

# LEE'S SUMMIT POLICE RENOVATION

10 NE TUDOR RD  
LEE'S SUMMIT, MO 64086

**HOEFER WELKER**

HW PROJECT NO: 138191

**OWNER**

CITY OF LEE'S SUMMIT  
220 SE GREEN  
LEE'S SUMMIT, MO 64063  
816.969.1000

**ARCHITECT**

HOEFER WELKER  
4622 PENNSYLVANIA AVENUE, SUITE 1400  
KANSAS CITY, MO 64112  
P: 913.307.3700

**CONSTRUCTION MANAGER**

TITAN BUILT  
8207 MELROSE DRIVE, SUITE 200  
LENEKA, KANSAS 66214  
P: 913.782.6700

**STRUCTURAL ENGINEER**

J&S STRUCTUREAL ENGINEERS, PA  
6640 WEST 143RD STREET #250  
OVERLAND PARK, KS 66223  
P: 913.549.4701



**PACKAGE 2 - CONSTRUCTION SET**

**NOV. 7, 2024**

COVER	
X-001	COVER SHEET

GENERAL	
G-011	GENERAL INFORMATION
G-021	ACCESSIBILITY GUIDELINES
G-101	LIFE SAFETY PLAN
G-301	PARTITION TYPES
G-401	SPECIFICATIONS

STRUCTURE	
S-001	GENERAL STRUCTURAL NOTES
S-002	LOADING INFORMATION
S-100	STRUCTURAL PLANS AND DETAILS
S-300	FOUNDATION DETAILS
S-400	MASONRY AND FRAMING DETAILS
S-500	SITE FRAMING DETAILS

ARCH SITE	
AS101	SITE PLAN
AS401	ENLARGED SITE PLANS

DEMO	
AD101	DEMO FLOOR PLANS
AD401	ENLARGED DEMO PLANS
AD402	ENLARGED DEMO PLAN - COURT
AD421	DEMO RCP - ENLARGED PLANS
AD422	DEMO RCP - ENLARGED COURT

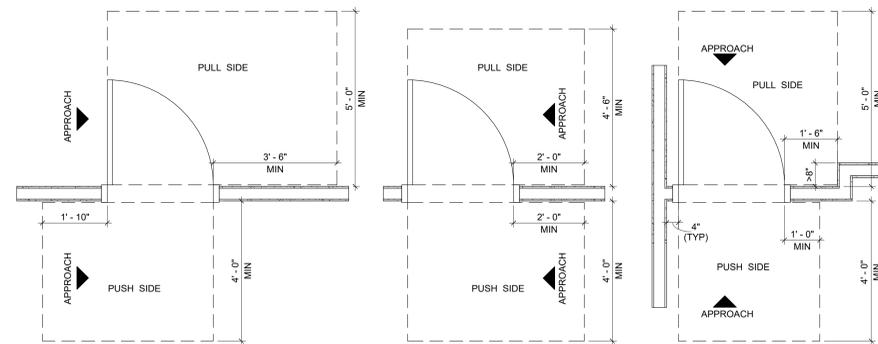
ARCHITECTURE	
A-101	FLOOR PLANS
A-102	ROOF PLAN - VEHICLE BAY
A-201	EXTERIOR ELEVATIONS & BUILDING SECTIONS
A-321	WALL SECTIONS & DETAILS - VEHICLE BAY
A-401	ENLARGED, FFE & FINISH PLANS
A-402	ENLARGED, FFE & FINISH PLAN - COURT
A-451	INTERIOR ELEVATIONS & DETAILS
AC101	REFLECTED CEILING PLANS
AC102	ENLARGED REFLECTED CEILING PLANS
AC103	ENLARGED REFLECTED CEILING PLAN - COURT

PLUMBING	
PG001	PLUMBING LEGEND AND GENERAL NOTES
PD101	PLUMBING DEMOLITION PLANS
PD401	ENLARGED PLUMBING DEMOLITION PLANS
P-121	PLUMBING PLANS
P-401	ENLARGED PLUMBING PLANS
P-402	ENLARGED PLUMBING PLANS
P-601	PLUMBING SCHEDULES, DETAILS, AND RISERS

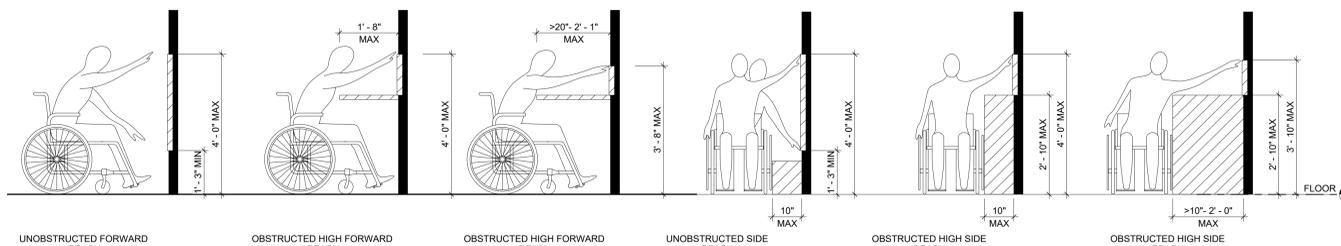
MECHANICAL	
MG001	MECHANICAL LEGEND AND GENERAL NOTES
MD101	MECHANICAL DEMOLITION PLANS
MD401	ENLARGED HVAC DEMOLITION PLANS
MD402	ENLARGED HVAC DEMOLITION PLANS
M-101	MECHANICAL FLOOR PLANS
M-401	ENLARGED HVAC FLOOR PLANS
M-402	ENLARGED HVAC FLOOR PLANS
M-501	MECHANICAL DETAILS
M-601	MECHANICAL SCHEDULES
M-621	MECHANICAL CONTROLS

ELECTRICAL	
EG001	ELECTRICAL LEGEND AND GENERAL NOTES
ES101	ELECTRICAL SITE PLAN
ED101	ELECTRICAL DEMOLITION PLANS
ED401	ENLARGED ELECTRICAL DEMOLITION PLANS
ED402	ENLARGED ELECTRICAL DEMOLITION PLANS
E-101	ELECTRICAL PLANS
E-401	ENLARGED ELECTRICAL PLANS
E-402	ENLARGED ELECTRICAL PLANS
E-601	PANELBOARD SCHEDULES

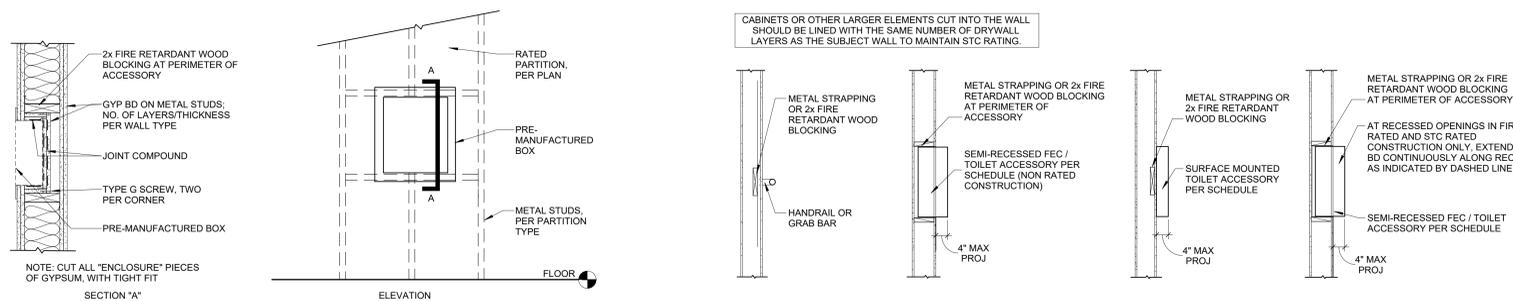




H1 TYP. DOOR JAMB & DOOR APPROACH CLEARANCES  
 1/2" = 1'-0"

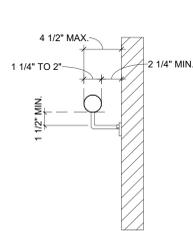


F1 REACH RANGE  
 1/2" = 1'-0"

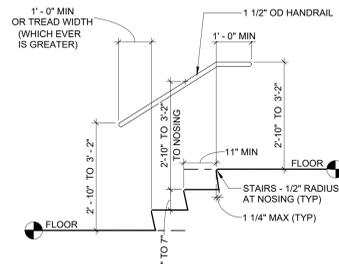


D6 5 SIDED BOX @ RATED CONDITIONS  
 1" = 1'-0"

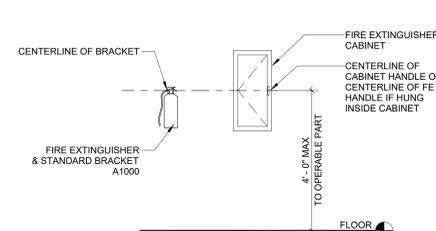
D1 TYPICAL BLOCKING DETAILS  
 1/2" = 1'-0"



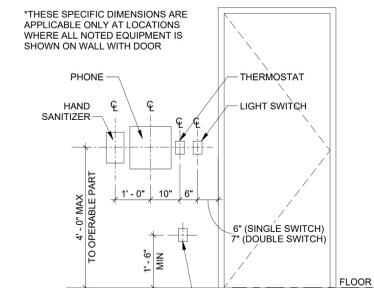
A8 HANDRAIL CLEARANCES  
 1 1/2" = 1'-0"



A6 HANDRAIL @ STAIRS  
 1/2" = 1'-0"



A4 FE CABINET & EXTINGUISHER  
 1/2" = 1'-0"



A1 SWITCH @ DOOR  
 1/2" = 1'-0"

- GENERAL NOTES - ACCESSIBILITY GUIDELINES:**
- NOTE: ALL DIMENSIONS ARE MEASURED FROM FLOOR, UNLESS NOTED OR SHOWN OTHERWISE.
  - ADA/ABA UNOBSTRUCTED REACH RANGES:  
 FORWARD REACH = 48" MAX & 15" MIN SIDE REACH = 48" MAX & 15" MIN.
  - ELEVATORS: STD CALL BUTTONS: 35" TO 48" TO C.L. & PROTRUDE 1" MAX. ADA/ABA CALL BUTTONS: 42" TO C.L. (TYP) & 48" MAX (3/4" SMALLEST DIM). ADA/ABA VISIBLE SIGNALS: 72" MIN. TO C.L. (2 1/2" SMALLEST DIM). TACTILE SIGNAL ON HOISTWAY: 60" TO BASE OF CHARACTERS W/ TACTILE STAR & 2" HIGH CHARACTERS.
  - DOOR HARDWARE (TO CENTER OF HARDWARE): STD MOUNTING HEIGHTS: PUSH PLATES = 42"; PULL HANDLES = 42"; KNOBS/LEVERS = 40"; PANIC EXIT = 42" CENTERLINE OF BAR; KICKPLATES: WIDTH = DOOR WIDTH MINUS 2"; CENTER. HEIGHT = 16" FROM B.O. DOOR. THRESHOLDS: STD = 1/2" MAX. AT EXT SLIDING DOORS = 3/4" MAX. ADA/ABA HARDWARE = 34" MIN TO 48" MAX.
  - DRINKING FOUNTAINS & EWCS (TO SPOUT): STD = 40" TYP. 42" MAX. ADA/ABA = 36" MAX (27" MIN CLEAR KNEE SPACE).
  - COUNTERTOPS (TO SINK RIM/ COUNTERTOP): ADA/ABA = 28" MIN TO 34" MAX.
  - WATER CLOSETS (TO TOP OF SEAT): STD = 14" TO 15". ADA/ABA (TO TOP OF SEAT) = 17" TO 19". ADA/ABA FLUSH CONTROLS = 44" MAX.
  - URINALS (TO RIM): STD = 24" MAX. ADA/ABA = 17" MAX. ADA/ABA FLUSH CONTROLS = 44" MAX.
  - LAVATORIES (TO SINK RIM/ COUNTERTOP): STD = 36" MAX. ADA/ABA = 34" MAX (29" MIN CLEAR KNEE SPACE).
  - MIRRORS (TO B.O. REFLECTIVE SURFACE): STD = VARIES. ADA/ABA = 40" MAX.
  - GRAB BARS: ADA/ABA (TO T.O. OF BAR): WATER CLOSETS = 33" MIN TO 36" MAX. SHOWERS = 33" MIN TO 36" MAX (FROM B.O. SHOWER). BATHTUBS: TOP BAR = 33" MIN TO 36" MAX B.O. BAR = 9" ABOVE TOP OF TUB.
  - TOILET ROOM PARTITIONS: TOILETS = 12" TO BOT & 70" TO TOP. URINALS = 18" TO BOT & 60" TO TOP.
  - TOILET PAPER DISPENSERS (TO OUTLET): STD = 24". ADA/ABA = 15" MIN TO 48" MAX.
  - WALL MOUNTED SOAP DISPENSERS (TO C.L. OF PUSH BUTTON): STD = 40". ADA/ABA = VARIES. RE-OBSTRUCTED AND UNOBSTRUCTED REACH RANGES. ADA/ABA SIDE REACH = 48" MAX ABOVE SINK IN COUNTER.
  - PAPER TOWEL DISPENSER (TO TOWEL SLOT): STD = 40" MAX. ADA/ABA FORWARD REACH = 48" MAX & 15" MIN. ADA/ABA SIDE REACH = 48" MAX & 15" MIN. RE-OBSTRUCTED AND UNOBSTRUCTED REACH RANGES. ADA/ABA SIDE REACH = 48" MAX. ABOVE SINK IN COUNTER.
  - WARM AIR HAND DRYER (TO PUSH SWITCH): STD = 44" MAX. ADA/ABA FORWARD REACH = 48" MAX & 15" MIN. ADA/ABA SIDE REACH = 48" MAX & 15" MIN. RE-OBSTRUCTED AND UNOBSTRUCTED REACH RANGES. ADA/ABA SIDE REACH = 48" MAX & 15" MIN.
  - SANITARY NAPKIN DISPENSER (TO C.L. OF COIN SLOT): STD = 40" MAX. ADA/ABA FORWARD REACH = 48" MAX & 15" MIN. ADA/ABA SIDE REACH = 48" MAX & 15" MIN.
  - SANITARY NAPKIN DISPOSAL (TO TOP OF UNIT): STD = 28" MAX. ADA/ABA = 19" MIN TO 24" MAX (TO OPEN).
  - TOILET SEAT COVER DISPENSERS (TO OPEN): STD = 40" MAX. ADA/ABA FORWARD REACH = 48" MAX & 15" MIN. ADA/ABA SIDE REACH = 48" MAX & 15" MIN.
  - COAT HOOKS: STD = 68". ADA/ABA = 48" MAX.
  - CHALKBOARDS, TACKBOARDS, & MARKERBOARDS: STD = 32" TO 36" (TO B.O. BOARD OR CHALKTRAY). STD = 60" (RECOMMENDED). TO TOP OF BOARD.
  - THERMOSTATS & CONTROL DEVICES (TO TOP): ADA/ABA FORWARD REACH = 48" MAX. ADA/ABA SIDE REACH = 48" MAX.
  - LIGHT SWITCHES & CARD READERS (TO C.L.): LOCATE 6" FROM DOOR JAMB. ADA/ABA = 48" MAX.
  - CONVENIENCE RECEPTACLES - ELECT/ TELEPHONE/ DATA (TO C.L.): STD = 18". ADA/ABA = 15" MIN.
  - EXIT LIGHTS - WALL MOUNTED: 2" MIN BELOW CLG. 2" MIN ABOVE DOOR FRAME. EQUAL SPACE FROM CLG TO TOP OF FRAME.
  - FIRE EXTINGUISHERS (TO TOP. UNO): GROSS WT. 40 LBS OR LESS = 60" MAX. GROSS WT. MORE THAN 40 LBS = 42" MAX. ADA/ABA = 40" MAX (B.O. CABINET).
  - FIRE ALARM PULL STATIONS (TO LEVER): STD = 48" MAX. ADA/ABA FORWARD REACH = 48" MAX. ADA/ABA SIDE REACH = 48" MAX.
  - SMOKE AND/OR HEAT DETECTORS: STD = CLG HT.
  - HORN/ SPEAKER/ VISUAL SIGNALS: STD = 60" AFF OR 6" BELOW CLG - WHICHEVER IS LOWER.
  - ROOM SIGNAGE (TO C.L.): STD = 60" HIGH AFF & WITHIN 18" OF LATCH SIDE OF DOOR.
  - ALL MINIMUM AND MAXIMUM DIMENSIONS ARE MEASURED FROM THE FACE OF FINISHED WALL, NOT THE FACE OF THE SUBSTRATE.
  - WHEN MAX. MIN OR DIMENSIONAL RANGE IS GIVEN, THE CONSTRUCTION TOLERANCE DURING INSTALLATION MUST FIT WITHIN THE GIVEN RANGE. MAX OR MIN DIMENSION. NO EXCEPTIONS.
  - PROVIDE KNEE PROTECTION ON EXPOSED WATER SUPPLIES, P-TRAP AND DRAIN PIPING.
  - PROVIDE BLOCKING INSIDE WALL FOR ALL HORIZONTAL AND VERTICAL GRAB BARS EVEN WHEN THEY ARE NOT INSTALLED AS PART OF PROJECT SCOPE OF WORK (TYP.)



- GENERAL NOTES - ARCHITECTURAL SITE:**
- RE: SHEET G-011 FOR ADDITIONAL GENERAL NOTES THAT ARE APPLICABLE.
  - ARCHITECTURAL ELEVATION 100'-0" = CIVIL ELEVATION XXX.XX'
  - ALL SIDEWALKS SHALL SLOPE 1/4 INCH PER FOOT AWAY FROM THE BUILDING, UNLESS NOTED OTHERWISE.
  - ALL GRADES SHALL SLOPE AWAY FROM THE BUILDING AT 5 PERCENT FOR THE FIRST 10 FT. LOCATIONS AND SIZES OF ALL CONCRETE MECHANICAL AND ELECTRICAL PADS SHALL BE COORDINATED BY THE MECHANICAL AND ELECTRICAL CONTRACTORS, WITH THE SELECTED EQUIPMENT MANUFACTURER / SUPPLIER, AND ARE TO BE APPROVED BY THE ARCHITECT PRIOR TO PROCEEDING WITH THE WORK.

**CODE INFORMATION:**  
**PROJECT:** LEE'S SUMMIT JOINT POLICE AND COURT REMODEL  
**LOCATION:** LEE'S SUMMIT, MO

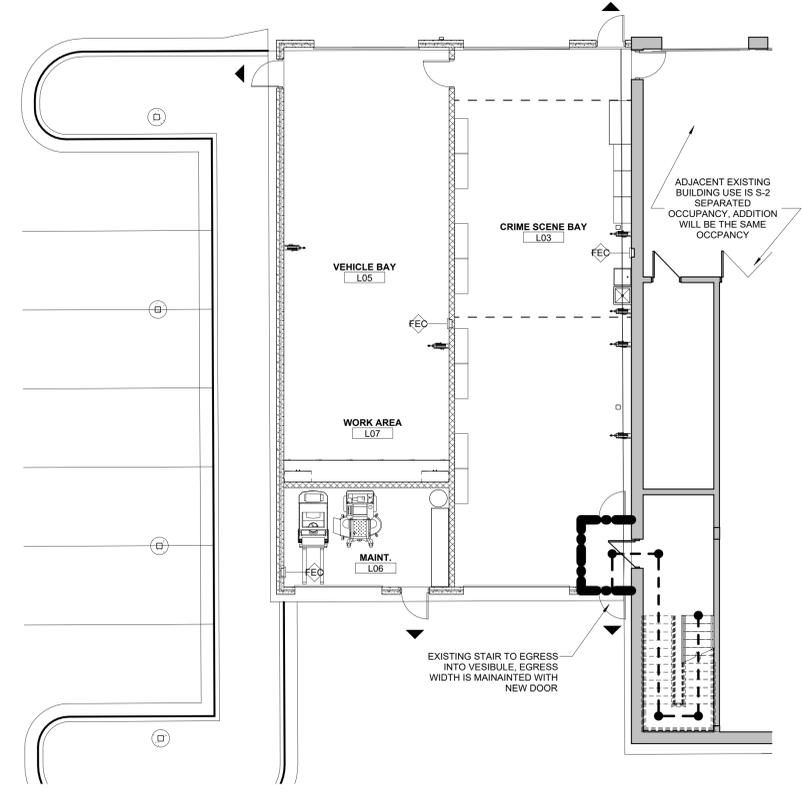
**ARCHITECT:**  
 HOEFER WELKER  
 4622 PENNSYLVANIA AVE. SUITE 1400  
 KANSAS CITY, MO 64112

**APPLICABLE CODES:**  
**APPLICABLE BUILDING CODE:** 2018 INTERNATIONAL BUILDING CODE  
**APPLICABLE MECHANICAL CODE:** 2018 INTERNATIONAL MECHANICAL CODE  
**APPLICABLE PLUMBING CODE:** 2018 INTERNATIONAL PLUMBING CODE  
**APPLICABLE ELECTRICAL CODE:** 2017 NATIONAL ELECTRICAL CODE  
**APPLICABLE FIRE CODE:** 2018 INTERNATIONAL FIRE CODE  
**APPLICABLE ACCESSIBILITY CODE:** 2009 ICC/ANSI A117.1

ISSUE (TABLE / SECTION / REFERENCE):	REQUIREMENT:	TABLE / SECTION / REFERENCE:
BUILDING PROJECT USE: CONSTRUCTION TYPE: OCCUPANCY CLASSIFICATION: USE CLASSIFICATION:	VEHICLE STORAGE (NOT A REPAIR GARAGE) TYPE IIB (FULLY SPRINKLED) B - BUSINESS S-2 STORAGE	SECTION 304 TABLE 601 SECTION 304 SECTION 311
<b>BUILDING AREA:</b> BASE ALLOWABLE AREA - SEPARATED MIXED USE S OCCUPANCY ALLOWABLE ACTUAL EXISTING GROSS FLOOR AREA LOWER LEVEL MAIN LEVEL LOWER LEVEL ADDITION GROSS AREA	69,000 SF PER FLOOR 49,817 SF 44,110 SF 2,541 SF	TABLE 506.2
ACTUAL TOTAL GROSS FLOOR AREA LOWER LEVEL MAIN LEVEL TOTAL AREA	52,358 SF 44,110 SF 96,468	
<b>BUILDING HEIGHT:</b> ALLOWABLE STORIES ABOVE GRADE ALLOWABLE HEIGHT ACTUAL NUMBER OF STORIES ABOVE GRADE ACTUAL HEIGHT IN FEET ABOVE GRADE	3 STORIES 75' 1 STORIES 18'-0"	TABLE 504.4 TABLE 504.3
<b>OCCUPANT LOAD - GSF:</b> S-2 OCCUPANCY	2,541 SF / 300 = 9 OCCUPANTS	TABLE 1004.5
<b>EXIT TRAVEL DISTANCE - FULLY SPRINKLED:</b> S-2 OCCUPANCY COMMON PATH OF TRAVEL DEAD END CORRIDOR	250' 100' 50'	TABLE 1017.2 SECTION 1006.2.1 SECTION 1020.4
<b>EXIT WIDTH:</b> LOWER LEVEL EXIT DOOR WIDTH REQUIRED EXIT DOOR WIDTH PROVIDED	9 TOTAL OCCUPANTS X .15 = 2" 4 DOORS X 39" = 152"	TABLE 1017.2 SECTION 1006.2.1 SECTION 1020.4

FIRE RESISTIVE REQUIREMENTS (TABLE / SECTION / REFERENCE):	REQUIREMENTS CONSTRUCTION TYPE IIB:	TABLE / SECTION / REFERENCE
EXTERIOR BEARING WALLS	0 HRS NO LIMIT	TABLE 601 TABLE 716.1
EXTERIOR OPENINGS	0 HRS	TABLE 601
EXTERIOR NON-BEARING WALLS	0 HRS	TABLE 601
INTERIOR BEARING WALLS	0 HRS	TABLE 601
INTERIOR NON-BEARING WALLS	0 HRS	TABLE 601
STRUCTURAL FRAME	0 HRS	TABLE 601
FLOOR CONSTRUCTION	0 HRS	TABLE 601
ROOF	0 HRS	TABLE 601
CORRIDORS	0 HRS	TABLE 1018.1
SHAFT WALLS	1 HRS	TABLE 713.4
EXIT ACCESS STAIRWAYS	0 HRS	TABLE 1019.3
STORM SHELTER	2 HRS	2014 ICC 500 601.1

**PLUMBING FIXTURES REQUIRED (IBC 2018 TABLE 2002.1):**  
 RESTROOM COUNTS ARE NOT AFFECTED BY ADDITION, ADDITIONAL FIXTURE ARE NOT PROVIDED



**A1 LOWER LEVEL LIFE SAFETY PLAN**  
 1/8" = 1'-0"

**LEE'S SUMMIT POLICE RENOVATION**  
 10 NE TUDOR RD  
 LEE'S SUMMIT, MO 64086

PACKAGE 2 - CONSTRUCTION SET

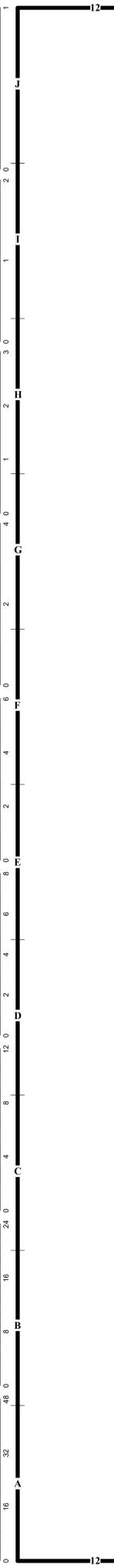
REVISION DATES:




PROFESSIONAL SEAL

**G-101**

ISSUE DATE: NOV. 7, 2024  
 HOEFER WELKER #: 138191







STRUCTURAL NOTES

2018 INTERNATIONAL BUILDING CODE

GENERAL NOTES:

- 1. DESIGN AND CONSTRUCTION SHALL CONFORM TO THE 2018 INTERNATIONAL BUILDING CODE.
2. THE DRAWINGS REPRESENT THE FINISHED STRUCTURE, NOT THE METHOD OF CONSTRUCTION. THE CONTRACTOR SHALL PROVIDE ALL MEASURES NECESSARY TO PROTECT THE NEW AND EXISTING STRUCTURE DURING CONSTRUCTION INCLUDING, BUT NOT LIMITED TO, BRACING, SHORING FOR CONSTRUCTION LOADS AND EQUIPMENT, ETC. THE ARCHITECT-ENGINEER IS NOT RESPONSIBLE FOR THE CONTRACTOR'S MEANS AND METHODS, SEQUENCES OF CONSTRUCTION, OR THE SAFETY PROGRAM. OBSERVATION VISITS TO THE SITE BY THE ARCHITECT-ENGINEER WILL NOT INVOLVE REVIEW OF THESE ITEMS.
3. CONTRACTOR IS TO ESTABLISH AND VERIFY OPENINGS AND INSERTS FOR ITEMS TO BE INSTALLED BY OTHER TRADES PRIOR TO SUBMITTAL OF SHOP DRAWINGS AND CONSTRUCTION.
4. CONSTRUCTION MATERIAL AND EQUIPMENT PLACED ON FRAMED CONSTRUCTIONS SHALL BE SUCH THAT THE LOAD DOES NOT EXCEED THE DESIGN LIVE LOAD OF THE CONSTRUCTION. PROVIDE SHORING OF CONSTRUCTIONS WHERE NECESSARY FOR LOADS.
5. DETAILS THAT ARE NOTED AS "TYP." ON DETAIL TITLES ARE TO BE APPLIED TO THE PROJECT CONSTRUCTION AS GENERAL CONSTRUCTION METHODS UNLESS NOTED OTHERWISE. THESE DETAILS ARE NOT CUT AT ALL LOCATIONS THEY OCCUR AND MAY NOT BE CUT AT ALL.
6. CONTRACTOR NOTE: PROVIDE 2 TONS OF MISCELLANEOUS STRUCTURAL STEEL SHAPES (LABOR FOR BOTH LABOR FOR DETAILING AND ERECTION INCLUDED FOR FIELD USE AS DIRECTED BY THE ARCHITECT/ENGINEER.

DESIGN:

- ALL CONSTRUCTION SHALL COMPLY WITH THE FOLLOWING CODES AND STANDARDS, EXCEPT WHERE NOTED TO THE CONTRARY ON DRAWINGS OR WHERE MORE STRINGENT REQUIREMENTS ARE SHOWN.
ACI 301 SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS.
ACI 318 BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE
AISC 360-16 SPECIFICATIONS FOR STRUCTURAL STEEL FOR BUILDINGS
AISC-5100-16 NORTH AMERICAN SPECIFICATION FOR THE DESIGN OF COLD-FORMED STEEL STRUCTURAL MEMBERS
AWS D1.1 STRUCTURAL WELDING CODE
ICC500-14 2020 ICC/NSA STANDARD FOR THE DESIGN AND CONSTRUCTION OF STORM SHELTER

DEAD LOADS:

ROOF: 25 PSF

LIVE LOADS:

ROOF: 20 PSF

SNOW LOADS:

SNOW LOADS IN ACCORD WITH THE 2018 INTERNATIONAL BUILDING CODE AND ASCE 7 INCLUDING DRIFTING SNOW LOADS CHAPTER 16.
Cs = 1.0
Site Class = B
Pg = 20 PSF
Pf = 16.8 PSF
P(min) = 16 psf
RAIN ON SNOW LOAD = 5 PSF
DESIGN BALANCE SNOW LOAD = 24 PSF

WIND LOAD:

WIND LOADS IN ACCORD WITH THE 2018 INTERNATIONAL BUILDING CODE.
ULTIMATE DESIGN WIND SPEED = 122 MPH
EXPOSURE = B

SEISMIC LOAD:

SEISMIC DESIGN IN ACCORD WITH 2018 INTERNATIONAL BUILDING CODE.
IEC-1.5 SEISMIC USE GROUP IV
SITE CLASS = B
MAPPED SPECTRAL RESPONSE COEFFICIENTS: Ss = 0.16 SI = 0.082
SPECTRAL RESPONSE COEFFICIENTS: SDS = 0.14 SDI = 0.12
SEISMIC DESIGN CATEGORY C
PRECAST CONCRETE WALLS.
Cs = 0.0569

LATERAL LOAD RESISTANCE SYSTEM:

STEEL DECK ROOF DIAPHRAGMS TRANSFERRING LATERAL LOADS TO PRECAST CONCRETE SHEAR WALLS & BRACED FRAME SUPPORTED BY SHALLOW CONCRETE FOUNDATIONS.

FOUNDATIONS:

- 1. A GEOTECHNICAL REPORT HAS NOT BEEN COMPLETED. A GEOTECHNICAL ENGINEER SHALL VERIFY SOILS PRIOR TO FOUNDATION PLACEMENT.
2. ALLOWABLE BEARING PRESSURE: 2000 PSF
3. FROST DEPTH = 3'-0"
4. SEE GEOTECHNICAL REPORT FOR ANY ADDITIONAL OVEREXCAVATION AND SUBGRADE PREPARATION REQUIREMENTS. ALL RECOMMENDATION IN THE GEOTECHNICAL REPORT SHALL BE FOLLOWED UNO.

STRUCTURAL BACKFILL:

- 1. ALL BELOW-GRADE WALLS TO BE BACKFILLED WITH GRAVEL BACKFILL AS DESCRIBED IN GEOTECH REPORT.
2. PLACE BACKFILL AND COMPACT IN 8" LIFTS PER GEOTECH REPORT.
3. DESIGN EQUIVALENT FLUID PRESSURES (GRAVEL BACKFILL)
ACTIVE: 35 psf/ft
AT-REST: 55 psf/ft

CONCRETE:

- 1. CONCRETE MIX DESIGNS:
FOOTINGS:
MIN 28 DAY COMPRESSIVE STRENGTH = 4,000 PSI
W/C RATIO = 0.50
MAX AGGREGATE SIZE = 3/4"
SLUMP = 4" ± 1"
AIR CONTENT = 6% ± 1.5% (ASTM C 260)
WALLS:
MIN 28 DAY COMPRESSIVE STRENGTH = 4,000 PSI
W/C RATIO = 0.50
MAX AGGREGATE SIZE = 3/4"
SLUMP = 4" ± 1"
AIR CONTENT = 6% ± 1.5% (ASTM C 260)
SLAB ON GRADE:
MIN 28 DAY COMPRESSIVE STRENGTH = 4,000 PSI
W/C RATIO = 0.45
MAX AGGREGATE SIZE = 3/4"
MAX SLUMP = 4"
AIR CONTENT = 4 ± 1.5% (ASTM C 260)
EXTERIOR CONCRETE:
MIN 28 DAY COMPRESSIVE STRENGTH = 4,500 PSI
W/C RATIO = 0.40
MAX AGGREGATE SIZE = 3/4"
SLUMP = 4 ± 1"
AIR CONTENT = 6% ± 1.5% (ASTM C 260)

- 2. IF CONTRACTOR DESIRES TO INCREASE SLUMP ABOVE ALLOWABLE LIMITS TO FACILITATE PLACEMENT OR PUMPING THIS SHALL BE DONE UTILIZING AN APPROPRIATE APPROVED ADMIXTURE - NO WATER SHALL BE ADDED AT THE PROJECT SITE WITHOUT THE ENGINEER'S PERMISSION. ALL ADMIXTURES SHALL BE APPROVED IN WRITING BY THE ENGINEER.
3. THE CONTRACTOR SHALL REJECT ANY CONCRETE THAT EXCEEDS THE SLUMP LIMITS NOTED ABOVE OR EXCEEDS THE TOTAL ALLOWABLE MIXING TIME.
4. FLY ASH MAY BE INCLUDED IN FOUNDATION CONCRETE.
5. NO ALUMINUM SHALL BE PLACED IN CONCRETE.
6. DURING HOT WEATHER (80 DEGREES F AND ABOVE, THE CONTRACTOR SHALL COMPLY WITH THE RECOMMENDATIONS ACI 305/HOT WEATHER CONCRETE. DURING COLD WEATHER (40 DEGREES F AND BELOW), THE CONTRACTOR SHALL COMPLY WITH THE RECOMMENDATIONS OF ACI 308 "COLD WEATHER CONCRETING."
7. THE CONCRETE MIX DESIGNS ARE TO BE SUBMITTED AS A FORMAL SUBMITTAL TO THE ENGINEER OF RECORD FOR REVIEW AND ACCEPTANCE. AFTER ACCEPTANCE OF THE MIX DESIGN BY THE ENGINEER OF RECORD, THE ACCEPTED DESIGNS MUST BE FORWARDED TO THE CITY INSPECTION DEPT. & THE SPECIAL INSPECTOR PRIOR TO CONCRETE BEING DELIVERED TO THE SITE.

CONCRETE REINFORCEMENT:

- 1. REINFORCING STEEL SHALL BE ASTM A615, GRADE 60.
2. CONCRETE COVER REQUIREMENTS FOR CAST-IN-PLACE, UNLESS OTHERWISE NOTED ON DETAILS:
CONCRETE CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH: 3"
OTHER: #6 BARS AND LARGER: 2"
#5 BARS AND SMALLER: 1-1/2"
3. REINFORCING BAR SPLICES SHALL BE IN ACCORD WITH THE REQUIREMENTS OF ACI 318-14 AND THE REINFORCING SPLICE LENGTH TABLE SHOWN ON THE DRAWINGS.

PRECAST CONCRETE:

- 1. THE CONTRACTOR/SUPPLIER IS RESPONSIBLE FOR THE DESIGN OF ALL THE PRECAST MEMBERS AND CONNECTION BETWEEN THEM AND OTHER STRUCTURAL MEMBERS. SUBMIT DESIGN CALCULATIONS, SEALED BY AN ENGINEER LICENSED IN THE STATE OF THE PROJECT LOCATION, FOR REVIEW BY THE ARCHITECT/ENGINEER OF RECORD.
2. ALL PRECAST MEMBERS ARE TO BE DESIGNED IN ACCORDANCE WITH ACI 318-14, 2018 IBC AND OTHER APPLICABLE CODES, STANDARDS (SEE SPECS) AND DESIGNED CONNECTIONS.
3. PROVIDE BLOCKOUTS AND OPENINGS FOR MECHANICAL/ELECTRICAL EQUIPMENT. REFER TO MECHANICAL/ELECTRICAL DOCUMENTS.
4. SHOP DRAWINGS SHALL BE COMPLETE AND SHALL INCLUDE A LAYOUT PLAN, FABRICATION DETAILS, ESTIMATED CAMBER, CONNECTION AND ANCHORAGE DETAILS AND MEMBER IDENTIFICATION MARKS. IDENTIFICATION MARKS SHALL APPEAR ON MANUFACTURED UNITS TO FACILITATE CORRECT FIELD PLACEMENT.
5. REFER TO MECHANICAL/ELECTRICAL DRAWINGS FOR CONDUIT LOCATIONS EMBEDDED IN PRECAST MEMBERS

STRUCTURAL STEEL:

- 1. FABRICATOR SHALL BE AISC CERTIFIED IN LIEU OF THE PREVIOUS FABRICATOR SHALL INCLUDE IN THEIR BID THE SERVICES OF A SPECIAL INSPECTOR TO PROVIDE INSPECTION/TESTING SERVICES FOR IN-SHOP WORK TO MEET THE REQUIREMENTS OF 2018 INTERNATIONAL BUILDING CODE SECTION 1704.
2. STRUCTURAL STEEL SHALL MEET ASTM A36 UNLESS NOTED OTHERWISE. STRUCTURAL STEEL WIDE FLANGE SHAPES SHALL MEET ASTM A992.
3. STEEL TUBES SHALL MEET ASTM A500, GRADE B.
4. STEEL PIPE SHALL MEET ASTM A53, TYPE E OR S, GRADE B.
5. BOLTS SHALL BE 3/4" DIAMETER A325-N UNLESS OTHERWISE NOTED.
6. FIELD BOLTING INSTALLATION SHALL BE INSPECTED IN ACCORD WITH THE 2018 INTERNATIONAL BUILDING CODE AND THE AISC RFCD MANUAL, SECOND EDITION. BOLTS SHALL BE INSTALLED SNIUG TIGHT UNLESS NOTES OTHERWISE NOTED. ASTM A-325-SC SHALL BE FULLY TIGHTENED USING LOAD INDICATOR WASHERS.
7. ALL WELDING SHALL CONFORM TO THE PROVISIONS OF THE AMERICAN WELDING SOCIETY CODE AWS D1.1-86. ELECTRODES SHALL MATCH BASE METALS AS SPECIFIED IN 2018 INTERNATIONAL BUILDING CODE.
8. ALL FIELD WELDING SHALL BE VISUALLY INSPECTED BY THE TESTING LABORATORY.
9. HOT DIP GALVANIZE ALL STEEL MEMBERS EXPOSED TO EXTERIOR TO MEET ASTM 525 G60.
10. ALL STEEL BELOW GRADE SHALL BE ENCASED IN CONCRETE WHERE POSSIBLE; IF NOT POSSIBLE, STEEL SHALL BE THOROUGHLY COATED WITH TWO COATS OF ASPHALTIC PAINT.

STEEL JOISTS:

- 1. FABRICATOR SHALL BE AN "APPROVED FABRICATOR" IN ACCORD WITH THE 2018 INTERNATIONAL BUILDING CODE BUILDING CODE SECTION 1704.2, REGISTERED AND APPROVED BY THE LOCAL BUILDING DEPARTMENT.
2. DESIGNED, FABRICATED AND ERECTED IN ACCORD WITH THE 2018 INTERNATIONAL BUILDING CODE CHAPTER 22 AND THE STANDARD SPECIFICATIONS FOR STEEL JOIST, K-SERIES, LH-SERIES, DLH-SERIES AND JOIST GIRDERS, PUBLISHED BY THE STEEL JOIST INSTITUTE.
3. SIZE, TYPE AND SPACING OF JOIST BRIDGING TO BE IN ACCORD WITH STEEL JOIST INSTITUTE RECOMMENDATIONS. USE "X"-BRIDGING AT DISCONTINUOUS ENDS OF BRIDGING. LOCATE BRIDGING TO AVOID MECHANICAL OPENINGS.
4. JOIST SEAT DEPTH SHALL BE 2-1/4" FOR "K" SERIES AND 5" INCHES FOR "LH" SERIES UNLESS NOTED OTHERWISE.
5. DESIGN EXTENDED ENDS FOR SAME DEAD LOADS AS JOIST AND A SNOW LOAD OF 40 PSF, AND OTHER LOADS AS INDICATED. LIMIT LIVE LOAD DEFLECTION TO L/240.
6. ADDITIONAL LOADS HAVE BEEN NOTED ON FRAMING PLANS. JOISTS SHALL BE DESIGNED TO SUPPORT THE ADDITIONAL LOADS. IT IS THE JOISTS SUPPLIER'S RESPONSIBILITY TO DESIGN JOIST FOR ANY LOAD IN ADDITION TO THE DEAD AND LIVE LOADS LISTED ON THIS SHEET.

METAL DECK:

- 1. METAL ROOF DECK SHALL BE DEPTH X GAUGE SHOWN ON DRAWINGS (22 GA. MIN.), WITH NESTABLE SIDE LAPS AND PAINTED.
2. COMPOSITE FLOOR DECK SHALL BE DEPTH X GAUGE SHOWN ON DRAWING (22 GA MIN.), WITH NESTABLE SIDE LAPS AND GALVANIZED.
3. FASTEN ROOF DECK IN ACCORD WITH METAL DECK ATTACHMENT TYPES NOTED ON THE PLANS AND FASTENING DETAILS. DECK ATTACHMENT SHALL BE IN ACCORD WITH VULCRAFT AND THE STEEL DECK INSTITUTE'S SECOND EDITION OF THE DIAPHRAGM DESIGN MANUAL OR APPROVED EQUAL.
4. METAL DECK ATTACHMENTS SHALL BE INSPECTED BY TESTING LABORATORY.

MASONRY:

- 1. THE MINIMUM 28-DAY COMPRESSIVE STRENGTH OF THE CONCRETE MASONRY UNITS SHALL BE 1900 PSI ON THE NET AREA, PROVIDING A STRUCTURAL DESIGN COMPRESSIVE STRENGTH OF 1500 PSI PER THE 2018 INTERNATIONAL BUILDING CODE, TABLE 2105.2.1.2.
2. MORTAR SHALL BE TYPE S IN ACCORD WITH THE 2018 INTERNATIONAL BUILDING CODE, TABLE NO. 2103.7(1), MORTAR PROPORTIONS FOR UNIT MASONRY, USING CEMENT LIME OR MORTAR CEMENT MIXES. (MASONRY CEMENT IS NOT ACCEPTABLE).
3. MINIMUM 28-DAY COMPRESSIVE STRENGTH OF GROUT SHALL BE THE GREATER OF 2500 PSI OR THE COMPRESSIVE STRENGTH OF THE MASONRY UNITS. AIR ENTRAINMENT AND OTHER ADDITIVES ARE NOT ACCEPTABLE IN GROUT MIX. GROUT SHALL HAVE A SLUMP OF 8 TO 11 INCHES.
4. MASONRY REINFORCING STEEL SHALL BE ASTM A615, GRADE 60.
5. HORIZONTAL JOINT REINFORCING SHALL BE STANDARD LADDER TYPE, GALVANIZED, AT 16-INCHES ON CENTER, UNLESS OTHERWISE NOTED ON PLAN.
6. MINIMUM BOND BEAM REINFORCING SHALL BE 2 - #4 IN 6" AND 8" BOND BEAMS AND 2 - #5 IN 12" BOND BEAMS. BOND BEAM REINFORCING SHALL BE CONTINUOUS THROUGH CONTROL JOINTS EXCEPT AS NOTED ON TYPICAL MASONRY WALL OPENING DETAIL.
7. SPLICE LENGTHS FOR MASONRY REINFORCEMENT SHALL BE IN ACCORD WITH THE REINFORCING SPLICE LENGTH TABLE OR AS SHOWN ON THE DRAWINGS.
8. PROVIDE BOND BEAMS AT TOP OF ALL WALLS, AT ROOFS, STRUCTURAL FLOORS, OVER ALL OPENINGS IN WALLS AND WHERE SHOWN ON THE DRAWINGS.
9. REINFORCING SHALL BE HELD IN PLACE PRIOR TO GROUTING WITH WIRE POSITIONERS PLACED AT INTERVALS NOT EXCEEDING 192 BAR DIAMETERS NOR 10 FEET. PROVIDE POSITIONERS AT REINFORCING SPLICES.
10. VERTICAL REINFORCING SHALL BE AS FOLLOWS, UNLESS OTHERWISE NOTED ON THE PLANS OR DETAILS.
8" CONC BLOCK 1-#5 @ 4'-0" OC
11. PROVIDE 1 #5 VERTICAL REINFORCING AT JAMB OPENINGS, ENDS AND CORNERS OF ALL WALLS AND EACH SIDE OF CONTROL JOINTS. SPECIAL JAMB REINFORCING, WHERE REQUIRED, IS CALLED OUT ON THE PLANS.
12. ELECTRICAL PANELS, CONDUITS, PIPES, FIRE EXTINGUISHER CABINETS, ETC., ARE TO BE LOCATED SO AS NOT TO INTERFERE WITH REINFORCED AND/OR GROUTED CELLS. PIPES AND CONDUITS PASSING HORIZONTALLY THROUGH WALLS SHALL BE SLEEVED. MINIMUM SPACING OF SLEEVES SHALL BE THREE DIAMETERS.
13. GROUT SHALL BE MECHANICALLY CONSOLIDATED IN A MANNER TO FILL THE GROUT SPACE AND RECONSOLIDATED IN ACCORD WITH THE 2018 INTERNATIONAL BUILDING CODE.
14. PROVIDE GROUT AND MASONRY UNIT TESTING PRIOR TO AND DURING CONSTRUCTION IN ACCORD WITH THE 2018 INTERNATIONAL BUILDING CODE.
15. REINFORCEMENT PLACEMENT, GROUT SPACES AND GROUTING OPERATION SHALL BE INSPECTED BY TESTING LABORATORY IN ACCORD WITH THE 2018 INTERNATIONAL BUILDING CODE REQUIREMENTS. MORTAR FIN PROJECTION INTO THE GROUT SPACE SHALL NOT EXCEED 1/2 INCH.

POST-INSTALLED ANCHORS:

- 1. EXPANSION BOLTS INSTALLED IN CONCRETE OR MASONRY SHALL BE HILTI KWIK BOLT TZ ANCHORS OR APPROVED EQUAL, WITH EMBEDMENT NOTED ON THE DRAWINGS OR EMBEDMENT AS RECOMMENDED BY MANUFACTURER WHERE NO EMBEDMENT IS SHOWN. INSTALL IN ACCORD WITH MANUFACTURER'S RECOMMENDATIONS AND ICC-ES REPORTS ESR-4286.
2. SCREW ANCHORS SHALL BE KWIK HUS-EZ-SS316 CONCRETE ANCHORS BY HILTI, INC. OR APPROVED EQUAL. INSTALL IN ACCORD WITH MANUFACTURER'S RECOMMENDATIONS AND ICC-ES REPORT ESR-3027.
3. ADHESIVE ANCHORS SHALL BE HILTI:
-HIT-HY 200 SAFE SET SYSTEM WITH THE HILTI HIT-Z ROD OR HAS THREADED ROD, PER ICC ESR 3187
-HIT-HY SAFE SET SYSTEM WITH HILTI HOLLOW DRILL BIT (TE-CD OR TE-YD) WITH HAS-E THREADED ROD PER ICC-3187
-HIT-RE 500 V3 EPOXY ADHESIVE ANCHORING SYSTEM WITH THREADED ROD PER ESR-3814
4. ANCHORS ARE NOT TO BE INSTALLED UNTIL CONCRETE OR GROUT HAS REACHED ITS DESIGN STRENGTH.

FIRE RATINGS:

- 1. FOR FIRE-RATING REQUIREMENTS AND METHODS, SEE ARCHITECTURAL DRAWINGS.

SPECIAL STRUCTURAL INSPECTIONS:

- 1. IN ACCORD WITH THE 2018 INTERNATIONAL BUILDING CODE, SECTION 1704, AS NOTED BELOW, TESTING AND INSPECTION SHALL BE BY AN INDEPENDENT TESTING/INSPECTION FIRM, UNDER THE SUPERVISION OF A LICENSED ENGINEER EMPLOYED BY THAT FIRM. THE BASIS FOR WELDING INSPECTOR QUALIFICATION SHALL BE AWS D1.1.
2. SPECIAL INSPECTION IS TO BE PROVIDED IN ADDITION TO THE INSPECTIONS CONDUCTED BY THE LOCAL DEPARTMENT OF BUILDING SAFETY AND SHALL NOT BE CONSTRUED TO RELIEVE THE OWNER OR HIS AUTHORIZED AGENT FROM REQUESTING THE PERIODIC AND CALLED INSPECTIONS REQUIRED BY THE 2018 INTERNATIONAL BUILDING CODE.
3. THE INSPECTOR SHALL OBSERVE THE WORK ASSIGNED TO BE CERTAIN IT CONFORMS WITH THE APPROVED DESIGN DRAWINGS AND SPECIFICATIONS.
4. THE INSPECTOR SHALL FURNISH DAILY INSPECTION REPORTS ON THE WORK TO THE BUILDING OFFICIAL AND TO THE ENGINEER OF RECORD FOR CONFORMANCE TO THE CONTRACT DOCUMENTS. ALL DISCREPANCIES SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE CONTRACTOR FOR CORRECTION, AND, IF UNCORRECTED, TO THE ENGINEER OF RECORD AND THE BUILDING OFFICIAL.
5. THE TESTING/INSPECTION FIRM'S ENGINEER SHALL COMPLETE, SIGN AND SEAL A FINAL REPORT CERTIFYING THAT TO THE BEST OF HIS KNOWLEDGE, THE WORK IS IN CONFORMANCE WITH THE CONTRACT DOCUMENTS.

STATEMENT OF SPECIAL INSPECTION

Table with columns: IBC CODE REFERENCE, CONSTRUCTION TYPE, FREQUENCY CONT. PER. Contains inspection items for welding, steel construction, masonry, and soils.

DEFERRED SUBMITTALS:

- 1. THE FOLLOWING ITEMS ARE DEFERRED SUBMITTAL ITEMS:
- PRECAST CONCRETE
2. DEFERRED SUBMITTAL ITEMS SHALL BE PREPARED AND SEALED BY A LICENSED PROFESSIONAL ENGINEER IN THE STATE OF THE PROJECT WITH CALCULATIONS, DRAWINGS, DETAILS, AND CUT SHEETS SUBMITTED TO THE ENGINEER OF RECORD FOR REVIEW. ONCE REVIEWED, CONTRACTOR SHALL FORWARD TO THE BUILDING DEPARTMENT FOR APPROVAL. FABRICATION AND/OR INSTALLATION OF DEFERRED SUBMITTAL ITEMS SHALL NOT OCCUR UNTIL APPROVAL OF THE BUILDING DEPARTMENT IS RECEIVED.

SHOP DRAWING REVIEW:

- 1. J&S STRUCTURAL ENGINEERS, PA WILL REVIEW SHOP DRAWINGS AND RELATED SUBMITTALS FOR GENERAL CONFORMANCE WITH THE DESIGN CONCEPT AND THE INFORMATION GIVEN IN THE CONSTRUCTION DOCUMENTS. REVIEW OF A SPECIFIC ITEM SHALL NOT INCLUDE REVIEW OF AN ASSEMBLY OF WHICH THE ITEM IS A COMPONENT.
2. THE FOLLOWING IS A LIST OF REQUIRED SHOP DRAWINGS AND RELATED SUBMITTALS. THE CONTRACTOR SHALL REFER TO THE SPECIFICATIONS FOR MORE INFORMATION AND A COMPLETE LIST OF REQUIRED SUBMITTALS:
- ANCHOR BOLT LAYOUT DRAWINGS
- CONCRETE BLOCK COMPRESSION TESTS AND MATERIAL CERTIFICATIONS
- CONCRETE MIX DESIGNS, TESTS AND MATERIAL CERTIFICATIONS
- CONCRETE REINFORCING SHOP DRAWINGS AND REINFORCING MATERIAL CERTIFICATIONS
- MASONRY GROUT AND MORTAR MIX DESIGNS
- MASONRY REINFORCING SHOP DRAWINGS
- STRUCTURAL STEEL SHOP DRAWINGS, MATERIAL CERTIFICATIONS AND WELDER CERTIFICATIONS
- STEEL JOIST SHOP DRAWINGS
- STEEL DECK SHOP DRAWINGS
- PRECAST CONCRETE SHOP DRAWINGS

MASONRY SPLICE LENGTH TABLE

Table with columns: BAR SIZE, 6" BLOCK, 8" BLOCK, 10" BLOCK, 12" BLOCK. Rows for bar sizes #4, #5, #6, #7.

NOTE: WHEN REQUIRED SPLICE LENGTH EXCEEDS 4'-0" USE HIGH LIFT GROUTING OR USE MECHANICAL TENSION SPLICES WITH LOW LIFT GROUTING

CONCRETE SPLICE LENGTH TABLE

Table with columns: BAR SIZE, FOOTING OR GRADE BEAM, PIER, WALL (VERTICAL), WALL (HORIZONTAL), SLAB, COLUMN, BEAM (BOTTOM), BEAM (TOP). Rows for bar sizes #3 through #11.

NOTES: 1. WHEN BARS OF DIFFERENT SIZE ARE LAP SPICED, THE LARGER SPLICE LENGTH SHALL BE USED. 2. TOP BAR IS DEFINED AS ANY HORIZONTAL BAR THAT HAS MORE THAN 12" OF FRESH CONCRETE BELOW THE BAR. 3. TABLE SHALL ONLY BE USED WHEN:
- CONCRETE IS NORMAL WEIGHT
- REINFORCEMENT STEEL IS UNCOATED
- REINFORCEMENT STEEL MEETS ASTM A615, GRADE 60

EPOXY EMBEDMENT TABLE

Table with columns: REINFORCING STEEL, THREADED ROD ANCHORS. Sub-columns: BAR SIZE, MINIMUM EMBEDMENT DEPTH, ANCHOR DIAMETER, MINIMUM EMBEDMENT DEPTH. Rows for bar sizes #3 through #10.

NOTES: 1. CONTRACTOR HAS THE OPTION TO EPOXY DOWELS AS AN ALTERNATE TO HOOKED OR CAST-IN-PLACE DOWELS WHERE NOTED ON THE DRAWINGS. 2. SEE GENERAL STRUCTURAL NOTES FOR APPROVED EPOXY.

- ABBREVIATIONS:
ABD ALLOWABLE STRESS DESIGN
ARCH ARCHITECT
BPL BASEPLATE
BTW BETWEEN
BOTT BOTTOM
BOTT OF BOTTOM OF
BOL BOTTOM OF LINTEL
BOM BOTTOM OF METAL DECK
BOP BOTTOM OF PIER
CIP CAST IN PLACE
CL CENTERLINE
CLR CLEAR
CMU CONCRETE MASONRY UNIT
COL COLUMN
COMP COMPRESSIBLE
CONC CONCRETE
CONT CONTINUOUS
CJ CONTROL JOINT
DIM DIMENSION
EA EACH
EF EACH FACE
ELEV ELEVATION
EMBED EMBEDMENT
EOS EDGE OF SLAB
EQ EQUAL
EW EACH WAY
EXP EXPANSION
FF FINISH FLOOR
FND FOUNDATION
FTO FOOTING
GB GALVANIZED
GB GRADE BEAM
HS HEADED STUD
HS HOLLOW STRUCTURAL SECTION
HORIZ HORIZONTAL
IJ ISOLATION JOINT
INFO INFORMATION
INSUL INSULATION
JB JOIST BEARING
JT JOINT
K KIP = 1,000 POUNDS
LONG LONGITUDINAL
LRFD LOAD AND RESISTANCE FACTORED DESIGN
LLH LONG LEG HORIZONTAL
LLV LONG LEG VERTICAL
M MASONRY
MATL MATERIAL
MAX MAXIMUM
MBM METAL BUILDING MANUFACTURER
MIN MINIMUM
ON ON CENTER
OC PLATE
PL PLATE
LB POUND
PSF POUNDS PER SQUARE FOOT
REF REFERENCE
REIN REINFORCEMENT
REQD REQUIRED
SCHED SCHEDULE
SPA SPACE
SQ SQUARE
STD STANDARD
STL STEEL
TAB TOP AND BOTTOM
TAG TONGUE-AND-GROOVE
TO TOP OF
TOBM TOP OF BEAM
TOP TOP OF FOOTING
TOGB TOP OF GRADE BEAM
TOL TOP OF LINTEL
TOM TOP OF MASONRY
TOP TOP OF PIER
TOS TOP OF STEEL
TOTB TOP OF THE BEAM
TOW TOP OF WALL
TRANS TRANSVERSE
TYP TYPICAL
UNO UNLESS NOTED OTHERWISE
VERT VERTICAL
WWR WELDED WIRE REINFORCEMENT

SYMBOLS KEY:

- GRADE BEAM TAG
GB-X GRADE BEAM TYPE
PLAN NOTE TAG
# REFERENCES A PLAN NOTE ON A GIVEN PLAN SHEET
BEAM SPLICE
MASONRY LINTEL
ML-X

HOEFER WELKER
4622 PENNSYLVANIA AVE.
SUITE 1400
KANSAS CITY, MO 64112
P: 913.307.3700
www.hoeferwelker.com

J&S STRUCTURAL ENGINEERS
7302 W 145th Terrace
Overland Park, KS 66223
www.jstructuralengineers.com
MO COA: 200909344

CONSTRUCTION SET

LEE'S SUMMIT POLICE RENOVATION
10 NE TUDOR RD
LEE'S SUMMIT, MO 64086

REVISION DATES:

Professional Engineer Seal for Kimberly Ebert, State of Missouri, License No. PE-2005029619.

PROFESSIONAL SEAL

S-001
ISSUE DATE: OCTOBER 25, 2024
HOEFER WELKER #: 138191

GENERAL STRUCTURAL NOTES

STRUCTURAL NOTES

2018 INTERNATIONAL BUILDING CODE

GENERAL NOTES:

- 1. DESIGN AND CONSTRUCTION SHALL CONFORM TO THE 2018 INTERNATIONAL BUILDING CODE.
2. THE DRAWINGS REPRESENT THE FINISHED STRUCTURE, NOT THE METHOD OF CONSTRUCTION. THE CONTRACTOR SHALL PROVIDE ALL MEASURES NECESSARY TO PROTECT THE NEW AND EXISTING STRUCTURE DURING CONSTRUCTION INCLUDING, BUT NOT LIMITED TO, BRACING, SHORING FOR CONSTRUCTION LOADS AND EQUIPMENT, ETC. THE ARCHITECT-ENGINEER IS NOT RESPONSIBLE FOR THE CONTRACTOR'S MEANS AND METHODS, SEQUENCES OF CONSTRUCTION, OR THE SAFETY PROGRAM. OBSERVATION VISITS TO THE SITE BY THE ARCHITECT-ENGINEER WILL NOT INVOLVE REVIEW OF THESE ITEMS.
3. CONTRACTOR IS TO ESTABLISH AND VERIFY OPENINGS AND INSERTS FOR ITEMS TO BE INSTALLED BY OTHER TRADES PRIOR TO SUBMITTAL OF SHOP DRAWINGS AND CONSTRUCTION.
4. CONSTRUCTION MATERIAL AND EQUIPMENT PLACED ON FRAMED CONSTRUCTIONS SHALL BE SUCH THAT THE LOAD DOES NOT EXCEED THE DESIGN LIVE LOAD OF THE CONSTRUCTION. PROVIDE SHORING OF CONSTRUCTIONS WHERE NECESSARY FOR LOADS.
5. DETAILS THAT ARE NOTED AS "TYP." ON DETAIL TITLES ARE TO BE APPLIED TO THE PROJECT CONSTRUCTION AS GENERAL CONSTRUCTION METHODS UNLESS NOTED OTHERWISE. THESE DETAILS ARE NOT CUT AT ALL LOCATIONS THEY OCCUR AND MAY NOT BE CUT AT ALL.
6. CONTRACTOR NOTE: PROVIDE 2 TONS OF MISCELLANEOUS STRUCTURAL STEEL SHAPES (LABOR FOR BOTH LABOR FOR DETAILING AND ERECTION INCLUDED FOR FIELD USE AS DIRECTED BY THE ARCHITECT/ENGINEER.

DESIGN:

ALL CONSTRUCTION SHALL COMPLY WITH THE FOLLOWING CODES AND STANDARDS, EXCEPT WHERE NOTED TO THE CONTRARY ON DRAWINGS OR WHERE MORE STRINGENT REQUIREMENTS ARE SHOWN.

Table with 2 columns: Code/Standard and Description. Includes ACI 308, ACI 318, AISC 360-16, AWS D1.1, ICC500-14.

DEAD LOADS:

ROOF: 25 PSF

LIVE LOADS:

ROOF: 20 PSF

SNOW LOADS:

SNOW LOADS IN ACCORD WITH THE 2018 INTERNATIONAL BUILDING CODE AND ASCE 7 INCLUDING DRIFTING SNOW LOADS CHAPTER 16.

Ca = 1.0
Site Class = B
Mapped Spectral Response Coefficients: Ss = 0.16, Si = 0.082
Spectral Response Coefficients: SDS = 0.14, SDI = 0.12
Seismic Design Category C
Precast Concrete Walls: Ca = 0.0569

WIND LOADS:

WIND LOADS IN ACCORD WITH THE 2018 INTERNATIONAL BUILDING CODE. ULTIMATE DESIGN WIND SPEED = 122 MPH EXPOSURE = B

SEISMIC LOADS:

SEISMIC DESIGN IN ACCORD WITH 2018 INTERNATIONAL BUILDING CODE. IBC 16.5 SEISMIC USE GROUP IV SITE CLASS = B

Mapped Spectral Response Coefficients: Ss = 0.16, Si = 0.082
Spectral Response Coefficients: SDS = 0.14, SDI = 0.12
Seismic Design Category C
Precast Concrete Walls: Ca = 0.0569

LATERAL LOAD RESISTANCE SYSTEM:

STEEL DECK ROOF DIAPHRAGMS TRANSFERRING LATERAL LOADS TO PRECAST CONCRETE SHEAR WALLS & BRACED FRAME SUPPORTED BY SHALLOW CONCRETE FOUNDATIONS.

FOUNDATIONS:

- 1. A GEOTECHNICAL REPORT HAS NOT BEEN COMPLETED. A GEOTECHNICAL ENGINEER SHALL VERIFY SOILS PRIOR TO FOUNDATION PLACEMENT.
2. ALLOWABLE BEARING PRESSURE: 2000 PSF
3. FROST DEPTH = 3'-0"
4. SEE GEOTECHNICAL REPORT FOR ANY ADDITIONAL OVEREXCAVATION AND SUBGRADE PREPARATION REQUIREMENTS. ALL RECOMMENDATION IN THE GEOTECHNICAL REPORT SHALL BE FOLLOWED UNO.

STRUCTURAL BACKFILL:

- 1. ALL BELOW-GRADE WALLS TO BE BACKFILLED WITH GRAVEL BACKFILL AS DESCRIBED IN GEOTECH REPORT.
2. PLACE BACKFILL AND COMPACT IN 8" LIFTS PER GEOTECH REPORT.
3. DESIGN EQUIVALENT FLUID PRESSURES (GRAVEL BACKFILL) ACTIVE: 35 psf/ft AT-REST: 55 psf/ft

CONCRETE:

- 1. CONCRETE MIX DESIGNS: FOOTINGS: MIN 28 DAY COMPRESSIVE STRENGTH = 4,000 PSI W/C RATIO = 0.50 MAX AGGREGATE SIZE = 3/4" SLUMP = 4" ± 1" AIR CONTENT = 6% ± 1.5% (ASTM C 260)
WALLS: MIN 28 DAY COMPRESSIVE STRENGTH = 4,000 PSI W/C RATIO = 0.50 MAX AGGREGATE SIZE = 3/4" SLUMP = 4" ± 1" AIR CONTENT = 6% ± 1.5% (ASTM C 260)
SLAB ON GRADE: MIN 28 DAY COMPRESSIVE STRENGTH = 4,000 PSI W/C RATIO = 0.45 MAX AGGREGATE SIZE = 3/4" MAX SLUMP = 4" AIR CONTENT = 4 ± 1.5% (ASTM C 260)
EXTERIOR CONCRETE: MIN 28 DAY COMPRESSIVE STRENGTH = 4,500 PSI W/C RATIO = 0.40 MAX AGGREGATE SIZE = 3/4" SLUMP = 4 ± 1" AIR CONTENT = 6% ± 1.5% (ASTM C 260)

- 2. IF CONTRACTOR DESIRES TO INCREASE SLUMP ABOVE ALLOWABLE LIMITS TO FACILITATE PLACEMENT OR PUMPING THIS SHALL BE DONE UTILIZING AN APPROPRIATE APPROVED ADMIXTURE - NO WATER SHALL BE ADDED AT THE PROJECT SITE WITHOUT THE ENGINEER'S PERMISSION. ALL ADMIXTURES SHALL BE APPROVED IN WRITING BY THE ENGINEER.
3. THE CONTRACTOR SHALL REJECT ANY CONCRETE THAT EXCEEDS THE SLUMP LIMITS NOTED ABOVE OR EXCEEDS THE TOTAL ALLOWABLE MIXING TIME.
4. FLY ASH MAY BE INCLUDED IN FOUNDATION CONCRETE.
5. NO ALUMINUM SHALL BE PLACED IN CONCRETE.
6. DURING HOT WEATHER (80 DEGREES F AND ABOVE, THE CONTRACTOR SHALL COMPLY WITH THE RECOMMENDATIONS ACI 308"HOT WEATHER CONCRETE". DURING COLD WEATHER (40 DEGREES F AND BELOW), THE CONTRACTOR SHALL COMPLY WITH THE RECOMMENDATIONS OF ACI 308 "COLD WEATHER CONCRETING".
7. THE CONCRETE MIX DESIGNS ARE TO BE SUBMITTED AS A FORMAL SUBMITTAL TO THE ENGINEER OF RECORD FOR REVIEW AND ACCEPTANCE. AFTER ACCEPTANCE OF THE MIX DESIGN BY THE ENGINEER OF RECORD, THE ACCEPTED DESIGNS MUST BE FORWARDED TO THE CITY INSPECTION DEPT. & THE SPECIAL INSPECTOR PRIOR TO CONCRETE BEING DELIVERED TO THE SITE.

CONCRETE REINFORCEMENT:

- 1. REINFORCING STEEL SHALL BE ASTM A615, GRADE 60.
2. CONCRETE COVER REQUIREMENTS FOR CAST-IN-PLACE, UNLESS OTHERWISE NOTED ON DETAILS: CONCRETE CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH: 3" OTHER: #6 BARS AND LARGER: 2" #5 BARS AND SMALLER: 1-1/2"
3. REINFORCING BAR SPLICES SHALL BE IN ACCORD WITH THE REQUIREMENTS OF ACI 318-14 AND THE REINFORCING SPLICE LENGTH TABLE SHOWN ON THE DRAWINGS.

PRECAST CONCRETE:

- 1. THE CONTRACTOR/SUPPLIER IS RESPONSIBLE FOR THE DESIGN OF ALL THE PRECAST MEMBERS AND CONNECTION BETWEEN THEM AND OTHER STRUCTURAL MEMBERS. SUBMIT DESIGN CALCULATIONS, SEALED BY AN ENGINEER LICENSED IN THE STATE OF THE PROJECT LOCATION, FOR REVIEW BY THE ARCHITECT/ENGINEER OF RECORD.
2. ALL PRECAST MEMBERS ARE TO BE DESIGNED IN ACCORDANCE WITH ACI 318-14, 2018 IBC AND OTHER APPLICABLE CODES, STANDARDS (SEE SPECS) AND DESIGNED CONNECTIONS.
3. PROVIDE BLOCKOUTS AND OPENINGS FOR MECHANICAL/ELECTRICAL EQUIPMENT. REFER TO MECHANICAL/ELECTRICAL DOCUMENTS.
4. SHOP DRAWINGS SHALL BE COMPLETE AND SHALL INCLUDE A LAYOUT PLAN, FABRICATION DETAILS, ESTIMATED CAMBER, CONNECTION AND ANCHORAGE DETAILS AND MEMBER IDENTIFICATION MARKS. IDENTIFICATION MARKS SHALL APPEAR ON MANUFACTURED UNITS TO FACILITATE CORRECT FIELD PLACEMENT.
5. REFER TO MECHANICAL/ELECTRICAL DRAWINGS FOR CONDUIT LOCATIONS EMBEDDED IN PRECAST MEMBERS

STRUCTURAL STEEL:

- 1. FABRICATOR SHALL BE AISC CERTIFIED IN LIEU OF THE PREVIOUS FABRICATOR SHALL INCLUDE IN THEIR BID THE SERVICES OF A SPECIAL INSPECTOR TO PROVIDE INSPECTION/TESTING SERVICES FOR IN-SHOP WORK TO MEET THE REQUIREMENTS OF 2018 INTERNATIONAL BUILDING CODE SECTION 1704.
2. STRUCTURAL STEEL SHALL MEET ASTM A36 UNLESS NOTED OTHERWISE. STRUCTURAL STEEL WIDE FLANGE SHAPES SHALL MEET ASTM A992.
3. STEEL TUBES SHALL MEET ASTM A500, GRADE B.
4. STEEL PIPE SHALL MEET ASTM A53, TYPE E OR S, GRADE B.
5. BOLTS SHALL BE 3/4" DIAMETER A325-8 UNLESS OTHERWISE NOTED.
6. FIELD BOLTING INSTALLATION SHALL BE INSPECTED IN ACCORD WITH THE 2018 INTERNATIONAL BUILDING CODE AND THE AISC BFD MANUAL, SECOND EDITION. BOLTS SHALL BE INSTALLED SNIUG TIGHT UNLESS NOTED OTHERWISE. ASTM A-325-SC SHALL BE FULLY TIGHTENED USING LOAD INDICATOR WASHERS.
7. ALL WELDING SHALL CONFORM TO THE PROVISIONS OF THE AMERICAN WELDING SOCIETY CODE AWS D1.1-88. ELECTRODES SHALL MATCH BASE METALS AS SPECIFIED IN 2018 INTERNATIONAL BUILDING CODE.
8. ALL FIELD WELDING SHALL BE VISUALLY INSPECTED BY THE TESTING LABORATORY.
9. HOT DIP GALVANIZE ALL STEEL MEMBERS EXPOSED TO EXTERIOR TO MEET ASTM 525 G60.
10. ALL STEEL BELOW GRADE SHALL BE ENCASED IN CONCRETE WHERE POSSIBLE; IF NOT POSSIBLE, STEEL SHALL BE THOROUGHLY COATED WITH TWO COATS OF ASPHALTIC PAINT.

STEEL JOISTS:

- 1. FABRICATOR SHALL BE AN "APPROVED FABRICATOR" IN ACCORD WITH THE 2018 INTERNATIONAL BUILDING CODE BUILDING CODE SECTION 1704.2, REGISTERED AND APPROVED BY THE LOCAL BUILDING DEPARTMENT.
2. DESIGNED, FABRICATED AND ERECTED IN ACCORD WITH THE 2018 INTERNATIONAL BUILDING CODE CHAPTER 22 AND THE STANDARD SPECIFICATIONS FOR STEEL JOIST, K-SERIES, LH-SERIES, DLH-SERIES AND JOIST GIRDERS, PUBLISHED BY THE STEEL JOIST INSTITUTE.
3. SIZE, TYPE AND SPACING OF JOIST BRIDGING TO BE IN ACCORD WITH STEEL JOIST INSTITUTE RECOMMENDATIONS. USE "X"-BRIDGING AT DISCONTINUOUS ENDS OF BRIDGING. LOCATE BRIDGING TO AVOID MECHANICAL OPENINGS.
4. JOIST SEAT DEPTH SHALL BE 2-1/4" FOR "K" SERIES AND 5" INCHES FOR "LH" SERIES UNLESS NOTED OTHERWISE.
5. DESIGN EXTENDED ENDS FOR SAME DEAD LOADS AS JOIST AND A SNOW LOAD OF 40 PSF, AND OTHER LOADS AS INDICATED. LIMIT LIVE LOAD DEFLECTION TO L/240.
6. ADDITIONAL LOADS HAVE BEEN NOTED ON FRAMING PLANS. JOISTS SHALL BE DESIGNED TO SUPPORT THE ADDITIONAL LOADS. IT IS THE JOISTS SUPPLIER'S RESPONSIBILITY TO DESIGN JOIST FOR ANY LOAD IN ADDITION TO THE DEAD AND LIVE LOADS LISTED ON THIS SHEET.

METAL DECK:

- 1. METAL ROOF DECK SHALL BE DEPTH X GAUGE SHOWN ON DRAWINGS (22 GA. MIN.), WITH NESTABLE SIDE LAPS AND PAINTED.
2. COMPOSITE FLOOR DECK SHALL BE DEPTH X GAUGE SHOWN ON DRAWING (22 GA MIN.), WITH NESTABLE SIDE LAPS AND GALVANIZED.
3. FASTEN ROOF DECK IN ACCORD WITH METAL DECK ATTACHMENT TYPES NOTED ON THE PLANS AND FASTENING DETAILS. DECK ATTACHMENT SHALL BE IN ACCORD WITH VULCRAFT AND THE STEEL DECK INSTITUTE'S SECOND EDITION OF THE DIAPHRAGM DESIGN MANUAL OR APPROVED EQUAL.
4. METAL DECK ATTACHMENTS SHALL BE INSPECTED BY TESTING LABORATORY.

MASONRY:

- 1. THE MINIMUM 28-DAY COMPRESSIVE STRENGTH OF THE CONCRETE MASONRY UNITS SHALL BE 1900 PSI ON THE NET AREA, PROVIDING A STRUCTURAL DESIGN COMPRESSIVE STRENGTH OF 1500 PSI PER THE 2018 INTERNATIONAL BUILDING CODE, TABLE 2105.2.1.2.
2. MORTAR SHALL BE TYPE S IN ACCORD WITH THE 2018 INTERNATIONAL BUILDING CODE, TABLE NO. 2103.7(1), MORTAR PROPORTIONS FOR UNIT MASONRY, USING CEMENT LIME OR MORTAR CEMENT MIXES. (MASONRY CEMENT IS NOT ACCEPTABLE).
3. MINIMUM 28-DAY COMPRESSIVE STRENGTH OF GROUT SHALL BE THE GREATER OF 2500 PSI OR THE COMPRESSIVE STRENGTH OF THE MASONRY UNITS. AIR ENTRAINMENT AND OTHER ADDITIVES ARE NOT ACCEPTABLE IN GROUT MIX. GROUT SHALL HAVE A SLUMP OF 8 TO 11 INCHES.
4. MASONRY REINFORCING STEEL SHALL BE ASTM A615, GRADE 60.
5. HORIZONTAL JOINT REINFORCING SHALL BE STANDARD LADDER TYPE, GALVANIZED, AT 16-INCHES ON CENTER, UNLESS OTHERWISE NOTED ON PLAN.
6. MINIMUM BOND BEAM REINFORCING SHALL BE 2 - #4 IN 6" AND 8" BOND BEAMS AND 2 - #5 IN 12" BOND BEAMS. BOND BEAM REINFORCING SHALL BE CONTINUOUS THROUGH CONTROL JOINTS EXCEPT AS NOTED ON TYPICAL MASONRY WALL OPENING DETAIL.
7. SPLICE LENGTHS FOR MASONRY REINFORCEMENT SHALL BE IN ACCORD WITH THE REINFORCING SPLICE LENGTH TABLE OR AS SHOWN ON THE DRAWINGS.
8. PROVIDE BOND BEAMS AT TOP OF ALL WALLS, AT ROOFS, STRUCTURAL FLOORS, OVER ALL OPENINGS IN WALLS AND WHERE SHOWN ON THE DRAWINGS.
9. REINFORCING SHALL BE HELD IN PLACE PRIOR TO GROUTING WITH WIRE POSITIONERS PLACED AT INTERVALS NOT EXCEEDING 192 BAR DIAMETERS NOR 10 FEET. PROVIDE POSITIONERS AT REINFORCING SPLICES.
10. VERTICAL REINFORCING SHALL BE AS FOLLOWS, UNLESS OTHERWISE NOTED ON THE PLANS OR DETAILS. 8" CONC BLOCK 1-#5 @ 4'-0" OC
11. PROVIDE 1 #5 VERTICAL REINFORCING AT JAMB OPENINGS, ENDS AND CORNERS OF ALL WALLS AND EACH SIDE OF CONTROL JOINTS. SPECIAL JAMB REINFORCING, WHERE REQUIRED, IS CALLED OUT ON THE PLANS.
12. ELECTRICAL PANELS, CONDUITS, PIPES, FIRE EXTINGUISHER CABINETS, ETC. ARE TO BE LOCATED SO AS NOT TO INTERFERE WITH REINFORCED AND/OR GROUTED CELLS. PIPES AND CONDUITS PASSING HORIZONTALLY THROUGH WALLS SHALL BE SLEEVED. MINIMUM SPACING OF SLEEVES SHALL BE THREE DIAMETERS.
13. GROUT SHALL BE MECHANICALLY CONSOLIDATED IN A MANNER TO FILL THE GROUT SPACE AND RECONSOLIDATED IN ACCORD WITH THE 2018 INTERNATIONAL BUILDING CODE.
14. PROVIDE GROUT AND MASONRY UNIT TESTING PRIOR TO AND DURING CONSTRUCTION IN ACCORD WITH THE 2018 INTERNATIONAL BUILDING CODE.
15. REINFORCEMENT PLACEMENT, GROUT SPACES AND GROUTING OPERATION SHALL BE INSPECTED BY TESTING LABORATORY IN ACCORD WITH THE 2018 INTERNATIONAL BUILDING CODE REQUIREMENTS. MORTAR FIN PROJECTION INTO THE GROUT SPACE SHALL NOT EXCEED 1/2 INCH.

POST-INSTALLED ANCHORS:

- 1. EXPANSION BOLTS INSTALLED IN CONCRETE OR MASONRY SHALL BE HILTI KWIK BOLT TZ ANCHORS OR APPROVED EQUAL, WITH EMBEDMENT NOTED ON THE DRAWINGS OR EMBEDMENT AS RECOMMENDED BY MANUFACTURER WHERE NO EMBEDMENT IS SHOWN. INSTALL IN ACCORD WITH MANUFACTURER'S RECOMMENDATIONS AND ICC-ES REPORTS ESR-4286.
2. SCREW ANCHORS SHALL BE KWIK HUS-EZ-SS316 CONCRETE ANCHORS BY HILTI, INC. OR APPROVED EQUAL. INSTALL IN ACCORD WITH MANUFACTURER'S RECOMMENDATIONS AND ICC-ES REPORT ESR-3027.
3. ADHESIVE ANCHORS SHALL BE HILTI: -HIT-HY 200 SAFE SET SYSTEM WITH THE HILTI HIT-Z ROD OR HAS THREADED ROD, PER ICC ESR 3187 -HIT-HY SAFE SET SYSTEM WITH HILTI HOLLOW DRILL BIT (TE-CD OR TE-YD) WITH HAS -E THREADED ROD PER ICC-3187 -HIT-RE 500 V3 EPOXY ADHESIVE ANCHORING SYSTEM WITH THREADED ROD PER ESR-3814
4. ANCHORS ARE NOT TO BE INSTALLED UNTIL CONCRETE OR GROUT HAS REACHED ITS DESIGN STRENGTH.

FIRE RATINGS:

1. FOR FIRE-RATING REQUIREMENTS AND METHODS, SEE ARCHITECTURAL DRAWINGS.

SPECIAL STRUCTURAL INSPECTIONS:

- 1. IN ACCORD WITH THE 2018 INTERNATIONAL BUILDING CODE, SECTION 1704, AS NOTED BELOW, TESTING AND INSPECTION SHALL BE BY AN INDEPENDENT TESTING/INSPECTION FIRM, UNDER THE SUPERVISION OF A LICENSED ENGINEER EMPLOYED BY THAT FIRM. THE BASIS FOR WELDING INSPECTOR QUALIFICATION SHALL BE AWS D1.1.
2. SPECIAL INSPECTION IS TO BE PROVIDED IN ADDITION TO THE INSPECTIONS CONDUCTED BY THE LOCAL DEPARTMENT OF BUILDING SAFETY AND SHALL NOT BE CONSTRUED TO RELIEVE THE OWNER OR HIS AUTHORIZED AGENT FROM REQUESTING THE PERIODIC AND CALLED INSPECTIONS REQUIRED BY THE 2018 INTERNATIONAL BUILDING CODE.
3. THE INSPECTOR SHALL OBSERVE THE WORK ASSIGNED TO BE CERTAIN IT CONFORMS WITH THE APPROVED DESIGN DRAWINGS AND SPECIFICATIONS.
4. THE INSPECTOR SHALL FURNISH DAILY INSPECTION REPORTS ON THE WORK TO THE BUILDING OFFICIAL AND TO THE ENGINEER OF RECORD FOR CONFORMANCE TO THE CONTRACT DOCUMENTS. ALL DISCREPANCIES SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE CONTRACTOR FOR CORRECTION, AND, IF UNCORRECTED, TO THE ENGINEER OF RECORD AND THE BUILDING OFFICIAL.
5. THE TESTING/INSPECTION FIRM'S ENGINEER SHALL COMPLETE, SIGN AND SEAL A FINAL REPORT CERTIFYING THAT TO THE BEST OF HIS KNOWLEDGE, THE WORK IS IN CONFORMANCE WITH THE CONTRACT DOCUMENTS.

STATEMENT OF SPECIAL INSPECTION table with columns: IBC CODE REFERENCE, CONSTRUCTION TYPE, FREQUENCY CONT. PER. Includes rows for Welding, Reinforced Concrete, Masonry Construction, Soils, and Foundations.

DEFERRED SUBMITTALS:

- 1. THE FOLLOWING ITEMS ARE DEFERRED SUBMITTAL ITEMS: - PRECAST CONCRETE
2. DEFERRED SUBMITTAL ITEMS SHALL BE PREPARED AND SEALED BY A LICENSED PROFESSIONAL ENGINEER IN THE STATE OF THE PROJECT WITH CALCULATIONS, DRAWINGS, DETAILS, AND CUT SHEETS SUBMITTED TO THE ENGINEER OF RECORD FOR REVIEW. ONCE REVIEWED, CONTRACTOR SHALL FORWARD TO THE BUILDING DEPARTMENT FOR APPROVAL. FABRICATION AND/OR INSTALLATION OF DEFERRED SUBMITTAL ITEMS SHALL NOT OCCUR UNTIL APPROVAL OF THE BUILDING DEPARTMENT IS RECEIVED.

SHOP DRAWING REVIEW:

- 1. J&S STRUCTURAL ENGINEERS, PA WILL REVIEW SHOP DRAWINGS AND RELATED SUBMITTALS FOR GENERAL CONFORMANCE WITH THE DESIGN CONCEPT AND THE INFORMATION GIVEN IN THE CONSTRUCTION DOCUMENTS. REVIEW OF A SPECIFIC ITEM SHALL NOT INCLUDE REVIEW OF AN ASSEMBLY OF WHICH THE ITEM IS A COMPONENT.
2. THE FOLLOWING IS A LIST OF REQUIRED SHOP DRAWINGS AND RELATED SUBMITTALS. THE CONTRACTOR SHALL REFER TO THE SPECIFICATIONS FOR MORE INFORMATION AND A COMPLETE LIST OF REQUIRED SUBMITTALS: - ANCHOR BOLT LAYOUT DRAWINGS - CONCRETE BLOCK COMPRESSION TESTS AND MATERIAL CERTIFICATIONS - CONCRETE MIX DESIGNS, TESTS AND MATERIAL CERTIFICATIONS - CONCRETE REINFORCING SHOP DRAWINGS AND REINFORCING MATERIAL CERTIFICATIONS - MASONRY GROUT AND MORTAR MIX DESIGNS - MASONRY REINFORCING SHOP DRAWINGS - STRUCTURAL STEEL SHOP DRAWINGS, MATERIAL CERTIFICATIONS AND WELDER CERTIFICATIONS - STEEL JOIST SHOP DRAWINGS - STEEL DECK SHOP DRAWINGS - PRECAST CONCRETE SHOP DRAWINGS

MASONRY SPLICE LENGTH TABLE with columns: BAR SIZE, 6" BLOCK, 8" BLOCK, 10" BLOCK, 12" BLOCK. Includes rows for #4, #5, #6, #7 bars.

NOTE: WHEN REQUIRED SPLICE LENGTH EXCEEDS 4'-0" USE HIGH LIFT GROUTING OR USE MECHANICAL TENSION SPLICES WITH LOW LIFT GROUTING

CONCRETE SPLICE LENGTH TABLE with columns: BAR SIZE, FOOTING OR GRADE BEAM, PIER, WALL (VERTICAL), WALL (HORIZONTAL), SLAB, COLUMN, BEAM (BOTTOM), BEAM (TOP). Includes rows for #3 through #11 bars.

NOTES: 1. WHEN BARS OF DIFFERENT SIZE ARE LAP SPICED, THE LARGER SPLICE LENGTH SHALL BE USED. 2. TOP BAR IS DEFINED AS ANY HORIZONTAL BAR THAT HAS MORE THAN 12" OF FRESH CONCRETE BELOW THE BAR. 3. TABLES SHALL ONLY BE USED WHEN: - CONCRETE IS NORMAL WEIGHT - REINFORCEMENT STEEL IS UNCOATED - REINFORCEMENT STEEL MEETS ASTM A615, GRADE 60

EPOXY EMBEDMENT TABLE with columns: BAR SIZE, REINFORCING STEEL (MINIMUM EMBEDMENT DEPTH), THREADED ROD ANCHORS (ANCHOR DIAMETER, MINIMUM EMBEDMENT DEPTH). Includes rows for #3 through #10 bars.

NOTES: 1. CONTRACTOR HAS THE OPTION TO EPOXY DOWELS AS AN ALTERNATE TO HOOKED OR CAST-IN-PLACE DOWELS WHERE NOTED ON THE DRAWINGS. 2. SEE GENERAL STRUCTURAL NOTES FOR APPROVED EPOXY.

ABBREVIATIONS table listing symbols and their meanings for structural elements like ASD, ARCH, BPL, BTW, BOTT, BOTT OF, BOL, BOLD, BOP, CIP, CLR, CMU, COLL, COMP, CONC, CONT, C/J, DIM, EA, EF, ELEV, EMBED, EOS, EQ, EW, EXP, F, FND, FTG, GALV, GB, HS, I, INFO, INSUL, J, JO, K, LONG, LRFD, LL, LLV, MAS, MATT, MAX, M/M, MIN, OC, PL, LB, P, P, REF, REIN, REIN, SCHED, SPA, SQ, STD, STL, T&B, T&G, T&T, TO, TOB, TOP, TOB, TOL, TOM, TOP, TOS, TOTB, TOW, TRANS, TYP, UNO, VERT, WWR.

SYMBOLS KEY:

Table defining symbols for GRADE BEAM TAG (GB-X), PLAN NOTE TAG, BEAM SPLICE, and MASONRY LINTEL (ML-X).

HOEFER WELKER logo and address: 4622 PENNSYLVANIA AVE. SUITE 1400 KANSAS CITY, MO 64112 P: 913.307.3700 www.hoeferwelker.com

J&S STRUCTURAL ENGINEERS logo and address: 7302 W 145th Terrace Overland Park, KS 66223 www.jstructuralengineers.com MO COA: 200909344

CONSTRUCTION SET

LEE'S SUMMIT POLICE RENOVATION 10 NE TUDOR RD LEE'S SUMMIT, MO 64086

REVISION DATES:

Professional Engineer Seal for Kimberly Ebert Jones, License No. 2005022619, State of Missouri, dated 11/26/24.

PROFESSIONAL SEAL S-001 ISSUE DATE: OCTOBER 25, 2024 HOEFER WELKER #: 138191

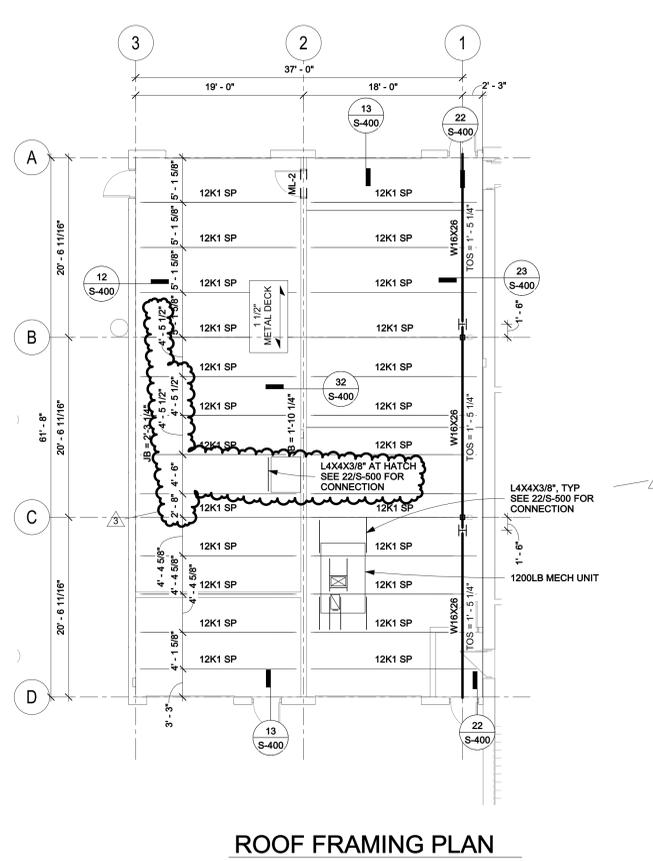
GENERAL STRUCTURAL NOTES



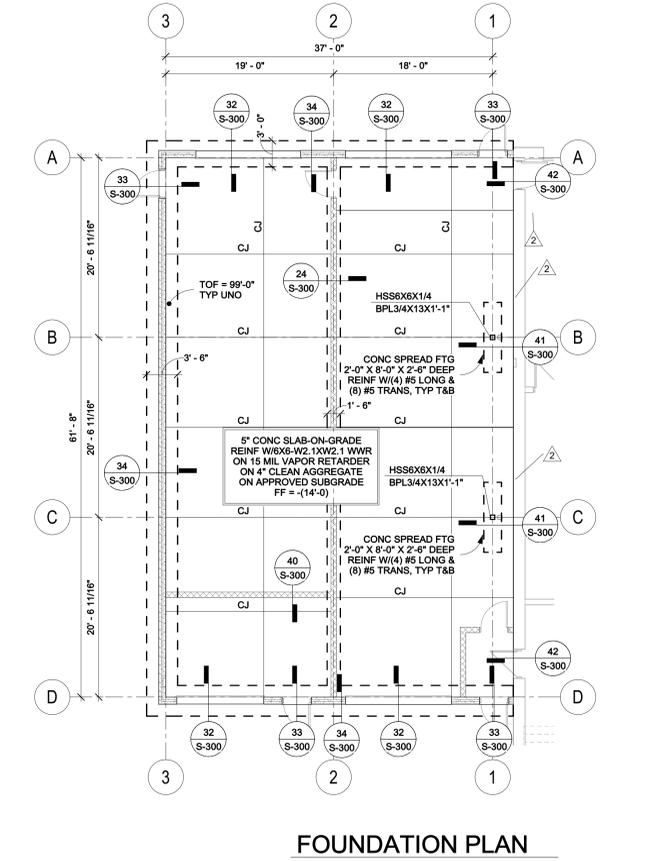




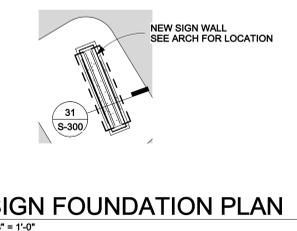
9'-1" = 1'-0"  
 1 1/2" = 1'-0"  
 3/8" = 1'-0"  
 1/2" = 1'-0"  
 3/16" = 1'-0"  
 1/8" = 1'-0"  
 1/16" = 1'-0"



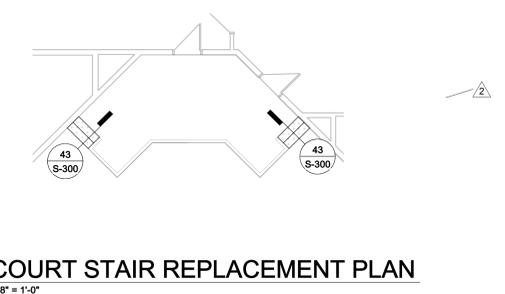
**ROOF FRAMING PLAN**  
 1/8" = 1'-0"



**FOUNDATION PLAN**  
 1/8" = 1'-0"



**SIGN FOUNDATION PLAN**  
 1/8" = 1'-0"



**COURT STAIR REPLACEMENT PLAN**  
 1/8" = 1'-0"

- FOUNDATION NOTES:**
- ALL ELEVATIONS ARE BASED ON A RELATIVE ELEVATION OF 100'-0" EQUAL TO THE INDICATED DATUM ELEVATION. VERIFY DATUM ELEVATION WITH THE LATEST CIVIL DRAWINGS PRIOR TO CONSTRUCTION.
  - COORDINATE TOP OF FOOTING ELEVATIONS WITH LATEST CIVIL DRAWINGS PRIOR TO CONSTRUCTION TO MAINTAIN 5'-0" MINIMUM FROST DEPTH. TOP OF FOOTING ELEVATION = 99'-4" UNLESS OTHERWISE SHOWN THUS.
  - SEE ARCHITECTURAL DRAWINGS FOR BUILDING DIMENSIONS AND WALL OPENINGS AND LOCATION OF THICKENED, SLOPED, RAISED, OR DEPRESSED SLABS.
  - PROVIDE ISOLATION JOINTS AND SAW CUT CONTROL JOINTS IN SLAB ON GRADE AS SHOWN IN DETAIL 13 ON SHEET S0.10 AND 15'-0" OC MAX. CONTROL JOINTS HAVE BEEN SHOWN. LOCATE CONSTRUCTION JOINTS AT NOTED CONTROL JOINT LOCATIONS AS REQUIRED.
  - ABBV: BPL - BASE PLATE
- FRAMING NOTES:**
- ALL ELEVATIONS ARE BASED ON A RELATIVE ELEVATION OF 100'-0" EQUAL TO THE INDICATED DATUM ELEVATION. VERIFY DATUM ELEVATION WITH THE LATEST CIVIL DRAWINGS PRIOR TO CONSTRUCTION.
  - JB INDICATES JOIST BEARING ELEVATION.

**HOEFER WELKER**  
 4622 PENNSYLVANIA AVE.  
 SUITE 1400  
 KANSAS CITY, MO 64112  
 P: 913.307.3700  
 www.hoeferwelker.com  
 COPYRIGHT © BY HOEFER WELKER, LLC

**J&S STRUCTURAL ENGINEERS**  
 7302 W 145th Terrace  
 Overland Park, KS 66223  
 www.jstructuralengineers.com  
 MO COA: 200909344

**LEE'S SUMMIT POLICE RENOVATION**  
 10 NE TUDOR RD  
 LEE'S SUMMIT, MO 64086

REVISION DATES:

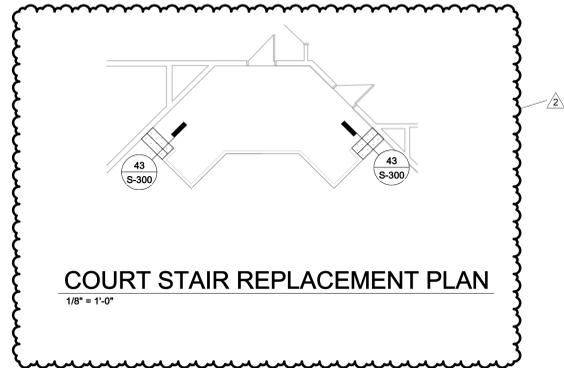
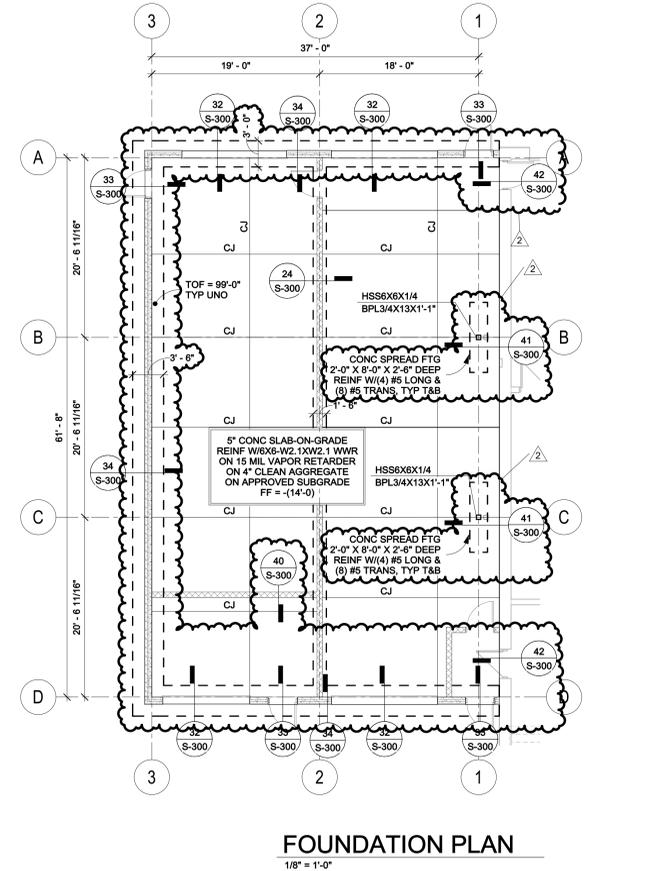
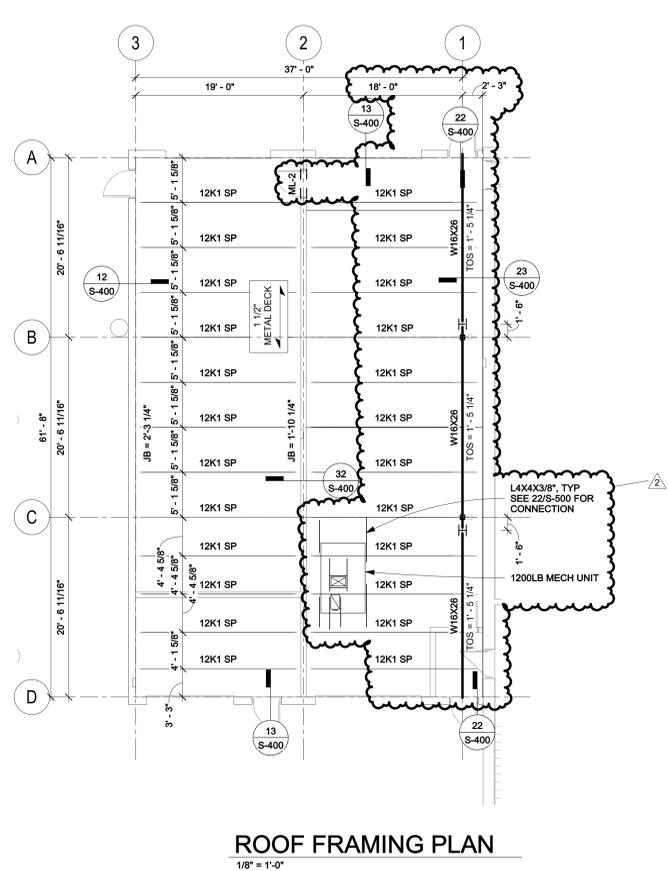
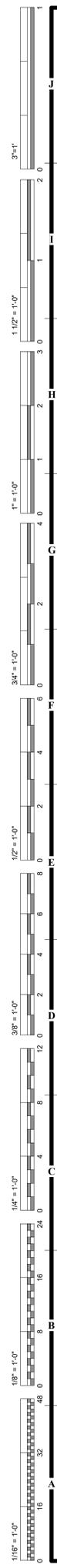
2	ADD #002	11/26/2024
3	ASI #001	12/9/2024



PROFESSIONAL SEAL  
**S-100**  
 ISSUE DATE: OCTOBER 25, 2024  
 HOEFER WELKER #: 138191

STRUCTURAL PLANS AND DETAILS

CONSTRUCTION SET



- FOUNDATION NOTES:**
- ALL ELEVATIONS ARE BASED ON A RELATIVE ELEVATION OF 100'-0" EQUAL TO THE INDICATED DATUM ELEVATION. VERIFY DATUM ELEVATION WITH THE LATEST CIVIL DRAWINGS PRIOR TO CONSTRUCTION.
  - COORDINATE TOP OF FOOTING ELEVATIONS WITH LATEST CIVIL DRAWINGS PRIOR TO CONSTRUCTION TO MAINTAIN 5'-0" MINIMUM FROST DEPTH. TOP OF FOOTING ELEVATION = 99'-4" UNLESS OTHERWISE SHOWN THUS.
  - SEE ARCHITECTURAL DRAWINGS FOR BUILDING DIMENSIONS AND WALL OPENINGS AND LOCATION OF THICKENED, SLOPED, RAISED, OR DEPRESSED SLABS.
  - PROVIDE ISOLATION JOINTS AND SAW CUT CONTROL JOINTS IN SLAB ON GRADE AS SHOWN IN DETAIL 13 ON SHEET S0.10 AND 15-3" OC MAX. CONTROL JOINTS HAVE BEEN SHOWN. LOCATE CONSTRUCTION JOINTS AT NOTED CONTROL JOINT LOCATIONS AS REQUIRED.
  - ABBV: BPL - BASE PLATE

- FRAMING NOTES:**
- ALL ELEVATIONS ARE BASED ON A RELATIVE ELEVATION OF 100'-0" EQUAL TO THE INDICATED DATUM ELEVATION. VERIFY DATUM ELEVATION WITH THE LATEST CIVIL DRAWINGS PRIOR TO CONSTRUCTION.
  - JB INDICATES JOIST BEARING ELEVATION.

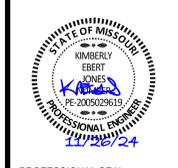
**HOEFER WELKER**  
4622 PENNSYLVANIA AVE.  
SUITE 1400  
KANSAS CITY, MO 64112  
P: 913.307.3700  
www.hoeferwelker.com  
COPYRIGHT © BY HOEFER WELKER, LLC

**J&S STRUCTURAL ENGINEERS**  
7302 W 145th Terrace  
Overland Park, KS 66223  
www.jsstructuralengineers.com  
MO COA: 200909344

**LEE'S SUMMIT POLICE RENOVATION**

10 NE TUDOR RD  
LEE'S SUMMIT, MO 64086

REVISION DATES:  
2 ADD #002 11/26/2024



PROFESSIONAL SEAL  
**S-100**  
ISSUE DATE: OCTOBER 25, 2024  
HOEFER WELKER #: 138191

CONSTRUCTION SET

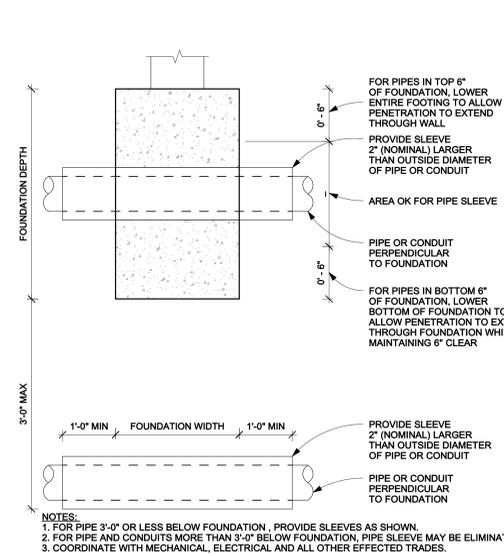
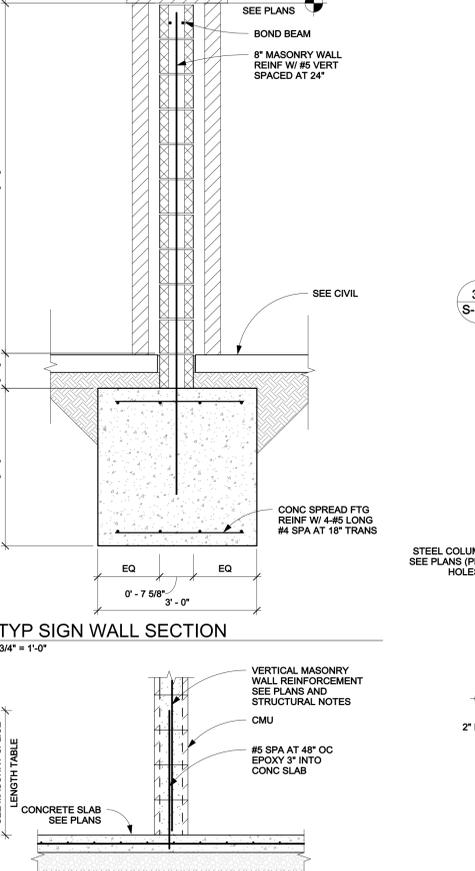
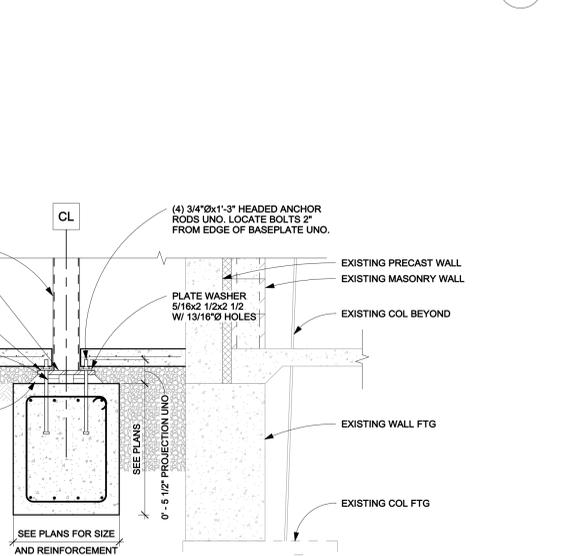
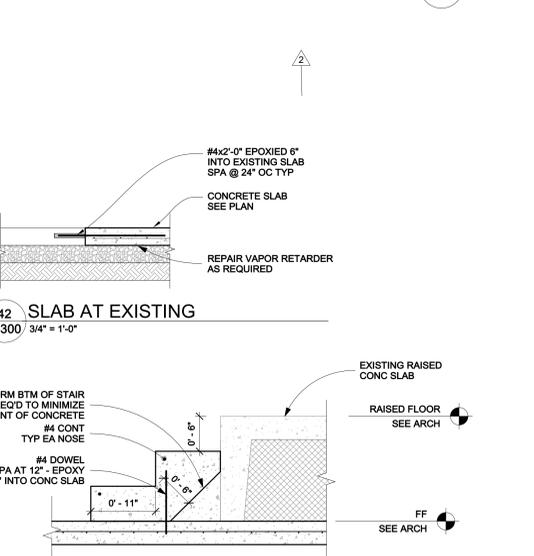
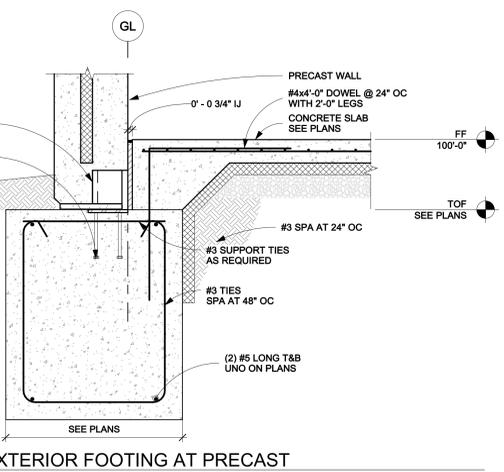
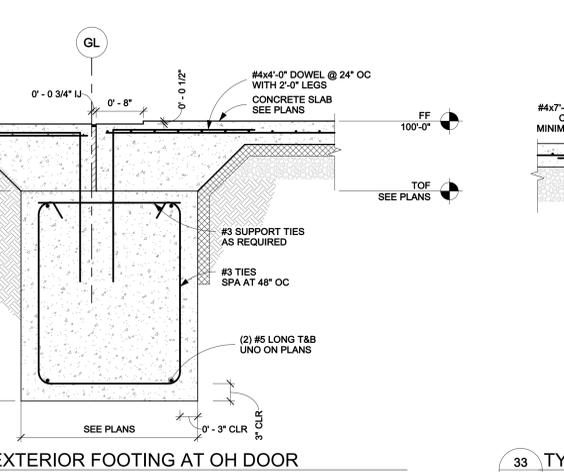
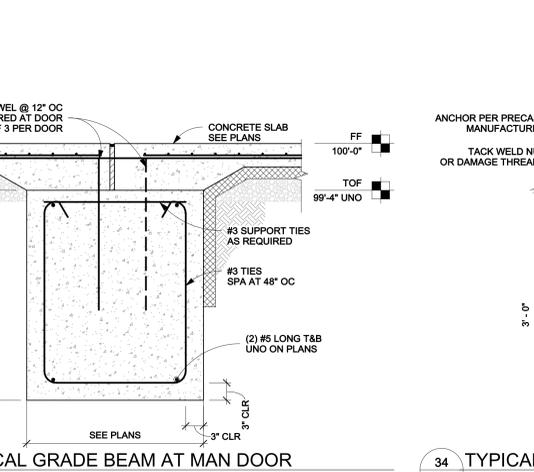
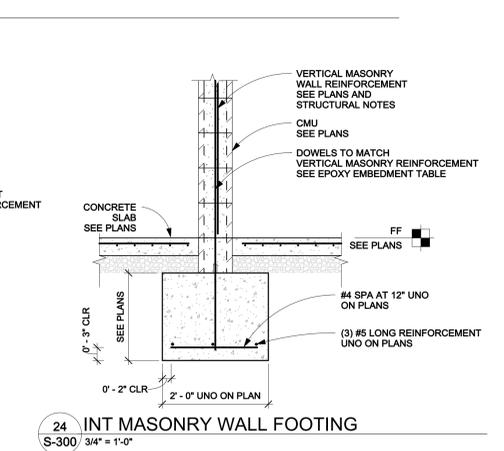
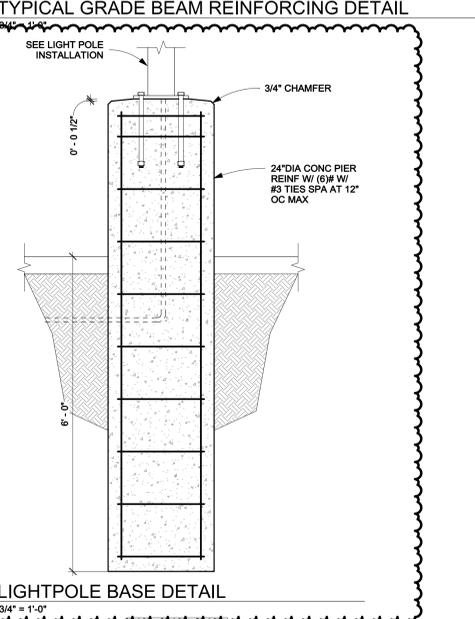
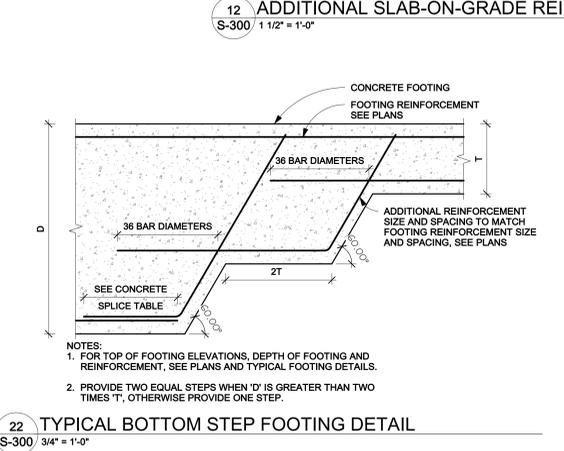
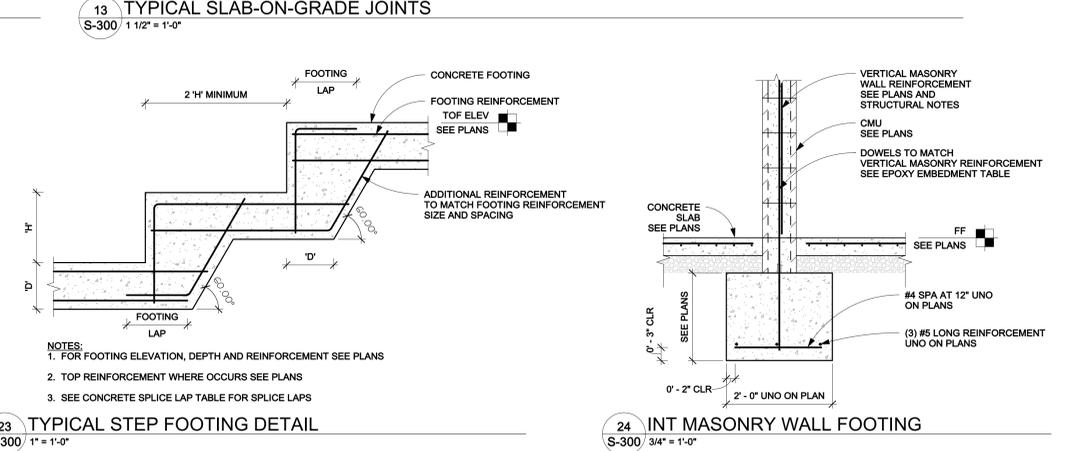
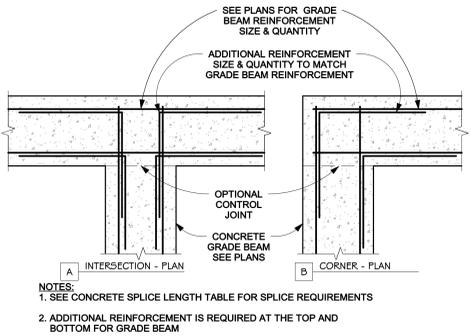
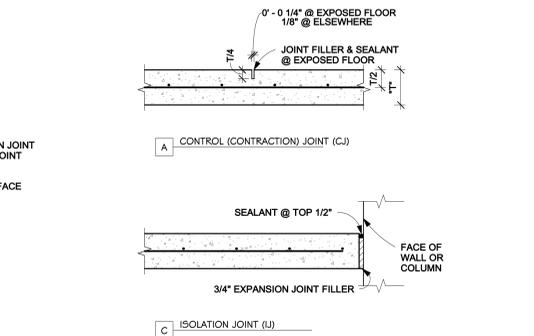
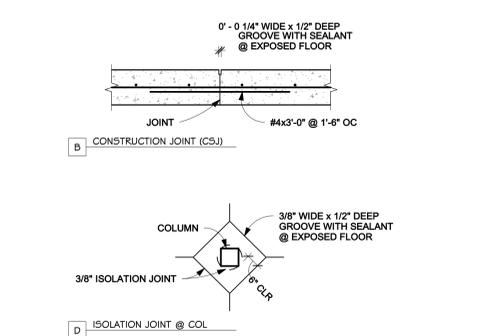
REVISION DATES:	
2	ADD #002 11/26/2024
3	ASI #001 12/9/2024



PROFESSIONAL SEAL

**S-300**

ISSUE DATE: OCTOBER 25, 2024  
 HOEFER WELKER #: 138191























LEE'S SUMMIT POLICE RENOVATION

PACKAGE 2 - CONSTRUCTION SET

10 NE TUDOR RD  
 LEE'S SUMMIT, MO 64086

REVISION DATES:  
 1 ADD #001 11/18/2024  
 2 ADD #002 11/26/2024

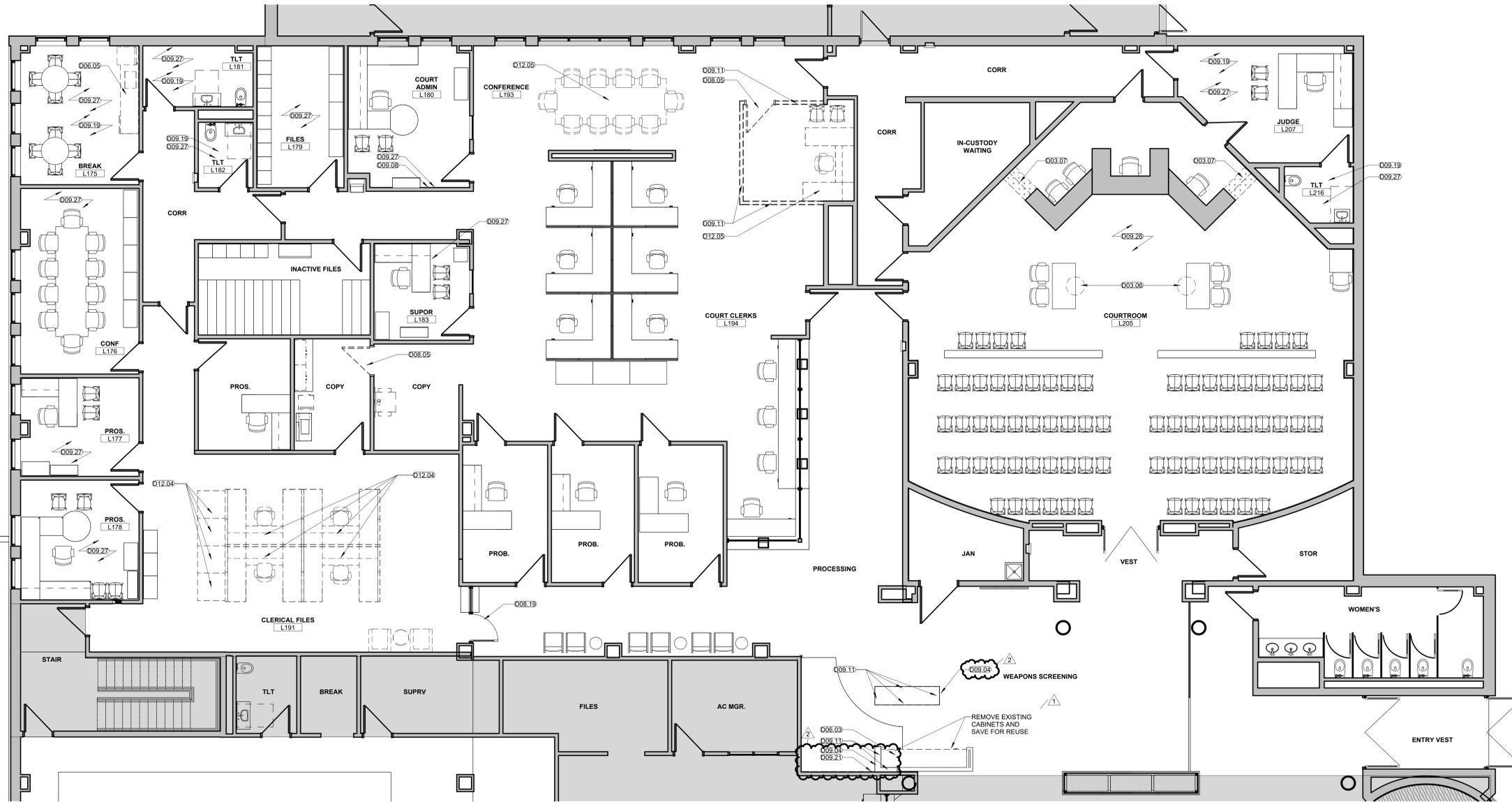


PROFESSIONAL SEAL

AD402  
 ISSUE DATE: NOV. 7, 2024  
 HOEFER WELKER # 138191

- GENERAL NOTES - DEMOLITION PLANS:**
- RE: SHEET G-011 FOR ADDITIONAL GENERAL NOTES THAT ARE APPLICABLE.
  - CONTRACTOR TO VISIT PROJECT SITE AND BUILDING PRIOR TO BID.
  - BUILDING AND SITE TO REMAIN SECURE DURING DEMOLITION AND CONSTRUCTION. PROTECT ALL ITEMS TO REMAIN (WALLS, PLUMBING FIXTURES, PIPING, HVAC UNITS, COLUMNS, ETC).
  - CONTRACTOR TO PROTECT EXISTING FINISHES ADJACENT TO DEMOLITION WORK.
  - CONTRACTOR TO PATCH AND REPAIR ALL WORK, ESPECIALLY WORK ADJACENT TO EXISTING AREAS, AS REQUIRED.
  - CONTRACTOR TO REPAIR ANY AREAS DAMAGED DURING DEMOLITION.
  - CONTRACTOR TO REPAIR ANY PUNCTURES OR TEARS TO THE VAPOR BARRIER AT THE EXTERIOR WALLS.
  - CONTRACTOR TO COORDINATE DEMOLITION OPENINGS WITH NEW PLANS AND ELEVATIONS.
  - REMOVE EXISTING GYP BOARD OR PLASTER AS NECESSARY. TO PROVIDE NEW BLOCKING IN EXISTING WALLS FOR NEW CASEWORK AND EQUIPMENT.
  - REMOVE ALL CEILING ELEMENTS IN CONSTRUCTION AREA INDICATED.
  - LIGHT FIXTURES/ CONTROLS ARE SHOWN FOR GENERAL SCOPE ONLY AND DO NOT RELIEVE THE CONTRACTOR OF ANY OBLIGATION TO REMOVE ALL ELEMENTS IN THE CEILING GRID. REFERENCE MEP DRAWINGS FOR EXTENTS ABOVE CEILING GRID. ALL CEILING FIXTURES, DIFFUSERS, SPEAKERS, SMOKE ALARMS, EXIT SIGNS, STROBES, CEILING TILES, CEILING GRID, BULKHEADS, AND SOFFIT ELEMENTS TO BE REMOVED.
  - SPRINKLER HEADS TO REMAIN. PROTECT DURING DEMOLITION.
  - CONTRACTOR TO REMOVE FENCING AND GATE UPON COMPLETION OF BUILDING AND SIDEWALKS/ PAVING.

DEMOLITION KEYNOTES	
D03.06	CORE DRILL FLOOR AS NECESSARY FOR NEW ELECTRICAL FLOOR BOXES AND PATCH FLOOR PER SPECIFICATION.
D03.07	REMOVE CONCRETE STAIR.
D06.03	REMOVE COUNTERTOPS IN THIS AREA.
D06.05	REMOVE EXISTING CASEWORK AND THE ADJACENT APPLIANCES.
D08.05	REMOVE EXISTING DOOR, FRAME AND HARDWARE.
D08.19	REMOVE DOOR HARDWARE AND PREP FOR NEW HARDWARE.
D09.04	PREPARE SUBSTRATES FOR NEW FLOORING, AS RECOMMENDED BY MANUFACTURER.
D09.08	REMOVE WALL COVERING, PATCH WALL FOR NEW PAINT.
D09.11	REMOVE WALL PARTITION AS INDICATED.
D09.19	REMOVE FLOOR FINISH & PATCH FLOOR TO RECEIVE NEW FINISH.
D09.21	REMOVE WALL TILE. PATCH WALL FOR NEW PAINT.
D09.26	PREPARE TRIM IN ROOM FOR REPAINTING.
D09.27	PREPARE WALLS IN ROOM FOR PAINT.
D12.04	FURNITURE TO BE RELOCATED BY OWNER.
D12.05	FURNITURE TO BE REMOVED BY OWNER.



**A1 COURT DEMO PLAN**  
 3/16" = 1'-0"

ENLARGED DEMO PLAN - COURT









# LEE'S SUMMIT POLICE RENOVATION

10 NE TUDOR RD  
 LEE'S SUMMIT, MO 64086

PACKAGE 2 - CONSTRUCTION SET

REVISION DATES:

2	ADD #002	11/26/2024
3	ASI #001	12/9/2024



PROFESSIONAL SEAL

**A-102**  
 ISSUE DATE: NOV. 7, 2024  
 HOEFER WELKER #: 138191

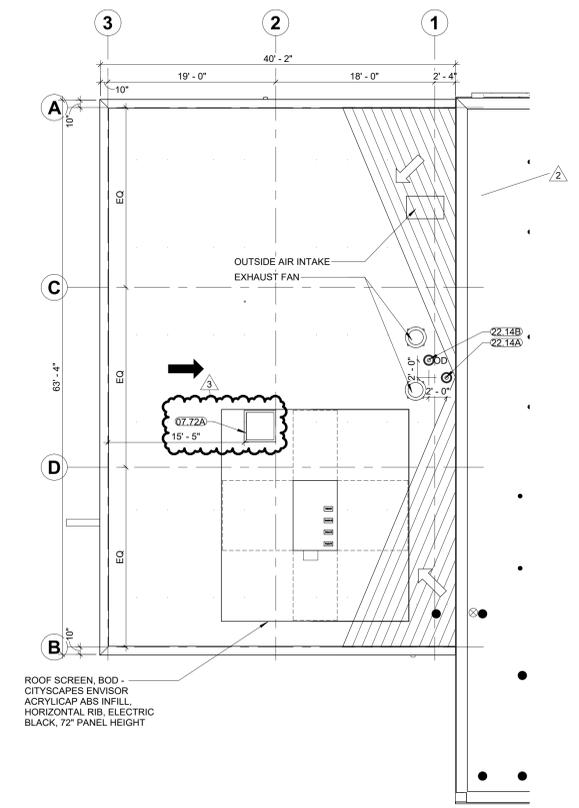
- GENERAL NOTES - ROOF PLANS:**
- RE SHEET G-011 FOR ADDITIONAL GENERAL NOTES THAT ARE APPLICABLE.
  - DIMENSIONS SHOWN ON THE ROOF PLAN ARE TO THE FACE OF EXTERIOR WALL, FACE OF MASONRY (FOM), FACE OF CONCRETE WALLS (FOC), AND COLUMN GRID LINES, UNLESS NOTED OR SHOWN OTHERWISE.
  - PROVIDE 1/2" FT. TAPERED INSULATION AT ALL ROOF CURBS AND AT EQUIPMENT WHICH EXCEEDS 18 INCHES IN WIDTH.

**ROOF PLAN LEGEND**

- SLOPED STRUCTURE
- TAPERED INSULATION 1/4" PER FOOT
- ROOF WALKING PAD
- ROOF DRAIN
- OVERFLOW ROOF DRAIN

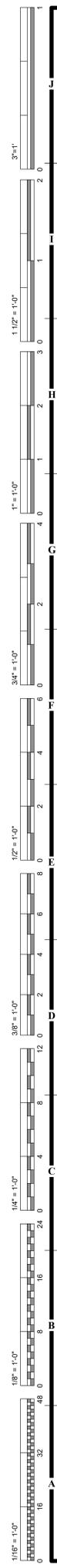
**MATERIAL KEYNOTES**

07.72A	ROOF HATCH 36" X 36"
22.14A	ROOF DRAIN
22.14B	OVERFLOW ROOF DRAIN



**A1 VEHICLE BAY ROOF PLAN**  
 1/8" = 1'-0"

ROOF PLAN - VEHICLE BAY



**GENERAL NOTES - EXTERIOR WALL SECTIONS/ DETAILS:**

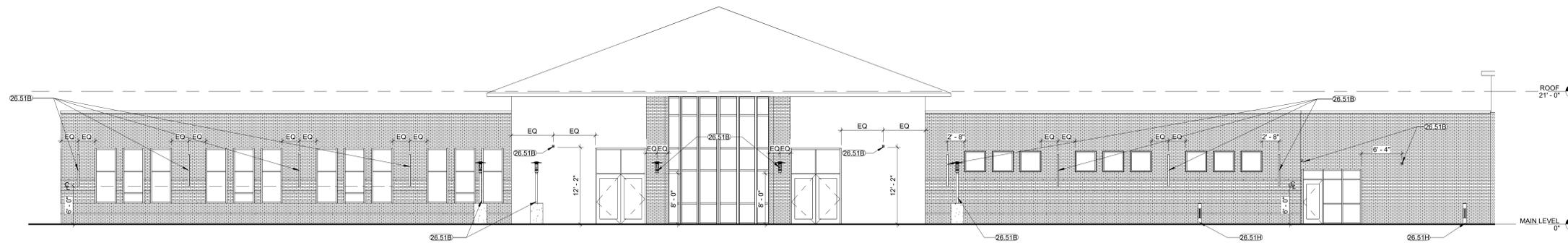
1. RE: SHEET G-011 FOR ADDITIONAL GENERAL NOTES THAT ARE APPLICABLE.
2. RE: FLOOR PLANS, ROOF PLAN AND ELEVATIONS FOR SECTION CUT LOCATIONS.
3. ALL WINDOW AND DOOR OPENING DIMENSIONS ARE ROUGH OPENING DIMENSIONS, UNLESS NOTED OTHERWISE. DIMENSIONS SHOWN ON THE WALL SECTIONS ARE TO THE FACE OF EXTERIOR WALL, FACE OF MASONRY (FOM), FACE OF CONCRETE WALLS (FOC), AND COLUMN GRID LINES, UNLESS NOTED OR SHOWN OTHERWISE.
4. DIMENSIONS SHOWN ON THE WALL SECTIONS ARE TO THE FACE OF EXTERIOR WALL, FACE OF MASONRY (FOM), FACE OF CONCRETE WALLS (FOC), AND COLUMN GRID LINES, UNLESS NOTED OR SHOWN OTHERWISE.
5. PAINT ALL EXPOSED STEEL, INCLUDING STEEL LINTELS, ETC. (TYP.)

**GENERAL NOTES - EXTERIOR ELEVATIONS:**

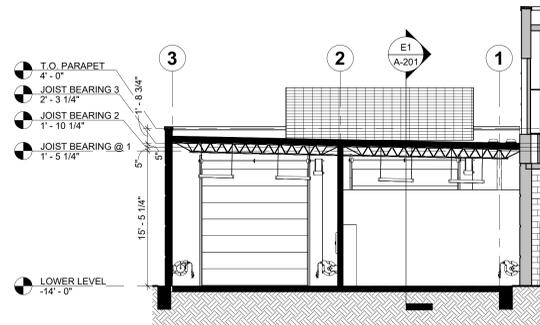
1. RE: SHEET G-011 FOR ADDITIONAL GENERAL NOTES THAT ARE APPLICABLE.
2. DIMENSIONS SHOWN ON THE EXTERIOR ELEVATIONS ARE TO THE FACE OF EXTERIOR WALL, FACE OF MASONRY (FOM), FACE OF CONCRETE WALLS (FOC), AND COLUMN GRID LINES, UNLESS OTHERWISE NOTED OR INDICATED.
3. RE: THE WINDOW TYPES SHEET FOR ALL EXTERIOR WINDOW TYPES AND GLASS TYPES.

**MATERIAL KEYNOTES**

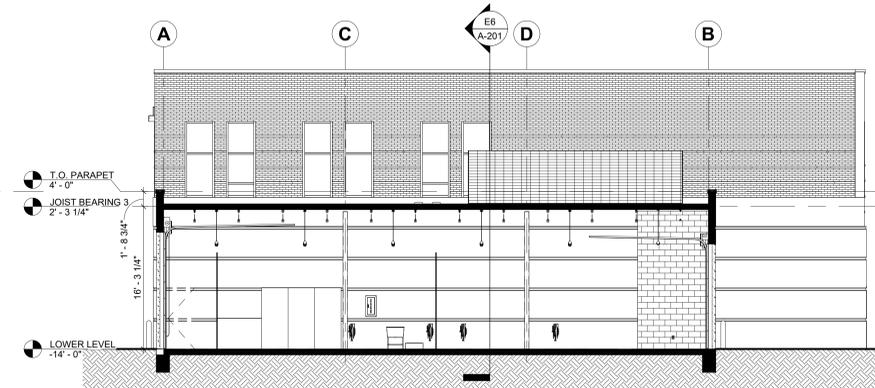
- 05.50F METAL BOLLARDS - CONCRETE-FILLED WITH DOWNS TO
- 22.14C DUBS TORN DOGS
- 26.51B EXTERIOR LIGHT FIXTURE RE: ELECTRICAL
- 26.51H EXTERIOR BOLLARD LIGHT FIXTURE RE: ELECTRICAL



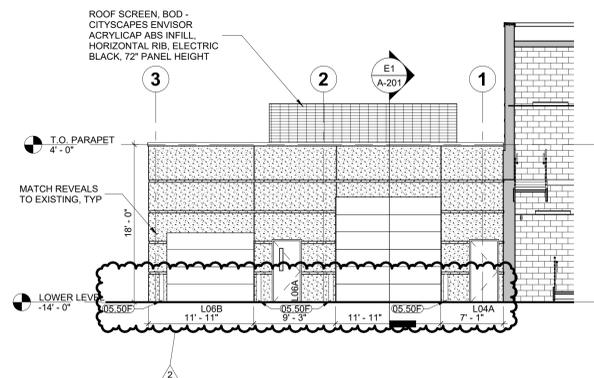
**H1 EXISTING W/ NEW LIGHTS - EAST ELEVATION**  
 1/8" = 1'-0"



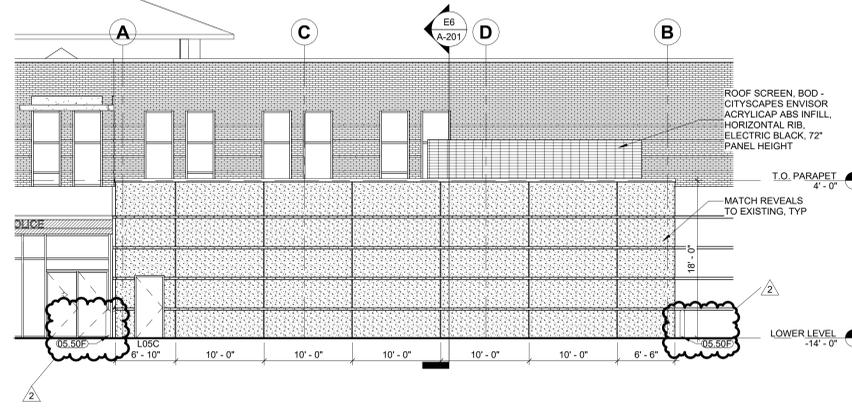
**E6 VEHICLE BAY SECTION 2**  
 1/8" = 1'-0"



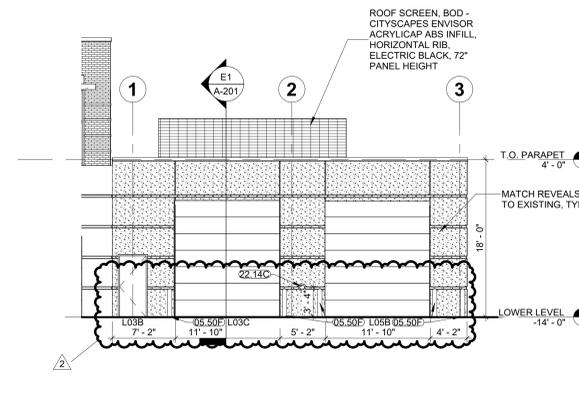
**E1 VEHICLE BAY SECTION 1**  
 1/8" = 1'-0"



**A9 VEHICLE BAY - SOUTH ELEVATION**  
 1/8" = 1'-0"



**A5 VEHICLE BAY - WEST ELEVATION**  
 1/8" = 1'-0"



**A1 VEHICLE BAY - NORTH ELEVATION**  
 1/8" = 1'-0"

LEE'S SUMMIT POLICE RENOVATION

10 NE TUDOR RD  
 LEE'S SUMMIT, MO 64086

REVISION DATES:

2	ADD #002	11/26/2024
3	ASI #001	12/9/2024



PROFESSIONAL SEAL

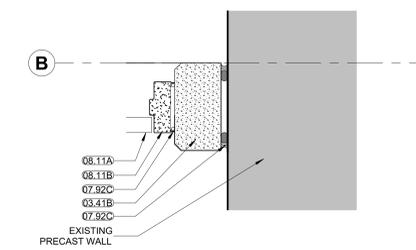
**A-321**  
 ISSUE DATE: NOV. 7, 2024  
 HOEFER WELKER # 138191

PACKAGE 2 - CONSTRUCTION SET

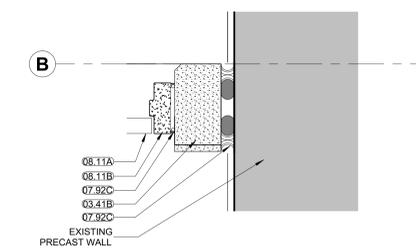
GENERAL NOTES - EXTERIOR WALL SECTIONS/ DETAILS:

- RE. SHEET G-011 FOR ADDITIONAL GENERAL NOTES THAT ARE APPLICABLE.
- RE. FLOOR PLANS, ROOF PLAN AND ELEVATIONS FOR SECTION CUT LOCATIONS. ALL WINDOW AND DOOR OPENING DIMENSIONS ARE ROUGH OPENING DIMENSIONS, UNLESS NOTED OTHERWISE.
- DIMENSIONS SHOWN ON THE WALL SECTIONS ARE TO THE FACE OF EXTERIOR WALL, FACE OF MASONRY (FOM), FACE OF CONCRETE WALLS (FOC), AND COLUMN GRID LINES, UNLESS NOTED OR SHOWN OTHERWISE.
- PAIN'T ALL EXPOSED STEEL, INCLUDING STEEL LINTELS, ETC. (TYP.)

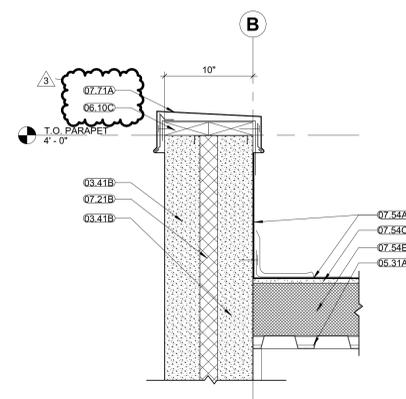
MATERIAL KEYNOTES	
03.30C	CONCRETE SLAB-ON-GRADE
03.30J	1/2-INCH COMPRESSIBLE JOINT FILLER (HOLD DOWN TOP 1/2-INCH - FILL W/ SEALANT.)
03.30K	UNDER-SLAB VAPOR RETARDER
03.41B	PRECAST CONCRETE WALL
05.12E	STEEL PLATE
05.31A	STEEL ROOF DECK
06.10C	FIRE-RETARDANT TREATED WOOD BLOCKING, CONTINUOUS
07.21B	EXTRUDED-POLYSTYRENE BOARD INSULATION WITH TAPED AND SEALED SEAMS
07.54A	THERMOPLASTIC POLYOLEFIN (TPO) ROOFING SYSTEM
07.54C	ROOFING SUBSTRATE BOARD
07.54E	RIGID ROOF INSULATION
07.71A	PREFINISHED METAL COPING & CONT. LEAT
07.92C	BACKER ROD AND SEALANT
08.11A	HOLLOW METAL DOOR
08.11B	HOLLOW METAL FRAME
08.33	OVERHEAD COILING DOOR - RE. DOOR SCHEDULE
31.20B	GRANULAR FILL



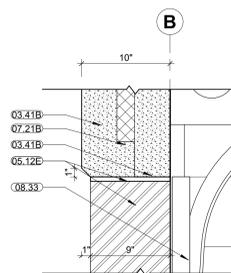
H1 TYP. ADDITION TO EXISTING WALL  
 1 1/2" = 1'-0"



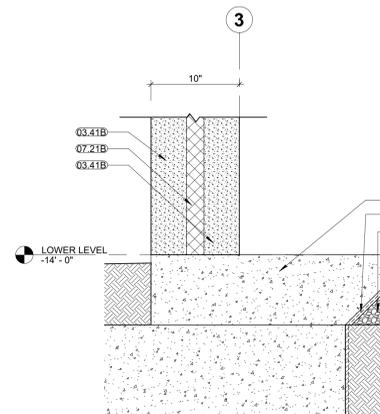
F1 TYP. ADDITION TO EXISTING WALL @ REVEAL  
 1 1/2" = 1'-0"



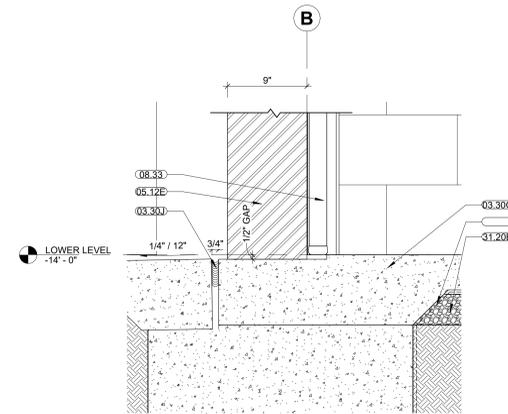
G6 PARAPET DETAIL, TYP  
 1 1/2" = 1'-0"



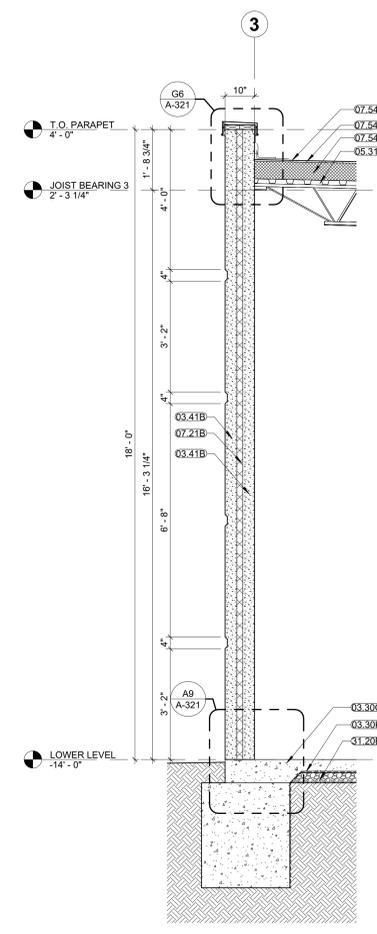
D6 GARAGE DOOR HEAD  
 1 1/2" = 1'-0"



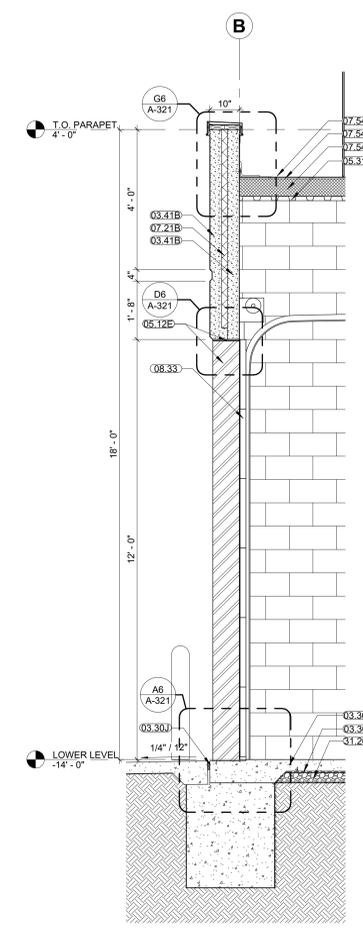
A9 PRECAST WALL FOUNDATION  
 1 1/2" = 1'-0"



A6 GARAGE DOOR SILL  
 1 1/2" = 1'-0"



A3 PRECAST WALL SECTION  
 1/2" = 1'-0"



A1 GARAGE DOOR SECTION  
 1/2" = 1'-0"

- GENERAL NOTES - FLOOR PLANS:**
- DIMENSIONS SHOWN ON THE FLOOR PLAN ARE TO THE FACE OF MASONRY (FOM), FACE OF CONCRETE WALLS (FC), AND COLUMN GRID LINES, UNLESS NOTED OR SHOWN OTHERWISE.
  - FOR METAL STUD CONSTRUCTION DIMENSIONS SHOWN ON THE FLOOR PLAN ARE TO THE FACE OF GYP. BOARD/WALL (FG), UNLESS NOTED OR SHOWN OTHERWISE.
  - NOTE: WALL THICKNESSES ARE ACTUAL DIMENSIONS.
  - ALL PUBLIC SPACES: THE WALLS WILL BE FINISHED WITH 5/8" GYP. BD. TO A LEVEL 4 FINISH AND PAINTED, UNLESS NOTED OR SPECIFIED OTHERWISE.
  - CONTRACTOR TO VERIFY WITH FIRE MARSHALL IF SPRINKLER HEADS NEED TO BE ADJUSTED.
- GENERAL NOTES - FINISH PLANS:**
- RE: SHEET G-011 - FOR ADDITIONAL GENERAL NOTES THAT ARE APPLICABLE.
  - RE: FINISH LEGEND, AND FLOOR FINISH PLANS FOR SPECIFIC FINISH INFORMATION AND LOCATIONS.
  - RE: FINISH DETAILS SHEET FOR ADDITIONAL FINISH AND FLOOR TRANSITION CONDITIONS.
  - FLOOR FINISHES SHOWN ARE FOR ACCENT CLARIFICATION ONLY. RE: FINISH TAGS FOR ADDITIONAL INFORMATION.
  - FLOOR FINISH PATTERN SHALL BE CENTERED IN SPACES, UNLESS NOTED OTHERWISE.
  - ALIGN ALL WALL BASE JOINTS WITH FLOOR TILE JOINTS, UNLESS NOTED OR SHOWN OTHERWISE.
  - ALL CLOSETS AND ALCOVES WITHOUT A SPACE IDENTIFICATION NUMBER SHALL HAVE THE SAME FLOOR FINISHES AS ADJOINING SPACES.
  - FLOOR FINISH MATERIAL AND/OR PATTERN SHALL BE INSTALLED UNDER THE KICKS OF CASEWORK/MILLWORK, UNDER OPEN COUNTERTOPS, AND UNDER EQUIPMENT.
  - FLOOR MATERIAL/COLOR TRANSITIONS TO BE CENTERED UNDER DOOR, UNLESS NOTED OR SHOWN OTHERWISE.
  - CONTRACTOR SHALL PROVIDE ALL NECESSARY BLOCKING FOR WALL PROTECTION ATTACHMENT. THIS INCLUDES, BUT IS NOT LIMITED TO, CRASH RAILS, HANDRAILS & BUMPER RAILS. RE: MANUFACTURER'S GUIDELINES FOR CLARIFICATIONS.
  - CONTRACTOR SHALL PROVIDE MANUFACTURER'S STANDARD ACCESSORY MOLDING OR TRIM FOR WALL PROTECTION ITEMS, UNLESS NOTED OTHERWISE.
  - IF WALL IS LESS THAN 18" WIDE DO NOT PROVIDE HANDRAIL. HANDRAILS SHOULD STOP APPROXIMATELY 3" FROM THE OPEN SWING OF A DOOR. HANDRAILS SHOULD STOP APPROXIMATELY 3" FROM A CORNER GUARD. RE: SHEET A501.
  - CONTRACTOR SHALL PROVIDE BLOCKING FOR ALL WALL MOUNTED EQUIPMENT. RE: G-021 FOR CLARIFICATION.
  - CONTRACTOR SHALL PROVIDE BLOCKING FOR SIGNS AS CALLED OUT ON ELEVATIONS.
- GENERAL NOTES - FURNITURE & EQUIPMENT PLANS:**
- RE: SHEET G-011 FOR ADDITIONAL GENERAL NOTES THAT ARE APPLICABLE.
  - RE: SHEET G-021 FOR TYPICAL MOUNTING HEIGHTS.
  - RE: SHEET A-401 AND A-402 FOR ENLARGED ROOM PLANS.
  - RE: INTERIOR CASEWORK ELEVATIONS ON SHEETS A-451 FOR EQUIPMENT LOCATIONS. ELECTRICAL DATA SHOWN FOR INFORMATION ONLY. RE: MEP SHEETS.

**ROOM FINISH TAG KEY LEGEND**

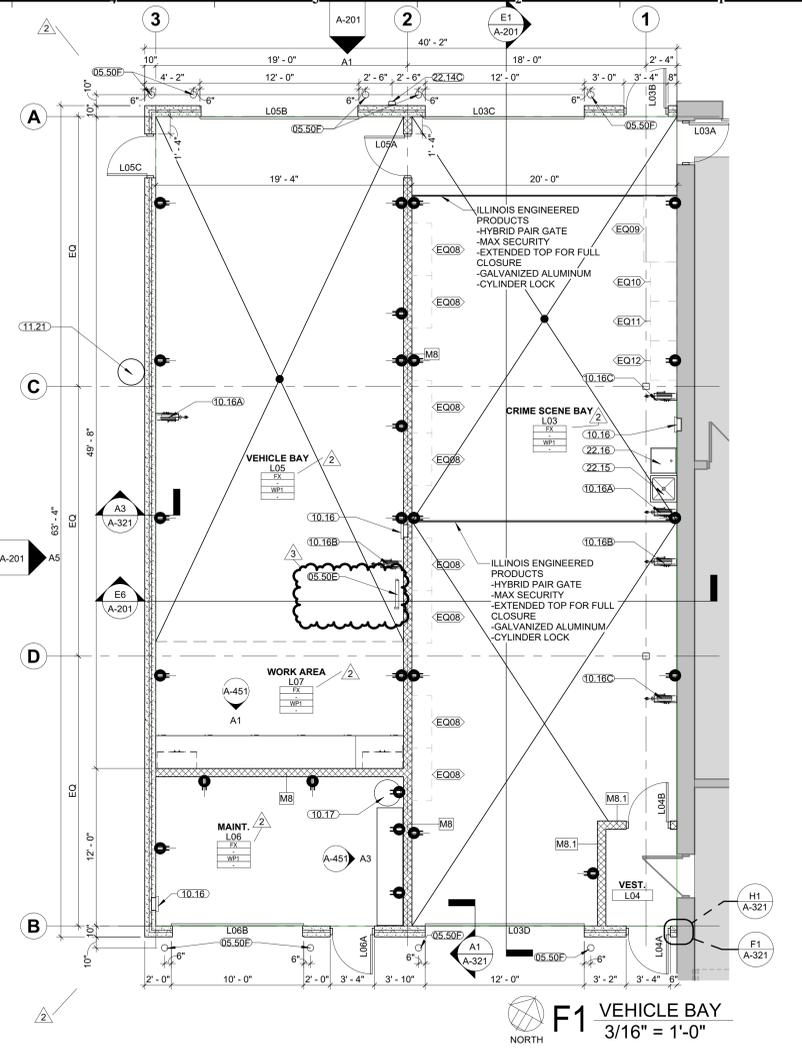
ROOM	000
FLOOR FINISH	001
WALL BASE	002
WALL FINISH	003
CEILING FINISH	004

**FFE LEGEND**

FURNITURE	(Symbol)
EQUIPMENT	(Symbol)
SPECIALTY EQUIPMENT TAG	(EQ01)

**MATERIAL KEYNOTES**

05.50E	METAL LADDERS
05.50F	METAL BOLLARDS - CONCRETE-FILLED WITH DOME TOP
07.92D	TREAT ROOM WITH ACOUSTICAL CAULK
09.29N	3-1/2" INCH SOUND ATTENUATION BATT
10.16	WATER HOSE REEL
10.16A	AIR HOSE REEL TO CENTRAL COMPRESSOR
10.16C	POWER HOSE REEL
10.17	CENTRAL AIR COMPRESSOR
10.44B	SEMI-RECESSED FIRE EXTINGUISHER CABINET
11.21	REINSTALL WALL-MOUNTED CAR VACUUM ROLLER WINDOW SHADE - SINGLE SHADE
12.24A	LAMBS TONGUE
22.14C	MOP SINK
22.15	UTILITY SINK
22.16	UTILITY SINK
26.50	FLOOR BOXES RE: ELECTRICAL



**F1 VEHICLE BAY**  
3/16" = 1'-0"

**EQUIPMENT SCHEDULE**

TYPE MARK	DESCRIPTION	SUPPLIED/INSTALLED BY
EQ01	TELEVISION 65"	OF/OI
EQ02	TELEVISION 75"	OF/OI
EQ03	TELEVISION 85"	OF/OI
EQ04	REFRIGERATOR	OF/OI
EQ05	MICROWAVE	OF/OI
EQ06	DISHWASHER	OF/CI
EQ07	SHOE CUBBY / BENCH	OF/OI
EQ08	ADJUSTABLE SHELVING	OF/OI
EQ09	42" DESK	OF/OI
EQ10	EVIDENCE LOCKERS - TIFFIN 14AA	CF/CI
EQ11	EVIDENCE LOCKERS - TIFFIN 07AB	CF/CI
EQ12	EVIDENCE LOCKERS - TIFFIN 08AA	CF/CI
EQ13	LATERAL FILE CABINET	OF/OI

**WALL FINISH LEGEND**

(Pink line)	ACCENT PAINT (WP)
(Blue line)	WALL TILE (WT)

NOT ALL WALL FINISHES ARE SHOWN GRAPHICALLY. REFER TO SHEETS A-402 AND A-451 FOR SPECIFIC LOCATIONS AND MATERIALS

**FLOOR FINISH LEGEND**

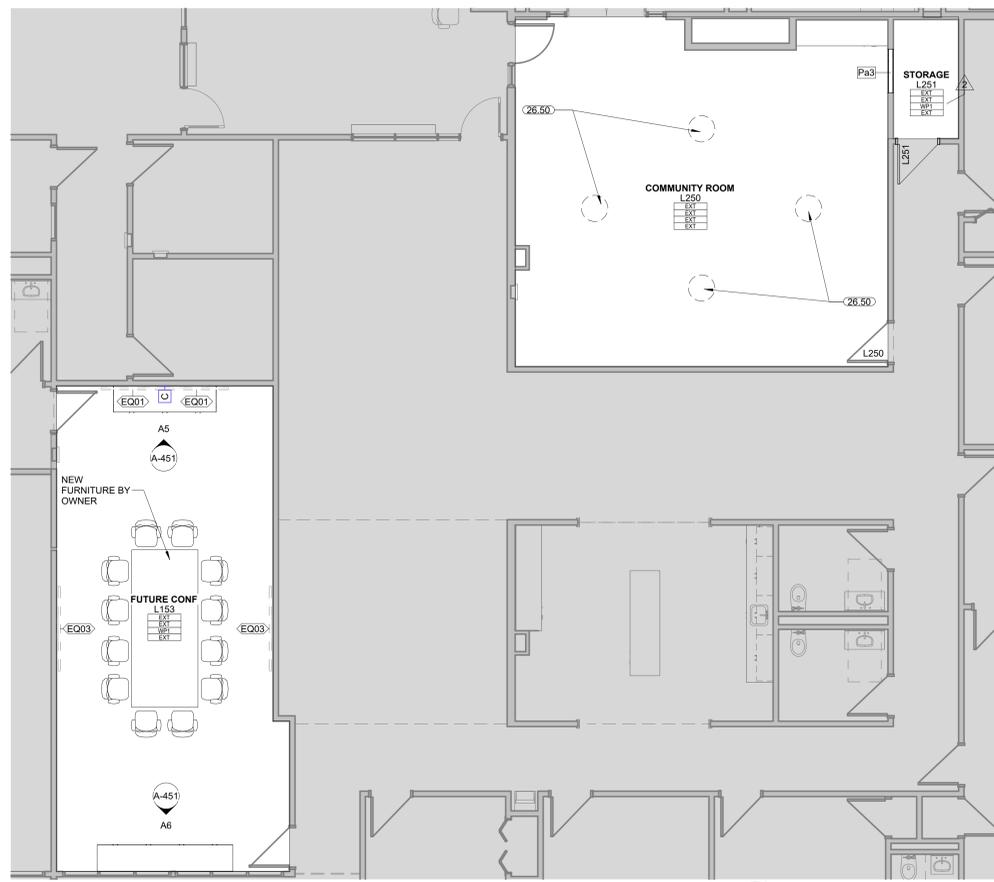
(Pattern)	FC
(Pattern)	EXISTING STAIR CARPET
(Pattern)	FVT
(Pattern)	FT

RE: FINISH SCHEDULE

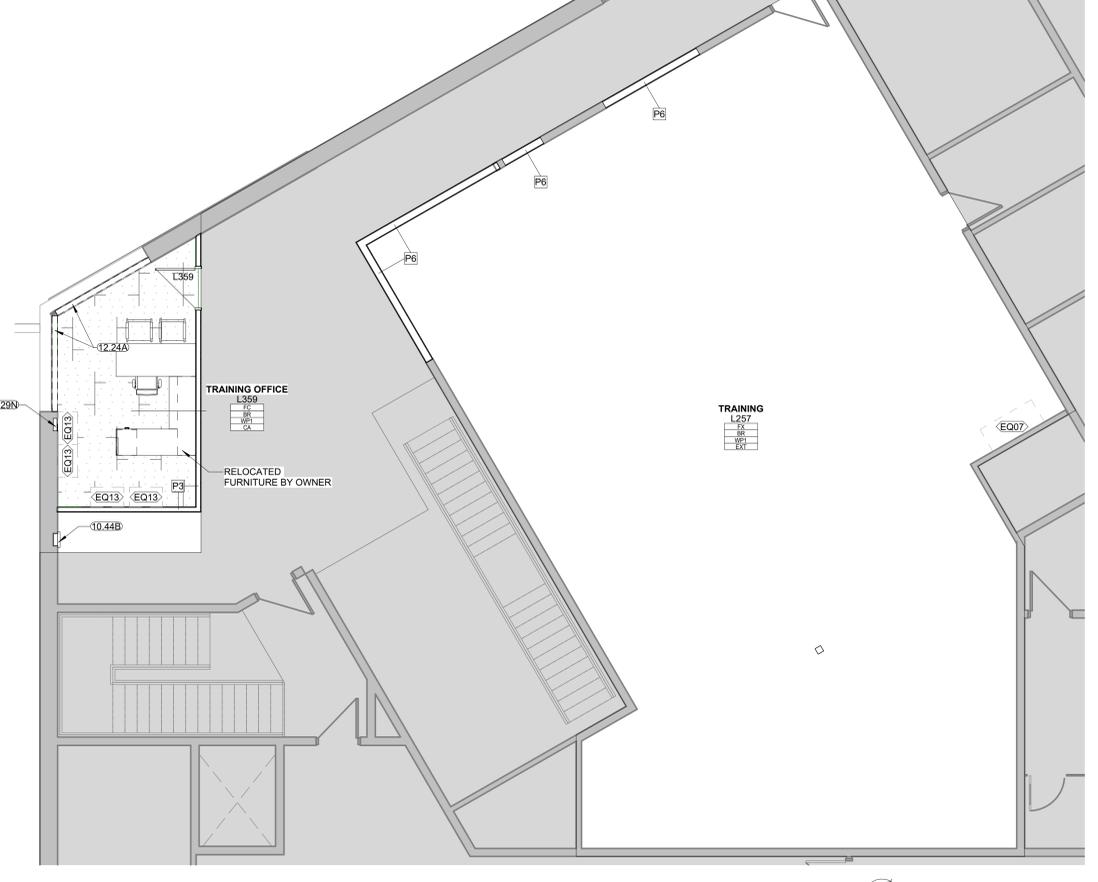
**F5 INTERVIEW ROOMS**  
3/16" = 1'-0"

**FINISH LEGEND**

SYMBOL	MATERIAL	FINISH SPEC	TYP. AREA / REMARKS	CONTACT
FC	MODULAR CARPET TILE	MANF: BENTLEY STYLE: REDUX DEUX, COLOR: JAZZ UP SIZE: 18" X 36", INSTALLATION: BRICK		NAME: ALI SKILLING PHONE: 913.387.7667 EMAIL: ALI.SKILLING@BENTLEYMILLS.COM
FT	PORCELAIN TILE	MANF: MARAZZI USA STYLE: BASALTO COLOR: SABBIA, SIZE: 12" X 24" INSTALLATION: STACKED, GROUT: MAPEI KERAPKOXY, 5107 IRON	TO MATCH EXISTING AT DEMO AREA	NAME: NIKKI VAN DYNE PHONE: 913.620.6098 EMAIL: NIKKI.VANDYNE@VIRGINIATILE.COM
FT2	PORCELAIN TILE	MANF: MARAZZI USA STYLE: BASALTO COLOR: BT28 LAVA, SIZE: 24" X 48" INSTALLATION: TO MATCH EXISTING, GROUT: MAPEI KERAPKOXY, COLOR 47 CHARCOAL		NAME: NIKKI VAN DYNE PHONE: 913.620.6098 EMAIL: NIKKI.VANDYNE@VIRGINIATILE.COM
FT3	PORCELAIN TILE	MANF: MARAZZI USA STYLE: BASALTO COLOR: BT25 POMICE, SIZE: 24" X 48" INSTALLATION: TO MATCH EXISTING, GROUT: MAPEI KERAPKOXY, COLOR 107 IRON	TO MATCH EXISTING AT DEMO AREA	NAME: NIKKI VAN DYNE PHONE: 913.620.6098 EMAIL: NIKKI.VANDYNE@VIRGINIATILE.COM
FVT	LUXURY VINYL FLOORING	MANF: PATOCRAFT STYLE: CROSSEVER, COLOR: LODGE - 00795 SIZE: 7" X 48", INSTALLATION: STAGGER		NAME: SARAH JENKINS PHONE: 913.237.7586 EMAIL: SARAH.JENKINS@PATOCRAFT.COM
FX	SEALED CONCRETE	MANF: TBD, STYLE: TBD, COLOR: CLEAR		
<b>WALL BASE</b>				
BR	RESILIENT COVE BASE	MANF: ROPPE STYLE: 700 SERIES PROFILE: TOE BASE, COLOR: 123 CHARCOAL, HEIGHT: 4" H		NAME: WENDY BREMER PHONE: 630.277.1414 EMAIL: WABREMER@ROPPE.COM
BT	TILE BASE	MANF: MARAZZI USA STYLE: BASALTO COLOR: SABBIA SIZE: 12" X 24" TILE CUT TO 4" HIGH WITH MANUFACTURERS EDGE FACING UP INSTALLATION: ALIGNED TO FLOOR TILE GROUT: MAPEI KERAPKOXY, 5107 IRON		NAME: NIKKI VAN DYNE PHONE: 913.620.6098 EMAIL: NIKKI.VANDYNE@VIRGINIATILE.COM
<b>WALL FINISH</b>				
WP1	PAINT - LATEX	MANF: SHERWIN WILLIAMS STYLE: LATEX, EG-SHEL FINISH COLOR: BIG CHILL SW7648		NAME: PETER KREMM PHONE: 303.902.7239 EMAIL: PETER.KREMM@SHERWIN.COM
WP2	PAINT - LATEX	MANF: SHERWIN WILLIAMS STYLE: LATEX, EG-SHEL FINISH COLOR: SUMMIT GRAY SW7669		NAME: PETER KREMM PHONE: 303.902.7239 EMAIL: PETER.KREMM@SHERWIN.COM
WT	PORCELAIN WALL TILE	MANF: ISLAND STONE STYLE: GLASS ESSENTIALS COLOR: FOG MATTE SIZE: 4" X 12" FIELD TILE GROUT: MAPEI KERAPKOXY, 5093 WARM GRAY		NAME: NIKKI VAN DYNE PHONE: 913.620.6098 EMAIL: NIKKI.VANDYNE@VIRGINIATILE.COM
<b>WALL PROTECTION</b>				
PC1	STAINLESS STEEL CORNER GUARD - 90 DEGREE, 6" - 0"	MANF: CONSTRUCTION SPECIALTIES STYLE: C04, COLOR: STAINLESS STEEL, SATIN FINISH, SIZE: 3" WING INSTALLATION: INSTALL AT TOP OF BASE		NAME: RICK STINGLEY PHONE: 816.536.0229 EMAIL: RICK.S@CLOUTMANANDSTINGLEY.COM
<b>MILLWORK / CASEWORK</b>				
ML	PLASTIC LAMINATE	MANF: LAMINART STYLE: TEXTURED FINISH COLOR: 2418-T GRAPHITE EDGESAND: 019 PVC TO MATCH		NAME: SARAH CAMP PHONE: 314.422.2349 EMAIL: SARAH.CAMP@LAMINART.COM
MQ1	QUARTZ COUNTERTOP	MANF: WILSONART STYLE: 3 CM COLOR: CLOUDS REST Q4049, OR EQUAL TO MATCH EXISTING		NAME: LAURA KNIGHT PHONE: 816.228.9998 EMAIL: LAURA.KNIGHT@FORMICA.COM
MS1	SOLID SURFACE	MANF: FORMICA STYLE: 0.48" THICKNESS, COLOR: 757 LUNA SAND		NAME: LAURA KNIGHT PHONE: 816.228.9998 EMAIL: LAURA.KNIGHT@FORMICA.COM
MS2	STAINLESS STEEL	MANF: - STYLE: SATIN		
MW	WOOD COUNTERTOP	STYLE: BUTCHER BLOCK, SPECIES: RED OAK FINISH: CLEAR FINISH, THICKNESS: 1 1/2"		
<b>CEILING FINISH</b>				
CA	ACOUSTICAL CEILING TILE W/ REGULAR EDGE	MANF: ARMSTRONG CEILINGS STYLE: ULTIMA BEVELED TEGULAR 1941 COLOR: WHITE, SIZE: 24" X 24" X 7/8", GRID: 15/16" SUPRAPFINE		NAME: ELIZABETH MOON PHONE: 816.216.2890 EMAIL: EMOON@ARMSTRONGCEILINGS.COM
<b>SPECIALTY</b>				
EXT	EXISTING TO REMAIN			
SD	INTERIOR DOORS	MANF, STYLE, COLOR: TO MATCH EXISTING	INTERIOR METAL DOORS AND INTERIOR FACE OF EXTERIOR DOORS	
SD FRAME	INTERIOR HOLLOW METAL DOOR FRAMES	MANF: SHERWIN WILLIAMS STYLE: ALKYD COLOR: PEPPER CORN SW7674		NAME: PETER KREMM PHONE: 303.902.7239 EMAIL: PETER.KREMM@SHERWIN.COM
ST	METAL EDGE TRIM	MANF: SCHULTER, STYLE: JOLLY COLOR: SATIN ANODIZED ALUMINUM (AE)	EDGE OF WALL TILE	NAME: NIKKI VAN DYNE PHONE: 913.620.6098 EMAIL: NIKKI.VANDYNE@VIRGINIATILE.COM
SW	WINDOW TREATMENT - ROLLER SHADES	MANF: MECOSHADA TYPE: MECO5, OPENNESS: 0.1% OPEN STYLE: THERMOVEIL 0900 SERIES, COLOR: 0903 GREY		NAME: RYAN HELLING PHONE: 816.471.2559 EMAIL: RYAN@HARTKS.COM



**A7 POLICE ADMIN.**  
3/16" = 1'-0"



**A1 TRAINING**  
3/16" = 1'-0"

FINISH LEGEND				
SYMBOL	MATERIAL	FINISH SPEC	TYP. AREA / REMARKS	CONTACT
<b>FLOOR FINISH</b>				
FC	MODULAR CARPET TILE	MANF: BENTLEY STYLE: REDUX DEUX, COLOR: JAZZ UP SIZE: 18" X 36", INSTALLATION: BRICK		NAME: ALI SKILLING PHONE: 913.387.7667 EMAIL: ALI.SKILLING@BENTLEYMILLS.COM
FT	PORCELAIN TILE	MANF: MARAZZI USA STYLE: BASALTO COLOR: SABBIA, SIZE: 12" X 24" INSTALLATION: STACKED, GROUT: MAPEI KERAPOXY, 5107 IRON		NAME: NIKKI VAN DYNE PHONE: 913.620.6098 EMAIL: NIKKI.VANDYNE@VIRGINIATILE.COM
FT2	PORCELAIN TILE	MANF: MARAZZI USA STYLE: BASALTO COLOR: BT28 LAVA, SIZE: 24" X 48" INSTALLATION: TO MATCH EXISTING, GROUT: MAPEI KERAPOXY, COLOR 47 CHARCOAL	TO MATCH EXISTING AT DEMO AREA	NAME: NIKKI VAN DYNE PHONE: 913.620.6098 EMAIL: NIKKI.VANDYNE@VIRGINIATILE.COM
FT3	PORCELAIN TILE	MANF: MARAZZI USA STYLE: BASALTO COLOR: BT25 POMICE, SIZE: 24" X 48" INSTALLATION: TO MATCH EXISTING, GROUT: MAPEI KERAPOXY, COLOR 107 IRON	TO MATCH EXISTING AT DEMO AREA	NAME: NIKKI VAN DYNE PHONE: 913.620.6098 EMAIL: NIKKI.VANDYNE@VIRGINIATILE.COM
FVT	LUXURY VINYL FLOORING	MANF: PATCRAFT STYLE: CROSSOVER, COLOR: LODGE - 00795 SIZE: 7' X 48", INSTALLATION: STAGGER		NAME: SARAH JENKINS PHONE: 314.422.2340 EMAIL: SARAH.CAMP@PATCRAFT.COM
FX	SEALED CONCRETE	MANF: TBD, STYLE: TBD, COLOR: CLEAR		
<b>WALL BASE</b>				
BR	RESILIENT COVE BASE	MANF: ROPPE STYLE: 700 SERIES PROFILE: TOE BASE, COLOR: 123 CHARCOAL, HEIGHT: 4" H		NAME: WENDY BREMER PHONE: 630.277.1414 EMAIL: WABREMER@ROPPE.COM
BT	TILE BASE	MANF: MARAZZI USA STYLE: BASALTO COLOR: SABBIA SIZE: 12" X 24" TILE CUT TO 4" HIGH WITH MANUFACTURERS EDGE FACING UP INSTALLATION: ALIGNED TO FLOOR TILE GROUT: MAPEI KERAPOXY, 5107 IRON		NAME: NIKKI VAN DYNE PHONE: 913.620.6098 EMAIL: NIKKI.VANDYNE@VIRGINIATILE.COM
<b>WALL FINISH</b>				
WP1	PAINT - LATEX	MANF: SHERWIN WILLIAMS STYLE: LATEX, EG-SHEL FINISH COLOR: CHILI SW7048		NAME: PETER KREMM PHONE: 303.902.7239 EMAIL: PETER.KREMM@SHERWIN.COM
WP2	PAINT - LATEX	MANF: SHERWIN WILLIAMS STYLE: LATEX, EG-SHEL FINISH COLOR: SUMMIT GRAY SW7669		NAME: PETER KREMM PHONE: 303.902.7239 EMAIL: PETER.KREMM@SHERWIN.COM

FINISH LEGEND				
SYMBOL	MATERIAL	FINISH SPEC	TYP. AREA / REMARKS	CONTACT
<b>WALL PROTECTION</b>				
PC1	STAINLESS STEEL CORNER GUARD - 90 DEGREE, 6" - 0"	MANF: CONSTRUCTION SPECIALTIES STYLE: CO-8, COLOR: STAINLESS STEEL, SATIN FINISH, SIZE: 3" WING INSTALLATION: INSTALL AT TOP OF BASE		NAME: RICK STINGLEY PHONE: 816.536.0229 EMAIL: RICK.S@CLOUTMANANDSTINGLEY.COM
<b>MILLWORK / CASEWORK</b>				
ML	PLASTIC LAMINATE	MANF: LAMINART STYLE: TEXTURED FINISH COLOR: 2418-T GRAPHITE EDGE BAND: 018" PVC TO MATCH		NAME: SARAH CAMP PHONE: 314.422.2340 EMAIL: SARAH.CAMP@LAMINART.COM
MQ1	QUARTZ COUNTERTOP	MANF: WILSONART STYLE: 3 CM COLOR: CLOUDS REST Q4049, OR EQUAL TO MATCH EXISTING		
MS1	SOLID SURFACE	MANF: FORMICA STYLE: 048" THICKNESS, COLOR: 757 LUNA SAND		NAME: LAURA KNIGHT PHONE: 816.228.9998 EMAIL: LAURA.KNIGHT@FORMICA.COM
MS2	STAINLESS STEEL	MANF: -, STYLE: SATIN		
MW	WOOD COUNTERTOP	STYLE: BUTCHER BLOCK, SPECIES: RED OAK FINISH: CLEAR FINISH, THICKNESS: 1.12"		
<b>CEILING FINISH</b>				
CA	ACOUSTICAL CEILING TILE W/ TEGULAR EDGE	MANF: ARMSTRONG CEILINGS STYLE: ULTIMA BEVELED TEGULAR 1941 COLOR: WHITE, SIZE: 24" X 24" X 7/8", GRID: 15/16" SUPRAPINE		NAME: ELIZABETH MOON PHONE: 816.216.2890 EMAIL: EMOON@ARMSTRONGCEILINGS.COM
<b>SPECIALTY</b>				
EXT	EXISTING TO REMAIN			
SD	INTERIOR DOORS	MANF, STYLE, COLOR: TO MATCH EXISTING	INTERIOR METAL DOORS AND INTERIOR FACE OF EXTERIOR DOORS	
SD FRAME	INTERIOR HOLLOW METAL DOOR FRAMES	MANF: SHERWIN WILLIAMS STYLE: ALKYD COLOR: PEPPER CORN SW7674		NAME: PETER KREMM PHONE: 303.902.7239 EMAIL: PETER.KREMM@SHERWIN.COM
ST	METAL EDGE TRIM	MANF: SCHULTER, STYLE: JOLLY COLOR: SATIN ANODIZED ALUMINUM (AE)	EDGE OF WALL TILE	NAME: NIKKI VAN DYNE PHONE: 913.620.6098 EMAIL: NIKKI.VANDYNE@VIRGINIATILE.COM
SW	WINDOW TREATMENT - ROLLER SHADES	MANF: MECOSHADE TYPE: MECOSHADE, OPENNESS: 0-1% OPEN STYLE: THERMOVEIL 0900 SERIES, COLOR: 0903 GREY		NAME: RYAN HELLING PHONE: 916.471.2559 EMAIL: RYAN@HARTKS.COM

EQUIPMENT SCHEDULE		
TYPE MARK	DESCRIPTION	SUPPLIED/INSTALLED BY
EQ01	TELEVISION 65"	OF/OI
EQ02	TELEVISION 75"	OF/OI
EQ03	TELEVISION 85"	OF/OI
EQ04	REFRIGERATOR	OF/OI
EQ05	MICROWAVE	OF/OI
EQ06	DISHWASHER	OF/OI
EQ07	SHOE CUBBY / BENCH	OF/OI
EQ08	ADJUSTABLE SHELVING	OF/OI
EQ09	42" DESK	OF/OI
EQ10	EVIDENCE LOCKERS - TIFFIN 14AA	CF/CI
EQ11	EVIDENCE LOCKERS - TIFFIN 07AB	CF/CI
EQ12	EVIDENCE LOCKERS - TIFFIN 08AA	CF/CI
EQ13	LATERAL FILE CABINET	OF/OI

WALL FINISH LEGEND	
	ACCENT PAINT (WP)
	WALL TILE (WT)

NOT ALL WALL FINISHES ARE SHOWN GRAPHICALLY. REFER TO SHEETS A-402 AND A-451 FOR SPECIFIC LOCATIONS AND MATERIALS

FLOOR FINISH LEGEND	
	FC
	EXISTING STAIR CARPET
	FVT
	FT

RE: FINISH SCHEDULE

**GENERAL NOTES - FLOOR PLANS:**

- DIMENSIONS SHOWN ON THE FLOOR PLAN ARE TO THE FACE OF MASONRY (FOM), FACE OF CONCRETE WALLS (FCO), AND COLUMN GRID LINES, UNLESS NOTED OR SHOWN OTHERWISE.
- FOR METAL STUD CONSTRUCTION DIMENSIONS SHOWN ON THE FLOOR PLAN ARE TO THE FACE OF GYP. BOARD/ WALL (FG), UNLESS NOTED OR SHOWN OTHERWISE.
- NOTE: WALL THICKNESSES ARE ACTUAL DIMENSIONS.
- ALL PUBLIC SPACES: THE WALLS WILL BE FINISHED WITH 5/8" GYP. BD. TO A LEVEL 4 FINISH AND PAINTED, UNLESS NOTED OR SPECIFIED OTHERWISE.
- CONTRACTOR TO VERIFY WITH FIRE MARSHALL IF SPRINKLER HEADS NEED TO BE ADJUSTED.

**GENERAL NOTES - FINISH PLANS:**

- RE: SHEET G-011 - FOR ADDITIONAL GENERAL NOTES THAT ARE APPLICABLE.
- RE: FINISH LEGEND, AND FLOOR FINISH PLANS FOR SPECIFIC FINISH INFORMATION AND LOCATIONS.
- RE: FINISH DETAILS SHEET FOR ADDITIONAL FINISH AND FLOOR TRANSITION CONDITIONS.
- FLOOR FINISHES SHOWN ARE FOR ACCENT CLARIFICATION ONLY. RE: FINISH TAGS FOR ADDITIONAL INFORMATION.
- FLOOR FINISH PATTERN SHALL BE CENTERED IN ROOM, UNLESS NOTED OTHERWISE.
- ALIGN ALL WALL BASE JOINTS WITH FLOOR TILE JOINTS, UNLESS NOTED OR SHOWN OTHERWISE.
- ALL CLOSETS AND ALCOVES WITHOUT A SPACE IDENTIFICATION NUMBER SHALL HAVE THE SAME FLOOR FINISH AS ADJOINING SPACES.
- FLOOR FINISH MATERIAL AND/OR PATTERN SHALL BE INSTALLED UNDER TOE KICKS OF CASEWORK/MILLWORK, UNDER OPEN COUNTERTOPS, AND UNDER EQUIPMENT.
- FLOOR MATERIAL/ COLOR TRANSITIONS TO BE CENTERED UNDER DOOR, UNLESS NOTED OR SHOWN OTHERWISE.
- CONTRACTOR SHALL PROVIDE ALL NECESSARY BLOCKING FOR WALL PROTECTION ATTACHMENT. THIS INCLUDES, BUT IS NOT LIMITED TO: CRASH RAILS, HANDRAILS & BUMPER RAILS. RE: MANUFACTURER'S GUIDELINES FOR CLARIFICATIONS.
- CONTRACTOR SHALL PROVIDE MANUFACTURER'S STANDARD ACCESSORY MOLDING OR TRIM FOR WALL PROTECTION ITEMS, UNLESS NOTED OTHERWISE.
- IF WALL IS LESS THAN 18" WIDE DO NOT PROVIDE HANDRAIL. HANDRAILS SHOULD STOP APPROXIMATELY 3" FROM THE OPEN SWINGS OF A DOOR. HANDRAILS SHOULD STOP APPROXIMATELY 3" FROM A CORNER GUARD. RE: SHEET A1501.
- CONTRACTOR SHALL PROVIDE BLOCKING FOR ALL WALL MOUNTED EQUIPMENT. RE G-021 FOR CLARIFICATION.
- CONTRACTOR SHALL PROVIDE BLOCKING FOR SIGNS AS CALLED OUT ON ELEVATIONS.

**GENERAL NOTES - FURNITURE & EQUIPMENT PLANS:**

- RE: SHEET G-011 FOR ADDITIONAL GENERAL NOTES THAT ARE APPLICABLE.
- RE: SHEET G-021 FOR TYPICAL MOUNTING HEIGHTS.
- RE: SHEET A-401 AND A-402 FOR ENLARGED ROOM PLANS.
- RE: INTERIOR CASEWORK ELEVATIONS ON SHEETS A-451 FOR EQUIPMENT LOCATIONS.
- ELECTRICAL DATA SHOWN FOR INFORMATION ONLY. RE: MEP SHEETS.

**ROOM FINISH TAG KEY LEGEND**

	ROOM
	FLOOR FINISH
	WALL BASE
	WALL FINISH
	CEILING FINISH

**FFE LEGEND**

	FURNITURE
	EQUIPMENT
	SPECIALTY EQUIPMENT TAG

**MATERIAL KEYNOTES**

05.51A	CONCRETE-FILLED STEEL PAN STAIR
06.40Z	EXTEND COUNTERTOP, MATCH ADJACENT
09.30H	PORCELAIN TILE
10.15	WALL-MOUNTED TELEPHONE ENCLOSURE
12.20C	MECHANICAL ROLLER WINDOW SHADE
26.50	FLOOR BOXES RE: ELECTRICAL

**HOEFER WELKER**  
4622 PENNSYLVANIA AVENUE  
SUITE 1400  
KANSAS CITY, MO 64112  
P: 913.307.3700  
www.hoeferwelker.com

**LEE'S SUMMIT POLICE RENOVATION**  
10 NE TUDOR RD  
LEE'S SUMMIT, MO 64086

REVISION DATES:  
1 ADD #001 11/18/2024  
2 ADD #002 11/26/2024

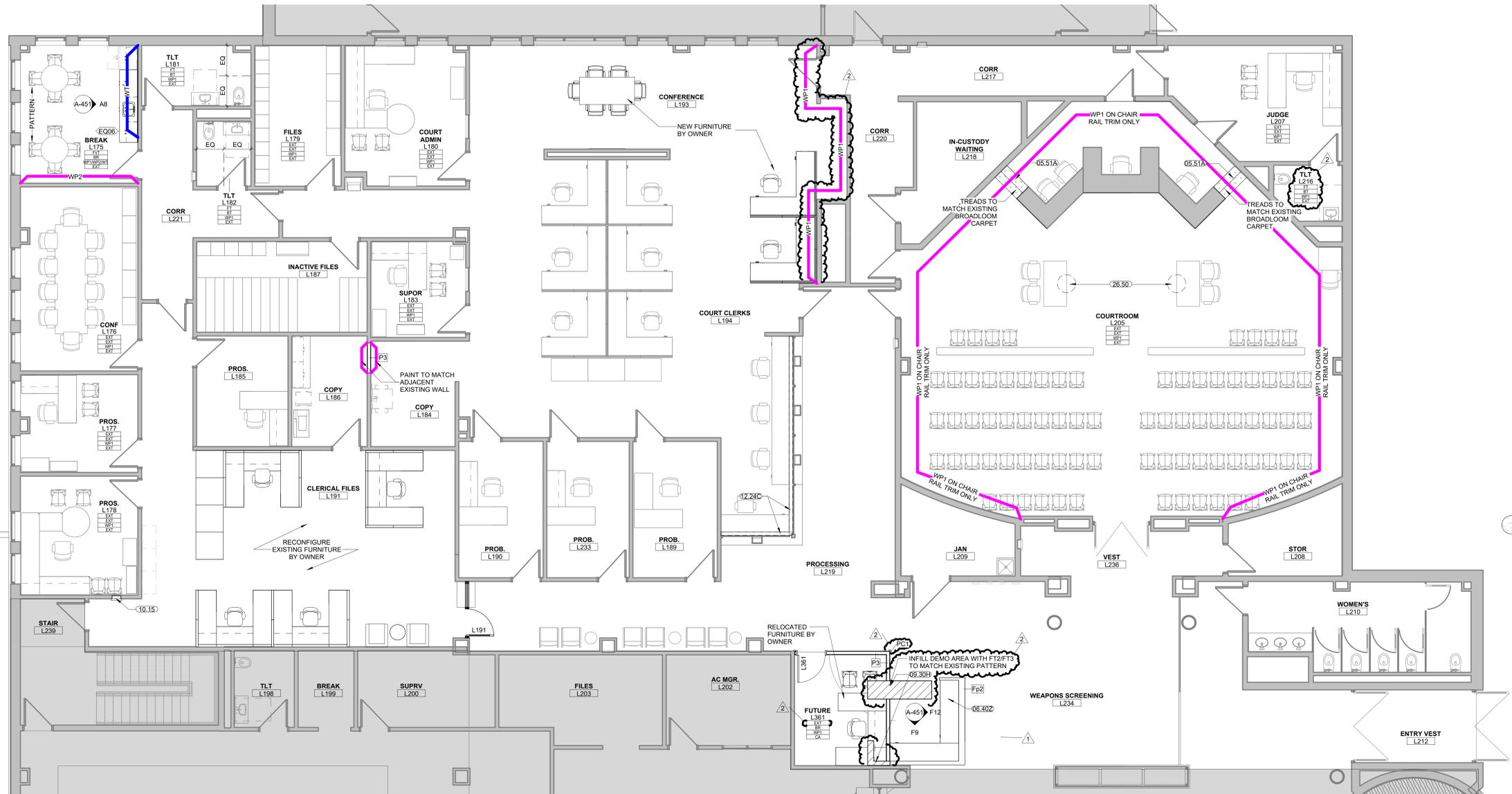
PROFESSIONAL SEAL



PROFESSIONAL SEAL

**A-402**  
ISSUE DATE: NOV. 7, 2024  
HOEFER WELKER #: 138191

ENLARGED, FFE & FINISH PLAN - COURT



**A1 COURT**  
3/16" = 1'-0"

- GENERAL NOTES - INTERIOR ELEVATIONS & MILLWORK/CASEWORK ELEVATIONS:**
- RE: SHEET G-011 FOR ADDITIONAL GENERAL NOTES THAT ARE APPLICABLE.
  - RE: SHEET G-021 ACCESSIBILITY GUIDELINES FOR MOUNTING HEIGHTS OF FIXTURES AND ACCESSORIES.
  - RE: FINISH LEGEND AND FINISH PLANS FOR SPECIFIC FINISH INFORMATION AND LOCATIONS.
  - WALL FINISHES SHOWN ARE FOR ACCENT CLARIFICATION ONLY. RE: FINISH PLAN ROOM TAG & ELEVATIONS FOR ADDITIONAL ROOM FINISHES.
  - PROVIDE GYPSUM BOARD CONTROL JOINTS AT DOOR HEADERS WHERE GYPSUM BOARD EXCEEDS 30 FEET (TYP.), UNLESS SHOWN OTHERWISE. JOINTS TO BE LINED UP WITH BOTH SIDES OF DOOR FRAMES FOR DOORS 4'-0" AND OVER AND ALL DOORS THAT ARE LEAD LINED.
  - ALIGN BASE TILE JOINTS WITH FLOOR TILE JOINTS, UNLESS NOTED OR SHOWN OTHERWISE.
  - TRANSITION ALL WALL AND BASE FINISHES, AND/OR COLOR CHANGES AT INSIDE CORNERS, UNLESS NOTED OTHERWISE. CONSULT ARCHITECT FOR CLARIFICATION, IF NECESSARY.
  - CONTINUE WALL FINISH BEHIND ALL FURNITURE AND EQUIPMENT, INCLUDING UNDER OPEN COUNTERS.
  - CONTINUE WALL BASE AT ALL WALLS. FURRED OUT COLUMNS, COLUMN COVERS, AT ALL CASEWORK TOE KICKS, SIDE PANELS, AND UNDER OPEN COUNTERS, UNLESS NOTED OTHERWISE.
  - CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS PRIOR TO MILLWORK/CASEWORK FABRICATION & INSTALLATION.
  - ALL MILLWORK/CASEWORK CONSTRUCTION SHALL MEET AWI PREMIUM STANDARDS, UNLESS NOTED OR SPECIFIED OTHERWISE.
  - CONTRACTOR SHALL PROVIDE & INSTALL GROMMETS AT 48" O.C. MAX. AT ALL WORK STATIONS WITH OPEN KNEE SPACE. COORDINATE LOCATIONS DIRECTLY WITH OWNER. COLOR TO BE SELECTED BY ARCHITECT.
  - CONTRACTOR SHALL PROVIDE COUNTERTOP BRACKETS AT OPEN KNEE SPACES WIDER THAN 42" (TYP.). CENTER IN OPEN AREA, UNLESS NOTED OR SHOWN OTHERWISE. ARCHITECT TO SELECT COLOR.
  - ALL EXPOSED CASEWORK/MILLWORK SURFACES SHALL BE FINISHED TO MATCH ADJACENT CASEWORK/MILLWORK FINISH, UNLESS NOTED OTHERWISE.
  - ALL FILLER PANELS SHALL BE FINISHED TO MATCH ADJACENT SURFACES AND SCRIBED TO FIT ADJACENT WALL, UNLESS NOTED OTHERWISE. FILLER PANELS TO BE 1-1/2" MIN. OR 3" MAX. UNLESS NOTED OTHERWISE.
  - FINISHED END PANEL SURFACES SHALL BE FINISHED TO MATCH ADJACENT CASEWORK/MILLWORK FINISH. PANELS TO BE 1-1/2" WIDE, UNLESS NOTED OTHERWISE.
  - EQUIPMENT DRAWINGS & SPECS. FOR EQUIPMENT ITEMS SHOWN DASHED, PROVIDED BY EQUIP. CONSULTANT AND/OR SUPPLIED BY OWNER. COORDINATE WITH OTHER TRADES AS NECESSARY.
  - MECH. & ELEC. SYMBOLS AND OUTLETS ARE SHOWN FOR REFERENCE ONLY. COORDINATE LOCATIONS WITH MEP DRAWINGS. CONSULT ARCHITECT FOR CLARIFICATION, IF NECESSARY.
  - RE: SHEET A-451 FOR FINISH DETAILS.
  - RE: FINISH LEGEND & DOOR SCHEDULE FOR INTERIOR DOOR AND DOOR FRAME COLORS.
  - TYPICAL MILLWORK FINISHES TO BE ML FOR CABINETS, MS FOR COUNTERTOPS UNLESS NOTED OTHERWISE.
  - RE: TO A-451 FOR CASEWORK SECTION DETAILS.
  - RE: TO A-451 FOR COUNTERTOP SECTIONS BY FINISH MATERIAL.  
A. TYPE C1: MS1  
B. TYPE C2: MS2

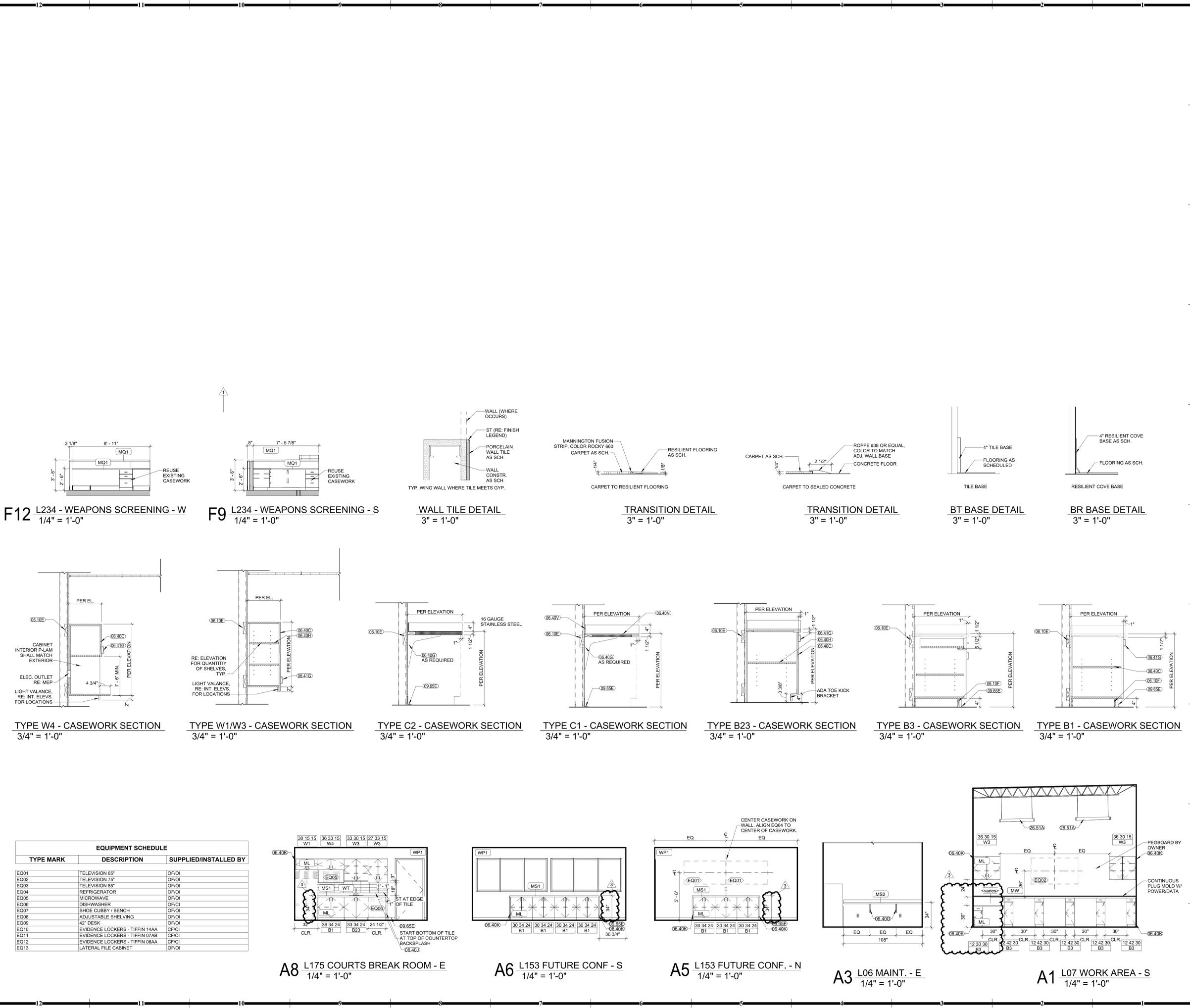
- GENERAL NOTES - CASEWORK**
- RE: FINISH LEGEND AND FINISH SCHEDULE FOR SPECIFIC FINISH INFORMATION AND LOCATIONS.
  - ALL MILLWORK/CASEWORK CONSTRUCTION SHALL MEET AWI PREMIUM STANDARDS, UNLESS NOTED OR SPECIFIED OTHERWISE.
  - ALL EXPOSED MILLWORK/CASEWORK SURFACES SHALL BE FINISHED W/ PLASTIC LAMINATE TO MATCH ADJACENT PLASTIC LAMINATE SURFACES, UNLESS NOTED OTHERWISE.
  - ALL CASEWORK INTERIORS SHALL BE WHITE MELAMINE, UNLESS NOTED OTHERWISE.
  - ALL FILLER PANELS SHALL BE 1-1/2" INCH WIDE MINIMUM, FINISHED TO MATCH ADJACENT FINISH SURFACES, AND SCRIBED TO FIT ADJACENT WALL, UNLESS NOTED OTHERWISE.
  - ALL BACKSPLASH FINISHES SHALL MATCH COUNTERTOP MATERIAL AND FINISH, UNLESS NOTED OTHERWISE. PLASTIC LAMINATE SIDE/BACKSPLASHES TO HAVE SELF EDGE LAMINATE, UNLESS NOTED OTHERWISE.
  - CONTRACTOR SHALL APPLY CLEAR MILDEW RESISTANT SILICONE SEALANT WHERE BACKSPLASH MEETS WALL AND COUNTERTOP.
  - THE UNDERSIDE OF COUNTERTOPS WITH KNEE OPENINGS, MUST HAVE A WHITE MELAMINE FINISH, UNLESS NOTED OTHERWISE.
  - WATER AND SUPPLY DRAIN PIPES UNDER LAVATORIES AND SINKS SHALL BE INSULATED OR OTHERWISE CONFIGURED TO PROTECT AGAINST CONTACT. THERE SHALL BE NO SHARP OR ABRASIVE SURFACES UNDER LAVATORIES AND SINKS.
  - SOLID SURFACE COUNTERTOPS TO HAVE EASED EDGES TYPICAL.
  - CONTRACTOR SHALL PROVIDE LOCKS AT ALL CABINET DOORS AND DRAWERS AS INDICATED.
  - RE: SHEET G-011 FOR ADDITIONAL GENERAL NOTES THAT ARE APPLICABLE.
  - CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS PRIOR TO MILLWORK/CASEWORK FABRICATION & INSTALLATION. COUNTERTOP BRACKETS TO BE PAINTED TO MATCH ADJACENT SURFACE, TYPICAL AT ALL LOCATIONS WHERE OCCURS.
  - MECH. & ELEC. SYMBOLS AND OUTLETS ARE SHOWN FOR REFERENCE ONLY. COORDINATE LOCATIONS WITH MEP DRAWINGS. CONSULT ARCHITECT FOR CLARIFICATION, IF NECESSARY.
  - RE: SHEET A-451 FOR WALL BASE DETAILS.

**WALL FINISH LEGEND**

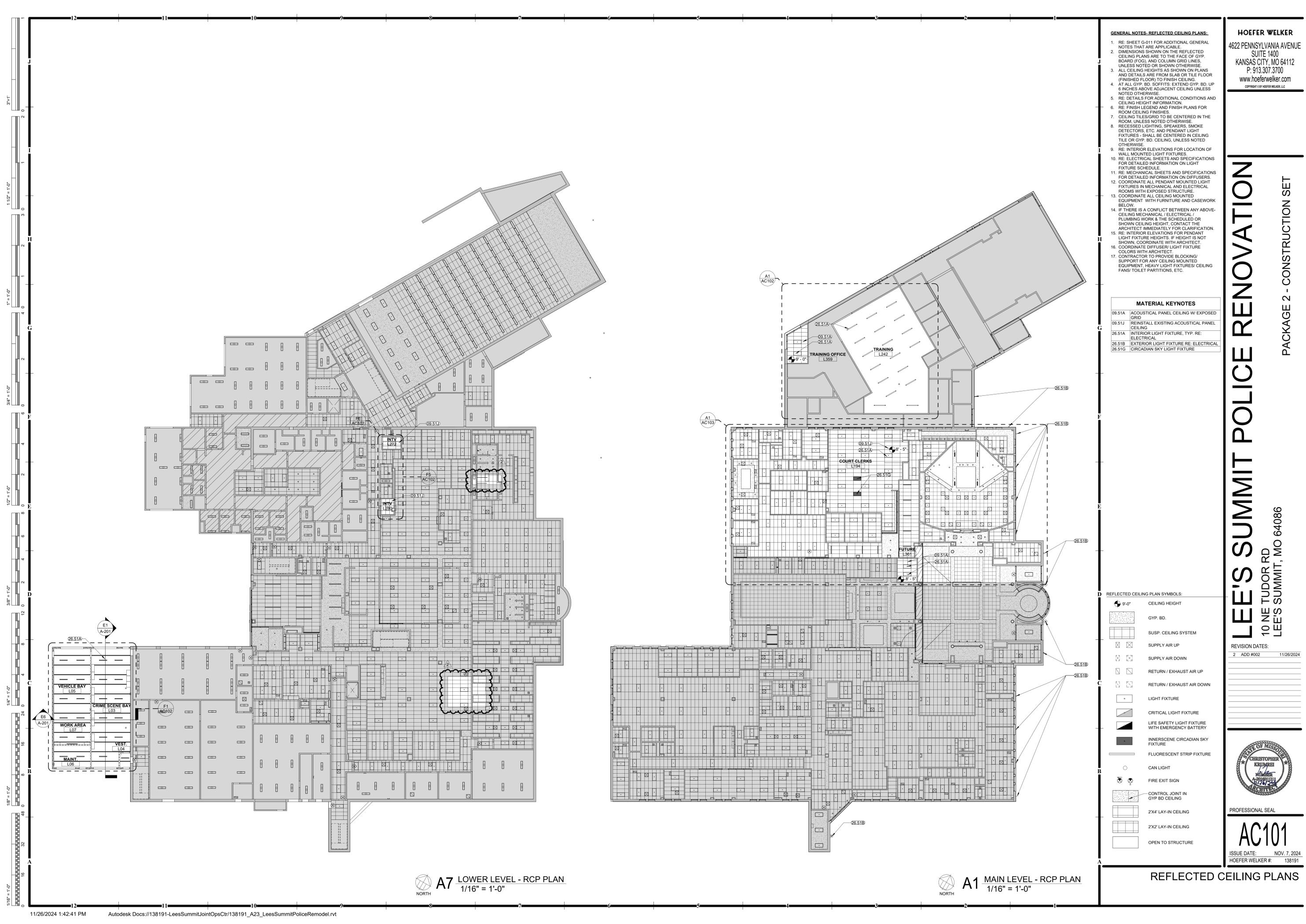
06.10E	WOOD BLOCKING, AS REQUIRED
06.10F	WOOD SHIMS, AS REQUIRED
06.40C	PLASTIC LAMINATE CASEWORK
06.40G	COUNTER BRACKET
06.40H	SHELF
06.40J	PLASTIC LAMINATE FINISHED END PANEL
06.40K	PLASTIC LAMINATE FILLER PANEL
06.40N	SOLID SURFACING-MATERIAL COUNTERTOP
06.40V	SOLID SURFACE BACKSPLASH
06.41G	DOOR AND DRAWER PULL RE: FINISH SCHEDULE
09.85E	BASE RE: FINISH SCHEDULE
26.51A	INTERIOR LIGHT FIXTURE, TYP. RE: ELECTRICAL

**MATERIAL KEYNOTES**

06.10E	WOOD BLOCKING, AS REQUIRED
06.10F	WOOD SHIMS, AS REQUIRED
06.40C	PLASTIC LAMINATE CASEWORK
06.40G	COUNTER BRACKET
06.40H	SHELF
06.40J	PLASTIC LAMINATE FINISHED END PANEL
06.40K	PLASTIC LAMINATE FILLER PANEL
06.40N	SOLID SURFACING-MATERIAL COUNTERTOP
06.40V	SOLID SURFACE BACKSPLASH
06.41G	DOOR AND DRAWER PULL RE: FINISH SCHEDULE
09.85E	BASE RE: FINISH SCHEDULE
26.51A	INTERIOR LIGHT FIXTURE, TYP. RE: ELECTRICAL







- GENERAL NOTES - REFLECTED CEILING PLANS:**
- RE: SHEET G-011 FOR ADDITIONAL GENERAL NOTES THAT ARE APPLICABLE.
  - DIMENSIONS SHOWN ON THE REFLECTED CEILING PLANS ARE TO THE FACE OF GYP. BOARD (FG) AND COLUMN GRID LINES, UNLESS NOTED OR SHOWN OTHERWISE.
  - ALL CEILING HEIGHTS AS SHOWN ON PLANS AND DETAILS ARE FROM SLAB OR TILE FLOOR (FINISHED FLOOR) TO FINISH CEILING.
  - AT ALL GYP. BD. SOFFITS: EXTEND GYP. BD. UP 6 INCHES ABOVE ADJACENT CEILING UNLESS NOTED OTHERWISE.
  - RE: DETAILS FOR ADDITIONAL CONDITIONS AND CEILING HEIGHT INFORMATION.
  - RE: FINISH LEGEND AND FINISH PLANS FOR ROOM CEILING FINISHES.
  - CEILING TILES/GRID TO BE CENTERED IN THE ROOM, UNLESS NOTED OTHERWISE.
  - RECESSED LIGHTING, SPEAKERS, SMOKE DETECTORS, ETC. AND PENDANT LIGHT FIXTURES - SHALL BE CENTERED IN CEILING TILE OR GYP. BD. CEILING, UNLESS NOTED OTHERWISE.
  - RE: INTERIOR ELEVATIONS FOR LOCATION OF WALL MOUNTED LIGHT FIXTURES.
  - RE: ELECTRICAL SHEETS AND SPECIFICATIONS FOR DETAILED INFORMATION ON LIGHT FIXTURE SCHEDULE.
  - RE: MECHANICAL SHEETS AND SPECIFICATIONS FOR DETAILED INFORMATION ON DIFFUSERS.
  - COORDINATE ALL PENDANT MOUNTED LIGHT FIXTURES IN MECHANICAL AND ELECTRICAL ROOMS WITH EXPOSED STRUCTURE.
  - COORDINATE ALL CEILING MOUNTED EQUIPMENT WITH FURNITURE AND CASEWORK BELOW.
  - IF THERE IS A CONFLICT BETWEEN ANY ABOVE-CEILING MECHANICAL / ELECTRICAL / PLUMBING WORK & THE SCHEDULED OR SHOWN CEILING HEIGHT, CONTACT THE ARCHITECT IMMEDIATELY FOR CLARIFICATION.
  - RE: INTERIOR ELEVATIONS FOR PENDANT LIGHT FIXTURE HEIGHTS. IF HEIGHT IS NOT SHOWN, COORDINATE WITH ARCHITECT.
  - COORDINATE DIFFUSER/ LIGHT FIXTURE COLORS WITH ARCHITECT.
  - CONTRACTOR TO PROVIDE BLOCKING/ SUPPORT FOR ANY CEILING MOUNTED EQUIPMENT, HEAVY LIGHT FIXTURES/ CEILING FANS/ TOILET PARTITIONS, ETC.

**MATERIAL KEYNOTES**

09.51A	ACOUSTICAL PANEL CEILING W/ EXPOSED GRID
09.51J	REINSTALL EXISTING ACOUSTICAL PANEL CEILING
26.51A	INTERIOR LIGHT FIXTURE, TYP. RE: ELECTRICAL
26.51B	EXTERIOR LIGHT FIXTURE RE: ELECTRICAL
26.51G	CIRCADIAN SKY LIGHT FIXTURE

- REFLECTED CEILING PLAN SYMBOLS:**
- 9'-0" CEILING HEIGHT
  - GYP. BD.
  - SUSP. CEILING SYSTEM
  - SUPPLY AIR UP
  - SUPPLY AIR DOWN
  - RETURN / EXHAUST AIR UP
  - RETURN / EXHAUST AIR DOWN
  - LIGHT FIXTURE
  - CRITICAL LIGHT FIXTURE
  - LIFE SAFETY LIGHT FIXTURE WITH EMERGENCY BATTERY
  - INNERSCENE CIRCADIAN SKY FIXTURE
  - FLUORESCENT STRIP FIXTURE
  - CAN LIGHT
  - FIRE EXIT SIGN
  - CONTROL JOINT IN GYP BD CEILING
  - 2X4 LAY-IN CEILING
  - 2X2 LAY-IN CEILING
  - OPEN TO STRUCTURE

**HOEFER WELKER**  
 4622 PENNSYLVANIA AVENUE  
 SUITE 1400  
 KANSAS CITY, MO 64112  
 P: 913.307.3700  
 www.hoeferwelker.com  
COPYRIGHT © BY HOEFER WELKER, LLC

**LEE'S SUMMIT POLICE RENOVATION**  
 10 NE TUDOR RD  
 LEE'S SUMMIT, MO 64086

REVISION DATES:  
 2 ADD #002 11/26/2024



PROFESSIONAL SEAL  
**AC101**  
 ISSUE DATE: NOV. 7, 2024  
 HOEFER WELKER #: 138191

**A7 LOWER LEVEL - RCP PLAN**  
 1/16" = 1'-0"

**A1 MAIN LEVEL - RCP PLAN**  
 1/16" = 1'-0"

**REFLECTED CEILING PLANS**

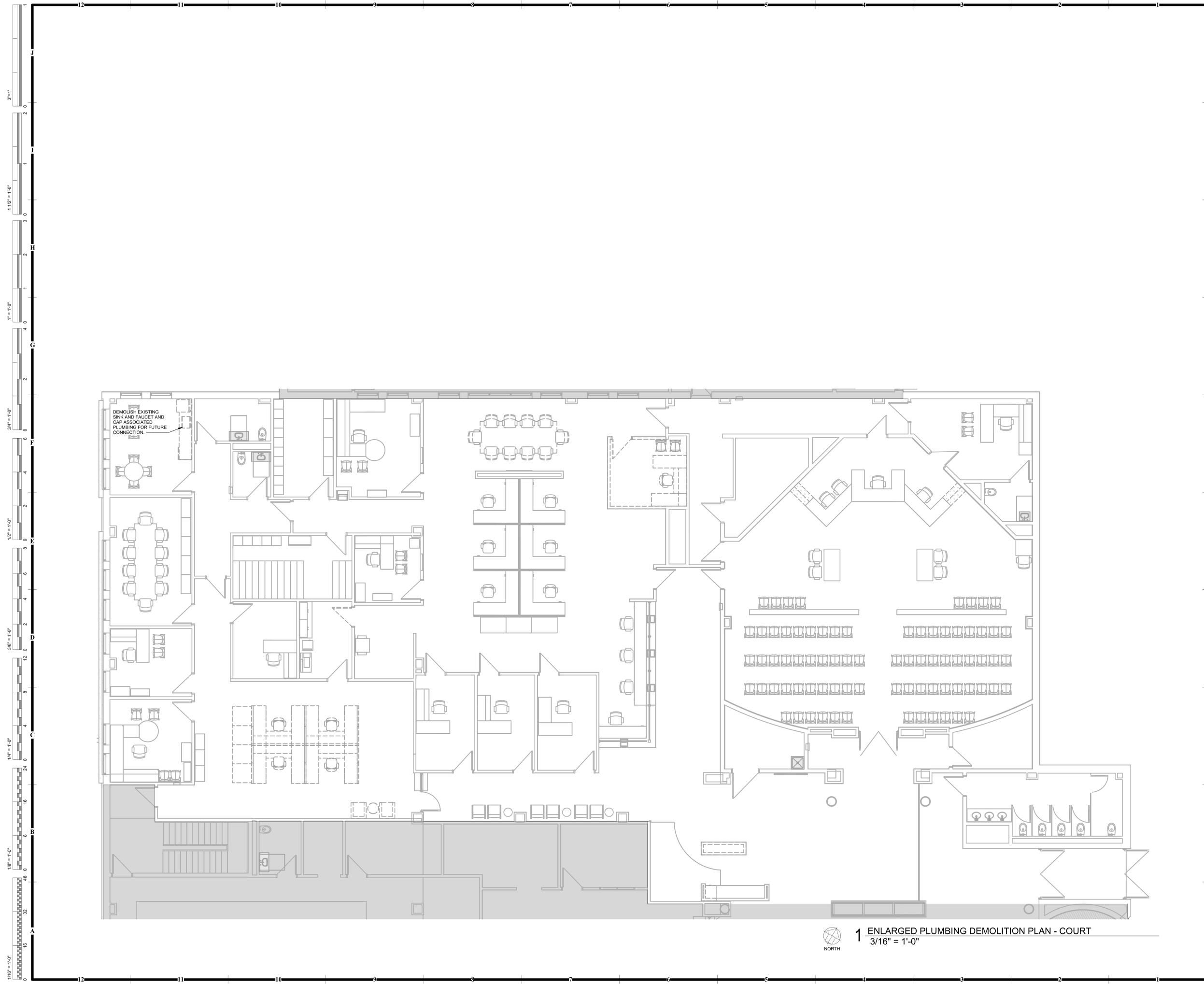
PACKAGE 2 - CONSTRUCTION SET











DEMOLISH EXISTING  
SINK AND FAUCET AND  
CAP ASSOCIATED  
PLUMBING FOR FUTURE  
CONNECTION.

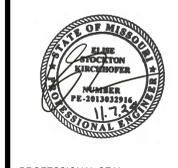
**1** ENLARGED PLUMBING DEMOLITION PLAN - COURT  
3/16" = 1'-0"

- GENERAL NOTES:**
- REFER TO SHEET PG001 FOR GENERAL PLUMBING NOTES.
- PLUMBING PLAN NOTES:**

**HOEFER WELKER**  
4622 PENNSYLVANIA AVENUE  
SUITE 1400  
KANSAS CITY, MO 64112  
P: 913.307.3700  
hoferwelker.com  
COPYRIGHT © BY HOEFER WELKER, LLC

**LEE'S SUMMIT POLICE RENOVATION**  
10 NE TUDOR RD  
LEE'S SUMMIT, MO 65086

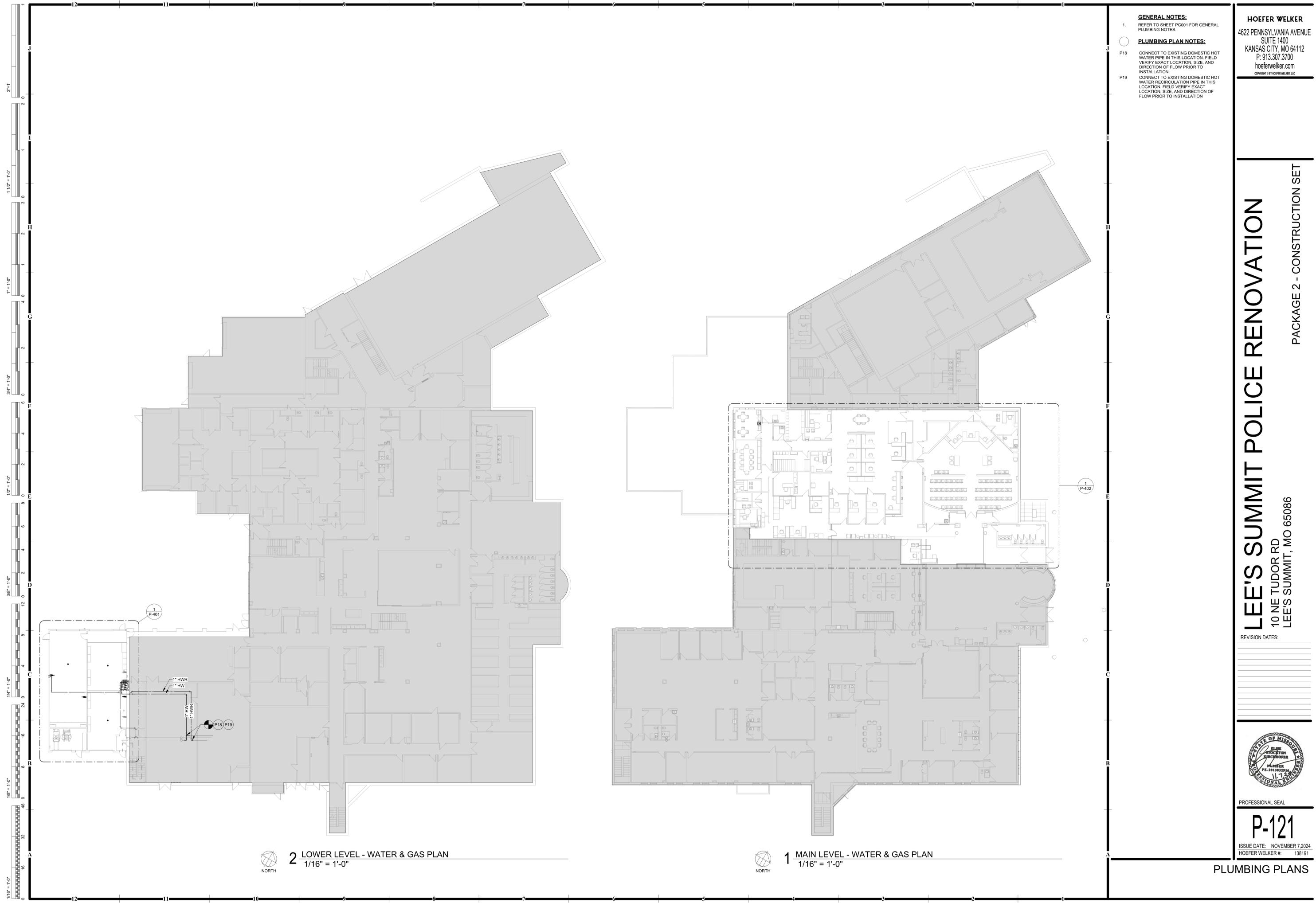
REVISION DATES:

PROFESSIONAL SEAL  
**PD401**  
ISSUE DATE: NOVEMBER 7, 2024  
HOEFER WELKER #: 138191

**ENLARGED PLUMBING DEMOLITION PLANS**

PACKAGE 2 - CONSTRUCTION SET



- GENERAL NOTES:**
- REFER TO SHEET PG001 FOR GENERAL PLUMBING NOTES.
- PLUMBING PLAN NOTES:**
- P18 CONNECT TO EXISTING DOMESTIC HOT WATER PIPE IN THIS LOCATION. FIELD VERIFY EXACT LOCATION, SIZE, AND DIRECTION OF FLOW PRIOR TO INSTALLATION.
  - P19 CONNECT TO EXISTING DOMESTIC HOT WATER RECIRCULATION PIPE IN THIS LOCATION. FIELD VERIFY EXACT LOCATION, SIZE, AND DIRECTION OF FLOW PRIOR TO INSTALLATION.

**HOEFER WELKER**  
 4622 PENNSYLVANIA AVENUE  
 SUITE 1400  
 KANSAS CITY, MO 64112  
 P: 913.307.3700  
 hoeferwelker.com  
COPYRIGHT © BY HOEFER WELKER, LLC

**LEE'S SUMMIT POLICE RENOVATION**

10 NE TUDOR RD  
LEE'S SUMMIT, MO 65086

PACKAGE 2 - CONSTRUCTION SET

REVISION DATES:

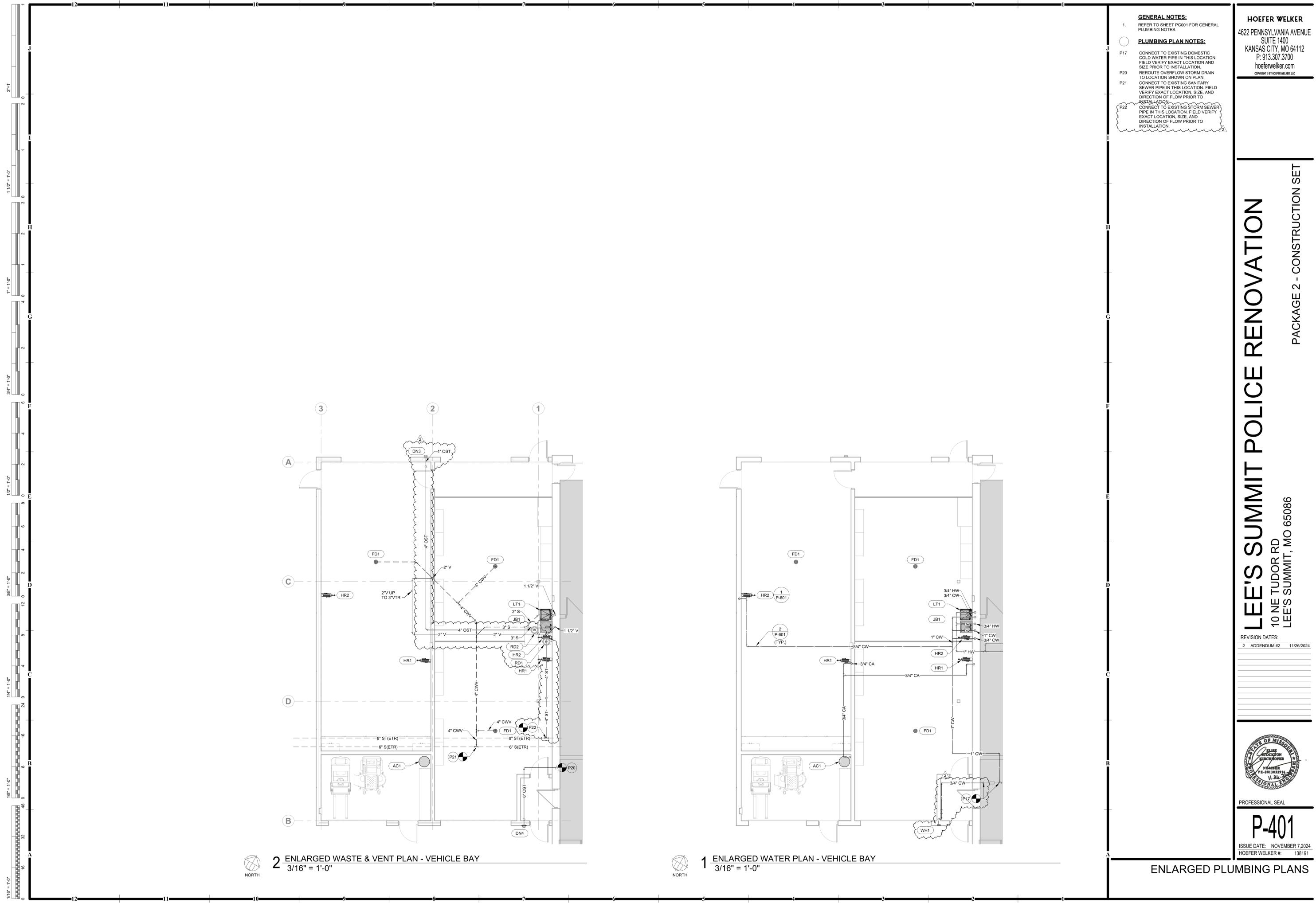



PROFESSIONAL SEAL

**P-121**

ISSUE DATE: NOVEMBER 7, 2024  
 HOEFER WELKER #: 138191

**PLUMBING PLANS**



- GENERAL NOTES:**
- REFER TO SHEET PG001 FOR GENERAL PLUMBING NOTES.
- PLUMBING PLAN NOTES:**
- P17 CONNECT TO EXISTING DOMESTIC COLD WATER PIPE IN THIS LOCATION. FIELD VERIFY EXACT LOCATION AND SIZE PRIOR TO INSTALLATION.
  - P20 REROUTE OVERFLOW STORM DRAIN TO LOCATION SHOWN ON PLAN.
  - P21 CONNECT TO EXISTING SANITARY SEWER PIPE IN THIS LOCATION. FIELD VERIFY EXACT LOCATION, SIZE, AND DIRECTION OF FLOW PRIOR TO INSTALLATION.
  - P22 CONNECT TO EXISTING STORM SEWER PIPE IN THIS LOCATION. FIELD VERIFY EXACT LOCATION, SIZE, AND DIRECTION OF FLOW PRIOR TO INSTALLATION.

**HOEFER WELKER**  
 4622 PENNSYLVANIA AVENUE  
 SUITE 1400  
 KANSAS CITY, MO 64112  
 P: 913.307.3700  
 hoeferwelker.com  
COPYRIGHT © BY HOEFER WELKER, LLC

**LEE'S SUMMIT POLICE RENOVATION**  
 10 NE TUDOR RD  
 LEE'S SUMMIT, MO 65086

REVISION DATES:

2	ADDENDUM #2	11/26/2024
---	-------------	------------



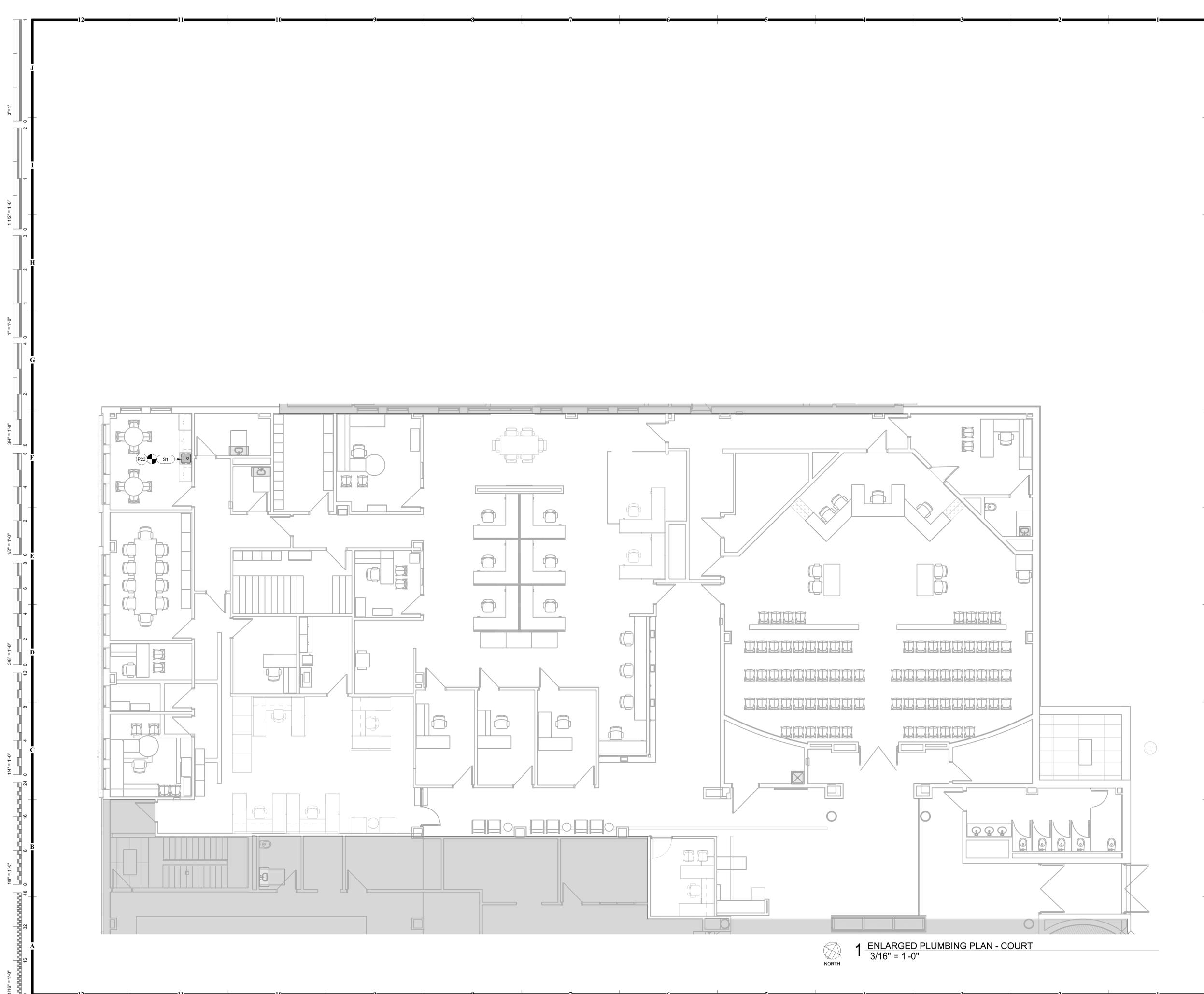
PROFESSIONAL SEAL  
**P-401**  
 ISSUE DATE: NOVEMBER 7, 2024  
 HOEFER WELKER # 138191

ENLARGED PLUMBING PLANS

**2 ENLARGED WASTE & VENT PLAN - VEHICLE BAY**  
 3/16" = 1'-0"

**1 ENLARGED WATER PLAN - VEHICLE BAY**  
 3/16" = 1'-0"





- GENERAL NOTES:**  
 1. REFER TO SHEET PG001 FOR GENERAL PLUMBING NOTES.
- PLUMBING PLAN NOTES:**
- P23 REPLACE EXISTING PLUMBING FIXTURE WITH NEW AS SCHEDULED. MAKE CONNECTIONS TO EXISTING SANITARY SEWER, COLD WATER, AND HOT WATER LINES. REPAIR OR REPLACE ANY SUPPLY STOPS, FLANGES, OR SEALS IF NECESSARY.

**HOEFER WELKER**  
 4622 PENNSYLVANIA AVENUE  
 SUITE 1400  
 KANSAS CITY, MO 64112  
 P: 913.307.3700  
 hoeferwelker.com  
COPYRIGHT © BY HOEFER WELKER, LLC

**LEE'S SUMMIT POLICE RENOVATION**

10 NE TUDOR RD  
 LEE'S SUMMIT, MO 65086

PACKAGE 2 - CONSTRUCTION SET

REVISION DATES:


PROFESSIONAL SEAL

**P-402**

ISSUE DATE: NOVEMBER 7, 2024  
 HOEFER WELKER #: 138191

**1 ENLARGED PLUMBING PLAN - COURT**  
 3/16" = 1'-0"

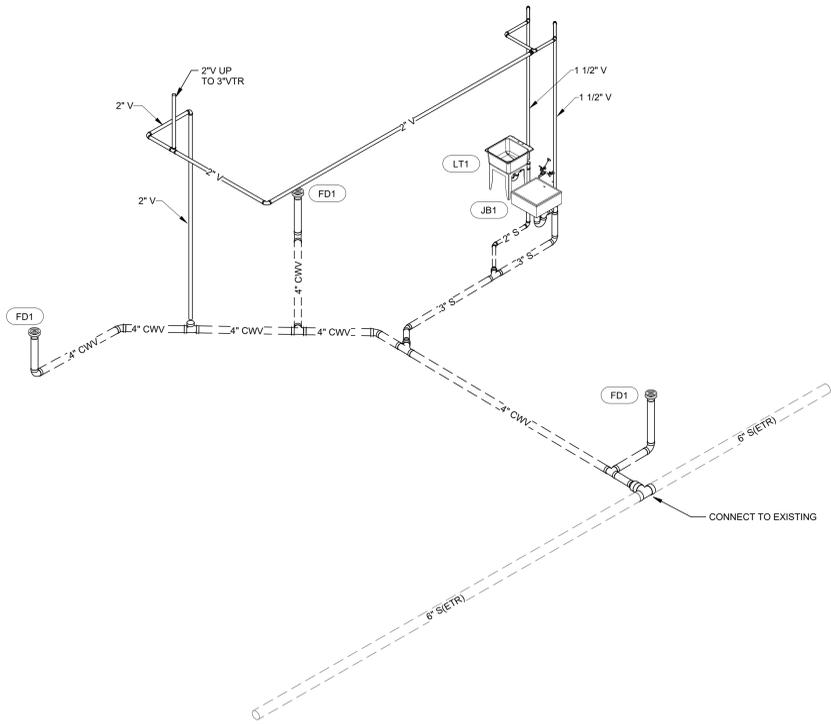
ENLARGED PLUMBING PLANS

PLUMBING FIXTURE SCHEDULE										
PLAN MARK	UNIT TYPE	MANUFACTURER	MODEL	FLUSH VALVE/FAUCET	PLUMBING CONNECTIONS (IN)			OPTIONS	NOTES	
					CW	HW	WASTE			VENT
HR1	HOSE REEL			N/A	0	0	0	0		
HR2	HOSE REEL			N/A	0	0	0	0		
JB1	JANITOR'S BASIN	ZURN	Z1996-24-HH-MH-WG	ZURN MODEL Z1996-SF	0.75	0.75	3	1.5		
LT1	LAUNDRY TUB	FIAT	FL-1	FIAT MODEL A1000	0.5	0.5	2	1.5		
S1	10X16 SINGLE COMPARTMENT UNDERMOUNT BLACK GRANITE SINK	ELKAY	ELG1616	KOHLER MODEL K-7905 1.5 GPM SWIVEL FLAT GOOSENECK FAUCET	0.5	0.5	2	1.5	BS,SV,T,BGD,TMV	
WH1	FREEZE PROOF WALL HYDRANT	ZURN	Z1321-C	N/A	0.75	0	0	0		

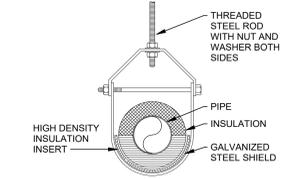
DRAINAGE FIXTURE SCHEDULE					
PLAN MARK	TYPE	MANUFACTURER	MODEL	OPTIONS	NOTES
DN3	DOWNSPOUT NOZZLE	ZURN	Z199		
DN4	DOWNSPOUT NOZZLE	ZURN	Z199		
FD1	FLOOR DRAIN - ROUND	JAY R SMITH	2005A	CC,NBS,TG	
RD1	ROOF DRAIN	ZURN	Z100		
RD2	OVERFLOW ROOF DRAIN	ZURN	Z100-89		

AIR COMPRESSOR SCHEDULE																	
PLAN MARK	UNIT TYPE	MANUFACTURER	MODEL	MOUNTING	VOLUME (GAL)	CAPACITY (CFM)	OPERATING PRESSURE (PSI)	HORSEPOWER	ELECTRICAL					DIAMETER (IN)	HEIGHT(IN)	OPTIONS	NOTES
									VOLTAGE	PHASE	FLA	MCA	MOCIP				
AC1	AIR COMPRESSOR	QUINCY	Q13160VQ	VERTICAL STATIONARY	60	12.4	135	3.5	208	1	16	20	20	30	62		

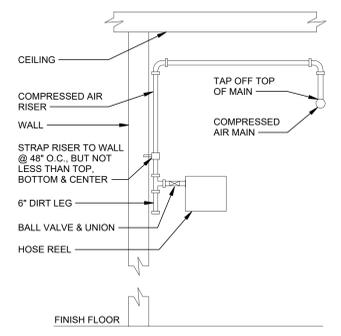
PLUMBING ABBREVIATION LIST	
GENERAL NOTES	
1	THE MANUFACTURER LISTED SHALL BE CONSIDERED THE BASIS OF DESIGN. EQUIPMENT AND ACCESSORIES SHALL BE SUPPLIED IN ACCORDANCE WITH THE SCHEDULED VALUES, NOTES, DETAILS, AND SPECIFICATIONS. THE MECHANICAL CONTRACTOR SHALL BE RESPONSIBLE FOR ALL ADDITIONAL COST AND COORDINATION WHEN NON BASIS OF DESIGN EQUIPMENT IS PROVIDED.
OPTIONS	
BGD	BADGER 5XP .34 HP GARBAGE DISPOSAL AND 73274K CHROME FINISH SINK TOP SWITCH BUTTON OPERATOR.
BS	BASKET STRAINER
CC	CAST IRON BODY AND CLAMPING COLLAR
NBS	6" NICKEL BRONZE STRAINER
SV	QUARTER TURN STOP VALVES
T	TRAP
TG	PROVENT TRAP GUARD.
TMV	PROVIDE WITH POWERS LFE480-00 THERMOSTATIC MIXING VALVE SET TO 105F FOR LAVATORIES AND 115F FOR SINKS



**3 WASTE & VENT RISER**  
NOT TO SCALE



**2 INSULATED PIPE AT HANGER**  
NOT TO SCALE



**1 COMPRESSED AIR HOSE REEL**  
NOT TO SCALE

**HOEFER WELKER**  
4622 PENNSYLVANIA AVENUE  
SUITE 1400  
KANSAS CITY, MO 64112  
P: 913.307.3700  
hoeferwelker.com

**LEE'S SUMMIT POLICE RENOVATION**  
10 NE TUDOR RD  
LEE'S SUMMIT, MO 65086

REVISION DATES:  
2 ADDENDUM #2 11/26/2024



PROFESSIONAL SEAL  
**P-601**  
ISSUE DATE: NOVEMBER 7, 2024  
HOEFER WELKER #: 138191

PLUMBING SCHEDULES, DETAILS, AND RISERS

# MECHANICAL SYMBOLS

THIS IS A MASTER LEGEND AND NOT ALL SYMBOLS OR ABBREVIATIONS ARE USED.

## STANDARD MOUNTING HEIGHT

CONTROL DEVICES- THERMOSTATS, SENSORS, ETC. (TOP OF DEVICE) 48"  
 OTHERWISE IN THE SPECIFICATIONS OR ELSEWHERE. MOUNTING HEIGHTS LISTED ARE ABOVE FINISHED FLOOR (AFF) OR ABOVE FINISHED GRADE (AFG) TO TOP OF DEVICE. ALL DEVICES SHALL BE INSTALLED IN COMPLIANCE WITH CURRENT ADA AND LOCAL REQUIREMENTS.

## ANNOTATION

- MECHANICAL PLAN NOTE CALLOUT
- MECHANICAL EQUIPMENT DESIGNATION (CONTRACTOR FURNISHED AND INSTALLED UNLESS NOTED OTHERWISE)
- CONNECTION POINT OF NEW WORK TO EXISTING
- DETAIL REFERENCE. UPPER NUMBER INDICATES DETAIL NUMBER LOWER NUMBER INDICATES SHEET NUMBER
- SECTION CUT DESIGNATION
- DIFFUSER DESIGNATION: 1. PLAN MARK (EXISTING) 2. NECK SIZE 3. AIRFLOW

## ABBREVIATIONS

A/C	AIR CONDITIONING	H/W	HEATING WATER PUMP
ACC	AIR COOLED CHILLER	HW	HEATING WATER COLUMN
ACCU	AIR COOLED CONDENSING UNIT	L	LOUVER
AFC	ABOVE FINISHED CEILING	LAT	LEAVING AIR TEMPERATURE
AFF	ABOVE FINISHED FLOOR	LDB	LEAVING DRY BULB
AFG	ABOVE FINISHED GRADE	LDP	LEAVING DRY BULB
AHJ	AUTHORITY HAVING JURISDICTION	LWB	LEAVING WET BULB
AHU	AIR HANDLING UNIT	LWT	LEAVING WATER TEMPERATURE
AI	ANALOG INPUT	MAU	MAKE-UP AIR UNIT
AO	ANALOG OUTPUT	MAX	MAXIMUM
AP	ACCESS PANEL	MBH	1000 BTU PER HOUR
ARD	AIR PRESSURE DROP	MD	MOTORIZED DAMPER
AWG	AMERICAN WIRE GAUGE	MFR	MANUFACTURER
BAS	BUILDING AUTOMATION SYSTEM	MIN	MINIMUM
BB	BACKBONE	N/A	NOT APPLICABLE
BD	BACKDRAFT DAMPER	NC	NORMALLY CLOSED
BDF	BELOW FINISHED FLOOR	N/O	NORMALLY OPEN
BFG	BELOW FINISHED GRADE	NOM	NOMINAL
BFP	BOILER FEED PUMP	NO	NOISE CRITERIA
BHP	BRAKE HORSEPOWER	NRH	NOT IN CONTRACT
BI	BINARY INPUT	OA	OUTSIDE AIR
BO	BINARY OUTPUT	OB	OPPOSED BLADE DAMPER
BOD	BOTTOM OF DUCT	PICV	PRESSURE INDEP. CONTROL VALVE
BOS	BOTTOM OF STRUCTURE	PROV	PROVIDE/FURNISH AND INSTALL
BTU	BRITISH THERMAL UNIT	QTY	QUANTITY
CFM	CUBIC FEET PER MINUTE	RA	RETURN AIR ROOM CRITERIA
CH	CHILLER	RD	RETURN DUCT
CLG	COOLINGS	REA	RELIEF AIR
CP	CONDENSATE PUMP	RF	RETURN FAN
CPT	CONTROL POWER	RFR	REFRIGERANT
CRAC	COMPUTER ROOM AIR CONDITIONING UNIT	RH	RELATIVE HUMIDITY
CRU	COMPUTER ROOM UNIT	RM	REVOLUTIONS PER MINUTE
CT	COOLING TOWER	RTU	ROOFTOP UNIT
CV	CONTROL VALVE	SA	SUPPLY AIR
CWP	CONDENSING UNIT	SCP	STEAM CONDENSATE PUMP
CU	CONDENSING UNIT	SD	SMOKE DUCT DETECTOR
CHWP	CHILLED WATER PUMP	SD	SUPPLY DUCT
DB	DECIBELS	SF	SUPPLY FAN
DBA	DECIBEL AVERAGE	SH	SENSIBLE HEAT CAPACITY
DDC	DIRECT DIGITAL CONTROL	SI	SCOPE OF WORK
DI	DIGITAL INPUT	SP	STATIC PRESSURE
DISC	DISCONNECT	ST	STEAM TRAP
DN	DUCT SILENCER	STM	STEAM
DX	DIRECT EXPANSION	TBD	TO BE DETERMINED
EA	EXHAUST AIR	TC	TEMPERATURE CONTROLS
EAT	ENTERING AIR	TC	TEMPERATURE CONTROL
ED	EXHAUST DUCT	TF	TRANSFER FAN
EDB	ENTERING DRY BULB	TFA	TO FLOOR ABOVE
EF	EXHAUST FAN	TFB	TO FLOOR BELOW
EFF	EFFICIENCY	TH	TOTAL HEAT CAPACITY
EMS	ENERGY MANAGEMENT SYSTEM	TSP	TOTAL STATIC PRESSURE
ESP	EXTERNAL STATIC PRESSURE	TT	TEMPERATURE TRANSMITTAL
ETR	EXISTING TO REMAIN	TYP	TYPICAL
EWB	ENTERING WET BULB	UF	UNDERFLOOR
EWV	ENTERING WATER TEMPERATURE	UG	UNDERGROUND
FCU	FAN COIL UNIT	UIS	UNDERSLAB
FFA	FROM FLOOR ABOVE	UH	UNIT HEATER
FFB	FROM FLOOR BELOW	UNO	UNLESS NOTED OTHERWISE
FF	FINISHED FLOOR	VAV	VARIABLE AIR VOLUME
FPI	FINS PER INCH	VEL	VELOCITY
FPM	FEET PER MINUTE	VFD	VARIABLE FREQUENCY DRIVE
GC	GENERAL CONTRACTOR	VRF	VARIABLE REFRIGERANT FLOW
GPM	GALLONS PER MINUTE	VRV	VARIABLE REFRIGERANT VOLUME
HOA	HAND-OFF-AUTOMATIC	W	WITH
HP	HORSEPOWER	W/O	WITHOUT
HTG	HEATING	WB	WET BULB
		WC	WATER COLUMN
		WPD	WATER PRESSURE DROP
		XP	EXPLOSION PROOF

## HVAC DUCTWORK AND ACCESSORIES

ALL DUCT DIMENSIONS SHOWN ON DRAWINGS ARE INSIDE DIMENSIONS. REFER TO DUCTWORK SPECIFICATIONS FOR DUCTWORK INSULATION AND LINER INFORMATION.

- LINEAR SLOT DIFFUSER
- INSULATED FLEXIBLE DUCT (MAX. 5'-0" LONG)
- BRANCH DUCT WITH 45° RECTANGLE ROUND BRANCH FITTING AND MANUAL VOLUME DAMPER
- ELBOW WITH TURNING VANES
- BRANCH DUCT WITH BELL-MOUTH FITTING & MANUAL VOLUME CONTROL DAMPER
- RETURN, EXHAUST, OR OUTSIDE AIR DUCT UP
- RETURN, EXHAUST, OR OUTSIDE AIR DUCT DOWN
- SUPPLY AIR DUCT UP
- SUPPLY AIR DUCT DOWN
- EQUIPMENT WITH FLEXIBLE DUCT CONNECTION
- S1 (PLAN MARK) 10" (NECK SIZE) 300 CFM (CFM OF SUPPLY DIFFUSER OR REGISTER)
- E1 (PLAN MARK) 24x24 (NECK SIZE) 800 CFM (CFM OF EXHAUST GRILLE)
- MANUAL VOLUME DAMPER
- SQUARE TO ROUND TRANSITION
- DUCT MOUNTED SMOKE DETECTOR (SD-SUPPLY/RD-RETURN)
- RISER DESIGNATION
- FIRE DAMPER
- FIRE SMOKE DAMPER
- SMOKE DAMPER
- VOLUME DAMPER
- MOTORIZED DAMPER
- BACKDRAFT DAMPER
- BLANKED OFF DIFFUSER (SHADED SECTION IS BLANKED OFF)

## HVAC CONTROL DEVICES

- HUMIDISTAT
- THERMOSTAT
- STATIC PRESSURE SENSOR
- TEMPERATURE SENSOR
- CARBON MONOXIDE SENSOR
- CARBON DIOXIDE SENSOR
- DIFFERENTIAL PRESSURE SENSOR
- FLOW SWITCH
- HUMIDITY SENSOR
- PULL STATION

## PIPING SYMBOLS

- DIRECTION OF FLOW
- CONTROL VALVE
- THREE-WAY CONTROL VALVE
- SHUTOFF VALVE
- CHECK VALVE
- BALANCING VALVE WITH PRESSURE PORTS
- TRIPLE DUTY VALVE WITH PRESSURE PORTS
- STRAINER
- STRAINER WITH BLOWDOWN VALVE
- RELIEF / SAFETY VALVE
- SOLENOID VALVE
- PRESSURE REDUCING VALVE
- GAS PRESSURE REGULATOR
- THERMOSTATIC MIXING VALVE
- PIPE ANCHOR
- EXPANSION JOINT
- PIPE GUIDE
- PIPING SUPPORT
- F & T TRAP
- BUCKET TRAP
- THERMOSTATIC TRAP
- BACKFLOW PREVENTER
- PRESSURE GAUGE
- THERMOMETER
- PRESSURE AND TEMPERATURE TEST PLUG
- UNION
- FLANGE CONNECTION
- VACUUM RELIEF VALVE
- AUTOMATIC AIR VENT
- MANUAL AIR VENT
- PRESSURE / VACUUM SWITCH
- CLEANOUT
- CAP
- ELBOW UP
- ELBOW DOWN
- TEE UP
- TEE DOWN
- ELBOW UP WITH SHUT-OFF VALVE (SOV)
- ELBOW DOWN WITH SHUT-OFF VALVE (SOV)
- TEE UP WITH SHUT-OFF VALVE (SOV)
- TEE DOWN WITH SHUT-OFF VALVE (SOV)
- REDUCER
- RECIRCULATION PUMP
- P-TRAP
- GAS COCK
- TOP BEAM CLAMP
- TRAPEZE HANGER

## PIPING LINETYPES

- CD CONDENSATE DRAIN (CD)
- ACD AUXILIARY CONDENSATE DRAIN (ACD)
- NPW NON-POTABLE WATER (NPW)
- G NATURAL GAS (G)
- NG NATURAL GAS ON ROOF (NG)
- MPG MEDIUM PRESSURE NATURAL GAS (MPG)
- MPG-R MEDIUM PRESSURE NATURAL GAS ON ROOF (MPG-R)
- FOS FUEL OIL SUPPLY (FOS)
- FOR FUEL OIL RETURN (FOR)
- FOV FUEL OIL VENT (FOV)
- LPG LIQUEFIED PETROLEUM GAS (LPG)
- BFW BOILER FEED WATER (BFW)
- HPS HIGH PRESSURE STEAM SUPPLY (HPS)
- HPC HIGH PRESSURE STEAM CONDENSATE (HPC)
- MPS MEDIUM PRESSURE STEAM SUPPLY (MPS)
- MPC MEDIUM PRESSURE STEAM CONDENSATE (MPC)
- LPS LOW PRESSURE STEAM SUPPLY (LPS)
- LPC LOW PRESSURE STEAM CONDENSATE (LPC)
- PD CONDENSATE PUMP DISCHARGE (PD)
- HWS HEATING HOT WATER SUPPLY (HWS)
- HWR HEATING HOT WATER RETURN (HWR)
- CHWS CHILLED WATER SUPPLY (CHWS)
- CHWR CHILLED WATER RETURN (CHWR)
- HCS HOT / CHILLED WATER SUPPLY (HCS)
- HCR HOT / CHILLED WATER SUPPLY (HCR)
- CWS CONDENSER WATER SUPPLY (CWS)
- CWR CONDENSER WATER RETURN (CWR)
- HPWS HEAT PUMP WATER SUPPLY (HPWS)
- HPWR HEAT PUMP WATER RETURN (HPWR)
- RL REFRIGERANT LIQUID (RL)
- RD REFRIGERANT DISCHARGE (HOT GAS) (RD)
- RS REFRIGERANT SUCTION (RS)
- RDB REFRIGERANT DISCHARGE BYPASS (RDB)
- RV REFRIGERANT VENT (RV)

## LINETYPE LEGEND

THROUGHOUT THE DRAWINGS DIFFERENT LINETYPES ARE USED IN COMBINATION WITH THE SYMBOLS TO INDICATE THE STATUS OF ITEMS AS EXISTING, TO BE DEMOLISHED, TO BE INCLUDED AS PART OF NEW WORK AND/OR ITEMS WHICH ARE ANTICIPATED TO BE PROVIDED IN THE FUTURE. THE STATUS OF ITEMS USING THESE LINETYPES ARE RELATIVE TO THE VIEW IN WHICH THEY APPEAR. PHASING SHOWN IN DRAWINGS IS NOT INTENDED TO FULLY DESCRIBE ALL NECESSARY CONSTRUCTION PHASING, WHICH IS DETERMINED BY THE CONTRACTOR AS PART OF THEIR RESPONSIBILITIES. ANY SUCH PHASING DESCRIBED IN THE CONSTRUCTION DOCUMENTS ARE GENERAL AND ONLY INTENDED TO INDICATE A BROAD ORDER FOR THE SAKE OF DESCRIBING THE PROJECT. THE FOLLOWING LINETYPES MAY BE USED ON ANY DEVICE, EQUIPMENT, NOTE, LINE, SHAPE, ETC.

EXISTING	NEW
DEMOLISH	FUTURE

## GENERAL MECHANICAL NOTES:

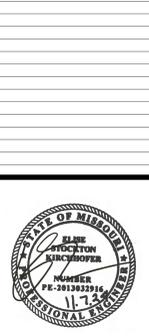
- PRIOR TO SUBMITTING BID, VISIT THE JOB SITE AND BECOME FULLY ACQUAINTED WITH THE EXISTING CONDITIONS OF THE PROJECT. REVIEW THE GENERAL NOTES, SPECIFICATIONS AND OTHER DRAWINGS FOR ADDITIONAL REQUIREMENTS WHICH MAY NOT BE SPECIFICALLY CALLED OUT IN THIS PORTION OF THE CONSTRUCTION DOCUMENTS. NOTIFY ARCHITECT, ENGINEER AND/OR OWNER OF CONFLICTS OR DISCREPANCIES PRIOR TO SUBMISSION OF BID.
- COORDINATE THE INSTALLATION OF THE MECHANICAL SYSTEMS WITH OTHER TRADES TO ENSURE A NEAT AND ORDERLY INSTALLATION. INSTALL DUCTWORK AND PIPING AS TIGHT TO STRUCTURE AS POSSIBLE. COORDINATE WITH OTHER TRADES TO AVOID CONFLICTS. COORDINATE INSTALLATION OF DUCTWORK AND PIPING TO AVOID CONFLICTS WITH ELECTRICAL PANELS, LIGHTING FIXTURES, ETC. ANY MODIFICATIONS REQUIRED DUE TO LACK OF COORDINATION WILL BE THE RESPONSIBILITY OF THE CONTRACTOR AT NO EXTRA COST TO THE OWNER.
- PROVIDE TEMPORARY BARRIERS TO CONTAIN DUST AND DEBRIS RESULTING FROM THE PERFORMANCE OF THE WORK TO THE AREA WHERE WORK IS BEING PERFORMED.
- ALL MECHANICAL EQUIPMENT SHOWN ON THE MECHANICAL PLANS SHALL BE PROVIDED BY THE MECHANICAL CONTRACTOR UNLESS OTHERWISE NOTED.
- NEW MECHANICAL EQUIPMENT, DUCTWORK AND PIPING ARE SHOWN AT APPROXIMATE LOCATIONS. FIELD MEASURE FINAL DUCTWORK AND PIPING LOCATIONS PRIOR TO FABRICATION AND MAKE ADJUSTMENTS AS REQUIRED TO FIT THE DUCTWORK AND PIPING WITHIN THE AVAILABLE SPACE. VERIFY THAT FINAL EQUIPMENT LOCATIONS MEET MANUFACTURER'S RECOMMENDATIONS REGARDING SERVICE CLEARANCE AND PROPER AIRFLOW CLEARANCE AROUND EQUIPMENT.
- REFER TO ARCHITECTURAL DRAWINGS FOR RELATED CONSTRUCTION DETAILS AS APPLICABLE TO THE HVAC SYSTEM. VERIFY CHASES AND PENETRATIONS SHOWN ON ARCHITECTURAL DRAWINGS THAT ARE INTENDED FOR DUCTWORK AND PIPING MEET REQUIREMENTS.
- COORDINATE LOCATION OF ROOF MOUNTED HVAC EQUIPMENT AND ROOF PENETRATIONS WITH THE ARCHITECTURAL AND STRUCTURAL DRAWINGS.
- INDOOR AIR QUALITY MEASURES: PROTECT INSIDE OF (INSTALLED AND DELIVERED) DUCTWORK AND HVAC UNITS FROM EXPOSURE TO DUST, DIRT, PAINT AND MOISTURE. REPLACE INSULATION THAT HAS GOTTEN WET AT ANY TIME DURING CONSTRUCTION. DRYING THE INSULATION IS NOT ACCEPTABLE. SEAL ANY TEARS OR JOINTS OF INTERNAL FIBERGLASS INSULATION. REMOVE DEBRIS FROM CEILING/RETURN AIR PLENUM INCLUDING DUST. PROVIDE FILTERS OVER ANY RETURN OR TRANSFER OPENINGS DURING CONSTRUCTION.
- WHERE HVAC SYSTEMS ARE REQUIRED TO STAY OPERATIONAL, TO SERVE OTHER AREAS OF THE BUILDING, PLACE FILTER MEDIA OVER ALL SUPPLY AND RETURN AIR OPENINGS, TRANSFER DUCTS AND FIRE/SMOKE DAMPERS.
- INSTALL DUCTWORK AND PIPING PARALLEL TO BUILDING COLUMN LINES UNLESS OTHERWISE SHOWN OR NOTED.
- OVERHEAD HANGERS AND SUPPORTS FOR EQUIPMENT, DUCTWORK AND PIPING SHALL BE FASTENED TO BUILDING JOISTS OR BEAMS. DO NOT ATTACH HANGERS AND SUPPORTS TO THE ABOVE FLOOR SLAB OR ROOF EXCEPT WHERE CONCRETE INSERTS IN CONCRETE SLABS ARE ALLOWED BY THE SPECIFICATIONS.
- COORDINATE LOCATION OF EQUIPMENT SUPPORTS WITH LOCATION OF EQUIPMENT ACCESS PANELS/DOORS TO ENABLE SERVICE OF EQUIPMENT AND/OR FILTER REPLACEMENT.
- SEAL PENETRATIONS THROUGH THE BUILDING COMPONENTS IN ACCORDANCE WITH THE CONTRACT SPECIFICATIONS. FIREPROOF PENETRATIONS THROUGH FIRE RATED COMPONENTS IN ACCORDANCE WITH U.L. REQUIREMENTS.
- FOR HYDRONIC, PIPING TO EQUIPMENT, MINIMUM ACCEPTABLE SIZE FOR STEEL AND COPPER PIPE IS 3/4 INCH. USE THIS CRITERIA WHERE PIPE SIZES ARE NOT SHOWN ON PLAN.
- CONTRACTOR SHALL DRAIN, FLUSH, AND REFILL ALL PIPING SYSTEMS NECESSARY TO PERFORM THE WORK. REFERENCE SPECIFICATIONS FOR FLUSHING PERFORMANCE REQUIREMENTS AND SUBMIT FLUSHING PLAN TO ENGINEER FOR REVIEW. PROVIDE CHEMICAL TREATMENT FOR ALL PIPING SYSTEMS AFTER FLUSHING AND REFILLING THE SYSTEM.
- COORDINATE THE EXACT MOUNTING SIZE AND FRAME TYPE OF DIFFUSERS, REGISTERS AND GRILLES WITH THE SUPPLIER TO MEET THE CEILING, WALL AND DUCT INSTALLATION REQUIREMENTS.
- ADJUST LOCATION OF CEILING DIFFUSERS, REGISTERS AND GRILLES AS REQUIRED TO ACCOMMODATE FINAL CEILING GRID AND LIGHTING LOCATIONS.
- DUCTWORK CROSSING FIRE RATED WALLS OR OTHER FIRE RATED ASSEMBLIES SHALL BE MINIMUM 26 GAUGE SHEET METAL.
- PROVIDE FIRE OR FIRE/SMOKE DAMPERS, AS APPLICABLE, IN DUCTWORK AT CEILINGS AND WALLS AT LOCATIONS SHOWN ON THE PLANS. FIRE AND FIRE/SMOKE DAMPERS SHALL CONFORM TO NFPA AS APPLICABLE. COORDINATE SLEEVE LENGTH WITH REQUIREMENTS OF INSTALLED LOCATION.
- PROVIDE WALL OR DUCT ACCESS PANELS OR DOORS FOR ACCESS TO FIRE AND FIRE/SMOKE DAMPERS. ACCESS PANEL OR DOOR SHALL BE MINIMUM SIZE OF 10" BY 10" AND SHALL BE INSTALLED WITHIN 12" OF DAMPER. PROVIDE A REMOVABLE DUCT SECTION WHERE DUCT SIZE IS TOO SMALL FOR A 10" BY 10" ACCESS DOOR.
- LOCATE AND SET THERMOSTATS AND HUMIDISTATS AT LOCATIONS SHOWN ON PLANS. VERIFY EXACT LOCATIONS WITH ARCHITECT PRIOR TO INSTALLATION. INSTALL DEVICES WITH TOP OF DEVICE AT MAXIMUM 48" AFF TO MEET ADA REQUIREMENTS UNLESS NOTED OTHERWISE ON PLANS. PROVIDE INSULATED BACKING FOR THERMOSTATS MOUNTED ON EXTERIOR BUILDING WALLS. INSTALL WIRING IN CONDUIT PROVIDED BY DIVISION 26. AT A MINIMUM, PROVIDE CONDUIT IN THE WALL FROM THE JUNCTION BOX TO 6" ABOVE THE CEILING.
- COORDINATE THE LOCATION AND ELEVATION OF WALL-MOUNTED DEVICES WITH PRESENTATION BOARDS, DISPLAY CABINETS, SHELVES OR OTHER COMPONENTS SHOWN ON THE ARCHITECTURAL DRAWINGS THAT ARE TO BE INSTALLED UNDER OTHER DIVISIONS. CONTRACTOR WILL NOT BE REIMBURSED FOR RELOCATION OF WALL-MOUNTED DEVICES CAUSED BY A LACK OF COORDINATION.
- PROVIDE A MANUAL BALANCING DAMPER IN EACH BRANCH DUCT TAKEOFF FROM MAIN SUPPLY, RETURN, OUTDOOR AND EXHAUST AIR DUCTS.
- PROVIDE A PREFABRICATED 45 DEGREE, HIGH EFFICIENCY, RECTANGULAR/ROUND BRANCH DUCT TAKEOFF FITTING WITH MANUAL BALANCING DAMPER AND LOCKING QUADRANT FOR BRANCH DUCT CONNECTIONS AND TAKE-OFFS TO INDIVIDUAL DIFFUSERS, REGISTERS AND GRILLES.
- BRANCH DUCTWORK TO AIR OUTLETS SHALL BE SAME SIZE AS OUTLET NECK SIZE UNLESS OTHERWISE NOTED.
- REFER TO SPECIFICATIONS FOR DUCTWORK AND PIPING INSULATION REQUIREMENTS. DUCT SIZES ON MECHANICAL PLANS INDICATE CLEAR INSIDE AIRFLOW DIMENSIONS, INCREASE SHEET METAL SIZES ACCORDINGLY TO ACCOUNT FOR THICKNESS OF DUCT LINER.
- FLEXIBLE DUCTWORK SHALL NOT EXCEED 5'-0" IN LENGTH AND SHALL BE INSTALLED AND SUPPORTED TO AVOID SHARP BENDS AND SAGGING. REFER TO SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.
- RIGIDLY SUSPEND UNIT HEATER FROM STRUCTURE WITH SUPPORTING ANGLES AND ALL-THREAD HANGING RODS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
- PROVIDE WALL MOUNTED LOUVERS AND DAMPERS WITH SUITABLE MOUNTING FRAME TO MATCH WALL CONSTRUCTION. COORDINATE WITH ARCHITECTURAL DRAWINGS.
- PROVIDE A NEW SET OF AIR FILTERS IN UNITS PRIOR TO TESTING, ADJUSTING AND BALANCING AND BEFORE TURNING SYSTEM(S) OVER TO OWNER.

MECHANICAL SHEET INDEX	
SHEET NUMBER	SHEET NAME
MG001	MECHANICAL LEGEND AND GENERAL NOTES
MD101	MECHANICAL DEMOLITION PLANS
MD401	ENLARGED HVAC DEMOLITION PLANS
MD402	ENLARGED HVAC DEMOLITION PLANS
M-101	MECHANICAL FLOOR PLANS
M-401	ENLARGED HVAC FLOOR PLANS
M-402	ENLARGED HVAC FLOOR PLANS
M-501	MECHANICAL DETAILS
M-601	MECHANICAL SCHEDULES

HOEFER WELKER  
 4622 PENNSYLVANIA AVENUE  
 SUITE 1400  
 KANSAS CITY, MO 64112  
 P: 913.307.3700  
 hoeferwelker.com  
 COPYRIGHT © BY HOEFER WELKER, LLC

LEE'S SUMMIT POLICE RENOVATION  
 10 NE TUDOR RD  
 LEE'S SUMMIT, MO 65086  
 PACKAGE 2 - CONSTRUCTION SET

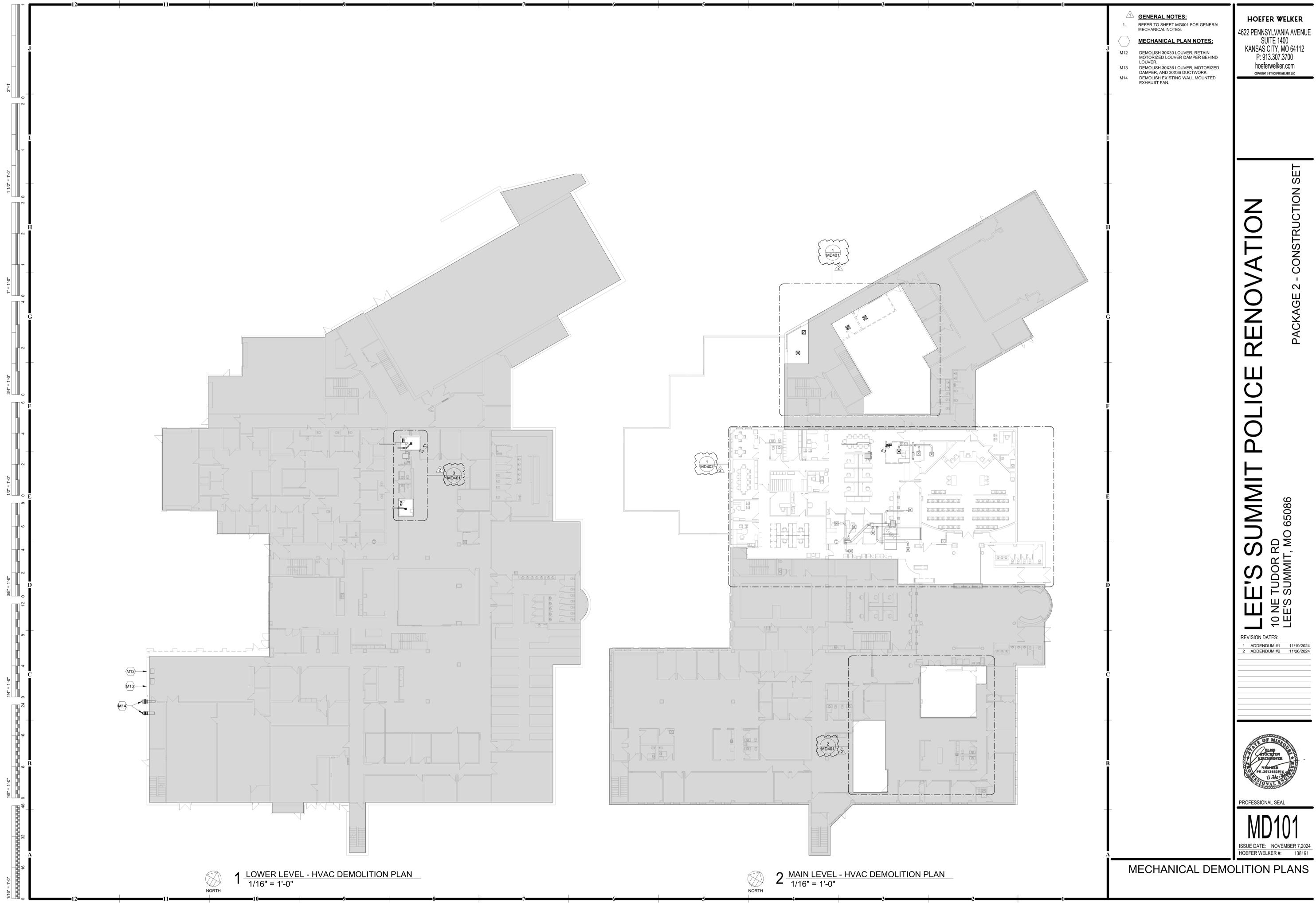
REVISION DATES:



PROFESSIONAL SEAL

MG001  
 ISSUE DATE: NOVEMBER 7, 2024  
 HOEFER WELKER #: 138191

MECHANICAL LEGEND AND GENERAL NOTES



- GENERAL NOTES:**
- REFER TO SHEET MG001 FOR GENERAL MECHANICAL NOTES.
- MECHANICAL PLAN NOTES:**
- M12 DEMOLISH 30X30 LOUVER. RETAIN MOTORIZED LOUVER DAMPER BEHIND LOUVER.
  - M13 DEMOLISH 30X36 LOUVER, MOTORIZED DAMPER, AND 30X36 DUCTWORK.
  - M14 DEMOLISH EXISTING WALL MOUNTED EXHAUST FAN.

**HOEFER WELKER**  
 4622 PENNSYLVANIA AVENUE  
 SUITE 1400  
 KANSAS CITY, MO 64112  
 P: 913.307.3700  
 hoeferwelker.com  
COPYRIGHT © BY HOEFER WELKER, LLC

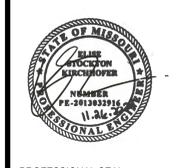
**LEE'S SUMMIT POLICE RENOVATION**

10 NE TUDOR RD  
LEE'S SUMMIT, MO 65086

PACKAGE 2 - CONSTRUCTION SET

REVISION DATES:

1	ADDENDUM #1	11/19/2024
2	ADDENDUM #2	11/26/2024



PROFESSIONAL SEAL

**MD101**

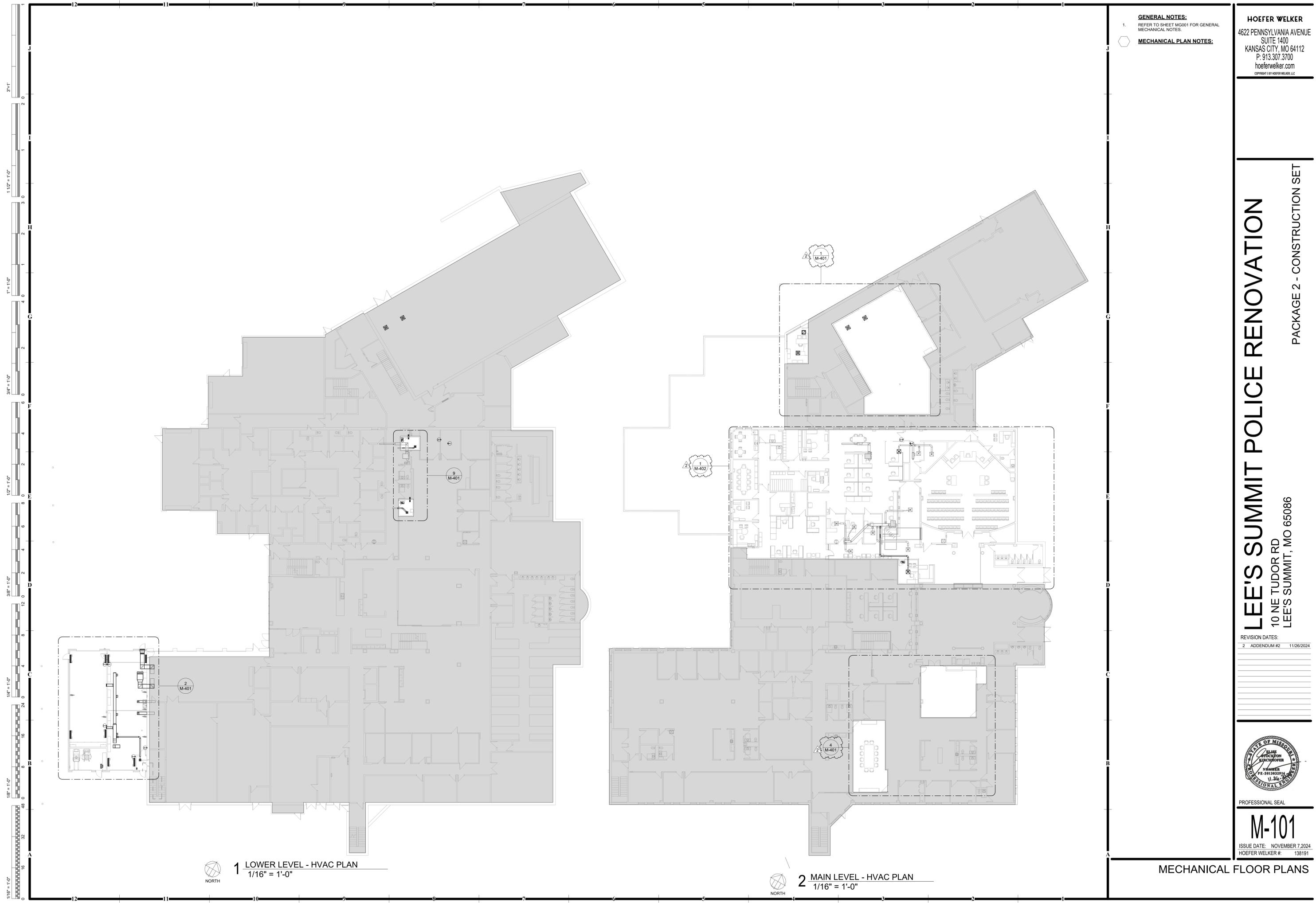
ISSUE DATE: NOVEMBER 7, 2024  
 HOEFER WELKER #: 138191

**1 LOWER LEVEL - HVAC DEMOLITION PLAN**  
 1/16" = 1'-0"

**2 MAIN LEVEL - HVAC DEMOLITION PLAN**  
 1/16" = 1'-0"







**1 LOWER LEVEL - HVAC PLAN**  
1/16" = 1'-0"

**2 MAIN LEVEL - HVAC PLAN**  
1/16" = 1'-0"

**GENERAL NOTES:**  
1. REFER TO SHEET MG001 FOR GENERAL MECHANICAL NOTES.

**MECHANICAL PLAN NOTES:**

**HOEFER WELKER**  
4622 PENNSYLVANIA AVENUE  
SUITE 1400  
KANSAS CITY, MO 64112  
P: 913.307.3700  
hoeferwelker.com  
COPYRIGHT © BY HOEFER WELKER, LLC

**LEE'S SUMMIT POLICE RENOVATION**

10 NE TUDOR RD  
LEE'S SUMMIT, MO 65086

PACKAGE 2 - CONSTRUCTION SET

REVISION DATES:  
2 ADDENDUM #2 11/26/2024

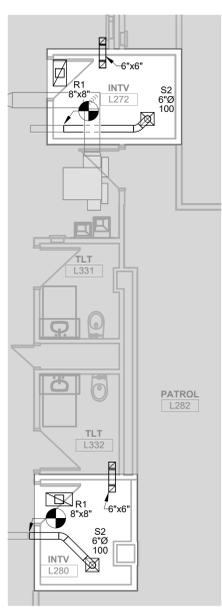


PROFESSIONAL SEAL

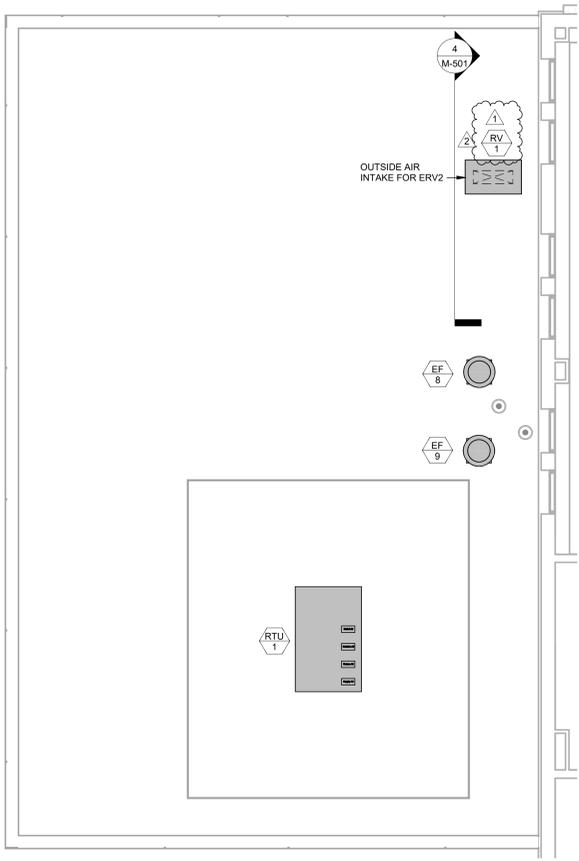
**M-101**  
ISSUE DATE: NOVEMBER 7, 2024  
HOEFER WELKER #: 138191

MECHANICAL FLOOR PLANS

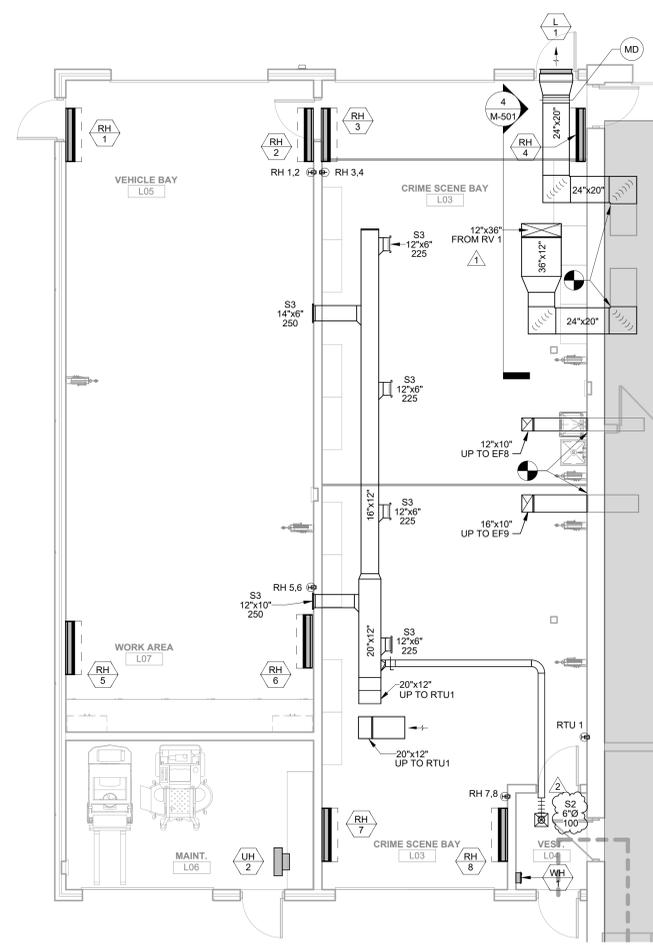
9'-1"  
8'-0"  
7'-0"  
6'-0"  
5'-0"  
4'-0"  
3'-0"  
2'-0"  
1'-0"  
0'-0"  
1'-0"  
2'-0"  
3'-0"  
4'-0"  
5'-0"  
6'-0"  
7'-0"  
8'-0"  
9'-0"  
10'-0"  
11'-0"  
12'-0"



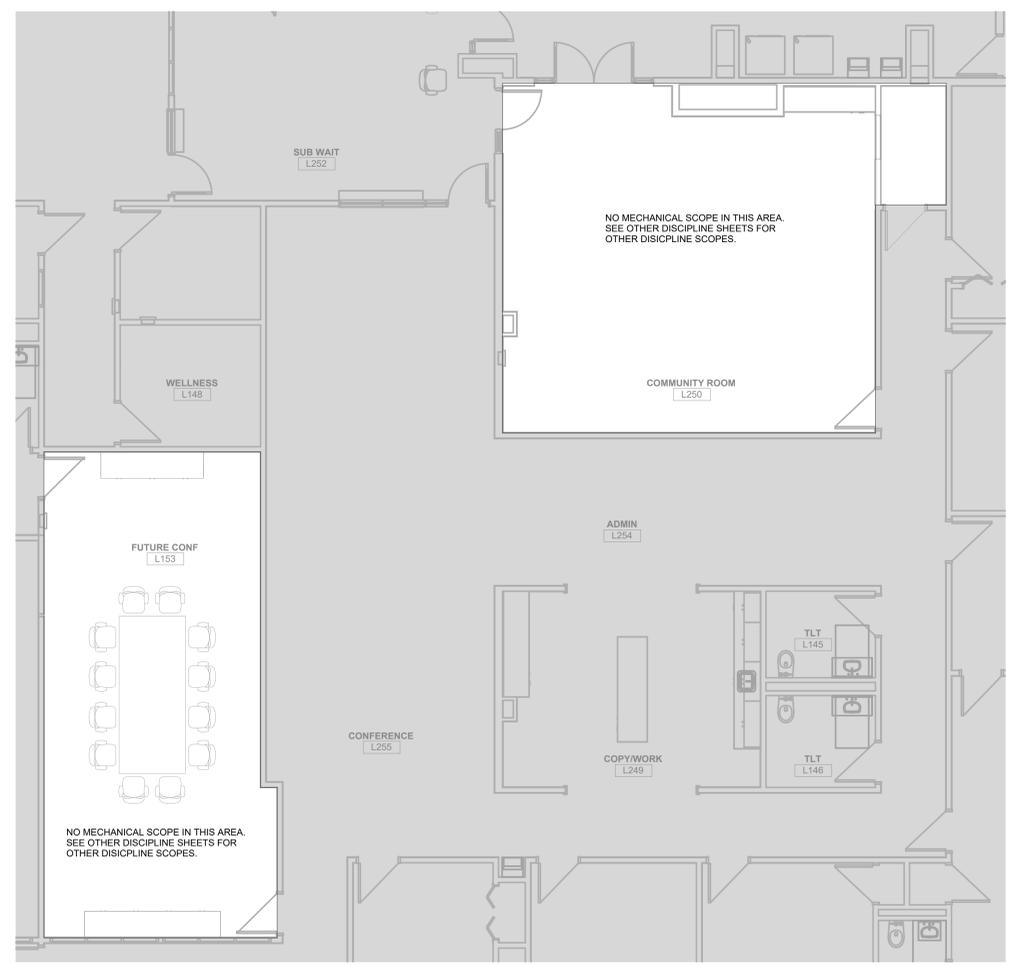
**9 HVAC PLAN - INTERVIEW ROOMS**  
3/16" = 1'-0"



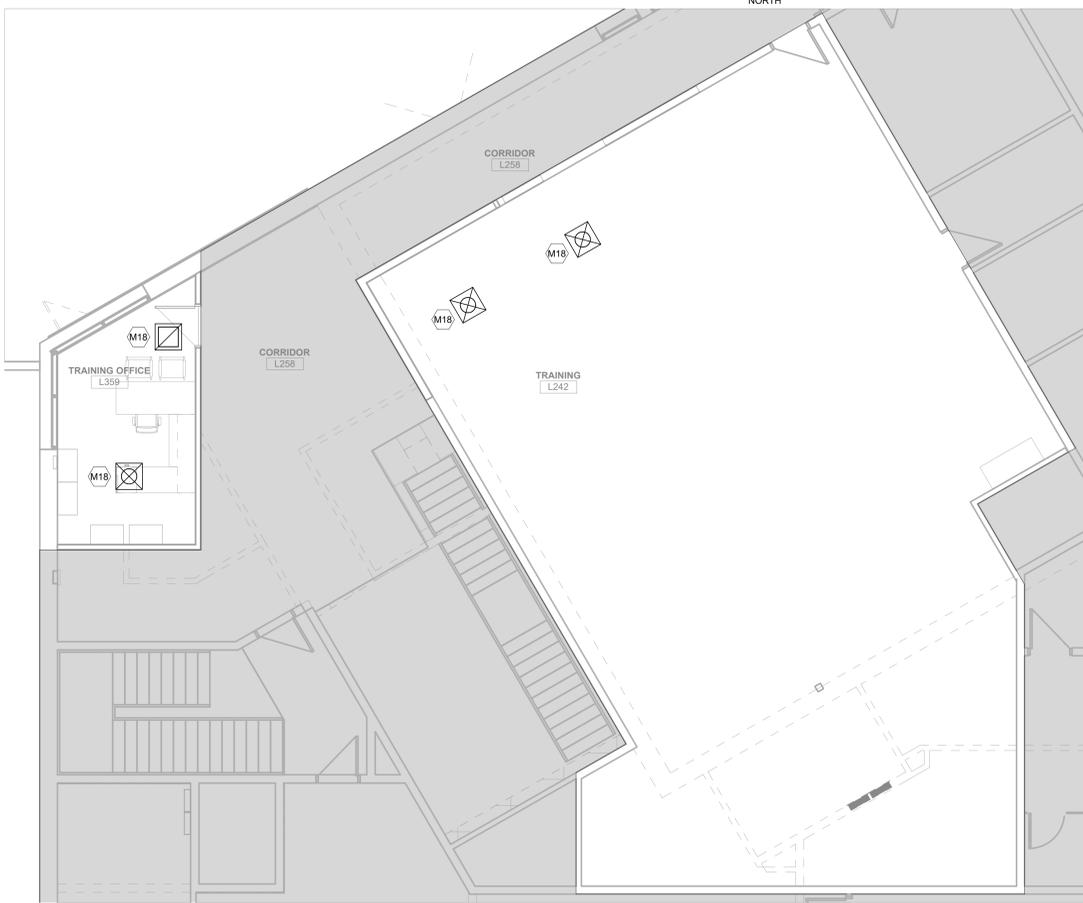
**3 ROOF HVAC PLAN - VEHICLE BAY**  
3/16" = 1'-0"



**2 HVAC PLAN - VEHICLE BAY**  
3/16" = 1'-0"



**4 HVAC PLAN - POLICE ADMIN**  
3/16" = 1'-0"



**1 HVAC PLAN - TRAINING**  
3/16" = 1'-0"

- GENERAL NOTES:**  
1. REFER TO SHEET MG001 FOR GENERAL MECHANICAL NOTES.
- MECHANICAL PLAN NOTES:**  
M18 REINSTALL DIFFUSER IN NEW CEILING.

**HOEFER WELKER**  
4622 PENNSYLVANIA AVENUE  
SUITE 1400  
KANSAS CITY, MO 64112  
P: 913.307.3700  
hoferwelker.com  
COPYRIGHT © BY HOEFER WELKER, LLC

**LEE'S SUMMIT POLICE RENOVATION**  
10 NE TUDOR RD  
LEE'S SUMMIT, MO 65086

PACKAGE 2 - CONSTRUCTION SET

REVISION DATES:

1	ADDENDUM #1	11/19/2024
2	ADDENDUM #2	11/26/2024



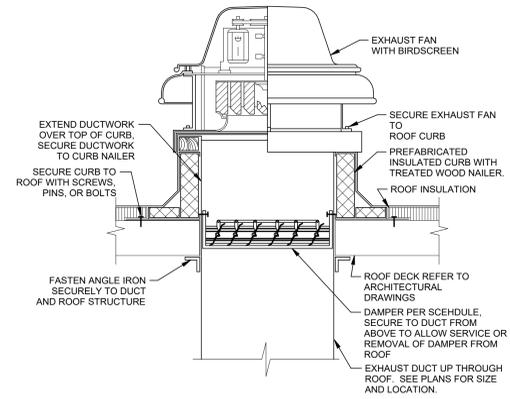
PROFESSIONAL SEAL

**M-401**  
ISSUE DATE: NOVEMBER 7, 2024  
HOEFER WELKER #: 138191

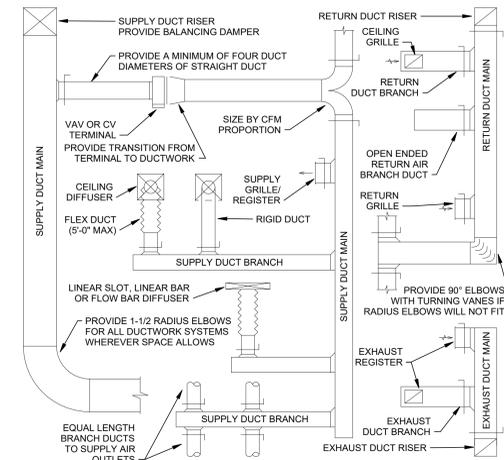
ENLARGED HVAC FLOOR PLANS





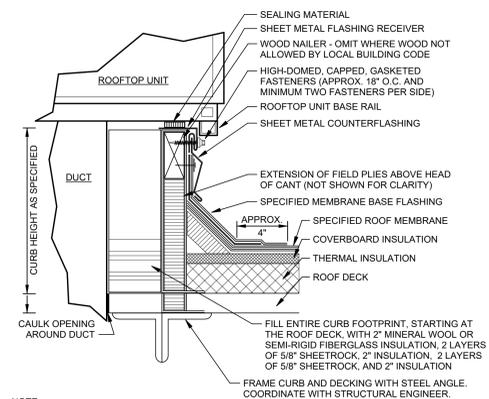


3 DOWNBLAST EXHAUST FAN DETAIL  
 NOT TO SCALE



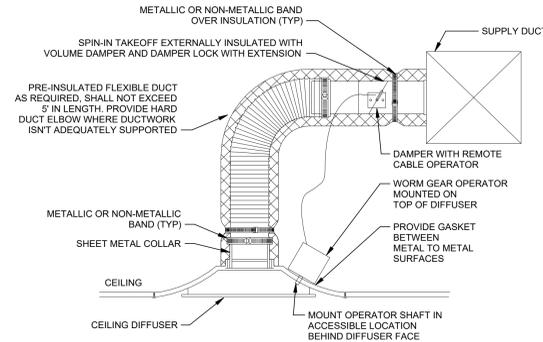
- NOTES:  
 1. REFER TO HVAC FLOOR PLANS FOR DUCT SIZES.  
 2. REFER TO SCHEDULES FOR GRILLES, REGISTERS, DIFFUSERS AND TERMINAL SIZES AND TYPES.  
 3. PROVIDE A MANUAL TYPE BALANCING DAMPER FOR EACH SUPPLY OUTLET AND RETURN INLET.  
 4. ALL DUCT RUNOUTS TO DIFFUSERS SHALL BE THE SAME SIZE AS DIFFUSER NECK SIZE, UNLESS OTHERWISE NOTED.  
 5. FLEX DUCT WILL NOT BE ALLOWED ON RETURN OR EXHAUST DUCTWORK SYSTEMS.  
 6. PROVIDE 12\"/>

2 DUCTWORK INSTALLATION DIAGRAM  
 NOT TO SCALE



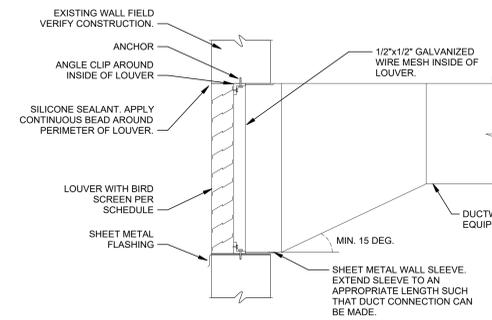
- NOTE:  
 1. CUT METAL DECKING TO ALLOW CURB INSTALLATION ON STEEL FRAMING. AFTER CURB IS SET IN PLACE, TRIM REMAINING METAL DECKING AND INSTALL WITHIN CURB. TACK WELD DECKING TO SUPPORT STEEL. DO NOT WELD INTERIOR DECKING TO ROOF CURB. PROVIDE ADDITIONAL CROSS FRAMING TO SUPPORT INTERIOR DECKING AND FILL MATERIAL AS REQUIRED.

1 ROOF CURB DETAIL  
 NOT TO SCALE

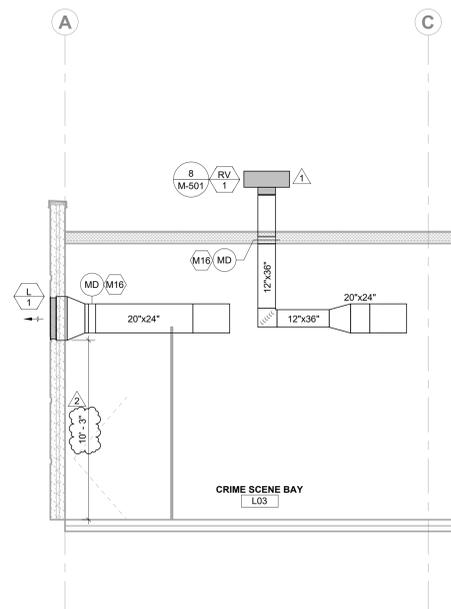


- NOTES:  
 1. FURNISH REMOTE CABLE OPERATORS WHERE BALANCING DAMPERS ARE LOCATED IN ACCESSIBLE LOCATIONS SUCH AS ABOVE HARD CEILINGS.

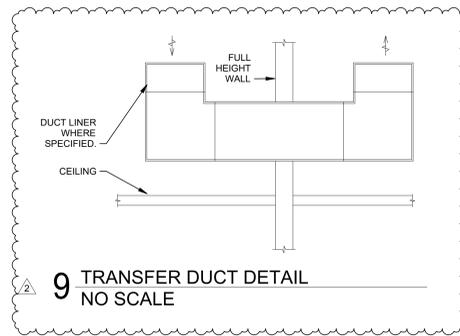
6 HARD CEILING DIFFUSER DETAIL  
 NOT TO SCALE



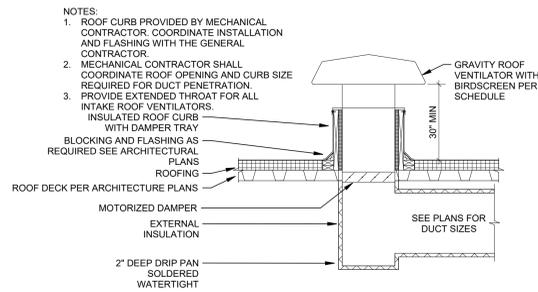
5 LOUVER ASSEMBLY DETAIL  
 1/8" = 1'-0"



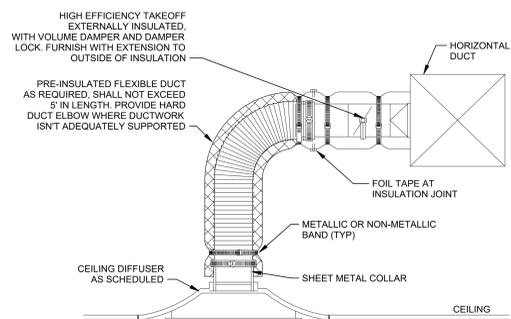
4 OUTSIDE AIR AND RELIEF SECTION DETAIL  
 1/4" = 1'-0"



9 TRANSFER DUCT DETAIL  
 NO SCALE



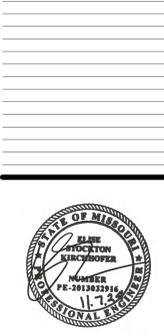
8 GRAVITY ROOF VENTILATOR DETAIL  
 NOT TO SCALE



7 LAY-IN CEILING DIFFUSER DETAIL  
 NOT TO SCALE



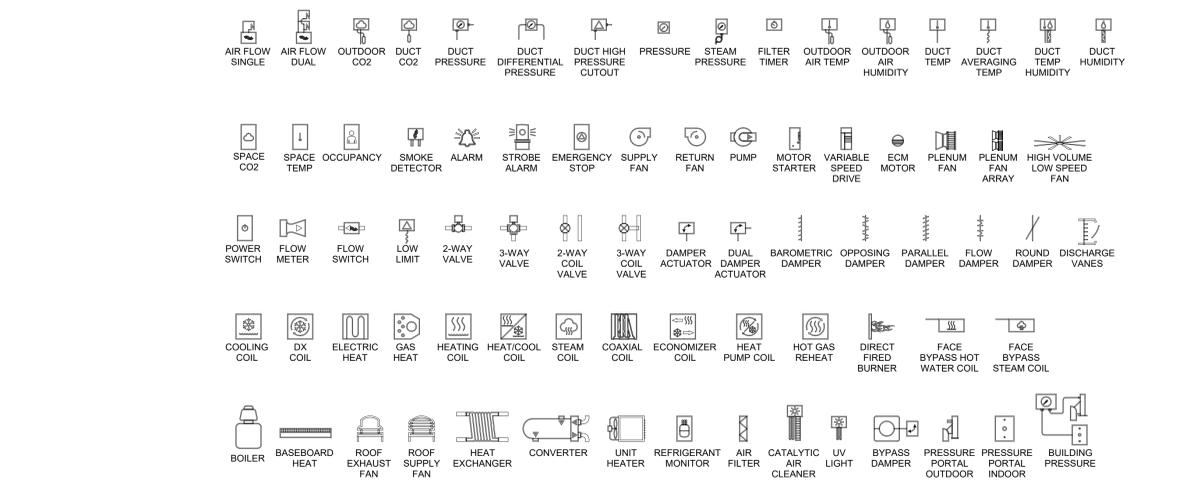
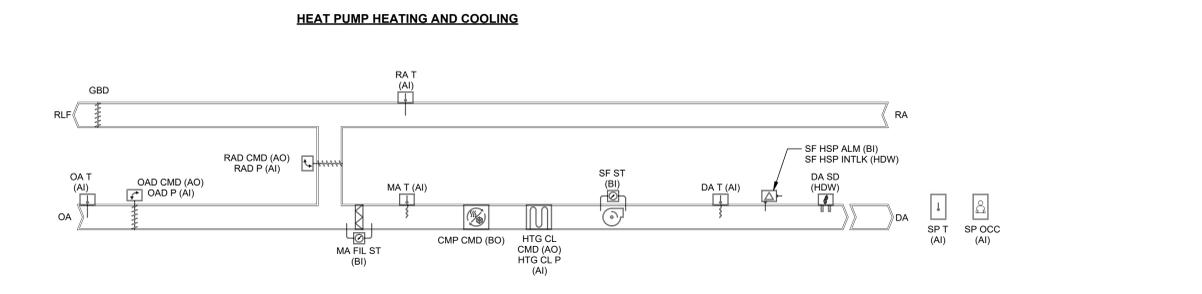
REVISION DATES:



PROFESSIONAL SEAL

**M-621**  
 ISSUE DATE: NOVEMBER 7, 2024  
 HOEFER WELKER # 138191

POINT ID	POINT DESCRIPTION	POINTS					ALARMS					NOTES
		TYPE	DISPLAY GRAPHIC	SOFTWARE POINT	HARDWARE INTERLOCK	HIGH ANALOG LIMIT	LOW ANALOG LIMIT	BINARY	LATCH DIAGNOSTIC	SENSOR FAIL	COMM. FAIL	
DA CLG SP	DISCHARGE AIR COOLING SETPOINT			X								56 F
DA HTG SP	DISCHARGE AIR HEATING SETPOINT			X								65-90F
MA LLT SP	MIXED AIR TEMPERATURE LOW LIMIT SETPOINT			X								40 F
OCC CLG SP	OCCUPIED COOLING SETPOINT		X	X								75 F
OCC HTG SP	OCCUPIED HEATING SETPOINT		X	X								68 F
UNOCC CLG SP	UNOCCUPIED COOLING SETPOINT		X	X								85 F
UNOCC HTG SP	UNOCCUPIED HEATING SETPOINT		X	X								55 F
OCC STBY CLG SP	OCCUPIED STANDBY COOLING SETPOINT		X	X								78 F
OCC STBY HTG SP	OCCUPIED STANDBY HEATING SETPOINT		X	X								65 F
DA T	DISCHARGE AIR TEMPERATURE	AI	X			X	X				X	
OA T	OUTDOOR AIR TEMPERATURE	AI	X									
RA T	RETURN AIR TEMPERATURE	AI	X									
MA T	MIXED AIR TEMPERATURE	AI	X					X			X	
CMP CMD 1	COMPRESSOR 1 COMMAND	BO	X									
HTG CL CMD	HEATING COIL COMMAND (SCR)	AO	X									
SF FLW	SUPPLY FAN AIR FLOW	AI	X									
SF SPD	SUPPLY FAN SPEED (VAR)	AO	X									
SF CMD	SUPPLY FAN COMMAND (START/STOP)	BO	X									
SF ST	SUPPLY FAN STATUS	BI	X									
EPH LAT	ELECTRIC HEAT LEAVING COIL TEMPERATURE	AI	X								X	
EPH CMD	ELECTRIC HEAT OUTPUT COMMAND (MOD)	AO	X									
OAD CMD	OUTDOOR AIR DAMPER COMMAND	AO	X									
OAD P	OUTDOOR AIR DAMPER POSITION	AI	X									
RAD CMD	RETURN AIR DAMPER COMMAND	AO	X									
RAD P	RETURN AIR DAMPER POSITION	AI	X									
MA FIL ST	MIXED AIR FILTER STATUS	BI	X									
DA SD	DISCHARGE SMOKE DETECTOR INPUT					X						
SF HSP ALM	HIGH STATIC ALARM	BI	X					X	X			
SF HSP INTLK	HIGH STATIC ALARM INTERLOCK					X						
SF FAIL	SUPPLY FAN FAILURE		X	X				X				
BAS COM	BAS COMMUNICATION STATE			X							X	



1 CONTROLS LEGEND NOT TO SCALE

**SEQUENCE OF OPERATION**

**BUILDING AUTOMATION SYSTEM INTERFACE:**  
 1. THE BUILDING AUTOMATION SYSTEM (BAS) SHALL SEND THE CONTROLLER MORNING WARM-UP/PRE-COOL, OCCUPIED/UNOCCUPIED AND HEAT/COOL MODES. THE BAS SHALL ALSO SEND THE DISCHARGE AIR TEMPERATURE SETPOINT AND THE DUCT STATIC PRESSURE SETPOINT. IF A BAS IS NOT PRESENT, OR COMMUNICATION IS LOST WITH THE BAS THE CONTROLLER SHALL OPERATE USING DEFAULT MODES AND SETPOINTS.  
 2. RTU 1 SHALL BE CONNECTED TO THE BAS IN THE EXISTING BUILDING.

**OCCUPIED:**  
 1. WHEN THE OCCUPANCY SENSOR DETECTS OCCUPANCY, THE UNIT SHALL TRANSITION TO THE OCCUPIED MODE. THE SUPPLY FAN SHALL RUN CONTINUOUSLY, AND THE OUTSIDE AIR DAMPERS SHALL OPEN TO MAINTAIN MINIMUM VENTILATION REQUIREMENTS. THE RELIEF FAN SHALL MODULATE BY TRACKING THE BUILDING PRESSURE MONITOR.  
 2. THE HEAT PUMP COOLING AND HEATING SHALL CONTROL TO MAINTAIN THE ACTIVE DISCHARGE AIR TEMPERATURE SETPOINT. IF ECONOMICIZING IS ENABLED, THE OUTDOOR AIR OR MIXED AIR DAMPERS SHALL MODULATE TO MAINTAIN THE DISCHARGE AIR TEMPERATURE SETPOINT AND THE RELIEF AIR DAMPER SHALL TRACK THE MIXED AIR DAMPERS. THE DISCHARGE AIR TEMPERATURE SETPOINT SHALL BE DYNAMICALLY RESET BASED ON THE DEVIATION OF ACTUAL SPACE TEMPERATURE FROM THE ACTIVE SPACE TEMPERATURE SETPOINT. IF THE DISCHARGE AIR TEMPERATURE SENSOR FAILS, THE HEAT PUMP HEATING AND COOLING SHALL BE DISABLED AND AN ALARM SHALL ANNUNCIATE AT THE BAS.

**OCCUPIED STANDBY:**  
 1. DURING OCCUPIED HOURS WHEN THE OCCUPANCY SENSORS DO NOT DETECT OCCUPANCY, THE UNIT SHALL MAINTAIN OCCUPIED STANDBY TEMPERATURES. WHEN THE OCCUPANCY SENSOR DETECTS OCCUPANCY, THE UNIT SHALL TRANSITION TO THE NORMAL OCCUPIED MODE.

**UNOCCUPIED:**  
 1. WHEN THE SPACE TEMPERATURE IS BELOW THE UNOCCUPIED HEATING SETPOINT (ADJ.) THE SUPPLY FAN SHALL START. THE OUTSIDE AIR DAMPER SHALL REMAIN CLOSED AND THE HEAT PUMP HEATING SHALL BE ENABLED. WHEN THE SPACE TEMPERATURE RISES ABOVE THE UNOCCUPIED HEATING SETPOINT (ADJ.) PLUS THE UNOCCUPIED DIFFERENTIAL OF 2.0 DEG. F (ADJ.) THE SUPPLY FAN SHALL STOP AND THE HEAT PUMP HEATING SHALL BE DISABLED.  
 2. WHEN THE SPACE TEMPERATURE IS ABOVE THE UNOCCUPIED COOLING SETPOINT (ADJ.) THE SUPPLY FAN SHALL START. THE OUTSIDE AIR DAMPER SHALL OPEN IF ECONOMICIZING IS ENABLED AND REMAIN CLOSED IF ECONOMICIZING IS DISABLED AND THE HEAT PUMP COOLING SHALL BE ENABLED. WHEN THE SPACE TEMPERATURE FALLS BELOW THE UNOCCUPIED COOLING SETPOINT MINUS THE UNOCCUPIED DIFFERENTIAL OF 2.0 DEG. F (ADJ.) THE SUPPLY FAN SHALL STOP. THE HEAT PUMP COOLING SHALL BE DISABLED AND THE OUTSIDE AIR DAMPER SHALL CLOSE.

**OPTIMAL START:**  
 1. THE BAS SHALL MONITOR THE SCHEDULED OCCUPIED TIME, OCCUPIED SPACE SETPOINTS AND SPACE TEMPERATURE TO CALCULATE WHEN THE OPTIMAL START OCCURS.

**MORNING WARM-UP MODE:**  
 1. DURING OPTIMAL START, IF THE SPACE TEMPERATURE IS BELOW THE OCCUPIED HEATING SETPOINT A MORNING WARM-UP MODE SHALL BE ACTIVATED. WHEN MORNING WARM-UP IS INITIATED THE UNIT SHALL ENABLE THE HEATING (AND FANS). THE OUTSIDE AIR DAMPER SHALL REMAIN CLOSED. WHEN THE SPACE TEMPERATURE REACHES THE OCCUPIED HEATING SETPOINT (ADJ.), THE UNIT SHALL TRANSITION TO THE OCCUPIED MODE.

**PRE-COOL MODE:**  
 1. DURING OPTIMAL START, IF THE SPACE TEMPERATURE IS ABOVE THE OCCUPIED COOLING SETPOINT, PRE-COOL MODE SHALL BE ACTIVATED. WHEN PRE-COOL IS INITIATED THE UNIT SHALL ENABLE THE FAN AND COOLING OR ECONOMICIZER. THE OUTSIDE AIR DAMPER SHALL REMAIN CLOSED, UNLESS ECONOMICIZING. WHEN THE SPACE TEMPERATURE REACHES OCCUPIED COOLING SETPOINT (ADJ.), THE UNIT SHALL TRANSITION TO THE OCCUPIED MODE.

**HEAT/COOL MODE:**  
 1. WHEN THE SPACE TEMPERATURE RISES ABOVE THE OCCUPIED COOLING SETPOINT THE MODE SHALL TRANSITION TO COOLING. WHEN THE SPACE TEMPERATURE FALLS BELOW THE OCCUPIED HEATING SETPOINT THE MODE SHALL TRANSITION TO HEATING. WHEN THE SPACE TEMPERATURE IS ABOVE THE OCCUPIED COOLING SETPOINT OR BELOW THE OCCUPIED HEATING SETPOINT THE MODE SHALL REMAIN IN ITS LAST STATE. IF THE SPACE TEMPERATURE SENSOR FAILS THE MODE SHALL REMAIN IN ITS LAST STATE AND AN ALARM SHALL ANNUNCIATE AT THE BAS. IF THE LOCAL AND COMMUNICATED SETPOINTS FAIL THE CONTROLLER SHALL DISABLE THE SUPPLY FAN AND AN ALARM SHALL ANNUNCIATE AT THE BAS.

**DISCHARGE AIR TEMPERATURE RESET CONTROL:**  
 1. IF THE DISCHARGE AIR TEMPERATURE DROPS BELOW THE MINIMUM LIMIT, A LOW TEMPERATURE ALARM SHALL ANNUNCIATE, AND THE UNIT SHALL SHUT DOWN. IF THE DISCHARGE AIR TEMPERATURE RISES ABOVE THE MAXIMUM LIMIT, A HIGH TEMPERATURE ALARM SHALL ANNUNCIATE.

**SUPPLY FAN:**  
 1. DURING OCCUPIED HOURS OR ON A CALL FOR COOLING, THE SUPPLY FANS SHALL OPERATE CONTINUOUSLY AND THEIR SPEED SHALL BE MODULATED TO MAINTAIN THE SUPPLY DUCT STATIC PRESSURE SETPOINT. THE SUPPLY DUCT STATIC PRESSURE SETPOINT SHALL BE SENT BY THE BAS AND IS RESET BETWEEN THE MINIMUM AND MAXIMUM STATIC PRESSURE LIMITS TO MAINTAIN THE CRITICAL ZONE VAN AIR DAMPER IN A POSITION BETWEEN 65% AND 75% OPEN.  
 2. IF ANY FAN FAILS TO PROVE STATUS FOR 30 SECONDS (ADJ.), THE REMAINING FANS SHALL CONTINUE TO MODULATE TO MAINTAIN THE STATIC PRESSURE SETPOINT AND AN ALARM SHALL ANNUNCIATE AT THE BAS.  
 3. A HARDWIRED, HIGH STATIC PRESSURE CUT-OFF SWITCH SHALL BE ELECTRICALLY INTERLOCKED WITH THE SUPPLY AND RETURN VARIABLE SPEED DRIVES. IF THE HIGH STATIC PRESSURE CUT-OFF SWITCH IS TRIPPED THE SUPPLY AND RETURN FANS SHALL BE COMMANDED OFF. THE OUTSIDE AIR DAMPER SHALL CLOSE, HEATING AND COOLING SHALL BE DISABLED, AND AN ALARM SHALL ANNUNCIATE AT THE BAS. A MANUAL RESET OF THE HIGH STATIC PRESSURE CUT-OFF SWITCH SHALL BE REQUIRED TO RESTART THE SUPPLY AND RETURN FANS.

**MIXED AIR LOW LIMIT:**  
 1. THE INITIAL DAMPER OPENING RATE SHALL BE LIMITED TO 2% PER MINUTE (ADJ.) UNTIL THE DAMPER HAS REACHED ITS MINIMUM VENTILATION POSITION. THE OUTSIDE AIR DAMPER SHALL MODULATE TO A POSITION LESS THAN THE MINIMUM DAMPER POSITION IF THE MIXED AIR TEMPERATURE DROPS BELOW 50.0 DEG. F (ADJ.). IF THE MIXED AIR TEMPERATURE SENSOR FAILS AN ALARM SHALL ANNUNCIATE AT THE BAS AND THE OUTSIDE AIR DAMPER SHALL RETURN TO THE MINIMUM POSITION.

**SEQUENCE OF OPERATION - CONT.**

**FREEZE PROTECTION:**  
 1. A HARDWIRED, LOW LIMIT TEMPERATURE SWITCH SHALL BE ELECTRICALLY INTERLOCKED WITH THE VARIABLE SPEED DRIVE. IF THE LOW LIMIT TEMPERATURE SWITCH IS TRIPPED 38.0 DEG. F (ADJ.), THE OUTSIDE AIR DAMPER SHALL CLOSE. THE ELECTRIC HEATING SHALL BE ENABLED. AN ALARM SHALL ANNUNCIATE AT THE BAS.

**FILTER STATUS:**  
 1. A DIFFERENTIAL PRESSURE SWITCH SHALL MONITOR THE DIFFERENTIAL PRESSURE ACROSS THE FILTER(S) WHEN THE FAN IS RUNNING. IF THE SWITCH CLOSURES DURING NORMAL OPERATION A DIRTY FILTER ALARM SHALL ANNUNCIATE AT THE BAS.

**ELECTRIC HEAT CONTROL:**  
 1. WHEN THE OUTSIDE AIR TEMPERATURE IS BELOW 20 DEG. F (ADJ.) AND THE FAN IS ENABLED, THE ELECTRIC HEAT SHALL BE ALLOWED TO ENABLE. THE SCR HEAT AND THE HEAT PUMP SHALL OPERATE TO MAINTAIN THE DISCHARGE AIR SETPOINT. IF THE DISCHARGE AIR SETPOINT IS EXCEEDED, THE ELECTRIC RESISTANCE HEAT SHALL MODULATE TO MAINTAIN THE DISCHARGE AIR SETPOINT.  
 2. ELECTRIC HEAT SHALL BE DISABLED WHEN THE UNIT IS NO LONGER IN HEATING MODE OR THE FAN IS COMMANDED OFF.

**RETURN AIR DAMPER:**  
 1. THE RETURN AIR DAMPER'S DEFAULT POSITION SHALL BE 100% OPEN. IN ECONOMICIZER MODE, THE RETURN AIR DAMPER SHALL FOLLOW THE ECONOMICIZER SEQUENCE OF CONTROL.

**ECONOMICIZER:**  
 A. ENABLE: THE ECONOMICIZER SHALL ENABLE WHEN THE OA DRYBULB IS LESS THAN THE OUTSIDE AIR DRY BULB SETPOINT (5 DEG. F (ADJ.)). THE ECONOMICIZER SHALL BE DISABLED WHEN OA ENTHALPY IS GREATER THAN THE OUTSIDE AIR DRYBULB SETPOINT + 2.0 DEG. F.  
 B. OPERATION: WHEN ECONOMICIZING IS ENABLED, THE OUTSIDE AIR DAMPER SHALL BE 100% OPEN AND THE RETURN AIR DAMPER SHALL BE 100% CLOSED.  
 C. A. WHEN THE SUPPLY AIR TEMPERATURE DROPS BELOW THE SUPPLY AIR TEMPERATURE SETPOINT, THE RETURN AIR DAMPER SHALL MODULATE OPEN AT A RATE OF 2% PER MINUTE (ADJ.).  
 B. WHEN THE SUPPLY AIR TEMPERATURE RISES ABOVE THE SUPPLY AIR TEMPERATURE SETPOINT, THE RETURN AIR DAMPER SHALL MODULATE CLOSED AT A RATE OF 2% PER MINUTE (ADJ.).  
 C. IF THE SUPPLY AIR TEMPERATURE DROPS BELOW THE SUPPLY AIR TEMPERATURE SETPOINT AND THE RETURN AIR DAMPER IS 100% OPEN, THEN THE OA DAMPER SHALL MODULATE CLOSED AT A RATE OF 2% PER MINUTE UNTIL THE SUPPLY AIR TEMPERATURE SETPOINT IS SATISFIED. THE OUTSIDE AIR DAMPER SHALL NOT CLOSE BEYOND THE MINIMUM OUTSIDE AIR VOLUME SETPOINT. THE OUTSIDE AIR DAMPER SHALL MODULATE OPEN IF THE SUPPLY AIR TEMPERATURE RISES ABOVE THE SUPPLY AIR TEMPERATURE SETPOINT.  
 D. IF THE SUPPLY AIR TEMPERATURE RISES ABOVE THE SUPPLY AIR TEMPERATURE SETPOINT AND THE OUTSIDE AIR DAMPER IS 100% OPEN, THEN THE RETURN AIR DAMPER SHALL RESUME MODULATING TO MAINTAIN SUPPLY AIR TEMPERATURE CONTROL.

**CONDENSATE OVERFLOW MONITORING:**  
 1. IF THE CONDENSATE LEVEL REACHES THE TRIP POINT, A CONDENSATE OVERFLOW DIAGNOSTIC SHALL ANNUNCIATE AT THE BAS TO PREVENT THE CONDENSATE DRAIN PAN FROM OVERFLOWING AND CAUSING WATER DAMAGE TO THE RTU. THE FAN SHALL BE DISABLED AND THE HEAT PUMP COOLING SHALL BE DISABLED.

**SMOKE DETECTOR SHUTDOWN:**  
 1. THE UNIT SHALL SHUT DOWN IN RESPONSE TO A SIGNAL FROM THE SMOKE DETECTOR INDICATING THE PRESENCE OF SMOKE. THE SMOKE DETECTOR SHALL BE INTERLOCKED TO THE UNIT THROUGH THE DRY CONTACTS OF THE SMOKE DETECTOR. A MANUAL RESET OF THE SMOKE DETECTOR SHALL BE REQUIRED TO RESTART THE UNIT.

2 RTU 1 CONTROL DIAGRAM - TACTICAL NOT TO SCALE

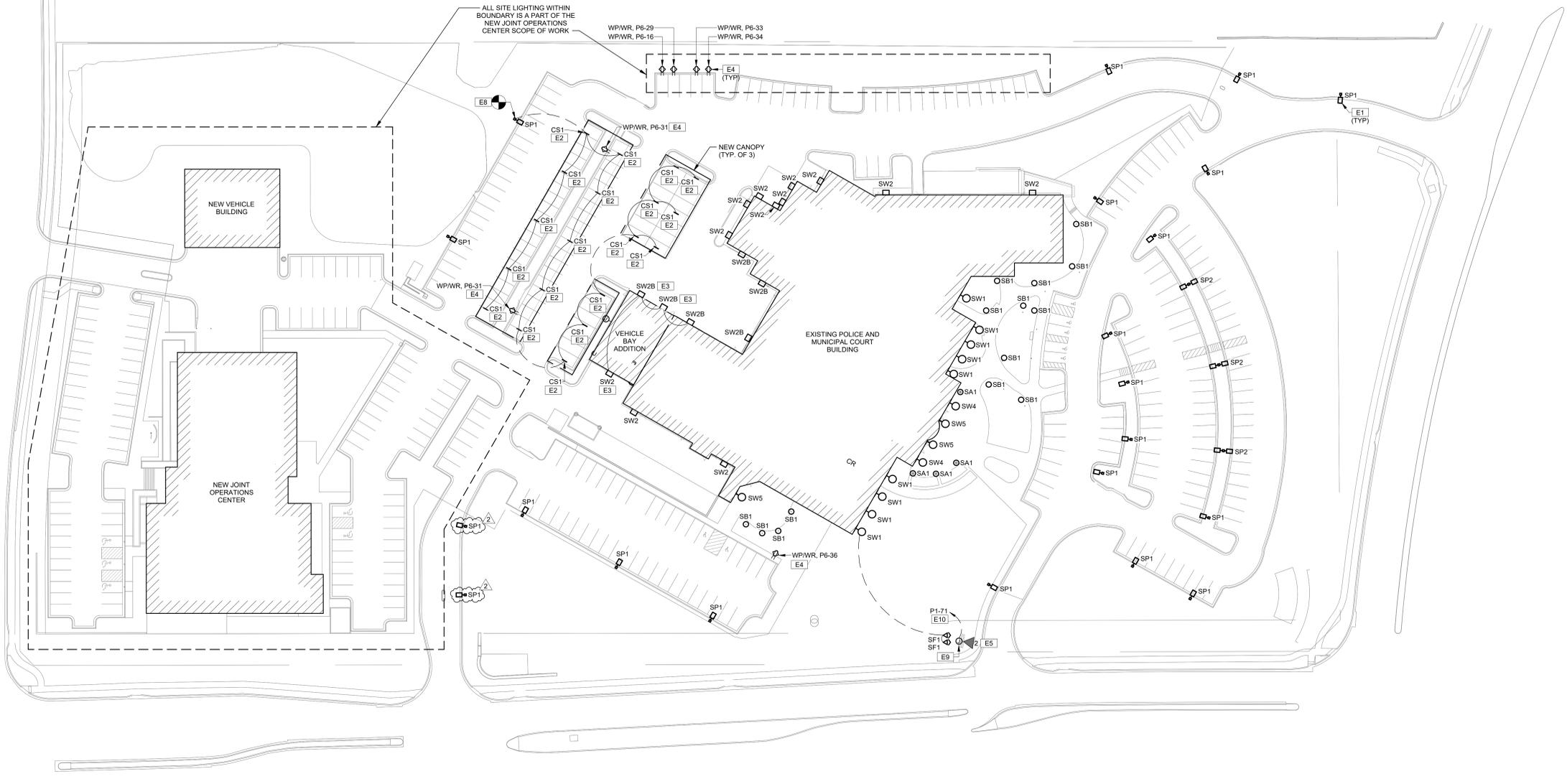


LIGHTING CONTROL DEVICE SCHEDULE					
LABEL	MANUFACTURER	MODEL	APPROVED EQUIVALENT	DESCRIPTION	NOTES
WALL SWITCH OCCUPANCY SENSORS					
OSD	ACUITY	nWSX PDT D	ETC NX CONTROLS WAITSTOPPER	DUAL TECHNOLOGY OCCUPANCY SENSOR WITH RAISE/LOWER BUTTONS.	1
LIGHTING CONTROL DEVICE SCHEDULE GENERAL NOTES:					
A. PROVIDE CONTROL DEVICES FROM THE LIST OF MANUFACTURERS AND MODELS OR APPROVED EQUIVALENTS. ADDITIONAL CONTROLS SHALL ONLY BE ACCEPTED IF SUBMITTED WITH AN APPROVED SUBSTITUTION FORM. LIGHTING CONTROL'S BID WITHOUT BEING LISTED AS AN APPROVED EQUIVALENT AND WITHOUT THE WRITTEN APPROVAL OF THE ARCHITECT AND ENGINEER ARE AT THE CONTRACTOR'S RISK.					
B. ADJUST SENSOR SETTINGS AND LOCATIONS FOR PROPER LIGHTING CONTROL.					
C. CEILING MOUNTED OCCUPANCY SENSORS SHALL NOT BE INSTALLED WITHIN FOUR FEET OF DIFFUSERS, CEILING MOUNTED PROJECTORS, OR OTHER CEILING-MOUNTED OBSTRUCTIONS.					
D. COORDINATE ALL SETTINGS, PROGRAMMING, AND SENSOR LOCATIONS WITH OWNER PRIOR TO SUBSTANTIAL COMPLETION. CONTROLS SHALL BE TESTED AND FULLY COMMISSIONED.					

LIGHT FIXTURE SCHEDULE											
TAG	MANUFACTURER	MODEL	APPROVED EQUIVALENT	LIGHT SOURCE	DRIVER	LUMENS	CCT	VOLTAGE	INPUT VA	DESCRIPTION	NOTES
EX1	LITHONIA	EDGR 1 R EL	DUAL-LITE LE, LSL LSK, MULE GEL	LED				277 V	5 VA	EDGE LIT LED EXIT SIGN WITH RED LETTERS ON A MIRROR PANEL. INTEGRAL BATTERY POWER, TOP MOUNTED TO CEILING ABOVE, AND CENTERED ABOVE DOOR. REFER TO DRAWINGS FOR NUMBER AND DIRECTION OF CHEVRONS.	
EXTERIOR LIGHT FIXTURES											
CS1	LUMENWERX	VIAWETS D TMG HLO SW 80CRI 250LMF 30K 4FT UNV D1 1C TF GSM AL NA	TBD	LED	0-10V	1000 lm	3000 K	277 V	24 VA	SURFACE MOUNTED, WET LISTED LINEAR FIXTURE. CUSTOM PROGRAM DRIVER TO OUTPUT LUMENS SHOWN.	
SA1	LUMINIS	EC803-L1W30R1-R5-277V-BKT-K3-ECM 4T	HEPER TERRA SOLERA OTAY	LED	0-10V	3700 lm	3000 K	277 V	38 VA	POST TOP LED FIXTURE WITH DECORATIVE TOP COVER. EXTERIOR RATED. PROVIDE WITH 10'-0" TALL, 4" DIAMETER ROUND POLE. BLACK FINISH.	
SB1	LUMINIS	LQ627-L1L10-R5-277V-BKT-K3	HEPER NORMA, SOLERA SSOB	LED	0-10V	1200 lm	3000 K	277 V	13 VA	SQUARE LED BOLLARD. EXTERIOR RATED. 6" SQUARE BY 42" TALL. BLACK FINISH.	
SF1	ERCO	35702.023	HEPER VEGA, LUMENPULSE LOS	LED	0-10V	2000 lm	3000 K	277 V	19 VA	SURFACE MOUNTED LED WALL WASH FLOOD. EXTERIOR RATED. BLACK FINISH.	
SP1	LITHONIA	DSX1-P3-30K-T4M-XVOLT-SPA-DMG-H S-DBLXD-G1-NLTAIR2 PIRHN	COOPER GALN, LSI MRM	LED	0-10V	11400 lm	3000 K	480 V	102 VA	RECTANGULAR LED AREA LIGHT. EXTERIOR RATED. TYPE 4 DISTRIBUTION. BLACK FINISH. PROVIDE WITH 17'-0" TALL BY 6" WIDE SQUARE POLE. POLE HEIGHT, INCLUDING CONCRETE BASE, SHALL NOT EXCEED 20'-0" AFG. WIRELESS CONTROLS FOR AUTOMATIC DIMMING.	
SP2	LITHONIA	DSX1-P3-30K-T4M-XVOLT-SPA-DMG-H S-DBLXD-G1-NLTAIR PIRHN	COOPER GALN, LSI MRM	LED	0-10V	22800 lm	3000 K	480 V	204 VA	SIMILAR TO TYPE SP1, EXCEPT WITH (2) HEADS AT 180 DEGREES ON THE SAME POLE AND NO HOUSE SIDE SHIELD.	
SW1	CAMMAN LIGHTING	OW610-49-30K-CLV-MV-PSB	LIGHTWAY BLCW, SOLERA SLIM	LED	0-10V	3400 lm	3000 K	277 V	40 VA	VERTICAL WALL SCONCE WITH FLAT METAL BODY. EXTERIOR RATED. BLACK FINISH.	
SW2	LITHONIA	WDGE2 LED P2 30K 90CRI VV MVOLT SRM DMG DBLXD	LSI XWS SIL, SPITZER LIGHTING WFPF	LED	0-10V	2000 lm	3000 K	277 V	15 VA	LED EXTERIOR WALL PACK. BLACK FINISH.	
SW2B	LITHONIA	WDGE2 LED P2 30K 90CRI VV MVOLT SRM DMG DBLXD	LSI XWS SIL, SPITZER LIGHTING WFPF	LED	0-10V	2000 lm	3000 K	277 V	15 VA	SIMILAR TO TYPE SW2, EXCEPT FORWARD THROW OPTICS.	
SW4	PERFORMANCE IN LIGHTING	070198	TBD	LED	0-10V	330 lm	3000 K	277 V	10 VA	SQUARE WALL SCONCE WITH PATTERNED OUTPUT.	
SW5	LUMINIS	EC803-L1W18R1-R5-277V-BKT-K3-EC8 W	HEPER TERRA, SOLERA OTAY	LED	0-10V	2200 lm	3000 K	277 V	21 VA	SIMILAR TO TYPE SA1, EXCEPT WALL MOUNTED.	
INTERIOR LIGHT FIXTURES											
IS1	LITHONIA	CSS L48 4000LM MVOLT 35K 80CRI	SIGNIFY SDS, WILLIAMS FS	LED	0-10V	4000 lm	3500 K	277 V	35 VA	4 FOOT SURFACE MOUNTED STRIPLIGHT WITH LENS.	
IS2	LITHONIA	CSVT L48 5000LM MVOLT 35K 80CRI	WILLIAMS 96	LED	NON-DIM	5000 lm	3500 K	277 V	42 VA	VAPOR TIGHT LED STRIP FIXTURE.	
TR1	LITHONIA	2ALL4 48L E21 LP835	FINELITE HPR, PINNACLE TR24, SIGNIFY-FX	LED	0-10V	4750 lm	3500 K	277 V	40 VA	RECESSED LED 2x4 TROFFER WITH CENTER ACRYLIC LENS.	
TR2	INNERSCENE	CS-24-GC-INT-CSB-P0002	ARTIFICIAL SKY ARTIFICIAL SKYLIGHT	LED	0-10V	4350 lm	3500 K	277 V	75 VA	ARTIFICIAL LED SKYLIGHT WITH AUTOMATIC CIRCADIAN RHYTHM INTENSITY AND COLOR TEMPERATURE PROGRAMMING. PROVIDE NECESSARY CONTROLS TO ENSURE THE FIXTURE AUTOMATICALLY TRANSITIONS THROUGHOUT THE DAY WITHOUT USER INPUT.	
LIGHT FIXTURE SCHEDULE GENERAL NOTES:											
A. PROVIDE LIGHT FIXTURES FROM THE LIST OF MANUFACTURERS AND MODELS OR APPROVED EQUIVALENTS. ADDITIONAL LIGHT FIXTURES SHALL ONLY BE ACCEPTED IF SUBMITTED WITH AN APPROVED SUBSTITUTION FORM. LIGHT FIXTURES BID WITHOUT BEING LISTED AS AN APPROVED EQUIVALENT AND WITHOUT THE WRITTEN APPROVAL OF THE ARCHITECT AND ENGINEER ARE AT THE CONTRACTOR'S RISK.											
B. PROVIDE ALL MOUNTING AND SUPPORT HARDWARE AS REQUIRED FOR THE MANUFACTURER INSTALLATION REQUIREMENTS AND TO MEET SPECIFIED MOUNTING HEIGHTS.											
C. PROVIDE UNSWITCHED HOT CONDUCTOR TO ALL LIGHT FIXTURES AND EXIT SIGNS WITH EMERGENCY BATTERY BACK-UP POWER.											
D. FINAL LIGHT FIXTURE FINISHES SHALL BE CONFIRMED BY ARCHITECT PRIOR TO ORDERING.											

- GENERAL NOTES:**
- REFER TO SHEET EG001 FOR GENERAL ELECTRICAL NOTES.
  - ALL EXTERIOR LIGHTING SHALL COMPLY WITH THE STANDARDS UNDER ARTICLE 8 OF THE CITY'S UNIFIED DEVELOPMENT ORDINANCE (UDO). MORE SPECIFICALLY, COMPLIANCE WITH THE LIGHTING STANDARDS OF UDO SECTIONS 8.220, 8.230, 8.250, 8.260 AND 8.270 SHALL TAKE PLACE AT THE TIME OF FINAL DEVELOPMENT PLAN.

- ELECTRICAL PLAN NOTES:**
- ALL EXTERIOR LIGHT FIXTURES SHOWN ARE ONE-FOR-ONE REPLACEMENTS OF EXISTING LIGHT FIXTURES UNLESS OTHERWISE NOTED. EXISTING POLES NO LONGER MEET LEE'S SUMMIT REQUIREMENTS. REPLACE EXISTING POLE WITH NEW 80' TOTAL HEIGHT, INCLUDING CONCRETE BASE. DOES NOT EXCEED 20'-0" AFG.
  - PROVIDE NEW LIGHT FIXTURE IN NEW CANOPY. COORDINATE EXACT ROUTE OF SAW CUT WITH ARCHITECT PRIOR TO ROUGH-IN. ALL CONDUITS SHALL BE CONCEALED BELOW GRADE OR WITHIN COLUMNS, WALLS, OR CANOPIES.
  - PROVIDE NEW LIGHT FIXTURE ON VEHICLE BAY ADDITION.
  - PROVIDE NEW RECEPTACLES TO REPLACE EXISTING RECEPTACLES DEMOLISHED DURING JOINT OPERATIONS BUILDING SCOPE OF WORK. PROVIDE POST FOR FINISHED APPEARANCE. ARLINGTON GARD-N-POST, TAYMAC PARKPOST, OR APPROVED EQUAL. MAINTAIN EXISTING CIRCUITS. CIRCUITS SHOWN ARE BASED ON FIELD VERIFIED INFORMATION PROVIDED BY THE FACILITY.
  - (1) 1" UGC TO POLICE BUILDING FOR VIDEO BOARD MONUMENT SIGN.
  - CONNECT TO EXISTING LIGHTING CIRCUIT AND CONTROLS. OVERALL LIGHTING POWER IS REDUCED EVEN WITH NEW LIGHTING.
  - PROVIDE POWER TO EXTERIOR VIDEO BOARD. COORDINATE EXACT LOCATION AND REQUIREMENTS WITH VENDOR PRIOR TO ROUGH-IN.
  - PROVIDE POWER FROM SPARE 20A, 1P BREAKER. CIRCUIT SHOWN IS BASED ON AS-BUILT DRAWINGS. FIELD VERIFY EXACT CIRCUIT AND NOTIFY ENGINEER OF RESULTS.



**1 ELECTRICAL SITE PLAN**  
1" = 40'-0"

**HOEFER WELKER**  
4622 PENNSYLVANIA AVENUE  
SUITE 1400  
KANSAS CITY, MO 64112  
P: 913.307.3700  
hoferwelker.com

**LEE'S SUMMIT POLICE RENOVATION**

10 NE TUDOR RD  
LEE'S SUMMIT, MO 65086

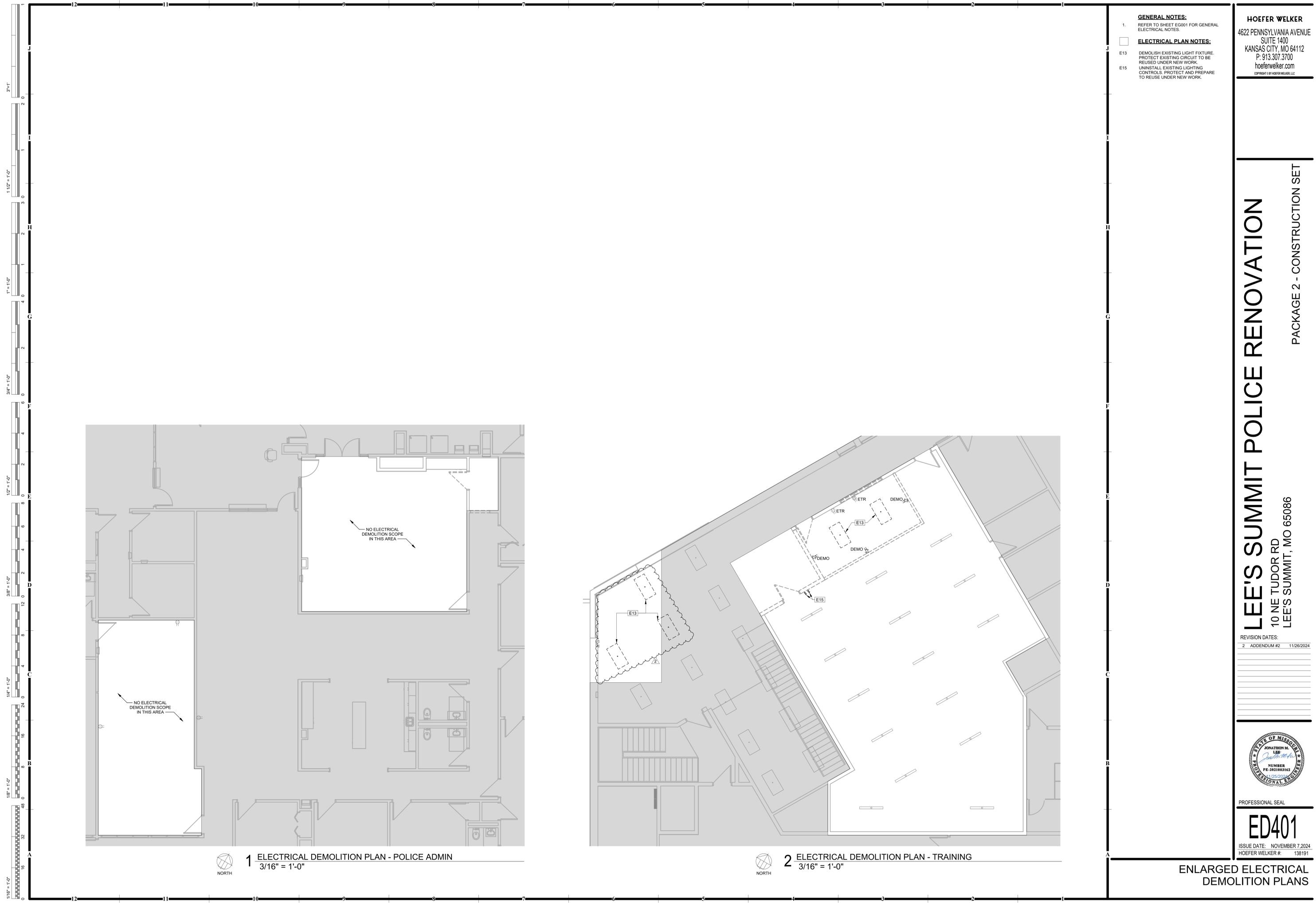
REVISION DATES:  
2 ADDENDUM #2 11/26/2024



PROFESSIONAL SEAL  
**ES101**  
ISSUE DATE: NOVEMBER 7, 2024  
HOEFER WELKER # 138191

**ELECTRICAL SITE PLAN**





- GENERAL NOTES:**
- REFER TO SHEET EG001 FOR GENERAL ELECTRICAL NOTES.
- ELECTRICAL PLAN NOTES:**
- E13 DEMOLISH EXISTING LIGHT FIXTURE. PROTECT EXISTING CIRCUIT TO BE REUSED UNDER NEW WORK.
  - E15 UNINSTALL EXISTING LIGHTING CONTROLS. PROTECT AND PREPARE TO REUSE UNDER NEW WORK.

**HOEFER WELKER**  
 4622 PENNSYLVANIA AVENUE  
 SUITE 1400  
 KANSAS CITY, MO 64112  
 P: 913.307.3700  
 hoeferwelker.com  
COPYRIGHT © BY HOEFER WELKER, LLC

**LEE'S SUMMIT POLICE RENOVATION**

10 NE TUDOR RD  
 LEE'S SUMMIT, MO 65086

PACKAGE 2 - CONSTRUCTION SET

REVISION DATES:

2	ADDENDUM #2	11/26/2024



PROFESSIONAL SEAL

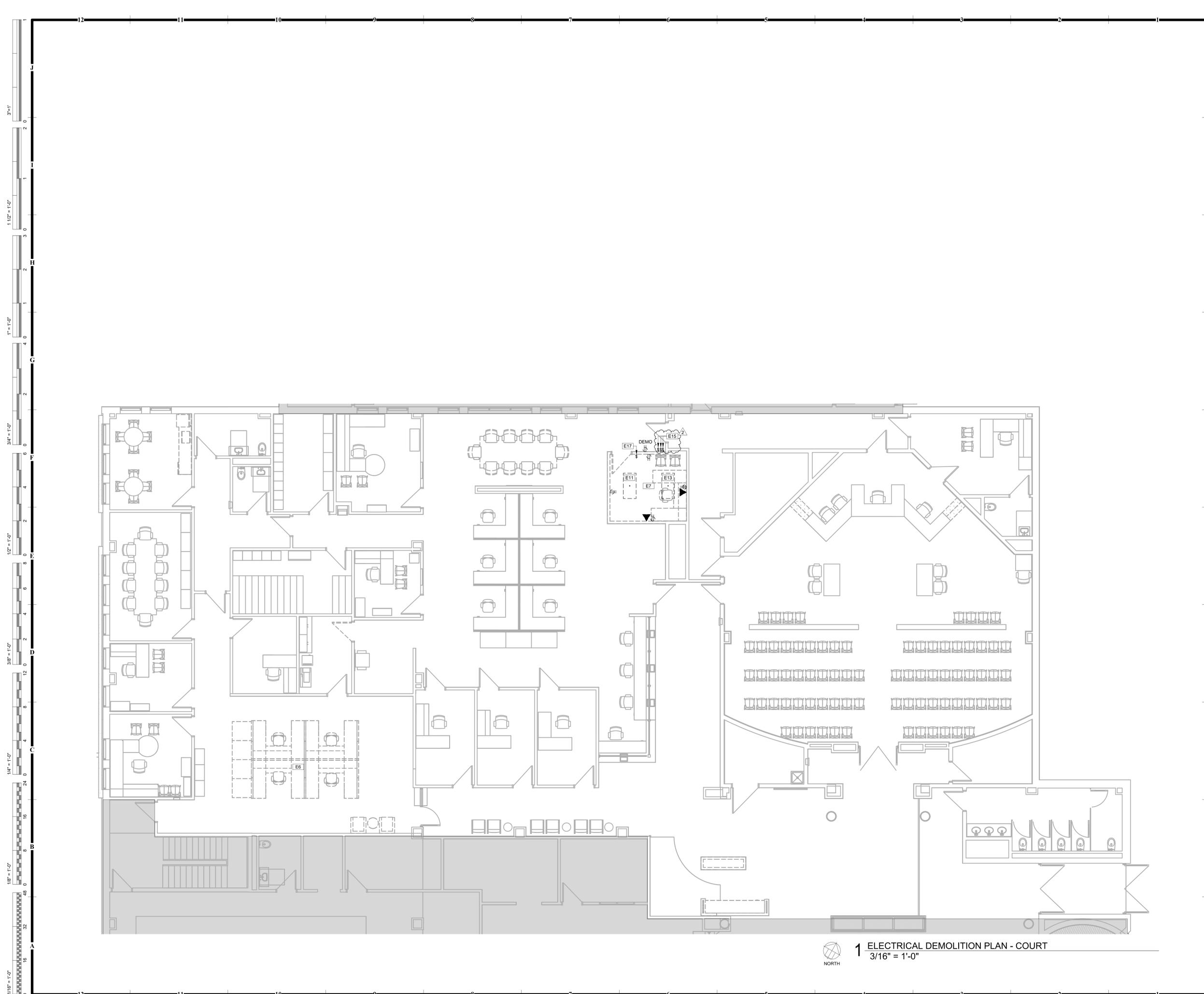
**ED401**

ISSUE DATE: NOVEMBER 7, 2024  
 HOEFER WELKER #: 138191

**1 ELECTRICAL DEMOLITION PLAN - POLICE ADMIN**  
 3/16" = 1'-0"

**2 ELECTRICAL DEMOLITION PLAN - TRAINING**  
 3/16" = 1'-0"





- GENERAL NOTES:**
- REFER TO SHEET EG001 FOR GENERAL ELECTRICAL NOTES.
- ELECTRICAL PLAN NOTES:**
- E6 DEMOLISH POWER POLE. PROTECT EXISTING CIRCUIT AND PREPARE TO CIRCUIT AND DATA CABLING AT NEW LOCATIONS.
  - E7 DEMOLISH ELECTRICAL AND DATA IN WALL. PROTECT EXISTING CIRCUIT AND DATA CABLING AND PREPARE TO REUSE UNDER NEW WORK.
  - E11 UNINSTALL EXISTING LIGHT FIXTURE. PROTECT AND PREPARE TO REUSE UNDER NEW WORK.
  - E13 DEMOLISH EXISTING LIGHT FIXTURE. PROTECT EXISTING CIRCUIT TO BE REUSED UNDER NEW WORK.
  - E15 UNINSTALL EXISTING LIGHTING CONTROLS. PROTECT AND PREPARE TO REUSE UNDER NEW WORK.
  - E17 DEMOLISH EXISTING LIGHTING CONTROLS.

**HOEFER WELKER**  
 4622 PENNSYLVANIA AVENUE  
 SUITE 1400  
 KANSAS CITY, MO 64112  
 P: 913.307.3700  
 hoeferwelker.com  
COPYRIGHT © BY HOEFER WELKER, LLC

**LEE'S SUMMIT POLICE RENOVATION**  
 PACKAGE 2 - CONSTRUCTION SET

10 NE TUDOR RD  
 LEE'S SUMMIT, MO 65086

REVISION DATES:  
 2 ADDENDUM #2 11/26/2024



PROFESSIONAL SEAL

**ED402**  
ISSUE DATE: NOVEMBER 7, 2024  
 HOEFER WELKER #: 138191

**1 ELECTRICAL DEMOLITION PLAN - COURT**  
 3/16" = 1'-0"



- GENERAL NOTES:**
- REFER TO SHEET EG001 FOR GENERAL ELECTRICAL NOTES.
- ELECTRICAL PLAN NOTES:**
- - E29 EXISTING DOOR TO BE REPLACED WITH NEW. DISCONNECT EXISTING POWER AND RECONNECT NEW DOOR OPENER TO EXISTING CIRCUIT. COORDINATE POWER FOR OVERHEAD DOOR REPLACEMENT TO MATCH EXISTING VOLTAGE.

**HOEFER WELKER**  
 4622 PENNSYLVANIA AVENUE  
 SUITE 1400  
 KANSAS CITY, MO 64112  
 P: 913.307.3700  
 hoeferwelker.com  
COPYRIGHT © BY HOEFER WELKER, LLC

**LEE'S SUMMIT POLICE RENOVATION**

10 NE TUDOR RD  
 LEE'S SUMMIT, MO 65086

PACKAGE 2 - CONSTRUCTION SET

REVISION DATES:




PROFESSIONAL SEAL

**E-101**

ISSUE DATE: NOVEMBER 7, 2024  
 HOEFER WELKER #: 138191

REVISION DATES:

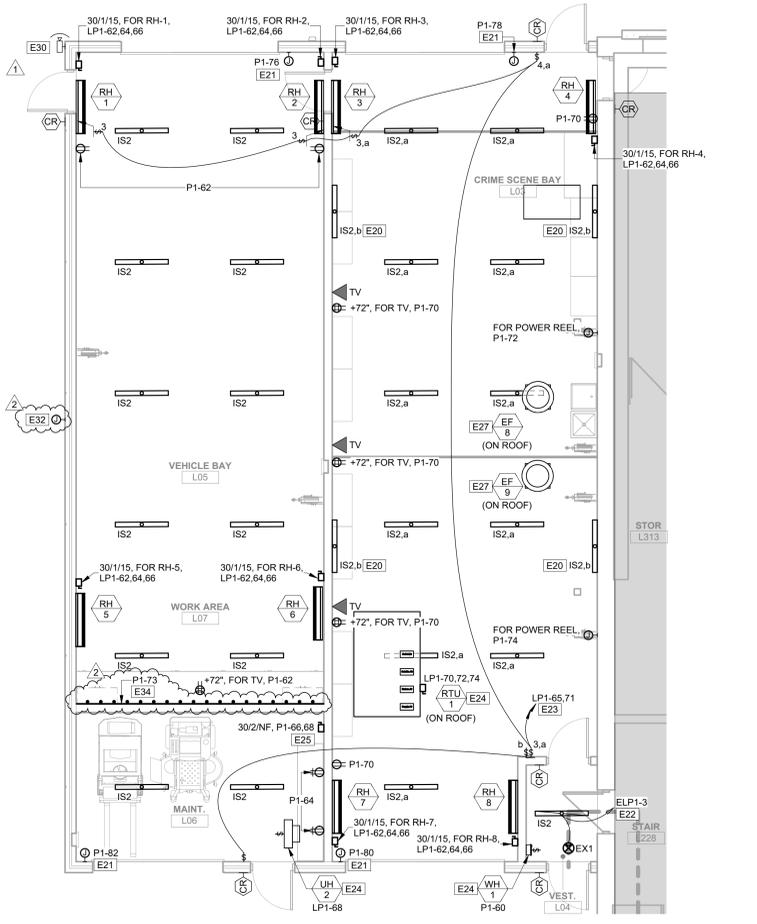
1	ADDENDUM #1	11/19/2024
2	ADDENDUM #2	11/26/2024



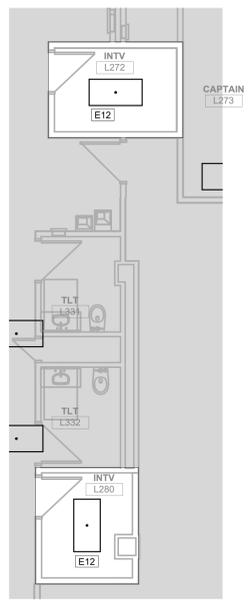
PROFESSIONAL SEAL

**E-401**  
 ISSUE DATE: NOVEMBER 7, 2024  
 HOEFER WELKER #: 138191

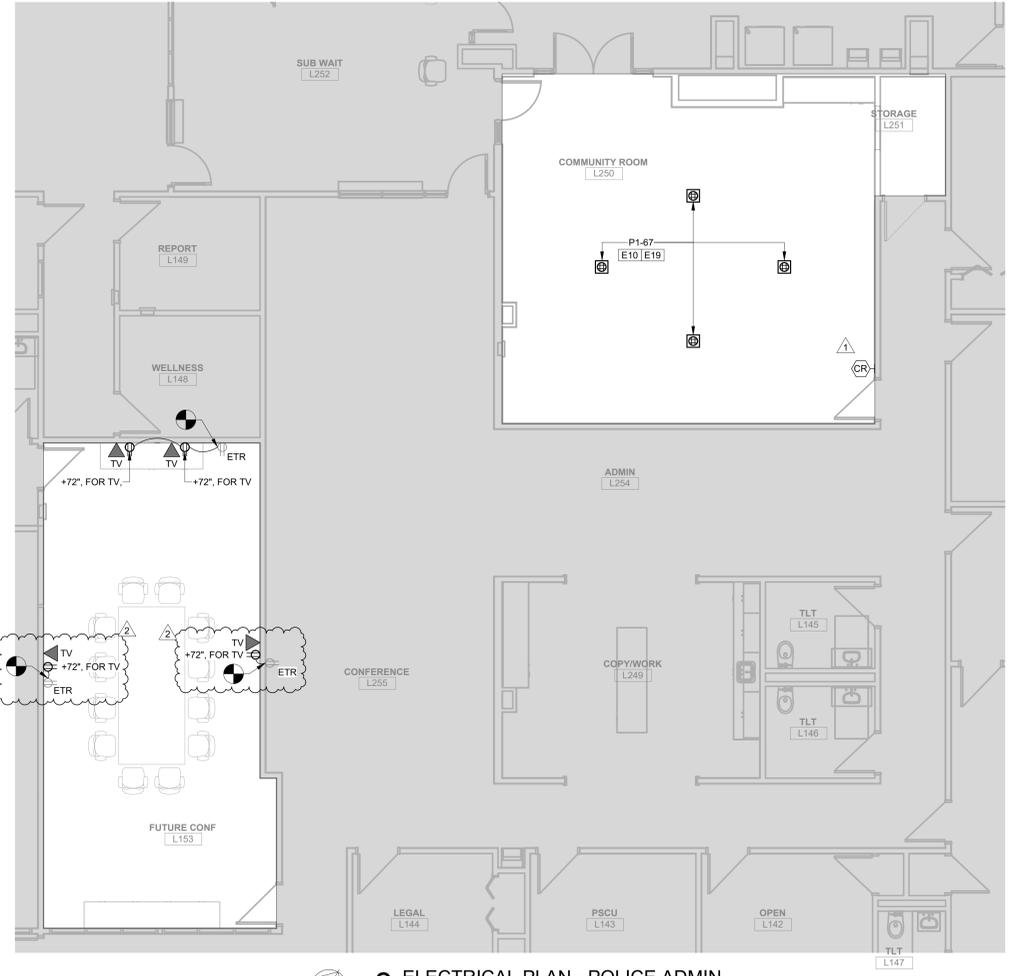
- GENERAL NOTES:**
- REFER TO SHEET EG001 FOR GENERAL ELECTRICAL NOTES.
- ELECTRICAL PLAN NOTES:**
- CONNECT TO EXISTING LIGHTING CIRCUIT AND CONTROLS. OVERALL LIGHTING POWER IS REDUCED EVEN WITH NEW LIGHTING.
  - PROVIDE POWER FROM SPARE 20A, 1P BREAKER. CIRCUIT SHOWN IS BASED ON AS-BUILT DRAWINGS. FIELD VERIFY EXACT CIRCUIT AND NOTIFY ENGINEER OF RESULTS.
  - REINSTALL LIGHT FIXTURE PROTECTED DURING DEMOLITION. MAINTAIN EXISTING CIRCUIT AND CONTROLS.
  - CONNECT NEW LIGHT FIXTURE(S) TO EXISTING LIGHTING CIRCUIT PROTECTED DURING DEMOLITION. REINSTALL LIGHTING CONTROLS PROTECTED DURING DEMOLITION. MAINTAIN EXISTING CIRCUIT.
  - PROVIDE 4" FIRE-RATED POKE-THRU DEVICE WITH (4) RECEPTACLES, LEGRAND RCA OR APPROVED EQUAL. PROVIDE BLACK COVER.
  - WALL MOUNT LIGHT FIXTURE AT +7' AFF. COORDINATE EXACT LOCATION WITH ARCHITECT PRIOR TO ROUGH-IN. PROVIDE POWER TO OVERHEAD DOOR OPENER. PROVIDE ROUGH-IN FOR DOOR CONTROLS. COORDINATE EXACT LOCATION AND POWER REQUIREMENTS OF OPENER WITH VENDOR'S INSTALLATION INSTRUCTIONS. COORDINATE EXACT LOCATION OR CONTROLS WITH ARCHITECT PRIOR TO ROUGH-IN. PROVIDE POWER FROM EXISTING LIFE SAFETY LIGHTING CIRCUIT IN ADJACENT VEHICLE BAYS. CIRCUIT SHOWN IS BASED ON AS-BUILT DRAWINGS. FIELD VERIFY EXACT CIRCUIT AND NOTIFY ENGINEER OF RESULTS.
  - PROVIDE POWER FROM EXISTING NORMAL LIGHTING CIRCUIT IN ADJACENT VEHICLE BAYS. CIRCUIT SHOWN IS BASED ON AS-BUILT DRAWINGS. FIELD VERIFY EXACT CIRCUIT AND NOTIFY ENGINEER OF RESULTS.
  - PROVIDE POWER TO DIVISION 23 EQUIPMENT WITH FACTORY MOUNTED DISCONNECT. COORDINATE EXACT LOCATION AND REQUIREMENTS WITH DIVISION 23.
  - PROVIDE POWER TO AIR COMPRESSOR. INFORMATION SHOWN IS BASED ON 3.5HP COMPRESSOR. COORDINATE EXACT LOCATION AND REQUIREMENTS WITH DIVISION 22 PRIOR TO ROUGH-IN.
  - CONNECT NEW ROOF-MOUNTED EXHAUST FAN TO EXISTING EXHAUST FAN CIRCUIT. EXHAUST FAN IS A ONE-FOR-ONE REPLACEMENT OF EXISTING FAN REMOVED DURING DEMOLITION.
  - REMOVE EXISTING CAMERA ON EXISTING BUILDING EXTERIOR AND EXTEND CABLE TO THIS LOCATION. NEW CAMERA WILL BE INSTALLED BY OWNER.
  - REINSTALL POWER TO RELOCATED VACUUM. PROVIDE BOXES, CONDUIT, AND WIRING AS NECESSARY TO EXTEND EXISTING CIRCUIT TO NEW LOCATION.
  - PROVIDE LEGRAND 2000 SERIES PLUGMOLD OR APPROVED EQUAL. RECEPTACLES SHALL BE SPACED AT 12" O.C. MOUNT ABOVE WORKTOP.



**3 ELECTRICAL PLAN - VEHICLE BAY**  
 3/16" = 1'-0"



**4 ELECTRICAL PLAN - INTERVIEW ROOMS**  
 3/16" = 1'-0"



**2 ELECTRICAL PLAN - POLICE ADMIN**  
 3/16" = 1'-0"



**1 ELECTRICAL PLAN - TRAINING**  
 3/16" = 1'-0"



**PANELBOARD: LP1**

BUS AMPS: 600 A		AIC RATING: 14,000 AIC															
MAIN SIZE/TYPE: MLO		FAULT CURRENT: ETR															
VOLTS/PHASE: 480Y/277 V, 3PH, 4W		CUM. VOLT. DROP: ETR															
SUPPLIED BY: MSB1		MOUNTING: SURFACE															
		LOCATION: ELECTRICAL SWITCHGEAR...															
CKT NO.	DESCRIPTION	NOTES	WIRE SIZE	GND SIZE	BKR AMP	P	A	B	C	P	BKR AMP	GND SIZE	WIRE SIZE	NOTES	DESCRIPTION	CKT NO.	
1	VAV 1-4	EX	20	7	3000	5000					1	20		EX	VAV 2-10	2	
3	VAV 1-5	EX	20	7		1000	3288				1	20		EX	VAV 2-9	4	
5	VAV 1-6	EX	20	7				4000	3288	3	20			EX	VAV 2-9	6	
7	VAV 1-7	EX	20	7	1500	3288					1	20		EX	VAV 2-8	8	
9	VAV 1-8	EX	20	7		3000	2500				1	20		EX	VAV 2-17	10	
11	VAV 1-13	EX	20	7				4000	3621		3	20		EX	VAV 2-17	12	
13	VAV 1-14	EX	20	7	2000	3621					3	20		EX	VAV 2-14	14	
15	VAV 1-15	EX	20	7		6392	3621				1	20		EX	VAV 2-16	16	
17	VAV 1-15	EX	20	3				6392	3500	1	20			EX	VAV 2-14	18	
19					6392	3121					3	20		EX	VAV 2-15	20	
21					6392	3121					1	20		EX	VAV 2-13	22	
23	VAV 1-12	EX	20	3				6392	3121		1	20		EX	VAV 2-15	24	
25					6392	2500					1	20		EX	VAV 2-13	26	
27						8885	3000				1	20		EX	VAV 2-7	28	
29	VAV 1-21	EX	40	3				8885	3621		3	20		EX	VAV 2-7	30	
31					8885	3621					3	20		EX	VAV 2-6	32	
33	VAV 1-23	EX	20	3				3621	3621		3	20		EX	VAV 2-6	34	
35					3621	3621					3	20		EX	VAV 2-18	36	
37	VAV 1-24	EX	20	7			3000	3621			1	20		EX	VAV 2-18	38	
39	VAV 1-25	EX	20	7				3000	2000		1	20		EX	VAV 2-11	40	
41	VAV 2-12	EX	20	7	4000	2000					1	20		EX	VAV 2-11	42	
43	VAV 2-12	EX	20	7			3000	4000			1	20		EX	VAV 2-11	44	
45	VAV 2-11	EX	20	7							1	20		EX	VAV 2-11	46	
47	VAV 1-32	EX	30	3	5000	2430			5000	2400	1	20		EX	VAV 1-32	48	
49											1	20		EX	VAV 1-32	50	
51	VAV 1-27	EX	20	7			5000	2137			1	20		EX	VAV 1-27	52	
53								4000	2560		1	20		EX	VAV 1-27	54	
55					7333	2560					1	20		EX	VAV 1-28	56	
57	VAV 1-28	EX	40	3			7333	2925			2	20		EX	VAV 1-28	58	
59											2	20		EX	VAV 1-29	60	
61	VAV 1-29	EX	20	7	2500	10667					3	60	10	4	NB	PWR - VEH BAY RADIANT HTRS	62
63	VAV 1-31	EX	20	7			3000	10667			3	60	10	4	NB	PWR - VEH BAY RADIANT HTRS	64
65	LTG-CORRIDOR	EX	20	7				2850	10667		1	15			RB	UH-2 (VEHICLE BAY)	66
67	LTG-STORAGE AREAS/MECH RM	EX	20	7	2475	3000					1	15			RB	UH-2 (VEHICLE BAY)	68
69	LTG-EVIDENCE OFFICES	EX	20	7			2160	5182			3	25	10	10	NB	RTU-1	70
71	LTG-GARAGE	EX	20	7							3	25	10	10	NB	RTU-1	72
73	CUH-2	EX	30	7	5000	5182					3	25	10	10	NB	RTU-1	74
75	CUH-3	EX	30	7			5000	2700			1	20			EX	ALTERNATE CKT FOR JAIL LTG	76
77	CUH-1	EX	30	7					5000	3158	1	20			EX	ALTERNATE CKT FOR JAIL LTG	78
79	SPARE	EX	--	--	0	0					1	20			EX	SPARE	80
81	SPARE	EX	--	--	0	0					1	20			EX	SPARE	82
83	SPARE	EX	--	--	0	0					1	20			EX	SPARE	84
<b>TOTAL LOAD:</b>						108708 VA	108165 VA	112845 VA									
<b>TOTAL AMPS:</b>						393 A	390 A	408 A									
<b>LOAD BALANCE:</b>						-0.97%	-1.54%	2.80%									

LOAD CLASSIFICATION	CONN. LOAD	DEMAND FACTOR	ESTIMATED DEMAND	PANELBOARD GENERAL NOTES:	PANELBOARD TOTALS
HEATING	286185 VA	100.00%	286185 VA	A. WIRE AND GROUND SIZE SHALL BE #12 UNLESS OTHERWISE NOTED.	TOTAL CONN. LOAD: 329719 VA
LIGHTING	33989 VA	125.00%	42486 VA		TOTAL EST. DEMAND LOAD: 338216 VA
MOTORS	4233 VA	100.00%	4233 VA		TOTAL CONN. CURRENT: 397 A
MISC EQUIP	5312 VA	100.00%	5312 VA		TOTAL EST. DEMAND CURRENT: 407 A

**PANELBOARD: P1**

BUS AMPS: 225 A		AIC RATING: 10,000 AIC															
MAIN SIZE/TYPE: MLO		FAULT CURRENT: ETR															
VOLTS/PHASE: 208Y/120 V, 3PH, 4W		CUM. VOLT. DROP: ETR															
SUPPLIED BY: NLD1		MOUNTING: SURFACE															
		LOCATION: ELECTRICAL SWITCHGEAR...															
CKT NO.	DESCRIPTION	NOTES	WIRE SIZE	GND SIZE	BKR AMP	P	A	B	C	P	BKR AMP	GND SIZE	WIRE SIZE	NOTES	DESCRIPTION	CKT NO.	
1	RCPT-STORAGE & EXTERIOR	EX	20	7	1260	900					1	20		EX	RCPT-OFFICES	2	
3	RCPT-VEHICLE PROCESSING	EX	20	7			900	1080			1	20		EX	RCPT-OFFICES	4	
5	RCPT-VEHICLE PROCESSING	EX	20	7					720	1200	1	20		EX	FURN J BOX - INVEST SGT	6	
7	RCPT-EXTERIOR	EX	20	7	1080	1200					1	20		EX	FURN J BOX - INVEST SGT	8	
9	GARAGE DOOR	EX	20	7			1176	1080			1	20		EX	RCPT-SIU CAPTAIN CLERICAL	10	
11	GARAGE DOOR	EX	20	7					1176	540	1	20		EX	FURN J BOX - SIU CLERICAL	12	
13	GARAGE DOOR	EX	20	7	1176	540					1	20		EX	FURN J BOX - SIU CLERICAL	14	
15	GARAGE DOOR	EX	20	7				1176	1260		1	20		EX	RCPT-INTERV	16	
17	RCPT-EVIDENCE OFFICE/VEST	EX	20	7					900	1200	1	20		EX	FURN J BOX - WORK ROOM	18	
19	RCPT-EVIDENCE WORKROOM	EX	20	7	720	1200					1	20		EX	FURN J BOX - WORK ROOM	20	
21	RCPT-FORENSICS/EVIDENCE PROC	EX	20	7			900	1200			1	20		EX	FURN J BOX - WORK ROOM	22	
23	RCPT-MECH ROOM COUNTER	EX	20	7					720	1200	1	20		EX	FURN J BOX - WORK ROOM	24	
25	RCPT-INTERV/COPY ROOM	EX	20	7	1260	1200					1	20		EX	FURN J BOX - WORK ROOM	26	
27	RCPT-DRINKING FOUNTAIN	EX	20	7				400	180		1	20		EX	RCPT-SIU DET. BREAK ROOM	28	
29	RCPT-DARE-CHAPLIN/PLT LT	EX	20	7					1260	864	1	20		EX	RCPT-SIU DET. BREAK RM REF	30	
31	ELEVATOR PIT EQUIPMENT	EX	20	7	400	1100					1	20		EX	RCPT-DRINKING FTN. CLSTS	32	
33	RCPT-INTERV	EX	20	7				1080	540		1	20		EX	FURN J BOX - CIU CLERICAL	34	
35	RCPT-INTERV	EX	20	7					1080	1080	1	20		EX	FURN J BOX - CIU CLERICAL	36	
37	SPARE	EX	--	--	0	1080					1	20		EX	RCPT-CONFERENCE RM	38	
39	GARBAGE DISPOSER	EX	--	--	0	1080		864	180		1	20		EX	RCPT-DISPATCH CONSOLE	40	
41	SPARE	EX	--	--	0	180			0	180	1	20		EX	RCPT-DISPATCH CONSOLE	42	
43	GARBAGE DISPOSER	EX	20	7	864	180					1	20		EX	RCPT-DISPATCH CONSOLE	44	
45	GENERATOR BATTERY CHARGER	EX	20	7				1200	180		1	20		EX	RCPT-DISPATCH CONSOLE	46	
47	GENERATOR JACKET HEATER	EX	20	2	1000	760				1000	360	1	20		EX	EXT LGTS - BOLLARDS @ PATIO	48
49											1	20		EX	EXT LGTS - BLDG SIGN, PLAZA	50	
51	SUMP PUMP (EXTERIOR)	EX	20	7					1820	720	1	20		EX	EXT LGTS - BOLLARDS SIDEWALK	52	
53	COPPER	EX	20	7						1200	630	1	20		EX	EXT LGTS - FLAGPOLE	54
55	EF-9 & EF-8	EX	15	7	970	360					1	20		EX	EXT LGTS - SIGN @ STREET	56	
57	UNDERCABINET LTG-FORENSICS	EX	20	7				500	200		1	20		EX	CARBON MONOXIDE SENSOR	58	
59	EF-11 & RECIRC PUMP	EX	20	7					900	1500	1	20		EX	UH-1 (VEHICLE BAY)	60	
61	RCPT-PARAPET WALL	EX	20	7	500	720					1	20		RB	RCPT - VEHICLE BAY L05	62	
63	SPARE	EX	--	--	0	360			0	360	1	20		RB	RCPT - MAINT L06	64	
65	SPARE	EX	--	--	0	1664				1664	2	20	2	NB	PWR - MAINT AIR COMP	66	
67	RCPT-COMM RM L250	RB	20	1	1440	1664					1	20		RB	RCPT - CRIME SCENE BAY L03	68	
69	SPARE	EX	--	--	0	1440				1440	1	20		RB	RCPT - CRIME SCENE BAY L03	70	
71	PWR-SITE VIDEO BOARD	RB	20	1					1200	1080	1	20		RB	RCPT - CSB L03 POWER REEL N	72	
73	RCPT-VEH BAY PLUGMOLD	RB	20	1	720	1080					1	20		RB	RCPT - CSB L03 POWER REEL S	74	
75	SPARE	EX	--	--	0	500				0	500	1	20		RB	PWR - VEH BAY DOOR OPENER	76
77	SPARE	EX	--	--	0	500				0							