

A REMODEL AND ADDITION FOR

# BENTON CO. DETENTION CENTER

BENTONVILLE, AR

Issue Date: 06/10/2024

Revision Date: 07/09/2024

Project No.: 2404

**CIVIL ENGINEER:**

HALFF  
2407 SE COTTONWOOD ST #1  
BENTONVILLE, AR 72712

**STRUCTURAL ENGINEER:**

TATUM-SMITH-WELCHER ENGINEERS  
3100 S MARKET ST  
SUITE 202  
ROGERS, AR 72758

**MECHANICAL ENGINEER:**

HSA ENGINEERING  
7405 ELLIS ST  
FORT SMITH, AR 72916

## Drawing Index

CIVIL	
C0.0	COVER SHEET
C1.0	OVERALL SITE PLAN
C1.1	EXISTING SITE LAYOUT
C1.2	DEMO PLAN
C2.0	EROSION CONTROL
C3.0	SITE PLAN
C4.0	GRADING PLAN
C5.0	UTILITY PLAN
C5.1	UTILITY RELOCATION PLAN
C6.0	MICELLANEOUS DETAILS
C6.1	MICELLANEOUS DETAILS
GWS 1-1	WATER/SEWER DETAILS
W1-2	WATER DETAILS
W2-2	WATER DETAILS
SS1-2	SAN. SEWER DETAILS
SS2-2	SAN. SEWER DETAILS
L1.0	LANDSCAPE PLAN
ARCHITECTURAL	
A1.1	CODE FOOTPRINT
A1.2A	UL ASSEMBLIES
A1.2B	UL ASSEMBLIES
A2.0	DEMOLITION PLAN
A2.1A	FIRST FLOOR PLAN
A2.1B	FIRST FLOOR PLAN B
A2.3A	SPECIALTY PLAN - AREA A
A2.8	FIRST FLOOR REFLECTED CEILING PLAN
A2.10	ROOF PLAN
A3.1	DOOR SCHEDULE / DOOR / WINDOW / FRAME ELEVATIONS / DETAILS
A4.1	EXTERIOR ELEVATIONS
A5.1	BUILDING SECTIONS
A6.1	MILLWORK ELEVATIONS / DETAILS
STRUCTURAL	
S1.0	REQUIRED IBC SPECIAL INSPECTIONS
S1.1	FOUNDATION GENERAL NOTES & TYP. DETAILS
S1.2	FRAMING GENERAL NOTES & TYP. DETAILS
S2.1	FOUNDATION PLAN
S3.0	TYP. LINTEL & MASONRY DETAILS
S3.0.1	FIRST LEVEL LINTEL, BRACING & MASONRY PLAN AREAS
S3.0.2	TYP. NEW MASONRY OPENING
S3.2	ROOF FRAMING PLAN
S4.1	FOUNDATION DETAILS
S4.2	FOUNDATION DETAILS
S5.1	FRAMING DETAILS
PLUMBING	
U2.1	SITE UTILITY PLAN
P1.1	PLUMBING NOTES & LEGEND
P2.0	PLUMBING DEMOLITION PLAN
P2.1	PLUMBING PLAN
P2.2	FIRE PROTECTION PLAN
P3.1	PLUMBING DETAILS
P3.2	PLUMBING DETAILS
P4.1	PLUMBING RISERS
P4.2	PLUMBING RISERS
P5.1	PLUMBING SCHEDULES
MP2.1	MECHANICAL ROOF PLAN
MECHANICAL	
M1.1	HVAC NOTES & LEGEND
M2.0	MECHANICAL DEMO PLAN
M2.1	FIRST FLOOR HVAC PLAN
M3.1	HVAC DETAILS
M3.2	HVAC DETAILS
M3.3	HVAC DETAILS
M4.1	HVAC CONTROL
M4.2	HVAC CONTROL
M5.1	HVAC SCHEDULES
ELECTRICAL	
E1.1	ELECTRICAL LEGEND, NOTES & DETAILS
ES1.0	ELECTRICAL SITE PLAN
E2.0	ELECTRICAL DEMO PLAN
E2.1	LIGHTING PLAN
E2.2	POWER PLAN
E2.3	MECHANICAL POWER PLAN
E2.4	SPECIAL SYSTEMS PLAN
E4.1	ELECTRICAL RISER DIAGRAMS
E5.1	ELECTRICAL SCHEDULES

# Hight Jackson

## ASSOCIATES

5201 W Village Parkway, Suite 300 | Rogers, Arkansas 72758 | (479) 464-4965 | www.hjarch.com

A QUALITY CONTROL CHECK, INCLUDING THE APPROPRIATE COORDINATION AMONG DISCIPLINES, HAS BEEN MADE ON THIS PROJECT'S DOCUMENTS, AND CORRECTIONS RELATED TO THIS CHECK HAVE BEEN MADE. THE UNDERSIGNED PRINCIPAL/OWNER STATES THAT THESE PLANS AND SPECIFICATIONS AS SUBMITTED FOR REVIEW ARE, TO THE BEST OF HIS OR HER KNOWLEDGE AND ABILITY, COMPLETE AND READY FOR REVIEW



"I HEREBY CERTIFY THAT THESE PLANS AND SPECIFICATIONS HAVE BEEN PREPARED BY ME, OR UNDER MY SUPERVISION, I FURTHER CERTIFY THAT TO THE BEST OF MY KNOWLEDGE THESE PLANS AND SPECIFICATIONS ARE AS REQUIRED BY LAW AND IN COMPLIANCE WITH THE ARKANSAS FIRE PREVENTION CODE FOR THE STATE OF ARKANSAS."



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# IN-HOUSE LARGE SCALE DEVELOPMENT PLANS FOR SALLYPORT AND MEDICAL CENTER ADDITIONS BENTON COUNTY DETENTION CENTER

1300 SW 14th STREET  
BENTONVILLE, AR  
JUNE 2024

**ENGINEER**

HALFF ASSOCIATES, INC.  
2407 SE COTTONWOOD ST, STE #1  
BENTONVILLE, AR, 72712  
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FIRM/ BUSINESS NO.: 1407 STATE: AR

**LANDSCAPE ARCHITECT**

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**SURVEYOR**

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**ARCHITECT**

HIGHT-JACKSON ASSOCIATES, P.A.  
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EMAIL: LSMITH@HJARCH.COM  
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**GOVERNING AGENCIES**

**CITY OF BENTONVILLE**  
3200 S.W. MUNICIPAL DRIVE  
OR 305 SW A STREET  
BENTONVILLE, ARKANSAS 72712

**CITY PLANNING**  
CONTACT: TYLER OVERSTREET  
305 SW A ST.  
PHONE: (479) 271-3122

**STREET DEPARTMENT**  
CONTACT: TONY DAVIS  
PHONE: (479) 271-3130

**PUBLIC WORKS**  
CONTACT: MIKE BENDER  
PHONE: (479) 271-6720

**CITY ENGINEER**  
CONTACT: ELLEN NORVELL  
PHONE: (479) 271-3168

**BUILDING & FIRE SAFETY**  
CONTACT: JAKE FEMESTER  
PHONE: (479) 271-3108

**STORMWATER**  
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PHONE: (479) 271-6719  
EMAIL: jwest@bentonvillear.com

**SITE UTILITY CONTACTS**

**TELEPHONE**  
AT&T  
CONTACT: BRENT BALDWIN  
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1133 HAROLD STREET  
FAYETTEVILLE, ARKANSAS 72703  
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**NATURAL GAS**  
BLACK HILLS ENERGY  
CONTACT: JOSH KNIGHT  
1301 FEDERAL WAY  
PO BOX 2129  
LOWELL, AR 72745  
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EMAIL: joshua.knight@blackhillscorp.com

**WASTE WATER**  
CITY OF BENTONVILLE  
CONTACT: CHRIS EARL  
900 SW "A" STREET  
BENTONVILLE, ARKANSAS  
PHONE: (479) 271-3160

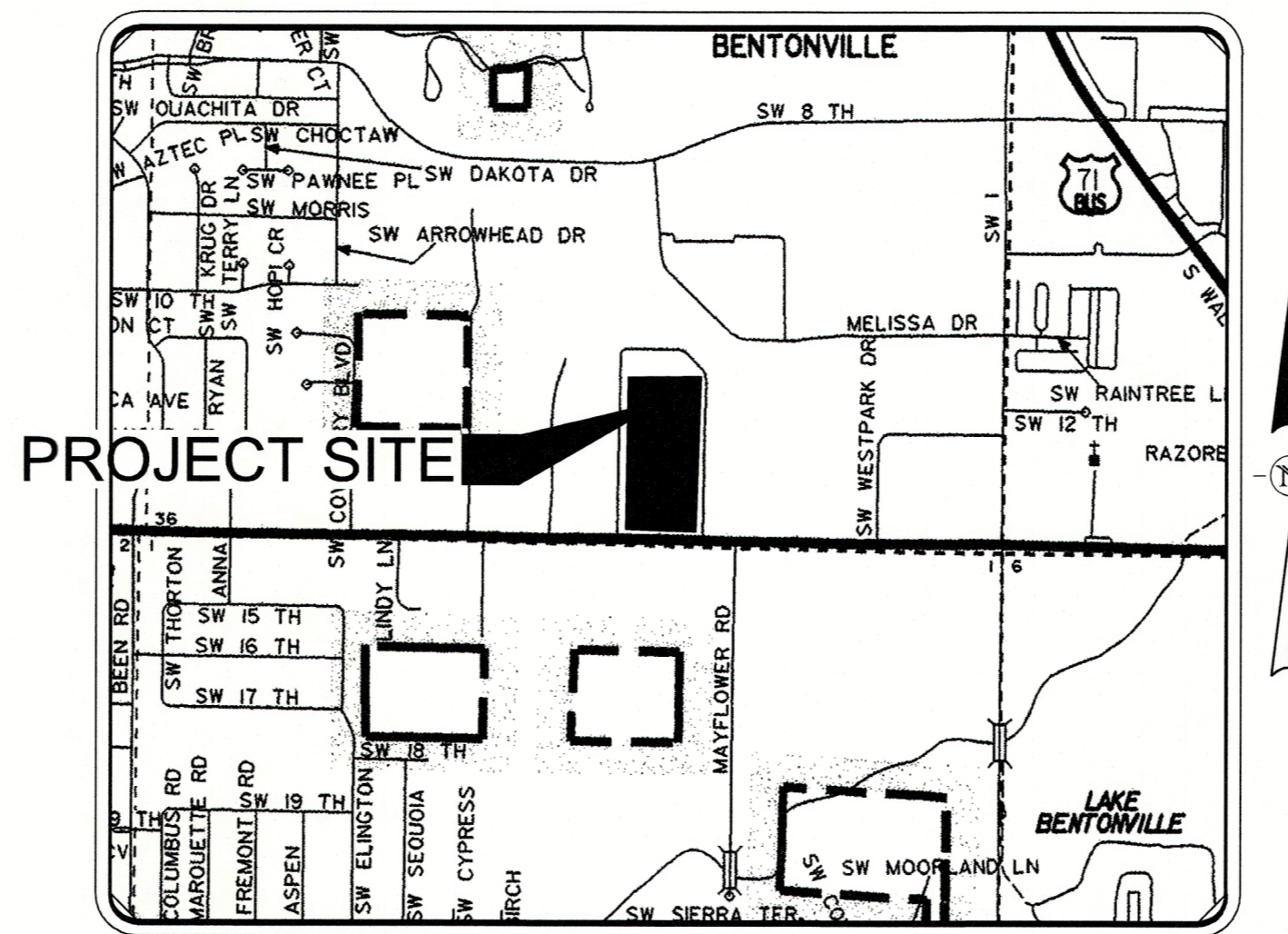
**WATER & SEWER**  
CITY OF BENTONVILLE  
CONTACT: BEAU THOMPSON  
3200 S.W. MUNICIPAL DRIVE  
BENTONVILLE, ARKANSAS 72712  
PHONE: (479) 271-3140

**CABLE TELEVISION**  
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SPRINGDALE, ARKANSAS 72762  
CONTACTS: CHAD HODGE  
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EMAIL: chad.hodge@cox.com  
TIMOTHY GOSS  
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EMAIL: timothy.goss@cox.com

**ELECTRIC**  
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BENTONVILLE, AR 72712  
PHONE: (479) 271-3159

**FIRE DEPARTMENT**  
CITY OF BENTONVILLE  
CONTACT: JUSTIN SCANTLIN (FIRE CHIEF)  
800 SW "A" STREET  
BENTONVILLE, ARKANSAS 72712  
PHONE: (479) 271-5927

**DEPARTMENT OF HEALTH**  
ARKANSAS DEPARTMENT OF HEALTH  
DIVISION OF ENGINEERING, SLOT 37  
4815 W. MARKHAM  
LITTLE ROCK, AR 72205  
PHONE: (501) 661-2623



**LOCATION MAP**  
NOT TO SCALE

Sheet List Table	
Sheet Number	Sheet Title
C0.0	COVER SHEET
C1.0	OVERALL SITE PLAN
C1.1	EXISTING SITE LAYOUT
C1.2	DEMO PLAN
C2.0	EROSION CONTROL
C3.0	SITE PLAN
C4.0	GRADING PLAN
C5.0	UTILITY PLAN
C5.1	UTILITY RELOCATION PLAN
C6.0	MICELLANEOUS DETAILS
C6.1	MICELLANEOUS DETAILS
C7.0	CITY OF BENTONVILLE WATER AND SEWER DETAILS
L1.0	LANDSCAPE PLAN

**OWNER/CLIENT:**



BENTON COUNTY DETENTION CENTER  
1300 SW 14TH ST  
BENTONVILLE, AR 72712  
TEL. (479) 271-1008  
www.sheriff.bentoncountyar.gov

**PREPARED BY:**

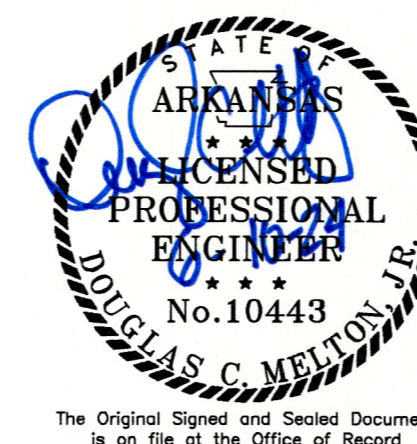


2407 SE COTTONWOOD ST, STE #1  
BENTONVILLE, AR, 72712  
TEL. (479) 273-2209 FAX --  
www.halff.com

**PRELIMINARY**

FOR INTERIM REVIEW ONLY

THESE DOCUMENTS ARE FOR INTERIM REVIEW AND NOT INTENDED FOR REGULATORY APPROVAL, PERMIT, BIDDING OR CONSTRUCTION PURPOSES. THEY WERE PREPARED BY OR UNDER THE SUPERVISION OF:  
NAME: DOUG C MELTON PE LICENSE NO. 15443  
DATE: 6/10/2024  
FIRM / BUSINESS NO.: 1407 STATE: AR



**APPROVED WAIVER**

- SECTION 1100.21(E) BUILDING MATERIAL (APPROVED APRIL 16, 2024)

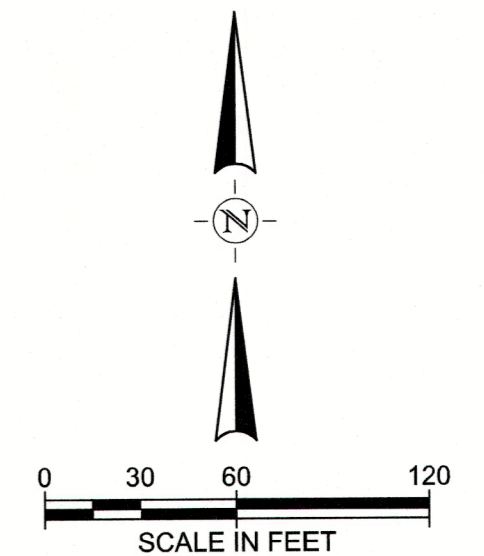
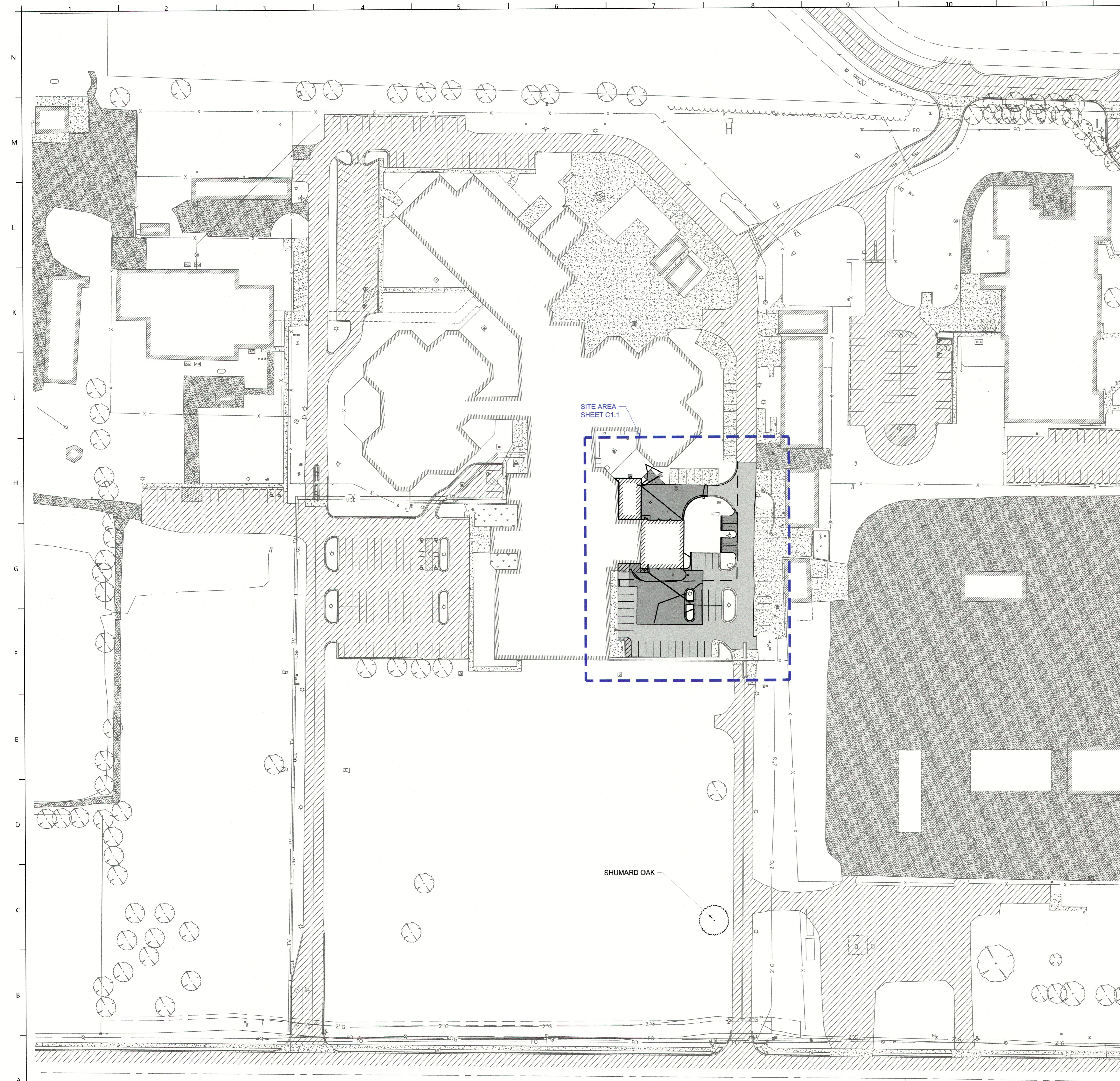
**BENTONVILLE STANDARD NOTES:**

- THE CITY OF BENTONVILLE STREET STANDARDS, DRAINAGE CRITERIA MANUAL, SUBDIVISION ORDINANCE, WATER, SEWER, ELECTRIC UTILITY SPECIFICATIONS, AND STATE CODE SHALL GOVERN THESE PLANS. IF THERE ARE DISCREPANCIES IN THE PLANS OR INFORMATION CONTAINED WITHIN, CITY OF BENTONVILLE ORDINANCES, STANDARDS, AND SPECIFICATIONS SHALL RULE, UNLESS, APPROVED IN WRITING BY THE CITY ENGINEER.
- TO SCHEDULE AN INSPECTION OR TEST WITH THE CITY OF BENTONVILLE ENGINEERING DEPARTMENT, INSPECTIONS MUST BE CALLED IN (479-271-3168) BY THE ENGINEER OF RECORD 24 HOURS IN ADVANCE BEFORE 10 AM FOR AN INSPECTION THE FOLLOWING DAY.
- THE ENGINEER OF RECORD MUST CERTIFY THE SITE AND THE PROJECT MUST PASS A DEVELOPMENT FINAL SITE INSPECTION BEFORE REQUESTING A BUILDING FINAL INSPECTION.
- PRE-PAVE PRECON WILL BE REQUIRED BEFORE PAVING OF STREETS. ALL TEST RESULTS AND INSPECTIONS TO BE VERIFIED AND IN FILE BEFORE REQUESTING PRE-PAVE PRECON. TRACER WIRE TO BE INSPECTED BEFORE PAVING.
- BORING OF STREETS IS REQUIRED WHEN THE EXISTING UTILITY RESIDES OUTSIDE OF THE ROAD WAY.
- ALL TREES WITHIN THE PUBLIC RIGHT-OF-WAY SHALL BE PRESERVED UNLESS OTHERWISE APPROVED BY THE DIRECTOR OF COMMUNITY DEVELOPMENT PURSUANT TO ARTICLE 1300.07 OF THE MUNICIPAL CODE.
- THIS PROJECT IS WITHIN AIRPORT ZONE "C(3)" AND THE DESIGN MEETS THE REQUIREMENTS OF THIS ZONING.

THE INFORMATION SHOWN ON THESE DRAWINGS INDICATING SIZE, TYPE AND LOCATION OF UNDERGROUND, SURFACE, AND AERIAL UTILITIES IS NOT GUARANTEED TO BE EXACT OR COMPLETE. THE CONTRACTOR SHALL CONTACT THE "ARKANSAS 811" SYSTEM AT 1-800-482-8998 48 HOURS PRIOR TO BEGINNING ANY EXCAVATION FOR EXISTING UTILITY LOCATIONS. THE CONTRACTOR SHALL ALSO BE FULLY RESPONSIBLE FOR FIELD VERIFYING LOCATIONS AND ELEVATIONS OF ALL EXISTING UTILITIES AFFECTED BY CONSTRUCTION FOR THIS PROJECT IN ORDER TO AVOID DAMAGING THOSE UTILITIES, AND SHALL IMMEDIATELY ARRANGE FOR REPAIR AND RESTORATION OF CONTRACTOR-DAMAGED UTILITIES TO THE UTILITY COMPANY'S APPROVAL AT THE EXPENSE OF THE CONTRACTOR.



Know what's below.  
Call before you dig.

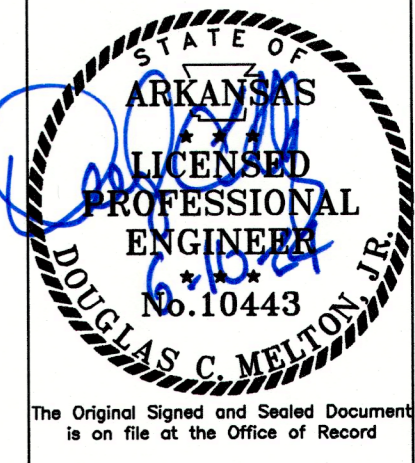


ZONING - AGRICULTURAL (A-1)

BUILDING SETBACKS		
FRONT	SIDE	REAR
30'	30'	30'

EXISTING AND REMOVED PARKING	
NUMBER OF EXISTING SPACES	259*
NUMBER OF SPACES REMOVED	15*
*Includes All Accessible Spaces	

TOTAL PARKING PROVIDED	
NUMBER OF NEW PARKING PROVIDED	12*
TOTAL NUMBER OF SPACES PROVIDED	256*
TOTAL NUMBER OF ACCESSIBLE SPACES PROVIDED	9
NUMBER OF ACCESSIBLE SPACES REQUIRED: 201 TO 300 SPACES	7
*Includes All Accessible Spaces	



ISSUED FOR BID

**Hight Jackson**  
ASSOCIATES  
5201 W Village Parkway, Suite 300 | Rogers, Arkansas 72758 | (479) 464-4965 | www.hjarch.com

**SALLYPORT AND MEDICAL**  
BENTON COUNTY DETENTION CENTER  
BENTONVILLE, AR

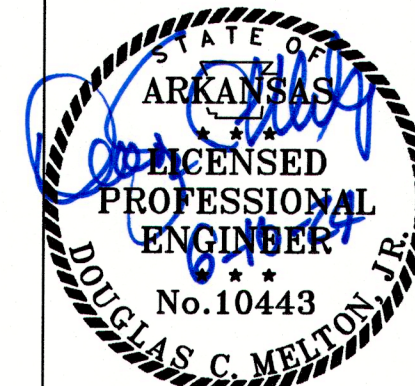
DRAWN BY:  
**KES**  
CHECK BY:  
**DCM**  
ISSUE DATE:  
**06/10/2024**  
PROJECT NO:  
**57132.001**  
REVISION DATES:

OVERALL SITE PLAN  
**halff**  
2407 SE COTTONWOOD ST., SUITE 1  
BENTONVILLE, ARKANSAS 72712  
TEL. (479) 273-2209

SHEET  
**C1.0**

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CITY PROJECT: LSD24-0017



The Original Signed and Sealed Document is on file at the Office of Record

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**Hight Jackson**  
ASSOCIATES  
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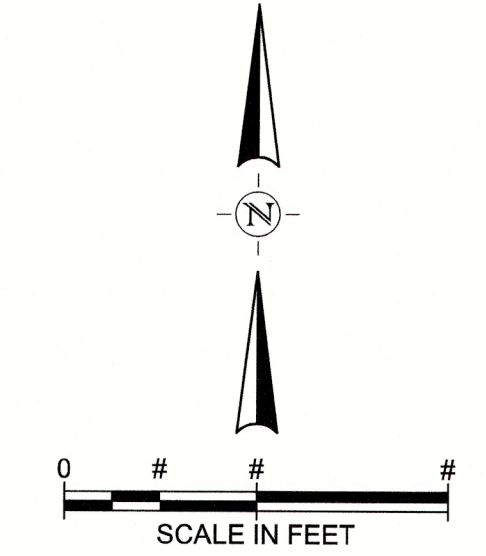
**SALLYPORT AND MEDICAL**  
BENTON COUNTY DETENTION CENTER  
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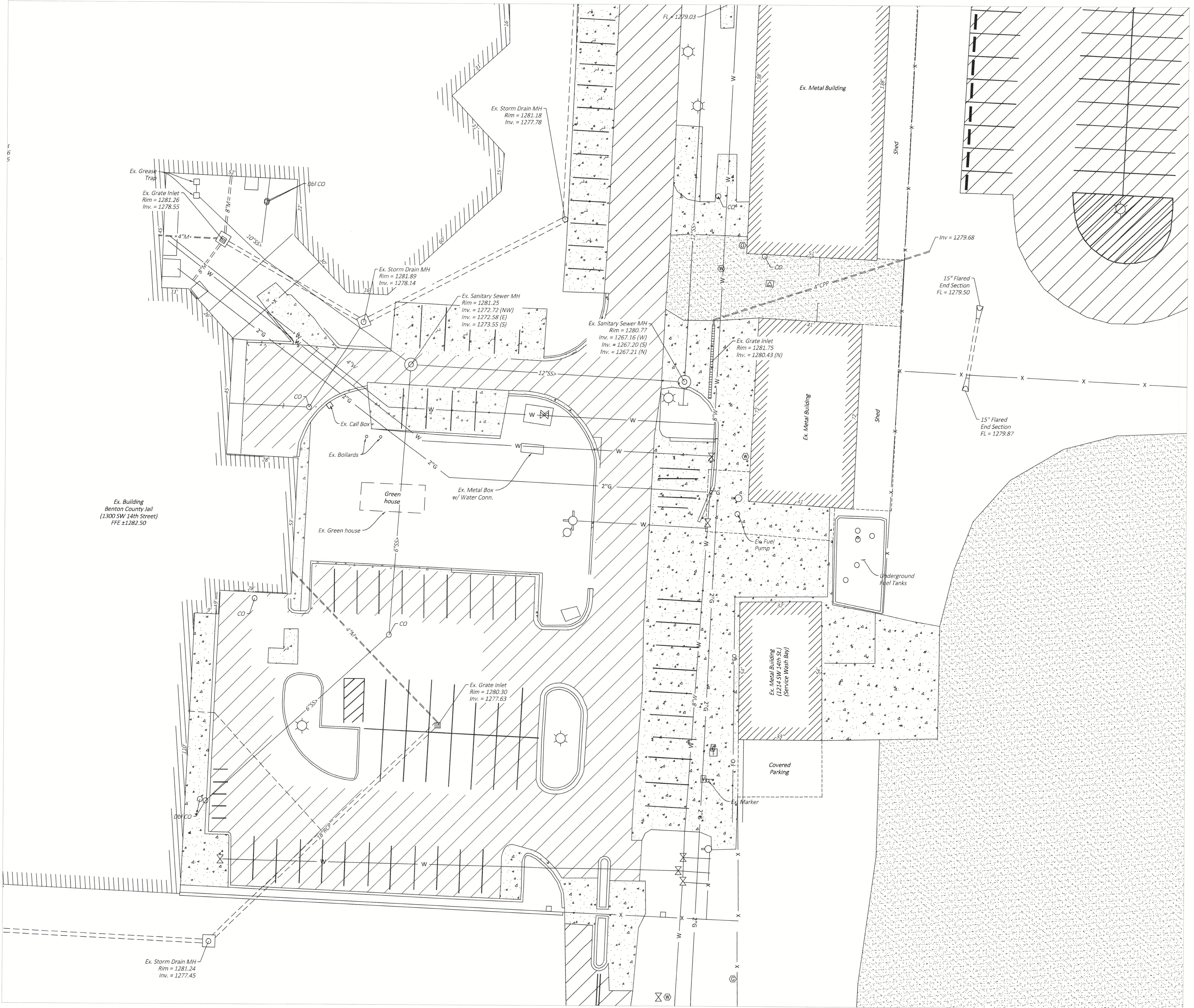
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LEGEND	
	EX. ASPHALT
	EX. CONCRETE
	EX. GRAVEL
	EX. WATER METER
	EX. FIRE HYDRANT
	EX. WATER LINE
	EX. SEWER MANHOLE
	EX. SEWER CLEAN-OUT
	EX. SANITARY SEWER LINE
	EX. SEWER FORCE MAIN LINE
	EX. GAS METER
	EX. GAS VALVE
	EX. GAS LINE
	EX. TELEPHONE PEDESTAL
	EX. TELEPHONE LINE
	EX. FIBER OPTIC PEDESTAL
	EX. FIBER OPTIC LINE
	EX. ELECTRIC PEDESTAL
	EX. ELECTRIC TRANSFORMER
	EX. VAULT BOX
	EX. UNDERGROUND ELECTRIC LINE
	EX. LIGHT POLE
	EX. SIGN
	EX. JUNCTION BOX / CURB INLET
	EX. GRATE INLET
	EX. STORM DRAIN PIPE
	EX. BUILDING

**NOTE:**  
EXISTING UTILITIES ACROSS OR ALONG THE LINE OF THE PROPOSED WORK ARE SHOWN ONLY IN AN APPROXIMATE LOCATION ON THESE PLANS. THE CONTRACTOR SHALL CALL THE STATE ONE-CALL SYSTEM PRIOR TO CONSTRUCTION @ 1-800-482-8998. THE CONTRACTOR SHALL, ON HIS OWN INITIATIVE AND AT NO ADDITIONAL COST, LOCATE ALL UNDERGROUND LINES AND STRUCTURES AS NECESSARY. THE CONTRACTOR SHALL VERIFY AND CALCULATE ALL POINTS OF CONNECTION AND ALL UTILITY CROSSINGS AND INFORM HALFF ASSOCIATES, INC. AND/OR THE OWNER OF ANY CONFLICTS OR REQUIRED DEVIATIONS FROM THE PLANS. HALFF ASSOCIATES, INC. SHALL BE HELD HARMLESS IN THE EVENT THE CONTRACTOR FAILS TO MAKE SUCH NOTIFICATION.

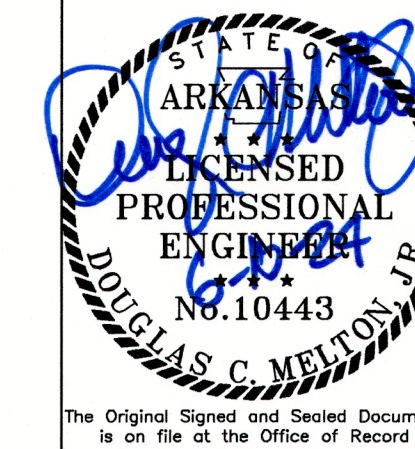


EXISTING SITE LAYOUT



2407 SE COTTONWOOD ST., SUITE 1  
BENTONVILLE, ARKANSAS 72712  
TEL. (479) 273-2209

CITY PROJECT: LSD24-0017



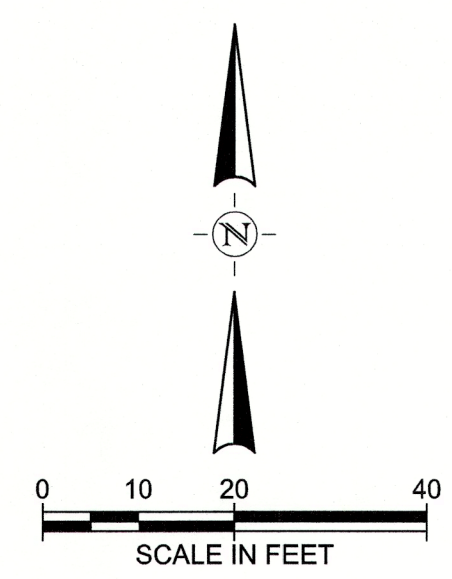
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**Hight Jackson**  
ASSOCIATES  
5201 W Village Parkway, Suite 300 | Rogers, Arkansas 72758 | (479) 464-4965 | www.hjarch.com

**SALLYPORT AND MEDICAL**  
BENTON COUNTY DETENTION CENTER  
BENTONVILLE, AR

DRAWN BY: KES  
CHECK BY: DCM  
ISSUE DATE: 06/10/2024  
PROJECT NO: 57132.001  
REVISION DATES:

SHEET  
**C1.2**  
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**DEMOLITION NOTES**

1. THE CONTRACTOR IS RESPONSIBLE FOR THE DEMOLITION, REMOVAL, AND DISPOSAL IN A LOCATION APPROVED BY ALL GOVERNING AUTHORITIES, OF ALL STRUCTURES, PADS, WALLS, FLUMES, FOUNDATIONS, PARKING, DRIVES, DRAINAGE, STRUCTURES, UTILITIES, ETC., SUCH THAT THE IMPROVEMENTS SHOWN ON THE REMAINING PLANS CAN BE CONSTRUCTED. ALL FACILITIES TO BE REMOVED SHALL BE UNDERCUT TO SUITABLE MATERIAL AND BROUGHT TO GRADE WITH SUITABLE COMPACTED FILL MATERIAL PER THE SPECIFICATIONS.
2. THE CONTRACTOR IS RESPONSIBLE FOR REMOVING ALL DEBRIS FROM THE SITE AND DISPOSING OF THE DEBRIS IN A LAWFUL MANNER. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL PERMITS REQUIRED FOR DEMOLITION AND DISPOSAL.
3. THE CONTRACTOR SHALL MAINTAIN ALL UTILITY SERVICES TO THE OWNER AND SURROUNDING PROPERTY OWNERS AT ALL TIMES. UTILITY SERVICES SHALL NOT BE INTERRUPTED WITHOUT APPROVAL FROM THE RESPECTIVE UTILITY COMPANIES AND AFFECTED PROPERTY OWNERS.
4. THE CONTRACTOR SHALL COORDINATE WITH RESPECTIVE UTILITY COMPANIES PRIOR TO THE REMOVAL AND/OR RELOCATION OF UTILITIES. THE CONTRACTOR SHALL COORDINATE WITH THE UTILITY COMPANY CONCERNING PORTIONS OF WORK WHICH MAY BE PERFORMED BY THE UTILITY COMPANY'S FORCES AND ANY FEES WHICH ARE TO BE PAID TO THE UTILITY COMPANY FOR THEIR SERVICES. THE CONTRACTOR IS RESPONSIBLE FOR PAYING ALL FEES AND CHARGES.
5. THE LOCATIONS OF ALL EXISTING UTILITIES SHOWN ON THIS PLAN HAVE BEEN DETERMINED FROM THE BEST INFORMATION AVAILABLE AND ARE GIVEN FOR THE CONVENIENCE OF THE CONTRACTOR. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR THEIR ACCURACY. PRIOR TO THE START OF ANY DEMOLITION ACTIVITY, THE CONTRACTOR SHALL NOTIFY THE UTILITY COMPANIES FOR ONSITE LOCATIONS OF EXISTING UTILITIES.
6. ALL EXISTING SEWERS, PIPING AND UTILITIES SHOWN ARE NOT TO BE INTERPRETED AS THE EXACT LOCATION, OR AS THE ONLY OBSTACLES THAT MAY OCCUR ON THE SITE. VERIFY EXISTING CONDITIONS AND PROCEED WITH CAUTION AROUND ANY ANTICIPATED FEATURES.
7. PRIOR TO DEMOLITION OCCURRING, ALL RELEVANT EROSION CONTROL DEVICES ARE TO BE INSTALLED.
8. SHOULD REMOVAL AND/OR RELOCATION ACTIVITIES DAMAGE FENCING, LIGHTING, UTILITIES, STORM INLET STRUCTURES, ETC., THAT ARE DESIGNATED TO REMAIN, THEN THE CONTRACTOR SHALL PROVIDE NEW MATERIALS/ STRUCTURES IN ACCORDANCE WITH THE CONTRACT DOCUMENTS. EXCEPT FOR MATERIALS DESIGNED TO BE RELOCATED ON THIS PLAN, ALL OTHER CONSTRUCTION MATERIALS SHALL BE NEW.
9. CONTRACTOR MAY LIMIT SAW-CUT & PAVEMENT REMOVAL TO ONLY THOSE AREAS WHERE IT IS REQUIRED AS SHOWN ON THESE CONSTRUCTION PLANS BUT IF ANY DAMAGE IS INCURRED ON ANY OF THE SURROUNDING PAVEMENT, ETC. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ITS REMOVAL AND REPAIR.
10. THE CONTRACTOR SHALL COORDINATE WATER MAIN WORK WITH THE FIRE DEPT. AND CITY UTILITIES TO PLAN PROPOSED IMPROVEMENTS AND TO ENSURE ADEQUATE FIRE PROTECTION IS CONSTANTLY AVAILABLE TO THE SURROUNDING PROPERTY OWNERS AND SITE THROUGH OUT THIS SPECIFIC WORK AND THROUGH ALL PHASES OF CONSTRUCTION. CONTRACTOR WILL BE RESPONSIBLE FOR ARRANGING/PROVIDING ANY REQUIRED WATER MAIN SHUT OFFS WITH CITY UTILITIES DURING CONSTRUCTION. ANY COSTS ASSOCIATED WITH WATER MAIN SHUT OFFS WILL BE THE RESPONSIBILITY OF THE CONTRACTOR AND NO EXTRA COMPENSATION WILL BE PROVIDED.
11. DAMAGE TO ALL EXISTING CONDITIONS TO REMAIN WILL BE REPLACED AT CONTRACTOR'S EXPENSE.

**LEGEND**

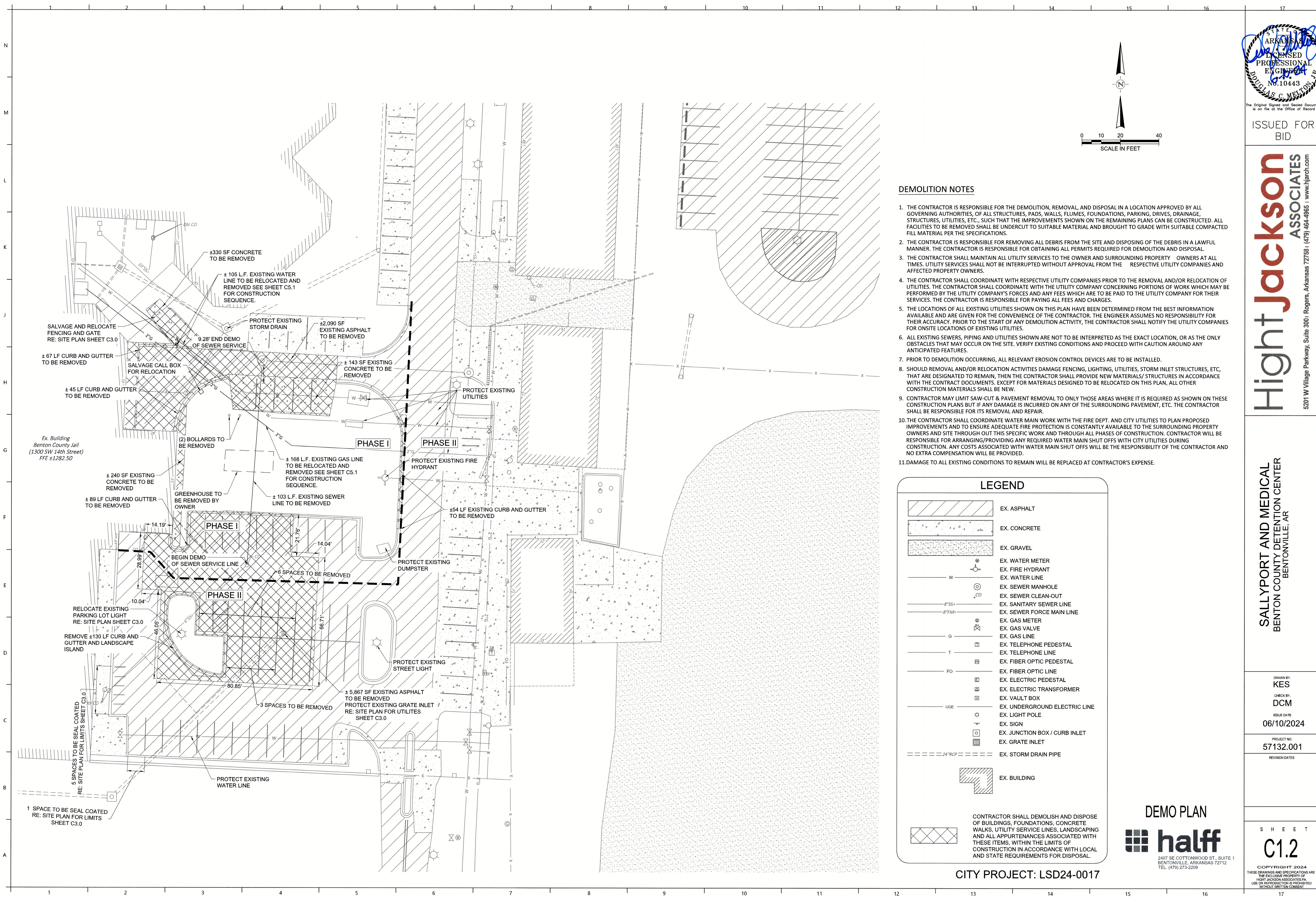
	EX. ASPHALT
	EX. CONCRETE
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	EX. SIGN
	EX. JUNCTION BOX / CURB INLET
	EX. GRATE INLET
	EX. STORM DRAIN PIPE
	EX. BUILDING

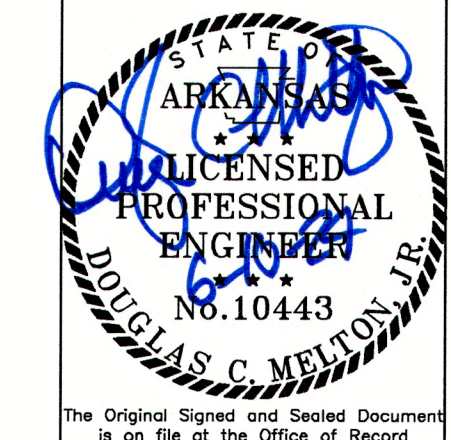
CONTRACTOR SHALL DEMOLISH AND DISPOSE OF BUILDINGS, FOUNDATIONS, CONCRETE WALKS, UTILITY SERVICE LINES, LANDSCAPING AND ALL APPURTENANCES ASSOCIATED WITH THESE ITEMS, WITHIN THE LIMITS OF CONSTRUCTION IN ACCORDANCE WITH LOCAL AND STATE REQUIREMENTS FOR DISPOSAL.

**DEMO PLAN**



CITY PROJECT: LSD24-0017





ISSUED FOR BID

**Hight Jackson ASSOCIATES**  
 5201 W Village Parkway, Suite 3001 Rogers, Arkansas 72758 (479) 464-4965 | www.hjarch.com

**SALLYPORT AND MEDICAL BENTON COUNTY DETENTION CENTER**  
 BENTONVILLE, AR

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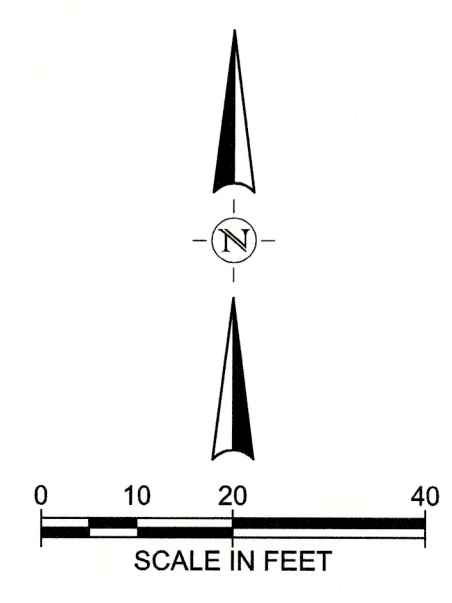
PROJECT NO: 57132.001

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**NOTE TO CONTRACTOR:**  
 ALL EROSION CONTROL SHOWN FUNCTIONS AS A GUIDE. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ENSURE THAT THE REQUIREMENTS OF THE ARKANSAS DEPARTMENT OF ENVIRONMENTAL QUALITY'S GENERAL PERMIT ARE MAINTAINED. ACTUAL EROSION CONTROL DEVICES MAY VARY DUE TO THE CONTRACTOR'S SEQUENCE OF DEMOLITION AND CONSTRUCTION. ADDITIONAL MEASURES MAY BECOME NECESSARY DURING CONSTRUCTION.



**SITE EROSION CONTROL GENERAL NOTES:**

1. STABILIZATION MEASURES SHALL BE INITIATED AS SOON AS PRACTICABLE IN PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITIES HAVE TEMPORARILY OR PERMANENTLY CEASED, BUT IN NO CASE MORE THAN FOURTEEN (14) DAYS AFTER WORK HAS CEASED, UNLESS ACTIVITY IN THAT PORTION OF THE SITE WILL RESUME WITHIN TWENTY-ONE (21) DAYS. FOLLOWING INITIAL SOIL DISTURBANCE OR REDISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN SEVEN CALENDAR DAYS FOR THE SURFACE OF ALL PERIMETER SLOPES.
2. ALL SEDIMENT AND EROSION CONTROL DEVICES SHALL BE INSPECTED EVERY SEVEN (7) DAYS OR EVERY 14 DAYS AND AFTER EACH RAINFALL OCCURRENCE THAT EXCEEDS ONE-QUARTER (0.25) INCH. DAMAGED OR INEFFECTIVE DEVICES SHALL BE REPAIRED OR REPLACED, AS NECESSARY.
3. PROVIDE TIRE WASH, SILT FENCE, INLET PROTECTION, AND/OR OTHER EROSION CONTROL DEVICES, AS MAY BE REQUIRED, TO CONTROL SOIL EROSION DURING ALL PHASES OF CONSTRUCTION. ALL DISTURBED AREAS SHALL BE CLEANED OF DEBRIS, FINISH GRADED, AND STABILIZED WITH PERMANENT VEGETATION IMMEDIATELY AFTER COMPLETION OF CONSTRUCTION.
4. ALL EROSION CONTROL DEVICES SHALL BE PROPERLY MAINTAINED UNTIL THE COMPLETION OF ALL PHASES OF CONSTRUCTION AND ALL DISTURBED AREAS HAVE BEEN STABILIZED. ADDITIONAL CONTROL DEVICES MAY BE REQUIRED DURING CONSTRUCTION IN ORDER TO CONTROL EROSION AND/OR OFF-SITE SEDIMENTATION. ALL TEMPORARY CONTROL DEVICES SHALL BE REMOVED ONCE PERMANENT VEGETATION IS ESTABLISHED.
5. ALL DISTURBED AREAS NOT TO BE PAVED OR LANDSCAPE BEDS SHALL BE SODDED.
6. ANY TOPSOIL STOCKPILE SHALL BE GRADED TO DRAIN AND SEEDED WITH A TEMPORARY SEED MIX.
7. DUST CONTROL ON-SITE SHALL BE MINIMIZED BY SPRAYING WATER ON DRY AREAS OF THE SITE. THE USE OF OILS AND OTHER PETROLEUM BASED OR TOXIC LIQUIDS FOR DUST SUPPRESSION IS PROHIBITED.
8. IF THE MAJORITY OF MUD OR DIRT IS NOT REMOVED FROM TRAFFIC EXITS, CONTRACTOR SHALL ESTABLISH ADDITIONAL VEHICLE WASH AREAS AT CONSTRUCTION TRAFFIC EXIT POINTS. RINSE-OFF WILL NOT BE ALLOWED OUTSIDE THE PROJECT CONSTRUCTION LIMITS. ANY DIRT OR MUD TRACKED ONTO ADJACENT ROADWAY SHALL BE PICKED/WEPT UP IMMEDIATELY.
9. ALL EROSION AND SEDIMENTATION CONTROLS SHOWN ON THE PLANS SHALL BE CONSTRUCTED IN ACCORDANCE WITH GOVERNING AUTHORITIES AND MAINTAINED AS PART OF THIS CONTRACT. CONTRACTOR TO INSTALL EROSION CONTROL IN ACCORDANCE WITH THE EROSION SEDIMENTATION CONTROL PLAN AS A MINIMUM. OTHER MEASURES MAY BE REQUIRED TO ASSURE THAT SILT IS CONTROLLED ON-SITE.

**SEQUENCE OF CONSTRUCTION:**

1. INSTALL SILT FENCE, TEMPORARY CONSTRUCTION ENTRANCE, CONCRETE WASHOUT AND TIRE WASH FOR CONSTRUCTION TRAFFIC AT LOCATION SHOWN IN THE PLANS.
2. INSTALL INLET PROTECTION AND OTHER EROSION CONTROL MEASURES.
3. ALL EROSION CONTROL MEASURES SHALL BE INSPECTED AND APPROVED BY THE CITY PRIOR TO CONTRACTOR PROCEEDING WITH CONSTRUCTION.
4. BEGIN DEMOLITION. PERFORM MASS GRADING OF THE SITE.
5. INSTALL ANY UNDERGROUND UTILITIES. WHEN UNDERGROUND UTILITY INSTALLATION IS COMPLETE, FINE-GRADE THE PAVED AREAS TO SUBGRADE AND INSTALL THE STONE BASE COURSE.
6. AS THESE PHASES PROGRESS, INTERMITTENT STORM WATER CONTROLS SHOULD BE INSTALLED TO PREVENT SILT FROM WASHING OFF THE CONSTRUCTION SITE AND ENTERING THE STREETS, STORM SEWER SYSTEM, OR ADJACENT PROPERTIES.
7. INSTALL PAVING, FINISH GRADE THE SITE AND PERFORM FINAL CLEANUP. SPREAD TOPSOIL AND SOD ALL AREAS DISTURBED BY CONSTRUCTION THAT WILL NOT BE PAVED OR LANDSCAPE BEDS. REFER TO THE SOD/SEEDING NOTES, THIS SHEET.
8. REMOVE TEMPORARY EROSION CONTROL MEASURES AFTER PERMANENT STAND OF VEGETATION IS ESTABLISHED.

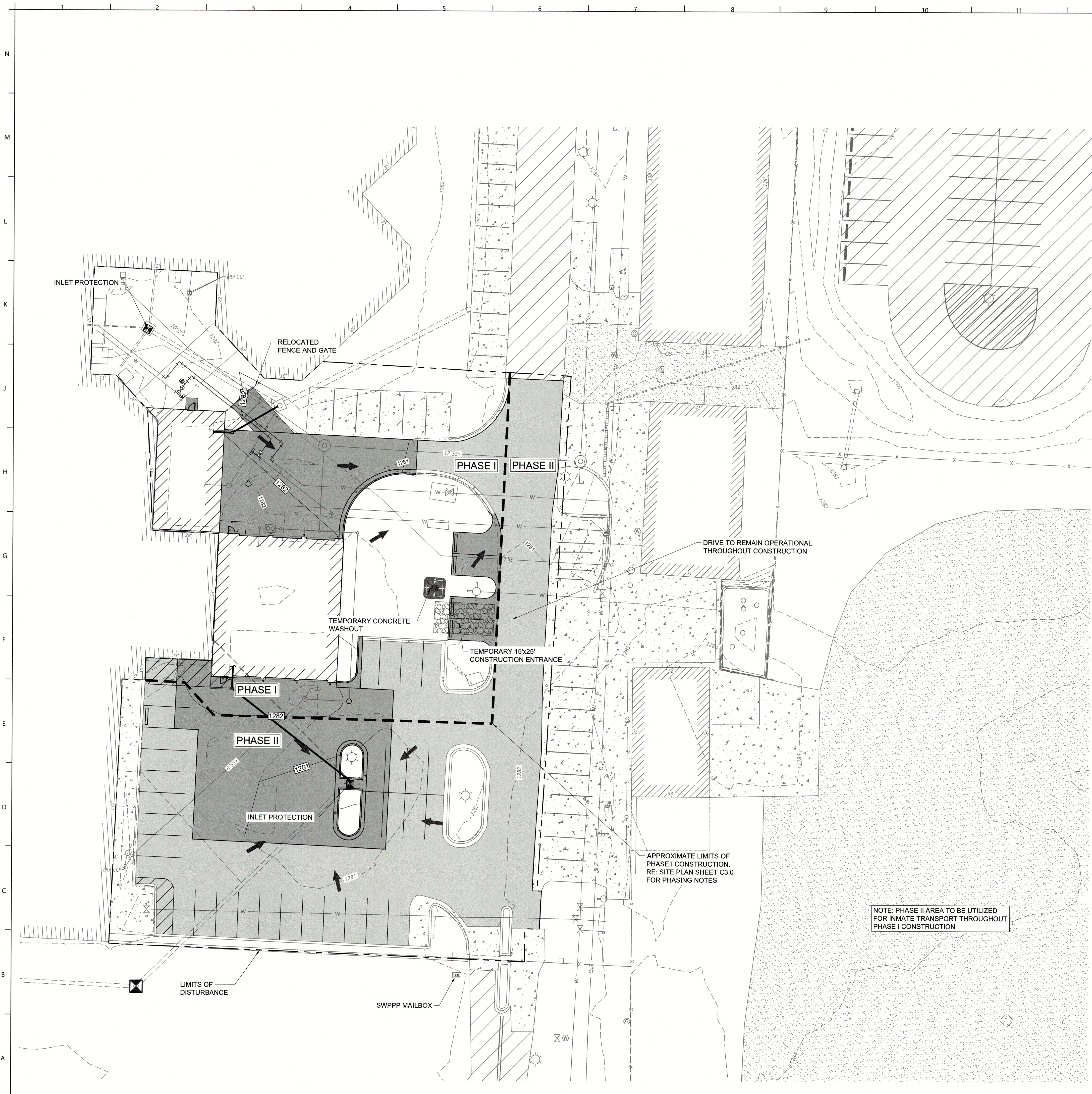
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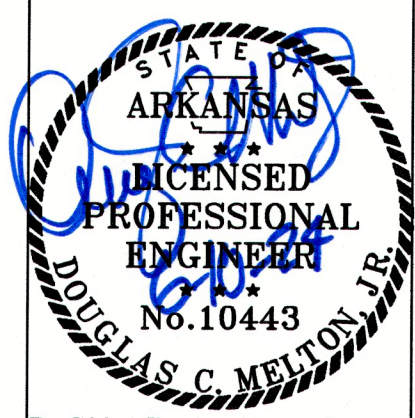
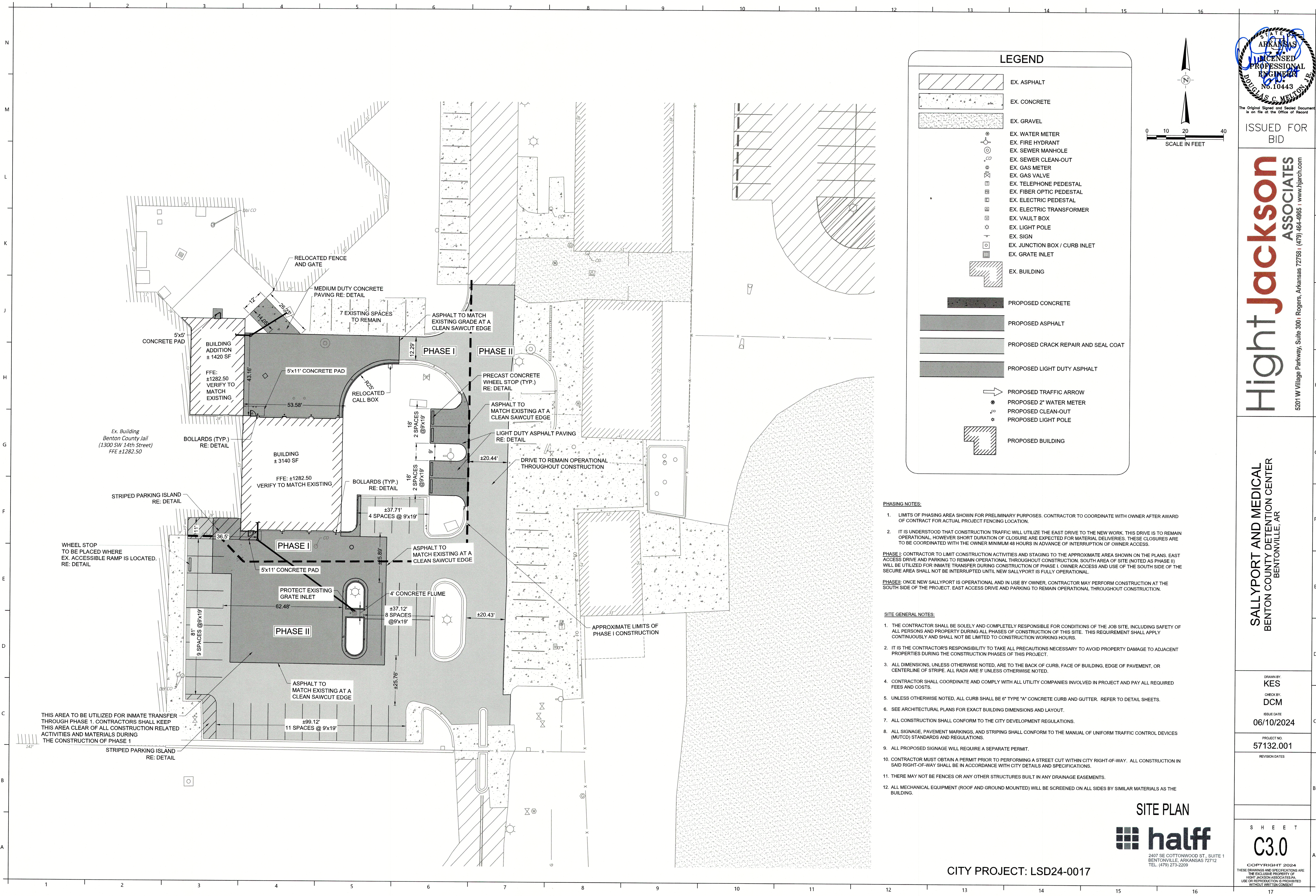
**LEGEND**

	PROPOSED SILT FENCE
	LIMITS OF DISTURBANCE
	TEMPORARY CONSTRUCTION ENTRANCE
	INLET PROTECTION
	SWPPP MAILBOX
	FLOW ARROW
	CONCRETE WASHOUT

**EROSION CONTROL**  
  
 2407 SE COTTONWOOD ST., SUITE 1  
 BENTONVILLE, ARKANSAS 72712  
 TEL. (479) 273-2209

CITY PROJECT: LSD24-0017





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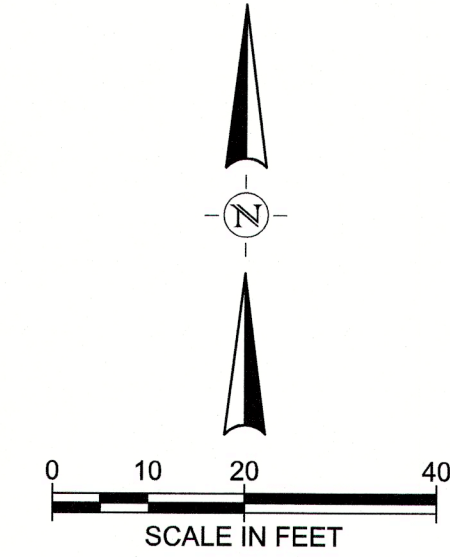
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**LEGEND**

- EX. ASPHALT
- EX. CONCRETE
- EX. GRAVEL
- EX. WATER METER
- EX. FIRE HYDRANT
- EX. SEWER MANHOLE
- EX. SEWER CLEAN-OUT
- EX. GAS METER
- EX. GAS VALVE
- EX. TELEPHONE PEDESTAL
- EX. FIBER OPTIC PEDESTAL
- EX. ELECTRIC PEDESTAL
- EX. ELECTRIC TRANSFORMER
- EX. VAULT BOX
- EX. LIGHT POLE
- EX. SIGN
- EX. JUNCTION BOX / CURB INLET
- EX. GRATE INLET
- EX. BUILDING
- PROPOSED CONCRETE
- PROPOSED ASPHALT
- PROPOSED CRACK REPAIR AND SEAL COAT
- PROPOSED LIGHT DUTY ASPHALT
- PROPOSED TRAFFIC ARROW
- PROPOSED 2" WATER METER
- PROPOSED CLEAN-OUT
- PROPOSED LIGHT POLE
- PROPOSED BUILDING



**PHASING NOTES:**

1. LIMITS OF PHASING AREA SHOWN FOR PRELIMINARY PURPOSES. CONTRACTOR TO COORDINATE WITH OWNER AFTER AWARD OF CONTRACT FOR ACTUAL PROJECT FENCING LOCATION.
2. IT IS UNDERSTOOD THAT CONSTRUCTION TRAFFIC WILL UTILIZE THE EAST DRIVE TO THE NEW WORK. THIS DRIVE IS TO REMAIN OPERATIONAL, HOWEVER SHORT DURATION OF CLOSURE ARE EXPECTED FOR MATERIAL DELIVERIES. THESE CLOSURES ARE TO BE COORDINATED WITH THE OWNER MINIMUM 48 HOURS IN ADVANCE OF INTERRUPTION OF OWNER ACCESS.

**PHASE I:** CONTRACTOR TO LIMIT CONSTRUCTION ACTIVITIES AND STAGING TO THE APPROXIMATE AREA SHOWN ON THE PLANS. EAST ACCESS DRIVE AND PARKING TO REMAIN OPERATIONAL THROUGHOUT CONSTRUCTION. SOUTH AREA OF SITE (NOTED AS PHASE II) WILL BE UTILIZED FOR INMATE TRANSFER DURING CONSTRUCTION OF PHASE I. OWNER ACCESS AND USE OF THE SOUTH SIDE OF THE SECURE AREA SHALL NOT BE INTERRUPTED UNTIL NEW SALLYPORT IS FULLY OPERATIONAL.

**PHASE II:** ONCE NEW SALLYPORT IS OPERATIONAL AND IN USE BY OWNER, CONTRACTOR MAY PERFORM CONSTRUCTION AT THE SOUTH SIDE OF THE PROJECT. EAST ACCESS DRIVE AND PARKING TO REMAIN OPERATIONAL THROUGHOUT CONSTRUCTION.

**SITE GENERAL NOTES:**

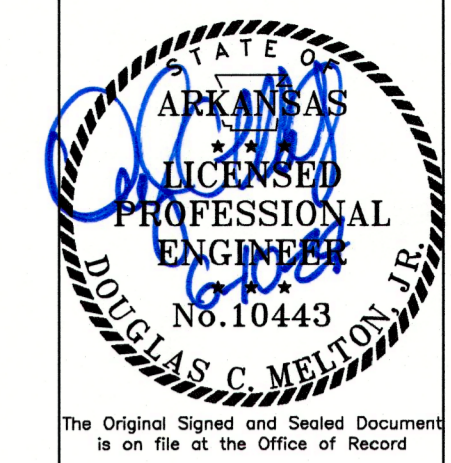
1. THE CONTRACTOR SHALL BE SOLELY AND COMPLETELY RESPONSIBLE FOR CONDITIONS OF THE JOB SITE, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY DURING ALL PHASES OF CONSTRUCTION OF THIS SITE. THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND SHALL NOT BE LIMITED TO CONSTRUCTION WORKING HOURS.
2. IT IS THE CONTRACTOR'S RESPONSIBILITY TO TAKE ALL PRECAUTIONS NECESSARY TO AVOID PROPERTY DAMAGE TO ADJACENT PROPERTIES DURING THE CONSTRUCTION PHASES OF THIS PROJECT.
3. ALL DIMENSIONS, UNLESS OTHERWISE NOTED, ARE TO THE BACK OF CURB, FACE OF BUILDING, EDGE OF PAVEMENT, OR CENTERLINE OF STRIPE. ALL RADII ARE 6' UNLESS OTHERWISE NOTED.
4. CONTRACTOR SHALL COORDINATE AND COMPLY WITH ALL UTILITY COMPANIES INVOLVED IN PROJECT AND PAY ALL REQUIRED FEES AND COSTS.
5. UNLESS OTHERWISE NOTED, ALL CURB SHALL BE 6" TYPE 'A' CONCRETE CURB AND GUTTER. REFER TO DETAIL SHEETS.
6. SEE ARCHITECTURAL PLANS FOR EXACT BUILDING DIMENSIONS AND LAYOUT.
7. ALL CONSTRUCTION SHALL CONFORM TO THE CITY DEVELOPMENT REGULATIONS.
8. ALL SIGNAGE, PAVEMENT MARKINGS, AND STRIPING SHALL CONFORM TO THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) STANDARDS AND REGULATIONS.
9. ALL PROPOSED SIGNAGE WILL REQUIRE A SEPARATE PERMIT.
10. CONTRACTOR MUST OBTAIN A PERMIT PRIOR TO PERFORMING A STREET CUT WITHIN CITY RIGHT-OF-WAY. ALL CONSTRUCTION IN SAID RIGHT-OF-WAY SHALL BE IN ACCORDANCE WITH CITY DETAILS AND SPECIFICATIONS.
11. THERE MAY NOT BE FENCES OR ANY OTHER STRUCTURES BUILT IN ANY DRAINAGE EASEMENTS.
12. ALL MECHANICAL EQUIPMENT (ROOF AND GROUND MOUNTED) WILL BE SCREENED ON ALL SIDES BY SIMILAR MATERIALS AS THE BUILDING.

**SITE PLAN**



2407 SE COTTONWOOD ST., SUITE 1  
BENTONVILLE, ARKANSAS 72712  
TEL. (479) 273-2209

CITY PROJECT: LSD24-0017



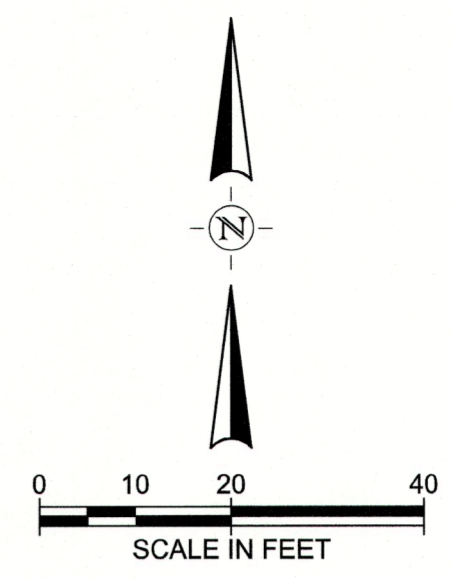
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**GRADING AND DRAINAGE GENERAL NOTES:**

- NO LAND CLEARING SHALL BEGIN UNTIL ALL EROSION CONTROL MEASURES HAVE BEEN INSTALLED. THE CONTRACTOR SHALL TAKE ALL PRECAUTIONS TO PREVENT SOIL SEDIMENT FROM LEAVING THE SITE. ALL EROSION CONTROL MEASURES SHALL BE MAINTAINED UNTIL ALL CONTRIBUTING AREAS ARE GRADED AND STABILIZED.
- ALL DISTURBED AREAS SHALL BE REINSTATED PER THE LANDSCAPE PLAN.
- ALL STORM SEWER DISTANCES ARE FROM CENTER OF INLET TO CENTER OF INLET OR FROM CENTER OF INLET TO END OF FLARED-END-SECTION.
- ALL EXISTING UTILITY VAULTS, VALVES, METERS, AND BOXES TO BE ADJUSTED TO FINISHED GRADES IN ACCORDANCE WITH CITY OF BENTONVILLE REGULATIONS AND TO THE CORRESPONDING UTILITY COMPANIES REQUIREMENTS.
- NO FINISHED GRADE SLOPES SHALL EXCEED 3:1.
- ALL SOILS UNDER THE BUILDING AND PAVEMENT SHALL BE STRUCTURAL FILL APPROVED BY THE SOILS ENGINEER. CONTRACTOR WILL BE REQUIRED TO PROVIDE PROCTOR TESTS TO BE REVIEWED/APPROVED BY THE SOILS ENGINEER.
- FENCES ARE NOT ALLOWED WITHIN EXISTING OR PROPOSED DRAINAGE EASEMENTS.
- ALL PROPOSED SIDEWALKS AND ACCESSIBLE RAMPS SHALL HAVE A MAXIMUM CROSS SLOPE OF 2%.
- THERE ARE NO KNOWN EXISTING EROSION CONTROL PROBLEMS EXISTING ON THIS SITE.
- THERE ARE NO KNOWN EXISTING WETLANDS ON THIS SITE.
- ALL AREAS WITHIN THE PROPOSED RIGHT-OF-WAY, NOT UNDER PAVEMENT, SHALL BE GRADED SMOOTH, RECEIVE 6" TOPSOIL, & BE SEEDED UPON THE COMPLETION OF CONSTRUCTION OF THE IMPROVEMENTS, AND MAINTAINED UNTIL VEGETATION IS ACHIEVED. RE: LANDSCAPE PLAN
- CONTRACTOR SHALL REMOVE AND DISPOSE OF ALL FENCING, TREES, DEBRIS, RUBBISH AND OTHER MATERIALS WITHIN THE LIMITS OF CONSTRUCTION. DISPOSAL SHALL BE IN ACCORDANCE WITH ALL LOCAL, STATE, AND/OR FEDERAL REGULATIONS GOVERNING SUCH OPERATIONS. CONTRACTOR SHALL PROTECT ALL TREES OUTSIDE THE LIMITS OF DISTURBANCE.

**LEGEND**

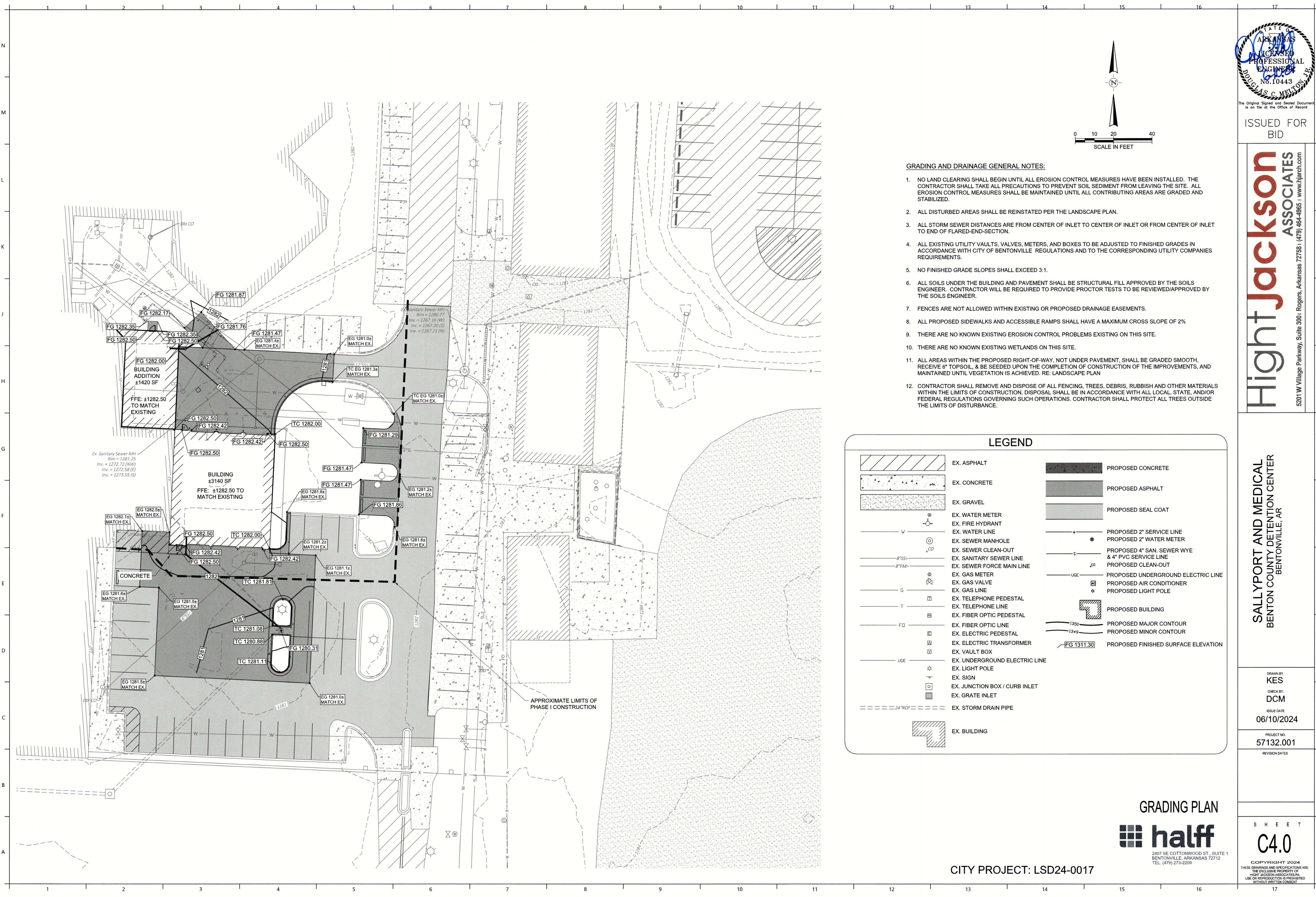
	EX. ASPHALT		PROPOSED CONCRETE
	EX. CONCRETE		PROPOSED ASPHALT
	EX. GRAVEL		PROPOSED SEAL COAT
	EX. WATER METER		PROPOSED 2" SERVICE LINE
	EX. FIRE HYDRANT		PROPOSED 2" WATER METER
	EX. WATER LINE		PROPOSED 4" SAN. SEWER WYE & 4" PVC SERVICE LINE
	EX. SEWER MANHOLE		PROPOSED CLEAN-OUT
	EX. SEWER CLEAN-OUT		PROPOSED UNDERGROUND ELECTRIC LINE
	EX. SANITARY SEWER LINE		PROPOSED AIR CONDITIONER
	EX. SEWER FORCE MAIN LINE		PROPOSED LIGHT POLE
	EX. GAS METER		PROPOSED BUILDING
	EX. GAS VALVE		PROPOSED MAJOR CONTOUR
	EX. GAS LINE		PROPOSED MINOR CONTOUR
	EX. TELEPHONE PEDESTAL		PROPOSED FINISHED SURFACE ELEVATION
	EX. TELEPHONE LINE		
	EX. FIBER OPTIC PEDESTAL		
	EX. FIBER OPTIC LINE		
	EX. ELECTRIC PEDESTAL		
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	EX. GRATE INLET		
	EX. STORM DRAIN PIPE		
	EX. BUILDING		

**GRADING PLAN**

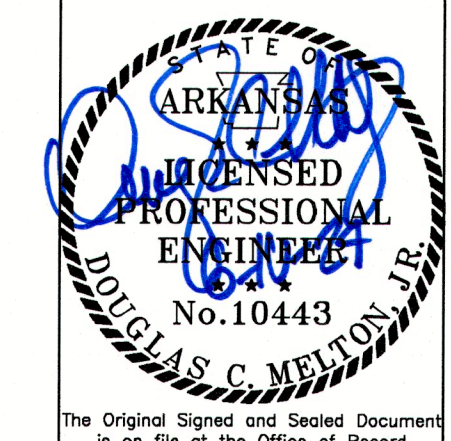


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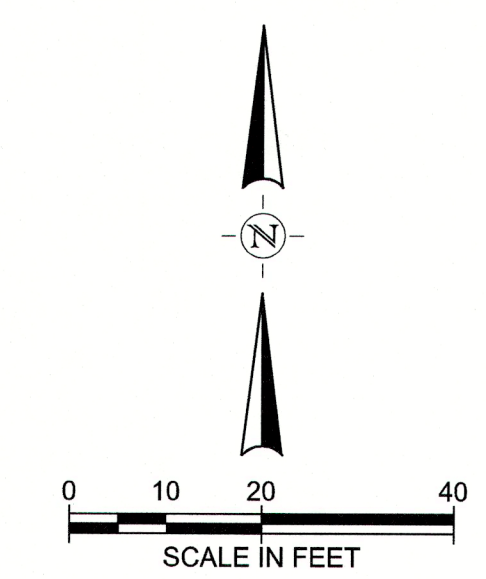
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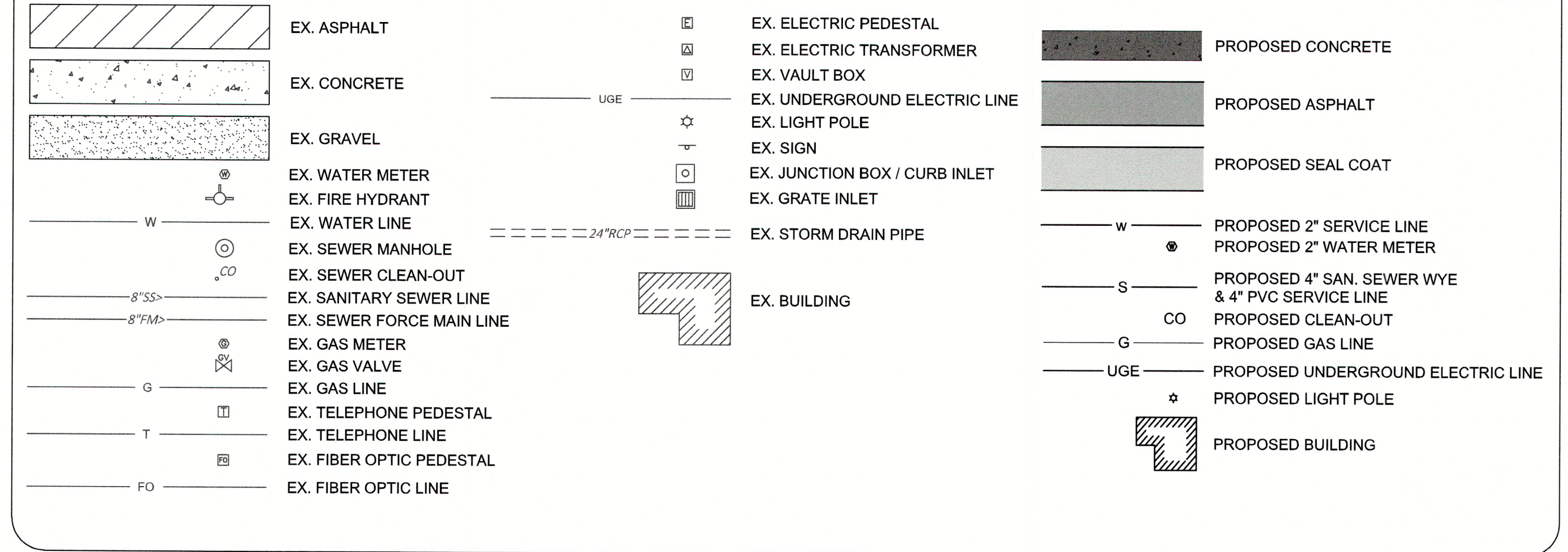
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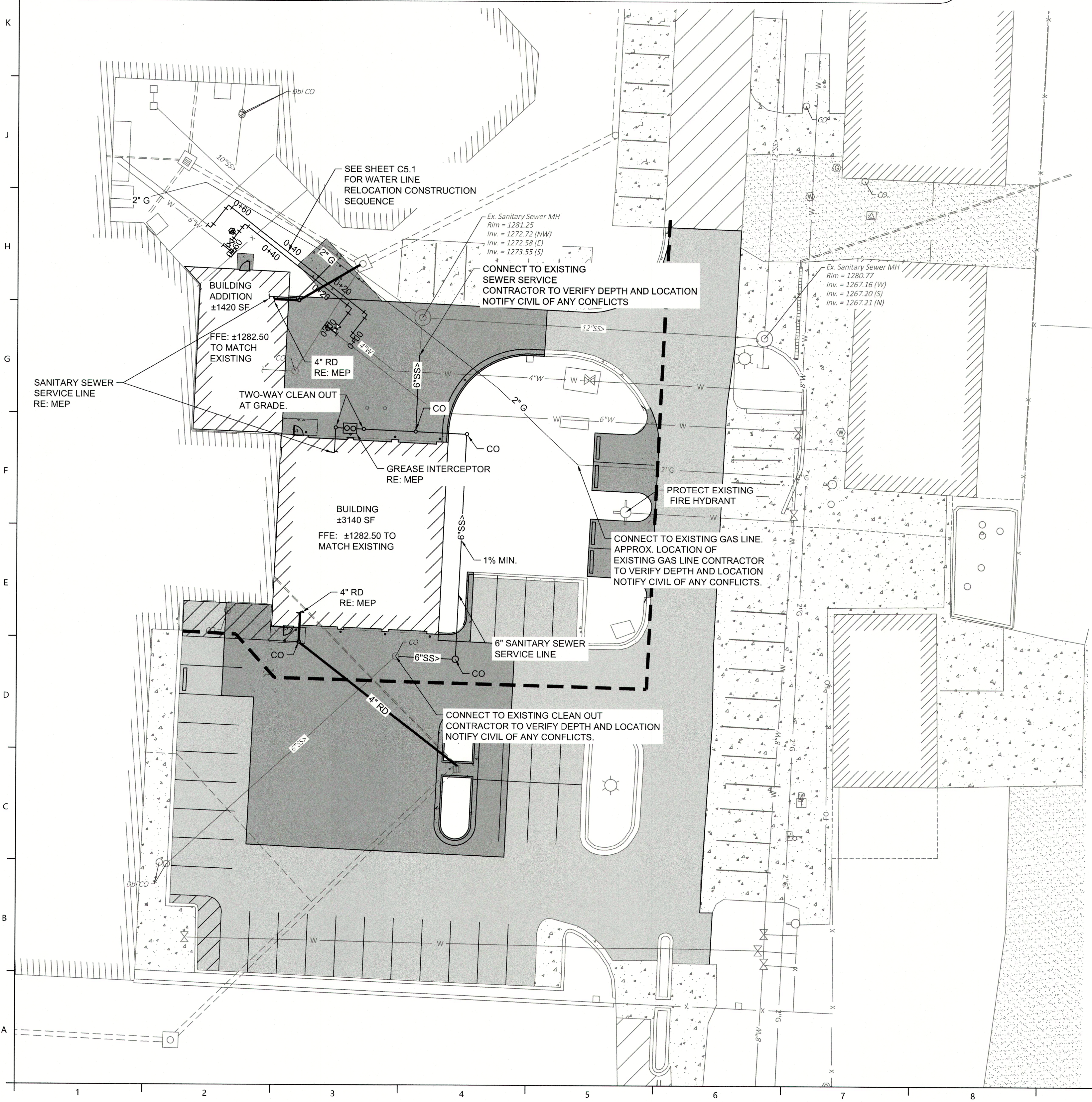


**LEGEND**



UTILITY GENERAL NOTES:

- EXISTING UTILITIES ACROSS OR ALONG THE LINE OF THE PROPOSED WORK ARE SHOWN ONLY IN AN APPROXIMATE LOCATION ON THESE PLANS. THE CONTRACTOR SHALL CALL THE STATE ONE-CALL SYSTEM PRIOR TO CONSTRUCTION @ 1-800-482-8988. THE CONTRACTOR SHALL, ON HIS OWN INITIATIVE AND AT NO ADDITIONAL COST, LOCATE ALL UNDERGROUND LINES AND STRUCTURES AS NECESSARY. THE CONTRACTOR SHALL VERIFY AND CALCULATE ALL POINTS OF CONNECTION AND ALL UTILITY CROSSINGS AND INFORM HALFF ASSOCIATES, INC. AND/OR THE OWNER OF ANY CONFLICTS OR REQUIRED DEVIATIONS FROM THE PLANS. HALFF ASSOCIATES, INC. SHALL BE HELD HARMLESS IN THE EVENT THE CONTRACTOR FAILS TO MAKE SUCH NOTIFICATION.
- ALL ELECTRIC, TELEPHONE, AND GAS EXTENSIONS INCLUDING SERVICE LINES SHALL BE CONSTRUCTED TO THE APPROPRIATE UTILITY COMPANY SPECIFICATIONS AND REQUIREMENTS. ALL UTILITY COMPANY DISCONNECTIONS SHALL BE COORDINATED WITH THE DESIGNATED UTILITY COMPANY. CONTRACTOR SHALL FURTHER COORDINATE ANY DISRUPTIONS TO EXISTING UTILITY SERVICE WITH ADJACENT PROPERTY OWNERS.
- IT SHALL BE DISTINCTLY UNDERSTOOD THAT FAILURE TO SPECIFICALLY INDICATE WORK WHICH IS REQUIRED TO COMPLETE THIS PROJECT SHALL NOT RELIEVE THE CONTRACTOR OF HIS RESPONSIBILITY TO PERFORM SUCH.
- THE CONTRACTOR SHALL NOT OPERATE VALVES ON EXISTING WATER MAINS. A PRECONSTRUCTION MEETING IS REQUIRED FOR ALL WATER AND SANITARY SEWER CONSTRUCTION.
- ALL OUTDOOR LIGHTING SHALL HAVE "CUT-OFF" OR B-U-G FIXTURES (WITH A U RATING OF 0) AND APPROVED BY PLANNING DEPARTMENT IN ACCORDANCE WITH THE CITY OF BENTONVILLE REQUIREMENTS. REFER TO ARCHITECTURE AND MEP PLANS FOR LIGHT FIXTURE LOCATIONS, DETAILS, FIXTURE TYPES, AND LOCATION/NUMBER/SIZE OF CONDUIT SLEEVES.
- BEUD DESIGN LAYOUT DRAWING TAKES PRECEDENCE OVER ANY ELECTRIC INFORMATION SHOWN ON THE SITE UTILITY PLAN. CONTRACTOR SHALL FOLLOW DESIGN ON BEUD DRAWINGS WHEN INSTALLING FACILITIES.
- RELOCATION OF EXISTING ELECTRICAL FACILITIES SHALL BE BY BENTONVILLE ELECTRIC DEPARTMENT AT DEVELOPER'S EXPENSE. CONTRACTOR TO COORDINATE RELOCATION WITH BEUD. THE CONTRACTOR WILL BE RESPONSIBLE FOR INTERCEPTING EXISTING CONDUITS AND ROUTING TO TRANSFORMER LOCATION, RE: BEUD ELECTRIC PLAN.
- CONTRACTOR SHALL COORDINATE AND COMPLY WITH ALL UTILITY COMPANIES REQUIREMENTS WHEN WORKING WITH, OR AROUND UTILITIES IN PROJECT AREA.
- ALL TRENCHING AND BEDDING SHALL BE IN ACCORDANCE WITH THE CITY OF BENTONVILLE WATER AND SEWER SPECIFICATIONS. RE: "TYPICAL WATER AND SEWER BEDDING AND BACKFILL DETAIL."
- STREET LIGHT LOCATION WILL BE DESIGNED BY BEUD. OWNER/DEVELOPER IS REQUIRED TO PAY FOR LIGHT PRIOR TO REQUESTING PRECON.
- CONTACT BEUD AT 479-271-3135 BEFORE PERFORMING ANY GRADING WITHIN 5' OF EXISTING OR PROPOSED POWER POLES.
- ELECTRIC FACILITIES SHALL BE INSTALLED IN ACCORDANCE WITH THE LATEST REVISIONS OF THE ELECTRIC SPECIFICATIONS FOUND ON THE WEBSITE. CONTRACTOR IS RESPONSIBLE FOR COMPLIANCE WITH THIS DOCUMENT.
- IF PIPE INVERT IS ABOVE EXISTING GRADE, ENGINEERED FILL IS REQUIRED TO BOTTOM OF BEDDING MATERIAL.
- ALL NEW WATER CONNECTIONS SHALL BE TIED IN AFTER THE EXISTING BACKFLOW.
- LIMITED ON UTILITIES DOWNTOWN. THE OWNER SHALL BE NOTIFIED WITHIN A MINIMUM OF 48 HOURS.
- CONTRACTOR TO COORDINATE UTILITIES WITH H.S.A.
- CONDENSATE AND ANY UN-METERED WATER ARE ADDRESSED AS A PROHIBITED DISCHARGE AND IS NOT APPROVED TO DISCHARGE INTO THE BENTONVILLE SANITARY SEWER SYSTEM
- ALL UTILITIES SHALL BE A MINIMUM OF 4 FOOT FROM FOOTINGS

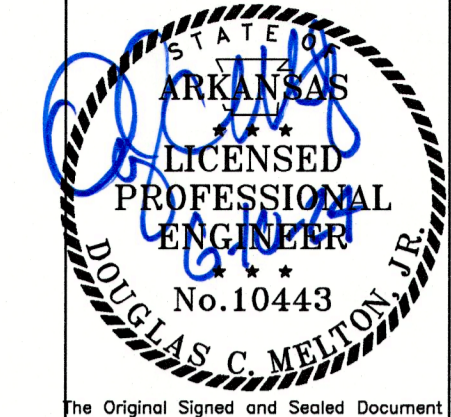


**UTILITY PLAN**



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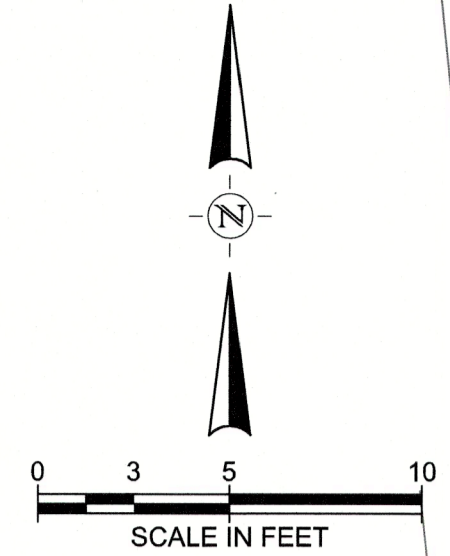
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**Thrust per psi of Water Pressure (Coefficient)**

PIPE SIZE	DEAD END OR TEE	90° BEND	45° BEND	22 1/2° BEND	11 1/4° BEND
2	4	5	3	2	1
3	7	10	6	3	2
4	13	18	10	5	3
6	21	40	22	11	6
8	59	84	39	20	10
10	79	112	61	31	16
12	112	160	87	45	23
14	154	219	119	61	31
16	200	285	155	79	40
18	253	361	196	100	51
20	313	446	242	123	62
22	378	539	292	149	75
24	450	642	348	177	90

**Bearing Strength of Soils**

SOIL TYPE	SAFE BEARING LOAD, LBS./SQ. FT.
Muck	0
Soft Clay	1,000
Medium Clay or Sand	2,500
Compacted Sand	3,000
Hard Clay	6,000
Shale	10,000



- NOTES:**
- A Properly Designed Mechanical Restraint System Using Mega-Lugs by EBAA Iron or Approved Equal May be Used in Lieu of Concrete Blocking.
  - No Concrete Blocking Shall be Used if a Mechanical Restraint System is Shown on the Plans.
  - An Allowance for Water Hammer of 50% of the Pressure Condition Shall be Made in Sizing all Thrust Blocks Unless Otherwise Directed. For Bends in Which the Resultant Thrust is Horizontal or Downward, The Area of Undisturbed Trench Backing for Thrust Blocks Shall be in Accordance with the Following Formula:  

$$\text{Sq. Ft. of Undisturbed Trench Backing} = \frac{\text{Pressure Condition} \times 1.5 \times \text{Coefficient}}{\text{Safe Bearing Load of Soil}}$$
 EXAMPLE: 90° Bend, 8" Line, 100 psi Line Pressure, Medium Clay  

$$\text{Sq. Ft. of Trench Backing} = \frac{100 \times 1.5 \times 84}{2,500} = 5.0 \text{ Sq. Ft.}$$
  - The Minimum Area of Trench Backing for Thrust Blocks Shall be 1.0 Sq. Ft. Regardless of Size Given by Formula.
  - For Vertical Bends in Which the Resultant Thrust is Upward, the Thrust Block Shall be Sized in Accordance with the Following Formula:  

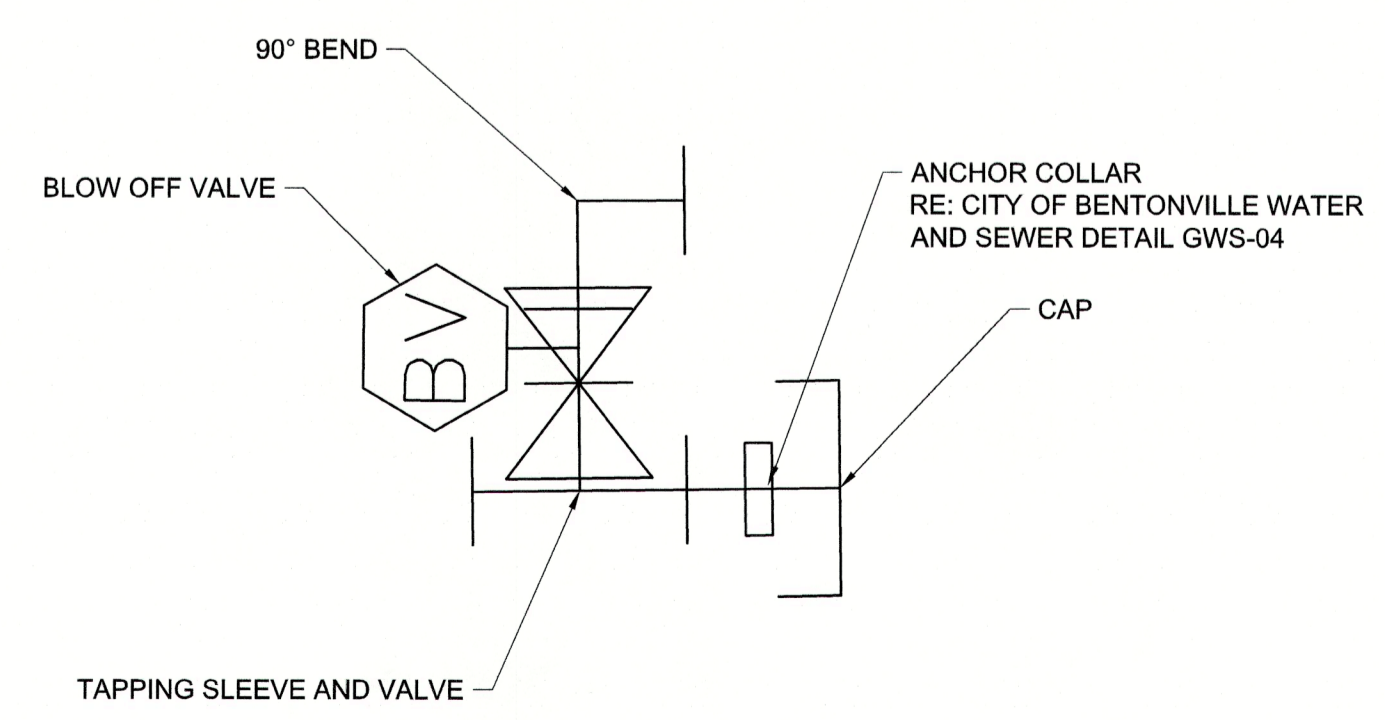
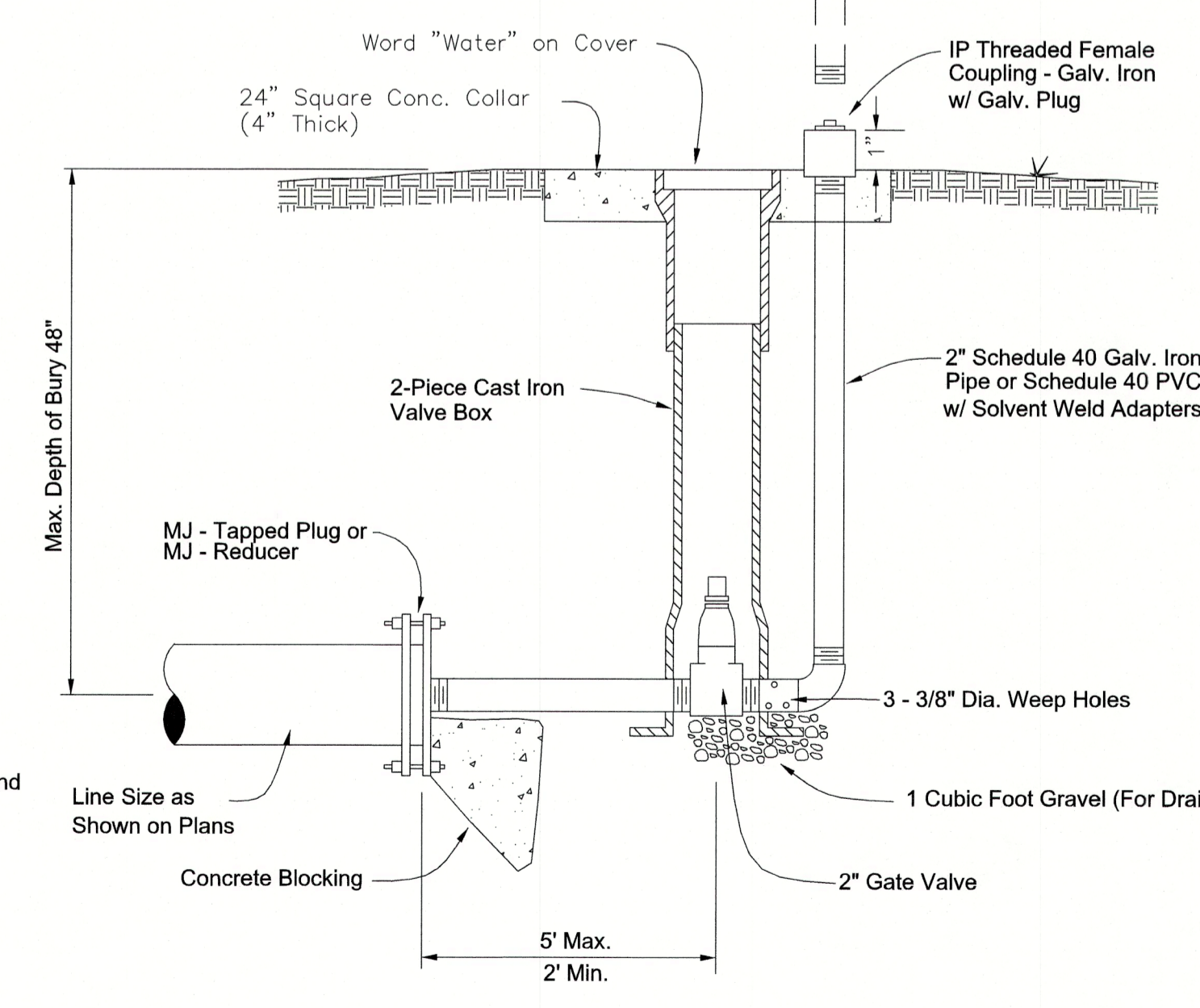
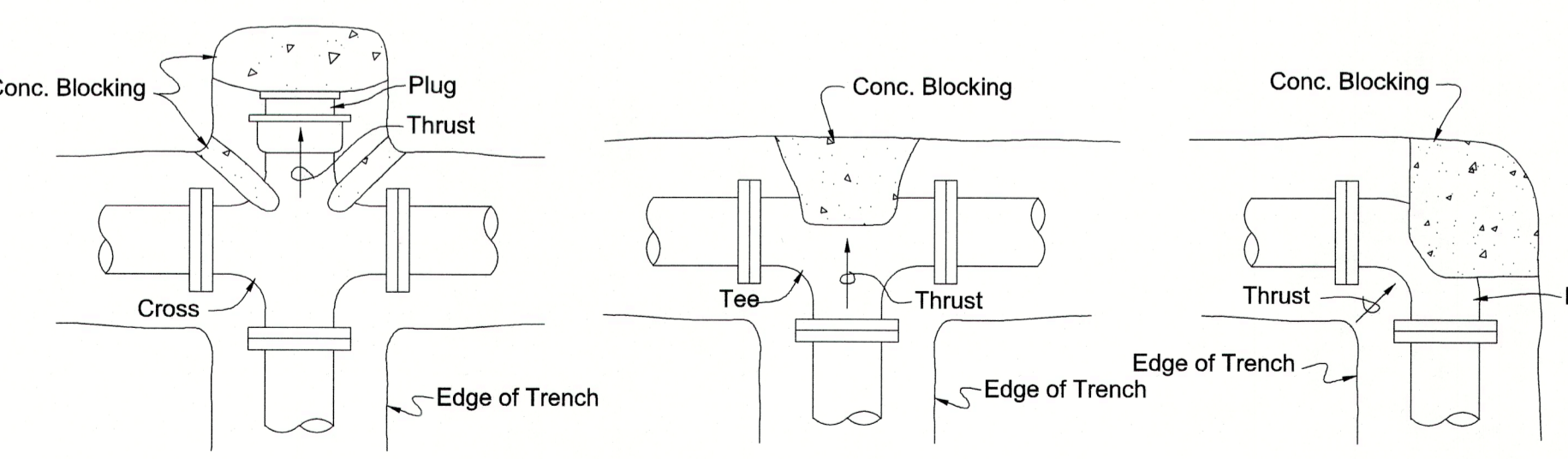
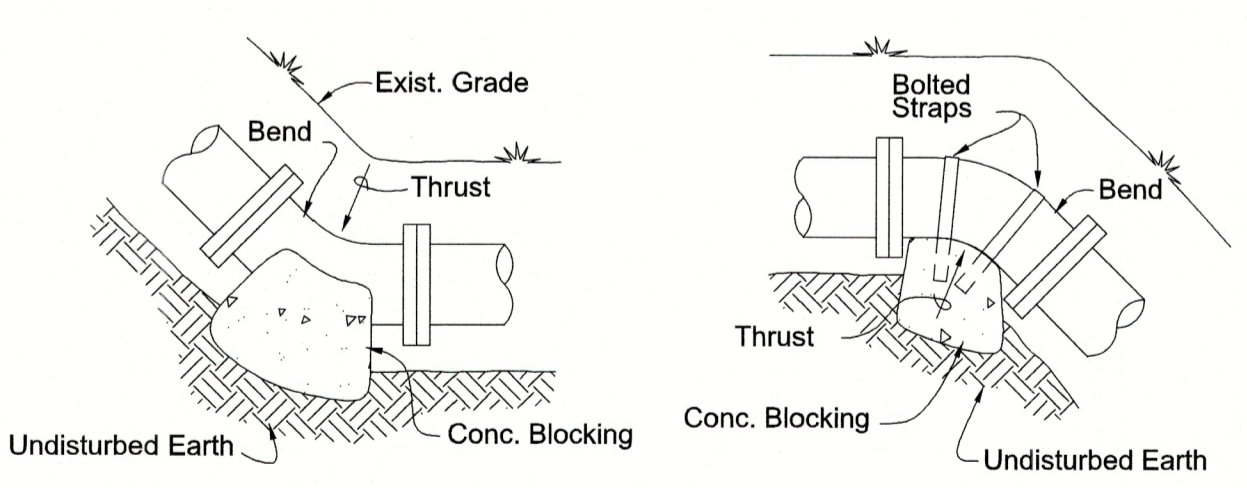
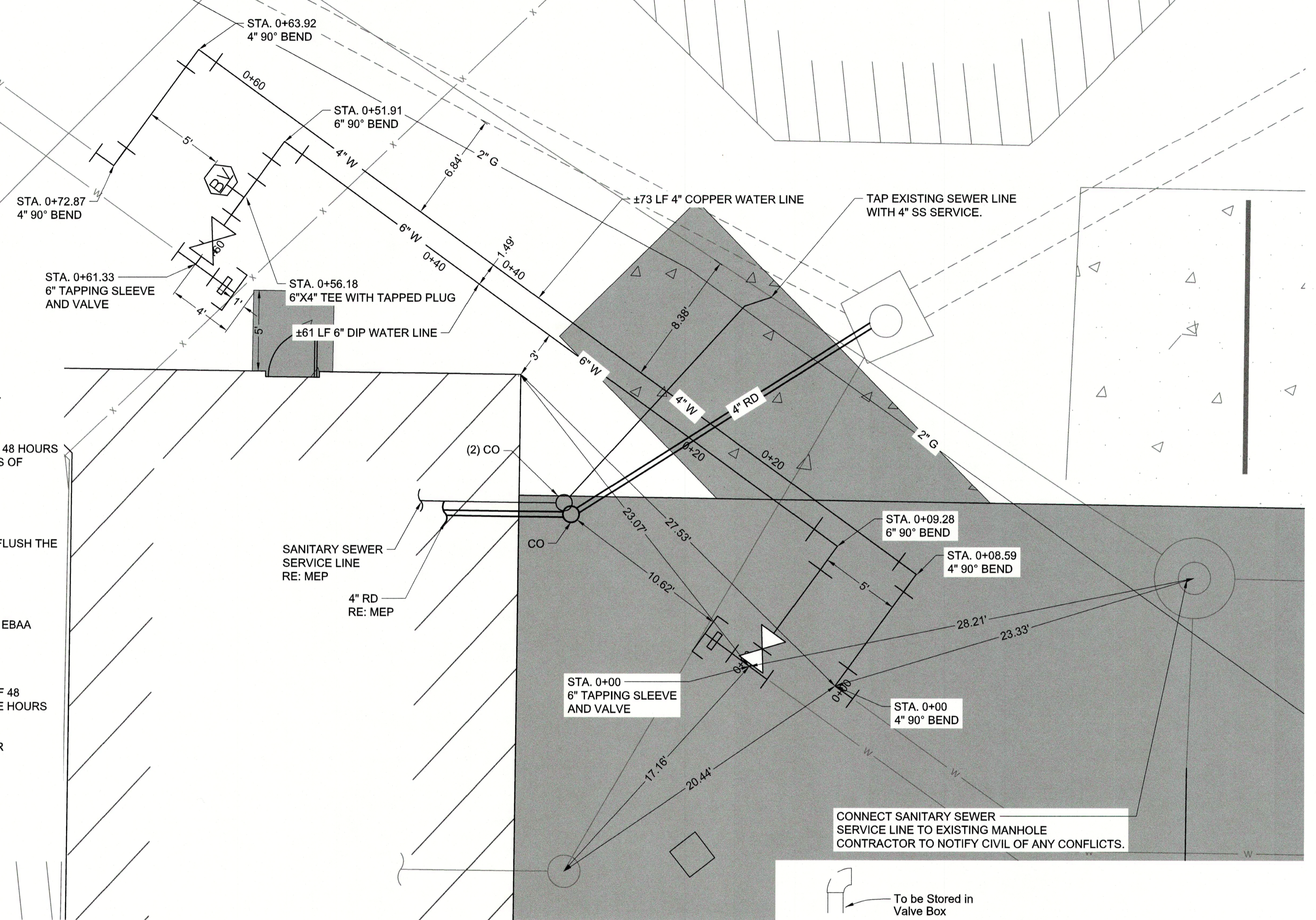
$$\text{Size of Block (Cu. Ft.)} = \frac{\text{Pressure Condition} \times 1.5 \times \text{Coefficient}}{150}$$
 EXAMPLE: 11-1/4" Vertical Bend w/ Upward Thrust, 16" Pipe, 100 psi (Soil Type is not Considered)  

$$\text{Size of Block} = \frac{100 \times 1.5 \times 40}{150} = 40 \text{ Cu. Ft.}$$
  - The Straps for Vertical Bends Shall be of Galvanized Steel with Minimum Dimensions of 3/16" x 2-1/2". The Length of the Straps Shall be Sufficient to Provide for 12 inches of Embedment of Each End into the Concrete Block. The End 2 inches of the Strap Shall be Bent at 90 Degrees to the Axis of the Strap to Provide for Anchorage. Costs of Straps is to be Included in the Unit Price for Concrete Blocking.

**WS- 20: CONCRETE BLOCKING DATA**

**4" WATER LINE AND 6" FIRE LINE SEQUENCE OF CONSTRUCTION:**

- RELOCATE GAS LINE TO LOCATION SHOWN ON PLANS AND INSTALL 4" ROOF DRAIN TO PROPOSED GRADE.
- AFTER GAS LINE IS RELOCATED AND IN SERVICE, BEGIN 4" WL RELOCATION.
- CUT IN UTILITY TRENCH FOR WATER SERVICE LINE AND INSTALL PROPER BUILDING.
- PREFABRICATE THE 4" COPPER WATER LINE ON THE BANK OF THE TRENCH.
- STEPS 6-10 SHALL BE COORDINATED WITH THE OWNER AND BENTONVILLE FIRE MARSHALL A MINIMUM OF 48 HOURS PRIOR TO COMMENCING WORK. THIS WORK SHOULD BE PLANNED TO BE EXECUTED BETWEEN THE HOURS OF 2:00PM-5:00PM AND WATER LINE SHALL NOT BE OFFLINE LONGER THAN 3 HOURS.
- SHUT THE WATER OFF TO THE BUILDING BY CLOSING THE VALVE AT THE METER.
- CUT EXISTING LINE, REMOVE MIDDLE SECTION, AND INSTALL NEW LINE.
- BLOCK ALL BENDS WITH QUICK SET CONCRETE AND SLUSH IN BLOCKING AGAINST UNDISTURBED SOIL.
- BACKFILL WITH CLASS 67 TO WITHIN 4" OF FINISHED GRADE.
- PUT WATER LINE BACK IN SERVICE AND OPEN THE NEAREST UTILITY SINK IN THE MECHANICAL ROOM TO FLUSH THE CONTENTS OF THE LINE.
- ONCE 4" WL IS RELOCATED AND BACK ONLINE, BEGIN 6" FIRE LINE RELOCATION.
- INSTALL TAPPING SLEEVE AND VALVES.
- INSTALL THRUST BLOCKING FOR TAPPING SLEEVE AND VALVES.
- INSTALL ANCHOR COLLAR.
- INSTALL NEW 6" FIRE LINE WITH RESTRAINED JOINTS AND FITTINGS. RESTRAINTS SHALL BE MEGA-LUG BY EBAA IRON OR APPROVED EQUAL.
- INSTALL BLOW OFF VALVE.
- LOAD AND CHLORINATE LINE.
- BLOW OFF TO FREE THE LINE OF DEBRIS.
- STEPS 10-13 SHALL BE COORDINATED WITH THE OWNER AND BENTONVILLE FIRE MARSHALL A MINIMUM OF 48 HOURS PRIOR TO COMMENCING WORK. THIS WORK SHOULD BE PLANNED TO BE EXECUTED BETWEEN THE HOURS OF 2:00PM-5:00PM AND WATER LINE SHALL NOT BE OFFLINE LONGER THAN 3 HOURS.
- SHUT THE WATER OFF TO THE BUILDING BY CLOSING THE VALVE AT THE VALVE VAULT.
- CUT EXISTING LINE, REMOVE MIDDLE SECTION, AND INSTALL CAPS LEAVING A 12" STUB PAST THE ANCHOR COLLARS. RESTRAIN CAPS TO ANCHOR COLLARS.
- INSTALL THRUST BLOCKING FOR BOTH CAPS AGAINST UNDISTURBED SOIL.
- BACKFILL WITH CLASS 67 TO WITHIN 4" OF FINISHED GRADE.
- FLUSH LINE WITH BLOWOFF FIXTURE AT STATION 0+56.18



**TYPICAL CONNECTION**

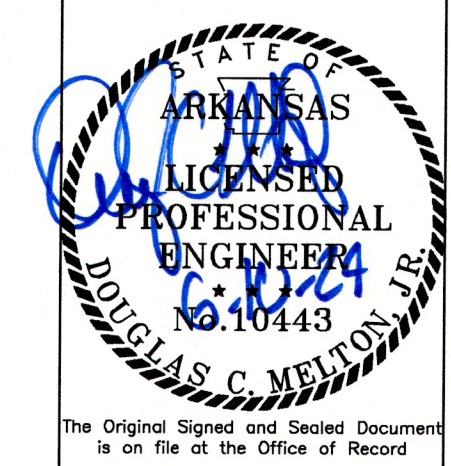
**WS-10: BLOCKING FOR BENDS, CROSSES & TEES**

**WS- 50: BLOWOFF VALVE**

**UTILITY RELOCATION PLAN**



2407 SE COTTONWOOD ST., SUITE 1  
 BENTONVILLE, ARKANSAS 72712  
 TEL. (479) 273-2209  
**CITY PROJECT: LSD24-0017**



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BENTONVILLE, AR

DRAWN BY: KES  
CHECK BY: DCM  
ISSUE DATE: 06/10/2024  
PROJECT NO: 57132.001  
REVISION DATES:

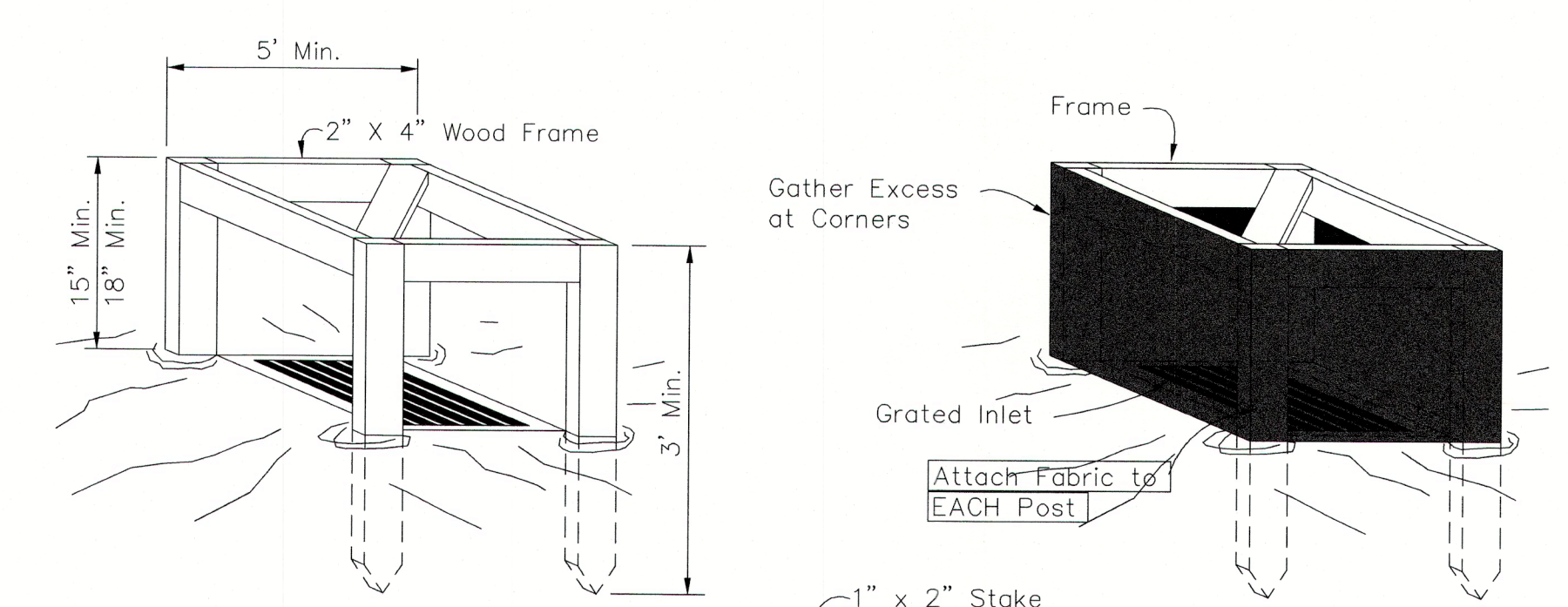
SHEET  
**C6.0**  
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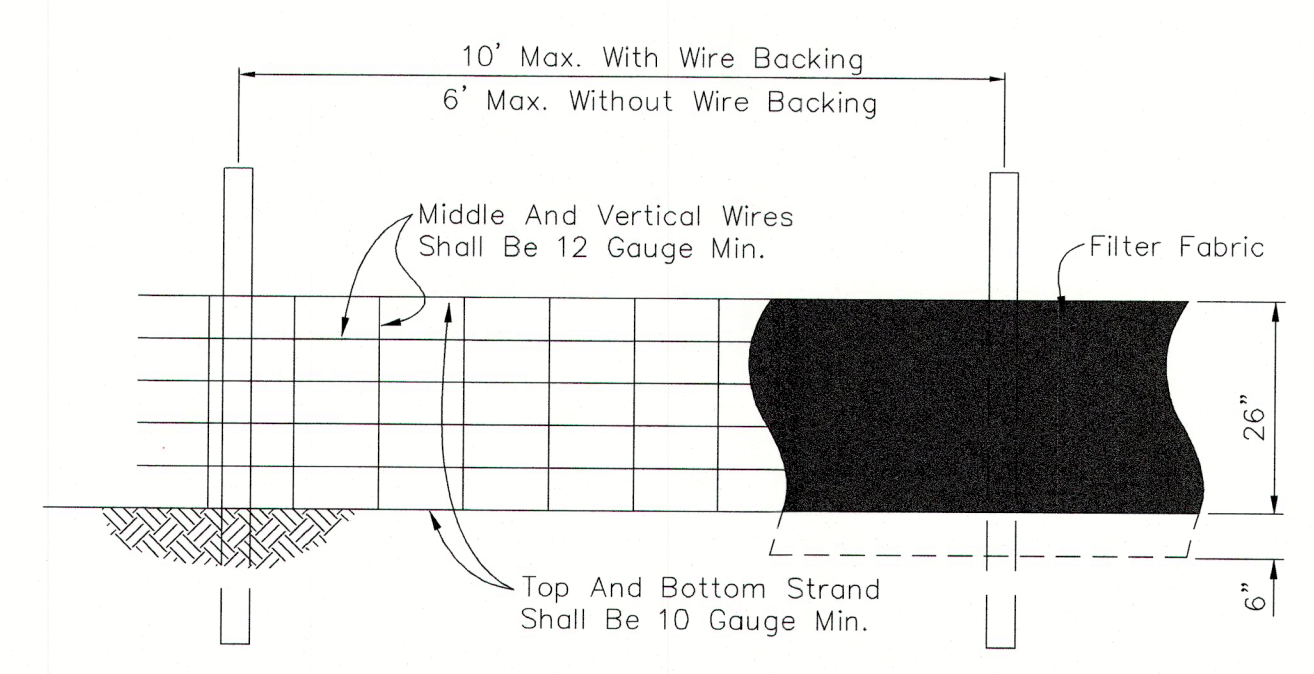


2407 SE COTTONWOOD ST., SUITE 1  
BENTONVILLE, ARKANSAS 72712  
TEL: (479) 273-2209

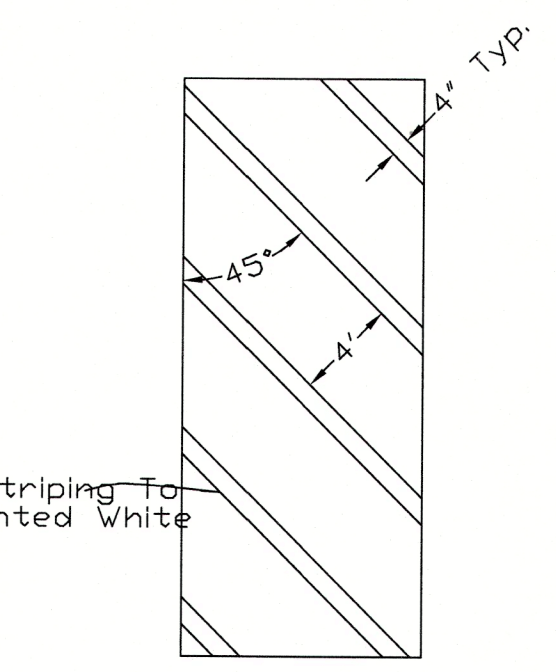
CITY PROJECT: LSD24-0017



**EC-41: SILT FENCE INLET PROTECTION**  
Not to Scale 12-3-10

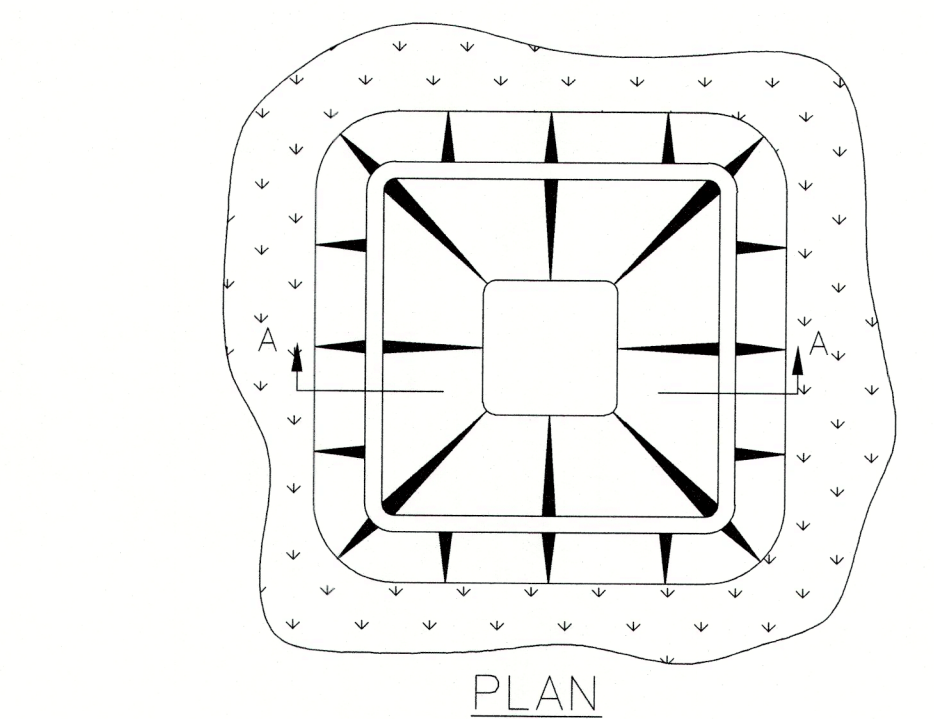


**EC-12: SILT FENCE**  
Not to Scale 4-23-10



**PARKING STRIPES**  
Not to Scale

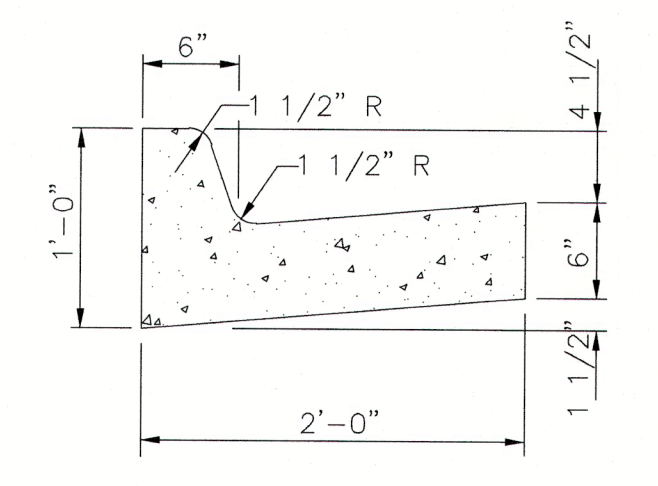
Parking Striping To Be 4" Painted White (Typ.)



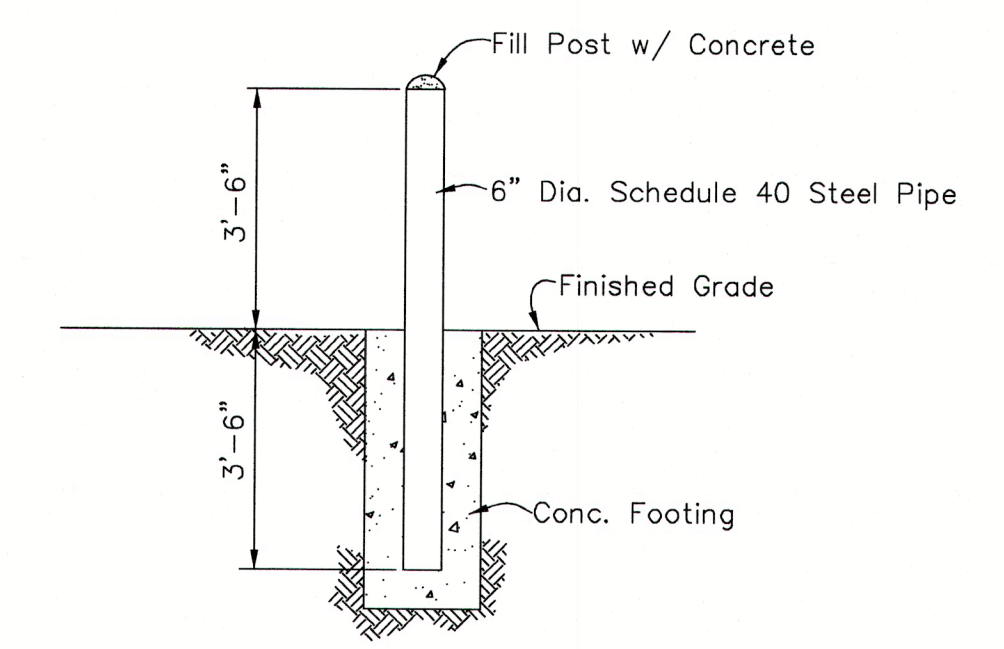
**EC-50: CONCRETE WASHOUT AREA**  
Not to Scale 9-11-23

NOTES:

- Concrete Washout Area Shall be Installed Prior to Any Concrete Placement on Site.
- Vehicle Tracking Control is Required at Concrete Washout Entrance if Access to Concrete Washout Area is Off Pavement.
- The Concrete Washout Area Shall be Repaired and/or Enlarged as Necessary to Maintain Capacity for Waste Concrete.
- Waste Material From Concrete Washout Operations Must be Removed and Legally Disposed of When it has Accumulated Two-Thirds of the Wet Storage Capacity of the Structure.
- At the End of Construction, All Concrete Shall be Removed From the Site and Legally Disposed of at an Approved Waste Site.
- When the Concrete Washout Area is Removed, the Disturbed Area Shall be Seeded and Mulched or Otherwise Stabilized.

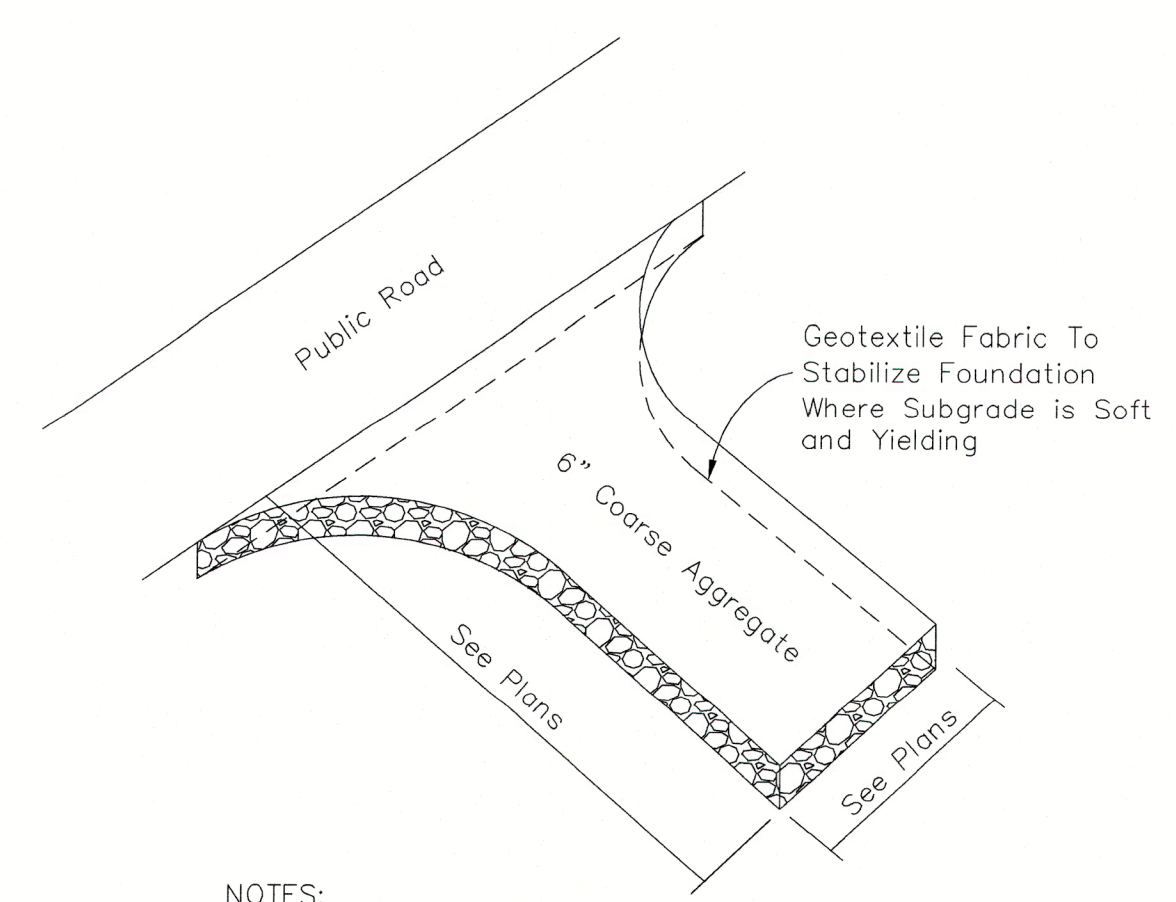


**ST-10: TYPE "A" CURB & GUTTER**  
Not to Scale 12-16-09



**PS-150: PIPE BOLLARD**  
Not to Scale 3-4-10

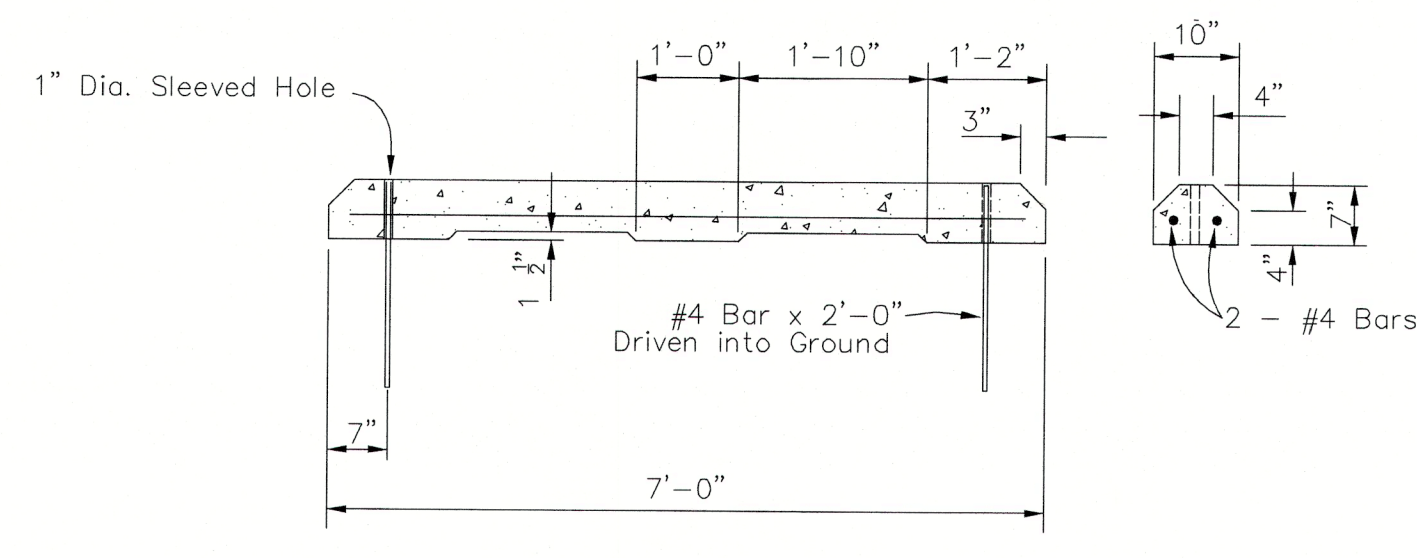
NOTE:  
All Pipe Bollards Shall be Painted Yellow Unless Noted Otherwise.



NOTES:

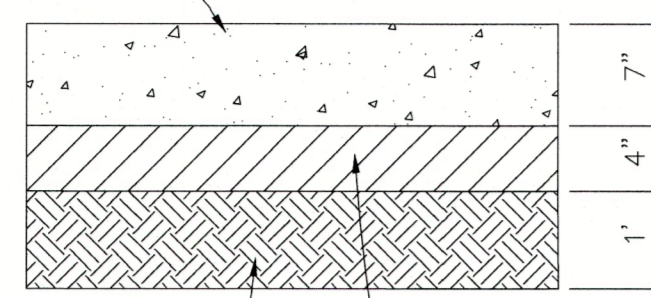
- Coarse Aggregate Shall be 3" to 6" Crushed Stone.
- Clear The Entrance Or Exit Area Of All Vegetation, Roots, And Other Objectionable Material And Excavate to Grade.
- Place The Aggregate to the Grade and Dimensions Shown On The Plans.
- Maintain The Gravel Pad In A Condition To Prevent Mud Or Sediment From Leaving The Site. Immediately Remove All Objectionable Materials Spilled, Washed, Or Tracked Onto Public Roadways.

**EC-30: TEMPORARY CONSTRUCTION ENTRANCE**  
Not to Scale 12-3-10



**PS-130: PRECAST CONC. WHEELSTOP**  
Not to Scale 12-17-09

7" 4,000 PSI Portland Cement Concrete Pavement. As per Section 501 ARDOT Specifications, 2014.

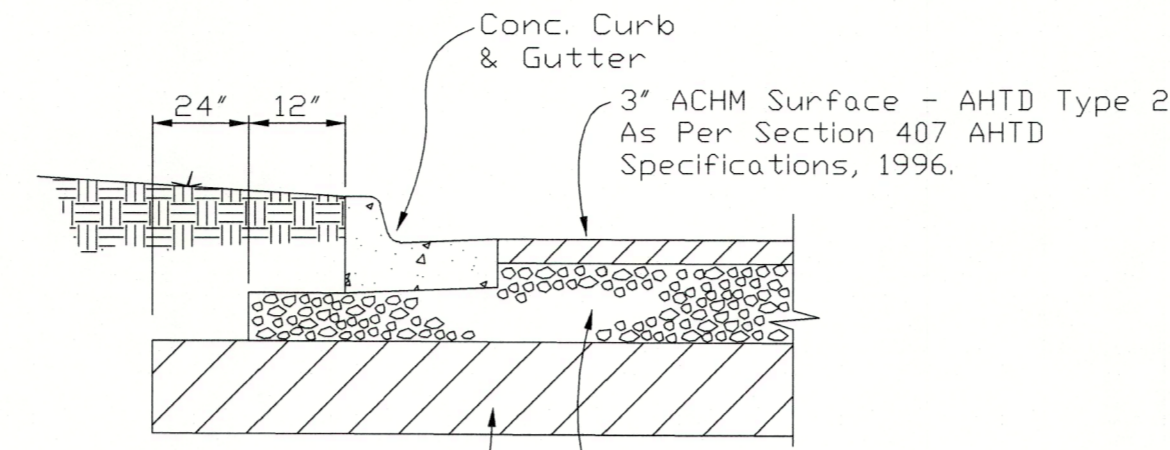


1' Undercut and Backfill beneath paving areas. Backfill shall be select fill with CBR of 8.0 or greater. RE: Geotechnical Report

4" Aggregate Base Course Class 7, Compacted to 95% Modified Proctor Maximum Dry Density (ASTM D1557). As per Section 303 ARDOT Specifications, 2014.

**MEDIUM-DUTY CONCRETE PAVEMENT**

Not To Scale

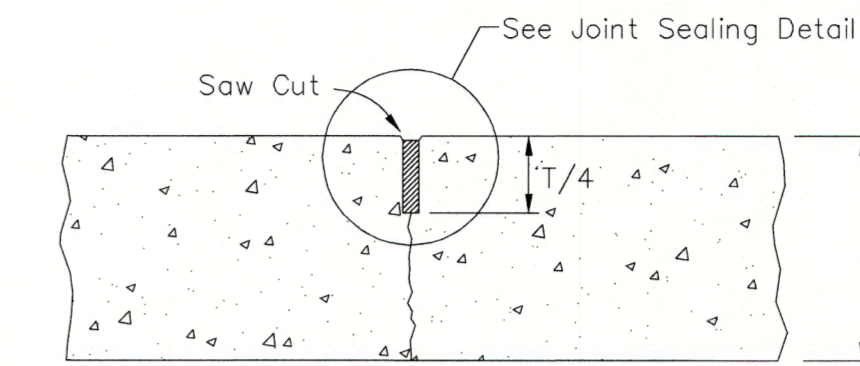


Pavement Shall Bear on Existing Stratum II Material Or Select Engineered Fill. Asphalt Pavement in Area 1, Indicated on Sheet C2.0 Shall be Undercut a Minimum of 2' and Backfill to Reach Subgrade Per the Geotechnical Report, Site Grading Recommendations.

6" Aggregate Base Course AHTD Class 7, Compacted To 95% Modified Proctor Maximum Dry Density (ASTM D1557). As Per Section 303 AHTD Specifications, 1996.

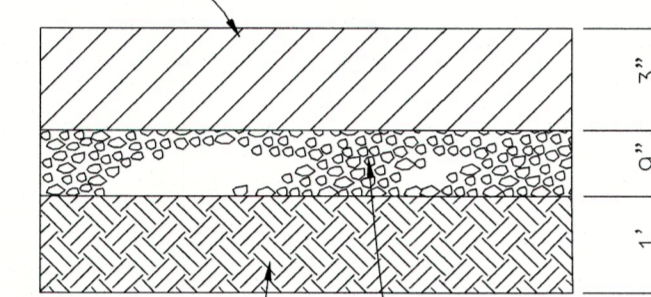
**ASPHALT PAVEMENT**

Not To Scale



**ST-60: CONTRACTION JOINT**  
Not to Scale 3-9-10

3" ACHM Surface Course (ARDOT 1/2", PG64-22) As per Section 407-1 ARDOT Specifications, 2014.

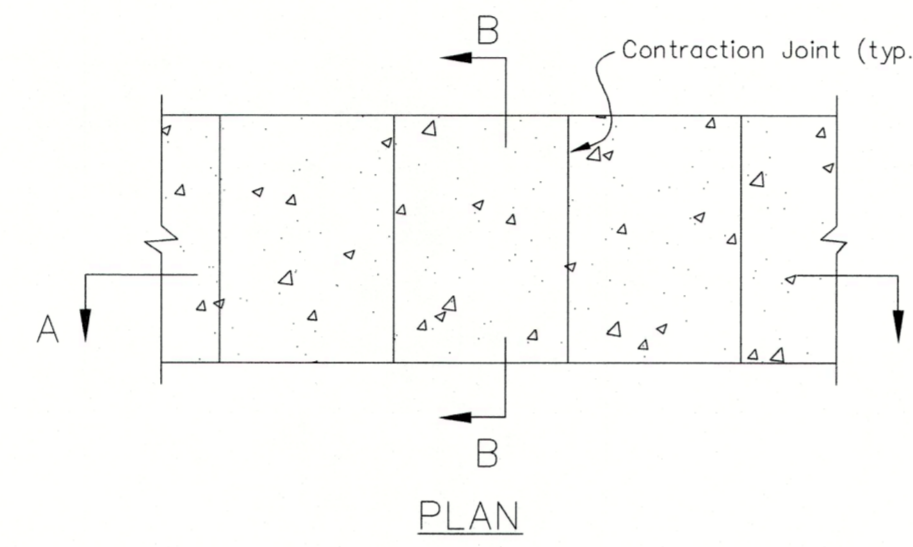


1' Undercut and Backfill beneath paving areas. Backfill shall be select fill with CBR of 8.0 or greater. RE: Geotechnical Report

9" Aggregate Base Course Class 7, Compacted to 95% Modified Proctor Maximum Dry Density (ASTM D1557). As per Section 303 ARDOT Specifications, 2014.

**MEDIUM-DUTY ASPHALT PAVEMENT**

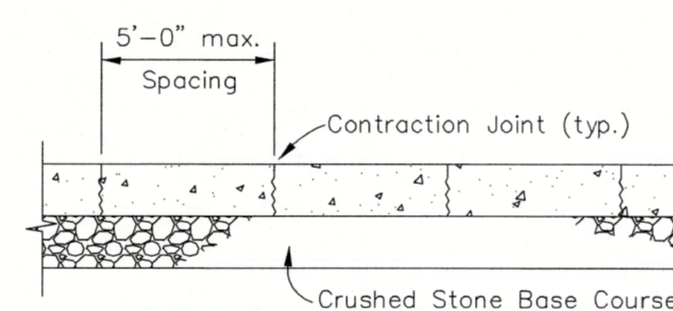
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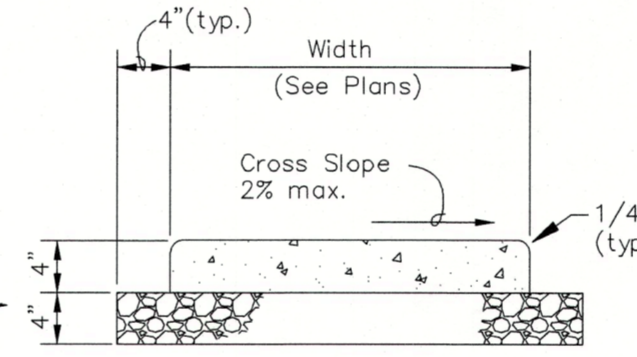
**PLAN**

**NOTES:**

- Concrete Reinforcement Shall be 6x6, W1.4xW1.4 WWF or No. 3 Rebar at 24" O.C. Each Way Placed at Mid-Slab or Fiber Reinforcement.
- Transverse Contraction Joints Shall be 1/4" Radius Tooled Joints 1/2" Deep or Sawn Contraction Joints.
- Full Depth Expansion Joints Shall be Provided at a Maximum Spacing of 25'-0" O.C., and at the Sidewalk Interface With Fixed Objects.



**SECTION "A-A"**



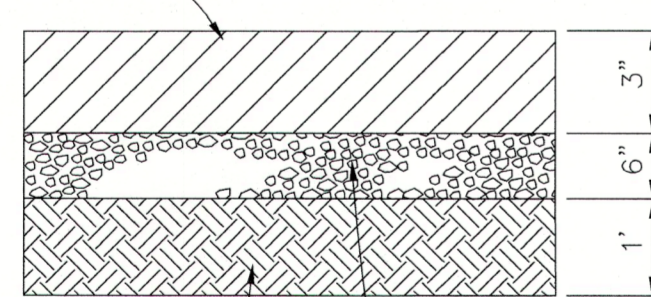
**SECTION "B-B"**

**PS 30: CONCRETE SIDEWALK**

Not to Scale 3-4-10

REQUIRES: ST-60 Contraction Joint  
ST-110 Expansion Joint  
ST-120 Concrete Joint Sealing

3" ACHM Surface Course (ARDOT 1/2", PG64-22) As per Section 407-1 ARDOT Specifications, 2014.

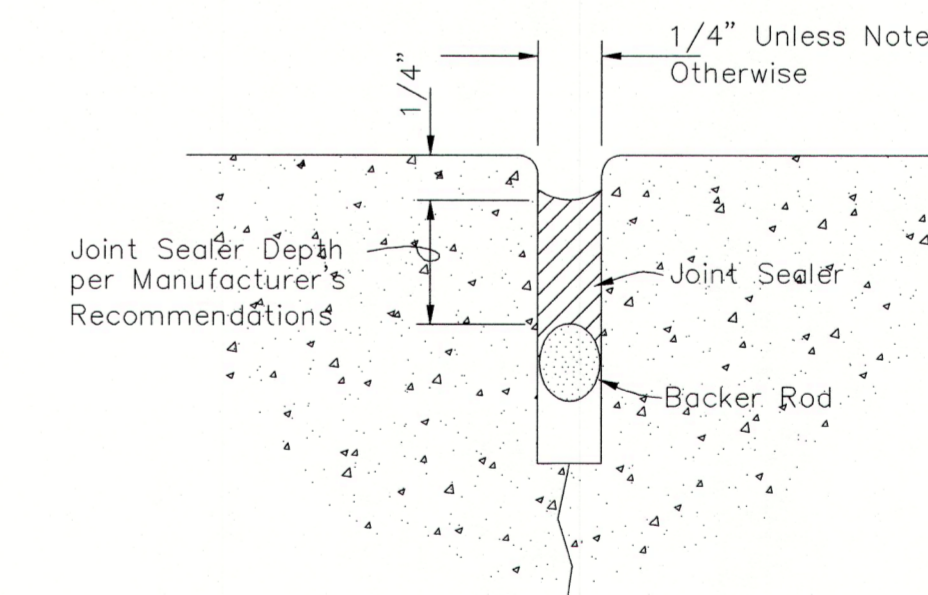


1' Undercut and Backfill beneath paving areas. Backfill shall be select fill with CBR of 8.0 or greater. RE: Geotechnical Report

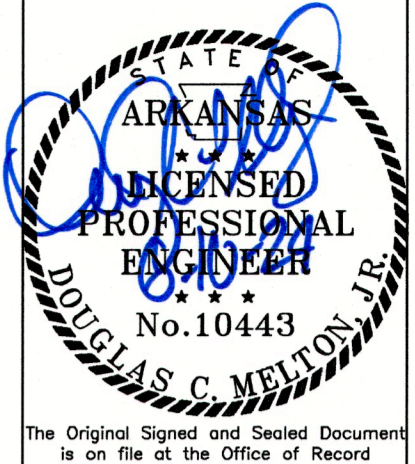
6" Aggregate Base Course Class 7, Compacted to 95% Modified Proctor Maximum Dry Density (ASTM D1557). As per Section 303 ARDOT Specifications, 2014.

**LIGHT-DUTY ASPHALT PAVEMENT**

Not To Scale



**ST-120: CONCRETE JOINT SEALING**  
Not to Scale 12-16-09



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**SALLYPORT AND MEDICAL BENTON COUNTY DETENTION CENTER**  
BENTONVILLE, AR

DRAWN BY: KES

CHECKED BY: DCM

ISSUE DATE: 06/10/2024

PROJECT NO: 57132.001

REVISION DATES:

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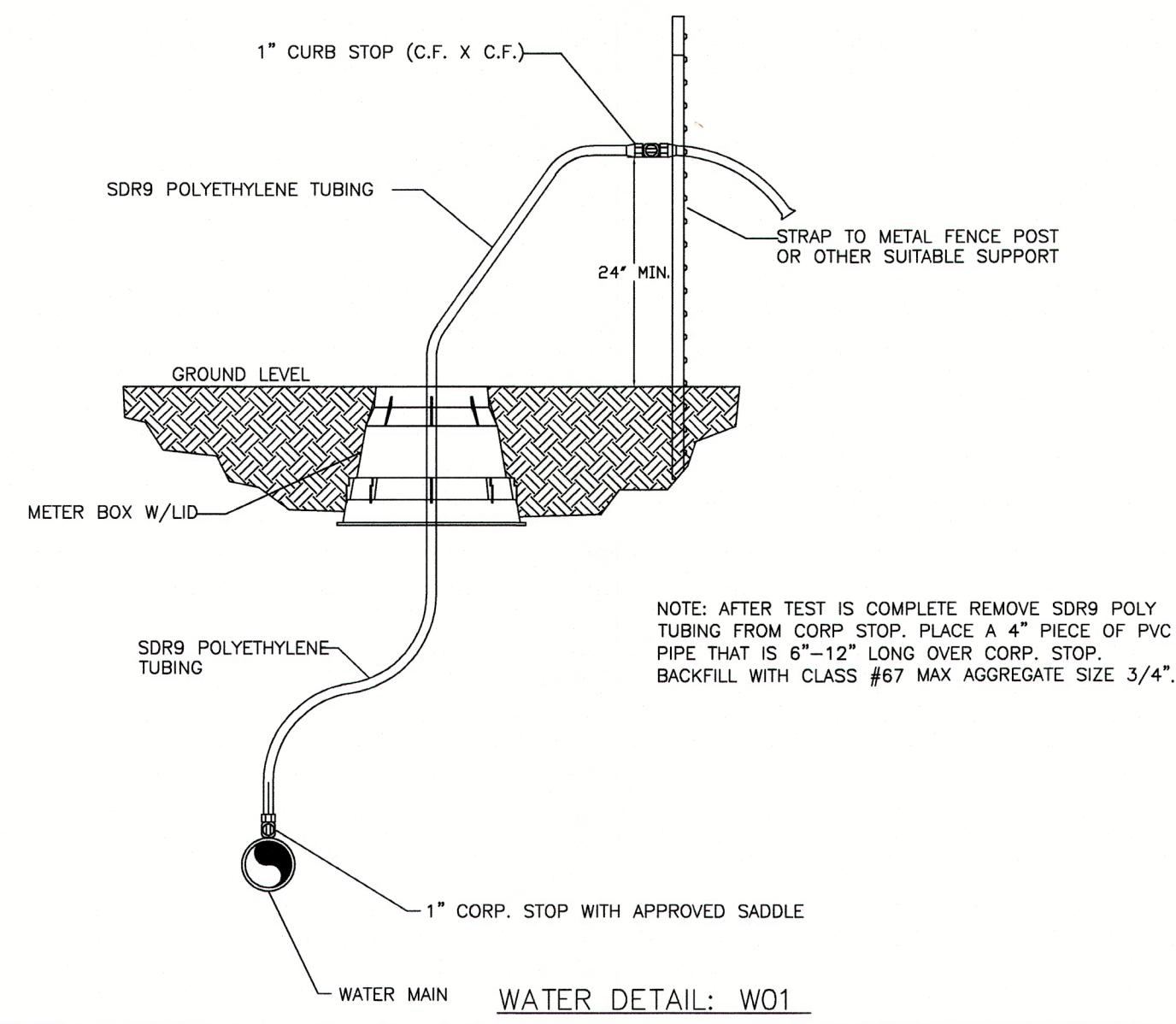
CITY PROJECT: LSD24-0017

SHEET C6.1

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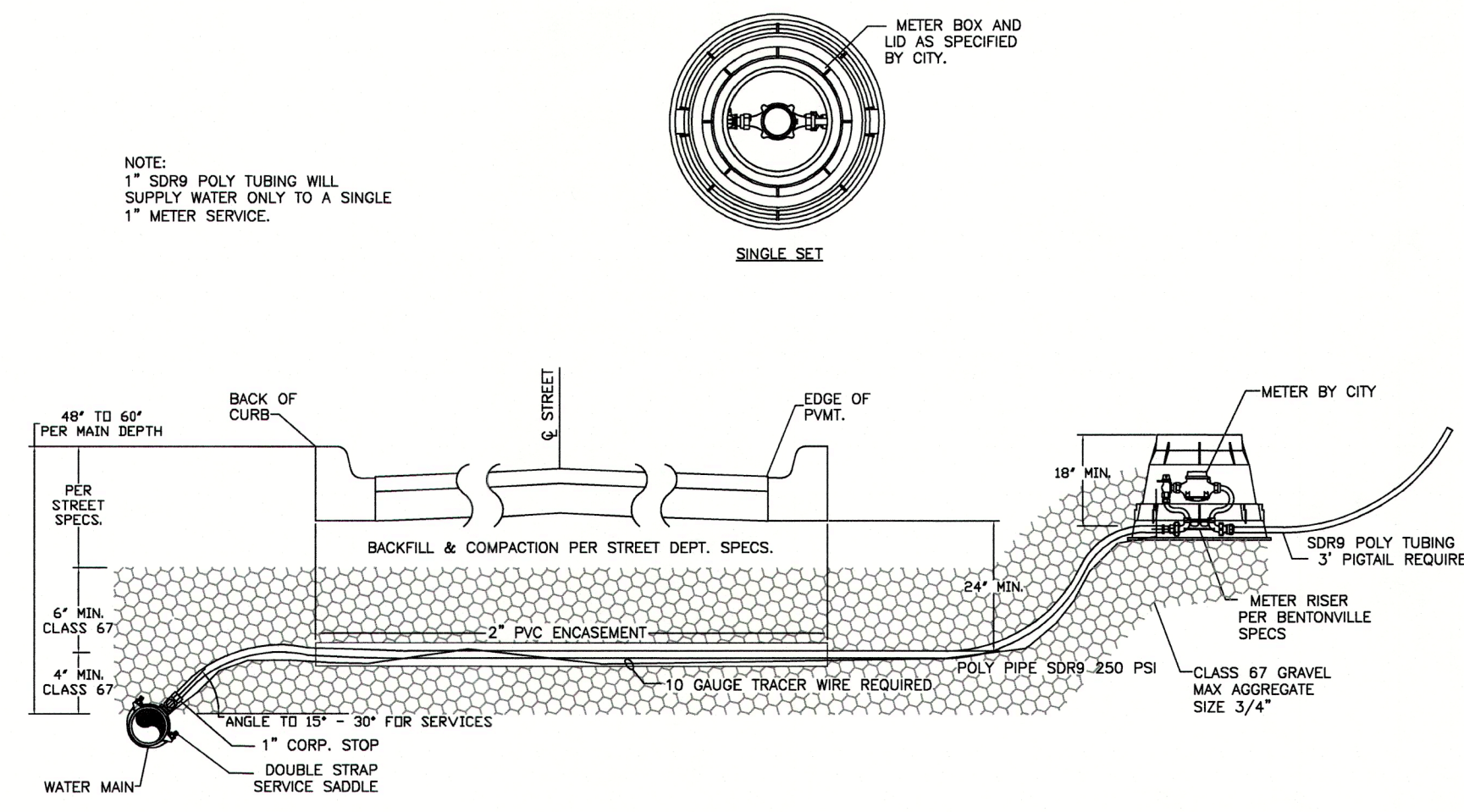


### TEMPORARY 1" BLOW OFF ASSEMBLY SAMPLE POINTS



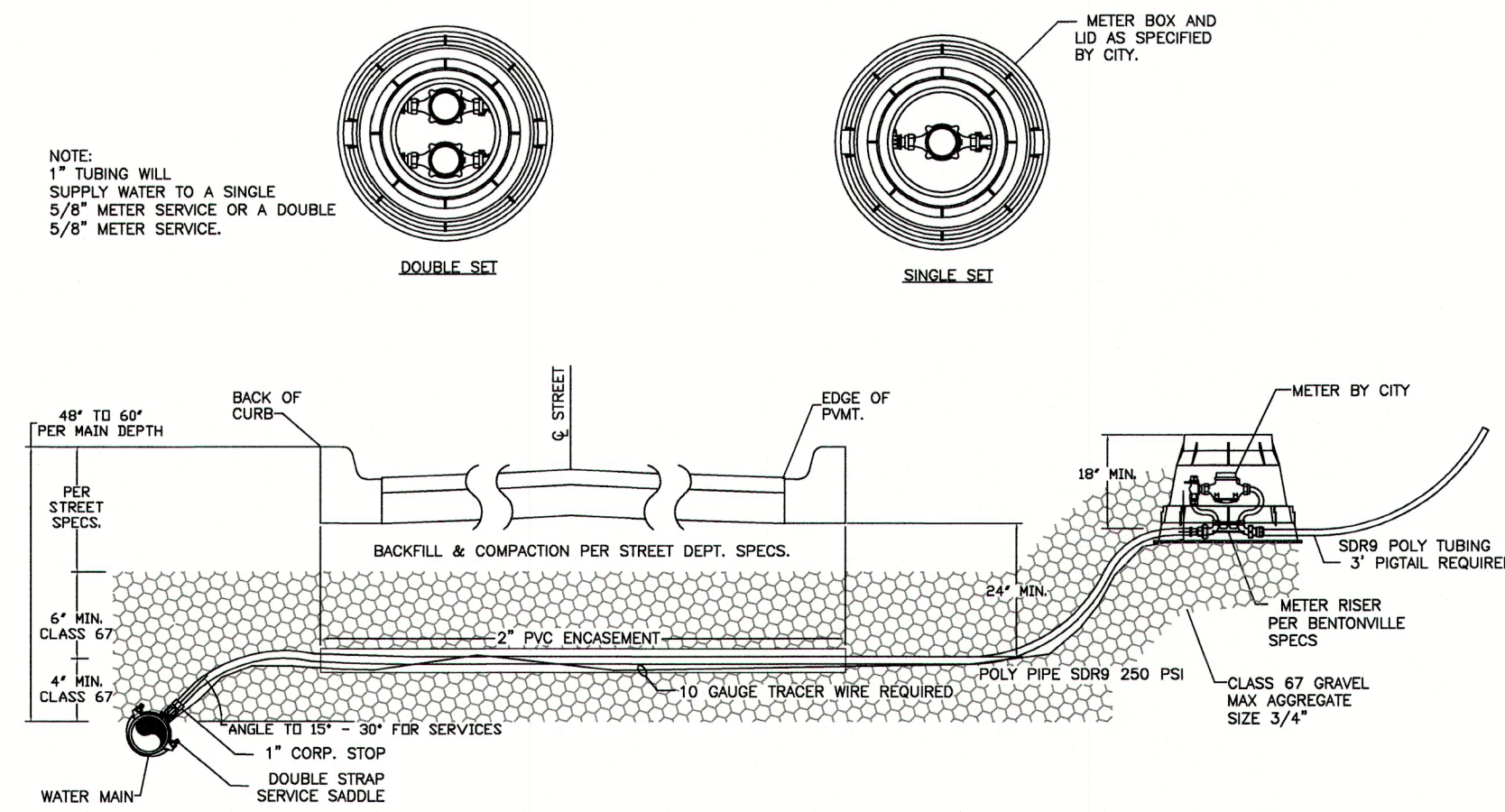
WATER DETAIL: W01

### WATER SERVICE DETAIL 1"



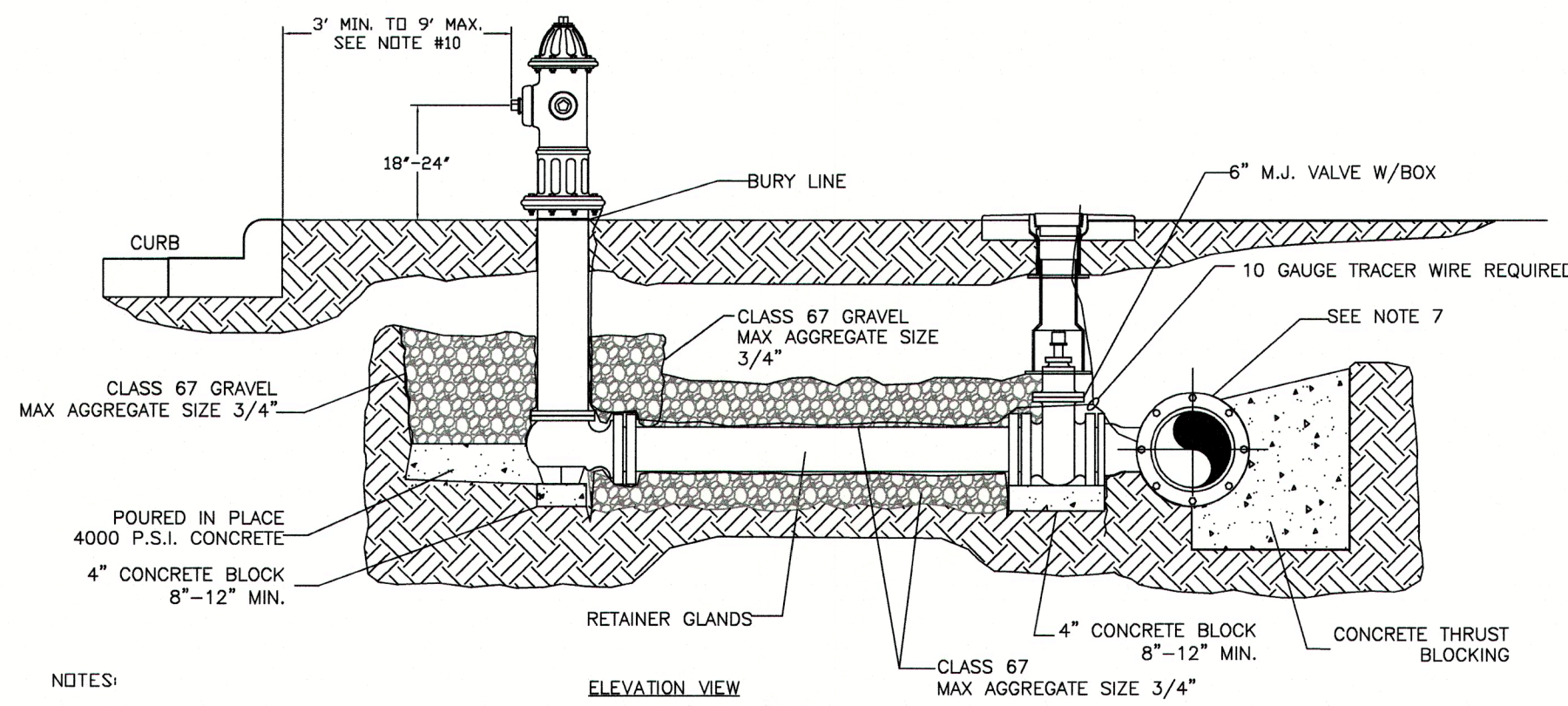
WATER DETAIL: W02

### WATER SERVICE DETAIL 5/8"



WATER DETAIL: W03

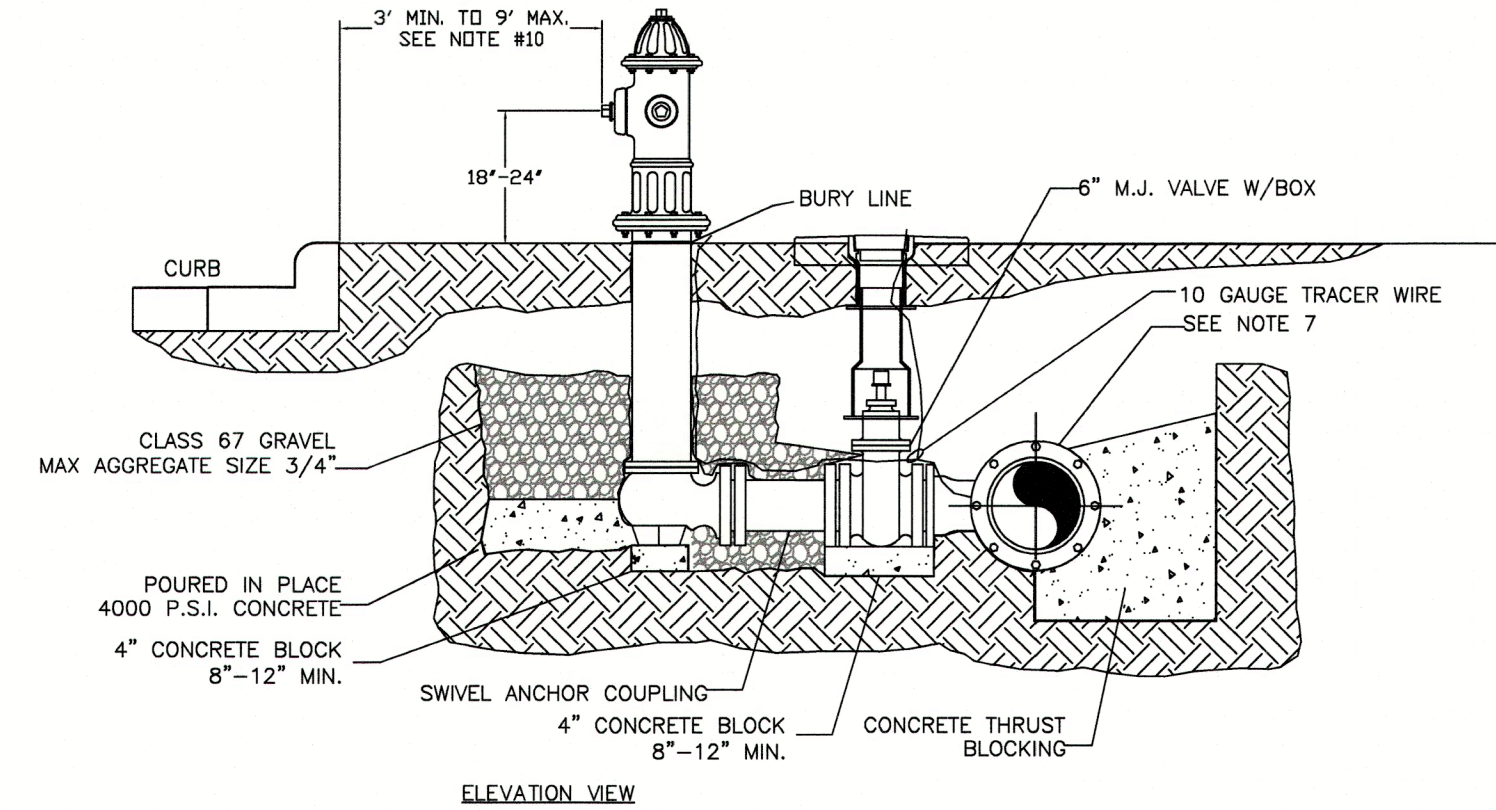
### FIRE HYDRANT DETAIL W/ RETAINER GLANDS



ELEVATION VIEW

WATER DETAIL: W04

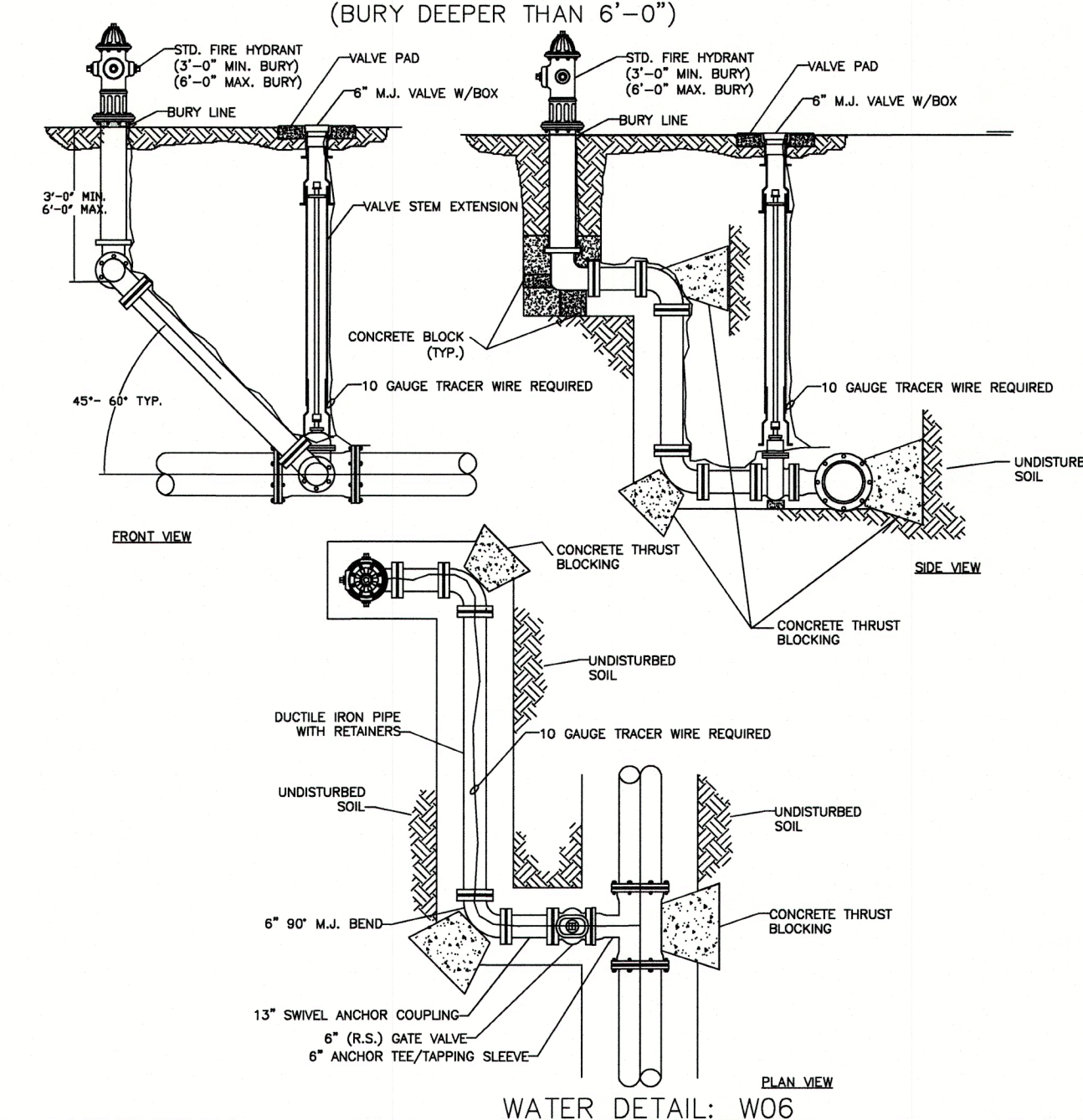
### FIRE HYDRANT DETAIL W/SWIVEL ANCHOR COUPLING



ELEVATION VIEW

WATER DETAIL: W05

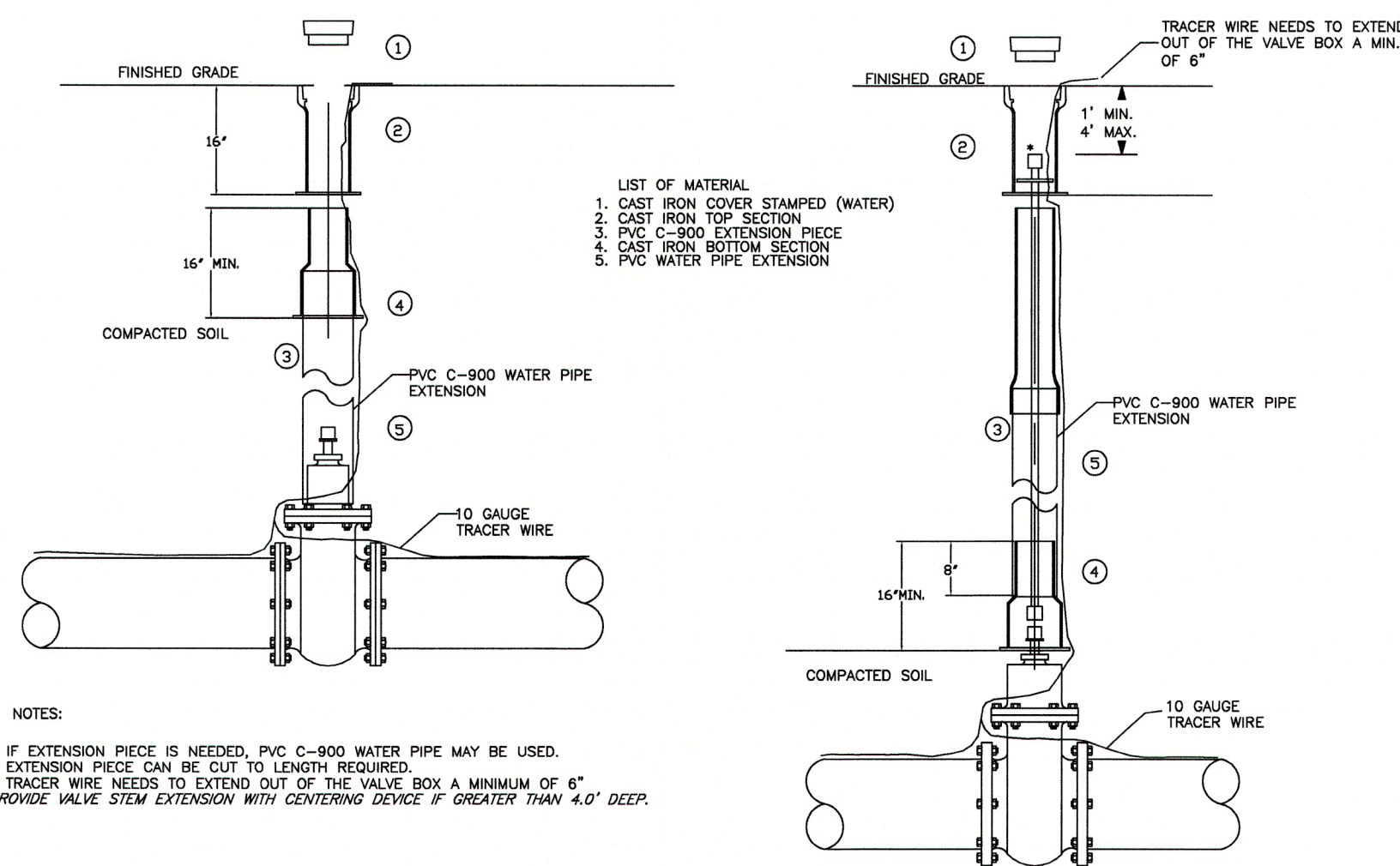
### DEEP BURY FIRE HYDRANTS (BURY DEEPER THAN 6'-0")



PLAN VIEW

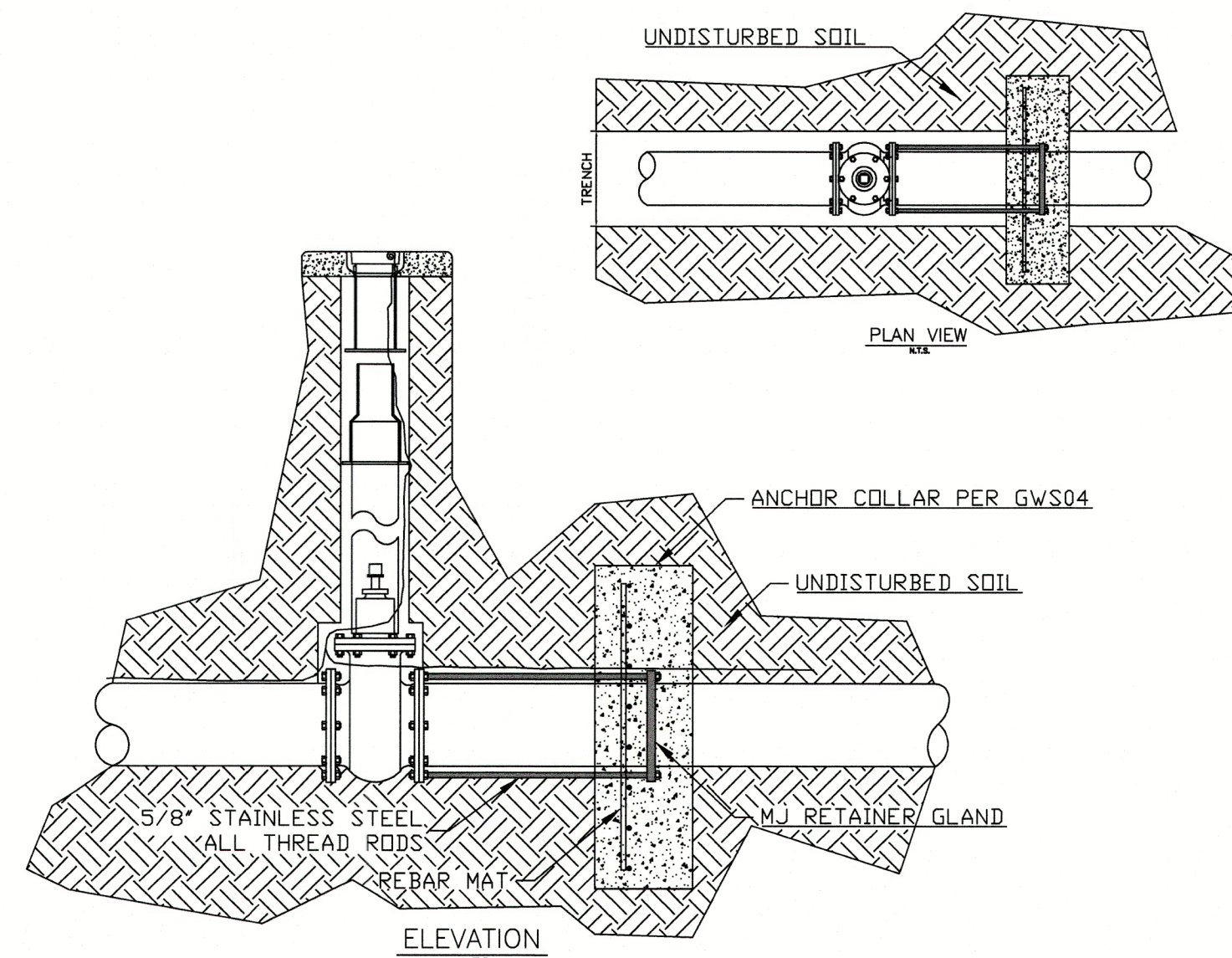
WATER DETAIL: W06

### VALVE BOX VALVE STEM & TRACER WIRE INSTALLATION



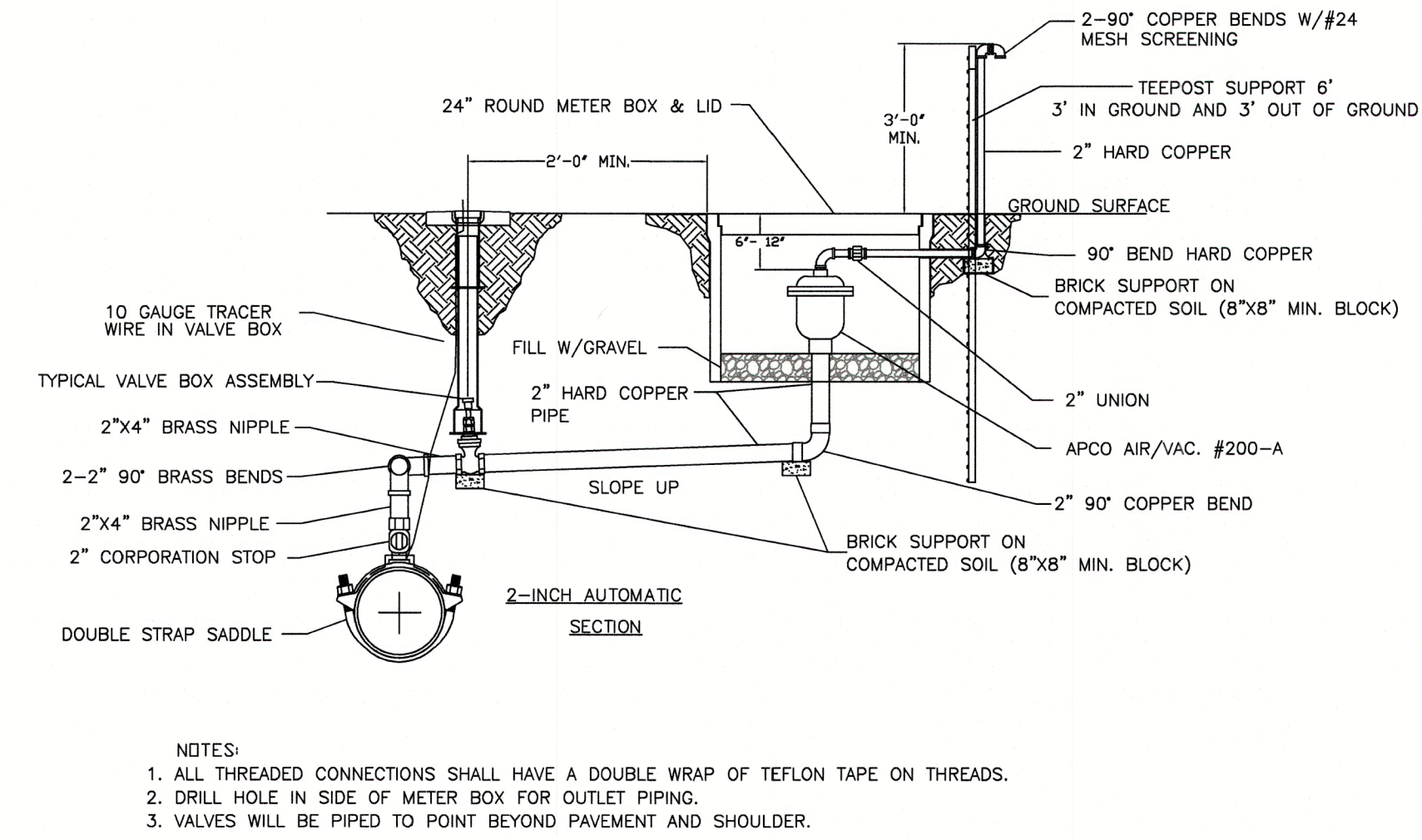
WATER DETAIL: W07

### RESTRAINED GATE VALVE

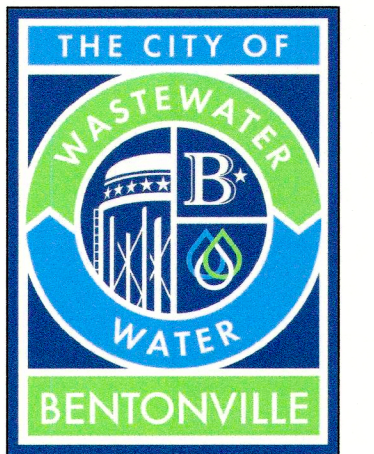


WATER DETAIL: W08

### 2" COMBINATION AIR/VACUUM VALVE DETAIL



WATER DETAIL: W09



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## WATER DETAILS



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REVISIONS:  
Adopted by City Council 06/22/2021  
Ordinance Number: 2021-135

Approved by Dept. of Health  
04/01/2021

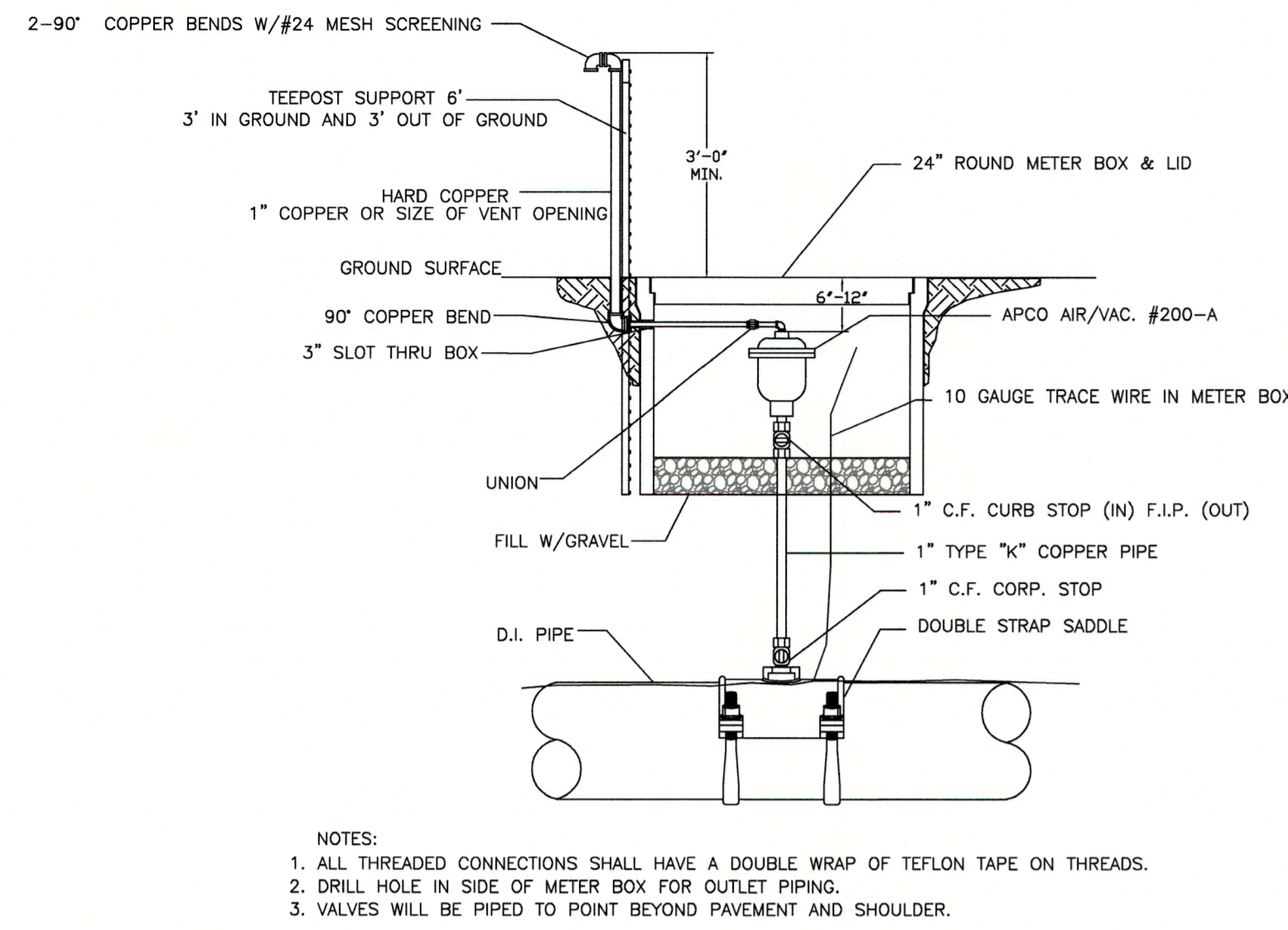
NOTES:

DRAWN BY: JI DATE: 03/16/2021

APPROVED BY: PN DATE: 03/16/2021

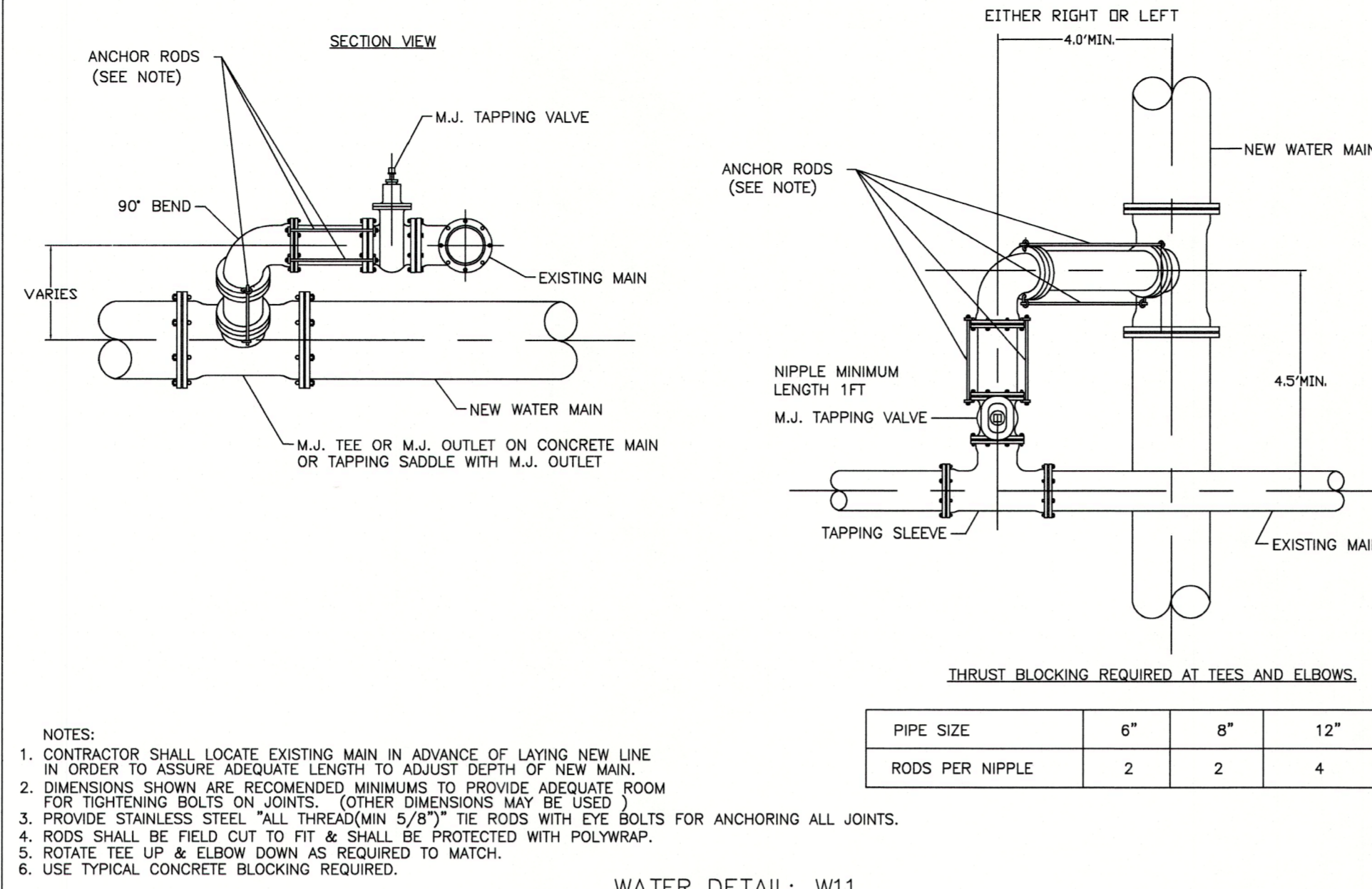
SHEET NUMBER: 1 OF 2

# 1" COMBINATION AIR/VACUUM VALVE DETAIL



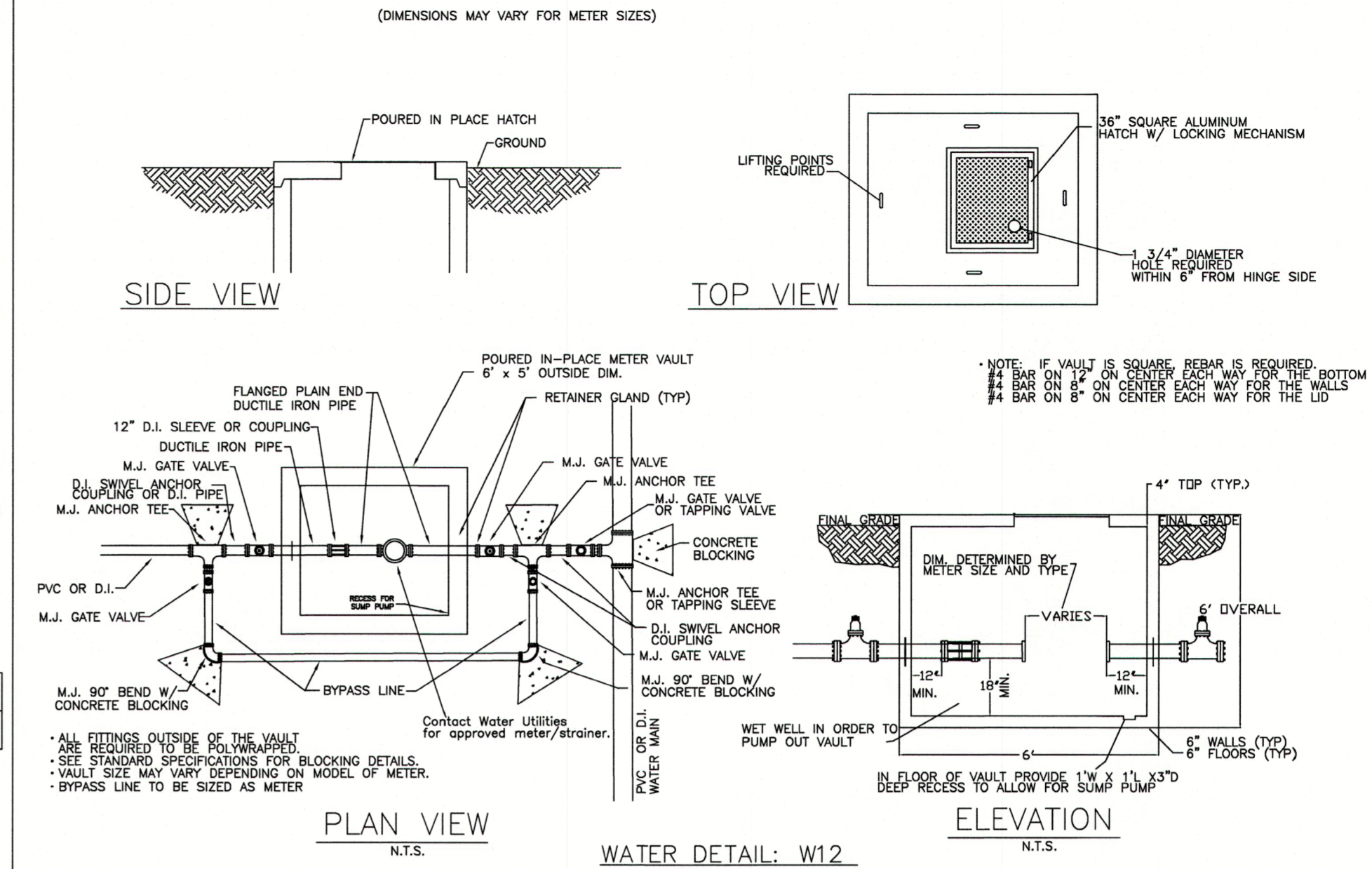
WATER DETAIL: W10

# SWING CONNECTION – NEW MAIN TO EXISTING MAIN



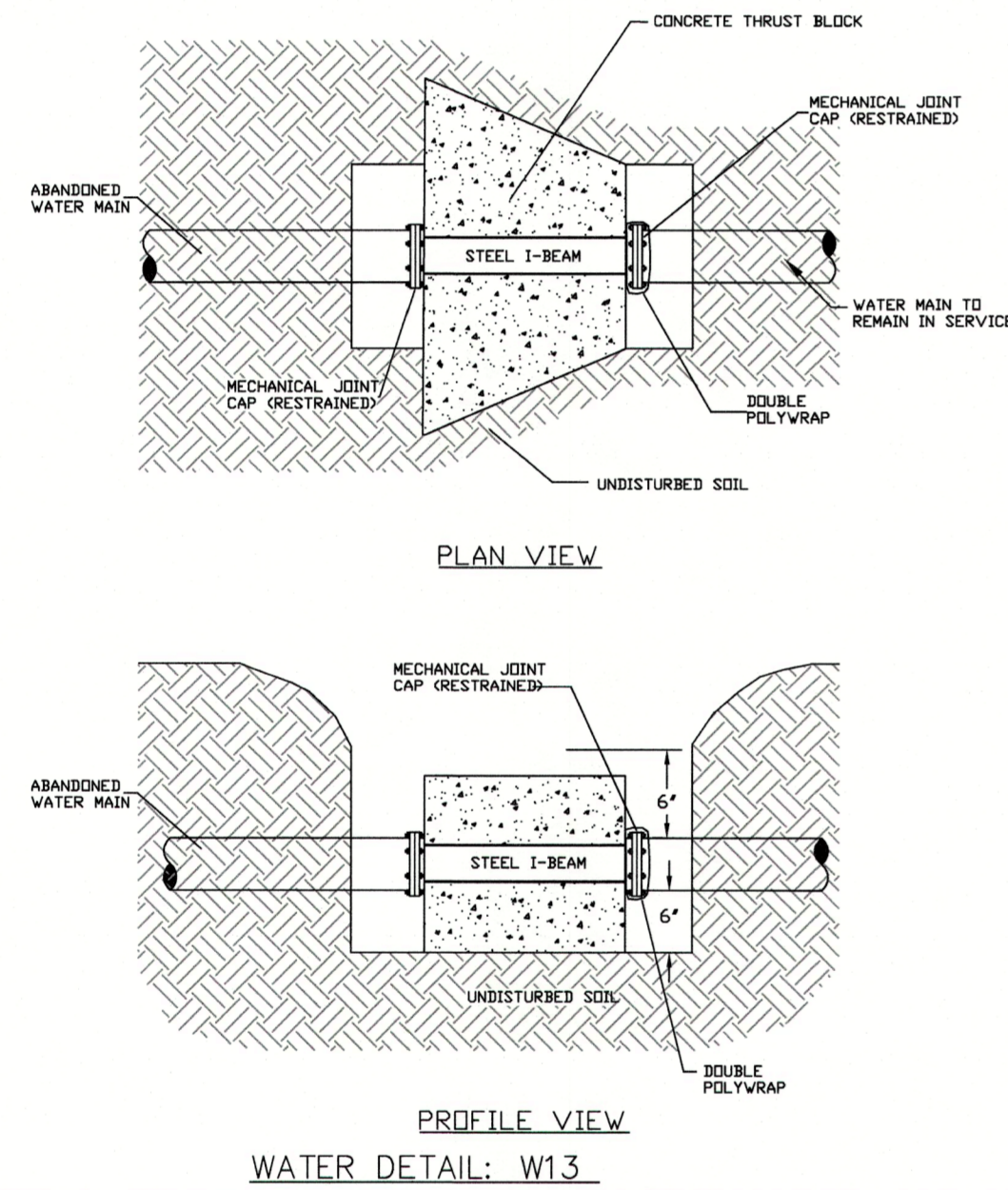
WATER DETAIL: W11

# METER VAULT DETAIL FOR 4" – 8" METERS (TYPICAL)



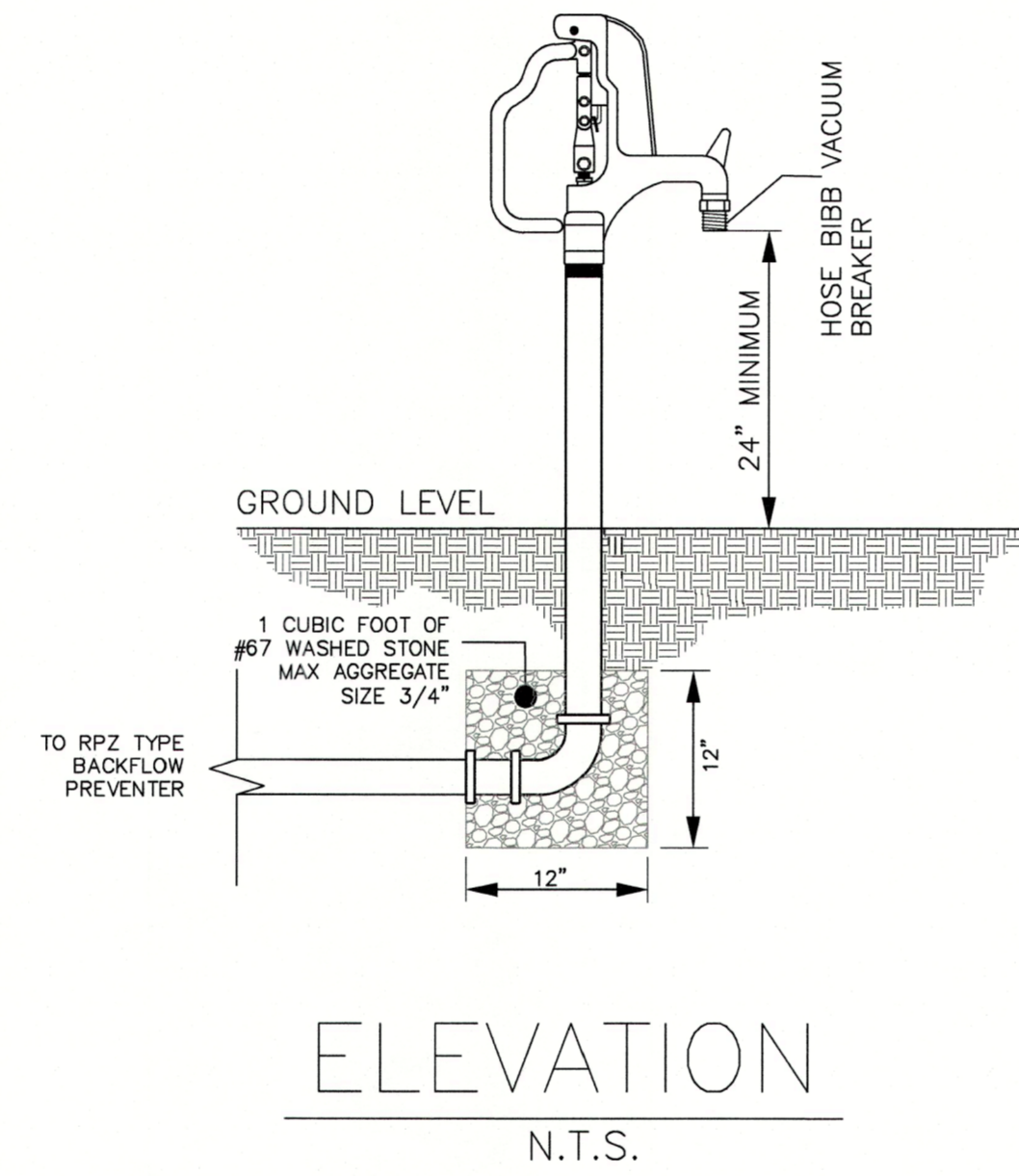
WATER DETAIL: W12

# CUT/CAP DETAIL



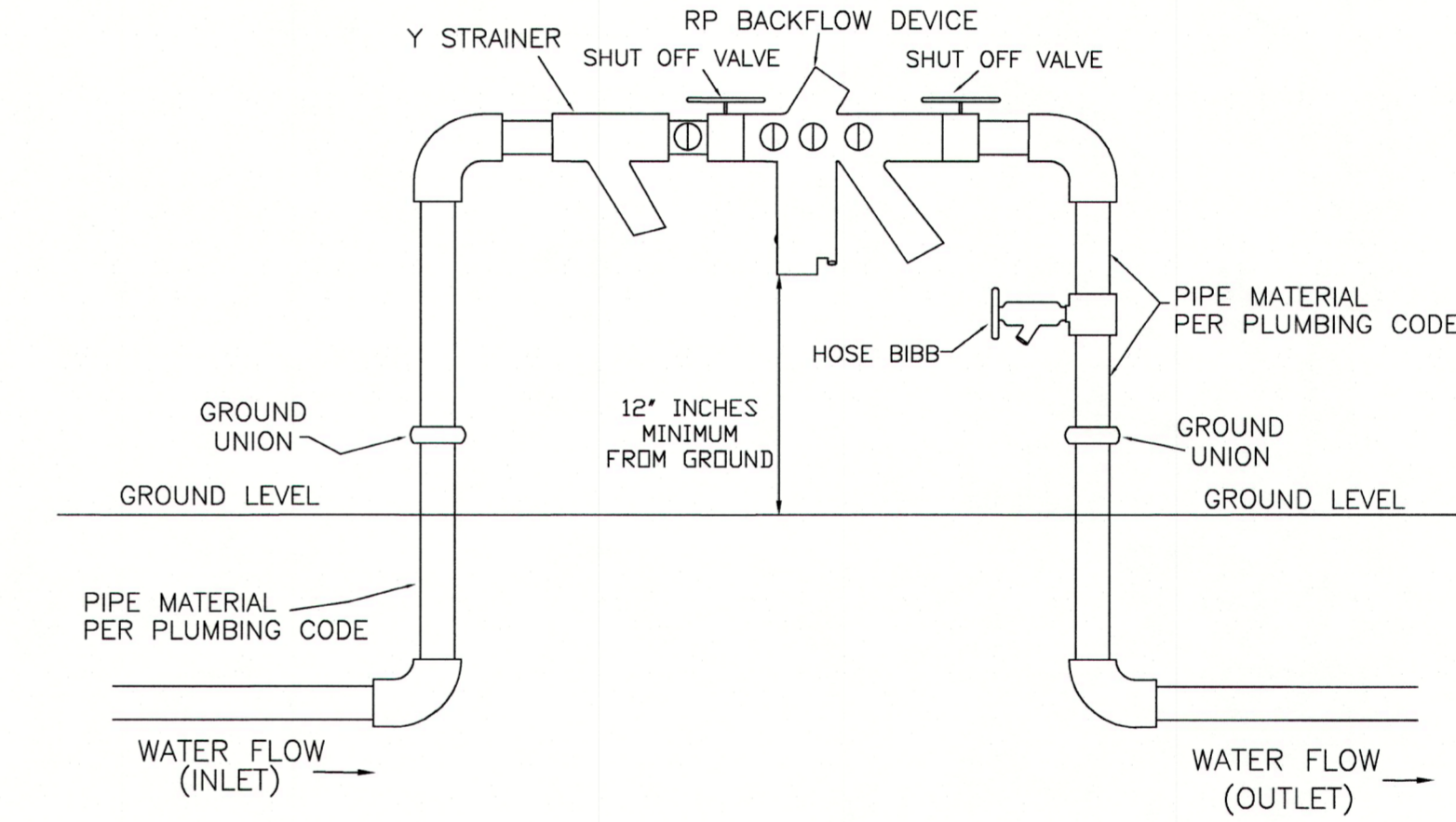
WATER DETAIL: W13

# FROST FREE HOSE BIBB WITH VACUUM BREAKER



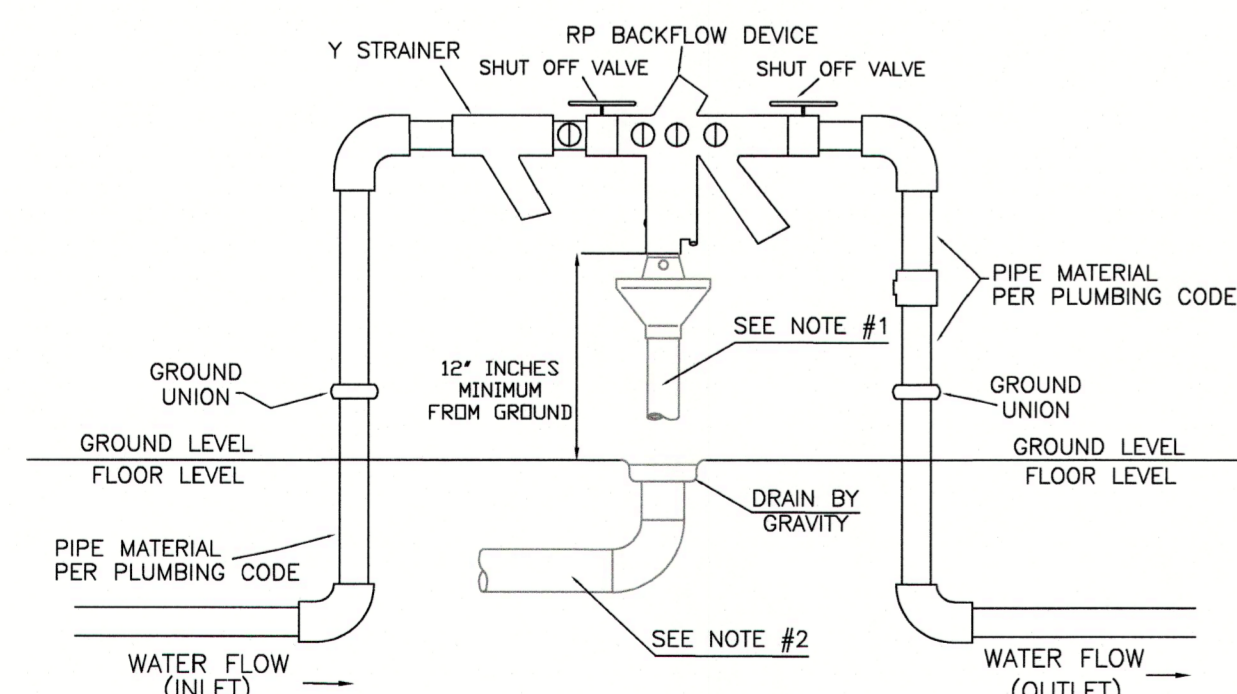
WATER DETAIL: W14

# REDUCED PRESSURE (RP) IRRIGATION ONLY



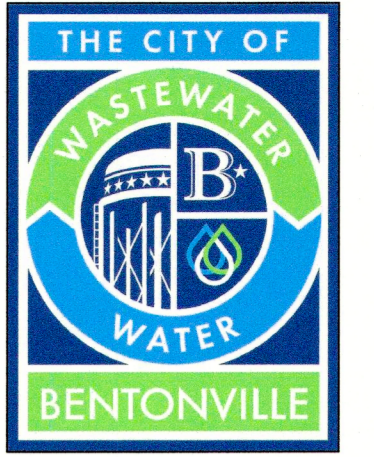
WATER DETAIL: W15

# REDUCED PRESSURE (RP) IRRIGATION ONLY



- INDOOR APPLICATION ONLY NOTES:
1. AN AIR GAP DRAIN IS REQUIRED TO REDUCE SPLASHING OF MINOR DISCHARGES FROM THE RELIEF VALVE DRAIN PORT.
  2. INDOOR INSTALLATION OF RP'S SHOULD PROVIDE FOR DRAINAGE CAPABLE OF HANDLING IN EXCESS OF THE MAXIMUM DISCHARGE RATE EXPECTED BY THE BACKFLOW ASSEMBLY MANUFACTURER.

WATER DETAIL: W16



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# WATER DETAILS



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REVISIONS:  
Adopted by City Council 06/22/2021  
Ordinance Number: 2021-135

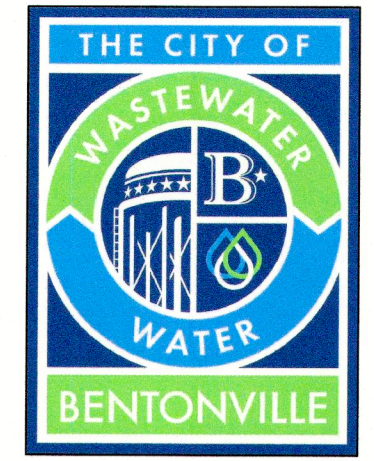
Approved by Dept. of Health  
04/01/2021

NOTES:

DRAWN BY: JI DATE: 03/16/2021

APPROVED BY: PN DATE: 03/16/2021

SHEET NUMBER: 2 OF 2



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# SAN. SEWER DETAILS



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Adopted by City Council 06/22/2021  
Ordinance Number: 2021-135

Approved by Dept. of Health  
04/01/2021

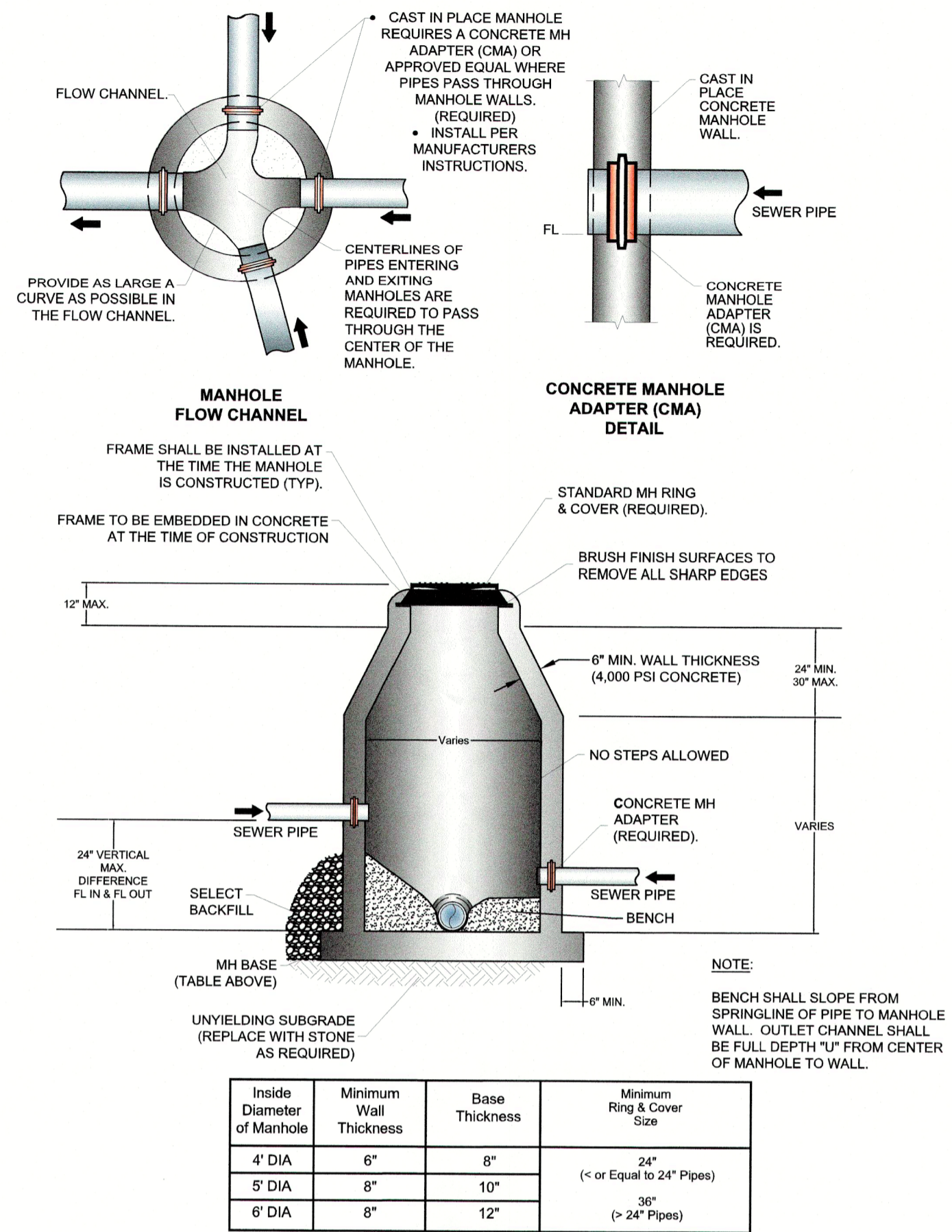
NOTES:

DRAWN BY: JI DATE: 03/16/2021

APPROVED BY: PN DATE: 03/16/2021

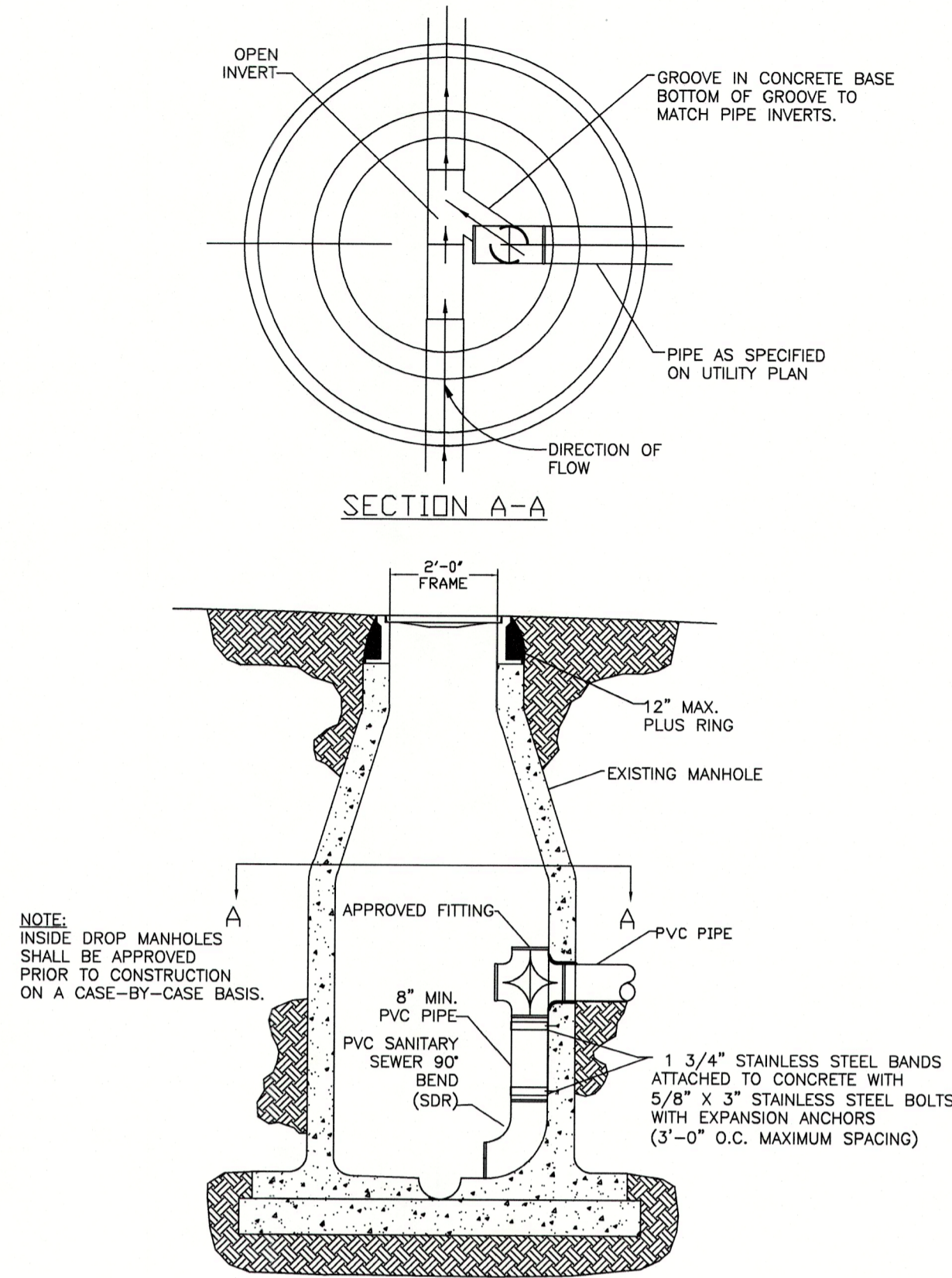
SHEET NUMBER: 1 OF 2

## SANITARY SEWER CAST IN PLACE MANHOLE



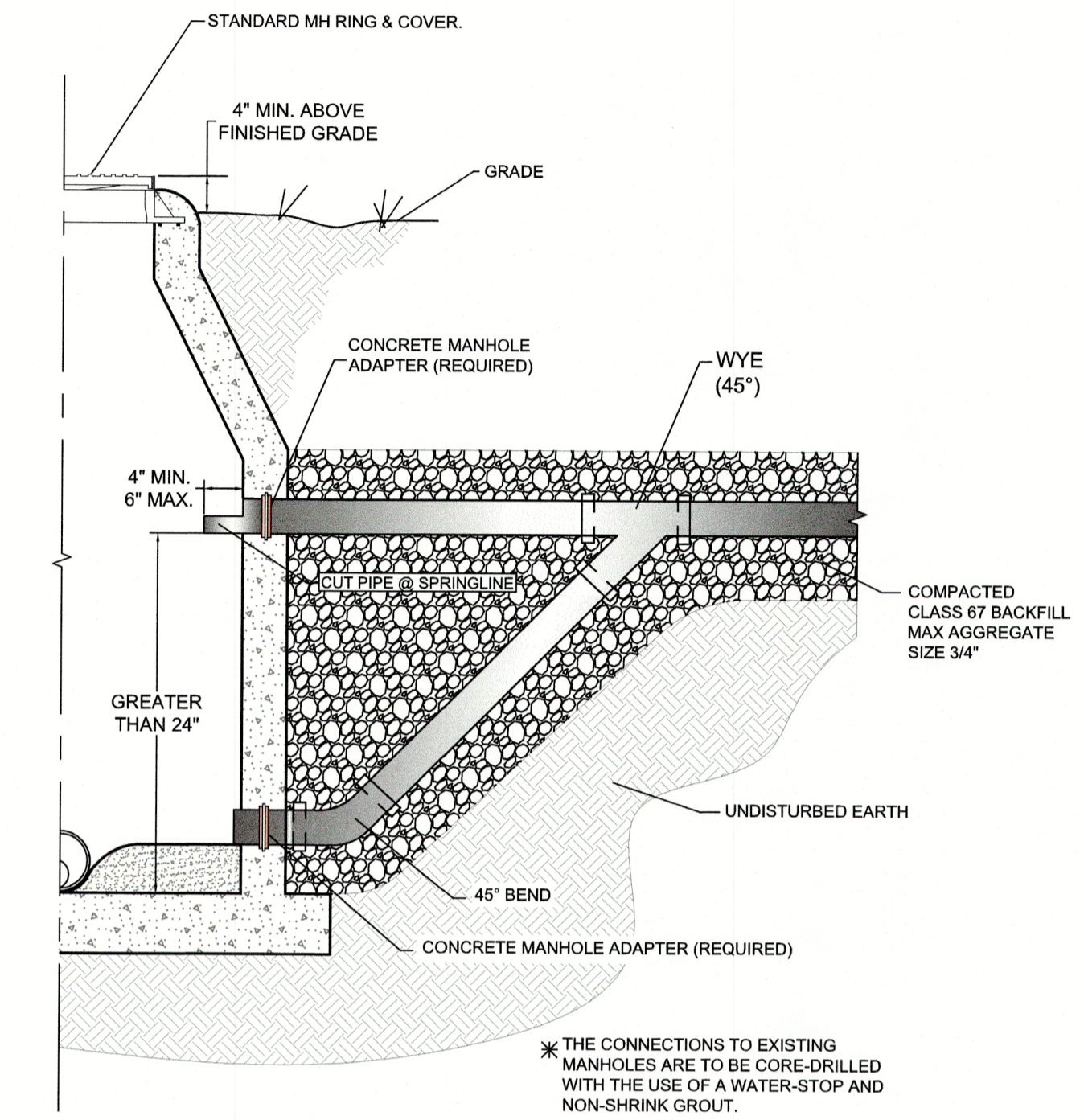
SANITARY SEWER DETAIL: SS01

## SANITARY SEWER INTERIOR DROP MANHOLE



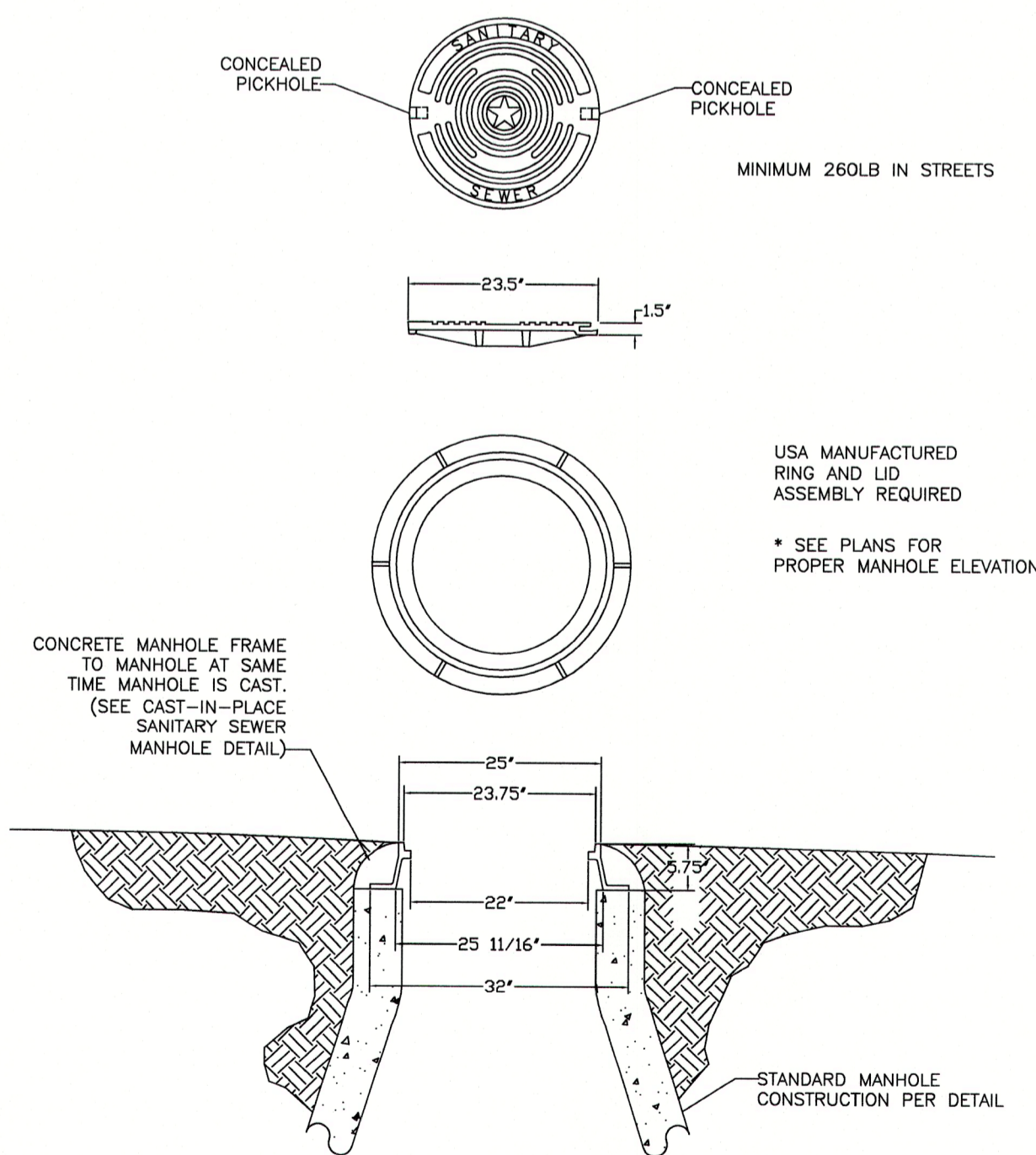
SANITARY SEWER DETAIL: SS02

## SANITARY SEWER EXTERIOR DROP MANHOLE



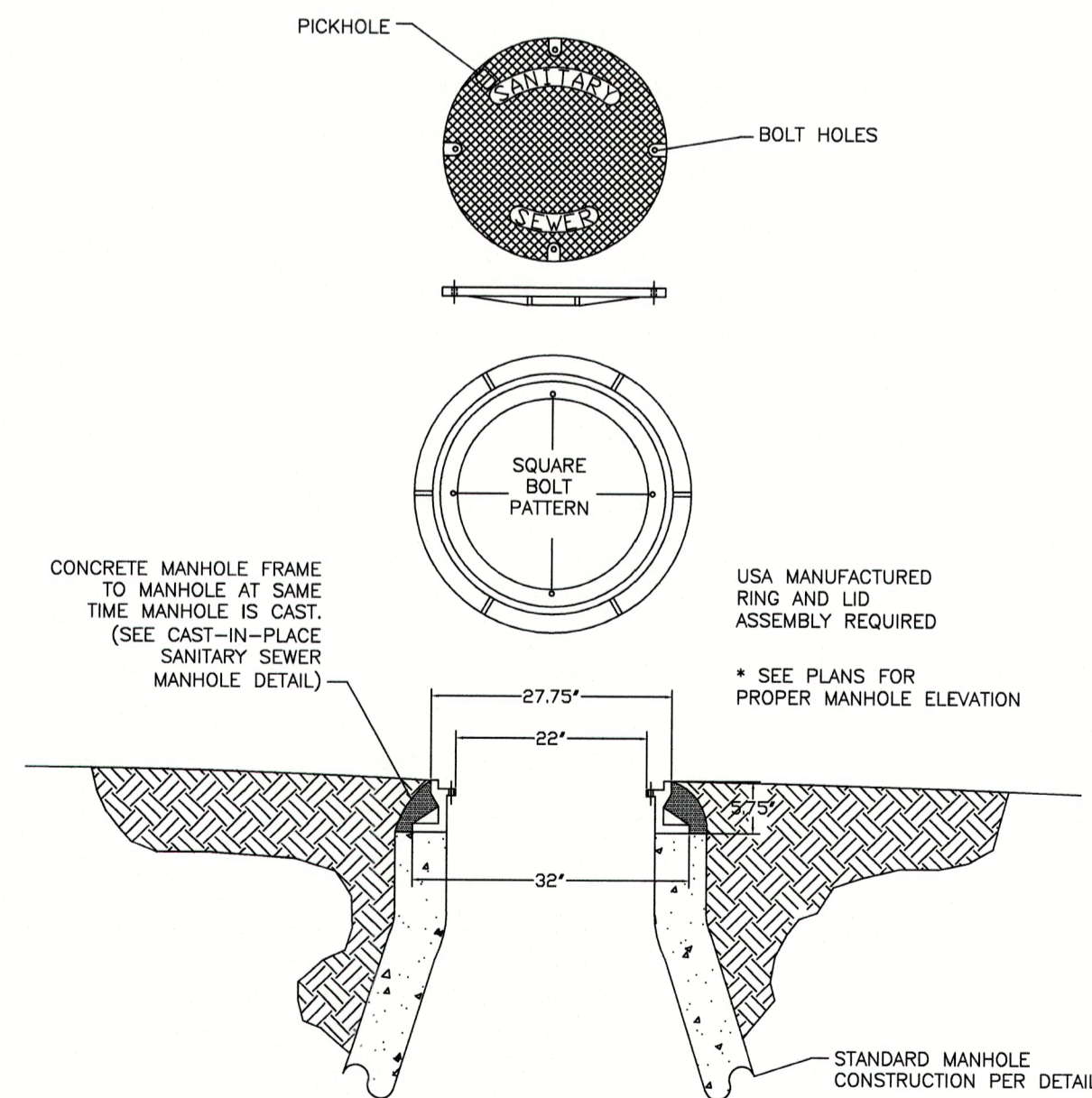
SANITARY SEWER DETAIL: SS03

## HEAVY DUTY MANHOLE LID & FRAME



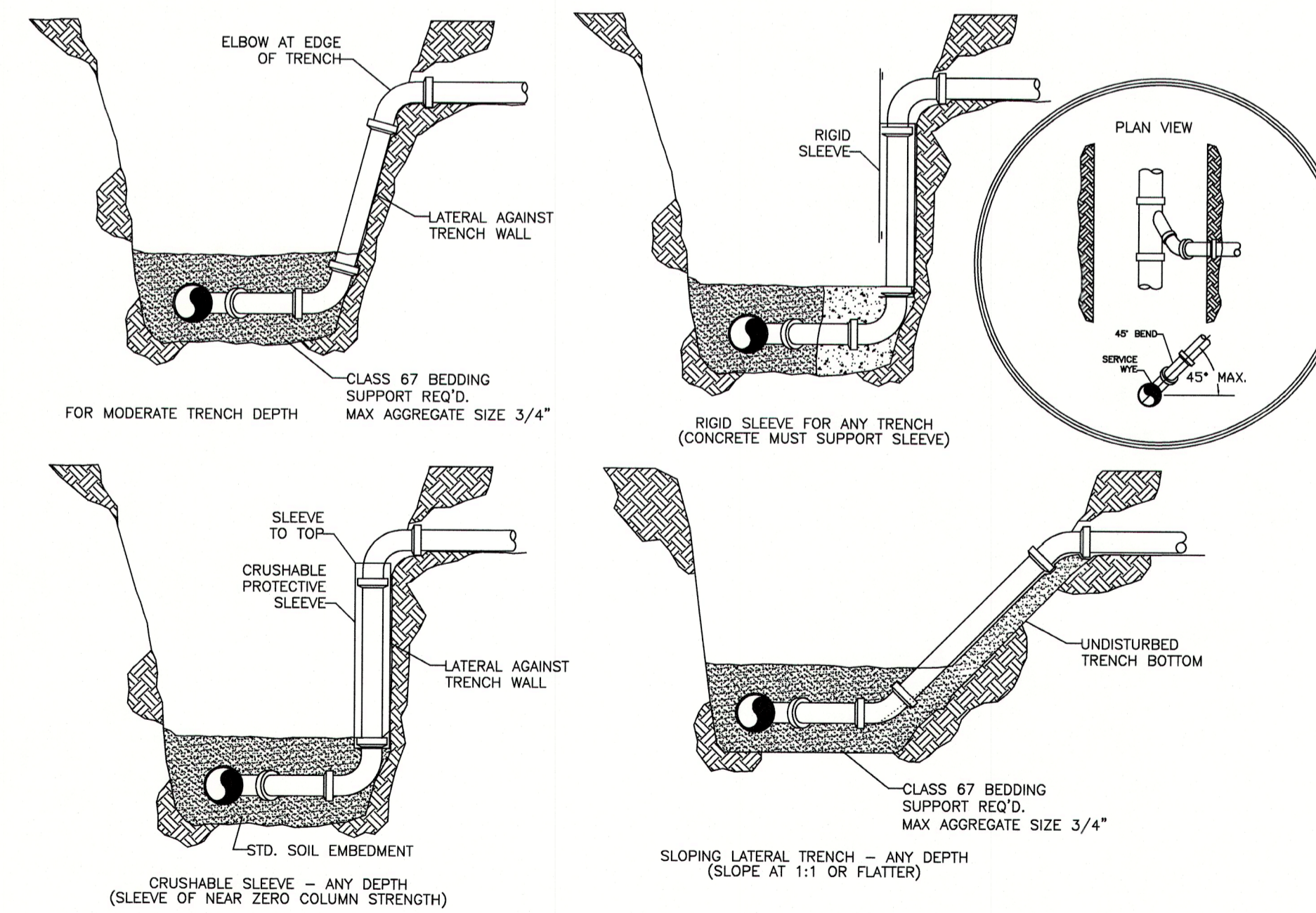
SANITARY SEWER DETAIL: SS04

## WATER TIGHT BOLTED MANHOLE LID & FRAME



SANITARY SEWER DETAIL: SS05

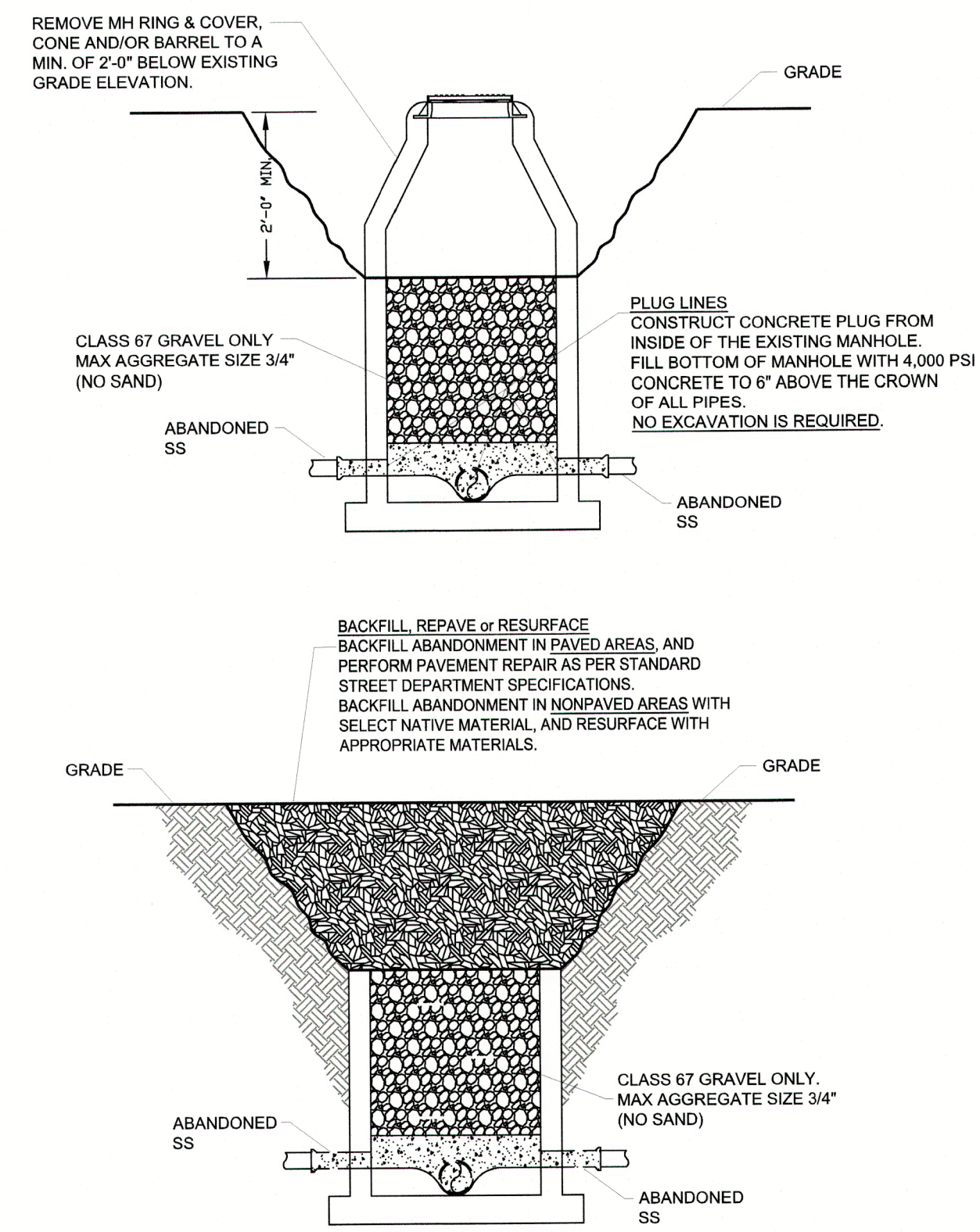
## SANITARY SEWER SERVICE WYE



SANITARY SEWER DETAIL: SS06

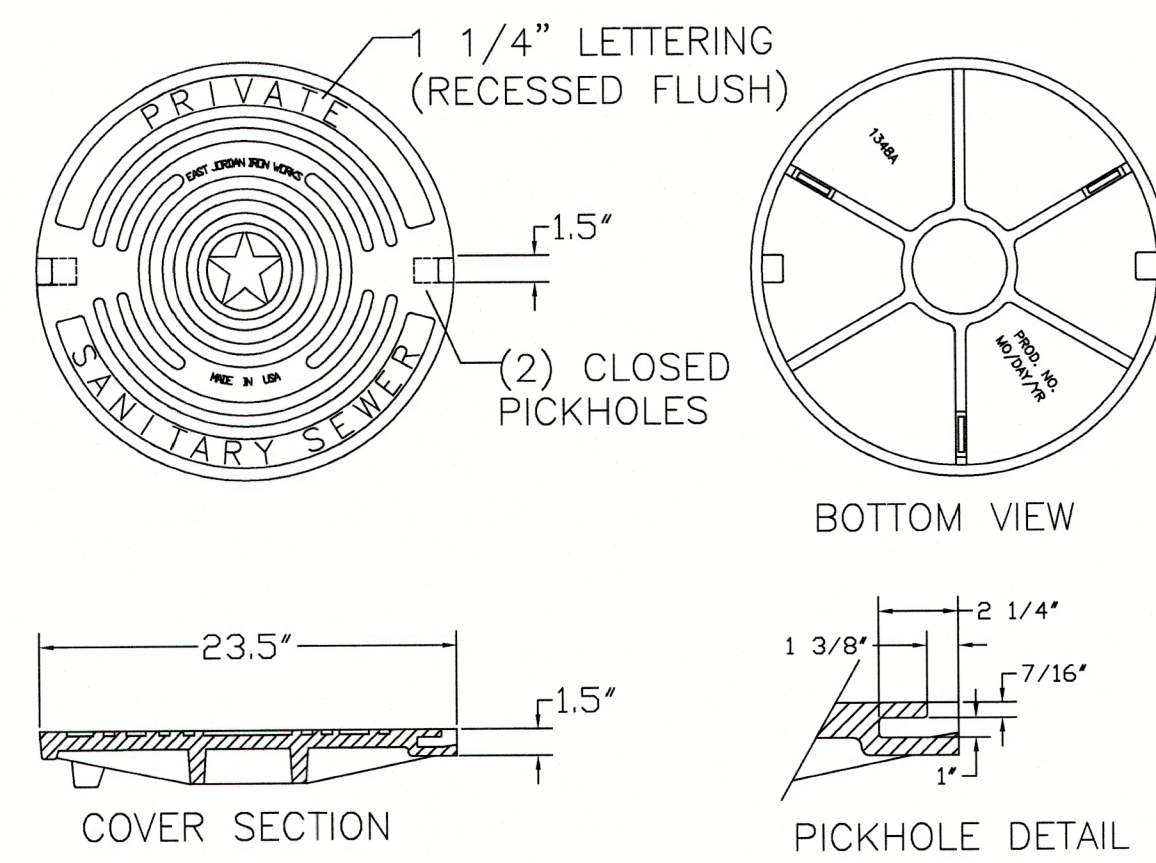


### SANITARY SEWER MANHOLE ABANDONMENT



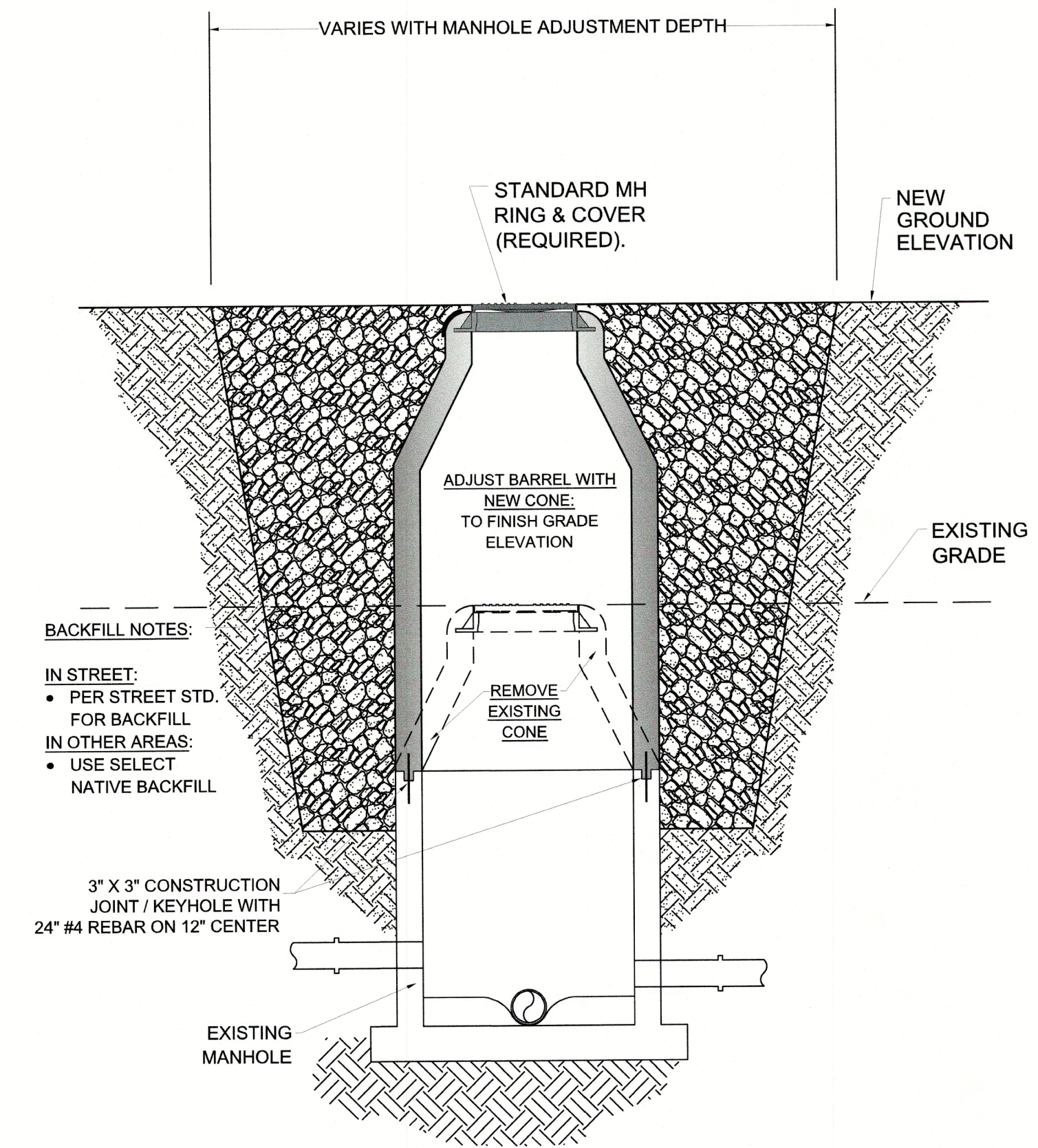
SANITARY SEWER DETAILS: SS07

### PRIVATE MANHOLE RING AND LID

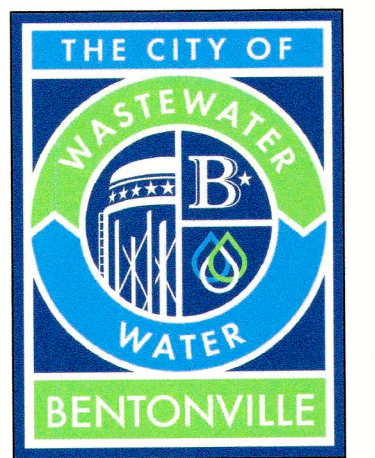


SANITARY SEWER DETAILS: SS08

### TYPICAL MANHOLE ADJUST TO GRADE



SANITARY SEWER DETAILS: SS09



3200 SW MUNICIPAL DR.  
Bentonville, AR 72712  
Ph: (479) 271-3140  
www.bentonvillear.com

## SAN. SEWER DETAILS



**Know what's below.  
Call before you dig.**

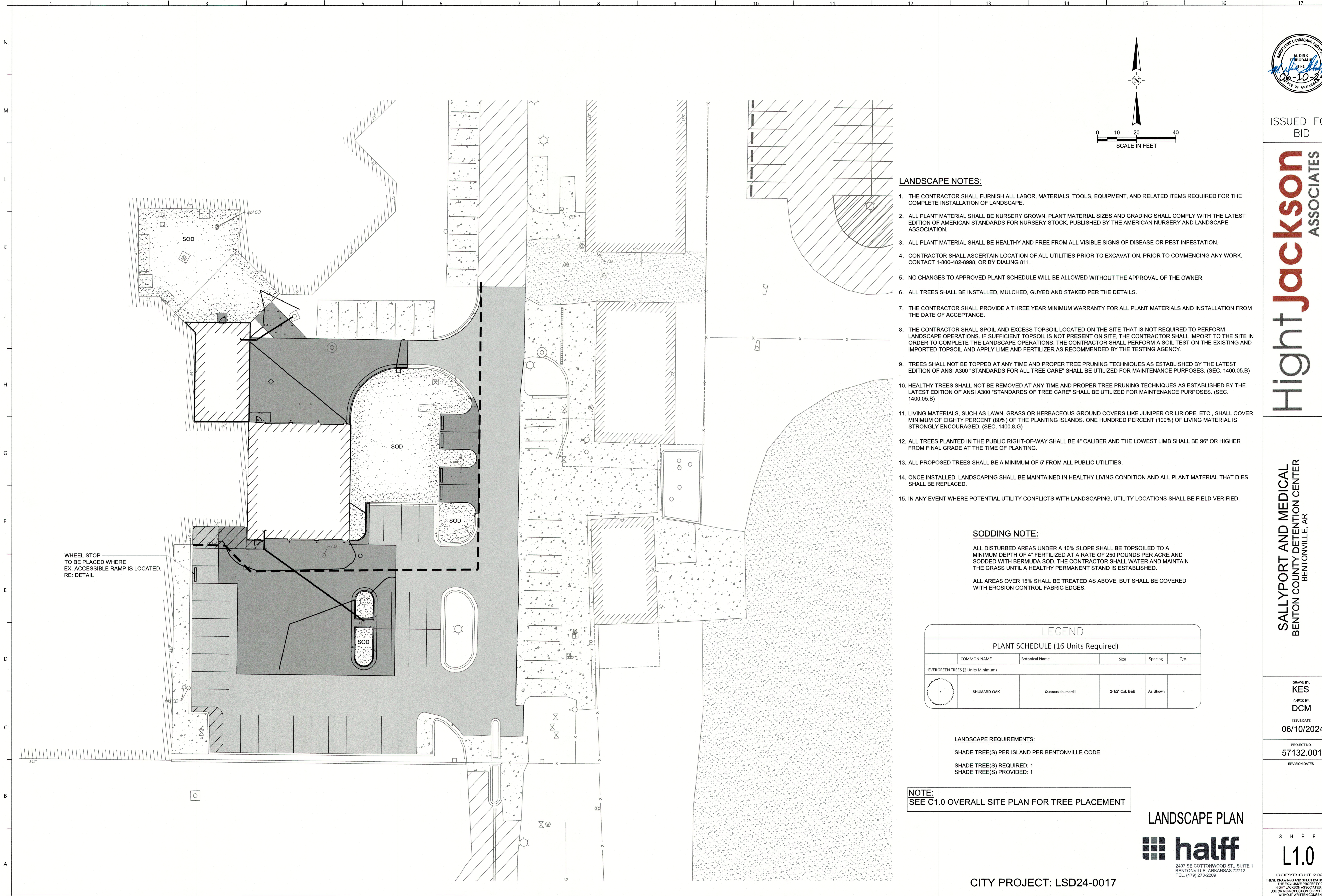
REVISIONS:  
Adopted by City Council 06/22/2021  
Ordinance Number: 2021-135

Approved by Dept. of Health  
04/01/2021

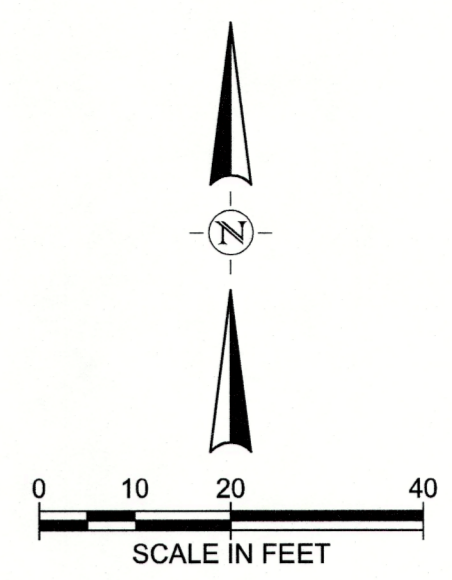
NOTES:

DRAWN BY: JI DATE: 03/16/2021  
APPROVED BY: PN DATE: 03/16/2021

SHEET NUMBER: 2 OF 2



WHEEL STOP  
TO BE PLACED WHERE  
EX. ACCESSIBLE RAMP IS LOCATED.  
RE: DETAIL



**LANDSCAPE NOTES:**

1. THE CONTRACTOR SHALL FURNISH ALL LABOR, MATERIALS, TOOLS, EQUIPMENT, AND RELATED ITEMS REQUIRED FOR THE COMPLETE INSTALLATION OF LANDSCAPE.
2. ALL PLANT MATERIAL SHALL BE NURSERY GROWN, PLANT MATERIAL SIZES AND GRADING SHALL COMPLY WITH THE LATEST EDITION OF AMERICAN STANDARDS FOR NURSERY STOCK, PUBLISHED BY THE AMERICAN NURSERY AND LANDSCAPE ASSOCIATION.
3. ALL PLANT MATERIAL SHALL BE HEALTHY AND FREE FROM ALL VISIBLE SIGNS OF DISEASE OR PEST INFESTATION.
4. CONTRACTOR SHALL ASCERTAIN LOCATION OF ALL UTILITIES PRIOR TO EXCAVATION. PRIOR TO COMMENCING ANY WORK, CONTACT 1-800-482-8998, OR BY DIALING 811.
5. NO CHANGES TO APPROVED PLANT SCHEDULE WILL BE ALLOWED WITHOUT THE APPROVAL OF THE OWNER.
6. ALL TREES SHALL BE INSTALLED, MULCHED, GUYED AND STAKED PER THE DETAILS.
7. THE CONTRACTOR SHALL PROVIDE A THREE YEAR MINIMUM WARRANTY FOR ALL PLANT MATERIALS AND INSTALLATION FROM THE DATE OF ACCEPTANCE.
8. THE CONTRACTOR SHALL SPOIL AND EXCESS TOPSOIL LOCATED ON THE SITE THAT IS NOT REQUIRED TO PERFORM LANDSCAPE OPERATIONS. IF SUFFICIENT TOPSOIL IS NOT PRESENT ON SITE, THE CONTRACTOR SHALL IMPORT TO THE SITE IN ORDER TO COMPLETE THE LANDSCAPE OPERATIONS. THE CONTRACTOR SHALL PERFORM A SOIL TEST ON THE EXISTING AND IMPORTED TOPSOIL AND APPLY LIME AND FERTILIZER AS RECOMMENDED BY THE TESTING AGENCY.
9. TREES SHALL NOT BE TOPPED AT ANY TIME AND PROPER TREE PRUNING TECHNIQUES AS ESTABLISHED BY THE LATEST EDITION OF ANSI A300 "STANDARDS FOR ALL TREE CARE" SHALL BE UTILIZED FOR MAINTENANCE PURPOSES. (SEC. 1400.05.B)
10. HEALTHY TREES SHALL NOT BE REMOVED AT ANY TIME AND PROPER TREE PRUNING TECHNIQUES AS ESTABLISHED BY THE LATEST EDITION OF ANSI A300 "STANDARDS OF TREE CARE" SHALL BE UTILIZED FOR MAINTENANCE PURPOSES. (SEC. 1400.05.B)
11. LIVING MATERIALS, SUCH AS LAWN, GRASS OR HERBACEOUS GROUND COVERS LIKE JUNIPER OR LIRIOPE, ETC., SHALL COVER MINIMUM OF EIGHTY PERCENT (80%) OF THE PLANTING ISLANDS. ONE HUNDRED PERCENT (100%) OF LIVING MATERIAL IS STRONGLY ENCOURAGED. (SEC. 1400.8.G)
12. ALL TREES PLANTED IN THE PUBLIC RIGHT-OF-WAY SHALL BE 4" CALIBER AND THE LOWEST LIMB SHALL BE 96" OR HIGHER FROM FINAL GRADE AT THE TIME OF PLANTING.
13. ALL PROPOSED TREES SHALL BE A MINIMUM OF 5' FROM ALL PUBLIC UTILITIES.
14. ONCE INSTALLED, LANDSCAPING SHALL BE MAINTAINED IN HEALTHY LIVING CONDITION AND ALL PLANT MATERIAL THAT DIES SHALL BE REPLACED.
15. IN ANY EVENT WHERE POTENTIAL UTILITY CONFLICTS WITH LANDSCAPING, UTILITY LOCATIONS SHALL BE FIELD VERIFIED.

**SODDING NOTE:**

ALL DISTURBED AREAS UNDER A 10% SLOPE SHALL BE TOPSOILED TO A MINIMUM DEPTH OF 4" FERTILIZED AT A RATE OF 250 POUNDS PER ACRE AND SODDED WITH BERMUDA SOD. THE CONTRACTOR SHALL WATER AND MAINTAIN THE GRASS UNTIL A HEALTHY PERMANENT STAND IS ESTABLISHED.

ALL AREAS OVER 15% SHALL BE TREATED AS ABOVE, BUT SHALL BE COVERED WITH EROSION CONTROL FABRIC EDGES.

LEGEND					
PLANT SCHEDULE (16 Units Required)					
	COMMON NAME	Botanical Name	Size	Spacing	Qty.
EVERGREEN TREES (2 Units Minimum)					
	SHUMARD OAK	Quercus shumardii	2-1/2" Cal. B&B	As Shown	1

**LANDSCAPE REQUIREMENTS:**

SHADE TREE(S) PER ISLAND PER BENTONVILLE CODE

SHADE TREE(S) REQUIRED: 1  
SHADE TREE(S) PROVIDED: 1

**NOTE:**  
SEE C1.0 OVERALL SITE PLAN FOR TREE PLACEMENT

**LANDSCAPE PLAN**

2407 SE COTTONWOOD ST., SUITE 1  
BENTONVILLE, ARKANSAS 72712  
TEL. (479) 273-2209

CITY PROJECT: LSD24-0017



ISSUED FOR  
BID

**Hight Jackson**  
ASSOCIATES  
5201 W Village Parkway, Suite 300 | Rogers, Arkansas 72758 | (479) 464-4965 | www.hjarch.com

**SALLYPORT AND MEDICAL**  
BENTON COUNTY DETENTION CENTER  
BENTONVILLE, AR

DRAWN BY:  
**KES**

CHECK BY:  
**DCM**

ISSUE DATE:  
**06/10/2024**

PROJECT NO:  
**57132.001**

REVISION DATES

S H E E T  
**L1.0**

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**AFPC 703.5 Marking and identification.** Where there is an accessible concealed floor, floor-ceiling or attic space, fire walls, fire barriers, fire partitions, smoke barriers and smoke partitions or any other wall required to have protected openings or penetrations shall be effectively and permanently identified with signs or stenciling in the concealed space. Such identification shall: 1. Be located within 15 feet (4572 mm) of the end of each wall and at intervals not exceeding 30 feet (9144 mm) measured horizontally along the wall or partition. 2. Include lettering not less than 3 inches (76 mm) in height with a minimum 3/8-inch (9.5 mm) stroke in a contrasting color incorporating the suggested wording, "FIRE AND/OR SMOKE BARRIER— PROTECT ALL OPENINGS," or other wording.

SYMBOL LEGEND	
	1 HR FIRE BARRIER
	2 HR FIRE WALL
	DESIGNATED EXIT
X' EXIT WIDTH REQ'D	X' EXIT WIDTH REQ'D
X' EXIT WIDTH PROV'D	X' EXIT WIDTH PROV'D
	EXIT LIGHT (EX = EXIST.)
	FIRE EXTINGUISHER BOTTLE
ROOM NAME	ROOM USE, RE-- LEGEND
_ SQ. FT.	SQUARE FEET
_ OCC. LOAD	OCCUPANCY

ROOM LEGEND	
BK	DETAINEE BOOKING AND INTAKE
DR	DETAINEE DAY ROOM
HC	HOLDING CELL
I-O	INSTITUTIONAL OUTPATIENT
RR	RESTROOM
SL	DETAINEE SLEEPING AREA
ST	STORAGE
SV	VEHICULAR SALLYPORT

TYPE OF CONSTRUCTION: ADDITION AND REMODEL  
 FACILITY NAME: BENTON COUNTY DETENTION CENTER  
 FACILITY LOCATION:  
 1300 SW 14TH ST.  
 BENTONVILLE, AR 72712  
 COUNTY: BENTON  
 LOCAL FIRE DEPARTMENT:  
 BENTONVILLE FIRE DEPARTMENT  
 WATER SUPPLY:  
 BENTONVILLE WATER DEPARTMENT  
 LOCAL BUILDING INSPECTION DEPARTMENT:  
 BENTONVILLE BUILDING INSPECTION DEPARTMENT  
 APPLICABLE CODES AND REGULATIONS:  
 2021 ARKANSAS FIRE PREVENTION CODE VOL. 1 & 2  
 2018 ARKANSAS STATE PLUMBING CODE  
 2021 ARKANSAS STATE MECHANICAL CODE  
 2020 NATIONAL ELECTRIC CODE  
 2018 ARKANSAS STATE FUEL GAS CODE  
 2014 ARKANSAS STATE ENERGY CODE

ARCHITECT CONTACT  
 HIGHT JACKSON ASSOCIATES  
 LORRIE SMITH  
 5201 WEST VILLAGE PARKWAY, SUITE 300  
 ROGERS, AR 72758  
 PHONE- (479)-464-4965

OWNER CONTACT:  
 BRYAN BEESON  
 FACILITIES ADMINISTRATOR  
 BENTON COUNTY, A SUBDIVISION OF  
 THE STATE OF ARKANSAS  
 215 E CENTRAL AVE.  
 BENTONVILLE, AR 72712  
 PHONE - (479) 271-1096

NEW CONSTRUCTION:  
 OCCUPANCY TYPE- I-3 CONDITION 4  
 CONSTRUCTION TYPE- II-B  
 BASIC ALLOWABLE AREA PER STORY- 30,000  
 ALLOWABLE HEIGHT- 75'  
 ACTUAL HEIGHT- +/- 26'  
 ALLOWABLE STORIES- 2  
 ACTUAL STORIES- 1

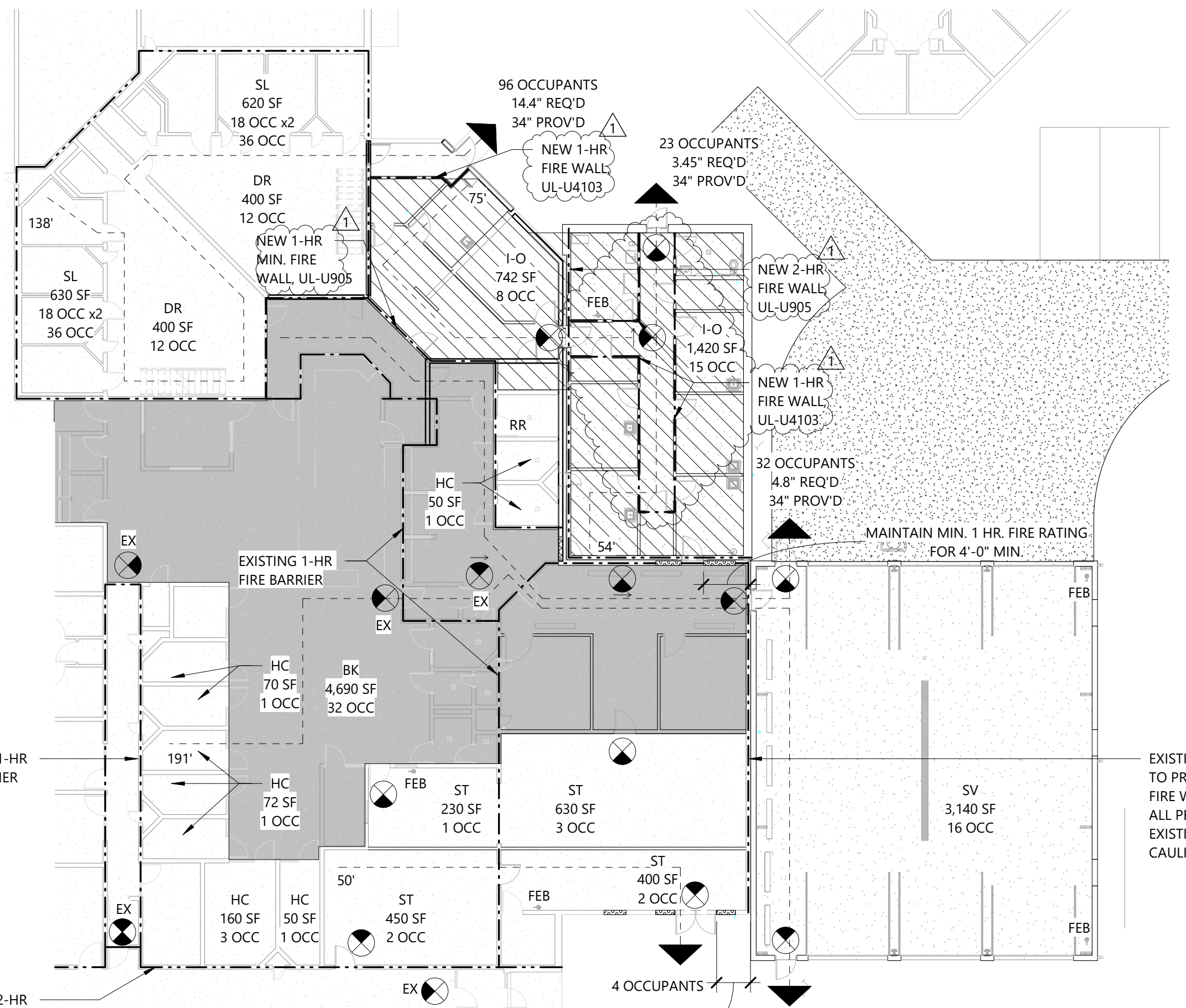
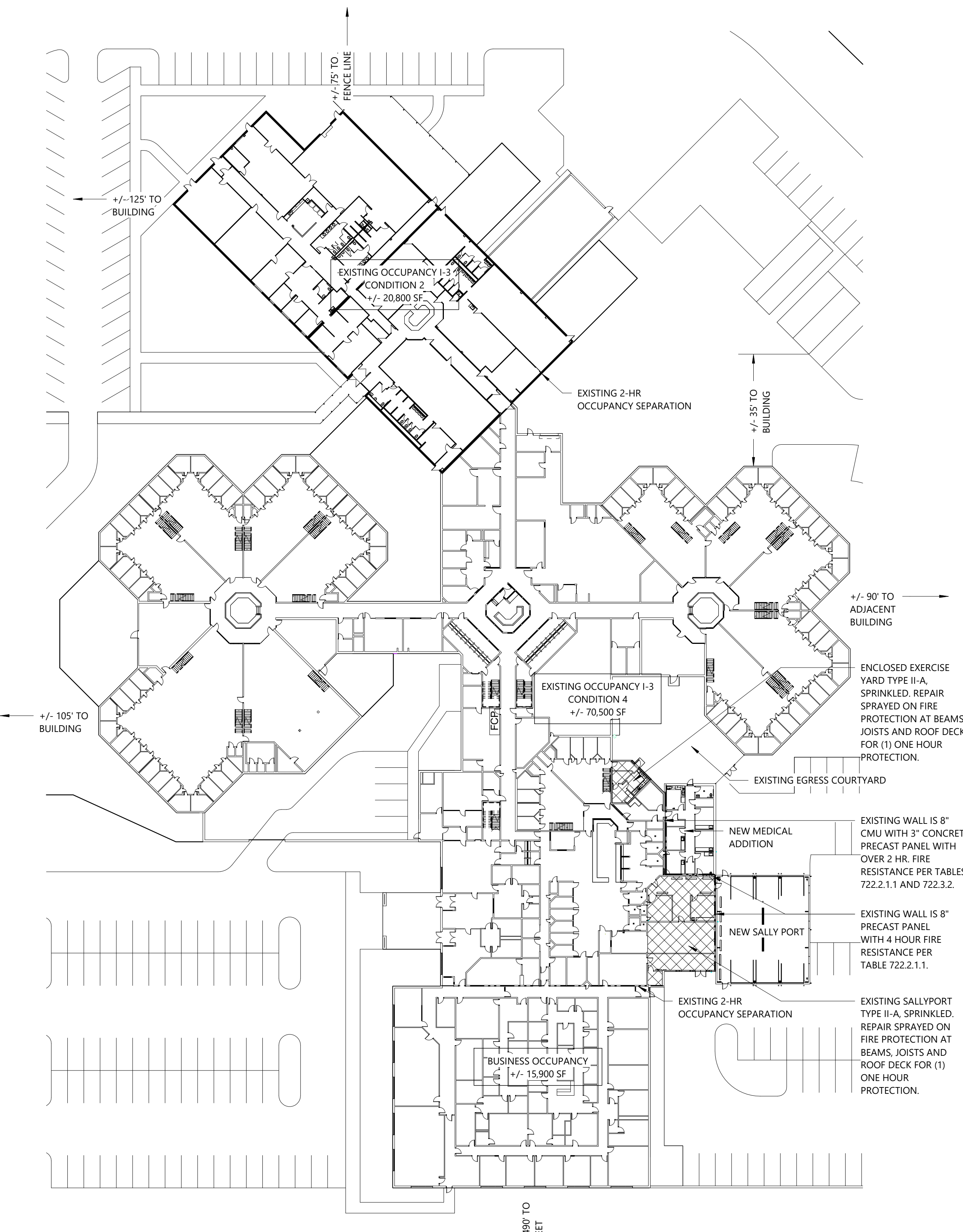
STRUCTURAL FIRE PROTECTION  
 STRUCTURAL FRAME- 0 HR.  
 EXTERIOR BEARING WALLS- 0 HR.  
 INTERIOR BEARING WALLS- 0 HR.  
 EXTERIOR NON-BEARING WALLS- 0 HR.  
 INTERIOR NON-BEARING WALLS- 0 HR.  
 FLOORS- 0 HR.  
 ROOF- 0 HR.

ACTIVE FIRE SAFETY FEATURES:  
 FIRE SPRINKLER SYSTEM THROUGHOUT  
 FIRE ALARM SYSTEM- GENERATOR AND BATTERY BACK UP  
 SMOKE DETECTION THROUGHOUT-BATTERY BACKUP  
 AUTOMATIC AIR HANDLING EQUIPMENT SHUTDOWN  
 EXIT LIGHTS- GENERATOR AND BATTERY BACK UP  
 EMERGENCY LIGHTING- GENERATOR AND BATTERY BACK UP

PROTECT EXISTING SPRAYED ON FIRE PROTECTION THROUGHOUT EXISTING BUILDING.

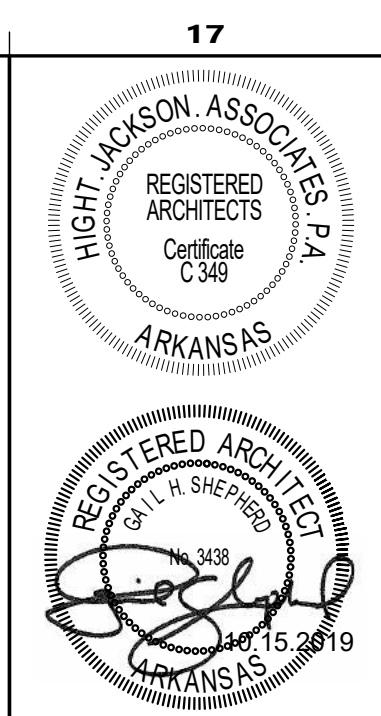
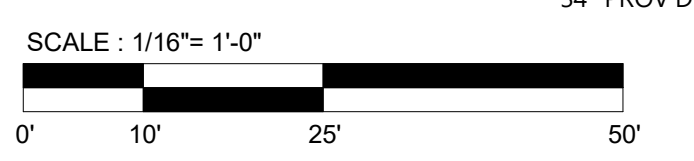
OCCUPANT LOADS	
STORAGE (ST) - 300 GROSS	
INSTITUTIONAL OUTPATIENT (I-O) = 100 GROSS	
SALLY PORT (VEHICULAR) (SV) = 200 GROSS	
HOLDING CELL (HC) = 50 NET	
SLEEPING AREAS (SL) = 35 NET	
DAY ROOM (DR) = 35 NET	
BOOKING & INTAKE (BK) = 150 GROSS	

ARKANSAS JAIL STANDARDS 2022  
 -SINGLE HOLDING CELL - 50 SF./OCC.  
 -SLEEPING AREAS AND DAY ROOMS - 35 S.F./OCC.



**A1 FIRST FLOOR LIFE SAFETY PLAN**  
 1" = 40'-0"

**A8 Life Safety Plan**  
 1/16" = 1'-0"



**Hight Jackson ASSOCIATES**  
 5201 W Village Parkway, Suite 300 | Rogers, Arkansas 72758 | (479) 464-4965 | www.hjarch.com

A REMODEL AND ADDITION FOR  
**BENTON CO. DETENTION CENTER**  
 BENTONVILLE, AR

DRAWN BY: <b>RS</b>
CHECK BY: <b>LS</b>
ISSUE DATE: <b>06/10/2024</b>
PROJECT NO: <b>2404</b>
REVISION DATE:
DATE: 07/09/2024
DESCRIPTION: ADD 2
SHEET
<b>A1.1</b>
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UL Product IQ



Design/System/Construction/Assembly Usage Disclaimer

- Authorities Having Jurisdiction should be consulted in all cases as to the particular requirements covering the installation and use of UL Certified products, equipment, system, devices, and materials.

BXUV - Fire Resistance Ratings - ANSI/UL 263 Certified for United States
BXUV7 - Fire Resistance Ratings - CAN/ULC-S101 Certified for Canada

See General Information for Fire Resistance Ratings - ANSI/UL 263 Certified for United States

Design Criteria and Allowable Variance

See General Information for Fire Resistance Ratings - CAN/ULC-S101 Certified for Canada

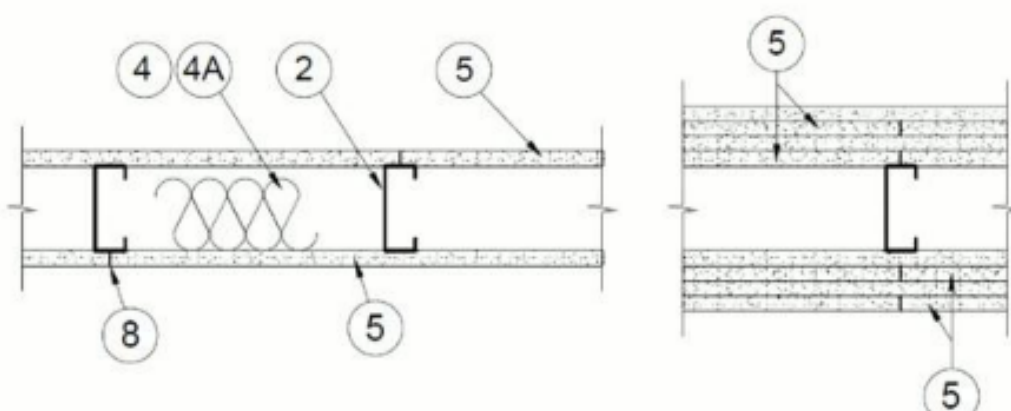
Design Criteria and Allowable Variance

Design No. U4103

June 14, 2024

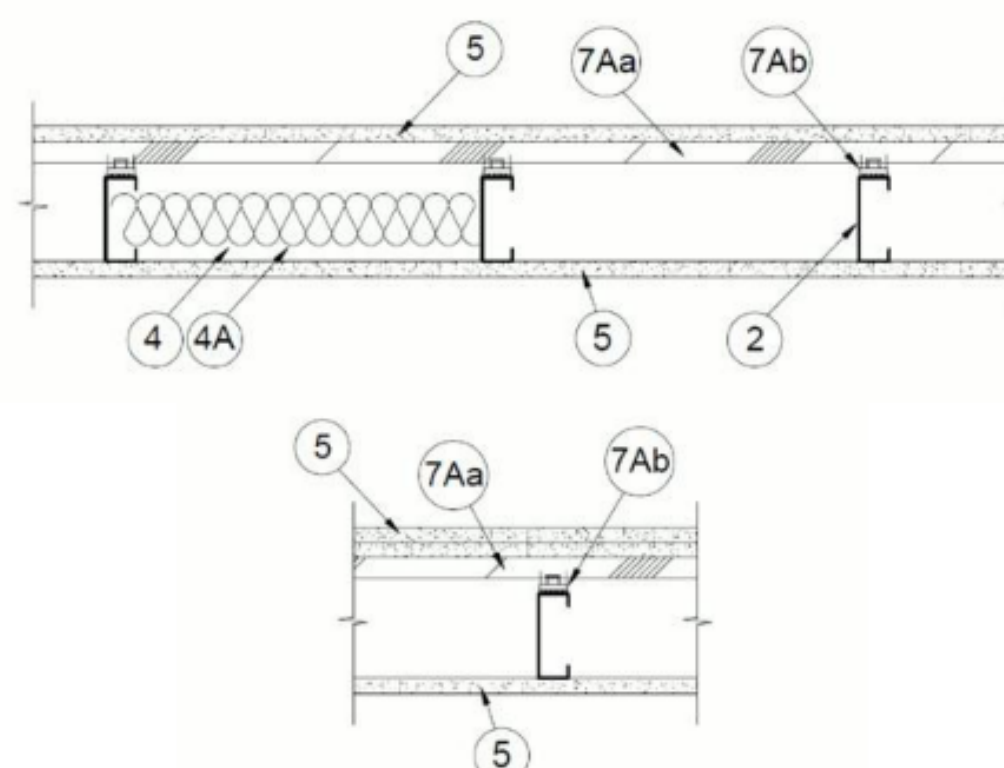
Nonbearing Wall Ratings - 1, 2, 3 or 4 Hr (See Items 4 & 5 through 5F)

\* Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.



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1/7



1. Floor and Ceiling Runners - (Not Shown) - For use with Item 2 - Channel shaped, fabricated from min 25 MSG corrosion-protected steel...

1A. Framing Members\* - Floor and Ceiling Runner - (Not Shown) - In lieu of Item 1 - For use with Item 2A, proprietary channel shaped runners...

2. Steel Studs - Channel shaped, fabricated from min 25 MSG corrosion-protected steel, min depth as indicated under Item 5, spaced a max of 24 in.

2A. Framing Members\* - Steel Studs - (Not Shown) - In lieu of Item 2 - For use with Item 1A, proprietary channel shaped steel studs, min 1-1/4 in. wide...

3. Wood Structural Panel Sheathing - (Optional, For use with Item 5 Only) - (Not Shown) - 4 ft wide, 7/16 in. thick oriented strand board (OSB) or 15/32 in. thick structural 1 sheathing (plywood)...

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2/7

4. Batts and Blankets\* - (Required as indicated under Item 5) - Mineral wool batts, friction fitted between studs and runners.

4A. Batts and Blankets\* - (Optional) - Placed in stud cavities, any glass fiber or mineral wool insulation bearing the UL Classification Marking as to Surface Burning Characteristics and/or Fire Resistance.

4B. Fiber, Sprayed\* - (Optional, for use with Type ULIX) Where insulation is required - Spray applied granulated mineral fiber material. The fiber is applied with adhesive at a minimum density of 4.0 pcf to completely fill the wall cavity in accordance with the application instructions supplied with the product.

4C. Foamed Plastic\* - (As an alternate to Item 4, for use with Item 5E) - Spray applied, foamed plastic insulation, at any thickness from partial fill to completely filling stud cavity...

4D. Foamed Plastic\* - (As an alternate to Item 4, for use with Item 5E) - Spray applied, foamed plastic insulation, at any thickness from partial fill to completely filling stud cavity, for up to 2 hour rated assemblies only.

4E. Fiber, Sprayed\* - (Optional, for use with Type ULIX) Where insulation is required - Spray applied granulated mineral fiber material. The fiber is applied with adhesive at a minimum density of 4.0 pcf to completely fill the wall cavity in accordance with the application instructions supplied with the product.

Table with columns: Rating, Hr, Min Stud Depth, in., Items 2, No. of Layers & Thickness of Panel, Min Thickness of Insulation (Item 4)

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\* Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.

Last Updated on 2024-06-14

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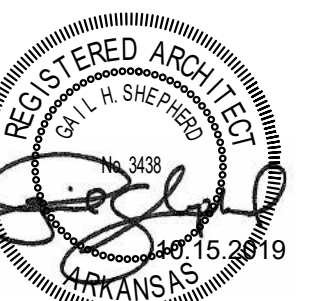
5/7

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6/7

https://iq.ulprospector.com/en/profile/?w=6182492

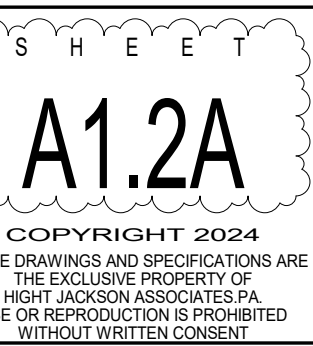
7/7



Hight Jackson ASSOCIATES
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A REMODEL AND ADDITION FOR
BENTON CO. DETENTION CENTER
BENTONVILLE, AR

Table with columns: DRAWN BY (RS), CHECK BY (LS), ISSUE DATE (06/10/2024), PROJECT NO. (2404), REVISION DATE (07/09/2024), DESCRIPTION (ADD 2)



### UL Product IQ®



#### Design/System/Construction/Assembly Usage Disclaimer

- Authorities Having Jurisdiction should be consulted in all cases as to the particular requirements covering the installation and use of UL Certified products, equipment, system, devices, and materials.
- Authorities Having Jurisdiction should be consulted before construction.
- Fire resistance assemblies and products are developed by the design submitter and have been investigated by UL for compliance with applicable requirements. The published information cannot always address every construction nuance encountered in the field.
- When field issues arise, it is recommended the first contact for assistance be the technical service staff provided by the product manufacturer noted for the design. Users of fire resistance assemblies are advised to consult the general Guide Information for each product category and each group of assemblies. The Guide Information includes specifics concerning alternate materials and alternate methods of construction.
- Only products which bear UL's Mark are considered Certified.

BXUV - Fire Resistance Ratings - ANSI/UL 263 Certified for United States

BXUV7 - Fire Resistance Ratings - CAN/ULC-S101 Certified for Canada

[See General Information for Fire Resistance Ratings - ANSI/UL 263 Certified for United States Design Criteria and Allowable Variations](#)

[See General Information for Fire Resistance Ratings - CAN/ULC-S101 Certified for Canada Design Criteria and Allowable Variations](#)

#### Design No. U905

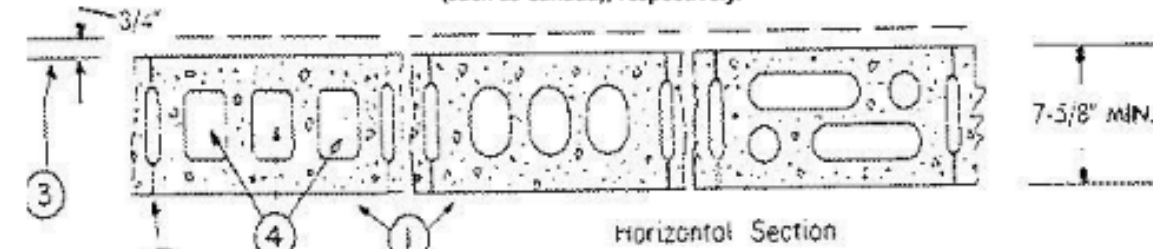
April 14, 2023

Bearing Wall Rating — 2 HR.

Nonbearing Wall Rating — 2 HR

This design was evaluated using a load design method other than the Limit States Design Method (e.g., Working Stress Design Method). For jurisdictions employing the Limit States Design Method, such as Canada, a load restriction factor shall be used — See Guide BXUV or BXUV7

\* Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.



1. Concrete Blocks\* — Various designs. Classification D-2 (2 hr).

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1/2

<https://iq.ulprospector.com/en/profile?h=15133>

2/2

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Holcim Solutions and Products US, LLC — "Enverge" CI Foil Exterior Wall Insulation\* and "Enverge" CI Glass Exterior Wall Insulation\*

HUNTER PANELS, A DIVISION OF CARLISLE CONSTRUCTION MATERIALS, LLC — Types "Xci-Class A", "Xci Foil (Class A)", "Xci 286"

RMAX, A BUSINESS UNIT OF SIKA CORPORATION — Types "TSX-8500", "ECOMAXi FR", "TSX-8510", "ECOMAX xi FR White", "ECOMAXi", "ECOMAXi FR Air Barrier", "Thermasheath-XP", "Thermasheath", "Durasheath"

JOHNS MANVILLE — Type "AP Foil-Faced Foam Sheathing"

5A. Building Units\* — As an alternate to Items 5, min. 1-in thick polyisocyanurate composite foamed plastic insulation boards, nom. 48 by 48 or 96 in.

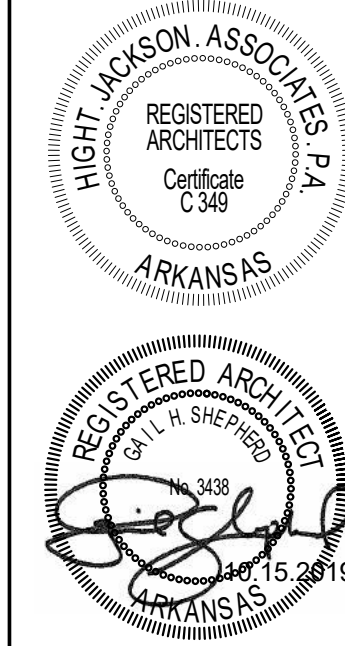
ATLAS ROOFING CORP — EnergyShield® Ply

HUNTER PANELS, A DIVISION OF CARLISLE CONSTRUCTION MATERIALS, LLC — "Xci N8", "Xci Ply"

RMAX, A BUSINESS UNIT OF SIKA CORPORATION — "Thermasheath-Si", "ECOBASec", "ThermaBase-CI", "ECOMAXi FR Ply", "ECOMAXi Ply".

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Last Updated on 2023-04-14



**Hight Jackson**  
ASSOCIATES

5201 W Village Parkway, Suite 300 | Rogers, Arkansas 72788 | (479) 464-4985 | www.hjarch.com

A REMODEL AND ADDITION FOR  
**BENTON CO. DETENTION CENTER**  
BENTONVILLE, AR

DRAWN BY:  
**RS**

CHECK BY:  
**LS**

ISSUE DATE:  
**06/10/2024**

PROJECT NO:  
**2404**

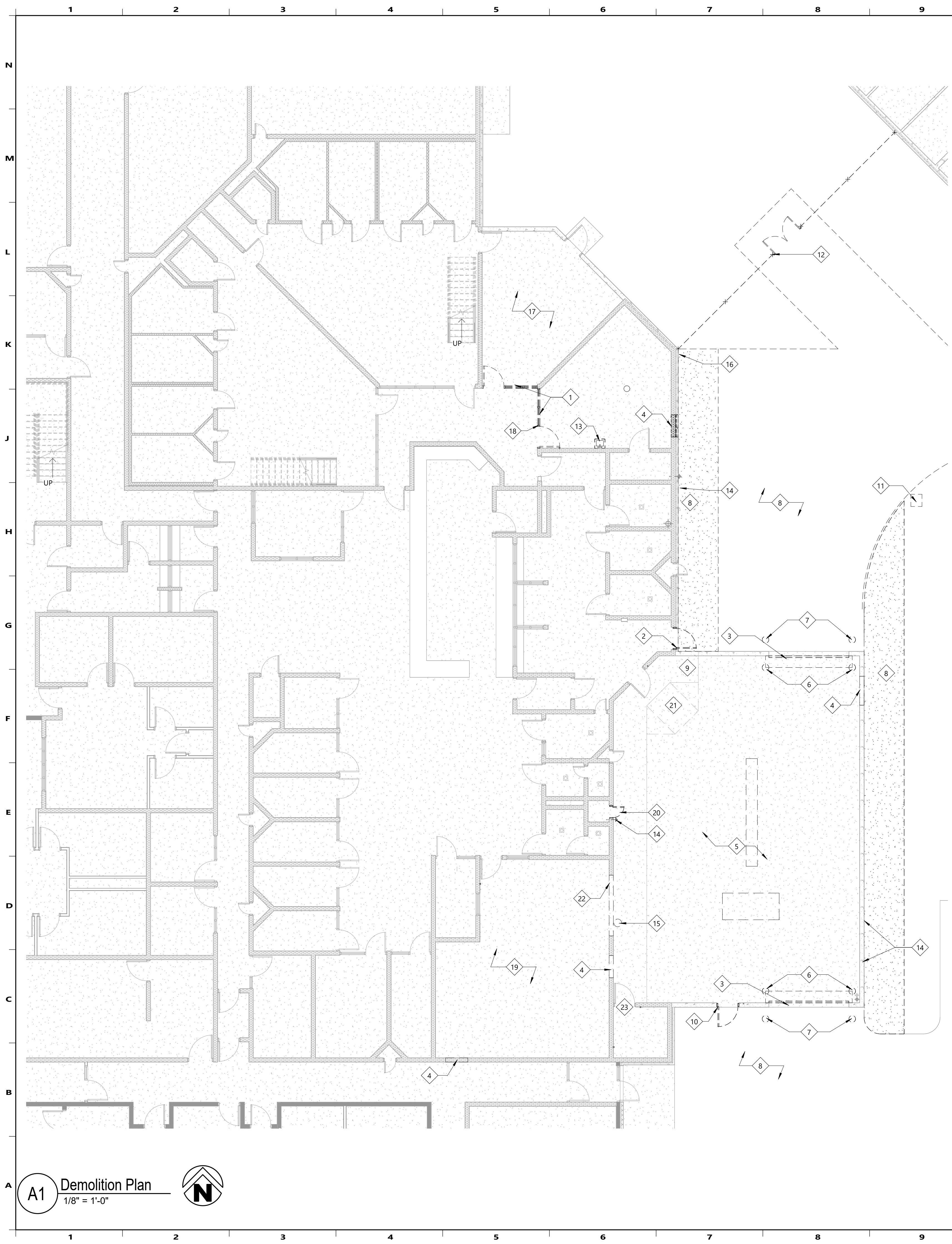
REVISION DATE

DATE	DESCRIPTION
07/09/2024	ADD 2

SHEET

**A1.2B**

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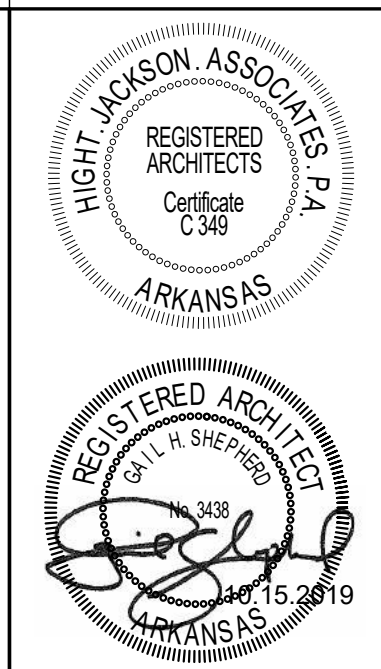
**General Demolition Notes**

1. DEMOLITION NOTES ARE PROVIDED TO EXPLAIN THE ITEMS TO BE REMOVED, RELOCATED, AND/OR MODIFIED IN ORDER TO FACILITATE THE REMODEL AND NEW CONSTRUCTION. IT SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR TO PROVIDE DEMOLITION AND PATCH ITEMS, SURFACES AND AREAS AS REQUIRED TO PROVIDE NEW WORK OR TO INSTALL NEW ITEMS WHERE CALLED FOR ON THE DRAWINGS AND SPECIFICATION.
2. PRIOR TO DEMOLITION AND CONSTRUCTION, IT IS THE CONTRACTORS RESPONSIBILITY TO FIELD VERIFY THE LOCATION AND CONDITION OF ALL EXISTING UTILITIES AND ELECTRICAL ITEMS (EXTERIOR AND INTERIOR) ON THE SITE AND WITHIN THE EXISTING BUILDING.
3. UNLESS NOTED OTHERWISE, ALL DEMOLISHED ITEMS TO BE REMOVED FROM SITE AND DISPOSED OF BY CONTRACTOR.
4. CONTRACTOR TO COORDINATE WITH OWNER THE REMOVAL OF ALL ITEMS OWNER WISHES TO SALVAGE FROM THE EXISTING REMODEL AREAS PRIOR TO THE START OF CONSTRUCTION.
5. ALL CRACKS, VOIDS, HOLES, ETC IN EXPOSED MASONRY OR CONCRETE WALLS TO BE REPAIRED FOR FINAL FINISH SURFACE.
6. REFERENCE FLOOR PLANS FOR SIZE OF SECTION OF WALL TO BE REMOVED FOR NEW OPENING.
7. CAP OFF ALL UNUSED PLUMBING PIPING AND ELECTRICAL LINES BELOW FLOOR SLAB, ABOVE CEILING, OR WITHIN WALLS AS ALLOWED BY CODE.
8. PROTECT ANY ITEMS THAT ARE EXISTING TO REMAIN.
9. SAWCUT AND REMOVE SECTIONS OF EXISTING SLAB AS REQUIRED TO INSTALL NEW WORK. PATCH AND REPAIR SLAB AS REQUIRED TO INSTALL NEW FINISH. LOCATIONS SHOWN ON DEMOLITION PLANS ARE APPROXIMATE LOCATIONS AND MAY NOT COVER ALL SLAB REPLACEMENT. REVIEW ENTIRE SET FOR ADDITIONAL WORK THAT MAY REQUIRE SLAB REMOVAL.
10. REPORT ANY MAJOR DISCREPANCIES IMMEDIATELY TO ARCHITECT.
11. REFER TO MEP DEMOLITION PLANS AND NOTES FOR ADDITIONAL REMOVAL AND/OR RELOCATION OF SYSTEMS NOT NOTED IN ARCHITECTURAL.
12. REPAIR WALLS AT LOCATIONS OF ANY REMOVED MECHANICAL, ELECTRICAL OR PLUMBING ITEMS, REPAIR WALLS W/ SAME MATERIAL AND MATCH COURSING.
13. REMOVE PARTS OF EXISTING WALLS TO INSTALL NEW PLUMBING, ELECTRICAL, ETC. REFER TO MEP PLANS FOR NEW MEP LOCATIONS. REPAIR WALLS BACK TO FINISH CONDITIONS FOR PAINTING.
14. REMOVE ANY MOVABLE ITEMS SUCH AS SHELVING, FURNITURE, ETC. THAT HAS NOT BEEN REMOVED BY THE OWNER, COORDINATE W/ OWNER.
15. REFER TO HVAC PLANS FOR REUSE, REMOVAL AND REPLACEMENT OF EXISTING EQUIPMENT. PATCH AND REPAIR ALL EXISTING WALLS, FLOORS AND ROOFS AS REQUIRED AFTER REMOVAL OR INSTALLATION.
16. REMOVE ALL OLD ANCHORS, BRACKETS, SCREENS, ETC. FROM EXISTING WALLS. PATCH ANY REMAINING HOLES TO CREATE LIKE-NEW WALL FOR NEW PAINT APPLICATION.
17. ANY INTERRUPTION IN SERVICES MUST BE COORDINATED W/ OWNER PRIOR TO SHUT OFF.
18. CONTRACTOR TO VERIFY ALL UTILITY CONDITIONS REMOVAL AND REPLACEMENT OF ANY UTILITY LINE OR CONDUIT REQUIRED TO INSTALL NEW WORK TO BE INCLUDED AS PART OF THIS BID.
19. PROTECT ALL PLUMBING, MECHANICAL, ELECTRICAL, DATA EQUIPMENT AND OTHER ITEMS NOTED OR INDICATED TO REMAIN. REFER TO PLUMBING, MECHANICAL, AND ELECTRICAL DRAWINGS FOR ADDITIONAL NOTES. IT IS THE CONTRACTOR'S RESPONSIBILITY TO PAY FOR AND REPAIR OR REPLACE ANY ITEMS DAMAGED DURING WORK TO LIKE-NEW CONDITION PRIOR TO PROJECT CLOSE-OUT.
20. REFER TO CIVIL DRAWINGS FOR CONSTRUCTION SITE PHASING.
21. PROTECT EXISTING SPRAYED ON FIRE PROTECTION IN EXISTING BUILDING. AREAS DAMAGED DURING CONSTRUCTION OR DAMAGE DISCOVERED TO BE REPAIRED UNDER AN ALLOWANCE. REFER TO SPECIFICATIONS.
22. REFER TO A2.1A FOR PHASING INFORMATION.

**DEMOLITION KEYED NOTES**

#	Description
1	REMOVE EXISTING SECURITY STEEL FRAMES AND GLAZING. PREP FOR NEW FINISHES. SALVAGE ALL HARDWARE.
2	REMOVE EXISTING SECURITY DOOR AND FRAME, PREP FOR NEW INFILL. SALVAGE ALL HARDWARE.
3	REMOVE EXISTING OVERHEAD DOOR & FRAME, PREPARE OPENING FOR INFILL.
4	CUT OPENING IN EXISTING WALL, PREP FOR NEW DOOR. REFER TO STRUCTURAL. CUT OUT MIN. 16" CMU ON EACH SIDE FOR NEW JAMBS.
5	PREP EXISTING DRIVE AREA FOR NEW FLOOR SLAB OVER EXISTING SLAB. INFILL TRENCH AND INTERCEPTOR W/ FLOWABLE FILL. RE-PLUMB.
6	REMOVE EXISTING BOLLARDS FLUSH WITH ADJACENT SLAB.
7	REMOVE EXISTING BOLLARDS ENTIRELY.
8	REMOVE EXISTING PAVING, RE-CIVIL DRAWINGS.
9	SALVAGE & RELOCATE EXISTING LOCK BOX TO KNEW SALLY PORT.
10	REMOVE EXISTING DOOR & FRAME, PREPARE OPENING FOR INFILL. SALVAGE ALL HARDWARE.
11	SALVAGE AND RELOCATE CALL BOX, RE-ELECTRICAL.
12	SALVAGE AND RELOCATE FENCE AND GATE, RE-CIVIL.
13	REMOVE EXISTING SINK. PATCH AND PREP WALL FOR PAINT. RE-PLUMB.
14	PATCH WALL AFTER PLUMBING PENETRATION IS REMOVED. RE-PLUMB.
15	SALVAGE FIRE EXTINGUISHER BOTTLE AND BRACKET FOR RELOCATION.
16	SALVAGE WALL MOUNT SMOKER'S RECEPTACLE AND DELIVER TO OWNER.
17	REFER TO PLUMBING FOR EXTENTS OF SLAB REMOVAL/REPLACEMENT AS REQUIRED FOR NEW WORK.
18	SALVAGE AND RELOCATE SECURITY DOOR AND HARDWARE IN NEW WORK.
19	REMOVE AND DISPOSE OF EXISTING RACK SYSTEM AND ALL ASSOCIATED APPURTENANCES.
20	REMOVE EXISTING DAMAGED DOOR AND FRAME. PREP OPENING FOR NEW DOOR AND FRAME.
21	REMOVE EXISTING RAMP. RE-STRUCT.
22	CUT OPENING IN EXISTING WALL. REFER TO STRUCTURAL. CUT OUT MIN. 16" CMU ON EACH SIDE FOR NEW JAMBS.
23	CUT OPENING IN EXISTING DOOR FOR VENT LOUVER TO BE INSTALLED. RE-MECHANICAL FOR SIZE.

**A1 Demolition Plan**  
1/8" = 1'-0"



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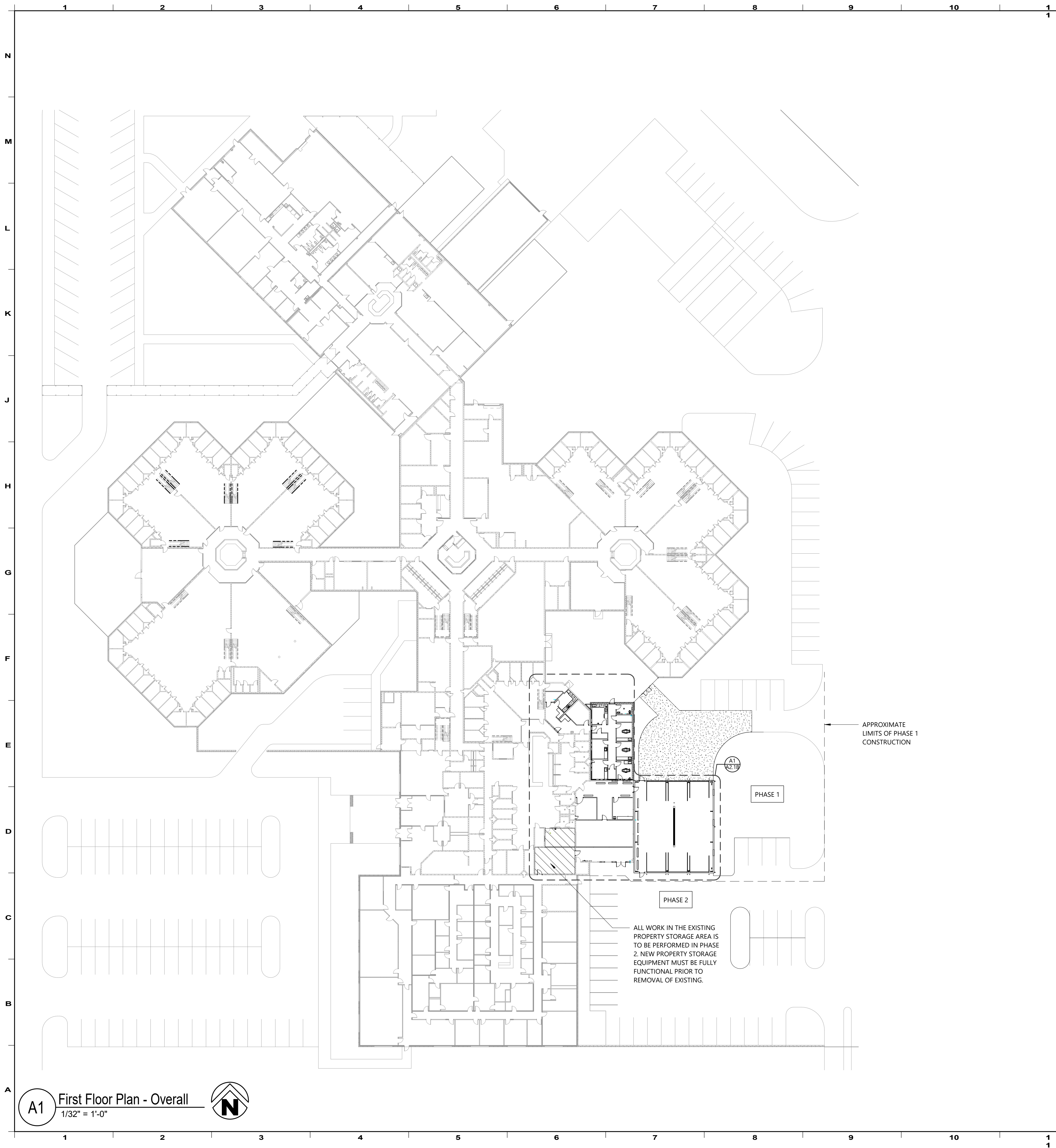
A REMODEL AND ADDITION FOR  
**BENTON CO. DETENTION CENTER**  
BENTONVILLE, AR

DRAWN BY:  
**RS**  
CHECK BY:  
**LS**  
ISSUE DATE:  
**06/10/2024**

PROJECT NO:  
**2404**

REVISION DATE	DATE	DESCRIPTION

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**SYMBOL LEGEND**

DRAWING NUMBER BASED ON SHEET GRID  
**A1** Floor Plan  
 1/8" = 1'-0" Ref: A1/ A2.2  
 DRAWING SCALE  
 BACK REFERENCE TO PARENT DRAWING

**N**  
 NORTH ARROW

**101**  
 ROOM NUMBER AND NAME

100'-0"  
 ELEVATION MARK IN PLAN

101'-0" T.O. STEEL  
 ELEVATION MARK SECTION AND PLAN

**DOOR MARK DIAGRAM**

DOOR NUMBER  
 DOOR TYPE  
 HARDWARE SET (NA=RE-ALLOWANCE)

FRAME TYPE  
 FIRE LABEL

SECTION OR DETAIL NUMBER  
 SHEET NUMBER

WALL SECTION  
 DETAIL MARK

ELEVATION MARK SECTION AND ELEVATION  
 MILLWORK/INTERIOR ELEVATION

**WALL LEGEND**

**WALL AND PARTITION MATERIALS**

3 5/8" METAL STUD WALL  
 6" METAL STUD WALL  
 8" CMU BLOCK WALL

**SMOKE WALLS AND FIRE RATED WALLS**

REFER TO SHEET A1.1 CODE FOOTPRINT FOR RATED WALLS AND CEILINGS.

**GENERAL NOTES:**

- ALL DIMENSIONS ARE TO BE FROM FACE OF STUD OR BLOCK UNLESS NOTED OTHERWISE.
- FURNITURE AND EQUIPMENT SHOWN DASHED ON PLANS ARE N.I.C. (NOT IN CONTRACT) U.N.O. (UNLESS NOTED OTHERWISE)
- PROVIDE CONTROL JOINTS IN ALL MASONRY VENEER AS SHOWN ON BUILDING ELEVATIONS, PLANS AND SPECIFIED. CONTROL JOINTS SHALL NOT EXCEED 24'-0" O.C.
- PROVIDE DEFLECTION TRACK AT ALL NON-LOAD BEARING WALLS THAT EXTEND TIGHT TO STRUCTURE OR ROOF DECK.
- COMPLY WITH STATE OF ARKANSAS ADOPTED ADA GUIDELINES AND ANSI 117.2003 IN REGARD TO ACCESSIBILITY OR HANDICAPPED FEATURES.
- 2 HOUR FIRE RATED WALLS TO EXTEND TIGHT TO DECK, FIRE CAULKED. INSTALL FIRE SAFING TO FILL ALL VOIDS, AND CAULK ALL PENETRATIONS, TYP.
- ALL RATED WALLS TO BE IDENTIFIED AT TOP OF WALL (ABOVE CEILING) WITH PAINTED STENCILED TEXT TO READ "X HR RATED WALL". PROVIDE CORRECT HOUR RATING IN PLACE OF "X". TEXT HEIGHT TO BE MINIMUM 2" AT INTERVALS OF EVERY 10' LINEAR.
- REFER TO REFLECTED CEILING PLAN FOR WALLS THAT GO TIGHT TO DECK.

**METAL STUD GAUGES**

- UNLESS NOTED OTHERWISE, MINIMUM STUD GAUGE SHALL BE AS FOLLOWS-- (LENGTH INDICATED IS FOR UNBRACED LENGTH)
- INTERIOR STUD WALLS**
- 6" WALLS TO 24'-0" HIGH - 20 GAUGE DRYWALL STUD AT 16" O.C.
  - 6" WALLS FROM 24'-0" TO 26'-0" HIGH - 18 GAUGE CSJ STUD AT 16" O.C.
  - 6" WALLS FROM 26'-0" TO 30'-0" HIGH - 16 GAUGE CSJ STUD AT 16" O.C.
  - 3-5/8" WALLS TO 15'-0" HIGH - 20 GAUGE DRYWALL STUD AT 16" O.C.
  - 3-5/8" WALLS FROM 15'-0" TO 18'-0" HIGH - 18 GAUGE CSJ STUD AT 16" O.C.

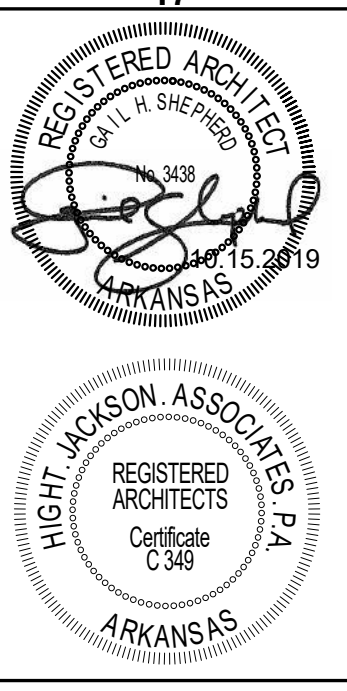
**Phasing Notes:**

- LIMITS OF PHASING ARE SHOWN FOR PRELIMINARY PURPOSES. CONTRACTOR TO COORDINATE WITH OWNER AFTER AWARD OF CONTRACT FOR ACTUAL PROJECT FENCING LOCATION.
- IT IS UNDERSTOOD THAT CONSTRUCTION TRAFFIC WILL UTILIZE THE EAST DRIVE FOR ACCESS TO THE NEW WORK. THIS DRIVE IS TO REMAIN OPERATIONAL, HOWEVER SHORT DURATIONS OF CLOSURE ARE EXPECTED FOR MATERIAL DELIVERIES. THESE CLOSURES ARE TO BE COORDINATED WITH THE OWNER MINIMUM 48 HOURS IN ADVANCE OF INTERRUPTION OF OWNER ACCESS.

**PHASE 1:** CONTRACTOR TO LIMIT CONSTRUCTION ACTIVITIES AND STAGING TO THE APPROXIMATE AREA SHOWN ON THE PLANS. EAST ACCESS DRIVE AND PARKING TO REMAIN OPERATIONAL THROUGHOUT CONSTRUCTION. SOUTH AREA OF SITE (NOTED AS PHASE 2) WILL BE UTILIZED FOR INMATE TRANSFER DURING CONSTRUCTION OF PHASE 1. OWNER ACCESS AND USE OF THE SOUTH SIDE OF THE SECURE AREA SHALL NOT BE INTERRUPTED UNTIL NEW SALLYPORT IS FULLY OPERATIONAL.

**PHASE 2:** ONCE NEW SALLYPORT IS OPERATIONAL AND IN USE BY OWNER. CONTRACTOR MAY PERFORM CONSTRUCTION AT THE SOUTH SIDE OF THE PROJECT. EAST ACCESS DRIVE AND PARKING TO REMAIN OPERATIONAL THROUGHOUT CONSTRUCTION.

**A1** First Floor Plan - Overall  
 1/32" = 1'-0"



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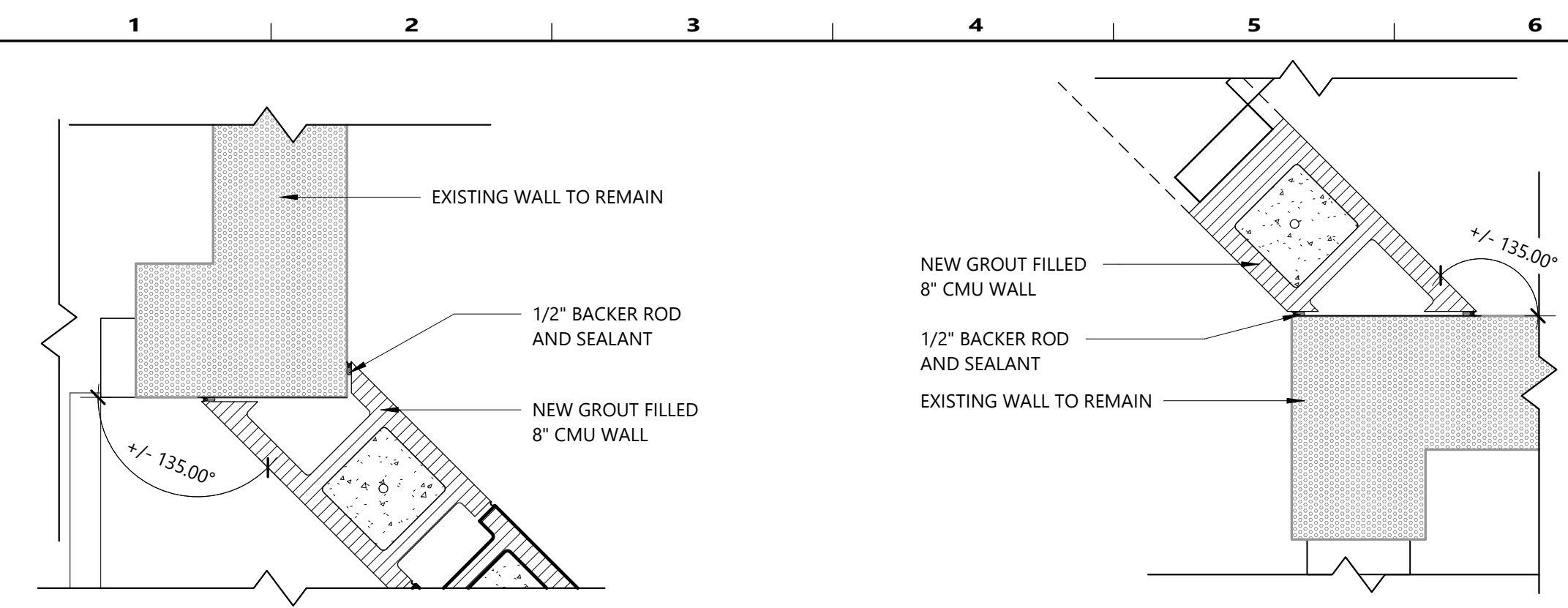
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**06/10/2024**

PROJECT NO.  
**2404**

REVISION DATES  
 # DATE DESCRIPTION

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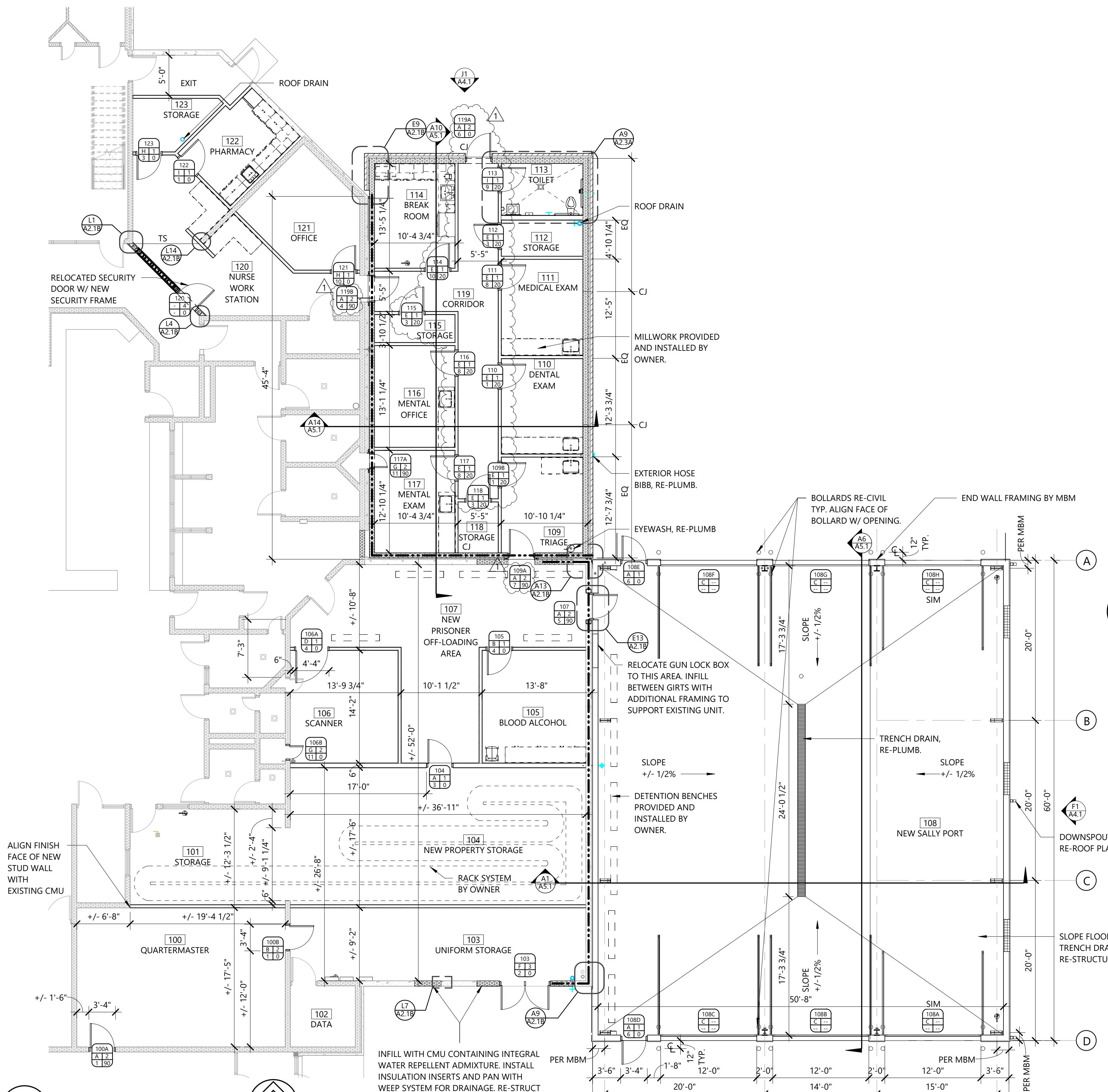


**L1** Enlarged Plan Detail  
1 1/2" = 1'-0"

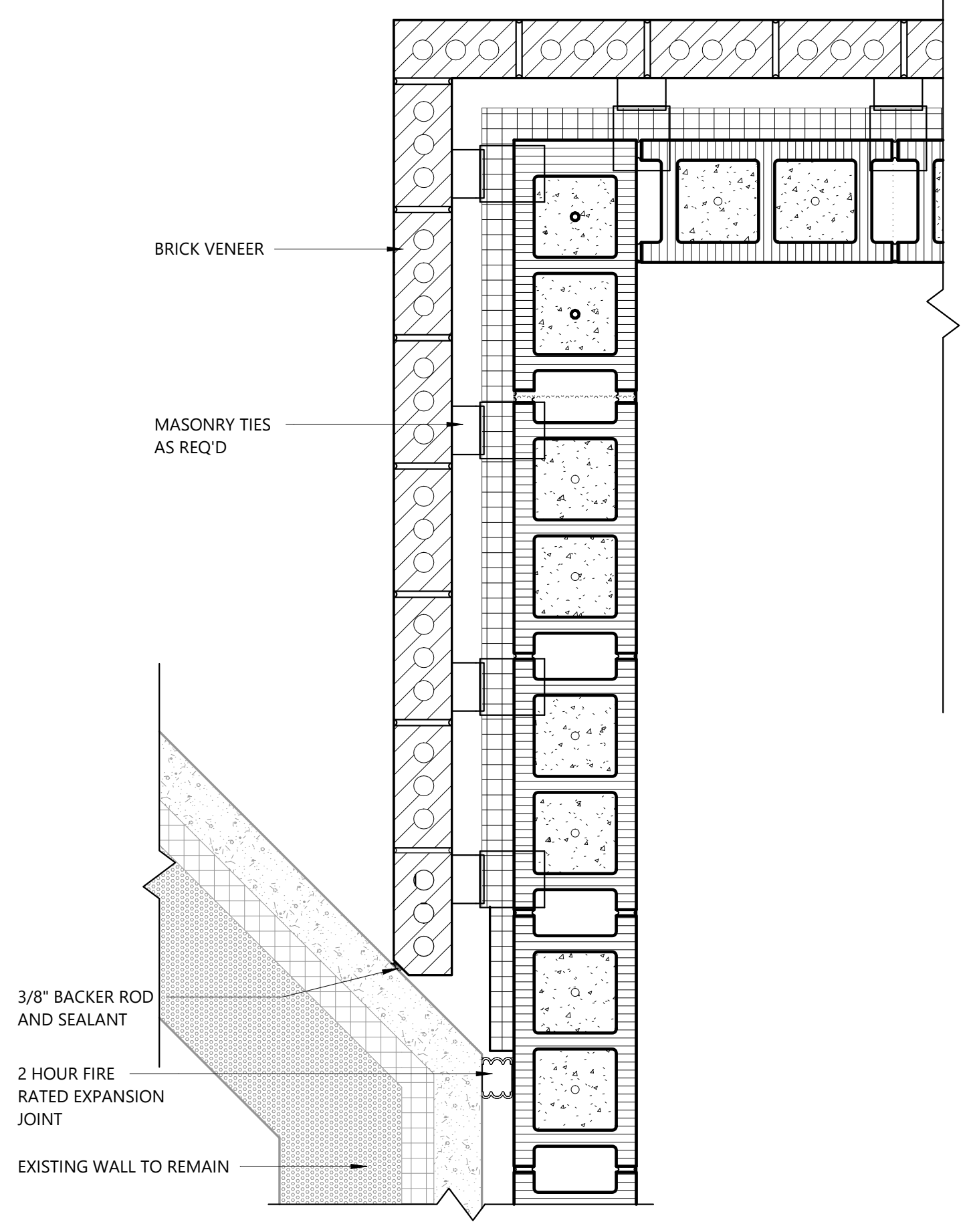
**L4** Enlarged Plan Detail  
1 1/2" = 1'-0"

**L7** Enlarged Plan Detail  
1 1/2" = 1'-0"

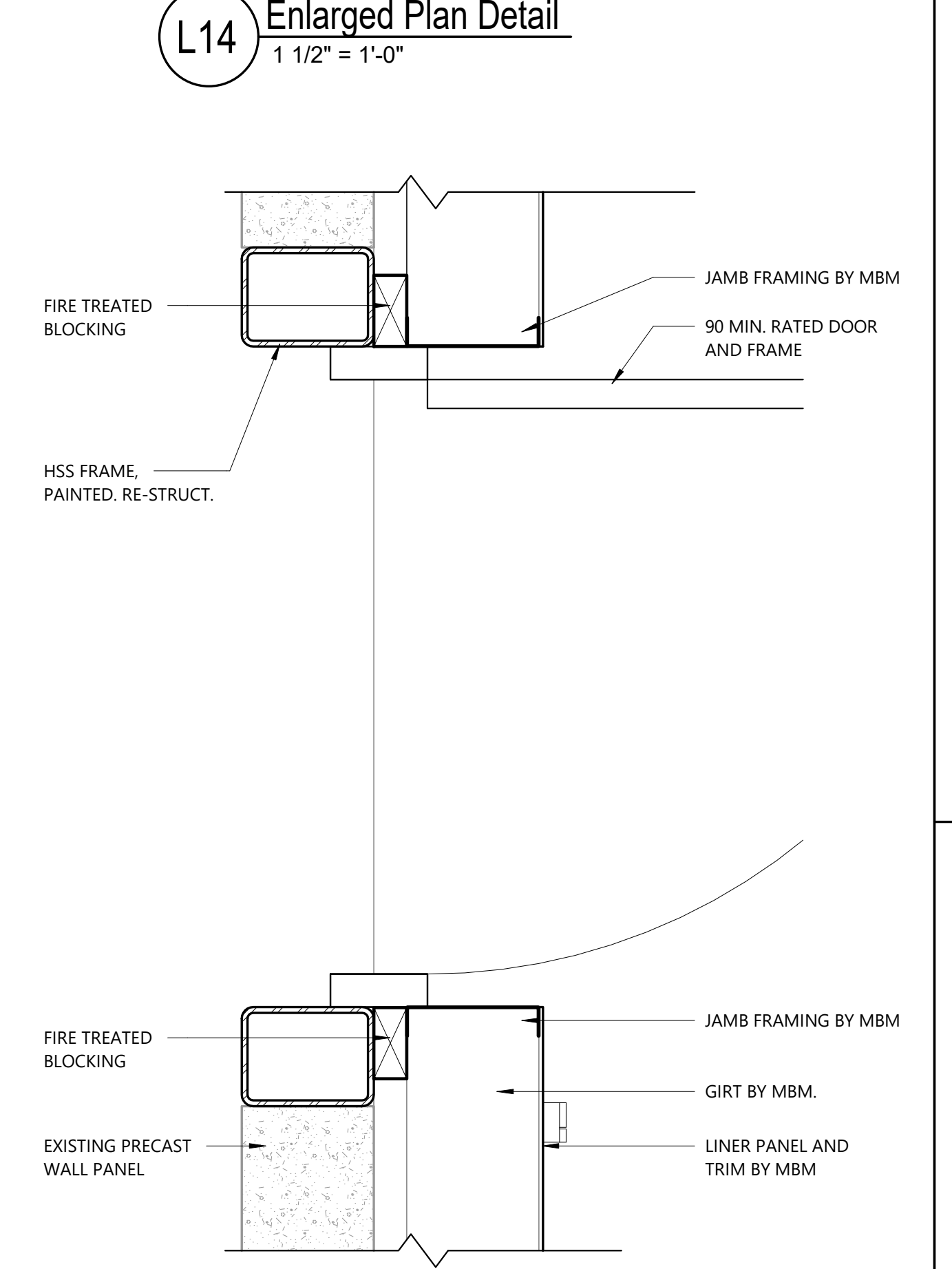
**L14** Enlarged Plan Detail  
1 1/2" = 1'-0"



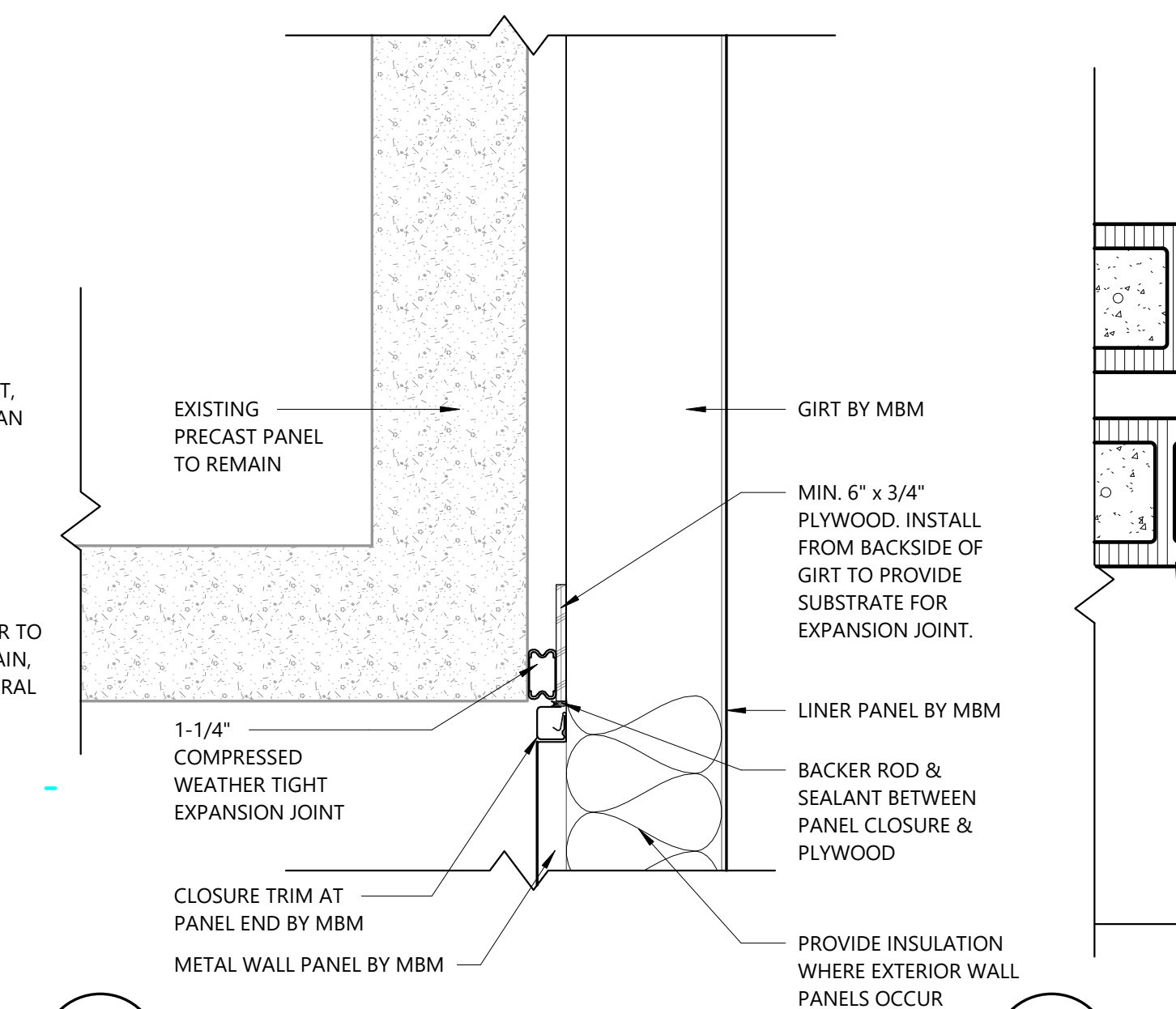
**A1** First Floor Plan - Enlarged  
1/8" = 1'-0"



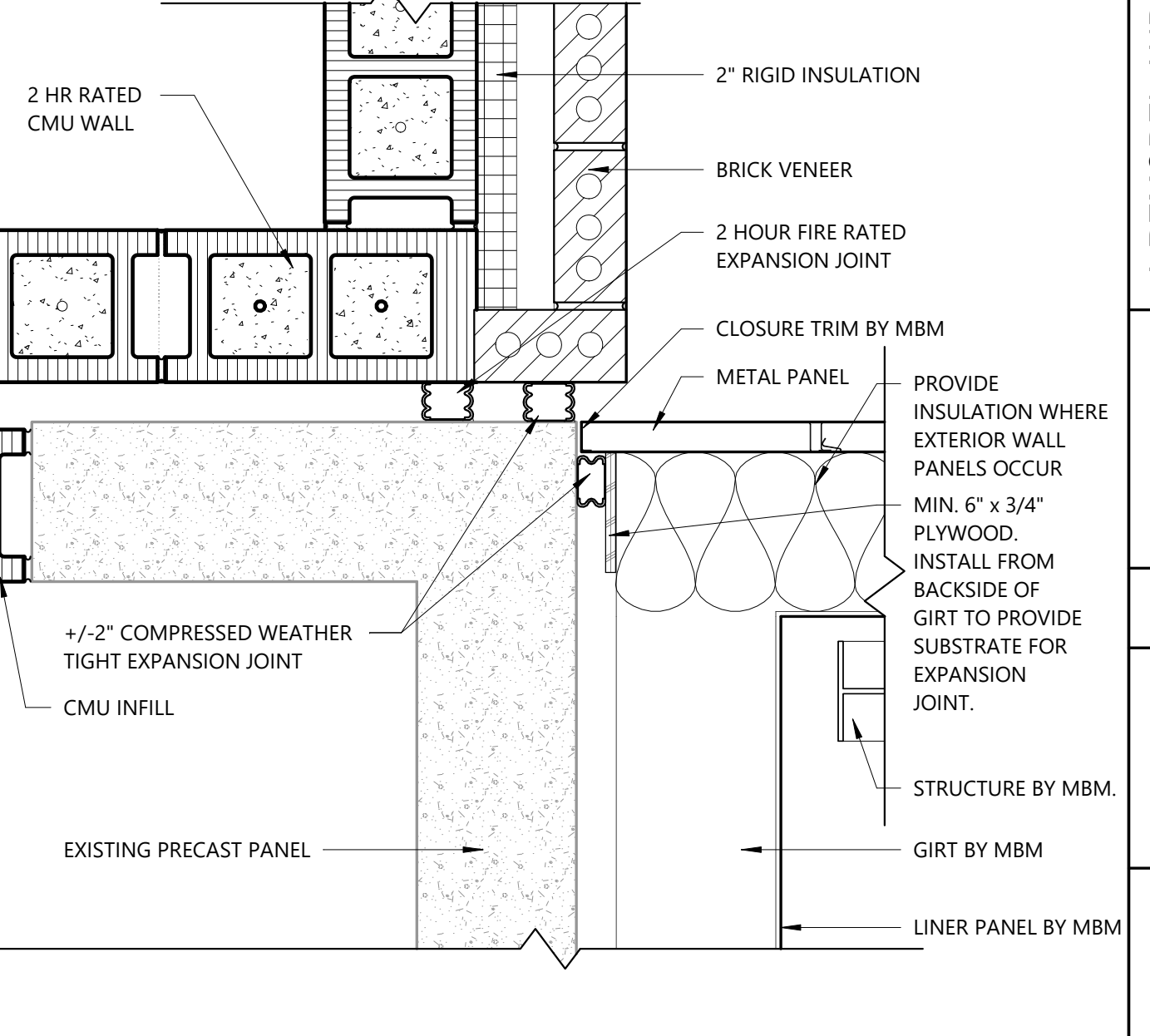
**E9** Enlarged Plan Detail  
1 1/2" = 1'-0"



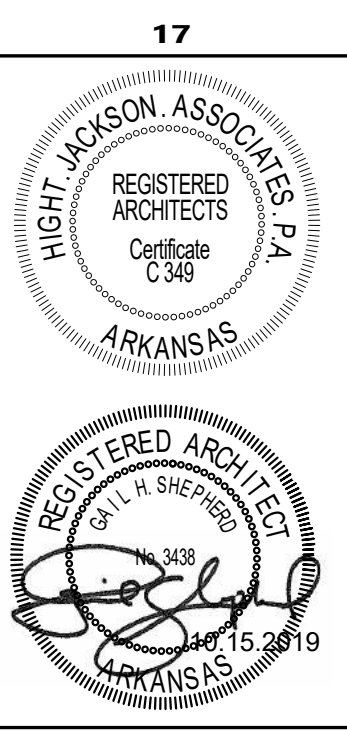
**E13** Enlarged Plan Detail  
1 1/2" = 1'-0"



**A9** Enlarged Plan Detail  
1 1/2" = 1'-0"



**A13** Enlarged Plan Detail  
1 1/2" = 1'-0"

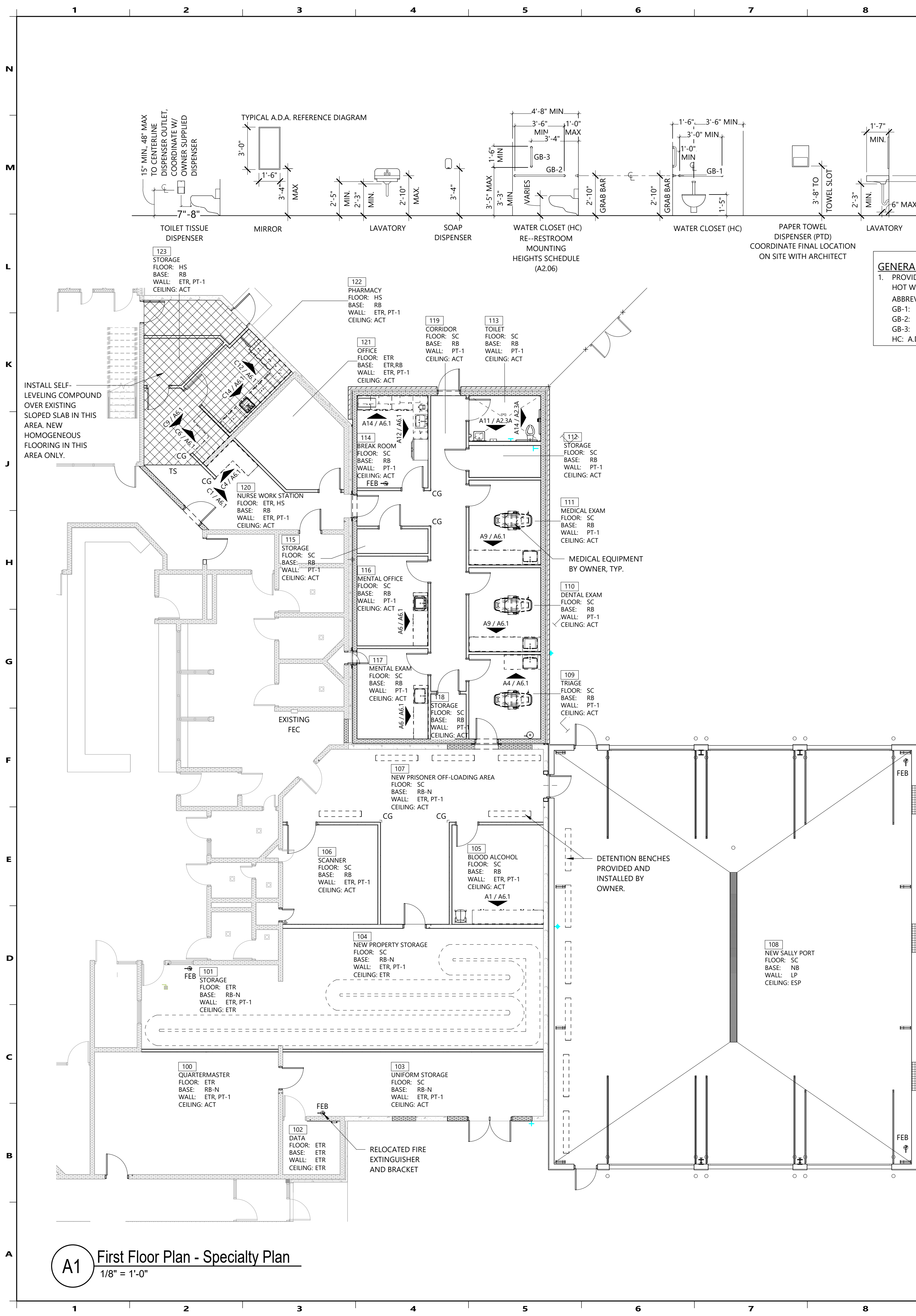


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BENTONVILLE, AR

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ISSUE DATE:	06/10/2024
PROJECT NO:	2404
REVISION DATE:	
DATE:	07/09/2024
DESCRIPTION:	ADD 2
S H E E T	
<b>A2.1B</b>	
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**GENERAL NOTES:**  
 1. PROVIDE INSULATION AT ALL EXPOSED HOT WATER AND DRAIN PIPES.  
 ABBREVIATIONS:  
 GB-1, 3'-0" GRAB BAR  
 GB-2, 3'-6" GRAB BAR  
 GB-3, 18" GRAB BAR  
 HC, A.D.A. ACCESSIBLE HEIGHT

**Specialty Plan Legend**

FEB	FIRE EXTINGUISHER AND BRACKET
CG	CORNER GUARD
TS	TRANSITION STRIP

**Finish Legend**

BASE	
NB	NO BASE
RB	RUBBER BASE
RB-N	RUBBER BASE - NEW WALL ONLY
MATCH EXISTING COLOR	
CEILING	
ACT	2' X 4' ACOUSTICAL CEILING TILE
EPF	EXPOSED FIRE PROTECTION
ETR	EXISTING TO REMAIN
KEYED NOTE #1	
FLOORS	
ETR	EXISTING TO REMAIN
HS	HOMOGENEOUS SHEET
SC	SEALED CONCRETE
KEYED NOTE #2	
TARLETT = OQ GRANIT, COLOR TBD	
WALLS	
ES	EXPOSED STRUCTURE
ETR	EXISTING TO REMAIN
LP	LINER PANEL
PT-1	PAINT
METAL BUILDING MANUFACTURER	
MANUF: SHERWIN WILLIAMS 7029 AGREEABLE GRAY	

**General Finish Notes**

- PROVIDE 1 LAYER 5/8" TYPE X GYPSUM BOARD AT METAL STUD WALLS, UNLESS OTHERWISE NOTED IN DRAWINGS.
- UNLESS NOTED OTHERWISE, PAINT WALLS WITHOUT CEILINGS FULL HEIGHT TO UNDERSIDE OF DECK.
- PROVIDE 3 1/2" MINIMUM THICK SOUND ATTENUATION INSULATION IN ALL STUD WALLS SURROUNDING ALL TOILET AND RESTROOM LOCATIONS.
- REFER TO CODE FOOTPRINT FOR FIRE SEPARATION WALLS.
- PROVIDE OUTSIDE CORNER GUARDS AS SPECIFIED ON ALL GYPSUM BOARD OUTSIDE CORNERS UNLESS NOTED OTHERWISE.
- UNLESS NOTED OR SHOWN ON DRAWINGS OTHERWISE, TERMINATE ALL NON-BEARING, NON-RATED PARTITIONS A MINIMUM 6" TO 8" ABOVE HIGHEST ADJACENT CEILINGS.
- REFER TO REFLECTED CEILING PLANS FOR WALLS THAT MUST EXTEND TO DECK.
- UNLESS SHOWN OTHERWISE PROVIDE 4" RUBBER BASE AT ALL MILLWORK TOE SPACES.
- REFER TO ELECTRICAL DRAWINGS FOR ALL ELECTRICAL OUTLETS AND SWITCH LOCATIONS. COORDINATE ALL ELECTRICAL OUTLETS AND SWITCHES WITH MILLWORK.
- ALL HOLLOW METAL DOORS AND FRAMES TO BE PAINTED PT-1, INTERIOR AND EXTERIOR.
- PROVIDE CLEAR CONCRETE SEALER AT ALL EXPOSED CONCRETE FLOORS, BLEACHER TREADS, AND CONCRETE STEPS.

**Keyed Notes**

- PROTECT EXISTING SPRAYED ON FIRE PROTECTION TO REMAIN. PATCH AND REPAIR AS REQUIRED.
- PATCH EXISTING FLOOR AS REQUIRED FOR NEW BELOW SLAB WORK, RE-MEP.

**Schedule of Special Mounting Heights / Location**

		WATER CLOSET (CENTERLINE FROM WALL)	TOILET SEAT HEIGHT	GRAB BAR HEIGHT	TISSUE DISPENSER HEIGHT	LAVATORY/WASH FOUNTAIN (TO RIM)	LAVATORY KNEE CLEARANCE	URINAL TO RIM	MIRROR (BOT. EDGE)
ADULT	(HC) HANDICAP ACCESSIBLE	18"	17"	34"	19"	34"	27"	17"	40"

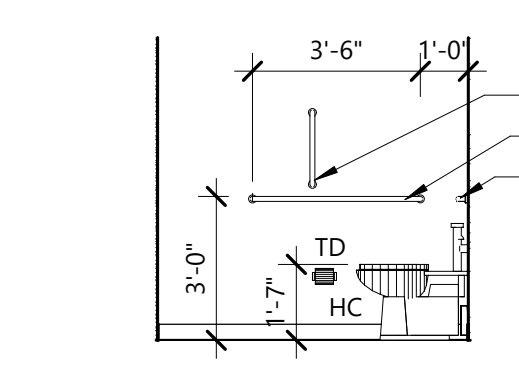
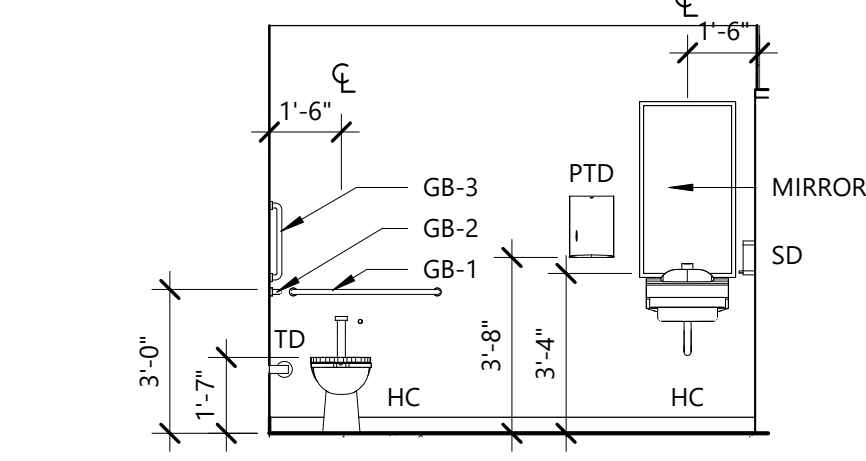
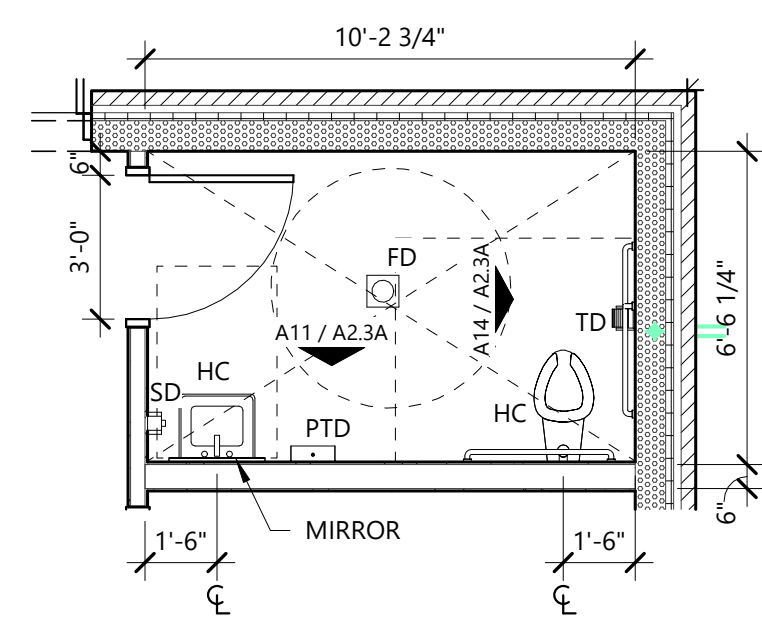
**Schedule of Mounting Heights**

FIXTURE or ACCESSORY	DIM	REMARKS
ADULT STANDARD AND HANDICAP		
GRAB BARS	34"	TO CENTERLINE
MIRRORS (STANDARD)	40"	TO BOTTOM OF REFLECTIVE SURFACE
MIRRORS (ACCESSIBLE)	40"	TO BOTTOM OF REFLECTIVE SURFACE
PAPER TOWEL DISPENSER (PTD)	44"	TOWEL SLOT
SOAP DISPENSERS (SD)	40"	TO BOTTOM/AT 6" BACKSPLASH
TOILET TISSUE DISPENSERS (TD)	19"	TO CENTERLINE
FIRE SAFETY		
FIRE EXTINGUISHER	48"	TO HANDLE
ELECTRICAL CONTROLS		
ELECTRICAL RECEPTACLE (UNO)	18"	TO CENTERLINE
ELECT RECEPTACLE ABOVE COUNTER	44"	TO CENTERLINE
LIGHT SWITCH (UNO)	48"	TO CENTERLINE (COORDINATE W/ OWNER)
THERMOSTAT (UNO)	48"	TO CENTERLINE
OTHER CONTROL DEVICES (UNO)	48"	TO CENTERLINE

**Legend**

FD	FLOOR DRAIN
GB	GRAB BAR
HC	HANDICAP
PTD	PAPER TOWEL DISPENSER
SD	SOAP DISPENSER
TD	TISSUE DISPENSER

- Toilet Accessory Notes**
- PROVIDE SOLID BLOCKING AT STUD WALLS FOR ATTACHMENT OF TOILET ACCESSORIES
  - PROVIDE MIRRORS ABOVE ALL RESTROOM LAVATORIES
  - REFER TO SPECIFICATION SECTION 10 28 13 FOR TOILET ACCESSORIES FURNISHED BY THE OWNER AND INSTALLED BY THE CONTRACTOR
  - PROVIDE SOLID WOOD BLOCKING IN ALL METAL STUD WALLS 3'-0" TO EACH SIDE OF SINK CENTERLINE AT ALL COUNTER MOUNTED SINK LOCATIONS
  - ALL PLUMBING FIXTURE MOUNTING HEIGHTS AND CLEARANCES NOTED TO BE ACCESSIBLE SHALL CONFORM WITH ALL AMERICANS WITH DISABILITIES ACT REGULATIONS. ALL CONFLICTS BETWEEN DRAWINGS AND INSTALLATION SHALL BE REPORTED TO ARCHITECT PRIOR TO INSTALLATION

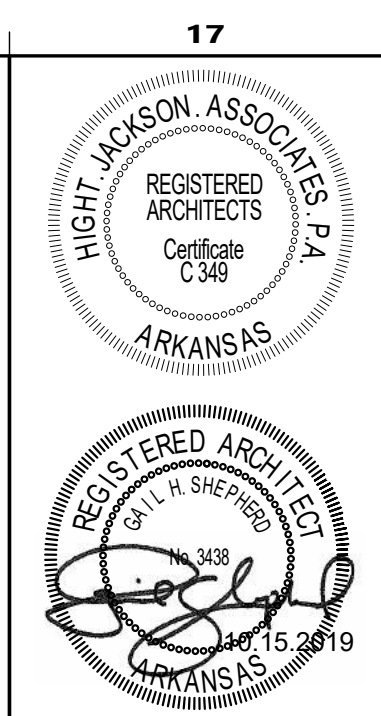


**A1 First Floor Plan - Specialty Plan**  
 1/8" = 1'-0"

**A9 Enlarged Toilet Plan**  
 1/4" = 1'-0"

**A11 Restroom Elevation**  
 1/4" = 1'-0"

**A14 Restroom Elevation**  
 1/4" = 1'-0"



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 BENTONVILLE, AR

DRAWN BY: **RS**  
 CHECK BY: **LS**  
 ISSUE DATE: **06/10/2024**  
 PROJECT NO: **2404**  
 REVISION DATE: \_\_\_\_\_  
 DATE: \_\_\_\_\_ DESCRIPTION: \_\_\_\_\_  
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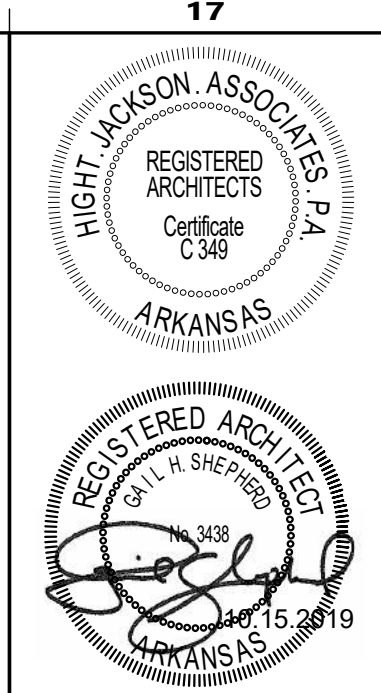


**Reflected Ceiling Plan Legend**

- 0'-0" CEILING HEIGHT FROM FINISHED FLOOR
- ES EXPOSED STRUCTURE
- EFP EXPOSED FIRE PROTECTION
- [Grid Pattern] 2'x4' ACOUSTICAL CEILING
- WALLS TO EXTEND TIGHT TO DECK. RE-GENERAL NOTES NO.5 & NO.6

**Reflected Ceiling Plan General Notes:**

- REFER TO CODE FOOTPRINT FOR FIRE-WALL LOCATIONS AND UL-DESIGNATIONS.



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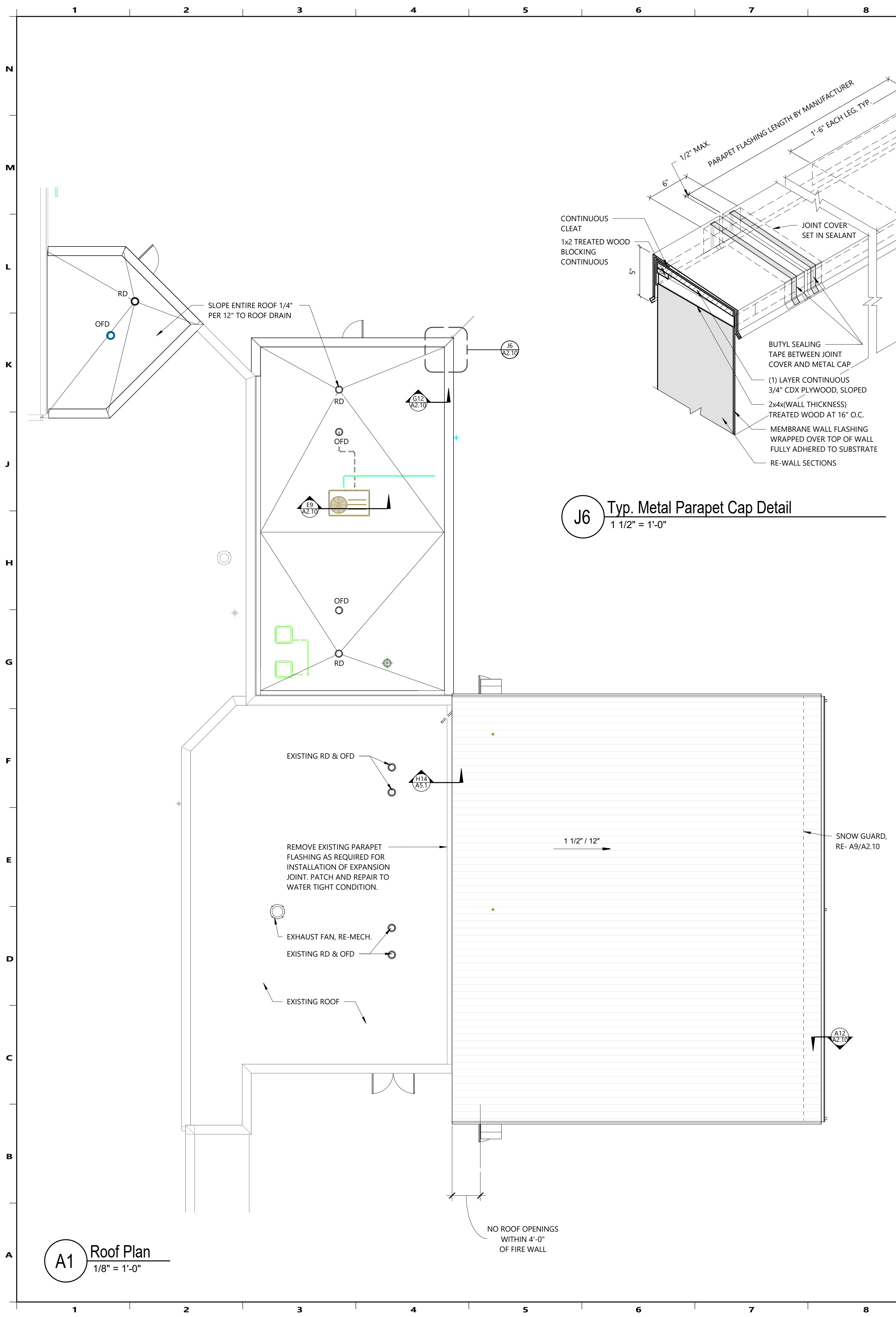
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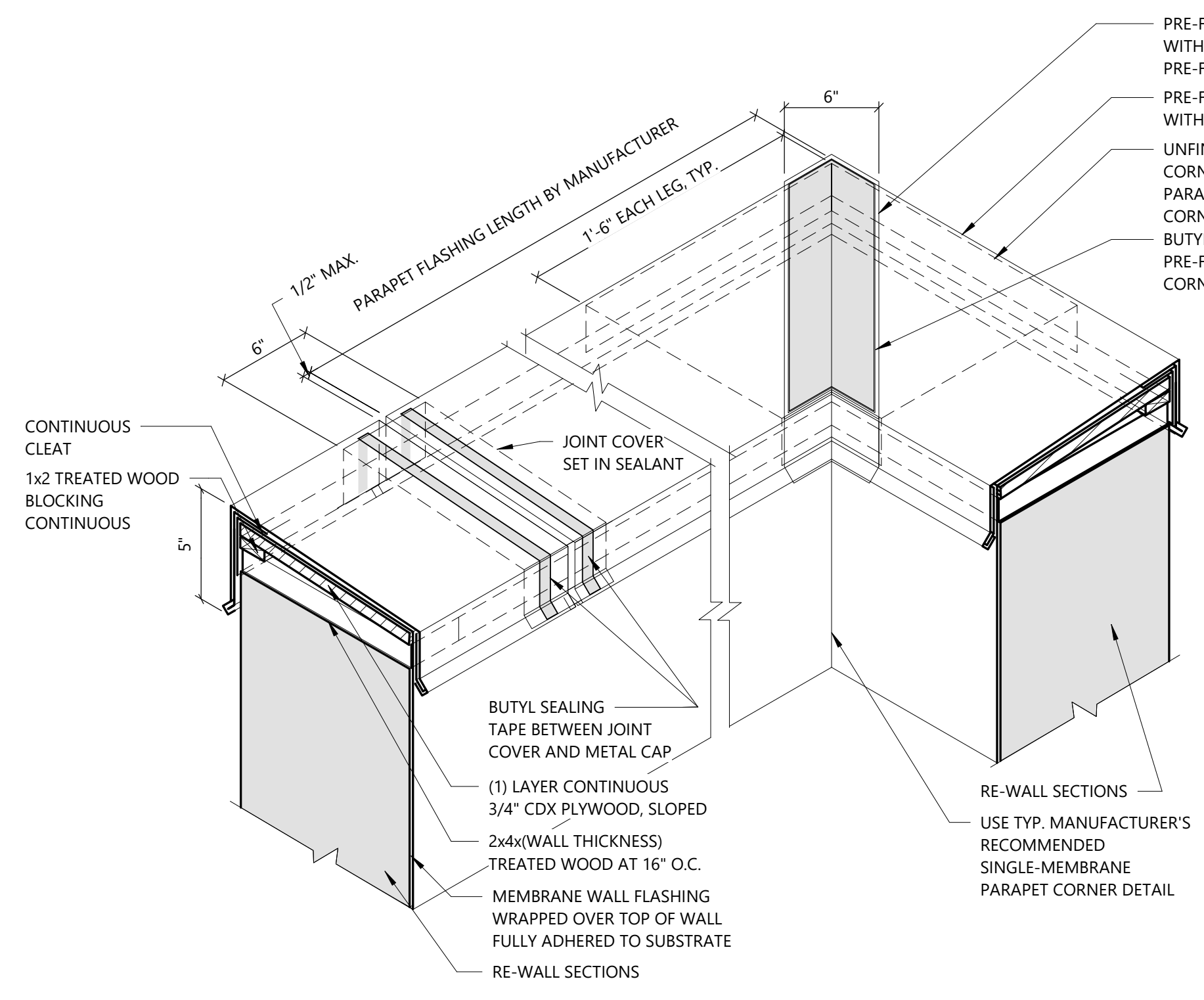
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**A1 Reflected Ceiling Plan**  
1/8" = 1'-0"

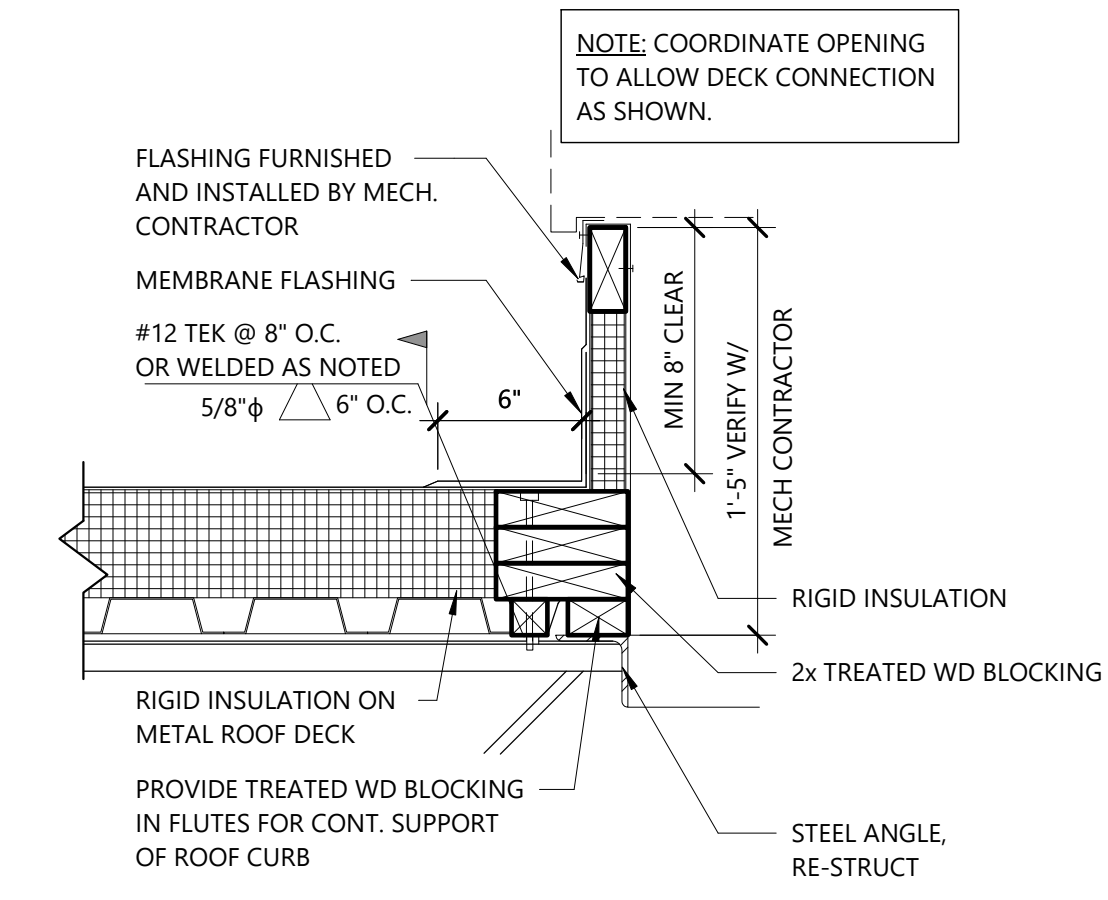


**A1** Roof Plan  
1/8" = 1'-0"

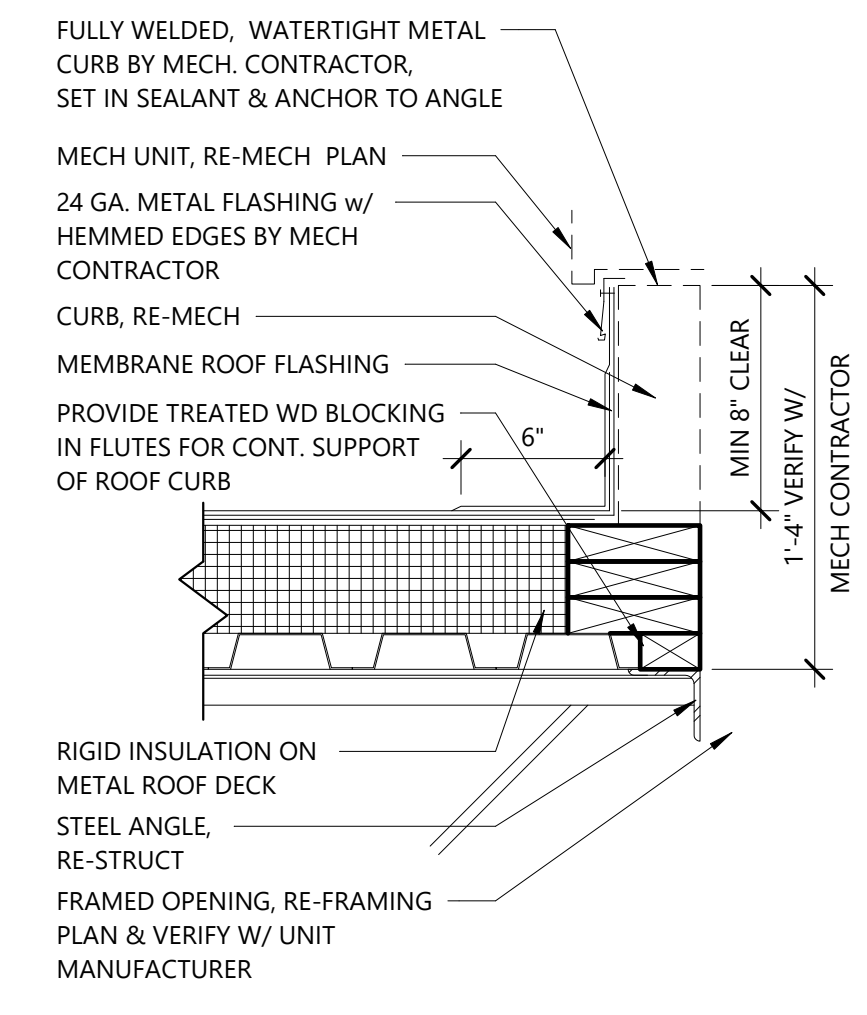
**J6** Typ. Metal Parapet Cap Detail  
1 1/2" = 1'-0"



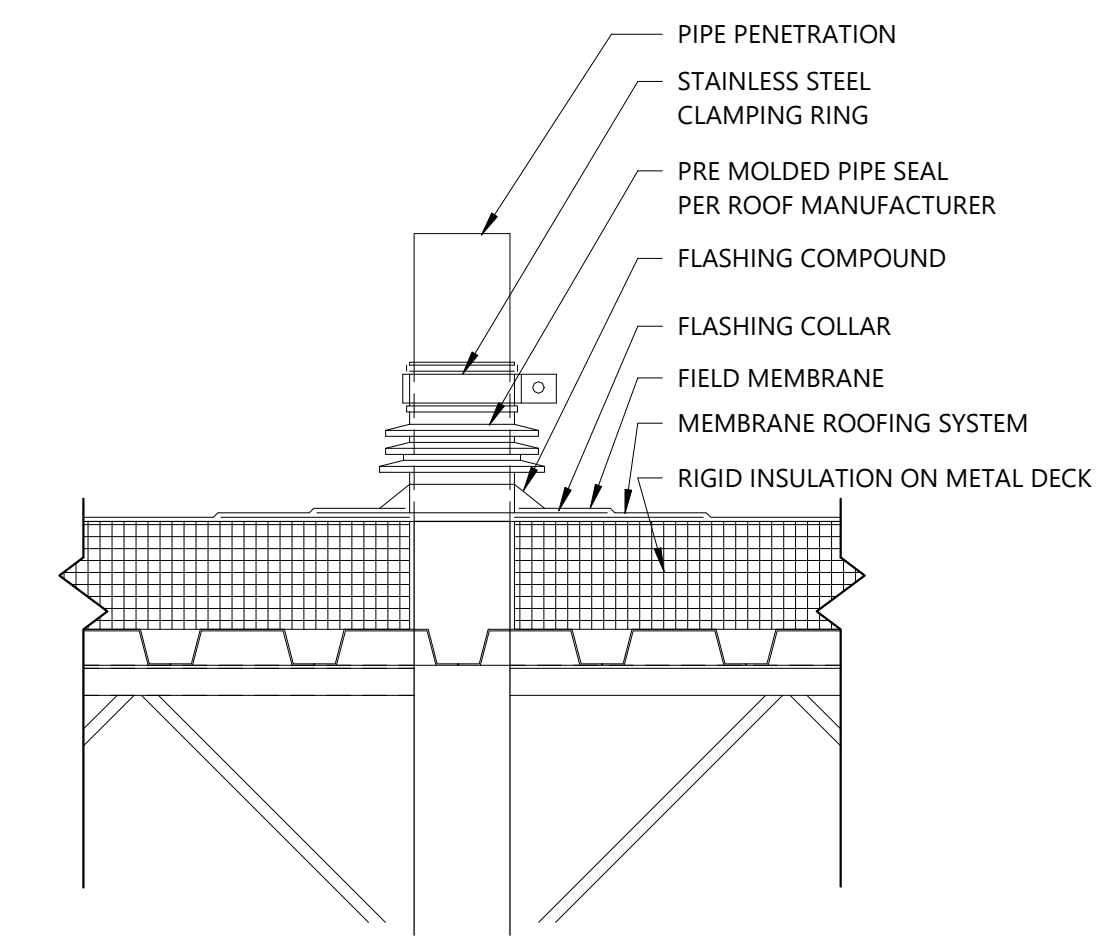
**L12** Typ. Exhaust Fan Curb Detail  
1 1/2" = 1'-0"



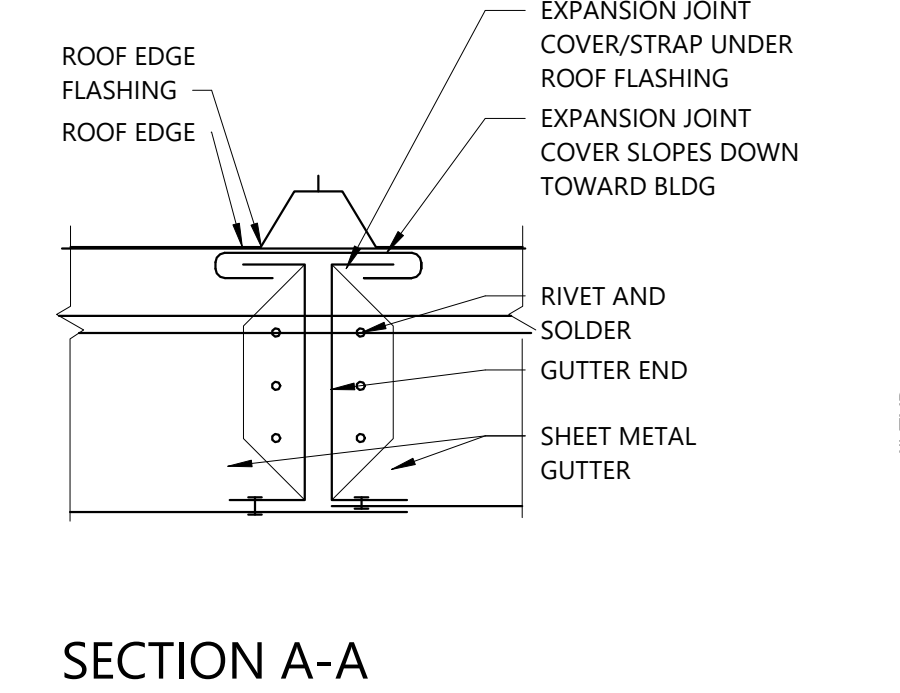
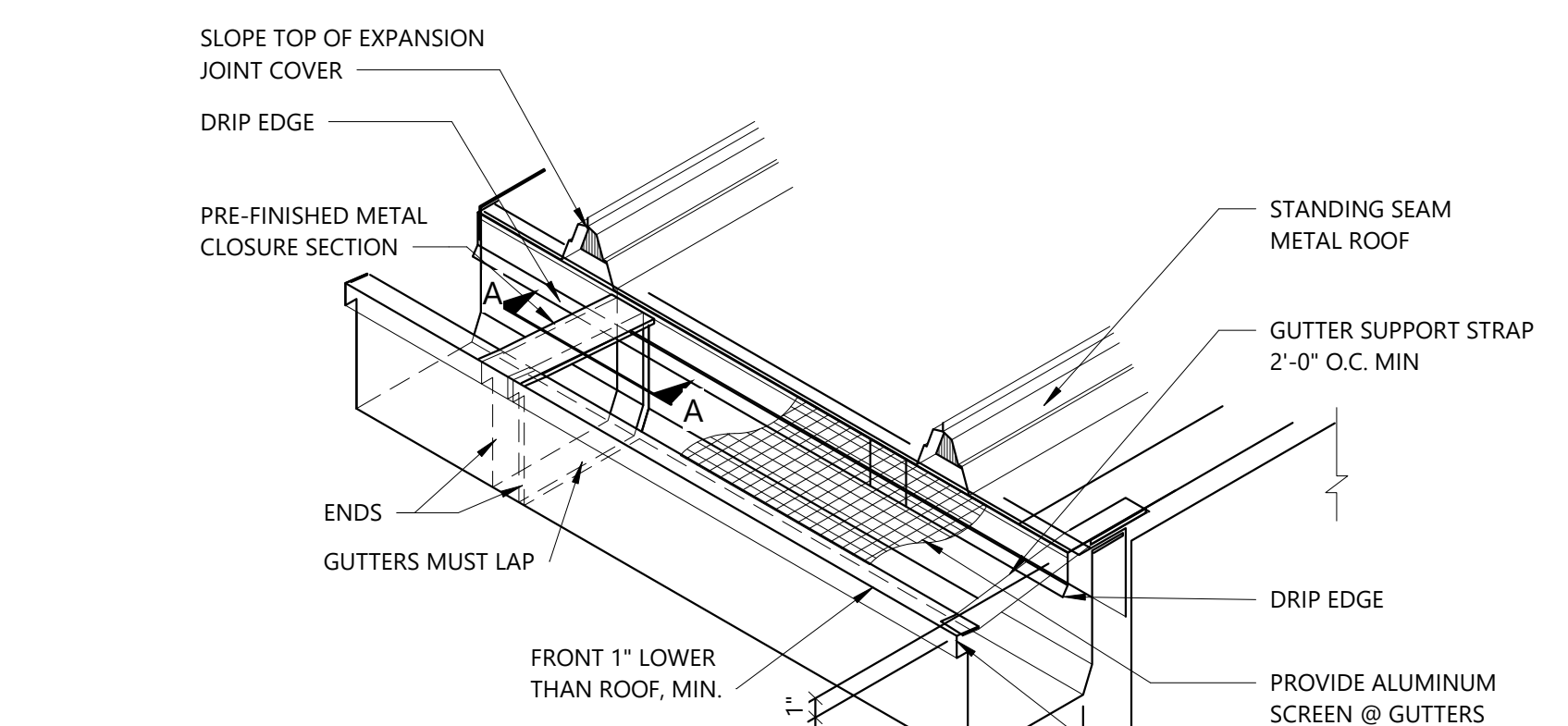
**E9** Typ. Rooftop Equipment Curb Detail  
1 1/2" = 1'-0"



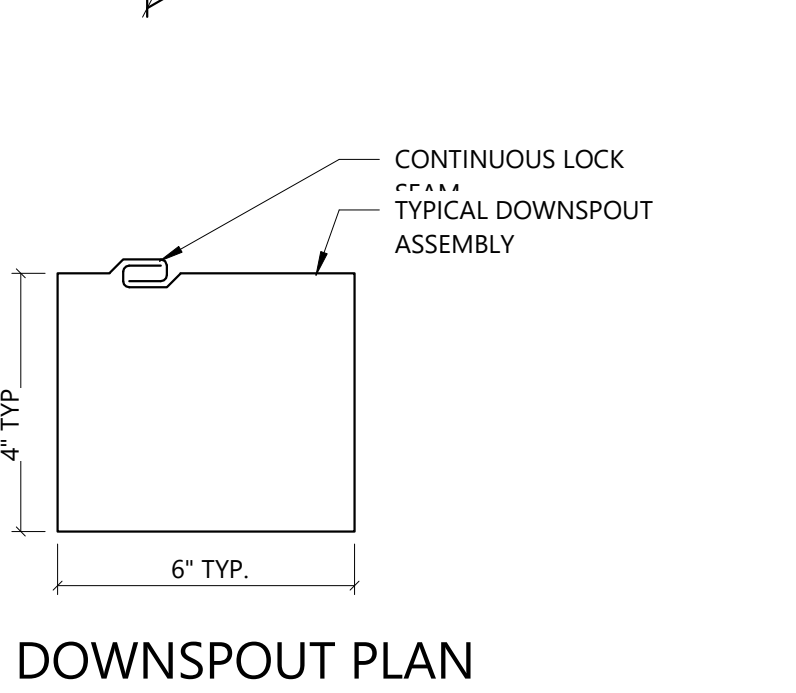
**G12** Typ. Pipe Penetration  
1 1/2" = 1'-0"



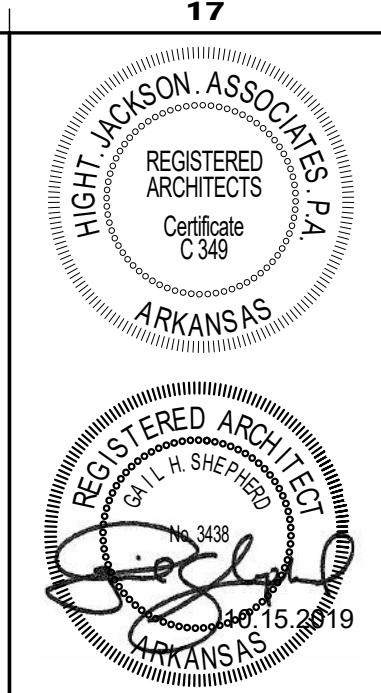
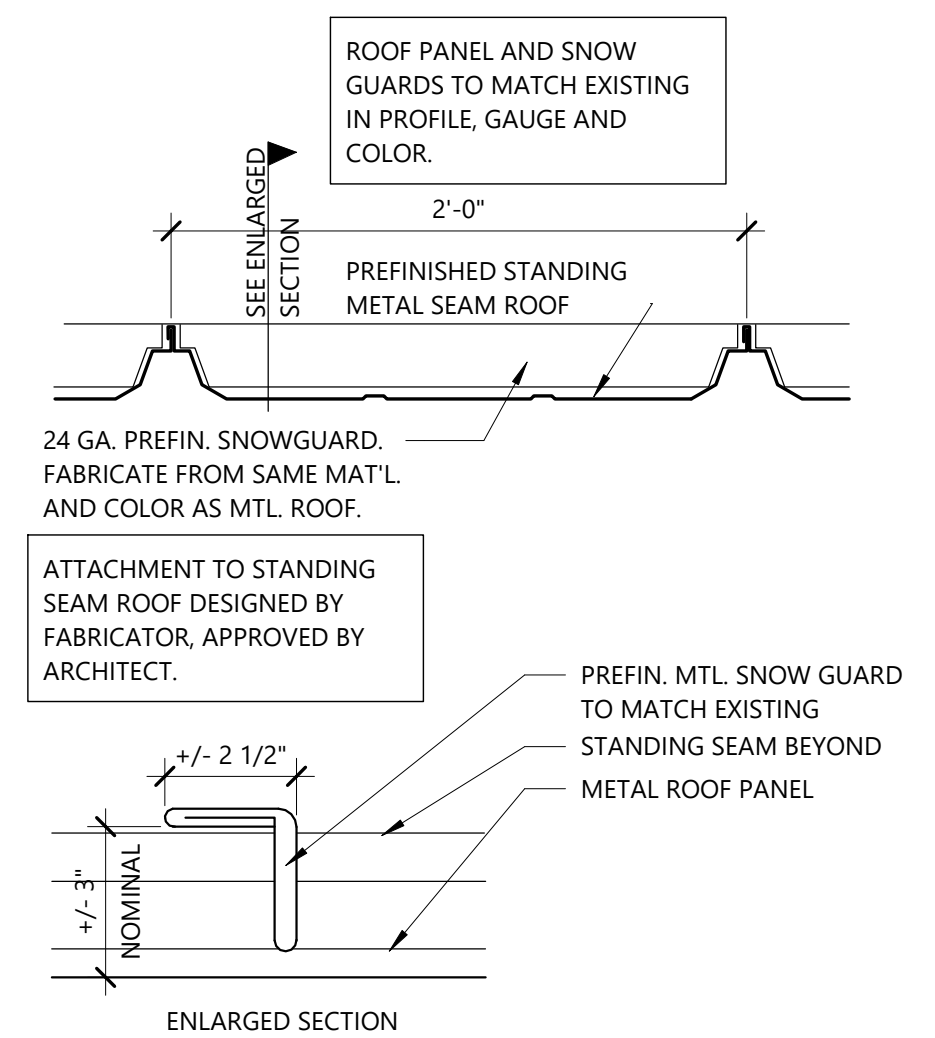
**E9** Typ. Expansion Joint Detail  
1 1/2" = 1'-0"



**A12** Gutter Expansion joint- Standing seam  
1 1/2" = 1'-0"



**A9** Snow Guard  
1 1/2" = 1'-0"



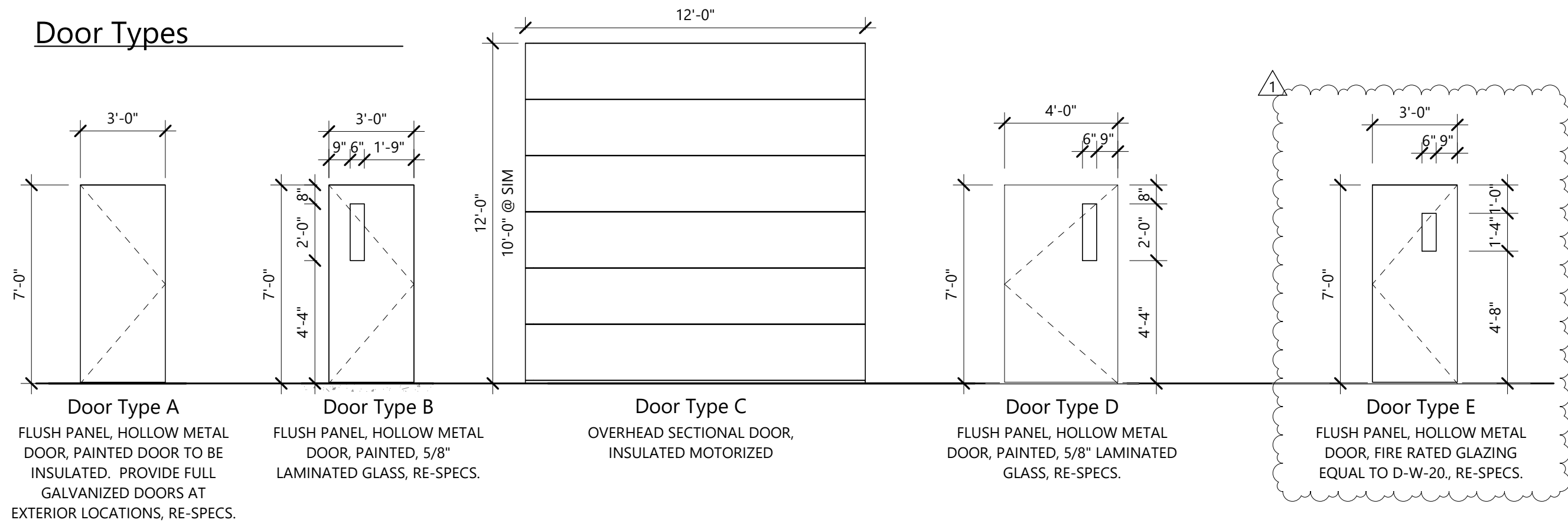
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A REMODEL AND ADDITION FOR  
**BENTON CO. DETENTION CENTER**  
BENTONVILLE, AR

DRAWN BY:	RS
CHECK BY:	LS
ISSUE DATE:	06/10/2024
PROJECT NO:	2404
REVISION DATE:	
DATE	DESCRIPTION

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**Door Types**



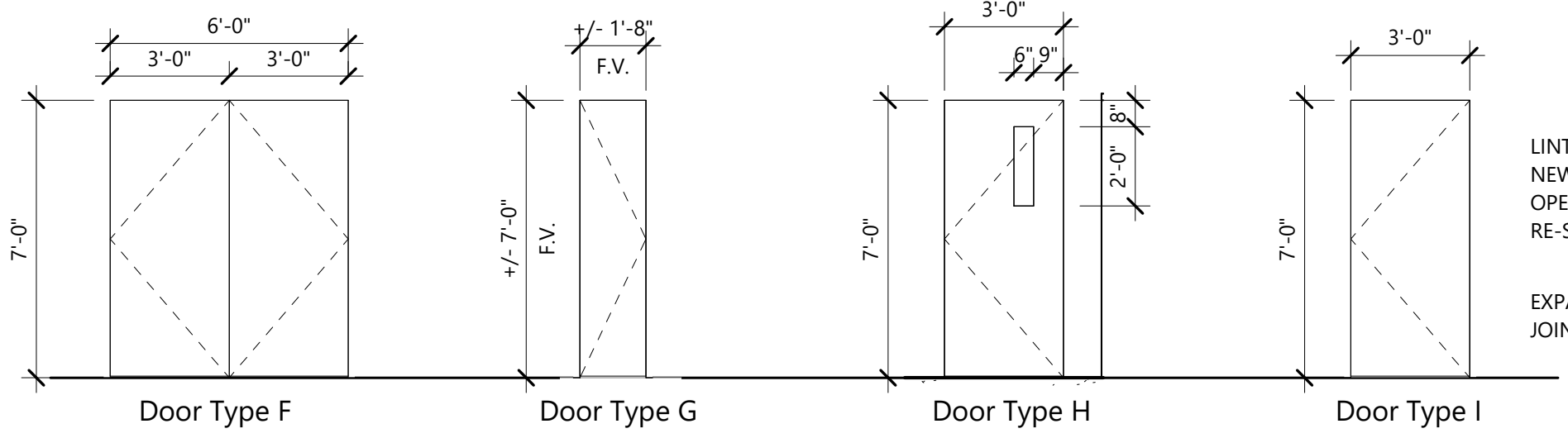
**Door Type A**  
FLUSH PANEL, HOLLOW METAL DOOR, PAINTED DOOR TO BE INSULATED. PROVIDE FULL GALVANIZED DOORS AT EXTERIOR LOCATIONS, RE-SPECS.

**Door Type B**  
FLUSH PANEL, HOLLOW METAL DOOR, PAINTED, 5/8" LAMINATED GLASS, RE-SPECS.

**Door Type C**  
OVERHEAD SECTIONAL DOOR, INSULATED MOTORIZED

**Door Type D**  
FLUSH PANEL, HOLLOW METAL DOOR, PAINTED, 5/8" LAMINATED GLASS, RE-SPECS.

**Door Type E**  
FLUSH PANEL, HOLLOW METAL DOOR, FIRE RATED GLAZING EQUAL TO D-W-20, RE-SPECS.



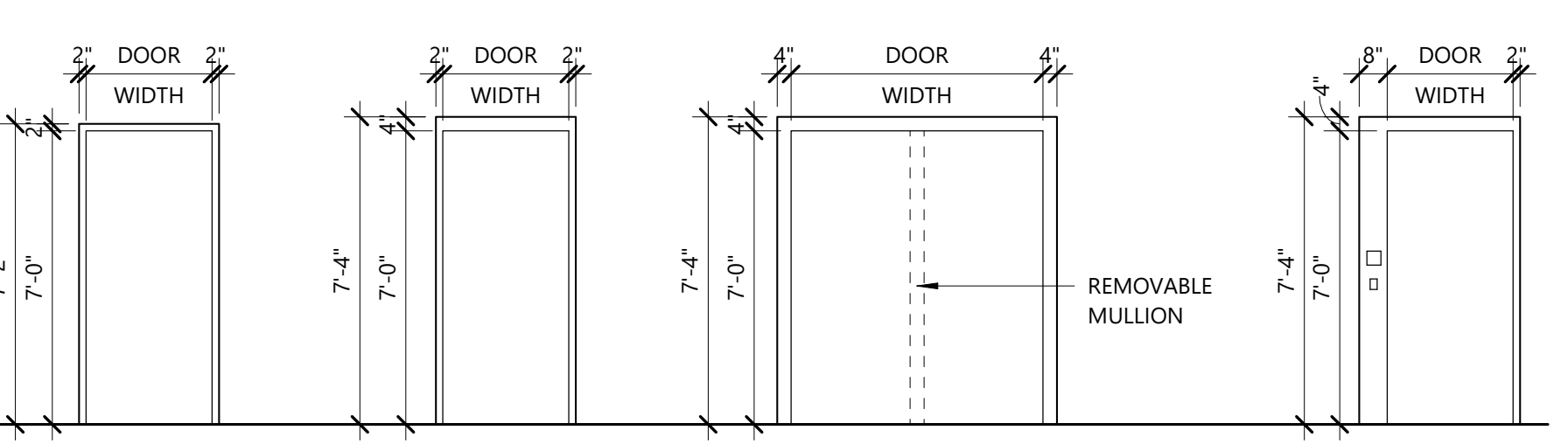
**Door Type F**  
FLUSH PANEL, HOLLOW METAL DOOR, PAINTED DOOR TO BE INSULATED. PROVIDE FULL GALVANIZED DOORS AT EXTERIOR LOCATIONS, RE-SPECS.

**Door Type G**  
FLUSH PANEL, HOLLOW METAL DOOR, PAINTED DOOR, PAINTED, MATCH EXISTING.

**Door Type H**  
FLUSH WOOD DOOR, 5/8" LAMINATED GLASS, RE-SPECS.

**Door Type I**  
FLUSH WOOD DOOR, RE-SPECS.

**Door Frame Types**

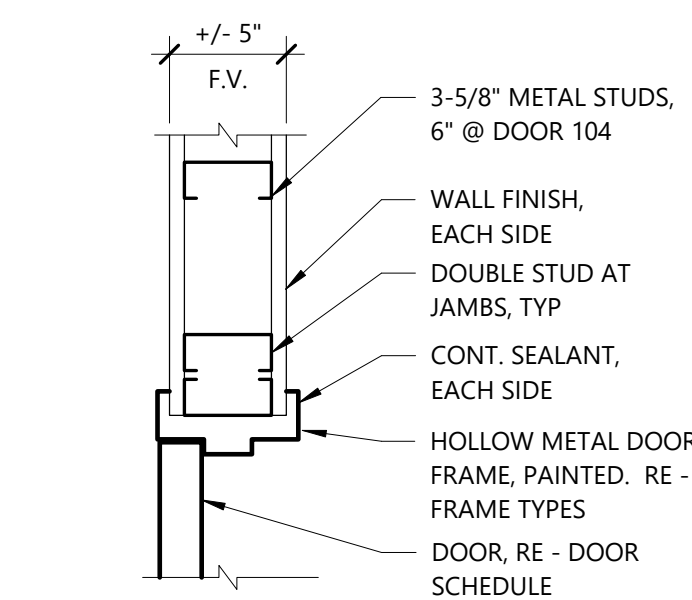


**Frame Type 1**  
HOLLOW METAL FRAME PAINTED

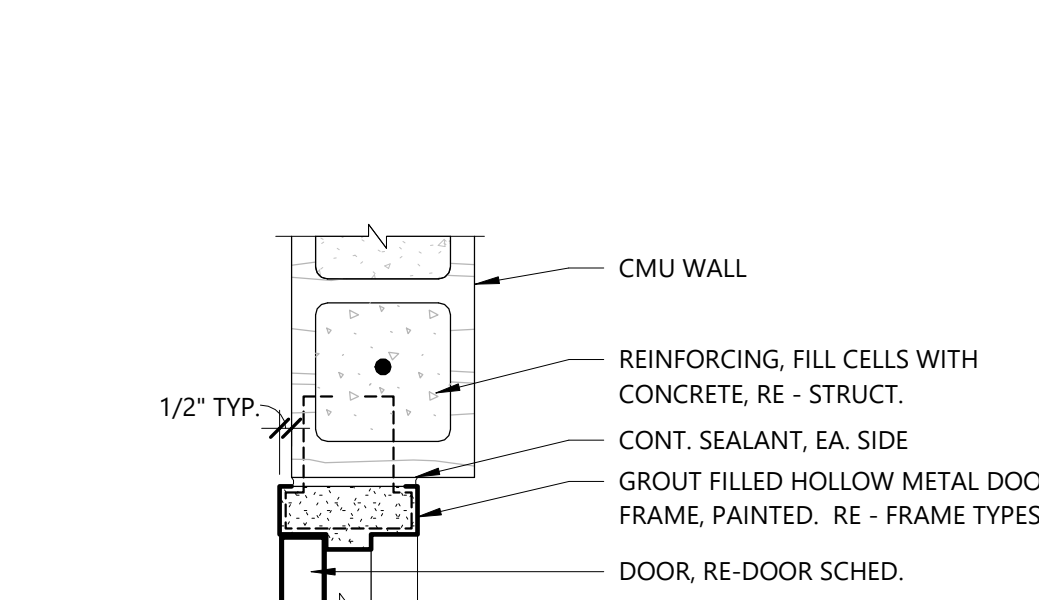
**Frame Type 2**  
HOLLOW METAL FRAME PAINTED. FIELD VERIFY EXISTING CONDITIONS WHERE INSTALLED AT EXISTING OPENING

**Frame Type 3**  
HOLLOW METAL FRAME, GALVANIZED AND PAINTED.

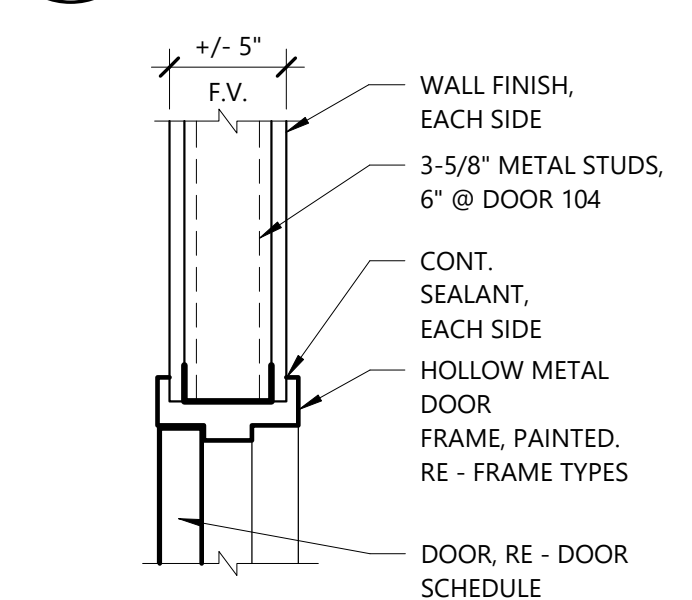
**Frame Type 4**  
DETENTION FRAME, PAINTED. FIELD VERIFY AND MATCH EXISTING.



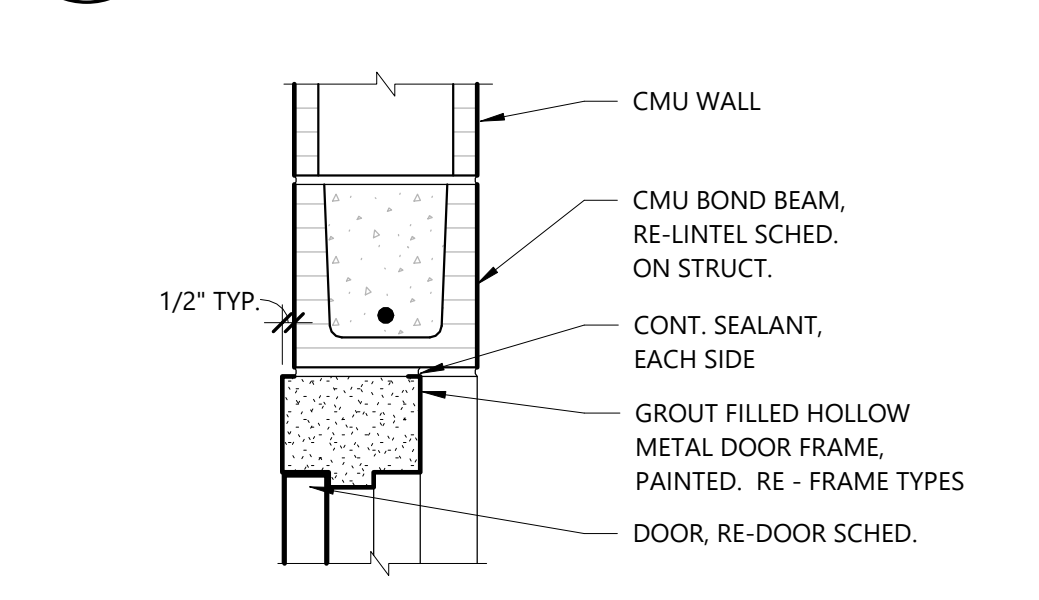
**C1 Jamb Detail**  
1 1/2" = 1'-0"



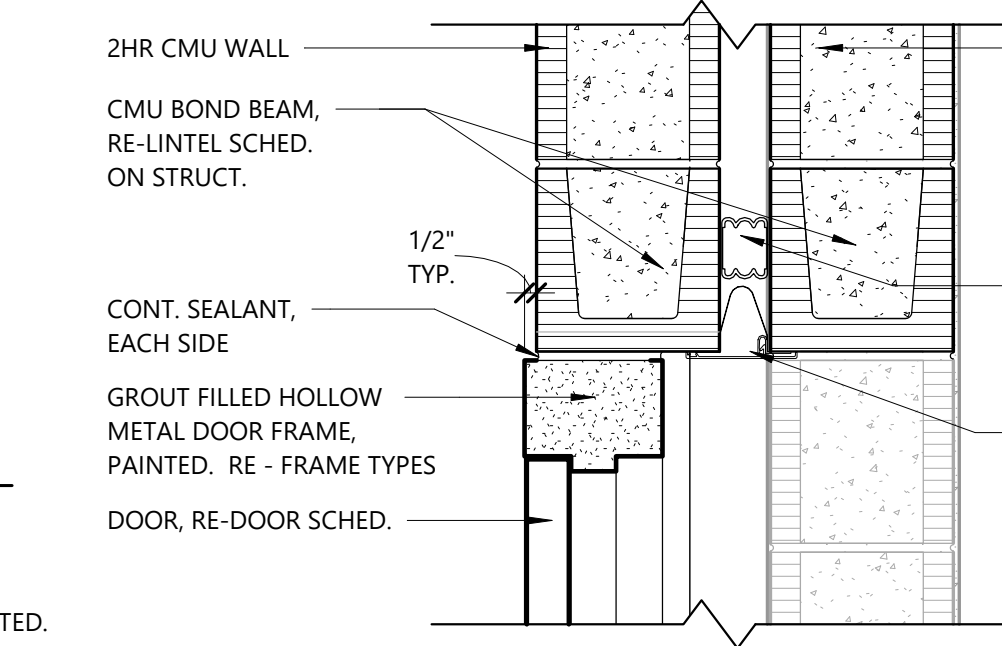
**C3 Jamb Detail**  
1 1/2" = 1'-0"



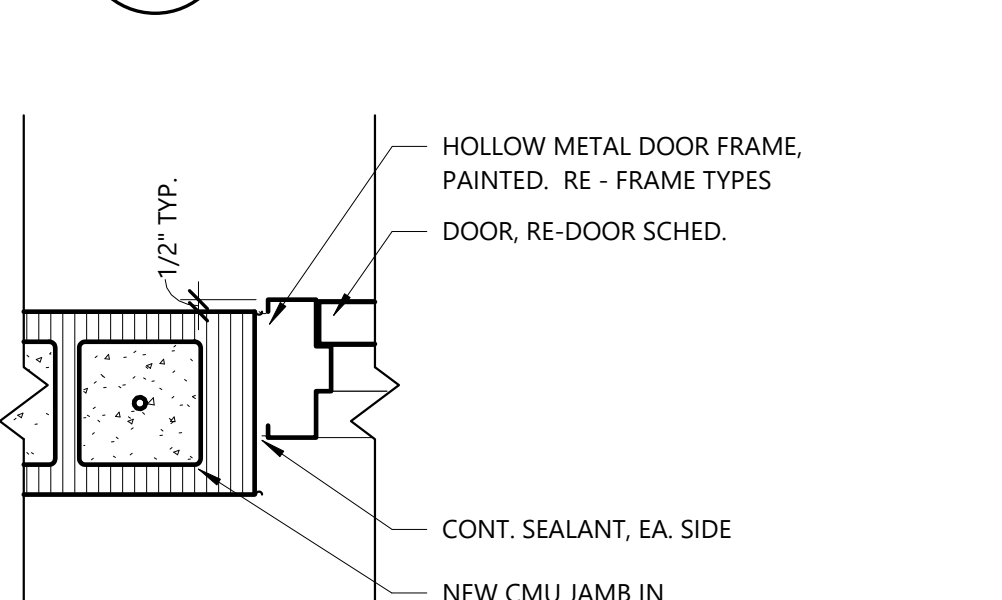
**A1 Head Detail**  
1 1/2" = 1'-0"



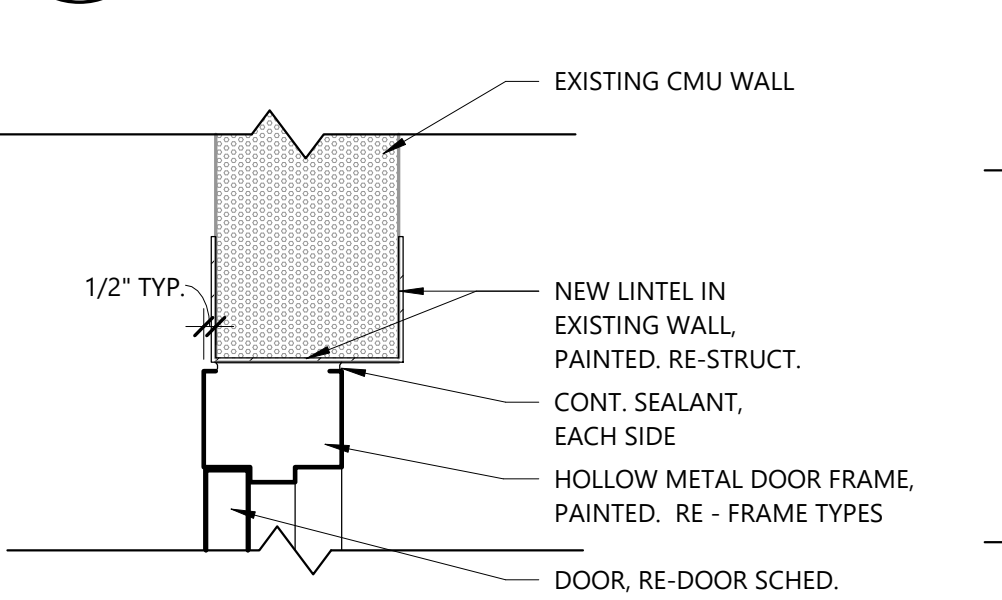
**A3 Head Detail**  
1 1/2" = 1'-0"



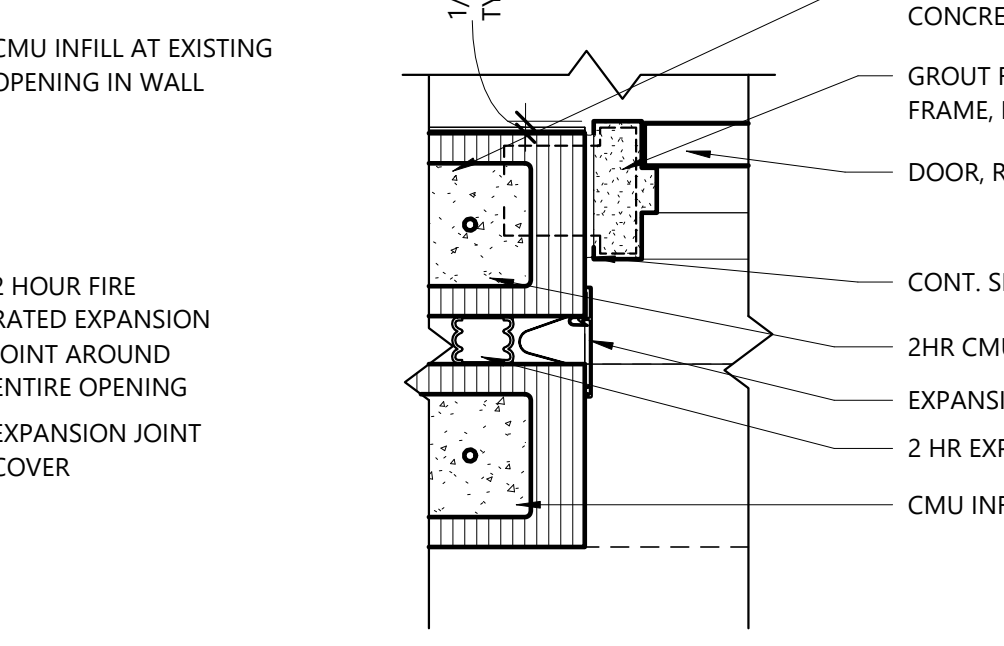
**H6 Head Detail**  
1 1/2" = 1'-0"



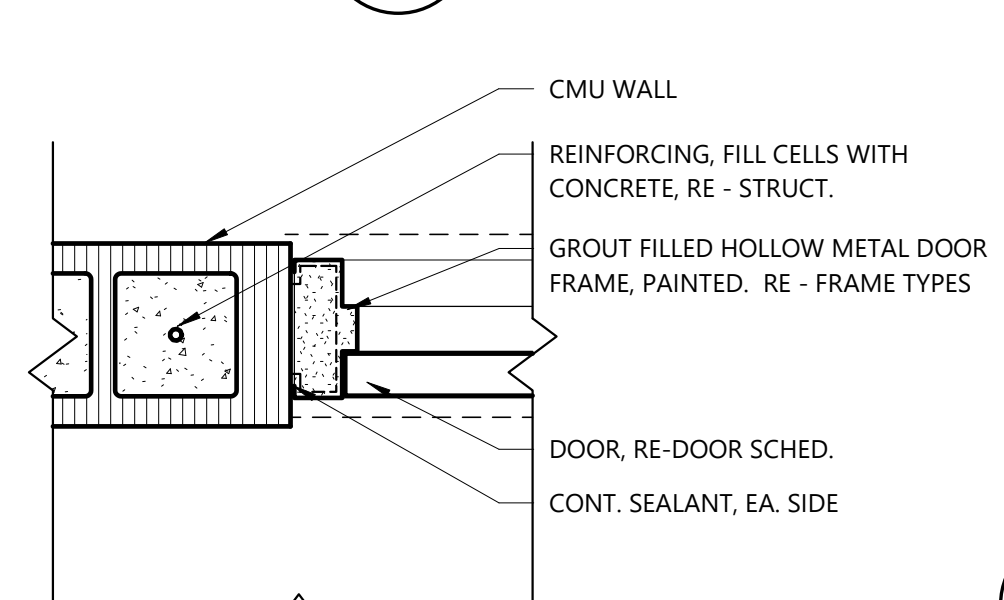
**C6 Jamb Detail**  
1 1/2" = 1'-0"



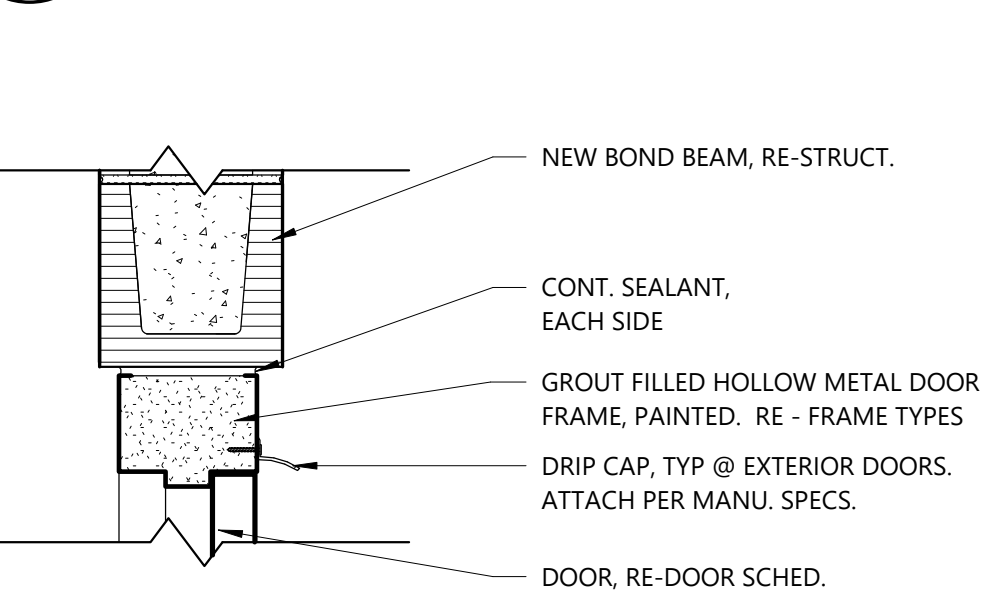
**A6 Head Detail**  
1 1/2" = 1'-0"



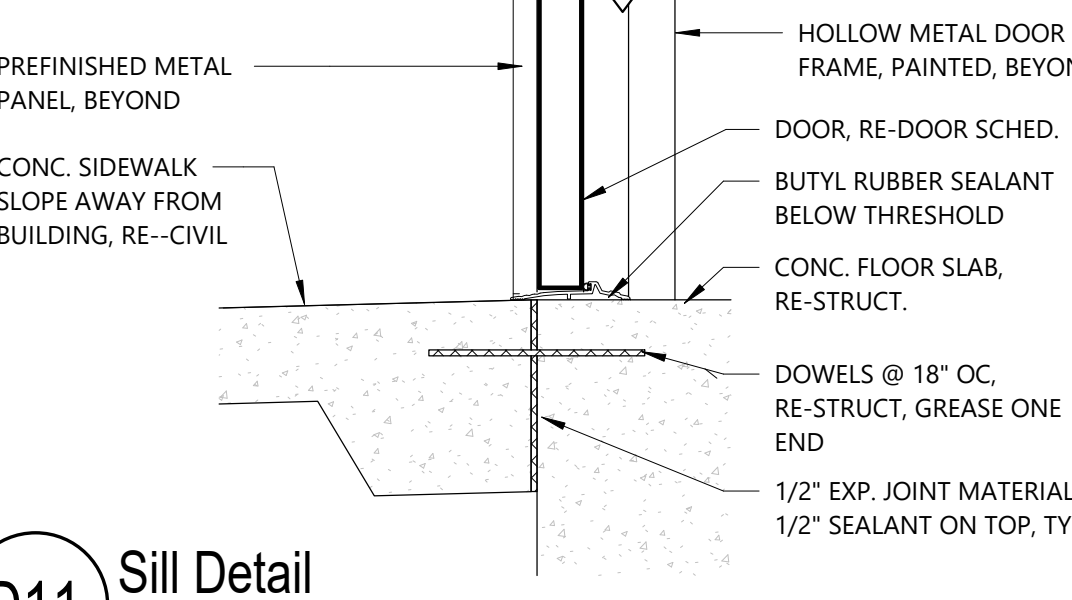
**H9 Jamb Detail**  
1 1/2" = 1'-0"



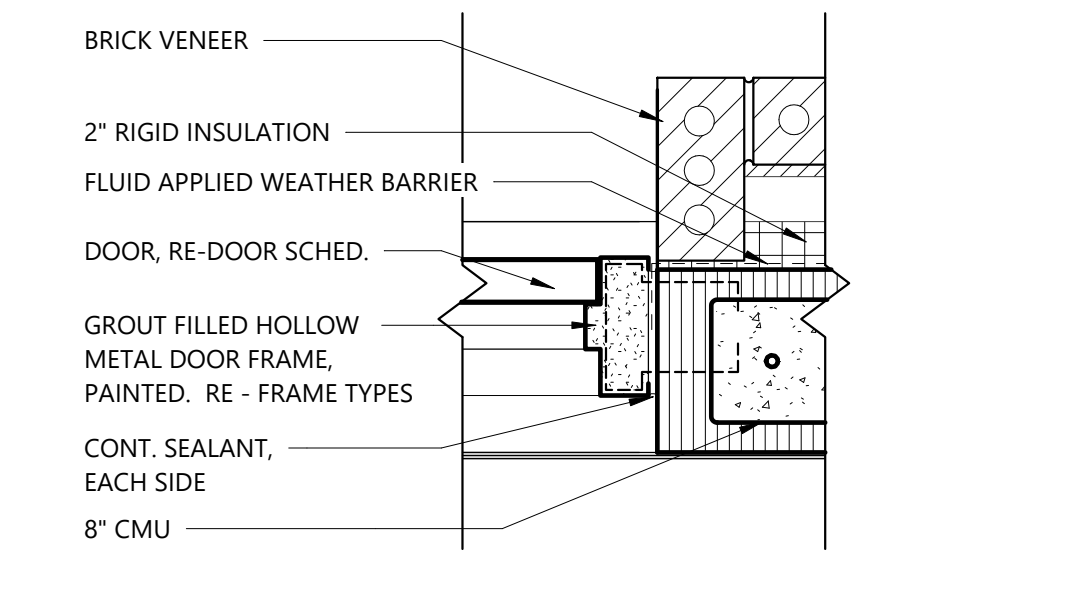
**C8 Jamb Detail**  
1 1/2" = 1'-0"



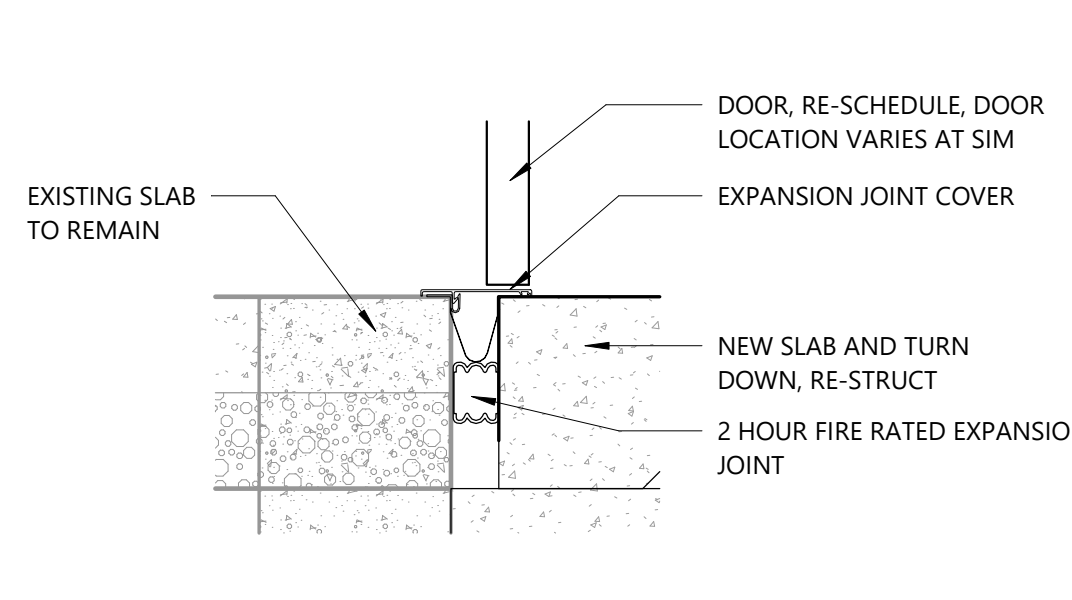
**A8 Head Detail**  
1 1/2" = 1'-0"



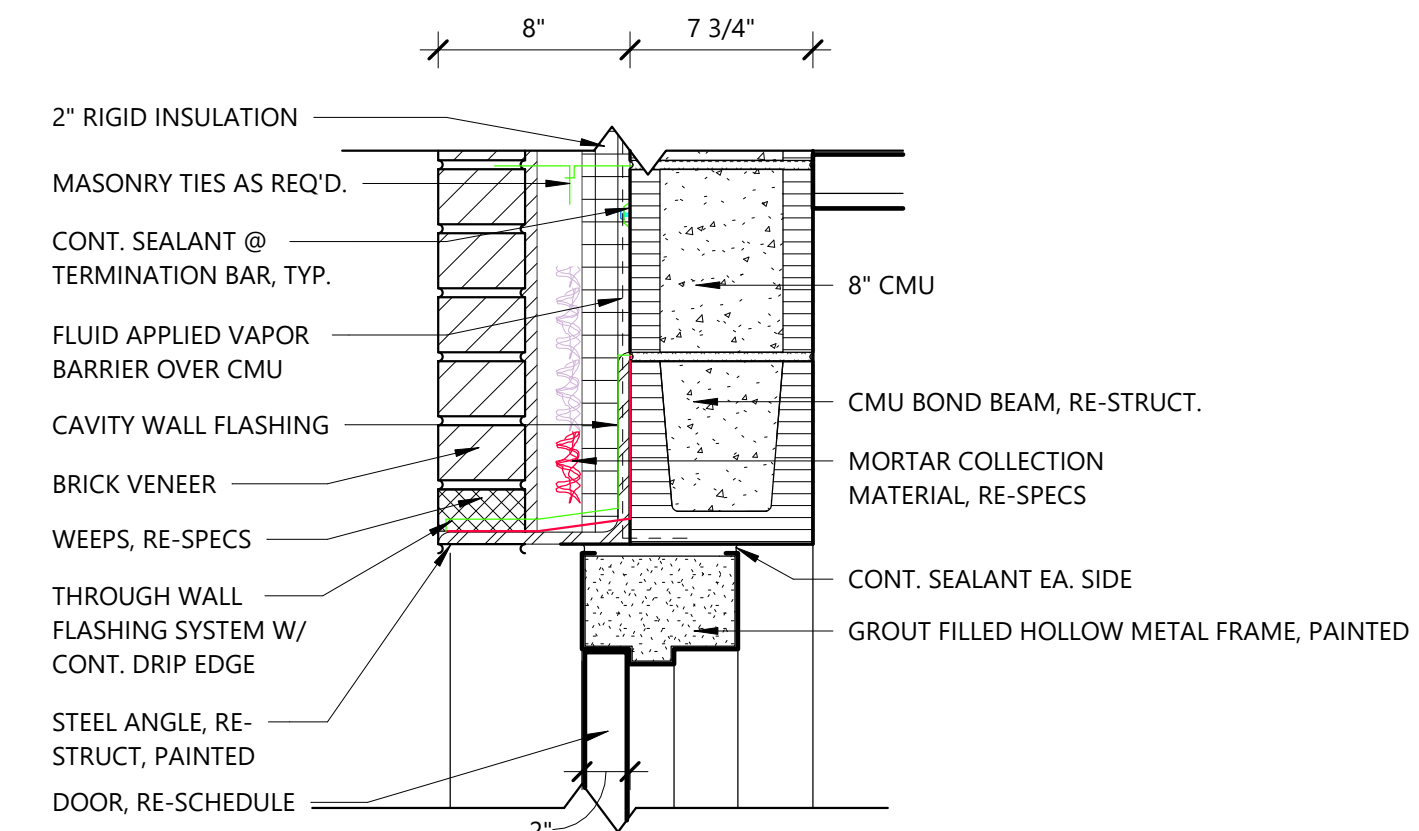
**D11 Sill Detail**  
1 1/2" = 1'-0"



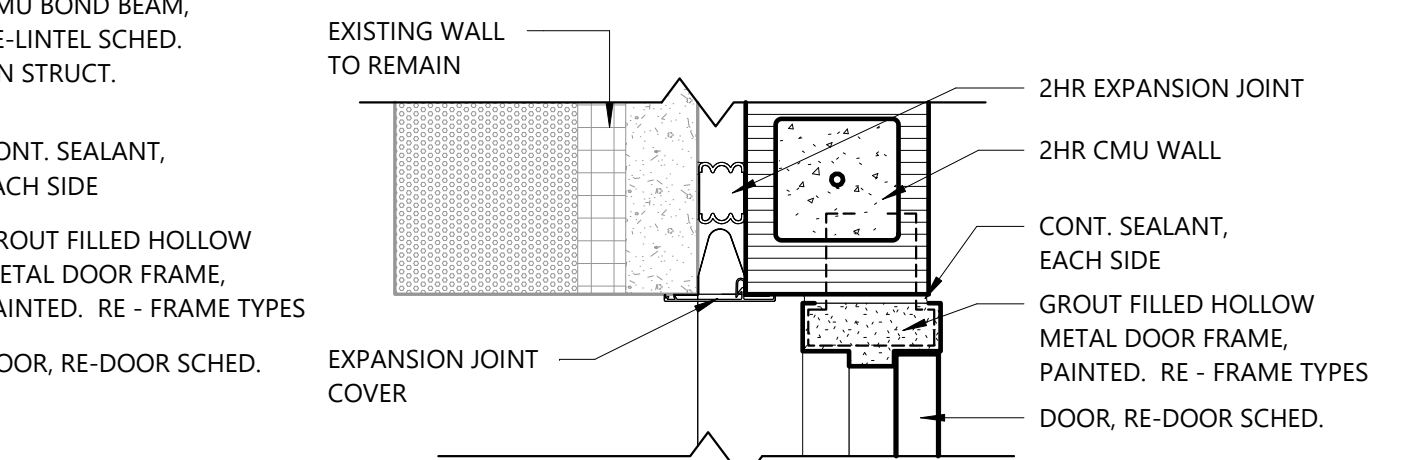
**C14 Jamb Detail**  
1 1/2" = 1'-0"



**A14 Sill Detail**  
1 1/2" = 1'-0"



**K9 Head Detail**  
1 1/2" = 1'-0"



**H9 Jamb Detail**  
1 1/2" = 1'-0"

Door Schedule				
MARK	HEAD	DETAILS		NOTES
		JAMB	SILL	
100A	A6/A3.1	C6/A3.1		
100B	A6/A3.1	C6/A3.1		
103	A8/A3.1	C8/A3.1		
104	A1/A3.1	C1/A3.1		
105	A1/A3.1	C1/A3.1		
106A	A1/A3.1	C1/A3.1		
106B	EXIST	EXIST		FIELD VERIFY EXISTING CONDITIONS
107	A11/A3.1	E13/A2.1B	A14/A3.1	
108A	G10/A4.1	G13/A4.1		
108B	G10/A4.1	G13/A4.1		
108C	G10/A4.1	G13/A4.1		
108D	A10/A4.1	D10/A4.1	D11/A3.1	
108E	A10/A4.1	D10/A4.1	D11/A3.1	
108F	G10/A4.1	G13/A4.1		
108G	G10/A4.1	G13/A4.1		
108H	G10/A4.1	G13/A4.1		
109A	F5/A3.1	F8/A3.1	A14/A3.1 SIM	
109B	A1/A3.1	C1/A3.1		
110	A1/A3.1	C1/A3.1		
111	A1/A3.1	C1/A3.1		
112	A1/A3.1	C1/A3.1		
113	A1/A3.1	C1/A3.1		
114	A1/A3.1	C1/A3.1		
115	A1/A3.1	C1/A3.1		
116	A1/A3.1	C1/A3.1		
117	A1/A3.1	C1/A3.1		
117A	F5/A3.1	F8/A3.1	A14/A3.1 SIM	
118	A1/A3.1	C1/A3.1		
119A	K9/A3.1	C14/A3.1	D11/A3.1	
119B	H6/A3.1	H9/A3.1	A14/A3.1 SIM	
120	A3/A3.1	C3/A3.1		
121	A1/A3.1	C1/A3.1		
122	A1/A3.1	C1/A3.1		
123	A1/A3.1	C1/A3.1		

- Door General Notes**
- PROVIDE BLOCKING IN GYPSUM BOARD AND METAL STUD WALL TO ATTACH AND SUPPORT ALL WALL MOUNTED HARDWARE.
  - PROVIDE REINFORCING IN HOLLOW METAL DOORS AND FRAMES AS REQUIRED TO PROPERLY SECURE HARDWARE, RE-SPECS.
  - PROVIDE SILENCERS FOR ALL HOLLOW METAL DOOR FRAMES.
  - DETAILS DO NOT INDICATE DOOR SWING. REFER TO ARCHITECTURAL FLOOR PLANS FOR DOOR SWINGS.
  - REFER TO DOOR TAG FOR HARDWARE SETS.
  - CONTRACTOR IS RESPONSIBLE FOR VERIFICATION AND COORDINATION OF FRAME THROAT DEPTHS WITH WALL THICKNESS PRIOR TO ORDERING.
  - COORDINATE MOUNTING HEIGHTS OF LATCHES, EXIT DEVICES, AND OTHER HARDWARE ITEMS WITH DOOR LITE DIMENSIONS.
  - ALL DOORS UP TO 3' WIDE LEAFS TO HAVE A 1/2" PAIR OF HINGES EACH LEAF, UNLESS NOTED TO HAVE CONTINUOUS HINGE.
  - ALL CLOSERS TO HAVE PARALLEL ARM, UNLESS NOTED OTHERWISE OR INSTALLATION REQUIRES ALTERNATE ARM TYPE.

**Hardware Sets**

1.	STOREROOM LOCKSET, HINGES, WALL BUMPER.
2.	RIM MOUNT EXIT DEVICE WITH STOREROOM LOCKSET (ACTIVE LEAF), RIM MOUNT EXIT DEVICE W/ EXIT ONLY (INACTIVE LEAF), KEYED REMOVABLE MULLION, CONTINUOUS HINGES, CLOSER W/ OVERHEAD STOP AT EACH LEAF, ASTRAGAL, DOOR COORDINATOR, DRIP CAP.
3.	STOREROOM LOCKSET, HINGES, CLOSER W/ STOP.
4.	OFFICE LOCKSET, CONTINUOUS HINGES, WALL BUMPER.
5.	INSTITUTION LOCKSET, CONTINUOUS HINGE, OVERHEAD STOP, ELECTRIC STRIKE, OWNER PROVIDED ACCESS CONTROL.
6.	INSTITUTION LOCKSET, CONTINUOUS HINGE, EXTERIOR FLOOR STOP, THRESHOLD, DRIP CAP, ELECTRIC STRIKE, OWNER PROVIDED ACCESS CONTROL.
7.	INSTITUTION LOCKSET, CONTINUOUS HINGE, WALL STOP.
8.	PASSAGE LATCHSET, HINGES, WALL STOP.
9.	PRIVACY LOCKSET, HINGES, CLOSER, WALL STOP.
10.	OFFICE LOCKSET, HINGES, WALL STOP.
11.	OFFICE LOCKSET, HINGES, OVERHEAD STOP.

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 REGISTERED ARCHITECTS  
 Certificate C 349  
 ARKANSAS

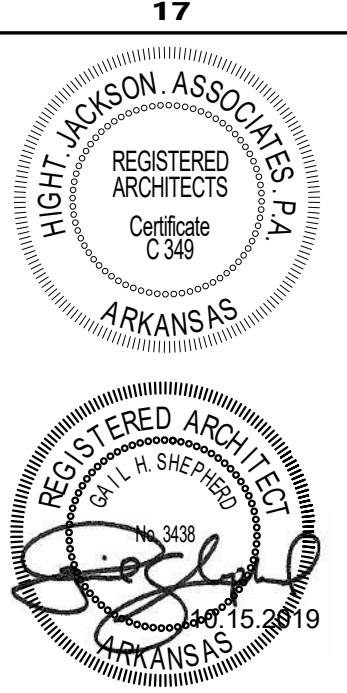
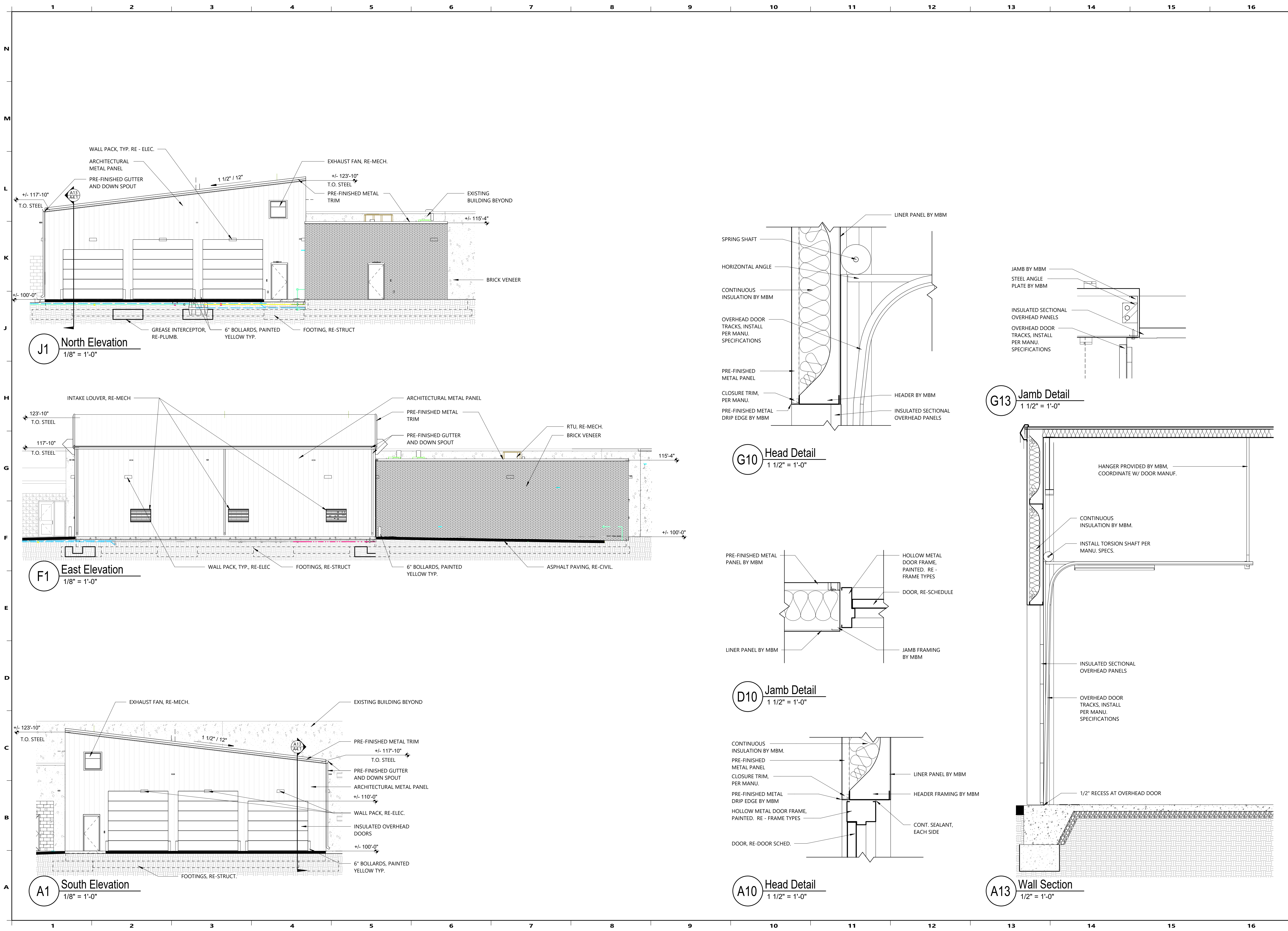
REGISTERED ARCHITECT  
 GUY L. H. SHEPHERD  
 Certificate 3438  
 ARKANSAS

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A REMODEL AND ADDITION FOR  
**BENTON CO. DETENTION CENTER**  
 BENTONVILLE, AR

DRAWN BY: RS  
 CHECK BY: LS  
 ISSUE DATE: 06/10/2024  
 PROJECT NO: 2404  
 REVISION DATE: 07/09/2024  
 DESCRIPTION: ADD 2

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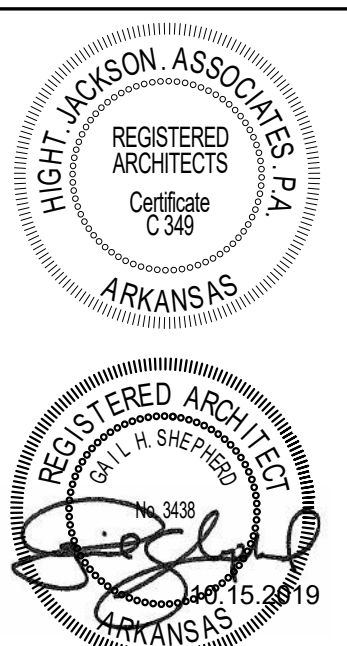
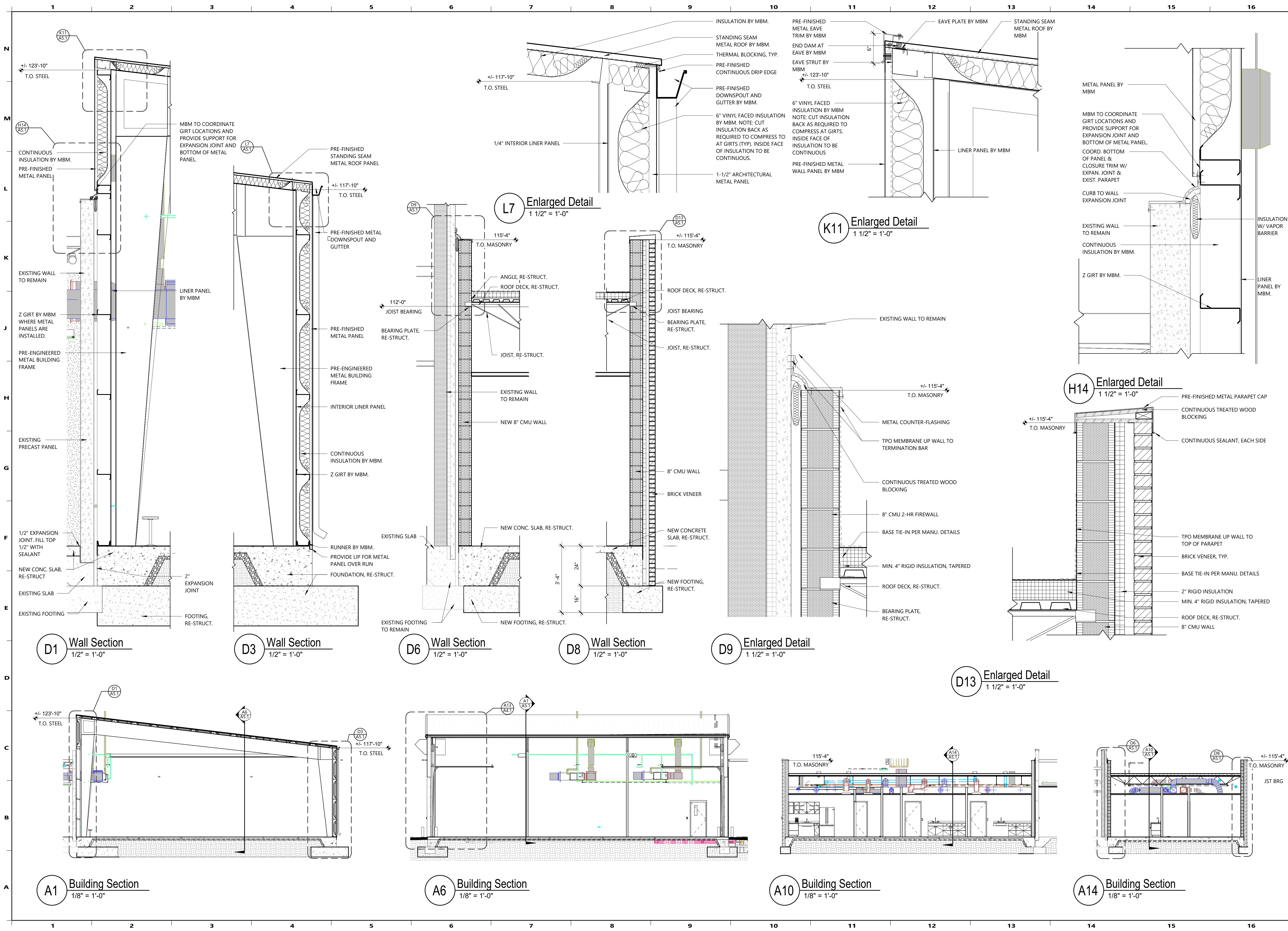


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DRAWN BY:	RS
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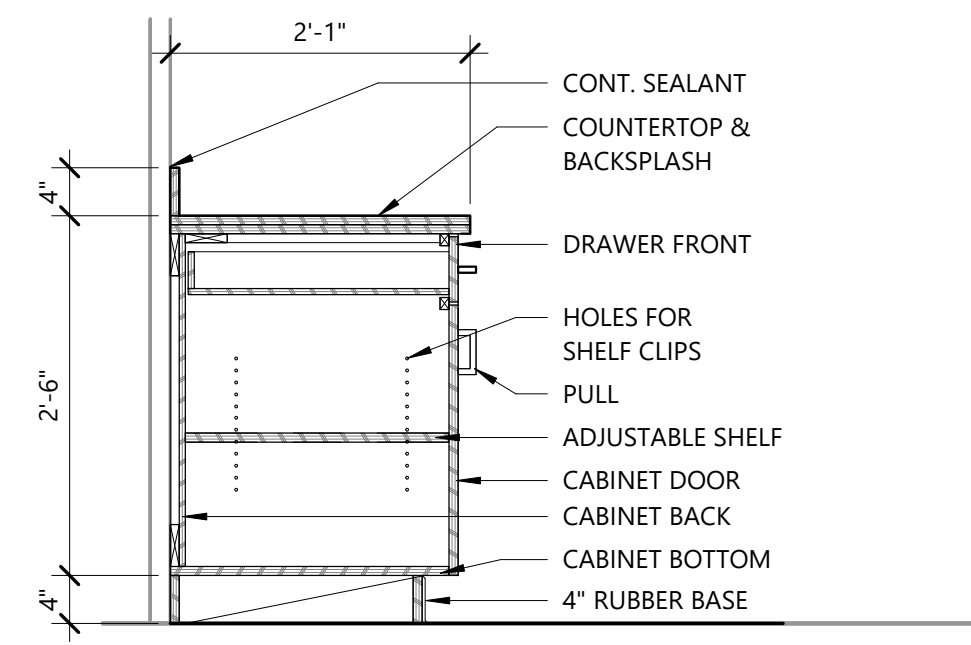
A REMODEL AND ADDITION FOR  
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BENTONVILLE, AR

DRAWN BY:	RS
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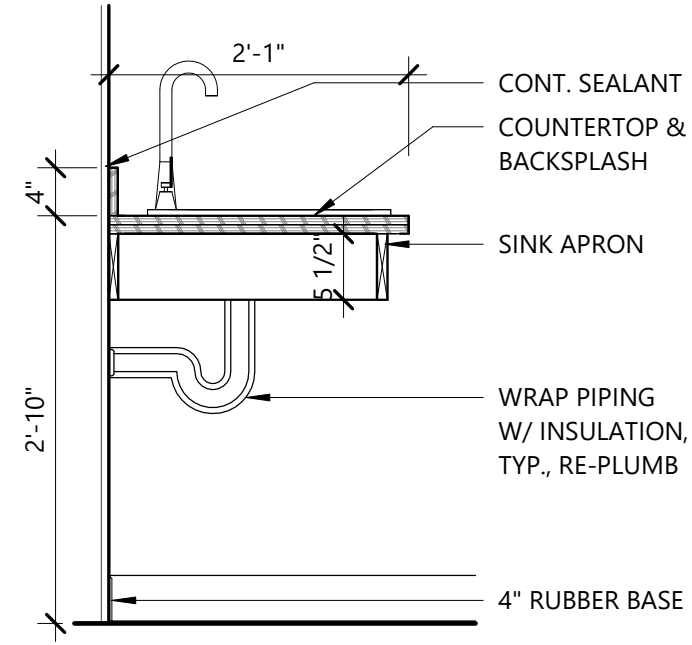
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**MILLWORK NOTES:**

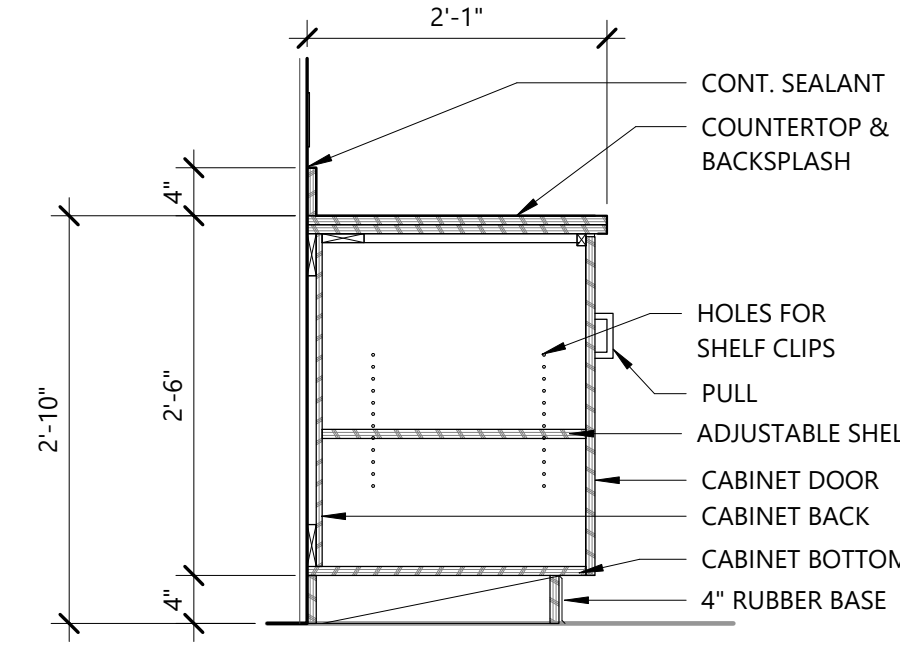
- OWNER WILL PROVIDE AND INSTALL MILLWORK CONTRACTOR TO COORDINATE WITH PLUMBING ITEMS IN MILLWORK.
- ALL DOORS/DRAWERS TO HAVE CAMM LOCKS, EXCEPT FOR BREAKROOM MILLWORK.



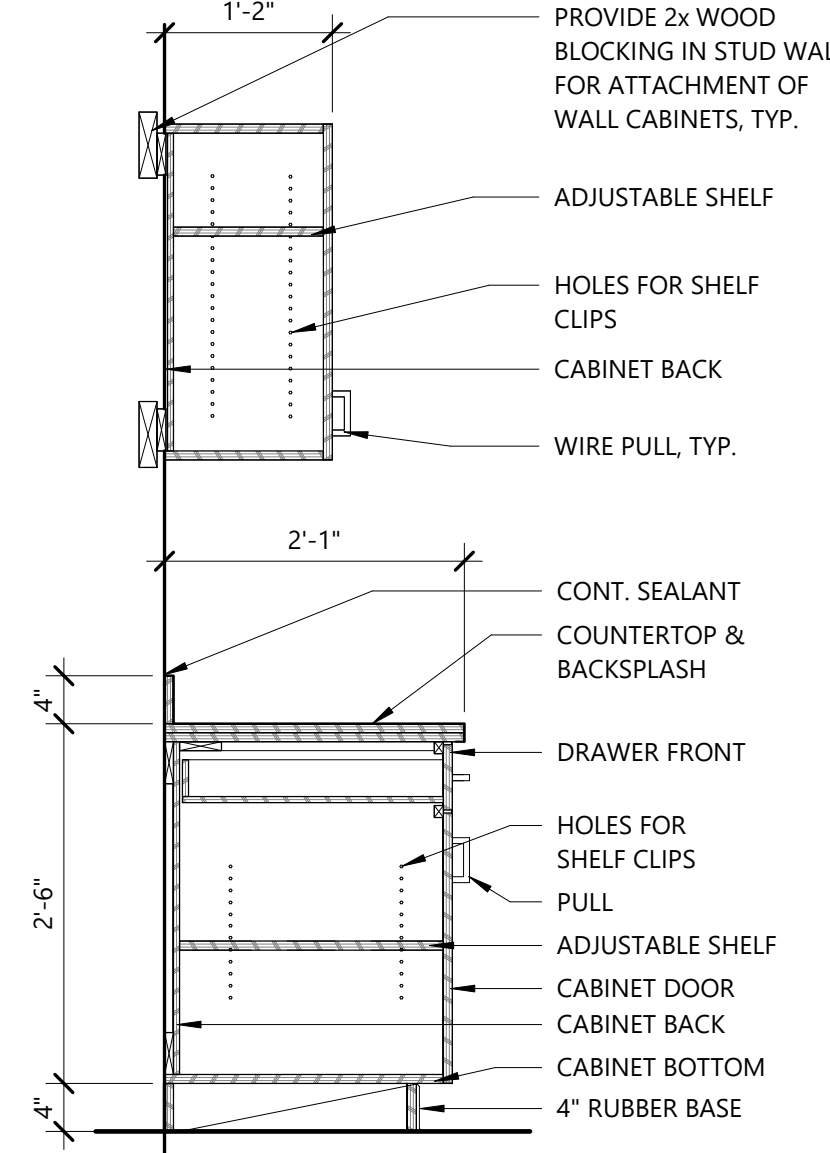
**E1 Millwork Section**  
3/4" = 1'-0"



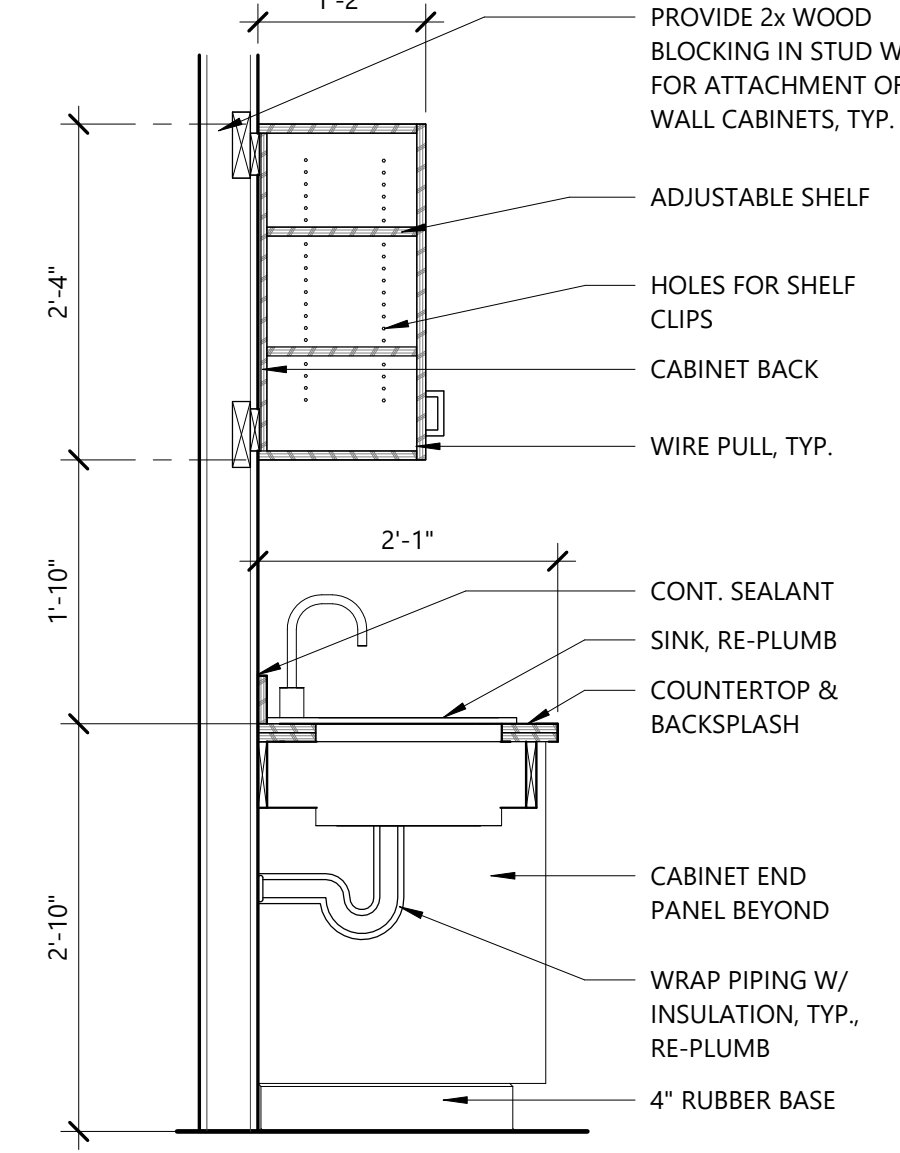
**E4 Millwork Section**  
3/4" = 1'-0"



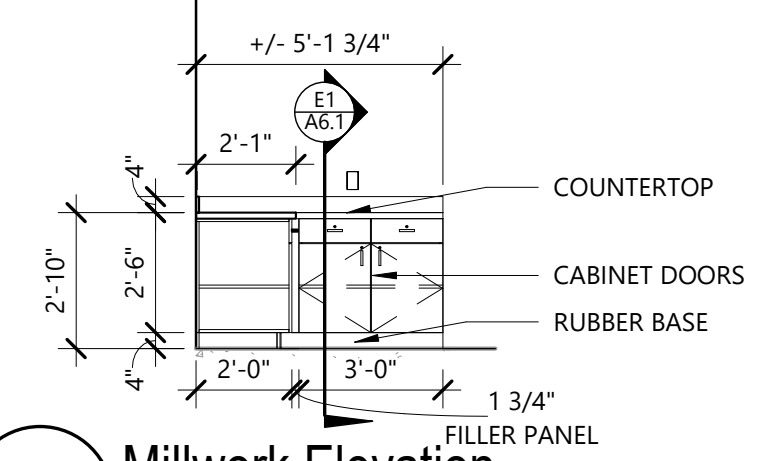
**E6 Millwork Section**  
3/4" = 1'-0"



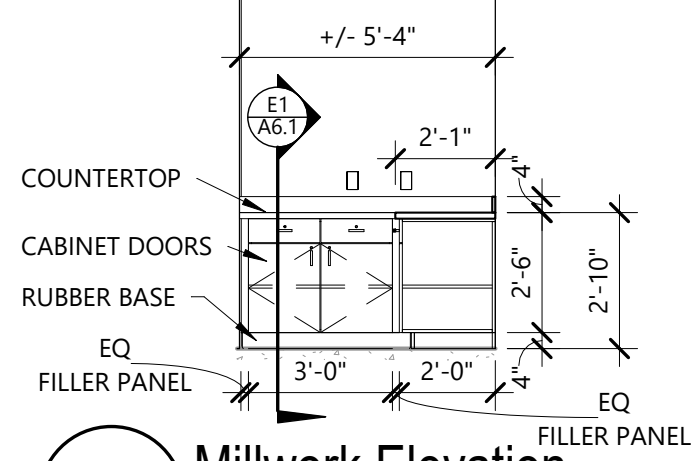
**E9 Millwork Section**  
3/4" = 1'-0"



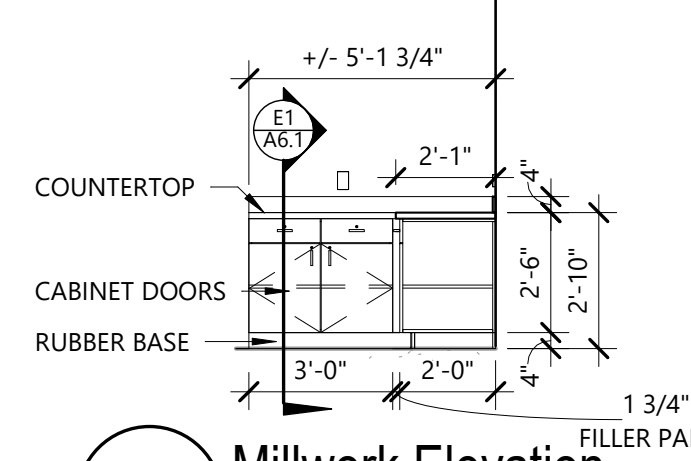
**E12 Millwork Section**  
3/4" = 1'-0"



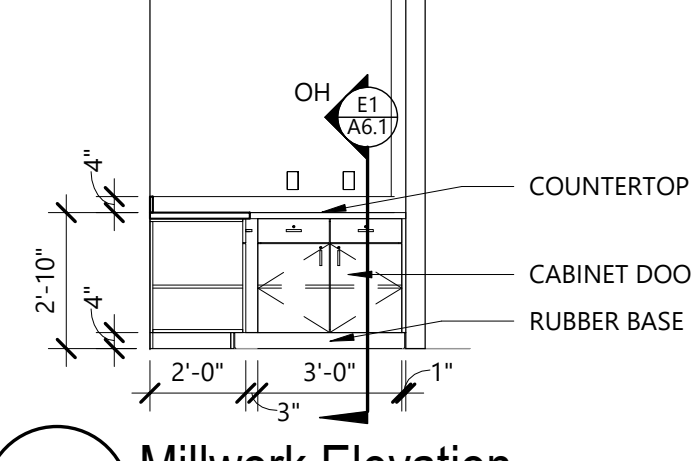
**C1 Millwork Elevation**  
1/4" = 1'-0"



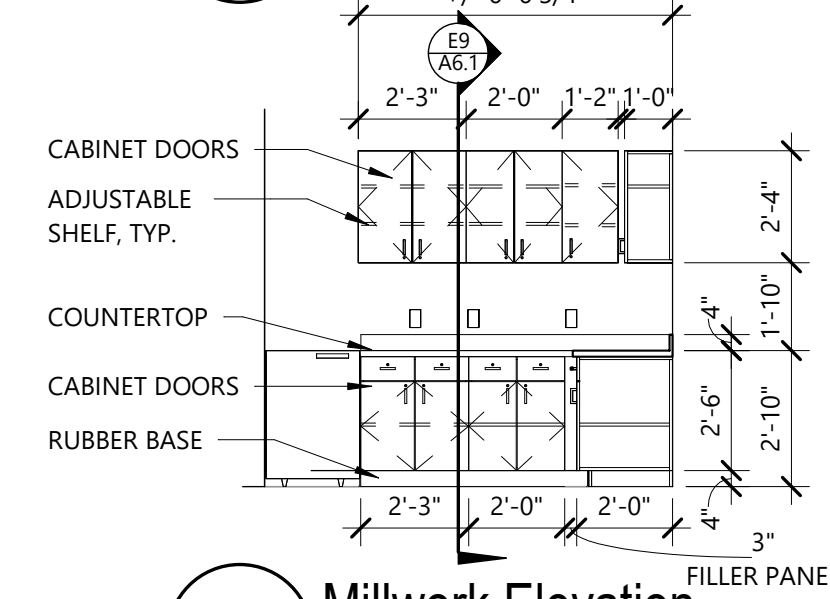
**C4 Millwork Elevation**  
1/4" = 1'-0"



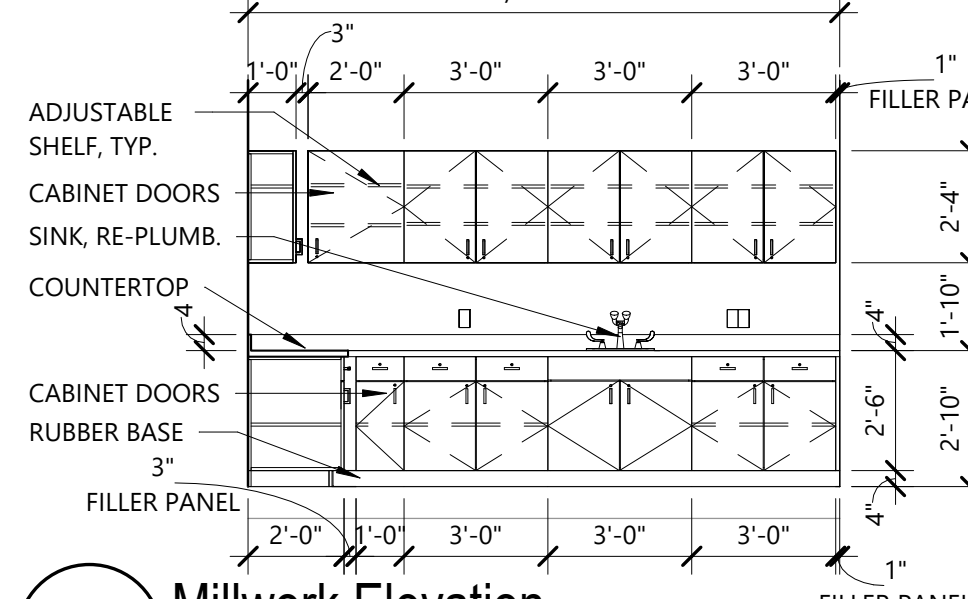
**C6 Millwork Elevation**  
1/4" = 1'-0"



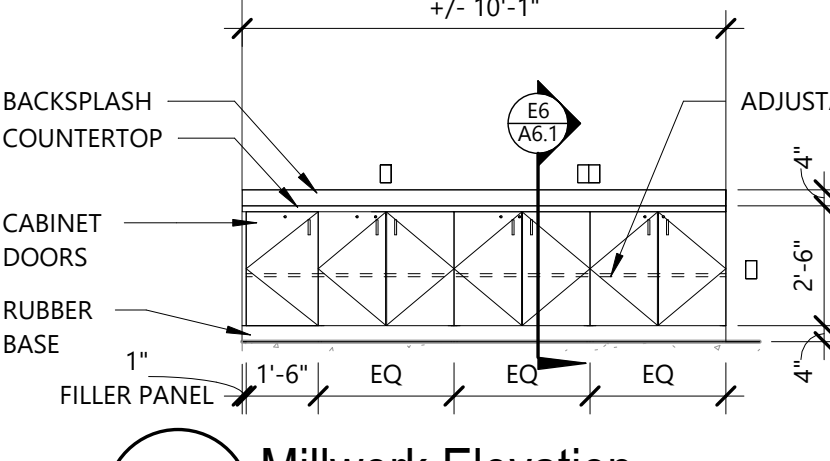
**C9 Millwork Elevation**  
1/4" = 1'-0"



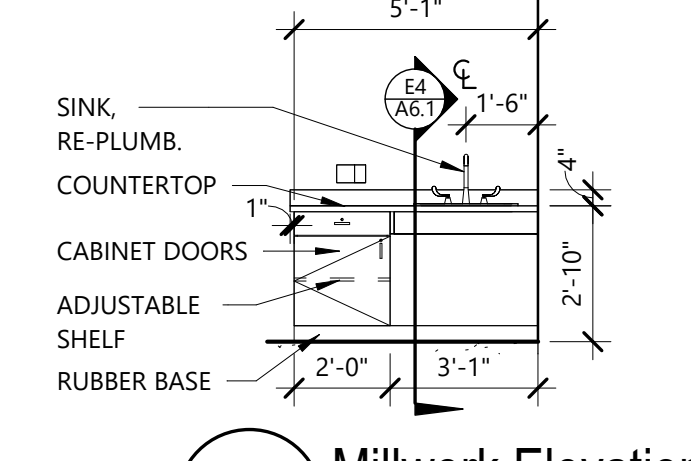
**C12 Millwork Elevation**  
1/4" = 1'-0"



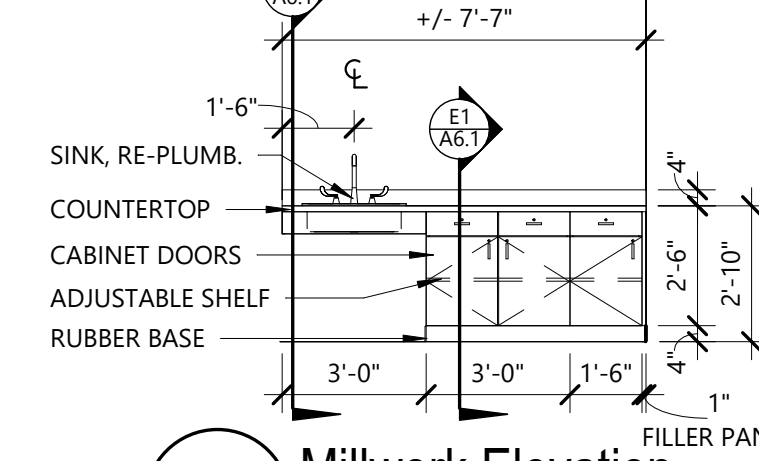
**C14 Millwork Elevation**  
1/4" = 1'-0"



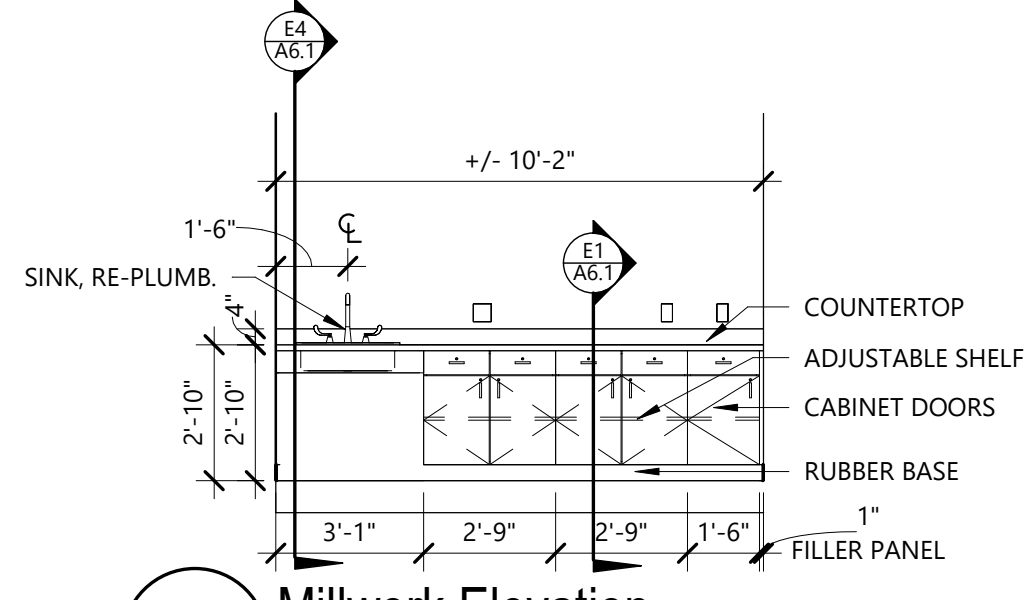
**A1 Millwork Elevation**  
1/4" = 1'-0"



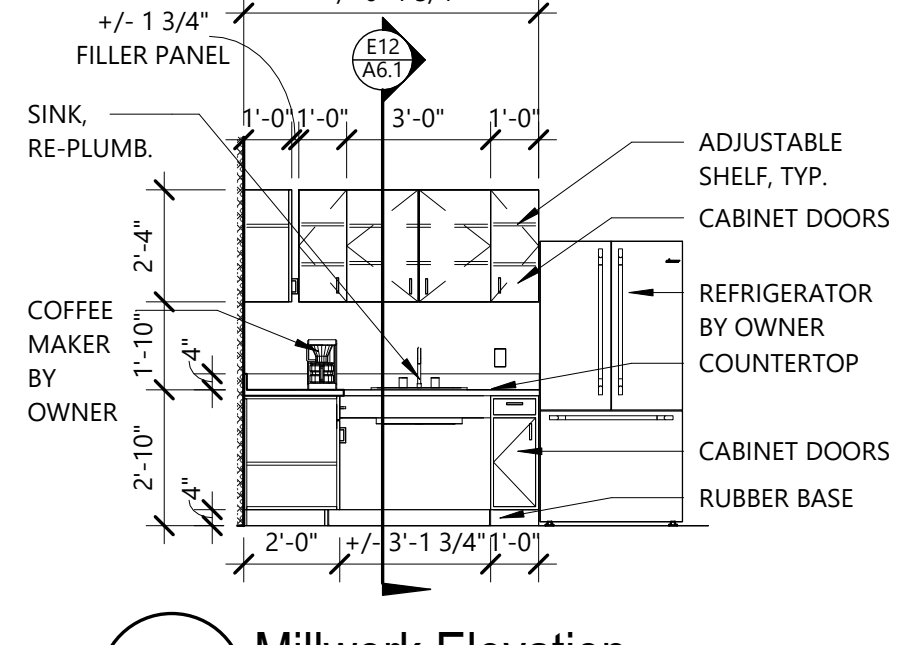
**A4 Millwork Elevation**  
1/4" = 1'-0"



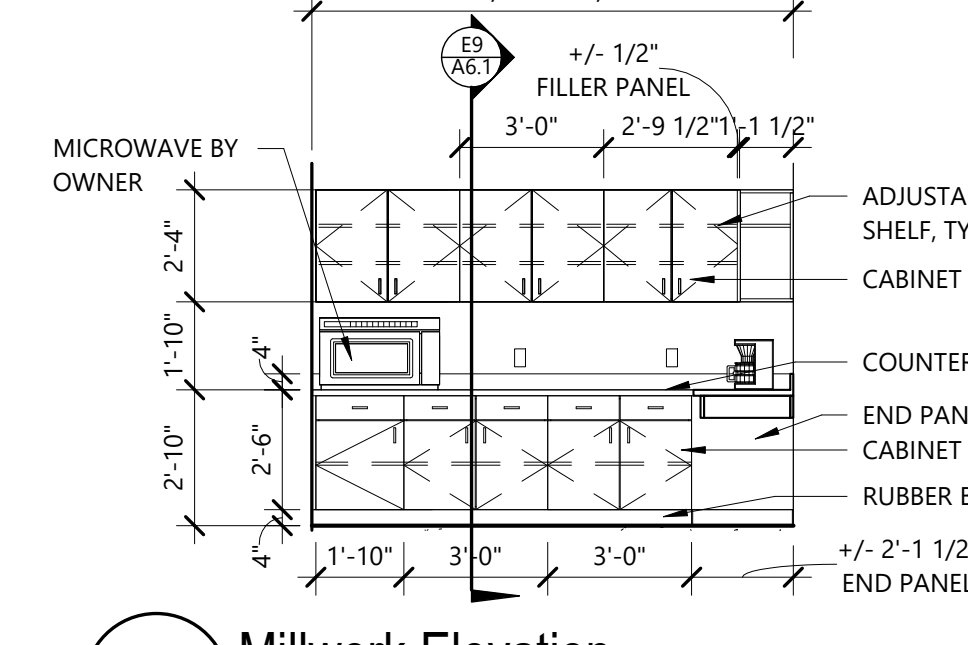
**A6 Millwork Elevation**  
1/4" = 1'-0"



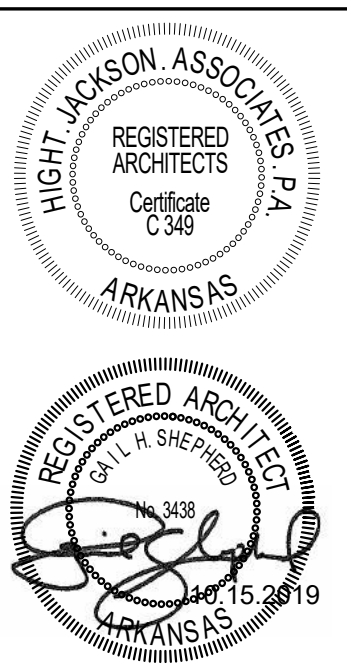
**A9 Millwork Elevation**  
1/4" = 1'-0"



**A12 Millwork Elevation**  
1/4" = 1'-0"



**A14 Millwork Elevation**  
1/4" = 1'-0"



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A REMODEL AND ADDITION FOR  
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BENTONVILLE, AR

DRAWN BY: RS  
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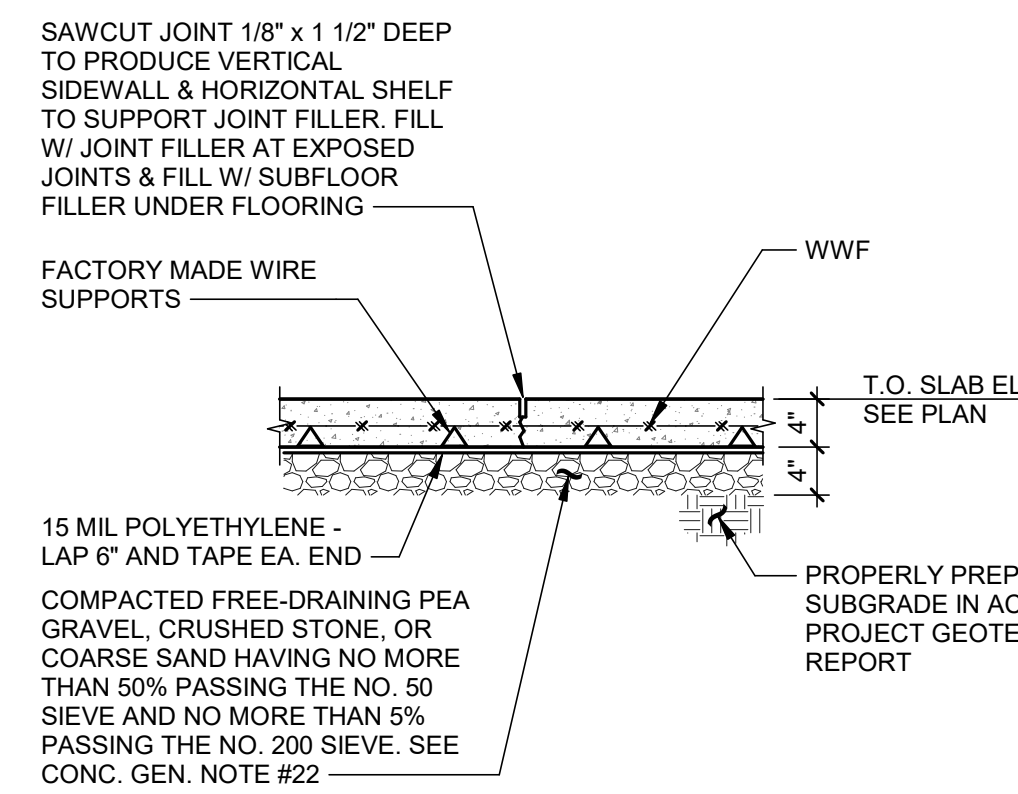
**Concrete General Notes 3100:**

- All detailing, fabrication and placing of reinforcing steel shall conform to the ACI Standard "Details and Detailing of Concrete Reinforcement" (ACI 315).
- Concrete at slab-on-grade shall develop a 28-day minimum compressive strength of 3,500 psi. Follow normal mixing time and speed as recommended by ASTM C94.
- All concrete at footings, pedestals and walls shall typically develop a 28-day minimum compressive strength of 3,000 psi.
- All concrete for footings, walls and slab-on-grade shall have a 5" maximum slump.
- All reinforcing steel shall be deformed bars conforming to ASTM A615, Grade 60.
- All reinforcing bar splices shall be 44 bar diameters for #6 and smaller diameter bars. Reinforcing bar splices shall be 48 bar diameters for #7 and larger bar diameters.
- All reinforcing bar hooks shall be ACI standard 90 degree hook, unless noted otherwise.
- Provide two #4 x 4'-0" long diagonal bars centered in slab, at all re-entrant corners and any other locations designated on the plans.
- Provide corner bars in footings, concrete stemwall and turn-down slab same size and spacing as longitudinal reinforcing.
- Provide (1) #4 hoop with 8" lap in slab-on-grade and elevated slab around floor drains, columns and all slab penetrations 3" in diameter or greater. Also install around electrical conduit groupings 3" in diameter or greater.
- Limit the width of conduit groups to 3'-0" as they pass under wall footings. As much as possible, align the conduit perpendicular to the footing as it passes under the footing. Provide a minimum spacing of 2'-0" between conduit groups as the conduit passes under a footing. **Do not extend conduits under column footings or spread footings.**
- Welded wire fabric shall conform to ASTM A1064. Provide mesh in flat sheets.
- Wire fabric reinforcing shall lap 6" and be securely wired at each side and end.
- Smooth dowels shall be steel conforming to ASTM A36.
- All slots, sleeves and other embedded items shall be set before concrete is placed. See Architectural, Electrical, Mechanical, and Vendor's drawings for size and locations.
- Bar supports at footings, slabs-on-grade and elevated slabs shall be factory made wire bar supports, type "SBU" linear supports.
- Epoxy for doweling reinforcement shall be HY-200 by Hilti, unless noted otherwise.
- Maximum net allowable bearing pressure = 2,000 psf, for continuous footings and 2,000 psf for isolated spread footings. Footings shall bear on native, medium stiff or very stiff, Stratum 1 Clays, and/or new, selected fill as described in the Soils Report No. 24-05065 dated May 8, 2024.
- Use of compacted, free-draining pea gravel, crushed stone, or coarse sand underneath the building slab is recommended by TSW, Inc. Consult Geotechnical Engineer regarding potential substitution of free-draining coarse materials with approved subgrade. Slabs-On-Grade have been designed for a modulus of subgrade reaction (k-value) of 100 ps/in.

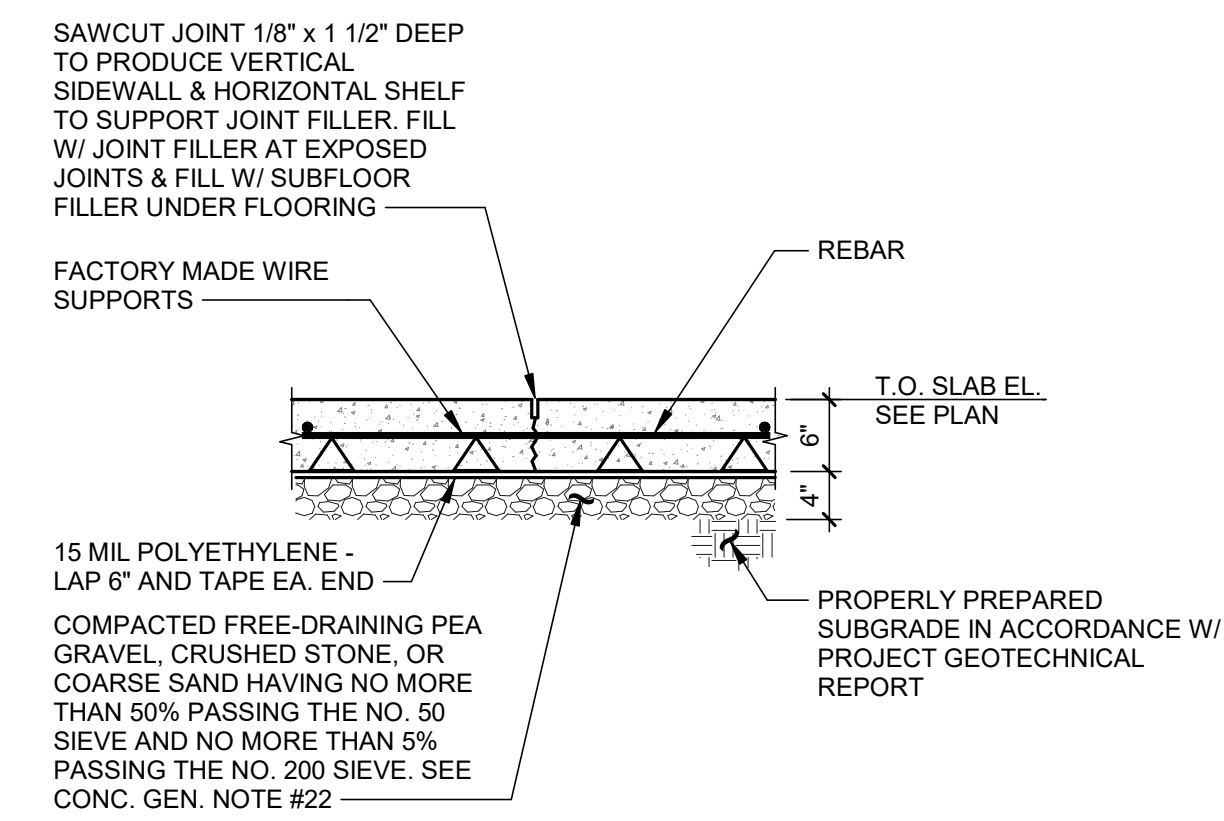
**Concrete Masonry General Notes 4100:**

- All concrete masonry units shall be lightweight above finished floor and normal weight below grade. All hollow concrete masonry units shall conform to ASTM C90, Grade N, Type 1 with a minimum ultimate compressive prism strength (Fm) of 2,000 psi for the masonry assemblage. All concrete masonry shall be laid in Running (Common) Bond.
- Mortar at exterior walls, all load-bearing walls, walls below grade and non-load-bearing walls higher than 20'-0" shall be Type S mortar and have a minimum compressive strength of 1,800 psi. Mortar at interior non-load-bearing walls not higher than 20'-0" and mortar at masonry veneer shall be Type N mortar and have a minimum compressive strength of 750 psi. All mortar shall conform to ASTM C270. Masonry cement shall not be used for mortar.
- All grout shall be ready-mix concrete, with 3/8" diameter max. aggregate, have a minimum 28-day compressive strength of 2,000 psi and a design slump between 8" to 10" [ or preblended product (Core Fill Grout, Coarse CF-02, by Spec Mix) with a minimum 28-day compressive strength of 2,000 psi and a design slump between 8" to 10".
- All 8" CMU bond beam units shall be reinforced with one bar. See Masonry Wall Reinforcement Schedule on Drawing S3.0 for size of bars for vertical wall reinforcement and bond beam requirements. Provide corner bars and lap bond beam reinforcing 48 bar diameters.
- All reinforcing steel shall be deformed bars conforming to ASTM A615, Grade 60.
- All bolts, anchors, reinforcement and embedded items shall be grouted in place.
- All reinforcing bar splices shall be 48 bar diameters, U.N.O.
- At all 8" CMU walls except at interior non-load bearing walls, provide (1) vertical bar each cell for the first (2) cells adjacent to control joints in walls, at ends of walls, wall corners and on each side of wall openings, unless noted otherwise. Vertical bars shall match reinforcement for remainder of wall. See Masonry Wall Reinforcement Schedule on Drawing S3.0 for size of reinforcement.
- Provide control joints in brick veneer where shown on Architectural Drawings.
- Provide control joints in CMU walls where shown on Architectural Drawings. Place joints for CMU walls max. 24'-0" o.c.
- Provide horizontal joint reinforcement at 16" o.c. Reinforcement shall be ladder design, min. 9 gage welded steel wire, hot dipped galvanized to 1.5 oz. width shall be 1 1/2" less than wall thickness.

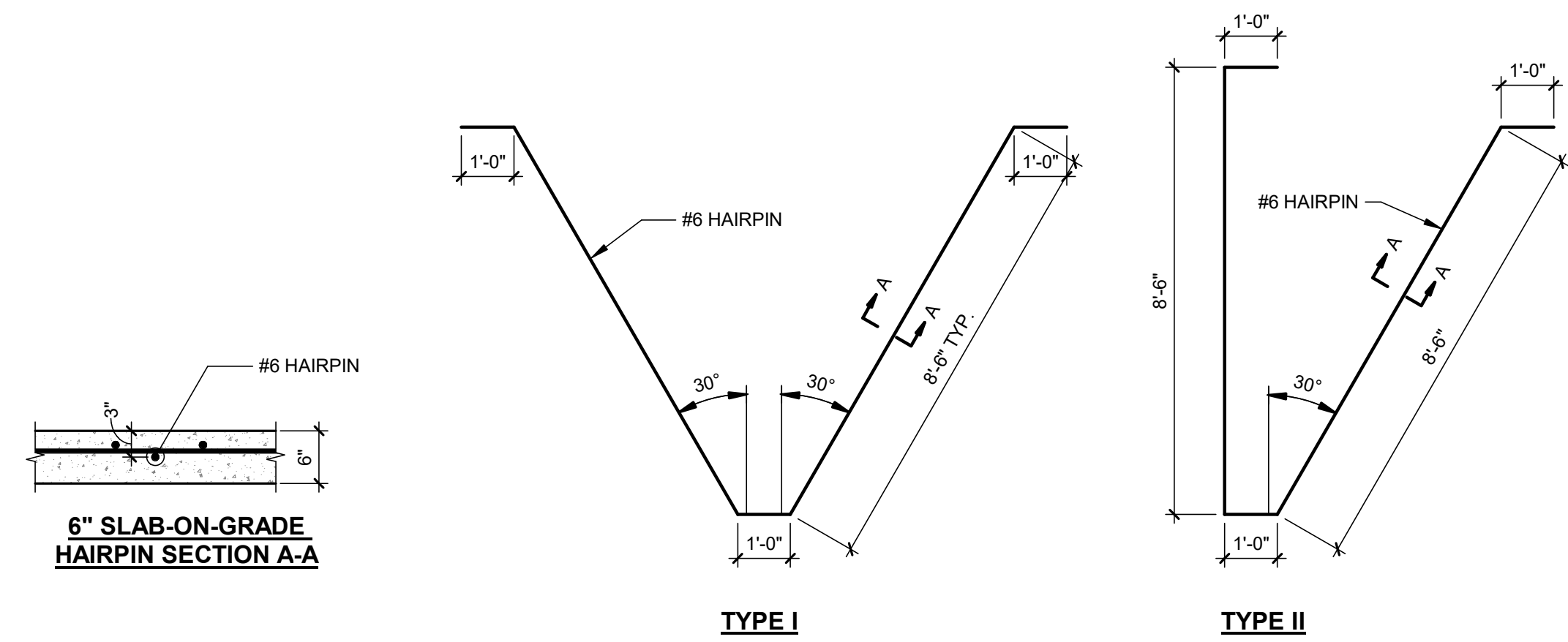
TYPICAL STRUCTURAL ABBREVIATIONS					
A.R.	ANCHOR ROD	F.S.	FAR SIDE	PROJ.	PROJECTION
ACI	AMERICAN CONCRETE INSTITUTE	FDN	FOUNDATION	PSF	POUNDS PER SQUARE FOOT
AISC	AMERICAN INSTITUTE OF STEEL CONSTRUCTION	FIN	FINISH	PSI	POUNDS PER SQUARE INCH
ARCH	ARCHITECT	FTG	FOOTING	R	RADIUS
ASTM	AMERICAN SOCIETY FOR TESTING AND MATERIALS	GALV	GALVANIZED	REINF	REINFORCEMENT
BLDG	BUILDING	H.S.A.	HEADED STUD ANCHOR	REQD	REQUIRED
BM	BEAM	HK	HOOK	RTU	ROOF TOP UNIT
BOTT	BOTTOM	HORIZ	HORIZONTAL	S.O.G.	SLAB ON GRADE
BRS	BEARING	J.B.E.	JOIST BEARING	SCHED	SCHEDULE
BTWN	BETWEEN	JST	JOIST	SECT	SECTION
CFS	COLD-FORMED STEEL	JT	JOINT	SEOR	STRUCTURAL ENGINEER OF RECORD
CL	CENTER LINE	LG	LONG	SIM	SIMILAR
CLR	CLEAR	LLH	LONG LEG HORIZONTAL	SJI	STEEL JOIST INSTITUTE
COL	COLUMN	LLV	LONG LEG VERTICAL	SPA	SPACING
CONC	CONCRETE	LLV	LONG LEG VERTICAL	SPECS	SPECIFICATIONS
CONN	CONNECTION	LONG	LONGITUDINAL	STD	STANDARD
CONT	CONTINUOUS	MAX	MAXIMUM	STIFF	STIFFENER
DEFL.	DEFLECTION	MBM	METAL BUILDING MANUFACTURER	STL	STEEL
DIA. or Ø	DIAMETER	MECH	MECHANICAL	TOC	TOP OF CONCRETE
DIM	DIMENSION	MFR	MANUFACTURER	TOF	TOP OF FOOTING
DN	DOWN	MIN	MINIMUM	TOS	TOP OF STEEL
do	DITTO	MISC	MISCELLANEOUS	TOW	TOP OF WALL
DTL	DETAIL	MTL	METAL	TRANS	TRANSVERSE
DWG	DRAWING	N.S.	NEAR SIDE	TYP	TYPICAL
E.F.	EACH FACE	O.C.	ON CENTER	U.N.O.	UNLESS NOTED OTHERWISE
E.W.	EACH WAY	O.F.	OUTSIDE FACE	VERT	VERTICAL
EA	EACH	OPNG	OPENING	W	WITH
EL	ELEVATION	PL	PLATE	WP	WORK POINT
EQ	EQUAL	PLF	POUNDS PER FOOT	WWF	WELDED WIRE FABRIC
EXIST	EXISTING				
EXP	EXPANSION				



**1 TYP. 4" SLAB-ON-GRADE CONTROL JT. DTL. (CJ)**  
NOT TO SCALE

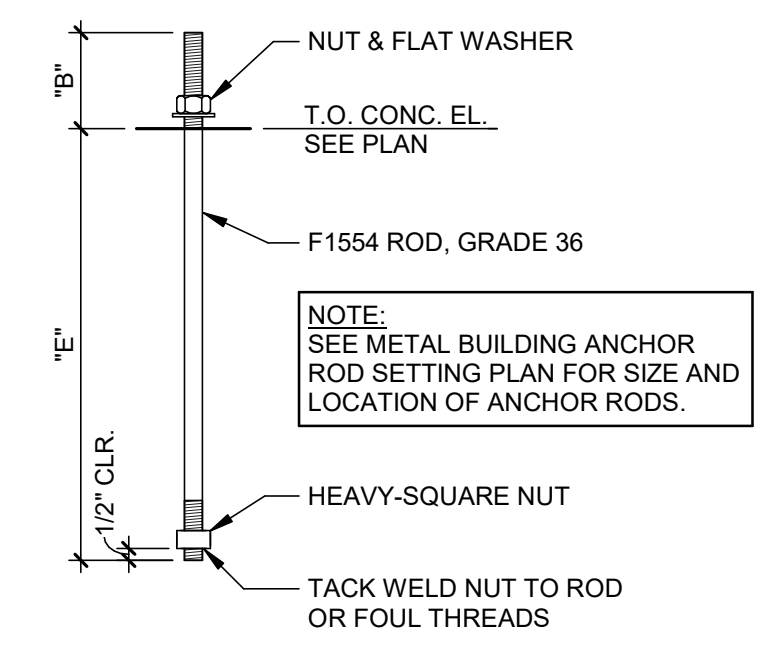


**2 TYP. 6" SLAB-ON-GRADE CONTROL JT. DTL. (CJ)**  
NOT TO SCALE

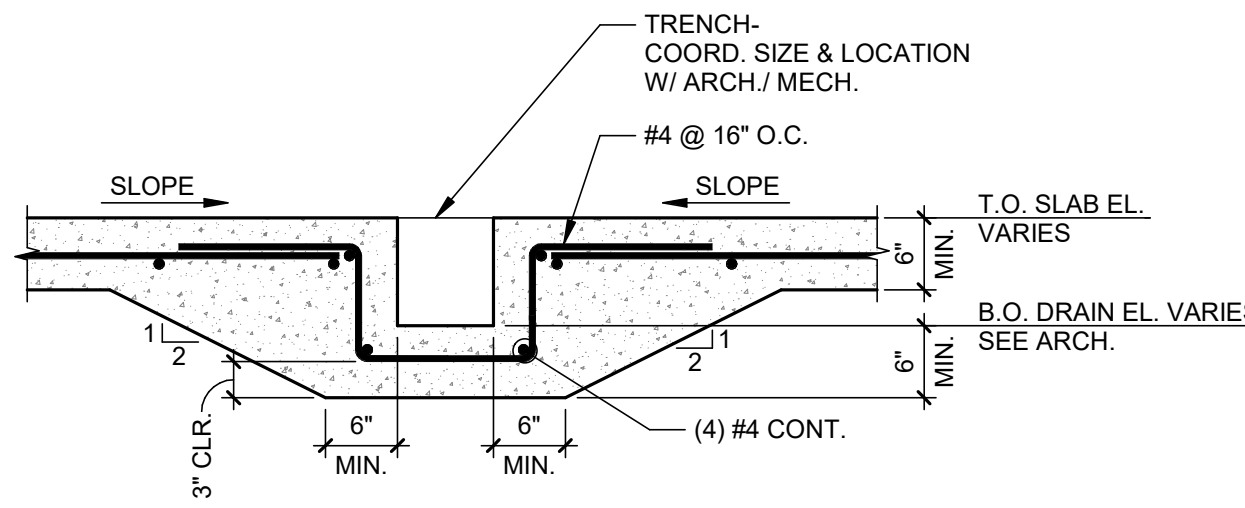


**3 TYP. HAIRPIN DETAILS**  
NOT TO SCALE

METAL BLDG. ANCHOR ROD SCHEDULE			
ROD DIAMETER	EMBEDMENT LENGTH "E"	THREAD PROJ. "B"	REMARKS
1 1/4"	2'-0"	4"	----
1"	1'-8"	4"	----
7/8"	1'-6"	3"	----
3/4"	1'-3"	3"	----
5/8"	1'-0"	3"	----
1/2"	8"	2"	----



**4 TYP. METAL BUILDING ANCHOR ROD DETAIL**  
NOT TO SCALE



**5 TYP. TRENCH DETAIL**  
NOT TO SCALE

**TATUM SMITH WELCHER**  
STRUCTURAL ENGINEERS  
(479) 621-6128 ROGERS, ARKANSAS  
TSW #: 24027 PM: ATR DE: ATR

STATE OF ARKANSAS  
REGISTERED PROFESSIONAL ENGINEER  
No. 18333  
RAMIRO, CARLOS  
06-10-2024

Tatum Smith Welcher  
Engineers, Inc.  
No. 218  
ENGINEERS OF AUTHORITY  
ARKANSAS ENGINEER

**Hight Jackson ASSOCIATES**  
5201 W Village Parkway, Suite 3001, Rogers, Arkansas 72768 | (479) 464-4965 | www.hjarch.com

A REMODEL AND ADDITION FOR  
**BENTON CO. DETENTION CENTER**  
BENTONVILLE, AR

DRAWN BY:  
**ATR**

CHECK BY:  
**ATR**

ISSUE DATE:  
**06/10/2024**

PROJECT NO:  
**2404**

SHEET  
**S1.1**

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**Structural Steel General Notes 5100:**

- All detailing, fabrication and erection of structural steel shall conform to the requirements of the AISC Specification for the Design, Fabrication and Erection of Structural Steel for Buildings.
- Wide flanges and WT tees shall conform to ASTM A992 with a yield strength of 50 ksi.
- Hollow Structural Section (HSS) shall conform to ASTM A500, Grade C with a yield strength of 50 ksi.
- Steel pipes shall conform to ASTM A501.
- Headed stud anchors (H.S.A.'s) shall conform to ASTM A108.
- All other structural steel shall conform to the requirements of ASTM A36. Angle, plate and beam lintels at exterior wall openings shall be hot-dipped galvanized.
- All anchor rods shall conform to ASTM F1554, Grade 36. Nuts for anchor rods shall conform to ASTM A563, Grade A, heavy hex and anchor rod washers shall conform to ASTM F844.
- All welding shall conform to the Specifications of the American Welding Society. Welding electrodes shall be E-70 low hydrogen series. Welding shall be done by a certified welder.
- High strength bolts shall typically be 3/4" diameter bolts conforming to ASTM A325. Connections shall be designed as bearing type with threads in shear plane. Holes shall be 1/16" larger than bolt size.
- All bolts shall be tightened to a snug-tight condition. A snug tight condition is defined as the tightness attained by a few impacts of an impact wrench or the full effort of a man using an ordinary spud wrench. All connected elements must be brought into snug contact.
- Bearing ends of all columns shall be square cut.
- No openings shall be cut in structural members unless shown on the drawings.
- Steel frame is non-self-supporting and column anchor rods are designed for a completed condition only. Metal roof deck, elevated slabs, steel moment frames, braced frames and masonry shear walls are temporary to provide lateral stability for the frame and resistance to wind and seismic forces. Contractor shall provide all temporary bracing required to maintain stability of structural system.
- Anchor rod holes in base plates shall be sized in accordance with AISC "Detailing For Steel Construction".
- All exposed edges of plates, beams, etc., shall be shop ground smooth and uniform.
- All column base plates supported on footings, pedestals and concrete columns shall bear on 1 1/2" non-shrink non-metallic grout unless noted otherwise.
- 1/2"Ø sleeve anchors shall be 1/2"Ø x 4" long HLC-H Sleeve Anchor by Hilti. HLC-H Sleeve Anchor shall be carbon steel with zinc plating & have a 3" embedment depth.
- 1/2"Ø expansion bolts shall be 1/2"Ø x 5 1/2" long Kwik Bolt 3 by Hilti. Expansion Anchor shall be carbon steel with zinc plating & have a 3 1/2" embedment depth.
- 3/4"Ø expansion bolts shall be 3/4"Ø x 5 1/2" long Kwik Bolt 3 by Hilti. Expansion Anchor shall be carbon steel with zinc plating & have a 4 3/4" embedment depth.

GENERAL CONTRACTOR SHALL INCLUDE 1 TON AT A MINIMUM COST OF \$10,000/ TON OF MISCELLANEOUS STEEL BEAMS, CHANNELS AND ANGLES IN ADDITION TO THE FRAMING SHOWN ON THE PLANS AND DETAILS. GENERAL CONTRACTOR SHALL INCLUDE ERECTION, FABRICATION, DESIGN AND DETAILING COSTS FOR THIS ADDITIONAL FRAMING WITH THE BASE BID. THE USE OF MISCELLANEOUS STEEL IS TO BE RECORDED BY THE GENERAL CONTRACTOR AND ANY UNUSED AMOUNT IS TO BE CREDITED TO THE OWNER.

**Steel Joist General Notes 5200:**

- The design, fabrication and erection of steel joists shall conform to the Standard Specifications for Open Web Steel Joists of the Steel Joist Institute. Joists have been designed according to the ASD Load Tables. Joist loads shown on the drawings are ASD loads.
- All hangers supported from open web joists shall be located at bottom chord panel points and shall be connected without field welding or drilling holes in the bottom chord.
- Joists shall have bridging per SJI Specifications. Roof joists shall have additional bridging, as required to resist stress reversal for the net uplift load indicated.
- Roof joists shall be designed for a net wind uplift of 56.8 psf. One-third stress increase of joists for wind uplift will not be allowed.
- "K" Joists framing into or nearest to columns shall be field bolted with (2) 1/2" diameter A307 bolts and have a 1/4" x 6" x 6" bottom chord stabilizer plate to provide lateral stability during construction. Do not weld bottom chord to stabilizer plate.
- Joist manufacturer shall design joists for mechanical and equipment loads noted on the framing plans in addition to the uniform dead and live loads. Coordinate equipment size and locations with mechanical contractor.
- Joist manufacturer shall design roof joists for the snow drift and sliding snow loadings shown in the Design Loads. See Snow Drift Plan (on this sheet) for locations of drifts and sliding snow.
- Attach joist top and bottom chord bridging to masonry walls with L2 1/2 x 2 1/2 x 3/16 x joist depth and (3) 1/2"Ø sleeve anchors, minimum.

**Steel Deck General Notes 5300:**

- Typical roof deck shall be 1 1/2" deep, 22 gauge, wide rib type and shall have nested side laps (Vulcraft 1.5B22, New Millennium 1.5B22 or approved equal). See Roof Framing Plans for limits of roof deck.
- Roof deck shall be welded to the steel framing per the Roof Deck Fastening Pattern Detail 1/S1.2.
- Roof deck fastening pattern has been designed for a net wind uplift of 82.7 psf at corner zones, 60.7 psf at side zones and 46.0 psf at interior zones for roofs.
- All deck shall be fastened per Steel Deck Institute (SDI) requirements.
- Deck specified has been determined on basis of 3 span condition; deck supplier shall use heavier gauge if required for one and two span conditions.

**Pre-Engineered Building General Notes 13100:**

- The design fabrication and erection of the pre-engineered buildings shall conform to the requirements of AISC Specifications for the Design, Fabrication and Erection of Structural Steel for Buildings and the Metal Building Manufacturer Design Practices Manual.
- Structural steel for primary framing shall conform to ASTM A572, grade 50 or ASTM A36.
- All steel tubes shall conform to ASTM A500, Grade C.
- Purlins and girts shall be cold-formed structural steel sections with stiffened flanges and have a minimum 55,000 psi yield strength.
- Structural system for the Sally Port Addition building shall be a clear-span monoslope rigid frame with no interior columns. Bay spacing, sloped roof and eave heights shall be as shown on the Architectural Drawings.
- Lateral stability along the sidewalls for the Sally Port Addition buildings shall be as determined by the Metal Building Manufacturer. Metal Building Manufacturer shall coordinate locations of any x-bracing with architect.
- All columns shall be designed as pinned ends that transmit no moment to the foundations.
- Bottom of base plate elevation for all pre-engineered building columns shall be at elevation 100'-0".
- Provide rod or cable x-bracing in roof as required to resist wind and seismic loads.
- Purlins shall be designed for a maximum live load deflection of L/150, where "L" is the purlin span in inches. Purlin deflection shall be limited to L/180 for wind and snow loads.
- Girts shall be designed for a maximum wind load deflection of L/360, where "L" is the girt span in inches.
- Limit lateral deflection of all columns in any direction to H/60 for main frames and H/90 for end walls, where "H" is the column height in inches.
- All rigid frame beams shall be designed for a maximum live load deflection of L/180, where "L" is the beam span in inches.
- The General Contractor shall purchase and install pre-engineered building anchor rods based on the Anchor Rod Setting Plan provided by the Metal Building Manufacturer. See the anchor rod schedule on S1.1 for bolt lengths required based on the bolt diameter called for by the pre-engineered building manufacturer.
- Metal Building Manufacturer shall certify that the building has been designed for the loads shown on this drawing. Certification must state that the building has been designed for all roof, wind and seismic loads as well as deflection tolerances noted in the pre-engineered building design loads on this sheet. The Metal Building Manufacturer is to provide maximum governing combined drawings for each column base. The metal building manufacturer is to prepare complete fabrication and erection drawings, fully engineered and sealed by a registered Structural Engineer in the state of Arkansas.
- Metal Building Manufacturer shall design purlins and rigid frames for the mechanical equipment in addition to the uniform dead and live loads. Coordinate equipment weight, size, and locations with the Mechanical Contractor and equipment supplier.
- Metal Building Manufacturer shall provide miscellaneous steel as required to support the mechanical equipment. Top and bottom of pier elevations shown on the Foundation Plan are actual elevations.
- No individual anchor rod shall be set a distance less than 3" from its centerline to the edge of slab in order to comply with ACI 318-11, Appendix D requirements.
- Metal Building Manufacturer is responsible for all header and veneer support design at wall openings.

**Pre-Engineered Building Design Loads**

- Roof Dead Load: Per MBM
- Roof Collateral Load: 5 psf
- Roof Live Load: 20 psf (L.L. reduction shall not be allowed)
- Rain Intensity, (i): 3.75 in/hr
- Snow Load: 15 psf
  - Ground Snow Load:
  - Flat-roof Snow Load (P<sub>f</sub>) = 12.71 psf
  - Sloped-roof Snow Load (P<sub>s</sub>) = 12.7 psf
  - Minimum Snow Load (P<sub>m</sub>) = 16.5 psf
  - Slope Factor (C<sub>s</sub>) = 1.0
  - Snow Exposure Factor (C<sub>e</sub>) = 1.0
  - Snow Load Importance Factor (I<sub>s</sub>) = 1.1
  - Thermal Factor (C<sub>t</sub>) = 1.1
- Wind Load: 115 mph
  - Ultimate Design Wind Speed (V<sub>ult</sub>):
  - Nominal Design Wind Speed (V<sub>nom</sub>): 89.1 mph
  - Risk Category III
  - Wind Exposure C
- Seismic:
  - Risk Category III
  - Seismic Importance Factor (I<sub>s</sub>) = 1.25
  - S<sub>s</sub> = 0.152
  - S<sub>1</sub> = 0.089
  - S<sub>0.5</sub> = 0.132
  - S<sub>0.1</sub> = 0.089
  - Site Class C (per Geotechnical Report)
  - Seismic Design Category B
  - Basic Structural System:
  - Seismic Resisting System:
  - Response Modification Coefficient (R): Per MBM
  - Deflection Amplification Factor (C<sub>d</sub>): Per MBM
  - Design Base Shear: Per MBM
  - Analysis Procedure: Per MBM
- Load Combinations: Per MBM
- Building Code: 2021 International Building Code

**Design Loads**

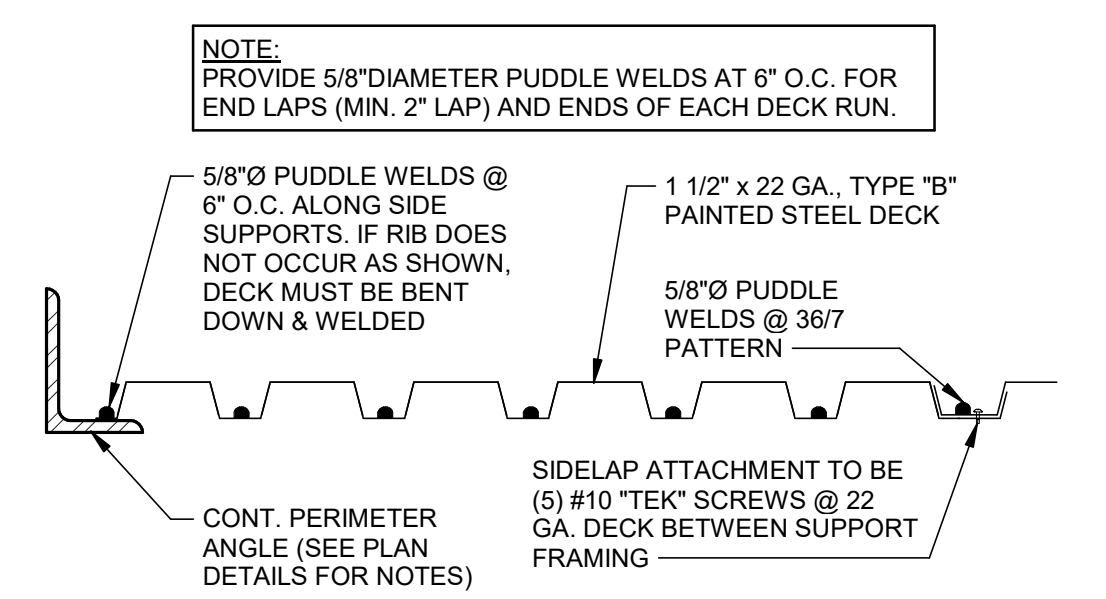
- Typical Roof Dead Load: 20 psf
- Roof Live Load: 20 psf
- Rain Intensity, (i): 3.75 in/hr
- Snow Load: 15 psf
  - Ground Snow Load:
  - Flat-roof Snow Load at main roof (P<sub>f</sub>) = 12.71 psf
  - Sloped-roof Snow Load (P<sub>s</sub>) = 12.71 psf
  - Minimum Snow Load (P<sub>m</sub>) = 16.5 psf
  - Slope Factor (C<sub>s</sub>) = 1.0
  - Snow Exposure Factor (C<sub>e</sub>) = 1.0
  - Snow Load Importance Factor (I<sub>s</sub>) = 1.1
  - Thermal Factor (C<sub>t</sub>) = 1.1
- Snow Drift:
  - 8'-4" Parapet: 32 psf (Snow Drift + P<sub>s</sub>), 12.7 psf (Snow)
  - 4'-3" Parapet: 29.6 psf (Snow Drift + P<sub>s</sub>), 12.7 psf (Snow)
- Wind Load: 115 mph
  - Ultimate Design Wind Speed (V<sub>ult</sub>):
  - Nominal Design Wind Speed (V<sub>nom</sub>): 89.1 mph
  - Risk Category III
  - Wind Exposure C
  - Internal Pressure Coefficient, GC<sub>pi</sub> = ±0.18
- Components & Cladding Wind Load (Unfactored): 3 ft
  - Width of Edge Zone, a =
  - Wall Pressures (10 ft<sup>2</sup>): 35.2 psf (End Zone Wall), 28.6 psf (Interior Zone)
  - Wall Pressures (100 ft<sup>2</sup>): 27.4 psf (End Zone Wall), 24.7 psf (Interior Zone)
  - Roof Pressures (10 ft<sup>2</sup>): 82.7 psf (Corner Zone), 60.7 psf (Eave & Rake Zone), 46 psf (Interior Zone)
  - Roof Pressures (100 ft<sup>2</sup>): 56.8 psf (Corner Zone), 47.7 psf (Eave & Rake Zone), 35.9 psf (Interior Zone)
- Seismic:
  - Risk Category III
  - Seismic Importance Factor (I<sub>s</sub>) = 1.25
  - S<sub>s</sub> = 0.152
  - S<sub>1</sub> = 0.089
  - S<sub>0.5</sub> = 0.132
  - S<sub>0.1</sub> = 0.089
  - Site Class C (per Geotechnical Report)
  - Seismic Design Category B
  - Basic Structural System: Bearing Wall System
  - Seismic Resisting System: Intermediate Reinforced Masonry Shear Walls
  - Response Modification Coefficient (R): 3.5
  - Deflection Amplification Factor (C<sub>d</sub>): 2.25
  - Seismic Response Coefficient (C<sub>s</sub>): 0.0377
  - Analysis Procedure: Equivalent Lateral Force Procedure
- Building Code:
  - 2021 International Building Code
  - ASCE 7-16
  - 2021 Arkansas Fire Prevention Code, Volume II

THIS FACILITY HAS BEEN DESIGNED FOR THE SEISMIC CRITERIA AND BUILDING CODE NOTED ON THIS DRAWING IN ACCORDANCE WITH THE REQUIREMENTS OF ACT 1100.

- LEGEND:**
- (A) DENOTES LIMITS OF SNOW DRIFT @ PARAPET (SEE DESIGN LOADS)
  - (B) DENOTES LIMITS OF SNOW DRIFT @ PARAPET (SEE DESIGN LOADS)

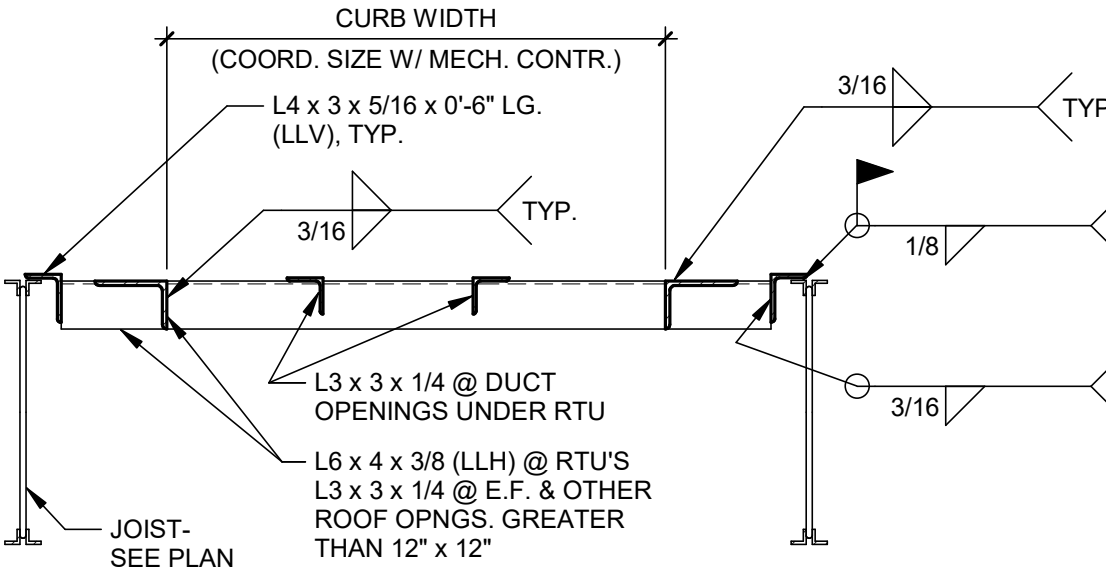


**4 SNOW DRIFT & SLIDING SNOW PLAN**  
1" = 50'-0"

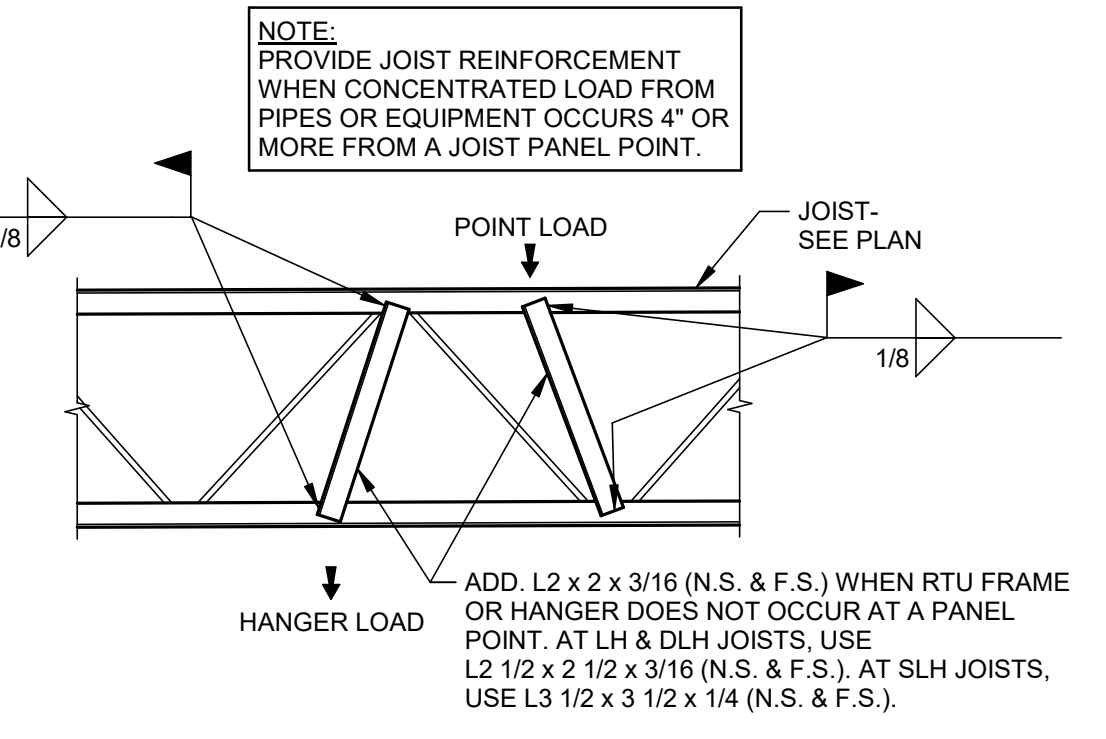


**1 1/2" ROOF DECK**  
**TYP. ROOF DECK FASTENING PATTERN DETAIL**  
NOT TO SCALE

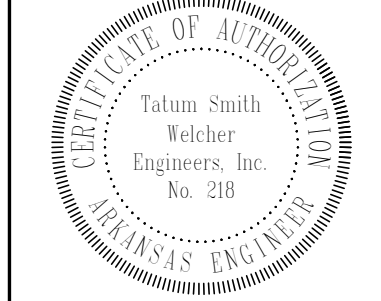
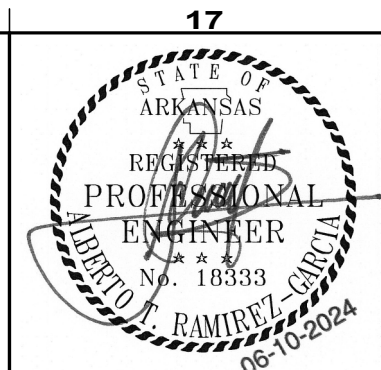
- NOTES:**
- AT L3 x 3 x 1/4 FRAMES, DELETE CLIP ANGLES, COPE VERTICAL LEG AND EXTEND HORIZONTAL LEG OVER FRAMING - WELD ALL AROUND.
  - FOR ROOF OPENINGS OVER 6" TO 12" WIDE (I.E.: OVER-SIZED OPENING FOR ROOF DRAINS), PROVIDE L2 x 2 x 1/4 FRAME AROUND OPENING AND EXTEND TO JOISTS - WELD ALL AROUND.



**2 TYP. ROOF FRAMED OPNG. DETAIL**  
NOT TO SCALE



**3 TYP. JOIST REINFORCEMENT AT CONCENTRATED LOADS**  
NOT TO SCALE

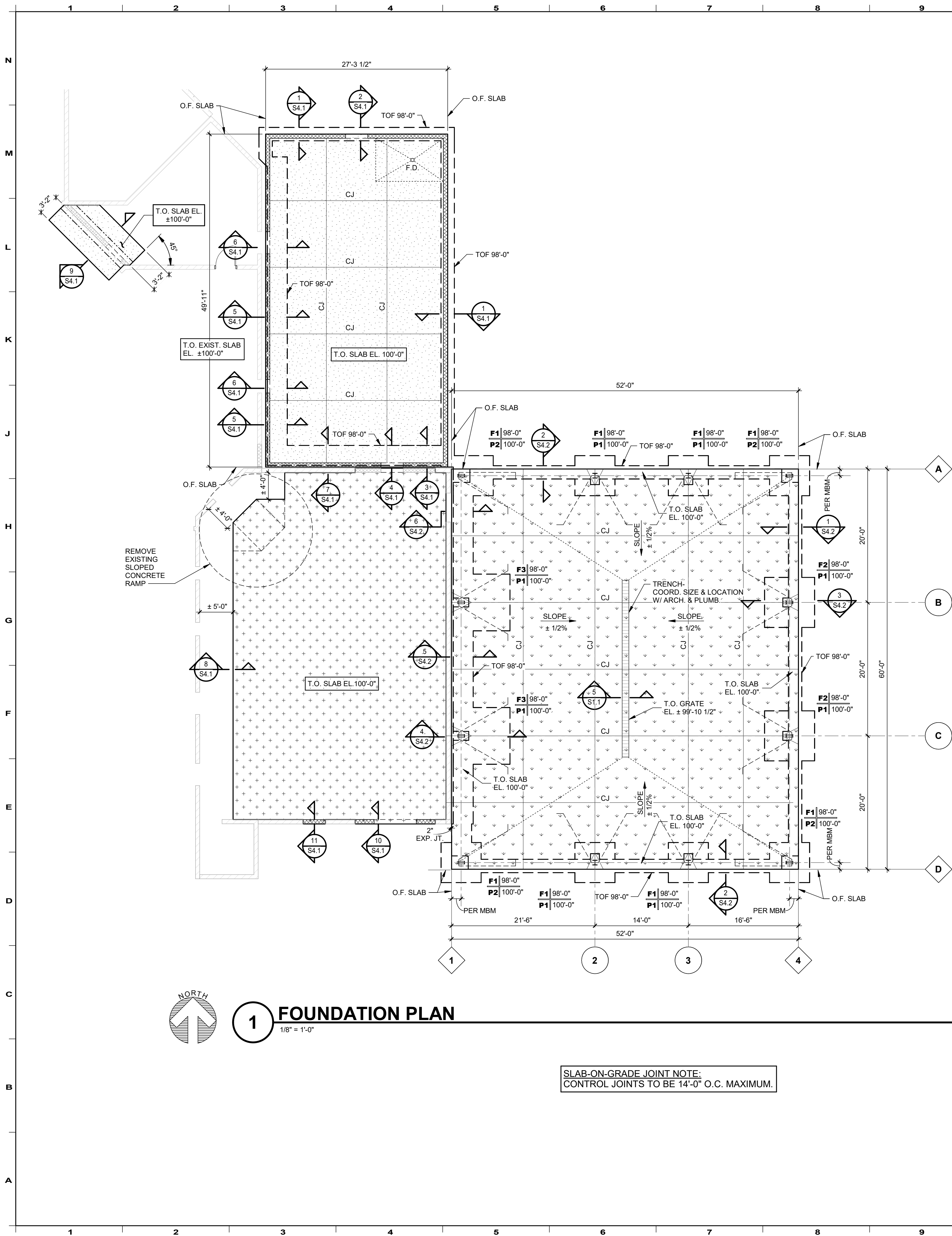


**Hight Jackson ASSOCIATES**  
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A REMODEL AND ADDITION FOR  
**BENTON CO. DETENTION CENTER**  
BENTONVILLE, AR

DRAWN BY: ATR	
CHECK BY: ATR	
ISSUE DATE: 06/10/2024	
PROJECT NO: 2404	
REVISION DATES	DESCRIPTION
#	DATE
SHEET <b>S1.2</b>	
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TSW #: 24027 PM: ATR DE: ATR



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

**SLAB-ON-GRADE JOINT NOTE:**  
CONTROL JOINTS TO BE 14'-0" O.C. MAXIMUM.

FOOTING SCHEDULE					
MARK	FOOTING SIZE			REINFORCING	REMARKS
	B	L	t		
F1	6'-0"	6'-0"	2'-0"	(8) #6 E.W., BOTT.	----
F2	7'-6"	7'-6"	2'-0"	(9) #6 E.W., TOP & BOTT.	----
F3	8'-6"	8'-6"	2'-0"	(11) #6 E.W., TOP & BOTT.	----

**FOOTING SCHEDULE NOTES:**  
1. SEE FOUNDATION PLAN FOR LOCATION AND ORIENTATION.

PEDESTAL SCHEDULE					
MARK	PEDESTAL SIZE		VERTICAL DOWELS	TIES	REMARKS
	WIDTH	LENGTH			
P1	1'-6"	2'-4"	(6) #6 DOWELS	#3 TIES @ 10" O.C.	SEE NOTE #1
P2	2'-0"	2'-6"	(10) #6 DOWELS	#3 TIES @ 10" O.C.	SEE NOTE #1

**PEDESTAL SCHEDULE NOTES:**  
1. SEE FOUNDATION PLAN FOR LOCATION AND ORIENTATION.

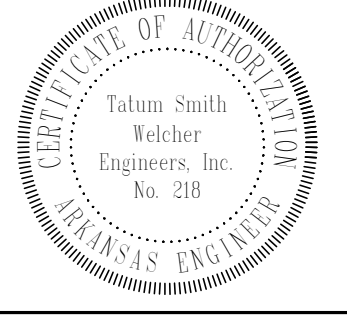
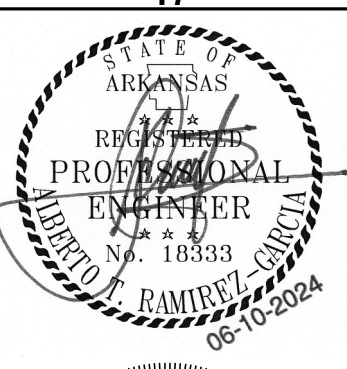
**NOTES:**  
1. CONTRACTOR SHALL FIELD VERIFY EXISTING CONDITIONS. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT AND STRUCTURAL ENGINEER IMMEDIATELY.  
2. CONTRACTOR SHALL FIELD VERIFY ALL ELEVATIONS AND DIMENSIONS PRIOR TO SETTING CONCRETE REINFORCEMENT AND FORM WORK.  
3. BEGINNING OF STEEL FABRICATION AND PLACEMENT OF CONCRETE CONSTITUTES CONTRACTOR ACCEPTANCE OF EXISTING CONDITIONS.

**NOTES:**  
1. FOUNDATION DESIGN HEREIN IS BASED UPON ANTICIPATED METAL BUILDING REACTIONS AS DEVELOPED BY TATUM SMITH WELCHER ENGINEERS, INC. IN CONSIDERATION OF THE PLANNED BUILDING TYPE (MONOSLOPED, CLEAR SPAN & LEAN-TO), BAY SPACING AND SPAN. THE GENERAL CONTRACTOR SHALL FURNISH FOUNDATION REACTIONS (SEALED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF ARKANSAS) TO TATUM SMITH WELCHER ENGINEERS, INC. FOR REVIEW PRIOR TO FOUNDATION CONSTRUCTION. CONTRACTOR SHALL ALLOW FOR A MINIMUM REVIEW TIME OF TEN (10) BUSINESS DAYS IN THE CONSTRUCTION SCHEDULE.  
2. SPREAD FOUNDATION SIZES SHOWN ARE FOR BIDDING PURPOSES ONLY. REVISIONS MAY BE REQUIRED FOLLOWING RECEIPT AND REVIEW OF FINAL, SEALED FOUNDATION REACTIONS.

**LEGEND:**

- F1 98'-0" (SEE FTG. SCHED. ON DWG. S1.1)
- P1 100'-0" (TOP OF FOOTING ELEVATION)
- TOP OF PEDESTAL ELEVATION
- PEDESTAL MARK (SEE PED. SCHED. ON DWG. S1.1)
- O.F. DENOTES OUTSIDE FACE
- TOF DENOTES TOP OF FOOTING
- TOBL DENOTES TOP OF BRICK LEDGE
- ± DENOTES DIMENSION OR ELEVATION TO BE FIELD VERIFIED
- Denotes limits of 4" slab (T.O. SLAB EL. 100'-0") SEE PLAN NOTES
- Denotes limits of 6" slab (T.O. SLAB EL. 100'-0") SEE PLAN NOTES
- Denotes limits of 46" slab (T.O. SLAB EL. 100'-0") SEE PLAN NOTES
- Denotes limits existing slab
- Denotes thickened slab
- Denotes load-bearing CMU wall
- Denotes non-load-bearing CMU wall
- Denotes existing walls
- F.D. DENOTES FLOOR DRAIN
- SLOPE DENOTES DIRECTION OF SLAB SLOPE (COORD. SLOPE W/ ARCH.)
- 100'-0" DENOTES TOP OF SLAB EL.
- Denotes trench see MEP. FOR EXACT LOCATION & EXTENTS (SEE DTL. 5/S1.1)
- Denotes location of re-entrant corner bars (SEE CONC. GEN. NOTE #9)
- Denotes area of slab to be sloped coord. w/arch.

- PLAN NOTES:**
- 4" S.O.G. CONSTRUCTION: 4" CONCRETE SLAB REINFORCED W/ 6 x 6-W2.9 x W2.9 WWF ON 15 MIL POLYETHYLENE FILM (COORD. W/ ARCH. SPECS.) OVER 4" CRUSHED STONE TYP. PLACE WWF 2" CLR. FROM TOP OF SLAB.
  - 6" S.O.G. CONSTRUCTION: 6" CONCRETE SLAB REINFORCED W/ #4 REBARS @ 12" o.c. ON 15 MIL POLYETHYLENE FILM (COORD. W/ ARCH. SPECS.) OVER 4" CRUSHED STONE TYP. PLACE REBARS 3" CLR. FROM TOP OF SLAB.
  - CENTER COLUMN FTGS. UNDER COLUMN, (U.N.O.).
  - CENTER COLUMN FTGS. UNDER ANCHOR ROD PATTERN, (U.N.O.).
  - ALL ELEVATIONS BASED ON FINISH FLOOR EL. 100'-0". ACTUAL FIN. FLR. EL. 1282.50' AS ESTABLISHED BY HALF.
  - TOP OF FOOTING ELEVATION 98'-0". TYP. (U.N.O.).
  - TOP OF PEDESTAL ELEVATION 100'-0". TYP. (U.N.O.).
  - SEE ARCH. DWGS / OVERALL FOUNDATION PLAN FOR DIMENSIONS NOT SHOWN.
  - "CJ" DENOTES CONTROL (SEE DTLS. 1/S1.1 & 2/S1.1)
  - COORDINATE LOCATION & LIMITS OF VENEER WITH ARCH. DWGS.
  - COORDINATE DOOR LOCATIONS WITH ARCH. DWGS.
  - SEE ARCH. DWGS. FOR LOCATIONS OF NON-LOAD-BEARING MASONRY WALLS BEARING ON THICKENED SLABS, (U.N.O.).
  - SEE ARCH / PLUMBING DWGS. FOR EXACT LOCATIONS OF ALL FLOOR DRAINS, SLOPED & RECESSED SLABS.
  - COORDINATE LOCATIONS OF PLUMBING LINES W/ PLUMBER PRIOR TO POURING FOOTINGS & SLABS-ON-GRADE.
  - SEE DWG. S1.1 FOR GENERAL NOTES & TYP. DETAILS.



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A REMODEL AND ADDITION FOR  
**BENTON CO. DETENTION CENTER**  
BENTONVILLE, AR

DRAWN BY: ATR  
CHECK BY: ATR  
ISSUE DATE: 06/10/2024  
PROJECT NO: 2404

#	REVISION DATES	DESCRIPTION

**TATUM SMITH WELCHER**  
STRUCTURAL ENGINEERS  
(479) 621-6128 ROGERS, ARKANSAS  
TSW #: 24027 PM: ATR DE: ATR

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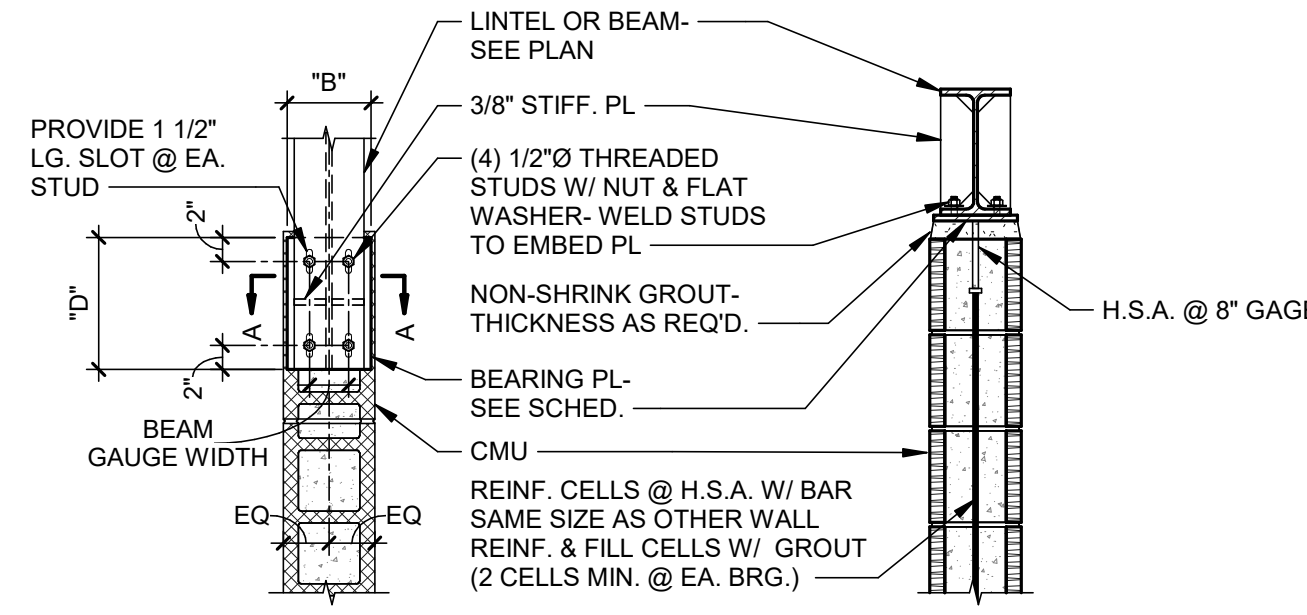
LINTEL SCHEDULE					
MARK	WALL LOCATIONS	TYPE & SIZE (THICKNESS x HEIGHT)	REINFORCEMENT OR ATTACHMENT	BRICK ANGLE OR PLATES	REMARKS
L1A	8" CMU	CMU 8" x 8" BOND BM.	(2) #4 BOTT.	----	SEE NOTES #1, #2, #4, #5 & #6
L1B	8" CMU	CMU 8" x 8" BOND BM.	(2) #4 BOTT.	BENT PL 3/8" x 6" x 7 5/8" (LLH)	SEE NOTES #1, #2, #4, #5 & #6
L1C	8" CMU	CMU 8" x 8" OPEN BOTT. BOND BM. ON 8" x 8" CLOSED BOTT. BOND BM. (16" TOTAL DEPTH)	(2) #5 BOTT.	----	SEE NOTES #1, #2, #4, #5 & #6
L2	EXIST. CMU	3/8" BENT PL	----	----	SEE NOTES #1, #2, #4, #5, #6, #7 & DTL. 9/S3.0.2
L3	EXIST. CMU	(2) L6 x 4 x 3/8 (LLV)	----	3/8" x ±8" BOTT. PL	SEE NOTES #1, #2, #4, #5, #6, #7 & DTL. 9/S3.0.2
L4	EXIST. CMU	W16 x 26	----	3/8" x 7" BOTT. PL	SEE NOTES #1, #2, #4, #5, #6, #7 & DTL. 9/S3.0.2
L5	EXIST. PRECAST WALL	HSS8 x 8 x 3/8	----	----	SEE NOTES #1, #2 & DTL. 1/S3.0.2

- LINTEL SCHEDULE NOTES:**
- SEE ARCH. DWGS. FOR EXACT LOCATION OF ALL LINTELS.
  - COORDINATE ALL BOTTOM PLATE/BEAM/CMU/ANGLE ELEVATIONS WITH ARCH. DWGS.
  - ALL CMU LINTELS SHALL HAVE 8" MIN. BEARING EACH SIDE OF OPENING.
  - FILL ALL CMU LINTELS WITH 2,000 PSI GROUT.
  - ALL 8" CMU LINTELS SHALL HAVE A MIN. (2) CELLS OF (1) #5 JAMB STEEL EACH SIDE OF OPENING, U.N.O. ON THE DRAWINGS.
  - ALL STEEL LINTELS SHALL HAVE 6" MIN. BEARING EACH SIDE OF OPENING.
  - AT EACH END OF STEEL LINTEL, STOP BOTTOM PLATE 1/2" CLEAR OF THE JAMB.
  - WHERE MECHANICAL DUCTS PASS THROUGH MASONRY WALLS, PROVIDE L1A LINTEL AT 8" CMU WALLS FOR OPENINGS NOT TO EXCEED 4'-0" WIDE. FOR OPENING WIDTHS FROM 4'-0" TO 6'-0", PROVIDE L1C LINTEL AT 8" CMU WALLS. FOR OPENING WIDTHS LARGER THAN 6'-0", COORDINATE WITH ARCH/ENGINEER.
  - WHERE MECHANICAL DUCTS PASS THROUGH EXISTING PRECAST WALLS, PROVIDE FRP SYSTEM AT 8" EXISTING PRECAST WALLS FOR OPENINGS NOT TO EXCEED 3'-0" WIDE (SEE DTL. 3/S3.0). FOR OPENING WIDTHS LARGER THAN 4'-0", COORDINATE WITH ARCH/ENGINEER.

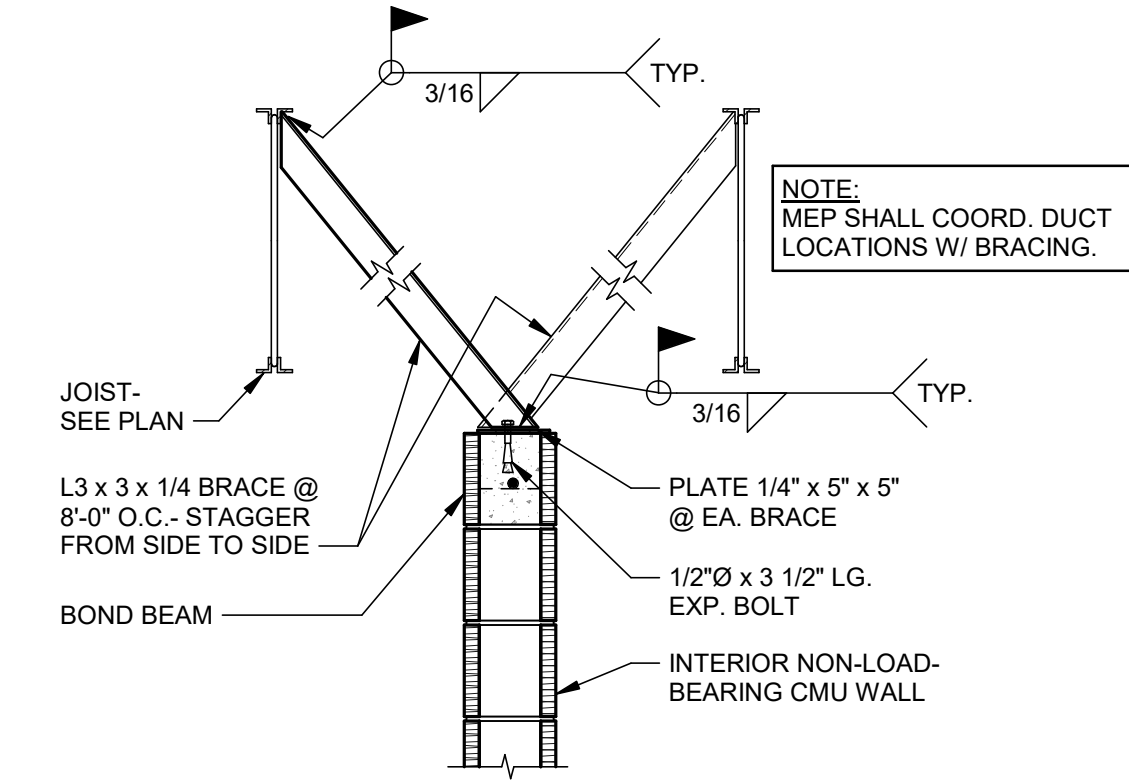
MASONRY WALL REINFORCEMENT SCHEDULE						
MARK	WALL LOCATION	BOND BEAM REINF.	BOND BEAM LOCATIONS	VERT. REINF.	FOUNDATION DOWELS	REMARKS
A	8" CMU	(1) #5 BOTT.	TOP OF WALL, ROOF EL., FLOOR EL. & WHERE NOTED ON DWGS.	#5 @ 24" o.c.	#5 DOWEL @ 24" o.c. CENTER IN WALL	SEE NOTES #3, #4, #5 & #6
B	8" CMU	(1) #5 BOTT.	TOP OF WALL	NONE	#4 x 2'-6" DOWEL @ 48" o.c. CENTER IN WALL	SEE NOTES #1, #2, #3 & #6

- MASONRY WALL REINFORCEMENT SCHEDULE NOTES:**
- INTERIOR NON-LOAD BEARING WALLS ARE DEFINED AS WALLS SUPPORTED ON AN 8" THICKENED SLAB.
  - WHERE TOP OF WALL IS UNSUPPORTED BY THE ROOF OR FLOOR FRAMING, BRACE TOP OF WALL WITH DIAGONAL L3 x 3 x 1/4 WELDED TO THE ROOF OR FLOOR FRAMING ABOVE AT 8'-0" O.C. MAXIMUM (SEE DTL. 2/S3.0). WHERE WALL EXTENDS TO UNDERSIDE OF FLOOR OR ROOF DECK ABOVE, HOLD WALL DOWN 1/2" & SANDWICH TOP OF WALL WITH (2) L2 x 2 x 1/8 x 0'-6" LONG EACH ATTACHED TO DECK WITH (2) #8 SELF-TAPPING SCREWS (SPACE ANGLES AT 4'-0" O.C.). THIS BRACING IS PERMANENT BRACING REQUIRED FOR SEISMIC LOADS.
  - UNO AT SLAB-ON-GRADE, DRILL & EPOXY DOWELS 8" INTO SLAB FOR 8" LOAD BEARING WALL AND 6" INTO SLAB FOR 8" NON-LOAD BEARING WALLS.
  - LAP DOWELS WITH FOUNDATION BAR.
  - FILL ALL CELLS WITH 2,000 PSI GROUT.
  - ALL CMU WALLS LESS THAN 48" SHALL BE FULLY GROUTED & REINFORCED.

BEARING PLATE SCHEDULE					
LINTEL/BEAM SIZE	LINTEL BRG. PL SIZE (L x B x D)	BEAM BRG. PL SIZE (L x B x D)	HEADED STUD ANCHORS	SEE DTL.	REMARKS
ALL BEAM SIZES	3/8" x 7" x 11"	3/8" x 7" x 11"	(2) 1/2"Ø x 6" H.S.A.	1/S3.0	8" CMU WALL



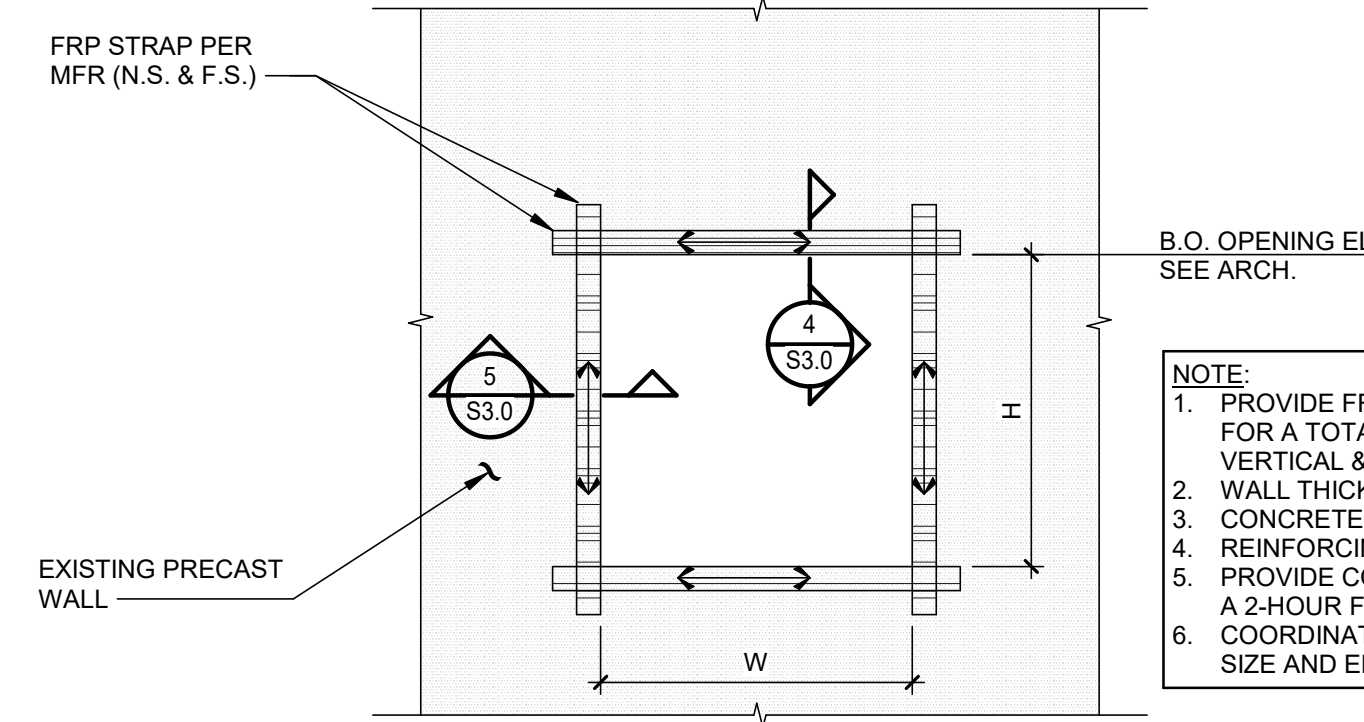
**1 TYP. WF LINTEL & BEAM BEARING PLATE DETAILS**  
NOT TO SCALE



**2 TYP. CMU WALL BRACING**  
NOT TO SCALE

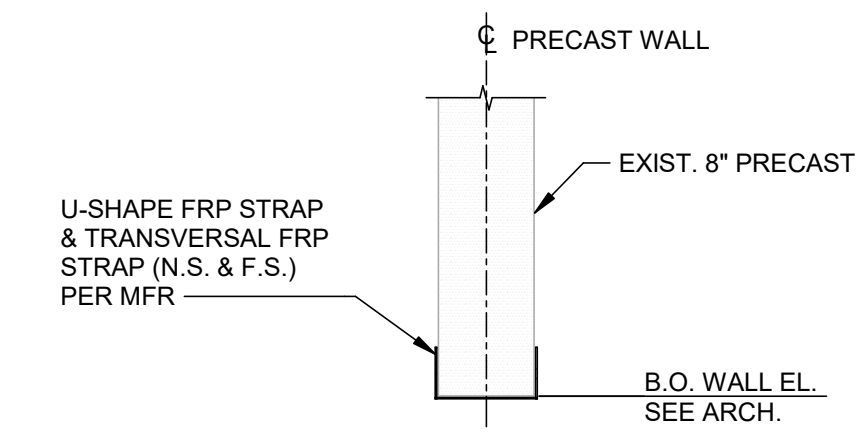
**GENERAL NOTES:**  
1. SHORE EXISTING STRUCTURE AS REQUIRED PRIOR TO WALL DEMOLITION, REF SPECIFICATIONS.

**CONTRACTOR NOTE:**  
CONTRACTOR TO REFER TO SPECIFICATIONS FOR SHORING REQUIREMENTS FOR ALL NEW OPENINGS IN EXIST. WALLS.

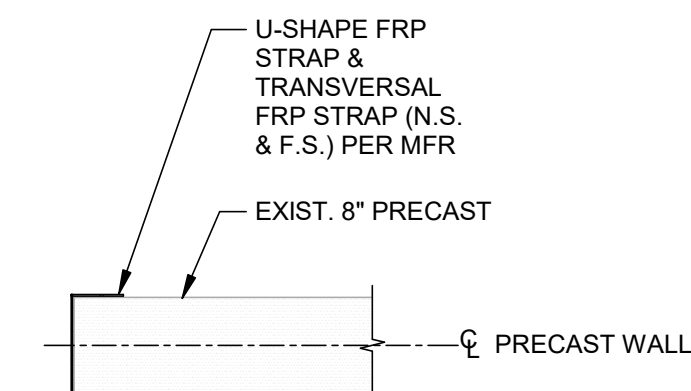


**3 TYP. NEW PRECAST WALL OPENING AT MECH. DUCTS**  
NOT TO SCALE

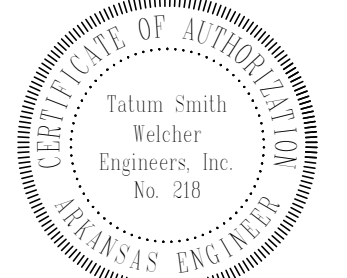
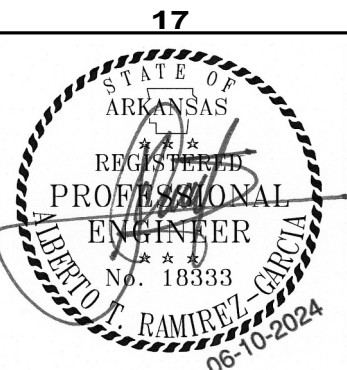
- NOTE:**
- PROVIDE FRP AROUND OPENING (BOTH SIDES OF WALL) FOR A TOTAL EQUIVALENT AREA OF STEEL (±1.8 in<sup>2</sup> VERTICAL & ±0.8 in<sup>2</sup> HORIZONTAL)
  - WALL THICKNESS ±8"
  - CONCRETE COMPRESSIVE STRENGTH, f<sub>c</sub> = ±5,000 PSI
  - REINFORCING STEEL ASTM A615, GRADE 60, f<sub>y</sub> = 60,000 PSI
  - PROVIDE COATING SYSTEM WITH FRP THAT CAN ACHIEVE A 2-HOUR FIRE RATING (COORD. W/ARCH)
  - COORDINATE W/MECH. ENGINEER & ARCH. FOR OPENING SIZE AND ELEVATION



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



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



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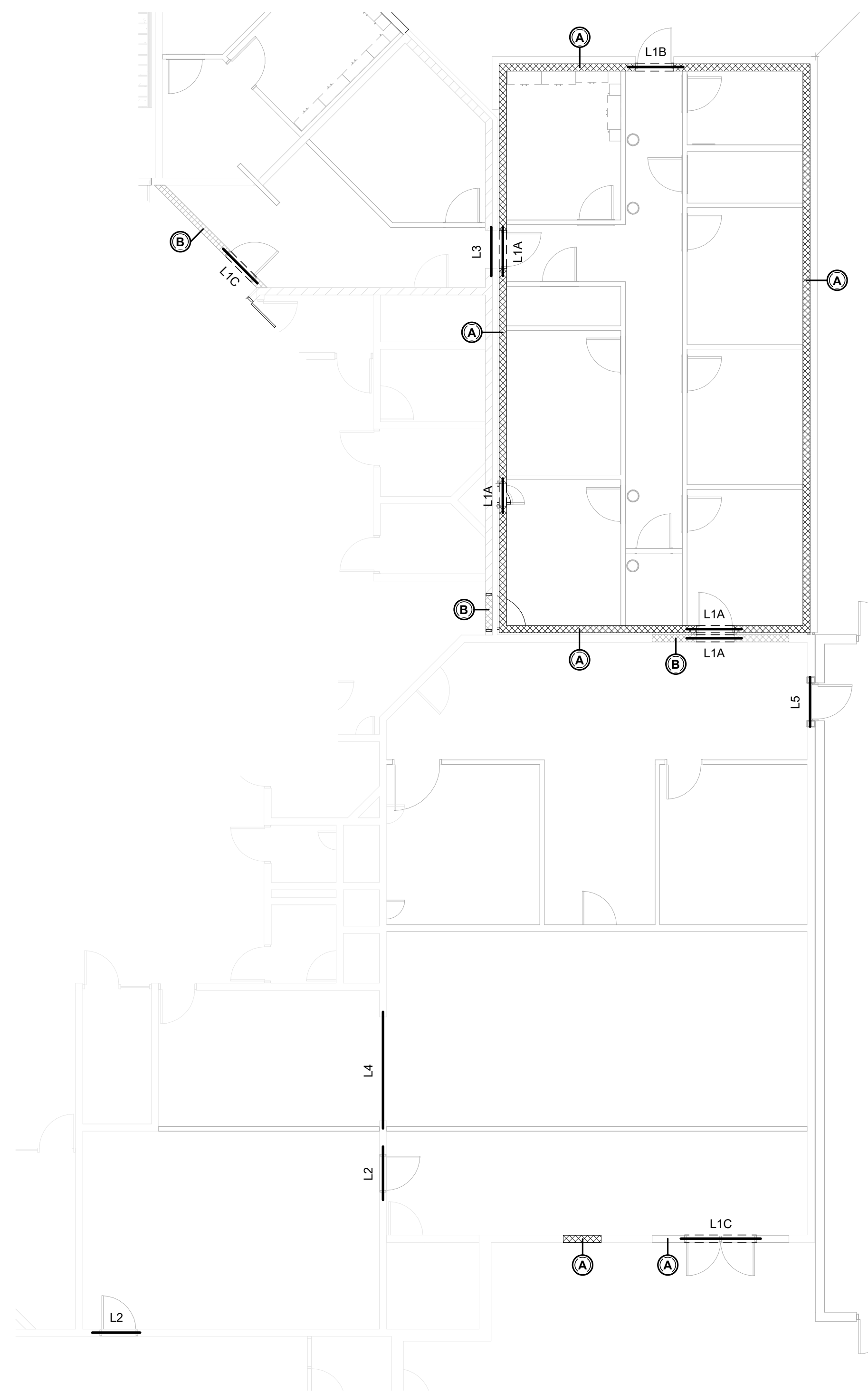
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



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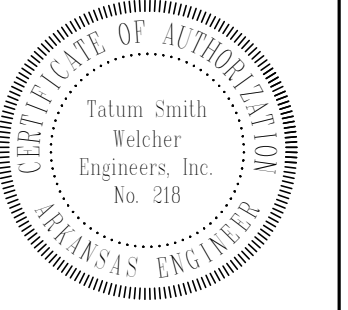
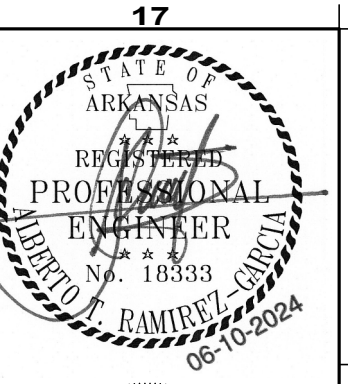
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**1** FIRST LEVEL LINTEL & MASONRY PLAN  
1/8" = 1'-0"

- LEGEND:**
-  DENOTES LINTEL MARK, SEE LINTEL SCHED.
  -  DENOTES LOAD-BEARING CMU WALL
  -  DENOTES NON-LOAD-BEARING CMU WALL
  -  DENOTES MASONRY WALL REINF. MARK, SEE MASONRY WALL REINF. SCHED.

- PLAN NOTES:**
1. SEE DWGS. S1.1 & S1.2 FOR GENERAL NOTES & TYP. DETAILS.



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A REMODEL AND ADDITION FOR  
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BENTONVILLE, AR

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REVISION DATES

#	DATE	DESCRIPTION

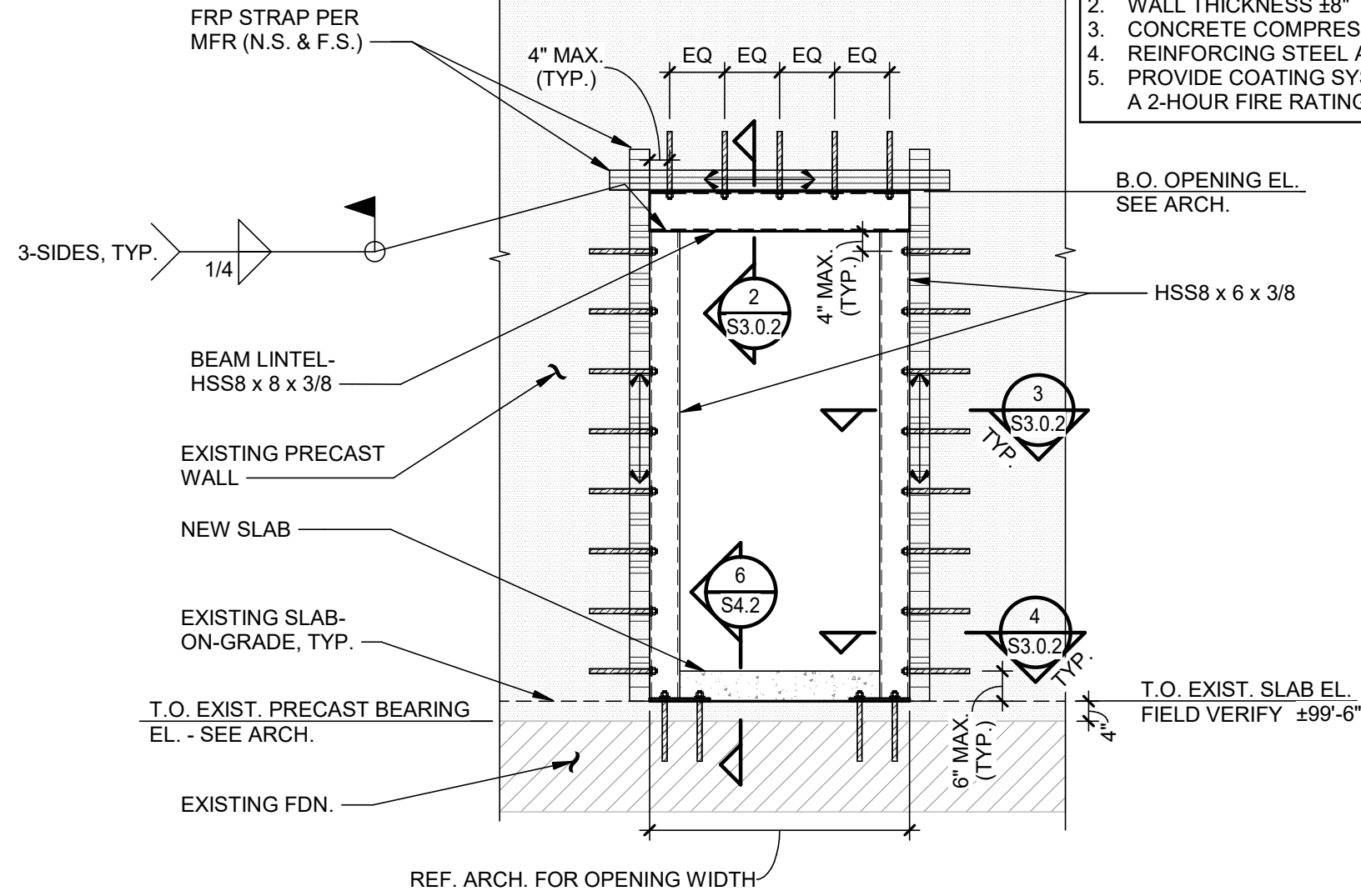
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**GENERAL NOTES:**  
1. SHORE EXISTING STRUCTURE AS REQUIRED PRIOR TO WALL DEMOLITION, REF SPECIFICATIONS.

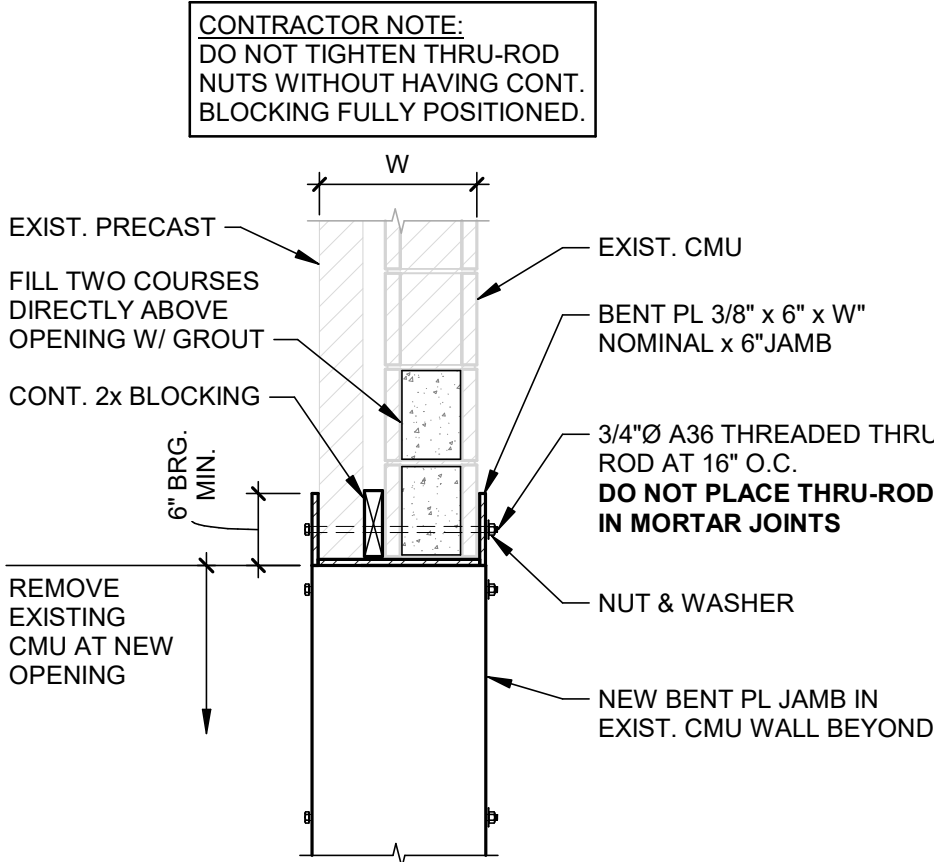
**CONTRACTOR NOTE:**  
CONTRACTOR TO REFER TO SPECIFICATIONS FOR SHORING REQUIREMENTS FOR ALL NEW OPENINGS IN EXIST. WALLS.

**NOTE:**  
1. PROVIDE FRP AROUND OPENING (BOTH SIDES OF WALL) FOR A TOTAL EQUIVALENT AREA OF STEEL (±4.4 in<sup>2</sup> VERTICAL & ±2.0 in<sup>2</sup> HORIZONTAL)  
2. WALL THICKNESS ±8"  
3. CONCRETE COMPRESSIVE STRENGTH, f<sub>c</sub> = ±5,000 PSI  
4. REINFORCING STEEL ASTM A615, GRADE 60, f<sub>y</sub> = 60,000 PSI  
5. PROVIDE COATING SYSTEM WITH FRP THAT CAN ACHIEVE A 2-HOUR FIRE RATING (COORD. W/ARCH)



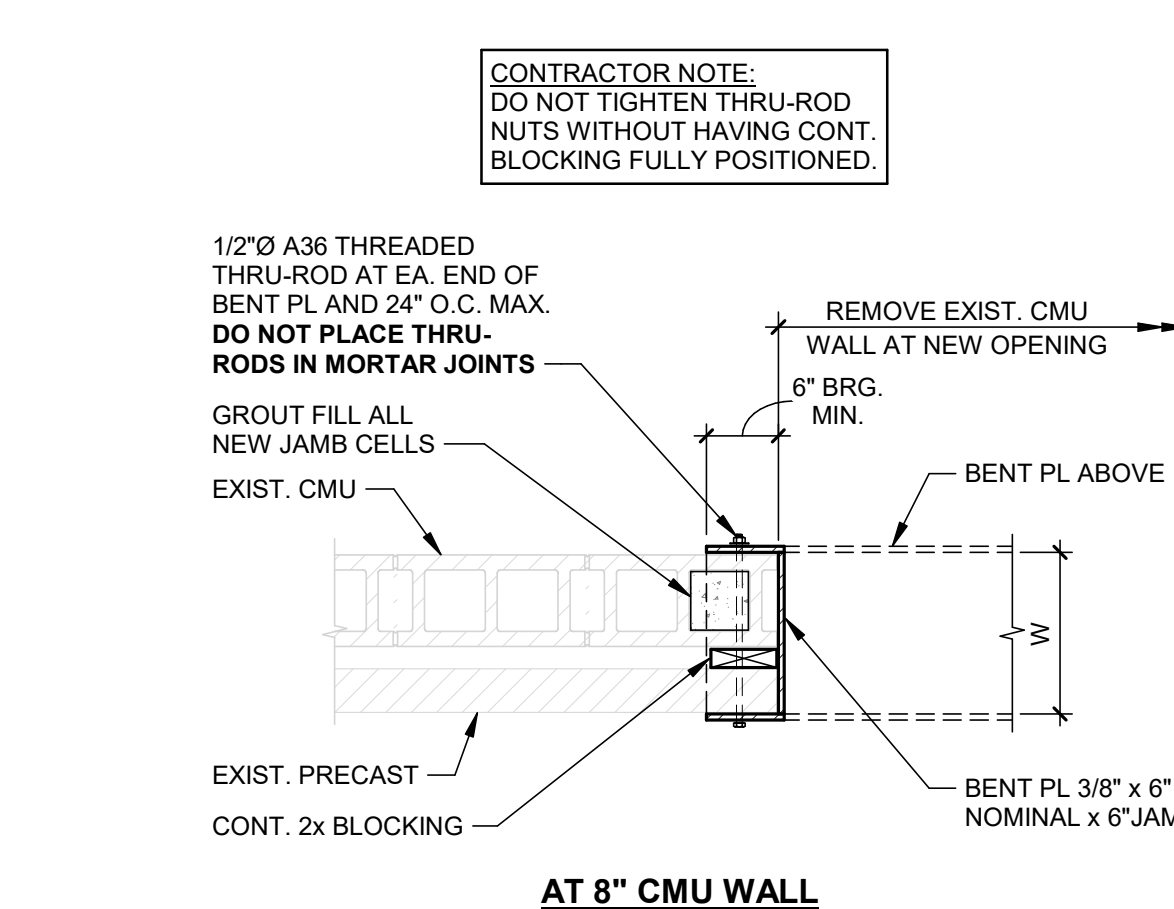
**1 NEW PRECAST WALL OPENING DETAIL**  
NOT TO SCALE

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



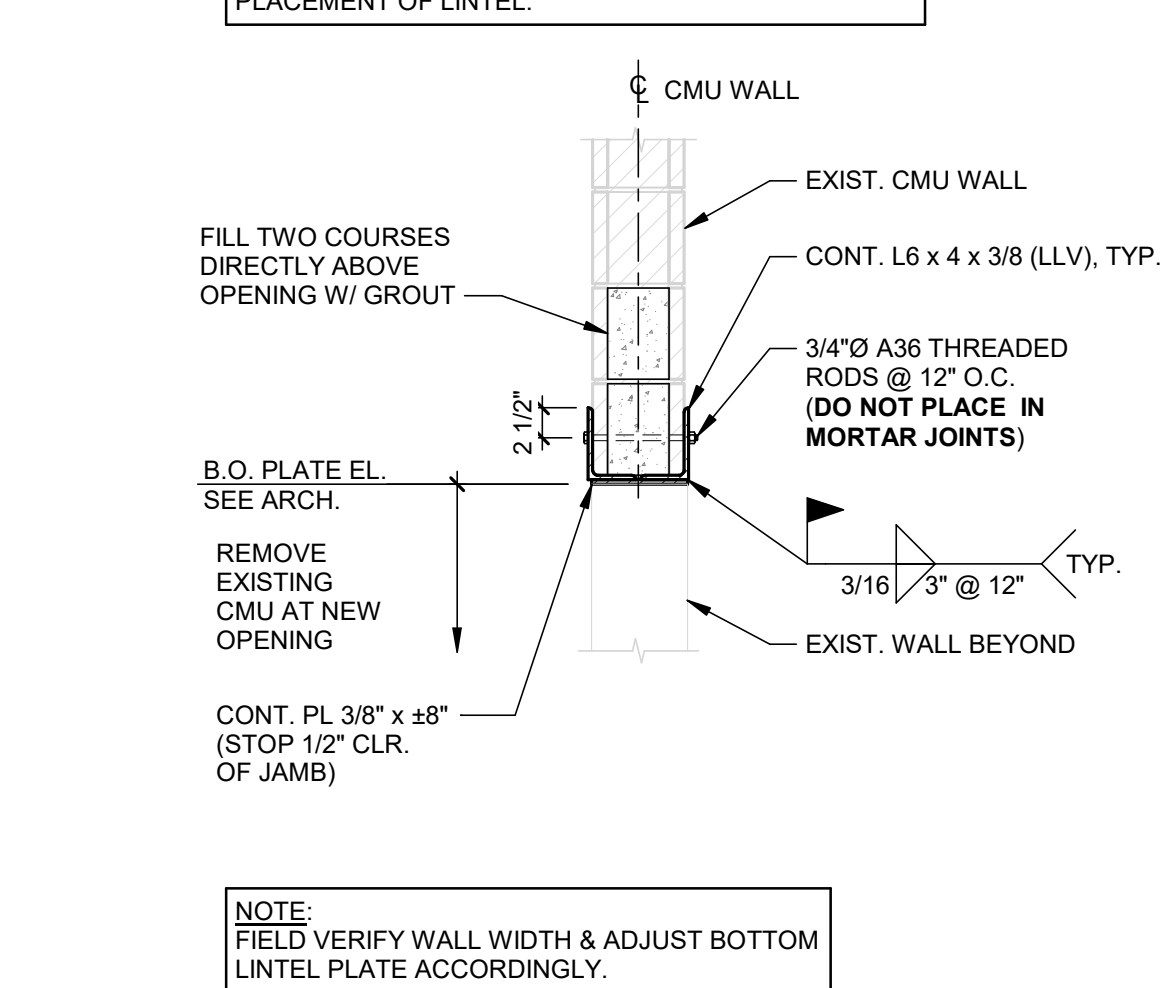
**6 LINTEL DTL.**  
3/4" = 1'-0"

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



**7 JAMB DTL.**  
3/4" = 1'-0"

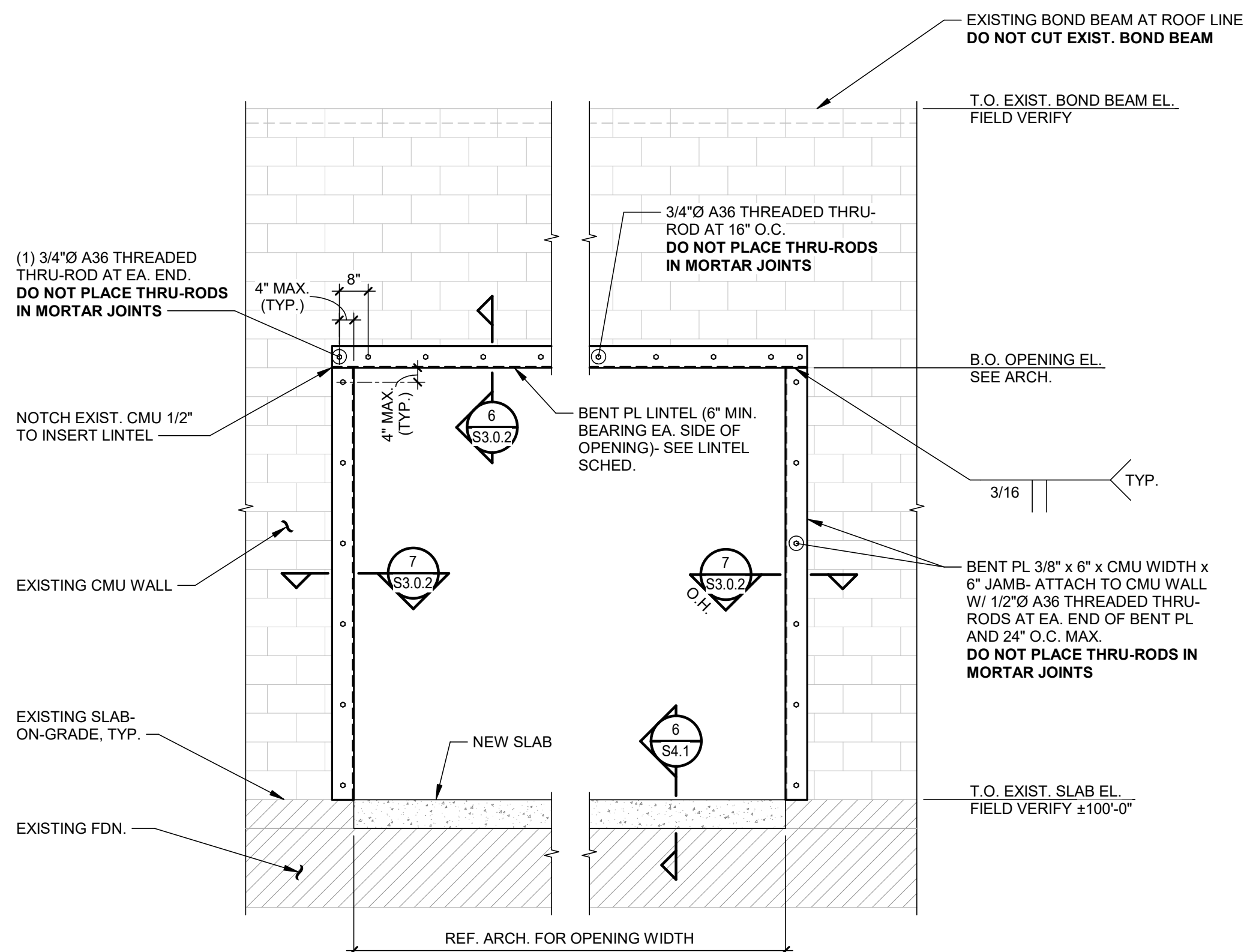
**4 SECTION**  
3/4" = 1'-0"



**8 NEW LINTEL IN EXIST. MASONRY WALL DTL.**  
NOT TO SCALE

**GENERAL NOTES:**  
1. EXISTING BOND BEAM SHALL NOT BE CUT OR DAMAGED.  
2. SHORE EXISTING STRUCTURE AS REQUIRED PRIOR TO WALL DEMOLITION, REF SPECIFICATIONS.

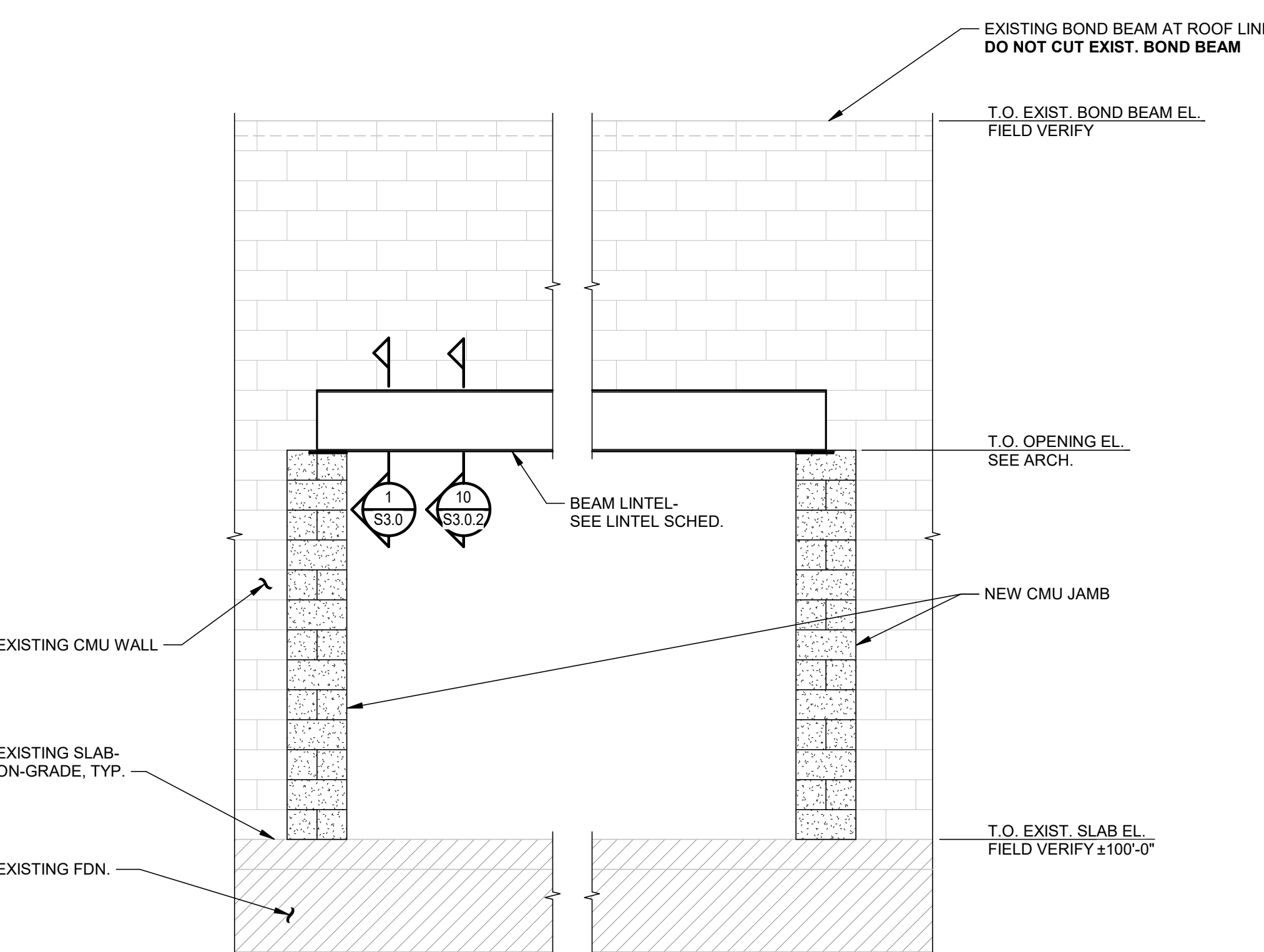
**CONTRACTOR NOTE:**  
CONTRACTOR TO REFER TO SPECIFICATIONS FOR SHORING REQUIREMENTS FOR ALL NEW OPENINGS IN EXIST. WALLS.



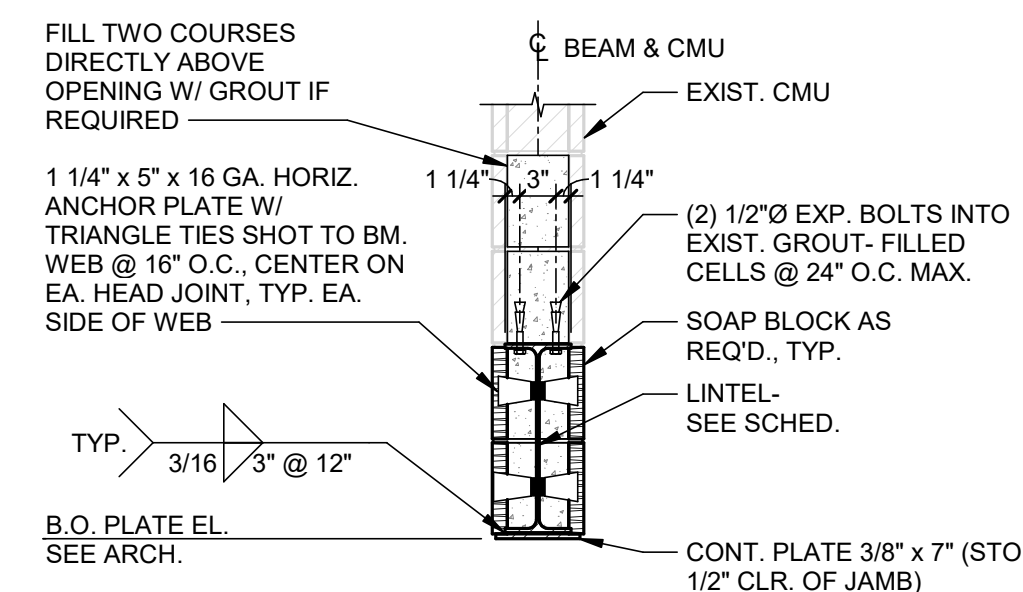
**5 NEW MASONRY WALL OPENING DETAIL**  
3/8" = 1'-0"

**GENERAL NOTES:**  
1. EXISTING BOND BEAM SHALL NOT BE CUT OR DAMAGED.  
2. SHORE EXISTING STRUCTURE AS REQUIRED PRIOR TO WALL DEMOLITION, REF SPECIFICATIONS.

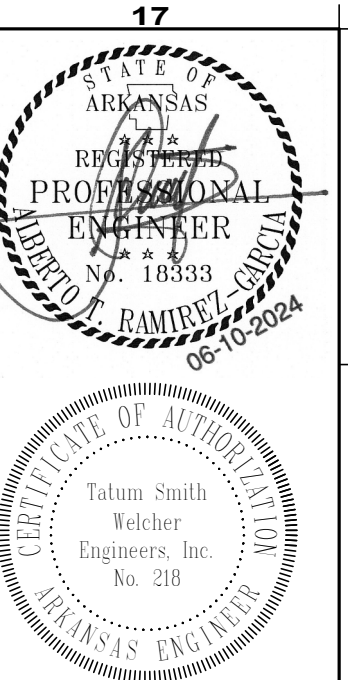
**CONTRACTOR NOTE:**  
CONTRACTOR TO REFER TO SPECIFICATIONS FOR SHORING REQUIREMENTS FOR ALL NEW OPENINGS IN EXIST. WALLS.



**9 NEW MASONRY WALL OPENING DETAIL**  
3/8" = 1'-0"



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



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BENTONVILLE, AR

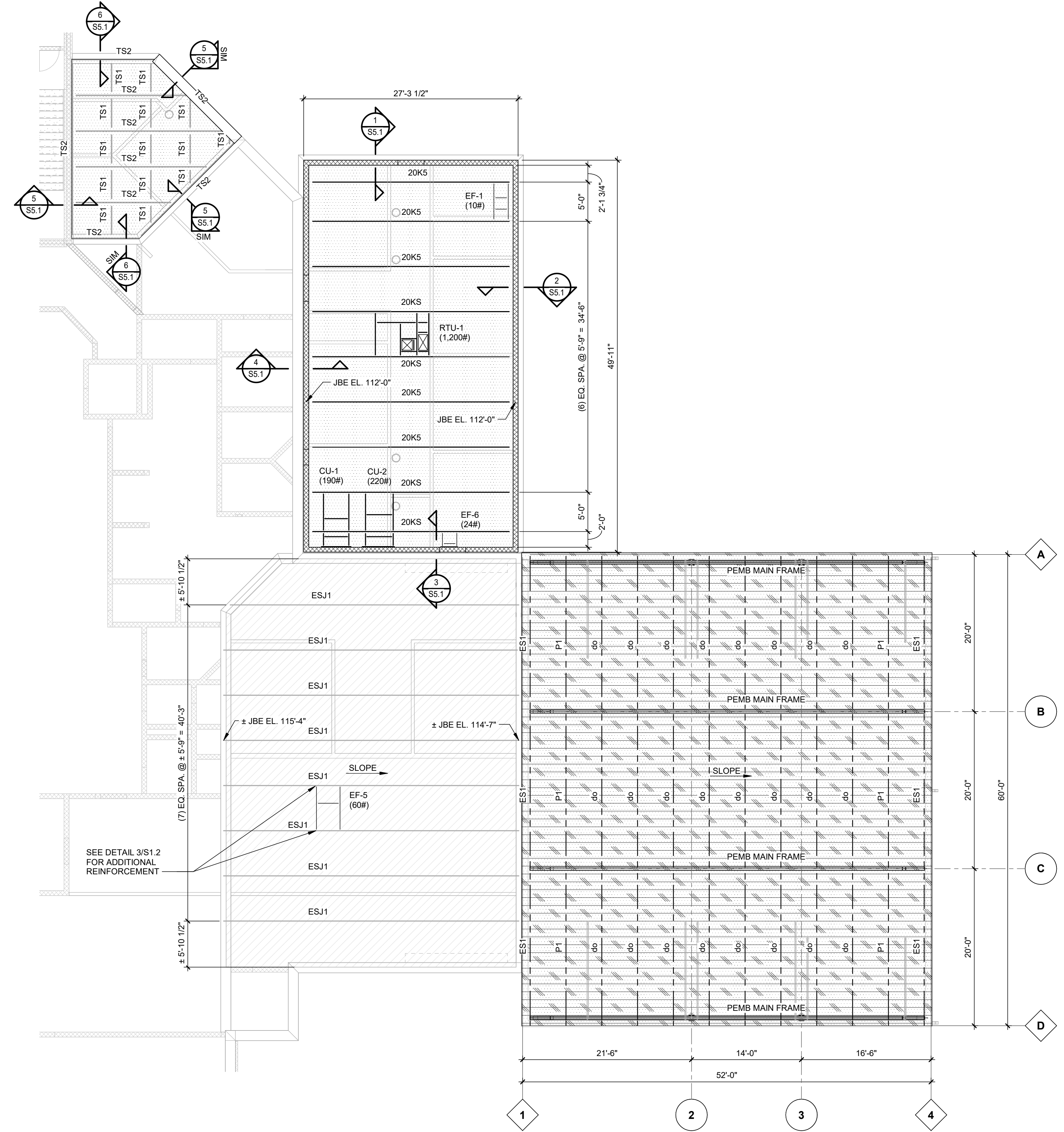
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**NOTES:**

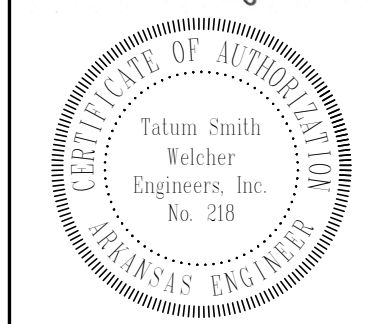
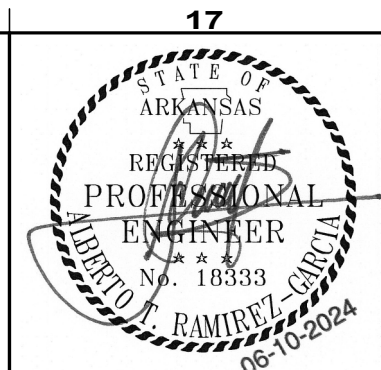
- CONTRACTOR SHALL FIELD VERIFY EXISTING CONDITIONS. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT AND STRUCTURAL ENGINEER IMMEDIATELY.
- CONTRACTOR SHALL FIELD VERIFY ALL ELEVATIONS AND DIMENSIONS PRIOR TO SETTING ROOF DECK.
- BEGINNING OF STEEL FABRICATION AND PLACEMENT OF ROOF DECK ON EXISTING FRAMING CONSTITUTES CONTRACTOR ACCEPTANCE OF EXISTING CONDITIONS.
- CONTRACTOR SHALL CLEAN ALL RUST AROUND THE EXISTING FRAMING AND PROVIDE SOME RUST TREATMENT BEFORE PLACING THE ROOF DECK.



- LEGEND:**
- O.F. DENOTES OUTSIDE FACE
  - JBE DENOTES JOIST BEARING ELEVATION
  - TOS DENOTES TOP OF STEEL
  - H.P. DENOTES HIGH POINT
  - L.P. DENOTES LOW POINT
  - ES1 DENOTES EAVE STRUT BY MBM
  - P1 DENOTES PURLIN BY MBM
  - TS1 DENOTES EXISTING JOIST TS8 x 2 x 1/4 [ ±116'-6" ]
  - TS2 DENOTES EXISTING JOIST TS10 x 2 x 3/8 [ ±116'-6" ]
  - ESJ1 DENOTES EXISTING JOIST 22x7 (VERIFY)
  - [Symbol] DENOTES FRAMED OPENING IN ROOF-COORDINATE SIZE & LOCATION W/ MECH. CONTRACTOR (SEE DTL. 2 / S1.2)
  - [Symbol] DENOTES LIMITS OF 1 1/2" x 22 GA. ROOF DECK (VERIFY)
  - [Symbol] DENOTES LIMITS OF METAL SEAM ROOF PER MBM
  - [Symbol] DENOTES LIMITS OF EXISTING 1 1/2" x 22 GA. ROOF DECK (VERIFY)
  - [Symbol] DENOTES DIRECTION OF ROOF SLOPE (COORD. PITCH W/ ARCH.)
  - (2,500#) DENOTES EQUIPMENT WEIGHT IN POUNDS
  - [Symbol] DENOTES LOAD-BEARING CMU WALL
  - [Symbol] DENOTES NON-LOAD-BEARING CMU WALL
  - (0.5k) DENOTES POINT LOAD IN KIPS

- PLAN NOTES:**
- ROOF DECK: 1 1/2" DEEP, 22 GA. PAINTED WIDE RIB STEEL DECK (SEE STEEL DECK GENERAL NOTES FOR ATTACHMENT REQUIREMENTS).
  - TOP OF STEEL EL. VARIES, SEE PLAN.
  - TOP OF "K" SERIES JOISTS (+2 1/2") TYP., (U.N.O.)
  - JOIST BEARING ELEVATION VARIES, SEE PLAN.
  - ALL ELEVATIONS BASED ON MAIN LEVEL FINISH FLOOR EL. 100'-0". ACTUAL FIN. FLR. EL. 1282.50' AS ESTABLISHED BY HALFF
  - SEE DWGS. S1.2 FOR GENERAL NOTES AND TYPICAL DETAILS.
  - SEE ARCH. DWGS., FOUNDATION, SECOND FLOOR FRAMING & OVERALL ROOF FRAMING PLANS FOR DIMENSIONS NOT SHOWN.

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



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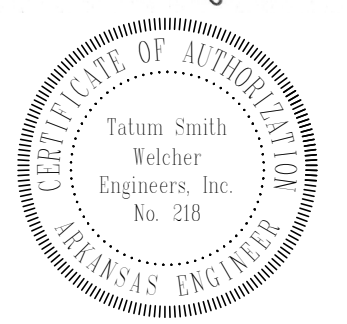
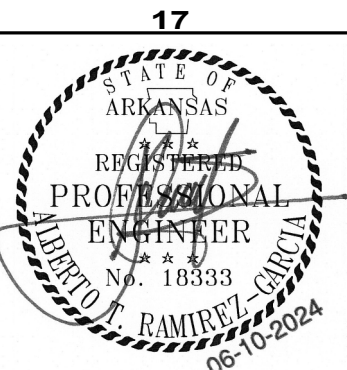
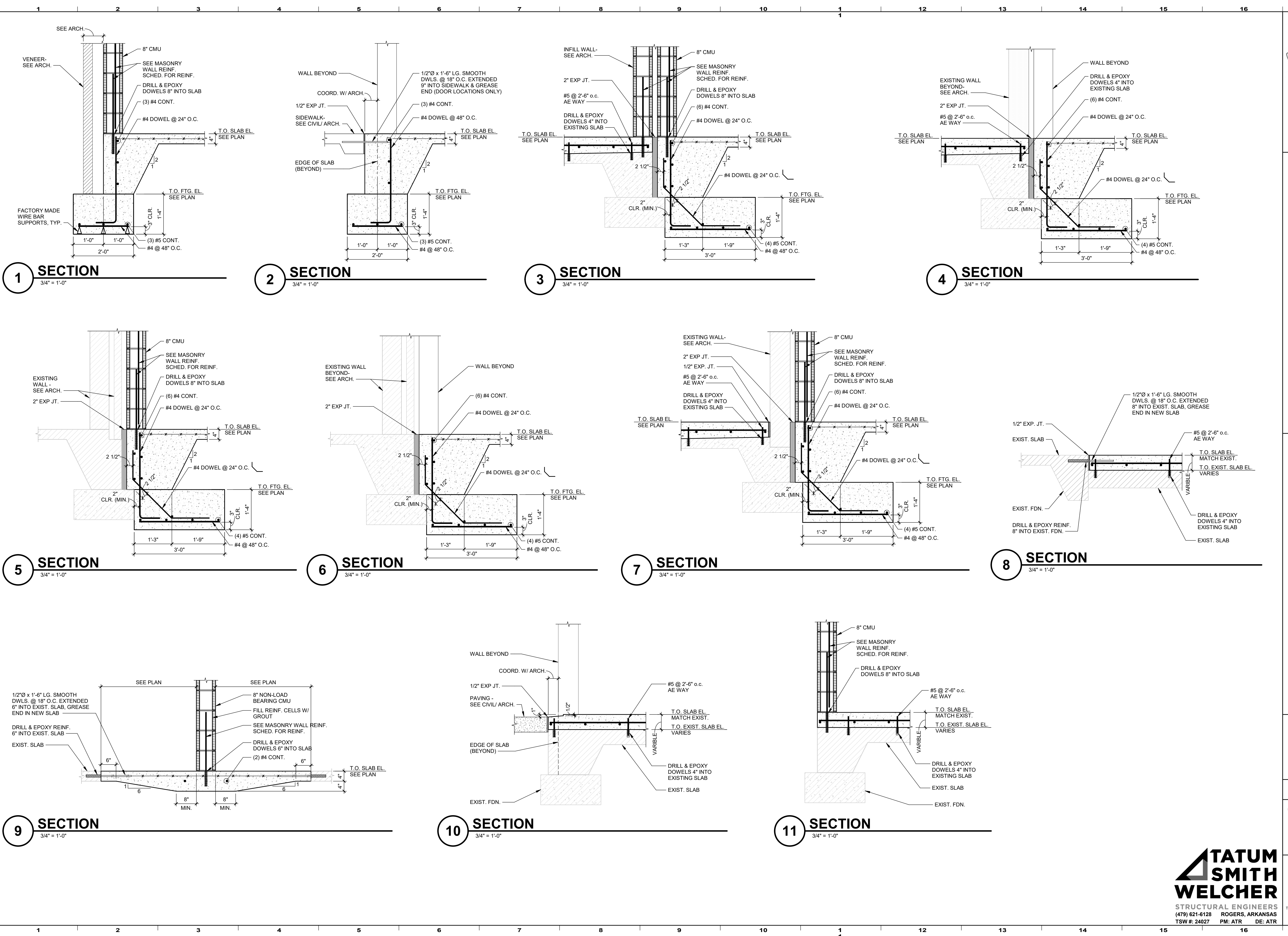
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STRUCTURAL ENGINEERS  
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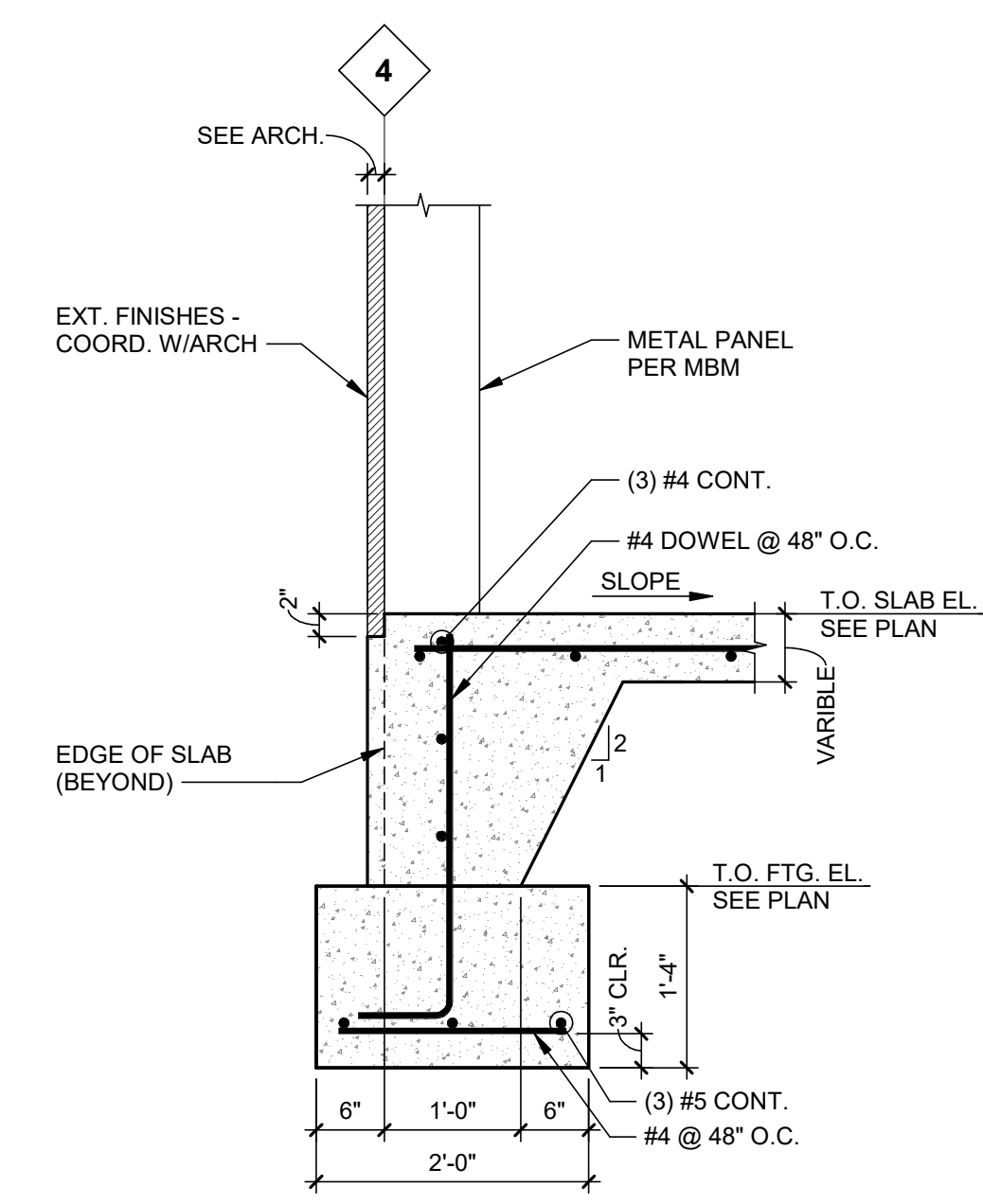
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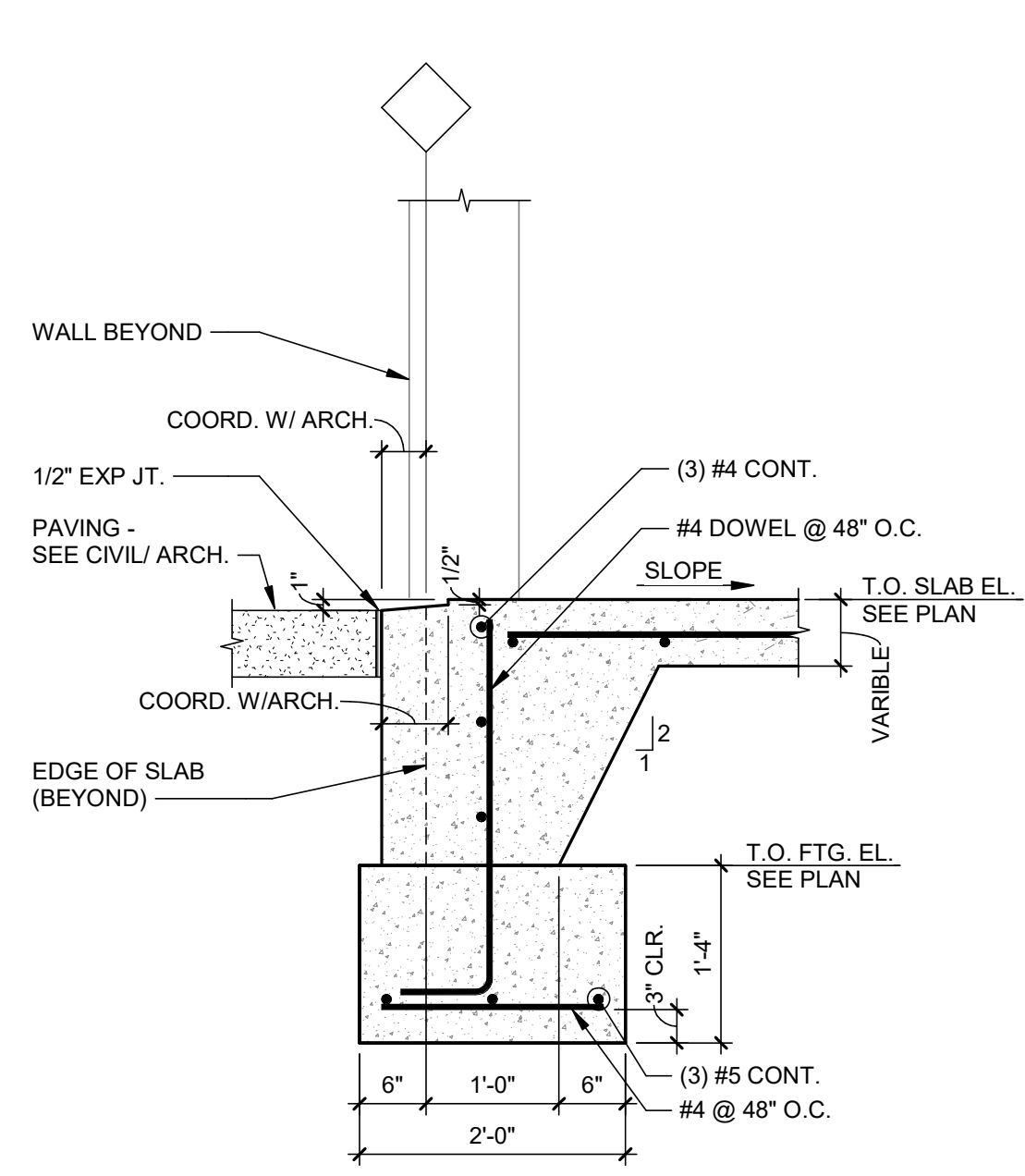
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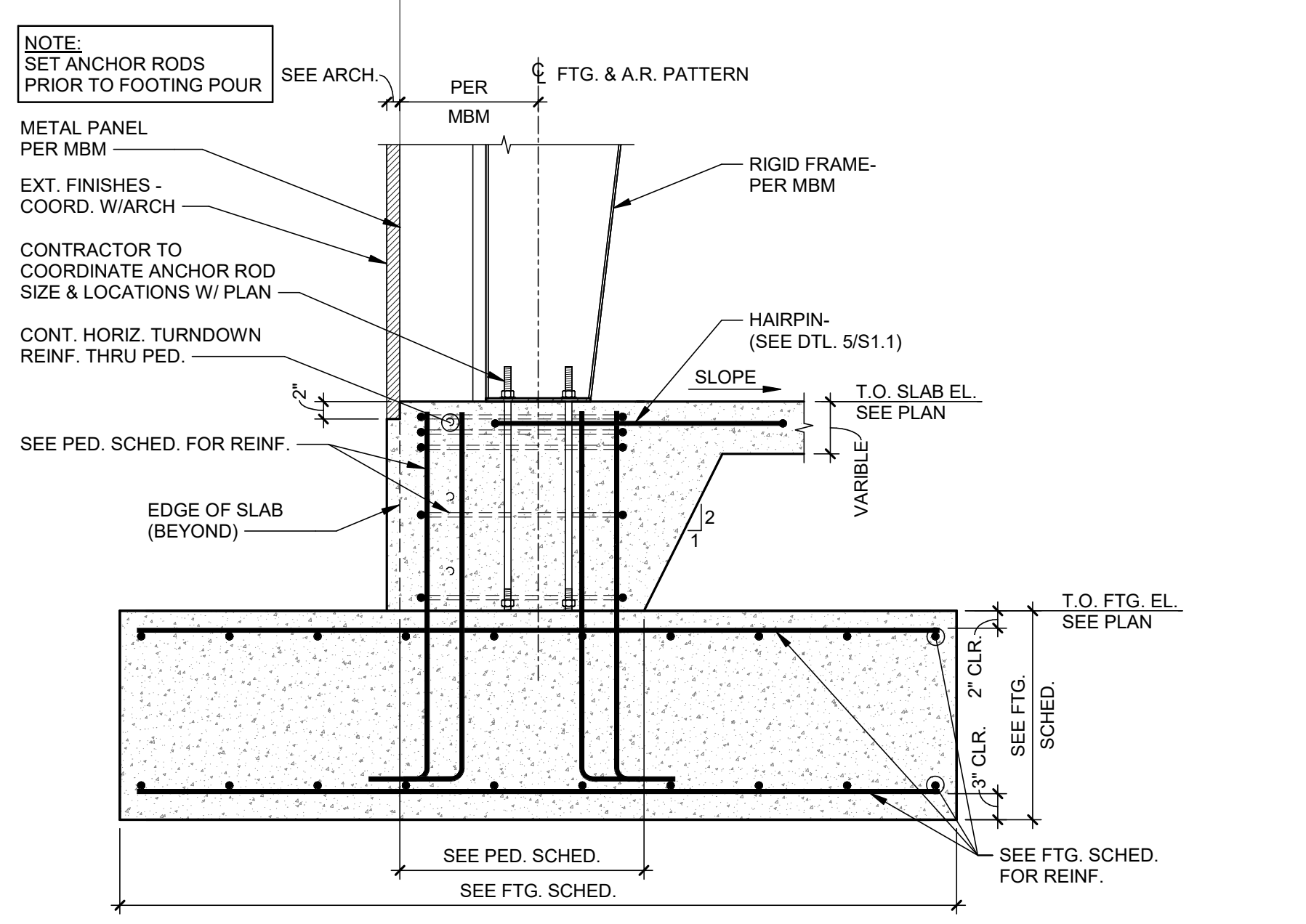




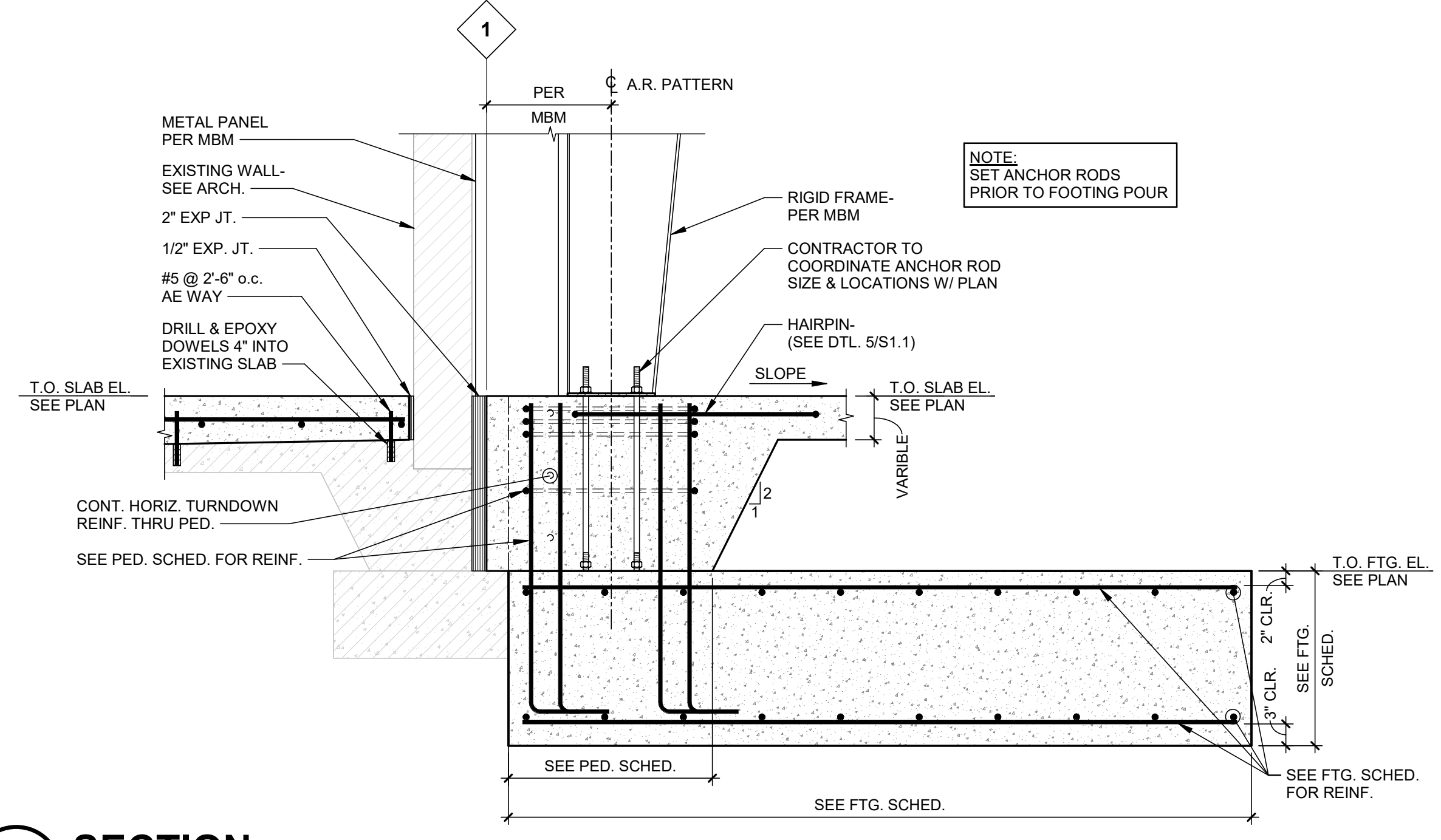
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3/4" = 1'-0"



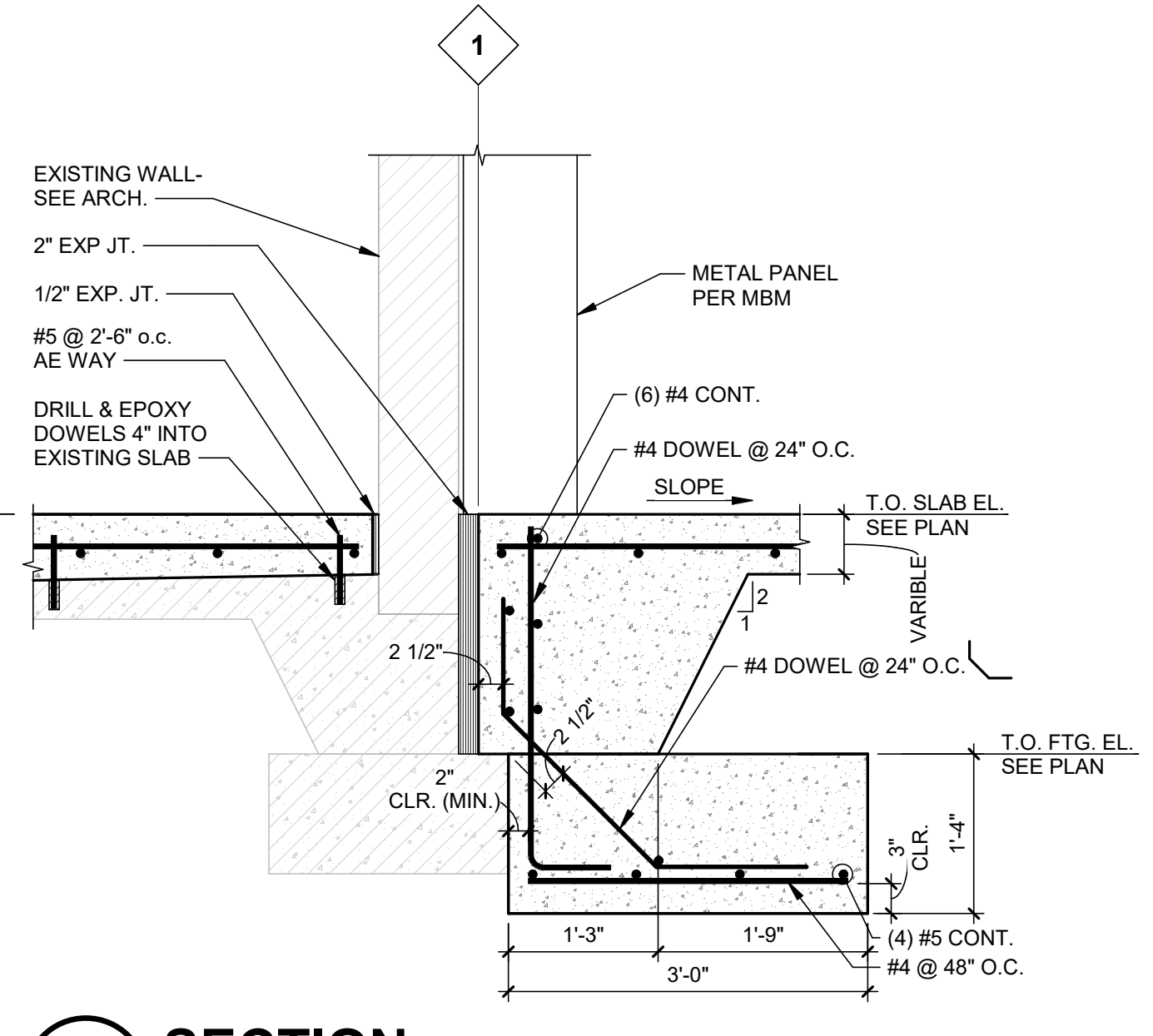
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3/4" = 1'-0"



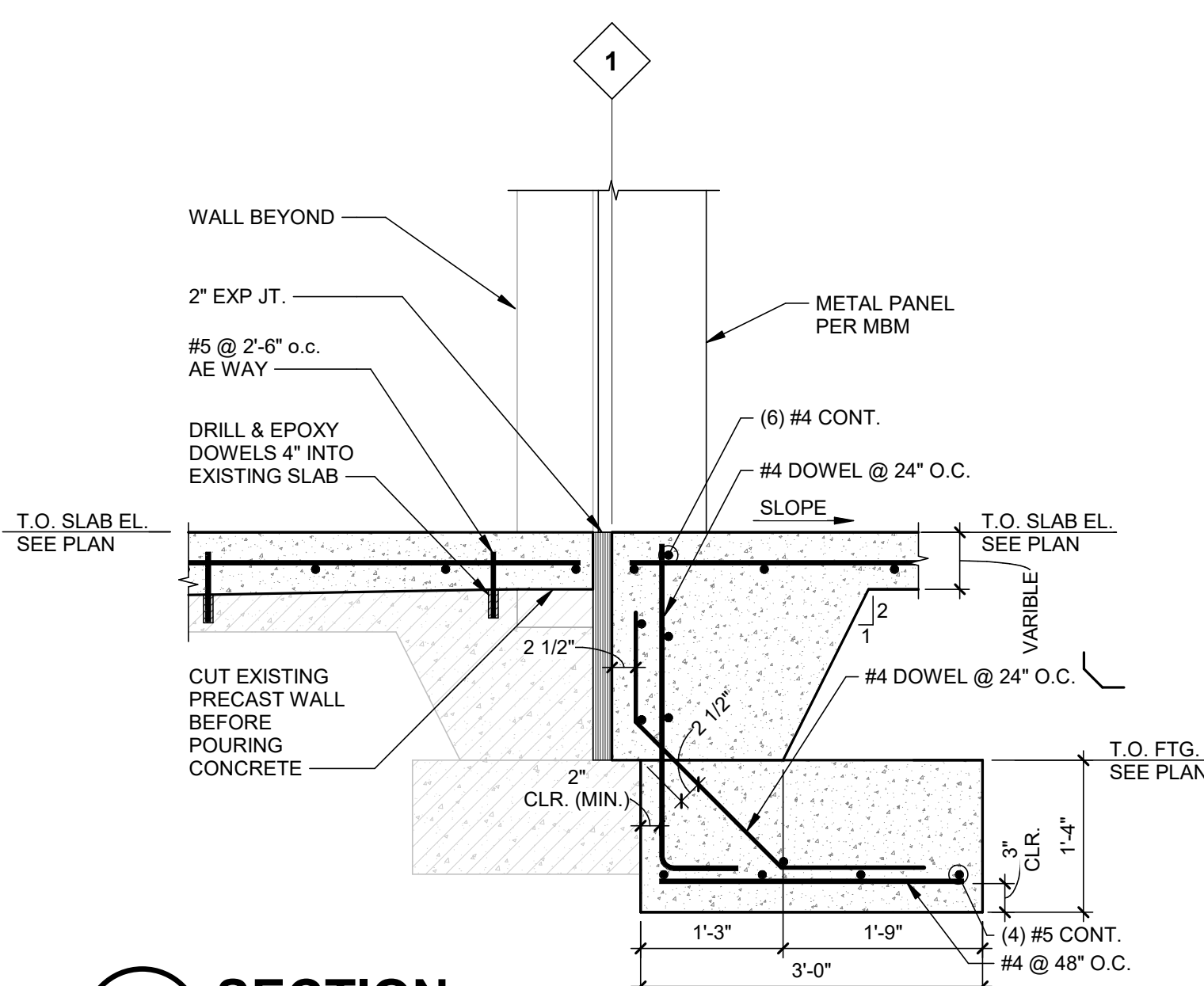
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3/4" = 1'-0"



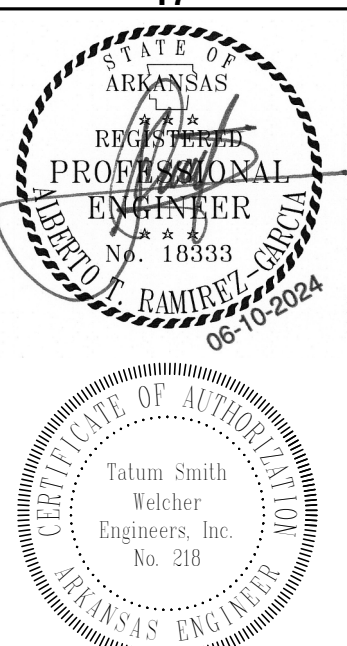
**4 SECTION**  
3/4" = 1'-0"



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



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



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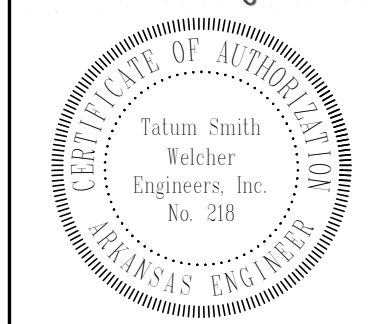
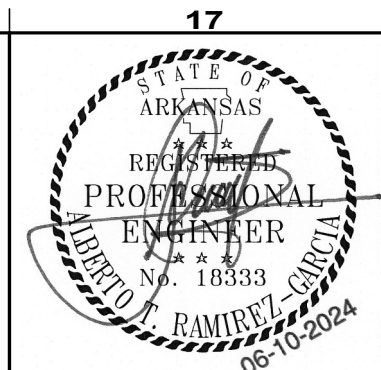
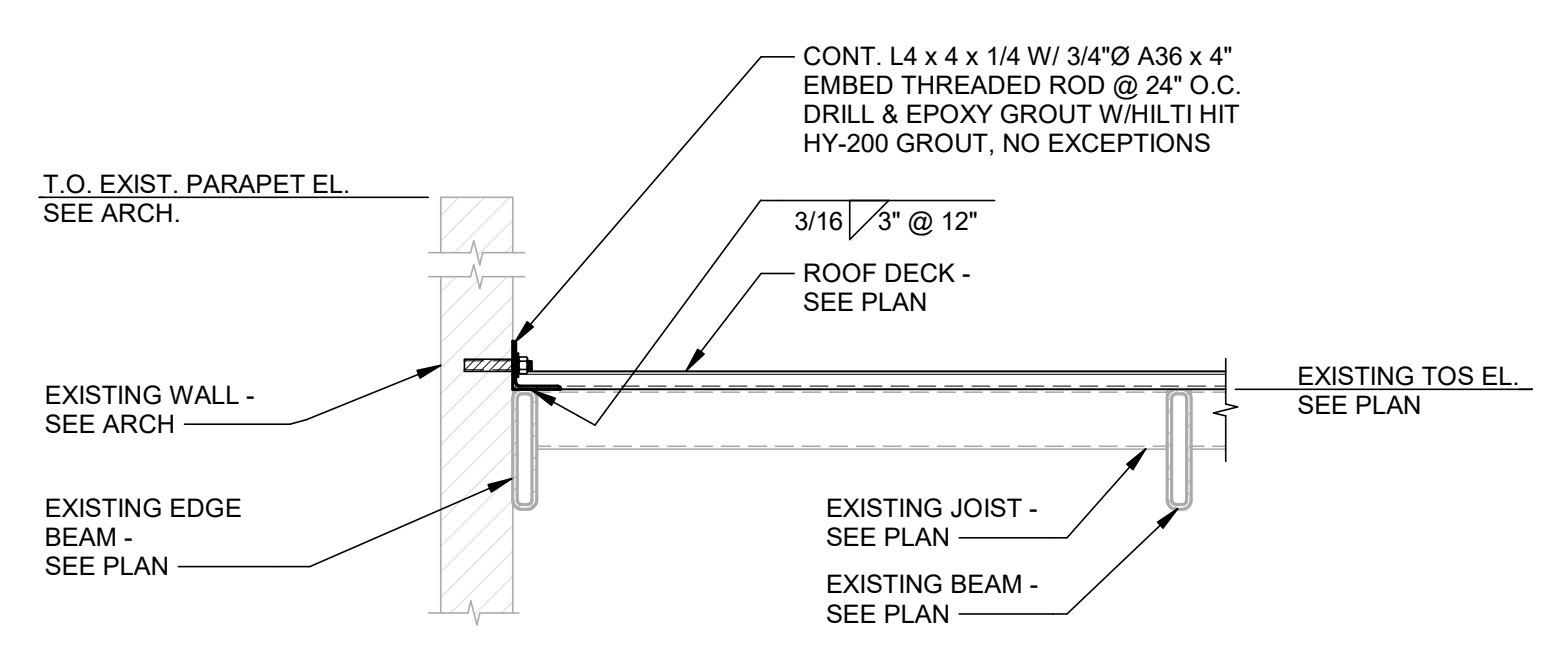
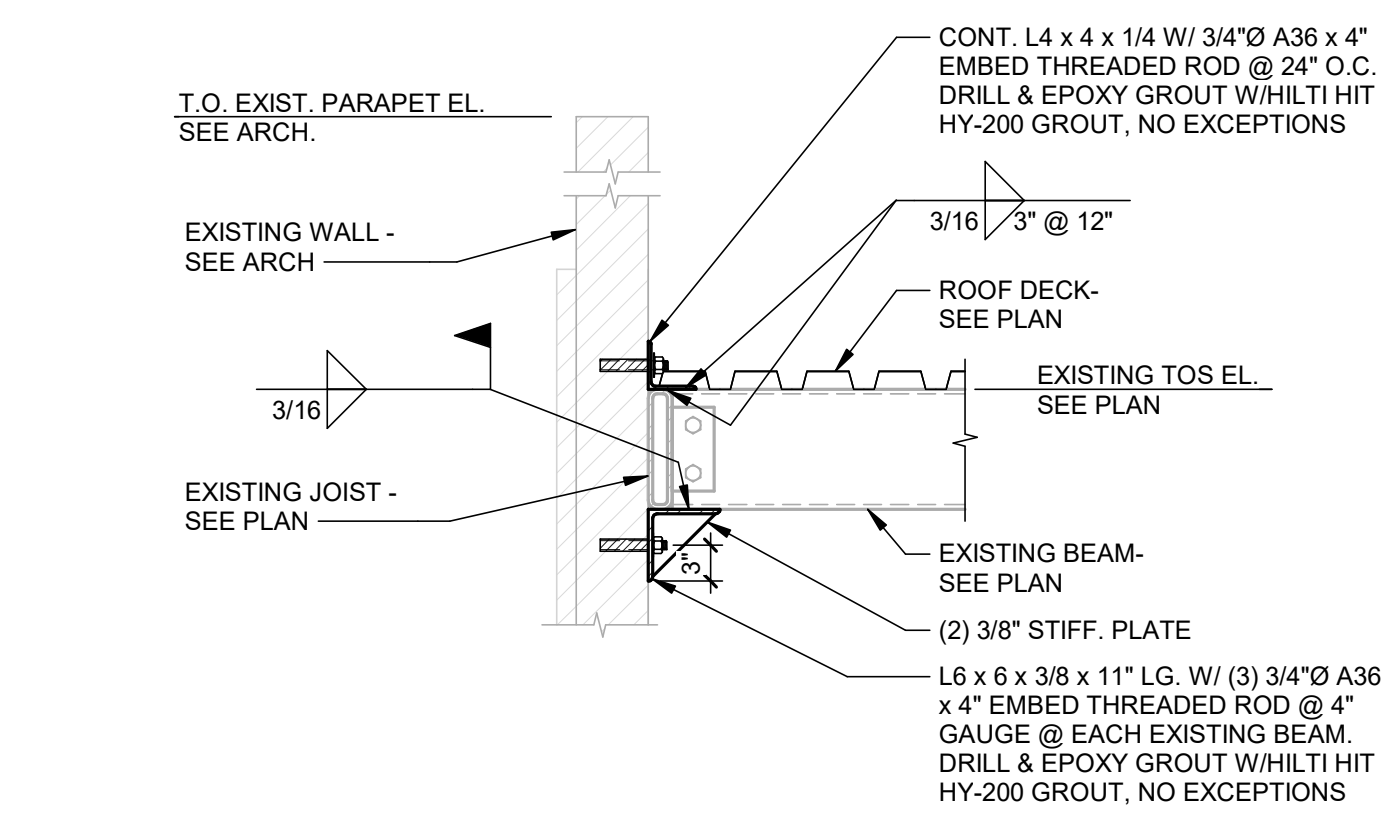
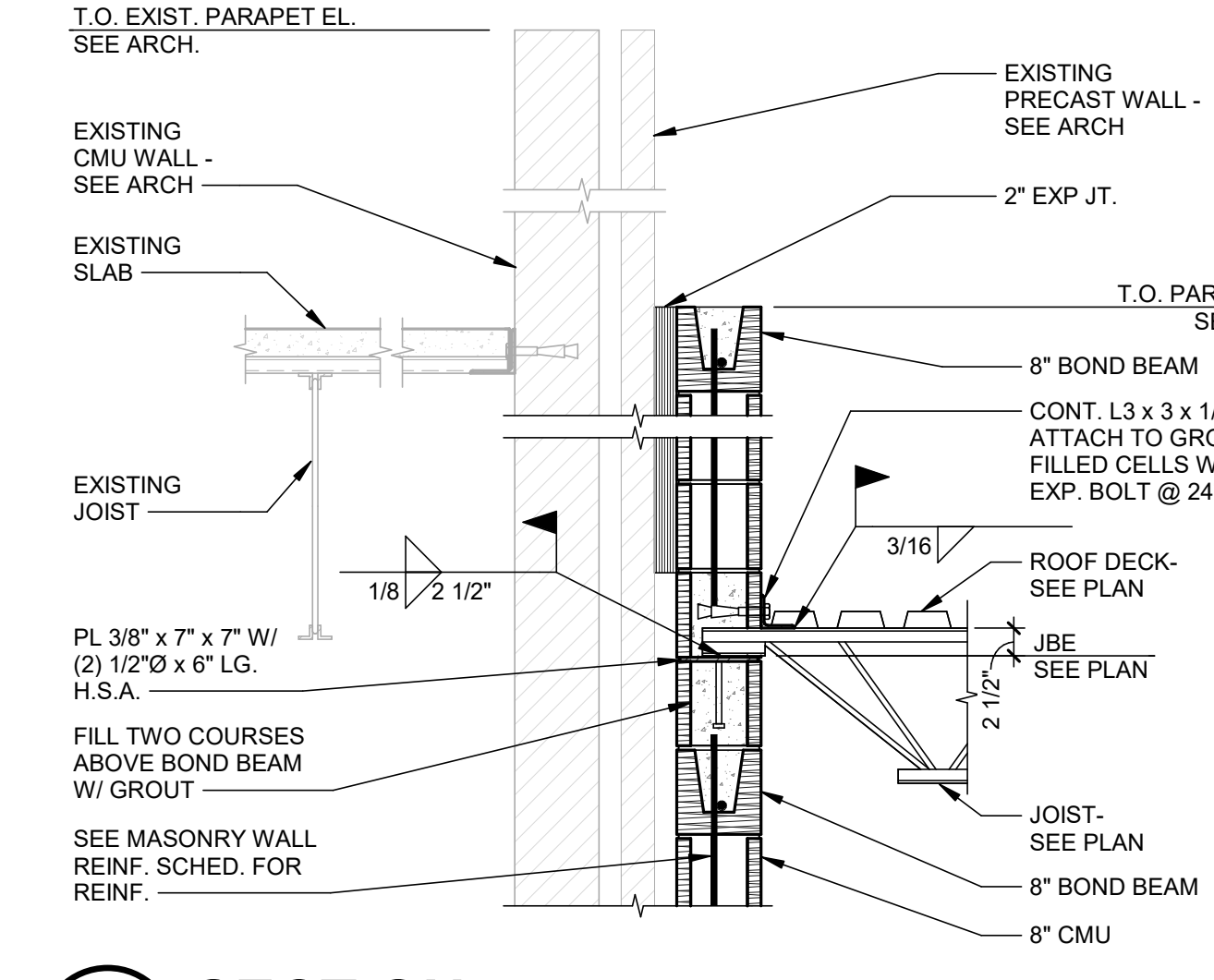
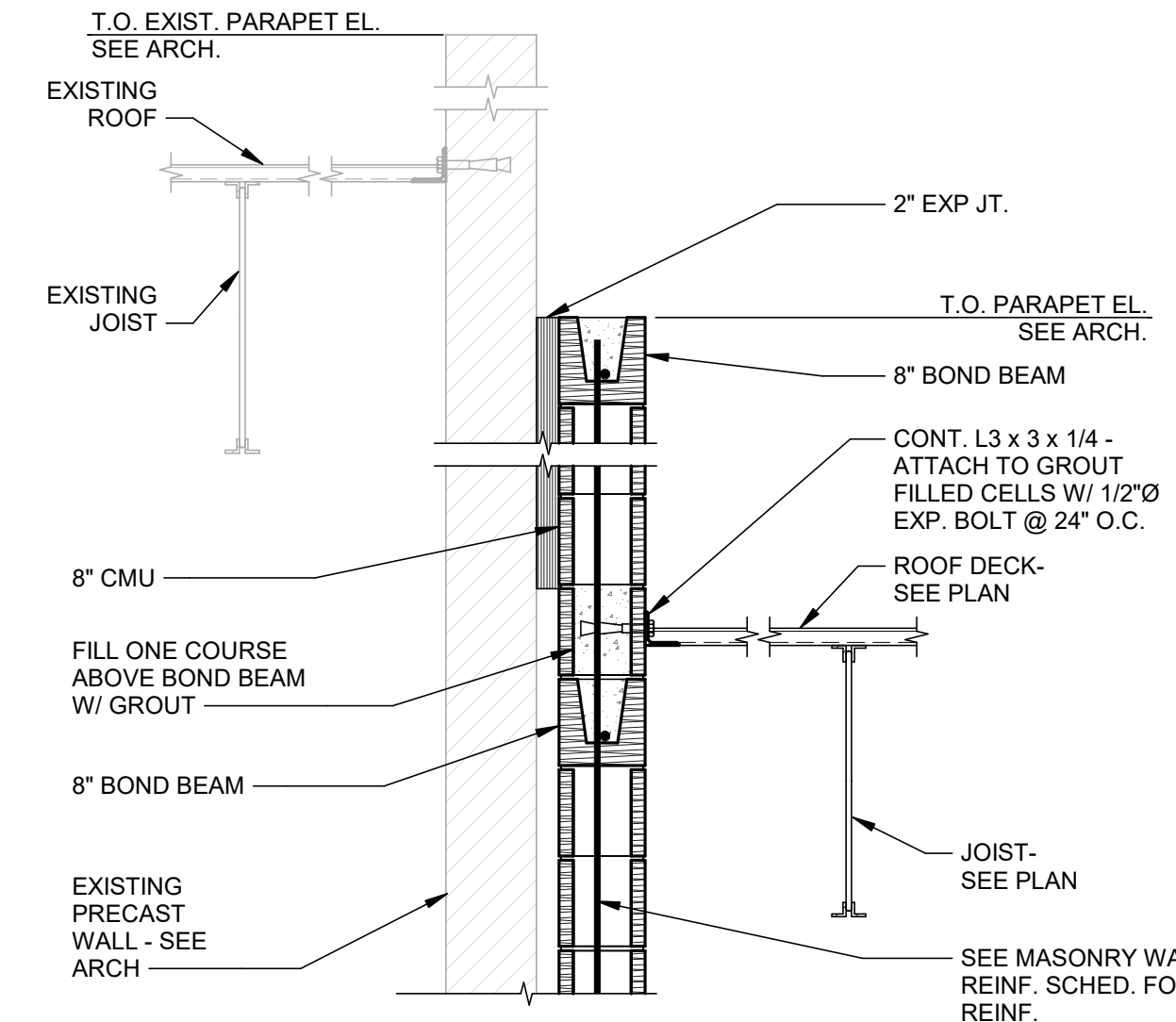
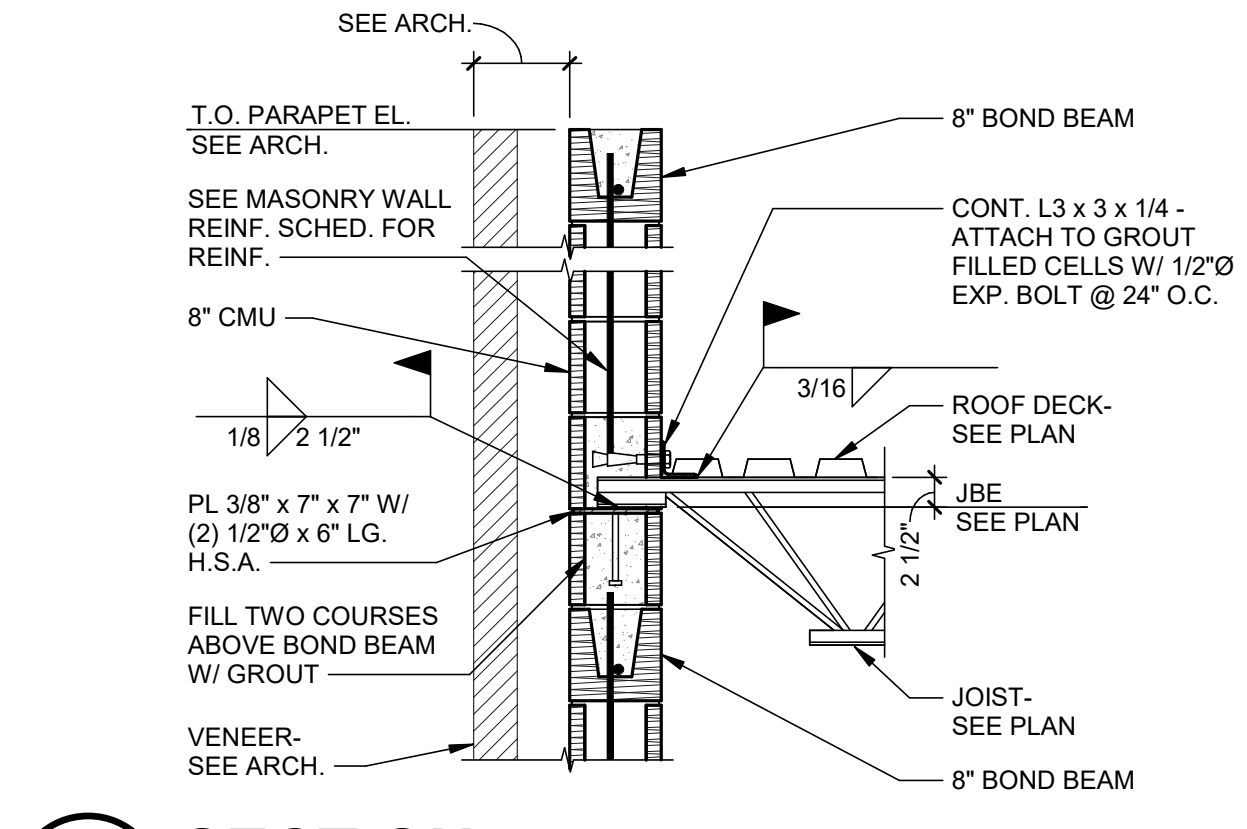
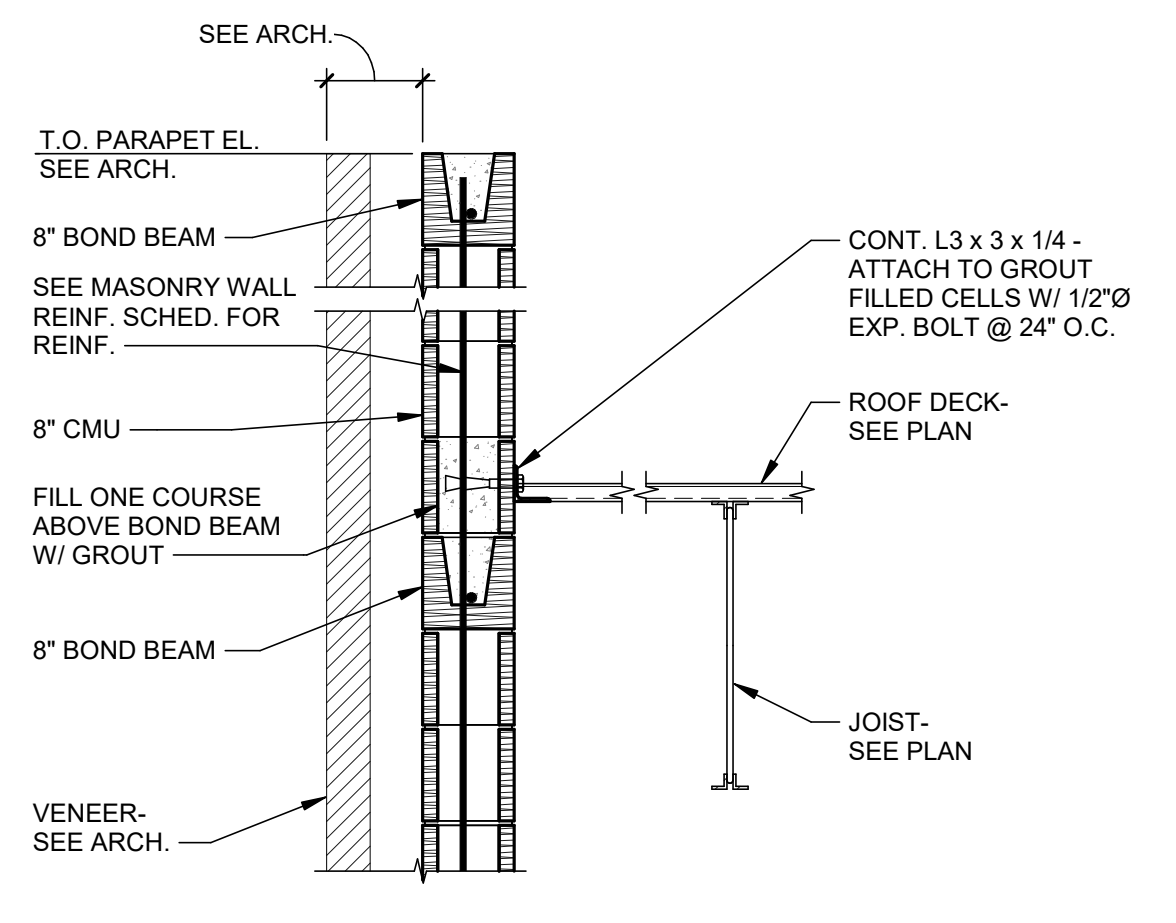
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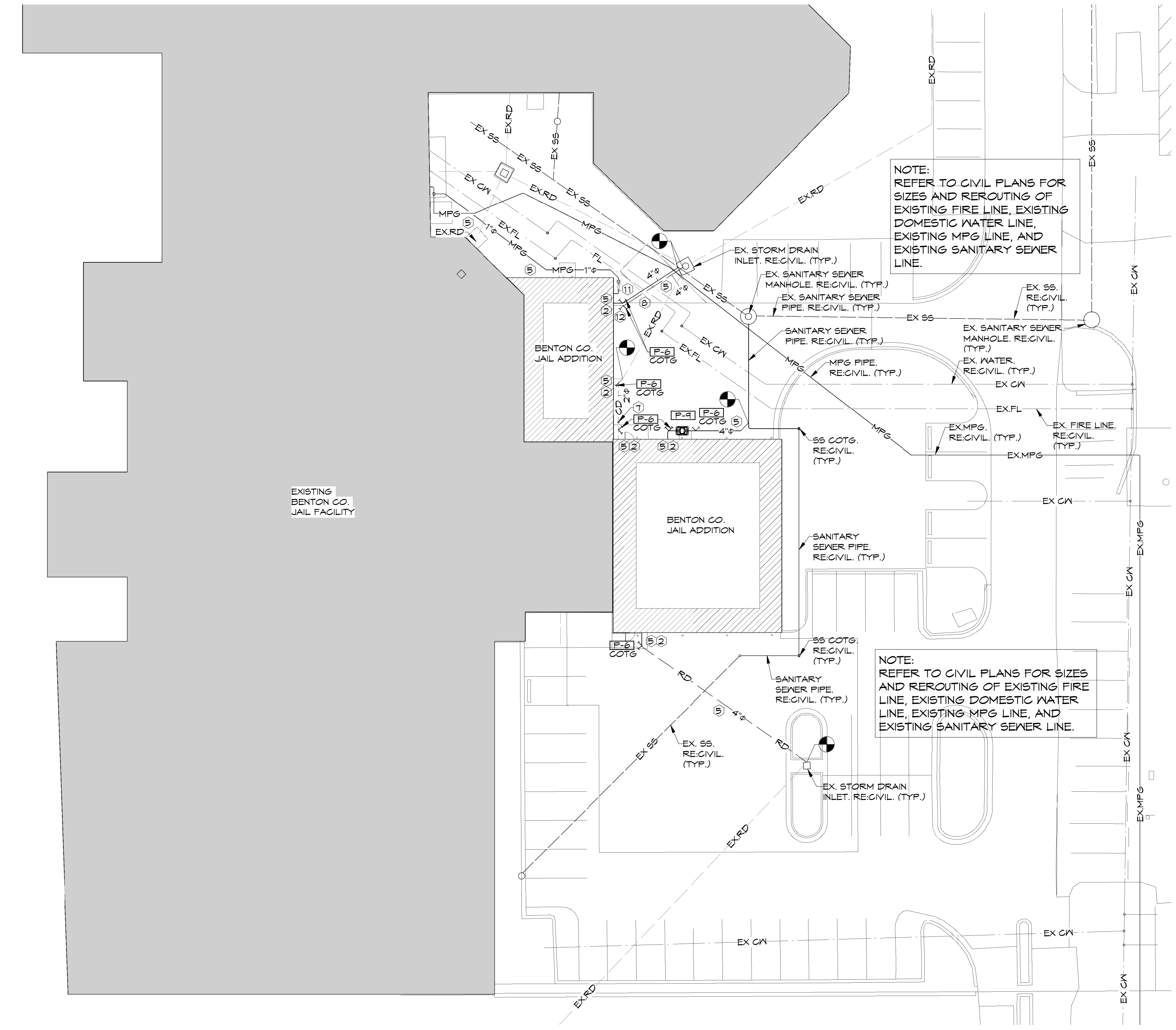
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**1** SITE UTILITY PLAN  
1" = 20'-0"



NOTES:  
RE:P1.1 FOR PLUMBING LEGEND, GENERAL AND KEYED NOTES, RE:P2.1 FOR PLUMBING FLOOR PLAN, RE:P3.1-P3.2 FOR PLUMBING DETAILS, RE:P5.1 FOR PLUMBING SCHEDULES.

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Fort Smith, AR 72916  
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## GENERAL PLUMBING NOTES

- ALL PLUMBING MATERIALS AND INSTALLATION SHALL COMPLY WITH THE ARKANSAS STATE PLUMBING CODE, LATEST EDITION.
- INSTALL ALL DOMESTIC HOT AND COLD WATER PIPING AS PER STATE AND LOCAL CODES.
- INSULATE ABOVE GRADE CONCEALED DOMESTIC HOT AND COLD WATER LINES PER SPECIFICATIONS, SECTION 22 07 19.
- INSTALL DEEP SEAL TRAPS AT ALL DRAIN CONNECTIONS.
- COORDINATE UNDER SLAB PIPING WITH COLUMNS AND FOOTINGS, REFER TO STRUCTURAL DRAWINGS.
- MINIMUM DEPTH OF COVER FOR WATER LINES IS 30 IN.
- BURY YELLOW COPPER TRACHEARY WIRE IN TRENCH WITH ALL UNDER GROUND PLASTIC SERVICES. LEAVE ENDS EXPOSED FOR FUTURE LOCATION.
- PROVIDE AND INSTALL 6 IN. DIRT LEG AND GAS STOP (BALL VALVE ONLY) AT ALL EQUIPMENT GAS CONNECTIONS.
- ALL GAS PIPING SYSTEMS WITHIN A BUILDING AND OTHER ABOVE GROUND GAS PIPING SHALL BE ELECTRICALLY CONTINUOUS AND BONDED TO A GROUNDING ELECTRODE AS DEFINED IN N.F.P.A. TO.
- VERIFY LOCATION AND SIZE OF EXISTING SITE UTILITIES WITH UTILITY AUTHORITIES PRIOR TO CONSTRUCTION.
- ALL IMPROVEMENTS (PAVEMENTS, CURB AND GUTTER, SOD, ETC.) SHALL BE REPLACED BY GENERAL CONTRACTOR TO PRECONSTRUCTION CONDITION.
- WHERE FIRE RATED PARTITIONS OR FLOORS OCCUR, ALL FLOOR TO FLOOR AND ROOM TO ROOM PENETRATIONS SHALL BE PROPERLY FIRE SEALED WITH U.L. LISTED AND CLASSIFIED FIRE CAULK OR FIRE SEALED BY USING AN APPROVED FIRE SEAL SLEEVE METHOD WHICH MEETS U.L. REQUIREMENTS. ALL OTHER PENETRATIONS OF RATED CHASES OR WALLS SHALL BE PROPERLY FIRE SEALED AND WHERE EXTENDING THROUGH SUCH RATED SURFACE SHALL BE A RATED FIRE STOP PENETRATION. ALL FIRE STOPPING, FIRE CAULKING AND FIRE SLEEVING OR OTHER FINISHES SHALL BE ACCEPTABLE BY THE LOCAL AUTHORITIES AND SHALL BEAR THE U.L. LISTING.
- INSTALL DOMESTIC WATER AND GAS LINES TIGHT AGAINST BUILDING ROOF STRUCTURE.
- VERIFY LOCATION, INVERT AND SIZE OF ALL EXISTING UTILITIES PRIOR TO BEGINNING CONSTRUCTION.
- CONDENSATE PIPING FROM ROOF TOP AIR CONDITIONERS SHALL BE SCHEDULE 40 PVC. PROVIDE CONDENSATE TRAP, ROUTE CONDENSATE LINE TO NEAREST ROOF DRAIN.
- PROVIDE WEATHERPROOF PIPE BOOT WITH TPO MEMBRANE AS FLASHING AND STAINLESS STEEL CLAMPING RING FOR ALL GAS LINES PENETRATING THE ROOF.
- ALL MECHANICAL INSTALLATIONS SHALL CONFORM TO THE LATEST ACCEPTABLE ARKANSAS STATE MECHANICAL CODE.
- ALL WATER AND SEWER LINE MATERIALS AND INSTALLATION METHODS SHALL BE IN ACCORDANCE WITH THE CITY OF BENTONVILLE STANDARD SPECIFICATIONS FOR PUBLIC WORK CONSTRUCTION AS WELL AS THE ARKANSAS STATE PLUMBING CODE.
- HORIZONTAL BRANCHES SHALL CONNECT TO HORIZONTAL STACK OFFSETS AND TO THE BASES OF STACKS AT A POINT LOCATED NOT LESS THAN 10 PIPE DIAMETERS DOWNSTREAM FROM THE STACK.
- CONTRACTOR SHALL PROVIDE "AS BUILT" DRAWINGS OF ALL PLUMBING AND PIPING SYSTEMS UPON COMPLETION OF THE PROJECT.
- THE CONTRACTOR SHALL FAMILIARIZE HIMSELF WITH THE DRAWINGS, THE BUILDING SITE, AND OTHER INFORMATION PRESENTED FOR THE CONSTRUCTION OF THIS PROJECT. IF CONTRACTOR HAS QUESTIONS REGARDING ASSEMBLIES OR LAYOUTS WITH THE PROJECT HE SHALL MAKE THEM KNOWN TO THE ENGINEER IN WRITING PRIOR TO BIDDING THE PROJECT. CLAIMS MADE SUBSEQUENT TO THE BID WILL NOT BE ACCEPTED IF IT IS DETERMINED THAT PROPER FAMILIARIZATION COULD HAVE AVOIDED SUCH CLAIM.
- MECHANICAL CONTRACTOR SHALL COORDINATE INSTALLATION PLUMBING SITE UTILITIES WITH SITE WORK OF OTHER TRADES. IN INSTANCES WHERE COORDINATION REQUIRES DEVIATION FROM PLANS MECHANICAL CONTRACTOR SHALL NOTIFY ENGINEER OF PROPOSED CHANGES.
- COMPLY WITH STATE OF ARKANSAS ADOPTED ADA ACCESSIBLE GUIDELINES IN REGARD TO ACCESSIBLE FEATURES
- PROVIDE DRIP PAN FOR ENTIRE LENGTH OF PIPE WHERE PIPE MUST BE INSTALLED ABOVE ELECTRICAL EQUIPMENT.
- DO NOT ROUTE GROUPS OF CONDUIT, PIPES, AND SLEEVES ABOVE FOOTINGS UNLESS NOTED TO DO SO. IF CONFLICT OCCURS, CONSULT ARCHITECT/ENGINEER
- LIMIT WIDTH OF CONDUIT, PIPES AND SLEEVES NOT TO EXCEED 3 FEET IN WIDTH AS IT PASSES UNDER WALL FOOTING. AS MUCH AS POSSIBLE ALIGN THE ITEMS PERPENDICULAR TO THE FOOTING AS IT PASSES BELOW FOOTING.
- PROVIDE A MINIMUM SPACING OF 2 FEET BETWEEN CONDUIT OR PIPE GROUPS AS ITEMS PASS UNDER FOOTINGS.
- DO NOT ROUTE CONDUITS, PIPE OR SLEEVES UNDER COLUMN FOOTINGS OR PAD FOOTINGS.
- MECHANICAL CONTRACTOR MUST REVIEW ALL ARCHITECTURAL DRAWINGS FOR EXACT LOCATION OF PLUMBING FIXTURES, ROOF OVERFLOW AND FLOOR DRAINS. IF PLUMBING FIXTURES OR DRAINS ARE SHOWN ON THE ARCHITECTURAL DRAWINGS THEY MUST BE INCLUDED IN THE CONTRACT EVEN IF NOT SHOWN ON THE MECHANICAL DRAWINGS.
- WHERE THE BUILDING SEWER IS INSTALLED WITHIN 10 FEET OF THE WATER SERVICE THE WATER SERVICE PIPE SHALL BE A MINIMUM OF 12 INCHES ABOVE THE TOP OF THE HIGHEST POINT OF THE SEWER. REQUIRED SEPARATION DISTANCE SHALL NOT APPLY WHERE A WATER SERVICE PIPE CROSSES A SEWER PIPE IS SLEEVED 10 FEET HORIZONTALLY FROM THE SEWER PIPE CENTERLINE ON BOTH SIDES OF SUCH PIPE CROSSINGS.
- DO NOT SCALE DIRECTLY FROM THE PLUMBING DRAWINGS. REFER TO ARCHITECTURAL DRAWINGS FOR ALL DIMENSIONAL INFORMATION.
- ALL PLUMBING SANITARY WASTE AND VENT PIPING INSTALLED IN FIRE RATED WALLS OR FLENUM RETURN AIR SYSTEMS SHALL BE CAST IRON. REFER TO ARCHITECTURAL PLANS FOR LIFE SAFETY INFORMATION.

## PLUMBING KEYED NOTES

- INSTALL AN APPROVED TRAP GUARD PRODUCT THAT CONFORMS TO NSF-14, CSA B602-99 AND CSA B79-94.
- COORDINATE UNDERSLAB PIPING WITH STRUCTURAL FOOTINGS. REFER TO STRUCTURAL PLANS FOR LOCATIONS AND SIZES OF FOOTINGS.
- PROVIDE AND INSTALL 6 INCH DIRT LEG AND GAS STOP (BALL VALVE ONLY) AT ALL EQUIPMENT GAS CONNECTIONS. REFER TO DETAIL T/P3.1.
- MECHANICAL CONTRACTOR SHALL NOT INSTALL ANY WATER LINES ABOVE ELECTRICAL PANELS. REFER TO ELECTRICAL PLANS FOR PANEL LOCATIONS.
- IDENTIFY OUTDOOR UNDERGROUND LINES WITH CONTINUOUS STRIP OF PLASTIC UTILITY MARKER. TAPE SHOULD STATE AT REGULAR INTERVALS: "CAUTION (STATE UTILITY) PIPE BELOW". INSTALL TAPE ONE FOOT DIRECTLY ABOVE PIPE BEFORE BACKFILLING TO GRADE.
- CONTROL PANEL FOR SLICK STICK OIL LEVEL MONITORING SYSTEM FOR P-9. COORDINATE CONDUIT TO P-9 TANK WITH ELECTRICAL CONTRACTOR.
- PROVIDE RELIEF POPPER PRIOR TO 2" CD CONNECTION TO BELOW GRADE STORM DRAIN SYSTEM. RE:2/P3.2 FOR DETAIL.
- TOP OF NEW SANITARY SEWER PIPE TO BE ROUTED A MINIMUM OF 18" BELOW BOTTOM OF RELOCATED WATER AND FIRE LINES. REFER TO CIVIL FOR EXACT ROUTING OF WATER AND FIRE LINES.
- MAINTAIN A MINIMUM OF 10 FT. CLEARANCE BETWEEN ALL EXHAUST OUTLETS, FLUES, PLUMBING VENTS AND ANY FRESH AIR INTAKES. IF 10 FT. CLEARANCE CAN NOT BE MAINTAINED EXHAUST OUTLET, FLUE, OR VENT MUST TERMINATE AT A POINT AT LEAST 36 IN. ABOVE HIGHEST FRESH AIR INTAKE WITHIN 10 FT. LIMIT.
- MECHANICAL CONTRACTOR SHALL INSTALL ALL EQUIPMENT, FANS AND APPLIANCES A MINIMUM OF 10 FEET FROM A ROOF EDGE OR OPEN SIDE WHERE SUCH EDGE OR OPEN SIDE IS GREATER THAN 30 INCHES ABOVE A FLOOR, ROOF OR GRADE BELOW. GUARD RAILS A MINIMUM OF 42 INCHES THE ELEVATED SURFACE SHALL BE PROVIDED AND INSTALLED BY THE GENERAL CONTRACTOR AND EXTENDED A MINIMUM OF 30 INCHES BEYOND EACH END OF SUCH EQUIPMENT, FAN OR APPLIANCE WHERE APPLIANCES, EQUIPMENT, FANS OR OTHER COMPONENTS ARE LOCATED WITHIN THE REQUIRED 10 FOOT CLEARANCE REQUIREMENT. THE GUARD SHALL BE CONSTRUCTED SO AS TO PREVENT THE PASSAGE OF A 21 INCH DIAMETER SPHERE AND COMPLY WITH THE LOADING REQUIREMENTS FOR GUARDS SPECIFIED IN THE LATEST ACCEPTED INTERNATIONAL BUILDING CODE.
- GAS REGULATOR EQUAL TO EQUIMETER MODEL 243. INLET PRESSURE @ 5 PSI, SET OUTLET PRESSURE @ 11 IN. W.C. ESTIMATED CONNECTED LOAD = 390 MBH. ESTIMATED L<sub>250'</sub>.
- INVERT OF 4" SS AT EXIT LOCATION IS 64" BELOW FINISHED FLOOR.
- ROUTE 2" GAS PIPING UP THROUGH EXTERIOR WALL AT 1/2" 3'-0" ABOVE FINISHED GRADE. SEAL PIPE PENETRATION WATER TIGHT. ROUTE 2" GAS PIPING UP INSIDE WALL TO ELEVATION ABOVE CEILING IN TOILET 113.

## PLUMBING LEGEND

	SANITARY WASTE PIPING
	EXISTING SANITARY WASTE PIPING
	OIL COLLECTION SANITARY WASTE PIPING
	VENT PIPING
	EXISTING VENT PIPING
	COLD WATER PIPING
	EXISTING COLD WATER PIPING
	HOT WATER PIPING
	EXISTING HOT WATER PIPING
	HOT WATER RETURN PIPING
	MEDIUM PRESSURE GAS PIPING (5 PSIG)
	LOW PRESSURE GAS PIPING (11 IN. W.C.)
	EXISTING MEDIUM PRESSURE GAS PIPING
	EXISTING LOW PRESSURE GAS PIPING
	CONDENSATE DRAIN PIPING
	ROOF DRAIN PIPING
	OVER FLOW DRAIN PIPING
	STORM DRAIN PIPING
	BALL VALVE
	CHECK VALVE
	GAS REGULATOR EQUAL TO EQUIMETER MODEL 243. INLET PRESSURE @ 5 PSI, SET OUTLET PRESSURE @ 11 IN. W.C.
	GAS BALL VALVE
	CONNECTION POINT
	WATER HAMMER ARRESTOR (SIZE PER MANUFACTURER'S RECOMMENDED FIXTURE UNIT CAPACITY)
	REFER TO KEYED NOTES
	PLUMBING FIXTURE NUMBER (REFER TO PLUMBING FIXTURE SCHEDULE)
	CLEAN OUT TO GRADE
	FLOOR DRAIN
	FLOOR SINK
	FREEZE PROOF HOSE BIB
	HOSE BIB
	ACCESSIBLE
	HUB DRAIN
	WALL CLEAN OUT
	WATER HEATER
	SANITARY SEWER
	ROOF DRAIN



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**HSA** **HSAEngineering**  
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DETAILS. RE:P5.1 FOR PLUMBING SCHEDULES.

HSA JOB # 24-033



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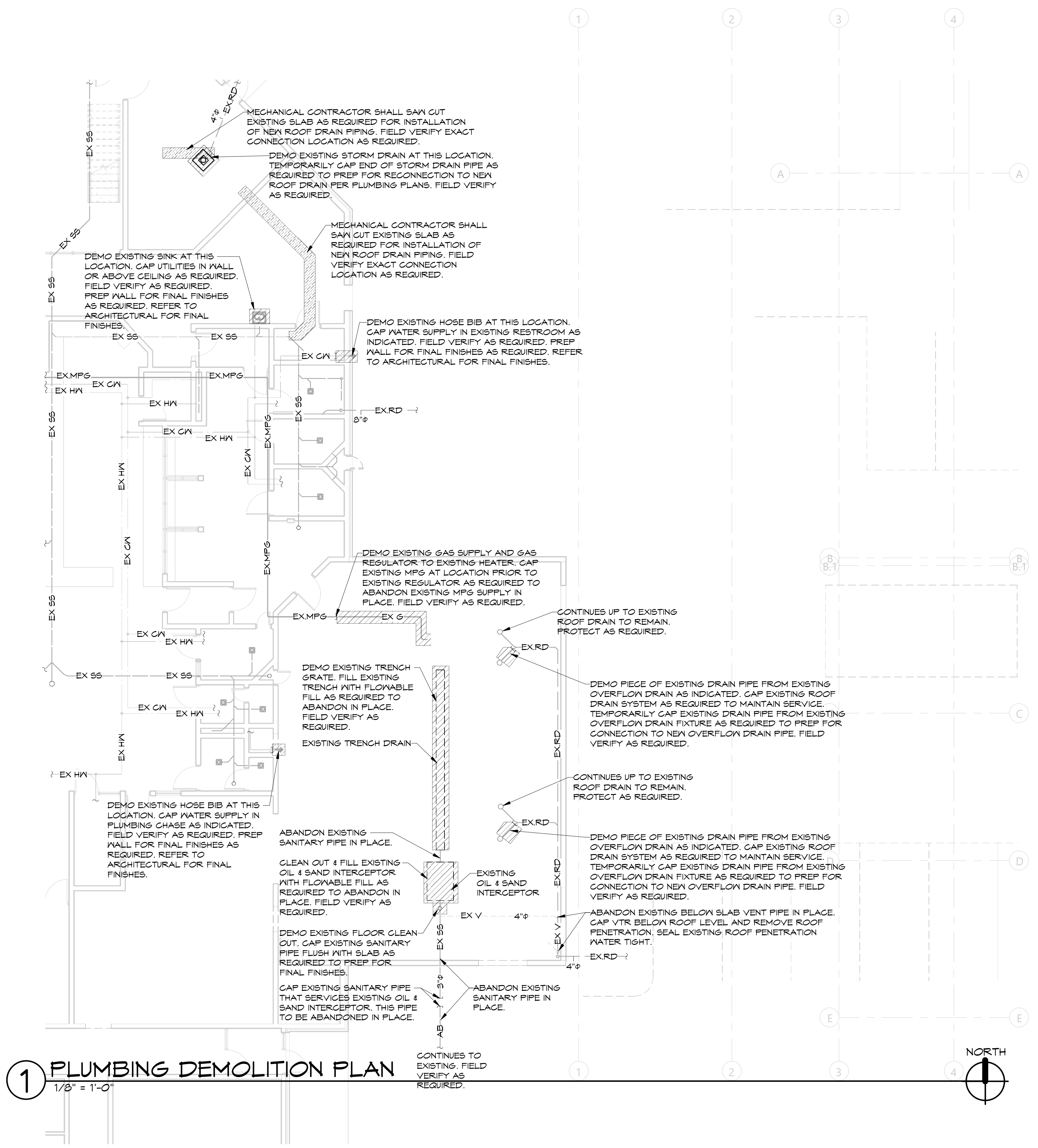
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**1 PLUMBING DEMOLITION PLAN**  
1/8" = 1'-0"



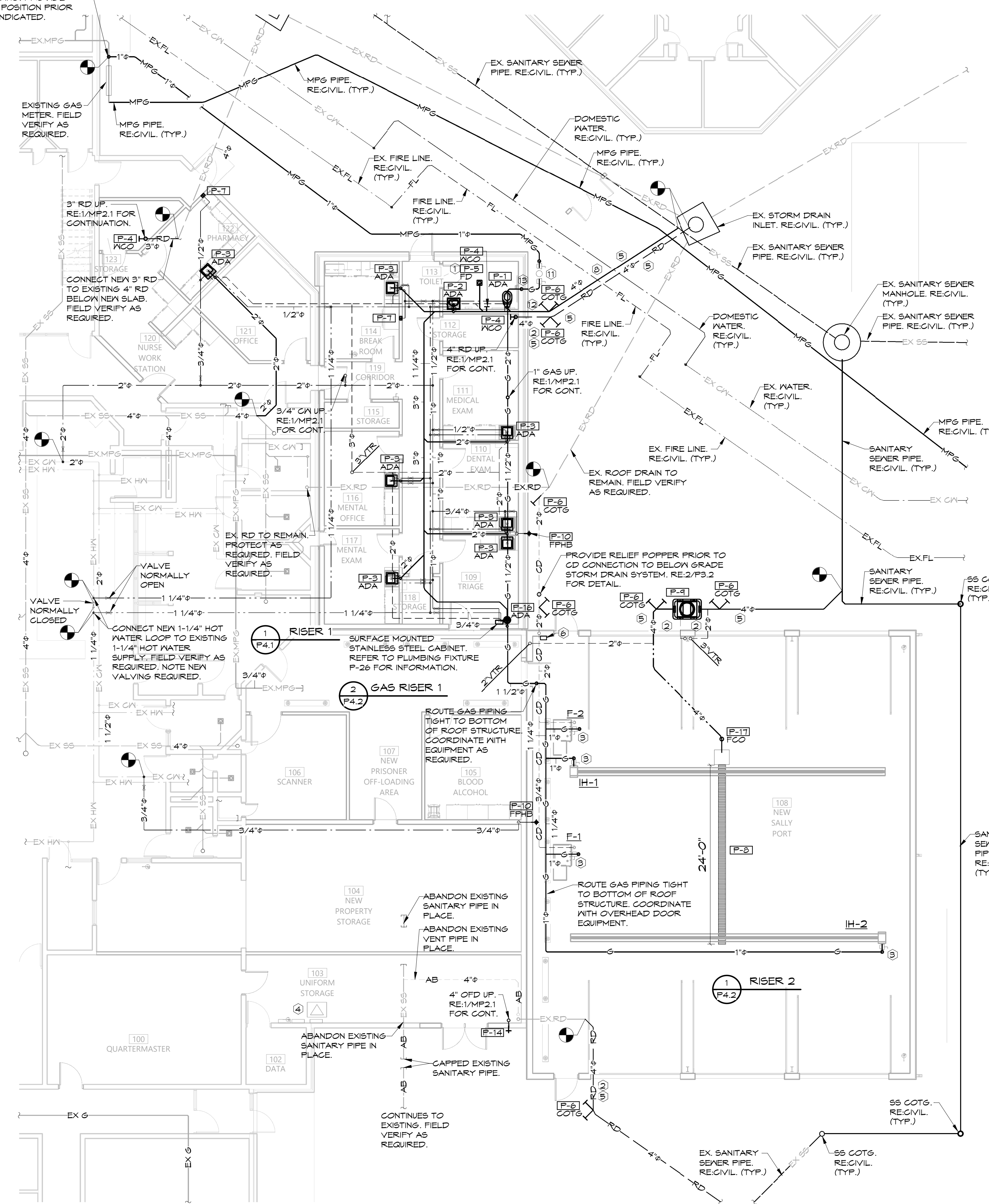
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CONNECT NEW 1" MPG TO EXISTING MPG SUPPLY, AT LOCATION ON BUILDING SIDE OF EXISTING METER, AND PRIOR TO ENTRY INTO BUILDING. PROVIDE NEW GAS SHUT OFF IN VERTICAL POSITION PRIOR TO ROUTING BELOW GRADE AS INDICATED.

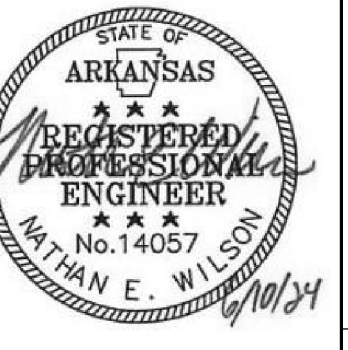


**1 PLUMBING PLAN**  
1/8" = 1'-0"



NOTES:  
RE:P1.1 FOR PLUMBING LEGEND, GENERAL AND KEYED NOTES. RE:P3.1-P3.2 FOR PLUMBING DETAILS. RE:P3.1 FOR PLUMBING SCHEDULES.

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**FIRE PROTECTION NOTE FOR INDICATED AREA:**  
LICENSED FIRE SPRINKLER CONTRACTOR SHALL ADJUST EXISTING FIRE PROTECTION SYSTEM AND/OR ADJUST EXISTING SPRINKLER HEADS AS REQUIRED TO COORDINATE WITH NEW CEILINGS. SYSTEM MUST MEET NFPA 13. FIELD VERIFY EXISTING SYSTEM AND CONDITIONS AS REQUIRED.

**FIRE PROTECTION NOTE FOR INDICATED AREA:**  
LICENSED FIRE SPRINKLER CONTRACTOR SHALL EXTEND EXISTING FIRE PROTECTION SYSTEM FROM EXISTING BUILDING TO SALLY FORT ADDITION AND MEDICAL WING ADDITION AS REQUIRED TO MEET NFPA 13. NEW FIRE SPRINKLER SUPPLY PIPING AND NEW SPRINKLERS HEAD SHALL BE SUPPLIED AS REQUIRED FIELD VERIFY EXISTING SYSTEM AS REQUIRED.

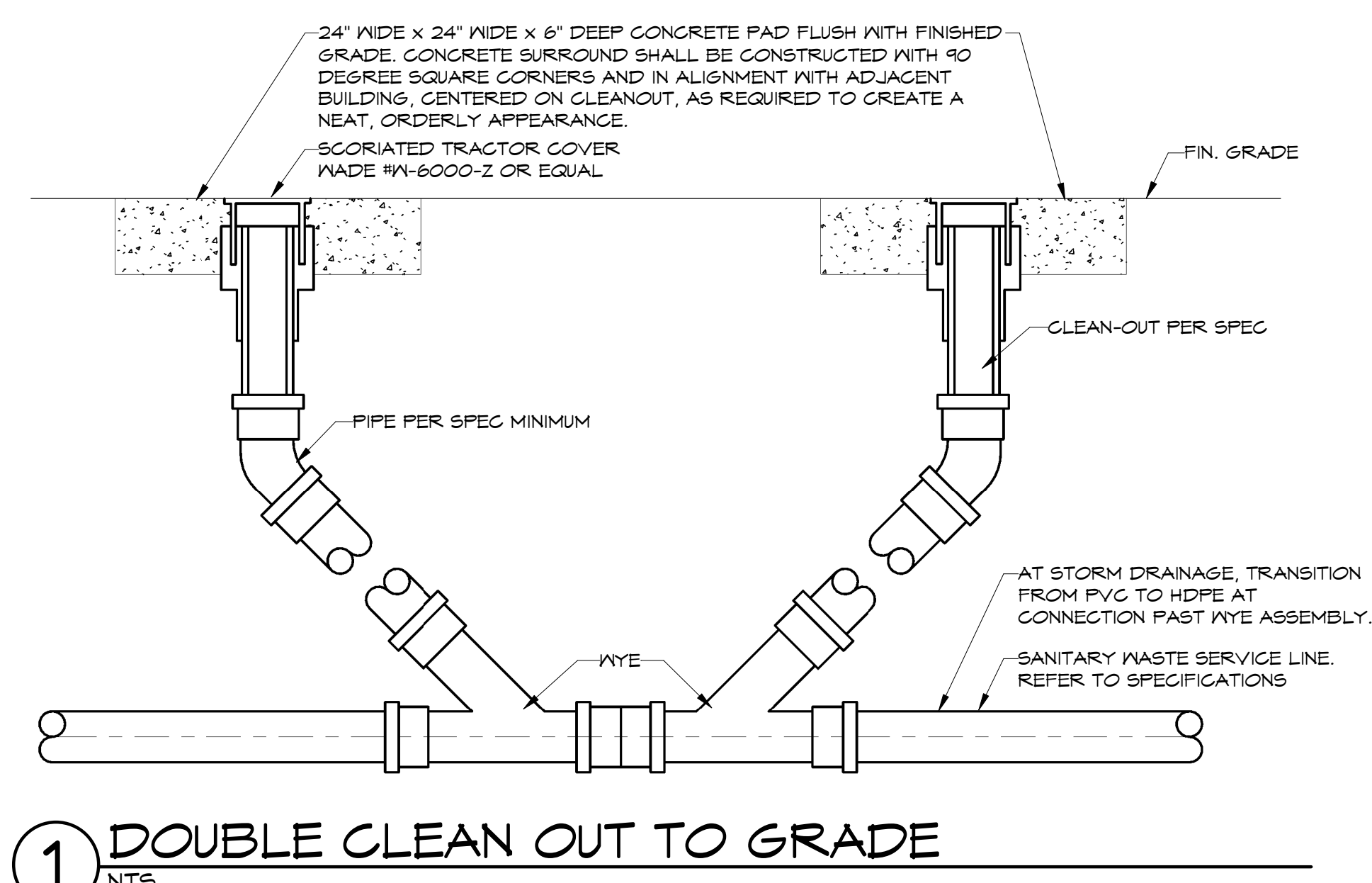
**1 FIRE PROTECTION PLAN**  
1/8" = 1'-0"



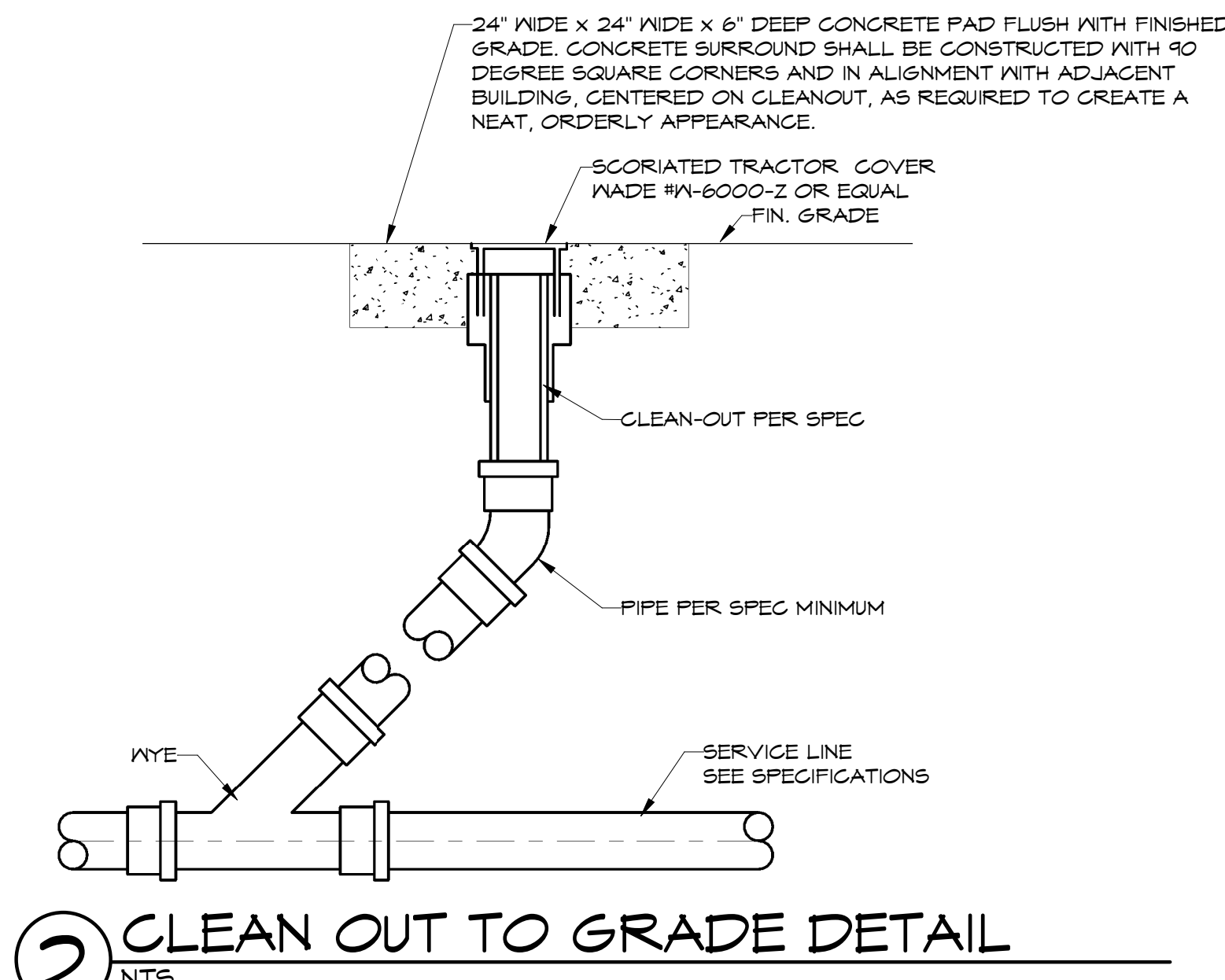
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RE:P.1.1 FOR PLUMBING LEGEND, GENERAL AND KEYED NOTES. RE:P.3.1-P.3.2 FOR PLUMBING DETAILS. RE:P.5.1 FOR PLUMBING SCHEDULES.

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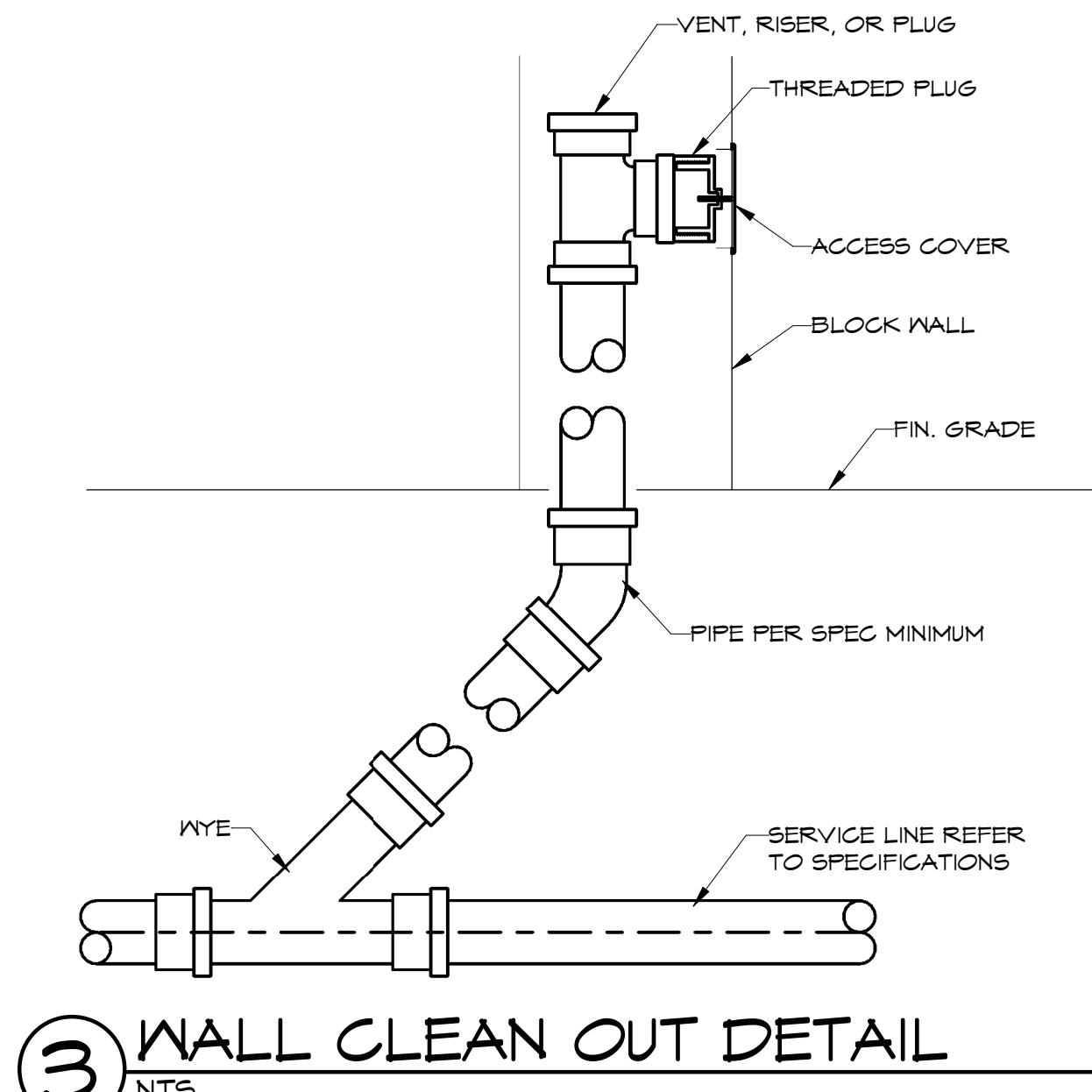
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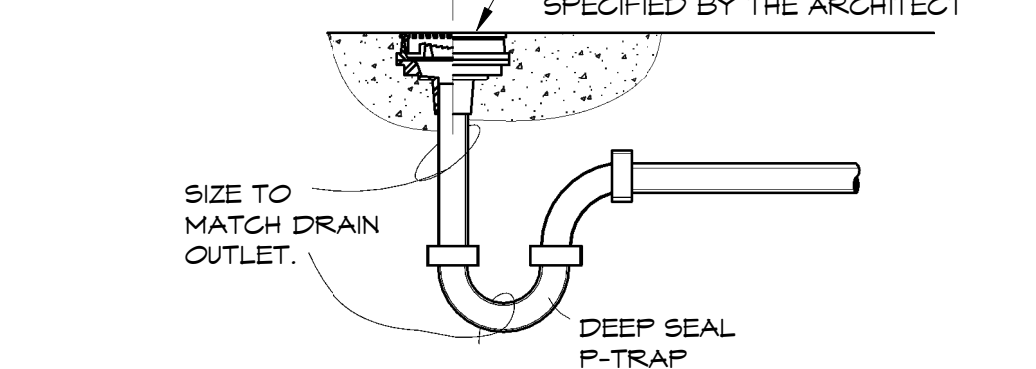
**1** DOUBLE CLEAN OUT TO GRADE  
NTS



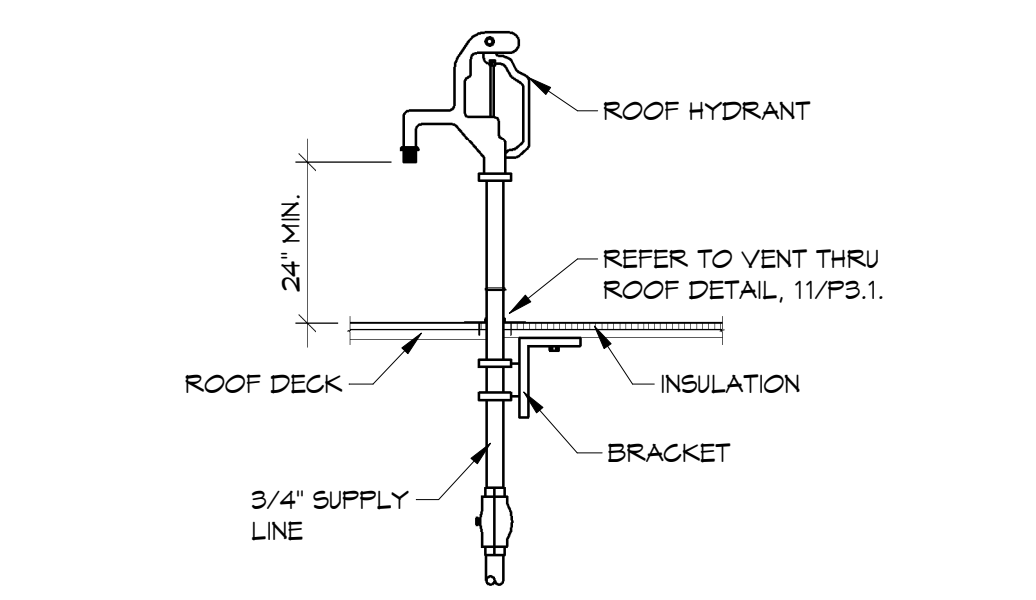
**2** CLEAN OUT TO GRADE DETAIL  
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**3** WALL CLEAN OUT DETAIL  
NTS

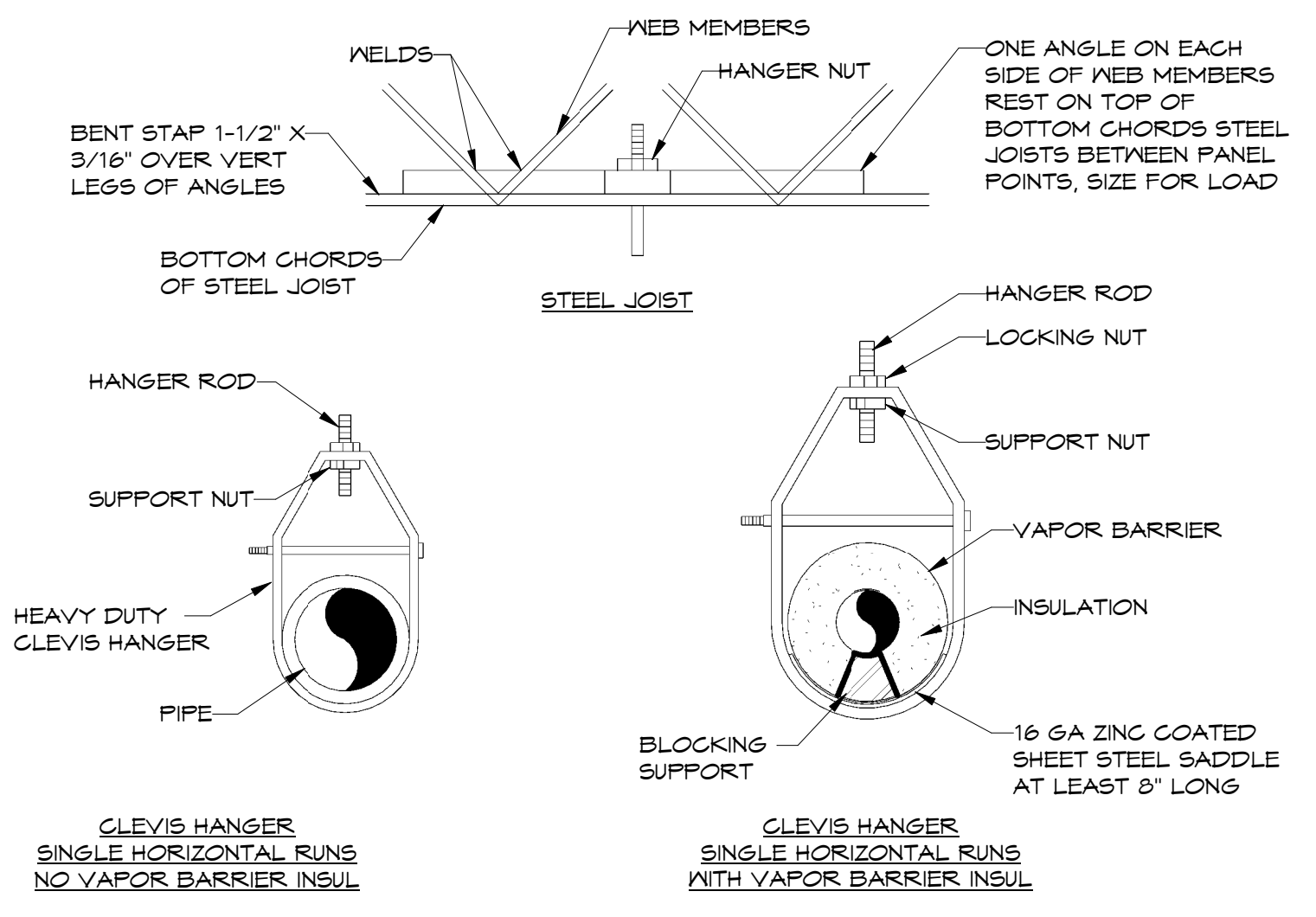


**4** FLOOR DRAIN DETAIL  
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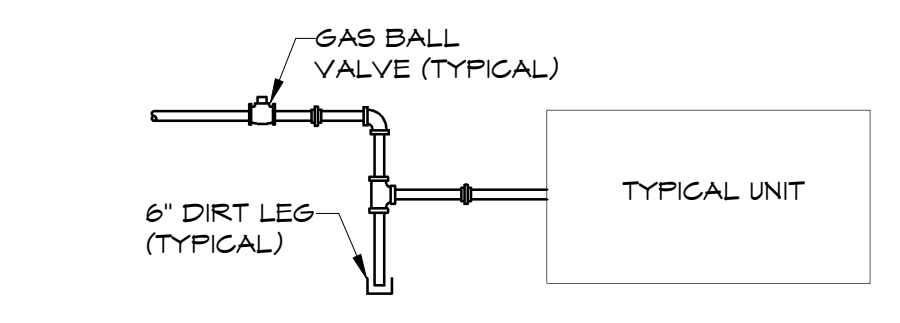


**5** ROOF HYDRANT DETAIL  
NTS

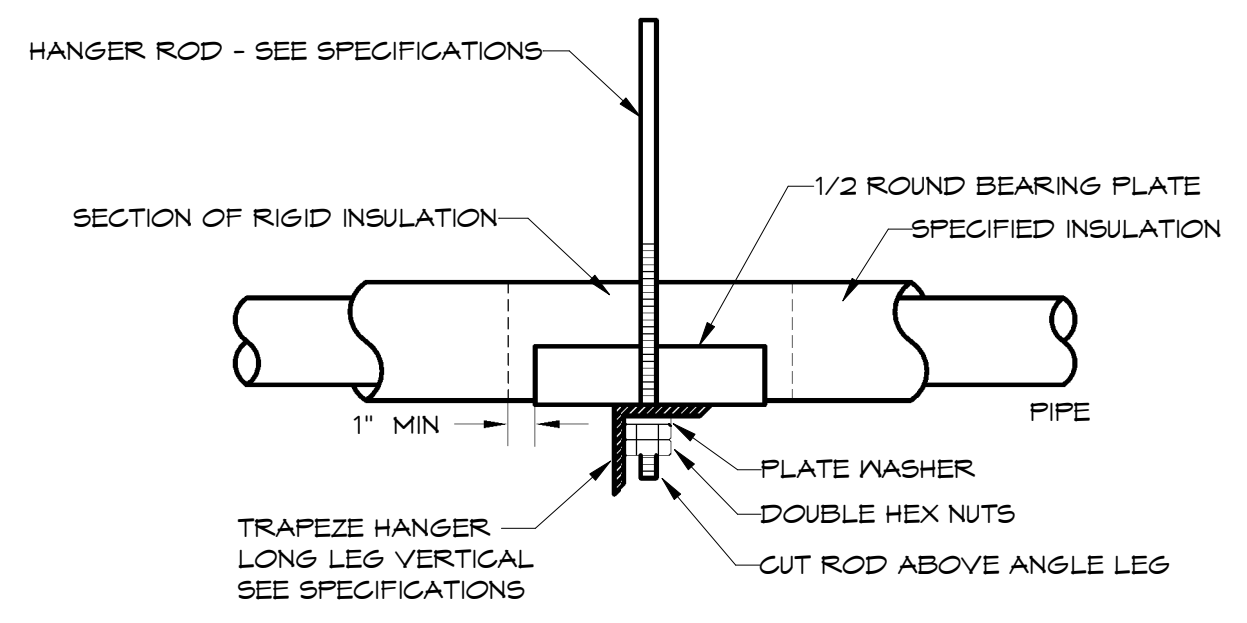
HANGER ROD SCHEDULE			
PIPE SIZE	ROD SIZE	PIPE SIZE	ROD SIZE
UP TO 2"	1/4" DIA	8" THRU 12"	1/2" DIA
2 1/2" UP TO 6"	3/8" DIA		



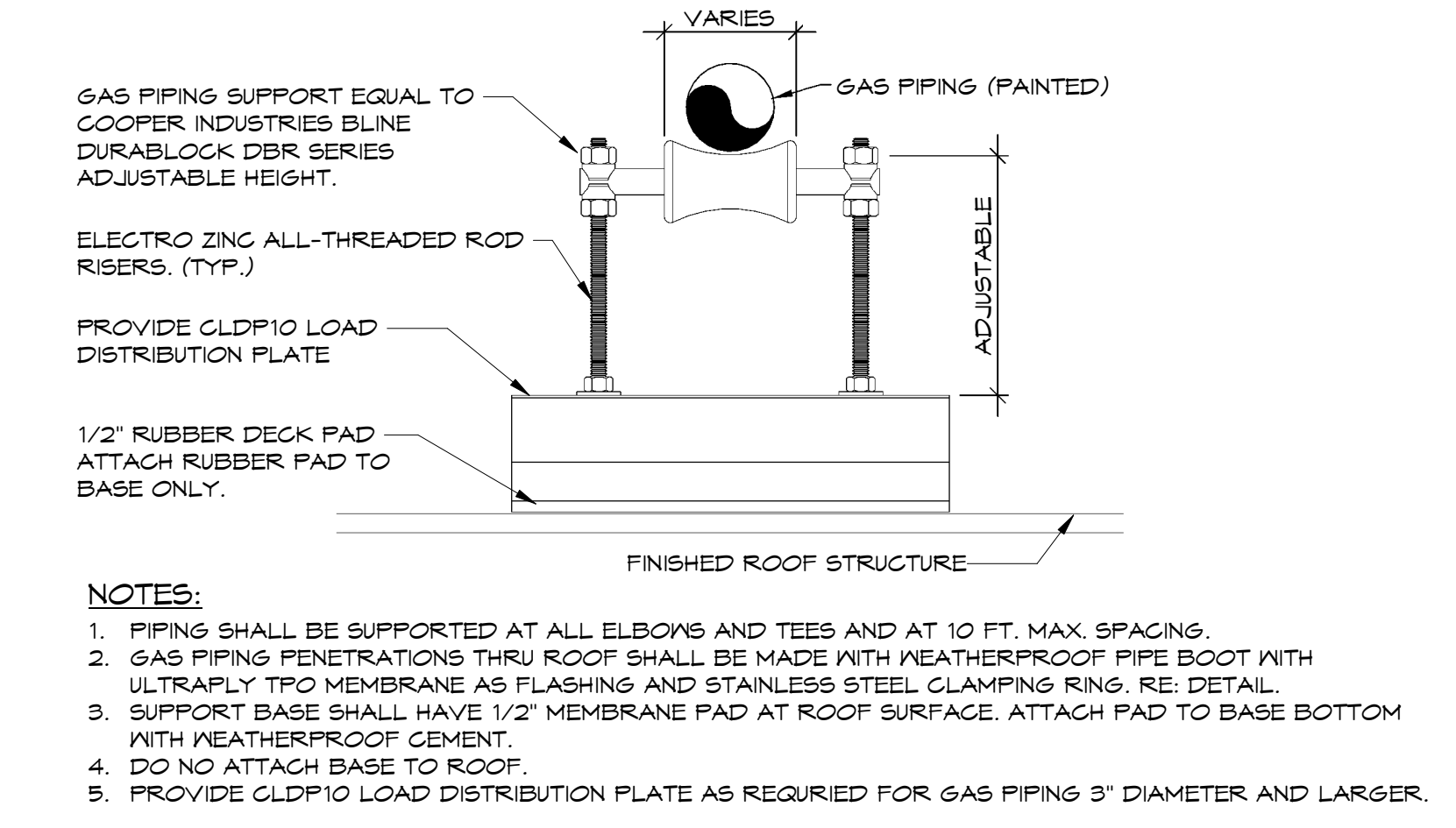
**6** TYPICAL PIPE HANGER DETAIL-CLEVIS HANGER  
NTS



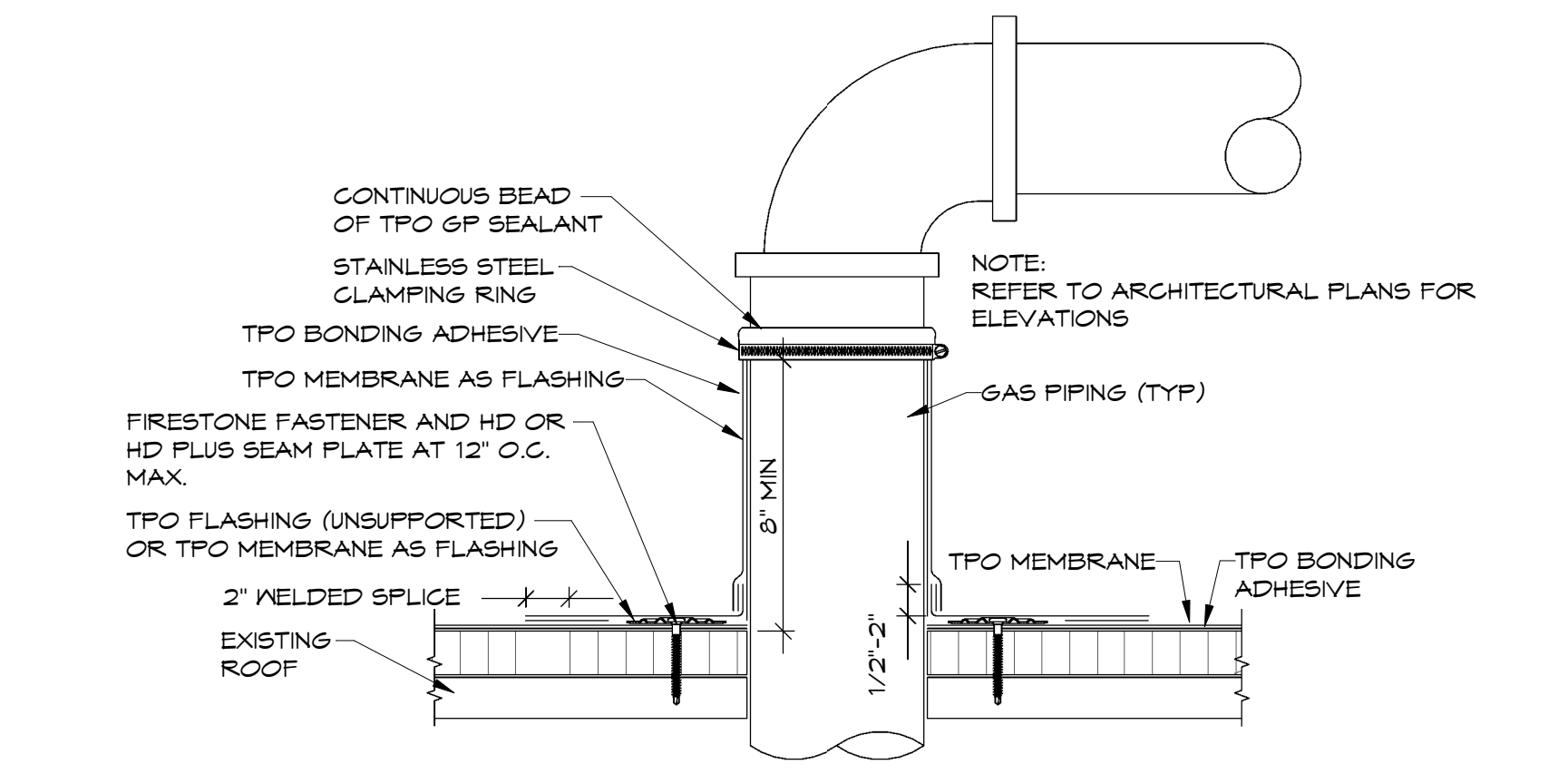
**7** TYPICAL GAS CONNECTION  
NTS



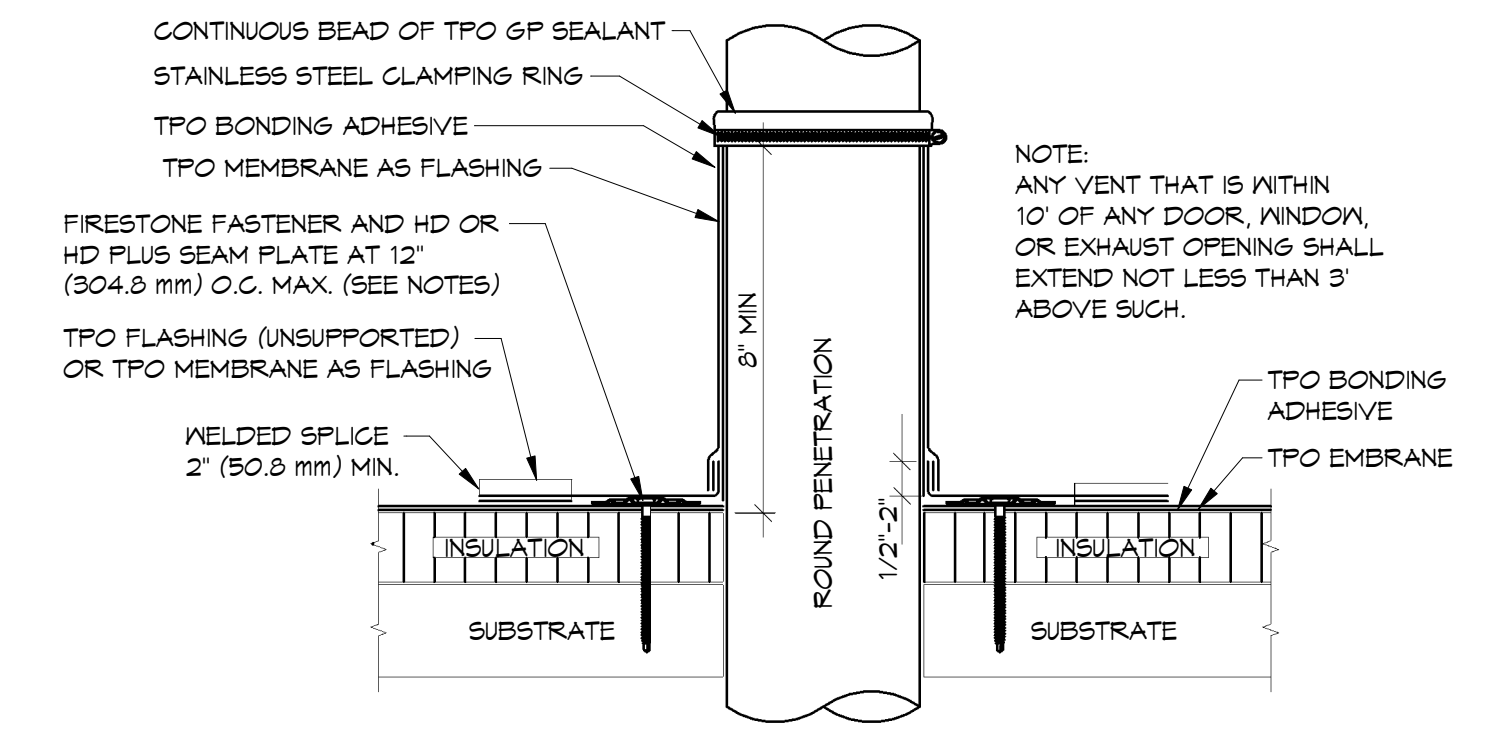
**8** TYPICAL PIPE HANGER DETAIL-TRAPEZE  
NTS



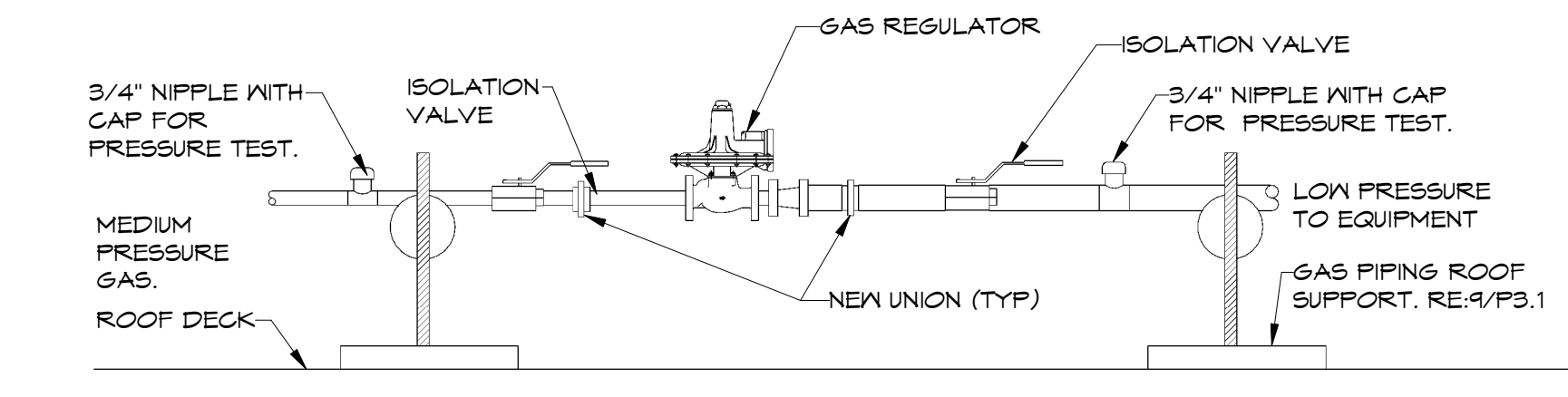
**9** GAS PIPING ROOF SUPPORT  
NTS



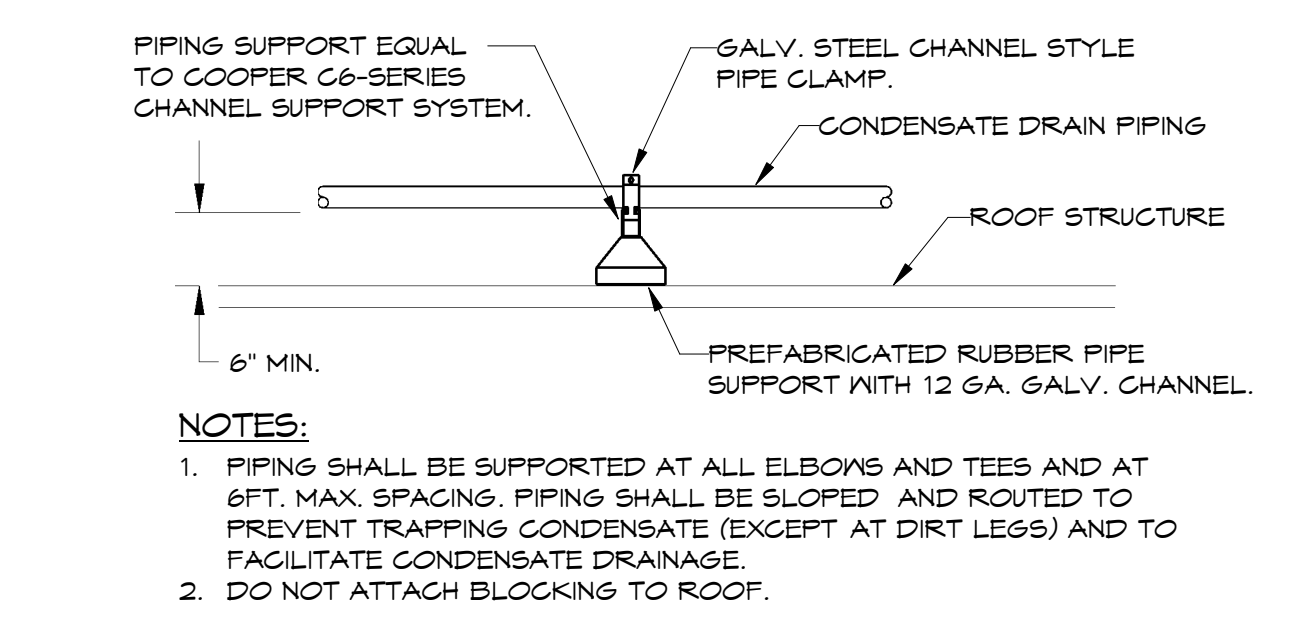
**10** GAS PIPING ROOF PENETRATION DETAIL  
NTS



**11** VENT THROUGH ROOF DETAIL  
NTS



**12** GAS REGULATOR ON ROOF DETAIL  
NTS



**13** CONDENSATE PIPING SUPPORT DETAIL  
NTS

NOTES:  
RE:P.1.1 FOR PLUMBING LEGEND, GENERAL AND KEYED NOTES, RE:P.2.1 FOR PLUMBING PLANS, RE:P.5.1 FOR PLUMBING SCHEDULES.

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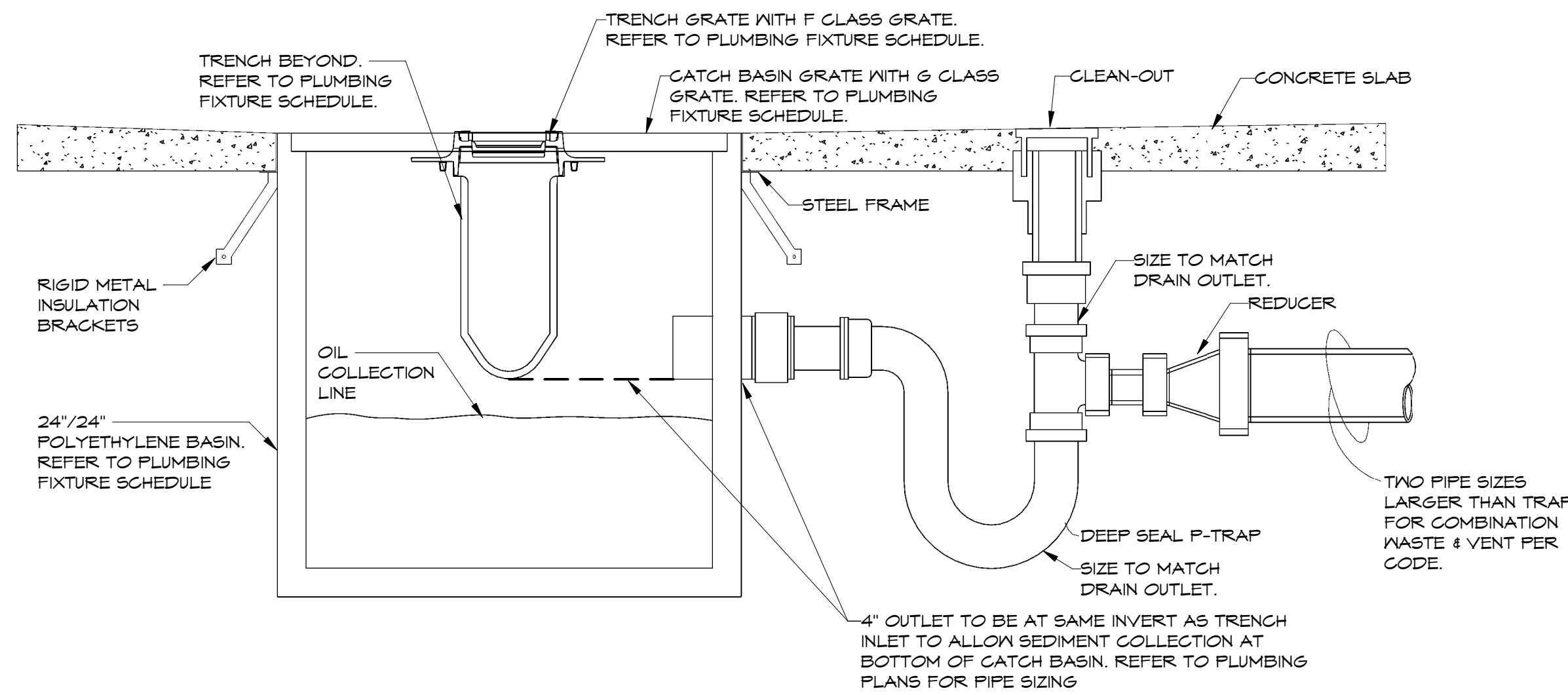
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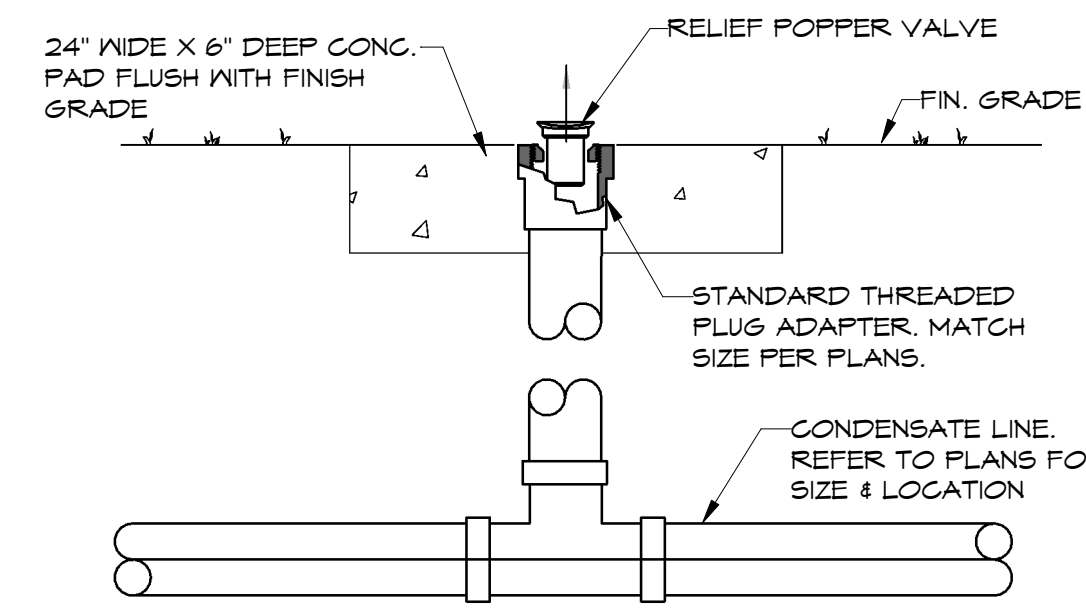
REVISION DATES

SHEET  
**P3.1**

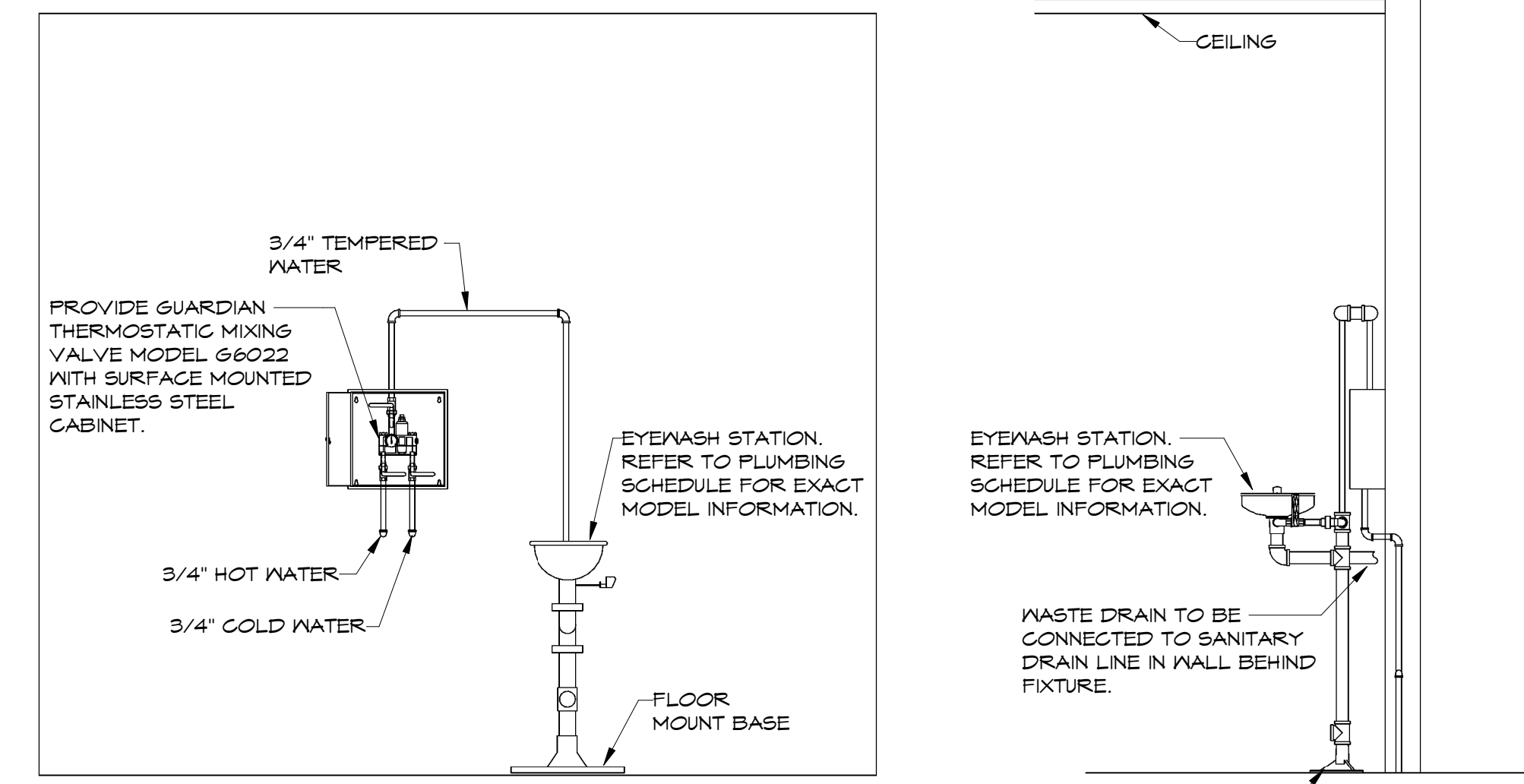




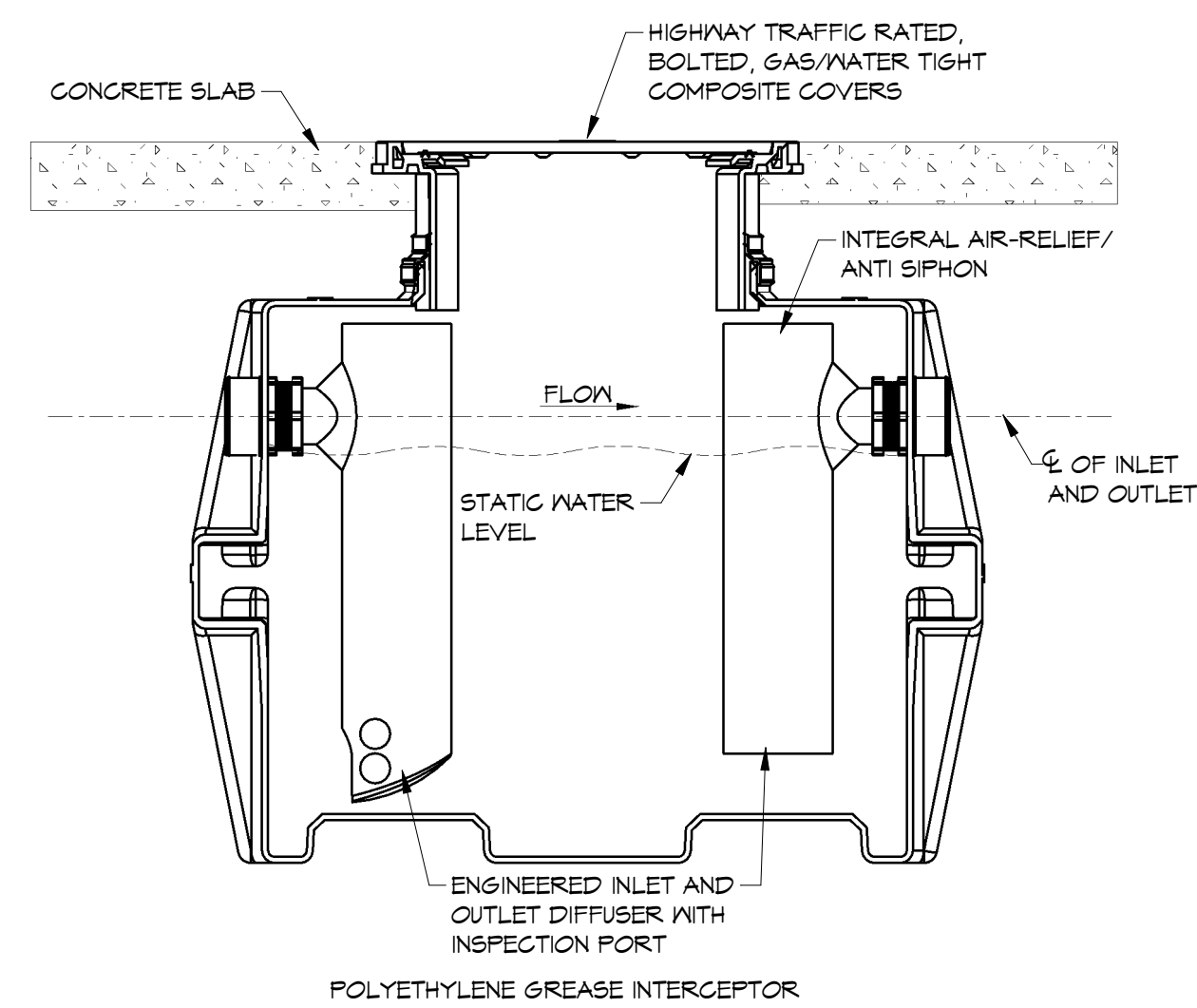
**1** CATCH BASIN DETAIL  
NTS



**2** RELIEF POPPER DETAIL  
NTS



**3** EMERGENCY SHOWER DETAIL  
NTS



- NOTES:
1. FILL TANK WITH WATER BEFORE BACKFILLING TO PREVENT FLOAT OUT DURING PIPING INSTALLATION.
  2. BACKFILL USING CRUSHED AGGREGATE MATERIAL APPROXIMATELY 3/4" SIZE ROCK, OR SAND, WITH NO FINES.
  3. PLACE 6" AGGREGATE BASE UNDER SLAB. AGGREGATE SHOULD BE 3/4" SIZE ROCK, OR SAND, WITH NO FINES.
  4. THICKNESS OF CONCRETE AROUND COVER TO BE DETERMINED BY SPECIFYING ENGINEER. IF TRAFFIC LOADING IS REQUIRED, THE CONCRETE SLAB DIMENSIONS SHOWN ARE FOR GUIDELINE PURPOSE ONLY.
  5. ALL PIPE PENETRATIONS TO BE SLEEVED OR HAVE SLIP CONNECTIONS.
  6. PROVIDE REQUIRED FACTORY MANHOLE EXTENSIONS TO GRADE. FIELD VERIFY EXTENSION DIMENSIONS PRIOR TO ORDERING.

**4** OIL INTERCEPTOR DETAIL  
NTS

NOTES:  
1. ENSURE FINISH GRADE AT RELIEF VALVE IS MIN. 12 IN. BELOW FINISHED FLOOR ELEVATION.

PROVIDE GUARDIAN THERMOSTATIC MIXING VALVE MODEL 66022 WITH SURFACE MOUNTED STAINLESS STEEL CABINET.

EYEWASH STATION REFER TO PLUMBING SCHEDULE FOR EXACT MODEL INFORMATION.

WASTE DRAIN TO BE CONNECTED TO SANITARY DRAIN LINE IN WALL BEHIND FIXTURE.



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**PLUMBING FIXTURE SCHEDULE**

MARK	FIXTURE	MANUFACTURER	MODEL	MOUNT	CONNECTION			REMARKS / ACCESSORIES
					CN	HN	SS	
P-1	ACCESSIBLE WATER CLOSET	AMERICAN STANDARD	3043.102	FLOOR	1-1/2	-	4	WHITE VITREOUS CHINA, LOW CONSUMPTION, ELONGATED BOWL, FLUSH VALVE TOILET. PROVIDE SLOAN MODEL SLOAN #111-DFB FLUSH VALVE, OLSONITE #10 SCC OPEN SEAT AND SLOAN YJ TYPE PIPE SUPPORT. PROVIDE BLOCKING IN WALL AS REQUIRED FOR INSTALLATION OF YJ PIPE SUPPORT. INSTALL 1" FROM TOP OF SEAT TO FLOOR.
P-2	ACCESSIBLE LAVATORY	AMERICAN STANDARD	0355.012	WALL	1/2	1/2	1-1/2	WHITE VITREOUS CHINA LAVATORY WITH FAUCET LEDGE AND BACKSPASH. PROVIDE AMERICAN STANDARD RELIANT T305.050 SINGLE LEVER, 0.5 GPM, FAUCET WITH EXTRA LONG HANDLE, BASE PLATE, GRID DRAIN, MADE #520 WALL CARRIER, HANDLAV MOLDED DRAIN & SUPPLY INSULATION KIT. MOUNT 34 IN. A.F.F. TO TOP OF RIM. PROVIDE MATTS LFMMV UNDER COUNTER. THERMOSTATIC MIXING VALVE. SET WATER TEMPERATURE AT 105 DEGREES F.
P-3	ACCESSIBLE SINGLE STAINLESS STEEL SINK	JUST MFG.	SL-ADA-2019-A-GR	COUNTER	1/2	1/2	2	ACCESSIBLE SINGLE COMPARTMENT, STAINLESS STEEL SINK (14" x 16" x 5.5" D) PROVIDED BY MECHANICAL CONTRACTOR. PROVIDE CHICAGO 106-ESCP GOOSENECK FAUCET WITH WRIST BLADES AND STAINLESS STEEL GRID DRAIN, CENTER, REAR DRAIN LOCATION, MECHANICAL CONTRACTOR TO PROVIDE ALL MATERIALS REQUIRED TO MAKE ALL FINAL CONNECTIONS, INCLUDING TAIL PIECE AND ANGLE STOP VALVES. PROVIDE HANDLAV MOLDED DRAIN AND SUPPLY INSULATION KIT. SINK MUST BE ADA COMPLIANT. MOUNT 34 IN. A.F.F. TO TOP OF RIM. PROVIDE MATTS LFMMV THERMOSTATIC MIXING VALVE. SET WATER TEMPERATURE AT 105 DEGREES F.
P-4	WALL CLEAN OUT	WADE	8550-R	WALL	-	-	*	*SIZE TO MATCH WASTE LINE, MAXIMUM TO 4 INCHES. PROVIDE WADE 8904 STAINLESS STEEL WALL ACCESS COVER.
P-5	FLOOR DRAIN	WADE	1100	FLOOR	-	-	*	*CAST IRON FLOOR DRAIN, SIZE AS INDICATED ON PLANS OR MATCH INDICATED WASTE LINE. PROVIDE DEEP SEAL TRAP. COORDINATE DRAIN TOP MATERIAL WITH SPECIFIED FLOOR FINISH.
P-6	CLEAN OUT TO GRADE	WADE	6000Z	GRADE	-	-	*	*SIZE TO MATCH WASTE LINE MAXIMUM TO 4 INCHES. PROVIDE HEAVY DUTY TRACTOR TYPE COVER.
P-7	ICE MAKER WALL BOX	GUY GRAY	BIM8T5	WALL	1/2	-	-	WALL MOUNTED ICE MAKER HOOK UP WITH ANGLE VALVE.
P-8	TRENCH DRAIN WITH CATCH BASIN	ZURN	Z88T-24-PGF-HD	GRADE	-	-	4	HIGH DENSITY POLYETHYLENE CATCH BASIN (24" x 24") WITH HEAVY DUTY FRAME, CLASS G GRATE AND EXTENSIONS TO GRADE AS REQUIRED. PROVIDE WITH ZURN MODEL Z88S PRE-SLOPED 6" WIDE TRENCH DRAIN WITH CLASS F GRATES. PROVIDE QUANTITY OF TRENCH DRAIN SECTIONS AS REQUIRED TO MATCH THE TRENCH LENGTH INDICATED ON DRAWINGS.
P-9	OIL/WATER SEPARATOR	STRIEM	OS-75	GRADE	-	-	4	50 GPM FLOW RATE OIL/WATER SEPARATOR WITH 11 GALLONS SOLIDS CAPACITY, 27.5 GALLONS OIL CAPACITY, 110 GALLONS LIQUID CAPACITY. PROVIDE POLYETHYLENE OIL/WATER SEPARATOR WITH HEAVY DUTY CAST IRON GASKETED COVERS. PROVIDE EXTENSIONS TO GRADE AS REQUIRED FOR SERVICE. PROVIDE WITH PICKABLE CAST IRON COVER (16,000 LBS RATED). PROVIDE WITH MANUFACTURER'S SLICK STICK OIL LEVEL MONITORING SYSTEM WITH HI OIL LEVEL ALARM. PROVIDE WITH MANUFACTURER'S CONTROL BOX AND MOUNTING HARDWARE. RE:4/P3.2 FOR DETAIL.
P-10	FREEZE PROOF HOSE BIB	WOODFORD	B6T	WALL	3/4	-	-	FREEZE PROOF HOSE BIB IN LOCKING BOX. PROVIDE VACUUM BREAKER AND BACKFLOW PREVENTION.
P-11	WATER HAMMER ARRESTOR	WADE BELLOWS	SHOKSTOP	ACCESSIBLE LOCATION	*	*	-	*SIZE WATER HAMMER ARRESTOR PER MANUFACTURER'S RECOMMENDATIONS. ALL STAINLESS STEEL CONSTRUCTION WITH WELDED NESTED BELLOWS. PROVIDE BALL VALVE FOR SHUT-OFF.
P-12	ROOF DRAIN	WADE	3000-AE-53	ROOF	-	-	*	*SIZE AS INDICATED ON PLANS. CAST IRON ROOF DRAIN WITH FLASHING RING, FLANGE, GRAVEL STOP, CAST IRON DOME, UNDER DECK CLAMP, ADJUSTABLE EXTENSION AND VANDAL PROOF SCREWS.
P-13	OVERFLOW DRAIN	WADE	3000-AE-53	ROOF	-	-	*	*SIZE AS INDICATED ON PLANS. CAST IRON ROOF DRAIN WITH FLASHING RING, FLANGE, GRAVEL STOP, CAST IRON DOME, UNDER DECK CLAMP, ADJUSTABLE EXTENSION AND VANDAL PROOF SCREWS.
P-14	OVERFLOW NOZZLE	WADE	WADE 9940-166	WALL	-	-	*	*SIZE TO MATCH OVERFLOW DRAIN PIPING. CAST BRONZE DOWNSPOUT NOZZLE WITH INLET AND FLANGE TO SECURE NOZZLE TO WALL. FASTENING HARDWARE TO MATCH NOZZLE. MOUNT 12" A.F.F. PROVIDE WITH BIRD SCREEN WITH MATCHING FINISH.
P-15	ROOF HYDRANT	WOODFORD	SRH-M5	ROOF	3/4	-	*	AUTOMATIC DRAINING, BACKFLOW PROTECTED, FREEZE PROOF ROOF HYDRANT.
P-16	EMERGENCY EYEWASH STATION	GUARDIAN	G1825BC	FLOOR	3/4	3/4	2	FREE STANDING, PEDESTAL MOUNTED EYEWASH WITH STAINLESS STEEL BOWL AND COVER, AND TWO GS-PLUS SPRAY TYPE OUTLET HEADS. PROVIDE WITH GUARDIAN THERMOSTATIC MIXING VALVE MODEL G6022 WITH SURFACE MOUNTED STAINLESS STEEL CABINET. VALVE MUST HAVE A 13 GPM FLOW CAPACITY. SET WATER TEMPERATURE TO 10 DEGREES F. PROVIDE WITH MANUFACTURER'S BRACKETS AND MOUNTING HARDWARE. DRAIN TO BE CONNECTED TO SANITARY DRAIN LINE IN WALL BEHIND FIXTURE. RE:3/P3.2 FOR DETAIL.
P-17	FLOOR CLEANOUT	WADE	6000	FLOOR	-	-	*	*SIZE TO MATCH WASTE LINE, MAXIMUM TO 4 INCHES. PROVIDE OPTIONAL TOP TO MATCH FLOOR FINISH. REFER TO ARCHITECTURAL PLANS FOR FLOOR FINISH SCHEDULE.

- NOTES**
- COORDINATE COUNTER TOP FIXTURE INSTALLATION WITH MILLWORK.
  - INSTALL ACCESSIBLE FLUSH VALVE TO THE ACCESSIBLE SIDE.
  - MECHANICAL CONTRACTOR SHALL PROVIDE APPROVED TRAP GUARDS ON ALL FLOOR SINKS AND FLOOR DRAINS.

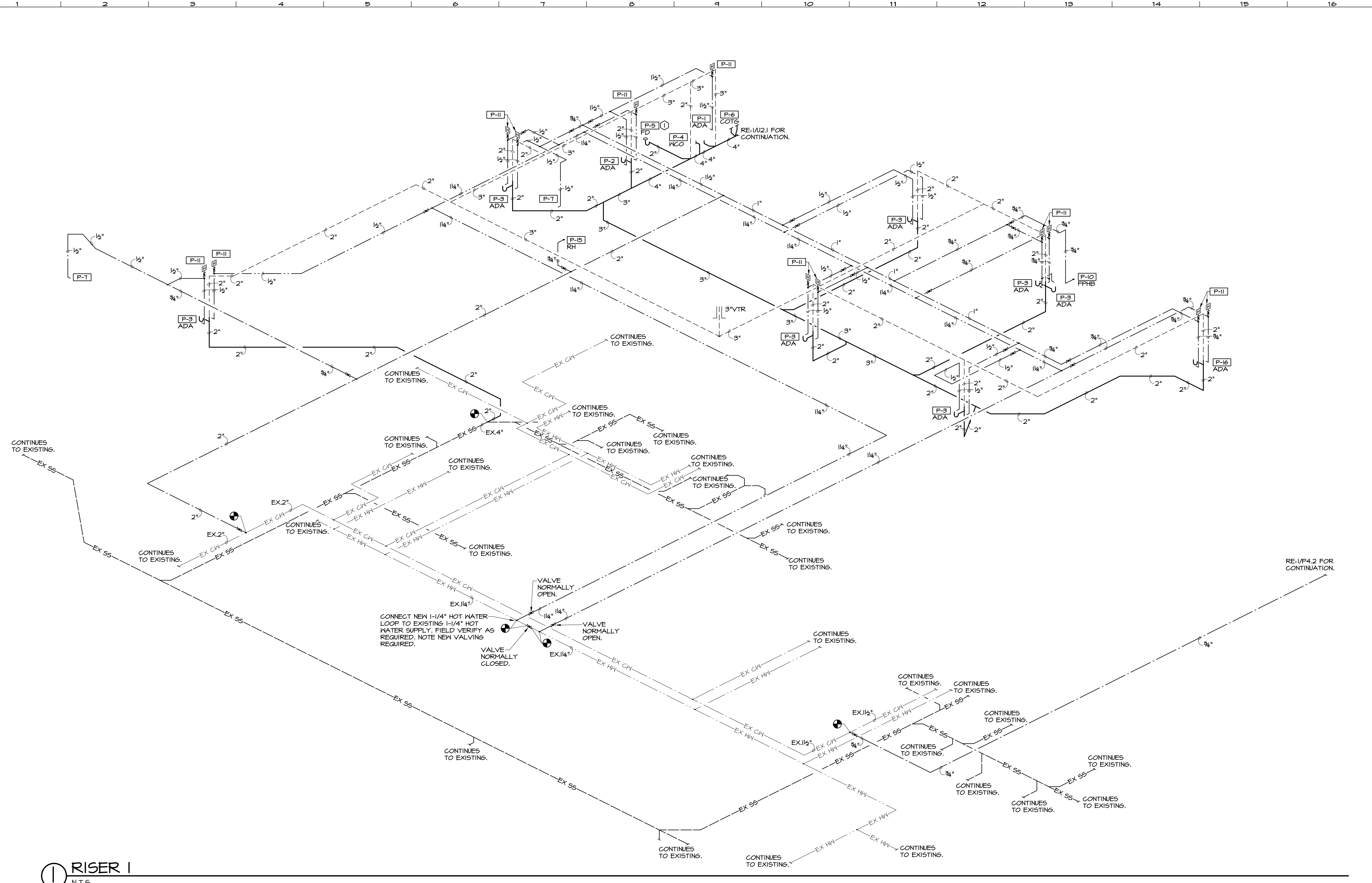
**NOTES:**  
 RE:P1.1 FOR PLUMBING LEGEND, GENERAL AND KEYED NOTES.  
 RE:P2.1 FOR PLUMBING PLANS. RE:P3.1-P3.2 FOR PLUMBING DETAILS.

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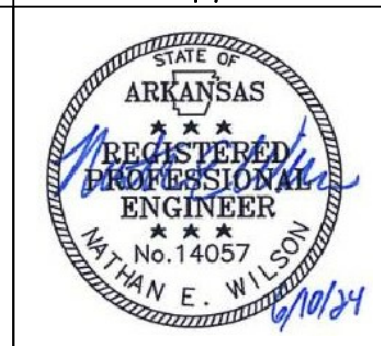


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NOTES:  
RE:U2.1 FOR SITE UTILITY PLAN.  
RE:P1.1 FOR PLUMBING LEGEND AND NOTES.  
RE:P5.1 FOR PLUMBING SCHEDULES.



1 RISER 1  
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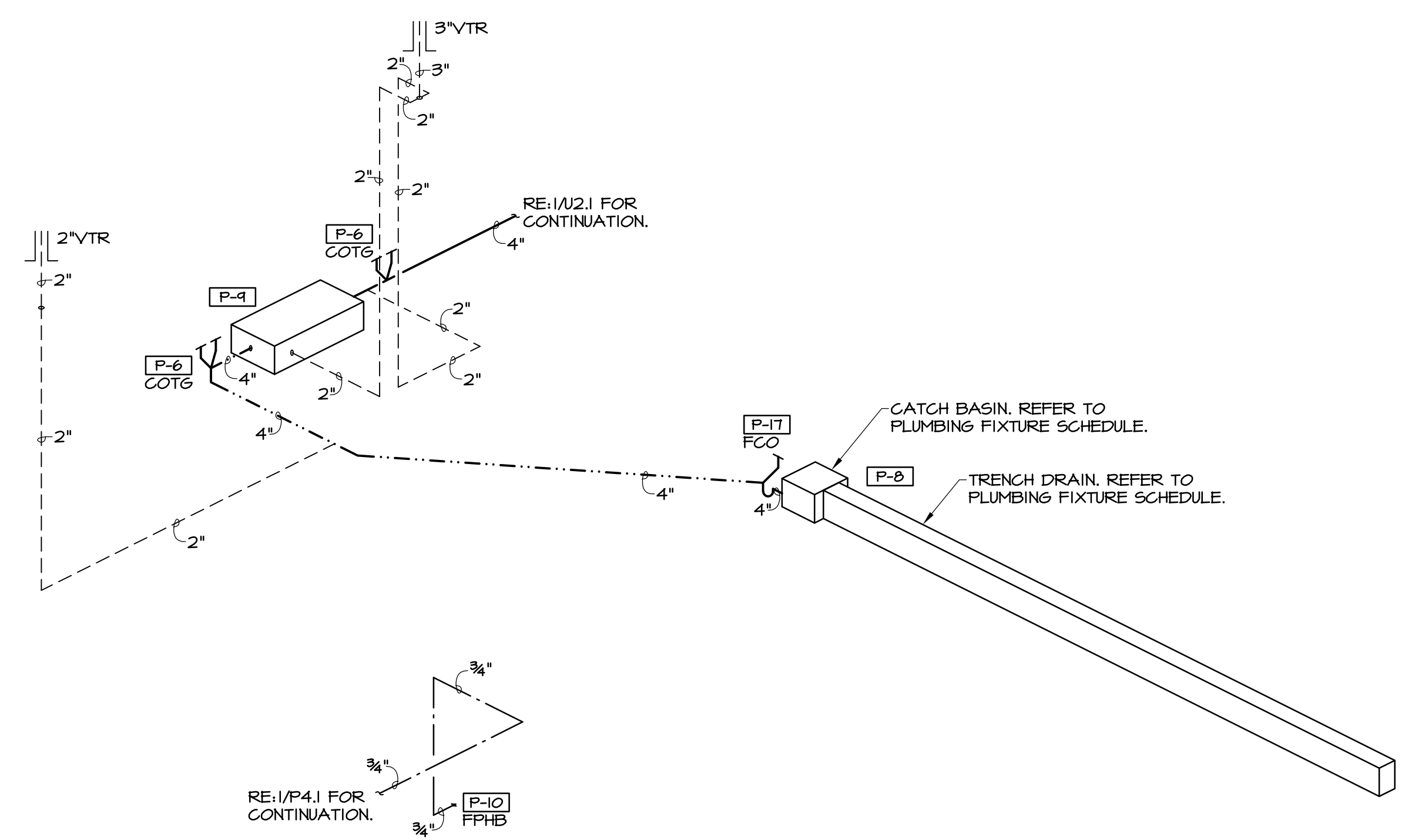
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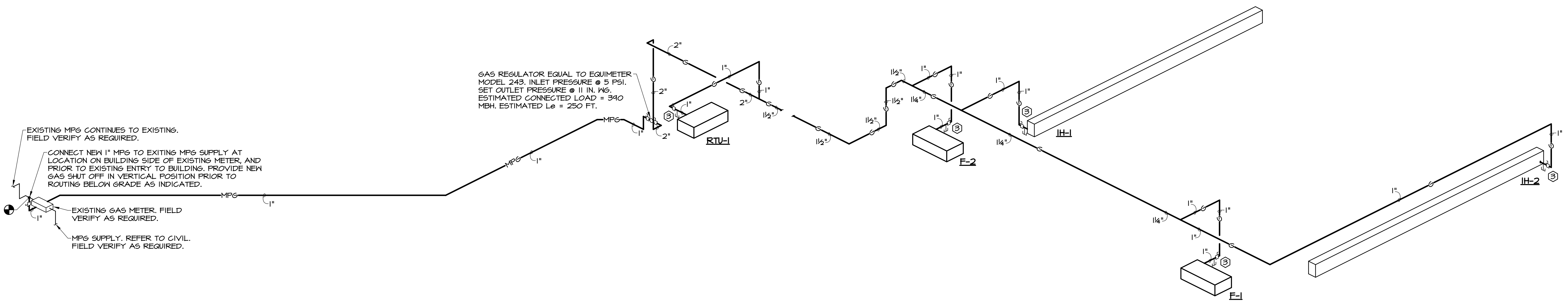
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**1 RISER 2**  
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**2 GAS RISER 1**  
N.T.S.

NOTES:  
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RE:P1.1 FOR PLUMBING LEGEND AND NOTES.  
RE:P5.1 FOR PLUMBING SCHEDULES.

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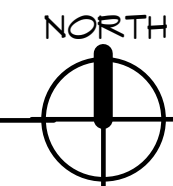
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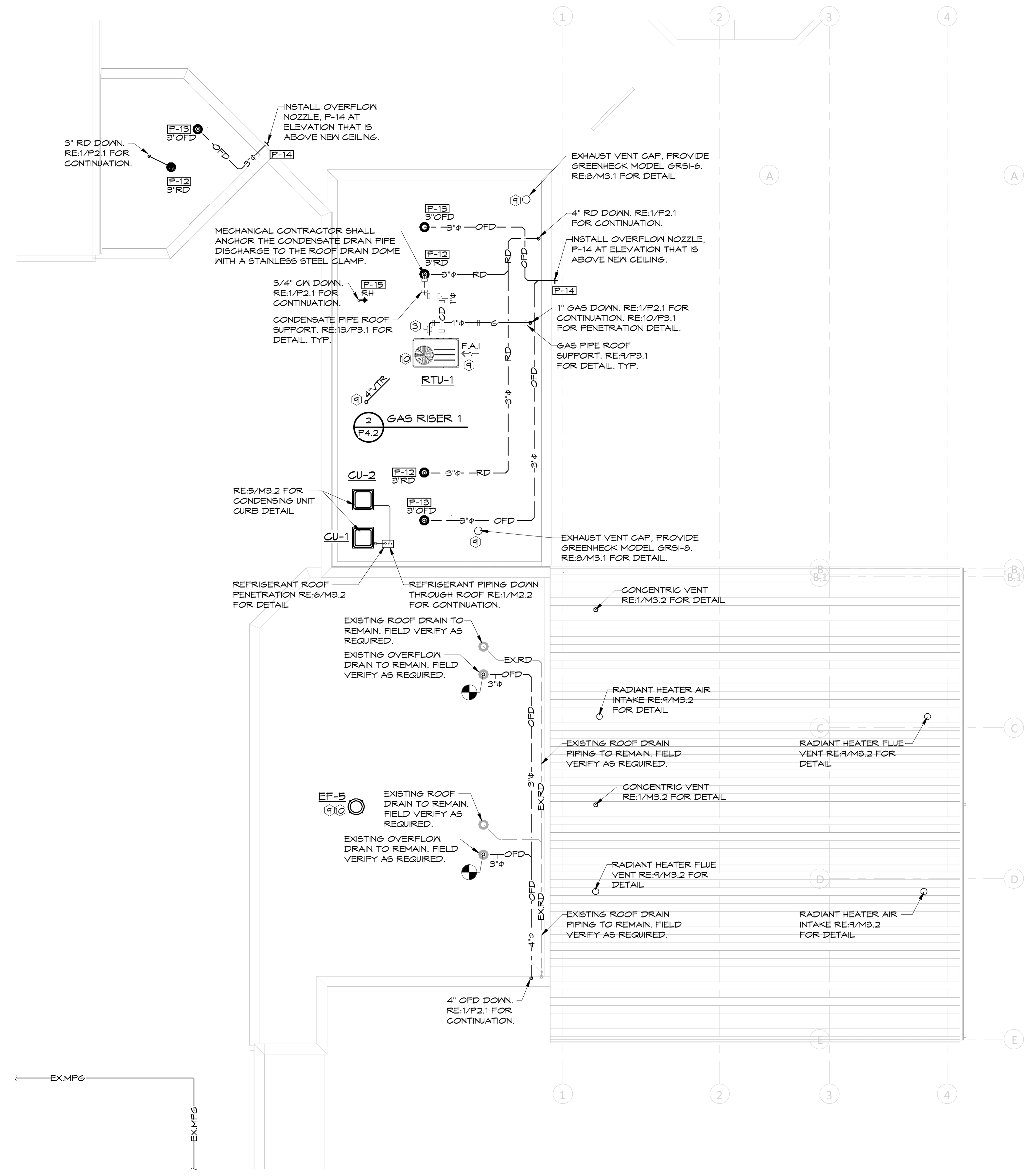
**1 MECHANICAL ROOF PLAN**  
1/8" = 1'-0"



NOTES:  
REFER TO SHEET P1.1 FOR PLUMBING LEGEND, GENERAL AND KEYED NOTES.  
REFER TO SHEET P2.1 FOR PLUMBING PLANS. REFER TO SHEET P3.1-P3.2  
FOR PLUMBING DETAILS. REFER TO SHEET P4.1 FOR PLUMBING RISERS.  
REFER TO SHEET P5.1 FOR PLUMBING SCHEDULES.

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## GENERAL HVAC NOTES

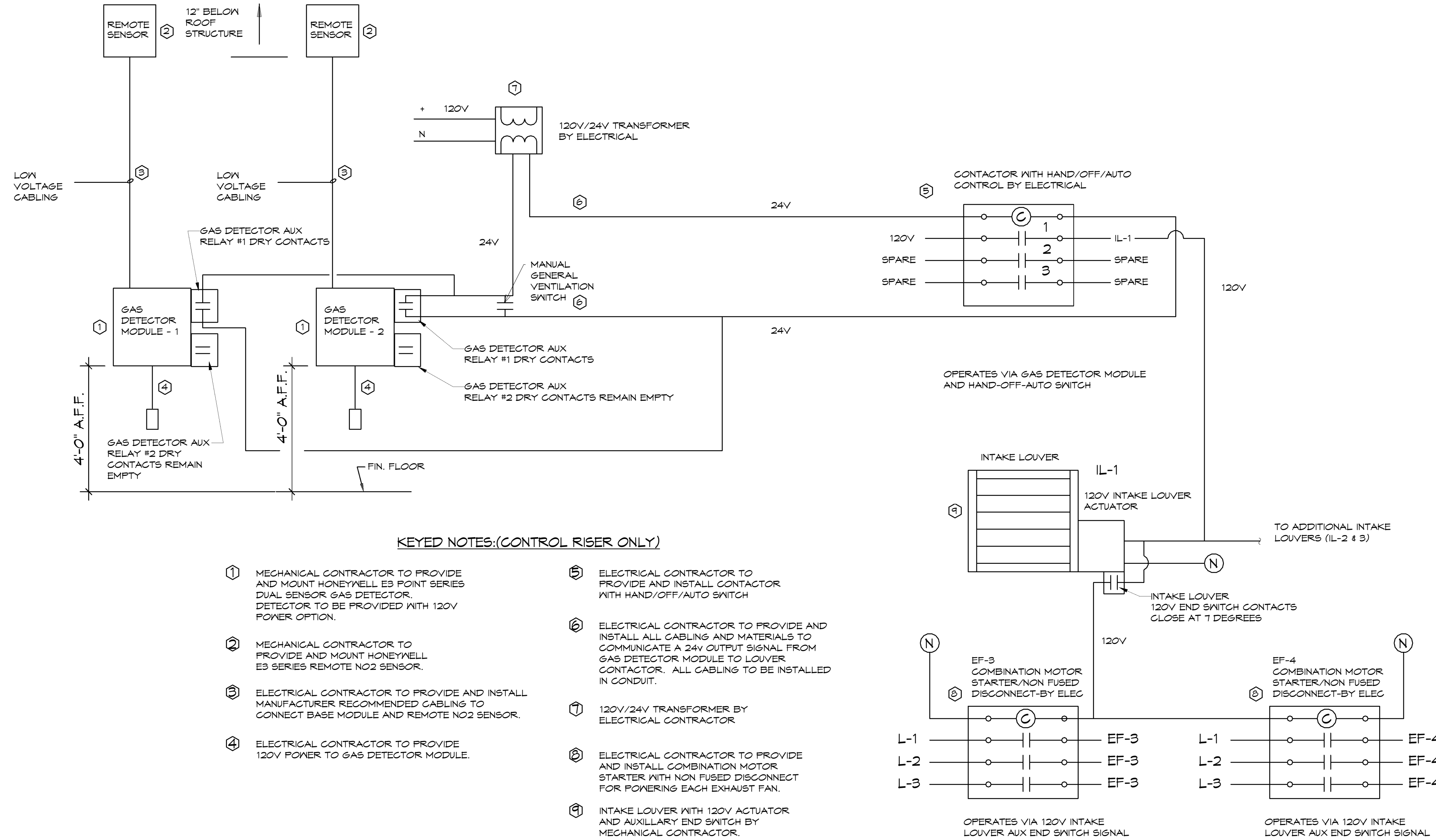
- COORDINATE GRILLE LOCATIONS WITH LIGHT FIXTURES, SPRINKLERS AND CEILING GRID.
- INDICATED DUCT SIZES ARE NET FREE AREA.
- ADJUST ALL AIR QUANTITIES AS SHOWN ON THE PLANS AFTER COMPLETION OF THE JOB.
- INSULATE THE SUPPLY, RETURN AIR GRILLE FLENUMS AND EXHAUST AIR FLENUMS WITH 2 IN., 3/4 LB DENSITY FOL BACKED INSULATION.
- FIRE AND/OR SMOKE DAMPERS ARE INDICATED ON MECHANICAL DRAWINGS. MECHANICAL CONTRACTOR SHALL BE RESPONSIBLE TO VERIFY LOCATIONS AND FIRE RATING REQUIREMENTS WHERE ANY DUCT PASSES THROUGH A PARTITION. REFER TO ARCHITECTURAL PLANS FOR LOCATION OF ALL FIRE AND SMOKE PARTITIONS. VERIFY REQUIRED DAMPER ASSEMBLY IN ALL DUCTS PENETRATING THESE WALLS PER ALL STATE AND LOCAL CODES.
- EXTERNALLY INSULATE ALL ROUND SUPPLY AND RETURN DUCT. INTERNALLY INSULATE ALL RECTANGULAR SUPPLY AND RETURN DUCT PER MECHANICAL CODE. ATTACH THE INTERNAL INSULATION TO THE DUCT WITH APPROVED ADHESIVE AND WELDED FASTENERS.
- MECHANICAL CONTRACTOR SHALL COORDINATE ALL DUCTWORK WITH FIELD CONDITIONS AND PROVIDE ALL OFFSETS, BENDS, TRANSITIONS AND SPECIAL FITTINGS FOR A COMPLETE INSTALLATION OF THE SYSTEMS.
- USE FLANGED AND GASKETED DUCT CONSTRUCTION FOR RECTANGULAR DUCT CONVEYING AIR AT STATIC PRESSURES ABOVE 2 IN. W.G. USE LOCKED SEAM SPIRAL DUCT CONSTRUCTION FOR ROUND DUCT CONVEYING AIR AT STATIC PRESSURES ABOVE 2 IN. W.G. ALL HIGH PRESSURE DUCT CONSTRUCTION SHALL ADHERE TO SMAGNA DUCT CONSTRUCTION STANDARDS (LATEST EDITION) FOR DUCT CLASSIFICATION UP TO 5 IN. W.G.
- INTERIOR OF ALL DUCT FLENUMS VISIBLE THROUGH GRILLE SHALL BE PAINTED MATTE BLACK PRIOR TO INSTALLATION.
- INTERLOCK EXHAUST FANS WITH LIGHT SWITCHES. REFER TO ELECTRICAL PLANS.
- PAINT ALL SUPPLY AND RETURN AIR GRILLES NOT SPECIFIED AS PRE-FINISHED, TO ARCHITECT'S SPECIFICATIONS UNLESS OTHERWISE SPECIFIED.
- MAINTAIN 10 FT. MINIMUM CLEARANCE BETWEEN FRESH AIR INTAKES AND ALL EXHAUST OUTLETS, GAS FLUES AND PLUMBING VENTS.
- INSTALL VOLUME CONTROL DAMPERS IN SUPPLY, RETURN, EXHAUST AND FRESH AIR BRANCH DUCT RUNS.
- REGULATING AIR SYSTEMS WITH A FAN CAPACITY GREATER THAN 2,000 NOMINAL CFM SHALL AUTOMATICALLY SHUT DOWN BY MEANS OF AN APPROVED SMOKE DETECTOR PLACED IN THE RETURN AIR STREAM PRIOR TO ANY EXHAUSTING FROM THE BUILDING OR MIXING WITH FRESH AIR MAKEUP. ALL CONTROLS SHALL BE LISTED. UPON ACTIVATION OF THE SAFETY CONTROL, THE SYSTEM SHALL NOT RESTART UNTIL THE SAFETY CONTROL IS MANUALLY RESET.
- ALL MECHANICAL INSTALLATIONS SHALL CONFORM TO THE LATEST ACCEPTABLE MECHANICAL CODE.
- SEAL ALL DUCT SEAMS WITH HARDCAST IRON GRIP 601 SEALANT SYSTEM OR AN APPROVED EQUAL. DUCT TAPE, WHETHER LISTED OR NOT, WILL NOT BE ACCEPTED.
- FABRICATE AND INSTALL ALL GALVANIZED DUCT SYSTEMS TO SMAGNA DUCT CONSTRUCTION STANDARDS, LATEST EDITION, AND MECHANICAL CODE.
- FABRICATE AND INSTALL AUXILIARY CONDENSATE DRAIN PAN UNDER ENTIRE AIR HANDLER WITH CONDENSATE PAN SWITCH INTERLOCKED WITH AIR HANDLER FOR SHUT DOWN WHEN CONDENSATE OVER FLOW IS SENSED.
- EVERY ATTIC OR FURRED SPACE IN WHICH MECHANICAL EQUIPMENT IS INSTALLED SHALL BE ACCESSIBLE BY AN OPENING AND PASSAGEWAY AS LARGE AS THE LARGEST PIECE OF THE EQUIPMENT AND IN NO CASE LESS THAN 22 X 36 INCHES CONTINUOUS FROM THE OPENING TO THE EQUIPMENT AND ITS CONTROLS. THE OPENING TO THE PASSAGEWAY SHALL BE LOCATED NOT MORE THAN 20 FT. FROM THE EQUIPMENT MEASURED ALONG THE CENTERLINE OF SUCH PASSAGEWAY. EVERY PASSAGEWAY SHALL BE UNOBSTRUCTED AND SHALL HAVE SOLID CONTINUOUS FLOORING NOT LESS THAN 24 IN. WIDE FROM THE EQUIPMENT. ON THE CONTROL SIDE AND OTHER SIDES WHERE ACCESS IS NECESSARY FOR SERVICING THE EQUIPMENT, A LEVEL PLATFORM EXTENDING A MINIMUM 30 IN. FROM THE EDGE OF THE EQUIPMENT WITH A 36 IN. HIGH CLEAR WORKING SPACE SHALL BE PROVIDED. TOP OR BOTTOM SERVICE EQUIPMENT SHALL HAVE A FULL CLEARANCE ABOVE OR BELOW THE UNIT FOR COMPONENT REMOVAL.
- SUPPLY AIR SYSTEMS AND RETURN AIR SYSTEMS INSTALLED IN AN ATTIC, VENTILATED CRAWL SPACE OR OTHER NON-CONDITIONED AREA SHALL BE INSULATED.
- SPRINKLER CONTRACTOR TO BE RESPONSIBLE FOR ROUTING ALL SPRINKLER PIPING TO AVOID ALL UNCONDITIONED SPACES.
- DO NOT SCALE DIRECTLY FROM THE HVAC DRAWINGS. REFER TO ARCHITECTURAL DRAWINGS FOR ALL DIMENSIONAL INFORMATION.
- MECHANICAL CONTRACTOR SHALL INSTALL ALL EQUIPMENT, FANS AND APPLIANCES A MINIMUM OF 10 FEET FROM A ROOF EDGE OR OPEN SIDE WHERE SUCH EDGE OR OPEN SIDE IS GREATER THAN 30 INCHES ABOVE A FLOOR, ROOF OR GRADE BELOW. GUARD RAILS A MINIMUM OF 42 INCHES ABOVE THE ELEVATED SURFACE SHALL BE PROVIDED AND INSTALLED BY THE GENERAL CONTRACTOR AND EXTENDED A MINIMUM OF 30 INCHES BEYOND EACH END OF SUCH EQUIPMENT, FAN OR APPLIANCE WHERE APPLIANCES, EQUIPMENT, FANS OR OTHER COMPONENTS ARE LOCATED WITHIN THE REQUIRED 10 FOOT CLEARANCE REQUIREMENT. THE GUARD SHALL BE CONSTRUCTED SO AS TO PREVENT THE PASSAGE OF A 21 INCH DIAMETER SPHERE AND COMPLY WITH THE LOADING REQUIREMENTS FOR GUARDS SPECIFIED IN THE LATEST ACCEPTED INTERNATIONAL BUILDING CODE.

## HVAC KEYED NOTES

- MAINTAIN A MINIMUM OF 10 FT. CLEARANCE BETWEEN ALL EXHAUST OUTLETS, FLUES, PLUMBING VENTS AND ANY FRESH AIR INTAKES. IF 10 FT. CLEARANCE CAN NOT BE MAINTAINED EXHAUST OUTLET, FLUE, OR VENT MUST TERMINATE AT A POINT AT LEAST 36 IN. ABOVE HIGHEST FRESH AIR INTAKE WITHIN 10 FT. LIMIT.
- ELECTRICAL CONTRACTOR TO INTERLOCK IL-1, IL-3 & IL-3 WITH EF-3 AND EF-4 PROVIDE END SWITCH ON LOUVER THAT ALLOWS IL-1, IL-2 & IL-3 TO FULLY OPEN PRIOR TO ACTIVATING EXHAUST FANS.
- LOCATE THERMOSTAT OR HUMIDISTAT AS INDICATED WITH THE CENTER OF THE THERMOSTAT AT 48 IN. ABOVE FINISHED FLOOR. SEAL ALL THERMOSTAT CONDUITS AT TOP AND BOTTOM OF CONDUIT. PROVIDE INSULATED BACKING FOR MOUNTING THERMOSTATS.
- MECHANICAL CONTRACTOR SHALL INSTALL ALL EQUIPMENT, FANS AND APPLIANCES A MINIMUM OF 10 FEET FROM A ROOF EDGE OR OPEN SIDE WHERE SUCH EDGE OR OPEN SIDE IS GREATER THAN 30 INCHES ABOVE A FLOOR, ROOF OR GRADE BELOW. GUARD RAILS A MINIMUM OF 42 INCHES THE ELEVATED SURFACE SHALL BE PROVIDED AND INSTALLED BY THE GENERAL CONTRACTOR AND EXTENDED A MINIMUM OF 30 INCHES BEYOND EACH END OF SUCH EQUIPMENT, FAN OR APPLIANCE WHERE APPLIANCES, EQUIPMENT, FANS OR OTHER COMPONENTS ARE LOCATED WITHIN THE REQUIRED 10 FOOT CLEARANCE REQUIREMENT. THE GUARD SHALL BE CONSTRUCTED SO AS TO PREVENT THE PASSAGE OF A 21 INCH DIAMETER SPHERE AND COMPLY WITH THE LOADING REQUIREMENTS FOR GUARDS SPECIFIED IN THE LATEST ACCEPTED INTERNATIONAL BUILDING CODE.
- ROUTE SUPPLY AIR DUCT THROUGH IN BETWEEN JOISTS, COORDINATE DUCT WITH LIGHT FIXTURES AND BUILDING STRUCTURE.

## MECHANICAL LEGEND

- SUPPLY DUCT SECTION
- RETURN OR EXHAUST DUCT SECTION
- CEILING SUPPLY GRILLE
- CEILING RETURN GRILLE
- CEILING EXHAUST GRILLE
- SIDEWALL SUPPLY OR RETURN GRILLE
- SEE KEYED NOTES
- SUPPLY, RETURN, OR EXHAUST DUCT
- SPIRAL DUCT
- EXISTING SUPPLY, RETURN, OR EXHAUST DUCT
- DEMO DUCT
- VOLUME DAMPER
- ROUND DUCT FIRE DAMPER (NUMBER DENOTES FIRE RATING OF 4FD WALL. EXAMPLE: 4FD = ONE HR. RATED WALL.)
- FLEX DUCT CONNECTION MAXIMUM OF 5 FT.
- THERMOSTAT. MOUNT AT 48" A.F.F. TO TOP (NUMBER DENOTES FURNACE OR ROOFTOP UNIT)



### KEYED NOTES: (CONTROL RISER ONLY)

- MECHANICAL CONTRACTOR TO PROVIDE AND MOUNT HONEYWELL E3 POINT SERIES DUAL SENSOR GAS DETECTOR. DETECTOR TO BE PROVIDED WITH 120V POWER OPTION.
- MECHANICAL CONTRACTOR TO PROVIDE AND MOUNT HONEYWELL E3 SERIES REMOTE NO2 SENSOR.
- ELECTRICAL CONTRACTOR TO PROVIDE AND INSTALL MANUFACTURER RECOMMENDED CABLING TO CONNECT BASE MODULE AND REMOTE NO2 SENSOR.
- ELECTRICAL CONTRACTOR TO PROVIDE 120V POWER TO GAS DETECTOR MODULE.
- ELECTRICAL CONTRACTOR TO PROVIDE AND INSTALL CONTACTOR WITH HAND/OFF/AUTO SWITCH.
- ELECTRICAL CONTRACTOR TO PROVIDE AND INSTALL ALL CABLING AND MATERIALS TO COMMUNICATE A 24V OUTPUT SIGNAL FROM GAS DETECTOR MODULE TO LOUVER CONTACTOR. ALL CABLING TO BE INSTALLED IN CONDUIT.
- 120V/24V TRANSFORMER BY ELECTRICAL CONTRACTOR.
- ELECTRICAL CONTRACTOR TO PROVIDE AND INSTALL COMBINATION MOTOR STARTER WITH NON FUSED DISCONNECT FOR POWERING EACH EXHAUST FAN.
- INTAKE LOUVER WITH 120V ACTUATOR AND AUXILIARY END SWITCH BY MECHANICAL CONTRACTOR.

## 1 GAS DETECTION DETAIL

NTS

NOTES:  
REFER TO SHEET M2.1 FOR HVAC PLANS. REFER TO SHEET M3.1 FOR HVAC DETAILS. REFER TO M4.1 FOR HVAC CONTROL. REFER TO SHEET M5.1 FOR HVAC SCHEDULES.

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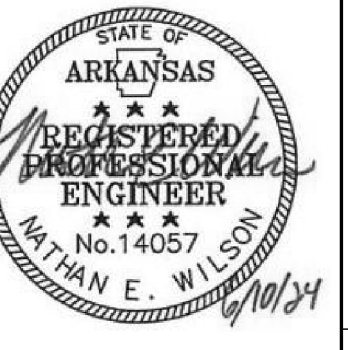
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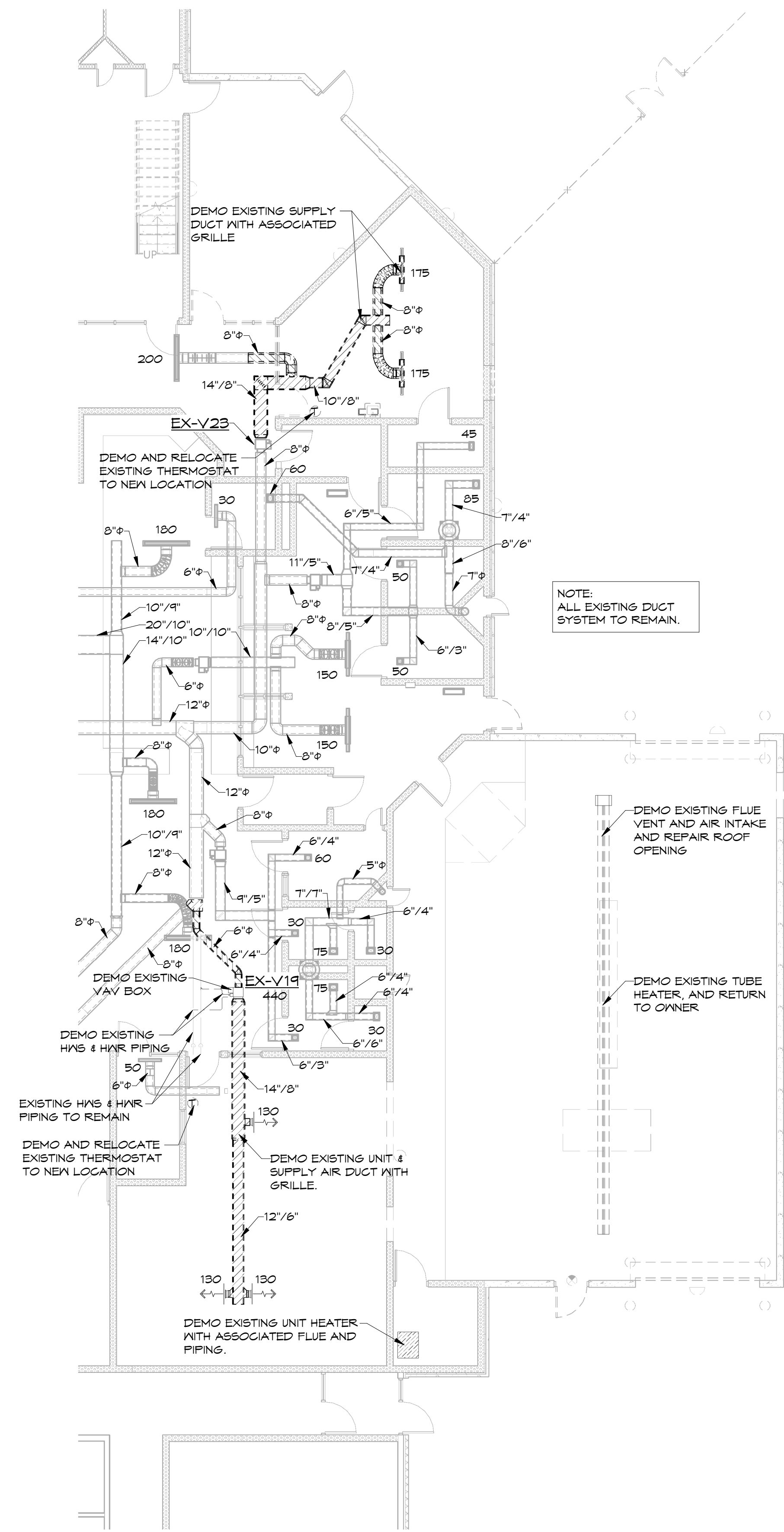
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**1** FIRST FLOOR HVAC DEMOLITION PLAN  
1/8" = 1'-0"



NOTES:  
REFER TO SHEET M1.1 FOR HVAC LEGEND, GENERAL AND KEYED NOTES. REFER TO M2.1 FOR HVAC PLANS. REFER TO SHEET M3.1 FOR HVAC DETAILS. REFER TO SHEET M5.1 FOR HVAC SCHEDULES.

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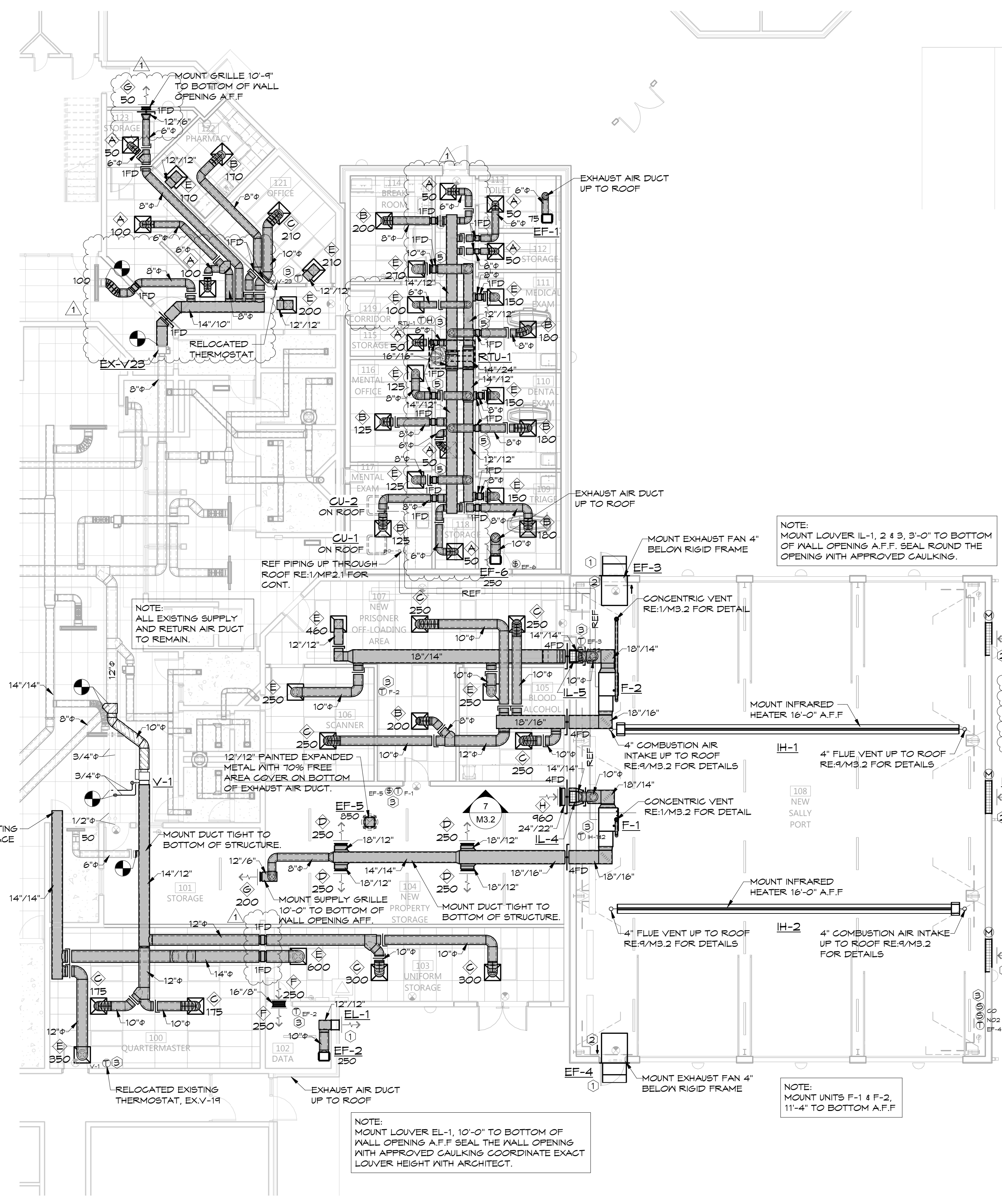
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1	07/09/2024	ADDENDUM #2	

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**1 FIRST FLOOR HVAC PLAN**  
1/8" = 1'-0"



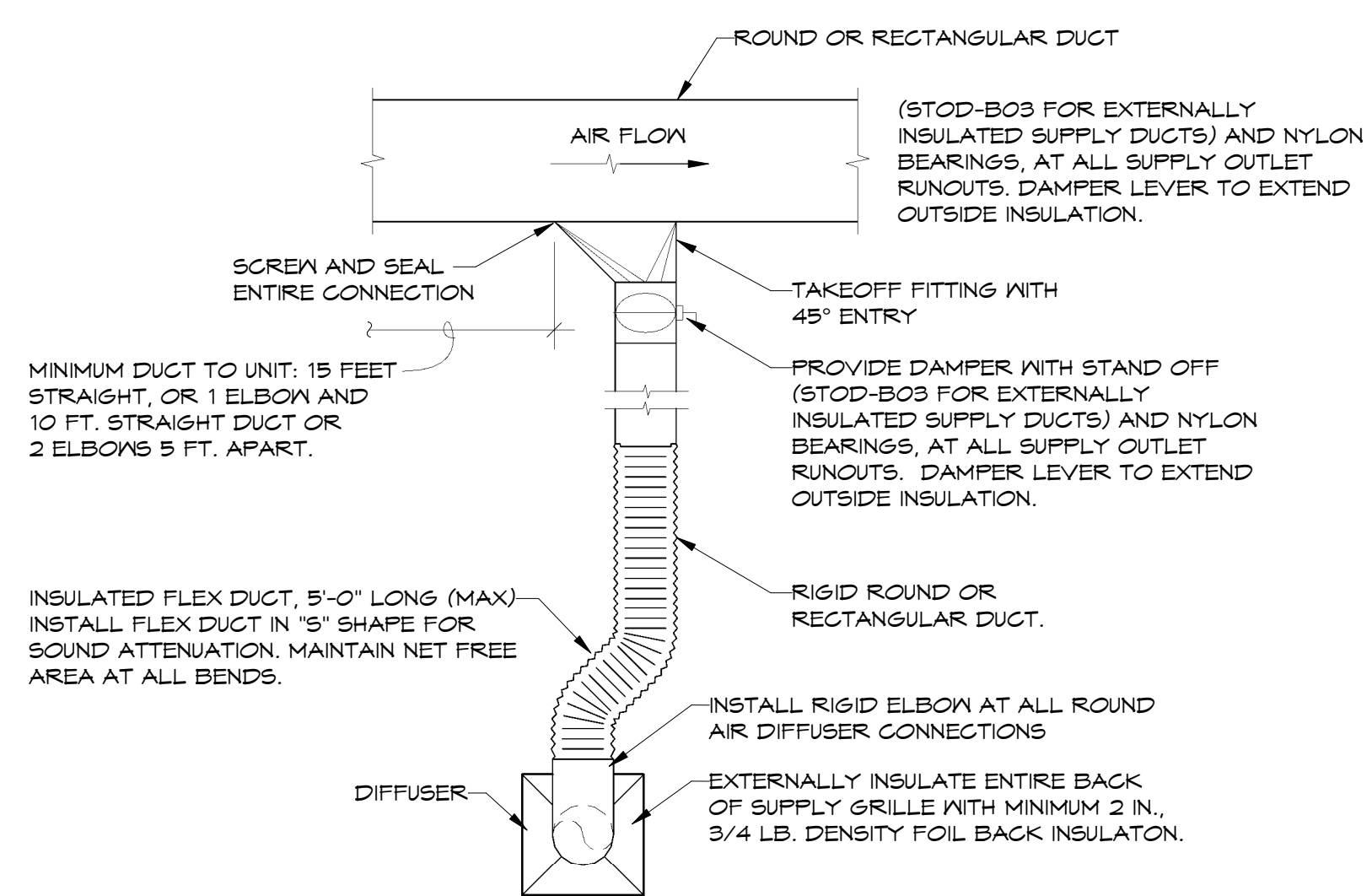
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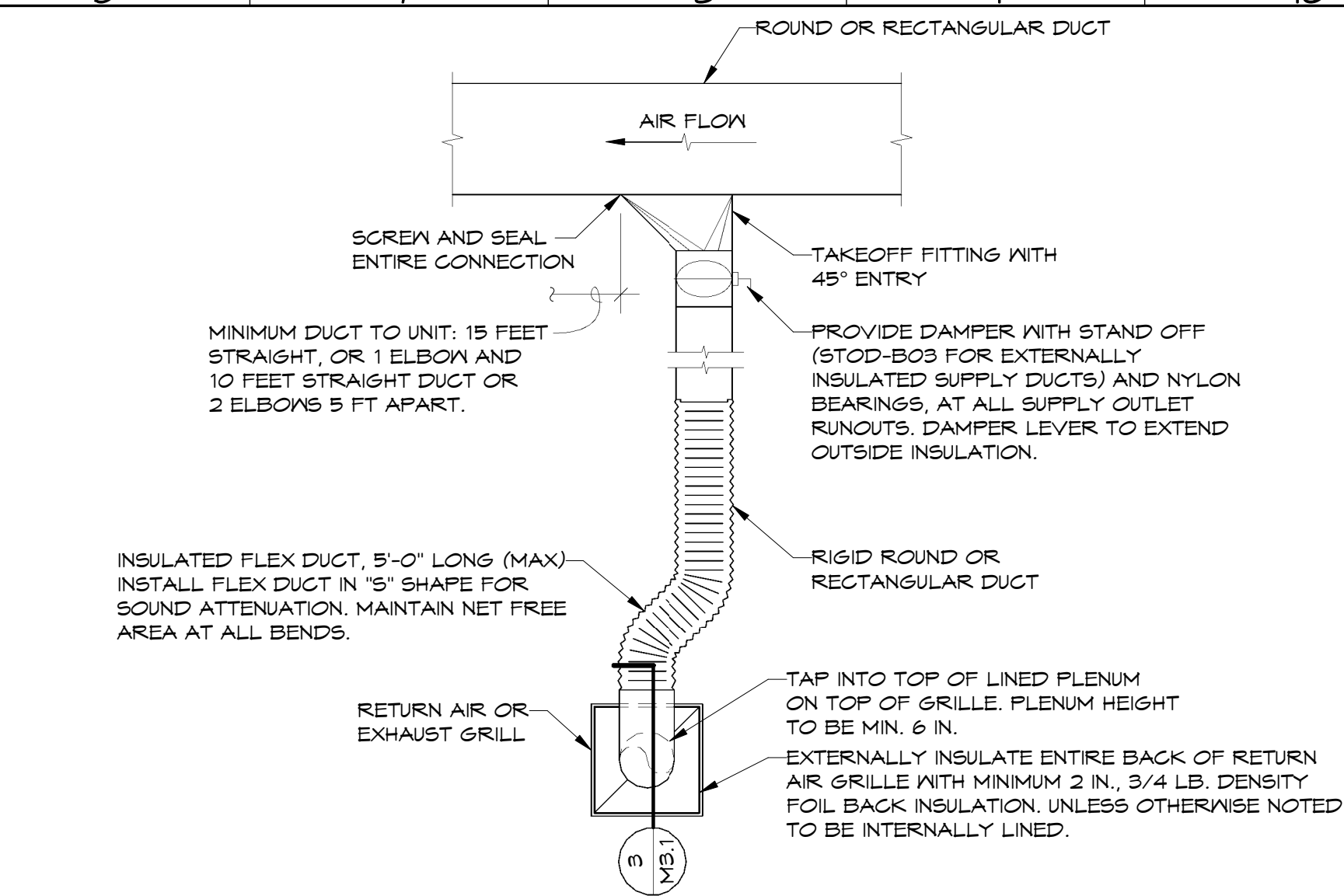
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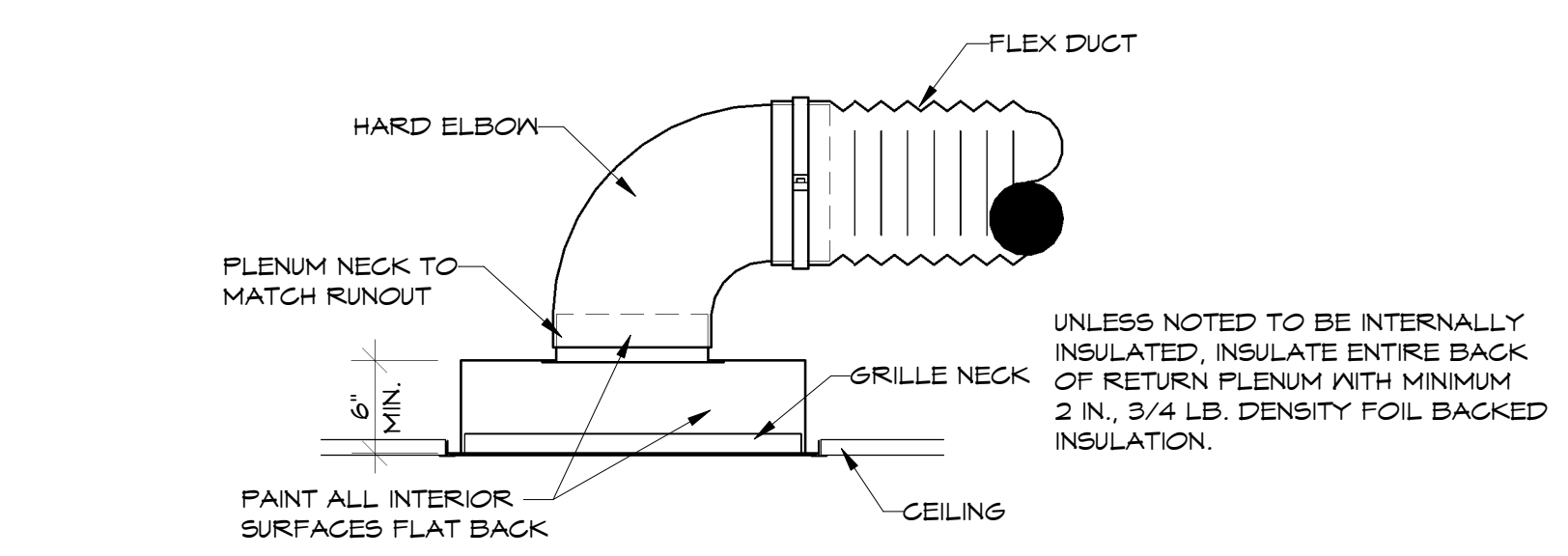
**1** SUPPLY DUCT CONNECTION DETAIL  
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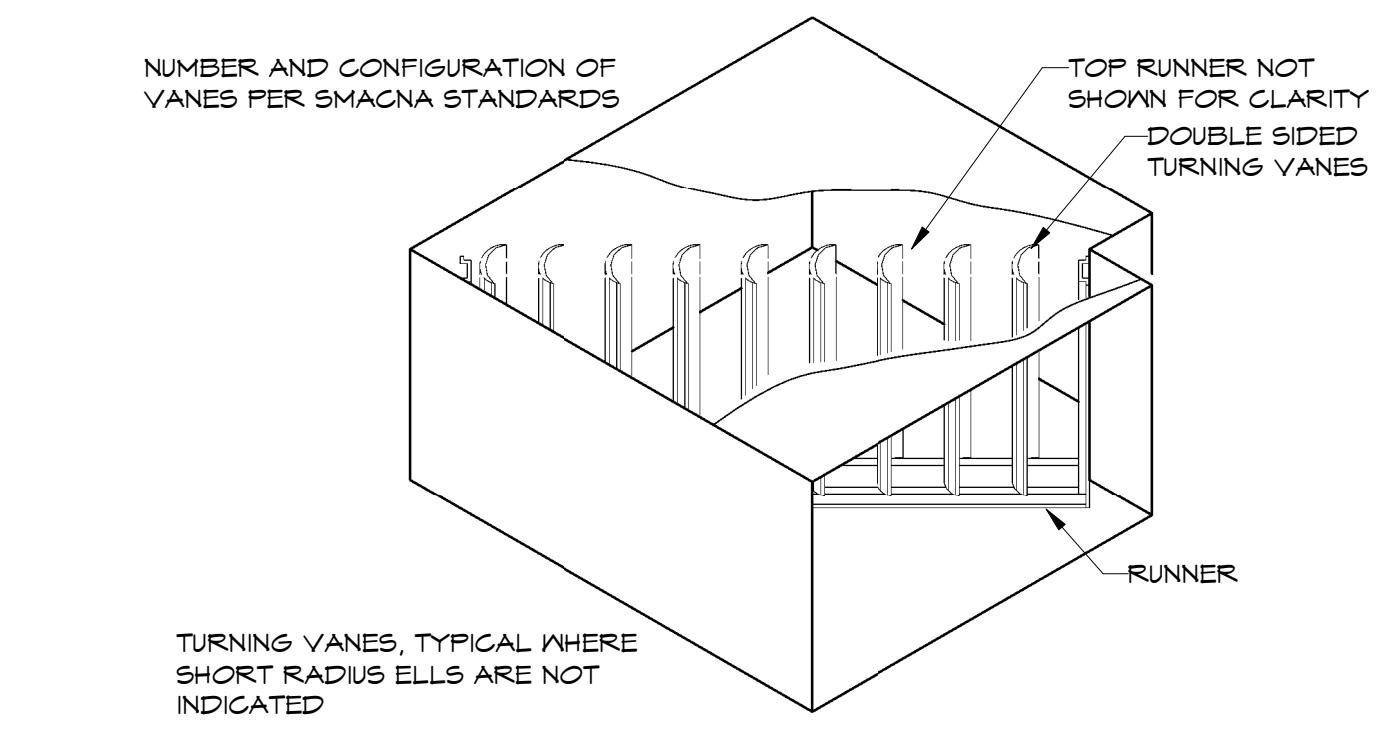
**2** RETURN DUCT CONNECTION DETAIL  
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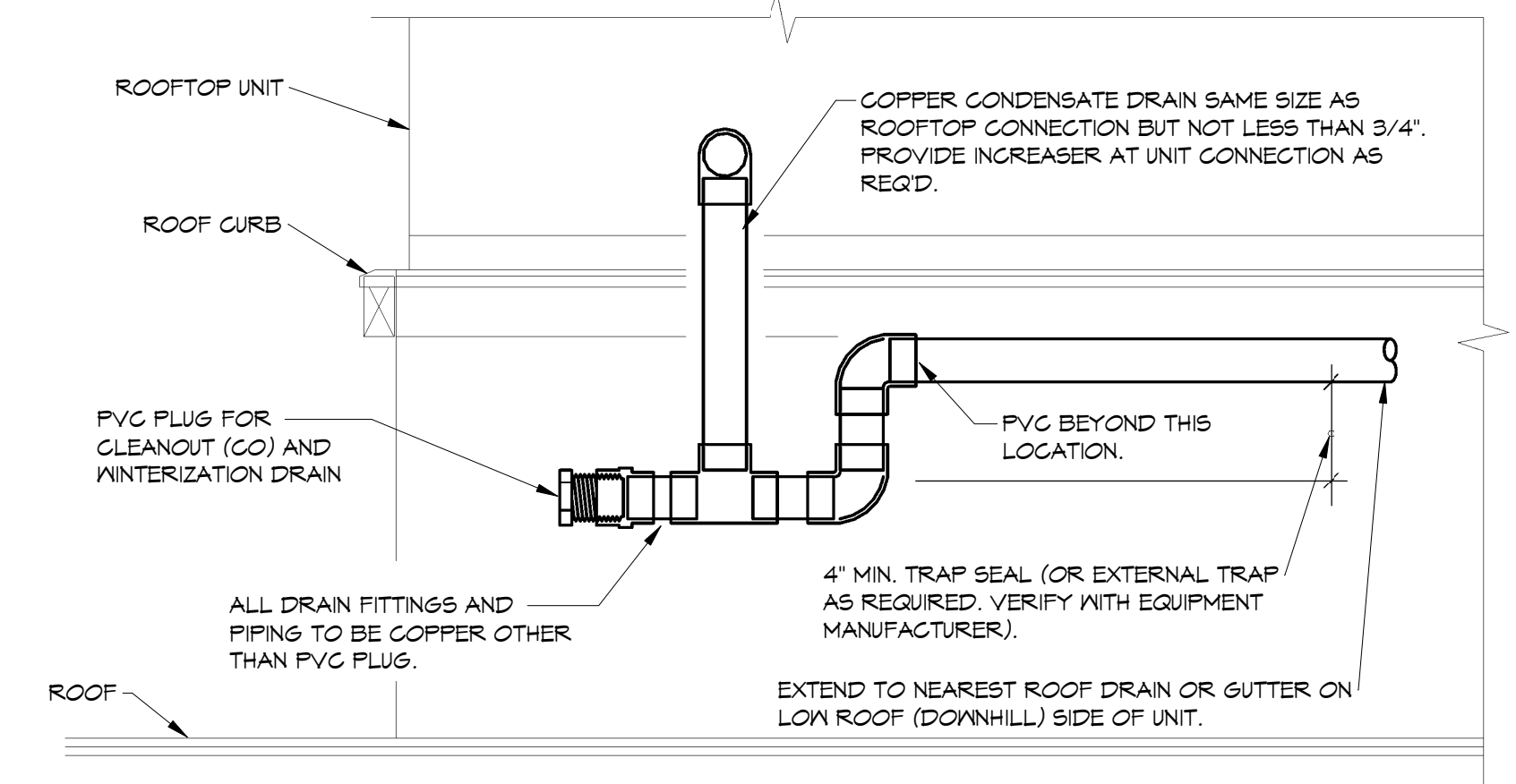
**3** RETURN GRILLE CONNECTION SECTION  
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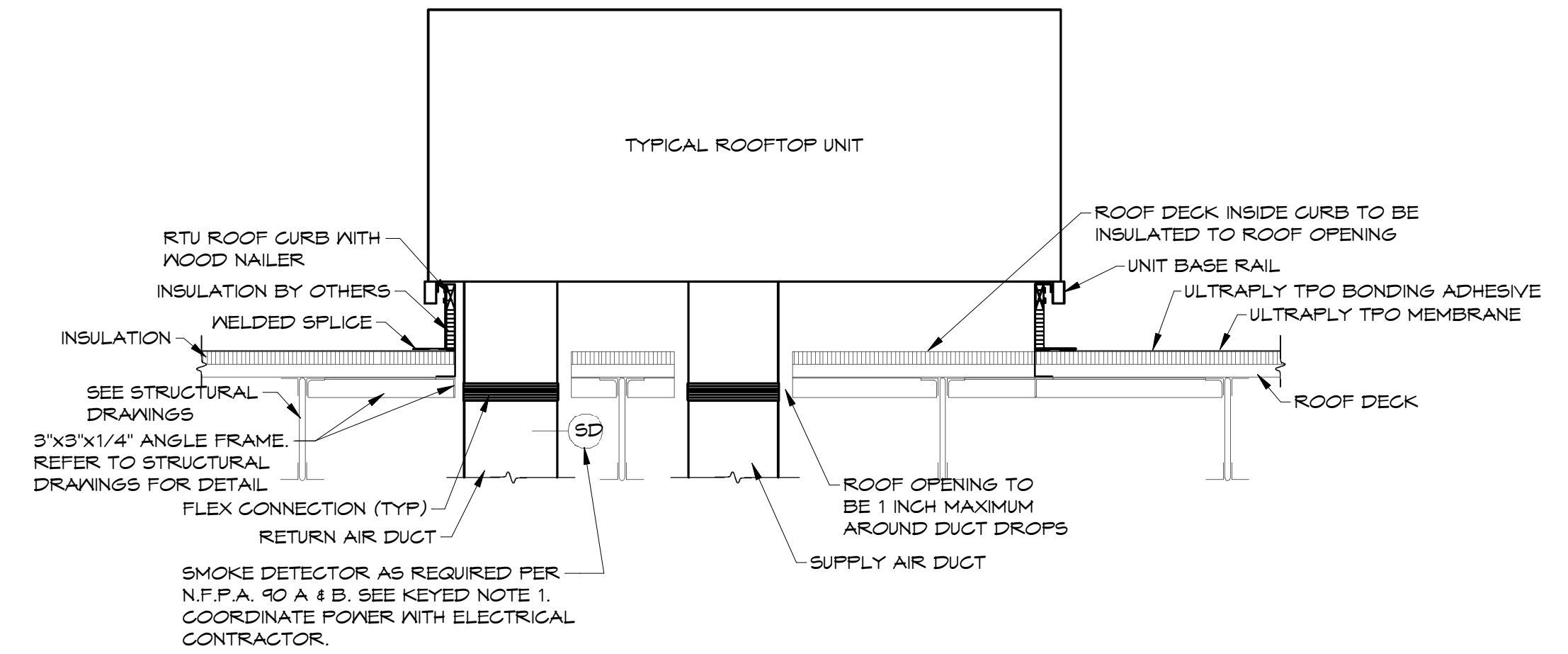
**4** TURNING VANE DETAIL  
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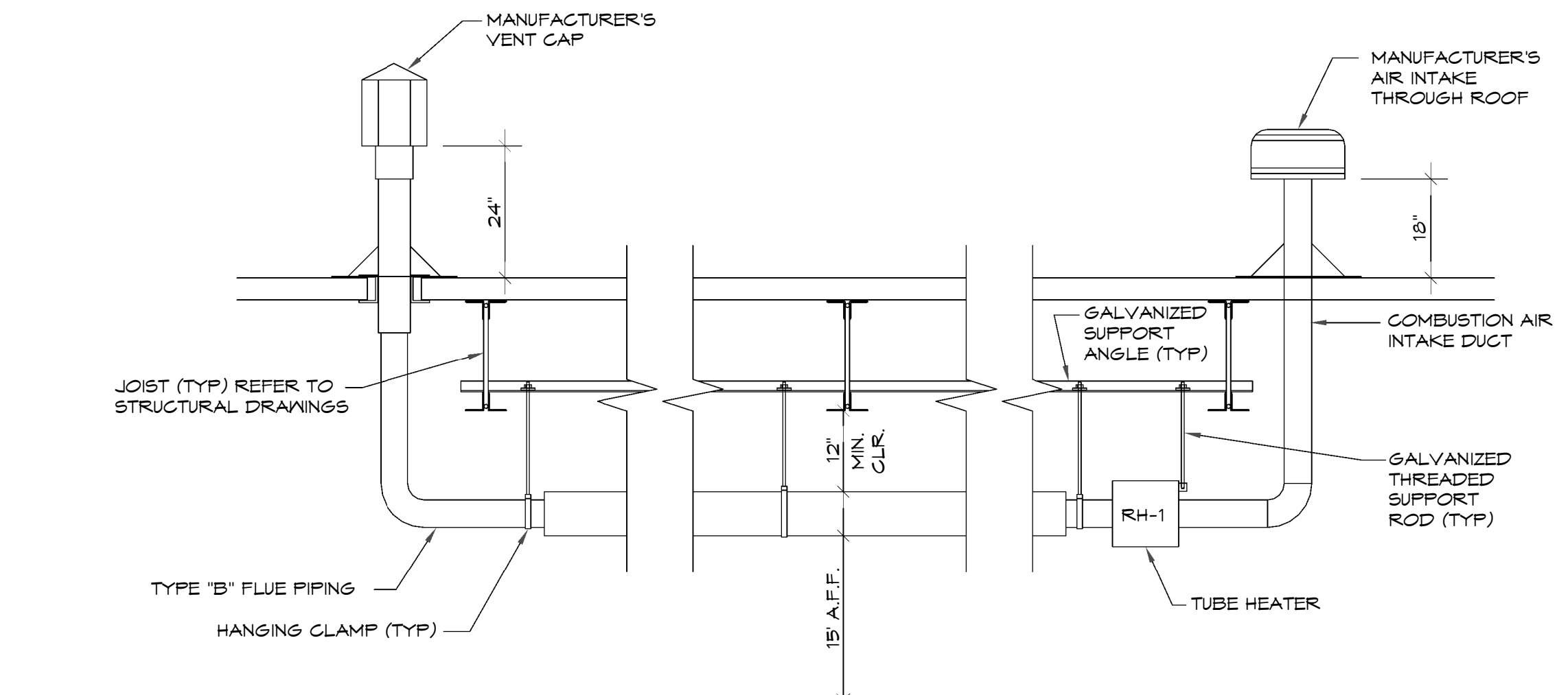
**5** ROOFTOP UNIT CONDENSATE DETAIL  
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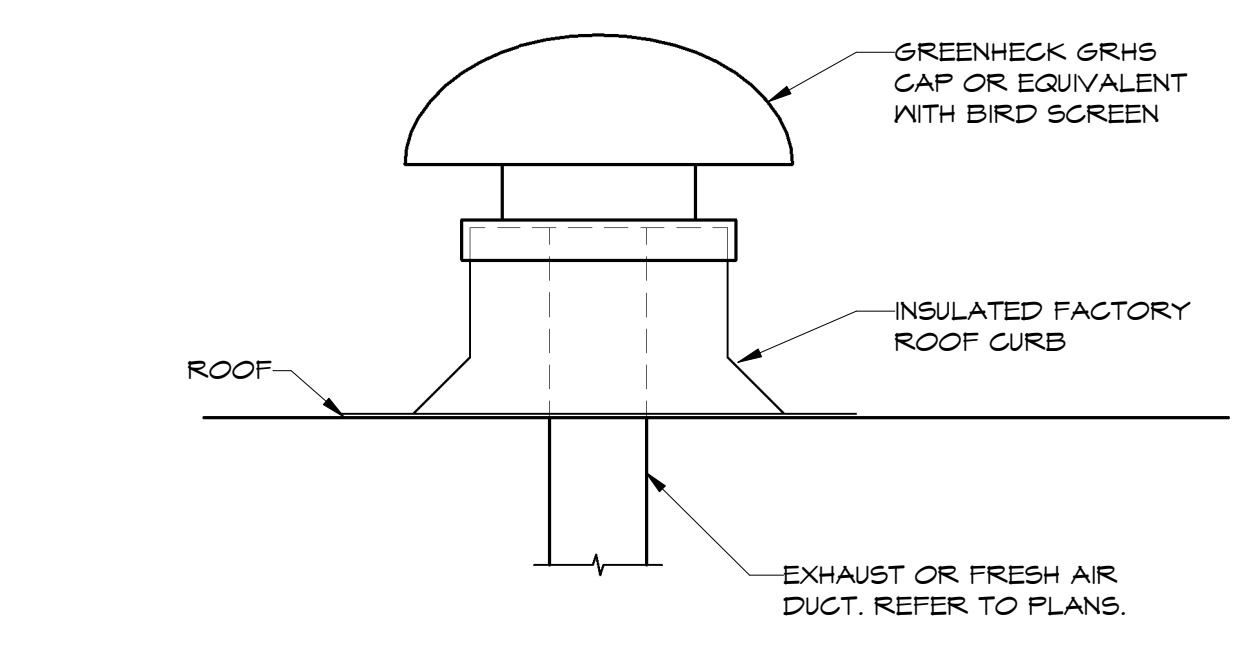
**6** ROOFTOP UNIT CURB DETAIL  
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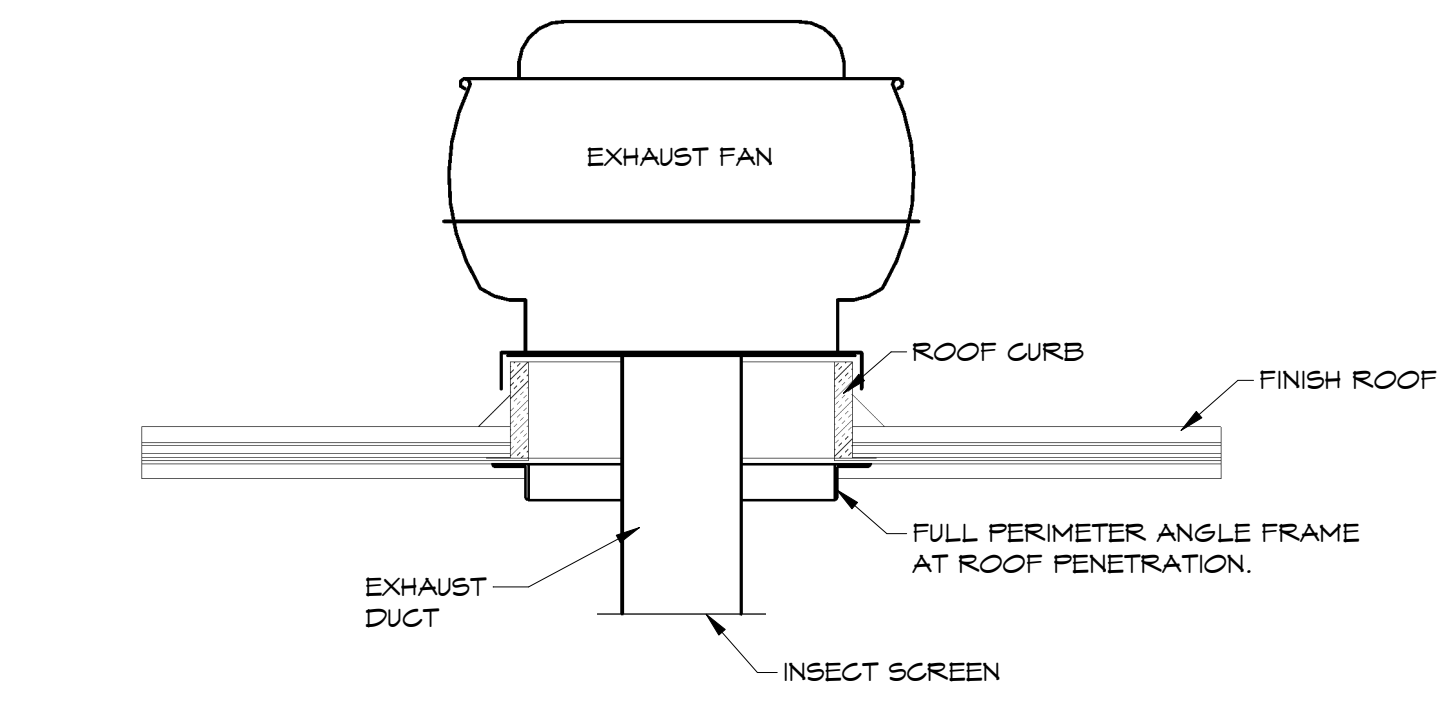
**7** RADIANT HEATER DETAIL  
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**8** ROOF GAP DETAIL  
NTS



**9** EXHAUST FAN UPBLAST DETAIL  
NTS



NOTES:  
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REFER TO SHEET M2.1 FOR HVAC PLANS. REFER TO SHEET M4.1 FOR HVAC CONTROL. REFER TO SHEET M5.1 FOR HVAC SCHEDULES.

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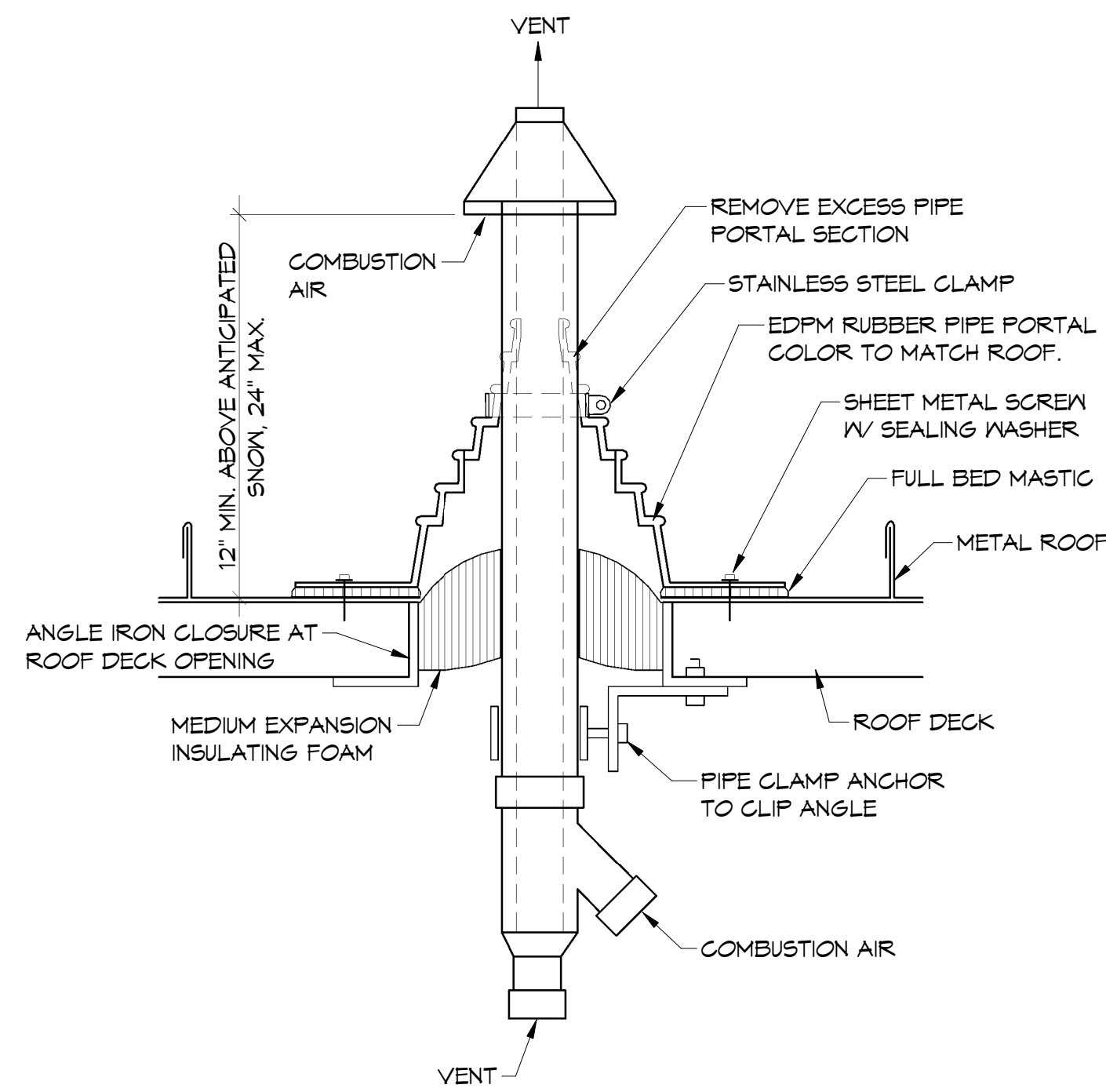
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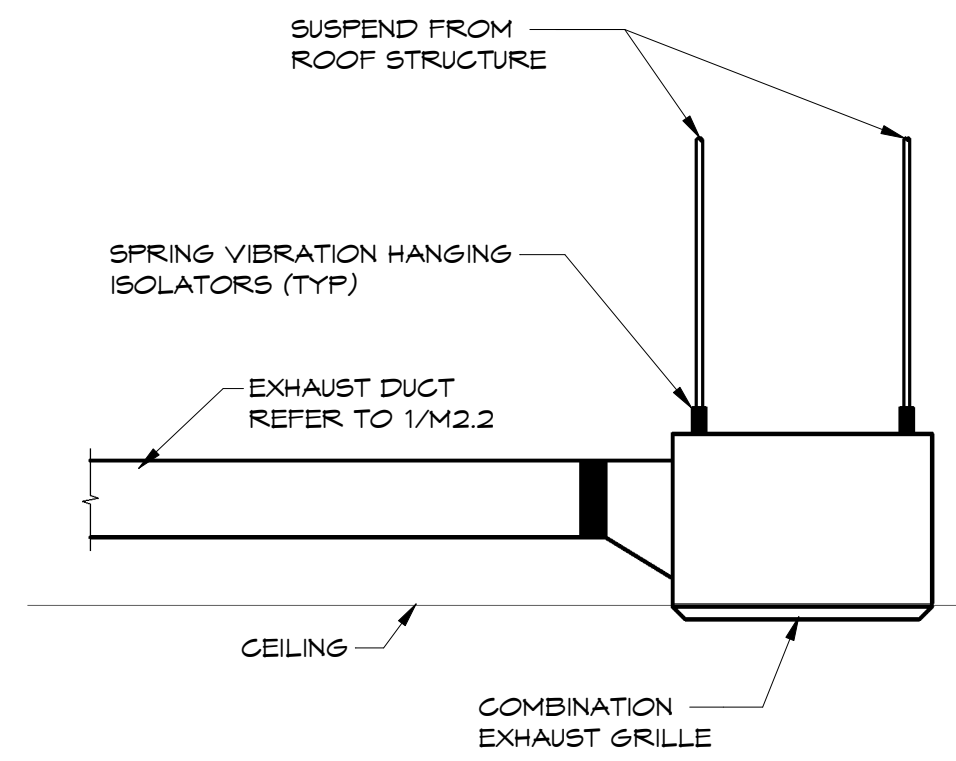
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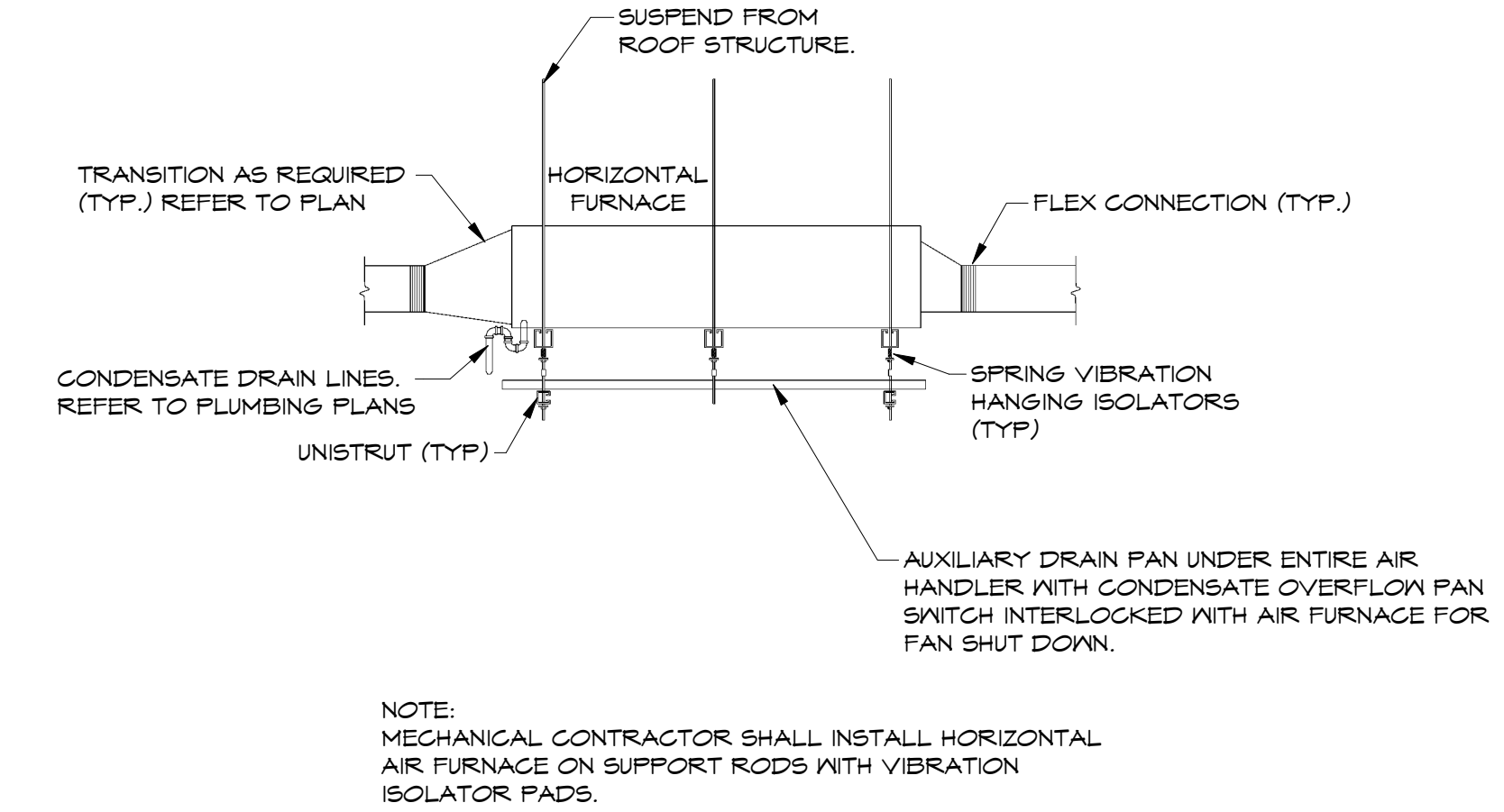
**1** CONCENTRIC STANDING SEAM  
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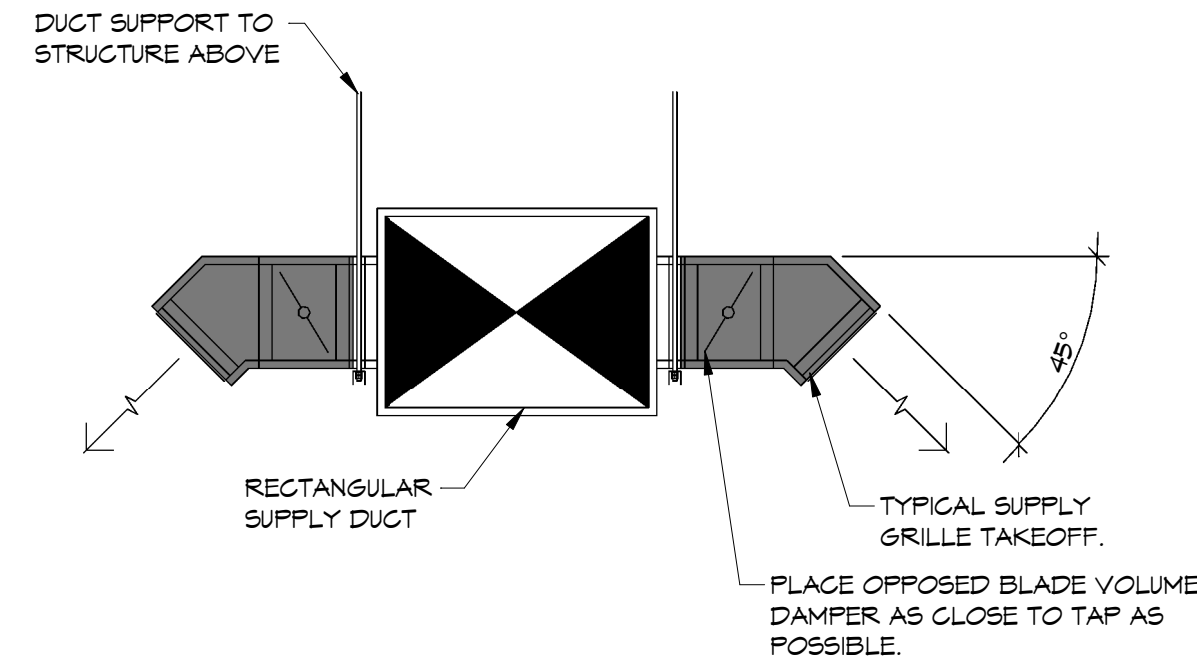
**2** EXHAUST FAN DETAIL  
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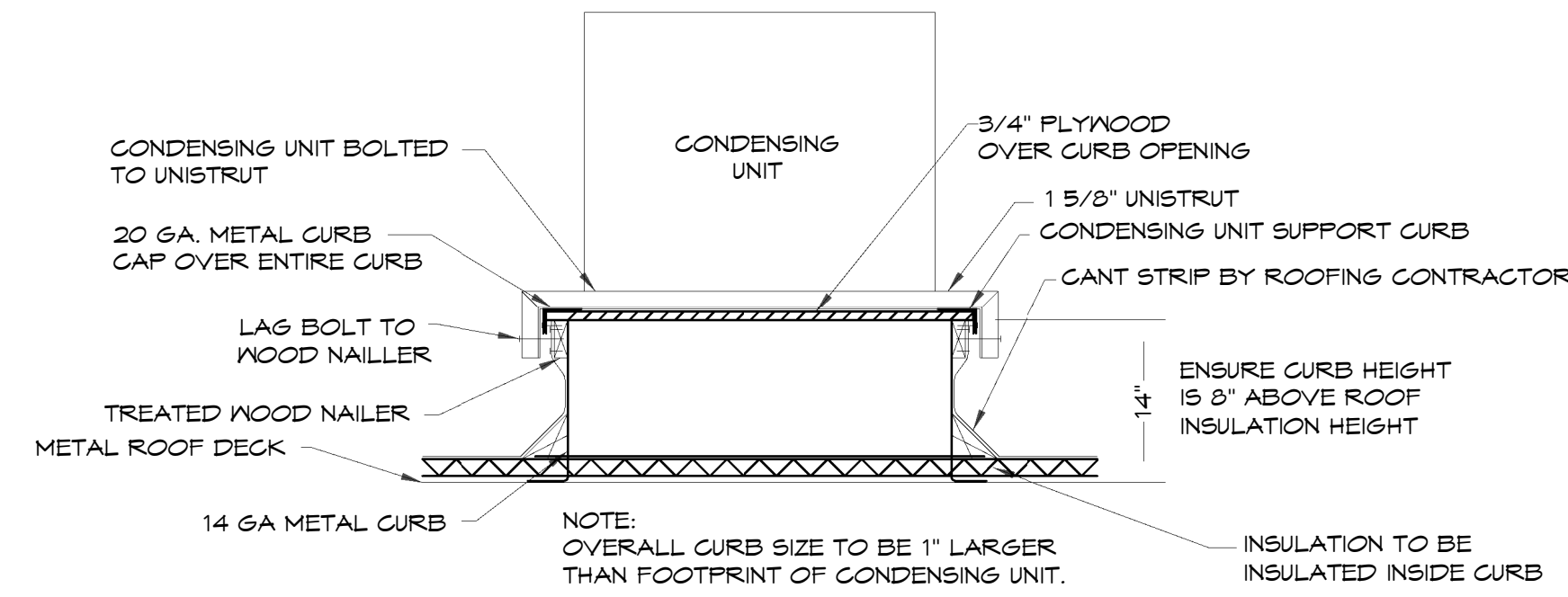
**3** HORIZONTAL FURNACE DETAIL  
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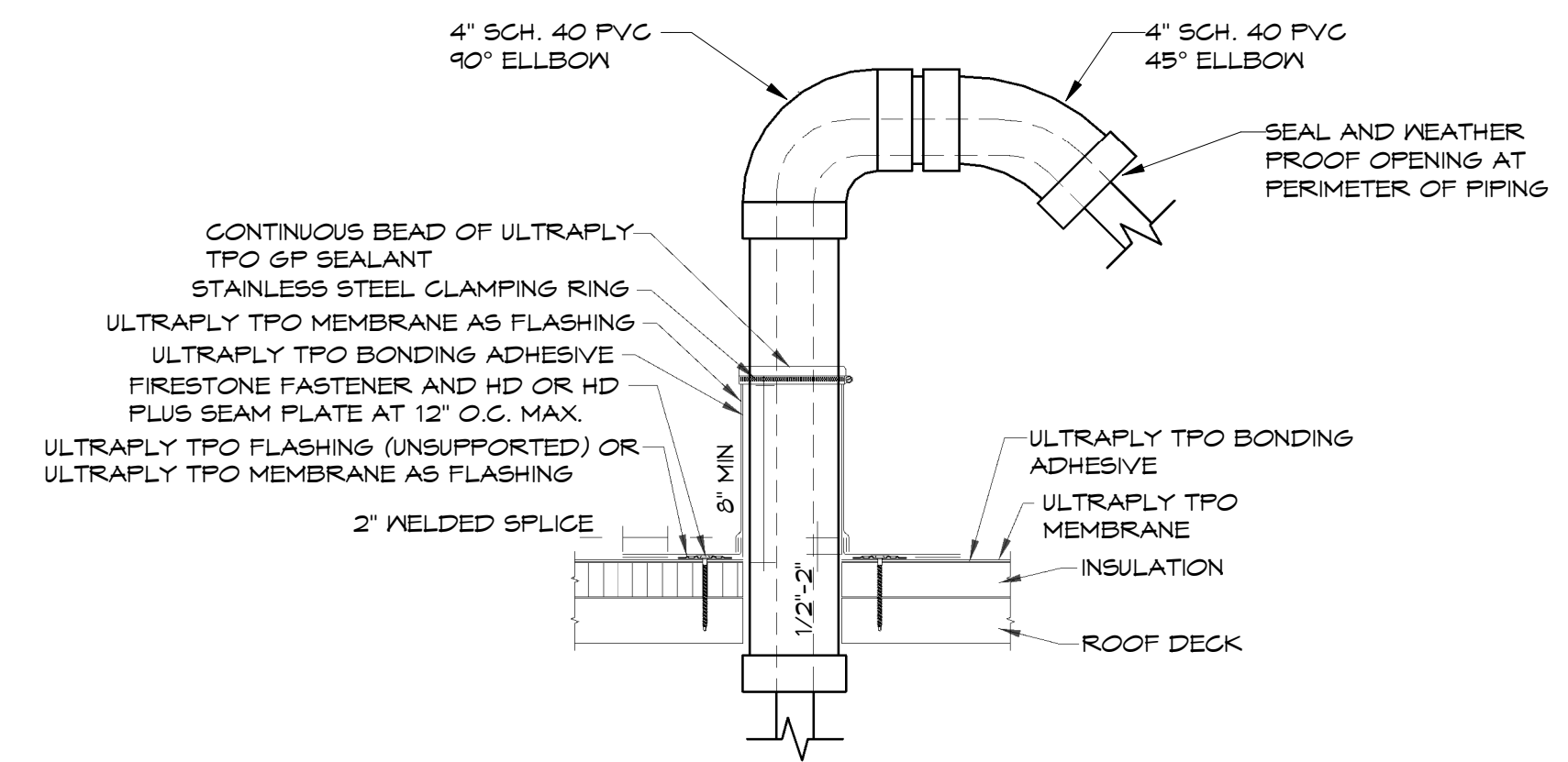
**4** DUCT MOUNTED SUPPLY GRILLE DETAIL  
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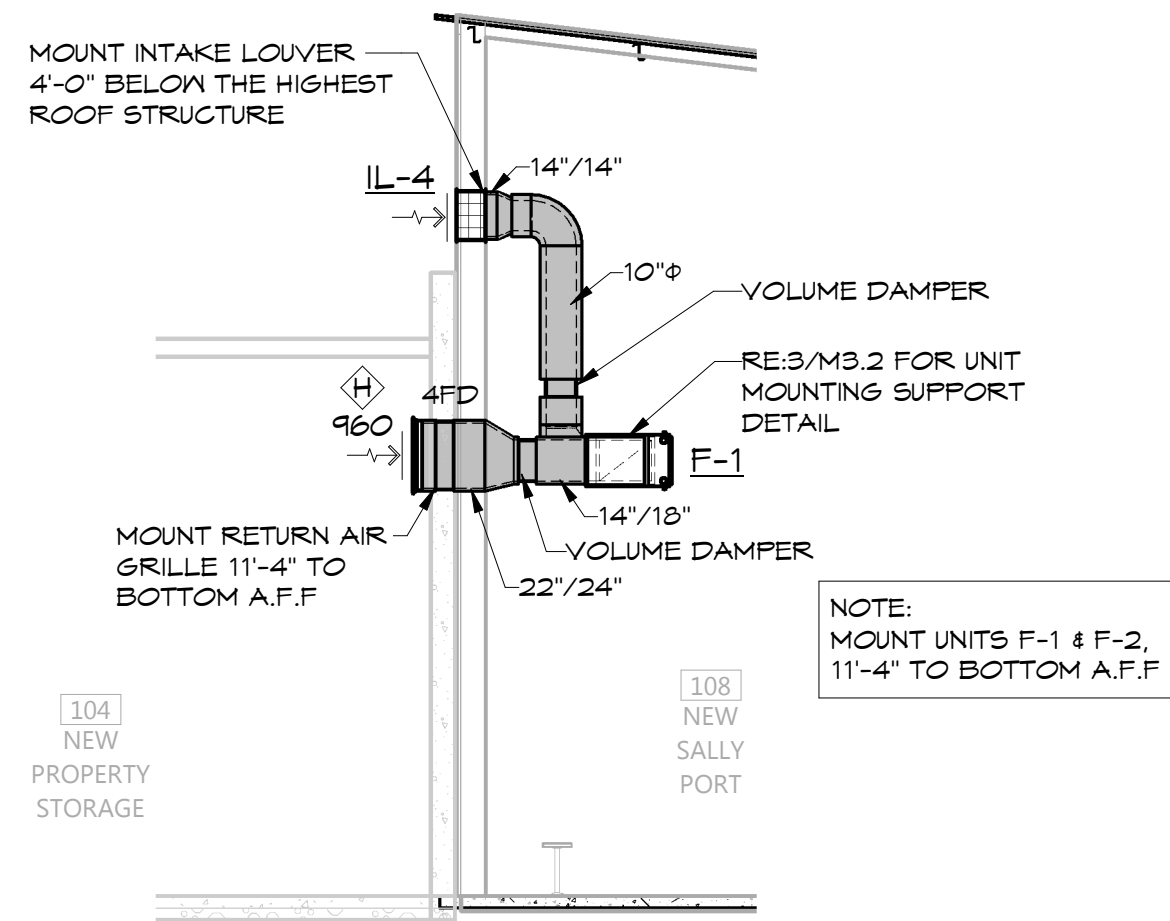
**5** CONDENSING UNIT SUPPORT CURB DETAIL  
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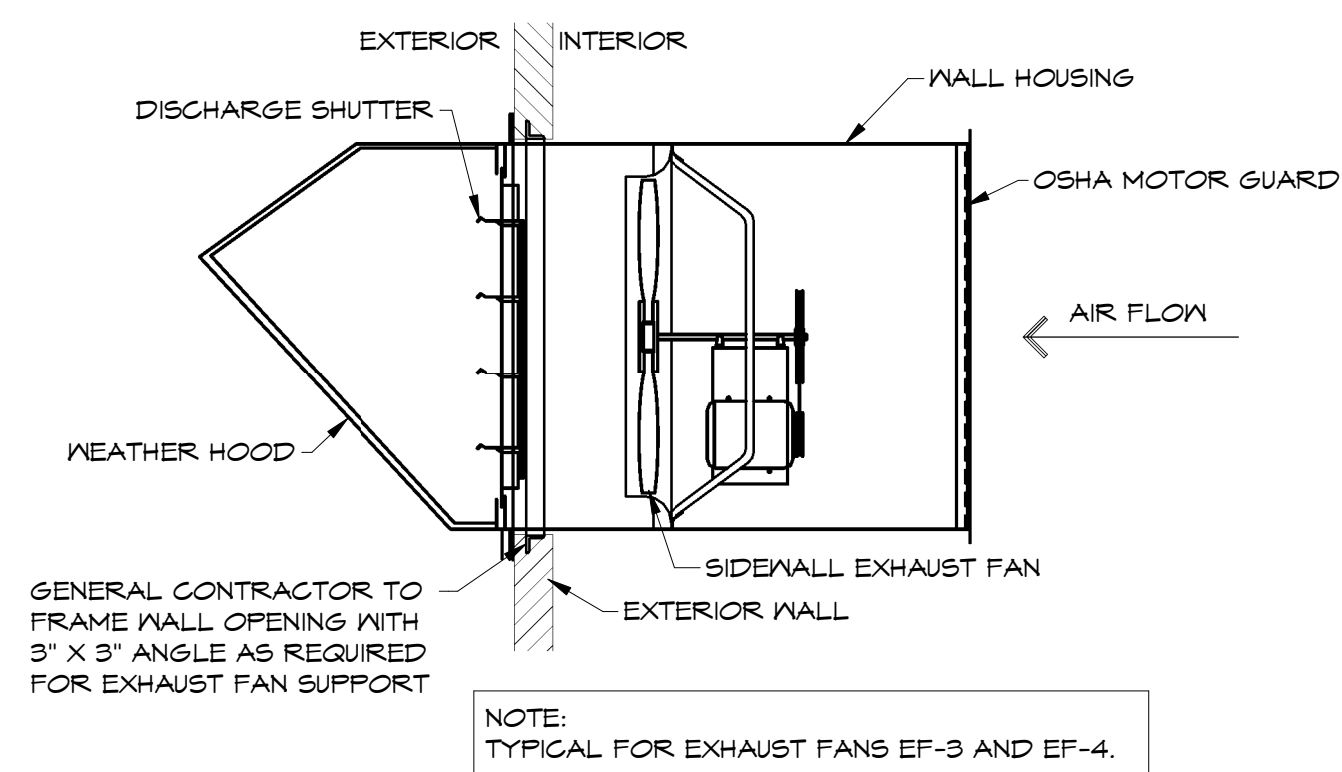
**6** REFRIGERANT PIPING ROOF PENETRATION DETAIL  
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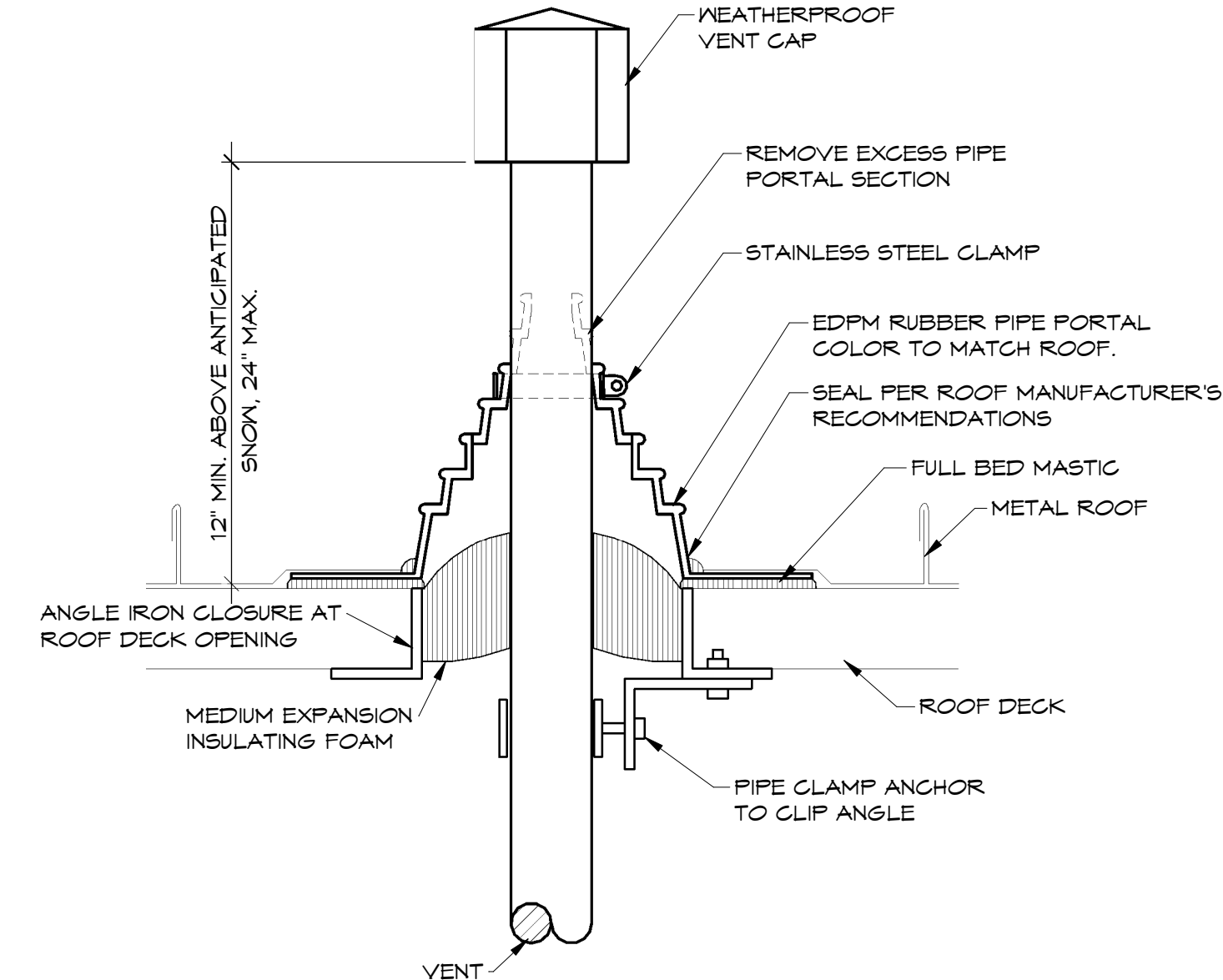
**7** FURNACE UNIT SECTIONAL DETAIL  
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**8** WALL-MOUNTED EXHAUST FAN DETAIL  
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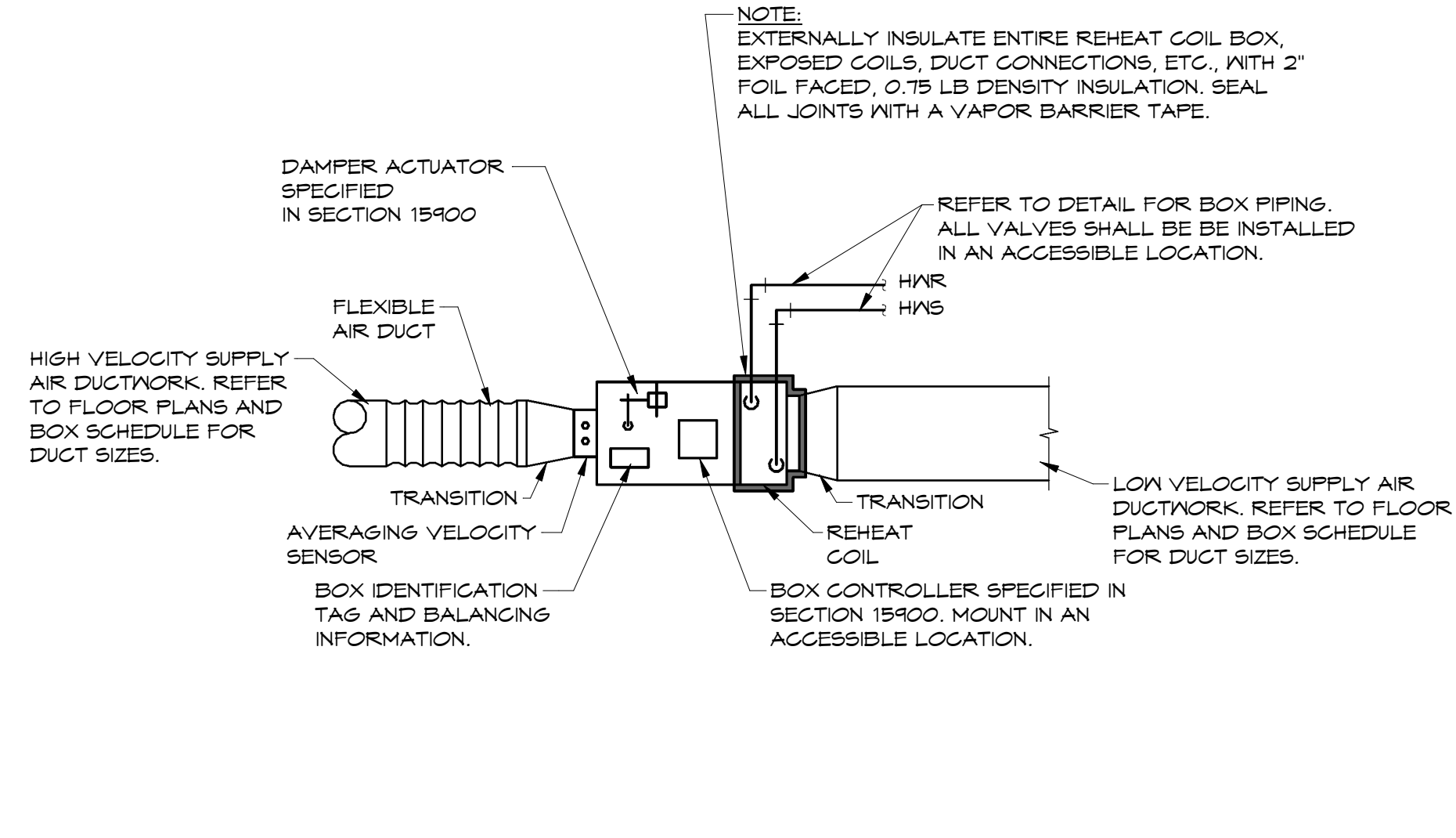
**9** B VENT DETAIL  
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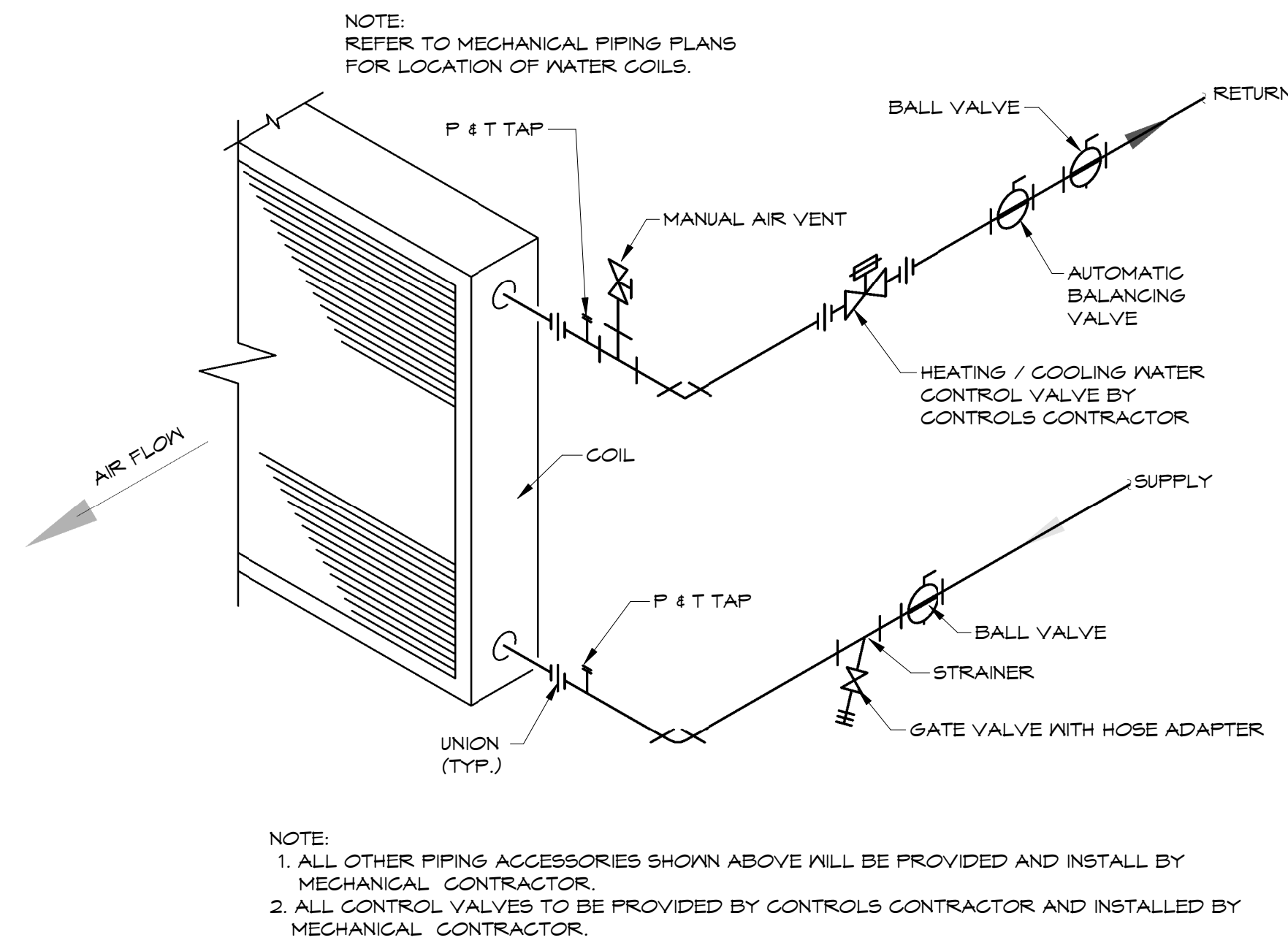
NOTES:  
REFER TO SHEET M1.1 FOR HVAC LEGEND, GENERAL AND KEYED NOTES.  
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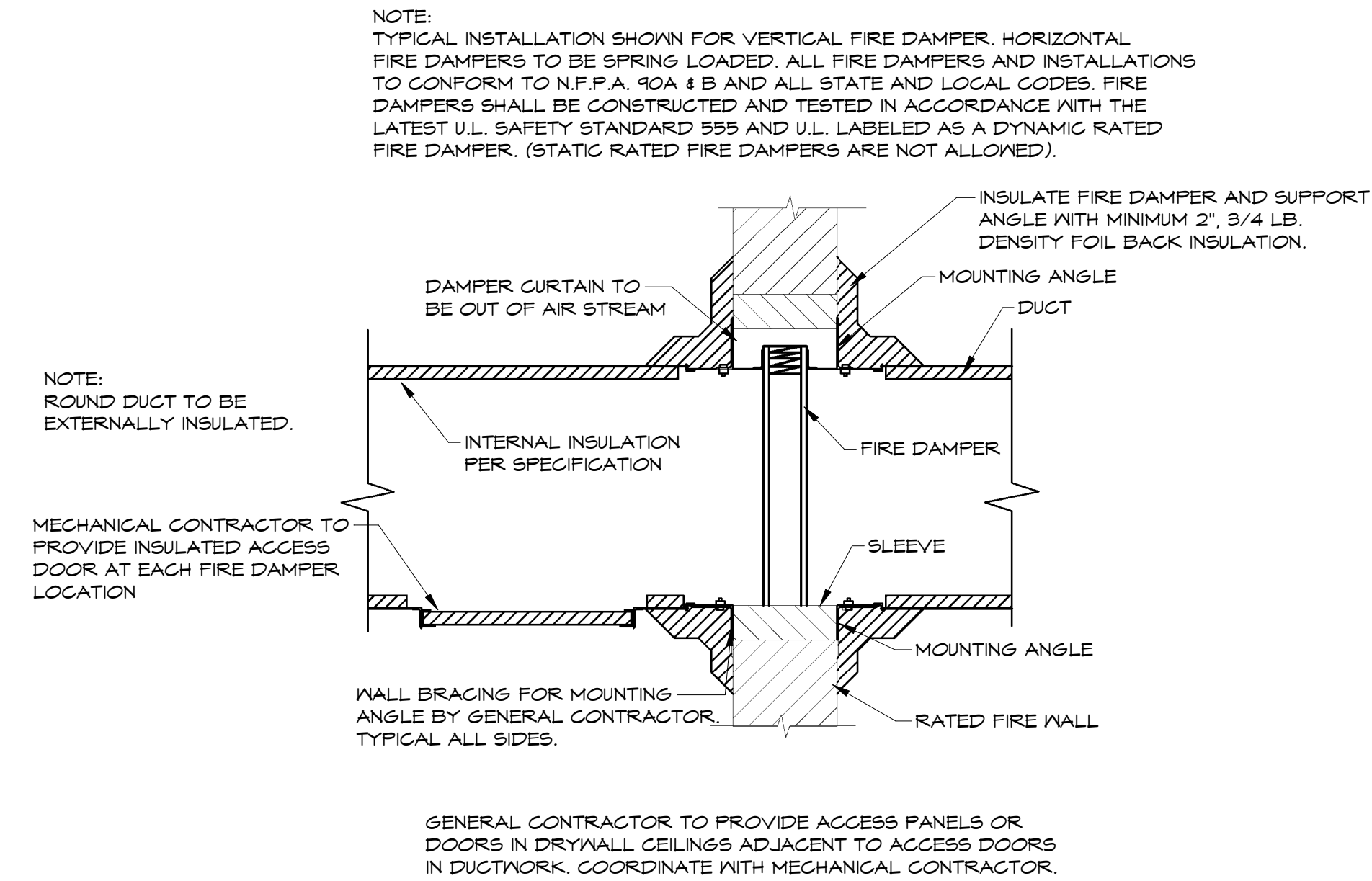
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**1** REHEAT-BOX-HOT WATER DETAIL  
NTS



**2** 2 WAY COIL PIPING DETAIL  
NTS



**3** INTERNALLY LINED FIRE DAMPER DETAIL  
NTS

NOTES:  
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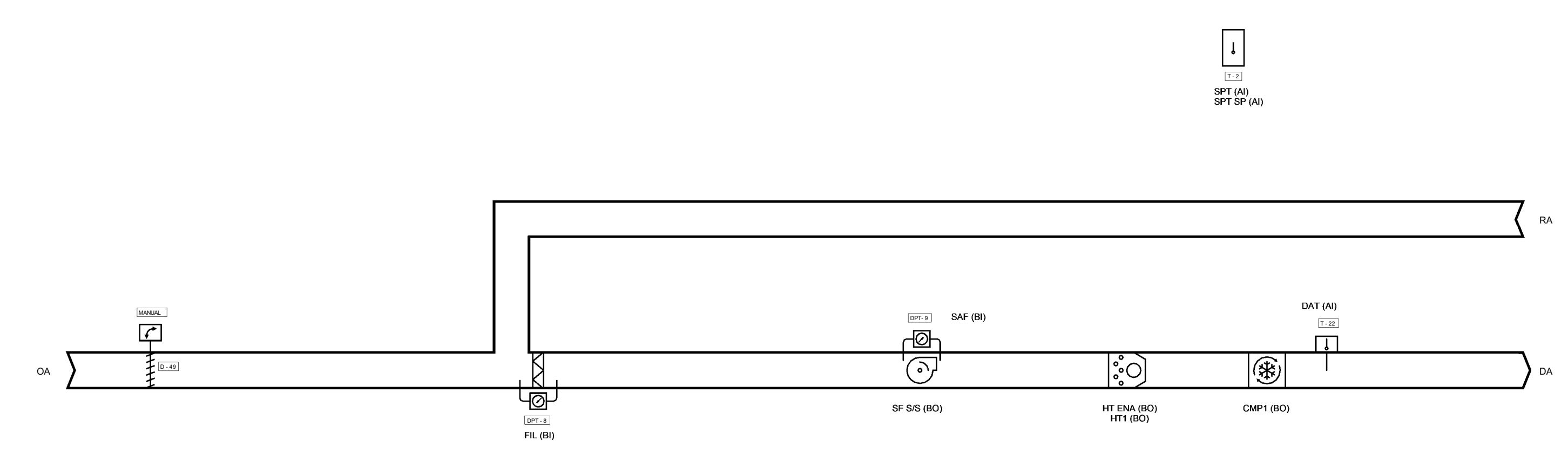
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Flow Diagram: AHU



**Sequence of Operation: AHU**  
**Building Automation System Interface:**  
 The Building Automation System (BAS) shall send the controller Occupied Bypass, Morning Warm-up/Pre-Cool, Occupied/Unoccupied and Heat/Cool modes. If a BAS is not present, or communication is lost with the BAS the controller shall operate using default modes and setpoints.  
**Occupied:**  
 During occupied periods, the supply fan shall run continuously. The DX cooling and the gas heat shall control to maintain the active space temperature setpoint. If the discharge air temperature sensor and the space temperature sensor fail, the DX cooling shall be disabled, the gas heat shall be disabled, and an alarm shall annunciate at the BAS.  
**Unoccupied:**  
 When the space temperature is below the unoccupied heating setpoint of 60.0 deg. F (adj.) the supply fan shall start, and the gas heat shall be enabled. When the space temperature rises above the unoccupied heating setpoint of 60.0 deg. F (adj.) plus the unoccupied differential of 4.0 deg. F (adj.) the supply fan shall stop and the gas heat shall be disabled. When the space temperature is above the unoccupied cooling setpoint of 65.0 deg. F (adj.) the supply fan shall start, and the DX cooling shall be enabled. When the space temperature falls below the unoccupied cooling setpoint of 65.0 deg. F (adj.) minus the unoccupied differential of 4.0 deg. F (adj.) the supply fan shall stop, the DX cooling shall be disabled and the outside air damper shall remain closed.  
**Optimal Start:**  
 The BAS shall monitor the scheduled occupied time, occupied space setpoints and space temperature to calculate when the optimal start occurs.  
**Optimal Stop:**  
 The BAS shall monitor the scheduled unoccupied time, occupied setpoints and space temperature to calculate when the optimal stop occurs. When the optimal stop mode is active the unit controller shall maintain the space temperature to the space temperature offset setpoint.  
**Occupied Bypass:**  
 The BAS shall monitor the status of the ON and CANCEL buttons of the space temperature sensor. When an occupied bypass request is received from a space sensor, the unit shall transition from its current occupancy mode to occupied bypass mode and the unit shall maintain the space temperature to the occupied setpoints (adj.).  
**Heat/Cool Mode:**  
 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.  
**Supply Fan:**  
 The supply fan shall be off in the unoccupied mode. The supply fan shall be on if the control is heating or cooling in the unoccupied mode. When the controller is in the occupied mode, the supply fan shall operate continuously.  
**Filter Status:**  
 A differential pressure switch shall monitor the differential pressure across the Filter(s) when the fan is running. If the switch closes during normal operation a dirty filter alarm shall annunciate at the BAS.

Points List: AHU

System Point Description	POINTS							ALARMS
	GRAPHIC	ANALOG HARDWARE INPUT (AI)	BINARY HARDWARE INPUT (BI)	ANALOG HARDWARE OUTPUT (AO)	BINARY HARDWARE OUTPUT (BO)	SOFTWARE POINT (SFT)	HARDWARE INTERLOCK (HDW)	
SUPPLY FAN START STOP SF S/S								
COMPRESSOR 1 COMMAND CMP1	X		X					
COOLING COIL LEAVING TEMPERATURE CC LAT	X	X					X	X
DISCHARGE AIR TEMPERATURE DAT	X	X					X	X
FINAL FILTER ALARM FIL ALM		X						X
FILTER ALARM FIL ALM		X						X
FILTER STATUS FIL	X	X						X
HEAT ENABLE HT ENA	X		X					
HEAT OUTPUT 1 HT1	X		X					
OUTDOOR AIR DAMPER COMMAND OAD	X	X						
OUTDOOR AIR FILTER ALARM OA FIL ALM		X						X
RELIEF AIR FAN SPEED OUTPUT COMMAND RLF	X		X					
RELIEF AIR FAN START STOP RLF	X		X					
RETURN AIR DAMPER COMMAND RAD	X		X					
RETURN AIR FILTER ALARM RA FIL ALM		X						X
RETURN AIR TEMPERATURE LOCAL RAT	X	X						
RETURN FAN AIR FLOW LOCAL RAF FLW	X	X						
RETURN FAN HIGH STATIC ALARM INTERLOCK RAF HSP INTLK					X			
SPACE TEMPERATURE LOCAL SPT	X	X					X	X
SPACE TEMPERATURE SETPOINT LOCAL SPT SP	X	X						
SUPPLY FAN AIR FLOW LOCAL SF FLW	X	X						
SUPPLY FAN START STOP COMMAND SAF	X		X					
SUPPLY FAN STATUS SAF	X	X						
BAS COMMUNICATION STATE BAS COM				X				X
DISCHARGE AIR COOLING SETPOINT DA CL SP				X				
DISCHARGE AIR HEATING SETPOINT DA HT SP				X				
MAINTENANCE REQUIRED MNT REQ				X				X
OCCUPIED COOLING SETPOINT OCC CLG STPT	X		X					
SUPPLY FAN FAILURE SF FAIL	X		X					X
UNOCCUPIED COOLING SETPOINT UNOCC CLG STPT	X		X					

**1 AHU CONTROL**  
 NTS

NOTES:  
 REFER TO SHEET M1.1 FOR HVAC LEGEND, GENERAL AND KEYED NOTES. REFER TO SHEET M2.1 FOR HVAC PLANS. REFER TO SHEET M3.1 FOR DETAIL. REFER TO SHEET M5.1 FOR HVAC SCHEDULES.

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A REMODEL AND ADDITION FOR  
**BENTON CO. DETENTION CENTER**  
 BENTONVILLE, AR

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 NEW  
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 06/10/2024

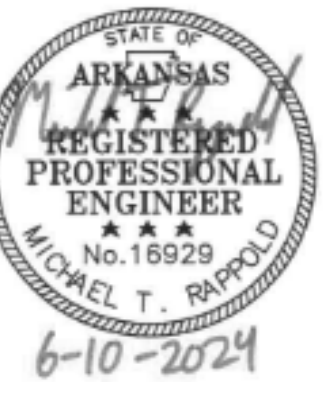
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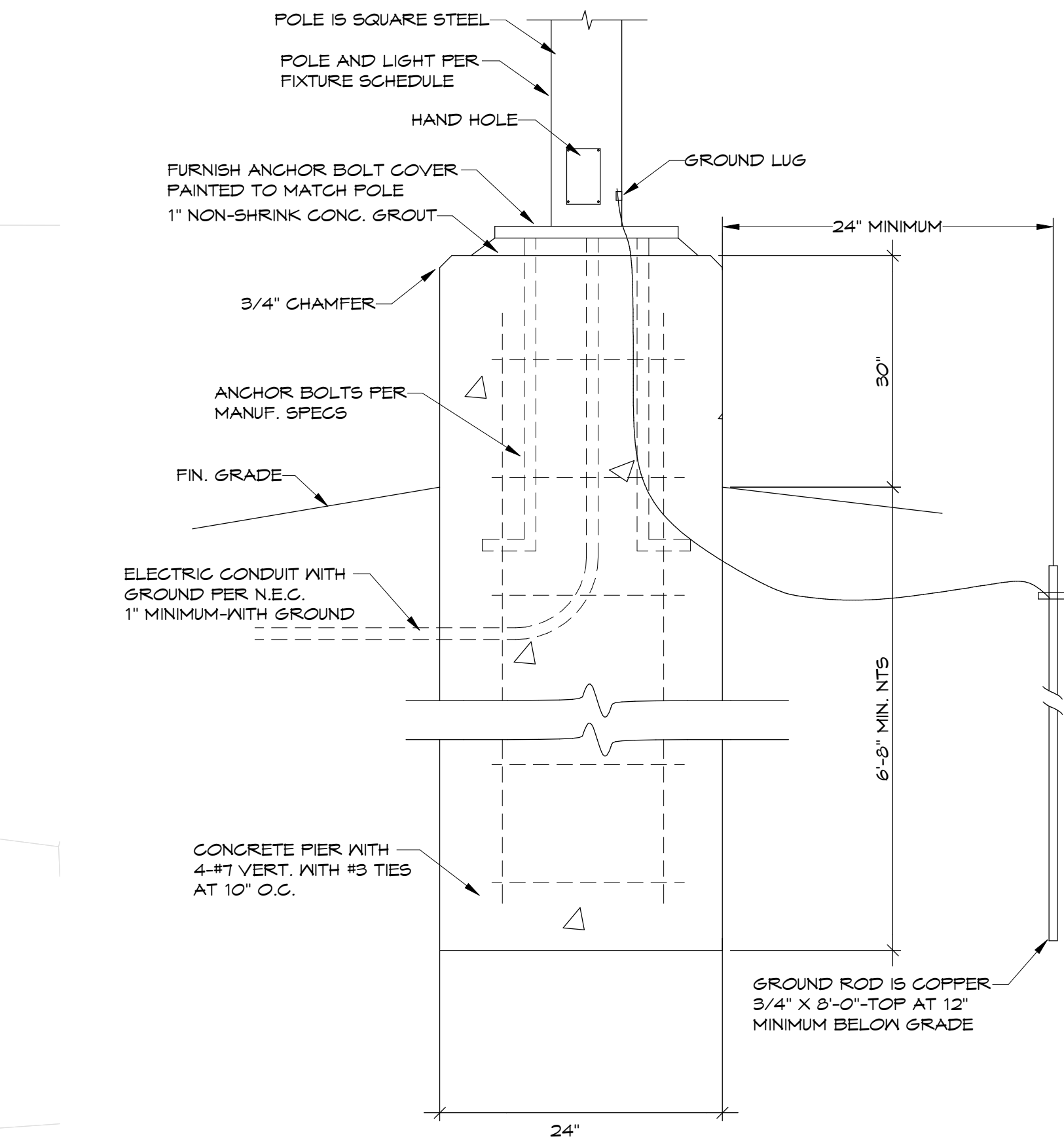
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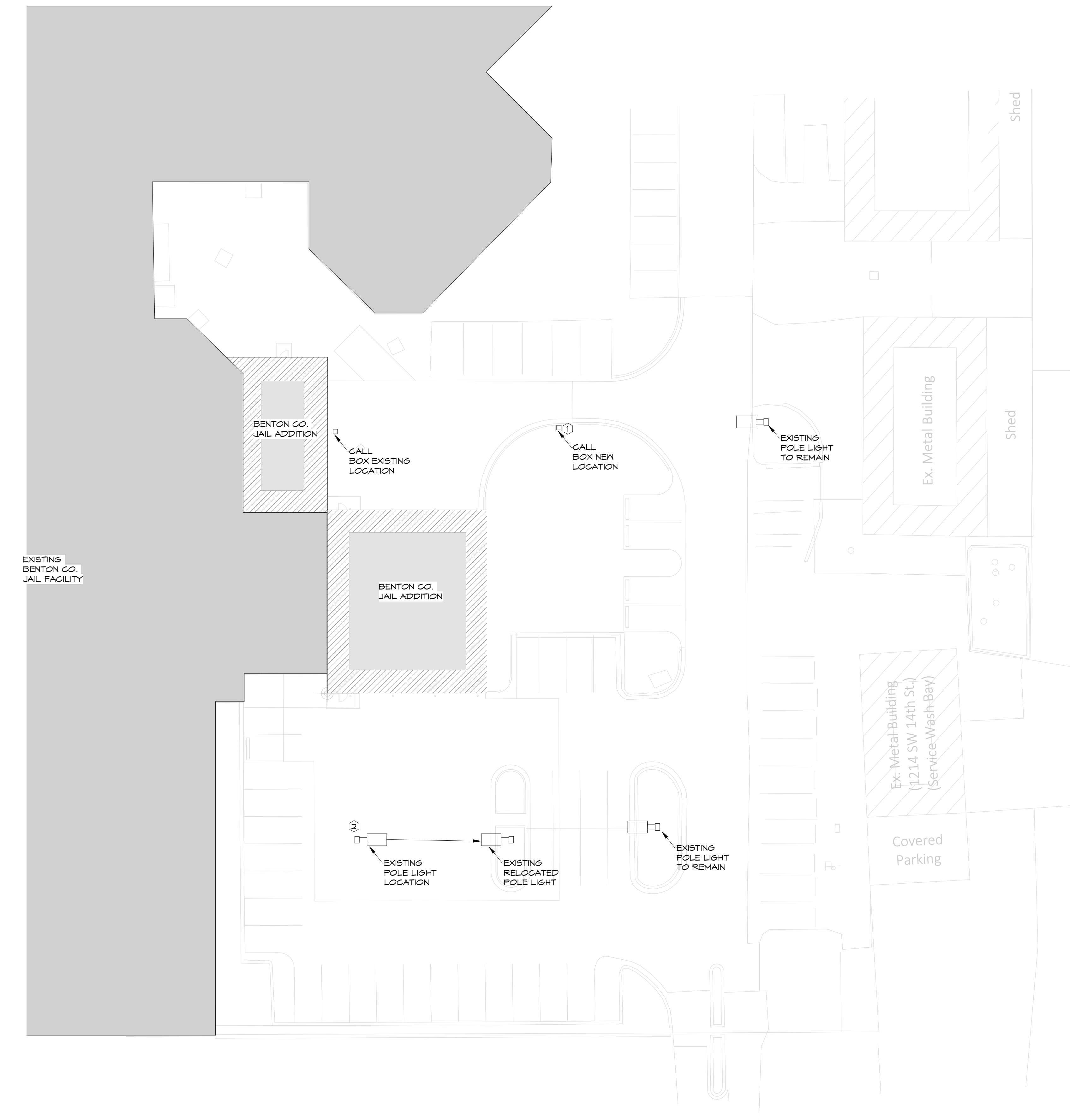
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**KEYED ELECTRICAL SITE NOTES (THIS SHEET ONLY)**

- ① RELOCATE EXISTING CALL BOX. EXTEND ALL CONDUIT AND WIRE TO NEW LOCATION. FIELD VERIFY EXISTING CONDITIONS. PROVIDE NEW CONCRETE BASE.
- ② RELOCATE EXISTING POLE LIGHT. EXTEND WIRE AND CONDUIT TO NEW LOCATION. FIELD VERIFY EXISTING CONDITIONS.



**② EXTERIOR LIGHT POLE FOOTING**  
N.T.S.



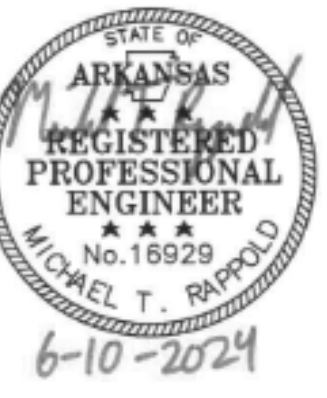
**① ELECTRICAL SITE PLAN**  
1" = 20'-0"



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**DEMO LEGEND**

- ELECTRICAL DEVICES WITH DASHED LINES ARE TO BE DEMOLISHED; DISCONNECT REMOVE CONDUIT AND WIRE BACK TO JUNCTION POINT, MAINTAIN CONTINUITY TO REMAINING DEVICES ON THAT CIRCUIT. FIELD VERIFY EXISTING CONDITIONS. GRAYED OUT ELECTRICAL DEVICES ARE TO BE REMOVED AND REPLACED WITH NEW DEVICES.
- GRAYED OUT ELECTRICAL DEVICES ARE EXISTING TO BE REMOVED AND REPLACED WITH NEW DEVICES

**SUBSCRIPTS:**

- ER= EXISTING TO BE RELOCATED
- RE= REMOVE EXISTING
- RRE= REMOVE AND RELOCATE EXISTING
- S= SURFACE MOUNT

**ELECTRICAL DEMO GENERAL NOTES**

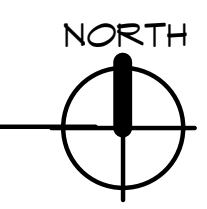
- FOR ALL DEVICES IN WALLS/MILLWORK BEING DEMOLISHED; DISCONNECT REMOVE CONDUIT AND WIRE BACK TO JUNCTION POINT, MAINTAIN CONTINUITY TO REMAINING DEVICES ON THAT CIRCUIT.
- REMOVE ALL DEVICES IN CEILINGS THAT ARE TO BE DEMOLISHED, DISCONNECT AND REMOVE CONDUIT AND WIRE BACK TO SOURCE, LABEL BREAKER AS SPARE.
- ALL DEVICES AND COVER PLATES SHALL BE REMOVED IN RENOVATED AREAS. NEW DEVICES AND COVER PLATES SHALL BE INSTALLED.
- ALL EXISTING LIGHT FIXTURES AND LIGHTING CONTROL DEVICES ARE TO BE REMOVED AND DISPOSED OF IN AREAS OF CONSTRUCTION UNLESS OTHERWISE NOTED.
- FOR ALL UNUSED CIRCUITS, REMOVE CONDUIT AND WIRE BACK TO SOURCE, LABEL BREAKER AS SPARE.
- REFER TO ARCHITECTURAL DRAWINGS FOR AREAS TO BE DEMOLISHED.
- GRAYED OUT DEVICES SHOW EXISTING TO REMAIN DEVICE LOCATIONS. ALL EXISTING DEVICES ARE TO BE REPLACED.
- DEVICES SHOWN AS BOLD OR DASHED ARE TO BE REMOVED AND DISPOSED OF UNLESS OTHERWISE NOTED.
- REMOVE POWER TO ALL EXISTING EQUIPMENT TO BE DEMOLISHED, COORDINATE WITH ALL TRADES.
- ALL EXISTING CONDUIT ON ROOF TO BE REMOVED. IF CONDUITS FEED EXISTING TO REMAIN DEVICES ROUTE CONDUIT BELOW DECK.
- FIELD VERIFY ALL EXISTING CONDITIONS.

**DEMO KEYED NOTES**

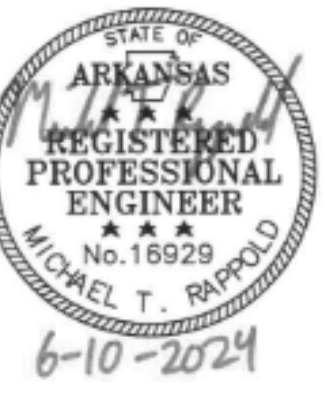
- DISCONNECT AND REMOVE ALL LIGHTING AND ASSOCIATED SWITCHES THIS ROOM. DISPOSE OF PROPERLY.
- DISCONNECT AND REMOVE OVERHEAD DOOR. REMOVE ALL CONDUIT AND WIRE BACK TO SOURCE. LABEL BREAKER AS SPARE. REMOVE ASSOCIATED SENSOR AND CONTROL WIRING.
- DISCONNECT AND REMOVE EXISTING HEATER. REMOVE ALL CONDUIT AND WIRE BACK TO SOURCE. LABEL BREAKER AS SPARE. REMOVE ASSOCIATED SENSOR AND CONTROL WIRING.
- DISCONNECT CONTROL PANEL FOR EXISTING MOTORIZED CONVEYOR SYSTEM TO BE REMOVED.
- DISCONNECT AND REMOVE EXISTING UNDERGROUND CONDUIT AND WIRE AT DOOR SENSORS.
- EXISTING DETENTION DOOR TO BE REMOVED. REMOVE ELECTRICAL TO STRUCTURE ABOVE. CAP AND LABEL AS SPARE. COORDINATE WITH OWNER.



**1 FIRST FLOOR ELECTRICAL DEMOLITION PLAN**  
1/8" = 1'-0"



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A REMODEL AND ADDITION FOR  
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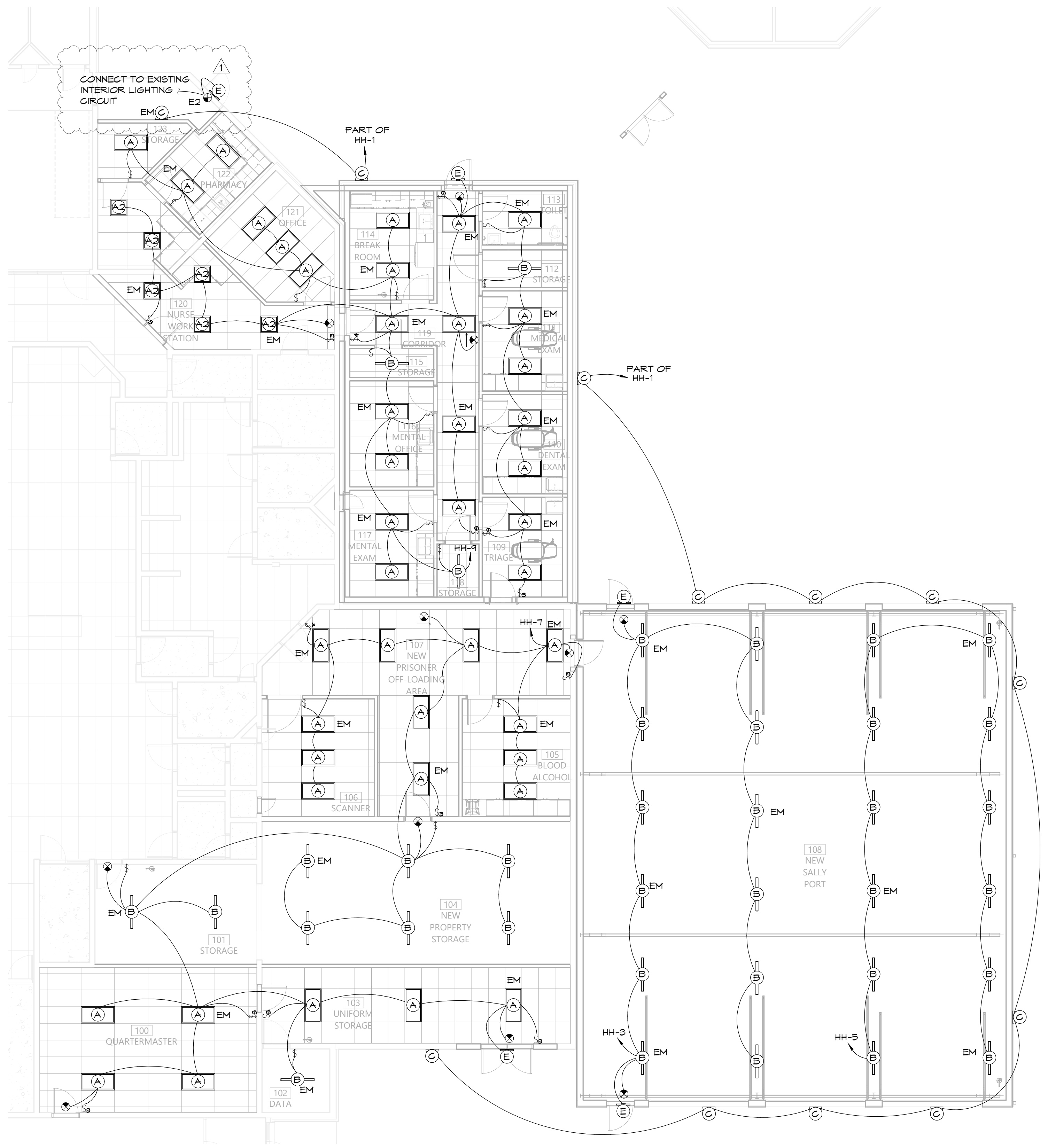
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1	07/09/2024	ADDENDUM #2

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**E2.1**

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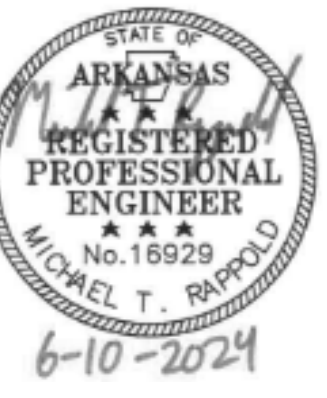
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**1 LIGHTING PLAN**  
1/8" = 1'-0"



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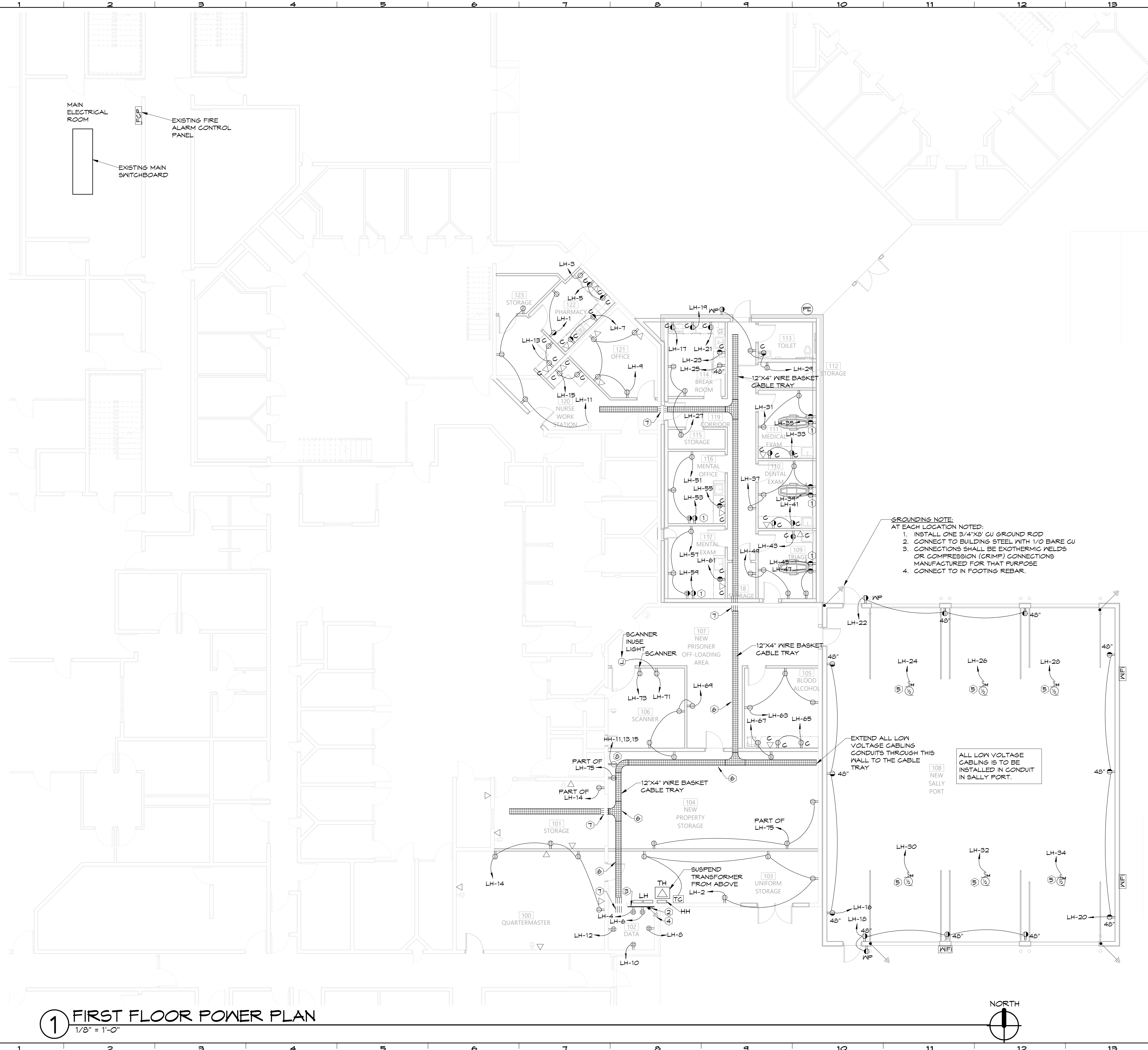
**KEYED POWER NOTES**

- INSTALL RECEPTACLE 8" BELOW CEILING FOR WALL MOUNTED LIGHT.
- PROVIDE 1/4" X 20" X 4" GROUNDING BAR. INSTALL A #10 COPPER GROUND WIRE FROM GROUND BAR TO ELECTRICAL SERVICE GROUNDING ELECTRODE. LEAVE 5' TAIL.
- 3/4" FIRE RATED PLYWOOD BACKBOARD TYPICAL ALL WALLS IN SPACE. B.O. BAND AT 24" A.F.F.
- CONNECT TO THE ELECTRICAL SERVICE GROUNDING ELECTRODE VIA A #6 COPPER GROUND CONDUCTOR. TYPICAL.
- OVERHEAD DOOR MOTOR. INSTALL DOOR SENSORS FURNISHED WITH UNIT. VERIFY EXACT ELECTRICAL REQUIREMENTS WITH THE ACTUAL EQUIPMENT FURNISHED.
- SUPPORT CABLE TRAY FROM WALL IN THIS ROOM.
- INSTALL 3M FT45D FIRE PENETRATIONS. QUANTITY AS REQUIRED. MINIMUM THREE WIDE.
- RECEPTACLE FOR STORAGE CONVEYOR SYSTEM HUBBELL# HBL2431ST TWIST LOCK MALE PLUG OR EQUAL. 480V. COORDINATE EXACT LOCATION AND REQUIREMENTS WITH SYSTEM PROVIDER PRIOR TO ROUGH-IN.

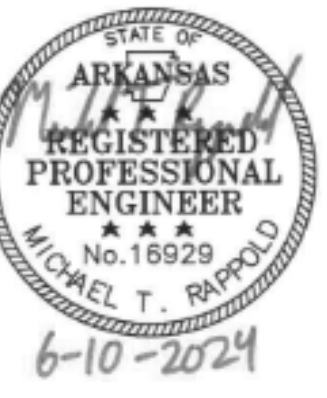
- GROUNDING NOTE:**  
AT EACH LOCATION NOTED:
- INSTALL ONE 3/4"Ø#10 CU GROUND ROD
  - CONNECT TO BUILDING STEEL WITH 1/0 BARE CU
  - CONNECTIONS SHALL BE EXOTHERMIC WELDS OR COMPRESSION (CRIMP) CONNECTIONS MANUFACTURED FOR THAT PURPOSE
  - CONNECT TO IN FOOTING REBAR.

ALL LOW VOLTAGE CABLING IS TO BE INSTALLED IN CONDUIT IN SALLY PORT.

EXTEND ALL LOW VOLTAGE CABLING CONDUITS THROUGH THIS WALL TO THE CABLE TRAY



**1 FIRST FLOOR POWER PLAN**  
1/8" = 1'-0"



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**KEYED MECHANICAL POWER NOTES**

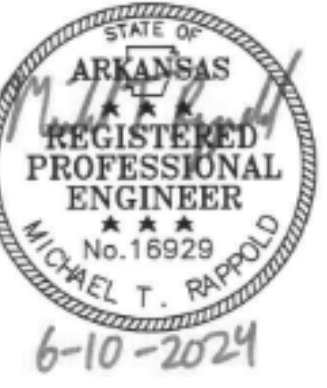
- ① INTERLOCK EXHAUST FAN WITH LIGHTS THIS ROOM PROVIDE ALL NECESSARY CONTACTS AND RELAYS.
- ② EXHAUST FAN CONTROLLED BY LINE VOLTAGE THERMOSTAT.
- ③ EF-3 & EF-4 IS TO BE CONTROLLED BY CO/NO2 MONITORING SYSTEM AND HOA CONTROLLER. INTERLOCK INTAKE LOUVERS L-1 L-2, AND L-3 WITH EXHAUST FANS. WHEN CO/NO2 DETECTOR IS IN ALARM MODE THE LOUVERS ARE TO OPEN AND THE EXHAUST FANS ARE TO TURN ON.
- ④ EXHAUST FAN CONTROLLED BY 1 HOUR TIMER SWITCH.
- ⑤ DISCONNECT AND NON POWERED GFI RECEPTACLE PROVIDED WITH MECHANICAL EQUIPMENT.
- ⑥ CONTACTOR WITH HAND AUTO CONTROL FOR CONTROL OF EF-3 AND EF-4, REFER TO MECHANICAL SHEETS FOR ADDITIONAL INFORMATION.
- ⑦ CO/NO2 MONITORING SYSTEM EQUAL TO HONEYWELL ESPOINT. INSTALL REMOTE NO2 SENSOR 12" BELOW INTERLOCK EXHAUST FANS EF-3 AND EF-4 AND INTAKE LOUVERS IL-1 IL-2 AND IL-3 WITH AUX CONTACTS ON PANEL FOR EVACUATION DURING AUTO OPERATION.
- ⑧ EXISTING VAV BOX TO BE REPLACED DISCONNECT AND CAP FEEDERS FOR REUSE WHEN NEW BOX IS INSTALLED RECONNECT. EXTEND WIRE AND CONDUIT FIELD VERIFY EXISTING CONDITIONS.

**1 MECHANICAL POWER PLAN**  
1/8" = 1'-0"



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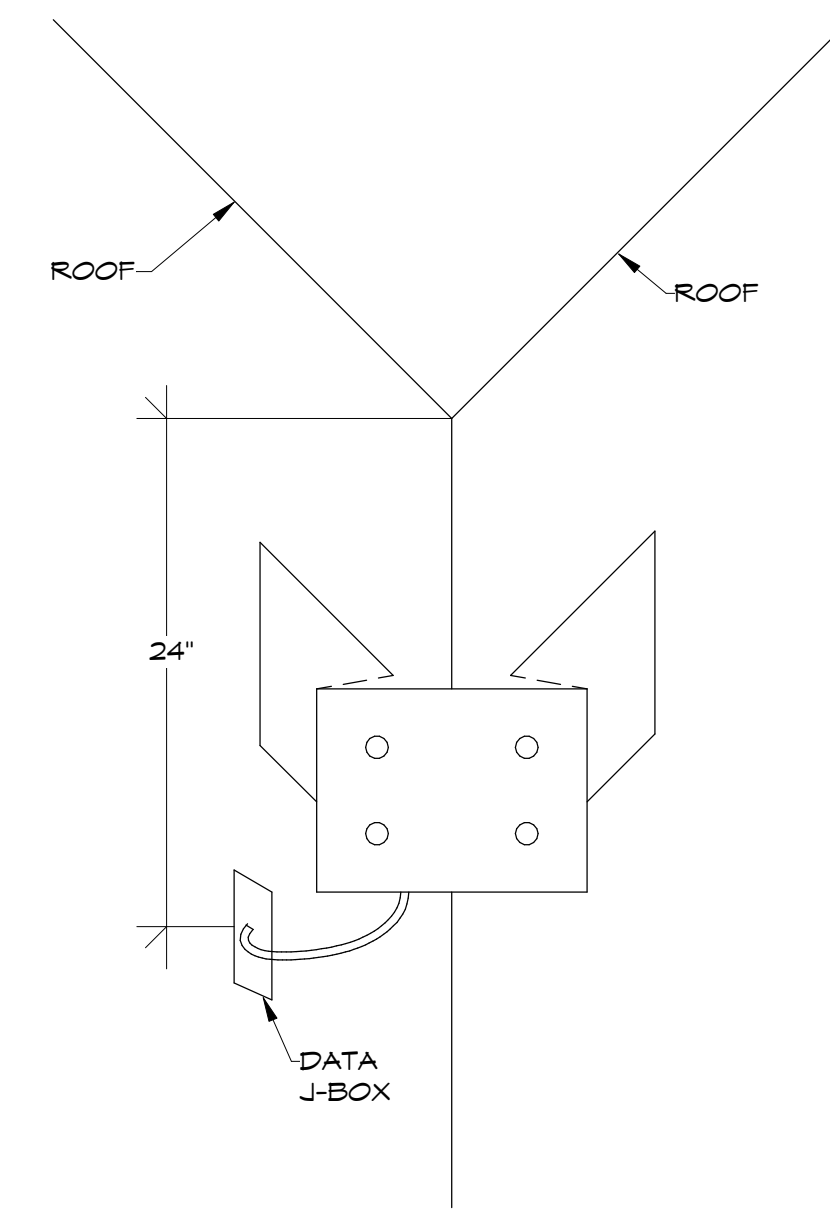
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**2 CORNER MOUNT CAMERA DETAIL**  
N.T.S.

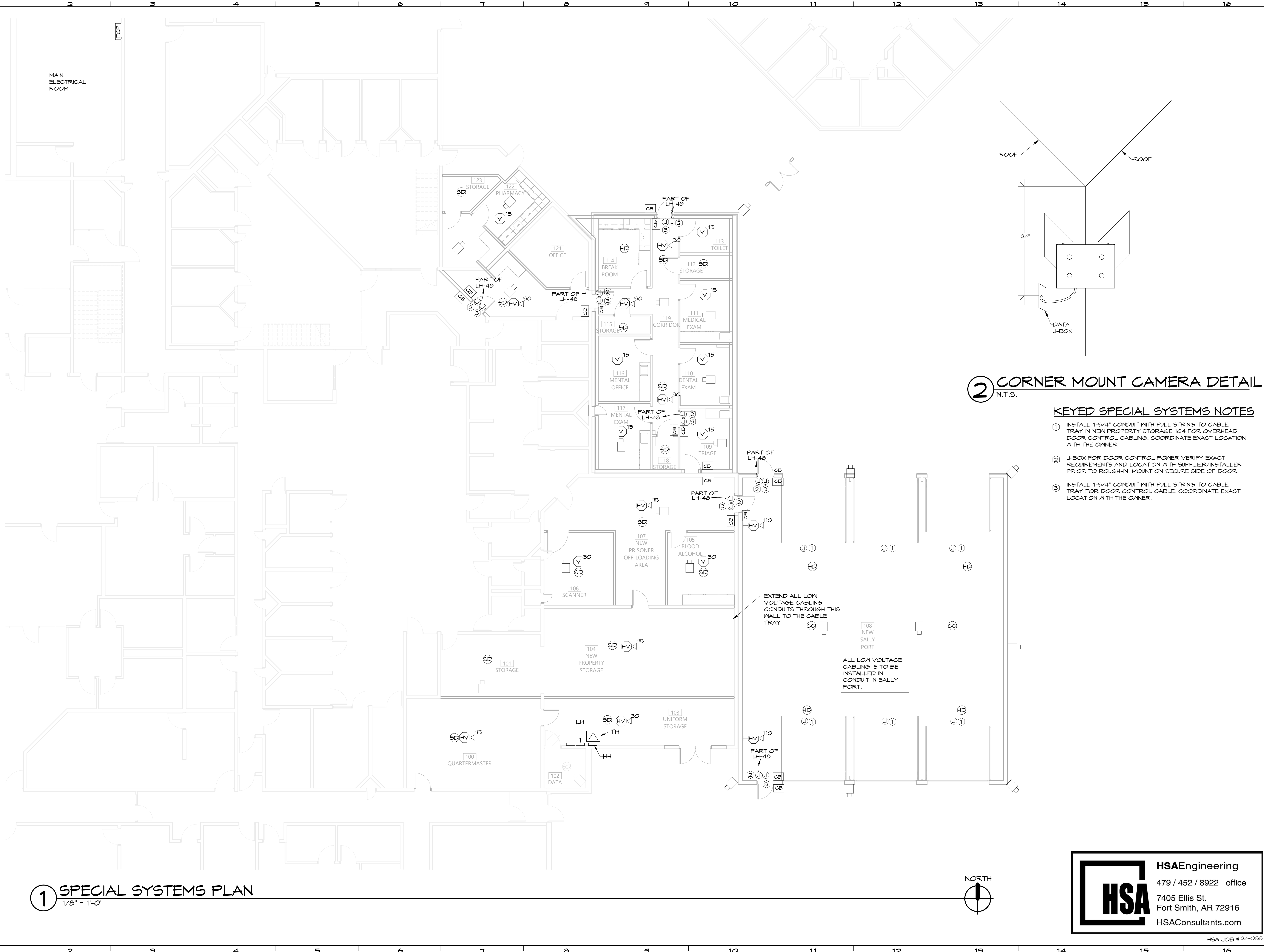
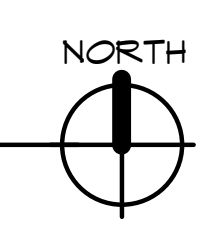
**KEYED SPECIAL SYSTEMS NOTES**

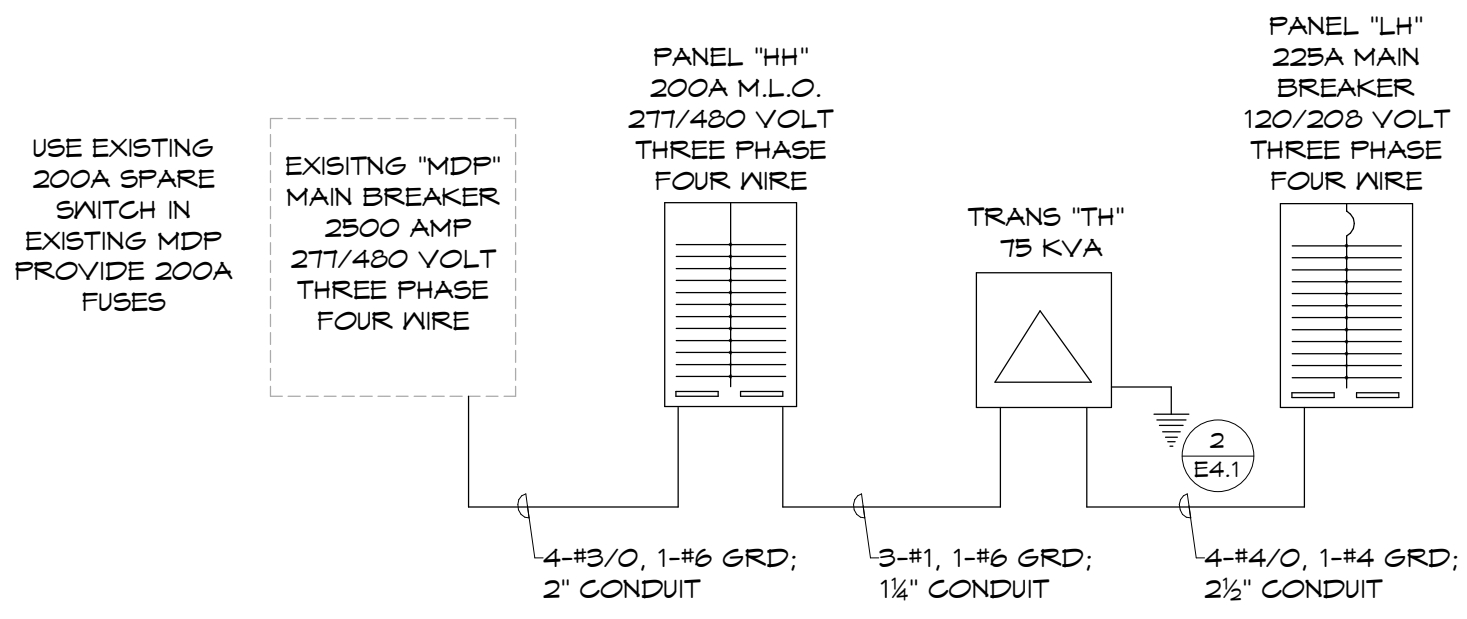
- 1 INSTALL 1-3/4" CONDUIT WITH PULL STRING TO CABLE TRAY IN NEW PROPERTY STORAGE 104 FOR OVERHEAD DOOR CONTROL CABLING. COORDINATE EXACT LOCATION WITH THE OWNER.
- 2 J-BOX FOR DOOR CONTROL POWER VERIFY EXACT REQUIREMENTS AND LOCATION WITH SUPPLIER/INSTALLER PRIOR TO ROUGH-IN. MOUNT ON SECURE SIDE OF DOOR.
- 3 INSTALL 1-3/4" CONDUIT WITH PULL STRING TO CABLE TRAY FOR DOOR CONTROL CABLE. COORDINATE EXACT LOCATION WITH THE OWNER.

EXTEND ALL LOW VOLTAGE CABLING CONDUITS THROUGH THIS WALL TO THE CABLE TRAY

ALL LOW VOLTAGE CABLING IS TO BE INSTALLED IN CONDUIT IN SALLY PORT.

**1 SPECIAL SYSTEMS PLAN**  
1/8" = 1'-0"





**1 ELECTRICAL RISER DIAGRAM**  
N.T.S.

**WARNING**

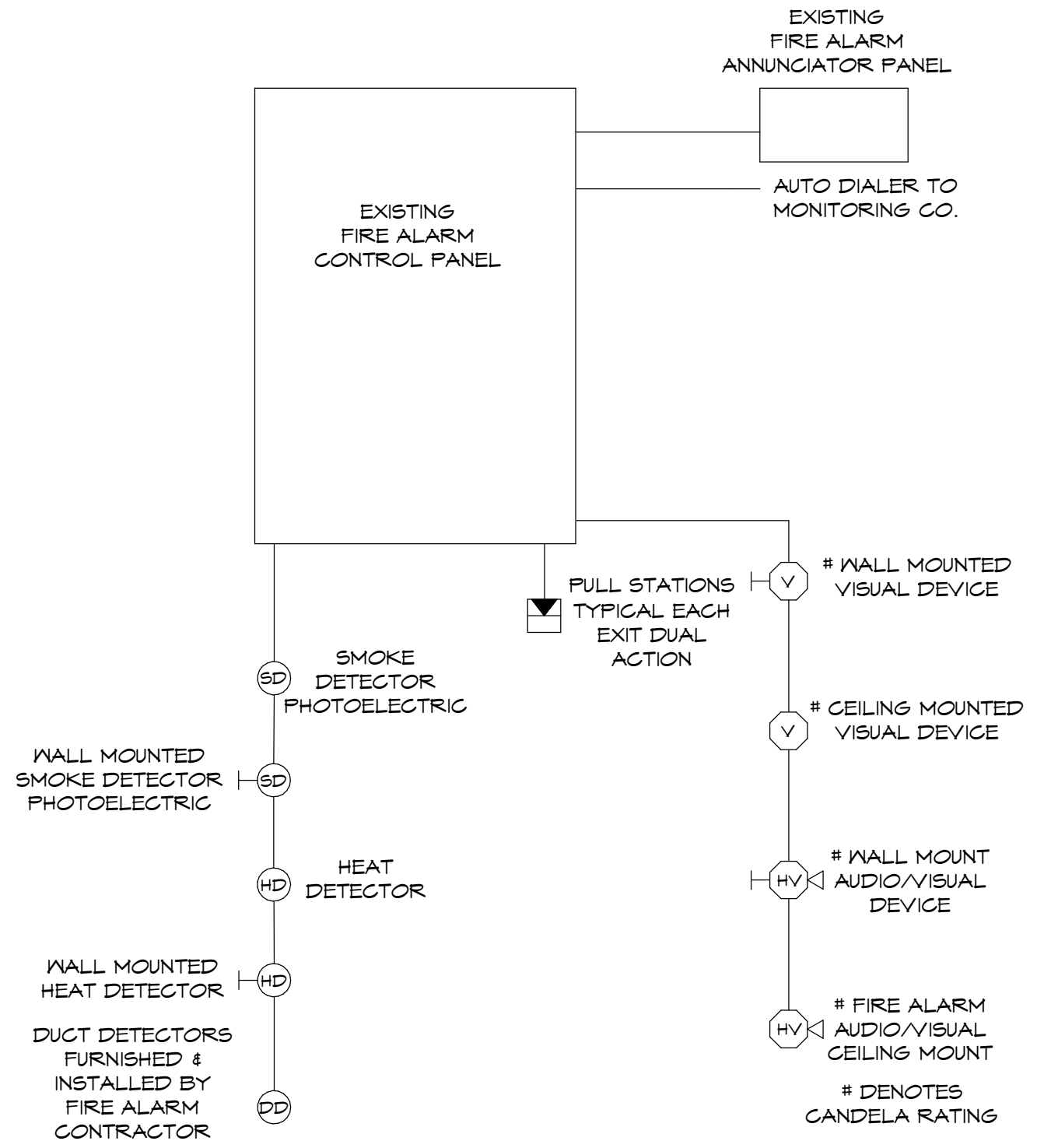
MAXIMUM AVAILABLE FAULT CURRENT:  
X,XXX  
(SYMMETRICAL RMS AMPERES)  
DATE: XX/XX/XX

**WARNING**

NOMINAL SYSTEM VOLTAGE:  
277/480V  
MAXIMUM AVAILABLE FAULT CURRENT:  
X,XXX  
(SYMMETRICAL RMS AMPERES)  
OVERCURRENT PROTECTIVE DEVICE  
CLEARING TIME:  
XX SECONDS  
DATE: XX/XX/XX

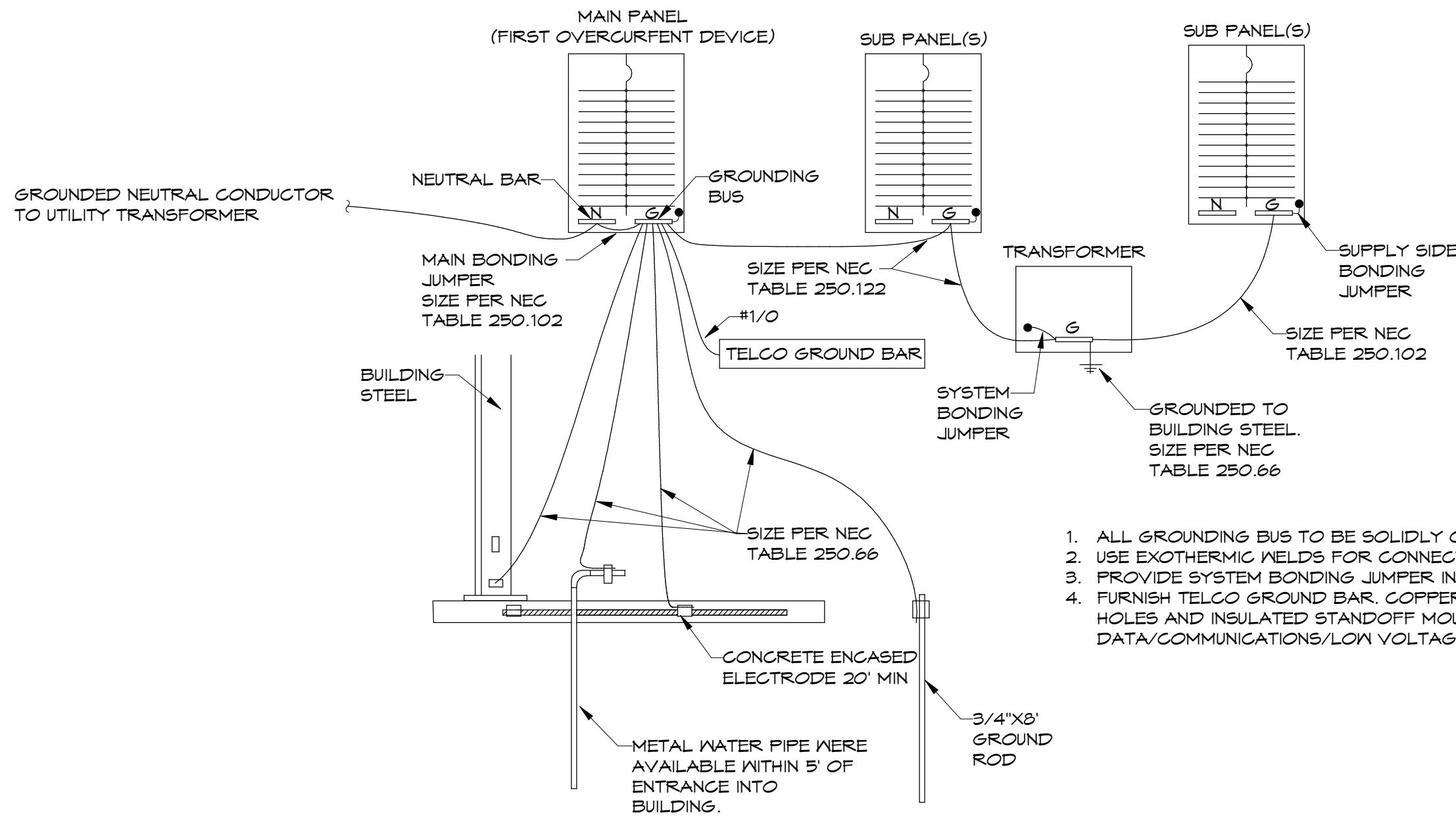
- NOTES:
- LABEL SHALL BE ATTACHED TO ELECTRICAL SERVICE EQUIPMENT PER NEC 110.24.
  - PROVIDE DURABLE WEATHERPROOF LABEL.
  - LABEL IS SHOWN TO SCALE.
  - ELECTRICAL CONTRACTOR SHALL COORDINATE AVAILABLE FAULT CURRENT WITH UTILITY AND COMPLETE LABEL ACCORDINGLY.

**3 FAULT CURRENT LABEL**  
N.T.S.



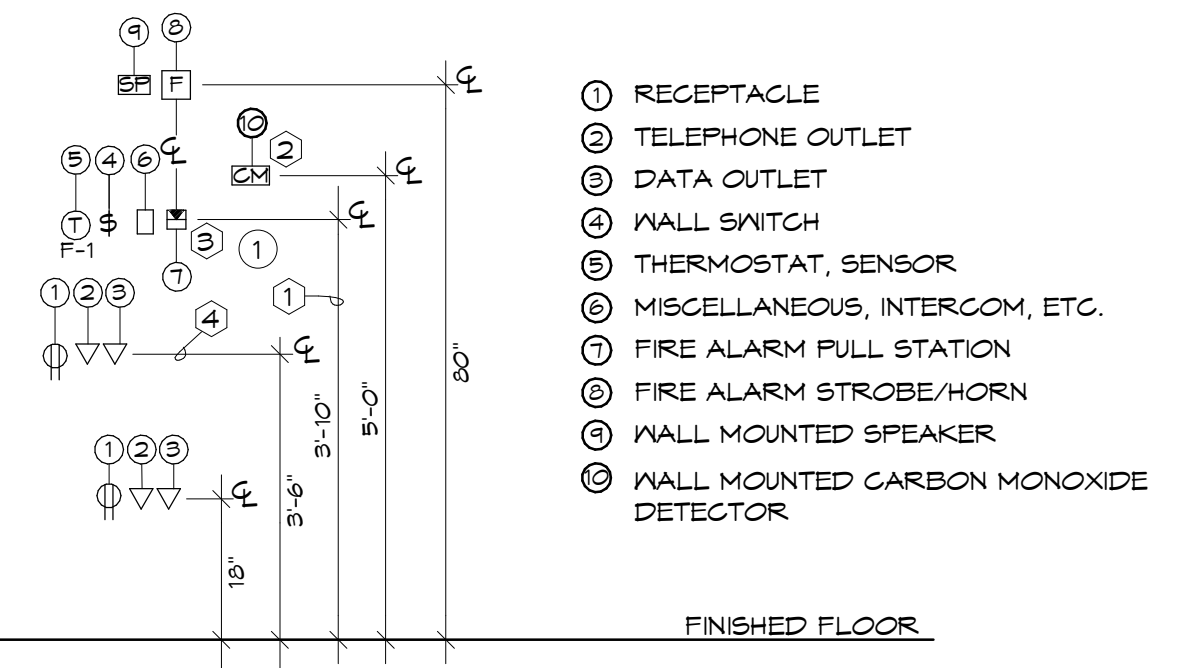
- NOTE:
- INSTALL WIRING TO ALL DUCT DETECTORS. REFER TO SPECIAL SYSTEMS PLANS.
  - COORDINATE WITH THE MECHANICAL DRAWINGS.
  - COORDINATE WITH THE LOCAL "A.H.J." PRIOR TO BIDDING THIS PROJECT.
  - FIRE ALARM CONTRACTOR TO MODIFY AS NECESSARY FOR SYSTEM PROVIDED.
  - FIRE ALARM CONTRACTOR TO PROVIDE DETECTION AND RELEASE OF PREACTING FIRE SUPPRESSION SYSTEM. COORDINATE WITH FIRE SUPPRESSION CONTRACTOR TO PROVIDE ALL COMPONENTS FOR A COMPLETE AND WORKING SYSTEM

**4 FIRE ALARM SYSTEM RISER DIAGRAM**  
N.T.S.

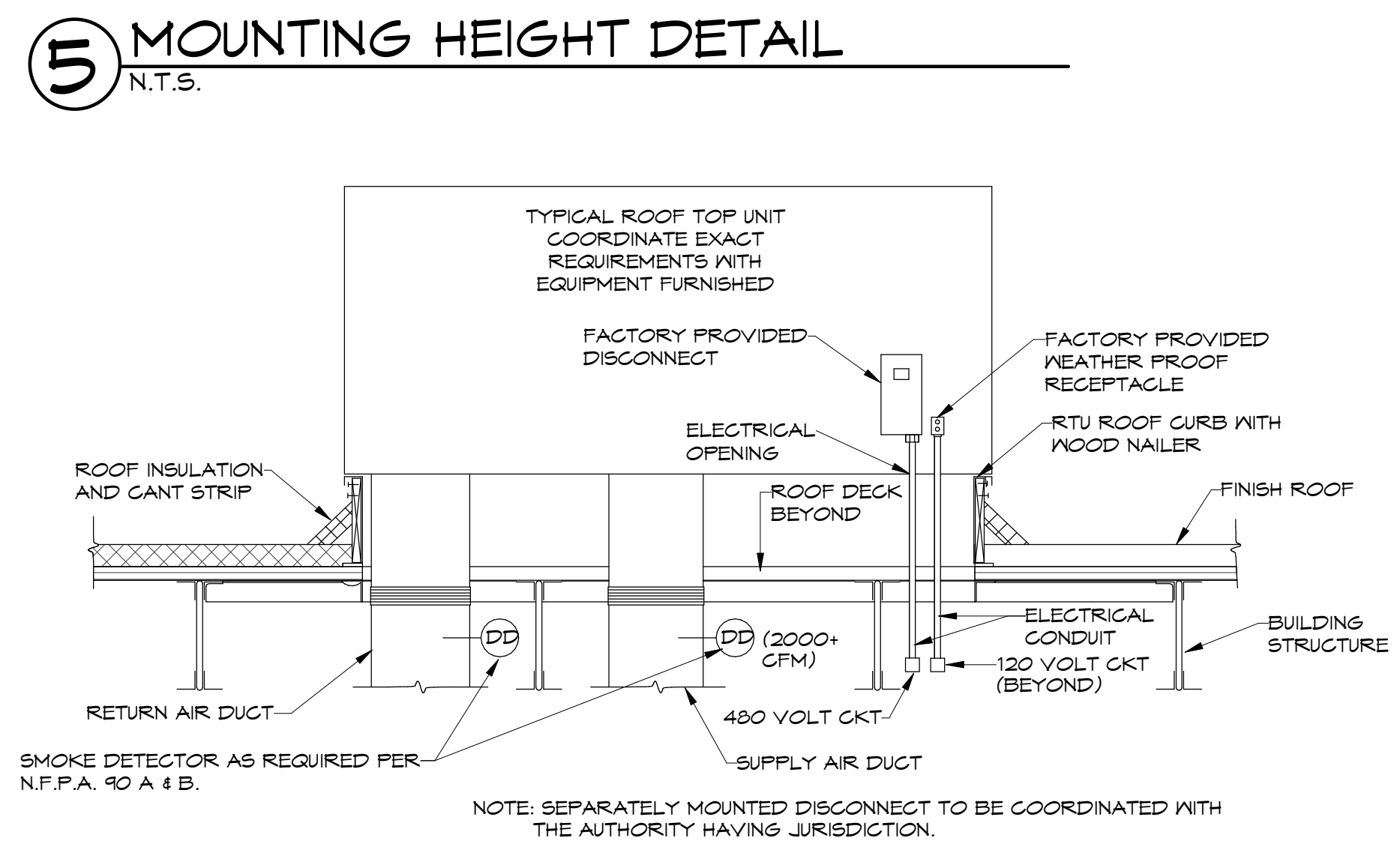


- ALL GROUNDING BUS TO BE SOLIDLY CONNECTED TO ENCLOSURE.
- USE EXOTHERMIC WELDS FOR CONNECTION TO BUILDING STEEL AND REBAR.
- PROVIDE SYSTEM BONDING JUMPER IN TRANSFORMERS SIZED PER NEC TABLE 250.102.
- FURNISH TELCO GROUND BAR, COPPER; 4" X 20" X 1/4" WITH PREDRILLED 1/4" - 20 HOLES AND INSULATED STANDOFF MOUNTS. PROVIDE ONE PER DATA/COMMUNICATIONS/LOW VOLTAGE SYSTEMS ROOM.

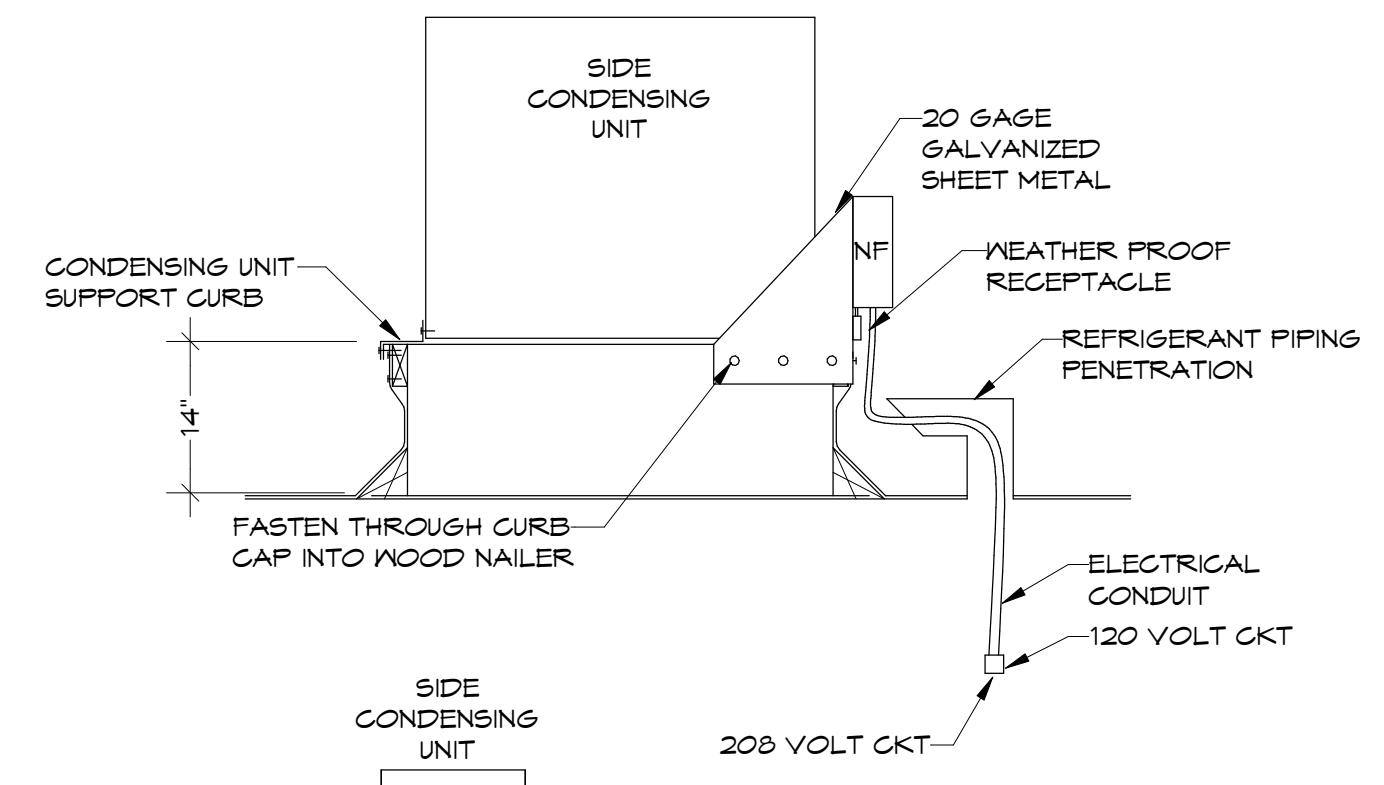
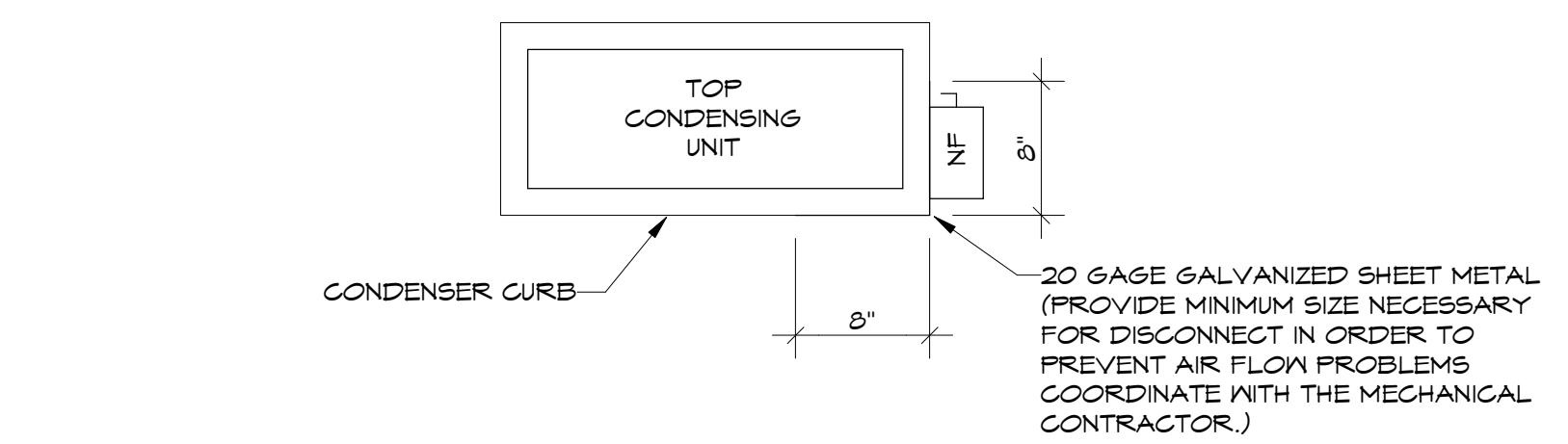
**2 GROUNDING DIAGRAM**  
N.T.S.



- 5 MOUNTING HEIGHT DETAIL**  
N.T.S.
- MOUNTING HEIGHT KEYED NOTE:
- 4'-0" MAXIMUM TO TOP OF DEVICE UNLESS LOCATED ABOVE OBSTRUCTION (OR NOTED OTHERWISE) THEN MAXIMUM 4' ABOVE THE OBSTRUCTION. COORDINATE WITH MILLWOK.
  - MOUNT NEAR RETURN AIR GRILLE.
  - THE HEIGHT OF THE MANUAL FIRE ALARM BOXES SHALL BE A MINIMUM OF 42" AND A MAXIMUM OF 48" MEASURED VERTICALLY, FROM THE FLOOR LEVEL TO THE ACTIVATING HANDLE OR LEVER OF THE BOX.
  - ABOVE COUNTER MOUNTED DEVICES, INSTALL DEVICES ABOVE BACKSPASH AND COORDINATED WITH MILLWOK. DATA/TELEPHONE DEVICES SHOWN ADJACENT TO ABOVE COUNTER RECEPTACLES TO BE MOUNTED AT SAME HEIGHT.
- NOTE:
- ALL DEVICES SHOWN MAY NOT BE USED.
  - DETAIL INDICATES TYPICAL MOUNTING HEIGHTS ONLY.
  - DEVICES SHALL BE INSTALLED PLUMB, SQUARE AND TRUE.
  - ALL DEVICES INSTALLED AT A SINGLE LOCATION SHALL BE ALIGNED U.N.O.
  - COORDINATE ALL MOUNTING HEIGHTS WITH ARCHITECT.



**6 ROOF TOP UNIT DETAIL**  
N.T.S.



- 7 ROOFTOP CONDENSING UNIT DISCONNECT**  
N.T.S.
- NOTE:
- REFER TO THE MECHANICAL CONDENSING UNIT CURB DETAIL FOR CONSTRUCTION TYPE
  - ANCHOR 20 GAGE GALVANIZED SHEETMETAL TO CURB NAILER WITH STAINLESS STEEL LAGBOLTS, AND WASHERS, (MIN. OF 6 PER CONDENSER)
  - ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR PROVIDING AND INSTALLING ALL ELECTRICAL DEVICES SHOWN IN THIS DETAIL. THIS IS TO INCLUDE: DISCONNECT AND SUPPORT, CONDUIT AND CONDUCTOR, RECEPTACLE, AND JUNCTION BOXES.

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