

LEGAL DESCRIPTION

LOTS FIVE (5) AND SIX (6) JOHNSTONE SUPPLY SUBDIVISION, AN ADDITION TO THE CITY OF PHARR, HIDALGO COUNTY, TEXAS, AS PER MAP OR PLAT THEREOF RECORDED UNDER DOCUMENT NUMBER 2407382, MAP RECORDS, HIDALGO COUNTY, TEXAS.

PROJECT DIRECTORY

OWNER	ARCHITECT
TRDI 425 SOLEDAD, SUITE 800 SAN ANTONIO, TX 78205 210-572-0402	DUNCAN ARCHITECTS, LLC 804 PECAN BLVD, STE 113 MCALLEN, TX 78501 956-443-3755
CIVIL ENGINEER	MEP ENGINEER
RGV STRATA 4900 TEXAN ROAD MISSION, TX 78574 956-802-7328	RO ENGINEERING, PLLC 2705 E. DAVIS RD. EDINBURG, TX 78540 956-292-3338
LANDSCAPE ARCHITECT	STRUCTURAL ENGINEER
HEFFNER DESIGN TEAM 4100 N. 22ND STREET MCALLEN, TX 78504 956-540-7850	ATLAS ENGINEERING CONSULTANTS, LLC 500 SOUTH 11TH STREET MCALLEN, TX 78501 956-379-3857
P.E.M.B. SUPPLIER & E.O.R.	TEXAS ACCESSIBILITY SPECIALIST



ABBREVIATIONS

A/C	AIR CONDITIONING
A.F.F.	ABOVE FINISH FLOOR
ALT.	ALTERNATIVE
APPROX.	APPROXIMATE
ARCH.	ARCHITECTURAL
ASPH.	ASPHALT
AUTO.	AUTOMATIC
AVG.	AVERAGE
BLDG.	BUILDING
BLK.	BLOCK
BLKG.	BLOCKING
BOT.	BOTTOM
B.O.S.	BOTTOM OF STRUCTURE
BOD.	BASIS OF DESIGN
CEM.	CEMENT
C.I.P.	CAST-IN-PLACE
C.J.	CONTROL JOINT
C.L.	CENTER LINE
CLG.	CEILING
C.M.U.	CONCRETE MASONRY UNIT
COL.	COLUMN
COMP.	COMPOSITE
CONC.	CONCRETE
CONT.	CONTINUOUS
CTR.	CENTER
C.W.	COLD WATER
CW.	CASEWORK
DEPT.	DEPARTMENT
DIV.	DIVISION
DWG.	DRAWINGS(S)
(E)	EXISTING
EA.	EACH
E.J.	EXPANSION JOINT
EL.	ELEVATION
ELEC.	ELECTRICAL
ENT.	ENTRANCE
EOR.	ENGINEER OF RECORD
E.O.S.	EDGE OF SLAB
EQ.	EQUAL
EXT.	EXTERIOR
F.A.	FIRE ALARM
F.D.	FLOOR DRAIN
FDN.	FOUNDATION
F.E.	FIRE EXTINGUISHER
F.E.C.	FIRE EXTINGUISHER CABINET
FIN.	FINISH
FIXT.	Fixture
FL.	FLOOR
F.O.	FACE OF
F.P.	FIRE PROTECTION
GEN.	GENERAL
GL.	GLASS
GLB.	GLUE LAM BEAM
GR.	GRADE
G.W.B.	GYPSUM WALL BOARD
GYP.	GYPSUM
HBOT.	HYPBARIC OXYGEN THERAPY
H.B.	HOSE BIBB
H.C.	HANDICAPPED
H.D.	HEAVY DUTY
H.M.	HOLLOW METAL
H.O.	HOLD OPEN
H.P.	HIGH POINT
HPL.	HIGH PRESSURE LAMINATE
HR.	HOUR
HT.	HEIGHT
H.W.	HOT WATER
INT.	INTERIOR
JAN.	JANITOR
JCT.	JUNCTION
JST.	JOIST
JT.	JOINT
LAV.	LAVATORY
L.S.	LANDSCAPE
LT.	LIGHT
MAS.	MASONRY
MAX.	MAXIMUM
MECH.	MECHANICAL
MED.	MEDIUM
MET.	METAL
MFR.	MANUFACTURER
MIN.	MINIMUM
MISC.	MISCELLANEOUS
N.	NORTH
(N)	NEW
N.I.C.	NOT IN CONTRACT
NO.	NUMBER
N.T.S.	NOT TO SCALE
PEMB.	PRE-ENGINEER METAL BLDG.
PERF.	PERFORATED
PERP.	PERPENDICULAR
PL.	PLATE
PREFAB.	PREFABRICATED
P.T.	PRESSURE TREATED
PT.	PAINT
QTY.	QUANTITY
REF.	REFERENCE
REQ.	REQUIRED
R.O.	ROUGH OPENING
RT.	RATED
S.	SOUTH
S.C.D.	SEE CIVIL DRAWINGS
S.E.D.	SEE ELECTRICAL DRAWINGS
SERV.	SERVICE
S.F.P.D.	SEE FIRE PROT. DWGS.
SL.A.D.	SEE LANDSCAPE ARCH. DWGS.
S.M.D.	SEE MECHANICAL DRAWINGS
S.P.D.	SEE PLUMBING DRAWINGS
S.S.D.	SEE STRUCTURAL DRAWINGS
S.S.	STAINLESS STEEL
STD.	STANDARD
STL.	STEEL
SUSP.	SUSPENDED
T&B	TOP AND BOTTOM
THK.	THICK
T.O.	TOP OF
T.O.S.	TOP OF STRUCTURE
TYP.	TYPICAL
U.N.O.	UNLESS NOTED OTHERWISE
UTIL.	UTILITY
VAR.	VARIABLE
V.B.	VAPOR BARRIER
VERT.	VERTICAL
V.I.F.	VERIFY IN FIELD
W.	WEST
W/I	WITH
W.C.	WATER CLOSET
W/O	WITHOUT
WAINS.	WAINSCOTTING
WD.	WOOD
WP.	WATERPROOF
WPT.	WORK POINT
WSCT.	WAINSCOT
WT.	WEIGHT

GENERAL NOTES:

- ALL WORK ON THE PROJECT SHALL BE PERFORMED AS SHOWN ON THE CONSTRUCTION DOCUMENTS IN ACCORDANCE WITH THESE DRAWINGS AND SPECIFICATIONS, AND FULLY COMPLY WITH ALL SECTIONS AND REQUIREMENTS OF THE INTERNATIONAL BUILDING CODE (LATEST LOCALLY APPROVED EDITION WITH ALL APPLICABLE FEDERAL, STATE, COUNTY AND LOCAL ORDINANCES AND REGULATIONS). ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH GENERALLY ACCEPTABLE CONSTRUCTION PRACTICES AND IN A WORKMAN AND PROFESSIONAL MANNER.
- THE DRAWINGS ARE INTENDED TO SHOW THE GENERAL ARRANGEMENT, DESIGN, AND EXTENT OF THE WORK AND ARE PARTIALLY DIAGRAMMATIC. THEY ARE NOT INTENDED TO BE SCALED FOR ROUGH-IN MEASUREMENTS, OR TO SERVE AS SHOP DRAWINGS OR PORTIONS THEREOF. DO NOT SCALE DRAWINGS - USE WRITTEN DIMENSIONS ONLY.
- ALL NOTES, SPECIFICATIONS, PLATE DETAILS AND SECTIONS SHOWN ON THE CONSTRUCTION DOCUMENTS ARE INTENDED TO BE TYPICAL AND SHALL BE CONSTRUED TO APPLY TO ANY SIMILAR SITUATION ELSEWHERE ON THE PROJECT, EXCEPT WHERE A DIFFERENT DETAIL OR SECTION IS SHOWN AND WHERE SPECIFICALLY NOTED OTHERWISE.
- PRIOR TO START OF CONSTRUCTION, THE GENERAL CONTRACTOR AND ALL SUB-CONTRACTORS SHALL VERIFY ALL GRADES, LINES, LEVELS, DIMENSIONS AND COORDINATE EXISTING CONDITIONS AT THE JOB SITE WITH THE PLANS AND SPECIFICATIONS. THEY SHALL REPORT ANY INCONSISTENCIES OR ERRORS IN THE CONSTRUCTION DOCUMENTS TO THE ARCHITECT AND ENGINEER OF RECORD BEFORE COMMENCING WORK. THE CONTRACTOR AND HIS SUB-CONTRACTORS SHALL LAY OUT THEIR WORK FROM ESTABLISHED REFERENCE POINTS AND BE RESPONSIBLE FOR ALL LINES, ELEVATIONS, AND MEASUREMENTS IN CONNECTION WITH THEIR WORK. THE CIVIL ENGINEER OF RECORD SHALL ESTABLISH THE +0'-0" FINISHED FLOOR BASE ELEVATION - REFERENCE CIVIL ENGINEERING PLANS FOR THE HEIGHT.
- IF ANY ERRORS OR OMISSIONS APPEAR IN THE DRAWINGS, GENERAL NOTES, SPECIFICATIONS, OR OTHER DOCUMENTS, THE GENERAL CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ARCHITECT AND/OR ENGINEER OF RECORD IN WRITING (E-MAIL ACCEPTABLE) OF SUCH OMISSION OR ERROR PRIOR TO PROCEEDING WITH ANY WORK WHICH APPEARS IN QUESTION. IN THE EVENT OF THE GENERAL CONTRACTOR'S FAILING TO GIVE SUCH AN ADVANCED NOTICE, THE GENERAL CONTRACTOR SHALL BE HELD DIRECTLY RESPONSIBLE FOR THE RESULTS OF ANY SUCH ERRORS OR OMISSIONS AND THE COSTS INVOLVED FOR REMEDIATING THE SAME.
- THE CONTRACTOR SHALL USE THE ARCHITECTURAL DRAWINGS, STRUCTURAL DRAWINGS, MEP DRAWINGS, SHOP DRAWINGS, AND MANUFACTURER'S PRODUCT DATA TO LOCATE DEPRESSED SLABS, SLOPES, DRAINS, OUTLETS, RECESSES, OPENINGS, BOLT SETTINGS, SLEEVES, DIMENSIONS, ETC. IMMEDIATELY NOTIFY THE ARCHITECT AND ENGINEER OF RECORD IN WRITING (E-MAIL ACCEPTABLE) OF ANY POTENTIAL CONFLICTS BEFORE PROCEEDING WITH THAT PHASE OF THE WORK.
- THIS PROJECT INCLUDES STRUCTURAL ELEMENTS TO BE DESIGNED BY THE CONTRACTOR'S OR A SUPPLIER'S DELEGATED STRUCTURAL ENGINEER. NOTE THAT ANY INFORMATION (SUCH AS SIZE, DIMENSIONS, REINFORCEMENT, INTERNAL AND EXTERNAL CONNECTIONS, ETC.) PROVIDED IN THESE DRAWINGS ARE ONLY FOR GUIDANCE AND CLOSER COST ESTIMATING (UNLESS INDICATED TO BE USED AS MINIMUM REQUIREMENTS). THE DELEGATED ENGINEER(S) SHALL DETERMINE THE FINAL STRUCTURAL REQUIREMENTS, BASED ON THEIR CALCULATIONS. INFORM THE ARCHITECT AND/OR ENGINEER OF RECORD OF ANY CHANGES, SO THEY CAN BE INCORPORATED IN THE ARCHITECT'S AND/OR ENGINEER'S OF RECORD CONSTRUCTION DOCUMENTS, PLANS AND DETAILS (AND BE RESUBMITTED

- FOR BUILDING DEPARTMENT REVIEW IF REQUIRED). THE CONTRACTOR AND THEIR SUB-CONTRACTORS SHALL CONSTRUCT THE ELEMENTS BASED ONLY ON THE FULL DESIGN PLANS AND DETAILS (SHOP DRAWINGS) ISSUED BY THE DELEGATED ENGINEER(S), REVIEWED BY THE ARCHITECT AND/OR ENGINEER OF RECORD AND APPROVED BY THE REGULATING BUILDING DEPARTMENT. ANY PRICING OF THE DELEGATED ENGINEERED ELEMENTS OFF ANY OTHER PLANS SHALL BE CONSIDERED PRELIMINARY OR FOR GENERAL BUDGET PRICING ONLY.
- EXISTING STRUCTURES AND/OR EXISTING CONDITIONS SHOWN IN THESE DOCUMENTS HAVE BEEN OBTAINED BY THE ARCHITECT AND/OR ENGINEER OF RECORD TO THE EXTENT POSSIBLE DURING THE DESIGN OF THE PROJECT, AND IS BASED ON THE EXISTING LEGIBLE PLANS (IF AVAILABLE) AND/OR LIMITED FIELD INVESTIGATION. THIS INFORMATION MAY BE PARTIAL, INCOMPLETE, OR INACCURATE. AS SOON AS A GENERAL CONTRACTOR HAS BEEN SELECTED FOR THIS PROJECT, THE EXISTING ELEMENTS THAT ARE AFFECTED BY, OR AFFECT THE NEW CONSTRUCTION, SHALL BE EXPOSED AND FULLY INVESTIGATED AS REQUIRED TO DETERMINE THEIR STRUCTURAL INTEGRITY, CAPACITY AND GENERAL CONDITION. NO NEW WORK SHALL COMMENCE UNTIL EXISTING CONDITIONS HAVE BEEN CONFIRMED, REPORTED TO, OR OBSERVED BY THE ARCHITECT AND/OR ENGINEER OF RECORD FOR A POSSIBLE MODIFICATION OR REDESIGN.
 - IT IS THE CONTRACTOR'S RESPONSIBILITY TO MAINTAIN A FULL-TIME CONSTRUCTION SUPERVISOR ON THE JOB AT ALL TIMES. THE CONSTRUCTION SUPERVISOR SHALL BE AWARE OF AND FOLLOW THE INTENT OF THE DESIGN AT ALL TIMES. WHEN IN QUESTION, THE ARCHITECTS OR EOR SHALL BE THE INTERPRETER OF THE INTENT OF THE DESIGN.
 - ALL EXISTING SURFACE, OVERHEAD, AND SUB-SURFACE CONDITIONS WHICH ARE NOT FORESEEN OR PREDICTED ON THESE DRAWINGS, WHICH MIGHT CAUSE LIABILITY, COSTS, OBLIGATIONS, AND/OR DELAYS, ARE THE OWNER'S RESPONSIBILITY. ALL OWNER'S INSTRUCTIONS TO THE CONTRACTOR SHALL BE MADE THROUGH THE ARCHITECT AND/OR ENGINEER OF RECORD. THESE INSTRUCTIONS SHALL BE MADE IN WRITING (E-MAIL ACCEPTABLE).
 - NO CHANGES OR SUBSTITUTIONS WILL BE ALLOWED FOR ANY CONSTRUCTION MATERIALS AND FINISHES SPECIFICALLY SPECIFIED ON THE PLANS WITHOUT FIRST CONTACTING THE ARCHITECT AND/OR ENGINEER OF RECORD AND OBTAINING PERMISSION IN WRITING (E-MAIL ACCEPTABLE). ALL SUBSTITUTED MATERIALS MUST BE EQUAL IN QUALITY, QUANTITY, AND APPEARANCE OF THE ORIGINAL MATERIAL SPECIFIED. FINAL SELECTION OF ALL MATERIALS/FINISHES ARE BY OWNER.

SHOP DRAWING REVIEW:

- ALL SHOP DRAWINGS SHALL BE SUBMITTED FOR ARCHITECT AND/OR ENGINEER OF RECORD'S REVIEW AFTER THEY HAVE BEEN THOROUGHLY REVIEWED BY THE GENERAL CONTRACTOR FOR CONSTRUCTION METHODS, DIMENSIONS, FIELD CONDITIONS, "AS-CONSTRUCTED" DIMENSIONS, AND ANY OTHER TRADE REQUIREMENTS, AND STAMPED WITH THE GENERAL CONTRACTOR'S APPROVAL STAMP.
- THE SHOP DRAWING REVIEW BY THE ARCHITECT AND/OR ENGINEER OF RECORD IS ONLY FOR GENERAL CONFORMANCE WITH THE DESIGN CONCEPT AND INFORMATION GIVEN IN THE CONSTRUCTION DOCUMENTS.
- CORRECTIONS OR COMMENTS MADE ON THE SHOP DRAWINGS DURING THE ARCHITECT/ENGINEER REVIEW DO NOT RELIEVE THE CONTRACTOR FROM COMPLIANCE WITH THE REQUIREMENTS OF THE PLANS & SPECIFICATIONS.
- THE ARCHITECT ASSUMES NO RESPONSIBILITY FOR QUANTITIES, ENGINEERING DESIGN PREPARED BY DELEGATED ENGINEERS, OR ERRORS OR OMISSIONS AS A RESULT OF REVIEWING ANY SHOP DRAWINGS. ANY

BUILDING NOTES

GROSS AREA:	5,550 GSF
CONDITIONED AREA:	2,229 SF
MAX BUILDING HEIGHT OF ADDITION:	24'-0" (1- STORY)
CONSTRUCTION TYPE:	IIB
OCCUPANCY TYPE/LOADS:	B, S
FIRE SPRINKLER/ALARM:	NO
EXISTING LAND USE:	HC (HEAVY COMMERCIAL)
PROPOSED USE:	HC (HEAVY COMMERCIAL)
FLOOD ZONE:	ZONE B
SITE AREA:	.41 ACRES (17,955 SF)
BUILDING SETBACKS:	SEE SURVEY
SITE PARKING REQUIRED:	10 SPACES
SITE PARKING PROVIDED:	11 SPACES

OWNER	TRDI	ARCHITECT
	425 SOLEDAD, SUITE 800	DUNCAN ARCHITECTS LLC
	804 PECAN BLVD, SUITE 113	MCALLEN, TX 78501

CIVIL ENGINEER	MEP ENGINEER
RGV STRATA	RO ENGINEERING, PLLC
4900 TEXAN ROAD	2705 E. DAVIS RD.
MISSION, TX 78574	EDINBURG, TX 78540

LANDSCAPE ARCHITECT	STRUCTURAL ENGINEER
HEFFNER DESIGN TEAM	ATLAS ENGINEERING CONSULTANTS, LLC
4100 N. 22ND STREET	500 SOUTH 11TH STREET
MCALLEN, TX 78504	MCALLEN, TX 78501

P.E.M.B. SUPPLIER & E.O.R.

INTERNATIONAL BUILDING CODE 2018
INTERNATIONAL PLUMBING CODE 2018
INTERNATIONAL MECHANICAL CODE 2018
INTERNATIONAL FUEL GAS CODE 2018

**TRDI OFFICE AND
WAREHOUSE**

941 W. SHARM DR.
PHARR, TX 78577

OWNER
TRDI
425 SOLEDAD, SUITE 800
SAN ANTONIO, TX 78205
210-572-0402

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DUNCAN ARCHITECTS LLC
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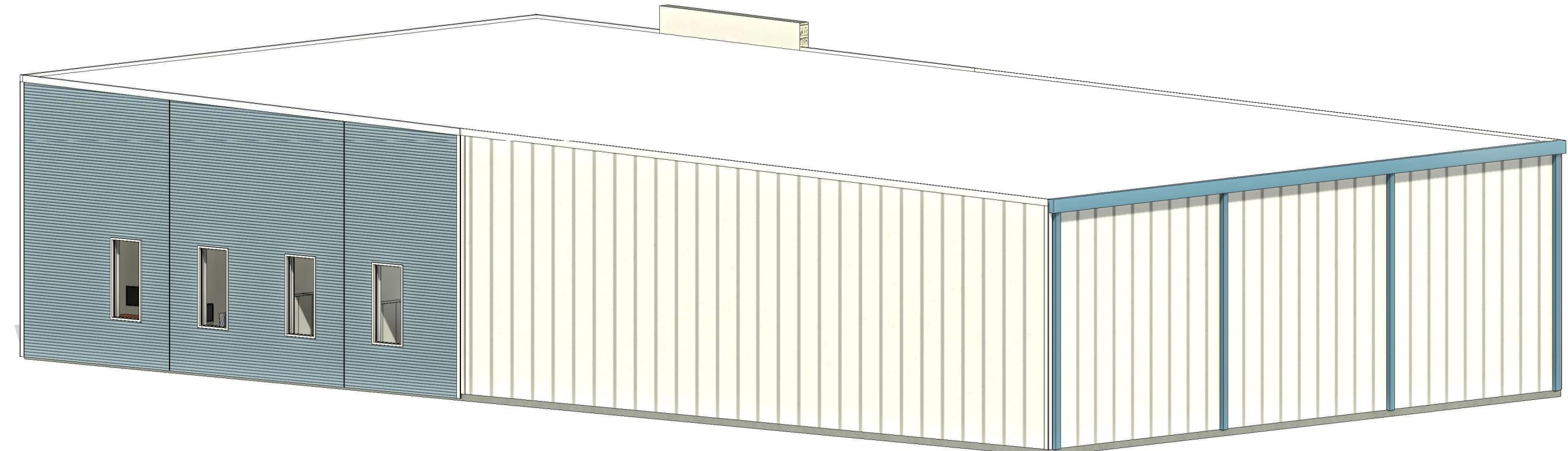
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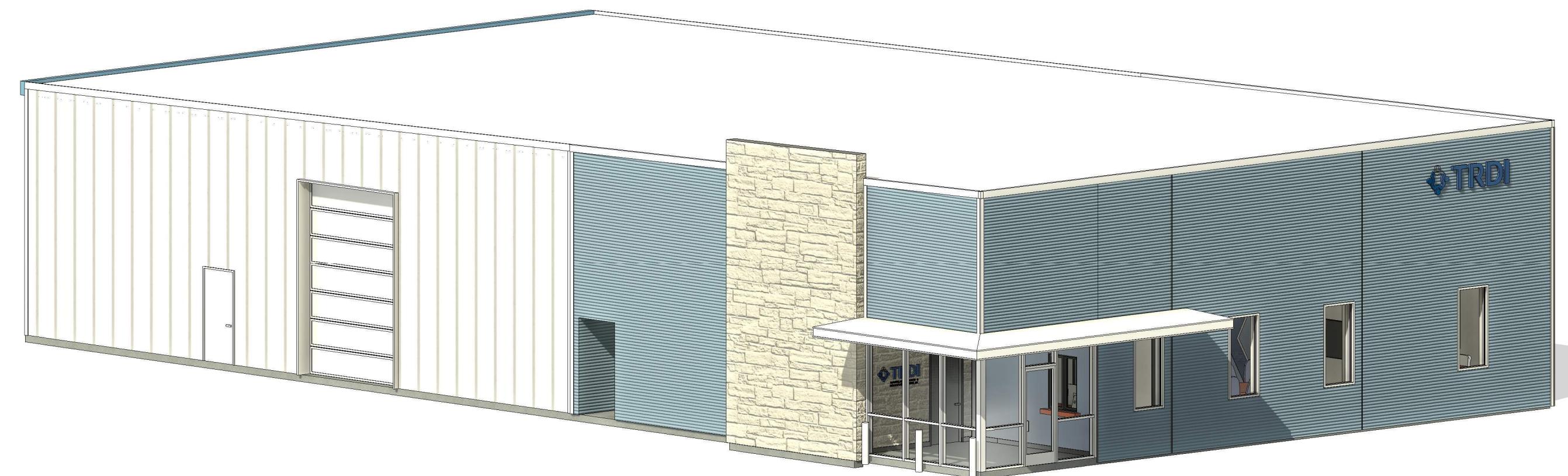
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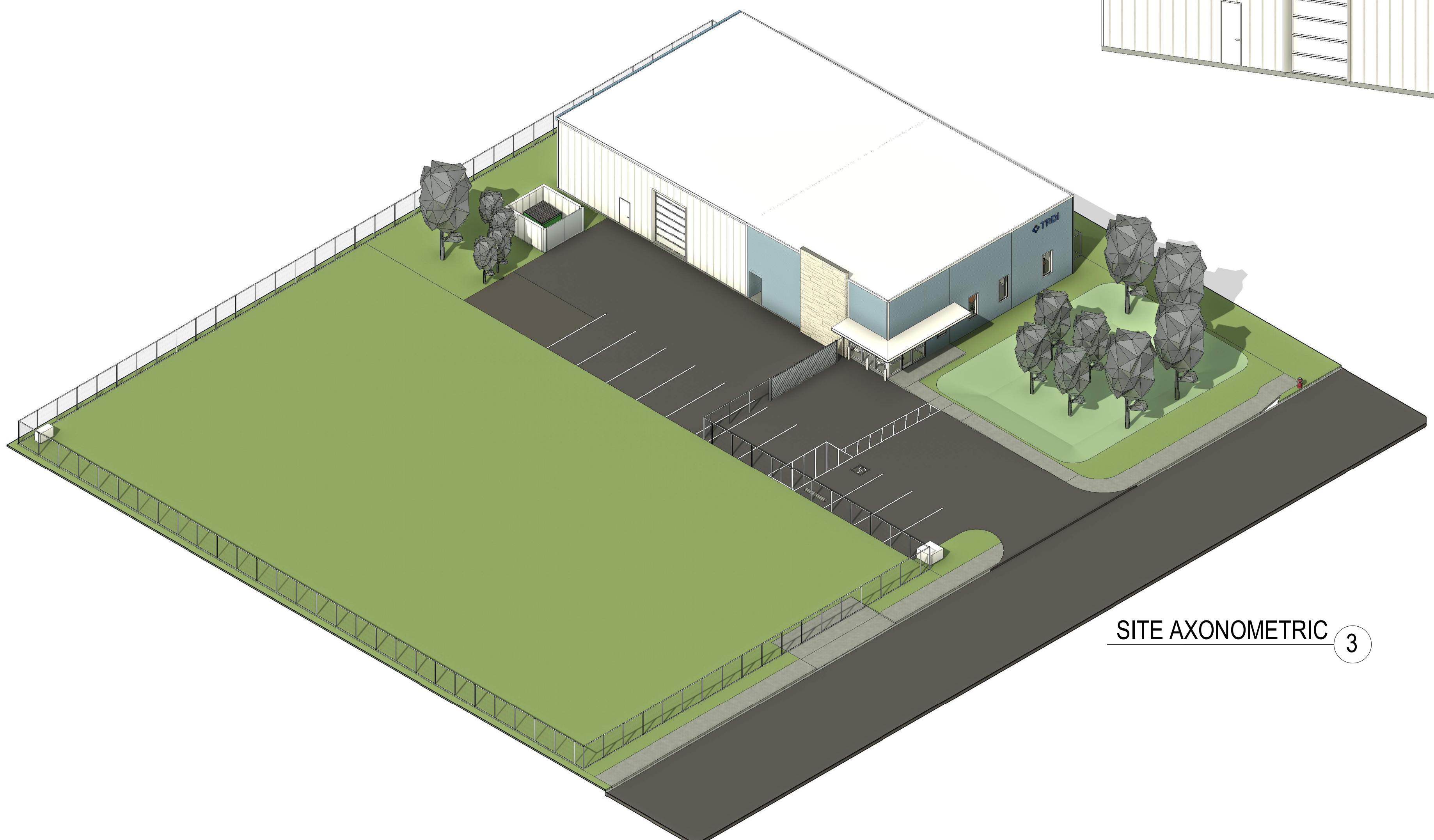
P.E.M.B. SUPPLIER & E.O.R.



SOUTHWEST 3D VIEW ②



NORTHEAST 3D VIEW ①



SITE AXONOMETRIC ③

FEBRUARY 16TH, 2024
CONSTRUCTION
DOCUMENTS FOR
BIDDING

NOT FOR REGULATORY APPROVAL,
PERMITTING, OR CONSTRUCTION

SCALE:
DRAWN BY: DUNCAN ARCHITECTS
DATE: 16 FEBRUARY 2024

PROJECT IMAGES

G2.0

**TRDI OFFICE AND
WAREHOUSE**

941 W. SHARM DR.
PHARR, TX 78577

COMMERCIAL PARKING TABULATION

PER: PLANNING DEPARTMENT, CITY OF PHARR, TEXAS

REQUIREMENTS:
THREE SPACES FOR UP TO 300 SQUARE FEET OF FLOOR AREA, PLUS ONE SPACE
FOR EACH ADDITIONAL 300 SQUARE FEET OF FLOOR AREA.

PROPOSED TOTAL AREA

	OMITTED AREAS
LOBBY	134 SF
ADMIN OFFICE	112 SF
LARGE CONFERENCE	239 SF
MANAGER'S OFFICE	153 SF
OFFICE	91 SF
COPY / STORAGE	76 SF
SMALL CONF./ OFFICE	142 SF
CORRIDOR	51 SF
BREAK ROOM	161 SF
OPEN OFFICE	617 SF
TOTAL	329 SF
WALL CAVITIES	124 SF

PARKING TABULATION:

1,776 SF OFFICE = 8 SPACES
3,061 SF WAREHOUSE = 2 SPACES

10 PARKING SPACES REQUIRED
11 PARKING SPACES PROVIDED

OWNER
TRDI
425 SOLEDAD, SUITE 800
SAN ANTONIO, TX 78205
210-572-0402

ARCHITECT
DUNCAN ARCHITECTS LLC
804 PECAN BLVD, SUITE 113
MCALLEN, TX 78501
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RGV STRATA
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P.E.M.B. SUPPLIER & E.O.R.

REV.	DESCRIPTION	DATE
A	90% CONSTRUCTION DOCUMENTS	02/02/2024
B	CONSTRUCTION DOCUMENTS FOR BIDDING	02/16/2022

LEGAL DESCRIPTION

LOTS FIVE (5) AND SIX (6) JOHNSTONE SUPPLY SUBDIVISION, AN ADDITION TO
THE CITY OF PHARR, HIDALGO COUNTY, TEXAS, AS PER MAP OR PLAT THEREOF
RECORDED UNDER DOCUMENT NUMBER 2407382, MAP RECORDS, HIDALGO
COUNTY, TEXAS.

SIGN NOTE

MONUMENT/POLE SIGN, DIRECTIONAL SIGNS, WALL-MOUNTED IDENTIFICATION
SIGNS, AND ALL OTHER SIGNS IN THE PROJECT ARE TO BE LOCATED AS INDICATED
BY OTHERS (SELECTION BY OWNER)- SIGN CONSTRUCTION AND APPEARANCE TO
ADHERE TO ALL CODES AND ORDINANCES OF CITY OF PHARR, TEXAS, AND ALL
APPLICABLE SECTIONS AND AMENDMENTS OF THE INTERNATIONAL BUILDING
CODE - ALL SIGNS INSTALLED IN THIS PROJECT REQUIRE A SEPARATE PERMIT
FROM THE CITY OF SAN JUAN BUILDING DEPARTMENT.

PAVING AND UTILITIES

SEE CIVIL ENGINEER'S DRAWINGS FOR ALL ASPHALT AND CONCRETE PAVING
ELEVATIONS, CONCRETE CURBS, ROADWAY CURVE RADIISES, ROADWAY AND
HANDICAP SIGNAGE, UNDERGROUND UTILITIES LOCATIONS, DRAINAGE CATCH
BASINS, CONCRETE FLUMES, DRAINAGE CALCULATIONS, AND ALL ASSOCIATED
ENGINEERING DETAILS AND NOTES.

EXISTING PAVEMENT NOTE

GENERAL CONTRACTOR TO INSPECT AND VERIFY ALL EXISTING SITE
CONDITIONS - CONTRACTOR TO TAKE MEASURES TO PROTECT ALL ITEMS THAT
ARE TO REMAIN THROUGHOUT THE CONSTRUCTION PROCESS - ANYTHING
DAMAGED OR IN POOR CONDITION TO BE IDENTIFIED, LOGGED, AND
ADDRESSED - PATCH, REPAIR, OR REPLACE ADJACENT EXISTING ROADWAY
PAVEMENT, CURBS, STRIPING, CATCH BASINS AND ROAD SIGNS THAT ARE
SCHEDULED TO REMAIN - INSTALL AS PER COUNTY CODES AND THE IBC.

UNDERGROUND UTILITIES

ALL UTILITIES SHALL BE INSTALLED UNDERGROUND ON THE SITE. SEE CIVIL
ENGINEERS, LANDSCAPE ARCHITECTS, AND MECHANICAL ENGINEER'S
DRAWINGS FOR ALL SPECIFICATIONS AND DETAILS.

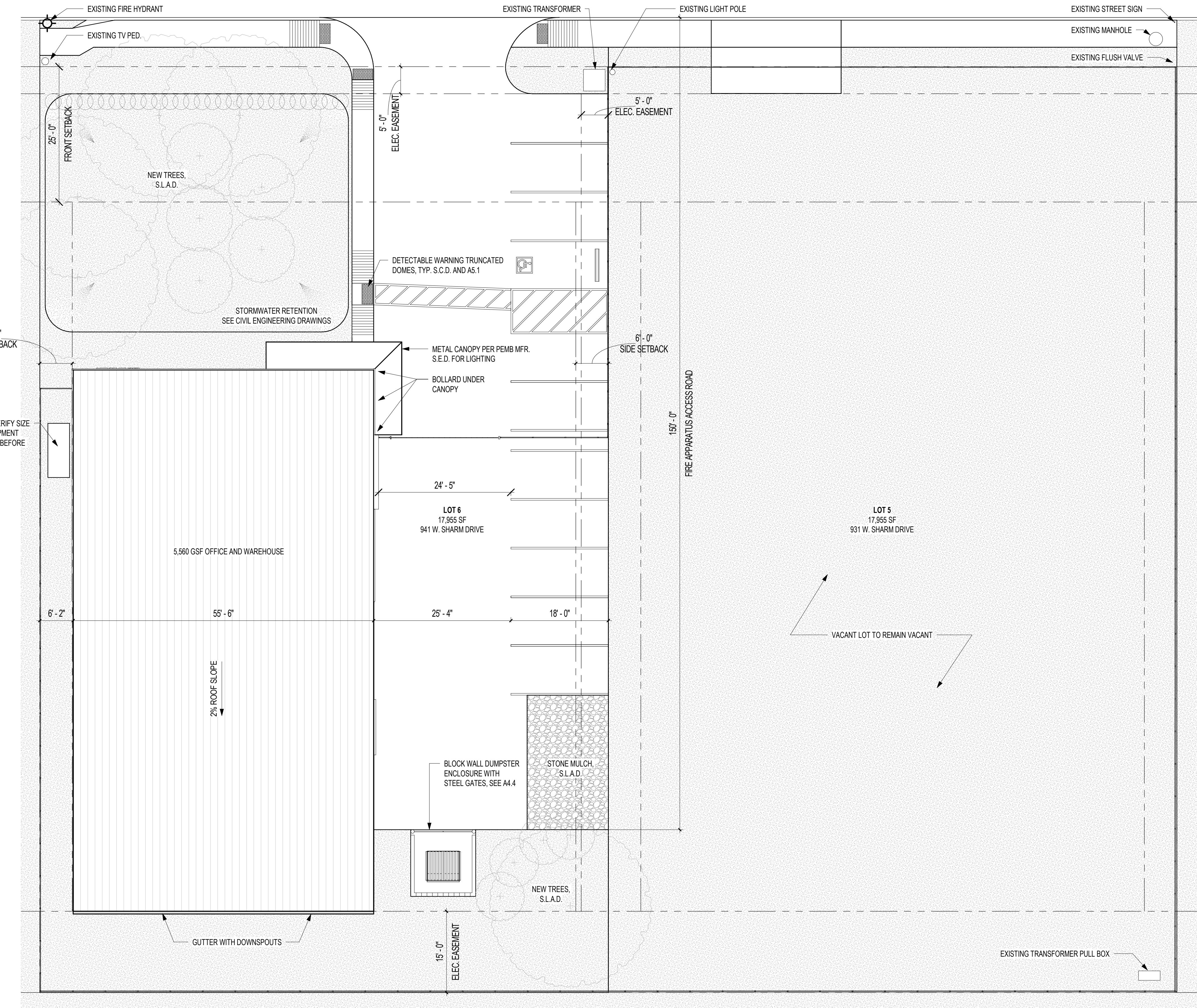
FEBRUARY 16TH, 2024
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SCALE: As indicated
DRAWN BY: DUNCAN ARCHITECTS
DATE: 16 FEBRUARY 2024

SITE PLAN

G3.0

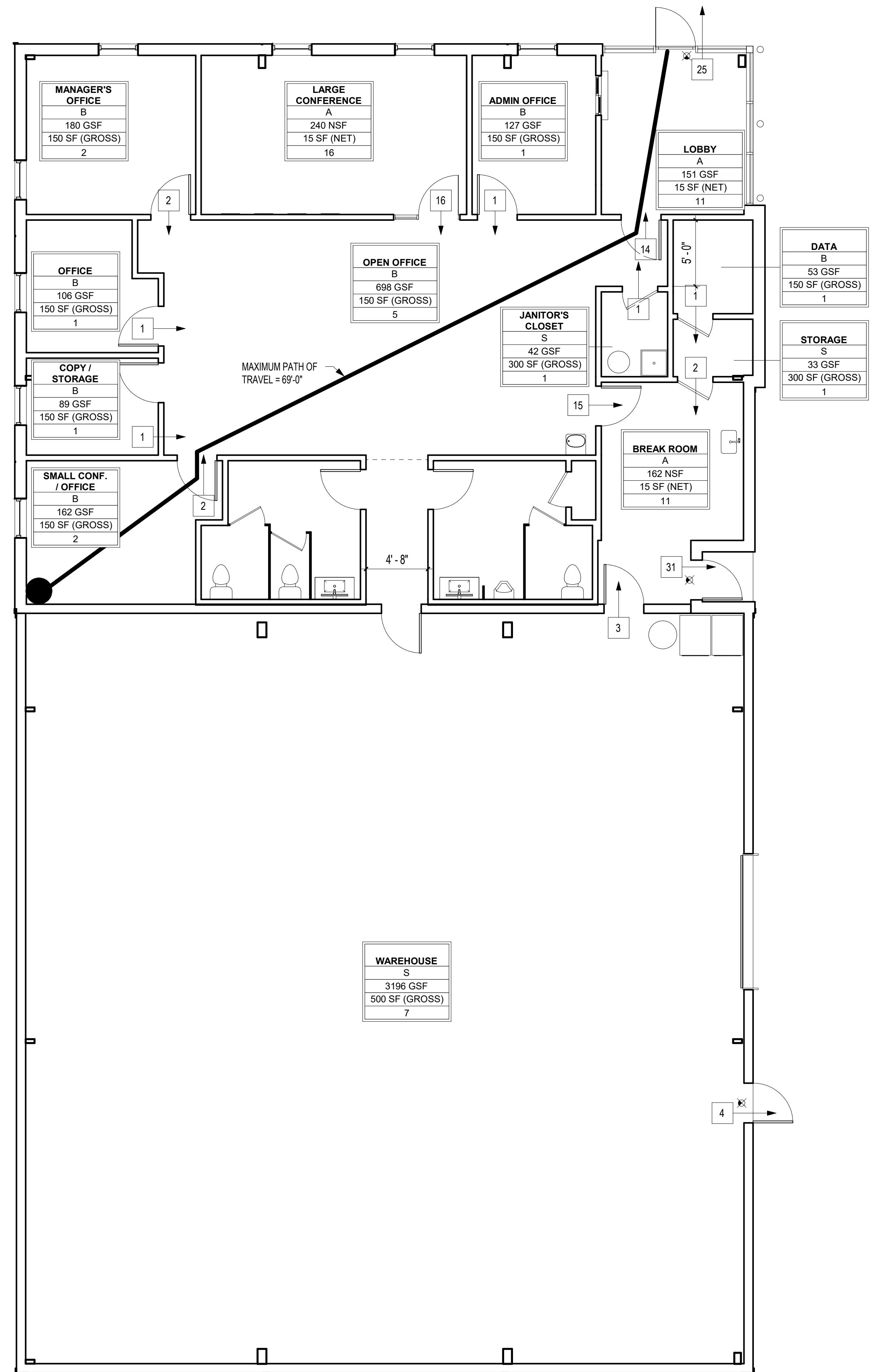


SITE PLAN
1
1" = 10'-0"



TRDI OFFICE AND WAREHOUSE

W. SHARM DR.
MARR, TX 78577



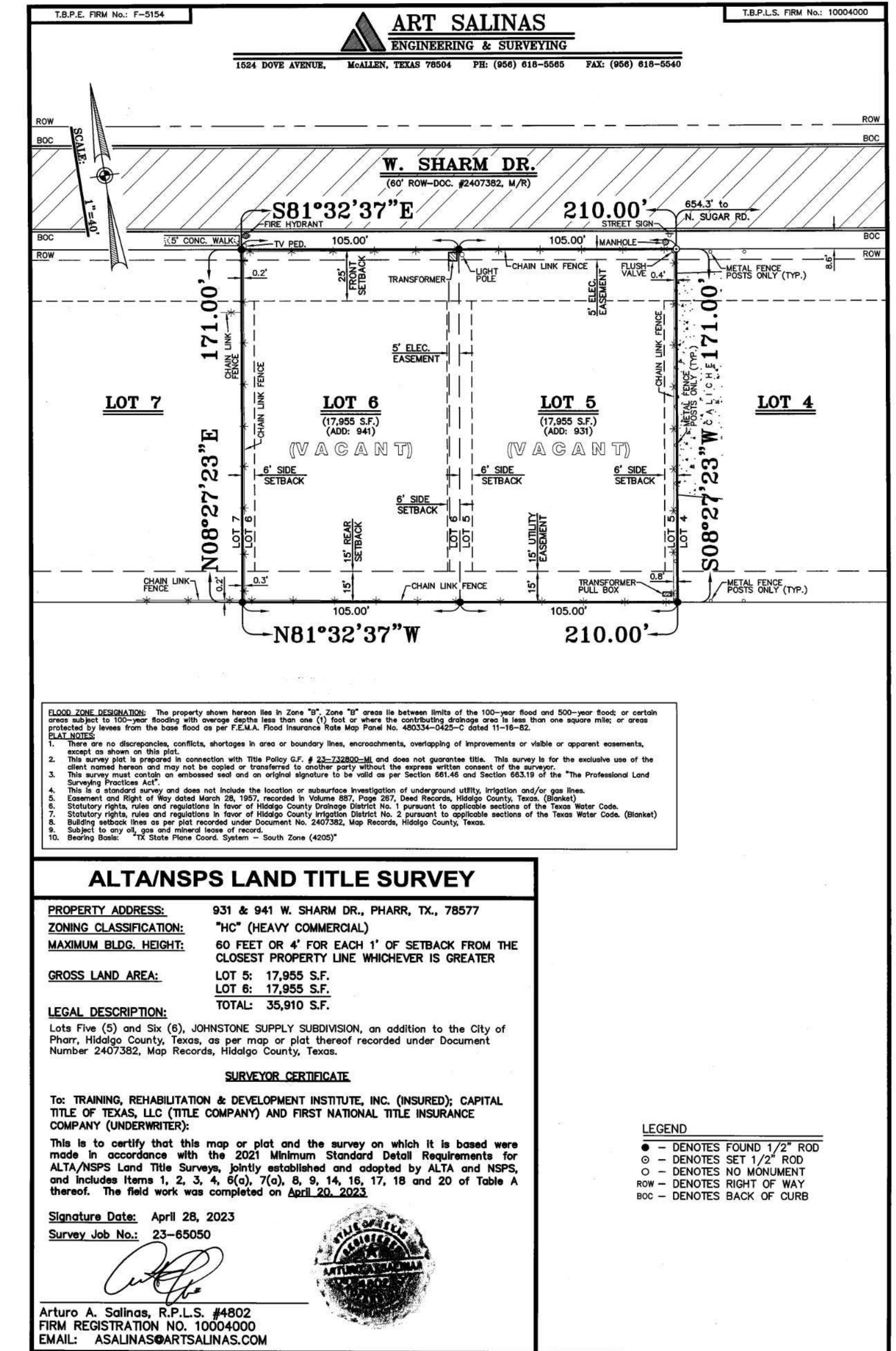
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LIFESAFETY PLAN

G4.0



TRDI OFFICE AND WAREHOUSE

1 W. SHARM DR.
HARR, TX 78577

<u>OWNER</u>	<u>ARCHITECT</u>
TRDI	DUNCAN ARCHITECTS LLC
425 SOLEDAD, SUITE 800	804 PECAN BLVD, SUITE 113
SAN ANTONIO, TX 78205	McALLEN, TX 78501
210-572-0402	956-443-3755

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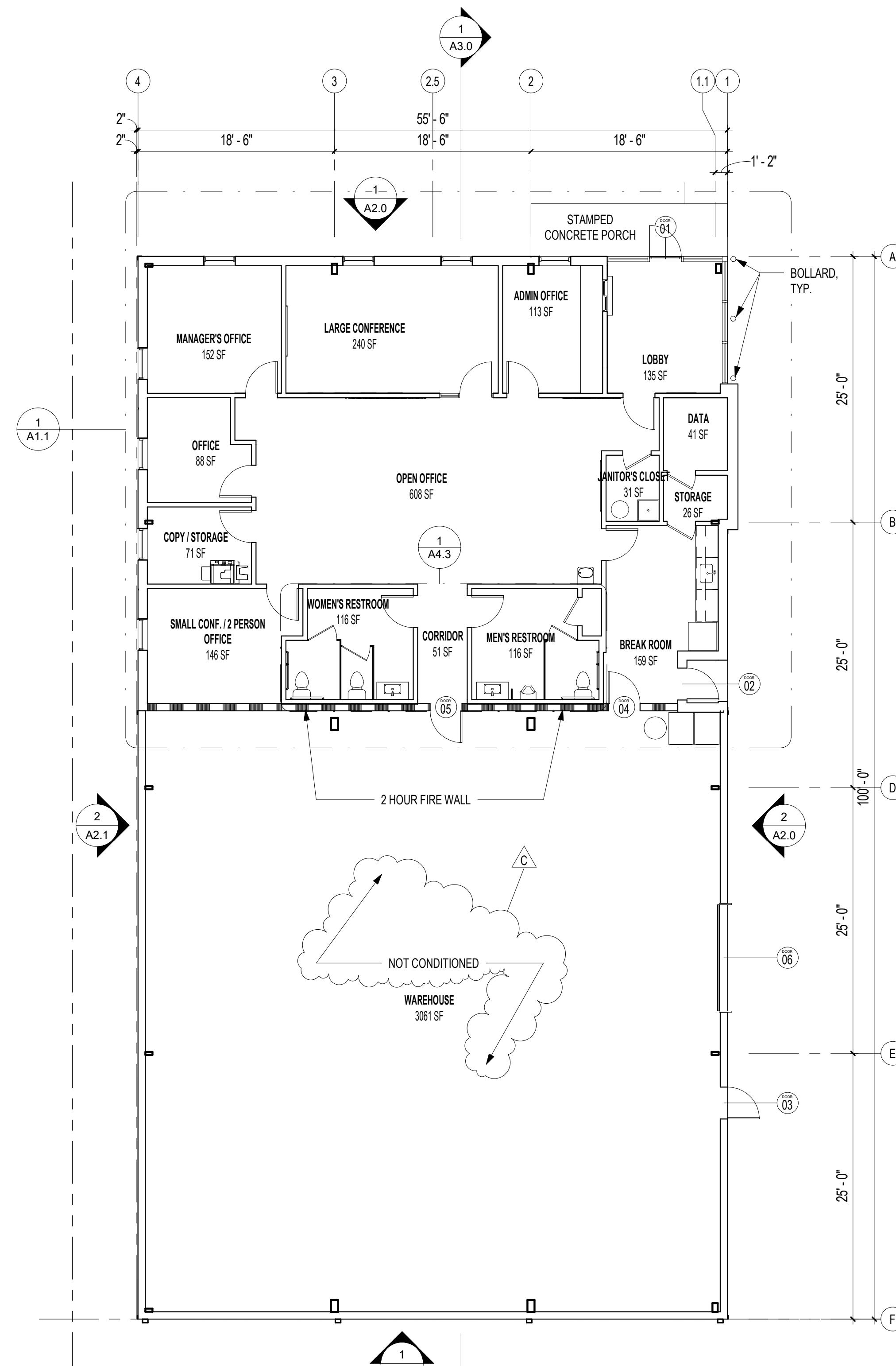
P.E.M.B. SUPPLIER & E.O.R.

FEBRUARY 16TH, 2024 CONSTRUCTION DOCUMENTS FOR BIDDING

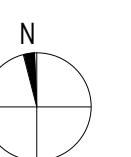
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SCALE 1/8" = 1'-0"
DRAWN BY: DUNCAN ARCHITECTS
DATE: 16 FEBRUARY 2024

OVERALL FLOOR PLAN



OVERALL FLOOR PLAN



A1.0

**TRDI OFFICE AND
WAREHOUSE**

941 W. SHARM DR.
PHARR, TX 78577

INSULATION SCHEDULE

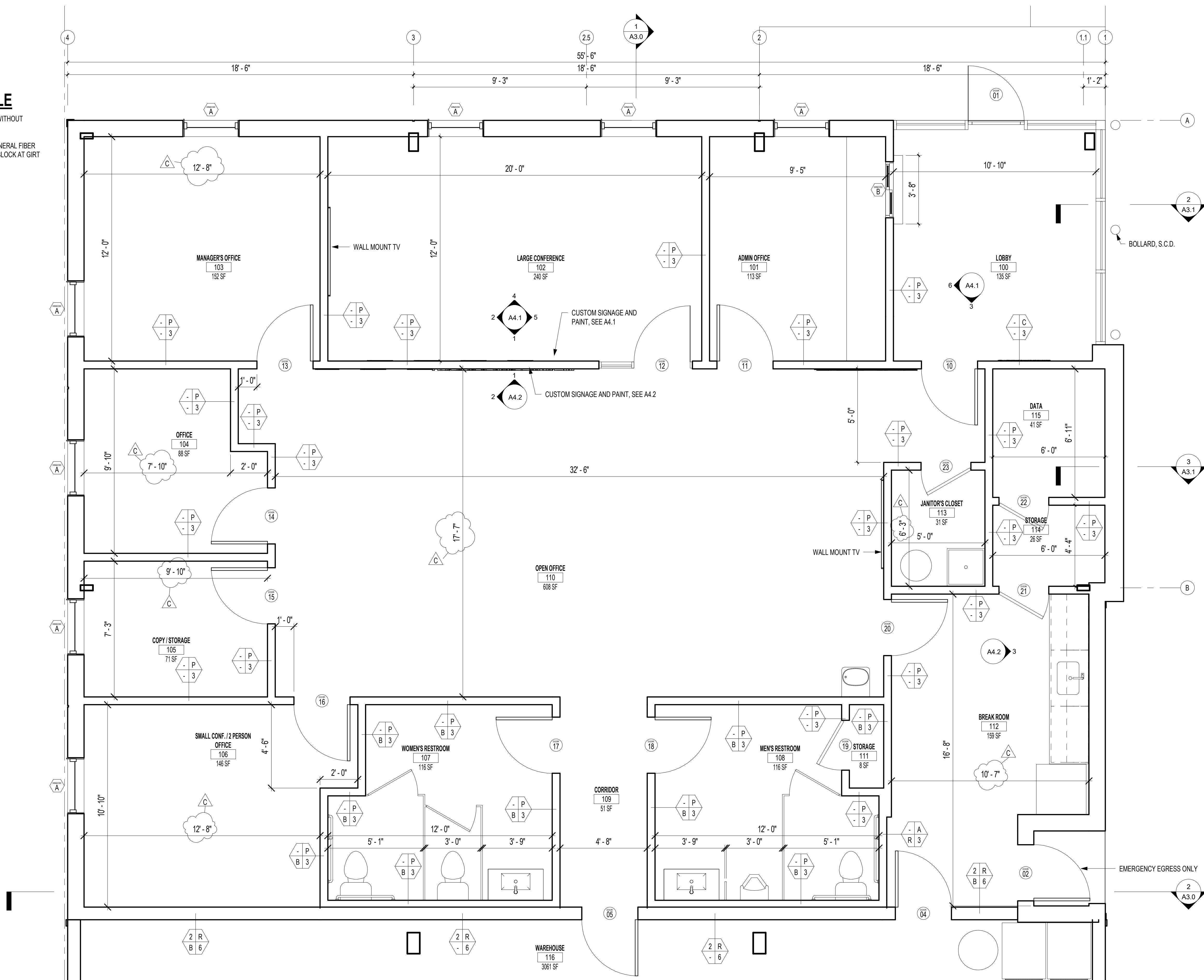
ROOF:
R33 LINEAR SYSTEM WITHOUT
THERMAL BLOCKS

WALLS, ABOVE GROUND:
R25 SINGLE LAYER MINERAL FIBER
IN CAVITY, THERMAL BLOCK AT GIRT

WALLS, BELOW GROUND:
NOT REQUIRED

FLOORS:
NOT REQUIRED

SLAB-ON-GRADE FLOORS:
NOT REQUIRED

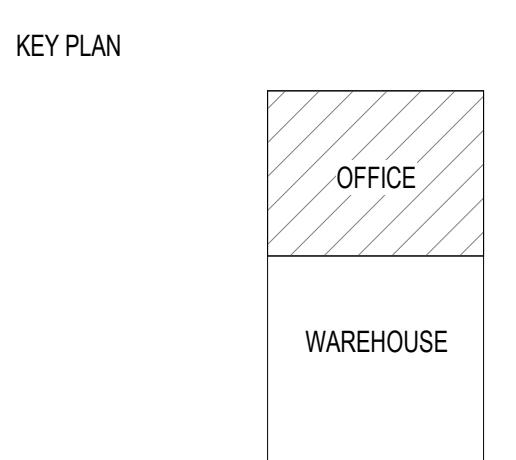


GENERAL NOTE: SEE A6.1 FOR WALL LEGEND AND SCHEDULE

ENLARGED FLOOR PLAN
1
3/8" = 1'-0"

A1.1
N

REV.	DESCRIPTION	DATE
A	90% CONSTRUCTION DOCUMENTS	02/02/2024
B	CONSTRUCTION DOCUMENTS FOR BIDDING	02/16/2022
C	BIDDING REVISION 1	02/28/2024



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OFFICE FLOOR PLAN

A1.1
N

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CIVIL ENGINEER RGV STRATA
4900 TEXAN ROAD
MISSION, TX 78574
956-802-7328

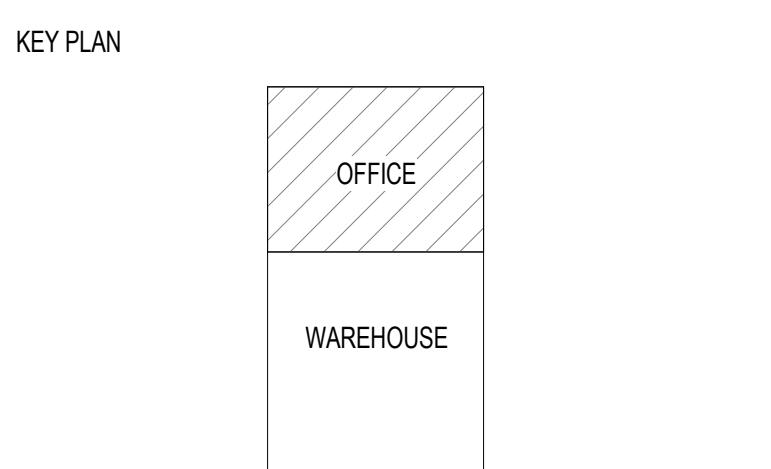
MEP ENGINEER RO ENGINEERING, PLLC
2705 E. DAVIS RD.
EDINBURG, TX 78540
(956) 292-3336

LANDSCAPE ARCHITECT HEFFNER DESIGN TEAM
4100 N. 22ND STREET
MCALLEN, TX 78504
956-540-7850

STRUCTURAL ENGINEER ATLAS ENGINEERING
CONSULTANTS, LLC
500 SOUTH 11TH STREET
MCALLEN, TX 78501
956-379-3857

P.E.M.B. SUPPLIER & E.O.R.

REV.	DESCRIPTION	DATE
A	90% CONSTRUCTION DOCUMENTS	02/02/2024
B	CONSTRUCTION DOCUMENTS FOR BIDDING	02/16/2022
C	BIDDING REVISION 1	02/28/2024



**FEBRUARY 16TH, 2024
CONSTRUCTION
DOCUMENTS FOR
BIDDING**

NOT FOR REGULATORY APPROVAL,
PERMITTING, OR CONSTRUCTION

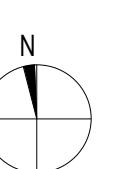
SCALE: 3/8" = 1'-0"
DRAWN BY: DUNCAN ARCHITECTS
DATE: 16 FEBRUARY 2024

**REFLECTED CEILING
PLAN**

A1.2

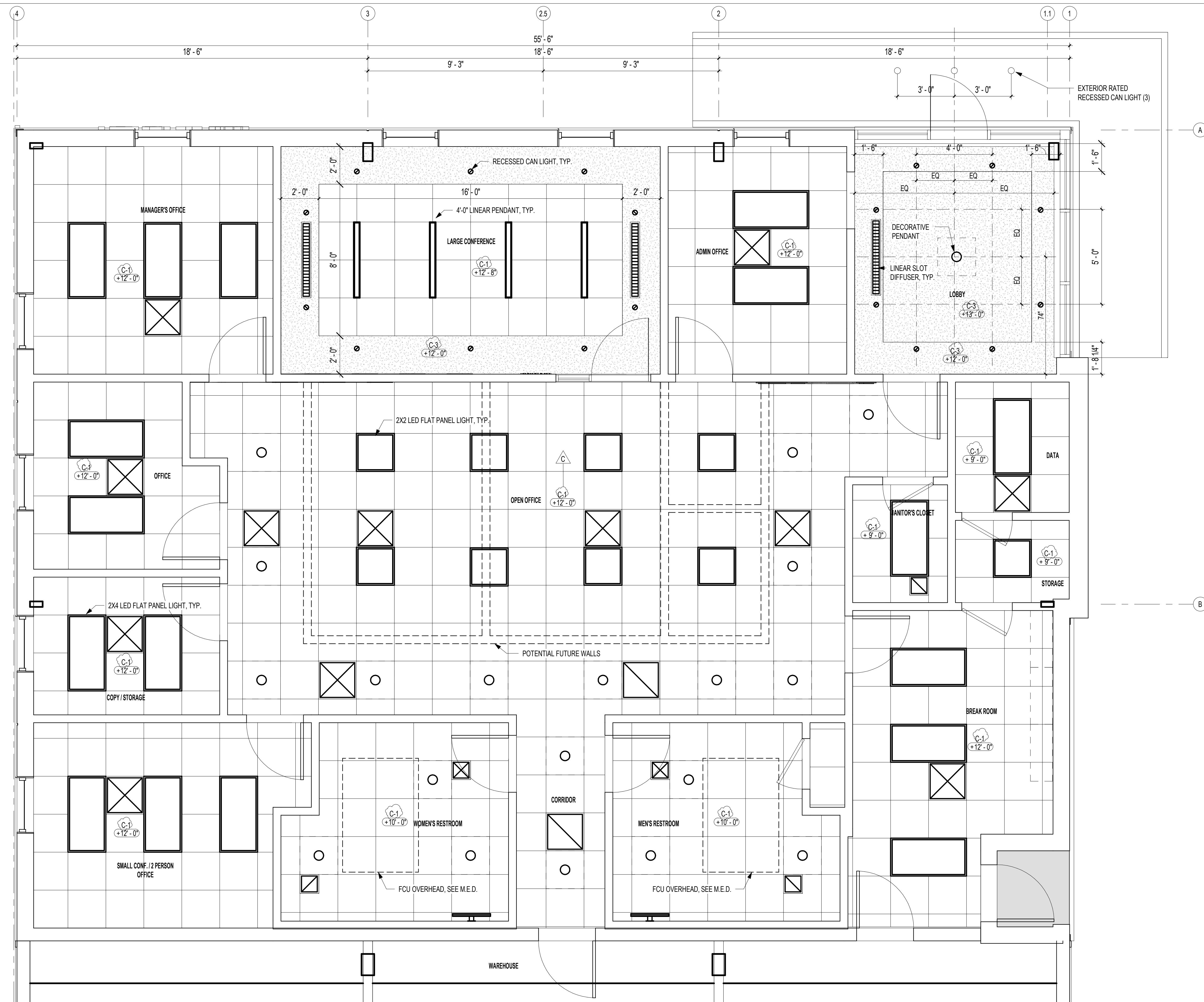
REFLECTED CEILING PLAN 1

3/8" = 1'-0"



CEILING FIXTURE LEGEND

- [Icon: Small Return Register] SMALL RETURN REGISTER, SEE MECH. DRAWINGS
- [Icon: 24" X 24" Return Register] 24" X 24" RETURN REGISTER, SEE MECH. DRAWINGS
- [Icon: Small Supply Diffuser] SMALL SUPPLY DIFFUSER, SEE MECH. DRAWINGS
- [Icon: 24" X 24" Supply Diffuser] 24" X 24" SUPPLY DIFFUSER, SEE MECH. DRAWINGS
- [Icon: 48" Linear Slot Diffuser] 48" LINEAR SLOT DIFFUSER, SEE MECH. DRAWINGS
- [Icon: 24" X 24" LED Light] 24" X 24" LED LIGHT, SEE ELEC. DRAWINGS
- [Icon: 48" X 24" LED Light] 48" X 24" LED LIGHT, SEE ELEC. DRAWINGS
- [Icon: 6" Round Downlight] 6" ROUND DOWNLIGHT, SEE ELEC. DRAWINGS
- [Icon: 3" Round Recessed Downlight] 3" ROUND RECESSED DOWNLIGHT, SEE ELEC. DRAWINGS
- [Icon: 48" Color Selectable Architectural LED Linear Light] 48" COLOR SELECTABLE ARCHITECTURAL LED LINEAR LIGHT, SEE ELEC. DRAWINGS



TRDI OFFICE AND WAREHOUSE

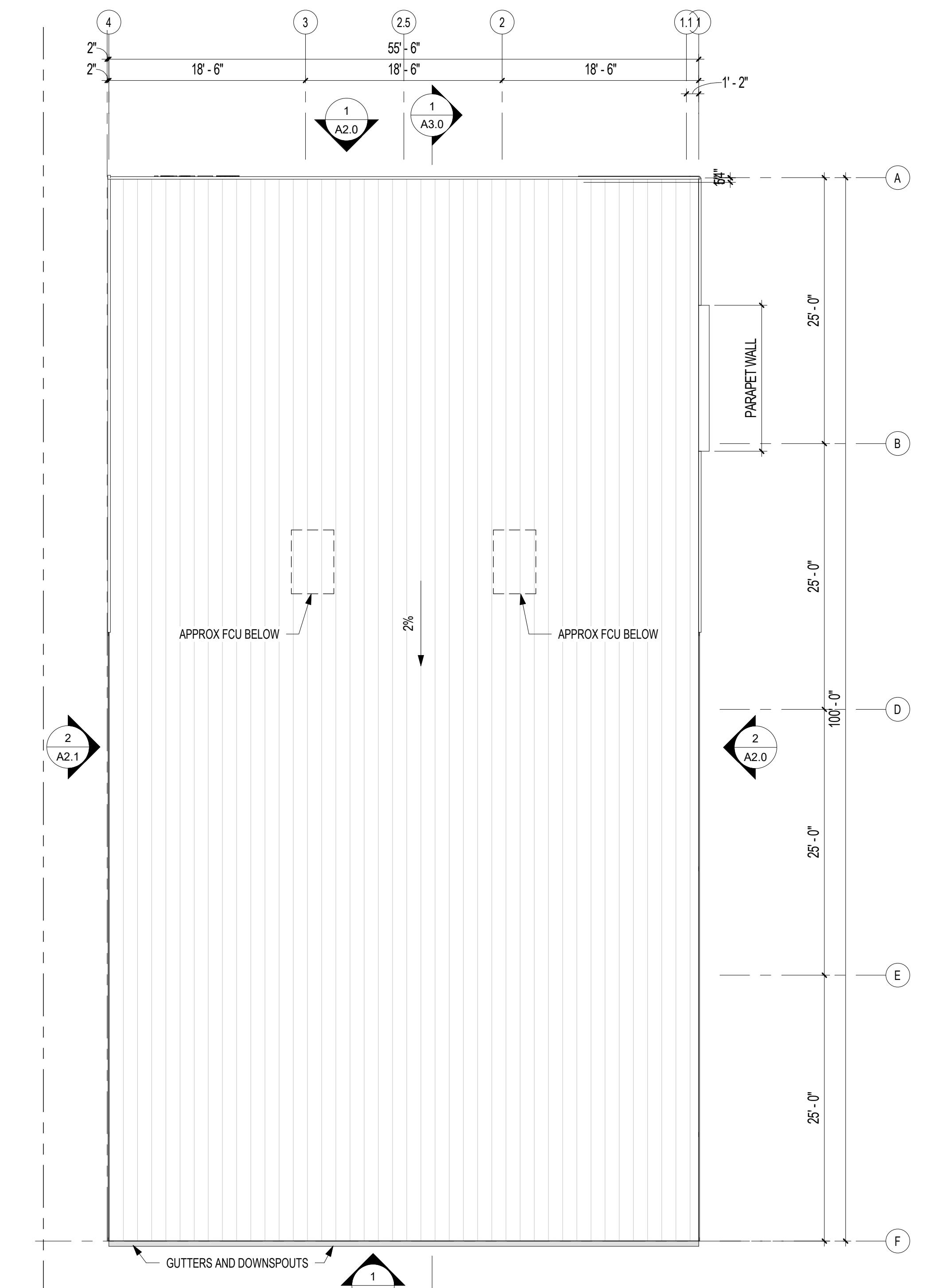
1 W. SHARM DR.
HARR, TX 78577

ROOF GENERAL NOTES

1. **FLASHING:** INSTALL CONTINUOUS FULLY-ADHERED MEMBRANE ROOF FLASHING (TYPES VARY) - INSTALL AS PER ROOFING MANUFACTURER'S STANDARD DETAILS AND SPECIFICATIONS. PROVIDE APPROPRIATE HARDWARE (GALVANIZED FASTENERS) TO PREVENT GALVANIC ACTION.
 2. **ROOF PENETRATIONS:** ALL ROOF PENETRATIONS TO BE FLASHED BY THE ROOFING CONTRACTOR IN ACCORDANCE WITH MANUFACTURER'S WARRANTY REQUIREMENTS. VERIFY QUANTITY & LOCATIONS OF ROOFING PENETRATIONS WITH MECHANICAL ENGINEERING DRAWINGS AND OTHER TRADES.
 3. **RAIN GUTTER:** CONTINUOUS FACTORY-FINISHED METAL RAIN GUTTER WITH DOWNSPOUTS, ATTACHED TO EXTERIOR WALLS AS REQUIRED - TO MATCH METAL MT-01 COLOR.
 4. **METAL COPING CAP:** PAINTED FABRICATED 26 GA. "U-SHAPED" METAL COPING CAP OVER TOP OF PARAPET WALLS WITH FORMED DRIP EDGE ON EACH SIDE AND CONCEALED FASTENING OVER TAPERED SHIM (AS REQUIRED) ATTACHED TO CONTINUOUS P.T. 2x NAILER AND/OR CONCRETE BEAM. ALL EXPOSED FASTENERS TO BE GALVANIZED.
 5. **BUILT-UP ROOF COUNTER FLASHING:** FABRICATED 26 GAUGE 12" HIGH (MIN.) METAL COUNTER FLASHING STOP WITH CANT STRIP WHERE ROOF ABUTS WALL
 6. **ROOF VENT:** INSTALL MINIMUM OF (1) MANUFACTURED 8" HIGH SPUN ALUMINUM ONE-WAY ROOF VENT (BY "PORTALS PLUS, INC." OR EQUAL) PER EVERY 900 SQUARE FEET OF ROOF AREA. REFERENCE ROOF MANUFACTURER'S DETAILS FOR INSTALLATION.

INSULATION SCHEDULE

ROOF:	R33 LINEAR SYSTEM WITHOUT THERMAL BLOCKS
WALLS, ABOVE GROUND:	R25 SINGLE LAYER MINERAL FIBER IN CAVITY, THERMAL BLOCK AT G
WALLS, BELOW GROUND:	NOT REQUIRED
FLOORS:	NOT REQUIRED
SLAB-ON-GRADE FLOORS:	NOT REQUIRED



ROOF PLAN

1/8" = 1'-0"

DATE: 16 FEBRUARY 2024

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PERMITTING, OR CONSTRUCTION

SCALE As indicated
DRAWN BY: DUNCAN ARCHITECTS

DATE: 10 FEBRUARY 2010

ROOF PLAN

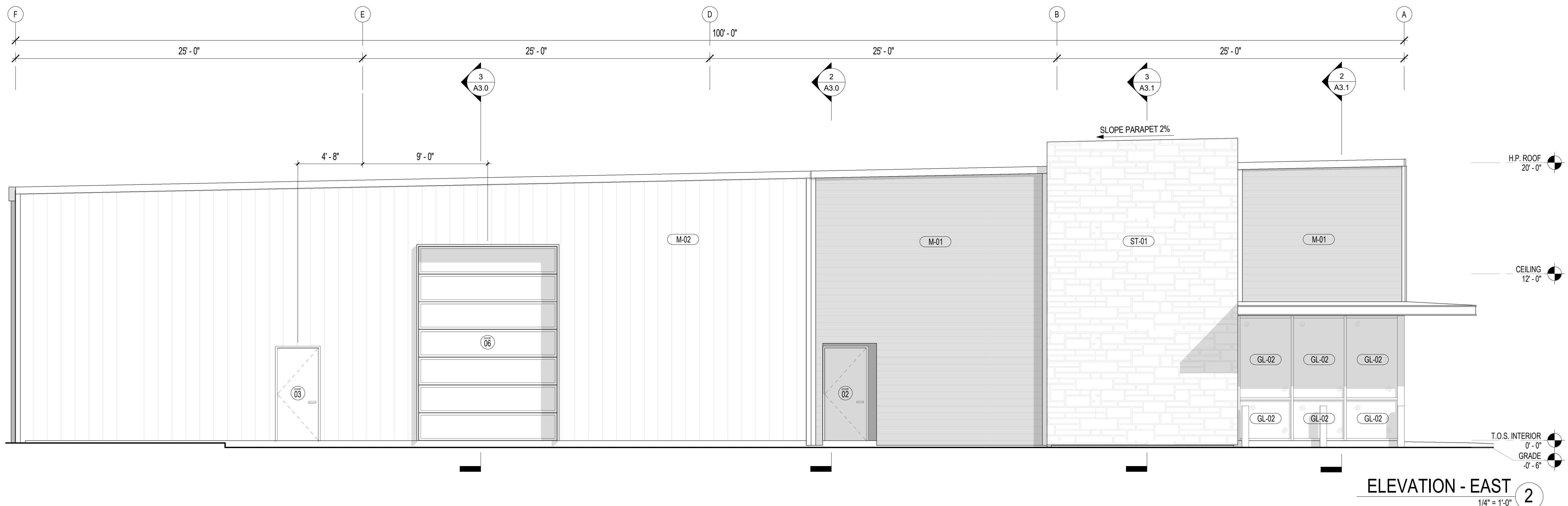
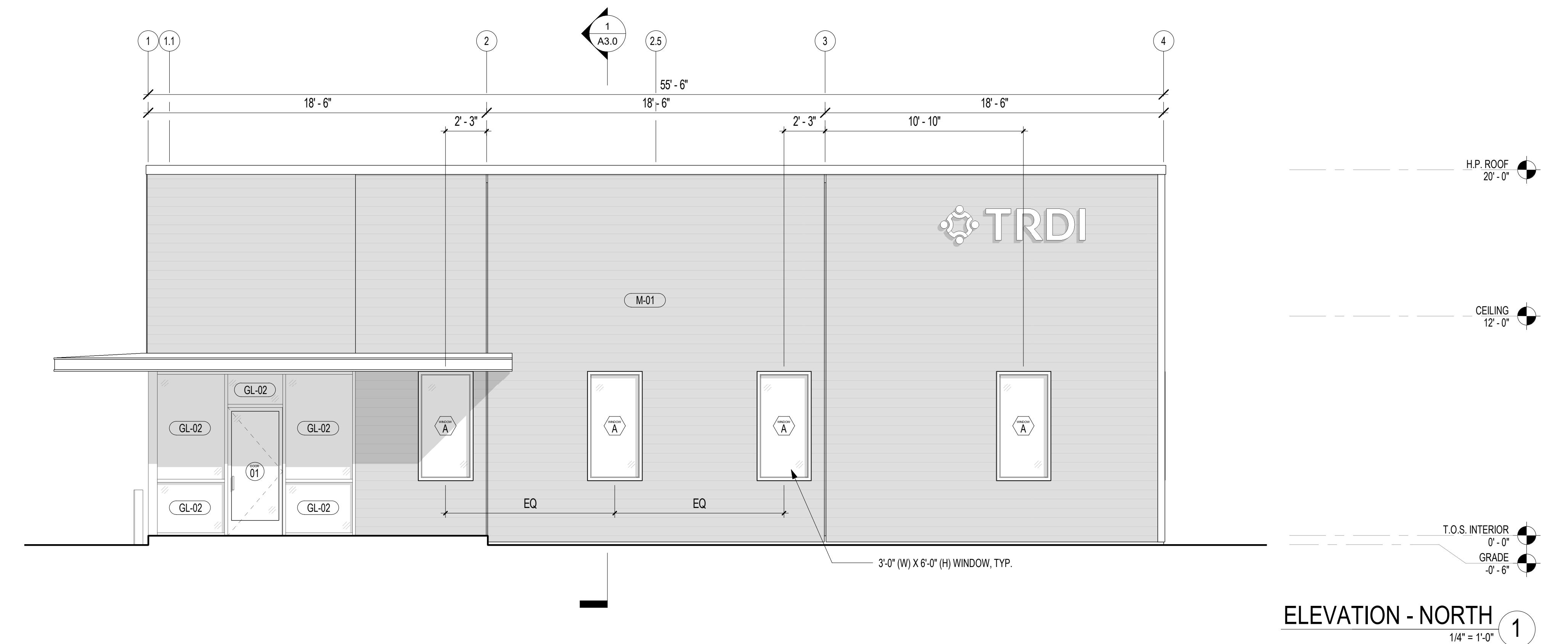
A1.3

MATERIAL LEGEND

	M-01 - 26 GAUGE FORMED METAL PANEL WITH SMP OR PDFV COATING, COLOR AND PROFILE PER OWNER.
	M-02 - 26 GAUGE FORMED METAL PANEL WITH SMP OR PDFV COATING, COLOR AND PROFILE PER OWNER
	ST-01 - WHITE LIMESTONE OR TRAVERTINE PANELS, INSTALL PER MFR. INSTRUCTIONS
	GL-01 - CLEAR SAFETY GLASS, MIN U-VALUE = .50, MINIMUM SHGC = .25

INSULATION SCHEDULE

ROOF:	R33 LINEAR SYSTEM WITHOUT THERMAL BLOCKS
WALLS, ABOVE GROUND:	R25 SINGLE LAYER MINERAL FIBER IN CAVITY, THERMAL BLOCK AT GIRT
WALLS, BELOW GROUND:	NOT REQUIRED
FLOORS:	NOT REQUIRED
SLAB-ON-GRADE FLOORS:	NOT REQUIRED



FEBRUARY 16TH, 2024
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SCALE: As indicated
DRAWN BY: DUNCAN ARCHITECTS
DATE: 16 FEBRUARY 2024

EXTERIOR BUILDING
ELEVATIONS

A2.0

OWNER
TRDI
425 SOLEDAD, SUITE 800
SAN ANTONIO, TX 78205
210-572-0402

ARCHITECT
DUNCAN ARCHITECTS LLC
804 PECAN BLVD, SUITE 113
MCALLEN, TX 78501
956-443-3755

CIVIL ENGINEER
RGV STRATA
4900 TEXAN ROAD
MISSION, TX 78574
956-802-7328

MEP ENGINEER
RO ENGINEERING, PLLC
2705 E. DAVIS RD.
EDINBURG, TX 78540
(956) 293-3336

LANDSCAPE ARCHITECT
HEFFNER DESIGN TEAM
4100 N. 22ND STREET
MCALLEN, TX 78504
956-540-7850

STRUCTURAL ENGINEER
ATLAS ENGINEERING
CONSULTANTS, LLC
500 SOUTH 11TH STREET
MCALLEN, TX 78501
956-379-3857

P.E.M.B. SUPPLIER & E.O.R.

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EXTERIOR BUILDING
ELEVATIONS

TRDI OFFICE AND WAREHOUSE

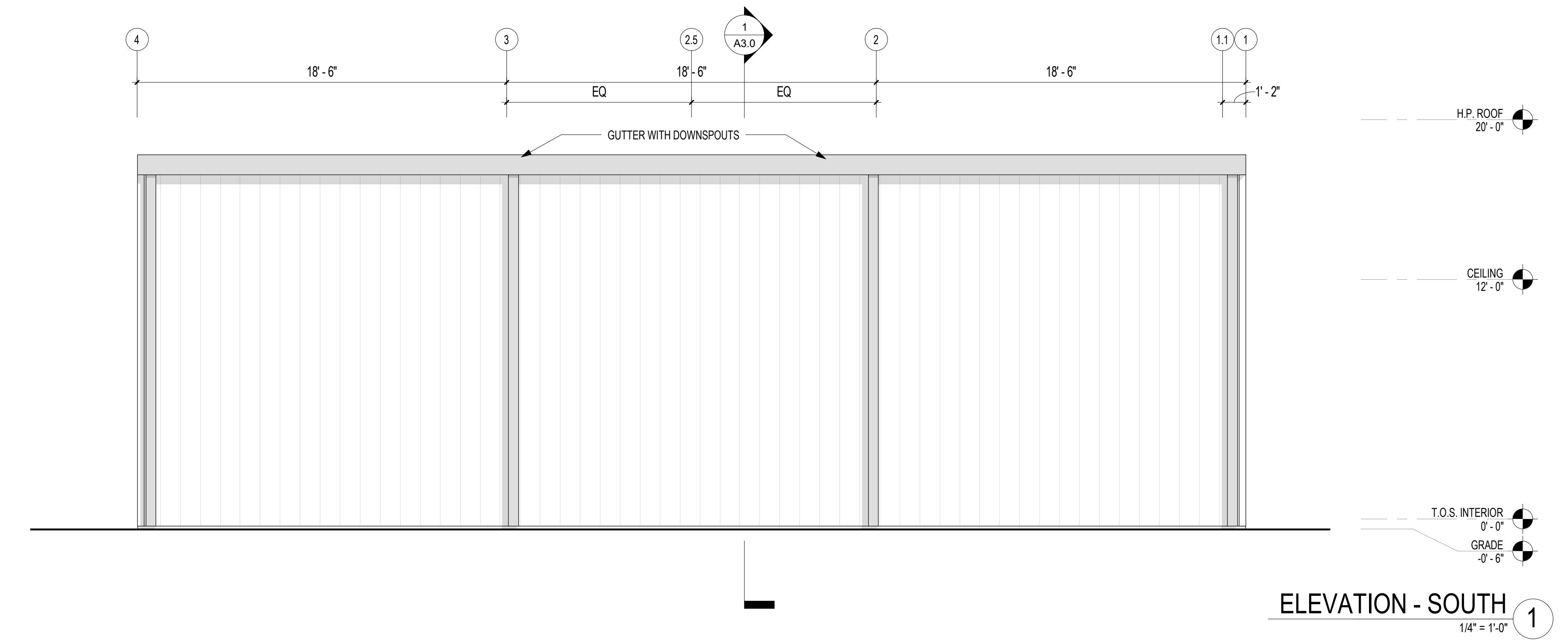
**W. SHARM DR.
RR, TX 78577**

MATERIAL LEGEND

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FLOORS:	NOT REQUIRED
SLAB-ON-GRADE FLOORS:	NOT REQUIRED



ELEVATION - SOUTH

1/4" = 1'-0" 1

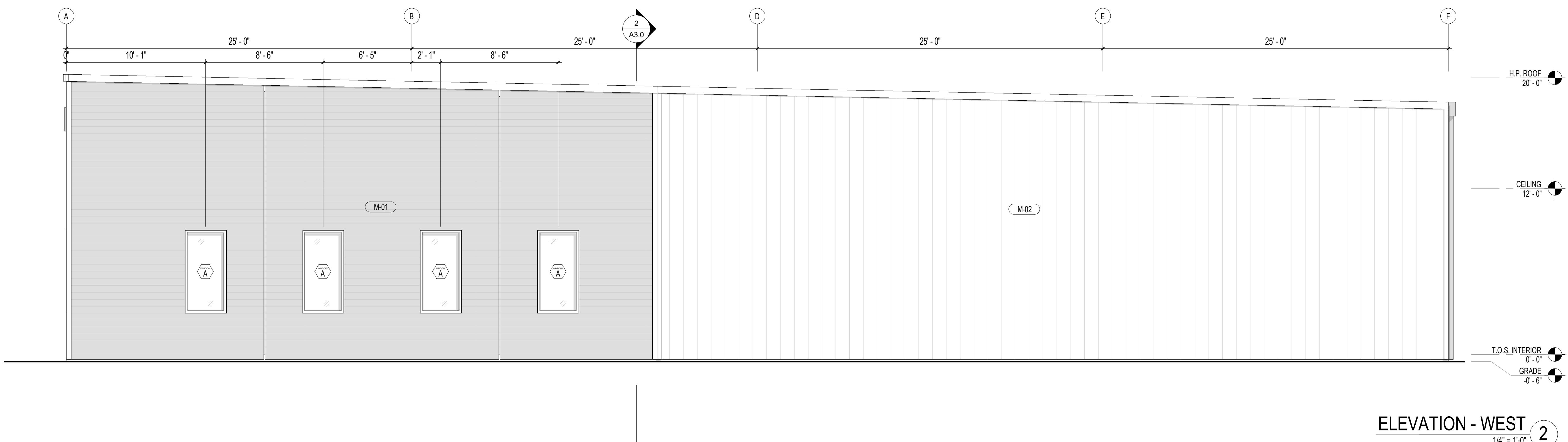
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NOT FOR REGULATORY APPROVAL,
PERMITTING, OR CONSTRUCTION

DATE: 16 FEBRUARY 2024
BY: DUNCAN ARCHITECTS
FOR: AS INDICATED

EXTERIOR BUILDING ELEVATIONS



ELEVATION - WEST

A2.1

**TRDI OFFICE AND
WAREHOUSE**

941 W. SHARM DR.
PHARR, TX 78577

OWNER TRDI
425 SOLEDAD, SUITE 800
SAN ANTONIO, TX 78205
210-572-0402

ARCHITECT DUNCAN ARCHITECTS LLC
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MCALLEN, TX 78501
956-443-3755

CIVIL ENGINEER RGV STRATA
4900 TEXAN ROAD
MISSION, TX 78574
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MEP ENGINEER RO ENGINEERING, PLLC
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EDINBURG, TX 78540
(956) 292-3336

LANDSCAPE ARCHITECT HEFFNER DESIGN TEAM
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956-540-7850

STRUCTURAL ENGINEER ATLAS ENGINEERING
CONSULTANTS, LLC
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956-379-3857

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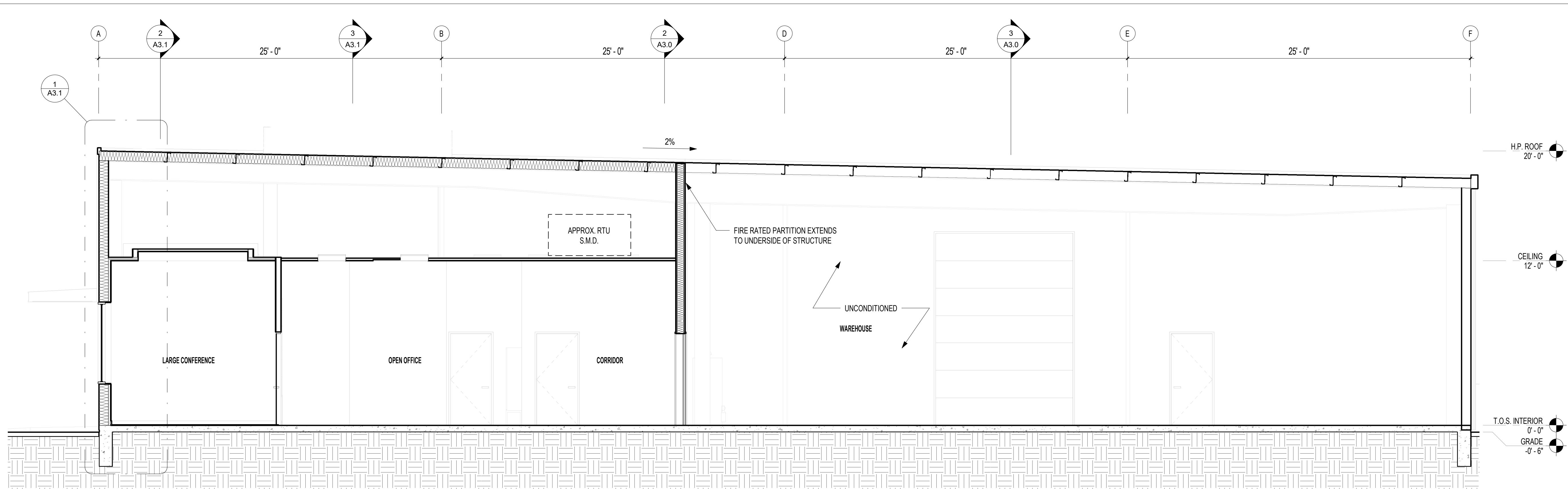
FEBRUARY 16TH, 2024
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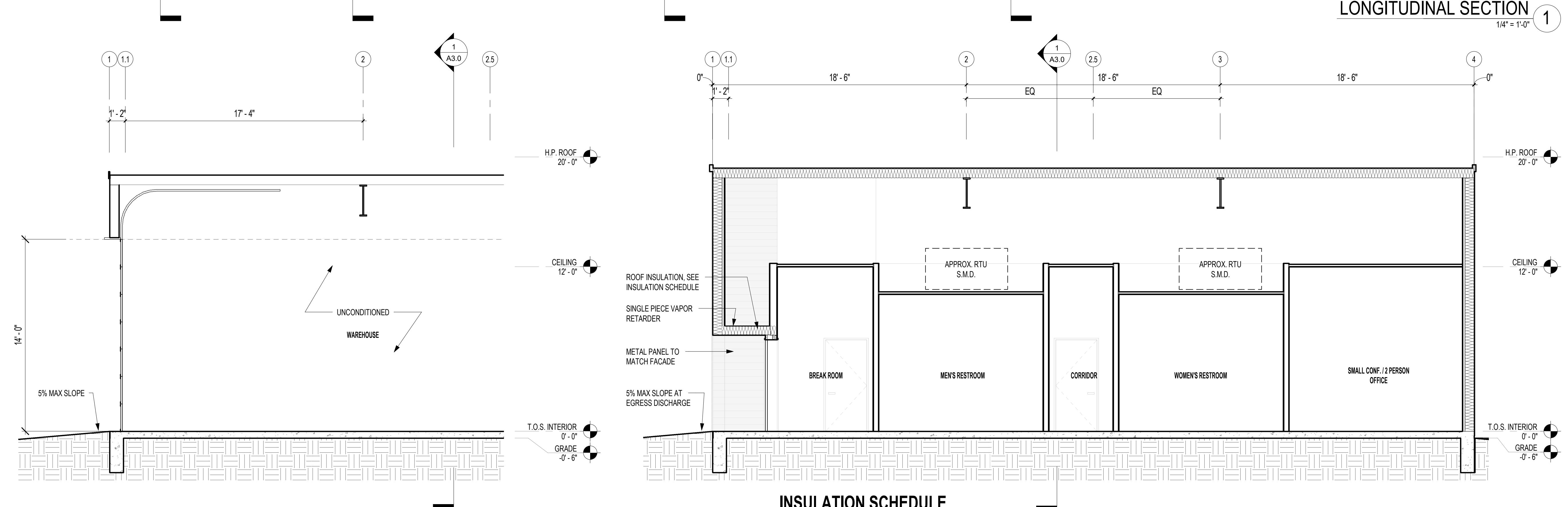
SCALE: As indicated
DRAWN BY: DUNCAN ARCHITECTS
DATE: 16 FEBRUARY 2024

BUILDING SECTIONS

A3.0



LONGITUDINAL SECTION 1



TRANSVERSE SECTION 2



WAREHOUSE GARAGE DOOR SECTION 3

INSULATION SCHEDULE

ROOF:	R33 LINEAR SYSTEM WITHOUT THERMAL BLOCKS
WALLS, ABOVE GROUND:	R25 SINGLE LAYER MINERAL FIBER IN CAVITY, THERMAL BLOCK AT GIRT
WALLS, BELOW GROUND:	NOT REQUIRED
FLOORS:	NOT REQUIRED
SLAB-ON-GRADE FLOORS:	NOT REQUIRED

**TRDI OFFICE AND
WAREHOUSE**

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PHARR, TX 78577

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425 SOLEDAD, SUITE 800
SAN ANTONIO, TX 78205
210-572-0402

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MCALLEN, TX 78501
956-443-3755

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MISSION, TX 78574
956-802-7328

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EDINBURG, TX 78540
(956) 292-3336

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CONSULTANTS, LLC
500 SOUTH 11TH STREET
MCALLEN, TX 78501
956-379-3857

P.E.M.B. SUPPLIER & E.O.R.

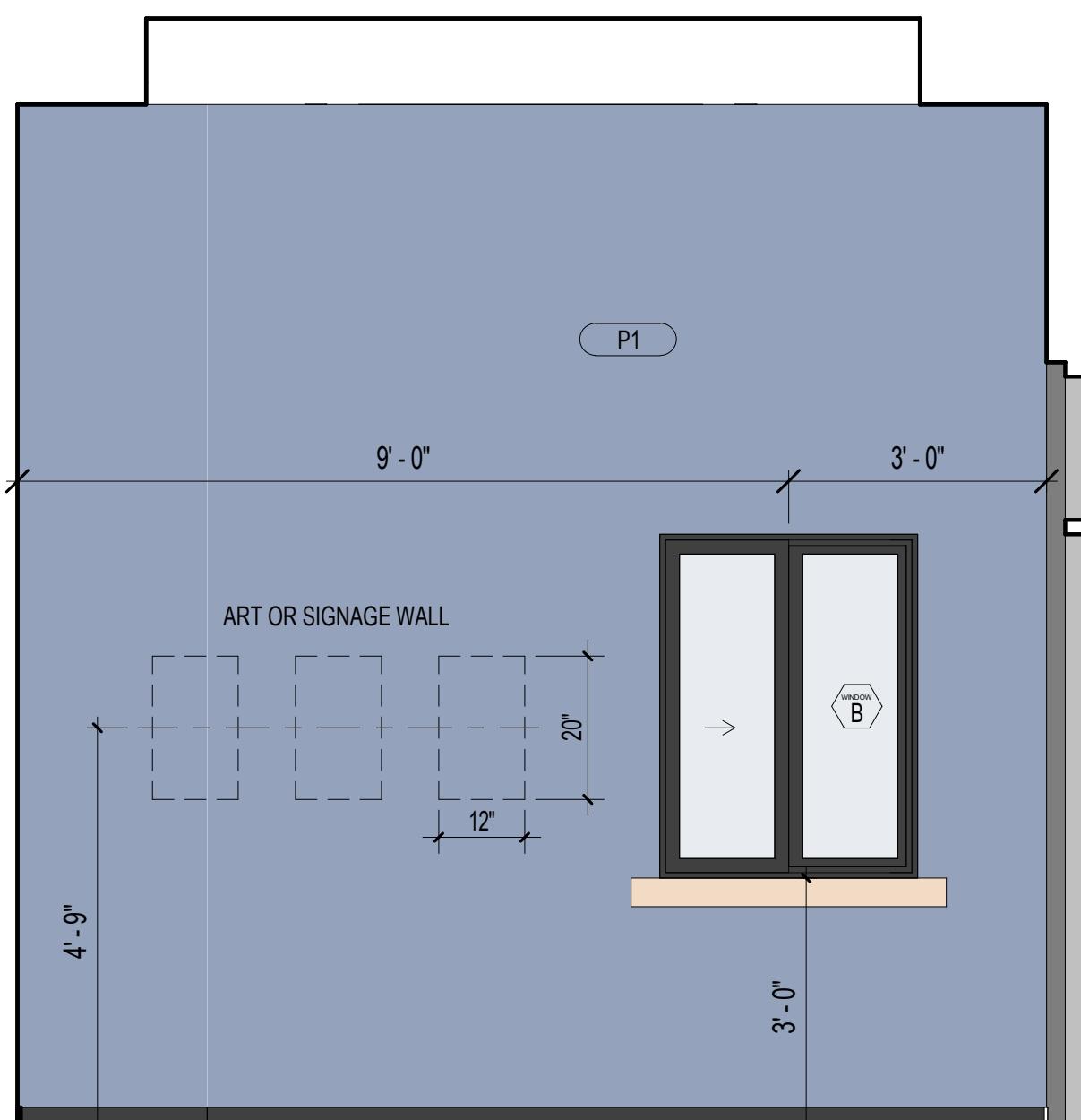
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FEBRUARY 16TH, 2024
CONSTRUCTION
DOCUMENTS FOR
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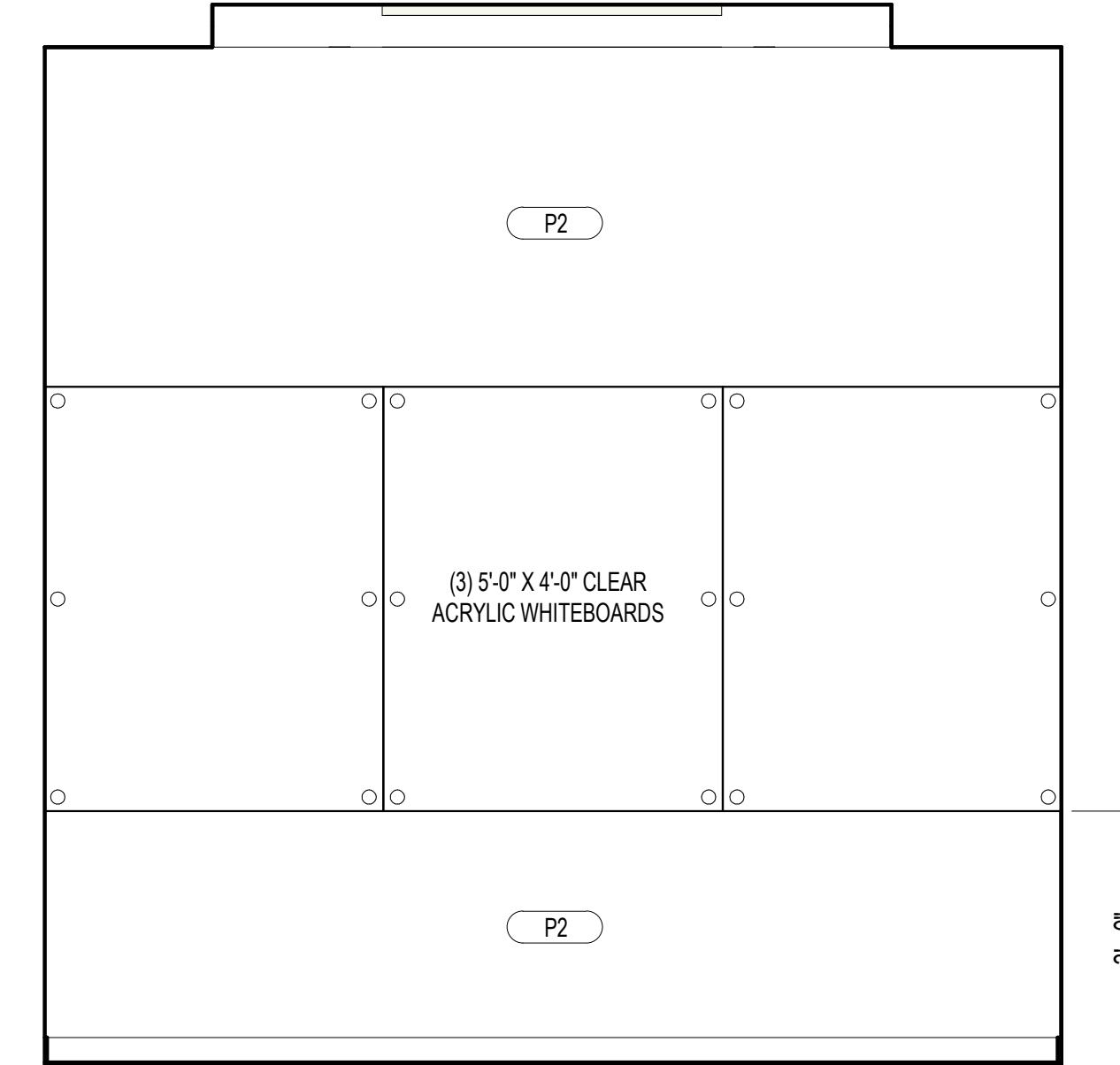
NOT FOR REGULATORY APPROVAL,
PERMITTING, OR CONSTRUCTION

SCALE: 1/2" = 1'-0"
DRAWN BY: DUNCAN ARCHITECTS
DATE: 16 FEBRUARY 2024

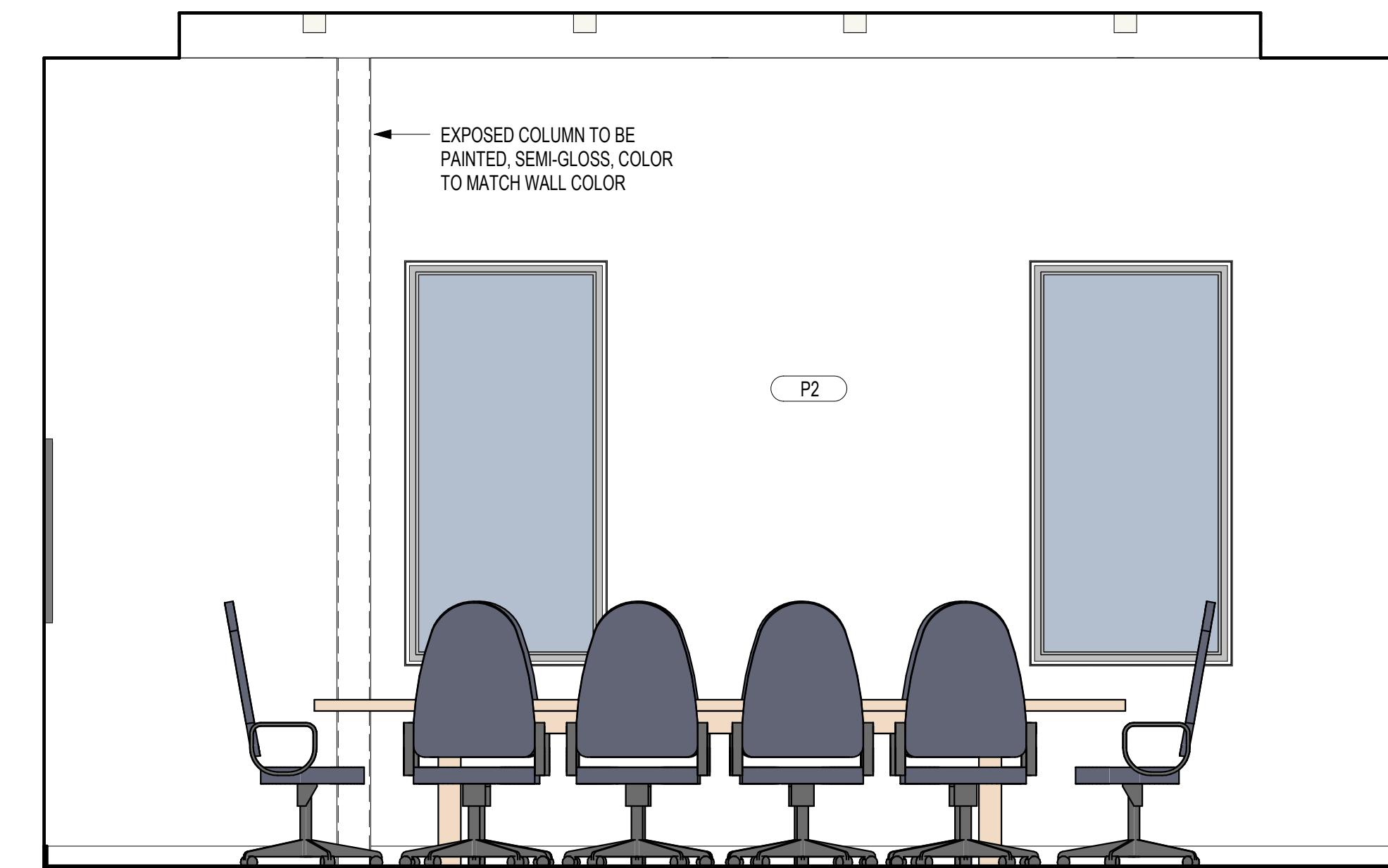
OFFICE INTERIOR
ELEVATIONS



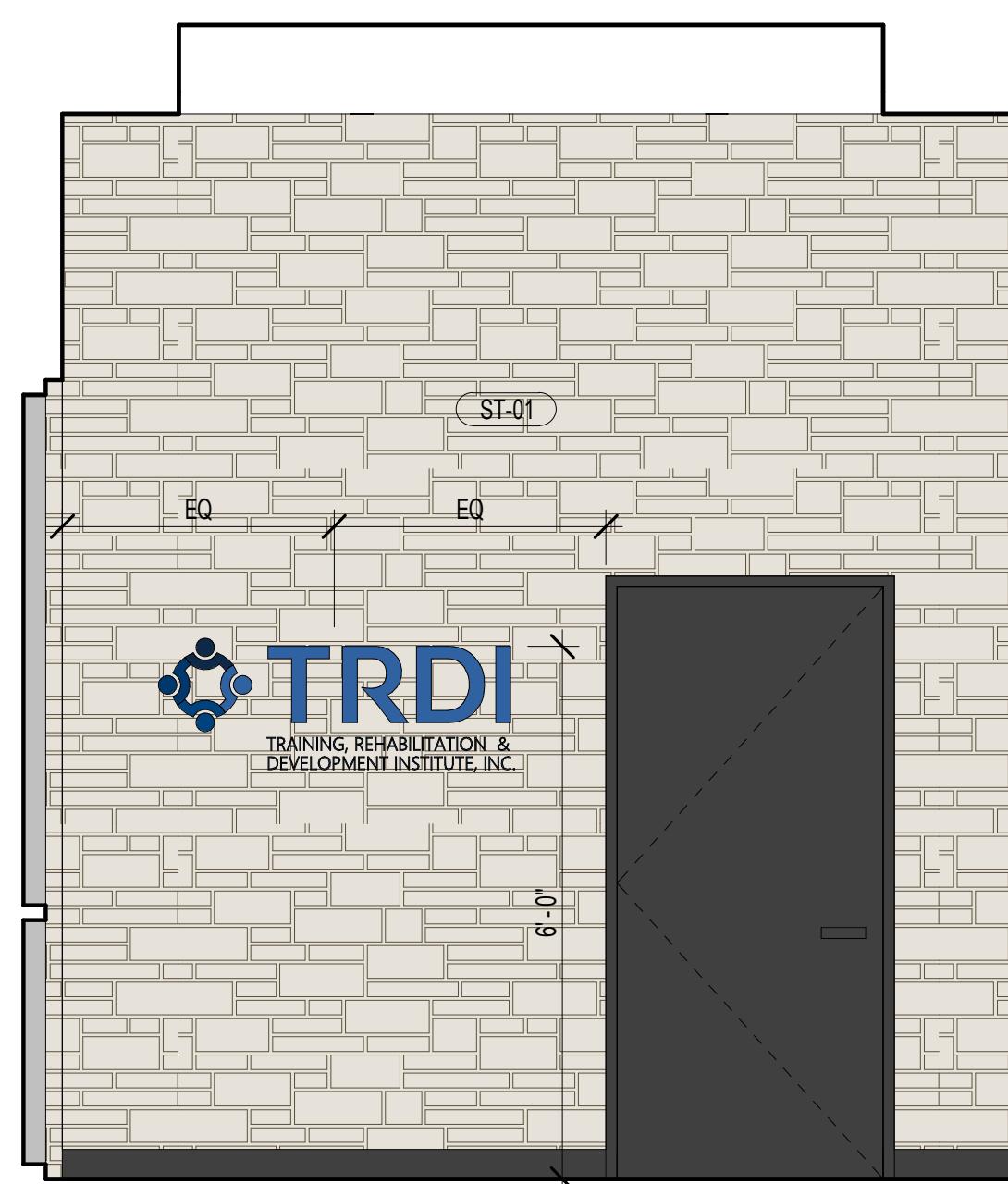
LOBBY - WEST
1/2" = 1'-0" 6



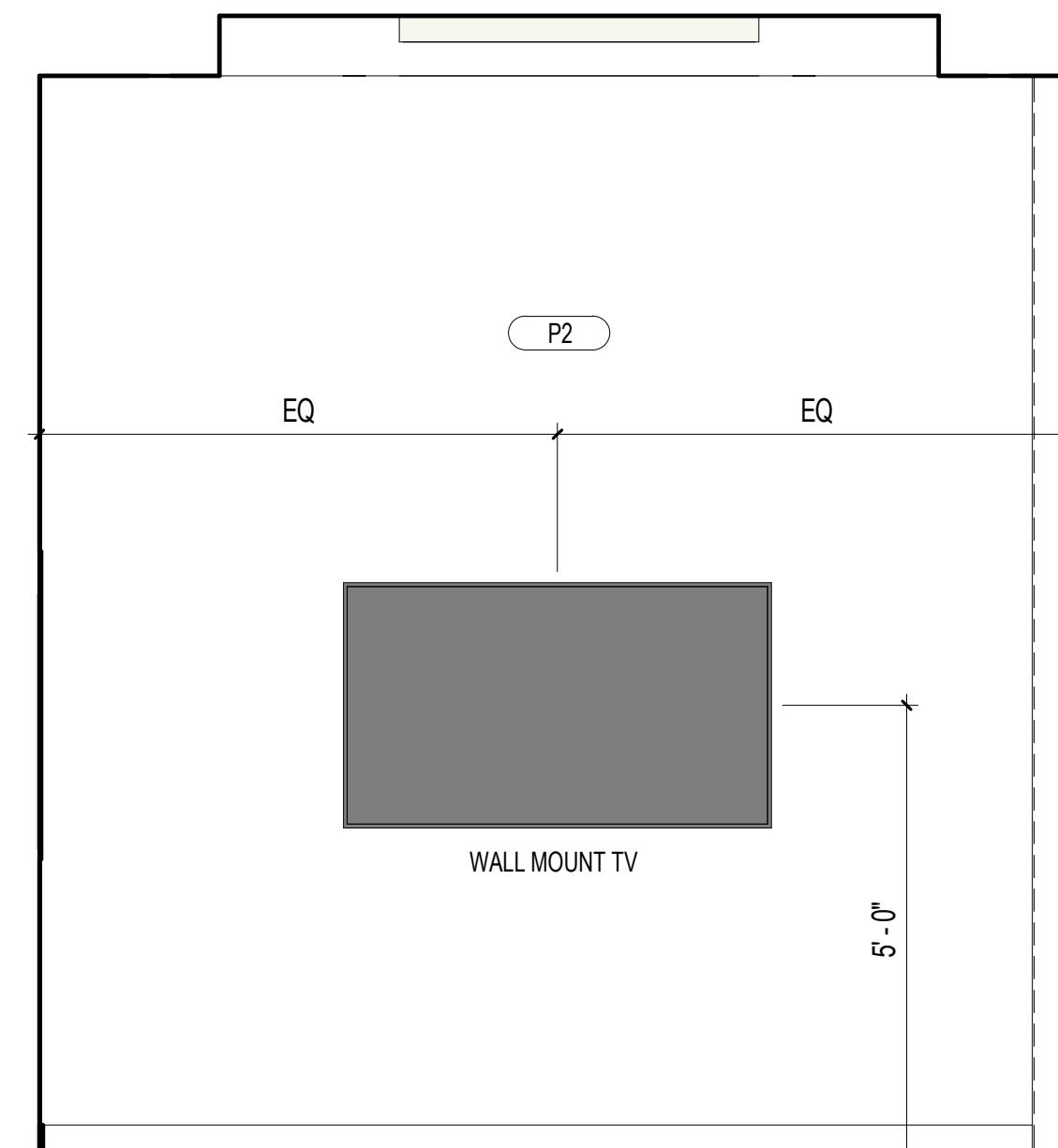
LARGE CONFERENCE - EAST
1/2" = 1'-0" 5



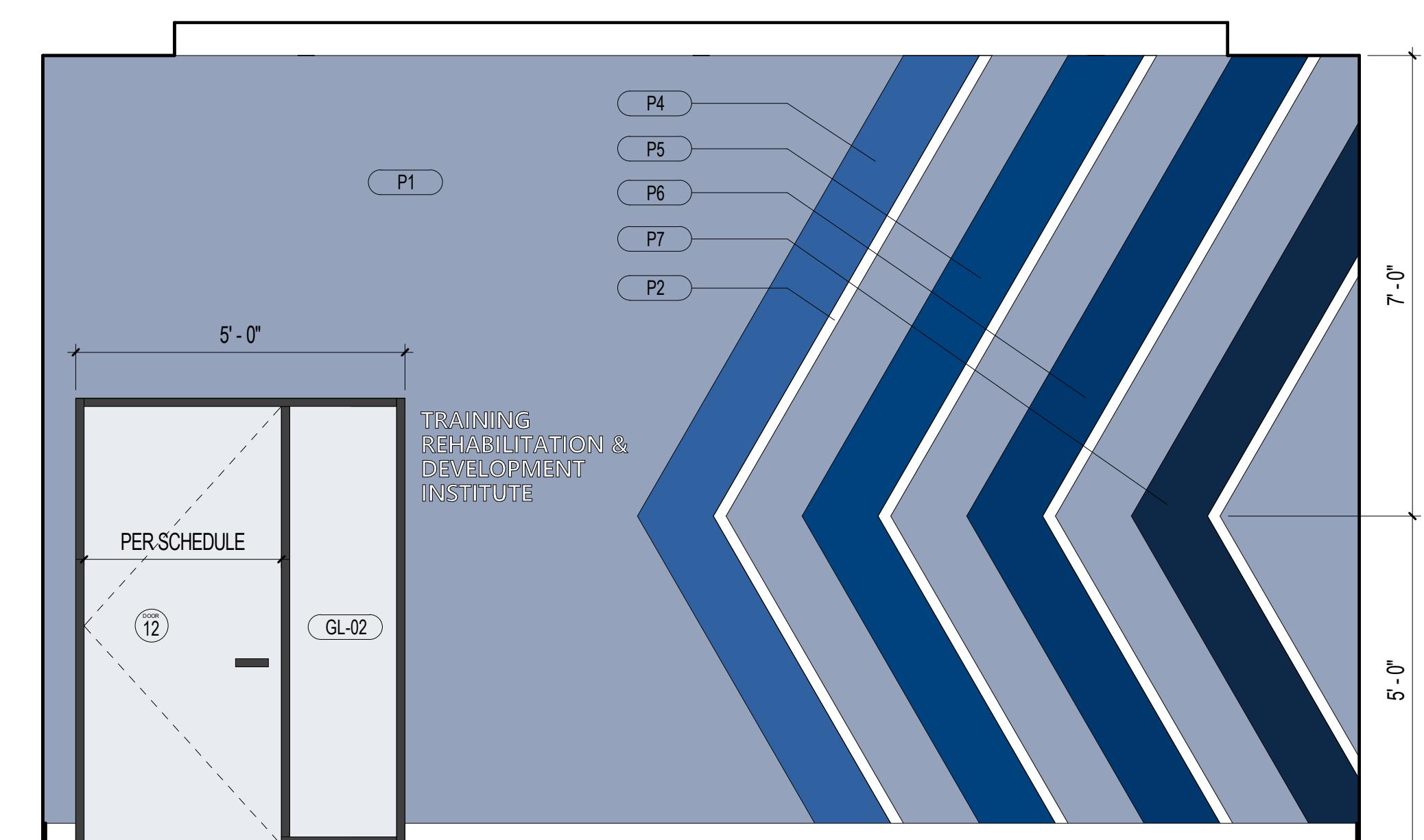
LARGE CONFERENCE - NORTH
1/2" = 1'-0" 4



LOBBY - EAST
1/2" = 1'-0" 3

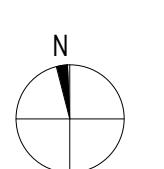


LARGE CONFERENCE - WEST
1/2" = 1'-0" 2



LARGE CONFERENCE - SOUTH
1/2" = 1'-0" 1

NOTE: SEE A6.0 FOR FINISH SCHEDULE



A4.1

TRDI OFFICE AND WAREHOUSE

841 W. SHARON RD.

**W. SHARM DR.
ARR, TX 78577**

ABSOLUTE

ARCHITECT
DUNCAN ARCHITECTS LLC
804 PECAN BLVD, SUITE 113
McALLEN, TX 78501
956-443-3755

ER
OLEDAD, SUITE 800
NTONIO, TX 78205
72-0402
ARCHITECT
DUNCAN ARCHITECTS LLC
804 PECAN BLVD, SUITE 113
McALLEN, TX 78501
956-443-3755

ENGINEER
STRATA
TEXAN ROAD
ON, TX 78574
02-7328

MEP ENGINEER
RO ENGINEERING, PLLC
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EDINBURG, TX 78540
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SCAPE ARCHITECT
NER DESIGN TEAM
I. 22ND STREET
LEN, TX 78504
0-7850

STRUCTURAL ENGINEER
ATLAS ENGINEERING
CONSULTANTS, LLC
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McALLEN, TX 78501
956-379-3857

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B. SUPPLIER & E.O.R.

FEBRUARY 16TH, 2024 CONSTRUCTION DOCUMENTS FOR BIDDING

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LE 1/2" = 1'-0"
WN BY: DUNCAN ARCHITECTS
E: 16 FEBRUARY 2024

OFFICE INTERIOR

OFFICE INTERIOR

EVATIONS

ELEVATIONS

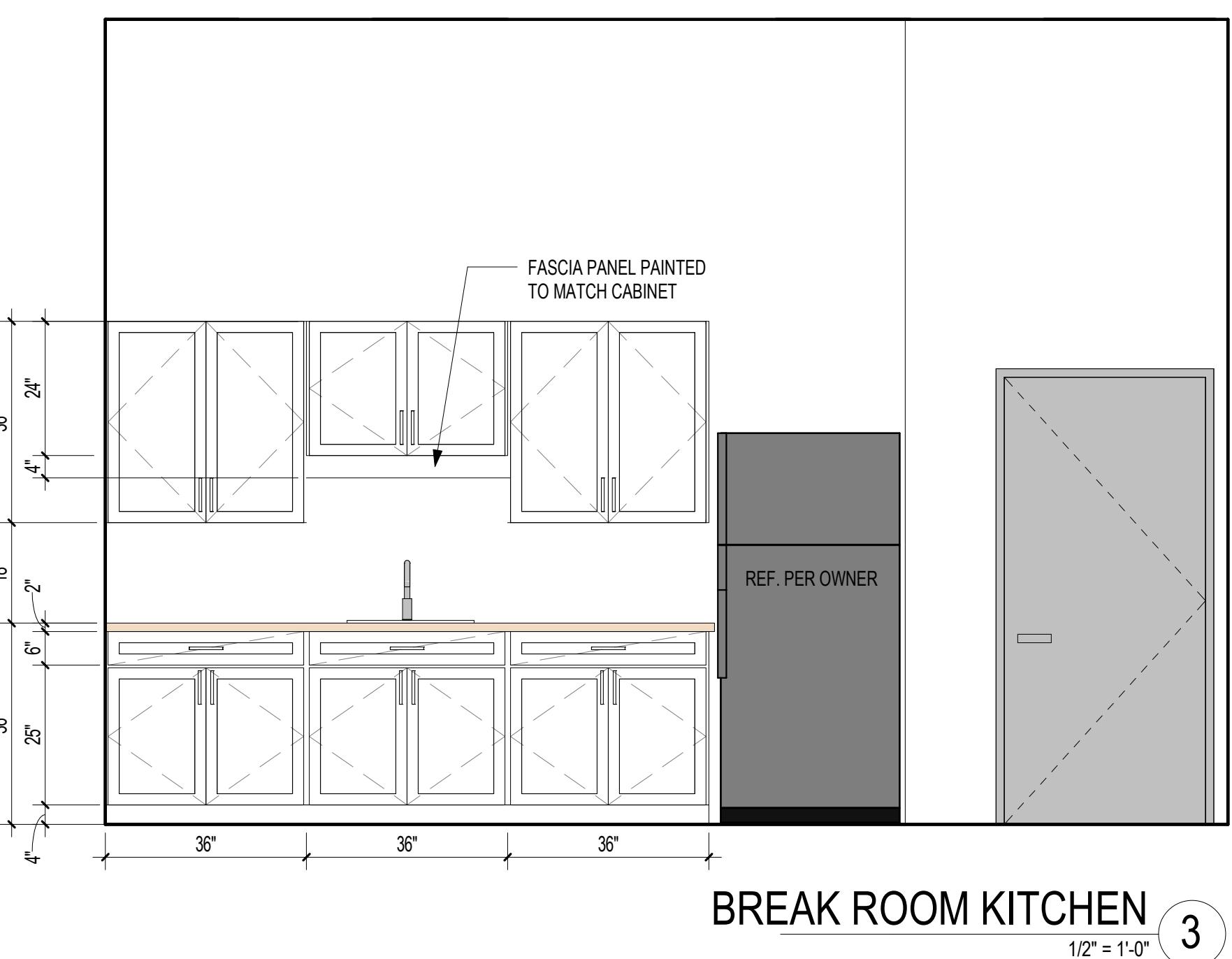
Digitized by srujanika@gmail.com

12

A4 /

112

Digitized by srujanika@gmail.com



BREAK ROOM KITCHEN

1/2" = 1'-0" 3

A4.2

**TRDI OFFICE AND
WAREHOUSE**

941 W. SHARM DR.
PHARR, TX 78577

OWNER
TRDI
425 SOLEDAD, SUITE 800
SAN ANTONIO, TX 78205
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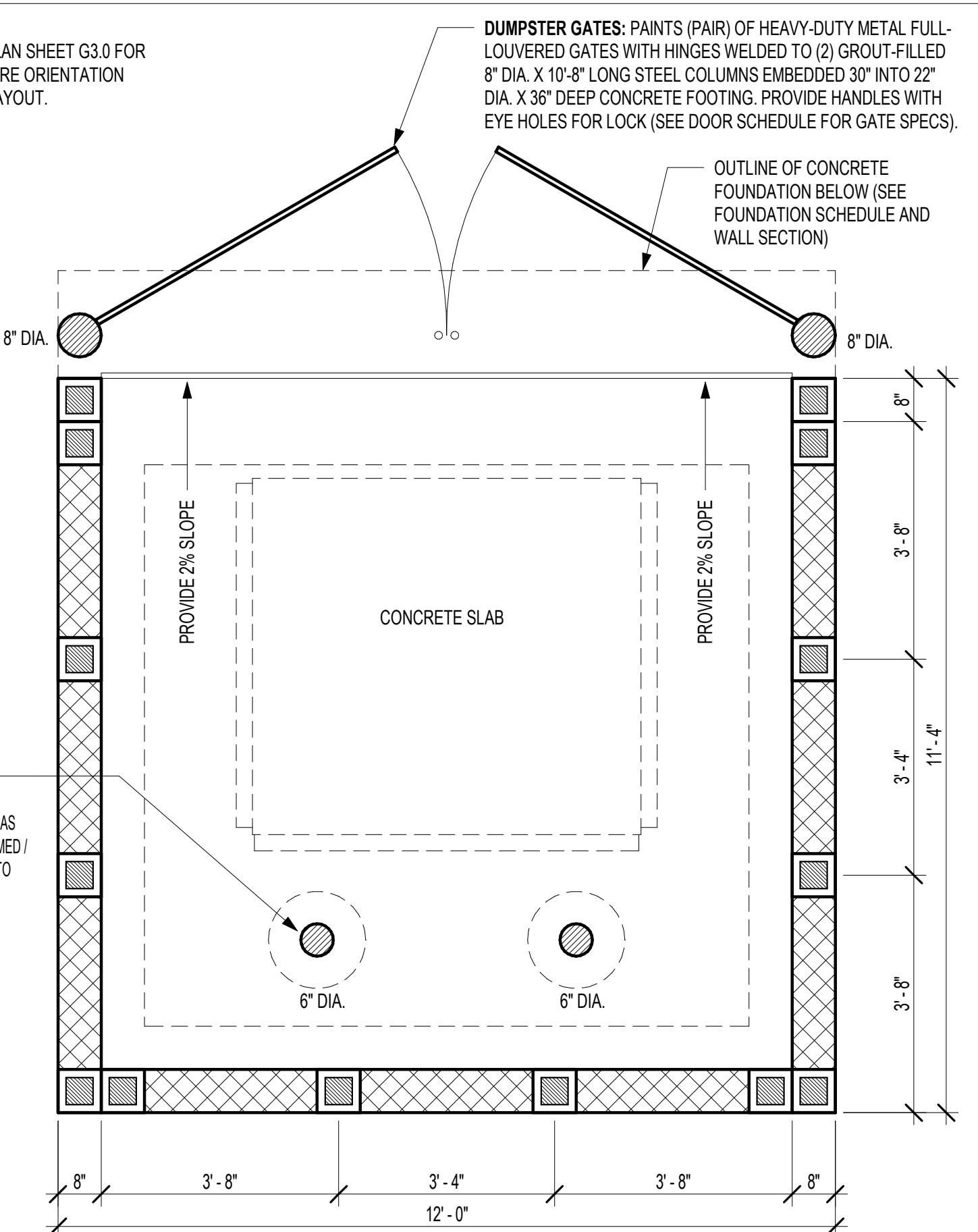
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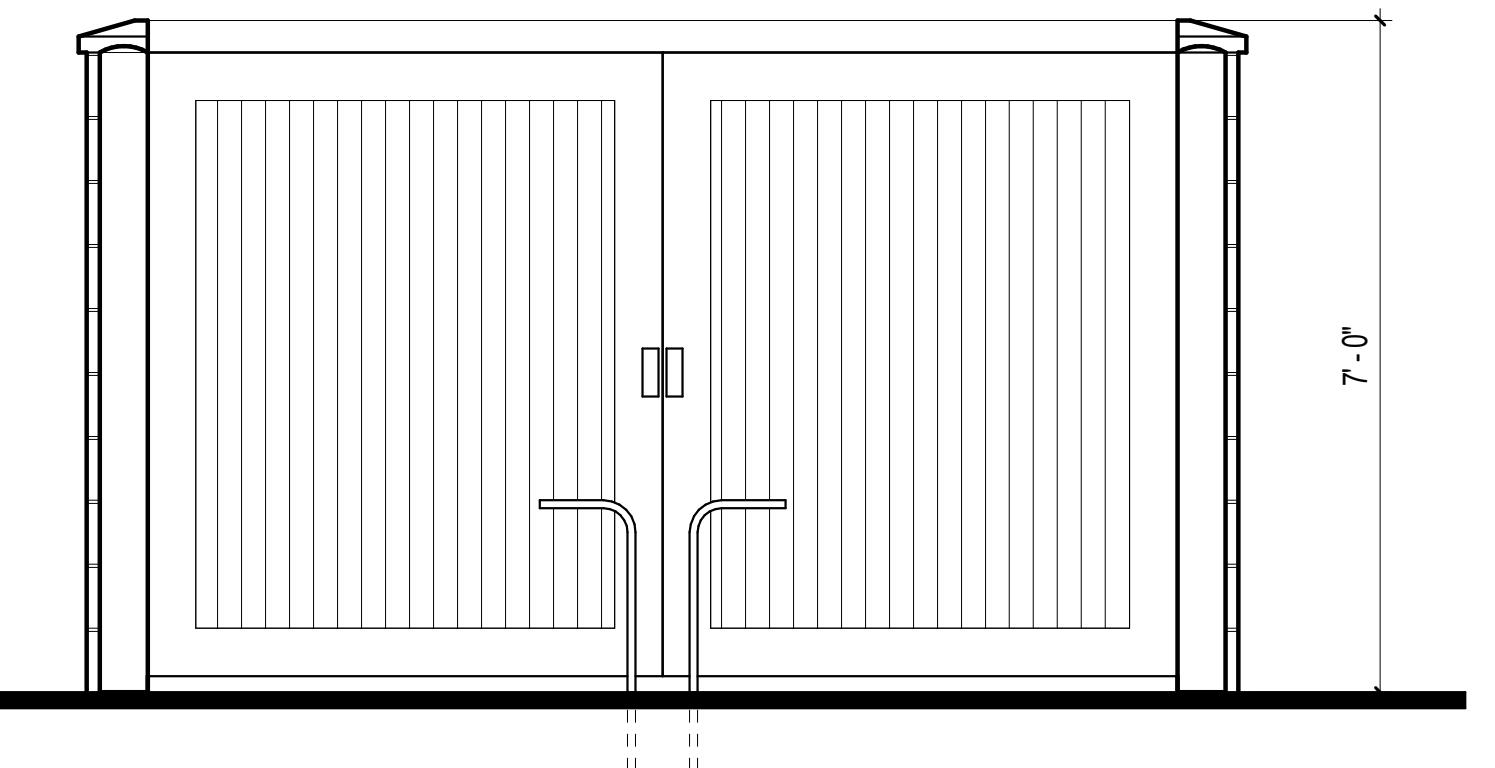
DUMPSTER ENCLosURE
PLAN, ELEVATIONS,
SECTIONS

A4.4

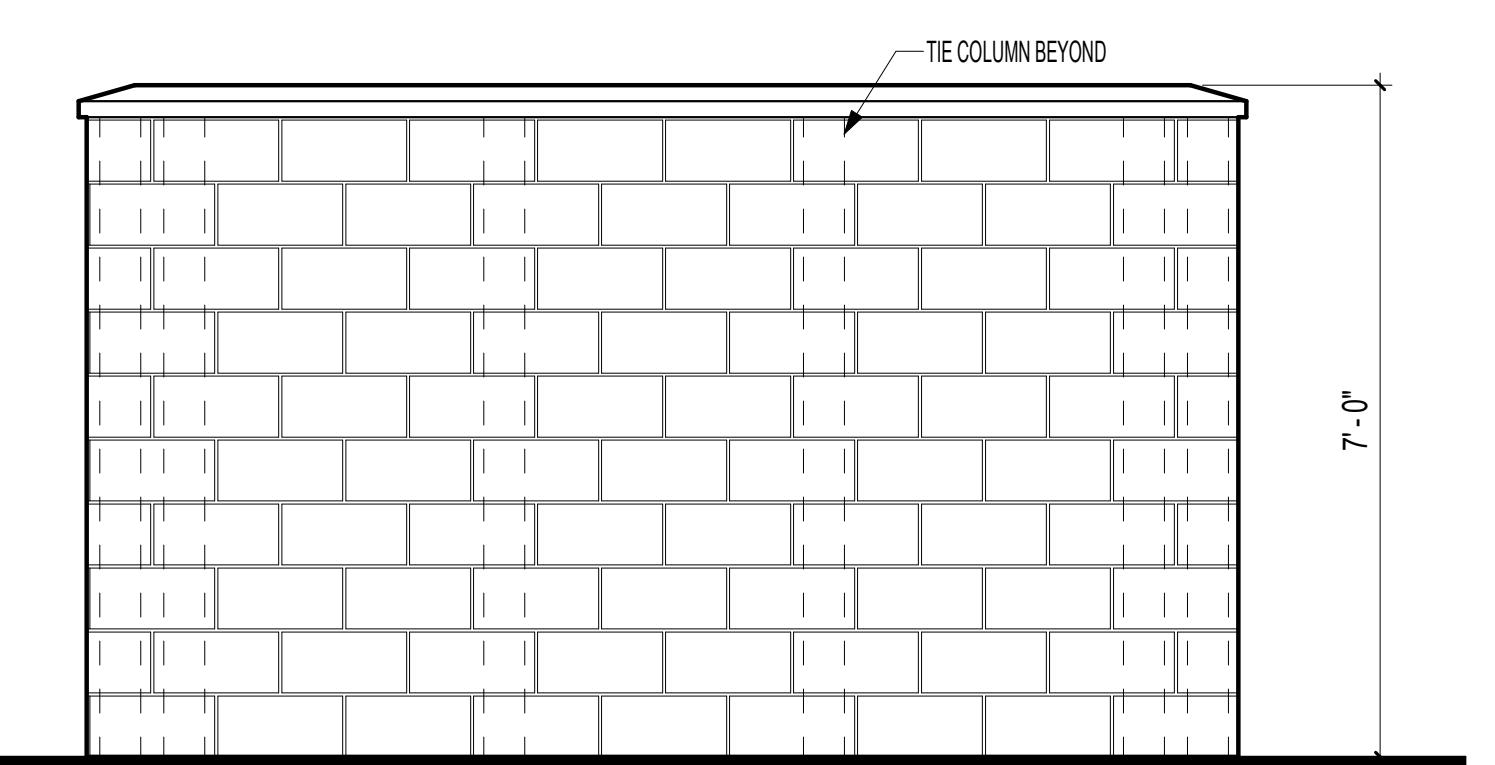
LAYOUT NOTE:
SEE OVERALL SITE PLAN SHEET G3.0 FOR
DUMPSTER ENCLOSURE ORIENTATION
AND SITE SPECIFIC LAYOUT.



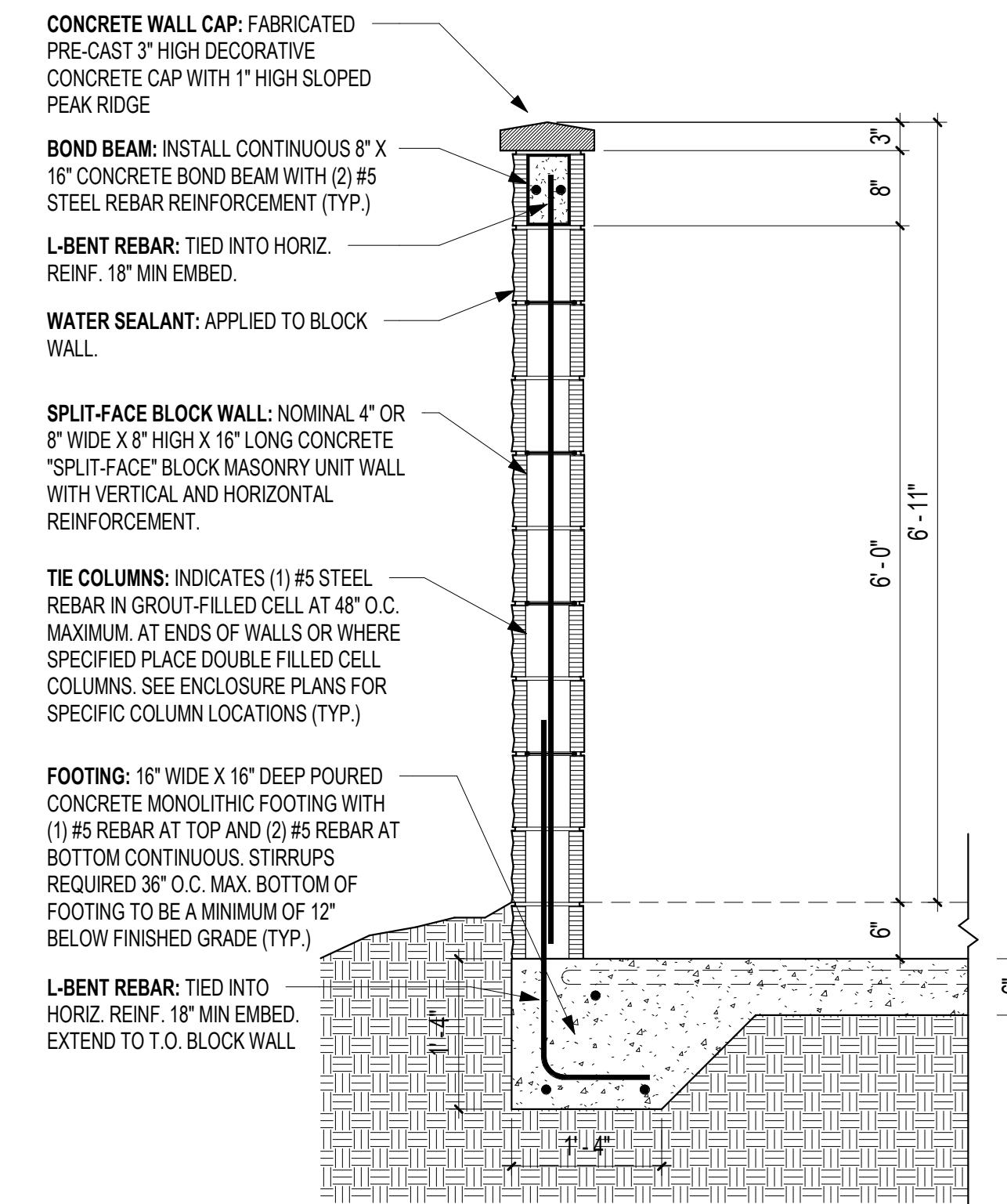
DUMPSTER ENCLOSURE PLAN 1



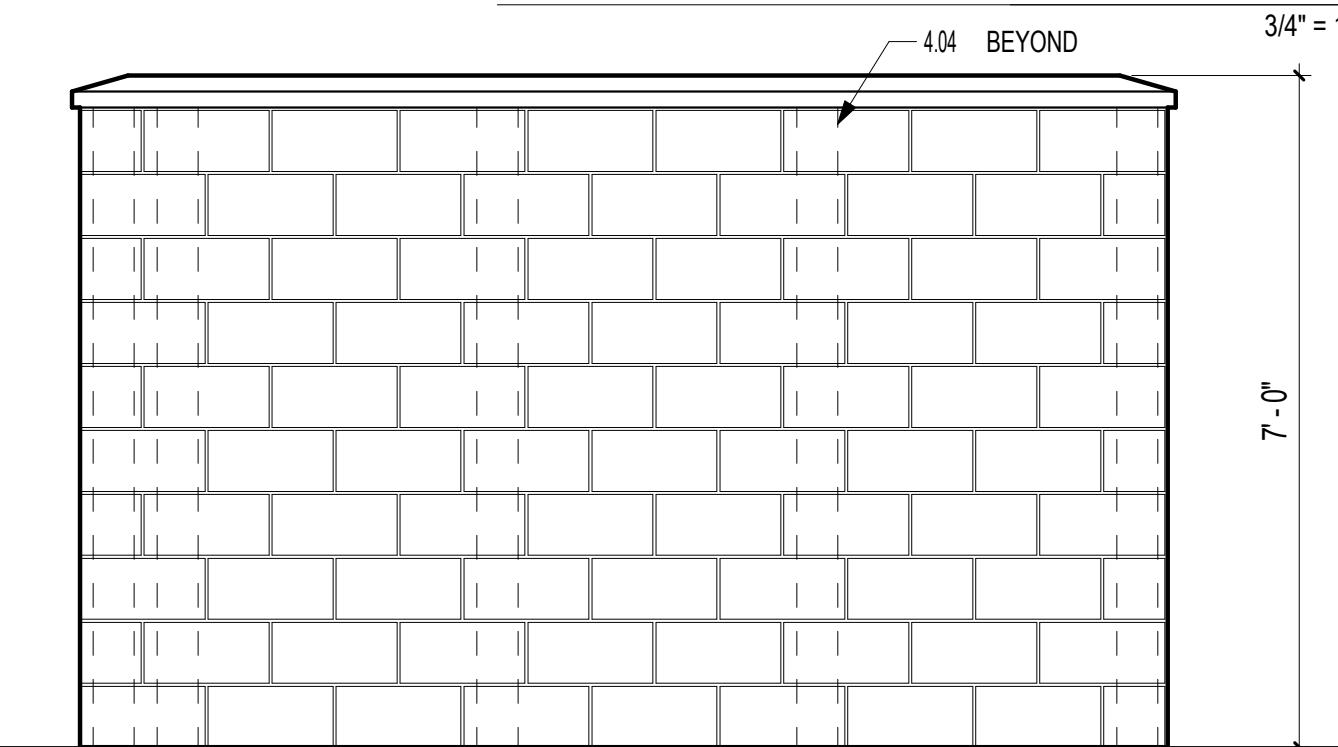
FRONT ELEVATION



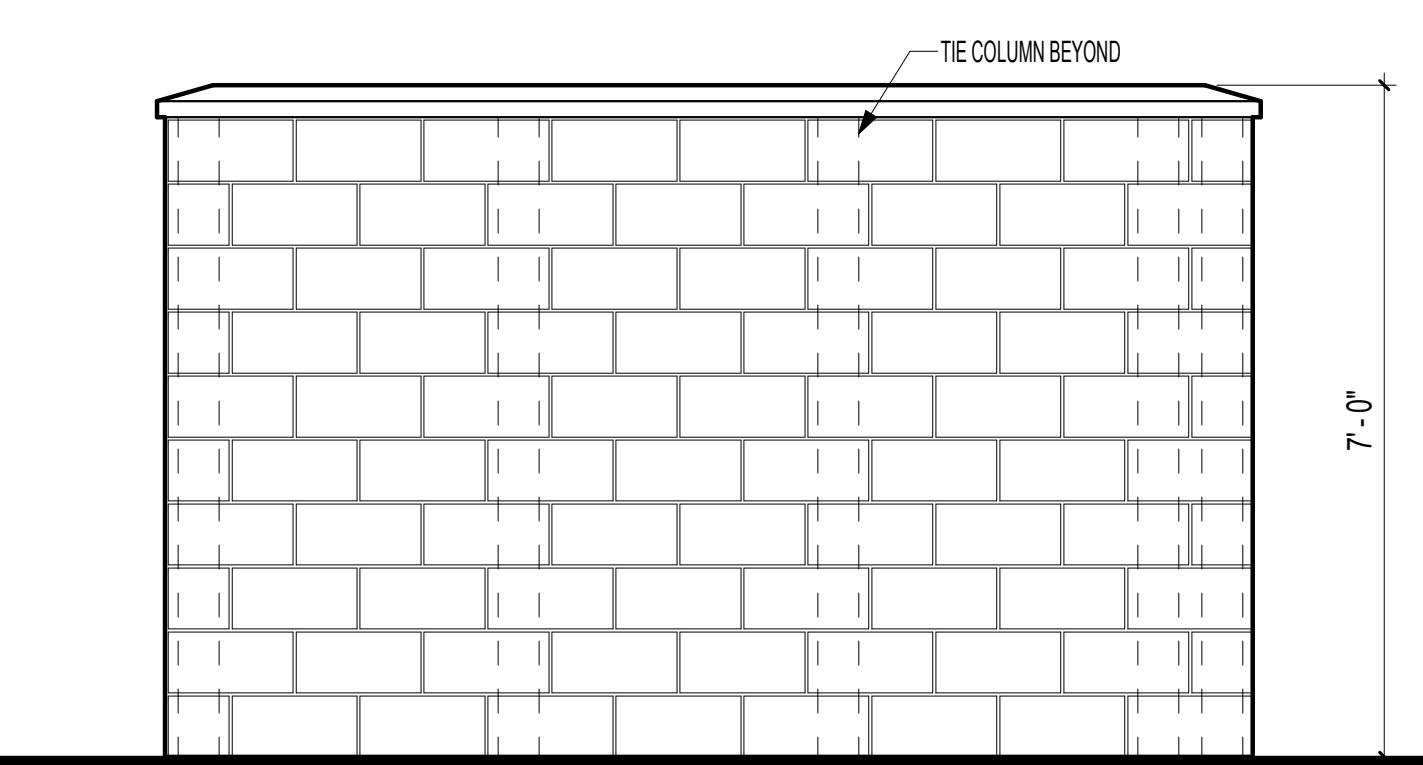
REAR ELEVATION



TYP. DUMPSTER WALL SECTION 3



SIDE ELEVATION



SIDE ELEVATION

DUMPSTER ENCLOSURE ELEVATIONS 2

1/2" = 1'-0"

**TRDI OFFICE AND
WAREHOUSE**

941 W. SHARM DR.
PHARR, TX 78577

OWNER
TRDI
425 SOLEDAD, SUITE 800
804 PECAN BLVD, SUITE 113
MCALLEN, TX 78501
210-572-0402

ARCHITECT
DUNCAN ARCHITECTS LLC
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**FEBRUARY 16TH, 2024
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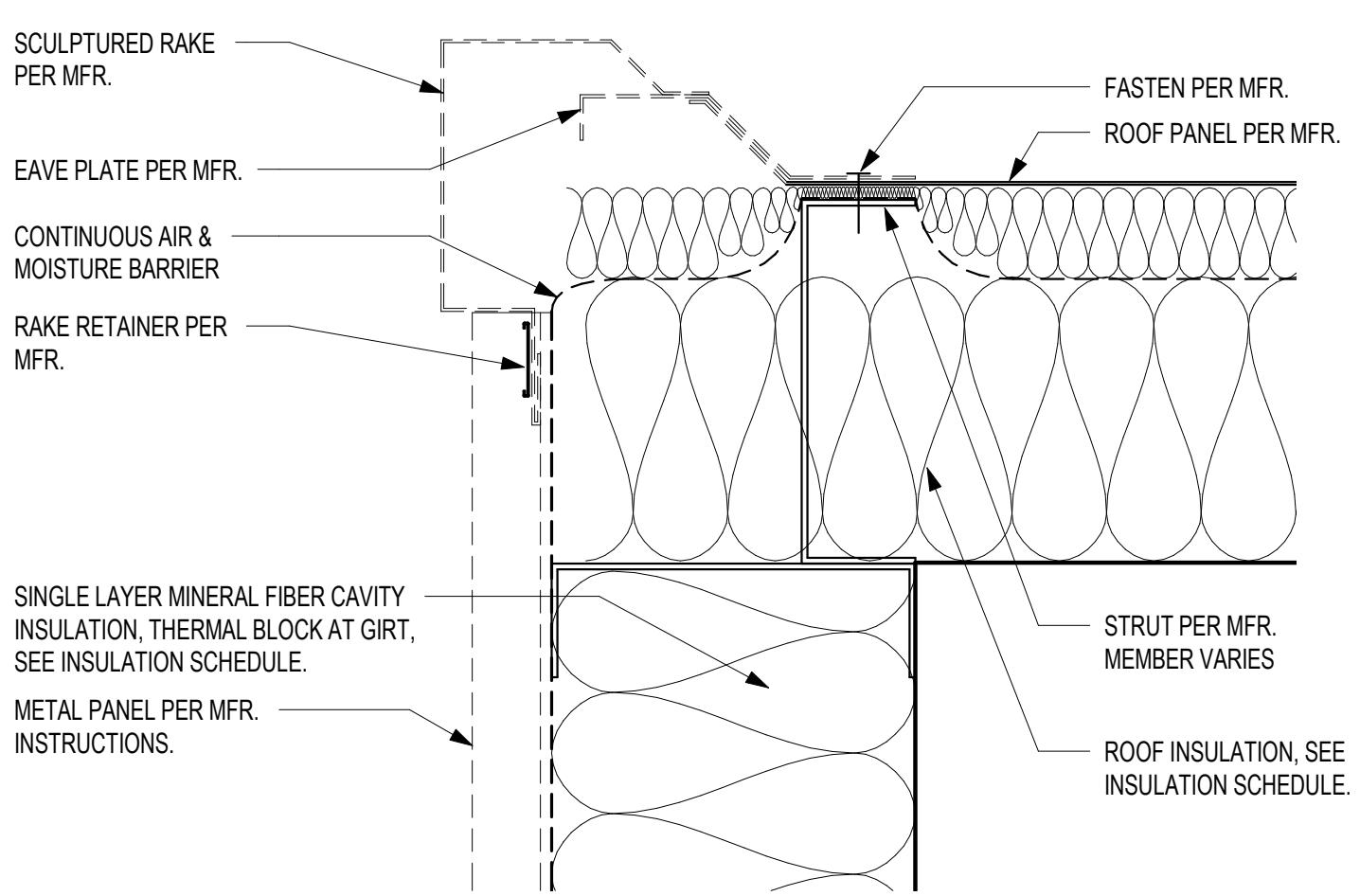
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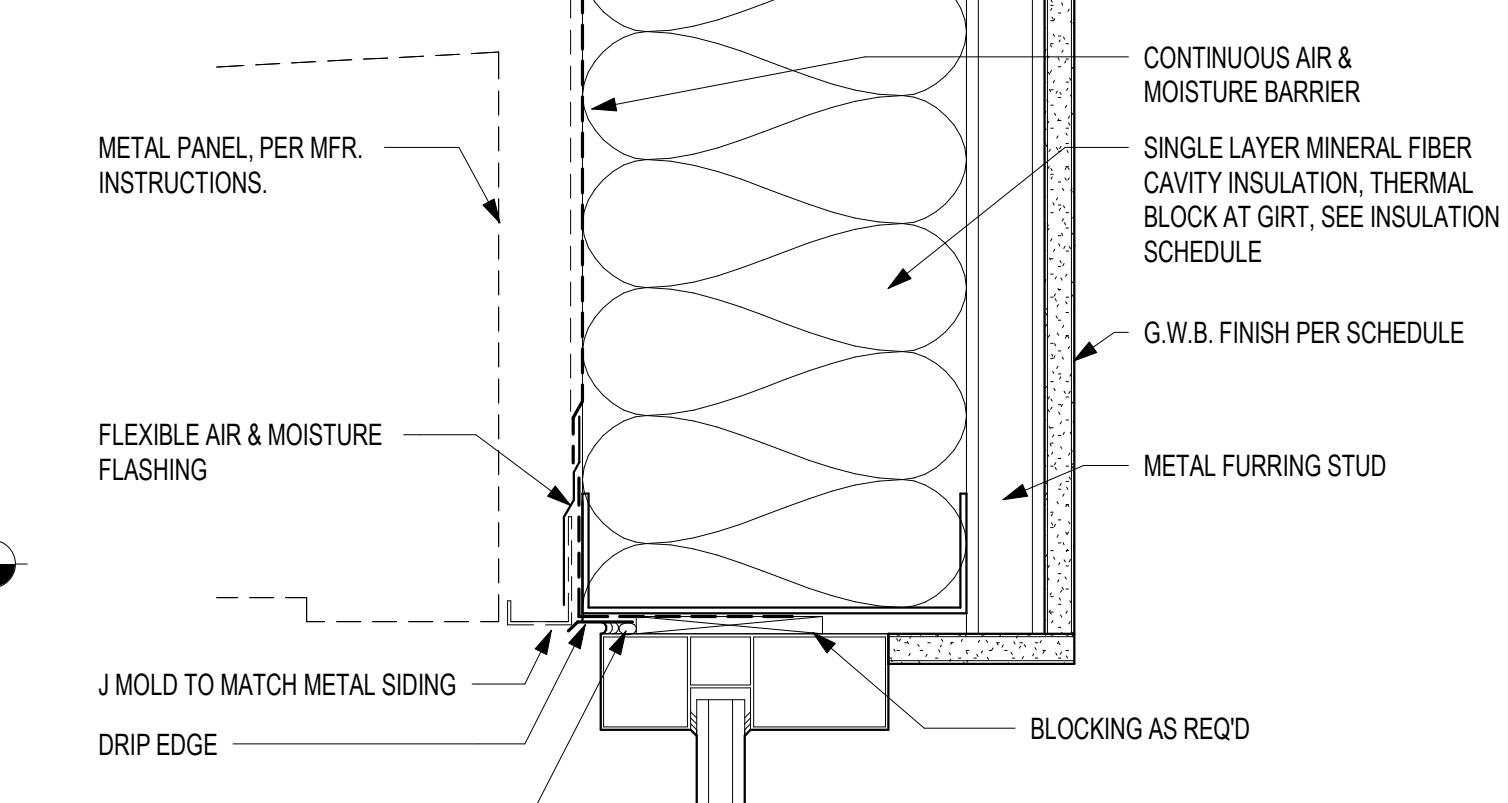
EXTERIOR DETAILS

EXTERIOR FINISH GENERAL NOTES

- ADHERED STONE**
1. FABRICATED CULTURED STONE DECORATIVE VENEER OR CAST BLOCKS OVER MASONRY OR OVER WOOD SHEATHING (WITH APPROVED UNDERLAYMENT), ATTACH TO STRUCTURAL WALLS. INSTALL AS PER MANUFACTURER'S SPEC'S (SELECTION BY OWNER).
 2. ADHERED MASONRY VENEER SHALL COMPLY WITH THE APPLICABLE REQUIREMENTS OF SECTIONS 12.1 AND 12.3 OF TMS 402.
 3. WITH COLD-FORMED STEEL STUD BACKING, A 2-INCH BY 2-INCH (51 BY 51 MM) 0.0625-INCH (1.59 MM) ZINC-COATED OR NONMETALLIC COATED WIRE MESH WITH TWO LAYERS OF WATER-RESISTIVE BARRIER IN ACCORDANCE WITH 2018 IBC SECTION 1403.2 SHALL BE APPLIED DIRECTLY TO STEEL STUDS SPACED A NOT MORE THAN 16 INCHES (406 MM) ON CENTER.
 4. THE MESH SHALL BE ATTACHED WITH CORROSION-RESISTANT #8 SELF-DRILLING, TAPPING SCREWS AT 4 INCHES (102 MM) ON CENTER, AND AT 8 INCHES (203 MM) ON CENTER INTO TOP AND BOTTOM TRACKS OR WITH EQUIVALENT WIRE TIES.
 5. SCREWS SHALL EXTEND THROUGH THE STEEL CONNECTION NOT FEWER THAN THREE EXPOSED THREADS.
 6. THERE SHALL BE NOT LESS THAN A 0.105-INCH (2.68 MM) CORROSION-RESISTANT WIRE, OR APPROVED EQUAL, ATTACHED TO THE STUD WITH NOT SMALLER THAN A #8 SELF-DRILLING, TAPPING SCREW EXTENDING THROUGH THE STEEL FRAMING NOT FEWER THAN THREE EXPOSED THREADS FOR EVERY 2 SQUARE FEET (0.2 M²) OF STONE VENEER. THIS TIE SHALL BE A LOOP HAVING LEGS NOT LESS THAN 15 INCHES (381 MM) IN LENGTH, SO BENT THAT THE TIE WILL LIE IN THE STONE VENEER MORTAR JOINT. THE LAST 2 INCHES (51 MM) OF EACH WIRE LEG SHALL HAVE A RIGHT-ANGLE BEND. ONE-INCH (25 MM) MINIMUM THICKNESS OF CEMENT GROUT SHALL BE PLACED BETWEEN THE BACKING AND THE STONE VENEER.
 7. THE COLD-FORMED STEEL FRAMING MEMBERS SHALL HAVE A MINIMUM BARE STEEL THICKNESS OF 0.0428 INCHES (1.087 MM).
 8. PROVIDE WEPP SCREED AT BASE OF ALL EXTERIOR WALLS OR AS REQUIRED BY STONE MANUFACTURER. SCREED TO DIRECT MOISTURE/CONDENSATION OUT OF CAVITY AND AWAY FROM BUILDING.
- METAL PANEL**
1. WEPP SCREED: PROVIDE WEPP SCREED AT BASE OF ALL EXTERIOR WALLS OR AS REQUIRED BY METAL MANUFACTURER. SCREED TO DIRECT MOISTURE/CONDENSATION OUT OF CAVITY AND AWAY FROM BUILDING.
 2. BATT: INSTALL APPROVED CONTINUOUS BATT INSULATION (R-25 MINIMUM) BETWEEN METAL STUDS. (SEE PROJECT ENERGY CALCULATIONS BY MECHANICAL ENGINEER FOR REQUIREMENTS AND SPECIFICATIONS).
 3. WINDOWS: COMMERCIAL-GRADE FIXED-GLASS ALUMINUM WINDOWS (TO MATCH STOREFRONT COLOR AND FINISH APPEARANCE).
 4. STOREFRONT: ANODIZED ALUMINUM STOREFRONT GLAZING SYSTEM WITH CLEAR GLAZING - SHIM STOREFRONT FRAME AS REQUIRED AND PROVIDE CONTINUOUS 3/4" BEAD COLORED SEALANT/CAULKING WITH BACKER ROD - TYPICAL AT ALL STOREFRONT WINDOWS AND DOORS (SEE DOOR AND WINDOW SCHEDULES FOR COMPLETE DESCRIPTION).
 5. SILL FLASHING: STOREFRONT SILL FLASHING WITH CONTINUOUS SEALANT - PROVIDE ADDITIONAL METAL FLASHING OVER ENTIRE SILL OF ALL WINDOWS.
 6. DRIP: CONTINUOUS FABRICATED 26 GAUGE METAL DRIP-EDGE FLASHING ABOVE ALL WINDOW AND DOOR OPENINGS.
 7. WALL WATER-PROOFING: INSTALL SELF-SEALING WATER-PROOFING MEMBRANE SHEETS OVER EXTERIOR OF METAL FRAMING.

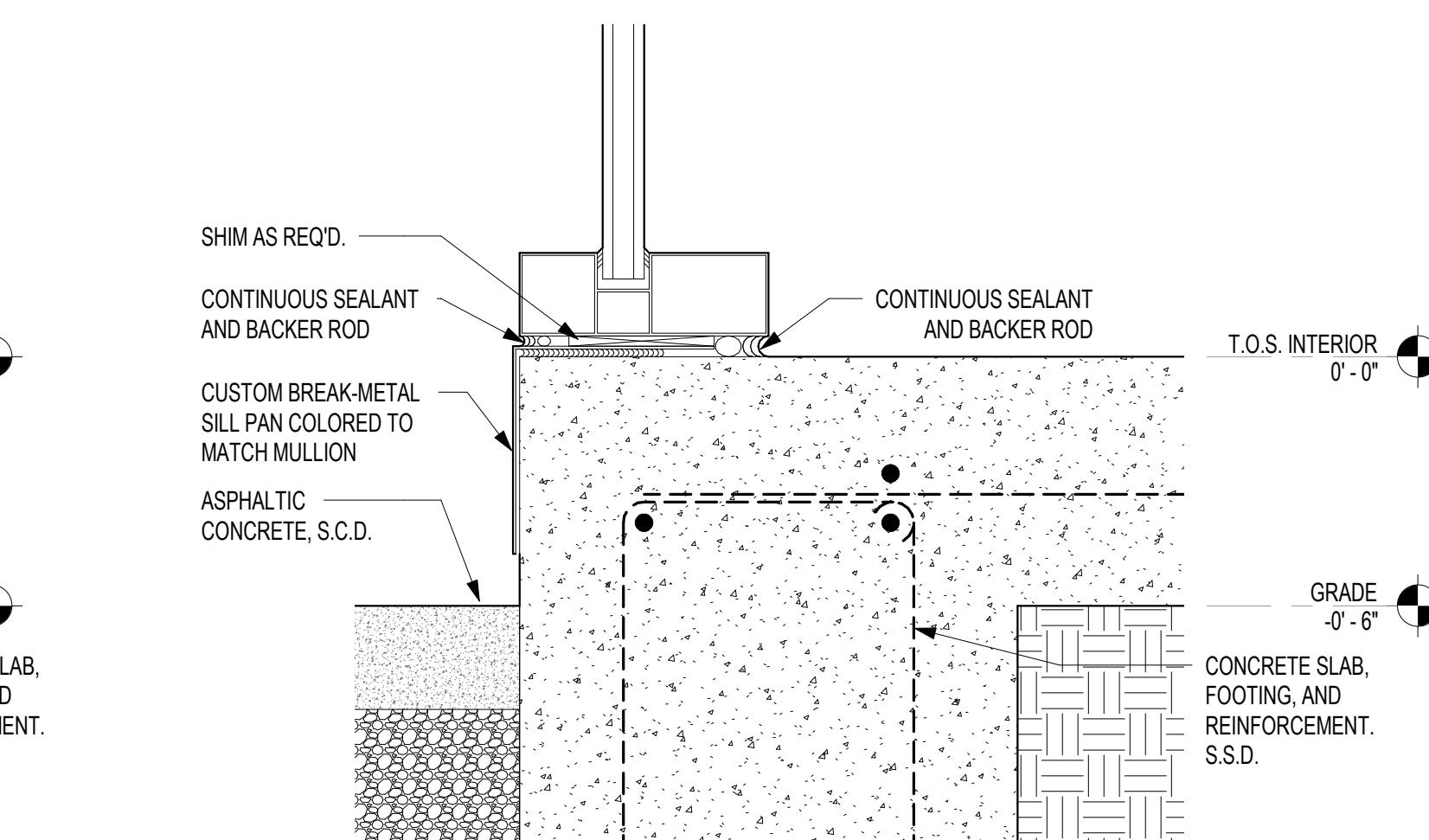


SECTION DETAIL - PARAPET @ M-01 6



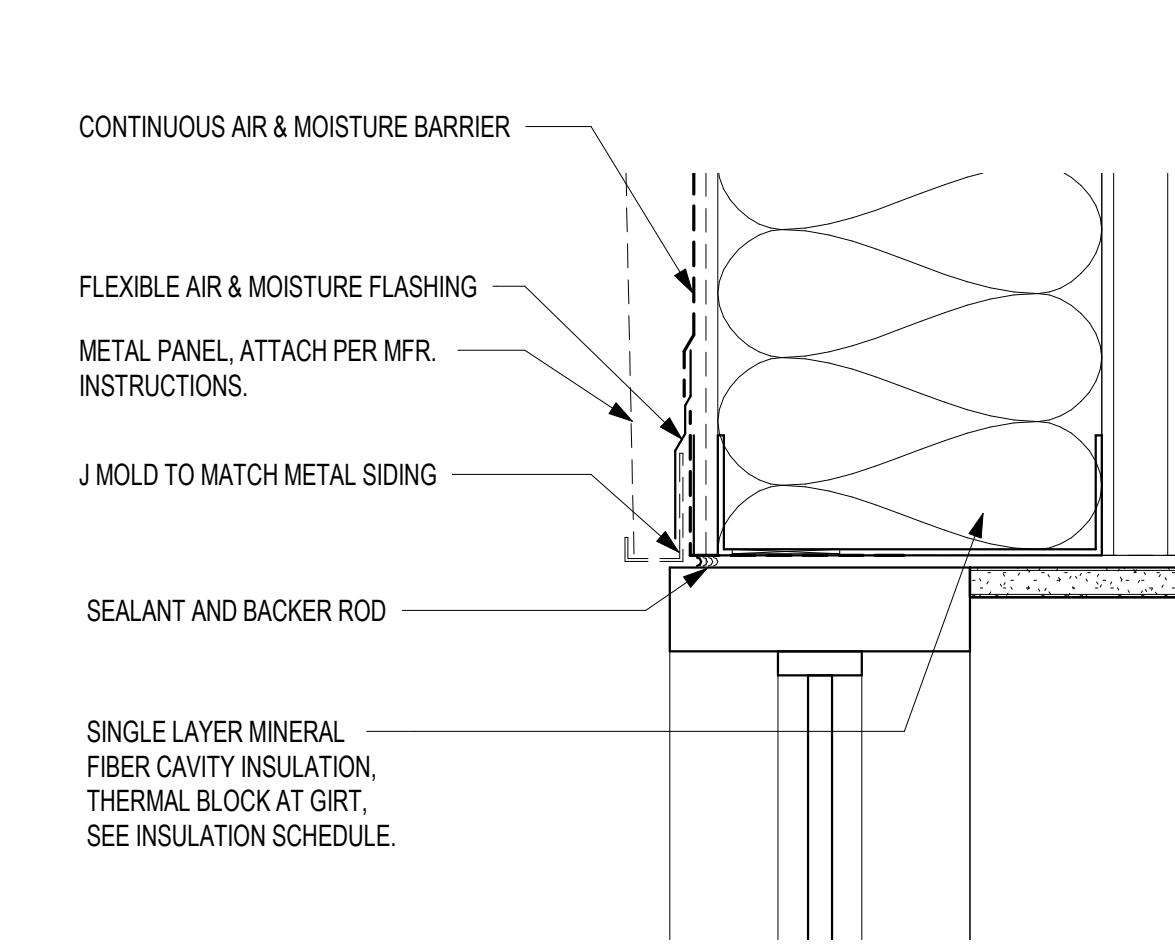
SECTION DETAIL - PARAPET @ ST-01 8

SECTION DETAIL - STOREFRONT HEADER 5

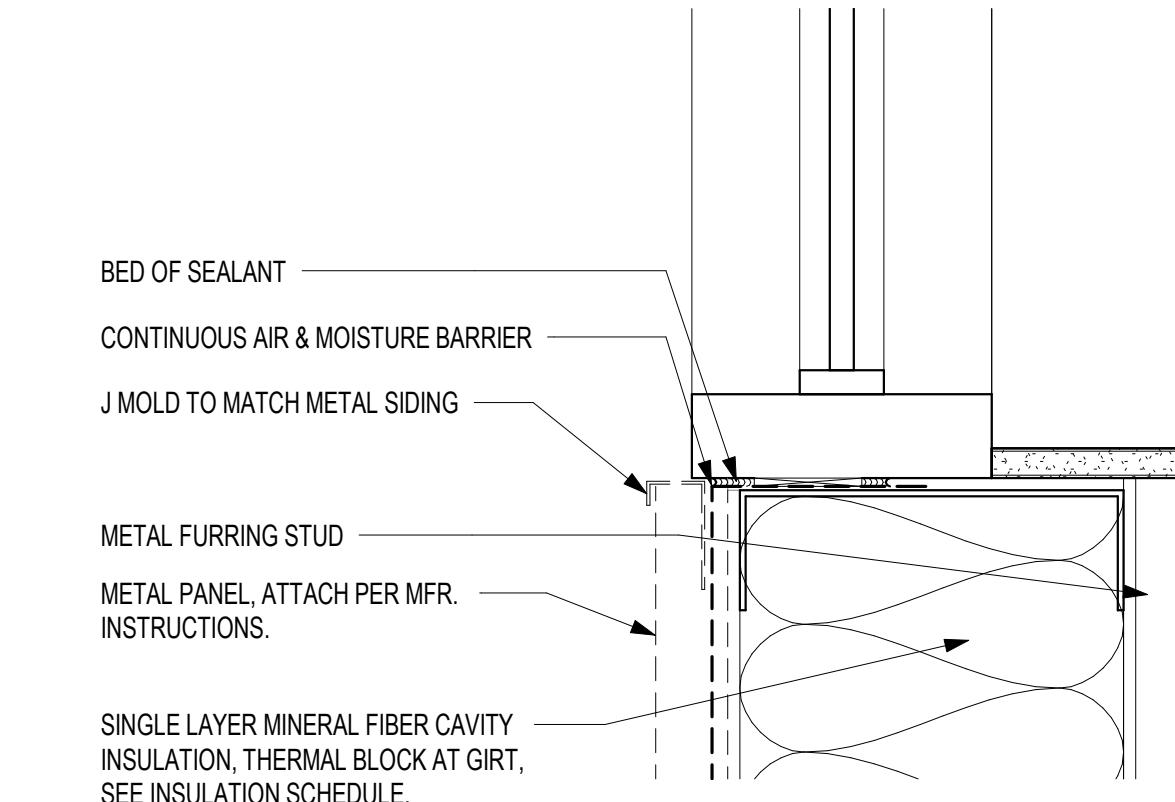


SECTION DETAIL - WALL BASE @ ST-01 7

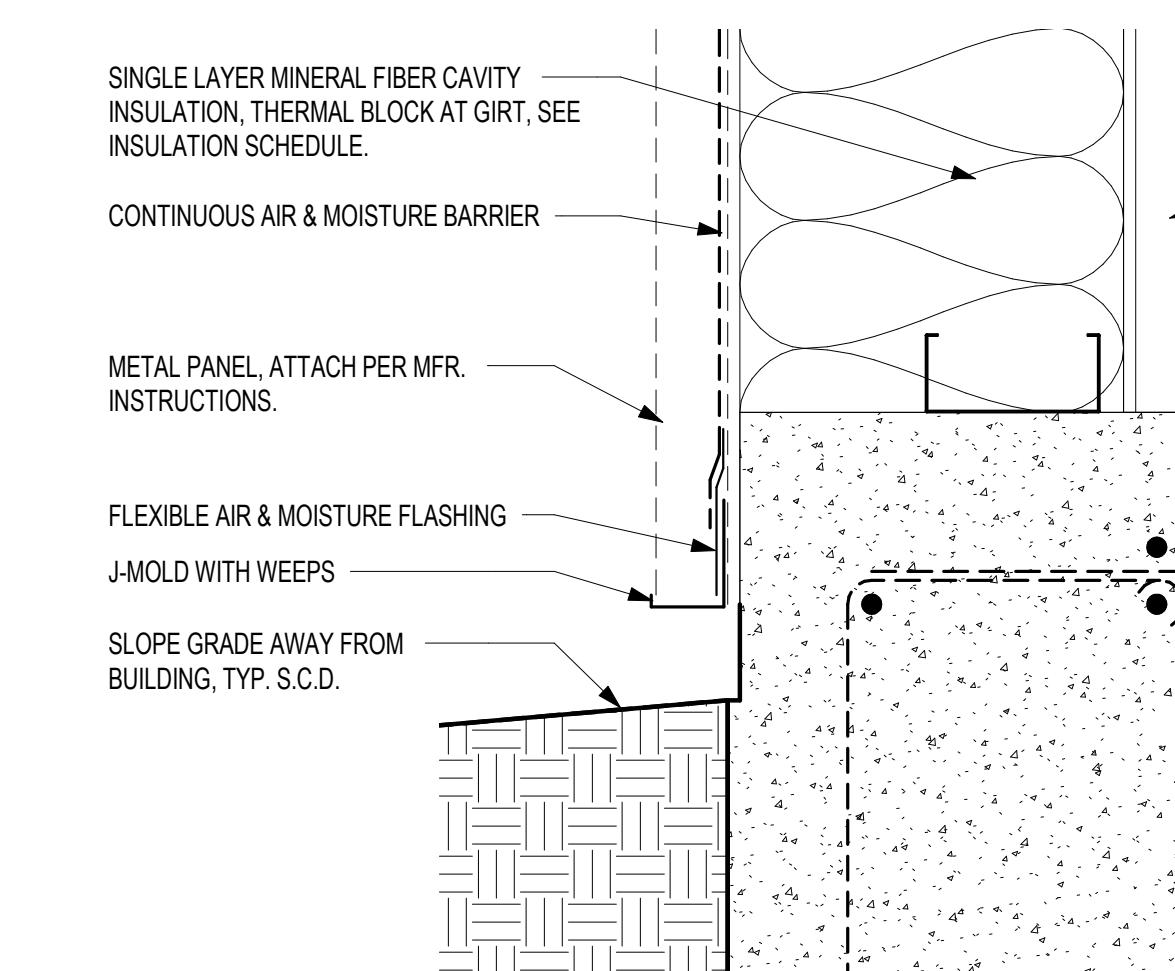
SECTION DETAIL - STOREFRONT BASE 4



SECTION DETAIL - TYP. WINDOW HEADER 3



SECTION DETAIL - TYP. WINDOW SILL 2



SECTION DETAIL - WALL BASE @ M-01 1

DOOR AND WINDOW NOTES

- CODE COMPLIANCE:** FABRICATION AND INSTALLATION OF ALL NEW DOORS, WINDOWS, AND STOREFRONT TO BE IN FULL COMPLIANCE WITH ALL APPLICABLE SECTIONS OF THE 2018 INTERNATIONAL BUILDING CODE WILL ALL UPDATES AND AMENDMENTS.
- SHOP DRAWINGS:** GENERAL CONTRACTOR SHALL PROVIDE COMPLETE SHOP DRAWINGS OF ALL GLAZING, FENESTRATION, ALUMINUM VENTS, ETC. FOR ARCHITECT AND ENGINEER OF RECORD'S REVIEW AS REQUIRED, AND (3) COPIES FOR SUBMITTAL WITH FINAL SEALED DRAWINGS TO BUILDING DEPARTMENT.
- TEST REPORTS:** CONTRACTOR SHALL SUBMIT TEST REPORTS (IF REQUIRED DUE TO EXCESSIVE WIND LOADS) AND PROVIDE DRAWINGS OF ALL NEW EXTERIOR DOORS, WINDOWS, AND STOREFRONT WITH FULLY-ENGINEERED SHOP DRAWINGS AND ATTACHMENT DETAILS PRIOR TO COMMENCEMENT OF FABRICATION. FINAL SHOP DRAWINGS TO BE SIGNED AND SEALED BY A LOCAL REGISTERED ENGINEER.
- ROUGH OPENINGS:** GENERAL CONTRACTOR SHALL VERIFY ALL REQUIRED ROUGH OPENING SIZES WITH THE SELECTED DOOR MANUFACTURER(S) AND WINDOW MANUFACTURER(S) PRIOR TO START OF CONSTRUCTION, AND ADJUST ALL ROUGH OPENINGS AS INDICATED ON THE CONSTRUCTION DOCUMENTS AS REQUIRED.
- WINDOWS:** ALL NEW WINDOWS AND STOREFRONTS TO BE CONSTRUCTED OF HEAVY-DUTY GAUGE COMMERCIAL GRADE ALUMINUM WITH FACTORY POWDER-COAT PAINT FINISH (COLOR AS PER THE WINDOW SCHEDULE). SECURELY ATTACH ALL WINDOWS AND STOREFRONTS TO WALL OPENINGS AS PER MANUFACTURER'S SPECIFICATIONS. IN COLD CLIMATES, OR BY OWNERS REQUEST, ALL GLAZING TO BE INSULATED GLASS. PRIOR TO COMMENCEMENT OF SHOP FABRICATION, ALL WINDOW OPENINGS MUST BE FIELD VERIFIED AND MEASURED BY GLAZING SUBCONTRACTOR AND ACCEPTED BY GENERAL CONTRACTOR.
- DOORS:** ALL EXTERIOR DOORS SHALL BE CONSTRUCTED OF MINIMUM 18 GAUGE GALVANIZED COMMERCIAL GRADE STEEL WITH HEAVY-DUTY HOLLOW METAL CONSTRUCTION AND HONEYCOMB INFILL CORE INSULATION. INTERIOR DOOR CONSTRUCTION AND SPECIFICATIONS AS NOTE IN DOOR SCHEDULE.
- FRAMES:** HOLLOW STEEL DOOR FRAMES SHALL BE HEAVY-DUTY 16 GAUGE GALVANIZED COMMERCIAL GRADE STEEL WITH MITERED, WELDED CORNERS ROUNDED TO A SMOOTH, UNIFORM FINISH. WALL ANCHORS APPROPRIATE TO FLOOR AND WALL CONSTRUCTION SHALL BE PROVIDED ON EACH JAMB. ALL FRAMES SHALL BE PREPARED, REINFORCED, DRILLED, AND TAPPED TO RECEIVE SPECIFIED MORTISED IRONMONGERY.
- SKYLIGHTS:** IF REQUIRED BY WIND LOADS, ALL SKYLIGHTS ON ROOF SHALL BE WIND LOAD APPROVED "IMPACT RESISTANT", AND ADHERE TO ALL REQUIREMENTS OF SECTION 2405 OF THE IBC.
- EGRESS:** ALL DOORS AND GATES TO FULLY COMPLY WITH ALL MEANS OF EGRESS REQUIREMENTS IN SECTION 1003.3 OF THE IBC.

WINDOW SCHEDULE

MARK	WIDTH	HEIGHT	DESCRIPTION	HEAD HEIGHT	SILL TYPE	FINISH	WINDOW REMARKS
A	3'-0"	6'-0"	COMMERCIAL-GRADE FIXED-GLASS ALUMINUM WINDOWS	9'-0"		TO MATCH STOREFRONT	J
B	3'-0"	4'-0"	COMMERCIAL-GRADE PASS-THRU ALUMINUM WINDOW WITH TEMPERED GLASS	7'-0"	BLACK		T

DOOR / WINDOW REMARKS

- A HANDICAP ACCESSIBLE DOOR:** DOOR AND INSTALLATION TO BE IN FULL COMPLIANCE WILL ALL APPLICABLE SECTIONS, REQUIREMENTS, AND AMENDMENTS OF THE ICC/ANSI A117.1-2003 (ACCESSIBLE AND USABLE BUILDINGS AND FACILITIES), AND CHAPTER 11 (ACCESSIBILITY) OF THE 2018 INTERNATIONAL BUILDING CODE, AND ALL OTHER LOCAL ORDINANCES AND REGULATIONS.
- B LOADING DOOR:** COMMERCIAL-GRADE ALUMINUM OVERHEAD COILING DOOR. MAKE/MODEL BY OWNER.
- C LOUVER VENTS:** PROVIDE HEAVY-DUTY SECURITY-TYPE HORIZONTAL METAL LOUVERS WITH INTERIOR METAL BUG SCREEN FOR VENTILATION IN DOOR OR WINDOW PANELS.
- D THRESHOLDS:** INSTALL A.D.A. APPROVED HANDICAP-ACCESSIBLE RAISED ALUMINUM, GRANITE, OR MARBLE THRESHOLD AT DOOR OPENING SECURED TO SLAB (12" IN MAX HEIGHT). MAKE/MODEL BY OWNER. COORDINATE WITH FINISH FLOOR THICKNESS.
- E KICK PLATE:** PROVIDE 12" HIGH X 34" WIDE MANUFACTURED STAINLESS STEEL KICK PLATE ON INTERIOR FACE OF DOOR. MAKE/MODEL BY OWNER.
- F PEEPHOLE:** INSTALL 1-1/2" DIA. SECURITY VIEWER IN CENTER OF DOOR AT 5'-4" ABOVE FINISHED FLOOR. MAKE/MODEL BY OWNER.
- G LOUVERED TRANSOM:** INSTALL HORIZONTAL METAL LOUVERS WITH INTERIOR METAL BUG SCREEN TRANSOM ABOVE DOOR. SEE ELEVATIONS.
- H DOOR CLOSER:** INSTALL A.D.A. APPROVED COMMERCIAL-GRADE ADJUSTABLE DOOR CLOSER. MAKE/MODEL BY OWNER. FINISH: BRUSHED ALUMINUM.
- I PVC DOOR:** WATER-PROOF FLUSH PLASTIC 1-3/4" THICK DOOR CONSTRUCTED OF PVC PANELS WITH PVC FRAME AND WEATHER STRIP SEALED EDGE.
- J GLASS:** U-VALUE AND SHGC SHALL MEET OR EXCEED:
DOORS: U-VALUE=.83 MAX. SHGC=.25 MAX.
WINDOWS: U-VALUE=.50 MAX. SHGC=.25 MAX.
- K HANDLES / DEADBOLTS:** PROVIDE ROUNDED-STYLE STOREFRONT-TYPE PULL HANDLES ON EXTERIOR FACE WITH KEYED DEADBOLT AND PUSH BAR ON INTERIOR FACE. MAKE/MODEL PER OWNER.
- L HANDLE / LOCK SET 1:** LEVER-TYPE LOCK SET WITH KEYED DEADBOLT. MAKE/MODEL PER OWNER.
- M HANDLE / LOCK SET 2:** A.D.A. APPROVED LEVER-TYPE LOCK SET WITH LEVER-TYPE INTERIOR LOCK. MAKE/MODEL PER OWNER.
- N HANDLE / LOCK SET 3:** PROVIDE 12 INCH STAINLESS STEEL DOOR HANDLE PULL AND PUSH PLATE
- O DOOR FLUSH BOLTS:** SURFACE FLUSH BOLTS INTO HEAD AND THRESHOLD OF DOOR FRAME WITHIN 1" EMBED. MAKE/MODEL PER OWNER.
- P DUMPSTER GATES:** CUSTOM FABRICATED HEAVY-DUTY METAL FULL-LOUVERED GATES WITH HINGES WELDED TO STEEL BOLLARDS OR ANGLES EMBEDDED INTO CONCRETE COLUMNS. PROVIDE HEAVY-DUTY METAL HANDLES ON EACH. SEE DUMPSTER ENCLOSURE ELEVATIONS.. MAKE/MODEL PER OWNER.
- Q DROP-RODS:** PROVIDE 1-1/2" DIA. 36" LONG STEEL DROP-RODS (WITH LIFT HANDLE) TO SECURE EACH GATE IN THE OPEN AND CLOSED POSITIONS. WITH METAL SLEEVES PLACED INTO ASPHALT PAVING FOR LOCKING RODS IN BOTH POSITIONS.. MAKE/MODEL PER OWNER.
- R LOW-E GLASS:** INSTALL COMMERCIAL-GRADE GLASS WITH LOW-E SOLAR TINTING (INSULATED WHERE INDICATED). MAKE/MODEL PER OWNER.
- S GLASS TRANSOM:** PROVIDE FIXED GLASS STOREFRONT TRANSOM ABOVE EXTERIOR DOOR. SEE ELEVATIONS.
- T WINDOW SILL:** INSTALL CUSTOM 4" THICK FULL-WINDOW-WIDTH COUNTER - EXTEND 8" BEYOND FACE OF FINISH WALL AND 4" TO EITHER SIDE OF THE WINDOW.
- U FIRE-RATED:** 90-MINUTE FIRE-RATED FLUSH STEEL PREHUNG COMMERCIAL DOOR WITH WELDED FRAME

DOOR HARDWARD

	HINGES 4-1/2" X 4-1/2"	LOCKSET	PRIVACY SET	SURFACE CLOSER	STOP	THRESHOLD	STOP WITH HOOK	WEATHER STRIPPING	FLUSHBOLTS	KICK PLATE	EXIT PANIC HARDWARE	PUSH / PULL PLATE / BAR	GASKETING	SILENCER	RESTROOM SIGN	REMOTE ELEC. UNLOCK	ALL HARDWARE SUPPLIED BY DOOR MFR	
ONE																		●
TWO	● ●	●	●	●	●	●	●	●	●	●		●	●	●				
THREE	● ●	●	●	●	●	●	●	●	●	●		●	●	●	●	●		
FOUR	● ●		●															
FIVE	● ●																	
SIX	●		●										●	●				
SEVEN	●		●	●									●					

DOOR SCHEDULE

MARK	TYPE	WIDTH	HEIGHT	TYPE / MATERIAL	FRAME	FINISH	DOOR HARDWARE	DOOR/WINDOW REMARKS
01	EXTERIOR	3'-0"	7'-0"	STOREFRONT / METAL & GLASS	SILVER ALUM.	SILVER ALUM.	ONE	A,D,H,J,K,M,S
02	EXTERIOR	3'-0"	6'-8"	EXTERIOR	P11	P11	TWO	A,D,H,K,M
03	EXTERIOR	3'-0"	6'-8"	EXTERIOR	P12	P12	TWO	A,D,H,K,M
04	EXTERIOR	3'-0"	6'-8"	EXTERIOR FIRE RATED (90 MIN.)	P9	P9	THREE	A,H,K,M,U
05	EXTERIOR	3'-0"	6'-8"	EXTERIOR FIRE RATED (90 MIN.)	P9	P9	THREE	A,H,K,M,U
06	OVERHEAD	10'-0"	14'-0"	GARAGE DOOR	P12	P12	ONE	B
10	INTERIOR	3'-0"	6'-8"	FLUSH / SOLID CORE WOOD DOOR	P9	P9	FOUR	A,H,L
11	INTERIOR	3'-0"	6'-8"	FLUSH / SOLID CORE WOOD DOOR	P9	P10	SEVEN	A,L
12	INTERIOR	3'-0"	6'-8"	STOREFRONT / METAL & GLASS	BLACK ALUM.	BLACK ALUM.	ONE	A,D,L
13	INTERIOR	3'-0"	6'-8"	FLUSH / SOLID CORE WOOD DOOR	P9	P10	FIVE	A,L
14	INTERIOR	3'-0"	6'-8"	FLUSH / SOLID CORE WOOD DOOR	P9	P10	FIVE	A,L
15	INTERIOR	3'-0"	6'-8"	FLUSH / SOLID CORE WOOD DOOR	P9	P10	FIVE	A,L
16	INTERIOR	3'-0"	6'-8"	FLUSH / SOLID CORE WOOD DOOR	P9	P10	FIVE	A,L
17	INTERIOR	3'-0"	6'-8"	FLUSH / SOLID CORE WOOD DOOR	P9	P10	SIX	A,E,H,N
18	INTERIOR	3'-0"	6'-8"	FLUSH / SOLID CORE WOOD DOOR	P9	P10	SIX	A,E,H,N
19	INTERIOR	2'-8"	6'-8"	FLUSH / SOLID CORE WOOD DOOR	P9	P10	FIVE	L
20	INTERIOR	3'-0"	6'-8"	FLUSH / SOLID CORE WOOD DOOR	P9	P10	FIVE	A,L
21	INTERIOR	2'-8"	6'-8"	FLUSH / SOLID CORE WOOD DOOR	P9	P10	FIVE	L
22	INTERIOR	2'-8"	6'-8"	FLUSH / SOLID CORE WOOD DOOR	P9	P10	FIVE	L
23	INTERIOR	2'-8"	6'-8"	FLUSH / SOLID CORE WOOD DOOR	P9	P10	FIVE	L

ROOM FINISH KEY

FLOOR TYPES

- F1 POLISHED CONCRETE FLOOR:** GRIND CONCRETE SMOOTH WITH DIAMOND TOOLING. ONCE GROUTED, DENSIFY CONCRETE WITH A CHEMICAL DENSIFIER / HARDENER. POLISH TO SMOOTH FINISH WITH MIN. 800 GRID DIAMOND. FINISH WITH LIQUID APPLIED GUARD / SEALER DENSIFIER: LS SEALER, HARDENER & DENSIFIER GUARD / SEALER: LS GUARD AND PROTECTIVE TREATMENT FINISH: GLOSSY

F2 TILE FLOOR TYPE 'A': COMMERCIAL-GRADE CERAMIC TILE

- SIZE: 24" X 24"
MAKE/MODEL: PER OWNER
COLOR: PER OWNER

F3 TILE FLOOR TYPE 'B': COMMERCIAL-GRADE CERAMIC TILE

- SIZE: 24" X 24"
MAKE/MODEL: PER OWNER
COLOR: PER OWNER

F4 VINYL FLOOR TYPE: COMMERCIAL-GRADE LAY-IN VINYL

- SIZE: PER OWNER
MAKE/MODEL: PER OWNER
COLOR: PER OWNER

F5 CARPET: COMMERCIAL-GRADE CARPET

- MAKE/MODEL: PER OWNER
COLOR: PER OWNER

F6 PAINTED OR STAINED CONCRETE: ROLLED-ON COMMERCIAL-GRADE CONCRETE PAINT OR STAIN

- MAKE/MODEL: PER OWNER
COLOR: PER OWNER

B1 VINYL BASE: COMMERCIAL-GRADE 6" HIGH 1/8" THICK COLOR INTEGRATED VINYL WALL BASE

- SHAPE: COVE-TOE
MAKE/MODEL: PER OWNER
COLOR: BLACK / CHARCOAL

B2 VINYL BASE: COMMERCIAL-GRADE 6" HIGH 1/8" THICK COLOR INTEGRATED VINYL WALL BASE

- SHAPE: COVE-TOE
MAKE/MODEL: PER OWNER
COLOR: WHITE

P1 PAINT TYPE 'A': SATIN LATEX (2-COATS)

- MAKE/MODEL: SHERWIN WILLIAMS, PRO-INDUSTRIAL
COLOR: BLUE ACCENT WALLS

P2 PAINT TYPE 'B': SATIN LATEX (2-COATS)

- MAKE/MODEL: SHERWIN WILLIAMS, PRO-INDUSTRIAL
COLOR: WHITE WALLS

P3 PAINT TYPE 'C': SATIN LATEX (2-COATS)

- MAKE/MODEL: SHERWIN WILLIAMS, PRO-INDUSTRIAL
COLOR: GRAY ACCENT WALLS

P4 PAINT TYPE 'D': SATIN LATEX (2-COATS)

- MAKE/MODEL: SHERWIN WILLIAMS, DURATION
COLOR: TRDI BLUE 1

P5 PAINT TYPE 'E': SATIN LATEX (2-COATS)

- MAKE/MODEL: SHERWIN WILLIAMS, DURATION
COLOR: TRDI BLUE 2

P6 PAINT TYPE 'F': SATIN LATEX (2-COATS)

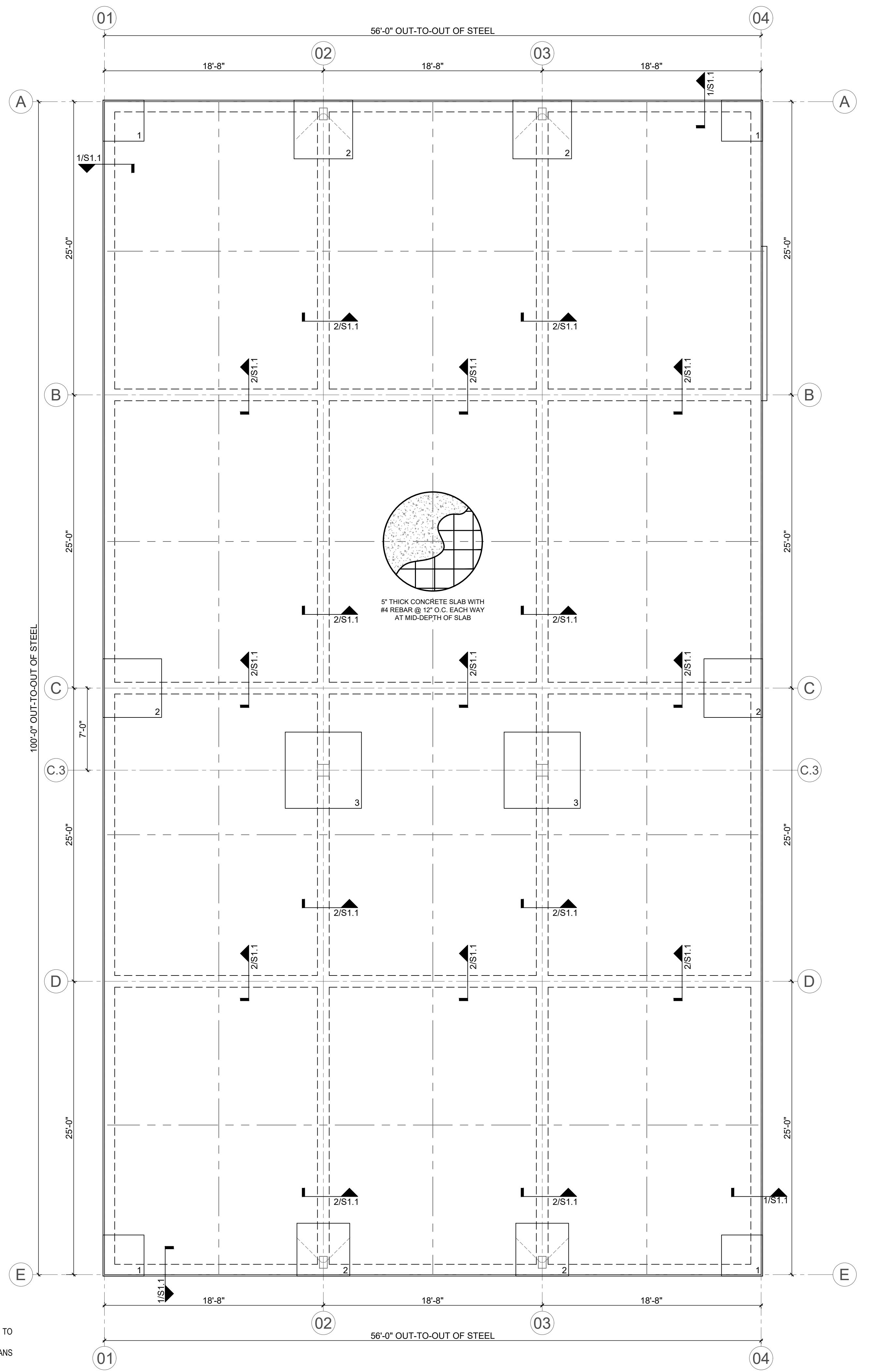
- MAKE/MODEL: SHERWIN WILLIAMS, DURATION
COLOR: TRDI BLUE 3

P7 PAINT TYPE 'G': SATIN LATEX (

FOR REVIEW ONLY
NOT FOR CONSTRUCTION



THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY
LUCAS CASTILLO, P.E. NO. 11899.



DESIGN CRITERIA

1. DESIGN LOADS, STRUCTURAL ANALYSIS AND PREPARATIONS OF STRUCTURAL MEMBERS ARE BASED ON THE FOLLOWING:

- CODE: 2018 IBC
- WIND DESIGN: ASCE 07 - 16
- ROOF LIVE LOAD: 20 PSF
- ROOF DEAD LOAD: 10 PSF

THE SPECIFICATION PRESENTED ON THESE PLANS ARE PRELIMINARY. ONCE FINAL, SEALED PLANS ARE AVAILABLE FOR THE PROPOSED PAVILION STRUCTURE, A REVIEW OF THE SEALED PLANS MUST BE MADE TO MAKE SURE THAT THESE SPECIFICATIONS ARE IN ACCORDANCE WITH THE APPLIED LOADINGS AND DESIGN CRITERIA PRESENTED ON THE SEALED PLANS.

CAST-IN-PLACE CONCRETE

- VERIFY ALL DIMENSIONS, COORDINATE WITH ARCHITECTURAL PLANS PRIOR TO CONSTRUCTION AND NOTIFY ARCHITECT AND OR ENGINEER OF ANY DISCREPANCIES.
- ALL CONCRETE SHALL CONFORM TO THE AMERICAN CONCRETE INSTITUTED SPECIFICATION, ACI #301 AND ACI #318, LATEST EDITION.
- THE MINIMUM 28 DAYS CYLINDER STRENGTH SHALL BE AS FOLLOWS:

SYSTEM	STRENGTH AT 28 DAYS	MAXIMUM SLUMP	MAXIMUM AGGREGATE
SLAB-ON-GRADE	3000 PSI	5"	1-1/2"
- ALL CONDUIT OR PLUMBING LINES IN SLAB SHALL BE PLACED BELOW SLAB REINFORCING. ALL CONDUIT TO BE NO GREATER THAN 1" DIAMETER AND TO BE PLACED IN CENTER OF SLAB. NO PLUMBING LINES GRATER THAN 1" ALLOWED IN THE SLAB.
- ALL OPENINGS IN SLAB (FOR PIPING, DRAINS, ETC.) SHALL BE SEALED WITH 1/2 SEALANT 2A/SELF-LEVELING 2-PART POLYURETHANE.
- THE VAPOR RETARDANT BELOW ALL SLAB AREAS SHALL BE 10 MIL POLYETHYLENE WITH ALL JOINTS LAPPED 12" CONTINUOUS AND SEALED. DROP VAPOR BARRIER DOWN THE SIDES OF ALL BEAM TRENCHES. DO NOT PLACE VAPOR BARRIER ACROSS TRENCH BOTTOM.
- CURING COMPOUND SHALL BE PLACED WITHIN FOUR (4) HOURS AFTER CONCRETE HAS BEEN PLACED. CONCRETE SHALL BE MAINTAINED ABOVE 50 DEGREES F AND IN A MOIST CONDITION FOR AT LEAST THE FIRST SEVEN (7) DAYS AFTER PLACEMENT.
- CONCRETE COVER FOR REINFORCING AS INDICATED.
- ANCHOR BOLTS, DOWELS, INSERTS, ETC. SHALL BE SECURELY TIED IN PLACE PRIOR TO PLACING CONCRETE.
- REFER TO ARCHITECTURAL, MECHANICAL, PLUMBING, AND ELECTRICAL DRAWINGS FOR ALL MOLDS, GROOVES, REGLETS, ORNAMENTAL CLIPS, PIPES, CONDUITS, INSERTS, ETC. TO BE CAST IN CONCRETE. PROVIDE OVERSIZED SLEEVES FOR PLUMBING AND ELECTRICAL CONDUITS AND PIPES. NO PIPES OR DUCTS SHALL BE PLACED IN CONCRETE, FOOTINGS, OR SLAB UNLESS SPECIFICALLY DETAILED IN THESE PLANS, OR AS DIRECTED BY THE ENGINEER.
- UTILITIES THAT PROJECT THROUGH SLAB FLOORS SHOULD BE DESIGNED WITH EITHER SOME DEGREE OF FLEXIBILITY OR WITH SLEEVES IN ORDER TO PREVENT DAMAGE TO THE LINES SHOULD VERTICAL MOVEMENT OCCUR.
- CONCRETE TO BE CURED IN ACCORDANCE WITH ACI RECOMMENDATIONS. PROPOSED METHOD OF CURING TO BE COORDINATED WITH ENGINEER PRIOR TO CONCRETE PLACEMENT.

REINFORCING STEEL

- ALL DETAILING, FABRICATION AND ERECTION OF REINFORCING BARS, AND ALL ACCESSORIES OTHERWISE NOTED, SHALL BE IN ACCORDANCE WITH THE ACI "MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE". ACI #315 LATEST EDITION.
- ALL REINFORCING BARS SHALL BE NEW BILLET STEEL AND SHALL CONFORM TO ASTM A615 GRADE 60 SPECIFICATIONS.
- PROVIDE CORNER BARS TOP AND BOTTOM AT ALL BEAM CORNERS AND DEAD END BEAM INTERSECTIONS. BARS TO EQUAL SIZE AND QUANTITY OF THE NOTED BEAM STEEL. BARS SHALL LAP BEAM REINFORCEMENT 40 BAR DIAMETERS.
- BARS DETAILED AS CONTINUOUS SHALL BE LAPPED 40 BAR DIAMETERS AT SPLICES.
- EXTEND THE SLAB REINFORCING STEEL PERPENDICULAR TO THE BEAM, TO THE TOP OUTSIDE REINFORCING BAR OF PERIMETER BEAMS. START THE SLAB REINFORCING STEEL PARALLEL TO THE BEAM, NOT MORE THAN 6" FROM THE TOP INSIDE REINFORCING BAR OF PERIMETER BEAMS.
- PROVIDE #4 "Z" BARS AT 12" ON CENTER WHERE THE SLAB STEPS DOWN MORE THAN 3". THE "Z" BARS AT 12" ON CENTER WHERE THE SLAB STEPS DOWN MORE THAN 3", THE "Z" BARS SHALL LAP THE MAIN SLAB REINFORCING STEEL 40 BAR DIAMETERS.

GENERAL NOTES:

- THE FOLLOWING SPECIFICATIONS ARE AN OUTLINE OF MINIMUM MATERIAL REQUIREMENTS AND THEIR APPLICATION. MANUFACTURER SPECIFICATION AND LOCAL CODE REQUIREMENTS, WHEN IN EXCESS OF MINIMUM SPECIFICATION, SHALL CONTROL. IT IS THE CONTRACTOR'S RESPONSIBILITY TO REVIEW AND SUBMIT ALL SHOP DRAWINGS AND REPORT ALL DOCUMENT DISCREPANCIES TO THE STRUCTURAL ENGINEER PRIOR TO FABRICATION OR ERECTION.
- AT CONSTRUCTION ISSUE, THESE DRAWINGS REPRESENT STRUCTURAL COMPONENTS IN THEIR FINAL AND FINISHED STATE. CONSTRUCTION PROCEDURES, BRACING, METHODS, SAFETY PRECAUTIONS OR MECHANICAL REQUIREMENTS USED TO ERECT THEM ARE THE SOLE RESPONSIBILITY OF THE GENERAL CONTRACTOR OR SUBCONTRACTOR DOING THE WORK.

GEOTECHNICAL ENGINEERING REPORT

THESE PLANS AND GENERAL NOTES HAVE BEEN PREPARED WITH THE DESIGN RECOMMENDATIONS PRESENTED IN ATLAS ENGINEERING CONSULTANTS GEOTECHNICAL ENGINEERING REPORT NO. GEO22-041. THE FOLLOWING FOUNDATION DESIGN CRITERIA WAS USED IN THE FOUNDATION DESIGN:

MINIMUM GRADE BEAM WIDTH: 12 INCHES
MINIMUM WIDENED SECTION WIDTH: 24 INCHES
ALLOWABLE SOIL BEARING CAPACITY: 1,500 PSF (CONTINUOUS FOOTING)
1,800 PSF (SPREAD FOOTING)

EXCAVATIONS AND BACKFILL REQUIREMENTS

THE FOLLOWING SITE PREPARATION IS REQUIRED PRIOR TO CONSTRUCTION.

- IN ORDER TO EXPOSE CLEAN SUBGRADE SOILS, EXCAVATE TO A DEPTH OF AT LEAST 2.5 FEET AND REMOVE ALL VEGETATION AND DELETERIOUS MATERIALS FROM THE SURFACE. THE EXCAVATION SHOULD EXTEND A MINIMUM OF FIVE (5) FEET BEYOND THE PERIMETER OF THE BUILDING. POSITION DRAINAGE FROM THE STRUCTURE SHOULD BE PROVIDED.
- THE EXPOSED SUBGRADE SOILS SHOULD BE COMPAKTED TO 98 PERCENT OF THE STANDARD PROCTOR (ASTM D698) FOR A DEPTH OF AT LEAST 8 INCHES BELOW THE EXPOSED SURFACE. THE MOISTURE CONTENT OF THE COMPACTED SUBGRADE SOILS SHOULD BE WITHIN THE RANGE OF OPTIMUM TO 4 PERCENT ABOVE THE OPTIMUM MOISTURE CONTENT.
- AFTER SUBGRADE PREPARATION AND OBSERVATION HAVE BEEN COMPLETED, A MINIMUM OF 3.0 FEET OF SELECT FILL, MEETING THE SPECIFICATIONS PRESENTED BELOW, SHOULD BE PLACED BACK ON TOP OF THE PREPARED SUBGRADE SOILS. THE SOILS SHOULD BE PLACED IN MAXIMUM 8-INCH LOOSE LIFTS AND COMPACTED TO A MINIMUM OF 98 PERCENT OF THE MAXIMUM DRY DENSITY AS DETERMINED BY ASTM D698.
- THE MOISTURE CONTENT, AS DETERMINED BY ASTM D698, SHOULD BE MAINTAINED UNTIL CONSTRUCTION IS COMPLETE. EACH LIFT OF COMPACTED FILL SHOULD BE TESTED BY A TESTING LABORATORY PRIOR TO PLACEMENT OF SUBSEQUENT LIFTS.
- PROPERLY COMPACTED AND TESTED SELECT FILL SHOULD BE USED TO ACCOMMODATE RAISE IN GRADE TO ACHIEVE THE DESIRED FINISHED FLOOR ELEVATION. SELECT FILL SHOULD HAVE A MAXIMUM LIQUID LIMIT OF 40 PERCENT, A PLASTICITY INDEX BETWEEN 7 AND 18 PERCENT AND A MAXIMUM PARTICLE SIZE NOT EXCEEDING 4 INCHES OR ONE-HALF THE LOOSE LIFT THICKNESS, WHICHEVER IS SMALLER.
- SITE SHALL BE GRADED SO THAT WATER DOES NOT POND WITHIN 10 FEET OF THE PERIMETER FOUNDATION BEAM DURING OR AFTER CONSTRUCTION. THE SLOPE OF THE GROUND SURFACE AWAY FROM THE STRUCTURE SHOULD BE A MINIMUM OF 5% FOR A DISTANCE OF AT LEAST 10 FEET. ELEVATION OF GROUND SURFACE ADJACENT TO THE FOUNDATION SHOULD BE AT LEAST 6 INCHES BELOW FINISH FLOOR.
- FOUNDATION CONCRETE SHALL NOT BE PLACED ON SELECT FILL SOILS THAT HAVE BEEN DISTURBED BY RAINFALL OR WATER SEEPAGE. IF BEARING SOILS ARE SOFTENED BY WATER INTRUSION, OR BY DESICCATION, THE UNSUITABLE SOILS SHALL BE REMOVED FROM THE FOUNDATION EXCAVATION AND BE REPLACED WITH PROPERLY COMPACTED SELECT FILL PRIOR TO PLACEMENT OF FOUNDATION CONCRETE. ALL SOIL REMOVAL AND REPLACEMENT COSTS, INCLUDING ASSOCIATED COSTS TO REMOVE AND REINSTALL REINFORCEMENT AND VAPOR RETARDER MATERIALS, SHALL BE THE SOLE RESPONSIBILITY OF THE GENERAL CONTRACTOR. DEPTH OF SOIL REMOVAL AND RECOMPACT REQUIREMENTS SHALL BE COORDINATED WITH THE GEOTECHNICAL ENGINEER.

FOOTING SCHEDULE				
TYPE	DEPTH (FT)	SIZE (FT)	REINFORCEMENT	DETAIL
1	3.0	3.5 x 3.5	#5 @ 6" O.C. E.W. BOT.	4/SD1
2	3.0	4.5 x 4.5	#5 @ 6" O.C. E.W. BOT.	
3	3.0	6.5 x 6.5	#5 @ 6" O.C. E.W. BOT.	

PROJECT: 914 WEST SHARM DRIVE
PHARR, TEXAS

PROJECT NO: ST24-016

DATE: 02/02/2024 DRAWN BY: X.G.

REVISION:

FOUNDATION PLAN

S1.0

FOR REVIEW ONLY
NOT FOR CONSTRUCTION



STRUCTURAL FIELD OBSERVATIONS

1. JOB SITE OBSERVATIONS BY THE PROFESSIONAL ENGINEER OR HIS AUTHORIZED REPRESENTATIVE SHALL CONSIST OF VISUAL OBSERVATION OF MATERIALS, EQUIPMENT OR CONSTRUCTION WORK FOR THE PURPOSE OF ASCERTAINING THAT THE WORK IS IN SUBSTANTIAL CONFORMANCE WITH THE CONTRACT DOCUMENTS AND WITH THE DESIGN INTENT. SUCH OBSERVATIONS SHALL NOT BE RELIED UPON BY OTHERS AS ACCEPTANCE OF THE WORK, NOR SHALL IT BE CONSTRUED TO RELIEVE THE CONTRACTOR IN ANY WAY FROM HIS OBLIGATIONS AND RESPONSIBILITIES UNDER THE CONSTRUCTION CONTRACT. SPECIFICALLY BUT WITHOUT LIMITATION, OBSERVATIONS BY THE DESIGN PROFESSIONAL SHALL NOT REQUIRE THE DESIGN PROFESSIONAL TO ASSUME RESPONSIBILITY FOR THE MEANS AND METHODS OF CONSTRUCTION, NOR FOR SAFETY ON THE JOB SITE.

2. NOTIFY ENGINEER 24 HOURS IN ADVANCE WHEN A STRUCTURAL OBSERVATION IS REQUIRED. SPECIAL INSPECTIONS INDEPENDENT OF THE CONTRACTOR, THE ARCHITECT, OR THE ENGINEER, SHALL BE PROVIDED BY A SPECIAL INSPECTOR EMPLOYED BY THE OWNER ACCORDING TO CHAPTER 17 OF THE IBC 2012. THE SPECIAL INSPECTOR SHALL OBSERVE THE WORK FOR CONFORMANCE WITH THE CONTRACT DOCUMENTS. THE SPECIAL INSPECTOR SHALL SEND WRITTEN REPORTS TO THE OWNER, THE ARCHITECT, THE ENGINEER, AND THE CONTRACTOR. THE REPORTS SHALL INDICATE IF WORK INSPECTED WAS DONE IN CONFORMANCE WITH THE CONTRACT DOCUMENTS. ALL DISCREPANCIES SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE CONTRACTOR FOR CORRECTION. IF THE DISCREPANCIES ARE NOT CORRECTED, THE SPECIAL INSPECTOR SHALL BRING THE DISCREPANCIES TO THE ATTENTION OF THE REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE PRIOR TO THE COMPLETION OF THAT PHASE OF THE WORK. THE SPECIAL INSPECTION WORK WAS, TO THE BEST OF THEIR KNOWLEDGE, IN OR NOT IN CONFORMANCE WITH THE DRAWINGS, SPECIFICATIONS AND APPLICABLE WORKMANSHIP PROVISIONS OF THE IBC 2012.

CONTINUOUS OR PERIODIC SPECIAL INSPECTION IS REQUIRED FOR THE FOLLOWING WORK:

TABLE 1704.7			
REQUIRED VERIFICATION AND INSPECTION OF SOILS			
	VERIFICATION AND INSPECTION TASK	CONTINUOUS DURING TASK LISTED	PERIODIC DURING TASK LISTED
1.	VERIFY MATERIALS BELOW SHALLOW FOUNDATIONS ARE ADEQUATE TO ACHIEVE THE DESIGN CAPACITY.	---	X
2.	VERIFY EXCAVATIONS ARE EXTENDED TO PROPER DEPTH AND HAVE REACHED PROPER MATERIAL.	---	X
3.	PERFORM CLASSIFICATION AND TESTING OF COMPACTED FILL MATERIALS.	---	X
4.	VERIFY USE OF PROPER MATERIALS, DENSITIES AND LIFT THICKNESS DURING PLACEMENT AND COMPACTION OF SELECT FILL.	X	---
5.	PRIOR TO PLACEMENT OF COMPACTED FILL, OBSERVE SUBGRADE AND VERIFY THAT SITE HAS BEEN PREPARED PROPERLY.	---	X

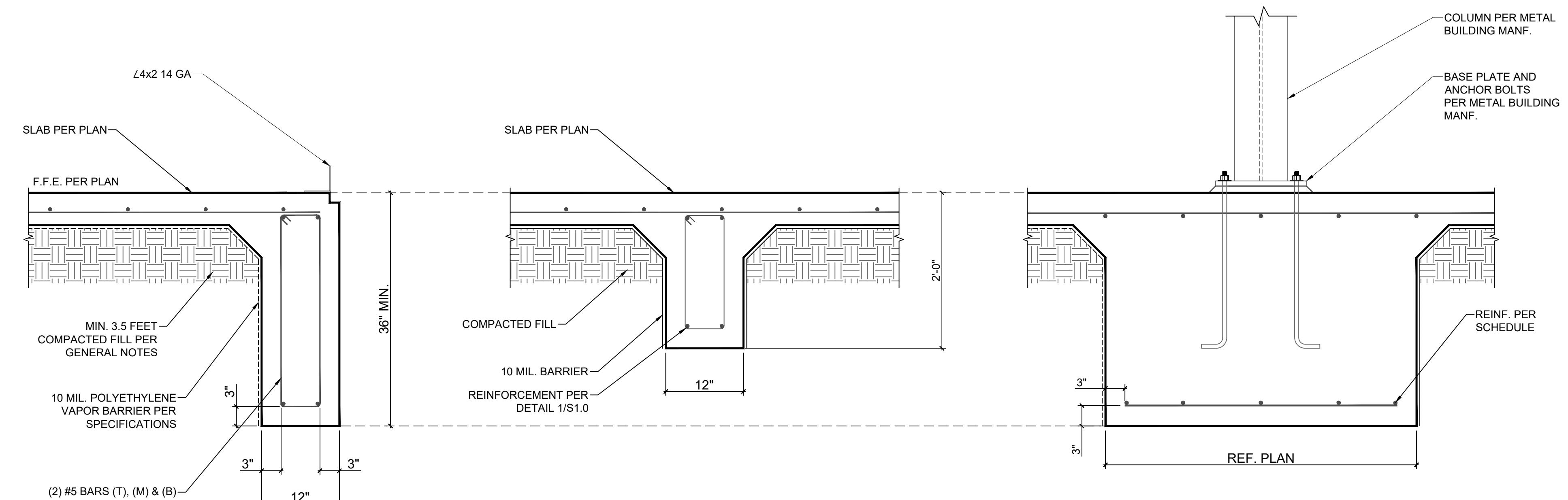
TABLE 1704.4			
REQUIRED VERIFICATION & INSPECTION OF CONCRETE CONSTRUCTION			
	VERIFICATION AND INSPECTION	CONTINUOUS	PERIODIC
1.	INSPECTION OF REINFORCING STEEL, INCLUDING PRESTRESSING TENDONS, AND PLACEMENT	---	X
2.	INSPECTION OF REINFORCING STEEL WELDING IN ACCORDANCE WITH TABLE 1704.3, ITEM 5B.	---	---
3.	INSPECT BOLTS TO BE INSTALLED IN CONCRETE PRIOR TO AND DURING PLACEMENT OF CONCRETE WHERE ALLOWABLE LOADS HAVE BEEN INCREASED OR WHERE STRENGTH DESIGN IS USED.	X	---
4.	INSPECTION OF ANCHORS INSTALLED IN HARDENED CONCRETE.	---	X
5.	VERIFYING USE OF REQUIRED DESIGN MIX.	---	X
6.	AT THE TIME FRESH CONCRETE IS SAMPLED TO FABRICATE SPECIMENS FOR STRENGTH TESTS, PERFORM SLUMP AND AIR CONTENT TESTS, AND DETERMINE THE TEMPERATURE OF THE CONCRETE.	X	---
7.	INSPECTION OF CONCRETE AND SHOTCRETE PLACEMENT FOR PROPER APPLICATION TECHNIQUES	X	---
8.	INSPECTION FOR MAINTENANCE OF SPECIFIED CURING TEMPERATURE AND TECHNIQUES.	---	X
9.	INSPECTION OF PRESTRESSED CONCRETE.		
A.	APPLICATION OF PRESTRESSING FORCES	X	---
B.	GROUTING OF BONDED PRESTRESSING TENDONS IN THE SEISMIC-FORCE-RESISTING SYSTEM.	X	---
10.	ERCTION OF PRECAST CONCRETE MEMBERS.	---	X
11.	VERIFICATION OF IN-SITU CONCRETE STRENGTH, PRIOR TO STRESSING OF TENDONS IN POST-TENSIONED CONCRETE AND PRIOR TO REMOVAL OF SHORES AND FORMS FROM BEAMS AND STRUCTURAL SLABS.	---	X
12.	INSPECT FORMWORK FOR SHAPE, LOCATION AND DIMENSIONS OF THE CONCRETE MEMBER BEING FORMED.	---	X

PROJECT:
914 WEST SHARM DRIVE
PHARR, TEXAS

PROJECT NO.: ST24-016
DATE: 02/02/2024 DRAWN BY: X.G.
REVISION:

DETAILS

S1.1



1. EXTERIOR GRADE BEAM

2. INTERIOR GRADE BEAM

4. FOOTING AT COLUMN TYP.

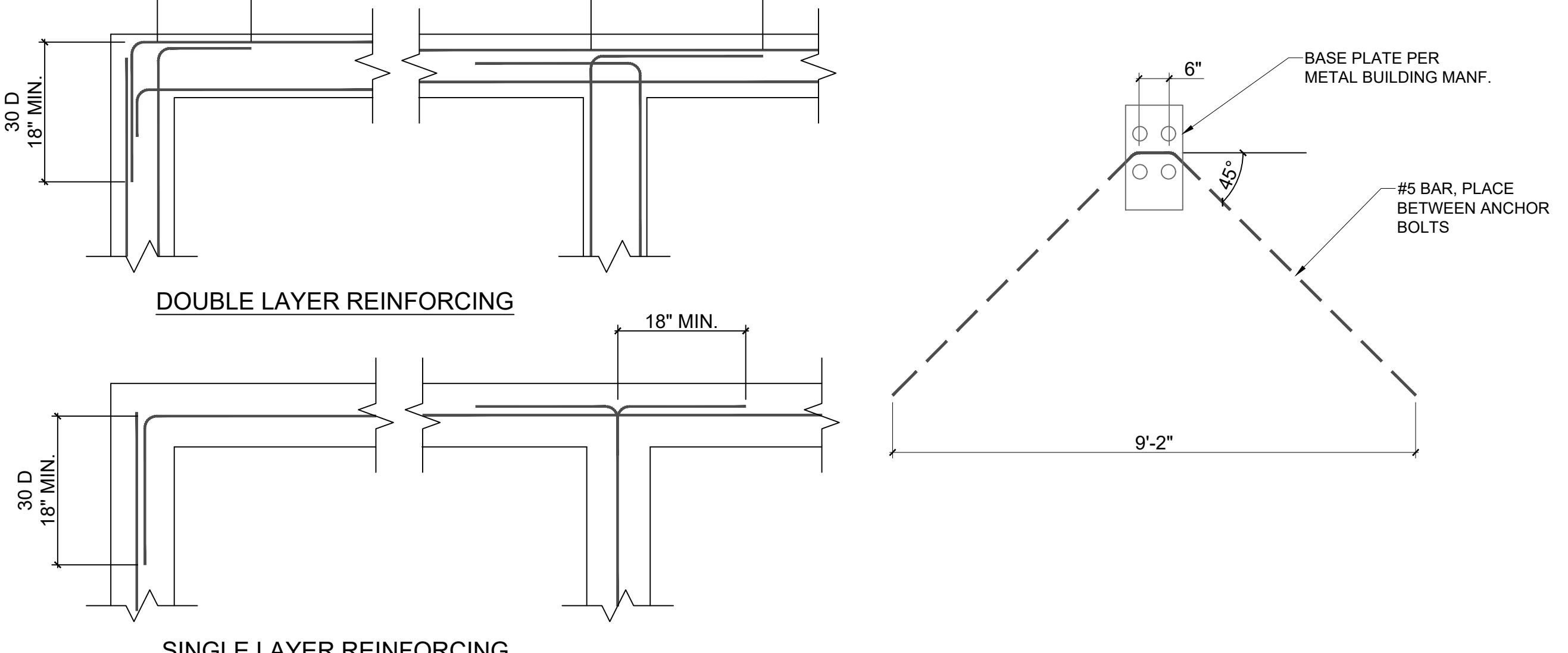
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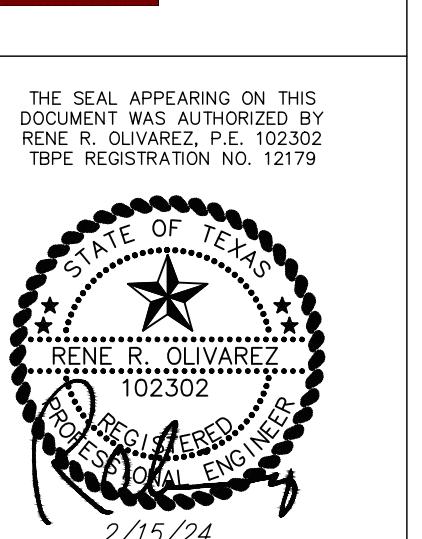
- SPACING SHALL NOT EXCEED 25 FEET.
- JOINT PATTERN SHOULD BE NEARLY SQUARE.
- SAW CUT SHALL BE MADE WITHIN 4 HOURS OF PLACEMENT (OR AS SOON AS SLAB SURFACE CAN BE WALKED UPON WITHOUT MARKING).
- FILL SAW CUT FULL DEPTH WITH "SKOOUR S1" AFTER SLAB IS CURED (28 DAYS MIN.).
- THIS DETAIL TO BE USED ONLY IN THE ABSENCE OF ARCHITECTURAL INFORMATION FOR CONTRACTION JOINTS.

5. CONTRACTION JOINT

6. REINF. AT CORNERS & INTERSECTIONS

7. REINF. AT FOOTING





PROJECT #: 2319

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PHARR, TX 78577

DUCT SYMBOLS		ABBREVIATIONS		ABBREVIATIONS	
	DESCRIPTION				
	DUCT - FIRST NUMBER IS VISIBLE DIMENSION.			KHE KW KWH KITCHEN HOOD EXHAUST KILOWATTS KILOWATT HOUR	
	MITERED ELBOW W/TURNING VANES			L L-# LAT LBS. LIQ LPS LWT LOUVER DESIGNATION LEAVING AIR TEMPERATURE POUNDS LIQUID LOW PRESSURE STEAM LEAVING WATER TEMPERATURE	
	RADIUS ELBOW W/VANE(S) (1.5-R/D STANDARD)			M MA MAX. MBH MINIMUM BTU/HR. MCA MINIMUM CIRCUIT AMPACITY MCV MINIMUM CUBIC FEET MIN. MINUTES MOPC MAXIMUM OVERTCURRENT PROTECTION MPS MAXIMUM PRESSURE STEAM MSS "MANUFACTURERS STANDARDIZATION SOCIETY of the Valves and Fittings Industry, Inc."	
	DUCT SECTION, POSITIVE PRESSURE			N N/A NC N.C. NEBB N.I.C. N.O. N.T.S. NOT APPLICABLE NOISE CRITERIA NORMALLY CLOSED NATIONAL ENVIRONMENTAL BALANCING BUREAU NOT IN CONTRACT NORMALLY OPEN NOT TO SCALE	
	DUCT SECTION, NEGATIVE PRESSURE			O O/A OD OSHA OZ OUTSIDE AIR OUTSIDE DIAMETER OCCUPATIONAL SAFETY and HEALTH ADMINISTRATION OUNCE	
	DUCT & AIRFLOW UP(LEFT) POSITIVE PRESSURE			P PD PH PPM PRI PRESS. PSI PSIA PSIG PRESSURE DIFFERENCE PHASE PART PER MILLION PRIMARY PRESSURE POUNDS PER SQUARE INCH "PSI, ABSOLUTE" "PSI, GAGE"	
	DUCT & AIRFLOW UP(RIGHT) POSITIVE PRESSURE			R R R-22 R/A RCVR RD RE: 1/M-xx RECIRC. RF RH RL RPM RPS RS RTU RV THERMAL RESISTANCE REFRIGERANT-22 RETURN AIR RECEIVER ROOT DRAIN RECIRCULATE RETURN FAN RELIEF HOOD REFRIGERANT LIQUID REVOLUTIONS PER MINUTE REVOLUTIONS PER SECOND REFRIGERANT SUCTION ROOFTOP UNIT RELIEF VENT	
	DUCT & AIRFLOW UP(LEFT) NEGATIVE PRESSURE			S S SA S/A SAT SD SF SG SMACNA SECOND SOUND ATTENUATOR SUPPLY AIR SATURATION SMOKE DETECTOR SUPPLY FAN SPECIFIC GRAVITY "SHEET METAL and AIR CONDITIONING" "CONTRACTORS' NATIONAL ASSOCIATION" STATIC PRESSURE SPECIFICATION SQUARE FEET SUCTION	
	DUCT & AIRFLOW UP(RIGHT) NEGATIVE PRESSURE			T TD TEMP TONS TSTAT TU TEMPERATURE DIFFERENCE TEMPERATURE TONS OF REFRIGERATION THERMOSTAT TERMINAL UNIT	
	DUCT & AIRFLOW UP(LEFT) NEG./POS. PRESSURE			U U U/C UG UH U.N.O. UV HEAT TRANSFER COEFFICIENT UNDER COUNTER UNDERGROUND UNIT HEATER UNLESS NOTED OTHERWISE UNIT VENTILATOR	
	DUCT & AIRFLOW UP(RIGHT) NEG./POS. PRESSURE			V V VA VAC VAR VAV VEL. VENT. VERT. VFT VOL. VP VTR W W/ W/O W WB WBT WT W WITH WITHOUT WATTS WET BULB WET BULB TEMPERATURE WEIGHT	
	CHANGE OF ELEVATION-RISE (R), DROP (D)			X Y YCO YD YR Z ZN YARD CLEANOUT YARD YEAR ZONE	
	DUCT W/INTERNAL LINING				
	CLEAR INSIDE DIMENSIONS SHOWN				
	ACCESS DOOR-SIDE (L), BOTTOM (M), TOP (R)				
	FLEXIBLE CONNECTOR				
	FLEXIBLE DUCT				
	FD - FIRE DAMPER, SD - SMOKE DAMPER, FSD - FIRE/SMOKE DAMPER.				
	MANUAL VOLUME DAMPER-SPECIFIC TYPE, NO LABEL-BUTTERFLY, OBD-OPPOSED BLADED DAMPER, PBD-PARALLEL BLADE DAMPER				
	MOTORIZED DAMPER OR ZONE CONTROL DAMPER				
	BRANCH TAP-W/45 DEG. ENTRY				
	BRANCH TAP-CONICAL SPIN-IN				
	BRANCH TAP-STRAIGHT SPIN-IN				
	TRANSITION				
	EXISTING DUCTWORK TO BE DEMOLISHED				
	EXISTING DUCTWORK TO REMAIN				
	HVAC - EQUIP AS NOTED				
	RTU-# FCU-# XXX-#				
	AIR DEVICE, SUPPLY- CEILING, CLEAR				
	AIR DEVICE, TAC SPIN-IN DIMENSION AIRFLOW (CFM)				
	AIR DEVICE, RETURN- CEILING.				
	AIR DEVICE, EXHAUST- CEILING.				
	AIR DEVICE, SUPPLY- SIDEWALL.				
	AIR DEVICE, RETURN/EXHAUST- SIDEWALL.				

GENERAL MECHANICAL NOTES AND SPECIFICATIONS:

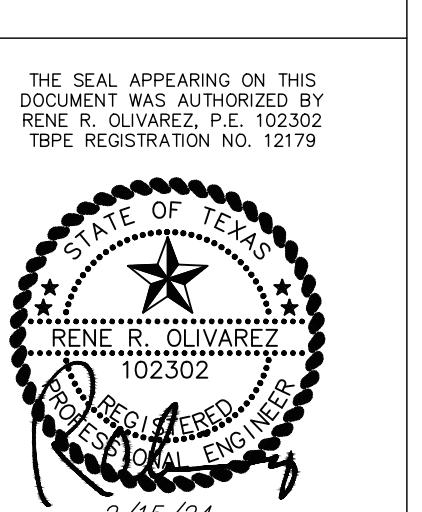
- METAL AND FLEXIBLE DUCTS**
- DRAWINGS ARE DIAGRAMMATIC IN NATURE. FOR CLARITY SAKE, MOST DUCT OFFSETS/RISES/DROPS ARE NOT SHOWN, RECTANGULAR AND ROUND DUCTWORK SHALL BE GALVANIZED STEEL. SIZES SHOWN ARE INSIDE CLEAR DIMENSION.
 - FIELD VERIFY ALL CONDITIONS AND MEASURE DIMENSIONS WITHIN THE BUILDING PRIOR TO ORDERING EQUIPMENT AND/OR PROCEEDING WITH INSTALLATION.
 - ALL EQUIPMENT SHALL BE FACTORY TESTED, AND CONTRACTOR SHALL VERIFY THEIR CONDITION PRIOR TO INSTALLATION. CONTRACTOR IS RESPONSIBLE FOR EQUIPMENT DAMAGED DURING MOVING AND INSTALLATION.
 - EQUIPMENT FOUND DEFECTIVE PRIOR TO FINAL ACCEPTANCE SHALL BE REPLACED AT NO COST TO OWNER.
 - SUBMISSION OF BID PROPOSAL IS CONSIDERED AN ACKNOWLEDGEMENT THAT CONTRACTOR VISITED SITE, AND VERIFIED ALL EXISTING CONDITIONS, AND INCLUDED ANY MODIFICATIONS TO EXISTING AND NEW WORK REQUIRED FOR INSTALLATION OF A COMPLETE AND OPERATIONAL MECHANICAL SYSTEM.
 - COORDINATE WITH OWNER AND ENGINEER FOR ANY DISRUPTION IN UTILITY SERVICES, PARTICULARLY THOSE THAT MIGHT AFFECT OTHER BUILDINGS IN THE CAMPUS.
 - CONTRACTOR SHALL NOT PROCEED WITH ANY WORK INVOLVING A CHANGE IN PROJECT SCOPE OR COST WITHOUT FIRST HAVING OBTAINED ENGINEER'S APPROVAL IN WRITING. UNLESS ENGINEER HAS AGREED TO SUCH CHANGE PRIOR TO IT BEING DONE, AND HAS AGREED THAT AN INCREASE IN COST ASSOCIATED WITH SUCH CHANGE IS WARRANTED; CONTRACTOR WILL NOT BE REIMBURSED FOR SUCH CHANGE.
 - TESTING, ADJUSTING AND BALANCING (TAB) CONTRACTOR SHALL BE RETAINED BY THE PRIME CONTRACTOR TAB SHALL NOT BE PART OF THE MECHANICAL CONTRACT.
 - CODES AND ORDINANCES**
 - PERFORM ALL WORK PER LATEST VERSION OF INTERNATIONAL MECHANICAL CODE, AND APPLICABLE LOCAL CODES AND ORDINANCES, UNLESS DRAWINGS OR SPECIFICATIONS HAVE MORE STRINGENT REQUIREMENTS.
 - CONTRACTOR IS RESPONSIBLE FOR ALL PERMITS AND FEES ASSOCIATED WITH PROJECT, INCLUDING FEES FOR INSPECTIONS, APPLICATIONS, AND PROVISION OF NEW SERVICES.
 - NOTIFY ENGINEER OF ANY ASPECTS OF DESIGN WHICH ARE THOUGHT TO BE IN NONCOMPLIANCE WITH APPLICABLE CODES.
 - COORDINATION**
 - REFER TO ARCHITECTURAL AND STRUCTURAL PLANS FOR DETAILS OF CONSTRUCTION, INCLUDING BEAMS, FLOOR AND WALL PENETRATIONS, CHASES, AND REFLECTED CEILING PLANS. VERIFY OPENING SIZES WITH EQUIPMENT FURNISHED.
 - COORDINATE ALL WORK WITH OTHER TRADES; COORDINATE SCHEDULE OF WORK WITH ALL SUB-CONTRACTORS TO ACHIEVE SMOOTH FLOW OF CONSTRUCTION.
 - CONTRACTOR SHALL REVIEW COMPLETE DOCUMENTS PRIOR TO SUBMITAL OF PROPOSAL TO GAIN COMPLETE UNDERSTANDING OF PROJECT SCOPE, WORK BY OTHERS, AND MECHANICAL WORK ASSOCIATED WITH OTHER DISCIPLINES.
 - ENGINEER/ ARCHITECT MUST BE GIVEN AT LEAST A TEN (10) WORKING DAY NOTICE TO PERFORM ALL TYPES OF INSPECTIONS. COORDINATE WORK SCHEDULE WITH ARCHITECT AND ENGINEER TO PLAN ACCORDINGLY FOR APPROPRIATE INSPECTIONS.
 - ECONOMIZER**
 - DUCT WRAP INSULATION SHALL BE MINERAL FIBER INSULATION. ALL SERVICE JACKETING MANUFACTURED FROM VINYL, REINFORCED VINYL, ALUMINUM FOIL AND VINYL FILM. ACCEPTABLE MANUFACTURER'S ARE CERTIFIED, KNAUF OR OWENS-CORNING. INSTALL DUCT WRAP INSULATION PER MANUFACTURER'S INSTRUCTIONS. INTERIOR DUCTWORK TO BE INSULATED WITH DUCT WRAP INSULATION. ALL SUPPLY DUCTS TO HAVE 3" MIN. THICKNESS (R-8) INSULATION AND ALL RETURN AND OUTSIDE AIR DUCTS TO HAVE 2" MIN. INSULATION.
 - TESTING, ADJUSTING AND BALANCING (TAB)**
 - TAB TO BE PERFORMED BY AN INDEPENDENT ENTITY, CERTIFIED BY AABC OR NEBB.
 - PERFORM TESTING AND BALANCING PROCEDURES PER AABC'S "NATIONAL STANDARDS FOR TOTAL SYSTEM BALANCE" OR NEBB'S "PROCEDURAL STANDARDS FOR TESTING, ADJUSTING, AND BALANCING OF ENVIRONMENTAL SYSTEMS".

DRAWN BY: H.M.
REVIEWED BY: R.O.
ISSUED DATE: 2/15/24
REVISION / ADDENDA

NO. DATE DESCRIPTION

MECHANICAL SYMBOLS
& ABBREVIATIONS

SHEET
M0.0



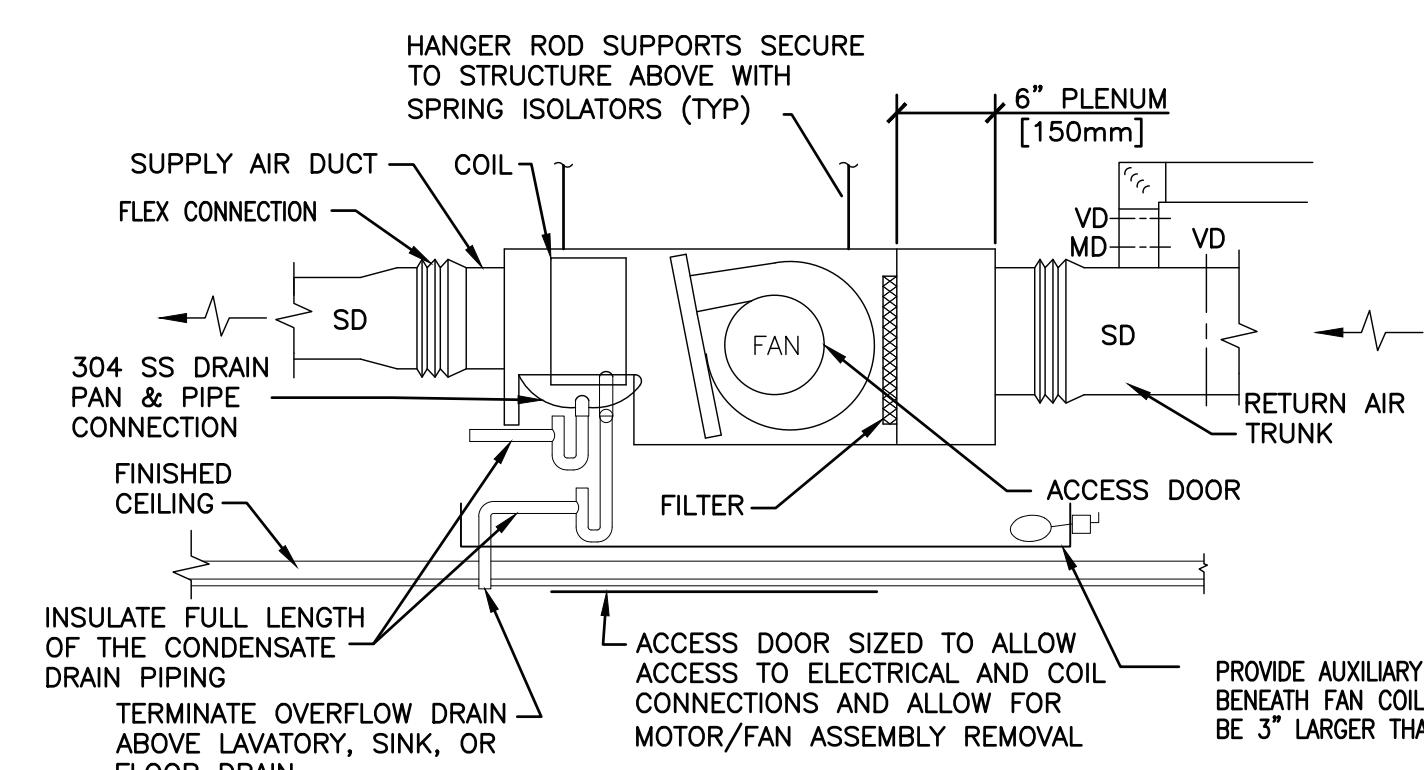
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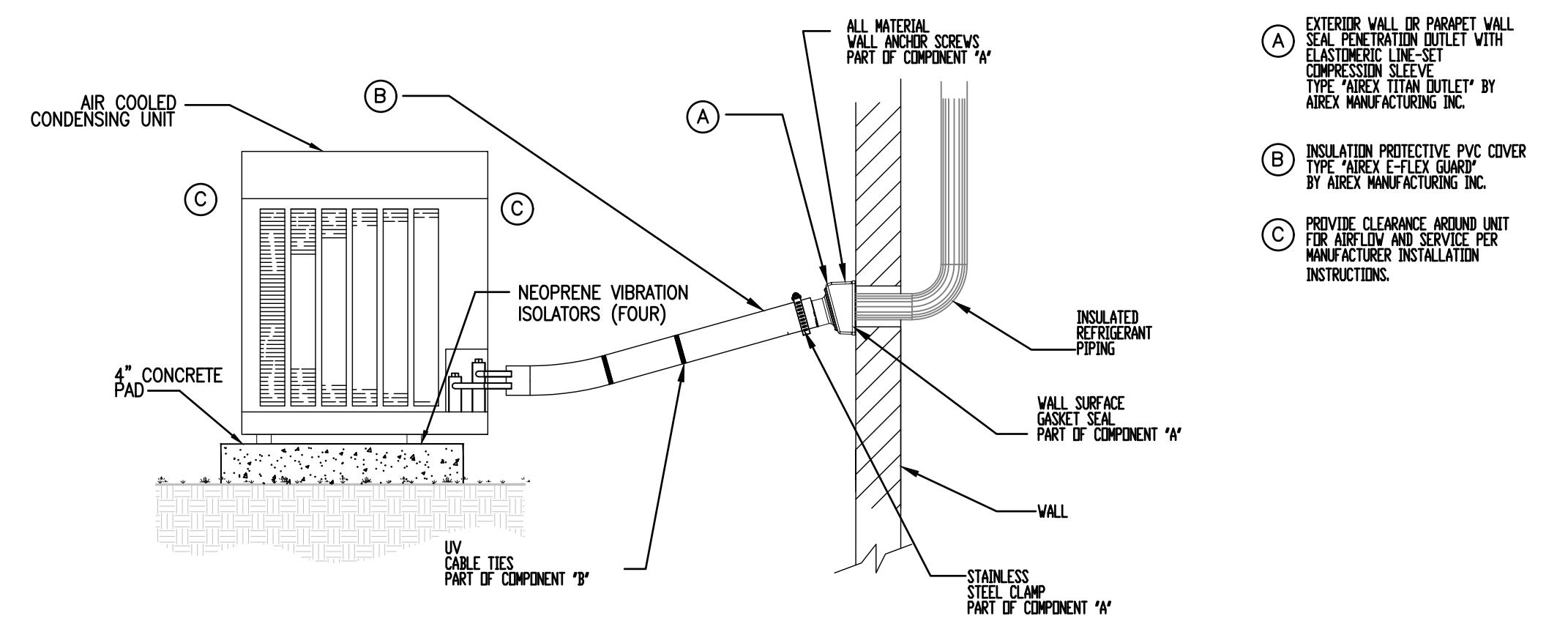
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REVISION / ADDENDA
NO. DATE DESCRIPTION

MECHANICAL SYMBOLS & ABBREVIATIONS

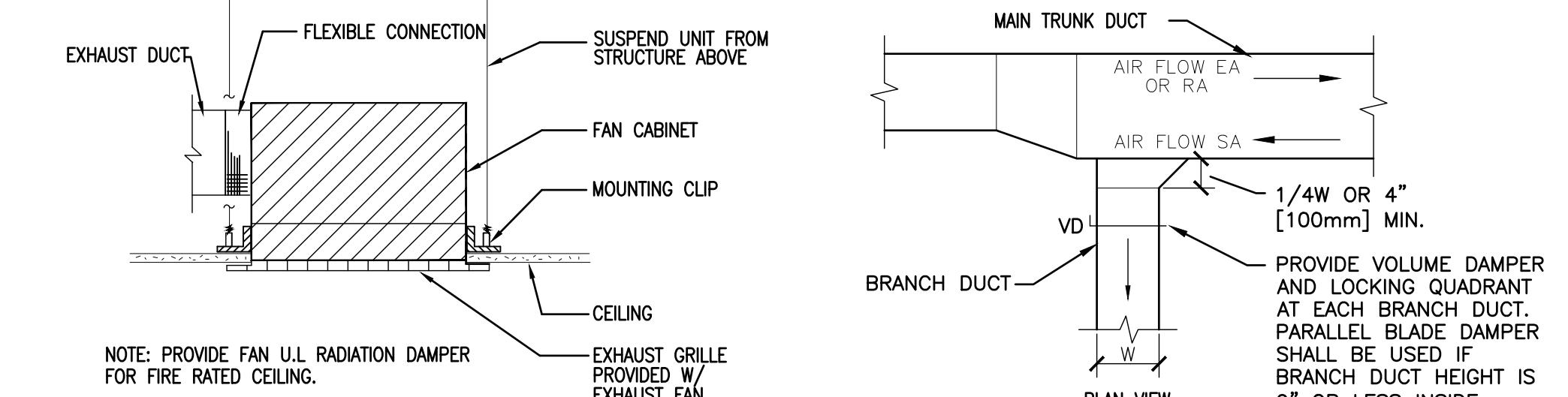
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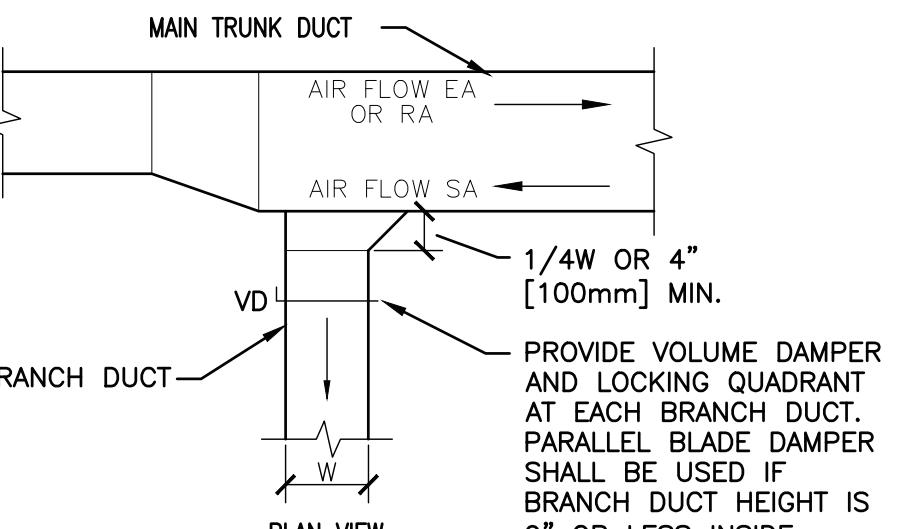
1 FAN COIL UNIT - HORIZONTAL CONCEALED
NTS



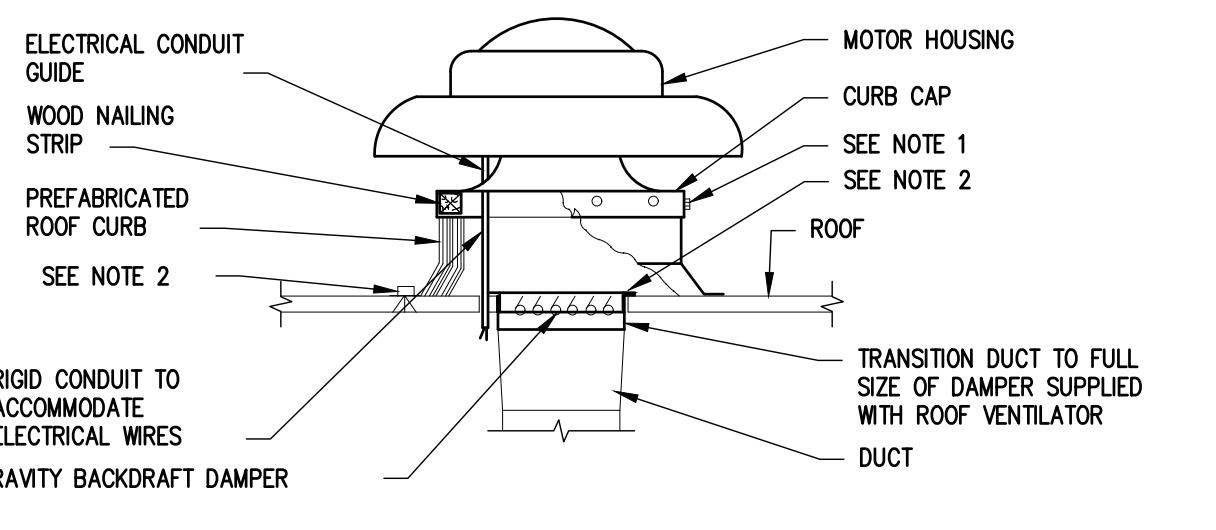
2 CONDENSING UNIT MOUNTING ON GRADE REFRIGERANT PIPING DIAGRAM
NTS



3 CEILING MOUNTED EXHAUST FAN
NTS



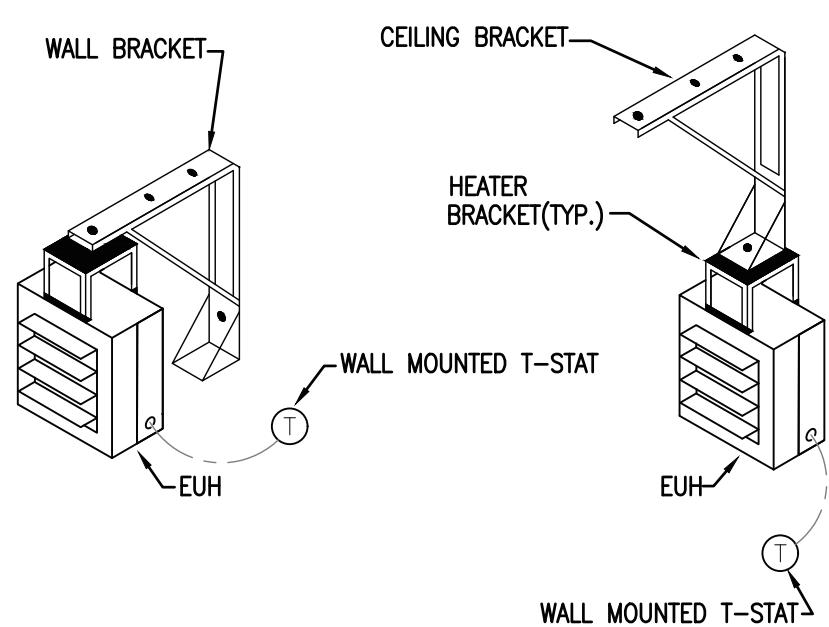
4 BRANCH DUCT TAKE-OFF PAN VIEW
NTS



- NOTE:
1. SECURE CURB CAP TO WOOD NAILING STRIP WITH 3/8" [10mm] CADMIUM PLATED LAG BOLTS NOT OVER 12" [300mm] ON CENTER.
2. SECURE ROOF CURB, DUCTWORK AND DAMPER TO ROOF WITH EXPANSION BOLTS (CONCRETE ROOF) OR RUST RESISTANT BOLTS (MENTAL DECK & BAR JOIST ROOF).
RUN ELECTRICAL LINES THROUGH CLEARANCE HOLE PROVIDED IN GRAVITY DAMPER, THEN THROUGH
3. VENTILATOR ELECTRICAL CONDUIT GUIDE.

5 ALTERNATE SUPPLY DUCT TAKEOFF - AIR TERMINAL UNITS
NTS

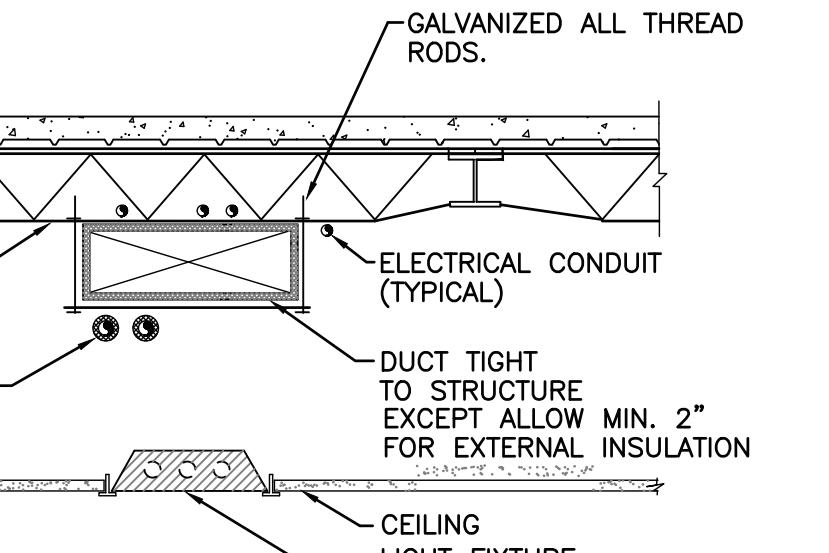
6 FLEXIBLE AIR DUCT CONNECTOR
NTS



- NOTE:
1. THE VOLUME DAMPER W/ LOCKING QUADRANT APPLIES TO CONCEALED AND EXPOSED SYSTEMS.

7 INTAKE HOOD
NTS

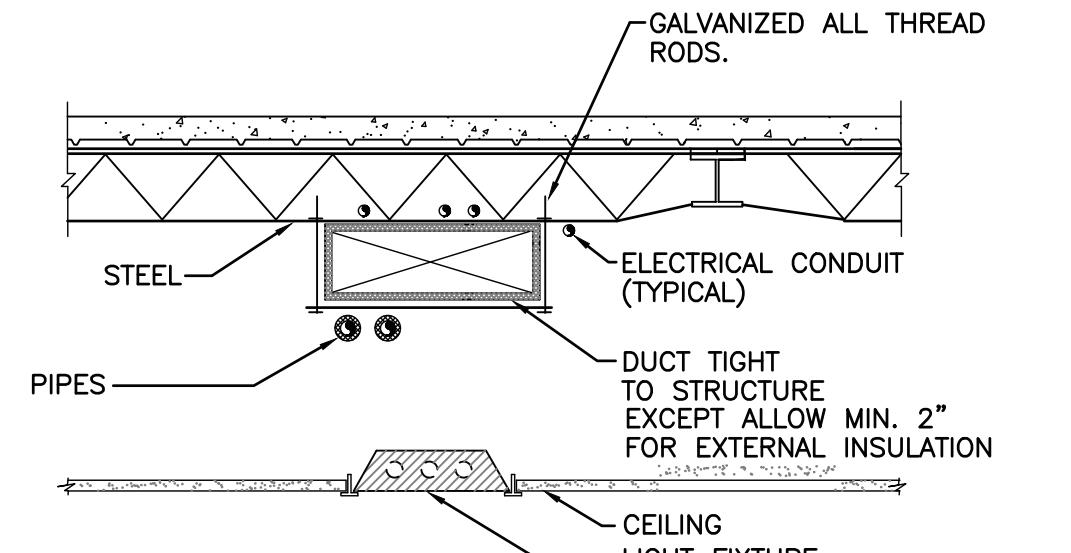
8 POWER ROOF VENTILATOR
NTS



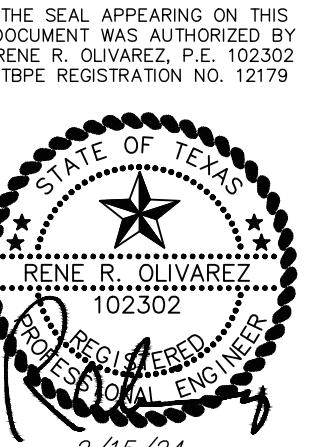
- NOTES:
1. PIPES AND ELECTRICAL CONDUIT CAN BE ROUTED BETWEEN JOISTS OR THROUGH JOIST WEB SPACE AS REQUIRED.
2. U.L. DESIGN ASSEMBLY NUMBERS ARE SHOWN ON ARCHITECTURAL PLANS WHEN REQUIRED.
3. INSTALLATION OF ALL SERVICES MUST BE COORDINATED BY THE CONTRACTOR.

9 ELECTRIC UNIT HEATER DETAIL
NTS

10 RECTANGULAR DUCT INSTALLATION
NTS



- NOTES:
1. PIPES AND ELECTRICAL CONDUIT CAN BE ROUTED BETWEEN JOISTS OR THROUGH JOIST WEB SPACE AS REQUIRED.
2. U.L. DESIGN ASSEMBLY NUMBERS ARE SHOWN ON ARCHITECTURAL PLANS WHEN REQUIRED.
3. INSTALLATION OF ALL SERVICES MUST BE COORDINATED BY THE CONTRACTOR.



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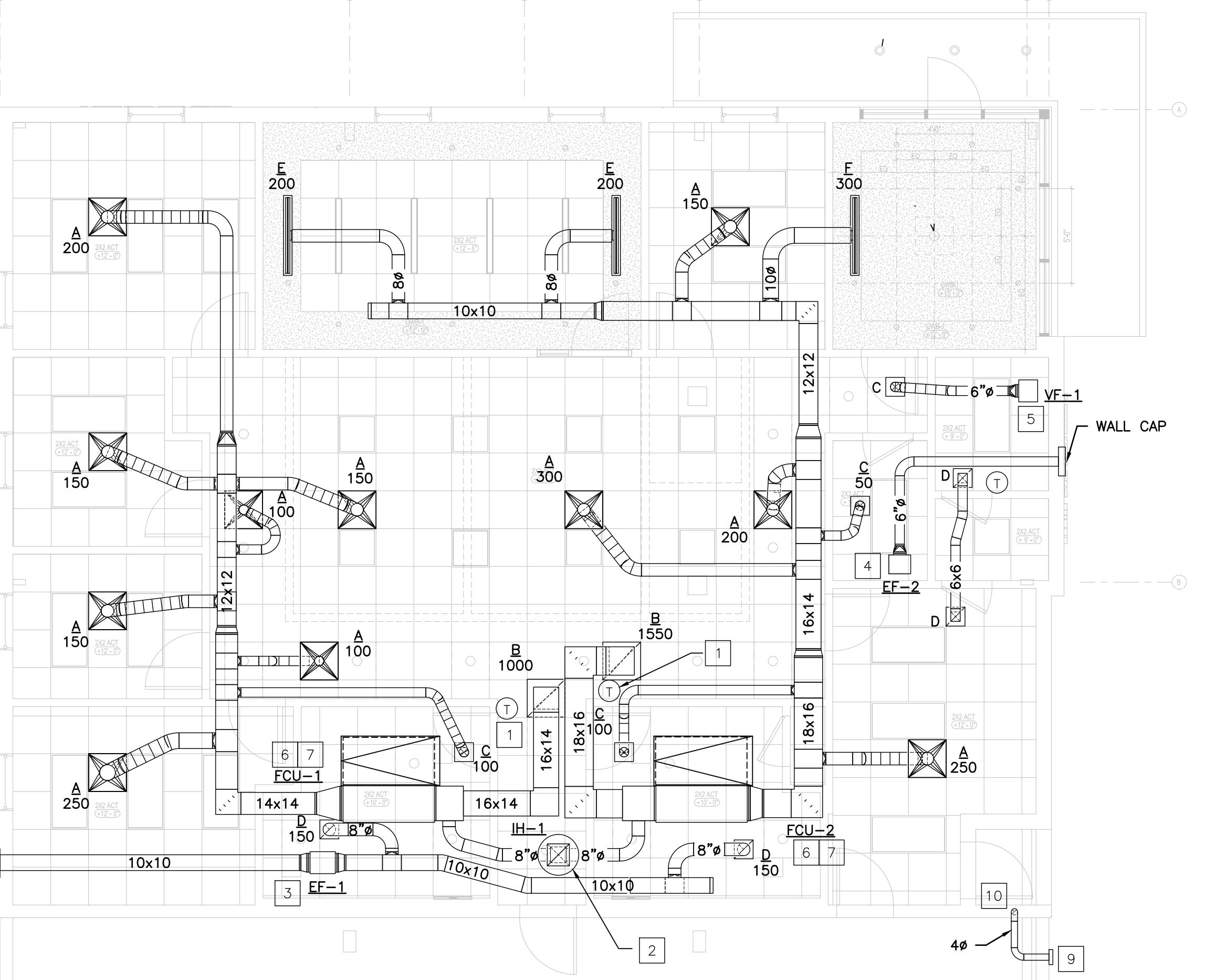
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MECHANICAL GENERAL NOTES:

- A. CONTRACTOR SHALL BALANCE EACH DEVICE WITH THE CFM SHOWN ON PLAN.
- B. NEW PIPING AND DUCTWORK SHOWN ON PLAN ARE SCHEMATIC ONLY. CONTRACTOR SHALL COORDINATE WITH OTHER TRADES FOR PIPING AND DUCTWORK ROUTING, OFFSET AND RUN PIPING, DUCTWORK INSIDE THE STRUCTURE IF REQUIRED. PROVIDE ANY EXTRA PIPING, DUCTWORK, FITTINGS, INSULATIONS AND OTHER ACCESSORIES IN ORDER TO COMPLETE THE INSTALLATION.
- C. COORDINATE LOCATIONS AND SIZES OF ROOF OPENINGS WITH OWNER AND STRUCTURE ENGINEERS.
- D. EQUIPMENT SIZES, DIMENSIONS AND REQUIRED CONNECTIONS SHALL BE VERIFIED WITH THE ACTUAL EQUIPMENT SELECTED VENDOR DRAWINGS BEFORE FABRICATION OF DUCTWORK, PIPING, ETC..
- E. DUCT SIZES SHOWN ON PLANS ARE CLEAR INSIDE AIR STREAM DIMENSIONS.
- F. CONTRACTOR SHALL COORDINATE ALL ELECTRICAL REQUIREMENTS FOR ALL HVAC BASED ON ACTUAL EQUIPMENT SELECTED PRIOR TO INSTALLATION.
- G. CONTRACTOR SHALL COORDINATE EQUIPMENT WEIGHTS AND SUPPORTS BASED ON ACTUAL EQUIPMENT SELECTED.
- H. ALL EXPOSED DUCTWORK SHALL BE AS SHOWN, DOUBLE-WALL, INSULATED METAL, PRIMED FOR PAINTING, UNLESS OTHERWISE NOTED ON PLAN. ALL CONCEALED DUCTWORK SHALL BE INSULATED DUCT BOARD RECTANGULAR UNLESS ALLOWED IN WRITING BY THE ENGINEER OF RECORD. COORDINATE FINAL FINISH WITH ARCHITECT.
- I. COORDINATE WITH ALL TRADES FOR MATERIALS IN RATED AND PLENUM SPACES.
- J. ALL EXHAUST FANS SCHEDULED TO BE AUTOMATICALLY CONTROLLED BY MECHANICAL AIR HANDLERS SHALL BE CONNECTED BY MEANS OF AN AUXILIARY RELAY. PROVIDE AUXILIARY RELAY AS NEEDED.
- K. ALL SOURCE OF MECHANICAL INTAKE SHALL MAINTAIN 10 LINEAR FEET SEPARATION BETWEEN ANY SOURCE OF EXHAUST. CONTRACTOR IS RESPONSIBLE TO ADJUST DUCT LENGTH AS NEEDED.

KEYED NOTES:

1. LOCATION OF DIGITAL THERMOSTAT CONTROL. PROVIDE LOCKABLE COVER.
2. PROVIDE ROOF MOUNTED INTAKE HOOD AS SPECIFIED ON SCHEDULE. VERIFY EXACT LOCATION OF STRUCTURAL MEMBERS PRIOR TO INSTALLATION.
3. PROVIDE ACCESS PANEL FOR CEILING MOUNTED EXHAUST FAN. INTERCONNECT EXHAUST FAN WITH LIGHTS IN THIS ROOM. REFER TO ELECTRICAL LIGHTING PLAN. FAN SHALL BE SUSPENDED FROM STRUCTURE ABOVE. VERIFY EXACT LOCATION OF STRUCTURAL MEMBERS PRIOR TO INSTALLATION. PROVIDE WALL CAP EQUAL TO LOREN COOK WCR6-ALUM AND INSTALL BOTTOM OF WALL CAP AT SAME HEIGHT AS EXHAUST FAN.
4. PROVIDE ACCESS PANEL FOR CEILING MOUNTED EXHAUST FAN. INTERCONNECT EXHAUST FAN WITH DEDICATED MOTOR RATED SWITCH. REFER TO ELECTRICAL LIGHTING PLAN. FAN SHALL BE SUSPENDED FROM STRUCTURE ABOVE. VERIFY EXACT LOCATION OF STRUCTURAL MEMBERS PRIOR TO INSTALLATION. PROVIDE WALL CAP EQUAL TO LOREN COOK WCR6-ALUM AND INSTALL BOTTOM OF WALL CAP AT SAME HEIGHT AS EXHAUST FAN.
5. PROVIDE ACCESS PANEL FOR CEILING MOUNTED EXHAUST FAN. INTERCONNECT EXHAUST FAN WITH T-STAT AND SET CUT-ON TEMP TO 80° REFER TO ELECTRICAL LIGHTING PLAN. FAN SHALL BE SUSPENDED FROM STRUCTURE ABOVE. VERIFY EXACT LOCATION OF STRUCTURAL MEMBERS PRIOR TO INSTALLATION.
6. CONTRACTOR TO RUN CONDENSATE DRAIN TO MOP SINK IN JANITOR CLOSET.
7. COORDINATE FINAL LOCATION OF FOU'S WITH ARCHITECT AND OWNER. PROVIDE ACCESS PANEL AS REQUIRED, COORDINATE WITH ARCHITECT.
8. COORDINATE FINAL LOCATION OF CU'S WITH OWNER AND ARCHITECT.
9. PROVIDE DRYER EXHAUST VENT CAP EQUAL TO BROAN 642. COORDINATE EXACT PENETRATION LOCATION WITH ARCHITECT.
10. PROVIDE DRYERBOX MODEL 350 OR EQUAL. RUN 4" FLEXIBLE THRU BOX AND THEN 4" Duct. COORDINATE EXACT LOCATION WITH ARCHITECT.



1 MECHANICAL PLAN - OVERALL

3/16" = 1'-0"

GRAVITY HOOD SCHEDULE	
MARK	IH-1
SERVICE	FCU-1
INTAKE/RELIEF	INTAKE
CFM (COMMON/ECONOMIZER)	400
HOOD SIZE (DIAMETER)	12"Ø
MIN. THROAT AREA (SQ. FT.)	0.79
THROAT AREA VELOCITY (FPM)	506
MAX. P.D. (IN. W.G.)	0.05
MANUFACTURER	L. COOK
MODEL NO.	12PR
NOTES	1

- 1. PROVIDE ROOF CURB.
- 2. PROVIDE BAROMETRIC DAMPER SIMILAR TO RUSKIN CBD6 SET AT 0.05 IN. WG: 0.125" EXTRUDED ALUMINUM FRAME; 0.070" BLADES W/ VINYL EDGE SEALS.

MECHANICAL FAN SCHEDULE										
TAG	FLOW RATE	STATIC PRESSURE	MOTOR DATA		ELECTRICAL DATA		MAXIMUM LOUDNESS	BASIS OF DESIGN		NOTES
			EXTERNAL	LOAD SPEED	MCA	MOPC		VOLTAGE	SONES	
EF-1	300	0.2	-	1500	1.0	15	120	4	L. COOK	GN-422 1-3
EF-2	75	0.15	-	750	0.4	15	120	.9	L. COOK	GC-128 2-4
VF-1	75	0.15	-	750	0.4	15	120	.9	L. COOK	GC-128 2,3,5

- 1. INTERLOCK WITH LIGHTS IN ROOM
- 2. PROVIDE FACTORY MOUNTED AND INSTALLED DISCONNECT.
- 3. PROVIDE ACCESS DOOR TO SERVICE UNIT IF IN HARD CEILING.
- 4. PROVIDE MOTOR RATED SWITCH.
- 5. INTERLOCK EXHAUST FAN TO T-STAT AND SET CUT-ON TEMP TO 80F

MECHANICAL AIR TERMINAL DEVICES SCHEDULE									
TAG	SIZE	DESCRIPTION	CONSTRUCTION		BASIS OF DESIGN		NOTES		
			FINISH	MANUFACTURER	MODEL OR SERIES				
A	24X24	LOUVERED FACE SUPPLY AIR DIFFUSER	ALUMINUM	TITUS	TMS-AA		1-5		
B	24X24	PERFORATED FACE RETURN AIR GRILLE	ALUMINUM	TITUS	PAR-A		1-5		
C	12X12	LOUVERED FACE SUPPLY AIR DIFFUSER	ALUMINUM	TITUS	TMS-AA		1-5		
D	12X12	PERFORATED FACE RETURN AIR GRILLE	ALUMINUM	TITUS	PAR-A		1-5		
E	4" Inlet 8" Inlet	1" SLOT HIGHTHROW PATTERN LINEAR DIFFUSER 2-SLOT	ALUMINUM	TITUS	FL-10		ALL		
F	4" Inlet 8" Inlet	1.5" SLOT HIGHTHROW PATTERN LINEAR DIFFUSER 2-SLOT	ALUMINUM	TITUS	FL-15		ALL		

- 1. PROVIDE STANDARD WHITE FINISH FOR ALL AIR DEVICES UNLESS NOTED OTHERWISE ON PLAN.
- 2. PAINT ALL SURFACES VISIBLE THROUGH FACE OF RETURN AIR GRILLES FLAT BLACK. THIS SHALL INCLUDE PIPING, CONDUIT, DUCTWORK, AND STRUCTURAL MEMBERS.
- 3. PROVIDE FRAME FOR MOUNTING AIR DEVICE IN LAY-IN GRID CEILING UNLESS REFLECTED CEILING PLAN INDICATES HARD CEILING. IN AREAS WITH HARD CEILINGS, PROVIDE FRAMES FOR SURFACE MOUNTING.
- 4. UNLESS OTHERWISE NOTED, BRANCH DUCTS SERVING AIR DEVICES SHALL BE SAME SIZE AS NECK OF AIR DEVICE.
- 5. AIR DEVICE SHALL BE OF GALVANIZED FINISH WHEN INSTALLED ON EXPOSED DUCTWORK.
- 6. COORDINATE SLOT DIFFUSER FRAME/BORDER TYPE AND END BORDER CONFIGURATION WITH CEILING TYPE.

FOR ROUND NECK DIFFUSERS:
6" DIA: 0-120 CFM
8" DIA: 125-220 CFM
10" DIA: 225-380 CFM
12" DIA: 385-600 CFM

TAG	MECHANICAL EQUIPMENT (ELECTRIC HEAT) SCHEDULE																		
	FLOW RATE		STATIC PRESSURE		ELECTRICAL DATA		DX COOLING		ELECTRIC HEATING		NOTES								
	SUPPLY	OA	EXTERNAL	MCA	MOPC	VOLTAGE	SENSIBLE	TOTAL	ENT. AIR TEMP	LEA. AIR TEMP									
	SUPPLY	CFM	CFM	IN WG	AMPS	AMPS	MBH	MBH	DB/WB	DB/WB									
FCU- 1	1200	200	0.6	28	30	208/3Ø	33.9	42.9	80/69	58/56	1	7.2	208/3Ø	TRANE	TEM4AOB42	1/2	15.5 SEER	133	1
CU- 1	-	-	-	21	35	208/3Ø	-	-	-	-	-	-	-	TRANE	4TR6042J	-	-	305	2
FCU- 2	1750	200	0.6	40	45	208/3Ø	39.6	46.8	80/69	58/56	1	7.2	208/3Ø	TRANE	TEM5AOCG6	1/2	15.5 SEER	143	1
CU- 2	-	-	-	30	45	208/3Ø	-	-	-	-	-	-	-	TRANE	4TR6060J	-	-	306	2

- NOTE: 1. UNIT TO BE PROVIDED WITH ELECTRIC HEAT, FAN, DX COOLING COIL AND FILTER SECTION.
- 2. PROVIDE CONCRETE PAD AND HAIL GUARD.

DRAWN BY: H.M.
REVIEWED BY: R.O.
ISSUED DATE: 2/15/24
REVISION / ADDENDA
NO. DATE DESCRIPTION

SHEET TITLE: MECHANICAL PLAN
SHEET M1.0

EXISTING CONDITIONS & COORDINATION/RENOVATION:

- Coordinate facility schedules and project completion dates with owner. Perform work in close coordination with owner. Majority of work shall be performed when school is unoccupied, such as weekends, after hours, spring and summer break or at owner approved time.
- Coordinate work among all disciplines. It is not the intent of these documents to dictate who must do the work. All work shown is the responsibility of the (prime) contractor.
- Work to be done under allowances becomes an integral part of the work and the responsibility of the contractor once the allowance is approved.
- Coordinate with owner and engineer for any disruption in utility services, especially those that might affect other buildings on campus.
- Contractor shall not proceed with any work involving a change in project scope or cost without first having obtained engineer's approval in writing, unless engineer has agreed to such change prior to it being done, and has agreed that an increase in cost associated with such change is warranted; contractor will not be reimbursed for such change.
- Owner's equipment, materials, furnishings, carpets, and interior surfaces are to be protected from dust accumulation and damage, and must be thoroughly cleaned prior to substantial completion. Refer to specifications section 26.03.00 execution requirements for further detail.
- Maintain project site free of waste materials and debris, and clean site at end of each work day to greatest extent possible.
- Submission of proposal is considered an acknowledgement that contractor visited site, verified all existing conditions, and included any modifications to existing and new work required for installation of a complete and operational system.
- Time or money allowances will not be made to accommodate conditions that could have been verified prior to submitting proposal.
- Drawings showing all equipment locations, duct and pipe sizes, elevations, and electrical information have been recreated using drawings and site surveys. Contractor is responsible for verifying all site conditions in order to make any necessary adjustments, prior to ordering materials or commencing installation. Change orders will not be approved for dimensional verifications requiring minor adjustments needed to complete installation.
- Provide owner with minimum 10 days advance notice of intent to perform any work which will require electrical service to be shut down.
- Prior to demolition work, submit a detailed demolition and construction schedule to owner and engineer. Do not proceed with work until proposed schedule is approved by all parties. Provide owner with minimum 10 days advance notice of intent to perform any work which will require electrical service to be shut down.
- Provide shop drawings to coordinate existing and new work.
- Notify owner and engineer if any materials suspected of containing asbestos are found and stop work immediately.
- It is contractor's responsibility to remove and dispose of all items indicated to be removed. Only expressly designated items shall be turned over to owner.
- Owner shall have first right of refusal of all material removed. Contractor shall dispose of all materials which the owner does not want.
- Remove all equipment, materials, control devices, boxes, power and control wiring, safety switches, tubing, electrical conduit, piping, sensors, electrical disconnects, supporting devices and structures, and all related auxiliary items associated with equipment and materials which will no longer be used after the project is complete.
- Contractor is responsible for restoring any disturbed surface to its original condition. Any road, traffic, or other painted or erected signs damaged as a result of work performed in those areas shall be restored to their original condition.
- Cutting and patching of walls damaged in the removal of items shall be done, whether or not drawings specifically call for such repairs.
- Field-verify exact locations of all existing and new utilities, prior to conducting any work. Coordinate with owners personnel and utility companies. All expenses incurred to repair damage caused to known utilities as a result of contractor's work shall be borne by the contractor. Owner will not be responsible for such costs.
- Coordinate demolition work with new and temporary construction with minimal interruption of power, and other utilities. Coordinate with owner and engineer for any disruption in utility services, particularly those that might affect occupancy.

EQUIPMENT:

- EQUIPMENT INSPECTION:**
 - Field verify all conditions and measure dimensions within the building prior to ordering equipment and/or proceeding with installation.
 - All equipment shall be factory tested, and contractor shall verify equipment condition prior to installation. Contractor is responsible for equipment damaged during moving and installation.
 - Equipment found defective prior to final acceptance shall be replaced at no cost to owner.
 - Coordinate concrete housekeeping pad extensions as needed.
- EQUIPMENT ACCESS:**
 - Provide manufacturer recommended and code enforced clearances around equipment, maintain 36" clear in front of controller, electric heaters, etc.
 - Install all valves, controls, dampers, fans, etc. in accessible locations. Provide adequately sized access doors where required.
- EQUIPMENT INSTALLATION:**
 - Provide spring hanger type vibration isolators to support powered vibrating equipment. Provide flexible duct connectors.
 - Completely weatherproof all equipment, ducts, pipes and other devices and materials installed outside the building, chiller yard area, or otherwise exposed to weather. As a minimum, weatherproofing shall include, but is not limited to the following: jacketing for all piping insulation, valves and accessories rated for outdoor service, electrical enclosures NEMA 4X-SS. Provide electrical heat tracing for utilities susceptible to freezing.
 - Affix ID tags to all mechanical equipment for specifications.
- ELECTRICAL:**
 - Contractor is responsible for coordination with electrical contractor regarding equipment sizes and types of electrical interface equipment required.
 - Due to variations in equipment characteristics by different equipment suppliers, mechanical equipment ultimately provided may differ in horsepower or amperage requirements from that specified in these drawings. Coordinate with general contractor prior to bidding, and prior to submittals and ordering equipment, to ensure that equipment electrical requirements are conveyed to electrical contractor. It is solely contractor's responsibility to ensure compatibility issues are coordinated.

ELECTRICAL:

- All electrical work shall be under the master electrician who pulled the permit and its journeyman electricians.
- Perform all work per adopted N.E.C. and applicable state standards, unless drawings or specifications have more stringent requirements.
- Minimum circuit size is 2 #12 and 1 #12 ground in 3/4" conduit for individual circuits, 3/4" conduit for multiple circuits, with the exception that any circuit longer than 100 feet shall be minimum #10 AWG with #10 ground wire. Circuit longer than 200 feet shall be minimum #8 AWG with #10 ground wire minimum. All conductors shall be 75 degree (minimum) copper thhn, color coded as per NEC and local amendments with size, temperature, and voltage permanently printed on the jacket. All joints shall be made up using self locking, twist-on, color coded square wire, spring grab, long skirt, wire connectors with swept wings.
- All existing ID name tags and circuit identification must be revised to reflect current conditions for all equipment which is new, replaced, or demolished. Remove old name tags for demolished equipment. Replace existing name tags with new for replaced equipment, if replacement equipment has different name. Provide new name tags for all new equipment. All circuit breaker directories for panels in which new work takes place are to be replaced with new directories which list existing circuits and new. All unused circuits are to be marked as spare in the directories. Directories are to be computer generated; no hand written directories are acceptable.
- Hand-written circuit breaker directories will not be accepted. Directories must be computer generated and printed to reflect final installed conditions.
- Mark all J-boxes with indelible ink, indicating power circuitry information. Label all equipment items per specifications.
- All exterior raceways above ground shall be rigid galvanized.
- Under no circumstances shall more than three circuits share the same neutral, and such circuits must be separate phase.
- Since electrical characteristic of equipment (such as horsepower, kw, amperage, voltage, etc.) submitted may differ from those specified in drawings, contractor is responsible for coordination with mechanical and other contractors to ensure compatibility between electrical and mechanical equipment sizes and types of electrical interface equipment required.
- Use long-sweeps for all changes in direction on conduit runs.
- All interior raceways shall be EMT.
- Field verify project site existing conditions and elevations prior to beginning any work.
- Phasing and sequence of construction shall be per drawings and specifications.
- All materials and labor, whether specifically indicated on plans or not, which are necessary for the proper installation and function of the system shall be furnished by this contractor. Include all costs of changes, if/as required in bid proposal.
- Electrical wiring shall not be spliced below grade.
- Contractor is responsible for all permits and fees associated with project, including fees for inspections, applications, and provision of new services.
- Contractor who will actually perform work must apply for all required permits.
- Notify engineer of any aspects of design which are thought to be in noncompliance with applicable codes.
- Coordinate all work with other trades; coordinate schedule of work with all sub-contractors to achieve smooth flow of construction.
- Seal around electrical raceways at all walls and wall louver penetrations with fireproof caulking. RE: Specs. provide flashing around penetration, both inside and outside, to provide finished look.
- Contractor shall review complete documents prior to submittal of proposal to gain complete understanding of project scope, work by others, and electrical work associated with other disciplines.
- Maintain manufacturer recommended clearance around all equipment.
- Place ID tags to all division 26 equipment.
- Contractor is responsible for coordination with mechanical and plumbing contractor regarding equipment sizes and types of electrical interface equipment required.
- Field verify all conditions and measure dimensions within the building prior to ordering equipment and/or proceeding with installation.
- All equipment shall be factory tested, and contractor shall verify equipment condition prior to installation. Contractor is responsible for equipment damaged during moving and installation.
- Equipment found defective prior to final acceptance shall be replaced at no cost to owner.
- Sleeve all exterior wall penetrations.
- Minimum circuit size is 2 #12 and 1 #12 ground in 3/4" conduit. Maximum fixture whip length from any J-box 6 feet. Lighting circuits joints shall be made up in overhead J-boxes secured to structure with lighting whips from the J-boxes. Fixtures designed to be quick-clipped together shall be connected as per manufacturer.
- Coordinate light locations with other ceiling items or joist items prior to installation. Light locations take precedence over air devices.
- Provide secondary support wires from all four (4) corners of the lighting fixtures to the structure above.
- All grounding shall be installed in accordance with article 250 of the current NEC with all city amendments.
- The perimeter ground loop conductor shall be minimum 4/0 stranded bare copper, buried not less than 24 inches below grade and 36 inches from the building. It shall be exothermically welded (cad) to column grounds and perimeter ground rods.
- Perimeter ground rods shall be minimum 3/4 inch and 8 foot long copper or copper clad, buried vertically to a minimum depth of 8 foot 6 inch below grade, drive all ground rods into exposed earth. If due to construction, the earth has been disturbed at the ground rod point, compact the location and install ground rod.
- Exposed grounding conductors shall be supported by mechanical means and properly protected from damage. All grounding conductors shall be sleeved through building walls.
- Bond the grounding system to the water pipe system. If the water piping is suspended below the structure, bond the ground to the water pipe at the grade point.
- Bond the ground loop to the building column casings. Exothermically weld the connections. If the column steel does not penetrate the earth more than 4 feet, provide copper bonding jumper from the casing to the column.
- Bond building ground system to all building steel, to include bar joists off masonry walls. Mechanical bonding clamps are permitted. All conductors on beams shall be secured 48" intervals with malleable cable straps. Sand and clean all bolt-on connections.
- Provide grounding system per NEC 250.32 for all standalone structures.

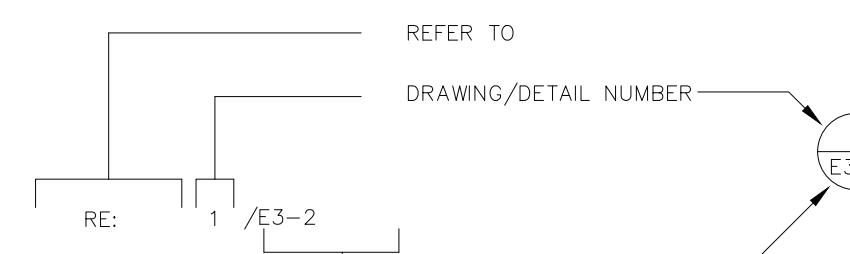
CODES AND ORDINANCES:

- GENERAL:**
 - Unless drawings or specifications have more stringent requirements, perform all work per applicable version of international building codes, and local codes and ordinances.
 - Prior to submitting proposal, notify engineer of any aspects of design which are thought to be in noncompliance with applicable codes.
- PERMITS:**
 - Contractor is responsible for all permits and fees associated with project, including fees for inspections, applications, and provision of new services.
 - Contractor who will actually perform work must apply for all required permits.
- APPROVALS AND INSPECTIONS:**
 - Obtain approval from city fire department and building and safety department prior to installation of any fire related items.
 - Coordinate pressure tests, inspections and approval for all systems with permitting officer, owner and engineer.
 - For all equipment installed outdoors, provide wind restraints to meet IBC requirements.

ELECTRICAL LEGEND:

LEGEND:	
	EXISTING EQUIP. TO REMAIN
	EXISTING EQUIP. TO BE DEMOLISHED
	NEW EQUIPMENT
	EXISTING CIRCUIT
	NEW CIRCUIT (ABOVE GROUND)
	NEW CIRCUIT (UNDERGROUND)
	ELECTRICAL PANEL
	SWITCHBOARD, MAIN DISTRIBUTION PANEL OR MOTOR CONTROL CENTER
	HOMERUN TO PANEL
	FOURPLEX WALL RECEPTACLE, NEMA 5-20R, 20A, 125V.
	DUPLEX WALL RECEPTACLE.
	JUNCTION BOX (SQUARE)
	INGROUND PULL BOX (SQUARE)
	POINT OF CONNECTION.
<input type="checkbox"/>	DISCONNECT SWITCH - NON FUSED
<input checked="" type="checkbox"/>	DISCONNECT SWITCH - FUSED
<input checked="" type="checkbox"/>	COMBINATION MOTOR STARTER/DISCONNECT SWITCH
	SINGLE OR THREE PHASE MOTOR NUMBER INDICATES HORSEPOWER
	VARIABLE FREQUENCY DRIVE PROVIDED BY DIVISION 15 AND INSTALLED BY DIVISION 16.
	CEILING MOUNTED SPEAKER, "VC" INDICATES VOLUME CONTROL ON SPEAKER
	AUDIO VISUAL FIRE ALARM HORN-CEILING MOUNTED
	DATA WALL OUTLET.
	FIRE ALARM CONTROL PANEL
	8" X 4" LINEAR LED LIGHT FIXTURE.
	2" X 4" LED LIGHT FIXTURE.
	LIGHT POLE WITH LED LIGHT FIXTURE
	PUSHBUTTON SWITCH WITH TIMER

NOT ALL SYMBOLS SHOWN ON THIS SYMBOL LIST ARE USED IN THE CONTRACT DOCUMENTS.



ABBREVIATIONS:

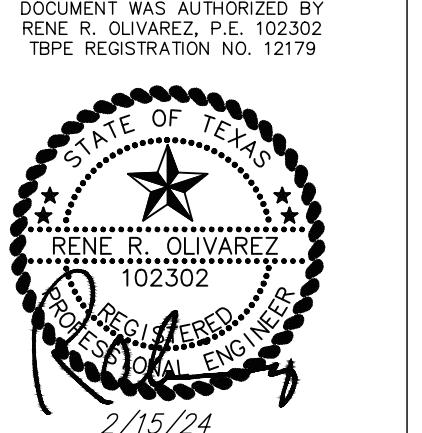
A	AMPERES	MCC	MOTOR CONTROL CENTER
ABV	ABOVE	MD	MOTORIZED DAMPER
ACC	AIR COOLED CHILLER	MDP	MAIN DISTRIBUTION PANEL
ACCU	AIR COOLED CONDENSING UNIT	MFR	MANUFACTURER
AFC	ABOVE FINISHED CEILING	MLO	MAIN LUGS ONLY
AFF	ABOVE FINISHED FLOOR	MSB	MAIN SWITCHBOARD
AFG	ABOVE FINISHED GRADE	N3R	NEMA 3R ENCLOSURE
AHU	AIR HANDLING UNIT	N4X	NEMA 4X ENCLOSURE
AIC	AMPERE INTERRUPT CAPACITY	NEC	NATIONAL ELECTRICAL CODE
AL	ALUMINUM	NEMA	NATIONAL ELECTRICAL MANUFACTURER'S ASSOCIATION
AP	ACCESS PANEL, ALARM PANEL	NF	NON-FUSED
ATS	AUTOMATIC TRANSFER SWITCH	NFA	NATIONAL FIRE PROTECTION ASSOCIATION
AUX.	AUXILIARY	NFPA	NATIONAL FIRE PROTECTION ASSOCIATION
AWG.	AMERICAN WIRE GAUGE	NFS	NON-FUSED SWITCH
BAS	BUILDING AUTOMATION SYSTEM	OAU	OUTSIDE AIR UNIT
BKR	BREAKER	ODU	OUTDOOR UNIT
BLDG.	BUILDING	P	POLE, PUMP
C.	CONDUIT	PH	PHASE
CLG	CEILING	PNL	PANEL
CU	COPPER	POS	POINT OF SALE
dB	DECIBEL	PP	POWER POLE
DC	DIRECT CURRENT	PR	PAIR
DDC	DIRECT DIGITAL CONTROL	PWR	POWER
DIA	DIAMETER	RA	RETURN AIR
DISC	DISCONNECT	RE	REFERENCE, REFER
DP	DISTRIBUTION PANEL	RGS	RIGID GALVANIZED STEEL
DWG	DRAWING	RTU	ROOFTOP UNIT
(E)	EXISTING	SECT	SECTION
EMS	ENERGY MANAGEMENT SYSTEM	SPKR	SPEAKER
EUH	ELECTRIC UNIT HEATER	SS	STAINLESS STEEL
EWH	ELECTRIC WATER HEATER	SW	SWITCH
EF	EXHAUST FAN	SWBD	SWITCHBOARD
FAQP	FIRE ALARM CONTROL PANEL	TC	TEMPERATURE CONTROL
FCU	FAN COIL UNIT	TEL	TELEPHONE
GA	GAUGE	SA	SUPPLY AIR
GALV	GALVANIZED	TAB	TEST AND BALANCE
GC	GENERAL CONTRACTOR	TSTAT	THERMOSTAT
GFCI	GROUND FAULT CIRCUIT INTERRUPTER	TVSS	TRANSIENT VOLTAGE SURGE SUPPRESSOR
HD	ELECTRIC HAND DRYER	TYP	TYPICAL
HP	HORSEPOWER	UG	UNDERGROUND
ID	INSIDE DIAMETER	V	VOLT
IN	INCH	VAV	VARIABLE AIR VOLUME
JB	JUNCTION BOX	VFD	VARIABLE FREQUENCY DRIVE
KVA	KILOVOLT- AMPS	WP	WEATHERPROOF
KW	KILOWATT	XFM	TRANSFORMER
KWH	KILOWATT-HOUR	MCB	MAIN CIRCUIT BREAKER

DRAWN BY: H.M.
REVIEWED BY: R.O.
ISSUED DATE: 2/15/24
REVISION / ADDENDA
NO. DATE DESCRIPTION

SHEET TITLE:
ELECTRICAL SYMBOLS & ABBREVIATIONS AND GENERAL NOTES

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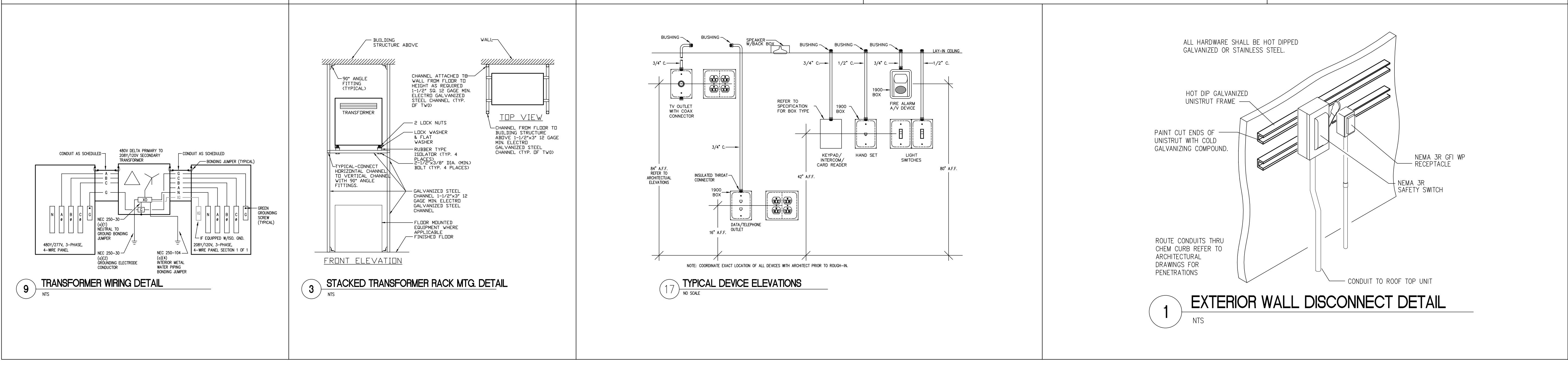
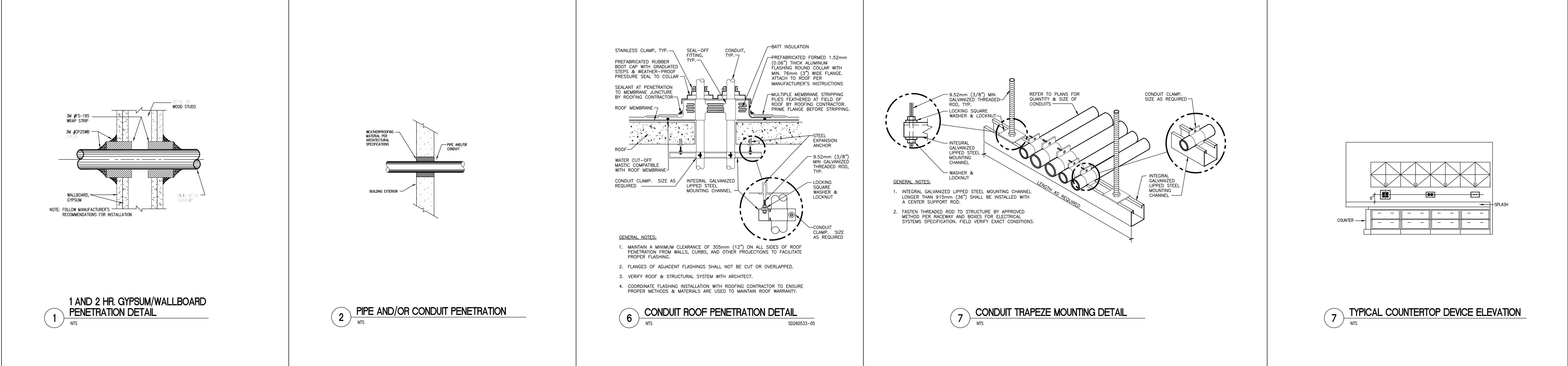
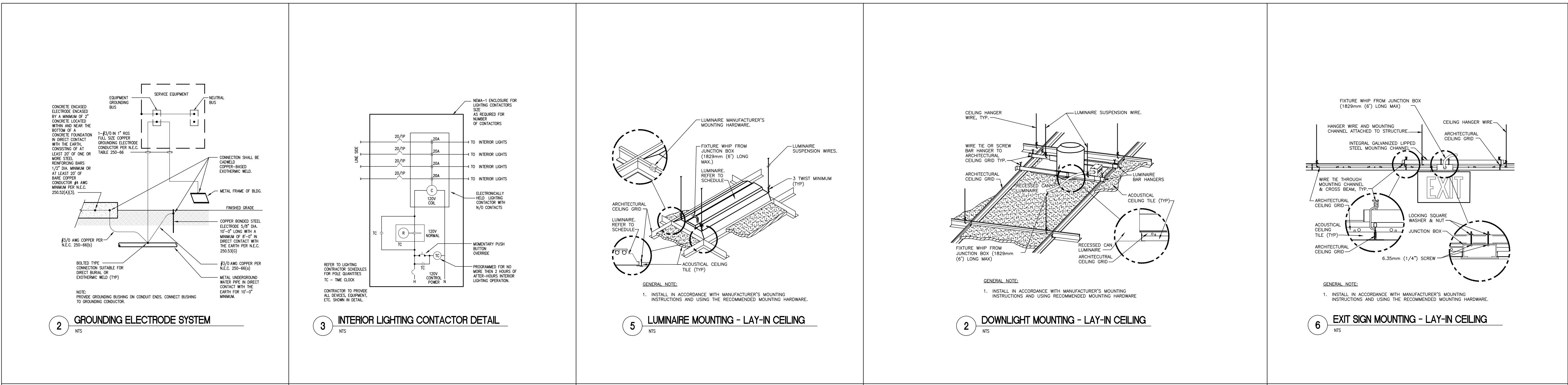
TRDI OFFICE AND WAREHOUSE
931 W. SHARM DR.
PHARR, TX 78577

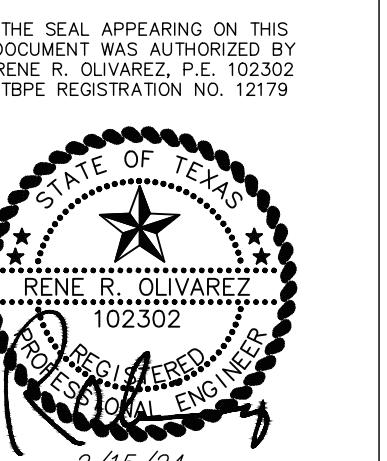


PROJECT #: 2319

TRDI OFFICE AND WAREHOUSE

931 W. SHARM DR.
PHARR, TX 78577

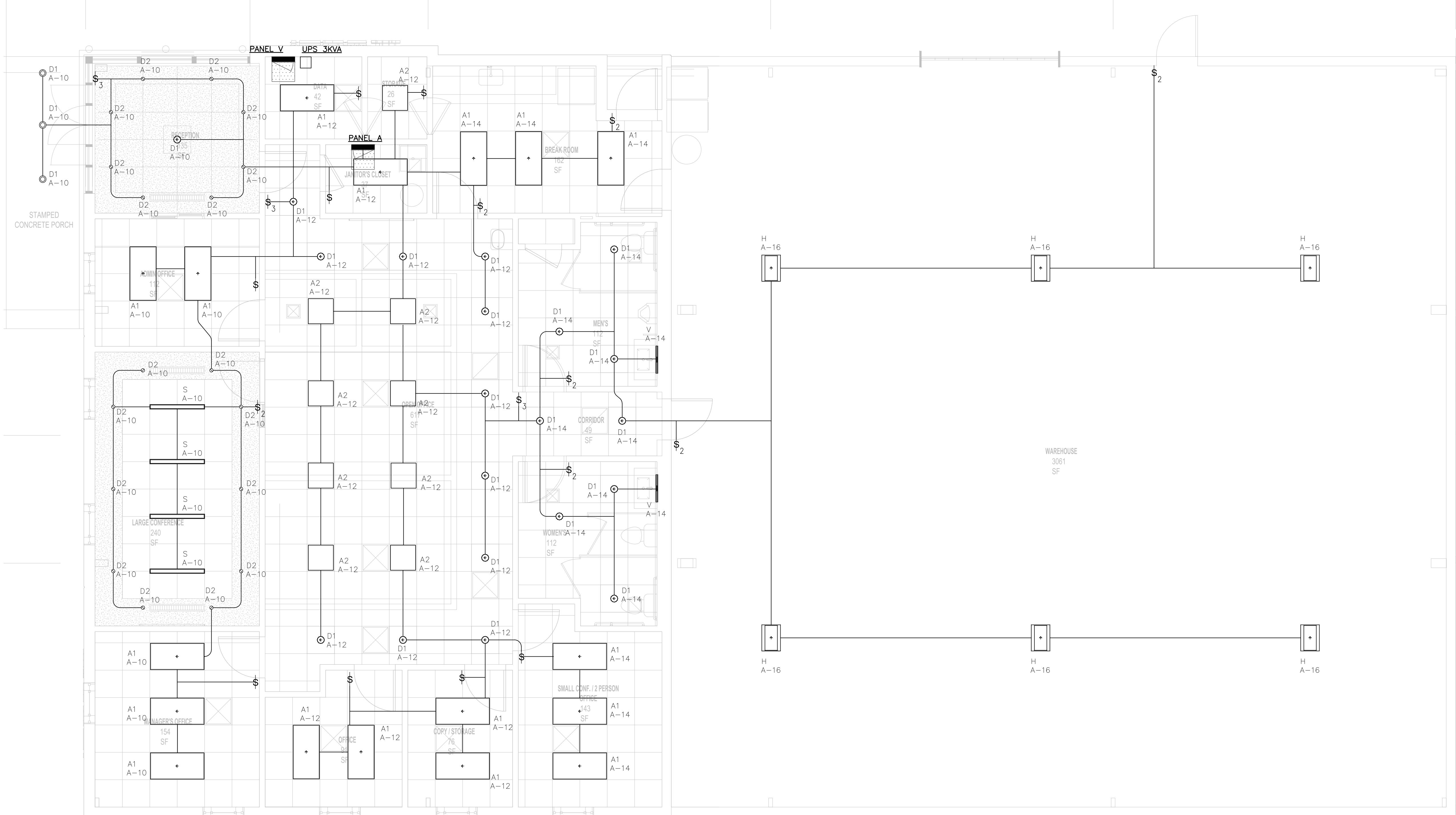




PROJECT #: 2319

TRDI OFFICE AND WAREHOUSE

931 W. SHARM DR.
PHARR, TX 78577



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

GENERAL NOTES LIGHTING SHEETS:

- WHEN LOCATING SYSTEMS NEXT TO DOORS, LOCATE 8 INCHES OFF DOOR JAMB TO CENTER OF DEVICE. WHEN MULTIPLE DEVICES ARE TOGETHER, STACK BUT NO MORE THAN 72 INCHES AFF. COORDINATE SWITCH LOCATIONS IN ROOMS WITH ARCHITECT AND OTHER DEVICES (THERMOSTATS, FIRE ALARM, AND CALL BUTTONS).
- SWITCHES SHALL BE PROVIDED FOR EACH ROOM. SWITCH FIXTURES ACCORDING TO THE FOLLOWING:
 - SWITCH DOWNLIGHTS ABOVE COUNTERS SEPARATE FROM REMAINDER OF ROOM.
 - PROVIDE SEPARATE SWITCHING FOR CORRIDORS INDEPENDENT OF ROOMS.
- MINIMUM CIRCUIT SIZE IS 2-#12 AND 1-#12 GROUND IN 3/4" CONDUIT. MAXIMUM FIXTURE WHIP LENGTH FROM ANY J-BOX 6 FEET. LIGHTING CIRCUITS JOINTS SHALL BE MADE UP IN OVERHEAD J-BOXES SECURED TO STRUCTURE WITH LIGHTING WHIPS FROM THE J-BOXES. FIXTURES DESIGNED TO BE QUICK-CLIPPED TOGETHER SHALL BE CONNECTED AS PER MANUFACTURER.
- COORDINATE LIGHT LOCATIONS WITH OTHER CEILING ITEMS OR JOIST ITEMS PRIOR TO INSTALLATION. LIGHT LOCATIONS TAKE PRECEDENCE OVER AIR DEVICES.
- PROVIDE SECONDARY SUPPORT WIRES FROM ALL FOUR (4) CORNERS OF THE LAY-IN FIXTURES TO THE STRUCTURE ABOVE. DO NOT SUPPORT FIXTURES FROM CEILING GRID WIRE SUPPORTS, PIPING, CONDUIT, SIDE WALLS, OR MECHANICAL EQUIPMENT. CEILING SPECIFICATIONS DO NOT SUPERCEDE THIS REQUIREMENT.
- FIXTURES WITH * SUFFIX HAVE BATTERY BACK-UPS.
- FIRESTOP ALL CONDUIT PENETRATIONS IN RATED WALLS. SEE ARCHITECTURAL FOR WALL RATINGS. CONTRACTOR SHALL BE RESPONSIBLE FOR DAMAGE TO SHEET ROCK AND REPAIR. PROVIDE FIRE RATED SLEEVES IN ALL FLOOR PENETRATIONS.
- CONTRACTOR TO VERIFY FIXTURE VOLTAGE PRIOR TO INSTALLING ANY RELOCATED FIXTURE. COORDINATE WITH RCP FOR FIXTURE LOCATIONS.
- PROVIDE AN EXTRA UNSWITCHED HOT LEG FOR EXIT LIGHTS.
- PROVIDE CONTACTORS ADJACENT TO NEW PANELS WITH EXTERIOR LIGHTING CIRCUITS. THE CONTACTORS SHALL BE 4 POLE FOR CONTROL OF EXTERIOR LIGHTING AS NOTED. PROVIDE 120V FROM NEW PANEL SPARE 20A/1P C.B. ALL EXTERIOR LIGHTS SHALL BE ROUTED THROUGH LIGHTING CONTACTOR FOR PHOTOCELL ON/TIMER OFF OPERATION.
- PROVIDE AN EXTRA UNSWITCHED HOT LEG FOR EXITS LIGHTS, NIGHTLIGHTS AND EMERGENCY LIGHTS. PROVIDE THE EXTRA UNSWITCHED HOT LEG FROM THE LINE SIDE OF THE CONTACTOR FOR EACH EXIT AND EMERGENCY LIGHT AS INDICATED ON DRAWINGS. DO NOT ROUTE A SWITCHED (EITHER BY SWITCH OR CONTACTOR) HOT LEG TO EMERGENCY LIGHTS AND BALLASTS AS THIS WILL NOT ALLOW FOR PROPER OPERATION OF THE EMERGENCY/EXIT FIXTURE.
- PROVIDE LUTRON GRAFIK EYE "GRX-XGLC" LOCKING COVER FOR SWITCHES IN HALLWAYS AND STUDENT RESTROOMS.
- COORDINATE MOUNTING HEIGHT OF LIGHT FIXTURES WITH ARCHITECTURAL ELEVATIONS.

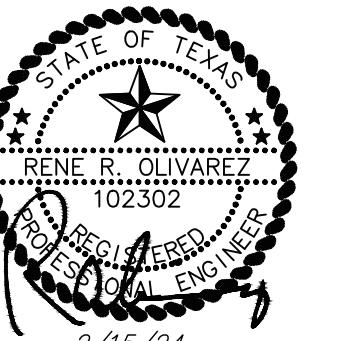
LIGHT FIXTURE SCHEDULE								
TYPE	MANUF.	CATALOG No.	MOUNTING	LAMPS	VOLTAGE	INPUT W	REMARKS	NOTES
				#	TYPE			
A1	SIGNIFY	2FGXG54L840-4-RS-UNV	CEILING	LED	120/277V	40.6W	VERIFY COLOR WITH OWNER. CONNECT TO OCCUPANCY SENSOR.	1
A2	SIGNIFY	2FGXG48L840-4-RS-UNV	CEILING	LED	120/277V	35.6W	VERIFY COLOR WITH OWNER. CONNECT TO OCCUPANCY SENSOR.	1
D1	SIGNIFY	6RN/P6RDL10940WCLZ10U	CEILING	LED	120/277V	28.3W	VERIFY COLOR WITH OWNER. CONNECT TO OCCUPANCY SENSOR.	1
D2	NLSTR	NFLIN-R610/30WW	CEILING	LED	120/277V	24 W	VERIFY COLOR WITH OWNER. CONNECT TO OCCUPANCY SENSOR.	1
H	SIGNIFY	FBY18L840-UNV-LFA	PENDANT	LED	120/277V	132.6W	VERIFY COLOR WITH OWNER. CONNECT TO OCCUPANCY SENSOR.	1
S	SIGNIFY	FSS330L840-UNV-DIM	CEILING	LED	120/277V	23.9W	VERIFY COLOR WITH OWNER. CONNECT TO OCCUPANCY SENSOR.	1
V	BROWNLEE	5020-24-CH-H16-WHA-40K	WALL	LED	120/277V	16.7W	VERIFY COLOR WITH OWNER. CONNECT TO OCCUPANCY SENSOR.	1

① ELECTRICAL KEYED NOTES:

- PROVIDE NEW LIGHTING AS PER LIGHT FIXTURE SCHEDULE AND CONNECT TO CONTROLS AS SHOWN IN ACCORDANCE TO LEGEND.

DRAWN BY: H.M.	
REVIEWED BY: R.O.	
ISSUED DATE: 2/15/24	
REVISION / ADDENDA	
NO. DATE DESCRIPTION	
SHEET TITLE: LIGHTING PLAN	
SHEET	
E1.0	

THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY RENE R. OLIVAREZ, P.E. 102302 TBPE REGISTRATION NO. 12179



PROJECT #: 2319

TRDI OFFICE AND WAREHOUSE

931 W. SHARM DR.
PHARR, TX 78577

GENERAL NOTES LIGHTING SHEETS:

- WHEN LOCATING SYSTEMS NEAR TO DOORS, LOCATE 8 INCHES OFF DOOR JAMB TO CENTER OF DEVICE. WHEN MULTIPLE DEVICES ARE TOGETHER, STACK BUT NO MORE THAN 72 INCHES AFF. COORDINATE SWITCH LOCATIONS IN ROOMS WITH ARCHITECT AND OTHER DEVICES (THERMOSTATS, FIRE ALARM, AND CALL BUTTONS).
- SWITCHES SHALL BE PROVIDED FOR EACH ROOM. SWITCH FIXTURES ACCORDING TO THE FOLLOWING:
 - SWITCH DOWNLIGHTS ABOVE COUNTERS SEPARATE FROM REMAINDER OF ROOM.
 - PROVIDE SEPARATE SWITCHING FOR CORRIDORS INDEPENDENT OF ROOMS.
- MINIMUM CIRCUIT SIZE IS 2#12 AND 1#12 GROUND IN 3/4" CONDUIT. MAXIMUM FIXTURE WHIP LENGTH FROM ANY J-BOX 6 FEET. LIGHTING CIRCUITS JOINTS SHALL BE MADE UP IN OVERHEAD J-BOXES SECURED TO STRUCTURE WITH LIGHTING WHIPS FROM THE J-BOXES. FIXTURES DESIGNED TO BE QUICK-CLIPPED TOGETHER SHALL BE CONNECTED AS PER MANUFACTURER.
- COORDINATE LIGHT LOCATIONS WITH OTHER CEILING ITEMS OR JOIST ITEMS PRIOR TO INSTALLATION. LIGHT LOCATIONS TAKE PRECEDENCE OVER AIR DEVICES.
- PROVIDE SECONDARY SUPPORT WIRES FROM ALL FOUR (4) CORNERS OF THE LAY-IN FIXTURES TO THE STRUCTURE ABOVE. DO NOT SUPPORT FIXTURES FROM CEILING GRID WIRE SUPPORTS, PIPING, CONDUIT, SIDE WALLS, OR MECHANICAL EQUIPMENT. CEILING SPECIFICATIONS DO NOT SUPERCEDE THIS REQUIREMENT.
- FIXTURES WITH "E" SUFFIX HAVE BATTERY BACK-UPS.
- FIRESTOP ALL CONDUIT PENETRATIONS IN RATED WALLS. SEE ARCHITECTURAL FOR WALL RATINGS. CONTRACTOR SHALL BE RESPONSIBLE FOR DAMAGE TO SHEET ROCK AND REPAIR. PROVIDE FIRE RATED SLEEVES IN ALL FLOOR PENETRATIONS.
- CONTRACTOR TO VERIFY FIXTURE VOLTAGE PRIOR TO INSTALLING ANY RELOCATED FIXTURE. COORDINATE WITH RCP FOR FIXTURE LOCATIONS.
- PROVIDE AN EXTRA UNSWITCHED HOT LEG FOR EXIT LIGHTS.
- PROVIDE CONTACTORS ADJACENT TO NEW PANELS WITH EXTERIOR LIGHTING CIRCUITS. THE CONTACTORS SHALL BE A POLE FOR CONTROL OF EXTERIOR LIGHTING AS NOTED. PROVIDE 120V FROM NEW PANEL SPARE 20A/IP C.B. ALL EXTERIOR LIGHTS SHALL BE ROUTED THROUGH LIGHTING CONTACTOR FOR PHOTOCELL ON/TIMER OFF OPERATION.
- PROVIDE AN EXTRA UNSWITCHED HOT LEG FOR EXITS LIGHTS, NIGHTLIGHTS AND EMERGENCY LIGHTS. PROVIDE THE EXTRA UNSWITCHED HOT LEG FROM THE LINE SIDE OF THE CONTACTOR TO EACH EXIT AND EMERGENCY LIGHT AS INDICATED ON DRAWINGS. DO NOT ROUTE A SWITCHED (EITHER BY SWITCH OR CONTACTOR) HOT LEG TO EMERGENCY LIGHTS AND BALLASTS AS THIS WILL NOT ALLOW FOR PROPER OPERATION OF THE EMERGENCY/EXIT FIXTURE.
- PROVIDE LUTRON GRAFIK EYE "GRX-XGLC" LOCKING COVER FOR SWITCHES IN HALLWAYS AND STUDENT RESTROOMS.
- COORDINATE MOUNTING HEIGHT OF LIGHT FIXTURES WITH ARCHITECTURAL ELEVATIONS.

ELECTRICAL KEYED NOTES:

- PROVIDE NEW LIGHTING AS PER LIGHT FIXTURE SCHEDULE AND CONNECT TO CONTROLS AS SHOWN IN ACCORDANCE TO LEGEND.
- COORDINATE EXACT ROUTE WITH OWNER AND ARCHITECT AND MARK UTILITIES PRIOR TO TRENCHING. ROUTE THRU GRASS AREA.
- BORE ELECTRICAL CONDUIT UNDER EXISTING PAVEMENT.



① EXTERIOR LIGHTING PLAN
1/8" = 1'-0"

LIGHT FIXTURE SCHEDULE

TYPE	MANUF.	CATALOG No.	MOUNTING	LAMPS	VOLTAGE	INPUT W	REMARKS	NOTES
				#				
P1	SIGNIFY	OPF-S-A04-840-T3M-AR1-UNV-XX	POLE	LED	120/277V	90.68W	VERIFY COLOR WITH OWNER CONNECT TO OCCUPANCY SENSOR.	1
W1	SIGNIFY	101L-16L-1000-NW-G2-4-XX	WALL	LED	120/277V	54.8W	VERIFY COLOR WITH OWNER CONNECT TO OCCUPANCY SENSOR.	1
W2	SIGNIFY	GCS-A01-840-T2M-XX	WALL	LED	120/277V	10.2W	VERIFY COLOR WITH OWNER CONNECT TO OCCUPANCY SENSOR.	1
W3	SIGNIFY	101L-16L-200-NW-G2-2-UNV-XX	WALL	LED	120/277V	12W	VERIFY COLOR WITH OWNER CONNECT TO OCCUPANCY SENSOR.	1

SHEET TITLE:
EXTERIOR
LIGHTING PLAN

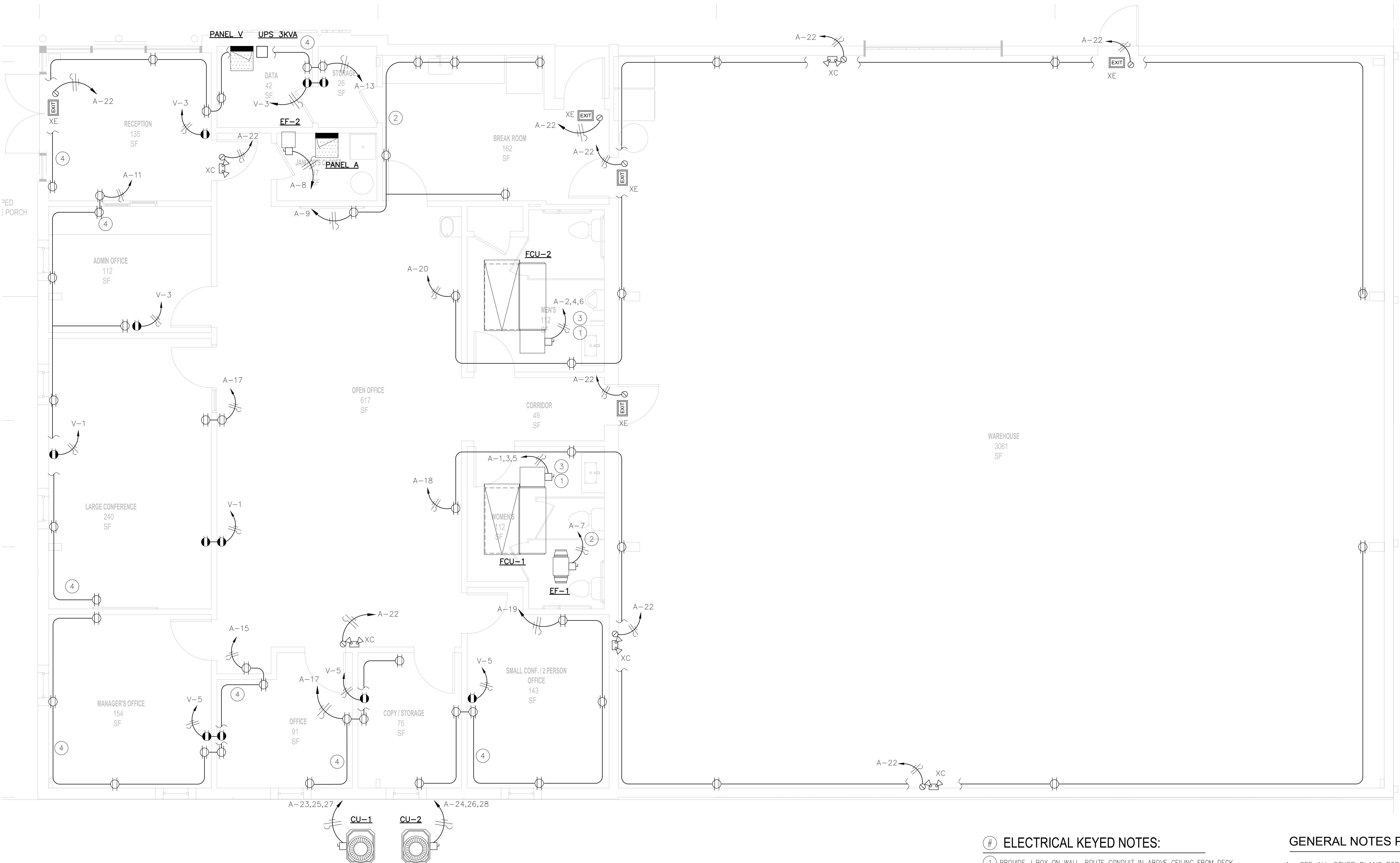
SHEET
E1.1



PROJECT #: 2319

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PHARR, TX 78577



1 POWER PLAN

1/4" = 1'-0"

ELECTRICAL KEYED NOTES:

- ① PROVIDE J BOX ON WALL. ROUTE CONDUIT IN ABOVE CEILING FROM DECK. SUSPEND CONDUIT FROM STRUCTURE. COORDINATE EXACT LOCATION WITH ARCHITECT-DRAWINGS AND LIGHTS PRIOR TO INSTALLATION.
- ② INTERLOCAK FAN WITH LIGHTS WIRE SHALL BE 2#12, #12G, 1/2".
- ③ COORDINATE LOCATION OF NEW EQUIPMENT PRIOR TO ROUGH-IN.
- ④ COORDINATE LOCATION OF TV AND COMPUTERS PRIOR TO ROUGH-IN.

GENERAL NOTES POWER SHEETS:

1. SEE ALL OTHER PLANS FOR ADDITIONAL DEVICES. SOME POWER CIRCUITING MAY BE ON OTHER PLANS. COORDINATE THE LOCATIONS OF DATA/CATV JACKS WITH THE RECEPTACLES. MOUNT ADJACENT TO EACH OTHER.
2. WHEN LOCATING SYSTEMS NEXT TO DOORS, LOCATE 8 INCHES OFF DOOR JAMB TO CENTER OF DEVICE. WHEN MULTIPLE DEVICES ARE TOGETHER, STACK BUT NO MORE THAN 72 INCHES AFF.
3. MINIMUM CIRCUIT SIZE IS 2 #12 AND 1 #12 GROUND IN 1/2" CONDUIT FOR INDIVIDUAL CIRCUITS, 3/4" CONDUIT FOR MULTIPLE CIRCUITS. ALL CONDUCTORS SHALL BE 75 DEGREE (MINIMUM) COPPER THHN, COLOR CODED AS PER NEC AND LOCAL AMENDMENTS WITH SIZE, TEMPERATURE, AND VOLTAGE PERMANENTLY PRINTED ON THE JACKET. ALL JOINTS SHALL BE MADE UP USING SELF LOCKING, TWIST-ON, COLOR CODED, SQUARE WIRE SPRING GRAB, LONG SKIRT, WIRE CONNECTORS WITH SWEEP WINGS.
4. COORDINATE RECEPTACLE LOCATIONS WITH MILLWORK AND COUNTERS. DO NOT LOCATE RECEPTACLES BEHIND DRAWERS OR HIDDEN IN MILLWORK UNLESS SPECIFICALLY DIRECTED BY OWNER/ARCHITECT. REVIEW ARCHITECTURAL ELEVATIONS PRIOR TO RECEPTACLE ROUGH-INS. SEE ARCH. ELEVATIONS IN BREAKROOMS FOR APPLIANCES AND RECEPTACLE MOUNTING LOCATIONS.
5. MOUNT RECEPTACLES 18" AFF, 6" ABOVE BACKSPLASH AT COUNTERS, 48" IN TOILET ROOMS, AT EQUIPMENT ROUGH-IN LOCATIONS FOR APPLIANCES, AND 96" FOR TVs. PROVIDE GFI RECEPTACLES AT ALL SINKS, EXTERIOR RECEPTACLES, AND UNDERCOUNTER EQUIPMENT.
6. ALL EQUIPMENT SHALL HAVE A LOCAL DISCONNECTING MEANS, EITHER CORDED PLUG AND RECEPTACLE OR SWITCHED DISCONNECT. VERIFY FROM EQUIPMENT SUBMITTED OR RELOCATED IF DIRECT CONNECT OR RECEPTACLE. IF DIRECT CONNECT, PROVIDE SWITCH AS PER NEC OTHERWISE, PROVIDE RECEPTACLE, CORD PLUG AS REQUIRED BY EQUIPMENT SUBMITTAL.
7. ON CIRCUITS GREATER THAN 20A, FEEDING MULTIPLE PIECES OF EQUIPMENT, PROVIDE FUSED DISCONNECTS (SIZED FOR EQUIPMENT PROTECTING).
8. PROVIDE INDIVIDUAL DISCONNECTS FOR ALL SMOKE FIRE DAMPERS AND VAV'S. NO EXCEPTIONS.
9. FIRESTOP ALL CONDUIT PENETRATIONS IN RATED WALLS. SEE ARCHITECTURAL FOR WALL RATINGS. CONTRACTOR SHALL BE RESPONSIBLE FOR DAMAGE TO SHEET ROCK AND REPAIR.

LIGHT FIXTURE SCHEDULE								
TYPE	MANUF.	CATALOG No.	MOUNTING	LAMPS	VOLTAGE	INPUT W	REMARKS	NOTES
				#	TYPE			
XC	EELP	XC2RW-LED	WALL	LED	120/277V	3.7W	VERIFY COLOR WITH OWNER. CONNECT TO OCCUPANCY SENSOR.	1
XE	EELP	XE2RW	WALL	LED	120/277V	3.8W	VERIFY COLOR WITH OWNER. CONNECT TO OCCUPANCY SENSOR.	1

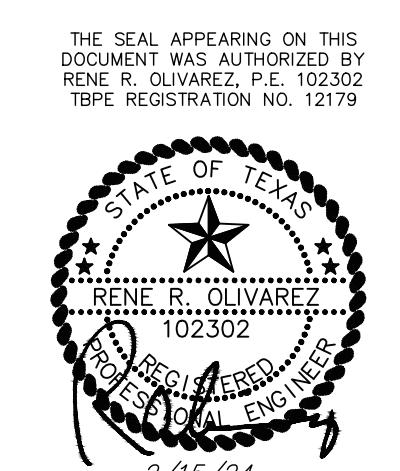
* PROVIDE EMERGENCY BALLAST W/TEST FOR ALL "E" SUFFIXED FIXTURES.

SHEET TITLE:
POWER PLAN

SHEET
E2.0

DRAWN BY: H.M.
REVIEWED BY: R.O.
ISSUED DATE: 2/15/24
REVISION / ADDENDA

NO. DATE DESCRIPTION



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PHARR, TX 78577

NEW PANELBOARD A

VOLTAGE: 120/208 Volt 3 Phase, 4-Wire										LOCATION: ROOM MOUNTING: SURFACE			
MLO: MAIN; NEUTRAL - 100%; EQUIPMENT GROUND										Isc = 22,000A RMS SYS AVAILABLE			
Load (VA)	Description	Type	Wire	CB	CKT #	PH	CKT #	CB	Wire	Type	Description	Load (VA)	
2400	FCU-1	C	8	40/3	1	A	2	40/3	8	C	FCU-2	2400	
2400	--	C	8	40/3	3	B	4	40/3	8	C	--	2400	
2400	--	C	8	40/3	5	C	6	40/3	8	G	--	2400	
480	EF-1	F	12	20/1	7	A	8	20/1	12	F	EF-2	480	
1080	RECEPTACLE	R	10	20/1	9	B	10	15/1	12	L	LIGHTTING	844	
1260	RECEPTACLE	R	10	20/1	11	C	12	15/1	12	L	LIGHTTING	875	
1080	RECEPTACLE	R	10	20/1	13	A	14	15/1	12	L	LIGHTTING	503	
1260	RECEPTACLE	R	10	20/1	15	B	16	15/1	12	L	LIGHTTING	796	
1080	RECEPTACLE	R	10	20/1	17	C	18	20/1	10	R	RECEPTACLE	1080	
1080	RECEPTACLE	R	10	20/1	19	A	20	20/1	10	R	RECEPTACLE	1080	
248	EXTERIOR LIGHTING	L	12	20/1	21	B	22	15/1	12	L	LIGHTTING EMER.	38	
2400	CU-1	C	8	40/3	23	C	24	40/3	8	C	CU-2	2400	
2400	--	C	8	40/3	25	A	26	40/3	8	C	--	2400	
2400	--	C	8	40/3	27	B	28	40/3	8	C	--	2400	
SPACE										SPACE			
SPACE										SPACE			
SPACE										SPACE			
SPACE										SPACE			
540	PANEL-V	M	2	15/3	37	A	38			SPACE			
720	--	M	2	15/3	39	B	40			SPACE			
720	--	M	2	15/3	41	C	42			SPACE			
23,948	Subtotal									Subtotal			
Load Type										20,096			
(R) Recept.	Conn.	Fct.	Diversity							Conn.	Fct.	Diversity	
9,000	100%	9,000								3,304	125%	4,130	
(K) Kitchen	0	100%	0							0	125%	0	
(C) Cooling	28,800	100%	28,800							0	100%	0	
(H) Heating	0	0%	0							(W/H) Water Ht.	0	100%	0
(F) Fans	960	100%	960							(MT) Lrg. Mot.	0	125%	0
(M) Misc.	1,980	100%	1,980							(SP) Sub Panel	0	100%	0

*=FURNISH AND INSTALL CIRCUIT BREAKER AS INDICATED. MATCH AIC RATING.

Total Connected Load = 44,044	VA = 122.3 AMPS	VA CONNECTED TO A PHASE = 14,843
Total Load (Diversified)= 44,870	VA = 124.5 AMPS	VA CONNECTED TO B PHASE = 14,585
		VA CONNECTED TO C PHASE = 14,615

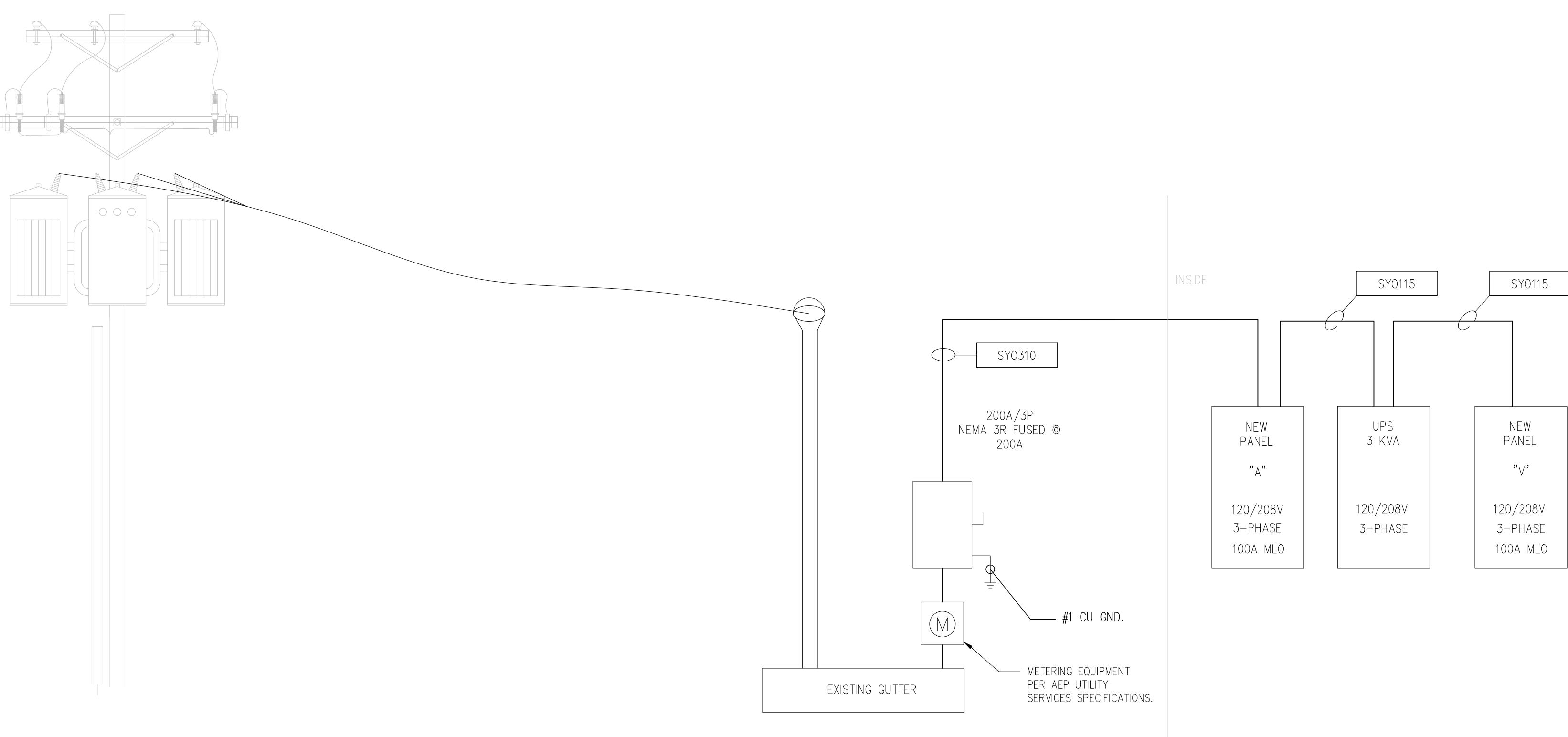
NEW PANELBOARD V

VOLTAGE: 120/208 Volt 3 Phase, 4-Wire										LOCATION: ROOM MOUNTING: SURFACE			
MLO: MAIN; NEUTRAL - 100%; EQUIPMENT GROUND										Isc = 10,000A RMS SYS AVAILABLE			
Load (VA)	Description	Type	Wire	CB	CKT #	PH	CKT #	CB	Wire	Type	Description	Load (VA)	
540	RECEPTACLE	R	2	15/3	1	A	2			SPACE			
720	RECEPTACLE	R	2	15/3	3	B	4			SPACE			
720	RECEPTACLE	R	2	15/3	5	C	6			SPACE			
SPACE										SPACE			
SPACE										SPACE			
1,980 Subtotal										0			
Load Type										0			
(R) Recept.	Conn.	Fct.	Diversity							(L) Lighting	0	125%	0
1,980	100%	1,980								(EL) Ext. Ltg.	0	125%	0
(K) Kitchen	0	100%	0							(E) Elevators	0	100%	0
(C) Cooling	0	0%	0							(V/H) Water Ht.	0	100%	0
(H) Heating	0	0%	0							(MT) Lrg. Mot.	0	125%	0
(F) Fans	0	100%	0							(SP) Sub Panel	0	100%	0

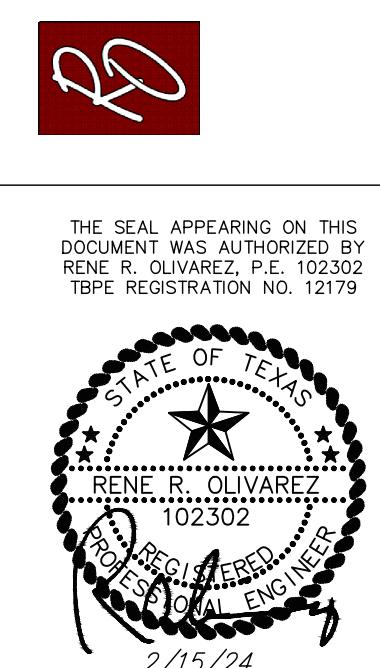
*=FURNISH AND INSTALL CIRCUIT BREAKER AS INDICATED. MATCH AIC RATING.

Total Connected Load = 1,980	VA = 5.5 AMPS	VA CONNECTED TO A PHASE = 540
Total Load (Diversified)= 1,980	VA = 5.5 AMPS	VA CONNECTED TO B PHASE = 720
		VA CONNECTED TO C PHASE = 720

ELECTRICAL SERVICE SCOPE:
THE CONTRACTOR SHALL BE RESPONSIBLE FOR DELIVERY OF SERVICE TO THE NEW BLDG. COORDINATE ALL REQUIREMENTS AND COSTS AND LABOR W/ LOCAL UTILITY, PRIOR TO BID. ALL COSTS ASSOCIATED W/ THE DELIVERY OF ELECTRICAL SERVICE SHALL BE INCLUDED AS A PART OF THIS CONTRACT. REFER TO SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.



THHN IN EMT SERVICE FEEDER SCHEDULE		
MARK	CONDUIT	CONDUCTORS
SY0115	1 - 1-1/4" Conduit	4 - #2 and 1 - #6 Ground
SY0150	1 - 2" Conduit	4 - #1/0 and 1 - #6 Ground
SY2020	1 - 2" Conduit	4 - #3/0 and 1 - #4 Ground
SY0230	1 - 2-1/2" Conduit	4 - #4/0 and 1 - #2 Ground
SY0310	1 - 3" Conduit	4 - #350 kcmil and 1 - #2 Ground
SY0400	2 - 2"	



PROJECT #: 2319

TRDI OFFICE AND
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931 W. SHARM DR.
PHARR, TX 78577

PLUMBING SYMBOLS AND ABBREVIATIONS

(NOT ALL OF THE SYMBOLS SHOWN MAY BE USED ON THE PROJECT.)

SYMBOL	DESCRIPTION	ABBREVIATION	SYMBOL	DESCRIPTION	ABBREVIATION	SYMBOL	DESCRIPTION	ABBREVIATION	ABBREVIATIONS	ABBREVIATIONS
SD	STORM DRAIN, RAINWATER DRAIN	SD, RT	SD	OUTSIDE YOLK & STEM GATE VALVE	OSY	FHR	UPRIGHT FIRE SPRINKLER HEAD	-	A	ABOVE FINISHED FLOOR
SSD	SUBSOIL DRAIN, FOOTING DRAIN	SSD	SD	GATE VALVE	GV	FHR	FIRE HOSE RACK	FHR	M	MAXIMUM
GW	GREASE WASTE	GREASE WASTE	SD	GLOBE VALVE	GLV	AS	AUTOMATIC SPRINKLER PIPE	-	MPH	MEDIUM-PRESSURE STEAM
—	ABOVE GRADE SOIL, WASTE, OR SANITARY SEWER	S, W, SAN, SS	SD	ANGLE VALVE	AV	DPS	DRY PIPE SPRINKLER	-	MTHW	HIGH-TEMPERATURE HOT WATER
—	BELLOW GRADE SOIL, WASTE, OR SANITARY SEWER	S, W, SAN, SS	SD	BALL VALVE	BV	PRA	PREACTION SPRINKLER PIPE	-	HD	MERCURY
—	VENT	V	SD	BUTTERFLY VALVE	BFV	O	FIRE HOSE VALVE	FHV	MPH	MILES PER HOUR
—	ACID WASTE	AW	SD	GAS COCK, GAS STOP	-	CO	FIRE HOSE CABINET (SURFACE-MOUNTED)	FHC	MIN	MINIMUM
—	ACID VENT	AV	SD	BALANCING VALVE (SPECIFY TYPE)	BLV	CO	FIRE HOSE CABINET (RECESSED)	FHC	NC	NORMALLY CLOSED
—	INDIRECT DRAIN	D	SD	CHECK VALVE	CV	CO	CLEANOUT PLUG	CO	NO	NORMALLY OPEN
—	PUMP DISCHARGE LINE	PD	SD	PLUG VALVE	PV	CO	CO	CO	NIC	NOT APPLICABLE
—	COLD WATER	CW	SD	ACCESS PANEL LOCATION	AP	CO	FLOOR CLEANOUT	FCO	NTS	NOT IN CONTRACT
—	HOT WATER SUPPLY (120°)	HW	SD	PLUMBING FIXTURE DESIGNATION	-	CO	WALL CLEANOUT	WCO	NO.	NOT TO SCALE
—	HOT WATER SUPPLY (140°)	140°	SD	SOLENOID VALVE	-	CO	YARD CLEANOUT OR CLEANOUT TO GRADE	CO	O	NUMBER
—	HOT WATER RETURN (120°)	HWR	SD	MOTOR-OPERATED VALVE (SPECIFY TYPE)	-	CO	FLOOR DRAIN WITH P-TRAP	FD	OZ	OUNCE
—	HOT WATER RETURN (140°)	140°R	SD	PRESSURE-REDUCING VALVE	PRV	CO	PITCH DOWN OR UP-IN DIRECTION OF ARROW	-	OA	OUTSIDE AIR
—	TEMPERED HOT WATER (TEMP.°F)	TEMP, HW, TW	SD	PRESSURE-RELIEF VALVE	RV	CO	FLOW-IN DIRECTION OF ARROW	-	PPM	PARTS PER MILLION
—	TEMPERED HOT WATER RECIRCULATING (TEMP.°F)	TEMP, HWR, TWR	SD	TEMPERATURE-PRESSURE-RELIEF VALVE	TPV	E&T	POINT OF CONNECTION	POC	%	PERCENT
—	(CHILLED) DRINKING WATER SUPPLY	DWS	SD	REDUCED ZONE BACKFLOW PREVENTER	RZBP	FFD	STEAM TRAP (ALL TYPES)	-	PH	PHASE (ELECTRICAL)
—	(CHILLED) DRINKING WATER RECIRCULATING	DWR	SD	DOUBLE-CHECK BACKFLOW PREVENTER	DCBP	—	FUNNEL FLOOR DRAIN	FDD	PIPE	PIPE
—	SOFT WATER	SW	SD	HOSE BIBB	HB	—	FLOOR SINK (3/4 GRATE)	FS	LB	POUNDS
—	CONDENSATE DRAIN	CD	SD	RECESSED-BOX HOSE BIBB OR WALL HYDRANT	WH	—	FLOOR SINK (1/2 GRATE)	FS	PSF	POUNDS PER SQUARE FOOT
—	DISTILLED WATER	DI	SD	VALVE IN YARD BOX (VALVE TYPE SYMBOL AS REQUIRED FOR VALVE USE)	YB	—	SOIL/VENT STACK DESIGNATION	-	PSI	POUNDS PER SQUARE INCH
—	DEIONIZED WATER	DE	SD	UNION (SCREW)	-	—	REFERENCE: DETAIL NUMBER	—	PSIG	PSI (ABSOLUTE)
—	PIPING TO BE HEAT TRACED	-	SD	UNION (FLANGED)	-	—	REFERENCE: SHEET NUMBER	—	PRES	PRESSURE
—	LAWN SPRINKLER SUPPLY	LS	SD	STRAINER (SPECIFY TYPE)	-	—	UPRIGHT SPRINKLER	POC	QT	QUART
—	FIRE PROTECTION WATER SUPPLY	F	SD	PIPE ANCHOR	PA	—	PENDENT SPRINKLER	—	R	RADIUS
—	GAS-LOW-PRESSURE	G	SD	PIPE GUIDE	-	—	UPRIGHT SPRINKLER, NIPPLED UP	—	RCVR	RECEIVER
—	GAS-MEDIUM-PRESSURE	MG	SD	EXPANSION JOINT	EJ	—	PENDENT SPRINKLER, ON DROP NIPPLE	—	RECIRC	RECIRCULATE
—	GAS-HIGH-PRESSURE	HG	SD	FLEXIBLE CONNECTOR	FC	—	SIDEWALL SPRINKLER	—	REV	REVOLUTIONS
—	GAS VENT	GV	SD	TEE	-	—	PIPE HANGER	—	RPM	REVOLUTIONS PER MINUTE
—	CONCENTRIC REDUCER	-	SD	SIAMESE FIRE DEPARTMENT CONNECTION	-	—	PIPE ASSEMBLY	—	RPS	REVOLUTIONS PER SECOND
—	ECCENTRIC REDUCER	-	SD	FREESTANDING SIAMESE FIRE DEPARTMENT CONNECTION	-	—	DRY PIPE VALVE ASSEMBLY	—	S	SECOND
—	EQUIPMENT DESIGNATION (GAS WATER HEATER #1)	GWHT-1	SD	WALL (SPECIFY NUMBERS AND SIZE OF OUTLETS)	-	—	DELUGE VALVE ASSEMBLY	—	SPEC	SPECIFICATION
—	NEW PLUMBING FIXTURE DESIGNATION	P-1	SD	WALL (SPECIFY NUMBERS AND SIZE OF OUTLETS)	-	—	PREACTION VALVE ASSEMBLY	—	SQ	SQUARE
—	EXISTING PLUMBING FIXTURE TO BE REMOVED	-	SD	FIRE PUMP / JOCKEY PUMP	-	—	EXISTING FIRE HYDRANT	—	STD	STANDARD
—	PLUMBING KEYED NOTE	-	SD	TRAP PRIMER	TP	—	NEW FIRE HYDRANT	—	SP	STATIC PRESSURE
—	AQUASTAT	-	SD	PROPANE GAS	PG	—	WALL HYDRANT, TWO HOSE OUTLETS	—	SUCTION	SUCTION
—	TAMPER SWITCH	TS	SD			—		—	SUM	SUM (-ER, -ARY, -ATION)
—	FLOW SWITCH	FS	SD			—		—	SPLY	SUPPLY
—	PRESSURE SWITCH	PS	SD			—		—	SYS	SYSTEM
—	WATER HAMMER ARRESTER (PDI DESIGNATION "A")	WHA	SD			—		—	TAB	TABULAT (-E, -ION)
—	PRESSURE GAUGE WITH GAUGE COCK	PG	SD			—		—	TEE	TEMPERATURE
—	THERMOMETER (SPECIFY TYPE)	-	SD			—		—	TEMP	TEMPERATURE DIFFERENCE
—	AUTOMATIC AIR VENT	AAV	SD			—		—	TD	TERMO-STAT
—	CIRCUIT SETTER	CS	SD			—		—	THKN	THICK (-NESS)
—	VALVE IN RISER (TYPE AS SPECIFIED OR NOTED)	-	SD			—		—	MCM	THOUSAND CIRCULAR MILES
—	RISER DOWN (ELBOW)	-	SD			—		—	MCF	THOUSAND CUBIC FEET
—	RISER (ELBOW) AIR CHAMBER	-	SD			—		—	KIP FT	THOUSAND FOOT-POUNDS
—	RISE OR DROP	-	SD			—		—	TON	TON
—	BRANCH-BOTTOM CONNECTION	-	SD			—		—	U	U-FACTOR
—	BRANCH-SIDE CONNECTION	-	SD			—		—	UNIT	UNIT
—	CAP ON END PIPE	-	SD			—		—	V	VACUUM
—	FLOW INDICATOR FOR STATIONARY METER (ORIFICE)	-	SD			—		—	VAC	VALVE
—	FLOW INDICATOR FOR PORTABLE METER (SPECIFY FLOW RATE)	-	SD			—		—	VAR	VARIABLE

GENERAL PLUMBING NOTES:

1. ALL WORK SHALL CONFORM TO ALL STATE AND LOCAL CODES, RULES AND REGULATIONS, AND ORDINANCES.
2. PLUMBING PLANS ARE DIAGRAMMATIC ONLY. THEY ARE INTENDED TO INDICATE CAPACITY, SIZE, LOCATION, DIRECTION AND GENERAL ARRANGEMENT. WHERE NOT SPECIFICALLY SHOWN ON PLANS, CONTRACTOR SHALL APPLY PROFESSIONAL STANDARDS SUCH AS THAT OF THE AMERICAN SOCIETY OF PLUMBING ENGINEERS.
3. WORK SHALL INCLUDE ALL LABOR, MATERIALS, PERMITS AND OTHER COSTS AS ARE NECESSARY FOR THE INSTALLATION OF A COMPLETE AND SATISFACTORY OPERATIONAL PLUMBING AND SANITARY SYSTEM. EQUIPMENT SHALL BE INSTALLED IN SUCH A MANNER AS TO MAINTAIN ITS LISTING AND THE MANUFACTURER'S GUARANTEES AND WARRANTIES.
4. THIS CONTRACTOR SHALL COORDINATE WITH THE OTHER TRADES TO INSURE THAT EACH TRADE SHALL HAVE SUFFICIENT SPACE TO INSTALL THEIR EQUIPMENT (DUCTWORK, PIPING, ELECTRICAL, ETC.), ALONG WITH THE PLUMBING WORK.
5. WHERE THE TERM "PROVIDE" IS USED, IT SHALL MEAN "FURNISH AND INSTALL". THE CONTRACTOR SHALL COORDINATE HIS WORK WITH ALL THE OTHER TRADES PRIOR TO THE FABRICATION, PURCHASE AND/OR INSTALLATION OF THE WORK.
6. UNLESS NOTED, ALL MATERIALS SHALL BE NEW, COMPLETE, INCLUDE MANUFACTURER'S WARRANTY, AND BE U.L. APPROVED IF APPLICABLE. ALL WORK SHALL PRESENT A NEAT MECHANICAL APPEARANCE WHEN COMPLETED.
7. FIELD VERIFY ALL DIMENSIONS. CONTRACTOR SHALL VERIFY ELEVATION OF UTILITY CONNECTIONS ON SITE PRIOR TO COMMENCING WORK. FINAL CONNECTION TO SITE UTILITIES SHALL BE BY THE PLUMBING CONTRACTOR.
8. PIPING ROUTED THROUGH FOUNDATIONS SHALL BE SLEVED AND INSTALLED IN ACCORDANCE WITH THE AMERICAN SOCIETY OF PLUMBING ENGINEERS STANDARDS.
9. PLUMBING SYSTEM INSTALLER SHALL PROVIDE ALL STRUCTURAL MEMBERS, SUPPORT BRACKETS, FLASHING, HARDWARE ETC., REQUIRED TO INSTALL A COMPLETE SYSTEM.
10. DRAIN, WASTE AND VENT PIPING SHALL BE PVC SCH. 40 WHEN INSTALLED BELOW GRADE OR UNDER CONCRETE SLABS. DRAIN WASTE AND VENT PIPING INSTALLED ABOVE GRADE SHALL BE PVC SCH. 40.
11. DOMESTIC WATER PIPING SHALL BE TYPE "L" COPPER.

12. PLUMBING CONTRACTOR SHALL CERTIFY ALL WATER PIPING AND SPECIALTIES FREE FROM MICROBIAL CONTAMINATION BY SANITIZING THE PLUMBING SYSTEM BEFORE OCCUPATION OF BUILDING.

13. EXPOSED FIXTURE TRIM SHALL BE CHROME PLATED BRASS. PROVIDE INDIVIDUAL STOPS FOR EACH HOT AND COLD WATER CONNECTION TO FIXTURES.

16. ALL SANITARY PIPING CHANGES OF DIRECTION 45 DEGREES OR MORE SHALL BE ACCOMPLISHED BY USING 45 DEGREE 1/8 BEND ELBOWS UNLESS OTHERWISE NOTED.

17. ALL SANITARY PIPING UNDER SLAB SHALL BE 2" OR LARGER.

18. INSTALL HEAT TRAPS ON ALL WATER HEATERS, WHERE THE SYSTEM IS NOT RECIRCULATED.

19. PROVIDE MAINTENANCE AND/OR OTHER CLEARANCES AT EACH PIECE OF EQUIPMENT AS REQUIRED OR RECOMMENDED BY THE EQUIPMENT MANUFACTURER. COORDINATE WITH GENERAL CONTRACTOR TO PROVIDE ANY ADDITIONAL SPACE REQUIRED FOR SUBMITTED EQUIPMENT.

20. PROVIDE ACCESS DOORS IN INACCESSIBLE FINISHES FOR ALL VALVES TRAP PRIMER, ETC., THAT REQUIRES PERIODIC ADJUSTMENTS OR MAINTENANCE.

21. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE SAFEKEEPING OF HIS OWN PROPERTY ON THE JOB SITE. OWNER ASSUMES NO RESPONSIBILITY FOR PROTECTION OF PROPERTY AGAINST FIRE, THEFT OR ENVIRONMENTAL CONDITIONS.

22. ALL MODEL NUMBERS INDICATED ARE PROVIDED TO ESTABLISH THE QUALITY LEVEL AND FEATURES REQUIRED. LISTED MANUFACTURERS AND OTHER PRIOR APPROVED EQUALS MAY BE SUBSTITUTED WHEN PROVIDED WITH EQUAL FEATURES, EITHER STANDARD OR AS ACCESSORIES. SUBSTITUTED AIR DEVICES AND PLUMBING FIXTURES MUST BE SIMILAR IN APPEARANCE TO THE ITEMS SPECIFICALLY INDICATED.

23. ALL WORK SHALL BE PERFORMED IN A WORKMANLIKE MANNER. CLEAN THE SITE DAILY AND REMOVE FROM THE PREMISES ANY DIRT AND DEBRIS CAUSED BY THE WORK INCLUDED IN THIS CONTRACT.

24. PROVIDE 1" ARMAFLEX INSULATION ON ALL HOT AND CIRCULATING WATER PIPING.

SHEET TITLE:
PLUMBING SYMBOLS &
ABBREVIATIONS

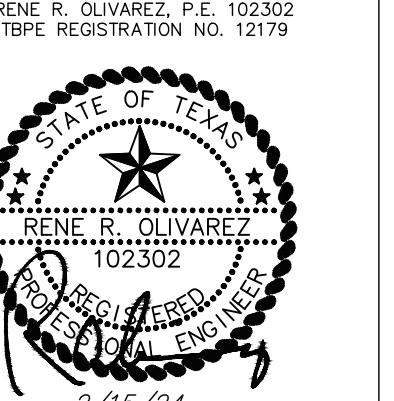
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REVIEWED BY: R.O.
ISSUED DATE: 2/15/24

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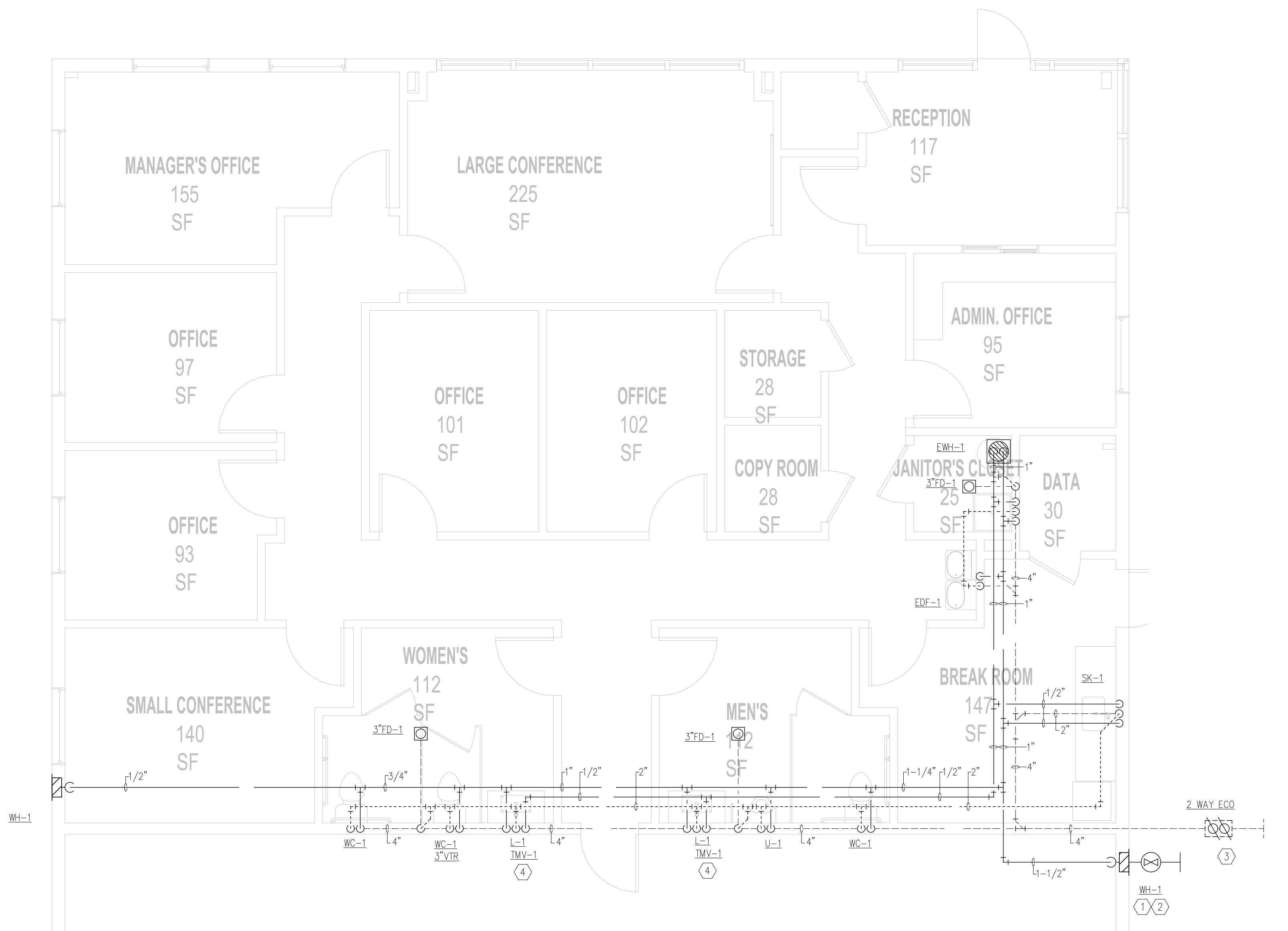
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1 PLUMBING PLAN
1/8" = 1'-0"

PLUMBING GENERAL NOTE:

- A. DRAWING IS DIAGRAMMATIC ONLY. CONTRACTOR SHALL COORDINATE EXACT LOCATIONS OF PIPING, DEVICES AND EQUIPMENT WITH BUILDING ELEMENTS AND THE WORK OF OTHER TRADES.
- B. CONTRACTOR TO INSTALL ALL VTR AT A MINIMUM OF 15' AWAY FROM ANY EXISTING AIR INTAKE. FIELD VERIFY EXISTING ROOF EQUIPMENT PRIOR TO PENETRATING THE ROOF.

PLUMBING KEYED NOTES:

- ① REFER TO CIVIL SITE UTILITY PLAN FOR CONTINUATION. CONTRACTOR TO BE RESPONSIBLE FOR COORDINATION, VERIFICATION AND CONNECTION OF ALL UTILITIES TO SITE UTILITY STUB-OUTS.
- ② DOMESTIC WATER SERVICE ENTRY. REFER TO DETAIL 4/P0.1.
- ③ BALL VALVE ABOVE CEILING. PROVIDE ACCESS PANEL WHERE LOCATED IN AN INACCESSIBLE CEILING. PANEL SHALL BE 12"X12" PAINTED TO MATCH CEILING. PROVIDE MARKING OF VALVE LOCATION ALONG THE CEILING TILE.
- ④ WATER HAMMER ARRESTOR. PROVIDE ACCESS PANEL WHERE LOCATED IN AN INACCESSIBLE WALL/CEILING. PANEL SHALL BE 12"X12" PAINTED TO MATCH WALL/CEILING.
- ⑤ COLD & HOT WATER DROP TO FIXTURES. SIZE AS NOTED. SEE PLUMBING RISER DIAGRAMS FOR CONTINUATION IN WALL OR CHASE. PROVIDE WATER HAMMER ARRESTORS AS INDICATED IN RISER DIAGRAMS. PROVIDE ACCESS PANEL WHERE WHA LOCATED IN INACCESSIBLE WALL OR CEILING.
- ⑥ PROVIDE PROSET SYSTEMS INC. "TRAP GUARD" SEWER GAS EMISSION PROTECTION IN THIS FLOOR DRAIN DETAIL 2/P0.1.
- ⑦ PROVIDE TRAP PRIMER. REFER TO DETAIL 5/P0.1.
- ⑧ VENT THRU ROOF. REFER TO DETAIL 1/P0.1.
- ⑨ RISE 3" SANITARY FOR MECHANICAL EQPMT DRAINAGE. REFER TO MEP.2.0 FOR CONTINUATION AND DETAIL 7/P0.1.

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SHEET TITLE:
**PLUMBING
PLAN**

SHEET
P1.0

PLUMBING SCOPE & SPECIFICATION

THE WORK OF THIS SECTION SHALL INCLUDE, BUT NOT BE LIMITED TO:

- A. A DOMESTIC HOT AND COLD WATER DISTRIBUTION SYSTEM TO SERVE ALL FIXTURES.
- B. A SANITARY WASTE AND VENT SYSTEM TO SERVE ALL FIXTURES.
- C. CONNECT TO EXISTING COLD WATER AND SANITARY MAINS.

DRAWINGS ARE DIAGRAMMATIC; CONFIRM DIMENSIONS AND LOCATIONS IN THE FIELD, ADVISE OF MAJOR DISCREPANCIES.

GUARANTEE LABOR AND MATERIALS FOR ONE YEAR.

ADHERE TO APPLICABLE LOCAL CODES AND REGULATIONS, WHICH INCLUDE BUT ARE NOT LIMITED TO CITY OF HOUSTON (2000 UNIFORM PLUMBING CODE, WITH AMENDMENTS).

PRODUCE RECORD DRAWINGS.

CONTRACTOR SHALL OBTAIN REQUIRED PERMITS AND PAY ALL FEES.

VALVES

VALVES SHALL BE MANUFACTURED BY NIBCO, HAMMOND, POWELL, STOCKHAM, WATTS OR EQUIVALENT APPROVED BY THE ENGINEER.

GATE VALVES SHALL CONFORM TO MSS-SP-80 FOR BRONZE AND MSS-SP-70 FOR IRON, VALVES 2" AND SMALLER SHALL BE NIBCO T-113 OR S-113 OR APPROVED EQUIVALENT.

BALL VALVES SHALL HAVE CAST BRONZE BODY, BLOWOUT PROOF STEMS, FULL SIZE PORT, 316 STAINLESS STEEL TRIM, TEFON SEAT AND SEAL AND THRUST WASHERS. VALVES 2" AND SMALLER SHALL BE NIBCO T-585-70-66 OR APPROVED EQUIVALENT.

UNIONS

UNIONS IN COPPER OR BRASS LINES SHALL BE BRASS, THREADED PATTERN UNIONS.

EXCAVATION

EXCAVATE TRENCHES FOR UNDERGROUND PIPING TO THE REQUIRED DEPTH.

CUT THE BOTTOM OF THE TRENCH OR EXCAVATION TO UNIFORM GRADE.

EXCAVATE 6" BELOW GRADE, FILL WITH BEDDING MATERIAL (SAND) AND TAMP WELL.

LAY OUT ALIGNMENT OF PIPE TRENCHES TO AVOID OBSTRUCTIONS. PROVIDE ASSURANCE THAT PROPOSED ROUTE OF PIPE WILL NOT INTERFERE WITH BUILDING FOUNDATION BEFORE ANY CUTTING IS BEGUN. SHOULD INTERFERENCE BE FOUND, CONTACT THE ARCHITECT/ENGINEER BEFORE PROCEEDING.

BACKFILL

BACKFILL SHALL NOT BE PLACED UNTIL THE WORK HAS BEEN INSPECTED, TESTED AND APPROVED. USE SUITABLE FRIABLE SOILS AS BACKFILL MATERIAL. DO NOT USE PEAT, SILT, MUCK, DEBRIS OR OTHER ORGANIC MATERIALS. DEPOSIT BACKFILL IN UNIFORM LAYERS.

PLACE BACKFILL MATERIAL IN UNIFORM LAYERS, 8" MAXIMUM LOOSE MEASURE, COMPACT TO NOT LESS THAN 95% OF MAXIMUM SOIL DENSITY AS DETERMINED BY ASTM D698 STANDARD PROCTOR.

PLUMBING PIPING HANGER SPACING

MAXIMUM SPACING SHALL BE 10 FOOT.

CLEANING, TESTING AND ADJUSTING

THIS CONTRACTOR SHALL FURNISH ALL LABOR, TOOLS, INSTRUCTIONS, AND SUPERVISION REQUIRED FOR THE PERFORMANCE OF ALL TESTS, CLEANING, AND MAKING NECESSARY ADJUSTMENTS TO OPERATION OF ALL FIXTURES AND EQUIPMENT.

PIPING INSULATION

ALL COLD WATER PIPING, FITTINGS AND VALVES SHALL BE INSULATED WITH NOMINAL 1/2" WALL THICKNESS IMCOLOCK PIPE INSULATION, OR AN APPROVED EQUAL HAVING FLAME SPREAD RATING OF 25 OR LESS AND A SMOKE DENSITY OF 50 OR LESS WHEN TESTED BY ASTM E-84 METHOD.

IMCOLOCK PIPE INSULATION MAY BE SLIPPED ONTO THE PIPE PRIOR TO CONNECTION OR APPLIED AFTER THE PIPE IS INSTALLED, AT THE CONTRACTOR'S OPTION. ALL BUTT JOINTS AND MITER JOINTS SHALL BE CLOSED USING IMCOA'S FUSE SEAL JOINING SYSTEM OR FACTORY APPROVED CONTACT ADHESIVE. IMCOLOCK PIPE INSULATION SHALL BE INSTALLED ACCORDING TO THE PROCEDURES OUTLINED BY THE MANUFACTURER.

FITTING COVER INSULATION SHALL BE FABRICATED AND INSTALLED ACCORDING TO THE MANUFACTURER'S FURNISHED PRINTS. SWEAT FITTINGS SHALL BE INSULATED WITH MITER CUT PIECES OF IMCOLOCK PIPE INSULATION THE SAME SIZE AS ON ADJACENT PIPING. THREADED FITTINGS SHALL BE INSULATED WITH SLEEVED FITTING COVERS FABRICATED FROM MITER CUT PIECES OF IMCOLOCK PIPE INSULATION ACCORDING TO THE MANUFACTURER'S SLEEVING SIZE RECOMMENDATIONS AND SHALL BE OVERLAPPED 2" AND SEALED TO THE ADJACENT PIPE INSULATION. ALL VALVES SHALL BE INSULATED WITH CUT PIECES OF IMCOLOCK PIPE INSULATION. ALL JOINTS AND MITER CUT PIECES ARE TO BE SEALED USING IMCOA'S FUSE SEAL JOINING SYSTEM OR FACTORY APPROVED CONTACT ADHESIVE.

SUPPORTING HANGERS SHALL BE DESIGNED TO RESIST COMPRESSION; SUPPORTING DEVICES SUCH AS SHORT WOOD DOWELS OR WOOD BLOCKS SHALL BE USED IN COMBINATION WITH GALVANIZED SHEET METAL HANGER SHIELDS. THE WOOD SUPPORTING DEVICES SHALL BE THE SAME THICKNESS AS THE INSULATION AND SEALED TO THE INSULATION WITH FACTORY APPROVED CONTACT ADHESIVE.

INSTALL THERMAL INSULATION ON CLEAN, DRY SURFACES AFTER ALL TESTING AND INSPECTION IS COMPLETED. INSTALLATION SHALL BE IN STRICT ACCORDANCE WITH THESE SPECIFICATIONS AND WITH MANUFACTURERS INSTRUCTIONS.

THERMOSTATIC MIXING VALVES

ITEM NO.	INLET HOT WATER TEMP (°F)	OUTLET MIXED WATER TEMP (°F)	MINIMUM FLOW (GPM)	DESIGN FLOW (GPM)	PRESSURE DROP @ DESIGN FLOW (PSI)	VALVE FINISH	MANUFACTURER / MODEL NO.
TMV-1	120°	110°	0.5	4	5.0	ROUGH BRONZE	SYMONS THERMIXER 7-225-CX

NOTES:

1. MAKE WATER CONNECTIONS TO THERMOSTATIC MIXING VALVE(S) IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.
2. PROVIDE PIPE INCREASERS AND/OR VALVES AS REQUIRED.

PLUMBING FIXTURE SPECIFICATION

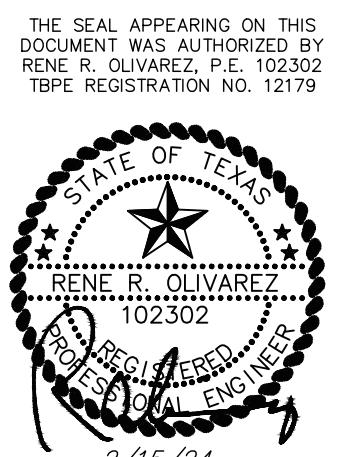
TYPE: DESCRIPTION: WC-1 (T.A.S. COMPLIANT FOR ADULTS) WATER CLOSET, FLOOR MOUNTED 12" ROUGH-IN, WHITE VITREOUS CHINA, 1.28 GALLON PER FLUSH, HIGH JET ACTION, 16-1/2" HIGH ELONGATED CLOSET BOWL WITH CLOSE-COUPLED TANK AND BOLT COVERS. TANK TO BE CONFIGURED WITH TRIP LEVER LOCATED ON LEFT SIDE OR ON RIGHT SIDE IN ORDER TO MEET T.A.S. REQUIREMENT THAT FLUSH CONTROLS BE MOUNTED ON THE WIDE SIDE OF THE TOILET AREA. AMERICAN STANDARD CADET ADA 16-1/2" H ELONGATED TOILET 2235.12B1US.	TYPE: DESCRIPTION: TMV THERMOSTATIC MIXING VALVE. SCHEDULED ON DRAWINGS.
SEAT: SUPPLIES: ROUGH-IN:	TYPE: DESCRIPTION: WH-1 WALL HYDRANT, CONCEALED BOX TYPE, NON-FREEZE, 3/4" MALE HOSE THREAD OUTLET, SELF-DRAINING WITH ANTI-SIPHON VACUUM BREAKER, CHROME PLATED BRONZE CONSTRUCTION WITH CAST STAINLESS STEEL HYDRANT BOX, LOCKING HINGED COVER, LOOSE TEE OPERATING KEY, MIFAB MHY-20-3. 3/4" COLD WATER, INSTALL WITH OUTLET AT 24° A.F.F. OR AS DIRECTED BY ARCHITECT/OWNER.
FAUCET: STRAINER: P-TRAP: SUPPLIES: CARRIER: ROUGH-IN:	TYPE: DESCRIPTION: WCO WALL CLEANOUT, CAST IRON CLEANOUT FERRULE WITH BRONZE RAISED HEAD PLUG AND ROUND STAINLESS STEEL COVER PLATE WITH CENTER SECURING SCREW, MIFAB C1440-RD6, PROVIDE MIFAB C1460 CAST IRON CLEANOUT TEE IN LIEU OF FERRULE AS REQUIRED FOR WALL CONSTRUCTION.
GENERAL NOTES:	ALL LAVATORIES AND SINKS SHALL BE SUPPLIED WITH HOT AND COLD WATER TO FAUCETS AS INDICATED ON DRAWINGS AND FIXTURE SCHEDULE. PROVIDE CHROME PLATED BRASS SUPPLY STOPS WITH LOOSE CLEAVER AND WALL ESCUTCHEONS. PROVIDE CHROME PLATED FLEXIBLE RISERS OF SIZE REQUIRED TO PROPERLY CONNECT FIXTURES. PROVIDE 17 GAUGE CHROME PLATED CAST BRASS P-TRAP WITH CLEANOUT AND EXTENSION TO WALL WITH ESCUTCHEON PLATE. PROVIDE MOLDED CLOSED CELL ANTI-MICROBIAL VINYL INSULATION KITS AT ALL LAVATORIES AND SINKS REQUIRED TO BE T.A.S. ACCESSIBLE (MCQUIRE OR TRUEBRO). ALL SUCH FIXTURES AND FINAL INSTALLATIONS SHALL COMPLY WITH THE STATE ACCESSIBILITY STANDARDS REQUIREMENTS.
TYPE: DESCRIPTION: L-1 (T.A.S. COMPLIANT FOR ADULTS) LAVATORY, WALL HUNG, WHITE VITREOUS CHINA, 20-1/2" X 18-1/4" WITH FRONT OVERFLOW AND CONCEALED ARM SUPPORTS, FAUCET HOLES: 4" CENTERS. AMERICAN STANDARD "LUCERNE" 0355.012. CHROME PLATED BRASS DECK MOUNTED SINGLE LEVER LAVATORY FITTING WITH 4-3/4" SPOUT, 4" CENTERS COVER PLATE, CERAMIC MIXING CARTRIDGE, VANDAL RESISTANT 0.5 GPM AERATOR. CHROME PLATED BRASS GRID STRAINER WITH 1-1/4" 17 GAUGE TAIPiece WITH LOOSE NUT, MCQUIRE 155A.	TYPE: DESCRIPTION: INSERT TRAP GUARDS AFTER FINAL RODDING OF DRAINS. INSTALL TRAP GUARD WITH CLEAR SILICONE CAULK FOR GAS-TIGHT SEAL. FOR DRAIN RODDING AFTER INSTALLATION, INSERT SEWER TAPE THROUGH LIGHTLY GREASED 1-1/2" PVC PIPE TO PROTECT TRAP GUARD.
FLUSH VALVE: CARRIER: ROUGH-IN:	TYPE: DESCRIPTION: U-1 (T.A.S. COMPLIANT FOR ADULTS) URINAL, WALL HUNG, WHITE VITREOUS CHINA, 5 GALLON PER FLUSH, SLOW FLUSH, ACTION INTEGRAL TRAP, AMERICAN STANDARD "ALLBROOK" 6550.001.
FAUCET: STRAINER: P-TRAP: SUPPLIES: ACCESSORY: ROUGH-IN:	TYPE: DESCRIPTION: SK-1 (T.A.S. COMPLIANT FOR ADULTS) - BREAKROOM SINK, COUNTER MOUNTED, SELF-RIMMING, 18 GAUGE TYPE 304 STAINLESS STEEL, 29" X 18" X 6" DEEP, DOUBLE COMPARTMENT WITH FAUCET DECK, THREE FAUCET HOLES ON 4" CENTERS, ELKAY LRAD-1818. CHROME PLATED BRASS DECK MOUNTED FITTING WITH 8" SWING SPOUT AND 4" WRIST BLADE HANDLES ON 8" CENTERS. QUARTER TURN OPERATING CARTRIDGES, VANDAL RESISTANT 2.2 GPM AERATOR, CHICAGO MODEL 1100-317-E3VPJKCP. CHROME PLATED BRASS FLAT GRID SINK STRAINER, WITH 1-1/2" OUTLET, MCQUIRE 152LT. 1-1/2" END OUTLET 16" CENTERS 17 GAUGE CONTINUOUS WASTE WITH CAST BRASS TEE AND SLIP NUTS. MCQUIRE 111C16G17, 1-1/2" 17 GAUGE CHROME PLATED HEAVY CAST BRASS TRAP WITH CLEANOUT AND EXTENSION TO WALL WITH ESCUTCHEON PLATE. MCQUIRE 8912.
FAUCET: ROUGH-IN:	TYPE: DESCRIPTION: 1" SINK, 3/8" O.D. CHROME PLATED LOOSE KEY STOP VALVE WITH ESCUTCHEONS AND 3/8" COMPRESSION CHROME PLATED FLEXIBLE RISERS, MCQUIRE 2165L.
P-TRAP: SUPPLIES: CARRIER: ROUGH-IN:	TYPE: DESCRIPTION: UNDERSINK PROTECTIVE ENCLOSURE WITH MOUNTING TRACK AND FASTENERS, RIGID HIGH IMPACT, STAIN RESISTANT PVC CONSTRUCTION, TRUEBRO BASIN GUARD MODEL 36 IN WHITE OR BEIGE AS SELECTED BY ARCHITECT/OWNER. CUT IN FIELD AS REQUIRED TO FIT KNEE SPACE OPENING.
TYPE: DESCRIPTION: MS-1 MOP SINK BASIN, 24" X 24" X 10" HIGH, WHITE ONE-PIECE HOMOGENEOUS MOLDED STONE CONSTRUCTION, STAINLESS STEEL BUMPER GUARDS, DRAIN BODY, AND REMOVEABLE STAINLESS STEEL COMBINATION DOME STRAINER AND LINT BASKET. PROVIDE STAINLESS STEEL WALL GUARD IN QUANTITY AS REQUIRED TO PROTECT ADJACENT WALLS. PROVIDE MOP HANGER AND 30' HOSE WITH WALL HANGER. FIAT MSB 2424 WITH E-88-AA, MSG-2424, 889-CC, AND 832-AA.	TYPE: DESCRIPTION: 2" WASTE, 2" VENT, 1/2" HOT AND COLD WATER. REFER TO ARCHITECTURAL DRAWINGS FOR HEIGHT REQUIREMENTS.
FAUCET: ROUGH-IN:	TYPE: DESCRIPTION: CHROME PLATED BRASS WALL MOUNTED FITTING, VACUUM BREAKER SPOUT WITH PAUL HOOK AND WALL BRACE, FOUR ARM HANDLES ON 8" CENTERS. 3/4" MALE HOSE THREAD OUTLET, FIAT 830-AA.
P-TRAP: SUPPLIES: CARRIER: ROUGH-IN:	TYPE: DESCRIPTION: EDF-1 (T.A.S. COMPLIANT FOR ADULTS) WALL HUNG, BARRIER FREE, SPLIT-LEVEL ELECTRIC DRINK FOUNTAIN, ALL STAINLESS STEEL. SHALL DELIVER 8 GPH OF 50 DEGREE WATER AT 90 DEGREE AMBIENT AND 80 DEGREE INLET WATER. PROVIDE CANE TOUCH APRON IN ALL STAINLESS STEEL ON ALL UNITS MOUNTED WITH A CLEAR KNEE SPACE GREATER THAN 27" HIGH. HALSEN TAYLOR HACBFSBL-Q WITH APRON 42522, 1-1/4" CHROME PLATED CAST BRASS TRAP WITH CLEANOUT AND EXTENSION TO WALL WITH ESCUTCHEON MCQUIRE 8872.
TYPE: DESCRIPTION: 1/2" S. S. X 3/8" O.D. CHROME PLATED LOOSE KEY STOP VALVE WITH ESCUTCHEON AND 3/8" COMPRESSION CHROME PLATED FLEXIBLE RISER, MCQUIRE 2165K.	1/2" S. S. X 3/8" O.D. CHROME PLATED LOOSE KEY STOP VALVE WITH ESCUTCHEON AND 3/8" COMPRESSION CHROME PLATED FLEXIBLE RISER, MCQUIRE 2165K.
FAUCET: ROUGH-IN:	TYPE: DESCRIPTION: RECTANGULAR STEEL TUBING UPRIGHTS WITH WELDED 3" X 4-1/2" BASE, ANCHORED TO CONCRETE SLAB WITH (4) 1/2" BOLTS. ADJUSTABLE SLEEVE FOR CONNECTION TO HANGER PLATE PROVIDED BY FIXTURE MANUFACTURER, MIFAB MC-33.
P-TRAP: SUPPLIES: CARRIER: ROUGH-IN:	2" WASTE, 2" VENT, 1/2" COLD WATER. REFER TO ARCHITECTURAL DRAWINGS FOR HEIGHT REQUIREMENTS.

SHOCK ARRESTORS

P.D.I. SYMBOL	Fixture Units	Chamber Length	Sweat Connection
A	1-11	9-5/8"	1/2"
B	12-32	11-3/4"	3/4"
C	33-60	14-11/16"	1"
D	61-113	12-3/8"	1"
E	114-154	15-3/8"	1"
F	155-330	17-3/8"	1"

PIPE MATERIAL LIST

WATER PIPING
ABOVE SLAB INSIDE THE BUILDING SHALL BE SEAMLESS ASTM B 88 TYPE L COPPER WATER TUBE WITH WROUGHT COPPER FITTINGS, ANSI B16.22. SOLDER MATERIAL SHALL BE 95.5% LEAD FREE, ASTM B 32. THE USE OF DRILLED-T CONNECTIONS IS NOT PERMITTED.
CONDENSATE AND INDIRECT DRAIN PIPING SHALL BE
TYPE M COPPER TUBING UP TO 1" ID, TYPE DWV TUBING AND COPPER FITTINGS FOR 1-1/4" AND LARGER SIZES, AND 95-5 SOLDER JOINTS.
SANITARY SOIL WASTE AND VENT PIPING SHALL BE
ABOVE AND BELOW SLAB SHALL BE SCHEDULE 40 DWV POLYVINYL CHLORIDE PIPE AND FITTINGS CONFORMING TO ASTM D-1784-82 WITH SOLVENT WELDED JOINTS. DO NOT USE IN AIR SUPPLY OR RETURN AIR PLenums, OR FIRE RATED WALLS, PARTITIONS, OR FLOORS.



PROJECT #: 2319

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PHARR, TX 78577

SHEET TITLE:

PLUMBING RISERS &
SCHEMES

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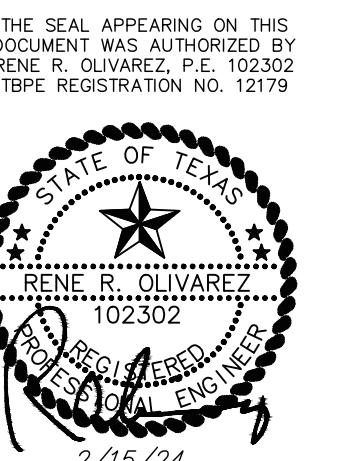
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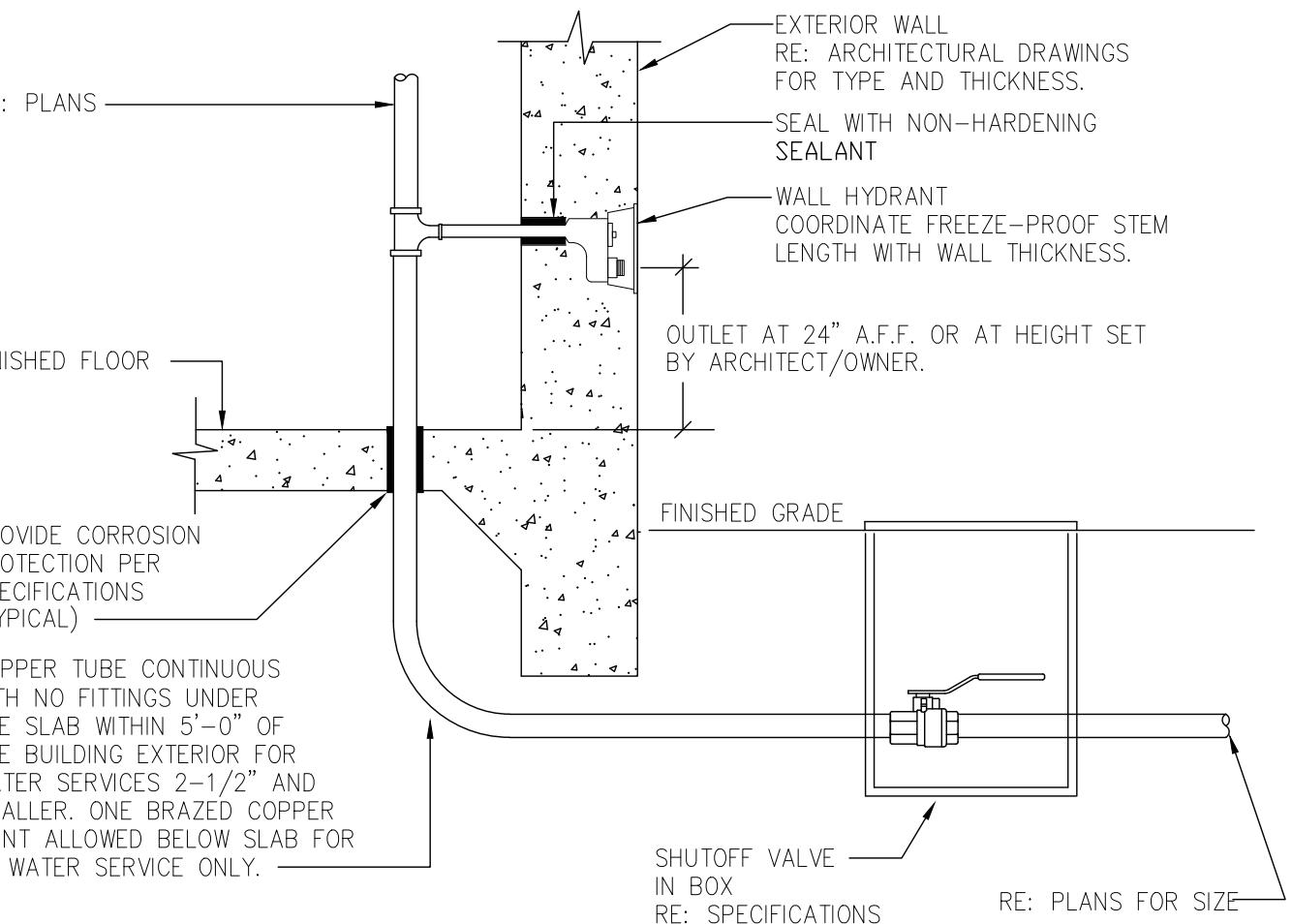


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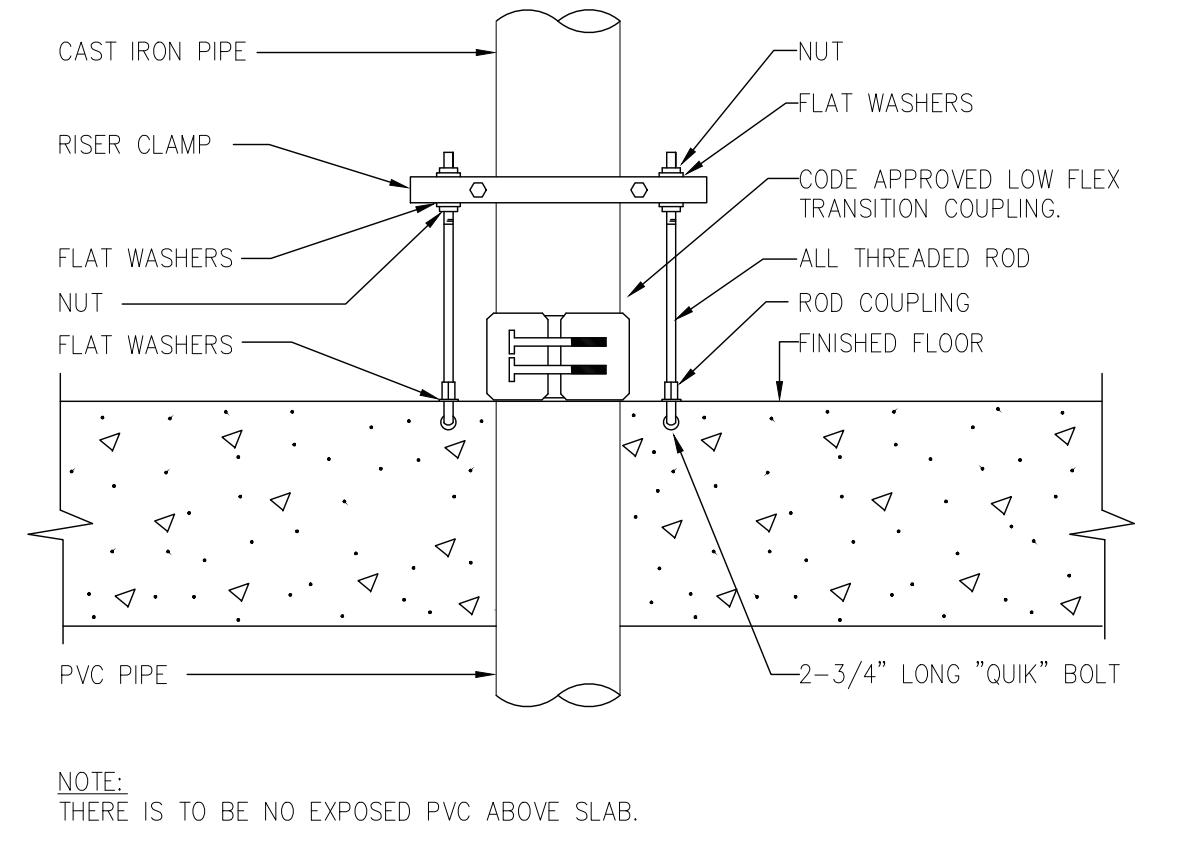
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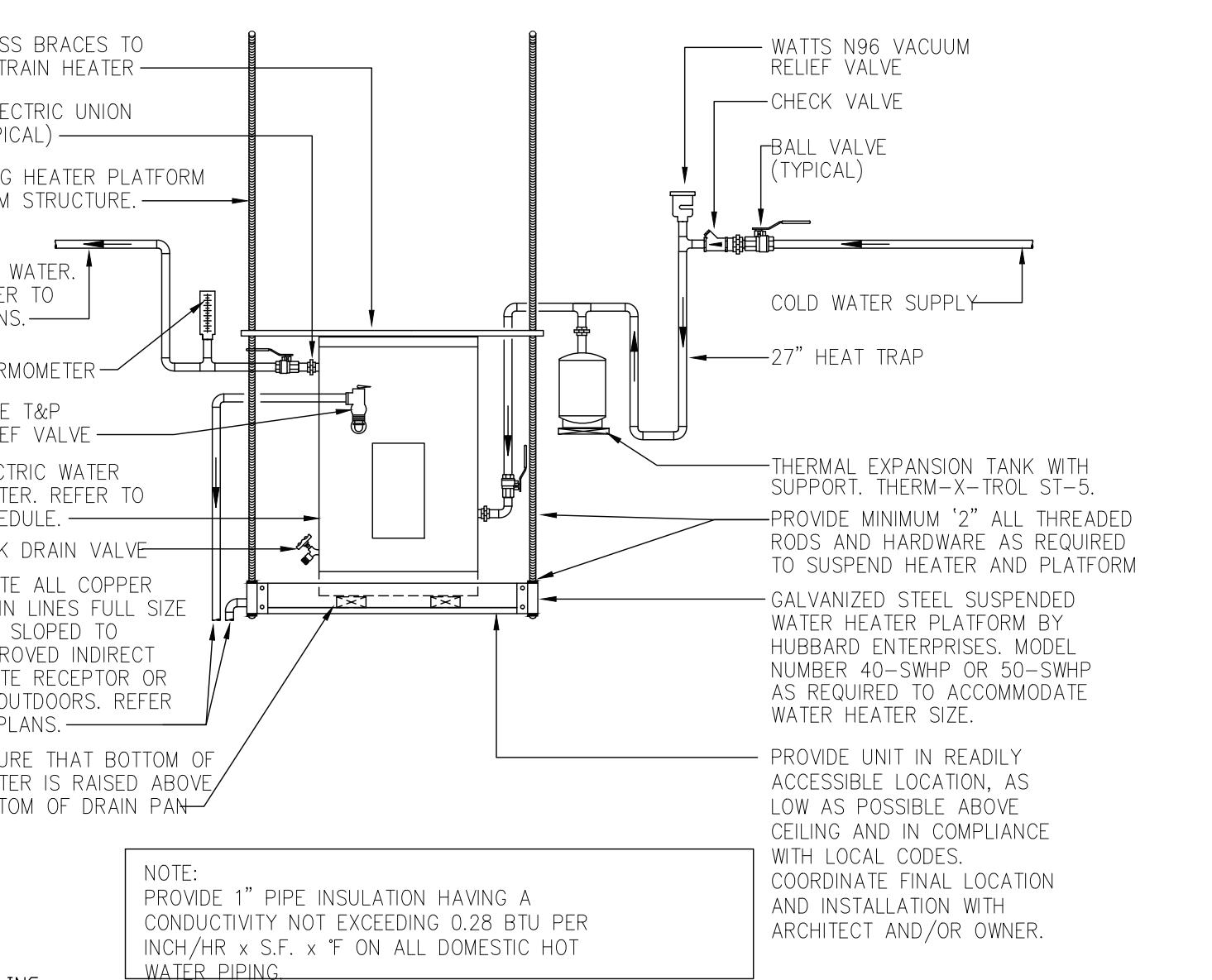
931 W. SHARM DR.
PHARR, TX 78577



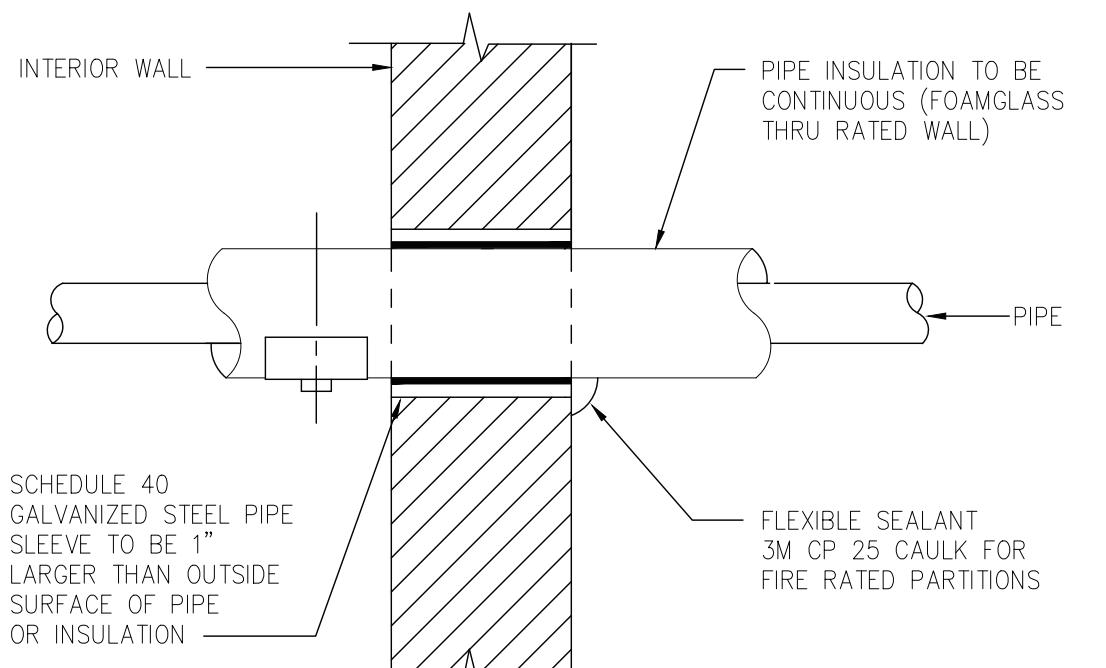
6 DOMESTIC WATER SERVICE ENTRY



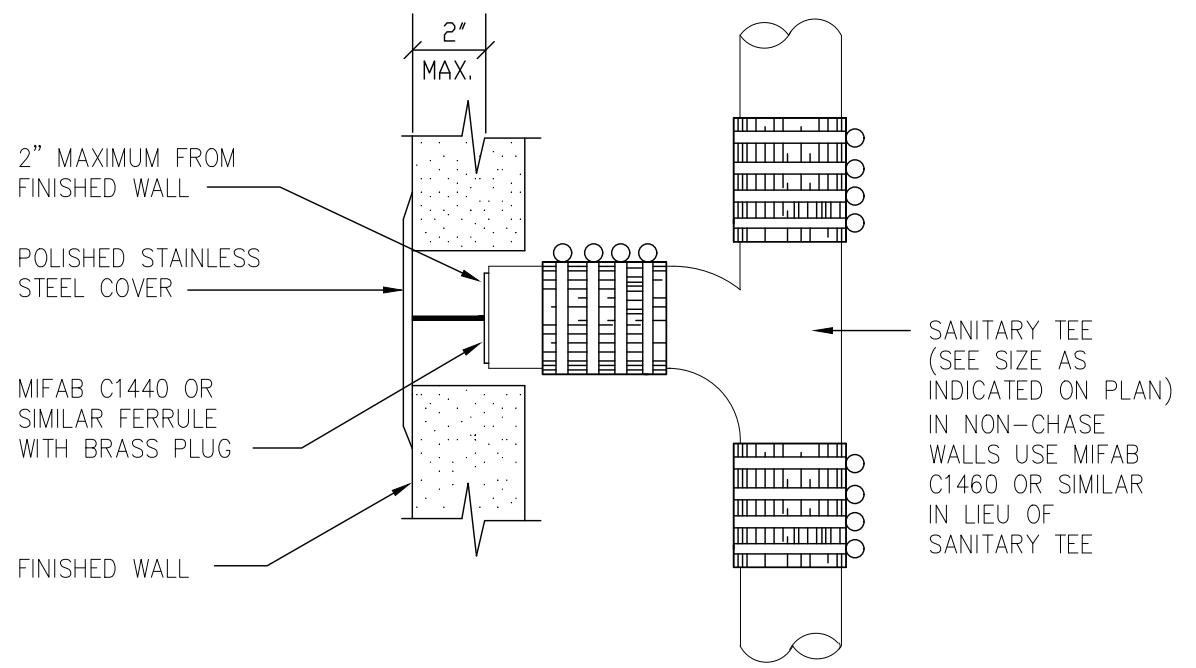
3 CAST IRON TO PVC PIPE TRANSITION



5 ELECTRIC WATER HEATER PIPING

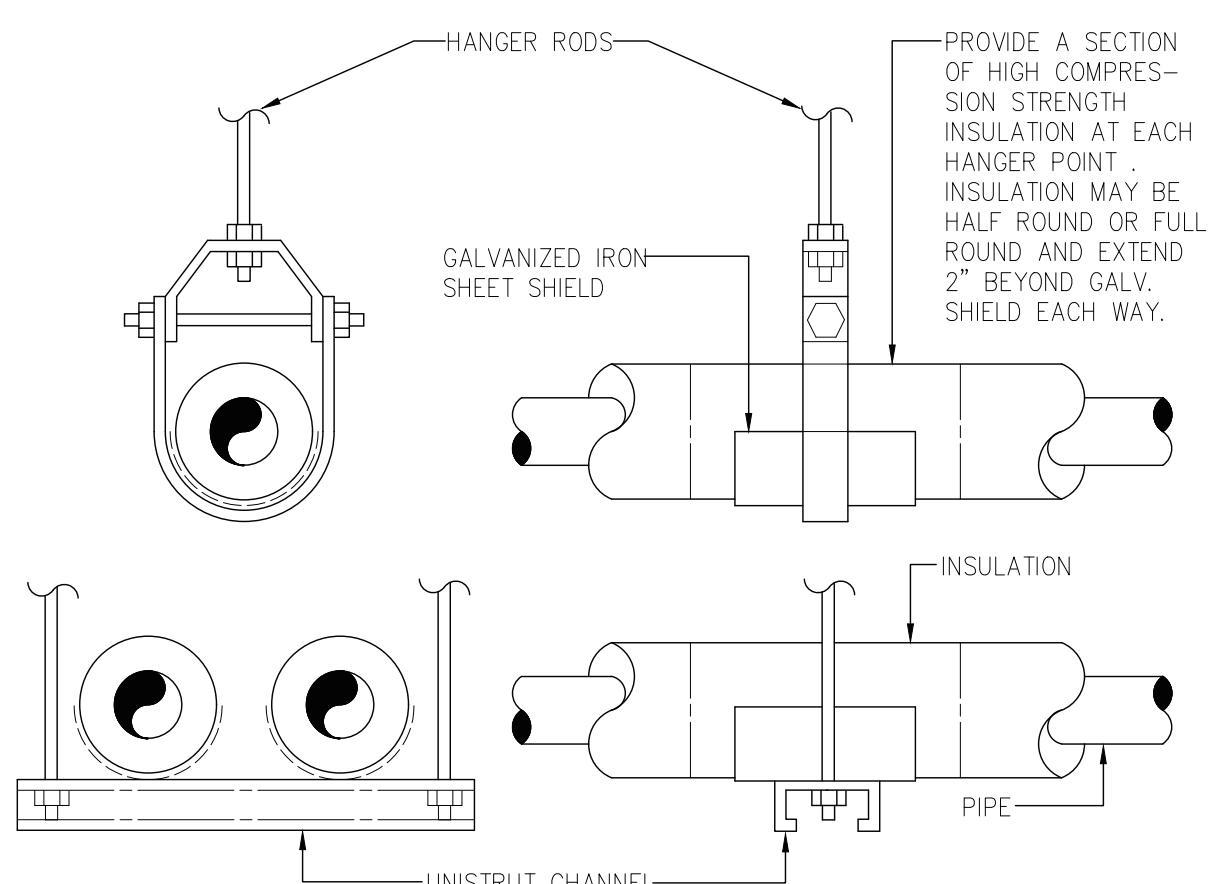


4 INTERIOR WALL PENETRATION



2 WALL CLEANOUT

MINIMUM DIMENSIONS OF GALVANIZED SHEETMETAL PROTECTION SHIELDS AT PIPE HANGERS		
NOMINAL SIZE PIPE	SHIELD LENGTH MIN. (IN.)	GAUGE THICKNESS
1/2" & 3/4"	12	18
1" - 2-1/2"	12	18
3" - 4"	12	18
6"	12	16



1 HANGER FOR WATER PIPING

DRAWN BY: H.M.
REVIEWED BY: R.O.
ISSUED DATE: 2/15/24
REVISION / ADDENDA

NO. DATE DESCRIPTION

SHEET TITLE:

PLUMBING DETAILS

SHEET
P3.0