A NEW BUILDING ADDITION FOR:

FORTEM TECHNOLOGIES

W.I.C.P. COMMERCIAL PROPERTIES

LEGEND

EARTH
POROUS FILL
ASPHALT
CONCRETE
CONC. MAS. UNITS
BRICK
CAST STONE
CERAMIC TILE
WOOD (FINISH)
WOOD (STUDS, NAILERS)
WOOD (BLOCKING)
PLYWOOD
BATT INSULATION
RIGID INSULATION
ACOUSTIC TILE
GYPSUM BOARD
GLASS
STEEL

3" / A-5 — DETAIL NUMBER / SHEET ON WHICH DETAIL APPEARS
DETAIL

A / A-3 — SECTION NUMBER / SHEET ON WHICH DETAIL APPEARS
BLDG. SECTION

A / A-3 — SECTION NUMBER / SHEET ON WHICH DETAIL APPEARS
WALL SECTION

X — ELEVATION NUMBER / SHEET ON WHICH DETAIL APPEARS
ELEVATION

101
ROOM NUMBER

23
DOOR NUMBER

100'-0"
FINISH SPOT ELEVATION

ABBREVIATIONS

ALT.	ALTERNATE	H.C.	HOLLOW CORE
ALUM.	ALUMINUM	HDWD.	HARDWOOD
A.C.	ASPHALTIC CONCRETE	H.M.	HOLLOW METAL
A/C	AIR CONDITIONING	HT.	HEIGHT
A.F.F.	ABOVE FINISHED FLOOR	INT.	INTERIOR
BD.	BOARD	JT.	JOINT
BLK.	BLOCK	M.O.	MASONRY OPENING
BM.	BEAM	N.I.C.	NOT IN CONTRACT
BOT.	BOTTOM	N.T.S.	NOT TO SCALE
CLG.	CEILING	O.C.	ON CENTER
CL.	CENTERLINE	O.D.	OVERFLOW DRAIN
C.I.	CAST IRON	OPP.	OPPOSITE
CLR.	CLEAR	P.L.	PROPERTY LINE
COL.	COLUMN	PLYWD.	PLYWOOD
CONC.	CONCRETE	PROJ.	PROJECTION
CONTR.	CONTRACTOR	P.T.	PRESSURE TREATED
DET.	DETAIL	Q.T.	QUARRY TILE
D.S.	DOWN SPOUT	R.D.	ROOF DRAIN
E.D.F.	ELEC. DRINKING FTN.	RM.	ROOM
E.P.	ELEC. PANEL	S.C.	SOLID CORE
E.W.C.	ELEC. WATER COOLER	S.D.	SCUPPER DRAIN
F.D.	FLOOR DRAIN	SIM.	SIMILAR
F.E.	FIRE EXTINGUISHER	S.O.	SCUPPER OVERFLOW
FIN.	FINISH	SUSP.	SUSPENDED
FLR.	FLOOR	T.O.C.	TOP OF CONCRETE
F.O.C.	FACE OF CONCRETE	TEMP.	TEMPERED
F.O.M.	FACE OF MASONRY	T.S.	TOP OF SHEATHING
F.O.S.	FACE OF STUD	T.O.P.	TOP OF PARAPET
F.S.	FLOOR SINK	TYP.	TYPICAL
FTG.	FOOTING	W/	WITH
GA.	GAUGE	W.C.	WATER CLOSET
G.I.	GALVANIZED IRON	WD.	WOOD
GL.	GLASS	W.H.	WATER HEATER
GYP.	GYPSUM		
F.R.P.	FIBERGLASS REINFORCED PANEL		

DESIGN TEAM

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BHB ENGINEERS
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SALT LAKE CITY, UTAH 84103
PHONE # (801) 355 - 5656
CONTACT: RAJEEV SURAPANENI

PLUMBING & MECHANICAL ENGINEER
D.L. JENSEN & ASSOCIATES
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JT ELECTRIC
611 WEST 4330 SOUTH
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CONTACT: CLINT VOUGHT

CIVIL ENGINEER
CIR CIVIL ENGINEERING
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SOUTH JORDAN, UTAH 84095
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LANDSCAPE ARCHITECT
DESIGN EARTHWISE LANDSCAPE
P.O. BOX 249
RIVERTON, UTAH 84065
PHONE # (801) 619 - 4040
CONTACT: GREG WOLFLEY

VICINITY MAP

SITE PLAN
SCALE: NONE

NORTH

GENERAL NOTES

REQUIRED MEANS OF EGRESS AND FIRE PROTECTION SYSTEMS SHALL BE MAINTAINED DURING DEMOLITION, CONSTRUCTION, REMODELING OR ALTERATIONS AND ADDITIONS TO THE BUILDING. FIRE PREVENTION BUREAU STAFF SHALL APPROVE REVIEW OF ANY EXITING ALTERATIONS, AS REQUIRED IN IFC SECTION 3311.2. AUTOMATIC FIRE SPRINKLER, FIRE SUPPRESSION AND FIRE ALARM SYSTEMS WHEN TAKEN OUT OF SERVICE ARE REQUIRED TO HAVE THE FIRE PREVENTION BUREAU NOTIFIED AT (801) 794-4150. THE DURATION OF TIME AND THE DATE MUST BE STATED TO INCLUDE THE DATE WHICH THE FIRE PROTECTION EQUIPMENT WILL BE PLACED IN SERVICE, AS REQUIRED IN IFC CHAPTER 33. DEFERRED SUBMITTALS TO INCLUDE BUT NOT LIMITED TO; WATER MAINS (PRIVATE & PUBLIC), WATER LATERALS, FIRE HYDRANTS, AUTOMATIC FIRE SPRINKLER SYSTEMS, STANDPIPES, AUTOMATIC FIRE SUPPRESSION SYSTEM, UL 300 (CLASS I HOOD AND DUCT SUPPRESSION SYSTEMS), AUTOMATIC SMOKE DETECTION SYSTEMS, FIRE ALARM SYSTEMS, CLEAN GAS FIRE SUPPRESSION SYSTEMS, VESDA DETECTION SYSTEM, ETC. THE DEFERRED SUBMITTAL APPLICATION SHALL BE PROVIDED WHICH IS COMPLETED, WET STAMPED AND SIGNED BY THE ARCHITECT. ALL FIRE PROTECTION AND DETECTION SYSTEMS SHALL HAVE THE PIPING AND WIRING EXPOSED FOR INSPECTION. THE PIPING AND WIRING MAYBE COVERED AFTER THE FIRE INSPECTION OF THE SYSTEMS HAS BEEN SATISFACTORY COMPLETED.

DO NOT SCALE DRAWINGS. CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS BEFORE BEGINNING WORK AND SHALL REPORT TO THE ARCHITECT ANY DISCREPANCIES BEFORE BEGINNING WORK.

ALL WORK AND MATERIALS SHALL COMPLY WITH CURRENT INTERNATIONAL BUILDING CODE AND ALL OTHER APPLICABLE CODE.

FOR THE PURPOSE OF THE DRAWINGS THE TERM BY OWNER SHALL MEAN ITEM PROVIDED BY OWNER, INSTALLED BY CONTR. AS PART OF THE WORK OF THIS CONTRACT. THE ABBREV. N.I.C. (NOT IN CONTRACT) SHALL MEAN ITEM PROVIDED AND INSTALLED BY OWNER UNDER SEPARATE CONTRACT.

A LEGIBLE FULL SET OF APPROVED PLANS AND DOCUMENTS IS REQUIRED TO BE ON SITE FOR INFECTIONS PER LINDON CITY.

CONSTRUCTION EQUIPMENT AND MATERIALS SHALL BE STORED AND PLACED SO AS NOT TO ENDANGER THE PUBLIC. THE WORKERS OR ADJOINING PROPERTY FOR THE DURATION OF THE CONSTRUCTION PROJECT PER IBC 3301.2

REQUIRED EXITS, EXISTING STRUCTURAL ELEMENTS, FIRE PROTECTION DEVICES AND SANITARY SAFEGUARDS SHALL BE MAINTAINED AT ALL TIMES DURING ALTERATIONS, REPAIRS OR ADDITIONS TO ANY BUILDING OR STRUCTURE PER IBC 3302.1 WITH THE FOLLOWING EXCEPTIONS:
A. WHERE SUCH REQUIRED ELEMENTS OR DEVICES ARE BEING ALTERED OR REPAIRED, ADEQUATE SUBSTITUTE PROVISIONS SHALL BE MADE.
B. MAINTENANCE OF SUCH ELEMENTS AND DEVICES IS NOT REQUIRED WHERE THE EXISTING BUILDING IS NOT OCCUPIED.

STRUCTURES UNDER CONSTRUCTION, ALTERATION OR DEMOLITION SHALL BE PROVIDED WITH NOT FEWER THAN ONE APPROVE PORTABLE FIRE EXTINGUISHER IN ACCORDANCE WITH IBC SECTION 906 AND SIZED FOR NOT LESS THAN ORDINARY HAZARDS AS FOLLOWS PER IBC 3309.1:
A. AT EACH STAIRWAY ON ALL FLOOR LEVELS WHERE COMBUSTIBLE MATERIALS HAVE ACCUMULATED.
B. IN EVERY STORAGE AND CONSTRUCTION SHED.
C. ADDITIONAL PORTABLE FIRE EXTINGUISHERS SHALL BE PROVIDED WHERE SPECIAL HAZARDS EXIST. SUCH AS THE STORAGE AND USE OF FLAMMABLE AND COMBUSTIBLE LIQUIDS.

MEANS OF EGRESS AND REQUIRED ACCESSIBLE MEANS OF EGRESS SHALL BE MAINTAINED AT ALL TIMES DURING CONSTRUCTION, DEMOLITION, REMODELING OR ALTERATIONS AND ADDITIONS TO ANY BUILDING PER IBC 3310.2

DEBRIS CONTROL IS MANDATORY AND MUST BE CONTAINED DURING DEMOLITION AND CONSTRUCTION PROCEDURES AND IS WITHOUT EXCEPTION. CONTRACTOR MUST CONTROL CONSTRUCTION DEBRIS AS IT IS TRANSFERRED THROUGH THE BUILDING. COORDINATE W/ OWNER FOR DUST BARRIER LOCATIONS.

DEFERRED SUBMITTALS

FIRE SPRINKLER PLANS
FIRE ALARM SYSTEM
ALUMINUM STOREFRONT

DRAWING INDEX

TITLE
T-1.0 TITLE SHEET AND DRAWING INDEX
T-1.1 EXIT AND OCCUPANCY PLAN
T-2.0 DRAWING STANDARDS

CIVIL
CV COVER SHEET
C-0.1 EXISTING CONDITIONS AND DEMO. PLAN
C-1.0 SITE PLAN
C-2.0 GRADING & DRAINAGE PLAN
C-3.0 UTILITY PLAN
C-4.0 DETAIL SHEET
C-5.0 LINDON DETAIL SHEET
C-6.0 EROSION CONTROL PLAN (SWPP)
C-6.1 EROSION CONTROL DETAIL SHEET

LANDSCAPE PLAN
L-1.1 LANDSCAPE PLAN
L-2.1 IRRIGATION PLAN
L-3.1 CONSTRUCTION DETAILS

DEMOLITION
D-1.0 DEMOLITION FLOOR PLAN

ARCHITECTURAL
A-1.0 NEW OVERALL FLOOR PLAN
A-1.1 NEW FLOOR PLAN - AREA A
A-1.2 NEW FLOOR PLAN - AREA B
A-2.1 BUILDING EXTERIOR ELEVATIONS
A-2.2 BUILDING EXTERIOR ELEVATIONS
A-2.3 LOADING RAMP PLAN AND DETAILS
A-3.0 BUILDING SECTIONS
A-4.0 WALL SECTIONS
A-4.1 WALL SECTIONS
A-4.2 WALL SECTIONS
A-4.3 DEMO. AND NEW WALL SECTIONS
A-6.0 DOOR AND WINDOW SCHEDULE AND DETAILS
A-6.1 DOOR AND WINDOW DETAILS
A-8.0 OVERALL ROOF PLAN
A-8.1 NEW ROOF PLAN - AREA A
A-8.2 NEW ROOF PLAN - AREA B
A-8.3 ROOF DETAILS

STRUCTURAL
S-0.01 GENERAL STRUCTURAL NOTES
S-0.02 GENERAL STRUCTURAL NOTES
S-0.03 GENERAL STRUCTURAL NOTES - SPECIAL INSPECTIONS
S-0.04 SPECIAL INSPECTIONS
S-0.10 LEGENDS AND ABBREVIATIONS
S-1.01 FOOTING AND FOUNDATION PLAN
S-1.21 ROOF FRAMING PLAN
S-2.01 DETAILS
S-2.02 BRACE FRAME ELEVATIONS
S-2.03 BRACE FRAME ELEVATIONS
S-3.01 DETAILS
S-3.02 TILT PANELS
S-3.03 TILT PANELS
S-3.04 TILT PANELS
S-3.05 TILT PANELS
S-3.06 TILT PANELS
S-3.07 TILT PANELS
S-5.01 DETAILS
S-5.02 DETAILS
S-5.21 DETAILS
S-5.22 DETAILS
S-5.23 DETAILS
S-6.01 SCHEDULES
S-6.02 SCHEDULES
S-6.03 SCHEDULES

PLUMBING
P-0.1 PLUMBING LEGEND & GENERAL NOTES
PL-1.1 PLUMBING PLAN - AREA A
PL-1.2 PLUMBING PLAN - AREA B
PL-1.3 PLUMBING PLAN - AREA C
PL-2.1 ROOF PLUMBING PLAN - AREA A
PL-2.2 ROOF PLUMBING PLAN - AREA B
P-6.1 PLUMBING SCHEDULES & DETAILS

MECHANICAL
M-0.1 MECHANICAL LEGEND & GENERAL NOTES
MH-1.1 MECHANICAL PLAN - AREA A
MH-1.2 MECHANICAL PLAN - AREA B
MH-2.1 ROOF MECHANICAL PLAN - AREA A
MH-2.2 ROOF MECHANICAL PLAN - AREA B
M-6.1 MECHANICAL SCHEDULES & DETAILS

ELECTRICAL
E-000 ELECTRICAL GENERAL NOTES
E-201 ELECTRICAL PLAN
E-801 ELECTRICAL SCHEDULES
E-900 ELECTRICAL SPECIFICATIONS

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WICP COMMERCIAL PROPERTIES

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STATE OF UTAH
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TITLE SHEET AND DRAWING INDEX

A NEW ADDITION FOR:
FORTEM TECHNOLOGIES
W.I.C.P. COMERCIAL PROPERTIES
1895 N 500 W
LINDON, UT 84042

PERMIT SET DOCUMENT
DATE: SEPT. 16, 2026
JOB NO.: 3499.000
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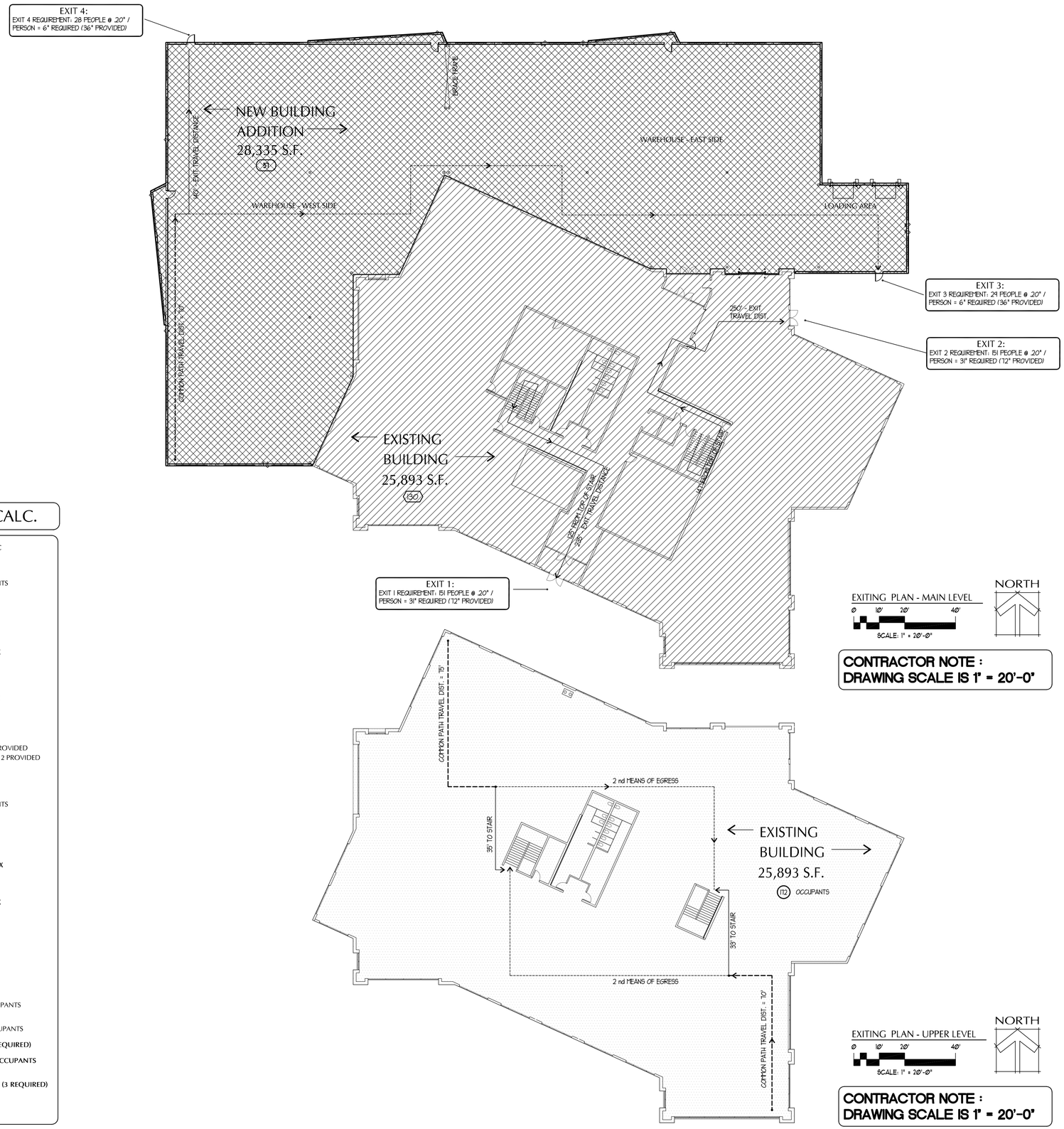

PLUMBING FIXTURE CALC.

PLUMBING FIXTURES CALCULATION: TABLE 2902.1 IBC

WATER CLOSETS:

B OCCUPANCY= 172 TOTAL 86 **PER SEX**
1 PER 25 OCCUPANTS (FIRST 50) $\frac{1}{25}$ OCCUPANTS

MALE - FIRST 50 = 2
36 REMAINING/ 50 = .725 = 1
2 + 1 = 3 **TOTAL**

FEMALE - FIRST 50 = 2
36 REMAINING/ 50 = .725 = 1
2 + 1 = 3 **TOTAL**

F - 1 OCCUPANCY = 57 TOTAL - 28.5 **PER SEX**
1 PER 100 OCCUPANTS

MALE - 28.5/ 100 = .29= 1 **TOTAL**
FEMALE - 28.5 / 100 = .29 = 1 **TOTAL**

S - 1 OCCUPANCY = 130 TOTAL - 65 **PER SEX**
1 PER 300 OCCUPANTS

MALE - 65/ 300 = .01 = 1 **TOTAL**
FEMALE - 65 / 100 = .01 = 1 **TOTAL**

TOTAL FIXTURES REQUIRED - MEN = 5 - 12 PROVIDED
TOTAL FIXTURES REQUIRED - WOMEN = 5 - 12 PROVIDED

LAVATORIES:

B OCCUPANCY: 172 TOTAL 86 **PER SEX**
1 PER 40 OCCUPANTS (FIRST 80) $\frac{1}{40}$ OCCUPANTS
MALE - FIRST 80 = 1
6 REMAINING/ 80 = .08 = 1
1 + 1 = 2 **TOTAL**
FEMALE - FIRST 80 = 1
6 REMAINING/ 80 = .08 = 1
1 + 1 = 2 **TOTAL**

S - 1 OCCUPANCY = 57 TOTAL - 28.5 **PER SEX**
1 PER 100 OCCUPANTS
MALE - 28.5/ 100 = .29 = 1 **TOTAL**
FEMALE - 28.5/ 100 = .29 = 1 **TOTAL**

F - 1 OCCUPANCY = 130 TOTAL - 65 **PER SEX**
1 PER 100 OCCUPANTS
MALE - 65 / 100 = .65 = 1 **TOTAL**
FEMALE - 65 / 100 = .65 = 1 **TOTAL**

4 MALE REQUIRED
4 FEMALE REQUIRED
8 TOTAL LAVATORIES REQUIRED

20 TOTAL LAVATORIES PROVIDED

DRINKING FOUNTAINS:

B OCCUPANCY: 172 TOTAL 1 PER 100 OCCUPANTS
172 OCCUPANTS / 100 = 1.72 = 2 **TOTAL**

F-1 OCCUPANT: 130 TOTAL 1 PER 1000 OCCUPANTS
130 OCCUPANTS / 1000 = 0.13
2 + 0.13 = 3.602 DRINKING FOUNTAINS **(4 REQUIRED)**

S-1 OCCUPANT: 57 TOTAL - 1 PER 1000 OCCUPANTS
57 OCCUPANTS / 1000 = .57

2 + .13 + .57 = 2.7 DRINKING FOUNTAINS (3 REQUIRED)
4 PROVIDED

CODE ANALYSIS

BUILDING USE:
THE BUILDING NEW ADDITION WILL FUNCTION PRIMARILY AS A WAREHOUSE TO SUPPORT EXISTING BUSINESS NEEDS

DESCRIPTION OF WORK:
DEFENSE AND AEROSPACE TECHNOLOGY SPECIALIZE IN AIRSPACE SECURITY, DRONE DETECTION AND COUNTER DRONE SYSTEMS.

BUILDING CODES:
2024 INTERNATIONAL BUILDING CODE (IBC)
2024 INTERNATIONAL MECHANICAL CODE (IMC)
2024 INTERNATIONAL PLUMBING CODE (IPC)
2023 NATIONAL ELECTRICAL CODE
2021 IBC CHAPTER 11 ICC/ANSI-A117.1-09
2021 INTERNATIONAL FIRE CODE (IFC)

BUILDING SQUARE FOOTAGE:
EXISTING:
MAIN LEVEL: 25,893 S.F.
SECOND LEVEL: 25,893 S.F.
NEW:
MAIN LEVEL: 28,335 S.F.
TOTAL: 80,121 S.F.

CONSTRUCTION TYPE: V-B

NEW BUILDING HEIGHT TO MATCH EXIST.

ALLOWABLE AREAS: TABLE 507
YARDS OF 60'-0" + ARE PRESENT ON ALL SIDES OF THE BUILDING, SEE SITE PLAN, 507.5 SPRINKLED, SINGLE STORY (S-1) BUILDING OF TYPE VB CONSTRUCTION & F-1, S-1 AND B OCCUPANCY SHALL NOT BE3 LIMITED IN AREA.

EXIST. AND NEW ADDITION IS FULLY SPRINKLED

OCCUPANCY TYPE & OCCUPANT LOAD: TABLE 1004.5 IBC

F-1 OCCUPANCY
25,893 / 200 GROSS = 129.46
TOTAL 130

B OCCUPANCY
25,893/ 150 GROSS = 172.62
TOTAL 173

S-1 OCCUPANCY
28,335/ 500 GROSS = 56.67
TOTAL 57

TOTAL OCCUPANTS:
130 +173 + 57 = 360 OCCUPANTS

TRAVEL DISTANCE: TABLE 1017.2 IBC
F-1 OCCUPANCY: 250' SPRINKLED
B OCCUPANCY: 300' SPRINKLED
S-2 OCCUPANCY: 400' SPRINKLED

COMMON PATH OF EGRESS TRAVEL: TABLE 1006.2.1 IBC
F-1 OCCUPANCY: XXXX SPRINKLED
B OCCUPANCY: 100' SPRINKLED

TRAVEL / COMMON PATCH DISTANCE INFO.

TYPE F-1 OCCUPANCY: (F)
- TRAVEL DISTANCE FOR A TYPE F-1 OCCUPANCY MAX. = 250' DISTANCE (W/ FULLY SPRINKLED SYSTEM)
- COMMON PATH OF TRAVEL DISTANCE FOR A TYPE F-1 OCCUPANCY MAX. = 100' DISTANCE

TYPE B OCCUPANCY: (B)
- TRAVEL DISTANCE FOR A TYPE B OCCUPANCY MAX. = 300' DISTANCE (W/ FULLY SPRINKLED SYSTEM)
- COMMON PATH OF TRAVEL DISTANCE FOR A TYPE B OCCUPANCY MAX. = 100' DISTANCE

TYPE S-1 OCCUPANCY: (S)
- TRAVEL DISTANCE FOR A TYPE S-1 OCCUPANCY MAX. = 400' (SEE BELOW - INCREASED DISTANCE (W/ FULLY SPRINKLED SYSTEM)
- COMMON PATH OF TRAVEL DISTANCE FOR A TYPE S-1 OCCUPANCY MAX. = 100' DISTANCE

2015 IBC SECTION 1017.2.2 GROUP S-1 INCREASE:
THE MAXIMUM EXIT ACCESS TRAVEL DISTANCE SHALL BE 400 FEET IN GROUP F-1 OR S-1 OCCUPANCIES WHERE ALL OF THE FOLLOWING CONDITIONS ARE MET:
1. THE PORTION OF THE BUILDING CLASSIFIED AS GROUP F-1 OR S-1 IS LIMITED TO ONE STORY IN HEIGHT.
2. THE MINIMUM HEIGHT FROM THE FINISHED FLOOR TO THE BOTTOM OF THE CEILING OR ROOF SLAB OR DECK IS 24 FEET.
3. THE BUILDING IS EQUIPPED THROUGHOUT WITH AN AUTOMATIC SPRINKLER SYSTEM IN ACCORDANCE WITH SECTION 903.3.1.1

FIRE PROTECTION

FIRE SPRINKLERS - YES

FIRE SPRINKLER SYSTEM SHALL BE DESIGNED IN ACCORDANCE WITH THE MOST CURRENT NFPA 13

MISCELLANEOUS

FIRE EXTINGUISHERS: REFER TO SHEETS A-1.0 AND A-1.1 FOR LOCATIONS. PROVIDE A MIN. 2A:10 BC RATED FIRE EXTINGUISHERS W/ IN A 75' TRAVEL DIST. TO ALL SPACES IN THE STRUCT.

AUTOMATIC SPRINKLER SYSTEM PROVIDED IN BUILDING.

FIRE ALARM SYSTEM PROVIDED SHALL BE AS PER NFPA 72. SYSTEM SHALL BE INSTALLED WHEN THERE ARE EXTINGUISHING SYSTEMS IN THE BLDG. FOR OCCUPANT NOTIFICATION. PROVIDE CARBON MONOXIDE (CO) DETECTION AND WARNING EQUIPMENT TO MEET NATIONAL FIRE PROTECTION ASSOCIATION (NFPA 720).

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REVISIONS

STATE OF UTAH — JEFFREY R. JEPPSON — 8391 — LICENSED ARCHITECT

EXIT - EGRESS PLAN

A NEW ADDITION FOR:
FORTEM TECHNOLOGIES
W.I.C.P. COMERCIAL PROPERTIES
LINDON, UT 84042
(855 N 500 N)

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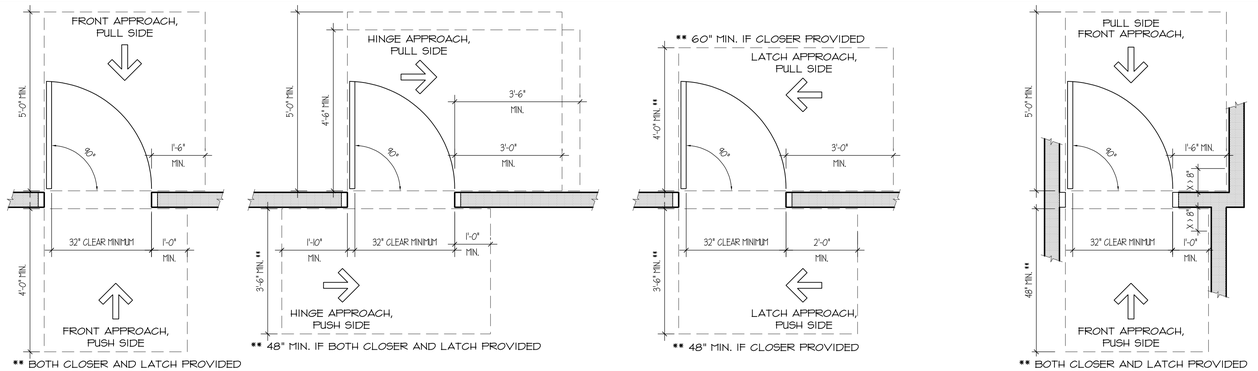
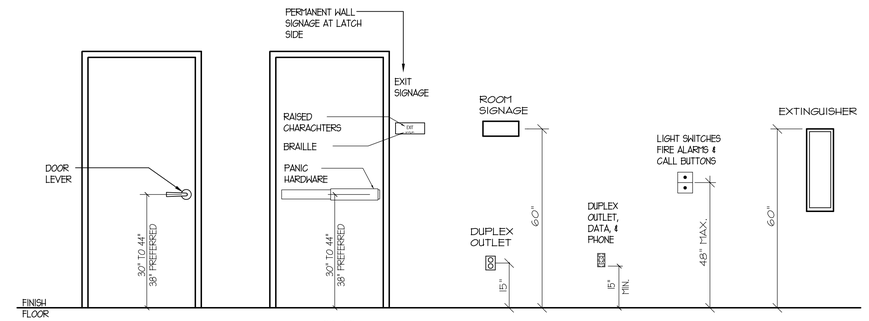
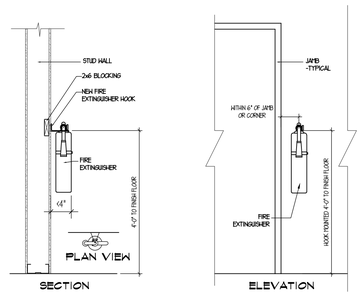


MANEUVERING CLEARANCE AT MANUAL SWINGING DOORS | SCALE 1/4" =1'-0" | 1



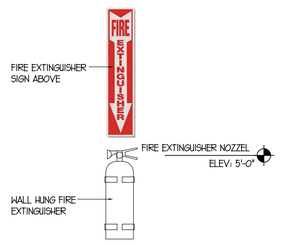
SIGN MOUNTING DIAGRAM | SCALE NONE =1'-0" | 2



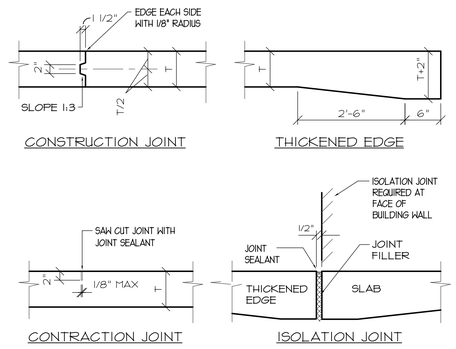
HOOK DETAIL

NOTE: LOCATE FINAL LOCATIONS WITH FIRE MARSHAL

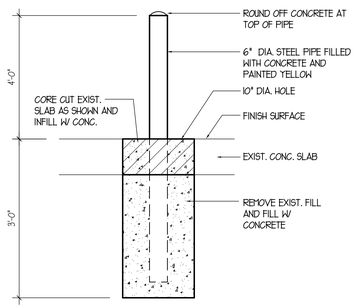
FIRE EXTINGUISHER ON HOOK | SCALE NONE =1'-0" | 3



FIRE EXTINGUISHER | SCALE NONE | 4

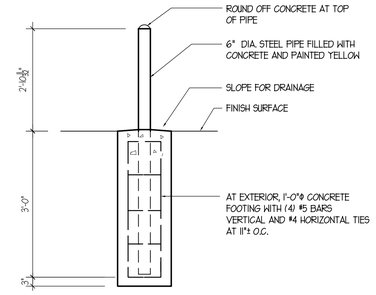


CONCRETE PAVING JOINT DTLS | SCALE NONE | 5



AT EXIST. BUILDING SIDE

PIPE BOLLARD DETAIL | SCALE NONE | 6



AT NEW BUILDING ADDITION SIDE

PIPE BOLLARD DETAIL - INTERIOR | SCALE NONE | 7

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REVISIONS

STATE OF UTAH — JEFFREY R. JEPPSON — 8331 — LICENSED ARCHITECT

DRAWING STANDARDS

A NEW ADDITION FOR:

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By: Jeff Jeppson; Sep 16, 2026 - 12:42pm
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FORTEM BUILDING EXPANSION

1855 WEST 500 NORTH
LINDON, UTAH 84042

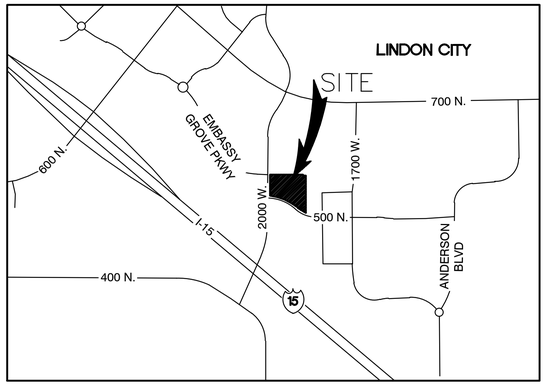
SEPTEMBER 16, 2026

LEGEND

PROPERTY LINE	EXISTING FIRE HYDRANT
EASEMENT LINE	PROPOSED FIRE HYDRANT
4240.0 PROPOSED GRADE CONTOURS	EXISTING STREET LIGHT
4240.0 EXISTING GRADE CONTOURS	PROPOSED STREET LIGHT
EXISTING CURB	PROPOSED PARKING LOT LIGHT
PROPOSED CURB AND GUTTER	EXISTING WATER METER
PROPOSED CURB WALL	EXISTING WATER VALVE
REVERSE PAN CURB & GUTTER	EXISTING GATE VALVE
SS EXISTING SEWER	EXISTING OVERHEAD POWER POLE
SS PROPOSED SEWER	TBC TOP BACK CONCRETE
W EXISTING WATER	FF FINISHED FLOOR
W PROPOSED WATER	HW HIGH WATER
F EXISTING FIRE LINE	TOG TOP OF GRATE
F PROPOSED FIRE LINE	TOL TOP OF LID
SD EXSITING STORM DRAIN	IE INVERT ELEVATION
SD PROPOSED STORM DRAIN	EX EXISTING
RD PROPOSED ROOF DRAIN	NG NATURAL GROUND
G EXISTING GAS	TA TOP OF ASPHALT
G PROPOSED GAS	TC TOP OF CONCRETE
OHP EXISTING OVERHEAD POWER	EC EDGE OF CONCRETE
UGP EXISTING UNDERGROUND POWER	EA EDGE OF ASPHALT
UGP PROPOSED UNDERGROUND POWER	TW TOP OF WALL
T EXISTING TELEPHONE LINE	BW BOTTOM OF WALL
T PROPOSED TELEPHONE LINE	TG TOP OF GRAVEL
FO EXISTING FIBER OPTIC LINE	TL TOP OF LANDSCAPING
FO PROPOSED FIBER OPTIC LINE	TS TOP OF SIDEWALK
PROPOSED CONCRETE	PROP PROPOSED
PROPOSED ASPHALT	39.0 TBC CALLOUT UNLESS OTHERWISE DESIGNATED
PROPOSED LANDSCAPING	

TELECOMMUNICATIONS NOTES:

1. Telecommunication conduit shall be installed to serve all lots, and shall be laid in the same location as the telephone lines as shown on the telecommunications design for this subdivision. The conduit shall be laid at a minimum depth of cover of 24". In the immediate vicinity of service boxes the conduit shall be laid at a shallower depth of cover of 15"; so that they are directly below the bottom of the service box, so that the conduit is visible when the cover of the box is removed. The conduit is not to be cut at service boxes, but it is to be laid continuously under the boxes.
2. Service boxes shall be placed at every other property line, or as otherwise shown in the telecommunications design, so that service can be provided to two lots from each box. The top of the box shall be placed flush with the finished ground surface. They shall be green 15"deep, 14"x 20"HDPE Newbasis Splice/Valve Box S1420 with cover assembly, including stainless steel lock bolt (part no. SGA142015Y000). The label "TELECOM"shall be imprinted on the cover.
3. Install two (one on cul-de-sacs) orange 1¼"diameter SDR-11 HDPE conduits meeting ASTM 3035, or in different quantities and sizes as shown in the telecommunications design. A twelve (12) gauge solid THHN tracer wire shall be installed inside all conduits according to NESC standards. Telecommunications conduit shall include a 3"caution tape installed in the pipeline trench approximately 12"below the ground surface, with the words "CAUTION: FIBER OPTIC CABLE"printed on it.



VICINITY MAP
NOT TO SCALE

SHEET INDEX

CV	COVER SHEET
C0.1	EXISTING CONDITIONS & DEMO PLAN
C1.0	SITE PLAN
C2.0	GRADING & DRAINAGE PLAN
C3.0	UTILITY PLAN
C4.0	DETAIL SHEET
C5.0	LINDON DETAIL SHEET
C6.0	EROSION CONTROL PLAN (SWPPP)
C6.1	EROSION CONTROL DETAIL SHEET

PROJECT CONSTRUCTION NOTES:

CONTRACTOR TO NOTIFY BLUE STAKES PRIOR TO CONSTRUCTION, 1-800-662-4111.

CONTRACTOR TO VERIFY LOCATION OF ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION.

SEE SOILS REPORT FOR PAVEMENT SECTION DETAILS, INSTALLATION SPECIFICATIONS AND ALL SITE EARTHWORK REQUIRMENTS.

ALL CONSTRUCTION SHALL CONFORM TO CITY STANDARDS AND SPECIFICATIONS. IF A CONFLICT BETWEEN THESE PLANS AND THE CITY STANDARDS AND SPECIFICATIONS OCCURS, THE CITY STANDARDS AND SPECIFICATIONS SHALL GOVERN.

ALL HANDICAP PARKING STALLS TO BE INSTALLED PER ADA STANDARDS. SLOPE ON ANY ADA STALL IS TO BE LESS THAN 2% IN ALL DIRECTIONS.

CONTRACTOR TO VERIFY PRIOR TO ANY CONSTRUCTION THAT THE BUILDING AND BUILDING LOCATION SHOWN ON CIVIL DRAWINGS MATCHES THE ARCHITECTURAL PLANS.

CONTRACTOR TO VERIFY, WITH ARCHITECT, THAT F.F. ELEVATION SHOWN ON CIVIL PLANS EQUALS THE ARCHITECTS 100.0' ELEVATION.

CONTRACTOR TO REPLACE IN KIND ANY AREAS THAT ARE DAMAGED DURING CONSTRUCTION.

INSTALL ALL SIDEWALKS PER LINDON CITY STANDARD DRAWING NO. 3.

INSTALL ALL CONCRETE PAVEMENT JOINTS PER CITY STANDARDS AND SPECIFICATIONS.

ALL SEWER, WATER AND STORM DRAIN PIPES SHALL BE BACKFILLED WITH SELECT GRANULAR FILL PER LINDON CITY STANDARD DRAWING NO. 10.

ALL CATCH BASINS AND MANHOLES TO BE INSTALLED PER CITY STANDARDS.

ALL CATCH BASINS TO INCLUDE 2' MINIMUM SUMP BELOW THE LOWEST PIPE INVERT ELEVATION.

ALL STORM DRAIN PIPING TO BE CUT OFF FLUSH WITH INSIDE WALL OF DRAINAGE BOX. INSIDE WALL TO BE GROUTED SMOOTH WITH A NON-SHRINK GROUT.

FOR STORM DRAIN INLET BOXES AND MANHOLES THE I.E. IN AND I.E. OUT ELEVATIONS ARE THE SAME UNLESS OTHERWISE CALLED OUT ON THE PLANS

ALL WATER LINES TO HAVE A MINIMUM 4' OF COVER WITH A MINIMUM VERTICAL CLEARANCE OF 1' OF COVER BETWEEN OTHER UTILITY LINES (1.5' VERTICAL SEPARATION WITH SEWER).

THRUST BLOCKS TO BE INSTALLED PER LINDON CITY STANDARD DRAWING NO. 15.

CONTRACTOR SHALL COORDINATE CONSTRUCTION AND INSTALLATION OF ELECTRICAL, TELEPHONE, NATURAL GAS AND CABLE TV SERVICES WITH THE RESPECTIVE UTILITY COMPANY.

THE EXISTENCE AND LOCATION OF ALL UNDERGROUND UTILITY PIPES, LINES OR STRUCTURES SHOWN ON THESE PLANS WERE OBTAINED AND SHOWN FROM SURVEYED INFORMATION AND EXISTING UTILITY LOCATIONS PROVIDED BY OTHERS. THERE IS NO GUARANTEE THAT ALL EXISTING UTILITY INFORMATION IS SHOWN ON THESE PLANS. CONTRACTOR IS RESPONSIBLE FOR CONTACTING BLUE STAKES AND FIELD VERIFYING THE LOCATION AND ELEVATION OF ALL EXISTING UTILITY PIPES, LINES AND STRUCTURES, PRIOR TO CONSTRUCTION.

ANY OFF SITE DAMAGE TO EXISTING ASPHALT, CURB & GUTTER, LANDSCAPING AND ALL UTILITIES TO BE REPLACED IN KIND.

LINDON CITY STANDARD NOTES:

1. THE APPLICANT IS RESPONSIBLE FOR COMPLIANCE WITH ALL REQUIREMENTS OF THE "AMERICANS WITH DISABILITIES ACT" (ADA).
2. ALL LANDSCAPED AREAS SHALL HAVE AN AUTOMATIC, UNDERGROUND SPRINKLING SYSTEM WITH A BACKFLOW PREVENTION DEVICE AND A BACKFLOW PREVENTION DEVICE TO THE BUILDING, UNLESS LANDSCAPING IS SERVED BY THE SECONDARY WATER SYSTEM.
3. WATER METERS ARE TO BE LOCATED BEHIND BACK OF WALK OR BACK OF CURB IN AN AREA THAT IS ACCESSIBLE, NOT LOCATED BEHIND FENCED AREAS OR UNDER COVERED PARKING.
4. LINDON STANDARD SPECIFICATIONS AND DRAWINGS APPLY TO CONSTRUCTION OF PUBLIC IMPROVEMENTS THAT WILL BE OWNED OR MAINTAINED BY LINDON CITY AND TAKE PRECEDENCE OVER OTHER STANDARDS.

FIRE DEPARTMENT NOTES:

1. FIRE HYDRANTS SHALL BE EQUIPPED WITH ONE 4½", AND 2½" OUTLETS, WHICH HAS NATIONAL STANDARD THREADS (NST).
2. FIRE HYDRANTS SHALL BE INSTALLED SO THAT THE CENTER LINE OF THE LOWEST CAP, NUT SHALL NOT BE CLOSER THAN 18" FROM THE FINISHED GRADE.
3. FIRE HYDRANTS SHALL HAVE THE 4½" BUTT FACING THE FIRE ACCESS ROADWAY.
4. UNDERGROUND PIPING SHALL BE TESTED AT 200 PSIA FOR TWO HOURS. TEST CERTIFICATE SHALL BE PROVIDED TO FIRE DEPARTMENT OFFICE.
5. BURNING OF TRASH, SCRAP WOOD OR OTHER MATERIALS IS A VIOLATION OF CITY ORDINANCE.
6. A 3 FOOT CLEARANCE SHALL BE MAINTAINED AT ALL TIMES AROUND FIRE EQUIPMENT TO INCLUDE BUT NOT LIMITED TO HYDRANTS, FIRE DEPARTMENT CONNECTIONS AND FIRE SUPPRESSION CONTROL VALVES.
7. NEW FIRE HYDRANTS SHALL BE COLOR CODED AND BE DIRECTED BY PUBLIC UTILITIES AS TO THE COLOR AND SHADE OF THE HYDRANT BONNET.
8. FIRE DEPARTMENT ACCESS ROADS AND FIRE HYDRANTS SHALL BE INSTALLED PRIOR TO CONSTRUCTION OF THE FOOTINGS AND FOUNDATIONS OF ANY STRUCTURE. FIRE HYDRANTS SHALL BE ACCESSIBLE, OPERATIONAL AND MAINTAINED IN THAT CAPACITY.

CIVIL ENGINEER:

CIR | CIVIL ENGINEERING +SURVEYING
10718 S BECKSTEAD LANE, SUITE 102
South Jordan, Utah - 801-949-6296

ARCHITECT:

PGA&W
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WICP COMMERCIAL PROPERTIES

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DRAWN BY: JEFF JEPPSON
REVISIONS

COVER SHEET
A NEW ADDITION FOR:
FORTEM TECHNOLOGIES
W.I.C.P. COMERCIAL PROPERTIES
1855 W 500 N
LINDON, UT 84042

PERMIT SET DOCUMENT

DATE: SEPT. 16, 2026
JOB NO.: 3499.000
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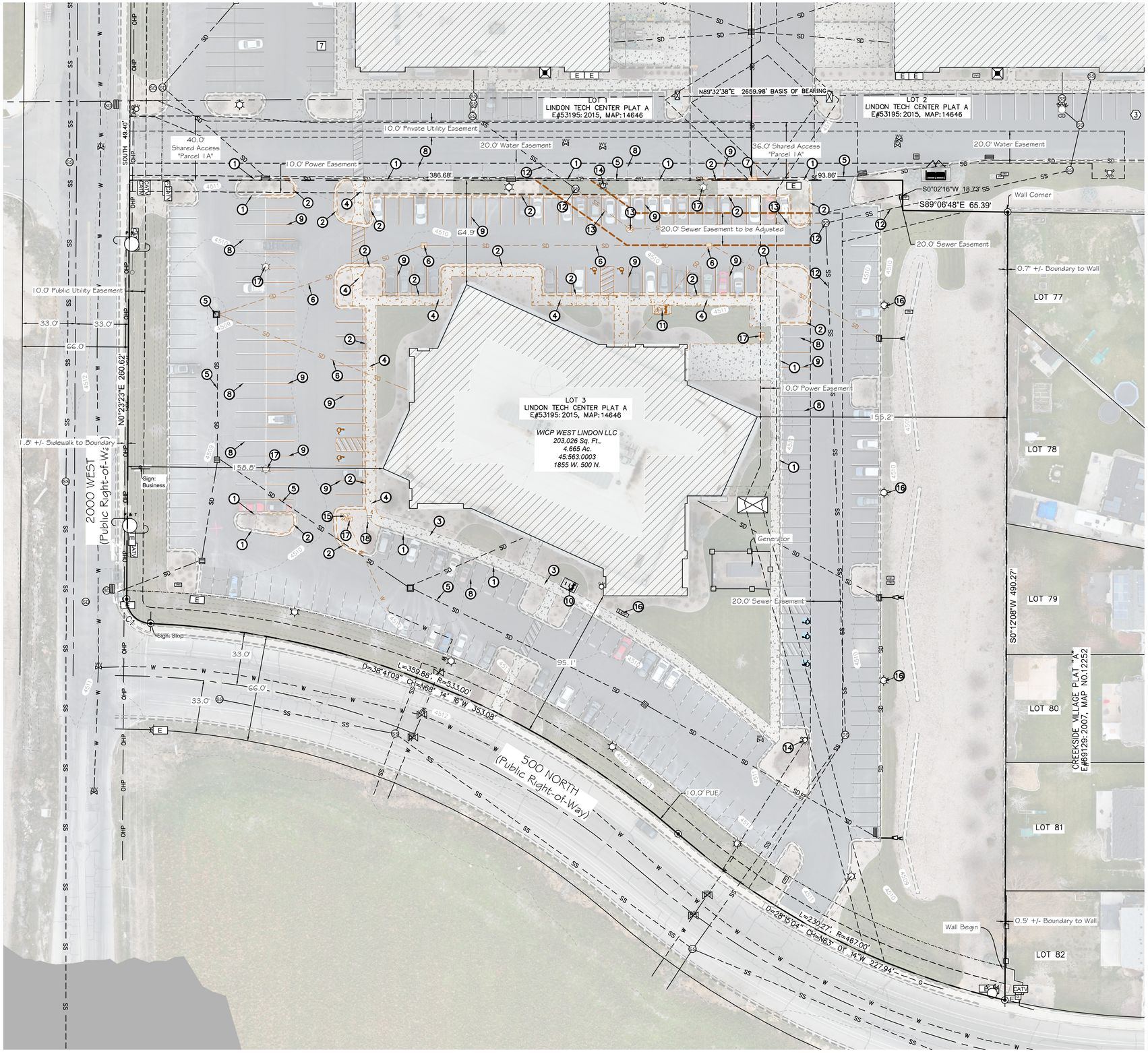
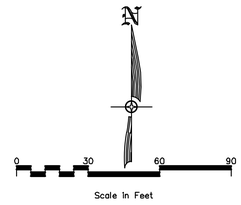
SHEET NO.
CV
PROJECT ID: E26-069
FILE NAME: PRJ-LT3
SCALE:





SEE COVER SHEET FOR PROJECT LEGEND

SHEET LEGEND

DEMOLITION LIMITS

DEMO PLAN NOTES:

1. EXISTING CURB & GUTTER, TO REMAIN.
2. EXISTING CURB & GUTTER, TO BE REMOVED.
3. EXISTING SIDEWALK, TO REMAIN.
4. EXISTING SIDEWALK, TO BE REMOVED.
5. EXISTING STORM DRAIN PIPES AND INLETS, TO REMAIN.
6. EXISTING STORM DRAIN PIPES AND INLETS, TO BE REMOVED.
7. EXISTING STORM DRAIN CATCH BASIN, REPLACE EXISTING LID WITH 2'X2' INLET. SEE SHEET C2.0 FOR REPLACEMENT DETAILS.
8. EXISTING PARKING STALLS, TO REMAIN.
9. EXISTING PARKING STALLS, TO BE REMOVED.
10. EXISTING BIKE RACK, TO REMAIN.
11. EXISTING BIKE RACK, TO BE REMOVED.
12. EXISTING SEWER PIPES AND MANHOLES, TO REMAIN.
13. EXISTING SEWER PIPES AND MANHOLE, TO BE REMOVED. SEE SHEET C3.0 FOR NEW SEWER ROUTE.
14. EXISTING FIRE HYDRANT, TO REMAIN.
15. EXISTING FIRE HYDRANT, TO BE RELOCATED. SEE SHEET C3.0 FOR NEW LOCATION.
16. EXISTING IRRIGATION BOX, TO REMAIN.
17. EXISTING IRRIGATION BOX, TO BE RELOCATED. SEE IRRIGATION PLANS FOR DETAILS.
16. EXISTING LIGHT POLE, TO REMAIN.
17. EXISTING LIGHT POLE, TO BE RELOCATED. SEE LIGHTING PLAN FOR DETAILS.
18. EXISTING FLAG POLE, TO BE REMOVED.

Blue Stakes of UTAH 811 — Bluestakes.org

LICENSED PROFESSIONAL ENGINEER — SCOTT D. THORSEN — No. 354291 — STATE OF UTAH

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DRAWN BY: JEFF JEPPSON
REVISIONS

EXISTING CONDITIONS & DEMO PLAN

A NEW ADDITION FOR:

FORTEM TECHNOLOGIES
W.I.C.P. COMERCIAL PROPERTIES
1855 W 500 N
LINDON, UT 84042

PERMIT SET DOCUMENT

DATE: SEPT. 16, 2026
JOB NO.: 3499.000

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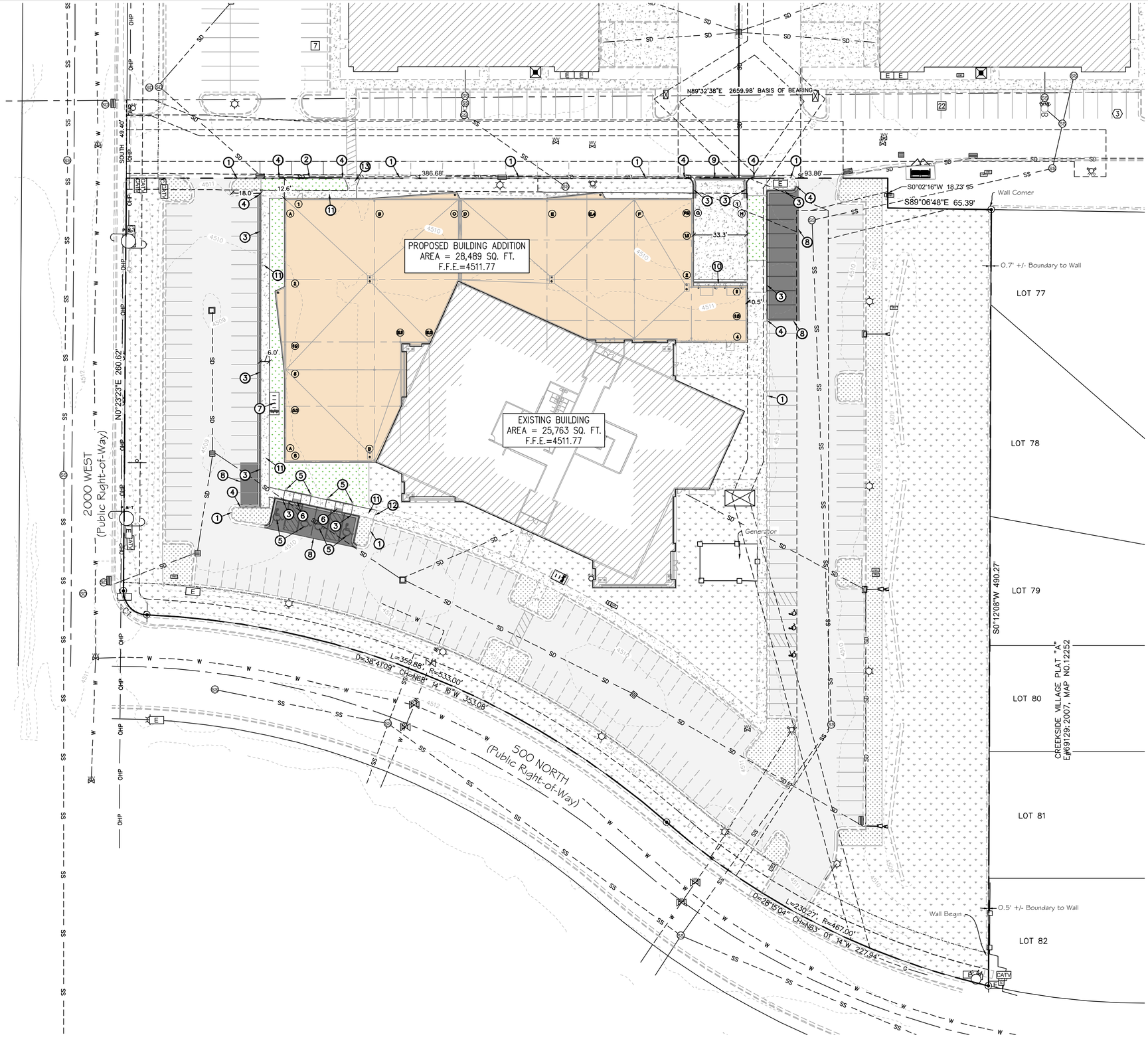
SHEET NO.
C0.1

PROJECT ID: E26-069
FILE NAME: PRJ-LT3

SCALE: 1"=30'



SHEET LEGEND

- EXISTING ASPHALT
- PROPOSED ASPHALT

N

0 30 60 90

Scale In Feet

SEE COVER SHEET FOR PROJECT LEGEND

LOT AREAS:

		SQ. FT.	/	ACRES.
LOT		203,025	/	4.661
	BUILDING FOOTPRINT	54,252	/	1.245
	EXISTING BUILDING	25,763	/	0.591
	PROPOSED BUILDING	28,489	/	0.654
	EXISTING ASPHALT	54,688	/	1.255
	PROPOSED ASPHALT	1,224	/	0.028
	TOTAL LANDSCAPING	75,065	/	1.723
	EXISTING PARKING LANDSCAPING	8,344	/	0.192
	EXISTING REMAINING LANDSCAPING	63,064	/	1.448
	PROPOSED LANDSCAPING	3,657	/	0.084
	CONCRETE	17,798	/	0.409

NOTE:

1. ALL AREA CALCULATIONS ARE APPROXIMATE AND CAN CHANGE DUE TO CONSTRUCTION TOLERANCES.

LOT LANDSCAPING AREAS:

	SQ. FT. PROVIDED	CITY REQ'T
PARKING LANDSCAPING	8,344	40 SQ. FT./STALL 8,120 SQ. FT.
TOTAL LANDSCAPING	75,065	10 % 20,303 SQ. FT.

NOTES:

1. PARKING AREA DOES NOT INCLUDE TRUCK MANEUVERING AREA OR LANDSCAPED BUFFER AS DIMENSIONED.
2. LANDSCAPED AREAS DO NOT INCLUDE HARD SURFACE AREAS(WALKWAYS, BIKE RACKS, CURB & GUTTERS).
3. ALL AREA CALCULATIONS ARE APPROXIMATE AND CAN CHANGE DUE TO CONSTRUCTION TOLERANCES.

LOT PARKING REQUIREMENTS:

	SQ. FT.		CITY REQ'T
OFFICE	25,893	129	(1/200)
WAREHOUSE	54,228	72	(1/750)
TOTAL REQUIRED	202		
TOTAL PROVIDED	203		
ACCESSIBLE SPACES	7		(7 REQ'D 201 TO 300)
BICYCLE SPACES	16		(16 REQ'D)

NOTE:

1. ALL AREA CALCULATIONS ARE APPROXIMATE AND CAN CHANGE DUE TO CONSTRUCTION TOLERANCES.
2. BICYCLE CALCULATIONS – (203 X 8%)) = 16

SITE PLAN NOTES:

1. EXISTING CURB & GUTTER.
2. PROPOSED 24" CURB & GUTTER. SEE DETAIL 1/C4.0.
3. PROPOSED 24" REVERSE PAN CURB AND GUTTER. SEE DETAIL 2/C4.0.
4. MATCH PROPOSED CURB & GUTTER TO EXISTING.
5. ALL HANDICAP STALLS AND SIGNS TO BE INSTALLED PER APWA AND ADA STANDARDS AND SPECIFICATIONS. SEE DETAILS 7/C4.0 AND 8/C4.0.
6. ADA RAMPS ARE TO BE INSTALLED PER CITY AND ADA STANDARDS AND SPECIFICATIONS. SEE DETAILS 3/C4.0.
7. PROPOSED BIKE RACK. SEE DETAIL 4/C4.0. BIKE RACK TO BE PLACED ON CONCRETE
8. SAWCUT EXISTING ASPHALT TO PROVIDE SMOOTH TRANSITION BETWEEN PROPOSED AND EXISTING ASPHALT.
9. PROPOSED 3' WATERWAY. SEE DETAIL 6/C4.0.
10. PROPOSED DOCK WARPED ROLL GUTTER. SEE DETAIL 9/C4.0.
11. PROPOSED 6' CONCRETE SIDEWALK PER LINDON CITY STANDARD DETAIL 3. SEE DETAIL SHEET C5.0.
12. MATCH PROPOSED SIDEWALK TO EXISTING.
13. ADA RAMPS ARE TO BE INSTALLED PER CITY AND ADA STANDARDS AND SPECIFICATIONS. SEE DETAILS 10/C4.0.

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DRAWN BY: JEFF JEPPSON
REVISIONS

SITE PLAN

A NEW ADDITION FOR:
FORTEM TECHNOLOGIES
W.I.C.P. COMERCIAL PROPERTIES
1855 W 500 N
LINDON, UT 84042

PERMIT SET DOCUMENT

DATE: SEPT. 16, 2026
JOB NO.: 3499.000
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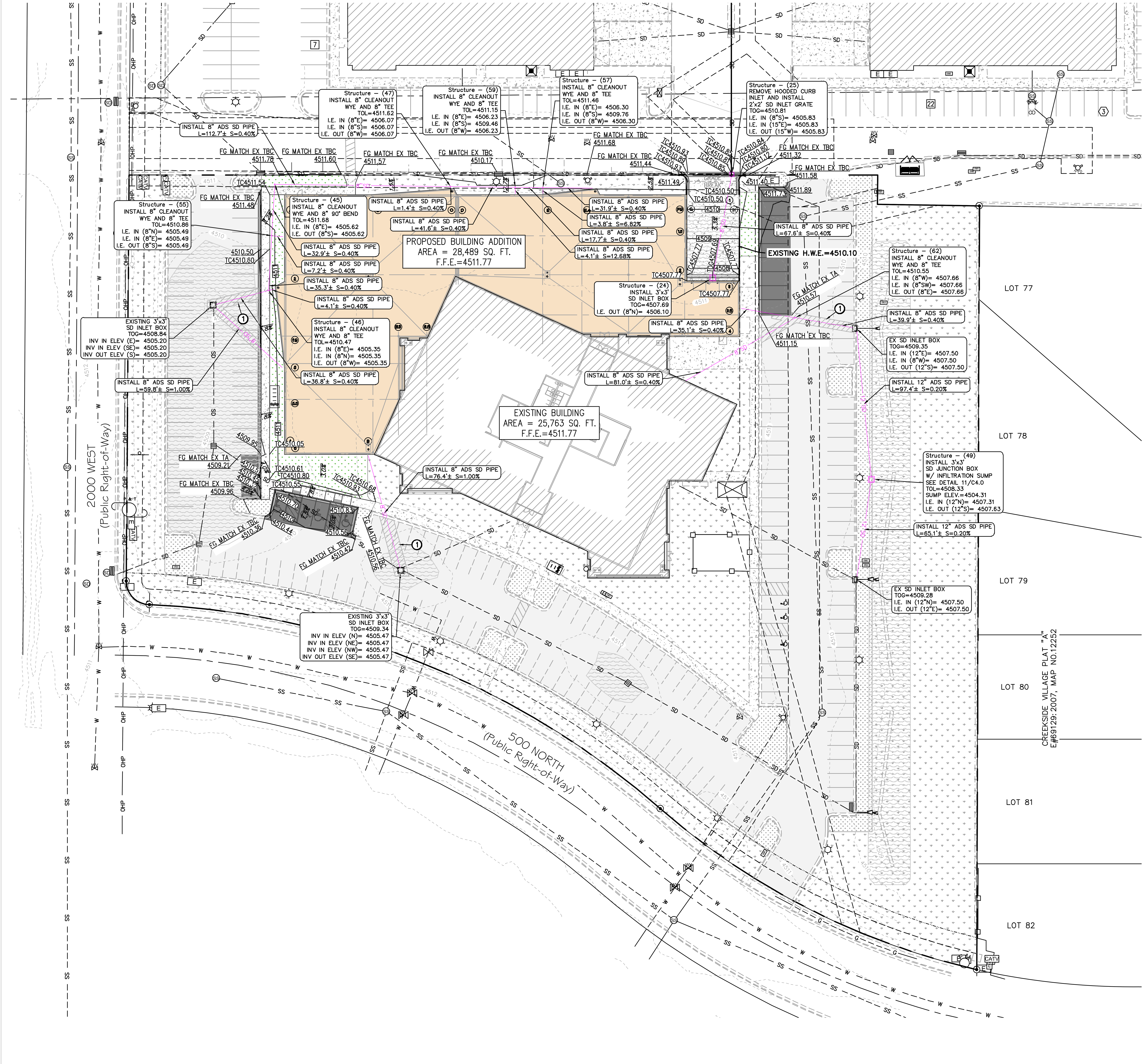
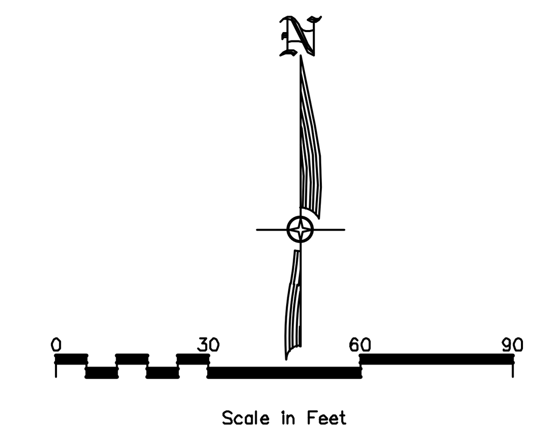
SHEET NO.
C1.0
PROJECT ID: E26-069
FILE NAME: PRJ-LT3
SCALE: 1"=30'

Blue Stakes of UTAH 811 bluestakes.org

LICENSED PROFESSIONAL ENGINEER
SCOTT D. THORSEN
No. 354291
STATE OF UTAH





SEE COVER SHEET FOR PROJECT LEGEND

SHEET LEGEND

DETENTION AREA

DRAINAGE PLAN NOTES:

1. SAWCUT EXISTING ASPHALT TO INSTALL UTILITY LATERAL IMPROVEMENTS. ALL WORK TO BE DONE PER LINDON CITY STANDARD DRAWING #10.

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REVISIONS

GRADING & DRAINAGE PLAN

A NEW ADDITION FOR:
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SHEET NO. C2.0

PROJECT ID: E26–069
FILE NAME: PRJ–LT3
SCALE: 1"=30'

SCOTT D. THORSEN No. 354291 LICENSED PROFESSIONAL ENGINEER STATE OF UTAH

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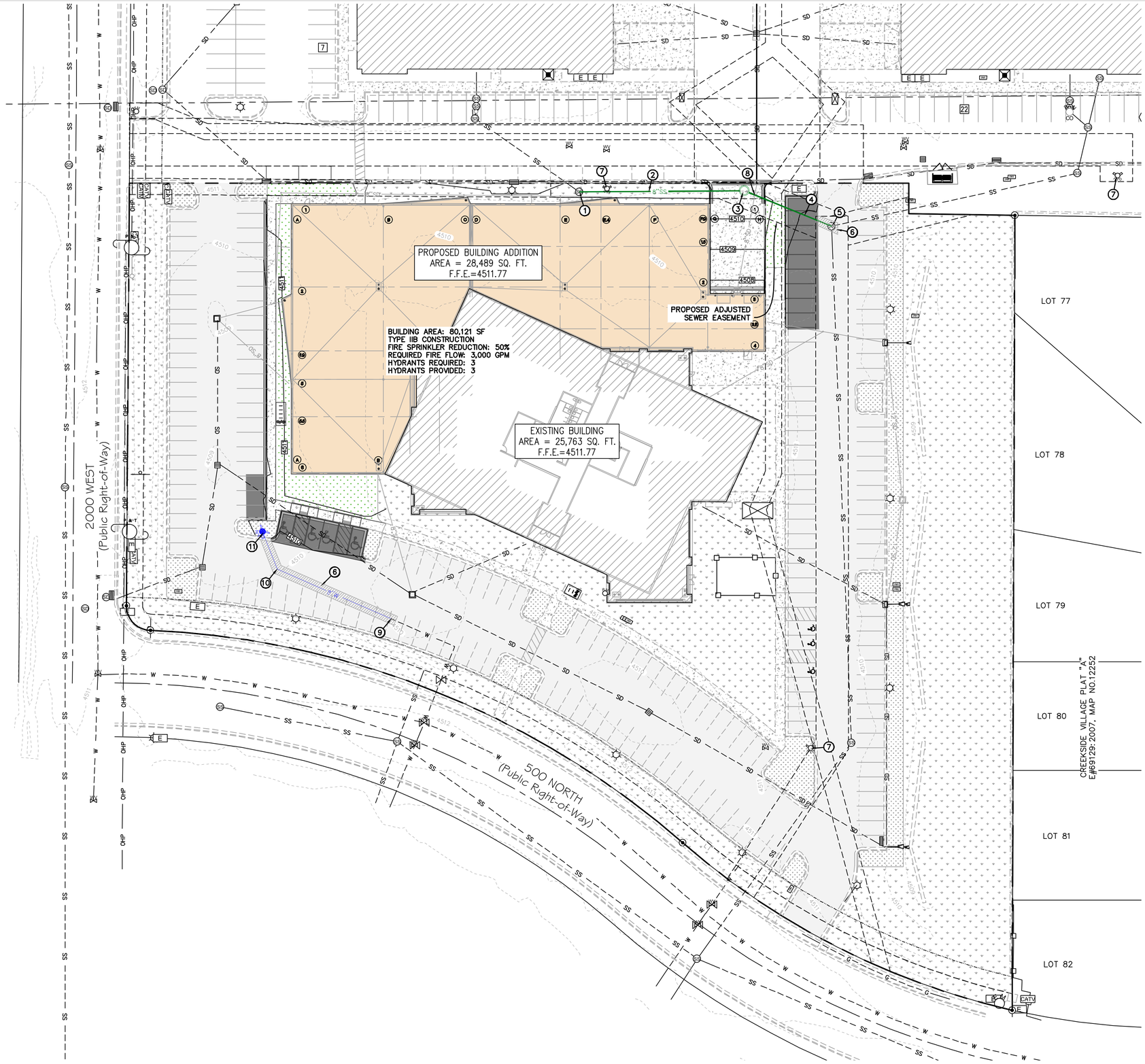

N

0 30 60 90

Scale In Feet

SEE COVER SHEET FOR PROJECT LEGEND

UTILITY PLAN NOTES:

1. CONNECT TO EXISTING 4' DIA. SEWER MANHOLE. TOL=4527.14, I.E.(EX 8" NW)=4508.50, I.E.(PROP 8" E)=4508.40. SEE DETAIL SHEET C5.0.
2. INSTALL 99'± OF 6" PVC SEWER PIPE, S=0.4%.
3. INSTALL 4' DIA. SEWER MANHOLE PER LINDON CITY STANDARD DRAWING 11. TOL=4510.75, I.E.(8" W)=4508.00, I.E.(8" SE)=4507.90. SEE DETAIL SHEET C5.0.
4. INSTALL 55'± OF 6" PVC SEWER PIPE, S=4.2%.
5. CONNECT TO EXISTING 4' DIA. SEWER MANHOLE. TOL=4527.14, I.E.(EX 8" S)=4505.47, I.E.(PROP 8" NW)=4505.57. SEE DETAIL SHEET C5.0.
6. SAWCUT EXISTING ASPHALT TO INSTALL UTILITY LATERAL IMPROVEMENTS. ALL WORK TO BE DONE PER LINDON CITY STANDARD DRAWING #10.
7. FIRE HYDRANT, TO REMAIN.
8. I.E.(8"SS)=4507.73
   TOP(8"SD)=4506.53
   SEPARATION=1.2'
9. CONNECT TO EXISTING WATER MAIN AND INSTALL 8" PVC C-900 FIRE LINE.
10. INSTALL 8" 45° BEND W/THRUST BLOCKS.
11. INSTALL FIRE HYDRANT ASSEMBLY PER LINDON CITY STANDARD DETAIL #14. SEE SHEET C5.0 FOR DETAILS.

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DRAWN BY: JEFF JEPPSON
REVISIONS

UTILITY PLAN

A NEW ADDITION FOR:
FORTEM TECHNOLOGIES
W.I.C.P. COMERCIAL PROPERTIES
1855 W 500 N LINDON, UT 84042

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SHEET NO.
C3.0
PROJECT ID: E26-069
FILE NAME: PRJ-LT3
SCALE: 1"=30'

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LICENSED PROFESSIONAL ENGINEER
SCOTT D. THORSEN
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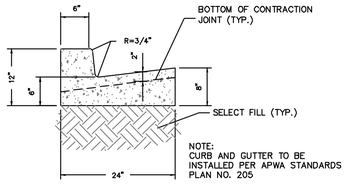

1 | 24" CURB & GUTTER
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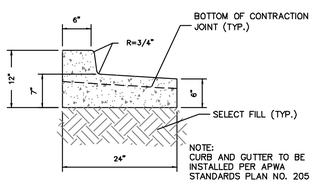
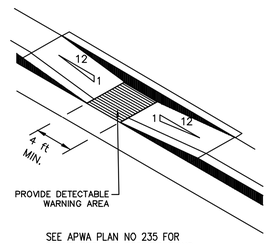
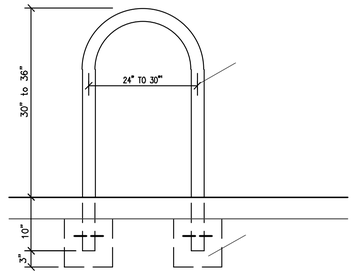


2 | 24" REVERSE PAN CURB & GUTTER
N.T.S.

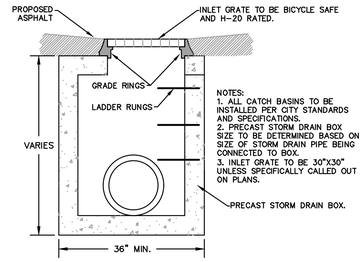


SEE APWA PLAN NO 235 FOR STANDARDS AND SPECIFICATIONS

3 | ADA RAMP
N.T.S.



4 | INVERTED "U" BIKE RACK



5 | STANDARD STORM DRAIN INLET BOX
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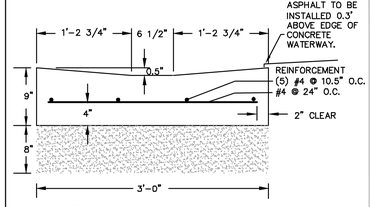
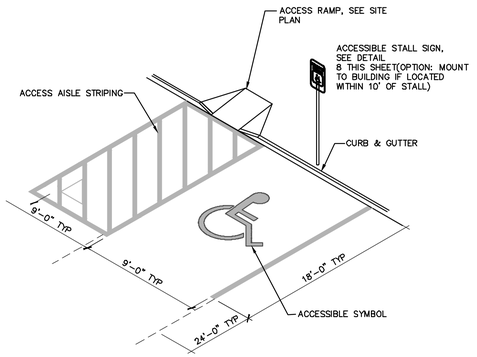
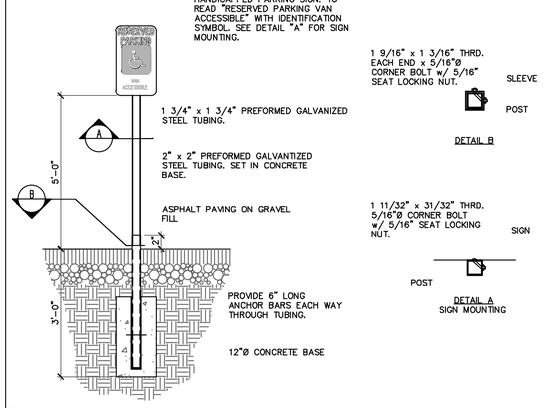


NOTE:
1. PER APWA PLAN NO. 211
2. ASPHALT PAVEMENT SECTION TO BE INSTALLED AT 0.03' HIGHER THAT THE TOP EDGE OF THE CONCRETE ROLL GUTTER, BOTH SIDES.

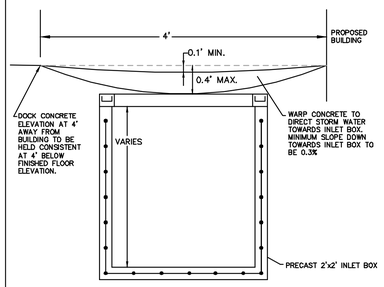
6 | 3'-0" ROLL GUTTER
N.T.S.



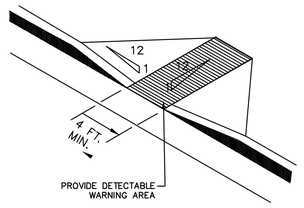
7 | ACCESSIBLE PARKING STALL
N.T.S.



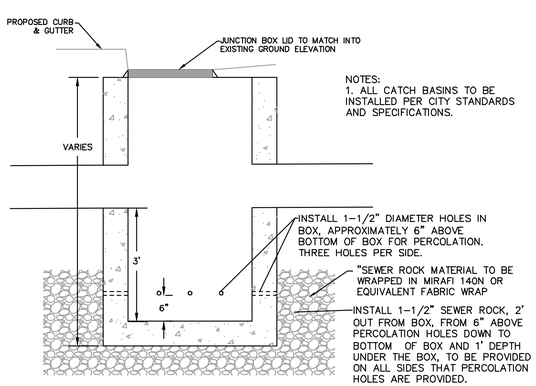
8 | HANDICAPPED PARKING SIGN
N.T.S.



9 | DOCK WARPED CONCRETE DETAIL
N.T.S.



10 | ADA RAMP
N.T.S.



11 | STANDARD STORM DRAIN BOX PERCOLATION HOLES
N.T.S.

PGA&W ARCHITECTS / PLANNERS
WICP COMMERCIAL PROPERTIES
CIVIL ENGINEERING + SURVEYING
10718 S BECKSTEAD LANE, SUITE 102
South Jordan, Utah - 801-949-8296
PGA & W ARCHITECTS
ARCHITECTS / PLANNERS - 5263 SOUTH COMMERCE DRIVE - SUITE 204 - MURRAY, UTAH 84107 - PHONE: 801.266.4669

DRAWN BY: JEFF JEPPSON
REVISIONS

DETAIL SHEET
A NEW ADDITION FOR:
FORTEM TECHNOLOGIES
W.I.C.P. COMERCIAL PROPERTIES
1855 W 500 N
LINDON, UT 84042

PERMIT SET DOCUMENT
DATE: SEPT. 16, 2026
JOB NO.: 3499.000
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SHEET NO.
C4.0
PROJECT ID: E26-069
FILE NAME: PRJ-LT3
SCALE:

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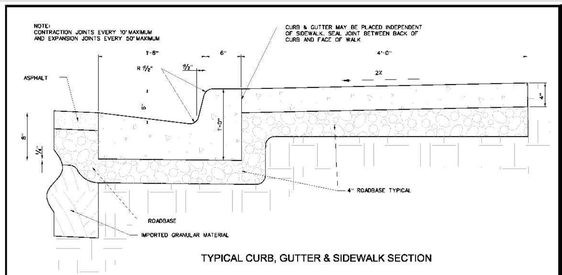
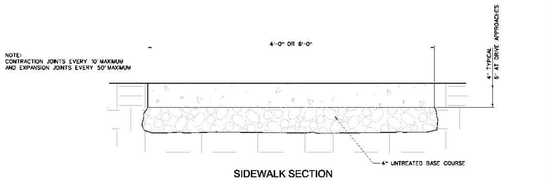
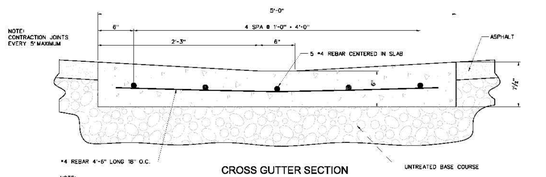
LICENSED PROFESSIONAL ENGINEER
SCOTT D. THORSEN
No. 354291
STATE OF UTAH



TYPICAL CURB, GUTTER & SIDEWALK SECTION



SIDEWALK SECTION



CROSS GUTTER SECTION

NOTE:
SAME REINFORCING REQUIRED IN FILLITS SHOWN ON STANDARD STREET INTERSECTION AND UTILITY LOCATION DRAWING

JUB 0 5'

STATEMENT OF USE		CURB, GUTTER & SIDEWALK DETAILS	STANDARD DRAWING NO. 3
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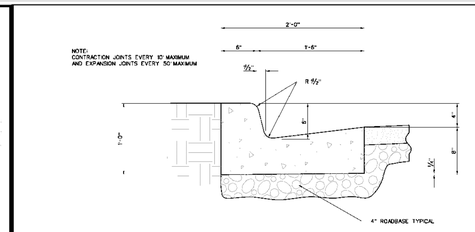
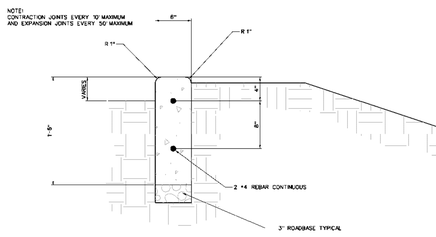
REVISION			
DESCRIPTION	BY / APP. DATE		



TYPICAL CURB & GUTTER



TYPICAL 18" CONCRETE CURB

JUB 0 5'

STATEMENT OF USE		CURB & GUTTER DETAIL CONCRETE CURB DETAIL	STANDARD DRAWING NO. 4
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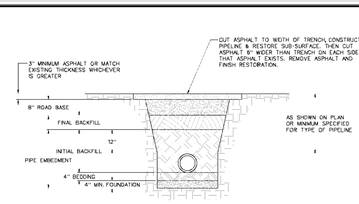
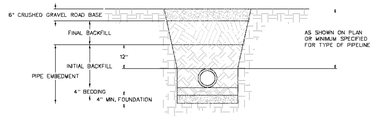
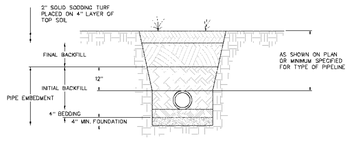
REVISION			
DESCRIPTION	BY / APP. DATE		



ASPHALT SURFACE



GRAVEL SURFACE



TURF SURFACE

NOTES:
1. SLOPE TRENCH TO MEET OSHA REQUIREMENTS CURRENT EDITION OR USE TRENCH BOX.
2. FOUNDATION AND BEDDING MATERIAL AS REQUIRED.
3. INSTALL PIPELINES ON STABLE FOUNDATION WITH UNIFORM BEARING FOR FULL LENGTH OF BARREL, EXCAVATE IN BEDDING FOR ALL PIPE JOINTS.

JUB 0 3'

STATEMENT OF USE		TYPICAL TRENCH SECTIONS	STANDARD DRAWING NO. 10
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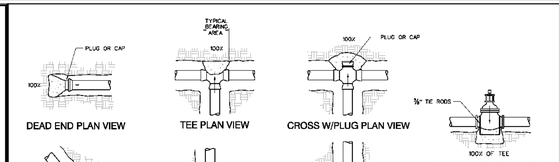
REVISION			
DESCRIPTION	BY / APP. DATE		



NOTES:
1. THE FIGURE (100%) AT THE THRUST BLOCK INDICATES PER CENT OF TOTAL THRUST TO BE APPLIED FOR BEARING AREA.
2. THE ARROW (←→) INDICATES THRUST DIRECTION.
3. CONCRETE TO ATTAIN 2,000 PSI IN 3000 P.S.I.
4. ALL BENDS SHALL BE ANCHORED WRAPPED WITH 12 MIL POLYETHYLENE PRIOR TO PLACING CONCRETE THRUST BLOCK.
5. WHERE SUFFICIENT BEARING SURFACE IS NOT AVAILABLE FOR THRUST BLOCK, MEGALUG THRUST RESTRAINING GLANDS MAY BE USED. MEGALUG THRUST RESTRAINING GLANDS SHALL BE INSTALLED PER MANUFACTURER'S RECOMMENDATION, INCLUDING ANY JOINT RESTRAINT. ANY USE OF MEGALUG OR CHANGE TO THE THRUST BEARING CHART MUST BE REVIEWED BY THE ENGINEER.

TABLE 1
Use when line pressure and soil bearing strength are known.

Line Pressure	psi
Test Pressure (SF = 1.5)	psi
Soil Bearing Strength	psf
Soil Bearing Strength determined from a geotechnical investigation.	

Size Thrust (lbs.) per 1 psi line pressure

Pipe Size	Pipe Area* sq. in.	Dead End or Tee (lbs.)	90° Bend (lbs.)	45° Bend (lbs.)	22.5° Bend (lbs.)	11.25° Bend (lbs.)
4	14.19	29	39	19	9	5
6	30.19	60	83	40	19	10
8	52.18	105	144	69	33	17
10	80.92	131	185	101	51	25
12	124.25	187	264	145	75	38
14	168.53	253	358	194	99	50
16	219.56	330	466	253	129	65
18	277.53	417	589	319	163	82
20	342.41	514	727	394	201	101
24	490.02	738	1,040	563	287	145
30	757.65	1,137	1,608	870	444	223

TABLE 2
Use when line pressure and soil bearing strength are not known.

Line Pressure	120 psi
Test Pressure (SF = 1.5)	180 psi
Soil Bearing Strength	1,500 psf

Area of Bearing Required (sq.ft.)

Pipe Size	Pipe Area* sq. in.	Dead End or Tee (sq.ft.)	90° Bend (sq.ft.)	45° Bend (sq.ft.)	22.5° Bend (sq.ft.)	11.25° Bend (sq.ft.)
4	14.19	1.7	2.4	1.3	0.7	0.3
6	30.19	3.6	5.0	2.5	1.2	0.6
8	52.18	6.3	8.7	4.3	2.1	1.0
10	80.92	10.4	14.8	8.0	4.1	2.0
12	124.25	14.9	21.1	11.6	5.8	2.9
14	168.53	20.2	28.6	15.5	7.9	4.0
16	219.56	26.3	37.3	20.2	10.3	5.2
18	277.53	33.3	47.1	25.5	13.0	6.5
20	342.41	41.1	58.1	31.5	16.0	8.1
24	490.02	58.8	83.2	45.0	22.9	11.5
30	757.65	90.9	128.6	69.6	35.5	17.8

Example for Table 1:
8-inch 90° bend
Line Pressure = 100 psi
From table: Thrust per 1 psi = 121 lbs.
Calculate Total Thrust: 100 psi x 121lbs/psi = 12,100 lbs
Soil Bearing Strength = 2,000 psf
Area of bearing required for thrust block is 6.1 sq. ft. (12,100 lbs / 2,000 psf = 6.1 sq.ft.)

* Pipe area is based on largest actual inside diameter of ductile iron pipe.

JUB 0 4'

STATEMENT OF USE		THRUST BLOCK DETAILS	STANDARD DRAWING NO. 15
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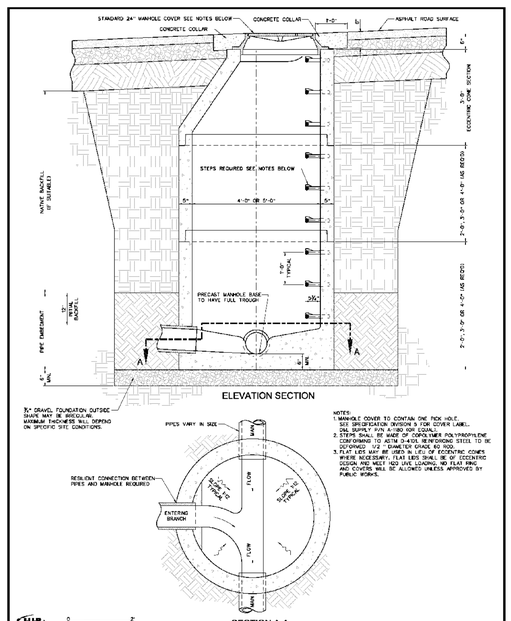
DESCRIPTION	BY / APP. DATE		



NOTES:
1. MANHOLE COVER TO CONTAIN ONE PICK HOLE.
2. ALL MATERIALS MUST BE APPROVED FOR DRINKING WATER SUPPLY PER ANSI/NSF STANDARD 61.
3. STEPS SHALL BE MADE OF COPOLYMER POLYPROPYLENE CONFORMING TO ASTM D-4101, REINFORCING STEEL TO BE ASTM D-695 1/2" DIAMETER GRADE 60 ROD.
4. THE MANHOLE SHALL BE SIZED AS THE SPECIFIC CONES FITTING ACCORDINGLY. FLAT LIDS SHALL BE OF ECCENTRIC DESIGN AND MEET H20 LIVE LOADING. NO FLAT RING AND COVERS WILL BE ALLOWED UNLESS APPROVED BY PUBLIC WORKS.

JUB 0 2'

STATEMENT OF USE		TYPICAL MANHOLE DETAIL	STANDARD DRAWING NO. 11
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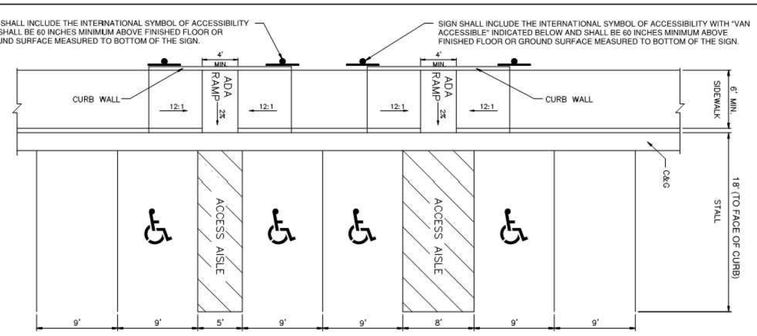
LINDON

ADA PARKING & PASSENGER LOADING ZONE

ADA



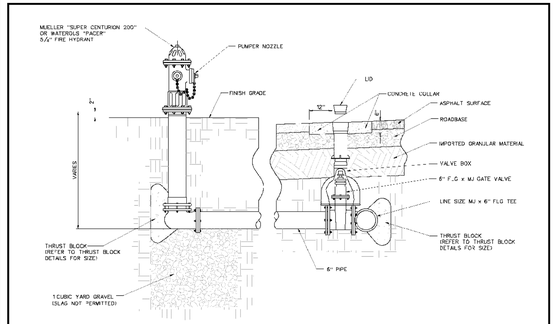
NOTES:

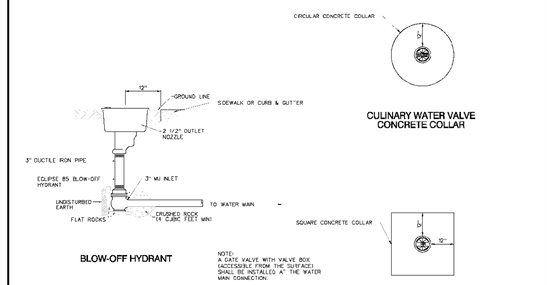
1. ACCESSIBLE PARKING SHALL BE AS CLOSE TO THE BUILDING AS POSSIBLE.
2. DESIGNATED RESERVED SIGN SHALL BE INSTALLED BY EACH ACCESSIBLE SPACE.
3. EACH PARKING LOT SHALL HAVE A MINIMUM OF ONE (1) "VAN ACCESSIBLE" SPACE.
4. ONE IN EVERY EIGHT (8) ACCESSIBLE SPACES SHALL HAVE AN ACCESS AISLE 8'-0" WIDE AND SHALL BE SIGNED "VAN ACCESSIBLE".
5. SIGNS SHALL HAVE THE INTERNATIONAL SYMBOL OF ACCESSIBILITY WITH "VAN ACCESSIBLE" INDICATED BELOW.
6. RAMP MAXIMUM SLOPE IS 12:1.
7. PARKING STALL AND AISLE MAXIMUM SLOPE IS 2% IN ANY DIRECTION.
8. SHALL MEET CURRENT ADA STANDARDS.

MINIMUM NUMBER OF ACCESSIBLE PARKING SPACES
ADA STANDARD FOR ACCESSIBLE DESIGN 4.1.2(5)

TOTAL NUMBER OF PARKING SPACES PROVIDED (PER LOT)	TOTAL MINIMUM NUMBER OF ACCESSIBLE PARKING SPACES (60" & 96" AISLES)	VAN ACCESSIBLE PARKING SPACES WITH MIN. 96" WIDE ACCESS AISLE	ACCESSIBLE PARKING SPACES WITH MIN. 60" WIDE ACCESS AISLE
	COLUMN A		
1 TO 25	1	1	0
26 TO 50	2	1	1
51 TO 75	3	1	2
76 TO 100	4	1	3
101 TO 150	5	1	4
151 TO 200	6	1	5
201 TO 300	7	1	6
301 TO 400	8	1	7
401 TO 500	9	2	7
501 TO 1000	2% OF TOTAL PARKING PROVIDED IN EACH LOT	1/8 OF COLUMN A *	7/8 OF COLUMN A **
1001 AND OVER	20 PLUS 1 FOR EACH 100 OVER 1000	1/8 OF COLUMN A *	7/8 OF COLUMN A **

* ONE OUT OF EVERY 8 ACCESSIBLE SPACES ** 7 OUT OF EVERY 8 ACCESSIBLE PARKING SPACES





JUB 0 2'

STATEMENT OF USE		FIRE HYDRANT, BLOW-OFF HYDRANT & WATER VALVE DETAIL	STANDARD DRAWING NO. 14
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CIVIL ENGINEERING + SURVEYING
10718 S BECKSTEAD LANE, SUITE 102
South Jordan, Utah - 801-949-8296

PGA & W ARCHITECTS
ARCHITECTS / PLANNERS 5263 SOUTH COMMERCE DRIVE - SUITE 204 - MURRAY, UTAH 84107 - PHONE: 801.266.4669

WICP COMMERCIAL PROPERTIES

DRAWN BY: JEFF EPPSON
REVISIONS

LINDON DETAIL SHEET
A NEW ADDITION FOR:
FORTEM TECHNOLOGIES
W.I.C.P. COMERCIAL PROPERTIES
1855 W 500 N
LINDON, UT 84042

PERMIT SET DOCUMENT
DATE: SEPT. 16, 2026
JOB NO.: 3499.000
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SHEET NO.
C5.0
PROJECT ID: E26-069
FILE NAME: PRJ-LT3
SCALE:

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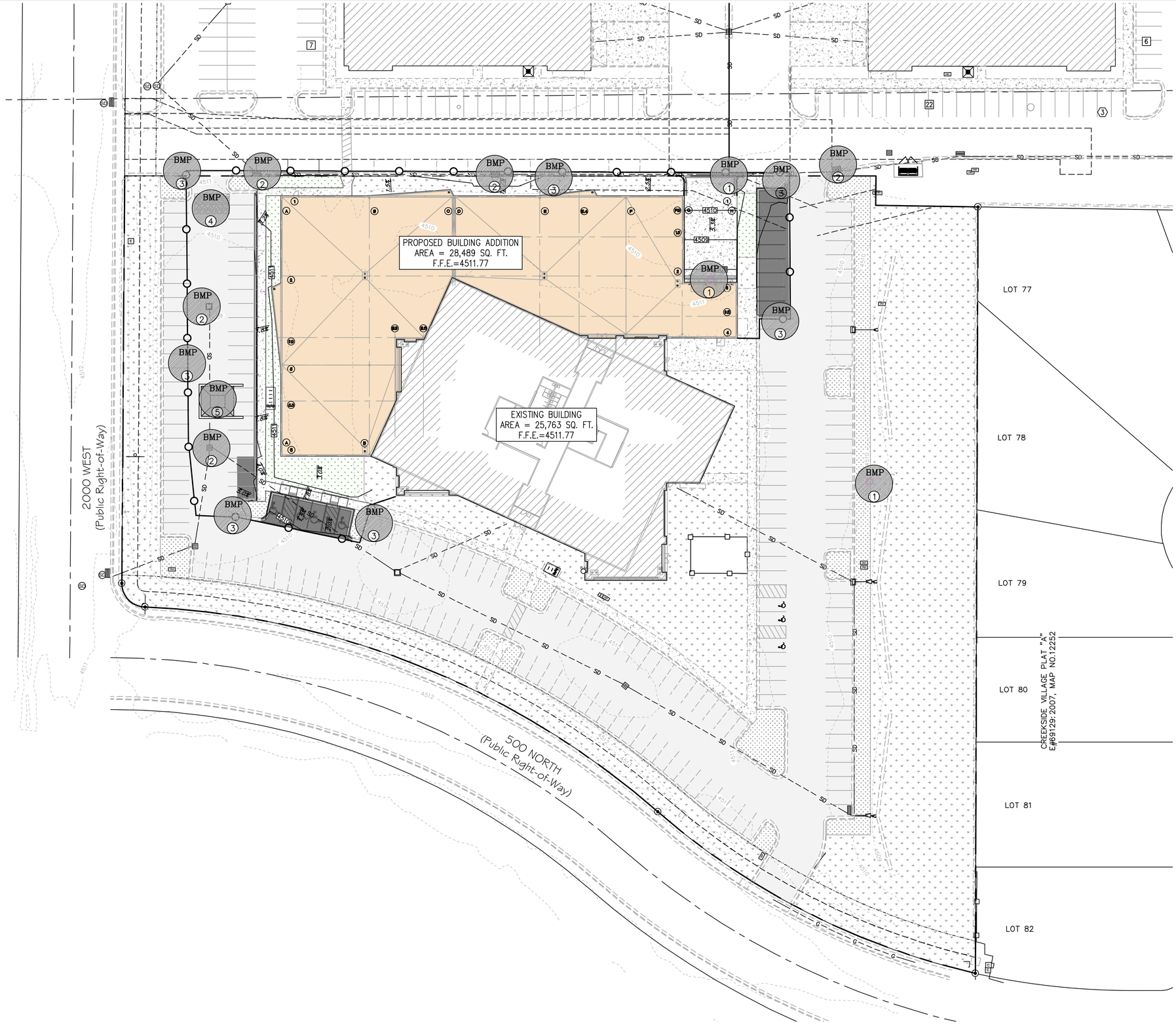
LICENSED PROFESSIONAL ENGINEER — SCOTT D. THORSEN — No. 354291 — STATE OF UTAH



N

0 30 60 90

Scale In Feet

SEE COVER SHEET FOR PROJECT LEGEND

SHEET LEGEND

SILT FENCE

WHEEL WASH AREA

BMP AREA

CONCRETE WASHOUT

BMP CALLOUTS

1. PLACE A SILT FENCE AROUND THE PERIMETER OF THE INLET, ONCE PAVEMENT AND/OR CURB HAS BEEN INSTALLED PLACE GRAVEL BAGS AROUND THE INLET. GRAVEL BAGS TO BE USED ON PAVED OR CONCRETE SURFACES AND SILT FENCE TO BE USED ON UNIMPROVED SURFACES.
   NOTE: IN HIGH TRAFFIC AREAS CONTRACTOR TO USE INSERT FILTER FABRIC. IF INLET HAS CURB OPENING, THE FILTER FABRIC IS TO BE EXTENDED UP TO COVER THE CURB OPENING AND GRAVEL BAGS PLACED IN CUTTER AT EACH SIDE OF OPENING TO KEEP FILTER FABRIC SNUG AGAINST CURB WALL.
2. PLACE GRAVEL BAGS AS NECESSARY TO PREVENT SEDIMENT FROM DRAINING INTO EXISTING CATCH BASINS. ***SEE NOTE IN CALLOUT 1.***
3. INSTALL TYPICAL SILT FENCE, SILT FENCE TO BE INSTALLED PERPENDICULAR TO STORM WATER FLOW. INSTALLATION TO BE DONE SO AS TO PREVENT SEDIMENT FROM LEAVING THE SITE.
   NOTE: CONTRACTOR TO USE VEGETATIVE BUFFER AND OR CUT BACK INSTEAD OF SILT FENCE WHERE POSSIBLE.
4. CONTRACTOR TO INSTALL A MIMIMUM OF 6" DEEP GRAVEL (3" TO 6"") OF SUFFICIENT SIZE (MINIMUM OF 50' IN LENGTH AND 20' WIDE) AS TO PROVIDE A WHEEL WASH AREA TO PREVENT THE TRACKING OF MUD OFFISTE. THE LOCATION OF WHEEL WASH MAY VARY FROM LOCATION SHOWN ON PLANS SO AS TO PROVIDE THE BEST PROTECTION AGAINST TRACKING MUD OFFSITE. CONTRACTOR TO MAINTAIN AND CLEAN WHEEL WASH AREA AS NEEDED TO PREVENT THE TRACKING OF MUD OFFSITE.
5. CONTRACTOR TO INSTALL CONCRETE WASHOUT AREA. THE LOCATION MAY VARY FROM LOCATION SHOWN ON PLANS.

Blue Stakes of UTAH 811 Bluestakes.org

LICENSED PROFESSIONAL ENGINEER SCOTT D. THORSEN No. 354291 STATE OF UTAH

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DRAWN BY: JEFF JEPSON
REVISIONS

EROSION CONTROL PLAN (SWPPP)

A NEW ADDITION FOR:
FORTEM TECHNOLOGIES
W.I.C.P. COMERCIAL PROPERTIES
1855 W 500 N LINDON, UT 84042

PERMIT SET DOCUMENT

DATE: SEPT. 16, 2026
JOB NO.: 3499.000
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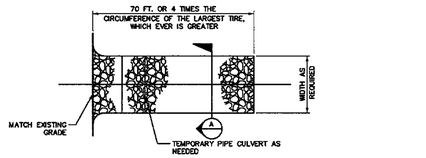
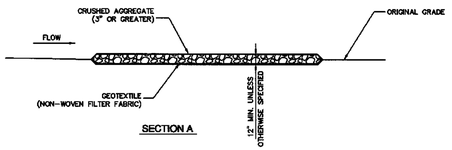
C6.0
PROJECT ID: E26-069
FILE NAME: PRJ-LT3
SCALE: 1"=30'

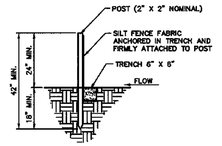


PLAN VIEW

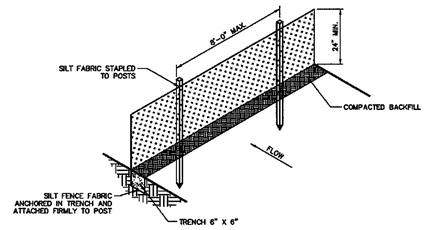


SECTION A

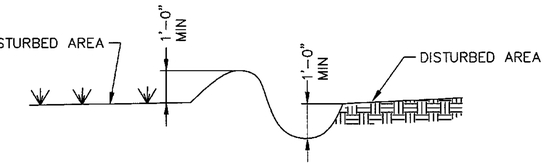
STABILIZED CONSTRUCTION ENTRANCE DETAIL 1
SCALE: N. T. S.



NOTES:
1. MINIMUM FILTER FABRIC HEIGHT SHALL BE 24".
2. POSTS FOR SILT FENCES SHALL BE METAL OR HARD WOOD WITH A MINIMUM LENGTH OF 36". WOOD POSTS SHALL HAVE A MINIMUM DIAMETER OR CROSS SECTION OF 2". METAL POSTS SHALL BE "STUDDED TEE" OR "U" TYPE WITH MINIMUM WEIGHT OF 1.33 LBS/FOOT.
3. DRIVE POSTS VERTICALLY INTO THE GROUND TO A MINIMUM DEPTH OF 16", AND EXCAVATE A TRENCH APPROXIMATELY 6" WIDE AND 6" DEEP ALONG THE LINE OF POSTS AND UPSLOPE FROM THE BARRIER. NO LESS THAN THE BOTTOM 1 FOOT OF THE FABRIC SHALL BE BURIED INTO THIS TRENCH.
4. THE FILTER FABRIC MATERIALS SHALL BE FASTENED SECURELY TO METAL OR WOOD POSTS USING WIRE TIES, OR TO THE WOOD POSTS WITH ¾" LONG #9 HEAVY DUTY STAPLES.
5. POSTS SHALL BE SPACED A MAXIMUM OF 8 FEET APART.



SILT FENCE DETAIL 2
SCALE: N. T. S.



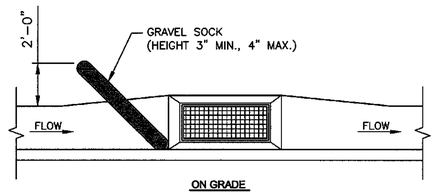
SWALE / BERM DETAIL 3
SCALE: N. T. S.

PLAN

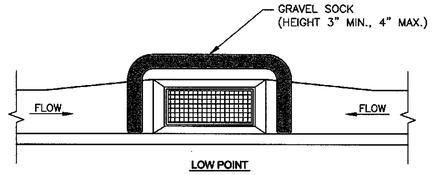
SECTION A

NOTES:
1. ACTUAL LAYOUT DETERMINED IN FIELD.
2. CONCRETE WASHOUT SIGN SHALL BE INSTALLED WITHIN 30 FT. OF THE TEMPORARY CONCRETE WASHOUT FACILITY.
3. WASHOUT NEEDS TO BE EMPTIED AND REPAIRED WHEN 75% OF STORAGE CAPACITY IS FILLED.
4. DEVELOPER/CONTRACTOR RESPONSIBLE FOR REMOVAL & PROPER DISPOSAL OF CONCRETE PRIOR TO FILING N.O.T

CONCRETE WASHOUT DETAIL 4
SCALE: N. T. S.



ON GRADE



LOW POINT

6 INLET PROTECTION DETAIL
SCALE: N.T.S.

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ARCHITECTS / PLANNERS - 5263 SOUTH COMMERCE DRIVE - SUITE 204 - MURRAY, UTAH 84107 - PHONE: 801.266.4669

DRAWN BY: JEFF JEPPSON
REVISIONS

EROSION CONTROL DETAIL SHEET
A NEW ADDITION FOR:
FORTEM TECHNOLOGIES
W.I.C.P. COMERCIAL PROPERTIES
1855 W 500 N
LINDON, UT 84042

PERMIT SET DOCUMENT

DATE: SEPT. 16, 2026
JOB NO.: 3499.000
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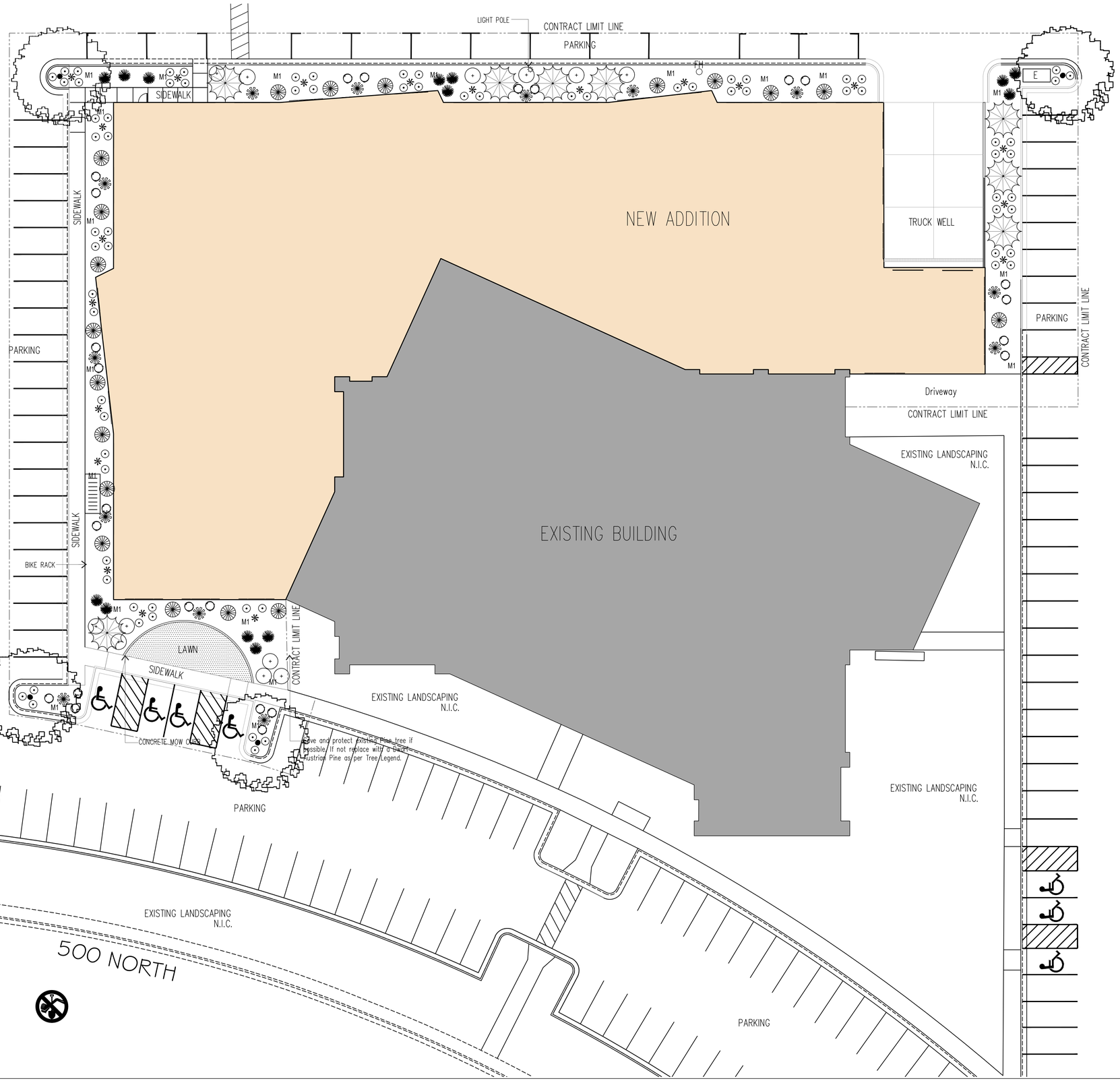
SHEET NO.
C6.1
PROJECT ID: E26-069
FILE NAME: PRJ-LT3
SCALE:

Blue Stakes of UTAH 811 — Bluestakes.org

LICENSED PROFESSIONAL ENGINEER — SCOTT D. THORSEN — No. 354291 — STATE OF UTAH



Landscape Notes

1. Topsoil: all imported topsoil must meet the contract documents specifications. Submit a recent, within 60 days, topsoil analysis on proposed imported topsoil for review and approval. M1 shrub areas to receive 12", if available, of stockpiled topsoils. M2 cobble rock areas do not need topsoil. Do not install any topsoil until the sub-grade has been checked and approved for proper depth by the landscape architect.

2. All landscape areas to be covered with various rock products mulch. See key on this drawing. All cobble rock to be installed three (3) inches deep minimum or deeper if necessary to completely cover the fabric. All cobble rock to be finish graded one (1) inch below adjacent concrete edges. Submit rock product samples for approval before installation. All crushed / cobble rock to be washed or removed of all dirt before delivery and installation.

3. Weed barrier fabric to be placed under all cobble and crushed rock mulch. Overlap 6" at joints and adhere to ground using 1" by 6" steel wire stakes placed 4' o.c. Use dewitt pro 5 or approved equal.

4. Free standing boulders to be sizes indicated on the drawings. boulders to be of a grey color. Match existing WPR boulders if possible. Geneva Rock Morgan pit may be a match. Submit a full sized sample for approval before use. See legend this sheet. Partially bury and place boulders so they have a natural looking appearance. boulders shall be the specified size minimum on all three sides, not just one.

5. Concrete mow curb installation, if any, is described on the site plan details and concrete specifications. Mow curbs between the two sizes of cobble rock are not required.

6. Make sure all landscape areas have positive drainage out of planters following finish grading as per civil grading and drainage drawings.

7. See details and specifications for additional information. make sure there is the latest version of all the drawings and applicable specifications are all on site at all times for employee use.

8. Plant backfill mix shall be composed of 3 parts of topsoil and 1 part of Soil Pep. Excavated soils may be used for backfill if it is topsoil. Otherwise, use imported topsoil for backfill. Deep water all planting pits immediately after planting.

9. Any existing landscape areas located out of the project limit area that are damaged shall be repaired at no cost to the owner.

Irrigation Notes

1. All new plant materials areas shall be receive new drip irrigation and be connected to and watered by the existing automatic irrigation system. Point source drip shall be used to water shrubs. Netafim drip double rings shall water trees.

2. Existing irrigation system must be kept operational during months where existing plant materials need watered.

Plant Marerials Legend

TREE LEGEND

ROYAL RED MAPLE - Acer platanoides 'Royal Red'	25 Gallon Container
DWARF AUSTRIAN PINE - Pinus leucodermis	6' Tall

SHRUB LEGEND

MUGO PINE - Pinus mugo 'Mughus'	1 Gallon Container
BLOOD TWIG DOGWOOD - Cornus sanguinea 'Midwinter Fire'	1 Gallon Container
CRIMSON PIGMY BARBERRY - Berberis thunbergii 'C.P.'	1 Gallon Container
DWARF BURNING BUSH - Euonymus alatus 'Compacta'	1 Gallon Container
COMPACT OREGON GRAPE - Mahonia aquifolium 'Compacta'	1 Gallon Container
BUFFALO JUNIPER - Juniperus H. 'Buffalo'	1 Gallon Container

GRASS & PERENNIAL LEGEND

FEATHER GRASS - Calamagrostis x acutiflora 'Karl Foerster'	1 Gallon Container
DAYLILLY - Hemerocallis x Stella D Oro	1 Gallon Container
DWARF FOUNTAIN GRASS - Pennisetum alopecuroides 'Hameln'	1 Gallon Container
HEARTLEAF BERGENIA - Bergenia cordifolia	1 Gallon Container

Landscape Objects Legend

Lawn	Kentucky Bluegrass - Local grown variety. Plant as Sod
M1	Southtown Cobble Rock - 1.5" Diameter Supplier: Utah Landscape in Nephi, Utah or Match existing Cobble Rock - Verify with Owner
	CONCRETE MOW CURB 6"X6" Formed & poured Concrete

1 LANDSCAPE PLAN
SCALE: 1" = 16'-0"

NORTH

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DRAWN BY: G MOSLEY
REVISIONS

LANDSCAPE PLAN

A NEW ADDITION FOR:
FORTEM TECHNOLOGIES
W.I.C.P. COMERCIAL PROPERTIES
LINDON, UT 84042
1855 W 500 N

PERMIT SET DOCUMENT

DATE: SEPT. 16, 2026
JOB NO.: 3499.000

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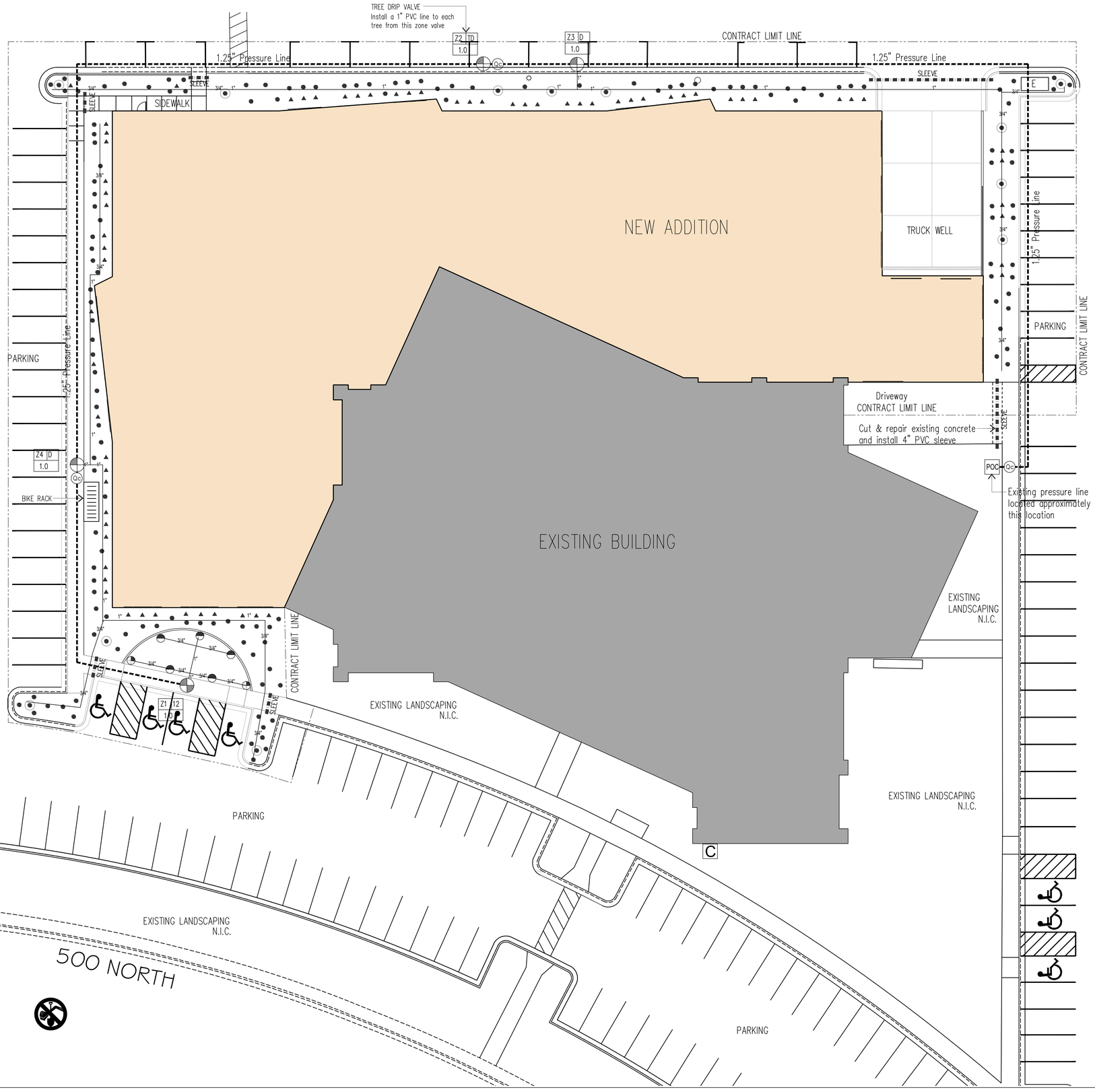

Irrigation Notes

1. New irrigation system to be integrated into irrigation system of the existing building landscape. There is an existing stop & waste valve, backflow devise and pressure line to be connected to. There is also an existing electric controller that new zones are to be connected to.

2. There is an existing Rainbird ESP-LWMEF controller. Add a 4 station expansion card to accommodate the new zone valves.

3. Existing irrigation system to be kept operational during installation of the new irrigation system.

4. The water connection is culinary water.

5. This plan is somewhat diagrammatic. System components may be shown in paved areas or out of landscape areas for plan clarity.

6. Locate all valves and boxes no more than 12" from curb or sidewalk for easy access and maintenance. Use tan valve boxes and lids when located in mulch areas, green in lawn areas.

7. Locate sleeves under all paved surfaces where lines or wire cross under. Sleeve size shall be 2 pipe sizes larger than the pipes. Control wires shall be placed in separate sleeves. Install more than one sleeve per location if necessary. Extend sleeves 6" beyond paved surface on each side.

8. Connect shrub and perennial drip emitter assemblies to nearest lateral line. The intent is for all shrubs and trees to receive appropriate emitters as per documents.

9. The shrubbry and the trees shall be on separate zone valves. The shrub zone valve piping is indicated on this drawing. The tree zone valve is shown on this drawing without piping. Install 1" lateral line pipe to all trees from this zone valve.

10. All control wires to be 14 gauge direct burial wire.

11. This system is designed to be purged of water with compressed air in the fall through a quick coupler valve. Do not install automatic drains.

12. Upon completion and approval of the irrigation system the Contractor shall provide the owner with a drawing indicating the exact locations of piping, wiring and valves.

13. All irrigation piping running through walls, under sidewalk, asphalt or other hard surfaces shall be sleeved prior to paving. It is the irrigation contractors responsibility to coordinate sleeving with concrete and paving contractors.

14. The Contractor shall provide all materials, labor and equipment required for the proper completion of all irrigation work as specified in the contract documents and shown on the drawings.

15. The Contractor shall install all irrigation material as as per plan details and notes.

16. Irrigation Contractor shall replace or repair irrigation components and accessories that fail in materials and workmanship within the specified warranty period. The warranty shall be twelve (12) months and shall begin after the project is accepted as final by the owner.

Irrigation Legend

CONTROLLER & VALVES

	DRIP VALVE ASSEMBLY	RAINBIRD	XCZ-100-PRB-COM
	LAWN VALVE ASSEMBLY	RAINBIRD	PES ELECTRIC VALVES (1")
Qc	QUICK COUPLER VALVE	RAINBIRD	33DRC - (3/4")
	GATE VALVE	NIPCO T-113	NON-RISING STEM GATE VALVE (Size Per Main Line)
C	CONTROLLER	RAINBIRD	RAINBIRD ESP-LWMEF (Existing)

HEADS & EMITTERS

	SHRUB DRIP EMITTER	RAINBIRD	XERI-BUG XBT-20PC 1/2" FPT 2.0 GPH Shrubs
	SHRUB DRIP EMITTER	RAINBIRD	XERI-BUG XBT-20PC 1/2" FPT 1.0 GPH Perennials
	TREE DRIP LINE	NETIFIM	DRIPLINE 0.9 GPH EMITTERS 12" O.C.
	PRS-SAM SPRAY HEAD	RAINBIRD	1804 U-12H
	PRS-SAM SPRAY HEAD	RAINBIRD	1804 U-12Q
	PRS-SAM SPRAY HEAD	RAINBIRD	1804 U-15Q
	PRS-SAM SPRAY HEAD	RAINBIRD	1804 U-15H

PIPE

SCH 40 PVC MAIN PRESSURE LINE & SUPPLY LINE - 1.25"

CLASS 200 PVC SLEEVE PIPE - 4"
Use everywhere piping & wires go under concrete or asphalt

SCH 40 PVC LATERAL LINE - 3/4" / 1.0"

KEY ZONE NO. Z1 SD 1.0 — TREE or SHRUB DRIP — VALVE SIZE

1 IRRIGATION PLAN
SCALE: 1" = 16'-0"

NORTH

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DESIGN earthwise
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DRAWN BY: G WOLFLEY
REVISIONS

STATE OF UTAH
GREGORY WOLFLEY
10374-2301
LANDSCAPE ARCHITECT

IRRIGATION PLAN

A NEW ADDITION FOR:
FORTEM TECHNOLOGIES
W.I.C.P. COMERCIAL PROPERTIES
1855 W 500 N
LINDON, UT 84042

PERMIT SET DOCUMENT

DATE: SEPT. 16, 2026
JOB NO.: 3499.000
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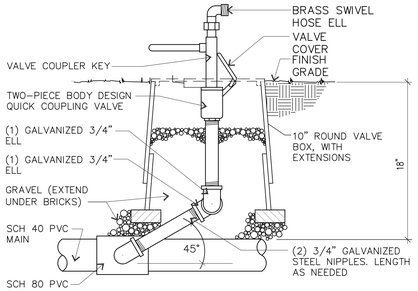

A QUICK COUPLING VALVE
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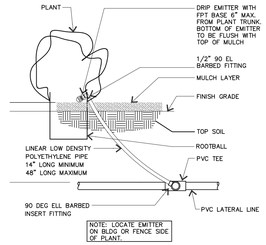
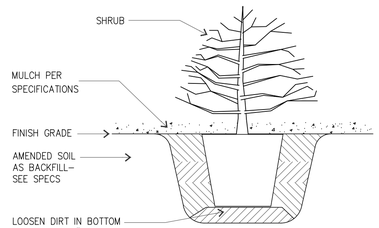
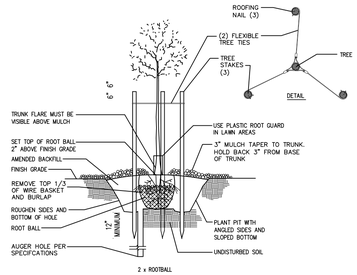


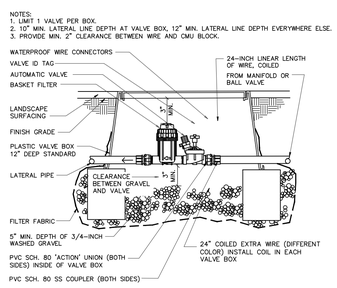
B DRIP EMITTER to ALL PLANTS EXCEPT TREES
1 1/2" = 1'-0"



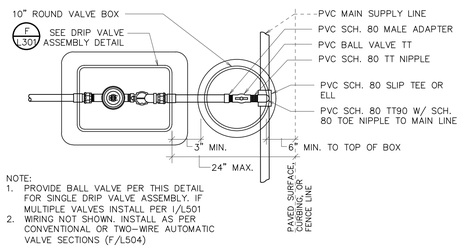
C SHRUB PLANTING
NOT TO SCALE



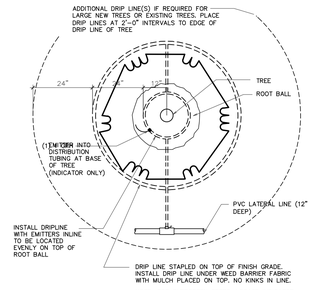
D TREE PLANTING AND STAKING
NOT TO SCALE



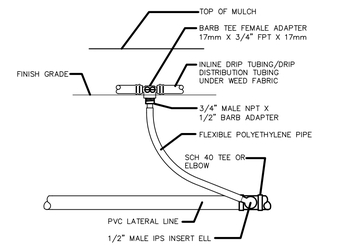
E DRIP VALVE ASSEMBLY-SECTION
NO SCALE



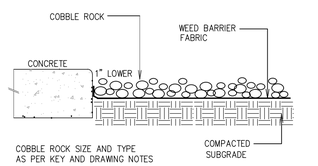
F DRIP VALVE ASSEMBLY
N.T.S.



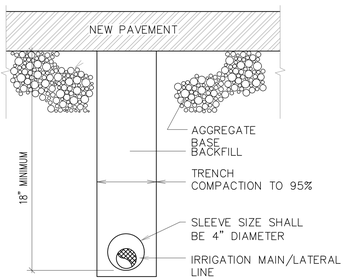
G TREE DRIP-PLAN VIEW (Planters)
NO SCALE



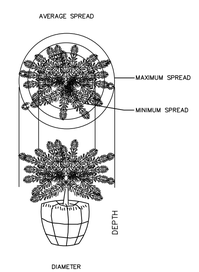
H PVC TO PE PIPE CONNECTION
NO SCALE



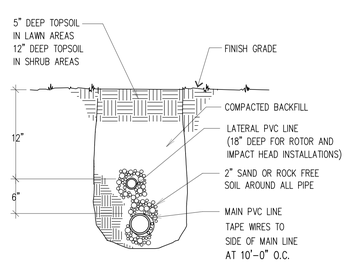
J COBBLE ROCK & FABRIC
N.T.S.



K SLEEVE UNDER PAVING
N.T.S.



TYPICAL MEASUREMENT FOR PROSTRATE TYPE PLANTS
NOT TO SCALE



M TRENCH SECTION
N.T.S.

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DESIGN earthWise LANDSCAPE · IRRIGATION · PLANNING
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DRAWN BY: G WOOLEY
REVISIONS

CONSTRUCTION DETAILS

A NEW ADDITION FOR:
FORTEM TECHNOLOGIES
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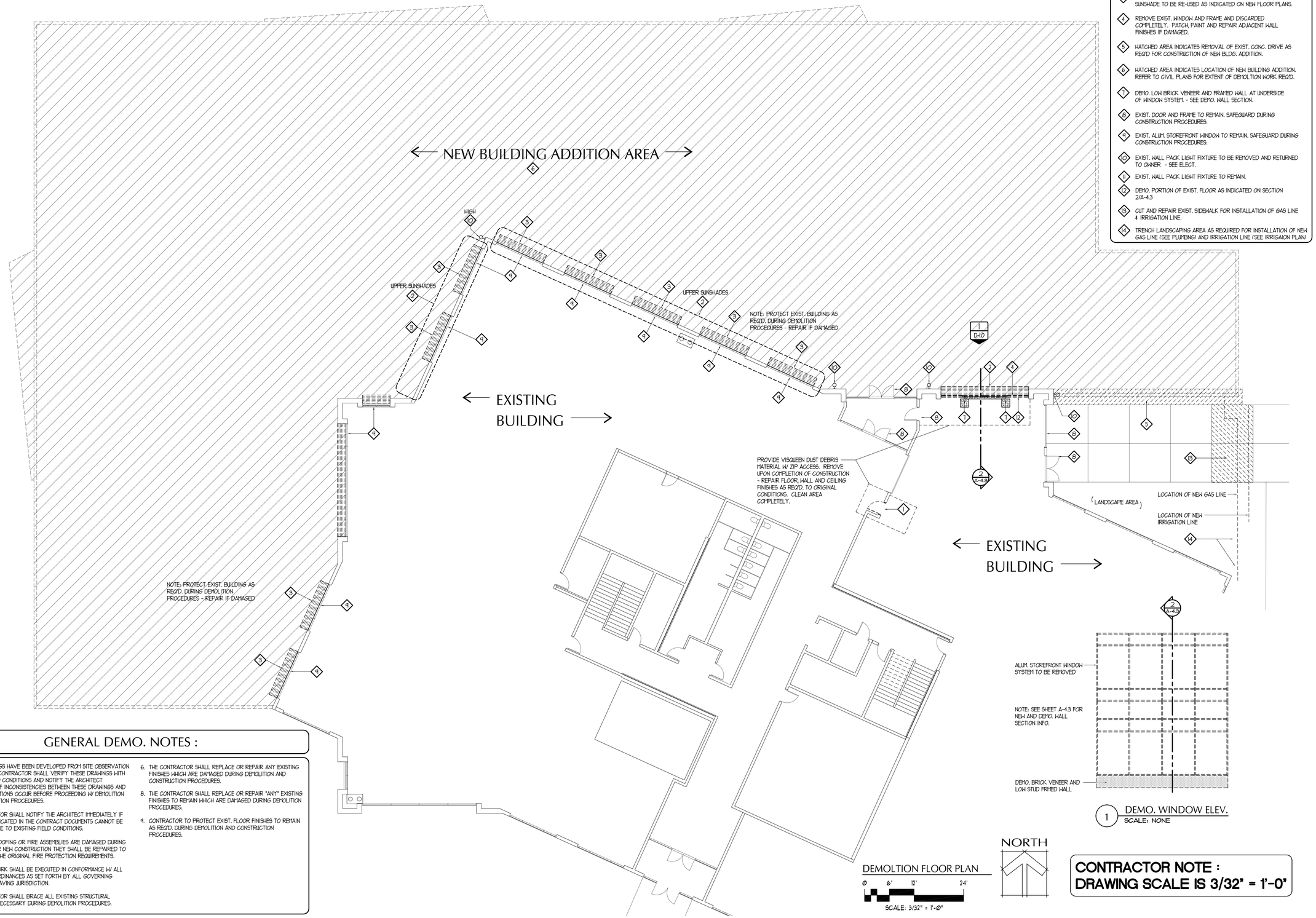
DEMOLITION NOTES :

1. EXIST. DOOR & FRAME TO BE REMOVED & RETURNED TO OWNER.
2. CAREFULLY REMOVE AND RETURN TO OWNER EXIST. SUNSHADE. REPAIR FRAME AS REQ'D.
3. CAREFULLY REMOVE EXIST. SUNSHADE. REPAIR FRAME AS REQ'D. SUNSHADE TO BE RE-USED AS INDICATED ON NEW FLOOR PLANS.
4. REMOVE EXIST. WINDOW AND FRAME AND DISCARDED COMPLETELY. PATCH, PAINT AND REPAIR ADJACENT WALL FINISHES IF DAMAGED.
5. HATCHED AREA INDICATES REMOVAL OF EXIST. CONC. DRIVE AS REQ'D FOR CONSTRUCTION OF NEW BLDG. ADDITION.
6. HATCHED AREA INDICATES LOCATION OF NEW BUILDING ADDITION. REFER TO CIVIL PLANS FOR EXTENT OF DEMOLITION WORK REQ'D.
7. DEMO. LOW BRICK VENEER AND FRAMED WALL AT UNDERSIDE OF WINDOW SYSTEM - SEE DEMO. WALL SECTION.
8. EXIST. DOOR AND FRAME TO REMAIN. SAFEGUARD DURING CONSTRUCTION PROCEDURES.
9. EXIST. ALUM. STOREFRONT WINDOW TO REMAIN. SAFEGUARD DURING CONSTRUCTION PROCEDURES.
10. EXIST. WALL PACK LIGHT FIXTURE TO BE REMOVED AND RETURNED TO OWNER - SEE ELECT.
11. EXIST. WALL PACK LIGHT FIXTURE TO REMAIN.
12. DEMO. PORTION OF EXIST. FLOOR AS INDICATED ON SECTION 2/A-4.3
13. CUT AND REPAIR EXIST. SIDEWALK FOR INSTALLATION OF GAS LINE & IRRIGATION LINE.
14. TRENCH LANDSCAPING AREA AS REQUIRED FOR INSTALLATION OF NEW GAS LINE (SEE PLUMBING) AND IRRIGATION LINE (SEE IRRIGAION PLAN)



1 DEMO. WINDOW ELEV.
SCALE: NONE

DEMOLTION FLOOR PLAN
0 6' 12' 24'
SCALE: 3/32" = 1'-0"

CONTRACTOR NOTE :
DRAWING SCALE IS 3/32" = 1'-0"

GENERAL DEMO. NOTES :

1. THESE DRAWINGS HAVE BEEN DEVELOPED FROM SITE OBSERVATION STUDIES. THE CONTRACTOR SHALL VERIFY THESE DRAWINGS WITH EXISTING FIELD CONDITIONS AND NOTIFY THE ARCHITECT IMMEDIATELY OF INCONSISTENCIES BETWEEN THESE DRAWINGS AND ACTUAL CONDITIONS OCCUR BEFORE PROCEEDING W/ DEMOLITION OR CONSTRUCTION PROCEDURES.
2. THE CONTRACTOR SHALL NOTIFY THE ARCHITECT IMMEDIATELY IF ANY WORK INDICATED IN THE CONTRACT DOCUMENTS CANNOT BE PERFORMED DUE TO EXISTING FIELD CONDITIONS.
3. IF ANY FIREPROOFING OR FIRE ASSEMBLIES ARE DAMAGED DURING DEMOLITION OR NEW CONSTRUCTION THEY SHALL BE REPAIRED TO CONFORM TO THE ORIGINAL FIRE PROTECTION REQUIREMENTS.
4. DEMOLITION WORK SHALL BE EXECUTED IN CONFORMANCE W/ ALL CODES AND ORDINANCES AS SET FORTH BY ALL GOVERNING AUTHORITIES HAVING JURISDICTION.
5. THE CONTRACTOR SHALL BRACE ALL EXISTING STRUCTURAL ELEMENTS AS NECESSARY DURING DEMOLITION PROCEDURES.
6. THE CONTRACTOR SHALL REPLACE OR REPAIR ANY EXISTING FINISHES WHICH ARE DAMAGED DURING DEMOLITION AND CONSTRUCTION PROCEDURES.
8. THE CONTRACTOR SHALL REPLACE OR REPAIR "ANY" EXISTING FINISHES TO REMAIN WHICH ARE DAMAGED DURING DEMOLITION PROCEDURES.
9. CONTRACTOR TO PROTECT EXIST. FLOOR FINISHES TO REMAIN AS REQ'D. DURING DEMOLITION AND CONSTRUCTION PROCEDURES.

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PGA&W ARCHITECTS
ARCHITECTS / PLANNERS - 5363 SOUTH COMMERCE DRIVE - SUITE 204 - MURRAY, UTAH 84107 - PHONE: 801.266.4691

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JEFFREY S. JEPPSON
6301
LICENSED ARCHITECT

DEMOLITION FLOOR PLAN
A NEW ADDITION FOR:
FORTEM TECHNOLOGIES
W.I.C.P. COMERCIAL PROPERTIES
1855 W 500 N
LINDON, UT 84042

PERMIT SET DOCUMENT
DATE: SEPT. 16, 2026
JOB NO.: 3499.000
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By: Jeff Jeppson; Sep 16, 2026 - 4:48pm
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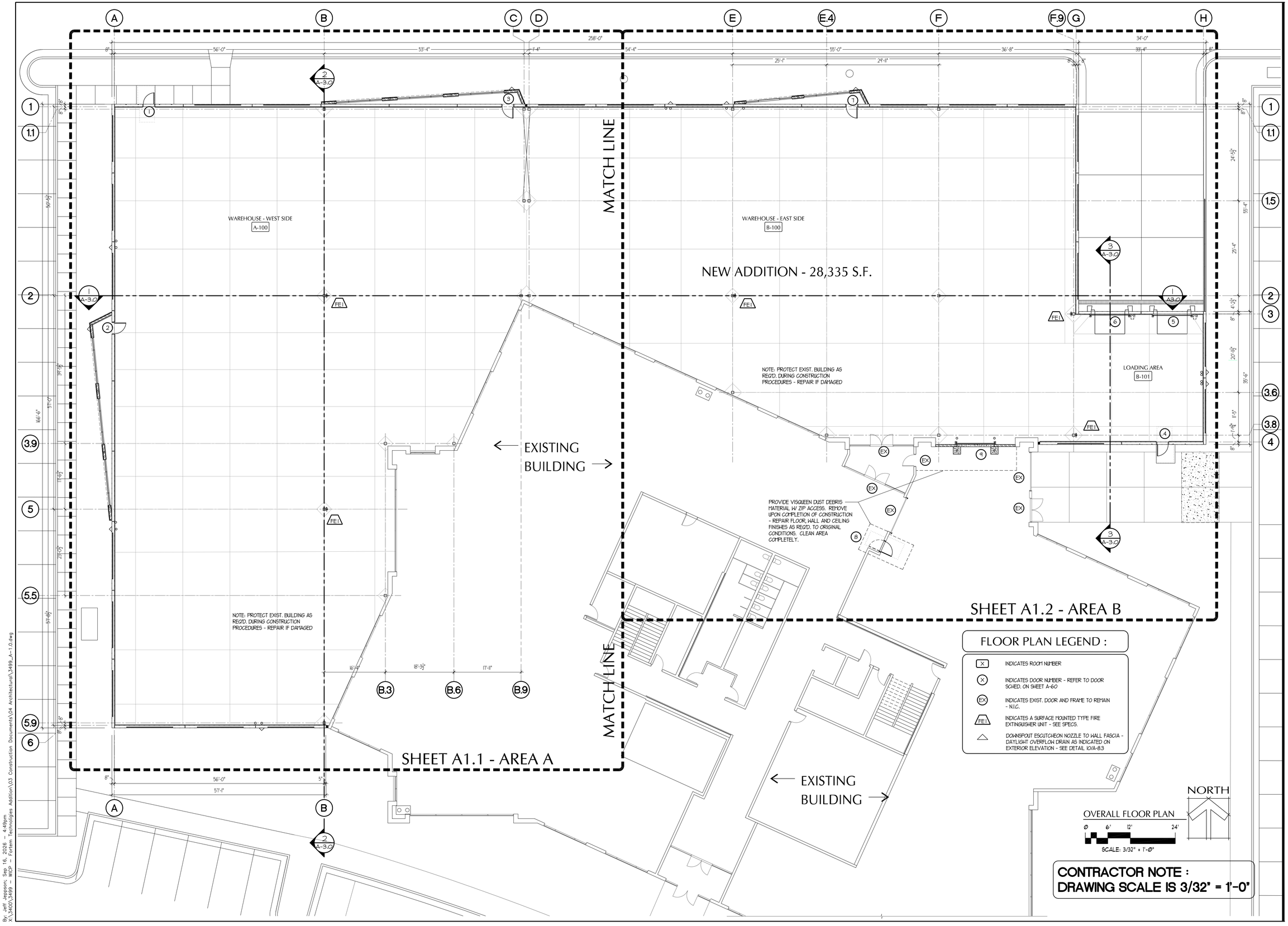

By: Jeff Jeppson; Sep 16, 2026 - 4:49pm
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WICP COMMERCIAL PROPERTIES

PGA&W ARCHITECTS
ARCHITECTS / PLANNERS • 5263 SOUTH COMMERCE DRIVE - SUITE 204 - MURRAY, UTAH 84107 - PHONE: 801.266.4669

DRAWN BY: JEFF JEPPSON
REVISIONS

STATE OF UTAH
LICENSED ARCHITECT

NEW OVERALL FLOOR PLAN
A NEW ADDITION FOR:
FORTEM TECHNOLOGIES
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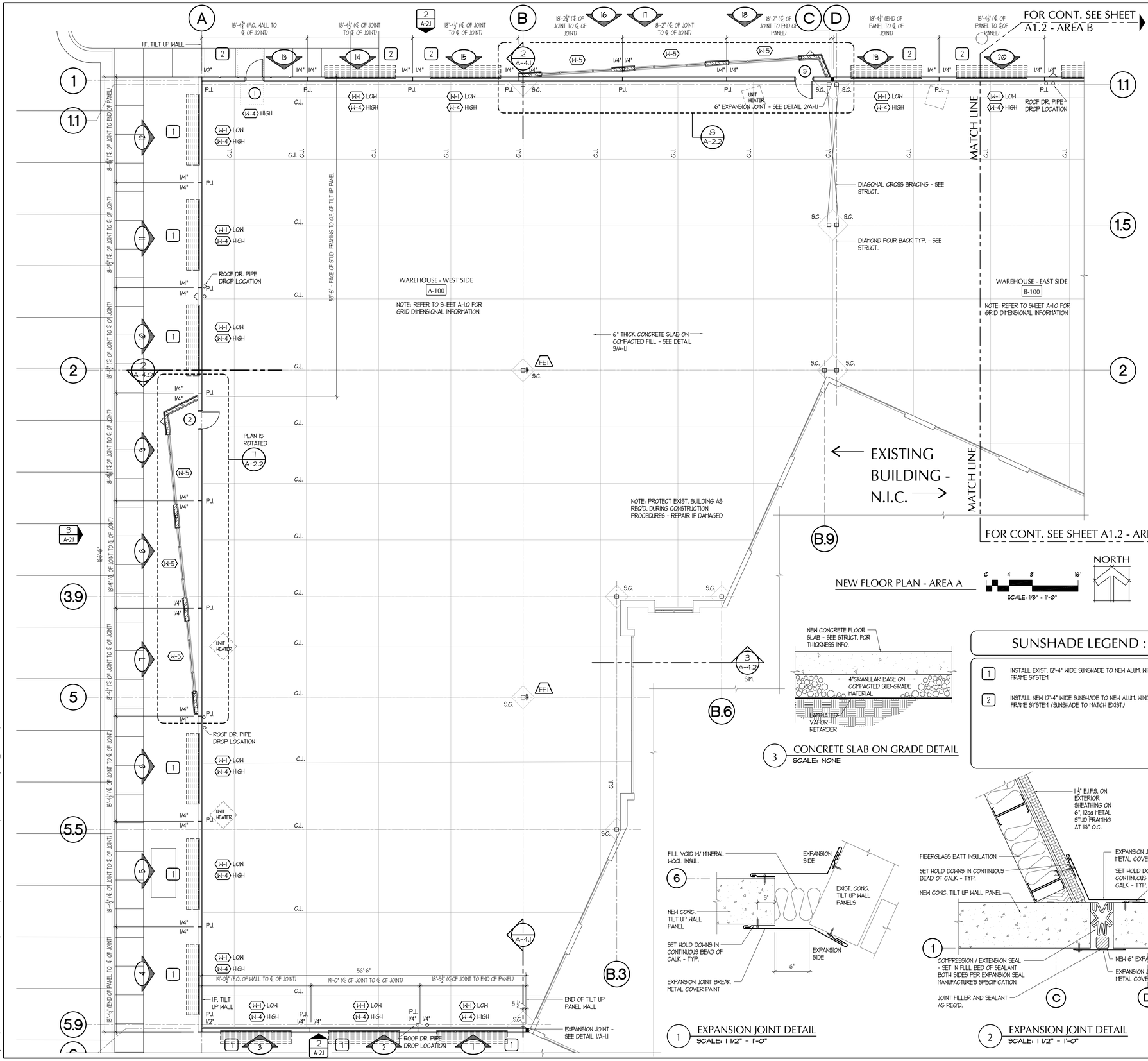


FLOOR PLAN LEGEND :

- XX — INDICATES TILT UP PANEL ELEVATION REFERENCE MARKER - SEE EXTERIOR ELEVATIONS AND STRUCTURAL DRAWINGS
- X / X — INDICATES EXTERIOR ELEVATION REFERENCE MARKER
- X — INDICATES ROOM NUMBER
- (X) — INDICATES DOOR NUMBER - REFER TO DOOR SCHEDULE ON SHEET A-6.0
- (EX) — INDICATES EXIST. DOOR AND FRAME TO REMAIN - N.I.C.
- FE — INDICATES A SURFACE MOUNTED TYPE FIRE EXTINGUISHER UNIT - SEE SPECS.
- W-X — INDICATES WINDOW TYPE - REFER TO WINDOW TYPES ON SHEET A-6.0
- S.C. — INDICATES STEEL COLUMN - SEE STRUCT.
- N.I.C. — INDICATES - "NOT IN CONTRACT"
- P.J. — INDICATES CONCRETE TILT UP PANEL JOINT
- C.J. — INDICATES SLAB CONTROL JOINT - SEE STRUCTURAL DRAWINGS
- DOWNSPOUT ESCUTCHEON NOZZLE TO WALL FASCIA - DAYLIGHT OVERFLOW DRAIN AS INDICATED ON EXTERIOR ELEVATION - SEE DETAIL 10/A-8.3

GENERAL NOTES :

1. THESE DRAWINGS HAVE BEEN DEVELOPED FROM RECORD DRAWINGS WHICH MAY NOT REFLECT ACTUAL FIELD CONDITIONS. THE CONTRACTOR SHALL VERIFY THESE DRAWINGS WITH EXISTING FIELD CONDITIONS AND NOTIFY THE ARCHITECT IMMEDIATELY OF INCONSISTENCIES BETWEEN THESE DRAWINGS AND ACTUAL CONDITIONS BEFORE PROCEEDING WITH DEMOLITION OR CONSTRUCTION.

2. THE CONTRACTOR SHALL NOTIFY THE ARCHITECT IMMEDIATELY IF ANY WORK INDICATED IN THE CONTRACT DOCUMENTS CANNOT BE PERFORMED DUE TO EXISTING FIELD CONDITIONS.

3. IF ANY FIREPROOFING OR FIRE ASSEMBLIES ARE DAMAGED DURING DEMOLITION OR CONSTRUCTION, THEY SHALL BE REPAIRED TO CONFORM TO THE ORIGINAL FIRE PROTECTION REQUIREMENTS.

4. CONTRACTOR SHALL MAINTAIN EXIT EGRESS FOR ALL OCCUPIED AREAS OF THE BUILDING THROUGHOUT CONSTRUCTION.

5. CONTRACTOR SHALL REPLACE OR REPAIR ANY EXISTING TO REMAIN FINISHES WHICH ARE DAMAGED DURING DEMOLITION / CONSTRUCTION PROCEDURES.

6. NO WORK SHALL BE PERFORMED W/ THE FIRE ALARM AND / OR FIRE PROTECTIVE SYSTEM PRIOR TO NOTIFICATION TO THE OWNER. CONTRACTOR SHALL BE HELD LIABLE IF SYSTEM IS ACTIVATED WITHOUT THE OWNERS AUTHORIZATION. PROVIDE 48 HOUR NOTICE TO THE OWNER PRIOR TO WORK.

7. DO NOT SCALE DRAWINGS - CONTR. SHALL VERIFY ALL DIMENSIONS AND CONDITIONS BEFORE BEGINNING WORK AND SHALL REPORT TO THE ARCHITECT IF ANY DISCREPANCIES BEFORE BEGINNING WORK.

8. ALL WORK AND MATERIALS SHALL COMPLY W/ CURRENT INTERNATIONAL BUILDING CODE AND ALL OTHER APPLICABLE CODES.

9. FOR THE PURPOSE OF THE DWGS. & SPECS, THE TERM "BY OWNER/BY TENANT" (B.O.) SHALL MEAN ITEM PROVIDED BY OWNER, INSTALLED BY CONTR. AS PART OF THE WORK OF THIS CONTRACT. THE ABBREV. N.I.C. (NOT IN CONTRACT) SHALL MEAN ITEM PROVIDED AND INSTALLED BY OWNER/TENANT UNDER SEPARATE CONTRACT.

10. A LEGIBLE FULL SET OF APPROVED PLANS AND DOCUMENTS IS REQUIRED TO BE ON SITE FOR INSPECTIONS PER SLC

11. CONSTRUCTION EQUIPMENT AND MATERIALS SHALL BE STORED AND PLACED SO AS NOT TO ENDANGER THE PUBLIC, THE WORKERS OR ADJOINING PROPERTY FOR THE DURATION OF THE CONSTRUCTION PROJECT PER IBC 3301.2.

12. REQUIRED EXITS, EXISTING STRUCTURAL ELEMENTS, FIRE PROTECTION DEVICES AND SANITARY SAFEGUARDS SHALL BE MAINTAINED AT ALL TIMES DURING ALTERATIONS, REPAIRS OR ADDITIONS TO ANY BUILDING OR STRUCTURE PER IBC 3302.1 WITH THE FOLLOWING EXCEPTIONS:
   A. WHERE SUCH REQUIRED ELEMENTS OR DEVICES ARE BEING ALTERED OR REPAIRED, ADEQUATE SUBSTITUTE PROVISIONS SHALL BE MADE.
   B. MAINTENANCE OF SUCH ELEMENTS AND DEVICES IS NOT REQUIRED WHERE THE EXISTING BUILDING IS NOT OCCUPIED.

13. STRUCTURES UNDER CONSTRUCTION, ALTERATION OR DEMOLITION SHALL BE PROVIDED W/ NOT FEWER THAN ONE APPROVED PORTABLE FIRE EXTINGUISHER IN ACCORDANCE WITH IBC SECTION 906 AND SIZED FOR NOT LESS THAN ORDINARY HAZARDS AS FOLLOWS PER IBC 3309.1:
   A. AT EACH STAIRWAY ON ALL FLOOR LEVELS WHERE COMBUSTIBLE MATERIALS HAVE ACCUMULATED.
   B. IN EVERY STORAGE AND CONSTRUCTION SHED.
   C. ADDITIONAL PORTABLE FIRE EXTINGUISHERS SHALL BE PROVIDED WHERE SPECIAL HAZARDS EXIST, SUCH AS THE STORAGE AND USE OF FLAMMABLE AND COMBUSTIBLE LIQUIDS

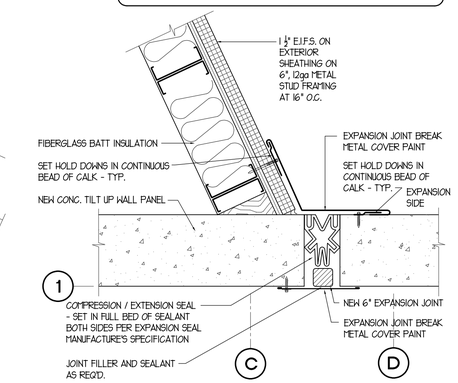
14. MEANS OF EGRESS AND REQUIRED ACCESSIBLE MEANS OF EGRESS SHALL BE MAINTAINED AT ALL TIMES DURING CONSTRUCTION, DEMOLITION, REMODELING OR ALTERATIONS AND ADDITIONS TO ANY BUILDING PER IBC 3310.2.

SUNSHADE LEGEND :

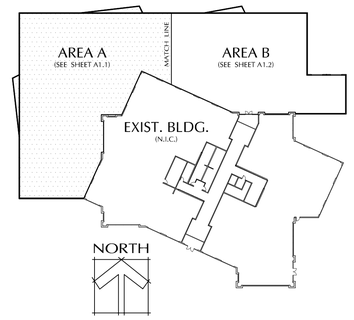
1. INSTALL EXIST. 12'-4" WIDE SUNSHADE TO NEW ALUM. WINDOW FRAME SYSTEM.
2. INSTALL NEW 12'-4" WIDE SUNSHADE TO NEW ALUM. WINDOW FRAME SYSTEM. (SUNSHADE TO MATCH EXIST.)

3 CONCRETE SLAB ON GRADE DETAIL
SCALE: NONE

1 EXPANSION JOINT DETAIL
SCALE: 1 1/2" = 1'-0"



2 EXPANSION JOINT DETAIL
SCALE: 1 1/2" = 1'-0"



KEY REFERENCE PLAN

PGA&W ARCHITECTS
ARCHITECTS / PLANNERS
WICP
COMMERCIAL PROPERTIES
PGA&W ARCHITECTS
ARCHITECTS / PLANNERS - 5363 SOUTH COMMERCE DRIVE - SUITE 204 - MURRAY, UTAH 84107 - PHONE: 801.266.4691
DRAWN BY: JEFF JEPPSON
REVISIONS
STATE OF UTAH
JEFFREY S. JEPPSON
6301
LICENSED ARCHITECT

NEW FLOOR PLAN - AREA A
A NEW ADDITION FOR:
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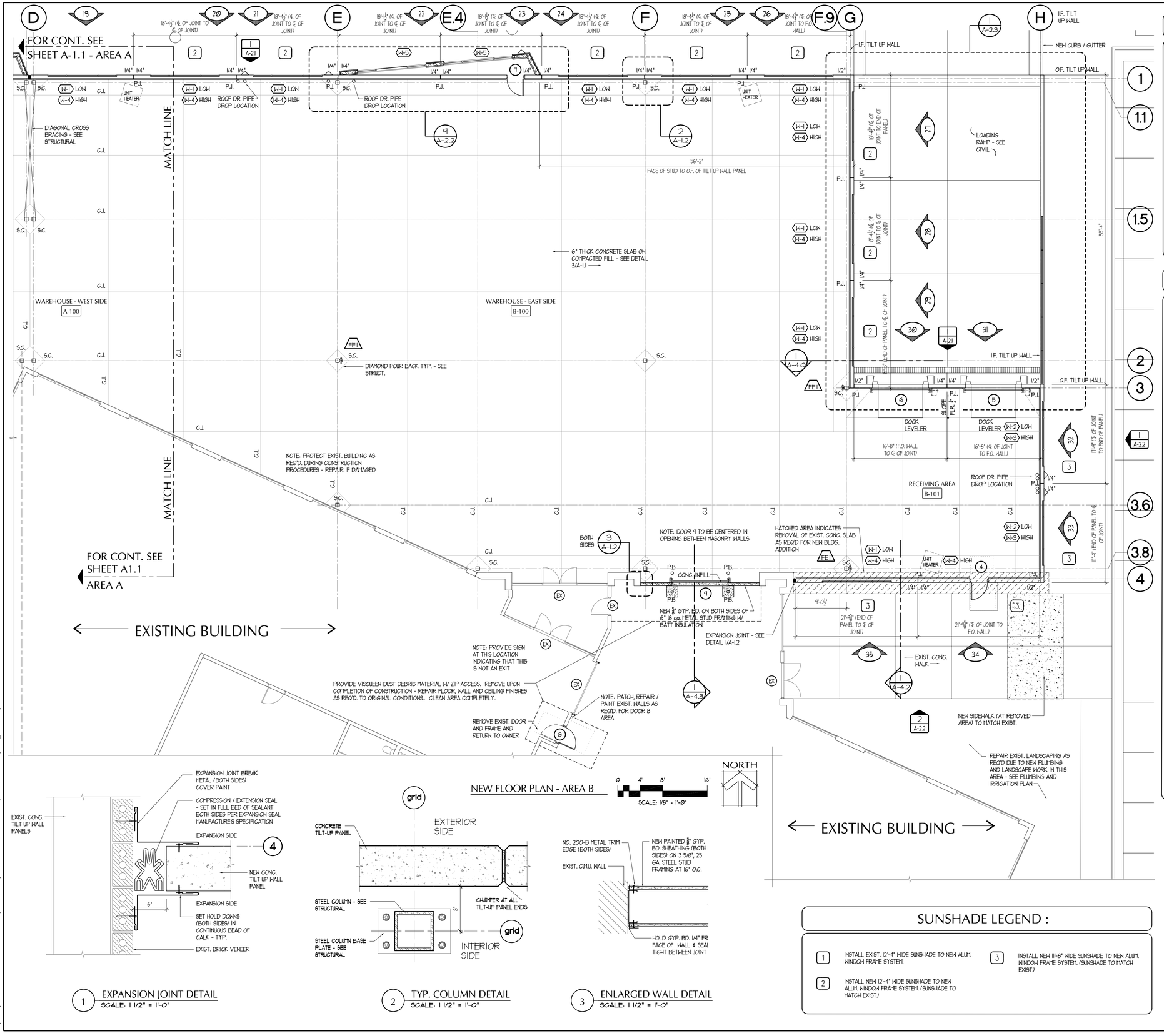

1 EXPANSION JOINT DETAIL
SCALE: 1 1/2" = 1'-0"

2 TYP. COLUMN DETAIL
SCALE: 1 1/2" = 1'-0"

3 ENLARGED WALL DETAIL
SCALE: 1 1/2" = 1'-0"

SUNSHADE LEGEND :

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2. INSTALL NEW 12'-4" WIDE SUNSHADE TO NEW ALUM. WINDOW FRAME SYSTEM. (SUNSHADE TO MATCH EXIST.)
3. INSTALL NEW 11'-8" WIDE SUNSHADE TO NEW ALUM. WINDOW FRAME SYSTEM. (SUNSHADE TO MATCH EXIST.)

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- P.J. — INDICATES CONCRETE TILT UP PANEL JOINT
- C.J. — INDICATES SLAB CONTROL JOINT - SEE STRUCTURAL DRAWINGS
- P.B. — INDICATES CONC. FILLED PTD. STEEL PIPE BOLLARD - SEE DETAILS 6.1/T-2.0
- DOWNSPOUT ESCUTCHEON NOZZLE TO WALL FASCIA - DAYLIGHT OVERFLOW DRAIN AS INDICATED ON EXTERIOR ELEVATION - SEE DETAIL 10/A-8.3

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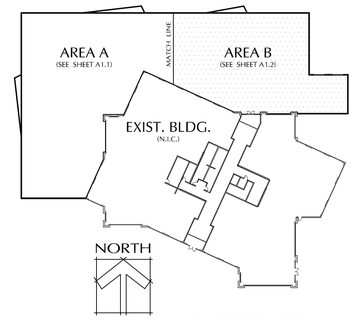
15. ALL EXITS ARE TO BE OPENABLE FROM INSIDE WITHOUT THE USE OF A KEY OR SPECIAL KNOWLEDGE.



KEY REFERENCE PLAN

PGA&W ARCHITECTS
ARCHITECTS / PLANNERS
WICP COMMERCIAL PROPERTIES
PGA&W ARCHITECTS
ARCHITECTS / PLANNERS - 5383 SOUTH COTTONWOOD DRIVE - SUITE 204 - MURRAY, UTAH 84107 - PHONE: 801.266.4691

DRAWN BY: JEFF JEPPSON
REVISIONS

STATE OF UTAH — JEFFREY R. JEPPSON — 8321 — LICENSED ARCHITECT

NEW FLOOR PLAN AREA B

A NEW ADDITION FOR:
FORTEM TECHNOLOGIES
W.I.C.P. COMERCIAL PROPERTIES
1855 W 500 N
LINDON, UT 84042

PERMIT SET DOCUMENT
DATE: SEPT. 16, 2026
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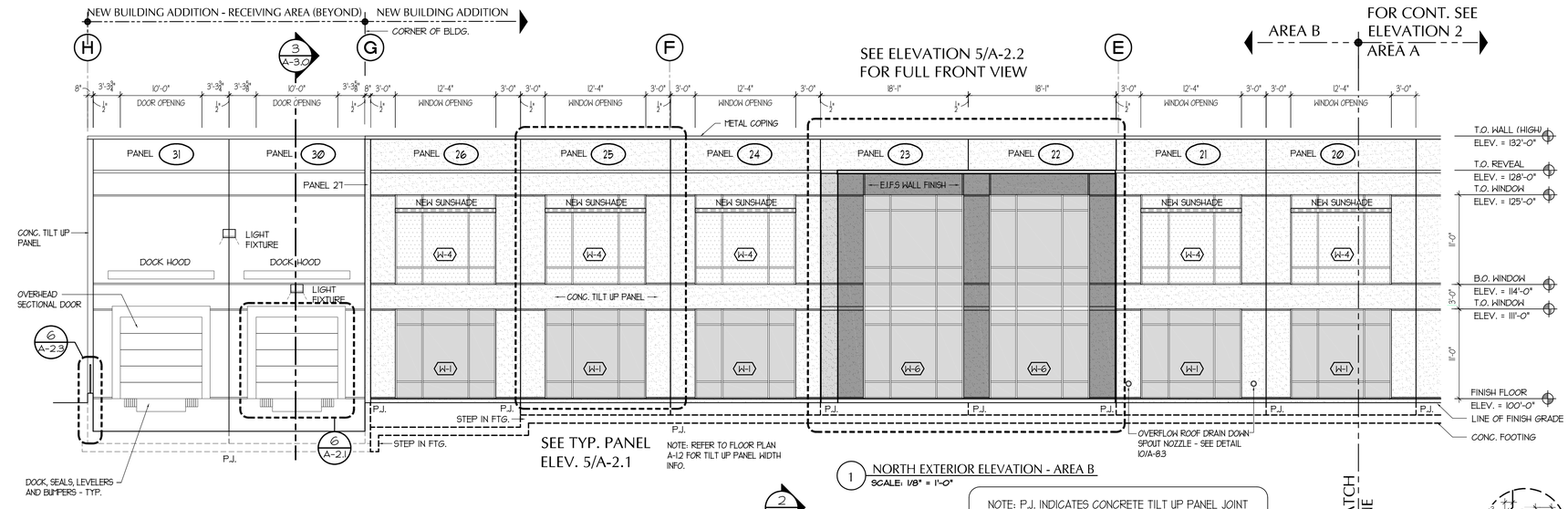
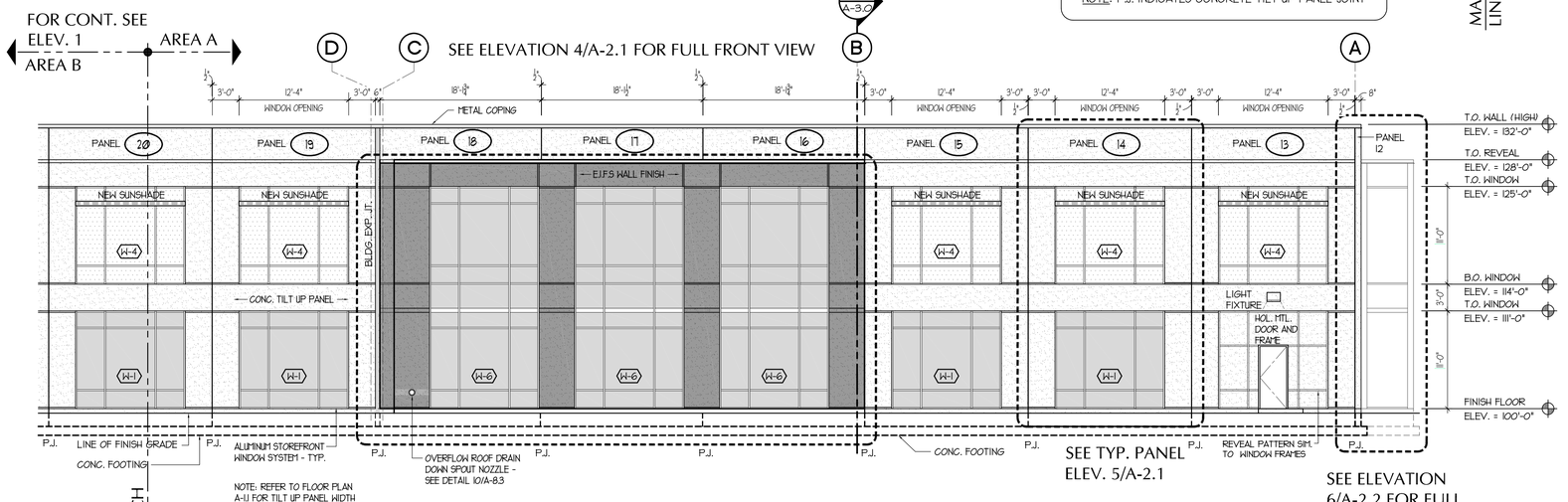


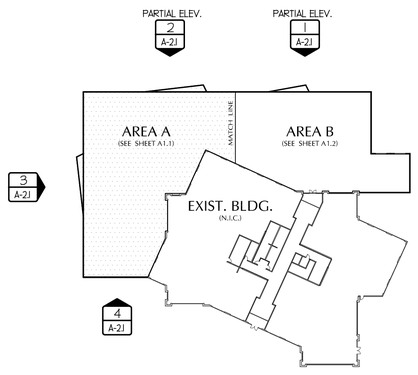
1 NORTH EXTERIOR ELEVATION - AREA B
SCALE: 1/8" = 1'-0"

NOTE: P.J. INDICATES CONCRETE TILT UP PANEL JOINT



2 NORTH EXTERIOR ELEVATION - AREA A
SCALE: 1/8" = 1'-0"

NOTE: P.J. INDICATES CONCRETE TILT UP PANEL JOINT



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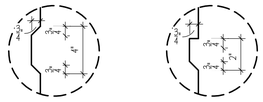
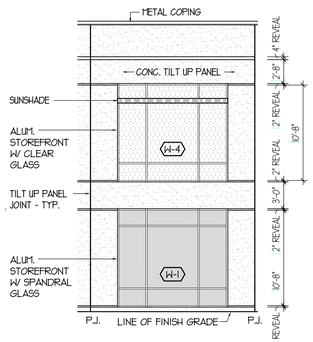
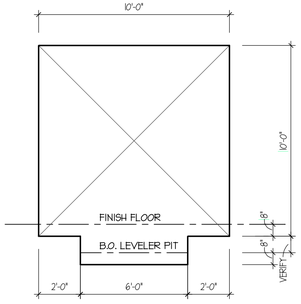


4" TYP. REVEAL

2" TYP. REVEAL

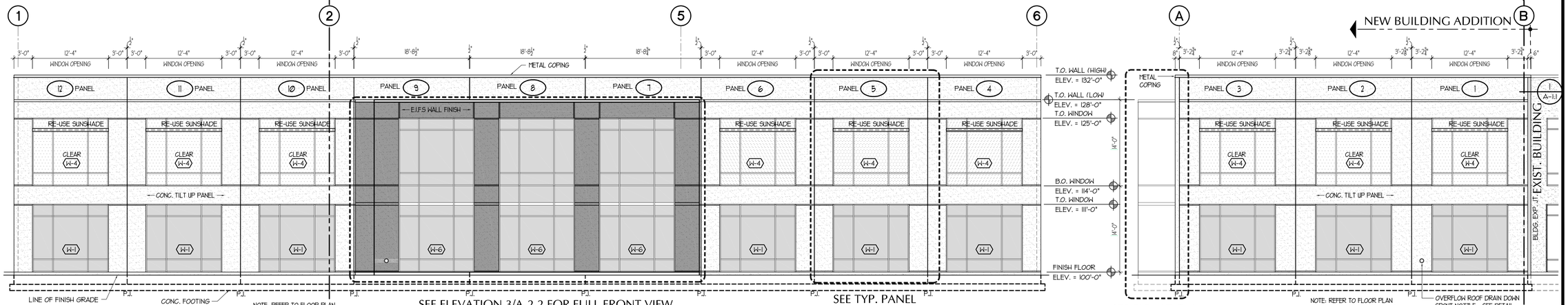


5 TYP. PANEL ELEVATION
SCALE: 1/8" = 1'-0"



NOTE:
VERIFY ALL OPENINGS WITH MANUFACTURERS REQUIREMENTS

6 LEVELER OPENING DETAIL
SCALE: 1/8" = 1'-0"



3 WEST EXTERIOR ELEVATION - AREA A
SCALE: 1/8" = 1'-0"

NOTE: P.J. INDICATES CONCRETE TILT UP PANEL JOINT

4 SOUTH EXTERIOR ELEVATION - AREA A
SCALE: 1/8" = 1'-0"

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REVISIONS

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JEFFREY R. JEPPSON
8351
LICENSED ARCHITECT

BUILDING EXTERIOR ELEVATIONS
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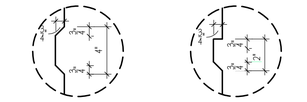
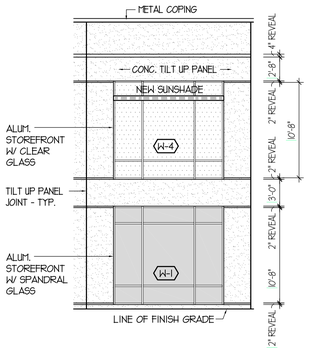
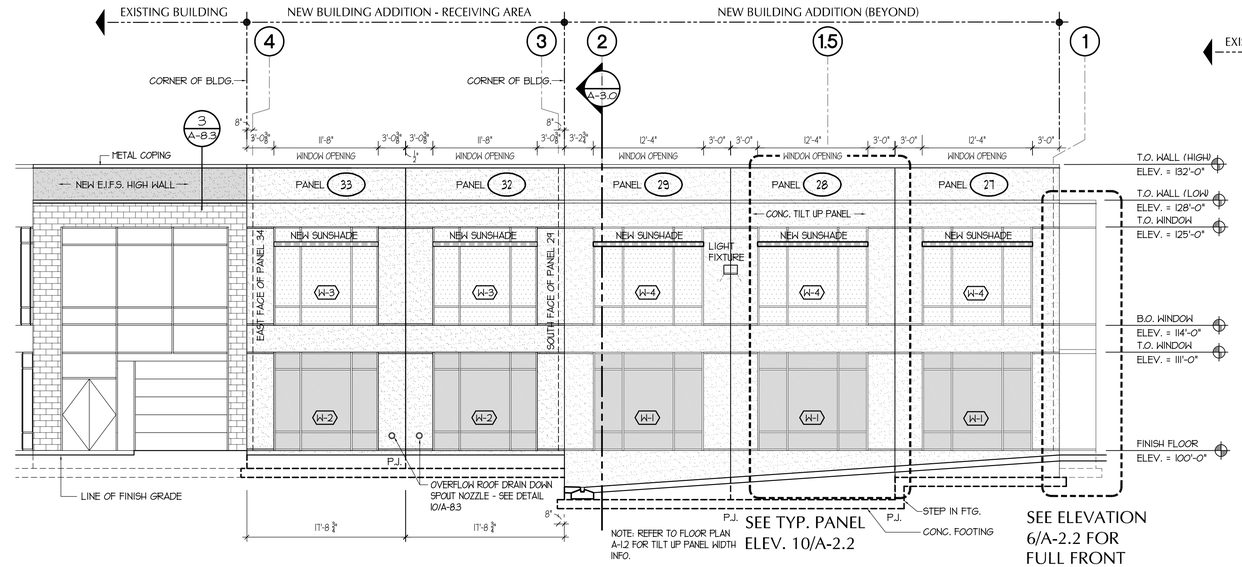


4" TYP. REVEAL 2" TYP. REVEAL

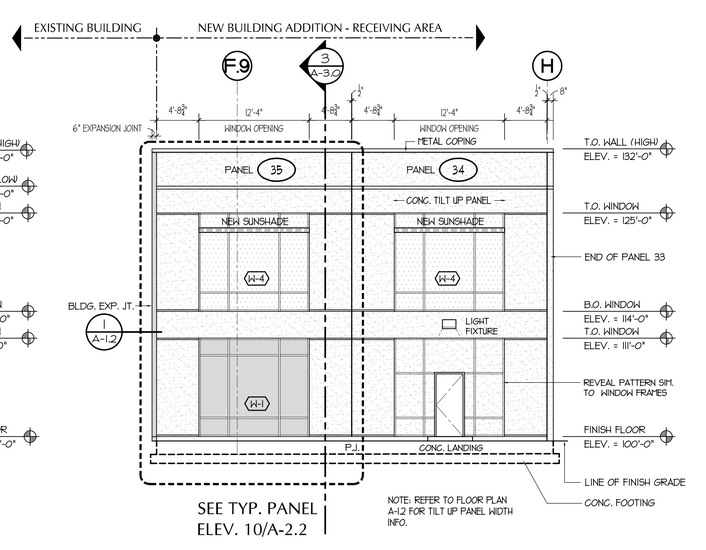


10 TYP. PANEL ELEVATION
SCALE: 1/8" = 1'-0"



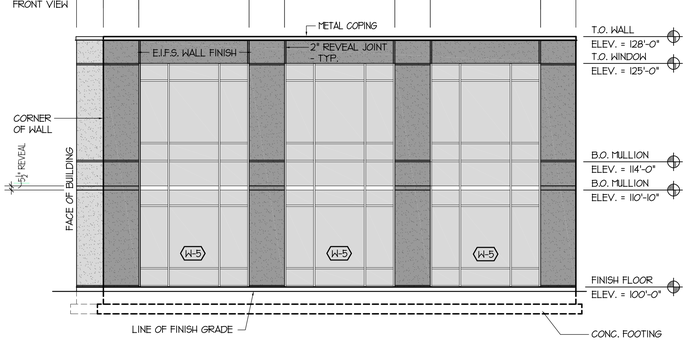
1 EAST EXTERIOR ELEVATION - AREA B
SCALE: 1/8" = 1'-0"

NOTE: P.J. INDICATES CONCRETE TILT UP PANEL JOINT

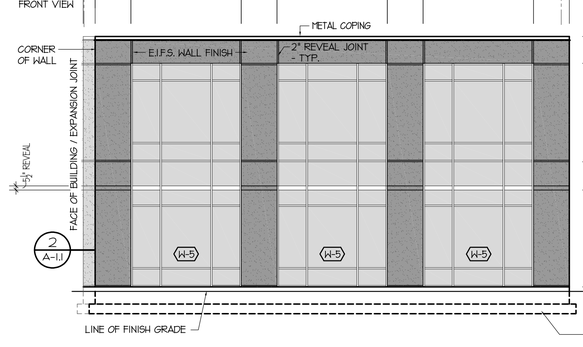


2 SOUTH EXTERIOR ELEVATION - AREA B
SCALE: 1/8" = 1'-0"

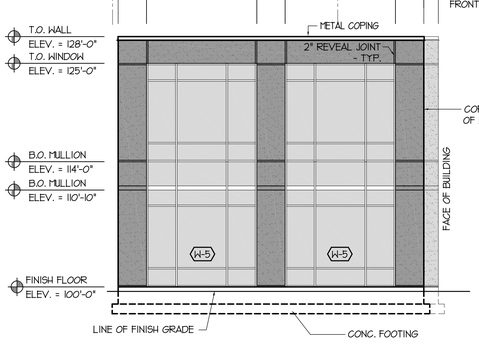
NOTE: P.J. INDICATES CONCRETE TILT UP PANEL JOINT



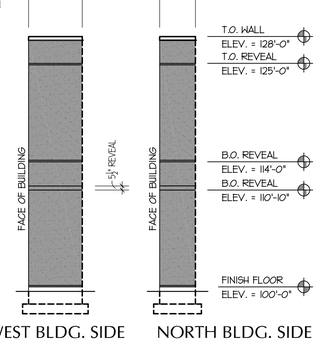
3 BUILDING EXTENSION FULL FRONT VIEW - WEST SIDE - AREA A
SCALE: 1/8" = 1'-0"



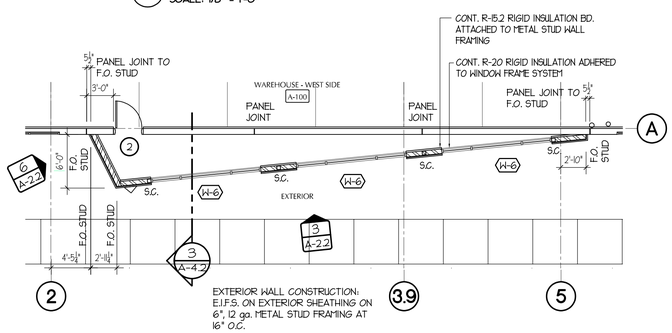
4 BUILDING EXTENSION FULL FRONT VIEW - NORTH SIDE - AREA A
SCALE: 1/8" = 1'-0"



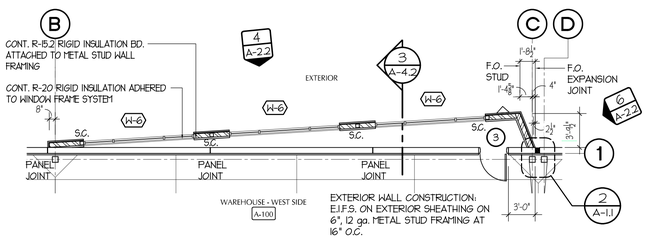
5 BUILDING EXTENSION FULL FRONT VIEW - NORTH SIDE - AREA B
SCALE: 1/8" = 1'-0"



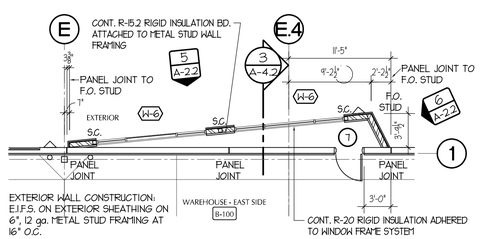
6 BUILDING EXTENSION TYP. SIDE VIEWS
SCALE: 1/8" = 1'-0"



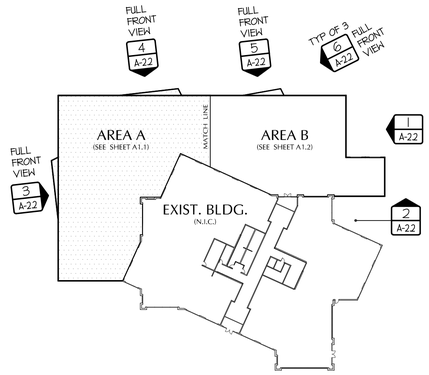
7 PARTIAL FLOOR PLAN - WEST SIDE - AREA A
SCALE: 1/8" = 1'-0"



8 PARTIAL FLOOR PLAN - NORTH SIDE - AREA A
SCALE: 1/8" = 1'-0"



9 PARTIAL FLOOR PLAN - NORTH SIDE - AREA B
SCALE: 1/8" = 1'-0"



KEY REFERENCE PLAN

NORTH
0 5' 10' 20'
SCALE: 1/8" = 1'-0"

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DRAWN BY: JEFF JEPPSON
REVISIONS

STATE OF UTAH
JEFFREY R. JEPPSON
6301
LICENSED ARCHITECT

BUILDING EXTERIOR ELEVATIONS
A NEW ADDITION FOR:
FORTEM TECHNOLOGIES
W.I.C.P. COMERCIAL PROPERTIES
1855 W 500 N
LINDON, UT 84042

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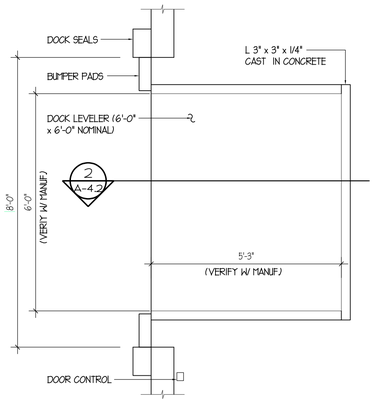
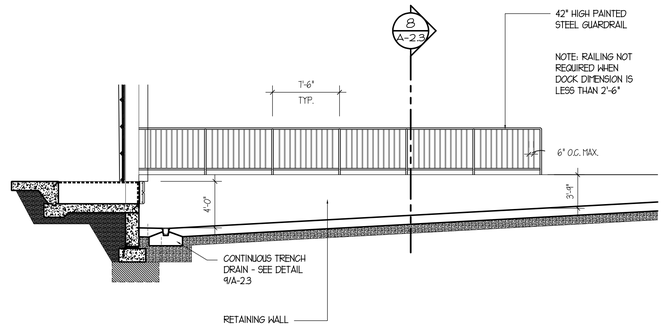
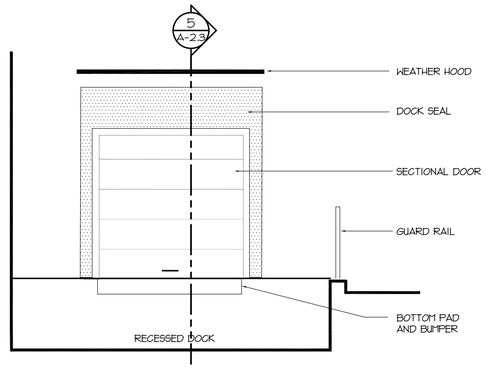


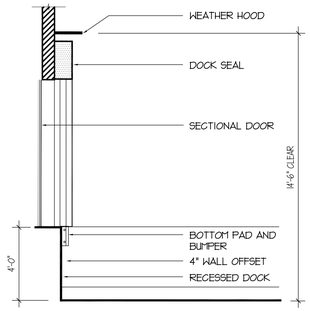
2 ENLARGED LEVELER PIT DETAIL
SCALE: NONE



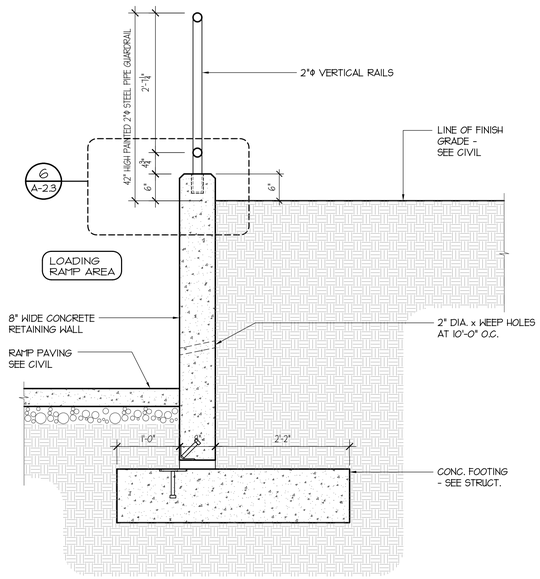
3 SECTION / ELEVATION AT LOADING DOCK
SCALE: NONE



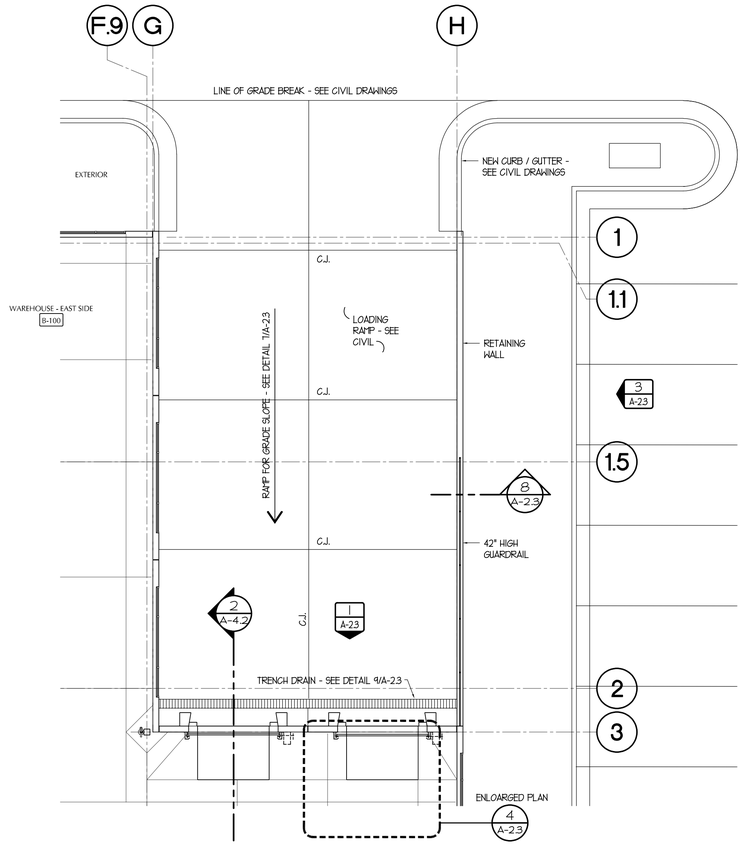
4 DOCK ELEVATION
SCALE: NONE



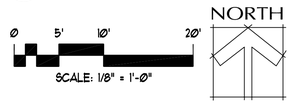
5 DOCK SECTION
SCALE: NONE

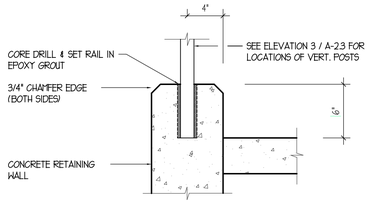


8 RETAINING WALL DETAIL
SCALE: NONE

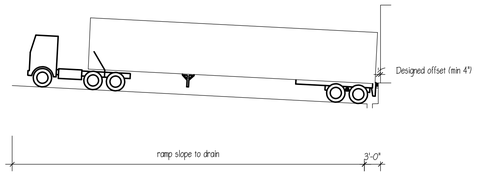


1 PARTIAL FLOOR PLAN - NORTH SIDE - AREA B
SCALE: 1/8" = 1'-0"

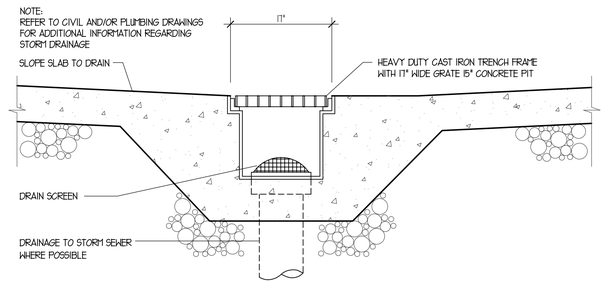




6 RECESSED DOCK DESIGN CRITERIA
SCALE: NONE



7 RECESSED DOCK DESIGN CRITERIA
SCALE: NONE



9 TRENCH DRAIN DETAIL
SCALE: 1" = 1'-0"

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LICENSED ARCHITECT

LOADING RAMP PLAN AND DETAILS
A NEW ADDITION FOR:
FORTEM TECHNOLOGIES
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1855 W 500 N
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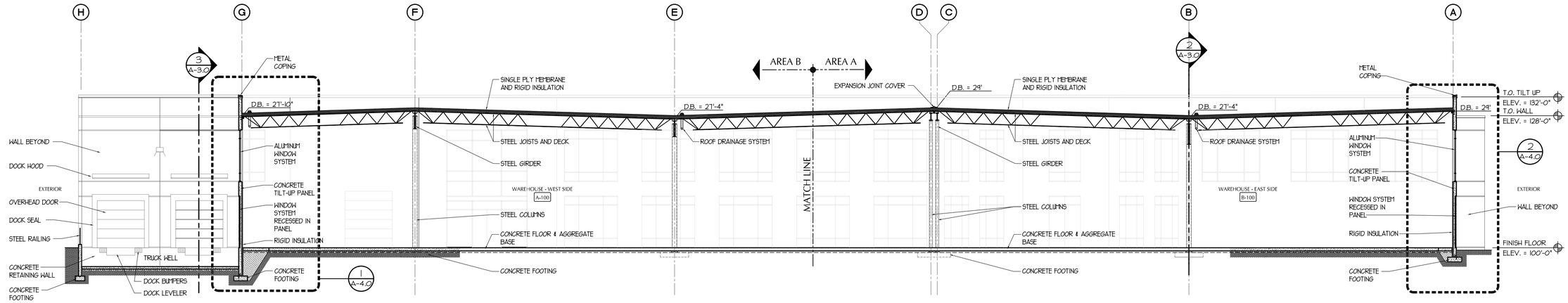
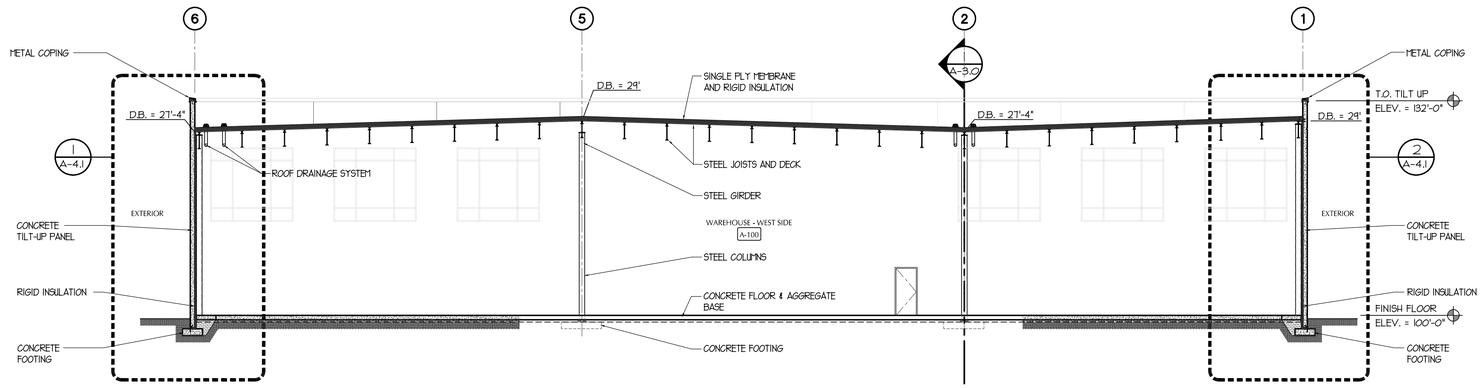
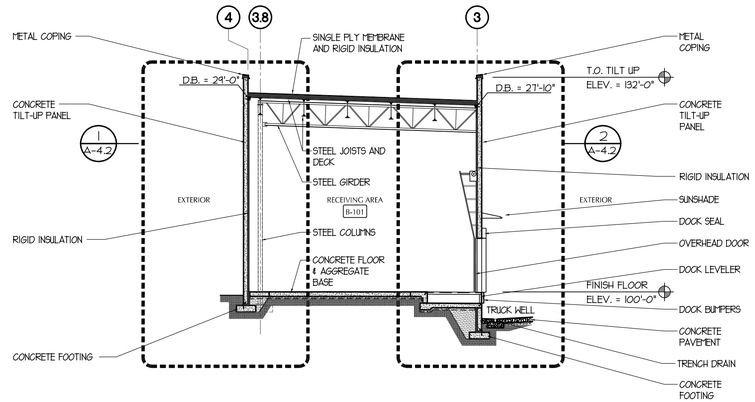


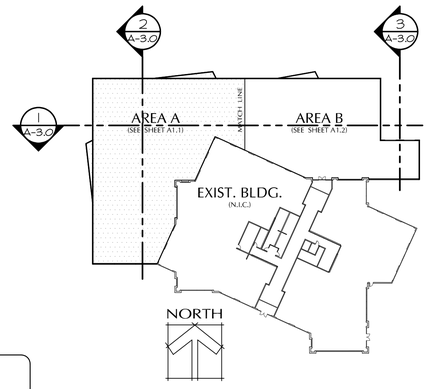
1 LONGITUDINAL BUILDING SECTION - LOOKING SOUTH
SCALE: 3/32" = 1'-0"



2 LATERAL BUILDING SECTION - LOOKING WEST
SCALE: 3/32" = 1'-0"



3 LATERAL BUILDING SECTION - LOOKING WEST
SCALE: 3/32" = 1'-0"



KEY REFERENCE PLAN

CONTRACTOR NOTE :
DRAWING SCALE IS 3/32" = 1'-0"

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REVISIONS

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JEFF JEPPSON
LICENSED ARCHITECT

BUILDING SECTIONS

A NEW ADDITION FOR:
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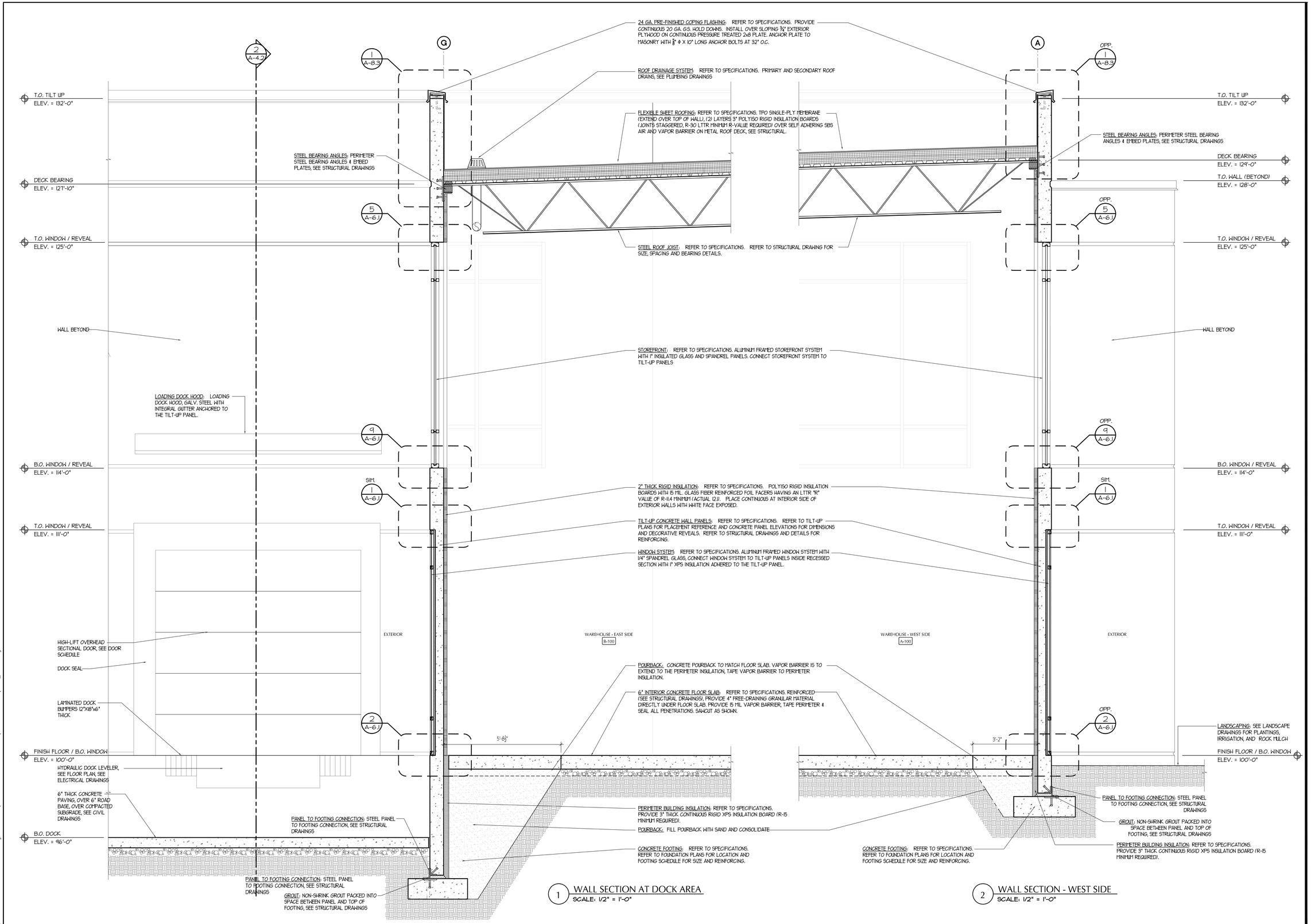

1 WALL SECTION AT DOCK AREA
SCALE: 1/2" = 1'-0"

2 WALL SECTION - WEST SIDE
SCALE: 1/2" = 1'-0"

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JEFFREY R. JEPPSON
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LICENSED ARCHITECT

WALL SECTIONS

A NEW ADDITION FOR:
FORTEM TECHNOLOGIES
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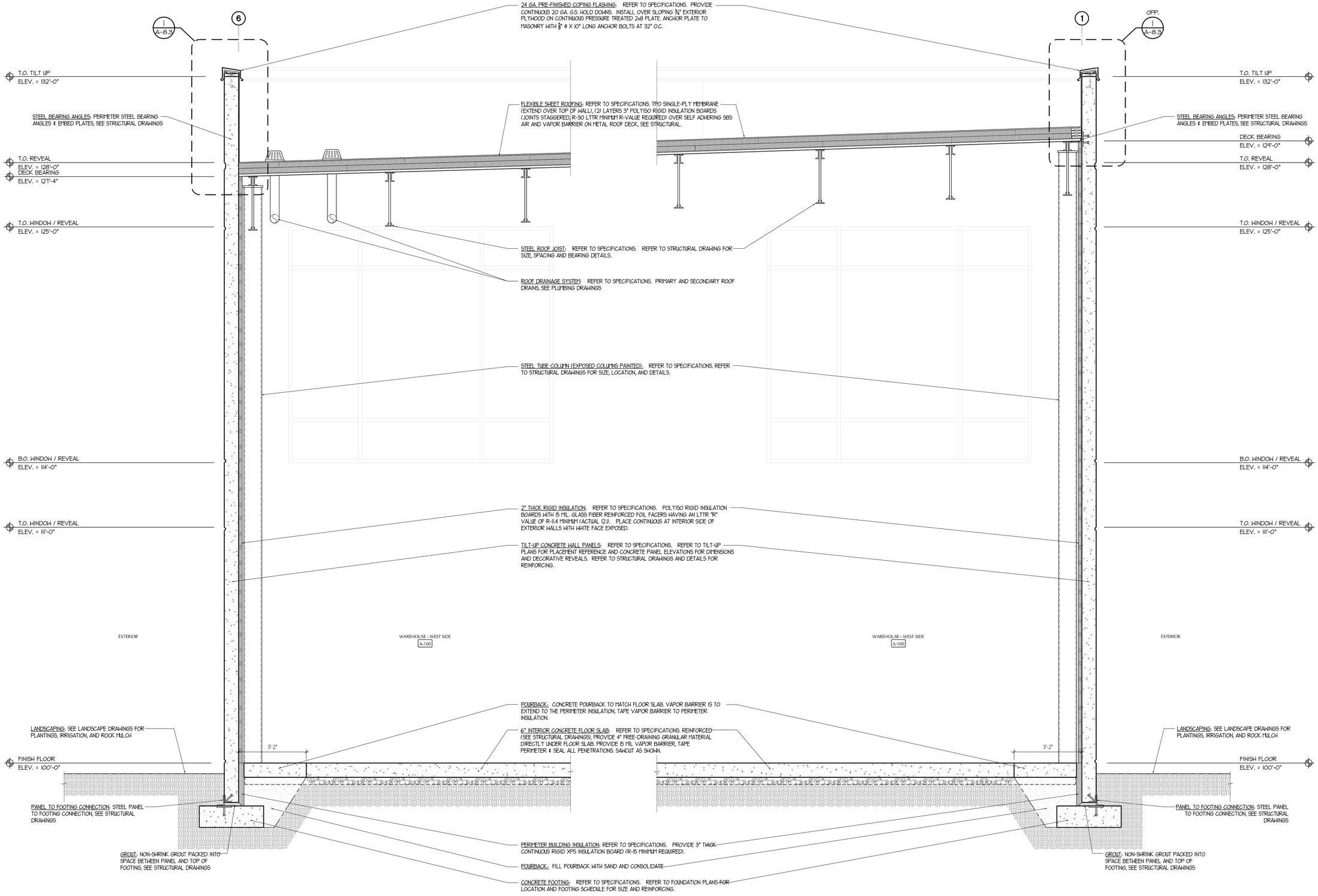

1 WALL SECTION AT AREA A - SOUTH SIDE
SCALE: 1/2" = 1'-0"

2 WALL SECTION AT AREA A - NORTH SIDE
SCALE: 1/2" = 1'-0"

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REVISIONS

STATE OF UTAH
JEFFREY R. JEPPSON
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LICENSED ARCHITECT

WALL SECTIONS

A NEW ADDITION FOR:
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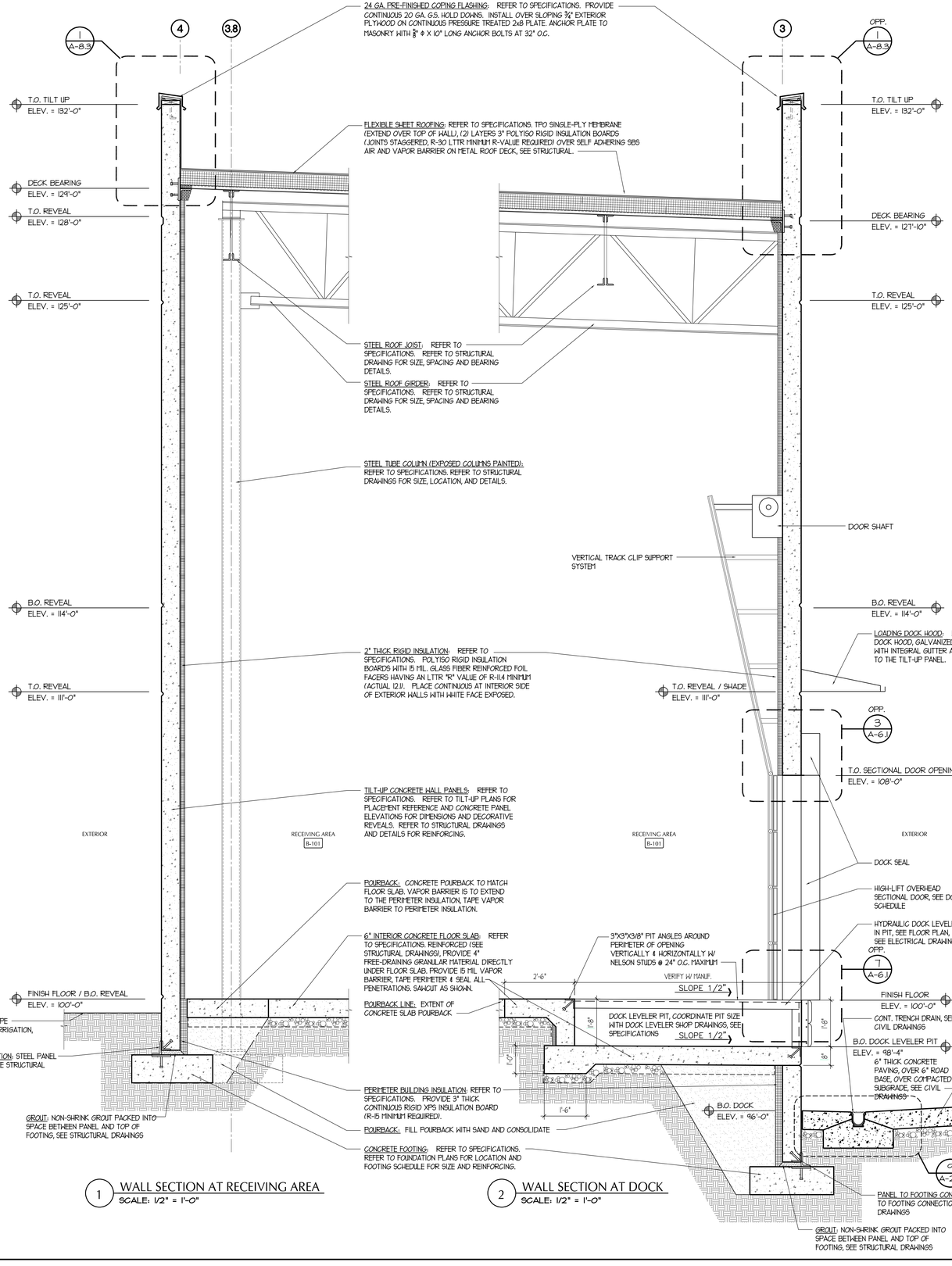

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JEFFREY P. JEPPSON
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LICENSED ARCHITECT

WALL SECTIONS

A NEW ADDITION FOR:
FORTEM TECHNOLOGIES
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1855 N 500 W
LINDON, UT 84042

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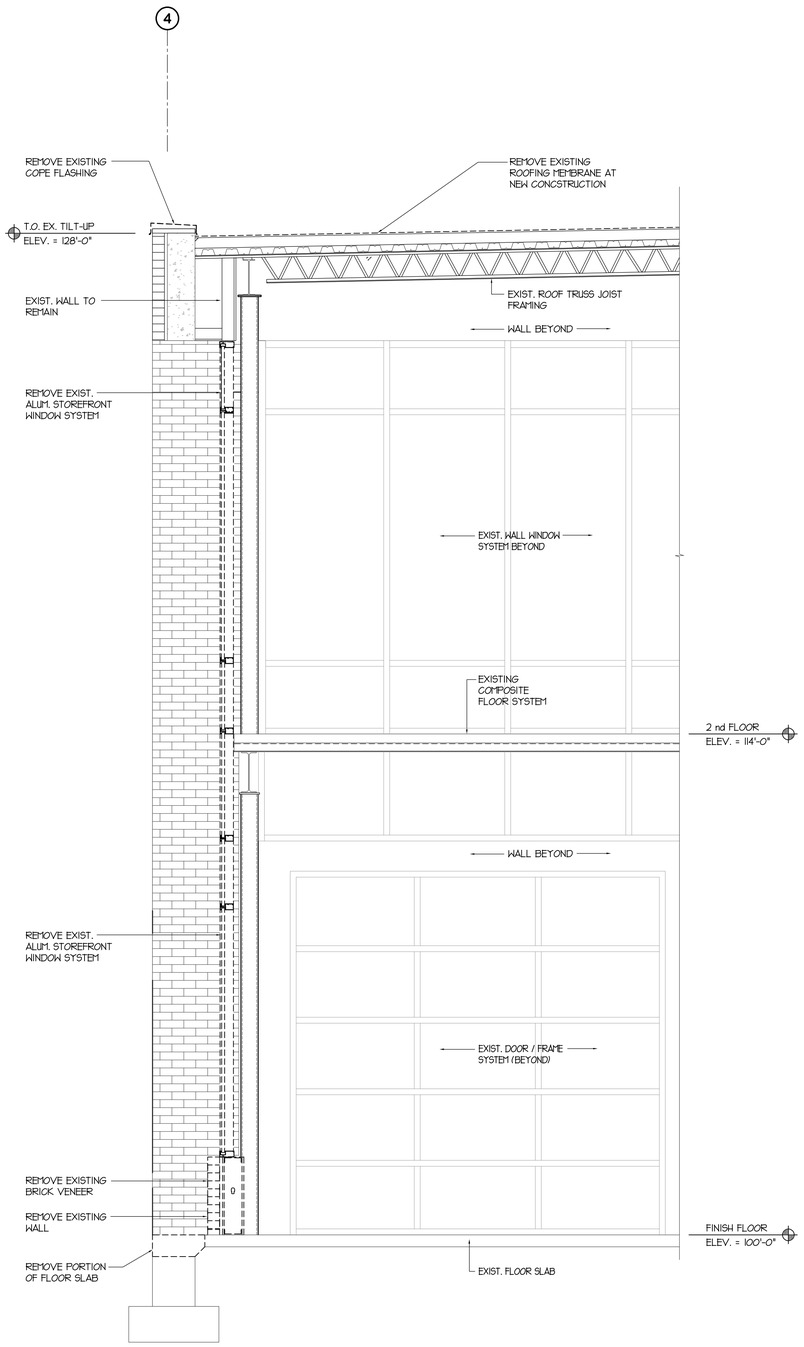
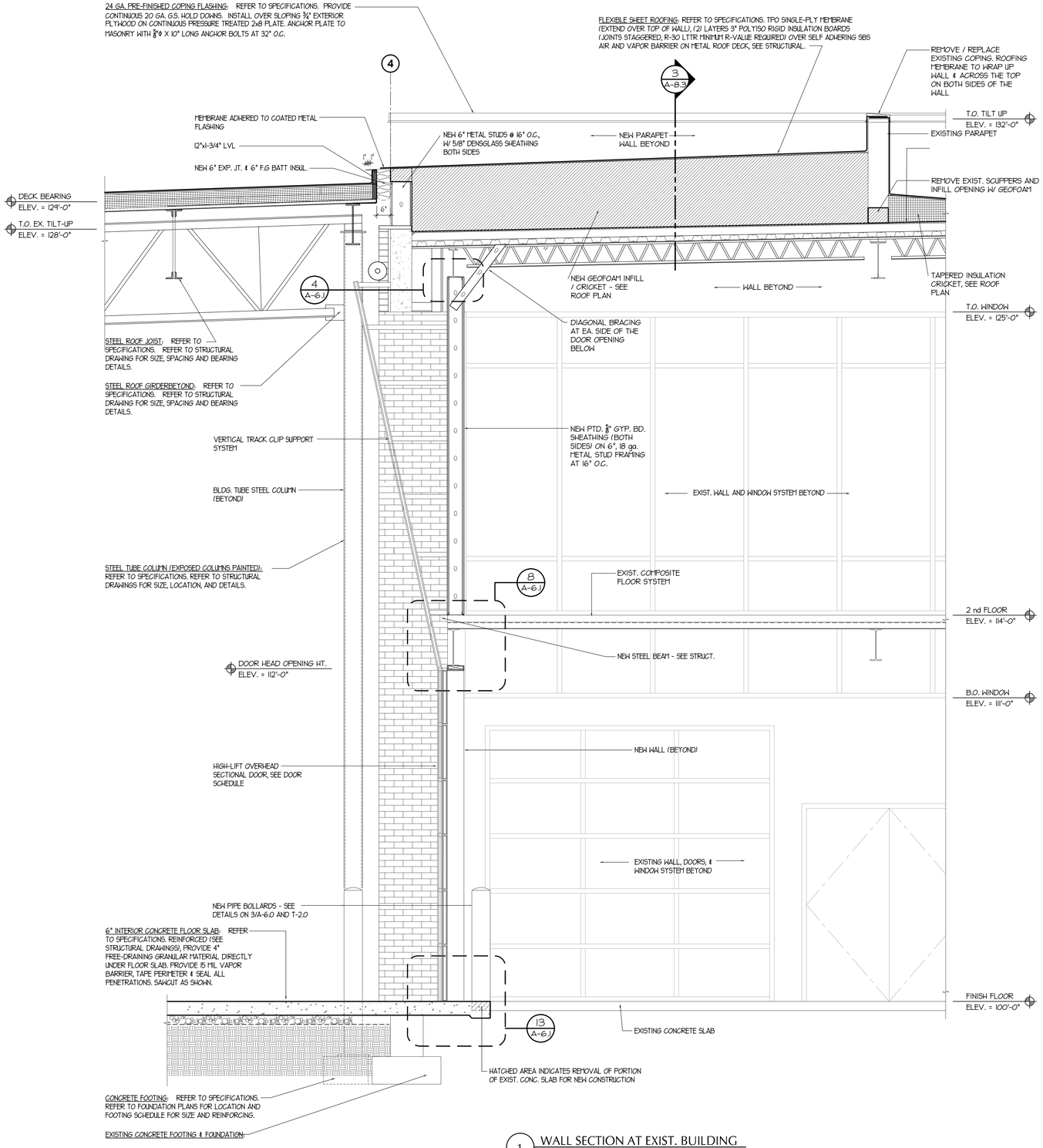


2 DEMO WALL SECTION AT EXIST. BUILDING
SCALE: 1/2" = 1'-0"



1 WALL SECTION AT EXIST. BUILDING
SCALE: 1/2" = 1'-0"

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DRAWN BY: JEFF JEPPSON
REVISIONS

STATE OF UTAH
JEFFREY R. JEPPSON
8301
LICENSED ARCHITECT

DEMO. AND NEW WALL SECTIONS
A NEW ADDITION FOR:
FORTEM TECHNOLOGIES
W.I.C.P. COMERCIAL PROPERTIES
1895 W 500 N
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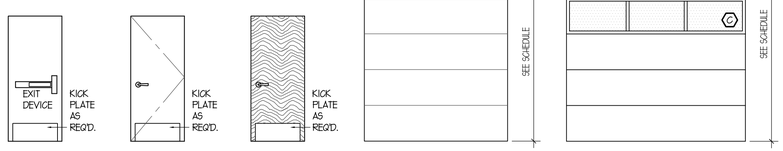
DOOR SCHEDULE

DOOR NO.	DOOR SIZE	DOOR TYPE	DOOR MATERIAL	DOOR FINISH	DETAILS HEAD	DETAILS JAMB	DETAILS SILL	FRAME MATERIAL	FRAME FINISH	FRAME TYPE	FIRE RATING	REMARKS	DOOR NO.
1	3'-0" x 7'-0" x 1 3/4"	D-1	HOLLOW METAL	PAINTED	1/A-6.0 (SIM.)	1/A-6.0	11/A-6.1	HOLLOW METAL	PAINTED	F-1		EMERGENCY EXIT PANIC HARDWARE, WEATHERSTRIPPING, ALUM. THRESHOLD	1
2	3'-0" x 7'-0" x 1 3/4"	D-1	HOLLOW METAL	PAINTED	1/A-6.0 (SIM.)	1/A-6.0	11/A-6.1	HOLLOW METAL	PAINTED	F-1			2
3	3'-0" x 7'-0" x 1 3/4"	D-1	HOLLOW METAL	PAINTED	1/A-6.0 (SIM.)	1/A-6.0	11/A-6.1	HOLLOW METAL	PAINTED	F-1			3
4	3'-0" x 7'-0" x 1 3/4"	D-1	HOLLOW METAL	PAINTED	1/A-6.0 (SIM.)	1/A-6.0	11/A-6.1	HOLLOW METAL	PAINTED	F-1		EMERGENCY EXIT PANIC HARDWARE, WEATHERSTRIPPING, ALUM. THRESHOLD	4
5	10'-0" x 10'-0"	D-4	STEEL	FACTORY FIN.	3/A-6.1	2/A-6.0	7/A-6.1	STEEL	PAINTED	F-2		HIGH LIFT SECTIONAL DOOR W/ INSULATED METAL PANELS, WEATHERSTRIPPING	5
6	10'-0" x 10'-0"	D-4	STEEL	FACTORY FIN.	3/A-6.1	2/A-6.0	7/A-6.1	STEEL	PAINTED	F-2		HIGH LIFT SECTIONAL DOOR W/ INSULATED METAL PANELS, WEATHERSTRIPPING	6
7	3'-0" x 7'-0" x 1 3/4"	D-1	HOLLOW METAL	PAINTED	1/A-6.0 (SIM.)	1/A-6.0	11/A-6.1	HOLLOW METAL	PAINTED	F-1			7
8	3'-0" x 7'-0" x 1 3/4"	D-3	SOLID CORE	STAINED	5/A-6.0 (SIM.)	5/A-6.0		HOLLOW METAL	PAINTED	F-1			8
9	10'-0" x 12'-0"	D-5	STEEL	FACTORY FIN.	8/A-6.1	3/A-6.0	13/A-6.1	STEEL	PAINTED	F-2		HIGH LIFT SECTIONAL DOOR W/ INSULATED METAL PANELS, WEATHERSTRIPPING	9

DOOR TYPES AND NOTES

DOOR TYPES



TYPE D-1
H.M. DOOR
SCALE : 1/4" = 1'-0"

TYPE D-2
H.M. DOOR
SCALE : 1/4" = 1'-0"

TYPE D-3
S.C. WOOD DOOR
SCALE : 1/4" = 1'-0"

TYPE D-4
INSULATED STEEL O.H. DOOR
SCALE : 1/4" = 1'-0"

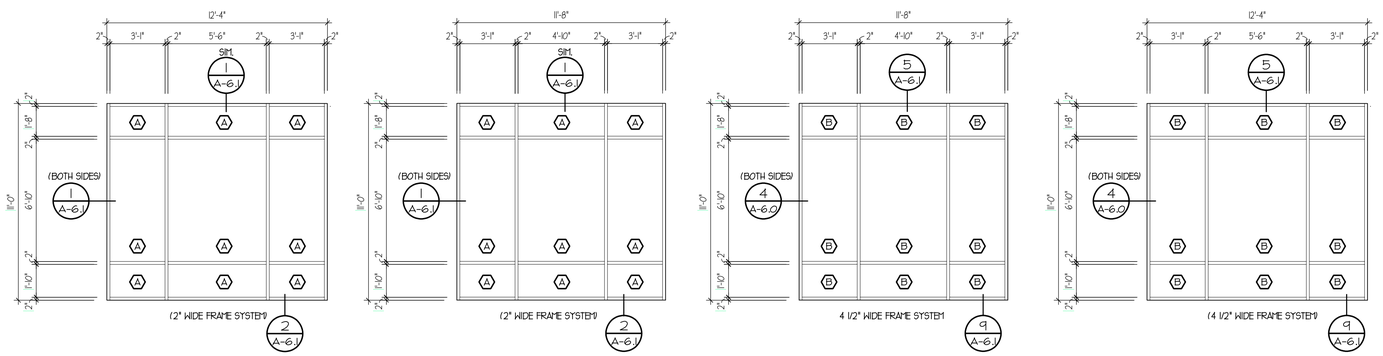
TYPE D-5
STEEL O.H. DOOR
SCALE : 1/4" = 1'-0"

DOOR NOTES

1. ALL DOORS, DOOR FINISHES, HARDWARE TYPES, HARDWARE FINISHES, FLOOR FINISHES, AND WALL FINISHES SHALL BE REVIEWED AND VERIFIED BY THE OWNER
2. ALUM. STOREFRONT SYSTEM TO BE CERTIFIED BY AN INDEPENDENT LABORATORY PER NFRC 100 AND LABELED AS SUCH BY MANUF. - U-FACTOR OF THE SYSTEM SHALL NOT EXCEED .69 UNLESS NOTED OTHERWISE.
3. DOORS REFERENCED W/ (EX) ON FLOOR PLANS INDICATES EXIST. DOOR AND FRAME - N.I.C..
4. SEE SHEETS A-1.1 FOR AREA A DOOR LOCATIONS AND SHEETS A-1.2 FOR AREA B DOOR LOCATIONS.
5. REFER TO SPECIFICATIONS FOR HARDWARE GROUP INFORMATION

WINDOW FRAME TYPES

NOTE: ALUM. STOREFRONT SYSTEM TO BE CERTIFIED BY AN INDEPENDENT LABORATORY PER NFRC 100 AND LABELED AS SUCH BY MANUF. - U-FACTOR OF THE SYSTEM SHALL NOT EXCEED .69

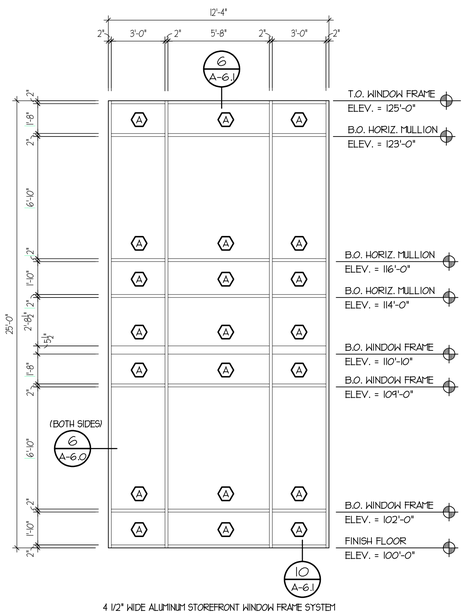


W-1 ALUM. STOREFRONT - LOWER LEVEL
SCALE : 1/4" = 1'-0"

W-2 ALUM. STOREFRONT - LOWER LEVEL
SCALE : 1/4" = 1'-0"

W-3 ALUM. STOREFRONT - UPPER LEVEL
SCALE : 1/4" = 1'-0"

W-4 ALUM. STOREFRONT - UPPER LEVEL
SCALE : 1/4" = 1'-0"



W-5 ALUM. STOREFRONT
SCALE : 1/4" = 1'-0"

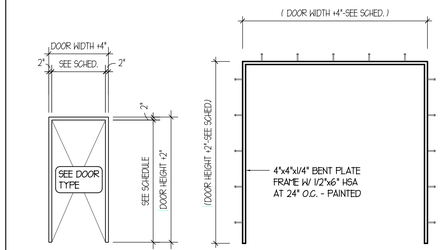
GLAZING LEGEND

A 1/4" SPANDREL GLAZING

B 1/4" CLEAR GLAZING

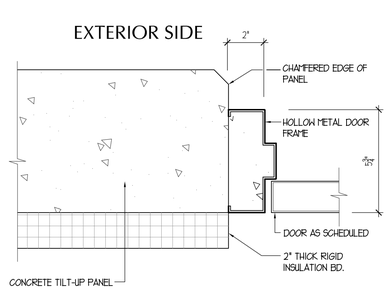
C 1/2" INSULATED TEMPERED LOW E GLAZING PANEL

DOOR FRAME TYPES

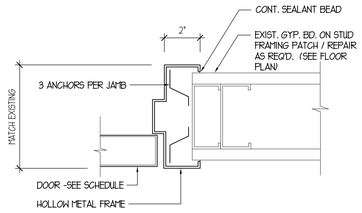


TYPE F-1
SCALE : 1/4" = 1'-0"

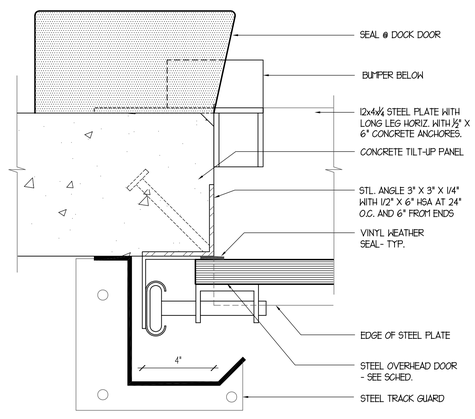
TYPE F-2
SCALE : 1/4" = 1'-0"



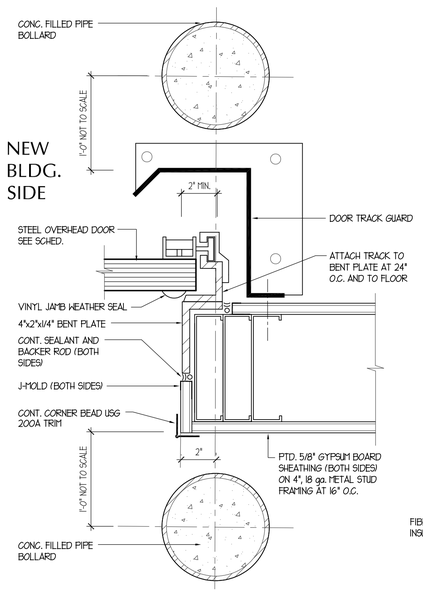
1 DOOR JAMB DETAIL - HEAD SIM.
SCALE: 3" = 1'-0"



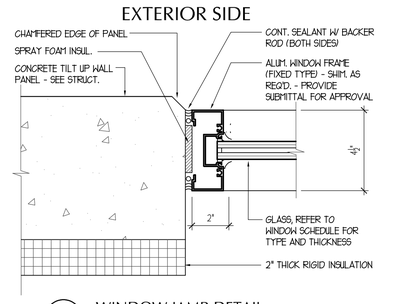
5 DOOR JAMB DETAIL - HEAD SIM.
SCALE: 3" = 1'-0"



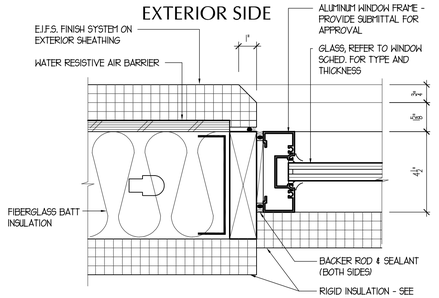
2 DOOR JAMB DETAIL
SCALE: 3" = 1'-0"



3 DOOR JAMB DETAIL
SCALE: 3" = 1'-0"



4 WINDOW JAMB DETAIL
SCALE: 3" = 1'-0"



6 WINDOW JAMB DETAIL
SCALE: 3" = 1'-0"

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DRAWN BY: JEFF JEPPSON
REVISIONS

STATE OF UTAH — JEFFREY R. JEPPSON — 8391 — LICENSED ARCHITECT

DOOR AND WINDOW SCHEDULE AND DETAILS

A NEW ADDITION FOR:

FORTEM TECHNOLOGIES
W.I.C.P. COMERCIAL PROPERTIES
LINDON, UT 84042

PERMIT SET DOCUMENT

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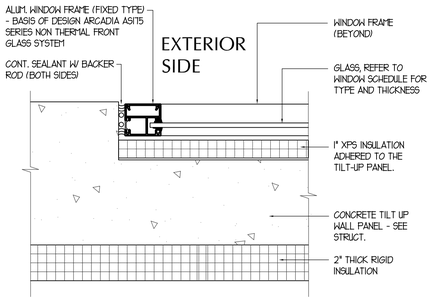
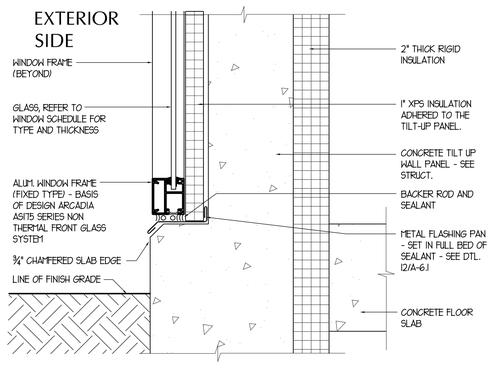


1 WINDOW JAMB DETAIL - HEAD SIM.
SCALE: 3" = 1'-0"



2 WINDOW SILL DETAIL
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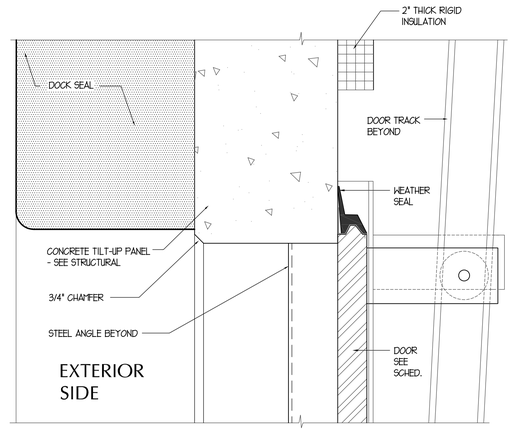
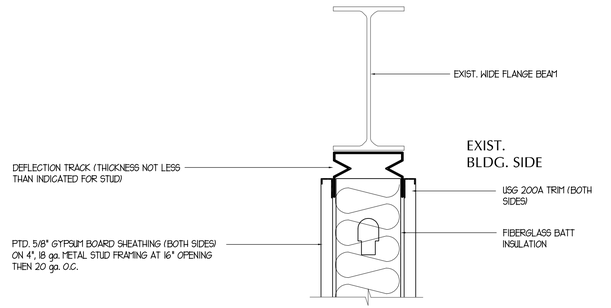
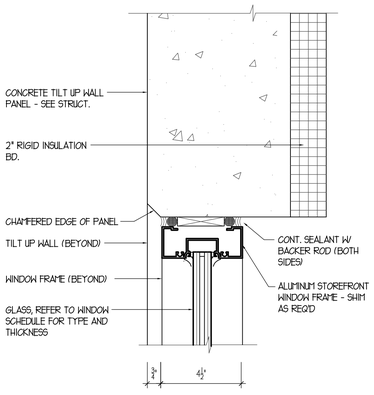


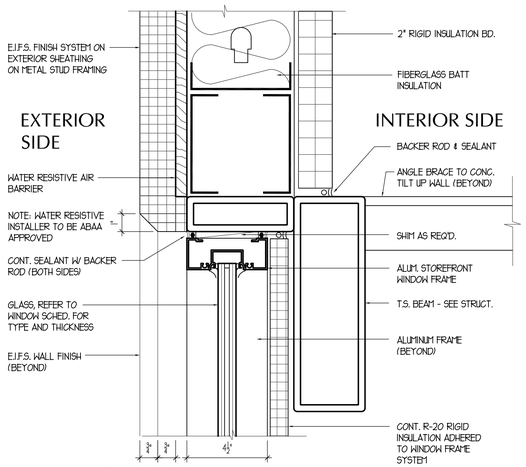
3 SECTIONAL DOOR HEAD DETAIL
SCALE: 3" = 1'-0"



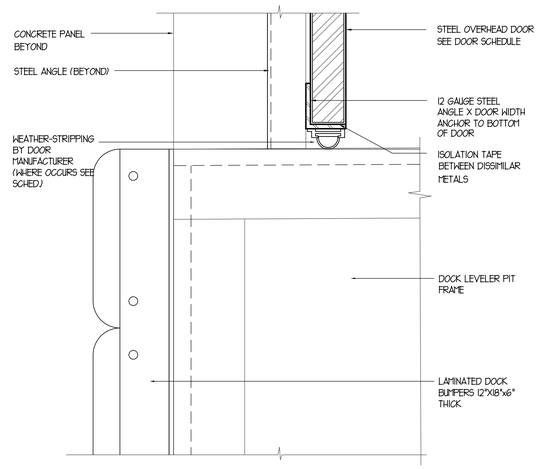
4 PARTITION WALL HEAD DETAIL
SCALE: 1 1/2" = 1'-0"



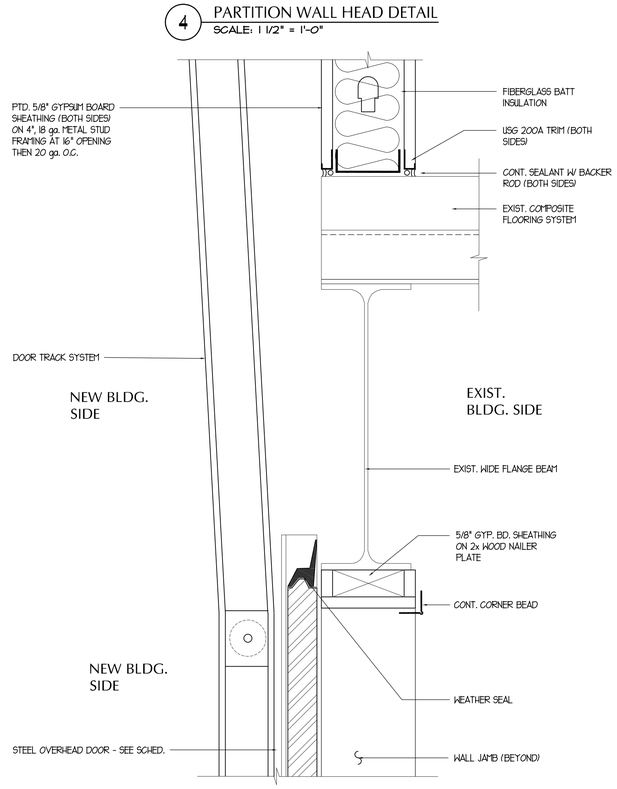
5 WINDOW HEAD DETAIL
SCALE: 3" = 1'-0"



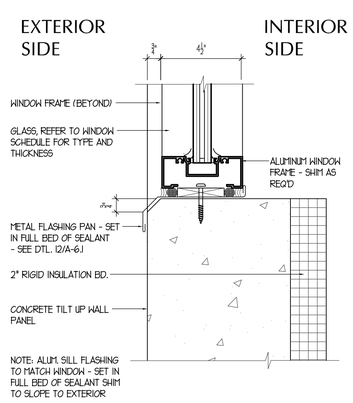
6 WINDOW HEAD DETAIL
SCALE: 3" = 1'-0"



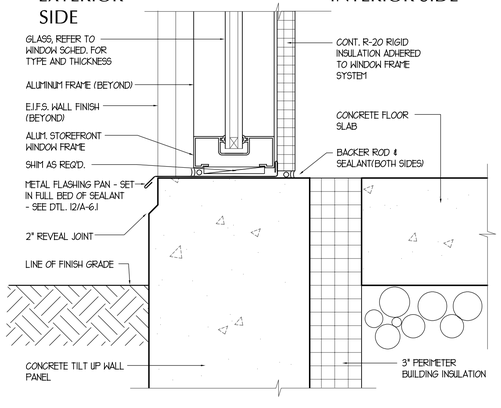
7 SECTIONAL DOOR SILL DETAIL
SCALE: 3" = 1'-0"



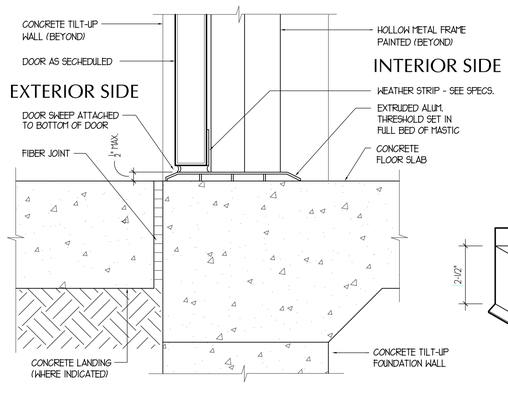
8 SECTIONAL DOOR HEAD DETAIL
SCALE: 1 1/2" = 1'-0"



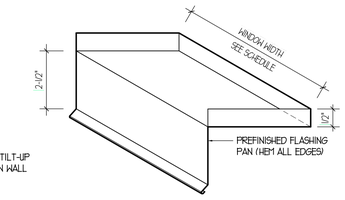
9 ALUM. WINDOW SILL DETAIL
SCALE: 3" = 1'-0"



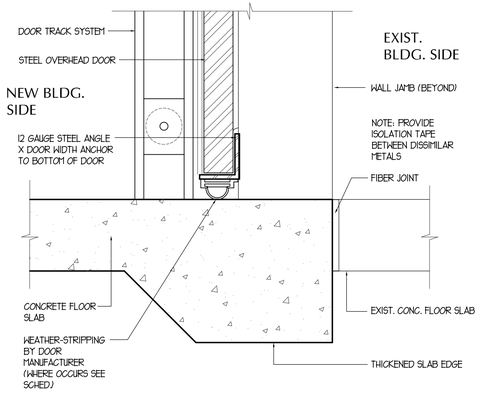
10 WINDOW SILL DETAIL
SCALE: 3" = 1'-0"



11 DOOR SILL DETAIL - EXTERIOR
SCALE: 3" = 1'-0"



12 FLASHING PAN WINDOW DETAIL
SCALE: NONE



13 SECTIONAL DOOR SILL DETAIL
SCALE: 1 1/2" = 1'-0"

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DRAWN BY: JEFF JEPPSON
REVISIONS

STATE OF UTAH
JEFFREY R. JEPPSON
6321
LICENSED ARCHITECT

DOOR AND WINDOW DETAILS

A NEW ADDITION FOR:
FORTEM TECHNOLOGIES
W.I.C.P. COMERCIAL PROPERTIES
LINDON, UT 84042
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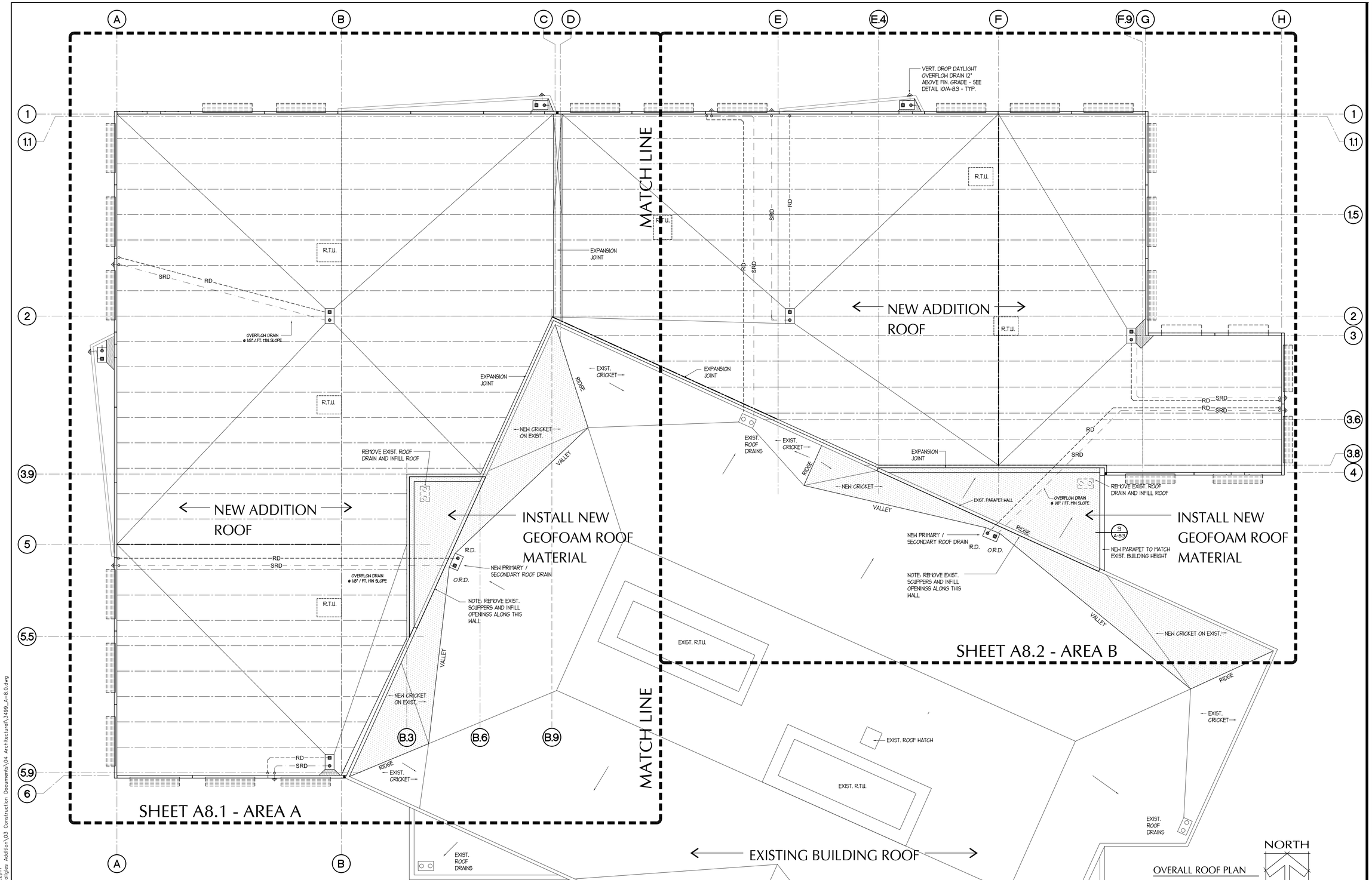

ROOF LEGEND :

- R.D. PRIMARY ROOF DRAIN, SEE DETAILS ON SHEET A-8.3
- O.R.D. SECONDARY ROOF DRAIN, SEE DETAILS SHEET A-8.3
- R.T.U. FUTURE H.V.A.C. ROOF TOP MECHANICAL UNIT - SEE MECHANICAL
- SRD STORM DRAIN LINE - SEE PLUMBING
- RD OVERFLOW ROOF DRAIN LINE - SEE PLUMBING

ROOFING SYSTEM :

SINGLE PLY ROOFING MEMBRANE OVER SUBSTRATE BOARD OVER MINIMUM OF TWO LAYERS OF 3" RIGID INSULATION (6" TOTAL) WITH STAGGER JOINTS.

GENERAL NOTES :

1. FOR FLUES, VENTS, EXHAUST FANS, ETC. NOT SHOWN ON THIS PLAN SEE AND COORDINATE WITH MECHANICAL AND PLUMBING CONTRACTOR
2. CREATE A POSITIVE DRAINAGE TO ROOF DRAIN (MIN. OF 1/4" PER 1'-0") W/ A RIGID INSULATION WATER DIRECTING CRICKET SYSTEM AS SHOWN (HATCHED AREA)
3. CREATE A POSITIVE DRAINAGE (MIN. OF 1/4" PER 1'-0") W/ A RIGID INSULATION WATER DIRECTING CRICKET SYSTEM AS SHOWN BY HATCHED AREAS.
4. FOR FLUE FLASHING REFER TO PLUMBING AND MECHANICAL DRAWINGS FOR LOCATIONS.
5. ROOF DRAIN PIPING SHALL RUN WITHIN THE ROOF JOIST SPACES.

CONTRACTOR NOTE :
DRAWING SCALE IS 3/32" = 1'-0"

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STATE OF UTAH
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OVERALL ROOF PLAN
A NEW ADDITION FOR:
FORTEM TECHNOLOGIES
W.I.C.P. COMERCIAL PROPERTIES
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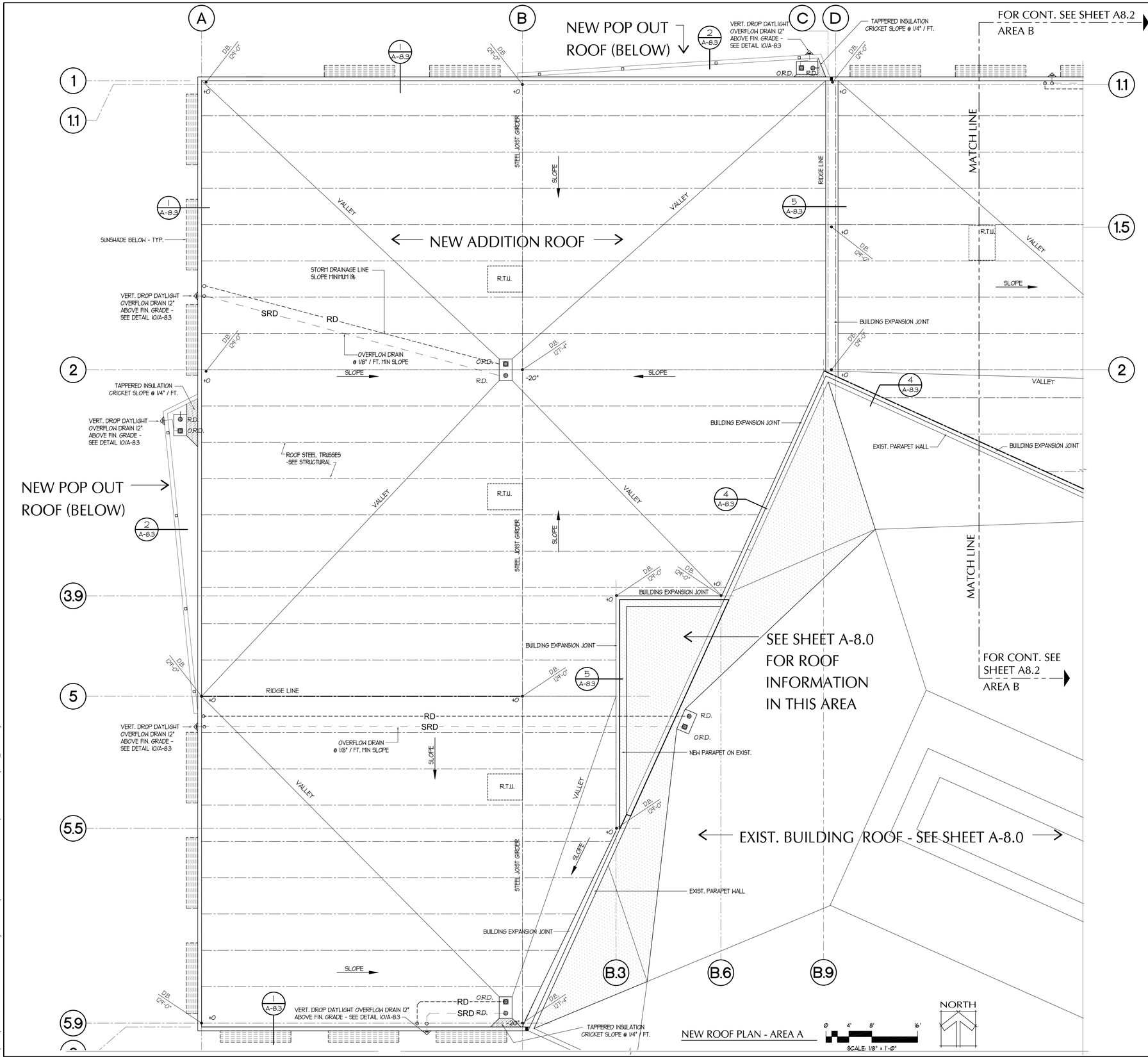

ROOFING SYSTEM :

SINGLE PLY ROOFING MEMBRANE OVER SUBSTRATE BOARD OVER TWO LAYERS OF 3" RIGID INSULATION (6" TOTAL) WITH STAGGER JOINTS. SEE DETAIL 1/A-8.1

ROOF LEGEND :

- R.D. PRIMARY ROOF DRAIN, SEE DETAILS ON SHEET A-8.3
- O.R.D. SECONDARY ROOF DRAIN, SEE DETAILS SHEET A-8.3
- R.T.U. FUTURE H.V.A.C. ROOF TOP MECHANICAL UNIT - SEE MECHANICAL
- SRD STORM DRAIN LINE - SEE PLUMBING
- RD OVERFLOW ROOF DRAIN LINE - SEE PLUMBING

GENERAL NOTES :

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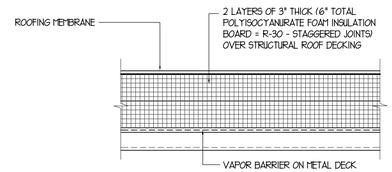
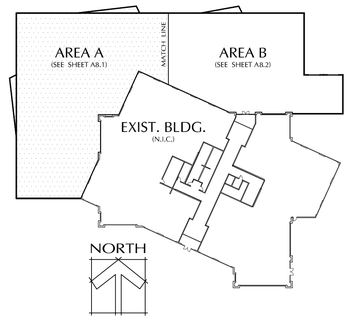
5. ALL ROOF DRAIN PIPING SHALL RUN WITHIN THE ROOF JOIST SPACES.



MAIN ROOF : ROOF SYSTEM

1 TYPICAL ROOFING SYSTEM DETAIL
SCALE: NONE



KEY REFERENCE PLAN

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ARCHITECTS / PLANNERS
WICP COMMERCIAL PROPERTIES
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REVISIONS

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JEFFREY R. JEPPSON
6354
LICENSED ARCHITECT

NEW ROOF PLAN - AREA A

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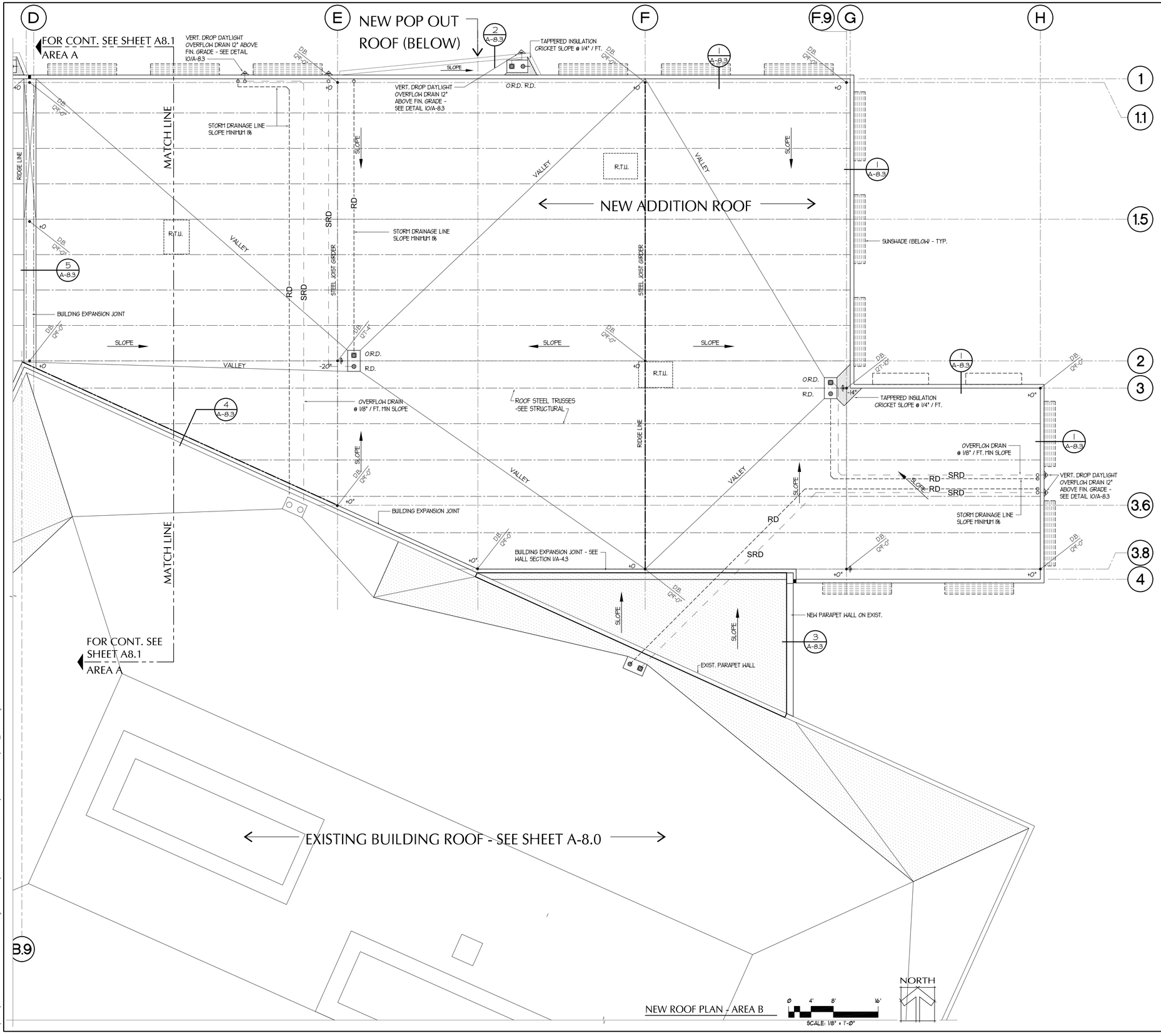

ROOFING SYSTEM :

SINGLE PLY ROOFING MEMBRANE OVER SUBSTRATE BOARD OVER TWO LAYERS OF 3" RIGID INSULATION (6" TOTAL) WITH STAGGER JOINTS. SEE DETAIL 1/A-8.1

ROOF LEGEND :

- R.D. PRIMARY ROOF DRAIN, SEE DETAILS ON SHEET A-8.3
- O.R.D. SECONDARY ROOF DRAIN, SEE DETAILS SHEET A-8.3
- R.T.U. FUTURE H.V.A.C. ROOF TOP MECHANICAL UNIT.
- SRD STORM DRAIN LINE - SEE PLUMBING
- RD OVERFLOW ROOF DRAIN LINE - SEE PLUMBING

GENERAL NOTES :

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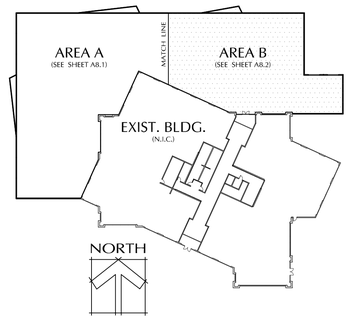
3. CREATE A POSITIVE DRAINAGE (MIN. OF 1/4" PER 1'-0") W/ A RIGID INSULATION WATER DIRECTING CRICKET SYSTEM AS SHOWN BY HATCHED AREAS.
4. FOR FLUE FLASHING REFER TO PLUMBING AND MECHANICAL DRAWINGS FOR LOCATIONS.
5. ALL ROOF DRAIN PIPING SHALL RUN WITHIN THE ROOF JOIST SPACES.



KEY REFERENCE PLAN

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DRAWN BY: JEFF JEPPSON
REVISIONS

STATE OF UTAH
JEFFREY R. JEPPSON
6301
LICENSED ARCHITECT

NEW ROOF PLAN AREA B

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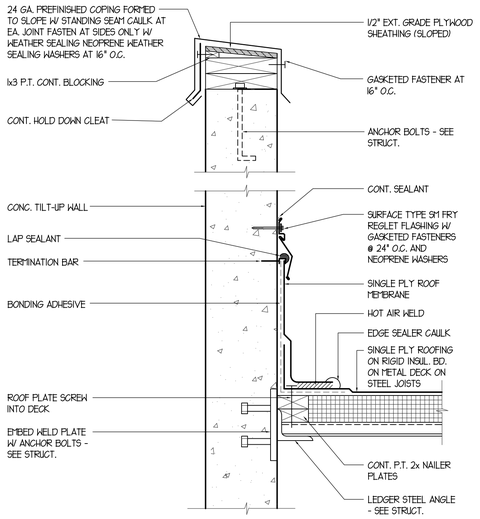
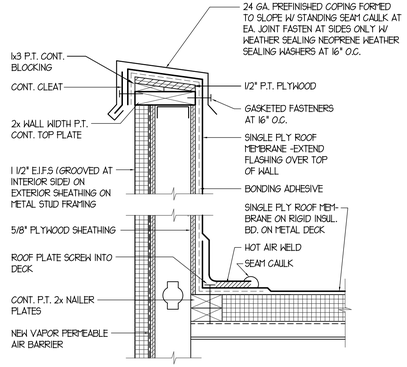


1 ROOF PARAPET DETAIL
SCALE: 1 1/2" = 1'-0"



2 ROOF PARAPET DETAIL
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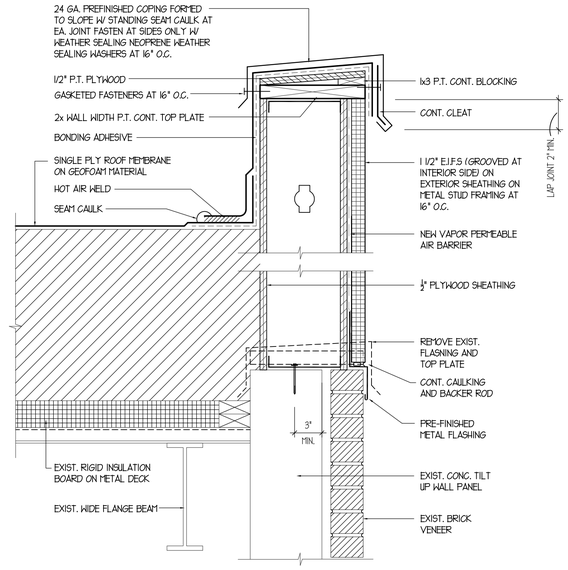
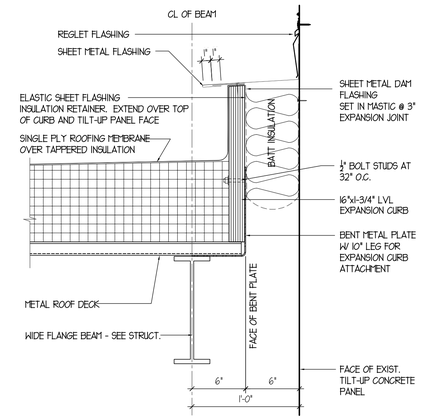
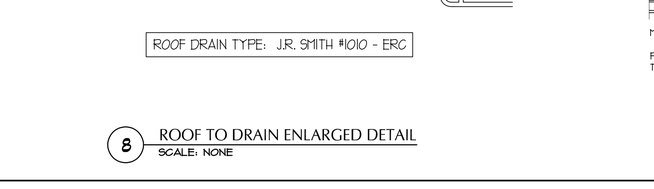


3 ROOF PARAPET DETAIL
SCALE: 1 1/2" = 1'-0"

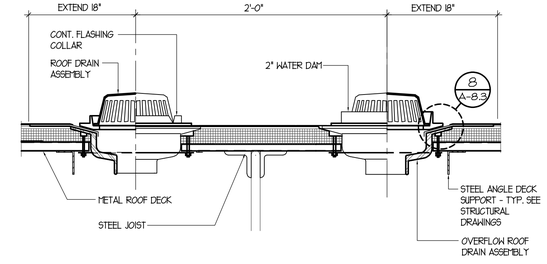


4 ROOF ISOLATION DETAIL
SCALE: 1 1/2" = 1'-0"

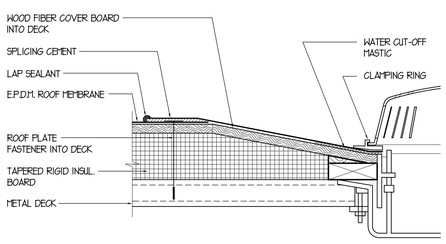


5 ROOF CURB EXPANSION FLASHING DETAIL
SCALE: 1 1/2" = 1'-0"

6 ROOF AND OVERFLOW DRAIN PLAN VIEW
SCALE: NONE

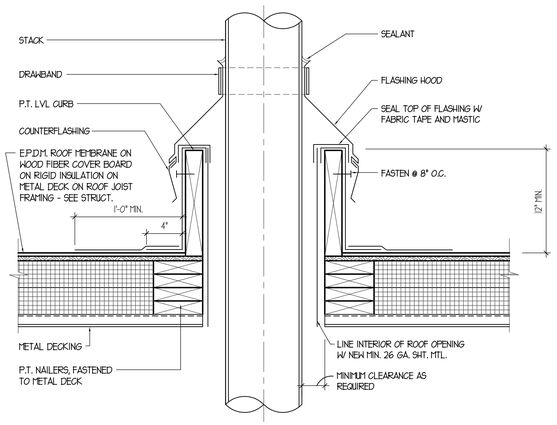


7 ROOF TO DRAIN ENLARGED DETAIL
SCALE: NONE

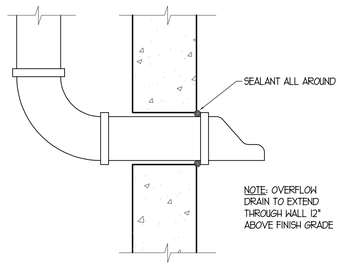


ROOF DRAIN TYPE: J.R. SMITH #1010 - ERC

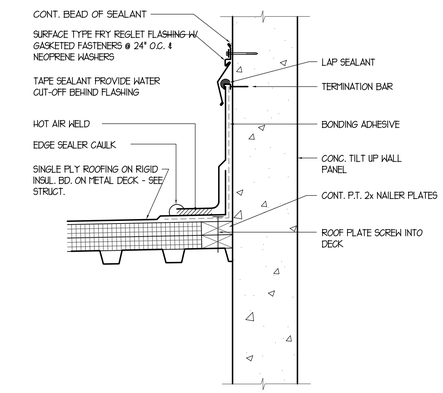
8 ROOF TO DRAIN ENLARGED DETAIL
SCALE: NONE



9 FLU STACK FLASHING DETAIL
SCALE: 1 1/2" = 1'-0"



10 OVERFLOW DRAIN DETAIL
SCALE: NONE



11 ROOF FLASHING DETAIL
SCALE: 1 1/2" = 1'-0"

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DRAWN BY: JEFF JEPPSON
REVISIONS

STATE OF UTAH
JEFFREY S. JEPPSON
8501
LICENSED ARCHITECT

ROOF DETAILS

A NEW ADDITION FOR:
FORTEM TECHNOLOGIES
W.I.C.P. COMERCIAL PROPERTIES
1855 W 500 N
LINDON, UT 84042

PERMIT SET DOCUMENT
DATE: SEPT. 16, 2026
JOB NO.: 3499.000
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By: Jeff Jeppson; Sep 16, 2026 - 12:36pm
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GENERAL STRUCTURAL NOTES

GENERAL

1. The structural notes are intended to complement the project specifications. Specific notes and details in the drawings shall govern over the structural notes and typical details.

2. Typical details and sections shall apply where specific details are not shown.

3. The structural drawings are not all-inclusive and do not contain all dimensions, elevations, openings, mechanical shafts, and penetrations needed to build the structure. The contractor shall coordinate these items with the Architectural, Mechanical and Electrical drawings.

4. Omissions or conflicts between the contract drawings and/or specifications shall be brought to the attention of the architect/engineer before proceeding with any work involved. In case of conflict, follow the most stringent requirement as directed by the architect/engineer at no additional cost to the owner.

5. The contractor shall submit a written request to the architect/engineer before proceeding with any changes, substitutions, or modifications. Any work done by the contractor before receiving written approval will be at the contractor's risk.

6. The contractor shall coordinate with all trades any items that are to be integrated into the structural system such as openings, penetrations, mechanical and electrical equipment, etc. Sizes and locations of mechanical and other equipment that differs from those shown on the contract drawings shall be reported to the architect/engineer.

7. The contractor shall provide adequate shoring and bracing as required for the chosen method of erection. Shoring and bracing shall remain in place until final connections for the permanent members are completed. The building shall not be considered stable until all connections are completed. Walls shall not be considered self-supporting and shall be braced until the roof system is completed.

8. The contractor shall not cut or core any holes in concrete walls without prior review by the architect/engineer.

9. Site observations by BHB Consulting Engineers' field representative shall not be construed as approval of construction procedures nor special inspection.

10. Detailing and shop drawing production for structural elements will require information (including dimensions) contained in the architectural, structural and/or other consultants' drawings. The structural drawings shall be used in conjunction with the architectural and other consultant's drawings. Some dimensions and elements such as elevations, depressions, slopes, mechanical housekeeping pads, etc. are not shown in the structural drawings. All dimensions shown on structural drawings shall be verified by contractor with architectural, mechanical, and electrical drawings.

11. Contractor shall review shop drawings for compliance with contract documents, and stamp shop drawings with review stamp prior to submission to architect for review. Review of shop drawings by BHB Consulting Engineers is for general compliance only and is not intended for approval. The shop drawing review shall not relieve the contractor from the responsibility of completing the project according to the contract documents. Fabrication shall not begin until shop drawings review process is complete. Shop drawings made from reproductions of the contract drawings will be rejected unless the contractor signs a release agreement prior to the shop drawings being reviewed.

12. Only an authorized representative of BHB Consulting Engineers may make changes to these contract drawings. BHB Consulting Engineers shall not be held responsible or liable for any claims arising directly or indirectly from changes made without written authorization by an authorized representative of BHB Consulting Engineers.

13. Bidding, pricing or construction done prior to receiving final building permits from the authorities having jurisdiction is at the contractor's own risk. Changes to the drawings may be required as part of the plan check process. BHB Consulting Engineers will not be held liable for, nor compensate for, changes to these drawings before final jurisdiction approval is obtained.

BASIS OF DESIGN

1. Governing Code — International Building Code 2024; ASCE 7-22
   a. Risk Category — II
2. Dead Loads
   a. Roof — 20 psf
3. Snow Loads (Strength Level)
   a. Ground Snow Load — P_g = 39 psf
   b. Snow Exposure Coefficient — C_e = 1.0
   c. Thermal Exposure Coefficient — C_t = 1.13
      i. R value used in design — 30 m^2*K/W
   d. Roof Snow Load — $P_f = 0.7*C_e*C_t*I_s*P_g$ = 31 psf plus Snow Drift
   e. Min Roof Snow Load — P_m = 30 psf
4. Rain Loads
   a. Rain Intensity — i = 1.5 in/hr
5. Roof Live Load — 20 psf
6. Seismic Loads
   a. Seismic Importance Factor, I_e — 1.0
   b. Seismic Design Category — D
      Site Specific Ground Motion Analysis — Not Required per exceptions in section 11.4.5 of ASCE 7
   c. Mapped Spectral Acceleration — S_s = 1.50g; S_1 = 0.54g; S_{ms} = 1.57g; S_{m1} = 1.11g
   d. Soil Site Class — CD
   e. 5% Damped Design Spectral Response Acceleration — $S_{DS} = 2/3 * F_a * S_S$ = 1.047g; $S_{D1} = 2/3 * F_v * S_1$ = 0.74g
   f. Lowest Fundamental Building Period for the Entire Structure — T_a = 0.492 seconds
   g. Design Spectral Response Acceleration — S_a = 1.055g
   h. Seismic-Force Resisting Systems

	Intermediate Precast Shear Walls	Special Concentric Braced Frame
i. Response Modification Coefficient (R)	4.0	6.0
j. System Over-strength Factor (Ω_0)	2.5	2.0
k. Deflection Amplification Factor (C_d)	4.0	5.0
l. Redundancy Factors (ρx; ρy)	1.0; 1.0	1.0; 1.0
m. Fundamental Building Period (T)	0.492 seconds	0.492 seconds
n. Seismic Response Coefficient (Cs)	$C_S = S_{DS} * I_e / R$ $C_S = S_{D1} * I_e / (R*T)$	
o. Dead Load of Structure (W)	W	
p. Base Shear (V) Strength Design	$C_S * W = 0.264 * W$ $C_S * W = 0.264 * W$	$C_S * W = 0.264 * W$ $C_S * W = 0.264 * W$

   q. Analysis Procedure — Equivalent Lateral Force (Static)
7. Wind Loads
   a. Basic Wind Velocity (3 Second Gust) — 103 mph
   b. Exposure Type — B
   c. Internal Pressure Coefficient, GCpi — +/-0.18
   d. Topographic Factor, Kzt — 1.0
   e. Ground Elevation Factor, Ke — 0.85
   f. Components and Cladding Wind Force Table (psf, Strength Level Design Forces)

Location		Tributary Area (square feet) 10	20	50	100	500
Walls	Zone 5: Within 14.4 feet of building corner	20.8	19.4	17.6	16.2	13.0
	Zone 4: All other areas	16.9	16.2	15.3	14.6	13.0
Roof	Zone 2: Within 14.4 feet of building edges	25.7	25.3	24.7	24.3	24.3
	Zone 3: Within 14.4 feet of building corner	40.2	35.9	30.1	25.7	25.7
	Zone 1: All other areas	18.5	18.5	18.5	18.5	18.5

EXISTING CONDITIONS

1. Structural connections and the framing systems shown in the structural drawings are based on a limited site survey. The contractor shall verify the existing conditions of exposed framing systems, connections, walls, and other structural elements within the project area. If existing conditions vary from the information in the contract documents, the contractor shall notify the architect/engineer prior to proceeding with the fabrication or construction of any affected elements.

2. Existing framing systems and foundations taking new loads are assumed to be in good condition, unless noted otherwise in the contract documents. The contractor shall immediately notify the architect/engineer of any deficiencies in the existing structure that are observed or revealed during construction (e.g. corrosion of steel members, cracking or crumbling of concrete, checking or splitting of wood members) prior to proceeding with the fabrication or construction of any affected elements.

3. The contractor shall use the foundation systems indicated on the plans for reference only, and shall field verify foundation sizes, locations, and thicknesses during construction. The contractor shall notify the architect/engineer if existing foundations vary from the information in the contract documents prior to proceeding with the fabrication or construction of any affected elements.

4. While performing work adjacent to existing structures, the contractor shall be responsible for adequate shoring and protection of all existing structures, utilities, and services which will be affected by the work in the contract documents.

FOUNDATION

1. Soils Report
   a. Author: — GSH Geotechnical, Inc.
   b. Dated: — December 23, 2014
   c. Project No: — 0605-044-14
2. Soil Bearing Pressure — 2000 psf, see Earthwork Section.
3. Frost Protection — 30" minimum to bottom of footing. Contractor shall field verify that the footing elevations and final grades indicated on the plans will provide the minimum frost protection. The contractor shall notify the architect/engineer if there are any locations where the minimum frost protection might not be achieved prior to placing concrete.
4. Lateral Soil Pressure Fluid Equivalent Density:
   a. Active — 45 pcf (retaining walls)
   b. At Rest — 60 pcf (rigid foundation walls)
   c. Passive — 300 pcf
5. Coefficient of Friction — 0.35

EARTHWORK

1. All footings shall bear on suitable natural material or compacted structural fill extending down to suitable natural material.

2. All footings shall bear on 1'-0" of compacted structural fill extending down to suitable natural material. See "Engineered Structural Fill Detail" in drawings.

3. Expansive soils, collapsible soils, soils with a high liquefaction potential, high water table, steep slopes, etc. All require additional engineering. Contractor to coordinate with project engineer and soils engineer.

4. Consult the project specifications and soils report for further earthwork requirements.

CONCRETE

1. Materials, unless noted otherwise:
   a. Normal weight aggregates — ASTM C 33
      i. Combined aggregate gradation for slabs on grade and other designated concrete shall be 8% - 18% for large top size aggregates (1.1/2") or 8% - 22% for smaller top size aggregates (1" or 3/4") retained on each sieve below the top size and above the No. 100. The range for the No. 30 and No.50 sieves shall be 8% - 15% retained in each. To avoid gap gradation the following shall occur:
         1. The percent retained on two adjacent sieves shall not fall below 5%.
         2. The percent retained on three adjacent sieves shall not fall below 8%.
         3. When the percent retained on two adjacent sieves is less than 8%, the total retained on either of these sieves and the adjacent outside sieve shall be at least 13%. See ACI 302 Section 5.4.3.3 for more information.
      ii. Maximum Aggregate Size shall not be larger than:
         1. 3.1/2" or 1/5 the narrowest dimension of the forms
         2. 1/3 the depth of the slab
         3. 3/4 the minimum clear spacing between bars
   b. Reinforcing Steel — ASTM 615 Grade 60 (Fy = 60 ksi); Use Grade 40 (Fy = 40 ksi) for field bent dowels with spacings indicated reduced by 1/3.
   c. Deformed Bar Anchors (DBA) — ASTM A496
   d. Headed Stud Anchors (HSA) — ASTM A108
   e. Anchor Rods — See Structural Steel section
   f. Admixtures:
      i. Air-entraining admixtures shall comply with ASTM C 260 (when used).
      ii. Calcium chloride shall not be added to the concrete mix.
      iii. Water-reducing admixture shall comply with ASTM C 494/C 494M, Type A (when used)
      iv. Retarding admixture shall comply with ASTM C 494/C 494M, Type B (when used).
      v. Water-reducing and retarding admixture shall comply with ASTM C 494/C 494M, Type D (when used).
      vi. High-range, water-reducing admixture shall comply with ASTM C 494/C 494M, Type F (when used).
      vii. High-range, water-reducing and retarding admixture shall comply with ASTM C 494/C 494M Type G (when used).
      viii. Admixture manufacturer shall have ISO 9001 Quality Certification. To ensure compatibility all admixtures shall be from the same manufacturer.
   g. Type IL cement with a GU designation complying with ASTM C595 shall be used for all concrete. Alternatively, Type I/II cement complying with ASTM C150, or performance based hydraulic cement manufactured to meet the requirements of ASTM C1157 can be used with GU designation. Cement source shall remain the same for the entire job.
   h. The water/cementitious materials ratios shall meet the requirements of Table 19.3.2.1 of ACI 318-19.
   i. Cementitious Materials – Limit percentage, by weight, of cementitious materials other than portland cement as follows:
      i. Fly Ash - ASTM C618, Class F – 35% maximum cementitious content.
      ii. Slag Cement – ASTM C989, Grade 100 or 120 – 50% maximum cementitious content.
   j. Provide air entraining as recommended by Table 19.3.3.1 of ACI 318-19. Concrete that extends above grade and is exposed to freezing and thawing while moist shall be air-entrained. Concrete in unconditioned spaces shall be considered site concrete.
   k. No aluminum conduit or product containing aluminum or any other material injurious to concrete shall be embedded in concrete.
2. Compressive strengths of concrete at 28 days shall meet the follow performance requirements (see ACI-318-19; Chapter 19):
   a. Footings & Interior Foundation Walls
      Strength — 3,000 psi
      Classification — F0, S0, W0, C0
   b. Exterior Foundation Walls
      Strength — 3,500 psi
      Classification — F1, S0, W0, C0
   c. Warehouse Interior Slabs-on-Grade
      Strength — 3,000 psi at 28 days; 4,000 psi at 56 days
      Classification — F0, S0, W0, C0
   d. Tilt Up Wall Panels
      Strength — 5,000 psi (See Tilt Up Wall Panel Elevations)
      Classification — F0, S0, W1, C1
   e. All Site Concrete
      Strength — 5,000 psi
      Classification — F3, S0, W1, C2
3. Reinforcement for concrete slabs on grade:
   a. 6" thick concrete slab on grade. Reinforce slab with #3 bars at 18" o.c. each way with 2" max cover below the top surface of the concrete.
      i. At contractor's option, macro-synthetic fiber or welded wire fabric may be used in lieu of reinforcing bars with the following requirements:
         1. 3 lbs minimum per cubic yard of macro-synthetic fiber reinforcing (ASTM C 1116 Type 3) with the following requirements:
            a. Length 1.1/2" – 2"
            b. Equivalent diameter of 0.016" to 0.05"
            c. Minimum aspect ratio (length to equivalent diameter) of 50 to 90.
            d. Provide a fiber dosage to achieve a minimum post-crack residual strength (f_{e3}) of 200 psi when tested according to ASTM C1609.
            e. Maximum concrete shrinkage shall be 0.04% when tested according to ASTM C157 or C157 modified.
            f. Fiber manufacturer shall provide the following:
               i. Fiber dosage
               ii. Mix design
               iii. Finishing practices
         2. 6" x 6" – W4/W4 welded wire fabric (ASTM A185 and A497) minimum, unless noted otherwise. Welded Wire Fabric with 2" of cover below the top surface of the concrete.
4. Only one grade or type of concrete shall be poured on the site at any given time.
5. The contractor shall be responsible for the design, detailing, care, placement and removal of all formwork and shores.
   a. Supporting forms and shoring shall not be removed until structural members have acquired sufficient strength to safely support their own weight and any construction load to which they may be subjected. In no case, however, shall forms and shoring be removed in less than 24 hours after concrete placement.
6. Reinforcement shall have the following concrete cover:

a. Cast-in-place Concrete	Clear Cover
i. Cast against and permanently exposed to earth	3"
ii. Formed concrete exposed to earth or weather:	
#6 thru #18 bars	2"
#5 and smaller bars	1.1/2"
iii. Concrete not exposed to weather or in contact with ground:	
Slabs, Walls and their piers, Joists; #11 bars and smaller	3/4"
Beams, Columns: Primary Reinf., Ties, Stirrups, Spirals	1.1/2"
b. Concrete Tilt-up Panels (manufactured under plant-controlled conditions)	
#8 and smaller	See "Typical Panel Reinforcing Placement Diagrams" detail in drawings
#9 thru #18	2"

7. Detailing:
   a. Lap splice lengths shall be detailed to comply with the "Concrete Reinforcing Bar Lap Splice Schedule" in drawings. Splices may be made with mechanical splices capable of 125% tension capacity of the bar being spliced. Mechanical splices shall be the positive connecting type coupler and shall meet all International Building Code requirements and shall have a current ICC-ES report or IAPMO Certification. Use "Lenton" Standard Couplers (ICC ER-3967), "Bar-Lock" (ICC ESR-2495) or equal with internal protector. If mechanical splices are used, splices or couplers on adjacent bars shall be staggered a minimum of 24" apart along the longitudinal axis of the reinforcing bars.
   b. At joints, provide reinforcing dowels to match the member reinforcing, unless noted otherwise.
   c. At all discontinuous control or construction slab on grade joints, provide 2 - #4 x 48".
   d. Corner Bars: Provide corner bars at intersecting wall corners using the same bar size and spacing as the horizontal wall reinforcing. Corner bars shall lap the horizontal reinforcing with the required lap splice length. See "Typical Corner Wall Reinforcing at Concrete Walls" detail in drawings.
   e. All vertical reinforcing shall be doweled to footings, or to the structure below with the same size and spacing as the vertical reinforcing for the element above. Dowels extending into footings shall terminate with a 90-degree standard hook and shall extend to within 4" of the bottom of the footing. Footing dowels (#8 bars and smaller) with hooks need not extend more than 20" into footings.
   f. Horizontal wall reinforcing shall terminate at ends of walls and openings into the far end of the jamb column with a 90-degree standard hook. Horizontal wall reinforcing shall be continuous through construction and control joints.
   g. See "Typical Reinforcing for Miscellaneous Openings Less than 3'-0" in Concrete Walls" detail in drawings for reinforcing around miscellaneous openings (8" to 36" wide). For openings wider than 36", contact the engineer. All recesses that interrupt reinforcing shall be reinforced the same as an opening.

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GENERAL STRUCTURAL NOTES
A NEW ADDITION FOR :
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1855 W 500 N
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GENERAL STRUCTURAL NOTES

8. Construction Joints, Control (Contraction) Joints:
   a. Construction joints in all horizontal and vertical construction joints including between top of footing and foundation walls shall be intentionally roughened to a full amplitude of approximately 1/4". The laitance on the concrete (thin, flaky layer of hardened, weakened hydrated cement) shall be mechanically removed from the surface after the concrete has achieved final set. Construction joints in slabs on grade shall not exceed a distance of 125'-0" o.c. in any direction.
   b. Control joints shall be installed in slabs on grade so the length to width ratio of the slab is no more than 1.25:1. Control joints shall be completed as soon as final set is achieved and it is okay to operate the cutter on the slab. Final set is typically achieved within the first 4 to 12 hours after the slab has been finished in an area (depending on weather conditions and concrete hydration rate; 4 hours in hot weather to 12 hours in cold weather). For early entry saw cutting, joints should be cut within the first 1 to 4 hours (depending on weather conditions and concrete hydration rate; 1 hour for hot weather and 4 hours for cold weather). Where saw cut joints cannot be cut along the entire projected length of the joint, a 90-degree hand grinder or other tool shall be used to complete the joint. Control joints may be installed by:
      i. Saw cut a depth of 1/4 the thickness of the slab (1.1/4" ± for early entry saws) minimum.
      ii. Tooled joints a depth of 1/4 the thickness of the slab
   c. For interior concrete slabs-on-grade, install construction or control joints in slabs on grade at a spacing not to exceed 24 times the slab thickness in any direction, unless noted otherwise. For interior concrete slabs-on-grade that are to receive floor coverings that are not sensitive to minor floor movement or surface imperfections (i.e. carpet, hardwood) the contractor has the option to increase the control joint spacing to 36 times the slab thickness in any direction.

9. Construction
   a. Use chairs or other support devices recommended by the CRSI to support and tie reinforcement bars prior to placing concrete. Reinforcing steel for slabs on grade shall be adequately supported. Support reinforcing steel of slabs on grade with precast concrete units. Lifting the reinforcing off the grade during placement of concrete is not permitted.
   b. Concrete to be mechanically consolidated during placement per ACI standards.
   c. Contractor shall coordinate placement of all openings, curbs, dowels, sleeves, conduits, bolts, inserts and other embedded items prior to concrete placement.
   d. All embeds, anchors and dowels shall be securely tied to formwork or to adjacent reinforcing prior to the placement of concrete.
   e. No pipes, ducts, sleeves, etc shall be placed in structural concrete unless specifically detailed or approved by the structural engineer. Penetrations through walls when approved shall be built into the wall prior to concrete placement. Penetrations will not be allowed in footings or grade beams unless detailed. Piping shall be routed around footings and grade beams and unless detailed. Footings shall be stepped to avoid piping.
   f. Reinforcing Bars shall not be welded. Do not substitute reinforcing bars for DBAs or HSAs.

CONCRETE TILT-UP PANELS

1. See architectural floor plans and panel elevations for dimensions, openings, reveals, form liners, finish conditions, etc. Verify all dimensions prior to pouring concrete tilt-up panels.

2. The panel thickness is the total panel thickness including the dimension of any reveals, form liners, recesses, etc.

3. The location and placement of panel lifting inserts shall be the responsibility of the contractor. The contractor shall also furnish and install any additional reinforcing required for lifting and placing the panels

4. The contractor shall be responsible for locating and placing all bolts and inserts for angles, ledgers, plates, or any other bolted connections, as well as cast-in-plates and connectors for welded connections.

5. The contractor shall provide openings, sleeves, inserts for plumbing mechanical and electrical pipes, ducts, conduits, and miscellaneous items and for other trades as may be necessary. Breaking holes in or through panels will not be permitted.

6. The contractor shall add additional shims at third points under each panel immediately after each panel is plumbed and braced and before the panel weight is released from the crane in order to reduced point loading on the footings.

7. All wall panels shall be temporarily supported horizontally and vertically with the necessary shoring and bracing which, during erection, shall not be removed until all structural members, including the roof deck, are secured.

8. Contractor shall thicken concrete slab-on-grade as required to accommodate their method of bracing concrete tilt-up wall panels.

9. See the architectural elevations for the finish conditions of the individual concrete panels and the locations of recessed feature strips. Maintain concrete cover for reinforcing at any recessed feature.

10. For tilt panel walls with single curtain of wall reinforcing, the centerline of the vertical reinforcing shall be located at the center of the wall, except where architectural horizontal tooled joints, form liners, and/or recesses occur. Then, the centerline of the vertical reinforcing shall be centered between the tooled joint, form liners and/or recess and the opposite face of the tilt-up wall panel, unless noted otherwise.

POST-INSTALLED ANCHORS

1. General Post-Installed Anchor Notes
   a. Do not install adhesive anchors in concrete if less than 21 days old; do not install mechanical anchors, screw anchor or powder actuated anchors in concrete less than 7 days old. Contractor must obtain written approval from the engineer to install prior to these time periods. Do not apply full load to anchors until concrete has reached 28-day compression strength.
   b. Anchors or adhesives specified in details shall be provided; alternative anchors or adhesives may be used if the contractor provides calculations demonstrating that the alternative can achieve the performance values of the specified product. These calculations, along with an ICC-ES ESR or IAPMO-UES ER approval for use in cracked concrete and compliant with the specified codes herein, must be submitted to the structural engineer prior to use.
   c. Follow all the manufacturer's recommendations and certification testing reports for anchor installation. See specific anchors below for more information.
   d. No anchor shall be installed within 1.5 anchor rod diameters of an abandoned hole that has been filled with non-shrink grout; increase distance to 3 anchor rod diameters when the abandoned hole has not been filled.

2. Adhesive Anchors
   a. For anchors in concrete, the adhesives shall be divided into two groups: Standard Adhesives and High Strength Adhesives. Standard adhesives can be used in general applications when details reference the "Standard Adhesive Embedment Schedule" in drawings. High Strength adhesive groups will be specified for the particular application in the drawings and details. When a High Strength Adhesive is specified, the contractor has the option to use any of the adhesives in the High Strength group. When a Standard Adhesive is specified, the contractor has the option to use any of the adhesives in either group. See below for the acceptable adhesives in each group.
      i. Standard Adhesive Group for anchors in concrete includes the following adhesives:
         1. SET-XP (ICC-ES ESR-2508) by Simpson Strong-Tie
         2. Pure 50+ (ICC-ES ESR-3576) by Dewalt
         3. AC100+ Gold (ICC-ES ESR-2582) by Dewalt
         4. HIT-RE 100 (ICC-ES ESR-3829) by Hilti, Inc.
      ii. High Strength Adhesive Group for anchors in concrete includes the following adhesives:
         1. SET-3G (ICC-ES ESR-4057) by Simpson Strong-Tie
         2. Pure 110+ (ICC-ES ESR-3298) by Dewalt
         3. AC200+ (ICC-ES ESR-4027) by Dewalt
         4. HIT-RE 500-V3 (ICC-ES ESR-3814) by Hilti Inc.
         5. HIT-HY 200 (ICC-ES ESR-3187) by Hilti Inc.
   b. Adhesive shall be within the manufacturer's recommended life time and prior to expiration date. Do not use adhesive that has not been stored per manufacturer's recommendations or may have experienced freeze thaw cycles or extreme heat.
   c. Do not install adhesive anchor in wet or damp hole unless product is approved for such conditions without strength reduction. Do not install adhesive anchors if concrete temperature is below 50-degree F unless adhesive is approved for lower temperature without strength reduction. Refer to manufacturer's published installation instructions.
   d. Follow all the manufacturer's recommendations and certification testing reports regarding hole cleaning prior to adhesive installation. All holes shall be drilled with ANSI standard bits designed for concrete. Diamond core drilled holes are not allowed unless indicated in specific details or approved by the structural engineer prior to use.

3. Mechanical Anchors
   a. For concrete, the mechanical anchor shall be Kwik Bolt TZ2 (ICC-ES ESR-4266) by Hilti Inc., Strong-Bolt 2 (ICC-ES ESR-3037) by Simpson Strong-Tie Inc. or Power-Stud+ SD2 (ICC-ES ESR-2502) by Dewalt.

4. Screw Anchors
   a. For concrete, the screw anchors shall be Titen HD (ICC-ES ESR-2713 for concrete only) by Simpson Strong-Tie, or Screw-Bolt + (ICC-ER ESR-3889 for concrete only) by DeWalt or Kwik HUS-EZ (ICC-ES ESR-3027 for concrete only) by Hilti Inc.

5. Powder Actuated Fasteners
   a. For fasteners driven into steel (except at metal decks), concrete. or concrete over metal deck, the fastener shall be X-U P8 TH Universal Knurled Shank Fastener (ICC-ES ESR-2269) by Hilti Inc., PDPA (ICC-ES ESR-2138) by Simpson Strong-Tie Inc. or 8mm Head Spiral CSI Drive Pin (ICC-ES ESR-2024) by Dewalt.

STRUCTURAL STEEL

1. Material:

a.	Wide Flange and Channel Sections	ASTM A992 (50 ksi)
b.	Angles and Plates	ASTM A572 Gr 50 (50 ksi)
c.	Square or Rectangular HSS	ASTM A500 (50 ksi) Grade C or ASTM A1085 (50ksi)
d.	All Thread Rods	ASTM A36 (36 ksi)
e.	Deformed Bar Anchors (DBA)	ASTM A1064
f.	Headed Stud Anchors (HSA)	ASTM A108
g.	Non-Metallic Shrinkage Resistant Grout	ASTM C 1107
h.	Anchor Rods	
	Typical, uno	ASTM F1554, Grade 36, with ASTM A563 heavy hex nuts and ASTM F436 hardened washers Grade A
	Brace Frame Columns	ASTM F1554, Grade 105 with ASTM A563 heavy hex nuts and ASTM F436 hardened washers Grade A
i.	Bolted Connections:	ASTM F3125 Grade A325 with ASTM A563 nuts and ASTM F436 hardened washers.

   j. All structural steel shapes and plates listed on these structural plans as a Seismic Resisting Element (SRE) shall be tested in accordance with ASTM A6, Supplementary Requirement S30, *Charpy V-Notch Impact Test for Structural Shapes – Alternate Core Location*. The impact test shall meet a minimum average value of 20 ft-lbs or greater absorbed energy at 70 degrees Fahrenheit.
      i. Shapes: with flanges 1.1/2" or thicker
      ii. Plates: 2" and thicker
      iii. Test Frequency: Each heat.

2. Fabrication and construction shall comply with the latest edition of the following Codes and Standards:
   a. American Institute of Steel Construction (AISC), "Specification for the Design, Fabrication and Erection of Structural Steel for Buildings," with "Commentary".
   b. AISC "Code of Standard Practice" excluding the following: Section 3.2, Section 4.4, Section 4.4.1,
   c. AISC "Specification for Structural Joints Using High-Strength Bolts"
   d. American Welding Society (AWS), Structural Welding Code (specific items do not apply when they conflict with the AISC requirements).
   e. AISC "Seismic Provision for Structural Steel Buildings"- ANSI/AISC 341
   f. All exterior steel elements, including anchor rods and bolts shall be hot dip galvanized in accordance with ASTM A123 and A153 where applicable.

3. Welding
   a. Field weld flags that have been put in these documents are for suggestion only. The contractor has the option to substitute shop welding for field welding or vice versa. The steel fabrication and steel erection drawings must clearly distinguish between shop welds and field welds prior to any work being performed.
   b. Steel fabricators shall indicate the shop welds that are excluded from their bids. Steel erectors shall indicate the field welds that are excluded from their bids. It is the responsibility of the contractor to coordinate shop welding and field welding with the appropriate subcontractors.
   c. All welding and cutting shall be performed by AWS certified welders.
   d. Use E70 XX (58 ksi yield, 70 ksi tensile) unless noted otherwise. E60 XX may be used for welding steel decks.
   e. All intersecting steel shapes which are not bolted shall be connected by a fillet weld all around, unless noted otherwise. Where fillet weld sizes are not shown they shall be 1/16" less than the thinnest of the connected parts for thicknesses 1/4" and larger. Fillet welds on plates less than 1/4" shall be of the same size as the thinnest of the connected part.
   f. Reinforcing Bars: Do not weld rebar. Do not substitute reinforcing bars for deformed bar anchors (DBAs), machine bolts, or headed stud anchors (HSAs).
   g. Do not weld anchor bolts, including "tack" welds.
   h. Headed Stud Anchors (HSAs) welding and deformed bar anchor welding shall conform to the manufacturer's specifications.
   i. Protected zones for braced frames shall clearly marked at the job site.
   j. Welds indicated for elements designated as SRE (Seismic resisting elements) shall be made with a filler metal capable of providing 22% minimum elongation and a minimum Charpy V-Notch (CVN) toughness of 20 ft-lb (27 J) at 0 degrees Fahrenheit. In addition to meeting this requirement, welds indicated as Demand Critical shall be made with a filler metal also capable of providing a minimum Charpy V-Notch (CVN) toughness of 40 ft-lb (54 J) at 70 degrees Fahrenheit. Acceptable electrodes include E70TG-K2, E71T-8 and E71T-1.

4. Bolted Connections:
   a. Use bolts for steel to steel connections, as noted herein or as noted on the drawings. Bolts shall be used in connections for simple span framing and beam (or girder) to bearing plate connections. Tighten bolts to a snug tight condition. At connections of beams marked as 'SRE' on the drawings, bolts shall be pretensioned per AISC 360 and tightened by the turn of the nut, calibrated wrench, or direct tension indicator method. Alternate fastener designs as defined by AISC shall be submitted to the engineer for review and acceptability prior to installation. See bolted connections schedule in drawings.
   b. Use hardened washers beneath the turned element of all bolts or nuts. Use hardened beveled washers, to compensate for the lack of parallelism, where the outer face of the bolted parts has a slope greater than one in twenty with respect to the plane normal to the bolt axis. At oversized holes hardened washers or plates shall conform with ASTM F-436 and shall completely cover the slot after installation.
   c. Where a steel to steel beam connection is not shown, provide a standard AISC framed connection for one half the total uniform load capacity of the beam for the span and steel specified.
   d. Bolts, nuts and washers shall not be reused.

5. Provide baseplate anchor rod connections to concrete elements that correlate with ACI 117. Circular or square washers are acceptable:

ANCHOR ROD DIAMETER	HOLE DIAMETER	WASHER SIZE	WASHER THICKNESS (MIN)
3/4"	1.5/16"	2"	1/4"
7/8"	1.9/16"	2.1/2"	5/16"
1"	1.7/8"	3"	3/8"
1.1/4"	2.1/8"	3.1/2"	1/2"
1.1/2"	2.3/8"	4"	1/2"
1.3/4"	2.7/8"	4.1/2"	5/8"
2"	3.1/4"	5"	3/4"
2.1/2"	3.3/4"	5.1/2"	7/8"

6. Provide full-depth web-stiffener plates where indicated in the details including at each side of all beams at all bearing points. Stiffener plate thickness shall be the greater of the following:
   a. 1/4"
   b. 1/2 the thickness of the beam flange
   c. 1/16 the width of the stiffener (half the beam flange width).
   d. 1/32 the depth of the beam
   Stiffener plates shall be welded on one side with fillet welds all around. The size of the fillet weld shall be 1/2 the stiffener plate thickness or 3/16" min.

7. Deck Ledger Angles for Concrete Tilt-up Panels:
   a. Sections of deck ledger angles attached to the tilt-up wall panels do not need to be spliced together across panel joints. If, however, a deck ledger angle, due to either its own length or to the placement of the embed plate, is required to cantilever more than 24", then a 5/8" diameter x 5" embedment adhesive anchor should be required at the unsupported cantilever end (but not less than 6" from a tilt-up wall panel joint). Embed plates are to be located at the location of the bearing-end of steel joists.

OPEN WEB STEEL JOISTS AND GIRDERS

1. All open web steel joist and girders shall be fabricated and erected in accordance with the latest edition of Steel Joist Institute (SJI), "Standard Specifications and Code of Standard Practice".

2. At the completion of fabrication, the steel joist manufacturer shall submit to the building official a certificate of compliance in accordance with IBC Section 1704.2.5 stating if the work was performed in accordance with approved construction documents and with SJI standard specifications.

3. Joists and girders with slopes greater than 1/2" per foot shall be designed to meet or exceed the load capacities, listed in the SJI load tables, of the joist and girder sizes indicated on the framing plan, as if the joists or girders were installed level.

4. Provide special bearing ends to accommodate slopes from sloped joists, sloped and girders or sloped bearing conditions.

5. Modifications to any joist or girder, including holes through the top and bottom chords, without the written consent and direction from the manufacturer are not allowed.

6. Joist and girder loads called out in the drawings are allowable stress design (ASD) level (i.e. 0.7SL, 0.6WL, 0.7EQ).

7. Joist designer shall design roof joists and girders for wind uplift indicated in the Components and Cladding table within the Basis of Design section; these loads are listed in strength level (1.0WL). When designing for wind uplift effects, use 0.6DL = 12 psf and 0.6WL.

8. Roof joist deflection shall be limited to L/240 for total loads and L/360 for snow loads, unless noted otherwise on plans. The SJI required camber can be subtracted when considering the total load deflection requirements.

9. Camber joist and girder per typical SJI requirements, unless noted otherwise on plans.

10. Joist bridging shown on plans is for schematic purposes only; actual size, quantity and location of bridging shall be determined by the joist supplier per SJI. Coordinate bridging locations to avoid interference with mechanical, electrical and fire protection equipment and skylights.

METAL DECKING

1. Steel deck shall comply with the latest requirements of the Steel Deck Institute.

2. All deck shall be 3-span continuous minimum. In areas where 3-span conditions are not possible, the contractor shall provide heavier gage deck as required to provide the equivalent loading of the deck under a three-span condition.

3. Steel roof deck shall not be used to support loads from plumbing, HVAC ducts, light fixtures, architectural elements or equipment of any kind, unless specifically noted. Light weight suspended acoustical ceilings with a total weight of 50 lbs per attachment may be hung from roof deck. The hangers shall be staggered to distribute the loads over multiple deck flutes.

4. All deck supporting members shall be dry before welding.

5. Clinch seams before welding interlocking seams.

Steel Roof Deck (Typical)
   a. Steel roof deck shall be 1.1/2" deep X 20 gage minimum painted, type "B" wide rib deck with interlocking side seams with the following properties:

	22 Gage	20 Gage	18 Gage	16 Gage
Minimum S (in^3/ft) =	0.188	0.237	0.331	0.410
Minimum I (in^4/ft) =	0.192	0.231	0.306	0.381

   b. Minimum allowable deck diaphragm shear values shall be 1330 lbs/ft for a 6'-6" deck span.
   c. Fasten deck to supporting framing members with powder-driven fasteners. Powder-driven fasteners shall be as indicated below based on the steel framing thicknesses:

Steel Framing Thickness	Fastener	ICC-ESR or IAPMO report number
0.125" to 0.375"	Hilti X-HSN-24	ICC-ESR 2776
0.25" and up	Hilti X-ENP-19 L15	ICC-ESR 2776
0.113" to 0.155"	Pneutek SDK61075	ICC-ESR 2941
0.155" to 0.250"	Pneutek SDK63075	ICC-ESR 2941
0.188" to 0.312"	Pneutek K64062	ICC-ESR 2941
0.281" and up	Pneutek K66062	ICC-ESR 2941

   d. For type "B" metal deck, fasteners shall be placed based on a 36/7/4 attachment pattern (Closer spacings may be used to develop minimum shear requirements):
      i. Supports perpendicular to deck corrugations:
         1. At lap joints between adjacent deck sheets: 6" o.c.
         2. At intermediate supports away from lap joints: 12" o.c.
         3. At all steel elements labeled 'SRE' on plan: 6"o.c.
      ii. Supports parallel to deck corrugations: 6" o.c.
   e. In lieu of mechanical fasteners, contractor may weld deck to supporting framing members with 3/4" diameter puddle welds at the same spacing for deck pins as indicated above.

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09/16/2026

GENERAL STRUCTURAL NOTES
A NEW ADDITION FOR :
FORTEM TECHNOLOGIES
W.I.C.P. COMERCIAL PROPERTIES
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GENERAL STRUCTURAL NOTES

f. Attach metal deck interlocking seams using Verco PunchLok II System at 6" o.c. maximum. If an alternative method of interlocking seam attached is proposed, the contractor shall submit the alternative method, prior to construction, that includes documentation with a comparison of the strength of the alternative connection method (in units of lbs/ft) compared to that of the specified connection method.
g. In lieu of a mechanical interlocking seam connection, contractor may weld the seams with a 1.1/2" long top seam weld at the same spacing as the mechanical connection system indicated above.
h. Provide a 2" minimum bearing and a 4" lap at the splice points.

COLD-FORMED STEEL

1. All cold-formed steel shall meet the requirements of "Specifications for the Design of Cold-Formed Steel Structural Members" by American Iron and Steel Institute (AISI).

2. All cold-formed steel connectors shall be provided by The Steel Network. If the contractor elects to substitute for another manufacturer, the contractor shall submit a revised connector list, prior to construction, that includes the following information:
   a. Specified connector indicated on these plans
   b. Requested substitution connector
   c. Allowable capacity of the requested substitution connector

3. Light Gauge Steel Framing:
   a. Galvanized steel shall meet the minimum requirements of ASTM A653 (Fy = 50 ksi) for 97 mil (12 gauge), 68 mil (14 gauge) and 54 mil (16 gauge). For 43 mil (18 gauge) and lighter galvanized steel shall meet and ASTM A653 (Fy = 33 ksi). Galvanized coatings must meet the ASTM A924.
   b. Follow all manufacturers' recommendations for the use of these products.
   c. Unless noted otherwise, all welded connections shall be done according to AWS standards.
   d. All interior non-bearing steel-stud walls that extend above the ceiling but do not attach to the structure above shall be brace with diagonal metal-stud braces (45 degrees). The kl/r ratio of the brace shall not exceed 200 and shall not be spaced further apart than 10'-0" o.c. Connect diagonal braces to the top of the steel stud walls and to the top flange of the steel beams with two #10 tek screws minimum. Where a concrete deck occurs above, use two powder-driven fasteners per diagonal brace. Other approved methods may be used.

REQUIREMENTS FOR SPECIAL INSPECTION, MATERIAL TESTING, AND STRUCTURAL OBSERVATION

STATEMENT OF SPECIAL INSPECTION AND QUALITY ASSURANCE

Special inspection and quality assurance (including structural testing), as required by section 1704 and 1705 of the 2024 IBC, shall be provided by an independent agency employed by the owner for the items in this section and other areas of the approved construction documents, unless waived by the building official.	
The names and credentials of the Special Inspectors to be used shall be submitted to the Building Official for approval.	
Responsibilities of the Special Inspector	
	Special Inspector shall review all work listed in the special inspection schedules herein for conformance with the approved construction plans, specifications and 2024 IBC.
	Testing and inspection reports shall be sent on a weekly basis to the architect, engineer, building official and contractor for review. All items not in compliance shall be brought to the immediate attention of the contractor for correction, and if uncorrected, to the architect, engineer and building official.
	Once corrections have been made by the contractor, the special inspector shall submit a final signed report to the building official stating that the work requiring special inspection was, to the best of the special inspector's knowledge, in conformance with the approved construction plans, specifications and 2024 IBC.
Responsibilities of the Contractor	
	The contractor shall submit a written statement of responsibility to the owner and the building official prior to the commencement of work in accordance with 2024 IBC section 1704.4. This statement shall indicate that the contractor will coordinate and cooperate with the required inspections contained herein.
	The contractor shall notify the designated special inspector that work is ready for inspection at least 24 hours before said inspection is required.
	All work requiring special inspection shall remain open and accessible until it has been observed by the special inspector and deemed acceptable through inspection report.
	Special inspection during fabrication is not required if the fabricator is registered and approved by the authority having jurisdiction to perform such work without special inspection. Upon completion of fabrication, the approved fabricator shall submit a certificate of compliance for submittal to the building official.
	The contractor shall be responsible for their own quality control including materials, fabrication, erection, etc.

SOILS CONSTRUCTION INSPECTIONS

Soils (2024 IBC Section 1705.6, and Table 1705.6)

ITEM FOR VERIFICATION & INSPECTION	INSPECTION FREQUENCY		COMMENTS
	CONTINUOUS	PERIODIC	
Site Preparation	-	X	Verify excavations are extended to proper depth and have reached proper materials. Verify that the site has been prepared in accordance with the soils report prior to placement of prepared fill.
Fill Material	X	-	Verify, during fill placement, that the material being used and procedures in accordance with the provisions of the approved geotechnical report. Verify densities and lift thicknesses during placement and compaction of the fill.
Continuous Footing Backfill: at least one test for each 40 linear feet or less of wall length, but no fewer than 2 tests.	-	X	At each compacted backfill layer.
Spot Footing Backfill: Minimum of one compaction test for each lift for each spot footing.	-	X	At each compacted backfill layer.
See specifications for further requirements.	-	-	

CONCRETE CONSTRUCTION INSPECTIONS

Concrete (2024 IBC Section 1705.3, Table 1705.3, and Section 1904) The following concrete elements require special inspection:

All concrete footings, All concrete walls, including foundation walls, Interior concrete slab-on-grade, Concrete tilt-up panels, Concrete piers.

ITEM FOR VERIFICATION & INSPECTION	INSPECTION FREQUENCY		COMMENTS
	CONTINUOUS	PERIODIC	
Protection of concrete during cold and hot weather	-	X	Verify maintenance of specified curing temperature and techniques
Verify materials used including use of the required mix design	-	X	Verify Use of required design mix. Verify mix design meets strength and exposure requirements listed on General Structural Notes
Formwork	-	X	Verify shape, location and member dimensions
Testing of concrete prior to concrete placement	-	X	Fabricate specimens for strength tests, perform slump and air content tests, and determine the temperature of the concrete.
Bolts installed in concrete	X	-	Inspection of anchors or embeds cast in concrete is required when allowable loads have been increased or where strength design is used. Prior to and during concrete placement.
Embeds and Inserts installed in concrete	X	-	Prior to and during concrete placement.
Concrete reinforcing steel placement	-	X	Verify that reinforcing is of specified type, grade and size; that it is free of oil, dirt and rust; that it is located and spaced properly; that hooks, bends, ties, stirrups and supplemental reinforcement are placed correctly; that lap lengths, stagger and offsets are provided; and that all mechanical connections are installed per the manufacturer's instructions and/or evaluation report.
Concrete placement and samples	X	-	Cylinders, slump, temperature and air-entrainment shall be done for every 150 cubic yards or each day's production if the day's production is less than 150 cubic yards nor less than once for each 5000 sq. ft of surface area for slabs and walls.
See specifications for further concrete testing requirements.	-	-	

MISCELLANEOUS CONCRETE CONSTRUCTION INSPECTIONS

Concrete Tilt-up Panels (2024 IBC Section 1705.3, and Table 1705.3)

ITEM FOR VERIFICATION & INSPECTION	INSPECTION FREQUENCY		COMMENTS
	CONTINUOUS	PERIODIC	
All concrete tilt-up panels, reinforcing and connections.	-	X	Verify all concrete tilt-up panel connections are in place during installation and erection.

STEEL BOLTED CONSTRUCTION INSPECTIONS

Where special inspections are listed under "Random Basis", special inspection of elements and items shall be performed on a random basis. Operations need not be delayed pending these inspections. Where special inspection items are listed under "Every Element", special inspection shall be performed for each element, joint, or member, as applicable based on the task listed below.

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09/16/2026

GENERAL STRUCTURAL NOTES / SI

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REQUIREMENTS FOR SPECIAL INSPECTION, MATERIAL TESTING, AND STRUCTURAL OBSERVATION

High Strength bolted connections (2024 IBC section 1705.2.1, section 1705.13.1 and section 1705.14.1 and AISC 360-22 Chapter N and AISC 341-22 Chapter J)			
ITEM FOR VERIFICATION & INSPECTION	INSPECTION PLAN		COMMENTS
	Every Element	Random Basis	
Inspection Tasks Prior to Bolting			
Manufacturer's certifications available for fastener materials	X	-	
Fasteners	-	X	Marked in accordance with ASTM requirements
Proper fasteners selected for the joint detail	-	X	Including grade, type, bolt length if threads are to be excluded from shear plane.
Proper bolting procedure selected for joint detail	-	X	
Connecting elements	-	X	Including the appropriate faying surface condition and hole preparation, if specified, meet applicable requirements
Pre-installation verification testing by installation personnel observed and documented for fastener assemblies and methods used	-	X*	Not required if only snug-tight joints are specified per [Section N5.6(1) of AISC 360-22]) Special Inspector shall document the work has been performed in accordance with the contract documents, either in the shop or field, including noncompliant work and whether that work has been satisfactorily repaired.
Proper storage	-	X	Storage provided for bolts, nuts, washers and other fastener components
Inspection Tasks During Bolting			
Fastener assemblies, of suitable condition	-	X	Verify that fasteners placed in all holes and washers (if required) are positioned as required.
Joint	-	X	Verify that joint brought to the snug-tight condition (min) unless noted otherwise.
Fastener component	-	X	Verify that fastener component not turned by the wrench prevented from rotating
Pretensioned Fasteners	-	X	Verify that pretensioned fasteners are pretensioned in accordance with the RCSC *Specification*, progressing systematically from the most rigid point toward the free edges (Not required if only snug-tight joints are specified per [Section N5.6(1) of AISC 360-22]; Not required for pretensioned joints using turn-of-the-nut method with match-marking, direct-tension-indicators or twist-off type tension control bolt methods)
Inspection Tasks After Bolting			
Document acceptance or rejection of each bolted connection	X*	-	Special Inspector shall document the work has been performed in accordance with the contract documents, either in the shop or field, including noncompliant work and whether that work has been satisfactorily repaired.
*Required for elements designated in these structural drawings as "Seismic Resisting Elements – SRE".			

STEEL WELDED CONSTRUCTION INSPECTIONS

Definition of Terms			
Where special inspections are listed under "Random Basis", special inspection of elements and items shall be performed on a random basis. Operations need not be delayed pending these inspections. Where special inspection items are listed under "Every Element", special inspection shall be performed for each element, joint, or member, as applicable based on the task listed below.			
Structural Welding (2024 IBC section 1705.2.1 and section 1705.13.1 and section 1705.14.1 and AISC 360-22 Chapter N and AISC 341-22 Chapter J)			
ITEM FOR VERIFICATION & INSPECTION	INSPECTION PLAN		COMMENTS
	Every Element	Random Basis	
Inspection Tasks Prior to Welding			
Welding procedures specifications and manufacturer certifications for welding consumables shall be available	X	-	Welding procedures shall be submitted to the Engineer of Record for review.
Material identification (type/grade)	-	X	
Welder identification system	-	X	Verify there is a system in place to identify the welder who has welded a joint or member.
Fit-up of groove welds	X*	-	Including joint geometry, joint preparation, dimensions, cleanliness, tacking and backing type and fit.
Configuration and finish of access holes	-	-	
Fit-up of fillet welds	X*	X	Including alignment, gaps at root, dimensions, cleanliness and tacking.
Check welding equipment	-	X	
SRE Welds and Demand Critical Welds	X	-	Provide manufacturer's certifications that the filler metal meets the supplemental notch toughness requirements, as indicated in these documents. When the filler metal manufacturer does not supply such supplemental certifications, the fabricator or erector, shall have the necessary testing performed and provide the applicable test reports to the Engineer of Record for review.
*Required for elements designated in these structural drawings as "Seismic Resisting Elements – SRE". May be reduced from 'Every Element' to 'Random Basis' after ten satisfactory welds have been completed. Subsequently, the inspector may change the requirements from 'Random Basis' to 'Every Element' and vice versa at their discretion.			
Inspection Tasks During Welding			
Use of qualified welders	-	X	
Control and handling of welding consumables	-	X	Including packaging and exposure control
Cracked tack welds	-	X	Verify no welding over cracked tack welds.
Environmental conditions	-	X	Including wind speed within limits and precipitation and temperature
WPS followed	-	X	Including settings on welding equipment, travel speed, selected welding materials, shielding gas type/flow rate, preheat applied, interpass temperature (min./max.) maintained, proper position (F, V, H, OH)
Welding techniques	-	X	Including interpass and final cleaning, each pass within profile limitations, each pass meets quality requirements
Inspection Tasks After Welding			
Welds cleaned	-	X	
Size, length and location of welds	X	-	
Welds meet visual acceptance criteria	X**	-	Including crack prohibition, weld/base-metal fusion, crater cross section, weld profiles, weld size, undercut and porosity.
Arc strikes, k-area, weld access holes for flanges greater than 2", backing removed and weld tabs removed (if required), repair activities	X**	-	When welding of doubler plates, continuity plates, or stiffeners has been performed in the k-area, visually inspect the web k-area for cracks within 3" of the weld.
Ultrasonic testing (UT) for complete-joint-penetration (CJP) groove welds, partial penetration groove welds when used in column splices, and welds subject to fatigue	-	X	Perform UT on 10% of welds subject to transversely applied tension loading in butt, T- and corner joints, in material 5/16" thick or greater. For materials less than 5/16" thick, ultrasonic testing is not required. The UT rate must be increased to 100% if the rejection rate exceeds 5% of the welds tested. See Sections N5.5d and N5.5f for more information.
Placement of reinforcing or contouring fillet welds	X**	-	
Ultrasonic testing (UT) for base metal thicker than 1.1/2", loaded in tension in the through-thickness direction in T- and corner-joints where the connected material is greater than 3/4" and contains CJP groove welds	X**	-	Provide UT for discontinuities found within t/ 4 of the steel surface shall be accepted or rejected based on criteria of A.W.S. D1.1/D1.1M Table 6.2 where 't' is the thickness of the part subjected to tension load. All deficient welds shall be corrected and tested at no additional cost to the owner.
Document acceptance or rejection of each welded joint or member	X**	-	
** Required for elements designated in these structural drawings as "Seismic Resisting Elements – SRE". All welding inspections and nondestructive testing shall satisfy the requirements above and AWS D1.8/D1.8M. The Inspector shall document the work has been performed in accordance with the contract documents, either in the shop or field, including noncompliant work and whether that work has been satisfactorily repaired.			

OPEN-WEB STEEL JOIST AND JOIST GIRDER CONSTRUCTION INSPECTIONS

Installation of open-web steel joists and joist girders (IBC 2024 Section 1705.2.4, and Table 1705.2.4)			
ITEM FOR VERIFICATION & INSPECTION	INSPECTION FREQUENCY		COMMENTS
	CONTINUOUS	PERIODIC	
End connections – welding or bolted	-	X	Follow SJI references listed in section 2207
Standard horizontal and diagonal bridging	-	X	Follow SJI references listed in section 2207
Bridging that differs from SJI specifications listed in section 2207.1	-	X	

MISCELLANEOUS STEEL CONSTRUCTION INSPECTIONS

Metal Deck Construction (2024 IBC section 1705.2.3, AWS D1.3, and section 6.1 of SDI QA/QC-2011)			
ITEM FOR VERIFICATION & INSPECTION	INSPECTION FREQUENCY		COMMENTS
	CONTINUOUS	PERIODIC	
Material verification of metal deck(s)	-	X	Confirm that identification markings are provided that conform to applicable ASTM standards specified on construction documents
Placement and installation of metal deck	-	X	Confirm that the deck is installed per the approved construction documents, installation drawings, shop drawings and applicable reference standards.
Steel deck welding/fastening	-	X	Visual inspection is required to verify size and spacing of welds/fasteners for deck attachment to the supporting structure. Also verify spacing and size of side-seam attachments. Confirm that welds/fasteners meet acceptance criteria of applicable referenced standards and manufacturer's instructions. Where applicable, welder qualifications should be verified.
Protected Zone Inspection (2024 IBC section 1705.13.1 and 1705.14.1 and AISC 360-22 Chapter N and AISC 341-22 Chapter J)			
Protected zones for special moment frames and/or special braced frames	-	X	Verify no holes and/or unapproved attachments have been made by the contractor.
Shop drawings shall designate the protected zones	-	X	Protected zones are to be painted or marked prior to arrival in the field for easy recognition.

POST-INSTALLED ANCHOR INSPECTIONS

ITEM FOR VERIFICATION & INSPECTION	INSPECTION FREQUENCY		COMMENTS
	CONTINUOUS	PERIODIC	
Post-Installed Anchors and Reinforcing Bars (2024 IBC Section 1705.1.1)			
Adhesive Anchors and Reinforcing Bars	X	-	Special inspection shall be performed per manufacturer's requirements and approved ICC-ES reports noted in POST-INSTALLED ANCHORS section of the General Structural Notes prior to installation of adhesive and anchor rod. If the anchor is not installed in a horizontal, upwardly inclined or overhead orientation meant to resist sustained tension loads, special inspection may be reduced to a periodic frequency.
Mechanical Anchors and Screw Anchors	-	X	Special inspection shall be provided per manufacturer's requirements and approved ICC-ES reports noted in POST-INSTALLED ANCHORS section of the General Structural Notes prior to installation of mechanical or screw anchor.

STRUCTURAL OBSERVATION PROGRAM

If structural observations are required, they shall be done by the Engineer of Record or an approved subordinate at the stages of construction listed in the Construction Notification Phases section of these notes. The structural observer shall visually observe representative locations of structural systems, details and load paths for general conformance with the approved construction documents. Structural observation does not include or waive the responsibility for the special inspections indicated in these structural drawings. At the conclusion of the project, the designated structural observer shall submit to the building official a written statement that the site visits have been made and identify any reported deficiencies that to the best of the structural observer's knowledge have not been resolved (See IBC 2024 1704.6).

STRUCTURAL OBSERVATION PROGRAM REQUIRED BY CODE:	**YES**	**NO**
	-	**X**

CONSTRUCTION MILESTONE SCHEDULE

CONTRACTOR TO NOTIFY ENGINEER AT THE FOLLOWING CONSTRUCTION PHASES:	
CONCRETE	
Footings, stem walls and piers	Prior to pouring concrete
Concrete tilt-up panels	Prior to pouring concrete
STEEL	
Roof framing	After substantial portion of framing is erected
Roof deck	After welding/fastening and prior to roofing

DEFERRED SUBMITTALS

For the purposes of this section, deferred submittals are defined as per section 107.3.4.1 of the IBC 2024. Submittal documents for deferred submittal items shall be submitted to the engineer, architect and building official for their review for general conformance with the design of the building.

DEFERRED STRUCTURAL SUBMITTALS FOR THIS PROJECT ARE
Canopies integrated with window
Open web steel joists and girders (per IBC 2024 section 2207)

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STATE OF UTAH
09/16/2026

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LEGEND OF ABBREVIATIONS

AB	ANCHOR BOLT(S)
ABV	ABOVE
ALT	ALTERNATE
APPROX	APPROXIMATE
ARCH	ARCHITECT(URAL)
BF-x	BRACED FRAME
BLDG	BUILDING
BLW	BELOW
BM	BEAM
BOT	BOTTOM
BRG	BEARING
BTWN	BETWEEN
CC.	CENTER-TO CENTER
C.J.	CONST/CONTROL JOINT
CJP	COMPLETE JOINT PENETRATION GROOVE WELD (FULL PEN WELD)
COL	COLUMN
CONC	CONCRETE
CONST	CONSTRUCTION
CP-x	CONCRETE PIER
CRW-x	CONCRETE RETAINING WALL
CTR	CENTER
CW-x	CONCRETE WALL
DB	DECK BEARING
DBA	DEFORMED BAR ANCHOR
DBE	DECK BEARING ELEVATION
DBL	DOUBLE
DET	DETAIL
DIA	DIAMETER
DIM	DIMENSION
DN	DOWN
DWG	DRAWING
DWL	DOWEL
(E)	EXISTING
EA	EACH
E.F.	EACH FACE
E.J.	EXPANSION JOINT
ELEC	ELECTRICAL
ELEV	ELEVATION
E.O.D.	EDGE OF DECK
E.O.S.	EDGE OF SLAB
EQUIP	EQUIPMENT
EQ.	EQUAL
E.W.	EACH WAY
EXST	EXISTING
EXP	EXPANSION
EXT	EXTERIOR
FC-x	CONTINUOUS FOOTING MARK
F.D.	FLOOR DRAIN
FDN	FOUNDATION
F.F.	FINISHED FLOOR
FR-x	RECTANGULAR FOOTING
FS-x	SQUARE FOOTING MARK
FT	FOOT
FTG	FOOTING
FTS-x	THICKENED SLAB MARK
GA	GAUGE
GALV	GALVANIZED
GSN	GENERAL STRUCTURAL NOTES
HB	HORIZONTAL BRIDGING
HORIZ	HORIZONTAL
HSA	HEADED STUD ANCHOR
HT	HEIGHT
ICC	INTERNATIONAL CODE COUNCIL
IBC	INTERNATIONAL BUILDING CODE
I.F.	INSIDE FACE
IN.	INCH
INT	INTERIOR
JT	JOINT
JST	JOIST

k	KIP(S) = 1000 POUNDS
KLF	KIPS PER LINEAL FOOT
KSF	KIPS PER SQUARE FOOT
LBS	POUNDS
LF	LINEAL FOOT
LLH	LONG LEG HORIZONTAL
LLV	LONG LEG VERTICAL
LSH	LONG SIDE HORIZONTAL
LSV	LONG SIDE VERTICAL
MAX	MAXIMUM
MECH	MECHANICAL
MFR	MANUFACTURER
MIN	MINIMUM
MISC	MISCELLANEOUS
MSW	METAL STUD WALL
NIC	NOT IN CONTRACT
NTS	NOT TO SCALE
O.C.	ON CENTER
O.F.	OUTSIDE FACE
OPNG	OPENING
OPP	OPPOSITE
OWSJ	OPEN WEB STEEL JOISTS
PAF	POWDER-ACTUATED FASTENER
PCF	POUNDS PER CUBIC FOOT
PL	PLATE
PLF	POUNDS PER LINEAL FOOT
PNL	PANEL
PSF	POUNDS PER SQUARE FOOT
PSI	POUNDS PER SQUARE INCH
PT	POINT
REINF	REINFORCING
REQD	REQUIRED
R.D.	ROOF DRAIN
RTU	ROOF TOP UNITS
SBP-x	STEEL BASE PLATE MARK
SCW	SEISMIC CRITICAL WELD
SC-x	STEEL COLUMN MARK
SCP-x	STEEL CAP PLATE MARK
SHT	SHEET
SI	SPECIAL INSPECTION
SIM	SIMILAR
SMU	SUSPENDED MECHANICAL UNITS
SOG	SLAB-ON-GRADE
SQ	SQUARE
SRE	SEISMIC RESISTING ELEMENT
STAG	STAGGERED
STD	STANDARD
STL	STEEL
STR	STRUCTURAL
STS	SELF TAPPING SCREWS
T&B	TOP AND BOTTOM
TEMP	TEMPERATURE
THDS	THREADS
T.O.	TOP OF
TOC	TOP OF CONCRETE
TOD	TOP OF DECK
TOF	TOP OF FOOTING
TOS	TOP OF STEEL
TOW	TOP OF WALL
TYP	TYPICAL
UNO	UNLESS NOTED OTHERWISE
VERT	VERTICAL
W/	WITH
WT	WALL THICKNESS
WWF	WELDED WIRE FABRIC
WWM	WELDED WIRE MESH

SNOW DRIFT LEGEND

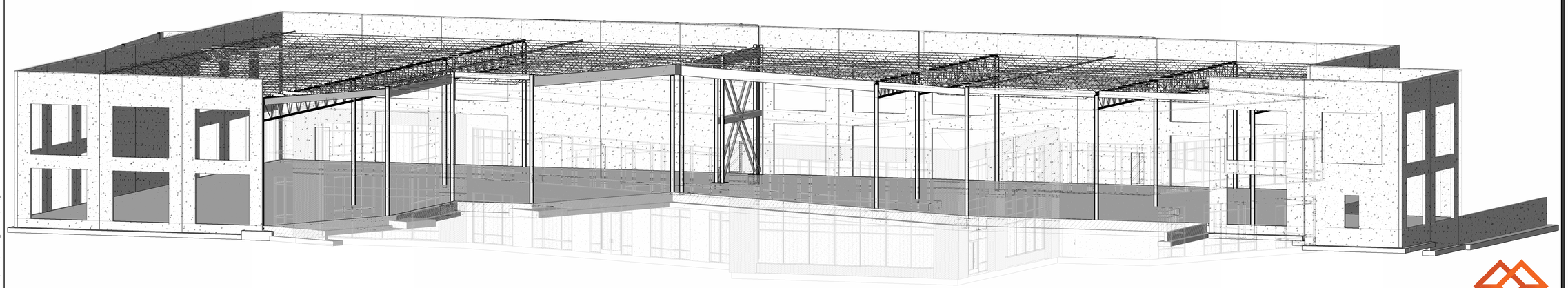
- INDICATES AREA OF SNOW DRIFT. JOIST SUPPLIER TO ADD SNOW DRIFT LOAD TO JOISTS AND GIRDERS
- xx psf / 0 psf / x'-x" — INDICATES ADDITIONAL LOADING DUE TO SNOW DRIFT (SEE SNOW DRIFT NOTE) xx psf INDICATES LOAD AT HIGH POINT x'-x" INDICATES LENGTH OF DRIFT
- xx psf / x psf / x'-x" — INDICATES ADDITIONAL LOADING DUE TO SNOW DRIFT (SEE SNOW DRIFT NOTE) xx psf INDICATES LOAD AT HIGH POINT, x psf INDICATES LOAD AT LOW POINT x'-x" INDICATES LENGTH OF DRIFT SEE PLAN FOR SNOW DRIFT LOADING.
- SNOW DRIFT NOTE — THESE LOADS ARE IN ADDITION TO THE JOIST UNIFORM AND POINT LOADS SHOWN ON PLANS. JOIST SUPPLIER TO ADD SNOW DRIFT LOAD TO BOTH JOISTS AND GIRDERS

MARKS AND SYMBOLS LEGEND

- SECTION MARK / SHEET NUMBER
- FOOTING DESIGNATION / TOP OF FOOTING ELEVATION
- INDICATES CONCRETE TILT-UP WALL PANEL. DASHED WALLS STOP AT DECK
- INDICATES NON-STRUCTURAL WALL ABOVE (NOT ALL ARE SHOWN)
- DEPRESS FOUNDATION WALL AND POUR SLAB OVER. SEE DETAIL 9/S5.01
- INDICATES STRUCTURAL WALL ABOVE.
- # — DESIGNATES CONCRETE TILT-UP WALL PANEL, SEE SCHEDULE AND ELEVATIONS ON SHEET(S) S3.02 TO S3.05
- FCx.x — INDICATES CONTINUOUS FOOTING. SEE SCHEDULE ON SHEET S6.01
- FSx.x — INDICATES SPOT FOOTING. SEE SCHEDULE ON SHEET S6.01
- FTRx.x — INDICATES THICKENED SLAB FOOTING. SEE SCHEDULE ON SHEET S6.01
- SC-x — INDICATES STEEL COLUMN, SEE SCHEDULE ON SHEET S6.02
- CP-x — INDICATES CONCRETE PIER. SEE SCHEDULE ON SHEET S6.01
- S——S — INDICATES FOOTING STEP, SEE DETAIL 12/S5.01
- (SRE) — INDICATES SEISMIC RESISTING ELEMENT, SEE ELEVATIONS AND DETAILS AND FOLLOW ADDITIONAL SPECIAL INSPECTIONS.
- C.J. — INDICATES CONTROL / CONSTRUCTION JOINT, SEE DETAIL(S) 4/S5.01
- INDICATES ADDITIONAL CONCRETE SLAB REINFORCING. USE (2) #5 x 12'-0" BARS CENTERED ON CORNERS. DO NOT SPLICE
- INDICATES X BRACE FRAME, SEE SHEET(S) S2.02 - S2.03
- INDICATES METAL ROOF DECK. SEE GENERAL STRUCTURAL NOTES
- X#/# — INDICATES DECK TYPE / INDICATES DECK THICKNESS / INDICATES DECK GAGE
- K ("/"") — INDICATES K-SERIES JOIST WITH ALLOWABLE TOTAL LOAD / ALLOWABLE LIVE (SNOW) LOAD
- LH ("/"") — INDICATES LH-SERIES JOIST WITH ALLOWABLE TOTAL LOAD / ALLOWABLE LIVE (SNOW) LOAD
- R.D. — INDICATES ROOF DRAIN, SEE DETAIL 2/S5.21
- RTU — INDICATES ROOF MECHANICAL UNIT AND WEIGHT OF UNIT
- INDICATES LOCATION OF TILT-UP PANEL FOOTING CONNECTION EMBED PLATE, SEE DETAIL
- INDICATES LOCATION OF TILT-UP PANEL EMBEDS FOR CONNECTION TO ADJACENT PANEL, SEE DETAILS
- INDICATES JOIST TOP CHORD TIES. SEE DETAIL 2/S5.23
- T=C=x — INDICATES ADDITIONAL TOP CHORD ALLOWABLE LOAD DUE TO SEISMIC, NO 1/3 INCREASE ALLOWED
- (HSS) — INDICATES HSS BLOCKING BETWEEN JOISTS, SEE DETAILS
- INDICATES POUR STRIP
- INDICATES ELEVATION OFFSET, SEE DETAILS
- BF-x / x — BRACE FRAME ELEVATION / SHEET NUMBER (S2.02-S2.03)

STRUCTURAL SHEET LIST

SHEET NUMBER	SHEET NAME
S 0.01	GENERAL STRUCTURAL NOTES
S 0.02	GENERAL STRUCTURAL NOTES
S 0.03	GENERAL STRUCTURAL NOTES / SI
S 0.04	SPECIAL INSPECTIONS
S 0.10	LEGENDS AND ABBREVIATIONS
S 1.01	FOOTING AND FOUNDATION PLAN
S 1.21	ROOF FRAMING PLAN
S 2.01	DETAILS
S 2.02	BRACE FRAME ELEVATIONS
S 2.03	BRACE FRAME ELEVATIONS
S 3.01	DETAILS
S 3.02	TILT PANELS
S 3.03	TILT PANELS
S 3.04	TILT PANELS
S 3.05	TILT PANELS
S 3.06	TILT PANELS
S 3.07	TILT PANELS
S 5.01	DETAILS
S 5.02	DETAILS
S 5.21	DETAILS
S 5.22	DETAILS
S 5.23	DETAILS
S 6.01	SCHEDULES
S 6.02	SCHEDULES
S 6.03	SCHEDULES



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LEGENDS AND ABBREVIATIONS

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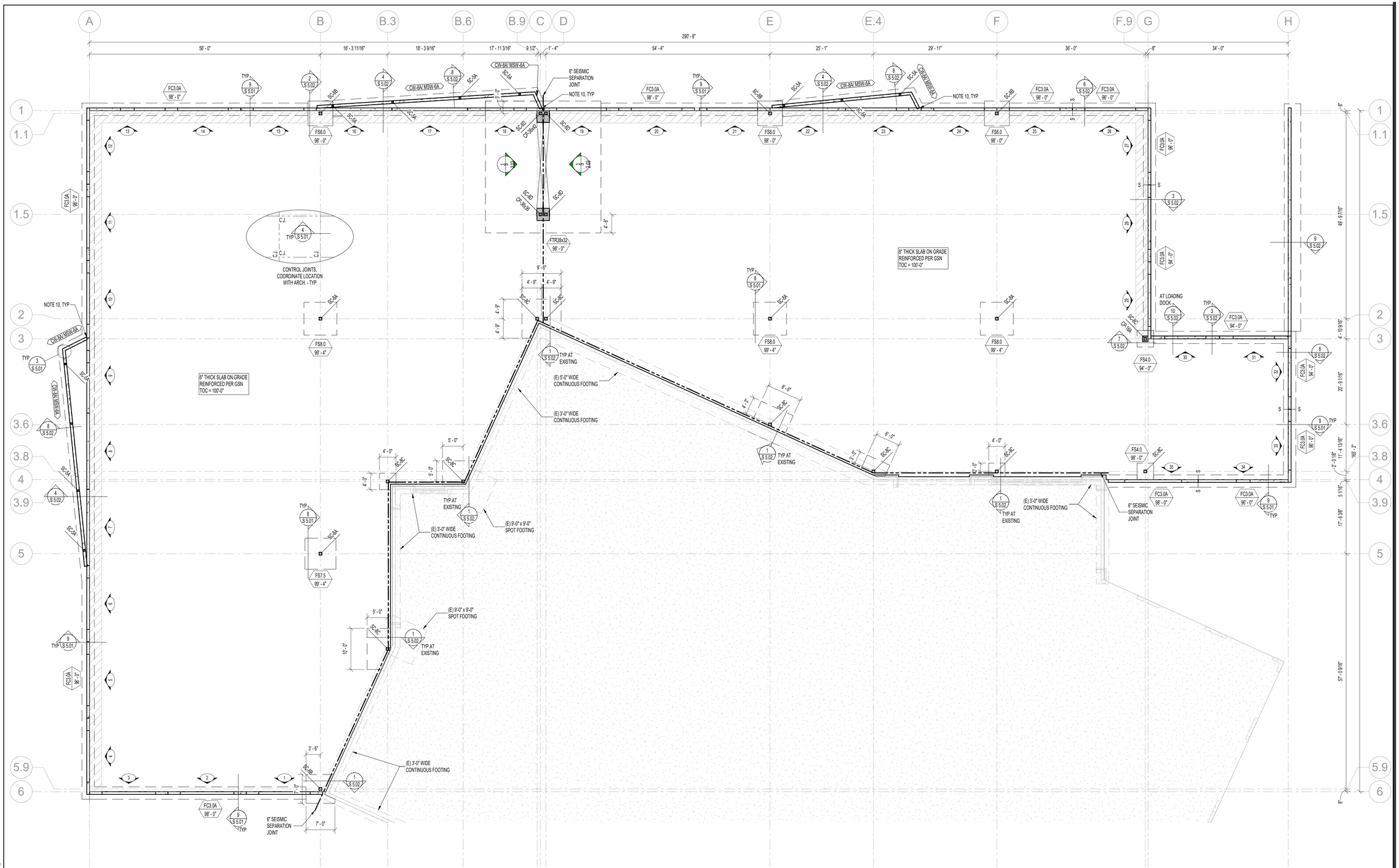

1 FOOTING AND FOUNDATION PLAN

3/32" = 1'-0" 0" 8'-0" 16'-0" 32'-0"

[1/S 2.02]

SEE S010 FOR LEGENDS AND SYMBOLS

FOOTING AND FOUNDATION PLAN NOTES

1. COORDINATE LOCATION OF DEPRESSED SLABS, SLOPED SLABS, AND FLOOR DRAINS WITH ARCHITECTURAL AND MECHANICAL DRAWINGS.
2. SEE ARCHITECTURAL AND CIVIL DRAWINGS FOR EXTERIOR CONCRETE WORK AT DOORS, SIDEWALKS, ETC.
3. SEE ARCHITECTURAL DRAWINGS FOR CONTROL JOINT LOCATIONS.
4. SEE "EARTHWORK" NOTES ON SHEET S0.01 AND DETAIL 5/SS.02 FOR MINIMUM FILL REQUIRED BENEATH FOOTINGS.
5. ALL SPOT FOOTINGS SHALL BE CENTERED UNDER COLUMNS (UNO).
6. SEE DETAILS 1/SS.01 AND 2/SS.01 FOR CONDITION WHERE BURIED PIPES RUN PARALLEL AND PERPENDICULAR TO FOOTINGS.
7. SEE DETAIL 4/SS.01 FOR TYPICAL CONTROL/CONSTRUCTION JOINTS IN CONCRETE SLAB ON GRADE.
8. SEE DETAIL 6/SS.01 FOR SLAB REINFORCING WHERE CONTROL JOINTS ARE DISCONTINUOUS.
9. SEE ARCHITECTURAL DRAWINGS FOR DIMENSIONS TO ALL STEEL COLUMNS.
10. DRILL AND EPOXY HORIZONTAL WALL REINFORCEMENT INTO TILT PANEL.

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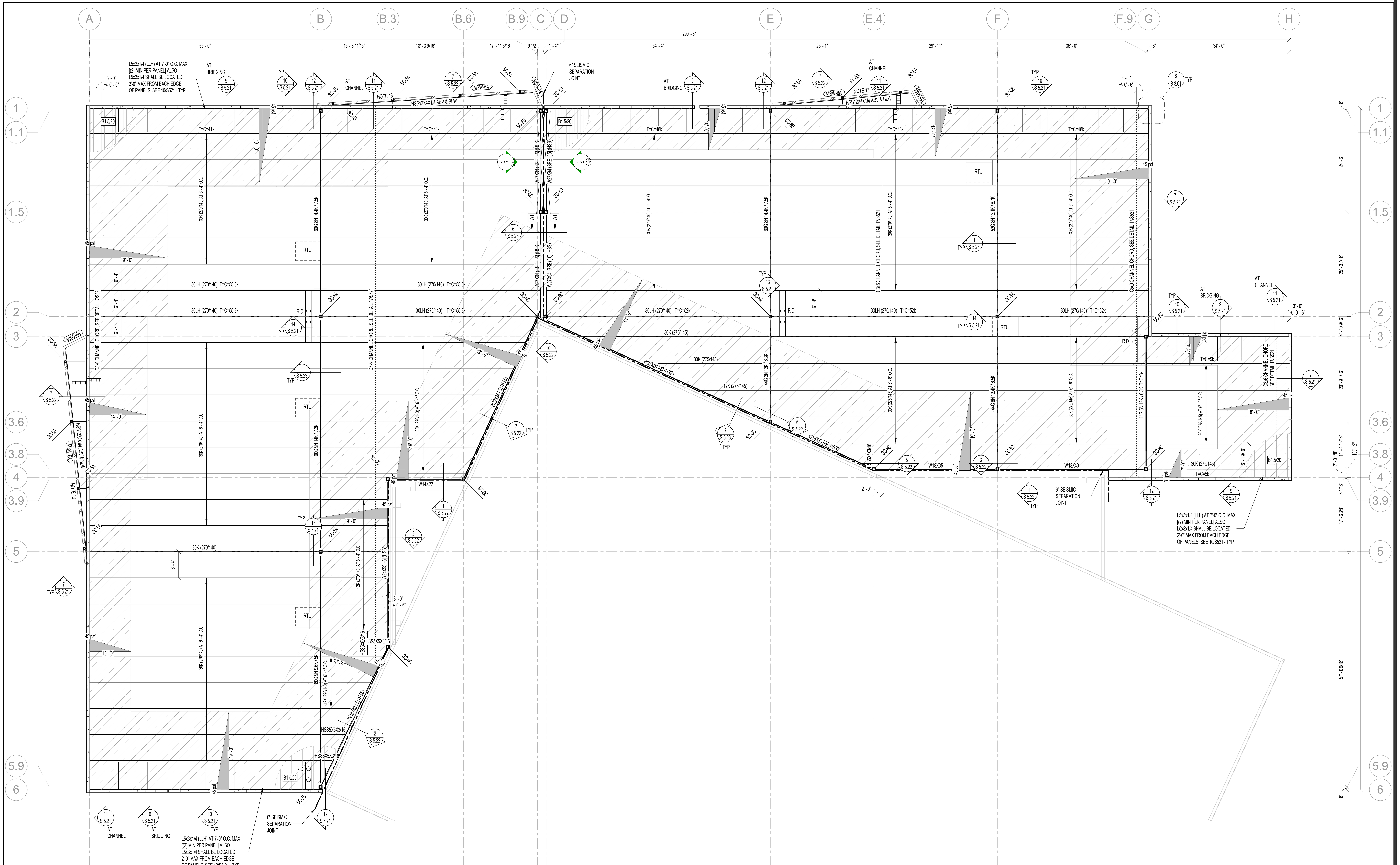

ROOF FRAMING PLAN

1
[1/S 2.02]

3/32" = 1'-0" 0" 8'-0" 16'-0" 32'-0"

SEE S010 FOR LEGENDS AND SYMBOLS

ROOF FRAMING DESIGN LOADS

ROOF LOADS	JOIST	GIRDER
ROOFING	1.0 psf	1.0 psf
INSULATION	2.0 psf	2.0 psf
STEEL DECK	2.2 psf	2.2 psf
STEEL JOISTS	3.0 psf	3.0 psf
STEEL GIRDERS	0 psf	2.5 psf
ELECTRICAL	1.0 psf	1.0 psf
MECHANICAL	2.0 psf	2.0 psf
SPRINKLERS	3.8 psf	1.3 psf
COLLATERAL LOAD	5.0 psf	5.0 psf
SNOW LOAD (ASD)	22 psf (ASD)	22 psf (ASD)
TOTAL LOAD (ASD)	42 psf	42 psf

ROOF FRAMING NOTES

1. VERIFY ALL ROOF OPENINGS FOR MECHANICAL SHAFTS, DRAINS, ETC. WITH ARCHITECTURAL AND MECHANICAL DRAWINGS.
2. JOIST SUPPLIER SHALL DESIGN ALL ROOF JOIST BEARING ENDS AT TILT-UP WALLS TO TRANSFER 10,400# (ALLOWABLE) AXIAL LOAD THROUGH JOIST BEARING SHOE.
3. ALL JOISTS SHALL HAVE 5" DEEP BEARING ENDS (UNO).
4. ALL JOIST GIRDERS SHALL HAVE 7.1/2" DEEP BEARING ENDS (UNO).
5. ALL ROOF OPENINGS GREATER THAN, OR EQUAL TO, 12" x 12" SHALL BE FRAMED AS INDICATED IN DETAILS 1/S5.21 AND 2/S5.21. FOR OPENINGS WHICH CUT LESS THAN TWO DECK FLUTES, SEE DETAIL 3/S5.21.
6. SEE DETAIL 4/S5.21 WHEN CONCENTRATED LOADS ARE LOCATED MORE THAN 6" FROM JOIST OR JOIST GIRDER PANEL POINT.
7. SEE DETAIL 5/S5.21 WHEN MECHANICAL UNITS ARE HUNG BELOW JOISTS. VERIFY SIZE, WEIGHT, AND LOCATION OF ALL ROOF TOP MECHANICAL UNITS WITH ARCHITECTURAL AND MECHANICAL DRAWINGS.
8. SEE DETAIL 6/S5.21 FOR STEEL FRAMES AT ALL ROOF TOP EQUIPMENT. COORDINATE OPENINGS WITH MECHANICAL, ELECTRICAL, AND GENERAL CONTRACTORS.
9. OPEN WEB STEEL JOISTS AND JOIST GIRDERS SHALL BE DESIGNED BY THE MANUFACTURER TO SUPPORT THE MECHANICAL AND LATERAL LOADS SHOWN ON THE ROOF FRAMING PLANS IN ADDITION TO THE UNIFORM AND POINT LOADS SHOWN.
10. JOIST BRIDGING SHOWN ON PLANS IS FOR REPRESENTATION ONLY; ACTUAL SIZE, QUANTITY, AND LOCATION WILL BE DETERMINED BY THE JOIST SUPPLIER PER 'SJI' REQUIREMENTS. ALL BRIDGING AND BRIDGING ANCHORS NEED TO BE IN PLACE BEFORE APPLYING ANY LOADS. WHERE SKYLIGHT OR MECHANICAL UNITS/DUCTS INTERRUPT HORIZONTAL BRIDGING, PROVIDE CROSS BRIDGING AT JOIST SPACES ON EACH SIDE OF THE OPENING. WHERE DIAGONAL BRIDGING CONFLICTS WITH MECHANICAL DUCTS, REMOVE DIAGONAL BRIDGING AND REPLACE WITH HORIZONTAL BRIDGING AFTER ROOF DECK IS IN PLACE.
11. JOIST DESIGNER SHALL DESIGN JOISTS AND GIRDERS AND SUPPLY ADDITIONAL BRIDGING AS REQUIRED FOR UPLIFT DUE TO WIND. ASSUME:
    - 0.6DL = 12psf
    - 0.6WL = 20psf (UPLIFT)
    - 8psf NET UPLIFT (ASD)
    - NO 1/3 STRESS INCREASE ALLOWED.
12. SEE ARCHITECTURAL PLANS FOR DIMENSIONS TO ALL STEEL COLUMNS.
13. PROVIDE AN MH-1 AT ALL OPENINGS IN METAL STUD WALL POPOUTS. SEE 1/S6.03 AND DETAILS.

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ROOF FRAMING PLAN
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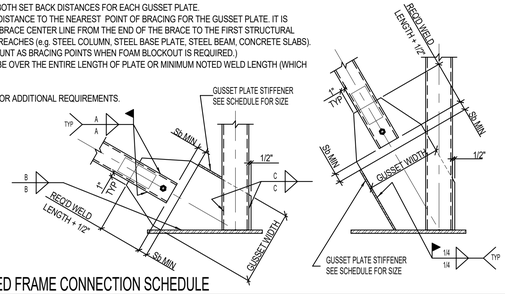
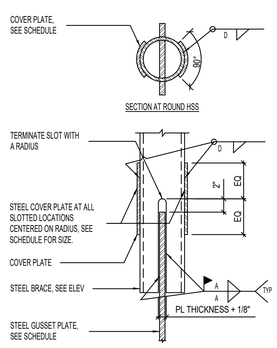
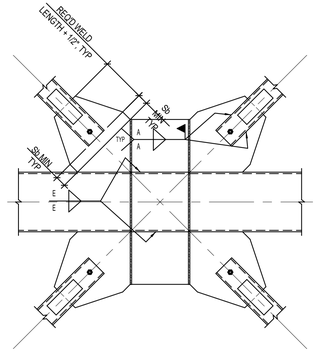
SPECIAL CONCENTRIC BRACED FRAME CONNECTION SCHEDULE

BRACE SIZE	WELD (A)	WELD (B)	WELD (C)	WELD (D)	WELD (E)	GUSSET PLATE	SETBACK (Sb MIN)	COVER PLATE LENGTH	GUSSET PLATE STIFFENER
HSS6.000x0.312	5/16"x16" MIN	5/16"	5/16"	5/16"	1/2"	1"x16"x REQ'D	2"	3/4"x3"x16"	1/2"

BRACED FRAME NOTES:
1. SHOP DRAWINGS SHALL DIMENSION BOTH SET BACK DISTANCES FOR EACH GUSSET PLATE.
2. SET BACK DISTANCE INDICATES THE DISTANCE TO THE NEAREST POINT OF BRACING FOR THE GUSSET PLATE. IT IS MEASURED PERPENDICULAR TO THE BRACE CENTER LINE FROM THE END OF THE BRACE TO THE FIRST STRUCTURAL ELEMENT THE GUSSET PLATE EDGE REACHES (e.g. STEEL COLUMN, STEEL BASE PLATE, STEEL BEAM, CONCRETE SLABS). (NOTE: CONCRETE SLABS DO NOT COUNT AS BRACING POINTS WHEN FOAM BLOCKOUT IS REQUIRED.)
3. FOR WELDS B,C AND E, WELD SHALL BE OVER THE ENTIRE LENGTH OF PLATE OR MINIMUM NOTED WELD LENGTH (WHICH EVER IS GREATER).
4. (Sb MAX) = (Sb MIN) +3/4".
5. SEE GENERAL STRUCTURAL NOTES FOR ADDITIONAL REQUIREMENTS.

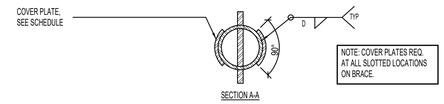


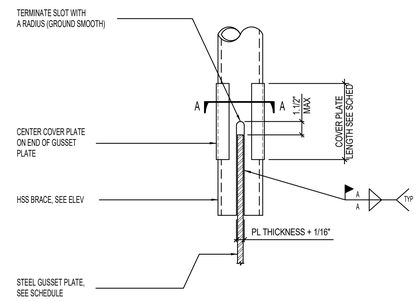




1 SPECIAL CONCENTRIC BRACED FRAME CONNECTION SCHEDULE

NO SCALE

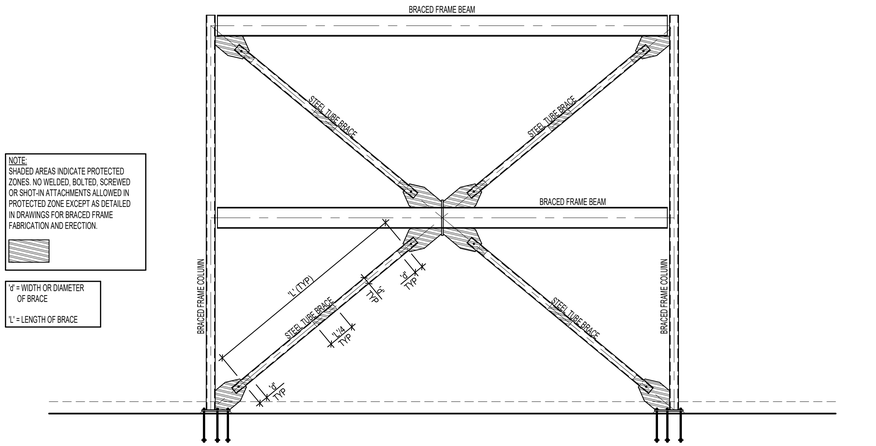




2 STEEL PIPE BRACE AT GUSSET PLATE

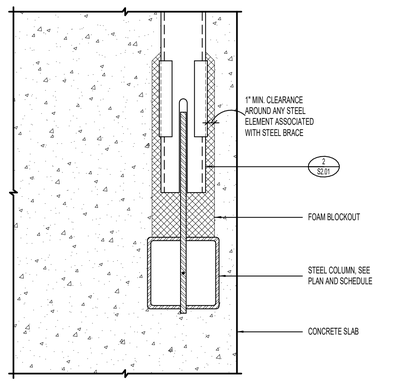
SEE ELEVATION FOR BRACE SIZES; SEE 'BRACED FRAME SCHEDULE' FOR ADDITIONAL INFORMATION.

NO SCALE



3 PROTECTED ZONE OF TYPICAL TWO-STORY BRACED FRAME

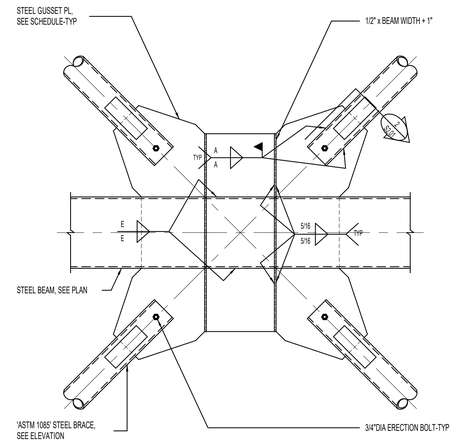
NO SCALE



4 TYPICAL FOAM AND CONCRETE BLOCKOUT [PLAN VIEW]

SEE ELEVATION FOR BRACE SIZES; SEE 'BRACED FRAME SCHEDULE' FOR ADDITIONAL INFORMATION.

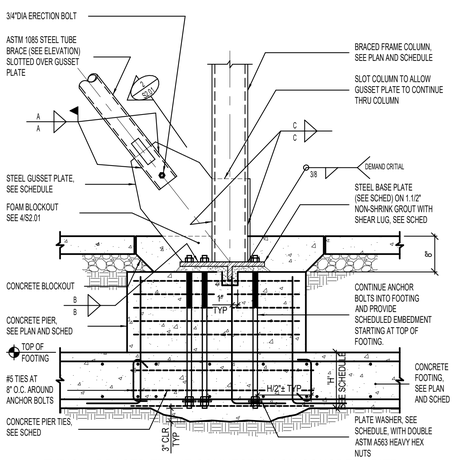
NO SCALE



5 BRACED FRAME CONNECTION AT FLOOR BEAM

SEE ELEVATION FOR BRACE SIZES; SEE 'BRACED FRAME SCHEDULE' FOR ADDITIONAL INFORMATION.

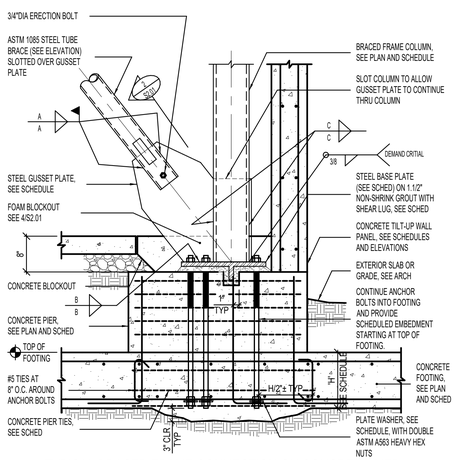
NO SCALE



6 TYPICAL BRACED FRAME CONNECTION ON CONCRETE PIER

SEE ELEVATION FOR BRACE SIZES; SEE 'BRACED FRAME SCHEDULE' FOR ADDITIONAL INFORMATION.

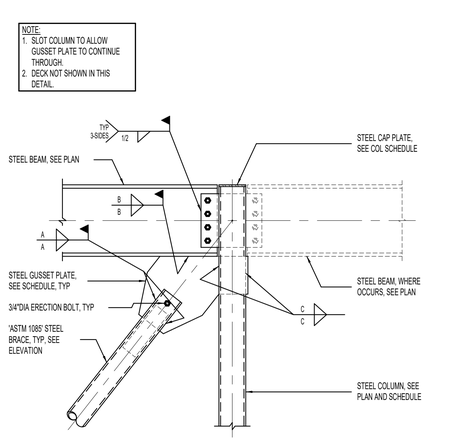
NO SCALE



7 TYPICAL BRACED FRAME CONNECTION ON CONCRETE PIER

SEE ELEVATION FOR BRACE SIZES; SEE 'BRACED FRAME SCHEDULE' FOR ADDITIONAL INFORMATION.

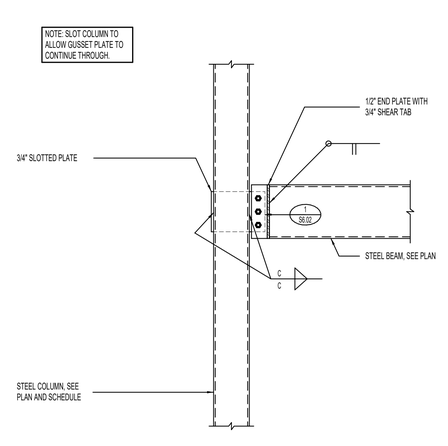
NO SCALE



8 BRACED FRAME CONNECTION DETAIL AT ROOF BEAM

SEE ELEVATION FOR BRACE SIZES; SEE 'BRACED FRAME SCHEDULE' FOR ADDITIONAL INFORMATION.

NO SCALE



9 BEAM TO COLUMN DETAIL

NO SCALE

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DRAWN BY: JH
REVISIONS

PROFESSIONAL STRUCTURAL ENGINEER
No. 7211767-2203
RAJEEV PRAPANENI
STATE OF UTAH
09/16/2026

DETAILS

A NEW ADDITION FOR :
FORTEM TECHNOLOGIES
W.I.C.P. COMERCIAL PROPERTIES
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LINDON, UT 84042

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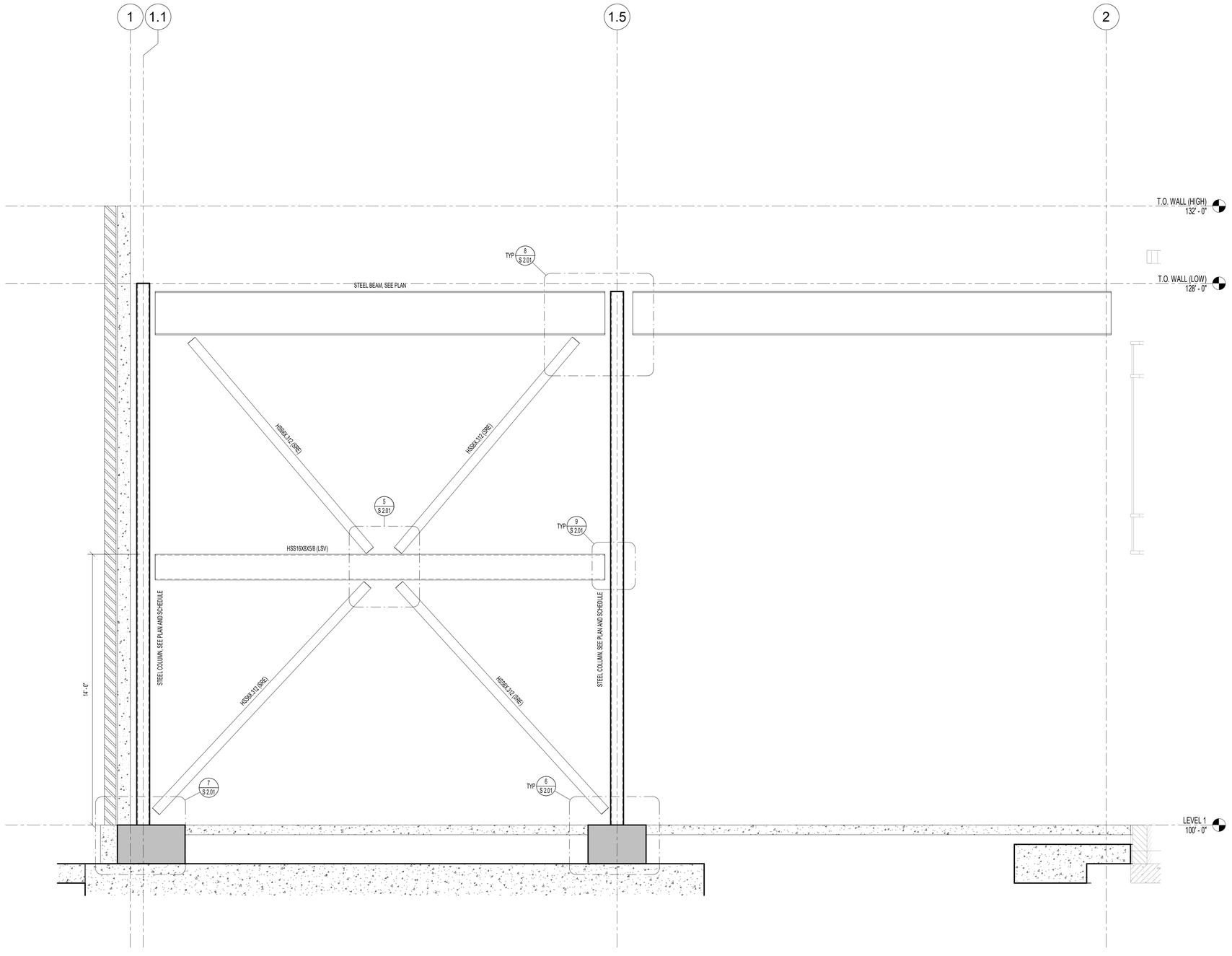

1 BRACE FRAME ELEVATION 1
NOT TO SCALE
[1/S 1.01]

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REVISIONS: VS

PROFESSIONAL STRUCTURAL ENGINEER
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RAJEEV SUBRAMANENI
STATE OF UTAH
09/16/2026

BRACE FRAME ELEVATIONS
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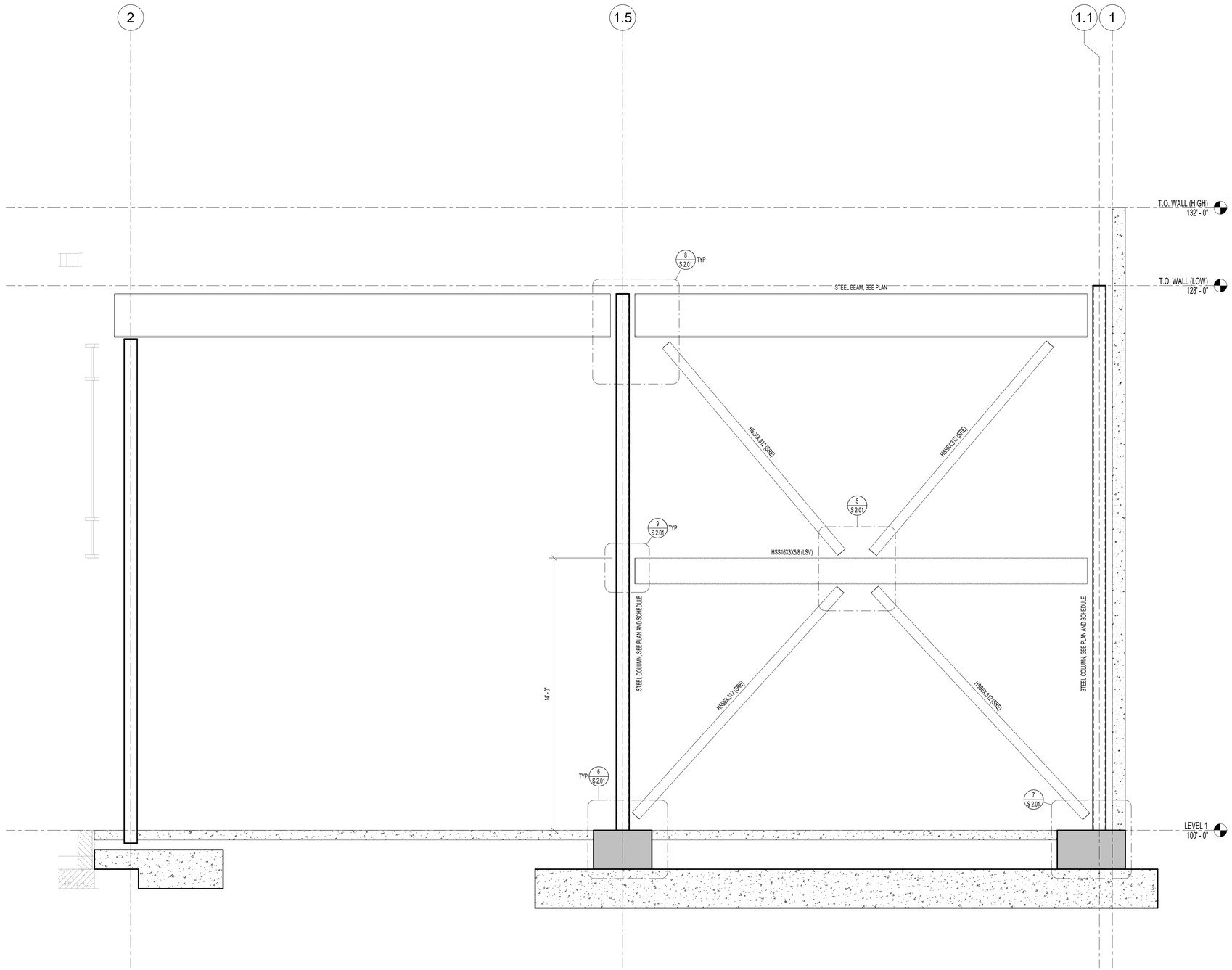

1 BRACE FRAME ELEVATION 2
NOT TO SCALE
[1/S 1.01]

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BRACE FRAME ELEVATIONS
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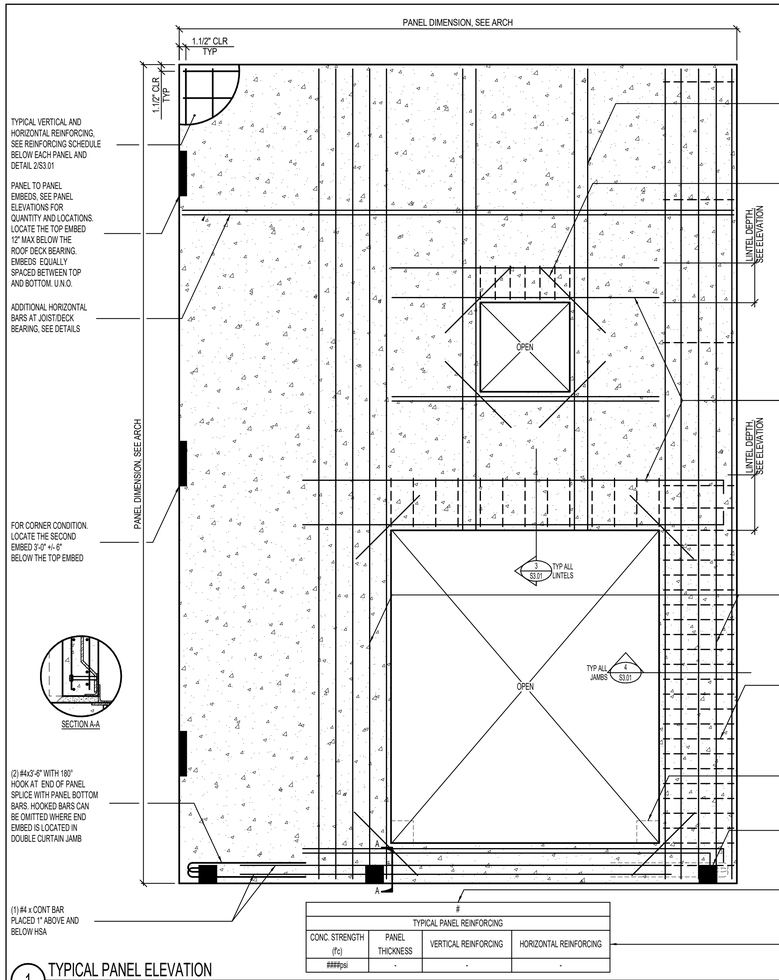
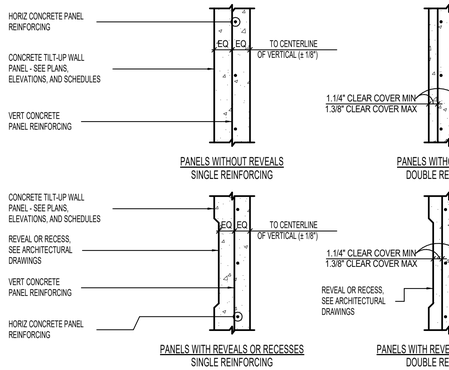
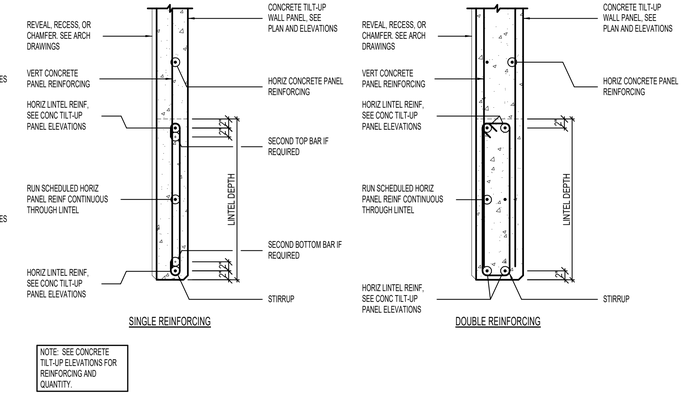


#			
TYPICAL PANEL REINFORCING			
CONC. STRENGTH (f'c)	PANEL THICKNESS	VERTICAL REINFORCING	HORIZONTAL REINFORCING
####psi	-	-	-

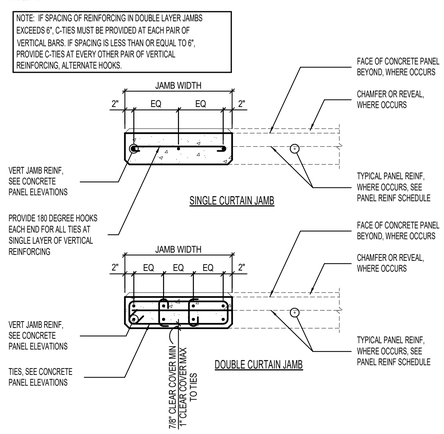
1 TYPICAL PANEL ELEVATION — NO SCALE



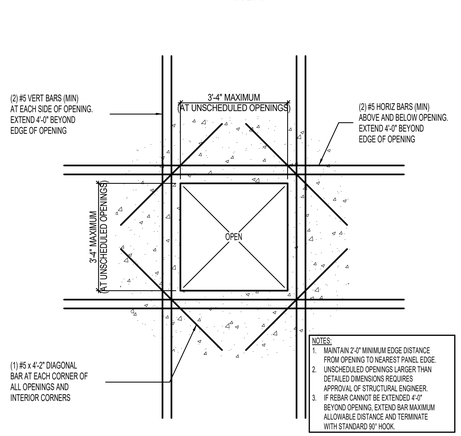
2 TYPICAL PANEL REINFORCING PLACEMENT DIAGRAMS — NO SCALE



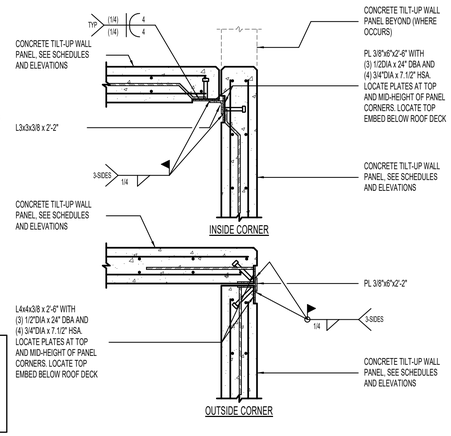
3 TYPICAL LINTEL REINFORCING PLACEMENT DIAGRAM — NO SCALE



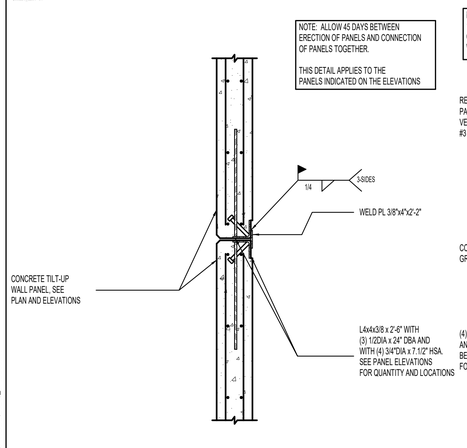
4 CONCRETE TILT-UP PANEL JAMB REINFORCING DETAIL [PLAN VIEW] — NO SCALE



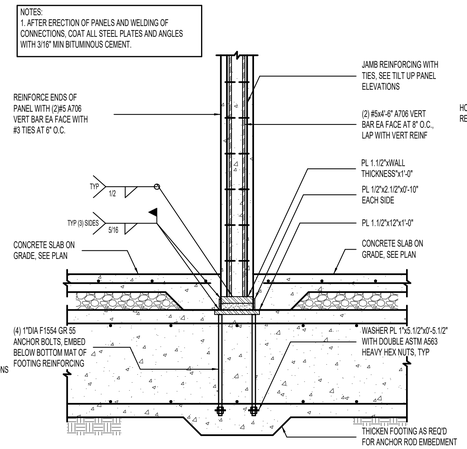
5 MISCELLANEOUS PANEL OPENING REINFORCING — NO SCALE



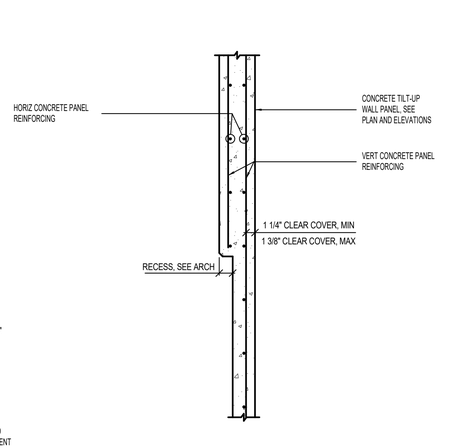
6 TYPICAL CONCRETE TILT-UP WALL PANEL CORNER AND T-INTERSECTION CONNECTION — NO SCALE



7 CONCRETE TILT-UP WALL PANEL CONNECTION DETAIL [PLAN VIEW] — NO SCALE



8 PANEL END ATTACHMENT DETAIL TO FOOTING — NO SCALE



9 TYPICAL PANEL REINFORCING AT RECESS — NO SCALE

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DRAWN BY: JH
REVISIONS

PROFESSIONAL STRUCTURAL ENGINEER
No. 7211767-2203
RAJEEV PANENI
STATE OF UTAH
09/16/2026

DETAILS
A NEW ADDITION FOR :
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TILT

INDICATES RECESSED PANEL, SEE DETAIL 9/S3.01 AND ARCH

LINTEL SCHEDULE

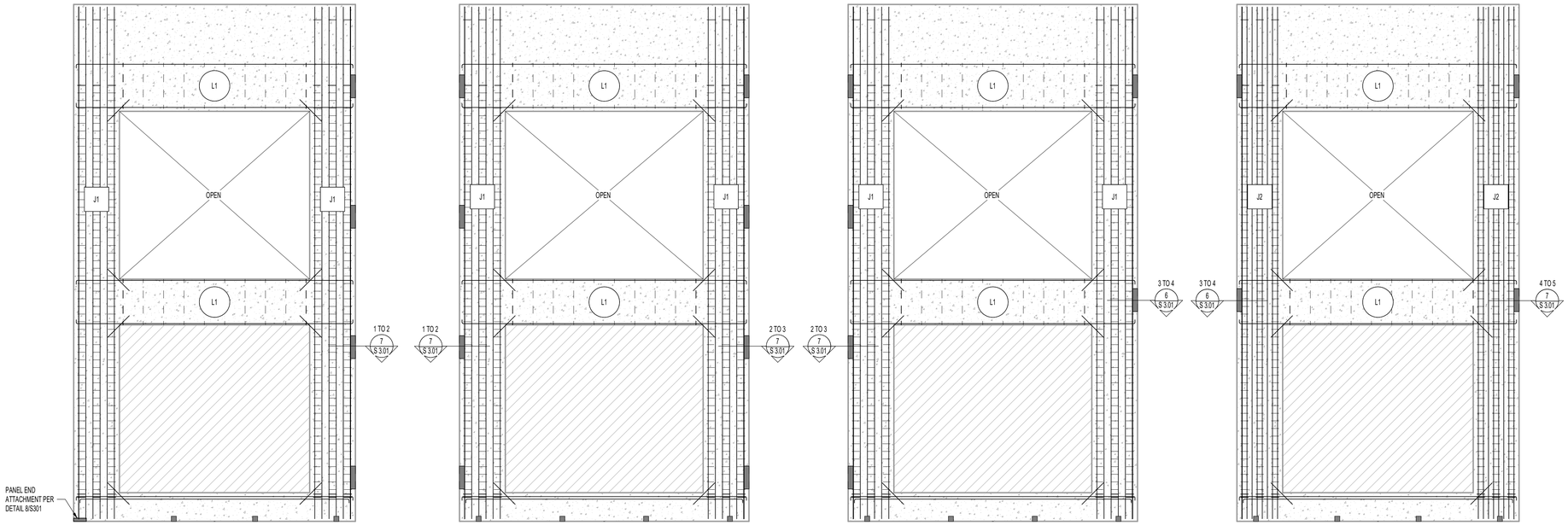
Type	REINFORCING
L1	3' - 0" LINTEL WITH (2) #6 TOP AND BOTTOM AND #3 STIRRUPS AT 1' - 4" O.C.
L2	1' - 6" LINTEL WITH #6 TOP AND BOTTOM AND #3 STIRRUPS AT 8" O.C.

JAMB SCHEDULE

Type	REINFORCING
J1	(6) #5 E.F. EQUALLY SPACED WITH #3 TIES AT 6" O.C. FOR 12" ABOVE AND BELOW OPENINGS
J2	(8) #5 E.F. EQUALLY SPACED WITH #3 TIES AT 6" O.C. FOR 12" ABOVE AND BELOW OPENINGS
J3	(7) #5 E.F. EQUALLY SPACED WITH #3 TIES AT 6" O.C. FOR 12" ABOVE AND BELOW OPENINGS
J4	(10) #5 E.F. EQUALLY SPACED WITH #3 TIES AT 6" O.C. FOR 12" ABOVE AND BELOW OPENINGS
J5	(2) #5 BARS E.F. AT 6" O.C.

TILT-UP PANEL ELEVATION NOTES

1. SEE FOOTING, FLOOR, AND ROOF FRAMING PLANS AND DETAILS FOR REQUIRED EMBEDS.
2. PANEL ELEVATIONS ARE DRAWN FROM THE INSIDE OF THE BUILDING FACING OUT.
3. SEE DETAILS 1/S3.01 AND 2/S3.01 FOR PLACEMENT OF TYPICAL PANEL REINFORCING.
4. SEE DETAIL 3/S3.01 FOR TYPICAL LINTEL REINFORCING PLACEMENT DIAGRAM.
5. SEE DETAIL 4/S3.01 FOR TYPICAL JAMB REINFORCING PLACEMENT DIAGRAM.
6. SEE DETAIL 5/S3.01 FOR MISCELLANEOUS OPENING AND TYPICAL OPENING OR CORNER TRIM REINFORCING.
7. SEE ARCHITECTURAL DRAWINGS FOR PANEL DIMENSIONS.

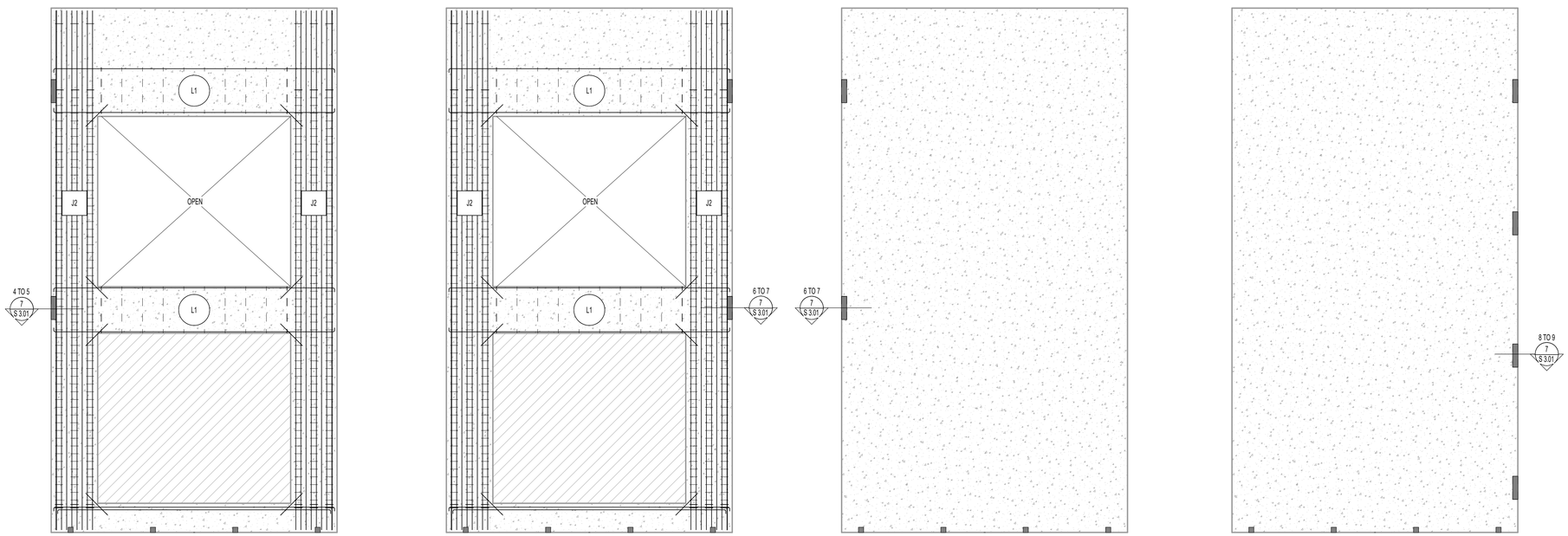


1			
CONC STRENGTH	PANEL THICKNESS	VERTICAL REINFORCING	HORIZONTAL REINFORCING
5000 psi	8"	#5 AT 18" O.C. E.F.	#4 AT 18" O.C. E.F.

2			
CONC STRENGTH	PANEL THICKNESS	VERTICAL REINFORCING	HORIZONTAL REINFORCING
5000 psi	8"	#5 AT 18" O.C. E.F.	#4 AT 18" O.C. E.F.

3			
CONC STRENGTH	PANEL THICKNESS	VERTICAL REINFORCING	HORIZONTAL REINFORCING
5000 psi	8"	#5 AT 18" O.C. E.F.	#4 AT 18" O.C. E.F.

4			
CONC STRENGTH	PANEL THICKNESS	VERTICAL REINFORCING	HORIZONTAL REINFORCING
5000 psi	8"	#5 AT 18" O.C. E.F.	#4 AT 18" O.C. E.F.



5			
CONC STRENGTH	PANEL THICKNESS	VERTICAL REINFORCING	HORIZONTAL REINFORCING
5000 psi	8"	#5 AT 18" O.C. E.F.	#4 AT 18" O.C. E.F.

6			
CONC STRENGTH	PANEL THICKNESS	VERTICAL REINFORCING	HORIZONTAL REINFORCING
5000 psi	8"	#5 AT 18" O.C. E.F.	#4 AT 18" O.C. E.F.

7			
CONC STRENGTH	PANEL THICKNESS	VERTICAL REINFORCING	HORIZONTAL REINFORCING
5000 psi	8"	#5 AT 13" O.C. E.F.	#4 AT 18" O.C. E.F.

8			
CONC STRENGTH	PANEL THICKNESS	VERTICAL REINFORCING	HORIZONTAL REINFORCING
5000 psi	8"	#5 AT 13" O.C. E.F.	#4 AT 18" O.C. E.F.

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REVISIONS

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RAJEEV KORATANENI
STATE OF UTAH
09/16/2026

TILT PANELS

A NEW ADDITION FOR :

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TILT

INDICATES RECESSED PANEL, SEE DETAIL 9/S3.01 AND ARCH

LINTEL SCHEDULE

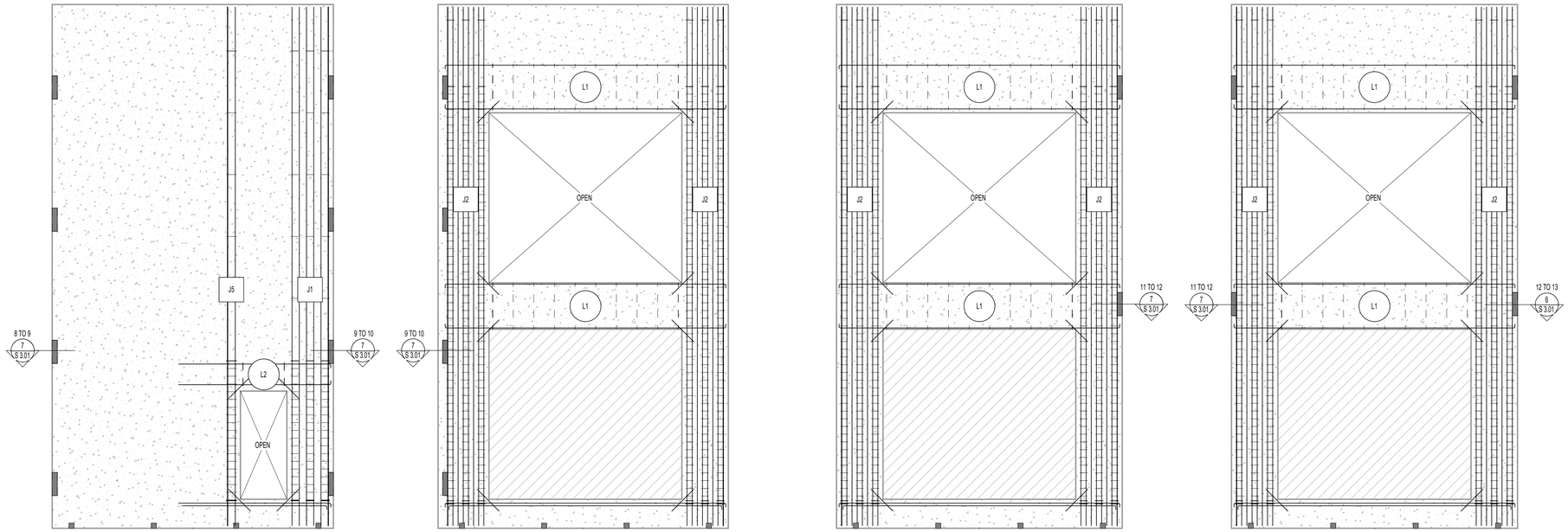
Type	REINFORCING
L1	3' - 0" LINTEL WITH (2) #6 TOP AND BOTTOM AND #3 STIRRUPS AT 1' - 4" O.C.
L2	1' - 6" LINTEL WITH #6 TOP AND BOTTOM AND #3 STIRRUPS AT 8" O.C.

JAMB SCHEDULE

Type	REINFORCING
J1	(6) #5 E.F. EQUALLY SPACED WITH #3 TIES AT 6" O.C. FOR 12" ABOVE AND BELOW OPENINGS
J2	(8) #5 E.F. EQUALLY SPACED WITH #3 TIES AT 6" O.C. FOR 12" ABOVE AND BELOW OPENINGS
J3	(7) #5 E.F. EQUALLY SPACED WITH #3 TIES AT 6" O.C. FOR 12" ABOVE AND BELOW OPENINGS
J4	(10) #5 E.F. EQUALLY SPACED WITH #3 TIES AT 6" O.C. FOR 12" ABOVE AND BELOW OPENINGS
J5	(2) #5 BARS E.F. AT 6" O.C.

TILT-UP PANEL ELEVATION NOTES

1. SEE FOOTING, FLOOR, AND ROOF FRAMING PLANS AND DETAILS FOR REQUIRED EMBEDS.
2. PANEL ELEVATIONS ARE DRAWN FROM THE INSIDE OF THE BUILDING FACING OUT.
3. SEE DETAILS 1/S3.01 AND 2/S3.01 FOR PLACEMENT OF TYPICAL PANEL REINFORCING.
4. SEE DETAIL 3/S3.01 FOR TYPICAL LINTEL REINFORCING PLACEMENT DIAGRAM.
5. SEE DETAIL 4/S3.01 FOR TYPICAL JAMB REINFORCING PLACEMENT DIAGRAM.
6. SEE DETAIL 5/S3.01 FOR MISCELLANEOUS OPENING AND TYPICAL OPENING OR CORNER TRIM REINFORCING.
7. SEE ARCHITECTURAL DRAWINGS FOR PANEL DIMENSIONS.

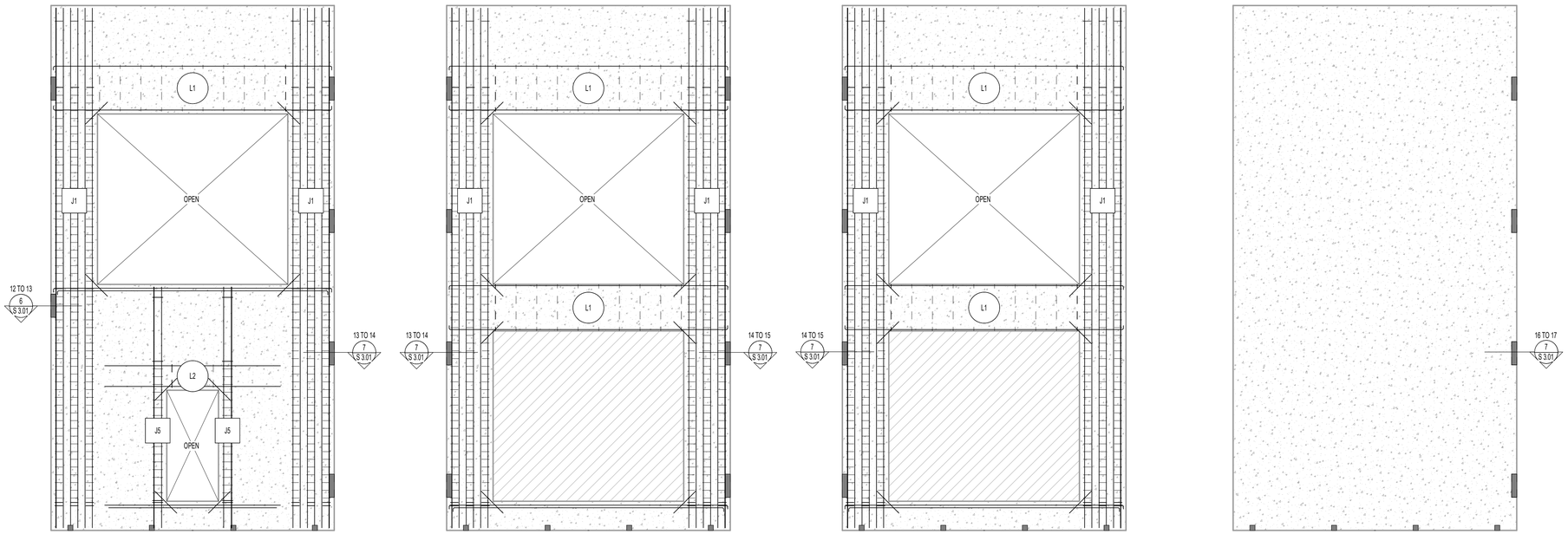


9			
CONC STRENGTH	PANEL THICKNESS	VERTICAL REINFORCING	HORIZONTAL REINFORCING
5000 psi	8"	#5 AT 13" O.C. E.F.	#4 AT 18" O.C. E.F.

10			
CONC STRENGTH	PANEL THICKNESS	VERTICAL REINFORCING	HORIZONTAL REINFORCING
5000 psi	8"	#5 AT 18" O.C. E.F.	#4 AT 18" O.C. E.F.

11			
CONC STRENGTH	PANEL THICKNESS	VERTICAL REINFORCING	HORIZONTAL REINFORCING
5000 psi	8"	#5 AT 18" O.C. E.F.	#4 AT 18" O.C. E.F.

12			
CONC STRENGTH	PANEL THICKNESS	VERTICAL REINFORCING	HORIZONTAL REINFORCING
5000 psi	8"	#5 AT 18" O.C. E.F.	#4 AT 18" O.C. E.F.



13			
CONC STRENGTH	PANEL THICKNESS	VERTICAL REINFORCING	HORIZONTAL REINFORCING
5000 psi	8"	#5 AT 18" O.C. E.F.	#4 AT 18" O.C. E.F.

14			
CONC STRENGTH	PANEL THICKNESS	VERTICAL REINFORCING	HORIZONTAL REINFORCING
5000 psi	8"	#5 AT 18" O.C. E.F.	#4 AT 18" O.C. E.F.

15			
CONC STRENGTH	PANEL THICKNESS	VERTICAL REINFORCING	HORIZONTAL REINFORCING
5000 psi	8"	#5 AT 18" O.C. E.F.	#4 AT 18" O.C. E.F.

16			
CONC STRENGTH	PANEL THICKNESS	VERTICAL REINFORCING	HORIZONTAL REINFORCING
5000 psi	8"	#5 AT 15" O.C. E.F.	#4 AT 18" O.C. E.F.

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REVISIONS

PROFESSIONAL STRUCTURAL ENGINEER
No. 7211767-2203
RAJEEV
KORRAPANENI
STATE OF UTAH
09/16/2026

TILT PANELS

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TILT

INDICATES RECESSED PANEL, SEE DETAIL 9/S3.01 AND ARCH

LINTEL SCHEDULE

Type	REINFORCING
L1	3' - 0" LINTEL WITH (2) #6 TOP AND BOTTOM AND #3 STIRRUPS AT 1' - 4" O.C.
L2	1' - 6" LINTEL WITH #6 TOP AND BOTTOM AND #3 STIRRUPS AT 8" O.C.

JAMB SCHEDULE

Type	REINFORCING
J1	(6) #5 E.F. EQUALLY SPACED WITH #3 TIES AT 6" O.C. FOR 12" ABOVE AND BELOW OPENINGS
J2	(8) #5 E.F. EQUALLY SPACED WITH #3 TIES AT 6" O.C. FOR 12" ABOVE AND BELOW OPENINGS
J3	(7) #5 E.F. EQUALLY SPACED WITH #3 TIES AT 6" O.C. FOR 12" ABOVE AND BELOW OPENINGS
J4	(10) #5 E.F. EQUALLY SPACED WITH #3 TIES AT 6" O.C. FOR 12" ABOVE AND BELOW OPENINGS
J5	(2) #5 BARS E.F. AT 6" O.C.

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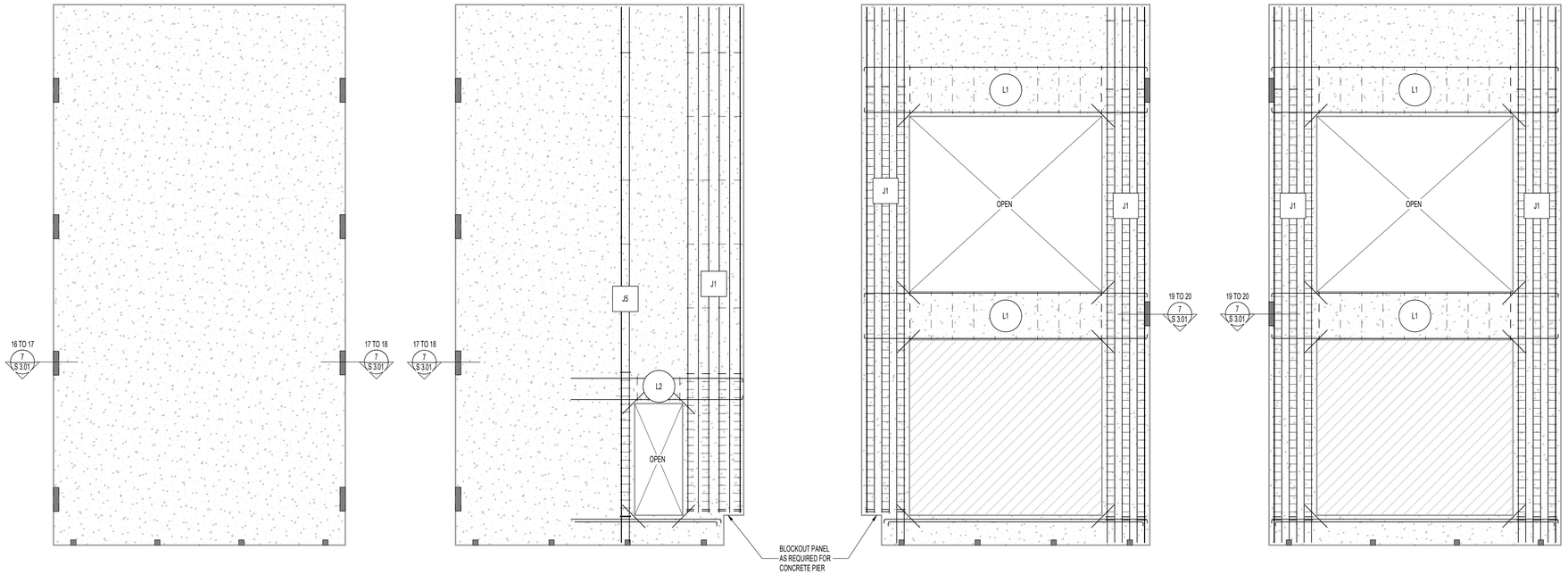
4. SEE DETAIL 3/S3.01 FOR TYPICAL LINTEL REINFORCING PLACEMENT DIAGRAM.
5. SEE DETAIL 4/S3.01 FOR TYPICAL JAMB REINFORCING PLACEMENT DIAGRAM.
6. SEE DETAIL 5/S3.01 FOR MISCELLANEOUS OPENING AND TYPICAL OPENING OR CORNER TRIM REINFORCING.
7. SEE ARCHITECTURAL DRAWINGS FOR PANEL DIMENSIONS.



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CONC STRENGTH	PANEL THICKNESS	VERTICAL REINFORCING	HORIZONTAL REINFORCING
5000 psi	8"	#5 AT 15" O.C. E.F.	#4 AT 18" O.C. E.F.

18

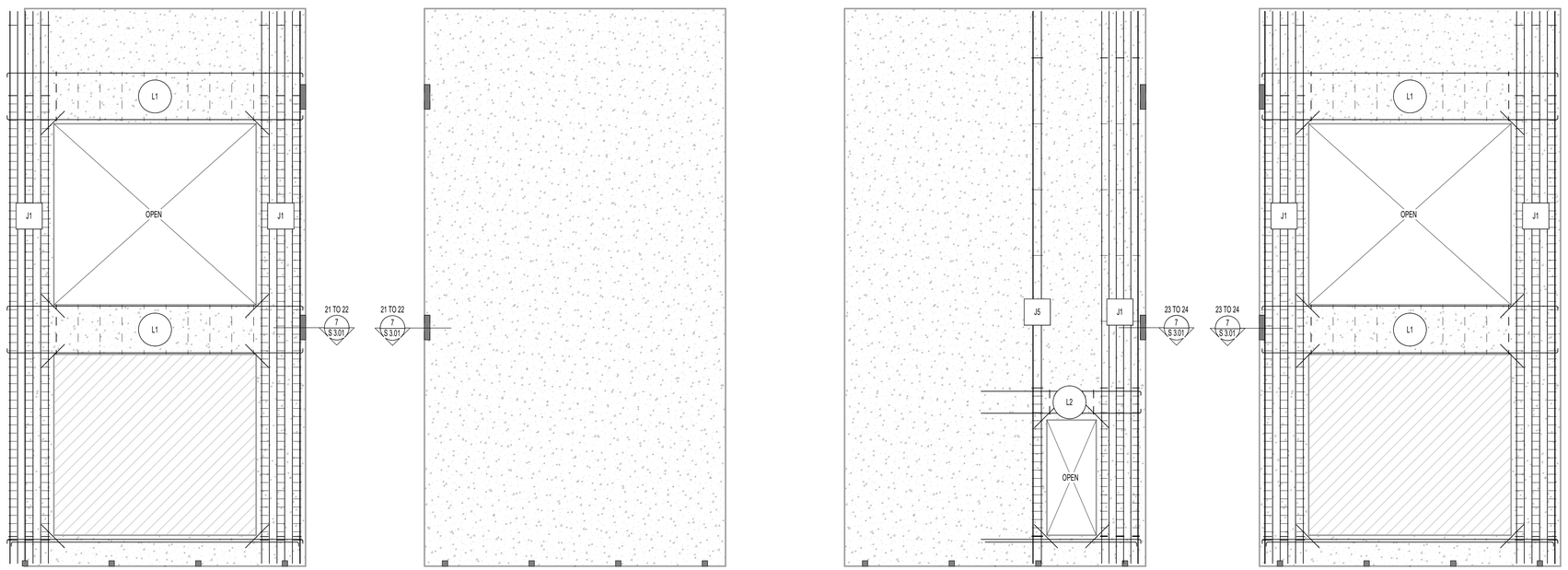
CONC STRENGTH	PANEL THICKNESS	VERTICAL REINFORCING	HORIZONTAL REINFORCING
5000 psi	8"	#5 AT 15" O.C. E.F.	#4 AT 18" O.C. E.F.

19

CONC STRENGTH	PANEL THICKNESS	VERTICAL REINFORCING	HORIZONTAL REINFORCING
5000 psi	8"	#5 AT 15" O.C. E.F.	#4 AT 18" O.C. E.F.

20

CONC STRENGTH	PANEL THICKNESS	VERTICAL REINFORCING	HORIZONTAL REINFORCING
5000 psi	8"	#5 AT 18" O.C. E.F.	#4 AT 18" O.C. E.F.



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CONC STRENGTH	PANEL THICKNESS	VERTICAL REINFORCING	HORIZONTAL REINFORCING
5000 psi	8"	#5 AT 18" O.C. E.F.	#4 AT 18" O.C. E.F.

22

CONC STRENGTH	PANEL THICKNESS	VERTICAL REINFORCING	HORIZONTAL REINFORCING
5000 psi	8"	#5 AT 15" O.C. E.F.	#4 AT 18" O.C. E.F.

23

CONC STRENGTH	PANEL THICKNESS	VERTICAL REINFORCING	HORIZONTAL REINFORCING
5000 psi	8"	#5 AT 15" O.C. E.F.	#4 AT 18" O.C. E.F.

24

CONC STRENGTH	PANEL THICKNESS	VERTICAL REINFORCING	HORIZONTAL REINFORCING
5000 psi	8"	#5 AT 18" O.C. E.F.	#4 AT 18" O.C. E.F.

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DRAWN BY: JH
REVISIONS

PROFESSIONAL STRUCTURAL ENGINEER
No. 7211767-2203
RAJEEV
KORRAPANENI
STATE OF UTAH
09/16/2026

TILT PANELS

A NEW ADDITION FOR :
FORTEM TECHNOLOGIES
W.I.C.P. COMERCIAL PROPERTIES
1855 W 500 N
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INDICATES RECESSED PANEL, SEE DETAIL 9/S3.01 AND ARCH

LINTEL SCHEDULE

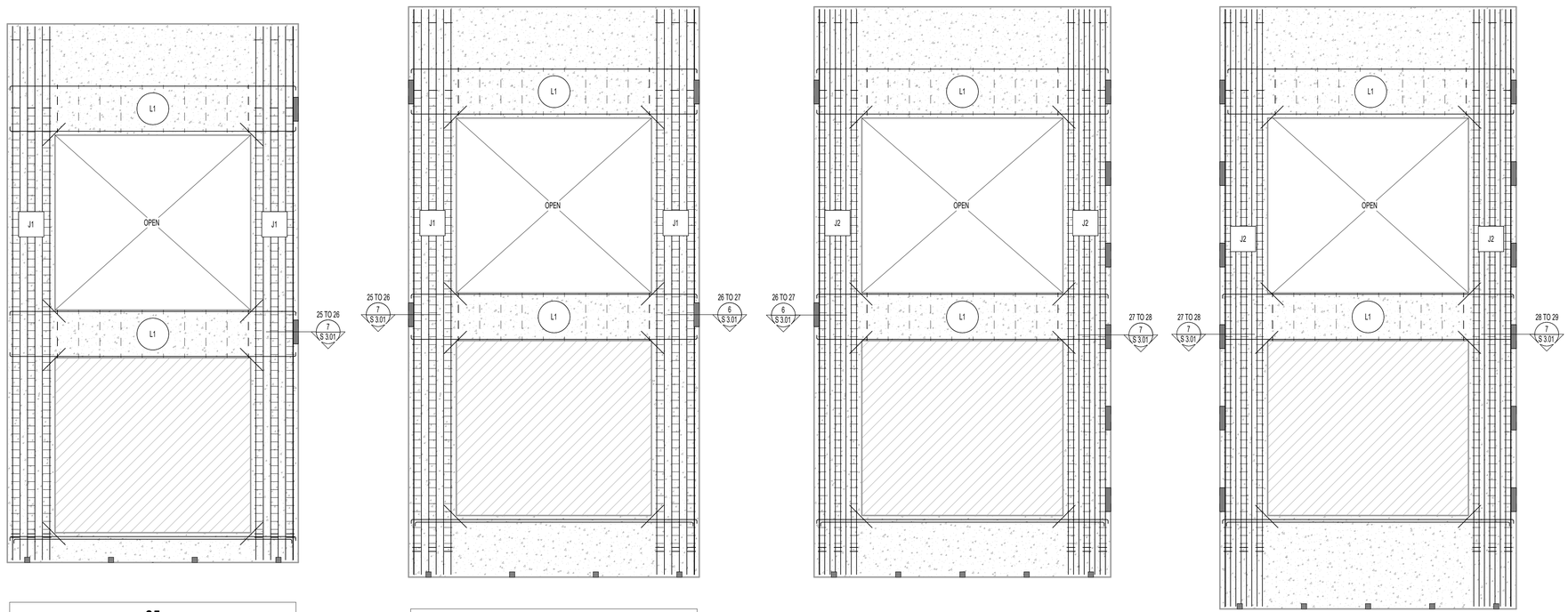
Type	REINFORCING
L1	3' - 0" LINTEL WITH (2) #6 TOP AND BOTTOM AND #3 STIRRUPS AT 1' - 4" O.C.
L2	1' - 6" LINTEL WITH #6 TOP AND BOTTOM AND #3 STIRRUPS AT 8" O.C.

JAMB SCHEDULE

Type	REINFORCING
J1	(6) #5 E.F. EQUALLY SPACED WITH #3 TIES AT 6" O.C. FOR 12" ABOVE AND BELOW OPENINGS
J2	(8) #5 E.F. EQUALLY SPACED WITH #3 TIES AT 6" O.C. FOR 12" ABOVE AND BELOW OPENINGS
J3	(7) #5 E.F. EQUALLY SPACED WITH #3 TIES AT 6" O.C. FOR 12" ABOVE AND BELOW OPENINGS
J4	(10) #5 E.F. EQUALLY SPACED WITH #3 TIES AT 6" O.C. FOR 12" ABOVE AND BELOW OPENINGS
J5	(2) #5 BARS E.F. AT 6" O.C.

TILT-UP PANEL ELEVATION NOTES

1. SEE FOOTING, FLOOR, AND ROOF FRAMING PLANS AND DETAILS FOR REQUIRED EMBEDS.
2. PANEL ELEVATIONS ARE DRAWN FROM THE INSIDE OF THE BUILDING FACING OUT.
3. SEE DETAILS 1/S3.01 AND 2/S3.01 FOR PLACEMENT OF TYPICAL PANEL REINFORCING.
4. SEE DETAIL 3/S3.01 FOR TYPICAL LINTEL REINFORCING PLACEMENT DIAGRAM.
5. SEE DETAIL 4/S3.01 FOR TYPICAL JAMB REINFORCING PLACEMENT DIAGRAM.
6. SEE DETAIL 5/S3.01 FOR MISCELLANEOUS OPENING AND TYPICAL OPENING OR CORNER TRIM REINFORCING.
7. SEE ARCHITECTURAL DRAWINGS FOR PANEL DIMENSIONS.



25

CONC STRENGTH	PANEL THICKNESS	VERTICAL REINFORCING	HORIZONTAL REINFORCING
5000 psi	8"	#5 AT 18" O.C. E.F.	#4 AT 18" O.C. E.F.

26

CONC STRENGTH	PANEL THICKNESS	VERTICAL REINFORCING	HORIZONTAL REINFORCING
5000 psi	8"	#5 AT 18" O.C. E.F.	#4 AT 18" O.C. E.F.

27

CONC STRENGTH	PANEL THICKNESS	VERTICAL REINFORCING	HORIZONTAL REINFORCING
5000 psi	8"	#5 AT 18" O.C. E.F.	#4 AT 18" O.C. E.F.

28

CONC STRENGTH	PANEL THICKNESS	VERTICAL REINFORCING	HORIZONTAL REINFORCING
5000 psi	8"	#5 AT 18" O.C. E.F.	#4 AT 18" O.C. E.F.

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REVISIONS

PROFESSIONAL STRUCTURAL ENGINEER
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ANENI
STATE OF UTAH
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INDICATES RECESSED PANEL, SEE DETAIL 9/S3.01 AND ARCH

LINTEL SCHEDULE

Type	REINFORCING
L1	3' - 0" LINTEL WITH (2) #6 TOP AND BOTTOM AND #3 STIRRUPS AT 1' - 4" O.C.
L2	1' - 6" LINTEL WITH #6 TOP AND BOTTOM AND #3 STIRRUPS AT 8" O.C.

JAMB SCHEDULE

Type	REINFORCING
J1	(6) #5 E.F. EQUALLY SPACED WITH #3 TIES AT 6" O.C. FOR 12" ABOVE AND BELOW OPENINGS
J2	(8) #5 E.F. EQUALLY SPACED WITH #3 TIES AT 6" O.C. FOR 12" ABOVE AND BELOW OPENINGS
J3	(7) #5 E.F. EQUALLY SPACED WITH #3 TIES AT 6" O.C. FOR 12" ABOVE AND BELOW OPENINGS
J4	(10) #5 E.F. EQUALLY SPACED WITH #3 TIES AT 6" O.C. FOR 12" ABOVE AND BELOW OPENINGS
J5	(2) #5 BARS E.F. AT 6" O.C.

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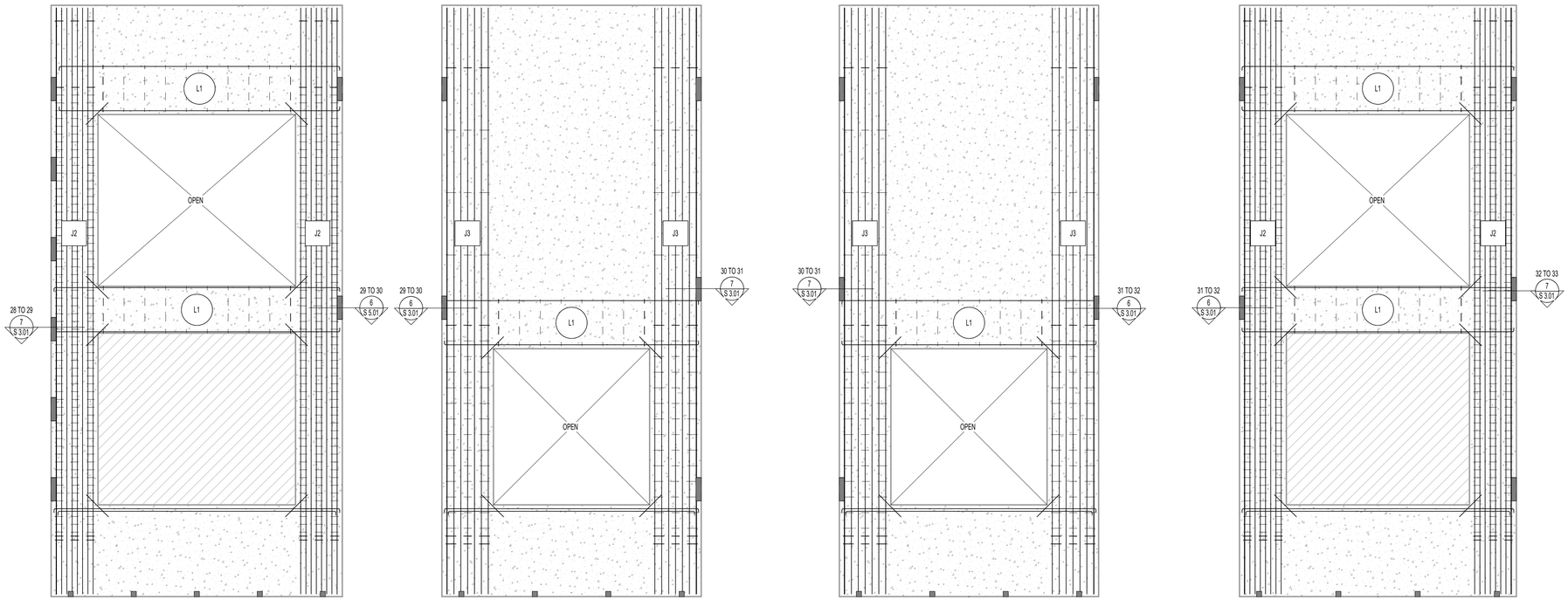
7. SEE ARCHITECTURAL DRAWINGS FOR PANEL DIMENSIONS.



29

CONC STRENGTH	PANEL THICKNESS	VERTICAL REINFORCING	HORIZONTAL REINFORCING
5000 psi	8"	#5 AT 18" O.C. E.F.	#4 AT 18" O.C. E.F.

30

CONC STRENGTH	PANEL THICKNESS	VERTICAL REINFORCING	HORIZONTAL REINFORCING
5000 psi	8"	#5 AT 18" O.C. E.F.	#4 AT 18" O.C. E.F.

31

CONC STRENGTH	PANEL THICKNESS	VERTICAL REINFORCING	HORIZONTAL REINFORCING
5000 psi	8"	#5 AT 18" O.C. E.F.	#4 AT 18" O.C. E.F.

32

CONC STRENGTH	PANEL THICKNESS	VERTICAL REINFORCING	HORIZONTAL REINFORCING
5000 psi	8"	#5 AT 18" O.C. E.F.	#4 AT 18" O.C. E.F.

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REVISIONS

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KORAPANENI
STATE OF UTAH
09/16/2026

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INDICATES RECESSED PANEL, SEE DETAIL 9/S3.01 AND ARCH

LINTEL SCHEDULE

Type	REINFORCING
L1	3' - 0" LINTEL WITH (2) #6 TOP AND BOTTOM AND #3 STIRRUPS AT 1' - 4" O.C.
L2	1' - 6" LINTEL WITH #6 TOP AND BOTTOM AND #3 STIRRUPS AT 8" O.C.

JAMB SCHEDULE

Type	REINFORCING
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J2	(8) #5 E.F. EQUALLY SPACED WITH #3 TIES AT 6" O.C. FOR 12" ABOVE AND BELOW OPENINGS
J3	(7) #5 E.F. EQUALLY SPACED WITH #3 TIES AT 6" O.C. FOR 12" ABOVE AND BELOW OPENINGS
J4	(10) #5 E.F. EQUALLY SPACED WITH #3 TIES AT 6" O.C. FOR 12" ABOVE AND BELOW OPENINGS
J5	(2) #5 BARS E.F. AT 6" O.C.

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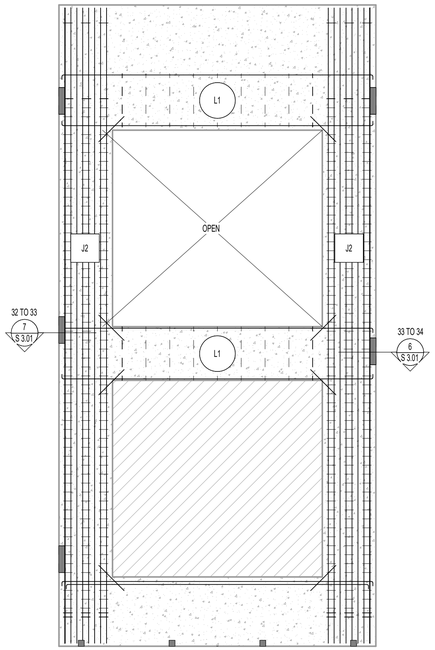
7. SEE ARCHITECTURAL DRAWINGS FOR PANEL DIMENSIONS.



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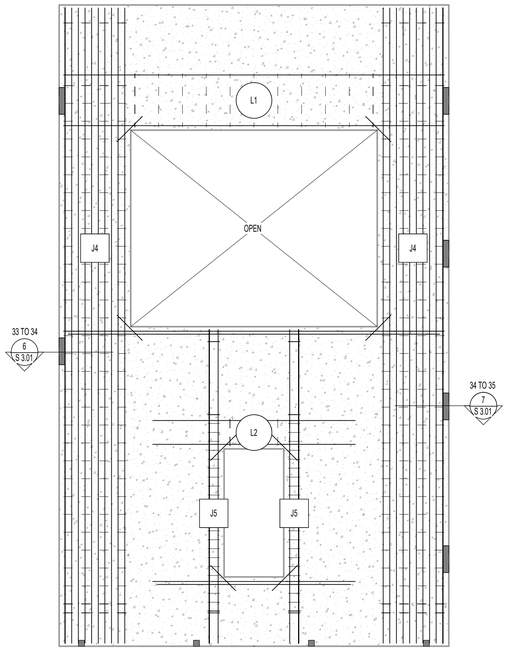
CONC STRENGTH	PANEL THICKNESS	VERTICAL REINFORCING	HORIZONTAL REINFORCING
5000 psi	8"	#5 AT 18" O.C. E.F.	#4 AT 18" O.C. E.F.



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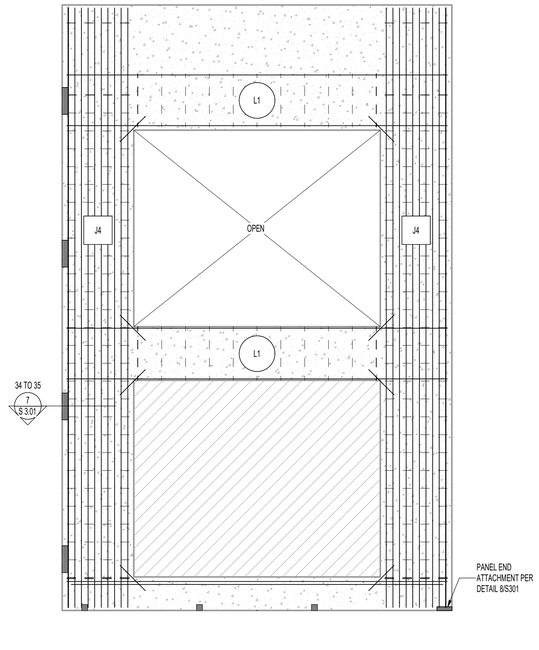
CONC STRENGTH	PANEL THICKNESS	VERTICAL REINFORCING	HORIZONTAL REINFORCING
5000 psi	8"	#5 AT 18" O.C. E.F.	#4 AT 18" O.C. E.F.



35			
CONC STRENGTH	PANEL THICKNESS	VERTICAL REINFORCING	HORIZONTAL REINFORCING
5000 psi	8"	#5 AT 18" O.C. E.F.	#4 AT 18" O.C. E.F.

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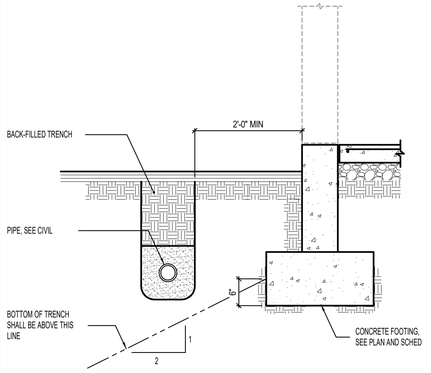
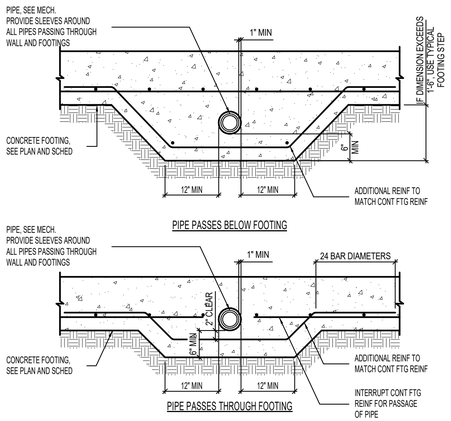


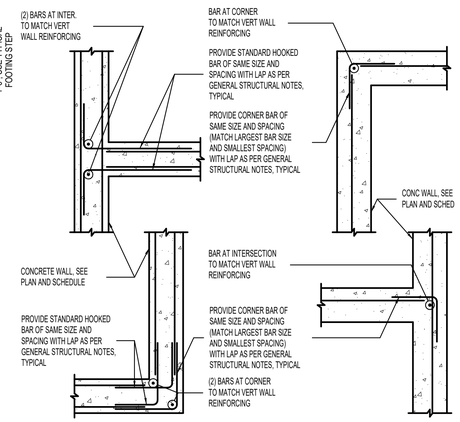
1 CONDITION AT PIPE PARALLEL TO CONCRETE FOOTING

NO SCALE



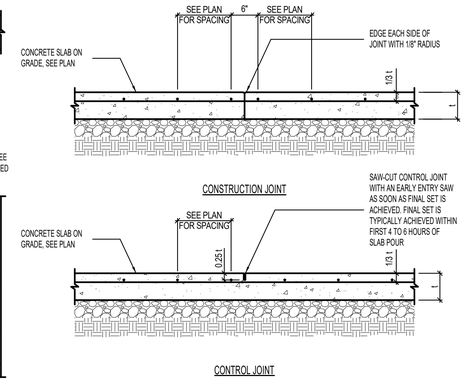
2 CONDITIONS AT PIPE PERPENDICULAR TO FOOTING

NO SCALE



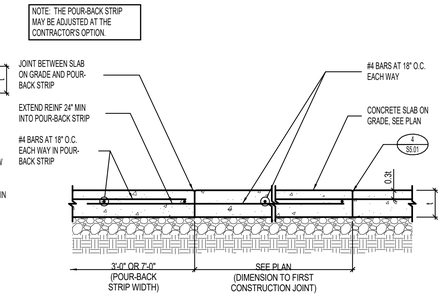
3 TYPICAL CORNER WALL REINFORCING AT CONCRETE WALLS [PLAN VIEW]

NO SCALE



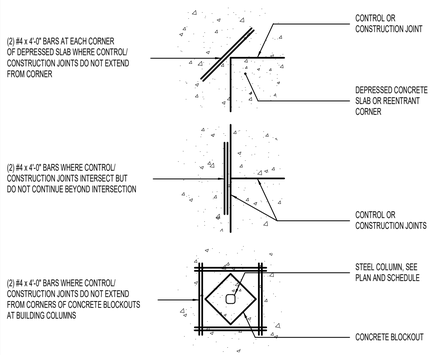
4 TYPICAL SLAB ON GRADE JOINT DETAILS

NO SCALE



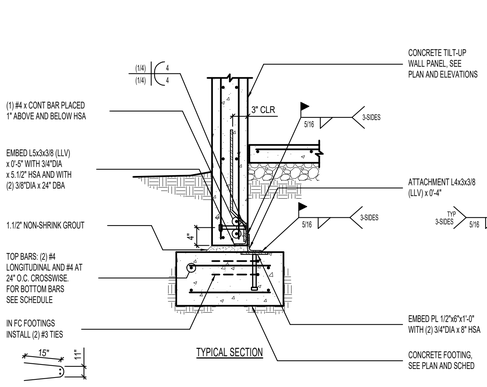
5 TYPICAL CONCRETE SLAB ON GRADE AT POUR-BACK STRIP

NO SCALE



6 LOCATIONS REQUIRING ADDITIONAL SLAB REINFORCING [PLAN VIEW]

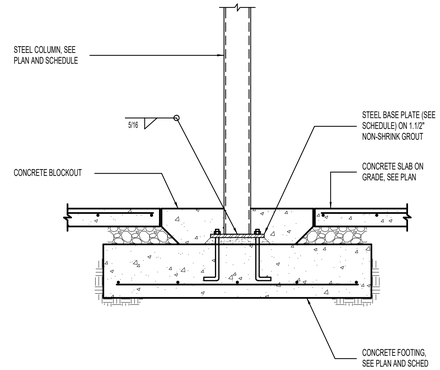
NO SCALE



NOTE: AFTER ERECTION OF PANELS AND WELDING OF CONNECTIONS, COAT ALL STEEL PLATES AND ANGLES WITH 3/16" MIN BITUMINOUS CEMENT.

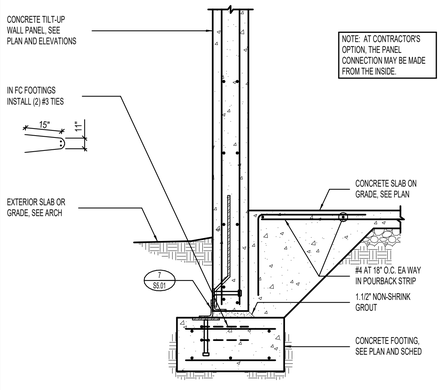
7 TYPICAL CONCRETE TILT-UP WALL PANEL CONNECTION TO FOOTING

NO SCALE



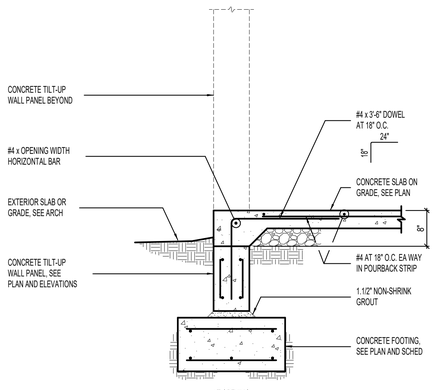
8 TYPICAL INTERIOR STEEL COLUMN TO FOOTING DETAIL

NO SCALE



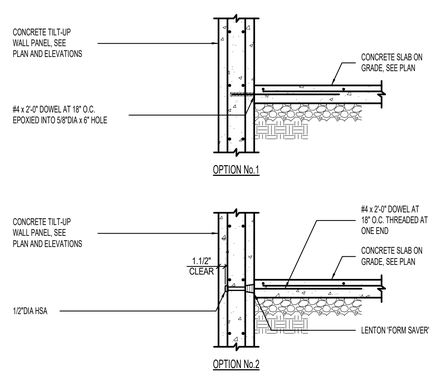
9 TYPICAL EXTERIOR CONCRETE TILT-UP WALL PANEL CONNECTION TO FOOTING

NO SCALE



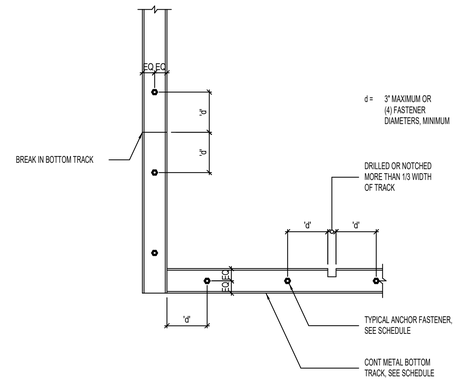
10 OPTIONAL CONCRETE SLAB ON GRADE CONNECTION TO CONCRETE TILT-UP WALL

NO SCALE



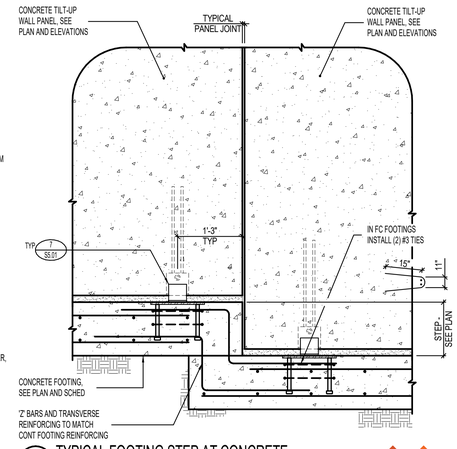
11 BOTTOM TRACK FASTENER DETAIL [PLAN VIEW]

NO SCALE



12 TYPICAL FOOTING STEP AT CONCRETE TILT-UP WALL PANEL

NO SCALE



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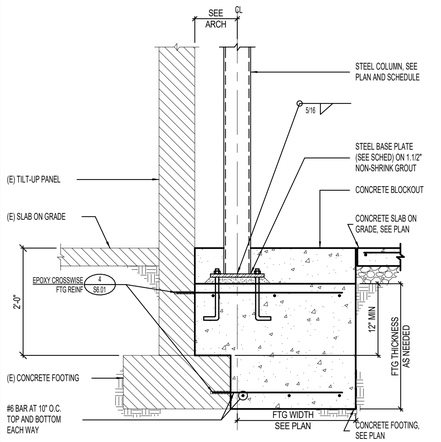
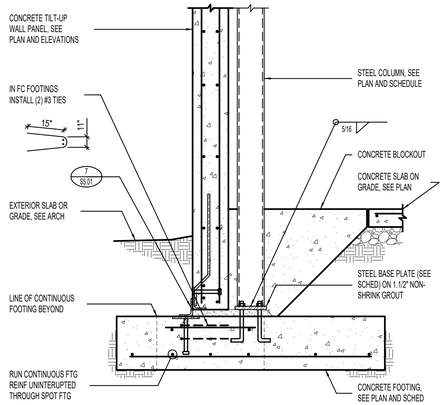


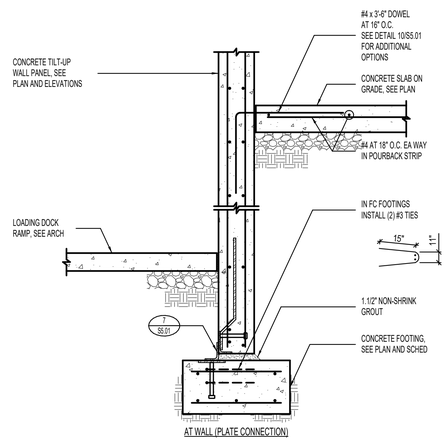
1 STEEL COLUMN ON FOOTING AT EXISTING STRUCTURE

NO SCALE



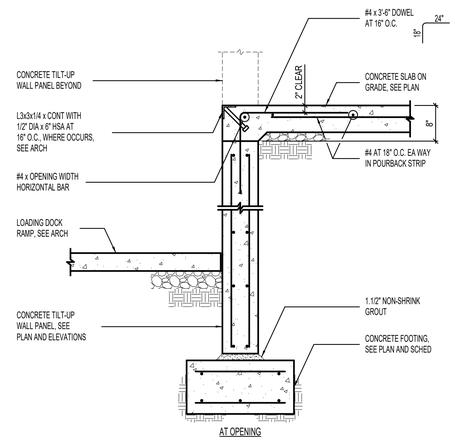
2 TYPICAL STEEL COLUMN TO FOOTING AT CONCRETE TILT-UP WALL PANEL

NO SCALE

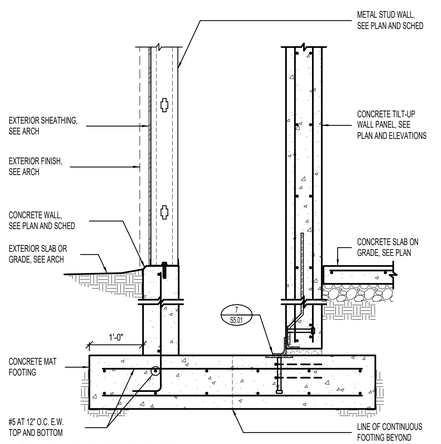


3 EXTERIOR CONCRETE TILT-UP WALL PANEL CONNECTION TO FOOTING

NO SCALE

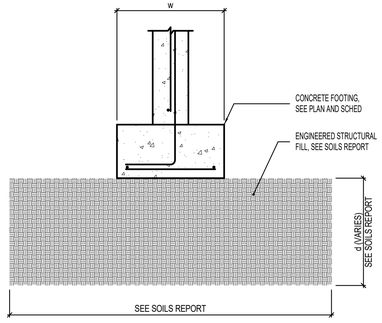


NO SCALE



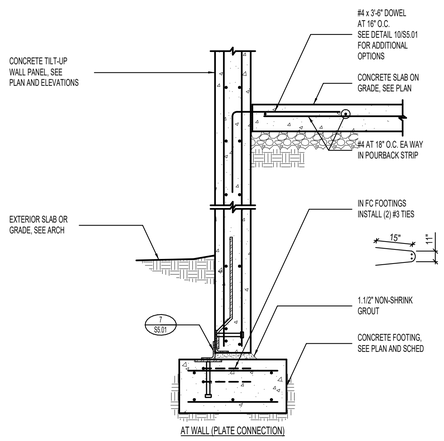
4 POPOUT FOOTING DETAIL

NO SCALE



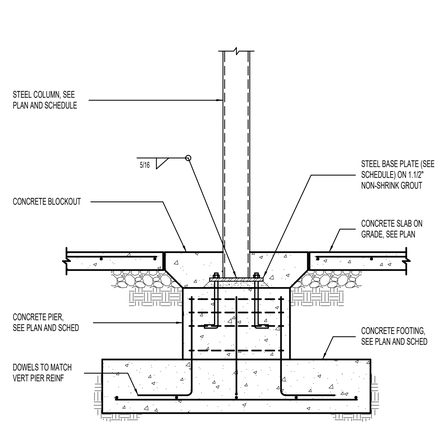
5 ENGINEERED STRUCTURAL FILL DETAIL

NO SCALE



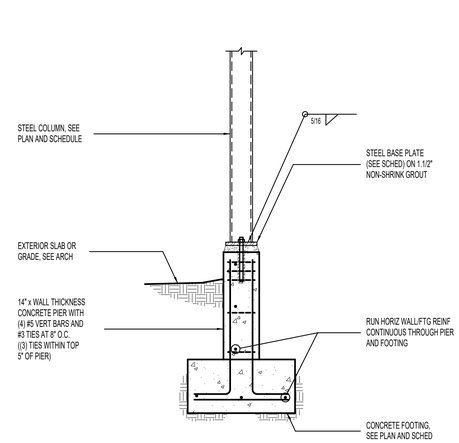
6 EXTERIOR CONCRETE TILT-UP WALL PANEL CONNECTION TO FOOTING

NO SCALE



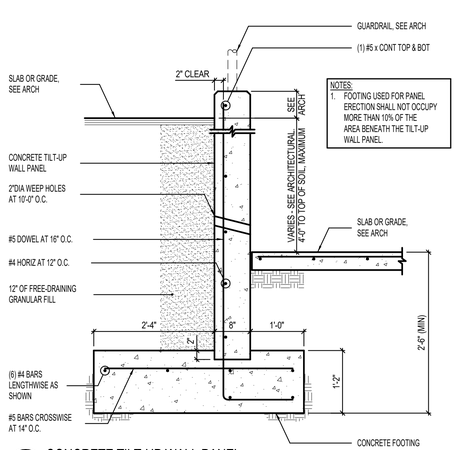
7 STEEL COLUMN BEARING AT CONCRETE PIER

NO SCALE



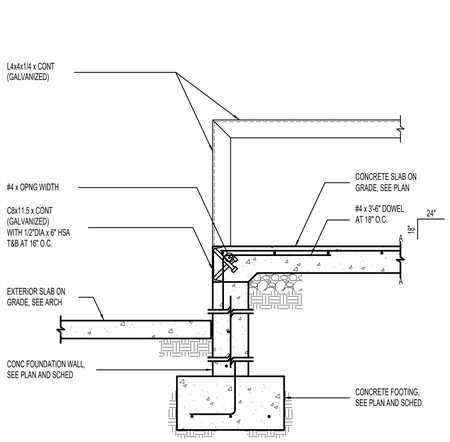
8 STEEL COLUMN BEARING ON CONCRETE FOUNDATION WALL

NO SCALE



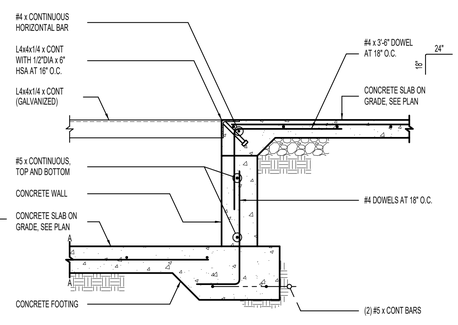
9 CONCRETE TILT-UP WALL PANEL RETAINING WALL DETAIL

NO SCALE



10 TYPICAL DOCK LEVELER PIT DETAIL

NO SCALE



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WICP COMMERCIAL PROPERTIES

DRAWN BY: JH
REVISIONS

PROFESSIONAL STRUCTURAL ENGINEER
No. 7211767-2203
RAJEEV PRATAPANENI
STATE OF UTAH
09/16/2026

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PERMIT SET DOCUMENT

DATE: SEPT. 16 2026
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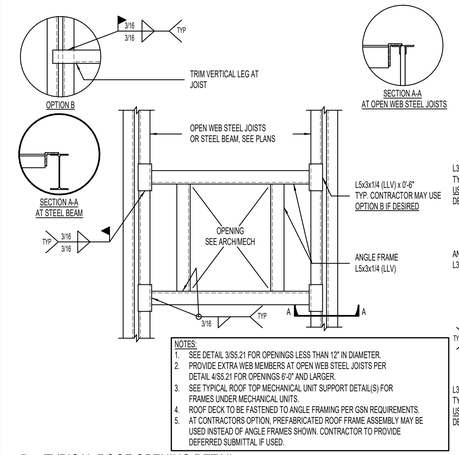
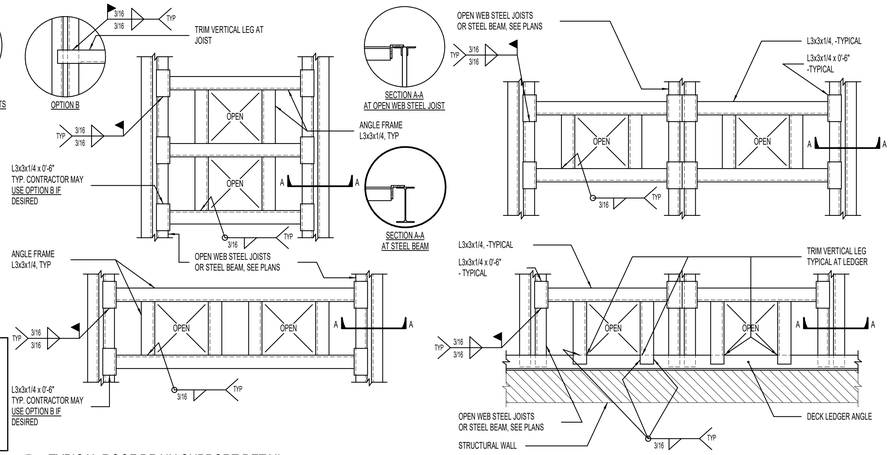
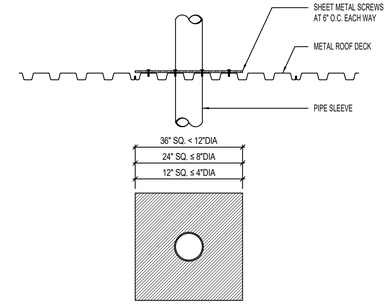


1 TYPICAL ROOF OPENING DETAIL [PLAN VIEW] — NO SCALE

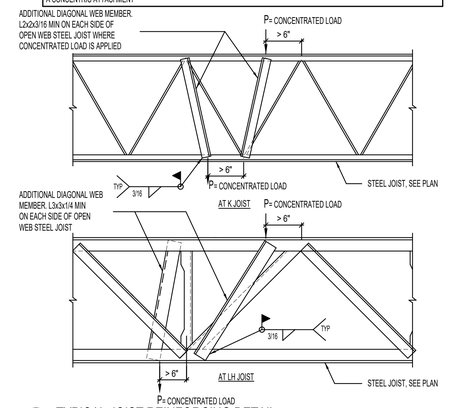


2 TYPICAL ROOF DRAIN SUPPORT DETAIL [PLAN VIEW] — NO SCALE



3 TYPICAL PIPE SLEEVE THROUGH ROOF DECK — NO SCALE

NOTE: WHERE LOADS OVER 100# ON OPEN WEB JOISTS ARE LOCATED MORE THAN 6" FROM THE PANEL WORK POINTS AT EITHER THE TOP OR BOTTOM CHORD, THE CONTRACTOR SHALL INSTALL ADDITIONAL DIAGONAL WEB MEMBERS AT THE LOCATION OF THE CONCENTRATED LOAD. CONNECTIONS FOR LOADS OVER 100LB MUST BE A CONCENTRIC ATTACHMENT



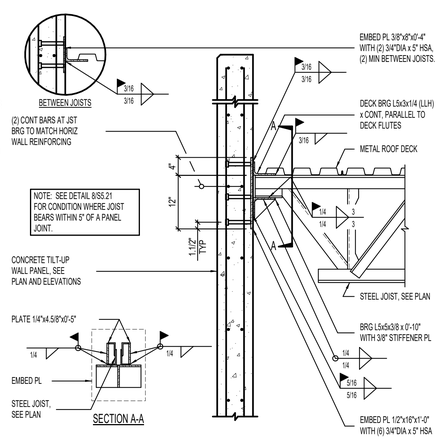
4 TYPICAL JOIST REINFORCING DETAIL FOR LOADS GREATER THAN 100 POUNDS — NO SCALE

NOTE: WHERE MECHANICAL UNIT WEIGHS LESS THAN 300 lbs. USE 'UNISTRUT' TO SUPPORT THE UNIT INSTEAD OF L5x3x1/4.

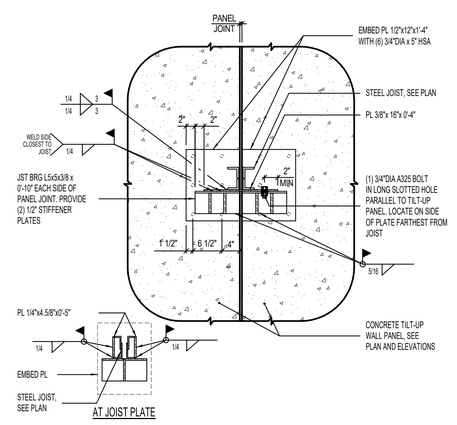
5 TYPICAL HANGING MECHANICAL UNIT SUPPORT DETAIL — NO SCALE

NOTES:
1. WHERE THE MECHANICAL UNIT WEIGHS LESS THAN 700 lbs, THE L6x4 SUPPORT ANGLES MAY BE CHANGED TO L5x3x1/4.
2. SOLID BLOCK THE FLUTES OF THE STEEL DECK UNDER THE CURB OF THE MECHANICAL UNIT. THIS MAY BE DONE WITH A HSS1.1/2x1.1/2x3/16 x 0'-4" TACK WELDED TO THE STEEL DECK OR WITH SOLID BLOCKING CONNECTED TO THE STEEL DECK.
3. ROOF DECK TO BE WELDED TO ANGLE FRAMING.

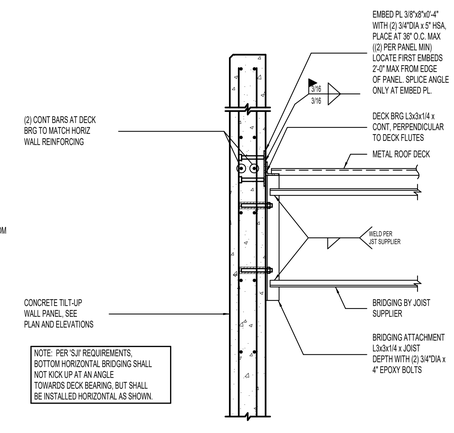
6 TYPICAL ROOF TOP MECHANICAL UNIT SUPPORT DETAIL [PLAN VIEW] — NO SCALE



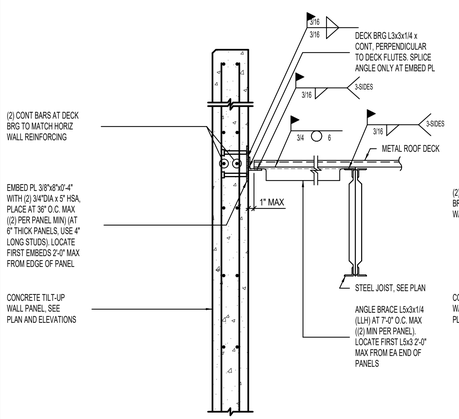
7 TYPICAL 'LH' JOIST AND DECK BEARING AT CONCRETE TILT-UP WALL PANEL — NO SCALE



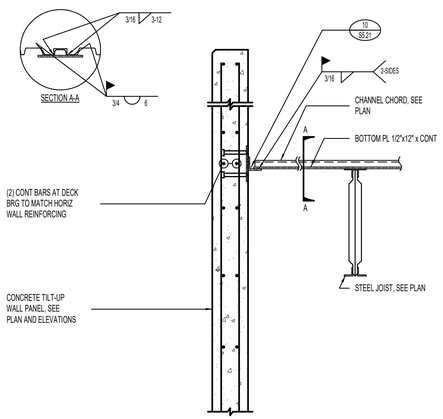
8 TYPICAL 'LH' JOIST BEARING WITHIN 5" OF A PANEL JOINT — NO SCALE



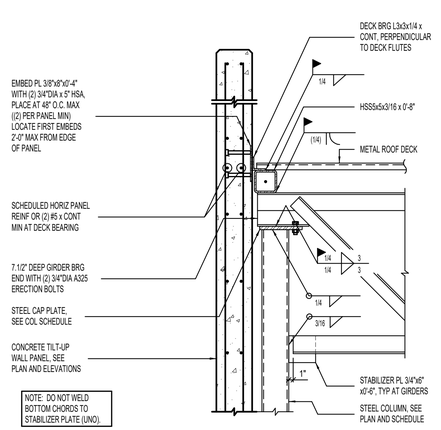
9 TYPICAL DECK BEARING/BRIDGING ATTACHMENT AT CONCRETE TILT-UP WALL PANEL — NO SCALE



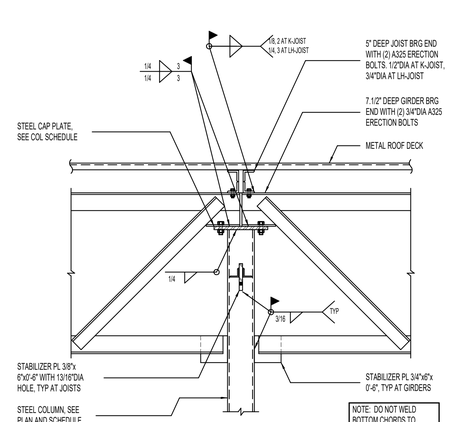
10 TYPICAL STEEL BRACE TO CONCRETE TILT-UP WALL PANEL CONNECTION — NO SCALE



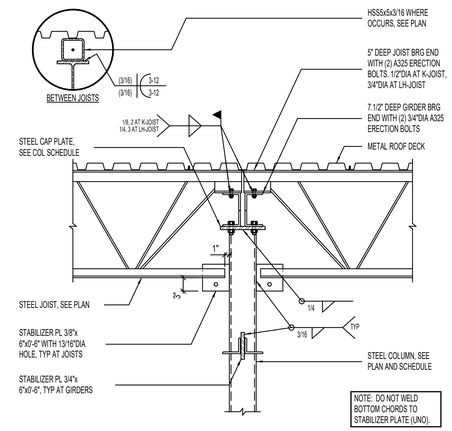
11 TYPICAL CHANNEL CHORD TO CONCRETE TILT-UP PANEL — NO SCALE



12 TYPICAL STEEL GIRDER BEARING ON STEEL COLUMN AT CONCRETE TILT-UP WALL PANEL — NO SCALE



13 TYPICAL JOIST AND GIRDER BEARING AT STEEL COLUMN — NO SCALE



14 TYPICAL JOIST (5" BEARING ENDS) AND GIRDER BEARING AT STEEL COLUMN — NO SCALE

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ARCHITECTS / PLANNERS

DRAWN BY: JH
REVISIONS

PROFESSIONAL STRUCTURAL ENGINEER
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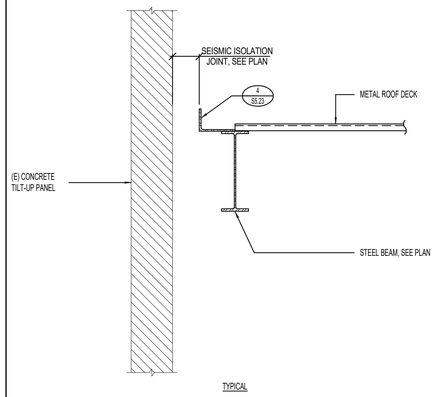
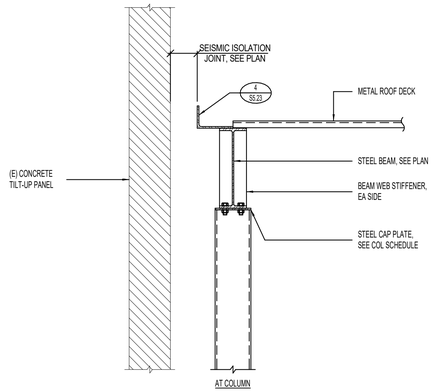
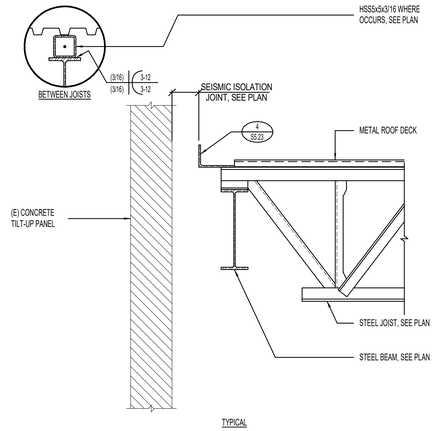




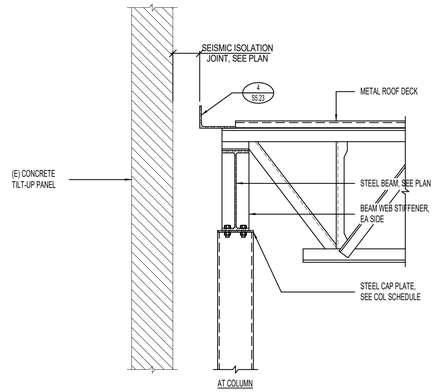
1 STEEL BEAM AT EXISTING CONCRETE TILT-UP PANEL

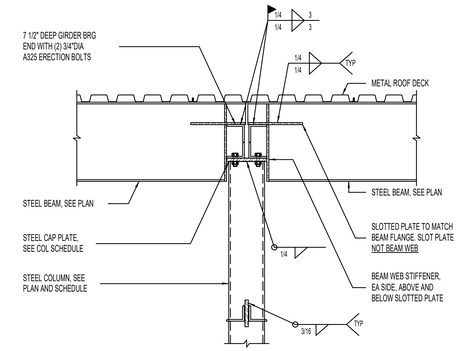
NO SCALE



2 STEEL BEAM AT EXISTING CONCRETE TILT-UP PANEL

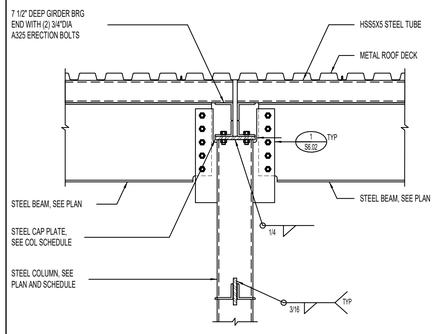
NO SCALE





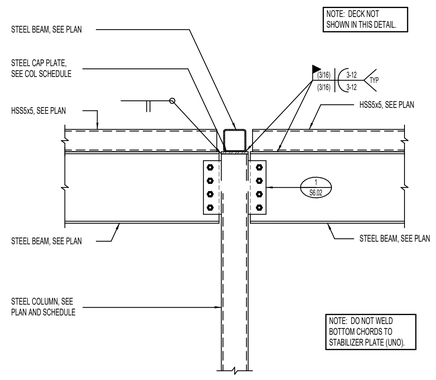
3 GIRDER AT STEEL COLUMN

NO SCALE



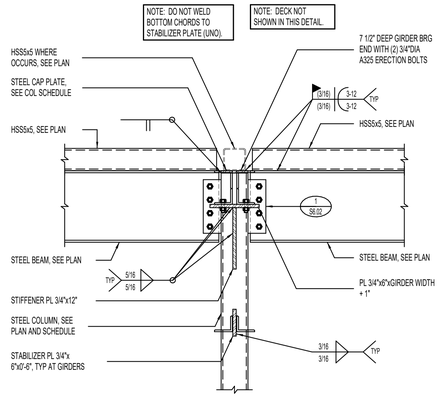
4 GIRDER AT STEEL COLUMN

NO SCALE



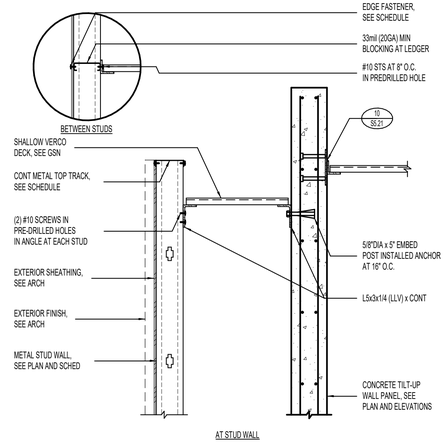
5 TYPICAL STEEL BEAM BEARING EXTERIOR STEEL COLUMN

NO SCALE



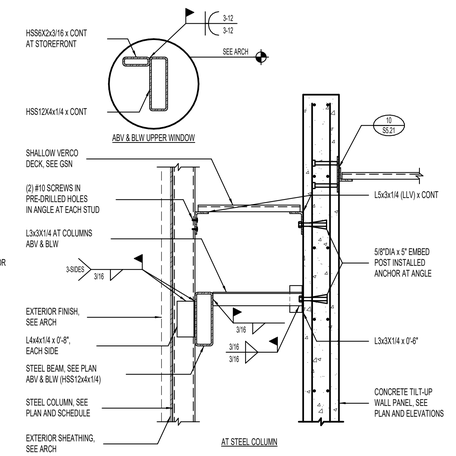
6 TYPICAL STEEL BEAM BEARING EXTERIOR STEEL COLUMN

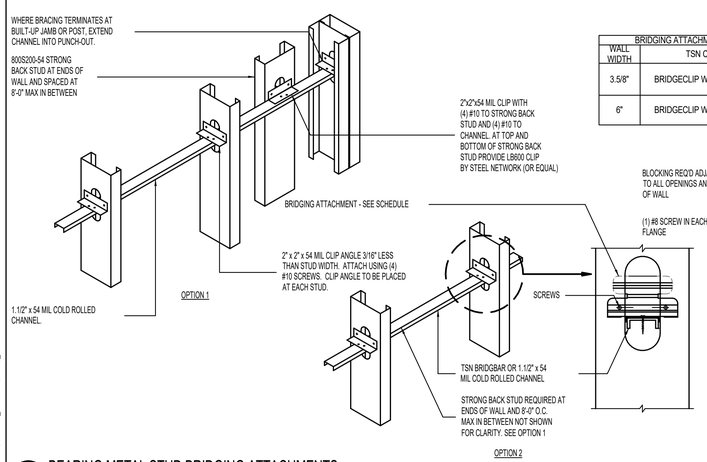
NO SCALE



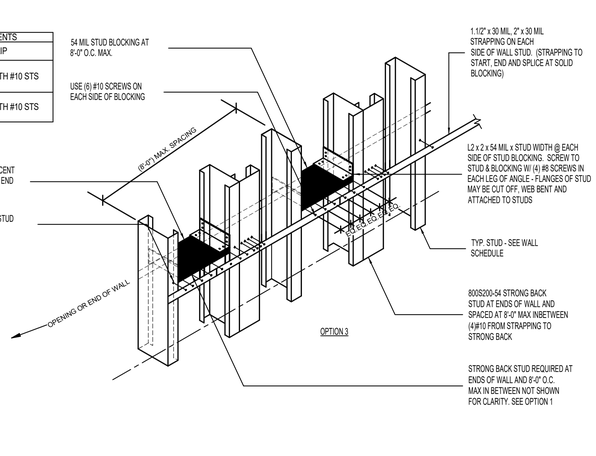
7 POPOUT DETAIL

NO SCALE



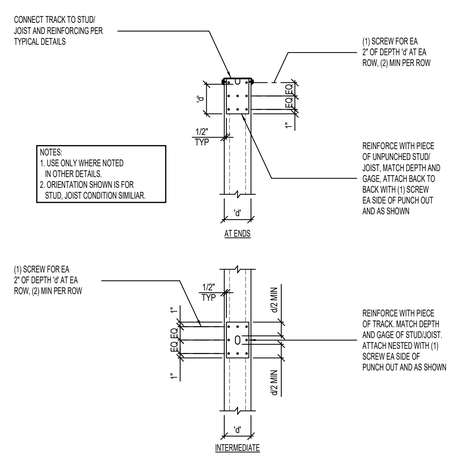


BRIDGING ATTACHMENTS	
WALL WIDTH	TSN CLIP
3.5/8"	BRIDGECLIP WITH #10 STS
6"	BRIDGECLIP WITH #10 STS



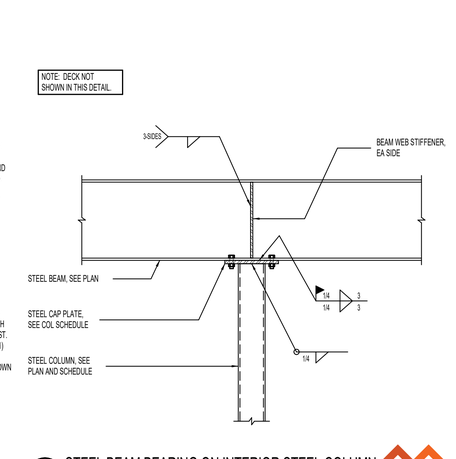
8 BEARING METAL STUD BRIDGING ATTACHMENTS

NO SCALE



9 TYPICAL STEEL STUD/JOIST PUNCH OUT REINFORCING

NO SCALE



10 STEEL BEAM BEARING ON INTERIOR STEEL COLUMN

NO SCALE

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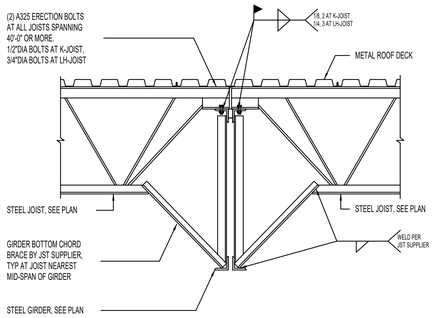
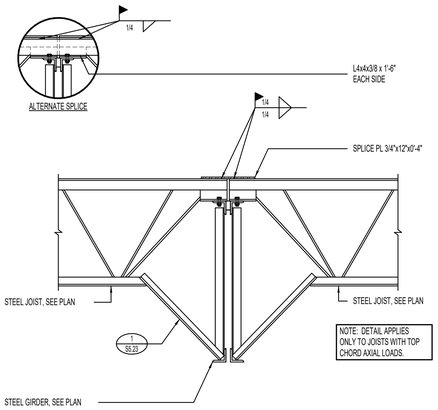


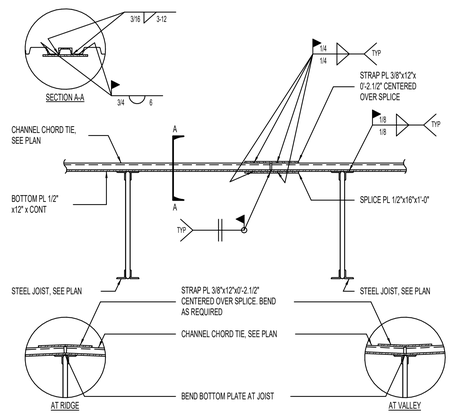
1 TYPICAL JOIST (5" BEARING ENDS) BEARING AT STEEL GIRDER

NO SCALE



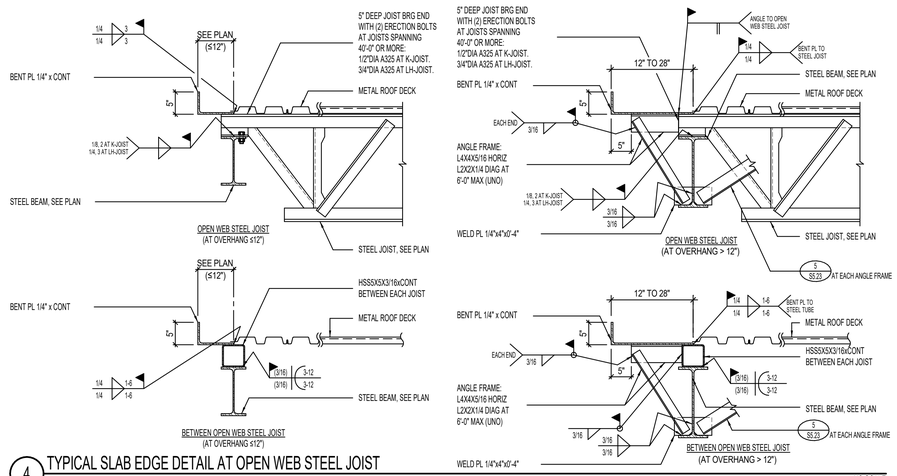
2 TYPICAL JOIST (5" BEARING ENDS) CHORD TIE/ DRAG STRUT DETAIL

NO SCALE



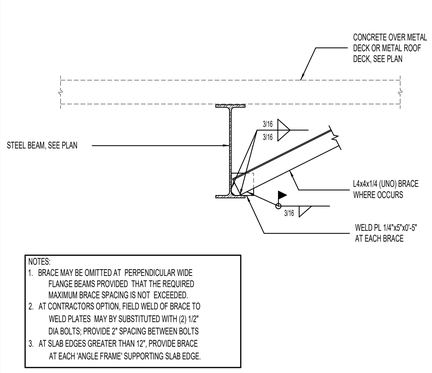
3 TYPICAL CHANNEL CHORD TIE DETAIL

NO SCALE



4 TYPICAL SLAB EDGE DETAIL AT OPEN WEB STEEL JOIST

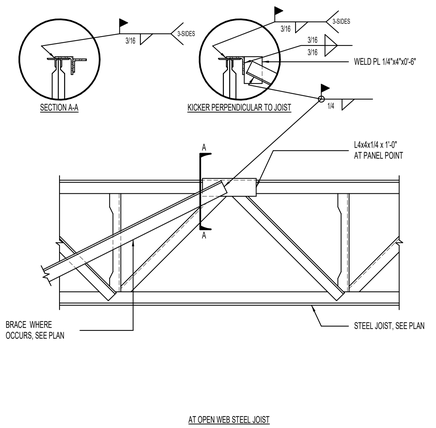
NO SCALE



NOTES:
1. BRACE MAY BE OMITTED AT PERPENDICULAR WIDE FLANGE BEAMS PROVIDED THAT THE REQUIRED MAXIMUM BRACE SPACING IS NOT EXCEEDED.
2. AT CONTRACTORS OPTION, FIELD WELD OF BRACE TO WELD PLATES MAY BY SUBSTITUTED WITH (2) 1/2" DIA BOLTS; PROVIDE 2" SPACING BETWEEN BOLTS
3. AT SLAB EDGES GREATER THAN 12", PROVIDE BRACE AT EACH 'ANGLE FRAME' SUPPORTING SLAB EDGE.

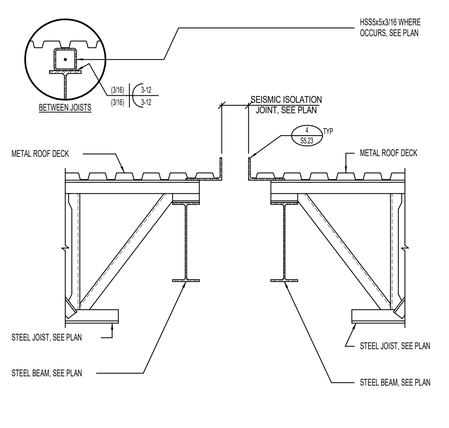
5 TYPICAL BRACE DETAIL

NO SCALE



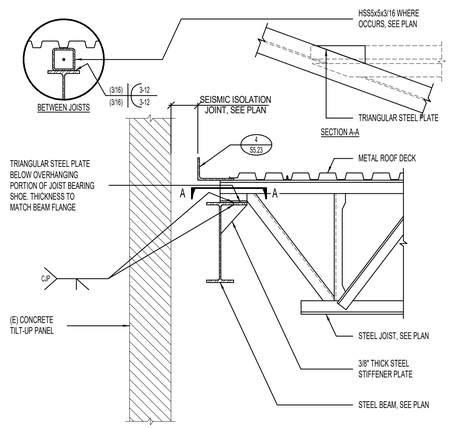
6 SEISMIC JOINT DETAIL

NO SCALE



7 STEEL JOIST AT SKEWED BEAM

NO SCALE



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WICP COMMERCIAL PROPERTIES

DRAWN BY: JH
REVISIONS

PROFESSIONAL STRUCTURAL ENGINEER
No. 7211767-2203
RAJEEV
PORAPANENI
STATE OF UTAH
09/16/2026

DETAILS

A NEW ADDITION FOR :
FORTEM TECHNOLOGIES
W.I.C.P. COMERCIAL PROPERTIES
1855 W 500 N
LINDON, UT 84042

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DATE: SEPT. 16 2026
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CONCRETE CONTINUOUS FOOTING SCHEDULE (FC)

MARK	WIDTH	LENGTH	DEPTH	REINFORCING CROSSWISE				REINFORCING LENGTHWISE				COMMENTS
				No.	SIZE	LENGTH	SPACING	No.	SIZE	LENGTH	SPACING	
FC3.0A	3' - 0"	CONT	12"	-	#5	2' - 6"	14"	3	#5	CONT	EQ	REINFORCE TOP AND BOTTOM

CONCRETE SPOT FOOTING SCHEDULE (FS)

MARK	WIDTH	LENGTH	DEPTH	REINFORCING CROSSWISE				REINFORCING LENGTHWISE				COMMENTS
				No.	SIZE	LENGTH	SPACING	No.	SIZE	LENGTH	SPACING	
FS4.0	4' - 0"	4' - 0"	12"	4	#5	3' - 6"	EQ	4	#5	3' - 6"	EQ	
FS6.0	6' - 0"	6' - 0"	14"	6	#5	5' - 6"	EQ	6	#5	5' - 6"	EQ	
FS7.5	7' - 6"	7' - 6"	17"	9	#5	7' - 0"	EQ	9	#5	7' - 0"	EQ	
FS8.0	8' - 0"	8' - 0"	17"	8	#6	7' - 6"	EQ	8	#6	7' - 6"	EQ	

CONCRETE RECTANGULAR FOOTING SCHEDULE (FTR)

MARK	WIDTH	Length	DEPTH	REINFORCING CROSSWISE				REINFORCING LENGTHWISE				COMMENTS
				No.	SIZE	LENGTH	SPACING	No.	SIZE	LENGTH	SPACING	
FTR28x32	28' - 0"	32' - 0"	24"	-	#5	27'-6"	12"	26	#7	31'-6"	EQ	REINFORCE TOP AND BOTTOM

CONCRETE FOOTING NOTES:
1. PLACE ALL FOOTING REINFORCING IN THE BOTTOM OF THE FOOTING WITH 3" CLEAR CONCRETE COVER (UNO).
2. TOP REINFORCING, WHERE OCCURS, SHALL BE PLACED IN THE TOP OF THE FOOTING WITH 2" MINIMUM CONCRETE COVER.
3. IF FOOTINGS ARE EARTH-FORMED, FOOTINGS SHALL BE 6" LONGER AND WIDER THAN SCHEDULED.
4. SEE GENERAL STRUCTURAL NOTES FOR ADDITIONAL REQUIREMENTS.
5. SOME SCHEDULED FOOTINGS MAY NOT BE USED, SEE FOOTING AND FOUNDATION PLAN FOR FOOTING MARKS.

1 CONCRETE FOOTING SCHEDULE
NOT TO SCALE

CONCRETE WALL SCHEDULES

MARK	THICKNESS	REINFORCING			WALL TYPE	COMMENTS
		VERTICAL	HORIZONTAL	TOP AND BOTTOM		
CW-8A	8"	#4 BARS AT 18" O.C.	#4 BARS AT 12" O.C.	(1) #4	A	

CONCRETE FOUNDATION WALL NOTES:
1. SEE GENERAL STRUCTURAL NOTES FOR ADDITIONAL REQUIREMENTS.

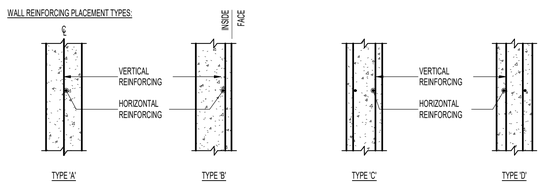
ABBREVIATIONS:

EACH FACE	E.F.
INSIDE FACE	I.F.
OUTSIDE FACE	O.F.

WALLS NOT DESIGNATED IN PLAN

THICKNESS	REINFORCING	
	VERTICAL	HORIZONTAL
6"	#4 BARS AT 18" O.C.	#4 BARS AT 16" O.C.
8"	#4 BARS AT 18" O.C.	#4 BARS AT 12" O.C.
10"	#4 BARS AT 16" O.C.	#5 BARS AT 15" O.C.
12"	#4 BARS AT 18" O.C. E.F.	#4 BARS AT 16" O.C. E.F.

WALL REINFORCING PLACEMENT TYPES:

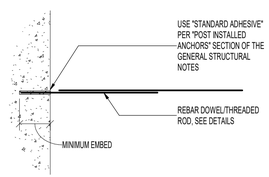


TYPE 'A' TYPE 'B' TYPE 'C' TYPE 'D'

2 CONCRETE WALL SCHEDULE
NOT TO SCALE

STANDARD ADHESIVE EMBEDMENT SCHEDULE

REBAR DOWEL (THREADED ROD SIZE)	MIN EMBEDMENT INTO CONCRETE OR GROUTED MASONRY
#3 (3/8")	3 3/8"
#4 (1/2")	4 1/2"
#5 (5/8")	5 5/8"
#6 (3/4")	6 3/4"



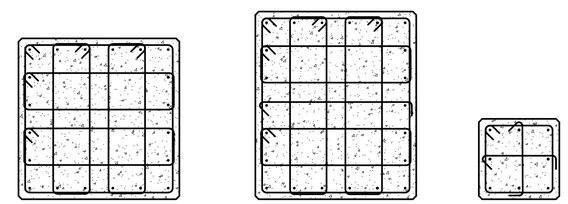
STANDARD ADHESIVE EMBEDMENT NOTES:
1. SPECIFIC EMBEDMENTS, NOTES AND DETAILS IN DRAWINGS SHALL GOVERN OVER THIS SCHEDULE.
2. HOLE DIAMETER SHALL BE DOWEL/ROD DIAMETER PLUS 1/8". FOLLOW MANUFACTURER'S INSTRUCTIONS FOR HOLE PREPARATION.
3. PROVIDE A 3" MINIMUM EDGE DISTANCE TO CENTER OF HOLE.
4. CONTACT STRUCTURAL ENGINEER IF MINIMUM EMBEDMENTS INDICATED ABOVE ARE NOT ACHIEVABLE.
5. SEE "POST INSTALLED ANCHORS" SECTION OF GENERAL STRUCTURAL NOTES FOR ADDITIONAL REQUIREMENTS.

3 STANDARD ADHESIVE EMBEDMENT SCHEDULE
NOT TO SCALE

CONCRETE PIER SCHEDULE

MARK	PIER SIZE			REINFORCING		TYPE	COMMENTS
	W	x	L	VERTICAL	TIES		
CP-16A	16"	x	16"	(9) #5	(3) #3 AT 8" O.C.	C	
CP-36x36	36"	x	36"	(20) #5	(5) #4 AT 8" O.C.	A	
CP-36x42	42"	x	36"	(22) #5	(6) #4 AT 8" O.C.	B	

CONCRETE PIER NOTES:
1. INSTALL (3) SETS OF TIES WITHIN TOP 5" OF ALL PIERS (UNO).
2. RUN HORIZONTAL CONCRETE WALL REINFORCING CONTINUOUS THROUGH PIER WHEN PIER IS POURED MONOLITHICALLY WITH CONCRETE WALL.
3. ALTERNATE THE POSITION OF 135 DEGREE HOOK IN EACH LAYER OF TIES.
4. AT ALL PIERS LOCATED IN CONCRETE SHEAR WALLS, CONTINUE TIES 12" MINIMUM INTO FOOTING.
5. SEE GENERAL STRUCTURAL NOTES FOR ADDITIONAL REQUIREMENTS.



TYPE 'A' TYPE 'B' TYPE 'C'

4 CONCRETE PIER SCHEDULE
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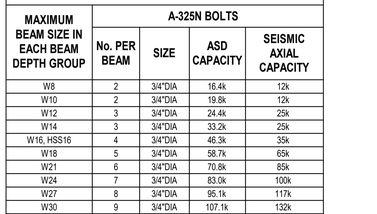
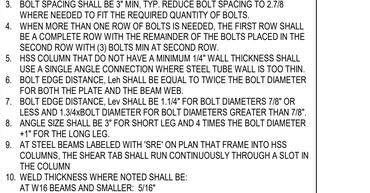
A-325 BOLT SCHEDULE

MAXIMUM BEAM SIZE IN EACH BEAM DEPTH GROUP	A-325N BOLTS			
	No. PER BEAM	SIZE	ASD CAPACITY	SEISMIC AXIAL CAPACITY
W8	2	3/4"DIA	16.4k	12k
W10	2	3/4"DIA	19.8k	12k
W12	3	3/4"DIA	24.4k	25k
W14	3	3/4"DIA	33.2k	25k
W16, HSS16	4	3/4"DIA	46.3k	35k
W18	5	3/4"DIA	58.7k	65k
W21	6	3/4"DIA	70.8k	85k
W24	7	3/4"DIA	83.0k	100k
W27	8	3/4"DIA	95.1k	117k
W30	9	3/4"DIA	107.1k	132k

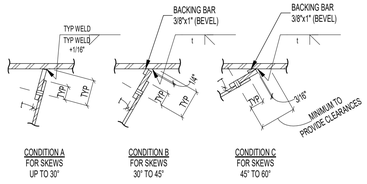
1. SHEAR TAB SHALL BE 1/2" THICK AT STEEL BEAMS LABELED WITH 'SRE' ON PLAN, INCREASE THICKNESS OF SHEAR TAB TO 3/4" AND ALL BOLTS SHALL BE PRETENSIONED WITH CLASS A FAYING SURFACES
2. 5/16" FILLET WELD EACH SIDE OF SHEAR TAB.
3. BOLT SPACING SHALL BE 3" MIN, TYP. REDUCE BOLT SPACING TO 2.7/8 WHERE NEEDED TO FIT THE REQUIRED QUANTITY OF BOLTS.
4. WHEN MORE THAN ONE ROW OF BOLTS IS NEEDED, THE FIRST ROW SHALL BE A COMPLETE ROW WITH THE REMAINDER OF THE BOLTS PLACED IN THE SECOND ROW WITH (3) BOLTS MIN AT SECOND ROW.
5. HSS COLUMN THAT DO NOT HAVE A MINIMUM 1/4" WALL THICKNESS SHALL USE A SINGLE ANGLE CONNECTION WHERE STEEL TUBE WALL IS TOO THIN.
6. BOLT EDGE DISTANCE, Leh SHALL BE EQUAL TO TWICE THE BOLT DIAMETER FOR BOTH THE PLATE AND THE BEAM WEB.
7. BOLT EDGE DISTANCE, Lev SHALL BE 1.1/4" FOR BOLT DIAMETERS 7/8" OR LESS AND 1.3/4xBOLT DIAMETER FOR BOLT DIAMETERS GREATER THAN 7/8".
8. ANGLE SIZE SHALL BE 3" FOR SHORT LEG AND 4 TIMES THE BOLT DIAMETER +1" FOR THE LONG LEG.
9. AT STEEL BEAMS LABELED WITH 'SRE' ON PLAN THAT FRAME INTO HSS COLUMNS, THE SHEAR TAB SHALL RUN CONTINUOUSLY THROUGH A SLOT IN THE COLUMN
10. WELD THICKNESS WHERE NOTED SHALL BE:
    AT W16 BEAMS AND SMALLER: 5/16"
    AT W18 BEAMS TO W24 BEAMS: 3/8"
    AT W27 BEAMS AND LARGER: 1/2"



BEAM TO BEAM SHEAR TAB CONNECTION

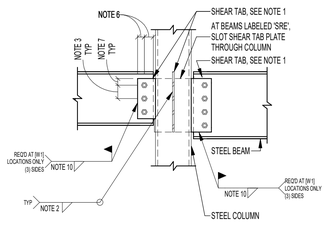


BEAM TO BEAM WEB PLATE CONNECTION

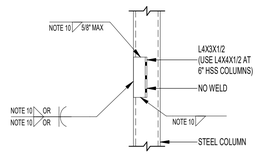


BEAM TO PARALLEL BEAM SHEAR TAB CONNECTION

SHEAR CONNECTOR PLATES AT SKEWED MEMBERS



BEAM TO HSS COLUMN SHEAR TAB CONNECTION



SINGLE ANGLE CONNECTION WHERE REQUIRED BY NOTE No. 5

1 TYPICAL 3/4" DIA BOLTED WEB PLATE CONNECTIONS WITH BOLT SCHEDULE

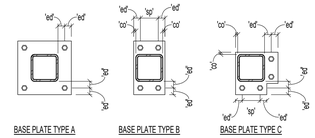
NOT TO SCALE

STEEL COLUMN SCHEDULE

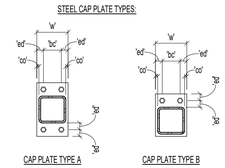
MARK	STEEL COLUMN - TYPE: SIZE	STEEL BASE PLATE		STEEL CAP PLATE		COMMENTS
		THICKNESS	PLATE TYPE	THICKNESS	PLATE TYPE	
SC-5A	SC - HSS : HSS5X5X1/4	3/4"	E, F	1/2"	C	
SC-8A	SC - HSS : HSS8X8X3/8	3/4"	A	1/2"	A	
SC-8B	SC - HSS : HSS8X8X5/16	3/4"	B	1/2"	B	
SC-8C	SC - HSS : HSS8X8X1/4	3/4"	B	1/2"	B OR C	
SC-8D	SC - HSS : HSS8X8X5/8	2 1/4"	D	1/2"	C	NOTE 5

STEEL COLUMN NOTES:
1. UNLESS NOTED OTHERWISE, ALL COLUMNS SHALL BE INSTALLED WITH (4) 3/4"DIA ANCHOR RODS WITH 3" MINIMUM HOOKS. PROJECT ANCHOR RODS 3" MINIMUM ABOVE THE TOP OF THE BASE PLATE. EMBEDMENT SHALL BE 9" MINIMUM. ALL RODS SHALL BE INSTALLED WITH HARDENED WASHERS BENEATH THE NUT. ANY BOLT HOLES LARGER THAN THE ROD DIAMETER PLUS 5/16" SHALL HAVE 5/16" PLATE WASHERS INSTALLED BENEATH THE HARDENED WASHERS.
2. ALL CAP PLATE BOLTS SHALL BE 3/4"DIA A325N BOLTS, TYPICAL UNLESS NOTED OTHERWISE.
3. ANCHOR RODS SHALL NOT BE WELDED (INCLUDING TACK WELDS).
4. SEE GENERAL STRUCTURAL NOTES FOR ADDITIONAL REQUIREMENTS.
5. AT BRACE FRAME COLUMNS PROVIDE (6) 1.1/4" DIA F1554 Gr 105 ANCHOR RODS PER BRACE FRAME WITH 20" MINIMUM EMBEDMENT INTO CONCRETE FOOTING. PROVIDE PLATE WASHERS PER SCHEDULE.

STEEL BASE PLATE TYPES:



STEEL CAP PLATE TYPES:



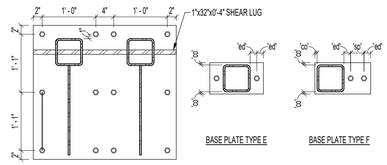


PLATE LEGEND
co = 1/2" MINIMUM
ed = 1 1/2" MINIMUM
sp = 3" MINIMUM
bc = BEAM OR GIRDER GAGE
w = BEAM OR GIRDER GAGE +3"
OR
BEAM OR GIRDER WIDTH +1"
OR
COLUMN WIDTH + 1"
WHICHEVER IS GREATER

ANCHOR BOLT EMBEDDED PLATE WASHER SIZE

DIAMETER (IN)	GRADE (ksi)			MINIMUM EMBEDMENT (IN)
	36	55	105	
3/4	PL3/8"x3"x3"	PL1/2"x3"x3"	PL3/4"x4"x4"	7
1	PL1/2"x3.1/2"x3.1/2"	PL5/8"x4"x4"	PL1"x5.1/2"x5.1/2"	9
1.1/4	PL5/8"x4"x4"	PL3/4"x5"x5"	PL1.1/4"x6.1/2"x6.1/2"	11
1.1/2	PL3/4"x5"x5"	PL1"x6"x6"	PL1.3/8"x8"x8"	13
2	PL1"x6.1/2"x6.1/2"	PL1.1/4"x8"x8"	PL2"x11"x11"	18
2.1/2	PL1.1/4"x8"x8"	PL1.1/2"x10"x10"	PL2.1/4"x13"x13"	22

PLATE WASHER NOTES:
1. PLATE WASHER EMBEDMENT SHOWN IS A MINIMUM, PLEASE SEE DETAILS AND COLUMN SCHEDULE FOR EMBEDMENTS AND FOLLOW THE MAXIMUM.

2 STEEL COLUMN SCHEDULE

NOT TO SCALE

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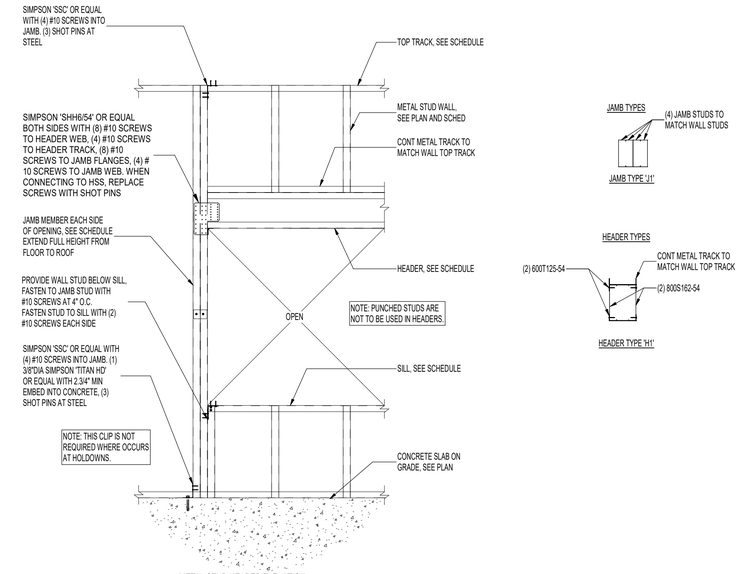
HEADER/JAMB SCHEDULE

MARK	JAMB TYPE	HEADER TYPE	SILL	COMMENTS

HEADER/JAMB NOTES:
1. ATTACH ALL COMPONENTS TOGETHER WITH #10 SCREWS AT 6" O.C. OR ATTACH COMPONENTS 18 GA OR HIGHER WITH 1/8" x 1" FILLET WELDS AT 12" O.C.
2. SCREWS SHALL PENETRATE THROUGH FRAMING MEMBER WITH AT LEAST THREE THREADS.
3. SEE GENERAL STRUCTURAL NOTES FOR ADDITIONAL REQUIREMENTS.
4. WEB PUNCHOUTS IN VERTICAL STUDS SHALL BE AT LEAST 1'-0" AWAY FROM EITHER END OF STUD.
5. WEB PUNCH OUTS LESS THAN 1'-0" AWAY FROM EITHER END OF STUD SHALL BE REINFORCED PER DETAIL 9/SS22.
6. BUILT UP STUDS/HEADER MEMBERS ARE NOT TO BE SPLICED.



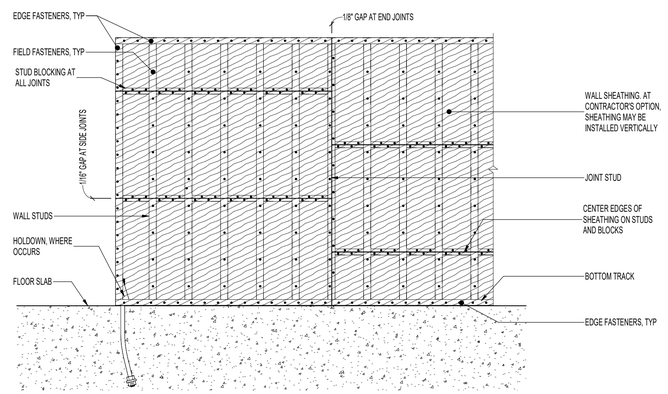
METAL STUD HEADER ELEVATION

1 BEARING METAL STUD STEEL HEADER/JAMB SCHEDULE
NOT TO SCALE

METAL STUD WALL SCHEDULE (MSW-x)

MARK	WALL FRAMING: METAL STUDS	TOP TRACK	BOTTOM TRACK	BOTTOM TRACK FASTENERS	WALL SHEATHING: THICKNESS	FASTENER SIZE	EDGE FASTENER	FIELD FASTENER	COMMENTS
MSW-6A	600S162-97 AT 12" O.C.	600S125-97	600S125-97	5/8"DIA x 4" AT 32" O.C.	SEE ARCH	#8	6" O.C.	6" O.C.	

METAL STUD SHEARWALL NOTES:
1. BOTTOM TRACK FASTENERS TO BE CONCRETE SCREW ANCHOR OR ADHESIVE ANCHOR SUITABLE FOR CRACKED CONCRETE. SEE DETAIL 11/SS01 FOR OTHER ANCHOR REQUIREMENTS.
2. ANCHOR BOLTS SHALL HAVE A 7" MINIMUM EMBEDMENT INTO CONCRETE AND TERMINATE WITH A STANDARD 90° HOOK OF 3-TIMES THE ANCHOR BOLT DIAMETER AND BE HOT-DIPPED GALVANIZED OR STAINLESS STEEL IN ACCORDANCE WITH IBC 2304.10.5.
3. ANCHOR BOLTS MAY BE REPLACED WITH POST-INSTALLED ADHESIVE ANCHORS. POST-INSTALLED DRILL-IN MECHANICAL ANCHORS (EXPANSION BOLTS), OR POST-INSTALLED SCREW ANCHORS. REFER TO GENERAL STRUCTURAL NOTES FOR ACCEPTABLE PRODUCTS. POST-INSTALLED ANCHORS SHALL BE INSTALLED TO SAME DIAMETER AND DEPTH REQUIREMENT AS CAST-IN-PLACE BOLTS.
4. SCREWS SHALL HAVE A MINIMUM HEAD DIAMETER OF .292". IN ACCORDANCE WITH SAE J78.
5. SCREWS SHALL PENETRATE THROUGH FRAMING MEMBER WITH AT LEAST THREE THREADS.
6. STUDS SHALL BE A MINIMUM OF 1.5/8" WIDE WITH A 3/8" MINIMUM RETURN LIP.
7. TRACKS SHALL BE A MINIMUM OF 1.1/4" WIDE.
8. FOR STUD AND TRACK THICKNESSES GREATER THAN 43 MIL, USE Fy=50 KSI STEEL, OTHERWISE USE Fy=33 KSI STEEL.
9. HORIZONTAL BRIDGING/BLOCKING SHALL BE PROVIDED AT 4'-0" O.C. MAX PER 8/SS22.
10. SEE GENERAL STRUCTURAL NOTES FOR ADDITIONAL REQUIREMENTS.
11. WEB PUNCH OUTS LESS THAN 1'-0" AWAY FROM EITHER END OF STUD SHALL BE REINFORCED PER DETAIL 9/SS22.
12. DO NOT OVER-DRIVE SCREW FASTENERS INTO WOOD SHEATHING. IF ONE OCCURS, INSTALL A CORRECTLY DRIVEN FASTENER NEXT TO THE ONE OVERDRIVEN OR REPLACE WITH A SCREW WITH A LARGER HEAD DIAMETER.



2 METAL STUD SHEARWALL WITH WOOD SHEATHING SCHEDULE
NOT TO SCALE

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DRAWN BY: JH
REVISIONS

PROFESSIONAL STRUCTURAL ENGINEER
No. 7211767-2203
RAJEEV JOSHI PANENI
STATE OF UTAH
09/16/2026

SCHEDULES

A NEW ADDITION FOR :
FORTEM TECHNOLOGIES
W.I.C.P. COMERCIAL PROPERTIES
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PLUMBING GENERAL NOTES

1. THE CONTRACTOR SHALL FURNISH AND INSTALL ALL ITEMS WHICH ARE OBVIOUSLY AND REASONABLY NECESSARY TO COMPLETE THE INSTALLATION.
2. THE CONTRACTOR SHALL TAKE OUT PERMITS, PROCURE CERTIFICATES AND PAY FEES CONNECTED THEREWITH.
3. BIDDERS SHALL VISIT THE SITE AND BECOME FAMILIAR WITH EXISTING CONDITIONS SURROUNDING THE PROJECT PRIOR TO BIDDING.
4. THE CONTRACTOR IS REFERRED TO ARCHITECTURAL, STRUCTURAL, ELECTRICAL PLANS AND SPECIFICATIONS. SUCH PLANS AND SPECIFICATIONS ARE CONTRACT DOCUMENTS.
5. DRAWINGS ARE DIAGRAMMATIC AND INTENDED TO SHOW APPROXIMATE LOCATIONS.
6. ALL PLUMBING WORK SHALL BE PERFORMED IN STRICT ACCORDANCE WITH THE LATEST EDITION OF THE PREVAILING STATE MECHANICAL/PLUMBING AND BUILDING CODES AS WELL AS ALL REGULATIONS THAT MAY APPLY. IN CASE OF CONFLICT BETWEEN THE CONTRACT DOCUMENTS AND A GOVERNING CODE OR ORDINANCE THE MORE STRINGENT STANDARD SHALL APPLY.
7. NO PIPING SHALL RUN EXPOSED IN FINISHED AREAS UNLESS NOTED OTHERWISE.
8. RUN-OUT SIZES TO INDIVIDUAL PLUMBING FIXTURES TO BE EQUAL TO ROUGH-IN SIZE NOTED IN THE PLUMBING FIXTURE SCHEDULE.
9. PLUMBING/PIPING IS SHOWN SCHEMATICALLY FOR VIEWING PURPOSES ONLY; DURING INSTALLATION FIELD MODIFICATIONS TO ROUTING MAY BE REQUIRED.
10. INSTALL ALL REQUIRED CLEANOUTS TO CLEAR EQUIPMENT AND FIXTURES.
11. ALL WORK SHALL BE PROPERLY TESTED, BALANCED AND CLEANED AND DISINFECTED. PROVIDE A ONE YEAR WARRANTY FROM DATE OF FINAL INSPECTION ON ALL PARTS AND LABOR.
12. TERMINATE PLUMBING VENTS AT A MINIMUM OF 10' FROM ALL AIR HANDLING EQUIPMENT INTAKE VENTS.
13. CONTRACTOR SHALL VERIFY LOCAL CODE REQUIREMENTS FOR INDIRECT CONNECTIONS FOR FOOD PREP AREAS. CONNECTIONS SHALL BE PROVIDED WITH A MINIMUM 1" AIR GAP, UNLESS OTHERWISE NOTED.
14. PRESSURIZED PIPING SHALL NOT BE RUN IN ANY AREA SUBJECT TO FREEZING.
15. PRIOR TO INSTALLING ANY PIPING, VERIFY DEPTH OF CONNECTION POINTS OF GRADE DEPENDENT PIPING AND CONFIRM IN WRITING TO ENGINEER.
16. WHERE RATED ASSEMBLIES ARE PENETRATED BY DUCTS, PIPES OR OTHER ITEMS, THE "F" AND "T" RATING SHALL BE MAINTAINED WITH REQUIRED UL LISTED ASSEMBLIES OR SEALANT AS REQUIRED BY THE APPLICABLE CODE OR AUTHORITY HAVING JURISDICTION.

PLUMBING ABBREVIATIONS

A	COMPRESSED AIR	EWC	ELECTRIC WATER COOLER	IN	INCH	RPBP	REDUCED PRESSURE BACKFLOW PREVENTER
AFF	ABOVE FINISHED FLOOR	EWT	ENTERING WATER TEMPERATURE	INV	INVERT		
ALT	ALTERNATE			KW	KILOWATT	S	SINK
ASL	ABOVE SEA LEVEL	F	FIRE SUPPRESION	LAV	LAVATORY	SCHED	SCHEDULE
AV	ACID VENT	FCO	FLOOR CLEANOUT	LB	POUND	SCW	SOFT COLD WATER
AW	ACID WASTE	FD	FLOOR DRAIN	MAX	MAXIMUM	SH	SHOWER
BFF	BELOW FINISHED FLOOR	FLEX	FLEXIBLE	MBH	THOUSAND BRITISH THERMAL UNITS/HOUR	SL	SEA LEVEL
BTU	BRITISH THERMAL UNIT	FLR	FLOOR			SPEC	SPECIFICATION
CO	CLEANOUT	FS	FLOOR SINK	MECH	MECHANICAL	SQ FT	SQUARE FEET
CO2	CARBON DIOXIDE	FT	FEET	MECH RM	MECHANICAL ROOM	SRD	SECONDARY ROOF DRAIN
CONTR	CONTRACTOR	G	NATURAL GAS	MFR	MANUFACTURER	SS	SERVICE SINK
COTG	CLEANOUT TO GRADE	GA	GAUGE	MIN	MINIMUM	STD	STANDARD
CW	CLOTHES WASHER	GAL	GALLON(S)	MISC	MISCELLANEOUS	TWS	TEMPERED WATER DOMESTIC
CW	COLD WATER	GALV	GALVANIZED	N	NITROGEN		
D	DRAIN PIPE	GPM	GALLONS PER MINUTE	NIC	NOT IN CONTRACT	TEMP	TEMPERATURE
DEG F	DEGREE FAHRENHEIT	GW	GREASE WASTE	NO	NITROUS OXIDE	TYP	TYPICAL
DEMO	DEMOLITION	HA	HAMMER ARRESTOR	NTS	NOT TO SCALE	U	URINAL
DET	DETAIL	HB	HOSE BIBB	O	OXYGEN	V	VOLT
DF	DRINKING FOUNTAIN	HD	HEAD	PH	PHASE	VAC	VACUUM
DIA	DIAMETER	HORIZ	HORIZONTAL	PPM	PARTS PER MILLION	VTR	VENT THRU ROOF
DIM	DIMENSION	HP	HORSEPOWER	PRV	PRESSURE REDUCING VALVE	W/	WITH
DIV	DIVISION	H	HOUR	PSI	POUNDS PER SQUARE INCH	W/O	WITHOUT
DMPR	DAMPER	HW	HOT WATER	PW	PROCESS WASTE	WAG	WASTE ANESTHETIC GAS
DN	DOWN	HWR	HOT WATER RETURN	QTY	QUANTITY	WC	WATER CLOSET
DRN	DRAIN	HZ	HERTZ	RD	ROOF DRAIN	WCO	WALL CLEANOUT
DS	DOWNSPOUT	ICW	INDUSTRIAL COLD WATER	REQD	REQUIRED	WH	WATER HEATER
ES	EMERGENCY SHOWER	IE	INVERT ELEVATION	REV	REVISION		
EW	EMERGENCY EYE WASH	IHW	INDUSTRIAL HOT WATER	RP	RECIRCULATION PUMP		

PLUMBING LEGEND

NOTE: NEW ITEMS SHOWN DARK, EXISTING ITEMS SHOWN LIGHT. ALL ITEMS MAY NOT APPEAR ON DRAWINGS.

DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL
WALL CLEAN OUT	WCO	DOMESTIC COLD WATER PIPING	
CLEAN OUT	CO	INDUSTRIAL COLD WATER PIPING	ICW
CLEAN OUT TO GRADE	COTG	SOFT COLD WATER PIPING	SCW
FLOOR CLEAN OUT	FCO	NON-POTABLE WATER	NPW
DROP		DOMESTIC HOT WATER PIPING	
RISE		INDUSTRIAL HOT WATER PIPING	IHW
CAPPED PIPE		SOFT HOT WATER PIPING	SHW
PIPE REDUCER		DOMESTIC HOT WATER RECIRCULATION PIPING	
BALL VALVE		DOMESTIC TEMPERED WATER	TWS
GATE VALVE		VENT PIPING	
AUTOMATIC TWO-WAY VALVE		ACID VENT PIPING	AV
AUTOMATIC THREE-WAY VALVE		WASTE PIPING (ABOVE GRADE OR FLOOR)	
TEMPERING VALVE	TWS	WASTE PIPING (BELOW GRADE OR FLOOR)	
UNION		ACID WASTE PIPING (ABOVE GRADE OR FLOOR)	AW
GAS COCK VALVE		ACID WASTE PIPING (BELOW GRADE OR FLOOR)	AW
PRESSURE REGULATOR		GREASE WASTE PIPING (ABOVE GRADE OR FLOOR)	GW
STRAINER		GREASE WASTE PIPING (BELOW GRADE OR FLOOR)	GW
HAMMER ARRESTOR		PROCESS WASTE PIPING (ABOVE GRADE OR FLOOR)	PW
CHECK VALVE		PROCESS WASTE PIPING (BELOW GRADE OR FLOOR)	PW
CIRCUIT SETTER		ROOF DRAIN PIPING (ABOVE GRADE OR FLOOR)	RD
BUTTERFLY VALVE		ROOF DRAIN PIPING (BELOW GRADE OR FLOOR)	RD
BACKFLOW PREVENTOR		SECONDARY ROOF DRAIN PIPING	SRD
RELIEF VALVE		NATURAL GAS PIPING	G
MANUAL AIR VENT		LIQUID PROPANE GAS	LPG
THERMOMETER		COMPRESSED AIR PIPING	A
FLEXIBLE PIPING		CARBON DIOXIDE PIPING	C02
INLINE PUMP		NITROGEN PIPING	N
DIRECTION OF SLOPE		NITROUS OXIDE PIPING	NO
FLOW DIRECTION		OXYGEN PIPING	O
ACCESS DOOR		VACUUM PIPING	VAC
FLOW METER	FM	WASTE ANESTHETIC GAS PIPING	WAG
WATER METER	W	DEIONIZED WATER PIPING	DIW
DEVICE IN DROP		DRAIN PIPING	D
SECTION LETTER SHEET NUMBER	TOP BOT	PUMPED DRAIN PIPING	D
ROOM NAME ROOM NUMBER	ROOM NO	FIRE SPRINKLER PIPING	F
REVISION DELTA	#	KEYED NOTE	#
NEW CONNECTION		PLUMBING FIXTURE CALLOUT	P-??
		DETAIL NUMBER SHEET DETAIL APPEARS	X S#
		EQUIPMENT CALLOUT	X-#
		LARGE SCALE NUMBER SHEET LARGE SCALE APPEARS	# S#

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DRAWN BY: JEFF JEPSON
REVISIONS

REGISTERED PROFESSIONAL ENGINEER
No. 172461
RICHARD D. JENSEN
STATE OF UTAH

PLUMBING LEGEND & GENERAL NOTES

A NEW ADDITION FOR:
FORTEM TECHNOLOGIES
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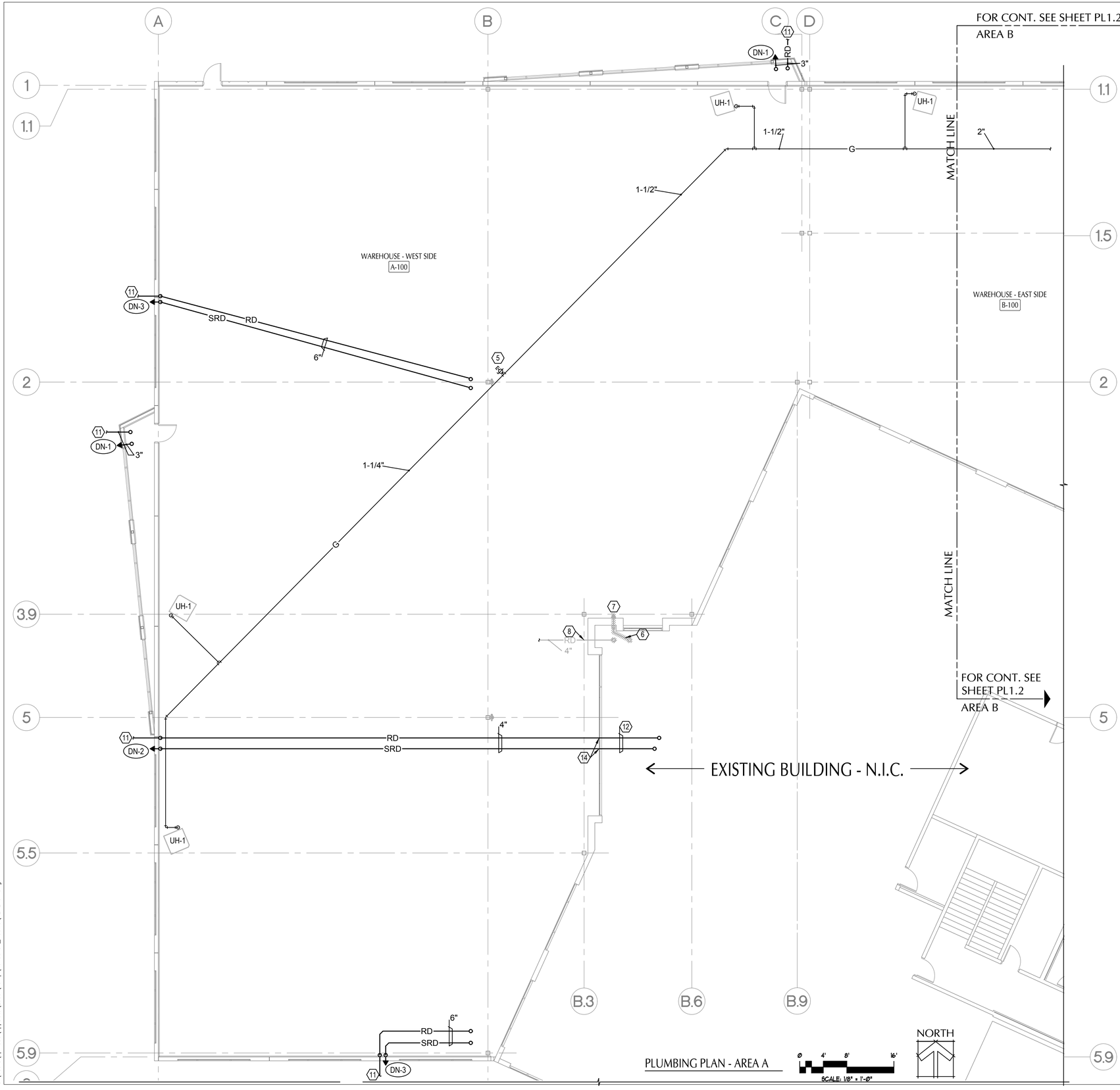
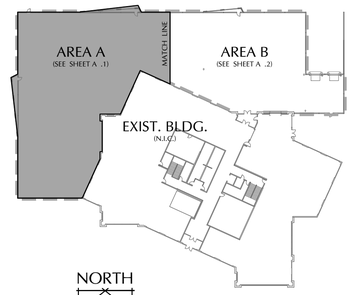


PLUMBING PLAN - AREA A



KEY REFERENCE PLAN

KEYED NOTES FOR SHEET PL1.1-2.3

1 REMOVE EXISTING METER AND INSTALL NEW (BY GAS COMPANY). RECONNECT EXISTING GAS TO METER

2 2" GAS UP FROM BELOW GRADE AND THROUGH EXTERIOR WALL, THEN UP TO ROOF LEVEL OF NEW WAREHOUSE, SEE PL1.2.

3 ROUTE NEW GAS PIPING UNDERGROUND ON EXTERIOR OF BUILDING, FIELD VERIFY AND COORDINATE WITH SITE.

4 2" GAS ROUTED UNDERGROUND, SEE PL1.3 FOR CONTINUATION.

5 1" BALL VALVE AND CAP FOR FUTURE.

6 REMOVE EXISTING ROOF DRAIN/SECONDARY ROOF DRAIN AND CAP/ABANDON PIPING BELOW ROOF.

7 REMOVE EXISTING DOWNSPOUT AND CAP/ABANDON SECONDARY ROOF DRAIN PIPING BEHIND WALL.

8 ABANDONED/CAPPED ROOF DRAIN PIPING.

9 EXISTING PRIMARY/SECONDARY ROOF DRAINS TO REMAIN. REMOVE EXISTING RD/SRD PIPING BELOW ROOF AND CONNECT NEW FOR REROUTING, SEE PL1.2.

10 NEW PRIMARY/SECONDARY ROOF DRAIN PIPING CONNECTED TO EXISTING ROOF DRAIN. NEW PIPING THRU EXISTING WALL AT/BELOW ROOF LEVEL OF NEW WAREHOUSE ADDITION. FIELD COORDINATE/VERIFY.

11 SEE SITE UTILITY PLAN FOR CONTINUATION.

12 PRIMARY/SECONDARY ROOF DRAIN PIPING ROUTED BELOW ROOF IN SECOND FLOOR CEILING SPACE OF EXISTING BUILDING, FIELD VERIFY ROUTING.

13 NOT USED.

14 NEW PRIMARY/SECONDARY ROOF DRAIN PIPING THRU EXISTING WALL AT/BELOW ROOF LEVEL OF NEW WAREHOUSE ADDITION, FIELD VERIFY.

15 REMOVE EXISTING HOSE BIBB AND CAP DCW PIPING WITHIN BUILDING, FIELD VERIFY.

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STATE OF UTAH

PLUMBING PLAN - AREA A
A NEW ADDITION FOR:
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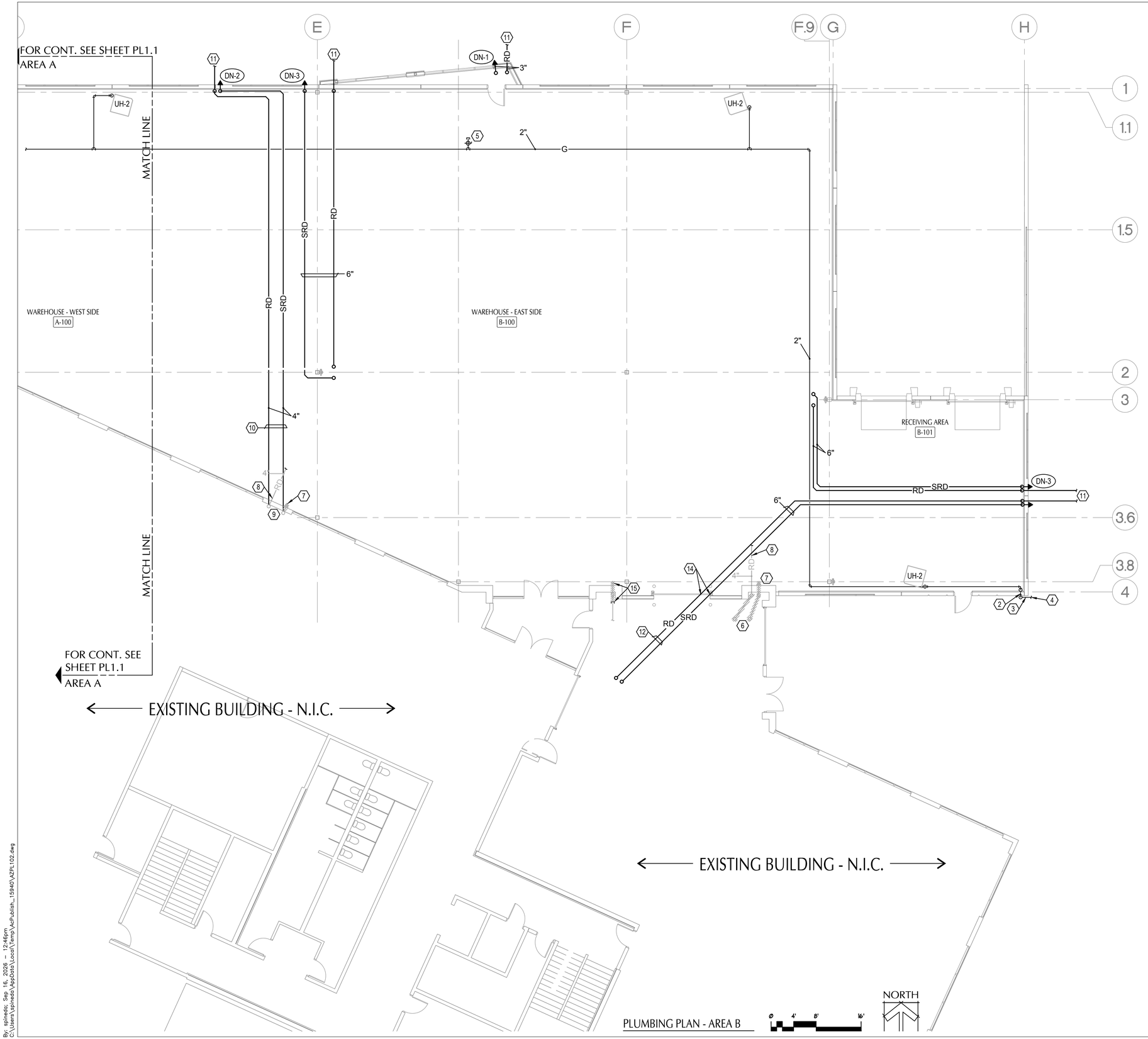

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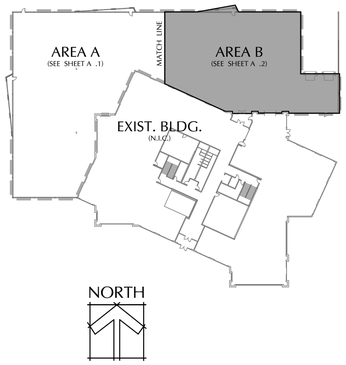

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PLUMBING PLAN - AREA B

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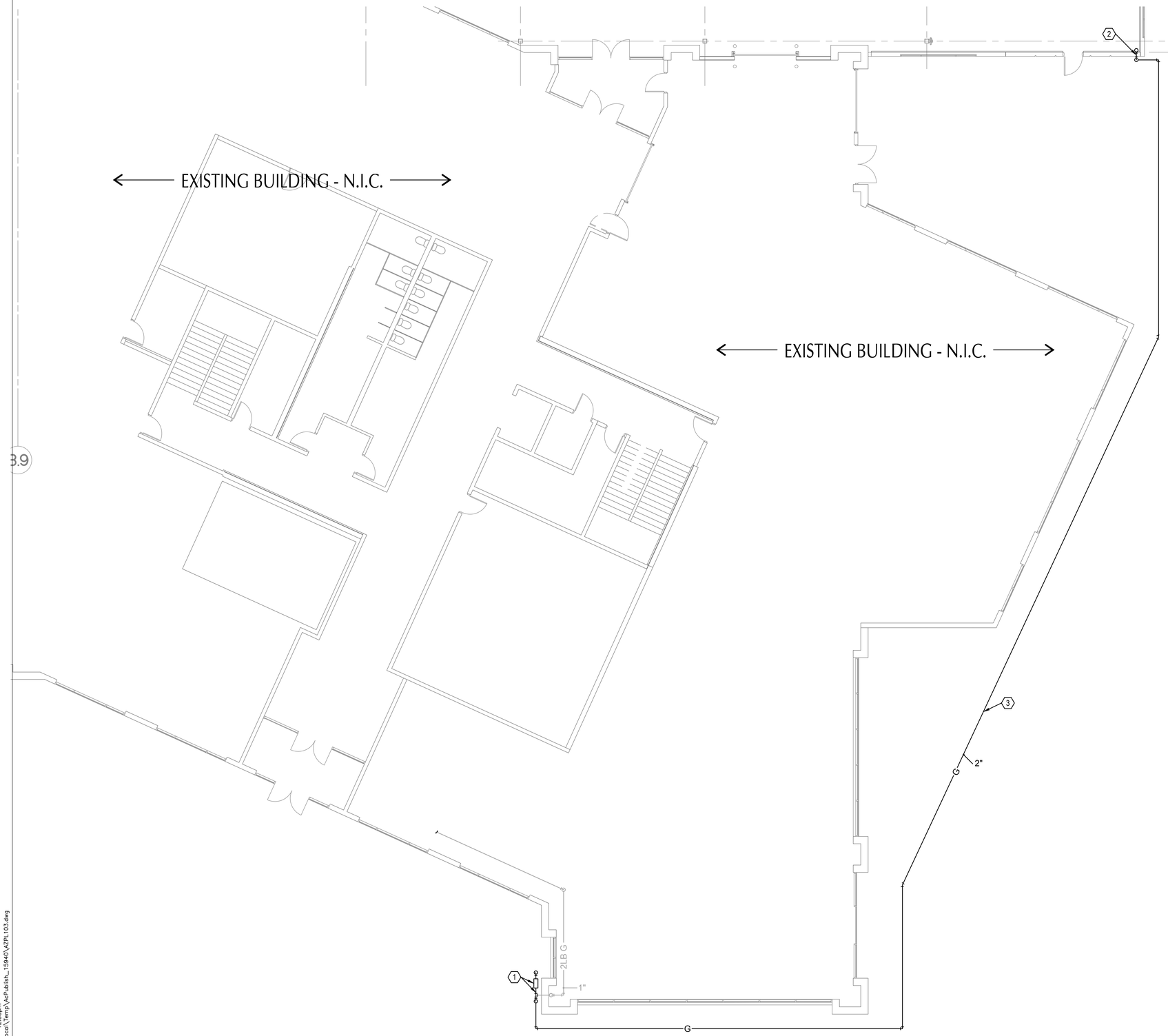

PLUMBING PLAN - AREA c

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

NORTH

KEYED NOTES FOR SHEET PL1.1-2.3

1. REMOVE EXISTING METER AND INSTALL NEW (BY GAS COMPANY). RECONNECT EXISTING GAS TO METER
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4. 2" GAS ROUTED UNDERGROUND, SEE PL1.3 FOR CONTINUATION.
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6. REMOVE EXISTING ROOF DRAIN/SECONDARY ROOF DRAIN AND CAP/ABANDON PIPING BELOW ROOF.
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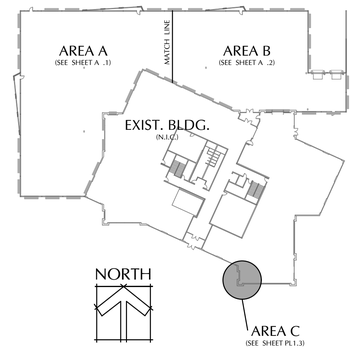

KEY REFERENCE PLAN

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DRAWN BY: JEFF JEPPSON
REVISIONS

REGISTERED PROFESSIONAL ENGINEER
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RICHARD D. JENSEN
STATE OF UTAH

PLUMBING PLAN - AREA C

A NEW ADDITION FOR:

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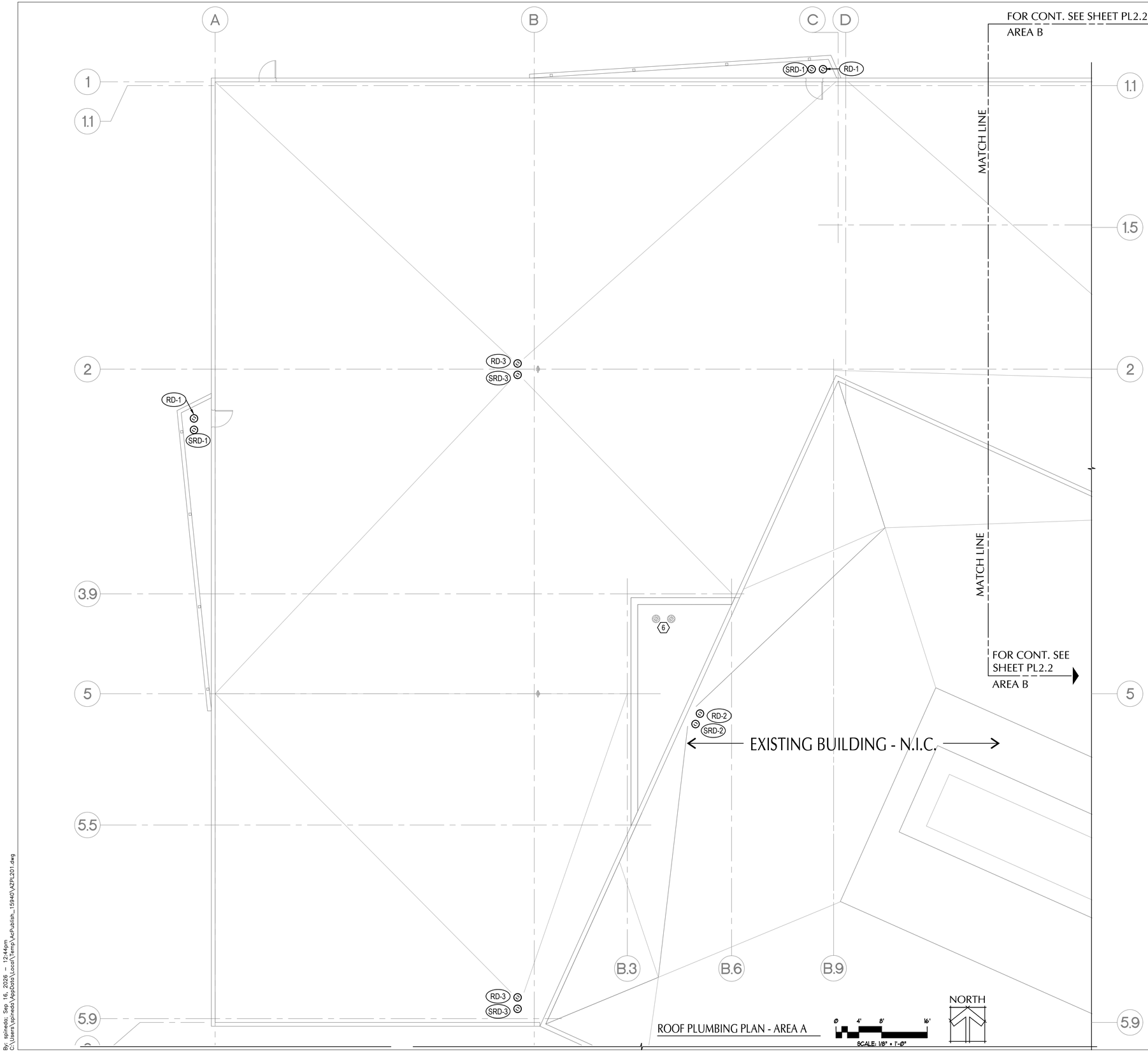
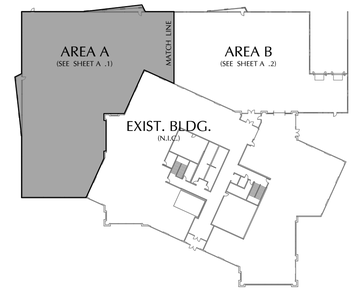


ROOF PLUMBING PLAN - AREA A



NORTH

KEY REFERENCE PLAN

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DRAWN BY: JEFF JEPSON
REVISIONS

REGISTERED PROFESSIONAL ENGINEER
No. 172461
RICHARD D. JENSEN
STATE OF UTAH

ROOF PLUMBING PLAN - AREA A

A NEW ADDITION FOR:
FORTEM TECHNOLOGIES
W.I.C.P. COMERCIAL PROPERTIES
1855 W 500 N
LINDON, UT 84042

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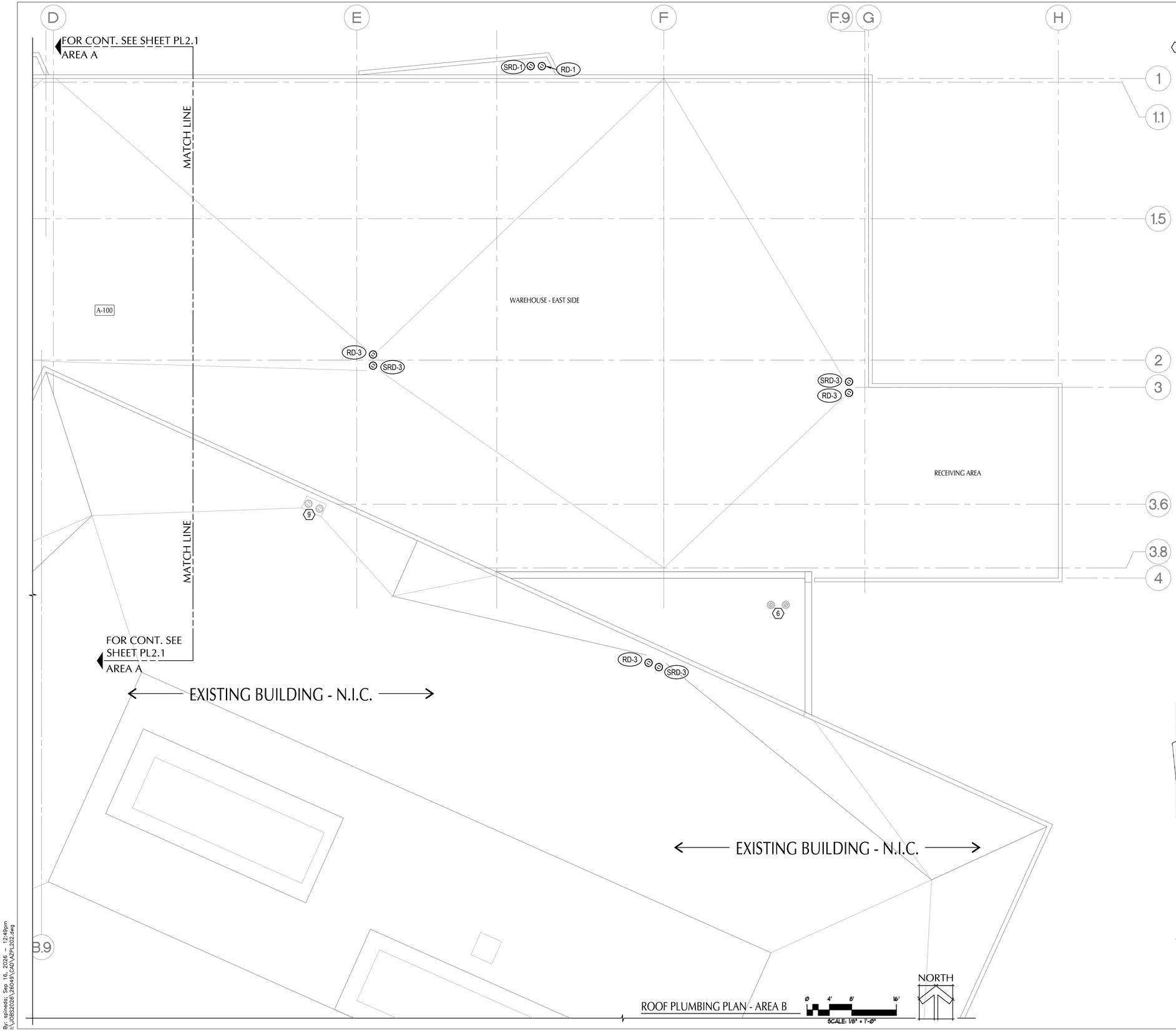
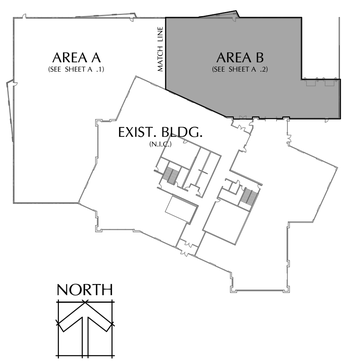


ROOF PLUMBING PLAN - AREA B

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

KEYED NOTES FOR SHEET PL1.1-2.3

1. REMOVE EXISTING METER AND INSTALL NEW (BY GAS COMPANY). RECONNECT EXISTING GAS TO METER
2. 2" GAS UP FROM BELOW GRADE AND THROUGH EXTERIOR WALL, THEN UP TO ROOF LEVEL OF NEW WAREHOUSE, SEE PL1.2.
3. ROUTE NEW GAS PIPING UNDERGROUND ON EXTERIOR OF BUILDING, FIELD VERIFY AND COORDINATE WITH SITE.
4. 2" GAS ROUTED UNDERGROUND, SEE PL1.3 FOR CONTINUATION.
5. 1" BALL VALVE AND CAP FOR FUTURE.
6. REMOVE EXISTING ROOF DRAIN/SECONDARY ROOF DRAIN AND CAP/ABANDON PIPING BELOW ROOF.
7. REMOVE EXISTING DOWNSPOUT AND CAP/ABANDON SECONDARY ROOF DRAIN PIPING BEHIND WALL.
8. ABANDONED/CAPPED ROOF DRAIN PIPING.
9. EXISTING PRIMARY/SECONDARY ROOF DRAINS TO REMAIN. REMOVE EXISTING RD/SRD PIPING BELOW ROOF AND CONNECT NEW FOR REROUTING, SEE PL1.2.
10. NEW PRIMARY/SECONDARY ROOF DRAIN PIPING CONNECTED TO EXISTING ROOF DRAIN. NEW PIPING THRU EXISTING WALL AT/BELOW ROOF LEVEL OF NEW WAREHOUSE ADDITION. FIELD COORDINATE/VERIFY.
11. SEE SITE UTILITY PLAN FOR CONTINUATION.
12. PRIMARY/SECONDARY ROOF DRAIN PIPING ROUTED BELOW ROOF IN SECOND FLOOR CEILING SPACE OF EXISTING BUILDING, FIELD VERIFY ROUTING.
13. NOT USED.
14. NEW PRIMARY/SECONDARY ROOF DRAIN PIPING THRU EXISTING WALL AT/BELOW ROOF LEVEL OF NEW WAREHOUSE ADDITION, FIELD VERIFY.
15. REMOVE EXISTING HOSE BIBB AND CAP DCW PIPING WITHIN BUILDING, FIELD VERIFY.



KEY REFERENCE PLAN

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NATURAL GAS LOAD SUMMARY

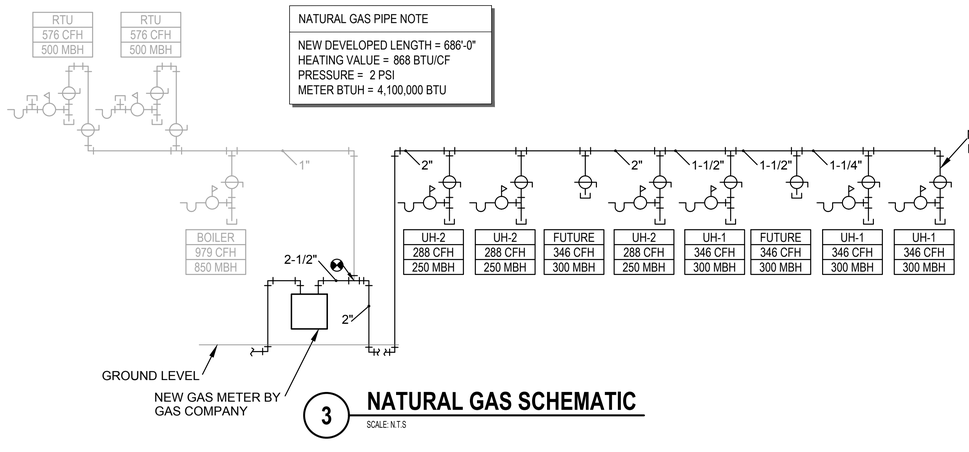
NOTES:
(1) PRESSURE= 2 PSI
(2) HEATING VALUE= 868 BTU/CF

ITEM	NO	SERVICE	BTUH EA	CFH EA.	BTUH TOTAL	CFH TOTAL	PIPE SIZE EA.
EXISTING BOILER	1	BUILDING HEAT	850000	979	850000	979	EXIST
EXISTING ROOFTOP UNIT	1	BUILDING HEAT	500000	576	500000	576	EXIST
EXISTING ROOFTOP UNIT	1	BUILDING HEAT	500000	576	500000	576	EXIST
UNIT HEATER UH-1	3	BUILDING HEAT	300000	346	900000	1037	1"
UNIT HEATER UH-2	3	BUILDING HEAT	250000	288	750000	864	1"
FUTURE EQUIPMENT	2	FUTURE	300000	346	600000	691	1"
BUILDING TOTALS					4100000	4724	

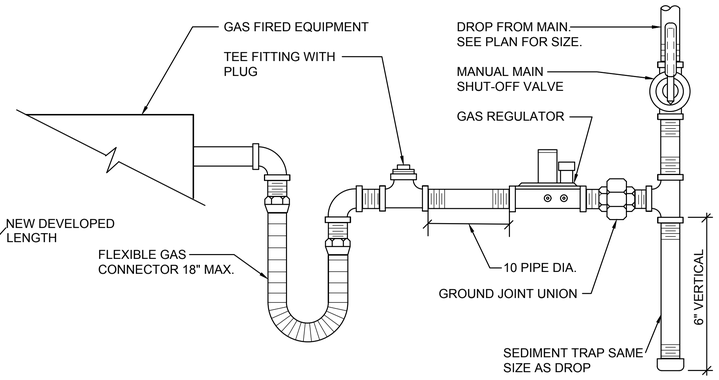
PLUMBING FIXTURE SCHEDULE

NOTES:
(1) MINIMUM SIZE OF DRAIN/WASTE PIPING UNDERFLOOR IS 2"
(2) INSTALL AT 12" AFF.

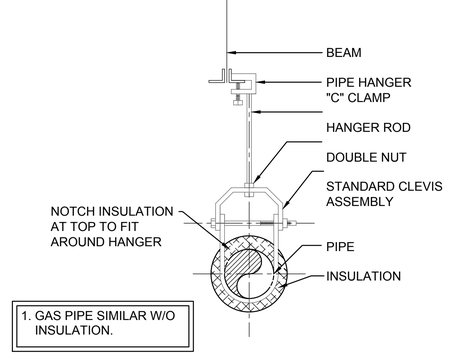
MARK	FIXTURE	PIPE SIZE IN					NOTES	REMARKS
		TRAP	DRAIN/WASTE (1)	VENT	CW	HW		
RD-1	ROOF DRAIN		3					JR SMITH 1010 ERC, ALUMINUM DOME, 1985 SF
RD-2	ROOF DRAIN		4					JR SMITH 1010 ERC, ALUMINUM DOME, 4151 SF
RD-3	ROOF DRAIN		6					JR SMITH 1010 ERC, 12416 SF
SRD-1	SECONDARY ROOF DRAIN		3					JR SMITH 1080, ALUMINUM DOME
SRD-2	SECONDARY ROOF DRAIN		4					JR SMITH 1080, ALUMINUM DOME
SRD-3	SECONDARY ROOF DRAIN		6					JR SMITH 1080, ALUMINUM DOME
DN-1	DOWNSPOUT NOZZLE		3				(2)	JR SMITH 1770
DN-2	DOWNSPOUT NOZZLE		4				(2)	JR SMITH 1770
DN-3	DOWNSPOUT NOZZLE		6				(2)	JR SMITH 1770



3 NATURAL GAS SCHEMATIC
SCALE: N.T.S



1 GAS LINE CONNECTION W/REGULATOR DETAIL
SCALE: N.T.S. UP TO 2 PSIG PRESSURE



1. GAS PIPE SIMILAR W/O INSULATION.

2 PIPE HANGER DETAIL
SCALE: N.T.S.

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HVAC GENERAL NOTES

1. CONTRACTOR SHALL FURNISH AND INSTALL ALL ITEMS WHICH ARE OBVIOUSLY AND REASONABLY NECESSARY TO COMPLETE THE INSTALLATION.
2. THE CONTRACTOR SHALL TAKE OUT PERMITS, PROCURE CERTIFICATES AND PAY FEES CONNECTED THEREWITH.
3. BIDDERS SHALL VISIT THE SITE AND BECOME FAMILIAR WITH EXISTING CONDITIONS SURROUNDING THE PROJECT PRIOR TO BIDDING.
4. THE CONTRACTOR IS REFERRED TO ARCHITECTURAL, STRUCTURAL, ELECTRICAL PLANS AND SPECIFICATIONS. SUCH PLANS AND SPECIFICATIONS ARE CONTRACT DOCUMENTS.
5. DRAWINGS ARE DIAGRAMMATIC AND INTENDED TO SHOW APPROXIMATE LOCATIONS.
6. ALL MECHANICAL HVAC WORK SHALL BE PREFORMED IN STRICT ACCORDANCE WITH THE LATEST EDITION OF THE PREVAILING STATE MECHANICAL/PLUMBING AND BUILDING CODES AS WELL AS ALL REGULATIONS THAT MAY APPLY. IN CASE OF CONFLICT BETWEEN THE CONTRACT DOCUMENTS AND A GOVERNING CODE OR ORDINANCE THE MORE STRINGENT SHALL APPLY.
7. DIFFUSER RUN OUTS SHALL BE THE SAME AS LISTED DIFFUSER NECK SIZE, UNLESS OTHERWISE NOTED.
8. COORDINATE EXACT LOCATION OF AIR DISTRIBUTION DEVICES WITH CEILING GRID AND LIGHT FIXTURE LAYOUT.
9. ALL RECTANGULAR SUPPLY DUCT ELBOWS SHALL HAVE TURNING VANES.
10. RECTANGULAR DUCT SIZES SHOWN INDICATE REQUIRED AIRFLOW SIZES. SHEETMETAL CONTRACTOR SHALL INCREASE SIZES TO ALLOW FOR LINER.
11. NO DUCTWORK SHALL BE FABRICATED WITHOUT FIRST FIELD VERIFYING THAT THE AVAILABLE SPACE UNDER ACTUAL JOB CONDITIONS WILL PERMIT INSTALLATION OF THE DUCTWORK WITHOUT STRUCTURAL OR OTHER CONFLICTS. DUCT SIZES THAT REQUIRE ON THE JOB MODIFICATION DUE TO UNFORESEEN OBSTRUCTIONS SHALL BE MADE WITHOUT ANY ADDITIONAL COST TO THE OWNER.
12. MAINTAIN A 10'-0" BETWEEN OUTSIDE AIR INTAKES AND PLUMBING/EXHAUST VENTS.
13. WHERE RATED ASSEMBLIES ARE PENETRATED BY DUCTS, PIPES OR OTHER ITEMS, THE "F" AND "T" RATING SHALL BE MAINTAINED WITH REQUIRED UL LISTED ASSEMBLIES OR SEALANTS AS REQUIRED BY THE APPLICABLE CODE OR AUTHORITY HAVING JURISDICTION.

MECHANICAL ABBREVIATIONS

AD	ACCESS DOOR	DEG	DEGREE FAHRENHEIT	HPS	HIGH PRESSURE STEAM	PD	PRESSURE DROP
AFF	ABOVE FINISHED FLOOR	DEMO	DEMOLITION	HR	HOUR	PERF	PERFORATE(D)
AHU	AIR HANDLING UNIT	DET	DETAIL	HTG	HEATING	PH	PHASE
AI	ANALOG INPUT	DH	DUCT HEATER	HVAC	HEATING, VENTILATING & AIR CONDITIONING	PLUM	PLUMBING
ALT	ALTERNATE	DI	DIGITAL INPUT			PPM	PARTS PER MILLION
AMB	ANBIENT	DIA	DIAMETER	HW	HOT WATER	PRV	PRESSURE REDUCING VALVE
AMP	AMPERE	DIM	DIMENSION	HWR	HOT WATER HEATING RETURN	PSI	POUNDS PER SQUARE INCH
ANSI	AMERICAN NATIONAL STANDARDS INSTITUTE	DIV	DIVISION			RA	RETURN AIR
		DMPR	DAMPER	HWS	HOT WATER HEATING SUPPLY	RAD	RADIATED
AO	ANALOG OUTPUT	DO	DIGITAL OUTPUT			RCP	RECIRCULATION PUMP
APD	AIR PRESSURE DROP	DRN	DRAIN	HZ	HERTZ	REF	ROOFTOP EXHAUST FAN
APPROX	APPROXIMATE	DS	DOWNSPOUT	IN	INCHES	REQD	REQUIRED
ASME	AMERICAN SOCIETY OF MECHANICAL ENGINEERS	EA	EXHAUST AIR	INWC	INCHES OF WATER COLUMN	REV	REVISION
		EF	EXHAUST FAN	INWG	INCHES OF WATER GAUGE	RH	RELATIVE HUMIDITY
ASL	ABOVE SEA LEVEL	EFF	EFFICENCY	IU	INDOOR UNIT	RL	REFRIGERANT LIQUID
AVG	AVERAGE	EQ	EQUAL	KW	KILOWATT	RPBP	REDUCED PRESSURE BACKFLOW PREVENTER
B	BOILER	EQUIP	EQUIPMENT	LAT	LEAVING AIR TEMPERATURE		
BOD	BOTTOM OF DUCT	ERV	ENERGY RECOVERY VENTILATION	LB	POUND	RPM	REVOLUTIONS PER MINUTE
BOP	BOTTOM OF PIPE			LPC	LOW PRESSURE CONDENSATE	RS	REFRIGERANT SUCTION
BTU	BRITISH THERMAL UNIT	ESP	EXTERNAL STATIC PRESSURE			SA	SUPPLY AIR
BTU	BTU PER HOUR	ET	EXPANSION TANK	LPS	LOW PRESSURE STEAM	SCHED	SCHEDULE
C	COMMON	EWT	ENTERING WATER TEMPERATURE	LWT	LEAVING WATER TEMPERATURE	SEN	SENSIBLE
C	CONVECTOR					SL	SEA LEVEL
CA	COMBUSTION AIR	EXH	EXHAUST	MAU	MAKEUP AIR UNIT	SPEC	SPECIFICATION
CAP	CAPACITY	EXT	EXISTING	MAX	MAXIMUM	SSHP	SPLIT SYSTEM HEAT PUMP
CC	COOLING COIL	F	FAHRENHEIT	MBH	THOUSAND BRITISH THERMAL UNITS/HOUR	STD	STANDARD
CEF	CEILING MTD EXHAUST FAN	F	FURNACE			TEMP	TEMPERATURE
CFM	CUBIC FEET PER MINUTE	FCU	FAN COIL UNIT	MECH	MECHANICAL	TSP	TOTAL STATIC PRESSURE
CHWR	CHILLED WATER RETURN	FLR	FLOOR	MECH RM	MECHANICAL ROOM	TSTAT	THERMOSTAT
CHWS	CHILLED WATER SUPPLY	FLEX	FLEXIBLE	MFR	MANUFACTURER	TW	TEMPERED WATER
CO2	CARBON DIOXIDE	FO	FLAT OVAL	MIN	MINIMUM	TYP	TYPICAL
COMB	COMBUSTION	FPM	FEET PER MINUTE	MISC	MISCELLANEOUS	UH	UNIT HEATER
CONTR	CONTRACTOR	FPVAV	FAN POWERED VAV	MTD	MOUNTED	V	VOLT
CU	CONDENSING UNIT	FT	FEET	NC	NOISE CRITERIA	VAV	VARIABLE AIR VOLUME
CU FT	CUBIC FEET	GALV	GALVANIZED	NC	NORMALLY CLOSED	VD	VOLUME DAMPER
CU YD	CUBIC YARDS	GPM	GALLONS PER MINUTE	NIC	NOT IN CONTRACT	VERT	VERTICAL
CUH	CABINET UNIT HEATER	GHR	GLYCOL HEATING RETURN	NOM	NOMINAL	VFD	VARIABLE FREQUENCY DRIVE
CV	CONSTANT VOLUME	GHS	GLYCOL HEATING SUPPLY	NTS	NOT TO SCALE	VOL	VOLUME DAMPER
CW	COLD WATER	H	FUME HOOD	OA	OUTSIDE AIR	W/	WITH
CWR	CONDENSOR WATER RETURN	HORIZ	HORIZONTAL	OBD	OPPOSED BLADE DAMPER	W/O	WITHOUT
CWS	CONDENSOR WATER SUPPLY	HP	HIGH PRESSURE	OU	OUTDOOR UNIT	WB	WET BULB
DB	DRY BULB	HP	HORSEPOWER	P	PUMP	WPD	WATER PRESSURE DROP
DD	DUAL DUCT BOX	HP	HEAT PUMP	PCF	POUNDS PER CUBIC FEET		

MECHANICAL LEGEND

NOTE: NEW ITEMS SHOWN DARK, EXISTING ITEMS SHOWN LIGHT. ALL ITEMS MAY NOT APPEAR ON DRAWINGS.

SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
	AUTOMATIC 2-WAY VALVE		UNION		BRANCH DUCT TAKE-OFF WITH MANUAL DAMPER
	AUTOMATIC 3-WAY VALVE		VENTURI		DUCT FLEXIBLE CONNECTION
	AUTOMATIC BALL FLOAT VENT	WFS	WATER FLOW SWITCH		TURNING VANES
	BALL VALVE	CWS	CONDENSER WATER SUPPLY		DUCT TEE CONNECTION
	CAPPED END W/BALL VALVE	CWR	CONDENSER WATER RETURN		DUCT TRANSITION
	CHECK VALVE	CHWS	CHILLED WATER SUPPLY		SQUARE TO ROUND DUCT TRANSITION
	COMBINATION BALANCING VALVE/ SHUTOFF	CHWR	CHILLED WATER RETURN		AUTOMATIC DAMPER
	DEVICE IN DROP	HWS	HOT WATER HTG. SUPPLY		VOLUME DAMPER
	DIRECTION OF SLOPE	HWR	HOT WATER HTG. RETURN	BD	BACK-DRAFT DAMPER
	FLANGED BUTTERFLY VALVE	HPS	HIGH PRESSURE STEAM PIPING		DUCT ACCESS DOOR
	FLANGED ECCENTRIC REDUCER	LPS	LOW PRESSURE STEAM PIPING		RETURN AIR, RISE AND DROP
	FLANGED UNION	LPC	LOW PRESSURE CONDENSATE PIPING		SUPPLY AIR, RISE AND DROP
	FLEXIBLE CONNECTION	GHS	GLYCOL HEATING SUPPLY PIPING		EXHAUST AIR, RISE AND DROP
	FLOW DIRECTION	GHR	GLYCOL HEATING RETURN PIPING		OUTSIDE AIR, RISE AND DROP
FM	FLOW METER	RL	REFRIGERANT PIPING - LIQUID		RELIEF AIR, RISE AND DROP
	GATE VALVE	RS	REFRIGERANT PIPING - SUCTION		COMBUSTION AIR, RISE AND DROP
	GLOBE VALVE	D	CONDENSATE DRAIN PIPING		ROUND DUCT, RISE AND DROP
	IMMERSION WELL		REFRIGERANT SHUT-OFF VALVE		FLAT OVAL DUCT, RISE AND DROP
	INLINE PUMP		EXPANSION VALVE	FO	FLAT OVAL DUCT
	MANUAL VENT WITH BALL VALVE		MOISTURE INDICATING SIGHT GLASS	FD	FIRE DAMPER
	P & T PLUG IN IMMERSION WELL		FLEXIBLE CONNECTION	FSD	FIRE SMOKE DAMPER
	PIPE DROP	F	FILTER DRIER		FLEXIBLE DUCT
	PIPE INLINE DROP		PIPE SUPPORT	X-#	AIR DEVICE
	PIPE INLINE RISE		EXTERIOR PIPE SUPPORT	X-# / #	AIR DEVICE CFM
	PIPE RISER		EXTERIOR PIPE SUPPORT	#	KEYED NOTE
	PNEUMATIC 2-WAY VALVE		DIRECTION OF SLOPE DOWN	X-#	EQUIPMENT CALLOUT
	PRESSURE GUAGE	S	SUCTION LINE	X / S#	DETAIL NUMBER SHEET DETAIL APPEARS
	PRESSURE GAGE W/BALL VALVE	L	LIQUID LINE	# / S#	LARGE SCALE NUMBER SHEET LARGE SCALE APPEARS
	RELIEF VALVE		TRAP. ONE PIECE FACTORY FABRICATED		AIR FLOW DIRECTION
	SCREWED CONCENTRIC REDUCER	T	THERMOSTAT	TOP / BOT	SECTION LETTER SHEET NUMBER
	STEAM TRAP	S	SENSOR	ROOM / NO	ROOM NAME ROOM NUMBER
	STRAINER	CO2	CO2 SENSOR		ACCESS DOOR
	THERMOMETER	J	J-BOX	#	REVISION DELTA
	THREADED HOSE CONNECTION		NEW CONNECTION		

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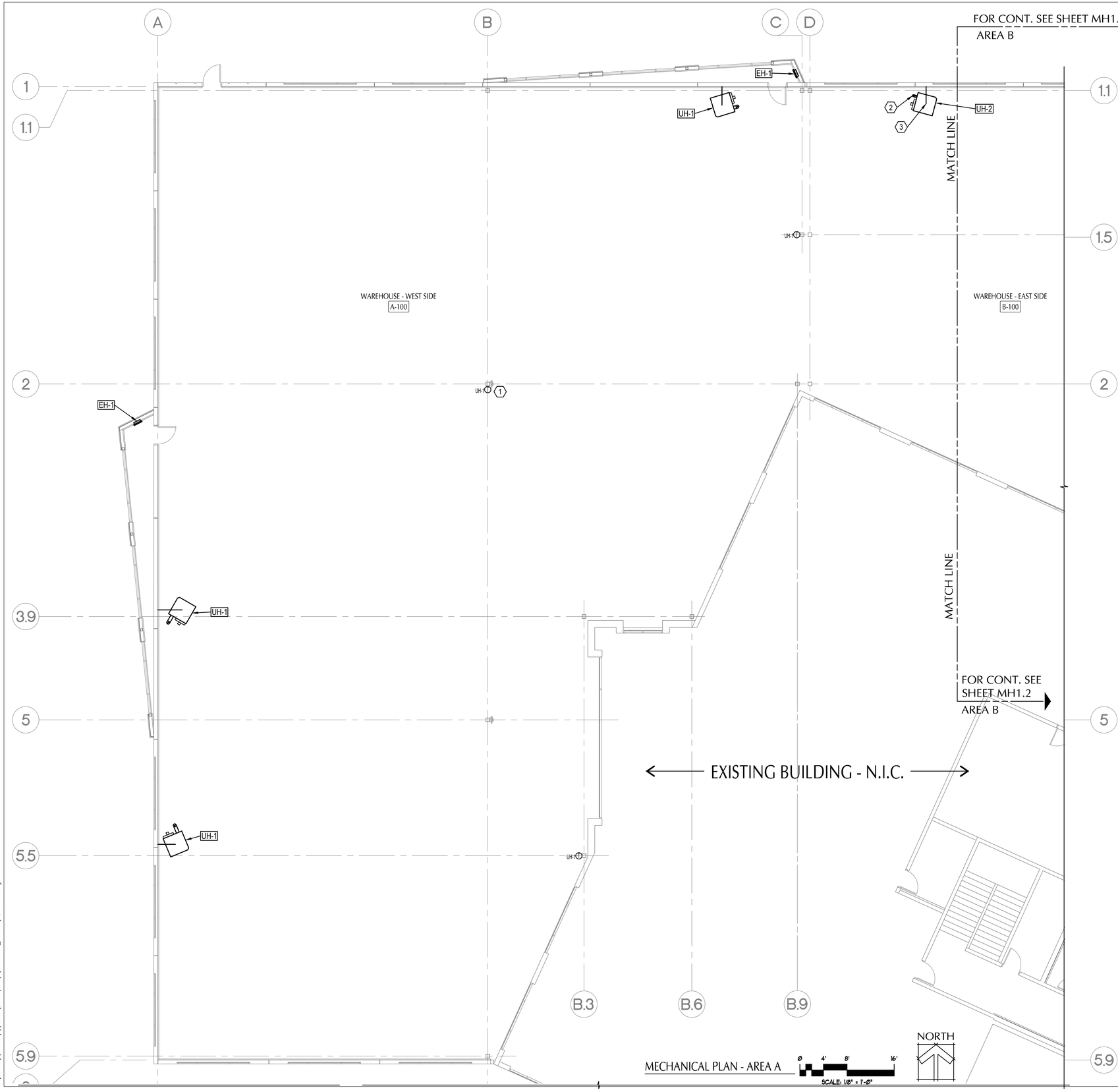
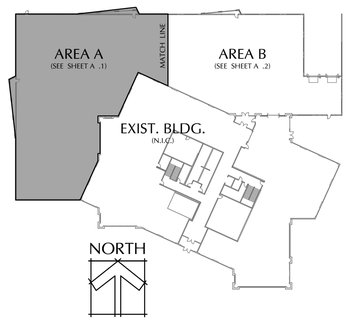


MECHANICAL PLAN - AREA A

KEYED NOTES FOR SHEET MH1.1-2.2

1. LOW VOLTAGE THERMOSTAT. MOUNT AT 4'-0". ANY THERMOSTAT MOUNTED ON AN EXTERIOR WALL SHALL HAVE AN INSULATED BASE (TYP.)
2. FLUE THRU ROOF (TYP).
3. INSTALL UNIT HEATER AS HIGH AS POSSIBLE ON WALL MOUNTED BRACKET. COORDINATE WITH STRUCTURAL ENGINEER/CONTRACTOR. ENSURE THAT ALL MANUFACTURER REQUIRED CLEARANCES WILL BE MET (TYP).



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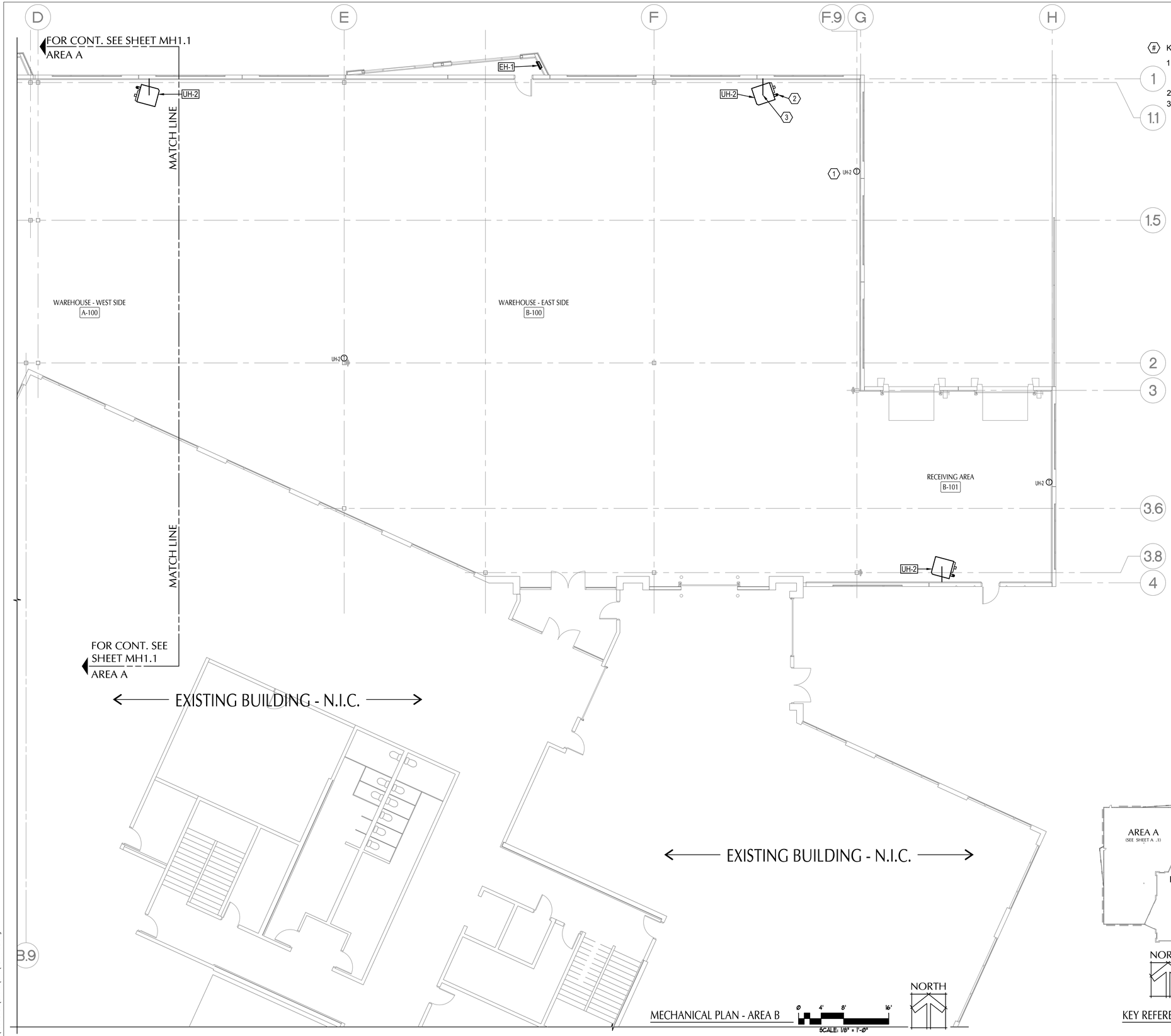

MECHANICAL PLAN - AREA B

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

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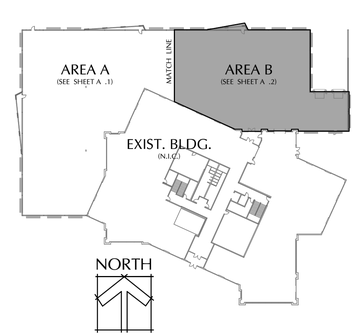

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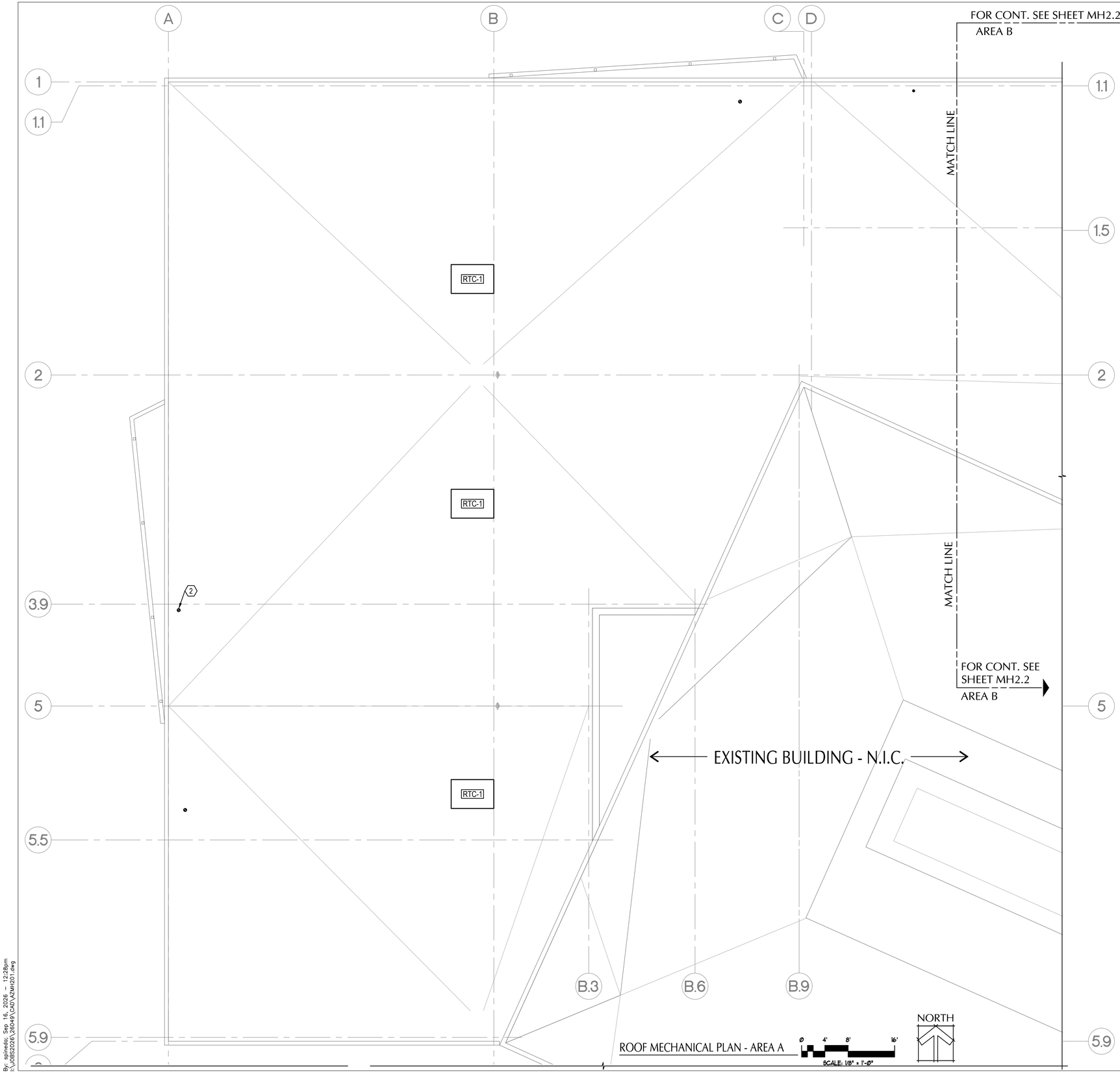


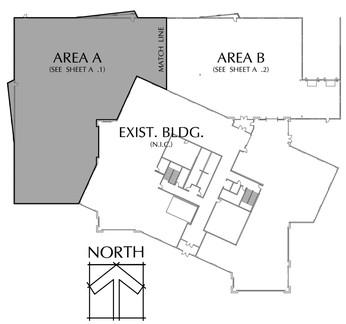
ROOF MECHANICAL PLAN - AREA A

KEYED NOTES FOR SHEET MH1.1-2.2

1 LOW VOLTAGE THERMOSTAT. MOUNT AT 4'-0". ANY THERMOSTAT MOUNTED ON AN EXTERIOR WALL SHALL HAVE AN INSULATED BASE (TYP.)

2 FLUE THRU ROOF (TYP).

3 INSTALL UNIT HEATER AS HIGH AS POSSIBLE ON WALL MOUNTED BRACKET. COORDINATE WITH STRUCTURAL ENGINEER/CONTRACTOR. ENSURE THAT ALL MANUFACTURER REQUIRED CLEARANCES WILL BE MET (TYP).



KEY REFERENCE PLAN

PGA&W ARCHITECTS
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DRAWN BY: JEFF JEPPSON
REVISIONS

REGISTERED PROFESSIONAL ENGINEER
No. 172461
RICHARD D. JENSEN
STATE OF UTAH

ROOF MECHANICAL PLAN - AREA A

A NEW ADDITION FOR:
FORTEM TECHNOLOGIES
W.I.C.P. COMERCIAL PROPERTIES
LINDON, UT 84042
1855 W 500 N

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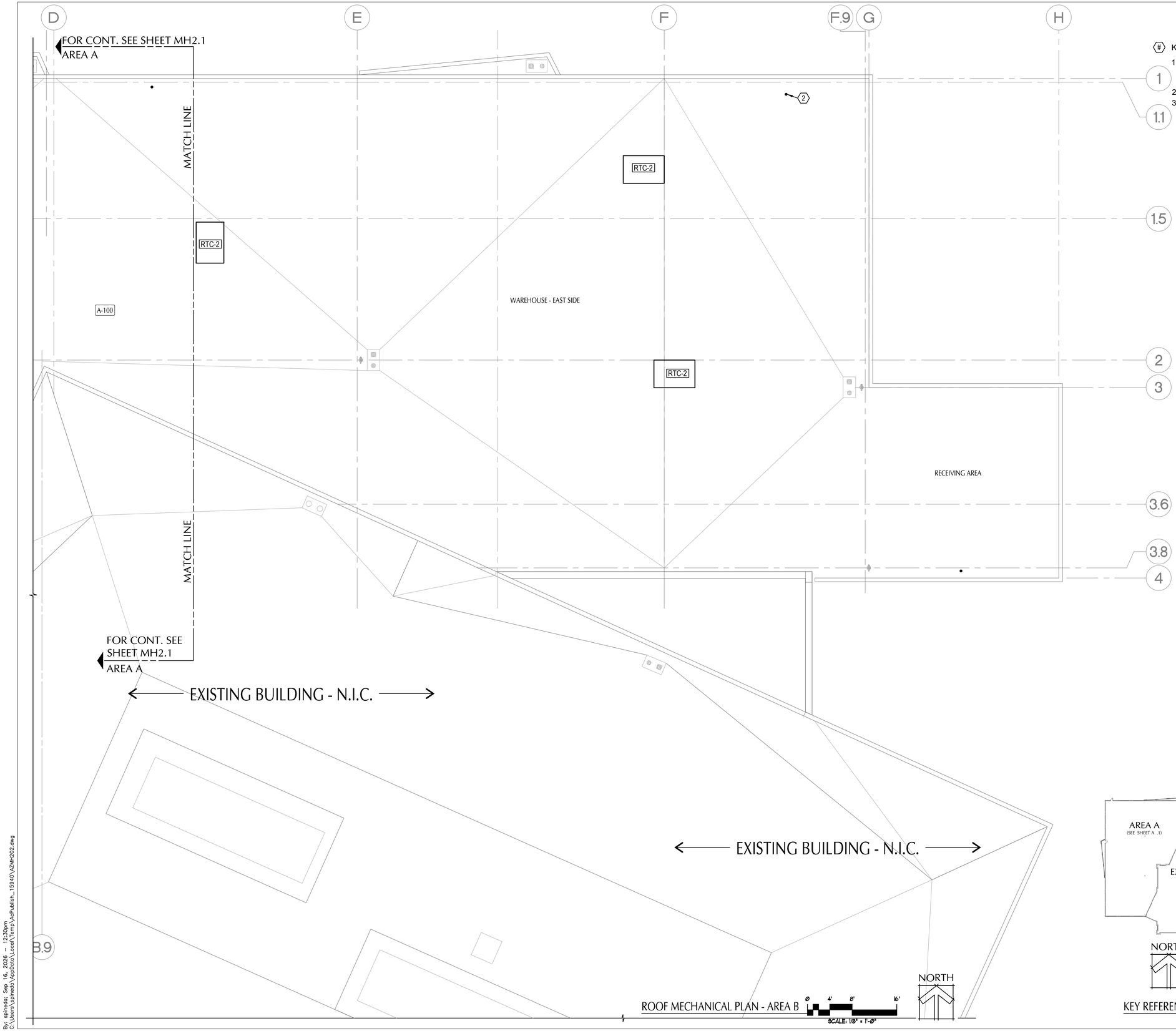
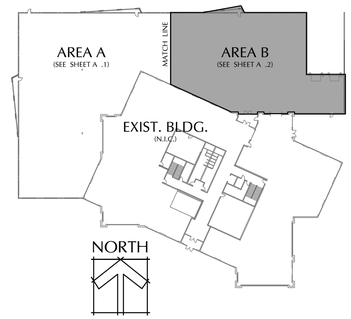


ROOF MECHANICAL PLAN - AREA B

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

KEYED NOTES FOR SHEET MH1.1-2.2

1. LOW VOLTAGE THERMOSTAT. MOUNT AT 4'-0". ANY THERMOSTAT MOUNTED ON AN EXTERIOR WALL SHALL HAVE AN INSULATED BASE (TYP.)
2. FLUE THRU ROOF (TYP).
3. INSTALL UNIT HEATER AS HIGH AS POSSIBLE ON WALL MOUNTED BRACKET. COORDINATE WITH STRUCTURAL ENGINEER/CONTRACTOR. ENSURE THAT ALL MANUFACTURER REQUIRED CLEARANCES WILL BE MET (TYP).



KEY REFERENCE PLAN

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ROOF MECHANICAL PLAN - AREA B

A NEW ADDITION FOR:

FORTEM TECHNOLOGIES
W.I.C.P. COMERCIAL PROPERTIES

1855 W 500 N
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MH
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FUTURE ROOFTOP AIR CONDITIONING UNIT & CURB SCHEDULE

NOTES:
(1) SITE ELEVATION= 4250 FT ASL
(2) SUMMER DESIGN TEMPERATURE= 95 DEG F
(3) MINIMUM OUTSIDE AIR HOOD WITH MOTORIZED DAMPER 2-2.5 TONS, INTEGRATED ECONOMIZER AND FDD WITH FACTORY BAROMETRIC RELIEF 3-6 TONS, INTEGRATED ECONOMIZER AND FDD WITH CENTRIFUGAL MODULATING POWER RELIEF 7.5 TONS AND LARGER
(4) SMOKE DETECTOR WITH FAN SHUTDOWN ON SYSTEMS GREATER THAN 2000 CFM BY DIVISION 26, INSTALLATION BY DIVISION 23.
(5) SEA LEVEL
(6) MODULATE SUPPLY AIR AS A FUNCTION OF LOAD PER IECC C403.8.6, APPLIES TO UNITS 6 TONS AND LARGER
(7) SEER AND SEER2 APPLY TO 2 THRU 5 TON UNITS ONLY. EER AND IEER APPLY TO 6 TON UNITS AND LARGER
(8) FUTURE ROOFTOP UNIT AND CURB SHOWN AS AN ESTIMATE ONLY. DO NOT FURNISH ROOFTOP UNIT/CURB.

MARK	NO	SERVES	CFM	EXTERNAL	FAN					COOLING (2)(6)(7)									ELECTRICAL					FILTER	MINIMUM	WEIGHT	NOTES	MANUFACTURER	MODEL
				S.P. IN W.G.	HP	BHP	TYPE	DRIVE	COMB EFF %	TONS	TOTAL MBH	SENSIBLE MBH	EAT DEG F DB	EAT DEG F WB	STAGES	REFR	SEER2 /IEER	SEER/ EER	MCA	MOCP	VOLTS	HERTZ	PHASE	MERV	OA CFM	LBS			NUMBER
RTC-1	3	A-100 WEST	5000	0.625		5	VANE AXIAL	DIRECT	82	12.5	129	124.8	77.2	57.2	2	R-454B	15	10.8	34	40	460	60	3	8	--	1331	(1)(3)(4)(8)	CARRIER	48FE**14
RTC-2	3	B-100 EAST	5000	0.625		5	VANE AXIAL	DIRECT	82	12.5	116.5	112.0	77.3	57.2	2	R-454B	15	10.8	34	40	460	60	3	8	--	1331	(1)(3)(4)(8)	CARRIER	48FE**14

GAS FIRED UNIT HEATER SCHEDULE

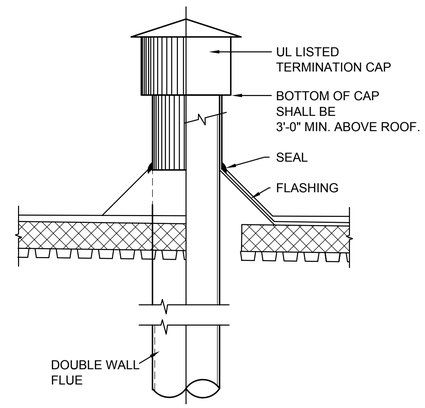
NOTES:
(1) SITE ELEVATION= 4250 FT ASL
(2) SEA LEVEL RATING
(3) FURNISH WITH 60 DEGREE DOWNTURN NOZZLE
(4) UNIT IS WALL HUNG USING 3RD-PARTY BRACKET. COORDINATE WITH STRUCTURAL ENGINEER/CONTRACTOR. ENSURE THAT UNIT IS ORDERED HAVING THE CORRECT SERVICE CLEARANCE OPTION. SEE PLANS.

MARK	NO REQD	SERVES	CFM	HEATING (2)				COMB	ELECTRICAL			FLUE	WEIGHT	MOUNTING	NOTES	MANUFACTURER	MODEL
				INPUT MBH	OUTPUT MBH	EAT DEG F	LAT DEG F	EFF %	HP	VOLTS	PHASE	SIZE IN	LBS	HEIGHT FT			NUMBER
UH-1	3	A-100 WARE WEST	3843	300	249.0	67.0	125.1	83	0.5	115.0	1	6.0	280.0	20.0	(1)(3)(4)	REZNOR	UDXC300
UH-2	3	B-100 WARE EAST	3202	250	207.5	55.0	113.1	83	0.25	115.0	1	5.0	230.0	20.0	(1)(3)(4)	REZNOR	UDXC250

ELECTRIC WALL HEATER SCHEDULE

NOTES:
(1) SITE ELEVATION= 4250 FT ASL
(2) COMPLETE WITH INTEGRAL THERMOSTATIC CONTROL
(3) SURFACE MOUNTED

MARK	NO REQD	SERVES	KW OUTPUT	HEATING BTUH	ELECTRICAL			WEIGHT LBS	NOTES	MANUFACTURER	MODEL NUMBER
					AMPS	VOLTS	PHASE				
EH-1	3	POP-OUT ROOMS	4	13652	19.5	200	1	30	(1)(2)(3)	QMARK	CWH3408



1 **FLUE THRU ROOF DETAIL**
SCALE: N.T.S.

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MECHANICAL SCHEDULES & DETAILS

A NEW ADDITION FOR:
FORTEM TECHNOLOGIES
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ELECTRICAL SYMBOL SCHEDULE

POWER DEVICES

	DUPLEX RECEPTACLE
	DOUBLE DUPLEX RECEPTACLE
GFCI	GFCI RECEPTACLE
	BOTTOM SWITCHED DUPLEX RECEPTACLE
C	COUNTER TOP DUPLEX RECEPTACLE
WP	WEATHER PROOF GFCI RECEPTACLE
SP	SPECIAL PURPOSE OUTLET
	DROP CORD
J	JUNCTION BOX
	DUPLEX RECEPTACLE LOCATED IN A FLOOR BOX
	DUPLEX RECEPTACLE LOCATED IN THE CEILING
	WIRE MOLD
	PLUG MOLD
	ELECTRICAL FURNITURE CONNECTION

COMMUNICATION DEVICES

	VOICE OUTLET
	DATA OUTLET
	VOICE/DATA OUTLET
	VOICE/DATA OUTLET LOCATED IN FLOOR BOX
	VOICE/DATA OUTLET LOCATED IN CEILING
	TELEPHONE TERMINAL BOARD (1/2"x4'x4', PLYWOOD)
	DATA CONNECTION

EQUIPMENT HOOKUP/DISTRIBUTION

NAME	EQUIPMENT TAG
	NON-FUSED DISCONNECT
	FUSED DISCONNECT
	COMBINATION STARTER
	MAGNETIC STARTER
S	MANUAL STARTER
	MOTOR ELECTRICAL CONNECTION
	ELECTRICAL EQUIPMENT HOOKUP
PNLB	ELECTRICAL PANEL
T#	TRANSFORMER
	PLUG-IN BUSWAY
	FEEDER BUSWAY

WORKING SPACE REQUIREMENTS

600 VOLTS, NOMINAL, OR LESS (SEE CURRENT AND LOCALLY ADOPTED NEC - ARTICLE 110.26)

DEPTH OF WORKING SPACE

NOMINAL VOLTAGE TO GROUND	CONDITION 1	CONDITION 2	CONDITION 3
0-150	3 FT	3 FT	3 FT
151-600	3 FT	3.5 FT	4 FT

CONDITION 1 — EXPOSED LIVE PARTS ON ONE SIDE OF THE WORKING SPACE AND NO LIVE OR GROUNDED PARTS ON THE OTHER SIDE OF WORKING SPACE OR EXPOSED LIVE PARTS ON BOTH SIDES OF THE WORKING SPACE THAT ARE EFFECTIVELY GUARDED BY INSULATING MATERIALS.

CONDITION 2 — EXPOSED LIVE PARTS ON ONE SIDE OF THE WORKING SPACE AND GROUNDED PARTS ON THE OTHER SIDE OF THE WORKING SPACE. CONCRETE, BRICK, TITLE WALLS SHALL BE CONSIDERED AS GROUNDED.

CONDITION 3 — EXPOSED LIVE PARTS ON BOTH SIDES OF THE WORKING SPACE.

WIDTH OF WORKING SPACE

THE WIDTH OF THE WORKING SPACE SHALL BE THE WIDTH OF THE EQUIPMENT OR 30 IN, WHICHEVER IS GREATER. IN ALL CASES, THE WORK SPACE SHALL PERMIT A 90 DEGREE OPENING OF EQUIPMENT DOORS OR HINGED PANELS.

HEIGHT OF WORKING SPACE

THE WORK SPACE SHALL BE CLEAR AND EXTEND FROM THE GRADE, FLOOR, OR PLATFORM TO THE HEIGHT OF THE EQUIPMENT OR 6.5 FT WHICHEVER IS GREATER.
DOORS OR HINGED PANELS.

EQUIPMENT RATED 1200 AMPS OR MORE

EQUIPMENT RATED 1200 AMPS OR MORE THAT CONTAINS OVERCURRENT DEVICES, SWITCHING DEVICES, OR CONTROL DEVICES, SHALL HAVE THE DEPTH OF THE WORK SPACE SHALL BE AS NOTED ABOVE WHEN TWO MEANS FOR EGRESS OR A DIRECT UNOBSTRUCTED EGRESS IS PROVIDED ELSE TWO TIMES THE DEPTH OF WORKING SPACE SHALL BE PROVIDED.

LIGHTING

	HALF SHADED LIGHTS REPRESENT AN EMERGENCY LIGHT OR A LIGHT FIXTURE WITH AN EMERGENCY BATTERY PACK
	2'x4' LIGHT FIXTURE
	2'x2' LIGHT FIXTURE
	4' WRAP LIGHT FIXTURE
	4' WALL MOUNT VANITY LIGHT FIXTURE
	UNDER COUNTER LIGHT FIXTURE
	4' STRIP LIGHT FIXTURE
	8' STRIP LIGHT FIXTURE
	DECORATIVE PENDENT HUNG LIGHT FIXTURE
	RECESSED CAN LIGHT FIXTURE
	RECESSED CAN WALL WASHER LIGHT FIXTURE
	SURFACE MOUNTED DOWN LIGHT
	WALL SCONCE
	TRACK LIGHT FIXTURE
	LED ROPE LIGHT
	EGRESS LIGHT FIXTURE
	WALL PACK LIGHT FIXTURE
	1,2,3 OR 4 HEAD POLE LIGHT FIXTURE
	BUG EYE LIGHT FIXTURE
	CEILING HUNG EXIT LIGHT
	WALL MOUNTED EXIT LIGHT
	BUG EYE LIGHT EXIT LIGHT
TYP-#	FIXTURE CALL OUT (# = QUANTITY OF FIXTURES IN AN AREA)

LIGHTING DEVICES

$	SINGLE POLE LIGHT SWITCH
$3/4	3/4-WAY LIGHT SWITCH
$D	DIMMER LIGHT SWITCH
$M	MASTER OVERRIDE SWITCH
$OS	WALL OCCUPANCY SENSOR LIGHT SWITCH
OS	LINE VOLTAGE CEILING OCC. SENSOR
OS LV	NLIGHT CEILING OCC. SENSOR (NCM PDT 9 RJB)
DL	NLIGHT DAYLIGHT SENSOR (NCM PDT 9 RJB)
PP	NLIGHT POWER PACK (NPP16)
PP ER	NLIGHT EM. POWER PACK (NPP16 ER)
PP D	NLIGHT DIMMING POWER PACK (NPP16 D)
PP ER-D	CEILING OCCUPANCY SENSOR LIGHT SWITCH
NB	NLIGHT NETWORK BRIDGE (NBRG 8 KIT)
G	NLIGHT GATEWAY
$ LV	NLIGHT DIMMING SWITCH (NPODM WH)
	CAT6 CABLE
	0-10V CABLE

FIRE ALARM DEVICES

FIRE ALARM SYSTEM AND/OR MODIFICATIONS TO THE EXISTING FIRE ALARM SYSTEM WILL BE SUBMITTED FOR SEPARATE REVIEW AND APPROVAL IN ACCORDANCE WITH THE LOCAL AHJ.

FACP	FIRE ALARM CONTROL PANEL
ANN	REMOTE ANNUNCIATOR PANEL
NAC#	FIRE ALARM REMOTE SIGNAL ANNUNCIATOR PANEL
P	PULL STATION
	WALL STROBE
	HORN STROBE
	SPEAKER STROBE
	CEILING HORN STROBE
	SMOKE DETECTOR
DD	DUCT DETECTOR
	HEAT DETECTOR
SD	FIRE SMOKE DAMPER
	TAMPER SWITCH
	FLOW SWITCH
PIV	POST INDICATOR VALVE
MM	MONITOR MODULE
RM	RELAY MODULE

HEARING IMPAIRED DEVICES

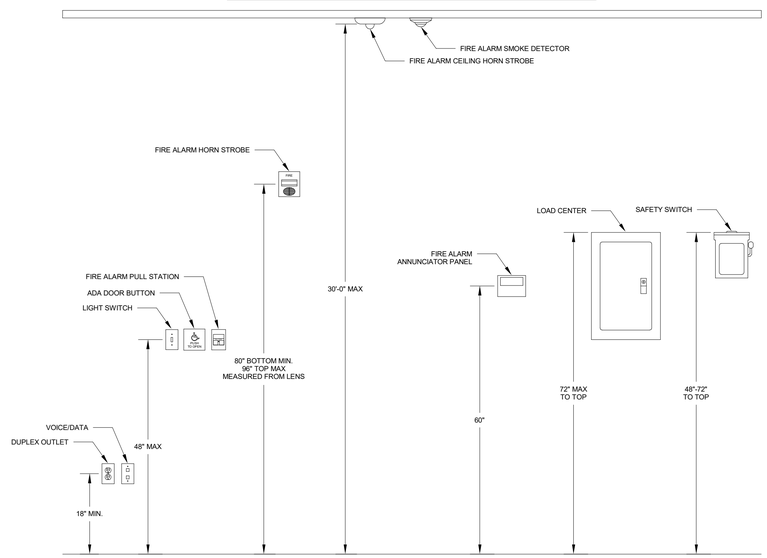
	HEARING IMPAIRED DOORBELL
$H	HEARING IMPAIRED MASTER SWITCH
V	HEARING IMPAIRED VISUAL STROBE
T	HEARING IMPAIRED TRANSFORMER

BRANCH CIRCUIT VOLTAGE DROP TABLE

CONDUCTOR SIZE	MAX CONDUCTOR LENGTH AT LOAD INDICATED			
	15A	12A	9A	6A
120V CIRCUITS				
#12 AWG CU	60 FT	75 FT	100 FT	150 FT
#10 AWG CU	100 FT	125 FT	166 FT	249 FT
#8 AWG CU	153 FT	192 FT	256 FT	384 FT
#6 AWG CU	245 FT	306 FT	408 FT	612 FT
#4 AWG CU	287 FT	483 FT	644 FT	967 FT
277V CIRCUITS				
#12 AWG CU	130 FT	173 FT	230 FT	350 FT
#10 AWG CU	230 FT	285 FT	380 FT	590 FT
#8 AWG CU	350 FT	440 FT	590 FT	900 FT
#6 AWG CU	550 FT	700 FT	940 FT	1420 FT
#4 AWG CU	880 FT	1116 FT	1450 FT	2200 FT

NOTES:
REQUIRED WIRE SIZE IS FOR THE TOTAL DISTANCE OF THE RUN WITHIN THE CONDUIT AND SHALL BE CALCULATED FOR THE TOTAL DISTANCE OF THE PULL AND NOT THE PLAN DISTANCE CALCULATIONS ARE BASED ON DEDICATED NEUTRAL CONDUCTORS AND A 3% MAXIMUM ALLOWED VOLTAGE DROP, AS PER 210.19(A)(A) IN NO.4

TYPICAL DEVICE ELEVATION DETAIL



GENERAL ELECTRICAL NOTES

1. ALL ELECTRICAL WORK SHALL COMPLY WITH THE CURRENT LOCALLY ADOPTED NATIONAL ELECTRICAL CODE.
2. EQUIPMENT DIMENSIONS AND LOCATIONS SHALL BE VERIFIED BEFORE ROUGH-IN. CONSULT WITH ALL TRADES DRAWINGS. CLEARANCES AROUND ALL ELECTRICAL EQUIPMENT SHALL BE INSURED PER N.E.C. BEFORE ELECTRICAL ROUGH-IN. NOTIFY ARCHITECT, ENGINEER AND GENERAL CONTRACTOR IF ANY DISCREPANCIES ARE FOUND.
3. ELECTRICAL CONTRACTOR SHALL VERIFY ALL ELECTRICAL EQUIPMENT CONNECTIONS VOLTAGE, PHASE, LOADS, ETC. OF THE EQUIPMENT REQUIRED FOR THIS PROJECT. USE ALL APPROVED TRADES DRAWINGS BEFORE BEGINNING ELECTRICAL ROUGH-IN. NOTIFY ARCHITECT, ENGINEER AND GENERAL CONTRACTOR IF ANY DISCREPANCIES ARE FOUND.
4. THE ELECTRICAL CONTRACTOR SHALL COORDINATE WITH THE MECHANICAL CONTRACTOR SO THAT NO MECHANICAL EQUIPMENT INTERFERES WITH ANY ELECTRICAL EQUIPMENT IN A WAY THAT WOULD VIOLATE THE CLEARANCES REQUIRED BY THE N.E.C FOR THE ELECTRICAL EQUIPMENT.
5. ALL ELECTRICAL LIGHTING DRAWINGS SHALL BE CROSS REFERENCED WITH THE ARCHITECTURAL REFLECTED CEILING PLANS. NOTIFY ARCHITECT, ENGINEER AND GENERAL CONTRACTOR IF ANY DISCREPANCIES ARE FOUND.
6. FINISHES OF ALL LIGHT FIXTURES SHALL BE SUBMITTED TO THE ARCHITECT/OWNER FOR THEIR APPROVAL.
7. SEE ALL TRADES DRAWINGS FOR ROUGH-IN LOCATIONS OF ALL EQUIPMENT, DEVICES AND LIGHTING.
8. ALL CONDUITS PENETRATING ROOF SHALL BE COORDINATED WITH GENERAL CONTRACTOR PRIOR TO ROUGH IN.
9. ALL ELECTRICAL BOXES SHALL LOCATED IN MASONRY SHALL BE COORDINATED WITH MASONRY CONTRACTOR PRIOR TO ROUGH IN.
10. ALL PENETRATIONS THROUGH FIRE RATED FLOORS, WALLS, AND CEILINGS BY ELECTRICAL MATERIAL SHALL BE SEALED TO MAINTAIN THE APPROVED FIRE RATING OF SURFACES THAT WERE PENETRATED. COORDINATE WITH GENERAL CONTRACTOR TO INSURE THE PROPER FIRE RATING WAS INSTALLED.
11. COLOR CODING FOR CONDUCTORS SHALL BE PROVIDED AS PER THE N.E.C REQUIRES.
12. CONDUITS SHALL BE SUPPORTED WITH IN LENGTHS OF 8' AND WITHIN 3' OF ANY CONNECTION. PROVIDE FLEXIBLE RACEWAY TO ALL MOTOR CONNECTIONS.
13. SUPPORT ALL LIGHT FIXTURES WITH A MINIMUM OF (2) 12 GAUGE STEEL SEISMIC WIRES RUN TO THE STRUCTURE. CONNECT ENDS OF SEISMIC WIRES TO OPPOSITE CORNERS OF THE LIGHT FIXTURE.
14. DIMENSIONS NOTED ON DEVICES ARE TO THE CENTER OF DEVICE.
15. SEISMIC BRACING FOR ALL ELECTRICAL EQUIPMENT, CONDUITS, CABLES, LIGHT FIXTURES, CABLE TRAY, ETC. SHALL BE AS PER IBC REQUIREMENTS.

SHEET LIST

000	ELECTRICAL GENERAL NOTES
201	ELECTRICAL PLAN
801	ELECTRICAL SCHEDULES
900	ELECTRICAL SPECIFICATIONS

PGA&W ARCHITECTS
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278259-2202
Date Stamped:
08/18/2026
State of Utah

ELECTRICAL GENERAL NOTES

A NEW ADDITION FOR:
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1855 W 500 N
LINDON, UT 84042

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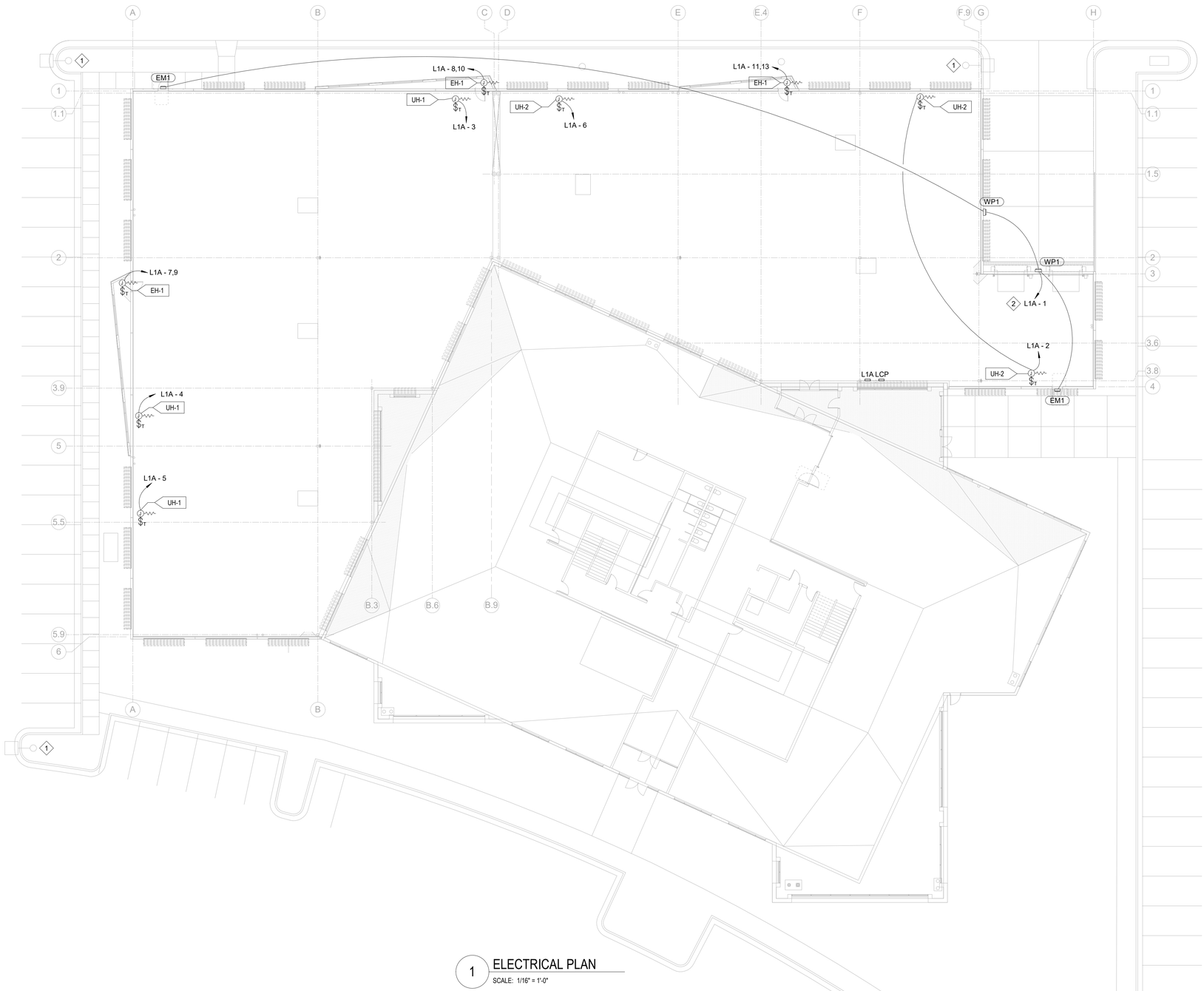
GENERAL SHEET NOTES:

1 EC TO VERIFY MECHANICAL EQUIPMENT LOCATIONS WITH MECHANICAL CONTRACTOR PRIOR TO ROUGHIN.

◇ REFERENCE NOTES:

1 EXISTING LIGHT POLE IS TO BE RELOCATED TO THIS LOCATION. EC IS TO REMOVE THE EXISITNG LIGHT POLE AND STORE IT ON SITE DURING CONSTRUCTION. EC IS TO PROVIDE AND INSTALL A NEW CONCRETE POLE BASE AND RE-INSTALL EXISTING LIGHT POLE.

2 LIGHTING CIRCUIT IS TO BE RUN THROUGH THE LIGHTING CONTROL PANEL (LCP) TO BE CONTROLED BY THE INTERGRATED ASTRONOMICAL TIME CLOCK.



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

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DRAWN BY: MCV
REVISIONS

Professional Engineer
Expiration Date: 05/31/2027
Jacob Duane Taft
License No.
278259-2202
Date Stamped:
08/18/2026
State of Utah

ELECTRICAL PLAN

A NEW ADDITION FOR:
FORTEM TECHNOLOGIES W.I.C.P
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1855 W 500 N
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WIRE AND CONDUIT SCHEDULE

AMPERAGE
CONDUCTOR TYPE
RACEWAY TYPE "R" (NOTE 5)
NUMBER OF CONDUCTORS
SUBSCRIPT (NOTE 4)

A | C | R | N | S

(E.G) 100 | C | E | 4 | SE

SYMBOL	OCPD	CONDUCTOR AMPACITY	CONDUIT SIZE	CONDUCTOR (NOTE 6) SIZE	CONDUCTOR (NOTE 6) GR (CU)	IG (CU)	SE (CU)	NOTES
15 | C | X | # | -	15	15	3/4"	14	14	14	8	
20 | C | X | # | -	20	20	3/4"	12	12	12	8	
30 | C | X | # | -	30	30	3/4"	10	10	10	8	
40 | C | X | # | -	40	50	3/4"	8	10	10	8	
50 | C | X | # | -	50	50	3/4"	8	10	10	8	
60 | C | X | # | -	60	65	1"	6	10	10	8	
70 | C | X | # | -	70	85	1-1/4"	4	8	8	8	
80 | C | X | # | -	80	85	1-1/4"	4	8	8	8	
90 | C | X | # | -	90	100	1-1/4"	3	8	8	8	
100 | C | X | # | -	100	100	1-1/4"	3	8	8	8	
100 | A | X | # | -	100	100	1-1/2"	1	8	8	8	
110 | C | X | # | -	110	115	1-1/4"	2	6	6	8	
110 | A | X | # | -	110	120	2"	1/0	6	6	8	
125 | C | X | # | -	125	130	1-1/2"	1	6	6	6	
125 | A | X | # | -	125	135	2"	2/0	6	6	6	
150 | C | X | # | -	150	150	2"	1/0	6	6	6	
150 | A | X | # | -	150	155	2"	3/0	6	6	6	
200 | C | X | # | -	200	200	2"	3/0	6	6	4	
200 | A | X | # | -	200	205	3"	250	6	6	4	
225 | C | X | # | -	225	230	3"	4/0	4	4	2	
225 | A | X | # | -	225	230	3"	300	4	4	2	
250 | C | X | # | -	250	255	3"	250	4	4	2	
250 | A | X | # | -	250	250	3"	350	4	4	2	
300 | C | X | # | -	300	310	3"	350	4	4	2	
300 | A | X | # | -	300	310	4"	500	4	4	2	
350 | C | X | # | -	350	380	4"	500	3	3	1/0	
350 | A | X | # | -	350	360	(2) 3"	4/0	3	3	1/0	
400 | C | X | # | -	400	400	(2) 2"	3/0	3	3	1/0	
400 | A | X | # | -	400	410	(2) 3"	250	3	3	2	
600 | C | X | # | -	600	620	(2) 3"	350	1	1	2/0	
600 | A | X | # | -	600	620	(2) 4"	500	1	1	2/0	
700 | C | X | # | -	700	760	(2) 4"	500	1/0	1/0	2/0	
700 | A | X | # | -	700	750	(3) 3"	350	1/0	1/0	2/0	
800 | C | X | # | -	800	855	(3) 3"	300	1/0	1/0	3/0	
800 | A | X | # | -	800	810	(3) 3"	400	1/0	1/0	2/0	
1200 | C | X | # | -	1200	1240	(4) 3"	350	3/0	3/0	3/0	
1200 | A | X | # | -	1200	1240	(4) 4"	500	3/0	3/0	3/0	
1600 | C | X | # | -	1600	1675	(5) 3"	400	4/0	4/0	3/0	
1600 | A | X | # | -	1600	1620	(6) 3"	400	4/0	4/0	3/0	
2000 | C | X | # | -	2000	2010	(6) 3"	400	250	250	3/0	
2000 | A | X | # | -	2000	2000	(8) 3"	350	350	250	3/0	
2500 | C | X | # | -	2500	2660	(7) 4"	500	350	350	3/0	
2500 | A | X | # | -	2500	2790	(9) 4"	500	350	350	3/0	
3000 | C | X | # | -	3000	3040	(8) 4"	500	400	400	3/0	
3000 | A | X | # | -	3000	3100	(10) 4"	500	400	400	3/0	
4000 | C | X | # | -	4000	4180	(11) 4"	500	500	500	3/0	
4000 | A | X | # | -	4000	4030	(13) 4"	500	500	500	3/0	

WIRE AND CONDUIT SCHEDULE NOTES:

1. GROUND "GR" CONDUCTOR MAY BE DELETED ON SERVICE ENTRANCE CONDUCTORS.
2. EQUIPMENT GROUNDING CONDUCTORS SHALL BE SIZED PER TABLE 250-122 (NEC 2005). WHEN CIRCUIT BREAKERS ARE SIZED GREATER THAN AMPERE RATING SHOWN IN TABLE.
3. INDICATES THE QUANTITY OF CURRENT CARRYING CONDUCTOS (GROUND CONDUCTOR NOT INCLUDED) TO BE PULLED IN EACH RACEWAY.
4. WHEN SUBSCRIPT STATES "R" INSTALL RACEWAY ONLY, CONDUCTORS FURNISHED AND INSTALLED BY OTHERS. WHEN SUBSCRIPT STATES "SE" USE "SE" GROUND WIRE. WHEN SUBSCRIPT STATES "GR" USE "GR" GROUND WIRE. WHEN SUBSCRIPT STATES "IG" INCLUDE AN INSULATED GROUND CONDUCTOR "IG" ALONG WITH THE GROUND OR EQUIPMENT GROUND CONDUCTOTR. WHEN SUBSCRIPT STATES "NG" DO NOT INSTALL "GR,IG,SE" CONDUCTOR IN RACEWAY.
5. RACEWAY SUBSCRIPTS "R" ARE AS FOLLOWS: P=PVC SCH-40, E=EMT, R=RIGID, AF=ALUMINUM FLEX, SF=STEELE FLEX, LT=LIQUID TIGHT FLEX.
6. ALL COPPER CONDUCTORS SHOWN ARE THWN AND ALL ALUMINUM CONDUCTORS SHOWN ARE XHHW UNLESS OTHERWISE INDICATED.
7. "-" IN CALL OUT MEANS ITEM IS NA

BRANCH PANEL: L1A

LOCATION: ELEC. RM
SUPPLY FROM: CT
MOUNTING: SURFACE
ENCLOSURE: NEMA 1

VOLTS: 120/208 Wye
PHASES: 3
WIRES: 4

A.I.C. RATING: 10kAIC
LUG TYPE: MAIN BREAKER
MAINS RATING (AMPS): 400A

NOTES:

CKT	CIRCUIT DESCRIPTION	AMPS	POLES	A	B	C	POLES	AMPS	CIRCUIT DESCRIPTION	CKT
1	EXTERIOR LIGHTING	20 A	1	40 VA 1392 VA			1	20 A	UH-2	2
3	UH-1	20 A	1		1176 VA 1176 VA		1	20 A	UH-1	4
5	UH-1	20 A	1			1176 VA 696 VA	1	20 A	UH-2	6
7	EH-1	20 A	2	1950 VA 1950 VA			2	20 A	EH-1	8
9	--	--	--		1950 VA 1950 VA		--	--	--	10
11	EH-1	20 A	2			1950 VA				12
13	--	--	--	1950 VA						14
15										16
17										18
19										20
21										22
23										24
25										26
27										28
29										30
31										32
33										34
35										36
37										38
39										40
41										42
		TOTAL LOAD:		7282 VA	6252 VA	3822 VA				
		TOTAL AMPS:		64 A	55 A	32 A				

LOAD CLASSIFICATION	CONNECTED LOAD	DEMAND FACTOR	ESTIMATED DEMAND	PANEL TOTALS	
Lighting	40 VA	125.00%	50 VA		
Power	17316 VA	100.00%	17316 VA	**TOTAL CONN. LOAD:**	17356 VA
				TOTAL EEST. DEMAND:	17366 VA
				TOTAL CONNECTED CURRENT:	48 A
				TOTAL EST. DEMAND CURRENT:	48 A

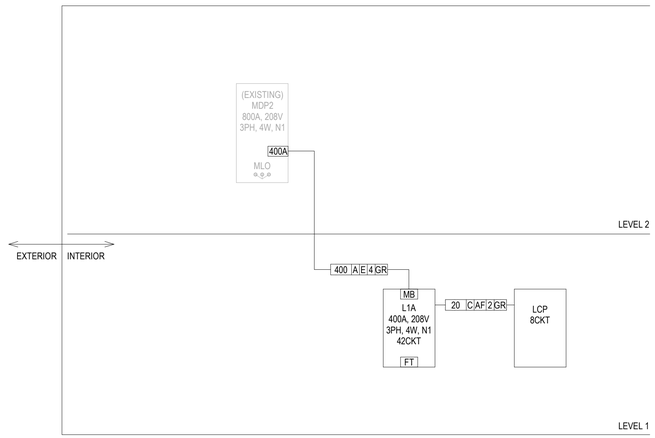
Notes:

LIGHT FIXTURE SCHEDULE

QYT	TYPE	DESCRIPTION	MANUFACTURER	MODEL	LAMP	VOLTAGE	WATTS	REMARKS
3	(E)P201	EXISTING POLE LIGHT	NA	NA	LED	120 V	0 VA	
2	EM1	EGRESS MAN DOOR LIGHT	LITHONIA	AFF OEL DWHGXD UVOLT LTP SDRT WT	LED		4 VA	
2	WP1	WALL PACK	LITHONIA	TWR1 LED ALO SWW2 UVOLT PE DDBTXD		120 V	16 VA	

EQUIPMENT SCHEDULE

QTY	EQUP. ID	DESCRIPTION	VOLTAGE	PHASE	FLA	kW	DISCONNECT/SWITCHES	COMMENTS
3	EH-1		208 V	2	0.0	3900 VA		
3	UH-1	UNIT HEATER	120 V	1	0.0	1176 VA	THERMAL SWITCH	
3	UH-2	UNIT HEATER	120 V	1	0.0	696 VA	THERMAL SWITCH	



1 ELECTRICAL RISER
SCALE: 12" = 1'-0"

PGA&W ARCHITECTS
ARCHITECTS / PLANNERS
5203 SOUTH 300 WEST MURRAY, UTAH 84107 PHONE: 801.266.4669. FAX: 801.262.6122

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Expiration Date: 09/01/2027
Jacob Duane Taft
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State of Utah

ELECTRICAL SCHEDULES

A NEW ADDITION FOR:
FORTEM TECHNOLOGIES W.I.C.P
COMERCIAL PROPERTIES
1855 W 500 N
LINDON, UT 84042

PERMIT SET

DATE 08/24/2026
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ELECTRICAL SPECIFICATIONS

1. SCOPE

A. THE DESCRIPTIONS OF WORK UNDER THIS SECTION SHALL INCLUDE ALL LABOR, MATERIALS AND EQUIPMENT TO COMPLETE THE ELECTRICAL INSTALLATION AS SHOWN ON THE ACCOMPANYING DRAWINGS.

1. THE ELECTRICAL CONTRACTOR SHALL INCLUDE ANY CONDITIONS REQUESTED DURING THE BIDDING REQUIREMENTS

B. THE CONTRACTOR SHALL FAMILIARIZE THEMSELVES WITH THE ACCOMPANYING DRAWINGS AND SPECIFICATIONS.

C. ALL LABOR, MATERIAL OR EQUIPMENT NEEDED FOR THE INSTALLATION AND COMPLETION OF THE ELECTRICAL WORK DESCRIBED IN THE ACCOMPANYING DRAWINGS AND SPECIFICATIONS SHALL BE PROVIDED EVEN IF NOT SHOWN ON THE ACCOMPANYING DRAWINGS.

1. ELECTRICAL SERVICE AND FEEDERS
2. BRANCH WIRING AND GROUNDING
3. WIRING DEVICES
4. ELECTRICALLY OPERATED MOTORS AND EQUIPMENT HOOK-UP
5. HVAC EQUIPMENT HOOK-UP
6. ELECTRICAL DISTRIBUTION EQUIPMENT
7. LIGHTING FIXTURES WITH LAMPS
8. COMMUNICATION RACEWAY AND LOW VOLTAGE SYSTEMS AS SHOWN
9. GENERATOR, EMERGENCY DISTRIBUTION AND EMERGENCY BRANCH WIRING
10. FIRE ALARM SYSTEM

2. MATERIALS AND EQUIPMENT

A. ALL MATERIALS AND EQUIPMENT FURNISHED AND INSTALLED SHALL BE UL LISTED.

B. ELECTRICAL CONTRACTOR SHALL SUBMIT A SET OF SHOP DRAWINGS AND CATALOG CUT SHEETS ON THE FOLLOWING ITEMS TO THE ARCHITECT AND GENERAL CONTRACTOR FOR APPROVAL.

1. DISTRIBUTION EQUIPMENT
2. LIGHTING FIXTURES
3. DEVICES
4. SYSTEMS

C. IF A SUBSTITUTION OF ANY MATERIALS IS PROPOSED BY THE ARCHITECT OR GENERAL CONTRACTOR, IT MUST BE SUBMITTED TO THE ENGINEER FOR APPROVAL PRIOR TO ANY CHANGES BEING MADE.

3. STANDARD OF INSTALLATION

A. THE CURRENT EDITION OF THE NATIONAL ELECTRICAL CODE, THE CITY, STATE, OR ANY LOCAL ORDINANCES AND UTILITY REGULATIONS ARE A PART OF THIS SPECIFICATION.

4. PERMITS AND UTILITY COSTS

A. ANY CITY, STATE, OR LOCAL ORDINANCE ELECTRICAL PERMITS AND INSPECTIONS SHALL BE OBTAINED AND PAID FOR BY THE ELECTRICAL CONTRACTOR UNLESS THE ELECTRICAL PERMIT IS OBTAINED THROUGH THE GENERAL CONTRACTOR. UTILITY CONNECTION FEES ARE NOT INCLUDED IN ELECTRICAL CONTRACT UNLESS SPECIFICALLY NOTED ON THE DRAWINGS.

5. DRAWINGS

A. THE ELECTRICAL DRAWINGS ARE INTENDED TO SHOW THE APPROXIMATE LOCATIONS AND SCOPE OF WORK TO BE PREFORMED AND ARE NOT CONSIDERED AS COMPLETE. THE ELECTRICAL CONTRACTOR SHALL INSTALL ALL WORK INDICATED ON DRAWINGS AND SPECIFICATIONS WITHOUT ADDITIONAL COST.

B. BEFORE STARTING WORK THE ELECTRICAL CONTRACTOR SHALL EXAMINE THE PLANS AND INFORM THE ENGINEER OF ANY DISCREPANCIES BETWEEN THEM AND THE SPECIFICATIONS. IF DISCREPANCIES ARE FOUND HE SHALL REPORT THEM TO THE ENGINEER IN WRITING SO THE ENGINEER CAN PRODUCE INSTRUCTIONS FOR CHANGES IN WORK. DISCREPANCIES SHOULD BE SUBMITTED PRIOR TO BID AS TO RESOLVE ISSUES PRIOR TO CONSTRUCTION.

6. TESTS

A. THE ELECTRICAL CONTRACTOR SHALL COMPLETE ALL TESTS REQUIRED BY THE AUTHORITIES HAVING JURISDICTION.

B. THE COSTS OF ALL TESTS, THE REPLACING AND REPAIRING OF ANY DAMAGE RESULTING FROM TESTS AND ANY WORK NEEDED TO ADDRESS TEST RESULTS, ETC. NOT IN ACCORDANCE WITH ELECTRICAL CODE, SPECIFICATIONS, AND THE ACCOMPANYING DRAWINGS, SHALL BE THE ELECTRICAL CONTRACTOR RESPONSIBILITY.

C. SHOULD THE ELECTRICAL CONTRACTOR REFUSE OR NEGLECT TO MAKE ANY TESTS NECESSARY TO SATISFY THE ENGINEER OR HIS REPRESENTATIVE, THE ENGINEER MAY RUN THE TESTS AND ALL COSTS WILL BE THE ELECTRICAL CONTRACTORS RESPOSIBILITY.

7. GUARANTEE

A. THE ELECTRICAL CONTRACTOR SHALL GUARANTEE ALL WORK EXCEPT FOR LIGHT FIXTURE LAMPS UNDER THIS CONTRACT, TO BE FREE FROM DEFECTS FOR A PERIOD OF ONE (1) YEAR FROM THE PROJECT COMPLETION DATE. ALL DEFECTS OF ELECTRICAL SCOPE WITHIN THAT (1) YEAR PERIOD WILL BE HANDLED BY THE ELECTRICAL CONTRACTOR AT HIS OWN EXPENSE.

B. LIGHT FIXTURE LAMPS SHALL CARRY THE STANDARD FACTORY GUARANTEE.

8. IDENTIFICATION

A. ALL PANELBOARDS, STARTERS, DISCONNECT SWITCHES, MAIN CIRCUIT BREAKERS, MAJOR JUNCTION BOXES AND OTHER SPECIALTY EQUIPMENT ITEMS INSTALLED BY THE ELECTRICAL CONTRACTOR SHALL BE IDENTIFIED WITH PERMANENTLY ATTACHED ENGRAVED PLASTIC NAMEPLATE.

B. THE LABEL SHALL IDENTIFY THE EQUIPMENT NAME ON THE FIRST LINE AND THE PANEL IT IS FED FROM ON THE SECOND.

9. ELECTRICAL SERVICE

A. COORDINATE AND ASSIST THE UTILITY COMPANY IN THE INSTALLATION OF THE ELECTRICAL SERVICE BASED OFF THE ACCOMPANYING DRAWINGS, VERIFY LOCATION, REQUIREMENTS AND ELECTRICAL SERVICE SIZE AS INDICATED BY THE DRAWINGS.

B. PROVIDE METERING CONDUIT AND EQUIPMENT AS REQUIRED BY LOCAL UTILITY COMPANY.

10. GROUNDING

A. PROVIDE GROUNDING FOR ENTIRE ELECTRIC INSTALLATION AS INDICATED BY DRAWINGS AND SPECIFICATIONS.

B. PROVIDE GROUNDING FOR ELECTRICAL SERVICE, EQUIPMENT, ENCLOSURES, CONDUITS, SWITCHBOARDS, MCC'S, PANELBOARDS, TRANSFORMERS, LOW VOLTAGE CABINETS, ETC.

C. GROUNDING-SIZE AND TYPE OF GROUND CONDUCTOR AS PER NATIONAL ELECTRICAL CODE, ARTICLE 250. CONNECTIONS SHALL BE MADE WITH APPROVED CLAMPS AT MAIN WATERLINE SERVICE ENTRANCE.

D. MEET ALL GROUNDING REQUIREMENTS AS PER THE CURRENT N.E.C.

11. ELECTRIC WIRING

A. GENERAL

1. ROUTING OF CONDUIT SHALL BE SUITED TO THE JOB CONDITIONS AND UP TO THE ELECTRICAL CONTRACTOR UNLESS OTHERWISE NOTED. ALL TRADES DRAWINGS SHOULD BE CLOSELY REVIEWED FOR TYPE OF CONSTRUCTION AND RUNNING OF CONDUITS. NO STRUCTURAL MEMBERS WILL BE CUT WITHOUT APPROVAL FROM STRUCTURAL ENGINEER. ALL CONDUIT WILL BE INSTALLED AT RIGHT ANGLES TO THE BUILDING.
2. ROUGH-IN OF ELECTRICALLY OPERATED UNITS SHALL BE COORDINATED WITH THE SUPPLIERS OF EQUIPMENT.
3. HEIGHTS AND LOCATIONS OF SWITCHES, PLUGS WALL FIXTURES, ETC. SHALL BE COORDINATED WITH ARCHITECTURAL DRAWINGS, GENERAL CONTRACTOR, AND ALL SUBCONTRACTORS AS REQUIRED.

B. RACEWAYS OR CONDUITS

1. ALL CONDUIT EXPOSED TO MECHANICAL DAMAGE SHALL BE RIGID GALVANIZED STEEL, IMC, OR AS NOTED ON THE DRAWINGS. ALL OTHER CONDUITS MAY BE ELECTRICAL METALLIC TUBING. PVC CONDUIT SHALL BE SCHEDULE 40 OR AS NOTED ON DRAWINGS. EXPANSION COUPLINGS SHALL BE USED AT ALL EXPANSION JOINTS.
2. ALL CONDUIT SHALL BE INSTALLED IN A NEAT WORKMANLIKE MANNER AND SHALL BE ANCHORED EVERY (8') BY MEANS OF AN APPROVED METHOD OF CONDUIT SUPPORTING.
3. ALL CONDUIT SIZES SHALL BE IN STRICT ADHERENCE WITH THE CURRENT NATIONAL ELECTRICAL CODE, UNLESS WHERE THE DRAWINGS HAVE OVER SIZED THE MINIMUM REQUIREMENTS, THEN THE LARGER SIZE SHALL APPLY.

C. WIRE

1. ALL CONDUCTORS RATED UNDER 100A SHALL BE COPPER UNLESS NOTED OTHERWISE ON THE DRAWINGS. ALL ALUMINUM WIRE TERMINATIONS WILL HAVE NOLOX OR EQUAL ANTI-OXIDANT JOINT COMPOUND APPLIED TO THE TERMINATION.
2. ALL WIRE SIZES #14 TO #10 SHALL BE TYPE THWN/THHN. THWN RATED WIRE SHALL NOT BE USED IN AREAS SUBJECT TO WATER SUCH AS IN CONDUITS BELOW GRADE.
3. ALL WIRE SIZES #8 OR LARGER SHALL BE TYPE THWN OR THW STRANDED UNLESS NOTED OTHERWISE.
4. WIRE INSTALLED IN FIXTURE PANS SHALL BE TYPE AWM OR THHN.
5. FURNISH AND INSTALL GROUND CONDUCTOR PER THE CURRENT NEC WHEN NON-METALLIC CONDUIT IS USED OR AS NOTED ON THE DRAWINGS.
6. PROVIDE METALLIC SHEATH CABLE, MC OR AC AS PER THE CURRENT N.E.C. ARTICLE 333 AND 334. MC OR AC CABLE SHALL ONLY BE USED INSIDE FRAMED WALLS OR ABOVE HARD LID/T-GRID CEILINGS.
7. BRANCH CIRCUITS FOR WHICH THE DISTANCE FROM PANELBOARD TO THE NEAREST DEVICE ARE MORE THAN 100' THE ELECTRICAL CONTRACTOR MUST UPSIZE HIS BRANCH WIRING ACCORDING TO THE VOLTAGE DROP TABLE ON THE ACCOMPANYING DRAWINGS.

D. BOXES AND FITTINGS

1. ALL CONDUIT BOXES AND ASSOCIATED MATERIAL SHALL BE GALVANIZED AND UL LISTED.
2. ALL CONDUIT CONNECTORS OR CONDUIT CONNECTION POINTS MUST BE INSULATED TO PROVIDE PROTECTION TO THE WIRING.
3. ALL FITTINGS FOR CONDUIT SHALL BE WATER TIGHT OR STEEL SET SCREW.
4. OUTLETS IN PLASTERED PANELS AND FURRED FINISH SHALL BE EQUIPPED WITH PLASTERED RINGS AND EXTENSION OF SUCH DEPTH TO BRING OUTLET FLUSH WITH SURFACE FINISH.
5. SURFACE MOUNTED BOXES IN DAMP OR WET LOCATIONS, AND BOXES MOUNTED ON A CONDUIT STUB-UP SHALL BE TYPE "FS" OR "FD" BOXES WITH THREADED HUBS. MOUNTING EARS AND WEATHERPROOF COVERS.

E. WIRING PROCEDURE

1. ALL WIRING IN CONDUIT SHALL HAVE NO MORE THAN THREE (3) CIRCUITS PER HOME RUN. UNLESS DERATED AS PER NEC 310-15-NOTE 8.
2. THE ARCHITECT / ENGINEER RESERVES RIGHT TO MAKE ANY REASONABLE CHANGES IN THE LOCATION OF OUTLETS BEFORE ROUGHING-IN WITHOUT ADDITIONAL EXPENSES TO THE OWNER.
3. THE LAYOUT OF THE WIRING SYSTEM AS INDICATED IS GENERALLY SCHEMATIC AND LOCATION OF OUTLETS SHALL BE CHECKED WITH MILL WORK, EQUIPMENT SUPPLIERS, AND GENERAL CONTRACTOR.

12. MOTORS AND ELECTRICALLY OPERATED EQUIPMENT

A. IT IS THE INTENT OF THESE SPECIFICATIONS THAT ALL EQUIPMENT REQUIRING ELECTRICAL CONNECTIONS SHALL BE BE WIRED UNDER DIVISION 16 ELECTRICAL AND AS NOTED ON THE ELECTRICAL DRAWINGS.

B. CHECK SUPPLIERS EQUIPMENT FOR COMPLETE WIRING DETAILS.

C. CONNECT ALL MOTORS WITH FLEXIBLE CONDUIT AS PER THE CURRENT NEC.

D. CHECK MOTOR STARTER FOR HEATER SIZES AND FUSED DISCONNECTS FOR FUSE SIZES.

13. HEATING AND VENTILATING EQUIPMENT

A. THE ELECTRICAL CONTRACTOR SHALL PERFORM ALL LINE VOLTAGE CONNECTIONS FOR ALL HVAC AND BUILDING EQUIPMENT AS PER THE ELECTRICAL EQUIPMENT HOOK-UP SCHEDULE.

B. ALL HVAC CONTROL WIRING AND RELATED EQUIPMENT FOR HEATING AND VENTILATING SHALL BE PROVIDED BY THE MECHANICAL CONTRACTOR UNLESS OTHERWISE NOTED.

C. THE HEATING AND VENTILATING SPECIFICATIONS SHALL BE A PART OF THESE SPECIFICATIONS AND THE MECHANICAL CONTRACTOR SHALL FURNISH AND INSTALL ALL STARTERS FOR MECHANICAL EQUIPMENT WHICH ARE NOT SPECIFICALLY DESIGNATED AS BEING FURNISHED BY THE ELECTRICAL CONTRACTOR. SEE ELECTRICAL EQUIPMENT SCHEDULE.

D. THE ELECTRICAL CONTRACTOR SHALL FURNISH AND INSTALL ALL DISCONNECT SWITCHES THAT ARE REQUIRED BY THE NATIONAL ELECTRICAL CODE FOR ALL MECHANICAL EQUIPMENT AS PER ELECTRICAL EQUIPMENT SCHEDULE UNLESS FACTORY FURNISHED WITH MECHANICAL EQUIPMENT.

14. LIGHTING FIXTURES

A. ALL LIGHTING FIXTURES SHALL BE FURNISHED WITH THE PROPER MOUNTING ACCESSORIES TO SUIT INTENDED APPLICATION.

1. ALL OUTDOOR FIXTURES SHALL RATED FOR THE APPROPRIATE CONDITIONS.
2. ALL LIGHTING FIXTURES SHALL UL LISTED.
3. BEFORE ORDERING LIGHT FIXTURES THE ELECTRICAL CONTRACTOR WILL VERIFY EACH FIXTURES MOUNTING EQUIPMENT AND AND INFORM THE ENGINEER IF THERE ARE DISCREPANCIES WITH THE MOUNTING HARDWARE AND THE MOUNTING SURFACE OF THE LIGHT FIXTURE. IF THIS IS NOT DONE THE COSTS TO CHANGE THE MOUNTING EQUIPMENT AND LABOR WILL BE THE ELECTRICAL CONTRACTOR RESPONSIBILITY.
4. RECESSED FIXTURES SHALL BE SECURED TO THE BUILDING STRUCTURE. DROP IN FIXTURES SHALL BE SUPPORTED WITH WIRE SUPPORTS WITH A MINIMUM OF TWO (2) PER FIXTURE WITH ONE AT OPPOSITE ENDS OF EACH OTHER. WIRES TO BE SECURED TO THE BUILDING STRUCTURE AND PROVIDE FOUR (4) EARTHQUAKE CLIPS PER FIXTURE.
5. ELECTRICAL CONTRACTOR TO VERIFY WITH GENERAL CONTRACTOR IF FIRE RATED BOOTS ARE REQUIRED FOR RECESSED LIGHT FIXTURES PRIOR TO BID. NO EXTRAS WILL BE ALLOWED FOR THIS WORK.

B. LAMPS SHALL BE SUPPLIED WITH FIXTURES AND SHALL BE THE TYPE AS SHOWN ON LIGHT FIXTURE SCHEDULE AND AS MANUFACTURED BY GENERAL ELECTRIC, PHILLIPS, SYLVANIA.

15. PANELBOARDS

A. PANEL BOARDS AND SWITCHBOARDS SHALL BE SQUARE D, SIEMENS, G.E. OR CUTLER HAMMER. THE PANELS SHALL BE HOUSED IN A GALVANIZED STEEL CAN WITH HINGED COVER DOOR. THE DOOR SHALL BE KEYED DOOR LOCK WITH ALL KEYS ALIKE. ALL PAINTED SURFACES SHALL BE BONDERIZED AND PAINTED WITH THREE (3) COATS OF PRIMER AND FINISH PAINT. THE PANELS SHALL BE TOP OR BOTTOM FEED AS REQUIRED. THE PANEL SHALL HAVE A SOLID BUSING AND NEUTRAL TERMINAL PLATE, AND SHALL BE BRACED TO WITHSTAND THE MAXIMUM SHORT CIRCUIT INTERRUPTING CAPACITY OF ANY DEVICE MOUNTED THEREIN.

B. A WRITTEN CIRCUIT DATA SHALL BE PROVIDED IDENTIFYING OUTLET AND EQUIPMENT CONTROLLED PER CIRCUIT NUMBER ON CARD PROVIDED WITH PANEL. DIRECTORY HOLDER SHALL BE FURNISHED ON INNER FACE OF HINGED DOOR. CONTRACTOR SHALL PROVIDE TYPED CIRCUIT DIRECTORY CARD AT COMPLETION OF PROJECT.

C. ALL PANEL BOARDS SHALL HAVE A GROUND BUS WITH LUGS AS REQUIRED. FURNISH ALL FUSES, SPARE FUSES AND FUSE CABINET AS NOTED ON DRAWINGS.

16. WIRING DEVICES

A. RELATED DOCUMENTS: THE GENERAL PROVISIONS OF THE CONTRACT AND THE GENERAL CONDITIONS APPLY TO THE WORK SPECIFIED IN THIS SECTION.

B. DUPLEX RECEPTACLES

1. ALL DUPLEX RECEPTACLES SHALL BE 3-POLE GROUNDING TYPE WITH THE THIRD POLE "U" SHAPED AND GROUNDED TO THE CONDUIT SYSTEM AND SHALL BE P&S, HUBBELL, LEVITON OR AN APPROVED EQUAL TO:

C. TOGGLE SWITCHES

1. ALL TOGGLE SWITCHES SHALL BE COMMERCIAL/INDUSTRIAL TYPE 15 & 20 AMP, 120/277 VAC AND SHALL BE P&S, HUBBELL, LEVITON OR APPROVED EQUAL TO.

D. WIRING DEVICE COVERS

1. COVERS SHALL BE P&S TYPE TP SERIES COLOR AS SELECTED BY ARCHITECT TO MATCH DEVICE(S) COVERED, EXCEPT THAT OUTLETS MOUNTED IN TOE SPACE OR NEXT TO FLOOR SHALL HAVE STAINLESS STEEL COVERS. SURFACE OUTLETS SHALL HAVE GALVANIZED COVERS.
2. WIRING DEVICE COVERPLATES LOCATED ON EXTERIOR WALLS OR IN AREAS OF EXCESSIVE MOISTURE SHALL BE WEATHER PROOF.
3. ALL FLOOR RECEPTACLES SHALL INCLUDE CARPET OR TILE FLANGE COMPLETE.

17. DRY-TYPE TRANSFORMERS

A. RELATED DOCUMENTS: RELATED DOCUMENTS: THE GENERAL PROVISIONS OF THE CONTRACT AND THE GENERAL CONDITIONS APPLY TO THE WORK SPECIFIED IN THIS SECTION.

B. GENERAL

1. FURNISH AND INSTALL DRY-TYPE TRANSFORMERS AS INDICATED ON THE PLANS AND AS SPECIFICATIONS.

C. DESCRIPTION

1. TRANSFORMERS SHALL HAVE A MINIMUM 4-1/2% FULL CAPACITY PRIMARY TAPS.
2. TRANSFORMERS SHALL BE 150°C TEMPERATURE RISE ABOVE 40 C AMBIENT.
3. PROVIDE TRANSFORMERS 500 KVA AND LARGER WITH A VIBRATION ISOLATING SYSTEM DESIGNED TO PROVIDE A PERMANENT PERMANENT FASTENING AT THE CORE AND COIL OF THE ENCLOSURE. SOUND LEVEL SHALL BE GUARANTEED BY THE MANUFACTURER NOT TO EXCEED NEMA AND ANSI STANDARDS

18. MOTOR STARTERS

1. STARTERS SHALL BE LINE VOLTAGE, NON-REVERSING, 3-POLE TYPE WITH THERMAL OVERLOAD, SINGLE-PHASE, AND LOW LOW VOLTAGE PROTECTION WITH A NORMALLY OPEN AND CLOSED AUXILIARY CONTACT AND RESET BUTTON IN THE FACE. THE COIL VOLTAGE SHALL BE RATED FOR 120 VAC. PROVIDE FUSED CONTROL TRANSFORMER WHEN 120 VAC IS NOT AVAILABLE. SEE ELECTRICAL EQUIPMENT SCHEDULE AND DRAWINGS FOR H.O.A.'S, PILOT LIGHTS, ETC.

19. SAFTEY SWITCHES

A. ALL SAFETY SWITCHES 30 AMPS AND LARGER SHALL BE HORSE POWER RATED, EXTERNALLY OPERATED WITH PROVISION FOR PADLOCK, QUICK MAKE-QUICK BREAK AND SHALL BE FUSIBLE / NON-FUSIBLE / NEMA 1 / NEMA 3R AS NOTED ON DRAWINGS. EACH SAFETY SWITCH SHALL BE CLEARLY MARKED FOR MAXIMUM VOLTAGE / CURRENT / HORSEPOWER RATING.

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DRAWN BY: MCV
REVISIONS

Professional Engineer
Expiration Date: 05/31/2027
Jacob Duane Taft
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278259-2202
Date Stamped:
08/18/2026
State of Utah

ELECTRICAL SPECIFICATIONS

A NEW ADDITION FOR:
FORTEM TECHNOLOGIES W.I.C.P
COMERCIAL PROPERTIES
LINDON, UT 84042
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