
8	STANDING SEAM METAL ROOF CRICKET; SEE ROOF PLAN
9	NON-INSULATED VERTICAL METAL WALL PANEL MECHANICAL SCREEN WALL
10	KALWALL SKYLIGHT
11	STANDING SEAM METAL ROOF WITH INTEGRAL STANDING SEAM METAL FASCIA
12	EXPANSION JOINT
13	CAST STONE WATERTABLE/SILL
14	4"X8"X16" CMU VENEER (INTEGRAL COLOR "IVORY" TO MATCH EXISTING BLDG)
15	PREFINISHED 6"X6" METAL DOWNSPOUT TO UNDERGROUND STORM WATER SYSTEM
16	OPAQUE SPANDREL PANEL; SEE SPECS

SEE 1/A250 FOR NORTH ELEVATION OF READINESS CENTER

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ELEVATIONS

SHEET NUMBER:

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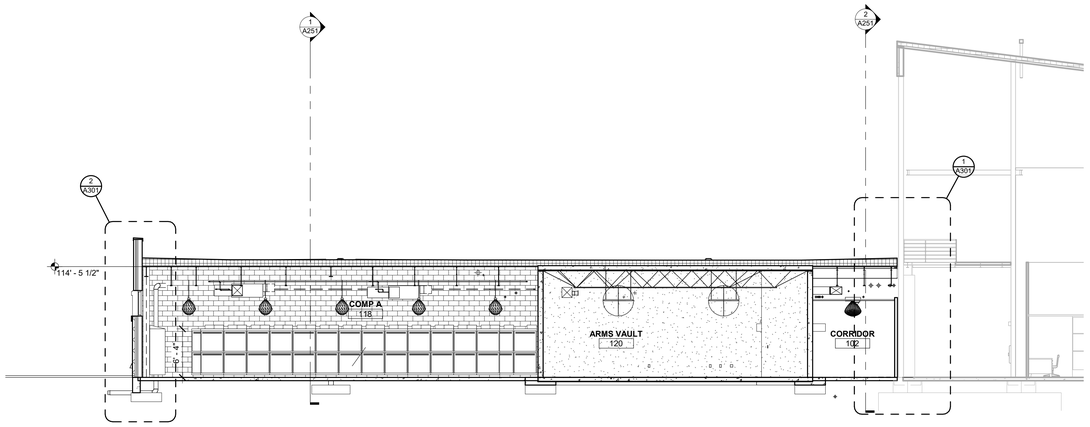
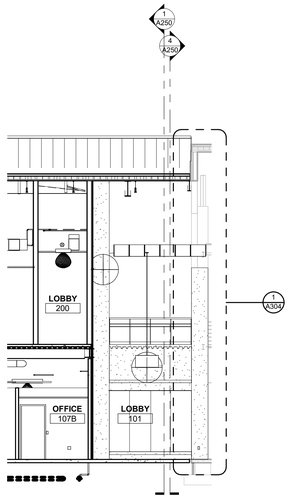
KEYNOTES

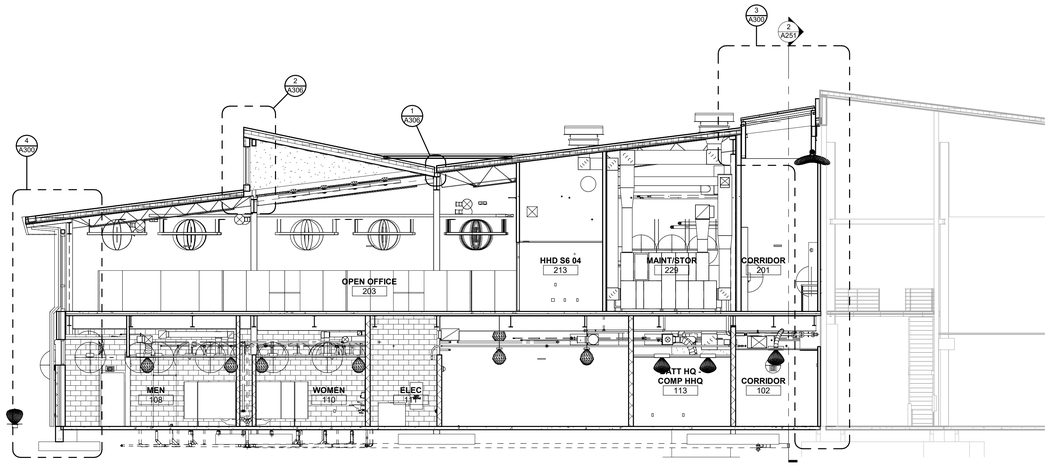
1	4"X8"X16" CMU VENEER (INTEGRAL COLOR "IVORY" TO MATCH EXISTING BLDG)
2	CAST STONE WATERTABLE/SILL
3	MP3 INSULATED VERTICAL METAL WALL PANEL
4	STANDING SEAM METAL ROOF WITH INTEGRAL STANDING SEAM METAL FASCIA
5	PREFINISHED METAL ROOF EDGE TRIM
6	LINE OF CONC FOOTING - SEE STRUCT
7	NON-INSULATED VERTICAL METAL WALL PANEL MECHANICAL SCREEN WALL
8	EXPANSION JOINT



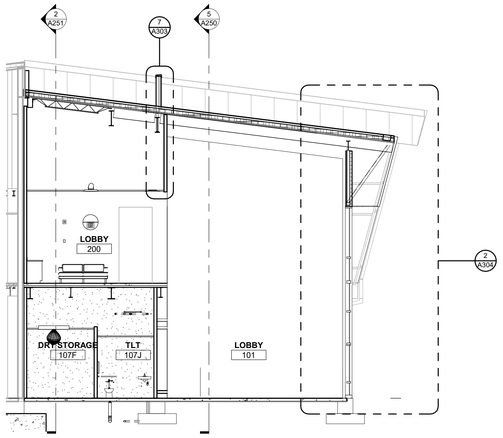
3 BUILDING SECTION
1/8" = 1'-0"



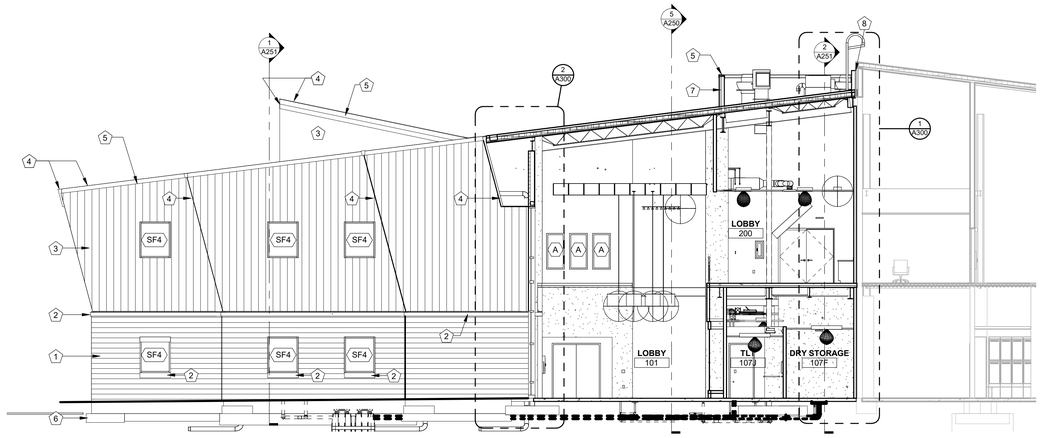
5 BUILDING SECTION
1/8" = 1'-0"



2 BUILDING SECTION
1/8" = 1'-0"



4 BUILDING SECTION
1/8" = 1'-0"



1 BUILDING SECTION & NORTH ELEVATION
1/8" = 1'-0"

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MICHAEL JAMES SAPP
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2-25-2020

Michael James Sapp, Architect MO A-5051

TASMG READINESS CENTER

AVCRAD SITE
1107TH THEATER AVIATION SUSTAINMENT MAINTENANCE GROUP

MISSOURI NATIONAL GUARD
SPRINGFIELD, MISSOURI

NATIONAL GUARD BUREAU PROJECT #290186
MISSOURI NATIONAL GUARD PROJECT #T1809-01
SITE #9019
ASSET #8136270008

DRAWN BY: BS
CHECKED BY: ST
DESIGNED BY: JM

REVISION:
DATE:
REVISION:
DATE:
REVISION:
DATE:
ISSUED DATE: 26 FEBRUARY 2020

SHEET TITLE:

BUILDING SECTIONS

SHEET NUMBER:

A250

31 OF 131 SHEETS

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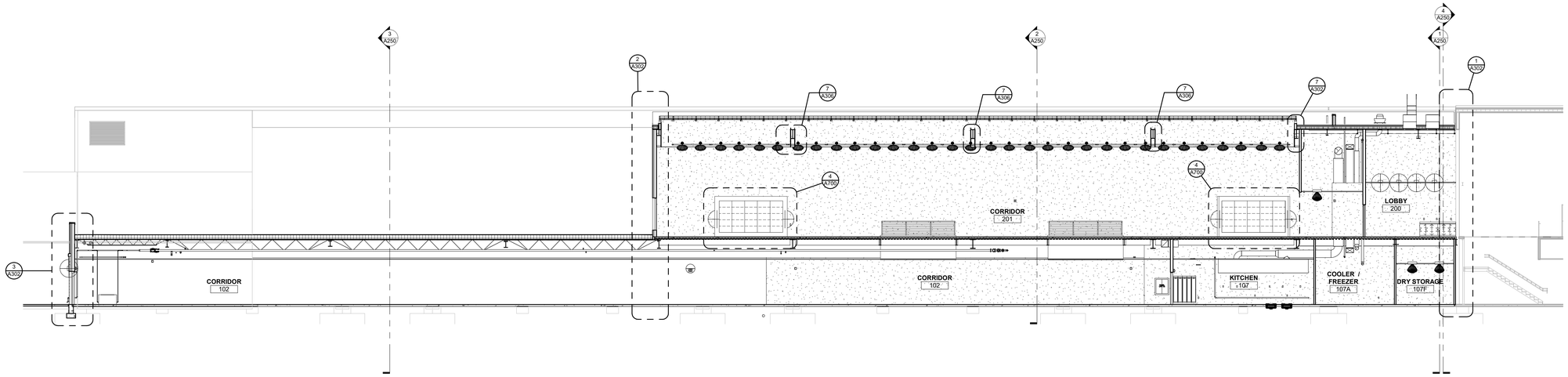
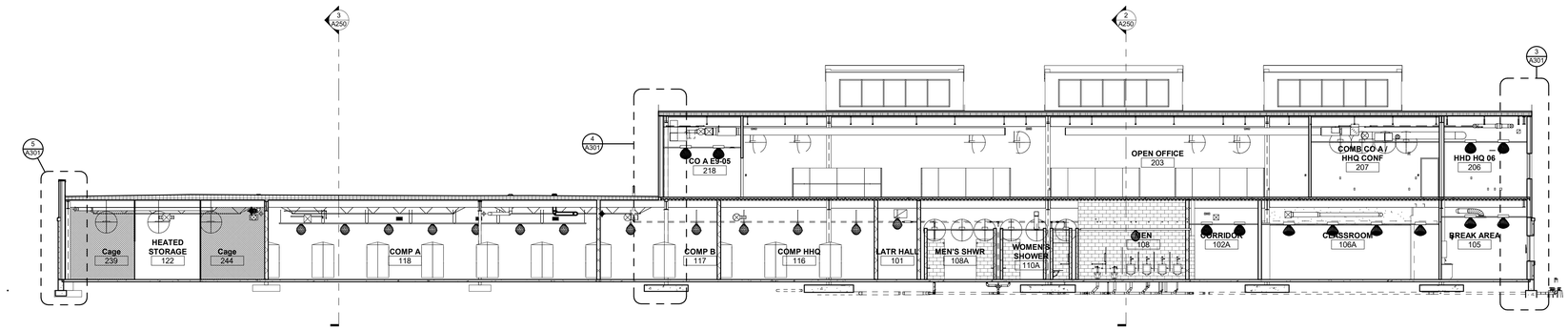
KEYNOTES



2 BUILDING SECTION
3/32" = 1'-0"



1 BUILDING SECTION
3/32" = 1'-0"

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ISSUED DATE: 26 FEBRUARY 2020

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BUILDING SECTIONS

SHEET NUMBER:

A251

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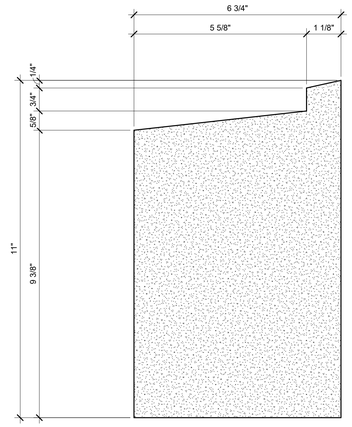
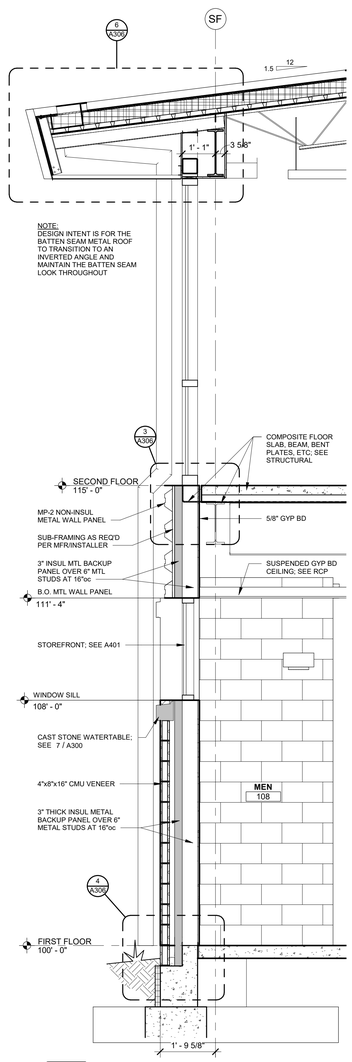
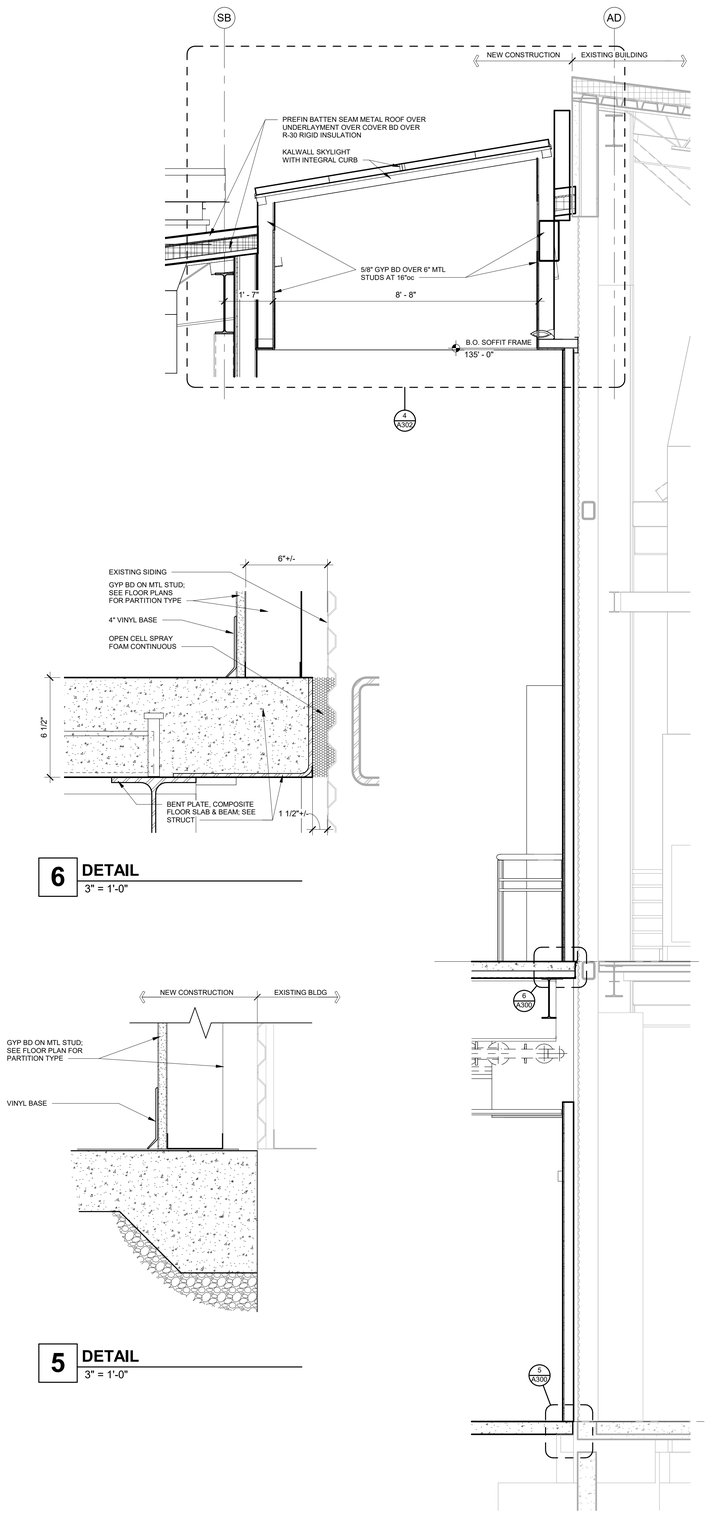


8 WATERTABLE @ GRADE
6" = 1'-0"



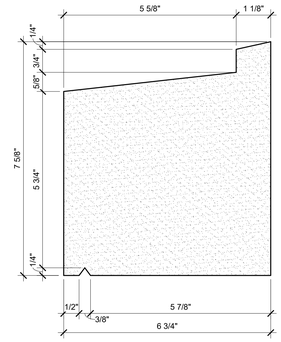
4 WALL SECTION
1/2" = 1'-0"



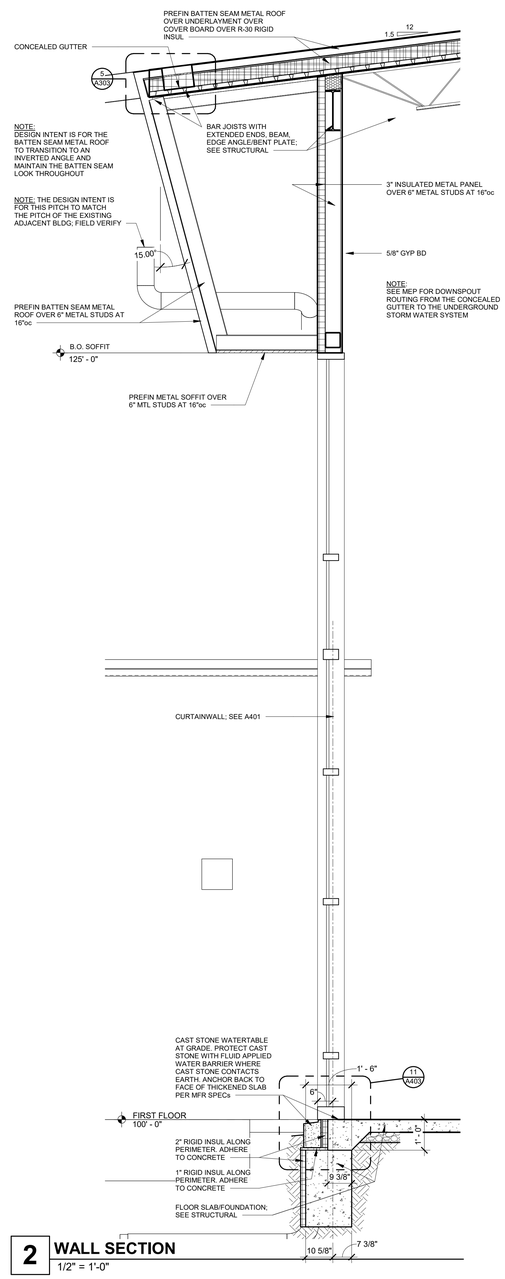
3 WALL SECTION
1/2" = 1'-0"

6 DETAIL
3" = 1'-0"

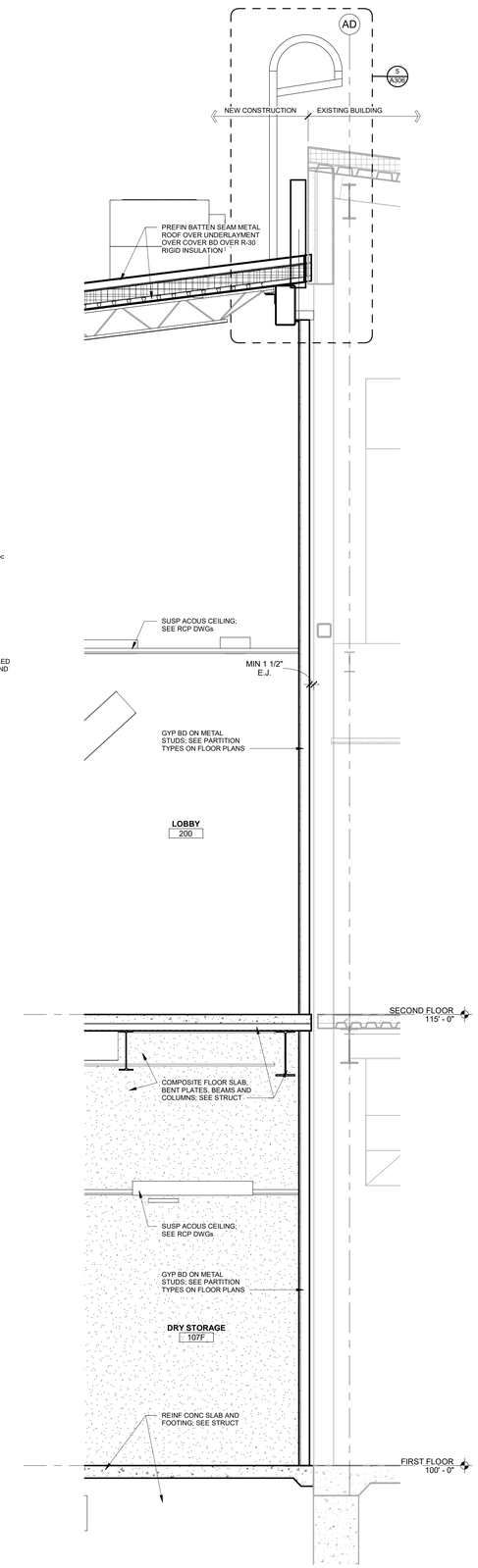
5 DETAIL
3" = 1'-0"



7 WATERTABLE
6" = 1'-0"



2 WALL SECTION
1/2" = 1'-0"



1 WALL SECTION
1/2" = 1'-0"

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MISSOURI NATIONAL GUARD PROJECT #T1809-01
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ASSET #8136270008

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DESIGNED BY: JM

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SHEET TITLE:

WALL SECTIONS

SHEET NUMBER:

A300

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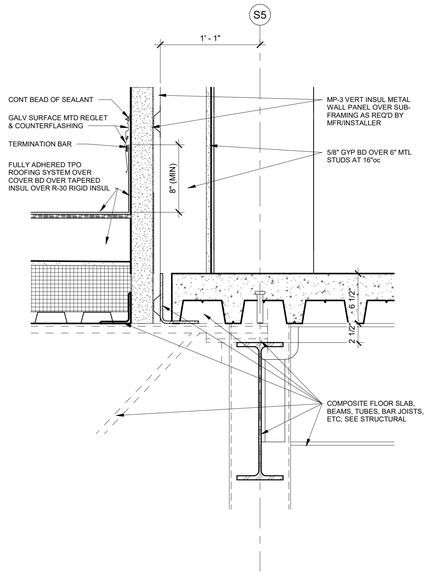
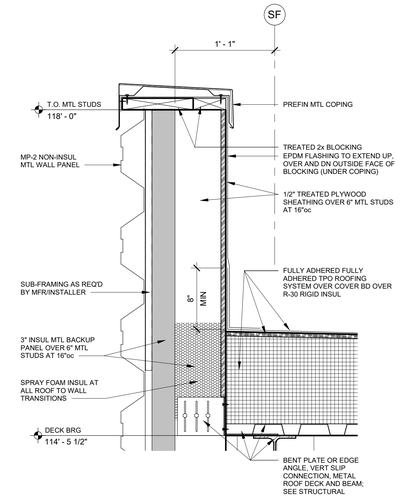
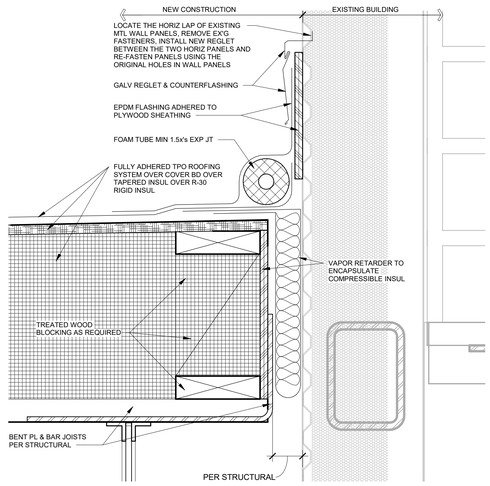


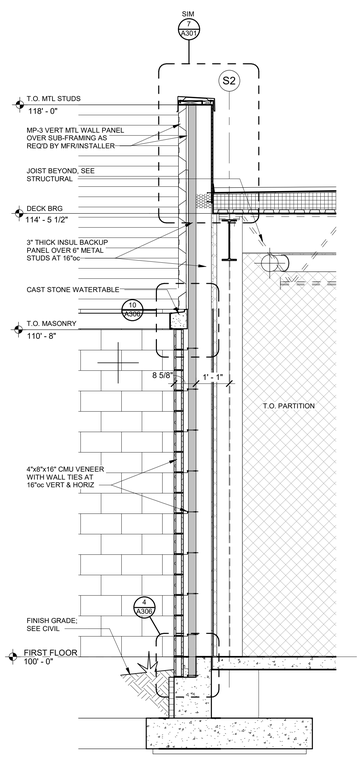
8 DETAIL
1 1/2" = 1'-0"



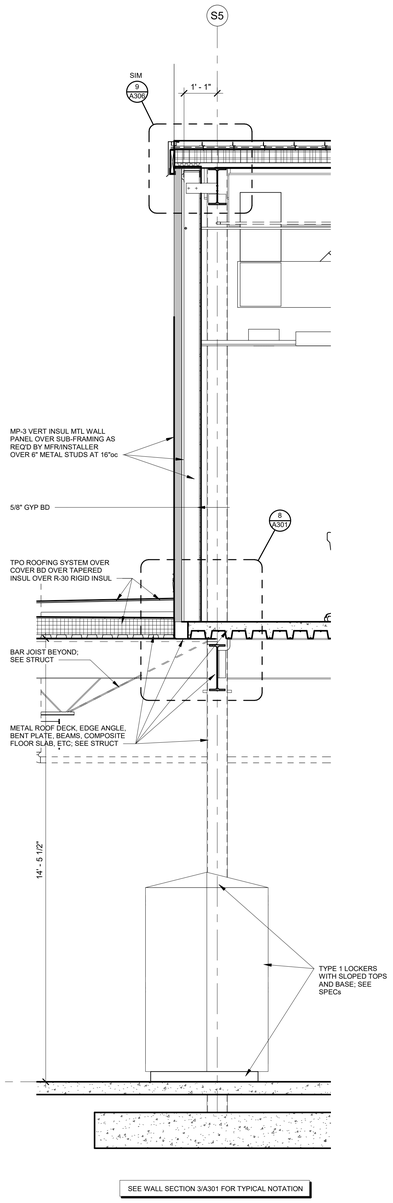
7 DETAIL
1 1/2" = 1'-0"



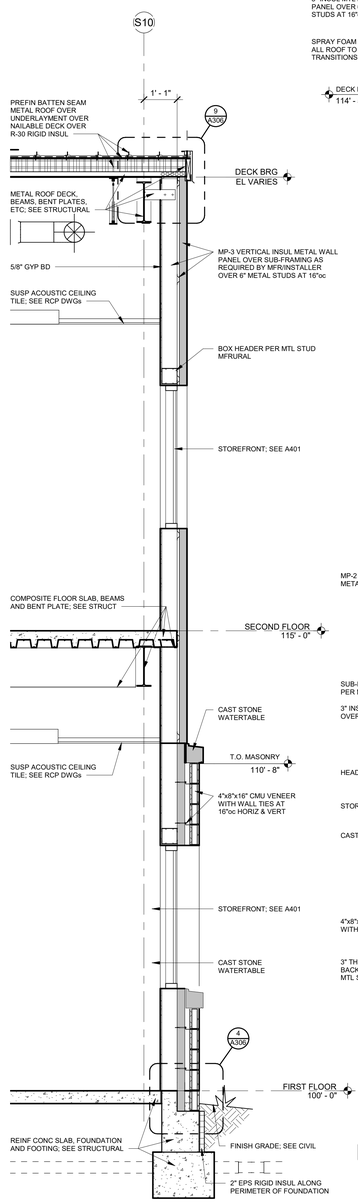
6 DETAIL
3" = 1'-0"



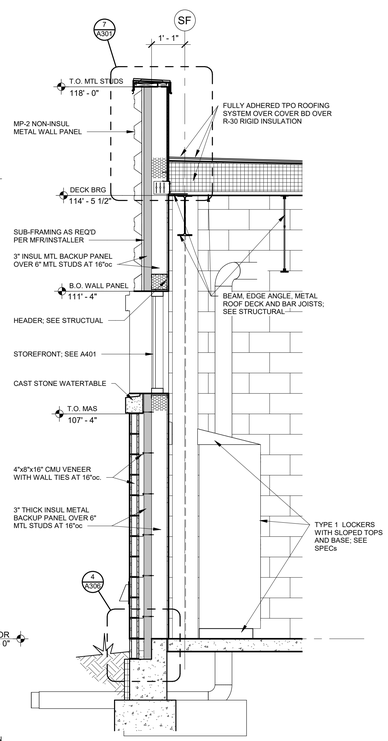
5 WALL SECTION
1/2" = 1'-0"



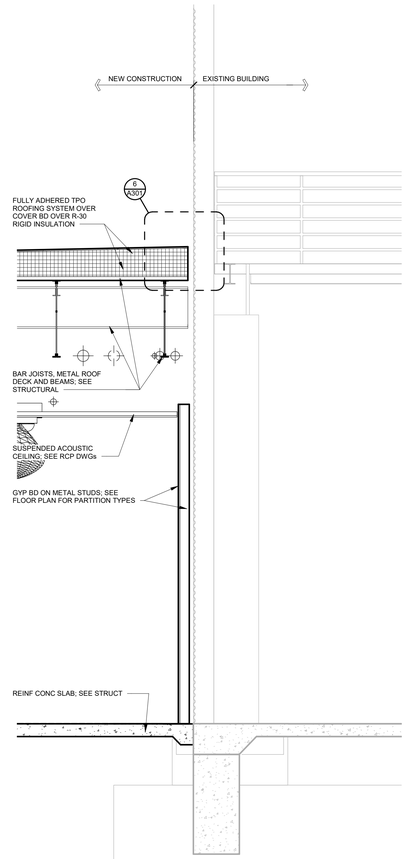
4 WALL SECTION
1/2" = 1'-0"



3 WALL SECTION
1/2" = 1'-0"



2 WALL SECTION
1/2" = 1'-0"



1 WALL SECTION
1/2" = 1'-0"

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SPRINGFIELD, MISSOURI

NATIONAL GUARD BUREAU PROJECT #290186
MISSOURI NATIONAL GUARD PROJECT #T1809-01
SITE #9019
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DRAWN BY: BS
CHECKED BY: ST
DESIGNED BY: JM

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ISSUED DATE: 26 FEBRUARY 2020

SHEET TITLE:

WALL SECTIONS

SHEET NUMBER:

A301

34 OF 131 SHEETS

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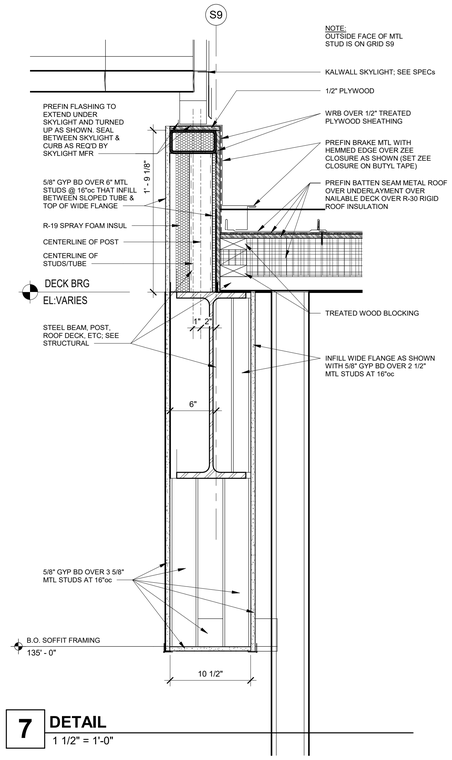
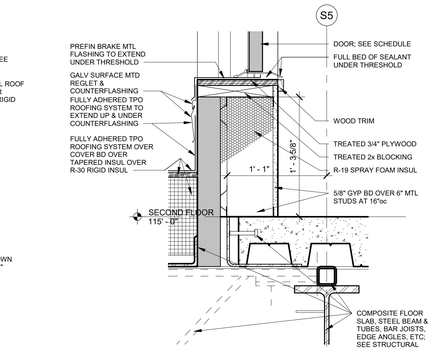
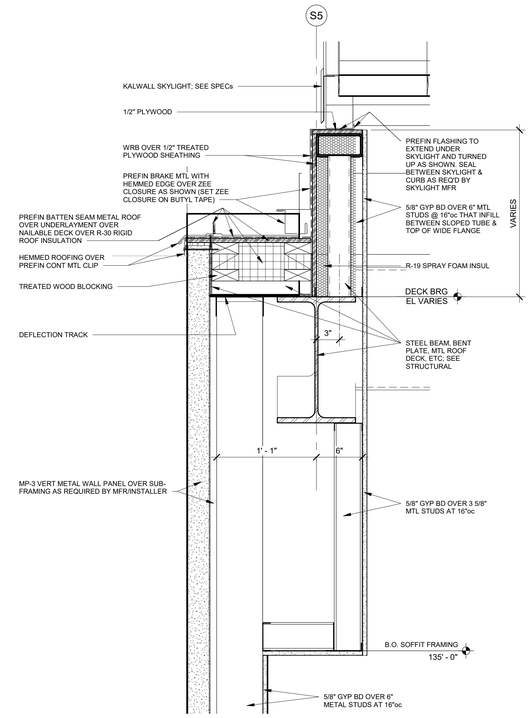


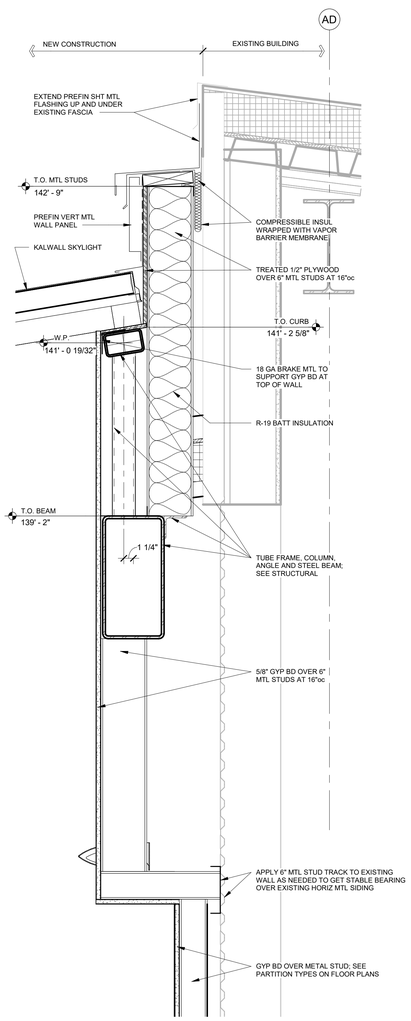
7 DETAIL
1 1/2" = 1'-0"

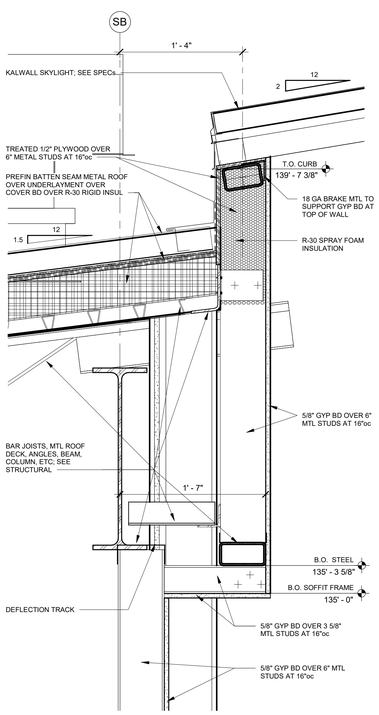


6 DETAIL
1 1/2" = 1'-0"

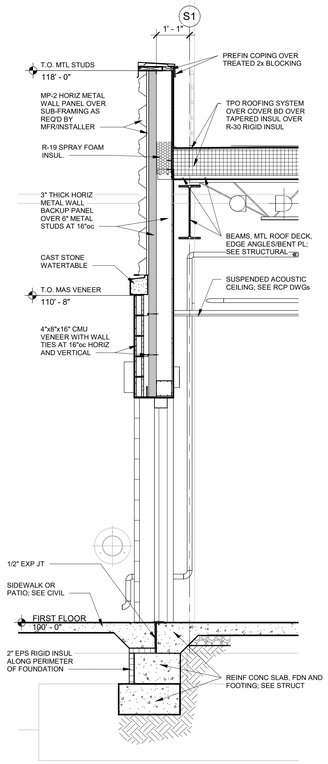


5 DETAIL
1 1/2" = 1'-0"

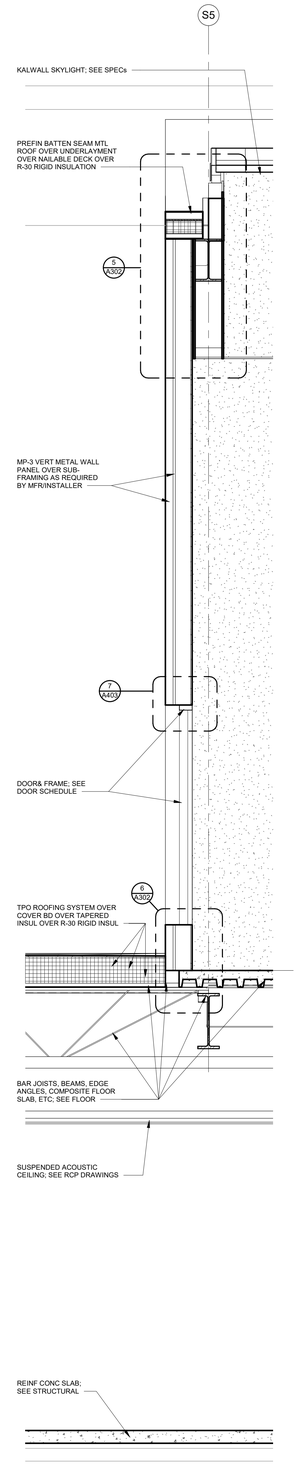




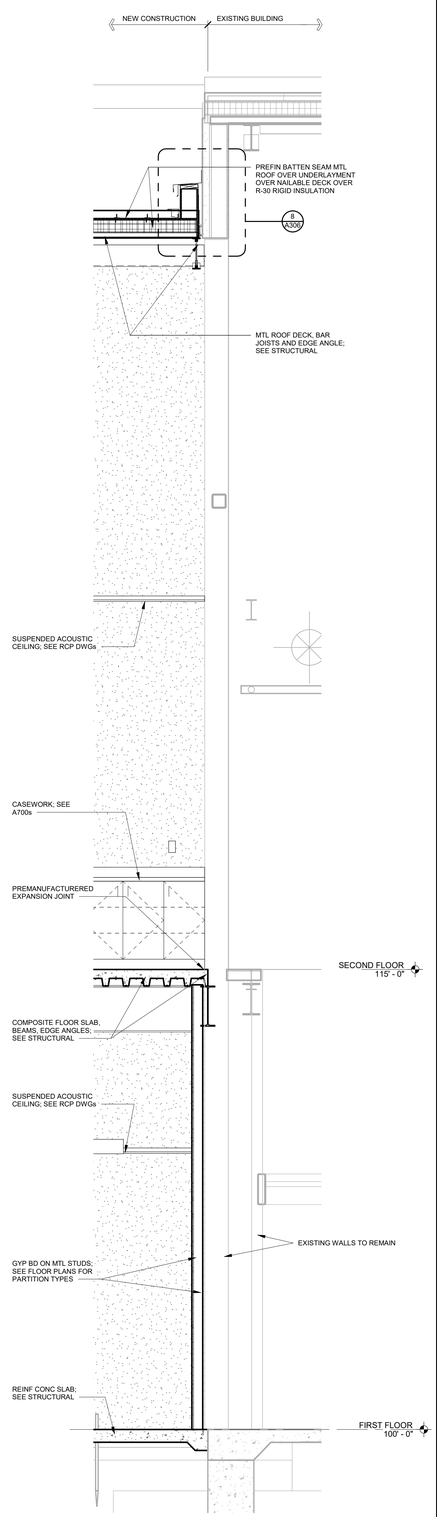
4 DETAIL
1 1/2" = 1'-0"



3 WALL SECTION
1/2" = 1'-0"



2 WALL SECTION
1/2" = 1'-0"



1 WALL SECTION
1/2" = 1'-0"

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SITE #9019
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SHEET TITLE:

WALL SECTIONS

SHEET NUMBER:

A302

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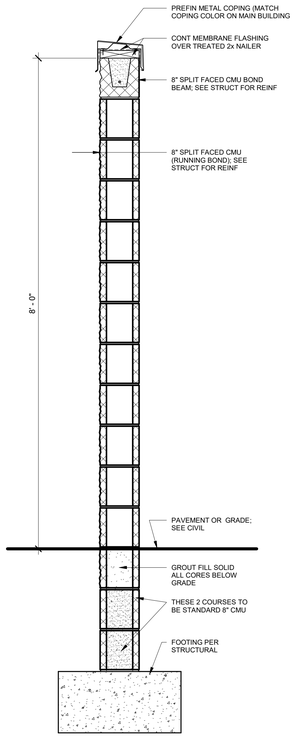
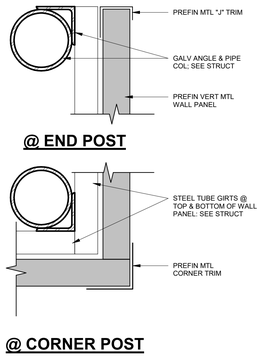
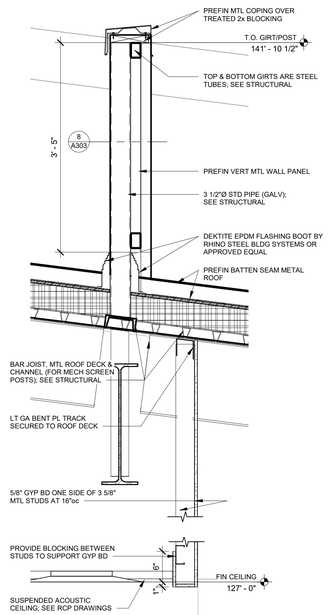


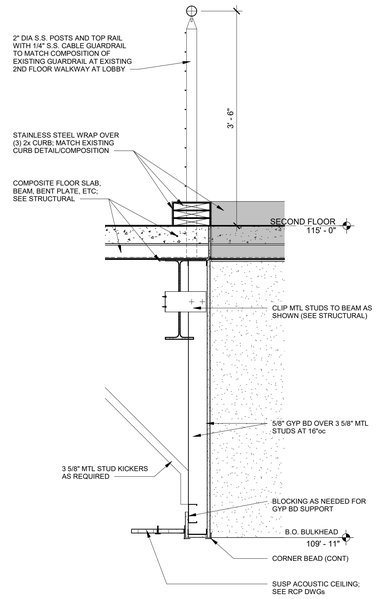
9 SECTION THRU SCREEN WALL
1" = 1'-0"



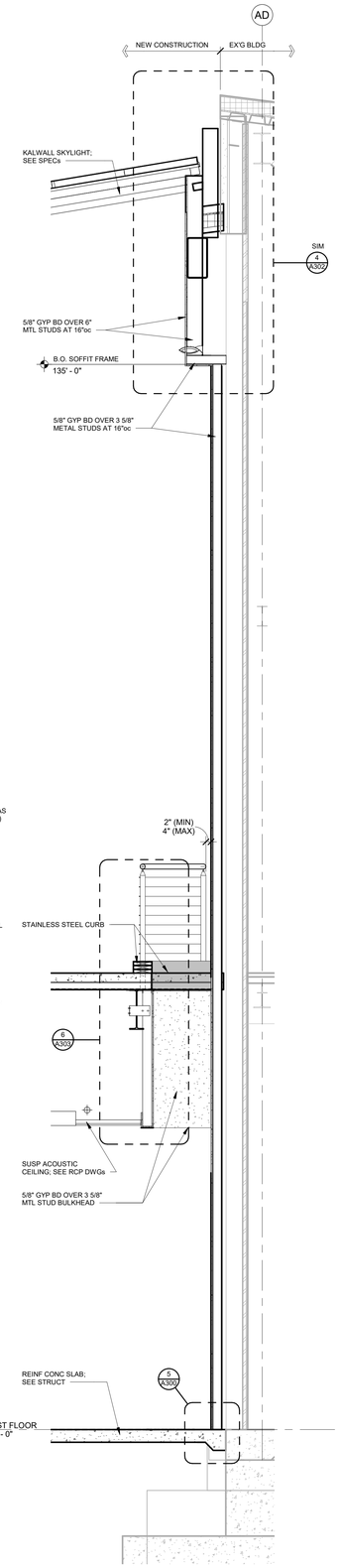
8 PLAN-SECTION OF MECH SCREEN ON ROOF
3" = 1'-0"



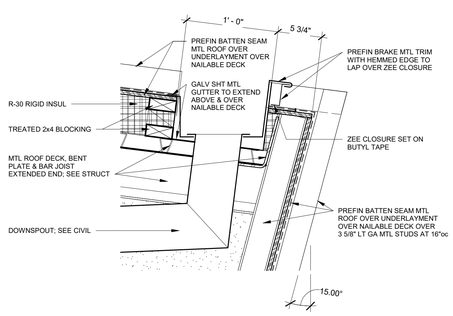
7 MECH SCREEN SECTION
1" = 1'-0"



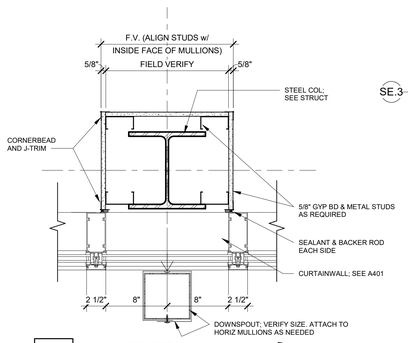
6 SECTION
1" = 1'-0"



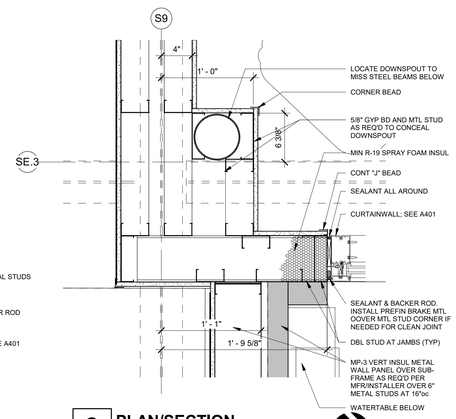
1 WALL SECTION
1/2" = 1'-0"



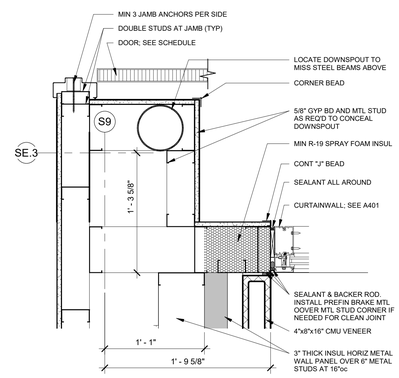
5 DETAIL
1 1/2" = 1'-0"



4 PLAN/SECTION
1 1/2" = 1'-0"



3 PLAN/SECTION
1 1/2" = 1'-0" AT SECOND FLOOR



2 PLAN/SECTION
1 1/2" = 1'-0" AT FIRST FLOOR

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SHEET NUMBER:

A303

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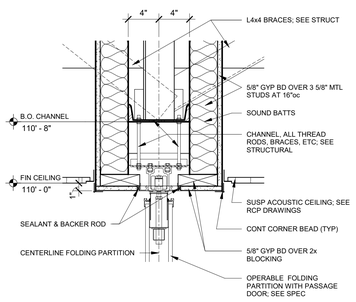
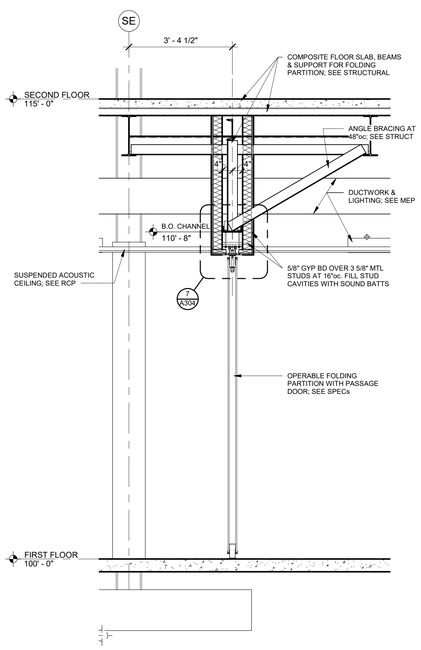
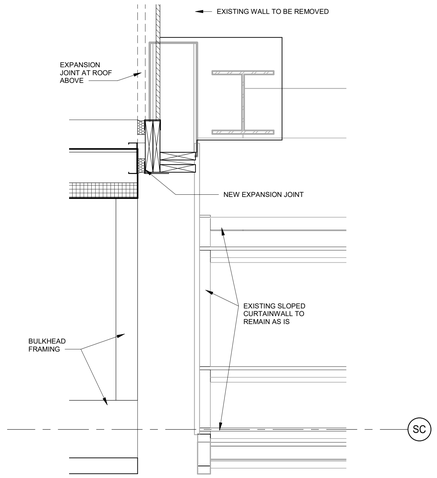


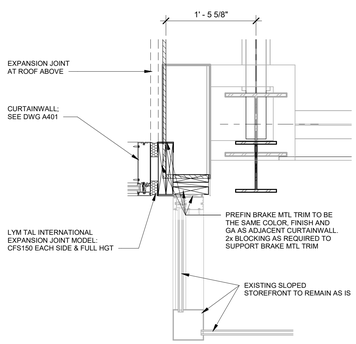
7 HEAD DETAIL
1 1/2" = 1'-0"



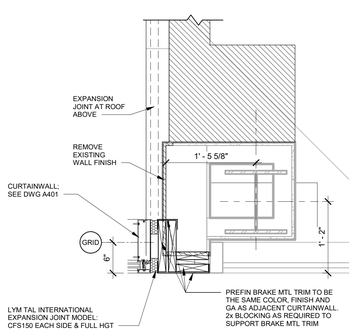
6 SECTION
1/2" = 1'-0"



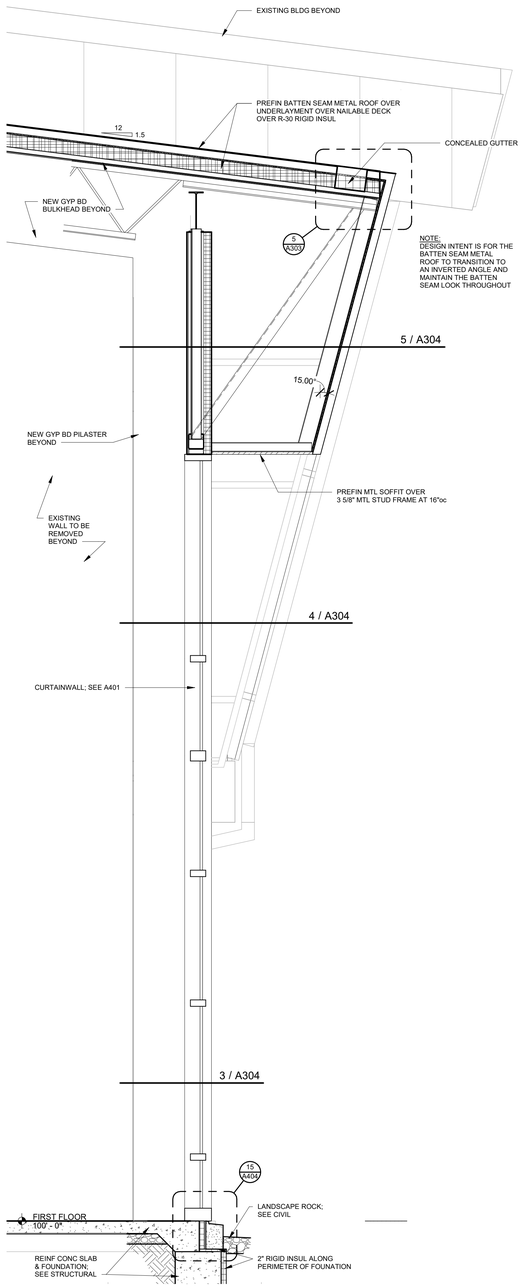
5 PLAN/SECTION
1" = 1'-0"



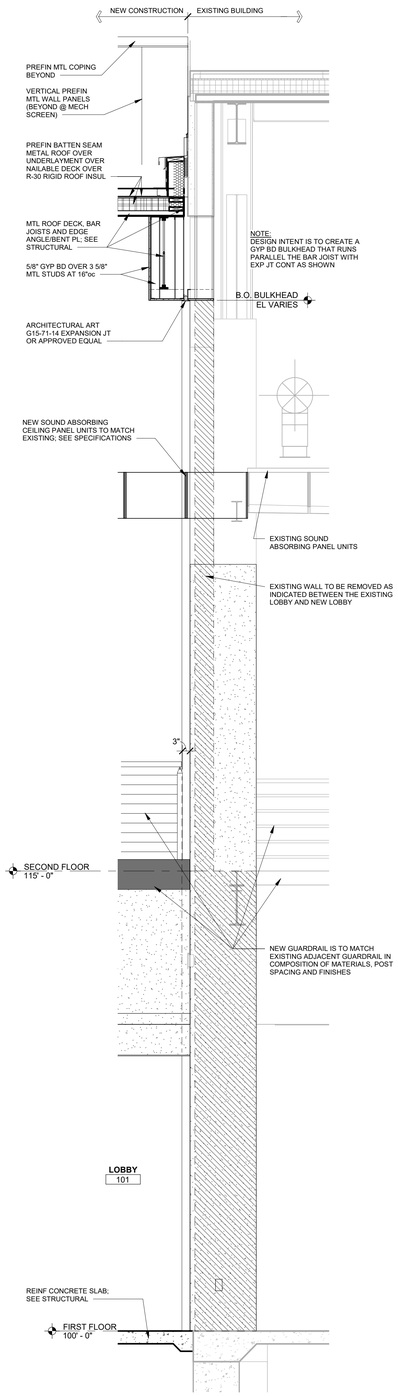
4 PLAN/SECTION
1" = 1'-0"



3 PLAN/SECTION
1" = 1'-0"



2 WALL SECTION
1/2" = 1'-0"



1 WALL SECTION
1/2" = 1'-0"

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Architect of Record
STATE OF MISSOURI
MICHAEL JAMES SAPP
NUMBER A-5051
REGISTERED ARCHITECT
2-25-2020
Michael James Sapp, Architect MO A-5051

TASMG READINESS CENTER

AVCRAD SITE
1107TH THEATER AVIATION SUSTAINMENT MAINTENANCE GROUP

MISSOURI NATIONAL GUARD
SPRINGFIELD, MISSOURI

NATIONAL GUARD BUREAU PROJECT #290186
MISSOURI NATIONAL GUARD PROJECT #T1809-01
SITE #9019
ASSET #8136270008

DRAWN BY: BS
CHECKED BY: ST
DESIGNED BY: JM

REVISION:
DATE:
REVISION:
DATE:
REVISION:
DATE:
ISSUED DATE: 26 FEBRUARY 2020

SHEET TITLE:

WALL SECTIONS & DETAILS

SHEET NUMBER:

A304

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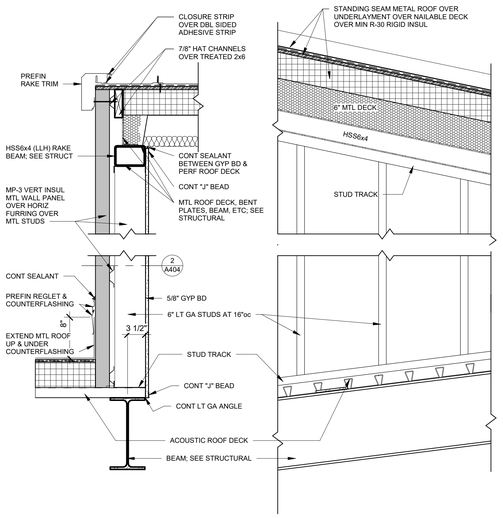
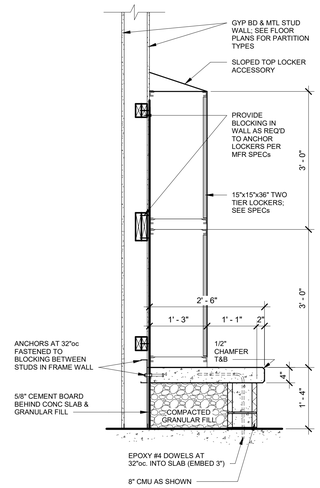


VIEW PARALLEL TO ROOF DECK

VIEW PERPENDICULAR TO ROOF DECK

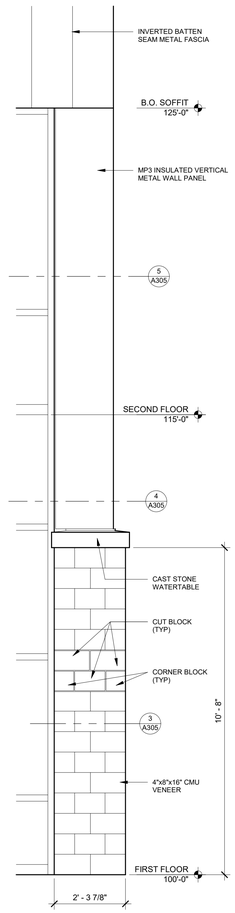
7 SECTIONS thru SIDEWALL OF CLERESTORY

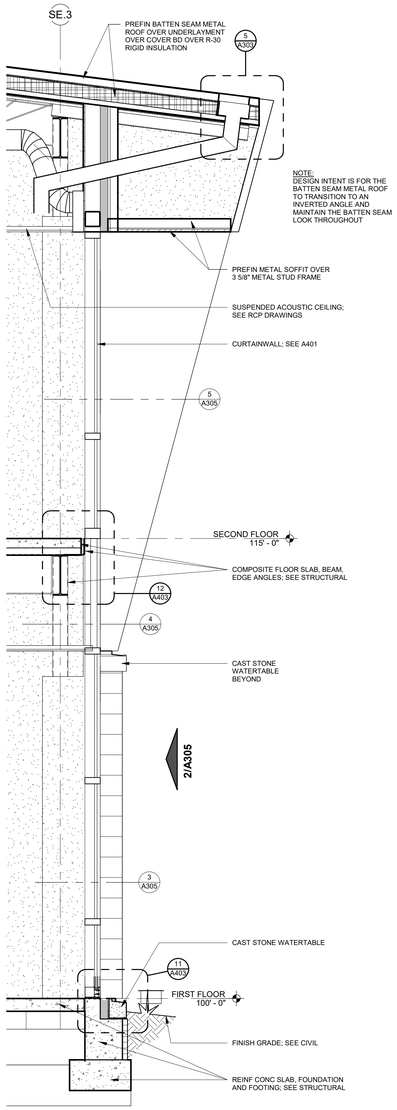
1" = 1'-0"

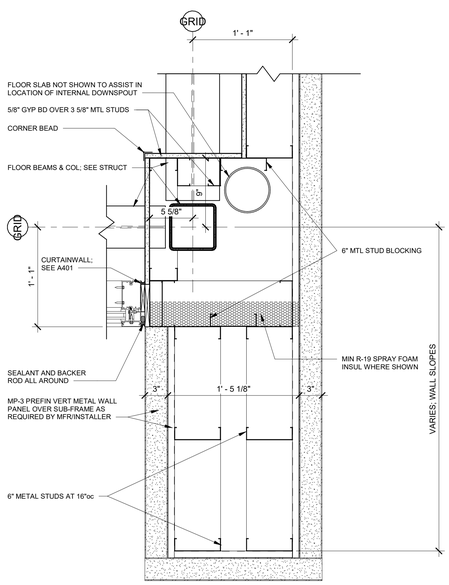


6 LOCKER DETAIL

3/4" = 1'-0"

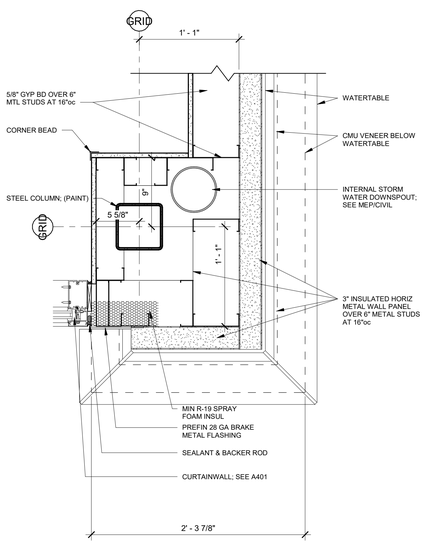






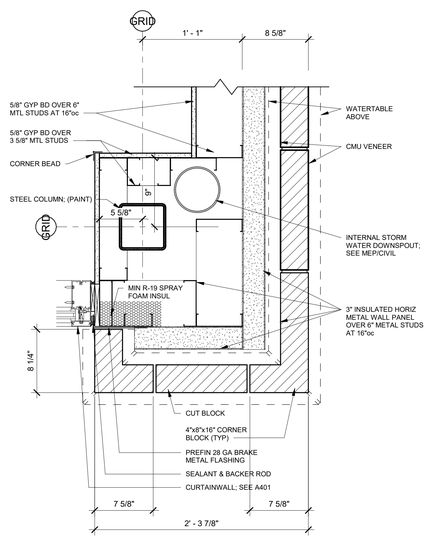
5 PLAN/SECTION

1 1/2" = 1'-0" **@ 2.5"x6" CURTAINWALL - HIGH**



4 PLAN/SECTION

1 1/2" = 1'-0" **@ 2.5"x6" CURTAINWALL @ WATERTABLE**



3 PLAN/SECTION

1 1/2" = 1'-0" **@ 2.5"x6" CURTAINWALL - LOW**

2 ELEVATION

1/2" = 1'-0"

1 WALL SECTION

1/2" = 1'-0"

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2-25-2020
Michael James Sapp, Architect MO A-5051

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SPRINGFIELD, MISSOURI

NATIONAL GUARD BUREAU PROJECT #290186
MISSOURI NATIONAL GUARD PROJECT #T1809-01
SITE #9019
ASSET #8136270008

DRAWN BY: BS
CHECKED BY: ST
DESIGNED BY: JM

REVISION:
DATE:
REVISION:
DATE:
REVISION:
DATE:
ISSUED DATE: 26 FEBRUARY 2020

SHEET TITLE:

WALL SECTIONS & DETAILS

SHEET NUMBER:

A305

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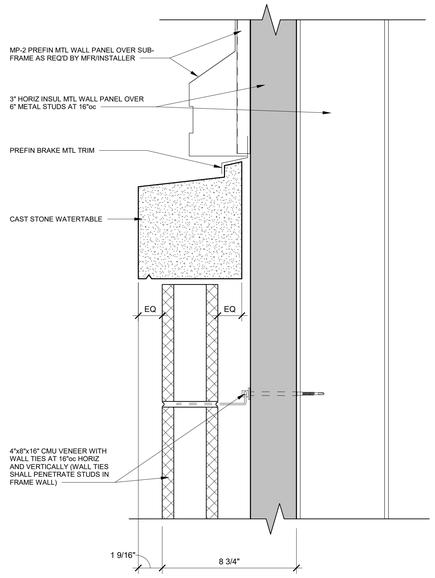
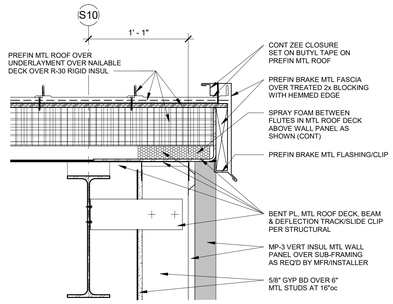
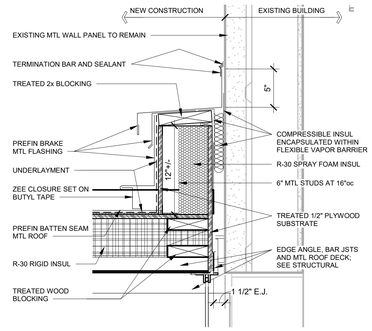


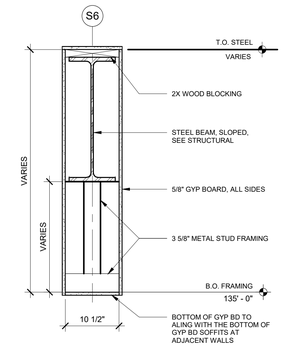
10 DETAIL
3" = 1'-0"



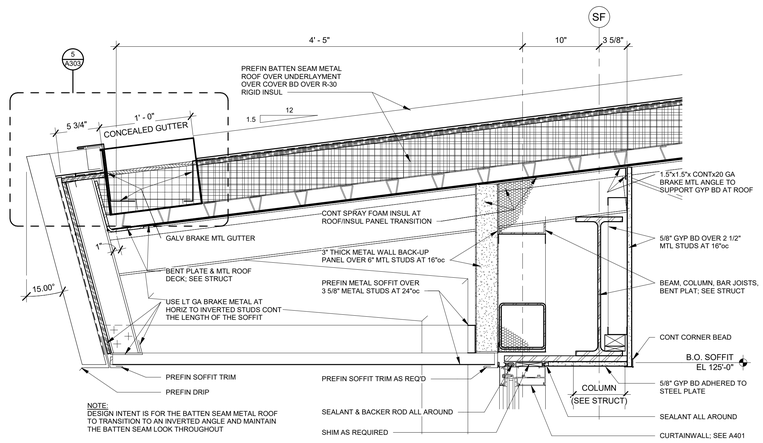
9 DETAIL
1 1/2" = 1'-0"



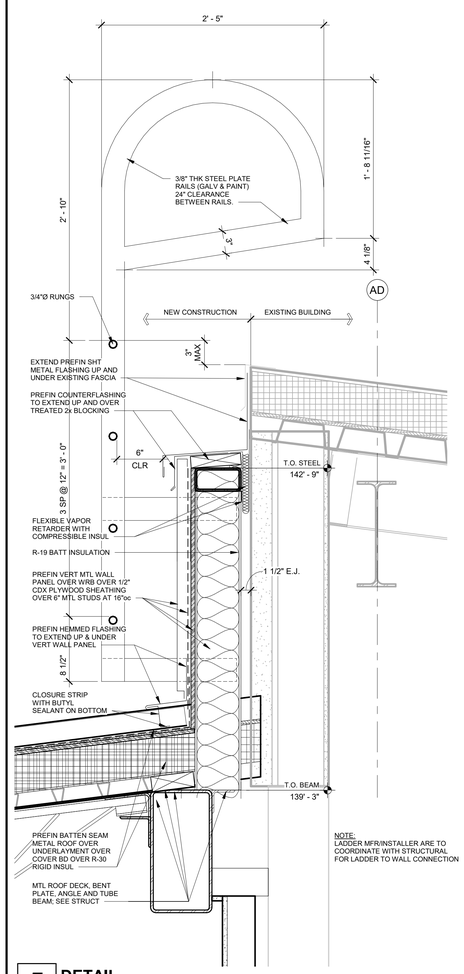
8 DETAIL
1 1/2" = 1'-0"



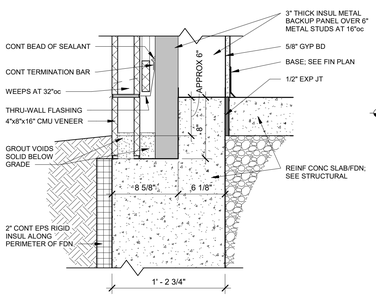
7 SOFFIT BEAM
1" = 1'-0"



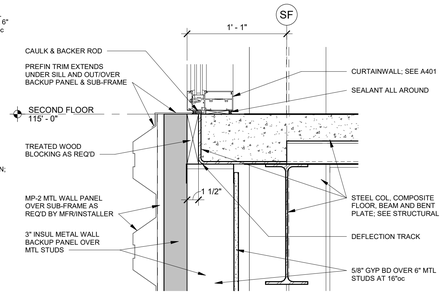
6 SECTION THRU LOW OVERHANG
1 1/2" = 1'-0"



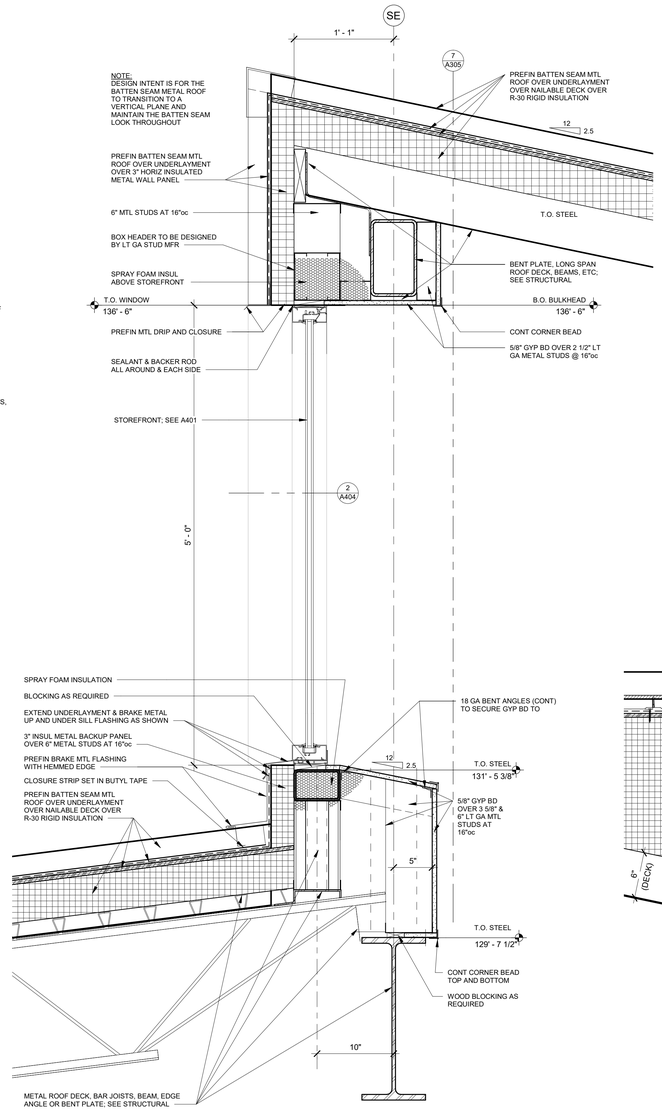
5 DETAIL
1 1/2" = 1'-0"



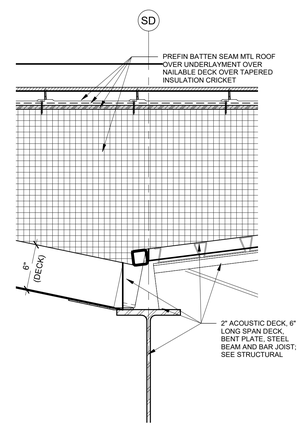
4 TYP FOUNDATION @ GRADE
1 1/2" = 1'-0"



3 DETAIL
1 1/2" = 1'-0"



2 MONITOR VERTICAL GLAZING SECTION
1 1/2" = 1'-0"



1 DETAIL
1 1/2" = 1'-0"

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ISSUED DATE: 26 FEBRUARY 2020

SHEET TITLE:

DETAILS

SHEET NUMBER:

A306

39 OF 131 SHEETS

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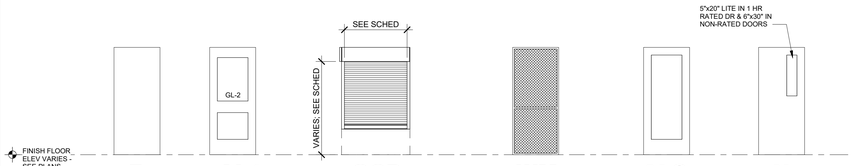
DOOR ELEVATIONS



F — SC WOOD/ HOLLOW METAL/

AL1

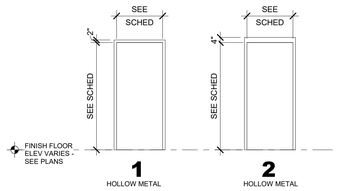
OCD — OVERHEAD COILING
NOTE: SOME OVERHEAD COILING DOORS EXTEND TO FLOOR OTHERS TO COUNTERTOP.

WM — WIRE MESH

AL2 — ALUM/GLASS GL-1 (U.N.O.)

N — SC WOOD GL-1 (U.N.O.)

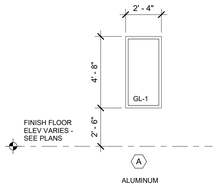
DOOR FRAME ELEVATIONS



1 — HOLLOW METAL

2 — HOLLOW METAL

WINDOW ELEVATIONS



ALUMINUM

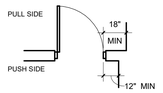
DOOR SCHEDULE

DOOR NO.	DOOR CONFIG	DOOR WIDTH	DOOR HEIGHT	DOOR THICK	DOOR TYPE	DOOR MATL	FRAME TYPE	FRAME MATL	FRAME DETAIL HEAD	FRAME DETAIL JAMB	FRAME DETAIL SILL	COMMENTS
102a	SINGLE	3' - 0"	7' - 0"	1 3/4"	AL1	AL/GLASS	CW1	AL	7/A402	8/A402	9/A402	
102b	PAIR	6' - 0"	7' - 0"	1 3/4"	F	WD	1	HM	1/A402	2/A402	N.A.	
102C	SINGLE	3' - 0"	7' - 0"	1 3/4"	N	WD	1	HM	11/A404	12/A404	N.A.	1 HR RATED
103	SINGLE	3' - 0"	7' - 0"	1 3/4"	N	WD	1	HM	1/A402	2/A402	N.A.	
104	SINGLE	3' - 0"	7' - 0"	1 3/4"	N	WD	1	HM	1/A402	2/A402	N.A.	
104a	SINGLE	3' - 0"	7' - 0"	1 3/4"	N	WD	1	HM	1/A402	2/A402	N.A.	
105	SINGLE	3' - 0"	7' - 0"	1 3/4"	N	WD	1	HM	1/A402	2/A402	N.A.	
105a	SINGLE	3' - 0"	7' - 0"	1 3/4"	N	WD	1	HM	1/A402	2/A303	N.A.	
106	PAIR	6' - 0"	7' - 0"	1 3/4"	N	WD	1	HM	1/A402	2/A402	N.A.	
106a	SINGLE	3' - 0"	7' - 0"	1 3/4"	N	WD	1	HM	1/A402	2/A402	N.A.	
107a	PAIR	6' - 0"	7' - 0"	1 3/4"	F	WD	1	HM	1/A402	2/A402	N.A.	
107b	SINGLE	3' - 0"	7' - 0"	1 3/4"	F	WD	1	HM	1/A402	2/A402	N.A.	
107c	SINGLE	3' - 0"	7' - 0"	1 3/4"	F	WD	1	HM	1/A402	2/A402	N.A.	
107d	SINGLE	3' - 0"	7' - 0"	1 3/4"	F	WD	1	HM	1/A402	2/A402	N.A.	
107e	SINGLE	3' - 0"	7' - 0"	1 3/4"	F	WD	1	HM	1/A402	2/A402	N.A.	
107f	SINGLE	3' - 0"	7' - 0"	1 3/4"	F	WD	1	HM	1/A402	2/A402	N.A.	
107g	SINGLE	3' - 0"	7' - 0"	1 3/4"	F	WD	1	HM	1/A402	2/A402	N.A.	
107h	SINGLE	3' - 6"	7' - 0"	1 3/4"	F	WD	1	HM	1/A402	2/A402	N.A.	
107j		3' - 4"	4' - 0"	2"		SS	1	SS	11/A402	12/A402	13/A402	OVERHEAD COILING COUNTER DOOR - SEE SPECS
108	SINGLE	3' - 0"	7' - 0"	1 3/4"	F	WD	2	HM	3/A402	4/A402	N.A.	
108a	SINGLE	3' - 0"	7' - 0"	1 3/4"	F	WD	2	HM	3/A402	4/A402	N.A.	
108b	SINGLE	3' - 0"	7' - 0"	1 3/4"	F	WD	2	HM	3/A402	4/A402	N.A.	
109	SINGLE	3' - 0"	7' - 0"	1 3/4"	F	WD	2	HM	3/A402	4/A402	N.A.	
110	SINGLE	3' - 0"	7' - 0"	1 3/4"	F	WD	2	HM	3/A402	4/A402	N.A.	
110a	SINGLE	3' - 0"	7' - 0"	1 3/4"	F	WD		HM	3/A402	4/A402	N.A.	
110b	SINGLE	3' - 0"	7' - 0"	1 3/4"	F	WD	2	HM	3/A402	4/A402	N.A.	
111	SINGLE	3' - 0"	7' - 0"	1 3/4"	F	WD	2	HM	3/A402	4/A402	N.A.	
112	PAIR	6' - 0"	7' - 0"	1 3/4"	F	WD	2	HM	3/A402	4/A402	N.A.	
112a	SINGLE	3' - 0"	7' - 0"	1 3/4"	F	WD	1	HM	3/A402	4/A402	N.A.	
112b	SINGLE	3' - 0"	7' - 0"	1 3/4"	F	WD	1	HM	3/A402	4/A402	N.A.	
113	SINGLE	3' - 0"	7' - 0"	1 3/4"	F	WD	2	HM	3/A402	4/A402	N.A.	
113a	SINGLE	3' - 0"	7' - 0"	1 3/4"	F	WD	2	HM	3/A402	4/A402	N.A.	
114	SINGLE	3' - 0"	7' - 0"	1 3/4"	F	WD	2	HM	3/A402	4/A402	N.A.	
114a	SINGLE	3' - 0"	7' - 0"	1 3/4"	F	WD	2	HM	3/A402	4/A402	N.A.	
115	SINGLE	3' - 0"	7' - 0"	1 3/4"	F	WD	2	HM	3/A402	4/A402	N.A.	
115a	SINGLE	3' - 0"	7' - 0"	1 3/4"	F	WD	2	HM	3/A402	4/A402	N.A.	
116	SINGLE	3' - 0"	7' - 0"	1 3/4"	F	WD	2	HM	3/A402	4/A402	N.A.	
116a	SINGLE	3' - 0"	7' - 0"	1 3/4"	F	WD	2	HM	3/A402	4/A402	N.A.	
117	SINGLE	3' - 0"	7' - 0"	1 3/4"	F	WD	2	HM	3/A402	4/A402	N.A.	
118	PAIR	6' - 0"	7' - 0"	1 3/4"	F	WD	2	HM	3/A402	4/A402	N.A.	
119	SINGLE	3' - 0"	7' - 0"	1 3/4"	F	WD	2	HM	3/A402	4/A402	N.A.	
119b	SINGLE	3' - 0"	7' - 0"	1 3/4"	F	WD	2	HM	14/A402	15/A402	N.A.	1 HR RATED
119c	SINGLE	3' - 0"	7' - 0"	1 3/4"	AL1	AL/GLASS	CW1	AL	7/A402	8/A402	9/A402	
119d	PAIR	6' - 0"	7' - 0"	1 3/4"	F	WD	2	HM	3/A402	4/A402	N.A.	
120	SINGLE	4' - 0"	7' - 0"	1 3/4"	F	HM		HM	14/A402	15/A402	N.A.	EXTRA HD HOL MTL DUTCH DOOR W/ 6" WIDE SHELF ON BOTT HALF
120a	SINGLE	4' - 0"	7' - 0"	1 3/4"	F	STEEL	1	STEEL	17/A402	16&18/A402	19/A402	VAULT DOOR WITH INTEGRATED DAY GATE; SEE SPECs
121	SINGLE	3' - 0"	7' - 0"	1 3/4"	F	WD	1	HM	3/A402	4/A402	N.A.	
121a	SINGLE	3' - 0"	7' - 0"	1 3/4"	F	WD	1	HM	3/A402	4/A402	N.A.	
122	PAIR	6' - 0"	7' - 0"	1 3/4"	F	HM	2	HM	3/A402	4/A402	N.A.	
122a	SINGLE	3' - 0"	7' - 0"	1 3/4"	F	HM	1	HM	1/A402	2/A402	N.A.	
122b	SINGLE	3' - 0"	7' - 0"	1 3/4"	F	HM	1	HM	1/A403	2/A403	3/A403	
122c	SINGLE	4' - 0"	7' - 0"	1 1/4"	F : WM	WIRE MESH		MESH				WIRE MESH GATE
122d	SINGLE	4' - 0"	7' - 0"	1 1/4"	F : WM	WIRE MESH		MESH				WIRE MESH GATE
122e	SINGLE	4' - 0"	7' - 0"	1 1/4"	F : WM	WIRE MESH		MESH				WIRE MESH GATE
122f	SINGLE	4' - 0"	7' - 0"	1 1/4"	F : WM	WIRE MESH		MESH				WIRE MESH GATE
122g	SINGLE	4' - 0"	7' - 0"	1 1/4"	F : WM	WIRE MESH		MESH				WIRE MESH GATE
122h	SINGLE	4' - 0"	7' - 0"	1 1/4"	F : WM	WIRE MESH		MESH				WIRE MESH GATE
122i	SINGLE	4' - 0"	7' - 0"	1 1/4"	F : WM	WIRE MESH		MESH				WIRE MESH GATE
122j	SINGLE	4' - 0"	7' - 0"	1 1/4"	F : WM	WIRE MESH		MESH				WIRE MESH GATE
122k	SINGLE	4' - 0"	7' - 0"	1 1/4"	F : WM	WIRE MESH		MESH				WIRE MESH GATE
122l	SINGLE	4' - 0"	7' - 0"	1 1/4"	F : WM	WIRE MESH		MESH				WIRE MESH GATE
122m	SINGLE	4' - 0"	7' - 0"	1 1/4"	F : WM	WIRE MESH		MESH				WIRE MESH GATE
122n	SINGLE	4' - 0"	7' - 0"	1 1/4"	F : WM	WIRE MESH		MESH				WIRE MESH GATE
123	PAIR	6' - 0"	7' - 0"	1 3/4"	F	HM	2	HM	1/A403	2/A403	3/A403	
124	SINGLE	3' - 0"	7' - 0"	1 3/4"	F	HM	2	HM	3/A402	4/A402		
125	PAIR	6' - 0"	7' - 0"	1 3/4"	F	HM	2	HM	3/A402	4/A402		
126	SINGLE	3' - 6"	7' - 0"	1 3/4"	F	HM	1	HM	1/A403	2/A403	3/A403	
126a		8' - 0"	10' - 0"	2"		STEEL	1	HM	4/A403	5/A403	6/A403	INSULATED OVERHEAD COILING DOOR - SEE SPECS
200		7' - 0"	7' - 0"	1 3/4"		WD	1	HM	1/A402	2/A402	N.A.	DOUBLE EGRESS DOORS
201	SINGLE	3' - 0"	7' - 0"	1 3/4"	F	HM	1	HM	7/A403	8/A403	6/A302	
202	SINGLE	3' - 0 7/8"	7' - 0"	1 3/4"	AL1	AL/GLASS	SF6	AL	5/A402	6/A402	N.A.	
203	SINGLE	3' - 0"	7' - 0"	1 3/4"	AL1	AL/GLASS	SF8	AL	9/A403	10/A403	N.A.	
203a	PAIR	6' - 0"	7' - 0"	1 3/4"	F	WD	1	HM	1/A402	2/A402	N.A.	
204	SINGLE	3' - 0"	7' - 0"	1 3/4"	F	WD	1	HM	1/A402	2/A402	N.A.	
205	SINGLE	3' - 0"	7' - 0"	1 3/4"	F	WD	1	HM	1/A402	2/A402	N.A.	
206	SINGLE	3' - 0"	7' - 0"	1 3/4"	F	WD	1	HM	1/A402	2/A402	N.A.	
207	SINGLE	3' - 0"	7' - 0"	1 3/4"	F	WD	1	HM	1/A402	2/A402	N.A.	
207a	SINGLE	3' - 0"	7' - 0"	1 3/4"	F	WD	1	HM	1/A402	2/A402	N.A.	
208	SINGLE	3' - 0"	7' - 0"	1 3/4"	AL1	AL/GLASS	SF6	AL	5/A402	6/A402	N.A.	
209	SINGLE	3' - 0"	7' - 0"	1 3/4"	AL1	AL/GLASS	SF5	AL	5/A402	6/A402	N.A.	
210	SINGLE	3' - 0"	7' - 0"	1 3/4"	AL1	AL/GLASS	SF5	AL	5/A402	6/A402	N.A.	
211	SINGLE	3' - 0"	7' - 0"	1 3/4"	AL1	AL/GLASS	SF5	AL	5/A402	6/A402	N.A.	
212	SINGLE	3' - 0"	7' - 0"	1 3/4"	AL1	AL/GLASS	SF5	AL	5/A402	6/A402	N.A.	
213	SINGLE	3' - 0"	7' - 0"	1 3/4"	AL1	AL/GLASS	SF5	AL	5/A402	6/A402	N.A.	
214	SINGLE	3' - 0"	7' - 0"	1 3/4"	AL1	AL/GLASS	SF5	AL	5/A402	6/A402	N.A.	
215	SINGLE	3' - 0"	7' - 0"	1 3/4"	AL1	AL/GLASS	SF5	AL	5/A402	6/A402	N.A.	
216	SINGLE	3' - 0"	7' - 0"	1 3/4"	AL1	AL/GLASS	SF6	AL	5/A402	6/A402	N.A.	
217	SINGLE	3' - 0"	7' - 0"	1 3/4"	F	WD	1	HM	1/A402	2/A402	N.A.	
218	SINGLE	3' - 0"	7' - 0"	1 3/4"	F	WD	1	HM	1/A402	2/A402	N.A.	
219	SINGLE	3' - 0"	7' - 0"	1 3/4"	F	WD	1	HM	1/A402	2/A402	N.A.	
220	SINGLE	3' - 0"	7' - 0"	1 3/4"	F	WD	1	HM	1/A402	2/A402	N.A.	
221	SINGLE	3' - 0"	7' - 0"	1 3/4"	F	WD	1	HM	1/A402	2/A402	N.A.	
222	SINGLE	3' - 0"	7' - 0"	1 3/4"	F	WD	1	HM	13/A404	14/A404	N.A.	1 HR RATED
224	SINGLE	3' - 0"	7' - 0"	1 3/4"	F	WD	1	HM	1/A402	2/A402	N.A.	
224a	SINGLE	3' - 0"	7' - 0"	1 3/4"	F	WD	1	HM	1/A402	2/A402	N.A.	
225	SINGLE	3' - 0"	7' - 0"	1 3/4"	F	WD	1	HM	1/A402	2/A402	N.A.	
226	SINGLE	3' - 0"	7' - 0"	1 3/4"	F	WD	1	HM	1/A402	2/A402	N.A.	
227	SINGLE	3' - 0"	7' - 0"	1 3/4"	F	WD	1	HM	1/A402	2/A402	N.A.	
228	SINGLE	3' - 0"	7' - 0"	1 3/4"	F	WD	1	HM	1/A402	2/A402	N.A.	
229	PAIR	6' - 0"	7' - 0"	1 3/4"	F	WD	1	HM	1/A402	2/A402	N.A.	
229a	PAIR	6' - 0"	7' - 0"	1 3/4"	F	WD	2	HM	1/A402	2/A402	N.A.	
230	SINGLE	2' - 6"	7' - 0"	1 3/4"	F	WD	1	HM	1/A402	2/A402	N.A.	
231	SINGLE	3' - 0"	7' - 0"	1 3/4"	F	WD	1	HM	9/A404	10/A404	N.A.	

GENERAL NOTES

ALL GLAZING FOR EXTERIOR FRAMES & DOORS SHALL BE INSULATED.

REQUIRED DOOR CLEARANCES



DOOR AND FRAME FINISH LEGEND

AL = ALUM DOOR OR FRAME
HM = HOLLOW METAL DOOR OR FRAME
HM = INSUL HOLLOW MTL DOOR OR FRAME
WD = SOLID CORE WOOD DOOR OR FRAME
SS = STAINLESS STEEL
F1 = PAINTED
F2 = STAINED
F3 = PREFINISHED - CLEAN & PROTECT

GLAZING SCHEDULE

GL-1 - 1/4" FULLY TEMPERED GLASS (CLEAR)
GL-2 - 1/4" FULLY TEMPERED TINTED GLASS (REFLECTIVE ON ONE SIDE)
GL-3 - 1" INSUL GLASS (TINTED)
GL-4 - 1" INSUL SPANDREL GLASS (TINTED)
GL-5 - 1" INSUL SAFETY GLASS (TINTED)

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Architect of Record
STATE OF MISSOURI
MICHAEL JAMES SAPP
Number A-5051
REGISTERED ARCHITECT
2-25-2020

Michael James Sapp, Architect MO A-5051

TASMG READINESS CENTER

AVCRAD SITE
1107TH THEATER AVIATION SUSTAINMENT MAINTENANCE GROUP

MISSOURI NATIONAL GUARD
SPRINGFIELD, MISSOURI

NATIONAL GUARD BUREAU PROJECT #290186
MISSOURI NATIONAL GUARD PROJECT #T1809-01
SITE #9019
ASSET #8136270008

DRAWN BY: BS
CHECKED BY: ST
DESIGNED BY: JM

REVISION:
DATE:
REVISION:
DATE:
REVISION:
DATE:
ISSUED DATE: 26 FEBRUARY 2020

SHEET TITLE:

DOOR SCHEDULE & ELEVATIONS

SHEET NUMBER:

A400

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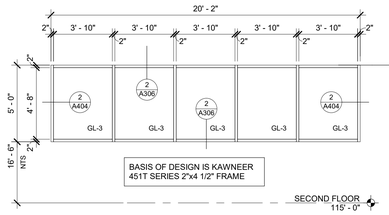
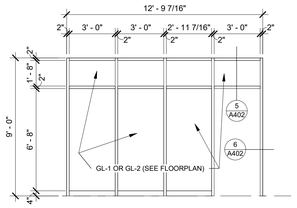
ALUMINUM STOREFRONT FRAME ELEVATIONS



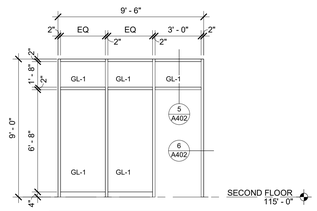
BASIS OF DESIGN IS KAWNEER 451T SERIES 2"x4 1/2" FRAME

SF7
STOREFRONT



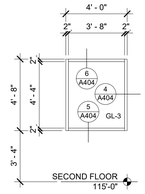
BASIS OF DESIGN IS KAWNEER 450 SERIES 2"x4 1/2" FRAME

SF6
STOREFRONT



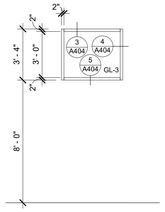
BASIS OF DESIGN IS KAWNEER 450 SERIES 2"x4 1/2" FRAME

SF5
STOREFRONT



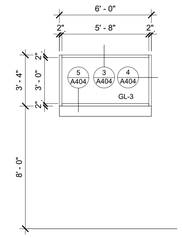
BASIS OF DESIGN IS KAWNEER 451T SERIES 2"x4 1/2" FRAME

SF4
STOREFRONT



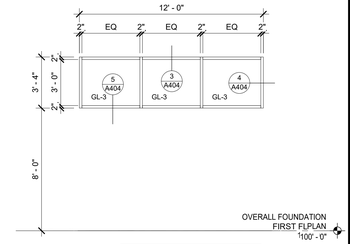
BASIS OF DESIGN IS KAWNEER 451T SERIES 2"x4 1/2" FRAME

SF3
STOREFRONT



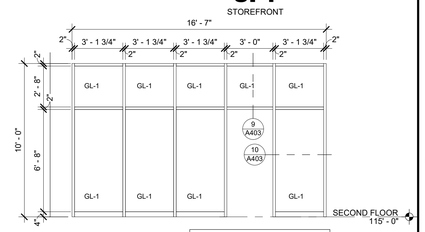
BASIS OF DESIGN IS KAWNEER 451T SERIES 2"x4 1/2" FRAME

SF2
STOREFRONT



BASIS OF DESIGN IS KAWNEER 451T SERIES 2"x4 1/2" FRAME

SF1
STOREFRONT



BASIS OF DESIGN IS KAWNEER 450 SERIES 2"x4 1/2" FRAME

SF8
STOREFRONT

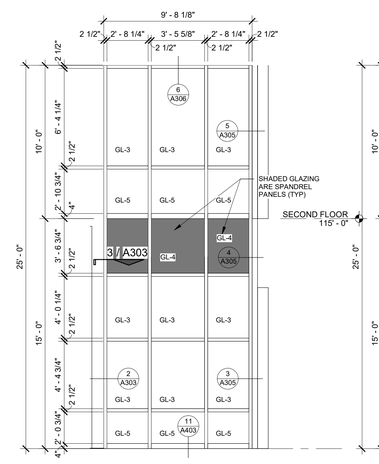
GLAZING SCHEDULE

GL-1 - 1/4" FULLY TEMPERED GLASS (CLEAR)
GL-2 - 1/4" FULLY TEMPERED TINTED GLASS (REFLECTIVE ON ONE SIDE)
GL-3 - 1" INSUL GLASS (TINTED)
GL-4 - 1" INSUL SPANDREL GLASS (TINTED)
GL-5 - 1" INSUL SAFETY GLASS (TINTED)

ALUMINUM CURTAINWALL FRAME ELEVATIONS

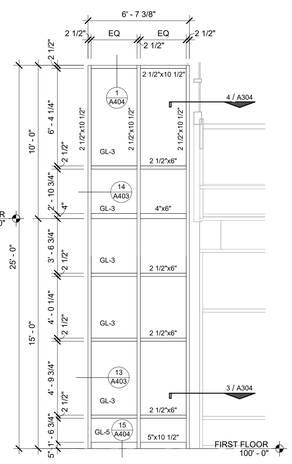
BASIS OF DESIGN IS KAWNEER 1600 SERIES 2 1/2"x6" FRAME

CW4
CURTAINWALL



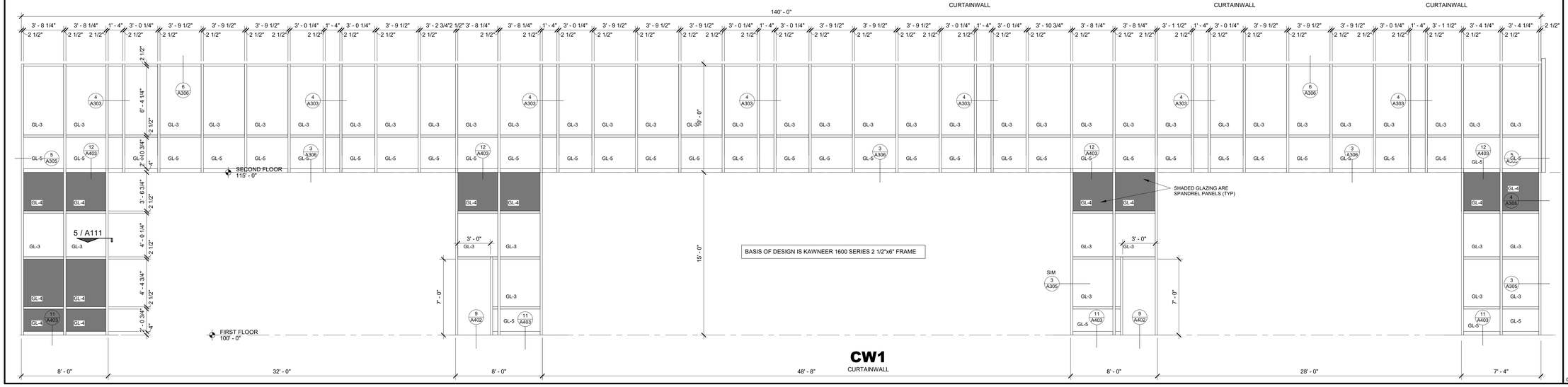
BASIS OF DESIGN IS KAWNEER 1600 SERIES 2 1/2"x6" FRAME

CW3
CURTAINWALL



BASIS OF DESIGN IS KAWNEER 1600 SERIES 2 1/2"x10 1/2" FRAME

CW2
CURTAINWALL



CW1
CURTAINWALL

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NUMBER A-5051
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2-25-2020

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SPRINGFIELD, MISSOURI

NATIONAL GUARD BUREAU PROJECT #290186
MISSOURI NATIONAL GUARD PROJECT #T1809-01
SITE #9019
ASSET #8136270008

DRAWN BY: BS
CHECKED BY: ST
DESIGNED BY: JM

REVISION:
DATE:
REVISION:
DATE:
REVISION:
DATE:
ISSUED DATE: 26 FEBRUARY 2020

SHEET TITLE:

STOREFRONT ELEVATIONS

SHEET NUMBER:

A401

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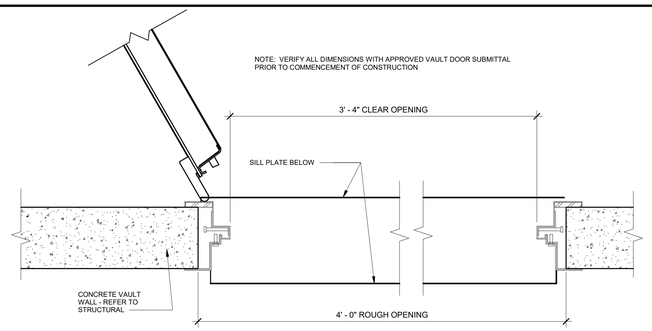
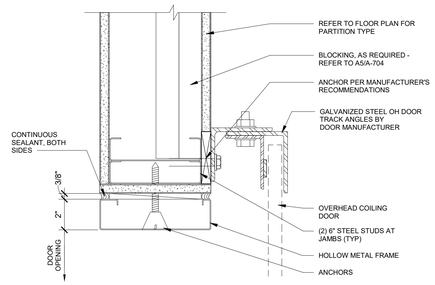
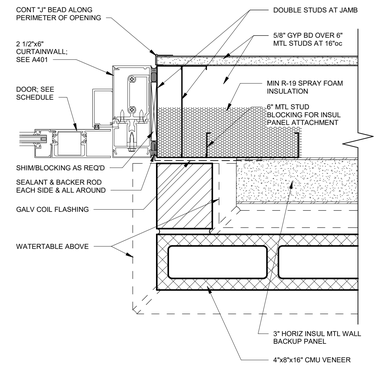


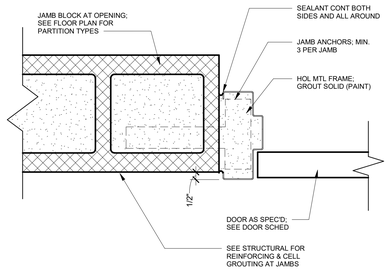
16 VAULT DOOR PLAN VIEW
1 1/2" = 1'-0"



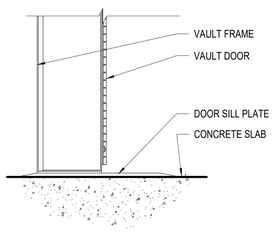
12 JAMB DETAIL
3" = 1'-0" **@ COILING OVERHEAD DOOR**



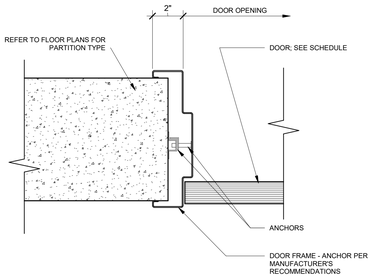
8 JAMB DETAIL
3" = 1'-0" **@ 2.5"x6" CURTAINWALL**



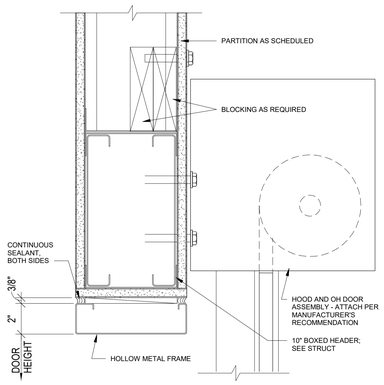
4 JAMB DETAIL
3" = 1'-0" **TYP HM FRAME @ CMU WALL**



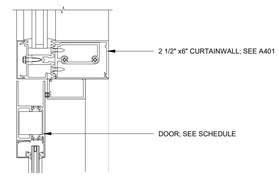
19 VAULT DOOR SILL DETAIL
3" = 1'-0"



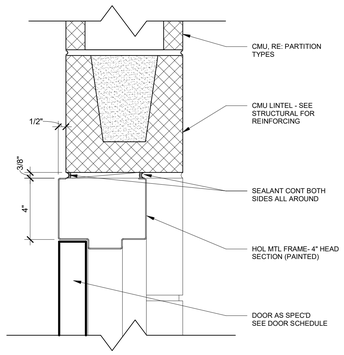
15 JAMB DETAIL
3" = 1'-0" **HM FRAME IN CONCRETE WALL**



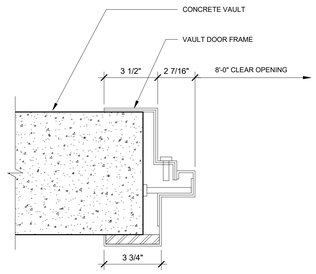
11 HEAD DETAIL
3" = 1'-0" **@ COILING OVERHEAD DOOR**



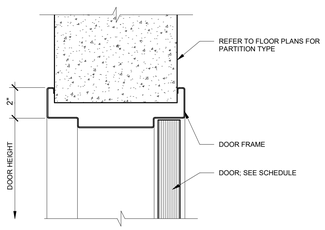
7 HEAD DETAIL
3" = 1'-0" **@ 2.5"x6" CURTAINWALL**



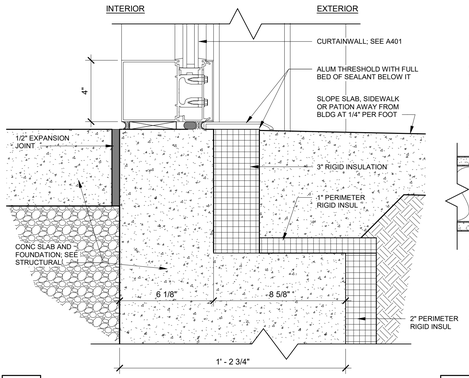
3 HEAD DETAIL
3" = 1'-0" **TYP HM FRAME @ CMU WALL**



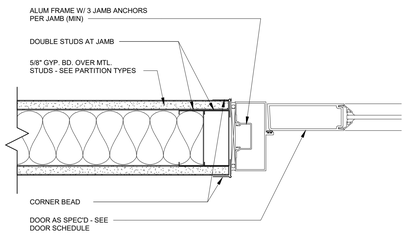
18 VAULT DOOR JAMB DETAIL
3" = 1'-0"



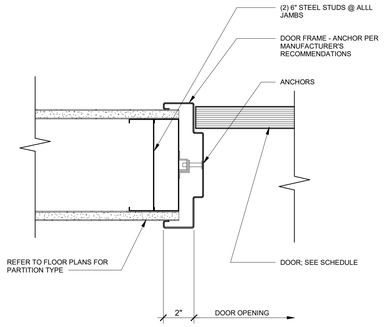
14 HEAD DETAIL
3" = 1'-0" **HM FRAME IN CONCRETE WALL**



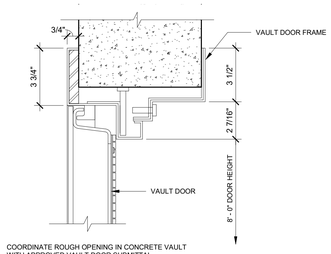
10 SILL DETAIL
3" = 1'-0" **TYP CURTAINWALL SILL**



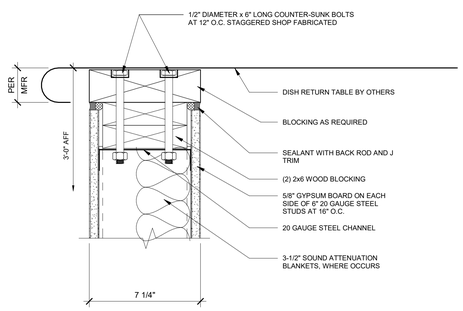
6 JAMB DETAIL
3" = 1'-0" **TYP ALUM FRAME @ GYP BD & MTL STUD WALL**



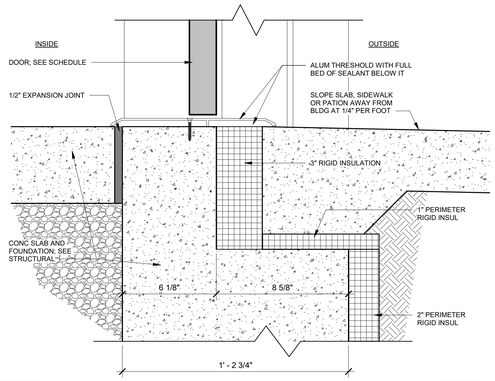
2 JAMB DETAIL
3" = 1'-0" **TYPICAL HM FRAME @ GYP BD & MTL STUD WALL**



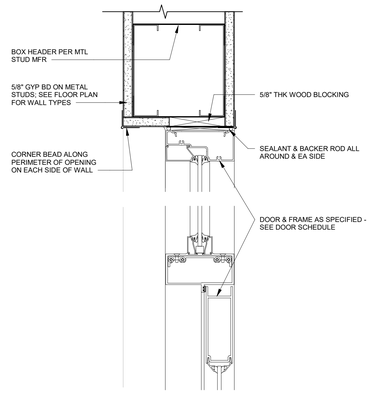
17 VAULT DOOR HEAD DETAIL
3" = 1'-0"



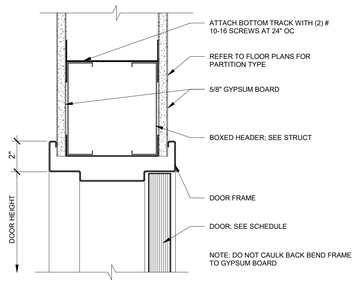
13 STAINLESS STEEL COUNTER DETAIL
3" = 1'-0" **@ COILING OVERHEAD DOOR**



9 THRESHOLD @ CURTAINWALL DOOR
3" = 1'-0"



5 HEAD DETAIL
3" = 1'-0" **TYP ALUM FRAME @ GYP BD & MTL STUD WALL**



1 HEAD DETAIL
3" = 1'-0" **TYPICAL HM FRAME @ GYP BD & MTL STUD WALL**

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NUMBER A-5051
REGISTERED ARCHITECT
2-25-2020
Michael James Sapp, Architect MO A-5051

TASMG READINESS CENTER

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SPRINGFIELD, MISSOURI

NATIONAL GUARD BUREAU PROJECT #290186
MISSOURI NATIONAL GUARD PROJECT #T1809-01
SITE #9019
ASSET #8136270008

DRAWN BY: BS
CHECKED BY: ST
DESIGNED BY: JM

REVISION:
DATE:
REVISION:
DATE:
REVISION:
DATE:
ISSUED DATE: 26 FEBRUARY 2020

SHEET TITLE:

HEAD, JAMB & SILL DETAILS

SHEET NUMBER:

A402

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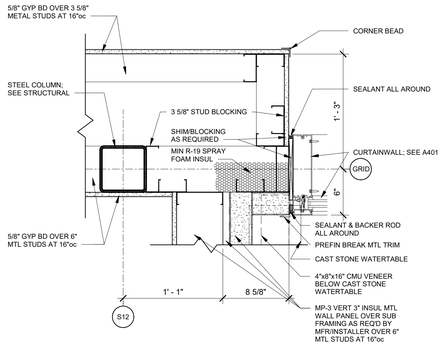
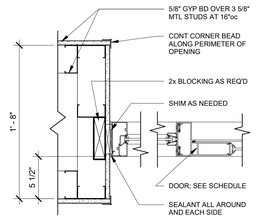
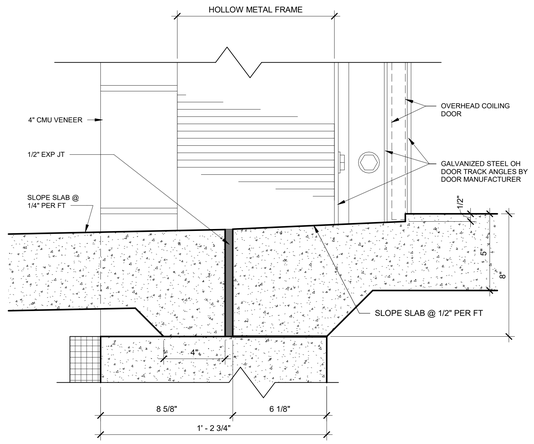


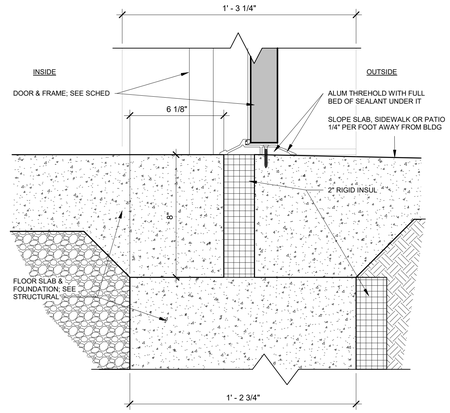
14 JAMB DETAIL
1 1/2" = 1'-0" **@ 2.5"x10.5" CURTAINWALL - HIGH**



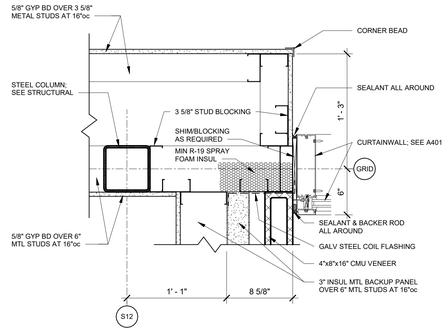
10 JAMB DETAIL
1 1/2" = 1'-0" **STOREFRONT @ GYP BD BULKHEAD**



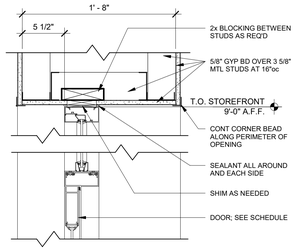
6 THRESHOLD DETAIL
3" = 1'-0" **@ COILING OVERHEAD DOOR**



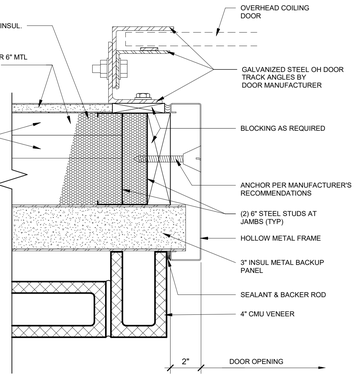
3 THRESHOLD DETAIL
3" = 1'-0" **HM FRAME @ EXT WALL w/ CMU VENEER**



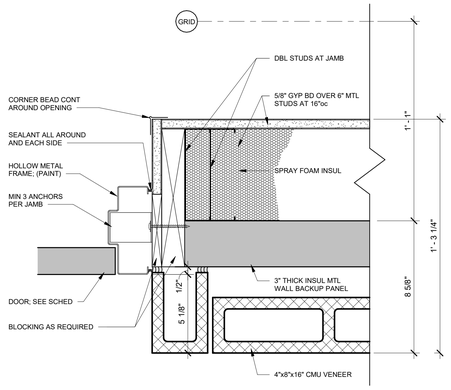
13 JAMB DETAIL
1 1/2" = 1'-0" **@ 2.5"x10.5" CURTAINWALL**



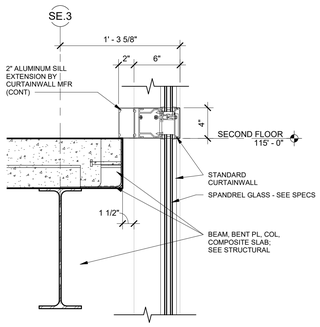
9 HEAD DETAIL
1 1/2" = 1'-0" **STOREFRONT @ GYP BD BULKHEAD**



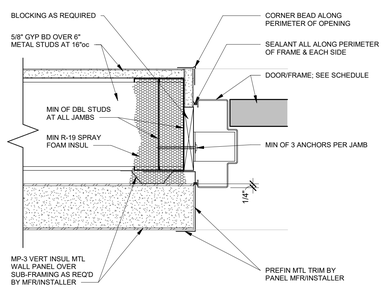
5 JAMB DETAIL
3" = 1'-0" **@ COILING OVERHEAD DOOR**



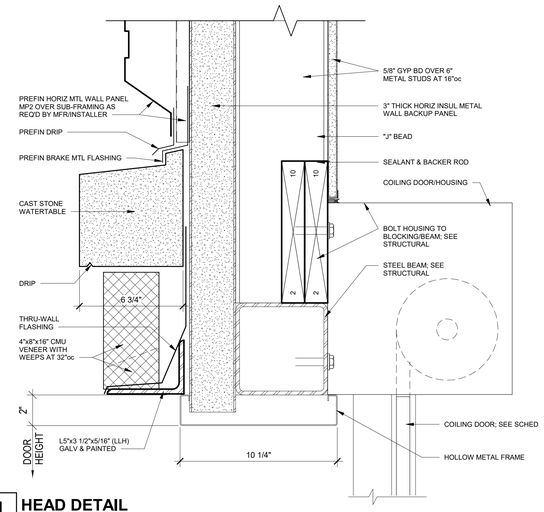
2 JAMB DETAIL
3" = 1'-0" **HM FRAME @ EXT WALL w/ CMU VENEER**



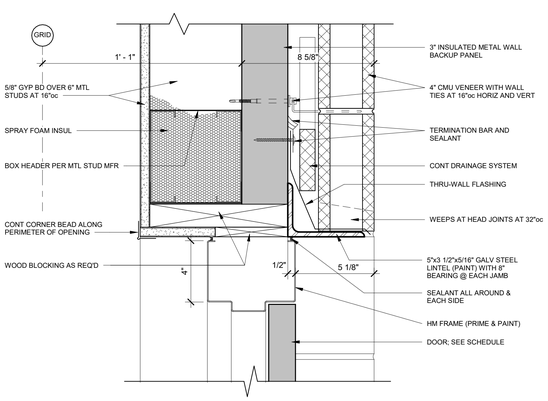
12 SILL DETAIL
1 1/2" = 1'-0"



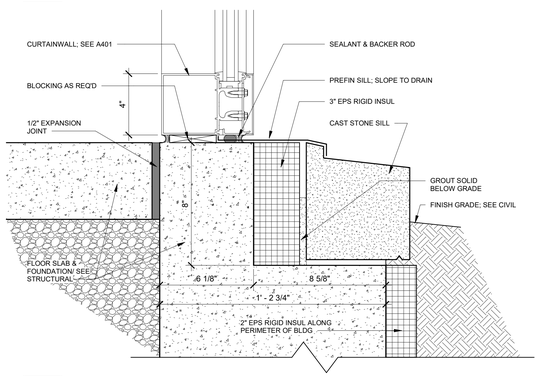
8 JAMB DETAIL
3" = 1'-0" **HM FRAME @ MP3 WALL PANEL**



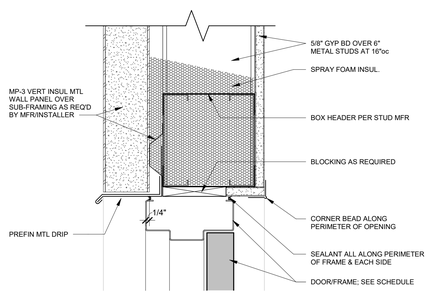
4 HEAD DETAIL
3" = 1'-0" **@ COILING OVERHEAD DOOR**



1 HEAD DETAIL
3" = 1'-0" **HM FRAME @ EXT WALL w/ CMU VENEER**



11 SILL @ CURTAINWALL
3" = 1'-0"



7 HEAD DETAIL
3" = 1'-0" **HM FRAME @ MP3 WALL PANEL**

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CHECKED BY: ST
DESIGNED BY: JM

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ISSUED DATE: 26 FEBRUARY 2020

SHEET TITLE:

HEAD, JAMB & SILL DETAILS

SHEET NUMBER:

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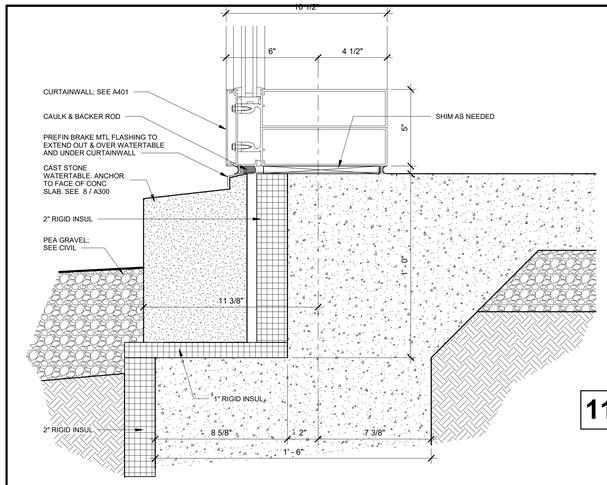
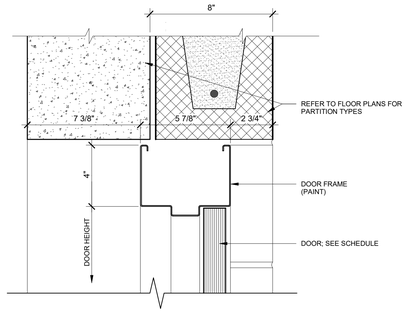
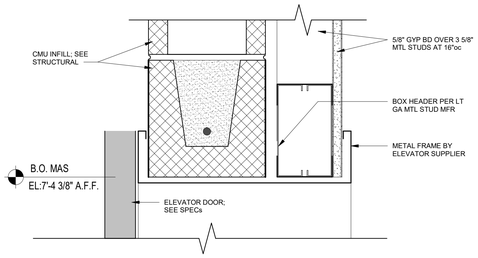


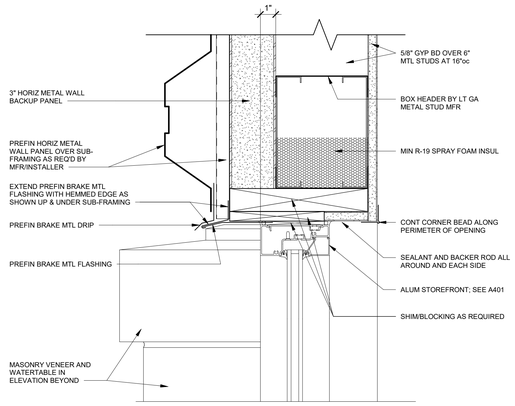
15 SILL DETAIL
3" = 1'-0"



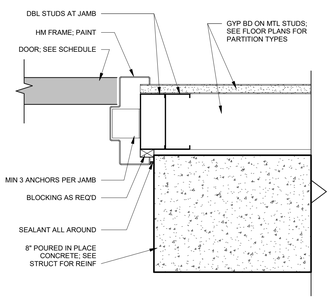
11 HEAD @ CMU & CONC WALLS
3" = 1'-0"



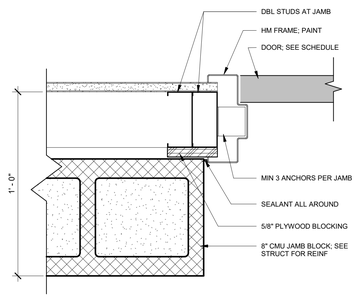
7 HEAD DETAIL
3" = 1'-0" @ BID ALT ELEVATOR DOOR



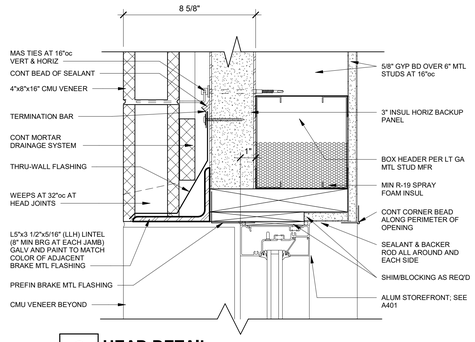
3 HEAD DETAIL
3" = 1'-0" @ METAL WALL PANEL MP2



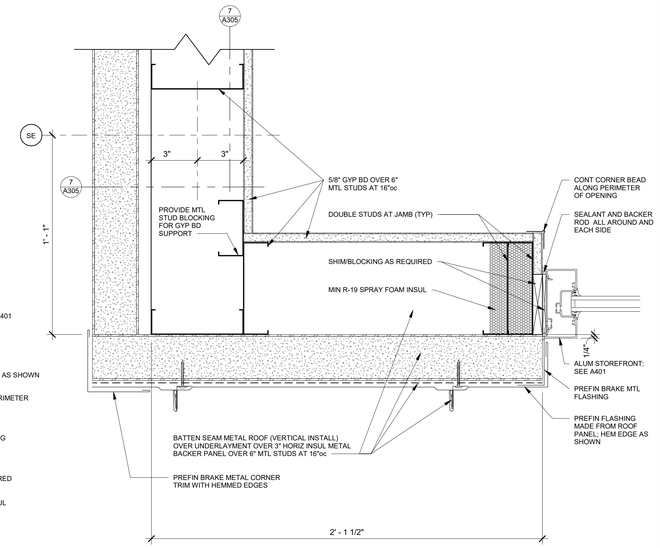
14 JAMB DETAIL
3" = 1'-0"



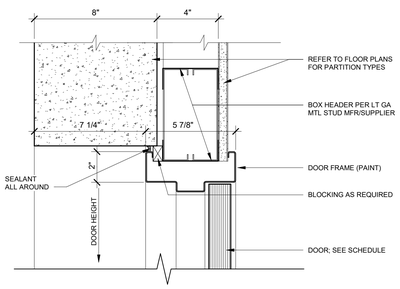
10 JAMB DETAIL
3" = 1'-0" HM FRAME @ CMU & MTL STUD WALL



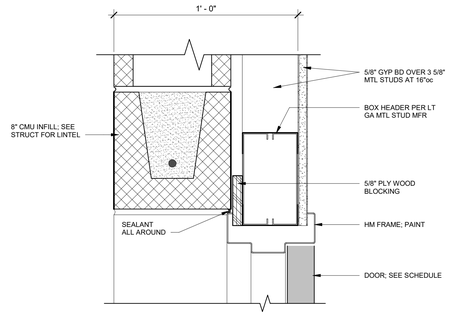
6 HEAD DETAIL
3" = 1'-0" @ CMU VENEER



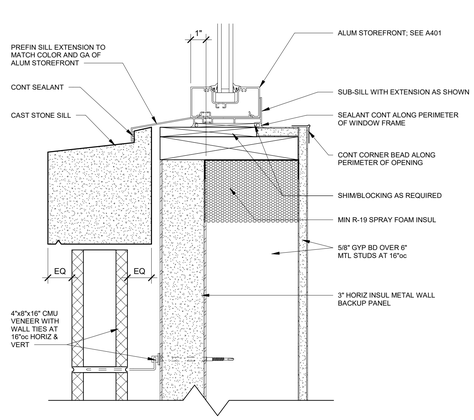
2 JAMB DETAIL
3" = 1'-0" @ CLERESTORY



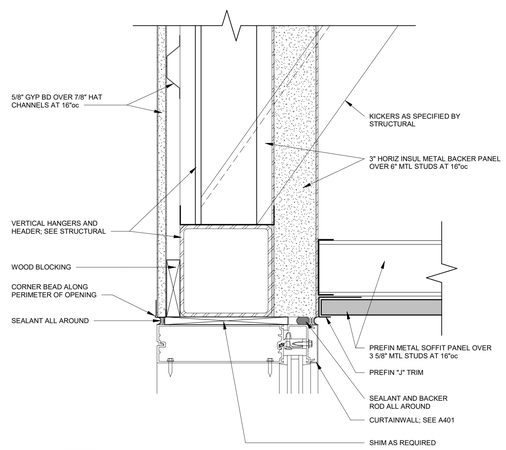
13 HEAD DETAIL
3" = 1'-0"



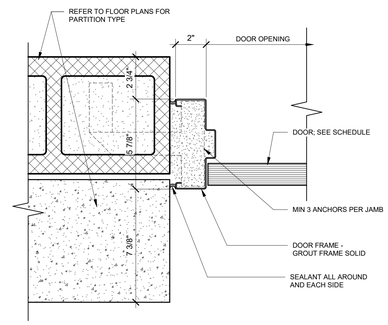
9 HEAD DETAIL
3" = 1'-0" HM FRAME @ CMU & MTL STUD WALL



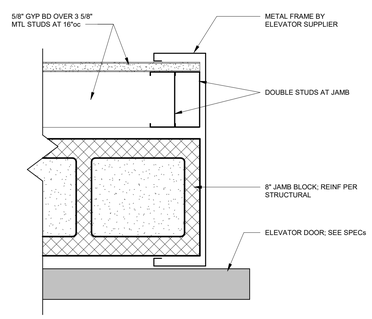
5 SILL DETAIL
3" = 1'-0" @ METAL WALL PANEL MP2



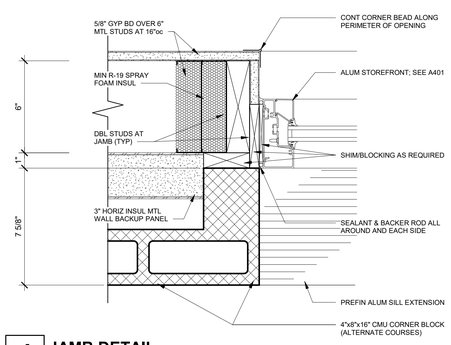
1 HEAD DETAIL
3" = 1'-0" @ 2.5"x10.5" CURTAINWALL



12 JAMB DETAIL
3" = 1'-0"



8 JAMB DETAIL
3" = 1'-0" @ BID ALT ELEVATOR DOOR



4 JAMB DETAIL
3" = 1'-0" @ METAL WALL PANEL MP2

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44 OF 131 SHEETS

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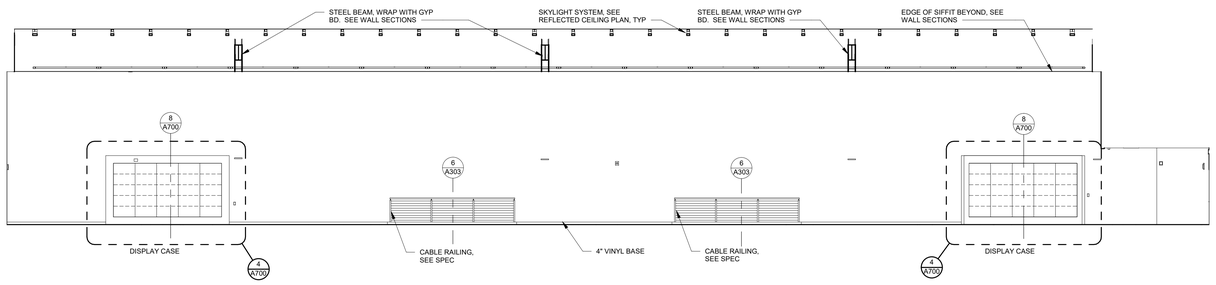
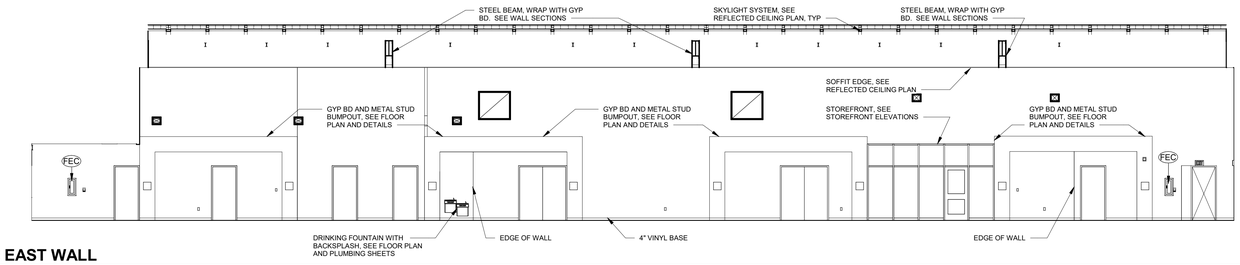
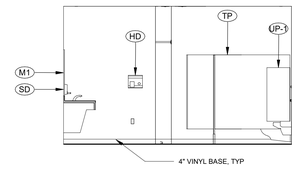


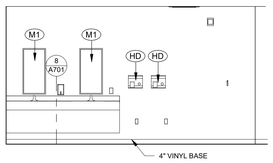
13 **CORRIDOR - 2nd FLR WEST WALL**
1/8" = 1'-0"



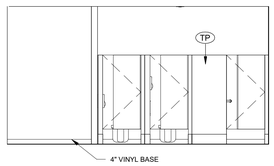
12 **CORRIDOR - 2nd FLR EAST WALL**
1/8" = 1'-0"



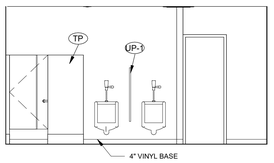
11 **MENS 1st FLR 108 - S. WALL**
1/4" = 1'-0"



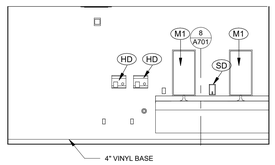
10 **WOMENs 2nd FLR RR - SOUTH WALL**
1/4" = 1'-0"



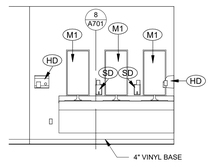
9 **WOMENs 2nd FLR RR - NORTH WALL**
1/4" = 1'-0"



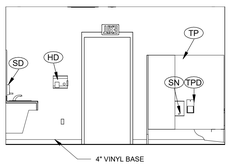
8 **MENs 2nd FLR RR - SOUTH WALL**
1/4" = 1'-0"



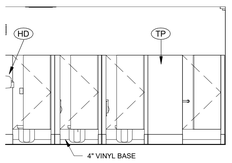
7 **MENs 2nd FLR RR - NORTH WALL**
1/4" = 1'-0"



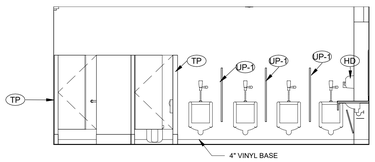
6 **WOMENs 1st FLR RR - WEST WALL**
1/4" = 1'-0"



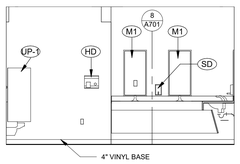
5 **WOMENs 1st FLR RR - NORTH WALL**
1/4" = 1'-0"



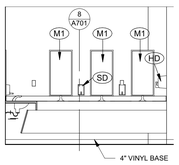
4 **WOMENs 1st FLR RR - EAST WALL**
1/4" = 1'-0"



3 **MENS 1st FLR RESTROOM - WEST WALL**
1/4" = 1'-0"



2 **MENS 1st FLR RESTROOM - NORTH WALL**
1/4" = 1'-0"



1 **MENS 1st FLR RESTROOM - EAST WALL**
1/4" = 1'-0"

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SPRINGFIELD, MISSOURI

NATIONAL GUARD BUREAU PROJECT #290186
MISSOURI NATIONAL GUARD PROJECT #T1809-01
SITE #9019

ASSET #8136270008

DRAWN BY: BS
CHECKED BY: ST
DESIGNED BY: JM

REVISION:
DATE:
REVISION:
DATE:
REVISION:
DATE:
ISSUED DATE: 26 FEBRUARY 2020

SHEET TITLE:

INTERIOR ELEVATIONS

SHEET NUMBER:

A450

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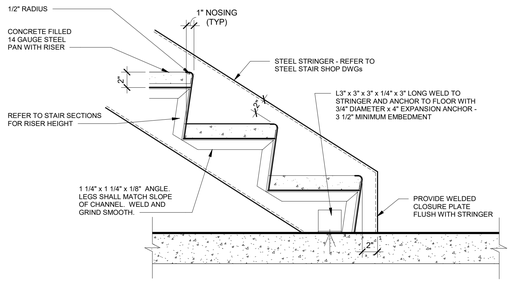
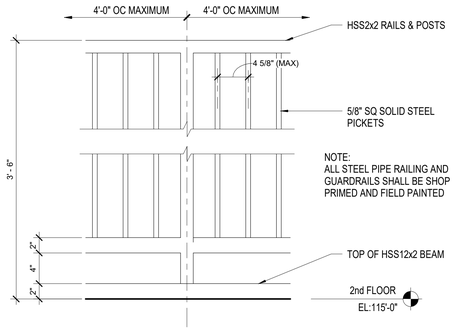
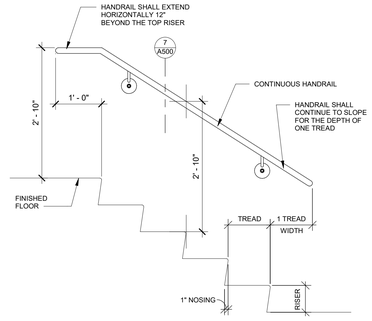


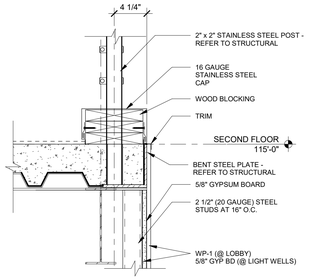
13 STAIR TOE @ FIRST FLOOR
1 1/2" = 1'-0"



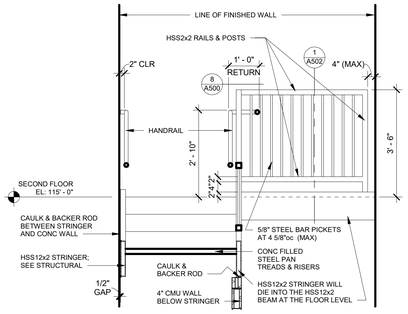
12 RAILING DETAIL
1 1/2" = 1'-0"



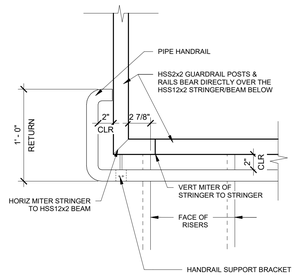
11 WALL MOUNTED STAIR RAILING
3/4" = 1'-0"



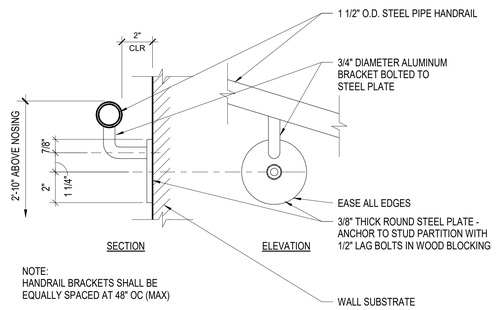
10 DETAIL AT DECORATIVE RAIL
1 1/2" = 1'-0"



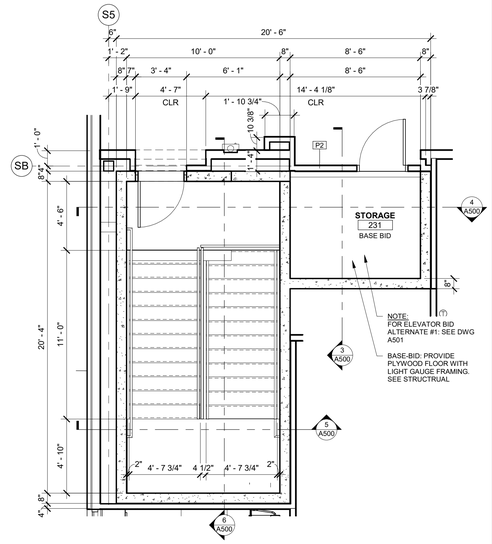
9 GUARDRAIL ELEVATION AT SECOND FLOOR
1/2" = 1'-0"



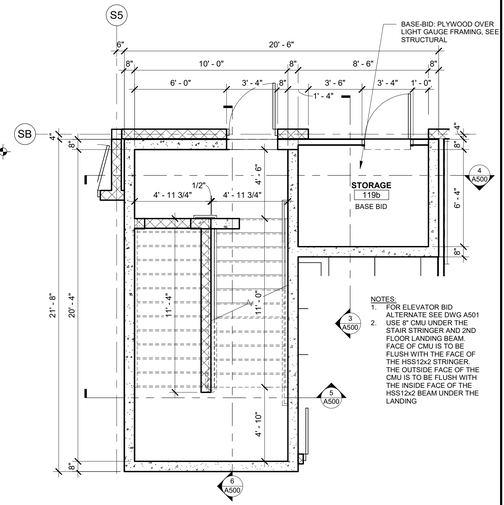
8 DETAIL
1 1/2" = 1'-0"



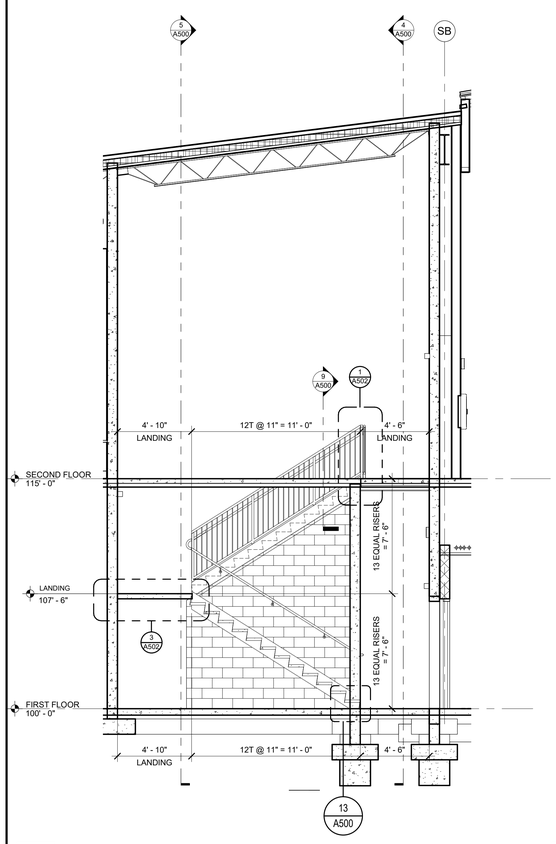
7 WALL MOUNTED HANDRAIL DETAIL
3" = 1'-0"



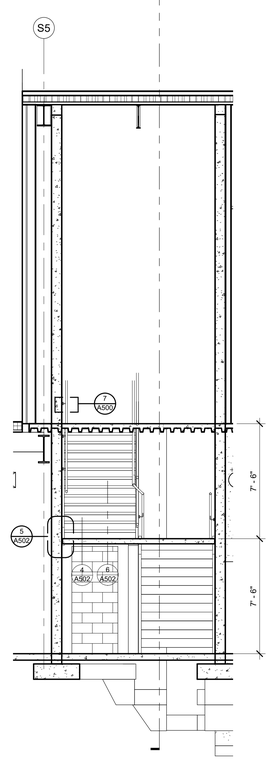
2 SECOND FLOOR PLAN - STAIR NO. 1
1/4" = 1'-0"
BASE BID



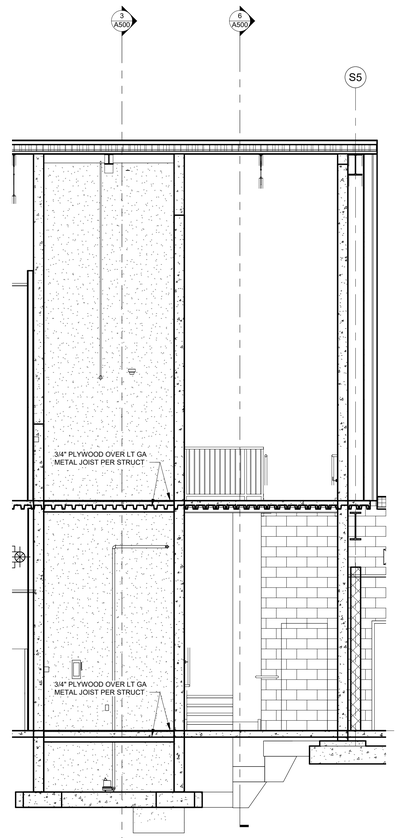
1 FIRST FLOOR PLAN - STAIR NO. 1
1/4" = 1'-0"
BASE BID



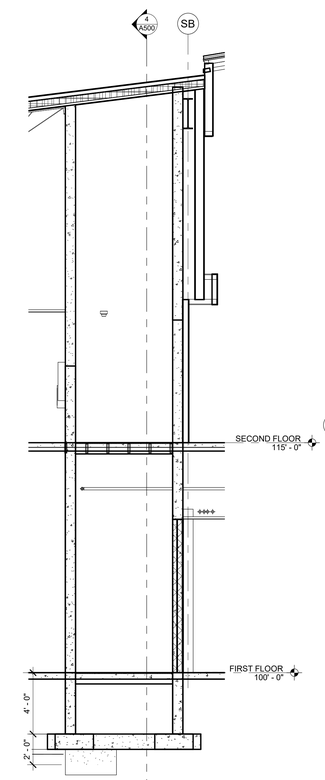
6 STAIR SECTION
1/4" = 1'-0"



5 SECTION
1/4" = 1'-0"



4 SECTION
1/4" = 1'-0"



3 SECTION
1/4" = 1'-0"

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DESIGNED BY: JM

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ISSUED DATE: 26 FEBRUARY 2020

SHEET TITLE:

VERTICAL CIRCULATION

SHEET NUMBER:

A500

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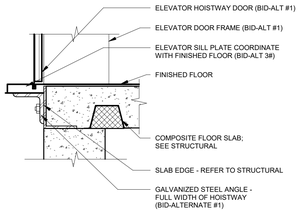
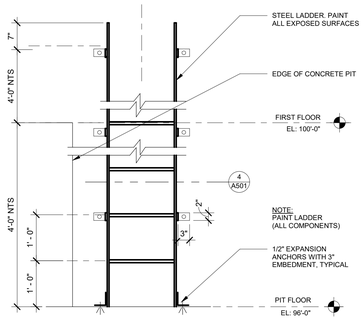
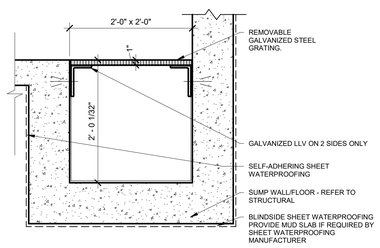


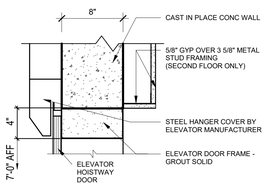
11 ELEVATOR DOOR SILL DETAIL
1 1/2" = 1'-0" **SECOND FLOOR**



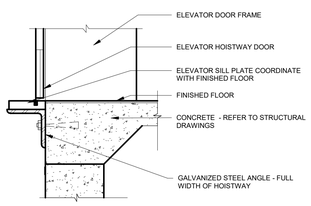
10 LADDER AT ELEVATOR PIT ELEVATION
NOT TO SCALE



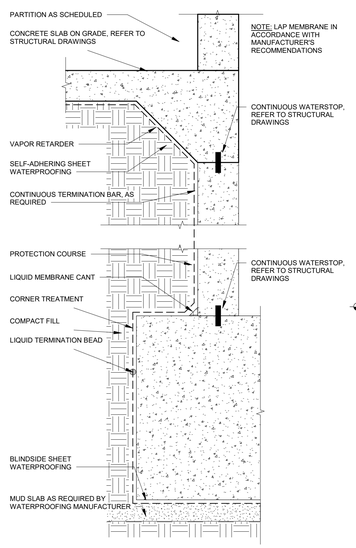
9 SUMP PUMP PIT DETAIL
1" = 1'-0"



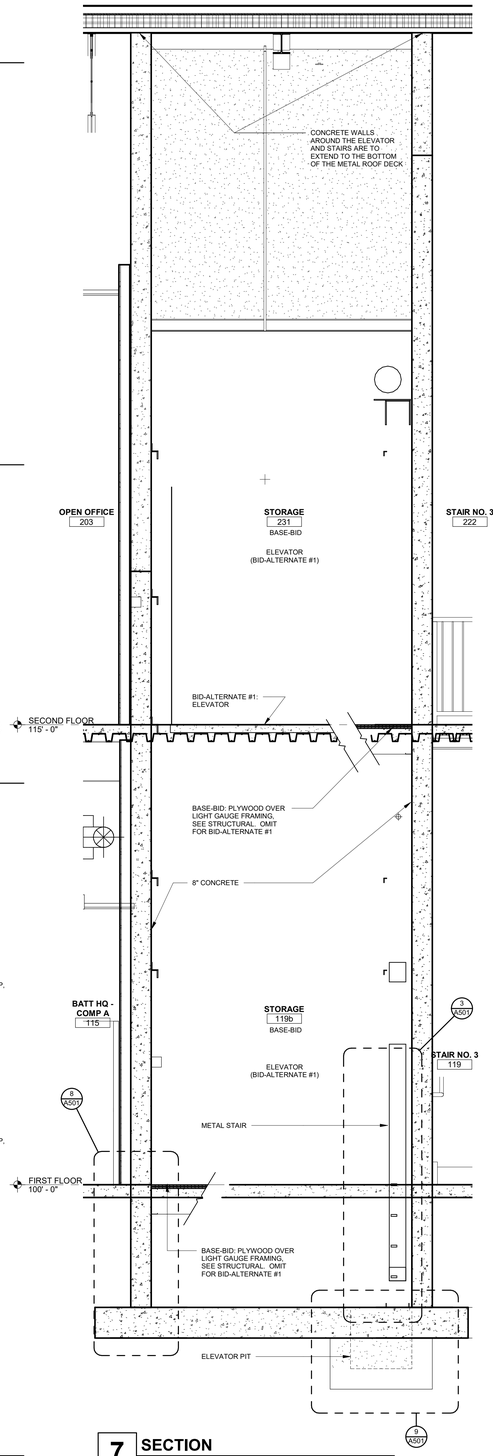
13 ELEV DOOR HEAD DETAIL
1 1/2" = 1'-0"



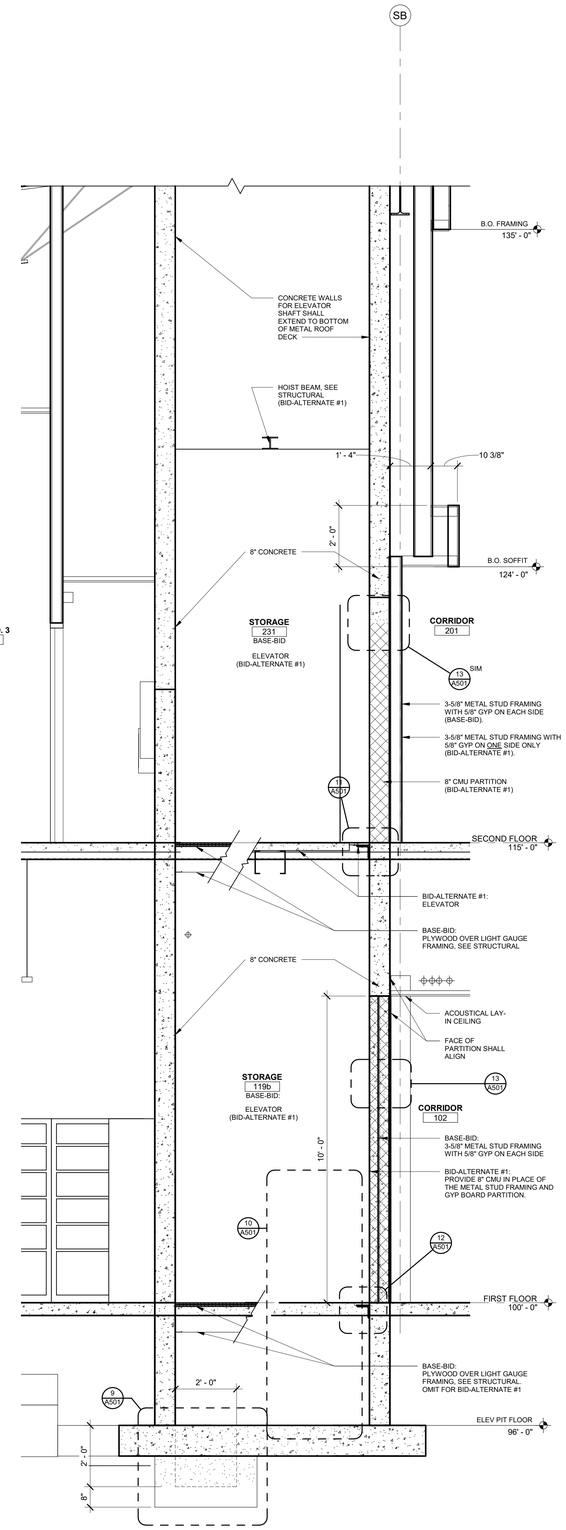
12 ELEVATOR DOOR SILL DETAIL
1 1/2" = 1'-0" **FIRST FLOOR**



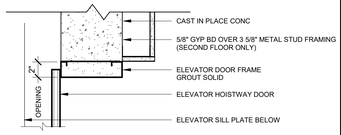
8 ELEVATOR WALL TO SLAB DETAIL
1" = 1'-0"



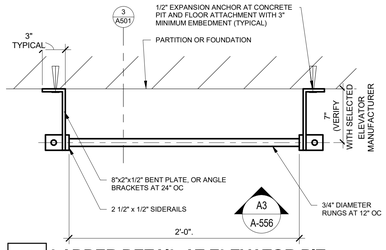
7 SECTION
1/2" = 1'-0"



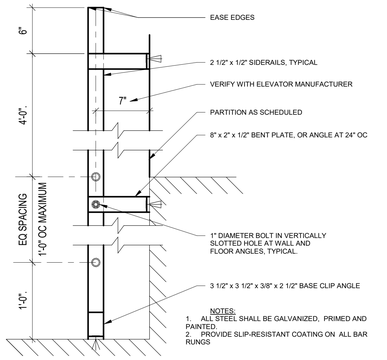
6 SECTION
1/2" = 1'-0"



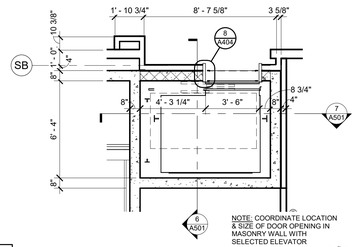
5 ELEVATOR DOOR JAMB DETAIL
1 1/2" = 1'-0" **BID-ALTERNATE #1**



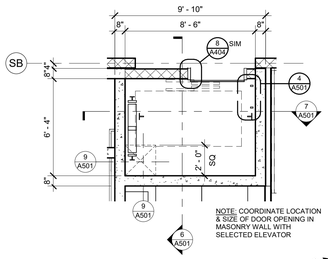
4 LADDER DETAIL AT ELEVATOR PIT
1 1/2" = 1'-0" **BID-ALTERNATE #1**



3 LADDER SECTION AT ELEVATOR PIT
1 1/2" = 1'-0" **BID-ALTERNATE #1**



2 2ND FLOOR PLAN - ELEVATOR
1/4" = 1'-0" **BID-ALTERNATE**



1 FIRST FLOOR PLAN - ELEVATOR
1/4" = 1'-0" **BID-ALTERNATE**

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VERTICAL CIRCULATION - ELEVATOR

SHEET NUMBER:

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47 OF 131 SHEETS

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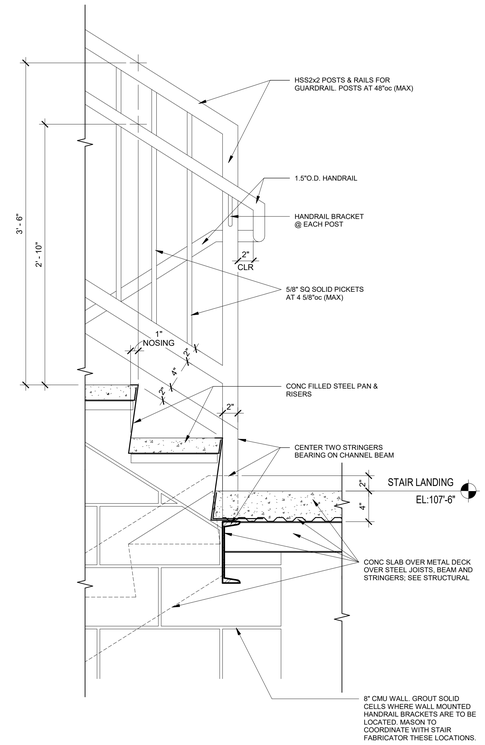
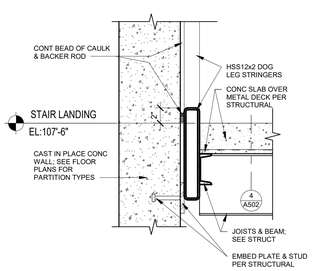
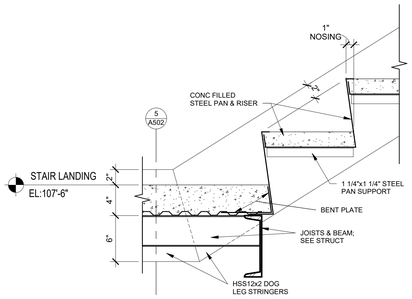


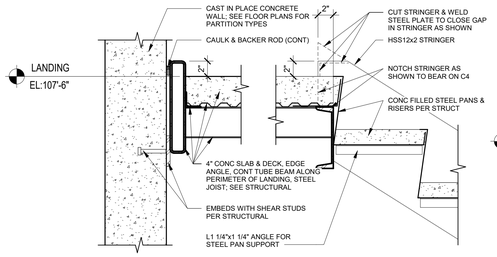
6 STAIR LANDING @ CENTER STRINGERS
1 1/2" = 1'-0"



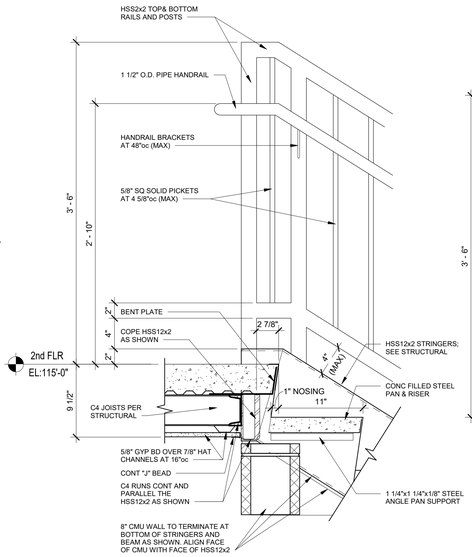
5 STAIR LANDING @ END WALL
1 1/2" = 1'-0"



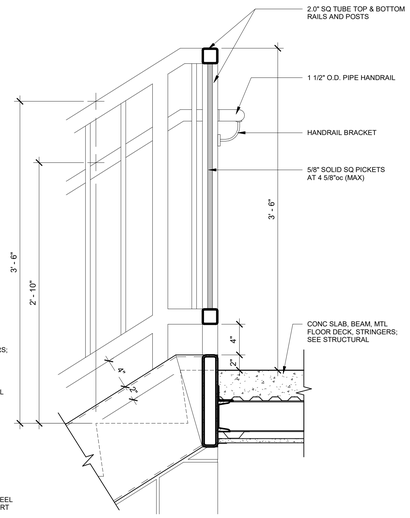
4 STAIR TOE @ LANDING
1 1/2" = 1'-0"



3 STAIR HEAD @ LANDING
1 1/2" = 1'-0"



2 STAIR HEAD AT SECOND FLOOR
1 1/2" = 1'-0"



1 SECTION
1 1/2" = 1'-0" **GUARDRAIL AT 2ND FLOOR**

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ISSUED DATE: 26 FEBRUARY 2020

SHEET TITLE:

VERT CIRCULATION DETAILS

SHEET NUMBER:

A502

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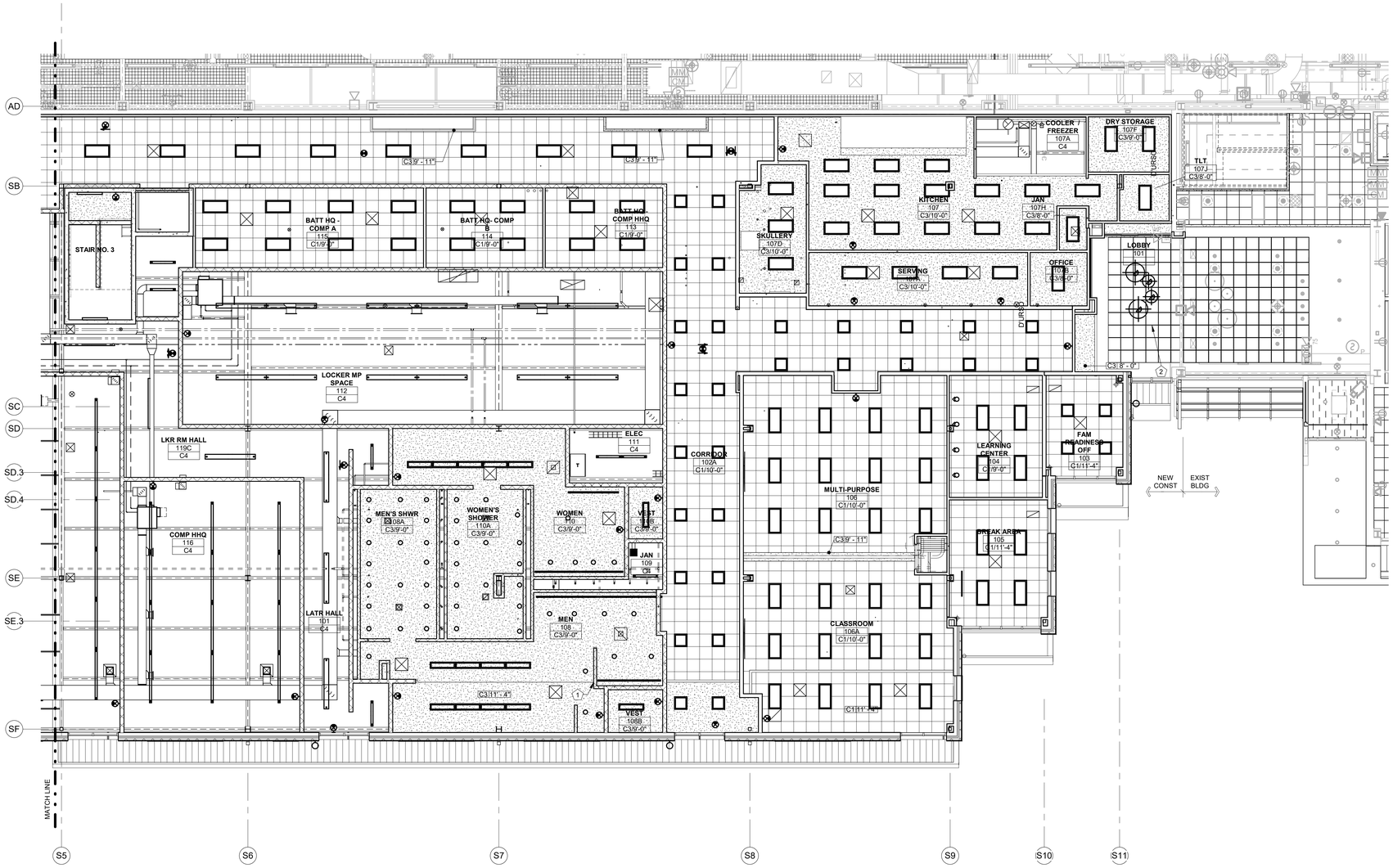

1 FIRST FLOOR RCP - AREA A
1/8" = 1'-0"

GENERAL NOTES

1. COORDINATE REFLECTED CEILING PLAN WITH LIGHTING AND MECHANICAL PLANS FOR LIGHT FIXTURE PLACEMENT AND DIFFUSER PLACEMENT. IF DISCREPANCIES OCCUR CONTACT ARCHITECT FOR RESOLUTION. REFER TO FIRE PROTECTION DRAWINGS FOR SPRINKLER HEAD LOCATIONS. SPRINKLER HEADS SHALL BE LOCATED A MINIMUM OF 6" FROM CEILING GRID. COORDINATE LOCATIONS WITH LIGHTS AND DIFFUSERS, LIGHT FIXTURE LOCATION SHALL PREVAIL.
2. DRAWINGS ARE NOT TO BE SCALED. DIMENSIONAL DATA SHALL BE OBTAINED FROM WRITTEN INFORMATION ONLY. VERIFY ALL DIMENSIONS BEFORE PROCEEDING. ANY DIMENSIONAL DEVIATION FROM THAT SHOWN ON THE DRAWINGS, WHICH MAY AFFECT INTENT OF DESIGN OR PROPER INCORPORATION OF ELEMENTS, SHALL BE BROUGHT TO THE ARCHITECT'S ATTENTION PROMPTLY AND RESOLUTION OBTAINED BEFORE PROCEEDING.
3. ALL DIMENSIONS INDICATED IN CONTRACT DOCUMENTS ARE FROM: FACE OF STUD TO FACE OF STUD FOR INTERIOR PARTITIONS, FACE OF EXISTING STRUCTURE OR FINISH, FACE OF CONCRETE OR BLOCK, OR TO STRUCTURAL LINE, EXCEPT AS NOTED OTHERWISE. EXTERIOR DIMENSIONS ARE TO FACE OF BRICK OR FACE OF EIFS. DIMENSIONS OF EXISTING STRUCTURE, ETC. ARE ± AND SHOULD BE FIELD VERIFIED PRIOR TO COMMENCEMENT OF WORK AND ARCHITECT NOTIFIED OF ANY DISCREPANCIES.
4. GENERAL CONTRACTOR SHALL COORDINATE ALL MECHANICAL, ELECTRICAL & PLUMBING WORK AND PROVIDE ALL NECESSARY CONSTRUCTION TO FACILITATE SAID WORK INCLUDING, BUT NOT LIMITED TO ROUGH OPENINGS, EQUIPMENT SUPPORTS, BACKING AND COORDINATION OF FINISH WORK, WHETHER OR NOT SPECIFICALLY INDICATED ON CONTRACT DOCUMENTS.
5. GENERAL CONTRACTOR SHALL COORDINATE DUCTWORK WITH JOIST X-BRACING OR HORIZONTAL BRIDGING.

KEYNOTES

1	SAW CUT EX'G MASONRY AS REQ'D TO INSTALL NEW MECHANICAL LOUVER; SEE MEP. SAW CUT AT CMU HEAD JOINTS FOR OPENING IS TO COURSE BLOCK HORIZ & VERT
2	SOUND ABSORBING BAFFLE PANELS TO MATCH EXISTING; SEE SPEC
3	PAINTED EXPOSED DUCTWORK - SAME COLOR THAN REST OF STRUCTURE AND DECK

CEILING TYPES

C1: 2x2 SUSPENDED ACOUSTICAL TILE CEILING - BASIS OF DESIGN MANUFACTURER: ARMSTRONG COMMERCIAL CEILINGS; STYLE: ULTIMA TEGULAR; SIZE: 24"X24"; COLOR: WHITE; GRID: PRELUDE XL; GRID SIZE: 15/16"; GRID COLOR: BLIZZARD WHITE

C3: PAINTED GYP BD HEADER, SOFFIT, BULKHEAD, OR CEILING

C4: NO CEILING - EXPOSED STRUCTURE PAINTED WHITE

C5: PREFINISHED ALUM SOFFIT

ROOM NAME — ROOM NAME
101 — ROOM NUMBER
C3/10'-10" — CEILING HEIGHT
CEILING FINISH

NOTE:
SEE BUILDING SECTIONS AND INTERIOR ELEVATIONS

REFLECTED CEILING LEGEND

- 2'-0" x 4'-0" RECESSED LIGHT FIXTURE (SEE ELECTRICAL PLANS)
- 2'-0" x 2'-0" RECESSED LIGHT FIXTURE (SEE ELECTRICAL PLANS)
- RECESSED CAN LIGHT FIXTURE (SEE ELECTRICAL PLANS)
- 4'-0" PENDANT LIGHT FIXTURE (SEE ELECTRICAL PLANS)
- SUPPLY DIFFUSER (SEE MECHANICAL PLANS)
- RETURN AIR GRILLE (SEE MECHANICAL PLANS)

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Architect of Record
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MICHAEL JAMES SAPP
NUMBER A-5051
REGISTERED ARCHITECT
3-25-2020
Michael James Sapp, Architect MO A-5051

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AVCRAD SITE
1107TH THEATER AVIATION SUSTAINMENT MAINTENANCE GROUP

MISSOURI NATIONAL GUARD
SPRINGFIELD, MISSOURI

NATIONAL GUARD BUREAU PROJECT #290186
MISSOURI NATIONAL GUARD PROJECT #T1809-01
SITE #9019
ASSET #8136270008

DRAWN BY: BS
CHECKED BY: ST
DESIGNED BY: JM

REVISION:
DATE:
REVISION:
DATE:
REVISION:
DATE:
ISSUED DATE: 26 FEBRUARY 2020

SHEET TITLE:

FIRST FLOOR RCP - AREA A

SHEET NUMBER:

A610

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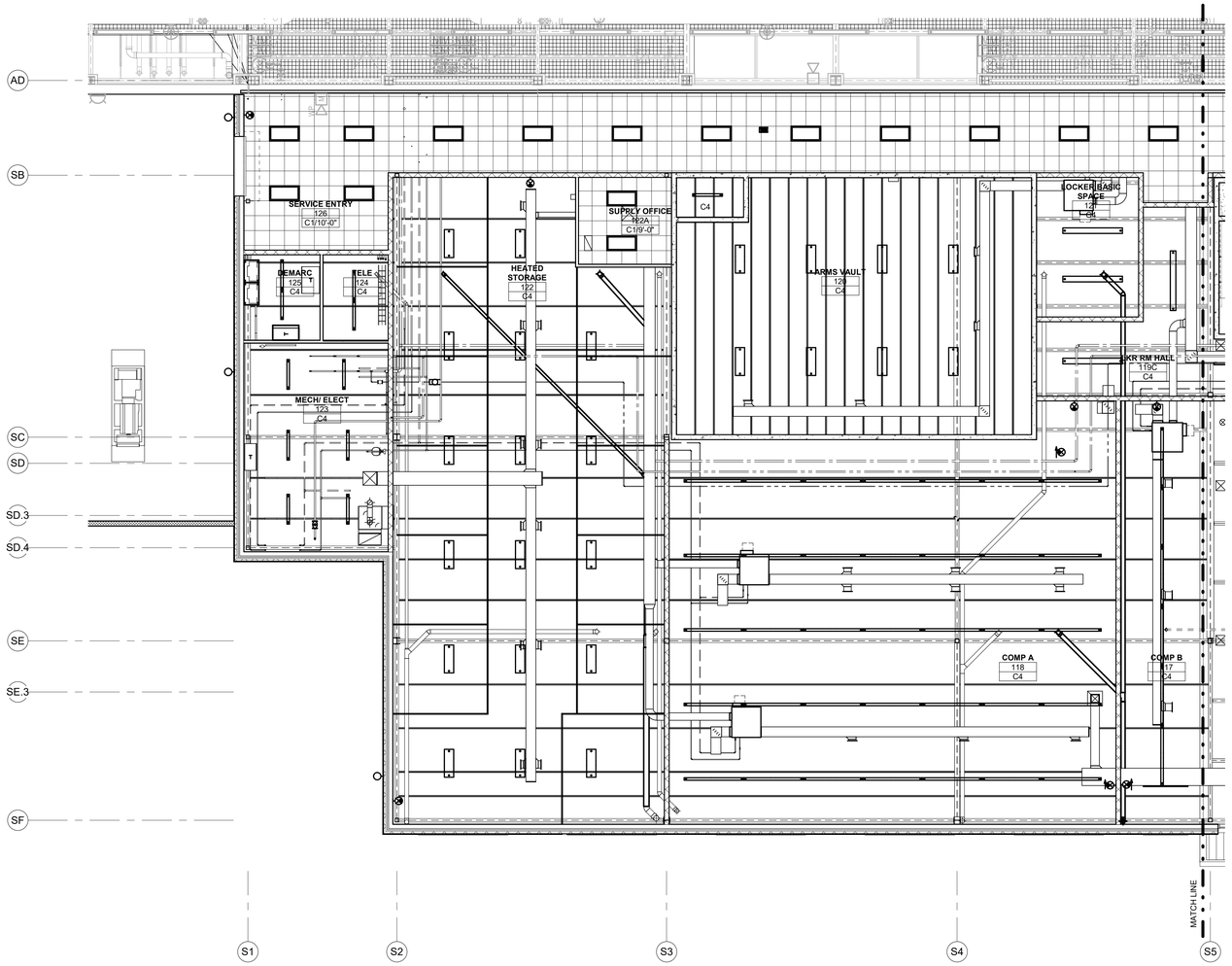

1 **FIRST FLOOR RCP - AREA B**
1/8" = 1'-0"

GENERAL NOTES

1. COORDINATE REFLECTED CEILING PLAN WITH LIGHTING AND MECHANICAL PLANS FOR LIGHT FIXTURE PLACEMENT AND DIFFUSER PLACEMENT. IF DISCREPANCIES OCCUR CONTACT ARCHITECT FOR RESOLUTION. REFER TO FIRE PROTECTION DRAWINGS FOR SPRINKLER HEAD LOCATIONS. SPRINKLER HEADS SHALL BE LOCATED A MINIMUM OF 6" FROM CEILING GRID. COORDINATE LOCATIONS WITH LIGHTS AND DIFFUSERS, LIGHT FIXTURE LOCATION SHALL PREVAIL.
2. DRAWINGS ARE NOT TO BE SCALED. DIMENSIONAL DATA SHALL BE OBTAINED FROM WRITTEN INFORMATION ONLY. VERIFY ALL DIMENSIONS BEFORE PROCEEDING. ANY DIMENSIONAL DEVIATION FROM THAT SHOWN ON THE DRAWINGS, WHICH MAY AFFECT INTENT OF DESIGN OR PROPER INCORPORATION OF ELEMENTS, SHALL BE BROUGHT TO THE ARCHITECT'S ATTENTION PROMPTLY AND RESOLUTION OBTAINED BEFORE PROCEEDING.
3. ALL DIMENSIONS INDICATED IN CONTRACT DOCUMENTS ARE FROM FACE OF STUD TO FACE OF STUD FOR INTERIOR PARTITIONS, FACE OF EXISTING STRUCTURE OR FINISH, FACE OF CONCRETE OR BLOCK, OR TO STRUCTURAL LINE, EXCEPT AS NOTED OTHERWISE. EXTERIOR DIMENSIONS ARE TO FACE OF BRICK OR FACE OF EIFS. DIMENSIONS OF EXISTING STRUCTURE, ETC. ARE ± AND SHOULD BE FIELD VERIFIED PRIOR TO COMMENCEMENT OF WORK AND ARCHITECT NOTIFIED OF ANY DISCREPANCIES.
4. GENERAL CONTRACTOR SHALL COORDINATE ALL MECHANICAL, ELECTRICAL & PLUMBING WORK AND PROVIDE ALL NECESSARY CONSTRUCTION TO FACILITATE SAID WORK INCLUDING, BUT NOT LIMITED TO ROUGH OPENINGS, EQUIPMENT SUPPORTS, BACKING AND COORDINATION OF FINISH WORK, WHETHER OR NOT SPECIFICALLY INDICATED ON CONTRACT DOCUMENTS.
5. GENERAL CONTRACTOR SHALL COORDINATE DUCTWORK WITH JOIST X-BRACING OR HORIZONTAL BRIDGING.

KEYNOTES

1 ←

1	PAINTED EXPOSED DUCTWORK - SAME COLOR THAN REST OF STRUCTURE AND DECK

CEILING TYPES

C1: 2x2 SUSPENDED ACOUSTICAL TILE CEILING - BASIS OF DESIGN MANUFACTURER: ARMSTRONG COMMERCIAL CEILINGS; STYLE: ULTIMA TEGULAR; SIZE: 24"X24"; COLOR: WHITE; GRID: PRELUDE XL; GRID SIZE: 15/16"; GRID COLOR: BLIZZARD WHITE

C3: PAINTED GYP BD HEADER, SOFFIT, BULKHEAD, OR CEILING

C4: NO CEILING - EXPOSED STRUCTURE PAINTED WHITE

C5: PREFINISHED ALUM SOFFIT

ROOM NAME — ROOM NAME
101 — ROOM NUMBER
C3/10'-10" — CEILING HEIGHT
CEILING FINISH

NOTE:
SEE BUILDING SECTIONS AND INTERIOR ELEVATIONS

REFLECTED CEILING LEGEND

- 2'-0" x 4'-0" RECESSED LIGHT FIXTURE (SEE ELECTRICAL PLANS)
- 2'-0" x 2'-0" RECESSED LIGHT FIXTURE (SEE ELECTRICAL PLANS)
- RECESSED CAN LIGHT FIXTURE (SEE ELECTRICAL PLANS)
- 4'-0" PENDANT LIGHT FIXTURE (SEE ELECTRICAL PLANS)
- SUPPLY DIFFUSER (SEE MECHANICAL PLANS)
- RETURN AIR GRILLE (SEE MECHANICAL PLANS)

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FIRST FLOOR RCP - AREA B

SHEET NUMBER:

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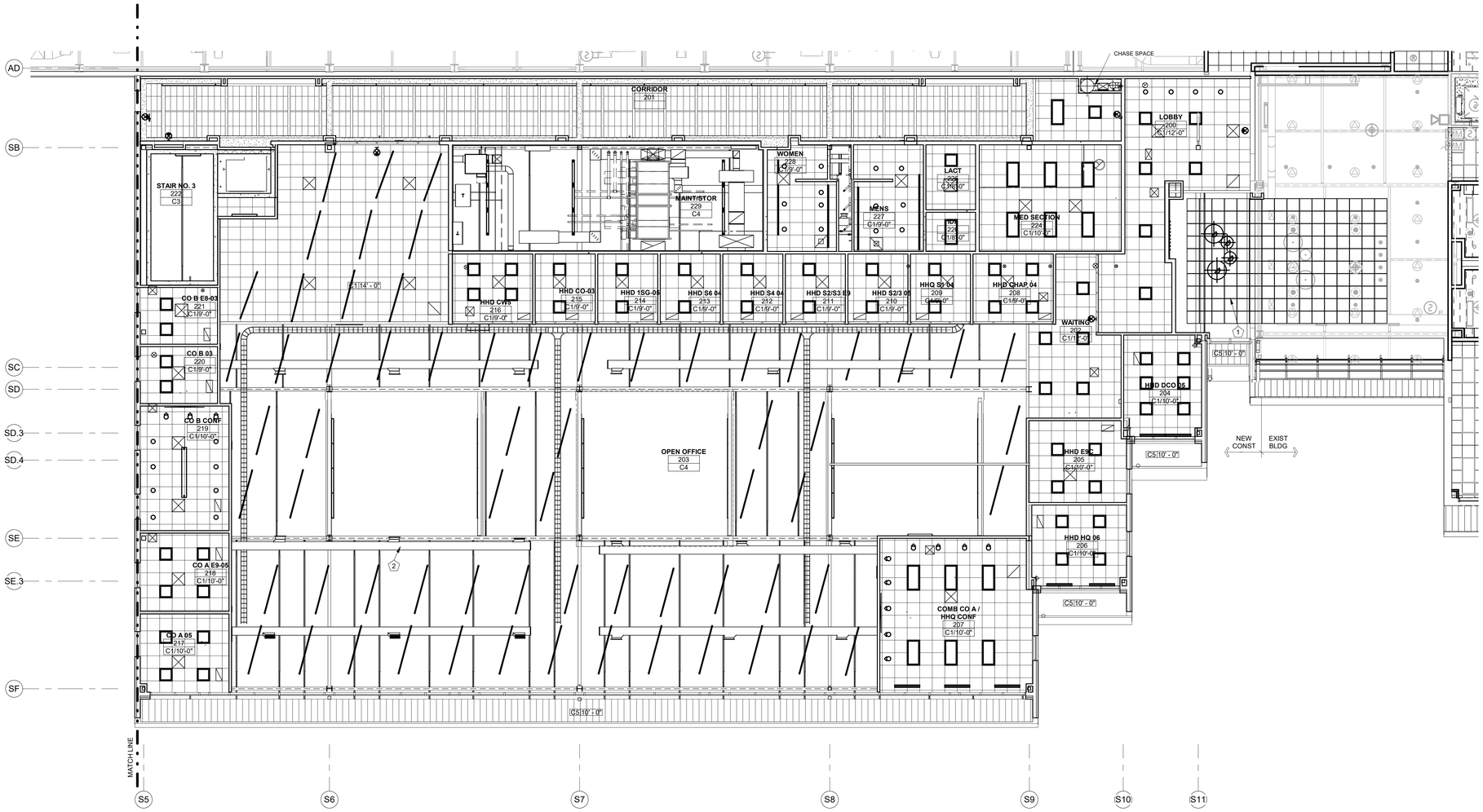

1 SECOND FLOOR RCP

1/8" = 1'-0"

GENERAL NOTES

1. COORDINATE REFLECTED CEILING PLAN WITH LIGHTING AND MECHANICAL PLANS FOR LIGHT FIXTURE PLACEMENT AND DIFFUSER PLACEMENT. IF DISCREPANCIES OCCUR CONTACT ARCHITECT FOR RESOLUTION. REFER TO FIRE PROTECTION DRAWINGS FOR SPRINKLER HEAD LOCATIONS. SPRINKLER HEADS SHALL BE LOCATED A MINIMUM OF 6" FROM CEILING GRID. COORDINATE LOCATIONS WITH LIGHTS AND DIFFUSERS, LIGHT FIXTURE LOCATION SHALL PREVAIL.
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4. GENERAL CONTRACTOR SHALL COORDINATE ALL MECHANICAL, ELECTRICAL & PLUMBING WORK AND PROVIDE ALL NECESSARY CONSTRUCTION TO FACILITATE SAID WORK INCLUDING, BUT NOT LIMITED TO ROUGH OPENINGS, EQUIPMENT SUPPORTS, BACKING AND COORDINATION OF FINISH WORK, WHETHER OR NOT SPECIFICALLY INDICATED ON CONTRACT DOCUMENTS.
5. GENERAL CONTRACTOR SHALL COORDINATE DUCTWORK WITH JOIST X-BRACING OR HORIZONTAL BRIDGING.

KEYNOTES

1 ←

1	SOUND ABSORBING BAFFLE PANELS TO MATCH EXISTING; SEE SPEC
2	PAINTED EXPOSED DUCTWORK - SAME COLOR THAN REST OF STRUCTURE AND DECK

CEILING TYPES

C1: 2x2 SUSPENDED ACOUSTICAL TILE CEILING - BASIS OF DESIGN MANUFACTURER: ARMSTRONG COMMERCIAL CEILINGS; STYLE: ULTIMA TEGULAR; SIZE: 24"X24"; COLOR: WHITE; GRID: PRELUDE XL; GRID SIZE: 15/16"; GRID COLOR: BLIZZARD WHITE

C3: PAINTED GYP BD HEADER, SOFFIT, BULKHEAD, OR CEILING

C4: NO CEILING - EXPOSED STRUCTURE PAINTED WHITE

C5: PREFINISHED ALUM SOFFIT

ROOM NAME — ROOM NAME
101 — ROOM NUMBER
C3 10'-10" — CEILING HEIGHT
CEILING FINISH

NOTE:
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REFLECTED CEILING LEGEND

- 2'-0" x 4'-0" RECESSED LIGHT FIXTURE (SEE ELECTRICAL PLANS)
- 2'-0" x 2'-0" RECESSED LIGHT FIXTURE (SEE ELECTRICAL PLANS)
- RECESSED CAN LIGHT FIXTURE (SEE ELECTRICAL PLANS)
- 4'-0" PENDANT LIGHT FIXTURE (SEE ELECTRICAL PLANS)
- SUPPLY DIFFUSER (SEE MECHANICAL PLANS)
- RETURN AIR GRILLE (SEE MECHANICAL PLANS)

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DESIGNED BY: JM

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SHEET TITLE:

SECOND FLOOR RCP

SHEET NUMBER:

A620

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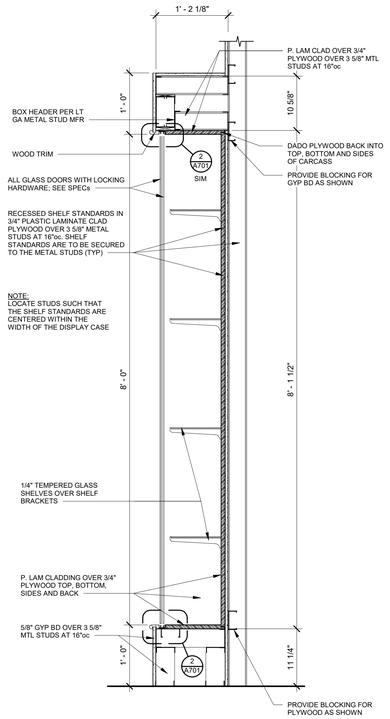
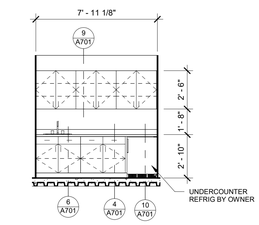
GENERAL NOTES

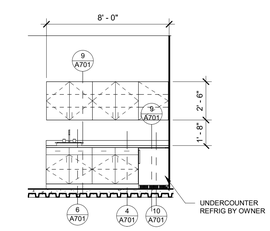
1. ALL COUNTER TOPS SHALL BE CONSTRUCTED OF PLYWOOD, OR HIGH DENSITY PARTICLE BOARD FOR SUCH APPLICATION, & FINISH AS NOTED.
2. COLOR OF MELAMINE FINISH FOR PARTICLE BOARD & HARDBOARD SHALL BE AS SELECTED BY ARCHITECT.
3. ALL INTERIOR SHELF BRACKETS & CLIPS AT CABINETS SHALL BE K&V OR EQUAL. PROVIDE 4 CLIPS PER SHELF.
4. ALL DOOR HINGES TO BE OF THE SEMI-CONCEALED TYPE 5 - KNUCKLE HINGES, 180 DEGREE SWING, UNLESS NOTED OTHERWISE.
5. PROVIDE NECESSARY BLOCKING IN ALL WALLS TO RECEIVE CASEWORK & SHELVING.
6. ALL FINISHED DIMENSIONS TO BE FIELD VERIFIED PRIOR TO FABRICATION OF CASEWORK.
7. CUT & SCRIBE CABINETS AND/OR COUNTERS TO FIT AROUND WALL PILASTERS, OFFSETS, COLUMNS AND OTHER IRREGULARITIES.
8. ALL DRAWERS SHALL HAVE K&V OR EQUAL HEAVY DUTY DRAWER SLIDES & HARDWARE. PROVIDE DRAWER FRONTS TO MATCH DOORS AT CABINETS.
9. ALL CABINET HARDWARE SHALL BE K&V OR EQUAL & SHALL BE FURNISHED BY CASEWORK CONTRACTOR. DOOR & DRAWER PULLS TO BE 'STANLEY MN. 4" WIRE PULLS IN US26D FINISH, ADA COMPLIANT, UNLESS NOTED OTHERWISE.
10. CABINET ELEVATIONS & SECTIONS SHOW DESIGN INTENT OF ARCHITECT. CASEWORK CONTRACTOR IS RESPONSIBLE FOR TYPICAL CABINET BRACING EVEN IF NOT SPECIFICALLY SHOWN OR NOTED ON THE DRAWINGS.
11. FINISH ALL EXPOSED END PANELS OF CASEWORK TO MATCH ADJACENT CASEWORK FACES UNLESS NOTED OTHERWISE.
12. ALL DIMENSIONS AT CASEWORK ARE TO FACE OF FINISHED SURFACE UNLESS NOTED OTHERWISE.
13. SCRIBE TO WALLS. PROVIDE SEALANT AT JOINT.
14. PROVIDE FILLER STRIPS AND TRIM AS NECESSARY.



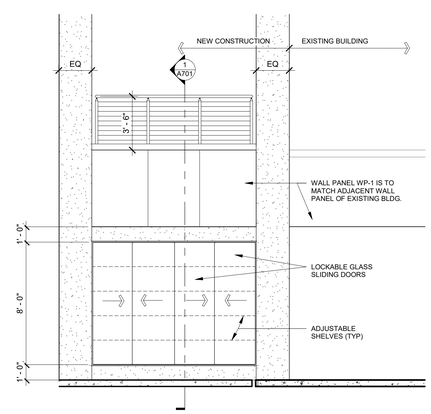
8 SECTION THRU DISPLAY CASE
1" = 1'-0"



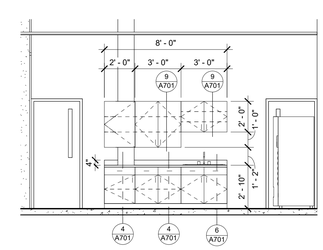
9 E. Wall LACTATION 225
1/4" = 1'-0"



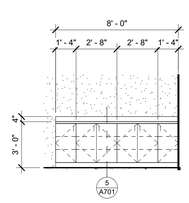
7 ELEV - MED SECT 224 W.
1/4" = 1'-0"



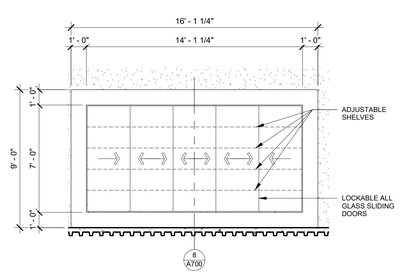
1 ELEV - LOBBY 101 W.
1/4" = 1'-0"



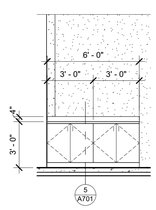
2 ELEV - BREAK RM 105 S.
1/4" = 1'-0"



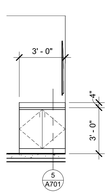
3 ELEV - LOBBY 200 W.
1/4" = 1'-0"



4 ELEV - CORRIDOR 201 W.
1/4" = 1'-0"



5 ELEV - CONF 207 N.
1/4" = 1'-0"



6 ELEV - CO B CONF 219 S.
1/4" = 1'-0"

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SHEET TITLE:

CASEWORK ELEVATIONS

SHEET NUMBER:

A700

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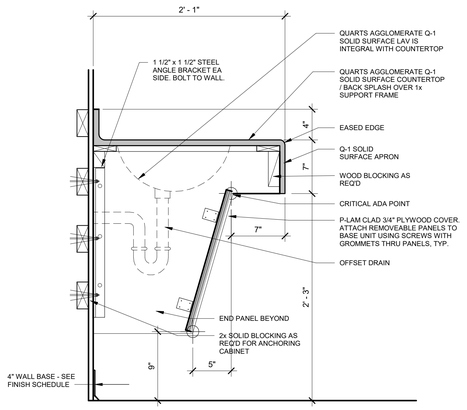
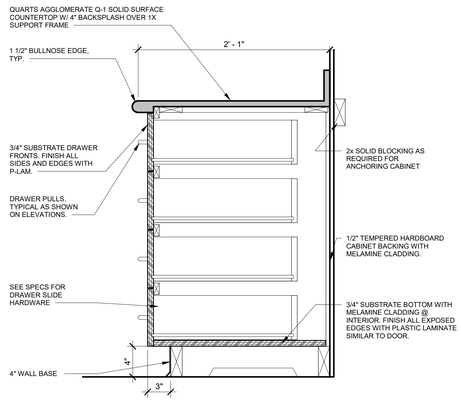
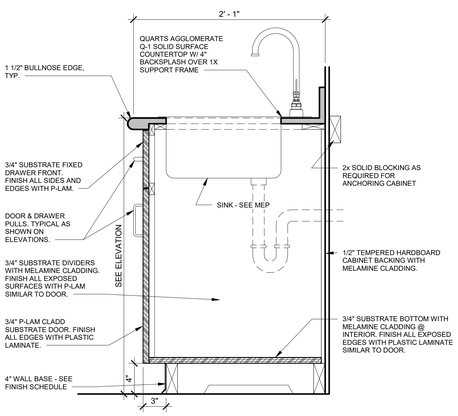


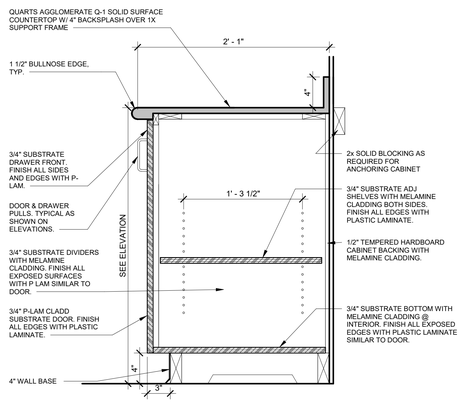
8 BASE CABINET - RESTROOM VANITY - ADA
1 1/2" = 1'-0"



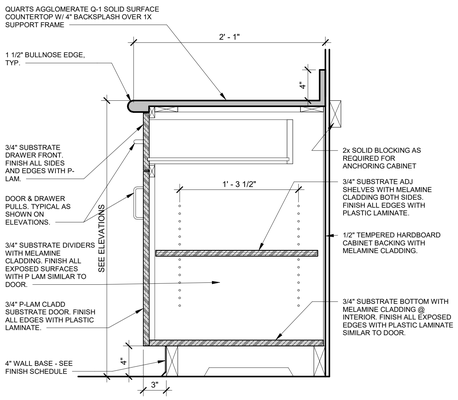
7 BASE CABINET - STACK OF 4 DRAWERS
1 1/2" = 1'-0"



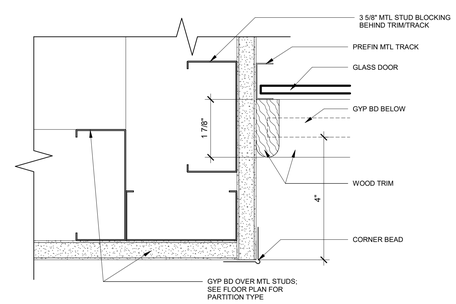
6 BASE CABINET - WITH SINK - DOORS AND DRAWER
1 1/2" = 1'-0"



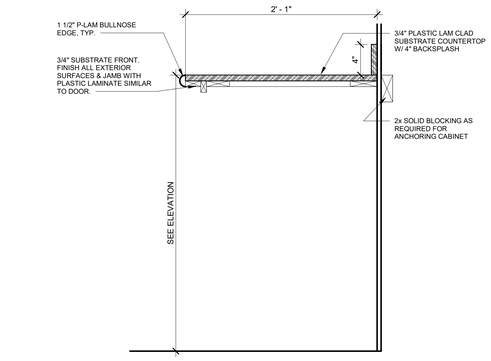
5 BASE CABINET - DOORS ONLY
1 1/2" = 1'-0"



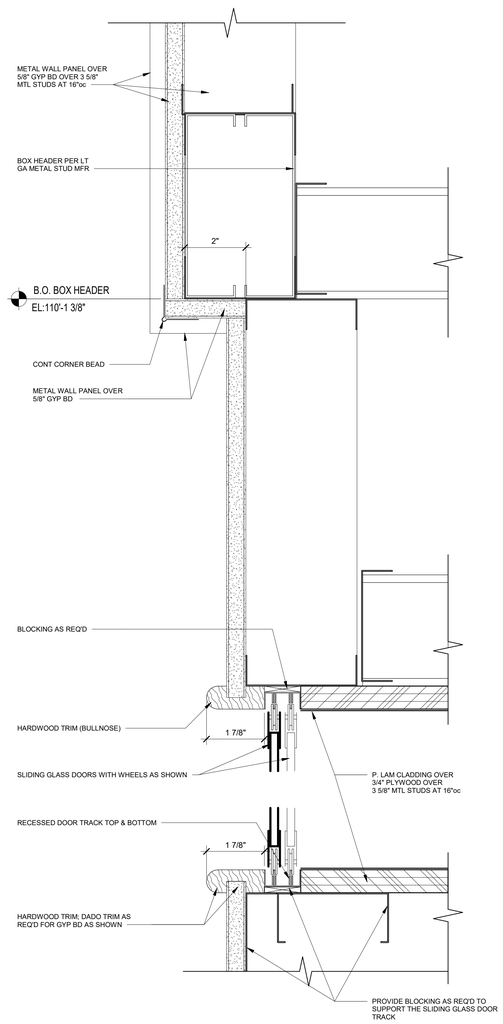
4 BASE CABINET - DOORS AND DRAWER
1 1/2" = 1'-0"



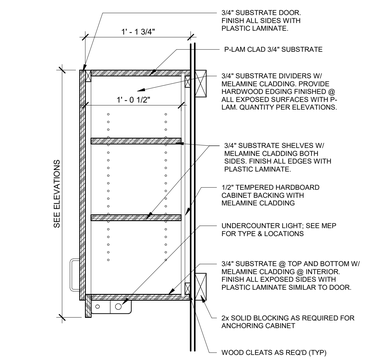
3 DETAIL
6" = 1'-0"



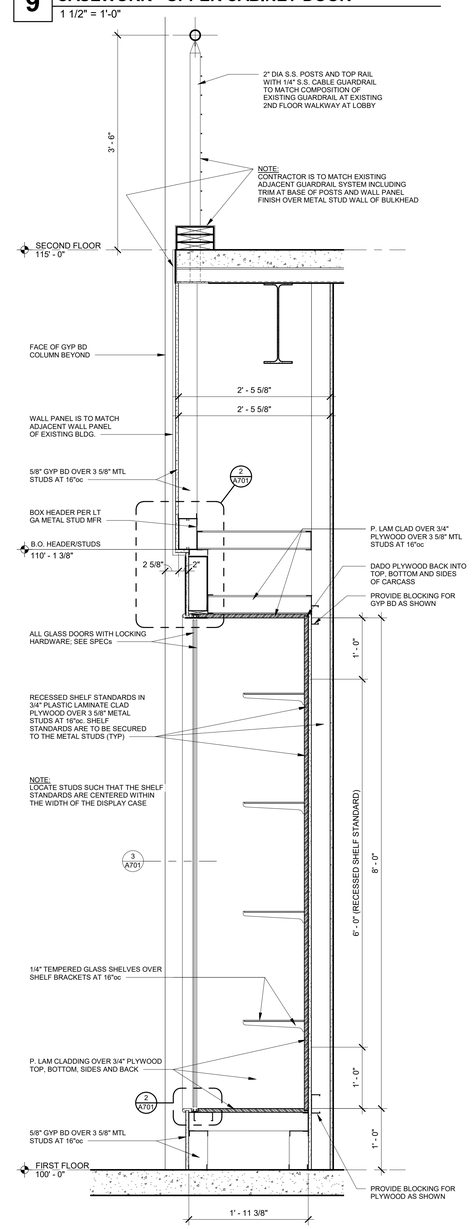
10 COUNTER OVER OPEN SPACE
1 1/2" = 1'-0"



2 DETAIL
6" = 1'-0"



9 CASEWORK - UPPER CABINET-DOOR
1 1/2" = 1'-0"



1 SECTION THRU DISPLAY CASE
1" = 1'-0"

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53 OF 131 SHEETS

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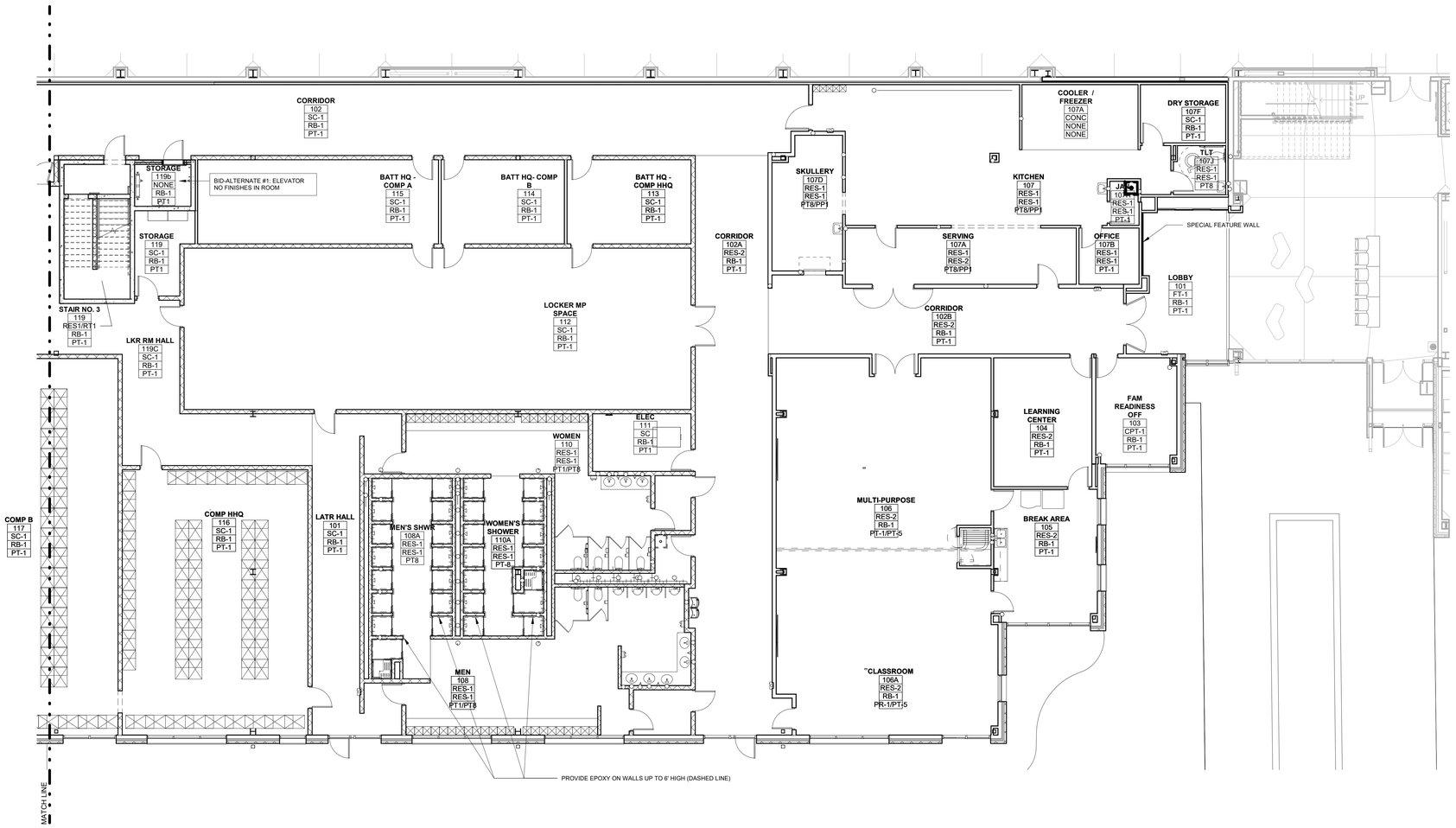

1 FIRST FLOOR FINISH PLAN - AREA A

1/8" = 1'-0"

GENERAL NOTES

1. INSTALL ALL PRODUCTS PER MANUFACTURER'S WRITTEN INSTALLATION INSTRUCTIONS. REFER TO SPECIFICATIONS FOR ADDITIONAL INFORMATION.
2. GROUT JOINTS AT ALL CERAMIC TILE FLOORS AND WALLS TO BE 1/8" U.N.O. GROUT SHALL BE SEALED AFTER SETTING TIME RECOMMENDED BY MANUFACTURER.
3. PROVIDE EXPANSION JOINTS AS RECOMMENDED BY MANUFACTURER WITH SEALANT TO MATCH GROUT JOINTS.
4. CONTRACTOR SHALL INQUIRE TO ARCHITECT FOR ANY AREAS WITH MISSING INFORMATION, OR WHERE FLOOR MATERIAL IS NOT INDICATED, PRIOR TO BIDDING. IN ALL CASES, ALL SPACES SHALL RECEIVE FINISHES.
5. THE ROOM FINISH KEY SCHEDULE DOES NOT INCLUDE EVERY ITEM WHICH MAY REQUIRE A COLOR ASSIGNMENT; THOSE ITEMS WILL HAVE COLOR SELECTIONS MADE THROUGH THE SUBMITTAL PROCESS, INCLUDING BUT NOT LIMITED TO, WOOD STAIN, VISUAL DISPLAY BOARDS, ACOUSTIC PANELS, ETC.
6. SEE SHEET A800 FOR CEILING TYPES.
7. SEE INTERIOR ELEVATIONS AND BUILDING SECTIONS FOR SPECIFIC LOCATIONS OF COLORS AND ADDITIONAL FINISH MATERIALS (E.G. TRIM, ETC.).
8. PROVIDE A TRANSITION STRIP AT ALL EDGES OF DISSIMILAR MATERIALS, E.G. TILE TO CARPET, TILE TO SEALED CONCRETE. COLOR AND PROFILE BY ARCHITECT. SEE COLOR SCHEDULE DOCUMENT, AND/OR SUBMIT PRODUCT SAMPLES FOR ARCHITECT'S SELECTION.
9. AT RESILIENT FLOORING, GRAIN DIRECTION SHALL MATCH EXISTING.
10. THE FOLLOWING ITEMS SHALL BE PAINTED TO MATCH ADJACENT WALLS, UNLESS NOTED OTHERWISE: AIR GRILLES, LOUVERS, ACCESS PANELS, ETC.
11. WALL FINISHES AS INDICATED ARE TO BE FULL HEIGHT (FLOOR TO CEILING) UNLESS NOTED OTHERWISE.
12. ALL INTERIOR SEALANT SHALL MATCH ADJACENT SURFACES UNLESS NOTED OTHERWISE. ALL JOINTS BETWEEN DISSIMILAR MATERIALS SHALL BE SEALED. SEAL ALL JOINTS AT COUNTERTOPS & BACKSPLASHES.
13. FOR BIDDING PURPOSES, FINISH PLANS INDICATE FLOOR PATTERNS THAT MAY BE REQUIRED. ACTUAL COLOR DESIGNATIONS AND FINAL MATERIAL SELECTIONS WILL BE ISSUED AS AN ARCHITECT'S SUPPLEMENTAL INSTRUCTIONS AT A LATER DATE. REFERENCE SPECS FOR MATERIALS.
14. LARGE SCALE CHECKER PATTERNS, AND OTHER REPEATED PATTERNS MAY NOT SHOW COLOR NUMBER FOR EVERY PIECE OF THE PATTERN. CONTRACTOR SHALL COMPLETE THE PATTERN WITH APPROPRIATE COLOR(S) AS ESTABLISHED BY THE GIVEN PATTERN.

FINISH MATERIALS LEGEND

ROOM NAME — ROOM NAME
101 — ROOM NUMBER
CPT2 — FLOOR FINISH
B2 — BASE FINISH
P12 — WALL FINISH

NOTE: SEE REFLECTED CEILING PLAN SHEETS FOR CEILING FINISHES.

CARPET
CPT-1: FIELD CARPET (OPEN OFFICE)
MANUFACTURER: ATLAS CARPET; STYLE: VEER PLANK TILE; STYLE NO: TM774
COLOR NAME: BALI SEA; COLOR NO: 09RE; SIZE: 12"X36" INSTALLATION: ASHLAR

CPT-2: OFFICES
MANUFACTURER: ATLAS CARPET; STYLE COLLECTION: TEMPO PLANK CARPET TILE: STYLE NAME: CHANGE OF PACE; COLOR NAME: BALI SEA; COLOR NO: 09MP; SIZE: 12"X36";
INSTALLATION: ASHLAR

CPT-3: NOT USED

CPT-4: CONFERENCE ROOMS
MANUFACTURER: TANDUS-CENTIVA; STYLE: COLORMAP; STYLE NO: 11130; COLOR NAME: LANDING ZONE; COLOR NO: 42808; INSTALLATION: ASHLAR VERTICAL

RESILIENT TILE FLOORING

FT-1
MANUFACTURER: RASKEN GORILLA FLOORING; SERIES: STUDIO ELEVATIONS TILE; STYLE: CHELSEA; COLOR NO: ELEV-102; SIZE: 12"X24"; WEAR LAYER: 20MIL WEAR LAYER

WALL BASE/RUBBER BASE

RB-1
MANUFACTURER: TARKET/JOHNSONITE; SERIES: RUBBER WALL BASE; COLOR NAME: BLACK; COLOR NO: 40; HEIGHT: 4"; INSTALL: ROLL LENGTH

RESINOUS FLOOR

RES-1
MANUFACTURER: DUR A FLEX; SEREIES: HYBRI FLEX EC; COLOR NAME: COBBLESTONE; DUR A GLAZE, #4 TOPCOAT ARMOR TOP GLOSS W/GRIT

RES-2
MANUFACTURER: DUR A FLEX; SERIES: HYBRI FLEX EC; COLOR NAME: COBALT, DUR A GLAZE, #4 TOPCOAT ARMOR TOP GLOSS W/GRIT

SEALED CONCRETE
SC-1: POLISHED CONCRETE

TREADS, RISERS, AND STRINGERS AT STAIRWAYS AND RAMPS
R-1: RUBBER STAIR TREADS AND RISERS
MANUFACTURER:
TREAD AND RAMP TEXTURE: _____
RISER TEXTURE:
PROVIDE MATCHING RUBBER STRINGERS
FULL WIDTH OF TREAD, NO SEAMS. COLOR TO BE SELECTED BY ARCHITECT FROM MANUFACTURER'S FULL RANGE OF COLORS.

WALLS/PARTITIONS
INTERIOR PAINT

PT-1
MANUFACTURER: SHERWIN WILLIAMS; COLOR NAME: AESTHETIC WHITE; COLOR NO: 7035; FINISH: FLAT

PT-2
MANUFACTURER: SHERWIN WILLIAMS: COLOR NAME: CEILING BRIGHT WHITE; COLOR NO: 70007; FINISH: FLAT

PT-3 NOT USED
PT-4 NOT USED

PT-5
MANUFACTURER: SHERWIN WILLIAMS; COLOR NAME: TONY TAUPE; COLOR NO: 7038; FINISH: FLAT

PT-6 NOT USED
PT-7 NOT USED

PT-8 (EPOXY)
MANUFACTURER: SHERWIN WILLIAMS; COLOR NAME: AESTHETIC WHITE; COLOR NO: 7035; FINISH: FLAT; LOCATIONS: WET WALL IN RESTROOMS

ARCHITECTURAL WALL ELEMENTS
(ARCHITECTURAL WOOD WORK)

WP-1
MANUFACTURER: MARLITE; SERIES: SIEVA WITH CP3 HIDDEN REVEAL; PANEL FINISH: FORMICA TERRIL 229F-PX-PLEX FINISH; DIMENSIONS: 24"X24"

PLASTIC LAMINATE- FACED ARCHITECTURAL CABINETS

PLAM-1
MANUFACTURER: WILSONART; COLOR NAME: SHAKER CHERRY; COLOR NO: 7935K-07; FINISH: TEXTURED GLOSS; LOCATION: CABINETS AND DOORS

QUARTZ AGGLOMERATE COUNTERTOPS

Q-1
MANUFACTURER: CAMBRIA; COLOR NAME: WINDMERE; COLOR NO: Q351; LOCATION: COUNTERTOPS; THICKNESS: 2CM (EASED EDGE)

SOLID SURFACE (WINDOW STOOLS)

SSM-1
MANUFACTURER: CORIAN; COLOR NAME: DESIGNER WHITE; LOCATION: WINDOW SILLS; THICKNESS 1CM

MISCELLANEOUS

METAL LOCKERS

L-1
MANUFACTURER: ART METAL PRODUCTS; COLOR NAME: GRAND SLAM; COLOR NO: 717

TOILET PARTITIONS

TP-1
MANUFACTURER: SCRANTON PRODUCTS; SEREIS: HINY HIDERS; COLOR: CHARCOAL GREY

OPERABLE PANEL PARTITION

OP-1
MANUFACTURER: AS SELECTED BY BIDDER; STYLE: PAIRED PANELS; PARTITION FINISH 1: FABRIC PANEL; PARTITION FINISH 2: FABRIC PANEL; FABRIC MANUFACTURER: DESIGNTEX; STYLE: TWIST; COLOR NO: ALUMINUM 4139-801; HINGES AND TRIM: RAL 7035; DOOR FINISH; LAMINATE TO MATCH RAL 7035

ROLLER WINDOW SHADES

WT-1
MANUFACTURER: HUNTER DOUGLAS; STYLE: GLACIERSCREEN CLEAR PLATINUM; OPENNESS FACTOR: 5%; FABRIC WIDTH: 98"; COLOR: WHITE/GREY

WT-2
MANUFACTURER: HUNTER DOUGLAS; STYLE: AVILA TWILIGHT; OPENNESS FACTOR: 0%; FABRIC WIDTH: 98"; COLOR: CHALK; ROOM DARKENING

ACOUSTICAL PANEL CEILINGS

SEE REFLECTED CEILING PLANS

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STATE OF MISSOURI
MICHAEL JAMES SAPP
NUMBER A-5051
REGISTERED ARCHITECT
2-25-2020

Michael James Sapp, Architect MO A-5051

TASMG READINESS CENTER

AVCRAD SITE
1107TH THEATER AVIATION SUSTAINMENT MAINTENANCE GROUP

MISSOURI NATIONAL GUARD
SPRINGFIELD, MISSOURI

NATIONAL GUARD BUREAU PROJECT #290186
MISSOURI NATIONAL GUARD PROJECT #T1809-01
SITE #9019
ASSET #8136270008

DRAWN BY: BS
CHECKED BY: ST
DESIGNED BY: JM

REVISION:
DATE:
REVISION:
DATE:
REVISION:
DATE:
ISSUED DATE: 26 FEBRUARY 2020

SHEET TITLE:

FIRST FLOOR INTERIOR FINISH PLAN - AREA A

SHEET NUMBER:

A810

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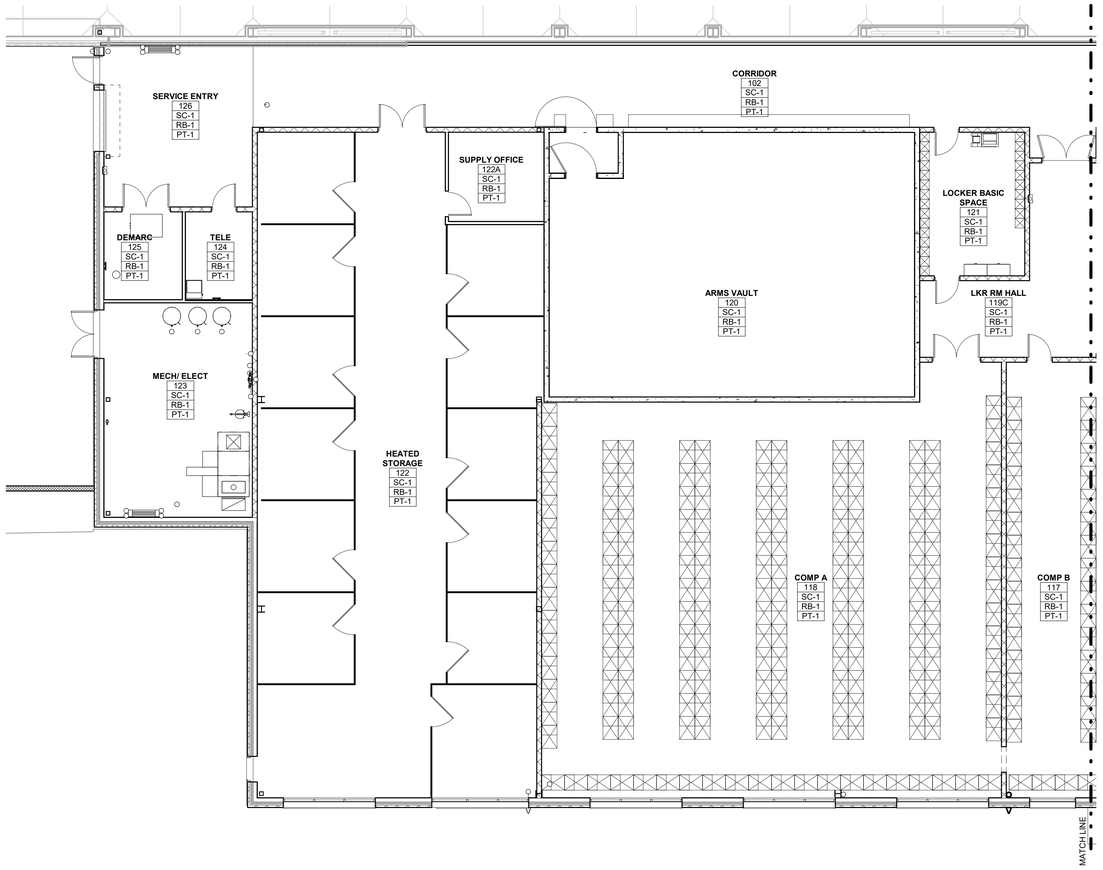

1 **FIRST FLOOR FINISH PLAN - AREA B**
1/8" = 1'-0"

GENERAL NOTES

1. INSTALL ALL PRODUCTS PER MANUFACTURER'S WRITTEN INSTALLATION INSTRUCTIONS. REFER TO SPECIFICATIONS FOR ADDITIONAL INFORMATION.
2. GROUT JOINTS AT ALL CERAMIC TILE FLOORS AND WALLS TO BE 1/8" U.N.O. GROUT SHALL BE SEALED AFTER SETTING TIME RECOMMENDED BY MANUFACTURER.
3. PROVIDE EXPANSION JOINTS AS RECOMMENDED BY MANUFACTURER WITH SEALANT TO MATCH GROUT JOINTS.
4. CONTRACTOR SHALL INQUIRE TO ARCHITECT FOR ANY AREAS WITH MISSING INFORMATION, OR WHERE FLOOR MATERIAL IS NOT INDICATED, PRIOR TO BIDDING. IN ALL CASES, ALL SPACES SHALL RECEIVE FINISHES.
5. THE ROOM FINISH KEY SCHEDULE DOES NOT INCLUDE EVERY ITEM WHICH MAY REQUIRE A COLOR ASSIGNMENT; THOSE ITEMS WILL HAVE COLOR SELECTIONS MADE THROUGH THE SUBMITTAL PROCESS, INCLUDING BUT NOT LIMITED TO, WOOD STAIN, VISUAL DISPLAY BOARDS, ACOUSTIC PANELS, ETC.
6. SEE SHEET A600 FOR CEILING TYPES.
7. SEE INTERIOR ELEVATIONS AND BUILDING SECTIONS FOR SPECIFIC LOCATIONS OF COLORS AND ADDITIONAL FINISH MATERIALS (E.G. TRIM, ETC.).
8. PROVIDE A TRANSITION STRIP AT ALL EDGES OF DISSIMILAR MATERIALS, E.G. TILE TO CARPET, TILE TO SEALED CONCRETE. COLOR AND PROFILE BY ARCHITECT. SEE COLOR SCHEDULE DOCUMENT, AND/OR SUBMIT PRODUCT SAMPLES FOR ARCHITECT'S SELECTION.
9. AT RESILIENT FLOORING, GRAIN DIRECTION SHALL MATCH EXISTING.
10. THE FOLLOWING ITEMS SHALL BE PAINTED TO MATCH ADJACENT WALLS, UNLESS NOTED OTHERWISE: AIR GRILLES, LOUVERS, ACCESS PANELS, ETC.
11. WALL FINISHES AS INDICATED ARE TO BE FULL HEIGHT (FLOOR TO CEILING) UNLESS NOTED OTHERWISE.
12. ALL INTERIOR SEALANT SHALL MATCH ADJACENT SURFACES UNLESS NOTED OTHERWISE. ALL JOINTS BETWEEN DISSIMILAR MATERIALS SHALL BE SEALED. SEAL ALL JOINTS AT COUNTERTOPS & BACKSPLASHES.
13. FOR BIDDING PURPOSES, FINISH PLANS INDICATE FLOOR PATTERNS THAT MAY BE REQUIRED. ACTUAL COLOR DESIGNATIONS AND FINAL MATERIAL SELECTIONS WILL BE ISSUED AS AN ARCHITECT'S SUPPLEMENTAL INSTRUCTIONS AT A LATER DATE. REFERENCE SPECS FOR MATERIALS.
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FINISH MATERIALS LEGEND

ROOM NAME	ROOM NAME
101	ROOM NUMBER
CPT2	FLOOR FINISH
B2	BASE FINISH
P12	WALL FINISH

NOTE: SEE REFLECTED CEILING PLAN SHEETS FOR CEILING FINISHES.

CARPET
CPT-1: FIELD CARPET (OPEN OFFICE)
MANUFACTURER: ATLAS CARPET; STYLE: VEER PLANK TILE; STYLE NO: TM774
COLOR NAME: BALI SEA; COLOR NO: 09RE; SIZE: 12"X36" INSTALLATION: ASHLAR

CPT-2: OFFICES
MANUFACTURER: ATLAS CARPET; STYLE COLLECTION: TEMPO PLANK CARPET TILE; STYLE NAME: CHANGE OF PACE; COLOR NAME: BALI SEA; COLOR NO: 09MP; SIZE: 12"X36"; INSTALLATION: ASHLAR

CPT-3: NOT USED

CPT-4: CONFERENCE ROOMS
MANUFACTURER: TANDUS CENTIVA; STYLE: COLORMAP; STYLE NO: 11130; COLOR NAME: LANDING ZONE; COLOR NO: 42808; INSTALLATION: ASHLAR VERTICAL

RESILIENT TILE FLOORING

FT-1
MANUFACTURER: RASKEN GORILLA FLOORING; SERIES: STUDIO ELEVATIONS TILE; STYLE: CHELSEA; COLOR NO: ELEV-102; SIZE: 12"X24"; WEAR LAYER: 20MIL WEAR LAYER

WALL BASE/RUBBER BASE

RB-1
MANUFACTURER: TARKETI/JOHNSONITE; SERIES: RUBBER WALL BASE; COLOR NAME: BLACK; COLOR NO: 40; HEIGHT: 4"; INSTALL: ROLL LENGTH

RESINOUS FLOOR

RES-1
MANUFACTURER: DUR A FLEX; SEREIES: HYBRI FLEX EC; COLOR NAME: COBBLESTONE; DUR A GLAZE, #4 TOPCOAT ARMOR TOP GLOSS W/GRIT

RES-2
MANUFACTURER: DUR A FLEX; SERIES: HYBRI FLEX EC; COLOR NAME: COBALT, DUR A GLAZE, #4 TOPCOAT ARMOR TOP GLOSS W/GRIT

SEALED CONCRETE
SC-1: POLISHED CONCRETE

TREADS, RISERS, AND STRINGERS AT STAIRWAYS AND RAMPS
R-1: RUBBER STAIR TREADS AND RISERS
MANUFACTURER:
TREAD AND RAMP TEXTURE: _____
RISER TEXTURE:
PROVIDE MATCHING RUBBER STRINGERS
FULL WIDTH OF TREAD, NO SEAMS. COLOR TO BE SELECTED BY ARCHITECT FROM MANUFACTURER'S FULL RANGE OF COLORS.

WALLS/PARTITIONS
INTERIOR PAINT

PT-1
MANUFACTURER: SHERWIN WILLIAMS; COLOR NAME: AESTHETIC WHITE; COLOR NO: 7035; FINISH: FLAT

PT-2
MANUFACTURER: SHERWIN WILLIAMS: COLOR NAME: CEILING BRIGHT WHITE; COLOR NO: 70007; FINISH: FLAT

PT-3 NOT USED
PT-4 NOT USED

PT-5
MANUFACTURER: SHERWIN WILLIAMS; COLOR NAME: TONY TAUPE; COLOR NO: 7038; FINISH: FLAT

PT-6 NOT USED
PT-7 NOT USED

PT-8 (EPOXY)
MANUFACTURER: SHERWIN WILLIAMS; COLOR NAME: AESTHETIC WHITE; COLOR NO: 7035; FINISH: FLAT; LOCATIONS: WET WALL IN RESTROOMS

ARCHITECTURAL WALL ELEMENTS
(ARCHITECTURAL WOOD WORK)

WP-1
MANUFACTURER: MARLITE; SERIES: SIEVA WITH CP3 HIDDEN REVEAL; PANEL FINISH: FORMICA TERRIL 2297-PX-PLEX FINISH; DIMENSIONS: 24"X24"

PLASTIC LAMINATE- FACED ARCHITECTURAL CABINETS

PLAM-1
MANUFACTURER: WILSONART; COLOR NAME: SHAKER CHERRY; COLOR NO: 7935K-07; FINISH: TEXTURED GLOSS; LOCATION: CABINETS AND DOORS

QUARTZ AGGLOMERATE COUNTERTOPS

Q-1
MANUFACTURER: CAMBRIA; COLOR NAME: WINDMERE; COLOR NO: Q351; LOCATION: COUNTERTOPS, THICKNESS: 2CM (EASED EDGE)

SOLID SURFACE (WINDOW STOOLS)

SSM-1
MANUFACTURER: CORIAN; COLOR NAME: DESIGNER WHITE; LOCATION: WINDOW SILLS; THICKNESS 1CM

MISCELLANEOUS

METAL LOCKERS

L-1
MANUFACTURER: ART METAL PRODUCTS; COLOR NAME: GRAND SLAM; COLOR NO: 717

TOILET PARTITIONS

TP-1
MANUFACTURER: SCRANTON PRODUCTS; SEREIS: HINY HIDERS; COLOR: CHARCOAL GREY

OPERABLE PANEL PARTITION

OP-1
MANUFACTURER: AS SELECTED BY BIDDER; STYLE: PAIRED PANELS; PARTITION FINISH 1: FABRIC PANEL; PARTITION FINISH 2: FABRIC PANEL; FABRIC MANUFACTURER: DESIGNTEX; STYLE: TWIST; COLOR NO: ALUMINUM 4139-801; HINGES AND TRIM: RAL 7035; DOOR FINISH: LAMINATE TO MATCH RAL 7035

ROLLER WINDOW SHADES

WT-1
MANUFACTURER: HUNTER DOUGLAS; STYLE: GLACIERSCREEN CLEAR PLATINUM; OPENNESS FACTOR: 5%; FABRIC WIDTH: 98"; COLOR: WHITE/GREY

WT-2
MANUFACTURER: HUNTER DOUGLAS; STYLE: AVILA TWILIGHT; OPENNESS FACTOR: 0%; FABRIC WIDTH: 98"; COLOR: CHALK, ROOM DARKENING

ACOUSTICAL PANEL CEILINGS

SEE REFLECTED CEILING PLANS

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MICHAEL JAMES SAPP
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REGISTERED ARCHITECT
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MISSOURI NATIONAL GUARD
SPRINGFIELD, MISSOURI

NATIONAL GUARD BUREAU PROJECT #290186
MISSOURI NATIONAL GUARD PROJECT #T1809-01
SITE #9019
ASSET #8136270008

DRAWN BY: BS
CHECKED BY: ST
DESIGNED BY: JM

REVISION:
DATE:
REVISION:
DATE:
REVISION:
DATE:
ISSUED DATE: 26 FEBRUARY 2020

SHEET TITLE:

FIRST FLOOR INTERIOR FINISH PLAN - AREA B

SHEET NUMBER:

A811

55 OF 131 SHEETS

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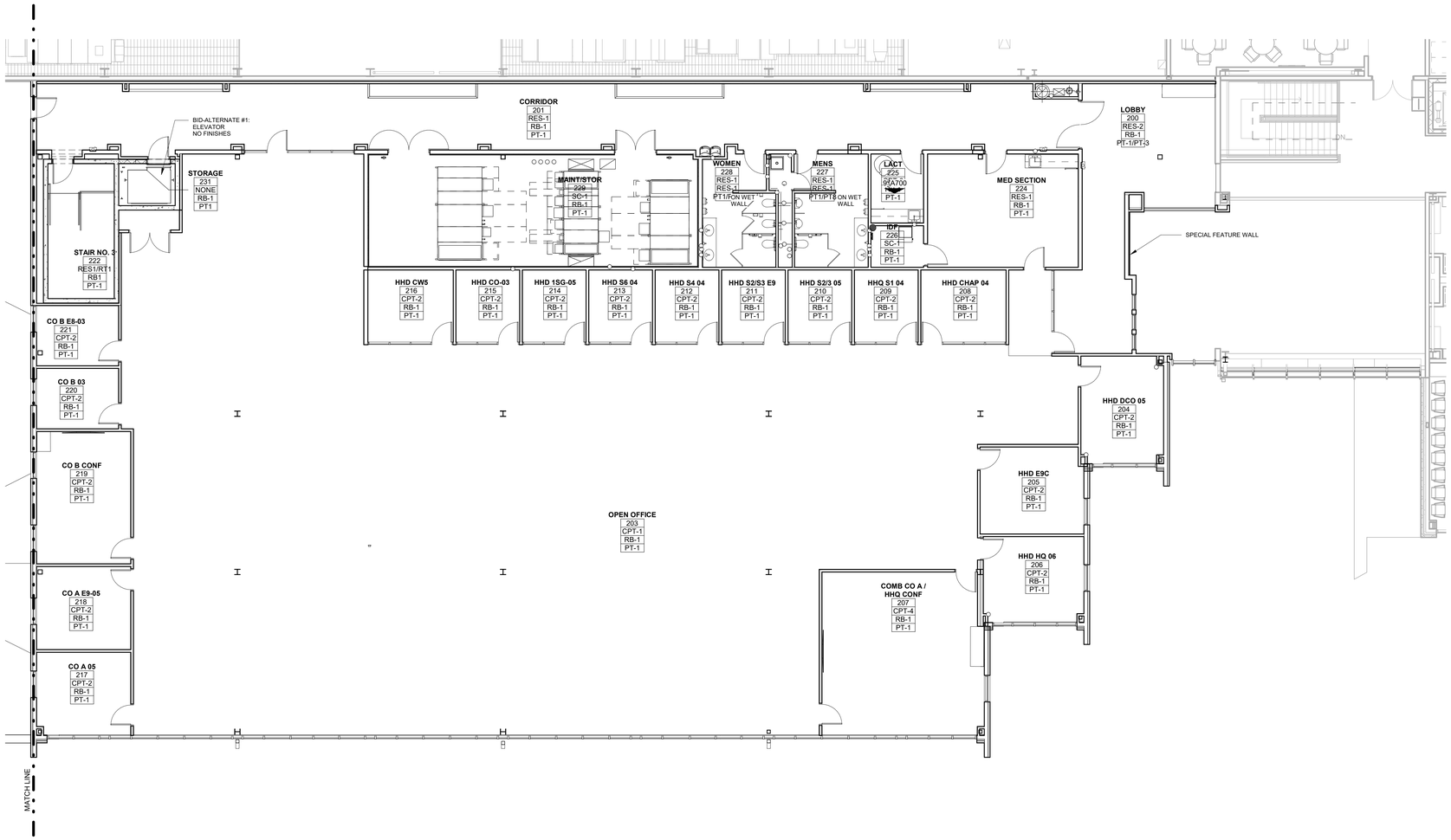

1 **SECOND FLOOR FINISH PLAN**
1/8" = 1'-0"

GENERAL NOTES

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101	ROOM NUMBER
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B2	BASE FINISH
P12	WALL FINISH

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MANUFACTURER: ATLAS CARPET; STYLE: VEER PLANK TILE; STYLE NO: TM774
COLOR NAME: BALI SEA; COLOR NO: 09RE; SIZE: 12"X36" INSTALLATION: ASHLAR

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MANUFACTURER: ATLAS CARPET; STYLE COLLECTION: TEMPO PLANK CARPET TILE: STYLE NAME: CHANGE OF PACE; COLOR NAME: BALI SEA; COLOR NO: 09MP; SIZE: 12"X36"; INSTALLATION: ASHLAR

CPT-3: NOT USED

CPT-4: CONFERENCE ROOMS
MANUFACTURER: TANDUS CENTIVA; STYLE: COLORMAP; STYLE NO: 11130; COLOR NAME: LANDING ZONE; COLOR NO: 42808; INSTALLATION: ASHLAR VERTICAL

RESILIENT TILE FLOORING

FT-1
MANUFACTURER: RASKEN GORILLA FLOORING; SERIES: STUDIO ELEVATIONS TILE; STYLE: CHELSEA; COLOR NO: ELEV-102; SIZE: 12"X24"; WEAR LAYER: 20MIL WEAR LAYER

WALL BASE/RUBBER BASE

RB-1
MANUFACTURER: TARKET/JOHNSONITE; SERIES: RUBBER WALL BASE; COLOR NAME: BLACK; COLOR NO: 40; HEIGHT: 4"; INSTALL: ROLL LENGTH

RESINOUS FLOOR

RES-1
MANUFACTURER: DUR A FLEX; SEREIES: HYBRI FLEX EC; COLOR NAME: COBBLESTONE; DUR A GLAZE: #4 TOPCOAT ARMOR TOP GLOSS W/GRIT

RES-2
MANUFACTURER: DUR A FLEX; SERIES: HYBRI FLEX EC; COLOR NAME: COBALT, DUR A GLAZE, #4 TOPCOAT ARMOR TOP GLOSS W/GRIT

SEALED CONCRETE
SC-1: POLISHED CONCRETE

TREADS, RISERS, AND STRINGERS AT STAIRWAYS AND RAMPS
R-1: RUBBER STAIR TREADS AND RISERS
MANUFACTURER:
TREAD AND RAMP TEXTURE: _____
RISER TEXTURE:
PROVIDE MATCHING RUBBER STRINGERS
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WALLS/PARTITIONS
INTERIOR PAINT

PT-1
MANUFACTURER: SHERWIN WILLIAMS; COLOR NAME: AESTHETIC WHITE; COLOR NO: 7035; FINISH: FLAT

PT-2
MANUFACTURER: SHERWIN WILLIAMS: COLOR NAME: CEILING BRIGHT WHITE; COLOR NO: 70007; FINISH: FLAT

PT-3 NOT USED
PT-4 NOT USED

PT-5
MANUFACTURER: SHERWIN WILLIAMS; COLOR NAME: TONY TAUPE; COLOR NO: 7038; FINISH: FLAT

PT-6 NOT USED
PT-7 NOT USED

PT-8 (EPOXY)
MANUFACTURER: SHERWIN WILLIAMS; COLOR NAME: AESTHETIC WHITE; COLOR NO: 7035; FINISH: FLAT; LOCATIONS: WET WALL IN RESTROOMS

ARCHITECTURAL WALL ELEMENTS
(ARCHITECTURAL WOOD WORK)

WP-1
MANUFACTURER: MARLITE; SERIES: SIEVA WITH CP3 HIDDEN REVEAL; PANEL FINISH: FORMICA TERRIL 2297-PX-PLEX FINISH; DIMENSIONS: 24"X24"

PLASTIC LAMINATE- FACED ARCHITECTURAL CABINETS

PLAM-1
MANUFACTURER: WILSONART; COLOR NAME: SHAKER CHERRY; COLOR NO: 7935K-07; FINISH: TEXTURED GLOSS; LOCATION: CABINETS AND DOORS

QUARTZ AGGLOMERATE COUNTERTOPS

Q-1
MANUFACTURER: CAMBRIA; COLOR NAME: WINDMERE; COLOR NO: Q351; LOCATION: COUNTERTOPS. THICKNESS: 2CM (EASED EDGE)

SOLID SURFACE (WINDOW STOOLS)

SSM-1
MANUFACTURER: CORIAN; COLOR NAME: DESIGNER WHITE; LOCATION: WINDOW SILLS; THICKNESS 1CM

MISCELLANEOUS

METAL LOCKERS

L-1
MANUFACTURER: ART METAL PRODUCTS; COLOR NAME: GRAND SLAM; COLOR NO: 717

TOILET PARTITIONS

TP-1
MANUFACTURER: SCRANTON PRODUCTS; SEREIS: HINY HIDERS; COLOR: CHARCOAL GREY

OPERABLE PANEL PARTITION

OP-1
MANUFACTURER: AS SELECTED BY BIDDER; STYLE: PAIRED PANELS; PARTITION FINISH 1: FABRIC PANEL; PARTITION FINISH 2: FABRIC PANEL; FABRIC MANUFACTURER: DESIGNTEX; STYLE: TWIST; COLOR NO: ALUMINUM 4139-801; HINGES AND TRIM: RAL 7035; DOOR FINISH; LAMINATE TO MATCH RAL 7035

ROLLER WINDOW SHADES

WT-1
MANUFACTURER: HUNTER DOUGLAS; STYLE: GLACIERSCREEN CLEAR PLATINUM; OPENNESS FACTOR: 5%; FABRIC WIDTH: 98"; COLOR: WHITE/GREY

WT-2
MANUFACTURER: HUNTER DOUGLAS; STYLE: AVILA TWILIGHT; OPENNESS FACTOR: 0%; FABRIC WIDTH: 98"; COLOR: CHALK; ROOM DARKENING

ACOUSTICAL PANEL CEILINGS

SEE REFLECTED CEILING PLANS

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Architect of Record
STATE OF MISSOURI
MICHAEL JAMES SAPP
NUMBER A-5051
REGISTERED ARCHITECT
2-25-2020

Michael James Sapp, Architect MO A-5051

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SPRINGFIELD, MISSOURI

NATIONAL GUARD BUREAU PROJECT #290186
MISSOURI NATIONAL GUARD PROJECT #T1809-01
SITE #9019
ASSET #8136270008

DRAWN BY: BS
CHECKED BY: ST
DESIGNED BY: JM

REVISION:
DATE:
REVISION:
DATE:
REVISION:
DATE:
ISSUED DATE: 26 FEBRUARY 2020

SHEET TITLE:

SECOND FLOOR INTERIOR FINISH PLAN

SHEET NUMBER:

A820

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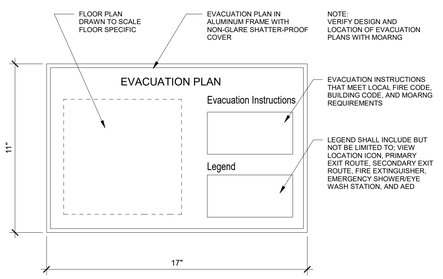
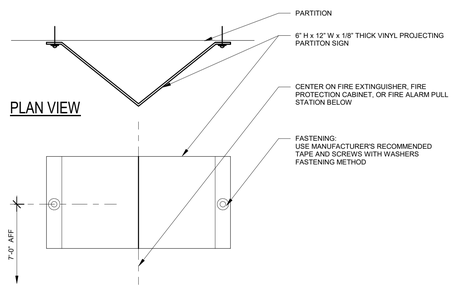
9 SIGN TYPE SFA
1 1/2" = 1'-0"

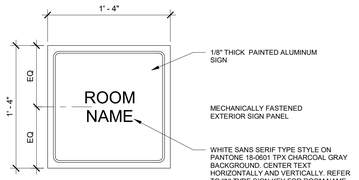


8 SIGN TYPE EV
NOT TO SCALE

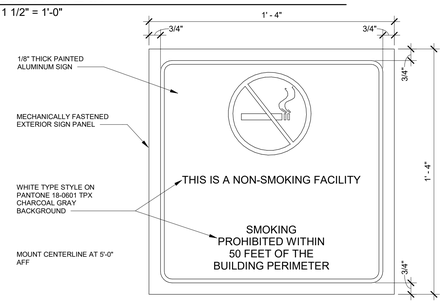


NOTES:
SIGN BASIS OF DESIGN MANUFACTURER: Safehouse Signs, Inc. (OR APPROVED EQUAL)
AT FIRE EXTINGUISHERS: PRODUCT - PWS 12
AT AED: PRODUCT - PWS 100

10 FIRE EXTINGUISHER / AED SIGN
3" = 1'-0"



7 SIGN TYPE IN
1 1/2" = 1'-0"



6 SIGN TYPE IN-4
3" = 1'-0"

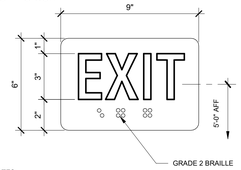
HYDRAULIC SYSTEM
THIS BUILDING IS PROTECTED A HYDRAULICALLY DESIGNED AUTOMATIC SPRINKLER SYSTEM

LOCATION
OCCUPANCY CLASSIFICATION
NO. OF SPRINKLERS BASIS FOR DESIGN
1. DENSITY
2. DESIGNED AREA OF DISCHARGE

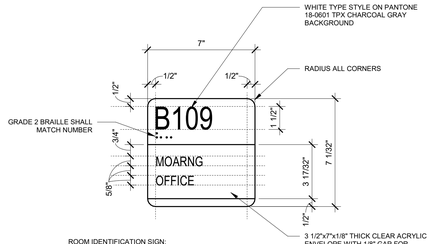
SYSTEM DEMAND
1. WATER FLOW RATE
2. RESIDUAL PRESSURE AT THE BASE OF THE RISER
3. STATIC PRESSURE
4. HOSE STREAM ALLOWANCE

1/8" THICK PAINTED ALUMINUM SIGN
MECHANICALLY APPLIED INTERIOR SIGN PANEL
WHITE TYPE STYLE ON PANTONE 18-0601 TPX CHARCOAL GRAY BACKGROUND
INSTALLING CONTRACTOR SHALL FILL IN VALUES INCLUDING NAME OF INSTALLING CONTRACTOR
NOTE: SIGN SHALL COMPLY WITH 2016 NFPA 13.25.5

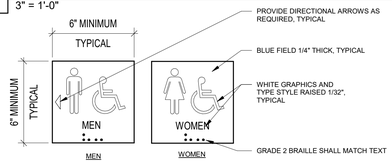
5 SIGN TYPE IN-3
NOT TO SCALE



NOTES:
1. SIGN SHALL BE ACRYLIC
2. PROVIDE 1/32" HIGH RAISED CHARACTERS
3. SANS SERIF TYPE STYLE
4. CHARACTER SHALL BE WHITE ON PANTONE 18-1222 TPX NUTMEG BROWN BACKGROUND
5. ON GLASS APPLICATIONS PROVIDE BLANK COVERS ON OPPOSITE SIDE
6. CENTER SIGN ON DOOR



3 SIGN TYPE RI
3" = 1'-0"



NOTES:
1. PROVIDE APPROPRIATE GEOMETRIC SYMBOL LOCATED ON THE PARTITION ADJACENT TO THE LATCH SIDE THE ENTRANCE DOOR AT A HEIGHT OF 60" TO THE CENTER OF THE SYMBOL. THE COLOR AND CONTRAST OF THE SYMBOL SHALL BE DISTINCTLY DIFFERENT FROM THE COLOR OF THE DOOR.
2. SIGN SHALL BE ACRYLIC.
3. PROVIDE 1/32" HIGH RAISED CHARACTERS AND SYMBOLS.
4. WHERE THERE IS NO WALL SPACE ON THE LATCH SIDE, PLACE SIGN ON THE NEAREST ADJACENT WALL. LOCATE SIGNS SO THAT A PERSON MAY APPROACH WITHIN 3 INCHES OF SIGNAGE WITHOUT ENCOUNTERING PROTRUDING OBJECTS OR STANDING WITHIN THE SWING OF A DOOR.
5. SANS SERIF TYPE STYLE.
6. MINIMUM GRAPHICS HEIGHT 3".

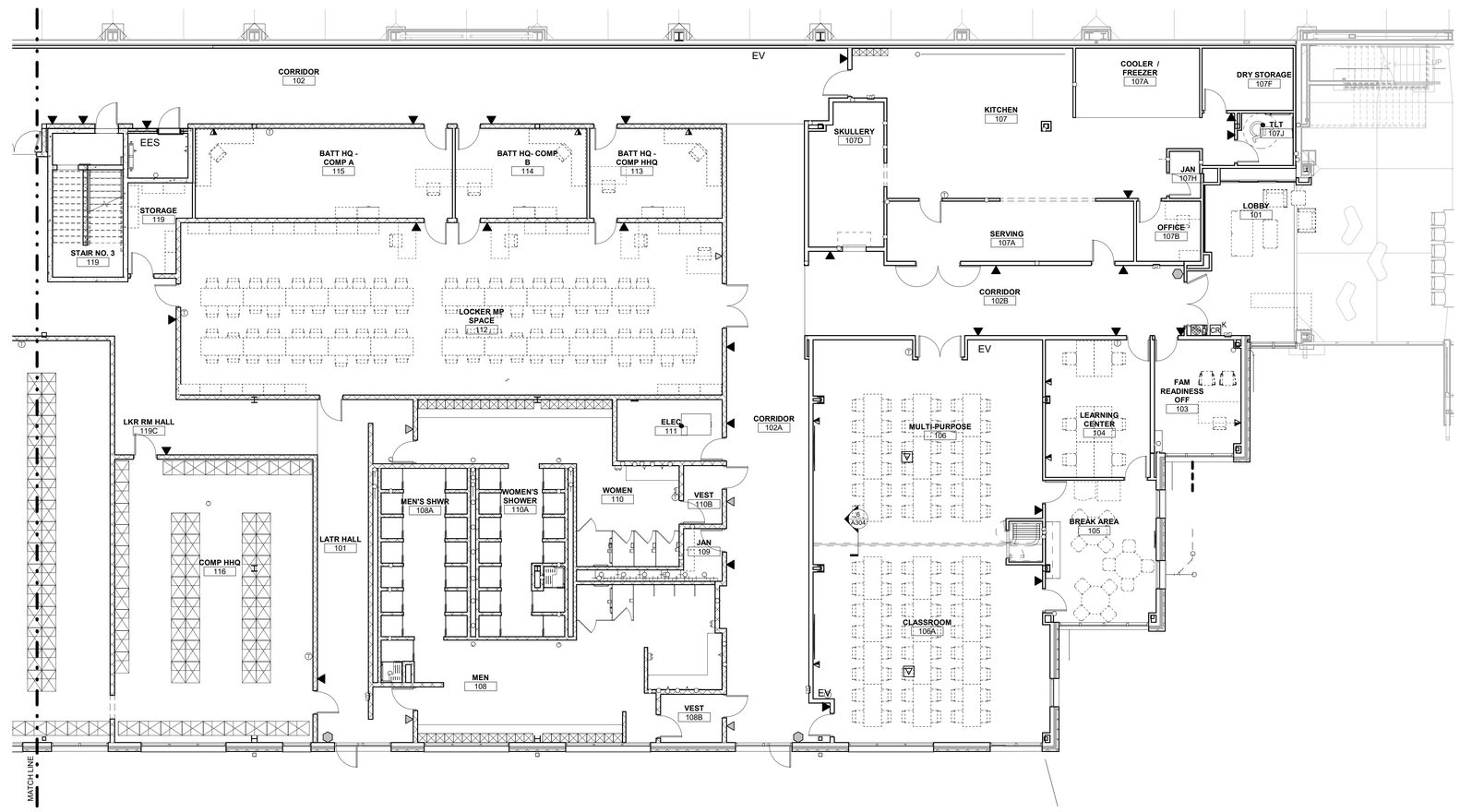
4 SIGN TYPE TE
3" = 1'-0"

2 SIGN TYPE TR
NOT TO SCALE

SIGN TYPE LEGEND

- RI - ROOM IDENTITY - SEE DETAIL 3/A910
- TR - TOILET ROOM IDENTITY - SEE DETAIL 2/A910
- TE - TACTILE EXIT SIGN - SEE DETAIL 4/A910
- EV - EVACUATION PLAN - SEE DETAIL 8/A910
- SFA - SPRINKLER FIRE ALARM - SEE DETAIL 9/A910
- IN - INFORMATIONAL SIGN - SEE DETAILS 5, 6, 7/A910
- EES - ELEVATOR EMERGENCY SIGN

SIGNAGE NOTES:
1. PROVIDE SIGN OVER EACH FIRE EXTINGUISHER AND AED. REFER TO DETAIL 10/A910. REFER TO FLOOR PLANS FOR LOCATIONS OF FIRE EXTINGUISHERS.
2. TITLE AND NAME WILL BE CONFIRMED TO CONTRACTOR BY MISSOURI ARMY NATIONAL GUARD AT TIME OF SHOP DRAWING DEVELOPMENT.
3. INTERIOR SIGN ADHESIVELY APPLIED TO FINISH GYPSUM BOARD OR CMU.
4. INTERIOR SIGN ADHESIVELY APPLIED TO GLAZING. PROVIDE BACK PLATE ON OPPOSITE SIDE OF GLAZING.



NOTE: FURNITURE SHOWN THIS PLAN W/ DASHED LINES IS FOR INFORMATION ONLY. IT IS NOT PART OF CONTRACT. MEP ROUGH-IN ONLY IS PART OF CONTRACT - SEE MEP SHEETS.

1 FIRST FLOOR SIGNAGE AND FURNITURE PLAN - AREA A
1/8" = 1'-0"

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2-25-2020
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1107TH THEATER AVIATION SUSTAINMENT MAINTENANCE GROUP

MISSOURI NATIONAL GUARD
SPRINGFIELD, MISSOURI

NATIONAL GUARD BUREAU PROJECT #290186
MISSOURI NATIONAL GUARD PROJECT #T1809-01
SITE #9019
ASSET #8136270008

DRAWN BY: BS
CHECKED BY: ST
DESIGNED BY: JM

REVISION:
DATE:
REVISION:
DATE:
REVISION:
DATE:
ISSUED DATE: 26 FEBRUARY 2020

SHEET TITLE:

FIRST FLOOR SIGNAGE AND FURNITURE PLAN AREA A

SHEET NUMBER:

A910

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SIGN TYPE LEGEND

▲	RI - ROOM IDENTITY - SEE DETAIL 3/A910
△	TR - TOILET ROOM IDENTITY - SEE DETAIL 2/A910
⬡	TE - TACTILE EXIT SIGN - SEE DETAIL 4/A910
EV	EV - EVACUATION PLAN - SEE DETAIL 8/A910
●	SFA - SPRINKLER FIRE ALARM - SEE DETAIL 9/A910
⬬	IN - INFORMATIONAL SIGN - SEE DETAILS 5, 6, 7/A910
EES	EES - ELEVATOR EMERGENCY SIGN

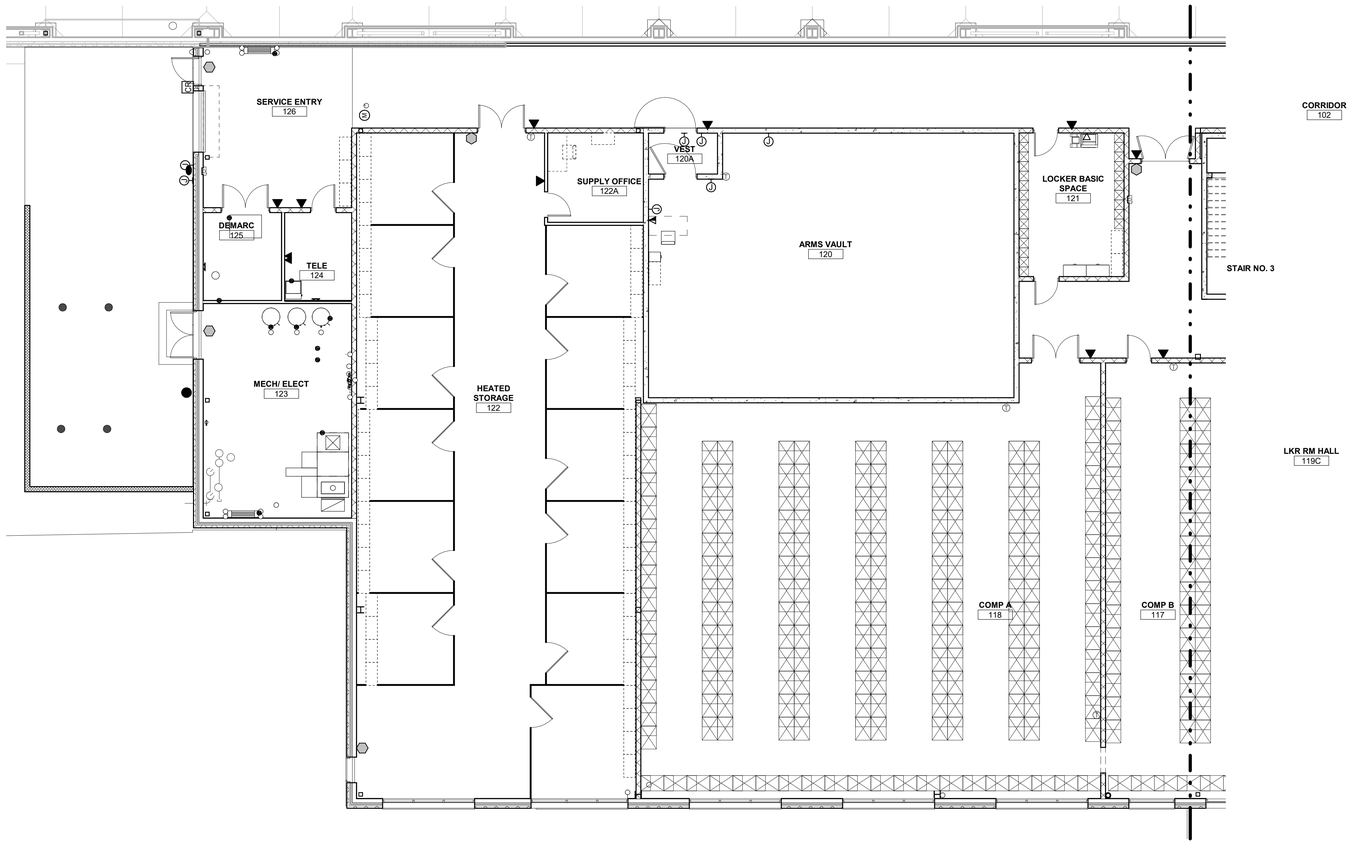
SIGNAGE NOTES:

1. PROVIDE SIGN OVER EACH FIRE EXTINGUISHER AND AED, REFER TO DETAIL 10/A910. REFER TO FLOOR PLANS FOR LOCATIONS OF FIRE EXTINGUISHERS.

2. TITLE AND NAME WILL BE CONFIRMED TO CONTRACTOR BY MISSOURI ARMY NATIONAL GUARD AT TIME OF SHOP DRAWING DEVELOPMENT.

3. INTERIOR SIGN ADHESIVELY APPLIED TO FINISH GYPSUM BOARD OR CMU.

4. INTERIOR SIGN ADHESIVELY APPLIED TO GLAZING. PROVIDE BACK PLATE ON OPPOSITE SIDE OF GLAZING.



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1 FIRST FLOOR SIGNAGE AND FURNITURE PLAN - AREA B
1/8" = 1'-0"

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ISSUED DATE: 26 FEBRUARY 2020

SHEET TITLE:

FIRST FLOOR SIGNAGE AND FURNITURE PLAN AREA B

SHEET NUMBER:

A911

58 OF 131 SHEETS

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SIGN TYPE LEGEND

▲	RI - ROOM IDENTITY - SEE DETAIL 3/A910
△	TR - TOILET ROOM IDENTITY - SEE DETAIL 2/A910
⬡	TE - TACTILE EXIT SIGN - SEE DETAIL 4/A910
EV	EV - EVACUATION PLAN - SEE DETAIL 8/A910
●	SFA - SPRINKLER FIRE ALARM - SEE DETAIL 9/A910
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EES	EES - ELEVATOR EMERGENCY SIGN

SIGNAGE NOTES:

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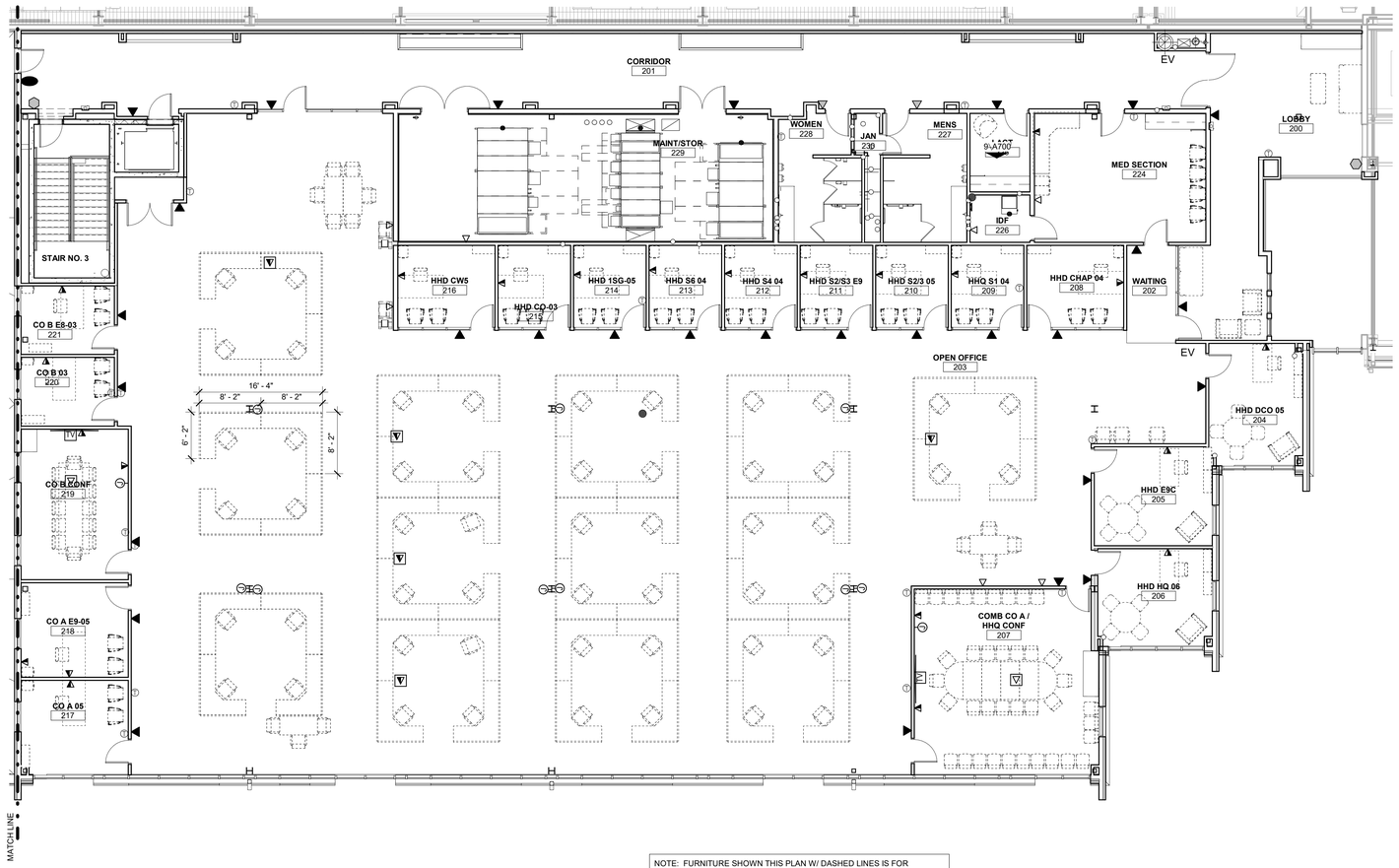

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1 **SECOND FLOOR SIGNAGE AND FURNITURE PLAN**
1/8" = 1'-0"

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DESIGNED BY: JM

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DATE:
ISSUED DATE: 26 FEBRUARY 2020

SHEET TITLE:

SECOND FLOOR SIGNAGE AND FURNITURE PLAN AREA A

SHEET NUMBER:

A920

59 OF 131 SHEETS

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BUILDING CODE AND STANDARDS

2018 INTERNATIONAL BUILDING CODE (IBC 2018)

STRUCTURAL DESIGN LOADS PER ASCE 7-16 (RISK CATEGORY II):

DEAD LOAD - ACTUAL WEIGHT OF MATERIALS USED ADDING THE FOLLOWING

ALLOWANCE FOR MEP	10 PSF
ALLOWANCE FOR FIRE PROTECTION	5 PSF
ALLOWANCE FOR ROOFING SYSTEM	11 PSF

FLOOR LIVE & MISC LOADS

1ST FLOOR CORRIDOR	100 PSF
CORRIDOR ABOVE 1ST FLOOR	80 PSF
OFFICE	50*PSF
PARTITIONS (WHERE LL < 80 PSF)	15 PSF
DINING ROOMS	100 PSF
OFFICE LOBBIES	100 PSF
SIDEWALKS	250 PSF
STAIRS AND EXITS	100 PSF
LIGHT STORAGE	125 PSF
MECHANICAL EQUIMENT ROOM	150 PSF OR EQUIP WT
CEILING	10 PSF
PARTITION (LATERAL LOAD)	5 PSF
RAILING (LATERAL LOAD AT TOP)	50 PLF OR 200# (CONCENTRATED)

*INDICATES REDUCIBLE LOAD

ROOF LIVE LOAD 20 PSF

SNOW DESIGN DATA

GROUND SNOW LOAD, P_G	20 PSF
FLAT ROOF SNOW LOAD, P_F	16 PSF
SNOW EXPOSURE FACOR, C_E	1.0
SNOW LOAD IMPORTANCE FACTOR, I_S	1.0
THERMAL FACTOR, C_T	1.0
DRIFT SURCHARGE LOAD	5 PSF
DRIFT WIDTH	3 FT

WIND DESIGN DATA

BASIC WIND SPEED, V_{ULT}/V_{ASD}	110 MPH/85 MPH
WIND EXPOSURE	C

EARTHQUAKE DESIGN DATA

SEISMIC IMPORTANCE FACTOR	1.0
SITE CLASS	C
SPECTRAL RESPONSE COEFFICIENTS	S_S = 0.185 g;S_1 = 0.101 g
DESIGN SPECTRAL RESPONSE COEFF'S	S_{DS} = 0.148 g; S_{D1} = 0.114 g
SEISMIC DESIGN CATEGORY	B
SEISMIC FORCE-RESISTING SYSTEM	STEEL SYSTEMS NOT SPECIFICALLY DETAILED FOR SEISMIC RESISTANCE
DESIGN BASE SHEAR	V_U = 94 K
SEISMIC RESPONSE COEFFICIENT	C_S = 0.062
RESPONSE MODIFICATION COEFFICIENT	R = 3
ANALYSIS PROCEDURE	EQUIVALENT LATERAL FORCE PROCEDURE

FOUNDATION

ALLOWABLE SOIL BEARING PRESSURE	2000 PSF CONTINUOUS FOOTINGS 2500 PSF ISOLATED FOOTINGS

MATERIAL DATA:

CONCRETE & REINFORCING

CONCRETE WEIGHT	ALL CONCRETE SHALL BE NORMAL-WEIGHT UNLESS NOTED OTHERWISE.
C.I.P. CONCRETE STRENGTH (MIN f'_c at 28 days)	4,000 PSI (AE) - EXTERIOR FOOTINGS AND FOUNDATION WALLS 4,000 PSI INTERIOR SLABS ON GRADE 4,000 PSI INTERIOR SLABS ON DECK
MAX WATER/CEMENT RATIO	0.45 UNLESS OTHERWISE NOTED
CEMENT TYPE	PORTLAND TYPE I/II - ASTM C150
AGGREGATES	REGULAR WEIGHT HARDROCK TYPE - ASTM C33
ADMIXTURES	ASTM C494
AIR-ENTRAINMENT	ASTM C260
REINFORCING STEEL	ASTM A615, GRADE 60, DEFORMED
PREFORMED EXPANSION JOINT(1/2")	ASTM D1751

STEEL

W SHAPES, WT SHAPES	ASTM A992
C AND MC SHAPES, ANGLES, PLATES	ASTM A36, GRADE 36
HSS SQUARE AND RECTANGULAR TUBES	ASTM A500 GRADE C, F_Y = 50 ksi
HSS ROUNDS	ASTM A500, GRADE C, F_Y = 46 ksi
PIPES	ASTM A53, GRADE B, F_Y = 35 ksi
ANCHOR RODS	ASTM F1554, GRADE 36
WASHERS FOR ANCHOR RODS	ASTM F844
HIGH STRENGTH BOLTS	ASTM F3125, GRADE 325 TYPE 1
WASHERS FOR HIGH STRENGTH BOLTS	ASTM F436
DIRECT-TENSION INDICATING WASHERS	ASTM F959
HEAVY HEX NUTS	ASTM A563
STICK ELECTRODES	AWS CLASS E70XX AWS CLASS E6010 OR E6011 (GALV. SURFACES)
HEADED STUDS	ASTM A108 GRADES C1010 THRU C1020 (Fu = 55 ksi)
METAL DECKING	ASTM A1008 OR ASTM A653
STEEL BAR JOISTS	SJI CRITERIA
LIGHT GAGE STEEL STUDS/JOISTS	ASTM A1003 (G60 GALVANINZING PER ASTM A653 & C955)

MASONRY

MASONRY STRENGTH (f'm AT 28 DAYS)	2,000 PSI
CONCRETE MASONRY UNITS (CMU)	ASTM C90 NORMAL WEIGHT
CMU STRENGTH	2,650 PSI (BASED ON NET AREA)
MORTAR TYPE	ASTM C270, TYPE S BELOW GRADE, TYPE N ABOVE GRADE , PROPORTION METHOD
GROUT TYPE	ASTM C476 - MAX. AGGREGATE SIZE = 3/8"
GROUT STRENGTH (AT 28 DAYS)	2,000 PSI
HORIZONTAL WIRE REINFORCING	ASTM A951, LADDER-TYPE AT 16" O.C VERTICALLY IN 10 FT. LENGTHS 9 GAGE WIRE PER ASTM A1064
INTERIOR WALLS:	MILL GALVANIZE PER ASTM A 641 (0.10 OUNCES PER SQ FT), CARBON STEEL
EXTERIOR WALLS:	HOT DIP GALVANIZED PER ASTM A 153 CLASS B-2 (1.50 OUNCES PER SQ FT) CARBON STEEL
CONTRACTION JOINT KEY	RUBBER SHEAR KEY WITH DUROMETER HARDNESS OF 8 MIN PVC SHEAR KEY WITH DUROMETER HARDNESS OF 85 MIN

GENERAL NOTES

1. THE STRUCTURAL DRAWINGS ARE TO BE COORDINATED AND USED IN CONJUNCTION WITH THE CIVIL, ARCHITECTURAL/GENERAL ARRANGEMENT, MECHANICAL, ELECTRICAL AND PLUMBING DRAWINGS. VERIFY ALL DIMENSIONS AND ELEVATIONS WITH ARCHITECTURAL/GENERAL ARRANGEMENT DRAWINGS AND IMMEDIATELY NOTIFY THE STRUCTURAL ENGINEER OF ANY DISCREPANCIES.

2. THE CONTRACTOR SHALL PROVIDE ALL MEASURES AND PRECAUTIONS NECESSARY TO PREVENT DAMAGE AND/OR SETTLEMENT OF EXISTING OR NEW CONSTRUCTION INSIDE OR OUTSIDE THE PROJECT LIMITS DURING EXCAVATION AND FOUNDATION CONSTRUCTION. ANY DAMAGE TO NEW OR EXISTING CONSTRUCTION INSIDE OR OUTSIDE OF THE PROJECT LIMITS CAUSED BY CONSTRUCTION TECHNIQUES IS THE RESPONSIBILITY OF THE CONTRACTOR.

3. NO FIELD MODIFICATIONS TO ANY STRUCTURAL COMPONENTS SHALL BE MADE WITHOUT PRIOR APPROVAL BY THE STRUCTURAL ENGINEER. THIS INCLUDES, BUT IS NOT LIMITED TO, REVISIONS DUE TO MIS-LOCATION, MISFIT, OR ANY OTHER CONSTRUCTION ERRORS.

4. NO OPENING SHALL BE PLACED IN ANY STRUCTURAL MEMBER (OTHER THAN AS INDICATED ON APPROVED SHOP DRAWINGS) UNTIL THE LOCATION HAS BEEN APPROVED BY THE STRUCTURAL ENGINEER.

5. PROVIDE SLEEVE LAYOUTS FOR ALL PENETRATIONS THROUGH STRUCTURAL MEMBERS FOR ALL TRADES. LAYOUTS ARE TO BE SUBMITTED TO THE STRUCTURAL ENGINEER FOR REVIEW PRIOR TO CONSTRUCTION.

6. ALL ROOF MOUNTED EQUIPMENT OR EQUIPMENT SUSPENDED FROM FLOORS OR THE ROOF SHALL BE SUPPORTED BY BEAMS DESIGNATED FOR SUCH PURPOSE ONLY. IF NO SUPPORT HAS BEEN DESIGNATED, OR IF A QUESTION ARISES, NOTIFY STRUCTURAL ENGINEER PRIOR TO ERECTION OF EQUIPMENT.

7. FOR LOCATIONS AND DIMENSIONS OF SLEEVES, CURBS, OPENINGS, AND DEPRESSIONS NOT SHOWN ON THE STRUCTURAL DRAWINGS, SEE CIVIL, ARCHITECTURAL/GENERAL ARRANGEMENT, MECHANICAL, ELECTRICAL AND PLUMBING DRAWINGS. CONTRACTOR SHALL VERIFY AND COORDINATE LOCATION OF ABOVE ITEMS WHETHER SHOWN ON THE STRUCTURAL DRAWINGS OR NOT.

8. EMBEDDED ITEMS, SUCH AS PIPE SLEEVES, CONDUITS, AND INSERTS, SHALL BE IN PLACE BEFORE CONCRETE IS POURED.

9. THE CONTRACTOR SHALL FOLLOW WRITTEN DIMENSIONS ONLY. DO NOT SCALE DRAWINGS.

LIGHT GAUGE METAL FRAMING

1. LIGHT GAUGE METAL CONTRACTOR SHALL DESIGN, DETAIL, FABRICATE, AND ERECT STRUCTURAL LIGHT GAUGE METAL FRAMING IN ACCORDANCE WITH THE AMERICAN IRON AND STEEL INSTITUTE STANDARD FOR COLD-FORMED STEEL FRAMING - GENERAL PROVISIONS AND THE STANDARD FOR COLD FORMED STEEL FRAMING - HEADER DESIGN.

2. ALL WELDING SHALL BE PERFORMED BY QUALIFIED WELDERS AND SHALL CONFORM TO THE LATEST EDITION OF THE AWS D1.3, STRUCTURAL WELDING CODE - SHEET STEEL.

3. PROVIDE ADDITIONAL INFORMATION WITH SHOP DRAWING SUBMITTAL AS INDICATED IN PROJECT SPECIFICATIONS.

4. INTERIOR NON-LOAD BEARING COLD-FORMED PARTITION FRAMING SHALL BE DESIGNED, DETAILED, FABRICATED AND ERECTED IN ACCORDANCE WITH THE ARCHITECTURAL SPECIFICATIONS.

METAL DECK

1. TYPICAL ROOF DECK:
   A. 2" 18-GAGE DOVETAIL TYPE D ACOUSTICAL OR 1 1/2" 22 GA TYPE B ROOF DECK CONFORMING TO SDI REQUIREMENTS WITH A MINIMUM YIELD STRENGTH OF 40 KSI, UNLESS OTHERWISE NOTED.
      a. WELD OR FASTEN DECK TO ALL SUPPORTS, EDGE MEMBERS, OPENING FRAMES, ETC, WITH 5/8" PUDDLE WELDS OR AN APPROVED MECHANICAL FASTENER. FASTEN SIDELAPS WITH #10 TEK SCREWS, MINIMUM.
      b. ATTACHMENT PATTERN: 36/4 + 3 SIDELAPS PER SPAN, UNLESS OTHERWISE NOTED OR SPECIFIED BY DECK MANUFACTURER.
      c. FASTEN DECK AT 6" ON CENTER AT ALL BUILDING PERIMETER SUPPORTS.
      d. PROVIDE FILLER SHEETS, AS REQUIRED, TO ENSURE ATTACHMENT IS MADE TO ALL PERIMETER SUPPORTS.
      e. ALL JOINTS SHALL BE MADE OVER SUPPORTING MEMBERS ONLY, AND DECK SPANS SHALL BE CONTINUOUS OVER A MINIMUM OF THREE SPANS.

2. TYPICAL COMPOSITE FLOOR DECK:
   A. 3" X 20 GAGE WIDE-RIB COMPOSITE METAL DECK CONFORMING TO SDI REQUIREMENTS WITH A MINIMUM YIELD STRENGTH OF 40 KSI, UNLESS OTHERWISE NOTED.
      a. WELD OR FASTEN DECK TO ALL SUPPORTS, EDGE MEMBERS, OPENING FRAMES, ETC, WITH 5/8" PUDDLE WELDS, OR AN APPROVED MECHANICAL FASTENER. FASTEN SIDELAPS WITH #10 TEK SCREWS OR 5/8" PUDDLE WELDS, MINIMUM.
      b. ATTACHMENT PATTERN: 36/4 + SIDELAPS AT 36" ON CENTER MAXIMUM, UNLESS OTHERWISE NOTED.
      c. FASTEN DECK AT 6" ON CENTER AT ALL BUILDING PERIMETER SUPPORTS.
      d. PROVIDE FILLER SHEETS AS REQUIRED TO ENSURE ATTACHMENT IS MADE TO ALL PERIMETER SUPPORTS.

3. ALL JOINTS SHALL BE MADE OVER SUPPORTING MEMBERS ONLY AND PROVIDE DOUBLE SPANS, MINIMUM.

4. FLOOR OR ROOF OPENINGS WIDER THAN 2'-0" IN THE DIRECTION PERPENDICULAR TO DECK SPAN SHALL BE SUBMITTED TO THE STRUCTURAL ENGINEER FOR REVIEW. SEE MECHANICAL/ELECTRICAL DRAWINGS FOR OPENINGS IN ADDITION TO THOSE SHOWN ON FRAMING PLANS.

STRUCTURAL CONCRETE

1. CONCRETE WORK SHALL BE IN ACCORDANCE WITH THE LATEST EDITIONS OF:
   A. ACI 301 - "SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS"
   B. ACI 302 - "RECOMMENDED PRACTICE FOR CONCRETE FLOOR AND SLAB CONSTRUCTION"
   C. ACI 304 - "ACI MANUAL OF CONCRETE INSPECTION"
   D. ACI 311 - "RECOMMENDED PRACTICE FOR MEASURING, MIXING, TRANSPORTING, AND PLACING CONCRETE"
   E. ACI 315 - "DETAILS AND DETAILING OF CONCRETE REINFORCEMENT"
   F. ACI 318 - "BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE"
   G. ACI 347 - "RECOMMENDED PRACTICE FOR CONCRETE FORMWORK"

2. WELDED WIRE FABRIC SHALL BE LAPPED TWO PANELS AT EDGES AND ENDS, AND TIED SECURELY.

3. THE MINIMUM CONCRETE COVER FOR CAST-IN-PLACE (NON-PRESTRESSED) CONCRETE SHALL BE IN ACCORDANCE WITH THE FOLLOWING:
   A. CONCRETE CAST AGAINST/PERMANENTLY EXPOSED TO EARTH: 3"
   B. CONCRETE EXPOSED TO EARTH OR WEATHER:
      a. NO 6 THROUGH NO 18 BARS 2"
      b. NO 5 BAR, W31 OR D31 WIRE, AND SMALLER 1 1/2"
   C. CONCRETE NOT EXPOSED TO WEATHER OR IN CONTACT WITH GROUND:
      a. SLABS, WALLS, JOISTS:
         - NO 14 AND NO 18 BARS 1 1/2"
         - NO. 11 BAR AND SMALLER 3/4"
      b. BEAMS, COLUMNS:
         - PRIMARY REINFORCEMENT 1 1/2"
      c. TIES, STIRRUPS, SPIRALS 1 1/2"

4. PROVIDE LAP SPLICES AS INDICATED BELOW UNLESS OTHERWISE NOTED IN THE DRAWINGS.

BAR SIZE	SPLICE LENGTH TOP BARS*	SPLICE LENGTH OTHER BARS
#3	24"	19"
#4	32"	25"
#5	40"	31"
#6	48"	37"
#7	70"	54"

*TOP BAR CONDITION OCCURS WHERE HORIZONTAL REINFORCEMENT IS PLACED SUCH THAT MORE THAN 12 INCHES OF FRESH CONCRETE IS CAST BELOW THE SPLICE.

5. ALL HOOKS SHALL BE "STANDARD" PER ACI SPECIFICATIONS.

6. CONTINUOUS TOP AND BOTTOM BARS SHALL BE SPLICED AS FOLLOWS:
   A. TOP BARS: AT MID SPAN
   B. BOTTOM BARS: CENTERED OVER SUPPORT

7. MECHANICAL COUPLERS CAPABLE OF SUSTAINING 125% OF THE BAR ULTIMATE TENSILE CAPACITY MAY BE USED IN LIEU OF LAP SPLICES.

8. CORNER BARS MATCHING HORIZONTAL BARS SHALL BE PROVIDED AT ALL WALL CORNERS AND INTERSECTIONS.

POST-INSTALLED ANCHORS

1. EXPANSION ANCHORS:
   A. ALL EXPANSION ANCHORS INSTALLED INTO CONCRETE SHALL BE HILTI KWIK BOLT TZ OR APPROVED EQUIVALENT.
      a. MINIMUM EMBEDMENT, UNLESS OTHERWISE NOTED, SHALL BE:
         - 4" FOR 1/2" DIAMETER.
         - 5" FOR 5/8" DIAMETER.
         - 6" FOR 3/4" DIAMETER.
   B. ALL EXPANSION ANCHORS INSTALLED INTO GROUT FILLED CONCRETE MASONRY SHALL BE HILTI KWIK BOLT 3 OR APPROVED EQUIVALENT.
      a. MINIMUM EMBEDMENT, UNLESS OTHERWISE NOTED, SHALL BE:
         - 4" FOR 1/2" DIAMETER.
         - 5" FOR 5/8" DIAMETER.
         - 5" FOR 3/4" DIAMETER.
   C. ALL EXPANSION ANCHORS SHALL BE INSTALLED IN STRICT ACCORDANCE WITH MANUFACTURER'S GUIDELINES FOR INSTALLATION.
   D. SUBSTITUTE EXPANSION ANCHORS QUALIFIED PER ACI 355.2 AND ICC-ES AC193. SPEC. FS A-A 1923A, TYPE 4 MAY BE USED ONLY AFTER SUBMISSION OF TEST DATA OR DESIGN CHARTS AND APPROVAL BY ENGINEER.

2. ADHESIVE ANCHORS:
   A. EPOXY: HILTI HIT-HY 200 WITH SAFESET APPLICATION OR AUTHORIZED EQUAL, UNLESS OTHERWISE SPECIFIED.
   B. MINIMUM EMBEDMENT SHALL BE 9 TIMES ANCHOR DIAMETER UNLESS OTHERWISE SPECIFIED OR LIMITED BY THICKNESS OF CONCRETE.

3. ALL POST-INSTALLED ANCHORS SHALL BE INSTALLED BY QUALIFIED INDIVIDUALS IN STRICT CONFORMANCE TO THE MANUFACTURER'S INSTALLATION INSTRUCTIONS.

4. ALL POST-INSTALLED ANCHORS SHALL CONFORM TO THE REQUIREMENTS OF THE MOST RECENT VERSIONS OF ACI 355.2 OR ACI 355.4.

STRUCTURAL STEEL

1. ALL STRUCTURAL STEEL SHALL BE DETAILED, FABRICATED AND ERECTED IN ACCORDANCE WITH THE LATEST EDITION OF AISC 303 "CODE OF STANDARD PRACTICE FOR STEEL BUILDING AND BRIDGES".

2. THE FOLLOWING INFORMATON IS PRESENTED AS REQUIRED BY AISC 330 SECTION 3.1i:
   A. ALL SHEAR AND MOMENT CONNECTIONS, UNLESS SPECIFICALLY DETAILED, SHALL BE DESIGNED BY A LICENSED PROFESSIONAL ENGINEER EMPLOYED BY THE FABRICATOR FOR THE BEAM END REACTIONS SHOWN ON THE FRAMING PLANS [OPTION 3 PER AISC 330 SECTION 3.1.1 (3)].
   B. ALL END REACTIONS ARE LISTED AT FACTORED LEVELS AND CONNECTIONS SHALL BE DESIGNED USING LRFD METHODS.
   C. ALL SPECIAL SHEAR CONNECTIONS HAVE BEEN DESIGNED BY THE EOR AND ARE INCLUDED IN THESE DRAWINGS. [OPTION 1 PER AISC 330 SECTION3.1.1 (3)].
   D. FABRICATOR SHALL SUBMIT REPRESENTATIVE SAMPLES OF THE THE REQUIRED SUBSTANTIATING CONNECTION INFORMATION EARLY IN THE CONNECTION DESIGN PROCESS FOR REVIEW BY THE EOR.
      a. INFORMATION SHALL INCLUDE A SKETCH OF THE CONNECTION AND CALCULATIONS DETERMINING CONNECTION LIMIT STATE VALUES. THE GOVERNING LIMIT STATE SHALL BE HIGHLIGHTED.
      b. EOR SHALL RESPOND IN WRITING CONFIRMING THAT THE SUBMITTED REPRESENTATIVE SAMPLES ARE CONSISTENT WITH THE REQUIREMENTS IN THE CONTRACT DOCUMENTS, OR SHALL ADVISE WHAT MODIFICATONS ARE REQUIRED TO BRING THE REPRESENTATIVE SAMPLES INTO COMPLIANCE WITH THE REQUIREMENTS IN THE CONTRACT DOCUMENTS.
      c. THE LICENSED PROFESSIONAL ENGINEER IN RESPONSIBLE CHARGE OF THE CONNECTION DESIGN SHALL REVIEW AND CONFIRM IN WRITING AS PART OF THE SUBSTANTIATING CONNECTION INFORMATION, THAT THE SHOP AND ERECTION DRAWINGS PROPERLY INCORPORATE THE CONNECTION DESIGNS.

3. ALL WELDING SHALL BE PERFORMED BY CERTIFIED/QUALIFIED WELDERS AND SHALL CONFORM TO THE LATEST EDITION OF AWS D1.1 "STRUCTURAL WELDING CODE - STEEL".

4. ALL BOLTED STEEL CONNECTIONS SHALL UTILIZE HIGH STRENGTH BOLTS IN BEARING-TYPE CONNECTIONS, UNLESS OTHERWISE NOTED. TENSION-CONTROLLED BOLTS (T/C BOLTS) MAY BE USED AT THE ERECTOR'S DISCRETION.

5. BOLTS ARE TO BE TIGHTENED, AT A MINIMUM, TO THE "SNUG TIGHT" CONDITION, UNLESS NOTED AS "PRETENSIONED" OR "SLIP CRITICAL".

6. BOLTS DESIGNATED AS "PRETENSIONED" OR "SLIP CRITICAL" ARE TO BE TIGHTENED IN ACCORDANCE WITH AN APPROVED METHOD OUTLINED IN THE AISC SPECIFICATION FOR STRUCTURAL JOINTS USING ASTM A325 OR A490 BOLTS.

7. THERE SHALL BE NO FIELD CUTTING OF STRUCTURAL STEEL MEMBERS WITHOUT THE PRIOR APPROVAL OF THE STRUCTURAL ENGINEER. REFER TO ARCHITECTURAL DRAWINGS FOR MISCELLANEOUS STEEL NOT SHOWN ON STRUCTURAL DRAWINGS.

8. ALL STEEL INDICATED ON THE ARCHITECTURAL DRAWINGS TO BE ARCHITECTURALLY EXPOSED STRUCTURAL STEEL (AESS) SHALL CONFORM TO THE AESS REQUIREMENTS OF THE AISC CODE OF STANDARD PRACTICE.

STRUCTURAL ABBREVIATIONS

AFF	ABOVE FINISHED FLOOR	EW	EACH WAY	PJF	PREMOLDED JOINT FILLER
ALT	ALTERNATE	EWEF	EACH WAY EACH FACE	PL	PLATE
APPROX	APPROXIMATE(LY)	FF	FINISHED FLOOR	PLF	POUNDS PER LINEAR FOOT
ARCH	ARCHITECT(URAL)	FND	FOUNDATION	PSF	POUND PER SQUARE FOOT
B/	BOTTOM OF	FT	FEET (FOOT)	PSI	POUND PER SQUARE INCH
BLDG	BUILDING	FTG	FOOTING	QTY	QUANTITY
BM	BEAM	GA	GAUGE	R	RADIUS
BOT	BOTTOM	GALV	GALVANIZED	REINF	REINFORCE(D)
BRG	BEARING	GB	GRADE BEAM	REV	REVISED/REVISION
C	COMPRESSION	GL	GLUE LAMINATE TIMBER	RO	ROUGH OPENING
CIP	CAST-IN-PLACE	HORZ	HORIZONTAL	RTU	ROOF TOP UNIT
CJ	CONTROL JOINT	HS	HEADED STUD	SF	SQUARE FOOT
CL	CENTERLINE	ID	INSIDE DIAMETER	SIM	SIMILAR
CLR	CLEAR	JBD	JOIST BEARING DEPTH	SPEC	SPECIFICATION
CMU	CONCRETE MASONRY UNIT	K	KIP (1000 POUNDS)	SS	STAINLESS STEEL
		KLF	KIPS PER LINEAR FOOT	STD	STANDARD
COL	COLUMN	LB, #	POUNDS	T	TENSION
CONC	CONCRETE	LL	LIVE LOAD	T&B	TOP AND BOTTOM
CONN	CONNECTION	LLH	LONG LEG HORIZONTAL	T&G	TONGUE AND GROVE
CONST	CONSTRUCTION			T/	TOP OF
CONT	CONTINUE(D)(OUS)	LLV	LONG LEG VERTICAL	TCX	TOP CHORD EXTENSION
DET	DETAIL	LVL	LAMINATED VENEER LUMBER	TYP	TYPICAL
DIA	DIAMETER			UON	UNLESS OTHERWISE NOTED
DIM	DIMENSION(S)	MAX	MAXIMUM	V	SHEAR
DL	DEAD LOAD	MFR	MANUFACTURER	VERT	VERTICAL
DP	DRILLED PIER	MIN	MINIMUM	VIF	VERIFY IN FIELD
DWG	DRAWING	MISC	MICELLANEOUS	W/	WITH
EA	EACH	NA	NOT APPLICABLE	W/O	WITHOUT
ECC	ECCENTRICITY	NO, #	NUMBER	WP	WORKING POINT
EF	EACH FACE	NTS	NOT TO SCALE	WWR	WELDED WIRE REINFORCEMENT
EJ	EXPANSION JOINT	OC	ON CENTER		
ELEV	ELEVATION	OCEW	ON CENTER EACH WAY		
EOR	ENGINEER OF RECORD	OD	OUTSIDE DIAMETER		
EQ	EQUAL	OH	OPPOSITE HAND		
ES	EACH SIDE	PEMB	PRE-ENGINEERED METAL BUILDING		

EARTHWORK

1. REFERENCE THE GEOTECHNICAL INVESTIGATION REPORT PREPARED BY PALMERTON & PARRISH, INC DATED 05-03-2003. CONTRACTOR SHALL OBTAIN A COPY OF SAID REPORT AND ANY AVAILABLE ADDENDA OR SUPPLEMENTS AND FOLLOW ALL REQUIREMENTS SPECIFIED THEREIN.

2. SHALLOW FOUNDATIONS: CONTINUOUS WALL FOOTINGS AND ISOLATED SPREAD FOOTINGS HAVE BEEN DESIGNED TO BEAR ON FIRM NATIVE SOILS OR COMPACTED ENGINEERED FILL CAPABLE. REFER TO THE SOILS REPORT FOR SPECIFIC SOIL PREPARATION REQUIREMENTS.

3. FOUNDATIONS EXPOSED TO FROST SHALL BE PLACED SUCH THAT THE BOTTOM OF FOUNDATION IS AT LEAST 30" BELOW THE ADJACENT FINISHED GRADE.

4. ALL SLABS-ON-GRADE SHALL BE PLACED OVER A LOW PERMEANCE VAPOR BARRIER, 10 MIL MINIMUM THICKNESS, OVER A BASE/SUBBASE AS SPECIFIED BY THE GEOTECHNICAL ENGINEER FOR THE PROJECT. EXISTING SUBBASE WILL BE COMPACTED IN PLACE OR WILL BE CUT OUT AND REPLACED WITH AN ENGINEERED FILL AS SPECIFIED BY THE GEOTECHNICAL ENGINEER.

5. REFER TO THE TESTING AND INSPECTION SECTION OF THESE NOTES FOR THE FOUNDATION TESTING AND INSPECTION REQUIREMENTS.

OPEN-WEB STEEL JOISTS

1. ALL JOISTS SHALL BE DESIGNED, FABRICATED, AND ERECTED IN ACCORDANCE WITH THE LATEST EDITION OF THE STANDARD SPECIFICATIONS OF THE STEEL JOIST INSTITUTE (SJI).

2. WHERE CROSS BRIDGING INTERFERES WITH MECHANICAL INSTALLATIONS, REMOVE CROSS BRIDGING AFTER TOTAL DEAD LOAD IS APPLIED AND REPLACE WITH HORIZONTAL ANGLES 2X2X3/16 AT TOP AND BOTTOM CHORDS.

3. JOIST MANUFACTURER SHALL DESIGN ALL NON-TYPICAL JOIST BEARING SHOES.

4. ALL JOISTS SHALL BE DESIGNED FOR A NET UPLIFT WIND PRESSURE OF 15 PSF

REINFORCED MASONRY

1. ALL MATERIALS AND WORKMANSHIP SHALL COMPLY WITH TMS 602-16.
2. PLACING CONCRETE MASONRY UNITS:
   A. USE RUNNING BOND. FULLY BOND CORNERS BY OVERLAPPING OF UNITS. BOND WALL INTERSECTIONS WITH CORROSION-RESISTANT 1'-8"X4" STRAP ANCHORS SPACED AT 24" OC VERTICALLY.
   B. PLACE CONTINUOUS HORIZONTAL JOINT REINFORCEMENT EVERY SECOND BED JOINT. PLACE REINFORCEMENT AT FIRST AND SECOND JOINTS ABOVE AND BELOW OPENINGS. LAP SPLICES 6" MINIMUM.
   C. MAINTAIN FLUSH FACE ON EXPOSED MASONRY SURFACES.
   D. FACE SHELLS: FULLY MORTARED.
   E. WEBS: FULLY MORTARED IN PIERS, PILASTERS, STARTING COURSE AT FOUNDATION OR FLOOR LEVEL AND WHERE ADJACENT CELLS OR CAVITIES ARE TO BE GROUTED.
   F. HEAD SHELLS: MORTARED FROM EACH FACE EQUAL TO THE FACE SHELL THICKNESS.
   G. KEEP VERTICAL CELLS THAT ARE TO BE GROUTED ALIGNED AND FREE FROM OBSTRUCTIONS AND MORTAR FINS.
   H. DO NOT LAY DAMAGED UNITS.
   I. PERFORM JOB SITE CUTTING WITH PROPER TOOLS TO PROVIDE STRAIGHT AND TRUE UNCHIPPED EDGES.
   J. TOOL JOINTS WHEN MORTAR IS THUMB PRINT HARD TO FORM CONCAVE JOINTS.
   K. COVER TOP OF UNFINISHED MASONRY WORK.
3. GROUTING:
   A. VERIFY REINFORCEMENT IS PROPERLY PLACED AND SECURED IN POSITION PRIOR TO GROUTING.
   B. ALL BOND BEAMS SHALL BE GROUTED SOLID.
   C. FULLY GROUT CELLS AT EACH SIDE OF OPENINGS AND CONTROL JOINTS WITH (1) #5 BAR PLACED IN CENTER OF CELL, UNLESS OTHERWISE SHOWN ON DRAWINGS.
   D. PLACE GROUT IN LIFTS NOT EXCEEDING 8'-0". CONSOLIDATE AT TIME OF PLACEMENT BY RODDING OR VIBRATING FOLLOWED BY RECONSOLIDATION LATER BEFORE PLASTICITY IS LOST.
   E. IF TOTAL HEIGHT OF GROUT PLACEMENT IS TO EXCEED 8'-0", PLACE GROUT IN 4'-0" LIFTS. IF GROUTING IS STOPPED FOR MORE THAN ONE HOUR BETWEEN LIFTS, FORM A HORIZONTAL CONSTRUCTION JOINT BY STOPPING THE POUR 4" BELOW THE TOP OF THE CONCRETE MASONRY UNIT.
4. HOT AND COLD WEATHER CONDITIONS:
   A. COLD WEATHER: CONFORM TO THE REQUIREMENTS OF ACI/ASCE 530 WHEN THE AMBIENT TEMPERATURE FALLS BELOW 40°F.
   B. HOT WEATHER: WHEN AIR TEMPERATURE EXCEEDS 90°F DO NOT SPREAD MORTAR BED MORE THAN 4'-0" AHEAD OF MASONRY, SET MASONRY UNITS WITHIN ONE MINUTE OF SPREADING MORTAR.
5. SEALANTS:
   A. INTERIOR JOINTS: ONE COMPONENT POLYURETHANE APPLIED OVER BACKER ROD.
   B. EXTERIOR JOINTS: MULTICOMPONENT POLYURETHANE OR TWO COMPONENT POLYSULFIDE SEALANT APPLIED OVER BACKER ROD IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
   C. FIRE-STOP SEALANT: FYRE-SIL MFG BY TREMCO.
   D. BACKER ROD: ROUND CLOSED CELL POLYETHYLENE.
   E. MINERAL WOOL: 6 LBS PER CUBIC FOOT DENSITY COMPRESSED INTO PLACE. DO NOT USE FIBERGLASS BATTS.
6. CONSTRUCTION PRECAUTIONS:
   A. ADEQUATELY BRACE ALL WALLS DURING CONSTRUCTION.
   B. IF INTERIOR WALLS ARE CONSTRUCTED PRIOR TO ENCLOSURE OF STRUCTURE, PROVIDE ADEQUATE TEMPORARY BRACING. REMOVE BRACING AFTER STRUCTURE IS ENCLOSED.
   C. DO NOT EMBED ALUMINUM CONDUIT, PIPE OR ACCESSORIES IN MASONRY.

OFFICE OF THE ADJUTANT GENERAL

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TASMG READINESS CENTER

AVCRAD SITE
1107TH THEATER AVIATION SUSTAINMENT MAINTENANCE GROUP

MISSOURI NATIONAL GUARD
SPRINGFIELD, MISSOURI

NATIONAL GUARD BUREAU PROJECT #290186
MISSOURI NATIONAL GUARD PROJECT #T1809-01
SITE #9019
ASSET #8136270008

DRAWN BY: CP/AALO
CHECKED BY: ARC
DESIGNED BY: KPK

REVISION:
DATE:
REVISION:
DATE:
REVISION:
DATE:
ISSUED DATE: 26 FEBRUARY 2020

SHEET TITLE:

STRUCTURAL GENERAL NOTES AND ABBREVIATIONS

SHEET NUMBER:

S001

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IBC SCHEDULE OF SPECIAL INSPECTION SERVICES

INSPECTION ITEM REQUIRED	FREQUENCY CONTINUOUS	FREQUENCY PERIODIC	CODE REFERENCE	REMARKS
GENERAL				
CONDUCT WEEKLY VISUAL OBSERVATIONS OF THE STRUCTURAL SYSTEMS FOR GENERAL CONFORMANCE TO THE CONSTRUCTION DOCUMENTS AND PREPARE WEEKLY REPORTS OF OBSERVATIONS DESCRIBING WORK PROGRESS AND NON-CONFORMING ITEMS		X		
EARTHWORK				
VERIFY MATERIAL BELOW SHALLOW FOUNDATIONS ARE ADEQUATE TO ACHIEVE THE DESIGN BEARING CAPACITY		X		
VERIFY EXCAVATIONS ARE EXTENDED TO PROPER DEPTH AND HAVE REACHED PROPER MATERIAL		X		ALL FOOTING EXCAVATIONS SHALL BE OBSERVED AND APPROVED PRIOR TO CONCRETE PLACEMENT
PERFORM CLASSIFICATION AND TESTING OF COMPACTED FILL MATERIALS		X		TEST EACH SOURCE
VERIFY USE OF PROPER MATERIALS, DENSITIES AND LIFT THICKNESS DURING PLACEMENT AND COMPACTION OF COMPACTED FILL	X			
OBSERVE PROOF ROLLING OF SUBGRADE PRIOR TO FILL PLACEMENT				
TESTING AND EVALUATION OF IN-PLACE DENSITY OF COMPACTED FILL AS WORK PROGRESSES		X		ONE DENSITY TEST FOR EACH LIFT, DAYS OPERATION, OR 5000 SQ. FT. OF FILL AREA
INSPECT VAPOR RETARDER FOR CONFORMANCE WITH MANUFACTURERS WRITTEN INSTALLATION INSTRUCTIONS		X		
METAL DECK				
VERIFY COMPLIANCE OF MATERIALS (DECK AND ALL DECK ACCESSORIES) WITH CONSTRUCTION DOCUMENTS, INCLUDING PROFILES, MATERIAL, PROPERTIES, AND BASE METAL THICKNESS	X			
DOCUMENT ACCEPTANCE OR REJECTION OF DECK AND DECK ACCESSORIES	X			
VERIFY COMPLIANCE OF DECK AND ALL DECK ACCESSORIES INSTALLATION WITH CONSTRUCTION DOCUMENTS		X		
VERIFY DECK MATERIALS ARE REPRESENTED BY THE MILLS CERTIFICATIONS THAT COMPLY WITH THE CONSTRUCTION DOCUMENTS		X		
DOCUMENT ACCEPTANCE OR REJECTION OF INSTALLATION OF DECK AND DECK ACCESSORIES	X			
OBSERVE WELDING PROCEDURE SPECIFICATIONS (WPS), MANUFACTURER CERTIFICATIONS FOR WELDING CONSUMABLES, MATERIAL IDENTIFICATION (TYPE/GRADE), AND WELDING EQUIPMENT TO BE USED.		X		
OBSERVE USE OF QUALIFIED WELDERS, CONTROL AND HANDLING OF WELDING CONSUMABLES, ENVIRONMENTS CONDITIONS (WIND SPEED, MOISTURE, TEMPERATURE), AND WPS FOLLOWED		X		
VERIFY SIZE AND LOCATION OF WELDS, INCLUDING SUPPORT, SIDELAP, AND PERIMETER WELDS		X		
VERIFY WELDS MEET VISUAL INSPECTION CRITERIA		X		
VERIFY REPAIR ACTIVITIES AS APPLICABLE		X		
DOCUMENT ACCEPTANCE OR REJECTION OF WELDS	X			
OBSERVE MANUFACTURER INSTALLATION INSTRUCTIONS, PROPER TOOLS, AND PROPER STORAGE FOR MECHANICAL FASTENERS		X		
VERIFY FASTENERS POSITIONED AS REQUIRED AND INSTALLED IN ACCORDANCE WITH MANUFACTURER INSTRUCTIONS		X		
VERIFY SPACING, TYPE, AND INSTALLATION OF SUPPORT, SIDELAP, AND PERIMETER FASTENERS		X		
VERIFY REPAIR ACTIVITIES AS APPLICABLE		X		
DOCUMENT ACCEPTANCE OR REJECTION OF MECHANICAL FASTENERS	X			
OPEN-WEB STEEL JOISTS				
END CONNECTION - WELDING OR BOLTING		X		IBC 2207.1
BRIDGING - HORIZONTAL OR DIAGONAL		X		
STANDARD BRIDGING		X		IBC 2207.1
BRIDGING THAT DIFFERS FROM SJI SPECIFICATIONS LISTED IN IBC SECTION 2207.1		X		

IBC SCHEDULE OF SPECIAL INSPECTION SERVICES

INSPECTION ITEM REQUIRED	FREQUENCY CONTINUOUS	FREQUENCY PERIODIC	CODE REFERENCE	REMARKS
CONCRETE & REINFORCING STEEL				
INSPECT REINFORCEMENT, AND VERIFY PLACEMENT PRIOR TO CLOSING OF FORMS AND ARRIVAL OF CONCRETE TO THE JOB SITE		X	IBC: 1908.4 ACI 318: CH. 20, 25.2, 25.3, 26.6.1-26.6.3	
OBSERVE & VERIFY PLACEMENT OF EMBEDDED BOLTS & RODS PRIOR TO CONCRETE PLACEMENT	X			
INSPECT ANCHORS CAST IN CONCRETE		X	ACI 318: 17.8.2	
INSPECT ANCHORS POST-INSTALLED IN HARDENED CONCRETE MEMBERS: a. ADHESIVE ANCHORS INSTALLED IN HORIZONTALLY UP UPWARDLY INCLINED ORIENTATIONS TO RESIST SUSTAINED TENSION LOADS	X		ACI 318: 17.8.2.4	SPECIFIC REQUIREMENTS FOR SPECIAL INSPECTION SHALL BE INCLUDED IN THE RESEARCH REPORT FOR THE ANCHOR ISSUED BY AN APPROVED SOURCE IN ACCORDANCE WITH 17.8.2 IN ACI 318, OR OTHER QUALIFICATION PROCEDURES. WHERE SPECIFIC REQUIREMENTS ARE NOT PROVIDED, SPECIAL INSPECTION REQUIREMENTS SHALL BE SPECIFIED BY THE REGISTERED DESIGN PROFESSIONAL AND SHALL BE APPROVED BY THE AUTHORITY HAVING JURISDICTION PRIOR TO COMMENCEMENT OF THE WORK
b. MECHANICAL ANCHORS AND ADHESIVE ANCHORS NOT DEFINED ABOVE		X	ACI 318: 17.8.2	
VERIFY USE OF REQUIRED MIX DESIGN		X	IBC: 1904.1, 1904.2, 1908.2, 1908.3 ACI 318: CH. 19, 26.4.3, 26.4.4	
PRIOR TO CONCRETE PLACEMENT, FABRICATE SPECIMENS FOR STRENGTH TESTS, PERFORM SLUMP AND AIR CONTENT TESTS, AND DETERMINE THE TEMPERATURE OF THE CONCRETE	X		IBC: 1908.10 ASTM: C172, C31 ACI 318: 26.4, 26.12	ADDITIONAL CYLINDERS SHALL BE MADE AS NEEDED FOR EARLY FORM REMOVAL. NOTE: TWO 6X12 OR 4X8 CYLINDERS ARE REQUIRED FOR AN ACCEPTABLE TEST.
SAMPLE CONCRETE SPECIMENS FOR STRENGTH TESTS TO BE PERFORMED IN LAB. A MINIMUM OF FIVE (5) CYLINDERS SHALL BE MADE. TEST TWO AT 7 DAYS AND TWO AT 28 DAYS. THE 5TH CYLINDER SHALL BE HELD IN RESERVE	X			OBTAIN ONE COMPOSITE SAMPLE FOR EACH 100 CUBIC YARDS OR FRACTION THEREOF OF EACH CONCRETE MIX PLACED EACH DAY. WHEN FREQUENCY OF TESTING WILL PROVIDE FEWER THAN FIVE COMPRESSIVE STRENGTH TESTS FOR EACH CONCRETE MIX, TESTING SHALL BE CONDUCTED FROM AT LEAST FIVE RANDOMLY SELECTED BATCHES OR FROM EACH BATCH IF FEWER THAN FIVE ARE USED.
PERFORM CONCRETE STRENGTH TESTING		X		
MAINTAIN A SPREADSHEET SHOWING DATE, SEQUENTIAL ORDER OF STRENGTH TEST RESULTS, AND INDICATE RUNNING AVERAGE	X		ACI 318 PAR. 6.2	
INSPECT CONCRETE PLACEMENT FOR PROPER APPLICATION TECHNIQUES	X		IBC: 1908.6, 1908.7, 1908.8 ACI 318: 26.5	
VERIFY MAINTENANCE OF SPECIFIED CURING TEMPERATURE AND TECHNIQUES		X	IBC: 1908.9 ACI 318: 26.5.3-26.5.5	
VERIFY THAT THE NECESSARY DESIGN STRENGTH HAS BEEN REACHED PRIOR TO THE REMOVAL OF FORMS		X		
INSPECT CONCRETE FORMWORK FOR SHAPE, LOCATION, AND DIMENSIONS OF THE CONCRETE MEMBER BEING FORMED		X	ACI 318: 26.11.1.2(b)	

IBC SCHEDULE OF SPECIAL INSPECTION SERVICES

INSPECTION ITEM REQUIRED	FREQUENCY CONTINUOUS	FREQUENCY PERIODIC	CODE REFERENCE	REMARKS
STRUCTURAL STEEL				
VISIT FABRICATION SHOP TO OBSERVE FABRICATION PROCEDURES		X		ONLY ONE INSPECTION IS REQUIRED UNLESS ON-SITE EVENTS INDICATE FURTHER INSPECTIONS ARE NECESSARY
VERIFY FABRICATOR CERTIFICATION		X		
VERIFY CORRECT STRUCTURAL STEEL MATERIAL DELIVERED TO JOB SITE.		X		
VERIFY WELDING PROCEDURE SPECIFICATIONS (WPSs) AVAILABLE	X			
VERIFY MANUFACTURERS CERTIFICATIONS FOR WELDING CONSUMABLES AVAILABLE	X			
VERIFY MATERIAL IDENTIFICATIONS (TYPE/GRADE)		X		
OBSERVE WELDER IDENTIFICATION SYSTEM		X		THE FABRICATOR OR ERECTOR, AS APPLICABLE, SHALL MAINTAIN A SYSTEM BY WHICH A WELDER WHO HAS WELDED A JOINT OR MEMBER CAN BE IDENTIFIED. STAMPS, IF USED, SHALL BE THE LOW-STRESS TYPE.
OBSERVE FIT-UP OF GROOVE WELDS (INCLUDING JOINT GEOMETRY) FOR JOINT PREPARATION, DIMENSIONS (ALIGNMENT, ROOT OPENING, ROOT FACE, BEVEL), CLEANLINESS (CONDITION OF STEEL SURFACES), TACKING (TACK WELD QUALITY AND LOCATION), BACKING TYPE AND FIT (IF APPLICABLE)		X		
OBSERVE CONFIGURATION AND FINISH OF ACCESS HOLES		X		
OBSERVE FIT-UP OF FILLET WELDS, DIMENSIONS (ALIGNMENT, GAPS AT ROOT), CLEANLINESS (CONDITION OF STEEL SURFACES), TACKING (TACK WELD QUALITY AND LOCATION)		X		
OBSERVE USE OF QUALIFIED WELDERS		X		
OBSERVE CONTROL AND HANDLING OF WELDING CONSUMABLES, (PACKAGING AND EXPOSURE CONTROL)		X		
VERIFY NO WELDING OVER CRACKED TACK WELDS		X		
OBSERVE ENVIRONMENTAL CONDITIONS (WIND SPEED WITHIN LIMITS, PRECIPITATION, AND TEMPERATURE)		X		
VERIFY WPS FOLLOWED (WELDING EQUIPMENT SETTINGS, TRAVEL SPEED, SELECTED WELDING MATERIALS, SHIELDING GAS TYPE/FLOW RATE, PREHEAT APPLIED, INTERPASS TEMPERATURE MAINTAINED [MIN/MAX], PROPER POSITION [F, V, H, OH])		X		
OBSERVE WELDING TECHNIQUES (INTERPASS AND FINAL CLEANING, EACH PASS WITHIN PROFILE LIMITS AND EACH PASS MEETS QUALITY REQUIREMENTS)		X		
VISUALLY INSPECT ALL WELDS FOR SIZE, LENGTH, AND LOCATION OF WELD. PROVIDE CONTINUOUS INSPECTION ON ALL FULL OR PARTIAL PENETRATION WELDS AND FILLET WELDS GREATER THAN 5/16"	X			
PERFORM ULTRASONIC TESTING ON ALL FULL PENETRATION WELDS	X			
VERIFY NO ARC STRIKES EXIST	X			
VISUALLY INSPECT k-AREA, WHEN WELDING OF DOUBLER PLATES, CONTINUITY PLATES, OR STIFFENERS HAS BEEN PERFORMED IN THE k-AREA, FOR CRACKS WITHIN 3" OF THE WELD	X			
VERIFY REPAIR ACTIVITY ACCEPTABILITY AS APPLICABLE	X			
DOCUMENT ACCEPTANCE OR REJECTION OF WELDED JOINTS OR MEMBERS	X			
PERFORM MAGNETIC PARTICLE TESTING ON 20% OF ALL PARTIAL PENETRATION AND FILLET WELDS GREATER THAN 5/16"		X		
PERFORM MAGNETIC PARTICLE TESTING OR PENETRANT TESTING THERMALLY CUT SURFACES OF ACCESS HOLES WHERE THE FLANGE THICKNESS EXCEEDS 2 IN FOR ROLLED SHAPES, OR WHEN THE WEB THICKNESS EXCEEDS 2 IN. FOR BUILT-UP SHAPES.		X		ANY CRACK SHALL BE DEEMED UNACCEPTABLE REGARDLESS OF THE SIZE OR LOCATION
VERIFY MANUFACTURER'S CERTIFICATIONS FOR FASTENER MATERIALS ARE AVAILABLE	X			
VERIFY FASTENERS MARKED IN ACCORDANCE WITH ASTM REQUIREMENTS		X		
VERIFY PROPER FASTENERS SELECTED FOR THE JOINT DETAIL (GRADE, TYPE, BOLT LENGTH IF THREADS ARE TO BE EXCLUDED FROM THE SHEAR PLANE)		X		
VERIFY PROPER BOLTING PROCEDURE SELECTED FOR JOINT DETAIL		X		
VERIFY CONNECTING ELEMENTS, INCLUDING THE APPROPRIATE FAYING SURFACE CONDITION AND HOLE PREPARATION, IF SPECIFIED, MEET APPLICABLE REQUIREMENTS		X		
CONFIRM PRE-INSTALLATION VERIFICATION TESTING BY INSTALLATION PERSONNEL OBSERVED AND DOCUMENTED FOR FASTENER ASSEMBLIES AND METHODS USED		X		
VERIFY PROPER STORAGE PROVIDED FOR BOLTS, NUTS, WASHERS AND OTHER FASTENER COMPONENTS		X		
VERIFY FASTENER ASSEMBLIES, OF SUITABLE CONDITION, PLACED IN ALL HOLES AND WASHERS (IF REQUIRED) ARE POSITIONED AS REQUIRED		X		
VERIFY JOINT BROUGHT TO SNUG-TIGHT CONDITION PRIOR TO THE PRETENSIONING OPERATION		X		
VERIFY FASTENER COMPONENT NOT TURNED BY THE WRENCH PREVENTED FROM ROTATING		X		
VERIFY FASTENERS ARE PRETENSIONED IN ACCORDANCE WITH THE RCSC SPECIFICATION, PROGRESSING SYSTEMATICALLY FROM THE MOST RIGID POINT TOWARD THE FREE EDGES		X		
DOCUMENT ACCEPTANCE OR REJECTION OF BOLTED CONNECTIONS		X		
OBSERVE AND TEST ALL FIELD APPLIED HEADED STUDS	X			VERIFY CORRECT NUMBER, LOCATION, AND WELDING
DOCUMENT ACCEPTANCE OR REJECTION OF STEEL ELEMENTS	X			

IBC SCHEDULE OF SPECIAL INSPECTION SERVICES

INSPECTION ITEM REQUIRED	FREQUENCY CONTINUOUS	FREQUENCY PERIODIC	TMS 402	TMS 602
MASONRY - QUALITY ASSURANCE LEVEL B				
VERIFY SLUMP FLOW AND VISUAL STABILITY INDEX (VSI) AS DELIVERED TO THE PROJECT SITE IN ACCORDANCE WITH SPECIFICATION ARTICLE 1.5.B.1.a.3 FOR SELF-CONSOLIDATING GROUT				
VERIFY f'_m IN ACCORDANCE WITH SPECIFICATION ARTICLE 1.4 B PRIOR TO CONSTRUCTION, EXCEPT WHERE SPECIFICALLY EXEMPTED				
VERIFY COMPLIANCE WITH THE APPROVED SUBMITTALS		X		ART. 1.5
AS MASONRY CONSTRUCTION BEGINS, VERIFY THAT THE FOLLOWING ARE IN COMPLIANCE:				
a. PROPORTIONS OF SITE-PREPARED MORTAR		X		ART. 2.1, 2.6A
b. CONSTRUCTION OF MORTAR JOINTS		X		ART. 3.3B
c. LOCATION OF REINFORCEMENT AND CONNECTORS		X		ART. 3.4, 3.6A
PRIOR TO GROUTING, VERIFY THAT THE FOLLOWING ARE IN COMPLIANCE.				
a. GROUT SPACE		X		ART. 3.2D, 3.2F
b. GRADE, TYPE, AND SIZE OF REINFORCEMENT AND ANCHOR BOLTS		X	SEC 6.1	ART. 2.4, 3.4
c. PLACEMENT OF REINFORCEMENT AND CONNECTORS		X		ART. 3.2E, 3.4, 3.6A
d. PROPORTIONS OF SITE-PREPARED GROUT		X	SEC 6.1, 6.2.1,6.2.6,6.2.7	ART 2.6 B, 2.4 G.1.b
e. CONSTRUCTION OF MORTAR JOINTS		X		ART. 3.3B
VERIFY DURING CONSTRUCTION:				
a. SIZE AND LOCATION OF STRUCTURAL ELEMENTS		X		ART. 3.3F
b. TYPE, SIZE, AND LOCATION OF ANCHORS, INCLUDING OTHER DETAILS OF ANCHORAGE OF MASONRY TO STRUCTURAL MEMBERS, FRAMES, OR OTHER CONSTRUCTION		X	SEC 1.2.1(e), 6.1.4.3,6.2.1	
c. PREPARATION, CONSTRUCTION AND PROTECTION OF MASONRY DURING COLD WEATHER (TEMPERATURE BELOW 40°F) OR HOT WEATHER (TEMPERATURE ABOVE 90°F)		X		ART 1.8C, 1.8D
d. PLACEMENT OF GROUT IS IN COMPLIANCE	X			ART. 3.5, 3.6C
OBSERVE PREPARATION OF GROUT SPECIMENS, MORTAR SPECIMENS, AND/OR PRISMS		X		ART 1.4 B.2.a,3,1.4 B.2.b,3,1.4 B.2.c,3,1.4 B.3,1.4 B.4

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Chris Philpy, Engineer MO PE-2019023464

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1107TH THEATER AVIATION SUSTAINMENT MAINTENANCE GROUP

MISSOURI NATIONAL GUARD
SPRINGFIELD, MISSOURI

NATIONAL GUARD BUREAU PROJECT #290186
MISSOURI NATIONAL GUARD PROJECT #T1809-01
SITE #9019
ASSET #8136270008

DRAWN BY: CP/AALO
CHECKED BY: ARC
DESIGNED BY: KPK

REVISION:
DATE:
REVISION:
DATE:
REVISION:
DATE:
ISSUED DATE: 26 FEBRUARY 2020

SHEET TITLE:

SPECIAL INSPECTION SCHEDULES

SHEET NUMBER:

S002

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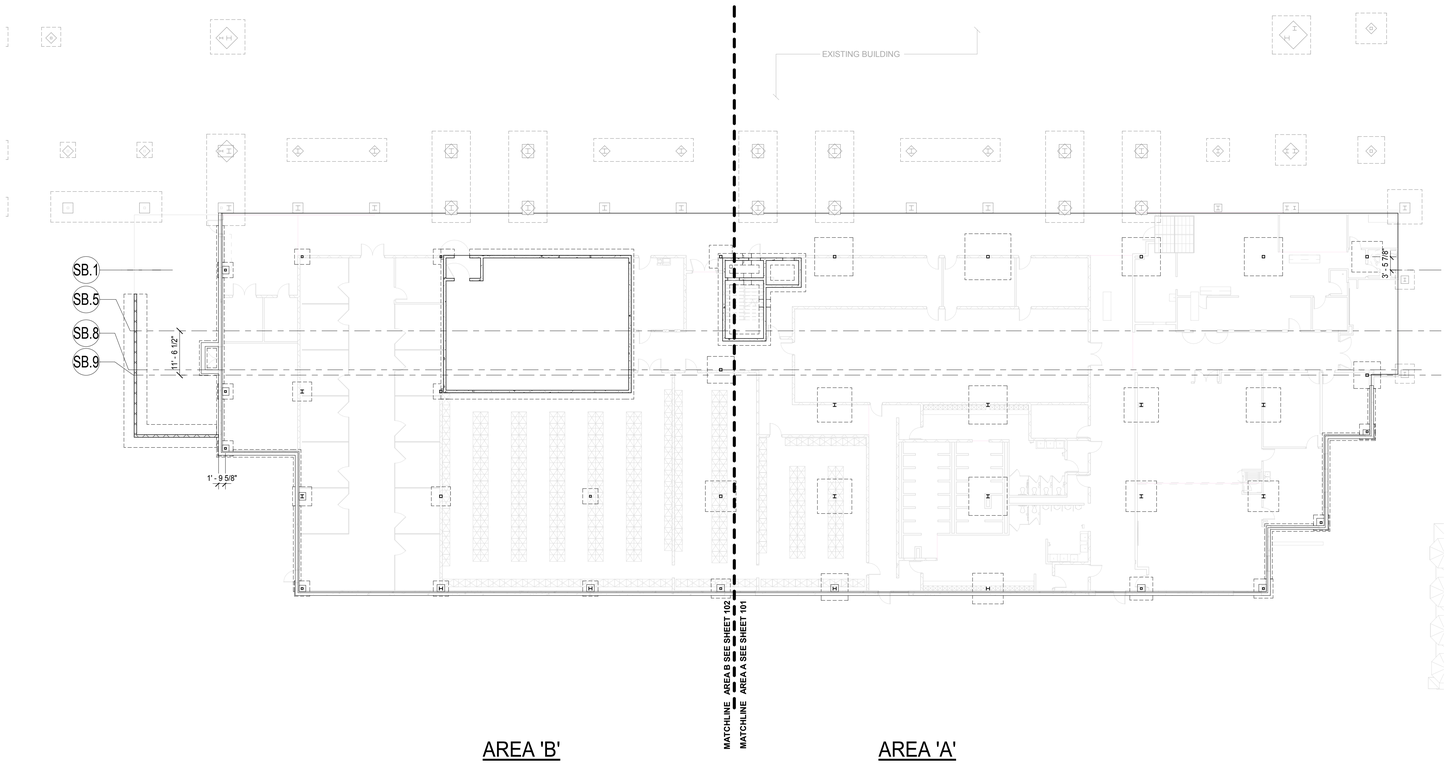

1 OVERALL FOUNDATION PLAN
SCALE = 1/16" = 1'-0"

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ISSUED DATE: 26 FEBRUARY 2020

SHEET TITLE:

OVERALL FOUNDATION PLAN

SHEET NUMBER:

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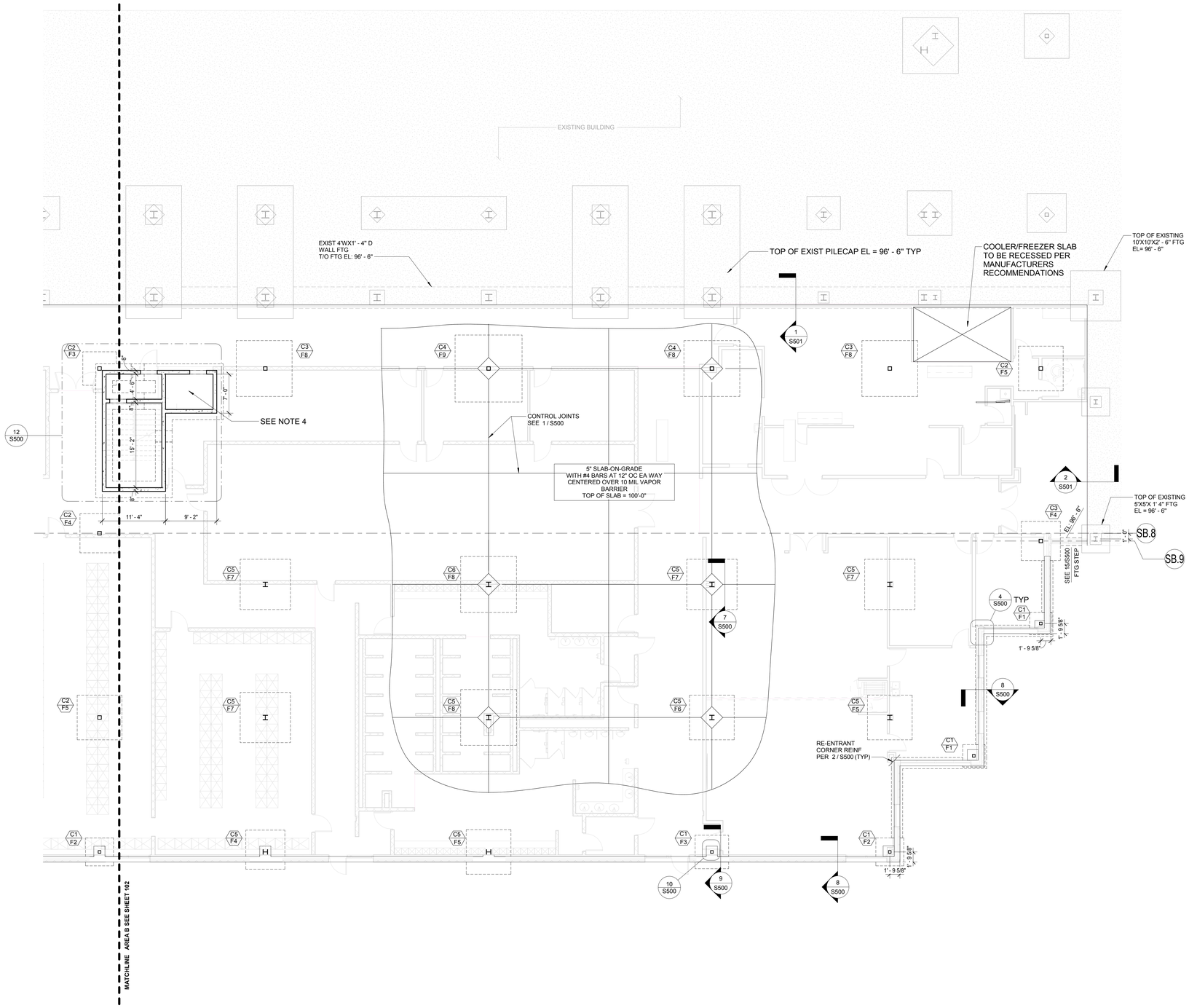


1 AREA A FOUNDATION PLAN

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

FOUNDATION PLAN NOTES

1.TOP OF SLAB EL = 100'-0"

2. TOP OF INTERIOR FOOTING ELEVATION = 99'-4" AND TOP OF EXTERIOR FOOTING ELEVATION = 98'-0" UNLESS NOTED THUS: X'-XX"

3. INDICATES COLUMN SIZE- SEE SCHEDULE BELOW
INDICATES FOOTING SIZE AND REINF- SEE SCHEDULE BELOW

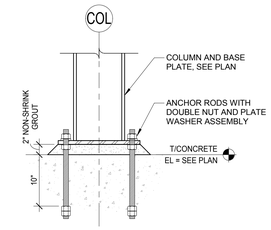
4. LIGHT GAUGE CONTRACTOR SHALL DESIGN AND PROVIDE FLOOR JOIST SYSTEM IN ELEVATOR SHAFT AS A BASE BID.
(ELEVATOR IS ADD ALTERNATE #1). DESIGN LIVE LOAD FOR SYSTEM IS 125 PSF INCLUDE CONNECTIONS TO WALL IN DESIGN

COLUMN SCHEDULE

MARK	Type
	24 x 24
C1	HSS6X6X1/4
C2	HSS8X8X1/4
C3	HSS8X8X1/2
C4	HSS8X8X5/8
C5	W10X49
C6	W10X60

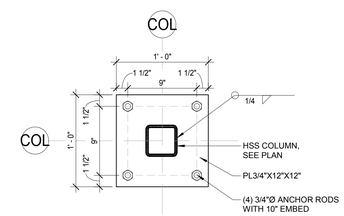
FOOTING SCHEDULE

MARK	LENGTH	WIDTH	THICKNESS (INCHES)	REINFORCING
F1	4' - 0"	4' - 0"	14"	(5) #6 BARS BOT EQUALLY SPACED EA WAY
F2	5' - 0"	5' - 0"	14"	(6) #6 BARS BOT EQUALLY SPACED EA WAY
F3	6' - 0"	6' - 0"	14"	(7) #6 BARS BOT EQUALLY SPACED EA WAY
F4	7' - 0"	7' - 0"	14"	(8) #6 BARS BOT EQUALLY SPACED EA WAY
F5	8' - 0"	8' - 0"	14"	(7) #6 BARS BOT EQUALLY SPACED EA WAY
F6	8' - 0"	8' - 0"	16"	(9) #6 BARS BOT EQUALLY SPACED EA WAY
F7	9' - 0"	9' - 0"	16"	(10) #6 BARS BOT EQUALLY SPACED EA WAY
F8	10' - 0"	10' - 0"	16"	(11) #6 BARS BOT EQUALLY SPACED EA WAY
F9	12' - 0"	12' - 0"	16"	(17) #7 BARS BOT EQUALLY SPACED EA WAY



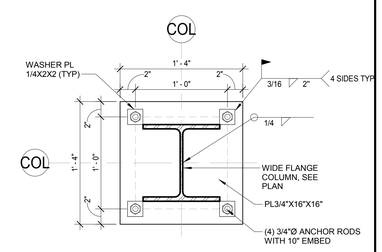
2 TYPICAL BASE PLATE SECTION

SCALE = 1" = 1'-0"



3 TUBE COLUMN BASEPLATE

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



4 WIDE FLANGE COLUMN BASEPLATE

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

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ISSUED DATE: 26 FEBRUARY 2020

SHEET TITLE:

AREA A - FOUNDATION PLAN

SHEET NUMBER:

S101

63 OF 131 SHEETS

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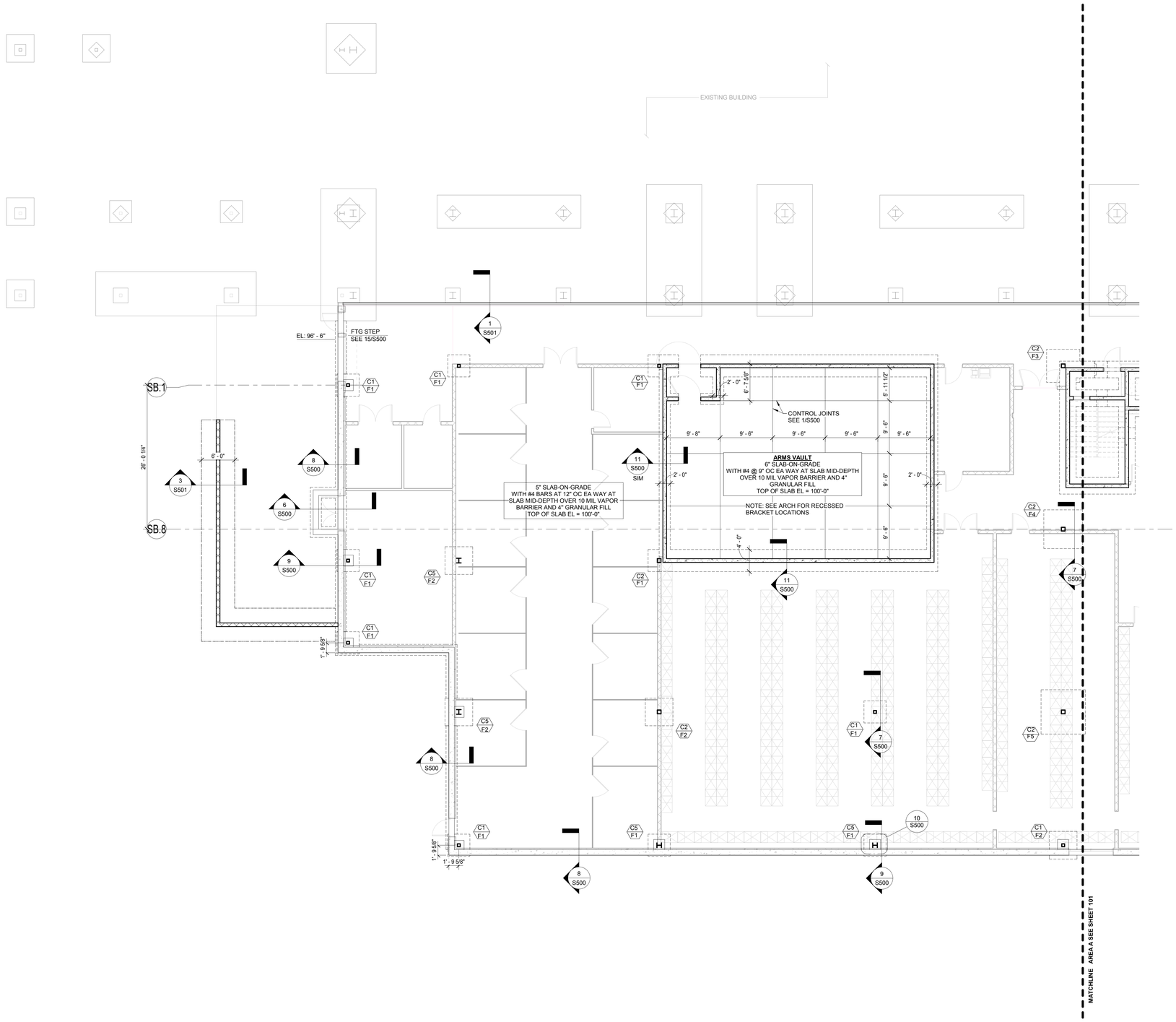


1 AREA B FOUNDATION PLAN

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

FOUNDATION PLAN NOTES

1.TOP OF SLAB EL = 100'-0"

2. TOP OF INTERIOR FOOTING ELEVATION = 99'-4" AND TOP OF EXTERIOR FOOTING ELEVATION = 98'-0" UNLESS NOTED THUS: X'-XX"

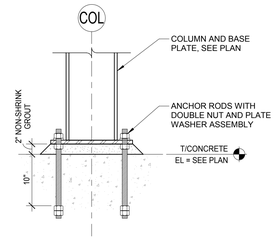
3. INDICATES COLUMN SIZE- SEE SCHEDULE BELOW
INDICATES FOOTING SIZE AND REINF- SEE SCHEDULE BELOW

COLUMN SCHEDULE

MARK	Type
	24 x 24
C1	HSS6X6X1/4
C2	HSS8X8X1/4
C3	HSS8X8X1/2
C4	HSS8X8X5/8
C5	W10X49
C6	W10X60

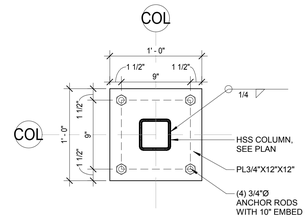
FOOTING SCHEDULE

MARK	LENGTH	WIDTH	THICKNESS (INCHES)	REINFORCING
F1	4' - 0"	4' - 0"	14"	(5) #6 BARS BOT EQUALLY SPACED EA WAY
F2	5' - 0"	5' - 0"	14"	(6) #6 BARS BOT EQUALLY SPACED EA WAY
F3	6' - 0"	6' - 0"	14"	(7) #6 BARS BOT EQUALLY SPACED EA WAY
F4	7' - 0"	7' - 0"	14"	(8) #6 BARS BOT EQUALLY SPACED EA WAY
F5	8' - 0"	8' - 0"	14"	(7) #6 BARS BOT EQUALLY SPACED EA WAY
F6	8' - 0"	8' - 0"	16"	(9) #6 BARS BOT EQUALLY SPACED EA WAY
F7	9' - 0"	9' - 0"	16"	(10) #6 BARS BOT EQUALLY SPACED EA WAY
F8	10' - 0"	10' - 0"	16"	(11) #6 BARS BOT EQUALLY SPACED EA WAY
F9	12' - 0"	12' - 0"	16"	(17) #7 BARS BOT EQUALLY SPACED EA WAY



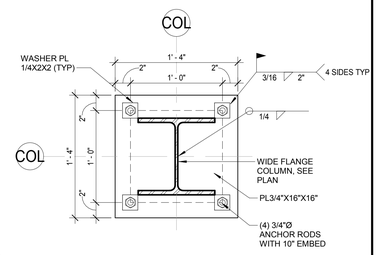
2 TYPICAL BASE PLATE SECTION

SCALE = 1" = 1'-0"



3 TUBE COLUMN BASEPLATE

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



4 WIDE FLANGE COLUMN BASEPLATE

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

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DESIGNED BY: KPK

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ISSUED DATE: 26 FEBRUARY 2020

SHEET TITLE:

AREA B - FOUNDATION PLAN

SHEET NUMBER:

S102

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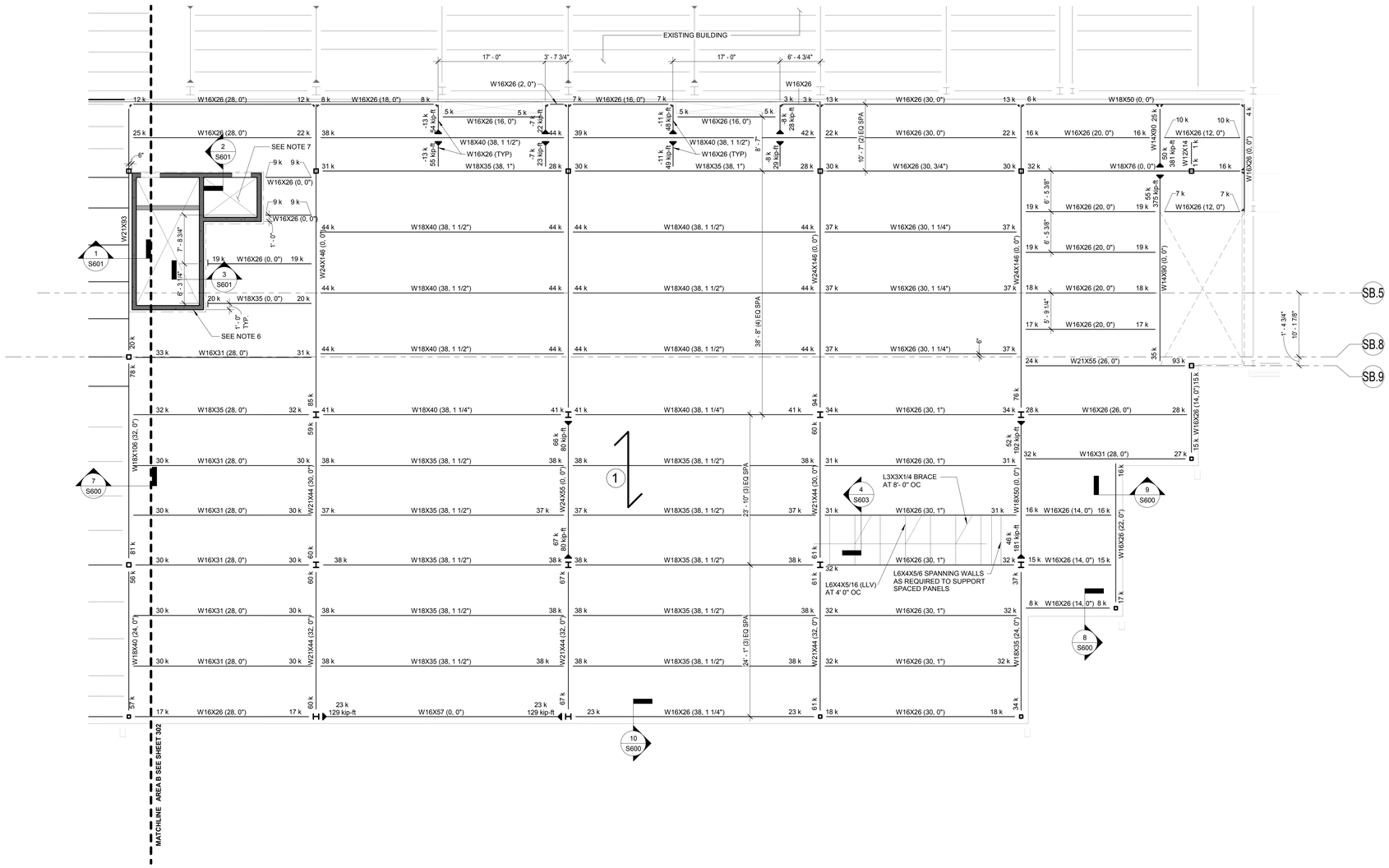
PLAN NOTES

1. TOP OF STEEL EL = 114' - 5 1/2" UNLESS NOTED THUS (+2 1/2").
2. (1) — INDICATES SPAN DIRECTION OF 3" 20 GA. COMPOSITE METAL FLOOR DECK WITH 3 1/2" NW CONC FILL AND 6X6 -W2.1 X 2.1 WWF TOP OF SLAB EL = 115' - 0".
3. 381 k-ft — INDICATES ULTIMATE MOMENT AT END OF BEAM FOR CONNECTION DESIGN BY CONTRACTOR.
4. W16X26 (26,1")
   - INDICATES REQUIRED BEAM CAMBER
   - INDICATES NUMBER OF 3/4" DIAM X5" HEADED SHEAR STUDS SPACED EQUALLY ALONG BEAM SPAN
5. 12k — INDICATES ULTIMATE SHEAR LOAD AT END OF BEAM FOR CONNECTION DESIGN BY CONTRACTOR
6. ATTACH DECK BEARING ANGLE AROUND STAIR/ELEVATOR TOWER PER 2 / S601
7. LIGHT GAUGE CONTRACTOR SHALL DESIGN AND PROVIDE FLOOR JOIST SYSTEM IN ELEVATOR SHAFT AS A BASE BID. (ELEVATOR IS ADD ALTERNATIVE). DESIGN LIVE LOAD FOR SYSTEM IS 125 PSF INCLUDE CONNECTIONS TO WALL IN DESIGN
8. INDICATES EMBED PL LOCATION - SEE DETAIL 5 / S600 (SIM)



1 **AREA A SECOND FLOOR FRAMING PLAN**
SCALE = 1/8" = 1'-0"

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MISSOURI NATIONAL GUARD PROJECT #T1809-01
SITE #9019
ASSET #8136270008

DRAWN BY: CP/AALO
CHECKED BY: KPK
DESIGNED BY: KPK

REVISION:
DATE:
REVISION:
DATE:
REVISION:
DATE:
ISSUED DATE: 26 FEBRUARY 2020

SHEET TITLE:

AREA A - SECOND FLOOR FRAMING PLAN

SHEET NUMBER:

S201

65 OF 131 SHEETS

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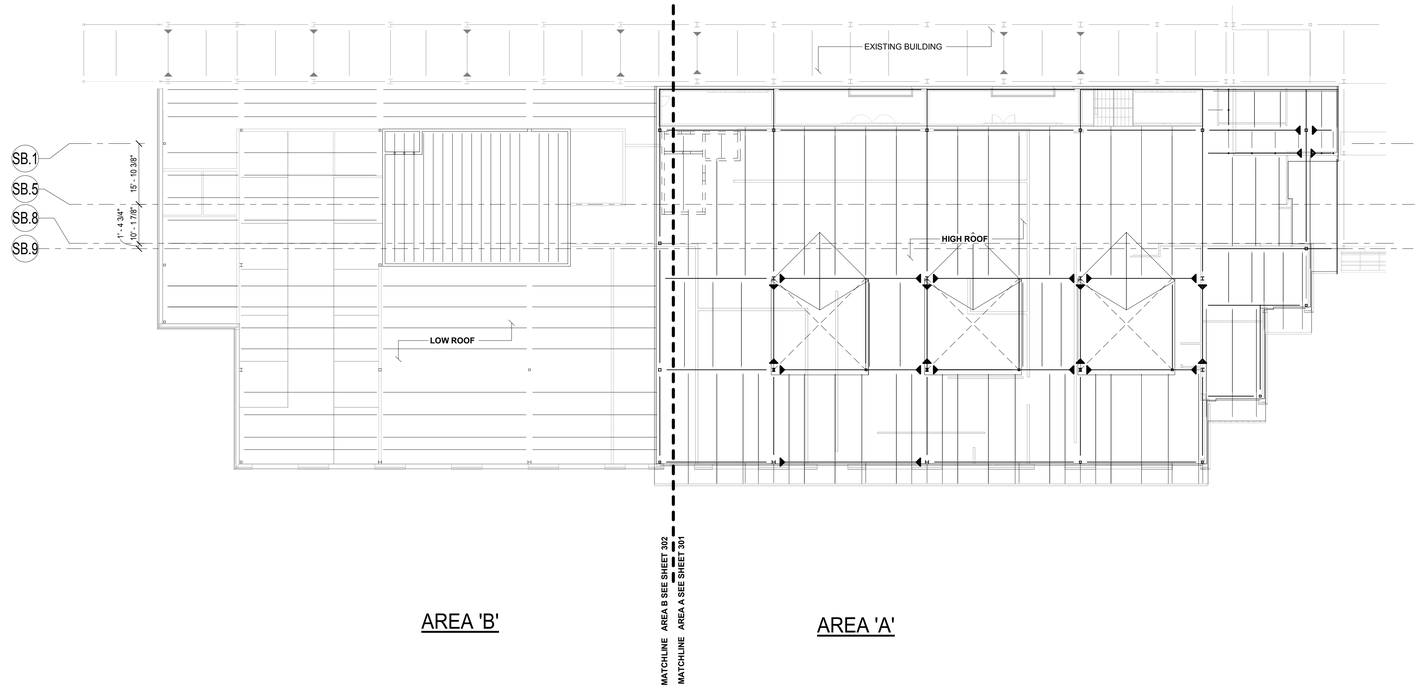

1 **OVERALL ROOF FRAMING PLAN**
SCALE = 1/16" = 1'-0"

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SPRINGFIELD, MISSOURI

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OVERALL ROOF FRAMING PLAN

SHEET NUMBER:

S300

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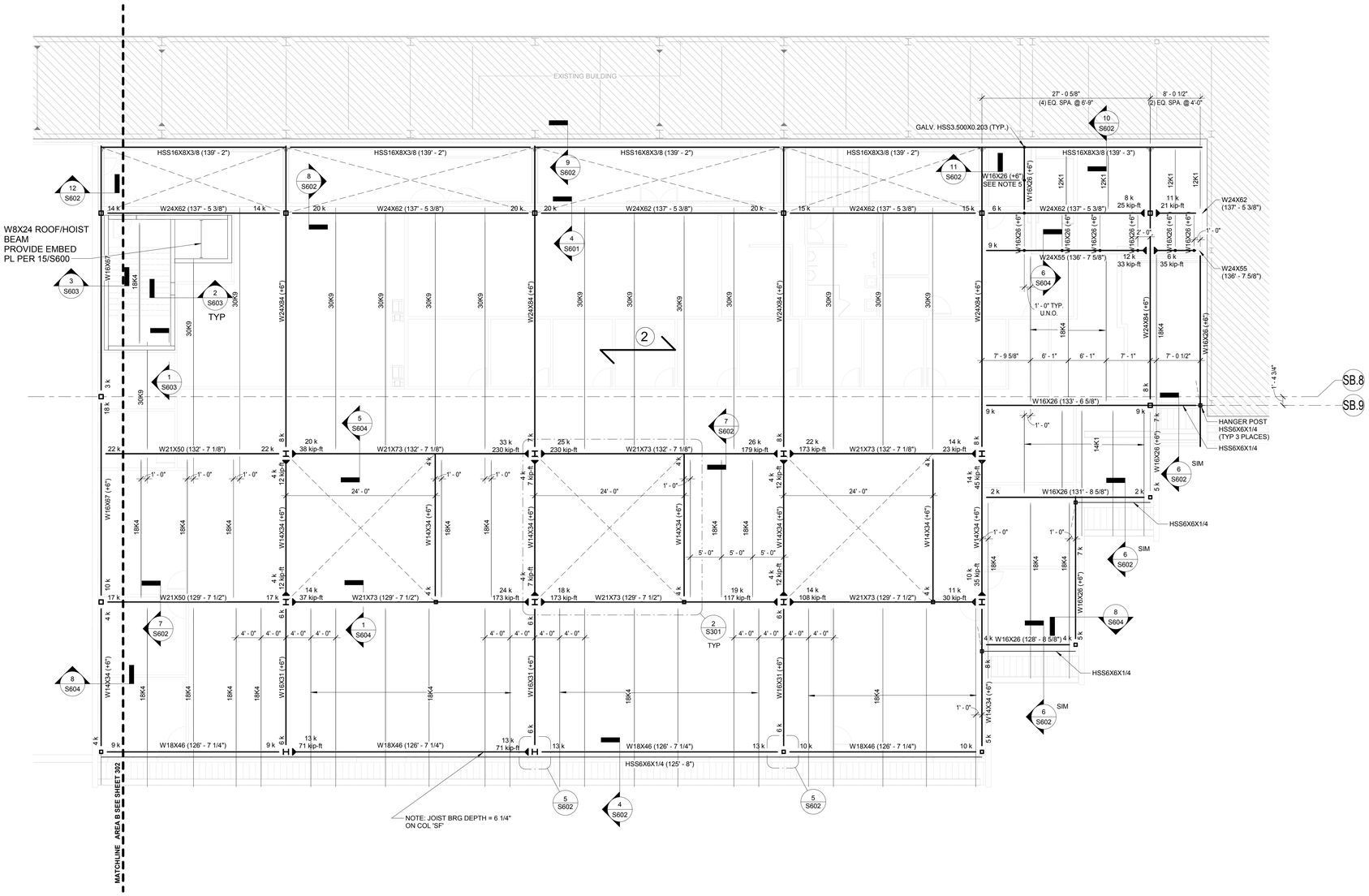
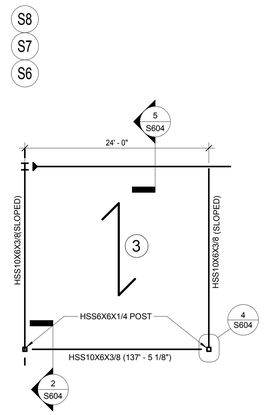


1 AREA A ROOF FRAMING PLAN

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

PLAN NOTES

1. TOP OF STEEL NOTED AS THUS (XXX'-XX").
2. (2) INDICATES SPAN DIRECTION OF 2" 22 GA. DOVETAIL (TYPE D) METAL ROOF DECK.
3. 125 k-ft INDICATES ULTIMATE MOMENT AT END OF BEAM FOR CONNECTION DESIGN BY CONTRACTOR.
4. 12k INDICATES ULTIMATE SHEAR LOAD AT END OF BEAM FOR CONNECTION DESIGN BY CONTRACTOR.
5. PROVIDE FULL HEIGHT STIFFENER PLATE / SHEAR CONNECTION AT END ADJACENT TO VERT HSS ROUND TO PROVIDE ROTATIONAL STIFFNESS.
6. TYPICAL JOIST BEARING DEPTH FOR SLOPED JOISTS IN AREA A IS 6", EXCEPT FOR THOSE AT COLUMN LINE "SF", WHERE THE JOISTS BEARING 6 1/4".



NOTES:

1. (3) INDICATES SPAN DIRECTION OF 6" 16 GA ENVISTA ACOUSTICAL DECK (OR APPROVED EQUAL).

2 CLERESTORY FRAMING

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

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AREA A - ROOF FRAMING PLAN

SHEET NUMBER:

S301

67 OF 131 SHEETS

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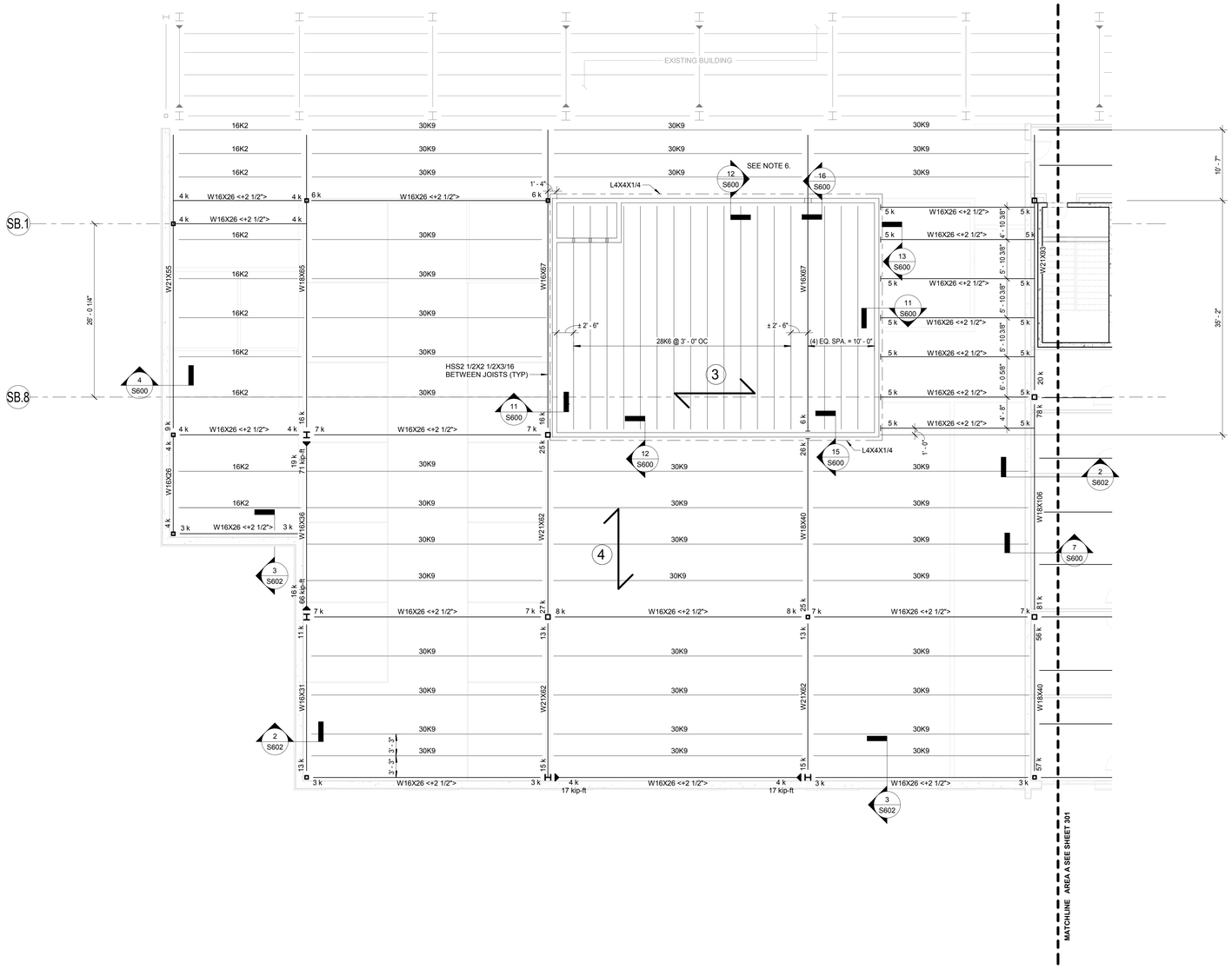

1 **AREA B ROOF FRAMING PLAN**
SCALE = 1/8" = 1'-0"

PLAN NOTES

1. TOP OF STEEL (JOIST BEARING) EL = 114' - 3" UNLESS NOTED THUS <+2 1/2">.
2. (3) INDICATES SPAN DIRECTION OF 0.6C 22 GA. CONFORM DECK WITH 6" CONC TOPPING AND #4 @9" C/C EA WAY - TOP OF SLAB EL = 114' - 7"
3. (4) INDICATES SPAN DIRECTION OF 1 1/2" 22 GA. WIDE-RIBBED (TYPE B) METAL ROOF DECK - TOP OF DECK EL = 114' - 7"
4. 120 k-ft INDICATES ULTIMATE MOMENT AT END OF BEAM FOR CONNECTION DESIGN BY CONTRACTOR.
5. INDICATES EMBED PL CONN CONNECTION.
6. AT INDICATED LOCATIONS PROVIDE 5" JOIST BEARING DEPTH

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SHEET TITLE:

AREA B - ROOF FRAMING PLAN

SHEET NUMBER:

S302

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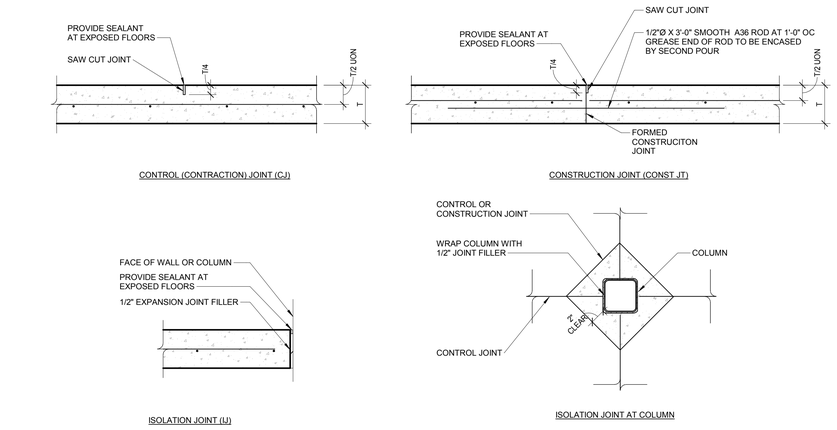
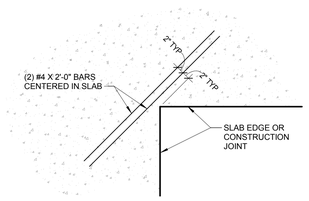
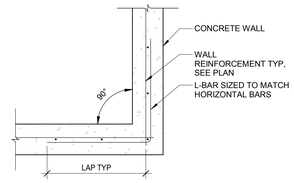


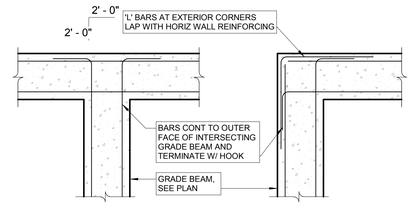
1 TYPICAL SLAB ON GRADE JOINTS
SCALE = 1 1/2" = 1'-0"



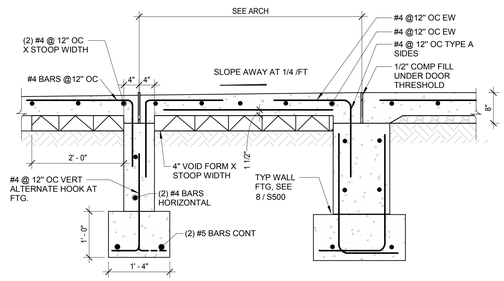
2 TYPICAL SLAB CORNER REINFORCEMENT DETAIL
SCALE = 3/4" = 1'-0"



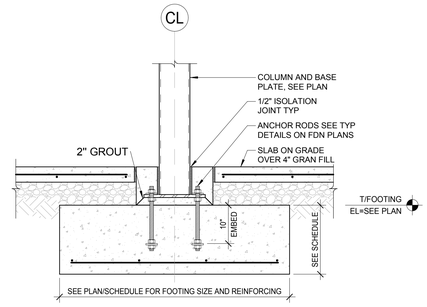
3 TYPICAL WALL CORNER REINFORCING
SCALE = 3/4" = 1'-0"



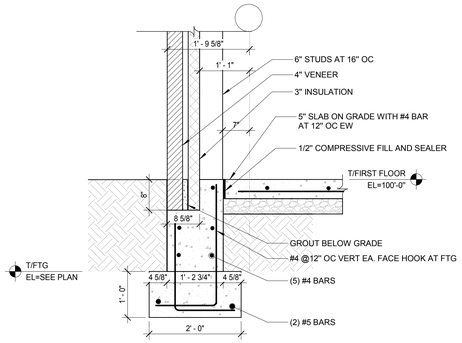
4 TYPICAL FOOTING CORNER REINFORCING
SCALE = 3/4" = 1'-0"



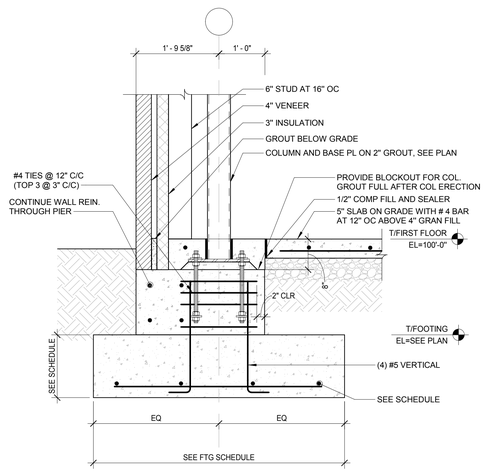
6 TYP STOOP DETAIL
SCALE = 3/4" = 1'-0"



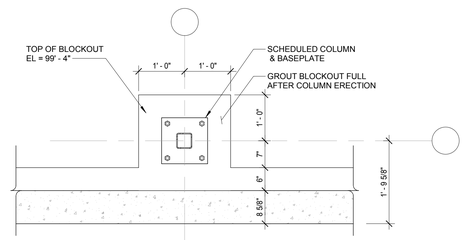
7 INTERIOR COLUMN FOOTING SECTION
SCALE = 3/4" = 1'-0"



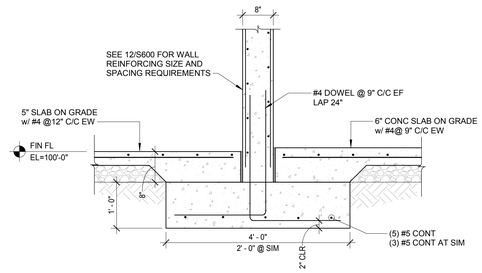
8 EXTERIOR COLUMN FOOTING SECTION
SCALE = 3/4" = 1'-0"



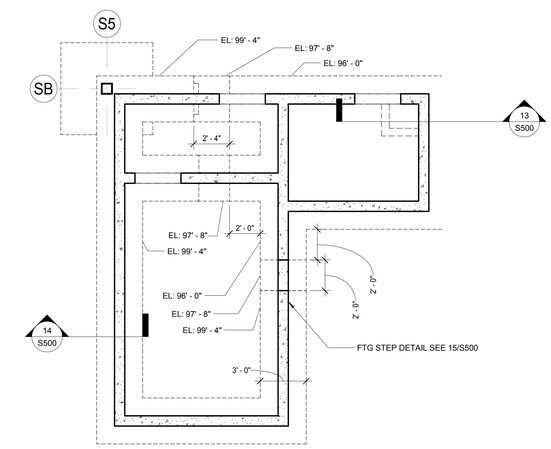
9 EXTERIOR COLUMN FOOTING SECTION
SCALE = 3/4" = 1'-0"



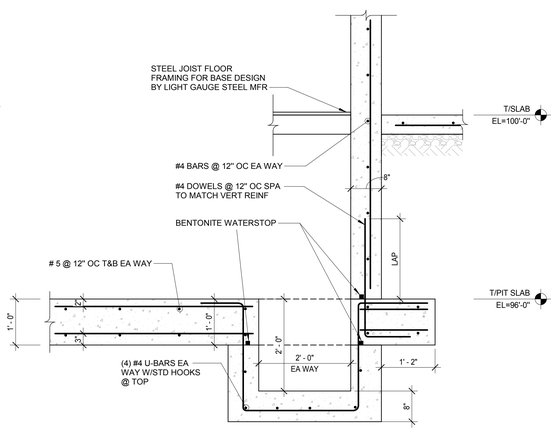
10 COLUMN PIER DETAIL
SCALE = 3/4" = 1'-0"



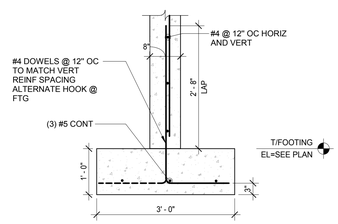
11 VAULT WALL FOOTING
SCALE = 3/4" = 1'-0"



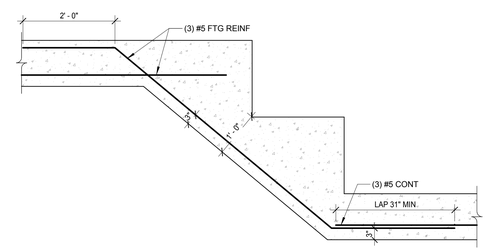
12 ELEVATOR TOWER PLAN
SCALE = 1/4" = 1'-0"



13 STAIR TOWER FDN DETAIL
SCALE = 3/4" = 1'-0"



14 STAIR TOWER FOOTING
SCALE = 3/4" = 1'-0"



15 FOOTING STEP DTL
SCALE = 3/4" = 1'-0"

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SHEET TITLE:

FOUNDATION DETAILS

SHEET NUMBER:

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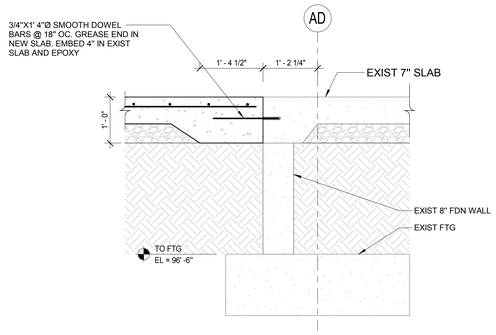

1 FOUNDATION DTL EXIST

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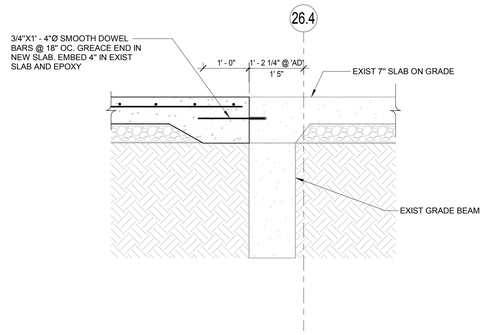
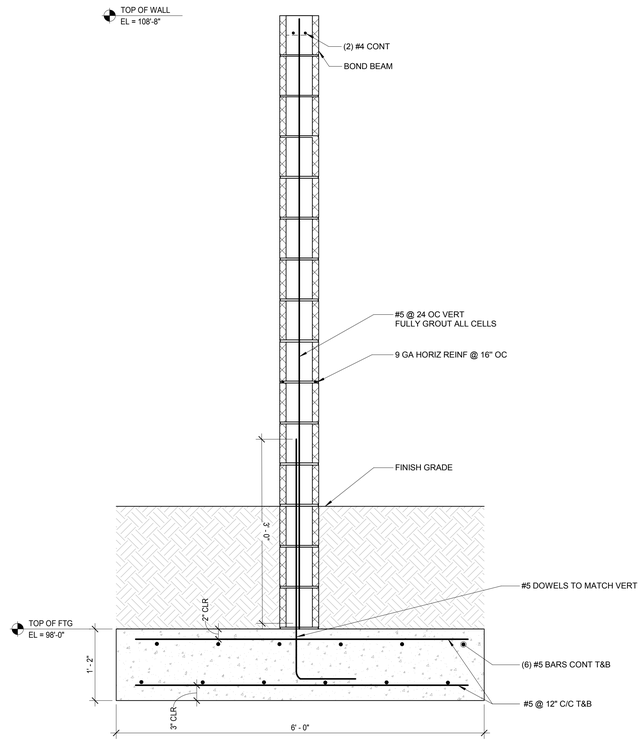


2 SLAB DETAIL AT EXISTING

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



3 MECHANICAL SCREEN SECTION

SCALE = 1" = 1'-0"

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CHRISTOPHER PHILPY
NUMBER PE-2019023464
2-26-2020
PROFESSIONAL ENGINEER

Chris Philpy, Engineer MO PE-2019023464

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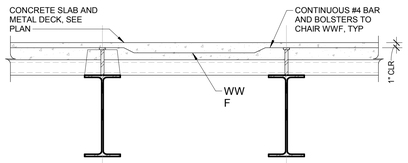
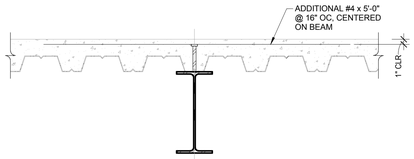
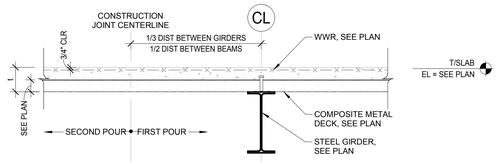


DECK PERPENDICULAR TO BEAM



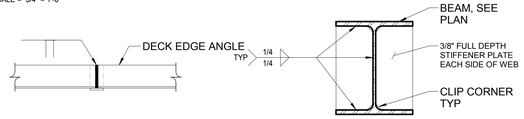
DECK PARALLEL TO BEAM

1 TYPICAL COMPOSITE SLAB REINFORCEMENT
SCALE = 1" = 1'-0"



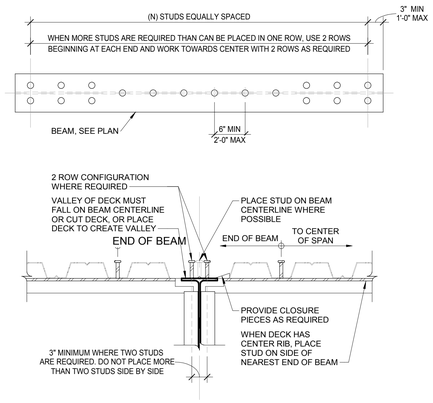
NOTES:
1. SPAN OF DECK VARIES, SEE PLAN FOR ORIENTATION.
2. WHERE CONCRETE POUR AREA RATIO IS GREATER THAN 1.5 TO 1, PROVIDE ADDITIONAL REBAR OVER BEAMS ON COLUMN LINES SIMILAR TO THOSE SHOWN ON DETAIL.

2 TYPICAL COMPOSITE METAL DECK SLAB CONSTRUCTION JOINT LOCATION DETAIL
SCALE = 3/4" = 1'-0"

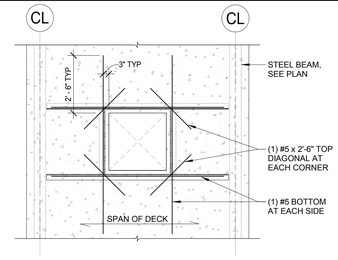


3 TYPICAL DECK ANGLE SPLICE DETAIL
SCALE = 3/4" = 1'-0"

4 TYPICAL WEB STIFFENER DETAIL
SCALE = 1 1/2" = 1'-0"

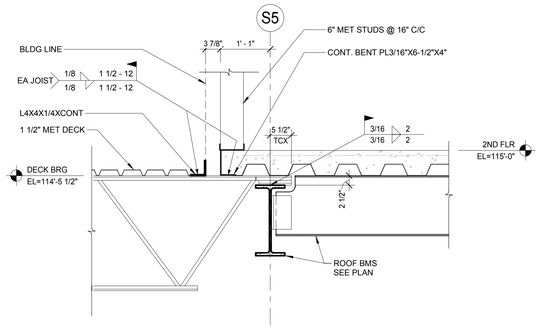


5 TYPICAL STUD PLACEMENT DETAILS - COMPOSITE BEAM
SCALE = 1" = 1'-0"

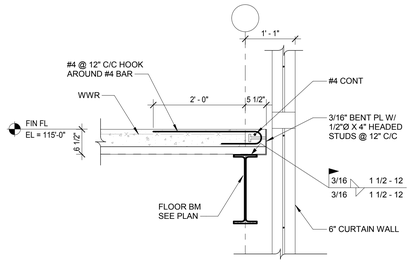


NOTE:
1. HOLES 2'-0" x 2'-0" AND SMALLER MAY BE CUT IN DECK 7 DAYS AFTER CONCRETE PLACEMENT.

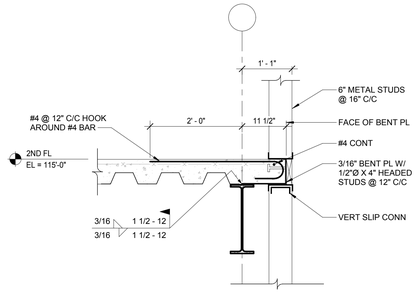
6 COMPOSITE SLAB REINFORCING AT OPENING
SCALE = 3/8" = 1'-0"



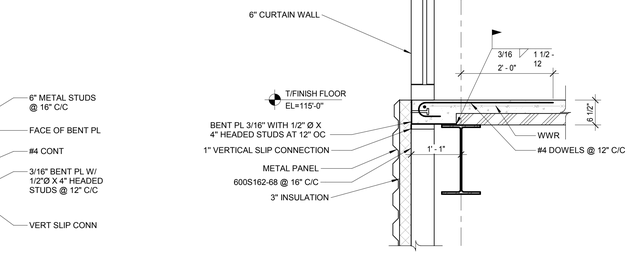
7 FRAMING DETAIL
SCALE = 3/4" = 1'-0"



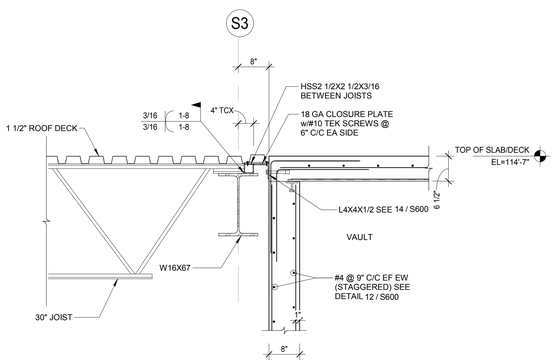
8 FRAMING DETAIL
SCALE = 3/4" = 1'-0"



9 FRAMING DETAIL
SCALE = 3/4" = 1'-0"



10 WALL SECTION
SCALE = 3/4" = 1'-0"



11 VAULT FRAMING DETAIL
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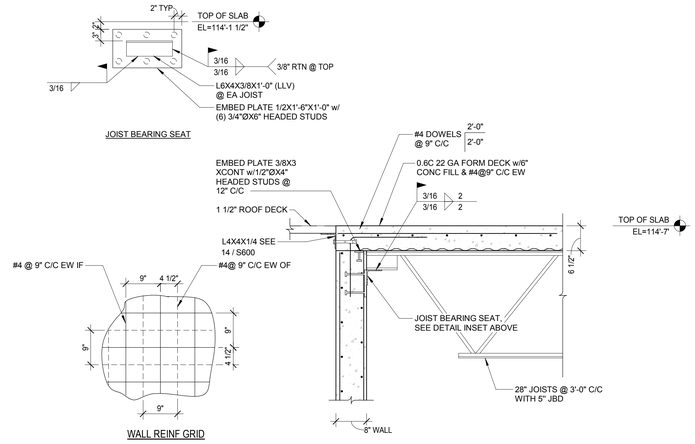
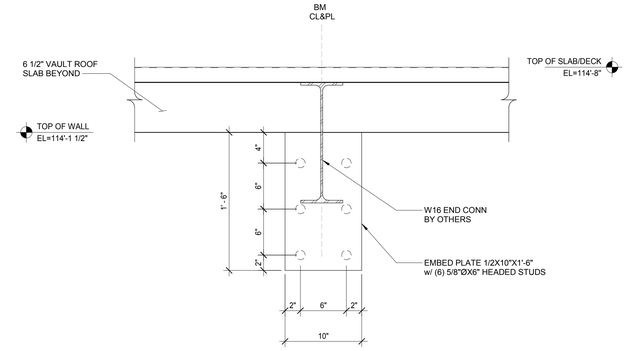
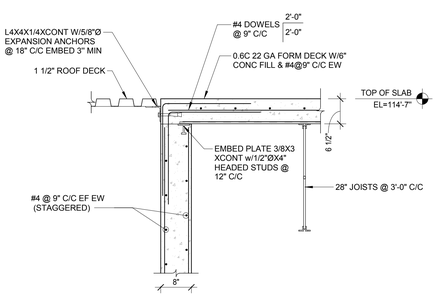


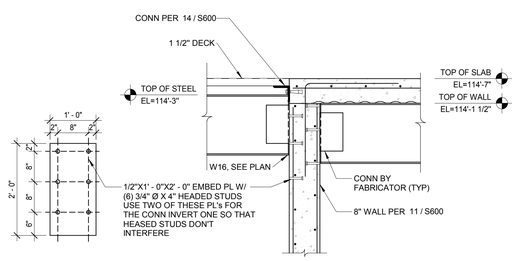
12 VAULT FRAMING DETAIL
SCALE = 3/4" = 1'-0"



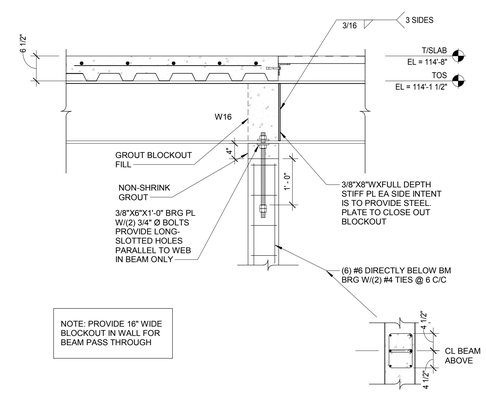
13 EMBED PLATE DETAIL
SCALE = 1 1/2" = 1'-0"



14 VAULT FRAMING DETAIL
SCALE = 3/4" = 1'-0"



15 VAULT WALL CONN DETAIL
SCALE = 3/4" = 1'-0"



NOTE: PROVIDE 16" WIDE BLOCKOUT IN WALL FOR BEAM PASS THROUGH

16 STAIR SHAFT DETAIL
SCALE = 3/4" = 1'-0"

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Chris Philpy, Engineer MO PE-2019023464

TASMG READINESS CENTER

AVCRAD SITE
1107TH THEATER AVIATION SUSTAINMENT MAINTENANCE GROUP

MISSOURI NATIONAL GUARD
SPRINGFIELD, MISSOURI

NATIONAL GUARD BUREAU PROJECT #290186
MISSOURI NATIONAL GUARD PROJECT #T1809-01
SITE #9019
ASSET #8136270008

DRAWN BY: CP/AALO
CHECKED BY: ARC
DESIGNED BY: KPK

REVISION:
DATE:
REVISION:
DATE:
REVISION:
DATE:
ISSUED DATE: 26 FEBRUARY 2020

SHEET TITLE:

FRAMING DETAILS

SHEET NUMBER:

S600

71 OF 131 SHEETS

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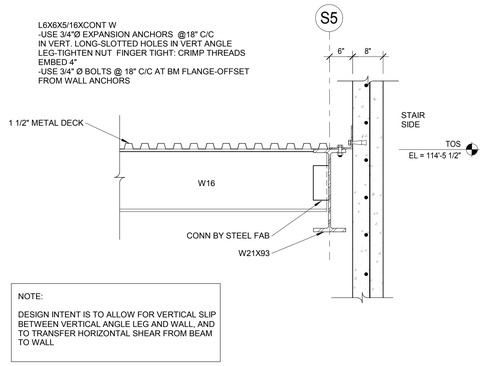
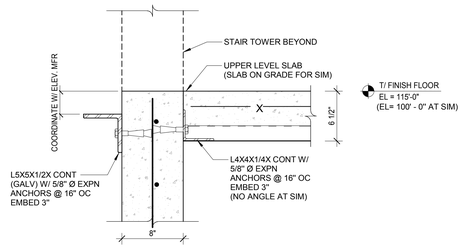


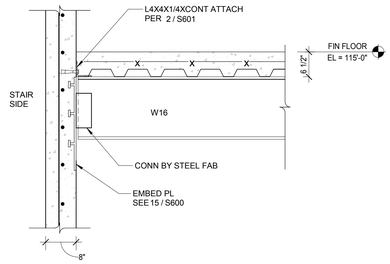
1 STAIR SHAFT DETAIL

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



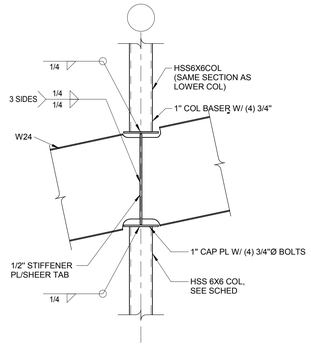
2 SLAB AT STAIRTOWER DOOR

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



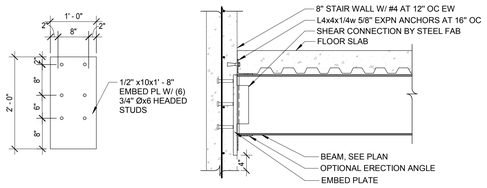
3 STAIR SHAFT DETAIL

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



4 STACKED COL DTL

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



5 STAIR TOWER EMBED PLATES

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

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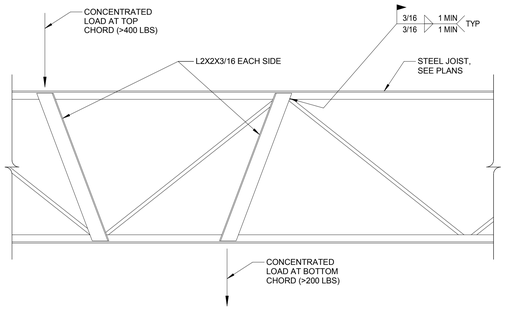
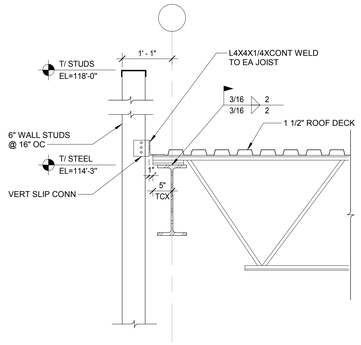


1 TYPICAL JOIST REINFORCING DETAIL
SCALE = 1" = 1'-0"



2 FRAMING DETAIL
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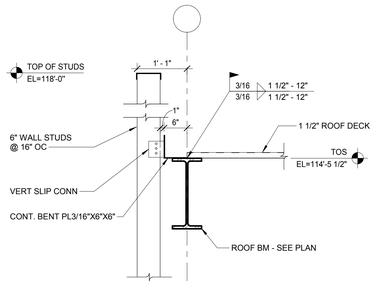
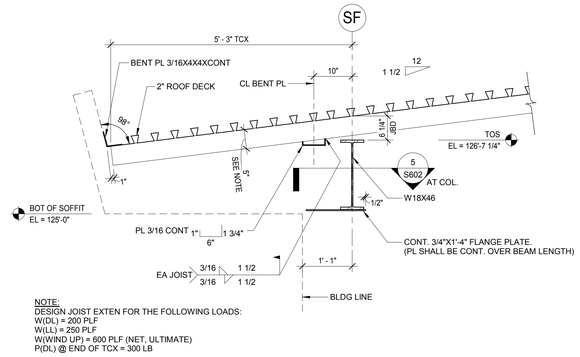
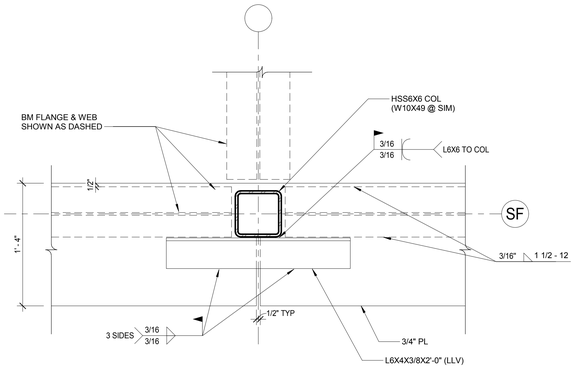


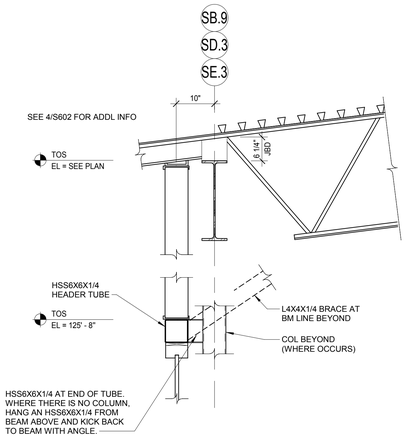
3 FRAMING DETAIL
SCALE = 3/4" = 1'-0"



4 FRAMING DETAIL
SCALE = 3/4" = 1'-0"



5 FRAMING DETAIL
SCALE = 1 1/2" = 1'-0"



6 FRAMING DETAIL
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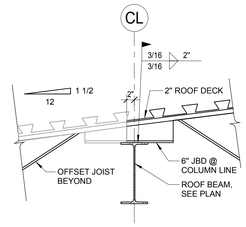
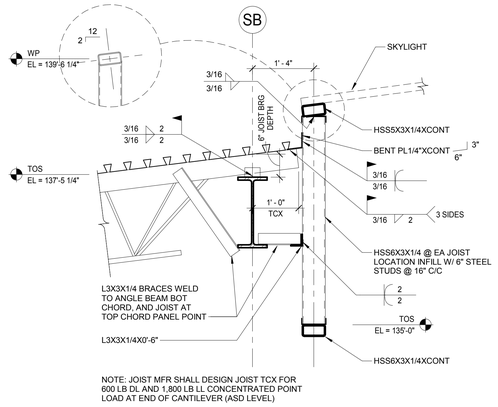
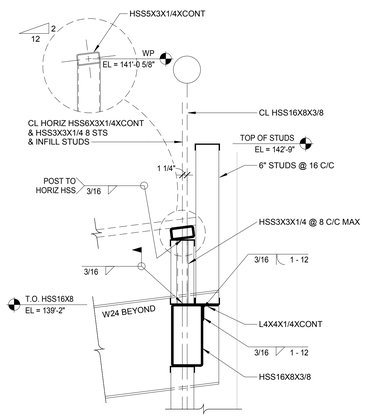


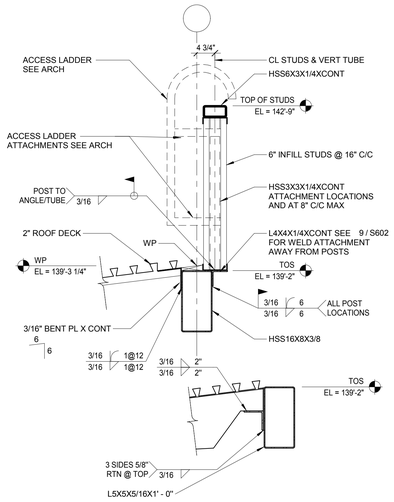
7 FRAMING DETAIL
SCALE = 3/4" = 1'-0"



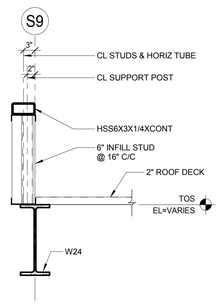
8 FRAMING DETAIL
SCALE = 3/4" = 1'-0"



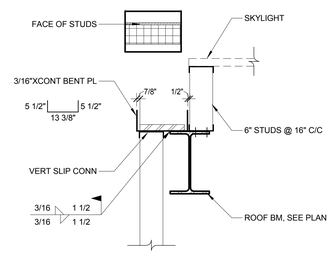
9 FRAMING DETAIL
SCALE = 3/4" = 1'-0"



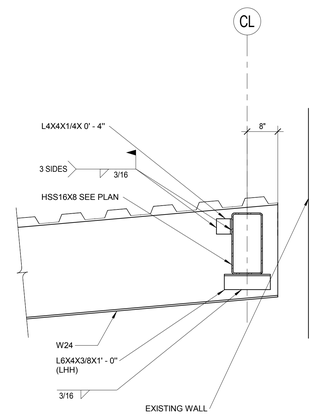
10 ROOF FRAMING DETAIL
SCALE = 3/4" = 1'-0"



11 FRAMING DETAIL
SCALE = 3/4" = 1'-0"



12 SKYLIGHT DETIAL
SCALE = 3/4" = 1'-0"



13 CONNECTION DETAIL
SCALE = 3/4" = 1'-0"

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DESIGNED BY: KPK

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SHEET TITLE:

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SHEET NUMBER:

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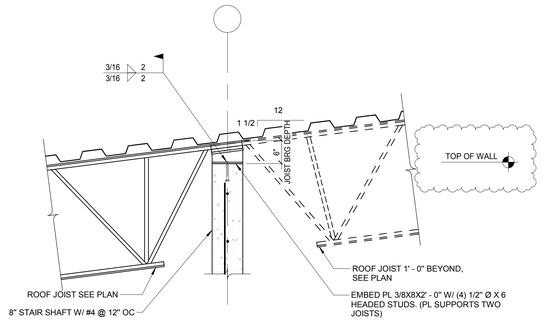
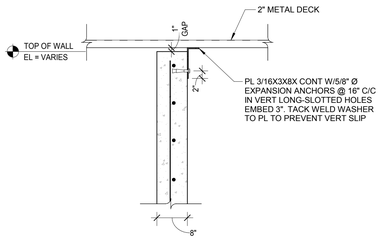


1 STAIR WALL DTL

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



2 FRAMING DETAIL

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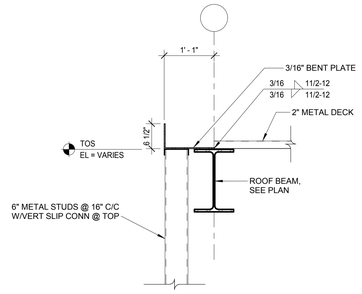
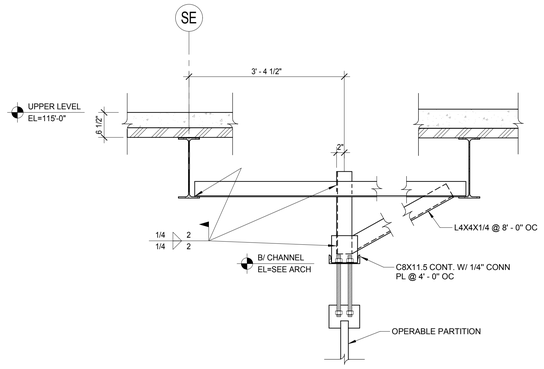


3 FRAMING DETAIL

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



4 OPERABLE PARTITION SUPPORT

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

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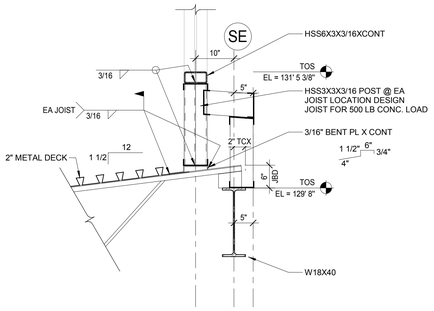
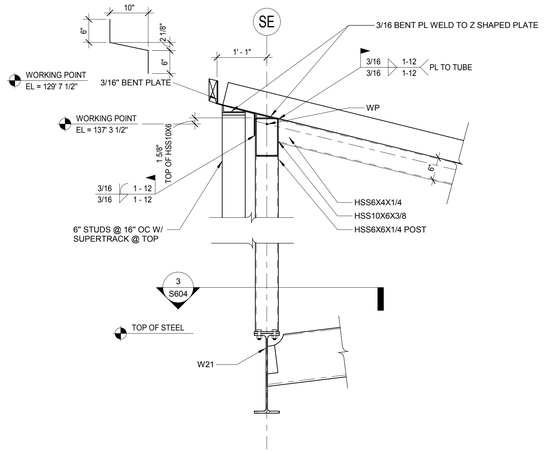


1 CLERESTROY FRAMING DTL
SCALE = 3/4" = 1'-0"



2 FRAMING DETAIL
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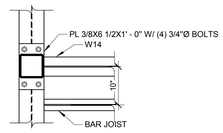
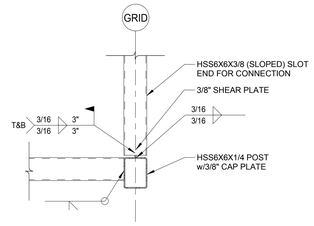
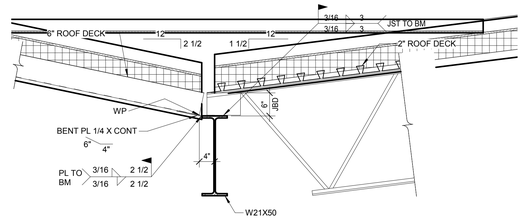


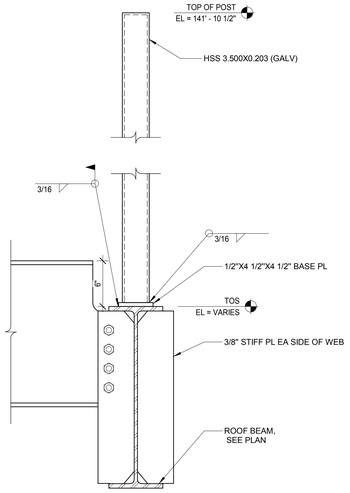
3 CLERESTORY FRAMING DETAIL SECTION
SCALE = 3/4" = 1'-0"



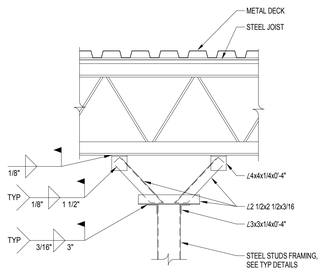
4 CLERESTORY FRAMING DTL
SCALE = 3/4" = 1'-0"



5 CLERESTORY FRAMING DTL
SCALE = 3/4" = 1'-0"

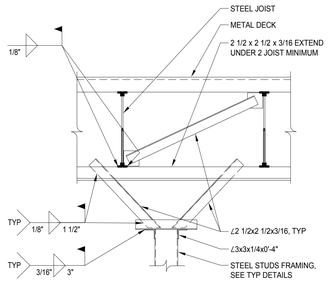


6 MECH SCREEN FRAMING
SCALE = 1 1/2" = 1'-0"



NOTE(S):
1. ALLS SHALL BE LATERALLY SUPPORTED AT A MAXIMUM SPACING OF 8'0" BY PERPENDICULAR WALLS OR BRACING AS SHOWN.
2. SEE ARCHITECTURAL DRAWING FOR PARTITION WALLS.

8 BRACING PERPENDICULAR TO STRUCTURE
SCALE = 3/4" = 1'-0"



9 BRACING PARALLEL TO STRUCTURE
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MECHANICAL SYMBOL LEGEND

STEAM

- BBD — BOILER BLOW DOWN
- CD — STEAM CONDENSATE DRAIN ABOVE GRADE
- CD — STEAM CONDENSATE DRAIN BELOW GRADE
- HPC — HIGH PRESSURE CONDENSATE
- HPS — HIGH PRESSURE STEAM
- MPC — MEDIUM PRESSURE CONDENSATE
- MPS — MEDIUM PRESSURE STEAM
- LPC — LOW PRESSURE CONDENSATE
- LPS — LOW PRESSURE STEAM
- STEAM TRAP

HYDRONIC

- CHWR — CHILLED WATER RETURN
- CHWS — CHILLED WATER SUPPLY
- MU — MAKE-UP WATER
- HHWR — HEATING WATER RETURN
- HHWS — HEATING WATER SUPPLY
- HCWR — HOT/CHILLED WATER RETURN
- HCWS — HOT/CHILLED WATER SUPPLY
- HPR — HEAT PUMP RETURN
- HPS — HEAT PUMP SUPPLY
- CTR — COOLING TOWER RETURN
- CTS — COOLING TOWER SUPPLY
- CR — CONDENSER WATER RETURN
- CS — CONDENSER WATER SUPPLY
- ERR — ENERGY RECOVERY RETURN
- ERS — ENERGY RECOVERY SUPPLY
- AUTOMATIC AIR VENT
- MANUAL AIR VENT

SITE

- W — WATER SERVICE
- CURB STOP VALVE
- SAN — SANITARY SEWER (SITE)
- POST INDICATOR VALVE
- POST INDICATOR VALVE WITH TAMPER SWITCH
- F — BUILDING SPRINKLER FIRE MAIN
- SS — STORM SEWER (SITE)
- SD — STORM DRAIN
- THRUST BLOCK
- LS — LAWN SPRINKLER
- W — WATER MAIN
- W — WELL
- YHT — YARD HYDRANT
- TREE
- X — X — WIRE FENCE
- GAR — GAS RISER
- GM — GAS METER
- ER — ELECTRICAL RISER
- SB — SWITCH BOX
- PRP — PROPERTY CORNER
- CONTROL POINT
- BENCHMARK
- MLB — MAIL BOXES
- WDP — WOODEN POST
- TIE DOWN
- CONCRETE
- GRAVEL

GENERAL

- EXISTING
- DEMOLITION
- NEW
- NEW TO EXISTING
- # — SHEET KEYNOTE
- REVISION DELTA
- PIPE UP OR DUCT UP
- PIPE OR DUCT DOWN
- PIPE OR DUCT CAP
- PIPE ANCHOR
- PIPE GUIDE
- PIPE ROLLER SUPPORT
- FLOW DIRECTION ARROW
- PIPE EXPANSION JOINT
- FLEXIBLE CONNECTOR
- CONCENTRIC REDUCER
- ECCENTRIC REDUCER

VALVES

- T&P RELIEF VALVE
- ISOLATION VALVE
- ISOLATION VALVE IN VERTICAL POSITION
- CHECK VALVE
- BALANCING VALVE
- AUTOMATIC 2-WAY VALVE
- AUTOMATIC 3-WAY VALVE
- PRESSURE REDUCING & REGULATING VALVE
- PRESSURE REGULATING VALVE
- DIAPHRAGM VALVE
- ANGLE VALVE
- STRAINER
- UNION

SPECIALTY SYSTEMS

- RO — REVERSE OSMOSIS
- OX — OXYGEN PIPING
- RD — REFRIGERANT DISCHARGE
- FOR — FUEL OIL RETURN
- FOS — FUEL OIL SUCTION
- FOV — FUEL OIL VENT
- G — NATURAL GAS
- LPG — LIQUID PETROLEUM GAS
- A — COMPRESSED AIR
- LR — LIQUID REFRIGERANT
- SR — SUCTION REFRIGERANT
- RL — PAIR REFRIGERANT LINES (SUCTION, LIQUID)
- P — PROPANE
- CO2 — CARBON DIOXIDE
- N — NITROGEN
- A — AIR OUTLET
- VAC — VACUUM (AIR)
- DI — DISTILLED WATER
- LV — LABORATORY VACUUM
- MV — MEDICAL VACUUM
- N2O — NITROUS OXIDE
- LOX — LIQUID OXYGEN
- LA — LABORATORY COMPRESSED AIR
- MA — MEDICAL COMPRESSED AIR
- DE — DEIONIZED WATER

SANITARY & DOMESTIC

- SANITARY DRAIN BELOW GRADE (PLAN)
- SANITARY DRAIN ABOVE GRADE (PLAN)
- COLD WATER (CW)
- HOT WATER (HW)
- HOT WATER CIRCULATING (HWC)
- SCW — SOFT COLD WATER
- SHW — SOFT HOT WATER
- 140 HW — 140°F DOMESTIC HOT WATER
- T — TEMPERED WATER
- TC — TEMPERED WATER CIRCULATING
- V — VENT
- VBF — VENT BELOW FLOOR
- AV — ACID VENT
- AW — ACID WASTE
- CD — CONDENSATE DRAIN PIPING
- RD — ROOF DRAIN (ABOVE GRADE)
- RD — ROOF DRAIN (BELOW GRADE)
- OD — OVERFLOW DRAIN (ABOVE GRADE)
- OD — OVERFLOW DRAIN (BELOW GRADE)
- SS — SUB-SOIL DRAIN (DRAIN TILE)
- FM — FORCE MAIN (PUMP DISCHARGE)

FIRE

- F — FIRE PROTECTION PIPING
- FIRE DEPARTMENT CONNECTION
- S — DUCT SMOKE DETECTOR AND RELAY
- TS — TAMPER SWITCH
- FS — FLOW SWITCH
- SPRINKLER HEAD, PENDANT
- SPRINKLER HEAD, SIDE WALL

FIXTURES

- WATER CLOSET AND TYPE
- URINAL AND TYPE
- LAVATORY OR SINK AND TYPE
- BATHTUB AND TYPE
- SHOWER AND TYPE
- SERVICE SINK OR MOP SINK AND TYPE
- ELECTRIC WATER COOLER AND TYPE
- VTR — VENT THRU ROOF
- RD-1 — ROOF DRAIN
- OD-1 — OVERFLOW DRAIN
- GCO — GRADE CLEAN OUT
- FCO — FLOOR CLEAN OUT
- WCO — WALL CLEAN OUT
- CO — HORIZ. CLEAN OUT
- FD-1/FS-1 — FLOOR DRAIN OR SINK AND TYPE
- HB-1 — HOSE BIBB
- WH-1 — WALL HYDRANT
- YH-1 — YARD HYDRANT
- DOWNSPOUT NOZZLE
- M — WATER/GAS METER

HVAC

- CD-1 8"x 200 — CEILING DIFFUSER — DESIGNATION, NECK SIZE, CFM
- CD-2 8"x 300 — LINEAR DIFFUSER — DESIGNATION, NECK SIZE, CFM
- SR-1 10x8 250 — SUPPLY REGISTER — DESIGNATION, SIZE, CFM
- RA-1 12x12 250 — RETURN AIR GRILLE — DESIGNATION, SIZE, CFM (OPTIONAL)
- RG-1 12x8 250 — RETURN AIR GRILLE — DESIGNATION, SIZE, CFM (OPTIONAL)
- EG-1 12x8 300 — EXHAUST AIR GRILLE — DESIGNATION, SIZE, CFM
- T — THERMOSTAT
- H — HUMIDISTAT
- CO2 — CARBON DIOXIDE SENSOR
- 12x8 — RECTANGULAR DUCT (WxH)
- 12"ø — ROUND DUCT (DIA.)
- 12x8 — OVAL DUCT (W/H)
- SUPPLY AIR/OUTSIDE AIR UP AND DOWN
- RETURN AIR UP AND DOWN
- EXHAUST AIR UP AND DOWN
- MANUAL VOLUME DAMPER
- MOTORIZED DAMPER
- BACKDRAFT DAMPER
- FIRE DAMPER
- SMOKE DAMPER
- COMBINATION FIRE AND SMOKE DAMPER
- TURNING VANES
- VOLUME EXTRACTOR

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Engineer of Record

STATE OF MISSOURI — CORY WILSON — 02-26-2020 — NUMBER PE-2010009876 — PROFESSIONAL ENGINEER

Cory Wilson, Engineer MO PE-2010009876

TASMG READINESS CENTER

AVCRAD SITE
1107TH THEATER AVIATION SUSTAINMENT MAINTENANCE GROUP

MISSOURI NATIONAL GUARD
SPRINGFIELD, MISSOURI

NATIONAL GUARD BUREAU PROJECT #290186
MISSOURI NATIONAL GUARD PROJECT #T1809-01
SITE #9019
ASSET #8136270008

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CHECKED BY: MS
DESIGNED BY: AL

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DATE:
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DATE:
ISSUED DATE: 26 February 2020

SHEET TITLE:

GENERAL MECHANICAL INFORMATION

SHEET NUMBER:

GM100

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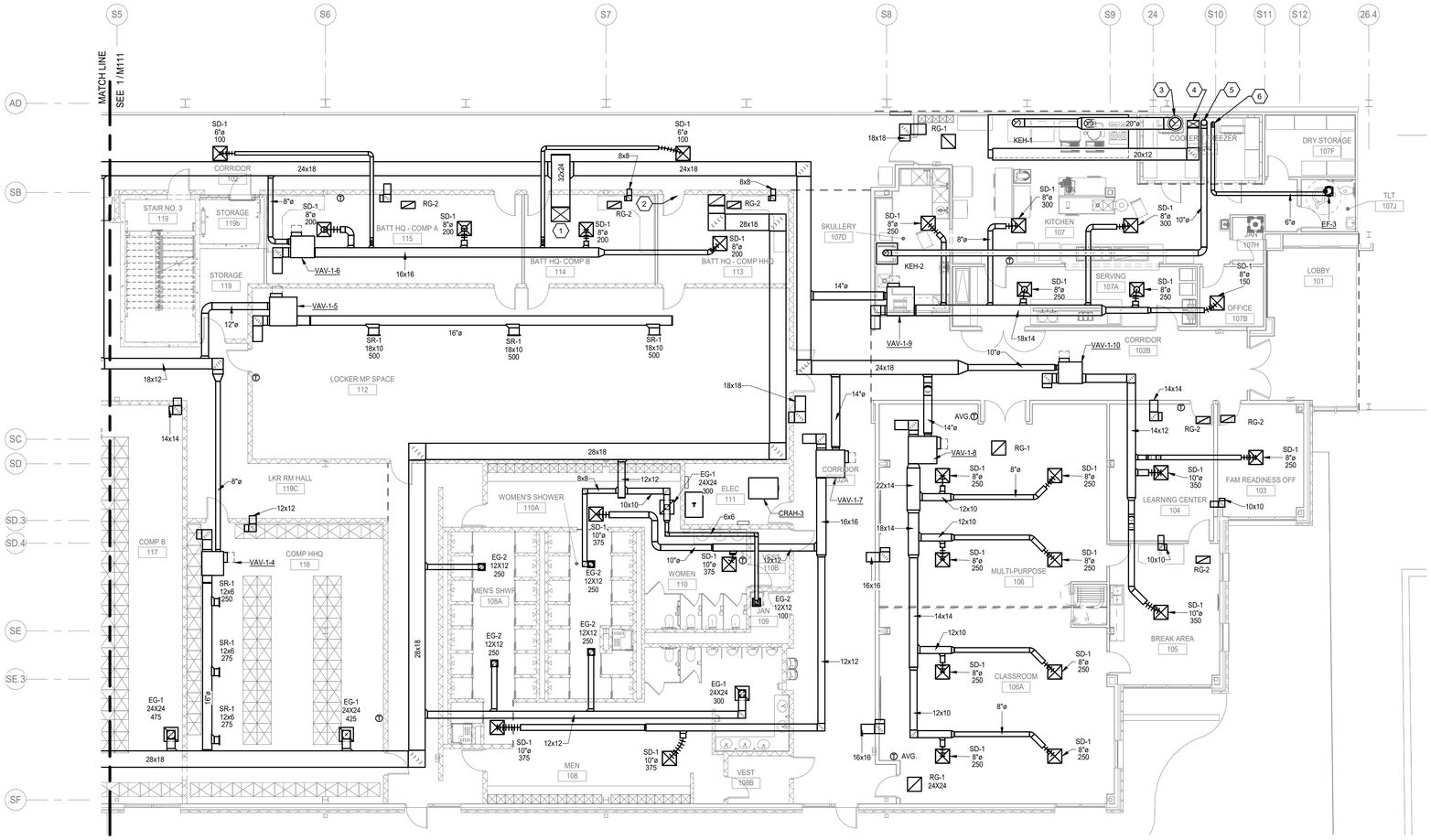
SHEET KEYNOTES

1. SUPPLY DUCTWORK DOWN FROM FLOOR ABOVE.
2. RETURN DUCT UP TO FLOOR ABOVE, SEE SECOND FLOOR PLAN FOR CONTINUATION.
3. GREASE EXHAUST DUCT UP TO FLOOR ABOVE, SEE SECOND FLOOR PLAN FOR CONTINUATION.
4. GREASE HOOD MAKE UP AIR DOWN FROM FLOOR ABOVE, SEE SECOND FLOOR PLAN FOR CONTINUATION.
5. DISHWASHER EXHAUST DUCT UP TO FLOOR ABOVE, SEE SECOND FLOOR PLAN FOR CONTINUATION.
6. RESTROOM EXHAUST DUCT UP TO FLOOR ABOVE, SEE SECOND FLOOR PLAN FOR CONTINUATION.



1 FIRST FLOOR MECHANICAL PLAN - AREA A
1/8" = 1'-0"

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FIRST FLOOR MECHANICAL PLAN - AREA A

SHEET NUMBER:

M110

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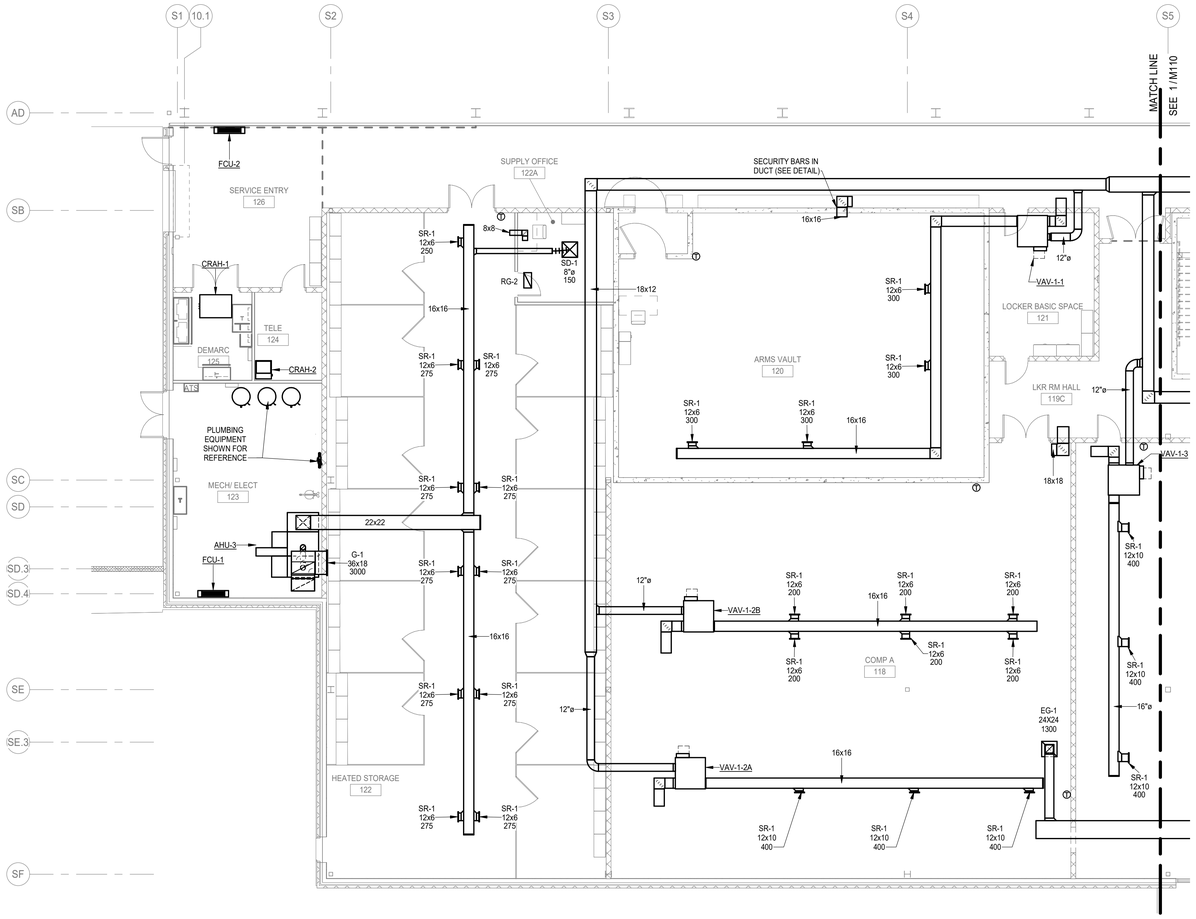

1 FIRST FLOOR MECHANICAL PLAN - AREA B

1/8" = 1'-0"

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FIRST FLOOR MECHANICAL PLAN - AREA B

SHEET NUMBER:

M111

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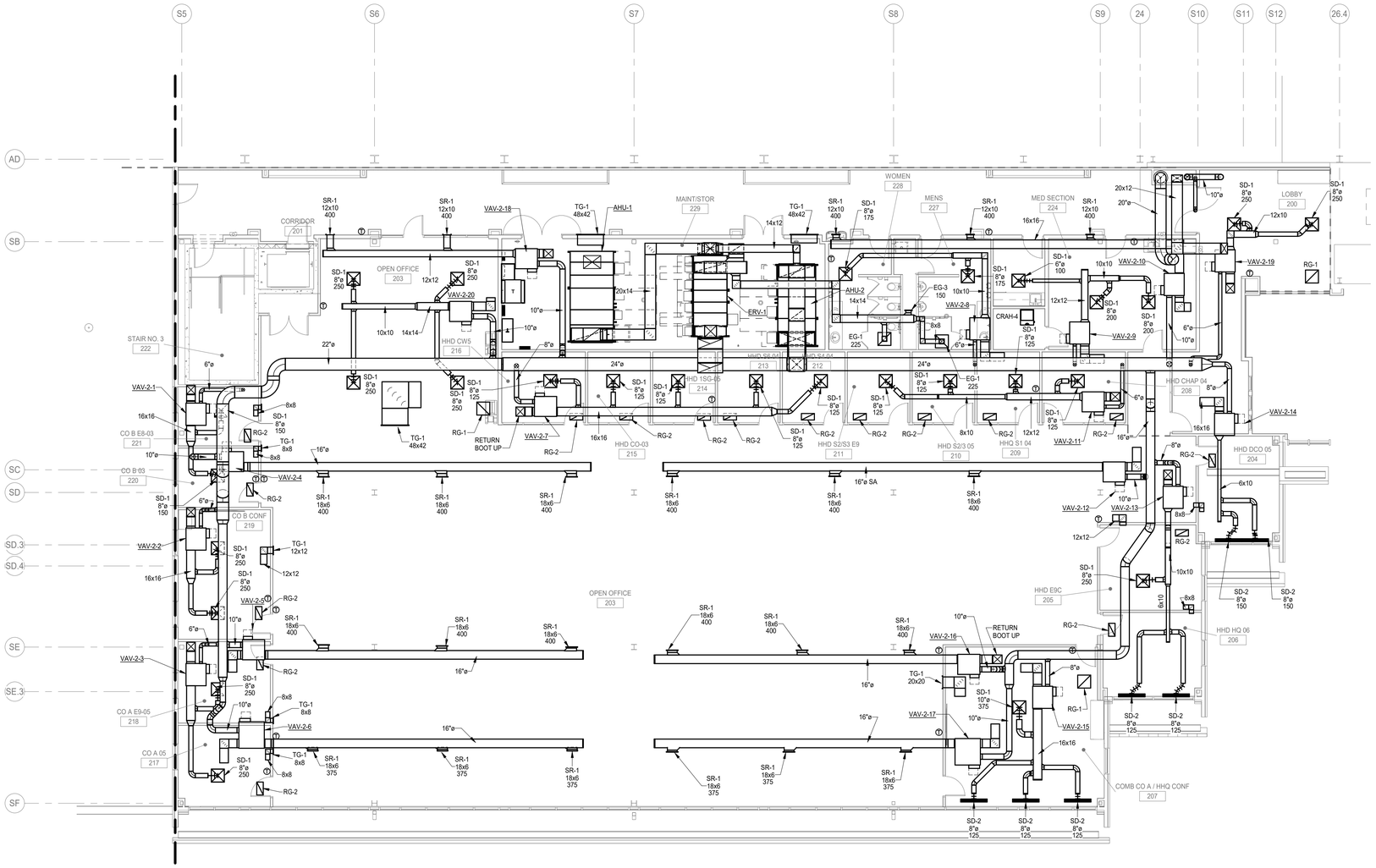

1 SECOND FLOOR MECHANICAL PLAN

1/8" = 1'-0"

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SECOND FLOOR MECHANICAL PLAN

SHEET NUMBER:

M120

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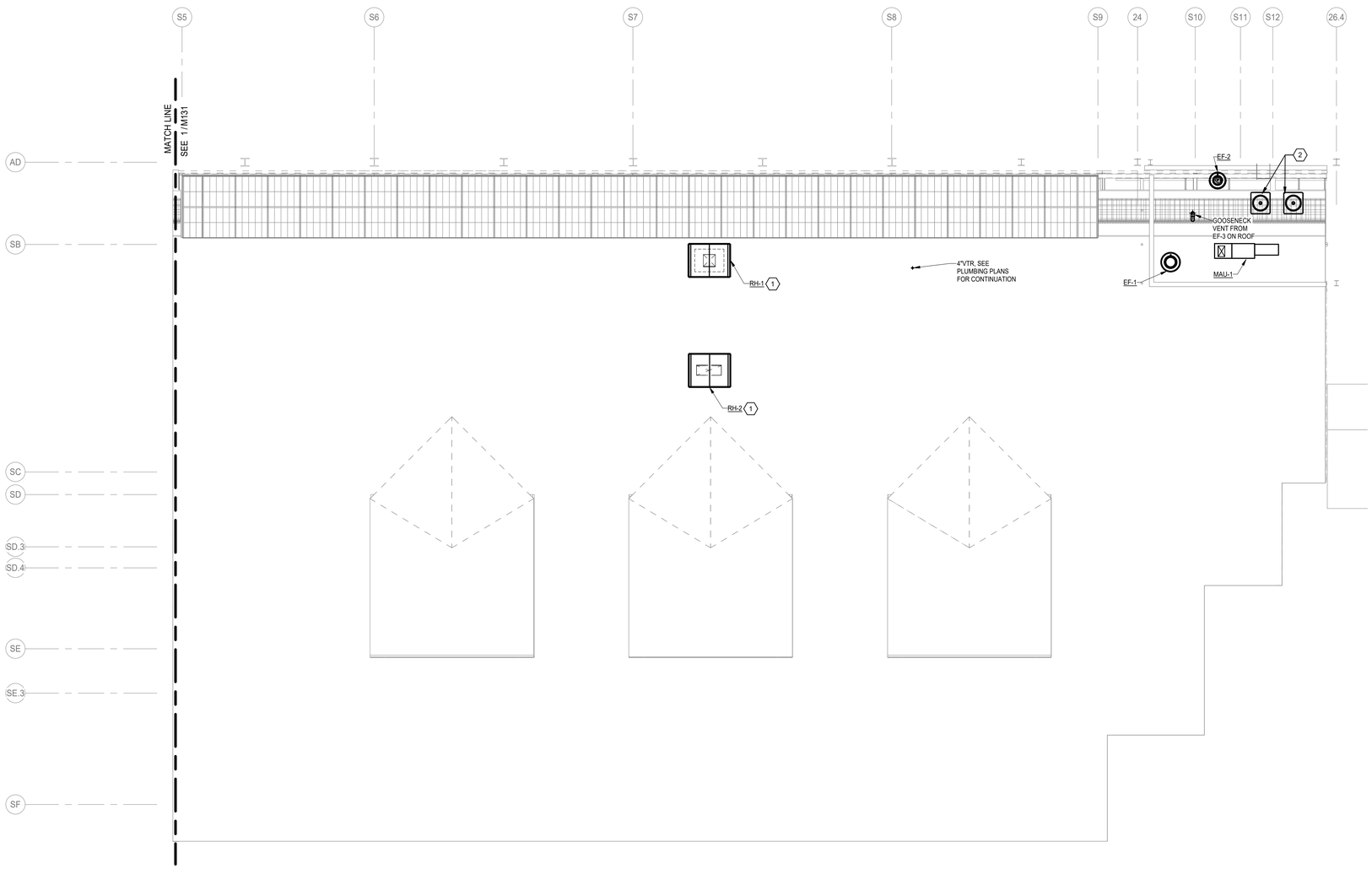
SHEET KEYNOTES

1. ROOF HOOD RH-1 AND RH-2 BASIS OF DESIGN LOREN COOK MODEL GR THROAT DIMENSION 54"X42".
2. PREFERED LOCATION FOR KITCHEN COOLER/FREEZE CONDENDING UNITS. EQUIPMENT PROVED BY OTHERS. INSTALL PER MANUFACTURERS RECOMMENDATIONS. COORDINATE EXACT LOCATION WITH STRUCTURE AND EQUPMENT PROVEDED.



1 ROOF MECHANICAL PLAN - AREA A
1/8" = 1'-0"

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ROOF MECHANICAL PLAN - AREA A

SHEET NUMBER:

M130

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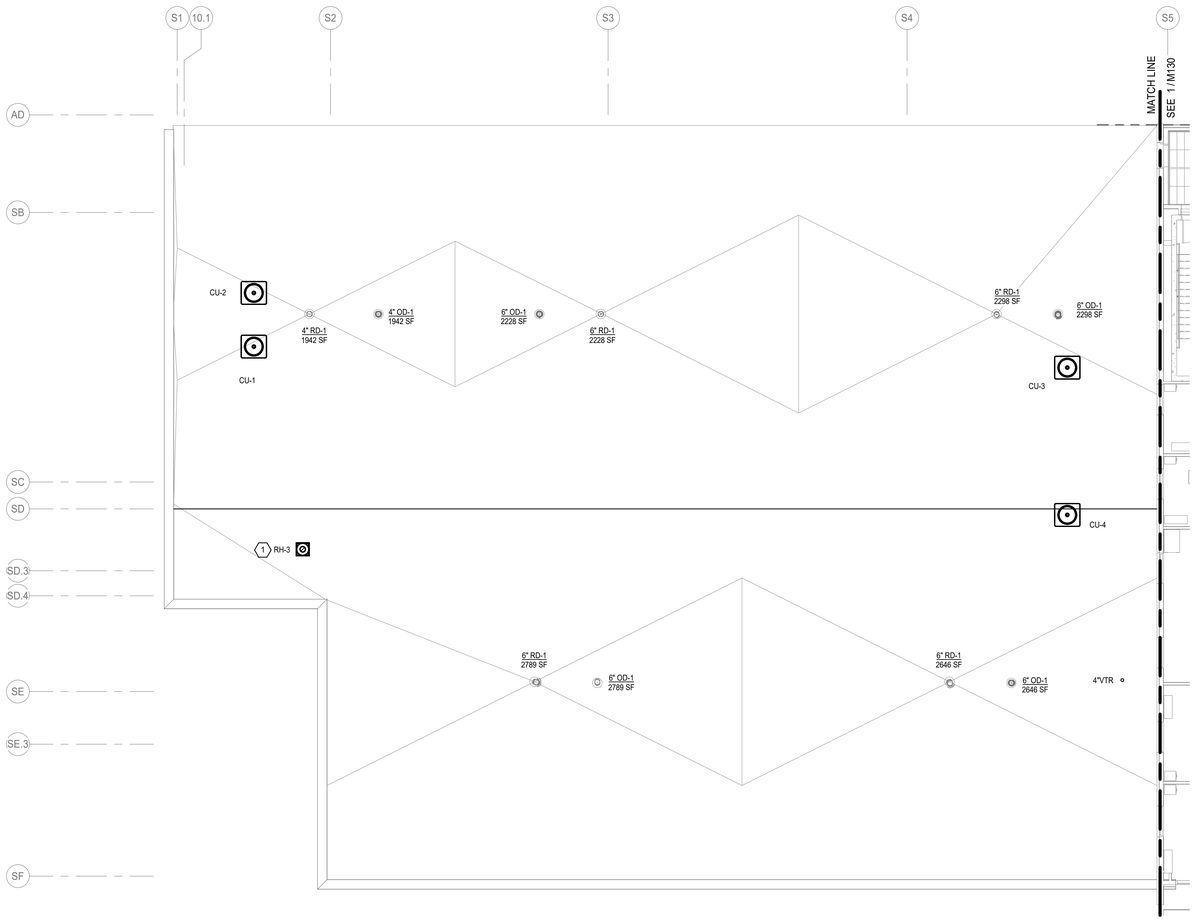
SHEET KEYNOTES

1. ROOF HOOD RH-3 BASIS OF DESIGN LOREN COOK MODEL PR-12.



1 ROOF MECHANIAL PLAN - AREA B
1/8" = 1'-0"

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ROOF MECHANICAL PLAN - AREA B

SHEET NUMBER:

M131

81 OF 131 SHEETS

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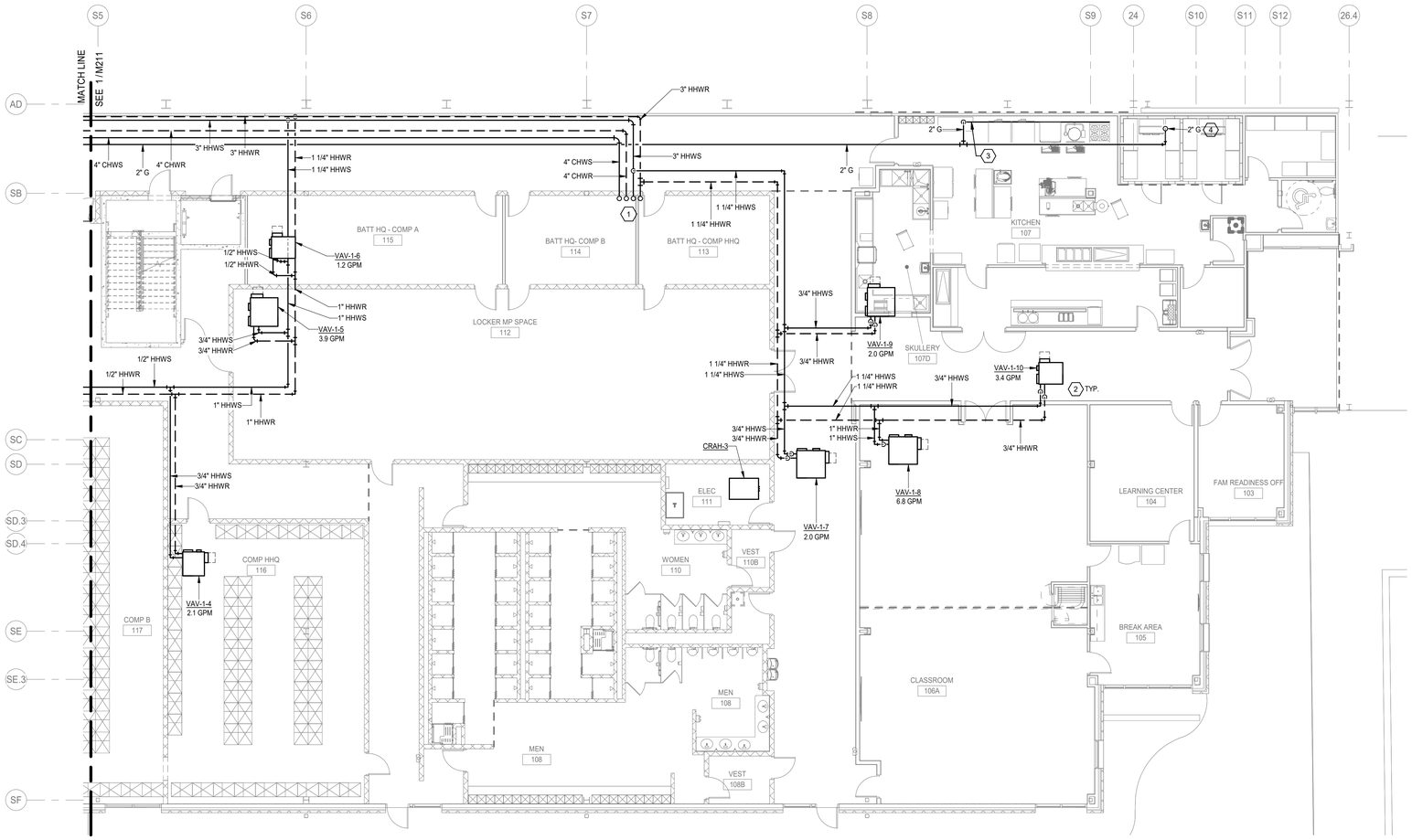
SHEET KEYNOTES

1. HEATING HOT WATER AND CHILLED WATER LINES UP TO FLOOR ABOVE.
2. FINAL CONNECTIONS TO HYDRONIC COILS NOT SHOWN FOR CLARITY. SEE VAV COIL CONNECTION DETAIL FOR FITTINGS AND ACCESSORIES NECESSARY.
3. NATURAL GAS LINE TO KITCHEN EQUIPMENT. SEE KITCHEN PLANS FOR SIZE. CONNECT PER EQUIPMENT MANUFACTURER'S RECOMENDATIONS.
4. NATURAL GAS LINE UP IN CHASE TO EQUIPMENT ON ROOF, SEE SECOND FLOOR AND ROOF PLAN FOR CONTINUATION.



1 FIRST FLOOR MECHANICAL PIPING PLAN - AREA A
1/8" = 1'-0"

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FIRST FLOOR MECHANICAL PIPING PLAN - AREA A

SHEET NUMBER:

M210

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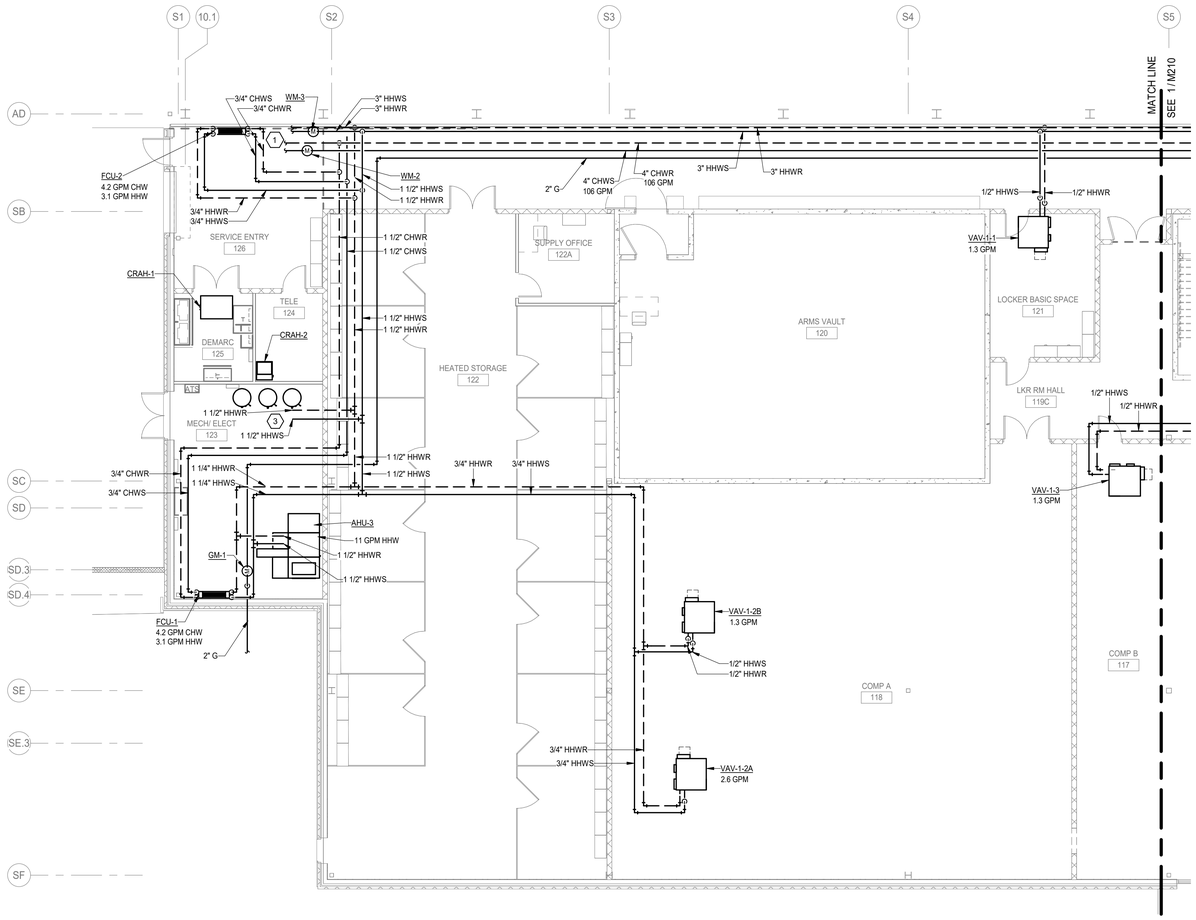
SHEET KEYNOTES

1. CONNECT HEATING HOT WATER AND CHILLED WATER TO SYSTEMS FROM ADJACENT BUILDING.
2. FINAL CONNECTIONS TO HYDRONIC COILS NOT SHOWN FOR CLARITY. SEE VAV COIL CONNECTION DETAIL FOR FITTINGS AND ACCESSORIES NECESSARY.
3. HEATING HOT WATER LINES TO DOMESTIC HOT WATER HEATERS SEE DETAIL FOR CONNECTION SIZE AND NECESSARY FITTINGS AND ACCESSORIES.



1 FIRST FLOOR MECHANICAL PIPING PLAN - AREA B
1/8" = 1'-0"

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FIRST FLOOR MECHANICAL PIPING PLAN - AREA B

SHEET NUMBER:

M211

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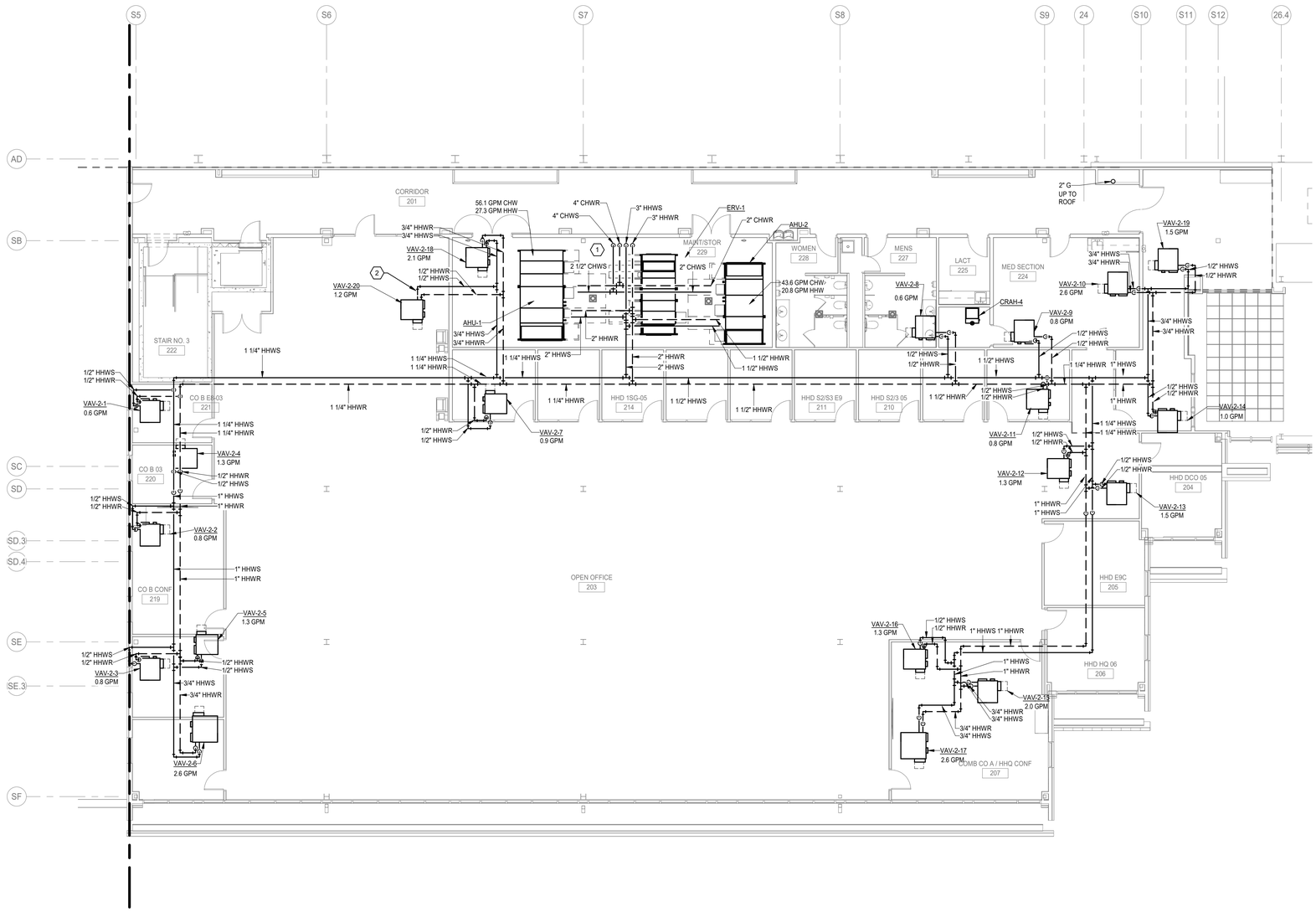
SHEET KEYNOTES

1. CHILLED WATER AND HEATING HOT WATER LINES UP FROM FLOOR BELOW, COORDINATE EXACT LOCATION WITH OTHER TRADES.
2. FINAL CONNECTIONS TO HYDRONIC COILS NOT SHOWN FOR CLARITY. SEE VAV COIL CONNECTION DETAIL FOR FITTINGS AND ACCESSORIES NECESSARY.



1 SECOND FLOOR MECHANICAL PIPING PLAN
1/8" = 1'-0"

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SECOND FLOOR MECHANICAL PIPING PLAN

SHEET NUMBER:

M220

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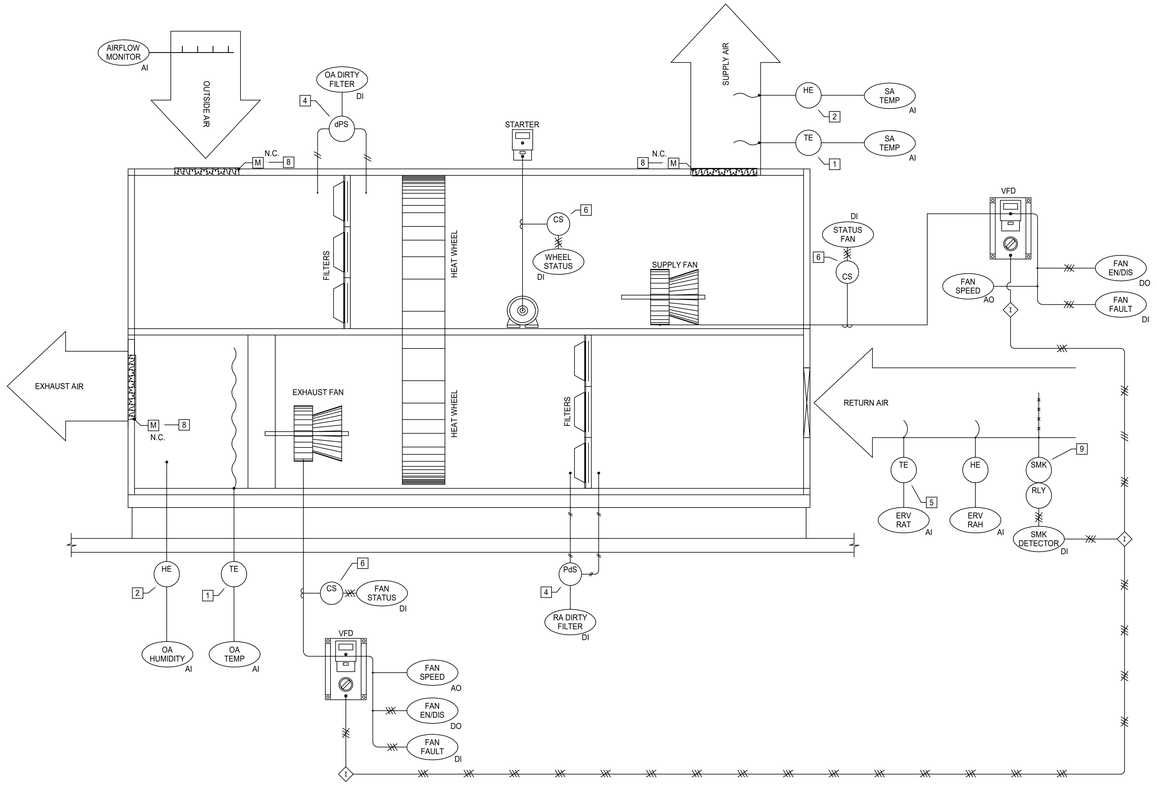
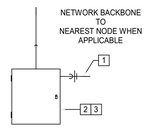




NOTES

1. 120 VAC PROVIDED BY E.C. CONTROLS CONTRACTOR TO COORDINATE WITH E.C. ON ALL NEW ENCLOSURE LOCATIONS.
2. CONTRACTOR TO PROVIDE ALL NEW CONTROL ENCLOSURES. NO EXISTING ENCLOSURES ARE TO BE REUSED. IT IS THE CONTRACTORS RESPONSIBILITY TO PROVIDE AND INSTALL NEW ENCLOSURES.

3 TYPICAL CONTROL ENCLOSURE

NOT TO SCALE

GENERAL NOTES

1. ALL CONTROL WIRING TERMINATIONS SHALL BE MADE BY THE CONTROLS CONTRACTOR, UNLESS OTHERWISE NOTED.
2. RE: SPECIFICATIONS FOR ACCEPTABLE DEVICE TYPES, SEQUENCE OF OPERATION AND SEQUENCE OF CONSTRUCTION.
3. ALL INTERNAL WIRING IN DDC PANELS SHALL BE PROVIDED BY THE CONTROLS CONTRACTOR.
4. UNLESS OTHERWISE NOTED ALL DEVICES ARE PROVIDED BY THE
5. CONTROLS CONTRACTOR.

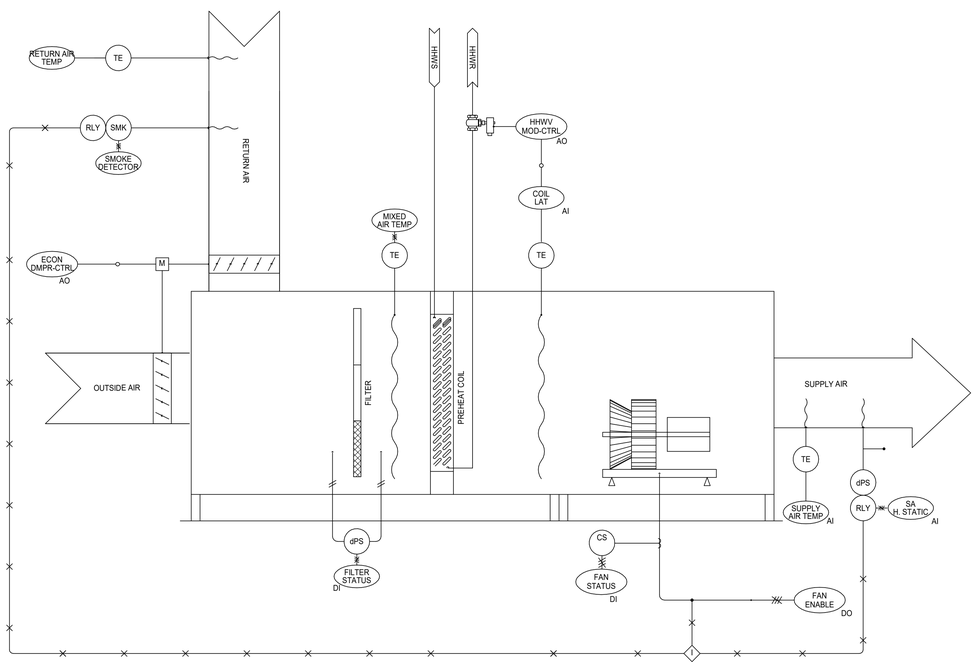
   SEQUENCE OF BRANCH DUCTWORK AND COIL PIPING CONNECTIONS ARE SHOWN SCHEMATICALLY. REFER TO HVAC AND PIPING PLANS FOR ACTUAL SEQUENCE.

CONTROL PLAN NOTES:

1. PROVIDE AVERAGING TYPE TEMPERATURE SENSOR.
2. PROVIDE RELATIVE HUMIDITY TRANSMITTER.
3. PROVIDE LOW LIMIT THERMOSTAT (FREEZE STAT) FOR UNIT FREEZE PROTECTION.
4. PROVIDE DIFFERENTIAL PRESSURE SWITCH FOR "DIRTY FILTER" NOTIFICATION.
5. PROVIDE DUCT MOUNTED TEMPERATURE/HUMIDITY SENSOR.
6. PROVIDE CURRENT SWITCH FOR FAN/MOTOR PROOF STATUS.
7. PROVIDE SPDT DIFFERENTIAL PRESSURE SWITCH WITH MANUAL RESET FOR HIGH PRESSURE ALARM AND FAN SHUTDOWN.
8. PROVIDE NEW 2-POSITION DAMPER ACTUATOR. CONFIGURE ACTUATOR TO FAIL CLOSED (F.C.). HARDWIRE INTERLOCK DAMPER ACTUATOR OPEN/CLOSE COMMAND WITH VFD. DAMPER ACTUATORS TO OPEN WHENEVER THE VFD ENABLE COMMAND IS GENERATED, WHETHER THE VFD IS COMMANDED TO OPERATE IN HAND, AUTO, OR BYPASS. DAMPER ACTUATOR END SWITCH TO BE HARDWIRE INTERLOCKED WITH THE RESPECTIVE VFD SAFETY CIRCUIT TO ENSURE PHYSICAL FAN OPERATION IS NOT PERMITTED WITH OUT DAMPER PROOF OF OPEN CONFIRMED.
9. PROVIDE RETURN AIR DUCT SMOKE DETECTOR WITH FAN RELAY SHUTDOWN. CONNECT DUCT SMOKE DETECTOR TO FIRE ALARM SYSTEM.

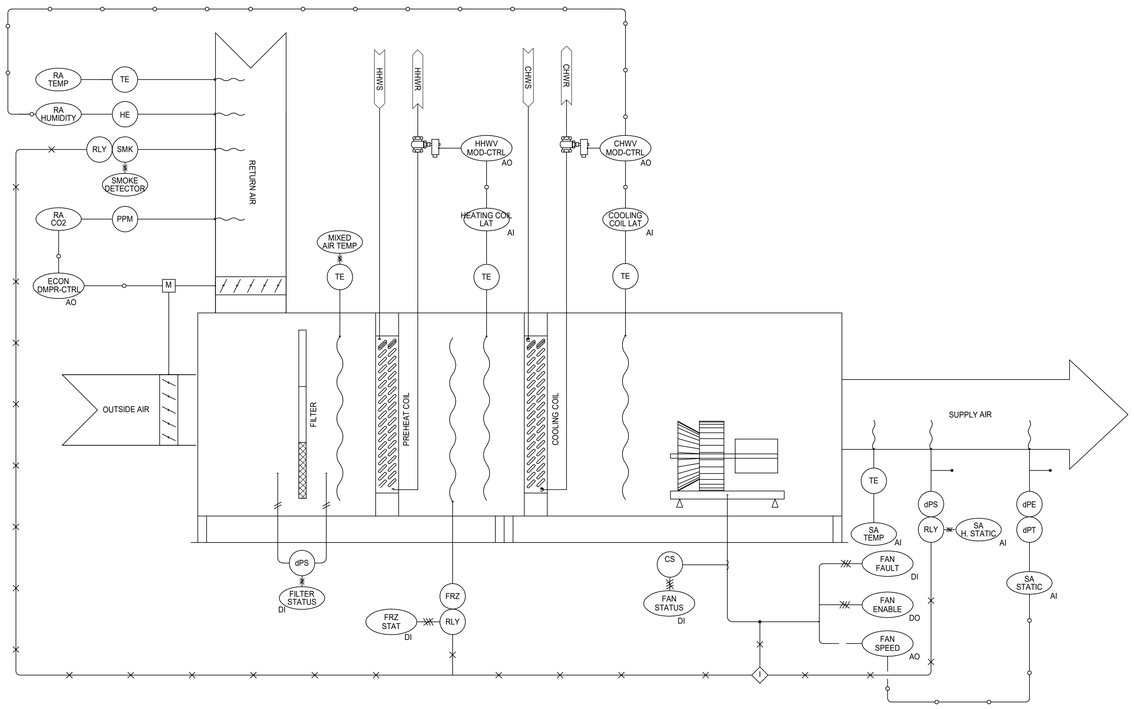
1 ENERGY RECOVER UNIT CONTROL DIAGRAM

NOT TO SCALE



4 HEATING ONLY AIR HANDLER CONTROL DIAGRAM

NOT TO SCALE



2 VARIABLE AIR VOLUME AIR HANDLER CONTROL DIAGRAM

NOT TO SCALE

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AVCRAD SITE
1107TH THEATER AVIATION SUSTAINMENT MAINTENANCE GROUP

MISSOURI NATIONAL GUARD
SPRINGFIELD, MISSOURI

NATIONAL GUARD BUREAU PROJECT #290186
MISSOURI NATIONAL GUARD PROJECT #T1809-01
SITE #9019
ASSET #8136270008

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CHECKED BY: MS
DESIGNED BY: AL

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DATE:
ISSUED DATE: 26 February 2020

SHEET TITLE:

CONTROLS DIAGRAMS

SHEET NUMBER:

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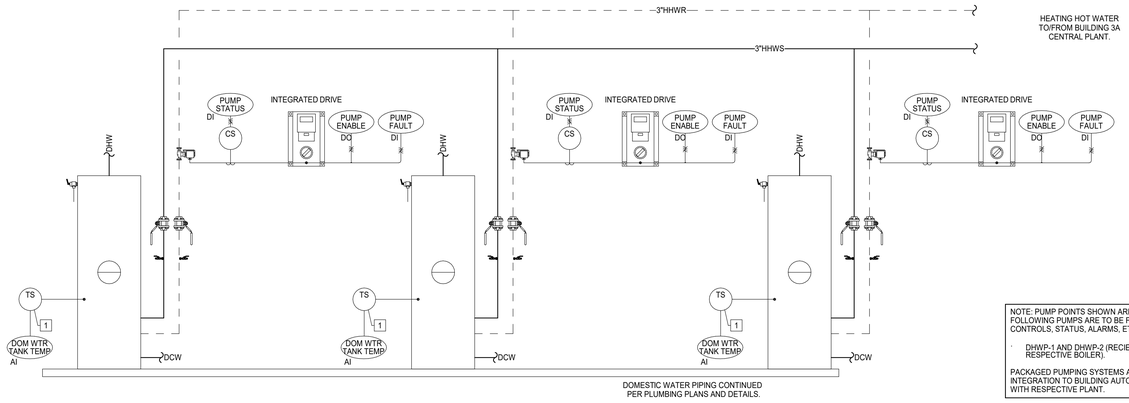


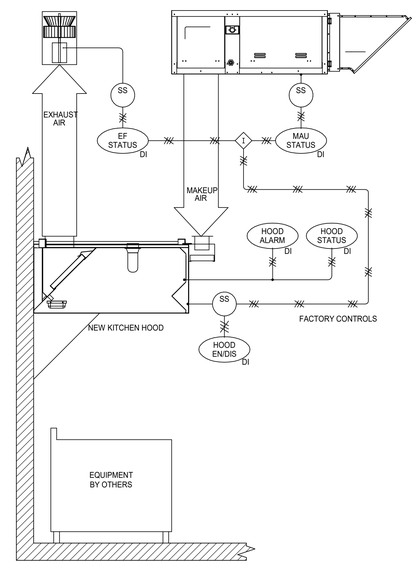
NOTE: PUMP POINTS SHOWN ARE FOR REFERENCE ONLY. THE FOLLOWING PUMPS ARE TO BE FACTORY PROVIDED WITH INTEGRAL CONTROLS, STATUS, ALARMS, ETC.:

- DHWP-1 AND DHWP-2 (RECIEVES ENABLE/DISABLE SIGNALS FROM RESPECTIVE BOILER).

PACKAGED PUMPING SYSTEMS ARE TO BE PROVIDED WITH INTEGRATION TO BUILDING AUTOMATION SYSTEM FOR INITIALIZATION WITH RESPECTIVE PLANT.

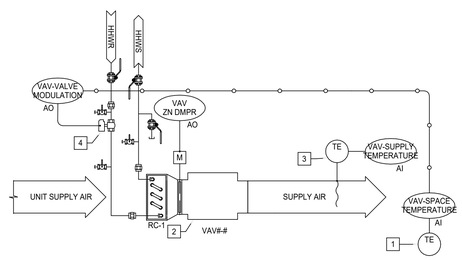
1 DOMESTIC HOT WATER CONTROL DIAGRAM

NOT TO SCALE



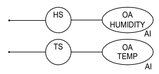
2 GREASE EXHAUST AND MAKE UP CONTROL DIAGRAM

NOT TO SCALE



NOTES

1. NEW SPACE TEMPERATURE SENSOR FOR ZONE TEMPERATURE CONTROL.
2. NEW ASC TO MONITOR AND CONTROL VAV DAMPER, REHEAT COIL, AND SPACE TEMPERATURE.
3. NEW ZONE SUPPLY AIR TEMPERATURE SENSOR.
4. NEW HEATING COIL CONTROL VALVE W/ ELECTRIC ACTUATOR.



4 OUTDOOR AIR MONITORING STATION

NOT TO SCALE

3 VAV BOX CONTROL DIAGRAM

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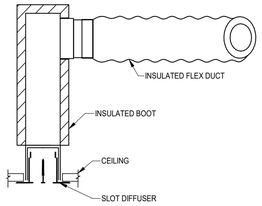
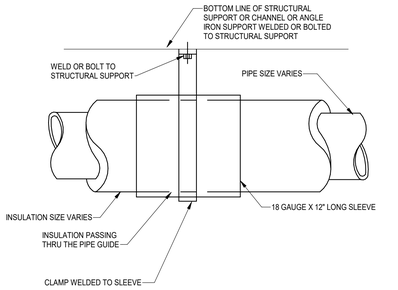
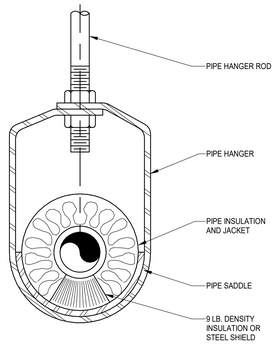


5 SLOT DIFFUSER DETAIL
NOT TO SCALE

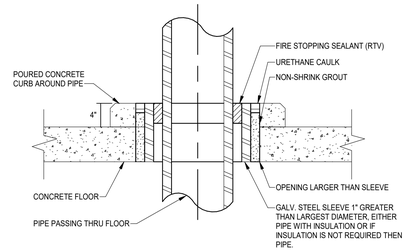


NOTE:
1. PROVIDE PIPE GUIDE AT 5 AND 10 PIPE DIAMETERS FROM EACH SIDE OF EACH EXPANSION LOOP

4 HORIZONTAL PIPE GUIDE
NOT TO SCALE

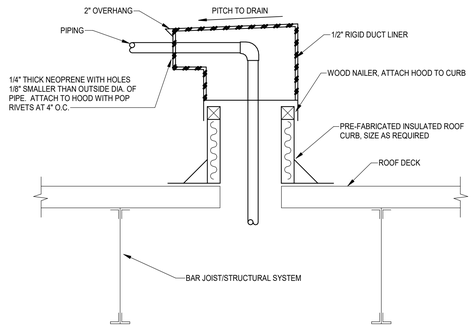


3 PIPE HANGER SUPPORT
NOT TO SCALE



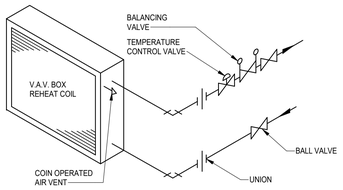
NOTES:
1. SLEEVES ARE NOT REQUIRED FOR CORE-DRILLED HOLES.

2 PIPE SLEEVE THRU FLOOR
NOT TO SCALE

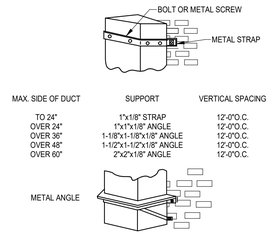


NOTES:
1. FABRICATED PIPING HOOD FROM 22 GA. GALVANIZED SHEET METAL WITH ALL SOLDERED JOINTS OR POP RIVETS AT 4" O.C. WITH A CONTINUOUS SILICONE CAULKING.

1 PIPING HOOD DETAIL
NOT TO SCALE

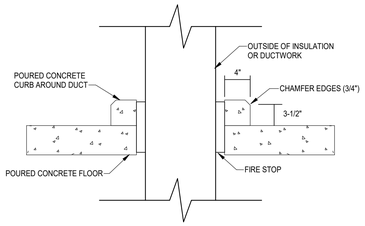


10 VAV REHEAT COIL CONNECTIONS
NOT TO SCALE

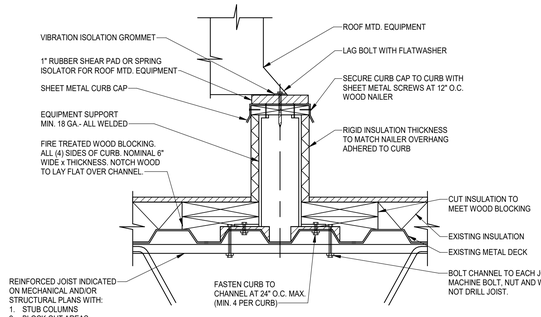


MAX. SIDE OF DUCT	SUPPORT	VERTICAL SPACING
TO 24"	1"x1/8" STRAP	12'-0"O.C.
OVER 24"	1"x1"x1/8" ANGLE	12'-0"O.C.
OVER 36"	1-1/8"x1-1/8"x1/8" ANGLE	12'-0"O.C.
OVER 48"	1-1/2"x1-1/2"x1/8" ANGLE	12'-0"O.C.
OVER 60"	2"x2"x1/8" ANGLE	12'-0"O.C.

9 DUCT SUPPORT DETAIL
NOT TO SCALE

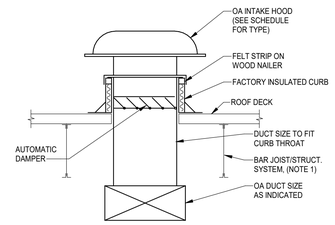


8 DUCT THRU POURED FLOOR
NOT TO SCALE



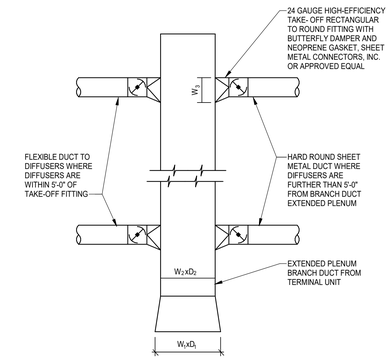
NOTES:
1. UNITS UP TO 1880 LBS. TOTAL WEIGHT SHALL BE SUPPORTED MIN. (2) JOISTS.
2. UNITS GREATER THAN 1880 LBS. BUT LESS THAN 2800 LBS. TOTAL WEIGHT SHALL BE SUPPORTED ON MIN. (3) JOISTS.
3. HVAC CONTRACTOR TO ALLOW ROOFER TO INSTALL COUNTERFLASHING PRIOR TO INSTALLING CURB CAP.

7 ROOF MOUNTED EQUIPMENT SUPPORT DETAIL
NOT TO SCALE



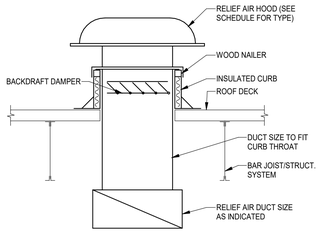
NOTES:
1. REFER TO ARCHITECTURAL AND STRUCTURAL SHEETS FOR ROOF CONSTRUCTION AND PITCH.

6 INTAKE HOOD DETAIL
NOT TO SCALE

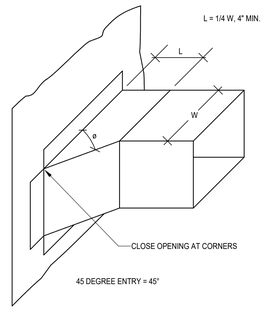


W_1x D_1 = UPSTREAM DUCT DIMENSION FROM TERMINAL UNIT
W_2x D_2 = DOWNSTREAM DUCT DIMENSION
W_3 = 1.3D

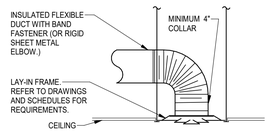
14 DUCT TAKE-OFF DETAIL
NOT TO SCALE



13 RELIEF AIR HOOD DETAIL
NOT TO SCALE

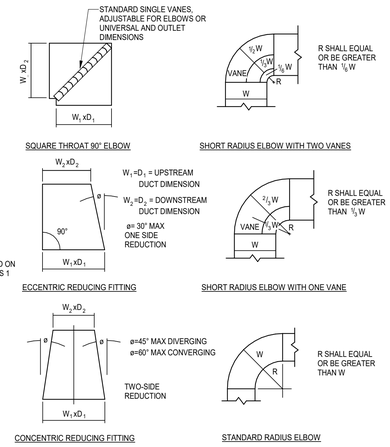


12 45° TAKE-OFF FITTING DETAIL
NOT TO SCALE

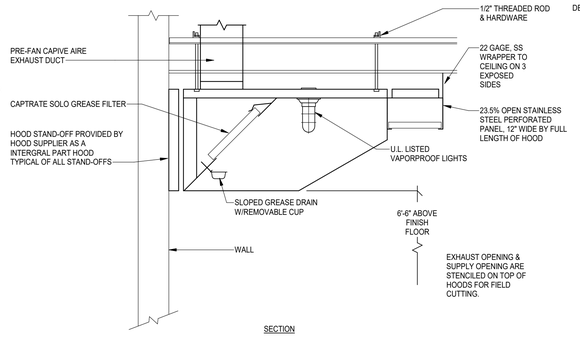


NOTES:
1. REFER TO PLANS FOR DUCT SIZES.

11 DIFFUSER CONNECTION DETAIL
NOT TO SCALE

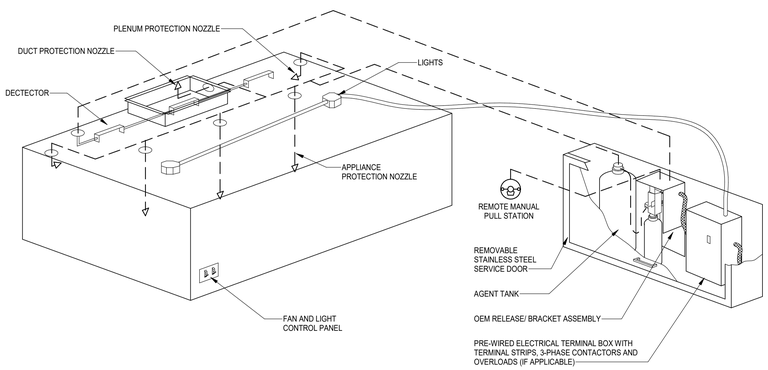


17 SHEET METAL FITTINGS DETAIL
NOT TO SCALE



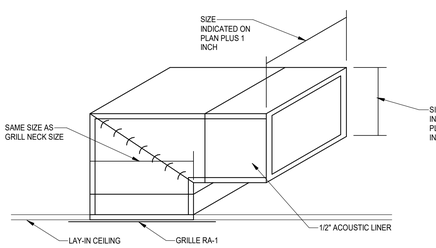
SECTION

16 KITCHEN EXHAUST CANOPY HOOD
NOT TO SCALE



TYPICAL ANSUL R-102 SYSTEM LAYOUT
ACTUAL LAYOUT SHALL BE DICTATED BY HOOD MANUF. PER EQUIPMENT LAYOUT

15 TYP HOOD ANSUL FIRE SUPPRESSION
NOT TO SCALE



NOTE:
1. PROVIDE TURNING VANES IN ELBOWS THE FULL OPENING OF ELBOW

18 RETURN AIR BOOT
NOT TO SCALE

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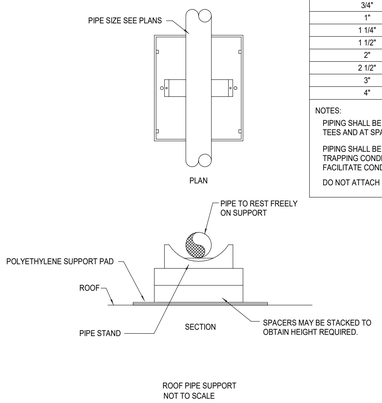


PIPE SUPPORT SCHEDULE	
PIPE SIZE	MAX.SPACING
3/4"	4'
1"	6'
1 1/4"	6'
1 1/2"	6'
2"	6'
2 1/2"	8'
3"	8'
4"	8'

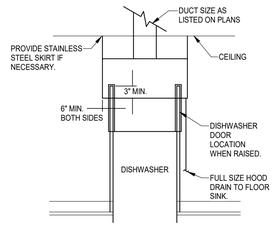
NOTES:
PIPING SHALL BE SUPPORTED AT ALL ELBOWS AND TEES AND AT SPACING SPECIFIED IN TABLE.

PIPING SHALL BE SLOPED AND ROUTED TO PREVENT TRAPPING CONDENSATE (EXCEPT AT DIRT LEGS) AND TO FACILITATE CONDENSATE DRAINAGE.

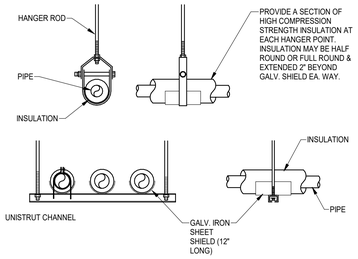
DO NOT ATTACH PIPESTANDS TO ROOF.

ROOF PIPE SUPPORT
NOT TO SCALE

4 ROOF PIPE SUPPORT DETAIL
NOT TO SCALE

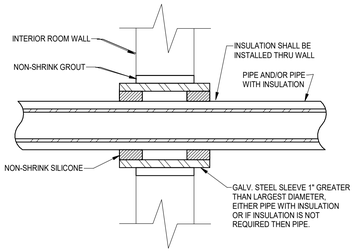


3 DISHWASHER HOOD DETAIL
NOT TO SCALE



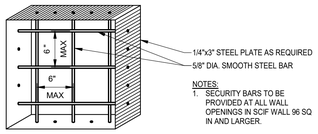
NOTES:
1. ATTACH SUPPORTS FOR ALL PIPING SUSPENDED FROM THE STEEL STRUCTURE TO THE TOP CORD OF JOISTS OR BEAMS.
2. PROVIDE COPPER OR PLASTIC COATED HANGERS FOR NON-INSULATED COPPER PIPE

2 PIPE INSULATION DETAIL
NOT TO SCALE



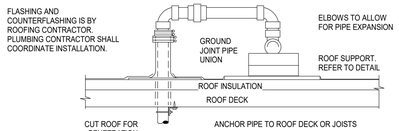
NOTES:
1. SLEEVES ARE NOT REQUIRED FOR CORE-DRILLED HOLES OR STUD WALLS.

1 PIPE SLEEVE THRU NON-RATED INTERIOR WALL
NOT TO SCALE



NOTES:
1. SECURITY BARS TO BE PROVIDED AT ALL WALL OPENINGS IN SCIF WALL 96 SQ IN AND LARGER.
2. ALL SECURITY BARS ARE TO BE WELDED TO FLAT IRON FRAM TO FILL OPENING.

6 SECURITY BAR DETAIL
NOT TO SCALE



REFER TO PLANS FOR PIPE SIZE(S) AND LOCATION(S). USE WELDED OR SCREWED FITTINGS AS SPECIFIED FOR PIPE SIZE. LOCATE PENETRATION MINIMUM 18" FROM ADJACENT WALLS, EQUIPMENT CURBS, PARAPETS, EXPANSION JOINTS, ETC.

5 ROOF PIPING PENETRATION DETAIL
NOT TO SCALE

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SHEET TITLE:

MECHANICAL DETAILS

SHEET NUMBER:

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MAKE UP AIR UNIT SCHEDULE

TAG	BASIS OF DESIGN	FAN UNIT MODEL #	BLOWER	HOUSING	MIN CFM	DESIGN CFM	ESP.	RPM	H.P.	Ø	VOLT	FLA	WEIGHT (LBS.)	SONES	BURNER EFFICIENCY(%)	INPUT (MBH)	OUTPUT (MBH)	TEMP. RISE (°F)	NOTES
MAU-1	CAPTIVE AIRE	A2-D.250-20D	20MF-2-MOD	A2-D.250	2000	3520	0.750	1495	3.000	3	460	4.3	846	14.5	92	270.1	248.5	70	1,2

REMARKS:
1. PROVIDE MANUFACTURER'S ROOF CURB.
2. PROVIDE ISOLATION VALVE AND DIRT LEG AT UNIT.

HVAC PIPING MATERIAL SCHEDULE

PIPING							FITTINGS		MAX. WORKING		FIELD TEST	
SYSTEM	SIZE	TYPE	SCH	GRD	ASTM	MATERIAL	MAT.	TYPE	PRESS (PSI)	TEMP (°F)	PRESS (PSI)	TIME
CHILLED/HOT WATER SUPPLY & RETURN	0.5"-2"	L	--	--	B88	CP	CP	SJ	125	40-200	100	24 HR
CHILLED/HOT WATER SUPPLY & RETURN	2" & UP	SL/CW	40	A	A120	CS/BLK	CS	WELD	125	40-200	100	24 HR
CONDENSATE DRAIN ABOVE GRADE	ALL	M	--	--	B88	CP	CP	DR/S	10FT	40-70	-	-
TEMPERATURE & PRESSURE RELIEF DRAIN	ALL	M	--	--	B88	CP	CP	DR/S	10FT	40-70	10FT	1 HR
REFRIGERANT PIPING	ALL	ACR	--	--	B280	CP	CP	SJ	150	40-140	200	4 HR

ATP - ARMCO TRUSS PIPE
BLK - BLACK
BS - BELL & SPIGOT
CI - CAST IRON
CP - COPPER
CS - CARBON STEEL
CW - CONTINUOUS WELD
DI - DUCTILE IRON
DR - DRAINAGE FITTING
GLV - GALVANIZED
LC - LEAD CAULKING
MI - MALLEABLE IRON
MJ - MECHANICAL JOINT
NG - NEOPRENE GASKET
NH - NO-HUB
PE - POLYETHYLENE
PVC - POLYVINYL CHLORIDE
S - BRAZED JOINT - SILVER BRAZING ALLOY
SJ - SOLDER JOINT 95-5 TIN-ANTIMONY
SL - SEAMLESS STEEL
SS - STANDARD STRENGTH - SERVICE WEIGHT
SW - SOLVENT WELD
THRD - THREADED
WELD - WELDED

NOTE: NO "PULLED TEES" ALLOWED ON COPPER PIPING.

UTILITY METER SCHEDULE

MARK	SERVICE	MANUFACTURER	MODEL	SIZE*	TYPE	REMARKS
GM-1	GAS	ONICON	F-5500 SERIES	2"	THERMAL MASS	1
WM-1	DOMESTIC WATER	ONICON	F-3000 SERIES	3"	ELECTROMAG	1
WM-2	CHILLED WATER	ONICON	F-3000 SERIES	4"	ELECTROMAG	
WM-3	HEATING HOT WATER	ONICON	F-3000 SERIES	3"	ELECTROMAG	

* SIZE TO BE CONFIRMED IN THE FIELD

REMARKS:
1. FURNISHED WITH VERIS OR EQUAL SPLIT-CORE CT'S RATED FOR THE AMPERAGE OF THE PANEL
2. BACNET INTEGRATION PROTOCOL ONLY

DUCT PRESSURE CLASS

SYSTEM/FAN	LOCATION/DUCT INVOLVED	POSITIVE OR NEGATIVE PRESSURE	PRESSURE CLASS (IN W.G.)	DUCTWORK TYPE	INSULATION TYPE/THICKNESS (IN)
AHU-1 & 2	PRIMARY DUCTWORK (UP TO VAV BOX)	POS	4"	TDC FLANGE	1" THICK 1.5 LB/FT^3
	SECONDARY DUCTWORK (DOWNSTREAM OF VAV BOX)	POS	2"	S & DRIVE	1" THICK 1.5 LB/FT^3
	RECTANGULAR RETURN AIR	POS/NEG	2"	S & DRIVE	1" THICK 1.5 LB/FT^3
AHU-3 AND BLOWER COILS	RECTANGULAR SUPPLY/RETURN AIR	POS/NEG	2"	S & DRIVE	1" THICK 1.5 LB/FT^3

NOTES:
1. WHERE NOTED AS DUCTWORK WRAP, REFER TO SPECIFICATIONS FOR MAKE, DENSITY, R-VALUE
2. THIS SCHEDULE REFERS TO NEW DUCT ONLY.

DUCT PRESSURE CLASS			SMACNA LEAKAGE CLASS	
1" OR 2" PRESSURE CLASS	SEAL CLASS "C"	TRAVERSE JOINTS ONLY APPLICABLE SEALING	RECT - 24	ROUND - 12
3" PRESSURE CLASS	SEAL CLASS "B"	TRAVERSE JOINTS AND SEAMS APPLICABLE SEALING	RECT - 12	ROUND - 6
4", 6" OR 10" PRESSURE CLASS	SEAL CLASS "A"	TRAVERSE JOINTS, SEAMS, AND ALL WALL PENETRATIONS	RECT - 6	ROUND - 3

COMPUTER ROOM AIR HANDLING UNIT SCHEDULE

MARK	MANUFACTURER	MODEL		FAN DATA				COOLING COIL DATA							HUMIDIFIER	ELECTRICAL DATA					NOTES
		INDOOR UNIT	OUTDOOR UNIT	SUPPLY AIR (cfm)	E.S.P. ("w.c.)	FAN QTY	MOTOR H.P.	MAXIMUM FACE VEL (fpm)	SENSIBLE COIL LOAD (mbh)	TOTAL COIL LOAD (mbh)	AIR E.D.B. (°F)	AIR E.W.B. (°F)	AIR L.D.B. (°F)	AIR L.W.B. (°F)	CAPACITY (lb/hr)	VOLTAGE/ PHASE	INDOOR UNIT MCA	INDOOR UNIT MOCP	OUTDOOR UNIT MCA	OUTDOOR UNIT MOCP	
CRAH-1	LIEBERT	MT036	PFH 037	--	0.2	1		500	22.2	22.9	75	61	55	54	NA	460/3	3.1	15	7.6	15	2-7
CRAH-2	LIEBERT	PX011	MCS028E1	2000	0.8	1	1.5	500	32.4	35.8	75	61	55	54	7.7	208/3	16.3	25	37.6	50	1-7
CRAH-3	LIEBERT	MT036	PFH 037	--	0.2	1		500	22.2	22.9	75	61	55	54	NA	460/3	3.1	15	7.6	15	2-7
CRAH-4	LIEBERT	PX011	MCS028E1	2000	0.8	1	1.5	500	32.4	35.8	75	61	55	54	7.7	208/3	16.3	25	37.6	50	1-7

NOTES:
1. 4" FILTER PLENUM WITH MERV 11 FILTERS.
2. FACTORY PROVIDED BALANCE VALVE.
3. LIEBERT i-COM MICROPROCESSOR CONTROLLER WITH LARGE GRAPHIC DISPLAY.
4. HIGH PRESSURE, 2-WAY MODULATING CONTROL VALVE.
5. FINISH TO BE SELECTED BY OWNER.
6. LOCKING MANUAL DISCONNECT SWITCH.
7. CONDENSATE DRAIN IS INTERNAL TO THE UNIT AND SHALL BE PIPED PER MANUFACTURERS RECOMENDATIONS.

AIR DISTRIBUTION DEVICES

MARK	SERVES	COLOR	MOUNTING	FACE SIZE	PATTERN	MAX NC	MAX PD IN WC	MANUFACTURER & MODEL	REMARKS
SD-1	SUPPLY	WHITE	CEILING	12"X12"	360°	25	0.1	TITUS - TMS	1,3,5
SD-2	SUPPLY	WHITE	CEILING	48"X4"	LINEAR	25	0.1	TITUS - TBD	1,2,3
SR-1	SUPPLY	WHITE	DUCT	SEE PLANS	LOUVERED	25	0.1	TITUS - 350	1,3
EG-1	EXHAUST	WHITE	CEILING	24"X24"	PERF.	30	0.1	TITUS - PAR	1,3,5
EG-2	EXHAUST	WHITE	CEILING	12"X12"	PERF.	30	0.1	TITUS - PAR	1,3,5
EG-3	EXHAUST	WHITE	DUCT	SEE PLAN	LOUVERED	30	0.1	TITUS - 300	1,3
RG-1	RETURN	WHITE	CEILING	24"X24"	PERF.	30	0.1	TITUS - PAR	1,3,6
RG-2	RETURN	WHITE	CEILING	24"X12"	PERF.	30	0.1	TITUS - PAR	1,2,3
TG-1	TRANSFER/RETURN	WHITE	WALL	SEE PLAN	LOUVERED	30	0.1	TITUS - 300	1,2,3

REMARKS:
1. VERIFY BORDER TYPE REQUIRED.
2. PROVIDE WITH NECK SIZE AS INDICATED ON PLANS.
3. PAINTED ALUMINUM CONSTRUCTION.

AIR HANDLING UNIT SCHEDULE

MARK	CFM	OA	EXT SP	HP	BHP	HEATING COIL CAPACITY EAT	EWT	LWT	MBH	GPM	COOLING COIL CAPACITY EAT DB	EAT WB	LDB	LWB	MBH	EWT	LWT	GPM	V/PH	MCA	MOCP	WEIGHT (LBS)	MANUFACTURER & MODEL	REMARKS
AHU-1	12500	3000	3.0	5 (5)	2.8 (5)	60	90	180	150	430	27.3	75	63	54.2	53.0	364	44	56	56.1	460/3	21.5	25	3481	DAIKIN CAH027GDCM	1-10
AHU-2	9500	1500	3.0	4 (4)	2.6 (4)	60	90	180	150	313.5	20.8	75	63	54.4	53.1	273	44	56	43.6	460/3	17.4	20	2916	DAIKIN CAH021GDCM	1-10
AHU-3	3000	500	1.0	2.0	1.8	55	105	180	150	215.8	10.8	-	-	-	-	-	-	-	-	460/3	3.5	15	686	DAIKIN BCHD0301	1-10

REMARKS:
1. UNIT CASING TO BE 2" DOUBLE WALL CONSTRUCTION WITH R-13 INJECTED FOAM INSULATION.
2. UNIT TO BE PROVIDED WITH MINIMUM 8" BASE RAIL SUPPORTS. COORDINATE REQUIRED BASE RAIL HEIGHT WITH MINIMUM CONDENSATE TRAP DEPTH AS REQUIRED PER CONDENSATE TRAP DETAIL.
3. UNIT TO BE PROVIDED WITH LOW-LEAKAGE DAMPERS ON RETURN AIR AND OUTSIDE AIR INLETS INTO MIXING SECTION.
4. UNIT TO BE PROVIDED WITH PLENUM DISCHARGE SECTION. COORDINATE CONNECTION LOCATION WITH UNIT DETAIL AND PLAN LAYOUT.
5. FACTORY PROVIDED VARIABLE FREQUENCY DRIVE WITH BYPASS.
6. INTERNAL LIGHTING WITHIN MODULES SHALL COME PRE-WIRED FROM FACTORY, WITH SINGLE CONNECTION TO 120V/1PH CIRCUIT TO POWER LIGHTING.
7. REFER TO RESPECTIVE UNIT DETAIL FOR ALL UNIT SECTIONS AND ASSOCAITED ACCESSORIES WITHIN EACH SECTION.
8. PROVIDE STAINLESS STEEL DOUBLE SLOPED DRAIN PAN FOR COOLING SECTION.
9. COILS SHALL BE PROVIDED WITH 0.020" COPPER TUBES WITH 0.00075" ALUMINUM FINS, COPPER HEADERS, AND STAINLESS STEEL (FOR CHILLED WATER) OR GALVANIZED STEEL (FOR HEATING HOT WATER) COILS.
10. PROVIDE MERV 13 FILTERS.

ENERGY RECOVERY VENTILATORS

MARK	LOCATION	SERVES	OUTSIDE AIR CFM	ESP IN. WG	HP	EXHAUST AIR CFM	ESP IN. WG	HP	ELECTRICAL VOLT/PH	SENSIBLE EFFECTIVENESS	TOTAL EFF. IN WINTER	TOTAL EFF. IN SUMMER	MANUFACTURER & MODEL	REMARKS
ERV-1	2ND FLOOR MECHANICAL	AHU-1 & AHU-2	4500	1	2.5	4200	1	2	460/3	70.5%	71.7 %	67.7%	DAIKIN CAH012GVCM	1
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

REMARKS:
1. PROVIDE MERV 13 FILTERS.

VARIABLE AIR VOLUME SUPPLY BOXES WITH HW REHEAT

MARK	TITUS MODEL	SIZE UNIT	SIZE INLET	CFM MAX	CFM MIN	CFM HTG	MAX NC	HOT WATER HEATING COIL MBH	EAT (°F)	LAT (°F)	GPM	EWT (°F)	LWT (°F)	ROWS	BRANCH PIPE SIZE	REMARKS
VAV-1-1	DTQP	3	10"Ø	1200	100	900	25	19.2	55	95	1.3	180	150	1	1/2"	1,2,3
VAV-1-2A	DTQP	3	10"Ø	1200	250	900	25	39.9	55	95	2.6	180	150	2	3/4"	1,2,3
VAV-1-2B	DTQP	3	10"Ø	1200	250	900	25	19.2	55	95	1.3	180	150	1	1/2"	1,2,3
VAV-1-3	DTQP	3	10"Ø	1200	200	900	25	19.2	55	95	1.3	180	150	1	1/2"	1,2,3
VAV-1-4	DTQP	3	8"Ø	800	250	600	25	31.1	55	95	2.1	180	150	2	3/4"	1,2,3
VAV-1-5	DTQP	5	12"Ø	1500	500	1125	25	58.4	55	95	3.9	180	150	2	3/4"	1,2,3
VAV-1-6	DTQP	3	10"Ø	1000	100	750	25	17.6	55	95	1.2	180	150	1	1/2"	1,2,3
VAV-1-7	DTQP	5	12"Ø	1500	300	1125	25	30.3	55	95	2.0	180	150	1	3/4"	1,2,3
VAV-1-8	DTQP	5	12"Ø	2000	600	1500	25	102.3	55	95	6.8	180	150	2	1"	1,2,3
VAV-1-9	DTQP	5	12"Ø	1500	100	1125	25	30.3	55	95	2.0	180	150	1	3/4"	1,2,3
VAV-1-10	DTQP	3	10"Ø	950	250	712	25	51.1	55	95	3.4	180	150	2	3/4"	1,2,3
VAV-2-1	DTQP	3	6"Ø	300	50	225	25	8.8	55	95	0.6	180	150	1	1/2"	1,2,3
VAV-2-2	DTQP	3	6"Ø	500	100	375	25	11.9	55	95	0.8	180	150	1	1/2"	1,2,3
VAV-2-3	DTQP	3	6"Ø	500	50	375	25	11.9	55	95	0.8	180	150	1	1/2"	1,2,3
VAV-2-4	DTQP	3	10"Ø	1200	100	900	25	19.2	55	95	1.3	180	150	1	1/2"	1,2,3
VAV-2-5	DTQP	3	10"Ø	1200	100	900	25	19.2	55	95	1.3	180	150	1	1/2"	1,2,3
VAV-2-6	DTQP	3	10"Ø	1125	110	844	25	38.4	70	95	2.6	180	150	2	3/4"	1,2,3
VAV-2-7	DTQP	3	8"Ø	625	100	469	25	13.6	55	95	0.9	180	150	1	1/2"	1,2,3
VAV-2-8	DTQP	3	6"Ø	350	0	262	25	9.5	55	95	0.6	180	150	1	1/2"	1,2,3
VAV-2-9	DTQP	3	6"Ø	500	100	375	25	11.9	55	95	0.8	180	150	1	1/2"	1,2,3
VAV-2-10	DTQP	3	10"Ø	1200	100	900	25	39.9	55	95	2.6	180	150	2	3/4"	1,2,3
VAV-2-11	DTQP	3	6"Ø	500	100	375	25	11.9	55	95	0.8	180	150	1	1/2"	1,2,3
VAV-2-12	DTQP	3	10"Ø	1200	100	900	25	19.2	55	95	1.3	180	150	1	1/2"	1,2,3
VAV-2-13	DTQP	3	6"Ø	500	100	375	25	22.6	55	95	1.5	180	150	2	1/2"	1,2,3
VAV-2-14	DTQP	3	6"Ø	300	50	225	25	15.5	55	95	1.0	180	150	2	1/2"	1,2,3
VAV-2-15	DTQP	2	8"Ø	750	100	562	25	29.8	55	95	2.0	180	150	2	3/4"	1,2,3
VAV-2-16	DTQP	3	10"Ø	1200	100	900	25	19.2	55	95	1.3	180	150	1	1/2"	1,2,3
VAV-2-17	DTQP	3	10"Ø	1125	110	844	25	38.4	70	95	2.6	180	150	2	3/4"	1,2,3
VAV-2-18	DTQP	3	8"Ø	800	100	600	25	31.1	55	95	2.1	180	150	2	3/4"	1,2,3
VAV-2-19	DTQP	3	6"Ø	500	100	375	25	22.6	55	95	1.5	180	150	2	1/2"	1,2,3
VAV-2-20	DTQP	3	10"Ø	1000	100	750	25	17.6	55	95	1.2	180	150	1	1/2"	1,2,3

REMARKS:
1. COORDINATE COIL CONNECTION SIDE WITH UNIT MANUFACTURER.
2. HEATING COIL IS BASED ON 180 DEGREE EWT AND 150 DEGREE LWT.
3. CONTROL WIRING TO BE 24V, COORDINATE PRIMARY VOLTAGE WITH ELECTRICAL CONTRACTOR.

EXHAUST FANS

MARK	MANUFACTURER & MODEL	LOCATION	SERVES	CFM	EXT. SP	HP	ELECTRICAL VOLT/PH	FLA	RPM	WEIGHT (LBS)	REMARKS
EF-1	CAPTIVE AIRE DU200HFA	ROOF	GREASE HOODS	4400	1.0	5	460/3	6.8	1255	211	1,3
EF-2	CAPTIVE AIREDU33HFA	ROOF	DISHWASHER	600	1.0	1/3	120/1	4.4	1617	67	2,3,4
EF-3	LOREN COOK GC-100	CEILING	RESTROOM	100	0.33	38.6W	120/1		1075	12	2,3

NOTES:
1. PROVIDE MANUFACTURERS CURB APPROVED FOR GREASE EXHAUST.
2. PROVIDE BAROMETRIC BACKDRAFT DAMPER AND BIRD SCREEN.
3. PROVIDE MAINTENANCE DISCONNECT.
4. PROVIDE ROOF CURB.

KITCHEN HOODS

MARK	SERVES	HOOD TYPE	EXHAUST CFM	EXHAUST PD IN WC	APPROX HOOD SIZE (LxWxH)	EXHAUST DUCT SIZE (LxW)	OPERATED BY	MANUFACTURER & MODEL	REMARKS
KEH-1	COOKLINE	1	4200	1.0	22"X5'X2'	14"Ø, 14"Ø	MANUAL	CAPTIVE AIRE 6024 ND-2-PSP-F	1,2,3,4,5,6
KEH-2	DISHWASHER	2	600	0.1	4'X4'X2'	10"Ø	DISHWASHER	CAPTIVE AIRE 4824 VHB-G	2,3,6

REMARKS:
1. PROVIDE MAKE UP AIR PLENUM THE FULL LENGTH OF THE HOOD.
2. PROVIDE STAINLESS STEEL GREASE BAFFLES AND GREASE COLLECTION RESERVOIR.
3. PROVIDE RECESSED LED LIGHTING WITH HOOD MOUNTED SWITCH.
4. COORDINATE LOCATION WITH OTHER TRADES TO ENSURE CLEARANCE WITH COMBUSTIBLES COMPLIES WITH APPLICABLE CODES.
5. COORDINATE FIRE SUPPRESSION SYSTEM WITH FIRE SPRINKLER CONTRACTOR.
6. HOOD EXHAUST FAN AND LIGHT SHALL BE CONTROLLED BY FACTORY WIRED SWITCHES ON THE FACE OF THE HOOD.

FAN COIL UNITS (FOUR PIPE)

MARK	MANUFACTURE/MODEL	UNIT CONFIGUATION	CFM	VOLT / PH.	COOLING COIL CAPACITY TOTAL MBH	SENSIBLE MBH	COOLING GPM	HEATING COIL CAPACITY	HEATING GPM	ELECTRICAL V/ PH	MCA		WEIGHT	REMARKS
FCU-1	DAIKIN FCVS - 108A	SLOPED TOP VERTICAL	605	120/1	20.4	14.9	4.2	27.9	3.1	120/1	2.1	15	152	1,2,3
FCU-2	DAIKIN FCVS - 112A	SLOPED TOP VERTICAL	975	120/1	32.7	23.3	6.7	45.1	5.1	120/1	3.1	15	202	1,2,3,4

REMARKS:
1. PROVIDE WITH A UNIT-MOUNTED THERMOSTAT.
2. PROVIDE INTEGRAL CONDENSATE PUMP AND DRAIN PAN.
3. PROVIDE MANUFACTURER'S PREMIUM VALVE PACKAGE.

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TASMG READINESS CENTER

AVCRAD SITE
11077TH THEATER AVIATION SUSTAINMENT MAINTENANCE GROUP

MISSOURI NATIONAL GUARD
SPRINGFIELD, MISSOURI

NATIONAL GUARD BUREAU PROJECT #290186
MISSOURI NATIONAL GUARD PROJECT #T1809-01
SITE #9019
ASSET #8136270008

DRAWN BY: AL
CHECKED BY: MS
DESIGNED BY: AL

REVISION:
DATE:
REVISION:
DATE:
REVISION:
DATE:
ISSUED DATE: 26 February 2020

SHEET TITLE:

MECHANICAL SCHEDULES

SHEET NUMBER:

M700

89 OF 131 SHEETS

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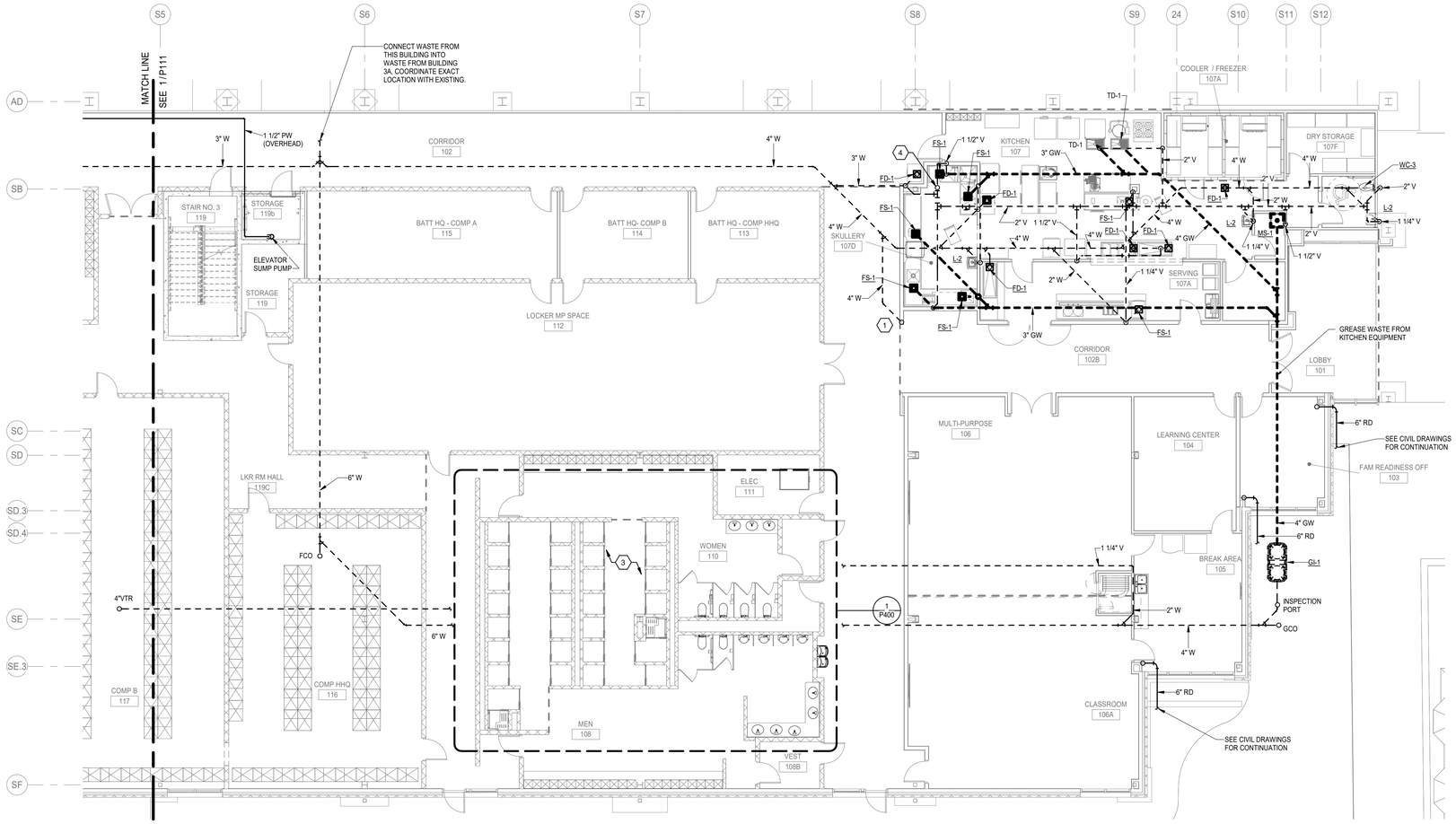
SHEET KEYNOTES

1. WASTE LINE DOWN FROM SECOND FLOOR, PROVIDE WALL CLEAN OUT BEFORE ROUTING BELOW FINISHED FLOOR.
2. 4" VENT THROUGH ROOF, COORDINATE EXACT LOCATION WITH STRUCTURE.
3. SEE ENLARGED PLUMBING PLANS FOR WORK IN THIS AREA.
4. VENT UP TO FLOOR ABOVE CONNECT INTO VENT FOR RESTROOM ABOVE.



1 FIRST FLOOR WASTE & VENT PLUMBING PLAN - AREA A
1/8" = 1'-0"

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FIRST FLOOR WASTE & VENT PLUMBING PLAN - AREA A

SHEET NUMBER:

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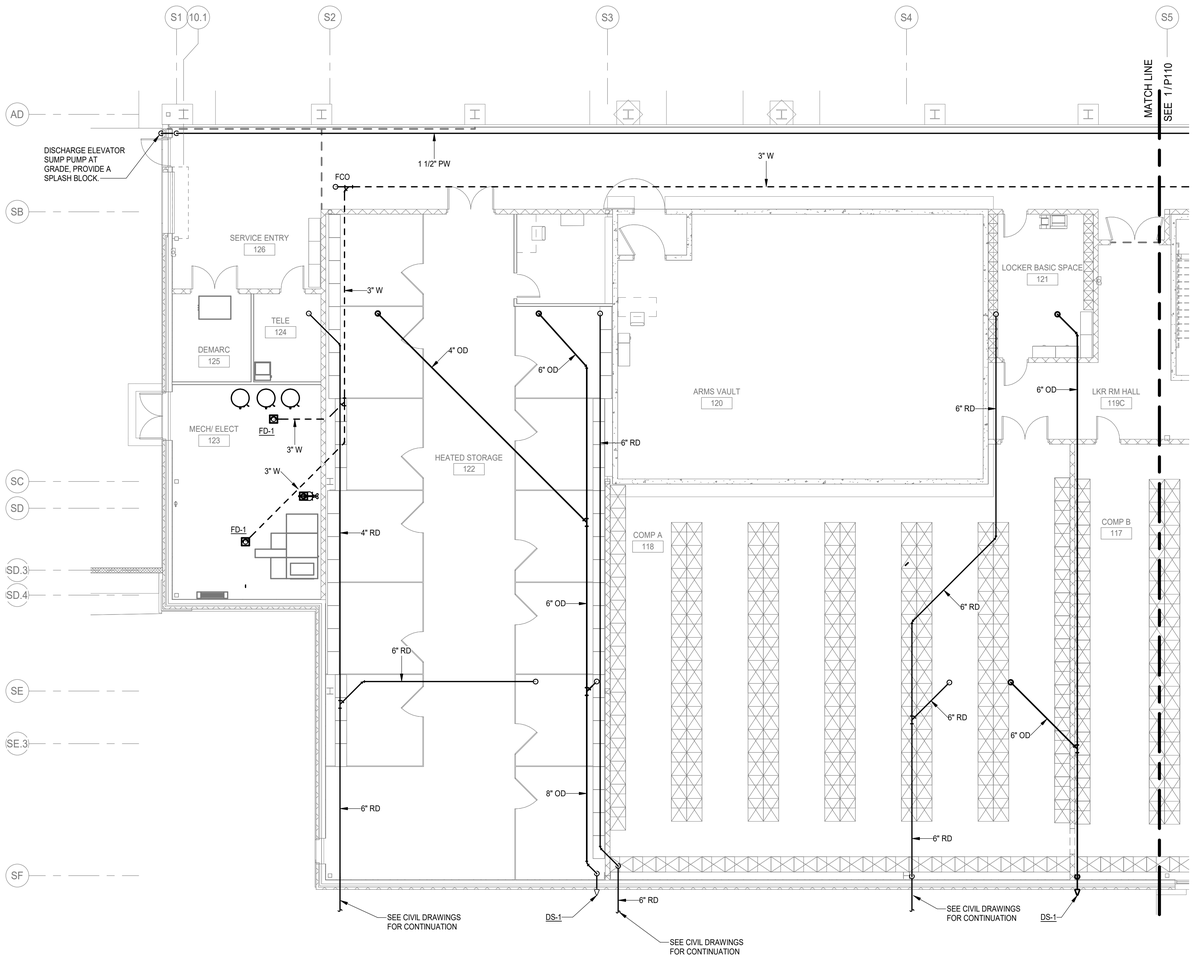

1 **FIRST FLOOR WASTE & VENT PLUMBING PLAN - AREA B**

1/8" = 1'-0"

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SHEET TITLE:

FIRST FLOOR WASTE & VENT PLUMBING PLAN - AREA B

SHEET NUMBER:

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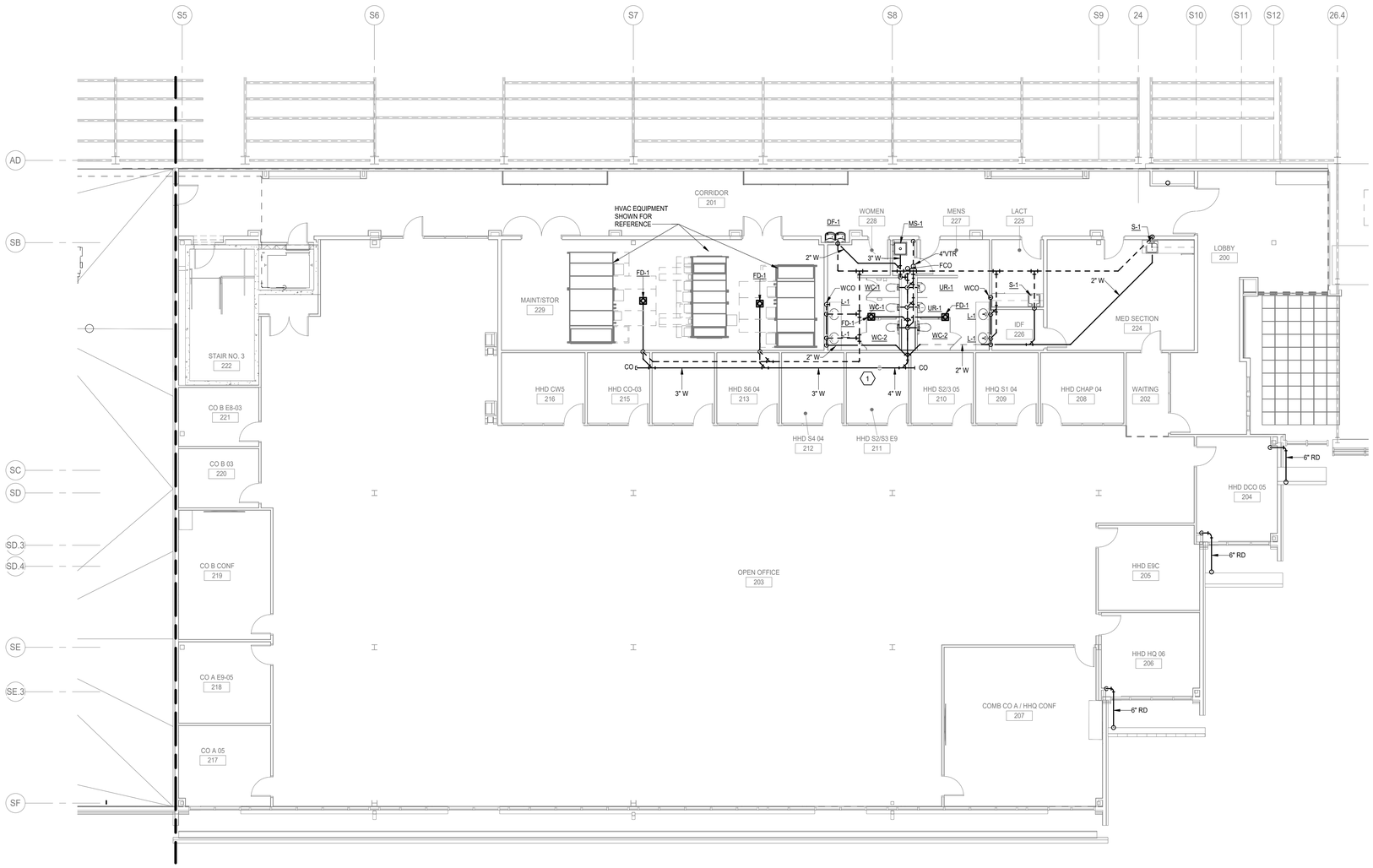
SHEET KEYNOTES

1. WASTE LINE FROM SECOND FLOOR FIXTURES DOWN TO FIRST FLOOR.



1 SECOND FLOOR WASTE & VENT PLUMBING PLAN

1/8" = 1'-0"

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SECOND FLOOR WASTE & VENT PLUMBING PLAN

SHEET NUMBER:

P120

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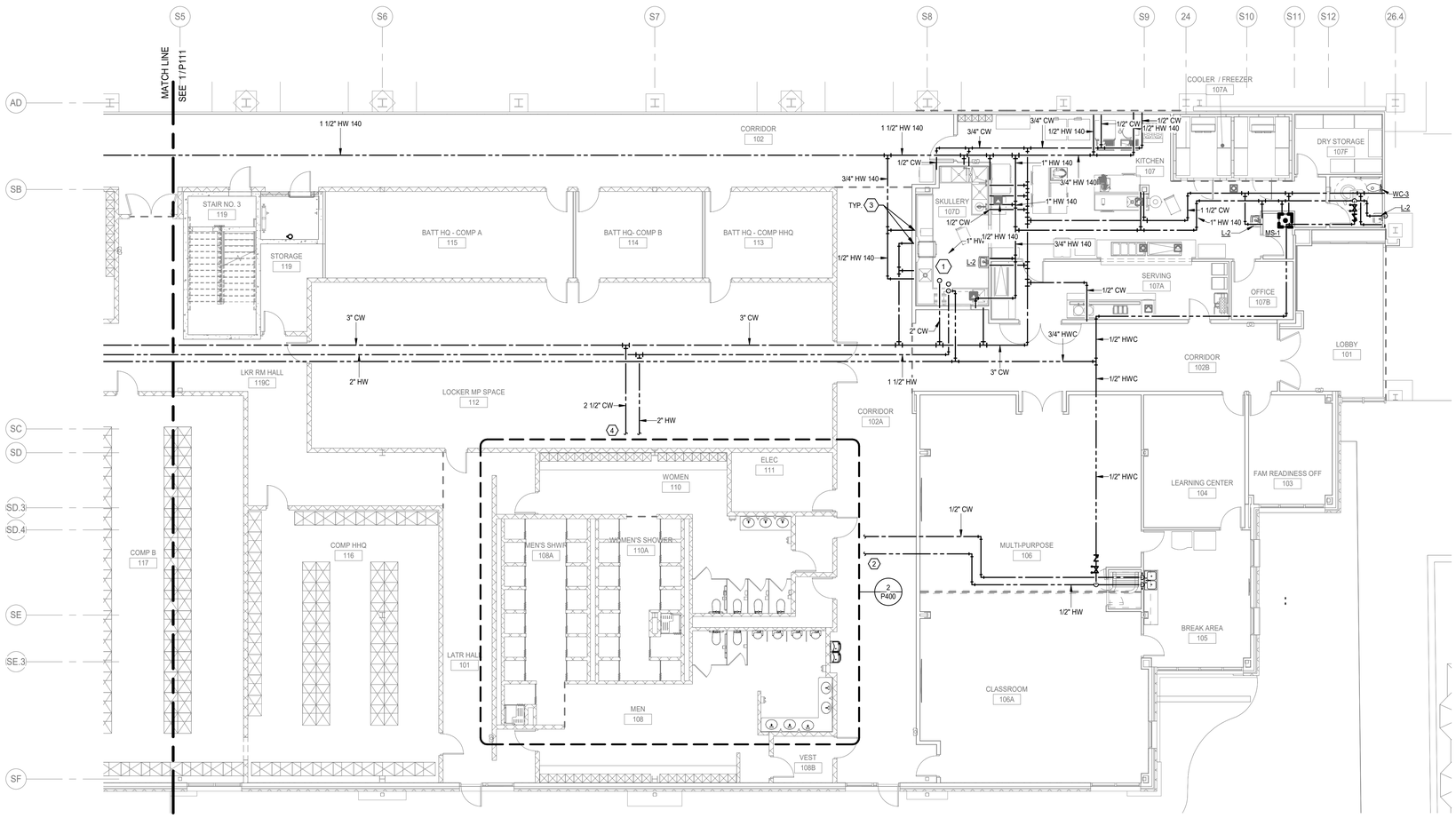
SHEET KEYNOTES

1. DOMESTIC WATER LINES UP TO SECOND FLOOR.
2. SEE ENLARGED PLANS FOR CONTINUATION.
3. SEE KITCHEN PLANS FOR DOMESTIC WATER CONNECTIONS, VERIFY SIZES WITH EQUIPMENT PROVIDED.



1 FIRST FLOOR DOMESTIC WATER PLUMBING PLAN - AREA A
1/8" = 1'-0"

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FIRST FLOOR DOMESTIC WATER PLUMBING PLAN - AREA A

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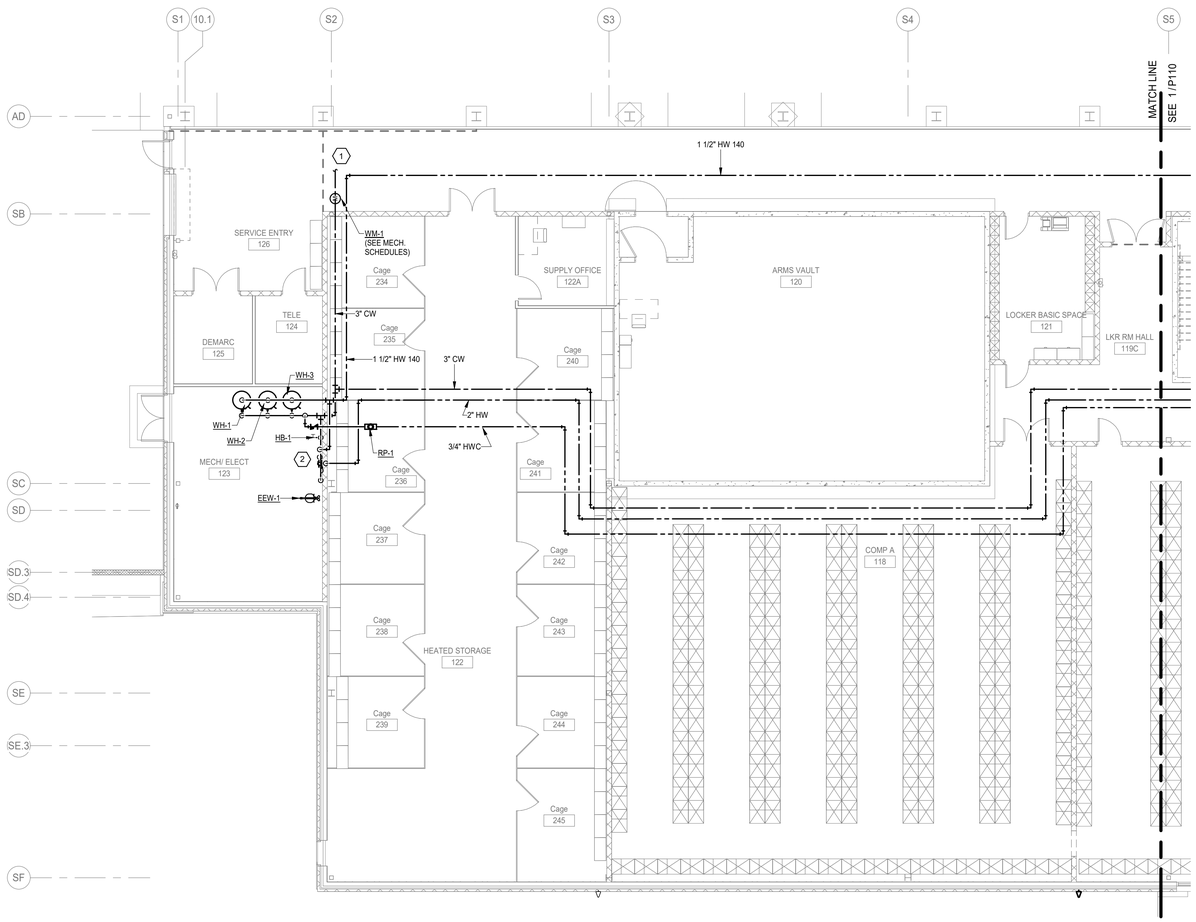
SHEET KEYNOTES

1. DOMESTIC WATER LINE FROM ADJACENT BUILDING.
2. PIPE MIXING VALVE PIPING PER MANUFACTURERS RECOMMENDATIONS.



1 FIRST FLOOR DOMESTIC WATER PLUMBING PLAN - AREA B
1/8" = 1'-0"

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SHEET TITLE:

FIRST FLOOR DOMESTIC WATER PLUMBING PLAN - AREA B

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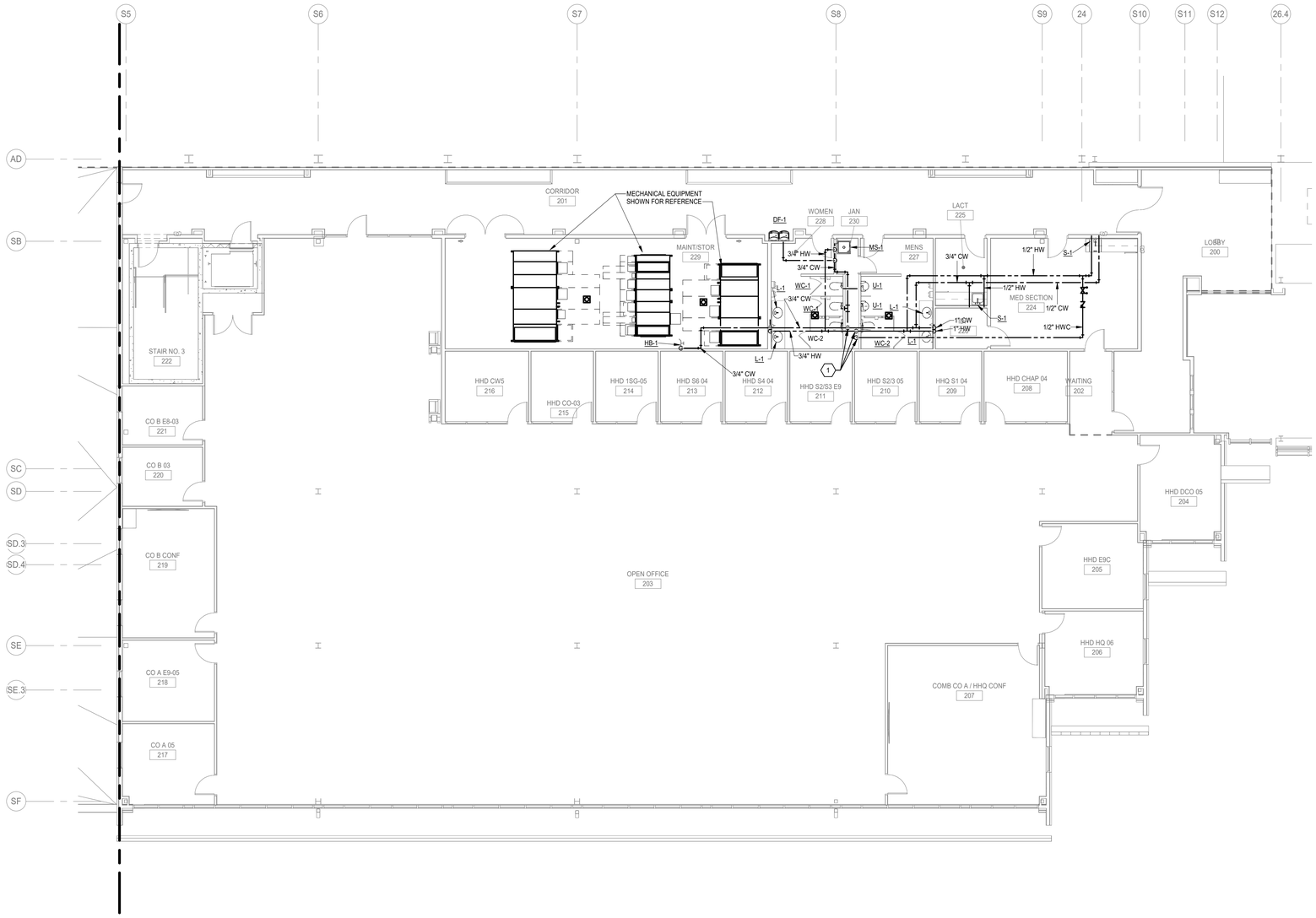
SHEET KEYNOTES

1. DOMESTIC WATER UP FROM FIRST FLOOR.



1 **SECOND FLOOR DOMESTIC WATER PLUMBING PLAN**
1/8" = 1'-0"

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SECOND FLOOR DOMESTIC WATER PLUMBING PLAN

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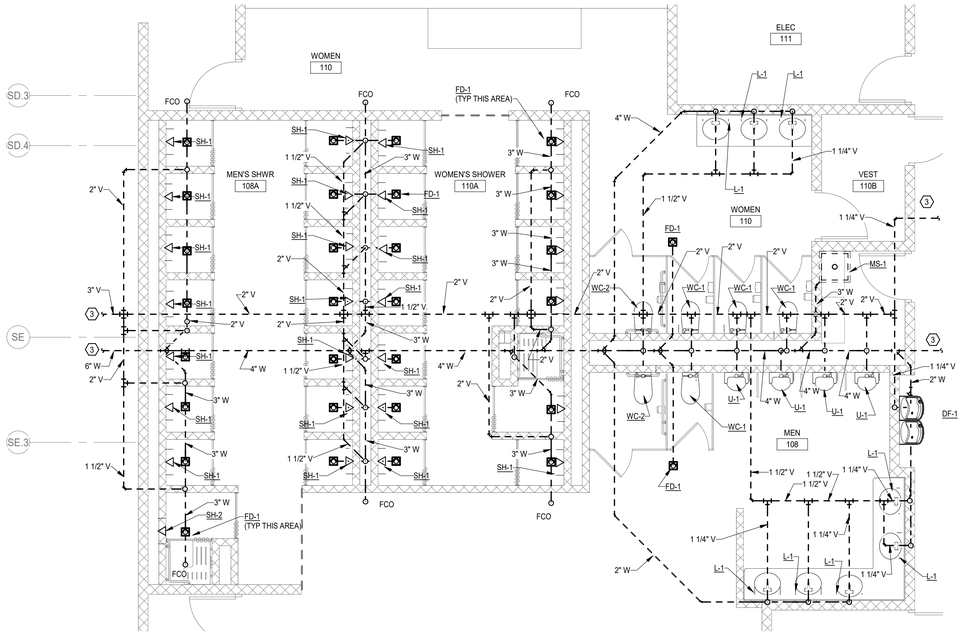
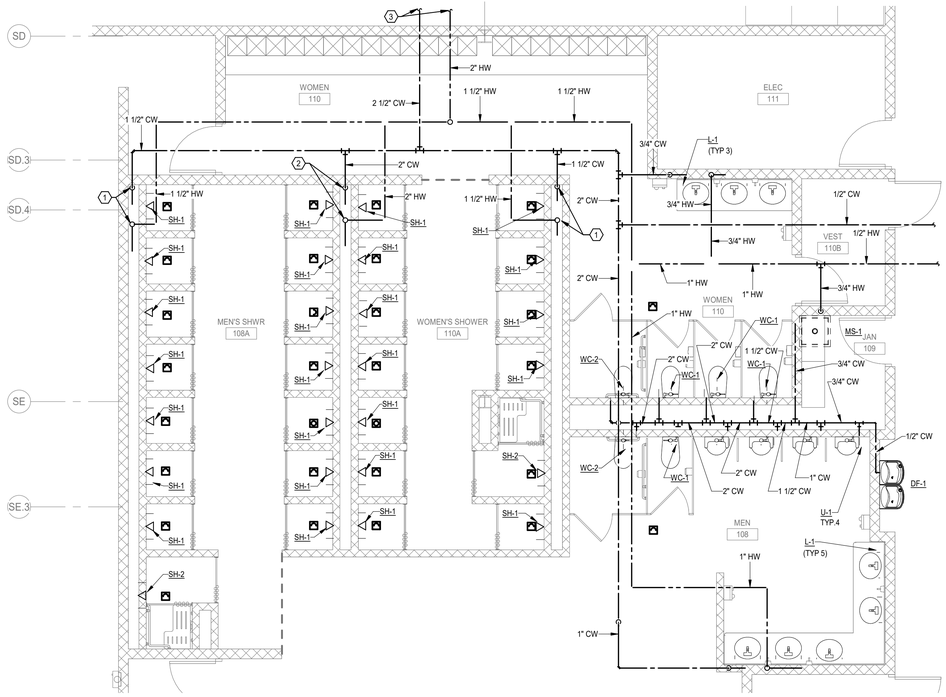


1 FIRST FLOOR RESTROOM ENLARGED WASTE PLAN

1/4" = 1'-0"



2 FIRST FLOOR RESTRROM DOMESTIC WATER ENLARGED PLUMBING PLAN

1/4" = 1'-0"

SHEET KEYNOTES

1. 1-1/2"CW AND 1-1/2"HW DOWN IN WALL 1/2" CONNECTION TO EACH SHOWER FIXTURE.
2. 2"CW AND 2"HW DOWN IN WALL 1/2" CONNECTION TO EACH SHOWER FIXTURE.
3. SEE FIRST FLOOR PLANS FOR CONTINUATION.

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PLUMBING ENLARGED PLANS

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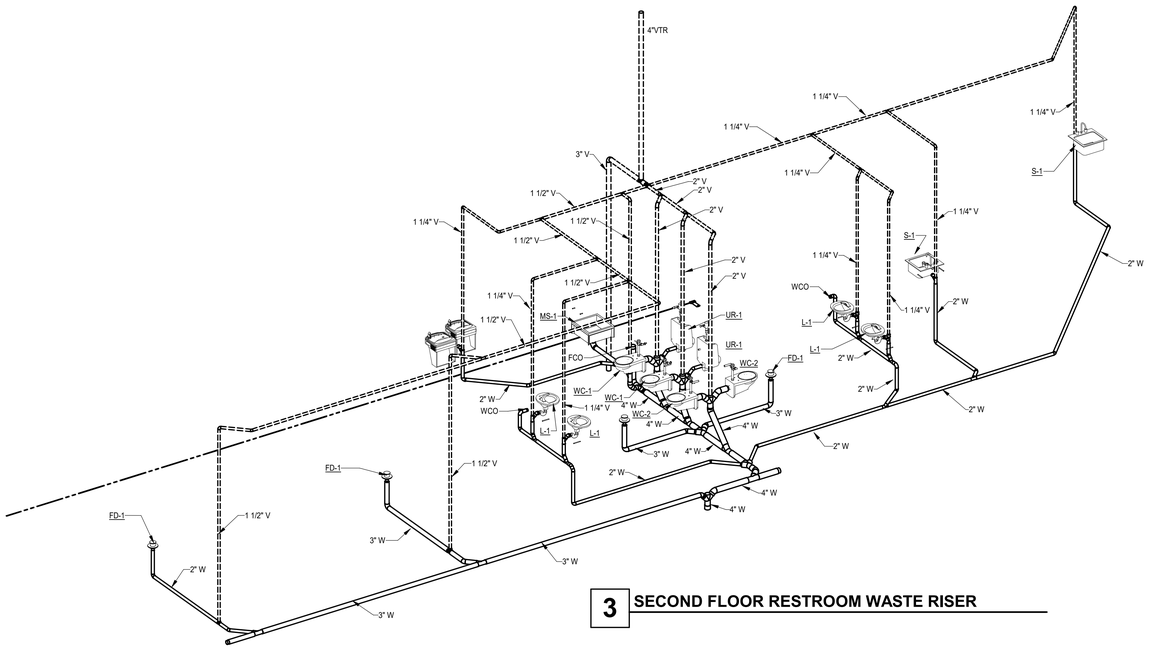
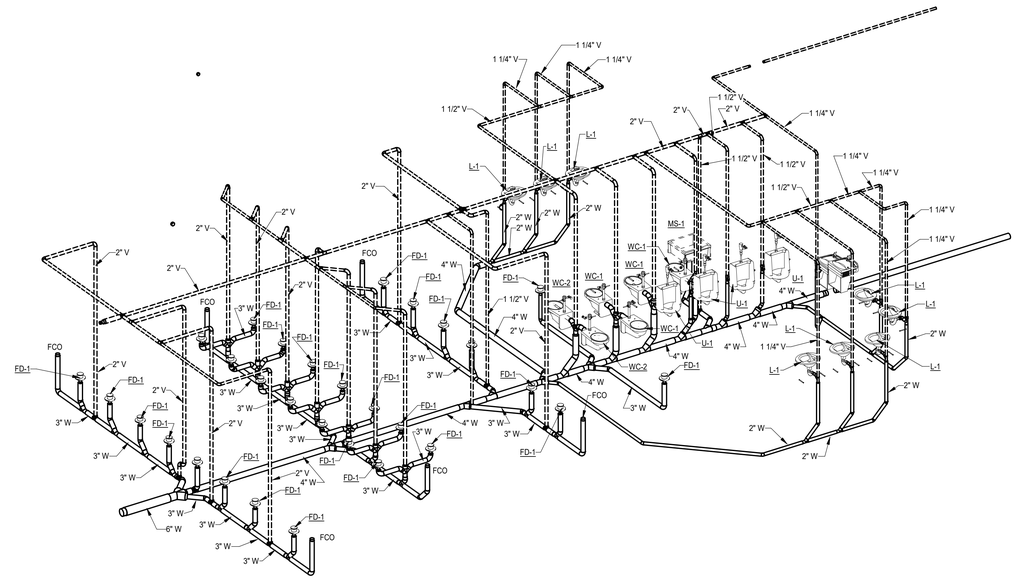
SHEET KEYNOTES

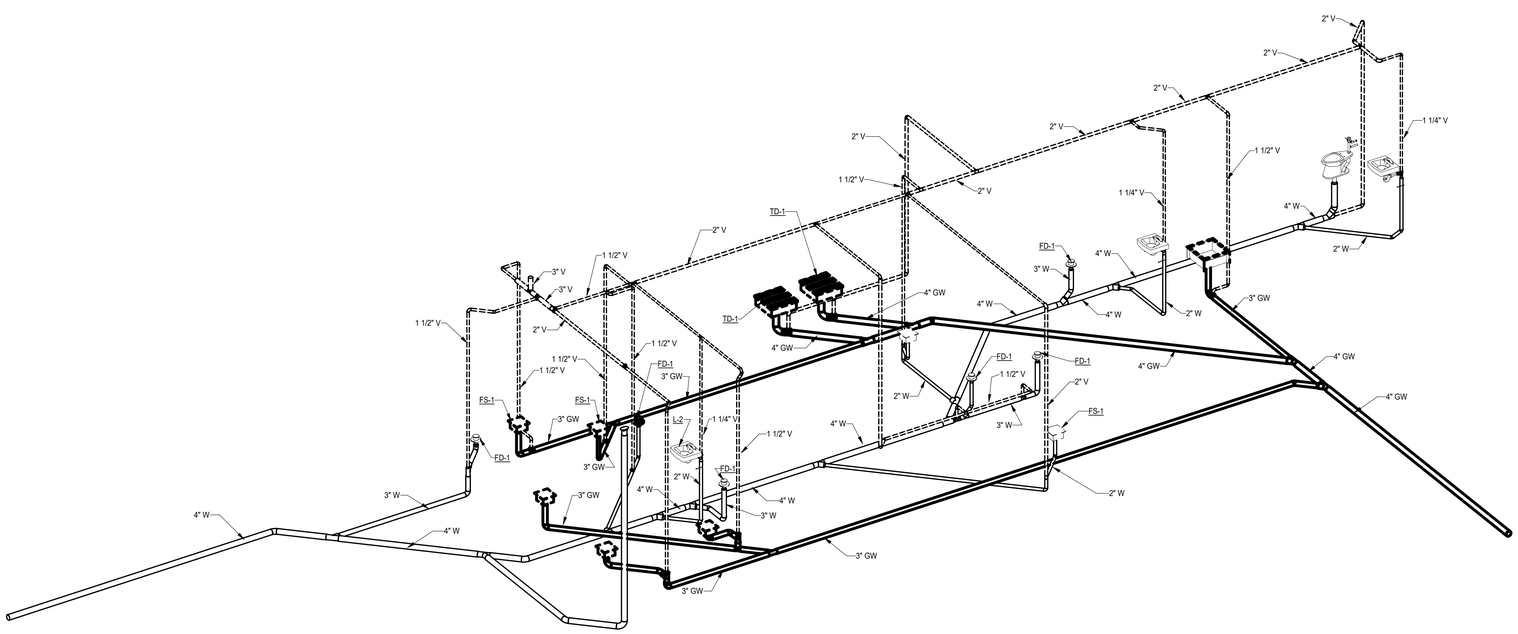
1. 4" WASTE FROM ADJACENT AREA SEE P110 FOR CONTINUATION.
2. 6" WASTE TO ADJACENT AREA SEE P110 FOR CONTINUATION.



3 SECOND FLOOR RESTROOM WASTE RISER



1 FIRST FLOOR RESTROOM WASTE RISER



2 FIRST FLOOR KITCHEN WASTE RISER

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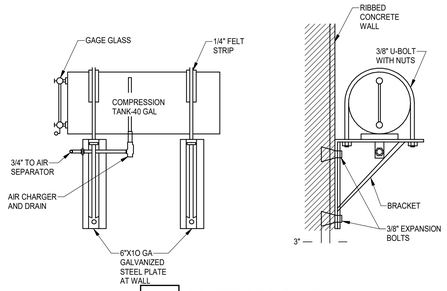
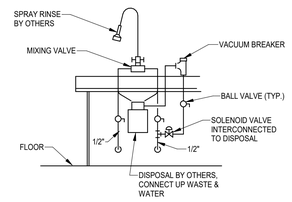
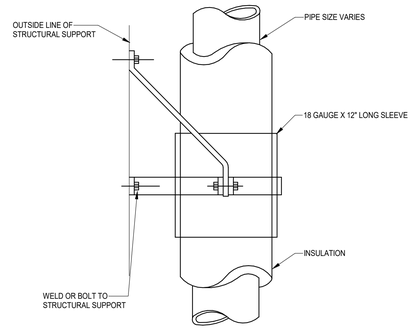


4 COMPRESSION TANK
NOT TO SCALE



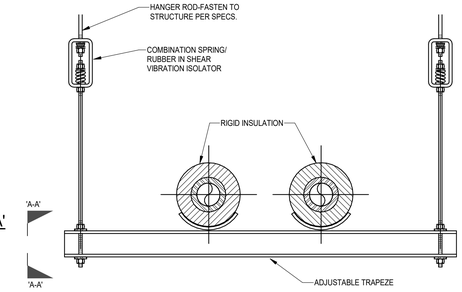
NOTE:
1. ALL PIPING LOCATED ABOVE TABLE TOP SHALL BE CHROME PLATED. CHROME &/OR SILVER PAINTED COPPER PIPE WILL NOT BE ACCEPTABLE.

3 DISPOSAL & PRE-RINSE PIPING DETAIL
NOT TO SCALE

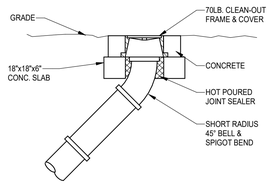


NOTES:
1. PROVIDE PIPE GUIDES AT EVERY FLOOR (MIN.) FOR ALL PIPING.

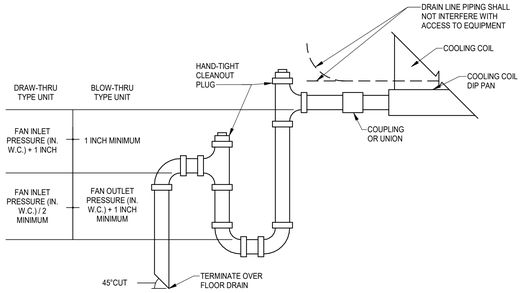
2 VERTICAL PIPE GUIDE
NOT TO SCALE



1 TRAPEZE PIPE SUPPORT DETAIL
NOT TO SCALE

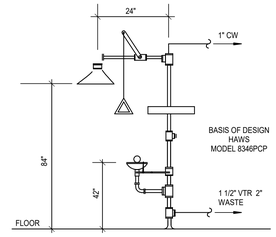


8 GRADE CLEAN OUT
NOT TO SCALE

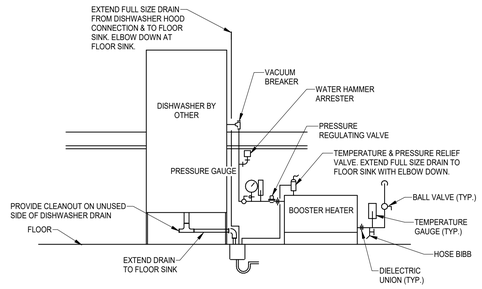


NOTES:
1. FOR EQUIPMENT WITHOUT INTERNAL CONDENSATE TRAPS.
2. PIPING TO BE COPPER, TYPE L.
3. PIPING LOCATED INDOORS TO BE INSULATED, SEE SPECS.
4. PROVIDE STANDS FOR FLOOR MOUNTED UNITS THAT NEED TO BE RAISED TO ALLOW TRAP TO BE INSTALLED.

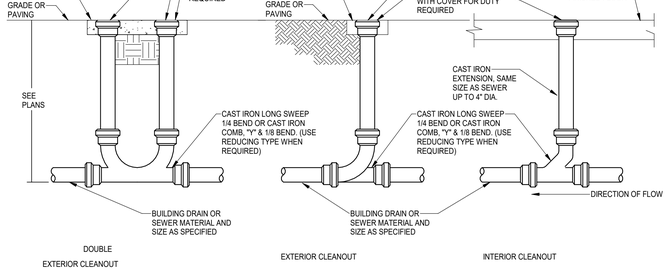
7 CONDENSATE TRAP DETAIL
NOT TO SCALE



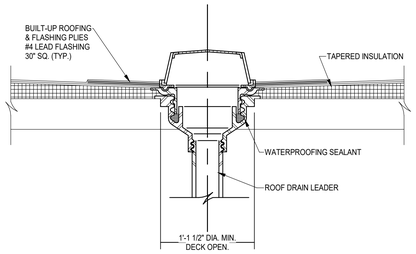
6 EMERGENCY EYE WASH & SHOWER DETAIL
NOT TO SCALE



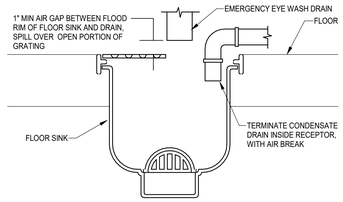
5 DISHWASHER PIPING DETAIL
NOT TO SCALE



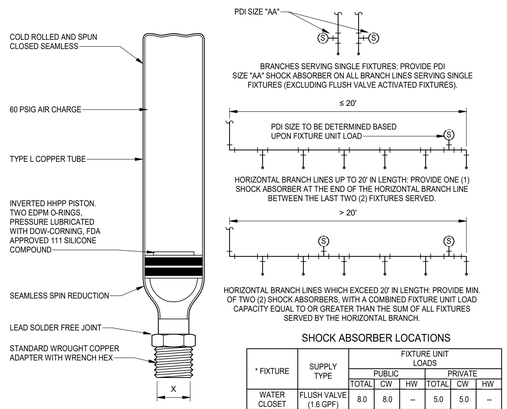
12 TYPICAL CLEANOUTS
NOT TO SCALE



11 ROOF DRAIN DETAIL
NOT TO SCALE

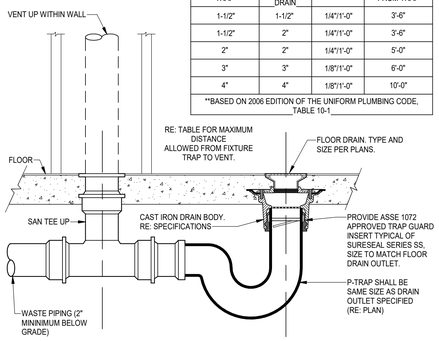


10 INDIRECT WASTE DETAIL
NOT TO SCALE

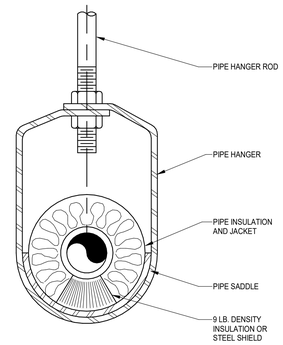


MAXIMUM DISTANCE OF FIXTURE TRAP FROM VENT			
SIZE OF TRAP	SIZE OF FIXTURE DRAIN	SLOPE	DISTANCE FROM TRAP
1-1/2"	1-1/2"	1/4"/1'-0"	3'-6"
1-1/2"	2"	1/4"/1'-0"	3'-6"
2"	2"	1/4"/1'-0"	5'-0"
3"	3"	1/8"/1'-0"	6'-0"
4"	4"	1/8"/1'-0"	10'-0"

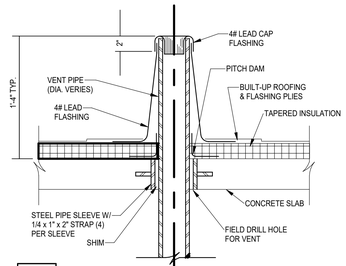
**BASED ON 2006 EDITION OF THE UNIFORM PLUMBING CODE, TABLE 10-1



15 FLOOR DRAIN DETAIL
NOT TO SCALE



14 INDIVIDUAL PIPE HANGER SUPPORT
NOT TO SCALE



13 PLUMBING VENT DETAIL
NOT TO SCALE

PDI SIZE	PIPE SIZE (X)	FIXTURE UNIT LOAD
AA	0.5"	1-3
A	0.5"	1-11
B	0.75"	12-32
C	1"	33-60
D	1"	61-113
E	1"	114-154
F	1"	155-330

SHOCK ABSORBER LOCATIONS

* FIXTURE	SUPPLY TYPE	FIXTURE UNIT LOADS					
		PUBLIC			PRIVATE		
		TOTAL	CW	HW	TOTAL	CW	HW
WATER CLOSET	FLUSH VALVE (1.6 GPF)	8.0	8.0	--	5.0	5.0	--
WATER CLOSET	FLUSH TANK (1.6 GPF)	5.0	5.0	--	2.5	2.5	--
URINAL	FLUSH VALVE (1.0 GPF)	4.0	4.0	--	--	--	--
LAVATORY	FAUCET	2.0	1.5	1.5	1	1	1
SINK	FAUCET	2.0	1.5	1.5	1	1	1
SHOWER	MIXING VALVE	4	2	3	2	1	2
BATHTUB	FAUCET	4	2	3	2	1.5	1.5
SERVICE SINK	FAUCET	3	3	3	--	--	--
WASHING MACHINE	AUTOMATIC (8 lb)	3	2.5	2.5	1.5	1	1
ALL FIXTURES NOT LISTED IN TABLE SHALL HAVE FIXTURE UNIT LOAD VALUE DETERMINED BY 2006 IPC TABLE E103.3							

PROVIDE SHOCK ABSORBERS ON ALL PLUMBING BATTERIES AND SINGLE FIXTURES AS SPECIFIED. ALL SHOCK ABSORBERS SHALL BE PROVIDED, SIZED, AND INSTALLED PER PDI STANDARD WH-201.

9 SHOCK ABSORBER DETAIL
NOT TO SCALE

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PIPING MATERIAL SCHEDULE

PIPING							FITTINGS		MAX. WORKING		FIELD TEST	
SYSTEM	SIZE	TYPE	SCH	GRD	ASTM	MATERIAL	MAT.	TYP	PRESS (PSI)	TEMP (F)	PRESS (PSI)	TIME
CONDENSATE DRAIN ABOVE GRADE	ALL	M	-	-	B88	CP	CP	DR\S	10 FT	40 - 70	-	-
TEMPERATURE & PRESSURE RELIEF DRAIN	ALL	M	-	-	B88	CP	CP	DR\S	10 FT	40 - 70	10 FT	1 HR
DOMESTIC WATER ABOVE GRADE	ALL	L	--	--	B88	CP	CP	SJ	120	40-180	150	1 HR
DOMESTIC WATER BELOW GRADE	<=3/4	K	--	--	B88	CP	CC	FT	120	40-180	150	1 HR
DOMESTIC WATER BELOW GRADE	1<=2 1/2	K	--	--	B88	CP	CP	SJ	120	40-180	150	1 HR
DOMESTIC WATER BELOW GRADE	>=3"	CL150	--	--	B88	DI	DI	RG	120	40-180	150	1 HR
ROOF DRAIN BELOW GRADE	ALL	NH	SS	--	A74	CI	CI	DR/HS	10 FT	40-80	10 FT	1 HR
ROOF DRAIN ABOVE GRADE	ALL	NH	SS	--	A74	CI	CI	DR/HB	10 FT	40-180	10 FT	1 HR
NATURAL GAS ABOVE GRADE	0.5"-2.5"	SL/CW	40	A	A53	CS/BLK	CS	WELD	1	-	100	1 HR
NATURAL GAS ABOVE GRADE	ABOVE 3"	SL/CW	40	A	A53	CS/BLK	CS	WELD	1	-	100	1 HR
NATURAL GAS BELOW GRADE	ALL	REFER TO NOTE 1 BELOW										
WASTE BELOW GRADE	ALL	DWV	40	--	2,665	CI	CI	DR/HS	10 FT	40-80	10 FT	1 HR
WASTE & VENT ABOVE GRADE	ALL	NH	SS	--	A74	CI	CI	HB	10 FT	40-180	10 FT	1 HR

NOTE:

1. BURIED GAS PIPING SHALL BE DRISCOPLEX 6500 PE2406, SDR11, POLYETHYLENE WITH #12 COPPER TRACER WIRE AND ANODELESS RISERS WHERE RISING ABOVE GRADE.
2. NO "PULLED TEES" ALLOWED ON COPPER PIPING.

BLK - BLACK
CI - CAST IRON
CP - COPPER
CS - CARBON STEEL
CW - CONTINUOUS WELD
HB - HUBLESS

DI - DUCTILE IRON
DR - DRAINAGE FITTING
MI - MALLEABLE IRON
PVC - POLYVINYLE CHLORIDE
CC - CAST COPPER
RG - RUBBER GASKET
*1 CONTRACTOR OPTION PRO PRESS
*2 CONTRACTOR OPTION GROOVED SCH 40 WITH VICTAULIC FITTINGS (NO EQUAL)

S - BRAZED JOINT - SILVER BRAZING ALLOW
SJ - SOLDER JOINT 95-5 TIN-ANTIMONY
SL - SEAMLESS STEEL
WELD - WELDED
FT - FLARED TUBE
HS - HUB AND SPIGOT

RECIRCULATION PUMPS

MARK	MANUFACTURER & MODEL OR EQUAL	MODEL	LOCATION	SERVES	GPM	HEAD (FT)	HP	VOLT	RPM	NOTES
RP-1	GRUNDFOS MAGNA3	40-120F	MECH	HOT WATER CIRCULATING	2.0	15	.60	120/1	3364	ALL

1. MANUFACTURER SHOWN IS THE BASIS OF DESIGN ONLY, FOR APPROVED EQUALS SEE SPECIFICATIONS.

MIXING VALVE SCHEDULE

MARK	MFR. OR EQUAL	MODEL	FLOW (GPM)		INLET CW TEMP (°F)	INLET HW TEMP (°F)	OUTLET TEMP (°F)	INLET SIZE	OUTLET SIZE	ACCESSORIES
			MIN	MAX						
MV-1	LEONARD	XL-200-LF-BDT	3.0	130	50	140	110	2"	2"	1,2,3

ACCESSORIES:

1. INLET THERMOMETERS.
2. WALL SUPPORTS.
3. THREE-PIECE BALL VALVE WITH DIAL THERMOMETERS.
4. MANUFACTURER SHOWN IS THE BASIS OF DESIGN ONLY, FOR APPROVED EQUALS SEE SPECIFICATIONS.

WATER HEATER SCHEDULE

MARK	MANUFACTURER & MODEL OR EQUAL	LOCATION	CAPACITY (GALLONS)	BOILER WATER TEMP	BOILER WATER GPM	CONTINUOUS DELIVERY (GPH)	DOMESTIC HOT WATER TEMP	NOTES
DWH-1	LOCHINVAR SIT119DW	MECH	113	180	14.0	174	140	ALL
DWH-2	LOCHINVAR SIT119DW	MECH	113	180	14.0	174	140	ALL
DWH-3	LOCHINVAR SIT119DW	MECH	113	180	14.0	174	140	ALL

GENERAL NOTES:

1. ASME RATED PRESUSRE & TEMPERATURE RELIEF VALVE.
2. PROVIDE ONE EXPANSION TANK FOR BOTH WATER HEATERS. PROVIDE AMERICAN WHEATLEY WPS-15 OR EQUIVALENT.
3. MANUFACTURER SHOWN IS THE BASIS OF DESIGN ONLY, FOR APPROVED EQUALS SEE SPECIFICATIONS.

PLUMBING FIXTURE SCHEDULE

TAG	TYPE	BASIS OF DESIGN	MODEL	DESCRIPTION	ACCESSORIES	CONNECTIONS			
						WASTE	VENT	CW	HW
WC-1	WALL MOUNTED ADA HIGH EFFICIENCY WATER CLOSET	AMERICAN STANDARD	AFWALL 2257.001	WALL MOUNTED, VITREOUS CHINA, ASME A112.19.1 COMPLIANT, LOW CONSUMPTION (1.28 GPF) SIPHON JET FLUSH WATER CLOSET WITH ELONGATED BOWL, 1-1/2" TOP SPUD, AND 2-1/8" TRAPWAY. ADA COMPLIANT WHEN MOUNTED AT APPLICABLE RIM HEIGHT (REFER TO ARCHITECTURAL).	FINISH SHALL BE WHITE. PROVIDE WITH CHURCH MODEL 9500C OPEN FRONT ELONGATED SEAT LESS COVER. PROVIDE WITH SLOAN WES 111 MANUALLY OPERATED FLUSH VALVE, 1.6/1.1 GPF - WITH VACUUM BREAKER, 1" SCREWDRIVER "BAK-CHECK" ANGLE STOP, AND SPUD COUPLING AND FLANGE FOR TOP SPUD. VALVE SHALL EMPLOY SYNTHETIC RUBBER DIAPHRAGM. PROVIDE WITH HEAVY DUTY FLOOR MOUNTED CARRIER COMPATIBLE WITH FIXTURE SPECIFIED, ZURN, JR SMITH, OR EQUAL.	4"	2"	1-1/4"	--
WC-2	WALL MOUNTED HIGH EFFICIENCY WATER CLOSET	AMERICAN STANDARD	AFWALL 2257.001	WALL MOUNTED, VITREOUS CHINA, ASME A112.19.1 COMPLIANT, LOW CONSUMPTION (1.28 GPF) SIPHON JET FLUSH WATER CLOSET WITH ELONGATED BOWL, 1-1/2" TOP SPUD, AND 2-1/8" TRAPWAY. REFER TO ARCHITECTURAL PLANS FOR MOUNTING HEIGHT.	FINISH SHALL BE WHITE. PROVIDE WITH CHURCH MODEL 9500C OPEN FRONT ELONGATED SEAT LESS COVER. PROVIDE WITH SLOAN WES 111 MANUALLY OPERATED FLUSH VALVE, 1.6/1.1 GPF - WITH VACUUM BREAKER, 1" SCREWDRIVER "BAK-CHECK" ANGLE STOP, AND SPUD COUPLING AND FLANGE FOR TOP SPUD. VALVE SHALL EMPLOY SYNTHETIC RUBBER DIAPHRAGM. PROVIDE WITH HEAVY DUTY FLOOR MOUNTED CARRIER COMPATIBLE WITH FIXTURE SPECIFIED, ZURN, JR SMITH, OR EQUAL.	4"	2"	1-1/4"	--
WC-3	FLOOR MOUNTED HIGH EFFICIENCY WATER CLOSET	AMERICAN STANDARD	MADERA	FLOOR MOUNTED, LOW CONSUMPTION WATER CLOSET WITH ELONGATED BOWL AND TOP SPUD.	FINISH SHALL BE WHITE. PROVIDE WITH CHURCH MODEL 9500C OPEN FRONT ELONGATED SEAT LESS COVER. PROVIDE FLUSHVALVE TYPICAL OF AMERICAN STANDARD MODEL 6047.121.002 MANUAL OPERATING FLUSH VALVE WITH 1.28 GPF.				
U-1	WALL MOUNTED HIGH EFFICIENCY URINAL	AMERICAN STANDARD	TRIMBROOK 6561.017	WALL MOUNTED, VITREOUS CHINA, ASME A112.19.1 COMPLIANT, LOW CONSUMPTION SIPHON JET URINAL, 3/4" TOP SPUD INLET. REFER TO ARCHITECTURAL PLANS FOR MOUNTING HEIGHTS.	FINISH SHALL BE WHITE PROVIDE WITH SLOAN ROYAL MODEL 186-0.125 MANUALLY OPERATED FLUSH VALVE, 0.125 GPF - WITH VACUUM BREAKER, 3/4" SCREWDRIVER "BAK-CHEK" ANGLE STOP, AND SPUD COUPLING AND FLANGE FOR TOP SPUD. VALVE SHALL EMPLOY SYNTHETIC RUBBER DIAPHRAGM. PROVIDE WITH HEAVY DUTY FLOOR MOUNTED CARRIER COMPATIBLE WITH FIXTURE SPECIFIED - ZURN, JR SMITH, OR EQUAL.	2"	1-1/2"	3/4"	--
U-2	WALL MOUNTED ADA HIGH EFFICIENCY URINAL	AMERICAN STANDARD	TRIMBROOK 6561.017	WALL MOUNTED, VITREOUS CHINA, ASME A112.19.1 COMPLIANT, LOW CONSUMPTION SIPHON JET URINAL, 3/4" TOP SPUD INLET. REFER TO MANUFACTURER FOR ADA MOUNTING HEIGHTS.	FINISH SHALL BE WHITE PROVIDE WITH SLOAN ROYAL MODEL 186-0.125 MANUALLY OPERATED FLUSH VALVE, 0.125 GPF - WITH VACUUM BREAKER, 3/4" SCREWDRIVER "BAK-CHEK" ANGLE STOP, AND SPUD COUPLING AND FLANGE FOR TOP SPUD. VALVE SHALL EMPLOY SYNTHETIC RUBBER DIAPHRAGM. PROVIDE WITH HEAVY DUTY FLOOR MOUNTED CARRIER COMPATIBLE WITH FIXTURE SPECIFIED - ZURN, JR SMITH, OR EQUAL.	2"	1-1/2"	3/4"	--
L-1	INTEGRAL BOWL FAUCET ONLY	SEE ARCHITECTURAL DRAWINGS	--	--	PROVIDE WITH FAUCET TYPICAL OF AMERICAN STANDARD CONONY PRO MANUALLY OPERATED LAVATORY FAUCET WITH PLASTIC WASTE ASSEMBLY. ALL METAL CONSTRUCTION WITH CHROME FINISH, 1/2" IPS CONNECTIONS, 0.5 GPM AERATOR. PROVIDE WITH NONMETALLIC CARTRIDGES, AND POP-UP WASTE DRAIN. NSF 61/9 AND ASME A112.18.1 COMPLIANT. PROVIDE WITH BRAIDED STAINLESS STEEL FLEXIBLE SUPPLY(S) WITH QUARTER-TURN ANGLE STOPS. PROVIDE PVC TRAP WITH CLEANOUT; TRAP ARM TO WALL AND WALL ESCUTCHEON.	2"	1-1/2"	1/2"	1/2"
L-2	WALL HUNG LAVATORY	AMERICAN STANDARD	LUCERNE 0356.421	WALL MOUNTED, ASME A112.19.2 COMPLIANT VITREOUS CHINA LAVATORY WITH 20"x17" RECTANGULAR BOWL, FRONT OVERFLOW, AND MOUNTING KIT AS NECESSARY. PROVIDE WITH CONCEALED ARM CARRIER SUPPORTS AND FLOOR MOUNTED CARRIER COMPATIBLE WITH LAVATORY. FINISH TO BE WHITE. REFER TO ARCHITECTURAL PLANS FOR MOUNTING HEIGHTS.	PROVIDE WITH FAUCET TYPICAL OF AMERICAN STANDARD CONONY PRO MANUALLY OPERATED LAVATORY FAUCET WITH PLASTIC WASTE ASSEMBLY. ALL METAL CONSTRUCTION WITH CHROME FINISH, 1/2" IPS CONNECTIONS, 0.5 GPM AERATOR. PROVIDE WITH NONMETALLIC CARTRIDGES, AND POP-UP WASTE DRAIN. NSF 61/9 AND ASME A112.18.1 COMPLIANT. PROVIDE WITH BRAIDED STAINLESS STEEL FLEXIBLE SUPPLY(S) WITH QUARTER-TURN ANGLE STOPS. PROVIDE PVC TRAP WITH CLEANOUT; TRAP ARM TO WALL AND WALL ESCUTCHEON.	2"	1-1/2"	1/2"	1/2"
S-1	COUNTERMOUNT STAINLESS STEEL SINGLE COMPARTMENT SINK	ELKAY	LSR2722	SINGLE COMPARTMENT, 18-GAUGE STAINLESS STEEL TYPE 304 SINK, 27"x22"x8". PROVIDE WITH 3-1/2" CENTERED DRAIN OPENINGS AND SOUND DEADENING UNDERCOATING. UNIVERSAL MOUNTING CAPABILITIES WITH APPROPRIATE MOUNTING HARDWARE INCLUDED. COORDINATE SINK INSTALLATION WITH ARCHITECTURAL PLANS AND GENERAL CONTRACTOR. COORDINATE FAUCET HOLE DRILLING WITH FAUCETS SPECIFIED.	PROVIDE WITH DECK FAUCET TYPICAL OF CHICAGO FAUCETS MODEL 201-A317ABCP, WITH 8" FIXED CENTERS, 9-1/2" L TYPE SWING SPOUT, 2.2 GPM AERATOR, VANDAL PROOF 4" WRISTBLADE HANDLES, QUATURN COMPRESSION OPERATING CARTRIDGES, 1/2" INLETS, AND CHROME PLATED FINISH. PROVIDE 1/2" CHROME PLATED SUPPLIES WITH WITH QUARTER-TURN STOPS AND WALL ESCUTCHEON. PROVIDE CHROME PLATED CAST-BRASS TRAP WITH CLEANOUT, TRAP ARM EXTENSION TO WALL, AND WALL ESCUTCHEON.	2"	1-1/2"	1/2"	1/2"
S-2	STAINLESS STEEL DOUBLE COMPARTMENT SINK	ELKAY	EFRU311810	DOUBLE COMPARTMENT, UNDERMOUNT, 16-GAUGE STAINLESS STEEL TYPE 304 SINK, 30-3/4"x18-1/2"x10". PROVIDE WITH 3-1/2" CENTERED DRAIN OPENINGS AND SOUND DEADENING UNDERCOATING. UNIVERSAL MOUNTING CAPABILITIES WITH APPROPRIATE MOUNTING HARDWARE INCLUDED. COORDINATE SINK INSTALLATION WITH ARCHITECTURAL PLANS AND GENERAL CONTRACTOR. COORDINATE FAUCET HOLE DRILLING WITH FAUCETS SPECIFIED.	PROVIDE WITH DECK FAUCET TYPICAL OF CHICAGO FAUCETS MODEL 1100-GN2AE35-317AB WITH 8" FIXED CENTERS, RIGID/SWING GOOSENECK SPOUT, 5-1/4" CENTER TO CENTER, 1.5 GPM AERATOR, VANDAL PROOF 4" WRISTABLE HANDLES, QUATURN COMPRESSION OPERATING CARTRIDGES, 1/2" INLETS, AND CHROME PLATED FINISH. PROVIDE IN-SINK-ERATOR BADGER 5, 1/2 HP, 120V, 7 AMP GARBAGE DISPOSER.	2"	1-1/2"	1/2"	1/2"
DF-1	NO-LEAD DUAL LEVEL DRINKING FOUNTAIN WITH INTEGRAL BOTTLE FILLING STATION	ELKAY	LZSTL8WS	HEAVY DUTY, NSF-61 COMPLIANT, DUAL-LEVEL DRINKING FOUNTAIN WITH STAINLESS STEEL BASINS. FOUNTAIN SHALL BE NSF-61 COMPLIANT. PROVIDE WITH FRONT PUSH BUTTON ACTUATORS, VANDAL RESISTANT BUBBLERS, SURFACE MOUNTING PLATE, AND IN-WALL SUPPORT LEGS.	BOTTLE FILLER SHALL BE SENSOR ACTIVATED, 1.5 GPM FILL RATE, DRAIN SYSTEM TO ELIMINATE STANDING WATER, VISUAL USER INTERFACE, AUTO SHUTOFF, AND ANTI-MICROBIAL PROTECTION. CHILLER SHALL BE CAPABLE OF 8 GPH AND 50°F DRINKING WATER BASED ON 80°F AMBIENT. COORDINATE ELECTRICAL REQUIREMENTS WITH E/C. PROVIDE WITH ELKAY LEAD REDUCTION WATER FILTRATION KIT, WITH (1) SPARE REPLACEMENT FILTER FOR EACH KIT PROVIDED.	2"	1-1/2"	1/2"	--
SH-1	SHOWER VALVE AND TRIM	SYMMONS	1-100-150	PRESSURE BALANCING SHOWER VALVE AND TRIM. PROVIDE WITH 3 PORT #4-500 PRESSURE BALANCING MIXING VALVE WITH ADJUSTABLE STOP SCREW TO LIMIT HANDLE TURN. PROVIDE WITH SENIOR SHOWERHEAD #4-150 WITH SEMI-ADJUSTABLE FLOOD OR MIST SPRAY - WITH 1.5 GPM FLOW RESTRICTOR. SPRAY FACE SHALL BE NON-CLOGGABLE AND NON-REMOVEABLE. ALL MOUNTING FASTENERS SHALL BE VANDAL RESISTANT. FIXTURE SHALL COME WITH POLISHED CHROME FINISH.	PROVIDE WITH ANCHOR PLATE WHERE INSTALLED IN A TILE SHOWER, VANDAL RESISTANT ESCUTCHEON SCREW, AND INTEGRAL CHECK STOPS.	--	--	1/2"	1/2"
SH-2	ADA SHOWER VALVE AND TRIM	SYMMONS	1-25-FSB	PRESSURE BALANCING SHOWER VALVE AND TRIM. PROVIDE WITH 3-PORT #4-500 PRESSURE BALANCING MIXING VALVE WITH ADJUSTABLE STOP SCREW TO LIMIT HANDLE TURN. PROVIDE WITH OPEN FLOW FS HAND SHOWER WITH 5 FOOT FLEXIBLE METAL HOSE, INLINE VACUUM BREAKER, WALL CONNECTION, FLANGE, AND 1.5 GPM FLOW RESTRICTOR. SPRAY FACE SHALL BE NON-CLOGGABLE AND NON-REMOVABLE. ALL MOUNTING FASTENERS SHALL BE VANDAL RESISTANT. FIXTURE SHALL COME WITH POLISHED CHROME FINISH.	PROVIDE WITH ANCHOR PLATE WHERE INSTALLED IN A TILE SHOWER, VANDAL RESISTANT ESCUTCHEON SCREW, AND INTEGRAL CHECK STOPS. PROVIDE WITH 30" SLIDE BAR FOR MOUNTING HAND SHOWER.	--	--	1/2"	1/2"
IMB	ICE MACHINE ROUGH-IN BOX	GUY GRAY	MIB1	20 GAUGE ROUGH-IN BOX WITH FACEPLATE. WHITE POWDER COAT ON COLD ROLLED STEEL FINISH.	PROVIDE WITH 1/2" QUARTER TURN SWEAT VALVE.	--	--	1/2"	--
MS-1	24"x24" JANITORS SINK	FIAT	TSB100	ONE PIECE PRECAST TERRAZO MOP SERVICE BASIN, 12" CONTINUOUS DEPTH. TERRAZO SHALL BE CONSTRUCTED TO A COMPRESSIVE STRENGTH OF NOT LESS THAN 3000 PSI, WITH POLISHED AND SEALED FINISH. BASIN TO BE INSTALLED ON MINIMUM 1/2" LAYER OF MORTAR FOR LEVELING, REFER TO MANUFACTURERS INSTALLATION INSTRUCTIONS.	PROVIDE WITH STAINLESS STEEL STRAINER (#1453BB), QUICK DRAIN CONNECTORS, INTEGRAL TILING FLANGES, STAINLESS STEEL CAPS ON ALL SHOULDERS, WALL MOUNTED MOP SERVICE SINK WITH PAIL HOOK (830AA), HOSE AND HOSE BRACKET (832AA), SILICONE SEALANT (833AA) AND HEAVY GAUGE STAINLESS STEEL WALL GUARDS (MSG).	3"	1-1/2"	1/2"	1/2"
FPWH	FREEZE-PROOF WALL HYDRANT	WOODFORD	B65	NON-FREEZE, SELF DRAINING TYPE WITH POLISHED BRASS CONCEALING BOX AND DOOR, HOSE THREAD SPOUT, REMOVABLE KEY WITH EACH HYDRANT, AND VACUUM BREAKER.	PROVIDE WITH SPARE KEY FOR EACH HYDRANT PROVIDED.	--	--	3/4"	--
RH-1	FREEZE-PROOF ROOF HYDRANT	FREEZEFLOW	2131R	SELF CONTAINED DRAIN PROOF AND FREEZE PROOF ROOF HYDRANT WITH HEAVY DUTY BRASS HOSE BIBB WITH PAIL HOOK, 1" GALVANIZED SCHEDULE 40 STEEL PIPE RISER, STAINLESS STEEL DRAINAGE CANISTER, AND OPTIONAL BACKFLOW PREVENTION DEVICE. INSTALL WITH CANISTER AT MANUFACTURER REQUIRED DEPTH BELOW ROOF DECK.	--	--	--	3/4"	--
FD-1	FLOOR DRAIN	ZURN	Z-415	CAST IRON TWO PIECE BODY WITH DOUBLE DRAINAGE FLANGE, WEEP HOLES, REVERSIBLE CLAMPING COLLAR, NICKEL BRONZE ADJUSTABLE STRAINER.	DIMENSIONS OF TOP STRAINER: FOR 2 INCH OUTLET PROVIDE WITH A 5 INCH TOP. FOR A 3 INCH OUTLET PROVIDE WITH 8 INCH TOP AND A 6" OUTLET PROVIDE WITH A 10" TOP. PROVIDE TY SEALS FOR FLOOR DRAINS MOUNTED IN FLOORS ABOVE GRADE, VERIFY PIPE SIZES ON PLANS. PROVIDE WITH ASSE 1072 APPROVED TRAP SEALING INSERT TYPICAL OF SURESEAL SERIES SS - SIZE PER FLOOR DRAIN OUTLET.	OUTLET SIZE PER PLAN			
FD-2	FLOOR DRAIN	ZURN	Z-415	DURA-COATED CAST IRON BODY WITH BOTTOM OUTLET, COMBINATION INVERTIBLE MEMBRANE CLAMP AND ADJUSTABLE COLLAR WITH SEEPAGE SLOTS AND TYPE 'B' POLISHED NICKEL BRONZE, LIGHT DUTY RECEPTOR.	PROVIDE WITH 6" DIAMETER STRAINER WITH 4" FUNNEL. PROVIDE TY SEALS FOR FLOOR DRAINS MOUNTED IN FLOORS ABOVE GRADE. VERIFY PIPE SIZES ON PLANS, FOR DRAINS CONNECTED TO SANITARY SYSTEM, PROVIDE WITH ASSE 1072 APPROVED TRAP SEALING INSERT TYPICAL OF SURESEAL SERIES SS - SIZE PER FLOOR DRAIN OUTLET.	OUTLET SIZE PER PLAN			
FS-1	12"x12" FLOOR SINK WITHOUT GRATE	ZURN	Z-1901	12"x12"x8" FLOOR RECEPTOR DEEP CAST IRON BODY AND SQUARE. NO GRATE. WHITE ACID-RESISTING PORCELAIN ENAMEL INTERIOR AND TOP, AND WITH WHITE ABS ANTI-SPLASH INTERIOR BOTTOM DOME STRAINER.	OUTLET SIZE TO MATCH CONNECTION SIZE NOTED ON PLAN. WHERE CONNECTED TO SANITARY SYSTEM, PROVIDE WITH TRAP SEALING INSERT TYPICAL OF SURESEAL SERIES SS. WHERE CONNECTED TO A GREASE WASTE SYSTEM.	OUTLET SIZE PER PLAN			
TD-1	KITCHEN TRENCH DRAIN	JAY R. SMITH	9675	36"X18" STAINLESS STEEL TRENCH DRAIN. 14 GAUGE, 304 STAINLESS STEEL TRENCH DRAIN BODY WITH 4" NO HUB OUTLET. SEDIMENT BUCKET AND STAINLESS STEEL A.D.A. GRATING	PROVIDE ANTISPLASH GUARD.	4"	2"	--	--
RD-1	ROOF DRAIN	ZURN	Z103-45	DIAMETER DUAL OUTLET ROOF DRAIN WITH 45° PRIMARY OUTLET CONNECTION. CAST IRON BODY ROOF DRAIN, VARIABLE DIAMETER BASED UPON OUTLET SIZE. PROVIDE WITH DECK CLAMP AND MINIMUM 5" HIGH DOME STRAINER. ROOF DRAIN SHALL BE COMPLIANT WITH ASME A112.6.4.	PROVIDE WITH OUTLET SIZE AS NOTED ON PLAN. OUTLET SIZE TO DETERMINE OVERALL DIAMETER OF DOME STRAINER. 3" AND 4" OUTLETS TO HAVE A 14" DIAMETER DOME STRAINER, 5" AND 6" OUTLETS TO HAVE A 18" DIAMETER DOME STRAINER. ROOF DRAIN SHALL HAVE A 25 YEAR WARRANTY.	OUTLET SIZE PER PLAN			
DS-1	DOWNSPOUT NOZZLE	ZURN	ZANB-199	ALL NICKEL BRONZE BODY DOWN SPOUT NOZZLE WITH OPTIMAL THREADED OR NO-HUB INLET AND DECORATIVE FACE OF WALL FLANGE AND OUTLE NOZZLE.	--				
HB-1	HOSE BIBB	WOODFORD	B65	WALL HYDRANT		--	--	1/2"	--
GI-1	GREASE INTERCEPTOR	SCHIER	GB-250	BELOW GRADE POLYETHELYNE GREASE INTERCEPTOR	PROVIDE COLLAR EXTENTIONS AS NECESSARY	4"	2"	--	--
FGCO	FINISHED GRADE CLEANOUT	ZURN	Z-1400	ADJUSTABLE FLOOR CLEANOUT, CAST IRON BODY, WITH GAS AND WATER-TIGHT ABS TAPERED THREAD PLUG AND ROUND SCORIATED SECURED HEAVY DUTY TOP, ADJUSTABLE TO FINISH FLOOR. CAST IN CONCRETE PER DETAIL.	CLEANOUT SHALL BE THE SAME SIZE AS PIPING UP TO 4". 4" AND LARGER PIPING SHALL BE A 4" CLEANOUT.	--	--	--	--
FCO	FINISHED FLOOR CLEANOUT	ZURN	Z-1400	CLEANOUT TEE, DURA COATED CAST IRON BODY, GAS AND WATERTIGHT, ABS TAPERED THREAD PLUG AND ROUND, SMOOTH STAINLESS STEEL WALL ACCESS COVER WITH SECURING SCREW.	CLEANOUT SHALL BE THE SAME SIZE AS PIPING UP TO 4". 4" AND LARGER PIPING SHALL BE A 4" CLEANOUT.	--	--	--	--
WCO	WALL CLEANOUT	ZURN	Z-1446	CLEANOUT TEE, DURA COATED CAST IRON BODY, GAS AND WATERTIGHT, ABS TAPERED THREAD PLUG AND ROUND, SMOOTH STAINLESS STEEL WALL ACCESS COVER WITH SECURING SCREW.	CLEANOUT SHALL BE THE SAME SIZE AS PIPING UP TO 4". 4" AND LARGER PIPING SHALL BE A 4" CLEANOUT.	--	--	--	--

GENERAL NOTES:

1. VERIFY ALL CONNECTIONS & MOUNTING HEIGHTS WITH CODES, MANFACTURERS, AND PLANS.
2. SIZES LISTED INDICATE MIN. SIZE ONLY, SEE PLUMBING RISERS AND FLOOR PLANS FOR LARGER SIZES.
3. ACCETABLE ALTERNATE MANUFACTURERS INCLUDE HAWS, CHICAGO FAUCET, HALSEY TAYLOR, JOSAM, JR SMITH, WADE, ROCKFORD, TOTO, AND OASIS.
4. ALL FIXTURES TO BE ANCHORED TO SUPPORT WEIGHT OF FIXTURES AND A MINIMUM OF 400 LBS (180 kg) WITHOUT FAILURE OR STRESS ON THE CONNECTING PIPES.
5. MANUFACTURERS SHOWN ARE THE BASIS OF DESIGN ONLY, FOR APPROVED EQUALS SEE SPECIFICATIONS.

OFFICE OF THE ADJUTANT GENERAL

MISSOURI NATIONAL GUARD FACILITIES DIVISION

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Engineer of Record
STATE OF MISSOURI CORY WILSON 02-26-2020 NUMBER PE-2010009876 PROFESSIONAL ENGINEER

Cory Wilson, Engineer MO PE-2010009876

TASMG READINESS CENTER

AVCRAD SITE
1107TH THEATER AVIATION SUSTAINMENT MAINTENANCE GROUP

MISSOURI NATIONAL GUARD
SPRINGFIELD, MISSOURI

NATIONAL GUARD BUREAU PROJECT #290186
MISSOURI NATIONAL GUARD PROJECT #T1809-01
SITE #9019
ASSET #8136270008

DRAWN BY: AL
CHECKED BY: MS
DESIGNED BY: AL

REVISION:
DATE:
REVISION:
DATE:
REVISION:
DATE:
ISSUED DATE: 26 February 2020

SHEET TITLE:

PLUMBING SCHEDULES

SHEET NUMBER:

P700

99 OF 131 SHEETS

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FIRE ALARM MATRIX

FIRE ALARM / MASS NOTIFICATION MATRIX

SYSTEM INPUTS	ACTION	ANNUNCIATE ALARM SIGNAL AT FACP AND ANNUNCIATOR	ANNUNCIATE SUPERVISORY SIGNAL AT FACP AND ANNUNCIATOR	ANNUNCIATE TROUBLE SIGNAL AT FACP AND ANNUNCIATOR	ACTIVATE SPEAKER CIRCUITS - READINESS CENTER	ACTIVATE SPEAKER CIRCUITS - PHASE 3A	ACTIVATE STROBES - READINESS CENTER	ACTIVATE STROBES - PHASE 3A	ACTIVATE LED MESSAGE - "ANNOUNCEMENT" - READINESS CENTER	ACTIVATE LED MESSAGE - "ANNOUNCEMENT" - PHASE 3A	ACTIVATE FIRE ALARM STROBES - PHASE 3A	ACTIVATE EXTERIOR SPRINKLER NOTIFICATION APPLIANCE	DEACTIVATE VISIBLE STROBES & LED TEXT SIGNS - READINESS CENTER	DEACTIVATE VISIBLE STROBES - PHASE 3A	SHUTDOWN ASSOCIATED AIR HANDLER	SHUTDOWN ALL BUILDING AIR HANDLERS AND OUTSIDE AIR UNITS	RECALL ELEVATOR TO 1ST FLOOR	RECALL ELEVATOR TO 2ND FLOOR	RECALL ELEVATOR TO 1ST FLOOR AND ACTIVATE IN CAB SIGNAL	ACTIVATE ELEVATOR EMERGENCY POWER SHUNT	DISPLAY CHANGE OF MNS STATUS ON PANEL	TRANSMIT SPRINKLER FLOW ALARM SIGNAL TO CENTRAL STATION MONITOR	TRANSMIT MANUAL PULL STATION SIGNAL TO CENTRAL STATION MONITOR	TRANSMIT HEAT DETECTOR SIGNAL TO CENTRAL STATION MONITOR	TRANSMIT CARBON MONOXIDE SIGNAL TO CENTRAL STATION MONITOR	TRANSMIT SUPERVISORY SIGNAL TO CENTRAL STATION MONITOR	TRANSMIT SYSTEM TROUBLE SIGNAL TO CENTRAL STATION MONITOR	OVERRIDE ACTIVE FIRE ALARM PRE-RECORDED MESSAGE	OVERRIDE ACTIVE MNS PRE-RECORDED MESSAGE	RESUME ACTIVE INPUTS FROM BUILDING FIRE ALARM INPUT
		a	b	c	d	e	f	g	h	i	j		k	l	m	n	o	p	q	r	s	t	u	v	w	x	y	z	aa	bb
WATERFLOW ALARM ACTIVATION	1	X			X		X	X			X											X								
MANUAL PULL STATION ACTIVATION	2	X			X		X	X															X							
SMOKE DETECTOR ACTIVATION - 1ST FLOOR ELEVATOR LOBBY	3	X			X		X	X										X								X				
SMOKE DETECTOR ACTIVATION - 2ND FLOOR ELEVATOR LOBBY	4	X			X		X	X									X									X				
SMOKE DETECTOR ACTIVATION - HOISTWAY OR ELEVATOR CONTROL ROOM	5	X			X		X	X											X							X				
WATERFLOW ALARM ACTIVATION (ELEVATOR HOISTWAY/CONTROL ROOM)	6	X			X		X	X			X									X		X								
DUCT SMOKE DETECTOR ACTIVATION	7		X												X											X				
VALVE TAMPER ALARM ACTIVATION	8		X																							X				
LOSS OF ELEVATOR SHUNT POWER	9		X																							X				
CARBON MONOXIDE MONITOR ACTIVATION	10		X		X		X	X																	X					
KITCHEN HOOD EXTINGUISHING SYSTEM ACTIVATION	11		X																							X				
MANUAL EMERGENCY HVAC SHUTDOWN ACTIVATED	12		X													X										X				
PRE-RECORDED MNS MESSAGE (DURING ACTIVE FIRE ALARM)	13				X	X	X		X	X											X									
BUILDING MNS INPUT TERMINATED	14												X	X																X
LOC MICROPHONE KEYED-ALL CALL	15				X		X		X	X																				
LOC MICROPHONE KEYED-ALL CALL (DURING ACTIVE FIRE ALARM)	16				X	X	X		X	X																X		X		
LOC MICROPHONE KEYED-ALL CALL (DURING ACTIVE MNS PRE-RECORDED MESSAGE)	17				X	X	X		X	X																			X	
LOC MICROPHONE TERMINATED	18												X	X																X
PA MICROPHONE KEYED	19				X																									

FA GENERAL NOTES

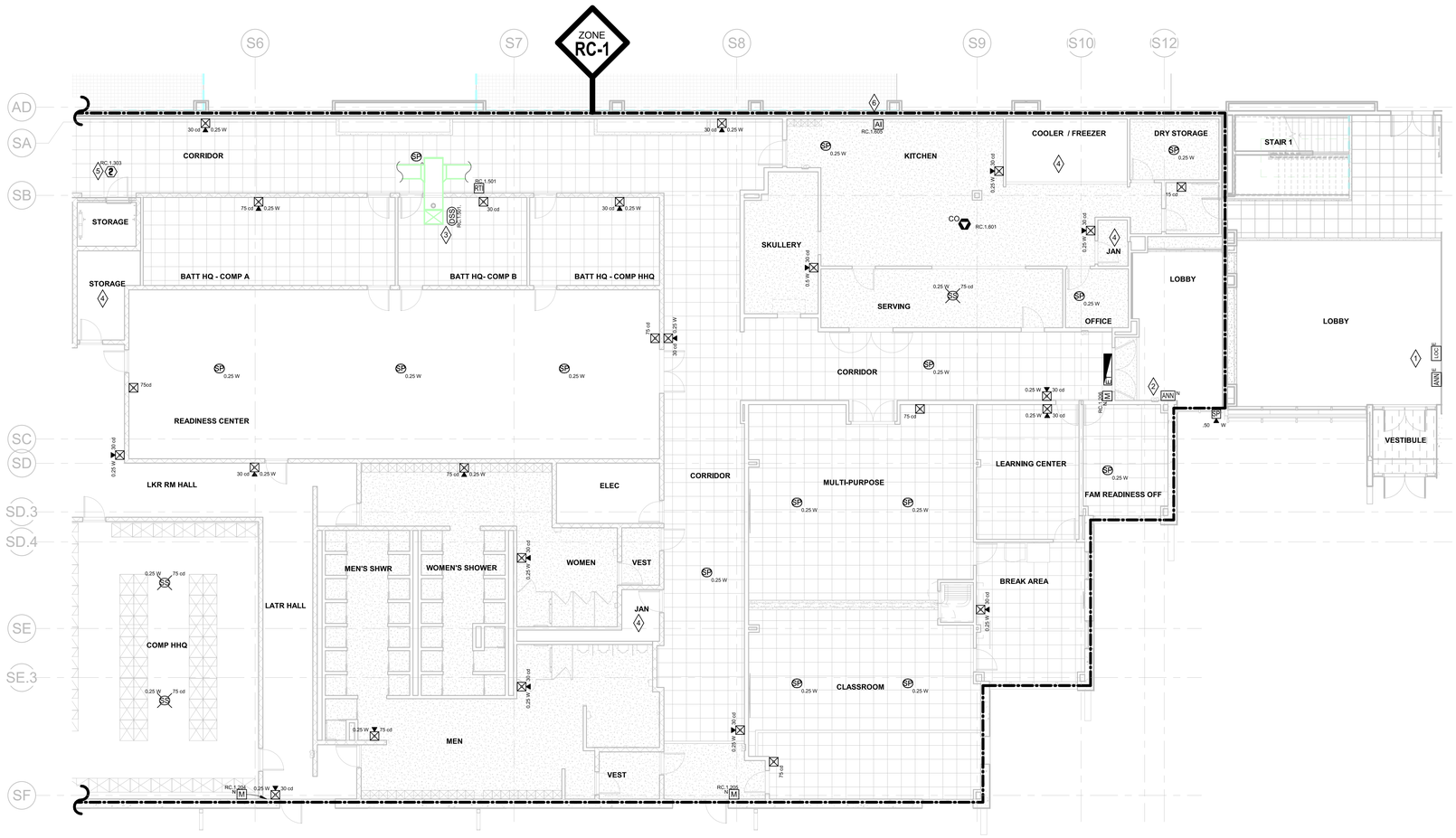
1. PROVIDE NEW FIRE ALARM INITIATING DEVICES, CONTROL DEVICES AND NOTIFICATION APPLIANCES AS NOTED IN CONTRACT DOCUMENTS. PROVIDE NETWORK CONTROL PANEL WHERE SHOWN. EXACT PANEL PLACEMENT SHALL BE COORDINATED WITH THE OWNER.
2. THE DRAWING ILLUSTRATES THE GENERAL LOCATIONS OF INITIATING AND CONTROL DEVICES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING THE EXACT LOCATIONS. DEVICES SHALL BE LOCATED IN ACCORDANCE WITH THE SPECIFICATIONS AND REFERENCED DOCUMENTS.
3. SMOKE DETECTORS AS SHOWN ARE THE MINIMUM NUMBER OF SMOKE DETECTORS ALLOWED. ACTUAL NUMBER, SPACING, AND LOCATION OF DETECTORS MAY BE ALTERED (NUMBER INCREASE) BASED ON LISTINGS, SPECIFICATIONS, REFERENCED DOCUMENTS, AND AIRFLOW RATES.
4. PROVIDE RACEWAY AND CIRCUITRY FOR ALL FIRE ALARM INITIATING DEVICES, CONTROL DEVICES AND NOTIFICATION APPLIANCES SHOWN ON THIS SHEET. CONNECT DEVICES AND APPLIANCES TO FIRE ALARM PANEL(S) AS SHOWN ON RISER DIAGRAM.
5. NOTIFICATION APPLIANCES SHOWN ON THE DRAWINGS ILLUSTRATE GENERAL LOCATIONS FOR NEW APPLIANCES. EXACT LOCATIONS SHALL BE PER SPECIFICATION REQUIREMENTS. WATTAGE VALUES SHOWN ARE MINIMUM ACCEPTABLE VALUES. ADDITIONAL APPLIANCES AND /OR HIGHER SETTINGS MAY BE REQUIRED TO MEET CIS REQUIREMENTS.

KEYED NOTES

1. PROGRAM EXISTING PHASE 3A LOC/ACU TO ACTIVATE PHASE 3A AND READINESS CENTER MNS. PROVIDE MUSHROOM PUSH BUTTON TO SHUTDOWN READINESS CENTER HVAC UNITS.
2. FLUSH MOUNT ANNUNCIATOR.
3. LOCATE DUCT SMOKE DETECTOR ON AHU SUPPLY AIR DUCTWORK PER NFPA AND MANUFACTURERS REQUIREMENTS.
4. AREA DESIGNATED AS NOT NORMALLY OCCUPIED AND THUS INTELIGIBILITY NOT MEETING CSI VALUE.
5. ALTERNATE NO. 1 (ELEVATOR)
6. MONITOR MODULE FOR KITCHEN EXHAUST EXTINGUISHING SYSTEM

FA LEGEND

- WF — WATERFLOW SWITCH
- PS — ALARM PRESSURE SWITCH
- M — MANUAL FIRE ALARM BOX
- SD — SMOKE DETECTOR
- HD — HEAT DETECTOR
- GD — GAS DETECTOR
- DSS — DUCT SMOKE DETECTOR (SUPPLY)
- DSR — DUCT SMOKE DETECTOR (RETURN)
- RTI — REMOTE TEST INDICATOR
- VT — VALVE TAMPER SWITCH
- CEILING MOUNTED FIRE ALARM STROBE
- SP — CEILING MOUNTED FIRE ALARM SPEAKER
- SS — CEILING MOUNTED FIRE ALARM SPEAKER / STROBE
- SP — FIRE ALARM SPEAKER / STROBE
- ST — FIRE ALARM STROBE
- SP — FIRE ALARM SPEAKER
- SP WP — WEATHER PROOF FIRE ALARM SPEAKER
- SH — FIRE ALARM HORN / STROBE
- ETL — TEXTUAL MESSAGE NOTIFICATION APPLIANCE
- LOC — LOCAL OPERATING CONSOLE
- FACP — FIRE ALARM CONTROL PANEL
- ANN — FIRE ALARM ANNUNCIATOR
- AI — ADDRESSABLE MONITOR MODULE
- AO — ADDRESSABLE CONTROL MODULE
- AR — ADDRESSABLE RELAY MODULE
- SPD — SURGE PROTECTIVE DEVICE
- BUTTERFLY VALVE
- OS&Y VALVE
- S — SOLENOID VALVE
- KEYED NOTE SYMBOL
- FIRE ALARM ZONE BOUNDARY



1 PARTIAL FIRST FLOOR PLAN - AREA A
1/8" = 1'-0"

DEVICE KEY

N - NEW DEVICE
E - EXISTING TO BE RE-USED

NETWORK CONTROL PANEL
FLOOR LEVEL
DEVICE NUMBER
WATTAGE
WATERTIGHT
MINIMUM CANDELA RATING
(NOTIFICATION APPLIANCES ONLY)

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PROFESSIONAL ENGINEER
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MISSOURI NATIONAL GUARD
SPRINGFIELD, MISSOURI

NATIONAL GUARD BUREAU PROJECT #290186
MISSOURI NATIONAL GUARD PROJECT #T1809-01
SITE #9019
ASSET #8136270008

DRAWN BY: SRM
CHECKED BY: DCB
DESIGNED BY: DCB

REVISION:
DATE:
REVISION:
DATE:
REVISION:
DATE:
ISSUED DATE: 26 FEBRUARY 2020

SHEET TITLE:

FIRE ALARM ARRANGEMENT PARTIAL FIRST FLOOR PLAN - AREA A

SHEET NUMBER:

FA110

100 OF 131 SHEETS

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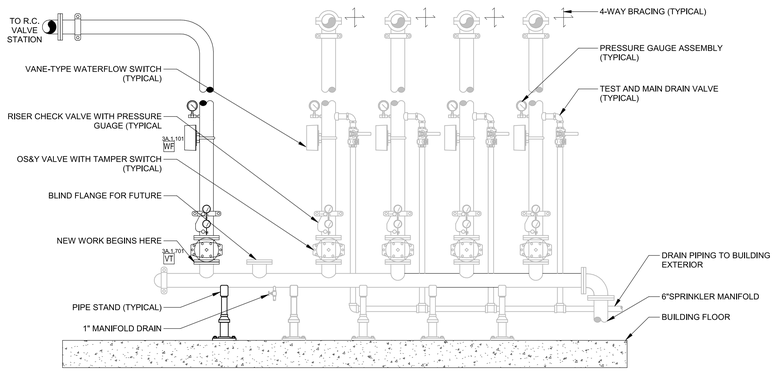
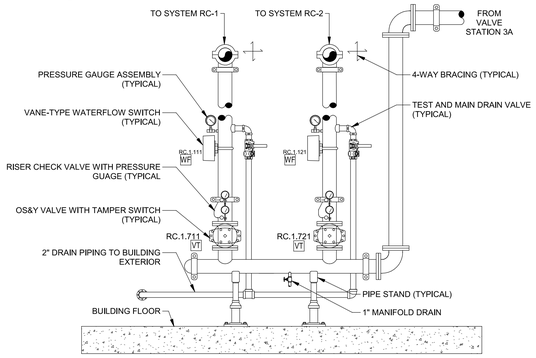
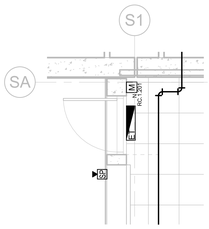


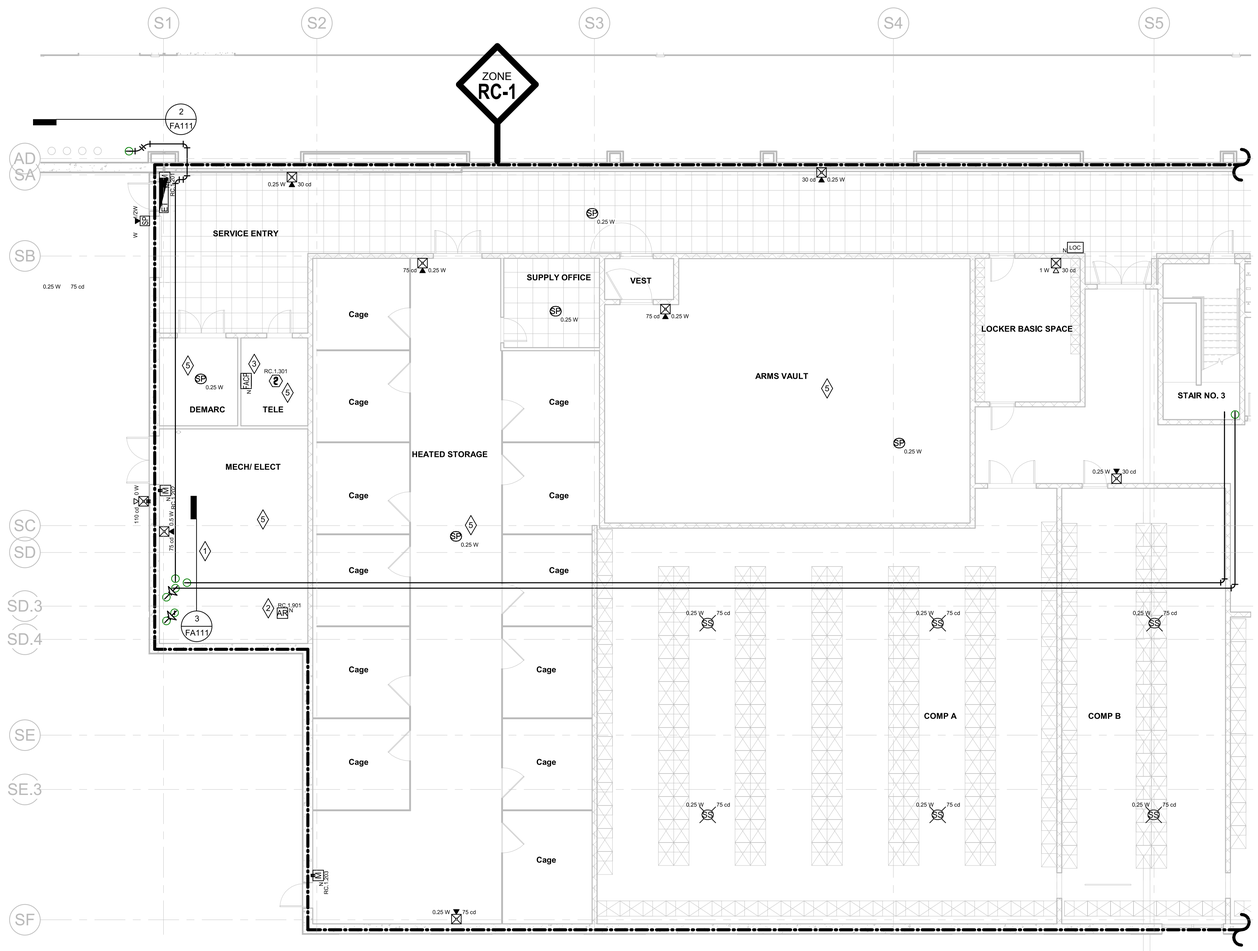
2 PHASE 3A VALVE STATION
3/4" = 1'-0"



3 READINESS CENTER VALVE STATION
3/4" = 1'-0"



4 FA - FIRST FLOOR - AREA B - Callout 1
1/4" = 1'-0"



1 PARTIAL FIRST FLOOR PLAN - AREA B
1/8" = 1'-0"

FIRE ALARM MATRIX

FIRE ALARM / MASS NOTIFICATION MATRIX

SYSTEM INPUTS	ACTION	ACTIVATE ALARM SIGNAL AT FACP AND ANNUNCIATOR	ANNUNCIATE SUPERVISORY SIGNAL AT FACP AND ANNUNCIATOR	ANNUNCIATE TROUBLE SIGNAL AT FACP AND ANNUNCIATOR	ACTIVATE SPEAKER CIRCUITS - READINESS CENTER	ACTIVATE SPEAKER CIRCUITS - PHASE 3A	ACTIVATE STROBES - READINESS CENTER	ACTIVATE LED MESSAGE "EVACUATE" - READINESS CENTER	ACTIVATE LED MESSAGE "ANNOUNCEMENT" - READINESS CENTER	ACTIVATE FIRE ALARM STROBES - PHASE 3A	ACTIVATE EXTERIOR SPRINKLER NOTIFICATION APPLIANCE	DEACTIVATE VISIBLE STROBES & LED TEXT SIGNS - READINESS CENTER	DEACTIVATE VISIBLE STROBES - PHASE 3A	SHUTDOWN ASSOCIATED AIR HANDLER	SHUTDOWN ALL BUILDING AIR HANDLERS AND OUTSIDE AIR UNITS	RECALL ELEVATOR TO 1ST FLOOR	RECALL ELEVATOR TO 2ND FLOOR	RECALL ELEVATOR TO 1ST FLOOR AND ACTIVATE IN CAB SIGNAL	ACTIVATE ELEVATOR EMERGENCY POWER SHUNT	DISPLAY CHANGE OF MNS STATUS ON PANEL	TRANSMIT SPRINKLER FLOW ALARM SIGNAL TO CENTRAL STATION MONITOR	TRANSMIT MANUAL PULL STATION SIGNAL TO CENTRAL STATION MONITOR	TRANSMIT HEAT DETECTOR SIGNAL TO CENTRAL STATION MONITOR	TRANSMIT CARBON MONOXIDE SIGNAL TO CENTRAL STATION MONITOR	TRANSMIT SUPERVISORY SIGNAL TO CENTRAL STATION MONITOR	TRANSMIT SYSTEM TROUBLE SIGNAL TO CENTRAL STATION MONITOR	OVERRIDE ACTIVE FIRE ALARM PRE-RECORDED MESSAGE	OVERRIDE ACTIVE MNS PRE-RECORDED MESSAGE	RESERVE ACTIVE INPUTS FROM BUILDING FIRE ALARM INPUT
		a	b	c	d	e	f	g	h	i	j	k	l	m	n	o	p	q	r	s	t	u	v	w	x	y	z	aa	bb	cc
WATERFLOW ALARM ACTIVATION	1	X				X	X	X			X										X									
MANUAL PULL STATION ACTIVATION	2	X				X		X	X													X								
SMOKE DETECTOR ACTIVATION - 1ST FLOOR ELEVATOR LOBBY	3	X				X		X	X								X								X					
SMOKE DETECTOR ACTIVATION - 2ND FLOOR ELEVATOR LOBBY	4	X				X		X	X							X									X					
SMOKE DETECTOR ACTIVATION - HOISTWAY OR ELEVATOR CONTROL ROOM	5	X				X		X	X									X							X					
WATERFLOW ALARM ACTIVATION (ELEVATOR HOISTWAY/CONTROL ROOM)	6	X				X		X	X		X								X			X								
DUCT SMOKE DETECTOR ACTIVATION	7		X											X											X					
VALVE TAMPER ALARM ACTIVATION	8		X																						X					
LOSS OF ELEVATOR SHUNT POWER	9		X																						X					
CARBON MONOXIDE MONITOR ACTIVATION	10		X		X		X	X																X						
KITCHEN HOOD EXTINGUISHING SYSTEM ACTIVATION	11		X																						X					
MANUAL EMERGENCY HVAC SHUTDOWN ACTIVATED	12		X												X										X					
PRE-RECORDED MNS MESSAGE (DURING ACTIVE FIRE ALARM)	13				X	X		X		X	X									X										
BUILDING MNS INPUT TERMINATED	14											X	X																	X
LOC MICROPHONE KEYED-ALL CALL	15					X			X		X	X																		
LOC MICROPHONE KEYED-ALL CALL (DURING ACTIVE FIRE ALARM)	16				X	X		X		X	X														X		X			
LOC MICROPHONE KEYED-ALL CALL (DURING ACTIVE MNS PRE-RECORDED MESSAGE)	17					X	X		X		X	X																X		
LOC MICROPHONE TERMINATED	18											X	X																	X
PA MICROPHONE KEYED	19				X																									

FA GENERAL NOTES

1. PROVIDE NEW FIRE ALARM INITIATING DEVICES, CONTROL DEVICES AND NOTIFICATION APPLIANCES AS NOTED IN CONTRACT DOCUMENTS. PROVIDE NETWORK CONTROL PANEL WHERE SHOWN. EXACT PANEL PLACEMENT SHALL BE COORDINATED WITH THE OWNER.
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4. PROVIDE RACEWAY AND CIRCUITRY FOR ALL FIRE ALARM INITIATING DEVICES, CONTROL DEVICES AND NOTIFICATION APPLIANCES SHOWN ON THIS SHEET. CONNECT DEVICES AND APPLIANCES TO FIRE ALARM PANEL(S) AS SHOWN ON RISER DIAGRAM.
5. NOTIFICATION APPLIANCES SHOWN ON THE DRAWINGS ILLUSTRATE GENERAL LOCATIONS FOR NEW APPLIANCES. EXACT LOCATIONS SHALL BE PER SPECIFICATION REQUIREMENTS. WATTAGE VALUES SHOWN ARE MINIMUM ACCEPTABLE VALUES. ADDITIONAL APPLIANCES AND /OR HIGHER SETTINGS MAY BE REQUIRED TO MEET CIS REQUIREMENTS.

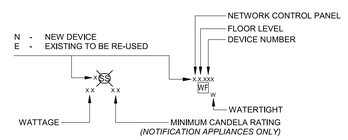
KEYED NOTES

1. SEE READINESS CENTER VALVE STATION FOR FIRE ALARM DEVICES.
2. THE CONTRACTOR SHALL LOCATE THE ADDRESSABLE RELAY WITHIN 3 FEET OF THE AHU-3 CONTROLLER SHUTDOWN CONTACTS.
3. SURFACE MOUNT PANEL.
4. FLUSH MOUNT PANEL.
5. AREA DESIGNATED AS NOT NORMALLY OCCUPIED AND THUS NOT REQUIRING INTELIGIBILITY MEETING CSI VALVE.

FA LEGEND

WF	WATERFLOW SWITCH
APS	ALARM PRESSURE SWITCH
M	MANUAL FIRE ALARM BOX
	SMOKE DETECTOR
	HEAT DETECTOR
XX	GAS DETECTOR
DSS	DUCT SMOKE DETECTOR (SUPPLY)
DSR	DUCT SMOKE DETECTOR (RETURN)
RT	REMOTE TEST INDICATOR
VT	VALVE TAMPER SWITCH
	CEILING MOUNTED FIRE ALARM STROBE
SP	CEILING MOUNTED FIRE ALARM SPEAKER
SS	CEILING MOUNTED FIRE ALARM SPEAKER / STROBE
W	FIRE ALARM SPEAKER / STROBE
W	FIRE ALARM STROBE
SP	FIRE ALARM SPEAKER
SP W	WEATHER PROOF FIRE ALARM SPEAKER
	FIRE ALARM HORN / STROBE
LED	TEXTUAL MESSAGE NOTIFICATION APPLIANCE
LOC	LOCAL OPERATING CONSOLE
FACP	FIRE ALARM CONTROL PANEL
ANN	FIRE ALARM ANNUNCIATOR
AI	ADDRESSABLE MONITOR MODULE
AO	ADDRESSABLE CONTROL MODULE
AR	ADDRESSABLE RELAY MODULE
SS	SURGE PROTECTIVE DEVICE
	BUTTERFLY VALVE
	OS&Y VALVE
S	SOLENOID VALVE
K	KEYED NOTE SYMBOL
	FIRE ALARM ZONE BOUNDARY

DEVICE KEY



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SPRINGFIELD, MISSOURI

NATIONAL GUARD BUREAU PROJECT #290186
MISSOURI NATIONAL GUARD PROJECT #T1809-01
SITE #9019
ASSET #8136270008

DRAWN BY: SRM
CHECKED BY: DCB
DESIGNED BY: DCB

REVISION:
DATE:
REVISION:
DATE:
REVISION:
DATE:
ISSUED DATE: 26 FEBRUARY 2020

SHEET TITLE:

FIRE ALARM ARRANGEMENT PARTIAL FIRST FLOOR PLAN - AREA B

SHEET NUMBER:

FA111

101 OF 131 SHEETS

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FIRE ALARM MATRIX

FIRE ALARM / MASS NOTIFICATION MATRIX

SYSTEM INPUTS	ACTION	ANNUNCIATE ALARM SIGNAL AT FACP AND ANNUNCIATOR	ANNUNCIATE SUPERVISORY SIGNAL AT FACP AND ANNUNCIATOR	ANNUNCIATE TROUBLE SIGNAL AT FACP AND ANNUNCIATOR	ACTIVATE SPEAKER CIRCUITS - READINESS CENTER	ACTIVATE STROBES - READINESS CENTER	ACTIVATE STROBES - READINESS CENTER	ACTIVATE LED MESSAGE - "EVACUATE" - READINESS CENTER	ACTIVATE LED MESSAGE - "EVACUATE" - READINESS CENTER	ACTIVATE FIRE ALARM STROBES - PHASE 3A	ACTIVATE EXTERIOR SPRINKLER NOTIFICATION APPLIANCE	DEACTIVATE VISIBLE STROBES & LED TEXT SIGNS - READINESS CENTER	DEACTIVATE VISIBLE STROBES - PHASE 3A	SHUTDOWN ASSOCIATED AIR HANDLER	SHUTDOWN ALL BUILDING AIR HANDLERS AND OUTSIDE AIR UNITS	RECALL ELEVATOR TO 1ST FLOOR	RECALL ELEVATOR TO 1ST FLOOR	RECALL ELEVATOR TO 1ST FLOOR AND ACTIVATE IN CAR SIGNAL	ACTIVATE ELEVATOR EMERGENCY POWER SHUNT	DISPLAY CHANGE OF NNS STATUS ON PANEL	TRANSMIT SPRINKLER FLOW ALARM SIGNAL TO CENTRAL STATION MONITOR	TRANSMIT MANUAL PULL STATION SIGNAL TO CENTRAL STATION MONITOR	TRANSMIT SMOKE DETECTOR SIGNAL TO CENTRAL STATION MONITOR	TRANSMIT CARBON MONOXIDE DETECTOR SIGNAL TO CENTRAL STATION MONITOR	TRANSMIT SUPERVISORY SIGNAL TO CENTRAL STATION MONITOR	TRANSMIT SYSTEM TROUBLE SIGNAL TO CENTRAL STATION MONITOR	OVERRIDE ACTIVE FIRE ALARM PRE-RECORDED MESSAGE	OVERRIDE ACTIVE MNS PRE-RECORDED MESSAGE	RESUME ACTIVE INPUTS FROM BUILDING FIRE ALARM INPUT
		a	b	c	d	e	f	g	h	i	j	k	l	m	n	o	p	q	r	s	t	u	v	w	x	y	z	aa	bb
WATERFLOW ALARM ACTIVATION	1	X			X		X	X			X										X								
MANUAL PULL STATION ACTIVATION	2	X			X		X	X														X							
SMOKE DETECTOR ACTIVATION - 1ST FLOOR ELEVATOR LOBBY	3	X			X		X	X									X								X				
SMOKE DETECTOR ACTIVATION - 2ND FLOOR ELEVATOR LOBBY	4	X			X		X	X								X									X				
SMOKE DETECTOR ACTIVATION - HOISTWAY OR ELEVATOR CONTROL ROOM	5	X			X		X	X										X							X				
WATERFLOW ALARM ACTIVATION (ELEVATOR HOISTWAY/CONTROL ROOM)	6	X			X		X	X		X									X		X								
DUCT SMOKE DETECTOR ACTIVATION	7		X											X											X				
VALVE TAMPER ALARM ACTIVATION	8		X																						X				
LOSS OF ELEVATOR SHUNT POWER	9		X																						X				
CARBON MONOXIDE MONITOR ACTIVATION	10		X		X		X	X																		X			
KITCHEN HOOD EXTINGUISHING SYSTEM ACTIVATION	11		X																						X				
MANUAL EMERGENCY HVAC SHUTDOWN ACTIVATED	12		X												X										X				
PRE-RECORDED MNS MESSAGE (DURING ACTIVE FIRE ALARM)	13				X	X	X		X	X										X									
BUILDING MNS INPUT TERMINATED	14											X	X																X
LOC MICROPHONE KEYED-ALL CALL	15				X		X		X	X																			
LOC MICROPHONE KEYED-ALL CALL (DURING ACTIVE FIRE ALARM)	16				X	X	X		X	X															X		X		
LOC MICROPHONE KEYED-ALL CALL (DURING ACTIVE MNS PRE-RECORDED MESSAGE)	17				X	X	X		X	X																		X	
LOC MICROPHONE TERMINATED	18											X	X																X
PA MICROPHONE KEYED	19				X																								

FA GENERAL NOTES

1. PROVIDE NEW FIRE ALARM INITIATING DEVICES, CONTROL DEVICES AND NOTIFICATION APPLIANCES AS NOTED IN CONTRACT DOCUMENTS. PROVIDE NETWORK CONTROL PANEL WHERE SHOWN. EXACT PANEL PLACEMENT SHALL BE COORDINATED WITH THE OWNER.
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4. PROVIDE RACEWAY AND CIRCUITRY FOR ALL FIRE ALARM INITIATING DEVICES, CONTROL DEVICES AND NOTIFICATION APPLIANCES SHOWN ON THIS SHEET. CONNECT DEVICES AND APPLIANCES TO FIRE ALARM PANEL(S) AS SHOWN ON RISER DIAGRAM.
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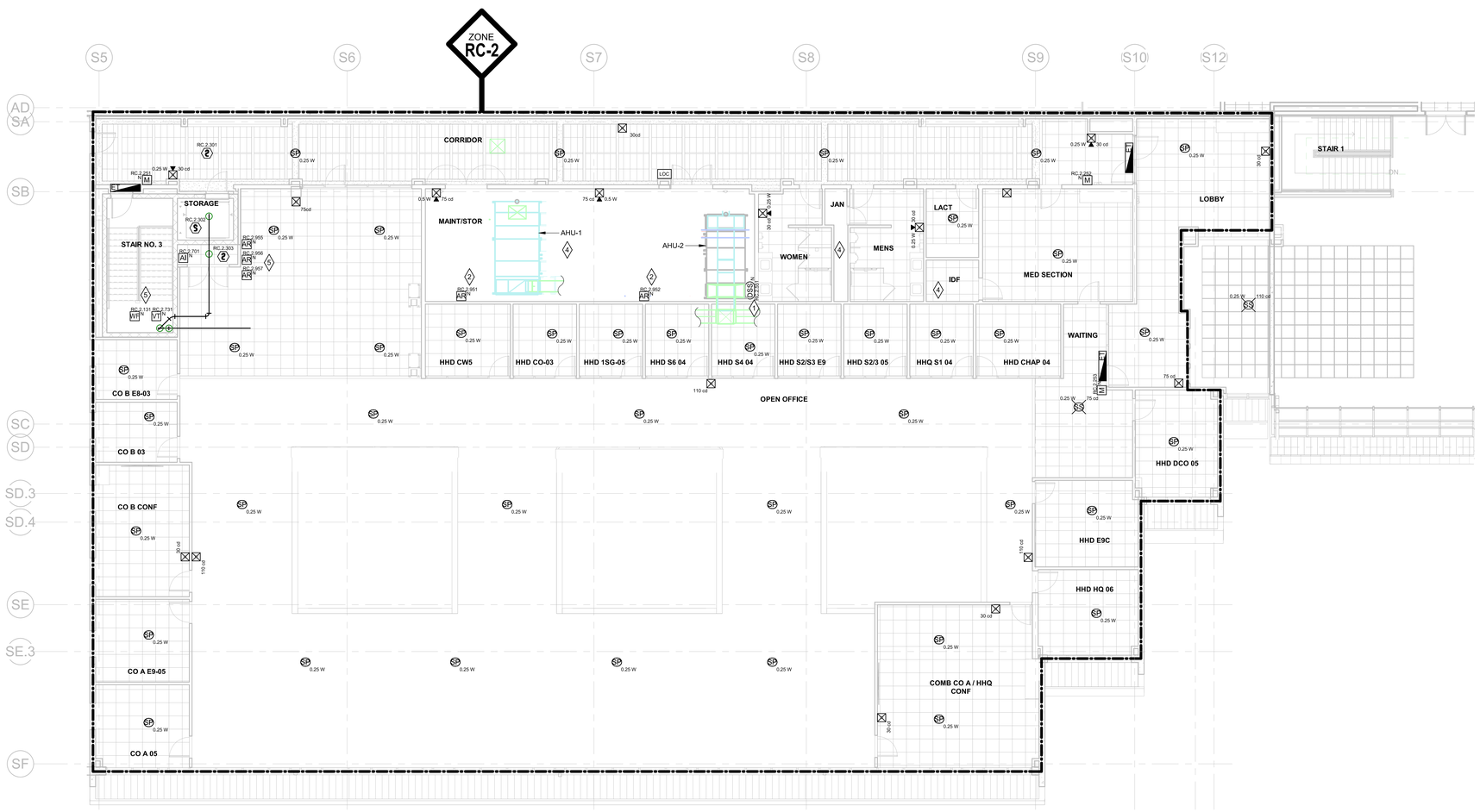
KEYED NOTES

1. LOCATE DUCT SMOKE DETECTOR ON AHU SUPPLY AIR DUCTWORK PER NFPA AND MANUFACTURER REQUIREMENTS.
2. THE CONTRACTOR SHALL LOCATE THE ADDRESSABLE RELAY WITHIN 3 FEET OF THE AHU CONTROLLER SHUTDOWN CONTACTS.
3. FLUSH MOUNT PANEL
4. AREA DESIGNATED AS NOT NORMALLY OCCUPIED AND THUS NOT REQUIRING INTELIGIBILITY MEETING CSI VALUE.
5. ALTERNATE NO. 1 (ELEVATOR)

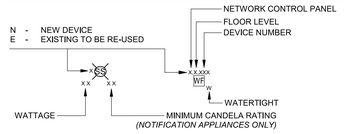
FA LEGEND

- WF — WATERFLOW SWITCH
- APS — ALARM PRESSURE SWITCH
- M — MANUAL FIRE ALARM BOX
- SMOKE DETECTOR
- HEAT DETECTOR
- GAS DETECTOR
- DSS — DUCT SMOKE DETECTOR (SUPPLY)
- DSR — DUCT SMOKE DETECTOR (RETURN)
- RT — REMOTE TEST INDICATOR
- VT — VALVE TAMPER SWITCH
- CEILING MOUNTED FIRE ALARM STROBE
- SP — CEILING MOUNTED FIRE ALARM SPEAKER
- CEILING MOUNTED FIRE ALARM SPEAKER / STROBE
- FIRE ALARM SPEAKER / STROBE
- FIRE ALARM STROBE
- SP — FIRE ALARM SPEAKER
- SP — WEATHER PROOF FIRE ALARM SPEAKER
- FIRE ALARM HORN / STROBE
- TM — TEXTUAL MESSAGE NOTIFICATION APPLIANCE
- LOC — LOCAL OPERATING CONSOLE
- FACP — FIRE ALARM CONTROL PANEL
- ANN — FIRE ALARM ANNUNCIATOR
- IM — ADDRESSABLE MONITOR MODULE
- ICM — ADDRESSABLE CONTROL MODULE
- ARM — ADDRESSABLE RELAY MODULE
- SD — SURGE PROTECTIVE DEVICE
- BUTTERFLY VALVE
- OS&Y VALVE
- S — SOLENOID VALVE
- KEYED NOTE SYMBOL
- FIRE ALARM ZONE BOUNDARY



1 FA - OVERALL SECOND FLOOR PLAN
1/8" = 1'-0"

DEVICE KEY



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SPRINGFIELD, MISSOURI

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MISSOURI NATIONAL GUARD PROJECT #T1809-01
SITE #9019
ASSET #8136270008

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CHECKED BY: DCB
DESIGNED BY: DCB

REVISION:
DATE:
REVISION:
DATE:
REVISION:
DATE:
ISSUED DATE: 26 FEBRUARY 2020

SHEET TITLE:

FIRE ALARM ARRANGEMENT SECOND FLOOR PLAN

SHEET NUMBER:

FA120

102 OF 131 SHEETS

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FIRE ALARM MATRIX

FIRE ALARM / MASS NOTIFICATION MATRIX

SYSTEM INPUTS	ACTION	a	b	c	d	e	f	g	h	i	j	k	l	m	n	o	p	q	r	s	t	u	v	w	x	y	z	aa	bb
		ANNUNCIATE ALARM SIGNAL AT FACP AND ANNUNCIATOR	ANNUNCIATE SUPERVISORY SIGNAL AT FACP AND ANNUNCIATOR	ANNUNCIATE TROUBLE SIGNAL AT FACP AND ANNUNCIATOR	ACTIVATE SPEAKER CIRCUITS - READINESS CENTER	ACTIVATE SPEAKER CIRCUITS - PHASE 2A	ACTIVATE STROBES - READINESS CENTER	ACTIVATE LED MESSAGE "EVACUATE" - READINESS CENTER	ACTIVATE LED MESSAGE "ANNOUNCEMENT" - READINESS CENTER	ACTIVATE EXTERIOR STROBES - PHASE 2A	ACTIVATE EXTERIOR SPRINKLER NOTIFICATION APPLIANCE	DEACTIVATE VISIBLE STROBES & LED TEXT SIGNS - READINESS CENTER	DEACTIVATE VISIBLE STROBES - PHASE 2A	SHUTDOWN ASSOCIATED AIR HANDLER	SHUTDOWN ALL BUILDING AIR HANDLERS AND OUTSIDE AIR UNITS	RECALL ELEVATOR TO 1ST FLOOR	RECALL ELEVATOR TO 2ND FLOOR	RECALL ELEVATOR TO 1ST FLOOR AND ACTIVATE IN CAR SIGNAL	ACTIVATE ELEVATOR EMERGENCY POWER SHUNT	DISPLAY CHANGE OF MNS STATUS ON PANEL	TRANSMIT SPRINKLER FLOW ALARM SIGNAL TO CENTRAL STATION MONITOR	TRANSMIT MANUAL PULL STATION SIGNAL TO CENTRAL STATION MONITOR	TRANSMIT HEAT DETECTOR SIGNAL TO CENTRAL STATION MONITOR	TRANSMIT CARBON MONOXIDE SIGNAL TO CENTRAL STATION MONITOR	TRANSMIT SUPERVISORY SIGNAL TO CENTRAL STATION MONITOR	TRANSMIT SYSTEM TROUBLE SIGNAL TO CENTRAL STATION MONITOR	OVERRIDE ACTIVE FIRE ALARM PRE-RECORDED MESSAGE	OVERRIDE ACTIVE MNS PRE-RECORDED MESSAGE	RESUME ACTIVE INPUTS FROM BUILDING FIRE ALARM INPUT
WATERFLOW ALARM ACTIVATION	1	X			X		X	X			X										X								
MANUAL PULL STATION ACTIVATION	2	X			X		X	X														X							
SMOKE DETECTOR ACTIVATION - 1ST FLOOR ELEVATOR LOBBY	3	X			X		X	X									X								X				
SMOKE DETECTOR ACTIVATION - 2ND FLOOR ELEVATOR LOBBY	4	X			X		X	X								X									X				
SMOKE DETECTOR ACTIVATION - HOISTWAY OR ELEVATOR CONTROL ROOM	5	X			X		X	X										X							X				
WATERFLOW ALARM ACTIVATION (ELEVATOR HOISTWAY/CONTROL ROOM)	6	X			X		X	X			X								X		X								
DUCT SMOKE DETECTOR ACTIVATION	7		X											X											X				
VALVE TAMPER ALARM ACTIVATION	8		X																						X				
LOSS OF ELEVATOR SHUNT POWER	9		X																						X				
CARBON MONOXIDE MONITOR ACTIVATION	10		X		X		X	X																X					
KITCHEN HOOD EXTINGUISHING SYSTEM ACTIVATION	11		X																						X				
MANUAL EMERGENCY HVAC SHUTDOWN ACTIVATED	12		X												X										X				
PRE-RECORDED MNS MESSAGE (DURING ACTIVE FIRE ALARM)	13				X	X		X		X	X									X									
BUILDING MNS INPUT TERMINATED	14											X	X																X
LOC MICROPHONE KEYED-ALL CALL	15				X		X		X	X																			
LOC MICROPHONE KEYED-ALL CALL (DURING ACTIVE FIRE ALARM)	16				X	X	X		X	X															X		X		
LOC MICROPHONE KEYED-ALL CALL (DURING ACTIVE MNS PRE-RECORDED MESSAGE)	17				X	X	X		X	X																		X	
LOC MICROPHONE TERMINATED	18											X	X																X
PA MICROPHONE KEYED	19				X																								

FA RISER GENERAL NOTES

1. MODIFY OR CONNECT FIELD CIRCUITRY TO PANELS AS SHOWN ON THIS SHEET. THE EXACT ORDER OF INITIATING DEVICES ON A PARTICULAR LOOP OR CIRCUIT MAY BE MODIFIED BY THE CONTRACTOR. THE CONTRACTOR PREPARED SHOP DRAWINGS SHALL ILLUSTRATE ALL MODIFICATIONS.
2. DEVICES ON THE SIGNALING LINE CIRCUIT (SLC) ARE SHOWN TO ILLUSTRATE THE TYPICAL LAYOUT AND DETAILS OF INTERCONNECTION TO OTHER BUILDING SYSTEMS. ALL DEVICES ARE NOT SHOWN. SEE ARRANGEMENT DRAWINGS AND/OR DEVICE LIST IN SPECIFICATIONS FOR DETAILED LIST OF DEVICES.
3. LABEL DEVICES OR ZONES AS OUTLINED IN SPECIFICATIONS.
4. NOTIFICATION APPLIANCE CIRCUITS ILLUSTRATE THE MINIMUM NUMBER OF CIRCUITS ALLOWED AND BOUNDARIES OF NOTIFICATION APPLIANCE ZONES. ALL APPLIANCES ARE NOT SHOWN. ANY GIVEN CIRCUIT MAY BE REQUIRED TO BE SPLIT INTO TWO OR MORE CIRCUITS BASED ON POWER CONSUMPTION, WIRE SIZES, SPECIFIC PANEL CAPABILITIES AND SPECIFICATION REQUIREMENTS.
5. THE FIRE ALARM PANEL SHALL BE CONFIGURED AND PROGRAMMED TO OPERATE AS OUTLINED IN THE SPECIFICATIONS AND ON THE FIRE ALARM MATRIX.

KEYED NOTES

1. ALTERNATE NO. 1 (ELEVATOR)

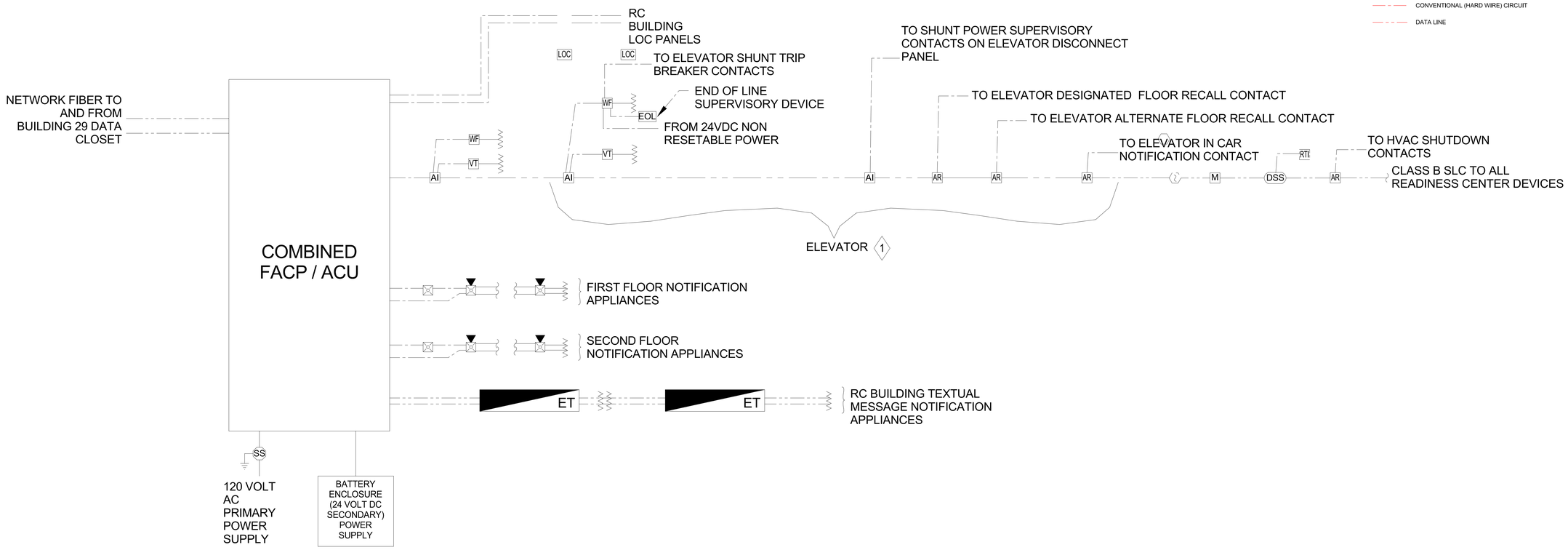
FA RISER LEGEND

- WF — WATERFLOW SWITCH
- M — MANUAL FIRE ALARM BOX
- SMOKE DETECTOR
- HEAT DETECTOR
- xx — GAS DETECTOR
- DSS — DUCT SMOKE DETECTOR (SUPPLY)
- DSR — DUCT SMOKE DETECTOR (RETURN)
- RTI — REMOTE TEST INDICATOR
- VT — VALVE TAMPER SWITCH
- CEILING MOUNTED FIRE ALARM STROBE
- SP — CEILING MOUNTED FIRE ALARM SPEAKER
- SS — CEILING MOUNTED FIRE ALARM SPEAKER / STROBE
- FIRE ALARM SPEAKER / STROBE
- FIRE ALARM STROBE
- SP — FIRE ALARM SPEAKER
- FIRE ALARM HORN / STROBE
- ET — TEXTUAL MESSAGE NOTIFICATION APPLIANCE
- LOC — LOCAL OPERATING CONSOLE
- FACP — FIRE ALARM CONTROL PANEL
- ANN — FIRE ALARM ANNUNCIATOR
- DPS — DISTRIBUTED POWER SUPPLY
- DA — DISTRIBUTED AMPLIFIER
- AI — ADDRESSABLE MONITOR MODULE
- AO — ADDRESSABLE CONTROL MODULE
- AR — ADDRESSABLE RELAY MODULE
- SMOKE DAMPER
- SS — SURGE PROTECTIVE DEVICE
- BUTTERFLY VALVE
- OS&Y VALVE
- KEYED NOTE SYMBOL
- CONVENTIONAL (HARD WIRE) CIRCUIT
- DATA LINE

MNS PRIORITIES

Priorities on MNS Signals are as follows:

1. ACU live message
2. ACU pre-recorded message
3. LOC live message
4. LOC pre-recorded message
5. Wide Area live message
6. Wide Area pre-recorded message
7. Building automatic fire message



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DESIGNED BY: DCB

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DATE:
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DATE:
REVISION:
DATE:
ISSUED DATE: 26 FEBRUARY 2020

SHEET TITLE:

FIRE ALARM RISER DIAGRAM

SHEET NUMBER:

FA200

103 OF 131 SHEETS

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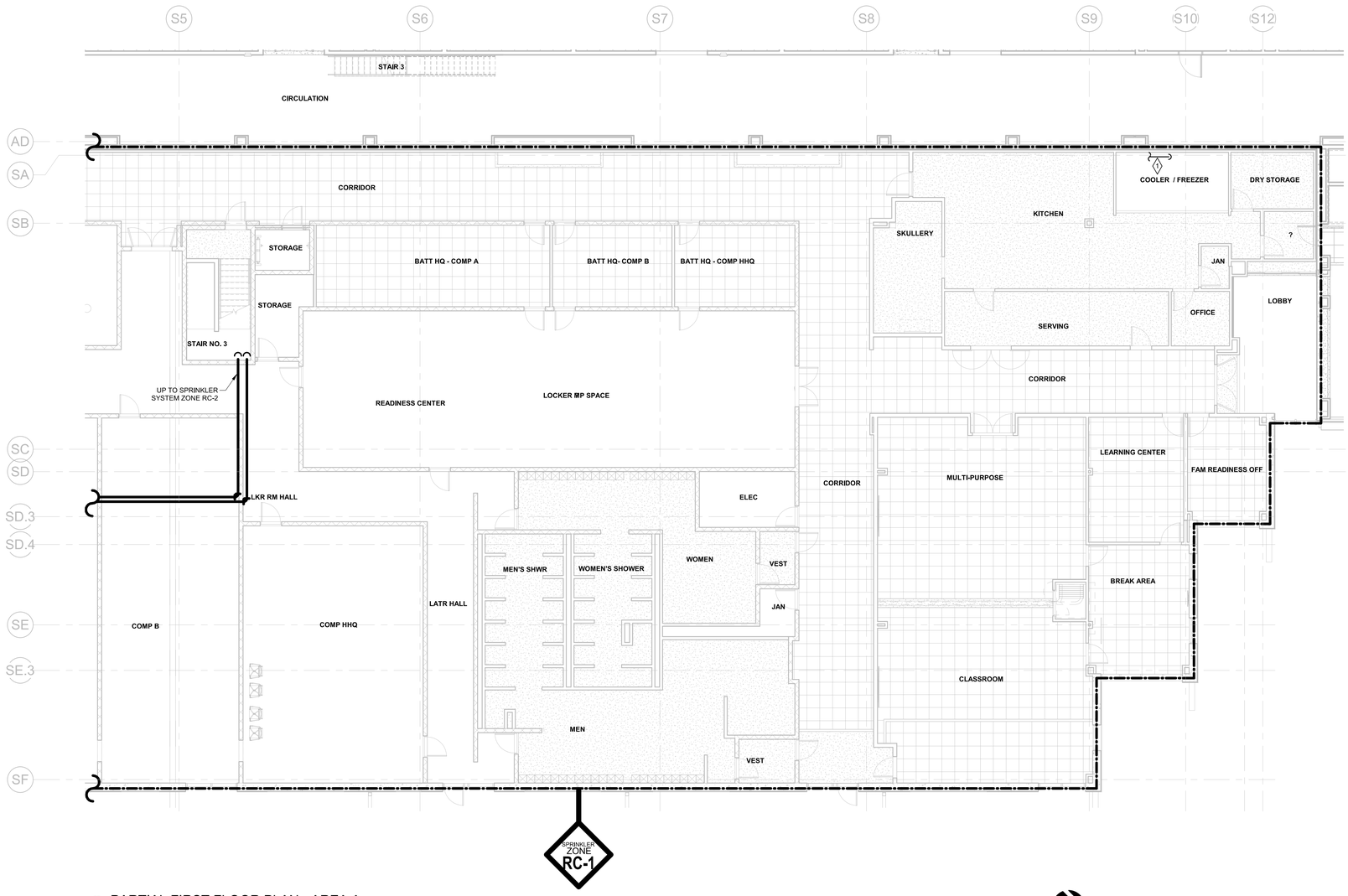

1 PARTIAL FIRST FLOOR PLAN - AREA A
1/8" = 1'-0"

FP LEGEND

- FIRE DEPARTMENT CONNECTION
- OS&Y VALVE
- BUTTERFLY VALVE
- CHECK VALVE
- GLOBE VALVE
- GLOBE ANGLE VALVE
- BALL VALVE
- ALARM CHECK VALVE
- SPRINKLER OR DRAIN RISER
- PENDENT SPRINKLER
- UPRIGHT SPRINKLER
- UPRIGHT SPRINKLER ON SPRIG
- PENDENT SPRINKLER ON DROP
- CONCEALED SPRINKLER
- PENDENT SIDEWALL SPRINKLER
- SIDEWALL SPRINKLER
- WF — WATERFLOW SWITCH
- APS — ALARM PRESSURE SWITCH
- HLPS — SUPERVISORY HIGH / LOW AIR PRESSURE SWITCH
- VT — VALVE TAMPER SWITCH
- K — KEYED NOTE SYMBOL
- NEW FEED MAIN OR CROSSMAIN
- NEW BRANCH LINE
- SPRINKLER SYSTEM ZONE BOUNDARY

FP GENERAL NOTES

1. PROVIDE WET PIPE SPRINKLER PROTECTION FOR ALL AREAS SHOWN ON THIS SHEET. WITHIN THE SPRINKLER SYSTEM BOUNDARY UNLESS SPECIFICALLY NOTED OTHERWISE.
2. THE GENERAL LOCATIONS OF RISERS, FEED MAINS, AND CROSS MAINS SHALL BE FOLLOWED UNLESS A SPECIFIC CHANGE HAS BEEN APPROVED IN WRITING BY THE ENGINEER. MINOR DEVIATIONS TO ACCOMMODATE STRUCTURAL OR EQUIPMENT CONFLICTS IS ACCEPTABLE.
3. ALL AREAS SHOWN ON THIS SHEET SHALL HAVE SPRINKLERS DESIGNED FOR A LIGHT HAZARD OCCUPANCY EXCEPT AS FOLLOWS:
   KITCHEN - ORDINARY HAZARD GROUP 1
   MECH / ELEC - ORDINARY HAZARD GROUP 1
   ARMS VAULT - ORDINARY HAZARD GROUP 1
   HEATED STORAGE - ORDINARY HAZARD GROUP 2
   SEE SPECIFICATIONS FOR DETAILS.

KEYED NOTES

1. SPRINKLER SYSTEM ZONE RC-1 TO HIGH CEILING LOBBY AREA.

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DESIGNED BY: DCB

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SHEET TITLE:

FIRE PROTECTION ARRANGEMENT PARTIAL FIRST FLOOR PLAN - AREA A

SHEET NUMBER:

FP110

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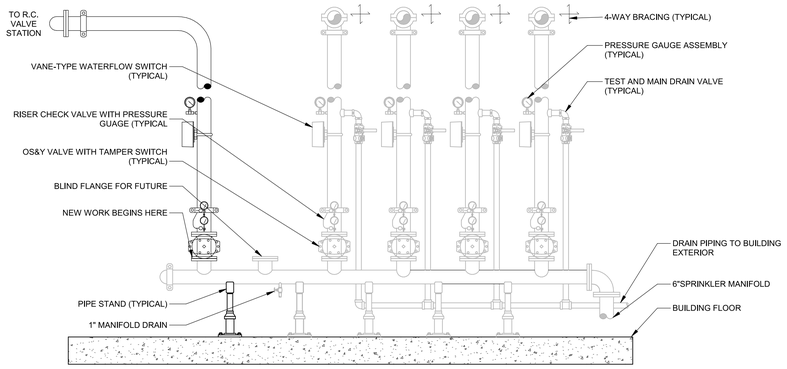
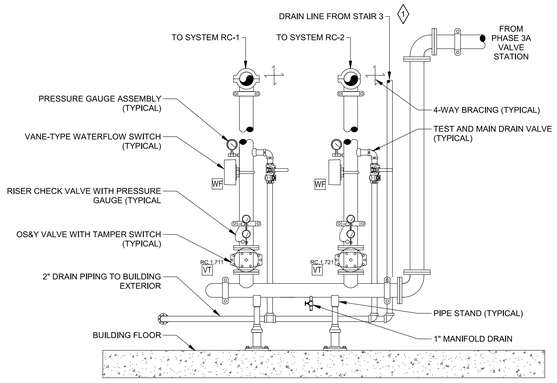
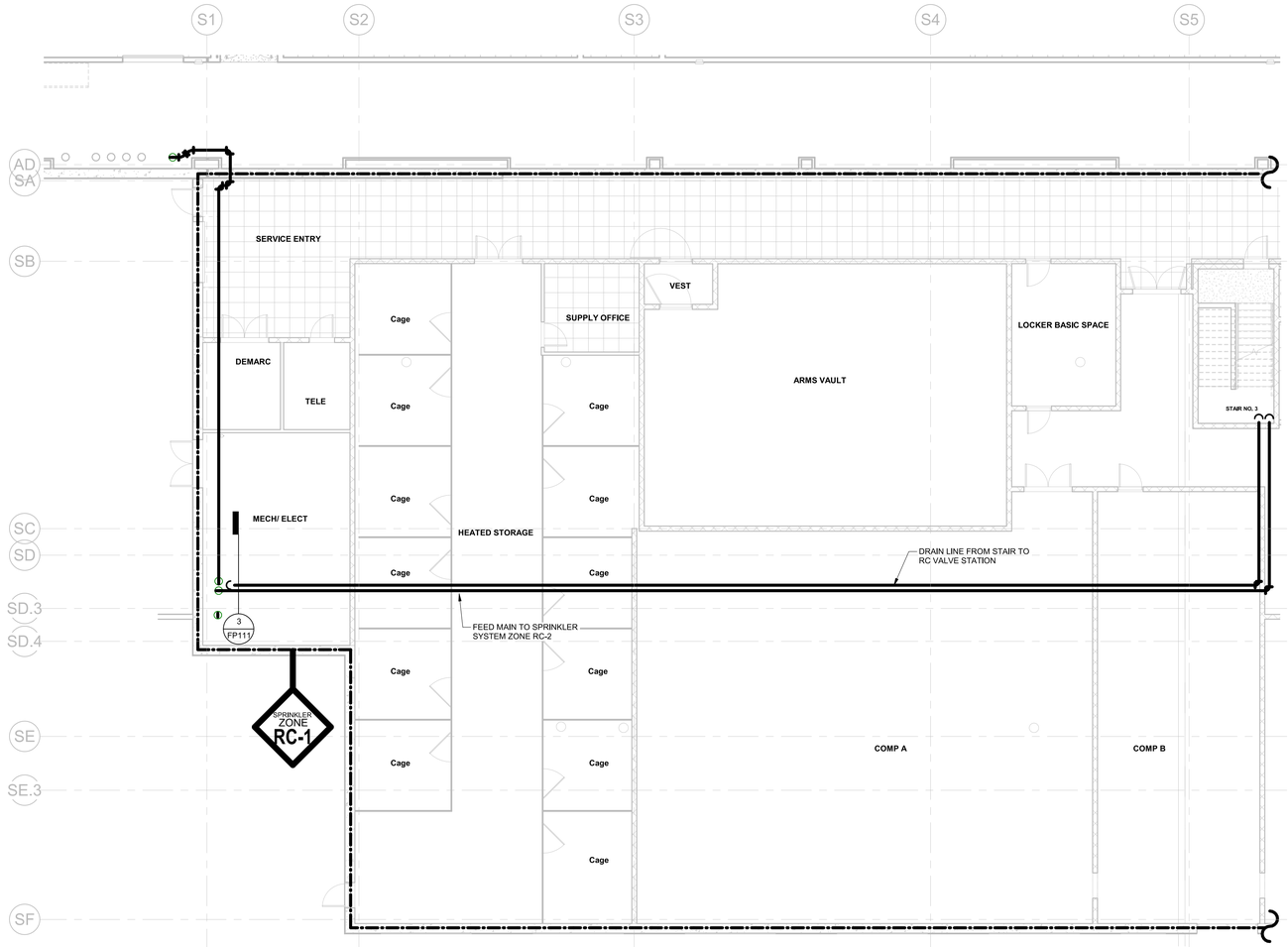


2 PHASE 3A VALVE STATION
3/4" = 1'-0"



3 READINESS CENTER (RC) VALVE STATION
3/4" = 1'-0"



1 PARTIAL FIRST FLOOR PLAN - AREA B
1/8" = 1'-0"

FP LEGEND

- FIRE DEPARTMENT CONNECTION
- OS&Y VALVE
- BUTTERFLY VALVE
- CHECK VALVE
- GLOBE VALVE
- GLOBE ANGLE VALVE
- BALL VALVE
- ALARM CHECK VALVE
- SPRINKLER OR DRAIN RISER
- PENDENT SPRINKLER
- UPRIGHT SPRINKLER
- UPRIGHT SPRINKLER ON SPRIG
- PENDENT SPRINKLER ON DROP
- CONCEALED SPRINKLER
- PENDENT SIDEWALL SPRINKLER
- SIDEWALL SPRINKLER
- WF — WATERFLOW SWITCH
- APS — ALARM PRESSURE SWITCH
- HLPS — SUPERVISORY HIGH / LOW AIR PRESSURE SWITCH
- VT — VALVE TAMPER SWITCH
- K — KEYED NOTE SYMBOL
- NEW FEED MAIN OR CROSSMAIN
- NEW BRANCH LINE
- SPRINKLER SYSTEM ZONE BOUNDARY

FP GENERAL NOTES

1. PROVIDE WET PIPE SPRINKLER PROTECTION FOR ALL AREAS SHOWN ON THIS SHEET, WITHIN THE SPRINKLER SYSTEM BOUNDARY UNLESS SPECIFICALLY NOTED OTHERWISE.
2. THE GENERAL LOCATIONS OF RISERS, FEED MAINS, AND CROSS MAINS SHALL BE FOLLOWED UNLESS A SPECIFIC CHANGE HAS BEEN APPROVED IN WRITING BY THE ENGINEER. MINOR DEVIATIONS TO ACCOMMODATE STRUCTURAL OR EQUIPMENT CONFLICTS IS ACCEPTABLE.
3. ALL AREAS SHOWN ON THIS SHEET SHALL HAVE SPRINKLERS DESIGNED FOR A LIGHT HAZARD OCCUPANCY EXCEPT AS FOLLOWS:
   KITCHEN - ORDINARY HAZARD GROUP 1
   MECH / ELEC - ORDINARY HAZARD GROUP 1
   ARMS VAULT - ORDINARY HAZARD GROUP 1
   HEATED STORAGE - ORDINARY HAZARD GROUP 2
   SEE SPECIFICATIONS FOR DETAILS.

KEYED NOTES

1. ALTERNATE NO. 1

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SHEET TITLE:

FIRE PROTECTION ARRANGEMENT PARTIAL FIRST FLOOR PLAN - AREA B

SHEET NUMBER:

FP111

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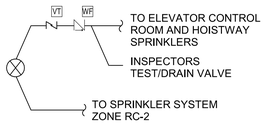
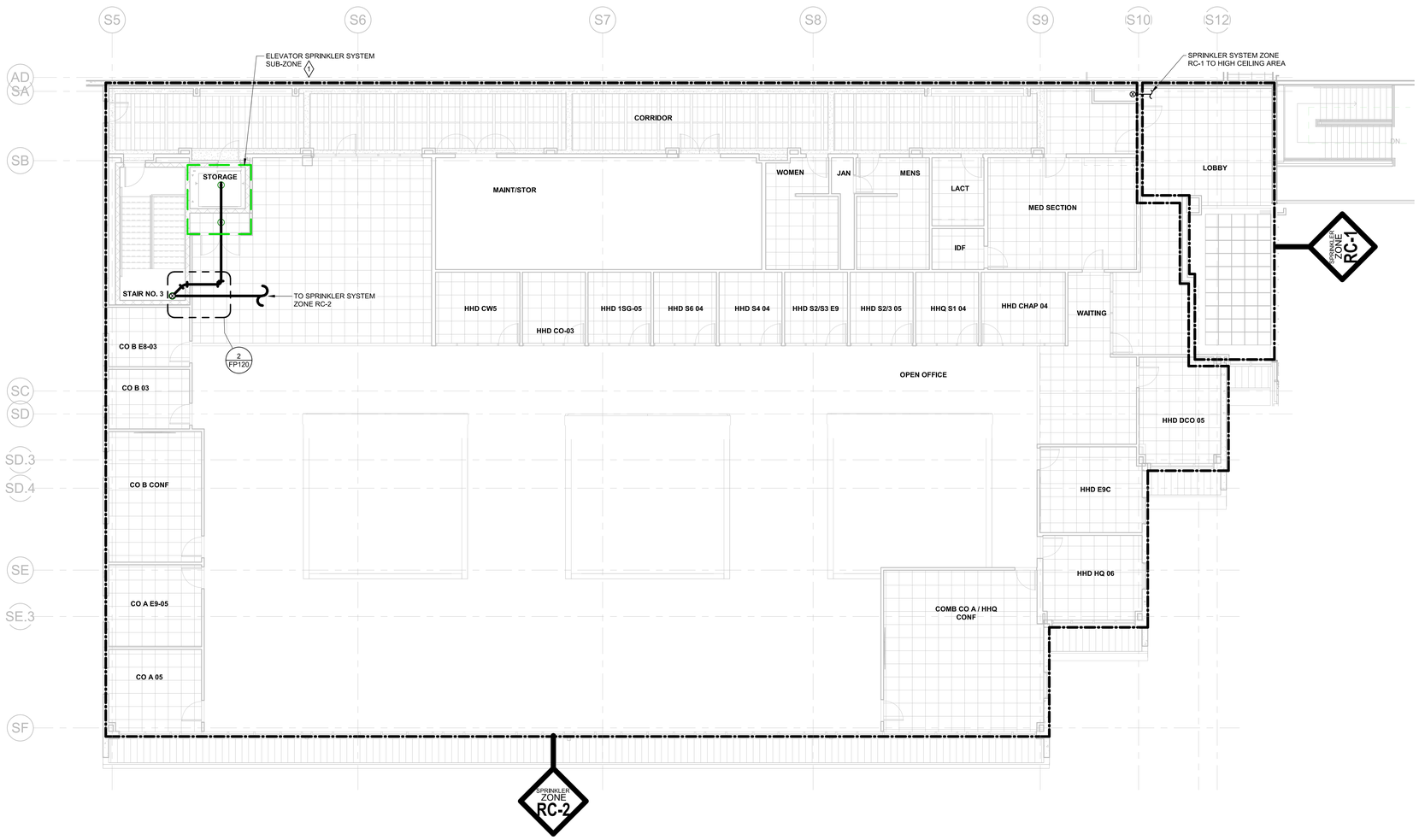


2 SPRINKLER RISER DETAIL
1" = 1'-0"



1 SECOND FLOOR PLAN
1/8" = 1'-0"

FP LEGEND

- FIRE DEPARTMENT CONNECTION
- OS&Y VALVE
- BUTTERFLY VALVE
- CHECK VALVE
- GLOBE VALVE
- GLOBE ANGLE VALVE
- BALL VALVE
- ALARM CHECK VALVE
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- PENDENT SPRINKLER
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   ARMS VAULT - ORDINARY HAZARD GROUP 1
   HEATED STORAGE - ORDINARY HAZARD GROUP 2
   SEE SPECIFICATIONS FOR DETAILS.

KEYED NOTES

1. DETAIL REPRESENTS SPRINKLER SUB-ZONE OFF OF SPRINKLER ZONE RC-2. (ALTERNATE NO. 1 (ELEVATOR))
2. PIPE DRAIN LINE TO READINESS CENTER VALVE STATION (ALTERNATE NO. 1 (ELEVATOR))

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SHEET TITLE:

FIRE PROTECTION ARRANGEMENT SECOND FLOOR PLAN

SHEET NUMBER:

FP120

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ELECTRICAL SYMBOL LEGEND

POWER DEVICES

- DUPLEX RECEPTACLE; MOUNT AT 18" TO CENTER OF DEVICE AFF UNLESS OTHERWISE NOTED.
- SINGLE RECEPTACLE; MOUNT AT 18" TO CENTER OF DEVICE AFF UNLESS OTHERWISE NOTED.
- FOUR PLEX RECEPTACLE; MOUNT AT 18" TO CENTER OF DEVICE AFF UNLESS OTHERWISE NOTED.
- S DUPLEX RECEPTACLE; CONTROLLED BY OCCUPANCY SENSOR IN ROOM.
- GFI GROUND FAULT INTERRUPTER DUPLEX RECEPTACLE
- DUPLEX RECEPTACLE. ON EMERGENCY CIRCUIT
- FOUR PLEX RECEPTACLE. ON EMERGENCY CIRCUIT
- WP WATERPROOF RECEPTACLE
- IG ISOLATED GROUND RECEPTACLE
- 220V RECEPTACLE
- SPECIAL-PURPOSE OUTLET. LETTER DESIGNATES TYPE, SEE SPECIAL CONNECTION SCHEDULE FOR REQUIREMENTS
- SURFACE RACEWAY WITH OUTLETS AS INDICATED ON PLANS,MOUNTED AT 18" TO CENTER OF DEVICE AFF UNLESS OTHERWISE NOTED
- J WALL MOUNTED JUNCTION BOX
- J CEILING MOUNTED JUNCTION BOX
- J FLOOR MOUNTED JUNCTION BOX
- FLOOR MOUNTED DUPLEX RECEPTACLE
- FLOOR MOUNTED FOUR PLEX RECEPTACLE
- CEILING MOUNTED DUPLEX RECEPTACLE
- CEILING MOUNTED FOUR PLEX RECEPTACLE
- ELECTRICAL DISTRIBUTION PANEL
- RECESSED MOUNTED ELECTRICAL PANEL
- SURFACE MOUNTED ELECTRICAL PANEL
- T ELECTRICAL POWER TRANSFORMER
- FUSED DISCONNECT SWITCH
- NON-FUSED DISCONNECT SWITCH
- COMBINATION MAGNETIC STARTER AND DISCONNECT SWITCH
- STARTER/MOTOR CONTROLLER
- ELECTICAL MOTOR - SINGLE PHASE
- ELECTRICAL MOTOR - THREE PHASE
- R RELAY
- B BATTERY PACK
- MOTORIZED DAMPER

LIGHTING

- CEILING MOUNTED OR RECESSED LIGHT FIXTURE; LABEL INDICATES FIXTURE TYPE
- PENDANT MOUNTED LIGHT FIXTURE; LABEL INDICATES FIXTURE TYPE
- WALL MOUNTED LIGHT FIXTURE; LABEL INDICATES FIXTURE TYPE
- 2'x4' LIGHT FIXTURE; LABEL INDICATES FIXTURE TYPE
- 2'x2' FIXTURE; LABEL INDICATES FIXTURE TYPE
- 1'x4' TYPICAL CEILING MOUNTED FIXTURE; LABEL INDICATES FIXTURE TYPE
- 1'x4' TYPICAL PENDANT MOUNTED FIXTURE; LABEL INDICATES FIXTURE TYPE
- 1'x4' TYPICAL WALL MOUNTED FIXTURE; LABEL INDICATES FIXTURE TYPE
- 1'x2' TYPICAL WALL MOUNTED FIXTURE; LABEL INDICATES FIXTURE TYPE
- INDUSTRIAL STRIP LIGHT FIXTURE; LABEL INDICATES FIXTURE TYPE
- STRIP LIGHT FIXTURE; LABEL INDICATES FIXTURE TYPE
- UNDER CABINET FIXTURE; LABEL INDICATES FIXTURE TYPE
- 2'x4' TYPICAL FIXTURE - NORMAL/EMERGENCY
- 2'x2' TYPICAL FIXTURE - NORMAL/EMERGENCY
- 1'x4' TYPICAL CEILING MOUNTED FIXTURE - NORMAL/EMERGENCY
- CEILING MOUNTED OR RECESSED TYPICAL FIXTURE - NORMAL/EMERGENCY
- BRANCH CIRCUIT WIRING CONCEALED IN WALLS OR CEILING
- BRANCH CIRCUIT WIRING EXPOSED
- OS OS CEILING OR WALL-MOUNTED OCCUPANCY SENSOR
- PC PC CEILING OR WALL-MOUNTED PHOTO CELL
- DS DS CEILING OR WALL-MOUNTED DAYLIGHT SENSOR
- DOUBLE FACED CEILING OR WALL-MOUNTED, EXIT SIGN WITH EMERGENCY POWER BACK UP.
- SINGLE FACED CEILING OR WALL MOUNTED, EXIT SIGN WITH EMERGENCY POWER BACK UP.
- COMBINATION EXIT AND EMERGENCY LIGHT
- DIRECTION ARROW FOR EMERGENCY LIGHT
- CEILING OR WALL MOUNTED, SELF-CONTAINED EMERGENCY LIGHT UNIT; FIXTURE SHALL MONITOR LIGHTING CIRCUIT IN AREA.
- $ SINGLE-POLE SWITCH
- $2 DOUBLE-POLE SWITCH
- $3 3-WAY SWITCH
- $4 4-WAY SWITCH
- $P SINGLE-POLE SWITCH AND PILOT LIGHT
- $TE SINGLE POLE MANUAL MOTOR STARTER WITH THERMAL ELEMENT
- $D SINGLE-POLE DIMMER SWITCH
- $K SINGLE-POLE KEYED SWITCH
- $L LOW VOLTAGE SWITCH
- $F FAN SWITCH
- $M MOMENTARY CONTACT SWITCH
- PUSHBUTTON SWITCH
- COMBINATION PUSHBUTTON SWITCH
- MUSHROOM EMERGENCY SHUT-OFF SWITCH.
- LC LIGHTING CONTACTOR
- TC TIME CLOCK, AS INDICATED ON PLANS
- PC PHOTO CELL, AS INDICATED ON PLANS
- RC LIGHTING ROOM CONTROLLER

SPECIAL SYSTEMS

- DATA/TELEPHONE OUTLET, FLOOR MOUNTED
- COMBINATION DATA/TELEPHONE OUTLET
- TELEPHONE
- DATA OUTLET; NUMBER INDICATES QUANTITY, BLANK INDICATES SINGLE OUTLET. MOUNTED AT 18" TO CENTER OF DEVICE AFF UNLESS OTHERWISE NOTED.
- DATA, CEILING MOUNTED
- DATA, FLOOR MOUNTED
- (TV) TELEVISION OUTLET, CEILING MOUNTED
- TV TELEVISION CABLE OUTLET; MOUNT AT 18" TO CENTER OF DEVICE AFF UNLESS OTHERWISE NOTED
- WAP WIRELESS ACCESS POINT, CEILING MOUNTED
- FB MULTI-OUTLET FLOOR BOX, SEE FLOOR BOX SCHEDULE FOR REQUIREMENTS.
- S SPEAKER, WALL MOUNTED
- S SPEAKER, CEILING MOUNTED
- E ELECTRIC VALVE
- I INSTRUMENT DEVICE
- SI INTERIOR SIREN ALARM
- C CLOCK, WALL MOUNTED
- C CLOCK, CEILING MOUNTED
- CABLE TRAY
- GROUND BAR

FIRE ALARM

- M MAGNETIC DOOR HOLD DEVICE
- FS SPRINKLER FLOW SWITCH
- TS SPRINKLER TAMPER SWITCH
- EXTERIOR REMOTE FLASHING STROBE LIGHT
- F MANUAL PULL STATION; MOUNT ACCORDING TO MOUNTING HEIGHT DETAIL AT 46" TO CENTER OF DEVICE AFF. ADA COMPLIANT
- F HORN & STROBE; MOUNT SO BOTTOM OF DEVICE IS AT 80" AFF UNNLESS OTHERWISE NOTED. ADA COMPLIANT
- F STROBE; MOUNT SO BOTTOM OF DEVICE IS AT 80" AFF UNNLESS OTHERWISE NOTED. ADA COMPLIANT
- F SPEAKER & STROBE; MOUNT SO BOTTOM OF DEVICE IS AT 80" AFF UNNLESS OTHERWISE NOTED. ADA COMPLIANT
- S FIRE ALARM VOICE WALL MOUNT SPEAKER
- S FIRE ALARM VOICE CEILING MOUNT SPEAKER
- SMOKE DETECTOR
- D DUCT MOUNTED SMOKE DETECTOR
- HD THERMAL HEAT DETECTOR
- PIV POST INDICATOR VALVE
- B BELL
- R SHUTDOWN RELAY WITH REMOTE TEST SWITCH
- R+T SHUTDOWN RELAY AND TEST SWITCH
- FACP FIRE ALARM CONTROL PANEL
- RAP REMOTE ANNUNCIATOR PANEL
- SMOKE DAMPER
- FIRE DAMPER
- COMBINATION FIRE AND SMOKE DAMPER

SECURITY DEVICES

- DCM DOOR CONTROL MODULE
- ACP ACCESS CONTROL PANEL
- ES ELECTRIC DOOR STRIKER
- VIDEO CAMERA, WITH MOUNTING HARDWARE
- VM VIDEO MONITOR
- VR VIDEO RECORDER
- ML ELECTRIC MAGNETIC LOCK
- CL ELECTRIC CYLINDER LOCK
- CR CARD READER
- REX REQUEST TO EXIT
- DOOR CONTACT - RECESSED
- DOOR CONTACT - SURFACE MOUNT
- M MOTION DETECTOR, CEILING MOUNTED
- M MOTION DETECTOR, WALL MOUNTED
- EMERGENCY DOOR RELEASE BUTTON
- PANIC BUTTON
- SECURITY BUZZER HORN
- INTERCOM SUBSTATION
- INTERCOM SUBSTATION WITH CAMERA
- INTERCOM MASTER STATION
- GLASS BREAK SENSOR
- POWER TRANSFER HINGE

ABBREVIATIONS/MODIFIERS

(X)	SHEET NOTE TAG, LABEL INDICATES NOTE NUMBER
XX	FEEDER TAG
*	ABOVE COUNTER
A	AMPERE
AC	6" ABOVE COUNTER
AD	AUTOMATIC DAMPER
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
AHU	AIR HANDLING UNIT
AFCI	ARC FAULT CIRCUIT INTERUPTER
ATS	AUTOMATIC TRANSFER SWITCH
C	CONDUIT
C/B	CIRCUIT BREAKER
CIR	CIRCUIT
CUH	CABINET UNIT HEATER
E	EXISTING DEVICES TO REMAIN
EF	EXHAUST FAN
EMT	ELECTRIC METALLIC TUBING
ER	NEW LOCATION OF EXISTING RELOCATED
EWC	ELECTRIC WATER COOLER
EWH	ELECTRIC WATER HEATER
FA	FIRE ALARM
FB	FLOOR BOX
FMC	FLEXIBLE METALLIC TUBING
GFI	GROUND FAULT INTERRUPTER
HD	HAND DRYER
IG	ISOLATED GROUND
MAU	MAKE-UP AIR UNIT
MD	MOTORIZED DAMPER
NF	NON-FUSED
NL	NIGHT LIGHT
NR	NEW TO REPLACE EXISTING
P	POLE
PE	PRIMARY ELECTRIC SERVICE
PTD	ELECTRIC PAPER TOWEL DISPENSER
PVC	POLYVINYL CHLORIDE CONDUIT
RE	REMOVE EXISTING
REF	ROOF EXHAUST FAN
RL	RELOCATE EXISTING
RMC	RIGID METALLIC CONDUIT
RR	REMOVE AND REPLACE ON NEW SURFACE
RTU	ROOFTOP UNIT
SD	SMOKE DAMPER
SE	SECONDARY ELECTRIC SERVICE
S&P	SPACE AND PROVISION
T	TELEPHONE SERVICE
TCP	TEMPERATURE CONTROL PANEL
TP	TAMPER PROOF
TV	TELEVISION
UGE	UNDERGROUND ELECTRICAL
VFC	VARIABLE FREQUENCY CONTROLLER
VFD	VARIABLE FREQUENCY DRIVE
W	WIRE
WG	WIRE GUARD
WP	WEATHERPROOF
WR	WEATHER RESISTANT
XFMR	TRANSFORMER

GENERAL SHEET NOTES

1. ALL ELECTRICAL WORK SHALL BE IN ACCORDANCE WITH THE ADOPTED ELECTRICAL CODE.
2. ELECTRICAL DESIGN HAS BEEN BASED ON THE INSTALLATION OF 75-DEGREE CONDUCTORS CONNECTED TO TERMINAL LUGS AND EQUIPMENT UL LISTED FOR A MINIMUM OF 75-DEGREES. CONDUCTORS TERMINATED ON EQUIPMENT WITH A LOWER RATING OR NO RATING SHALL HAVE CONDUCTOR SIZE INCREASED TO CONFORM TO THE ADOPTED ELECTRICAL CODE.
3. INFORMATION SHOWN ON THE DRAWINGS CONCERNING TYPE AND LOCATION OF UNDERGROUND AND OTHER UTILITIES IS NOT GUARANTEED TO BE ACCURATE OR ALL INCLUSIVE. THE CONTRACTOR IS RESPONSIBLE FOR MAKING THEIR OWN DETERMINATION AS TO TYPE AND LOCATION OF SAME AS MAY BE NECESSARY TO AVOID DAMAGE THERE OF.
4. FIELD VERIFY LOCATION OF ALL UTILITIES PRIOR TO BEGINNING WORK. ANY INTERFERENCE SHALL BE BROUGHT TO ATTENTION OF THE ARCHITECT AND ENGINEER FOR DIRECTION.
5. PLANS ARE DIAGRAMMATIC AND SHALL NOT BE SCALED. REFER TO ARCHITECTURAL DRAWINGS FOR DIMENSIONS.
6. COOPERATE CLOSELY WITH ALL OTHER TRADES TO EXPEDITE CONSTRUCTION AND AVOID INTERFERENCES AND CONFLICTS. BEFORE ANY PIPING, DUCTWORK, CONDUIT, ETC. IS INSTALLED, IT SHALL BE COORDINATED CAREFULLY BETWEEN ALL TRADES.
7. CONTRACTOR SHALL GUARANTEE ALL EQUIPMENT, ACCESSORIES, AND MATERIAL FURNISHED BY HIM FOR A PERIOD OF ONE YEAR FROM FINAL ACCEPTANCE AGAINST ALL DEFECTS.
8. ALL WIRING SHALL BE INSTALLED IN CONDUIT AND BE CONCEALED. REFER TO CONDUIT APPLICATION SCHEDULE.
9. REFER TO ARCHITECTURAL PLANS AND INTERIOR ELEVATIONS FOR ALL WALL FIXTURE MOUNTING HEIGHTS AND INSTALLATION DETAILS.
10. COORDINATE EQUIPMENT LOCATIONS AND ELECTRICAL CONNECTIONS FOR MECHANICAL AND PLUMBING EQUIPMENT WITH THE INSTALLING CONTRACTOR.
11. ALL BRANCH CIRCUITS SHALL CONSIST OF (2) #12 AND (1)#12 EQUIPMENT GROUND IN 3/4" EMT CONDUIT, UNLESS OTHERWISE NOTED.
12. ALL ELECTRICAL RACEWAYS SHALL HAVE AN EQUIPMENT GROUND CONDUCTOR SIZED PER THE ADOPTED ELECTRICAL CODE.
13. MINIMUM CONDUIT SIZE SHALL BE 3/4".
14. ALL EMPTY CONDUITS SHALL BE PROVIDED WITH A PULLSTRING.
15. ALL MATERIALS EXPOSED IN PLENUM SPACES SHALL BE NON-COMBUSTIBLE OR HAVE A FLAME SPREAD RATING OF NOT MORE THAN 25 AND A SMOKE DEVELOPED RATING NOT MORE THAN 50.
16. COORDINATE INSTALLATION OF ELECTRICAL WORK WITH OTHER TRADES. INSTALL AT THE GREATEST POSSIBLE CLEARANCE FOR INSTALLATION OF OTHER TRADES. TRADES WITH REQUIRED SLOPES SHALL HAVE PLACEMENT PRIORITY. WHERE POSSIBLE RACEWAYS SHALL BE ROUTED THROUGH TRUSSES.
17. ALL LOW VOLTAGE CABLING (FIBER, CATV, TELEPHONE, DATA/NETWORK, ETC.) SHALL BE PROVIDED BY OTHERS UNLESS OTHERWISE NOTED. ALL CABLING SHALL BE PLENUM RATED.
18. ELECTRICAL CONDUITS SHALL BE CONCEALED FROM PUBLIC VIEW, WHERE THE SPACE IS OPEN TO STRUCTURE THE CONDUITS SHALL BE ROUTED ABOVE THE BOTTOM FLANGE OF STRUCTURAL BEAMS. CONDUITS SHALL NOT BE ROUTED THROUGH THE VOID AREA CREATED BY THE CROWNS OF THE CORRUGATED ROOF DECKING PER THE ADOPTED ELECTRICAL CODE. CONDUITS SHALL NOT BE ROUTED THROUGH OPEN SPACES WHERE THEY CAN BE SEEN FROM THE FINISHED FLOOR. ALL CONDUITS NOT CONCEALED FROM PUBLIC VIEW WILL BE REMOVED AND RE-ROUTED AT THE CONTRACTOR'S EXPENSE.
19. ALL CONDUITS THAT PENETRATE AN EXTERIOR WALL SHALL BE SEALED AIR TIGHT INSIDE THE CONDUIT, TO PREVENT COLD AIR AND WARM AIR FROM MISSING INSIDE THE CONDUIT.
20. ALL CONDUITS THAT TERMINATE INSIDE MECHANICAL EQUIPMENT SHALL BE SEALED AIR TIGHT TO PREVENT AIR FROM TRANSFERING THROUGH THE CONDUIT.
21. ELECTRICAL SERVICE SHALL BE CLOCKWISE ROTATION.
22. PER UFC-3-520-01, EMT IS NOT ALLOWED BELOW GRADE OR ENCASED IN CONCRETE. TRANSITION FROM PVC TO IMC OR GRC BEFORE RISING ABOVE SLAB.
23. ALL OVERHEAD EQUIPMENT WEIGHTING 31 POUNDS OR MORE SHALL BE ADEQUATELY RESTRAINED PER UFC 4-010-01 STANDARD 19.
24. DEFINITIONS:
    A. PROVIDE - CONTRACTOR SHALL FURNISH AND INSTALL.
    B. FURNISH - CONTRACTOR SHALL OBTAIN FOR OTHERS TO INSTALL.
    C. INSTALL - CONTACTOR IS RESPOSIBLE FOR ALL LABOR AND CONSTRUCTION EQUIPMENT NECESSARY TO SET IN PLACE, CONNECT, CALIBRATE.

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NATIONAL GUARD BUREAU PROJECT #290186
MISSOURI NATIONAL GUARD PROJECT #T1809-01
SITE #9019
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ELECTRICAL GENERAL INFORMATION

SHEET NUMBER:

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107 OF 131 SHEETS

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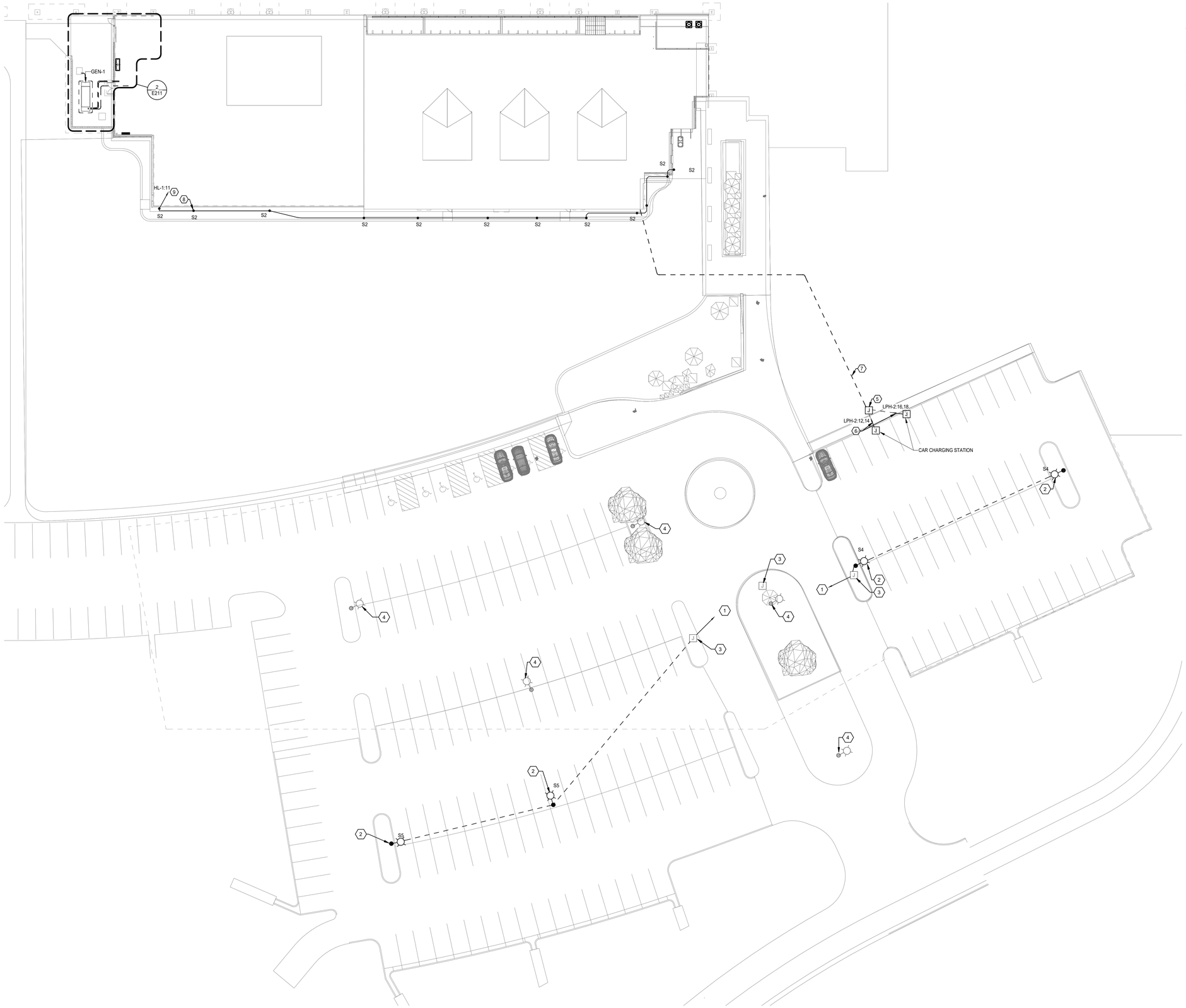

1 **ELECTRICAL SITE PLAN**
1" = 20'-0"

GENERAL SHEET NOTES

A. PER FEDERAL, STATE, AND LOCAL STATUTES, NOTIFY MISSOURI ONE-CALL SYSTEM, INC. AT LEAST 48 HOURS PRIOR TO ANY DIGGING, TRENCHING, EXCAVATION, ETC.

B. INFORMATION SHOWN ON THIS DRAWING CONCERNING TYPE AND LOCATION OF UNDERGROUND AND OTHER UTILITIES IS NOT GUARANTEED TO BE ACCURATE OR ALL INCLUSIVE. THE CONTRACTOR IS RESPONSIBLE FOR MAKING HIS OWN DETERMINATION AS TO TYPE AND LOCATION OF EXISTING UTILITIES AS MAY BE NECESSARY TO AVOID DAMAGE THERETO.

C. ALL CONDUCTORS SHOWN ARE TO BE COPPER ONLY. ALL UNDERGROUND CONDUIT SHALL BE PVC.

D. RIGID CONDUIT SHALL BE USED WHERE CONDUIT IS EXPOSED TO PHYSICAL DAMAGE OR ON THE EXTERIOR OF THE BUILDING.

SHEET KEYNOTES

1. ROUTE LIGHTING HOMERUN BELOW GRADE TO EXISTING IN-GROUND JUNCTION BOX. CONNECT TO EXISTING LIGHTING CIRCUIT. REFER TO BUILDING INTERIOR PLANS FOR CONTROL SCHEME. LIGHTS SHALL BE CONTROLLED BY TIME CLOCK/PHOTOCELL. PROVIDE (2)-#10, (1)-#10G IN 1" CONDUIT.
2. AREA LIGHT FIXTURE AND LIGHT POLE ON CONCRETE BASE. REFER TO LIGHTING FIXTURE SCHEDULE FOR ADDITIONAL INFORMATION. BASES OF DESIGN FOR FIXTURE IS MATCH EXISTING PARKING LOT POLE.
3. EXISTING IN-GROUND JUNCTION BOX. INTERCEPT EXISTING CIRCUIT AND EXTEND TO NEW LIGHTING POLES. VERIFY EXACT LOCATION.
4. EXISTING LIGHT POLE TO REMAIN.
5. IN-GROUND JUNCTION BOX. ROUTE (1)-2" CONDUIT BELOW GRADE AND STUB UP INTO BUILDING FOR CAR CHARGING STATION.
6. (2)-#2 AND (1)-#2 GROUND IN 1" CONDUIT.
7. (4)-#2 AND (1)-#2 GROUND IN 2" CONDUIT.
8. LINEAR LED IN-GRADE LIGHT FIXTURE IN CONCRETE BASE. (TYP.)
9. PROVIDE (2)-#10 AND (1)-#10 GROUND IN 1" CONDUIT. ROUTE HOMERUN TO PANELBOARD IN BUILDING. CIRCUIT TO BE CONTROLLED BY TIME CLOCK. REFER TO BUILDING INTERIOR PLANS FOR EXACT LOCATION AND CONTROL SCHEME.

BID ALTERNATE NOTES

1. ALL WORK ASSOCIATED WITH CAR CHARGING STATIONS SHALL BE PART OF A BID ALTERNATE #4.
2. ALL WORK ASSOCIATED WITH PAD MOUNTED STAND BY GENERATOR SHALL BE PART OF BID ALTERNATE #2. ALL ROUGH-IN FOR FUTURE GENERATOR WILL BE PART OF BASE BID IF BID ALTERNATE IS NOT ACCEPTED.

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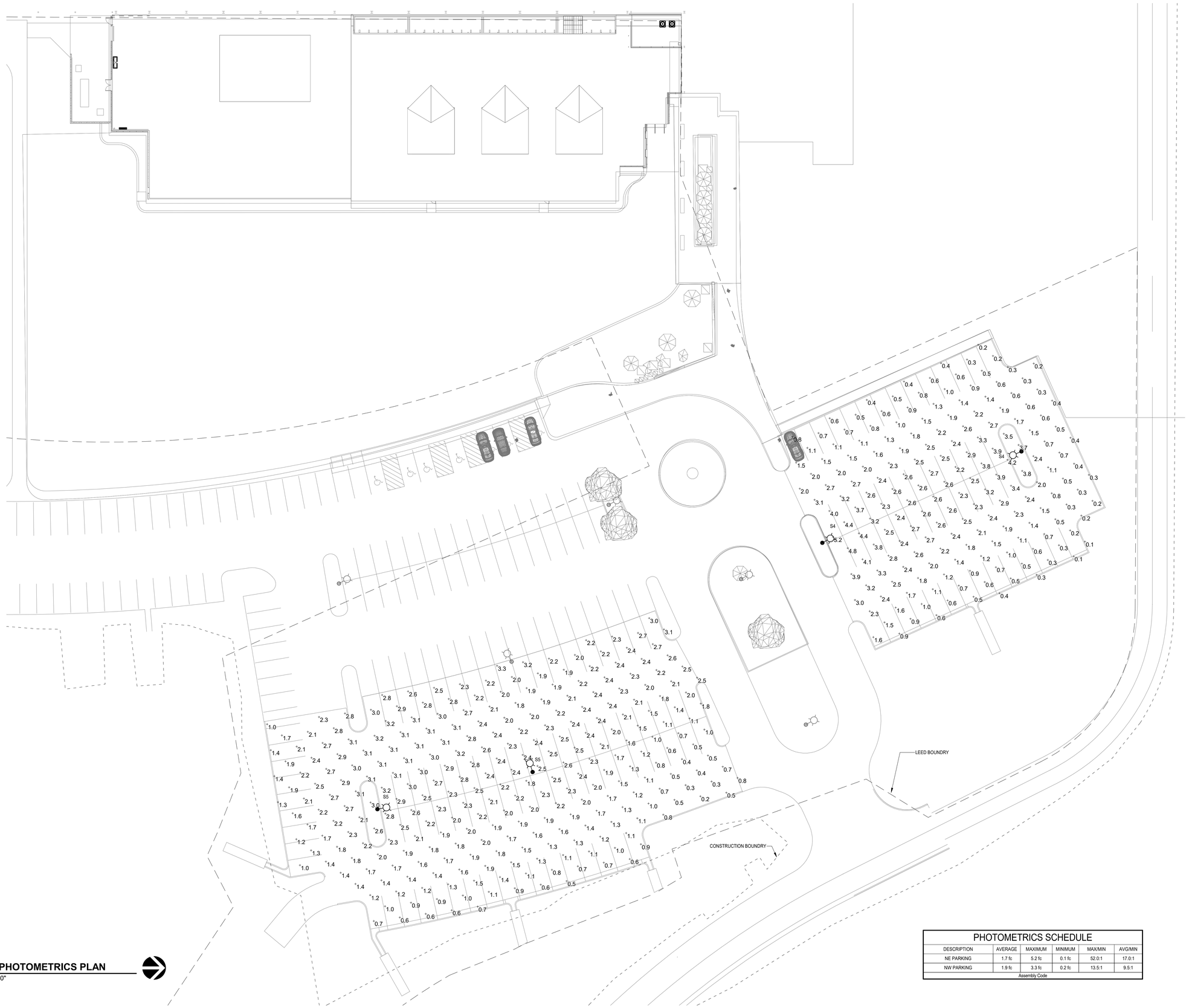

1 SITE PHOTOMETRICS PLAN
1" = 20'-0"

PHOTOMETRICS SCHEDULE

DESCRIPTION	AVERAGE	MAXIMUM	MINIMUM	MAX/MIN	AVG/MIN
NE PARKING	1.7 fc	5.2 fc	0.1 fc	52.0:1	17.0:1
NW PARKING	1.9 fc	3.3 fc	0.2 fc	13.5:1	9.5:1
Assembly Code					

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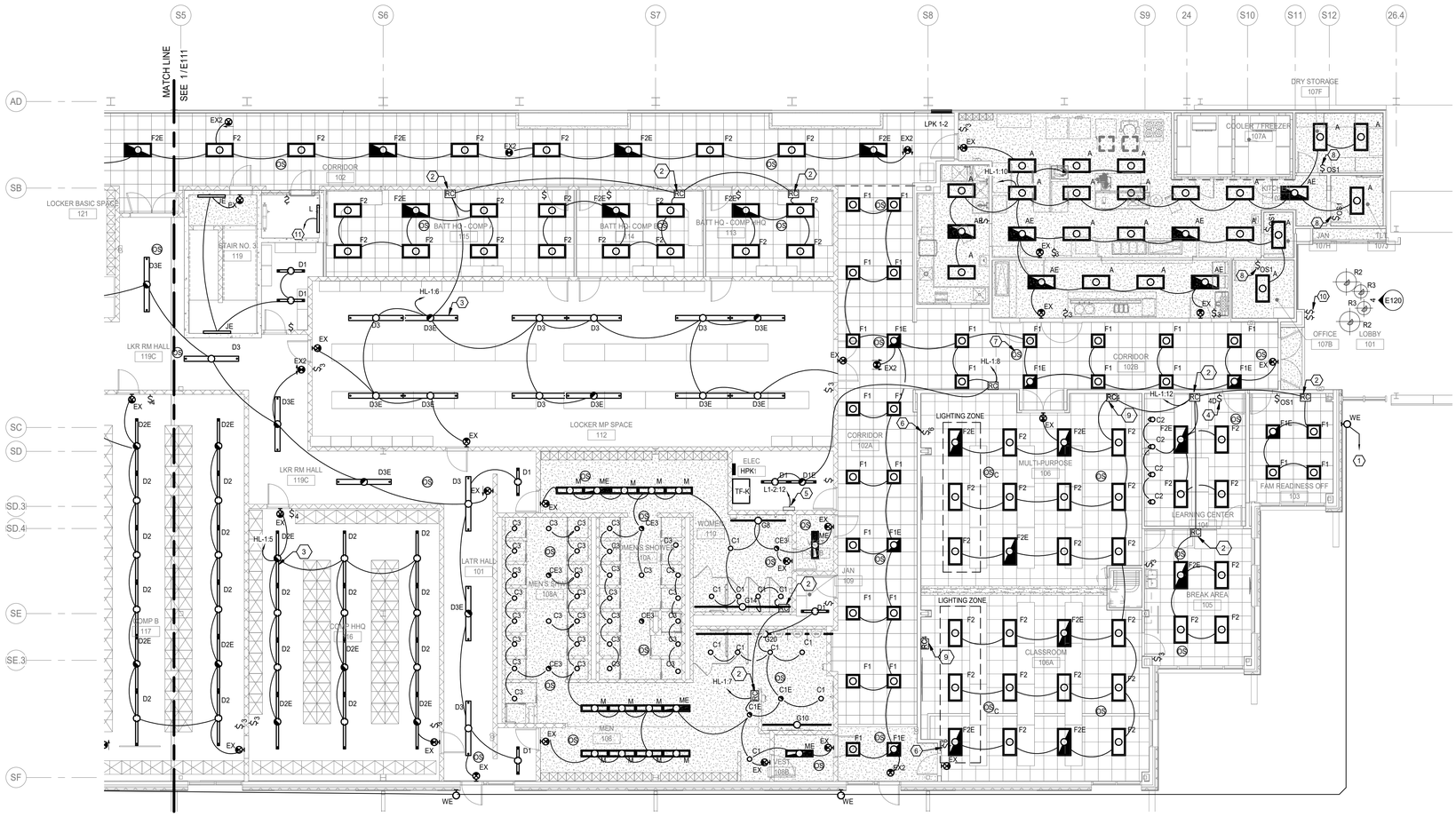

1 **FIRST FLOOR LIGHTING PLAN - AREA A**
1/8" = 1'-0"

GENERAL SHEET NOTES

A. REFER TO ARCHITECTURAL PLANS AND INTERIOR ELEVATIONS FOR ALL WALL FIXTURE MOUNTING HEIGHTS.

B. EXIT LIGHT FIXTURES MOUNTED ON WALLS SHALL BE AT 8" ABOVE HEADER OR PER DRAWING ELEVATIONS.

C. RECESSED FIXTURES SHALL BE COORDINATED WITH LAY-IN CEILING.

D. ALL EMERGENCY AND EXIT LIGHT FIXTURES SHALL HAVE AN 'UN-SWITCHED' HOT TO CHARGE BATTERY.

E. COORDINATE WITH OWNER AND ARCHITECT FOR FINAL LOCATION OF ALL EXIT SIGNS.

F. REFER TO LIGHTING DEVICE SCHEDULE AND LIGHTING SEQUENCE SCHEDULE FOR DEVICE AND LIGHTING CONTROL INFORMATION.

SHEET KEYNOTES

1. ROUTE EXTERIOR LIGHTING HOMERUN TO EXISTING SPARE 20A/1P CIRCUIT BREAKER IN EXISTING PANELBOARD IN ADMINISTRATION BUILDING. REFER TO BUILDING INTERIOR PLAN AND FIELD VERIFY CONTROL SCHEME. LIGHTING SHALL BE CONTROLLED BY TIMECLOCK/PHOTOCELL. PROVIDE (2)-#10 AND (1)-#10 GROUND IN 0.75" CONDUIT.
2. DIGITAL LIGHTING CONTROLLER, NETWORK CONTROLLERS TOGETHER FOR TIME CONTROL MANAGEMENT BY ZONE. LOCATE ABOVE ACCESSIBLE CEILING WHERE APPLICABLE. ONE CONTROLLER IS SHOWN FOR CLARITY. PROVIDE REQUIRED TYPE AS SCHEDULED AND QUANTITY AS REQUIRED FOR A COMPLETE LIGHTING CONTROL SYSTEM. (TYP.)
3. LINEAR LIGHT FIXTURE SHALL BE SUSPENDED FROM STRUCTURE ABOVE AT 10'-0" A.F.F. MEASURED FROM THE BOTTOM OF THE LIGHT FIXTURE. (TYP.)
4. SCENE SELECTOR SWITCH WITH DIMMING. REFER TO LIGHTING DEVICE SCHEDULE FOR ADDITIONAL INFORMATION.
5. CRESTRON CONTROL PANEL. PROVIDE 120V POWER. REFER TO LIGHTING CONTROL DIAGRAM FOR ADDITIONAL INFORMATION.
6. WALL MOUNTED KEYPAD AND FACEPLATE. BASIS OF DESIGN IS CRESTRON KEYPAD AND DECORA FACEPLATE C2N-CBD-TS (CB6-BTN).
7. DUAL TECH, CEILING MOUNTED OCCUPANCY SENSOR. (TYP.)
8. WALL MOUNTED, DUAL TECH, OCCUPANCY SENSOR SWITCH.
9. LIGHTING CONTROLLER TO DIM LIGHTS IN THIS ROOM ABOVE CEILING. REFER TO LIGHTING DEVICE SCHEDULE AND WIRING DIAGRAM FOR ADDITIONAL INFORMATION. BASES OF DESIGN IS CRESTRON GREEN LIGHT INTEGRATED DIMMABLE CONTROLLER GLPAC-DIMFLV8.
10. PENDANTS AND TRACK LIGHT FIXTURE SWITCHES. REFER TO SECOND FLOOR LIGHTING PLAN FOR MOUNTING HEIGHTS.
11. REFER TO ELEVATOR ENLARGED PLAN FOR CONTINUATION OF CIRCUIT.

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SHEET TITLE:

FIRST FLOOR LIGHTING PLAN - AREA A

SHEET NUMBER:

E110

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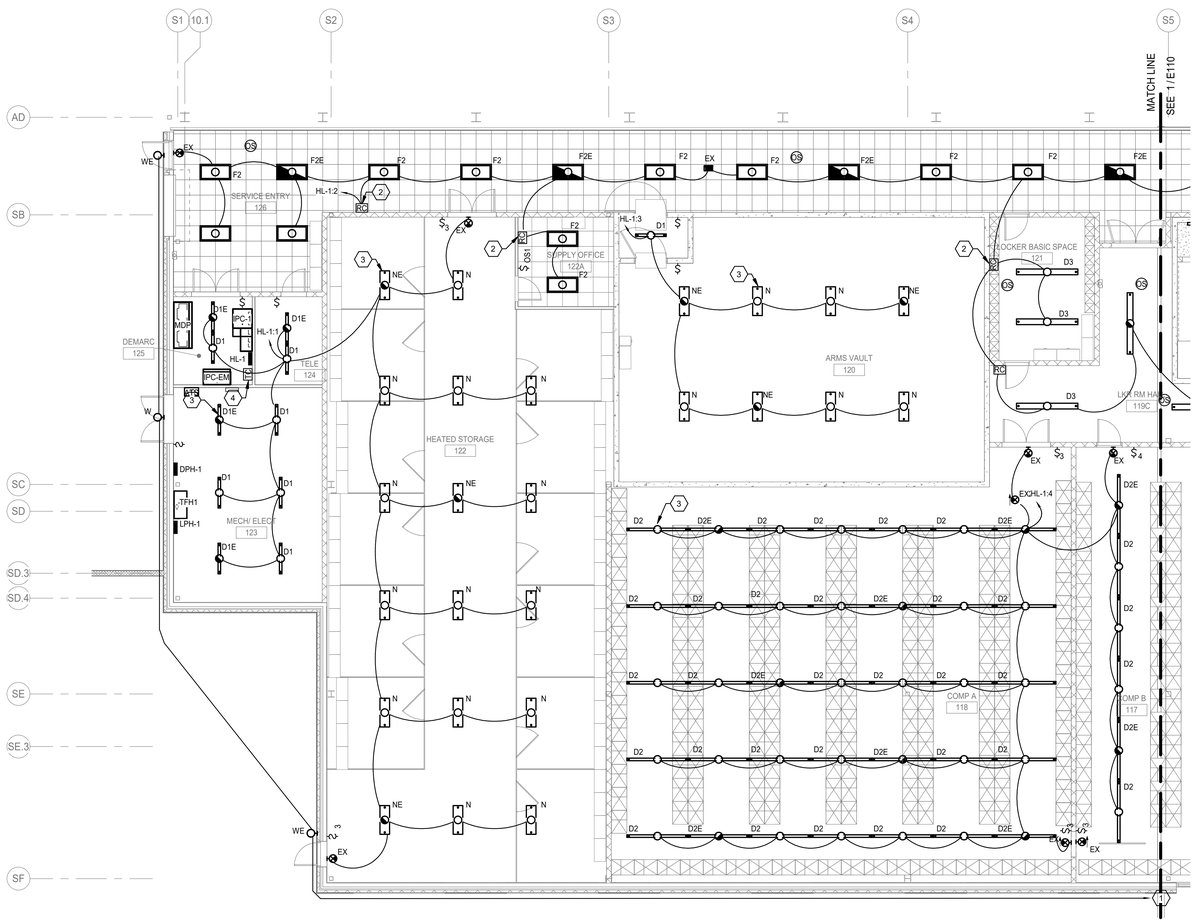
SHEET KEYNOTES

1. REFER TO SHEET E110 FOR CIRCUIT CONTINUATION. PROVIDE (2)#10 AND (1)#10 GROUND IN 0.75" CONDUIT.
2. DIGITAL LIGHTING CONTROLLER. NETWORK CONTROLLERS TOGETHER FOR TIME CONTROL MANAGEMENT BY ZONE. LOCATE ABOVE ACCESSIBLE CEILING WHERE APPLICABLE. ONE CONTROLLER IS SHOWN FOR CLARITY. PROVIDE REQUIRED TYPE AS SCHEDULED AND QUANTITY AS REQUIRED FOR A COMPLETE LIGHTING CONTROL SYSTEM.
3. LINEAR LIGHT FIXTURE SHALL BE SUSPENDED FROM STRUCTURE ABOVE AT 10'-0" A.F.F. MEASURED FROM THE BOTTOM OF THE LIGHT FIXTURE.
4. TIMECLOCK PER SCHEDULE. REFER TO WIRE DIAGRAM.



1 FIRST FLOOR LIGTING PLAN - AREA B
1/8" = 1'-0"

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FIRST FLOOR LIGHTING PLAN - AREA B

SHEET NUMBER:

E111

111 OF 131 SHEETS

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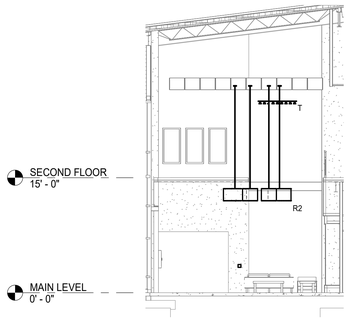
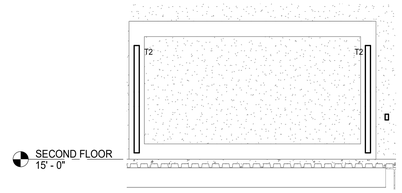
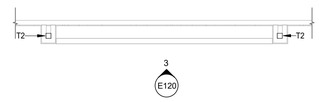


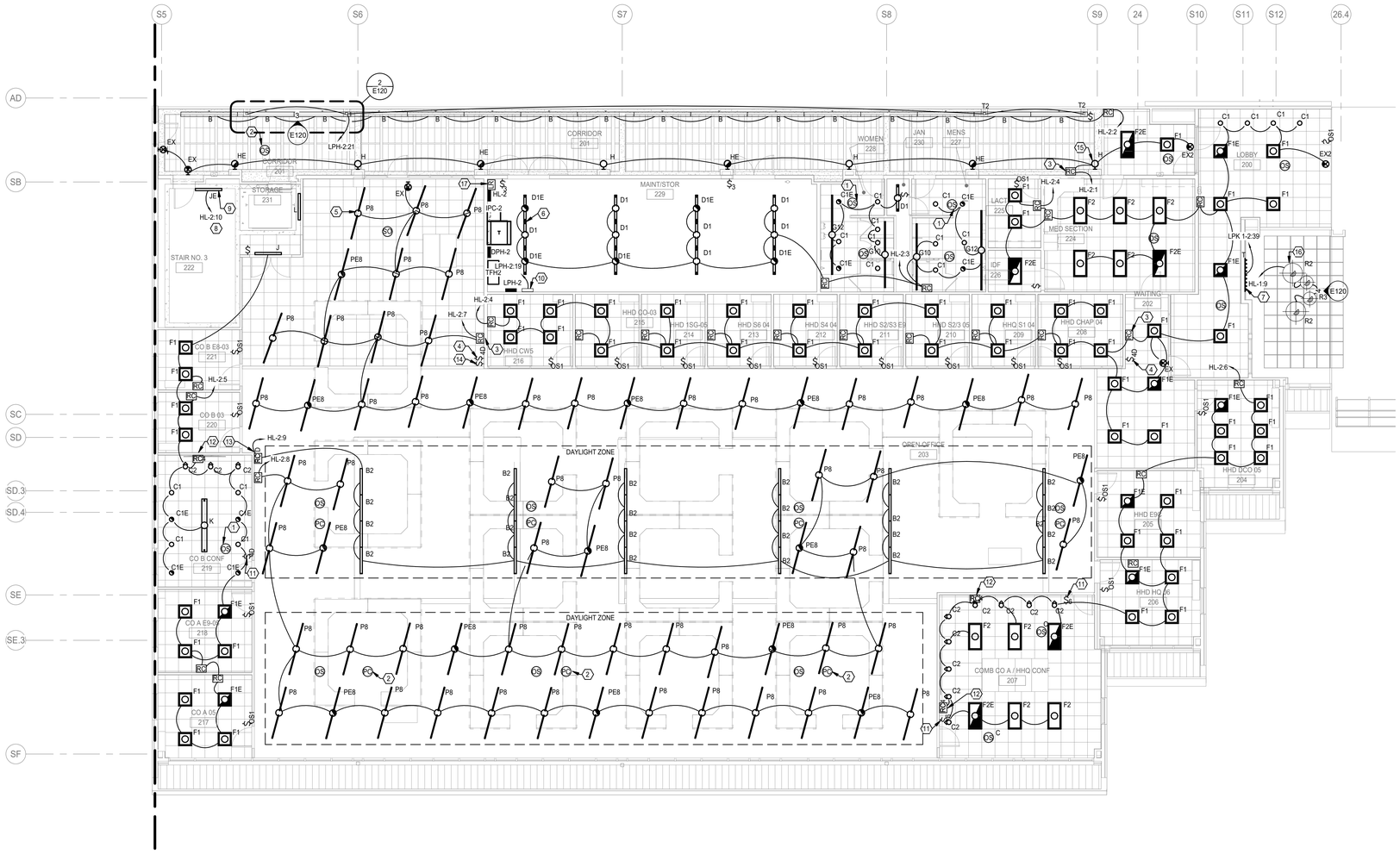
4 LOBBY LIGHTING ELEVATION
1/8" = 1'-0"



3 TROPHY CASE ELEVATION
1/4" = 1'-0"



2 TROPHY CASE LIGHTING PLAN
1/4" = 1'-0"



1 SECOND FLOOR LIGHTING PLAN - AREA A
1/8" = 1'-0"

SHEET KEYNOTES

1. DUAL TECH, CEILING MOUNTED, OCCUPANCY SENSOR. ROUTE CABLING TO LIGHTING CONTROLLER. REFER TO LIGHTING DEVICE SCHEDULE AND WIRING DIAGRAM.
2. CEILING MOUNTED PHOTOCENSOR.
3. DIGITAL LIGHTING CONTROLLER. NETWORK CONTROLLERS TOGETHER FOR TIME CONTROL MANAGEMENT BY ZONE. LOCATE ABOVE ACCESSIBLE CEILING WHERE APPLICABLE. ONE CONTROLLER IS SHOWN FOR CLARITY. PROVIDE REQUIRED TYPE AS SCHEDULED AND QUANTITY AS REQUIRED FOR A COMPLETE LIGHTING CONTROL SYSTEM. (TYP.)
4. SCENE SELECTOR SWITCH WITH DIMMING. REFER TO LIGHTING DEVICE SCHEDULE FOR ADDITIONAL INFORMATION.(TYP.)
5. LINEAR INDIRECT/DIRECT LIGHT FIXTURE SHALL BE SUSPENDED FROM STRUCTURE ABOVE AT 10'-0" ABOVE FINISH FLOOR TO BOTTOM OF LIGHT FIXTURE. (TYP.)
6. LINEAR STRIP LIGHT SHALL BE SUSPENDED FROM STRUCTURE ABOVE AT 12'-0" ABOVE FINISH FLOOR TO BOTTOM OF LIGHT FIXTURE. (TYP.)
7. TRACK LIGHT SHALL BE MOUNTED AT 25'-0" A.F.F.
8. STAIRWELL LIGHTING CIRCUIT CONTINUED ON FIRST FLOOR PLAN.
9. WALL MOUNT LINEAR FIXTURE AT 8'-0" ABOVE FINISHED FLOOR TO BOTTOM OF LIGHT FIXTURE.
10. CRESTRON CONTROL PANEL. PROVIDE 120V POWER. REFER TO LIGHTING CONTROL DIAGRAM FOR ADDITIONAL INFORMATION.
11. WALL MOUNTED KEYPAD AND FACEPLATE. REFER TO LIGHTING DEVICE SCHEDULE FOR ADDITIONAL INFORMATION.
12. LIGHTING CONTROLLER TO DIM LIGHTS IN THIS ROOM ABOVE CEILING. REFER TO LIGHTING DEVICE SCHEDULE AND WIRING DIAGRAM FOR ADDITIONAL INFORMATION. BASES OF DESIGN IS CRESTRON GREEN LIGHT INTEGRATED DIMMABLE CONTROLLER GLPAC-DIMFLV8.
13. BASIS OF DESIGN IS UNISON ECHO ETC ROOM CONTROLLER WITH TIME CLOCK TO CONTROL SURFACE MOUNTED LINEAR INDIRECT/DIRECT FIXTURES (TYPE B2) IN DORMERS. REFER TO LIGHTING SEQUENCE FOR ADDITIONAL INFORMATION.
14. BASIS OF DESIGN IS ECHO INSPIRE E1104 CONTROL STATION FOR DMX CONTROL OF LINEAR INDIRECT/DIRECT FIXTURES IN DORMERS. FOUR BUTTON SCENE SELECTOR SWITCH WITH DIMMING ROTARY.
15. CENTER SCONCE ON DETRACTIVE PILASTER. (TYP.)
16. PENDANTS SHALL BE MOUNTED TO STRUCTURE ABOVE AT 12'-0" ABOVE FINISHED FLOOR TO BOTTOM OFF FIXTURE.
17. DIMMING LIGHTING CONTROL RELAY PANEL "RP1". ROUTE EXTERIOR LIGHTING CIRCUIT THROUGH RELAYS. REFER TO LIGHTING DEVICE SCHEDULE FOR ADDITIONAL INFORMATION.

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SECOND FLOOR LIGHTING PLAN - AREA A

SHEET NUMBER:

E120

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GENERAL SHEET NOTES

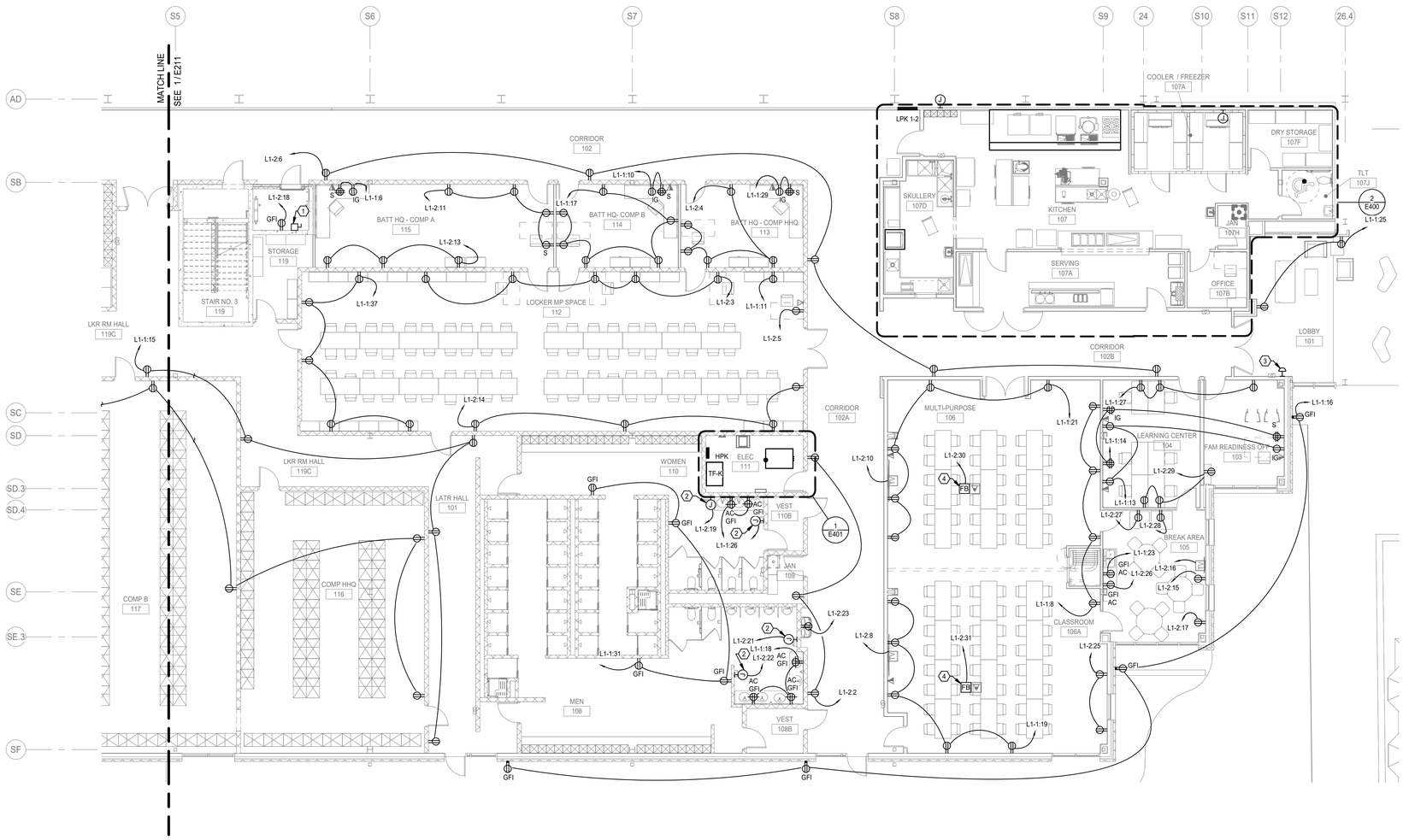
A. ALL RECEPTACLES INDICATED WITH A "S" ARE SWITCHED RECEPTACALES AND ARE CONTROLLED BY THE OCCUPANCY SENSOR DEVICE IN THE ROOM.

B. THE NEUTRAL OF MULTI-WIRE BRANCH CIRCUITS SHOULD BE SIZED AT 200% OF THE PHASE CONDUCTORS. THE OVERSIZED NEUTRAL WILL OCCUR AT MULTI-WIRE BRANCH CIRCUITS WHICH MAY HAVE COMPUTER EQUIPMENT CONNECTED.

C. REFER TO SPECIAL SYSTEMS PLANS AND EQUIPMENT CONNECTION SCHEDULE FOR EQUIPMENT POWER CONNECTIONS AND ADDITIONAL INFORMATION.

⬡ SHEET KEYNOTES

1. SUMP PUMP CONTROLLER. INSTALL 0.75" CONDUIT WITH PULL STRING TO SUMP PUMP FOR INSTALLATION OF SUMP PUMP CONTROL WIRE. COORDINATE LOCATION AND PREQUIREMENTS WITH PLUMBING DRAWINGS AND MANUFACTURER PRIOR TO INSTALLATION.
2. BACK BOX AND CONDUIT ROUGH-IN FOR HAND DRYER.
3. PROVIDE (1) - 0.75" CONDUIT FOR POWER AND (1) - 1" EMPTY CONDUIT TO ABOVE ACCESSIBLE CEILING FOR A/V CABLING.
4. FLOOR BOX FOR POWER AND DATA CONNECTION. REFER TO FLOOR BOX DETAIL FOR ADDITONAL INFORMATION.



1 FIRST FLOOR POWER PLAN - AREA A
1/8" = 1'-0"

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FIRST FLOOR POWER PLAN - AREA A

SHEET NUMBER:

E210

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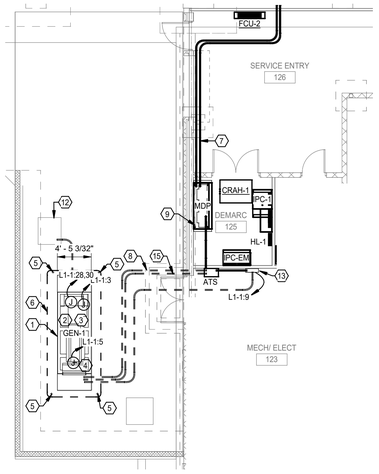
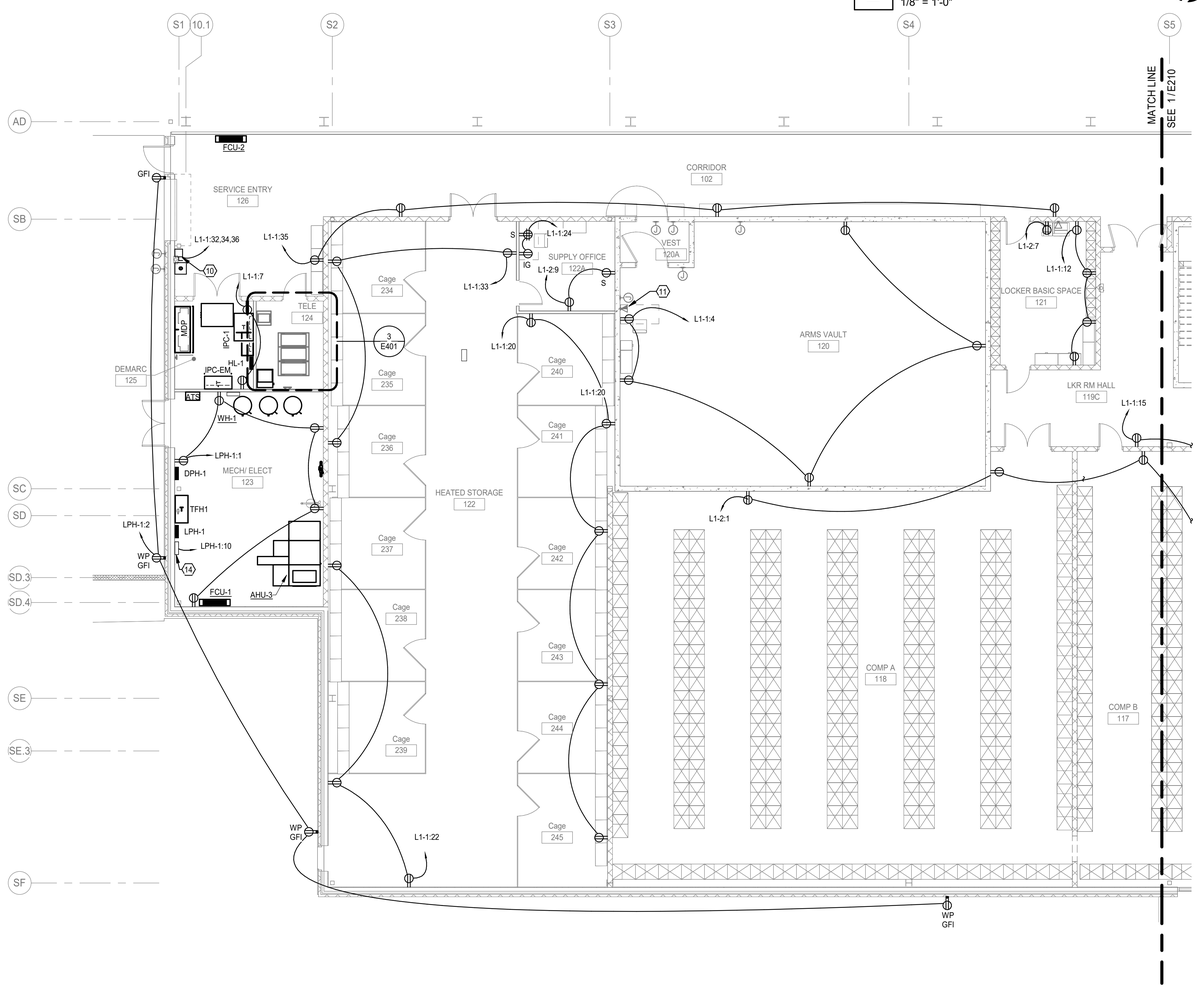


2 ENLARGED SITE PLAN

1/8" = 1'-0"



1 FIRST FLOOR POWER PLAN - AREA B

1/8" = 1'-0"

GENERAL SHEET NOTES

A. ALL RECEPTACLES INDICATED WITH A "S" ARE SWITCHED RECEPTACLES AND ARE CONTROLLED BY THE OCCUPANCY SENSOR DEVICE IN THE ROOM.

B. THE NEUTRAL OF MULTI-WIRE BRANCH CIRCUITS SHOULD BE SIZED AT 200% OF THE PHASE CONDUCTORS. THE OVERSIZED NEUTRAL WILL OCCUR AT MULTI-WIRE BRANCH CIRCUITS WHICH MAY HAVE COMPUTER EQUIPMENT CONNECTED.

C. REFER TO SPECIAL SYSTEMS PLANS AND EQUIPMENT CONNECTION SCHEDULE FOR EQUIPMENT POWER CONNECTIONS AND ADDITIONAL INFORMATION.

SHEET KEYNOTES

1. PROPOSED LOCATION OF NEW NATURAL GAS GENERATOR ON HOUSEKEEPING PAD. REFER TO ONE-LINE AND SPECIFICATIONS FOR ADDITIONAL INFORMATION.
2. PROVIDE 208V CIRCUIT FOR GENERATOR WATER JACKET HEATER.
3. PROVIDE 120V CIRCUIT FOR GENERATOR BATTERY CHARGER.
4. PROVIDE 120V CIRCUIT FOR GENERATOR LIGHTING AND RECEPTACLES.
5. INSTALL 10' 3/4" COPPER CLAD GROUND ROD FOR GENERATOR GROUND SYSTEM PER NEC.
6. INSTALL COPPER GROUND RING AROUND NEW GENERATOR.
7. FEEDER ROUTED ABOVE ACCESSIBLE CEILING FROM EXISTING BUILDING DISTRIBUTION TO NEW MDP. REFER TO ONE-LINE DIAGRAM FOR ADDITIONAL INFORMATION. FIELD VERIFY EXACT ROUTING IN BUILDING.
8. FEEDER ROUTED BELOW GRADE FROM GENERATOR TO ATS.
9. FEEDER ROUTED FROM DISTRIBUTION SECTION OF NEW MDP TO ATS.
10. PROVIDE POWER TO COIL DOOR. ROUTE CIRCUIT THROUGH RAISE/LOWER PUSH BUTTON.
11. OUTLETS IN VAULT SHALL BE SURFACE MOUNTED WITH SURFACE MOUNTED RACEWAY. (TYP.)
12. LOAD BANK TAP BOX IN NEMA 3R ENCLOSURE ON HOUSEKEEPING PAD AT THIS LOCATION FOR GENERATOR LOAD BANK TESTING.
13. PROVIDE 120V POWER FOR GENERATOR ANNUNCIATOR PANEL. ROUTE (1)-1" CONDUIT BELOW GRADE FROM GENERATOR ANNUNCIATOR PANEL TO GENERATOR FOR COMMUNICATION CABLE.
14. 120V POWER FOR HVAC CONTROL PANEL.
15. (1) - 1" CONDUIT BELOW GRADE FROM GENERATOR TO ATS.

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FIRST FLOOR POWER PLAN - AREA B

SHEET NUMBER:

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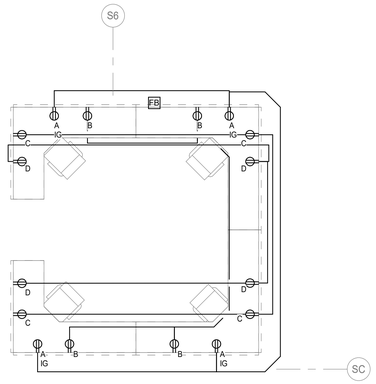
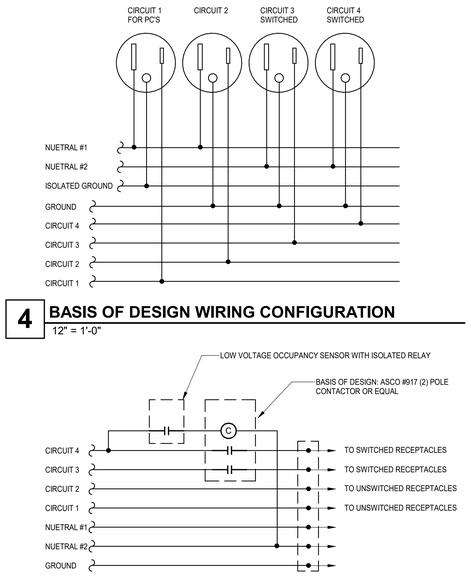


3 TYPICAL CUBICAL WIRING PLAN
1/4" = 1'-0"



4 BASIS OF DESIGN WIRING CONFIGURATION
12" = 1'-0"

2 MODULAR FURNITURE WIRING DETAIL
12" = 1'-0"

GENERAL SHEET NOTES

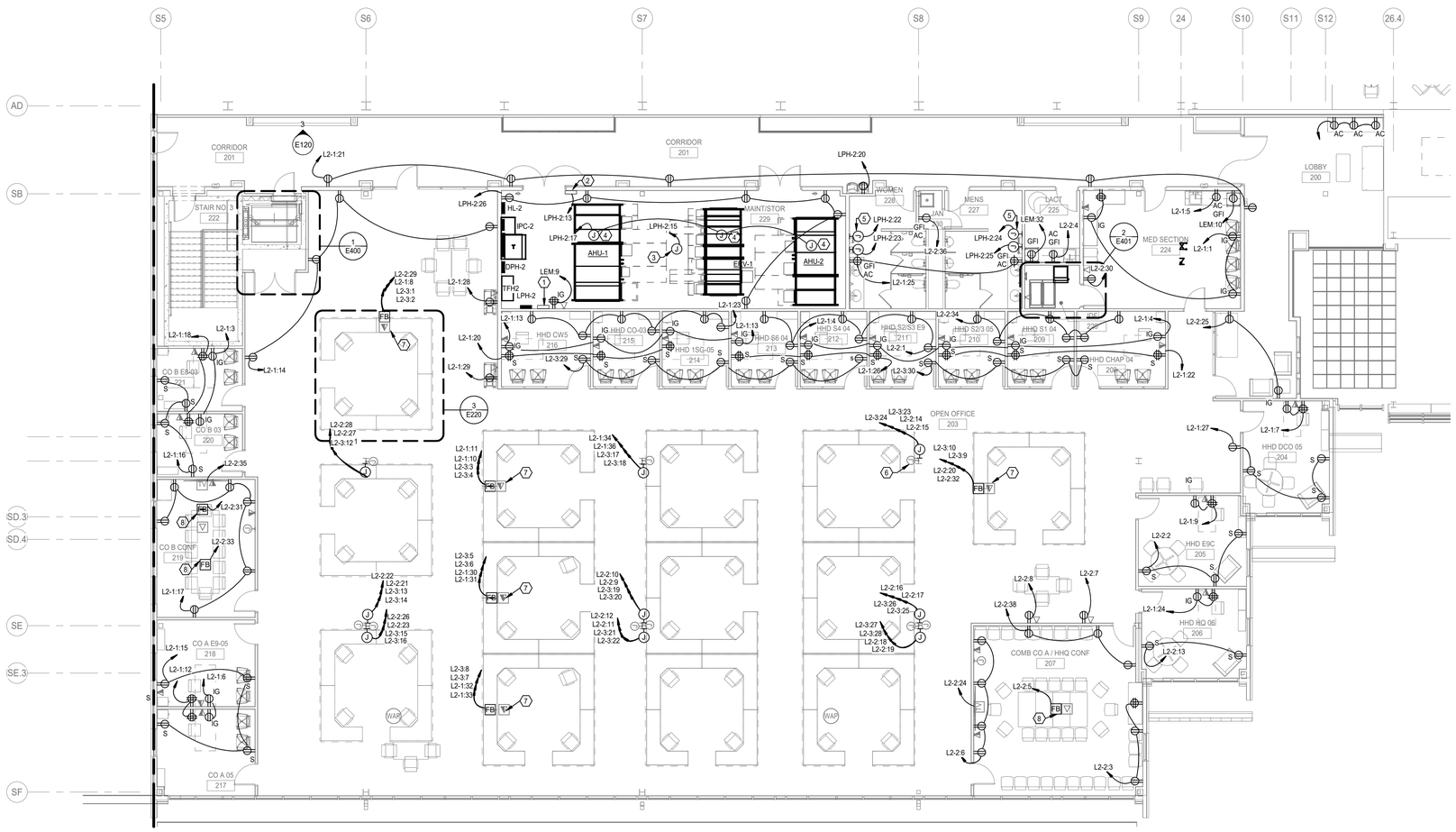
A. ALL RECEPTACLES INDICATED WITH A "S" ARE SWITCHED RECEPTACALES AND ARE CONTROLLED BY THE OCCUPANCY SENSOR DEVICE IN THE ROOM.

B. THE NEUTRAL OF MULTI-WIRE BRANCH CIRCUITS SHOULD BE SIZED AT 200% OF THE PHASE CONDUCTORS. THE OVERSIZED NEUTRAL WILL OCCUR AT MULTI-WIRE BRANCH CIRCUITS WHICH MAY HAVE COMPUTER EQUIPMENT CONNECTED.

C. REFER TO SPECIAL SYSTEMS PLANS AND EQUIPMENT CONNECTION SCHEDULE FOR EQUIPMENT POWER CONNECTIONS AND ADDITIONAL INFORMATION.

⬡ SHEET KEYNOTES

1. PROVIDE RELAY PANEL FOR CONTROL OF SWITCHED RECEPTACLES FOR MODULAR FURNITURE. REFER TO MODULAR FURNITURE WIRING DETAILS FOR ADDITIONAL INFORMATION.
2. 120V POWER FOR HVAC CONTROL PANEL.
3. 120V POWER FOR ROOF HOOD DAMPER CONTROL POWER.
4. 120V POWER FOR AIR HANDLING UNIT LIGHTING AND RECEPTACLES AS REQUIRED PER MANUFACTURER.
5. BACK BOX AND CONDUIT ROUGH-IN FOR HAND DRYER.
6. SYSTEMS FURNITURE ROUGH-IN AT BASE OF COLUMN FOR POWER AND DATA CONDUIT. REFER TO SYSTEMS FURNITURE ROUGH-IN DETAIL FOR ADDITINOAL INFORMATION.
7. POKE THRU FOR SYSTEMS FURNITURE POWER AND DATA CONNECTION. REFER TO SYSTEM FURNITURE FEED POKE-THROUGH DETAIL FOR ADDITIONAL INFORMATION.
8. POKE THROUGH. FOR POWER AND DATA CONNECTION. REFER TO ROUGH IN POKE THROUGH DETAIL FOR ADDITIONAL INFORMATION.



1 SECOND FLOOR POWER PLAN - AREA A
1/8" = 1'-0"

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SECOND FLOOR POWER PLAN - AREA A

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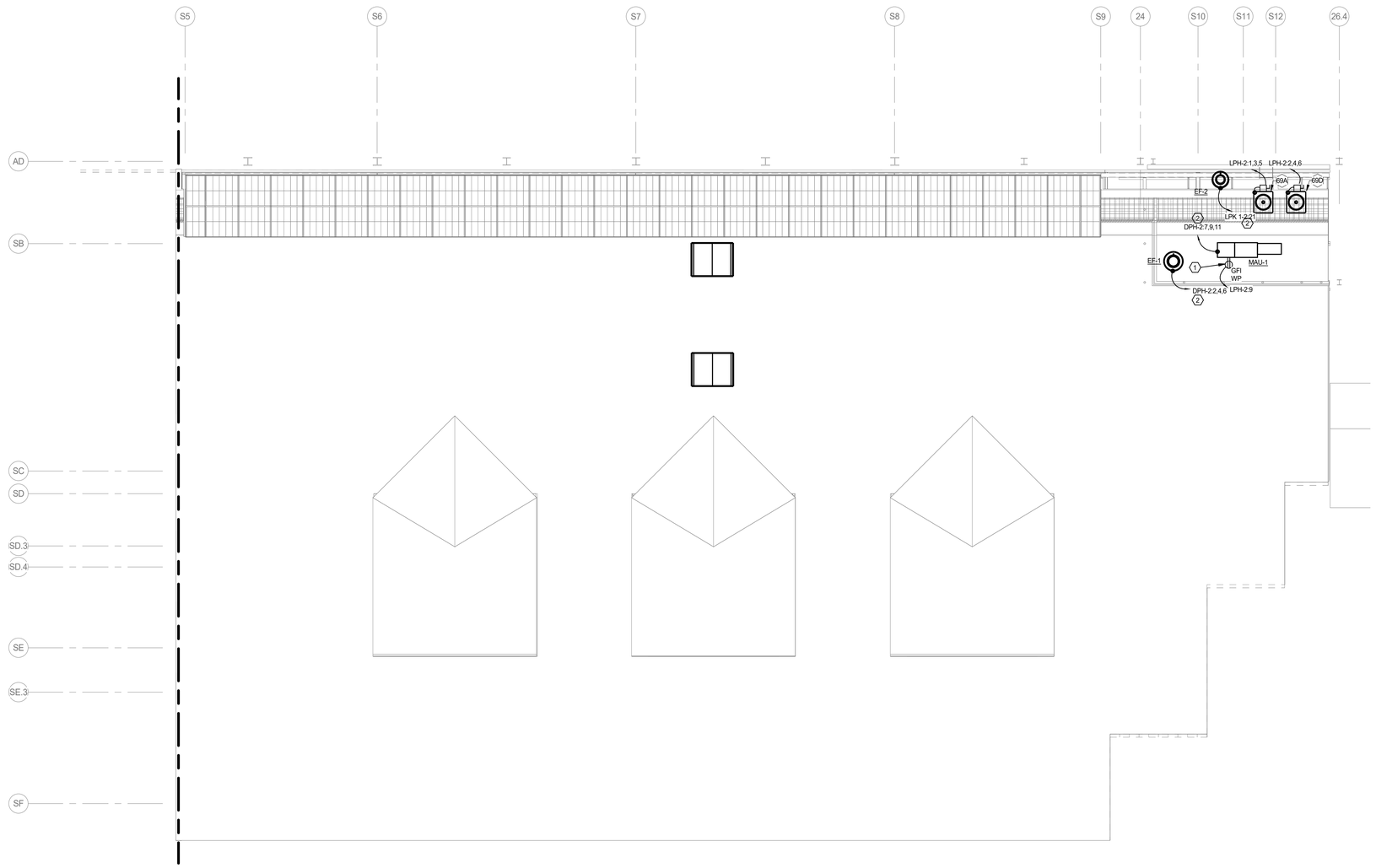
SHEET KEYNOTES

1. PROVIDE WEATHERPROOF RECEPTACLE
2. POWER FOR FAN SHALL ROUTE THROUGH KITCHEN HOOD CONTROL PANEL. REFER TO CAPTIVE AIRE DRAWINGS FOR ALL INFORMATION.



1 ROOF ELECTRICAL PLAN - AREA A
1/8" = 1'-0"

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ELECTRICAL ROOF PLAN - AREA A

SHEET NUMBER:

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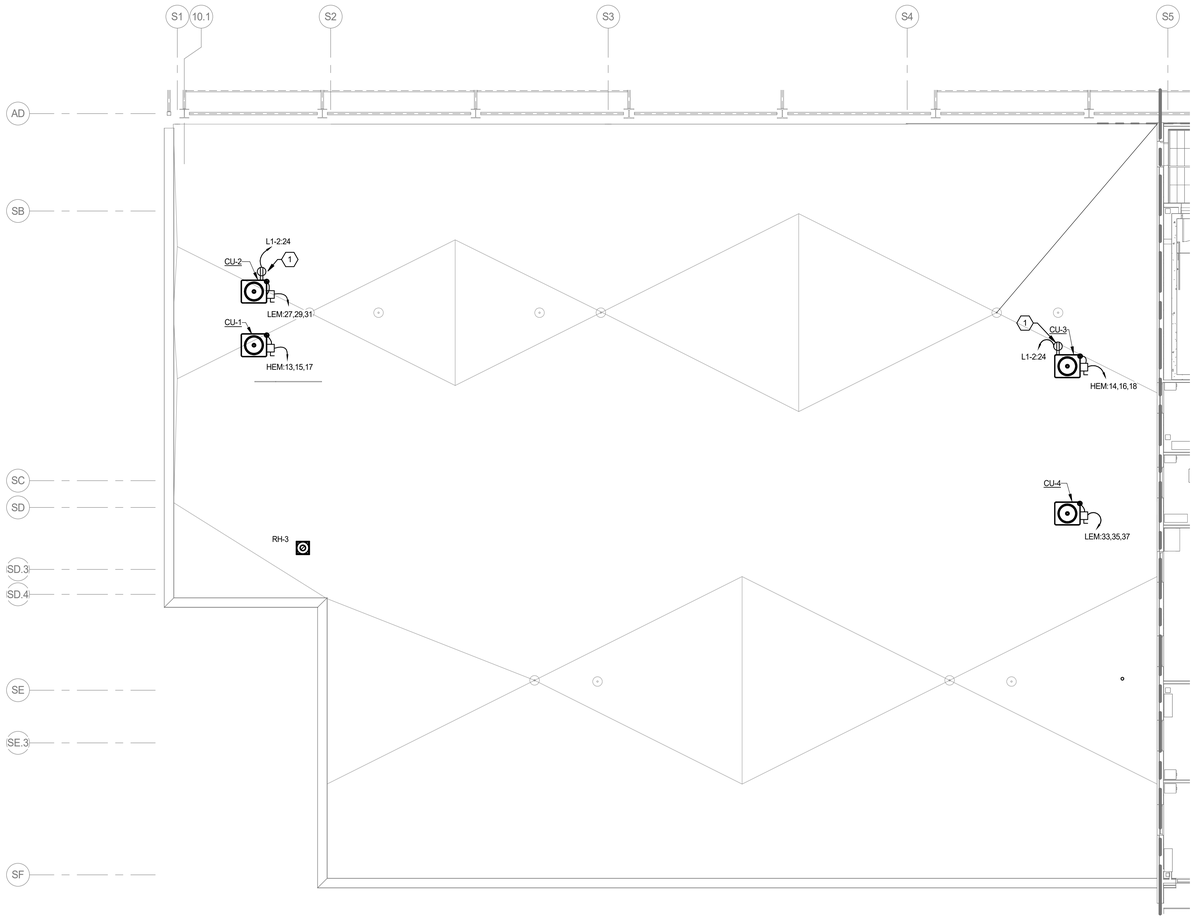
SHEET KEYNOTES

1. PROVIDE WEATHERPROOF RECEPTACLE.



1 ROOF ELECTRICAL PLAN - AREA B
1/8" = 1'-0"

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ELECTRICAL ROOF PLAN - AREA B

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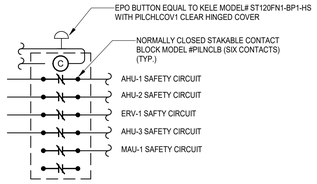
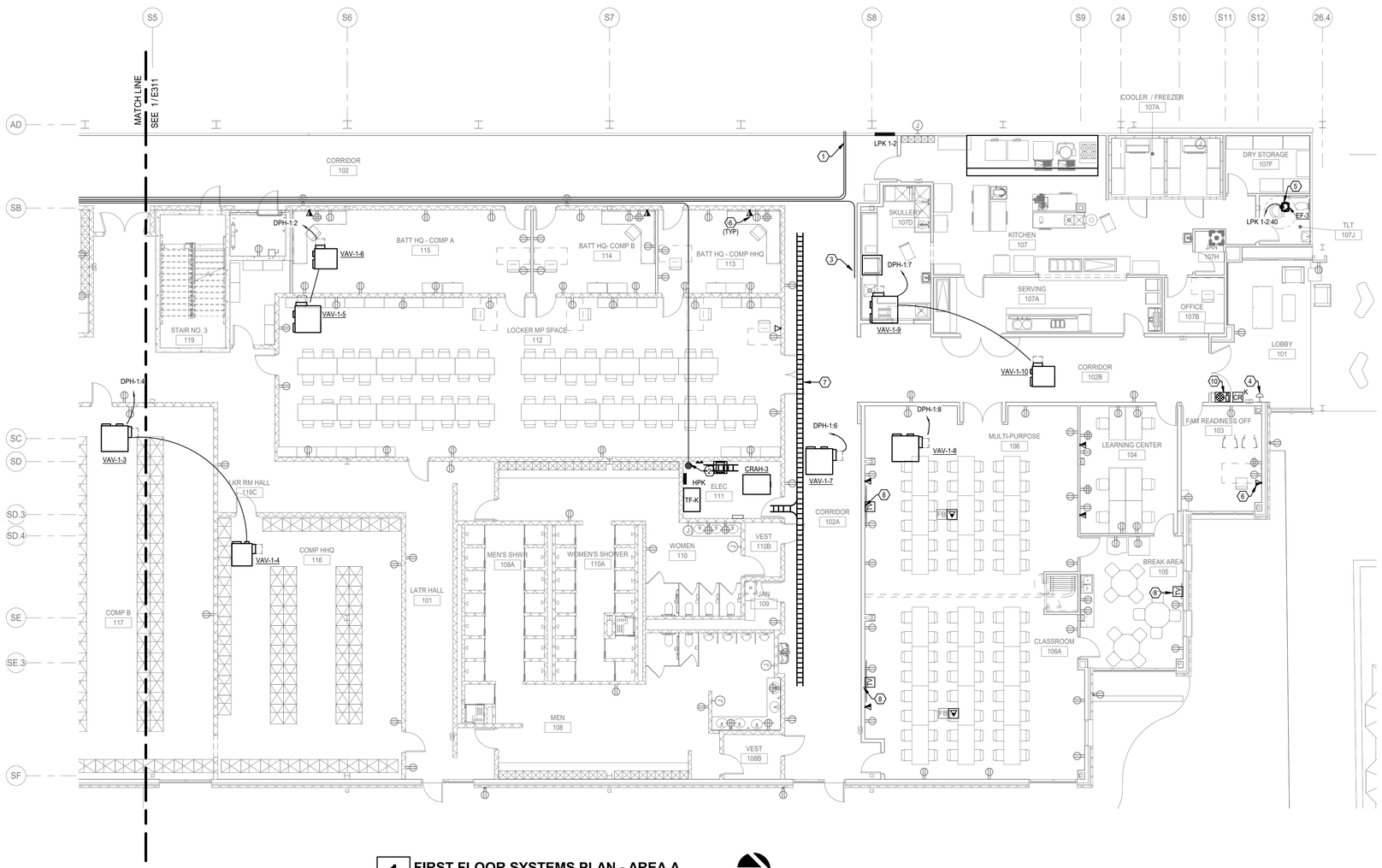


2 EPO SWITCH DIAGRAM
12" = 1'-0"



1 FIRST FLOOR SYSTEMS PLAN - AREA A
1/8" = 1'-0"

GENERAL SHEET NOTES

1. ALL FIRE ALARM JUNCTION BOXES SHALL BE LABLED. CONDUIT SHALL BE PAINTED TO MATCH WALLS. REFER TO FIRE ALARM DRAWINGS FOR DEVICES AND ADDITIONAL INFORMATION.
2. REFER TO TELECOMM/DATA OUTLET RISER DIAGRAM FOR TELE/DATA DROP INFORMATION.

SHEET KEYNOTES

1. ROUTE (2)-2" CONDUITS TO ABOVE CEILING FROM FIRST FLOOR MDF TO THE AVCRAD ADMINSTRATION BUILDING MDF. INSTALL 24 STRAND OM4 FIBER INTERCONNECT. TERMINATE ALL 24 STRADS WITH LC CONNECTORS. INSTALL 25 PAIR CAT5e COPPER BETWEEN FIRST FLOOR MDF AND THE AVCRAD ADMINISTRATION BUILDING MDF (BUILDING 3A)
2. ROUTE (1)-2" CONDUIT TO ABOVE CEILING FROM FIRST FLOOR MDF TO FIRST FLOOR IDF FOR 12 STRAND OM4 FIBER INTERCONNECT. TERMINATE ALL 12 STRANDS WITH LC CONNECTORS. INSTALL 25 PAIR CAT 5e COPPER BETWEEN FIRST FLOOR MDF AND FIRST FLOOR IDF.
3. ROUTE (1)-2" CONDUIT TO ABOVE CEILING FROM FIRST FLOOR MDF TO SECOND FLOOR IDF FOR OM4 FIBER INTERCONNECT. TERMINATE ALL 12 STRANDS WITH LC CONNECTORS. INSTALL 25 PAR CAT 5e COPPER BETWEEN FIST FLOOR MDF AND 2ND FLOOR IDF.
4. EMERGENCY PUSH BUTTON TO SHUT DOWN ALL HVAC EQUIPMENT DURING AN EMERGENCY EVENT. EMERGENCY PUSH BUTTON SHALL HAVE AUDIBLE ALARM AND FLIP OPEN CASE. PROVIDE RELAYS TO BE INTERLOCKED WITH EXHAUST FANS AND AIR HANDLING UNIT POWER CIRCUITS.
5. ROUTE EXHAUST FAN CIRCUIT THRU RELAY TO BE CONTROLLED BY LIGHT SWITCH BASED ON OCCUPANCY.
6. PROVIDE BACK BOX AND CONDUIT ROUGH-IN TO ABOVE ACCESSIBLE CEILING FOR TELE/DATA OUTLET. REFER TO TELE/DATA OUTLET ROUGH-IN DETAIL FOR ADDITIONAL INFORMATION. (TYP.)
7. 12" CABLE TRAY MOUNTED ABOVE ACCESSIBLE CEILING.
8. RECESSED TWO-GANG TV BACK BOX WITH RECEPTACLE BASIS OF DESIGN EQUAL TO LEGRAND EVOLUTION SERIES EFS82. COORDINATE COLOR AND EXACT HEIGHT AND LOCATION WITH ARCHITECTURAL DRAWINGS AND ARCHITECT PRIOR TO INSTALLATION. PROVIDE 0.75" CONDUIT TO ABOVE CEILING FOR POWER AND 1.25" CONDUIT TO ABOVE CEILING FOR A/V CABLING. (TYP.)
9. PROVIDE CARD READER ROUGH-IN. COORDINATE EXACT LOCATION AND REQUIREMENTS WITH OWNER. REFER TO ACCESS CONTROL DETAIL FOR ADDITIONAL INFORMAITION.
10. PROVIDE CONDUIT AND BACK BOX ROUGH IN FOR MASS NOTIFICATION MIC STATION. COORDINATE ALL REQUIREMENTS WITH OWNER PRIOR TO ROUGH-IN.

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AVCRAD SITE
1107TH THEATER AVIATION SUSTAINMENT MAINTENANCE GROUP

MISSOURI NATIONAL GUARD
SPRINGFIELD, MISSOURI

NATIONAL GUARD BUREAU PROJECT #290186
MISSOURI NATIONAL GUARD PROJECT #T1809-01
SITE #9019
ASSET #8136270008

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CHECKED BY: TD
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DATE:
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SHEET TITLE:

FIRST FLOOR SYSTEMS PLAN - AREA A

SHEET NUMBER:

E310

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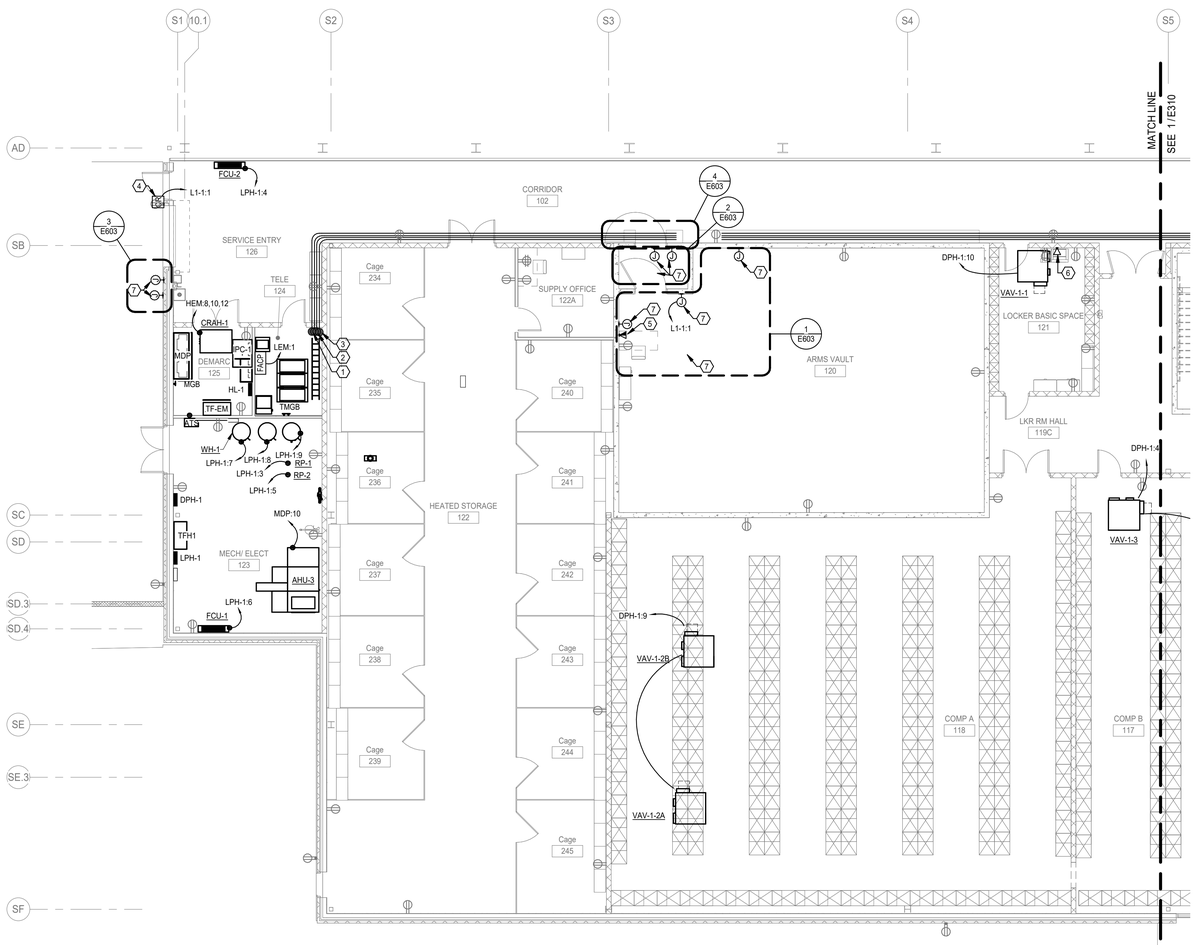
SHEET KEYNOTES

1. ROUTE (2)-2" CONDUITS TO ABOVE CEILING FROM FIRST FLOOR MDF TO THE AVCRAD ADMINISTRATION BUILDING MDF. INSTALL 24 STRAND OM4 FIBER INTERCONNECT. TERMINATE ALL 24 STRADS WITH LC CONNECTORS. INSTALL 25 PAIR CAT5e COPPER BETWEEN FIRST FLOOR MDF AND THE AVCRAD ADMINISTRATION BUILDING MDF (BUILDING 3A)
2. ROUTE (1)-2" CONDUIT TO ABOVE CEILING FROM FIRST FLOOR MDF TO FIRST FLOOR IDF FOR 12 STRAND OM4 FIBER INTERCONNECT. TERMINATE ALL 12 STRANDS WITH LC CONNECTORS. INSTALL 25 PAIR CAT 5e COPPER BETWEEN FIRST FLOOR MDF AND FIRST FLOOR IDF.
3. ROUTE (1)-2" CONDUIT TO ABOVE CEILING FROM FIRST FLOOR MDF TO SECOND FLOOR IDF FOR OM4 FIBER INTERCONNECT. TERMINATE ALL 12 STRANDS WITH LC CONNECTORS. INSTALL 25 PAIR CAT 5e COPPER BETWEEN FIST FLOOR MDF AND 2ND FLOOR IDF.
4. PROVIDE CARD READER ROUGH-IN. COORDINATE EXACT LOCATION AND REQUIREMENTS WITH OWNER. REFER TO ACCESS CONTROL DETAIL FOR ADDITIONAL INFORMAITION.
5. PROVIDE SURFACE MOUNTED BACK BOX AND CONDUIT TO ABOVE ACCESSIBLE CIELING WITH TELE/DATA OUTLET.
6. PROVIDE BACK BOX AND CONDUIT ROUGH-IN TO ABOVE ACCESSIBLE CEILING FOR DATA OUTLET. REFER TO TELE/DATA OUTLET ROUGH-IN DETAIL FOR ADDITIONAL INFORMATION.
7. REFER TO VAULT DOOR SECURITY DETAIL FOR ADDITIONAL INFORMATION.



1 FIRST LEVEL SYSTEMS PLAN - AREA B
1/8" = 1'-0"

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FIRST FLOOR SYSTEMS PLAN - AREA B

SHEET NUMBER:

E311

119 OF 131 SHEETS

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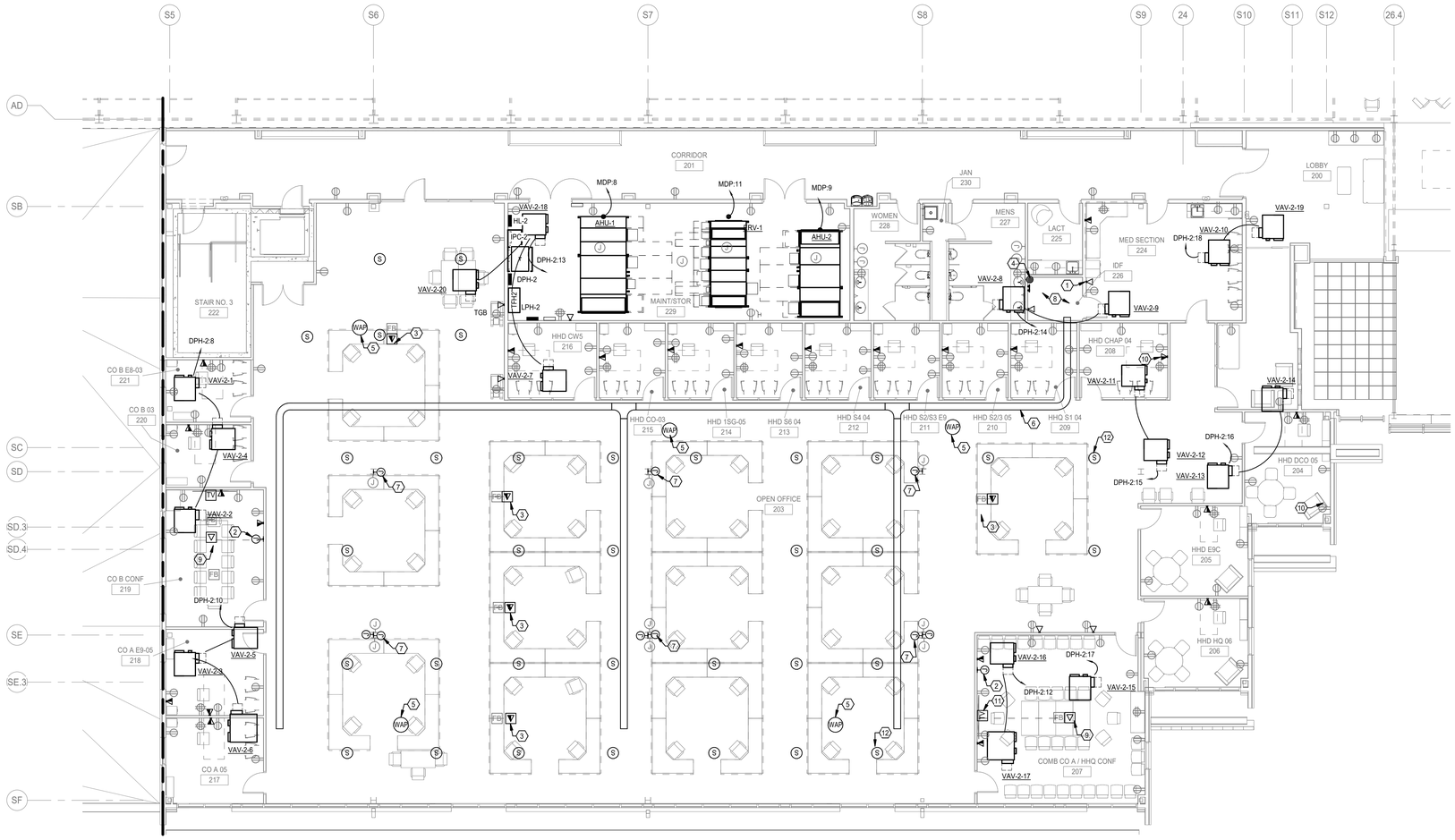
SHEET KEYNOTES

1. PROVIDE JUNCTION BOX, OUTLET AND 3/4" CONDUIT TO ABOVE CEILING FOR ANALOG CABLE TO FAX MACHINE. COORDINATE EXACT LOCATION WITH OWNER PRIOR TO INSTALLATION.
2. PROVIDE JUNCTION BOX AND 1.25" CONDUIT TO ABOVE CEILING AND BELOW FLOOR FOR TV A/V CONNECTION. COORDINATE EXACT LOCATION WITH OWNER/ARCHITECT PRIOR TO INSTALLATION.
3. PROVIDE SYSTEM FURNITURE POKE THRU AND CONDUIT BELOW FLOOR. REFER TO SYSTEM FURNITURE POKE THRU DETAIL FOR ADDITIONAL INFORMATION.
4. ROUTE (1)-2" CONDUIT TO ABOVE CEILING FROM FIRST FLOOR MDF TO SECOND FLOOR IDF FOR OM4 FIBER INTERCONNECT. TERMINATE ALL 12 STRANDS WITH LC CONNECTORS. INSTALL 25 PAIR CAT 5e COPPER BETWEEN FIST FLOOR MDF AND 2ND FLOOR IDF.
5. WIRELESS ACCESS POINT. COORDINATE EXACT LOCATION AND QUANTITY WITH OWNER PRIOR TO ROUGH-IN.
6. 12" CABLE TRAY MOUNTED AT 12'-6" ABOVE FINISH FLOOR.
7. PROVIDE SYSTEM FURNITURE CONNECTION AND CONDUIT FOR DATA/TELE CABLE. REFER TO DETAIL FOR ADDITIONAL INFORMATION. (JUNCTION BOXES ARE SHOWN SCHEMATICALLY).
8. REFER TO ENLARGED PLANS FOR ADDITIONAL INFORMATION OF THIS ROOM.
9. PROVIDE POKE THRU DEVICE AND CONDUIT BELOW FLOOR FOR TO A/V JUNCTION BOX ON WALL. COORDINATE EXACT LOCATION WITH OWNER PRIOR TO INSTALLATION. REFER TO FURNITURE ROUGH-IN POKE THRU DETAIL FOR ADDITIONAL INFORMATION.
10. PROVIDE BACK BOX AND CONDUIT ROUGH-IN TO ABOVE ACCESSIBLE CEILING FOR TELE/DATA OUTLET. REFER TO TELE/DATA OUTLET ROUGH-IN DETAIL FOR ADDITIONAL INFORMATION. (TYP.)
11. RECESSED TWO-GANG TV BACK BOX WITH RECEPTACLE BASIS OF DESIGN EQUAL TO LEGRAND EVOLUTION SERIES EFSB2. COORDINATE COLOR AND EXACT HEIGHT AND LOCATION WITH ARCHITECTURAL DRAWINGS AND ARCHITECT PRIOR TO INSTALLATION. PROVIDE 0.75" CONDUIT TO ABOVE CEILING FOR POWER AND 1.25" CONDUIT TO ABOVE CEILING FOR A/V CABLING. (TYP.)
12. CEILING SUSPENDED WHITE NOISE SPEAKER WITH LOW VOLTAGE CABLING. REFER TO RISER DIAGRAM AND MANUFACTURER FOR ADDITIONAL INFORMATION. COORDINATE ZONING REQUIREMENTS WITH SPEAKER MANUFACTURER. (TYP.)



1 SECOND FLOOR SYSTEMS PLAN - AREA A
1/8" = 1'-0"

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KITCHEN EQUIPMENT DISCONNECTS

TAG	EQUIPMENT SERVED	VOLTAGE	DUTY	DISCONNECT SIZE	POLES	TYPE	NEMA	NOTES
26	DISPOSAL	208 V	HD	30A	3	NF	4X	
30	DISHWASHER	208 V	HD	30A	3	NF	4X	
34	DISPOSAL	208 V	HD	30A	3	NF	4X	
41	DISHWASHER BOOSTER HEATER	208 V	HD	30A	3	NF	4X	
54	DISPOSAL	208 V	HD	30A	3	NF	4X	
69A	COOLER CONDENSING UNIT	208 V	HD	30A	3	NF	3R	
69D	FREEZER CONDENSING UNIT	208 V	HD	30A	3	NF	3R	

SCHEDULE GENERAL NOTES

ABBREVIATIONS:
HD-HEAVY DUTY
GD-GENERAL DUTY
GB-GROUND BAR
SN-SOLID NUETRAL
L-LOCKABLE
SS-STAINLESS STEEL

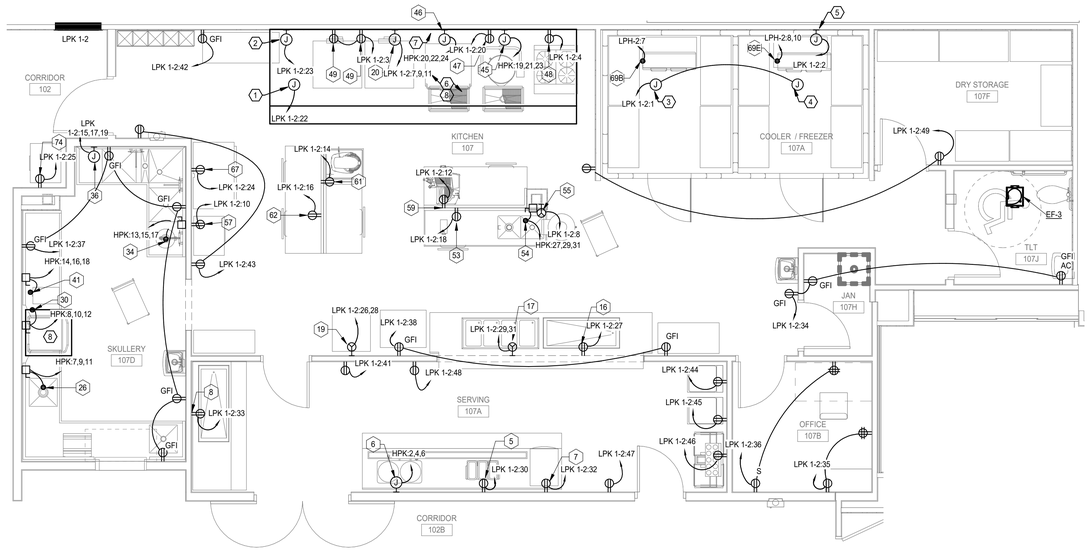
SWITCH TYPES:
NF-NON FUSED
F-FUSED
TOG-TOGGLE SWITCH 1HP RATED WITH THERMAL OVERLOAD PROTECTION
SE-SERVICE ENTRANCE RATED

KITCHEN EQUIPMENT CONNECTION SCHEDULE

ITEM	QTY	DESCRIPTION	VOLTS	PHASE	DIRECT	PLUG	NEMA	MTG. HT.	CONDUCTORS PHASE	NEUTRAL	GROUND	CONDUIT SIZE	COMMENTS
5	1	JUICE DISPENSER	120 V	1	N/A	5-20R	5-15R	48"	#12	#12	#12	0.75"	
6	1	COFFEE URN	480 V	3	YES	-	N/A	48"	#8	#8	#10	0.75"	
7	1	ICE DISPENSER	120 V	1	N/A	5-20R	5-15R	18"	#12	#12	#12	0.75"	
8	1	COLD BAR	120 V	1	N/A	5-20R	5-15R	18"	#12	#12	#12	0.75"	
16	1	COLD PAN DROP IN	120 V	1	N/A	5-20R	5-15R	18"	#12	#12	#12	0.75"	
17	1	HOT DROP IN WELLS	208 V	1	N/A	L14-20P	L14-20R	48"	2-#12	-	#12	0.75"	
19	1	REACH IN WARMER	208 V	1	N/A	L14-20P	L14-20R	48"	2-#12	-	#12	0.75"	
20	1	GRIDDLE	208 V	3	YES		N/A	24"	3-#6	-	#10	1"	
26	1	GARBAGE DISPOSER	480 V	3	YES	-	N/A	18"	3-#12	-	#12	0.75"	
30	1	DISHWASHER	480 V	3	YES	-	N/A	18"	3-#10	-	#10	1"	
34	1	GARBAGE DISPOSER	480 V	3	YES	-	N/A	18"	3-#12	-	#12	0.75"	
36	1	SINK HEATER	208 V	3	YES	-	N/A	48"	3-#10	-	#10	0.75"	
41	1	BOOSTER HEATER	480 V	3	YES	-	N/A	18"	3-#10	-	#10	0.75"	
45	1	TILTED KETTLE	480 V	3	YES	-	N/A	48"	3-#12	-	#12	0.75"	
46	1	TILTED SKILLET	480 V	3	YES	-	N/A	48"	3-#12	-	#12	0.75"	
47	1	WATER METER	120 V	1	N/A	5-20R	5-15R	48"	#12	#12	#12	0.75"	
48	1	RANGE	120 V	1	N/A	5-20R	5-15R	48"	#12	#12	#12	0.75"	
49	2	CONVECTION OVEN	120 V	1	N/A	5-20R	5-15R	48"	#12	#12	#12	0.75"	
53	1	PREP TABLE RECEPT CAN OPENER	120 V	1	N/A	-	5-15R	48"	#12	#12	#12	0.75"	
54	1	GARBAGE DISPOSER	480 V	3	YES	-	N/A	16"	3-#12	-	#12	0.75"	
55	1	POTATO PEELER	120 V	1	N/A	5-30P	5-30R	48"	#10	#10	#10	0.75"	
57	1	ICE MAKER	120 V	1	N/A	5-20R	5-15R	48"	#12	#12	#12	0.75"	
59	1	PREP TABLE RECEPT SLICER	120 V	1	N/A	-	5-15R	48"	#12	#12	#12	0.75"	
61	1	PREP TABLE RECEPT MIXER	120 V	1	N/A	5-20R	5-15R	48"	#12	#12	#12	0.75"	
62	1	PREP TABLE RECEPTACLE	120 V	1	N/A	5-20R	5-15R	48"	#12	#12	#12	0.75"	
67	1	REACHIN REFRIGERATOR	120 V	1	N/A	5-20R	5-15R	48"	#12	#12	#12	0.75"	
69A	1	COOLER CONDENSING UNIT	208 V	3	YES	-	N/A	0"	3-#12	-	#12	0.75"	REFER TO ROOF PLAN
69B	1	COOLER EVAPORATOR	120 V	1	YES	-	N/A	120"	#12	#12	#12	0.75"	
69D	1	FREEZER CONDENSING UNIT	208 V	3	YES	-	N/A	0"	3-#12	-	#12	0.75"	
69E	1	FREEZER EVAPORATOR	208 V	1	YES	-	N/A	120"	2-#12	-	#12	0.75"	
74	1	RELOCATED ICE DISPENSER	120 V	1	N/A	5-20R	5-15R	18"	#12	#12	#12	0.75"	

SCHEDULE GENERAL NOTES

1. CONTRACTOR TO MAKE FINAL CONNECTIONS TO KITCHEN EQUIPMENT.
2. VERIFY ALL ELECTRICAL REQUIREMENTS TIH KITCHEN SUPPLIER PRIOR TO ROUGH-IN. REFER TO SPECIFICATIONS FOR ADDITIONAL INFORMATION ON DISCONNECTS, FEEDERS, ECT.
3. ALL 120V, 15A AND 20A RECEPTACLES IN KITCHEN, SHALL BE CIRCUITED TO GFI BREAKERS EXCEPT WHERE GFI RECEPTACLES ARE SHOWN.
4. ALL HARDWIRED CONNECTIONS SHALL BE MADE WITH SEAL-TIGHT FELXIBLE METAL CONDUIT.
5. REFER TO KITCHEN EQUIPMENT DISCONNECT FOR ADDITIONAL INFORMATION.

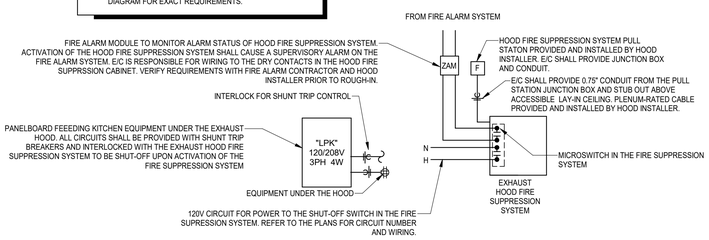


2 ENLARGED KITCHEN PLAN
1/4" = 1'-0"

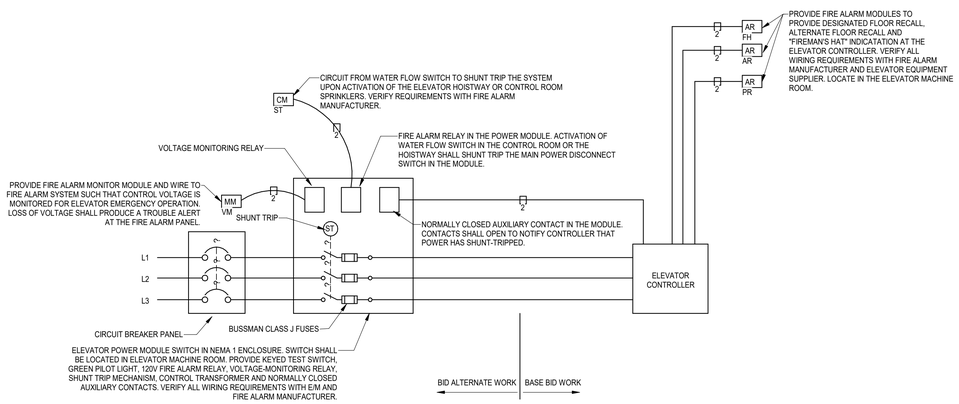
KITCHEN PLAN KEY NOTES

1. PROVIDE POWER TO HOOD LIGHTS. REFER TO HOOD MANUFACTURER WIRING DAIGRAMS FOR ALL REQUIREMETNS. CIRCUIT TO BE CONTROLLED BY HOOD MOUNTED SWITCH.
2. JUNCTION BOX FOR KITCHEN EXHAUST HOOD CONTROL PANEL. PROVIDE (2 # 12 WIRES WITH GROUND TO EACH OF THE FOLLOWING: BUILDING FIREALARM INTERFACE MODULE (VERIFY REQUIREMENTS WITH FIRE ALARM DRAWINGS AND E/M), SHUNT TRIP CONTROLS AT THE PANELBOARD FOR SHUT-OFF OF THE EQUIPMENT UNDER THE HOOD (VIA BREAKER), TO MAKE-UP AIR STARTER FOR FAN SHUTDOWN, TO THE COIL AT EACH EXHAUST FAN SHUTDOW, TO THE COIL AT EACH EXHAUST FAN STARTER FOR START AND STOP OF EXHAUST FANS, AND THE REMOTE PULL STATION FOR THE FIRE SUPPRESSION SYSTEM. VERIFY ALL REQUIREMENTS WITH THE KITCHEN EQUIPMENT SUPPLIER PRIOR TO ROUGH-IN. REFER TO HOOD WIRING DIAGRAM FOR WIRING SCHEMATIC.
3. PROVIDE 120V POWER FOR WALK IN LIGHTING. REFER TO MANUFACTURER INSTRUCTIONS FOR ADDITIONAL INFORMATION AND REQUIREMENTS.
4. PROVIDE 120V POWER FOR WALK IN LIGHTING AND DOOR HEATER. REFER TO MANUFACTURER INSTRUCTIONS FOR ADDITIONAL INFORMATION.
5. PROVIDE GROUND FAULT EQUIPMENT PROTECTION (GFEP) BREAKER FOR HEAT TRACE CIRCUIT.
6. PROVIDE SHUNT TRIP BREAKERS TO SERVE ALL CIRCUITS OF EQUIPMENT UNDER THE HOOD.
7. MECHANICAL GAS SOLENOID VALVE INSTALLED BY PLUMBING CONTRACTOR. VALVE SHALL CLOSE UPON ACTIVATION OF ANSUL SYSTEM.
8. REFER TO ROOF PLAN FOR EXHAUST HOOD CIRCUIT. ROUTE POWER PER MANUFACTURER FOR CONTROLS.

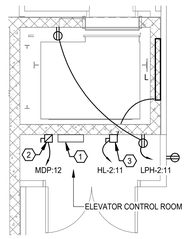
NOTE:
1. REFER TO FIRE ALARM SPRINKLER DRAWINGS FOR ALL REQUIREMENTS. SCHEMATIC IS FOR INFORMATION PURPOSES ONLY.
2. REFER TO KITCHEN HOOD MANUFACTURER WIRING DIAGRAM FOR EXACT REQUIREMENTS.



4 KITCHEN HOOD WIRING SCHEMATIC
12" = 1'-0"



3 ELEVATOR CONTROL WIRING SCHEMATIC
12" = 1'-0"



1 ENLARGED ELEVATOR PLAN
1/4" = 1'-0"

ELEVATOR PLAN GENERAL NOTES

1. ALL WORK ASSOCITED WITH ELEVATOR WILL BE PART OF BID ALTERNATE.
2. REFER TO FIRE ALARM PLANS FOR ALL ADDITIONAL REQUIREMENTS.

ELEVATOR PLAN KEY NOTES

1. ELEVATOR CONTROLLER.
2. FUSED ELEVATOR POWER MODULE PER SCHEDULE.
3. CAB LIGHITNG DISCONNECT. PROVIDE 30A, 1-POLE LOCKABLE DISCONNECTED FUSED AT 20A FOR ELEVATOR HOISTWAY CAB LIGHTING AND RECEPTACLES.

BID ALTERNATE NOTES

1. ELEVATOR IS PART OF BID ALTERNATE #1. ALL ROUGH IN AND FEEDERS FOR ELEVATOR IS PART OF BASE BID.

ELEVATOR POWER MODULE

TAG	EQUIPMENT SERVED	VOLTAGE	DISCONNECT SIZE	POLES	FUSE SIZE	TYPE	NEMA	NOTES
EPM1	ELEVATOR POWER MODULE	480 V	100A	3	60A	AJT	1	AC, CT, RP, GP

SCHEDULE GENERAL NOTES

ABBREVIATIONS:
AC - AUXILLARY CONTACTS
C T- CONTROL VOLTAGE TRANSFORMER
FVNR - FULL-VOLTAGE NON-REVERSING
FVTS - FULL-VOLTAGE TWO-SPEED
GP - GREEN PILOT LAMP
HOA - HAND-OFF-AUTO SELECTOR SWITCH
OL - MELTING ALLOY THERMAL OVERLOAD
PL - PILOT LIGHT
RP - RED PILOT LAMP
RSS - REMOTE START-STOP STATION
RVAT- REDUCED-VOLTAGE AUTO TRANSFORMER
TC - TEMPERATURE CONTROL

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ELECTRICAL ENLARGED PLANS

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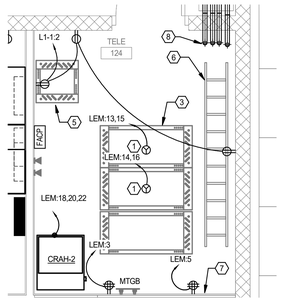
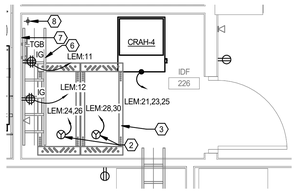
SHEET KEYNOTES

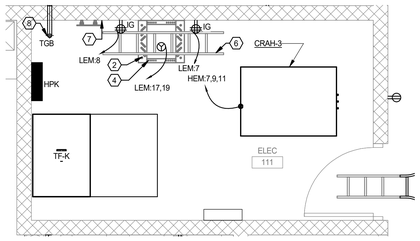
1. PROVIDE 208V, 30A NEMA L6-30R RECPTACLE FOR RACK MOUNTED UPS. REFER TO MANUFACTURER FOR EXACT REQUIREMENTS. COORDINATE LOCATION AND EXACT REQUIERMENTS WITH OWNER PRIOR TO ROUGH-IN. PROVIDE (2)-#10 AND (1)-#10 GROUND IN 0.75" CONDUIT.
2. PROVIDE 208V, 20A NEMA L6-20R RECEPTACLE FOR RACK MOUNTED UPS. REFER TO MANUFACTURER FOR EXACT REQUIREMENTS. COORDINATE LOCATION AND EXACT REQUIREMENTS WITH OWNER PRIOR TO ROUGH-IN.
3. FLOOR MOUNTED SERVER RACK. REFER TO TELECOMM DETAIL FOR ADDITIONAL INFORMATION. INSTALL CAT 6 48 PORT PATCH PANEL(S) FOR ALL NEW TELECOM WIRING DEVICES. PROVIDE TERMINATION FOR ALL WIRING FROM OUTLETS TO PATCH PANEL WITH PROPER TESTING AND LABELING. RACK MOUNTED UPS BY E/C. FIBER TERMINATION BY OWNER.
4. WALL MOUNTED SERVER CABINET. REFER TO TELECOMM DETAIL FOR ADDITIONAL INFORMATION. INSTALL CAT 6 48 PORT PATCH PANEL(S) FOR ALL NEW TELECOM WIRING DEVICES. PROVIDE TERMINATION FOR ALLWIRING FROM OUTLETS TO PATCH PANEL WITH PROPER TESTING AND LABELING.
5. WALL MOUNTED SPEAKER CABINET. REFER TO SPEAKER DIAGRAM DETAIL FOR ADDITIONAL INFORMATION.
6. 12"x2" CABLE TRAY MOUNTED AT 10'-0" ABOVE FINISH GRADE.
7. TYPE X FIRE RATED PLYWOOOD BACKBOARD. BOARD SHALL BE 6' TALL AND EXTEND THE LENGTH OF THE WALL. PAINT TO MATCH WALL.
8. CONDUIT FOR FIBER ROUTING PER PLANS. FIBER TERMINATION BY OWNER. PROVIDE 3" CONDUIT SLEEVE FOR WHERE SHOWN THROUGH WALL WITH END BUSHINGS FOR DATA CABLING TRANSFER THROUGH WALL.



3 ENLARGED TELE ROOM 124
3/8" = 1'-0"



2 ENLARGD IDF 226 PLAN
3/8" = 1'-0"



1 ENLARGED ELEC ROOM 111 PLAN
3/8" = 1'-0"

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ELECTRICAL ENLARGED PLANS

SHEET NUMBER:

E401

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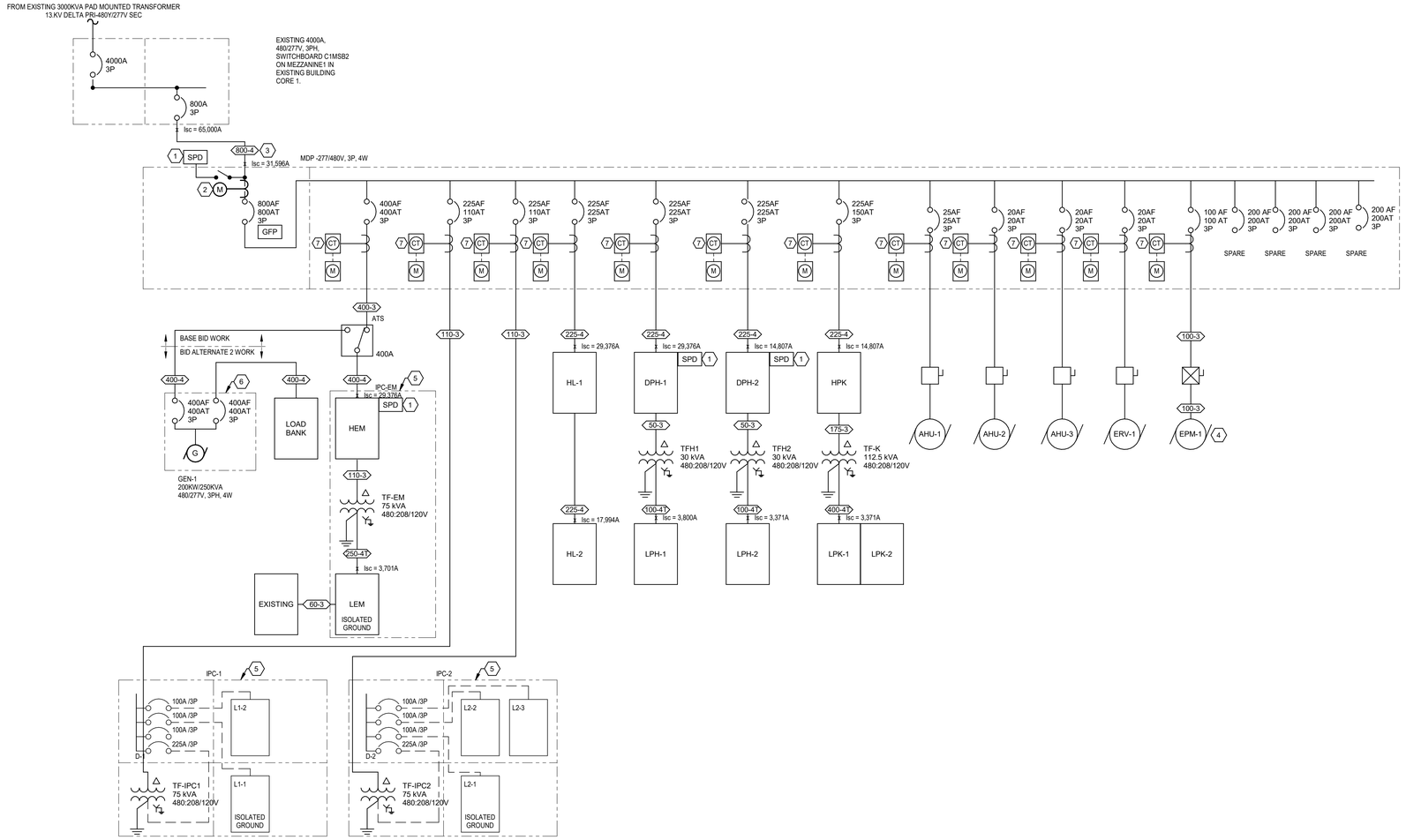


1 SERVICE ENTRANCE GROUND DETAIL

12" = 1'-0"

ONE-LINE DIAGRAM SYMBOL LEGEND

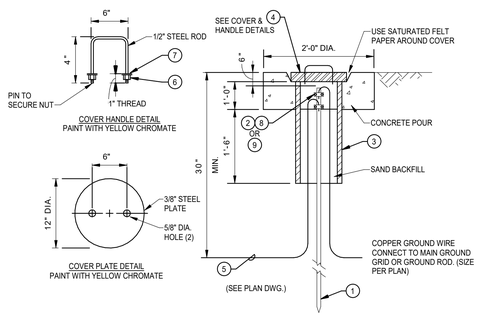
AMMETER	POTENTIAL TRANSFORMER
AMMETER SWITCH	POTHEAD
AUTOMATIC TRANSFER SWITCH	RELAY COIL
BUSPLUG CIRCUIT BREAKER	SINGLE THROW SWITCH
BUSPLUG FUSE & SWITCH	STRESSCONE
CIRCUIT BREAKER	SWTICHBOARD
CURRENT TRANSFORMER	THERMAL OVERLOAD
DRAW OUT CIRCUIT BREAKER	TRANSFORMER
MEDIUM VOLTAGE DRAW OUT CIRCUIT BREAKER	PADMOUNT TRANSFORMER
FUSE	VOLTMETER
FUSE & SWITCH	VOLTMETER SWITCH
FUSE CUTOUT	WATTHOUR DEMAND METER
GROUND	WATT METER
LIGHTNING ARRESTER	WATTHOUR METER
MOTOR	FEEDER TAG
MOTOR GENERATOR	METER
N.C. CONTACT	
N.O. CONTACT	
PANEL 'NAME' PANELBOARD	

SHEET KEYNOTES

1. PROVIDE SURGE PROTECTION DEVICE (SPD) MOUNTED ON TOP OF SWITCHBOARD OR SIDE OF PANEL. CONDUCTOR LENGTH SHALL BE AS SHORT AND STRAIGHT AS POSSIBLE.
2. ENERGY METER PER OWNER.
3. ROUTE FEEDER THROUGH AND ABOVE CEILING IN THE ADDMINISTRATION BUILDING TO A SPARE 800A/3P CIRCUIT BREAKER IN EXISTING SWITCHBOARD IN BUILDING 29. FIELD VERIFY EXACT ROUTING.
4. ELEVATOR POWER MODULE SHALL BE PART OF BID ALTERNATE #1. PROVIDE ROUGH-IN AND FEEDERS AS PART OF BASE BID.
5. INTEGRATED POWER CENTER.
6. GENERATOR IS PART OF BID ALTERNATE #2.
7. SQUARE D, SHARK, OR EQUAL, METERING (PM800) FOR EACH BREAKER WITHIN MAIN DISTRIBUTION BOARD. MAIN BREAKER SHALL BE POWER STYLE BREAKER WITH BUILT IN METERING.

FEEDER SCHEDULE

FEEDER	NO. SETS	CONDUCTOR SIZES (AWG or kcmil)			CONDUIT SIZE
		PHASE	NEUTRAL	GROUND	
50-3	1	3 - #6	-	1 - #10	1"
60-3	1	3 - #6	-	1 - #10	1"
100-3	1	3 - #3	-	1 - #8	1-1/4"
100-4T	1	3 - #3	1 - #3	1 - #6	1-1/2"
110-3	1	3 - #2	-	1 - #6	1-1/4"
175-3	1	3 - #2/0	-	1 - #6	2"
225-4	1	3 - #4/0	1 - #4/0	1 - #4	2-1/2"
250-4T	1	3 - 250 KCMIL	1 - 250 KCMIL	1 - #2	3"
400-3	2	3 - 350 KCMIL	-	1 - #3	2-1/2"
400-4	2	3 - 350 KCMIL	1 - 350 KCMIL	1 - #3	2-1/2"
400-4T	1	3 - 600 KCMIL	1 - 600 KCMIL	1 - #1/0	4"
800-4	2	3 - 500 KCMIL	1 - 500 KCMIL	1 - #1/0	4"

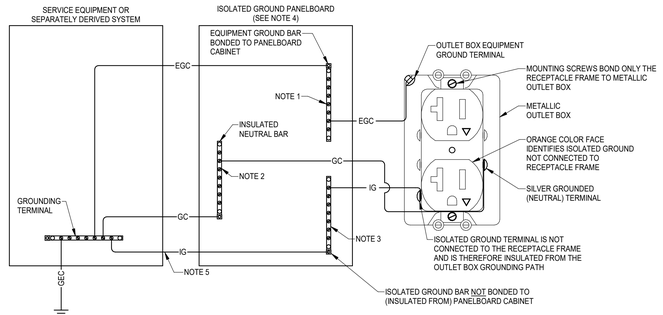


ITEM	BILL OF MATERIAL
1	GROUND ROD, 3/4" DIA. x 10' LONG, COPPER CLAD STEEL
2	CONNECTOR, #4 SOLID THRU #2/0 STR. CABLE TO GND. ROD, BURNDY #GAR-6426
3	PVC PIPE, 10" DIA. x 2'-6" LONG, SCHEDULE 40
4	COVER PLATE & HANDLE. FIELD FABRICATE PER DETAIL
5	GROUND WIRE, 50B COPPER
6	SQUARE NUT, 1/2", UNISTRUT #HSQN050EG
7	FLAT WASHER, 1/2", UNISTRUT #HFLW050EG
8	CONNECTOR, #2/0 SOLID THRU 250KCMIL STR. CABLE TO GND. ROD, BURNDY #GAR-6429
9	CONNECTOR, #8 SOLID THRU #4 STR. CABLE TO GND. ROD, BURNDY #GAR-644C

* FOR EACH ADDITIONAL CABLE CONNECTION ADD 1 CONNECTOR.

5 GROUND TEST WELL

NOT TO SCALE



GENERAL NOTES APPLICABLE TO THIS DETAIL:

A. THIS DETAIL IS DIAGRAMMATIC IN NATURE AND IS NOT INTENDED TO INDICATE PROPOSED CIRCUIT ROUTING. PHASE CONDUCTORS AND RACEWAYS ARE NOT SHOWN FOR CLARITY. ALL RACEWAYS SHALL BE SECURELY BONDED TO THE ENCLOSURES THE RACEWAYS CONNECT.
B. A GREEN EQUIPMENT GROUND CONDUCTOR IS REQUIRED FOR EVERY APPLIANCE BRANCH CIRCUIT, EVERY GENERAL-PURPOSE BRANCH CIRCUIT, EVERY INDIVIDUAL BRANCH CIRCUIT, AND EVERY MULTI-WIRE BRANCH CIRCUIT. UNDER NO CIRCUMSTANCES WILL A METALLIC RACEWAY SYSTEM BE ACCEPTED AS THE SOLE MEANS OF EQUIPMENT GROUNDING.
C. GROUNDED (NEUTRAL) CONDUCTORS ARE ONLY REQUIRED FOR 120V LOADS OR POLYPHASE LOADS THAT REQUIRE 120V POWER.
D. WHEN INSTALLED PER THE CURRENT NATIONAL ELECTRICAL CODE REQUIREMENTS, AT LEAST TWO GROUND CONDUCTOR PATHS ARE REQUIRED; ONE FOR THE RECEPTACLE GROUND AND ONE FOR THE RECEPTACLE.

NOTES APPLICABLE TO THIS DETAIL:

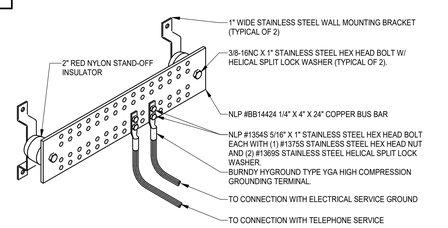
1. ONLY EQUIPMENT GROUNDING CONDUCTORS SHALL TERMINATE ON THIS EQUIPMENT GROUND BAR. UNDER NO CIRCUMSTANCES SHALL ANY ISOLATED GROUNDING OR GROUNDED CONDUCTOR (NEUTRAL) CONDUCTORS TERMINATE ON THIS BAR.
2. ONLY GROUNDED (NEUTRAL) CONDUCTORS SHALL TERMINATE ON THIS NEUTRAL BAR. UNDER NO CIRCUMSTANCES SHALL ANY ISOLATED GROUNDING OR EQUIPMENT GROUNDING CONDUCTORS TERMINATE ON THIS BAR.
3. ONLY ISOLATED GROUNDING CONDUCTORS SHALL TERMINATE ON THIS ISOLATED GROUND BAR. UNDER NO CIRCUMSTANCES SHALL ANY EQUIPMENT GROUNDING OR GROUNDED CONDUCTOR (NEUTRAL) CONDUCTORS TERMINATE ON THIS BAR.
4. CIRCUITS SERVED BY THIS PANEL SHALL BE ROUTED IN DEDICATED RACEWAYS AND SHALL NOT BE COMBINED IN THE SAME RACEWAY WITH NON-ISOLATED GROUND CIRCUITS.
5. ISOLATED GROUNDING CONDUCTOR IS PERMITTED TO PASS THROUGH PANELBOARDS BUT MUST TERMINATE AT THE SERVICE EQUIPMENT GROUNDING TERMINAL OR AT THE GROUNDING TERMINAL OF THE SEPARATELY DERIVED SYSTEM, IF APPLICABLE.

CONDUCTOR LEGEND

—GC—	GROUNDED CONDUCTOR (NEUTRAL)
—EGC—	EQUIPMENT GROUNDING CONDUCTOR
—IG—	ISOLATED GROUNDING CONDUCTOR
—GEC—	GROUNDING ELECTRODE CONDUCTOR

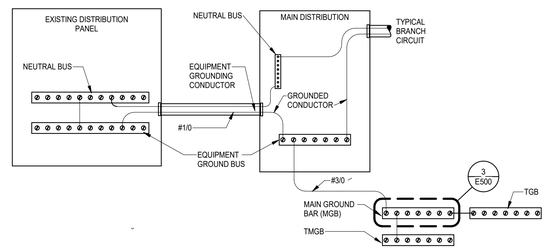
4 ISOLATED GROUND SYSTEM DETAIL

NOT TO SCALE



3 GROUND BAR DETAIL

NOT TO SCALE



GENERAL NOTES APPLICABLE TO THIS DETAIL:

A. FOR CLARITY, PHASE CONDUCTORS ARE NOT SHOWN.

2 SERVICE ENTRANCE GROUND DETAIL

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SHEET TITLE:

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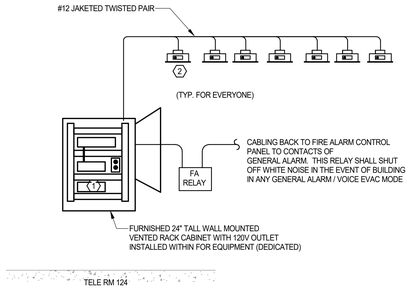


ELEVATION VIEW

GENERAL NOTES:

A. WHITE NOISE SYSTEM RISER IS SCHEMATIC IN NATURE.

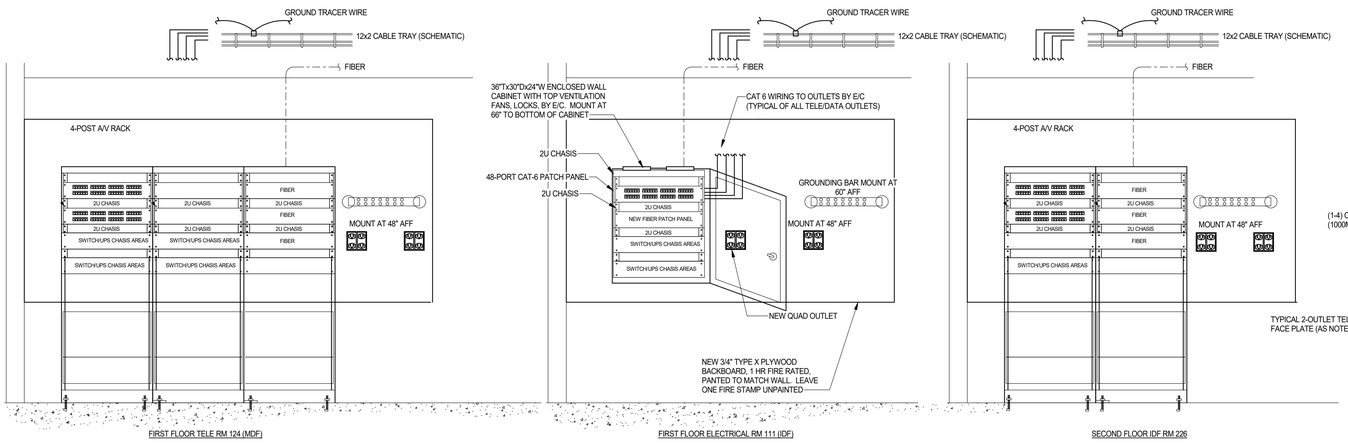
B. VERIFY ALL SYSTEM REQUIREMENTS WITH EQUIPMENT MANUFACTURER PRIOR TO PURCHASE/INSTALLATION. COORDINATE ZONING REQUIREMENTS WITH MANUFACTURER.

C. ALL WIRING SHALL BE 12 GUAGE JACKETED/SHIELDED TWISTED PAIR. CONTRACTOR SHALL USE MANUFACTURER PROVIDED VOLTAGE DROP CHARTS TO VERIFY WIRE SIZES.

KEYED NOTES:

1. WHITE NOISE GENERATOR EQUAL TO ATLAS SOUND TSD-GPN1200 WITH POWER SUPPLY.
2. WHITE NOISE SPEAKER EQUAL TO ATLAS SOUND M1000R-W (WHITE).

5 WHITE NOISE SPEAKER DIAGRAM
NOT TO SCALE



4 TELECOM DETAIL
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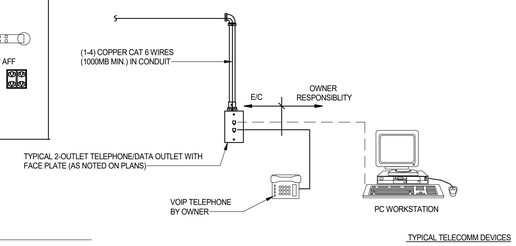
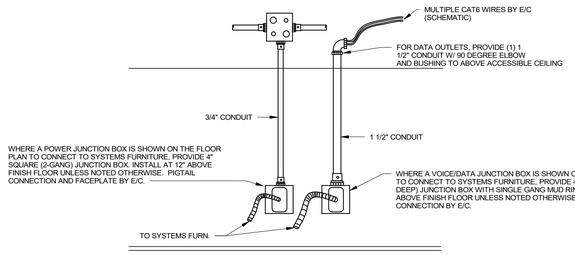
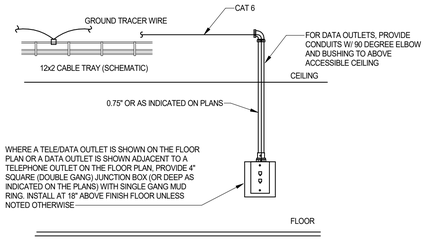


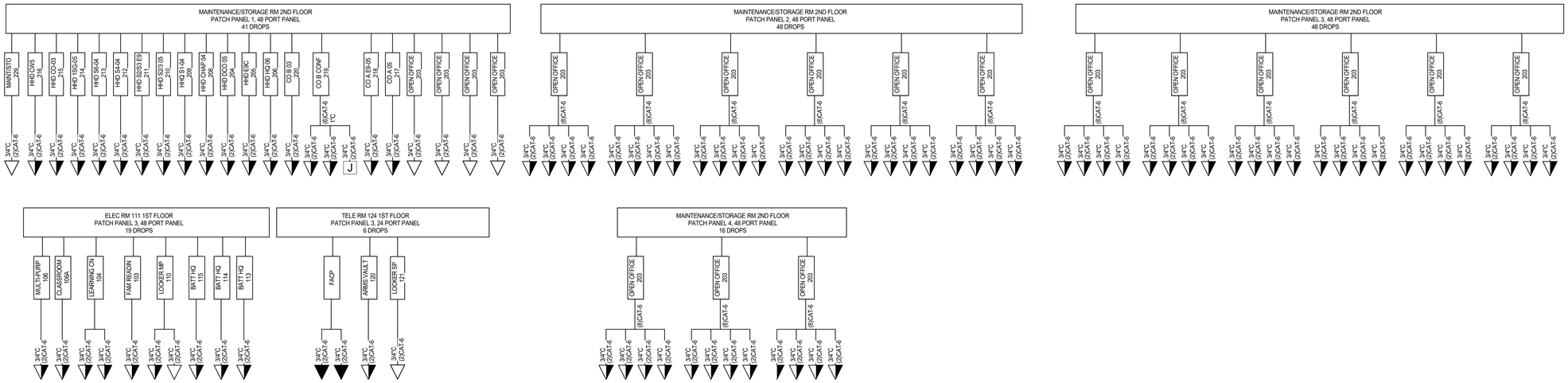
TYPICAL TELECOMM DEVICES



3 WALL SYSTEMS FURNITURE ROUGH-IN DETAIL
NOT TO SCALE



2 TELECOM ROUGH-IN DETAIL
NOT TO SCALE



J FLOOR/WALL POKE THROUGH JUNCTION BOX.

COMBINATION DATA/TELEPHONE OUTLET

DATA OUTLET; NUMBER INDICATES QUANTITY, BLANK INDICATES SINGLE OUTLET.

TELE PHONE OUTLET: NUMBER INDICATED QUANTITY, BLANK INDICATES SINGLE OUTLET.

NOTES:

1. INSTALL CONDUIT AS INDICATED THROUGH WALLS WHERE APPLICABLE ON PLANS.
2. INSTALL CABLE IN CABLE TRAY WHERE INDICATED ON PLAN.
3. REMAINDER OF DATA CABLE SHALL BE INSTALLED IN J-HOOKS EXCEPT WHERE INDICATED OTHERWISE ON PLAN.
4. REFERENCE SPECIFICATIONS FOR ADDITIONAL INFORMATION.

1 TELECOM/DATA OUTLET RISER DIAGRAM
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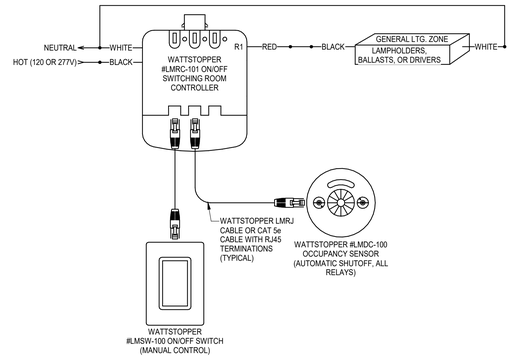
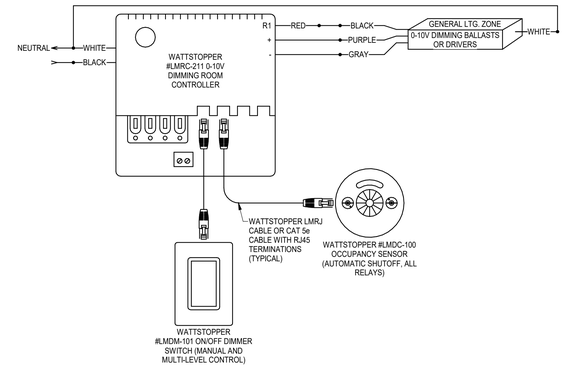
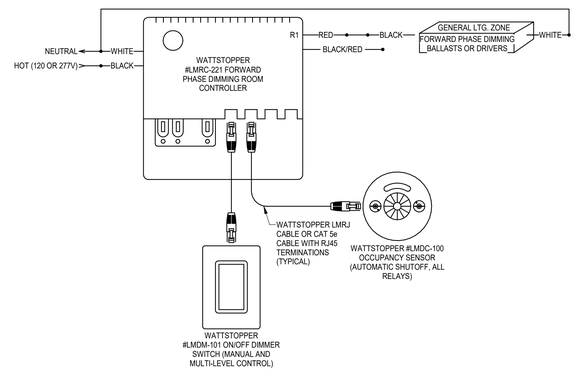


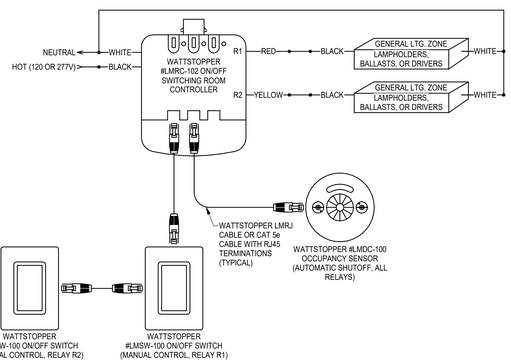
ON/OFF SWITCHING, ONE SWITCH LEG



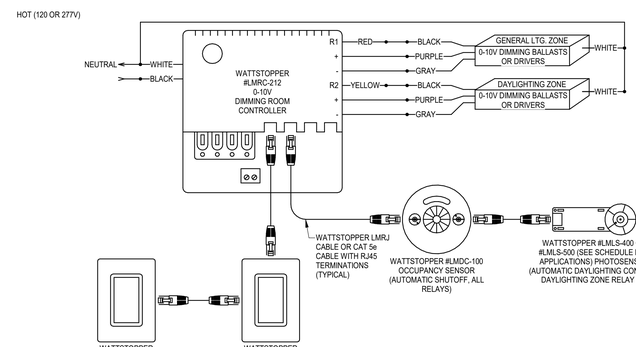
0-10V CONTINUOUS DIMMING, ONE SWITCH LEG



FORWARD PHASE CONTINUOUS DIMMING, ONE SWITCH LEG



ON/OFF SWITCHING, TWO SWITCH LEGS



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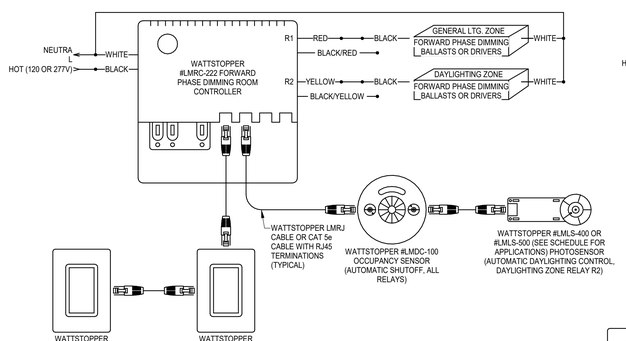
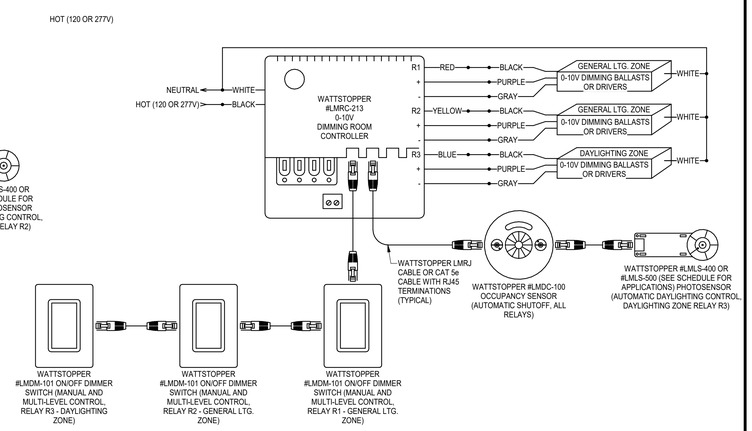
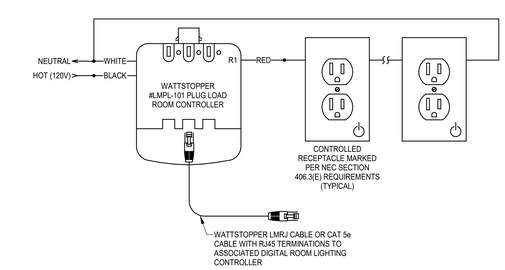


FORWARD PHASE CONTINUOUS DIMMING, TWO SWITCH LEGS



0-10V CONTINUOUS DIMMING, THREE SWITCH LEGS



PLUG LOAD CONTROL

GENERAL NOTES:
1. DIAGRAMS ARE GENERIC AND MAY NOT REPRESENT EXACT DEVICES AND QUANTITES FOR A COMPLETE LIGHTING CONTROL SYSTEM. REFER TO MANUFACTURER WIRING DIAGRAMS FOR EXACT REQUIREMENTS. REFER TO PLANS, SPECIFICATIONS, AND SCHEDULES FOR EXACT DEVICES.

1 DIGITAL LIGHTING MANAGEMENT (DLM) CONTROL DETAILS

NOT TO SCALE

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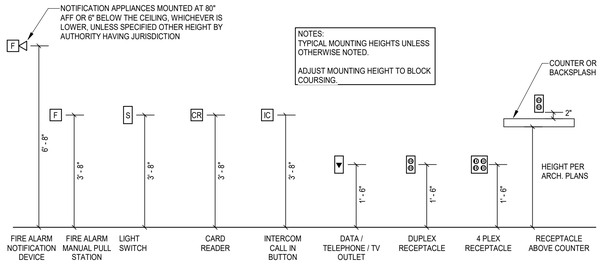
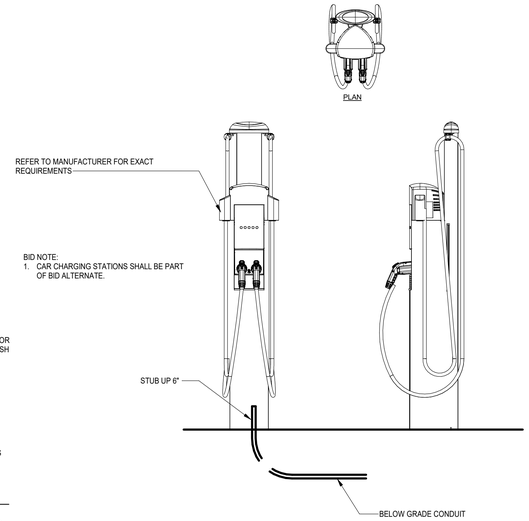
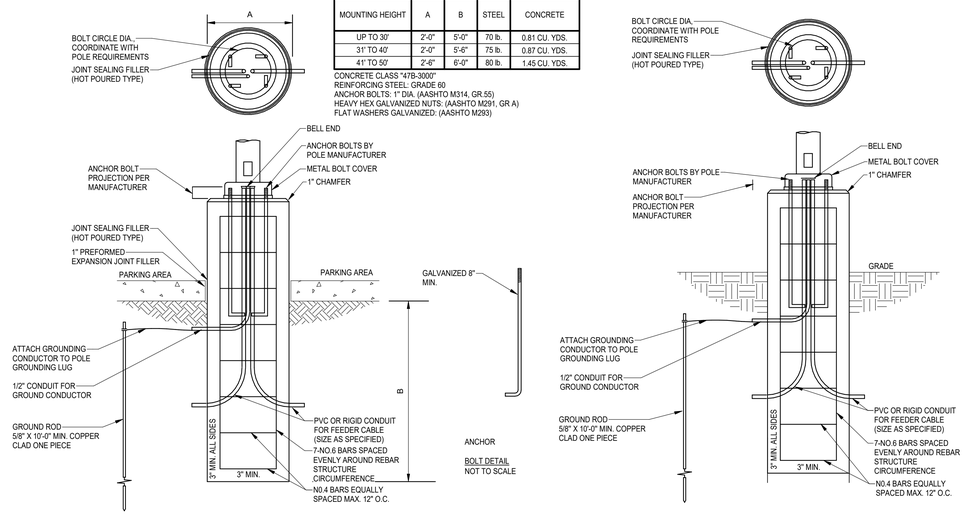


3 TYPICAL DEVICE MOUNTING HEIGHTS
NOT TO SCALE



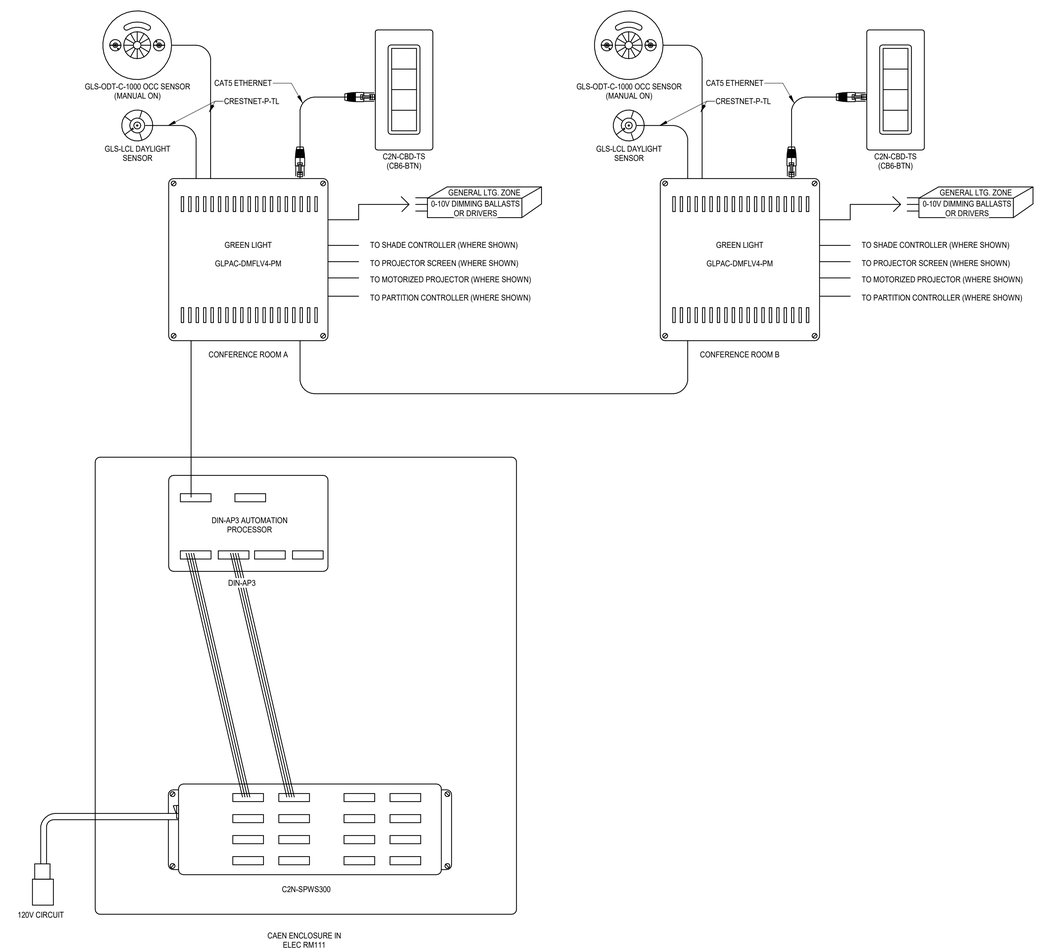
2 CAR CHARGING STATION
NOT TO SCALE



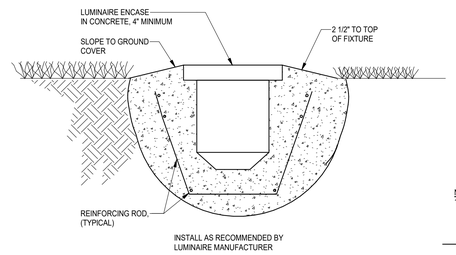
LIGHTING FOUNDATION DATA				
MOUNTING HEIGHT	A	B	STEEL	CONCRETE
UP TO 30'	2'-0"	5'-0"	70 lb.	0.81 CU. YDS.
31' TO 40'	2'-0"	5'-6"	75 lb.	0.87 CU. YDS.
41' TO 50'	2'-6"	6'-0"	80 lb.	1.45 CU. YDS.

CONCRETE CLASS "47B-3000"
REINFORCING STEEL: GRADE 60
ANCHOR BOLTS: 1" DIA. (AASHTO M314, GR.55)
HEAVY HEX GALVANIZED NUTS: (AASHTO M291, GR A)
FLAT WASHERS GALVANIZED: (AASHTO M293)

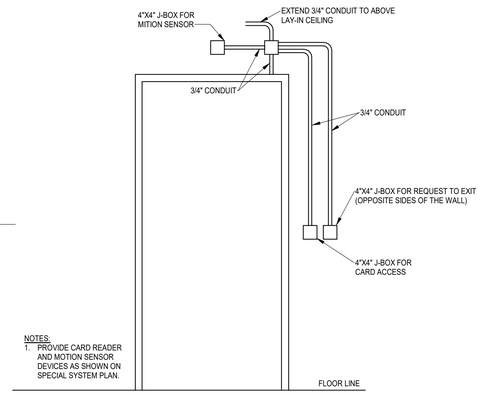
1 RAISED CONCRETE FOUNDATION
NOT TO SCALE



6 CRESTRON LIGHTING CONTROL DIAGRAM
NOT TO SCALE



5 LANDSCAPE LUMINAIRE
NOT TO SCALE



NOTES:
1. PROVIDE CARD READER AND MOTION SENSOR DEVICES AS SHOWN ON SPECIAL SYSTEM PLAN.

4 ACCESS ROUGH IN DETAIL
NOT TO SCALE

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MISSOURI NATIONAL GUARD
SPRINGFIELD, MISSOURI

NATIONAL GUARD BUREAU PROJECT #290186
MISSOURI NATIONAL GUARD PROJECT #T1809-01
SITE #9019
ASSET #8136270008

DRAWN BY: SH
CHECKED BY: TD
DESIGNED BY: SH

REVISION:
DATE:
REVISION:
DATE:
REVISION:
DATE:
ISSUED DATE: 26 February 2020

SHEET TITLE:

ELECTRICAL DETAILS

SHEET NUMBER:

E601

126 OF 131 SHEETS

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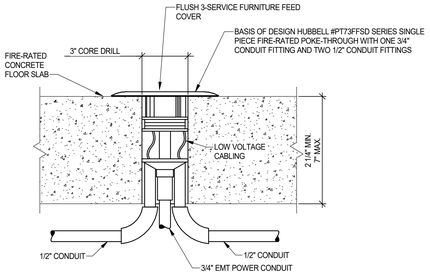
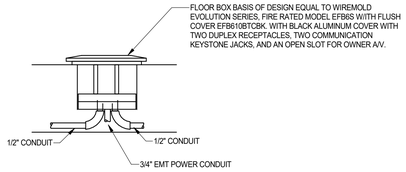
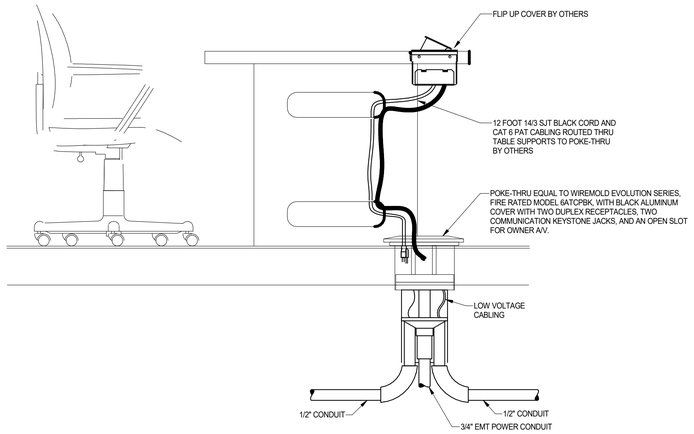


3 SYSTEM FURNITURE FEED POKE-THROUGH DETAIL
NOT TO SCALE



2 FLOOR BOX
NOT TO SCALE



1 ROUGH-IN POKE THRU DETAIL
NOT TO SCALE

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02-26-2020
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SHEET TITLE:

ELECTRICAL DETAILS

SHEET NUMBER:

E602

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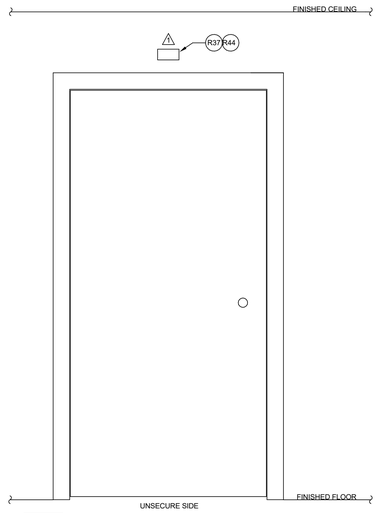
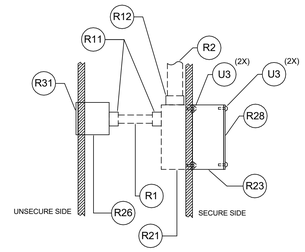
ITEM NO.	QTY.	U/M	DESCRIPTION	MANUFACTURER	PART NO.	REMARKS
			LIST OF MATERIAL			
			CONDUIT AND ACCESSORIES			
R1	A/R	FT	CONDUIT, 1/2", (EMT, 10'	ALLIED		USED WITHIN PROTECTED AREAS, PER AR 190-11 PARA. 3-6
R2	A/R	FT	CONDUIT, 3/4 " EMT, 10'	ALLIED		USED WITHIN PROTECTED AREAS, PER AR 190-11 PARA. 3-6
R3	A/R	FT	CONDUIT, 1", EMT, 10'	ALLIED		USEO WITHIN PROTECTED AREAS, PER AR 190-11 PARA. 3-6
R4	A/R	FT	CONDUIT, 1/2", IMC, 10'	ALLIED		USED OUTSIDE OF PROTECTED AREAS, INSIDE THE STRUCTURE, PER AR 190-11 PARA. 3-6
R5	A/R	FT	CONDUIT, 3/4 " IMC, 10'	ALLIED		USED OUTSIDE OF PROTECTED AREAS, INSIDE THE STRUCTURE, PER AR 190-11 PARA. 3-6
R6	A/R	FT	CONDUIT, 1", IMC, 10'	ALLIED		USED OUTSIDE OF PROTECTED AREAS, INSIDE THE STRUCTURE, PER AR 190-11 PARA. 3-6
R7	A/R	FT	CONDUIT, 1/2", RIGID, 10'	ALLIED		USED OUTSIDE OF THE STRUCTURE, PER AR 190-11 PARA. 3-6
R8	A/R	FT	CONDUIT, 3/4 " RIGID, 10'	ALLIED		USED OUTSIDE OF THE STRUCTURE, PER AR 190-11 PARA. 3-6
R9	A/R	FT	CONDUIT, 1", RIGID, 10'	ALLIED		USED OUTSIDE OF THE STRUCTURE, PER AR 190-11 PARA. 3-6
R10	27	EA	CONNECTOR, COMPRESSION TYPE, 1/2", (INSULATED), EMT	RACO	2902-8	
R11	12	EA	CONNECTOR, COMPRESSION TYPE, 3/4", (INSULATED), EMT	RACO	2903-8	
R12	41	EA	CONNECTOR, COMPRESSION TYPE, 1", INSULATED, EMT	RACO	2904-8	
R13	A/R	EA	COUPLING, COMPRESSION TYPE, 1/2", INSULATED, EMT	RACO	2922-8	
R14	A/R	EA	COUPLING, COMPRESSION TYPE, 3/4", INSULATED, EMT	RACO	2923-8	
R15	A/R	EA	COUPLING, COMPRESSION TYPE, 1", INSULATED, EMT	RACO	2924-8	
R16	A/R	EA	STRAP, ONE HOLE, 1/2"	CROUSE-HENDS	200	
R17	A/R	EA	STRAP, ONE HOLE, 3/4"	CROUSE-HENDS	201	
R18	A/R	EA	STRAP, ONE HOLE, 1"	CROUSE-HENDS	202	
R19	A/R	EA	CABLE FITTING, 1/2"	CROUSE-HENDS	CCNO-350	SUPPLY ROOM BMS
R20	A/R	EA	STEEL LOCKNUT, 1/2"	ARLINGTON	401	USE WITH CG CABLE FITTING
R21	13	EA	JUNCTION BOX, 4" X 4" X 2 1/8", 1/2" AND 3/4" COMBINATION KNOCKOUTS	CROUSE-HENDS	TP403	
R22	19	EA	JUNCTION BOX, 4" X 4" X 2 1/8", 1" KNOCKOUTS, SIDES ONLY	CROUSE-HENDS	TP436	
R23	2	EA	4" SQUARE EXTENSION RING	CROUSE-HENDS	TP428	
R24	6	EA	OCTAGON BOX, 3 1/2", 1 1/2" DEEP	PLATT	52058	PIR MOUNT
R25	A/R	EA	OCTAGON EXTENSION RING	PLATT	52060	PIR MOUNT
R26	3	EA	SWITCH BOX, 3 1/2" X 1 11/30" X 1 1/2" DEEP, WITH KNOCKOUTS	RACO	695	REMOTE STATUS INDICATOR
R27	1	EA	JUNCTION BOX, 4 11/16" X 4 11/16" X 2 1/8", (4) 1" AND (4) 3/4" SIDE KNOCKOUTS, (2) 1/2" AND (2) 3/4" KNOCKOUTS	RACO	265	
R28	12	EA	4" SQUARE FLAT COVER FOR JUNCTION BOX	CROUSE-HENDS	TP472	
R29	A/R	EA	4" SQUARE COVER WITH 1/2" KNOCKOUT	CROUSE-HENDS	TP478	
R30	1	EA	BOX COVER, 4-11/16" SQUARE BOX COVER	RACO	832	
R31	A/R	EA	SINGLE GANG WEATHERPROOF BLANK COVER WITH MOUNTING SCREWS	CROUSE-HENDS	TP7292	REMOTE STATUS INDICATOR COVER
R32	8	EA	3 1/2" COVER FOR OCTAGON BOX, SINGLE KNOCKOUT	RACO	703	
R33	3	EA	4" SQUARE COVER TO SINGLE GANG MUD RING, RAISED 1/2"	CROUSE-HENDS	TP484	OUTLET IN VAULT
R34	A/R	EA	REDUCER, CONDUIT, 3/4" TO 1/2"	CROUSE-HENDS	251	
R35	A/R	EA	CONDUIT OUTLET BODIES, 1/2", T STYLE	CROUSE-HENDS	T15 MTC	
R36	A/R	EA	CONDUIT OUTLET BODIES, 1/2", LR STYLE	CROUSE-HENDS	LR15 MTC	
R37	A/R	EA	CONDUIT OUTLET BODIES, 1/2", LL STYLE	CROUSE-HENDS	LL15 MTC	
R38	A/R	EA	SWITCH BOX, 3" X 2", 2" DEEP, WITH KNOCKOUTS	RACO	420	FOR SINGLE OUTLET
R39	A/R	EA	1/2" CHASE NIPPLE	RACO	1662	
R40	A/R	EA	3/4" OFFSET NIPPLE	RACO	1453	
R41	A/R	EA	REDUCER, 1" TO 1/2"	CROUSE-HENDS	252	
R42	A/R	EA	REDUCING WASHER, 1" TO 3/2"	GRAINGER	3LY41	
R43	2	EA	CONNECTOR, 1/2" STRAIGHT, INSULATED, RAINTIGHT	CROUSE-HENDS	1602RT	
R44	2	EA	CONNECTOR, 3/4" STRAIGHT, INSULATED, RAINTIGHT	CROUSE-HENDS	1603RT	
R45	A/R	EA	CONNECTOR, 1", STRAIGHT, INSULATED, RAINTIGHT	CROUSE-HENDS	1602RT	
			ENCLOSURES AND ACCESSORIES			
S1	3	EA	WIREWAY, 4" X 4" X 24", 16 GAUGE	HOFFMAN	F4W1246VP	COMES WITH SCREWS AND WASHERS
S2	6	EA	CLOSURE PLATE FOR WIREWAY	HOFFMAN	F4WCP	COMES WITH SCREWS AND WASHERS
			MISCELLANEOUS MATERIALS			
U1	3	EA	COVER, SINGLE OUTLET, LOCKING	INTERMATIC	WP3010SX6XD	
U2	A/R	EA	ANCHOR, CONCRETE, LEAD EXPANSION TYPE, 3/4" 20	FASTENAL	51006	
U3	6	EA	SCREW, PAN HEAD SECURITY TYPE, #6, STAINLESS STEEL	FASTENAL	SPO10X0.25S0000	
U4	A/R	EA	BOLT, 3/4" X 1", HEX HEAD, STAINLESS STEEL	FASTENAL	70005	
U5	A/R	EA	WASHER 3/4", STAINLESS STEEL	FASTENAL	1112883F3	
U6	A/R	EA	LOCK WASHER, 3/4", STAINLESS STEEL	FASTENAL	1733192	
U7	3	EA	ELECTRICAL OUTLET, SINGLE GANG	LEVITON	5015-W	

NOTES:

1. MANUFACTURES AND PRODUCTS IDENTIFIED ABOVE ARE SUGGESTED. HOWEVER CAN BE SUBSTITUTED SO LONG AS THE ALTERNATIVE IS SIMILAR IN FORM, FIT AND FUNCTION.



4 SUPPLY ROOM UNSECURE SIDE
NOT TO SCALE



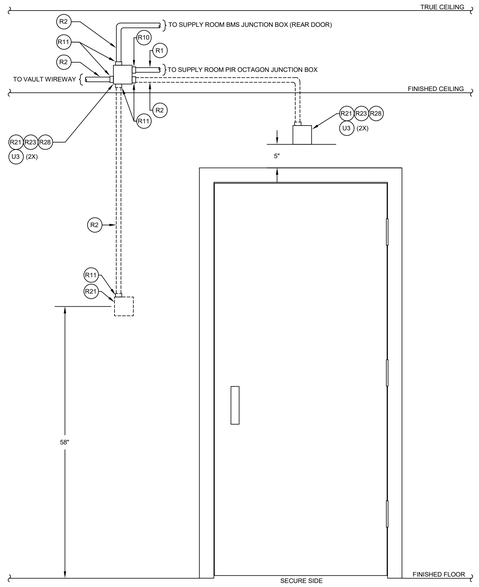
REMOTE STATUS INDICATOR
IN-WALL DETAIL

NOTES:

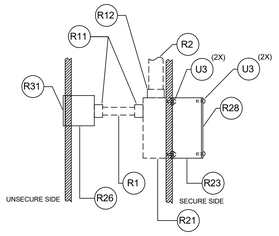
1. CENTER JUNCTION BOX ABOVE THE DOOR FRAME. SEE REMOTE STATUS INDICATOR IN WALL DETAIL.
2. ALL CONDUIT WILL BE EMBEDDED WITHIN WALL. JUNCTION BOXES WILL BE MOUNTED FLUSH TO THE FINISHED SURFACE.

LEGEND:

DENOTES MATERIAL - ITEM NUMBER



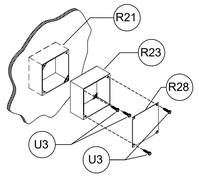
2 SUPPLY ROOM SECURE SIDE
NOT TO SCALE



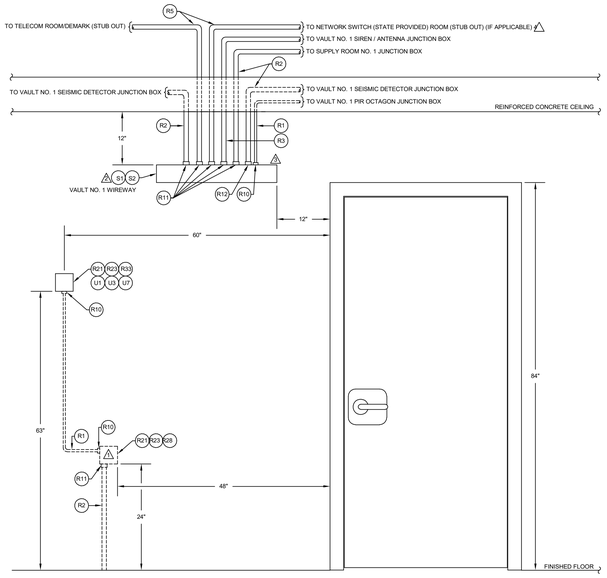
SUPPLY ROOM BMS/RSI
IN WALL DETAIL

NOTES:

1. ALL JUNCTION BOXES WILL HAVE MOUNTING SURFACES FLUSH TO FINISHED WALL SURFACE.
2. CONDUIT DETAILS ARE REPRESENTATIONAL OF THE INTENT TO PROVIDE INDIVIDUAL PATHWAYS UTILIZING THE POURED VAULT OR IN-WALL CONSTRUCTION TO CONCEAL INTRUSION DETECTION SYSTEM CONDUIT.



JUNCTION BOX/EXTENSION RING DETAIL



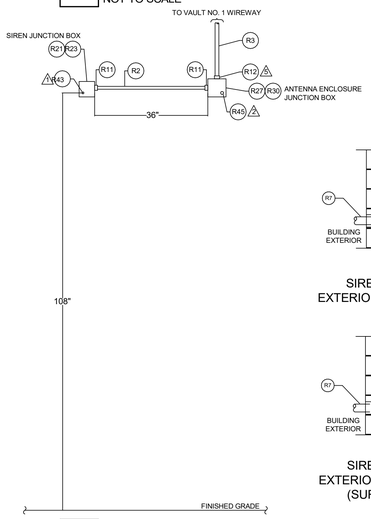
1 VAULT SECURE SIDE
NOT TO SCALE

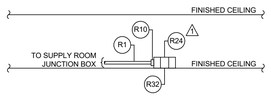
NOTES:

1. DEDICATED 120 VAC/20A CIRCUIT CONNECTED TO EMERGENCY POWER CIRCUIT (IF AVAILABLE). AC POWER PROVIDED BY STATE. PRINT PANEL AND CIRCUIT BREAKER INFORMATION ON COVER.
2. WIREWAY IS SURFACE MOUNTED TO WALL. SEE SHEET FAB101 FOR DETAILS.
3. MINIMUM 4" OF OPEN SPACE FROM THE TOP-RIGHT EDGE OF WIRE WAY TO THE VAULT PIR CONDUIT CONNECTOR.
4. CONDUIT SHOULD ONLY BE ADDED IF DEMARK AND NETWORK SWITCH ARE NOT COLLOCATED.
5. ALL JUNCTION BOXES WILL HAVE MOUNTING SURFACES FLUSH TO FINISHED WALL SURFACE.
6. CONDUIT DETAILS ARE REPRESENTATIONAL OF THE INTENT TO PROVIDE INDIVIDUAL PATHWAYS UTILIZING THE POURED VAULT OR IN-WALL CONSTRUCTION TO CONCEAL INTRUSION DETECTION SYSTEM CONDUIT.

LEGEND:

DENOTES MATERIAL - ITEM NUMBER

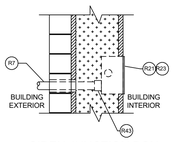




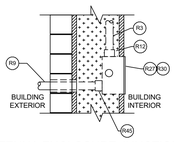
SUPPLY ROOM CEILING - TYPICAL
OCTAGON JUNCTION BOX

NOTES:

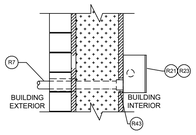
1. ALL CONDUIT EMBEDDED WITHIN WALL. BOX FACES TO BE FLUSH WITH FINISHED SURFACE.



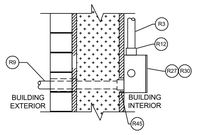
SIREN JUNCTION BOX
EXTERIOR WALL PENETRATION
(IN-WALL)



ANTENNA ENCLOSURE JUNCTION BOX
EXTERIOR WALL PENETRATION
(IN-WALL)



SIREN JUNCTION BOX
EXTERIOR WALL PENETRATION
(SURFACE MOUNTED)



ANTENNA ENCLOSURE JUNCTION BOX
EXTERIOR WALL PENETRATION
(SURFACE MOUNTED)

LEGEND:

DENOTES MATERIAL - ITEM NUMBER

3 EXTERIOR WALL VAULT SECURITY DETAILS
NOT TO SCALE

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LIGHTING DEVICE SCHEDULE

NOTES: 1. REFER TO LIGHTING CONTROL SEQUENCE FOR CONTROL SETTINGS.

2. WALL STATIONS SHALL INCLUDE ENGRAVINGS TO STATE BUTTON FUNCTION. COORDINATE WITH OWNER FOR ENGRAVING PREFERENCES.

3. BAISES OF DESIGN IS WATTSTOPPER DLM APPROVED LIGHTING CONTROL EQUALS INCLUDE: ACUITY BRANDS nLIGHT, CRESTON SPACE BUILDER, HUBBELL NX, DOUGLAS DIAGLOG.

4. EQUAL BY RAINBIRD,TORK, AND LEVITON

TYPE LABEL 1	TYPE	MOUNTING	DESCRIPTION	MANUFACTURER BASIS OF DESIGN	MODEL	NOTES
4D	5-BUTTON DIMMING	WALL	DIGITAL LIGHTING MANAGEMENT SWITCH WITH 5 BUTTONS AS FOLLOWS: "OFF", "1", "2", "3", AND DIMMING	WATTSTOPPER	LMSW-105	1,2
6	KEYPAD	WALL	WALL MOUNTED 6 BUTTON KEYPAD	CRESTRON	C2N-CBD-TS	
LR	RELAY PANEL	WALL	ARCHITECTURAL DIMMING PANEL, BACNET ENABLED 16 ZONES 0-10 VOLT DIMMING / 16 HIGH-VOLTAGE RELAYS.RP1 WITH IC-DIN-H-LITE RP1 WITH SERIAL DATA INTERFACE FOR COMMUNICATION TO DLM CONTROLLSERS	WATTSTOPPER	LCAP44A A-6 LMDI-100	3
OS	OCCUPANCY SENSOR	CEILING	DUAL TECHNOLOGY OCCUPANCY SENSOR	WATTSTOPPER	LMDC-100	1
OS1	OCCUPANCY SENSOR SWITCH	WALL	DUAL TECHNOLOGY OCCUPANCY SENSOR SWITCH	WATTSTOPPER	DSW-301-W	1,2
PC	PHOTOCENSOR	CEILING	DIGITAL LIGHTING MANAGEMENT SINGLE ZONE SWITCHING AND DIMMING CLOSED LOOP DIGITAL PHOTOCENSOR	WATTSTOPPER	LMLS-400	1
RC	ROOM CONTROLLER 2	ABOVE CEILING	LIGHTING MANAGEMENT ROOM CONTROLLER WITH LINE VOLTAGE RELAY(S) AND ON/OFF/0-10V DIMMING POWER SUPPLY COMPONENT WITH CAT5E CABLES AND RJ45 CONNECTORS TO PROVIDE 0-10V CONTROL SIGNAL TO DIMMABLE FIXTURES	WATTSTOPPER	LMRC-211	1,3
RC4	ROOM CONTROLLER 4	ABOVE CEILING	GREEN LIGHT DIMMABLE LIGHTING CONTROLLER WITH 0-10V RELAYS FOR ON/OFF/DIM.	CRESTRON	GLPAC-DIMFLV8	1,3
RC D	DMX CONTROLLER	WALL	DMX ROOM CONTROLLER	UNISON ECHO	ERMC4-TC	
TC	TIME CLOCK	WALL	ASTRONOMIC ELECTRONIC7-DAY PROGRAMMING TIME SWITCH	INTERMATIC	ET2845C	1

LIGHTING CONTROL SEQUENCE

SPACE TYPE / ROOM NAME	LINE VOLT MANUAL SWITCH	LINE VOLT WALL OCCUPANCY SWITCH	LINE VOLT WALL OCCUPANCY SENSOR	LOW VOLT WALL STATION	LOW VOLT DIMMING WALL STATION	PHOTOSENSOR ON/OFF	ASTRONOMIC TIME CLOCK PERMISSION	TIME CLOCK OFF	TIME PERMISSIVE SWITCH	MANUAL ON	OCCUPANCY SENSOR 50%, AUTO ON	OCCUPANCY SENSOR 100%, AUTO ON	BI-LEVEL EXTERIOR SENSOR	OCCUPANCY SENSOR OFF	OPERATING HOURS SCHEDULE	OPERATING HOURS 50%, AUTO ON	DAYLIGHT SENSOR DIMMING	SEQUENCE OF OPERATIONS	NOTES / OTHER COMMENTS
EXTERIOR - PARKING						X	X												COORDINATE TIMES WITH OWNER.
EXTERIOR - BUILDING							X											7	COORDINATE TIMES WITH OWNER.
PRIVATE OFFICE / WORK ROOM		X										X		X				1	
CONFERENCE			X		X							X		X				2	COORDINATE ENGRAVINGS WITH OWNER
ELECTRICAL / MECHANICAL / IT/JANITOR	X									X									
STORAGE		X											X	X				1	
VESTIBULES													X	X				1	
PUBLIC/LARGE RESTROOMS				X									X	X				1	
SMALL RESTROOMS		X											X	X				1	
DINNING				X								X	X					1	
KITCHEN	X										X								
TRAINING ROOMS						X						X		X				3	
OPEN OFFICE				X		X						X	X	X				4,5,6	
CORRIDORS				X									X	X				1	
LEARNING CENTER						X						X		X				3	
BREAK AREA				X									X	X				1	
FAMILY READINESS		X										X		X				1	
COMBO COA HHQ CONFERENCE						X						X		X				3	

SEQUENCE OF OPERATIONS

1. OCCUPANCY SENSOR 100% ON. ALL LIGHTS OCCUPANCY SENSOR OFF.

2. DIMING SCHEME WITH 2 ZONES. ZONE ONE SHALL BE LINEAR PENDANT (TYPE K). ZONE 2 SHALL BE DOWN LIGHTS (TYPE C2). PRESENTATION SETTINGS: SETTING 1, ALL LIGHTS ON 100%. SETTING 2, ALL LIGHTS DIM TO 50%. SETTING 3, ZONE 1 LIGHT OFF AND ZONE 2 DIM TO 50%. SETTING 4, ALL LIGHTS OFF. SETTING 5 IS DIMMING.
3. DIMMING SCHEME WITH 2 ZONES. PRESENTATION SETTING 1, ALL LIGHTS ON 100%. SETTING 2, DIMS ALL LIGHTS TO 50% AND TURNS OFF ZONE ADJACENT TO PRESENTATION SCREEN. PRESENTATION SETTING 3, WITH ALL LIGHTS OFF. SETTING 4, DIM ALL LIGHTS.
4. DIMING SCHEME WITH 2 ZONES. ZONE ONE SHALL BE LINEAR PENDANT (TYPE P). ZONE 2 SHALL BE WALL MOUNTED UPLIGHTS (TYPE B2). WHEN SPACE IS OCCUPIED LIGHT FIXTURES SHALL BE ON 100%. WHEN UNOCCUPIED SPACE SHALL DIM TO 50% FOR 20 MIN AND THEN TURN OFF.
5. ZONE 2 LINEAR LIGHT FIXTURES (TYPE B2) SHALL HAVE TIME CLOCK ROOM CONTROLLER TO PROVIDE BLUE UPLIGHT AT 6PM-6AM BASED ON OCCUPANCY. LIGHT FIXTURES SHALL HAVE WHITE UPLIGHT AND DOWN LIGHT BASED ON OCCUPANCY BETWEEN 6AM-6PM.
6. DAYLIGHT COTNROLS. DIM LIGHTING LINERALY,STARTING AT 100% 40FC, TO 0% OUTBUT AT 120FC. EVALUATE ACTUAL LIGHT LEVELS AND CALIBRATE SETTINGS PER SPECIFICATIONS.
7. CONTROLS NETWORKED TO RELAY PANEL "LR" FOR TIME CLOCK FUNCTIONALITY. TIME CLOCK PERMISSION ON FROM 5 PM TO 8 AM.

LIGHTING FIXTURE SCHEDULE

FIXTURE TYPE	MOUNTING	DESCRIPTION	MANUFACTURER BASIS OF DESIGN	MODEL	LAMP WATTS	LAMP TYPE	LAMP CCT	VOLTAGE	COMMENTS
	POLE				160 W		3200 K	277 V	NO EQUALS ALLOWED.
	POLE				160 W		3200 K	277 V	NO EQUALS ALLOWED.
A	RECESSED	RECESSED 2X4 LED LENS TROFFER	KENNALL	24-45L40K-DCC-DV-2F-2H-SYM	45 W	LED	4000 K	277 V	
AE	RECESSED	RECESSED 2X4 LED LENS TROFFER WITH EMERGENCY BATTERY	KENNALL	24-45L40K-DCC-DV-2F-2H-SYM-L-EL	45 W	LED	4000 K	277 V	
B	SURFACE	4' x 8' WALL MOUNTED LED UPLIGHT LIGHT FIXTURE, 0-10V DIMMING	AXIS LIGHTING	ARCWLED-SL100/0-80-40-SO-8-AP-UNV-DP	102 W	LED	4000 K	277 V	
B2	SURFACE	4' LINEAR LED SURFACE MOUNTED FIXTURE WITH WHITE DIRECT AND BLUE INDIRECT.	LUMENWERX	MP226IVIA4WDI-AR02-CLO-LED-80-35-500-500-BS-4-UNV-D1-3-DMB-AL	56 W	LED	3500 K	277 V	
C1	RECESSED	6" DIA. ROUND DOWNLIGHT, 0-10V DIMMING.	GOTHAM	EVO-40-15-6AR-WD-LSS-MVOLT-GZ10	19 W	LED	4000 K	277 V	
C1E	RECESSED	6" DIA. ROUND DOWNLIGHT, 0-10V DIMMING, EMERGENCY BATTERY.	GOTHAM	EVO-40-15-6AR-WD-LSS-MVOLT-GZ10-EL	19 W	LED	4000 K	277 V	
C2	RECESSED	6" DIA. ROUND WALL WASH DOWNLIGHT, 0-10V DIMMING.	GOTHAM	EVO-WW-40-15-6AR-LSS-MVOLT-GZ1	17 W	LED	4000 K	277 V	
C3	RECESSED	6" DIA. ROUND SHOWER DOWNLIGHT, 0-10V DIMMING.	GOTHAM	EVO-40-15-6DFR-MVOLT-GZ10-SF	19 W	LED	4000 K	277 V	
CE3	RECESSED	6" DIA. ROUND SHOWER DOWNLIGHT, 0-10V DIMMING, EMERGENCY BATTERY.	GOTHAM	EVO-40-15-6DFR-MVOLT-GZ10-SF-ELR	19 W	LED	4000 K	277 V	
D1	SUSPENDED	4' x 4' LED SUSPENDED LINEAR STRIP LIGHT.	LITHONIA	ZL1N-48-5000LM-L-LENS-MVOLT-40K-80CRI-WH-ZACVH	37 W	LED	4000 K	277 V	
D1E	SUSPENDED	4' X 4' LED SUSPENDED LINEAR STRIP LIGHT WITH EMERGENCY BATTERY	LITHONIA	ZL1N-48-5000LM-L-LENS-MVOLT-40K-80CRI--E10WLCP-WH-ZACVH	37 W	LED	4000 K	277 V	
D2	SUSPENDED	8' SUSPENDED LINEAR LED LIGHT FIXTUR	LITHONIA	TZL1N-96-6000LM-FST-MOLT-40K-80CRI-WH-ZACVH	48 W	LED	4000 K	277 V	
D2E	SUSPENDED	8' SUSPENDED LINEAR LED LIGHT FIXTURE, EMERGENCY BATTERY	LITHONIA	TZL1N-96-6000LM-FST-MOLT-40K-80CRI-WH-E7W-ZACVH	48 W	LED	4000 K	277 V	
D3	SUSPENDED	SUSPENDED LINEAR - 8'	METALUX	8WSL-LD2-60-SPS-UNV-L840-CD-1	115 W	LED	4000 K	277 V	
D3E	SUSPENDED	SUSPENDED LINEAR - 8'	METALUX	8WSL-LD2-60-SPS-UNV-EL14W-L840-CD-1	115 W	LED	4000 K	277 V	
EX	WALL	EXIT SIGN BACK MOUNT SINGLE FACE WITH BATTERY BACK UP	LITHONIA	LRP-1-LA/RA-RC-ELN	5 W	LED	4000 K	277 V	
EX2	CEILING	CEILING MOUNTED EXIT SIGN WITH EMERGENCY BACK UP	LITHONIA	LRP-2-LRADA-RC-ELN	5 W	LED	4000 K	277 V	
F1	RECESSED	RECESSED 2X2 DIRECT/INDIRECT LED TROFFER, 0-10V DIMMING	LITHONIA	2BLT2-40L-DP-MVOLT-EZ1-LP840	32 W	LED	4000 K	277 V	
F1E	RECESSED	RECESSED 2X2 DIRECT/INDIRECT LED TROFFER, 0-10V DIMMING, EMERGENCY BATTERY	LITHONIA	2BLT2-40L-DP-MVOLT-EZ1-LP840-EL7L	32 W	LED	4000 K	277 V	
F2	RECESSED	RECESSED 2X4 LENSED LED TROFFER, 0-10V DIMMING	LITHONIA	2BLT4-40L-DP-MVOLT-EZ1-LP840	31 W	LED	4000 K	277 V	
F2E	RECESSED	RECESSED 2X4 LENSED LED TROFFER, 0-10V DIMMING, EMERGENCY BATTERY	LITHONIA	2BLT4-40L-DP-MVOLT-EZ1-LP840-EL7L	31 W	LED	4000 K	277 V	
G8	RECESSED	2'x 8' RECESSED LED PERIMETER DOWNLIGHT WITH REGRESSED LENS.	FOCAL POINT	FSM2L-SR-375LF-40K-1C-UNV-LD1-XF-WH-8'	48 W	LED	4000 K	277 V	COORDINATE CEILING CONFIGURATION PRIOR TO INSTALLATION
G10	RECESSED	2'x10' RECESSED LED PERIMETER DOWNLIGHT WITH REGRESSED LENS.	FOCAL POINT	FSM2L-SR-375LF-40K-1C-UNV-LD1-XF-WH-10'	48 W	LED	4000 K	277 V	COORDINATE CEILING CONFIGURATION PRIOR TO INSTALLATION
G12	RECESSED	2'x12' RECESSED LED PERIMETER DOWNLIGHT WITH REGRESSED LENS.	FOCAL POINT	FSM2L-SR-375LF-40K-1C-UNV-LD1-G-WH-12'	135 W	LED	4000 K	277 V	COORDINATE CEILING CONFIGURATION PRIOR TO INSTALLATION
G14	RECESSED	2'x 14' RECESSED LED PERIMETER DOWNLIGHT WITH REGRESSED LENS.	FOCAL POINT	FSM2L-SR-375LF-40K-1C-UNV-LD1-XF-WH-14'	135 W	LED	4000 K	277 V	COORDINATE CEILING CONFIGURATION PRIOR TO INSTALLATION
G20	RECESSED	2'x 20' RECESSED LED PERIMETER DOWNLIGHT WITH REGRESSED LENS.	FOCAL POINT	FSM2L-SR-375LF-40K-1C-UNV-LD1-XF-WH-20'	135 W	LED	4000 K	277 V	COORDINATE CEILING CONFIGURATION PRIOR TO INSTALLATION
H	WALL	4'x11" RECTANGULAR WALL SCONCE	SPI LIGHTING	AIW8285-ACM	14 W	LED	4000 K	277 V	
HE	WALL	4'x11" RECTANGULAR WALL SCONCE WITH REMOTE EMERGENCY BATTERY	SPI LIGHTING	AIW8285-ACM	14 W		4000 K	277 V	
J	SURFACE	4' LINEAR LED FIXTURE WITH INTEGRAL MOTION SENSOR	LITHONIA	BLWP4-40L-ADP-EZ1-LP840-MSDPDT7ADCX	37 W	LED	4000 K	277 V	
JE	SURFACE	4' LINEAR LED FIXTURE WITH INTEGRAL MOTION SENSOR AND EMERGENCY BATTERY	LITHONIA	BLWP4-40L-ADP-EZ1-LP840-MSDPDT7ADCX-EL14L	37 W	LED	4000 K	277 V	
K	SUSPENDED	8' SUSPENDED LINEAR LED LIGHT FIXTURE, 0-10V DIMMING	AXIS LIGHTING	LTLED-SL80/20-800-80-40-SI/A-8-WP-UNV-DP-1-CT	102 W	LED	4000 K	277 V	
L	SURFACE	SURFACE MOUNT LINEAR FIXTURE - 4'	LITHONIA	XVML-L4ft-3500LM-MVOLT-40K-80CRI	33 W	LED	3500 K	277 V	
M	RECESSED	RECESSED 1X4 TROFFER	COLUMBIA	LEPC-14-40-ML-G-LL-ED-U-FK14	41 W	LED	4000 K	277 V	
ME	RECESSED	RECESSED 1X4 TROFFER, EMERGENCY BATTERY	COLUMBIA	LEPC-14-40-ML-G-LL-ED-U-FK14-ELL14	41 W	LED	4000 K	277 V	
N	SUSPENDED	LED HIGH BAY	LITHONIA	IBL-12L-WD-MVOLT-LP840-ZACVH	100 W	LED	4000 K	277 V	
NE	SUSPENDED	LED HIGH BAY WITH EMERGENCY BATTERY	LITHONIA	IBL-12L-WD-MVOLT-LP840-ZACVH-2412	100 W	LED	4000 K	277 V	
P8	SUSPENDED	1"x 8' LED SUSPENDED LINEAR DIRECT, 0-10V DIMMING	FOCAL POINT	FSM1B5-BWFL-625DN-625UP-40K-1C-UNV-LD1-C48-WH-8'	56 W	LED	4000 K	277 V	
PE8	SUSPENDED	1"x 8' LED SUSPENDED LINEAR DIRECT, 0-10V DIMMING, EMERGENCY BATTERY	FOCAL POINT	FSM1B5-BWFL-625DN-625UP-40K-1C-UNV-LD1-C48-WH-8'-EM	56 W	LED	4000 K	277 V	
R2	SUSPENDED	36" DECORATIVE PENDANT DOWNLIGHT	TECH LIGHTING	700-TD-SYRGP-B-LED930	52 W	LED	3500 K	277 V	
R3	SUSPENDED	22" DECORATIVE PENDANT DOWNLIGHT	TECH LIGHTING	700-TD-SYRP-B-LED930	52 W	LED	3500 K	277 V	
S2	IN GROUND	10" DIAMETER LED IN GRADE WALL WASH LIGHT FIXTURE	KIM LIGHTING	LTV82-WW-36L-3K-UV-SR-RCA82	10 W		3450 K	277 V	
S4	POLE	LED PARKING LOT LIGHT FIXTURE ON 30FT POLE	LITHONIA	KAX1-LED-P4-40K-R4-MVOLT-SPA-DDBXD	160 W	LED	4000 K	277 V	NO EQUALS ALLOWED.
S5	POLE	LED PARKING LOT LIGHT FIXTURE ON 30FT POLE	LITHONIA	KAX1-LED-P4-40K-R5-MVOLT-SPA-DDBXD	160 W	LED	4000 K	277 V	NO EQUALS ALLOWED.
T	SUSPENDED	TRACK LIGHTING	BRUCK LIGHTING	350419-XTM19-11LM-35K-83-SA60-MC-ZONMC	500 W	LED	3500 K	120 V	
T2	SURFACE	LED CHANEL CORNER MOUNT	ACOLYTE	CHAC3-C-90-SWS220-2-2-35-1	32 W	LED	3500 K	120 V	PROVIDE 24V REMOTE TRANSFORMER.
W	WALL	EXTERIOR LED WALL PACK	LITHONIA	WSTLED-P2-40K-VW-MVOLT-DNAXD	40 W	LED	4000 K	277 V	
WE	WALL	EXTERIOR LED WALL PACK WITH EMERGENCY BATTERY	LITHONIA	WSTLED-P2-40K-VW-MVOLT-DNAXD-E20WC	40 W	LED	4000 K	277 V	

MECHANICAL EQUIPMENT CONNECTION SCHEDULE

ITEM	DESCRIPTION	VOLTS	PHASE	DISC. BY	DISC. TYPE	DISC. FUSE SIZE	DISC. SIZE	NEMA	PANEL	CIRCUIT NO.	CONDUCTORS PHASE	CONDUCTORS GROUND	CONDUCTORS NEUTRAL	CONDUIT SIZE	COMMENTS
AHU-1	AIR HANDLING UNIT	480 V	3	M	NF	-	30A	1	MDP	8	3-#10	#10	-	0.75"	
AHU-2	AIR HANDLING UNIT	480 V	3	M	NF	-	30A	1	MDP	9	3-#12	#12	-	0.75"	
AHU-3	AIR HANDLING UNIT	480 V	3	M	NF	-	30A	1	MDP	10	3-#12	#12	-	0.75"	
CRAH-1	COMPUTER ROOM AIR HANDLING UNIT	480 V	3	M	NF	-	30A	1	HEM	8,10,12	3-#12	#12	-	0.75"	
CRAH-2	COMPUTER ROOM AIR HANDLING UNIT	208 V	3	M	NF	-	30A	1	LEM	18,20,22	3-#10	#10	-	0.75"	
CRAH-3	COMPUTER ROOM AIR HANDLING UNIT	480 V	3	M	NF	-	30A	1	HEM	7,9,11	3-#12	#12	-	0.75"	
CRAH-4	COMPUTER ROOM AIR HANDLING UNIT	208 V	3	M	NF	-	30A	1	LEM	21,23,25	3-#10	#10	-	0.75"	
CU-1	CONDENSING UNIT	480 V	3	C	NF	-	30A	3R	HEM	13,15,17	3-#12	#12	-	0.75"	
CU-2	CONDENSING UNIT	208 V	3	C	NF		60A	3R	LEM	27,29,31	3-#6	#10	-	1"	
CU-3	CONDENSING UNIT	480 V	3	C	NF	-	30A	3R	HEM	14,16,18	3-#12	#12	-	0.75"	
CU-4	CONDENSING UNIT	208 V	3	C	NF	-	60A	3R	LEM	33,35,37	3-#6	#10	-	1"	
EF-1	EXHAUST FAN	480 V	3	C	NF	-	30A	3R	DPH-2	2,4,6	3-#12	#12	-	0.75"	
EF-2	EXHAUST FAN	120 V	1	C	TOG	-	30A	3R	LPK 1-2	21	#12	#12	#12	0.75"	
EF-3	EXHAUST FAN	120 V	1	C	TOG	-	20A	1	LPK 1-2	40	#12	#12	#12	0.75"	
ERV-1	ENERGY RECOVERY UNIT	480 V	3	C	NF	-	30A	1	MDP	11	3-#12	#12	-	0.75"	
FCU-1	FAN COIL UNIT	120 V	1	C	TOG	-	20A	1	LPH-1	6	#12	#12	#12	0.75"	
FCU-2	FAN COIL UNIT	120 V	1	C	TOG	-	20A	1	LPH-1	4	#12	#12	#12	0.75"	
MAU-1	MAKE UP AIR UNIT	480 V	3	C	NF	-	30A	3R	DPH-2	7,9,11	#12	#12	#12	0.75"	
RP-1	RECIRCULATION PUMP	120 V	1	C	TOG	-	20A	1	LPH-1	3	#12	#12	#12	0.75"	
RP-2	RECIRCULATION PUMP	120 V	1	C	TOG	-	20A	1	LPH-1	5	#12	#12	#12	0.75"	
VAV-1-1	VAV BOX	277 V	1	C	TOG		20A	1	DPH-1	10	#12	#12	#12	0.75"	
VAV-1-2A	VAV BOX	277 V	1	C	TOG		20A	1	DPH-1	9	#12	#12	#12	0.75"	
VAV-1-2B	VAV BOX	277 V	1	C	TOG		20A	1	DPH-1	9	#12	#12	#12	0.75"	
VAV-1-3	VAV BOX	277 V	1	C	TOG		20A	1	DPH-1	4	#12	#12	#12	0.75"	
VAV-1-4	VAV BOX	277 V	1	C	TOG		20A	1	DPH-1	4	#12	#12	#12	0.75"	
VAV-1-5	VAV BOX	277 V	1	C	TOG		20A	1	DPH-1	2	#12	#12	#12	0.75"	
VAV-1-6	VAV BOX	277 V	1	C	TOG		20A	1	DPH-1	2	#12	#12	#12	0.75"	
VAV-1-7	VAV BOX	277 V	1	C	TOG		20A	1	DPH-1	6	#12	#12	#12	0.75"	
VAV-1-8	VAV BOX	277 V	1	C	TOG		20A	1	DPH-1	8	#12	#12	#12	0.75"	
VAV-1-9	VAV BOX	277 V	1	C	TOG		20A	1	DPH-1	7	#12	#12	#12	0.75"	
VAV-1-10	VAV BOX	277 V	1	C	TOG		20A	1	DPH-1	7	#12	#12	#12	0.75"	
VAV-2-1	VAV BOX	277 V	1	C	TOG		20A	1	DPH-2	8	#12	#12	#12	0.75"	
VAV-2-2	VAV BOX	277 V	1	C	TOG		20A	1	DPH-2	8	#12	#12	#12	0.75"	
VAV-2-3	VAV BOX	277 V	1	C	TOG		20A	1	DPH-2	10	#12	#12	#12	0.75"	
VAV-2-4	VAV BOX	277 V	1	C	TOG		20A	1	DPH-2	8	#12	#12	#12	0.75"	
VAV-2-5	VAV BOX	277 V	1	C	TOG		20A	1	DPH-2	10	#12	#12	#12	0.75"	
VAV-2-6	VAV BOX	277 V	1	C	TOG		20A	1	DPH-2	10	#12	#12	#12	0.75"	
VAV-2-7	VAV BOX	277 V	1	C	TOG		20A	1	DPH-2	13	#12	#12	#12	0.75"	
VAV-2-8	VAV BOX	277 V	1	C	TOG		20A	1	DPH-2	14	#12	#12	#12	0.75"	
VAV-2-9	VAV BOX	277 V	1	C	TOG		20A	1	DPH-2	14	#12	#12	#12	0.75"	
VAV-2-10	VAV BOX	277 V	1	C	TOG		20A	1	DPH-2	18	#12	#12	#12	0.75"	
VAV-2-11	VAV BOX	277 V	1	C	TOG		20A	1	DPH-2	15	#12	#12	#12	0.75"	
VAV-2-12	VAV BOX	277 V	1	C	TOG		20A	1	DPH-2	15	#12	#12	#12	0.75"	
VAV-2-13	VAV BOX	277 V	1	C	TOG		20A	1	DPH-2	16	#12	#12	#12	0.75"	
VAV-2-14	VAV BOX	277 V	1	C	TOG		20A	1	DPH-2	16	#12	#12	#12	0.75"	
VAV-2-15	VAV BOX	277 V	1	C	TOG		20A	1	DPH-2	17	#12	#12	#12	0.75"	
VAV-2-16	VAV BOX	277 V	1	C	TOG		20A	1	DPH-2	12	#12	#12	#12	0.75"	
VAV-2-17	VAV BOX	277 V	1	C	TOG		20A	1	DPH-2	12	#12	#12	#12	0.75"	
VAV-2-18	VAV BOX	277 V	1	C	TOG		20A	1	DPH-2	13	#12	#12	#12	0.75"	
VAV-2-19	VAV BOX	277 V	1	C	TOG		20A	1	DPH-2	18	#12	#12	#12	0.75"	
VAV-2-20	VAV BOX	277 V	1	C	TOG		20A	1	DPH-2	13	#12	#12	#12	0.75"	
WH-1	WATER HEATER	120 V	1	C	TOG	-	20A	1	LPH-1	7	#12	#12	#12	0.75"	
WH-2	WATER HEATER	120 V	1	C	TOG	-	20A	1	LPH-1	8	#12	#12	#12	0.75"	
WH-3	WATER HEATER	120 V	1	C	TOG	-	20A	1	LPH-1	9	#12	#12	#12	0.75"	

SCHEDULE GENERAL NOTES

1. ALL MAGNETIC AND SOLID STATE STARTERS ARE TO BE EQUIPED WITH AUXILARY CONTACTS, PILOT LIGHTS AND FUSED CONTROL POWER TRANSFORMERS.

2. DISCONNECT SWITCHES AND CONTROLLERS MAY NOT BE SHOWN ON PLANS FOR CLARITY. LOCATE DISCONNECT SWITCHES AND CONTROLLERS WITHIN LINE OF SITE OF THE EQUIPMENT IT IS SERVING AND PER NEC CLEARANCE RQUIREMENTS. ALL DISCONNECT SWITCHES TO BE HEAVY DUTY RATED.

ELECTRICAL CONNECTION SCHEDULE LEGEND

M=FURNISHED BY MANUFACTURER
C=FURNISHED BY CONTRACTOR
NF=NON FUSED DISCONNECT SWITCH
F=FUSED DISCONNECT SWITCH
VFD=VARIABLE FREQUENCY DRIVE
VFD1=VARIABLE FREQUENCY DRIVE WITH FUSED DISCONNECT
VFD2=VARIABLE FREQUENCY DRIVE WITH NON-FUSED DISCONNECT
VFD3=VARIABLE FREQUENCY DRIVE WITH INTEGRAL CIRCUIT BREAKER

COMB-COMBINATION FULL VOLTAGE NON-REVERSING MAGNETIC MOTOR STARTER WITH FUSED DISCONNECT
COMB1-COMBINATION FULL VOLTAGE NON-REVERSING MAGNETIC STARTER WITH NON FUSED DISCONNECT
FVR-FULL VOLTAGE REVERSING MAGNETIC MOTOR STARTER
FVNR-FULL VOLTAGE NON-REVERSING MAGNETIC MOTOR STARTER WITHOUT DISCONNECT
MS-MANUAL STARTER
PWCP-PREWIERED CONTROL PANEL
TOG-TOGGLE TYPE SWITCH 1HP RATED WITH THERMAL OVERLOAD PROTECTION

SCHEDULE GENERAL NOTES

HOAP-HAND OFF AUTO W/PILOT LIGHT (RUN AND STOP)
PB-START/STOP PUSH BUTTON (MOMENTARY CONTACT)
MB-ISOLATED MANUAL BYPASS

COMMENTS:
1.

OFFICE OF THE ADJUTANT GENERAL

MISSOURI NATIONAL GUARD FACILITIES DIVISION

olsson

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Missouri Certificate of Authority #0001592
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Engineer of Record
CORY WILSON
02-24-2020
NUMBER PE-2010009876
STATE OF MISSOURI
PROFESSIONAL ENGINEER

Cory Wilson, Engineer MO PE-2010009876

TASMG READINESS CENTER

AVCRAD SITE
1107TH THEATER AVIATION SUSTAINMENT MAINTENANCE GROUP

MISSOURI NATIONAL GUARD
SPRINGFIELD, MISSOURI

NATIONAL GUARD BUREAU PROJECT #290186
MISSOURI NATIONAL GUARD PROJECT #T1809-01
SITE #9019
ASSET #8136270008

DRAWN BY: SH
CHECKED BY: TD
DESIGNED BY: SH

REVISION:
DATE:
REVISION:
DATE:
REVISION:
DATE:
ISSUED DATE: 26 February 2020

SHEET TITLE:

ELECTRICAL SCHEDULES

SHEET NUMBER:

E700

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PANEL LEM
VOLTAGE 120/208 Wye
MCB OR MLO 250A MCB
FED FROM TF-EM
PHASE BUS RATING 250 A
AIC RATING 10K
AVAILABLE SHORT CKT.... 4K
LOCATION DEMARC 125
MOUNTING SURFACE
NO. OF POLES 42

NOTE	LOAD DESCRIPTION	AMP	P	CKT. NO.	A		B		C		CKT. NO.	P	AMP	LOAD DESCRIPTION	NOTE
	FIRE ALARM CONTROL PANEL	20 A	1	1	500	6667					2	3	60 A	IT PANEL	
	QUAD RECEPT TELE RM 127	20 A	1	3			360	6667			4	--	--	--	--
	QUAD RECEPT TELE RM 127	20 A	1	5					360	6667	6	--	--	--	--
	QUAD RECEPT TELE RM 111	20 A	1	7	360	360					8	1	20 A	QUAD RECEPT TELE RM 111	
	RM 230/216/215 QUAD-RECPT	20 A	1	9			360	1000			10	1	20 A	MED SEC 224 FRIGE	
	QUAD RECEPT IDF RM 226	20 A	1	11					360	360	12	1	20 A	QUAD RECEPT IDF RM 226	
	UPS RECEPT TELE RM 124	30 A	2	13	1500	1500					14	2	30 A	UPS RECEPT TELE RM 124	
--	--	--	--	15			1500	1500			16	--	--	--	--
	UPS RECEPT RM 111	20 A	2	17					1000	1567	18	3	25 A	CRAH-2	
--	--	--	--	19	1000	1567					20	--	--	--	--
	CRAH-4	25 A	3	21			1567	1567			22	--	--	--	--
--	--	--	--	23					1567	1000	24	2	20 A	UPS RECEPT IDF 226	
--	--	--	--	25	1567	1000					26	--	--	--	--
	CU-2	50 A	3	27			4515	1000			28	2	20 A	UPS RECEPT IDF 226	
--	--	--	--	29					4515	1000	30	--	--	--	--
--	--	--	--	31	4515	1000					32	1	20 A	Receptacle	
	CU-4	50 A	3	33			4515	0			34	1	20 A	SPARE	--
--	--	--	--	35					4515	0	36	1	20 A	SPARE	--
--	--	--	--	37	4515	0					38	1	20 A	SPARE	--
--	SPACE ONLY	--	--	39			0	0			40	--	--	SPACE ONLY	--
--	SPACE ONLY	--	--	41					0	0	42	--	--	SPACE ONLY	--

LOAD CLASSIFICATIONS	CONNECTED (VA)	DEMAND FACTOR	DEMAND (VA)
HVAC	27092 VA	100.00%	27092 VA
HVAC_Cooling	9400 VA	100.00%	9400 VA
Other	20000 VA	100.00%	20000 VA
Power	500 VA	100.00%	500 VA
Receptacle	16520 VA	80.27%	13260 VA

	KVA	AMPS
TOTAL PHASE A	26.05	219
TOTAL PHASE B	24.55	207
TOTAL PHASE C	22.91	191
CONNECTED LOAD:	73.512	204
MAXIMUM DEMAND:	70.252	195

NOTES:
AFCI - ARC FAULT CIRCUIT INTERRUPTION TYPE CIRCUIT BREAKER
CZ# - CONTROL ZONE NUMBER FOR REMOTE CONTROL
BMS# - ROUTE CIRCUIT THROUGH BUILDING MANAGEMENT SYSTEM
GFCI - GROUND FAULT CIRCUIT INTERRUPTING TYPE CIRCUIT...
GFPE - GROUND FAULT PROTECTION EQUIPMENT CIRCUIT BREAKER
HLO - HANDLE LOCK ON DEVICE FOR CIRCUIT BREAKER
HPL- PADLOCK ATTACHMENT TO LOCK C/B HANDLE IN OPEN POSITION

PANEL HEM
VOLTAGE 480/277 Wye
MCB OR MLO MCB
FED FROM ATS
PHASE BUS RATING 400 A
AIC RATING 42K
AVAILABLE SHORT CKT.... 29K
LOCATION DEMARC 125
MOUNTING SURFACE
NO. OF POLES 30

NOTE	LOAD DESCRIPTION	AMP	P	CKT. NO.	A		B		C		CKT. NO.	P	AMP	LOAD DESCRIPTION	NOTE
	TF-EM	110 A	3	1	26051	0					2	3	60 A	SURGE PROTECTION DEVICE	--
--	--	--	--	3			24551	0			4	--	--	--	--
--	--	--	--	5					22911	0	6	--	--	--	--
	CRAH-3	20 A	3	7	2000	2000					8	3	20 A	CRAH-1	
--	--	--	--	9			2000	2000			10	--	--	--	--
--	--	--	--	11					2000	2000	12	--	--	--	--
	CU-1	15 A	3	13	2106	2106					14	3	15 A	CU-3	
--	--	--	--	15			2106	2106			16	--	--	--	--
--	--	--	--	17					2106	2106	18	--	--	--	--
--	SPACE ONLY	--	--	19	0	0					20	--	--	SPACE ONLY	--
--	SPACE ONLY	--	--	21			0	0			22	--	--	SPACE ONLY	--
--	SPACE ONLY	--	--	23					0	0	24	--	--	SPACE ONLY	--
--	SPACE ONLY	--	--	25	0	0					26	--	--	SPACE ONLY	--
--	SPACE ONLY	--	--	27			0	0			28	--	--	SPACE ONLY	--
--	SPACE ONLY	--	--	29					0	0	30	--	--	SPACE ONLY	--

LOAD CLASSIFICATIONS	CONNECTED (VA)	DEMAND FACTOR	DEMAND (VA)
HVAC	39728 VA	100.00%	39728 VA
HVAC_Cooling	21400 VA	100.00%	21400 VA
Other	20000 VA	100.00%	20000 VA
Power	500 VA	100.00%	500 VA
Receptacle	16520 VA	80.27%	13260 VA

	KVA	AMPS
TOTAL PHASE A	34.26	125
TOTAL PHASE B	32.76	119
TOTAL PHASE C	31.12	112
CONNECTED LOAD:	98.148	118
MAXIMUM DEMAND:	94.888	114

NOTES:
AFCI - ARC FAULT CIRCUIT INTERRUPTION TYPE CIRCUIT BREAKER
CZ# - CONTROL ZONE NUMBER FOR REMOTE CONTROL
BMS# - ROUTE CIRCUIT THROUGH BUILDING MANAGEMENT SYSTEM
GFCI - GROUND FAULT CIRCUIT INTERRUPTING TYPE CIRCUIT...
GFPE - GROUND FAULT PROTECTION EQUIPMENT CIRCUIT BREAKER
HLO - HANDLE LOCK ON DEVICE FOR CIRCUIT BREAKER
HPL- PADLOCK ATTACHMENT TO LOCK C/B HANDLE IN OPEN POSITION

Distribution: MDP

MAINS : 800 A
OCPD RATING: 800 A
BUS RATING: 800 A
AIC RATING: 42K
AIC AVAILABLE
SERVICE VOLTAGE: 480/277 Wye, 3-Phase, 4-Wire
LOCATION: DEMARC 125
MOUNTING: Floor
DRAWING NO.:
FED FROM ITEM TYPE:
FED FROM ID:
NOTES:

LOAD DESCRIPTION	CKT NO.	P	A	B	C	FRAME SIZE	BREAKER TRIP	NOTES
ATS	1	3	34262.7	32762.7	31122.7	400 A	400 A	
TF-IPC-1	2	3	16260.0	16560.0	13680.0	225 A	110 A	
TF-IPC-2	3	3	24040.0	24800.0	23840.0	225 A	110 A	
HL-1	4	3	13086.5	8623.5	6294.0	225 A	225 A	
DPH-1	5	3	12320.0	12068.0	3068.0	225 A	225 A	
DPH-2	6	3	24512.3	19900.3	22877.3	225 A	225 A	
HPK	7	3	43751.0	42603.0	41905.0	225 A	150 A	
AHU-1	8	3	4766.7	4766.7	4766.7	25 A	25 A	
AHU-2	9	3	3857.7	3857.7	3857.7	20 A	20 A	
AHU-3	10	3	775.7	775.7	775.7	20 A	20 A	
ERV-1	11	3	831.3	831.3	831.3	20 A	20 A	
ELEVATOR EPM1	12	3	13333.3	13333.3	13333.3	100 A	100 A	
SPARE	13	1	0.0			--	200 A	
SPARE	14	1	0.0			--	200 A	
SPARE	15	1	0.0			--	200 A	
SPARE	16	1	0.0			--	200 A	
	Total Load:		191.8 kVA	180.9 kVA	166.4 kVA			
	Total Amps:		700.5 A	661.1 A	600.5 A			

Load Classification	Connected...	Demand Factor	Estimated...	Panel Totals	
HVAC	130571 VA	100.00%	130571 VA		
HVAC_Cooling	21880 VA	100.00%	21880 VA	**Total Conn. Load:**	537.9 kVA
Heating	12500 VA	100.00%	12500 VA	**Total Conn. Current:**	647.0 A
Kitchen	129390 VA	65.00%	84104 VA	**Total Est. Demand:**	446.62 kVA
Lighting	31190 VA	125.00%	38988 VA	**Total Est. Demand Current:**	537.2 A
Motor	2300 VA	125.00%	2875 VA	**Future Load Growth:**	
Other	49000 VA	100.00%	49000 VA	**Min. Panel Rating (Amps):**	537 A
Power	42300 VA	100.00%	42300 VA	**Adjusted Demand Factor**	
Receptacle	118800 VA	54.21%	64400 VA	**Total Adjusted Demand...**	0

PANEL HPK
VOLTAGE 480/277 Wye
MCB OR MLO MLO
FED FROM MDP
PHASE BUS RATING 225 A
AIC RATING 18K
AVAILABLE SHORT CKT.... 14K
LOCATION ELEC 111
MOUNTING SURFACE
NO. OF POLES 42

NOTE	LOAD DESCRIPTION	AMP	P	CKT. NO.	A		B		C		CKT. NO.	P	AMP	LOAD DESCRIPTION	NOTE
	TF-K	175 A	3	1	18606	3833					2	3	25 A	COFFEE BREWER (#6)	
--	--	--	--	3			17458	3833			4	--	--	--	--
--	--	--	--	5					16760	3833	6	--	--	--	--
	DISPOSAL (#26)	20 A	3	7	1746	3714					8	3	25 A	DISHMACHINE (#30)	
--	--	--	--	9			1746	3714			10	--	--	--	--
--	--	--	--	11					1746	3714	12	--	--	--	--
	DISPOSAL (#34)	20 A	3	13	1746	5016					14	3	25 A	BOOSTER HEATER (#41)	
--	--	--	--	15			1746	5016			16	--	--	--	--
--	--	--	--	17					1746	5016	18	--	--	--	--
	TILT KETTLE (#45)	20 A	3	19	3991	3991					20	3	25 A	TILT KETTLE (#46)	
--	--	--	--	21			3991	3991			22	--	--	--	--
--	--	--	--	23					3991	3991	24	--	--	--	--
--	SHUNT TRIP	--	--	25	0	0					26	--	--	SHUNT TRIP	--
	DISPOSAL (#54)	20 A	3	27			1109				28				
--	--	--	--	29					1109		30				
--	--	--	--	31	1109						32				
				33				0			34	--	--	SPACE ONLY	--
--	SPACE ONLY	--	--	35					0	0	36	--	--	SPACE ONLY	--
--	SPACE ONLY	--	--	37	0	0					38	--	--	SPACE ONLY	--
--	SPACE ONLY	--	--	39			0	0			40	--	--	SPACE ONLY	--
--	SPACE ONLY	--	--	41					0	0	42	--	--	SPACE ONLY	--

LOAD CLASSIFICATIONS	CONNECTED (VA)	DEMAND FACTOR	DEMAND (VA)
HVAC	566 VA	100.00%	566 VA
Heating	500 VA	100.00%	500 VA
Kitchen	119927 VA	65.00%	77953 VA
Lighting	2406 VA	125.00%	3008 VA
Receptacle	4860 VA	100.00%	4860 VA

	KVA	AMPS
TOTAL PHASE A	43.75	158
TOTAL PHASE B	42.60	154
TOTAL PHASE C	41.91	151
CONNECTED LOAD:	128.259	154
MAXIMUM DEMAND:	86.88...	105

NOTES:
AFCI - ARC FAULT CIRCUIT INTERRUPTION TYPE CIRCUIT BREAKER
CZ# - CONTROL ZONE NUMBER FOR REMOTE CONTROL
BMS# - ROUTE CIRCUIT THROUGH BUILDING MANAGEMENT SYSTEM
GFCI - GROUND FAULT CIRCUIT INTERRUPTING TYPE CIRCUIT...
GFPE - GROUND FAULT PROTECTION EQUIPMENT CIRCUIT BREAKER
HLO - HANDLE LOCK ON DEVICE FOR CIRCUIT BREAKER
HPL- PADLOCK ATTACHMENT TO LOCK C/B HANDLE IN OPEN POSITION

PANEL LPK 1-2
VOLTAGE 120/208 Wye
MCB OR MLO 350A MCB
FED FROM TF-K
PHASE BUS RATING 400 A
AIC RATING 10K
AVAILABLE SHORT CKT.... 4K
LOCATION CORRIDOR 102
MOUNTING RECESSED
NO. OF POLES 84

NOTE	LOAD DESCRIPTION	AMP	P	CKT. NO.	A		B		C		CKT. NO.	P	AMP	LOAD DESCRIPTION	NOTE
	WALKIN LIGHTING	20 A	1	1	756	500					2	1	20 A	HEAT TRACE	
	CONVECTION OVENS (#49)	20 A	1	3			1440	180			4	1	20 A	RANGE	
--	SHUNT TRIP	--	--	5					0	0	6	--	--	SHUNT TRIP	--
	GRIDDLE (#20)	45 A	3	7	4000	1560					8	1	25 A	POTATOE PEELER (#55)	
--	--	--	--	9			4000	1824			10	1	20 A	ICE MACHINE (#57)	
--	--	--	--	11					4000	1900	12	1	20 A	SLICER (#59)	
--	SHUNT TRIP	--	--	13	0	1900					14	1	20 A	MIXER (#61)	
	SINK HEATER (#36)	35 A	3	15			3000	1900			16	1	20 A	PREP TABLE RECEPT (#62)	
--	--	--	--	17					3000	1900	18	1	20 A	CAN OPENER (#53)	
--	--	--	--	19	3000	180					20	1	20 A	WATER METER (#47)	
	EF-2	20 A	1	21			528	1400			22	1	20 A	KITCHEN HOOD LIGHTS	
	HOOD CONTROL PANEL	20 A	1	23					500	840	24	1	20 A	REFRIGERATOR (#67)	
	ICE DISPENSER	20 A	1	25	1000	750					26	2	20 A	REACH IN WARMER (#19)	
	COLD FOOD STATION (#16)	20 A	1	27			624	750			28	--	--	--	--
	HOT FOOD STATION (#17)	25 A	2	29					1800	1020	30	1	20 A	JUICE DESPENSER (#5)	
--	--	--	--	31	1800	1000					32	1	20 A	ICE DESPENSER (#7)	
	COLD BAR (#8)	20 A	1	33			624	540			34	1	20 A	TLT 107 GFI RECEPTS	
	OFFICE 107B RECEPTS	20 A	1	35					540	540	36	1	20 A	OFFICE 107B RECEPTS	
	SKULLRY GFI RECEPTS	20 A	1	37	900	360					38	1	20 A	SERVING GFI RECEPTS	
	TRACK LTG LOBBY 101	20 A	1	39			250	38			40	1	20 A	EF-3	
	SERVING RECPTS	20 A	1	41					180	180	42	1	20 A	KITCHEN RECEPT	
	KITCHEN RECEPTS	20 A	1	43	360	180					44	1	20 A	SERVING RECPTS	
	SERVING RECPTS	20 A	1	45			180	180			46	1	20 A	SERVING RECPTS	
	SERVING RECPTS	20 A	1	47					180	180	48	1	20 A	SERVING RECPTS	
	KITCHEN RECEPTS	20 A	1	49	360	0					50	1	20 A	SPARE	--
--	SPARE	20 A	1	51			0	0			52	1	20 A	SPARE	--
--	SPARE	20 A	1	53					0	0	54	1	20 A	SPARE	--
--	SPARE	20 A	1	55	0	0					56	1	20 A	SPARE	--
--	SPARE	20 A	1	57			0	0			58	1	20 A	SPARE	--
--	SPARE	20 A	1	59					0	0	60	1	20 A	SPARE	--
--	SPARE	20 A	1	61	0	0					62	1	20 A	SPARE	--
--	SPARE	20 A	1	63			0	0			64	1	20 A	SPARE	--
--	SPACE ONLY	--	--	65					0	0	66	--	--	SPACE ONLY	--
--	SPACE ONLY	--	--	67	0	0					68	--	--	SPACE ONLY	--
--	SPACE ONLY	--	--	69			0	0			70	--	--	SPACE ONLY	--
--	SPACE ONLY	--	--	71					0	0	72	--	--	SPACE ONLY	--
--	SPACE ONLY	--	--	73	0	0					74	--	--	SPACE ONLY	--
--	SPACE ONLY	--	--	75			0	0			76	--	--	SPACE ONLY	--
--	SPACE ONLY	--	--	77					0	0	78	--	--	SPACE ONLY	--
--	SPACE ONLY	--	--	79	0	0					80	--	--	SPACE ONLY	--
--	SPACE ONLY	--	--	81			0	0			82	--	--	SPACE ONLY	--
--	SPACE ONLY	--	--	83					0	0	84	--	--	SPACE ONLY	--

LOAD CLASSIFICATIONS	CONNECTED (VA)	DEMAND FACTOR	DEMAND (VA)
HVAC	566 VA	100.00%	566 VA
Heating	500 VA	100.00%	500 VA
Kitchen	44492 VA	65.00%	28920 VA
Lighting	2406 VA	125.00%	3008 VA
Receptacle	4860 VA	100.00%	4860 VA

	KVA	AMPS
TOTAL PHASE A	18.61	156
TOTAL PHASE B	17.46	146
TOTAL PHASE C	16.76	140
CONNECTED LOAD:	52.824	147
MAXIMUM DEMAND:	37.8533	105

NOTES:
AFCI - ARC FAULT CIRCUIT INTERRUPTION TYPE CIRCUIT BREAKER
CZ# - CONTROL ZONE NUMBER FOR REMOTE CONTROL
BMS# - ROUTE CIRCUIT THROUGH BUILDING MANAGEMENT SYSTEM
GFCI - GROUND FAULT CIRCUIT INTERRUPTING TYPE CIRCUIT...
GFPE - GROUND FAULT PROTECTION EQUIPMENT CIRCUIT BREAKER
HLO - HANDLE LOCK ON DEVICE FOR CIRCUIT BREAKER
HPL- PADLOCK ATTACHMENT TO LOCK C/B HANDLE IN OPEN POSITION

PANEL HL-1
VOLTAGE 480/277 Wye
MCB OR MLO MLO
FED FROM MDP
PHASE BUS RATING 225 A
AIC RATING 42K
AVAILABLE SHORT CKT.... 29K
LOCATION DEMARC 125
MOUNTING SURFACE
NO. OF POLES 24

NOTE	LOAD DESCRIPTION	AMP	P	CKT. NO.	A		B		C		CKT. NO.	P	AMP	LOAD DESCRIPTION	NOTE
	LTG RM125/ MECH 123 / STORAGE 119	20 A	1	1	2080	2209					2	1	20 A	ENTRY 126 LTG	
	ARMS VAULT LTG	20 A	1	3			837	2281			4	1	20 A	LOCKER RM 118/117 LTG	
	LOCKER RM 116 LTG	20 A	1	5					586	2073	6	1	20 A	RM 112/113/114 LTG	
	RR 108/110 LTG	20 A	1	7	1871	985					8	1	20 A	CORRIDOR 102B LTG	
	PENDANT LTG LOBBY 101	20 A	1	9			208	1185			10	1	20 A	KITCHEN LTG	
	EXTERIOR INGRADE	20 A	1	11					480	1524	12	1	20 A	RM 103/104/105/106 LTG	
	TIME CLOCK	20 A	1	13	480	0					14	1	20 A	SPARE	--
--	SPARE	20 A	1	15			0	0			16	1	20 A	SPARE	--
--	SPARE	20 A	1	17					0	0	18	1	20 A	SPARE	--
	HL-2	225 A	3	19	5462	0					20	--	--	SPACE ONLY	--
--	--	--	--	21			4113	0			22	--	--	SPACE ONLY	--
--	--	--	--	23					1631	0	24	--	--	SPACE ONLY	--

LOAD CLASSIFICATIONS	CONNECTED (VA)	DEMAND FACTOR	DEMAND (VA)
Lighting	28004 VA	125.00%	35005 VA
Power	0 VA	0.00%	0 VA

	KVA	AMPS
TOTAL PHASE A	13.09	49
TOTAL PHASE B	8.62	32
TOTAL PHASE C	6.29	23
CONNECTED LOAD:	28.004	34
MAXIMUM DEMAND:	35.005	42

NOTES:
AFCI - ARC FAULT CIRCUIT INTERRUPTION TYPE CIRCUIT BREAKER
CZ# - CONTROL ZONE NUMBER FOR REMOTE CONTROL
BMS# - ROUTE CIRCUIT THROUGH BUILDING MANAGEMENT SYSTEM
GFCI - GROUND FAULT CIRCUIT INTERRUPTING TYPE CIRCUIT...
GFPE - GROUND FAULT PROTECTION EQUIPMENT CIRCUIT BREAKER
HLO - HANDLE LOCK ON DEVICE FOR CIRCUIT BREAKER
HPL- PADLOCK ATTACHMENT TO LOCK C/B HANDLE IN OPEN POSITION

PANEL HL-2
VOLTAGE 480/277 Wye
MCB OR MLO MLO
FED FROM HL-1
PHASE BUS RATING 225 A
AIC RATING 22K
AVAILABLE SHORT CKT.... 17K
LOCATION MAINT/STOR 229
MOUNTING SURFACE
NO. OF POLES 24

NOTE	LOAD DESCRIPTION	AMP	P	CKT. NO.	A		B		C		CKT. NO.	P	AMP	LOAD DESCRIPTION	NOTE
	CORRIDOR LTG	20 A	1	1	190	1632					2	1	20 A	CORRIDOR LTG	
	MECH/ELEC/ RR LTG	20 A	1	3			1088	1491			4	1	20 A	RM 225/226/224, 208-216LTG	
	RM 217-221 LTG	20 A	1	5					722	843	6	1	20 A	RM 204-207 LTG	
	OPEN OFFICE LTG	20 A	1	7	1456	2184					8	1	20 A	OPEN OFFICE LTG	
	OPEN OFFICE LTG	20 A	1	9			1344	190			10	1	20 A	STAIR 222 LTG	
	ELEVATOR CAB LIGHTING	20 A	1	11					66		12				
				13							14				
--	SPACE ONLY	--	--	15			0	0			16	--	--	SPACE ONLY	--
--	SPACE ONLY	--	--	17					0	0	18	--	--	SPACE ONLY	--
--	SPACE ONLY	--	--	19	0	0					20	--	--	SPACE ONLY	--
--	SPACE ONLY	--	--	21			0	0			22	--	--	SPACE ONLY	--
--	SPACE ONLY	--	--	23					0	0	24	--	--	SPACE ONLY	--

LOAD CLASSIFICATIONS	CONNECTED (VA)	DEMAND FACTOR	DEMAND (VA)
Lighting	11206 VA	125.00%	14007 VA
Power	0 VA	0.00%	0 VA

	KVA	AMPS
TOTAL PHASE A	5.46	21
TOTAL PHASE B	4.11	16
TOTAL PHASE C	1.63	6
CONNECTED LOAD:	11.2055	13
MAXIMUM DEMAND:	14.00...	17

NOTES:
AFCI - ARC FAULT CIRCUIT INTERRUPTION TYPE CIRCUIT BREAKER
CZ# - CONTROL ZONE NUMBER FOR REMOTE CONTROL
BMS# - ROUTE CIRCUIT THROUGH BUILDING MANAGEMENT SYSTEM
GFCI - GROUND FAULT CIRCUIT INTERRUPTING TYPE CIRCUIT...
GFPE - GROUND FAULT PROTECTION EQUIPMENT CIRCUIT BREAKER
HLO - HANDLE LOCK ON DEVICE FOR CIRCUIT BREAKER
HPL- PADLOCK ATTACHMENT TO LOCK C/B HANDLE IN OPEN POSITION

OFFICE OF THE ADJUTANT GENERAL

MISSOURI NATIONAL GUARD FACILITIES DIVISION

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MISSOURI NATIONAL GUARD
SPRINGFIELD, MISSOURI

NATIONAL GUARD BUREAU PROJECT #290186
MISSOURI NATIONAL GUARD PROJECT #T1809-01
SITE #9019
ASSET #8136270008

DRAWN BY: SH
CHECKED BY: TD
DESIGNED BY: SH

REVISION:
DATE:
REVISION:
DATE:
REVISION:
DATE:
ISSUED DATE: 26 February 2020

SHEET TITLE:

PANEL SCHEDULES

SHEET NUMBER:

E701

130 OF 131 SHEETS

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PANEL DPH-2
VOLTAGE 480/277 Wye | **PHASE BUS RATING** 225 A | **LOCATION** MAINT/STOR 229
MCB OR MLO MLO | **AIC RATING** 22K | **MOUNTING** SURFACE
FED FROM MDP | **AVAILABLE SHORT CKT....** 14K | **NO. OF POLES** 42

NOTE	LOAD DESCRIPTION	AMP	P	CKT. NO.	A		B		C		CKT. NO.	P	AMP	LOAD DESCRIPTION	NOTE
	TFH2	50 A	3	1	10237	1884					2	3	20 A	EF-1	
--	--	--	--	3			8425	1884			4	--	--	--	--
--	--	--	--	5					11902	1884	6	--	--	--	--
	MAU-1	20 A	3	7	1191	4200					8	1	20 A	VAV 1/2/4	
--	--	--	--	9			1191	2800			10	1	20 A	VAV 5/3/6	
--	--	--	--	11					1191	3700	12	1	20 A	VAV 16/17	
	VAV 18/7	20 A	1	13	4200	2800					14	1	20 A	VAV 8/9	
	VAV 11/12	20 A	1	15			2800	2800			16	1	20 A	VAV 13/14	
	VAV 15	20 A	1	17					1400	2800	18	1	20 A	VAV 10/19	
--	SPARE	20 A	1	19	0	0					20	1	20 A	SPARE	--
--	SPARE	20 A	1	21			0	0			22	1	20 A	SPARE	--
--	SPACE ONLY	--	--	23					0	0	24	--	--	SPACE ONLY	--
--	SPACE ONLY	--	--	25	0	0					26	--	--	SPACE ONLY	--
--	SPACE ONLY	--	--	27			0	0			28	--	--	SPACE ONLY	--
--	SPACE ONLY	--	--	29					0	0	30	--	--	SPACE ONLY	--
--	SPACE ONLY	--	--	31	0	0					32	--	--	SPACE ONLY	--
--	SPACE ONLY	--	--	33			0	0			34	--	--	SPACE ONLY	--
--	SPACE ONLY	--	--	35					0	0	36	--	--	SPACE ONLY	--
--	SPACE ONLY	--	--	37	0	0					38	--	--	SPACE ONLY	--
--	SPACE ONLY	--	--	39			0	0			40	--	--	SPACE ONLY	--
--	SPACE ONLY	--	--	41					0	0	42	--	--	SPACE ONLY	--

LOAD CLASSIFICATIONS	CONNECTED (VA)	DEMAND FACTOR	DEMAND (VA)
HVAC	34427 VA	100.00%	34427 VA
Heating	3000 VA	100.00%	3000 VA
Kitchen	9463 VA	80.00%	7570 VA
Lighting	280 VA	125.00%	350 VA
Motor	2300 VA	125.00%	2875 VA
Other	15500 VA	100.00%	15500 VA
Receptacle	1620 VA	100.00%	1620 VA

	KVA	AMPS
TOTAL PHASE A	24.51	90
TOTAL PHASE B	19.90	72
TOTAL PHASE C	22.88	84
CONNECTED LOAD:	66.59	80
MAXIMUM DEMAND:	65.3424	79

NOTES:
AFCI - ARC FAULT CIRCUIT INTERRUPTION TYPE CIRCUIT BREAKER
CZ# - CONTROL ZONE NUMBER FOR REMOTE CONTROL
BMS# - ROUTE CIRCUIT THROUGH BUILDING MANAGEMENT SYSTEM
GFCI - GROUND FAULT CIRCUIT INTERRUPTING TYPE CIRCUIT...
GFPE - GROUND FAULT PROTECTION EQUIPMENT CIRCUIT BREAKER
HLO - HANDLE LOCK ON DEVICE FOR CIRCUIT BREAKER
HPL- PADLOCK ATTACHMENT TO LOCK C/B HANDLE IN OPEN POSITION

PANEL DPH-1
VOLTAGE 480/277 Wye | **PHASE BUS RATING** 225 A | **LOCATION** MECH/ ELECT 123
MCB OR MLO MLO | **AIC RATING** 42K | **MOUNTING** SURFACE
FED FROM MDP | **AVAILABLE SHORT CKT....** 29K | **NO. OF POLES** 42

NOTE	LOAD DESCRIPTION	AMP	P	CKT. NO.	A		B		C		CKT. NO.	P	AMP	LOAD DESCRIPTION	NOTE
	TFH1	50 A	3	1	2620	3700					2	1	20 A	VAV 5/6	
--	--	--	--	3			1468	3700			4	1	20 A	VAV 3/4	
--	--	--	--	5					768	2300	6	1	20 A	VAV 7	
	VAV 9/10	20 A	1	7	3700	2300					8	1	20 A	VAV 8	
	VAV 2A/2B	20 A	1	9			4600	2300			10	1	20 A	VAV 1	
--	SPARE	20 A	1	11					0	0	12	1	20 A	SPARE	--
--	SPARE	20 A	1	13	0	0					14	1	20 A	SPARE	--
--	SPACE ONLY	--	--	15			0	0			16	--	--	SPACE ONLY	--
--	SPACE ONLY	--	--	17					0	0	18	--	--	SPACE ONLY	--
--	SPACE ONLY	--	--	19	0	0					20	--	--	SPACE ONLY	--
--	SPACE ONLY	--	--	21			0	0			22	--	--	SPACE ONLY	--
--	SPACE ONLY	--	--	23					0	0	24	--	--	SPACE ONLY	--
--	SPACE ONLY	--	--	25	0	0					26	--	--	SPACE ONLY	--
--	SPACE ONLY	--	--	27			0	0			28	--	--	SPACE ONLY	--
--	SPACE ONLY	--	--	29					0	0	30	--	--	SPACE ONLY	--
--	SPACE ONLY	--	--	31	0	0					32	--	--	SPACE ONLY	--
--	SPACE ONLY	--	--	33			0	0			34	--	--	SPACE ONLY	--
--	SPACE ONLY	--	--	35					0	0	36	--	--	SPACE ONLY	--
--	SPACE ONLY	--	--	37	0	0					38	--	--	SPACE ONLY	--
--	SPACE ONLY	--	--	39			0	0			40	--	--	SPACE ONLY	--
--	SPACE ONLY	--	--	41					0	0	42	--	--	SPACE ONLY	--

LOAD CLASSIFICATIONS	CONNECTED (VA)	DEMAND FACTOR	DEMAND (VA)
HVAC	22856 VA	100.00%	22856 VA
HVAC_Cooling	480 VA	100.00%	480 VA
Motor	2300 VA	125.00%	2875 VA
Receptacle	1620 VA	100.00%	1620 VA

	KVA	AMPS
TOTAL PHASE A	12.32	49
TOTAL PHASE B	12.07	49
TOTAL PHASE C	3.07	11
CONNECTED LOAD:	27.256	33
MAXIMUM DEMAND:	27.831	33

NOTES:
AFCI - ARC FAULT CIRCUIT INTERRUPTION TYPE CIRCUIT BREAKER
CZ# - CONTROL ZONE NUMBER FOR REMOTE CONTROL
BMS# - ROUTE CIRCUIT THROUGH BUILDING MANAGEMENT SYSTEM
GFCI - GROUND FAULT CIRCUIT INTERRUPTING TYPE CIRCUIT...
GFPE - GROUND FAULT PROTECTION EQUIPMENT CIRCUIT BREAKER
HLO - HANDLE LOCK ON DEVICE FOR CIRCUIT BREAKER
HPL- PADLOCK ATTACHMENT TO LOCK C/B HANDLE IN OPEN POSITION

PANEL L1-1
VOLTAGE 120/208 Wye | **PHASE BUS RATING** 100 A | **LOCATION** DEMARC 125
MCB OR MLO MLO | **AIC RATING** 10K | **MOUNTING** SURFACE
FED FROM D-1 | **AVAILABLE SHORT CKT....** 3K | **NO. OF POLES** 42

NOTE	LOAD DESCRIPTION	AMP	P	CKT. NO.	A		B		C		CKT. NO.	P	AMP	LOAD DESCRIPTION	NOTE
	VAULT SECURITY POWER	20 A	1	1	1000	540					2	1	20 A	TELE 124 RECPTS	
	GEN BATTERY CHARGER	20 A	1	3			500	900			4	1	20 A	ARMS VAULT RM 120 RECPTS	
	GEN LIGTS/RECPTS	20 A	1	5					200	540	6	1	20 A	RM 115 DESK QUAD AND IG RECEPTS	
	DEMARC 125 RECPTS	20 A	1	7	360	720					8	1	20 A	RM 106/106A	
	GEN ANNUNCIATOR PANEL	20 A	1	9			500	540			10	1	20 A	RM 113/114 DESK QUAD AND IG...	
	RM 112 PRINTER	20 A	1	11					500	720	12	1	20 A	LOCKER RM 121 RECPTS	
	RM 104/103 IG RECPTS	20 A	1	13	540	1080					14	1	20 A	RM 103/104 QUAD-RECPTS	
	CORRIDOR 101/119 RECPTS	20 A	1	15			900	720			16	1	20 A	EXTERIOR RECPTS	
	RM 114 RECPTS	20 A	1	17					1080	540	18	1	20 A	RM 108 QUAD-RCEPTS AC	
	CLASSROOM RM 106A	20 A	1	19	900	900					20	1	20 A	HEATED STORAGE RM 122 RECPTS	
	MULTI-PURPOSE RM 106 RECPTS	20 A	1	21			900	540			22	1	20 A	HEATED STORAGE RM 122 RECPTS	
	RM 105 GFI AC RECPTS	20 A	1	23					180	540	24	1	20 A	RM 122A DESK QUAD AND IG RECPTS	
	LOBBY 101 RECPTS	20 A	1	25	360	360					26	1	20 A	RM 110 QUAD-RECPTS	
	RM 103/104 RECPTS	20 A	1	27			540	2500			28	2	30 A	GEN JACKET HEATER	
	RM 113 DESK QUAD AND IG RECPTS	0 A	1	29					540	2500	30	--	--	--	--
	RM 108/110 GFI RECPTS	20 A	1	31	720	600					32	3	20 A	OVERHEAD COIL DOOR	
	HEATED STORAGE RM 122 RECPTS	20 A	1	33			540	600			34	--	--	--	--
	SERVICE ENTRY RECPTS	20 A	1	35					720	600	36	--	--	--	--
	RM 112 RECPTS	20 A	1	37	900	0					38	1	20 A	SPARE	--
--	SPARE	20 A	1	39			0	0			40	1	20 A	SPARE	--
--	SPARE	20 A	1	41					0	0	42	1	20 A	SPARE	--

LOAD CLASSIFICATIONS	CONNECTED (VA)	DEMAND FACTOR	DEMAND (VA)
Heating	5000 VA	100.00%	5000 VA
Lighting	500 VA	125.00%	625 VA
Other	2200 VA	100.00%	2200 VA
Power	1800 VA	100.00%	1800 VA
Receptacle	17820 VA	78.06%	13910 VA

	KVA	AMPS
TOTAL PHASE A	8.98	75
TOTAL PHASE B	9.68	81
TOTAL PHASE C	8.66	72
CONNECTED LOAD:	27.32	76
MAXIMUM DEMAND:	23.535	65

NOTES:
AFCI - ARC FAULT CIRCUIT INTERRUPTION TYPE CIRCUIT BREAKER
CZ# - CONTROL ZONE NUMBER FOR REMOTE CONTROL
BMS# - ROUTE CIRCUIT THROUGH BUILDING MANAGEMENT SYSTEM
GFCI - GROUND FAULT CIRCUIT INTERRUPTING TYPE CIRCUIT...
GFPE - GROUND FAULT PROTECTION EQUIPMENT CIRCUIT BREAKER
HLO - HANDLE LOCK ON DEVICE FOR CIRCUIT BREAKER
HPL- PADLOCK ATTACHMENT TO LOCK C/B HANDLE IN OPEN POSITION

PANEL LPH-2
VOLTAGE 120/208 Wye | **PHASE BUS RATING** 100 A | **LOCATION** MAINT/STOR 229
MCB OR MLO MCB | **AIC RATING** 10K | **MOUNTING** SURFACE
FED FROM TFH2 | **AVAILABLE SHORT CKT....** 3K | **NO. OF POLES** 42

NOTE	LOAD DESCRIPTION	AMP	P	CKT. NO.	A		B		C		CKT. NO.	P	AMP	LOAD DESCRIPTION	NOTE
	COOLER CONDENSING UNIT (#69A)	20 A	3	1	865	1477					2	3	20 A	FREEZER CONDENSING UINT (#69D)	
--	--	--	--	3			865	1477			4	--	--	--	--
--	--	--	--	5					865	1477	6	--	--	--	--
	COOLER EVAPORATOR (#69B)	20 A	1	7	192	1123					8	2	20 A	FREEZER EVAPORATOR (#69E)	
	RTU RECEPT	20 A	1	9			180	1123			10	--	--	--	--
	ELEVATOR CNTRL RM RECPT	20 A	1	11					360	3300	12	2	40 A	CAR CHARGING STATION	
	HVAC CONTRL PNL	20 A	1	13	200	3300					14	--	--	--	--
	ROOF HOOD DAMPER	20 A	1	15			200	3300			16	2	40 A	CAR CHARGING STATION	
	HVAC LTG	20 A	1	17					600	3300	18	--	--	--	--
	CRESTON LIGHTING PANEL	20 A	1	19	500	500					20	1	20 A	WATER COOLER	GFCI
	TROPHY CASE LTG	20 A	1	21			280	1000			22	1	20 A	RR 228 HAND DRYER	
	RR 128 HAND DRYER	20 A	1	23					1000	1000	24	1	20 A	RR 227 HAND DRYER	
	RR 227 HAND DRYER	20 A	1	25	1000	1080					26	1	20 A	MECH RM RECEPTACLES	
--	SPARE	0 A	1	27			0	0			28	1	0 A	SPARE	--
--	SPARE	0 A	1	29					0	0	30	1	0 A	SPARE	--
--	SPARE	0 A	1	31	0	0					32	1	0 A	SPARE	--
--	SPARE	0 A	1	33			0	0			34	1	0 A	SPARE	--
--	SPARE	0 A	1	35					0	0	36	1	0 A	SPARE	--
--	SPARE	0 A	1	37	0	0					38	1	0 A	SPARE	--
--	SPARE	0 A	1	39			0	0			40	1	0 A	SPARE	--
--	SPARE	0 A	1	41					0	0	42	1	0 A	SPARE	--

LOAD CLASSIFICATIONS	CONNECTED (VA)	DEMAND FACTOR	DEMAND (VA)
Heating	3000 VA	100.00%	3000 VA
Kitchen	9463 VA	80.00%	7570 VA
Lighting	280 VA	125.00%	350 VA
Other	15500 VA	100.00%	15500 VA
Receptacle	1620 VA	100.00%	1620 VA

	KVA	AMPS
TOTAL PHASE A	10.24	88
TOTAL PHASE B	8.42	70
TOTAL PHASE C	11.90	102
CONNECTED LOAD:	29.863	83
MAXIMUM DEMAND:	28.0404	78

NOTES:
AFCI - ARC FAULT CIRCUIT INTERRUPTION TYPE CIRCUIT BREAKER
CZ# - CONTROL ZONE NUMBER FOR REMOTE CONTROL
BMS# - ROUTE CIRCUIT THROUGH BUILDING MANAGEMENT SYSTEM
GFCI - GROUND FAULT CIRCUIT INTERRUPTING TYPE CIRCUIT...
GFPE - GROUND FAULT PROTECTION EQUIPMENT CIRCUIT BREAKER
HLO - HANDLE LOCK ON DEVICE FOR CIRCUIT BREAKER
HPL- PADLOCK ATTACHMENT TO LOCK C/B HANDLE IN OPEN POSITION

PANEL LPH-1
VOLTAGE 120/208 Wye | **PHASE BUS RATING** 100 A | **LOCATION** MECH/ ELECT 123
MCB OR MLO MCB | **AIC RATING** 10K | **MOUNTING** SURFACE
FED FROM TFH1 | **AVAILABLE SHORT CKT....** 3K | **NO. OF POLES** 30

NOTE	LOAD DESCRIPTION	AMP	P	CKT. NO.	A		B		C		CKT. NO.	P	AMP	LOAD DESCRIPTION	NOTE
	MECH/ELECT 123 RECPTS	20 A	1	1	900	720					2	1	20 A	EXTERIOR RECPTS	
	RP-1	20 A	1	3			528	240			4	1	20 A	FCU-2	
	RP-2	20 A	1	5					528	240	6	1	20 A	FCU-1	
	WH-1	20 A	1	7	500	500					8	1	20 A	WH-2	
	WH-3	20 A	1	9			500	200			10	1	20 A	HVAC CONTRL PNL	
--	SPARE	20 A	1	11					0	0	12	1	20 A	SPARE	--
--	SPARE	20 A	1	13	0	0					14	1	20 A	SPARE	--
--	SPARE	20 A	1	15			0	0			16	1	20 A	SPARE	--
--	SPARE	20 A	1	17					0	0	18	1	20 A	SPARE	--
--	SPARE	20 A	1	19	0	0					20	1	20 A	SPARE	--
--	SPARE	20 A	1	21			0	0			22	1	20 A	SPARE	--
--	SPACE ONLY	--	--	23					0	0	24	--	--	SPACE ONLY	--
--	SPACE ONLY	--	--	25	0	0					26	--	--	SPACE ONLY	--
--	SPACE ONLY	--	--	27			0	0			28	--	--	SPACE ONLY	--
--	SPACE ONLY	--	--	29					0	0	30	--	--	SPACE ONLY	--

LOAD CLASSIFICATIONS	CONNECTED (VA)	DEMAND FACTOR	DEMAND (VA)
HVAC	2556 VA	100.00%	2556 VA
HVAC_Cooling	480 VA	100.00%	480 VA
Receptacle	1620 VA	100.00%	1620 VA

	KVA	AMPS
TOTAL PHASE A	2.62	23
TOTAL PHASE B	1.47	13
TOTAL PHASE C	0.77	6
CONNECTED LOAD:	4.656	13
MAXIMUM DEMAND:	4.656	13

NOTES:
AFCI - ARC FAULT CIRCUIT INTERRUPTION TYPE CIRCUIT BREAKER
CZ# - CONTROL ZONE NUMBER FOR REMOTE CONTROL
BMS# - ROUTE CIRCUIT THROUGH BUILDING MANAGEMENT SYSTEM
GFCI - GROUND FAULT CIRCUIT INTERRUPTING TYPE CIRCUIT...
GFPE - GROUND FAULT PROTECTION EQUIPMENT CIRCUIT BREAKER
HLO - HANDLE LOCK ON DEVICE FOR CIRCUIT BREAKER
HPL- PADLOCK ATTACHMENT TO LOCK C/B HANDLE IN OPEN POSITION

PANEL L1-2
VOLTAGE 120/208 Wye | **PHASE BUS RATING** 100 A | **LOCATION** DEMARC 125
MCB OR MLO MLO | **AIC RATING** 10K | **MOUNTING** SURFACE
FED FROM D-1 | **AVAILABLE SHORT CKT....** 3K | **NO. OF POLES** 42

NOTE	LOAD DESCRIPTION	AMP	P	CKT. NO.	A		B		C		CKT. NO.	P	AMP	LOAD DESCRIPTION	NOTE
	RM 116/117/118 GFI RCEPTS	20 A	1	1	1080	540					2	1	20 A	CORRIDOR 102A/ RM 109	
	RM 112 RECPTS	20 A	1	3			900	900			4	1	20 A	RM 113 RECPTS	
	RM 112 PRINTER	20 A	1	5					500	900	6	1	20 A	CORRIDOR 102B RECPTS	
	RM 121 PRINTER	20 A	1	7	500	1000					8	1	20 A	RM 106A TV RECPT	
	HEATED STORAGE RM 122A RECPTS	20 A	1	9			360	1000			10	1	20 A	RM 106 TV RECPT	
	RM 115 RECPTS	20 A	1	11					720	200	12	1	20 A	CRESTRON LIGHTING PANEL	
	RM 115 RECPTS	20 A	1	13	540	720					14	1	20 A	RM 112 RECPTS	
	RM 105 RECPTS	20 A	1	15			180	1000			16	1	20 A	BREAK RM 105 TV	
	BREAK RM 105 FRIDGE	20 A	1	17					1000	120	18	1	20 A	SUMP PUMP RECEPT	
	RR 110 HAND DRYER	20 A	1	19	1000	1000					20	1	20 A	RR 110 HAND DRYER	
	RR 108 HAND DRYER	20 A	1	21			1000	1000			22	1	20 A	RR 108 HAND DRYER	
AC...	WATER COOLER RECEPT	20 A	1	23					500	360	24	1	20 A	ROOF TOP RECEPTACLE	
	RM 106A WALL RECEPT	20 A	1	25	360	180					26	1	20 A	RM 105 AC GFI RECEPT	AC GFI
	VENDING MACHINE	20 A	1	27			180	180			28	1	20 A	VENDING MACHINE	
	RM 103/104 RECEPT	20 A	1	29					540	180	30	1	20 A	RM 106 FLOOR BOX	
	RM 106 FLOOR BOX	20 A	1	31	180	180					32	1	20 A	RM 106 FLOOR BOX	
	RM 106 FLOOR BOX	20 A	1	33			180	0			34	1	20 A	SPARE	--
--	SPARE	20 A	1	35					0	0	36	1	20 A	SPARE	--
--	SPARE	20 A	1	37	0	0					38	1	20 A	SPARE	--
--	SPARE	20 A	1	39			0	0			40	1	20 A	SPARE	--
--	SPARE	20 A	1	41					0	0	42	1	20 A	SPARE	--

LOAD CLASSIFICATIONS	CONNECTED (VA)	DEMAND FACTOR	DEMAND (VA)
Heating	4000 VA	100.00%	4000 VA
Other	5220 VA	100.00%	5220 VA
Receptacle	9760 VA	100.00%	9760 VA

	KVA	AMPS
TOTAL PHASE A	7.28	63
TOTAL PHASE B	6.88	60
TOTAL PHASE C	5.02	42
CONNECTED LOAD:	18.98	53
MAXIMUM DEMAND:	18.98	53

NOTES:
AFCI - ARC FAULT CIRCUIT INTERRUPTION TYPE CIRCUIT BREAKER
CZ# - CONTROL ZONE NUMBER FOR REMOTE CONTROL
BMS# - ROUTE CIRCUIT THROUGH BUILDING MANAGEMENT SYSTEM
GFCI - GROUND FAULT CIRCUIT INTERRUPTING TYPE CIRCUIT...
GFPE - GROUND FAULT PROTECTION EQUIPMENT CIRCUIT BREAKER
HLO - HANDLE LOCK ON DEVICE FOR CIRCUIT BREAKER
HPL- PADLOCK ATTACHMENT TO LOCK C/B HANDLE IN OPEN POSITION

PANEL L2-2
VOLTAGE 120/208 Wye | **PHASE BUS RATING** 100 A | **LOCATION** MAINT/STOR 229
MCB OR MLO MLO | **AIC RATING** 10K | **MOUNTING** SURFACE
FED FROM D-2 | **AVAILABLE SHORT CKT....** 3K | **NO. OF POLES** 42

NOTE	LOAD DESCRIPTION	AMP	P	CKT. NO.	A		B		C		CKT. NO.	P	AMP	LOAD DESCRIPTION	NOTE
	OFF 211/212/213 RECPTS	20 A	1	1	1080	720					2	1	20 A	RM 205 RECPTS	
	RM 207 RECPTS	20 A	1	3			720	180			4	1	20 A	RM 225 AC RECPTS	
	RM 207 FB RECPTS	20 A	1	5					1080	720	6	1	20 A	RM 206 RECPTS	
	OPEN OFFICE RM 203 PRINTER	20 A	1	7	500	500					8	1	20 A	OPEN OFFICE RM 203 PRINTER	
	OPEN OFFICE CUBE RECPT	20 A	1	9			720	720			10	1	20 A	OPEN OFFICE CUBE RECPT	
	OPEN OFFICE CUBE RECPT	20 A	1	11					720	720	12	1	20 A	OPEN OFFICE CUBE RECPT	
	RM 206 RECPTS	20 A	1	13	360	720					14	1	20 A	OPEN OFFICE CUBE RECPT	
	OPEN OFFICE CUBE RECPT	20 A	1	15			720	720			16	1	20 A	OPEN OFFICE CUBE RECPT	
	OPEN OFFICE CUBE RECPT	20 A	1	17					720	720	18	1	20 A	OPEN OFFICE CUBE RECPT	
	OPEN OFFICE CUBE RECPT	20 A	1	19	720	720					20	1	20 A	OPEN OFFICE FB RECPT	
	OPEN OFFICE CUBE RECPT	20 A	1	21			720	720			22	1	20 A	OPEN OFFICE CUBE RECPT	
	OPEN OFFICE CUBE RECPT	20 A	1	23					720	1000	24	1	20 A	RM 207 TV RECPT	
	LOBBY 200 RECPTS	20 A	1	25	360	720					26	1	20 A	OPEN OFFICE CUBE RECPT	
	OPEN OFFICE CUBE RECPT	20 A	1	27			720	720			28	1	20 A	OPEN OFFICE CUBE RECPT	
	OPEN OFFICE FB RECPT	20 A	1	29					720	500	30	1	20 A	RM 224 FAX MACHINE	
	RM 219 FB RECPTS	20 A	1	31	1080	720					32	1	20 A	OPEN OFFICE FB RECPT	
	RM 219 FB RECPTS	20 A	1	33			1080	1080			34	1	20 A	OFF 208/209/210 RECPTS	
	RM 219 TV RECPT	20 A	1	35					1000	180	36	1	20 A	RM 230 RECPT	
--	SPARE	20 A	1	37	0	540					38	1	20 A	RM 207 RECPT	
--	SPARE	20 A	1	39			0	0			40	1	20 A	SPARE	--
--	SPARE	20 A	1	41					0	0	42	1	20 A	SPARE	--

LOAD CLASSIFICATIONS	CONNECTED (VA)	DEMAND FACTOR	DEMAND (VA)
Other	4580 VA	100.00%	4580 VA
Receptacle	21780 VA	72.96%	15890 VA

	KVA	AMPS
TOTAL PHASE A	8.74	73
TOTAL PHASE B	8.82	74
TOTAL PHASE C	8.80	73
CONNECTED LOAD:	26.36	73
MAXIMUM DEMAND:	20.47	57

NOTES:
AFCI - ARC FAULT CIRCUIT INTERRUPTION TYPE CIRCUIT BREAKER
CZ# - CONTROL ZONE NUMBER FOR REMOTE CONTROL
BMS# - ROUTE CIRCUIT THROUGH BUILDING MANAGEMENT SYSTEM
GFCI - GROUND FAULT CIRCUIT INTERRUPTING TYPE CIRCUIT...
GFPE - GROUND FAULT PROTECTION EQUIPMENT CIRCUIT BREAKER
HLO - HANDLE LOCK ON DEVICE FOR CIRCUIT BREAKER
HPL- PADLOCK ATTACHMENT TO LOCK C/B HANDLE IN OPEN POSITION

PANEL L2-1
VOLTAGE 120/208 Wye | **PHASE BUS RATING** 100 A | **LOCATION** MAINT/STOR 229
MCB OR MLO MLO | **AIC RATING** 10K | **MOUNTING** SURFACE
FED FROM D-2 | **AVAILABLE SHORT CKT....** 3K | **NO. OF POLES** 42

NOTE	LOAD DESCRIPTION	AMP	P	CKT. NO.	A		B		C		CKT. NO.	P	AMP	LOAD DESCRIPTION	NOTE
	RM 224 IG RECPTS	20 A	1	1	900						2				
	RM 221 IG RECPTS	20 A	1	3			360	900			4	1	20 A	OFF 212/211/210/209/208 IG RECPTS	
	RM 224 AC RECPTS	20 A	1	5					500	360	6	1	20 A	OFF 217/218 IG RECPTS	
	RM 204 DESK QUAD AND IG RECPTS	20 A	1	7	540	720					8	1	20 A	OPEN OFFICE FB RECPT	
	RM 205 DESK QUAD AND IG RECPTS	20 A	1	9			540	720			10	1	20 A	OPEN OFFICE FB RECPT	
	OPEN OFFICE FB RECPT	20 A	1	11					720	720	12	1	20 A	RM 217/218 QUAD-RECPTS	
	OFF 213/214/215/216 IG RECPTS	20 A	1	13	720	720					14	1	20 A	RM 203 OPEN OFFICE RECPTS	
	RM 217/218 RECPTS	20 A	1	15			720	720			16	1	20 A	RM 220/221 RECPTS	
	RM 219 RECPTS	20 A	1	17					1080	720	18	1	20 A	RM 220/221 QUAD-RECPTS	
	RM 200 AC RECPTS	20 A	1	19	540	1080					20	1	20 A	RM 213/214 IG RECPTS	
	CORRIDOR GFI RECPTS	20 A	1	21			1080	1080			22	1	20 A	OFF 208/209/210 QUAD-RECPT	
	RM 213/214/215/216 RECPTS	20 A	1	23					1080	540	24	1	20 A	RM 206 DESK QUAD AND IG RECPTS	
	RM 176/227/225 GFI AC RECPTS	20 A	1	25	360	1080					26	1	20 A	OFF 211/212 QUAD-RECPT	
	RM 204/CORRIDOR RECPTS	20 A	1	27			720	500			28	1	20 A	OPEN OFFICE RM 203 PRINTER	
	OPEN OFFICE RM 203 PRINTER	20 A	1	29					500	720	30	1	20 A	OPEN OFFICE FB RECPT	
	OPEN OFFICE FB RECPT	20 A	1	31	720	720					32	1	20 A	OPEN OFFICE FB RECPT	
	OPEN OFFICE FB RECPT	20 A	1	33			720	720			34	1	20 A	OPEN OFFICE CUBE RECPT	
--	SPARE	20 A	1	35					0	720	36	1	20 A	OPEN OFFICE CUBE RECPT	
--	SPARE	20 A	1	37	0	0					38	1	20 A	SPARE	--
--	SPARE	20 A	1	39			0	0			40	1	20 A	SPARE	--
--	SPARE	20 A	1	41					0	0	42	1	20 A	SPARE	--

LOAD CLASSIFICATIONS	CONNECTED (VA)	DEMAND FACTOR	DEMAND (VA)
Other	1500 VA	100.00%	1500 VA
Receptacle	23040 VA	71.70%	16520 VA

	KVA	AMPS
TOTAL PHASE A	8.10	68
TOTAL PHASE B	8.78	74
TOTAL PHASE C	7.66	64
CONNECTED LOAD:	24.54	68
MAXIMUM DEMAND:	18.02	50

NOTES:
AFCI - ARC FAULT CIRCUIT INTERRUPTION TYPE CIRCUIT BREAKER
CZ# - CONTROL ZONE NUMBER FOR REMOTE CONTROL
BMS# - ROUTE CIRCUIT THROUGH BUILDING MANAGEMENT SYSTEM
GFCI - GROUND FAULT CIRCUIT INTERRUPTING TYPE CIRCUIT...
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HLO - HANDLE LOCK ON DEVICE FOR CIRCUIT BREAKER
HPL- PADLOCK ATTACHMENT TO LOCK C/B HANDLE IN OPEN POSITION

OFFICE OF THE
ADJUTANT GENERAL

MISSOURI NATIONAL GUARD
FACILITIES DIVISION

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Engineer of Record
STATE OF MISSOURI
CORY WILSON
02-26-2020
NUMBER PE-2010009876
PROFESSIONAL ENGINEER
Cory Wilson, Engineer MO PE-2010009876

TASMG READINESS CENTER

AVCRAD SITE
1107TH THEATER AVIATION SUSTAINMENT MAINTENANCE GROUP

MISSOURI NATIONAL GUARD
SPRINGFIELD, MISSOURI

NATIONAL GUARD BUREAU PROJECT #290186
MISSOURI NATIONAL GUARD PROJECT #T1809-01
SITE #9019
ASSET #8136270008

DRAWN BY: SH
CHECKED BY: TD
DESIGNED BY: SH

REVISION:
DATE:
REVISION:
DATE:
REVISION:
DATE:
ISSUED DATE: 26 February 2020

SHEET TITLE:

PANEL SCHEDULES

SHEET NUMBER:

E702

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