

# GUADALUPE COUNTY LUBE CENTER

## SEGUIN, TEXAS

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ABBREVIATIONS

A

AC	ACOUSTICAL
ADJ	ADJUSTABLE
ADD	ADDENDUM
AL	ALUMINUM
?	ANGLE
ANOD	ANODIZED
ARCH	ARCHITECT, ARCHITECTURE
A.D	AREA DRAIN
ASPH	ASPHALT
⊙	AT
AFF	ABOVE FINISH FLOOR
ADA	AMERICANS WITH DISABILITIES ACT (1990)

B

BM	BEAM
BITUM	BITUMINOUS
BL	BUILDING LINE
BLK	BLOCK
BD	BOARD
BUR	BUILT-UP ROOF
BLDG	BUILDING

C

CAB	CABINET
CPT	CARPET
CLKG	CAULKING
CLG	CEILING
CEM	CEMENT
?	CENTER LINE
CT	CERAMIC TILE
CB	CHALK BOARD
C	CHANNEL
CLO	CLOSET
CLR	CLEAR
CFMF	COLD FORMED METAL FRAMING
COL	COLUMN
COMP	COMPOSITE, COMPOSITION
COND	CONDITION
CONC	CONCRETE
COORD	COORDINATE
CMU	CONCRETE MASONRY UNIT
CJ	CONSTRUCTION JOINT
CONT	CONTINUOUS
CONTR	CONTRACTOR
CTSK	COUNTERSINK
CU	CUBIC

D

DBL	DOUBLE
DIAG	DIAGONAL
DISP	DISPOSAL
DP	DAMPProofING
DET	DETAIL
DIA	DIAMETER
DIM	DIMENSION
DWG	DRAWING
DF	DRINKING FOUNTAIN
DR	DOOR, DRAIN
DS	DOWNSPOUT
DW	DISHWASHER
DWR	DRAWER

E

EA	EACH
EW	ELEC., WATER COOLER
ELEC	ELECTRICAL
EL	ELEVATION (HEIGHT)
ELEV	ELEVATION (DRAWING)
EQ	EQUAL
EXH	EXHAUST
EXIST	EXISTING
EXP	EXPANSION
EXT	EXTERIOR
EJ	EXPANSION JOINT

F

FWC	FABRIC WALL COVERING
FIN.	FINISH
FIXT	FIXTURE
FLSHG	FLASHING
FLR	FLOOR
FLOOR	FLUORESCENT
FD	FLOOR DRAIN, FINISH DIMENSION
FE	FIRE EXTINGUISHER
FEC	FIRE EXTINGUISHER CAB
FHC	FIRE HOSE CAB.
FOB	FACE OF BRICK
FOC	FACE OF CONCRETE
FOF	FACE OF FINISH
FOM	FACE OF MASONRY
FOS	FACE OF STUD
FP	FIREPROOF (INC.)
FT	FOOT OR FEET
FTG	FOOTING
GC	GENERAL CONTRACTOR
FHC	FIRE HOSE CAB.
FOB	FACE OF BRICK

G

GALV	GALVANIZED
GI	GALVANIZED IRON
GA	GAUGE
GC	GENERAL CONTRACTOR
GEN	GENERAL
GFI	GROUND — FAULT INTERRUPTER
GFRG	GLASS FIBER REINFORCED CONCRETE
GFRG	GLASS FIBER REINFORCED GYPSUM
GFRP	GLASS FIBER REINFORCED PLASTER
GL	GLASS
G-LAM	GLUE — LAMINATED WOOD
GB	GRAB BAR
GR	GRADE
GYP BD	GYPSUM BOARD

H

HB	HOSE BIB
HDR	HEADER
HM	HOLLOW METAL
HT	HEIGHT
HORIZ	HORIZONTAL
HMAC	HOT MIXED ASPHALT CEMENT PAVING

I

IBC	INTERNATIONAL BUILDING CODE
IG	INSULATING GLASS
ID	INSIDE DIAMETER
IPS	IRON PIPE SIZE
INSUL	INSULATION
INT	INTERIOR

J

JAN	JANITOR
JT	JOINT

K

KIT	KITCHEN
-----	---------

L

LAM	LAMINATE
LAV	LAVATORY
LH	LEFT HAND
LHR	LEFT — HAND REVERSE
LT WT	LIGHT WEIGHT

M

MACH	MACHINE
MH	MAN HOLE
MAINT	MAINTENANCE, MAINTAIN
MAS.	MASONRY
MATL	MATERIAL
MAX.	MAXIMUM
MC	MEDICINE CABINET
MCW	MINERAL CORE WOOD
MDF	MEDIUM — DENSITY FIBERBOARD
MDO	MEDIUM — DENSITY OVERLAY
MEM WP	MEMBRANE WATERPROOFING
MECH	MECHANICAL
MET	METAL
MEZZ.	MEZZANINE
MFR	MANUFACTURER, MANUFACTURING
MTP	METAL TOILET PARTITIONS
MIN	MINIMUM
MO	MASONRY OPENING
MTD	MOUNTED
MUL	MULLION

N

ND	NAPKIN DISPOSAL
NV	NAPKIN VENDOR
NIC	NOT IN CONTRACT
NTS	NOT TO SCALE
NOM	NOMINAL
NO	NUMBER

O

OA	OVERALL
OC	ON CENTER
OFCI	OWNER FURNISHED, CONTRACTOR INSTALLED
OFOI	OWNER FURNISHED, OWNER INSTALLED
OFF	OFFICE
OD	OUTER DIAMETER
OPNG	OPENING
OHANG	OVERHANG
OPH	OPPOSITE HAND

P

PH	PAPER HOLDER
PERF	PERFORATED
PERP	PERPENDICULAR
PLAM	PLASTIC LAMINATE
PL	PLATE
PLWD	PLYWOOD
PR	PAIR
PREFAB	PREFABRICATE (D)
PSF	POUND PER SQUARE FOOT
PSI	POUND PER SQUARE INCH
PT	POINT
PTD	PAINTED
POL	POLISHED
PC	PRECAST
PWB	PREFINISHED WALL BOARD
PVC	POLYVINYL CHLORIDE
PWMT	PAVEMENT
PL	PROPERTY LINE

Q

QT	QUARRY TILE
QTR	QUARTER

R

R	RADIUS
RA	RETURN AIR
RCP	REFLECTED CEILING PLAN
REBAR	REINFORCING BAR
RECEP	RECEPTION
RECEPT	RECEPTACLE
RECT	RECTANGULAR
RD	ROOF DRAIN
RE	REFERENCE
REG	REGISTRATION, REGISTER
REINF	REINFORCE
RESIL	RESILIENT
REQD	REQUIRED
REV	REVERSE
RH	RIGHT HAND
RO	ROUGH OPENING
RP	RADIUS POINT

S

S&R	SHELF AND ROD
SAN	SANITARY
SCHED	SCHEDULED
SD	SOAP DISPENSER
SECT	SECTION
SF	SQUARE FEET
SHT	SHEET
SHR	SHOWER
SIM	SIMILAR
SPC	SPECIAL COATING SYSTEM
SPEC	SPECIFICATION
SQ	SQUARE
STC	SOUND TRANSMISSION GLASS
STD	STANDARD
STL	STAINLESS STEEL
STL	STEEL
STOR	STORAGE
STRUCT	STRUCTURAL
SURF	SURFACE
SUSP	SUSPENDED
SYM	SYMMETRICAL

T

T&G	TONGUE AND GROOVE
TB	TACK BOARD
TEL	TELEPHONE
TEMP	TEMPERED, TEMPORARY, TEMPERATURE
THK	THICK
TO	TOP OF
TTD	TOILET TISSUE DISPENSER
TDR	TOWEL DISPENSER AND RECEPTACLE
TV	TELEVISION
TYP	TYPICAL

U

UL	UNDERWRITERS LABORATORIES, INC.
UNFIN	UNFINISHED
UNO	UNLESS NOTED OTHERWISE
UTIL	UTILITY

V

VENT	VENTILATING
VER	VERIFY
VERT	VERTICAL
VEST	VESTIBULE
VIF	VERIFY IN FIELD
VCT	VINYL COMPOSITION TILE
VWC	VINYL WALL COVER

W

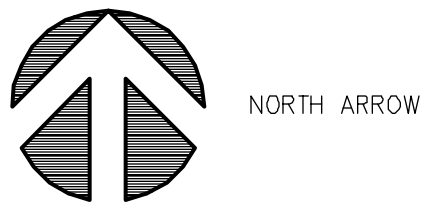
WC	WATER CLOSET
WD	WOOD
WDW	WINDOW
WF	WIDE FLANGE
WH	WATER HEATER
W/	WITH
W/O	WITH OUT
WP	WATERPROOFING
WS	WEATHERSTRIP
WT	WEIGHT
WNF	WELDED WIRE FABRIC
WW	WINDOW WALL

Y

YD	YARD DRAIN, YARD
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SYMBOLS

01	TITLE	DRAWING REFERENCE
X=X'—X"		01 DENOTES DRAWING NUMBER 01 TITLE DENOTES DRAWING NAME



NORTH ARROW



EXTERIOR BUILDING ELEVATION



BUILDING SECTION  
DRAWING NUMBER 1 ON  
SHEET NUMBER A3.0



DETAIL REFERENCE  
DRAWING NUMBER 2 ON  
SHEET NUMBER A8.8



DETAIL REFERENCE



INTERIOR ELEVATION INDICATION



DOOR NUMBER



WINDOW NUMBER



FIXTURE SYMBOL



SKYLIGHT SYMBOL



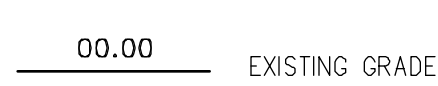
APPLIANCE SYMBOL



ROOM NUMBER



STEP SYMBOL



EXISTING GRADE



NEW GRADE



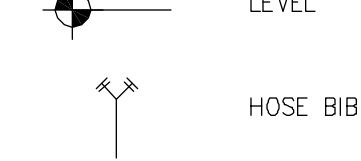
DIMENSION TO FACE



DIMENSION TO CENTERLINE



LEVEL



HOSE BIB

MATERIALS

	CONCRETE
	CEMENT PLASTER
	CONCRETE BLOCK
	BRICK
	FIRE BRICK IN PLAN
	EARTH
	SAND
	INSULATION RIGID
	INSULATION LOOSE BATT
	ASPHALT
	CONTINUOUS WOOD
	WOOD BLOCKING
	WOOD FINISH
	PLYWOOD
	ACOUSTICAL CEILING TILE
	STEEL & OTHER METALS
	ALUMINUM
	TILE
	STONE
	ROD STOCK AND SEALANT
	GLASS

GENERAL NOTES

- DRAWINGS ARE NOT TO BE SCALED. ARCHITECT TO BE NOTIFIED IN CASE OF DETAIL AND/OR DIMENSION DISCREPANCY.
- DIMENSIONS ARE TYPICALLY TAKEN TO FACE OF STUD UNLESS NOTED OTHERWISE.
- BRACKETED DIMENSIONS, [5'-0"] ARE FINISHED DIMENSIONS.
- VERIFY "ROUGH OPENING" WINDOW DIMENSIONS WITH THE WINDOW FABRICATOR PRIOR TO FRAMING.
- PROVIDE BLOCKING FOR ALL WALL HUNG SHELVES, TOWEL BARS, TOWEL RINGS, CURTAIN RODS, MIRRORS, CHANDELIERS, SCONCES, ETC.
- INSTALL FIRE BLOCKING & DRAFT STOPS TO CUT OFF ALL CONCEALED DRAFT OPENINGS ( BOTH VERTICAL & HORIZONTAL).
- VERIFY LOCATION OF A/C RETURN AIR GRILLES W/ ARCHITECT PRIOR TO INSTALLATION.
- ALL OWNER SUPPLIED ITEMS ARE INSTALLED BY GENERAL CONTRACTOR. PROVIDE ALLOWANCE FOR NECESSARY MATERIALS AND EQUIPMENT FOR PROPER INSTALLATION.
- EXTERIOR STUDS ARE 2X4 UNLESS NOTED OTHERWISE.
- INTERIOR STUDS ARE 2X4 UNLESS NOTED OTHERWISE.
- VERIFY HOSE BIB LOCATIONS WITH OWNER.
- ALL CONSTRUCTION SHALL COMPLY WITH THE APPLICABLE BUILDING CODES, ORDINANCES AND REGULATIONS OF THE LOCAL MUNICIPALITY.

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CIVIL

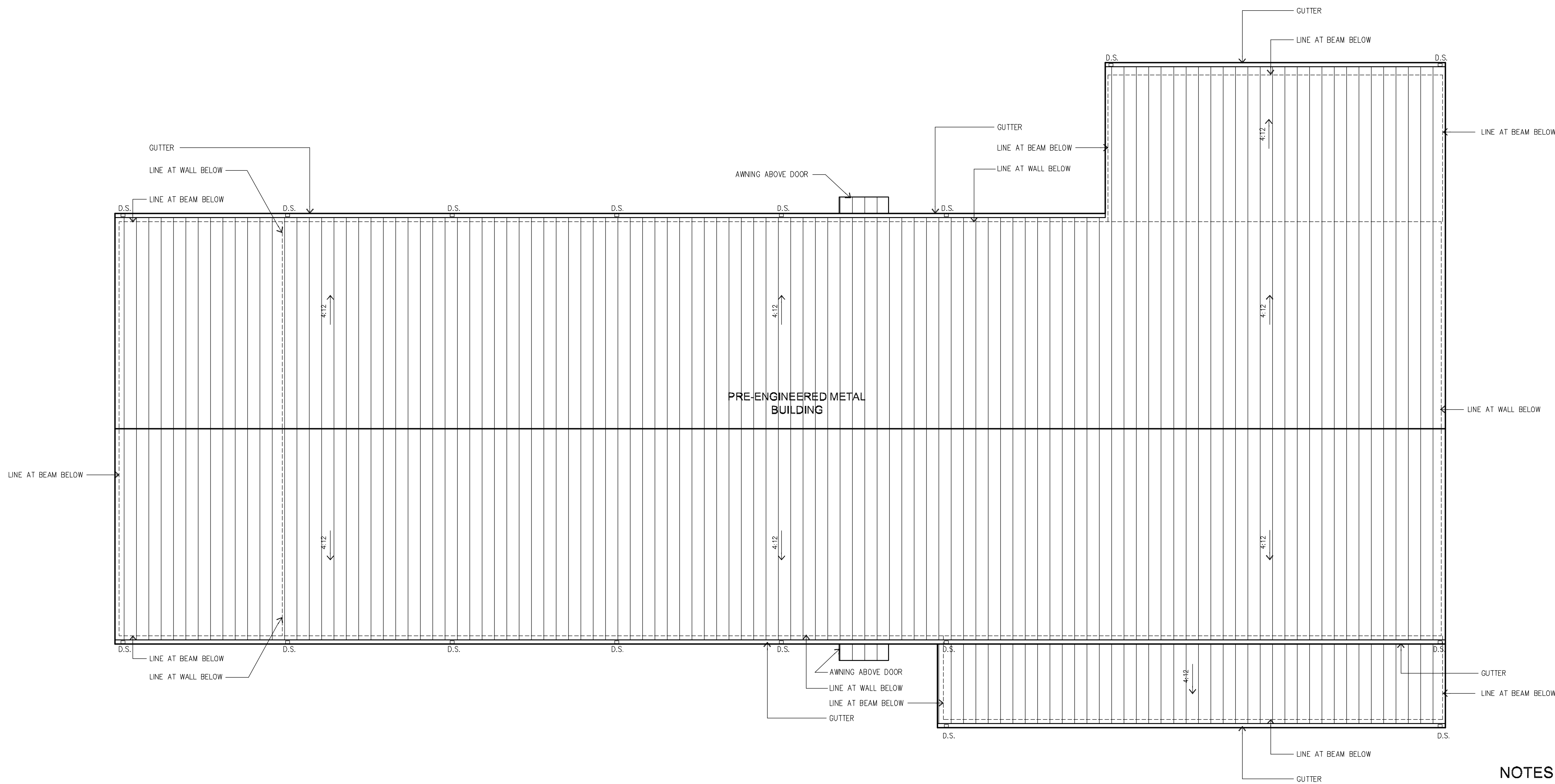
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MEP

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E2	ELECTRICAL FLOOR PLAN
E3	ELECTRICAL 2ND FLOOR PLAN
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P8	ISOMETRIC VIEWS
P9	PLUMBING DETAILS/NOTES

CODE ANALYSIS

2009 INTERNATIONAL BUILDING CODE, 2009 INTERNATIONAL FIRE CODE		
CODE		REFERENCE
USE AND OCCUPANCY GROUP B – TRAINING AND SKILL DEVELOPMENT NOT WITHIN A SCHOOL OR ACADEMIC PROGRAM GROUP S-1 – MOTOR VEHICLE REPAIR GARAGES		IBC-CH. 3 SECT. 304.1 SECT. 311.2
GENERAL BUILDING HEIGHTS AND AREAS		IBC-CH. 5
ALLOWABLE BUILDING HEIGHTS AND AREAS TYPE OF CONSTRUCTION		TABLE 503
GROUP	TYPE V-B	
HEIGHT	40 FEET (ALLOWABLE)	
GROUP B	HEIGHT = 2 STORY (ALLOWABLE) AREA = 9,000 S.F. (ALLOWABLE)	
GROUP S-1	HEIGHT = 1 STORY (ALLOWABLE) AREA = 9,000 S.F. (ALLOWABLE)	
KEY BOXES KEY BOX LOCATION AND CONTENTS – REFER TO CITY OF SEGUIN REQUIREMENTS		IFC-CH. 5 SECT. 506.1
TYPE OF CONSTRUCTION TYPE V-B – FIRE-RESISTANCE RATING REQUIREMENT FOR BUILDING ELEMENTS = 0 (ZERO) HOUR		IBC-CH. 6 TABLE 601
INTERIOR FINISHES INTERIOR WALL AND CEILING FINISH REQUIREMENTS BY OCCUPANCY		IBC-CH. 8 TABLE 803.5
GROUP B – EXIT ENCLOSURES AND EXIT PASSAGEWAYS – A GROUP B – CORRIDORS – B GROUP B – ROOMS AND ENCLOSED SPACES – C		
AUTOMATIC SPRINKLER SYSTEM GROUP B – N/A GROUP S-1 – NOT REQUIRED, FIRE AREA DOES NOT EXCEED 12,000 S.F., FIRE AREA IS NOT LOCATED MORE THAN THREE STORIES ABOVE GRADE PLANE, FIRE AREAS ON ALL FLOORS, INCLUDING MEZZANINES, DOES NOT EXCEED 24,000 S.F. AND FIRE AREA USED FOR THE STORAGE OF COMMERCIAL TRUCKS OR BUSES DOES NOT EXCEED 5,000 S.F.		IBC-CH. 9 SECTION [F] 903.2.9
PORTABLE FIRE EXTINGUISHERS GROUP B AND S1 – ONE WITHIN MAX. TRAVEL DISTANCE OF 75'		IBC-CH. 9 TABLE 906.3 (1)
FIRE ALARM AND DETECTION SYSTEMS A MINIMUM OF ONE MANUAL FIRE ALARM BOX SHALL BE PROVIDED IN AN APPROVED LOCATION. GROUP B – MANUAL FIRE ALARM SYSTEM NOT REQUIRED– THE COMBINED GROUP B OCCUPANT LOAD OF ALL FLOORS IS NOT 500 OR MORE.		IBC-CH. 9 [F]907.2 [F]907.2.2
OCCUPANT LOAD OFFICE – 100 GROSS – 2,984 S.F. / 100 = 29.8 = 30 O.L. WAREHOUSE– 500 GROSS – 6,053 S.F. / 500 = 12.10 = 12 O.L. PORCHES & TIRE STORAGE – PER BUILDING OFFICIAL		IBC-CH. 10 TABLE 1004.1.1
EGRESS WIDTH BUSINESS – 30 O.L. X 0.2" = 6" (REQUIRED) 72" (PROVIDED) BUSINESS – 12 O.L. X 0.2" = 2.4" (REQUIRED) 36" (PROVIDED)		IBC-CH. 10 SECTION 1005
EXIT AND EXIT ACCESS DOORWAYS GROUP B – ONE EXIT OR EXIT ACCESS DOORWAY IS ALLOWABLE– O.L. IS LESS THAN 49 GROUP S-1 – ONE EXIT OR EXIT ACCESS DOORWAY IS ALLOWABLE– O.L. IS LESS THAN 29		IBC-CH. 10 SECTION 1015 TABLE 1015.1 SECTION 1015 TABLE 1015.1
EXIT ACCESS TRAVEL DISTANCE (W/O FIRE SPRINKLER SYSTEM) OCCUPANCY B & S-1 – 200' (MAX.) REQUIRED		IBC-CH. 10 TABLE 1016.1
CORRIDORS GROUP B – REQUIRED CORRIDOR FIRE-RESISTANCE RATING NOT REQUIRED, O.L. IS NOT GREATER THAN 30 NOTE: NO CORRIDORS ARE IN THE PROJECT		IBC-CH. 10 SECTION 1018 TABLE 1018.1
NUMBER OF EXITS GROUP B – (1) REQUIRED – 49 OCCPS. MAX, 75' TRAVEL DISTANCE MIN. NUMBER OF EXITS PER O.L. 1-500 = 2 EXITS PER STORY (2 PROVIDED) GROUP S-1 – (1) REQUIRED – 49 OCCPS. MAX, 75' TRAVEL DISTANCE MIN. NUMBER OF EXITS PER O.L. 1-500 = 2 EXITS PER STORY (2 PROVIDED)		IBC-CH. 10 TABLE 1021.1 TABLE 1021.2 TABLE 1021.1 TABLE 1021.2
PLUMBING REQUIREMENTS WATER CLOSETS (WC) BUSINESS – GROUP B – TRAINING AND SKILLS DEVELOPMENT 1 PER 25 FOR 1ST 50 – 30 OL/2 = 15/25 = 0.6 = 1 WC (REQUIRED) 1 WC (PROVIDED), 2 URINAL (PROVIDED FOR MENS) = 3 TOTAL PROVIDED 2 WC (PROVIDED FOR WOMENS) = 2 TOTAL PROVIDED WAREHOUSE – GROUP S-1 – LOW TO MODERATE HAZARD STORAGE 1 PER 100 – 12 OL/2 = 6/100 = 0.06 = 1 WC (REQUIRED) 1 WC (PROVIDED) LAVATORIES (LAVS.) BUSINESS – GROUP B – PROFESSIONAL SERVICES 1 PER 40 FOR 1ST 80 – 30 OL/2 = 15/40 = 0.375 = 1 LAV (REQUIRED) 2 LAVS. (PROVIDED) WAREHOUSE – GROUP S-1 – LOW TO MODERATE HAZARD STORAGE 1 PER 100 – 12 OL/2 = 6/100 = 0.06 = 1 WC (REQUIRED) 1 WC (PROVIDED) DRINKING FOUNTAINS BUSINESS – GROUP B – PROFESSIONAL SERVICES 1 PER 100 – 64 OL/100=0.64 = 1 FOUNTAIN (REQUIRED) 2 DRINKING FOUNTAINS (PROVIDED) WAREHOUSE – GROUP S-1 – LOW TO MODERATE HAZARD STORAGE 1 PER 100 – 64 OL/100=0.64 = 1 FOUNTAIN (REQUIRED) 2 DRINKING FOUNTAINS (PROVIDED) SERVICE SINK BUSINESS – B – PROFESSIONAL SERVICES & WAREHOUSE –GROUP S-1 1 SINK (REQUIRED) 1 SINK (PROVIDED)		IBC-CH. 290 TABLE 2902.1



NOTES TO ROOF PLAN

1. ROOF SHALL BE STANDING SEAM METAL ROOF, GALVALUME FINISH, 24 GAUGE.
2. INSTALL ROOF MATERIAL PER MANUFACTURER'S REQUIREMENTS.
3. ALL ROOF PENETRATIONS FOR PLUMBING STACKS, VENTS AND EXHAUST SHALL BE CONCEALED BEHIND RIDGE LINE.
4. PROVIDE A NEOPRENE GASKET TO SEPARATE ALL DISSIMILAR METALS.
5. GUTTER AND DOWNSPOUTS, RE: METAL BUILDING MANUFACTURER. OWNER AND ARCHITECT TO SELECT COLORS.

01 | ROOF PLAN

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



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DESIGN: OWNER REVIEW	1-13-14
DESIGN: OWNER REVIEW	2-13-14
CD: OWNER REVIEW	5-2-14
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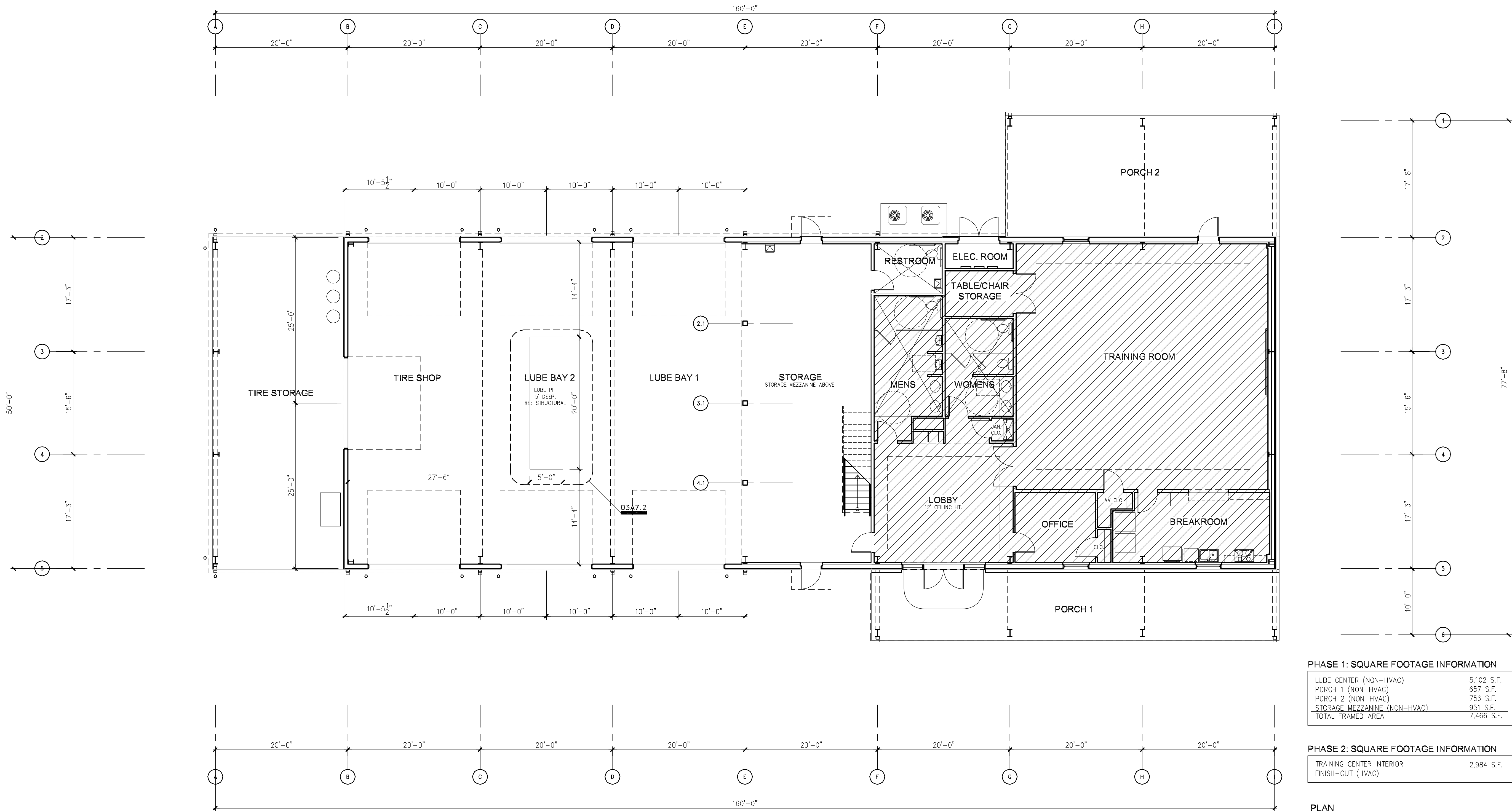
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01 | PHASING KEY FLOOR PLAN

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

PHASE 1: SCOPE OF WORK (NOT HATCHED)

SHELL AND FINISH OUT OF THE FOLLOWING SPACES:

- TIRE STORAGE
- TIRE SHOP
- LUBE BAY 1
- LUBE BAY 2
- STORAGE
- RESTROOM
- ELEC. ROOM
- STORAGE MEZZANINE
- PORCH 1
- PORCH 2

ROUGH-IN PLUMBING IN CONCRETE FOUNDATION ONLY

- MENS
- WOMENS
- JANITOR'S CLOSET
- BREAKROOM

PHASE 2: SCOPE OF WORK (HATCHED)

INTERIOR FINISH-OUT OF THE FOLLOWING SPACES:

- LOBBY
- MENS
- WOMENS
- JANITOR'S CLOSET
- TABLE/CHAIR STORAGE
- TRAINING ROOM
- OFFICE
- AV CLOSET
- CLOSET
- BREAKROOM
- MECHANICAL MEZZANINE


PHASE 1: SQUARE FOOTAGE INFORMATION

LUBE CENTER (NON-HVAC)	5,102 S.F.
PORCH 1 (NON-HVAC)	657 S.F.
PORCH 2 (NON-HVAC)	756 S.F.
STORAGE MEZZANINE (NON-HVAC)	951 S.F.
TOTAL FRAMED AREA	7,466 S.F.

PHASE 2: SQUARE FOOTAGE INFORMATION

TRAINING CENTER INTERIOR FINISH-OUT (HVAC)	2,984 S.F.
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GUADALUPE COUNTY  
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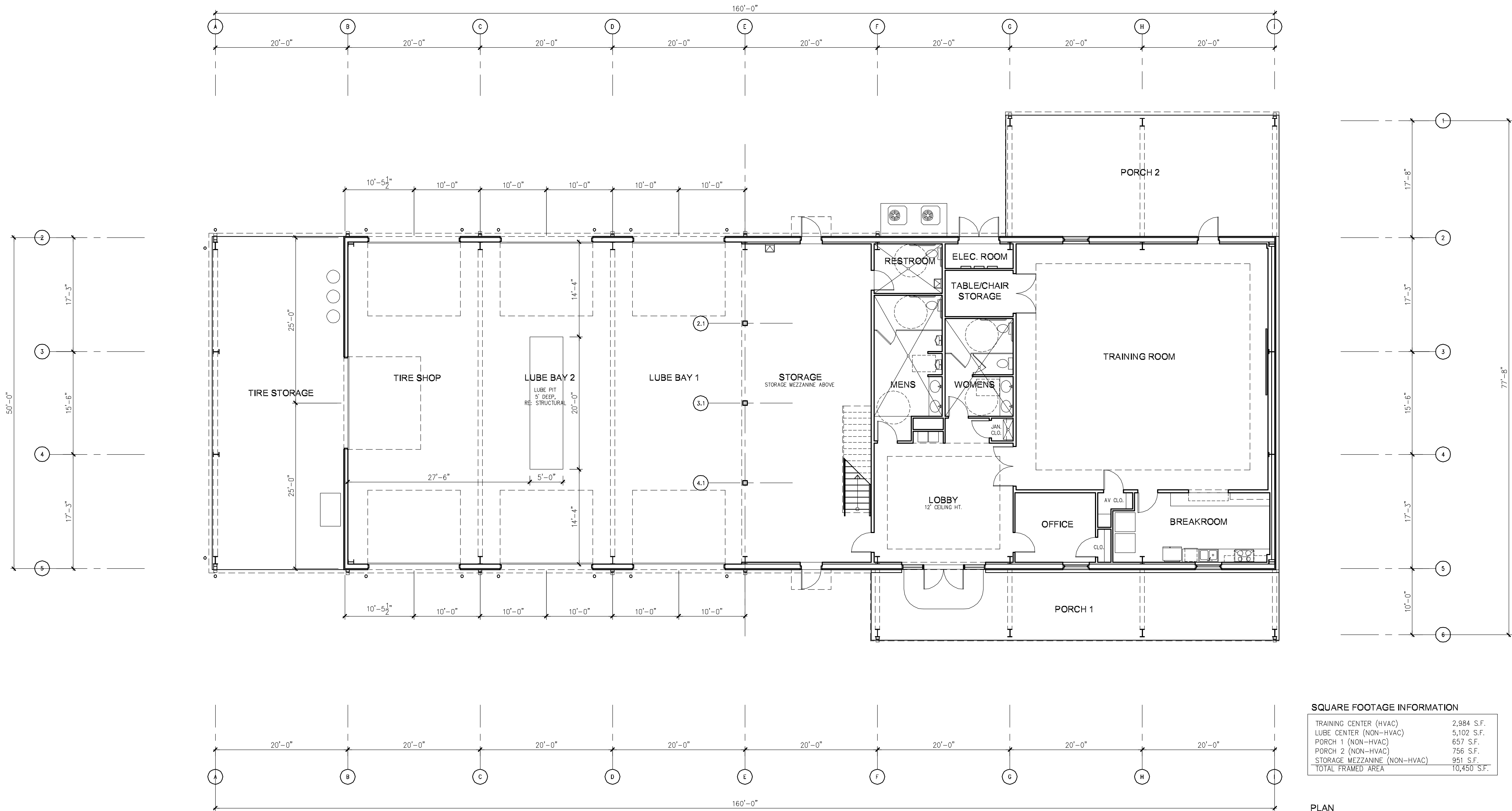
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A2.0

DATE: 7-28-14





SQUARE FOOTAGE INFORMATION	
TRAINING CENTER (HVAC)	2,984 S.F.
LUBE CENTER (NON-HVAC)	5,102 S.F.
PORCH 1 (NON-HVAC)	657 S.F.
PORCH 2 (NON-HVAC)	756 S.F.
STORAGE MEZZANINE (NON-HVAC)	951 S.F.
TOTAL FRAMED AREA	10,450 S.F.

01 | KEY FLOOR PLAN

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



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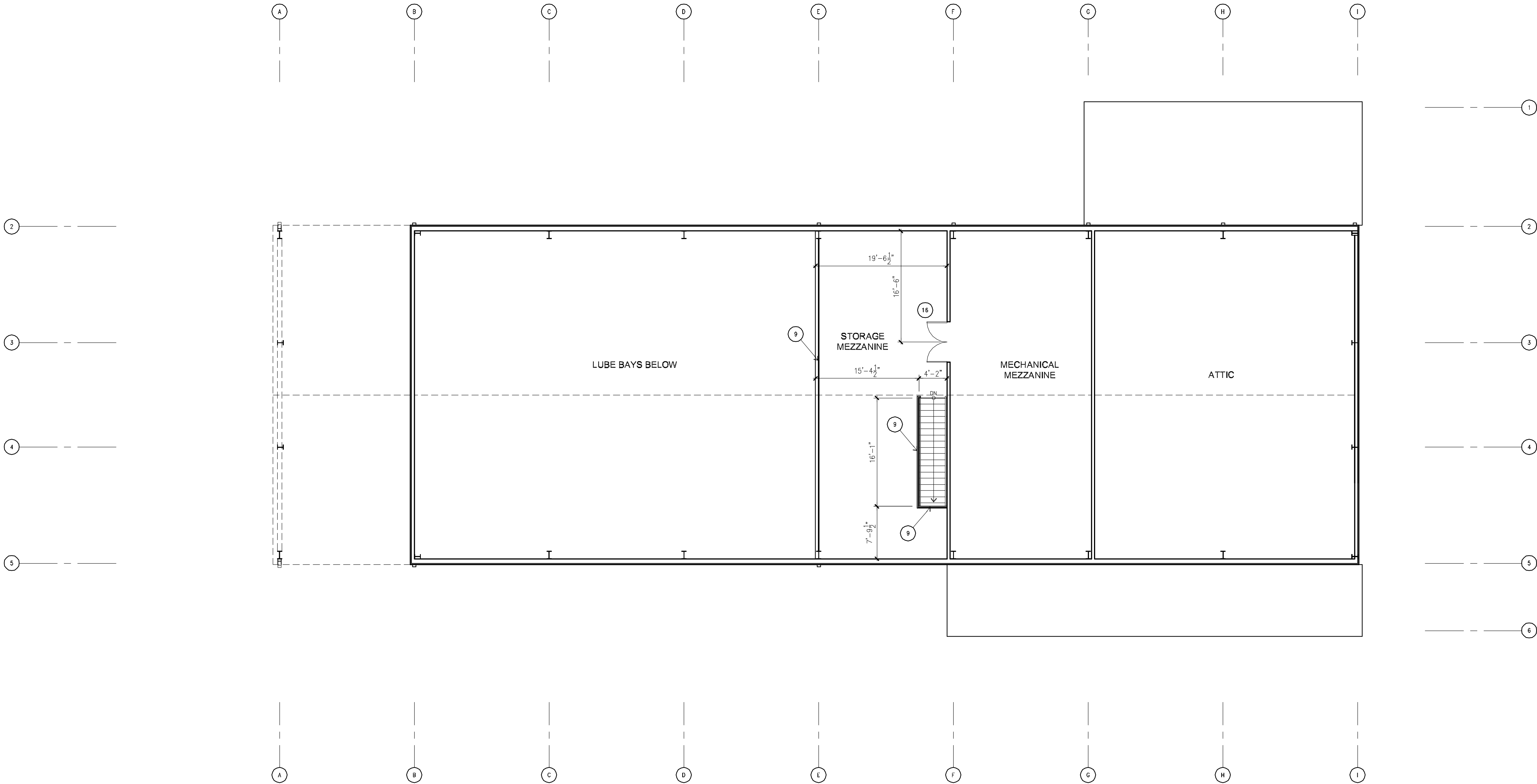
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- KEY NOTES TO FLOOR PLAN**
- 1 STEEL COLUMN, PAINTED, RE: METAL BUILDING MANUFACTURER
  - 2 4" CHOP STONE VENEER WATER TABLE, PROVIDE MOCK-UP FOR OWNER REVIEW
  - 3 4 ADJ. STAINED WOOD SHELVES ON HEAVY-DUTY KV STANDARDS
  - 4 PROJECTION SCREEN, PROVIDE BLOCKING
  - 5 SOUND INSULATION AT WALLS
  - 6 5'-0" TALL STAINLESS STEEL CORNER GUARDS
  - 7 STAIRS TO HAVE 6 5/8" TALL RISERS, 11" DEEP TREADS, RISERS AND TREAD TO HAVE RUBBER SURFACE, MANUFACTURER: ROPPE, STYLE: #92 LOW PROFILE RAISED CIRCULAR DESIGN, COLOR T.B.D.
  - 8 STAIR HANDRAIL TO BE 3'-0" ABOVE NOSING OF STAIR TREAD, PER IBC 1012.2
  - 9 STAIR GUARDRAIL TO BE 3'-6" A.F.F. WITH VERTICAL SPINDLES SPACED TO PREVENT A 4" DIA. SPHERE FROM PASSING THROUGH PER IBC 1013.4, 1 1/2" DIA. PAINTED STEEL RAILING AND POSTS WITH 3/4" DIA. PAINTED STEEL VERTICAL SPINDLES AT 4" O.C. SPACING

01 | MEZZANINE FLOOR PLAN

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



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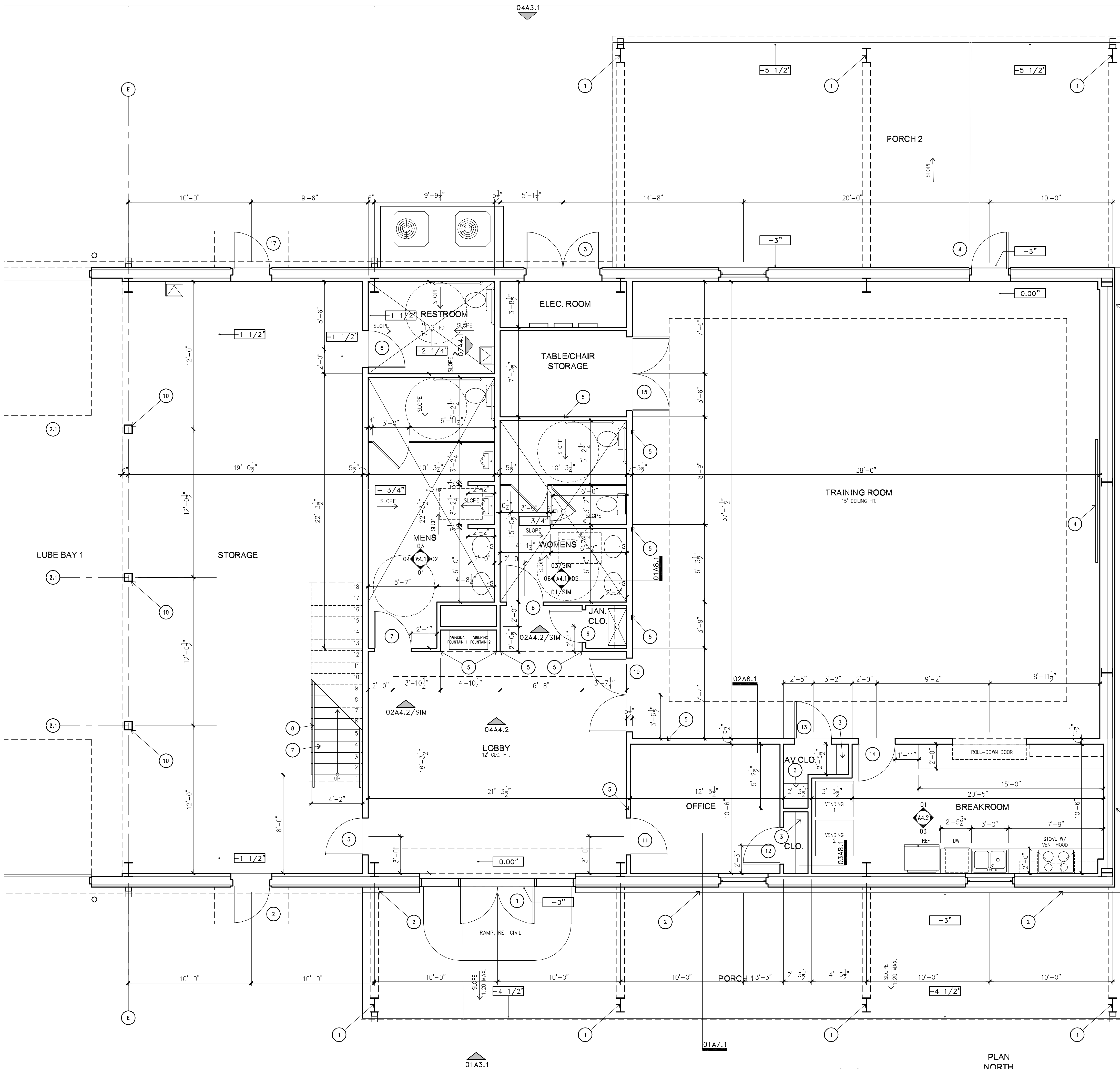
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SEGUIN, TEXAS

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DESIGN: OWNER REVIEW	1-13-14
DESIGN: OWNER REVIEW	2-13-14
CD: OWNER REVIEW	5-2-14
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GENERAL NOTES

1. DRAWINGS ARE NOT TO BE SCALED. ARCHITECT TO BE NOTIFIED IN CASE OF DETAIL AND/OR DIMENSION DISCREPANCY.
2. DIMENSIONS ARE TYPICALLY TAKEN TO FACE OF STUD UNLESS NOTED OTHERWISE.
3. BRACKETED DIMENSIONS, [5'-0"], ARE FINISHED DIMENSIONS.
4. VERIFY "ROUGH OPENING" WINDOW DIMENSIONS WITH THE WINDOW FABRICATOR PRIOR TO FRAMING.
5. PROVIDE BLOCKING FOR ALL WALL HUNG SHELVES, TOWEL BARS, TOWEL RINGS, CURTAIN RODS, MIRRORS, CHANDELIERS, SCONCES, ETC.
6. INSTALL FIRE BLOCKING & DRAFT STOPS TO CUT OFF ALL CONCEALED DRAFT OPENINGS ( BOTH VERTICAL & HORIZONTAL).
7. VERIFY LOCATION OF A/C RETURN AIR GRILLES W/ ARCHITECT PRIOR TO INSTALLATION.
8. ALL OWNER SUPPLIED ITEMS ARE INSTALLED BY GENERAL CONTRACTOR. PROVIDE ALLOWANCE FOR NECESSARY MATERIALS AND EQUIPMENT FOR PROPER INSTALLATION.
9. EXTERIOR STUDS ARE 2X4 UNLESS NOTED OTHERWISE.
10. INTERIOR STUDS ARE 2X4 UNLESS NOTED OTHERWISE.
11. VERIFY HOSE BIB LOCATIONS WITH OWNER.
12. ALL CONSTRUCTION SHALL COMPLY WITH THE APPLICABLE BUILDING CODES, ORDINANCES AND REGULATIONS OF THE LOCAL MUNICIPALITY.

KEY NOTES TO FLOOR PLAN

- 1 STEEL COLUMN, PAINTED, RE: METAL BUILDING MANUFACTURER
- 2 4" CHOP STONE VENEER WATER TABLE, PROVIDE MOCK-UP FOR OWNER REVIEW
- 3 4 ADJ. STAINED WOOD SHELVES ON HEAVY-DUTY KV STANDARDS
- 4 PROJECTION SCREEN, PROVIDE BLOCKING
- 5 SOUND INSULATION AT WALLS
- 6 6'-0" TALL STAINLESS STEEL CORNER GUARDS
- 7 STAIRS TO HAVE 6 5/8" TALL RISERS, 11" DEEP TREADS, RISERS AND TREAD TO HAVE RUBBER SURFACE, MANUFACTURER: ROPPE, STYLE: #92 LOW PROFILE RAISED CIRCULAR DESIGN, COLOR T.B.D.
- 8 STAIR HANDRAIL TO BE 3'-0" ABOVE NOSING OF STAIR TREAD, PER IBC 1012.2
- 9 STAIR GUARDRAIL TO BE 3'-6" A.F.F. WITH VERTICAL SPINDLES SPACED TO PREVENT A 4" DIA. SPHERE FROM PASSING THROUGH PER IBC 1013.4, 1 1/2" DIA. PAINTED STEEL RAILING AND POSTS WITH 3/4" DIA. PAINTED STEEL VERTICAL SPINDLES AT 4" O.C. SPACING
- 10 8 X 8 TUBE STEEL COLUMN, SUPPORTING 18" DEEP TRUSS BEAM ABOVE, 18" WOOD TRUSS W/ JOIST HANGERS AT TRUSS BEAM, RE: WOOD TRUSS MANUFACTURER

NOTE: METAL BUILDING MANUFACTURER TO BE ANY OF THE FOLLOWING:  
1. WUELLER, INC., CONTACT CHUCK BELL AT 877-268-3553  
2. BUTLER, CONTACT REGIONAL OFFICE AT 512-353-6100  
3. OR APPROVED EQUIVALENT



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CD: PERMIT, PRICING & CONSTRUCTION ISSUE	7-28-14

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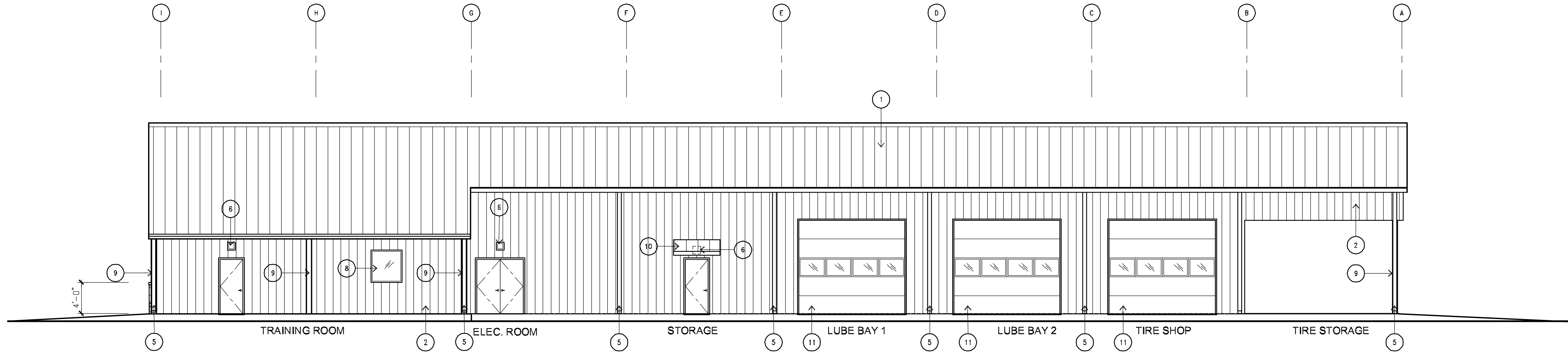
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01 | PARTIAL FLOOR PLAN

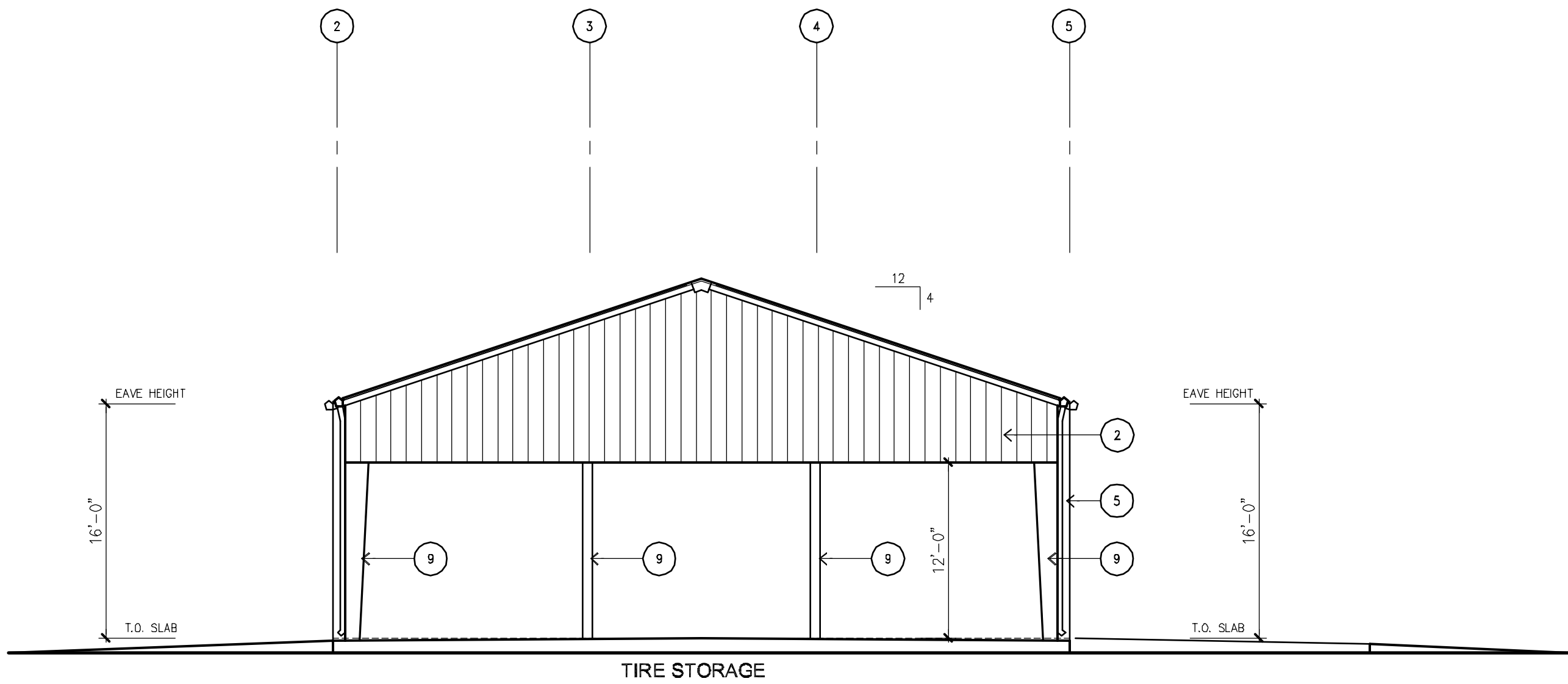
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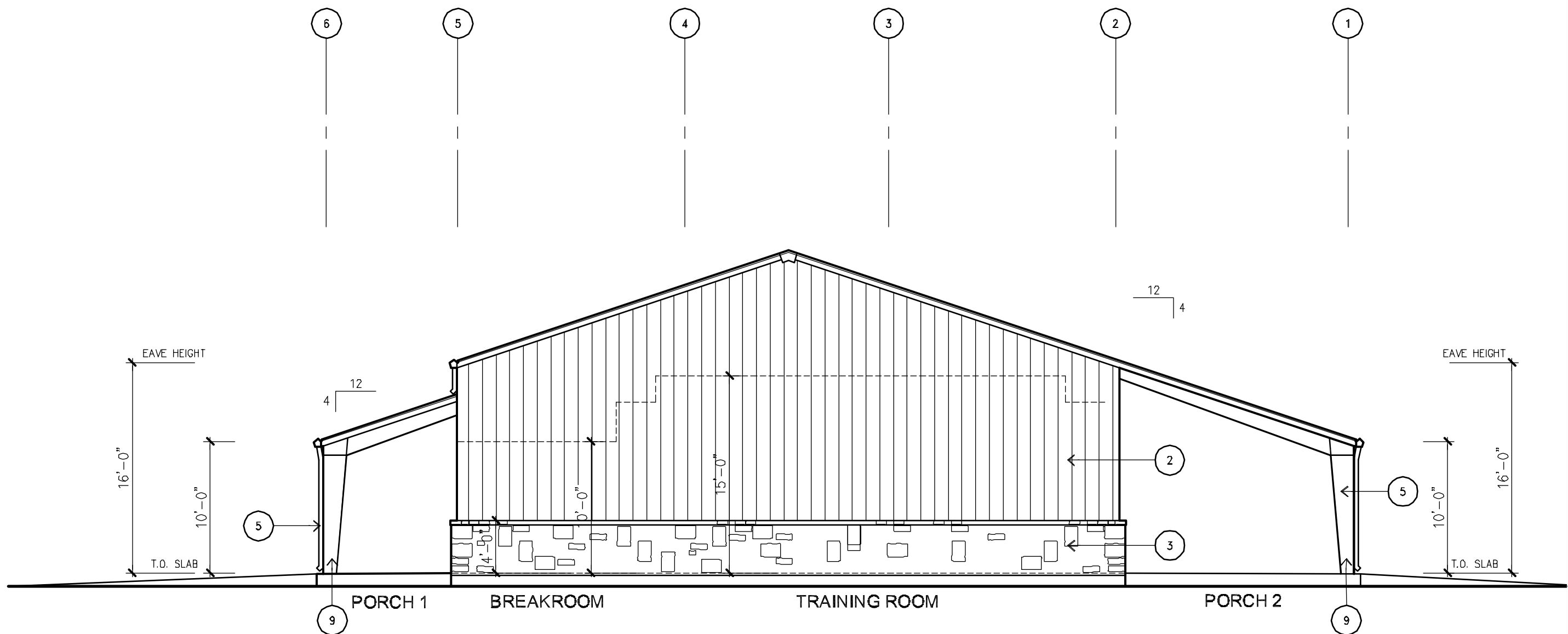
04 | NORTH ELEVATION

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



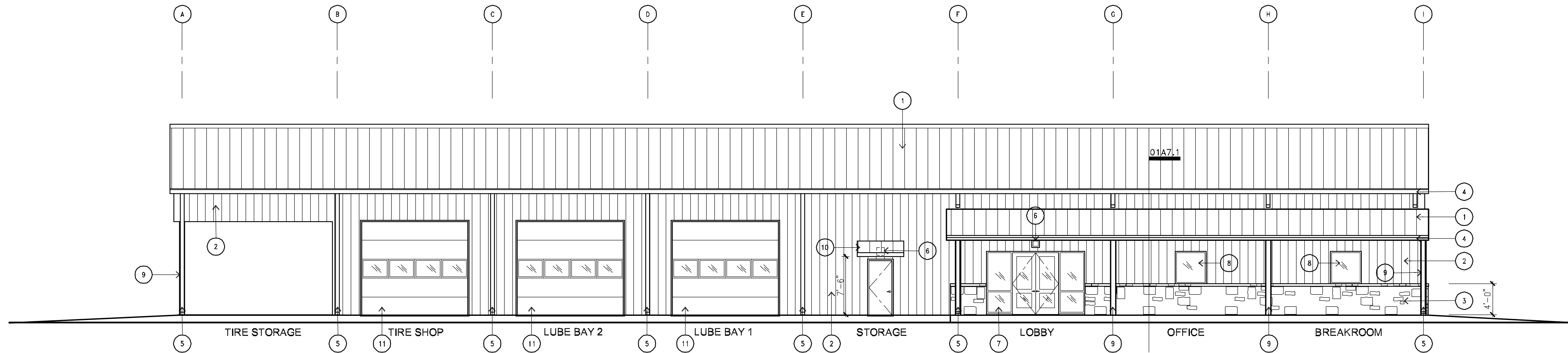
03 | WEST ELEVATION

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



02 | EAST ELEVATION

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



01 | SOUTH ELEVATION

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

KEY NOTES TO  
EXTERIOR ELEVATIONS

1. STANDING SEAM METAL ROOF, FACTORY FINISHED, OWNER AND ARCHITECT TO SELECT COLOR
2. CORRUGATED METAL WALL PANEL
3. 4" CHOP STONE WATERTABLE
4. METAL GUTTER, RE: METAL BUILDING MANUFACTURER
5. METAL DOWNSPOUT, RE: METAL BUILDING MANUFACTURER
6. EMERGENCY/SECURITY LIGHT FIXTURE, RE: MEP
7. STOREFRONT GLASS WALL SYSTEM, ALUMINUM FRAME
8. STOREFRONT GLASS WINDOW, ALUMINUM FRAME
9. STEEL COLUMN, PAINTED, RE: METAL BUILDING MANUFACTURER FOR SIZE
10. METAL AWNING
11. OVERHEAD GARAGE DOOR

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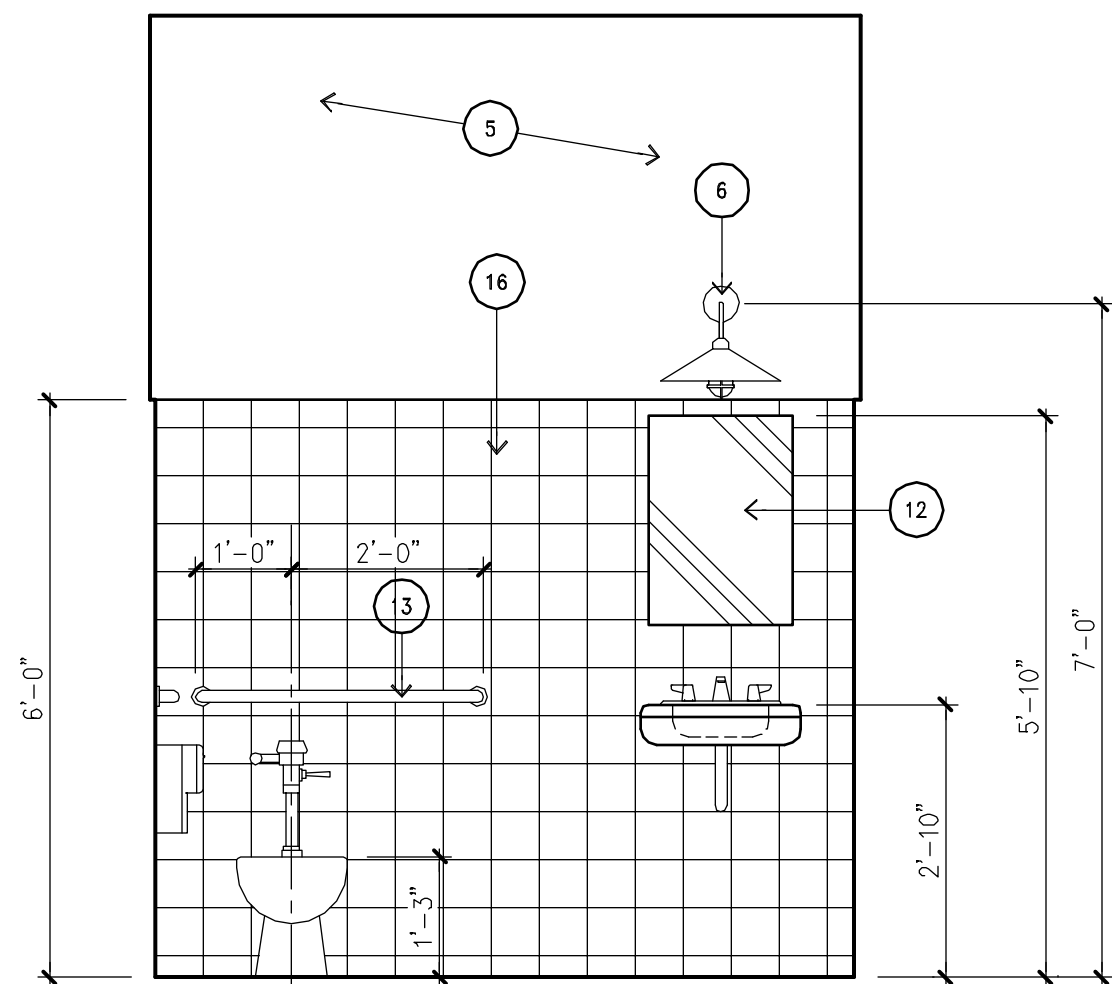
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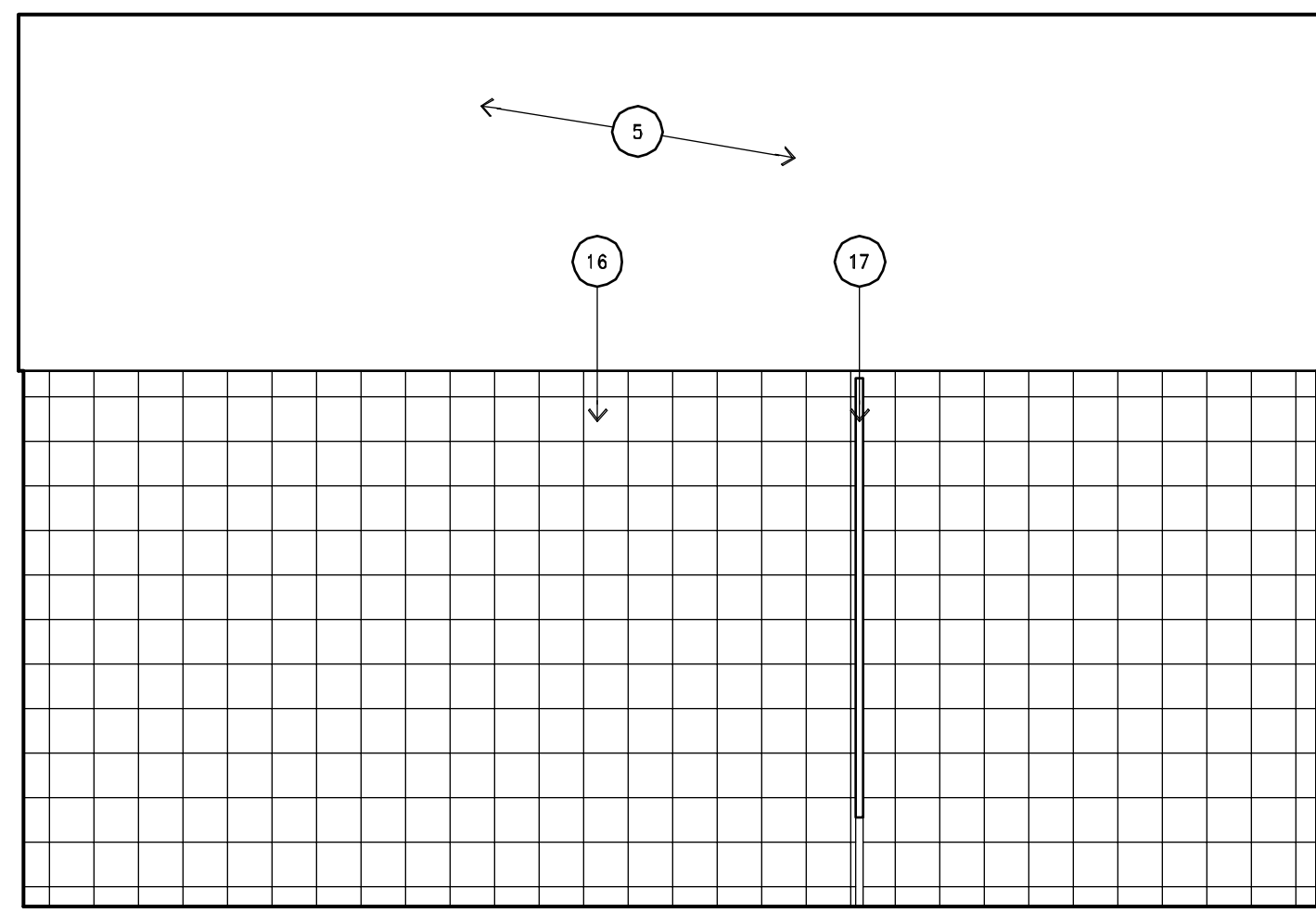
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DATE: 6-11-14



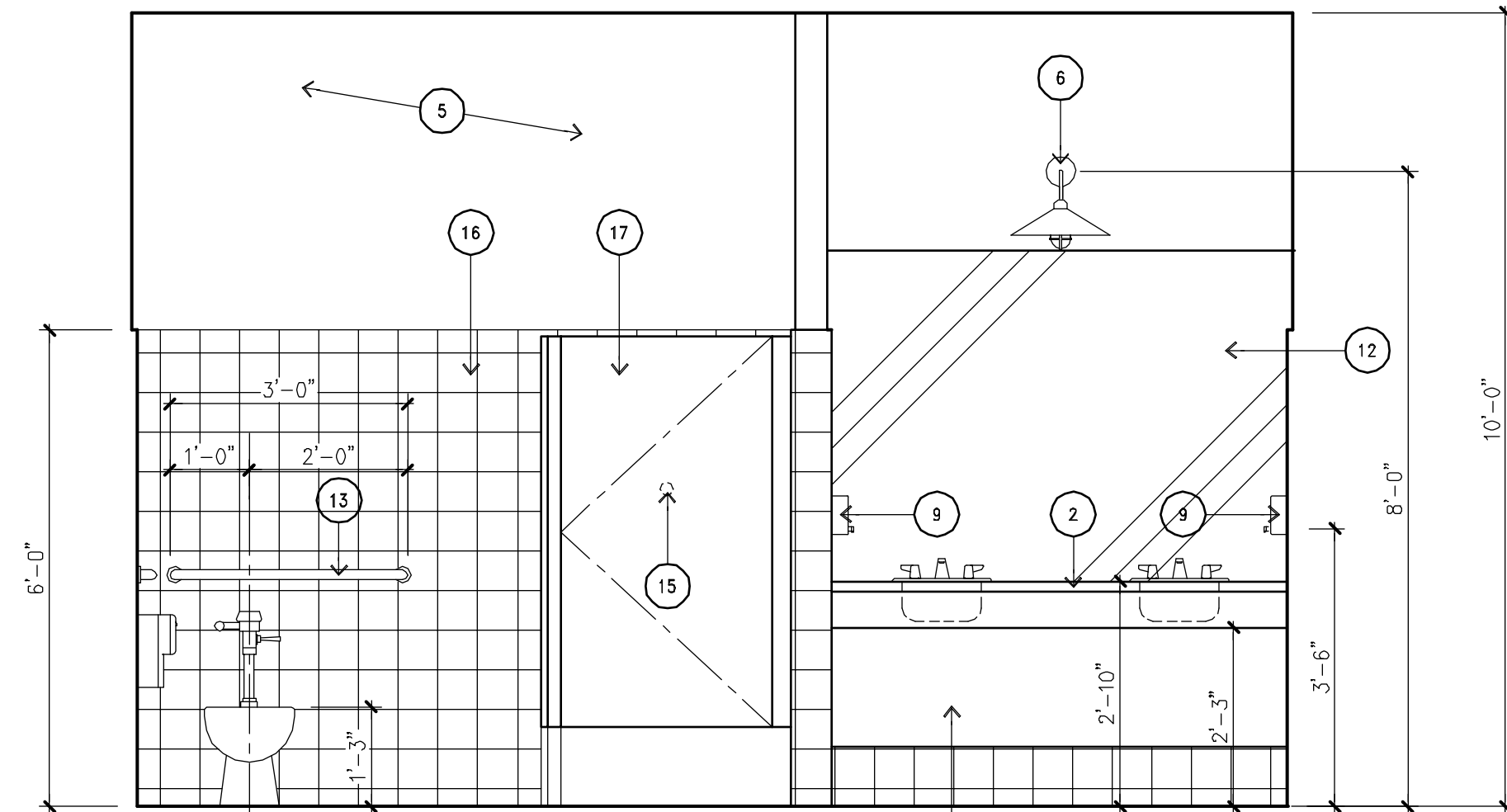
07 | RESTROOM

SCALE: 1/2" = 1'-0"



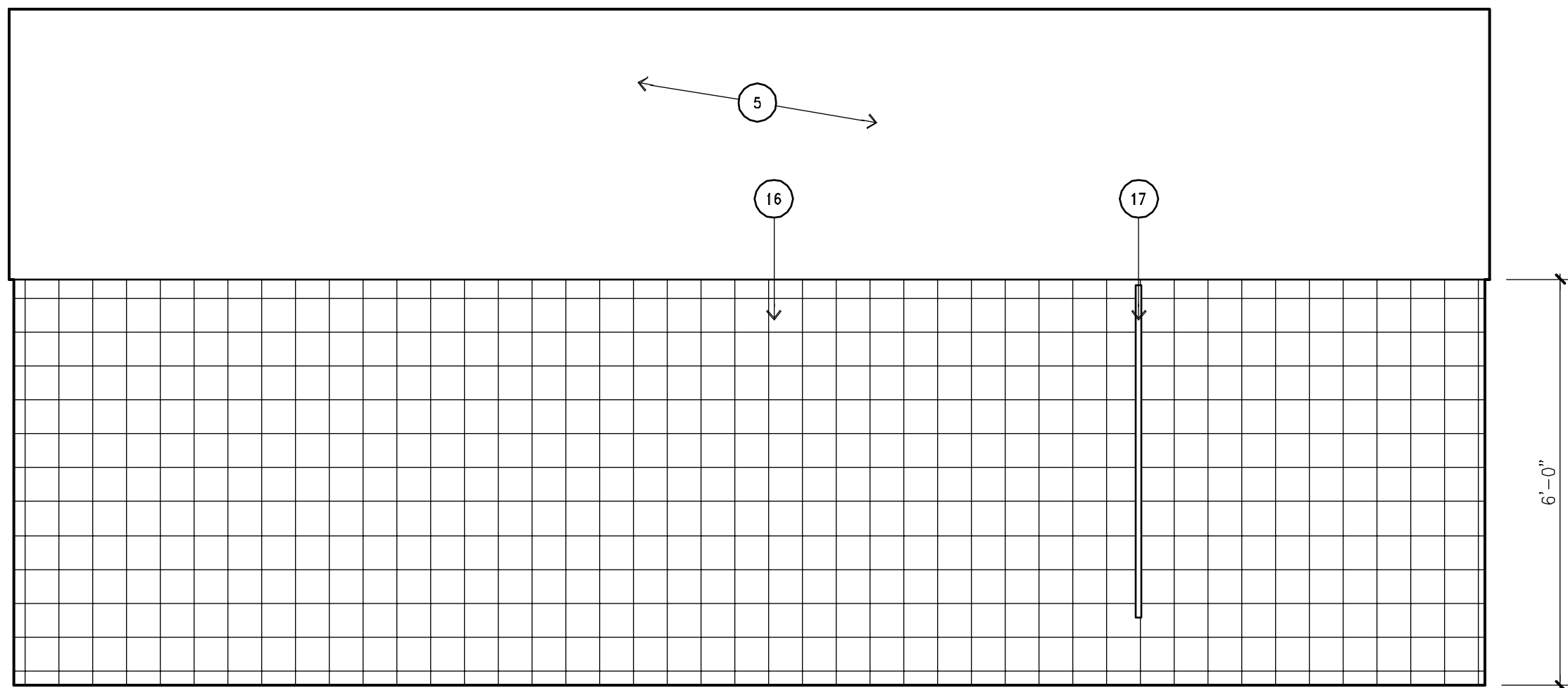
06 | WOMENS

SCALE: 1/2" = 1'-0"



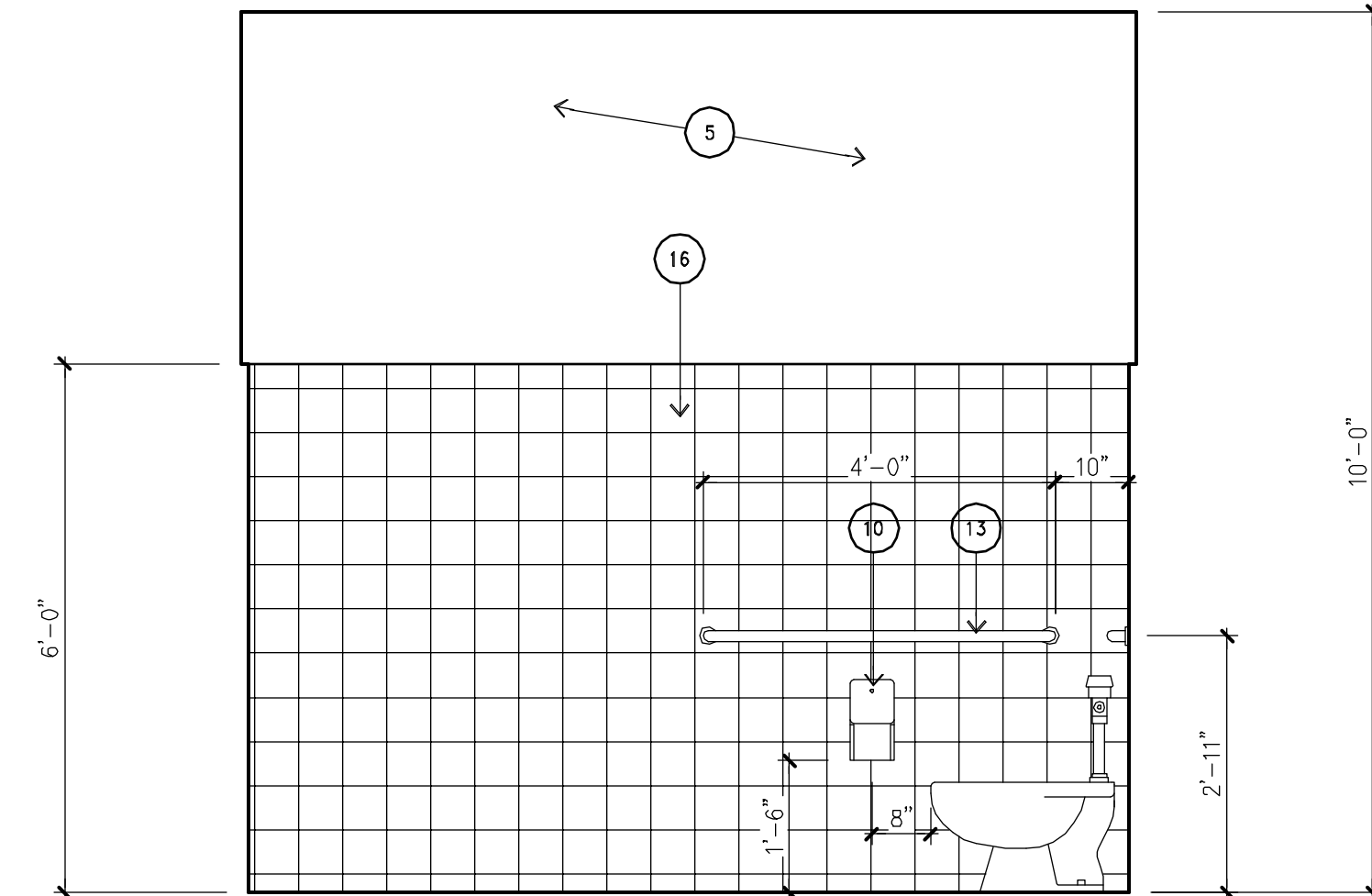
05 | WOMENS

SCALE: 1/2" = 1'-0"



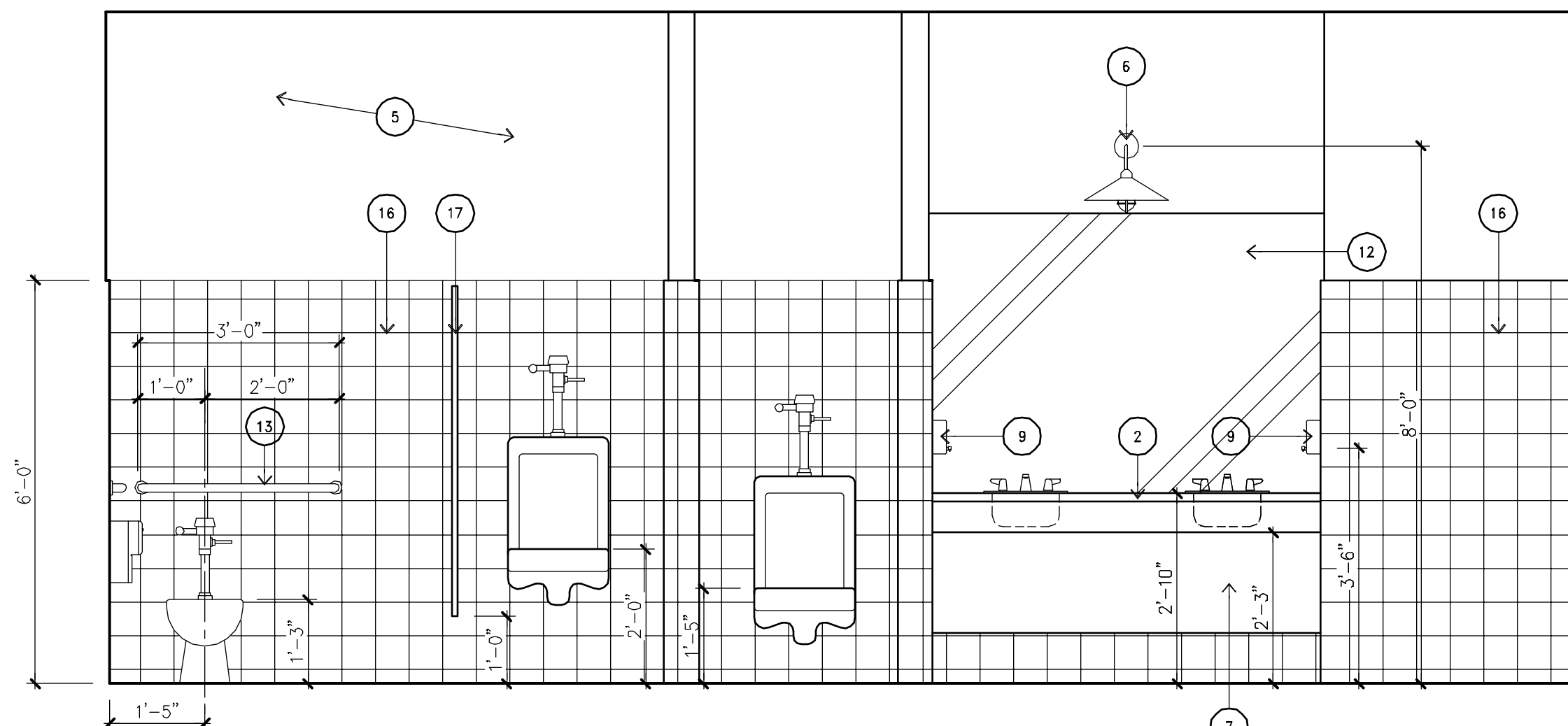
04 | MENS

SCALE: 1/2" = 1'-0"



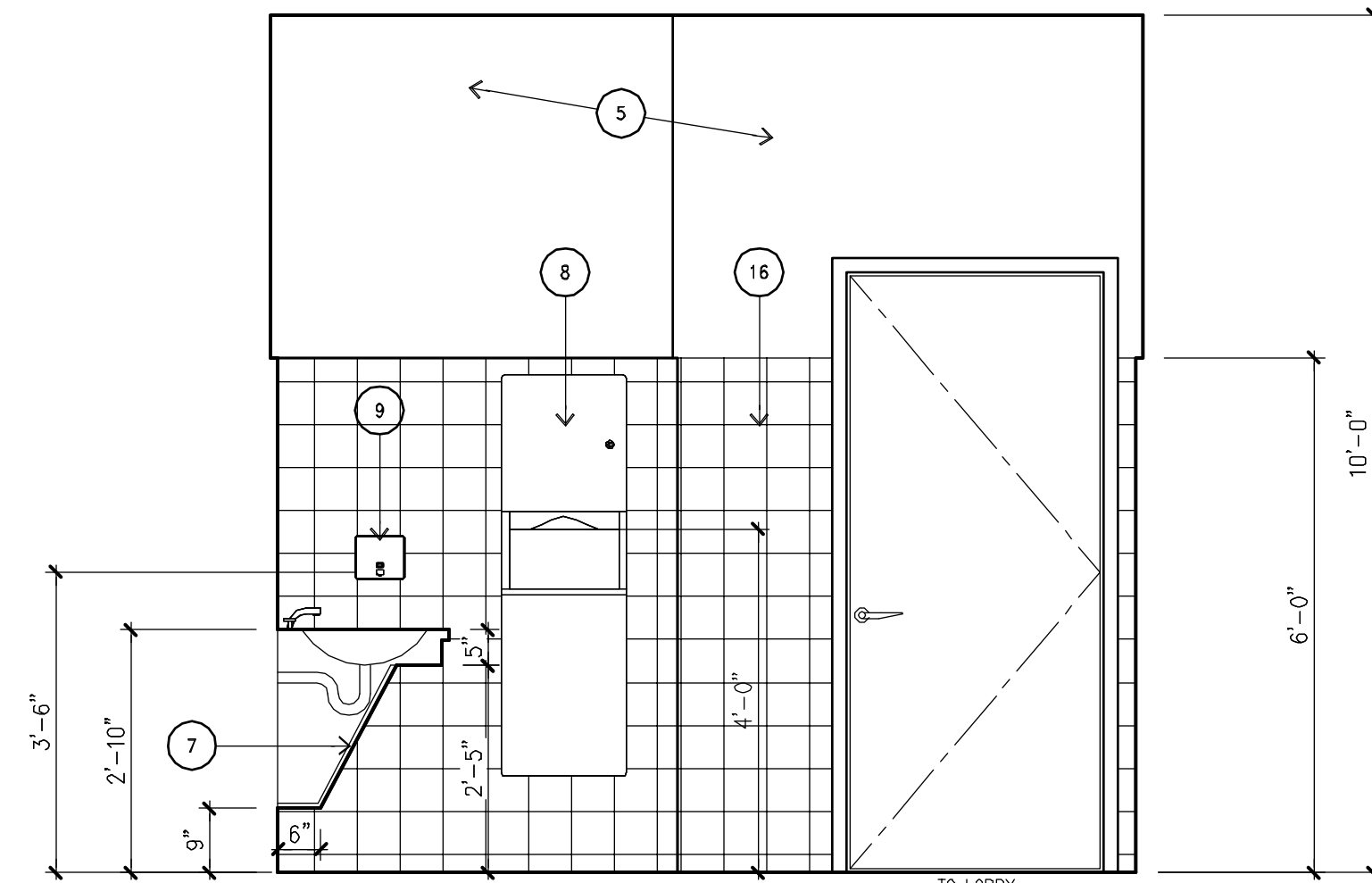
03 | MENS

SCALE: 1/2" = 1'-0"



02 | MENS

SCALE: 1/2" = 1'-0"



01 | MENS

SCALE: 1/2" = 1'-0"

KEY NOTES TO  
INTERIOR ELEVATIONS

- 1 X 6 WOOD BASE, PAINTED
- SOLID SURFACE COUNTERTOP AND BACKSPLASH
- PLASTIC LAMINATE COUNTERTOP AND FULL BACKSPLASH
- PLASTIC LAMINATE AT CABINET DOORS AND SIDE PANELS,
- 5/8" GYP. BOARD WALL, PAINTED
- DECORATIVE WALL SCONCE, RE: MEP
- PLYWOOD KNEE AND TOE GUARD, PAINTED, PER T.A.S. 306.2 AND 306.3
- PAPER TOWEL DISPENSER/TRASH CAN
- SOAP DISPENSER
- TOILET PAPER DISPENSER
- SANITARY NAPKIN DISPOSAL, WOMEN'S ONLY
- MIRROR
- GRAB BAR PER T.A.S. 604.5 AND 609
- ROOM SIGNAGE, RUBBER, PER T.A.S. 703
- COAT HOOK AT 4'-0" A.F.F. BEHIND DOOR AT TOILET PARTITION, VERIFY SELECTION W/ ARCHITECT AND OWNER
- TILE WAINSCOT
- SOLID PLASTIC TOILET PARTITIONS, VERIFY COLOR SELECTION WITH OWNER AND ARCHITECT
- ADJ. PLASTIC LAMINATE SHELVES ON DRILLED STANDARDS





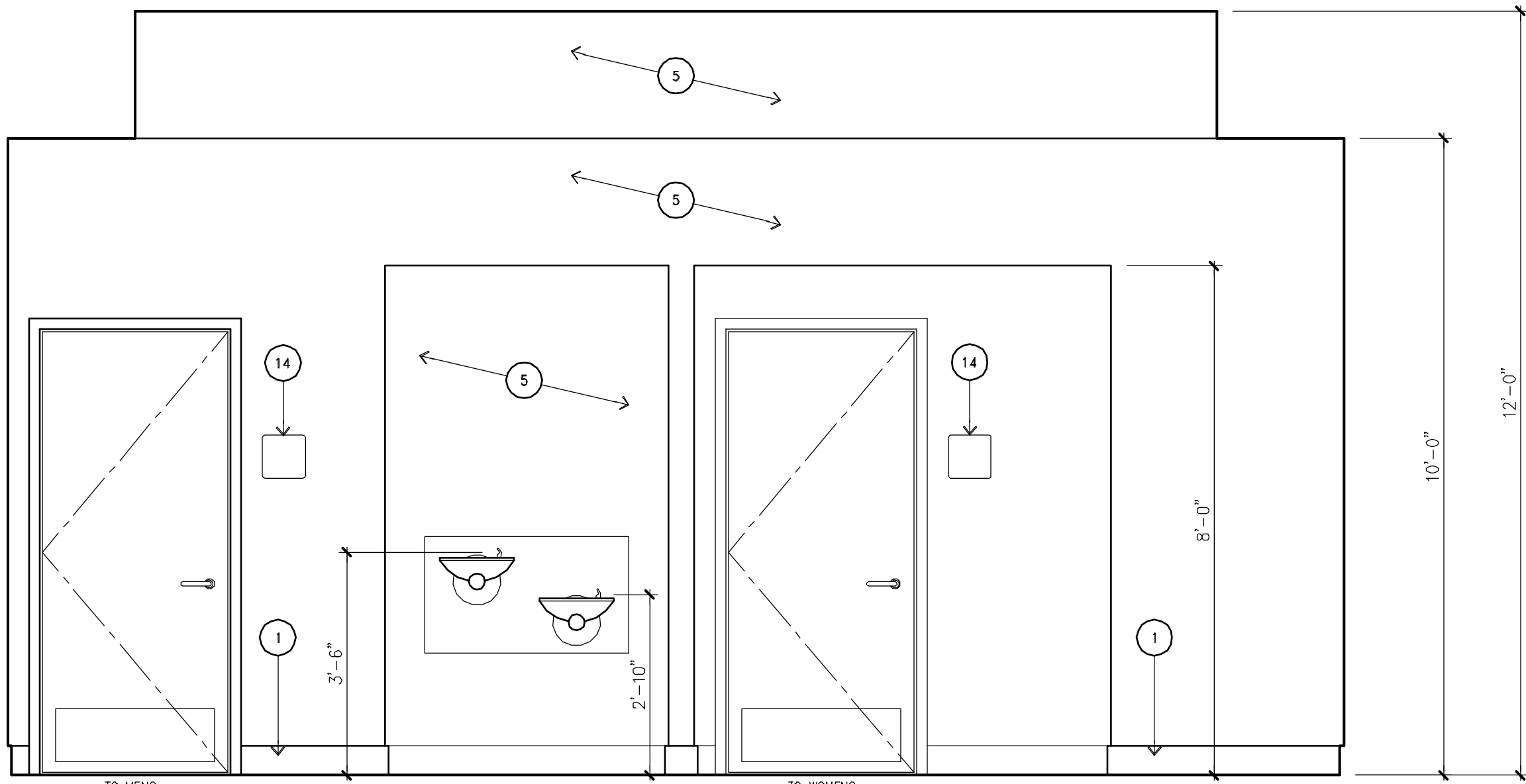
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CD: PERMIT, PRICING & CONSTRUCTION ISSUE	6-11-14

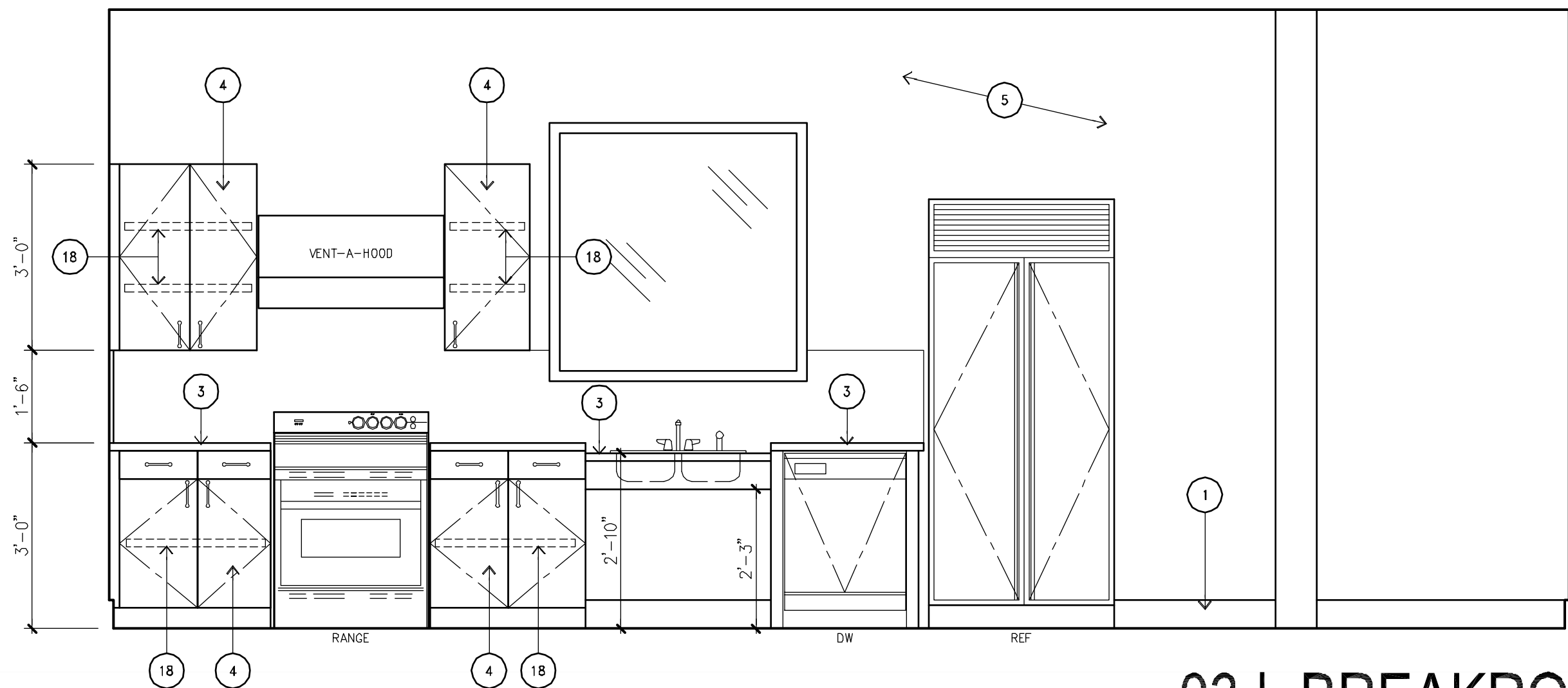
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04 | LOBBY

SCALE: 1/2" = 1'-0"

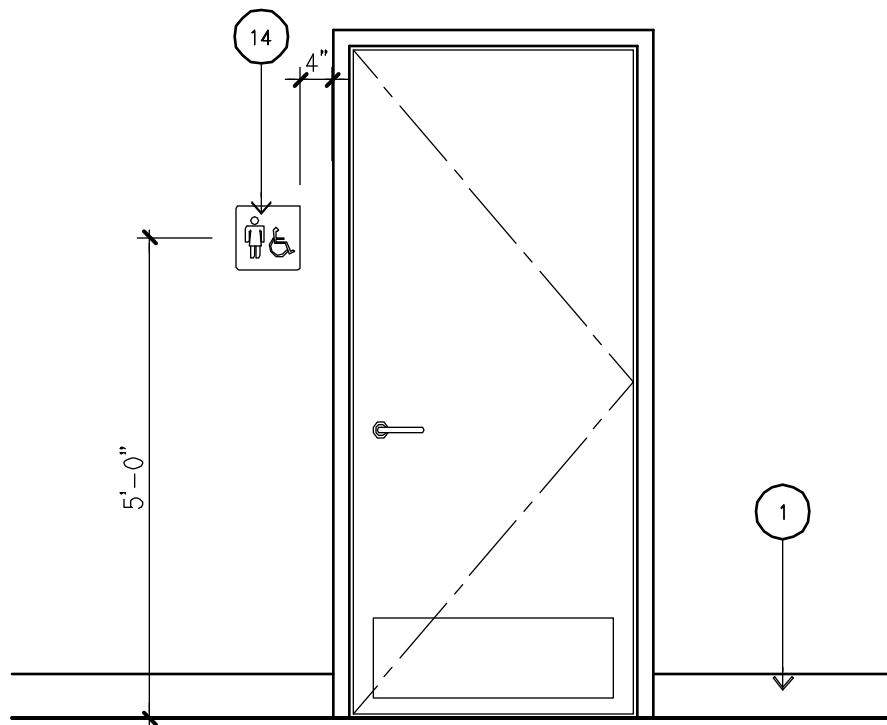


03 | BREAKROOM

SCALE: 1/2" = 1'-0"

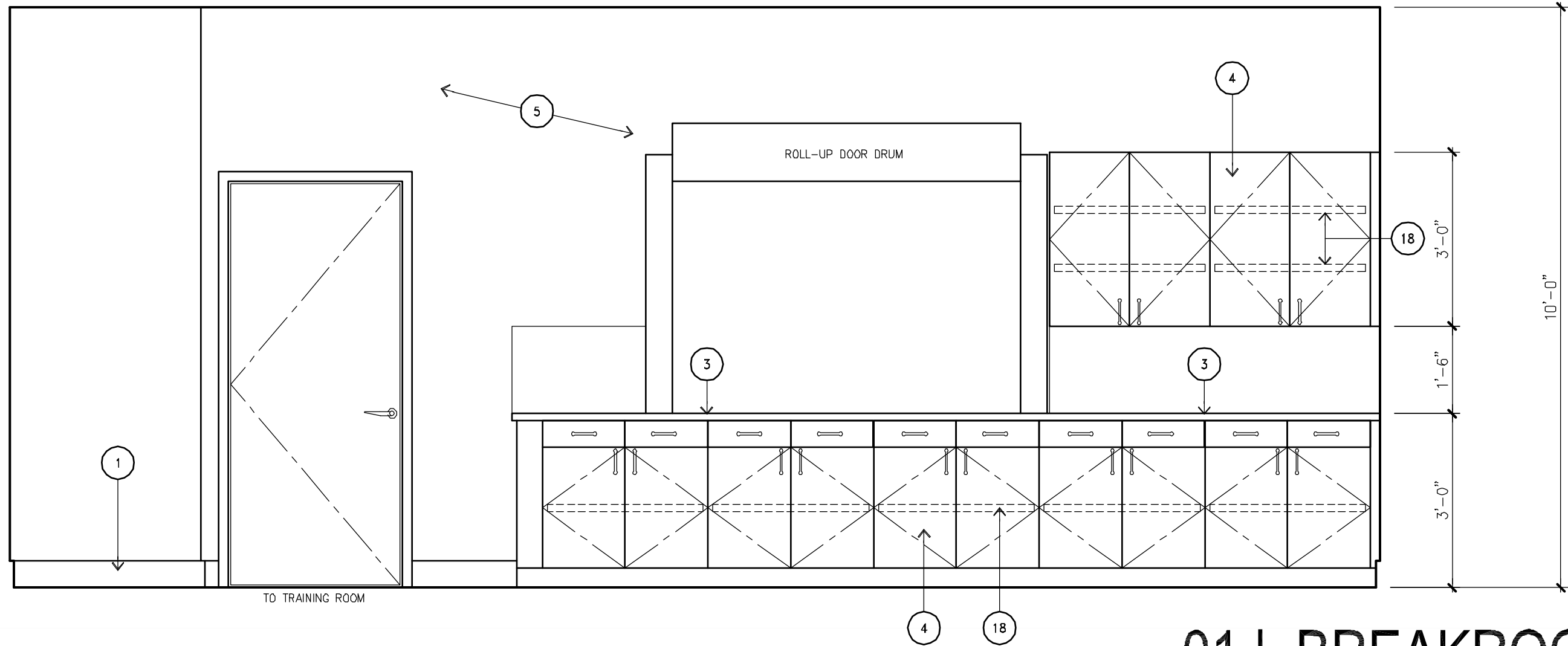
KEY NOTES TO  
INTERIOR ELEVATIONS

- 1 X 6 WOOD BASE, PAINTED
- SOLID SURFACE COUNTERTOP AND BACKSLASH
- PLASTIC LAMINATE COUNTERTOP AND FULL BACKSLASH
- PLASTIC LAMINATE AT CABINET DOORS AND SIDE PANELS
- 5/8" GYP. BOARD WALL, PAINTED
- DECORATIVE WALL SCONE, RE: MEP
- PLYWOOD KNEE AND TOE GUARD, PAINTED, PER T.A.S. 306.2 AND 306.3
- PAPER TOWEL DISPENSER/TRASH CAN
- SOAP DISPENSER
- TOILET PAPER DISPENSER
- SANITARY NAPKIN DISPOSAL, WOMEN'S ONLY
- MIRROR
- GRAB BAR PER T.A.S. 604.5 AND 609
- ROOM SIGNAGE, RUBBER, PER T.A.S. 703
- COAT HOOK AT 4'-0" A.F.F. BEHIND DOOR AT TOILET PARTITION, VERIFY SELECTION W/ ARCHITECT AND OWNER
- TILE WAINSCOT
- SOLID PLASTIC TOILET PARTITIONS, VERIFY COLOR SELECTION WITH OWNER AND ARCHITECT
- ADJ. PLASTIC LAMINATE SHELVES ON DRILLED STANDARDS



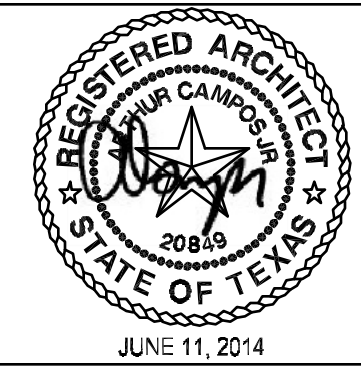
02 | TYPICAL DOOR & ADA SIGN

SCALE: 1/2" = 1'-0"



01 | BREAKROOM

SCALE: 1/2" = 1'-0"



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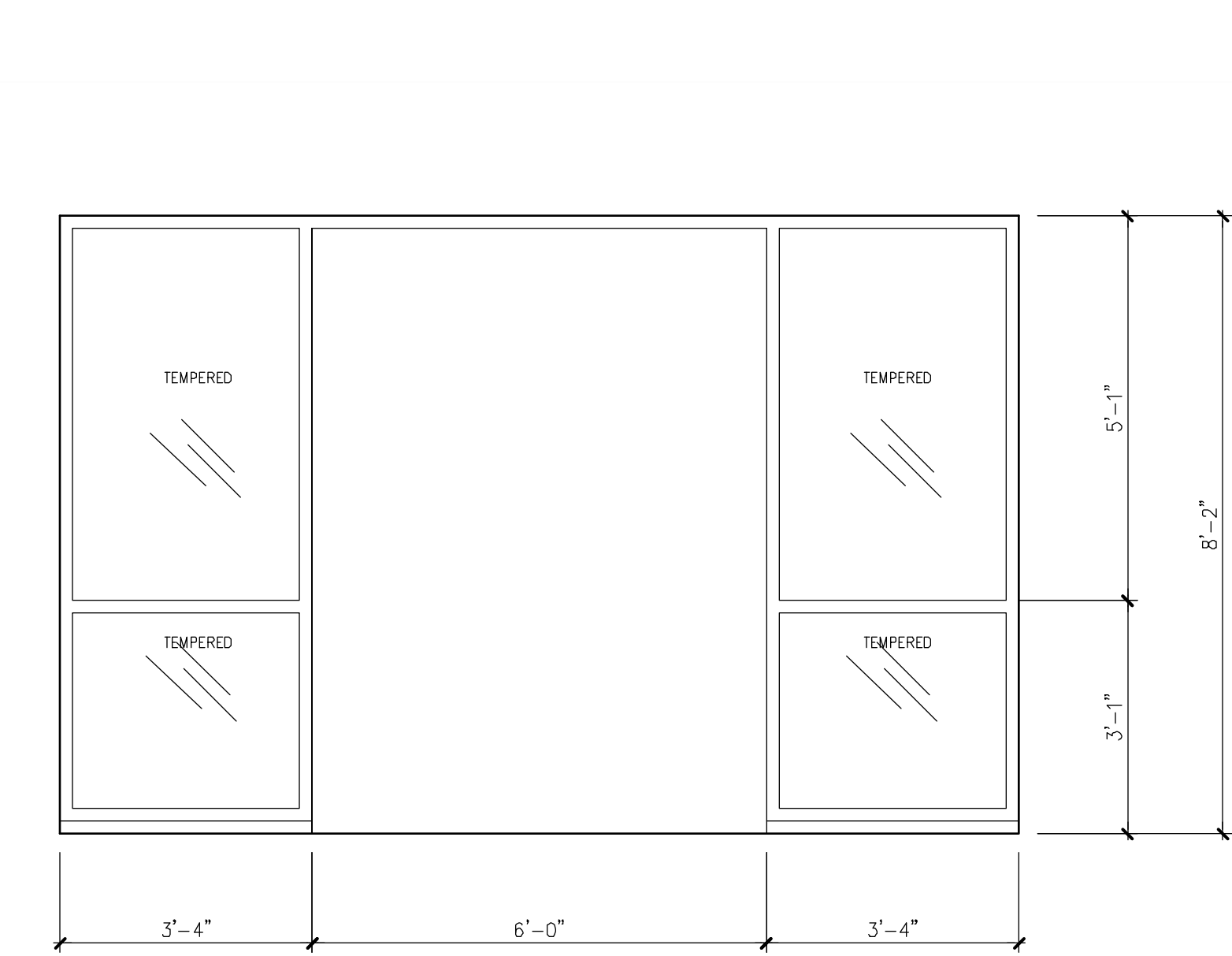
A5.1

DATE: 6-11-14

NOTES TO FINISH SCHEDULE

1. FLOOR 1: CERAMIC TILE – 12 X 12 – TO BE SELECTED.
2. FLOOR 2: STAINED CONCRETE – STAINED AND SEALED CONCRETE FLOORING. OWNER AND ARCHITECT TO MAKE SELECTION. PROVIDE SAMPLE FOR OWNER AND ARCHITECT APPROVAL.
3. FLOOR 3: EPOXY COATING: THREE (3) COAT APPLICATION (EPOXY, FLAKE AND TOP COAT), NVE RATING=10, TOP COAT TO HAVE CHEMICAL RESISTANCE AND UV PROTECTION. SLAB TO BE MECHANICALLY PREPARED. OWNER AND ARCHITECT TO SELECT COLOR. PROVIDE SAMPLE FOR OWNER AND ARCHITECT APPROVAL. CONTACT JON WHITAKER OF GARAGE EXPERTS AT 210-348-8380 OR 210-834-8013.
4. FLOOR 4: RUBBER TILE: ARMSTRONG, RAISED DISK, ANTI-SLIP SURFACE. OWNER AND ARCHITECT TO MAKE SELECTION. PROVIDE SAMPLE FOR OWNER AND ARCHITECT APPROVAL.
5. BASE 1: TYPICAL: 1 X 6 S4S WOOD BASE, PAINTED
6. BASE 2: AT RESTROOMS: CERAMIC TILE COVE BASE – 6X12 – TO BE SELECTED.
7. WAINSCOT 1: AT RESTOOMS: CERAMIC TILE WAINSCOT – 12X12 WITH 6X12 BULLNOSE AT TOP COURSE – TO BE SELECTED.
8. BACKSPLASH 1: AT BREAKROOM – 4” TALL PLASTIC LAMINATE BACKSPLASH, WILSONART OR APPROVED EQUIVILANT.
9. BACKSPLASH 2: AT MENS & WOMENS – 4” TALL SOLID SURFACE – SILESTONE OR APPROVED EQUIVALENT – OR APPROVED EQUIVALENT – TO BE SELECTED.
10. COUNTERTOP 1: PLASTIC LAMINATE – WILSONART – EASED EDGE, OR APPROVED EQUIVALENT, TO BE SELECTED BY OWNER.
11. COUNTERTOP 2: SOLID SURFACE – SILESTONE OR APPROVED EQUIVALENT – BULL NOSE EDGE- OR APPROVED EQUIVALENT – TO BE SELECTED.
12. WALL 1: 5/8” GYPSUM BOARD – LIGHT ORANGE PEEL TEXTURE, LEVEL 4 FINISH TYP., U.N.O., STORAGE, ELEC. ROOM, AND JANITOR’S CLOSET SHALL HAVE LEVEL 2 FINISH. PROVIDE PER MANUFACTURER’S REQUIREMENTS.
13. CEILING 1: 5/8” GYPSUM BOARD – LIGHT ORANGE PEEL TEXTURE, LEVEL 4 FINISH TYP., U.N.O., STORAGE, ELEC. ROOM, AND JANITOR’S CLOSET SHALL HAVE LEVEL 2 FINISH. PROVIDE PER MANUFACTURER’S REQUIREMENTS.
14. CEILING 2: ACOUSTICAL CEILING (A.C.) TILE 1, USG, NO. 562 2” X 2” X 5/8” WHITE FISSURED TILE WITH DOWN DX GRID. PROVIDE PER MANUFACTURER’S REQUIREMENTS.
15. CORNER GUARDS – STAINLESS STEEL – 5’ TALL – AT ALL CORNERS – VERIFY LOCATIONS WITH OWNER AND ARCHITECT.
16. STAIR TREADS AND RISERS – RUBBER STAIR TREADS, RISER AND LANDING TILES; ARMSTRONG, RAISED DISK ANTI-SLIP SURFACE
17. ALTERNATE 1: FLOORING: VINYL COMPOSITION TILE (VCT), ARMSTRONG, 52505 HARLEQUIN WHITE, 12 X 12, AT ALL SPACES WITH STAINED CONCRETE FLOORING – OWNER AND ARCHITECT TO MAKE FINAL SELECTION.
18. ALTERNATE 2: BASE: RUBBER BASE IS ROPPE 700 SERIES STANDARD TOE 4” HEIGHT AT ALL SPACES WITH STAINED CONCRETE FLOORING – COLOR TO BE SELECTED.

ROOM NAME	FLOOR	BASE	WAINSCOT	WALLS				CEILING	CROWN	COUNTERTOP	CEILING HEIGHT	REMARKS
				NORTH	EAST	SOUTH	WEST					
LOBBY	STAINED CONCRETE	1 X 6 WOOD, PTD	–	GYP. BD, PTD.	GYP. BD, PTD.	GYP. BD, PTD.	GYP. BD, PTD.	GYP. BD, PTD. & A.C. TILE	–	–	12’-0”	–
OFFICE	STAINED CONCRETE	1 X 6 WOOD, PTD	–	GYP. BD, PTD.	GYP. BD, PTD.	GYP. BD, PTD.	GYP. BD, PTD.	A.C. TILE	–	–	10’-0”	–
CLO.	STAINED CONCRETE	1 X 6 WOOD, PTD	–	GYP. BD, PTD.	GYP. BD, PTD.	GYP. BD, PTD.	GYP. BD, PTD.	GYP. BD, PTD.	–	–	10’-0”	–
AV CLO.	STAINED CONCRETE	1 X 6 WOOD, PTD	–	GYP. BD, PTD.	GYP. BD, PTD.	GYP. BD, PTD.	GYP. BD, PTD.	GYP. BD, PTD.	–	–	10’-0”	–
BREAKROOM	STAINED CONCRETE	1 X 6 WOOD, PTD	–	GYP. BD, PTD.	GYP. BD, PTD.	GYP. BD, PTD.	GYP. BD, PTD.	A.C. TILE	–	PLASTIC LAMINATE	10’-0”	–
TRAINING ROOM	STAINED CONCRETE	1 X 6 WOOD, PTD	–	GYP. BD, PTD.	GYP. BD, PTD.	GYP. BD, PTD.	GYP. BD, PTD.	GYP. BD, PTD. & A.C. TILE	–	–	15’-0”	–
WOMENS	CERAMIC TILE	COVED CERAMIC TILE	CERAMIC TILE	GYP. BD, PTD.	GYP. BD, PTD.	GYP. BD, PTD.	GYP. BD, PTD.	GYP. BD, PTD.	–	SOLID SURFACE	10’-0”	–
MENS	CERAMIC TILE	COVED CERAMIC TILE	CERAMIC TILE	GYP. BD, PTD.	GYP. BD, PTD.	GYP. BD, PTD.	GYP. BD, PTD.	GYP. BD, PTD.	–	SOLID SURFACE	10’-0”	–
JAN. CLO.	CERAMIC TILE	COVED CERAMIC TILE	CERAMIC TILE	GYP. BD, PTD.	GYP. BD, PTD.	GYP. BD, PTD.	GYP. BD, PTD.	GYP. BD, PTD.	–	–	10’-0”	–
RESTROOM	CERAMIC TILE	COVED CERAMIC TILE	CERAMIC TILE	GYP. BD, PTD.	GYP. BD, PTD.	GYP. BD, PTD.	GYP. BD, PTD.	GYP. BD, PTD.	–	–	10’-0”	–
TABLE/CHAIR STORAGE	STAINED CONCRETE	1 X 6 WOOD, PTD	–	GYP. BD, PTD.	GYP. BD, PTD.	GYP. BD, PTD.	GYP. BD, PTD.	A.C. TILE	–	–	10’-0”	–
ELEC. ROOM	CONCRETE	–	–	GYP. BD, PTD.	GYP. BD, PTD.	GYP. BD, PTD.	GYP. BD, PTD.	GYP. BD, PTD.	–	–	10’-0”	–
STORAGE	RUBBER TILE	–	–	–	GYP. BD, PTD.	–	–	–	–	–	10’-0”	–
LUBY BAY 1	EPOXY COATING	–	–	–	–	–	–	–	–	–	VARIES	–
LUBY BAY 2	EPOXY COATING	–	–	–	–	–	–	–	–	–	VARIES	–
TIRE SHOP	EPOXY COATING	–	–	–	–	–	–	–	–	–	VARIES	–
STORAGE MEZZANINE	EPOXY COATING	–	–	–	GYP. BD, PTD.	–	–	–	–	–	VARIES	–
MECHANICAL MEZZANINE	–	–	–	GYP. BD, PTD.	GYP. BD, PTD.	GYP. BD, PTD.	GYP. BD, PTD.	–	–	–	VARIES	–

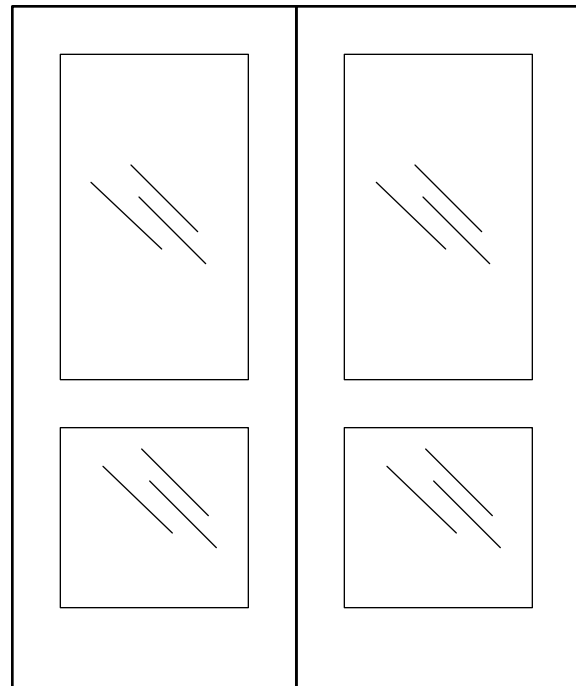


## 03 | ELEVATION OF STOREFRONT GLASS WALL SYSTEM

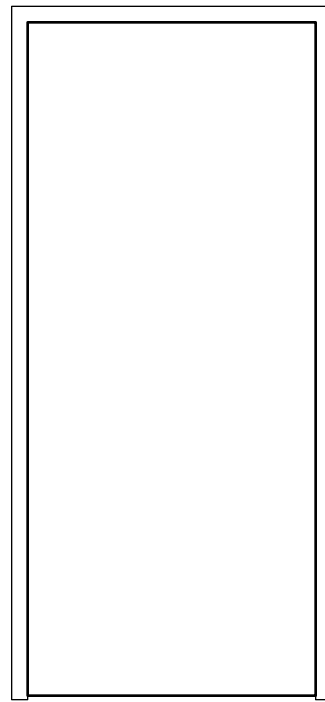
SCALE: 1/2" = 1'-0"

### NOTES TO STOREFRONT GLASS WALL SYSTEM

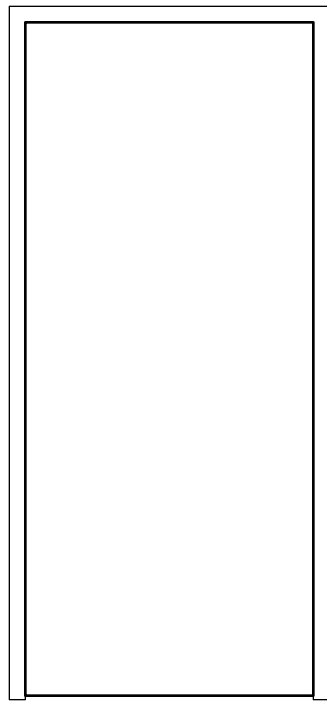
- SIZES ON SCHEDULE PLAN AND ELEVATIONS ARE OVERALL FRAME SIZE.
- ALL WINDOWS ARE FIXED, U.N.O.
- PROVIDE 1" INSULATED, LOW E GLASS.
- WINDOW FRAME IS ANODIZED ALUMINUM.
- PROVIDE TEMPERED GLASS AS INDICATED ON DRAWINGS.
- ARCHITECT TO APPROVE SHOP DRAWINGS FOR WALL SYSTEM.
- U-FACTOR: 0.26, SOLAR HEAT GAIN COEFFICIENT (SHGC): 0.26
- MANUFACTURER: OLDCASTLE BUILDING ENVELOPE, STANDARD FLUSH GLAZE STOREFRONT SYSTEM, SERIES 3000



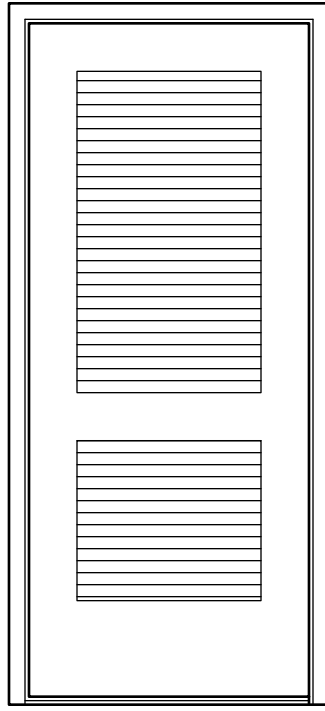
TYPE A  
PAIR OF 1 3/4" THICK ALUMINUM WIDE  
STILE DOOR W/ DOUBLE TEMPERED GLASS LITE



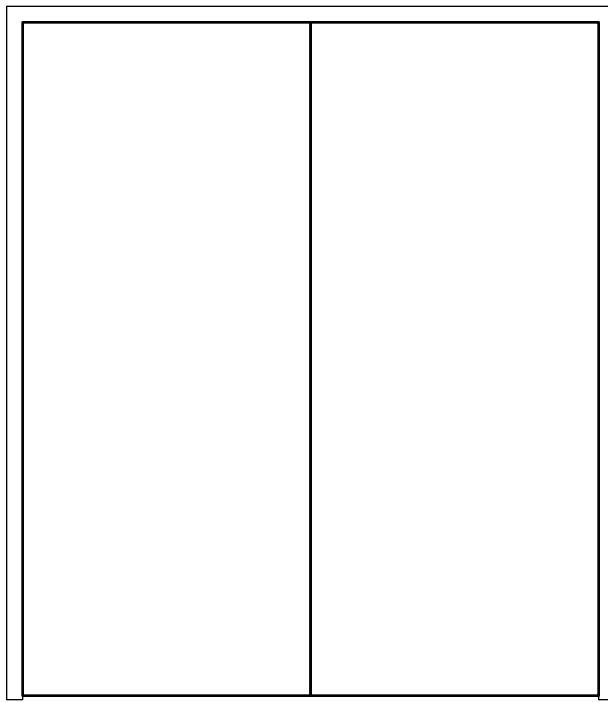
TYPE B  
1 3/4" THICK HEAVY-DUTY  
HOLLOW METAL DOORS  
AND METAL FRAME, PAINTED



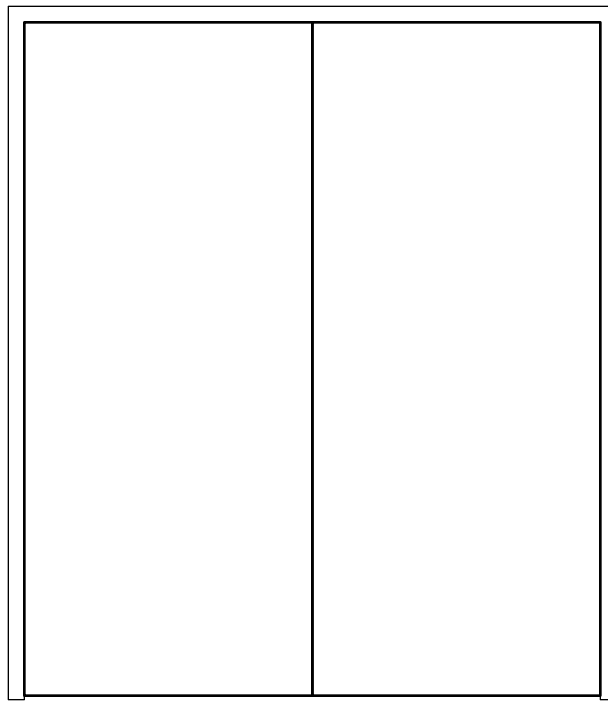
TYPE C  
1 3/4" THICK WOOD DOOR  
AND METAL FRAME, PAINTED



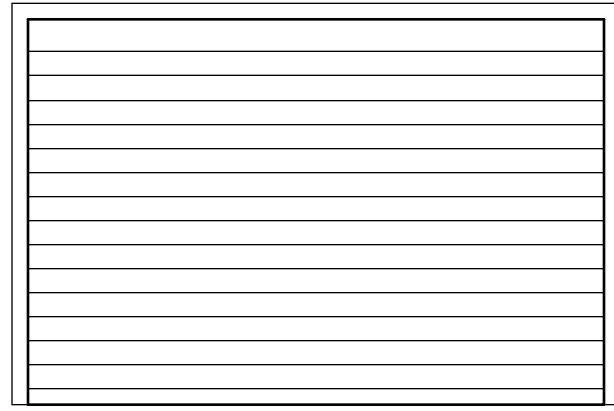
TYPE D  
1 3/4" THICK WOOD DOOR  
AND METAL FRAME, PAINTED  
W/ METAL LOUVERS



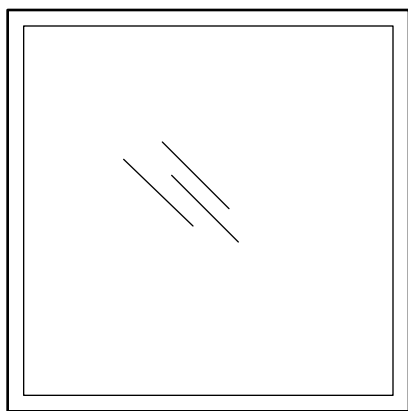
TYPE E  
PAIR OF 1 3/4" THICK WOOD DOOR  
AND METAL FRAME, PAINTED



TYPE F  
PAIR OF 1 3/4" THICK HEAVY-DUTY  
HOLLOW METAL DOORS  
AND METAL FRAME, PAINTED



TYPE G  
ALUMINUM ROLL-UP DOOR



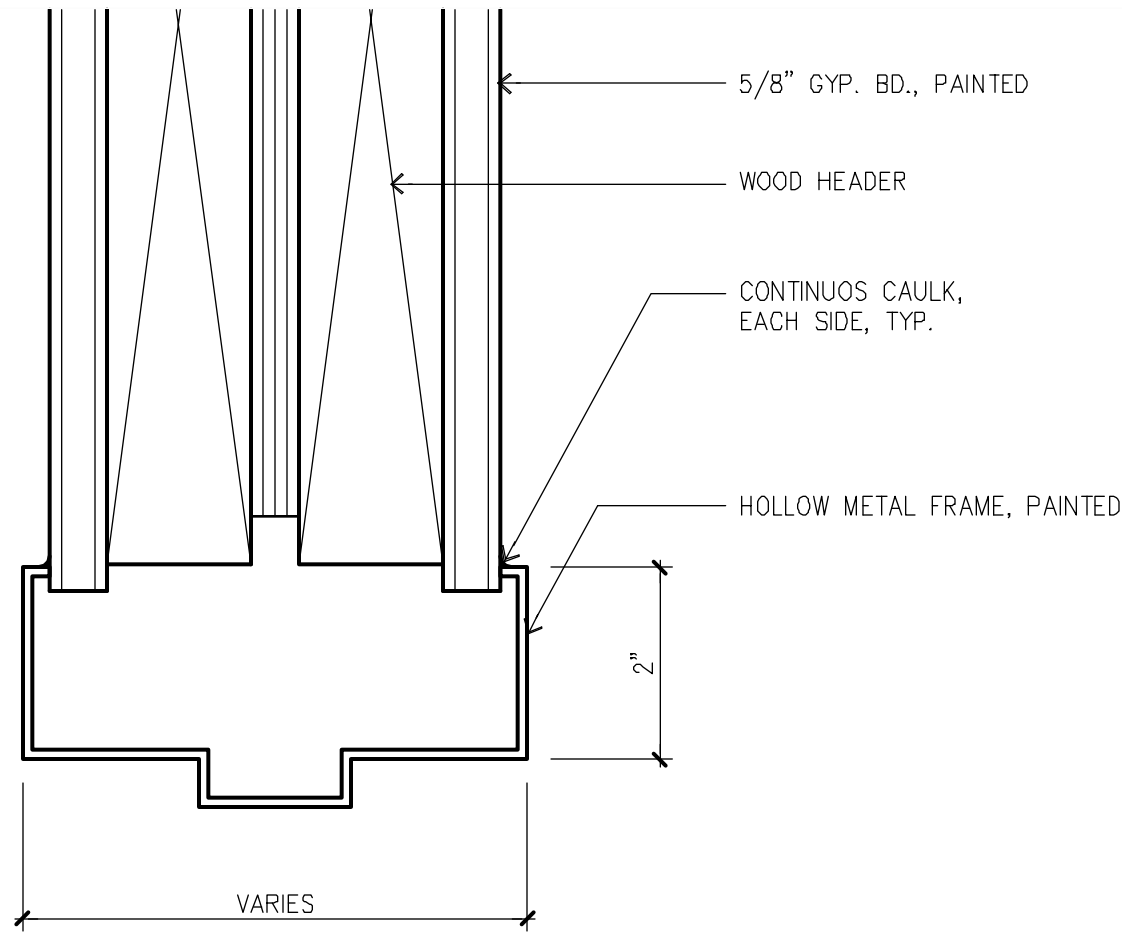
A FIXED ALUMINUM WINDOW  
1" INSULATED GLASS

### NOTES TO WINDOWS

- SIZES ON WINDOW SCHEDULE ARE OVERALL FRAME SIZE.
- ALL WINDOWS ARE FIXED, U.N.O.
- PROVIDE LOW E GLASS AT ALL WINDOWS.
- WINDOWS INDICATED ON SCHEDULE ARE EXTERIOR VIEW.
- ALL WINDOWS ARE STOREFRONT WALL SYSTEM ALUMINUM WINDOWS.
- FINISH SHALL BE CLEAR ANODIZED.
- ARCHITECT TO APPROVE SHOP DRAWINGS FOR ALL WINDOWS.

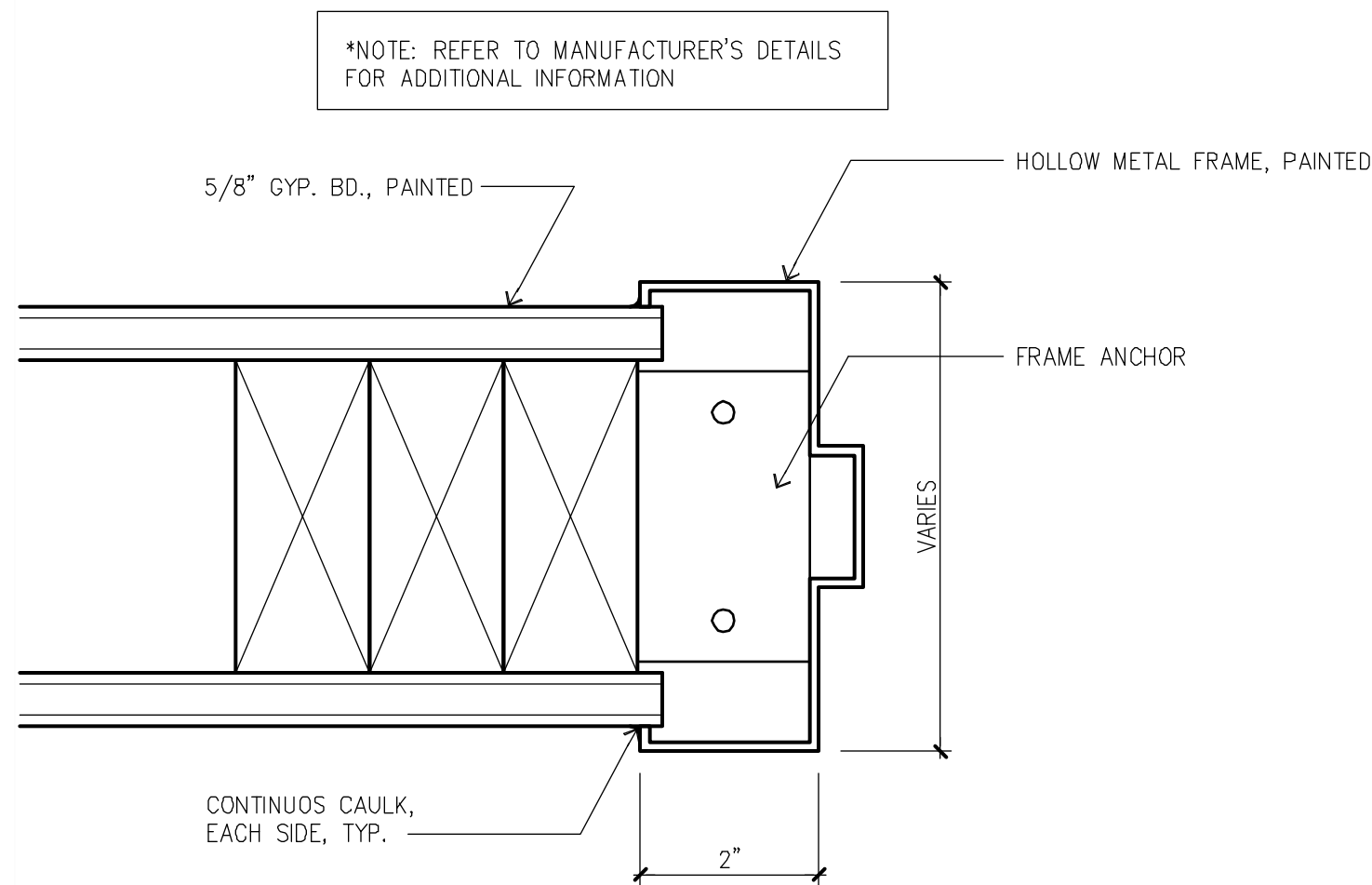
### WINDOW SCHEDULE

MARK	FRAME SIZE		MANUFACTURER	MODEL NO.	DETAILS			REMARKS
	WIDTH	HEIGHT			HEAD	JAMB	SILL	
A	4'-2"	4'-2"	OLDCASTLE	3000 XT				U-FACTOR: 0.27, SHGC: 0.25



## 02 | HEAD DETAIL AT DOOR FRAME

SCALE: HALF SCALE



## 01 | JAMB DETAIL AT DOOR FRAME

SCALE: HALF SCALE

### DOOR HARDWARE SCHEDULE

<b>SET 1</b> FUNCTION: ENTRANCE (PAIR) HINGES: 1 1/2" BUTT HINGES PER LEAF CLOSER: LCN 4030 SERIES PULLS: STANDARD PULL HANDLES PANIC DEVICE: 1 EA. DOR-O-MATIC 1690 CONCEALED ROD PANIC DEVICE DEADLOCK: KEYED CYLINDER OUTSIDE, THUMB TURN INSIDE THRESHOLD: 1/2" HIGH MAX. BRASS THRESHOLD WEATHER-STRIPPING: MANUFACTURER'S STANDARD	<b>SET 6</b> FUNCTION: PRIVACY LOCK HINGES: 1 1/2" PR. BUTT HINGES CLOSER: NONE LATCH: SCHLAGE AL40S NEPTUNE 613 MISC: SCHLAGE 37-001 HM DOOR REINFORCEMENT, VERIFY DOOR THICKNESS
<b>SET 2</b> FUNCTION: HEAVY-DUTY ENTRANCE, HEAVY-DUTY DEADBOLT HINGES: 1 1/2" PR. BUTT HINGES CLOSER: LCN 4030 SERIES LATCH: SCHLAGE AL10S NEPTUNE 613 MISC: SCHLAGE 37-001 HM DOOR REINFORCEMENT, VERIFY DOOR THICKNESS	<b>SET 7</b> FUNCTION: STOREROOM LOCK (ACTIVE DOOR) SINGLE DUMMY TRIM (INACTIVE) HINGES: 1 1/2" PR. BUTT HINGES PER LEAF CLOSER: NONE LATCH: SCHLAGE AL80PD NEPTUNE 613 PASSAGE (ACTIVE DOOR) MISC: ALL170 NEPTUNE 613 (INACTIVE DOOR) SCHLAGE 37-001 HM DOOR REINFORCEMENT, VERIFY DOOR THICKNESS
<b>SET 3</b> FUNCTION: ENTRANCE LOCK HINGES: 2 PR. BUTT HINGES CLOSER: LCN 4030 LATCH: SCHLAGE AL50PD NEPTUNE 613 DOOR STOP: FLOOR MOUNTED DOOR STOP	<b>SET 8</b> FUNCTION: ENTRANCE LOCK (ACTIVE DOOR) SINGLE DUMMY TRIM (INACTIVE) HINGES: 1 1/2" PR. BUTT HINGES PER LEAF CLOSER: LCN 4030 SERIES PANIC DEVICE: 1 EA. DOR-O-MATIC 1690 CONCEALED ROD PANIC DEVICE LATCH: SCHLAGE AL50PD NEPTUNE 613 PASSAGE (ACTIVE DOOR) MISC: ALL170 NEPTUNE 613 (INACTIVE DOOR) SCHLAGE 37-001 HM DOOR REINFORCEMENT, VERIFY DOOR THICKNESS
<b>SET 4</b> FUNCTION: PASSAGE LATCH HINGES: 1 1/2" PR. BUTT HINGES CLOSER: LCN 4030 PULL: IVES 8103 1" PULL, 12"; 8200 PUSH PLATE 4" X 16" MISC: SCHLAGE 37-001 HM DOOR REINFORCEMENT, VERIFY DOOR THICKNESS	<b>SET 9</b> FUNCTION: HEAVY-DUTY ENTRANCE, HEAVY-DUTY DEADBOLT HINGES: 1 1/2" PR. BUTT HINGES CLOSER: LCN 4030 SERIES LATCH: SCHLAGE AL10S NEPTUNE 613 MISC: SCHLAGE 37-001 HM DOOR REINFORCEMENT, VERIFY DOOR THICKNESS
<b>SET 5</b> FUNCTION: STOREROOM LOCK HINGES: 2 PR. BUTT HINGES CLOSER: NONE LATCH: SCHLAGE AL80PD NEPTUNE 613 DOOR STOP: FLOOR MOUNTED DOOR STOP	

### NOTES TO DOOR HARDWARE

- EXTERIOR DOORS TO HAVE PANIC HARDWARE BARS. VERIFY HARDWARE FINISH WITH OWNER AND ARCHITECT.
- INTERIOR DOORS TO HAVE LEVER PASSAGE HARDWARE. VERIFY INTERIOR DOOR HARDWARE FINISH WITH OWNER AND ARCHITECT.
- THRESHOLDS AT DOORWAYS SHALL NOT EXCEED 1/2" IN HEIGHT. RAISED THRESHOLDS AND FLOOR LEVEL CHANGES AT ACCESSIBLE DOORWAYS SHALL BE BEVELED WITH A SLOPE NO GREATER THAN 1:2 PER T.A.S. 303.1, 303.2 AND 303.3
- DOOR HARDWARE SUCH AS HANDLES, PULLS, LATCHES, LOCKS AND OTHER OPERATING DEVICES ON ACCESSIBLE DOORS SHALL HAVE A SHAPE THAT IS EASY TO GRASP WITH ONE HAND AND DOES NOT REQUIRE TIGHT GRASPING, TIGHT PINCHING, OR TWISTING OF THE WRIST TO OPERATE. LEVER-OPERATED MECHANISMS, PUSH-TYPE MECHANISMS, AND U-SHAPED HANDLES ARE ACCEPTABLE DESIGNS. HARDWARE REQUIRED FOR ACCESSIBLE DOOR PASSAGE SHALL BE MOUNTED NO HIGHER THAN 48" ABOVE FINISH FLOOR PER T.A.S 404.2.7
- ALL DOOR CLOSERS SHALL MEET T.A.S. REQUIREMENT 404.2.8.1 - THE SWEEP PERIOD OF THE CLOSER SHALL BE ADJUSTED SO THAT FROM AN OPEN POSITION OF 70 DEGREES, THE DOOR WILL TAKE AT LEAST 3 SECONDS TO MOVE TO A POINT 3" FROM THE LATCH, MEASURED TO THE LEADING EDGE OF THE DOOR.
- THE MAXIMUM FORCE FOR PUSHING OR PULLING A DOOR SHALL NOT EXCEED 5 LBF PER T.A.S REQUIREMENT 404.2.9
- SUBMIT ALL HARDWARE FOR REVIEW AND APPROVAL BY ARCHITECT (BOTH AS SPECIFIED OR FOR EQUIVALENT SUBSTITUTION).

### DOOR SCHEDULE

MARK	SIZE	MANUFACTURER	TYPE	HARDWARE	REMARKS
1	PR3'-0" X 7'-0"	OLDCASTLE	A	1	EXTERIOR, GLAZING U-FACTOR: 0.26, SHGC: 0.26
2	3'-0" X 7'-0"	STEELCRAFT	B	2	EXTERIOR, B SERIES, HEAVY DUTY, U-FACTOR: 0.69
3	PR 3'-0" X 7'-0"	STEELCRAFT	F	7	EXTERIOR, B SERIES, HEAVY DUTY, U-FACTOR: 0.69
4	3'-0" X 7'-0"	STEELCRAFT	B	2	EXTERIOR, B SERIES, HEAVY DUTY, U-FACTOR: 0.69
5	3'-0" X 7'-0"	STEELCRAFT	B	9	INTERIOR, B SERIES, HEAVY DUTY
6	3'-0" X 7'-0"	STEELCRAFT	B	6	INTERIOR, B SERIES, HEAVY DUTY
7	3'-0" X 7'-0"	MASONITE/MARSHFIELD	C	4	
8	4'-0" X 7'-0"	MASONITE/MARSHFIELD	C	4	
9	2'-8" X 7'-0"	MASONITE/MARSHFIELD	C	5	
10	PR3'-0" X 7'-0"	OLDCASTLE	A	1	INTERIOR, TEMPERED GLASS
11	3'-0" X 7'-0"	MASONITE/MARSHFIELD	C	6	
12	3'-0" X 7'-0"	MASONITE/MARSHFIELD	C	5	
13	3'-0" X 7'-0"	MASONITE/MARSHFIELD	D	5	
14	3'-0" X 7'-0"	MASONITE/MARSHFIELD	E	6	
15	PR3'-0" X 7'-0"	MASONITE/MARSHFIELD	C	7	
16	3'-0" X 7'-0"	STEELCRAFT	F	7	SEAL AT HEAD, JAMB AND THRESHOLD
17	3'-0" X 7'-0"	STEELCRAFT	B	2	EXTERIOR, B SERIES, HEAVY DUTY, U-FACTOR: 0.69
17	6'-0" X 4'-0"	CORNELL IRON WORKS	C		MODEL ESC10, MANUAL CRANK

### NOTES TO DOOR SCHEDULE

- SIZES ON PLANS ARE NOMINAL DOOR OPENING WIDTH AND HEIGHT.
- DOOR UNITS TO SIT ON FINISH FLOOR, U.N.O.
- PROVIDE WEATHER STRIPPING AND THRESHOLDS AT ALL EXTERIOR DOORS.
- DOORS ARE HINGED DOORS, U.N.O.
- ARCHITECT TO APPROVE SHOP DRAWINGS FOR ALL DOORS AND APPROVED EQUIVALENT SUBSTITUTION.
- PROVIDE METAL KICK PLATE AT BOTTOM OF ALL WOOD DOORS, VERIFY FINISH W/ OWNER AND ARCHITECT.
- INTERIOR WOOD DOORS ARE BIRCH, PAINTED ON SITE. CONFIRM PAINT SELECTED W/ OWNER AND ARCHITECT.
- OVERHEAD GARAGE DOORS - HEAVY DUTY ROLLING STEEL DOOR, 22 GAUGE G-90 GALVANIZED STEEL, FLAT SLTA WITH BACKED ON POLYESTER FINISH. MODEL # 6221. HOOD, 24 GAUGE GALVANIZED STEEL FINISH, VINYL BOTTOM WEATHER-STRIP, SELF ADJUSTING LOOP BOTTOM ASTRAGAL. MANUAL REDUCED DRIVE CHAIN HOIST, 5 YEAR MANUFACTURER'S WARRANTY, CONTACT AMY MILLER AT TEXDOOR, LTD. 210-657-2978
- EXTERIOR PASSAGE DOORS (ALTERNATE): DOOR TYPE B, PROVIDED BY METAL BUILDING MANUFACTURER

CAMPOS ARCHITECTURE, PLLC

P.O. BOX 241658  
SAN ANTONIO, TEXAS 78224  
P:210-683-9992

GUADALUPE COUNTY  
LUBE CENTER

SEGUIN, TEXAS

DATE OF ISSUE:  
DESIGN: OWNER REVIEW 1-13-14  
DESIGN: OWNER REVIEW 2-13-14  
CD: OWNER REVIEW 5-2-14  
CD: PERMIT, PRICING  
& CONSTRUCTION ISSUE 6-11-14  
CD: PERMIT, PRICING  
& CONSTRUCTION ISSUE 7-28-14

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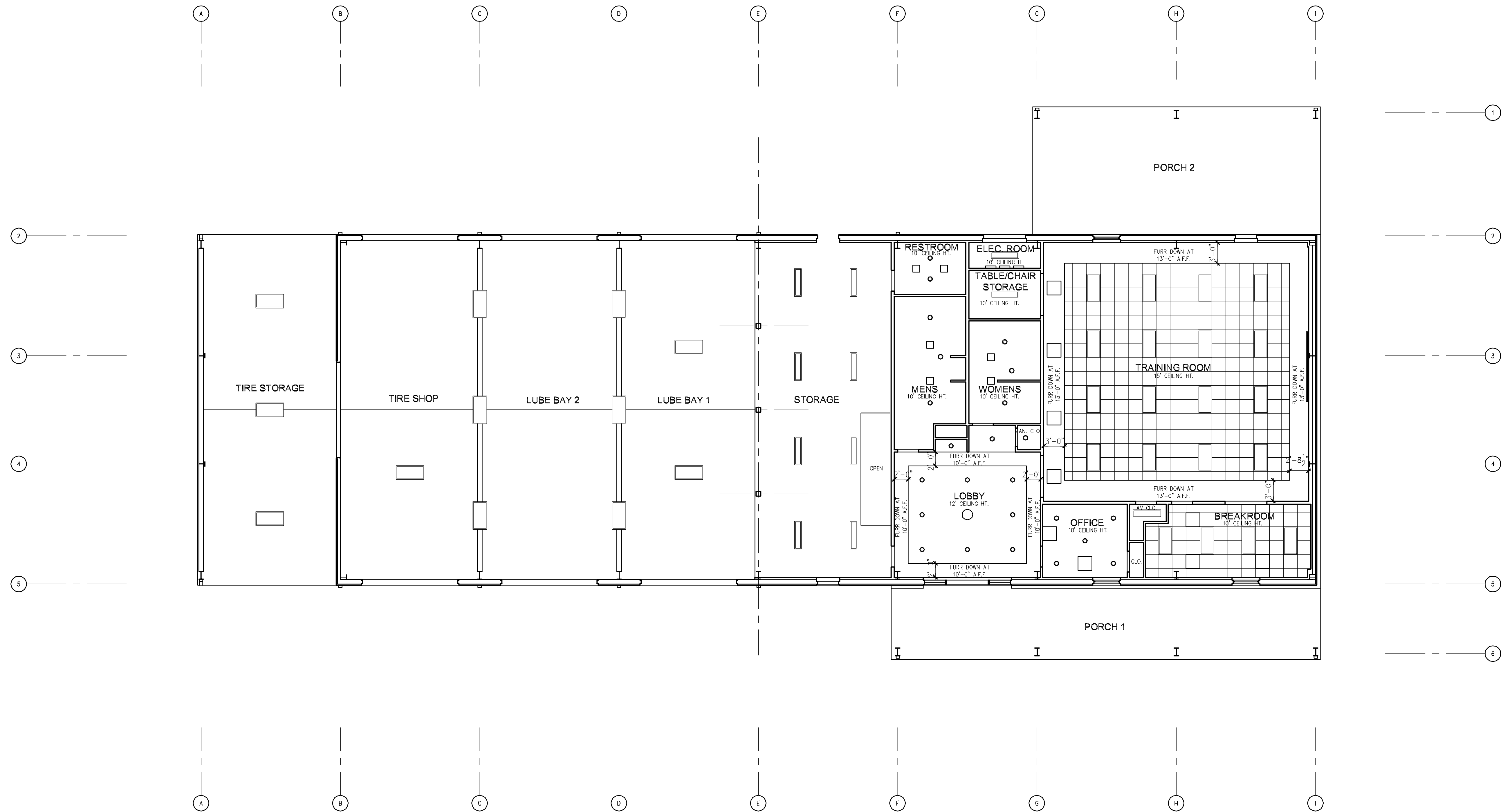
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CHECKED BY: AC

FILE: m&sengineering  
cd/guadalupeco-  
doorwindowssch-B.dwg

SHEET NUMBER:  
A5.2

DATE: 7-28-14



# 01 | REFLECTED CEILING PLAN

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



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GUADALUPE COUNTY  
LUBE CENTER  
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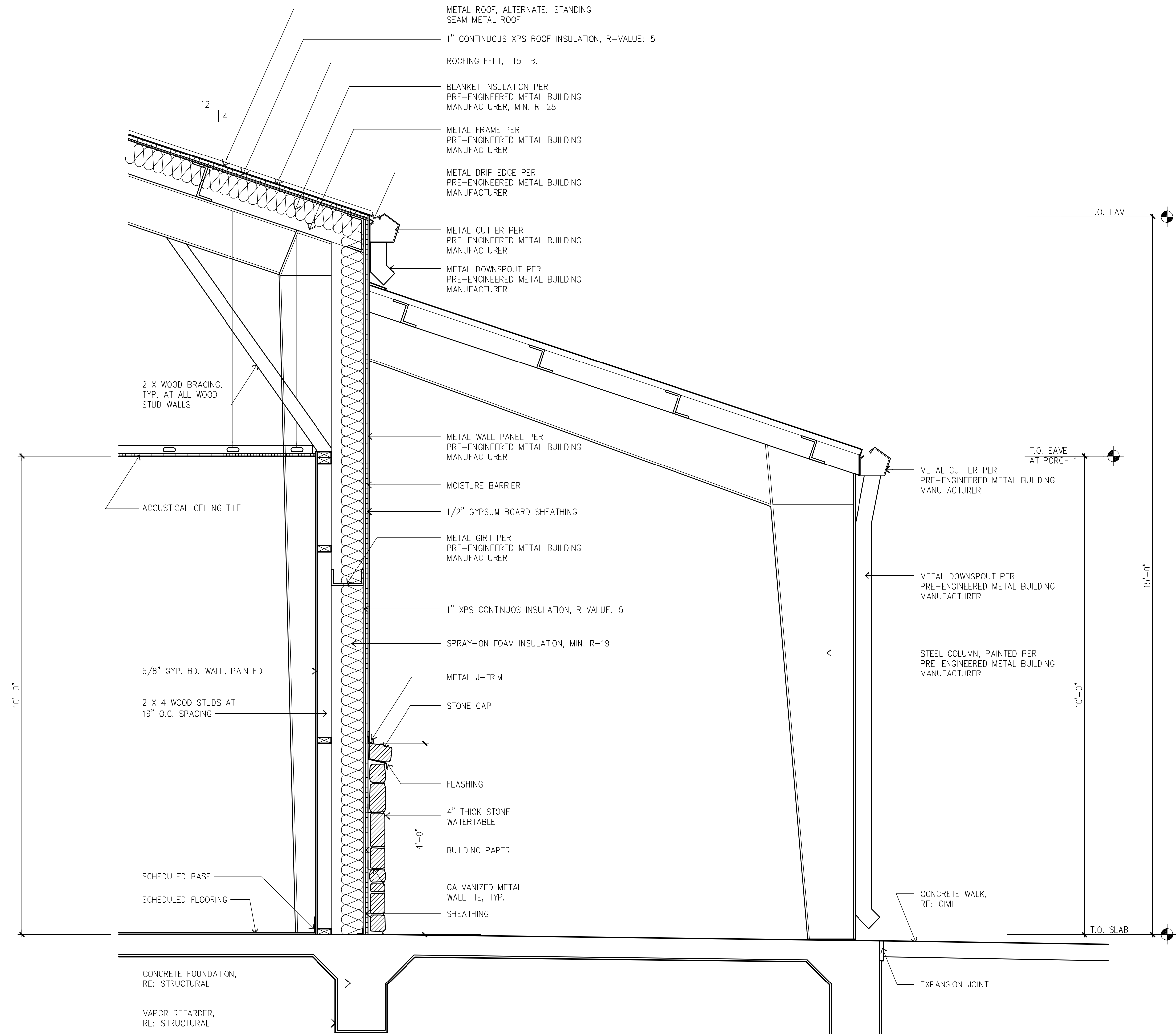
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FILE: m&sengineering  
cd  
guadalupeco-plan-G.dwg

SHEET NUMBER:


A6.1

DATE: 6-11-14



01 | WALL SECTION AT OFFICE AND PORCH 1

SCALE: 3/4" = 1'-0"



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SAN ANTONIO, TEXAS 78224  
P:210-683-9992

GUADALUPE COUNTY  
LUBE CENTER

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A7.1	
DATE:	6-11-14

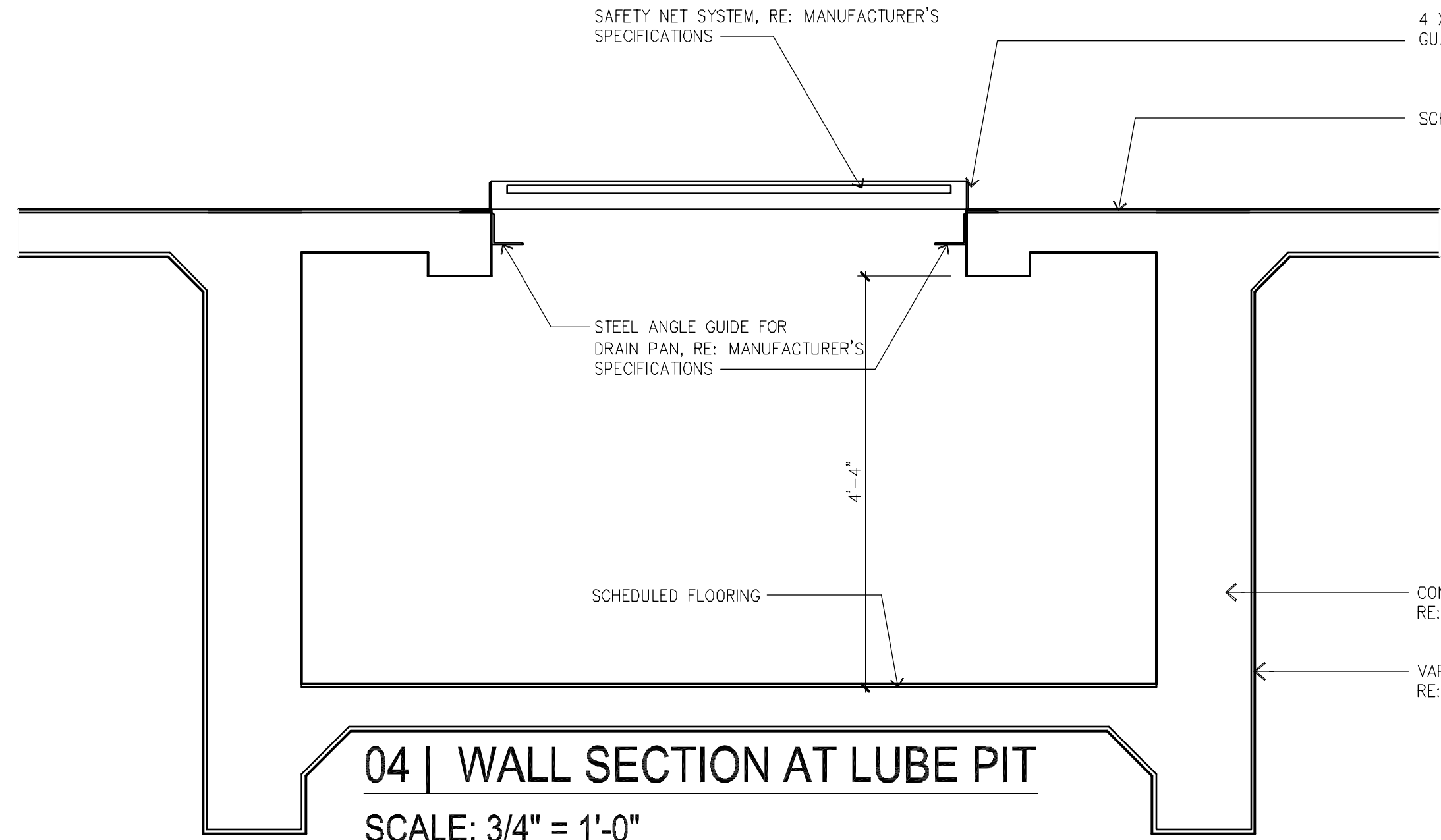
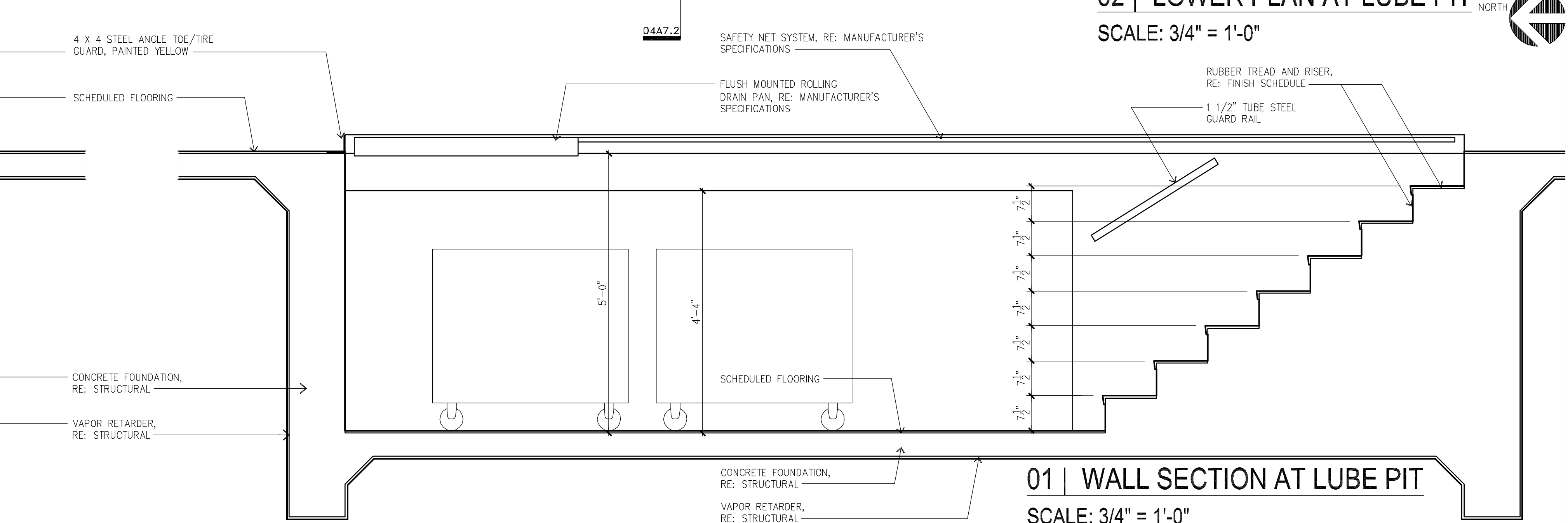
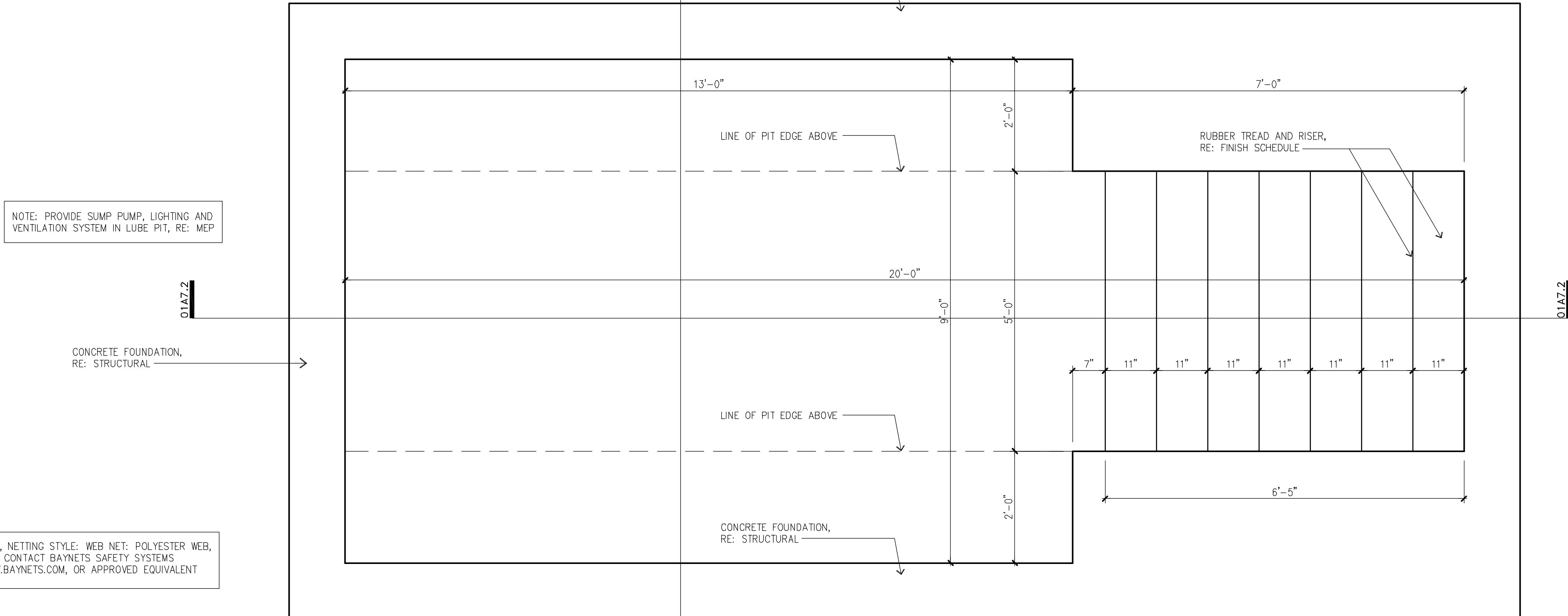
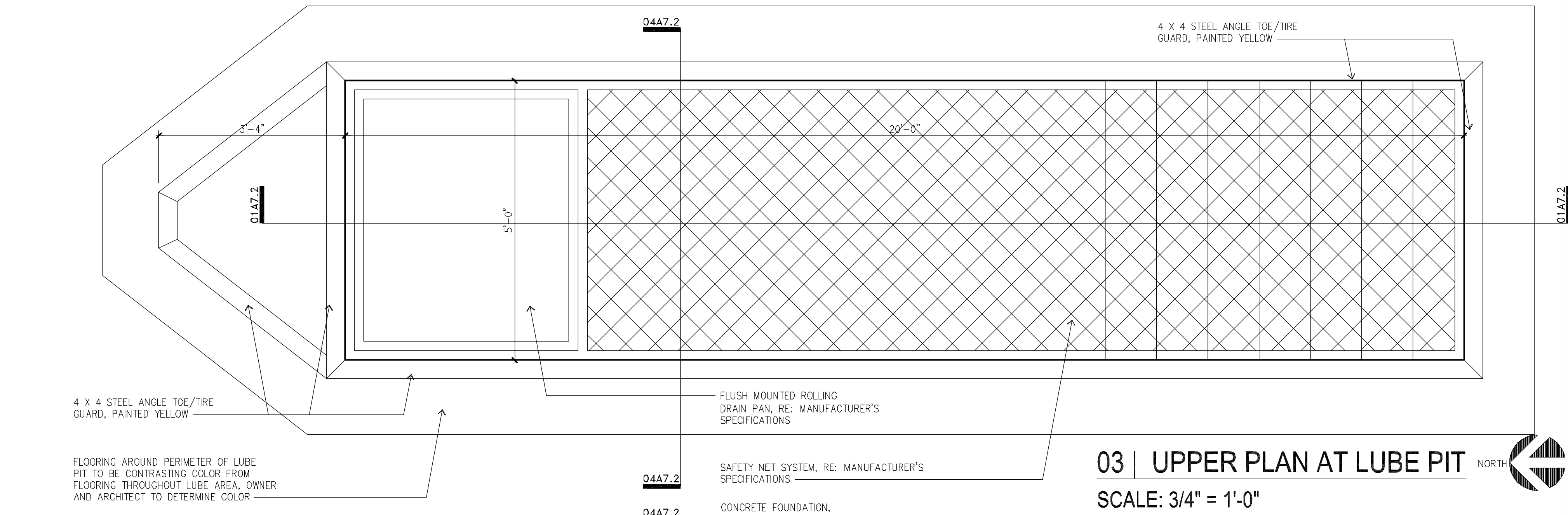


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DESIGN: OWNER REVIEW	2-13-14
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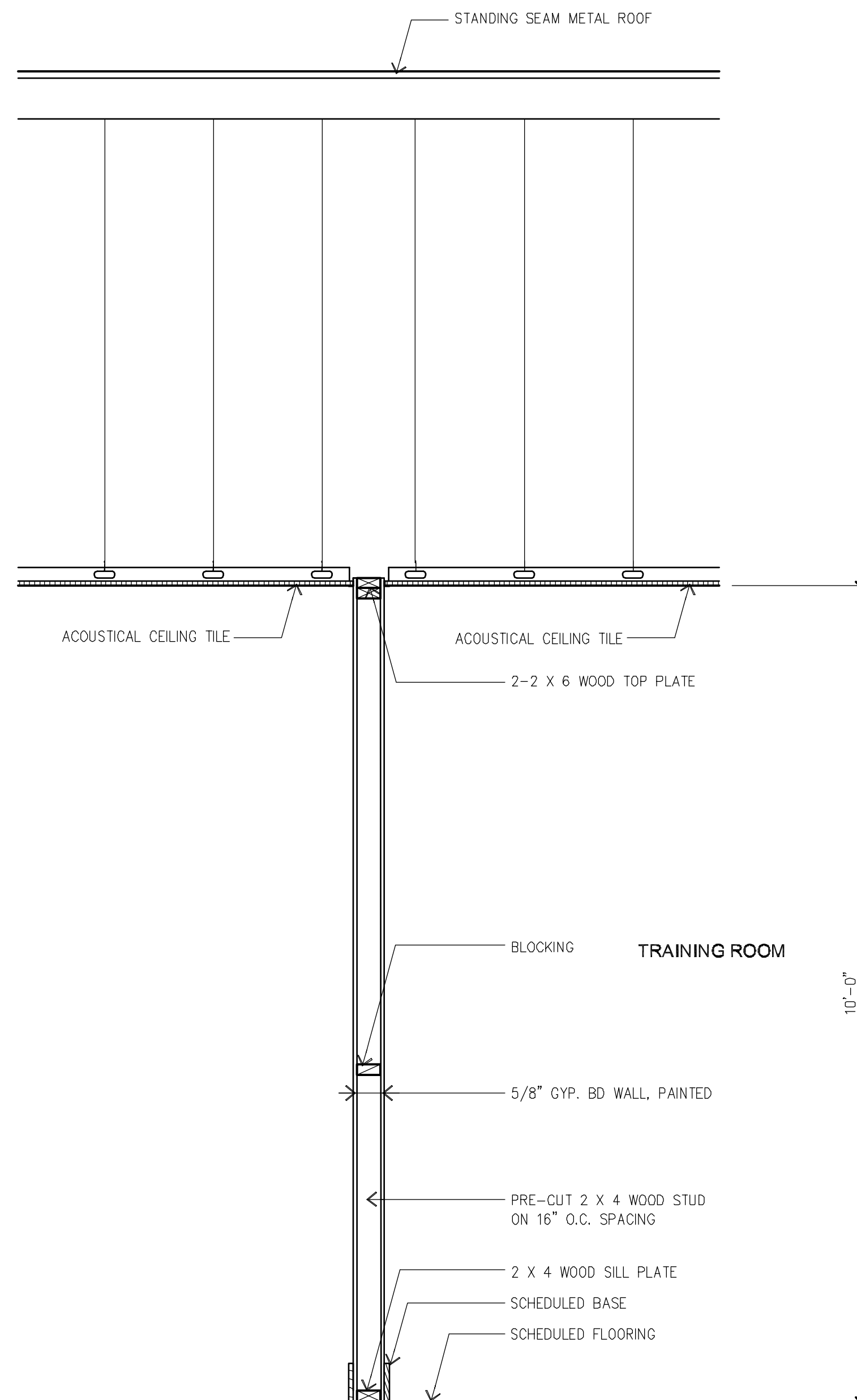
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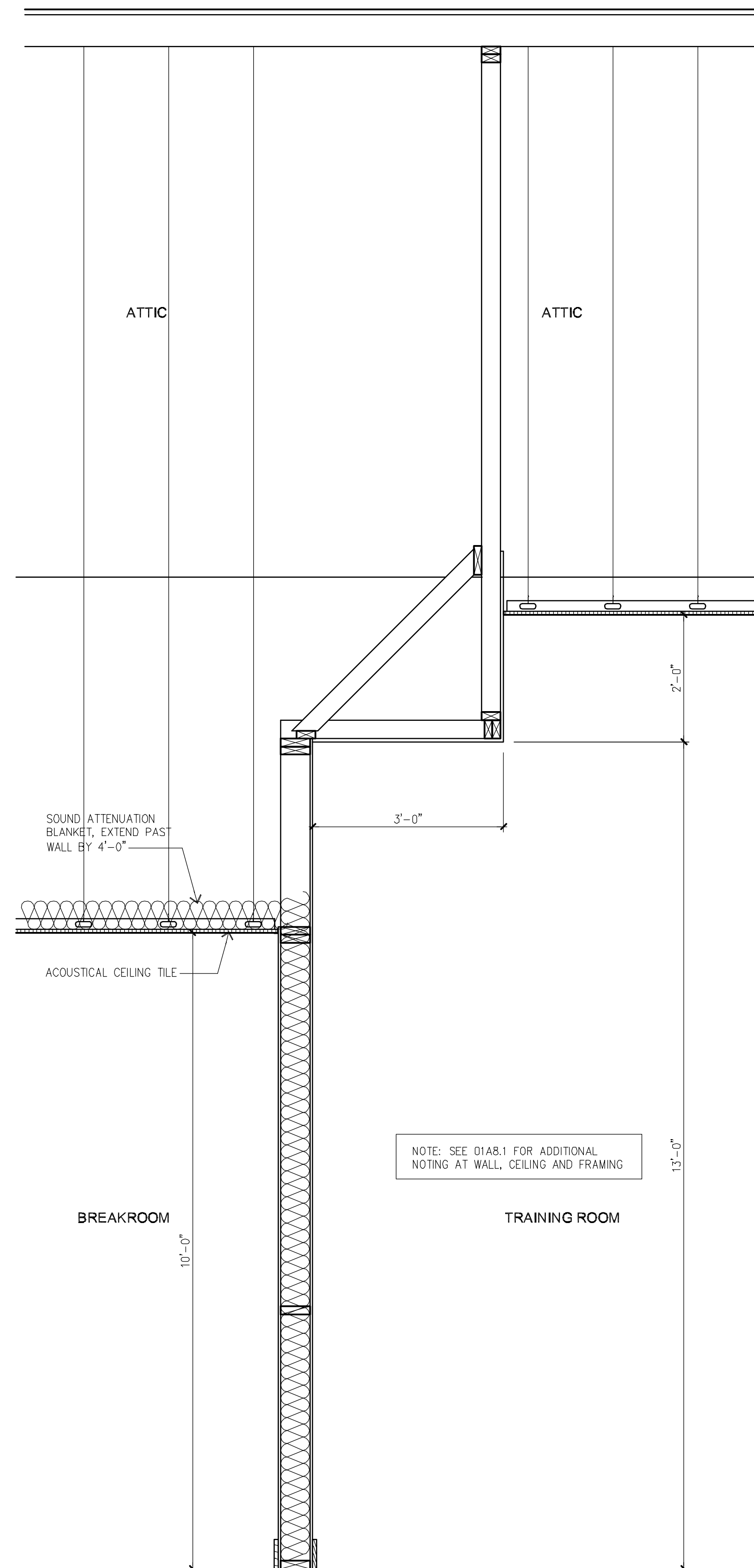
NOTE: PROVIDE SUMP PUMP, LIGHTING AND VENTILATION SYSTEM IN LUBE PIT, RE: MEP

SAFETY NET SYSTEM, BNS38-D, NETTING STYLE: WEB NET; POLYESTER WEB, BORDER STYLE: SEWN BORDER, CONTACT BAYNETS SAFETY SYSTEMS AT 1-860-537-1414 OR WWW.BAYNETS.COM, OR APPROVED EQUIVALENT



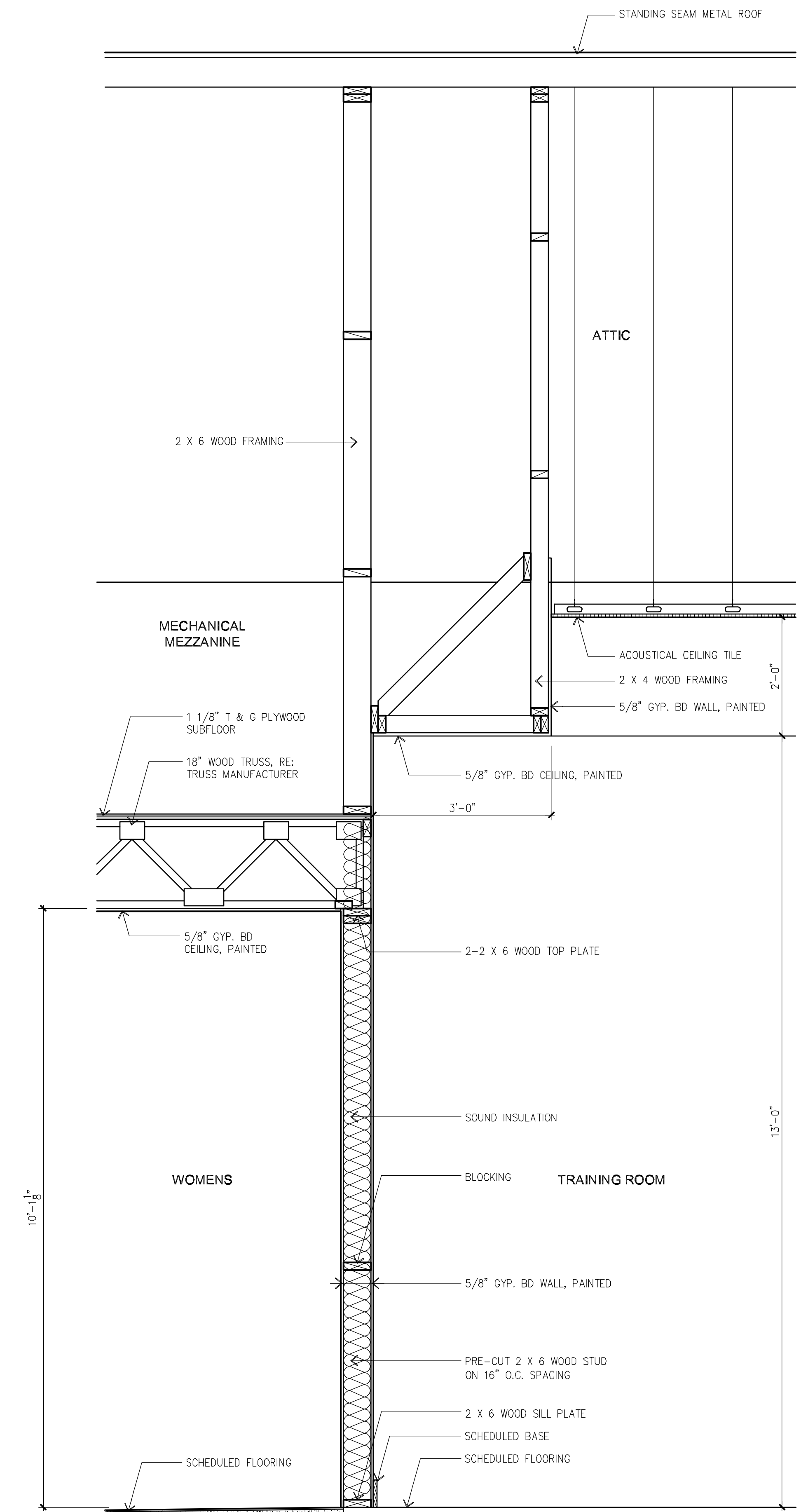
03 | WALL PARTITION C

SCALE: 3/4" = 1'-0"



02 | WALL PARTITION B

SCALE: 3/4" = 1'-0"



01 | WALL PARTITION A

SCALE: 3/4" = 1'-0"



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GUADALUPE COUNTY  
LUBE CENTER

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DATE: 5-2-14

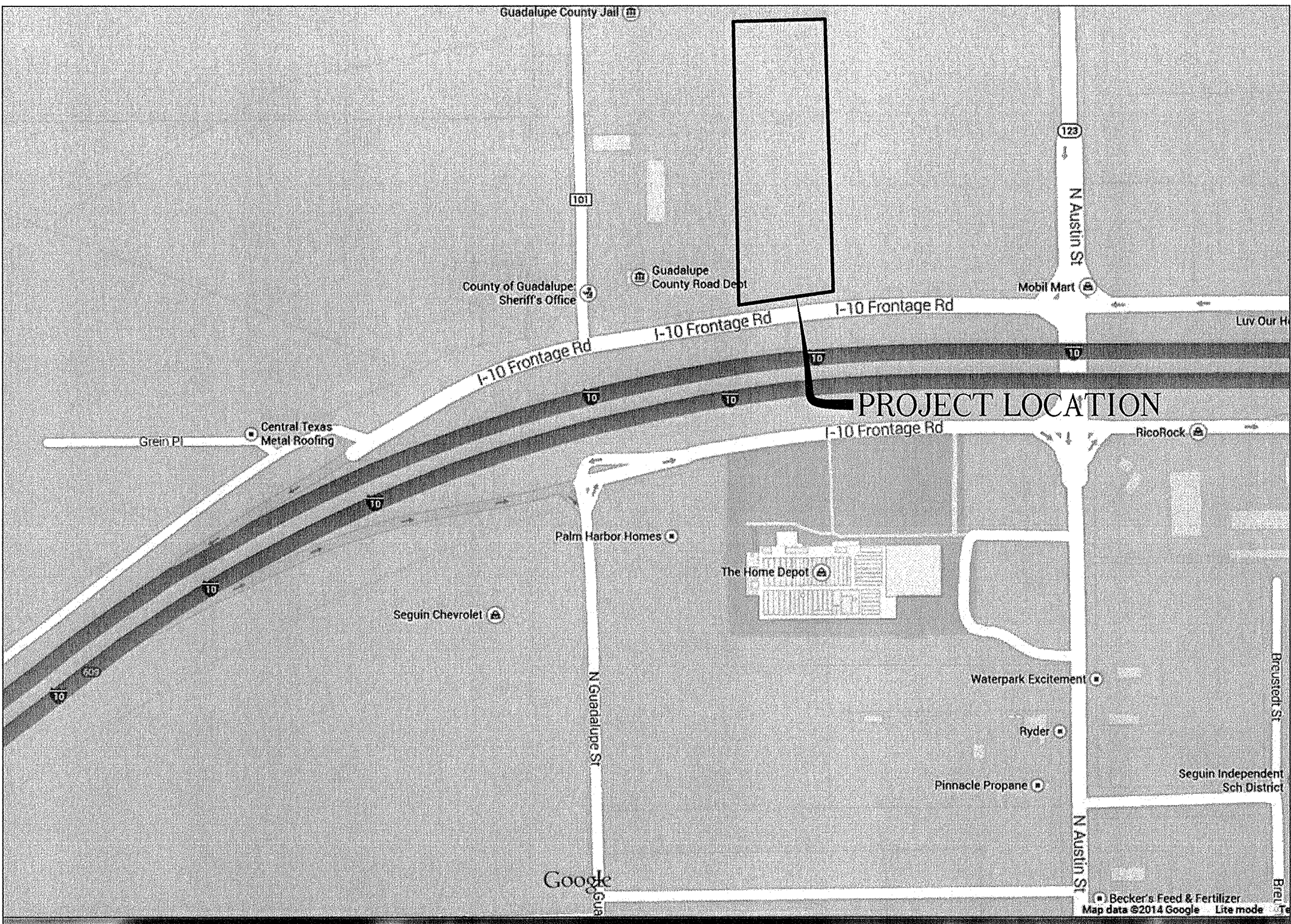


# GUADALUPE COUNTY LUBE CENTER

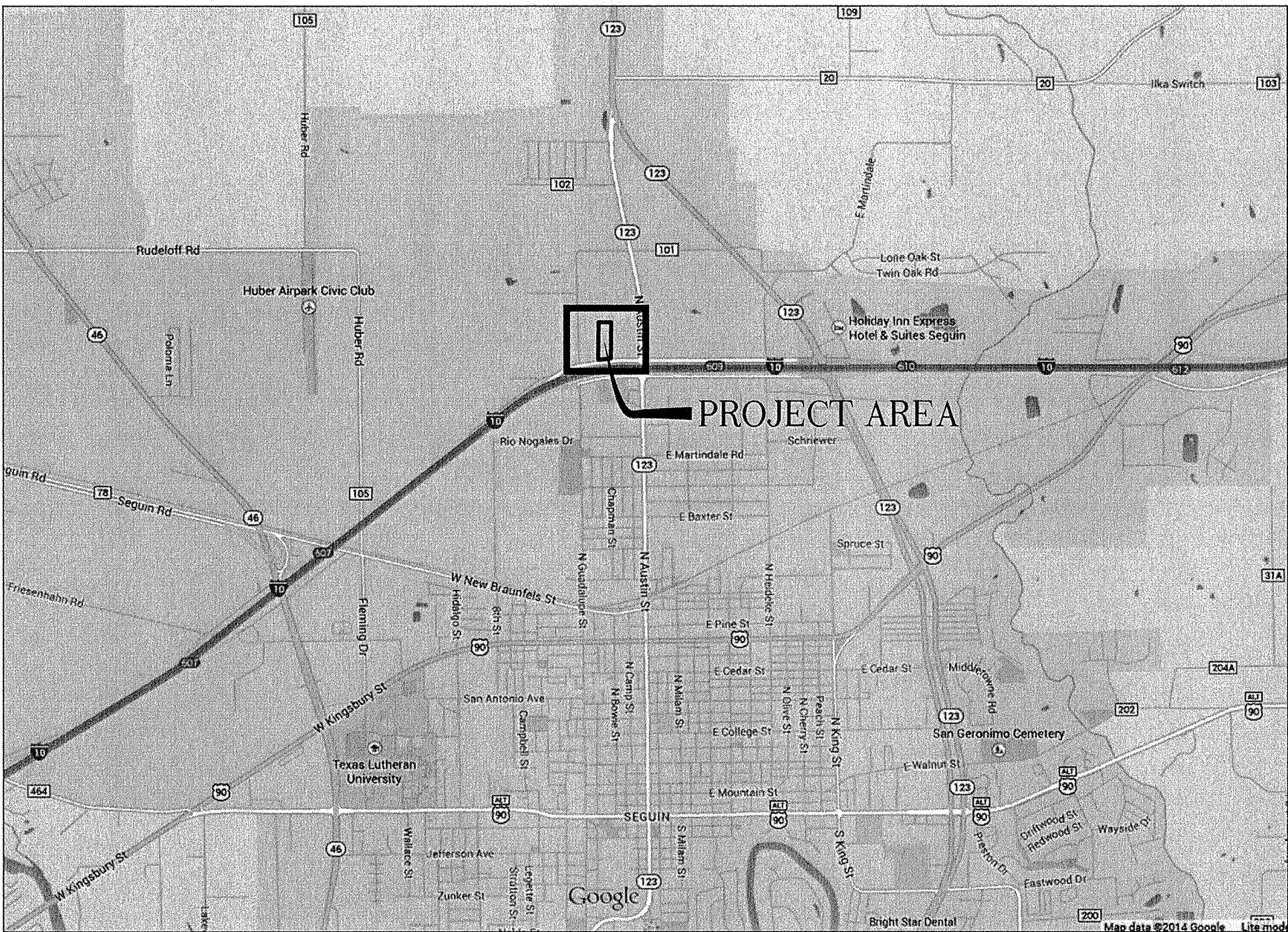
## SEGUIN, TEXAS GUADALUPE COUNTY

### INDEX OF DRAWINGS

- 1 COVER SHEET
- 2 GENERAL NOTES
- 3 EXISTING SITE PLAN
- 4 PROPOSED SITE PLAN
- 5 PROPOSED GRADING PLAN
- 6 PROPOSED GENERAL DETAILS
- 7 PROPOSED UTILITY PLAN
- 8 PROPOSED UTILITY DETAILS
- 9 STORM WATER POLLUTION PREVENTION PLAN
- 10 FOUNDATION DESIGN

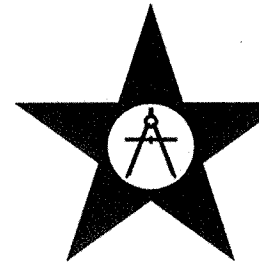


VICINITY MAP  
NOT TO SCALE



LOCATION MAP  
NOT TO SCALE

M & S



ENGINEERING, L.L.C.  
ENGINEERS, PLANNERS, AND SURVEYORS  
TEXAS REGISTERED ENGINEERING FIRM F-1394

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#### BRANCH OFFICES

P.O. BOX 391  
MCQUEENEY, TEXAS 78123  
387 WEST MILL STREET  
NEW BRAUNFELS, TEXAS 78130

DATE DRAWN  
JUNE 2014

SHEET

1

OF 10



GENERAL NOTES:

1. BLASTING IS NOT PERMITTED ON THIS PROJECT.
2. ALL CONSTRUCTION OPERATIONS SHALL BE ACCOMPLISHED IN ACCORDANCE WITH APPLICABLE REGULATIONS OF THE U.S. OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION.
3. THESE PLANS DO NOT EXTEND TO OR INCLUDE DESIGNS OR SYSTEMS PERTAINING TO THE SAFETY OF THE CONSTRUCTION CONTRACTOR OR ITS EMPLOYEES, AGENTS OR REPRESENTATIVES IN THE PERFORMANCE OF THE WORK. THE SEAL OF THE REGISTERED PROFESSIONAL ENGINEER(S) HEREON DOES NOT EXTEND TO ANY SUCH SAFETY SYSTEMS THAT MAY NOW OR HEREAFTER BE INCORPORATED IN THE WORK.
4. THE TRENCH EXCAVATION AND SHORING SAFETY SYSTEM, AS OUTLINED IN THE TECHNICAL SPECIFICATIONS, WILL BE REQUIRED AS A MINIMUM TRENCH SAFETY MEASURE.
5. CONTRACTOR SHALL ASSURE HIMSELF THAT ALL CONSTRUCTION PERMITS HAVE BEEN OBTAINED PRIOR TO COMMENCEMENT OF WORK. REQUIRED PERMITS THAT CAN ONLY BE ISSUED TO CONTRACTOR ARE TO BE OBTAINED AT THE CONTRACTORS EXPENSE.
6. CONTRACTOR SHALL GIVE A MINIMUM OF 48 HOURS NOTICE TO ALL AUTHORIZED INSPECTORS, SUPERINTENDENTS, OR PERSONS IN CHARGE OF PRIVATE AND PUBLIC UTILITIES AFFECTED BY HIS OPERATIONS PRIOR TO COMMENCEMENT OF WORK.
7. CONTRACTOR SHALL TAKE ALL DUE PRECAUTIONS TO PROTECT EXISTING FACILITIES FROM DAMAGE. ANY DAMAGE TO EXISTING FACILITIES INCURRED AS A RESULT OF THESE CONSTRUCTION OPERATIONS ARE TO BE REPAIRED IMMEDIATELY BY THE CONTRACTOR TO AT LEAST THE PRE-EXISTING CONDITION AT NO ADDITIONAL COST TO OWNER.
8. LOCATION OF EXISTING UTILITIES SHOWN ON PLANS ARE APPROXIMATE. NO WARRANTY IS IMPLIED AS TO THE ACTUAL LOCATION OF EXISTING UTILITIES. CONTRACTOR TO FIELD VERIFY LOCATIONS OF EXISTING UTILITIES PRIOR TO COMMENCEMENT OF CONSTRUCTION.
9. WHEN UNLOCATED OR INCORRECTLY LOCATED UNDERGROUND PIPING OR A BREAK IN A LINE OR OTHER UTILITIES AND SERVICES ARE ENCOUNTERED DURING SITE WORK OPERATIONS, THE CONTRACTOR SHALL NOTIFY THE APPLICABLE UTILITY COMPANY IMMEDIATELY TO OBTAIN PROCEDURE DIRECTIONS. THE CONTRACTOR SHALL COOPERATE WITH THE APPLICABLE UTILITY COMPANY IN MAINTAINING ACTIVE SERVICES IN OPERATION.
10. THE CONTRACTOR SHALL MAINTAIN ACCESS TO PUBLIC AND PRIVATE FACILITIES DURING CONSTRUCTION. CONSTRUCTION ACTIVITIES TO BE COORDINATED WITH THE OWNER.
11. THE CONTRACTOR SHALL COORDINATE INTERRUPTIONS OF ALL UTILITIES AND SERVICES WITH APPLICABLE UTILITY COMPANY OR COMPANIES. ALL WORK SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE APPLICABLE UTILITY COMPANY OR AGENCY INVOLVED.
12. THE CONTRACTOR SHALL LOCATE, PROTECT, AND MAINTAIN BENCHMARKS, MONUMENTS, AND CONTROL POINTS. RE-ESTABLISH DISTURBED OR DESTROYED ITEMS BY REGISTERED PUBLIC SURVEYOR IN THE STATE OF TEXAS AT NO ADDITIONAL COST TO OWNER.
13. EXISTING PAVING, BUILDING, AND OTHER ITEMS SHOWN ON THESE PLANS NOT SPECIFICALLY RELATED TO THE WORK OF THE CONTRACTOR IS FOR INFORMATION ONLY.
14. DEMOLITION PERMITS (IF NEEDED) ARE TO BE OBTAINED BY THE CONTRACTOR.
15. EXISTING SURFACE AND SUBSURFACE STRUCTURES (GAS MAINS, WATER MAINS, STORM SEWER, TELEPHONE CABLES, ETC.) ARE SHOWN ON THE PLANS IF THEIR LOCATION HAS BEEN DETERMINED, BUT IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO AVOID DAMAGING THESE EXISTING STRUCTURES WHETHER OR NOT THEY ARE SHOWN ON THE PLANS. THE OWNER AND ENGINEER ASSUME NO RESPONSIBILITY FOR FAILURE TO SHOW ANY OR ALL OF THESE STRUCTURES ON THE PLANS OR TO SHOW THEM IN THEIR EXACT LOCATION. IF ANY STRUCTURES IS DAMAGED BY THE CONTRACTOR, IT SHALL BE HIS RESPONSIBILITY TO REPAIR THE DAMAGE AT HIS EXPENSE AND RESTORE THE STRUCTURE TO IS ORIGINAL CONDITION.
16. THE ORIGINAL PLANS FOR THIS PROJECT WERE PREPARED ON FULL SIZE STANDARD SHEETS (24" x 36"), THE SPECIFIC SCALE FOR THE INDIVIDUAL UNITS WOULD BE TRUE ONLY ON THE ORIGINAL TRACING. REPRODUCED COPIES, REDUCTIONS OR OTHER METHODS OF PRINTING MAY CHANGE OR ALTER THE SCALE. THE ENGINEER IS NOT RESPONSIBLE FOR SCALE DIMENSIONS UTILIZED BY OTHERS ON THESE PLANS.
17. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO VERIFY LOCATIONS, ELEVATIONS AND DIMENSIONS OF ADJACENT AND/OR CONFLICTING UTILITIES IN ADVANCE OF CONSTRUCTION IN ORDER THAT ADJUSTMENTS CAN BE MADE TO PROVIDE ADEQUATE CLEARANCE, IF REQUIRED. THE CONTRACTOR SHALL PRESERVE AND PROTECT PUBLIC UTILITIES AT ALL TIMES DURING CONSTRUCTION. ANY DAMAGE TO UTILITIES RESULTING FROM THE CONTRACTORS OPERATIONS SHALL BE RESTORED AT HIS EXPENSE. THE ENGINEER SHALL BE NOTIFIED WHEN PROPOSED FACILITY GRADES CONFLICT WITH EXISTING UTILITY GRADES.
18. ALL CONCEPTS, IDEAS, DESIGNS, ARRANGEMENTS, AND PLANS INDICATED OR REPRESENTED BY THESE INSTRUMENTS, AS OUTLINED ON THE TITLE SHEET INDEX, AND BY ANY ADDENDUM ARE OWNED BY AND ARE THE PROPERTY OF M & S ENGINEERING, LTD. AND WERE CREATED AND DEVELOPED FOR THE USE ON AND IN CONNECTION WITH THE SPECIFIED PROJECT. THESE CONCEPTS, IDEAS, DESIGN, ARRANGEMENTS, OR PLANS SHALL NOT BE USED BY ANY PERSON, FIRM OR CORPORATION FOR ANY PURPOSE WHATSOEVER WITHOUT THE WRITTEN PERMISSION AND CONSENT OF M & S ENGINEERING, LTD. OF SPRING BRANCH, TEXAS.
19. A PRE-CONSTRUCTION CONFERENCE IS TO BE HELD PRIOR TO BEGINNING CONSTRUCTION. THE CONFERENCE SHALL TAKE PLACE AT A LOCATION SELECTED BY OWNER AND ENGINEER. CONTRACTOR TO ARRANGE A MEETING DATE WITH THE OWNER AT LEAST SEVEN DAYS PRIOR TO THE MEETING TIME.

GENERAL ENVIRONMENTAL NOTES:

1. CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE LOCAL, STATE AND FEDERAL REQUIREMENTS REGARDING EXCESS AND WASTE MATERIALS, INCLUDING METHODS OF HANDLING AND DISPOSAL.
2. CONTRACTOR SHALL LOCATE MATERIAL STORAGE AREAS AWAY FROM STORM WATER CONVEYANCE SYSTEMS. PROVIDE PROTECTED STORAGE AREAS FOR CHEMICALS, PAINTS, SOLVENTS, FERTILIZERS, AND OTHER POTENTIALLY TOXIC MATERIALS.
3. FUEL STORAGE IS NOT ALLOWED ON THIS PROJECT.
4. THE CONTRACTOR SHALL ADVISE OWNER IMMEDIATELY, VERBALLY AND IN WRITING, OF ANY FUEL OR TOXIC MATERIALS SPILLS WITHIN THE PROJECT/CONSTRUCTION AREA AND THE ACTIONS TO BE TAKEN TO REMEDY THE PROBLEM.
5. THE CONTRACTOR SHALL DISPOSE OF FUELS, HAZARDOUS MATERIALS, AND CONTAMINATED EXCAVATIONS IN A LEGALLY APPROVED MANNER.
6. NO OPEN BURNING IS ALLOWED ON THIS PROJECT.

STORM WATER NOTES:

1. THROUGHOUT THE CONSTRUCTION, AND AT THE COMPLETION OF CONSTRUCTION, THE CONTRACTOR SHALL ASSURE THAT DRAINAGE OF STORM WATER RUNOFF IS NOT BLOCKED.

SITE GRADING NOTES:

1. THE CONTRACTOR SHALL CONTROL DUST CAUSED BY THE WORK AND COMPLY WITH POLLUTION CONTROL REGULATIONS OF GOVERNING AUTHORITIES.
2. ALL EXCESS EXCAVATED MATERIAL IS TO BE REMOVED FROM THE SITE. THE EXCESS EXCAVATION MATERIAL SHALL NOT BE STOCKPILED.
3. ADJUST MANHOLES COVERS, VALVE BOXES, ELECTRICAL MANHOLES, ETC. TO MATCH PROPOSED FINISHED GRADE (NO SEPARATE PAY).

UTILITY NOTES:

1. EXISTING UTILITIES IN THE AREA ARE SHOWN IN ACCORDANCE WITH ASCE 38-02 "STANDARD GUIDELINES FOR THE COLLECTION AND DEPICTION OF EXISTING SUBSURFACE UTILITY DATA" AS SPECIFIED IN THE SIGNED CONTRACT SCOPE OF WORK. IT IS THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY THE TEXAS ONE CALL CENTER PRIOR TO THE START OF ANY CONSTRUCTION. IT IS THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY THE EXACT LOCATION AND DEPTH OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK.
2. ALL UTILITY SYMBOLS SHOWN REPRESENT APPROXIMATE LOCATIONS UNLESS OTHERWISE NOTED. CONTRACTOR SHALL REFER TO THE APPROPRIATE AGENCY'S STANDARD SPECIFICATIONS AND INSTALLATION DETAILS FOR ACTUAL LOCATIONS UNLESS OTHERWISE DIRECTED BY THE ENGINEER.

SAFETY FENCE NOTES:

1. SAFETY FENCE SHALL BE USED TO PROTECT ALL EXCAVATIONS AND TO SEPARATE CONSTRUCTION ACTIVITIES FROM PEDESTRIAN, DURING THE ENTIRE CONSTRUCTION PERIOD.
2. ALL SAFETY FENCING SHALL BE PLASTIC, 4' MINIMUM HEIGHT AND ORANGE IN COLOR.
3. SAFETY FENCE USED WITHIN THE ROADWAY SHALL BE REFLECTORIZED WITH A MINIMUM OF TWO (2) STRIPS OF RETROREFLECTIVE MATERIAL. A MINIMUM OF 1' WIDE THE LENGTH OF THE FENCE OR DELINEATED BY CHANNELIZING DEVICES.
4. SAFETY FENCE USED TO SEPARATE SIDEWALKS FROM CONSTRUCTION ACTIVITIES SHALL HAVE MINIMUM ENCROACHMENT TO THE SIDEWALK.
5. FENCE MATERIAL SHALL BE SUPPORTED FROM 1/4" DIA. NYLON ROPE FROM POSTS SPACED ON A MAXIMUM 8 FT. CENTERS. POSTS SHALL EXTEND 4' ABOVE NATURAL GROUND. FENCE MATERIAL SHALL BE SECURED TO POSTS W/ PLASTIC WIRE TIES, MINIMUM 3 PER POST.
6. POST SHALL INCLUDE SUPPORT BRACES SUFFICIENT TO HANDLE ALL LOADS.
7. PAYMENT FOR SECURITY FENCE SHALL BE BASED ON A LUMP SUM FOR EACH EXTENSION INCLUDING ALL INCIDENTAL WORK (LABOR, MATERIALS, EQUIPMENT, ETC.)

GUADALUPE COUNTY  
LUBE CENTER  
GENERAL NOTES

JOB: 13GUADCO001

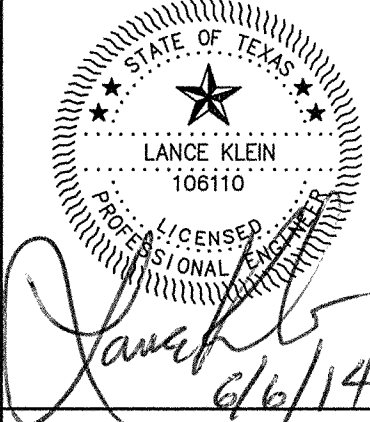
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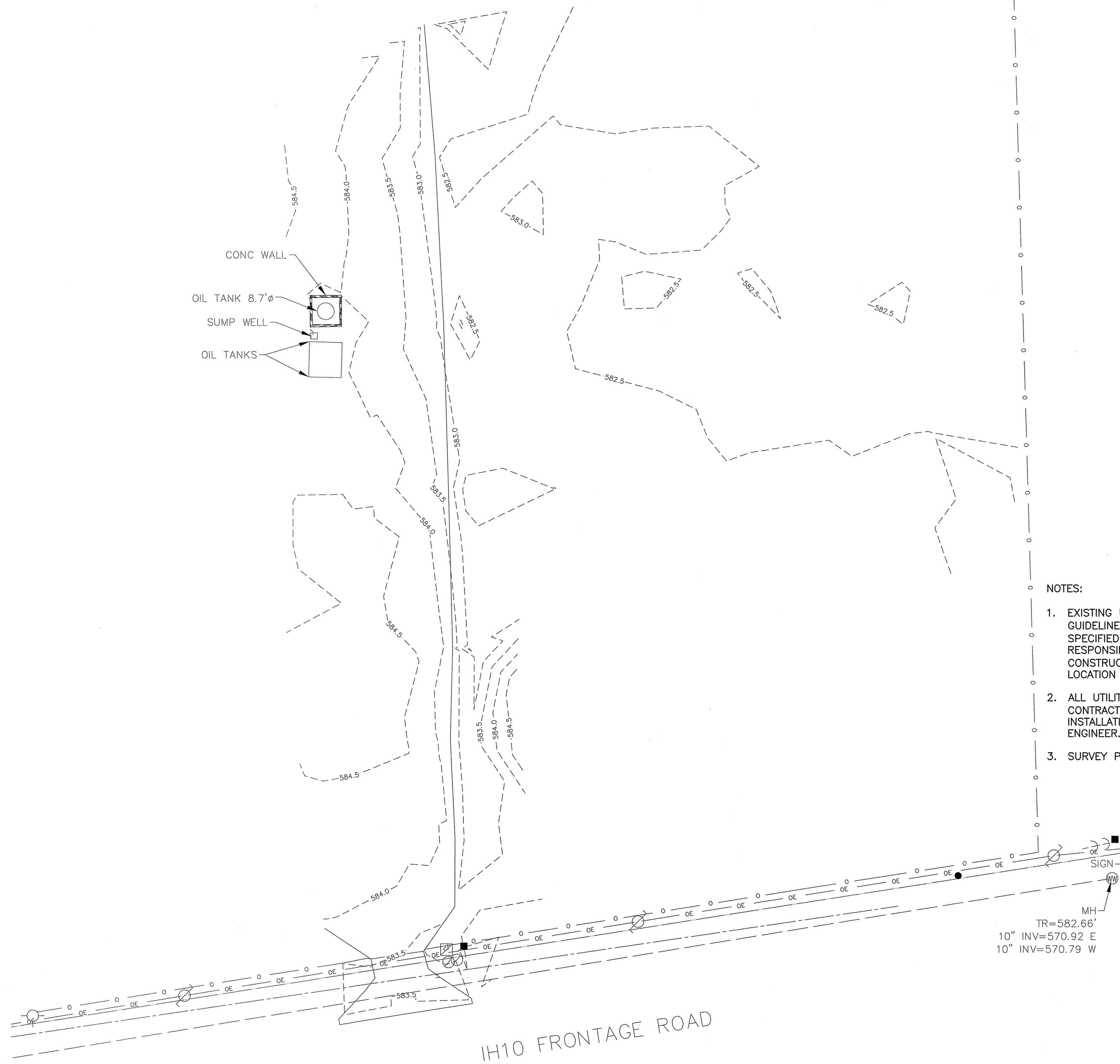
SHEET:



MAIN OFFICE  
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SPRING BRANCH, TEXAS 78070  
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FAX # (630) 885-2170

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BRANCH OFFICES  
P.O. BOX 391  
MCQUEENET, TEXAS 78123  
387 WEST MILL STREET  
NEW BRAUNFELS, TEXAS 78130



CONC WALL  
OIL TANK 8.7'  $\phi$   
SUMP WELL  
OIL TANKS

MH  
TR=582.66'  
10" INV=570.92 E  
10" INV=570.79 W

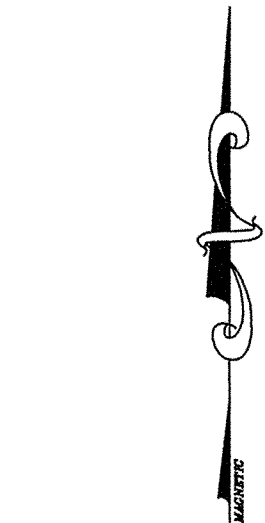
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3. SURVEY PROVIDED BY SHERWOOD SURVEYING.

LEGEND:

- |             |  |
|-------------|--|
| ●           | EXIST 1/2" IRON ROD FOUND (UNLESS NOTED) |
| ■           | EXIST MONUMENT FOUND                     |
| — o —       | EXIST CHAIN LINK FENCE                   |
| ————        | EXIST COMPACTED BASE                     |
| --- 300 --- | EXIST CONTOUR                            |
| ⊕           | EXIST POWER POLE                         |
| ⊖           | EXIST DOWN GUY                           |
| ⊙           | EXIST FIRE HYDRANT                       |
| ⊗           | EXIST WATER VALVE                        |
| ⊠           | EXIST WATER METER                        |
| Ⓢ           | EXIST WASTEWATER MANHOLE                 |

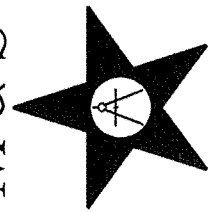
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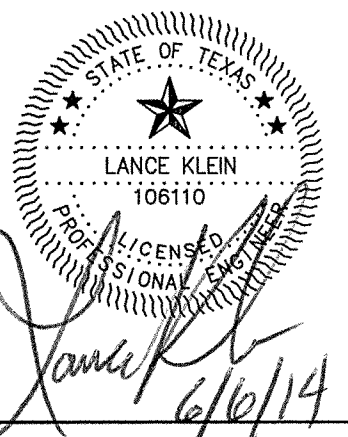
**IM & S**

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**P.O. BOX 970**  
**PHONE # (830) 228-5446**  
**FAX # (830) 885-2170**

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**P.O. BOX 391**  
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**NEW BRAUNFELS, TEXAS 78130**



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**ADALUPE COUNTY**  
**LUBE CENTER**  
EXISTING SITE PLAN

3: 13GUADC0001

TE: JUNE 2014

SCALE: 1" = 30'

INTERNAL REVIEW:

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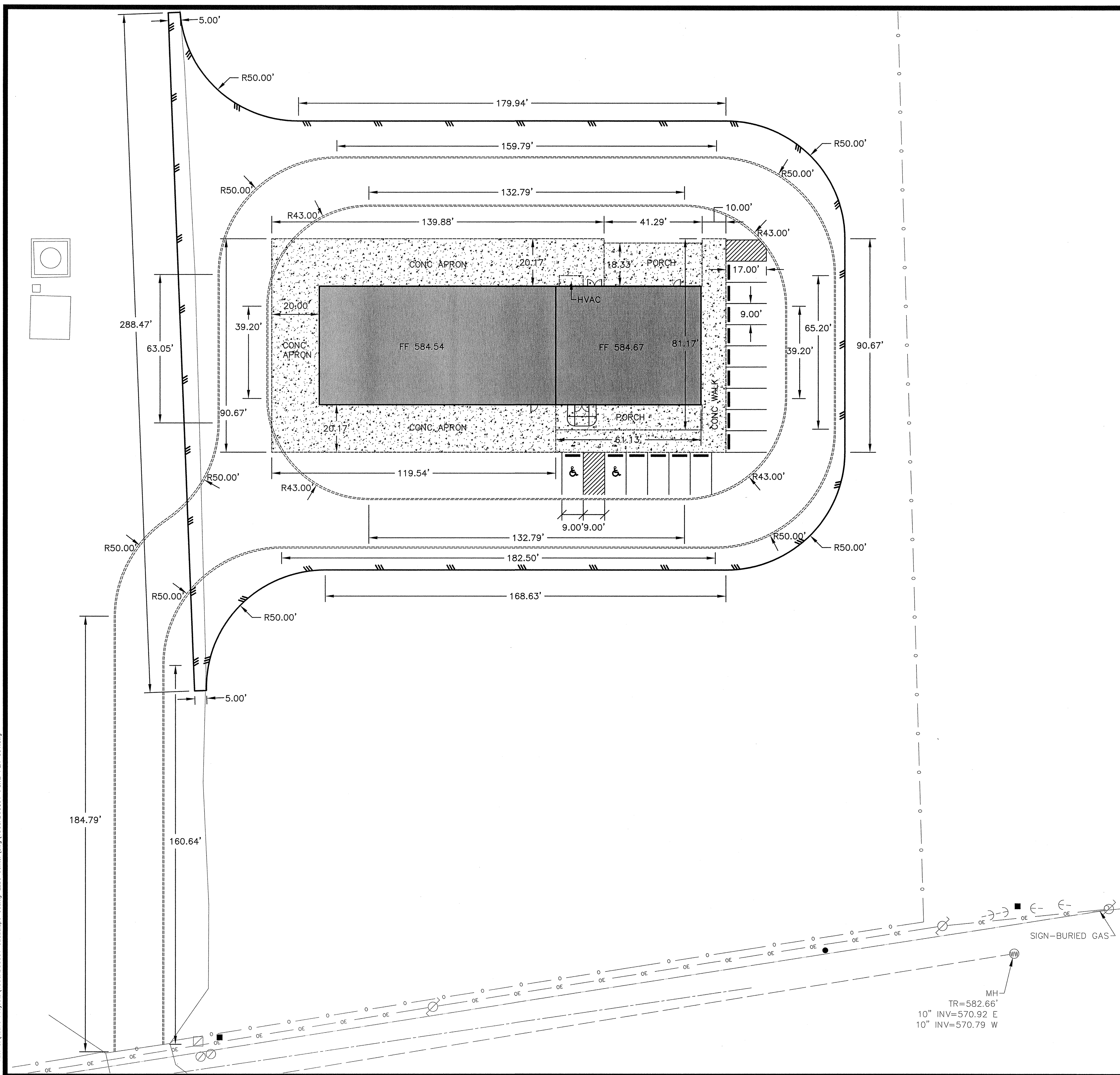
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LEGEND:

- EXIST 1/2" IRON ROD FOUND (UNLESS NOTED)
- EXIST MONUMENT FOUND
- EXIST CHAIN LINK FENCE
- ⊙ EXIST POWER POLE
- ⊖ EXIST DOWN GUY
- ⊕ EXIST FIRE HYDRANT
- ⊗ EXIST WATER VALVE
- ⊘ EXIST WATER METER
- ⊙ EXIST WASTEWATER MANHOLE
- ══ PROP EDGE OF PAVEMENT
- PROP EDGE OF CONCRETE
- ===== PROP FIRE LANE
- PROP WHEEL STOP

NOTE:  
A GEOTECHNICAL ENGINEERING STUDY WAS PERFORMED BY  
ROCK ENGINEERING & TESTING LABORATORY, INC ON JANUARY 28,  
2014 FOR THE PROPOSED PROJECT AREA. REFER TO THIS DOCUMENT  
FOR ALL SPECIFICATIONS REGARDING SITE PREPARATION, EARTHWORK,  
BUILDING PAD PREPARATION, MATERIALS, CONSTRUCTING TESTING, ETC...

REVISIONS

NO.	DESCRIPTION	DATE

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387 WEST MILL STREET  
NEW BRAUNFELS, TEXAS 78130

MAIN OFFICE

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FAX # (830) 885-2170

**ENGINEERING, L.L.C.**  
ENGINEERS, PLANNERS AND SURVEYORS  
TEXAS REGISTERED ENGINEERING FIRM E-1394



**GUADALUPE COUNTY**  
**LUBE CENTER**  
**PROPOSED SITE PLAN**

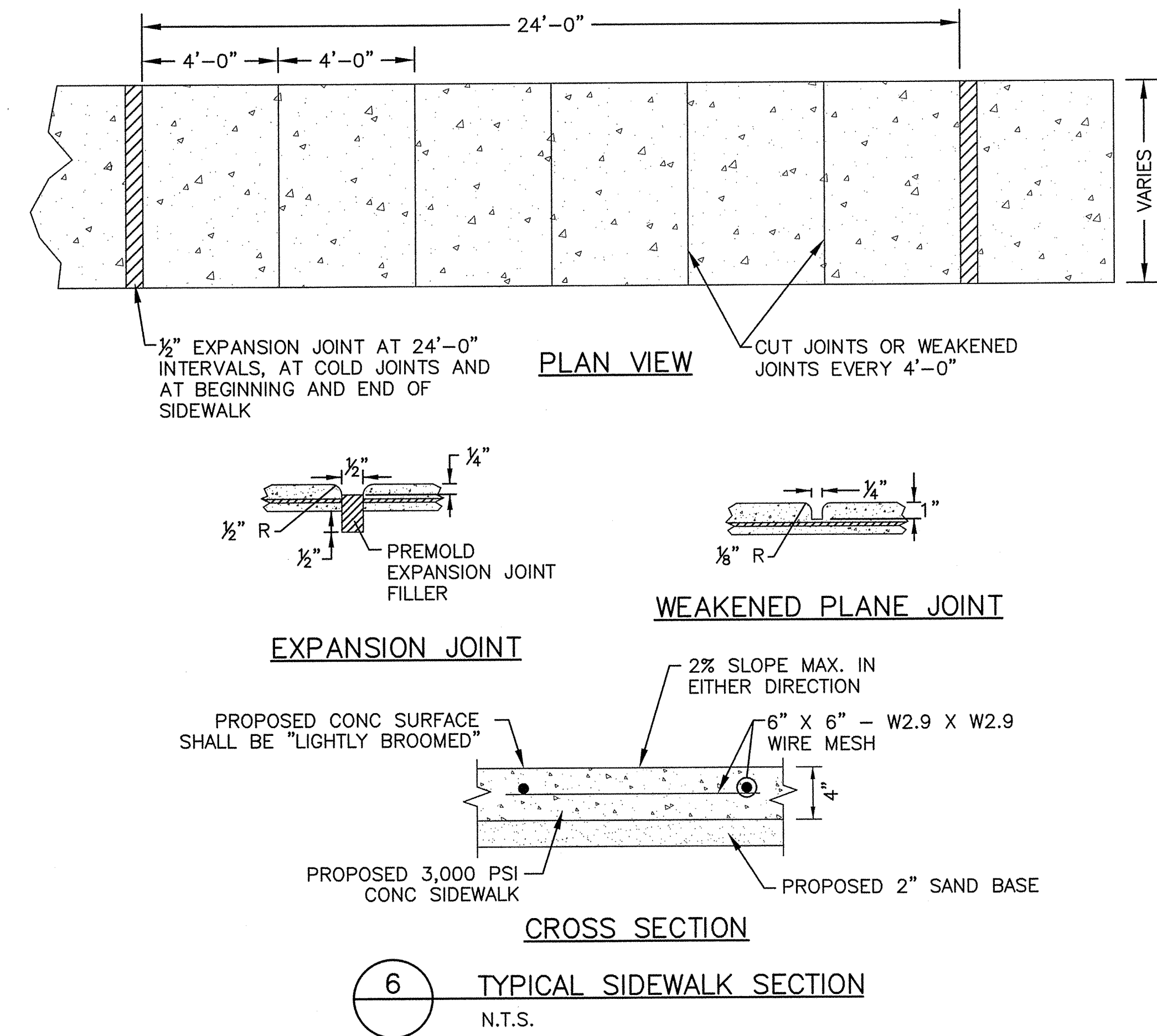
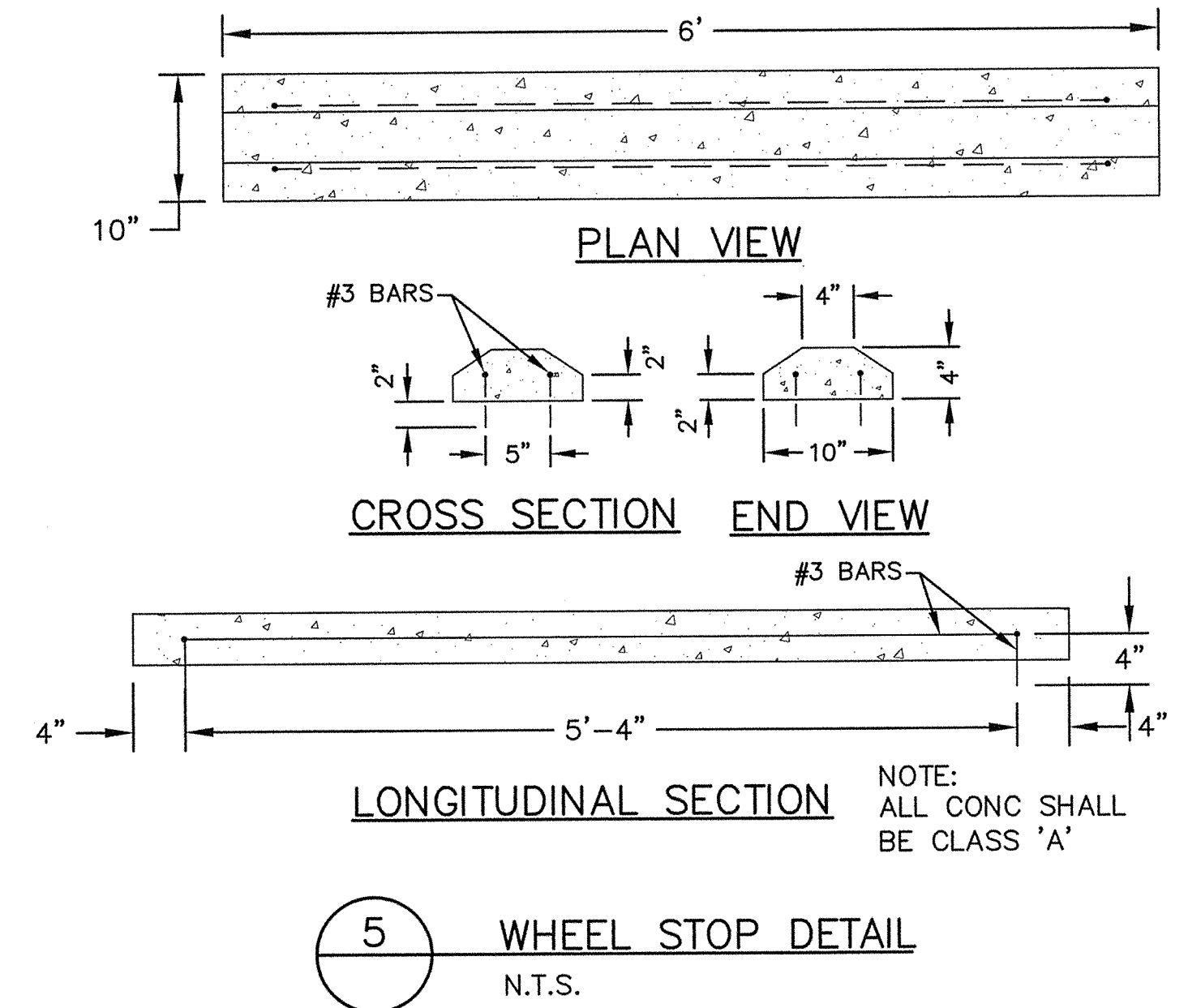
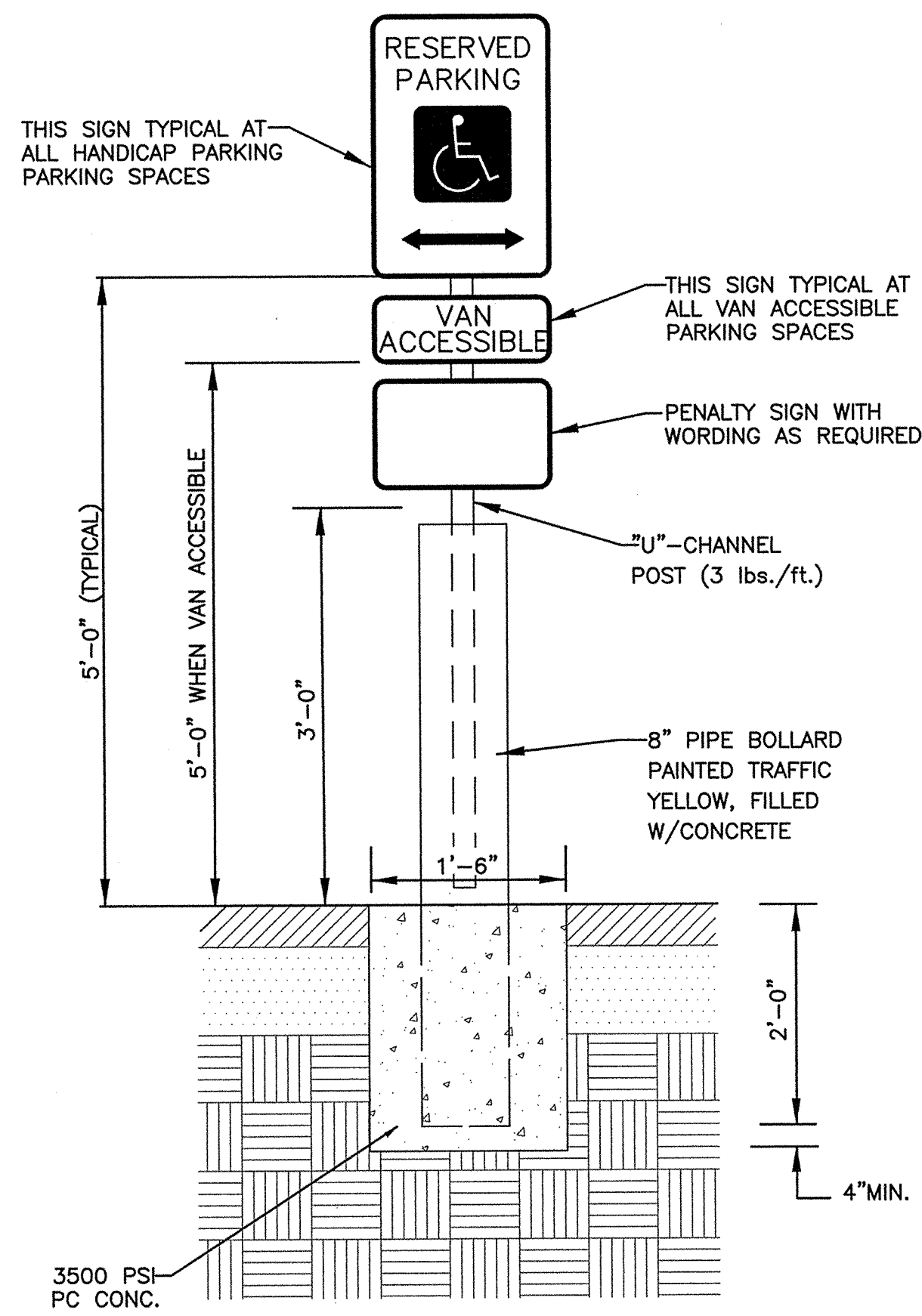
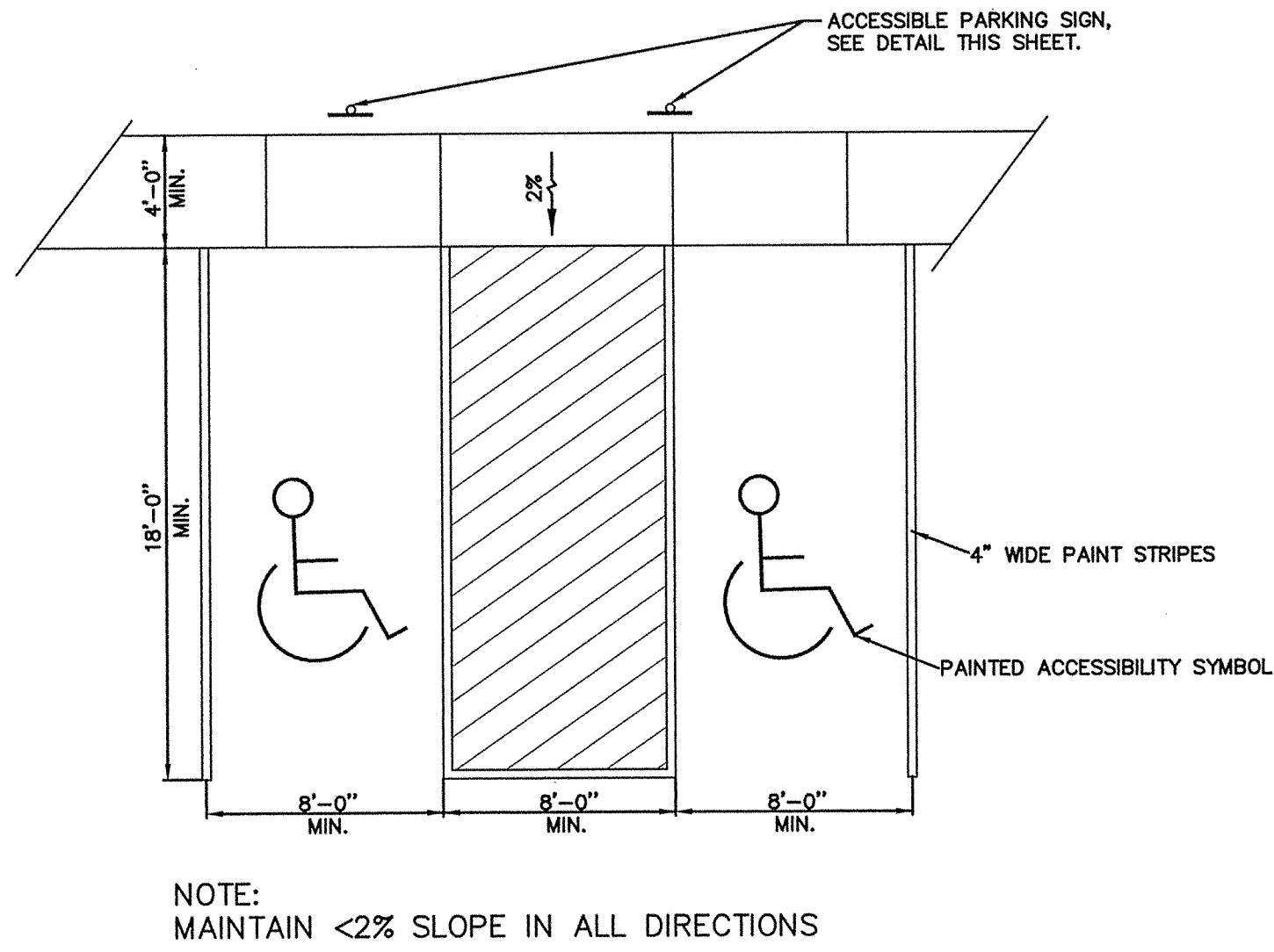
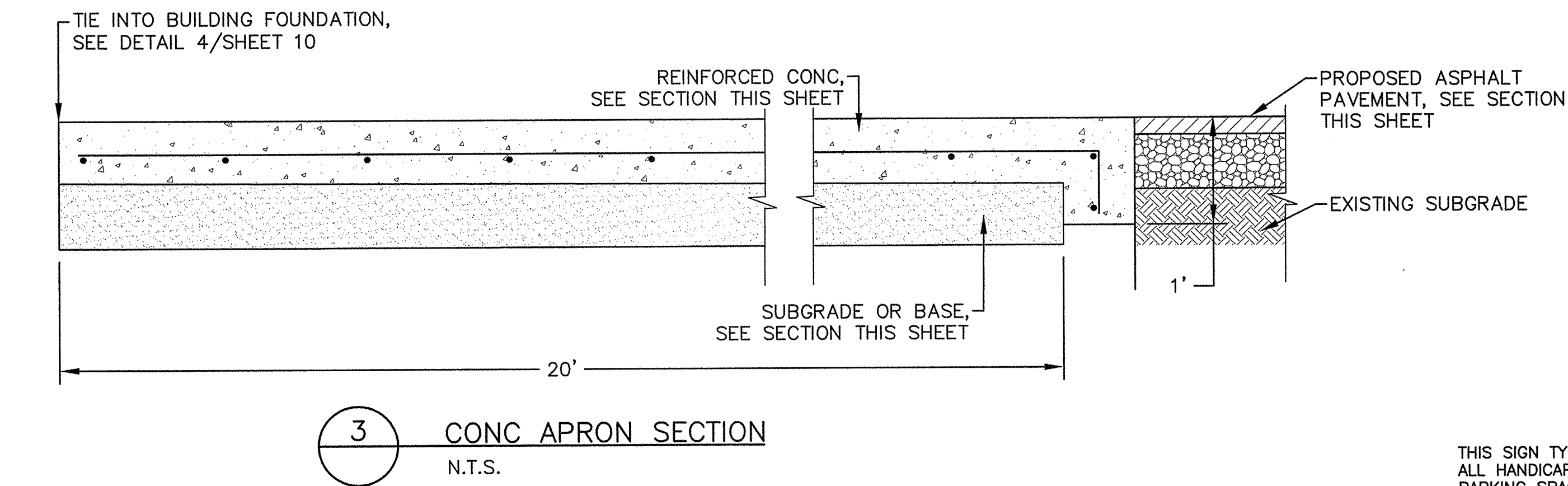
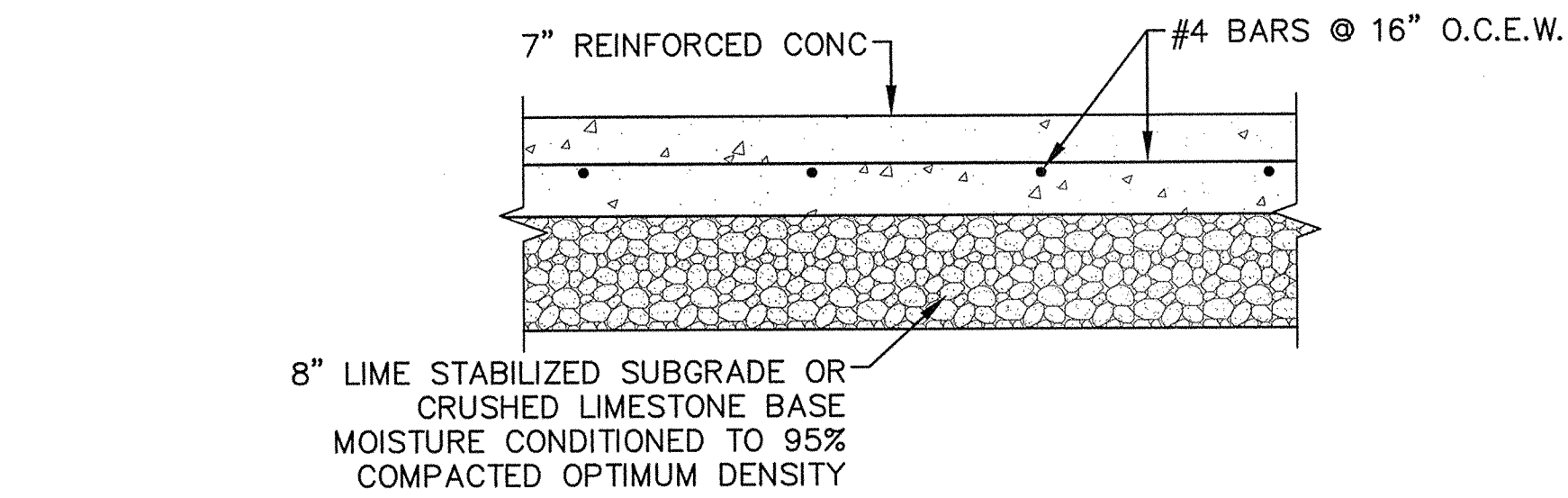
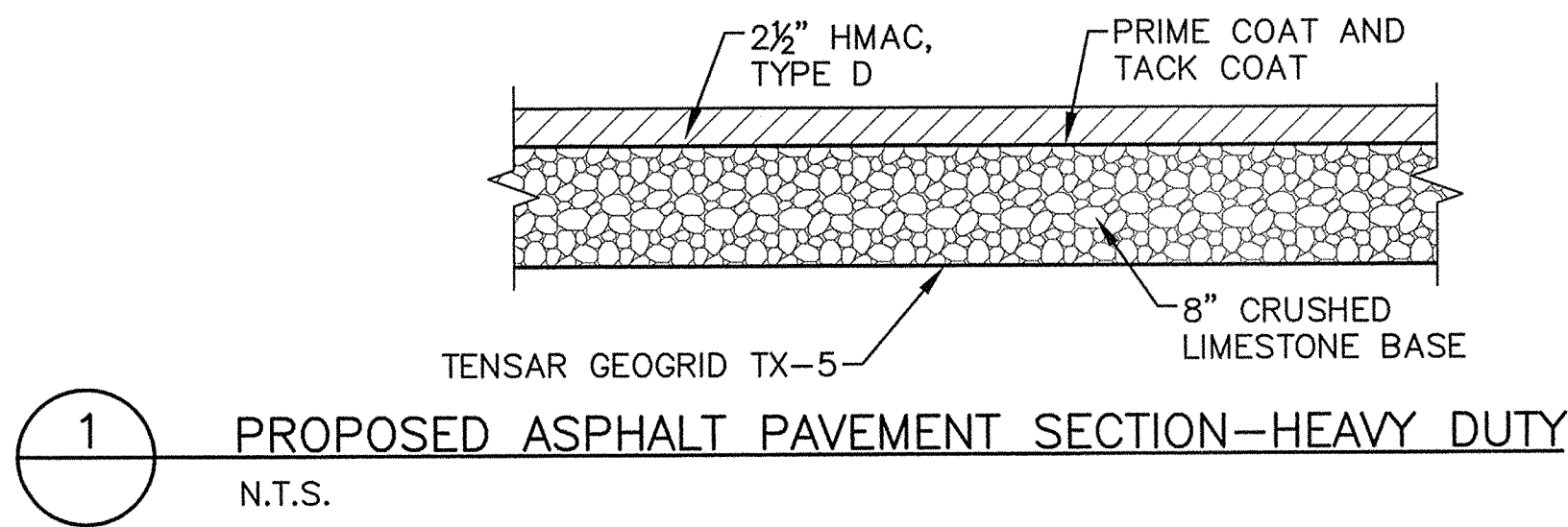
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DATE: JUNE 2014  
SCALE: 1" = 20'

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NOTE:  
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REVISIONS

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NEW BRAUNFELS, TEXAS 78130

MAIN OFFICE

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FAX # (830) 885-2170

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ENGINEERS, PLANNERS AND SURVEYORS

TEXAS REGISTERED ENGINEERS PRN E-1394

GUADALUPE COUNTY

LUBE CENTER

PROPOSED GENERAL DETAILS

JOB: 13GUADCO001

DATE: JUNE 2014

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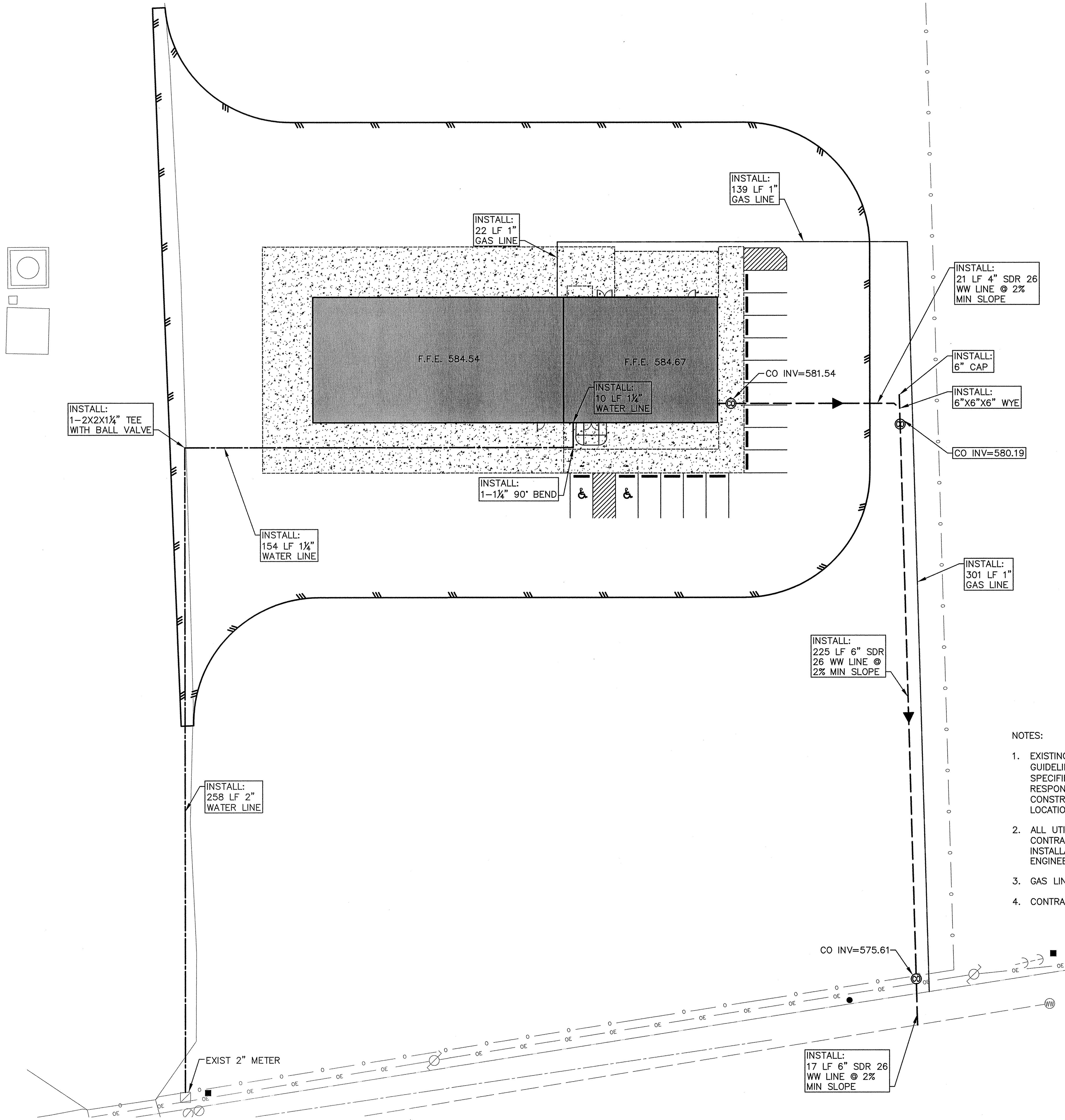
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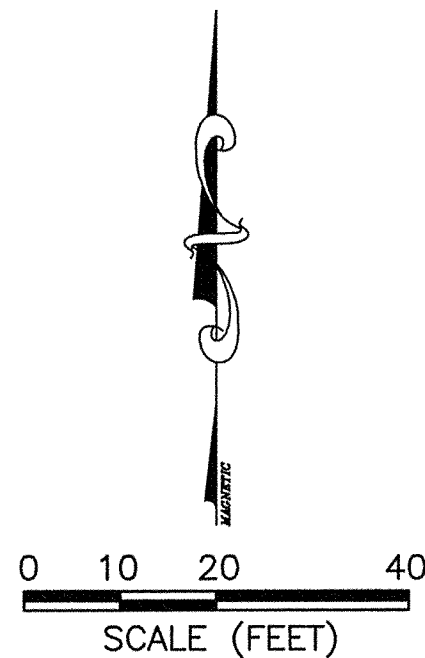


LEGEND:

- EXIST 1/2" IRON ROD FOUND (UNLESS NOTED)
- EXIST MONUMENT FOUND
- ⊖ EXIST POWER POLE
- ⊖ EXIST DOWN GUY
- ⊖ EXIST WATER VALVE
- ⊖ EXIST WATER METER
- ⊖ EXIST WASTEWATER MANHOLE
- EXIST CHAIN LINK FENCE
- OE — EXIST OVERHEAD ELECTRIC
- EXIST WATER LINE
- EXIST WASTEWATER
- ⊖ PROP WASTEWATER CLEANOUT
- ▶ PROP WASTEWATER FLOW DIRECTION
- ══ PROP EDGE OF PAVEMENT
- ══ PROP WATER LINE
- ══ PROP WASTEWATER
- ══ PROP GAS LINE

NOTES:

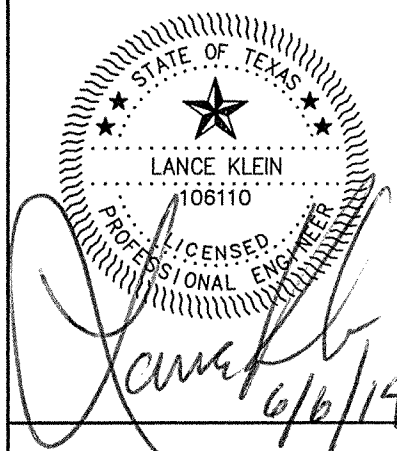
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- GAS LINE TO BE INSTALLED BY CENTERPOINT ENERGY.
- CONTRACTOR TO TIE-IN TO EXISTING 2" WATER METER WITH PROPOSED 2" WATER LINE.



REVISIONS

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PHONE # (830) 228-5446  
FAX # (830) 865-2170



GUADALUPE COUNTY  
LUBE CENTER  
PROPOSED UTILITY PLAN

JOB: 13GUADCO001

DATE: JUNE 2014

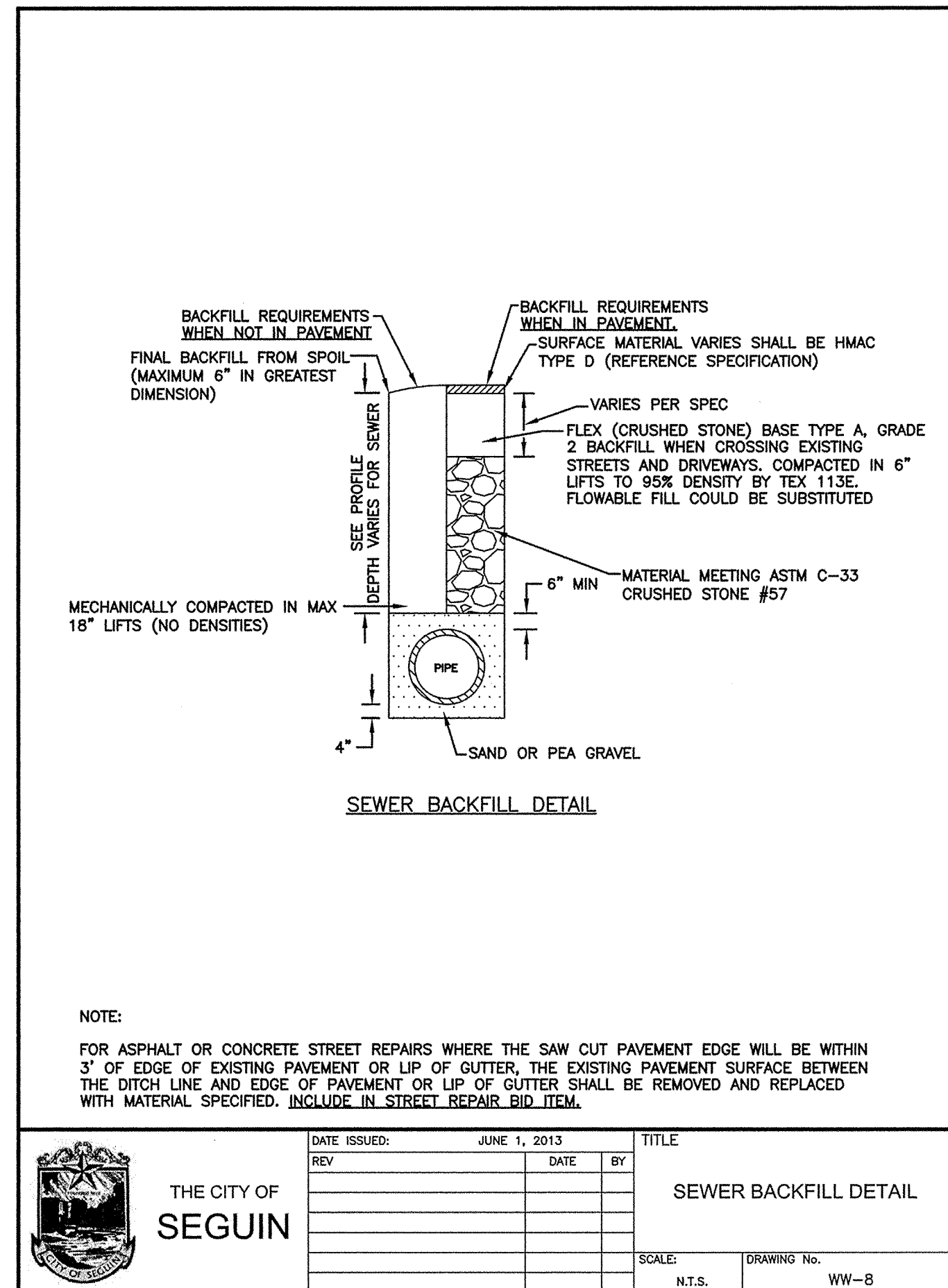
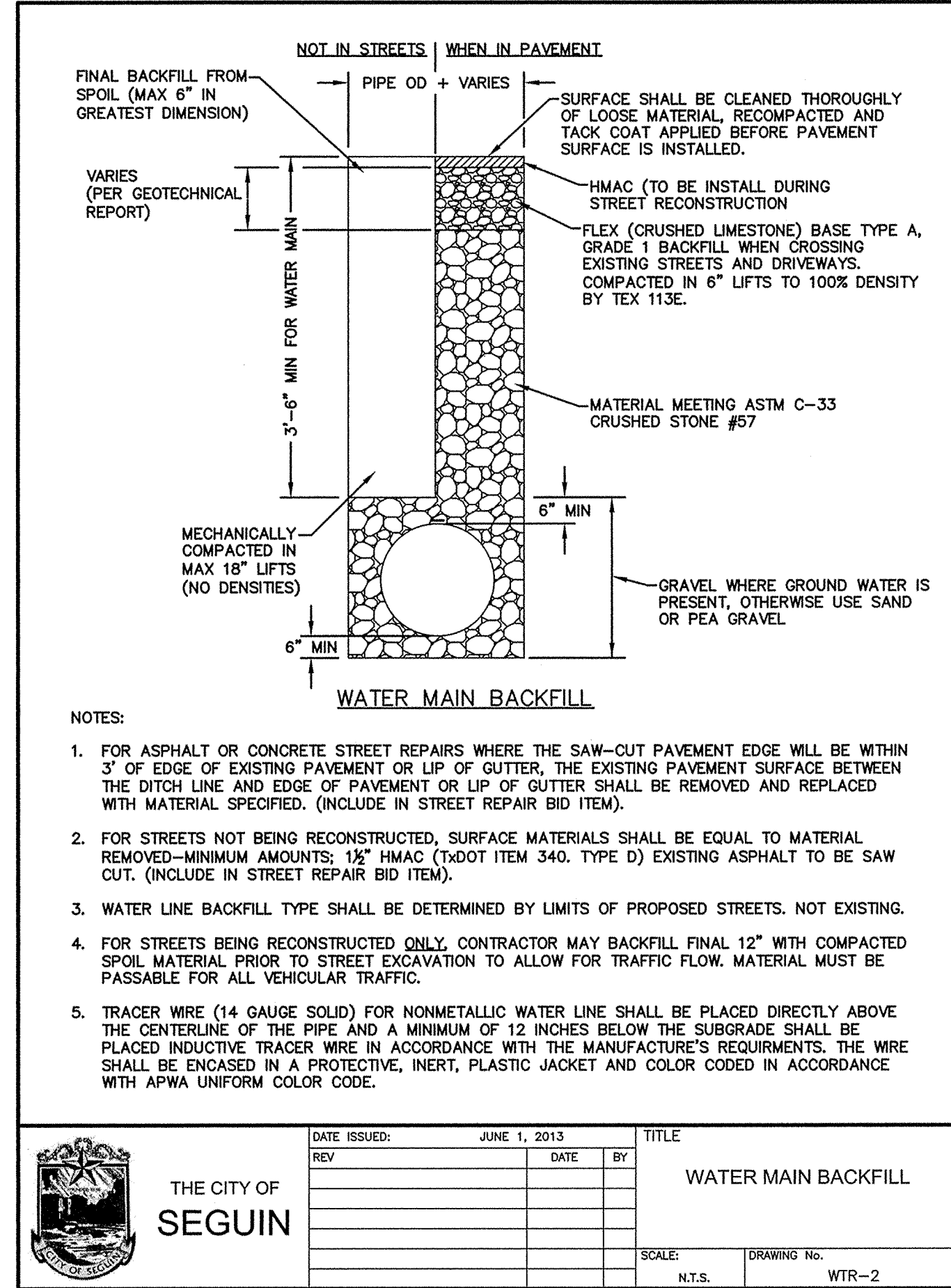
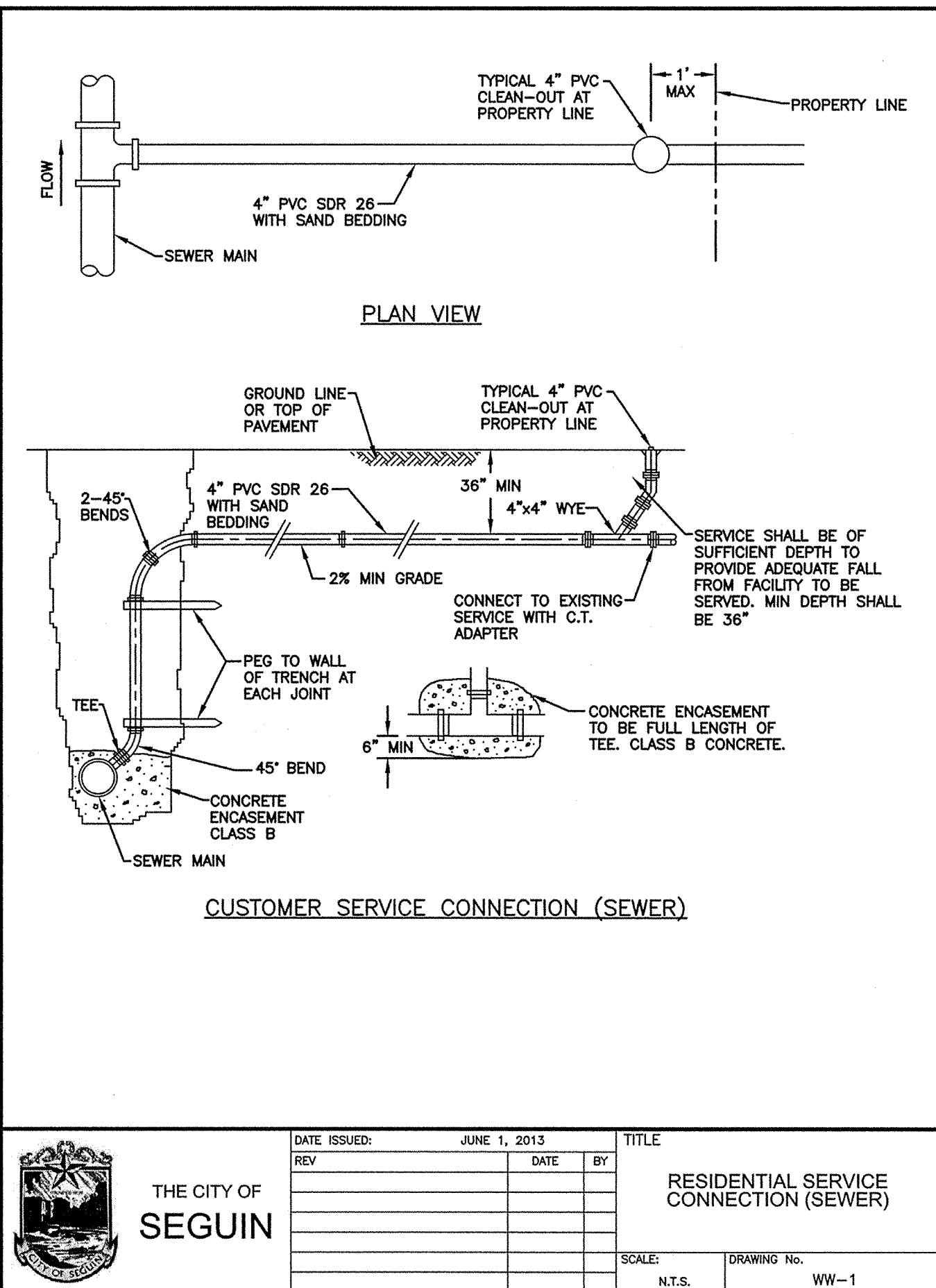
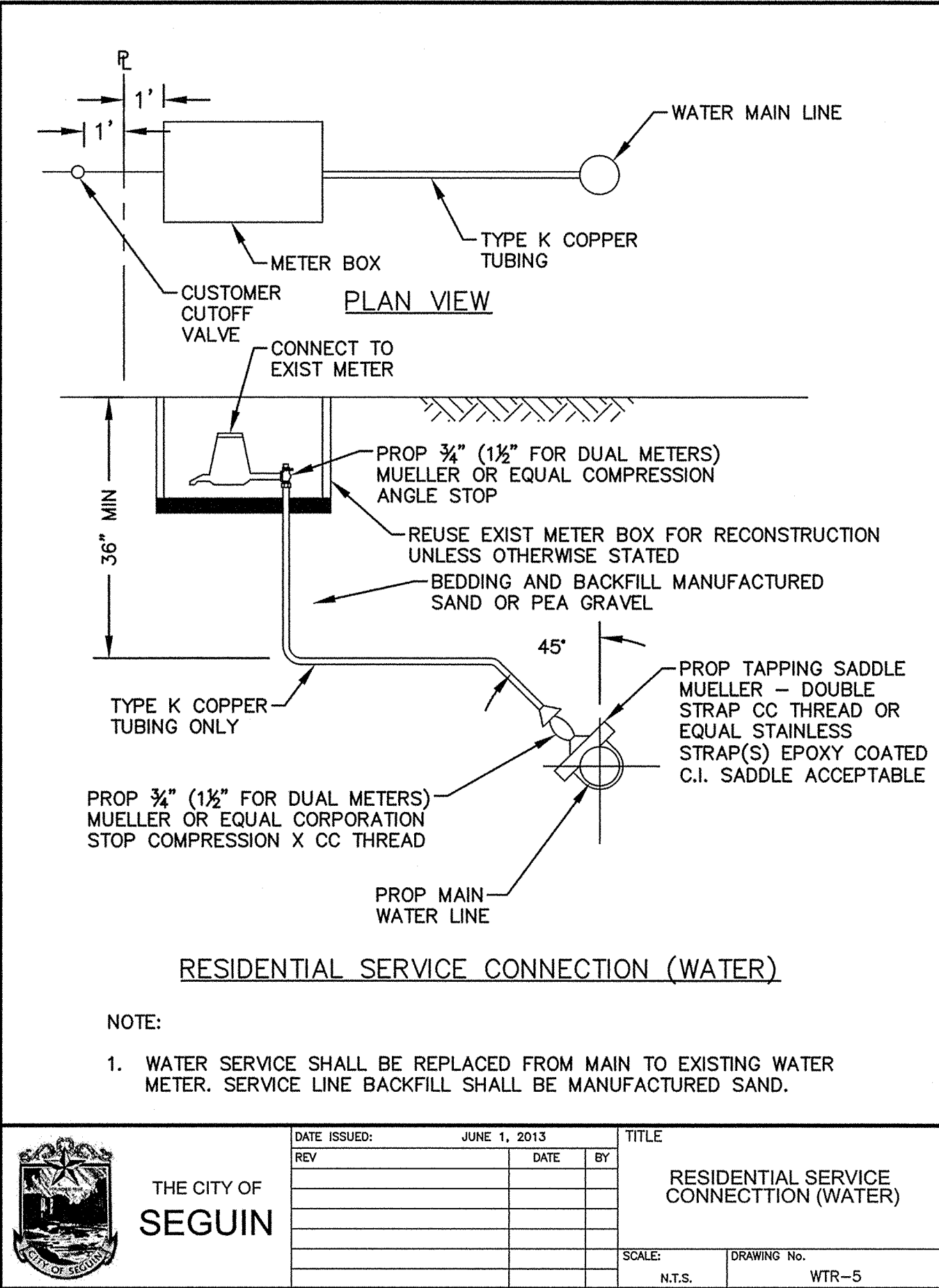
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BRANCH OFFICES

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MAIN OFFICE

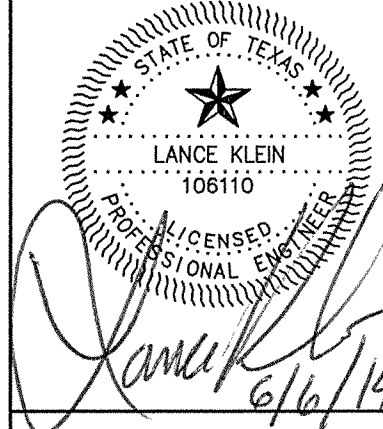
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TEXAS REGISTERED ENGINEERING FIRM F-1394



GUADALUPE COUNTY  
LUBE CENTER

PROPOSED UTILITY DETAILS

JOB: 13GUADCO001

DATE: JUNE 2014

SCALE: H: 1" = 1'  
V: 1" = 1'

INTERNAL REVIEW:

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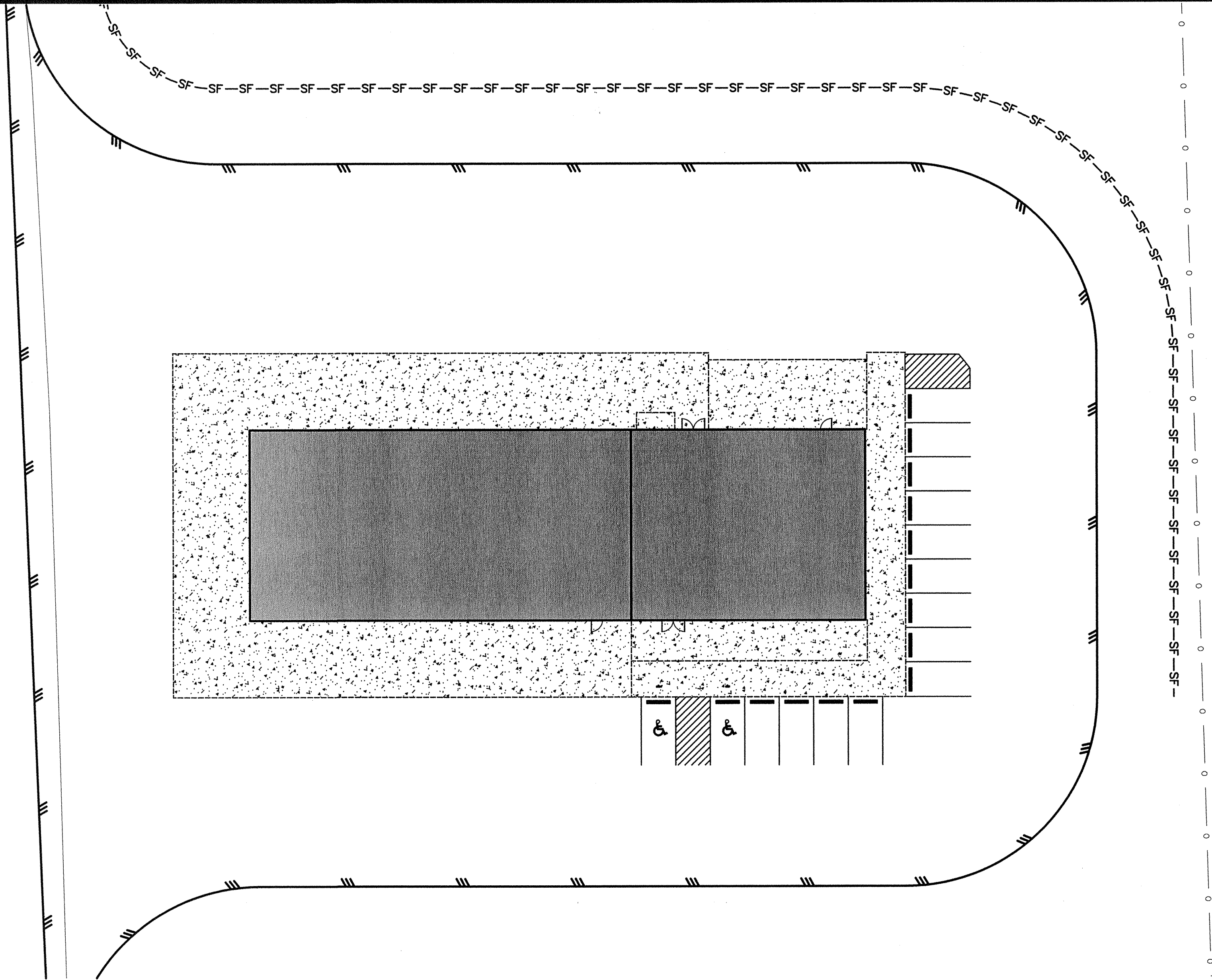
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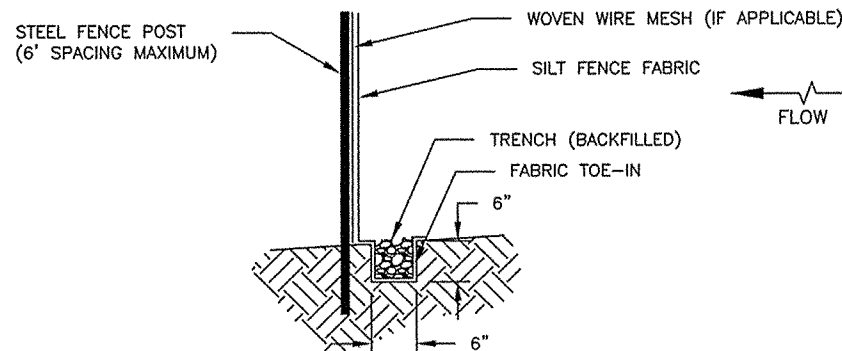
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- LEGEND:**
- EXIST 1/2" IRON ROD FOUND (UNLESS NOTED)
  - EXIST MONUMENT FOUND
  - 0 — EXIST CHAIN LINK FENCE
  - ≡≡≡ PROP EDGE OF PAVEMENT
  - - - - - PROP EDGE OF CONCRETE
  - SF-SF-SF- PROP SILT FENCE



**NOTES:**

1. TRIANGULAR SEDIMENT FILTER DIKES MAY BE SUBSTITUTED FOR SILT FENCE IN AREAS WHERE INSTALLATION OF SILT FENCE IS NOT POSSIBLE OR WHERE VEHICLE ACCESS MUST BE MAINTAINED PROVIDED THE CONTRIBUTING DRAINAGE AREA IS LESS THAN ONE ACRE.
  2. SILT FENCE MATERIAL SHOULD BE POLYPROPYLENE, POLYETHYLENE OR POLYAMIDE WOVEN OR NONWOVEN FABRIC. THE FABRIC WIDTH SHOULD BE 36 INCHES, WITH A MINIMUM UNIT WEIGHT OF 4.5 OZ/YD, MULLEN BURST STRENGTH EXCEEDING 190 LB/IN<sup>2</sup>, ULTRAVIOLET STABILITY EXCEEDING 70%, AND A MINIMUM APPARENT OPENING SIZE OF U.S. SIEVE NO. 30.
  3. FENCE POSTS SHOULD BE MADE OF HOT ROLLED STEEL, AT LEAST 4 FEET LONG WITH TEE OR Y-BAR CROSS SECTION, SURFACE PAINTED OR GALVANIZED, MINIMUM NOMINAL WEIGHT 1.25 LB/FT<sup>2</sup>, AND BRINELL HARDNESS EXCEEDING 140.
  4. WOVEN WIRE BACKING IS REQUIRED IN THE EDWARDS AQUIFER RECHARGE AND CONTRIBUTING ZONE; OPTIONAL ELSEWHERE. WOVEN WIRE BACKING TO SUPPORT THE FABRIC SHOULD BE GALVANIZED 2"x4" WELDED WIRE, 12 GAUGE MINIMUM.
  5. SILT FENCE SHOULD BE INSTALLED FOLLOWING THE CONTOURS AS CLOSE AS POSSIBLE. THE ENDS SHOULD BE CURVED UPSTREAM TO CREATE AN AREA OF WATER IMPOUNDMENT AND PREVENT FLOW FROM ESCAPING AROUND THE FENCE.
  6. STEEL POSTS WHICH SUPPORT THE SILT FENCE SHALL BE INSTALLED ON A SLIGHT ANGLE TOWARD THE ANTICIPATED RUNOFF SOURCE. POST MUST BE EMBEDDED A MINIMUM OF ONE FOOT AND SPACED NOT MORE THAN 6 FEET ON CENTER.
  7. THE TOE OF THE SILT FENCE SHALL BE TRENCHED IN WITH A SPADE OR MECHANICAL TRENCHER, SO THAT THE DOWNSLOPE FACE OF THE TRENCH IS FLAT AND PERPENDICULAR TO THE LINE OF FLOW. WHERE FENCE CAN NOT BE TREATED IN (E.G., PAVEMENT OR ROCK OUTCROP) WEIGHT FABRIC FLAP WITH 3" OF WASHED GRAVEL ON UPHILL SIDE TO PREVENT FLOW UNDER FENCE.
  8. THE TRENCH MUST BE A MINIMUM OF 6 INCHES DEEP AND 6 INCHES WIDE TO ALLOW FOR THE SILT FENCE FABRIC TO BE LAID IN THE GROUND AND BACKFILLED WITH COMPACTED MATERIAL.
  9. SILT FENCE SHOULD BE SECURELY FASTENED TO EACH STEEL SUPPORT POSTS OR TO WOVEN WIRE, WHICH IS IN TURN ATTACHED TO THE STEEL FENCE POST. WHERE ENDS MEET, OVERLAP FABRIC 3- FEET AND SECURELY FASTEN.
- MAINTENANCE AND REMOVAL:**
12. ACCUMULATED SILT SHALL BE REMOVED WHEN IT REACHES A DEPTH OF 6 INCHES. THE SILT SHALL BE DISPOSED OF IN AN APPROVED SITE AND IN SUCH A MANNER AS TO NOT CONTRIBUTE TO ADDITIONAL SILTATION.
  13. SILT FENCE SHALL BE REMOVED WHEN THE SITE IS COMPLETELY STABILIZED SO AS NOT TO BLOCK OR IMPEDE STORM FLOW OR DRAINAGE. THE SEDIMENT SHOULD BE DISPOSED OF IN A MANNER THAT WILL NOT CAUSE ADDITIONAL SILTATION AND THE PRIOR LOCATION OF THE SILT FENCE SHOULD BE REVEGETATED. THE FENCE ITSELF SHOULD BE DISPOSED OF IN AN APPROVED LANDFILL.

**SILT FENCE**



THE CITY OF  
SEGUIN

DATE ISSUED:	JUNE 1, 2013	TITLE
REV	DATE	BY

SILT FENCE

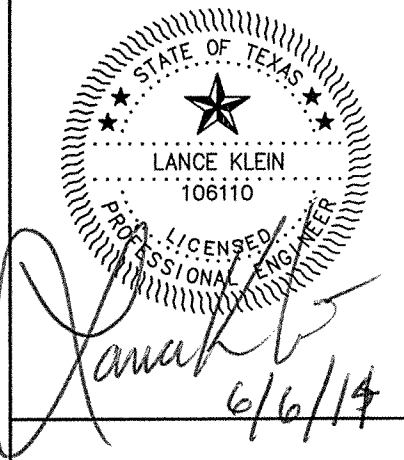
SCALE: N.T.S. DRAWING No. EC-3

**REVISIONS**


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FAX # (830) 885-2170

**M & S**  
ENGINEERING, L.L.C.  
ENGINEERS, PLANNERS AND SURVEYORS  
TEXAS REGISTERED ENGINEERING FIRM F-1594

BRANCH OFFICES  
P.O. BOX 391  
MCQUEENEY, TEXAS 78123  
387 WEST MILL STREET  
NEW BRAUNFELS, TEXAS 78130



**GUADALUPE COUNTY  
LUBE CENTER  
STORM WATER POLLUTION  
PREVENTION PLAN**

JOB: 13GUADCO001

DATE: JUNE 2014

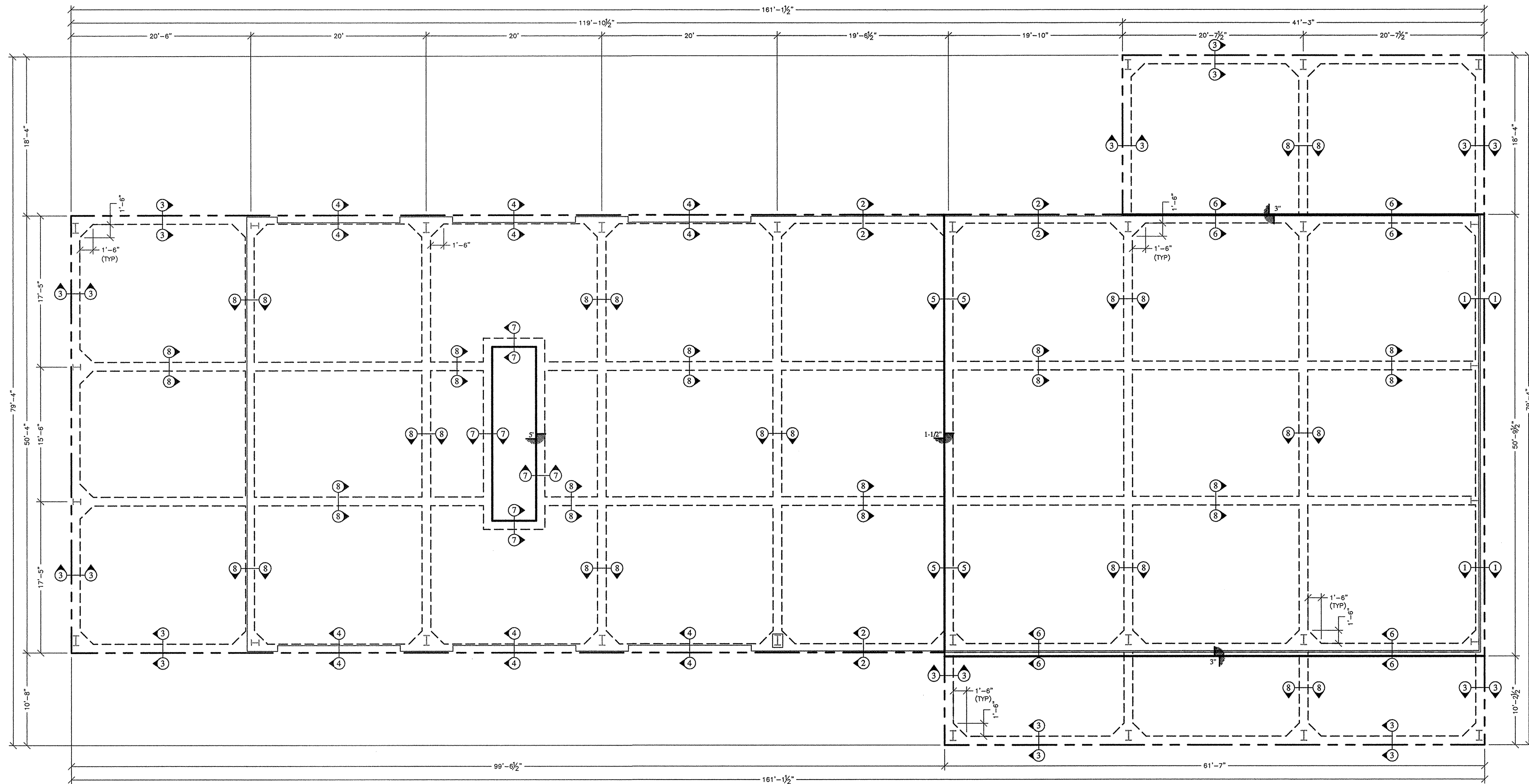
SCALE: 1" = 20'

**INTERNAL REVIEW:**

DESIGN: \_\_\_\_\_  
PEER: \_\_\_\_\_  
PM: \_\_\_\_\_  
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OTHER: \_\_\_\_\_

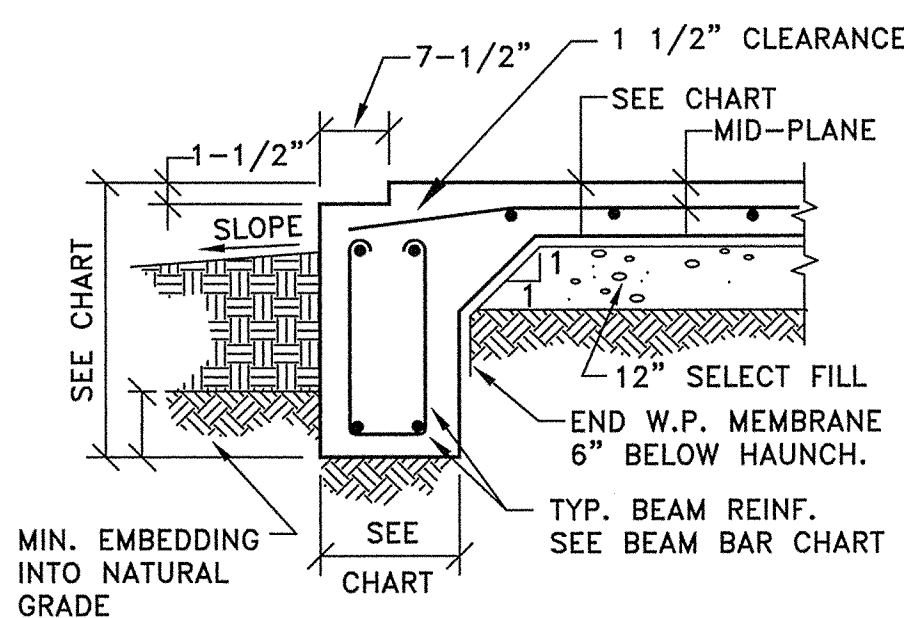
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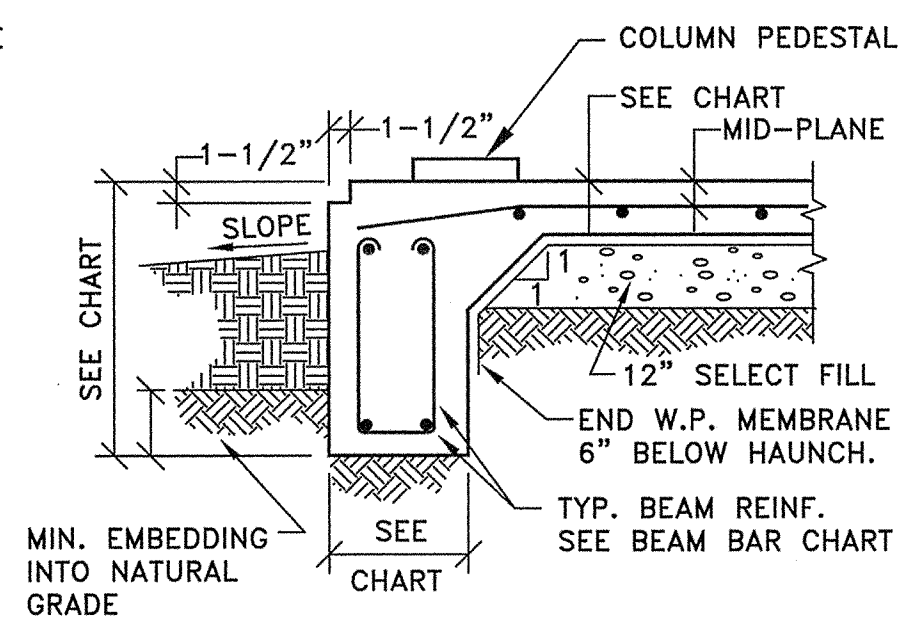


BEAM WIDTH (MINIMUM)	EXT. BEAM DEPTH	EXT. BM. DEPTH IN GRADE	INT. BEAM DEPTH	BEAM BARS T & B	STIRRUP EXT. BEAM	STIRRUP INT. BEAM	PAD BARS	SLAB THICKNESS
12" EXT. 12" INT.	36" MIN.	12" MIN.	36" MIN.	2-#6 BTM 2-#6 TOP	#3 @ 24" O.C.	#3 @ 24" O.C.	#4 @ 12" O.C.	5"

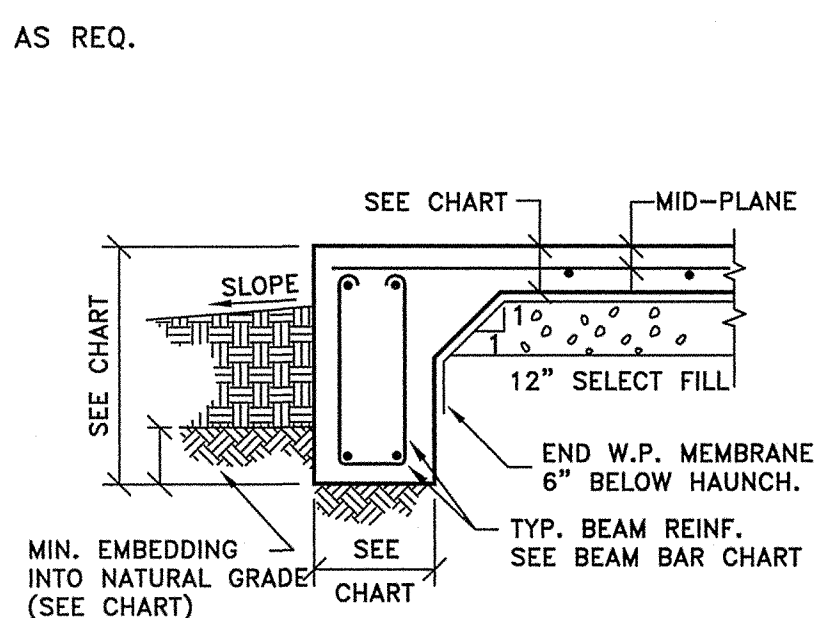
BUILDER/CONTRACTOR TO VERIFY ALL DIMENSIONS, DROP AREAS, FLOOR PENETRATIONS, AND BLOCK-OUT LOCATIONS ON SITE.



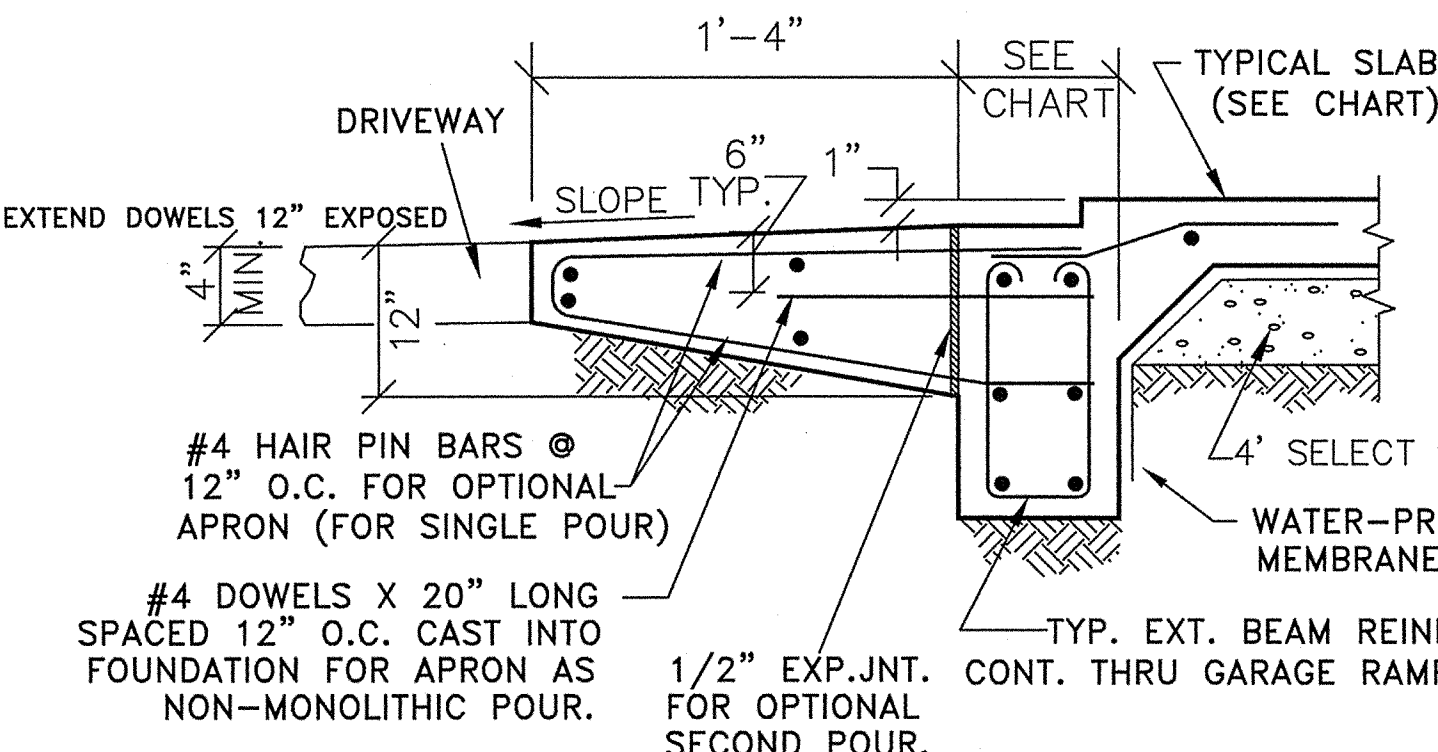
DETAIL - 1  
EXTERIOR BEAM W/ LUG



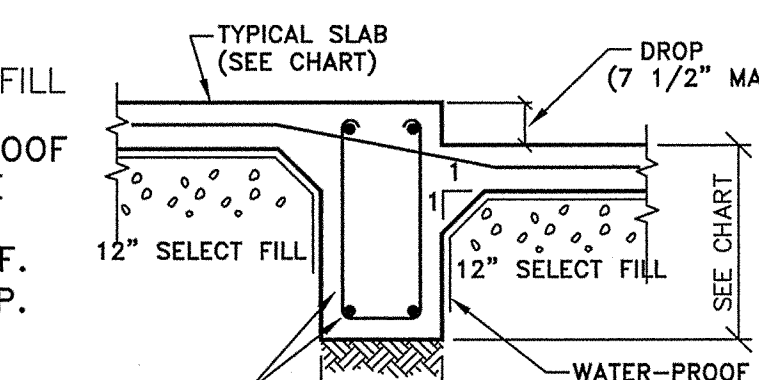
DETAIL - 2  
EXTERIOR BEAM W/ LUG



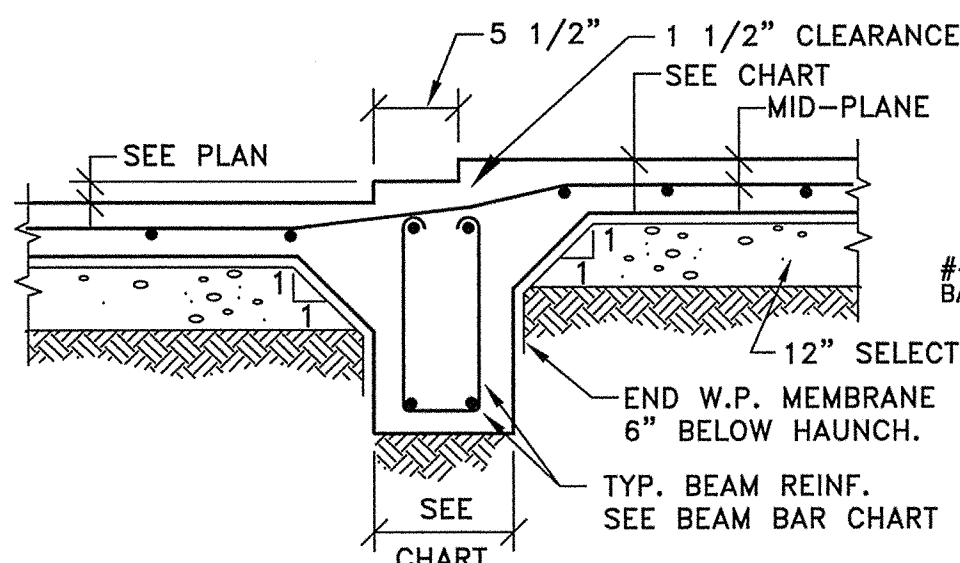
DETAIL - 3  
EXTERIOR BEAM - NO BRICK LUG



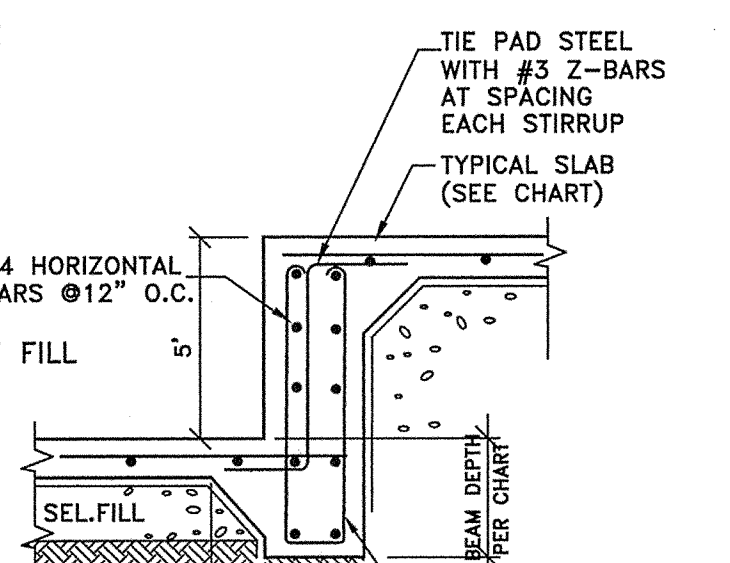
DETAIL - 4  
GARAGE APRON



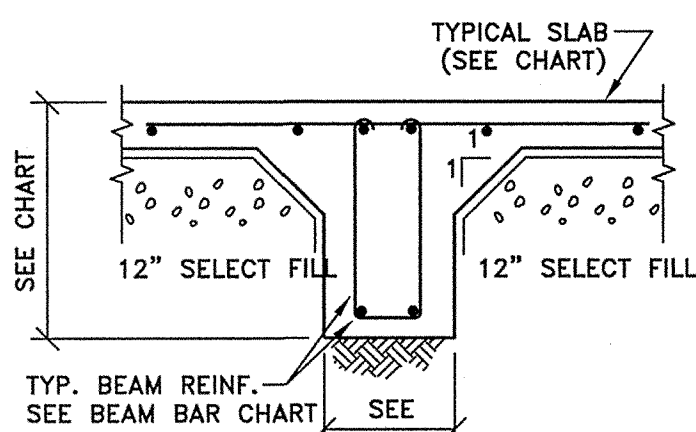
DETAIL - 5  
DROPS 7 1/2" OR SMALLER



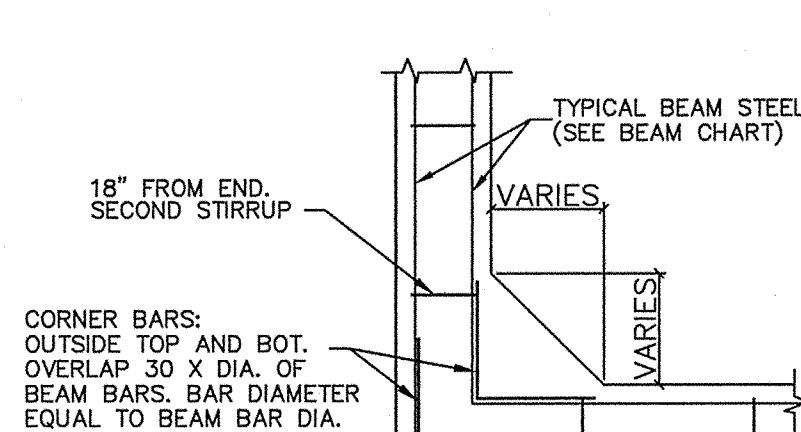
DETAIL - 6  
INTERIOR BEAM W/ LUG & PORCH DROP



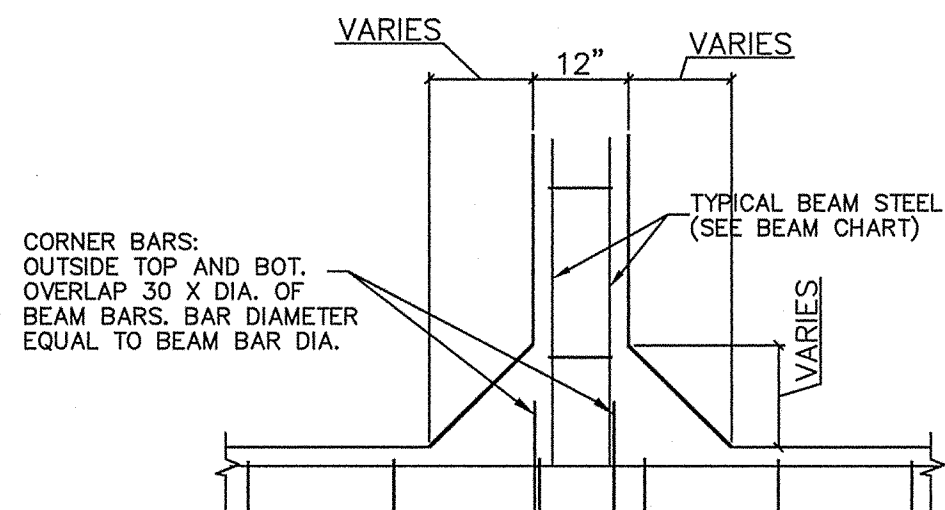
DETAIL - 7



DETAIL - 8  
TYP. INT. BEAM DETAIL



CORNER DETAIL  
TYP. EXTERIOR CORNER BEAM



EXT. BEAM INTERSECTION AT COLUMN  
(SEE PLAN FOR LOCATION)

#### GENERAL CONDITIONS

- (1) All structural work shall be in conformance with local city foundation requirements, unless exceptions have been properly authorized by the project design engineer.
- (2) Engineering of the foundation for this project has been provided by M & S Engineering L.L.C.
- (3) All dimensions, drops, and special conditions shall be verified with the architectural floor plans. Any discrepancies, or changes, should be brought to the attention of M & S Engineering for review and approval.
- (4) This design shall not be considered valid, and engineer accepts no responsibility, unless pre-pour inspections are performed, and approval for placement of concrete is provided by M & S Engineering. Notify office of engineer 24 hours in advance to schedule pre-pour inspections.
- (5) This foundation has been designed as a ground supported concrete slab-on-grade, and as such will move with the soils upon which it bears. This design is intended to limit such movement to within the deflection tolerances set forth in the International Building Code, edition in force at time of design.

#### SITE DEVELOPMENT

- (1) If the Owner has engaged the services of a Geotechnical firm for the purpose of soils sampling and analysis, and a report of Geotechnical investigation has been provided to the Owner or Contractor, site development shall include regrading and removal of existing site native soils, and placement and compaction of select structural fill performed in accordance with the Geotechnical report.  
In the absence of a Geotechnical report, where the site surface soils consist of clay or clayey materials, a minimum of 6 inches of surface soils shall be excavated. In the case of heavy black or brown clays, the minimum depth of soils removal is recommended at 8 inches. Proof rolling, soils consolidation and compacting are recommended.  
It is the Engineer's recommendation that in accordance with any Geotechnical report, or in the absence thereof, select structural fills be provided at the location of proposed foundation construction. A minimum depth of fill material shall be as specified in the Geotechnical report, or equal to the depth of surface soils excavation. Thereafter, additional fill material shall be provided to form a structural base at the greater of a minimum of 8" in height, or as required for proper foundation exposure.  
The structural fill shall consist of Type A crushed limestone, or Type B clayey crushed gravel, in accordance with TxDot specification Item 247 for Grade 1 fill materials. Structural fill shall be placed in lifts of 8 inches, and compacted in accordance with TxDot specification TEX-113-E, with moisture content controlled to conform to TxDot specification Item 204 "Sprinkling".
- (2) Any existing trenches which are incorrectly located should be filled in and thoroughly and properly compacted prior to excavation for the required grade beam trenches.
- (3) The design for this foundation is based upon proper surface drainage away from the foundation being maintained at all times. Ground slopes of ten per cent (10%) in the first five feet (5'), and one per cent (1%) thereafter, are the minimum acceptable. A uniform moisture content in the soils around the foundation perimeter through the continued maintenance of proper surface drainage, proper landscaping, and uniform yard watering practices is extremely critical to the long-term structural stability of this foundation.
- (4) All exterior beams shall extend at least twelve (12) inches into undisturbed soil unless fill has been tested and certified to have been placed in compliance with F.H.A. Data Sheet 79-G. Test data shall also indicate the plasticity index of fill material. A redesign of the foundation will be required if foreign material with a plasticity index greater than 10 above the design standard is used for fill material.
- (5) All air conditioning condensation lines, and roof gutter downspouts, shall be directed to discharge a minimum of three feet (3') away from the foundation for further removal from the site.

#### CONCRETE FORMWORK

- (1) Construct formwork to maintain tolerances as outlined in ACI 347.
- (2) Formwork shall be reused in accordance with ACI 347.
- (3) Formwork shall extend at least six (6) inches below finish grade elevation on perimeter beams.
- (4) Trenching of grade beams shall be excavated to provide the beam cross section indicated. Beam and slab depths and widths as indicated are minimum acceptable sizes. Larger size beams and slabs formed by less accurate trenching may require additional reinforcing not shown which shall be determined by the engineer during construction review. All loose dirt from sides and bottoms of trenches shall be removed. Haunches shall be cut on each side of trenches of adequate size to maintain the vertical sides of the trench.
- (5) Exterior beam soffits shall penetrate grade as shown on beam schedule.
- (6) Drain exposed trenches during construction in the event of inclement weather.
- (7) Where rock is encountered shallower than the detailed beam depth, the beam may be reduced in depth to a minimum of 16" deep interior, 20" exterior.
- (8) Where trees exist within five feet of foundation, beam shall be deepened to extend a minimum of 24" below grade for a distance of ten feet in each direction of tree (total length of twenty feet). All roots extending under foundation shall be cut off and treated so as to prevent any future growth under foundation.
- (9) Electrical trenches shall be provided for all electrical conduit and plumbing trenches for plumbing lines below the slab thickness and below the trench grade beam depth. Utilities shall not be installed along and within grade beam trenches.
- (10) Vapor barrier shall be full 10 mil (min) clean polyethylene film, type recommended for below grade application. Vapor barrier shall be continuous within and below slab areas with joints lapped at least 12 inches. Vapor barrier shall extend down the sides of the beam trenches and shall terminate so that it does not extend across the trench bottom.

#### CONCRETE REINFORCEMENT

- (1) Reinforcing steel shall comply with the requirements of ASTM A-615, grade 60. Stirrups and ties shall be grade 40 for wire shall be 18 gage annealed type. Fabricate bent bars in accordance with ACI 315.
- (2) Provide clearance for concrete coverage around reinforcing in accordance with ACI 318. All reinforcing shall be supported in the beams and slab with chairs or approved masonry blocks. All slab steel is to be tied at every other intersection.
- (3) Slab reinforcing shall be centered in concrete slab thickness.
- (4) Grade beam and slab shall be as specified in the reinforcement chart shown on this drawing. Provide Z-bars (same size as beam reinforcement) where beam soffit step downs are greater than 5 1/2".
- (5) Provide 2-corner bars (same size as smaller beam reinforcing) top and bottom at all regular reinforced beam corners and dead end beam intersections. Corner bars shall be a minimum of 30 bar diameters, in each direction, and shall be securely connected to the beam steel.
- (6) For exterior beams requiring depths exceeding 3 feet due to grade conditions, provide 2-#4 intermediate horizontal bars at 18" centers in addition to reinforcing noted above. Beams greater than 6 feet deep requires stirrup spacing @ 18" o.c. max.
- (7) All laps and splices shall have a minimum overlap of 30 bar diameters.
- (8) Review of the reinforcing steel by M & S Engineering is typically required prior to concrete placement.

#### CONCRETE

- (1) Concrete shall develop a 28-day compressive stress (f'c) of at least 3,000 psi and shall be in accordance with ACI 301. Cement shall be Type 1 (gray) Portland. Maximum water cement ratio shall be 7.0 and a slump range of 2 to 5 inches. Contractor shall satisfy himself that the mix design is acceptable for its intended purpose.
- (2) Concrete shall be placed and cured in accordance with ACI 302.1R. Finish tolerance shall be in accordance with ACI 117.
- (3) Testing shall be the sole responsibility of the builder, and any substandard strengths shall be reported to M & S Engineering.
- (4) While some shrinkage cracking is to be expected in the concrete, it has been shown to be significantly reduced through proper curing procedures and proper control of admixtures. Only those admixtures having specific written authorization of the design engineer shall be introduced with the concrete mix.
- (5) Where a brick facade is to be utilized in the superstructure, vertical control joints shall be installed at a maximum spacing of twenty-five feet (25').

#### ANCHOR BOLTS

- (1) Anchor bolts to be 1/2" dia. steel through the base plate around the perimeter, or engineering approved alternate connection, commencing at 8" from all exterior corners.  
Bolts are to be centered at 3'-0" feet on center maximum, and embedded 6" min.

#### REVISIONS

NO.	DESCRIPTION	DATE

BRANCH OFFICES

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MCQUEENY, TEXAS 78123

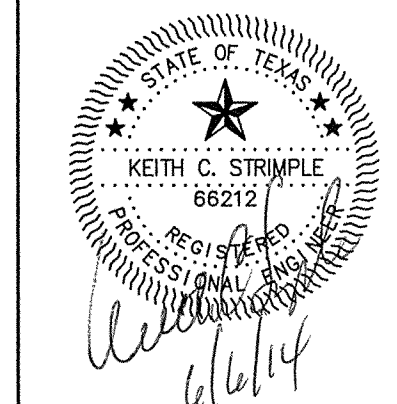
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FAX # (830) 885-2170

M & S

ENGINEERING, L.L.C.

ENGINEERS, PLANNERS, AND SURVEYORS  
TEXAS REGISTERED ENGINEERING FIRM E-194



GUADALUPE COUNTY  
LUBE CENTER  
FOUNDATION DESIGN

JOB: 13GUADCO001

DATE: JUNE 2014

SCALE: 1/8" = 1'

INTERNAL REVIEW:

DESIGN: \_\_\_\_\_

PEER: \_\_\_\_\_

PM: \_\_\_\_\_

DM: \_\_\_\_\_

OTHER: \_\_\_\_\_

SHEET:

Date: Jun 06, 2014, 10:34am User ID: clemoire  
File: K:\MFP\2513GUADC001 - Guadalupe County Lube Center\mfp\2513GUADC001 - MFP.001.dwg

CONCRETE APRON

TIRE STORAGE

TIRE SHOP

CONCRETE APRON

CONCRETE APRON

AIR COMPRESSOR  
LP1-02,04,06

WELDER  
LP1-03,05,07

LP1-10

⊙ (-24")  
FROM EDGE  
OF SLAB

LP1-18

LUBE PIT  
5' (W) X  
20' (L)  
X 5' (D)

LP1-22

⊙ (-24")  
FROM EDGE  
OF SLAB

IR HEATER  
LP1-12

⊙ ABOVE

LUBE BAY 1

IR HEATER  
LP1-12

⊙ ABOVE

CU-2 DISC  
LP1-31,33,35  
LP1-26  
CU-1 DISC  
LP1-37,39,41

LP1-09

STORAGE

STORAGE MEZZANINE ABOVE

LP1-28

MATCH E2

1 ELECTRICAL FLOOR PLAN  
Scale: 1/4" = 1'

REVISIONS:

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M & S

BRANCH OFFICE

P.O. BOX 391  
MCQUEENY, TEXAS 78123



GUADALUPE COUNTY  
LUBE CENTER  
SEGUN, TEXAS

ELECTRICAL FLOOR PLAN

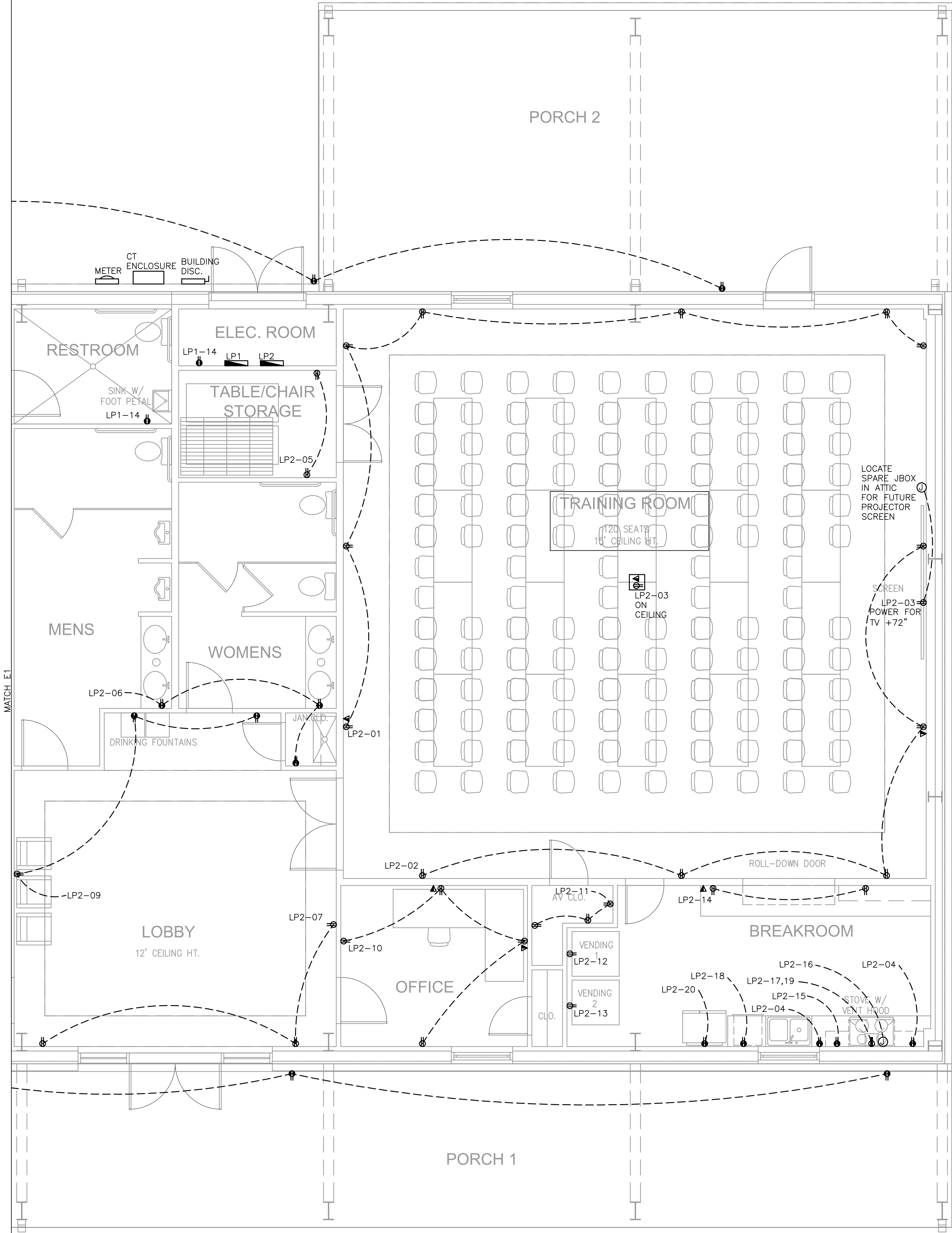
JOB: 2513GUADC.001  
DATE: MAY 2014  
SCALE: AS NOTED  
ENG BY: B. MEUTH  
CHK BY: T. SIMS  
DWN BY: C. LEMAIRE

NOTES:

SHEET:

E1

Date: Jun 05, 2014, 10:34am User ID: clemore  
File: K:\MEP\2513GUADC.001 - Guadalupe County Lube Center.dwg



1 ELECTRICAL FLOOR PLAN  
Scale: 1/4" = 1'

REVISIONS:

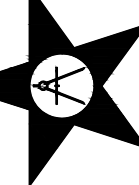
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FAX # (830) 865-2170

BRANCH OFFICE

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M & S

  
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ENGINEERS, PLANNERS AND SURVEYORS  
TEXAS REGISTERED ENGINEERING FIRM F-1394



GUADALUPE COUNTY  
LUBE CENTER  
SEGUIN, TEXAS

ELECTRICAL FLOOR PLAN

JOB: 2513GUADC.001  
DATE: MAY 2014  
SCALE: AS NOTED  
ENG BY: B. MEUTH  
CHK BY: T. SIMS  
DWN BY: C. LEMAIRE

NOTES:

SHEET:  
**E2**





Date: Jun 05, 2014, 10:35am User ID: clemore  
File: K:\MEP\2513GUADC.001 - Guadalupe County Lube Center.dwg

CONCRETE APRON

WP-1  
LP1-24

TIRE STORAGE

LP1-23

WP-1  
LP1-24

WP-1  
LP1-24

TIRE SHOP

EM3  
LP2-28

EM3  
LP2-28

⊙ (-12")  
FROM EDGE  
OF SLAB

LUBE PIT  
5' (W) X  
20' (L)  
X 5' (D)

⊙ (-12")  
FROM EDGE  
OF SLAB

LUBE BAY 2

LUBE BAY 1

EM3  
LP2-28

EM3  
LP2-28

WP-1  
LP1-24

EM3  
LP2-28

EM3  
LP2-28

WP-1  
LP1-24

JB  
LP1-16

EM  
LP2-28

JB  
LP1-16

LP1-15

LP1-13

EX  
LP2-28

LP1-17

STORAGE

STORAGE MEZZANINE ABOVE

MATCH E4

CONCRETE APRON

CONCRETE APRON

1

LIGHTING

Scale: 1/4" = 1'

GUADALUPE COUNTY  
LUBE CENTER  
SEGUIN, TEXAS

LIGHTING

JOB: 2513GUADC.001  
DATE: MAY 2014  
SCALE: AS NOTED  
ENG BY: B. MEUTH  
CHK BY: T. SIMS  
DWN BY: C. LEMAIRE

NOTES:

SHEET:

E4



M & S

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ENGINEERING, L.L.C.

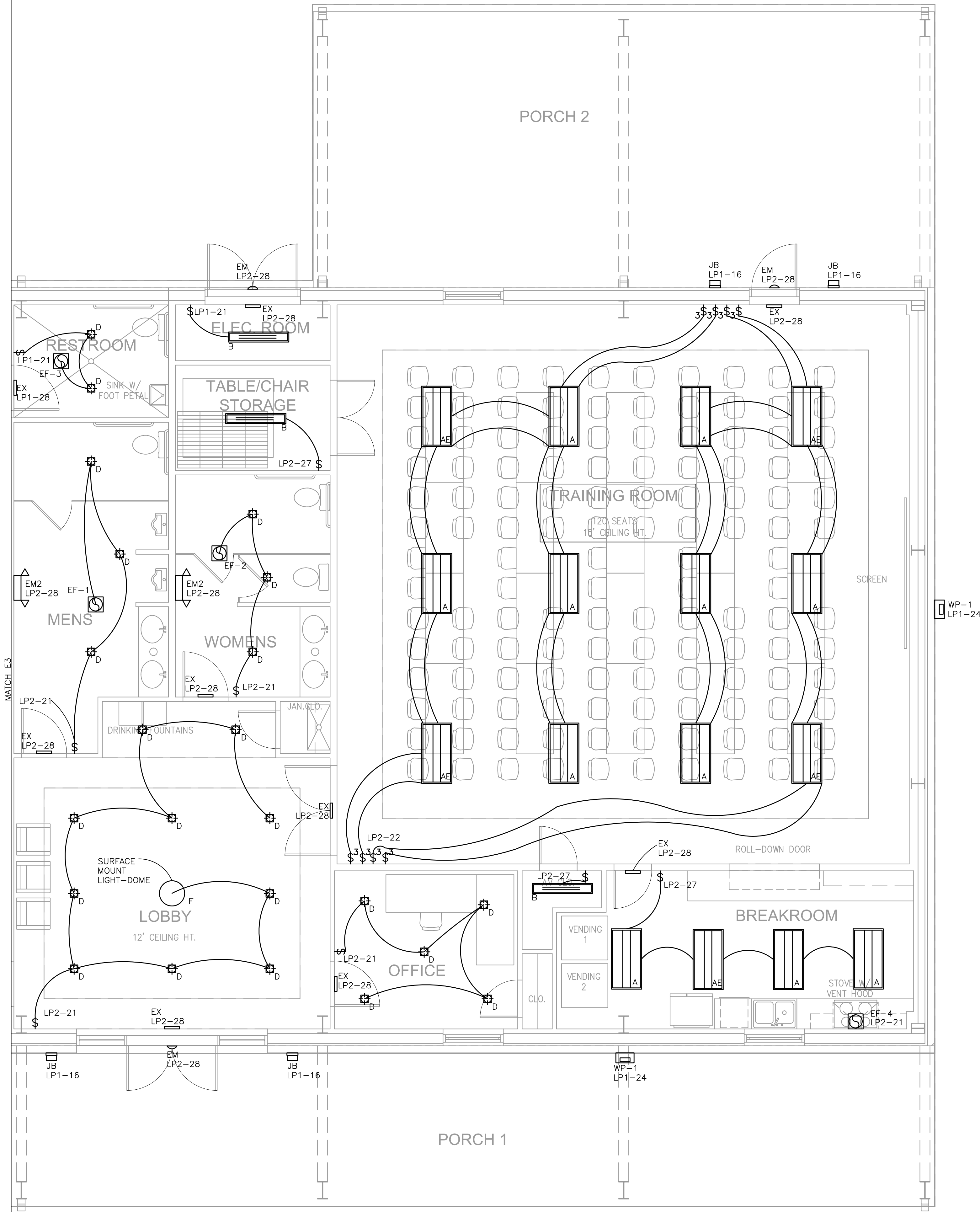
ENGINEERS, PLANNERS AND SURVEYORS

TEXAS REGISTERED ENGINEERING FIRM F-1394

REVISIONS:



Date: Jun 05, 2014, 10:35am User ID: clemore  
File: K:\MEP\2513GUADC.001 - Guadalupe County Lube Center.dwg



1 LIGHTING  
Scale: 1/4" = 1'

GUADALUPE COUNTY  
LUBE CENTER  
SEGUIN, TEXAS

LIGHTING

JOB: 2513GUADC.001  
DATE: MAY 2014  
SCALE: AS NOTED  
ENG BY: B. MEUTH  
CHK BY: T. SIMS  
DWN BY: C. LEMAIRE

NOTES:

SHEET:

E5

REVISIONS:

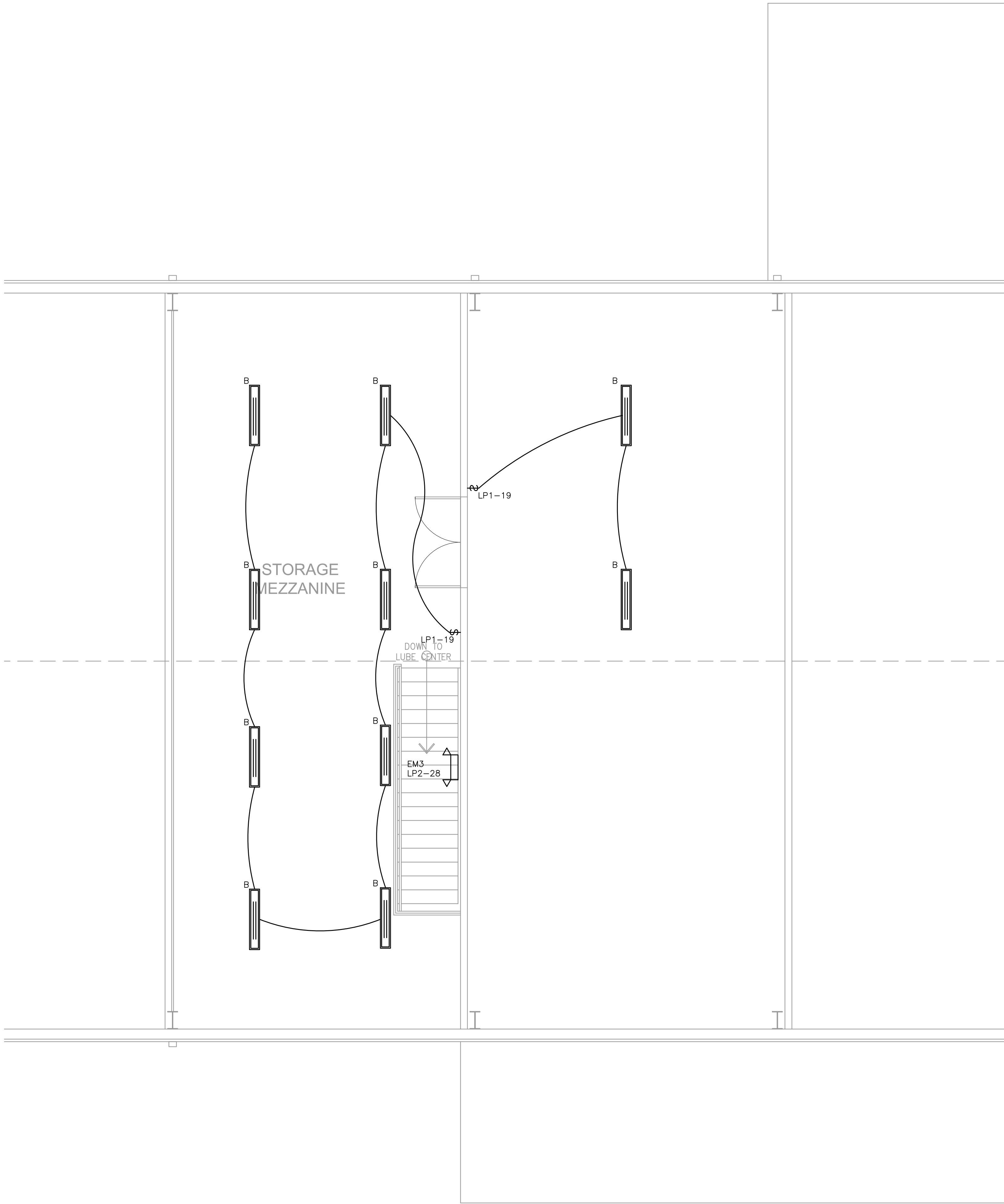
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ENGINEERS, PLANNERS AND SURVEYORS  
TEXAS REGISTERED ENGINEERING FIRM F-1394



Date: Jun 05, 2014, 10:35am User ID: clemore  
File: K:\MEP\2513GUADC.001 - Guadalupe County Lube Center.dwg



1 LIGHTING-ATTIC  
Scale: 1/4" = 1'

GUADALUPE COUNTY  
LUBE CENTER  
SEGUIN, TEXAS  
LIGHTING-ATTIC

JOB: 2513GUADC.001  
DATE: MAY 2014  
SCALE: AS NOTED  
ENG BY: B. MEUTH  
CHK BY: T. SIMS  
DWN BY: C. LEMAIRE

NOTES:

SHEET:

E6

REVISIONS:

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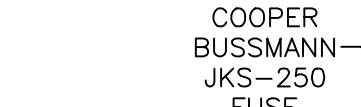
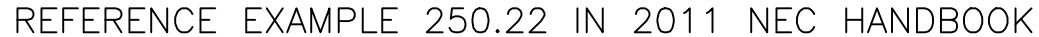
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ENGINEERS, PLANNERS AND SURVEYORS  
TEXAS REGISTERED ENGINEERING FIRM F-1394



1. ALL WORK SHALL BE IN ACCORDANCE WITH THE 2011 NATIONAL ELECTRIC CODE (NEC), APPLICABLE BUILDING CODES, AND O.S.H.A LATEST EDITIONS.
2. PANELS AND LOADS ARE A DESIGN GUIDE, DO NOT INCLUDE OPTIONAL EQUIPMENT, AND ARE BASED ON THEOETICAL EQUIPMENT. CONTRACTOR TO VERIFY BREAKER SIZE WITH EQUIPMENT MANUFACTURERS IN FIELD BEFORE MAKING FINAL CONNECTIONS.
3. COORDINATE EXACT LOCATION OF ALL FIXTURES, OUTLETS, AND EQUIPMENT AS PER MANUFACTURER'S RECOMMENDATIONS.
4. ALL FIXTURES AND EQUIPMENT TO BE AS STATED OR AS APPROVED BY OWNER.
5. POWER DISTRIBUTION PANELBOARD(S): FURNISH AND INSTALL DISTRIBUTION PANELBOARD(S) AS SPECIFIED HEREIN AND WHERE SHOWN ON THE ASSOCIATED DRAWINGS. ACCEPTABLE MANUFACTURERS: SCHNEIDER ELECTRIC, SIEMENS, OR APPROVED EQUAL.
6. ALL NEW AND EXISTING DISCONNECTING MEANS MUST BE CAPABLE OF BEING LOCKED IN THE OPEN POSITION. THE DEVICE MUST HAVE PROVISIONS FOR PLACEMENT OF A LOCK ON IT TO SECURE THE DEVICE IN THE OFF POSITION. THE LOCK-OUT DEVICE MUST BE PART OF THE DISCONNECT ASSEMBLY AND MUST REMAIN IN PLACE AFTER THE PADLOCK IS REMOVED WHETHER IT IS A FUSED DISCONNECT SWITCH, A SINGLE CIRCUIT BREAKER, OR A CIRCUIT BREAKER IN A PANELBOARD.
7. PROVIDE ALL GROUNDING AND BONDING AS REQUIRED BY THE NEC OR ANY LOCAL CODES.
8. ALL ELECTRICAL GROUNDING CONNECTIONS SHALL BE MADE TO A CONCRETE ENCASED ELECTRODE, COLD WATER PIPE BOND, STRUCTURAL STEEL BOND AND GROUNDING ELECTRODE AS PER ARTICLE 250.22 OF THE 2011 NEC.
9. ALL FEEDER, BRANCH CIRCUITS, AND SIGNAL WIRING SHALL BE COPPER AND INSTALLED IN CONDUIT OR EMT.
10. MINIMUM SIZE FOR BRANCH CIRCUIT AND POWER WIRING SHALL BE 12 AWG.
11. CONDUCTORS SHALL BE UL LISTED TYPE MTW, THWN, OR THWN-2 GASOLINE AND OIL RESISTANT IF SUITABLE FOR FIELD OPERATIONS. AT 600 VOLTS OR SPECIFIC IN THE SIZE SIZES 1 THROUGH 1 AWG SHALL BE RATED WITH LARGER SIZES SHALL BE LISTED CUL SIZE 2 AND LARGER SHALL BE LISTED AND MARKED SUNLIGHT RESISTANT IN BLACK COLOR ONLY. CONDUCTORS SHALL BE ANNEALED COPPER, INSULATED WITH HIGH HEAT AND MOISTURE RESISTANT PVC, JACKETED WITH ABRASION, MOISTURE, GASOLINE AND OIL RESISTANT NYLON OR LISTED EQUIVALENT AS MANUFACTURED BY SOUTHWIRE COMPANY OR APPROVED EQUAL.
12. CONDUCTORS 10 AWG AND SMALLER SHALL HAVE FACTORY COLORED INSULATION. CONDUCTORS 8 AWG AND LARGER MAY HAVE FACTORY COLORED BLACK INSULATION WITH A MARKING TAPE THAT ENCIRLES THE INSULATION FOR A MINIMUM OF 2 INCHES IN LENGTH. COLOR OF INSULATION OR MARKING TAPE SHALL COMPLY WITH THE FOLLOWING FOR 208Y/120 VOLT THREE PHASE: A-BLACK, B-RED, C-BLUE.
13. UNGROUNDED CONDUCTORS SHALL BE IDENTIFIED IN ACCORDANCE WITH NEC 210.5(C) (1), (2), AND (3).
14. ALL WIRING, INCLUDING CONTROL WIRING, EXPOSED TO WEATHER SHALL BE INSTALLED IN CONDUIT APPROVED FOR EXTERIOR USE.
15. ALL CONDUIT AND FLEXIBLE CONDUITS THAT ARE EXPOSED TO WATER, SPLASHING, OR WEATHER SHALL BE RATED FOR EXTERIOR USE.
16. ALL RECEPTACLES AND SWITCHES IN COMMERCIAL BUILDINGS SHALL BE RATED AT 20 AMP MINIMUM.
17. AS PER 210.8 (B) (2) OF THE 2011 NEC, ALL 20-AMPERE, 125-VOLT RECEPTACLES IN NON-DWELLING TYPE KITCHENS TO BE GFCI PROTECTED.
18. WIRING DEVICES SHALL BE UL-LISTED, COMMERCIAL GRADE, AND RATED AT 20 AMPERES.

NOTE: ALL RECEPTACLE OUTLETS AT 18" A.F.F. EXCEPT AS NOTED  
PULL STRINGS IN ALL CONDUITS. ALL CONDUITS MUST BE LABELED INSIDE JBOX WITH  
NAME OF DESTINATION JBOX

## LIGHTING FIXTURE SCHEDULE



CONDUIT AND CONDUCTOR SCHEDULE									
CALLOUT	CONDUIT		PHASE		NEUTRAL		GROUND		INSULATION TYPE
	QTY.	SIZE S-E	QTY.	SIZE	QTY.	SIZE	QTY.	SIZE	
E01	2	2"	3	3/0	1	3/0	1	--	THWN-2
E02	2	2"	3	3/0	1	3/0	1	#3	THWN-2
E03	1	1.5"	3	1/0	1	1/0	1	#8	THWN-2
E04	1	1"	--	--	--	--	1	#2	THWN-2
E05	GROUND ROD MATERIAL		DIA.		LENGTH		ENHANCEMENTS		
	COPPERCLAD STEEL		5/8"		8'				

LEGEND S-E="S" INDICATES A SINGLE SET OF SPECIFIED CONDUCTORS.  
 "E" INDICATES EACH CONDUIT TO HAVE A SET OF SPECIFIED CONDUCTORS

## 2

VOLTAGE: 208/120			PANEL NAME: LP1			MOUNT: SURFACE					
PHASE: 3			MINIMUM PANEL RATING 400 A			NEMA STYLE: 1					
WIRE: 4			MAINS TYPE 350 M.L.O.			BUS MATERIAL: COPPER					
			MINIMUM SCCR 10 kAIC								
CIRCUIT	DESCRIPTION	BRKR.	A		B	C	BRKR.	DESCRIPTION	CIRCUIT		
1	WATER HEATER & CIRCULATING PLUMP	20	360	2904			30	AIR COMPRESSOR	2		
3	WELDER	45			4080	2904			4		
5							4080	2904		6	
7			4080	720					20	SIDE GFCI RECEPTACLES	8
9					900	1080			20	REAR GFCI RECEPTACLES	10
11	FRONT GFCI RECEPTACLES	20					1260	624	20	IR HEATERS	12
13	HIGH BAYS IN SHOP	20	1224	360					20	SHOP RR & ELEC ROOM	14
15	HIGH BAYS IN SHOP	20			1080	156			20	DECORATIVE LIGHT BY EXTERIOR DOORS	16
17	STORAGE LIGHTS 1ST FLOOR	20					608	180	20	RECEPTACLE IN LUBE PIT	18
19	STORAGE LIGHTS 2ND FLOOR	20	760	540					20	STORAGE MEZZANINE RECEPTACLES	20
21	RESTROOM, ELEC ROOM LIGHTS	20			116	180			20	RECEPTACLE IN LUBE PIT	22
23	HIGH BAYS IN TIRE STORAGE	20					648	1400	20	WALL PACKS	24
25	AIR HANDLER 2	15	1200	360					20	AC SERVICE RECEPTACLES	26
27					1200	1080			20	STORAGE, BAY1, BAY2, TIRE RECEPTACLES	28
29							1200	180	20	H-2	30
31									20	PREPARED SPACE	32
33	CL-2	50	4920		4920	1380			20	FURNACE-1	34
35							4920			PREPARED SPACE	36
37	CL-1	35	2616	8460					100	LP2	38
39					2616	5634					40
41							2616	6840			42
POLE TOTAL			28504		27326		27460				POLE TOTAL
NOTES:					TOTAL LOAD				NOTES:		
TOTAL LOAD REFLECTS THAT CONDENSING UNITS AND ELECTRIC HEAT (IF PRESENT) WILL NEVER BE ON SIMULTANEOUSLY					78130 VA						
					78.1 KVA						
					217 AMPS						

Total Load Summary							
1. General Lighting							
Office	3,050	sq. ft.	3.50	VA	125%	13,343.75	VA
Garage	7,245	sq. ft.	0.50	VA	125%	4,528.13	VA
Wall Packs	Total	=	1,556.00	VA	125%	1,945.00	VA
Sign	Total	=	1,200.00	VA	125%	1,500.00	VA
2. Receptacle Load							
	68	x	180.00	VA	100%	12,240.00	VA
3. HVAC Load							
Total		=	39,187.20	VA	100%	39,187.20	VA
4. Equipment							
Total		=	34,762.45	VA	100%	34,762.45	VA
				Total Load		107,506.53	VA
				Voltage	PH		
				208	3.00	298.41	Amps

VOLTAGE: 208/120			PANEL NAME: LP2					MOUNT: SURFACE			
PHASE: 3			MINIMUM PANEL RATING 100 A					NEMA STYLE: 1			
WIRE: 4			MAINS TYPE 100 M.L.O.					BUS MATERIAL: COPPER			
			MINIMUM SCCR 10 kAIC								
CIRCUIT	DESCRIPTION	BRKR.	A		B		C		BRKR.	DESCRIPTION	CIRCUIT
1	TRAINING ROOM WEST/NORTH WALL RECEPT	20	1260	900					20	TRAINING ROOM EAST/SOUTH WALL RECEPT	2
3	PROJECTOR & SCREEN IN TRAINING ROOM	20			180	360			20	BREAKROOM SOUTH RECEPTACLES	4
5	STORAGE ROOM RECEPTACLES	20					360	540	20	RESTROOMS RECEPTACLES	6
7	LOBBY RECEPTACLES	20	540						20	SPARE	8
9	LOBBY RECEPTACLES	20			540	720			20	OFFICE RECEPTACLES	10
11	AV CLOSET RECEPTACLES	20					540	1200	20	VENDING MACHINE	12
13	VENDING MACHINE	20	1200	360					20	BREAKROOM NORTH RECEPTACLES	14
15	MICROWAVE	20			1200	100			20	VENT HOOD	16
17	RANGE/OVEN	40					3000	1200	20	DISHWASHER	18
19			3000	1200					20	REFRIGERATOR	20
21	LOBBY, RESTROOM, OFFICE LIGHTS	20			645	1152			20	TRAINING ROOM LIGHTS	22
23	SPARE	20							20	SPARE	24
25	SPARE	20							20	SPARE	26
27	STORAGE/AV CLOSET/BREAKROOM LIGHTS	20			536	201			20	EMERGENCY LIGHTS	28
29	SPARE	20								PREPARED SPACE	30
31	PREPARED SPACE									PREPARED SPACE	32
33	PREPARED SPACE									PREPARED SPACE	34
35	PREPARED SPACE									PREPARED SPACE	36
37	PREPARED SPACE									PREPARED SPACE	38
39	PREPARED SPACE									PREPARED SPACE	40
41	PREPARED SPACE									PREPARED SPACE	42
POLE TOTAL			8460		5634		6840		POLE TOTAL		
NOTES:					TOTAL LOAD				NOTES:		
					20934 VA						
					20.9 KVA						
					58 AMP'S						

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ENGINEERING, L.L.C.

ENGINEERS, PLANNERS AND SURVEYORS

TEXAS REGISTERED ENGINEERING FIRM E-194

GUADALUPE COUNTY  
LUBE CENTER  
SEGUIN, TEXAS

PANEL SCHEDULE

JOB: 2513GUADC.001

DATE: MAY 2014

SCALE: AS NOTED

ENG BY: B. MEUTH

CHK BY: T. SIMS

DWN BY: C. LEMAIRE

NOTES:

SHEET:

E8

Date: Jun 05, 2014, 10:35am User ID: clemore  
File: K:\MEP\2513GUADC.001 - Guadalupe County Lube Center.dwg

CONCRETE APRON

TIRE STORAGE

TIRE SHOP

CONCRETE APRON

CONCRETE APRON

LUBE BAY 2

LUBE BAY 1

STORAGE

STORAGE MEZZANINE ABOVE

MATCH M2

CU-1

RIDGE  
VENT

RIDGE  
VENT

RIDGE  
VENT

RIDGE  
VENT

LUBE PIT  
5' (W) X  
20' (L)  
X 5' (D)

1 MECHANICAL PLAN  
Scale: 1/4" = 1'

GUADALUPE COUNTY  
LUBE CENTER  
SEGUIN, TEXAS  
MECHANICAL FLOOR PLAN

JOB: 2513GUADC.001  
DATE: MAY 2014  
SCALE: AS NOTED  
ENG BY: B. MEUTH  
CHK BY: T. SIMS  
DWN BY: C. LEMAIRE

NOTES:

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TEXAS REGISTERED ENGINEERING FIRM F-1394

REVISIONS:



Date: Jun 06, 2014, 10:35am User ID: clemoire  
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GENERAL MECHANICAL NOTES

- ALL WORK SHALL BE IN ACCORDANCE WITH THE 2009 INTERNATIONAL MECHANICAL CODE (IMC), SHEET METAL AND AIR CONDITIONING CONTRACTORS' NATIONAL ASSOCIATION (SMACNA) STANDARDS, AMERICAN SOCIETY OF HEATING, REFRIGERATION, AND AIR CONDITIONING ENGINEERS (ASHRAE) STANDARDS, APPLICABLE BUILDING CODES, LOCAL AMENDMENTS, AND O.S.H.A. LATEST EDITIONS.
- ALL DUCTWORK TO BE SEALED WITH APPROVED UL-181 TAPES AND MASTICS. ALL DUCT BOARD TO BE CERTAINTED TOUGHGARD TYPE 800 1.5 INCHES THICK R-6.5 OR EQUAL.
- ALL FLEX DUCT TO BE THERMA FLEX M-KE WITH R-6 INSULATION OR APPROVED EQUAL. MAXIMUM LENGTH FOR ANY FLEX DUCT RUN IS 12 FEET.
- ALL FINAL DUCT RUNS TO DIFFUSERS TO BE EQUIPPED WITH VOLUME DAMPERS.
- CEILING DIFFUSERS TO BE EQUAL TO PRICE MODEL SCD. DEVICES SHALL BE STEEL SQUARE PANEL WITH HORIZONTAL AIR PATTERN. RETURN AIR GRILLES TO BE EQUAL TO PRICE MODEL 80.
- PROVIDE DUCT SMOKE DETECTORS AS REQUIRED PER CODE FOR EACH SYSTEM. FIRE OR FIRE/SMOKE DAMPERS (WHERE REQUIRED) ARE THE RESPONSIBILITY OF THE MECHANICAL CONTRACTOR. PROVIDE AUTOMATIC SHUTDOWN UPON INITIATION OF THE FIRE ALARM SYSTEM.
- REFRIGERANT LINES TO BE SIZED PER MANUFACTURER'S RECOMMENDATIONS. INSULATE SUCTION LINES WITH MINIMUM 1 INCH THICK TUBING INSULATION.
- CONDENSATE DRAIN LINES LOCATED IN ANY UNCONDITIONED SPACE SHALL BE INSULATED WITH FOAM PLASTIC RUBBER BASED INSULATION OR OTHER APPROVED MATERIAL WITH A MINIMUM THICKNESS OF 3/4 INCH.
- CONDENSATE DRAIN LINES SHALL HAVE A MINIMUM SLOPE OF 1% (1/8 INCH PER FOOT).
- CONDENSATE DISPOSAL SHALL BE IN ACCORDANCE WITH LOCAL CODES. RUN CONDENSATE TO APPROVED LOCATION PER CODE.
- INSTALL A UNIT DISCONNECT AND 120V GFCI SERVICE OUTLET AT EACH AIR HANDLER AND CONDENSING UNIT PER CODE.
- EVERY OCCUPIED SPACE SHALL BE VENTILATED BY NATURAL MEANS IN ACCORDANCE WITH IMC SECTION 402 OR BY MECHANICAL MEANS IN ACCORDANCE WITH SECTION 403.
- PROVIDE POWER TO EACH PIECE OF EQUIPMENT AND ADJUST THE ENTIRE SYSTEM TO ENSURE PROPER FUNCTION OF ALL CONTROLS, DISTRIBUTION OF AIR, MAINTENANCE OF TEMPERATURES, ELIMINATION OF DRAFTS AND VIBRATION. SYSTEM SHALL BE LEFT IN FIRST CLASS OPERATING CONDITION.
- TESTING AND BALANCING (T&B) IS THE RESPONSIBILITY OF THE MECHANICAL CONTRACTOR. THE AIR SYSTEM SHALL BE ADJUSTED TO OBTAIN THE AIR VOLUMES SPECIFIED BY THE MECHANICAL ENGINEER, BUT READJUSTED IF REQUIRED TO OBTAIN DESIGN TEMPERATURE IN EACH ROOM. THE MECHANICAL CONTRACTOR SHALL MAKE DRIVE CHANGES, INSTALL ADDITIONAL DAMPERS, VANES, GRILLE BAFFLES, ETC., AS MAY BE REQUIRED. A COPY OF THE T&B REPORT SHALL BE PROVIDED TO THE ENGINEER AFTER THE T&B PROCEDURE HAS BEEN COMPLETED.

PROJECT NOTES

- THERMOSTAT CONTROLS FOR HVAC SYSTEM TO BE LENNOX COSTAT02AE1L.
- CONTRACTOR TO COORDINATE THERMOSTAT PLACEMENTS WITH THE OWNER.
- EXHAUST FAN DUCT TO BE SHEET METAL ROUND. PROVIDE END CAP WITH BIRD SCREEN.
- VENTILATION DUCT TO HAVE BUTTERFLY DAMPER AND BE TUNED TO INTAKE 140 CFM. PROVIDE END CAP AND BIRD SCREEN.
- AIR HANDLERS, ECONOMIZERS, COIL, AND DUCT HEATER TO BE PROPERLY SUPPORTED ACCORDING TO MANUFACTURER INSTRUCTIONS.
- FILTER BASE TO BE INSTALLED FOR 5-TON FURNACE (F-1).
- CONCENTRIC FLUE AND COMBUSTION AIR PIPE THROUGH ROOF TO BE INSTALLED FOR F-1.
- FLUE PIPE THROUGH ROOF TO BE INSTALLED FOR H-2.
- COMMON CONDENSATE TO BE INSTALLED FROM F-1 AND C-1 AND TIED TO CONDENSATE FROM AHU-2.
- MECHANICAL DECK TO HAVE TWO 15"x15" (225 SQ. INCHES) LOUVERED OPENINGS IN THE WALL SHARED WITH THE STORAGE AREA. ONE SHALL BE WITHIN 12" OF THE ROOF PEAK. THE OTHER SHALL BE WITHIN 12" OF THE MECHANICAL DECK FLOOR. MECHANICAL DECK DOORS EQUIPPED WITH LOUVERS OF AT LEAST 225 SQ. INCHES TOTAL AREA AND WITHIN 12" OF THE FLOOR ARE ACCEPTABLE.

HVAC SYSTEM NARRATIVE

GENERAL SYSTEM SETUP

ALL SPACES OTHER THAN THE TRAINING ROOM MAKE UP ZONE 1. THE TRAINING ROOM IS ZONE 2.

ZONE 1 IS SERVED BY THE 5-TON SYSTEM, WHICH IS COMPRISED OF A 5-TON FURNACE (F-1), 5-TON CONDENSING UNIT (CU-1), ECONOMIZER (E-1), AND 5-TON COOLING COIL (C-1). F-1 SHALL BE SET TO DELIVER 1,600 CFM.

ZONE 2 IS SERVED BY THE 10-TON SYSTEM, WHICH IS COMPRISED OF A 10-TON AIR HANDLER (AHU-2), 10-TON CONDENSING UNIT (CU-2), ECONOMIZER (E-2), AND DUCT FURNACE (H-2). AHU-2 SHALL BE SET TO DELIVER 3,200 CFM. CU-2 SHALL BE STAGED TO MEET THE VARYING COOLING DEMANDS OF THE TRAINING ROOM.

OUTSIDE AIR

OUTSIDE AIR (OA) SHALL BE PROVIDED TO THE ZONES AT THE FOLLOWING RATES:

ZONE 1 MINIMUM = 250 CFM; MAXIMUM = 250 CFM

ZONE 2 MINIMUM = 100 CFM; MAXIMUM = 800 CFM

FOR USE IN CONJUNCTION WITH DEMAND CONTROLLED VENTILATION, OUTSIDE AIR DAMPER MINIMUM AND MAXIMUM POSITIONS SHALL BE SET TO ACHIEVE THE ABOVE FLOW RATES.

\*EXCEPTION - IN ECONOMIZER MODE, THE OA DAMPERS SHALL MODULATE TO 100% OPEN.

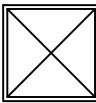




DEMAND CONTROLLED VENTILATION

DEMAND CONTROLLED VENTILATION (DCV) SHALL CONTROL THE AMOUNT OF OA INTRODUCED INTO ZONE 2. A CARBON DIOXIDE (CO2) SENSOR LOCATED WITHIN THE ZONE SHALL MONITOR CO2 LEVELS. AS THE CO2 CONCENTRATION WITHIN ZONE 2 FLUCTUATES BETWEEN 500 PARTS PER MILLION (PPM) AND 1,000 PPM, THE OA DAMPER FOR ZONE 2 SHALL MODULATE BETWEEN ITS MINIMUM AND MAXIMUM POSITION TO INTRODUCE VARYING LEVELS OF OA ACCORDING TO THE DEMAND FROM ZONE 2.

ECONOMIZER MODE

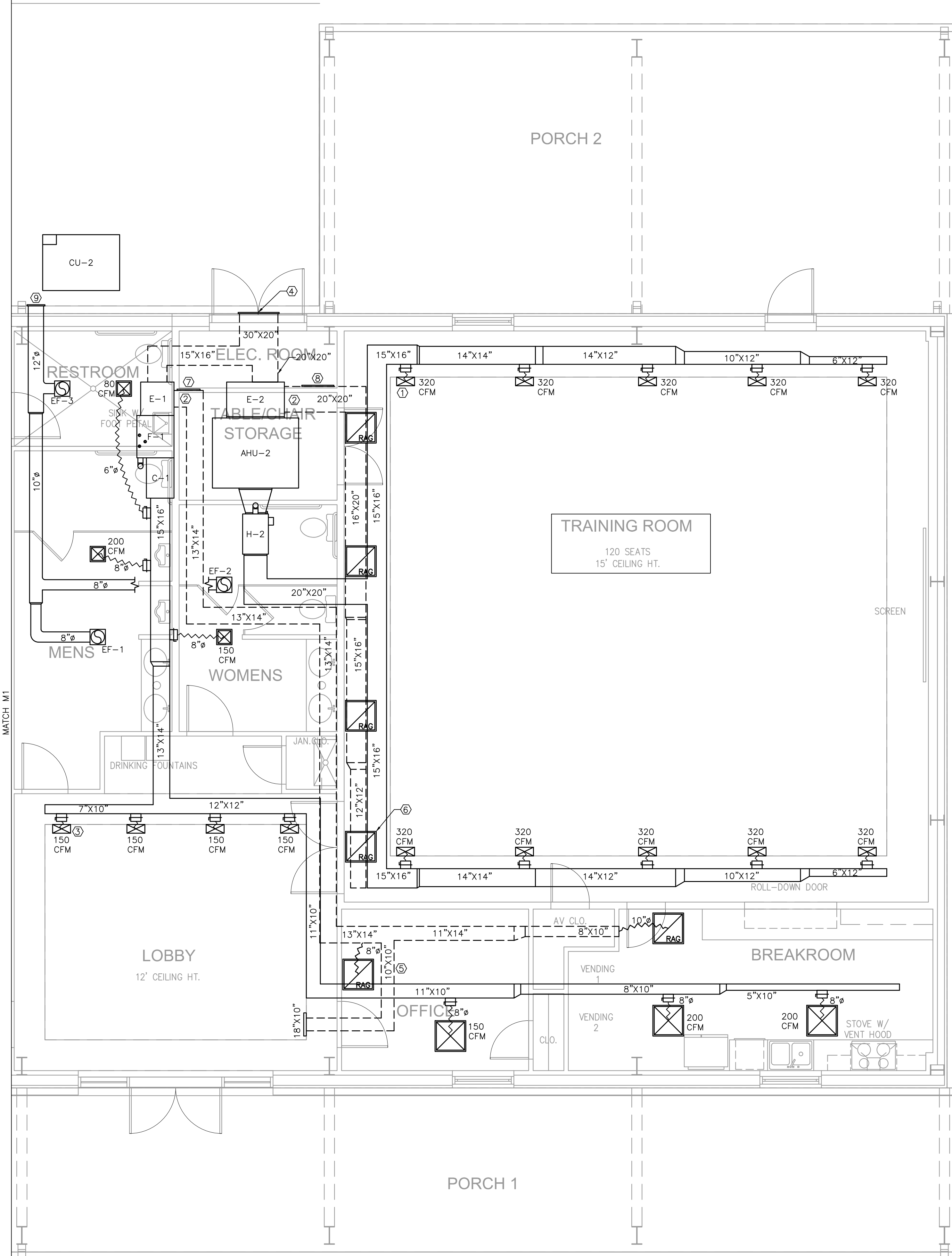
ECONOMIZER MODE SHALL TAKE PRIORITY OVER DCV.

WHEN IN COOLING MODE, DIFFERENTIAL ENTHALPY SENSORS SHALL CONTINUOUSLY COMPARE THE ENTHALPY OF THE OA TO THE ENTHALPY OF THE RETURN AIR (RA) FOR EACH SYSTEM. WHEN THE OA ENTHALPY IS LOWER THAN THE RA ENTHALPY, THE COMPRESSOR(S) SHALL SHUT DOWN, THE ECONOMIZER SHALL MODULATE ITS RA DAMPER 100% CLOSED AND MODULATE ITS OA DAMPER TO 100% OPEN TO ALLOW "FREE COOLING". GRAVITY DAMPERS ON THE RA DUCTWORK SHALL PROVIDE A RELIEF AIR PATH INTO THE MECHANICAL DECK SPACE.

MECHANICAL LEGEND	
MARK	DESCRIPTION
	SUPPLY AIR GRILLE TITUS TMSA OR PRICE SCD WITH VOLUME DAMPER
	RETURN AIR GRILLE TITUS 50F, PRICE MODEL 80
	DUCT DAMPER
	EXHAUST VENT
	THERMOSTAT
NOTE: NOT ALL SYMBOLS LISTED ABOVE ARE SHOWN ON PLANS. THE SYMBOLS LEGEND IS USED FOR REFERENCE OF SYMBOLS SHOWN ON PLANS. SEE SPECIFICATIONS FOR INFORMATION RELATED TO SYMBOLS	

KEYED NOTES

- PRICE MODEL 510 GRILLE 14"x8" (TYP OF 10) MOUNTED 12'6" A.F.F. WITH 10"Ø FLEX CONNECTION.
- RETURN AIR DUCT TO CONNECT TO ECONOMIZER FROM BELOW.
- PRICE MODEL 510 GRILLE 10"x5" (TYP. OF 4) MOUNTED 11'-0" A.F.F. WITH 8"Ø FLEX CONNECTION.
- OUTSIDE AIR INTAKE GRILLE ENTERED ABOVE EXTERIOR DOOR 10' A.F.F..
- 10"x10" RETURN DUCT BELOW 12"x12" SUPPLY DUCT.
- 24"x24" RAG 12"Ø FLEX BELOW RETURN AND SUPPLY DUCTS (TYP. OF 4).
- 18"x10" GRAVITY DAMPER TO PROVIDE RELIEF AIR PATH IN ECONOMIZER MODE.
- 25"x16" GRAVITY DAMPER TO PROVIDE RELIEF AIR PATH IN ECONOMIZER MODE.
- WALL CAP AND BIRD SCREEN ON EXHAUST DUCT OUTLET.



1 MECHANICAL PLAN  
Scale: 1/4" = 1'

REVISIONS:

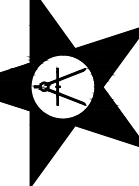
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GUADALUPE COUNTY  
LUBE CENTER  
SEGUIN, TEXAS

MECHANICAL FLOOR PLAN

JOB: 2513GUADC.001

DATE: MAY 2014

SCALE: AS NOTED

ENG BY: B. MEUTH

CHK BY: T. SIMS

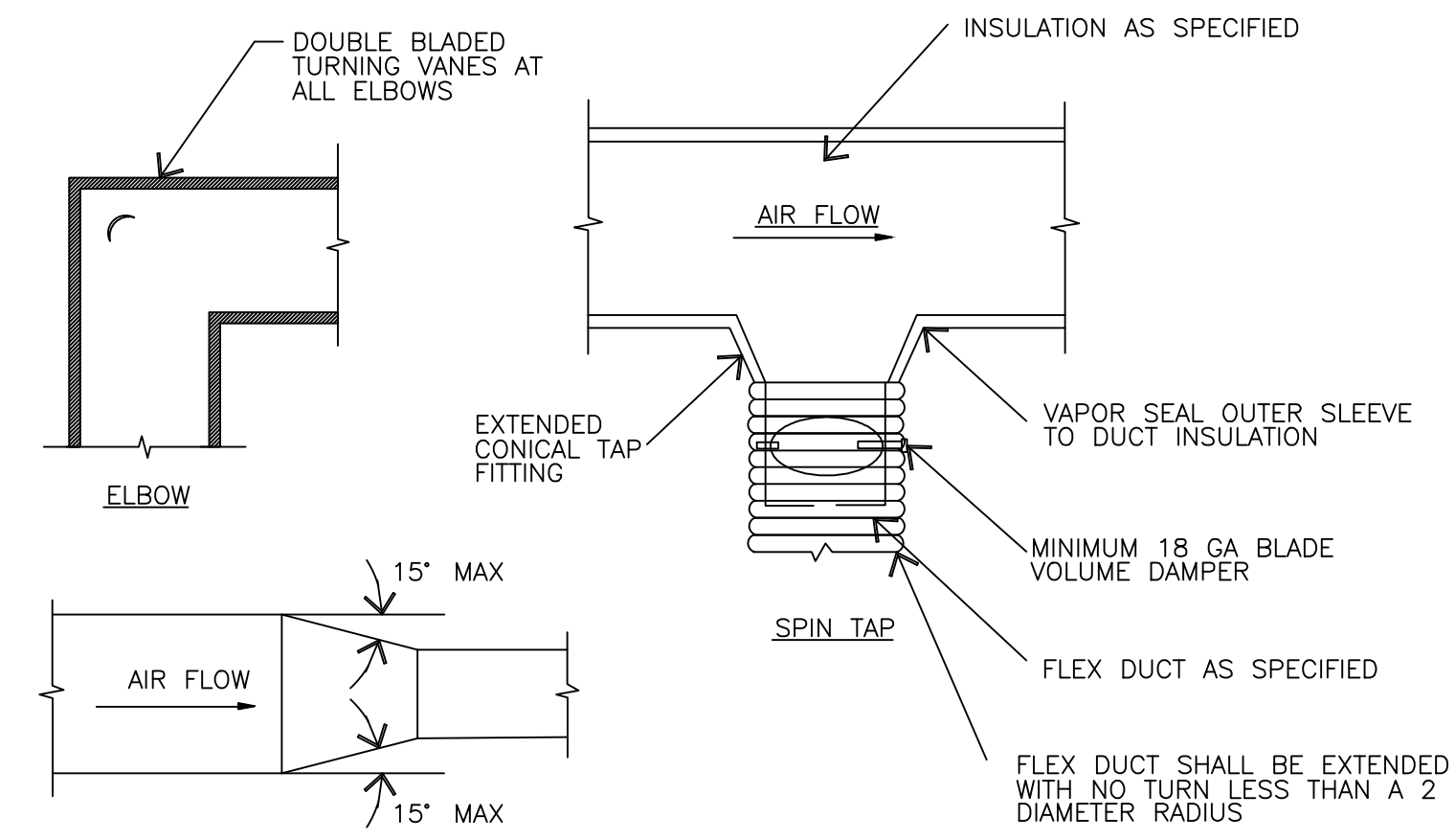
DWN BY: C. LEMAIRE

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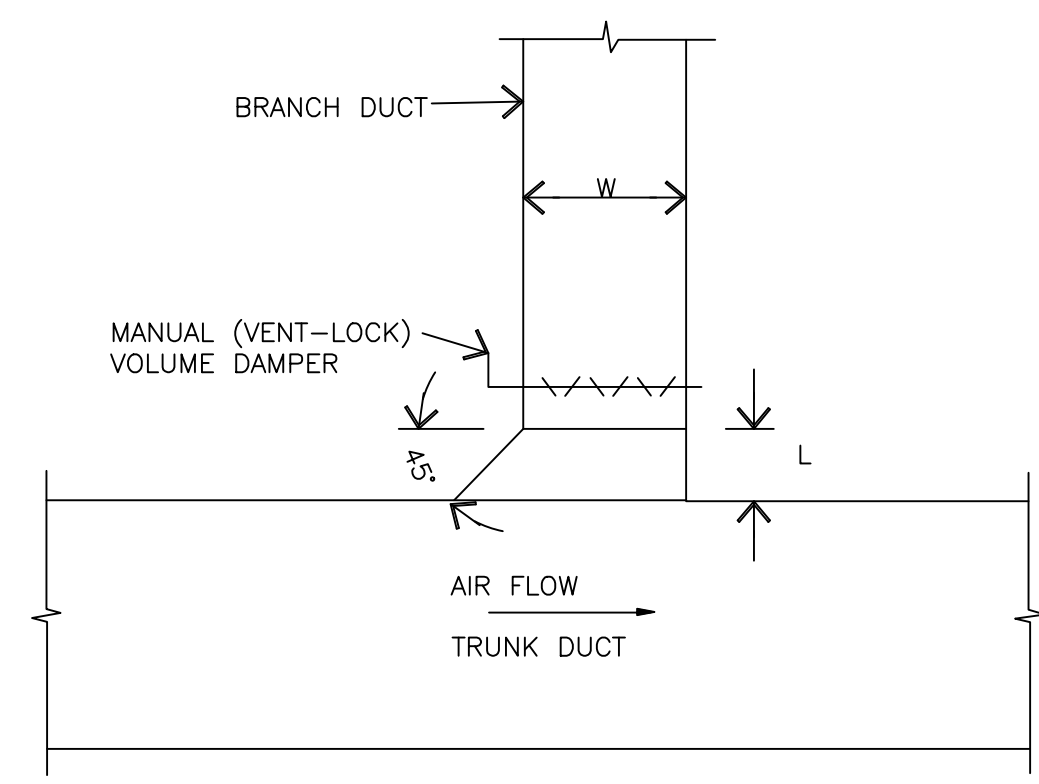
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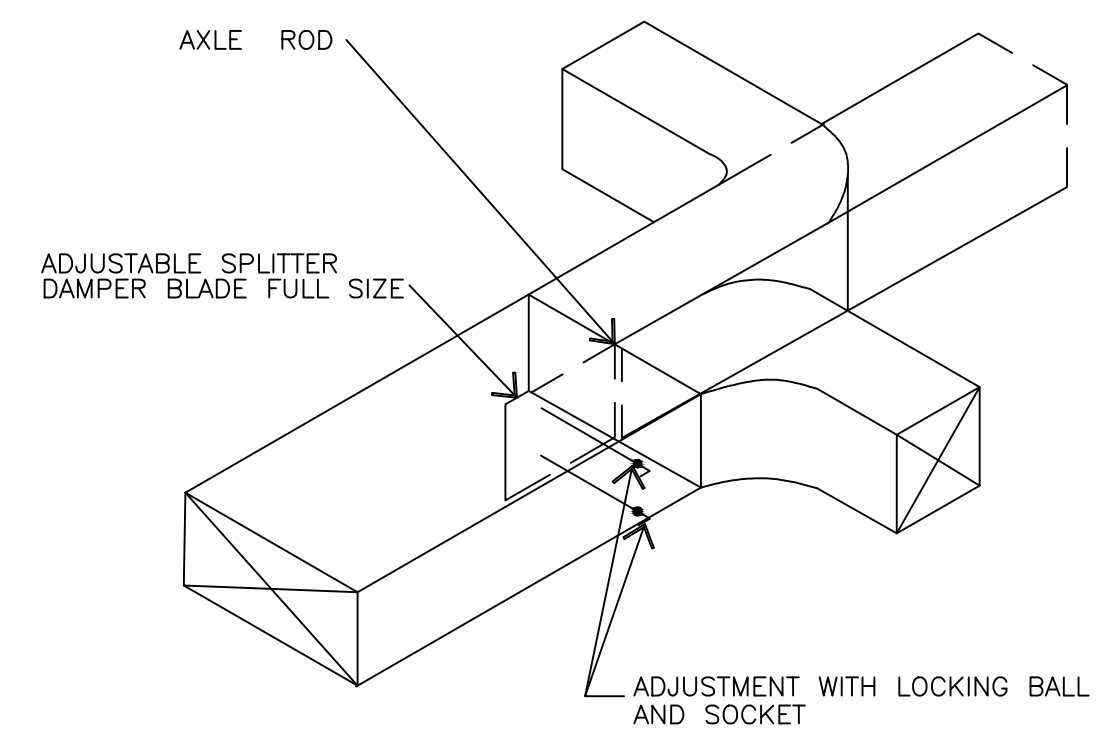




1 MISC. DUCT DETAILS  
SCALE: N.T.S.

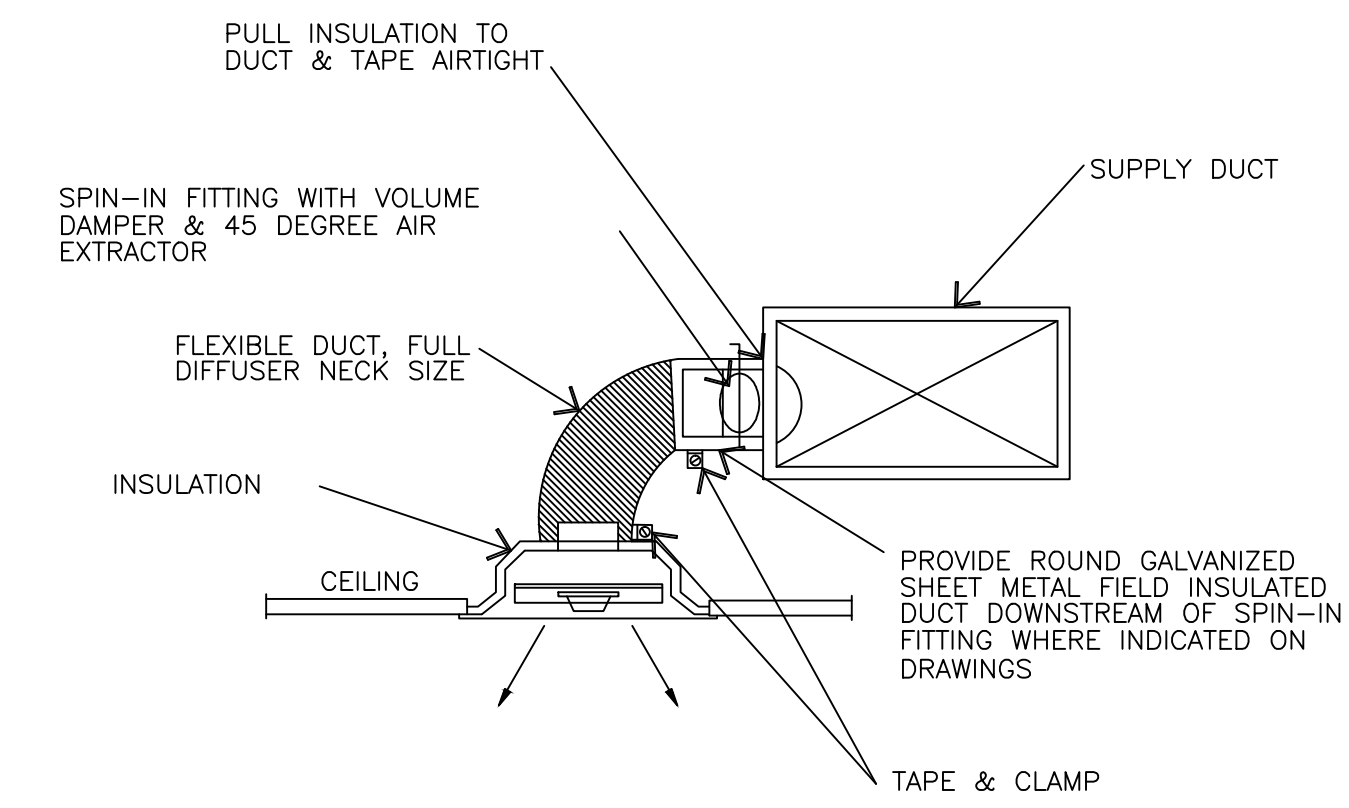


2 BRANCH TAKE-OFF DETAIL  
SCALE: N.T.S.



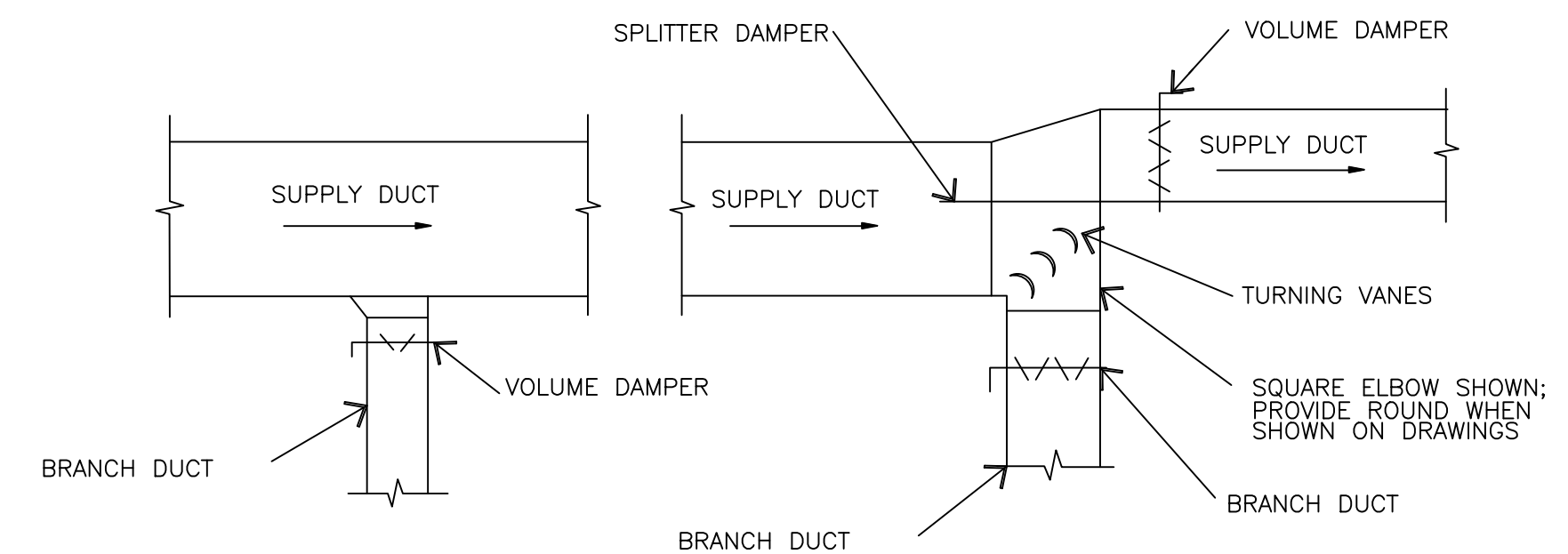
GENERAL NOTES:  
ONE ADJUSTMENT ROD ACCEPTABLE ON DUCT 12" IN DEPTH OR LESS; FOR DUCTS GREATER THEN 12" PROVIDE ADJUSTMENT RODS AS REQUIRED SO AS NOT TO EXCEED 12" BETWEEN ROD CENTERS

3 SPLITTER DAMPER DETAIL  
SCALE: N.T.S.

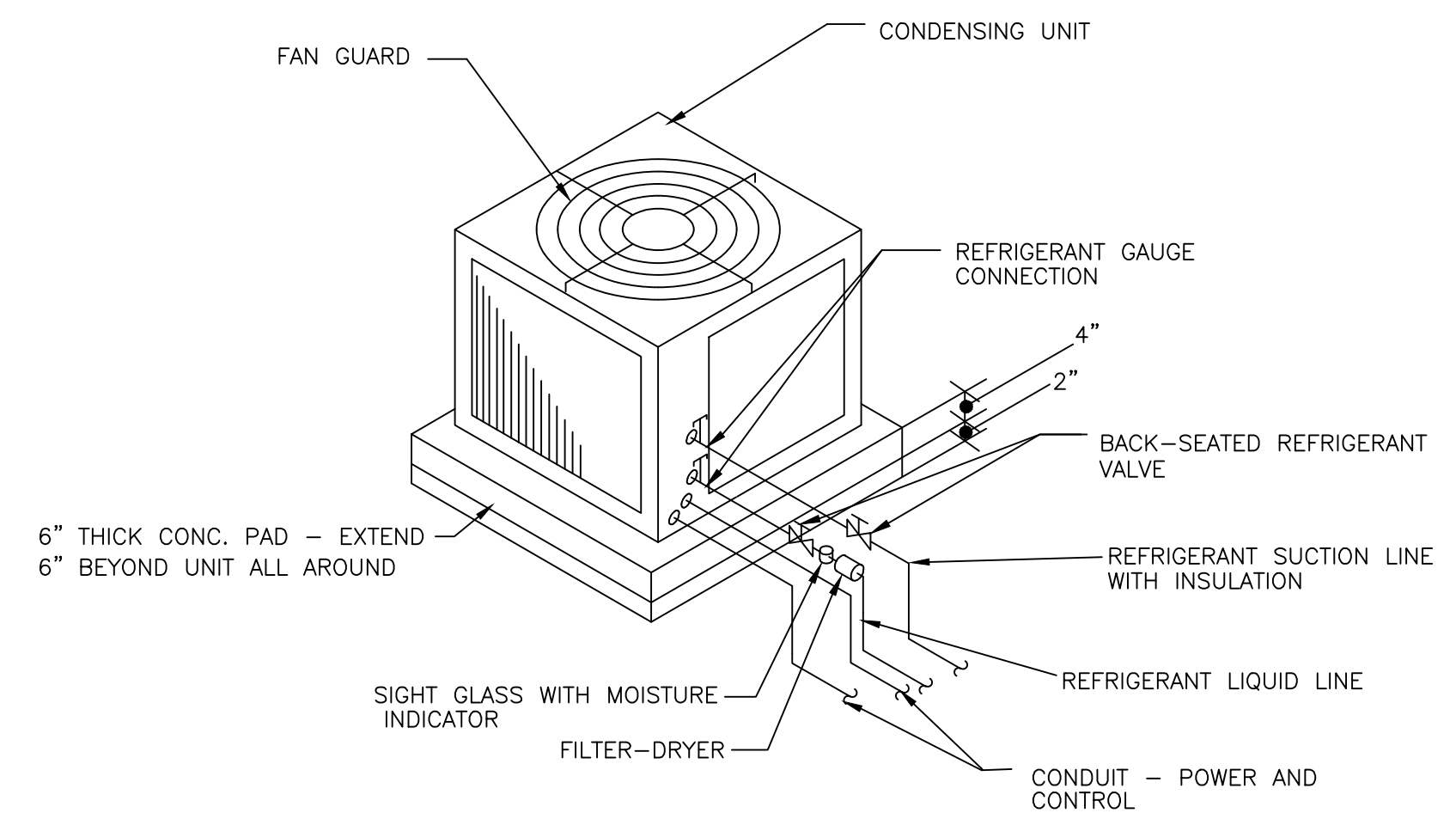


GENERAL NOTE:  
CENTERLINE RADIUS SHALL BE GREATER THAN 3 DUCT DIAMETERS FOR ALL FLEXIBLE DUCT BENDS

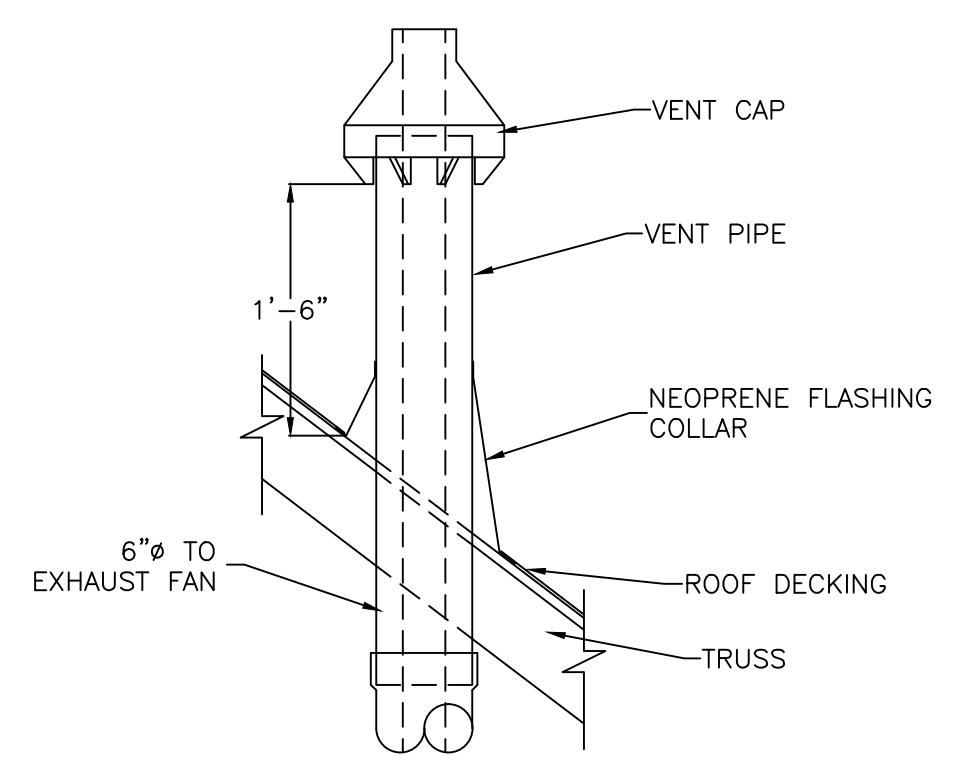
4 CEILING DIFFUSER & FLEX DUCT  
SCALE: N.T.S.



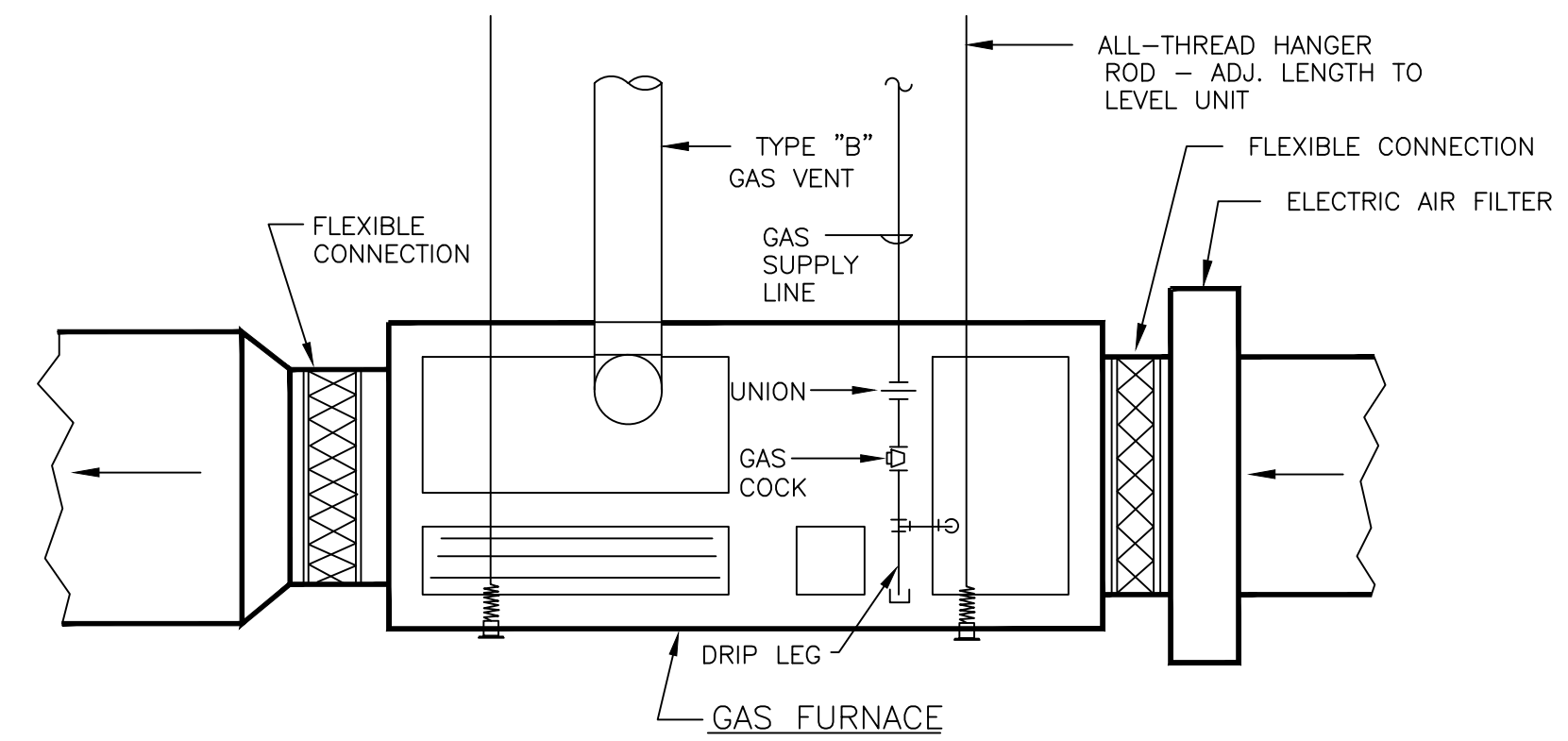
5 SUPPLY DUCT TAKE-OFFS  
SCALE: N.T.S.



6 CONDENSING UNIT DETAIL  
SCALE: N.T.S.



7 FLUE DETAIL  
SCALE: N.T.S.



8 HORIZONTAL GAS FURNACE DETAIL  
SCALE: N.T.S.

MECHANICAL EQUIPMENT SCHEDULE																				
CALLOUT	NOMINAL SIZE	MANUFACTURER	MODEL NUMBER	AIRFLOW		MAX STATIC PRESSURE	HEAT		ELECTRICAL				EFFICIENCY							
				TOTAL	OUTSIDE		TYPE	SIZE	VOLT	Φ	HZ	MCA	MOP	SEER	EER	IEER				
CU-1	5 TON	LENNOX	TSA060H4-230	---	CFM	---	CFM	---	W.C.	GAS	---	BTUH	208	3	60	21.8	35	11.5	14	
E-1	---	TON	LENNOX	T2ECON31L-1	---	CFM	---	CFM	---	W.C.	GAS	---	BTUH	24	1	60	---	---	---	---
F-1	---	TON	LENNOX	ML195UH090XP60C	1600	CFM	250	CFM	0.86	W.C.	GAS	88,000	BTUH	120	1	60	11.5	15	11.5	14
C-1	5 TON	LENNOX	CH33-49C-2F	---	CFM	---	CFM	---	W.C.	GAS	---	BTUH	---	---	---	---	---	---	11.5	14
CU-2	10 TON	LENNOX	TSA120S4DN1Y	---	CFM	---	CFM	---	W.C.	GAS	---	BTUH	208	3	60	41	50	11.5	14	
E-2	---	TON	LENNOX	TECON31M-1	---	CFM	---	CFM	---	W.C.	GAS	---	BTUH	24	1	60	---	---	---	---
AHU-2	10 TON	LENNOX	TAA120S4D-1Y	3200	CFM	800	CFM	0.86	W.C.	ELEC.	---	KW	208	3	60	10	15	---	11.2	11.4
H-2	---	TON	LENNOX	LD24-125S	---	CFM	---	CFM	---	W.C.	GAS	125,000	BTUH	120	1	60	1.5	20	---	---

EXHAUST FAN SCHEDULE										
CALLOUT	MANUFACTURER	MODEL NUMBER	TOTAL AIRFLOW	MAX STATIC PRESSURE	ELECTRICAL				MOTOR SIZE	
					VOLT	Φ	HZ	WATT		
EF-1	GREENHECK	SP-A250	230 CFM	0.25 W.C.	115	1	60	83	0.1 HP	
EF-2	GREENHECK	SP-A200	200 CFM	0.25 W.C.	115	1	60	48	0.1 HP	
EF-3	GREENHECK	SP-A125	100 CFM	0.20 W.C.	115	1	60	53	0.1 HP	

MECHANICAL KEY NOTES FOR AIR HANDLER DETAIL 9

- 1 AHU

2 FLEXIBLE CONNECTION.

3 SUPPLY DUCT

4 3/4" PLYWOOD BOARD UNIT SUPPORT.

5 3/4" CONDENSATE DRAIN SHALL BE INSTALLED TO DRAIN. ROUTE CONDENSATE LINE AS PER CODE.

6 1" CORK VIBRATION ISOLATION PAD.
- 7 1" ACOUSTICALLY LINED RETURN AIR.

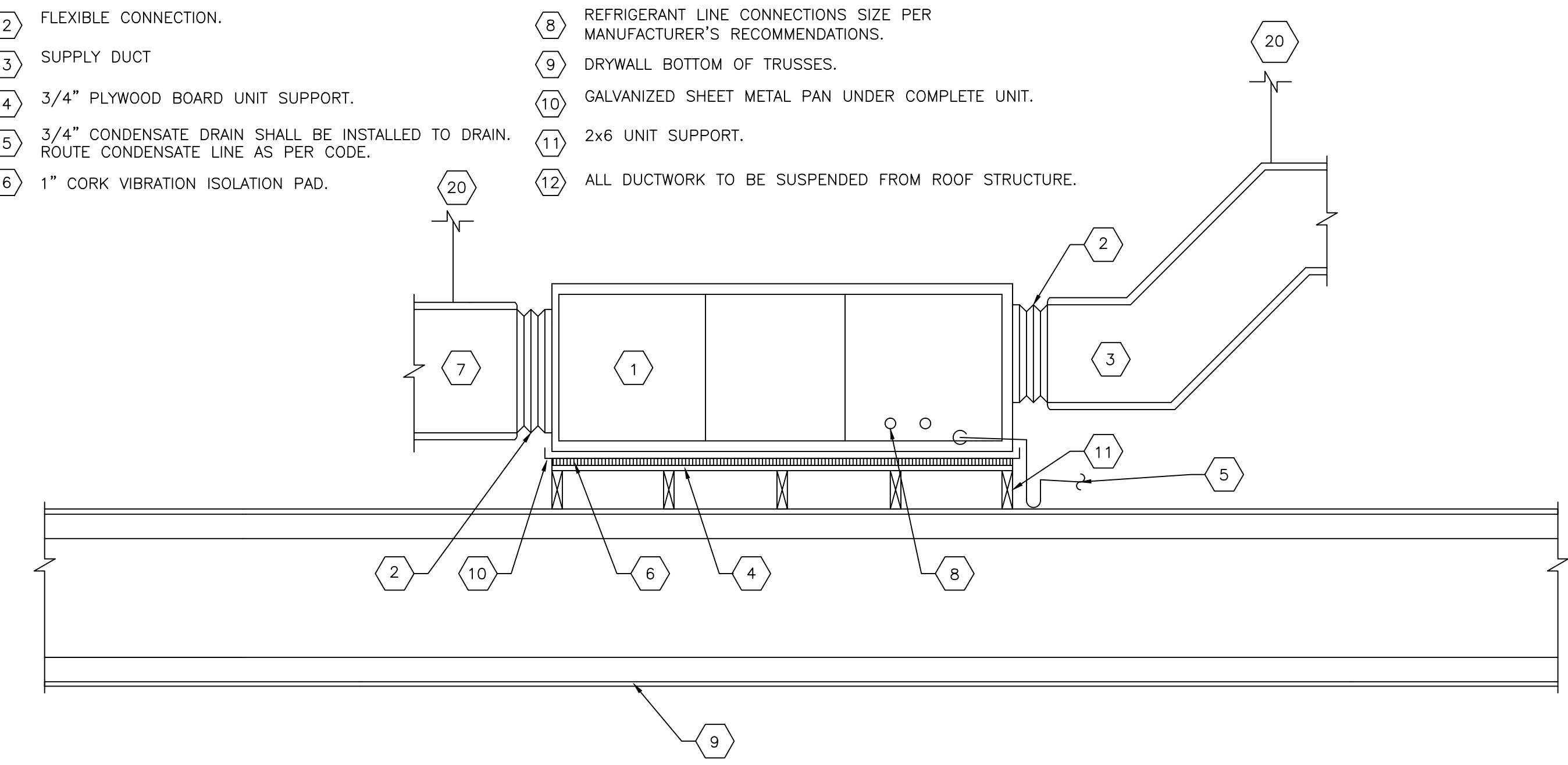
8 REFRIGERANT LINE CONNECTIONS SIZE PER MANUFACTURER'S RECOMMENDATIONS.

9 DRYWALL BOTTOM OF TRUSSES.

10 GALVANIZED SHEET METAL PAN UNDER COMPLETE UNIT.

11 2x6 UNIT SUPPORT.

12 ALL DUCTWORK TO BE SUSPENDED FROM ROOF STRUCTURE.



9 AIR HANDLER DETAIL  
SCALE: N.T.S.

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ENGINEERING, L.L.C.  
ENGINEERS, PLANNERS AND SURVEYORS  
TEXAS REGISTERED ENGINEERING FIRM F-1394

GUADALUPE COUNTY  
LUBE CENTER  
SEGUIN, TEXAS

MECHANICAL DETAILS

JOB: 2513GUADC.001

DATE: MAY 2014

SCALE: AS NOTED

ENG BY: B. MEUTH

CHK BY: T. SIMS

DWN BY: C. LEMAIRE

NOTES:

SHEET:

M3

Date: Jun 05, 2014, 10:35am User ID: clemore  
File: K:\MEP\2513GUADC.001 - Guadalupe County Lube Center.dwg

CONCRETE APRON

PLUMBING LEGEND	
LABEL	DESCRIPTION
WASTE WATER	-----
WATER SUPPLY	=====
HOT WATER	----- HW ----- HW ----- HW ----- HW ----- HW ----- HW ----- HW -----
VENT	=====
GAS LINE	----- GAS ----- GAS ----- GAS ----- GAS ----- GAS ----- GAS ----- GAS -----
COMPRESSED AIR	-----

CONCRETE APRON

SINK LOCATED ON  
1ST FLOOR BELOW  
STORAGE MEZZANINE

SINK

STAINLESS STEEL SINK WITH  
FOOT PEDAL CONTROLS  
(LOCATED ON 1ST FLOOR  
BELOW STORAGE MEZZANINE)

TIRE STORAGE

TIRE SHOP

LUBE BAY 2

LUBE PIT  
5' (W) X  
20' (L)  
X 5' (D)

LUBE BAY 1

STORAGE

STORAGE MEZZANINE ABOVE

MATCH P2

CONCRETE APRON

REVISIONS:

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BRANCH OFFICE

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GUADALUPE COUNTY  
LUBE CENTER  
SEGUIN, TEXAS

WATER DISTRIBUTION PLAN

JOB: 2513GUADC.001

DATE: MAY 2014

SCALE: AS NOTED

ENG BY: B. MEUTH

CHK BY: T. SIMS

DWN BY: C. LEMAIRE

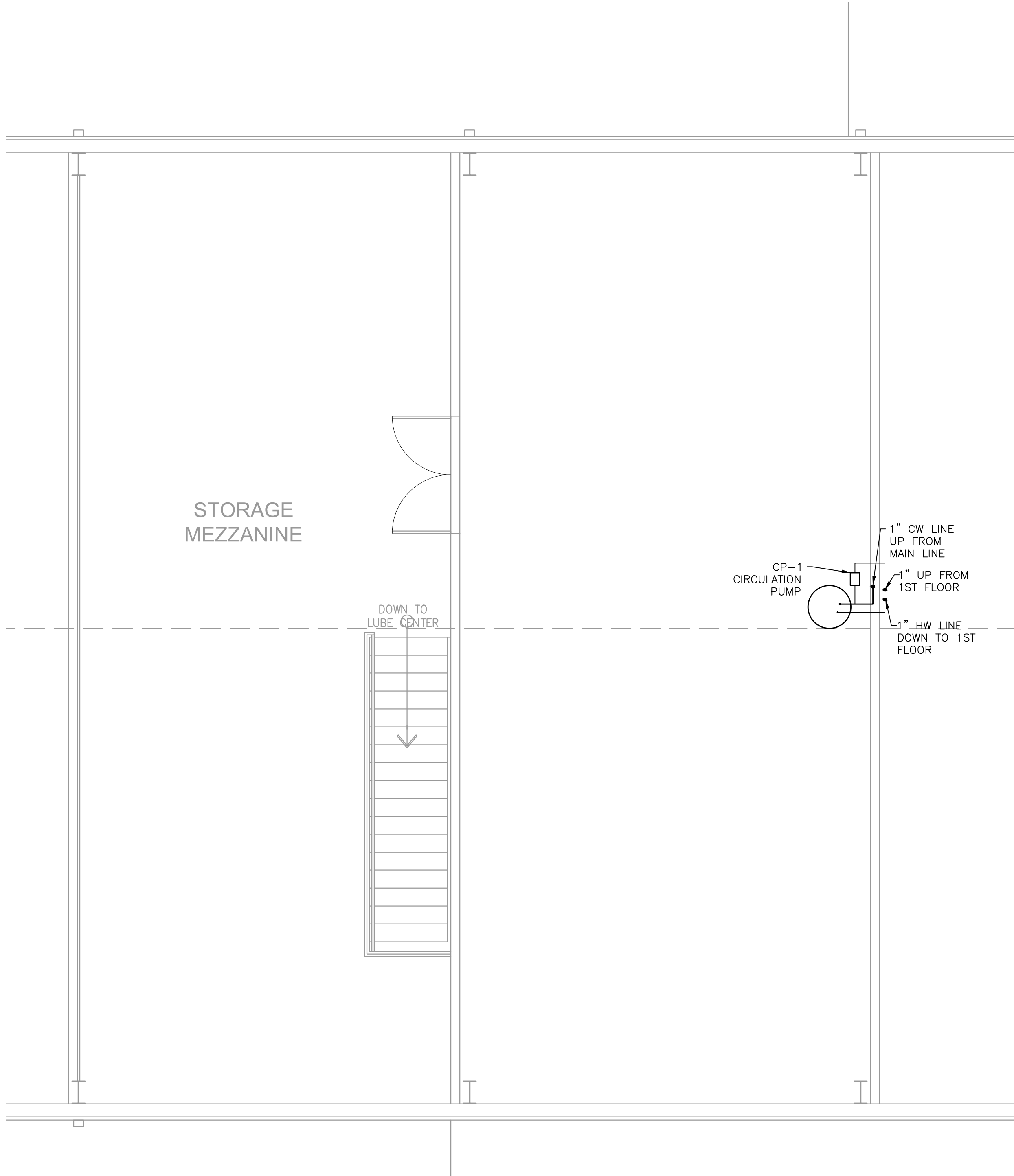
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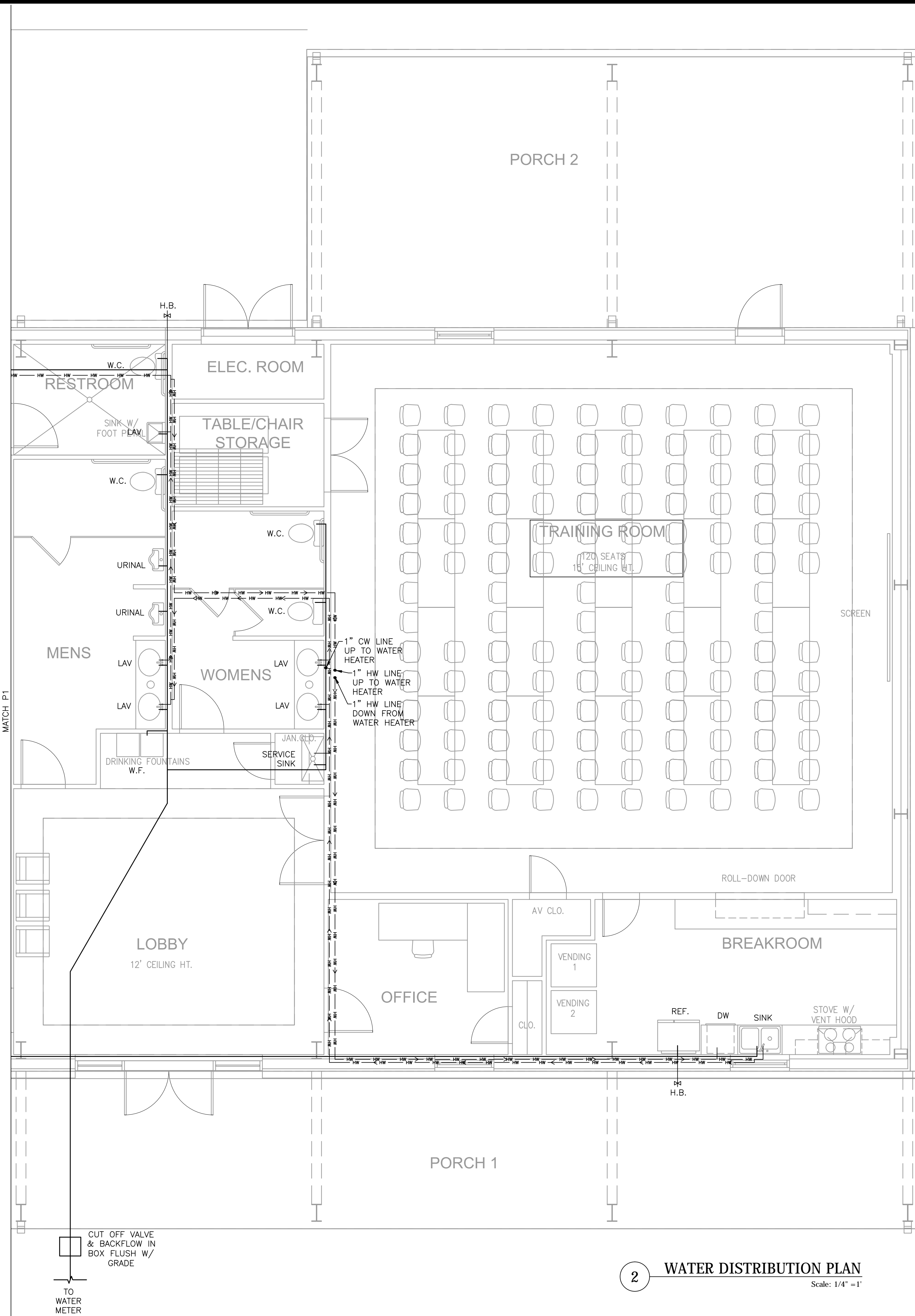
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Date: Jun 06, 2014, 10:35am User: ID: clemoire  
File: K:\MEP\2513GUADC001 - Guadalupe County Lube Center\dwg\2513GUADC001 - MEP-001.dwg

PLUMBING LEGEND	
LABEL	DESCRIPTION
WASTE WATER	-----
WATER SUPPLY	=====
HOT WATER	----- HW ----- HW ----- HW ----- HW ----- HW ----- HW ----- HW -----
VENT	-----
GAS LINE	----- GAS ----- GAS ----- GAS ----- GAS ----- GAS ----- GAS ----- GAS -----
COMPRESSED AIR	-----



1 WATER DISTRIBUTION PLAN - MEZZANINE DECK  
Scale: 1/4" = 1'

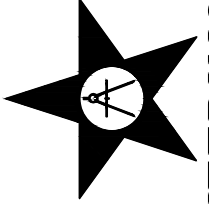


2 WATER DISTRIBUTION PLAN  
Scale: 1/4" = 1'

REVISIONS:

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BRANCH OFFICE  
P.O. BOX 391  
MCQUEENY, TEXAS 78123



GUADALUPE COUNTY  
LUBE CENTER  
SEGUIN, TEXAS

WATER DISTRIBUTION PLAN

JOB: 2513GUADC.001  
DATE: MAY 2014  
SCALE: AS NOTED  
ENG BY: B. MEUTH  
CHK BY: T. SIMS  
DWN BY: C. LEMAIRE  
NOTES:

Date: Jun 05, 2014, 10:35am User ID: clemore  
File: K:\MEP\2513GUADC.001 - Guadalupe County Lube Center.dwg

CONCRETE APRON

TIRE STORAGE

TIRE SHOP

(2) 3" PVC  
SLEEVES

LUBE PIT  
5' (W) X  
20' (L)  
X 5' (D)

LUBE BAY 2

LUBE BAY 1

STORAGE

STORAGE MEZZANINE ABOVE

MATCH P4

PLUMBING LEGEND	
LABEL	DESCRIPTION
WASTE WATER	-----
WATER SUPPLY	-----
HOT WATER	----- HW ----- HW ----- HW ----- HW ----- HW ----- HW ----- HW -----
VENT	-----
GAS LINE	----- GAS ----- GAS ----- GAS ----- GAS ----- GAS ----- GAS ----- GAS -----
COMPRESSED AIR	-----

CONCRETE APRON

SINK  
STAINLESS STEEL SINK WITH  
FOOT PEDAL CONTROLS  
(LOCATED ON 1ST FLOOR  
BELOW STORAGE MEZZANINE)

GUADALUPE COUNTY  
LUBE CENTER  
SEGUIN, TEXAS

SANITARY DRAINAGE PLAN

JOB: 2513GUADC.001  
DATE: MAY 2014  
SCALE: AS NOTED  
ENG BY: B. MEUTH  
CHK BY: T. SIMS  
DWN BY: C. LEMAIRE

NOTES:

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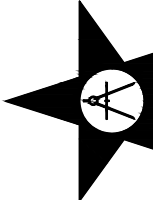
P3

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ENGINEERS, PLANNERS AND SURVEYORS  
TEXAS REGISTERED ENGINEERING FIRM F-1394

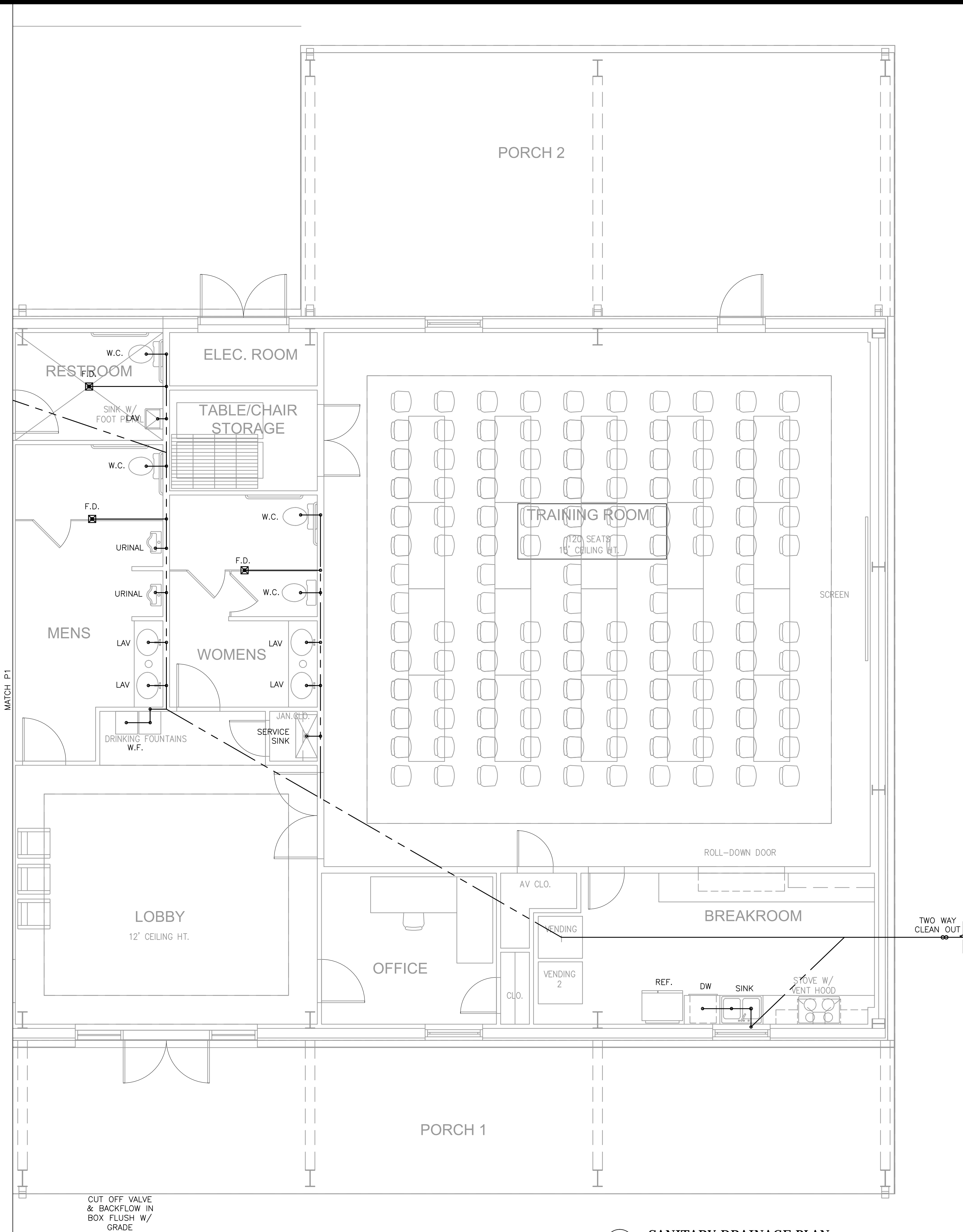


1 SANITARY DRAINAGE PLAN  
Scale: 1/4" = 1'



Date: Jun 05, 2014, 10:35am User ID: clemore  
File: K:\MEP\2513GUADC.001 - Guadalupe County Lube Center.dwg

PLUMBING LEGEND	
LABEL	DESCRIPTION
WASTE WATER	-----
WATER SUPPLY	=====
HOT WATER	----- HW ----- HW ----- HW ----- HW ----- HW ----- HW ----- HW -----
VENT	=====
GAS LINE	----- GAS ----- GAS ----- GAS ----- GAS ----- GAS ----- GAS ----- GAS -----
COMPRESSED AIR	-----



1 SANITARY DRAINAGE PLAN  
Scale: 1/4" = 1'

REVISIONS:


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TEXAS REGISTERED ENGINEERING FIRM E-1394



GUADALUPE COUNTY  
LUBE CENTER  
SEGWIN, TEXAS

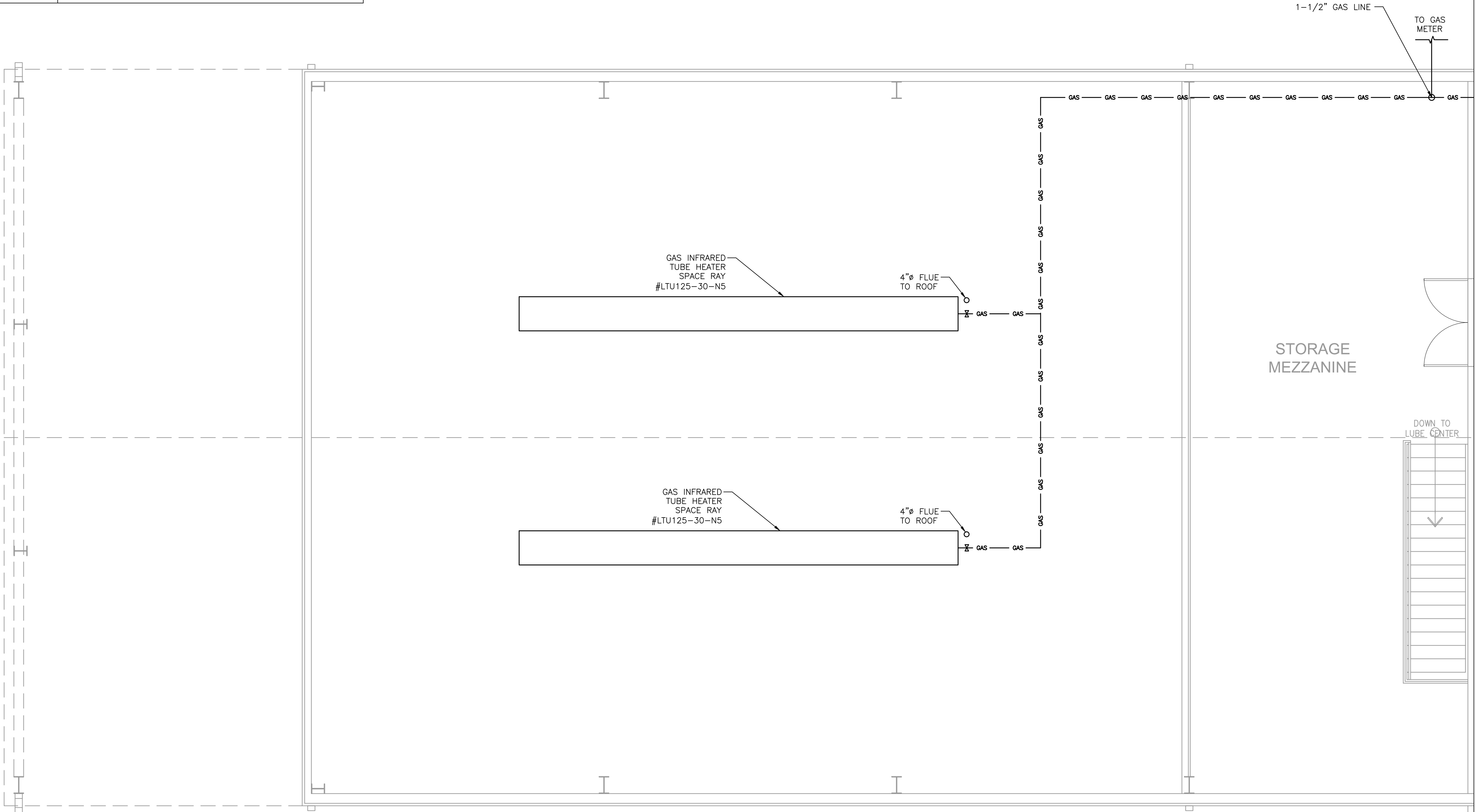
SANITARY DRAINAGE PLAN

JOB: 2513GUADC.001  
DATE: MAY 2014  
SCALE: AS NOTED  
ENG BY: B. MEUTH  
CHK BY: T. SIMS  
DWN BY: C. LEMAIRE

NOTES:

Date: Jun 05, 2014, 10:35am User ID: clemore  
File: K:\MEP\2513GUADC.001 - Guadalupe County Lube Center.dwg

PLUMBING LEGEND	
LABEL	DESCRIPTION
WASTE WATER	_____
WATER SUPPLY	_____
HOT WATER	_____ HW _____ HW _____ HW _____ HW _____ HW _____ HW _____ HW _____
VENT	_____
GAS LINE	_____ GAS _____ GAS _____ GAS _____ GAS _____ GAS _____ GAS _____ GAS _____
COMPRESSED AIR	_____



1 GAS DISTRIBUTION PLAN  
Scale: 1/4" = 1'

REVISIONS:	

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TEXAS REGISTERED ENGINEERING FIRM F-1394



**GUADALUPE COUNTY  
LUBE CENTER  
SEGUIN, TEXAS**

**GAS DISTRIBUTION PLAN**

JOB: 2513GUADC.001
DATE: MAY 2014
SCALE: AS NOTED
ENG BY: B. MEUTH
CHK BY: T. SIMS
DWN BY: C. LEMAIRE
NOTES:






Date: Jun 05, 2014, 10:36am User ID: clemore  
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CONCRETE APRON

TIRE STORAGE

AIR COMPRESSOR

TIRE SHOP

LUBE BAY 2

LUBE PIT  
5' (W) X  
20' (L)  
X 5' (D)

LUBE BAY 1

STORAGE

STORAGE MEZZANINE ABOVE

MATCH P2

PLUMBING LEGEND	
LABEL	DESCRIPTION
WASTE WATER	-----
WATER SUPPLY	=====
HOT WATER	----- HW ----- HW ----- HW ----- HW ----- HW ----- HW ----- HW -----
VENT	=====
GAS LINE	----- GAS ----- GAS ----- GAS ----- GAS ----- GAS ----- GAS ----- GAS -----
COMPRESSED AIR	-----

- KEYED NOTES
- 3/8" TEE & SHUT OFF VALVE WITH QUICK DISCONNECT.
  - 1" COMPRESSED AIR PIPING MOUNTED AT 15' A.F.F. TO STRUCTURE. ALL COMPRESSED AIR PIPING TO BE COPPER TYPE L PIPING.

CONCRETE APRON

CONCRETE APRON

1 COMPRESSED AIR FLOOR PLAN  
Scale: 1/4" = 1'

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BRIAN SCOTT MEUTH  
80548  
06/6/2014

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TEXAS REGISTERED ENGINEERING FIRM F-1394

GUADALUPE COUNTY  
LUBE CENTER  
SEGUIN, TEXAS

COMPRESSED AIR FLOOR PLAN

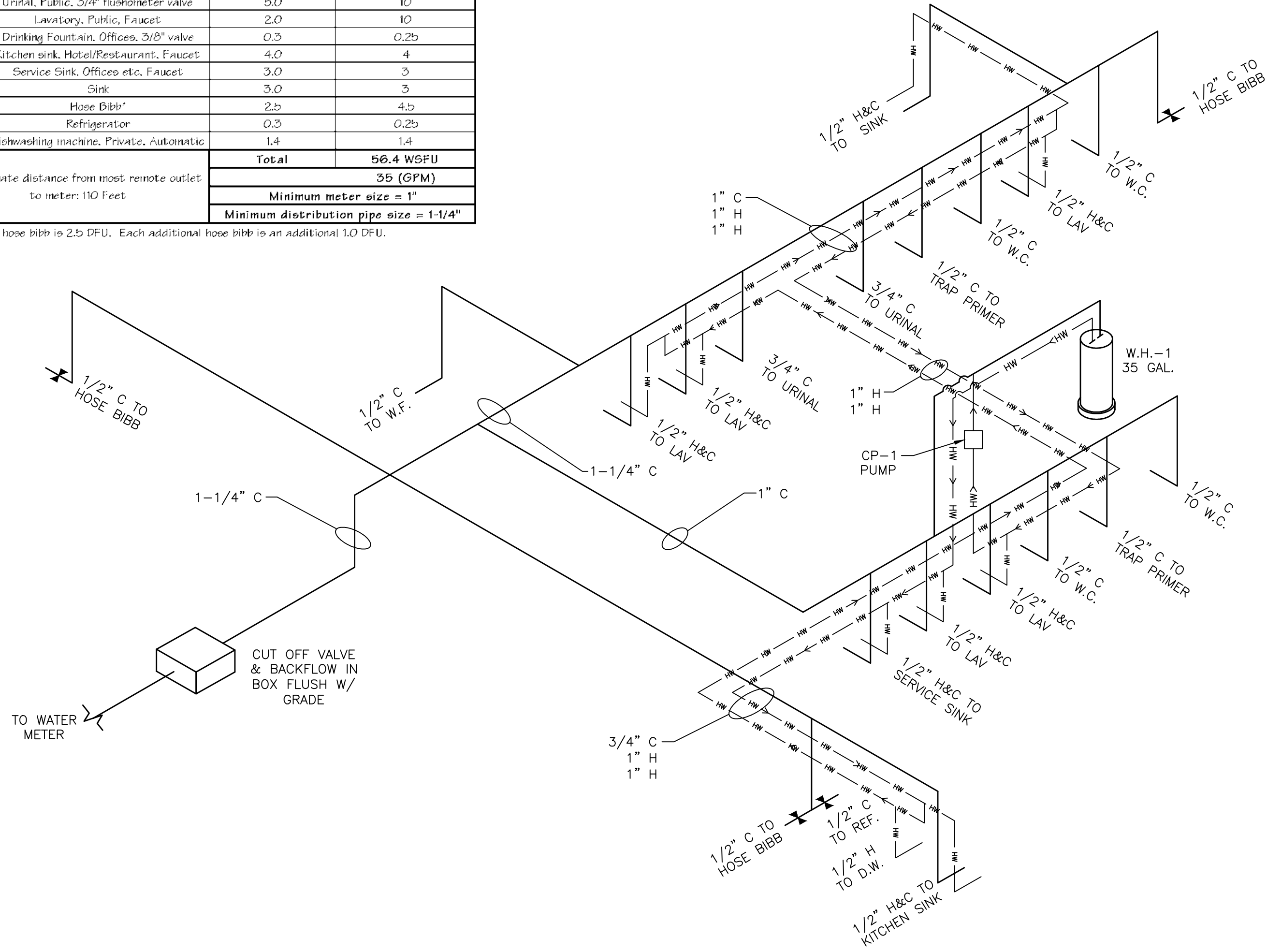
JOB: 2513GUADC.001  
DATE: MAY 2014  
SCALE: AS NOTED  
ENG BY: B. MEUTH  
CHK BY: T. SIMS  
DWN BY: C. LEMAIRE

NOTES:

SHEET:  
P7

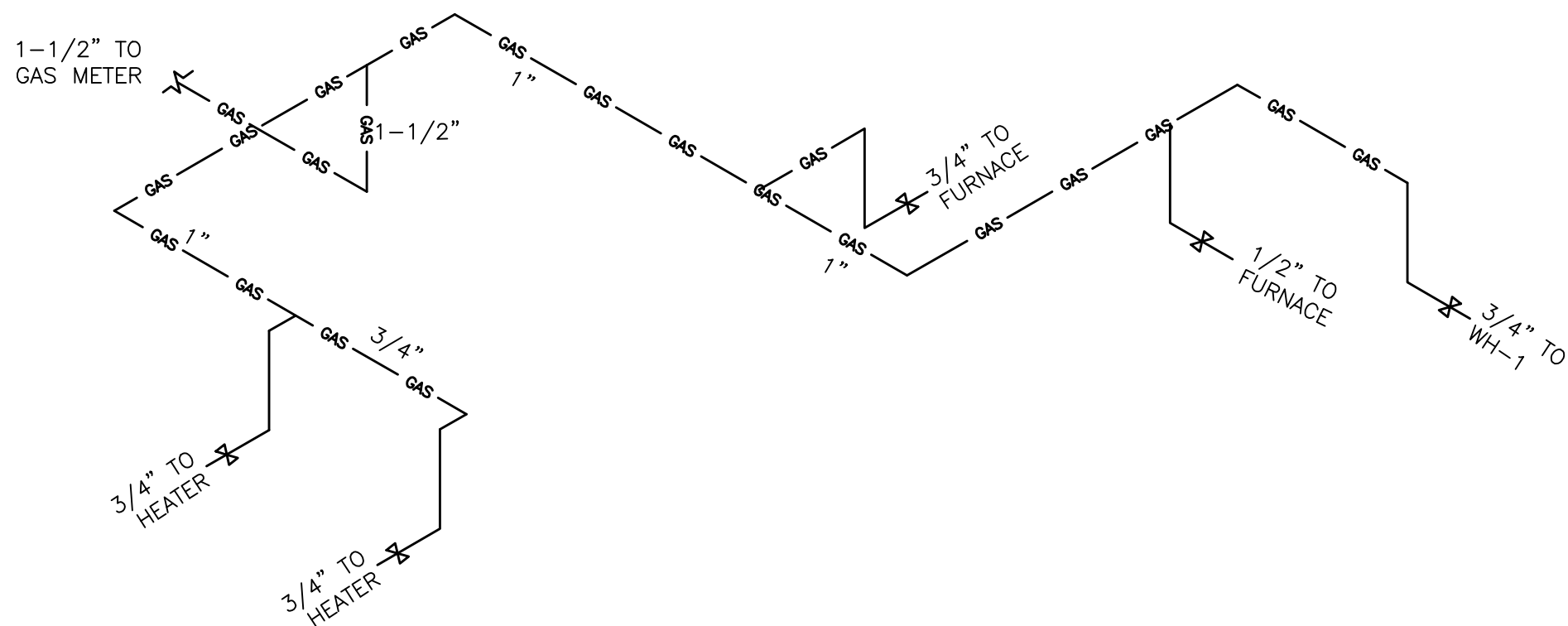
Total Water Supply Fixture Unit Count			
Qty	Appliance	WSFU (Each)	Total (WSFU)
4	Water Closet, Public, Flush tank	5.0	20
2	Urinal, Public, 3/4" flushometer valve	5.0	10
5	Lavatory, Public, Faucet	2.0	10
1	Drinking Fountain, Offices, 3/8" valve	0.5	0.5
1	Kitchen sink, Hotel/Restaurant, Faucet	4.0	4
1	Service Sink, Offices etc, Faucet	3.0	3
1	Sink	3.0	3
3	Hose Bibb*	2.5	7.5
1	Refrigerator	0.5	0.5
1	Dishwashing machine, Private, Automatic	1.4	1.4
Total		56.4 WSFU	
Approximate distance from most remote outlet to meter: 110 Feet		35 (GPM)	
		Minimum meter size = 1"	
		Minimum distribution pipe size = 1-1/4"	

\*The first hose bibb is 2.5 DFU. Each additional hose bibb is an additional 1.0 DFU.



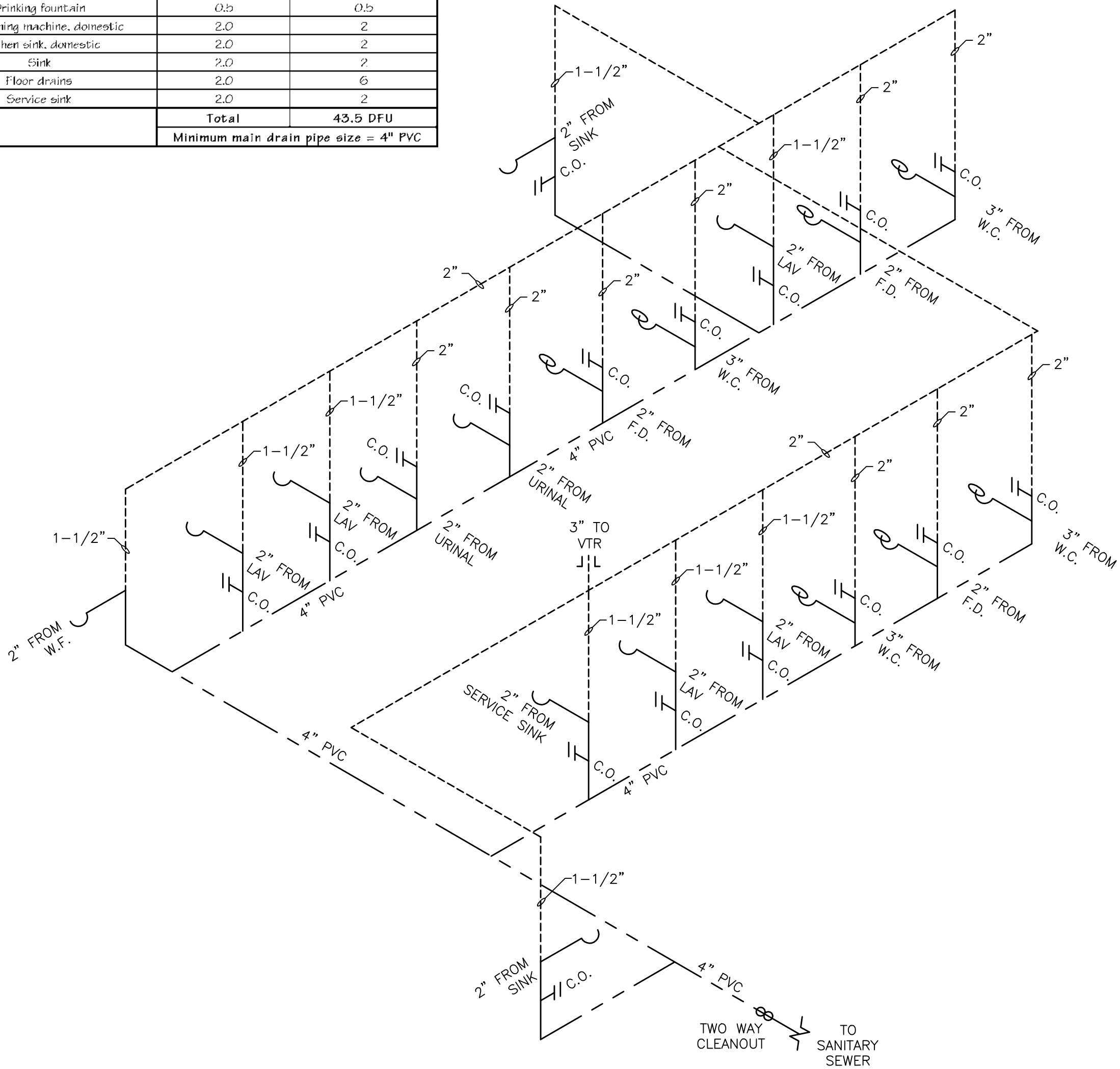
1 WATER DISTRIBUTION ISOMETRIC  
Scale: N.T.S.

Proposed Natural Gas Demand			
Qty	Appliance	Btu/hr (Each)	Total (Btu/hr)
1	Furnace - 1	125,000	125,000
1	Furnace - 2	88,000	88,000
2	IR Heater	125,000	250,000
1	Water Heater	199,900	199,900
Total Btu/hr		662,900	
Approximate Distance From most Remote Outlet to meter: 80 foot		Total Cubic Feet of NG/hr	663
Pipe designed for inlet pressure of 2.0 psi		1-1/2" Schedule 40 Metallic Distribution Pipe	

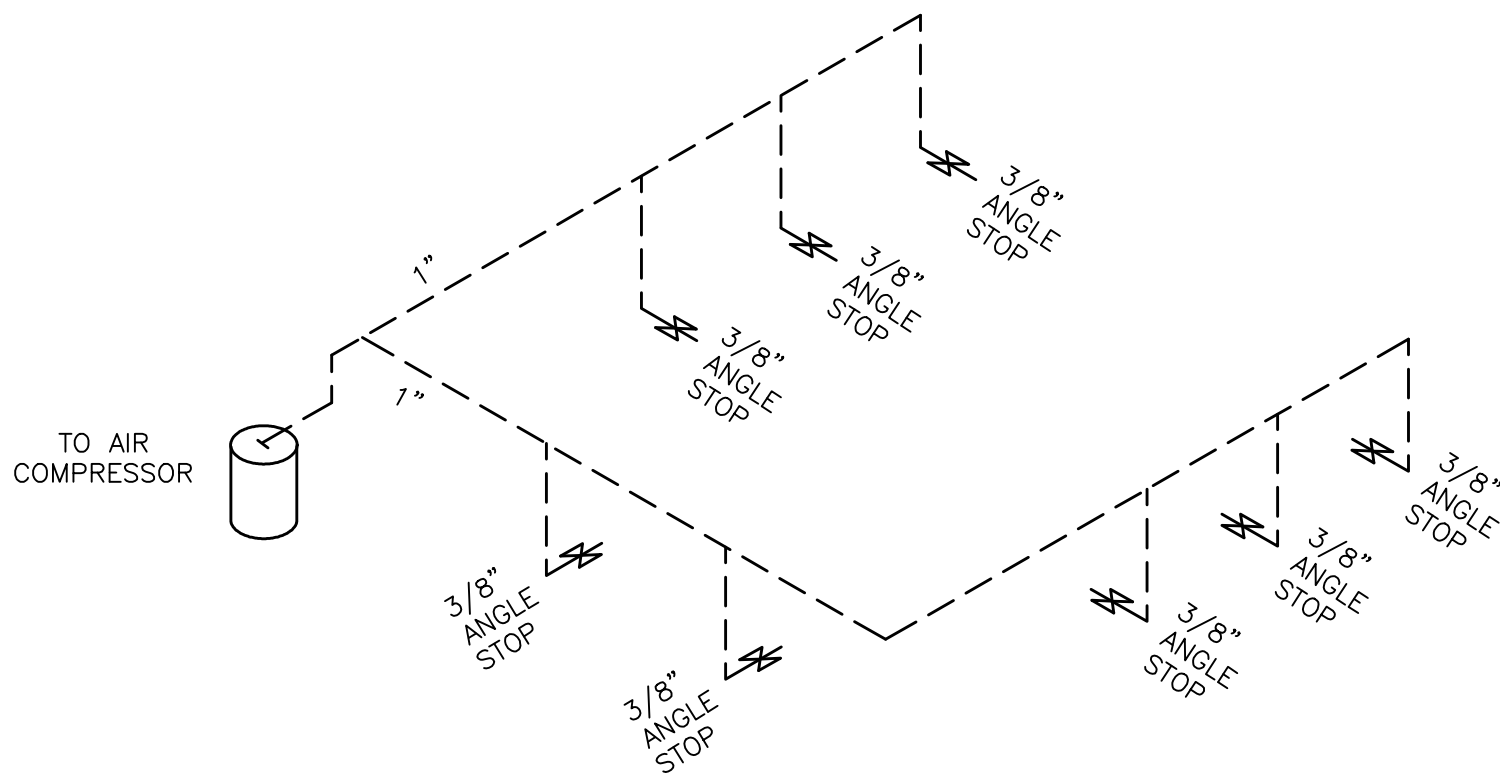


3 GAS DISTRIBUTION ISOMETRIC  
Scale: N.T.S.

Total Drainage Fixture Unit Count			
Qty	Appliance	DFU (Each)	Total (DFU)
4	Water closet public (1/8 gpf)	4.0	16
2	Urinal	4.0	8
5	Lavatory	1.0	5
1	Drinking fountain	0.5	0.5
1	Dishwashing machine, domestic	2.0	2
1	Kitchen sink, domestic	2.0	2
1	Sink	2.0	2
3	Floor drains	2.0	6
1	Service sink	2.0	2
Total		43.5 DFU	
		Minimum main drain pipe size = 4" PVC	



2 SANITARY DRAINAGE ISOMETRIC  
Scale: N.T.S.



4 COMPRESSED AIR DISTRIBUTION ISOMETRIC  
Scale: N.T.S.

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ENGINEERS, PLANNERS AND SURVEYORS  
TEXAS REGISTERED ENGINEERING FIRM E-1394



GUADALUPE COUNTY  
LUBE CENTER  
SEGUN, TEXAS  
ISOMETRIC VIEWS

JOB: 2513GUADC.001  
DATE: MAY 2014  
SCALE: AS NOTED  
ENG BY: B. MEUTH  
CHK BY: T. SIMS  
DWN BY: C. LEMAIRE  
NOTES:

SHEET:  
P8



WATER HEATER SCHEDULE							
CALLOUT	MANUFACTURER	MODEL NUMBER	CAPACITY	GAS DEMAND	ELECTRICAL		
					VOLT	Φ	HZ WATT
WH-1	RHEEM-RUUD	G37-200	35 GAL	199,900 BTUH	120	1	60 ---
CP-1	TACO	009-SF5 W/ 1" CONN.	--	--	120	1	60 168

1. TRAP PRIMER  
1.1. ZURN Z1022  
1.1.1. TRAP PRIMER TO BE SANI-GARD AUTOMATIC TRAP PRIMER, ALL BRONZE BODY WITH INTEGRAL VACUUM BREAKER, NON-LIMING INTERNAL OPERATING ASSEMBLY WITH, GASKETED BRONZE COVER.
2. FLOOR DRAIN  
2.1. ZURN ZN415J  
2.1.1. FLOOR DRAIN TO BE DURA-COATED CAST IRON BODY WITH BOTTOM OUTLET, COMBINATION INVERTIBLE MEMBRANE CLAMP AND ADJUSTABLE COLLAR WITH SEEFASE SLOTS AND "TYPE J" POLISHED, NICKEL BRONZE RECTANGULAR, LIGHT-DUTY, HEEL-PROOF STRAINER. DRAINS TO COMPLY WITH INTERNATIONAL PLUMBING CODE SECTION 412.
3. WALL CLEANOUT  
3.1. ZURN Z1446  
3.1.1. WALL CLEANOUT TO BE CLEANOUT TEE, DURA-COATED CAST IRON BODY, GAS AND WATERTIGHT ABS TAPERED THREAD PLUG, AND ROUND, SMOOTH STAINLESS STEEL WALL ACCESS COVER WITH SECURING SCREW.
4. ACCESS PANEL  
4.1. ZURN Z1461  
4.1.1. ACCESS PANEL TO BE SQUARE HINGED DURA-COATED CAST IRON SCORRIATED SECURED ACCESS PANEL AND FRAME WITH ANCHOR LUGS, SET FLUSH WITH WALL OR FLOOR FOR LIGHT-DUTY APPLICATIONS.
5. MOP SINK BASIN  
5.1. ZURN Z1996-24  
5.1.1. MOP SERVICE BASIN TO BE 24 x 24 x 10 [610 x 610 x 254] MOLDED HIGH DENSITY COMPOSITE BASIN, PVC DRAIN BODY, STAINLESS STEEL STRAINER AND 3 [76] GASKETED OUTLET CONNECTION. CERTIFICATIONS: MEETS ANSI Z124.6, CSA LISTED, AND APMO LISTED UNDER FILE # 3561. SINKS TO COMPLY WITH INTERNATIONAL PLUMBING CODE SECTION 418.
6. MOP SINK FAUCET  
6.1. ZURN Z1996-SF  
6.1.1. SERVICE SINK FAUCET - CHROME PLATED SERVICE FAUCET, COMPLETE WITH VACUUM BREAKER, INTEGRAL STOPS, ADJUSTABLE WALL BRACE, PAIL HOOK, FOUR-ARM HOT AND COLD HANDLES AND 3/4 [19] HOSE THREAD ON SPOUT. WATER INLETS ARE FOR 1/2 [13] PIPE AND ARE ECCENTRIC ON AN 8 [203] CENTERLINE. DWG. NO. 58519 PRODUCT NO. Z1996-SF NOTE: CONFORMS TO: ASME A112.18.1-2005/CSA B125.1-2005. FAUCETS TO COMPLY WITH INTERNATIONAL PLUMBING CODE SECTION 424.
7. P-TRAPS  
7.1. ZURN Z8700-PC TO Z8708-PC  
7.1.1. P-TRAPS TO BE CHROME-PLATED CAST BRASS (COPPER ALLOY) BODY P-TRAP WITH CLEANOUT, TUBULAR BRASS WALL BEND AS SPECIFIED, DIE-CAST NUTS, AND SHALLOW ESCUTCHEON WITH COMPRESSION INLET.
8. W.C. TOILET  
8.1. AMERICAN STANDARD 2333.100  
8.1.1. ADA COMPLIANT, COMPRESSION-ASSISTED TOILET WITH OPEN FRONT SEAT LESS COVER. WATER CLOSETS TO COMPLY WITH INTERNATIONAL PLUMBING CODE SECTION 420.
9. LAVATORY  
9.1. AMERICAN STANDARD LAVATORY  
9.1.1. LAVATORY THAT MEETS THE AMERICANS WITH DISABILITIES ACT GUIDELINES AND ANSI A117.1 ACCESSIBLE AND USABLE BUILDINGS AND FACILITIES-CHECK LOCAL CODES. LAVATORIES TO COMPLY WITH INTERNATIONAL PLUMBING CODE SECTION 416.
10. LAVATORY FAUCETS  
10.1. AMERICAN STANDARD LAVATORY FAUCET  
10.1.1. FAUCET THAT MEETS THE AMERICANS WITH DISABILITIES ACT GUIDELINES AND ANSI A117.1 ACCESSIBLE AND USABLE BUILDINGS AND FACILITIES-CHECK LOCAL CODES. FAUCETS TO COMPLY WITH INTERNATIONAL PLUMBING CODE SECTION 424.
11. SINK  
11.1. AMERICAN STANDARD SINK  
11.1.1. SINK THAT MEETS THE AMERICANS WITH DISABILITIES ACT GUIDELINES AND ANSI A117.1 ACCESSIBLE AND USABLE BUILDINGS AND FACILITIES-CHECK LOCAL CODES. SINKS TO COMPLY WITH INTERNATIONAL PLUMBING CODE SECTION 418.
12. SINK FAUCETS  
12.1. AMERICAN STANDARD FAUCET  
12.1.1. FAUCET THAT MEETS THE AMERICANS WITH DISABILITIES ACT GUIDELINES AND ANSI A117.1 ACCESSIBLE AND USABLE BUILDINGS AND FACILITIES-CHECK LOCAL CODES. FAUCETS TO COMPLY WITH INTERNATIONAL PLUMBING CODE SECTION 424.
13. SINK WITH FOOT PEDALS  
13.1. ELKAY EWS3120FC W/ EWS3120  
13.1.1. SINK THAT MEETS THE AMERICANS WITH DISABILITIES ACT GUIDELINES AND ANSI A117.1 ACCESSIBLE AND USABLE BUILDINGS AND FACILITIES-CHECK LOCAL CODES. SINKS TO COMPLY WITH INTERNATIONAL PLUMBING CODE SECTION 418.
14. ALL MATERIALS TO BE AS LISTED OR EQUALLY RATED.  
15. ALL OTHER MATERIALS TO COMPLY WITH THE INTERNATIONAL PLUMBING CODE AND APPLICABLE BUILDING CODES.

1. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE 2009 INTERNATIONAL FUEL GAS CODE (IFGC) AND LOCAL AMENDMENTS.
2. WHERE MEANS FOR ISOLATION OF VIBRATION OF AN APPLIANCE IS INSTALLED, AN APPROVED MEANS FOR SUPPORT AND RESTRAINT OF THAT APPLIANCE SHALL BE PROVIDED AS PER IFGC SECTION 301.8.
3. APPLIANCES AND SUPPORTS THAT ARE EXPOSED TO WIND SHALL BE DESIGNED AND INSTALLED TO RESIST THE WIND PRESSURE DETERMINED IN IFGC SECTION 501.14.
4. EQUIPMENT AND APPLIANCES SHALL BE INSTALLED AS REQUIRED BY THE TERMS OF THEIR APPROVAL, IN ACCORDANCE WITH THE CONDITIONS OF LISTING, THE MANUFACTURER'S INSTRUCTIONS AND PER IFGC SECTION 305.1.
5. APPLIANCES SHALL BE ACCESSIBLE FOR INSPECTION, SERVICE, REPAIR AND REPLACEMENT WITHOUT DISABLING THE FUNCTION OF A FIRE-RESISTANCE-RATED ASSEMBLY OR REMOVING PERMANENT CONSTRUCTION, OTHER APPLIANCES, OR ANY OTHER PIPING OR DUCTS NOT CONNECTED TO THE APPLIANCE BEING INSPECTED, SERVICED, REPAIRED OR REPLACED AS PER IFGC SECTION 306.1.
6. STEEL AND WROUGHT-IRON PIPE SHALL BE AT LEAST OF STANDARD WEIGHT (SCHEDULE 40) AS PER SECTION 403.4.2.3. SHUTOFF VALVES SHALL BE INSTALLED IN ACCORDANCE WITH ONE OF THE FOLLOWING STANDARDS: ASME B36.10M; ASTM A 53/A53M; OR ASTM A 106.
7. PIPE DESIGNED ACCORDING TO TABLE 402.4(3) IN THE 2012 IFGC. ASSUMING AN INLET PRESSURE OF 2.0 PSI. ALL PIPE SHALL BE PAINTED YELLOW.
8. ALL MATERIALS SHALL BE INSTALLED IN STRICT ACCORDANCE WITH THE STANDARDS UNDER WHICH THE MATERIALS ARE ACCEPTED AND APPROVED AS PER IFGC SECTION 404.1.
9. SHUTOFF VALVES SHALL BE LOCATED IN PLACES SO AS TO PROVIDE ACCESS FOR OPERATION AND SHALL BE INSTALLED SO AS TO BE PROTECTED FROM DAMAGE AS PER IFGC SECTION 409.1.3.
10. IN MULTIPLE TENANT BUILDINGS, WHERE A COMMON PIPING SYSTEM IS INSTALLED TO SUPPLY OTHER THAN ONE AND TWO-UNIT DWELLINGS, SHUTOFF VALVES SHALL BE PROVIDED FOR EACH TENANT. EACH TENANT SHALL HAVE ACCESS TO THE SHUTOFF VALVE SERVING THAT TENANT'S SPACE AS PER IFGC SECTION 409.3.1.
11. A LISTED SHUTOFF VALVE SHALL BE INSTALLED IMMEDIATELY AHEAD OF EACH MEDIUM PRESSURE REGULATOR AS PER IFGC SECTION 409.4.
12. EACH APPLIANCE SHALL BE PROVIDED WITH A SHUTOFF VALVE AS PER IFGC SECTION 409.5.
13. A LINE PRESSURE REGULATOR SHALL BE INSTALLED WHERE THE APPLIANCE IS DESIGNED TO OPERATE AT A LINE PRESSURE OTHER THAN 1/2" W.C. PRESSURE. PRESSURE REGULATORS SHALL BE INSTALLED AS COMPLYING WITH ANSI Z21.80. ACCESS SHALL BE PROVIDED TO PRESSURE REGULATORS AND SHALL BE PROTECTED FROM PHYSICAL DAMAGE. REGULATORS INSTALLED ON THE EXTERIOR OF THE BUILDING SHALL BE APPROVED FOR OUTDOOR INSTALLATION AS PER IFGC SECTION 410.1.

1. ALL WORK TO MEET LOCAL AMENDMENTS, & 2009 INTERNATIONAL PLUMBING CODE.
2. ALL WATER WASTE & VENTS TO BE PVC.
3. ALL WATER LINES TO BE COPPER OR AS APPROVED BY OWNER & LOCAL CODE.
4. CONTRACTOR TO OBTAIN ALL PERMITS & INSPECTIONS.
5. INSTALL ALL FIXTURES & EQUIPMENT AS PER MANUFACTURER SPECS.
6. WATER HEATER TO BE INSTALLED AS PER CODE.
7. PROVIDE HEAT RAP & INSULATION AS PER IECC.
8. PROVIDE WATER HAMMER ARRESTOR WHERE QUICK-CLOSING VALVES ARE UTILIZED AS PER IPC 604.9. KITCHEN SINK, ICE MACHINE, HAND SINK & ANY ADDITIONAL QUICK-CLOSING VALVE FIXTURES TO HAVE WATER HAMMER ARRESTOR.
9. PROVIDE TRAP PRIMER FOR ALL FLOOR DRAINS.
10. INSTALL SHUTOFF VALVES AS PER CODE.
11. WHEN ACCESSIBLE OPENINGS ARE REQUIRED, THEY SHALL BE A MINIMUM OF 12 INCHES X 12 INCHES IN DIMENSION UNLESS OTHERWISE APPROVED BY THE CODE OFFICIAL.
12. PLUMBING FIXTURES INSTALLED ARE REQUIRED TO BE ON THE CURRENT EPA LIST OF WATERSNENSE FIXTURES, WITH FLOW RATES AS PER THE IPC & LOCAL AMENDMENTS.
13. ALL SANITARY WASTE & VENT PIPING SHALL BE SCHEDULE 40 PVC
14. ALL PLUMBING FIXTURES SHALL BE INSTALLED WITH APPROVED BACKFLOW PREVENTION DEVICES.
15. NO PIPING SHALL PASS DIRECTLY OVER ELECTRICAL POWER DISTRIBUTION CABINETS.
16. CONTRACTOR TO COORDINATE PANEL LOCATIONS PRIOR TO PIPING INSTALLATION.
17. SINGLE RUN OUTS TO PLUMBING FIXTURES SHALL BE THE SAME SIZE AS ON THE PLUMBING FIXTURE SCHEDULE UNLESS OTHERWISE NOTED.
18. ALL DRAINS SHALL BE PROVIDED WITH P-TRAPS.
19. INSULATE ALL EXPOSED SUPPLY & DRAIN LINES.
20. ALL LAVS AND HAND SINKS TO HAVE MIXING VALVES SET AT 120°F. MIXING VALVES TO COMPLY WITH ASSE 1017 AND IPC SECTION 501