ADDENDUM # 02

DATE:	**April 24, 2025**
ADDENDUM NO:	**02**
PROJECT:	Evergreen Baptist Church – Phase 5
OWNER:	Evergreen Baptist Church
ARCHITECT:	Reed Architecture & Interior, LLC 18 East Hobson Avenue Sapulpa, Oklahoma
TO:	Lowry Construction Services 1729 S. Boston Ave. Tulsa, OK 74119

Drawings and Specifications for the above noted project and the work covered thereby are herein modified as follows, and except as set forth herein, otherwise remain unchanged and in full force and effect. This addendum is part of the bidding documents for the above referenced project and modifies the original bidding documents dated March 03, 2025. Acknowledgement of receipt of this addendum is required as part of the Bid.

Addendum Narrative:

Clarifications:

1. Project Tax Status: Evergreen Baptist Church is Tax Exempt.

DRAWINGS:

Structrual:

1. S100 – FOUNDATION PLAN; Added footings for second stair.
2. S101 – FOUNDAION PLAN; Added details.
3. S102 – SECOND FLOOR FRAMING PLAN; Added sheet.
4. S103 – PARTIAL ROOF FRAMING PLAN; Added sheet.
5. S200 – GENERAL NOTES, SPECIAL INSPECTIONS AND SECTIONS; Added details.

Plumbing:

1. P501 – PLUMBING SCHEDULES AND DETAILS; Pump Schedule – Revised Pump-1 to Armstrong model Compass H20.

ADDENDUM # 02

SPECS:

1. 00 0110 – TABLE OF CONTENTS.

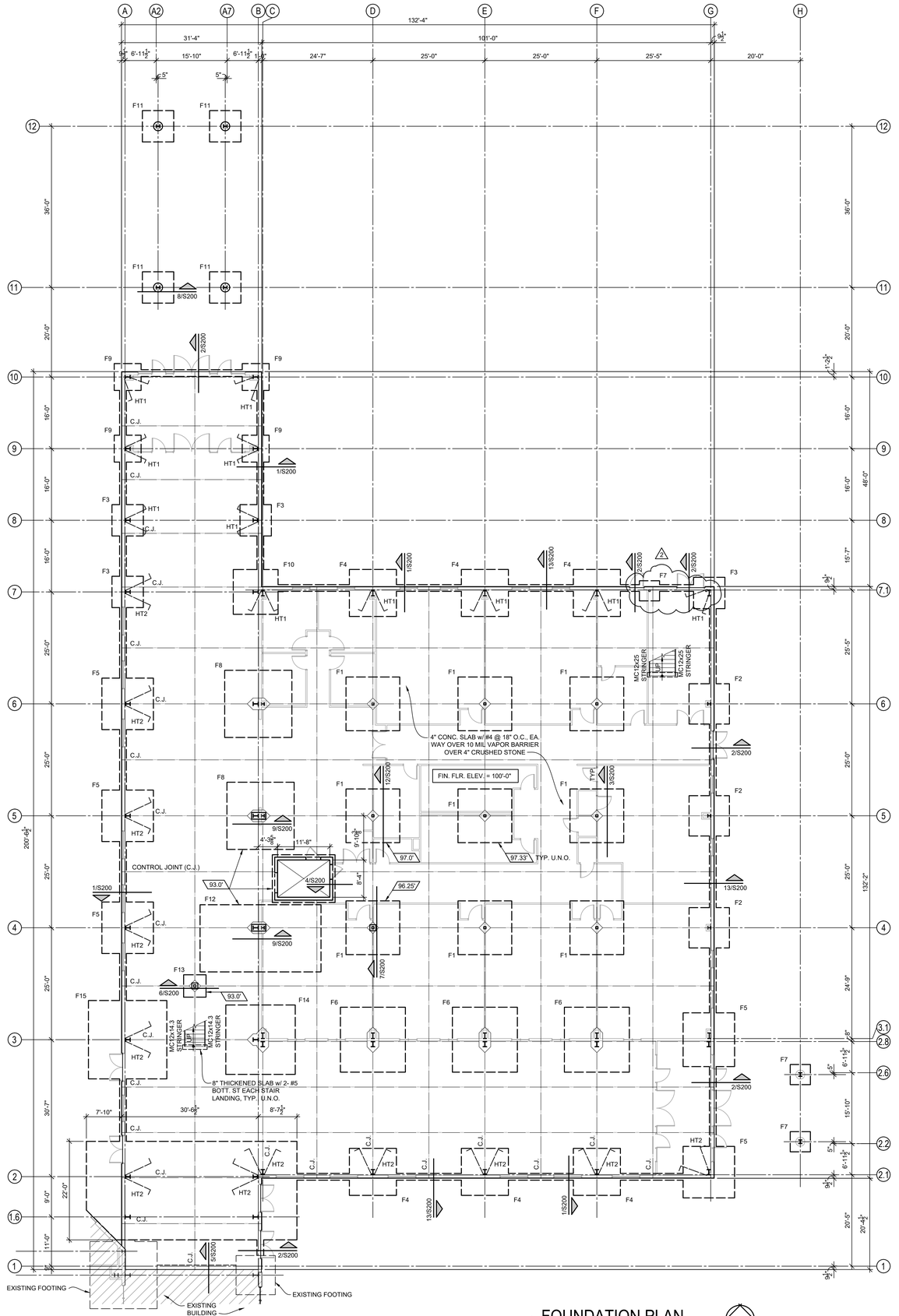
- Added Section – 04 2000 Unit Masonry
- Added Section – 28 4600 Fire Detection and Alarm
- Removed Section – 09 8300 Acoustic Finishes.

2. 04 2000 – UNIT MASONRY – Spec Added
3. 28 4600 – FIRE DETECTION AND ALARM – Spec Added

---END OF ADDENDUM #02---

ARCHITECT: Reed Architecture & Interiors

By: _____
Brandon Gee



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

NORTH

HAIRPIN TIE SCHEDULE		
MARK	HT1	HT2
REBAR	#5 x 12'-6"	#7 x 15'-2"
BENDING DIAGRAM	0-10, 5-0, 10-10, 5-0, 10-10	0-10, 6-0, 1'-2, 6-0, 1'-2

LEGEND

97.0' -- INDICATES BOTTOM OF FOOTING ELEVATION

REED ARCHITECTURE & INTERIORS

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CONSULTANT:

Reference Cover Sheet
for Consultant Directory

100% CONSTRUCTION DOC'S
03.03.2024

EVERGREEN BAPTIST CHURCH - PHASE 5

10301 EAST 111TH ST. S.
BROKEN ARROW, OKLAHOMA 74011

REVISIONS

1	04-23-25	ADDENDUM 2

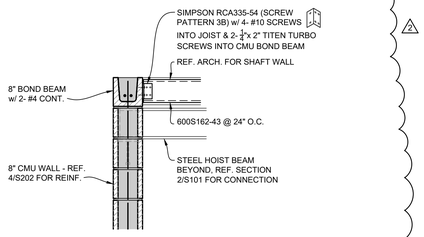
Foundation Plan

JOB 240407
ISSUE 07/16/2024
DRAWN BY: JRC
CHK'D BY: KWS

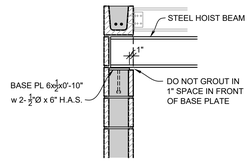
S100

SCALE AS NOTED

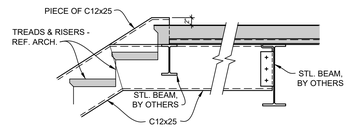
PROFESSIONAL STRUCTURAL ENGINEER
KEVIN W. SNOWDEN
18264
OKLAHOMA
4-24-25



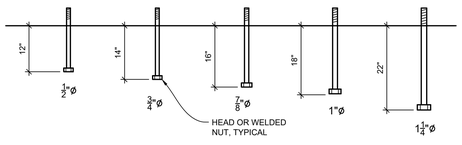
1 FRAMING SECTION
3/4" = 1'-0"



HOIST BEAM CONNECTION DETAIL
2
3/4" = 1'-0"



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



NOTE: DIAMETER OF BOLTS TO BE SIZED BY METAL BUILDING MANUFACTURER.

4 ANCHOR BOLT DIAGRAM
NO SCALE

SPECIAL INSPECTIONS

REQUIRED SPECIAL INSPECTIONS AND TESTS FOR SOILS		
TYPE	CONTINUOUS	PERIODIC
1. VERIFY MATERIALS BELOW SHALLOW FOUNDATIONS ARE ADEQUATE TO ACHIEVE THE DESIGN BEARING CAPACITY.	---	X
2. VERIFY EXCAVATIONS ARE EXTENDED TO PROPER DEPTH AND HAVE REACHED PROPER MATERIAL.	---	X
3. PERFORM CLASSIFICATION AND TESTING OF COMPACTED FILL MATERIALS.	---	X
4. VERIFY USE OF PROPER MATERIALS, DENSITIES, AND LIFT THICKNESSES DURING PLACEMENT AND COMPACTION OF COMPACTED FILL.	X	---
5. PRIOR TO PLACEMENT OF COMPACTED FILL, INSPECT SUBGRADE AND VERIFY THAT SITE HAS BEEN PREPARED PROPERLY.	---	X

REQUIRED SPECIAL INSPECTIONS AND TESTS OF CONCRETE CONSTRUCTION		
TYPE	CONTINUOUS	PERIODIC
1. INSPECT REINFORCEMENT AND VERIFY PLACEMENT.	---	X
2. INSPECT ANCHORS CAST IN CONCRETE.	---	X
3. INSPECT ANCHORS POST-INSTALLED IN HARDENED CONCRETE MEMBERS. A. ADHESIVE ANCHORS INSTALLED IN HORIZONTALLY OR UPWARDLY INCLINED ORIENTATIONS TO RESIST SUSTAINED TENSION LOADS. B. MECHANICAL ANCHORS AND ADHESIVE ANCHORS NOT DEFINED IN 3A.	X ---	--- X
4. VERIFY USE OF REQUIRED DESIGN MIX.	---	X
5. PRIOR TO CONCRETE PLACEMENT, FABRICATE SPECIMENS FOR STRENGTH TESTS, PERFORM SLUMP AND AIR CONTENT TESTS, AND DETERMINE THE TEMPERATURE OF THE CONCRETE.	X	---
6. INSPECT CONCRETE AND SHOTCRETE PLACEMENT FOR PROPER APPLICATION TECHNIQUES.	X	---
7. VERIFY MAINTENANCE OF SPECIFIED CURING TEMPERATURE AND TECHNIQUES.	---	X
8. INSPECT FORMWORK FOR SHAPE, LOCATION AND DIMENSIONS OF THE CONCRETE MEMBER BEING FORMED.	---	X

REQUIRED SPECIAL INSPECTIONS OF FABRICATED STEEL		
TYPE	CONTINUOUS	PERIODIC
1. AT THE COMPLETION OF FABRICATION, THE APPROVED FABRICATOR SHALL SUBMIT A CERTIFICATE OF COMPLIANCE TO THE BUILDING CODE OFFICIAL STATING THAT THE WORK WAS PERFORMED IN ACCORDANCE WITH THE APPROVED CONSTRUCTION DOCUMENTS.	X	---

IN ACCORDANCE WITH CHAPTER 17 OF THE REFERENCE BUILDING CODE, THE OWNER SHALL EMPLOY INSPECTION AGENCIES TO PERFORM SPECIAL INSPECTIONS DURING CONSTRUCTION INCLUDING INSPECTIONS OF SHOP-FABRICATED ITEMS WHEN APPLICABLE. ALL INSPECTION AGENCIES, INCLUDING FABRICATION FACILITIES, WHEN REQUIRED, SHALL BE QUALIFIED AND APPROVED BY THE BUILDING OFFICIAL. REFER TO OTHER DISCIPLINES FOR SPECIAL INSPECTIONS OF NON-STRUCTURAL SYSTEMS.

METAL BUILDING NOTES

1. FOOTING DESIGNS ARE BASED ON ESTIMATED COLUMN LOADS. COLUMN BASES SHALL BE ASSUMED TO BE PINNED UNLESS APPROVED BY THE ENGINEER. FOOTINGS WILL BE REVIEWED AND REVISED IF NECESSARY UPON RECEIPT OF FINAL COLUMN REACTIONS.
2. PRE-ENGINEERED STEEL BUILDING DESIGN AND MATERIAL PROVIDED SHALL INCLUDE ALL BEAMS, COLUMNS, AND OTHER FRAMING MEMBERS REQUIRED TO ASSURE A COMPLETE JOB.
3. PROVIDE SUPPORT AND SUPPLEMENTARY FRAMING AS REQUIRED FOR ALL STRUCTURE MOUNTED EQUIPMENT.
4. DRIFT AND DEFLECTION TO BE WITHIN IBC STANDARDS FOR THE STRUCTURE.
5. BRACING LOCATIONS SHOWN ON ARCHITECTURAL DRAWINGS ARE PERMISSIBLE BUT NOT REQUIRED. PROVIDE BRACING AS NEEDED FOR STABILITY.

DESIGN CRITERIA

GOVERNING CODE	2018 INTERNATIONAL BUILDING CODE
BUILDING RISK CATEGORY	CATEGORY III
ROOF LOADS	
LIVE LOAD	20 PSF
COLLATERAL LOAD	8 PSF
NOTE: DO NOT REDUCE LIVE LOAD ON FRAMES FOR TRIBUTARY AREA	
SNOW LOADS	
GROUND SNOW LOAD (P_g)	10 PSF
FLAT ROOF SNOW LOAD (P_f)	10 PSF
SNOW EXPOSURE FACTOR (C_e)	1.0
SNOW LOAD IMPORTANCE FACTOR (I_s)	1.10
THERMAL FACTOR (C_t)	1.0
ICE LOADS	
ICE THICKNESS	2 IN.
WIND LOADS	
BASIC ULTIMATE WIND SPEED (V_{ult})	115 MPH
SITE EXPOSURE CATEGORY	B
INTERNAL PRESSURE COEFFICIENT	±0.18
SEISMIC LOADS	
SEISMIC IMPORTANCE FACTOR	1.25
MAPPED SPECTRAL RESPONSE ACCELERATION (S_s)	0.135
MAPPED SPECTRAL RESPONSE ACCELERATION (S_1)	0.073
SEISMIC SITE CLASS	D
DESIGN SPECTRAL RESPONSE ACCELERATION (S_{ds})	0.144
DESIGN SPECTRAL RESPONSE ACCELERATION (S_{d1})	0.177
SEISMIC DESIGN CATEGORY	B
RESPONSE MODIFICATION COEFFICIENT (R)	3.5
ANALYSIS PROCEDURE	EQUIVALENT LATERAL FORCE
RAIN LOADS	
60 MIN. DURATION	3.75 IN./HR.
5 MIN. DURATION	10.2 IN./HR.
SPECIAL LOADS	
INTERIOR WALLS & PARTITIONS	5 PSF HORIZONTAL
HANDRAIL LOADS (ANY DIRECTION)	50 PLF / 200# CONCENTRATED
GEOTECHNICAL	
GEOTECHNICAL ENGINEER	AIMRIGHT TESTING
REFERENCE REPORT I.D. OR NUMBER	9831121
REFERENCE REPORT DATE	12/08/2021
ALLOWABLE DESIGN BEARING PRESSURE	900 PSF

GENERAL STRUCTURAL NOTES

FOUNDATIONS

1. REINFORCING STEEL TO MEET A.S.T.M. SPECIFICATION A-615, LATEST REVISION, GR 60.
2. ANCHOR BOLTS TO BE ASTM F1554, GRADE 55. PROVIDE DOUBLE NUTS FOR ALL STEEL COLUMN ANCHOR BOLTS TO ALLOW FOR ADJUSTMENT IN BASE PLATE ELEVATION. PROVIDE MIN. 1 INCH NON-SHRINK GROUT UNDER PLATE AFTER ERECTION. ANCHOR BOLT LENGTHS LISTED ARE EMBEDMENT LENGTHS.
3. PROVIDE #4 BARS @ 18" O.C., EACH WAY FOR ALL CONCRETE SLABS ON GRADE UNLESS OTHERWISE NOTED. PLACE REBAR IN UPPER 1/3 OF CONCRETE SLAB.
4. ALL WALLS SHALL HAVE ADEQUATE TEMPORARY BRACING BEFORE BACKFILL IS PLACED AGAINST WALLS. TEMPORARY BRACING SHALL NOT BE REMOVED UNTIL WALL IS PERMANENTLY BRACED.
5. C.J. INDICATES 1½" DEEP SAW CUT CONTROL JOINT OR KEYED CONSTRUCTION JOINT.
6. PROVIDE CORNER BARS FOR ALL CONTINUOUS HORIZONTAL REINFORCING.

CONCRETE

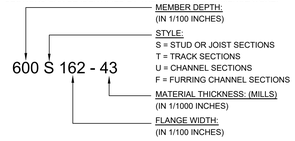
1. CONCRETE TO HAVE A MINIMUM COMPRESSIVE STRENGTH OF 3000 LBS./SQ. INCH AT END OF 28 DAYS. ALL EXTERIOR FLATWORK TO BE 3500 LBS./SQ. INCH AND HAVE AN AIR-ENTRAINING ADMIXTURE.

MASONRY

1. ALL CMU SHALL BE 2-CELL BLOCK AND HAVE A SPECIFIED MINIMUM COMPRESSIVE STRENGTH OF 1900 PSI ON NET AREA AT 28 DAYS. THE DESIGN COMPRESSIVE STRENGTH OF THE MASONRY ASSEMBLY (F'm) SHALL BE 1500 PSI.
2. MINIMUM MORTAR COMPRESSIVE STRENGTH - 1800 PSI AT 28 DAYS.
3. CELLS WHICH CONTAIN REINFORCING STEEL SHALL BE FILLED SOLIDLY WITH 3000 PSI CONCRETE, OR GROUT, INCLUDING BOND BEAMS, LINTELS, AND PILASTERS.
4. VERTICAL CELLS TO BE FILLED SHALL HAVE VERTICAL ALIGNMENT SUFFICIENT TO MAINTAIN A CLEAR UNOBSTRUCTED CONTINUOUS VERTICAL CELL NOT LESS THAN 2"X3" IN PLAN DIMENSIONS.
5. FOUNDATION DOWELS SHALL EXTEND A MINIMUM OF 32 DIAMETER INTO THE FOUNDATION CONCRETE AND 48 DIAMETERS INTO THE MASONRY WALL OR PARTITION. LAPS OR SPLICES OF REINFORCING STEEL IN MASONRY SHALL BE 48 DIAMETERS. THERE SHALL BE A FOUNDATION DOWEL FOR EACH VERTICAL REINFORCING BAR.
6. VERTICAL WALL REINFORCING SHALL EXTEND CONTINUOUSLY FROM THE TOP OF FOUNDATION TO EMBED AT LEAST 6" INTO ROOF DIAPHRAGM BOND BEAM, OR TO TOP OF PARAPET WHEN PARAPET EXISTS.
7. AND ADDITIONAL VERTICAL BAR, WITH FOUNDATION DOWEL, SAME SIZE AND LENGTH AS THE NORMAL REINFORCING BAR, SHALL BE PLACED:
   A. ON EACH SIDE OF CONTROL JOINTS
   B. AT INTERSECTION OF EXTERIOR WALLS
   C. AT INTERSECTION OF INTERIOR SHEAR WALLS W/ EXTERIOR WALLS
8. BOND BEAM REINFORCING STEEL (B.B.R.S.) AND HORIZONTAL JOINT REINFORCING (H.J.R.):
   A. B.B.R.S. AT ROOF AND FLOOR DIAPHRAGM LEVELS IN STRUCTURAL WALLS (LOAD BEARING & SHEAR) WILL BE CONTINUOUS EXCEPT AT ISOLATION JOINTS.
   B. INTERMEDIATE B.B.R.S. IN STRUCTURAL WALL & ALL B.B.R.S. IN NON-STRUCTURAL WALLS WILL TERMINATE ON EACH SIDE OF CONTROL JOINTS & ISOLATION JOINTS.
   C. H.J.R. WILL TERMINATE ON EACH SIDE OF CONTROL JOINTS & ISOLATION JOINTS FOR ALL CMU WALLS.
   D. PROVIDE LADDER OR TRUSS TYPE H.J.R. @ 16" O.C.
9. BARS AROUND PERIMETER OF OPENINGS SHALL EXTEND NOT LESS THAN 40 DIAMETERS OR 24", WHICHEVER IS LARGER, BEYOND CORNER OF OPENING. VERTICAL JAMB BARS WILL BE THE SAME SIZE AND NUMBER AS NORMAL VERTICAL REINFORCING AND EXTEND FULL HEIGHT OF WALL WITH FOUNDATION DOWEL.
10. SUBSTITUTION OF EXPANSION ANCHORS FOR EMBEDDED ANCHORS SHOWN ON DRAWINGS WILL NOT BE PERMITTED.
11. LINTEL REINFORCEMENT SHALL BE SUPPORTED BY WIRE CHAIRS.
12. WELD STEEL JOISTS TO THE STEEL BEAMS, OR TO 6 x 8 x ¼ WELDING PLATES WITH 2- ¾" DIAMETER x 6 INCHES WELDED ANCHORS ON THE BOTTOM OF EACH PLATE, IF STEEL JOISTS BEAR UPON MASONRY WALLS.
13. PROVIDE 2 - #5 BOTTOM IN CONCRETE FILLED TROUGH BLOCK FOR LINTELS OVER OPENINGS UP TO 6'-4". FOR OPENINGS UP TO 8'-0" PROVIDE 2 - #6 BOTTOM IN CONCRETE FILLED TROUGH BLOCK. FOR OPENINGS EQUAL TO OR GREATER THAN 8'-0" PROVIDE 2 - #6 BOTTOM OF 16" DEEP CONCRETE FILLED TROUGH BLOCK. TYPICAL ALL LINTELS NOT SPECIFICALLY COVERED BY DETAIL OR PLAN.
14. PROVIDE BEARING PLATES AND 2- ¾" DIAMETER X 8" WELDED ANCHORS FOR ALL STEEL BEAMS BEARING UPON MASONRY. FILL CELLS BELOW WITH CONCRETE AND PROVIDE 2 - #5 VERTICAL BARS WITH DOWELS FROM FOOTING.
15. PROVIDE CONTROL JOINTS @ 20'-0" O.C. (MAX.) IN EXTERIOR MASONRY WALLS.

LIGHT GAUGE

1. LIGHT GAUGE STEEL MEMBERS ARE TO BE DEPTH AND GAUGE NOTED ON DRAWINGS.
2. YIELD STRESS (FY) FOR 18 AND 20 GAUGE MATERIAL IS TO BE MINIMUM 33,000 PSI. YIELD STRESS FOR 16 GAUGE AND HEAVIER IS TO BE MINIMUM 50,000 PSI.
3. WALL STUDS ARE TO ALIGN WITH FLOOR, ROOF, AND CEILING JOISTS UNLESS NOTED OTHERWISE.
4. TRACK IS TO MATCH GAUGE OF ADJACENT MATERIAL (I.E. STUDS) UNLESS NOTED OTHERWISE. ALL TRACK IS TO HAVE A MINIMUM YIELD STRESS OF 33,000 PSI.
5. PUNCHED WEBS ARE ACCEPTABLE, PER DIETRICH STANDARD; HOWEVER, 10 INCHES MINIMUM OF UNPUNCHED MATERIAL IS REQUIRED AT BOTH ENDS OF ALL MEMBERS. IF PUNCHES OCCUR AT FASTENER LOCATIONS, REINFORCE WITH MATERIAL OF SAME GAUGE AND YIELD STRESS AS PUNCHED MEMBER.
6. STUDS MUST BE SEATED SQUARELY IN WEB OF BOTTOM TRACK, WITH BOTH FLANGES FASTENED TO TRACK FLANGES.
7. PROVIDE 1½", 16 GAUGE COLD-ROLLED "U" CHANNEL HORIZONTAL BRIDGING AT 5'-0" ON CENTER, MAXIMUM FOR WALL STUDS. PROVIDE ONE ROW AT MID-HEIGHT FOR WALLS LESS THAN 10 FEET HIGH. ATTACH BRIDGING TO EACH STUD BY WELDING OR WITH CLIPS AND SCREWS.
8. PROVIDE BRIDGING FOR FLOOR, ROOF, AND CEILING JOISTS AT 8 FEET ON CENTER, MAXIMUM. BRIDGING TO CONSIST OF SOLID BLOCKING IN TWO JOIST SPACES EACH END OF BRIDGING LINE AND IN SINGLE SPACES 10 FEET ON CENTER, MAXIMUM, WITH CONTINUOUS FLAT STEEL STRAPS TOP AND BOTTOM FULL LENGTH. NOTE: TOP FLANGE STRAP MAY BE OMITTED, UNLESS CONSTRUCTION LOADS REQUIRE BRIDGING PRIOR TO DECK INSTALLATION.
9. ALL MEMBERS ARE TO BE CONTINUOUS BETWEEN SUPPORTS. CONTINUOUS WALL TRACK MUST BE ANCHORED TO A COMMON STRUCTURAL MEMBER, AT SPLICE LOCATIONS, OR MUST BE SPLICED BY BUTT WELDING OR LAPPING AND FASTENING.
10. TYPICAL WALL STUDS TO BE AS FOLLOWS, EXCEPT WHERE NOTED OTHERWISE
    EXTERIOR; 600S162-43 @ 16" O.C.
11. PROVIDE MULTIPLE STUDS AT BEARING POINTS FOR MULTIPLE MEMBER JOISTS OR BEAMS, I.E. TRIPLE STUD AT TRIPLE MEMBER BEAM. MULTIPLE STUDS TO CARRY DOWN TO FOUNDATION. PROVIDE OTHER ADDITIONAL STUDS WHERE NOTED ON DETAILS OR PLANS.
12. SECTIONS CAN BE IDENTIFIED BY THE FOLLOWING NOMENCLATURE:



MISCELLANEOUS

1. CONTRACTOR TO VERIFY ALL EXISTING BUILDING DIMENSIONS.
2. SEE MECHANICAL DRAWINGS FOR EXACT DIMENSIONS OF MECHANICAL OPENINGS AND EQUIPMENT.
3. PROVIDE CONTROL JOINTS @ 30'-0" O.C. (MAX.) IN INTERIOR GYPSUM BOARD WALLS.

FOOTING SCHEDULE

MARK	F1	F2	F3	F4	F5	F6	F7	F8
FOOTING	12'-0"x12'-0"x2'-0" DP. w/ 15- #5 x 11'-6" EA. WAY, BOTT.	9'-0"x9'-0"x2'-0" DP. w/ 12- #5 x 8'-6" EA. WAY, BOTT.	7'-0"x7'-0"x2'-0" DP. w/ 9- #5 x 6'-6" EA. WAY, BOTT.	10'-6"x10'-6"x2'-0" DP. w/ 13- #5 x 10'-0" EA. WAY, BOTT.	11'-6"x11'-6"x2'-0" DP. w/ 15- #5 x 11'-0" EA. WAY, BOTT.	14'-6"x14'-6"x2'-0" DP. w/ 18- #5 x 14'-0" EA. WAY, BOTT.	4'-6"x4'-6"x2'-0" DP. w/ 6- #5 x 4'-0" EA. WAY, BOTT.	15'-0"x15'-0"x2'-0" DP. w/ 16- #6 x 14'-6" EA. WAY, BOTT.
MARK	F9	F10	F11	F12	F13	F14	F15	
FOOTING	6'-0"x6'-0"x2'-0" DP. w/ 8- #5 x 5'-6" EA. WAY, BOTT.	10'-0"10'-0"x2'-0" DP. w/ 13- #5 x 9'-6" EA. WAY, BOTT.	7'-0"x7'-0"x2'-0" DP. w/ 9- #5 x 6'-6" EA. WAY, BOTT.	27'-0"x15'-0"x2'-0" DP. w/ 28- #6 x 14'-6" & 16- #6 x 26'-6", BOTT.	5'-0"x5'-0"x2'-0" DP. w/ 7- #5 x 4'-6" EA. WAY, BOTT.	15'-6"x15'-6"x2'-0" DP. w/ 16- #6 x 15'-0" EA. WAY, BOTT.	17'-6"x17'-6"x2'-0" DP. w/ 22- #5 x 17'-0" EA. WAY, BOTT.	

REED ARCHITECTURE & INTERIORS
"The Team You Trust"

CONSULTANT:

Reference Cover Sheet for Consultant Directory

100% CONSTRUCTION DOC'S
03.03.2024

EVERGREEN BAPTIST CHURCH - PHASE 5

10301 EAST 111TH ST. S.
BROKEN ARROW, OKLAHOMA 74011

REVISIONS

1	04-23-25

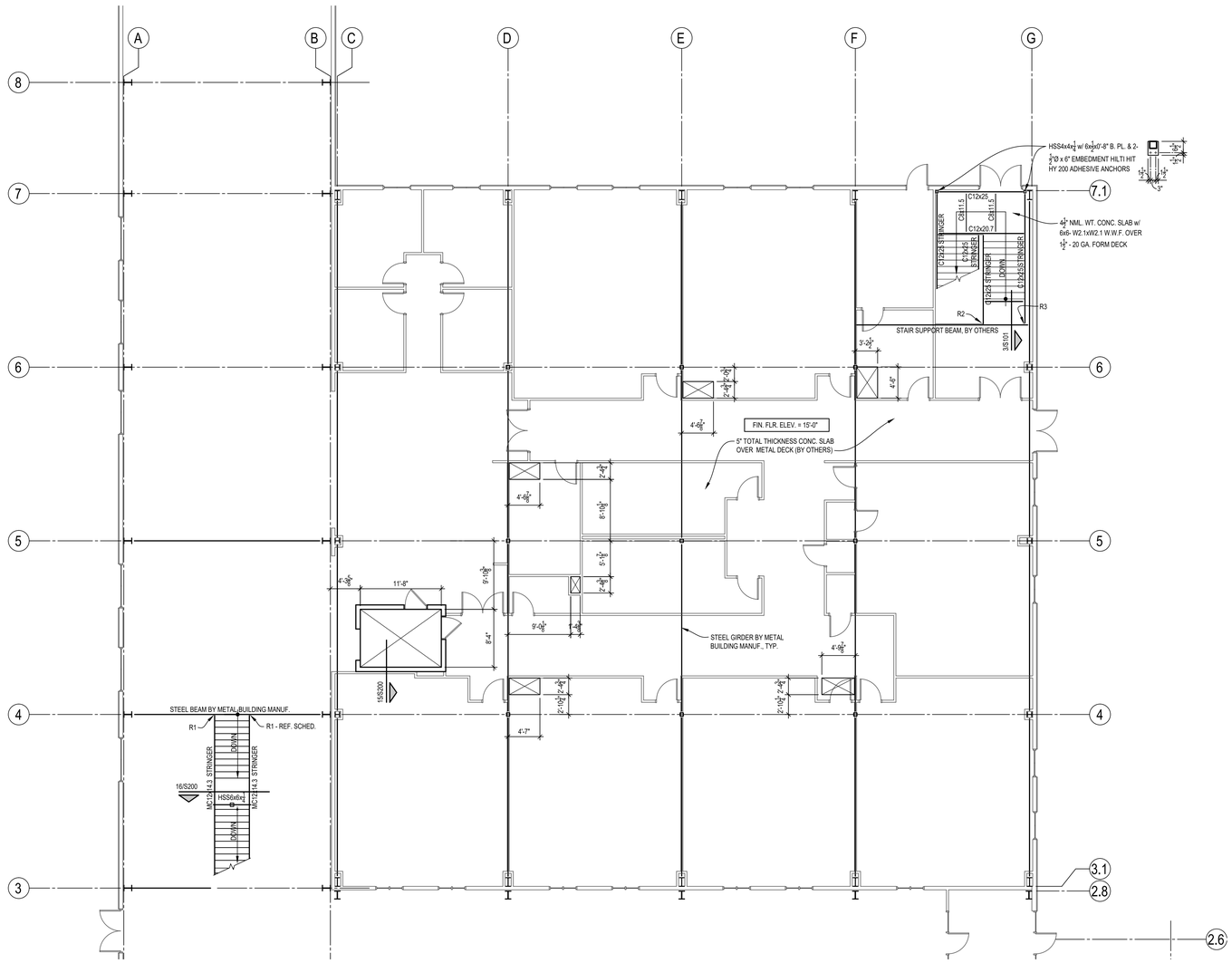
Foundation Plan

JOB 240407
ISSUE 07/16/2024
DRAWN BY: JRC
CHK'D BY: KWS

S101

SCALE AS NOTED

PROFESSIONAL STRUCTURAL ENGINEER — KEVIN W. SNOWDEN — 18264 — OKLAHOMA
4-24-25



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

NORTH

REACTION TABLE		
MARK	DEAD LOAD	LIVE LOAD
R1	1.0k	1.8k
R2	1.2k	2.1k
R3	2.6k	4.3k

(LOADS ARE ASD)

REED ARCHITECTURE & INTERIORS
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03.03.2024

EVERGREEN BAPTIST CHURCH - PHASE 5

10301 EAST 111TH ST. S.
BROKEN ARROW, OKLAHOMA 74011

REVISIONS

1	04-23-25	ADDENDUM 2

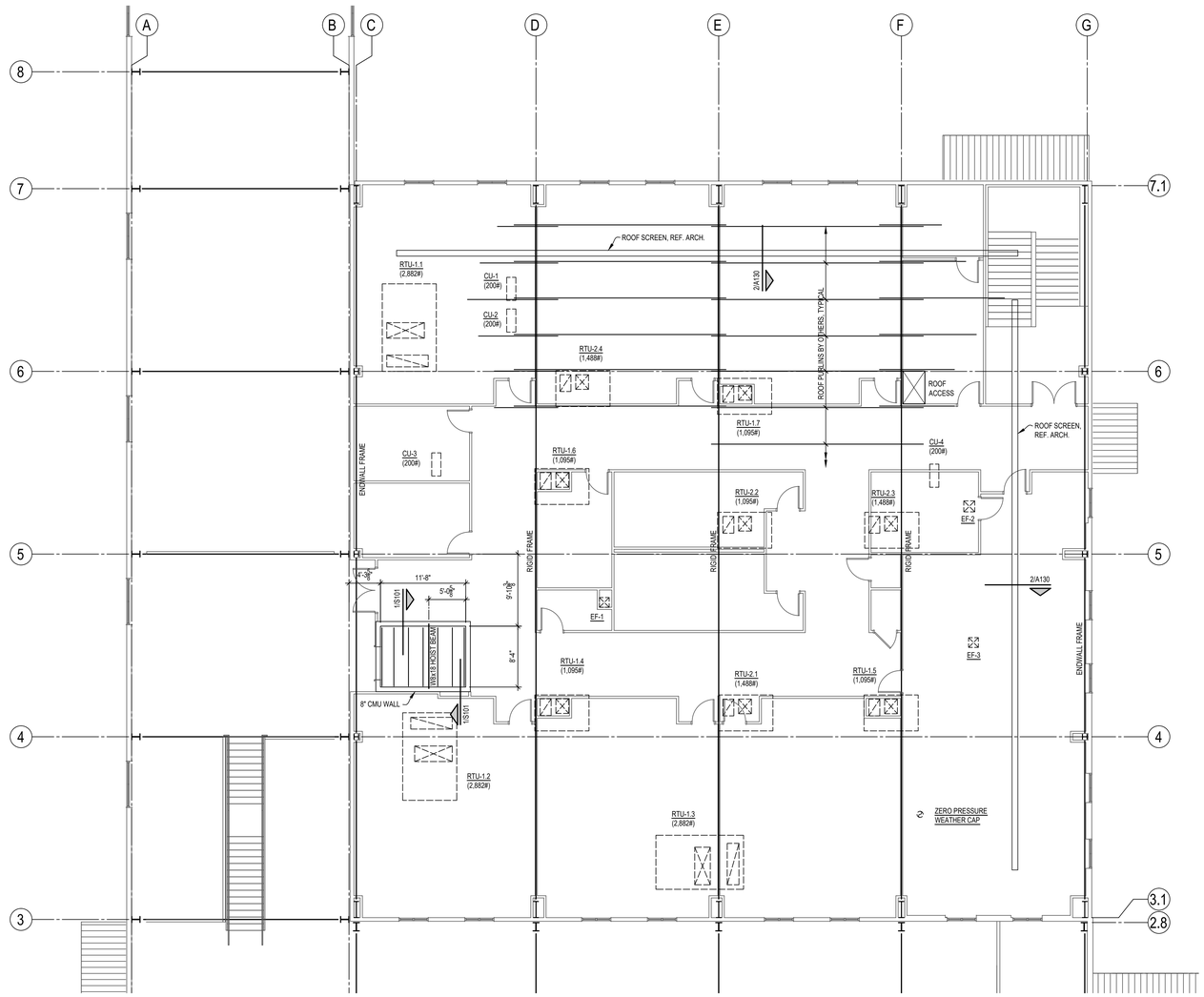
Second Floor Framing Plan

JOB 240407
ISSUE 07/16/2024
DRAWN BY: JRC
CHK'D BY: KWS

S102

SCALE: AS NOTED

PROFESSIONAL STRUCTURAL ENGINEER
KEVIN W. SNOWDEN
18264
OKLAHOMA
4-24-25



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

NORTH

GENERAL NOTES

1. COORDINATE ALL MECHANICAL EQUIPMENT LOCATIONS AND WEIGHTS WITH THE MANUFACTURER.
2. COORDINATE ALL MECHANICAL ROOF PENETRATIONS WITH THE EQUIPMENT MANUFACTURER.

REED ARCHITECTURE & INTERIORS

"The Team You Trust"

CONSULTANT:

Reference Cover Sheet
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100% CONSTRUCTION DOC'S
03.03.2024

EVERGREEN BAPTIST CHURCH - PHASE 5

10301 EAST 111TH ST. S.
BROKEN ARROW, OKLAHOMA 74011

REVISIONS

1	04-23-25	ADDENDUM 2

Partial Roof Framing Plan

JOB 240407
ISSUE 07/16/2024
DRAWN BY: JRC
CHK'D BY: KWS

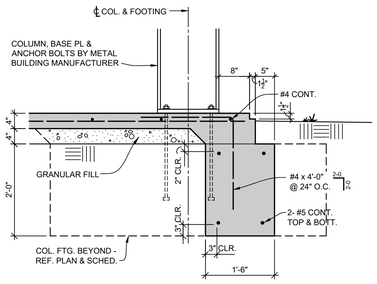
S103

SCALE AS NOTED

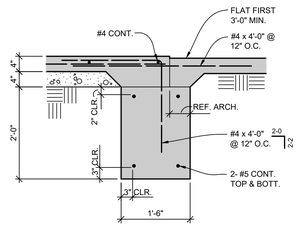
PROFESSIONAL STRUCTURAL ENGINEER
KEVIN W. SNOWDEN
18264
OKLAHOMA

4-24-25

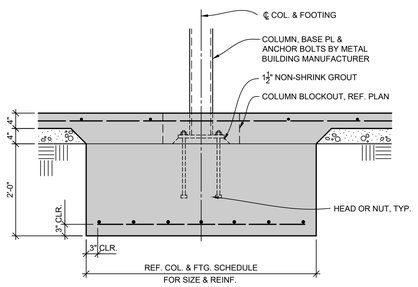
1/16"=1'-0" 0 8' 16' 32'
3/32"=1'-0" 0 4' 8' 16' 32'
1/8"=1'-0" 0 4' 8' 16'
1/4"=1'-0" 0 2' 4' 8'
1/2"=1'-0" 0 1' 2' 4'
3/4"=1'-0" 0 1' 2'
1"=1'-0" 0 6" 1' 2'
1 1/2"=1'-0" 0 3" 6" 1'
3"=1'-0" 0 3" 6"



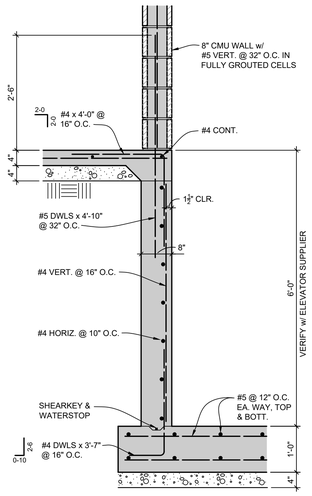
1 FOUNDATION SECTION
3/4" = 1'-0"



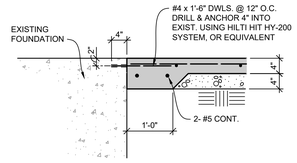
2 FOUNDATION SECTION
3/4" = 1'-0"



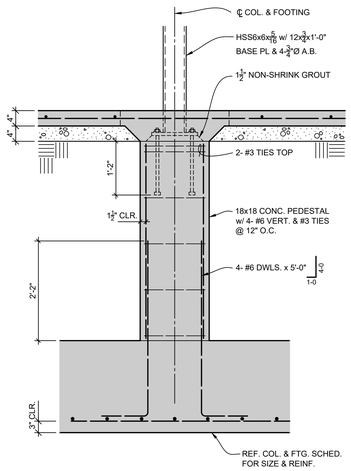
3 FOUNDATION SECTION
3/4" = 1'-0"



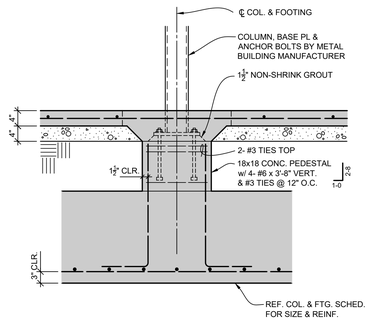
4 FOUNDATION SECTION
3/4" = 1'-0"



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

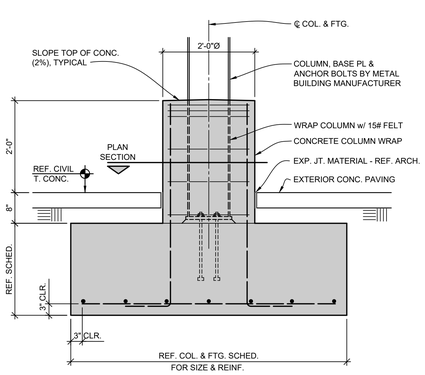


6 FOUNDATION SECTION
3/4" = 1'-0"



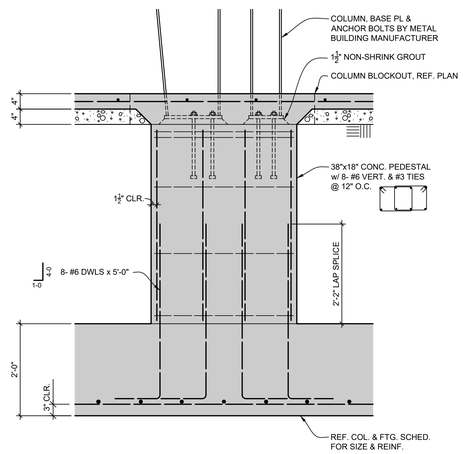
7 FOUNDATION SECTION
3/4" = 1'-0"

STUD SCHEDULE			
OPENING WIDTH	FULL HEIGHT STUDS	HEADER STUDS	HEADER TRACKS
LESS THAN 4'-0"	1- 600S162-43	2- 600S162-43	600T125-43
4'-1" TO 6'-0"	2- 600S162-43	2- 600S162-43	600T125-43
6'-1" TO 12'-0"	2- 600S162-43	2- 600S162-43	600T125-54

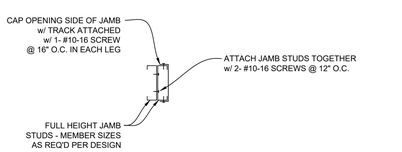


PLAN SECTION

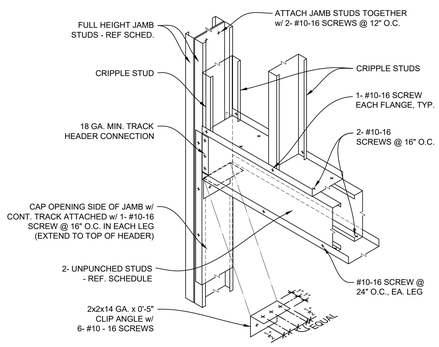
8 FOUNDATION SECTION
3/4" = 1'-0"



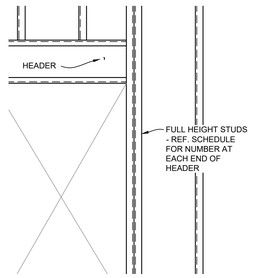
9 FOUNDATION SECTION
3/4" = 1'-0"



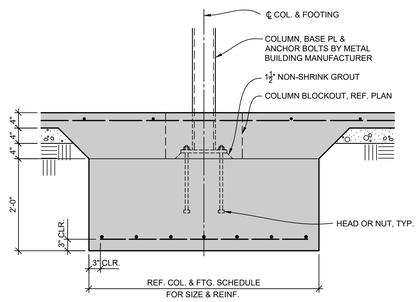
PLAN - JAMB



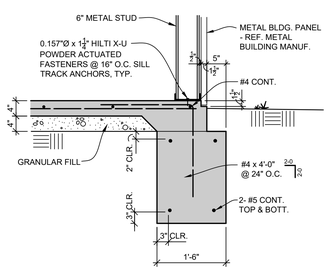
10 NON-BEARING WALL BOXED HEADER DETAIL
3/4" = 1'-0"



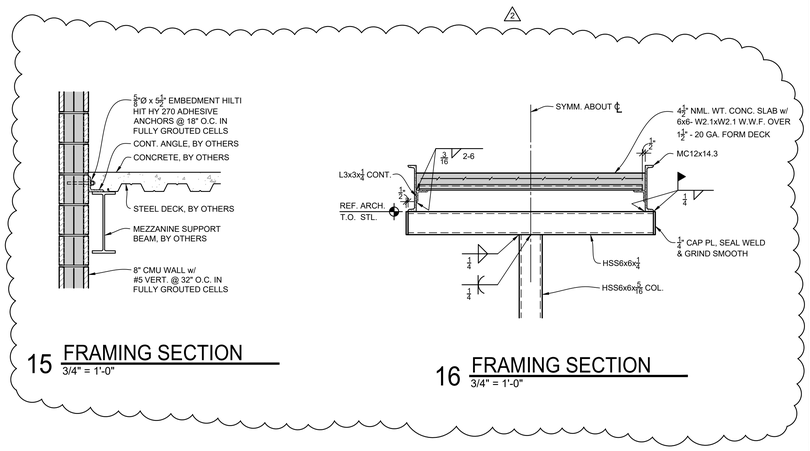
11 NON-BEARING WALL TYPICAL OPENING DETAIL
3/4" = 1'-0"



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

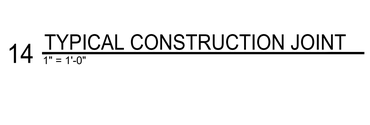


13 FOUNDATION SECTION
3/4" = 1'-0"



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

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



14 TYPICAL CONSTRUCTION JOINT
1" = 1'-0"

REED ARCHITECTURE & INTERIORS

"The Team You Trust"

CONSULTANT:

Reference Cover Sheet for Consultant Directory

100% CONSTRUCTION DOC'S
03.03.2024

EVERGREEN BAPTIST CHURCH - PHASE 5

10301 EAST 111TH ST. S.
BROKEN ARROW, OKLAHOMA 74011

REVISIONS		
2	04-23-25	ADDENDUM 2

General Notes, Special Inspections and Sections

JOB	240407
ISSUE	07/16/2024
DRAWN BY:	JRC
CHK'D BY:	KWS

S200

SCALE AS NOTED

PROFESSIONAL STRUCTURAL ENGINEER
KEVIN W. SNOWDEN
18264
OKLAHOMA
4-24-25

1/16"=1'-0" 0 8" 16" 32"
3/32"=1'-0" 0 4" 8" 16" 32"
1/8"=1'-0" 0 4" 8" 16"
1/4"=1'-0" 0 2" 4" 8"
1/2"=1'-0" 0 1' 2' 4'
3/4"=1'-0" 0 1' 2'
1"=1'-0" 0 6" 1' 2'
1 1/2"=1'-0" 0 3" 6" 1'
3"=1'-0" 0 3" 6"

PLUMBING SYMBOLS

AFF	ABOVE FINISH FLOOR
DN	DOWN
N.I.C.	NOT IN CONTRACT
VTR	VENT THRU ROOF
	ELBOW – TURNED DOWN
	ELBOW – TURNED UP
	TEE – TURNED DOWN
	TEE – TURNED UP
	SHUT–OFF VALVE
	THERMOSTATIC MIXING VALVE
	BALL VALVE
	BALANCE VALVE
	CHECK VALVE
	WATER HAMMER ARRESTOR
	PRV – PRESS. REDUCING VALVE
X	KEYED NOTE X
	CONNECT TO EXISTING
CD	CONDENSATE PIPING
SS	SANITARY SEWER PIPING
ST	STORM WATER PIPING
V	SANITARY VENT PIPING
–	DOMESTIC COLD WATER PIPING
– –	DOMESTIC HOT WATER PIPING
– – –	DOMESTIC HOT WATER RETURN
F	FIRE PROTECTION PIPING
G	GAS PIPING
RTU–XX	EQUIPMENT TAG EQUIPMENT NO.

PLUMBING FIXTURE SCHEDULE

MARK	FIXTURE	MANUFACTURER/ CATALOG NO.	TRIM	RUN–OUT SIZES WASTE	VENT	CW	HW	NOTES
WC1	WATER CLOSET (FLOOR MOUNT, FLUSH VALVE)	KOHLER WELLCOMME K–96053	FLOOR MOUNTED ELONGATED BOWL (1.28 GALLON PER FLUSH). FIXTURE COLOR: WHITE. SLOAN ROYAL 111–1.28 FLUSH VALVE. SEAT: CHURCH 9500SSCT	4"	2"	1 1/4"	---	
WC2	WATER CLOSET ADA (FLOOR MOUNT, FLUSH VALVE)	KOHLER HIGHCLIFF K–96057	FLOOR MOUNTED ELONGATED BOWL (1.28 GALLON PER FLUSH). FIXTURE COLOR: WHITE. SLOAN ROYAL 111–1.28 FLUSH VALVE. VALVE HANDLE TO BE ORIENTED TO OPEN SIDE OF STALL. SEAT: CHURCH 9500SSCT	4"	2"	1 1/4"	---	
UR	URINAL ADA (WALL HUNG)	KOHLER BARDON K–4991–ETSS	WALL HUNG WASH OUT WITH 3/4" TOP SPUD. (0.5 GALLON PER FLUSH). FIXTURE COLOR: WHITE. SLOAN ROYAL 186–0.5 FLUSH VALVE. ZURN Z1222 CARRIER. MOUNT LIP AT 17" ABOVE FLOOR FOR ADA LOCATIONS.	2"	1 1/2"	1"	---	1
L1	LAVATORY ADA (COUNTERTOP)	KOHLER PENNINGTON K–2196–4	DROP–IN OVAL VITREOUS CHINA SINK WITH 2–HOLE DRILLING ON 4" CENTERS. FIXTURE COLOR: WHITE. FAUCET: T&S BRASS B–2711 (0.5 GPM) SINGLE LEVER FAUCET WITH GRID DRAIN.	2"	1 1/4"	1/2"	1/2"	2,3,4,5,6
L2	LAVATORY ADA (WALL HUNG)	KOHLER KINGSTON K–2005	WALL HUNG VITREOUS CHINA SINK WITH 2–HOLE DRILLING ON 4" CENTERS. FIXTURE COLOR: WHITE. FAUCET: T&S BRASS B–2711 (0.5 GPM) SINGLE LEVER FAUCET WITH GRID DRAIN. ZURN Z1231 CARRIER.	2"	1 1/4"	1/2"	1/2"	1,2,3,4,5,6
S1	CLASSROOM SINK (COUNTERTOP)	ELKAY LR2219	DROP–IN STAINLESS STEEL SINK WITH 3–HOLE DRILLING ON 4" CENTERS. FAUCET: ELKAY LK800GN05T6 (1.5 GPM) DUAL HANDLE W/ 4" WRIST BLADES AND GRID DRAIN.	2"	1 1/2"	1/2"	1/2"	2,4,6
S2	LAB ROOM SINK (COUNTERTOP)	DURCON D30	DROP–IN EPOXY RESIN 18x15x10.75 SINK WITH SO3–R POLYPROPYLENE OUTLET AND TAILPIECE CONNECTION TO DILUTION TANK. FAUCET: WATERSAVER L414VB–BH (1.5 GPM) DUAL HANDLE W/ 4" WRIST BLADES.	2"	1 1/2"	1/2"	1/2"	2,6,12
S3	LAB ROOM SINK ADA (COUNTERTOP)	DURCON A25	DROP–IN EPOXY RESIN 18x15x5 SINK WITH SO3–R POLYPROPYLENE OUTLET AND OFFSET TAILPIECE CONNECTION TO DILUTION TANK. FAUCET: WATERSAVER L414VB–BH (1.5 GPM) DUAL HANDLE W/ 4" WRIST BLADES.	2"	1 1/2"	1/2"	1/2"	2,5,6,12
EWC	ELECTRIC WATER COOLER ADA	ELKAY LVRCGRNTL8WSK	TWO STATION WALL MOUNTED HI–LOW BARRIER–FREE, FRONT PUSH BUTTON, SELF–CONTAINED ELECTRIC WATER COOLER WITH BOTTLE WATER FILLER. FINISH: SATIN STAINLESS STEEL. 115V/1, PROVIDE W/ NSF42/NSF53 WATER FILTER AND ZURN Z225 WALL CARRIER.	2"	1 1/2"	1/2"	---	1,2,4
ESHWR	EMERGENCY SHOWER	HAWS 8300.158	COMBINATION 20GPM EMERGENCY SHOWER AND 1.2GPM EYE WASH. FURNISH AND INSTALL HAWS MODEL 9201H AXION THERMOSTATIC MIXING VALVE WITH MINIMUM 1 GPM TO MAXIMUM 31 GPM FLOW. SET DELIVERY TEMPERATURE TO 98 DEGREES F. INSTALL PER MANUFACTURER'S RECOMMENDATIONS.	2"	1 1/2"	1 1/4"	1 1/4"	
MS	MOP SINK	FIAT MSB–2424	MOLDED STONE FIXTURE WITH GRID DRAIN, STAINLESS STEEL CAPS AND WALL SPLASH GUARDS, 83D–AA FAUCET W/ VACUUM BREAKER, 832–AA HOSE AND BRACKET, 889CC MOP HANGER. FIXTURE COLOR: WHITE	3"	1 1/2"	3/4"	3/4"	
US	UTILITY SINK	MUSTEE 19CF UTILATUB	ONE–PIECE THERMOPLASTIC FIXTURE WITH 6" SWING SPOUT FAUCET. PVC DRAIN, P–TRAP, AND STOPPER. FIXTURE COLOR: WHITE	2"	1 1/2"	1/2"	1/2"	2,4,12
FD1	FLOOR DRAIN	ZURN ZN–415–S	FLOOR DRAIN WITH NICKLE BRONZE TYPE "S" STRAINER, WITH TRAP PRIMER CONNECTION.	2"	1 1/2"	---	---	9
FD2	FLOOR DRAIN	ZURN ZN–415–S	FLOOR DRAIN WITH NICKLE BRONZE TYPE "S" STRAINER, WITH TRAP PRIMER CONNECTION.	3"	1 1/2"	---	---	9
FD3	FLOOR DRAIN	ZURN FD–2340–P–Y	MEDIUM DUTY FLOOR DRAIN WITH TRACTOR GRATE, SEDIMENT BUCKET, AND TRAP PRIMER CONNECTION.	2"	1 1/2"	---	---	9
WCO	WALL CLEANOUT	ZURN Z1441	ADJUSTABLE	---	---	---	---	
FCO	FLOOR CLEANOUT	ZURN ZN1400	ADJUSTABLE	---	---	---	---	
YCO	GRADE CLEANOUT	ZURN ZN1400–HD	ADJUSTABLE	---	---	---	---	
FPWH	FREEZE PROOF WALL HYDRANT	WOODFORD MODEL B65	AUTOMATIC DRAINING, ANTI–SIPHON W/ VACUUM BREAKER	---	---	3/4"	---	
FPRH	FREEZE PROOF ROOF HYDRANT	WOODFORD MODEL SRH–MS	AUTOMATIC DRAINING, ANTI–SIPHON W/ VACUUM BREAKER	---	---	3/4"	---	
TP1	TRAP PRIMER	ZURN Z–1022	AUTOMATIC TRAP PRIMER	---	---	1/2"	---	
EXP1	EXPANSION TANK	THERM–X–TROL ST–25V		---	---	1/2"	---	

NOTES:
1. REFER TO ARCHITECTURAL ELEVATIONS FOR MOUNTING HEIGHTS, MOUNT PER ADA REQUIREMENTS WHERE INDICATED.
2. PROVIDE CHROME PLATED WHEEL HANDLE ANGLE SUPPLIES, FLEXIBLE RISER HOSE(S), AND CHROME PLATED WALL ESCUTCHEON(S).
3. PROVIDE LAVATORY FAUCET WITH 0.5 GPM MAXIMUM FLOW CONTROL SPRAY OUTLET.
4. PROVIDE P–TRAP WITH CLEANOUT AND WALL ESCUTCHEON.
5. PROVIDE OFF–SET TAILPIECE AND TRUEBRO LAV GUARD UNDER SINK PROTECTIVE PIPE COVERS ON SUPPLY AND WASTE PIPING.
6. PROVIDE WATTS LFUSG–B THERMOSTATIC MIXING VALVE SET TO 105° F. (NOTE: TWO S2 LAB SINK LOCATIONS WITH EYE WASH STATIONS TO BE SET AT MAXIMUM 100° F.)
7. PROVIDE CAULKED/THREADED CLEANOUT, EXTEND ACCESS COVER TO FINISHED WALL SURFACE. ENSURE AMPLE CLEARANCE AT CLEANOUT FOR RODDING OF DRAINAGE SYSTEM
8. WATER HAMMER ARRESTORS SHALL BE PROPERLY SIZED, PROPERLY LOCATED IN AN EFFECTIVE RANGE FROM EQUIPMENT, AND IN ACCORDANCE WITH PDI STANDARD WH 201.
9. PROVIDE TRAP PRIMER VALVE AND ASSOCIATED PIPING.
10. PROVIDE ROUND ACCESS COVER WITH NICKEL–BRONZE SCORED FRAMES & PLATES. SIZE AS INDICATED ON DRAWINGS. ENSURE AMPLE CLEARANCE AROUND CLEANOUT FOR RODDING OF DRAINAGE SYSTEM.
11. ADJUSTABLE GRADE CLEANOUT, DURA–COATED CAST IRON BODY WITH GAS AND WATERTIGHT ABS TAPERED THREAD PLUG AND ROUND SCORIATED SECURED HEAVY DUTY TOP, ADJUSTABLE TO FINISHED GRADE.
12. PROVIDE ORION T8 1.5 GALLON POINT–OF–USE DILUTION BASIN WITH TOP INLET DIP TUBE, TOP VENT CONNECTION, AND SIDE OUTLET.

WATER HEATER SCHEDULE

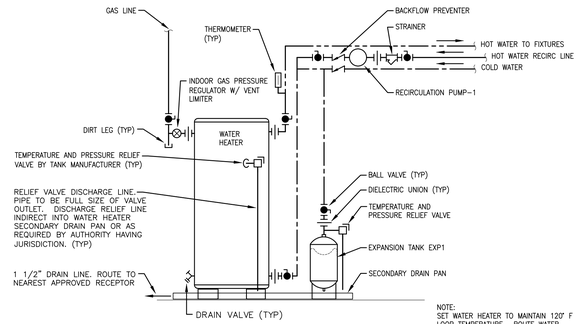
MARK	MANUFACTURER	MODEL	GALLONS STOR. CAP.	MBH INPUT	THERMAL EFFICIENCY	G.P.H. RECOVERY AT 90 °F. RISE	DELIVERY TEMP °F	NOTES
WH1	A.O. SMITH	BTH–199	100	199	95%	261	120	1,2,3,4

NOTES:
1. INSTALL PER MANUFACTURER'S RECOMENDATION.
2. PROVIDE TEMPERATURE AND PRESSURE RELIEF VALVE PER ASME OR AGA APPROVAL.
3. FURNISH AND INSTALL WATER HEATER VENTING. REFER TO MANUFACTURER'S INSTALLATION INSTRUCTIONS FOR FLUE MATERIAL TYPE AND SIZING INSTRUCTIONS. COORDINATE FLUE PENETRATIONS WITH METAL BUILDING MANUFACTURER.
4. APPROVED EQUAL MANUFACTURER'S: BRADFORD WHITE, STATE, RHEEM.

PUMP SCHEDULE

MARK	SERVICE	LOCATION (3)	MANUFACTURER	MODEL	GPM	HEAD FT.	MOTOR WATTS/(HP)	MOTOR F.L.A.	MOTOR RPM	MOTOR VOLTAGE	REMARKS
PUMP 1	WATER RECIRC	AT WH–1	ARMSTRONG	COMPASS H20	3	15	45	0.72	VARIABLE	120/1/60	1,2,3
PUMP 2	SUMP PUMP	ELEVATOR PIT	STANCOR	SE100	90	33	1.0	12.0	3,450	120/1/60	4,5,6

REMARKS:
1. BRONZE WET ROTOR INLINE CIRCULATOR PUMP.
2. PROVIDE 3/4" THREADED CONNECTIONS.
3. PROVIDE POWER CORD AND PLUG.
4. PROVIDE OIL–MINDER CONTOLLER, POWER CORD AND PLUG.
5. PROVIDE WITH MERCURY FLOAT SWITCH. 2" PUMP DISCHARGE. INSTALL FULLSIZE UNION, BALL VALVE, AND CHECK VALVE.
6. COORDINATE REQUIRED BASIN DIAMETER AND DEPTH WITH GENERAL CONTRACTOR.



NOTE:
SET WATER HEATER TO MAINTAIN 120° F LOOP TEMPERATURE. ROUTE WATER HEATER DRAIN LINES TO NEAREST APPROVED RECEPTOR AS REQUIRED.

3 GAS WATER HEATER
SCALE: NTS

GAS PIPING NOTES

1. WORK SHOWN ON THE DRAWINGS IS TO BE COORDINATED WITH WORK OF ALL OTHER TRADES AND ACTUAL CONDITIONS OF CONSTRUCTION. IT IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO COORDINATE CONSTRUCTION CONDITIONS AND PROVIDE THE REQUIRED MATERIALS AND LABOR, TO MEET THE INTENT OF THE CONSTRUCTION DOCUMENTS PRIOR TO BID.

2. FURNISH AND INSTALL INDIVIDUAL GAS SHUT–OFF VALVE AND UNION AT EACH GAS FIRED APPLIANCE AND BUILDING PENETRATION THRU ROOF OR EXTERIOR WALLS.

3. GAS SHUT OFF VALVE SHALL BE FULL SIZE OF REQUIRED EQUIPMENT BRANCH RUNOUT PIPE SIZE BASED ON GAS PRESSURE AND FURTHERMOST PIPE DISTANCE FROM GAS METER OR POINT OF PRESSURE REDUCTION. RUNOUT PIPE SHALL NOT BE REDUCED TO EQUIPMENT CONNECTION PIPE SIZE UNTIL IMMEDIATELY AHEAD OF CONNECTION TO EQUIPMENT. VALVES SHALL NOT BE LOCATED ABOVE CEILINGS.

4. BRANCH GAS PIPING SHALL BE CONNECTED TO THE TOP OR SIDE OF HORIZONTAL PIPING.

5. GAS PIPING SHALL NOT BE INSTALLED IN CONCEALED LOCATIONS. WHERE VERTICAL CHASES ENCLOSE PIPE RISERS, CHASES SHALL BE FIRE RATED AND VENTILATED AT THE TOP WITH FREE AREA VENTS EQUAL TO OR GREATER THAN ONE–HALF THE SERVICE PRESSURE IN INCHES WATER COLUMN TIMES THE NOMINAL DIAMETER OF THE PIPE. GAS PIPING JOINTS WITHIN CONCEALED SPACES SHALL BE WELDED.

6. GAS PIPING SHALL NOT BE INSTALLED BELOW BUILDING SLAB UNLESS SPECIFICALLY NOTED AS SUCH. GAS LINE TO BE SLEEVED AND OPEN TO ATMOSPHERE AT BOTH ENDS IN DOING SO.

7. USE ECCENTRIC REDUCERS TO MAKE REDUCTIONS IN PIPE SIZES IN HORIZONTAL PIPING. INSTALL FITTINGS WITH LEVEL SIDE ON BOTTOM OF PIPING.

8. INSTALL PIPING SO AS TO ALLOW FOR SERVICE AND MAINTENANCE OF EQUIPMENT AND APPLIANCES.

9. OPEN ENDS OF GAS PIPING SHALL BE CAPPED DURING CONSTRUCTION TO PREVENT INTRODUCTION OF FOREIGN MATERIALS. VALVE AND PIPING OUTLETS SHALL BE CAPPED OR PLUGGED IMMEDIATELY AFTER INSTALLATION AND LEFT CLOSED UNTIL FINAL CONNECTION TO EQUIPMENT OR APPLIANCES.

10. ANCHOR PIPING TO CONTROL PIPE MOVEMENT. LOCATION OF ANCHOR POINTS SHALL BE APPROVED BY THE ARCHITECT AND STRUCTURAL ENGINEER.

11. PROVIDE EXPANSION LOOP IN GAS PIPING WHERE BUILDING EXPANSION JOINTS ARE CROSSED.

12. DIVISION 22 CONTRACTOR SHALL WIRE BRUSH AND PAINT ALL GAS PIPE AND ACCESSORIES EXPOSED TO WEATHER. PAINT COLOR TO BE PER ARCHITECT'S DIRECTION, UNLESS SPECIFICALLY DICTATED BY LOCAL CODE.

13. GAS PIPING SHALL ENTER THE BUILDING A MINIMUM OF 12 INCHES ABOVE FINISHED GRADE.

14. LOCATE PIPING SUPPORTS AWAY FROM PIPE JOINTS TO ALLOW FREE MOVEMENT OF PIPING WITHOUT INTERFERENCE OF PIPE SUPPORTS.

15. THE CONTRACTOR IS TO VERIFY THE FINAL APPROVED LOCATION OF THE GAS SERVICE METER AND/OR PRESSURE REDUCING STATION AND ADJUST THE GAS PIPE SIZES INDICATED FOR THE TOTAL SYSTEM LENGTH IF DIFFERENT FROM THE DISTANCE LISTED OR SHOWN ON THE DRAWINGS. DRAWINGS INDICATING THE SYSTEM REVISIONS SHALL BE SUBMITTED FOR REVIEW AND APPROVAL.

16. COORDINATE INSTALLATION OF GAS SERVICE METER AND PRESSURE REGULATING STATIONS WITH THE GAS UTILITY COMPANY. PROVIDE ALL VALVES AND PIPING ARRANGEMENT FOR INSTALLATION OF THE SERVICE GAS METER AND PRESSURE REGULATING EQUIPMENT AS DIRECTED BY THE GAS UTILITY COMPANY. COORDINATE WITH CIVIL PLANS.

17. PLASTIC GAS SERVICE PIPE SHALL BE INSTALLED WITH AN INSULATED COPPER TRACE WIRE NO LESS THAN 18 GAUGE LOCATED ADJACENT TO THE TOP OF THE PIPING. THE COPPER TRACE WIRE SHALL EXTEND TO GRADE AND TERMINATE AT EACH END OF THE PLASTIC SERVICE PIPING. A CONTINUOUS PLASTIC BANNER LABELED "CAUTION – GAS PIPING" SHALL BE INSTALLED 12 INCHES ABOVE ALL BURIED GAS PIPING.

18. TRANSITION RISER FROM PLASTIC SERVICE PIPING TO BLACK STEEL BUILDING PIPING IS TO BE MADE BELOW GRADE. BLACK STEEL PIPING EXTENDING BELOW GRADE SHALL BE FURNISHED WITH FACTORY APPLIED CORROSION RESISTANT POLYETHYLENE COATING. PROVIDE ANODE FOR CATHODIC PROTECTION.

19. WHERE GAS SERVICE UNDERGROUND PIPING RISES THROUGH PAVING OR CONCRETE SURFACES, PROVIDE PIPE SLEEVE TWO PIPE SIZES LARGER THAN INSTALLED PIPING. EXTEND SLEEVE A MINIMUM OF 1 INCH ABOVE FINISHED SURFACE AND DEEPER THAN DEPTH OF PAVING OR CONCRETE. FILL SLEEVE VOID WITH SMALL, ROUNDED, WASHED GRAVEL.

20. EACH ABOVE GROUND PORTION OF METAL PIPING GAS SYSTEM UPSTREAM OF EQUIPMENT SHUT–OFF VALVES SHALL BE ELECTRICALLY CONTINUOUS AND BONDED TO GROUNDING ELECTRODE PER NFPA 70 AND NFPA 54.

FIRE PROTECTION NOTES

1. THE FIRE PROTECTION CONTRACTOR SHALL PROVIDE A COMPLETE FIRE PROTECTION SYSTEM OF TYPE, PRESSURE, FLOW AND DENSITIES REQUIRED BY AND IN ACCORDANCE WITH NFPA, ALL JURISDICTIONAL AGENCIES CODES, AND THE OWNERS INSURANCE CARRIER. THE TOTAL SYSTEM SHALL BE ACCEPTED WITHOUT PREMIUM PENALTIES DUE TO SYSTEM DESIGN, BY INSURANCE CARRIER OR LOCAL AUTHORITY.

2. THIS CONTRACTOR SHALL FIELD VERIFY ALL NEW EQUIPMENT, DUCTWORK AND PIPING, ETC. PRIOR TO STARTING CONSTRUCTION. COORDINATE INSTALLATION AND CONFLICTS WITH THE GENERAL CONTRACTOR.

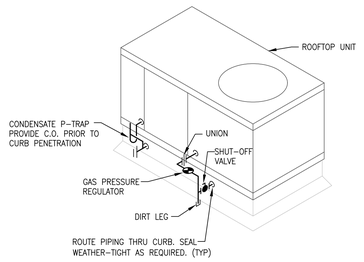
3. RECORD SHOP DRAWINGS, ALONG WITH ALL ASSOCIATED PRODUCT DATA FOR COMPONENTS TO BE UTILIZED IN THE INSTALLATION OF THIS SYSTEM, BEARING THE LOCAL BUILDING AND FIRE DEPARTMENT STAMPS OF APPROVAL, SHALL BE SENT TO ARCHITECT/OWNER PRIOR TO COMMENCING WORK. PLANS SHALL RELATE THE FIRE PROTECTION SYSTEM WITH STRUCTURE AND ALL PERTINENT TRADES. NECESSARY CLARIFYING DETAILS AND SECTIONS SHALL BE INCLUDED. ALL DRAWINGS CONTAINED IN THIS SUBMITTAL SHALL BEAR THE STAMP AND SIGNATURE OF A REGISTERED NICET LEVEL III SPRINKLER DESIGNER EMPLOYED BY THIS CONTRACTOR.

4. OBTAIN FROM OWNER AND OWNER'S INSURANCE CARRIER ALL INFORMATION AND REQUIREMENTS NECESSARY FOR SYSTEM DESIGN.

5. PIPING AND FITTINGS (INTERIOR) SHALL BE AS FOLLOWS:

6. INTERIOR – (ABOVE GRADE OR ABOVE LOWEST FLOOR SLAB) SCHEDULE 40 STEEL PIPE FOR PIPE SIZES 2" AND SMALLER. SCHEDULE 10 BLACK STEEL PIPE FOR PIPE SIZES 2 1/2" AND LARGER. FITTINGS AND COUPLINGS MUST BE A LISTED COMBINATION OF COUPLING, FITTING AND GROOVED AS PER N.F.P.A. 13, AND THE UL AND FM LISTING GUIDES. ALL FITTINGS AND COUPLINGS ARE TO BE FROM A SINGLE MANUFACTURER. NO SEGMENTAL WELDED FITTINGS WILL BE ALLOWED.

7. FIRE PROTECTION CONTRACTOR SHALL PROVIDE ALL ITEMS, ARTICLES, MATERIALS, OPERATIONS, OR METHODS MENTIONED OR SHOWN ON DRAWINGS, AND/OR HEREIN INCLUDING ALL LABOR, MATERIALS, EQUIPMENT, AND INCIDENTALS NECESSARY AND REQUIRED TO PROVIDE A COMPLETE AUTOMATIC FIRE SPRINKLER SYSTEM FOR THE SPACE.



2 ROOFTOP HVAC UNIT PIPING
SCALE: NTS

PLUMBING GENERAL NOTES

1. ALL WORK AND INSTALLATIONS SHALL COMPLY WITH CURRENT CITY BUILDING CODE, AND OTHER GOVERNING CODES, STATE STATUTES, CITY ORDINANCES, AND REGULATIONS OF REGULATORY AGENCIES HAVING JURISDICTION AND SHALL ALSO CONFORM TO THE REQUIREMENTS OF THE OWNER'S INSURANCE CARRIER, THE STRUCTURAL ENGINEER, THE ARCHITECT, AND SHALL BE IN COMPLIANCE WITH ALL INDUSTRY STANDARDS. CODES AND ORDINANCES SHALL TAKE PRECEDENCE OVER SPECIFICATIONS AND DRAWINGS WHERE THERE IS A CONFLICT.

2. PAY ALL LAWFUL FEES FOR PERMITS OR LICENSES TO ACCOMPLISH THE WORK. OBTAIN AND PAY FOR ALL NECESSARY CERTIFICATES OF APPROVAL.

3. SLOPE SANITARY SEWER PIPING 2 1/2" AND SMALLER AT 1/4" PER FOOT. SLOPE SANITARY SEWER PIPING 3" AND LARGER AT 1/8" PER FOOT.

4. WORK SHOWN ON THE DRAWINGS IS TO BE COORDINATED WITH WORK OF ALL OTHER TRADES AND ACTUAL BUILDING CONDITIONS. IT IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY CONDITIONS AND PROVIDE THE REQUIRED MATERIALS AND LABOR, TO MEET THE INTENT OF THE CONSTRUCTION DOCUMENTS PRIOR TO BID.

5. LAY OUT PIPES TO FALL WITHIN PARTITIONS OR CHASES. DO NOT REQUIRE FURRING OTHER THAN THOSE SHOWN ON THE DRAWINGS. DO NOT ROUTE PIPING THRU STRUCTURAL MEMBERS.

6. INSTALL ALL PIPING PARALLEL AND PERPENDICULAR TO BUILDING WALLS AND PARTITIONS UNLESS DISTINCTLY SHOWN OR NOTED OTHERWISE. ROUTE PIPING LOCATED NEAR EACH OTHER PARALLEL IN ALL PLANES, WITH SUFFICIENT CLEARANCE. PROVIDE ESCUTCHEON PLATES FOR ALL PLUMBING PENETRATIONS THRU FINISHED AREA CEILINGS AND WALLS. PROVIDE AIR–TIGHT SEAL AROUND PIPE PENETRATIONS THRU WALLS AND CEILINGS ALONG WITH ESCUTCHEON PLATES.

7. PIPING ON EXTERIOR WALLS SHALL BE INSTALLED ON THE ROOM SIDE OF EXTERIOR WALL INSULATION.

8. CAP ALL PIPE OPENINGS DURING CONSTRUCTION.

9. COORDINATE LOCATION AND METHOD OF ATTACHMENT OF HANGERS AND SUPPORTS FOR PIPING SYSTEM TO BUILDING STRUCTURE WITH THE ARCHITECT AND STRUCTURAL ENGINEER. ESTABLISH LOCATIONS OF SYSTEM PIPE ANCHORS AND OBTAIN APPROVAL FROM THE ARCHITECT AND STRUCTURAL ENGINEER.

10. SLEEVE PIPING THROUGH EXTERIOR WALLS, FIRE AND SMOKE RATED WALLS/ASSEMBLIES, AND AT GRADE SLAB FLOORS. ANNULAR SPACE BETWEEN PIPE AND SLEEVE SHALL BE CAULKED AND SEALED. FIRE RATED PENETRATIONS SHALL BE FIRE STOPPED TO MEET RATING OF CONSTRUCTION PENETRATED.

11. INSULATE ALL DOMESTIC HOT, HOT WATER RETURN, CONDENSATE, AND COLD WATER PIPING.

12. PIPING INSTALLED IN STUD WALLS SHALL BE PROTECTED WITH MINIMUM 1/16 INCH SHIELD PLATES EXTENDING BEYOND THE PIPE IN ALL DIRECTIONS.

13. INSTALL SHUT–OFF VALVES IN HOT WATER AND COLD WATER LINES AHEAD OF CONNECTIONS TO ALL PLUMBING FIXTURES & EQUIPMENT.

14. FLOOR DRAINS, FLOOR SINKS, TRENCH DRAINS, AND FLOOR CLEANOUTS SHALL BE FURNISHED AND INSTALLED WITH TOP AND TRIM COMPATIBLE WITH FLOOR COVERING MATERIAL AND TOP SET FLUSH WITH FINISHED FLOOR UNLESS NOTED OTHERWISE. REFER TO ARCHITECTURAL DRAWINGS FOR FLOOR FINISHES.

15. ALL FLOOR DRAINS SHALL HAVE 3 INCHES MINIMUM WATER SEAL.

16. ALL FLOOR CLEANOUTS SHALL BE LOCATED A MINIMUM OF 18 INCHES CLEAR FROM WALLS AND OBSTRUCTIONS TO SERVICE.

17. PROVIDE ACCESS DOORS FOR ALL INACCESSIBLE VALVES AND CLEANOUTS.

18. COORDINATE LOCATION AND TERMINATION OF VENT PIPING WITH OTHER TRADES AND ARCHITECTURAL FEATURES AND CONDITIONS. MAINTAIN REQUIRED CLEARANCES TO OUTSIDE AIR INTAKES, WINDOWS, ETC. AS REQUIRED BY LOCAL CODE AND AUTHORITY HAVING JURISDICTION.

19. RUN ALL DRAIN LINES FROM EQUIPMENT OVERFLOW RECEIVERS, EVAPORATORS, ETC. TO FLOOR/HUB DRAINS. DRAIN LINES SHALL BE INSTALLED WITH MINIMUM 1/8 INCH PER FOOT SLOPE SECURED BY GUIDES AND SUPPORTS FOR PIPE SIZE SHOWN. DRAIN LINES SHALL NOT BE SMALLER THAN 3/4 INCH. INSTALL TEE AT EACH ELBOW OF CONDENSATE DRAIN WITH CLEANOUT PLUG ON BLIND TEE.

20. PLUMBING CONTRACTOR SHALL VERIFY VOLTAGE, PHASE, AND WIRE SIZE OF PLUMBING EQUIPMENT REQUIRING ELECTRICAL CONNECTION WITH ELECTRICAL CONTRACTOR PRIOR TO PURCHASE OF EQUIPMENT.

21. PROVIDE TRAP PRIMERS FOR ALL FLOOR DRAINS. PROVIDE PERMANENT ACCESS WITH SHUT–OFF VALVE UPSTREAM OF PRIMING DEVICE.

22. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL FINAL CONNECTIONS TO PLUMBING FIXTURES. THIS INCLUDES, BUT IS NOT LIMITED, TO PROVIDING (FURNISHING AND INSTALLING) ALL TRAPS, DRAINS, AND SUPPLIES WITH STOPS.

23. PLUMBING CONTRACTOR SHALL PURGE, CLEAN AND DISINFECT POTABLE DOMESTIC WATER PIPING SYSTEM PER PROCEDURES PRESCRIBED BY AUTHORITIES HAVING JURISDICTION OR IF METHODS ARE NOT PRESCRIBED, PER AWWA C651 OR AWWA C652.

24. PLUMBING CONTRACTOR IS RESPONSIBLE FOR A FULLY FUNCTIONAL CODE COMPLIANT SYSTEM REGARDLESS OF DRAWING INTERPRETATION. PROVIDE ANY ITEMS OF CONCERN IN WRITING PRIOR TO BID.

25. PROVIDE PRESSURE REDUCING STATION WHERE SITE WATER PRESSURE EXCEEDS 80 PSI AT THE BASE OF THE WATER ENTRY RISER.

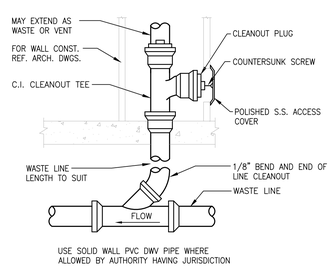
26. LICENSED PLUMBING CONTRACTORS ONLY SHALL INSTALL ALL SEWER AND WATER PLUMBING SYSTEMS.

27. DOMESTIC WATER PIPE AND FITTINGS SHALL BE TYPE "L" HARD DRAWN COPPER TUBING WITH SOLDERED JOINTS AND WROUGHT COPPER SOCKET FITTING FOR ALL WATER PIPING ABOVE GROUND. PROVIDE TYPE "K" HARD DRAWN COPPER TUBING WITH BRAZED JOINTS AND WROUGHT COPPER SOCKET FITTING FOR ALL BELOW GROUND COPPER WATER PIPING. SOLDER JOINTS FOR TYPE "L" COPPER TUBING USING 95–5 ANTIMONY SOLDER WITH A COMPATIBLE FLUX. BRAZED JOINTS SHALL USE A BCUP BRAZING ALLOY WITH A COMPATIBLE FLUX. SOLDER FOR POTABLE WATER PIPING SHALL BE LEAD FREE. DIELECTRIC ADAPTERS SHALL BE PROVIDED BETWEEN COPPER AND IRON PIPE CONNECTIONS AND BETWEEN FERROUS AND NON–FERROUS PIPING OR EQUIPMENT.

28. SANITARY, WASTE AND VENT PIPE AND FITTINGS SHALL BE SERVICE WEIGHT COATED CAST IRON SOIL PIPE AND FITTINGS. ASTM A74 WITH HUB AND SPIGOT JOINTS FOR ALL SANITARY, WASTE VENT BELOW GROUND. ABOVE GROUND USE HUBLESS PIPE WITH STAINLESS STEEL CLAMPS AND NEOPRENE GASKETS. (IF ALLOWED BY CODE), SCHEDULE 40 SOLID WALL PVC WITH DRAINAGE PATTERN FITTINGS AND SOLVENT–CEMENTED JOINTS.

29. CONDENSATE DRAINAGE PIPE AND FITTINGS SHALL BE TYPE "L" HARD DRAWN COPPER TUBING WITH SOLDERED JOINTS AND WROUGHT COPPER SOCKET FITTING FOR ALL PIPING ABOVE GROUND. INSTALL CONDENSATE DRAINAGE PIPING PITCHED TO DRAIN AT MINIMUM SLOPE OF 1/8" PER FOOT. SOLDER JOINTS FOR TYPE "L" COPPER TUBING SHALL BE MADE USING 95–5 ANTIMONY SOLDER WITH A COMPATIBLE FLUX.

30. DOMESTIC HOT AND COLD WATER PIPING SHALL BE INSULATED WITH 1" THICK FIBERGLASS INSULATION WITH FOIL–KRAFT LAMINATE VAPOR BARRIER WITH PRESSURE SENSITIVE TAPE AND LAPPED 12" MINIMUM. INSULATION SHALL HAVE AN AVERAGE THERMAL CONDUCTIVITY NOT TO EXCEED .25 BTU/INCH OF THICKNESS PER SQUARE FOOT PER 1 °F. AT A MEAN TEMPERATURE OF 75 °F. CONDENSATE DRAINAGE LINES IN ATTIC OR INSIDE THE BUILDING SHALL BE INSULATED SIMILAR TO DOMESTIC HOT AND COLD WATER LINES.



USE SOLID WALL PVC DWV PIPE WHERE ALLOWED BY AUTHORITY HAVING JURISDICTION

1 WALL CLEANOUT
SCALE: NTS

REED ARCHITECTURE & INTERIORS
"The Team You Trust"

CONSULTANT:

Reference Cover Sheet for Consultant Directory

100% CONSTRUCTION DOCUMENTS
03.03.2025

EVERGREEN BAPTIST CHURCH - PHASE 5

10301 EAST 111TH ST. S.
BROKEN ARROW, OKLAHOMA 74011

REVISIONS

| # |

SECTION 00 0110
TABLE OF CONTENTS

PROCUREMENT AND CONTRACTING REQUIREMENTS

1.01 DIVISION 00 -- PROCUREMENT AND CONTRACTING REQUIREMENTS

SPECIFICATIONS

2.01 DIVISION 01 -- GENERAL REQUIREMENTS

2.02 DIVISION 02 -- EXISTING CONDITIONS

2.03 DIVISION 03 -- CONCRETE

2.04 DIVISION 04 -- MASONRY

2.05 DIVISION 05 -- METALS

END OF SECTION

SECTION 04 2000
UNIT MASONRY

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Concrete block.

B. Mortarand grout.

C. Reinforcement and anchorage.

D. Flashings.

E. Lintels.

F. Accessories.

1.02 RELATED REQUIREMENTS

A. Section 03 2000 - Concrete Reinforcing: Reinforcing steel for grouted masonry.

B. Section 06 1000 - Rough Carpentry: Nailing strips built into masonry.

C. Section 07 2100 - Thermal Insulation: Insulation for cavity spaces.

D. Section 07 6200 - Sheet Metal Flashing and Trim: Through-wall masonry flashings.

E. Section 07 9200 - Joint Sealants: Sealing control and expansion joints.

1.03 REFERENCE STANDARDS

A. ASTM A153/A153M - Standard Specification for Zinc Coating (Hot-Dip) on Iron and Steel Hardware; 2023.

B. ASTM A615/A615M - Standard Specification for Deformed and Plain Carbon-Steel Bars for Concrete Reinforcement; 2022.

C. ASTM A641/A641M - Standard Specification for Zinc-Coated (Galvanized) Carbon Steel Wire; 2019.

D. ASTM A653/A653M - Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process; 2023.

E. ASTM A951/A951M - Standard Specification for Steel Wire for Masonry Joint Reinforcement; 2022.

F. ASTM A1064/A1064M - Standard Specification for Carbon-Steel Wire and Welded Wire Reinforcement, Plain and Deformed, for Concrete; 2022.

G. ASTM C90 - Standard Specification for Loadbearing Concrete Masonry Units; 2023.

H. ASTM C91/C91M - Standard Specification for Masonry Cement; 2023.

I. ASTM C129 - Standard Specification for Nonloadbearing Concrete Masonry Units; 2023.

J. ASTM C140/C140M - Standard Test Methods for Sampling and Testing Concrete Masonry Units and Related Units; 2023a.

K. ASTM C144 - Standard Specification for Aggregate for Masonry Mortar; 2018.

L. ASTM C150/C150M - Standard Specification for Portland Cement; 2022.

M. ASTM C207 - Standard Specification for Hydrated Lime for Masonry Purposes; 2018.

N. ASTM C216 - Standard Specification for Facing Brick (Solid Masonry Units Made from Clay or Shale); 2023.

O. ASTM C270 - Standard Specification for Mortar for Unit Masonry; 2019a, with Editorial Revision.

P. ASTM C476 - Standard Specification for Grout for Masonry; 2023.

Q. BIA Technical Notes No. 28B - Brick Veneer/Steel Stud Walls; 2005.

R. BIA Technical Notes No. 46 - Maintenance of Brick Masonry; 2017.

S. TMS 402/602 - Building Code Requirements and Specification for Masonry Structures; 2022, with Errata (2024).

1.04 ADMINISTRATIVE REQUIREMENTS

1.05 SUBMITTALS

A. See Section 01 3000 - Administrative Requirements, for submittal procedures.

B. Product Data: Provide data for masonry units, fabricated wire reinforcement, mortar, and masonry accessories.

C. Samples: Submit four samples of decorative block units to illustrate color, texture, and extremes of color range.

D. Manufacturer's Certificate: Certify that masonry units meet or exceed specified requirements.

E. Manufacturer's Certificate: Certify that water repellent admixture manufacturer has certified masonry unit manufacturer as an approved user of water repellent admixture in the manufacture of concrete block.

F. Test Reports: Concrete masonry manufacturer's test reports for units with integral water repellent admixture.

1.06 QUALITY ASSURANCE

1.07 DELIVERY, STORAGE, AND HANDLING

A. Deliver, handle, and store masonry units by means that will prevent mechanical damage and contamination by other materials.

PART 2 PRODUCTS

2.01 CONCRETE MASONRY UNITS

A. Concrete Block: Comply with referenced standards and as follows:
   1. Size: Standard units with nominal face dimensions of 16 by 8 inches and nominal depth of 8 inches or as noted on contract drawings.
   2. Load-Bearing Units: ASTM C90, normal weight.
      a. Hollow block, as indicated.
   3. Units with Integral Water Repellent: Concrete block units as specified in this section with polymeric liquid admixture added to concrete masonry units at the time of manufacture.
      a. Use only in combination with mortar that also has integral water repellent admixture.
      b. Use water repellent admixtures for masonry units and mortar by a single manufacturer.
      c. Manufacturers:
         1) Amerimix, an Oldcastle brand; CMU with Rainbloc GP:
         2) Substitutions: See Section 01 6000 - Product Requirements.

2.02 MORTAR AND GROUT MATERIALS

A. Masonry Cement: ASTM C91/C91M, Type N. Type S or Type M as required.

B. Portland Cement: ASTM C150/C150M, Type I; color as required to produce approved color sample.

C. Hydrated Lime: ASTM C207, Type S.

D. Mortar Aggregate: ASTM C144.

E. Grout Aggregate: ASTM C404.

F. Water: Clean and potable.

2.03 REINFORCEMENT AND ANCHORAGE

A. Manufacturers:
   1. Hohmann & Barnard, Inc; X-Seal Anchor:
   2. WIRE-BOND
   3. Dur-O-Wal.
   4. Substitutions: See Section 01 6000 - Product Requirements.

B. Reinforcing Steel: ASTM A615/A615M, Grade 40 (40,000 psi), deformed billet bars; galvanized.

C. Joint Reinforcement: Use ladder type joint reinforcement where vertical reinforcement is involved and truss type elsewhere, unless otherwise indicated.

D. Strap Anchors: Bent steel shapes, 1-1/2 inch width, 0.105 inch thick, 24 inch length, with 1-1/2 inch long, 90 degree bend at each end to form a U or Z shape or with cross pins, stainless steel.

2.04 FLASHINGS

A. EPDM Flashing: ASTM D4637/D4637M, Type I, 0.040 inch thick.
   1. Manufacturers:
      a. Heckmann Building Products, Inc:
      b. Hohmann & Barnard, Inc:
      c. WIRE-BOND:
      d. Substitutions: See Section 01 6000 - Product Requirements.

B. Flashing Sealant/Adhesives: Silicone, polyurethane, or silyl-terminated polyether/polyurethane or other type required or recommended by flashing manufacturer; type capable of adhering to type of flashing used.
   1. Manufacturers, Synthetic Rubber Products:
      a. Substitutions: See Section 01 6000 - Product Requirements.

C. Termination Bars: Stainless steel; compatible with membrane and adhesives.

D. Drip Edge: Stainless steel; angled drip with hemmed edge; compatible with membrane and adhesives.

E. Lap Sealants and Tapes: As recommended by flashing manufacturer; compatible with membrane and adhesives.

2.05 ACCESSORIES

A. Preformed Control Joints: Rubber material. Provide with corner and tee accessories, fused joints.
   1. Manufacturers:
      a. Hohmann & Barnard, Inc:
      b. WIRE-BOND
      c. Substitutions: See Section 01 6000 - Product Requirements.

B. Joint Filler: Closed cell polyvinyl chloride; oversized 50 percent to joint width; self expanding; in maximum lengths available.
   1. Manufacturers:
      a. Hohmann & Barnard, Inc: www.h-b.com/sle.
      b. WIRE-BOND
      c. Substitutions: See Section 01 6000 - Product Requirements.

C. Cleaning Solution: Non-acidic, not harmful to masonry work or adjacent materials.

2.06 MORTAR AND GROUT MIXING

A. Mortar for Unit Masonry: ASTM C270, using the Proportion Specification.
   1. Masonry below grade and in contact with earth: Type S.
   2. Exterior, loadbearing masonry: Type N.
   3. Exterior, non-loadbearing masonry: Type N.
   4. Interior, loadbearing masonry: Type N.

B. Grout: ASTM C476; consistency required to fill completely volumes indicated for grouting; fine grout for spaces with smallest horizontal dimension of 2 inches or less; coarse grout for spaces with smallest horizontal dimension greater than 2 inches.

C. Admixtures: Add to mixture at manufacturer's recommended rate and in accordance with manufacturer's instructions; mix uniformly.

PART 3 EXECUTION

3.01 EXAMINATION

A. Verify that field conditions are acceptable and are ready to receive masonry.

B. Verify that related items provided under other sections are properly sized and located.

C. Verify that built-in items are in proper location, and ready for roughing into masonry work.

3.02 PREPARATION

A. Provide temporary bracing during installation of masonry work. Maintain in place until building structure provides permanent bracing.

3.03 COLD AND HOT WEATHER REQUIREMENTS

A. Comply with requirements of TMS 402/602 or applicable building code, whichever is more stringent.

3.04 COURSING

A. Establish lines, levels, and coursing indicated. Protect from displacement.

B. Maintain masonry courses to uniform dimension. Form vertical and horizontal joints of uniform thickness.

C. Concrete Masonry Units:
   1. Bond: Running.
   2. Coursing: One unit and one mortar joint to equal 8 inches.
   3. Mortar Joints: Concave.

3.05 PLACING AND BONDING

A. Lay solid masonry units in full bed of mortar, with full head joints, uniformly jointed with other work.

B. Lay hollow masonry units with face shell bedding on head and bed joints.

C. Buttering corners of joints or excessive furrowing of mortar joints is not permitted.

D. Remove excess mortar and mortar smears as work progresses.

E. Remove excess mortar with water repellent admixture promptly. Do not use acids, sandblasting or high pressure cleaning methods.

3.06 REINFORCEMENT AND ANCHORAGE - SINGLE WYTHE MASONRY

A. Unless otherwise indicated on drawings or specified under specific wall type, install horizontal joint reinforcement 16 inches on center.

B. Place masonry joint reinforcement in first and second horizontal joints above and below openings. Extend minimum 16 inches each side of opening.

C. Place continuous joint reinforcement in first and second joint below top of walls.

D. Lap joint reinforcement ends minimum 6 inches.

E. Fasten anchors to structural framing and embed in masonry joints as masonry is laid. Unless otherwise indicated on drawings or closer spacing is indicated under specific wall type, space anchors at maximum of 36 inches horizontally and 24 inches vertically.

3.07 LINTELS

A. Install loose steel lintels over openings.

B. Install reinforced unit masonry lintels over openings where steel or precast concrete lintels are not scheduled.

3.08 GROUTED COMPONENTS

A. Lap splices minimum 24 bar diameters.

B. Support and secure reinforcing bars from displacement. Maintain position within 1/2 inch of dimensioned position.

C. Place and consolidate grout fill without displacing reinforcing.

D. At bearing locations, fill masonry cores with grout for a minimum 12 inches either side of opening.

3.09 CONTROL AND EXPANSION JOINTS

A. Do not continue horizontal joint reinforcement through control or expansion joints.

B. Install preformed control joint device in continuous lengths. Seal butt and corner joints in accordance with manufacturer's instructions.

3.10 BUILT-IN WORK

A. As work progresses, install built-in metal door frames, anchor bolts, and plates and other items to be built into the work and furnished under other sections.

B. Install built-in items plumb, level, and true to line.

C. Bed anchors of metal door frames in adjacent mortar joints. Fill frame voids solid with grout.

3.11 TOLERANCES

A. Install masonry within the site tolerances found in TMS 402/602.

3.12 FIELD QUALITY CONTROL

A. An independent testing agency will perform field quality control tests, as specified in Section 01 4000 - Quality Requirements.

B. Concrete Masonry Unit Tests: Test each variety of concrete unit masonry in accordance with ASTM C140/C140M for compliance with requirements of this specification.

C. Mortar Tests: Test each type of mortar in accordance with ASTM C780, testing with same frequency as masonry samples.

3.13 CLEANING

A. Remove excess mortar and mortar droppings.

B. Replace defective mortar. Match adjacent work.

C. Clean soiled surfaces with cleaning solution.

3.14 PROTECTION

A. Without damaging completed work, provide protective boards at exposed external corners that are subject to damage by construction activities.

END OF SECTION

SECTION 28 4600
FIRE DETECTION AND ALARM

GENERAL;

FIRE DETECTION AND ALARM SYSTEM IS A DELEGATED DESIGN ITEM. VENDOR TO DESIGN AND INSTALL A COMPLETE CODE COMPLIANT AUTOMATIC SYSTEM TO MATCH THE EXISTING FIRE DETECTION AND ALARM SYSTEM INCLUDING SYSTEM INTERFACE, EQUIPMENT, AND COMPONENTS AS REQUIRED AND ACCEPTABLE TO THE LOCAL AUTHORITY HAVING JURISDICTION.

PROVIDE AND ALLOWANCE OF $65,000 FOR COMPLETE INSTALLATION.

END OF SECTION