COMING SOON

TSC TRACTOR SUPPLY CO

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Q3 2023 'G+'

OWNER / DEVELOPER

REESE REAL ESTATE LILLINGTON, LLC

1076 SUMMIT DRIVE
MIDDLETOWN, OH 45042

OWNER'S REPRESENTATIVE
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keith@reeseredev.com

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POWELLS POINT, NC 27949

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csaunders@quible.com

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NASHVILLE, TN 37214

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FRANKLIN, TN 37064

ENGINEER OF RECORD
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ELECTRICAL ENGINEER

PARSONS ENGINEERING

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NASHVILLE, TN 37203

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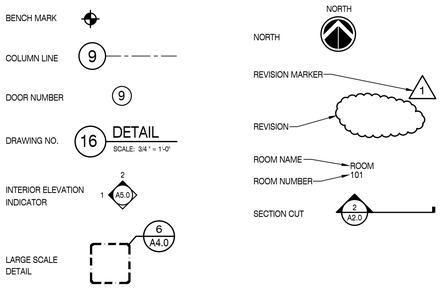
GRAPHIC SYMBOLS



WALL TYPES

- CMU WALL
- METAL STUDS AND FINISH TO 6' ABOVE CEILING
- METAL STUDS AND FINISH EXTEND TO ROOF DECK
- WALL TO HAVE BATT INSULATION
- PET WASH WALL, SEE A5.1

*SEE A5.0 FOR WALL FINISH AND THICKNESS TYPES

PROJECT SUMMARY

TRACTOR SUPPLY COMPANY IS A RETAILER TARGETING THE HOBBY FARMER. ITEMS SOLD AT TSC INCLUDE CLOTHING, FENCING, HARDWARE, BIRD FEED AND EQUINE PRODUCTS.

ABBREVIATIONS

ABV:	ABOVE
ACT:	ACCOUSTICAL CEILING TILE
ADA:	AMERICANS WITH DISABILITIES ACT
ADJ:	ADJACENT
AFF:	ABOVE FINISH FLOOR
ALUM:	ALUMINUM
APPROX:	APPROXIMATE
BLDG:	BUILDING
BRG:	BEARING
BRK:	BRICK
BTM:	BOTTOM
CER:	CERAMIC
CJ:	CONTROL JOINT
CL:	CENTER LINE
CLG:	CEILING
CMU:	CONCRETE MASONRY UNIT
C.O.:	CASED OPENING
CO:	CLEANOUT
CONC:	CONCRETE
COOR:	CORRIDOR
CT:	CERAMIC TILE
D.F.:	DRINKING FOUNTAIN
DIA:	DIAMETER
DIM:	DIMENSION
DWG:	DRAWING
EIFS:	EXTERIOR INSULATION & FINISH SYSTEM
INSUL:	INSULATION
JAN:	JANITOR
MECH:	MECHANICAL
MFG:	MANUFACTURER
MH:	MANHOLE
MO:	MASONRY OPENING
EJ:	EXPANSION JOINT
FD:	FIRE DEPARTMENT
FFE:	FINISH FLOOR ELEVATION
FH:	FIRE HYDRANT
FIN:	FINISH
FLR:	FLOOR
FRP:	FIBERGLASS REINFORCED PANEL
FT:	FEET
FTG:	FOOTING
GALV:	GALVANIZED
GC:	GENERAL CONTRACTOR
GD:	GRADE
GYP	BD: GYPSUM BOARD
HC:	ACCESSIBLE
HGT:	HEIGHT
HM:	HOLLOW METAL
HT:	HEIGHT
HVAC:	HEATING, VENTILATING & AIR CONDITIONING
HWY:	HIGHWAY
MTD:	MOUNTED
OC:	ON CENTER
PL:	PROPERTY LINE
PLYWD:	PLYWOOD
PP:	POWER POLE
PR:	PAIR
PSI:	POUNDS PER SQUARE INCH
PT:	PAINT
PTD:	PAINTED
PVMT:	PAVEMENT
RAD:	RADIUS
RCP:	REFLECTED CEILING PLAN
REQ:	REQUIRED
ROW:	RIGHT OF WAY
SAN:	SANITARY
SCHED:	SCHEDULE
SPECS:	SPECIFICATIONS
SQ:	SQUARE
STD:	STANDARD
STRUCT:	STRUCTURAL
TRANS:	TRANSFORMER
VCT:	VINYL COMPOSITION TILE
VEST:	VESTIBULE
W/:	WITH
W/O:	WITHOUT
WD:	WOOD
WH:	WATER HEATER
WWF:	WELDED WIRE FABRIC
YD:	YARD

DRAWING INDEX

REVISION DATE XX.XX.XXXX
REVISION DATE XX.XX.XXXX
REVISION DATE XX.XX.XXXX
REVISION DATE XX.XX.XXXX
REVISION DATE XX.XX.XXXX
REVISION DATE XX.XX.XXXX

ISSUED FOR CONSTRUCTION
03.22.2024

COVER SHEET

CIVIL

ARCHITECTURAL

AS1.0	SITE PLAN
AS1.1	SITE DETAILS
A0.0	TENANT CRITERIA & VENDOR INFORMATION
A0.1	DOOR & FINISH SCHEDULES
A0.2	ACCESSIBILITY STANDARDS
A0.3	APPENDIX B
A1.0	ARCHITECTURAL FLOOR PLAN
A2.0	ARCHITECTURAL ELEVATIONS
A3.0	REFLECTED CEILING PLAN
A4.0	SECTIONS & DETAILS
A4.1	SECTIONS & DETAILS
A5.0	INTERIOR PLANS, ELEVATIONS, & DETAILS
A5.1	PET WASH PLAN, ELEVATIONS, & DETAILS
A5.2	INTERIOR ELEVATIONS
A6.0	RECEIVING / SERVICE COUNTER DETAILS
A7.0	ROOF PLAN
A7.1	ROOF SPECIFICATIONS
A8.0	LIFE SAFETY / FIXTURE PLAN

STRUCTURAL

S1.0	FOUNDATION PLAN
S2.0	ROOF FRAMING PLAN
S2.1	ROOF FRAMING PLAN, CONT.
S3.0	DETAILS
S4.0	DETAILS
S4.1	DETAILS
S4.2	DETAILS
S4.3	DETAILS
S5.0	STRUCTURAL GENERAL NOTES
S5.1	STRUCTURAL GENERAL NOTES, CONT.
S5.2	QUALITY ASSURANCE AND SPECIAL INSPECTIONS
S5.3	QUALITY ASSURANCE AND SPECIAL INSPECTIONS CONT.
S5.4	CONCRETE SPECIFICATIONS

MECHANICAL

M1.0	MECHANICAL FLOOR PLAN
M2.0	MECHANICAL SCHEDULES, DETAILS AND SPECIFICATIONS

PLUMBING

P1.0	PLUMBING FLOOR PLAN
P2.0	PLUMBING SCHEDULES AND DETAILS
P3.0	PLUMBING RISERS AND SPECIFICATIONS

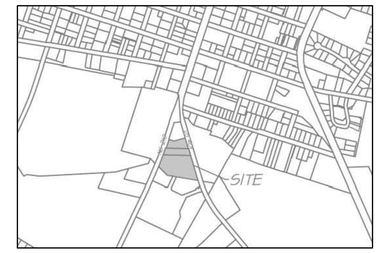
FIRE PROTECTION

FP1.0	FIRE PROTECTION PLAN

ELECTRICAL

ES1.0	ELECTRICAL SITE PLAN
E1.0	GENERAL LIGHTING PLAN
E2.0	GENERAL POWER PLAN
E3.1	ELECTRICAL SYSTEM / VENDOR DETAILS
E3.2	ELECTRICAL SYSTEM / VENDOR DETAILS
E4.0	ELECTRICAL LEGEND AND DETAILS
E5.0	SYSTEM FLOOR PLAN
E5.1	SYSTEM FLOOR NOTES

VICINITY MAP



NC HIGHWAY 210
LILLINGTON, NORTH CAROLINA
27546

PROJECT DATA

THIS PROJECT IS BASED ON THE REQUIREMENTS OF THE FOLLOWING CODES:

2018 NORTH CAROLINA BUILDING CODE
2018 NORTH CAROLINA PLUMBING CODE
2018 NORTH CAROLINA MECHANICAL CODE
2020 NATIONAL ELECTRIC CODE
2018 NORTH CAROLINA FIRE CODE
2018 NORTH CAROLINA ENERGY CODE
2018 NORTH CAROLINA GAS CODE

OCCUPANCY CLASSIFICATION	M / S-1 - NON-SEPARATED MIXED USE
CONSTRUCTION TYPE	IIB
FIRE SUPRESSION	SPRINKLERED

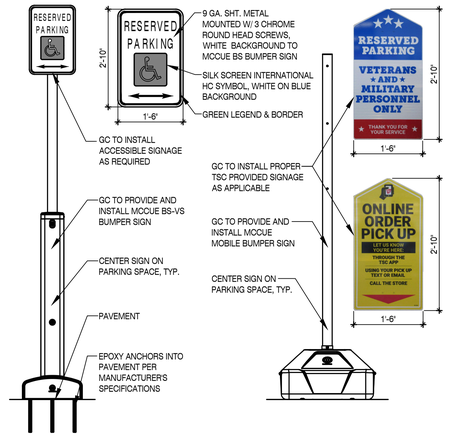
BUILDING AREA LIMITS			OCCUPANCY LOAD
VESTIBULE	=	228 SQ. FT. / 60	= 3.80 OR 4
RETAIL SALES	=	15,416 SQ. FT. / 60	= 256.9 OR 257
OFFICE CORE & WALLS	=	1,341 SQ. FT. / 150	= 8.94 OR 9
STOCKROOM	=	4,945 SQ. FT. / 300	= 16.48 OR 17
TOTAL BUILDING AREA	=	21,930 SQ. FT.	
TOTAL OCCUPANT LOAD	=		= 287

BUILDING HEIGHT: 1 STORY - 21'-4" A.F.F. @ FRONT MASONRY WALL, 30'-8" @ GABLE FACADE

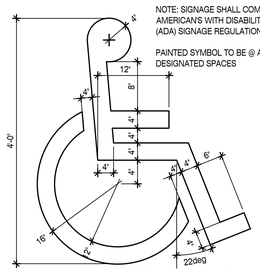
ALLOWABLE AREA CALCULATIONS:
Aa = At + [At x If] + [At x Is]
Aa = 12,500 + [12,500 x 0] + [12,500 x 3]
Aa = 12,500 + [0] + [37,500]
Aa = 50,000 SQ. FT.
Aa = 50,000 SQ. FT. > 21,930 SQ. FT.

2360 - TSC - Q3 2023 LILLINGTON, NC

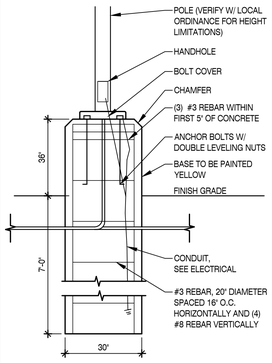
LILLINGTON, NORTH CAROLINA



1 DETAIL — VERTICAL SIGNAGE
SCALE: 3/4" = 1'-0"



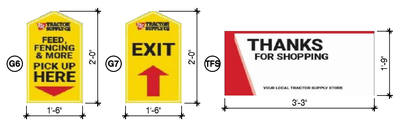
2 DETAIL — HANDICAP PARKING LOGO
SCALE: 1" = 1'-0"



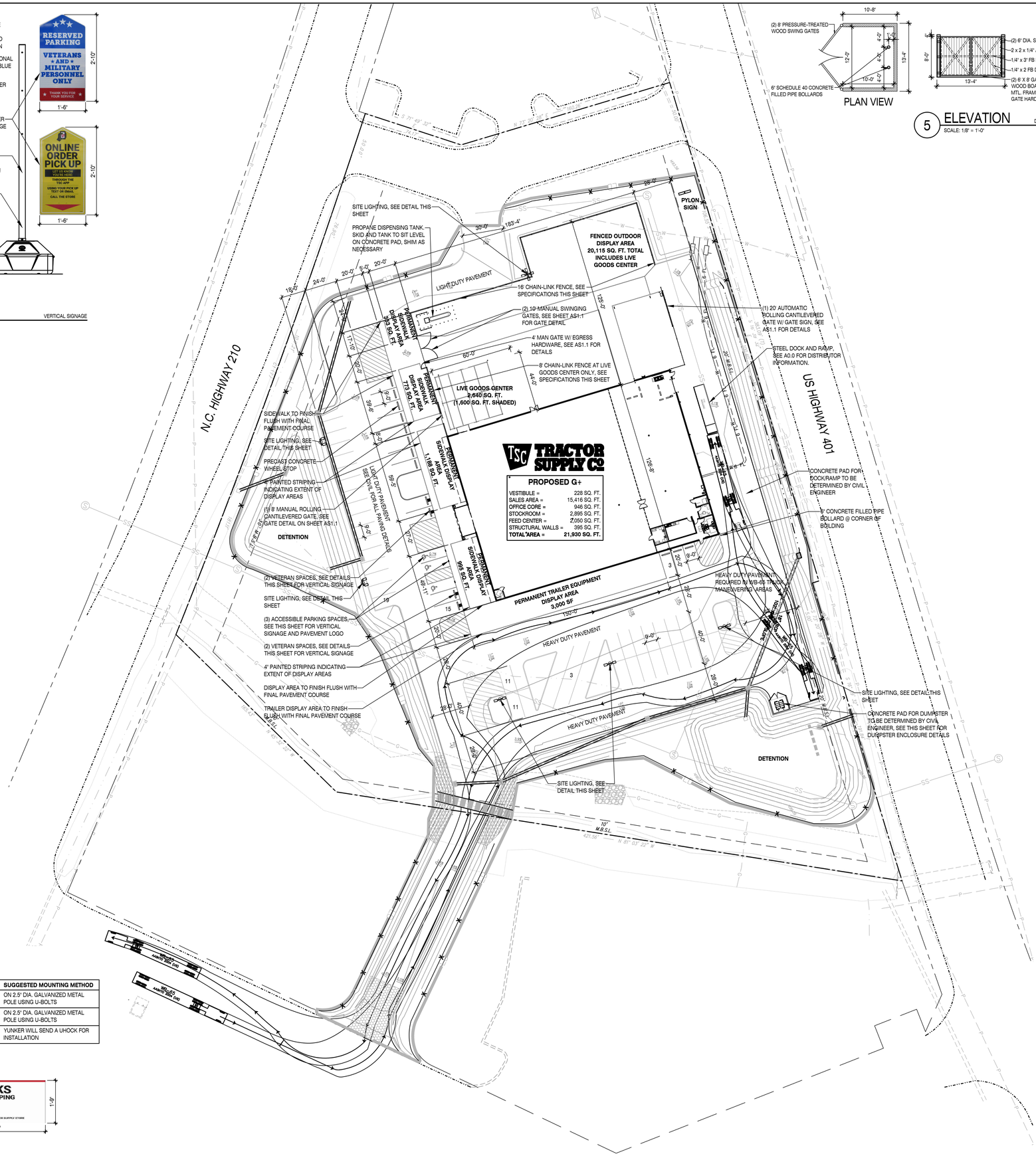
3 DETAIL — TYPICAL POLE LIGHT BASE
SCALE: 1/2" = 1'-0"

TSC ID AND SIGN DESCRIPTION	MOUNTING LOCATION	SUGGESTED MOUNTING METHOD
G6 - POLE SIGN: FEED, FENCING & MORE (1'6" X 2'4")	RIGHT SIDE OF FEED ROOM OVERHEAD DOOR	ON 2.5" DIA. GALVANIZED METAL POLE USING U-BOLTS
G7 - POLE SIGN: EXIT SIGN (1'6" X 2'4")	LEFT SIDE OF REAR DRIVE THRU FENCE GATE	ON 2.5" DIA. GALVANIZED METAL POLE USING U-BOLTS
TFS - GATE SIGN: THANKS FOR SHOPPING (39" X 21")	ON FRONT SIDE OF REAR DRIVE THRU FENCE GATE	YUNKER WILL SEND A UHOOK FOR INSTALLATION

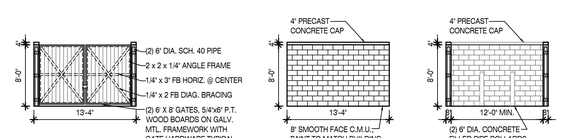
*CONFIRM EXACT LOCATION WITH FINAL FIXTURE PLAN



4 DETAIL — FOD SIGNAGE
NOT TO SCALE



PLAN VIEW



5 ELEVATION — DUMPSTER ENCLOSURE
SCALE: 1/8" = 1'-0"

SITE STRIPING GUIDELINES:
1. STRIPING ON CONCRETE TO BE YELLOW.
2. STRIPING ON ASPHALT TO BE WHITE.

FENCED OUTDOOR DISPLAY AREA FIXTURE INSTALLATION GUIDELINES:
1. CONTRACTOR TO VERIFY WITH THE STORE MANAGER THAT ALL RACKS ARE PROPERLY BUILT AND POSITIONED.
2. DRILL HOLES FOR ANCHORING RACK. GENERALLY THE HOLE IN THE FOOT OF THE RACK IS 1/2" IN DIAMETER. HOWEVER, THIS MAY VARY. GENERAL CONTRACTOR IS TO DETERMINE IN THE FIELD THE MOST APPROPRIATE SIZE REQUIRED TO ANCHOR RACKS.
3. RACKS ARE TO BE SECURELY ANCHORED W/ ANCHOR BOLTS IN EVERY AVAILABLE HOLE.
4. FOLLOWING INSTALLATION, REMOVE ANY RESIDUAL DEBRIS AND CLEAN AREA.

PARKING LOT PAINT SPECIFICATIONS - 15 MIL APPLICATION (0.015 INCH THICKNESS) :
1. NEW PAVEMENT SURFACE TO CURE FOR A PERIOD OF NOT LESS THAN 14 DAYS BEFORE APPLICATION OF MARKING MATERIALS.
2. REMOVE ALL DIRT, GRAVEL, DEBRIS, VEGETATION, OR OTHER MISCELLANEOUS OBJECTS FROM THE SURFACE WITH A BROOM TRUCK OR EQUIVALENT RIGOROUS METHOD. PROVIDE A CLEAN, DUST-FREE AND COMPLETELY DRY SURFACE FOR PAINT APPLICATION. DO NOT APPLY PAINT OVER EXISTING TAPE MARKINGS.
3. CONFIRM & RECORD PROPER AIR AND SURFACE TEMPERATURES OF 55° AND RISING AND LESS THAN 95°. IF THE SURFACE TEMPERATURE IS NOT WITH THE TEMPERATURE RANGE OR IF THE PAINT APPLICATION IS DONE UNDER ADVERSE CONDITIONS (AS DETERMINED BY THE CONSTRUCTION PROJECT MANAGER) SUCH AS ABOVE 75% HUMIDITY, NIGHT STRIPING, ETC. IN ORDER TO MEET TSC OPENING SCHEDULE, CONTRACTOR TO RE-SCHEDULE AND COMPLETE SURFACE STRIPING UNDER PROPER CONDITIONS A MINIMUM OF 30 DAYS PRIOR TO THE EXPIRATION OF THE (1) ONE YEAR CONSTRUCTION WARRANTY.
4. PROVIDE A 15 MIL THICK 4" WIDE CONTINUOUS STRIPE WHERE INDICATED. MINIMUM OF (2) TWO COATS.
5. PROVIDE PRIMER AND SEALER TO BE APPLIED PER THE MANUFACTURER'S RECOMMENDATIONS ON ALL CONCRETE SURFACES AND ON ASPHALT SURFACES THAT ARE MORE THAN TWO YEARS OLD, OXIDIZED AND/OR HAVE AGGREGATE EXPOSED.

8' HIGH CHAIN LINK FENCE SPECIFICATIONS:
1. FABRIC: 96" 9 GA. GALVANIZED (2" MESH) CHAIN LINK FABRIC.
2. TOP & BOTTOM RAIL: 1 5/8" O.D. FULL WEIGHT PIPE, 2.27 LBS. PER FOOT (MIN). TOP RAIL TO BE JOINED WITH 1 5/8" SLEEVE. BOTTOM RAIL @ 18" ABV. GRADE.
3. LINE POST: 2 1/2" O.D. FULL WEIGHT PIPE, 3.65 LBS. PER FOOT (MIN). LINE POST TO BE SET 10' ON CENTER MAX. SPACING. CONCRETE FOOTING TO BE 8" DIA. BY 30" DEEP CONC.
4. TERMINAL POST: 3" O.D. FULL WEIGHT PIPE, 5.79 LBS. PER FOOT (MIN). SET IN 8" DIA. BY 36" DEEP CONC. FOOTING.
5. GATE POST: 4" O.D. FULL WEIGHT PIPE, 9.10 LBS. PER FOOT (MIN). 8" DIA. 36" DEEP CONC. FOOTING.
6. (5) GATES: (1) 8 FOOT MANUAL ROLLING CANTILEVERED GATE, (2) 10 FOOT MANUAL SWINGING CHAIN LINK GATES, (1) 20 FOOT ROLLING CANTILEVERED CHAIN LINK GATE WITH AUTOMATIC GATE OPERATOR, AND (1) 4 FOOT SWING GATE, WITH FRAMEWORK OF 1 5/8" FULL WEIGHT PIPE, 2.27 LBS. PER FOOT (MIN). GATES BRACED AND TRUSSED AS NECESSARY. SAME FABRIC AS FENCE. SEE PLAN FOR WIDTH.

6A. SWING GATES: DESIGN AS PER THE MANUFACTURERS DESIGN STANDARDS. GATES SHALL BE MANUALLY OPERATED.

7. TENSION WIRE: 7 GA. COIL SPRING GALVANIZED TENSION WIRE ATTACHED TO BOTTOM OF FENCE FABRIC WITH 9 GA. ALUM. HOG RING SPACED 24" ON CENTER.
8. FITTINGS: HEAVY BRACED BAND AND CARRIAGE BOLT, PRESSED STEEL RAIL-END, PRESSED STEEL LOOP CAP, PRESSED STEEL CAP, 1/4" X 3/4" TENSION BAR, HEAVY TENSION BAND AND CARRIAGE BOLT.
9. TIE WIRE: 8 1/4" 12 GA. STEEL TIE WIRE AND 6 1/2" 12 GA. STEEL WIRE SPACED 15" ON CENTER FOR LINE POST AND 24" ON CENTER FOR RAILS.
10. POST FOOTING: TRUCK POURED CONCRETE.
11. SWING GATE LATCH TO BE CHAIN LINK FENCE-LOC TM BY HOOVER FENCE CO. OR EQUAL.

16' HIGH CHAIN LINK FENCE SPECIFICATIONS:
1. FABRIC: 192" 9 GA. GALVANIZED (2" MESH) CHAIN LINK FABRIC.
2. TOP & BOTTOM RAIL: 1 5/8" O.D. FULL WEIGHT PIPE, 2.27 LBS. PER FOOT (MIN). TOP RAIL TO BE JOINED WITH 1 5/8" SLEEVE. BOTTOM RAIL @ 18" ABV. GRADE. THE MAXIMUM SPACING OF INTERMEDIATE HORIZONTAL RAILS TO BE 48" MAX.
3. LINE, GATE, AND TERMINAL POSTS: 4" O.D. x 1/4" WALL THICKNESS (MIN). LINE POST TO BE SET 10'-0" O.C. MAX. SPACING. CONCRETE FOOTING TO BE 8" DIA. X 60" DEEP CONC.
4. TENSION WIRE: 7 GA. COIL SPRING GALVANIZED TENSION WIRE ATTACHED TO BOTTOM OF FENCE FABRIC WITH 9 GA. ALUM. HOG RING SPACED 24" ON CENTER.
5. FITTINGS: HEAVY BRACED BAND AND CARRIAGE BOLT, PRESSED STEEL RAIL-END, PRESSED STEEL LOOP CAP, PRESSED STEEL CAP, 1/4" X 3/4" TENSION BAR, HEAVY TENSION BAND AND CARRIAGE BOLT.
6. TIE WIRE: 8 1/4" 12 GA. STEEL TIE WIRE AND 6 1/2" 12 GA. STEEL WIRE SPACED 15" ON CENTER FOR LINE POST AND 24' ON CENTER FOR RAILS.
7. POST FOOTING: TRUCK POURED CONCRETE.

LANDSCAPING NOTES:
LANDSCAPE AND IRRIGATION DESIGN PLANS ARE REQUIRED ON ALL PROJECTS. IF LANDSCAPING IS NOT REQUIRED CONTRACTOR SHALL PROVIDE SITE FINE GRADED W/ HYDRO SEEDING OR SOD IN ALL DISTURBED AREAS OUTSIDE OF PARKING FIELD. IN PARKING FIELD ISLANDS, IF ALLOWED USE WEED BARRIER & MULCH ONLY. ALL MULCHED AREAS TO RECEIVE WEED BARRIER. WHERE SEEDING WARRANTY DOES NOT PERMIT HYDRO SEED ALONE, PROVIDE STRAW AND BIODEGRADABLE NETTING OVER HYDRO SEED. TSC TO APPROVE LANDSCAPE CONCEPT PRIOR TO SUBMISSION TO CITY / TOWNSHIP. IRRIGATION SYSTEM TO BE DESIGN BUILD. SEE SHEET A0.0 FOR IRRIGATION MAP. ANY LANDSCAPE IN EXCESS OF 50 PLANTINGS TO RECEIVE IRRIGATION AS NEEDED REGARDLESS OF GEOGRAPHIC LOCATION. IRRIGATION HEADS TO BE A MINIMUM OF 3' FROM EDGE OF CURB LINE. ALL LANDSCAPE BEDS TO HAVE CUT EDGE OR COMMERCIAL EDGING MATERIAL INSTALLED FULLY SEPARATING THE MULCH BED FROM ADJACENT LAWN AREA. ANY TREES OVER 2" CALIPER MUST BE STAKED AND TIED.

GENERAL SITE NOTES:
1. VERIFY ALL UTILITY LOCATIONS ON SITE.
2. SEE CIVIL FOR ALL SITE WORK.

PROPERTY LINE

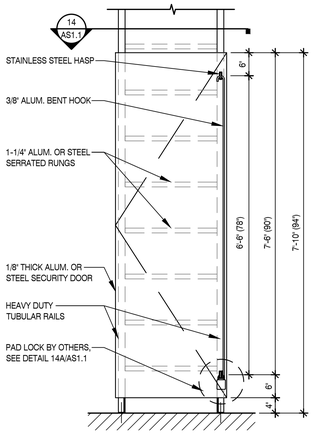
NORTH

SITE PLAN
SCALE: 1" = 30'
LILLINGTON, NORTH CAROLINA
0 10' 20' 30' 60'

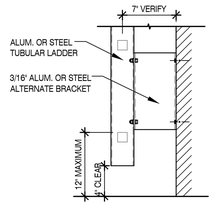
GLEN P. OXFORD ARCHITECT
2934 Sidco Drive
Suite 120
Nashville, TN 37204
Architecture
Planning
Interior Architecture

TRACTOR SUPPLY COMPANY
LILLINGTON
NORTH CAROLINA

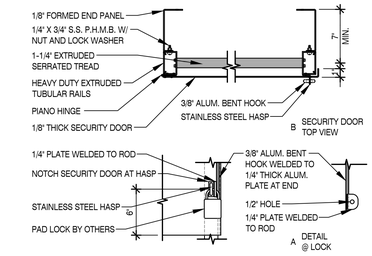
Job Number: 2360
Date: 03.22.2024
Revisions:
Revisions:
Revisions:
SITE PLAN
Sheet Number: AS1.0



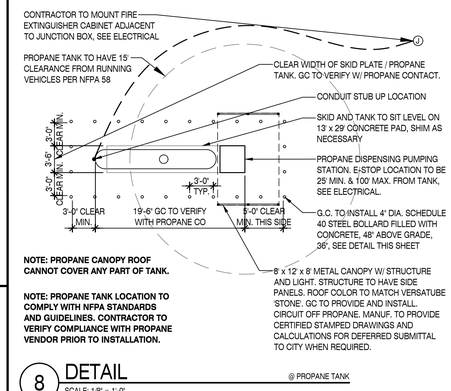
19 ELEVATION
SCALE: 3/4" = 1'-0" @ SECURITY GATE



17 DETAIL
SCALE: 1-1/2" = 1'-0" ALTERNATE BOTTOM SUPPORT



14 DETAIL
SCALE: 1-1/2" = 1'-0" @ SECURITY GATE & LOCK



NOTE: PROPANE CANOPY ROOF CANNOT COVER ANY PART OF TANK.

NOTE: PROPANE TANK LOCATION TO COMPLY WITH NFPA STANDARDS AND GUIDELINES. CONTRACTOR TO VERIFY COMPLIANCE WITH PROPANE VENDOR PRIOR TO INSTALLATION.

8 DETAIL
SCALE: 1/8" = 1'-0" @ PROPANE TANK

GENERAL GUIDELINES FOR PROPANE LOCATION AND INSTALLATION:

1. PROPANE TANK LOCATION TO COMPLY WITH NFPA STANDARDS AND GUIDELINES. CONTRACTOR TO VERIFY COMPLIANCE WITH PROPANE COMPANY PRIOR TO INSTALLATION.
2. PROPANE TANK TO BE INSTALLED 25'-0" MIN. AWAY FROM ANY STRUCTURE PER NFPA 58.
3. PROPANE TANK TO BE INSTALLED 25'-0" MIN. AWAY FROM LIGHT POLES UNLESS EXPLOSION PROOF BOX INSTALLED PER NFPA 58.
4. PROPANE TANK TO BE INSTALLED 25'-0" AWAY FROM UTILITIES (I.E. STORMWATER, ELECTRICAL TRANSFORMERS, METERS) PER NFPA 58.
5. PROPANE TANK TO BE INSTALLED 10'-0" MIN. AWAY FROM PROPERTY LINES PER NFPA 58.
6. PROPANE TANK TO HAVE 15' CLEARANCE FROM RUNNING VEHICLES TO POINT OF TRANSFER PER NFPA 58.
7. PROPANE TANK SIZE AND INSTALLATION REQUIREMENTS MAY VARY BASED ON STATE, SEE DETAILS THIS SHEET.
8. FOR CONDUIT ONLY INSTALLATION (PROPANE TANK INSTALLED AT A LATER DATE): PROVIDE BOLLARD COVER (GLOBAL INDUSTRIAL MODEL WG652899/I) AND (4) FOUR BOLLARD COVER ANCHOR BOLTS (GLOBAL INDUSTRIAL WG652901) OVER CONDUIT STUB-UP. INSTALL EXPLOSION PROOF JUNCTION BOX VERTICALLY TO ENSURE BOLLARD COVER FIT. SEE ELECTRICAL.

NOTE: GENERAL CONTRACTOR TO CONTACT PLAN EXPRESS FOR PROPANE TANK POWER-OPERATED DISPENSING DEVICE FOR LPG-GAS CUT-SHEET PDF DOCUMENT.

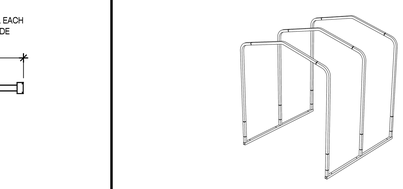
PROPANE RESPONSIBILITY NOTES:

IF PROPANE TANK IS DELIVERED **PRIOR TO FIXTURE DATE:**

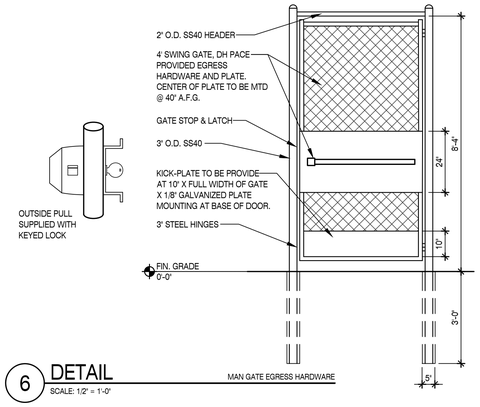
1. GENERAL CONTRACTOR IS RESPONSIBLE FOR INFRASTRUCTURE RELATED TO PROPANE TANK INSTALLATION.
2. GENERAL CONTRACTOR IS RESPONSIBLE FOR ELECTRICAL PERMITTING AND FINAL CONNECTION TO PUMP DISPENSING CONTROL PANEL.
3. AMERIGAS OR OTHER SPECIFIED PROPANE PROVIDER IS RESPONSIBLE FOR GAS PERMITTING OF THE TANK.
4. AMERIGAS OR OTHER SPECIFIED PROPANE PROVIDER IS RESPONSIBLE FOR INSTALLATION AND FINAL GAS CONNECTION OF THE TANK.
5. SEE ELECTRICAL SHEET E3.2 FOR ADDITIONAL NOTES & DETAILS.

IF PROPANE TANK IS DELIVERED **AFTER FIXTURE DATE:**

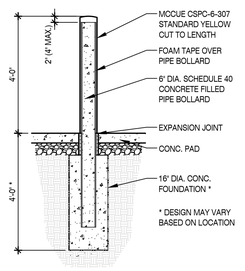
1. GENERAL CONTRACTOR IS RESPONSIBLE FOR INFRASTRUCTURE RELATED TO PROPANE TANK INSTALLATION.
2. AMERIGAS OR OTHER SPECIFIED PROPANE PROVIDER IS RESPONSIBLE FOR ELECTRICAL PERMITTING AND FINAL CONNECTION TO PUMP DISPENSING CONTROL PANEL.
3. AMERIGAS OR OTHER SPECIFIED PROPANE PROVIDER IS RESPONSIBLE FOR GAS PERMITTING OF THE TANK.
4. AMERIGAS OR OTHER SPECIFIED PROPANE PROVIDER IS RESPONSIBLE FOR INSTALLATION AND FINAL GAS CONNECTION OF THE TANK.
5. SEE ELECTRICAL SHEET E3.2 FOR ADDITIONAL NOTES & DETAILS.



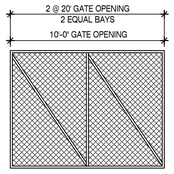
13 PROPANE CANOPY FRAME
SCALE: NOT TO SCALE ISOMETRIC



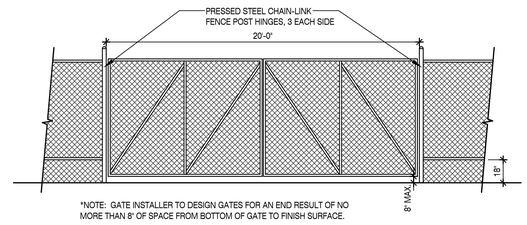
6 DETAIL
SCALE: 1/2" = 1'-0" MAN GATE EGRESS HARDWARE



7 DETAIL
SCALE: 1/2" = 1'-0" TYPICAL BOLLARD

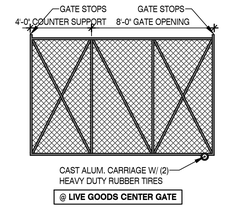


5 DETAIL
SCALE: 1/4" = 1'-0" 10' SWINGING GATE

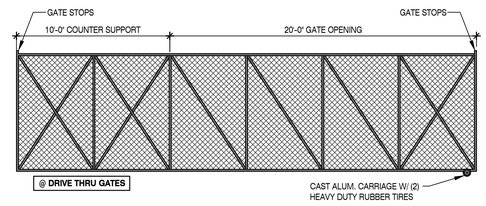


*NOTE: GATE INSTALLER TO DESIGN GATES FOR AN END RESULT OF NO MORE THAN 8" OF SPACE FROM BOTTOM OF GATE TO FINISH SURFACE.

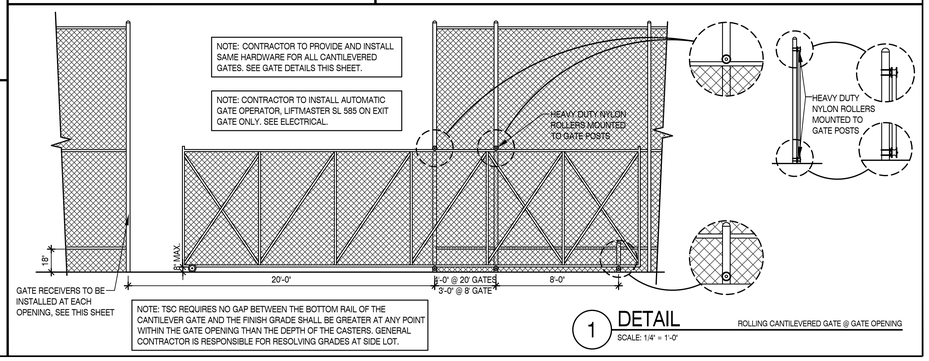
4 DETAIL
SCALE: 1/4" = 1'-0" 10' SWINGING GATES @ GATE OPENING



3 DETAIL
SCALE: 1/4" = 1'-0" 8' ROLLING CANTILEVERED GATE

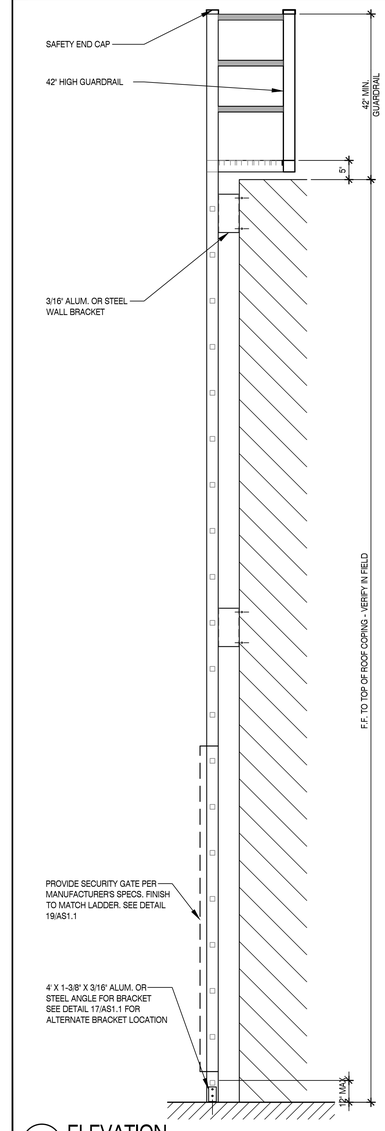


2 DETAIL
SCALE: 1/4" = 1'-0" 20' ROLLING CANTILEVERED GATE

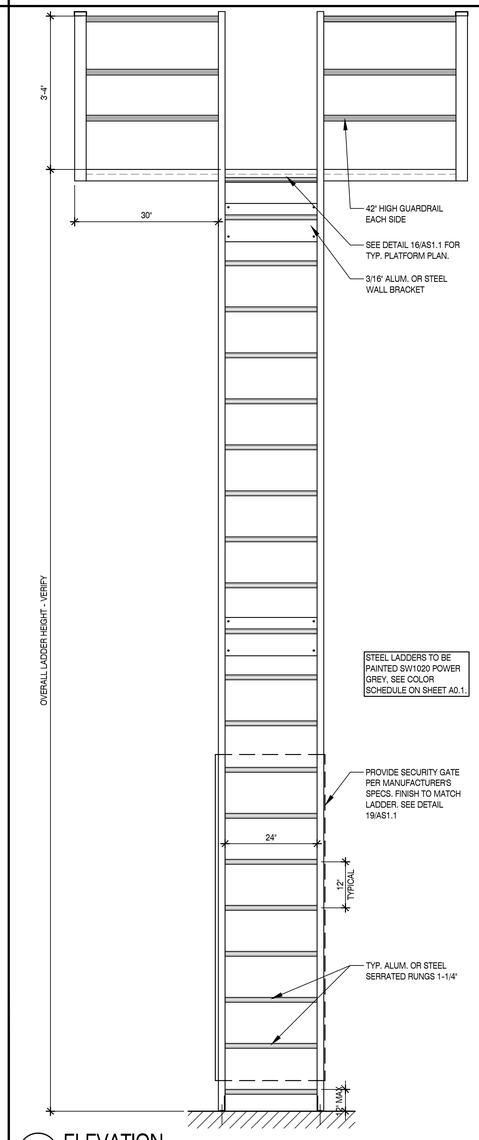


NOTE: TSC REQUIRES NO GAP BETWEEN THE BOTTOM RAIL OF THE CANTILEVER GATE AND THE FINISH GRADE SHALL BE GREATER AT ANY POINT WITHIN THE GATE OPENING THAN THE DEPTH OF THE CASTERS. GENERAL CONTRACTOR IS RESPONSIBLE FOR RESOLVING GRADES AT SIDE LOT.

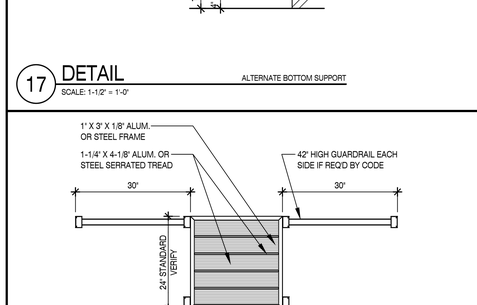
1 DETAIL
SCALE: 1/4" = 1'-0" ROLLING CANTILEVERED GATE @ GATE OPENING



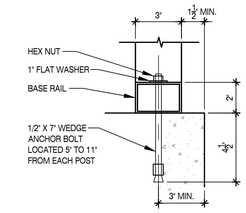
18 ELEVATION
SCALE: 3/4" = 1'-0" @ ROOF ACCESS LADDER SIDE



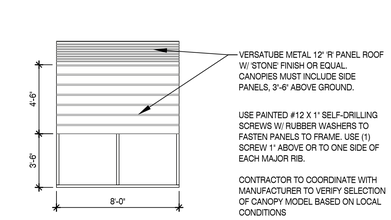
15 ELEVATION
SCALE: 3/4" = 1'-0" @ ROOF ACCESS LADDER FRONT



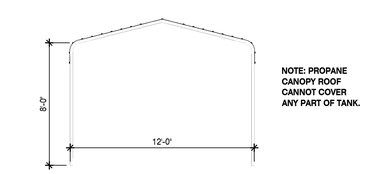
16 PLAN
SCALE: 3/4" = 1'-0" @ PLATFORM



12 PROPANE CANOPY DETAIL
SCALE: 3" = 1'-0" CONNECTION @ CONCRETE

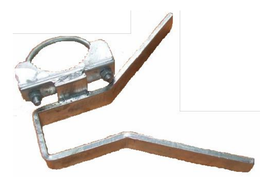


11 PROPANE CANOPY ELEVATION
SCALE: 1/4" = 1'-0" SIDE



NOTE: PROPANE CANOPY ROOF CANNOT COVER ANY PART OF TANK.

10 PROPANE CANOPY ELEVATION
SCALE: 1/4" = 1'-0" FRONT



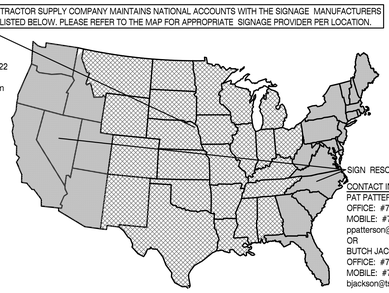
9 DETAIL
RECEIVER

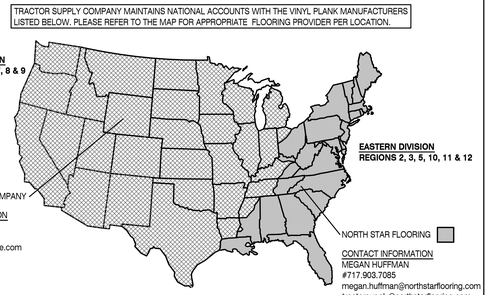
GLEN P. OXFORD ARCHITECT
2934 Sidco Drive
Suite 120
Nashville, TN 37204
Architecture
Planning
Interior Architecture

STATE OF SOUTH CAROLINA — GLEN P. OXFORD — 5226 — NASHVILLE, TN — REGISTERED ARCHITECT

TRACTOR SUPPLY COMPANY
HAMPTON
SOUTH CAROLINA

Job Number: 2397
Date: 02.28.2024
Revisions:
Revisions:
Revisions:
SITE DETAILS
Sheet Number: AS1.1





NEW STORE - TIME AND ACTION CALENDAR

Q4 2023

TASK	COMPLETION DATE (WEEKS TO CONSTRUCTION TURNOVER DATE)	CONTACT	RESPONSIBILITY
ARCHITECT TO EMAIL FLOOR PLAN BASE SHEET AND BASE PLAN REVIEW CHECKLIST TO TSC STORE PLANNING AND SECURITY SYSTEMS VENDOR	UPON COMMENCEMENT OF CONSTRUCTION DOCUMENTS	TSC - THOMAS PAYNE - thpayne@tractorsupply.com TSC - PEYTON TONEY - ptoney@tractorsupply.com JCI - GAIL DRAKE - gail.drake@jci.com OR ADT - DUKE DAUGHTREY - ddaughtrey@adt.com	ARCHITECT
ARCHITECT TO OBTAIN PROPANE LOCATION APPROVAL STAMP AND DATE FROM TSC	PRIOR TO SCHEDULE I SUBMISSION	TSC - CLINT WEAVIL - cweavil@tractorsupply.com	ARCHITECT
DEVELOPER TO OBTAIN STATE AND LOCAL PERMITS, INCLUDING SEISMIC ANCHOR PERMITS FOR FIXTURES WHEN REQUIRED	PRIOR TO SCHEDULE II SUBMISSION	TSC - CARL ADLER - caadler@tractorsupply.com TSC - THOMAS PAYNE - thpayne@tractorsupply.com	DEVELOPER
ARCHITECT TO UPLOAD PLANS TO PLAN EXPRESS	LATEST REVISED DOCUMENTS AT BID AT PERMIT APPROVAL	PLAN EXPRESS - #866.404.2614 customerservice@planexpress.net	ARCHITECT
CONTRACTOR TO CONTACT SECURITY SYSTEMS CONTRACTOR AND SCHEDULE ALARM INSTALLATION	7 WEEKS	JCI - GAVIN ELLIS - gavin.1.ellis@jci.com ADT - DUKE DAUGHTREY - ddaughtrey@adt.com	CONTRACTOR
FINAL FIXTURE PLAN PROVIDED BY TSC	6 WEEKS	TSC - CARL ADLER - caadler@tractorsupply.com TSC - THOMAS PAYNE - thpayne@tractorsupply.com	TSC FIXTURE PLANNING
BACKBOARD (4X8 HORIZONTAL) PAINTED WHITE	4 WEEKS	TSC - STAN KOLIC - #615.440.4824	CONTRACTOR
SECURITY SYSTEMS CONTRACTOR - HAS TO BEGIN INSTALLATION (PHONE BOARD UP)	3 WEEKS	JCI - GAVIN ELLIS - gavin.1.ellis@jci.com ADT - DUKE DAUGHTREY - ddaughtrey@adt.com	TSC LOSS PREVENTION
CONTRACTOR - CONDUITS FOR IT AND PHONE WITH PULL STRINGS	4 WEEKS	TSC - STAN KOLIC - #615.440.4824	CONTRACTOR
QSI / DURA-RAMP OR LOADING DOCK ACCESS, FORKLIFT, PROPANE GAS AND PROPANE DIS. TANK (PROPANE FOR FORKLIFT AND HEAT IF NECESSARY)	4 WEEKS	AMERIGAS - SCOTT PIERCE (317.709.2339) scott.pierce@amerigas.com CHRIS SAUER (610.768.7612) christopher.sauer@amerigas.com MOLLIE TRELOAR (615.440.4230) mtreloar@tractorsupply.com MARIAH CRAYTON (615.647.2639) mcrayton@tractorsupply.com	TSC STORE ADMINISTRATION & CONTRACTOR
CONSTRUCTION TRUCK ARRIVES	3 WEEKS BY TUESDAY	CAROLINE RICE (615.440.4705) crice@tractorsupply.com	
IMPRESSIONS TRUCK ARRIVES	3 WEEKS BY TUESDAY	CAROLINE RICE (615.440.4705) crice@tractorsupply.com	
INSTALL DATE FOR PHONE LINES NEED #6 GROUND AT BOARD	3 WEEKS	TSC - STAN KOLIC - #615.440.4824	IT
IT / ELECT. CLOS. AND MANAGERS OFFICE FINISHED - DUPLEX BOXES AND DEDICATED POWER	3 WEEKS	TSC - STAN KOLIC - #615.440.4824	CONTRACTOR
CONTRACTOR - ALL DOORS TO BE INSTALLED WITH LOCKS	3 WEEKS	DH PACE - NATIONAL ACCOUNTS CONSTRUCTION TEAM (NAC) - #888.722.3667 X 10031 tscdoors@dhpace.com	CONTRACTOR
PERMANENT POWER TO BUILDING	3 WEEKS	SITE SUPERVISOR	CONTRACTOR
METER INFORMATION	15 DAYS PRIOR TO FIXTURE DATE	ECOVA - TractorSupplyOPCL.insight@engie.com	CONTRACTOR
UNIFIRST - MOPS AND MATS	1 WEEK	UNIFIRST - #888.851.2474 X 5 BRAD COOPER (615.440.4965) bcooper@tractorsupply.com	TSC STORE ADMINISTRATION
TERMINIX - (PEST CONTROL)	1 WEEK	TERMINIX - #866.818.4573 BRAD COOPER (615.440.4965) bcooper@tractorsupply.com	TSC STORE ADMINISTRATION
ROCK-TENN WASTE MANAGEMENT DUMPSTER SERVICE (40 YARD DUMPSTER)	1 WEEK	ROCK-TENN WASTE MANAGEMENT - #800.333.8879 BRAD COOPER (615.440.4965) bcooper@tractorsupply.com	TSC STORE ADMINISTRATION
SERVICE DESK, RECEIVING DESK, REGISTER COUNTERS WITH POWER POLES SET IN PLACE	1 WEEK	CAROLINE RICE (615.440.4705) crice@tractorsupply.com	CONTRACTOR
CABELING INSTALLED TO REGISTER COUNTERS, SERVICE DESK AND RECEIVING DESK CONNECT TO PERMANENT POWER	1 WEEK	TSC - STAN KOLIC - #615.440.4824	IT
PLAY NETWORK INSTALLED BY TSC	1 WEEK	PLAY NETWORK - #800.342.0105 BRAD COOPER (615.440.4965) bcooper@tractorsupply.com	TSC STORE ADMINISTRATION
PROPANE PROVIDER TO FILL PROPANE DISTRIBUTION TANK	1 WEEK	MOLLIE TRELOAR (615.440.4230) mtreloar@tractorsupply.com MARIAH CRAYTON (615.647.2639) mcrayton@tractorsupply.com	TSC STORE ADMINISTRATION
EXTERIOR DRESSING ROOM WALLS PAINTED & DRIED	1 WEEK	SITE SUPERVISOR	CONTRACTOR
CONTRACTOR TO COORDINATE INSTALLATION OF FIXTURES PRIOR TO THIS WEEK, INCLUDING SEISMIC ANCHORING FOR FIXTURES WHEN REQUIRED.	FIXTURE WEEK		CONTRACTOR
TRANSITION WEEK - ALL CONSTRUCTION ACTIVITIES ARE TO BE COMPLETED PRIOR TO THIS WEEK.	FIXTURE WEEK		CONTRACTOR
SOS (FULL TRUCK)	5 DAYS (WEDNESDAY)	CAROLINE RICE (615.440.4705) crice@tractorsupply.com	TSC STORE ADMINISTRATION
LIS - BACKROOM AND SIDELOT FIXTURES (1/2 TRUCK)	4 DAYS (THURSDAY)	CAROLINE RICE (615.440.4705) crice@tractorsupply.com	TSC STORE ADMINISTRATION
NATIONAL CART - CART CORRAL (1/2 TRUCK)	4 DAYS (THURSDAY)	CAROLINE RICE (615.440.4705) crice@tractorsupply.com	TSC STORE ADMINISTRATION
MEG - FIXTURES (3/4 OF A TRUCK)	3 DAYS (FRIDAY)	CAROLINE RICE (615.440.4705) crice@tractorsupply.com	TSC STORE ADMINISTRATION
LOZIER - FIXTURES - FULL TRUCK	3 DAYS (FRIDAY)	CAROLINE RICE (615.440.4705) crice@tractorsupply.com	TSC STORE ADMINISTRATION
ROCK-TENN WASTE MANAGEMENT - RETURN 40 YARD DUMPSTER AND GET REGULAR SERVICE	SOFT OPENING	ROCK-TENN WASTE MANAGEMENT (800.333.8879) BRAD COOPER (615.440.4965) bcooper@tractorsupply.com	TSC STORE ADMINISTRATION
TELECHECK MACHINES	2 WEEKS TO SOFT OPENING	TELECHECK - MAX PUENTE - #713.331.7018 max.puente@firstdata.com	TSC STORE ADMINISTRATION

LVW RESPONSIBILITY AND TIMING PLAN

Q4 2023

RETROFITS

ACTION	BY WHO	WHEN	SPECIAL NOTES
STORE ADDED TO SOS	TSC REAL ESTATE	1ST MONDAY OF EACH MONTH	
TSC ARCHITECT TO SEND BASE PLAN TO SECURITY SYSTEMS CONTRACTOR	TSC PM	10-20 DAYS AFTER ADDED TO SOS	
CODES RESEARCHED, BA AND FA PLANS	JCI / ADT	UPON RECEIPT OF BASE PLAN	
TSC ARCHITECT TO NOTIFY SECURITY SYSTEMS CONTRACTOR VIA EMAIL THAT FULL SET OF PLANS IS AVAILABLE AT PLAN EXPRESS	TSC PM	20-30 DAYS AFTER REC APPROVAL	SECURITY SYSTEMS CONTRACTOR TO IDENTIFY EXIST. HVAC UNITS BY LL PER THE CHECKLIST
SECURITY SYSTEM COMPLETED PLANS SENT TO RICH WOOD AND TSC PM	JCI / ADT	W/IN 3 DAYS OF RECEIPT OF FULL SET OF PLANS	
TSC ARCHITECT TO INSERT SECURITY SYSTEM PLANS INTO SET FOR PERMIT	TSC PM	UPON RECEIPT OF SECURITY SYSTEMS PLAN	
GC TO CONTACT ASSIGNED LVW VENDORS FOR PRICING	TSC PM	VERIFIED AT BID EVALUATION	
GC / LVW VENDOR FINISHED ALL LVW SOW PER PLANS	MERCURY TECH	NO LESS THAN 2 WEEKS PRIOR TO FD	PLEASE BE SURE TO VERIFY HVAC SYSTEMS (GROUND MOUNT VS. ROOF MOUNT, ETC...)
SECURITY SYSTEMS CONTRACTOR TO INSTALL THEIR EQUIPMENT AND MAKE TERMINATIONS	JCI / ADT	STARTING APPROXIMATELY 3 WEEKS FROM FD TO WEDNESDAY PRIOR TO FD. TERMINATION TO BE DONE LAST AS LVW VENDOR COMPLETES NO LATER THAN 2 WEEKS PRIOR TO FD.	
INSTALLATION OF PA SYSTEM, PHONE SYSTEM, SPEAKERS, OUTSIDE HORNS, PHONES, PATCH PANEL, AP'S W/ ANTENNAS INSTALLATION OF POS SYSTEMS AT ALL LOCATIONS AND TESTING OF AP SYSTEM	STAN KOLIC / MERCURY TECH	MONDAY AND TUESDAY BEFORE FD	
	STAN KOLIC / AGYLISIS	THURSDAY BEFORE FD	

NOTE: ALL OTHER ACTIONS AND TIME FRAMES TO BE PER THE EXISTING TIMING AND ACTION CALENDAR.

TRACTOR SUPPLY COMPANY MAINTAINS NATIONAL ACCOUNTS WITH THE SIGNAGE MANUFACTURERS LISTED BELOW. PLEASE REFER TO THE MAP FOR APPROPRIATE SIGNAGE PROVIDER PER LOCATION.

▨ ID ASSOCIATES

CONTACT INFORMATION
DeANNA PAYNE
OFFICE: #334.836.1400 X 122
MOBILE: #334.805.1012
dpayne@idassociatesinc.com
OR
BILL HOLLAND
OFFICE: #334.836.1400
MOBILE: #334.791.0108
jholland@idassociates.com

SIGN RESOURCES ▨

CONTACT INFORMATION
PAT PATTERSON
OFFICE: #727.669.6877 X 305
MOBILE: #727.235.2395
ppatterson@tsrfl.com
OR
BUTCH JACKSON
OFFICE: #727.669.6877 X 301
MOBILE: #727.647.3526
bjackson@tsrfl.com

TRACTOR SUPPLY COMPANY MAINTAINS NATIONAL ACCOUNTS WITH THE VINYL PLANK MANUFACTURERS LISTED BELOW. PLEASE REFER TO THE MAP FOR APPROPRIATE FLOORING PROVIDER PER LOCATION.

WESTERN DIVISION
REGIONS 1, 4, 6, 7, 8 & 9

EASTERN DIVISION
REGIONS 2, 3, 5, 10, 11 & 12

▨ SWIFF-TRAIN COMPANY

CONTACT INFORMATION
PAM CORNEAU
#800.283.7500X3782
pcorneau@belknapwhite.com

NORTH STAR FLOORING ▨

CONTACT INFORMATION
MEGAN HUFFMAN
#717.903.7085
megan.huffman@northstarflooring.com
tractorsupply@northstarflooring.com

GENERAL NOTES:

Q4 2023

1. ALL CONSTRUCTION AND DETAILS SHALL COMPLY WITH ALL APPLICABLE STATE AND LOCAL BUILDING CODES AND ORDINANCES AS OF THE DATE OF THE DRAWINGS. ANY DEVIATIONS FROM BUILDING CODES REQUIRES NOTIFICATION AND APPROVAL FROM TSC PROJECT MANAGER.
2. THE CONTRACTOR SHALL VERIFY EXISTING CONDITIONS OF THE SITE. DISCREPANCIES SHALL BE REPORTED TO THE ARCHITECT & OWNER PRIOR TO PROCEEDING WITH CONSTRUCTION.
3. REMOVE ALL CONSTRUCTION AND DEMOLITION DEBRIS FROM JOB SITE DAILY. MAKE JOB PREMISES CLEAN AT COMPLETION OF PROJECT.
4. FIRE EXTINGUISHERS SHALL BE INSTALLED IN ACCORDANCE WITH THE LOCAL FIRE DEPARTMENT PRIOR TO COMPLETION OF CONSTRUCTION.
5. ALL DIMENSIONS ARE FACE OF DRYWALL AT NEW WALLS AND TO FINISHED FACE AT MASONRY WALLS UNLESS NOTED OTHERWISE.
6. NOTED DIMENSIONS TAKE PRECEDENCE OVER SCALED DRAWINGS.
7. CONTRACTOR SHALL VERIFY ALL DIMENSIONS. IF DISCREPANCIES ARE FOUND, THE ARCHITECT AND OWNER SHALL BE NOTIFIED IMMEDIATELY.
8. THRESHOLDS SHALL NOT EXCEED 1/2 INCH IN HEIGHT.
9. DRYWALL TO BE HELD UP 1/2" ABOVE CONCRETE FLOOR.
10. THE FOLLOWING ITEMS ARE FURNISHED BY T.S.C. AND INSTALLED BY THE CONTRACTOR.

QUANTITY	ITEM
1 SET	RESTROOM ACCESSORIES (NOT INCLUDING MIRRORS) FIRE EXTINGUISHERS BRAILLE SIGNAGE

11. THE FOLLOWING ITEMS ARE FURNISHED AND INSTALLED BY T.S.C.

QUANTITY	ITEM
1	"OPEN" SIGN
1	"CUB CADET" SIGN
1	T.S.C. ROAD SIGN, GENERAL CONTRACTOR TO PROVIDE POWER TO SIGN BASE. COORDINATE WITH SIGN COMPANY ASSIGNED TO THIS LOCATION
1	SECURITY VENDOR WORK (NOT INCLUDING LVW) PAID BY TSC

12. SPECIFIC MANUFACTURERS AND PRODUCTS ARE NAMED ON THE DRAWINGS TO INDICATE THE MINIMUM ACCEPTABLE LEVEL OF QUALITY. EQUAL OR BETTER PRODUCTS WILL BE CONSIDERED. SUBSTITUTES MUST BE APPROVED BY TSC PM.
13. ALL OFFICE WALLS TO BE INSULATED.
14. CONCEAL ALL PIPING IN WALLS. WHERE PIPING IS TOO LARGE WALLS ARE TO BE FURRED OUT A MINIMUM TO CONCEAL PIPING.
15. PROVIDE WATER RESISTANT GYPSUM BOARD BEHIND ALL PLUMBING FIXTURES.
16. ALL COUNTERTOPS TO BE 2'-0" IN DEPTH UNLESS OTHERWISE NOTED.
17. PROVIDE SOLID BLOCKING FOR WALL HUNG CABINETS, PLUMBING FIXTURES, ACCESSORIES AND MILLWORK.
18. ALL MATERIALS USED BY ALL TRADES SHALL BE LISTED AND LABELED BY AN APPROVED AGENCY AND INSTALLED PER THE MANUFACTURES INSTRUCTIONS.
19. TSC RESERVES THE RIGHT TO REVIEW THE BUILDING ON OR BEFORE THE EXPIRATION OF THE LL'S ONE YEAR WARRANTY. IF ANY WARRANTY OR PUNCH LIST ITEMS ARE FOUND THE LL SHALL IMMEDIATELY CORRECT THE CONDITION AT ITS' EXPENSE.
20. WHEN SOS TRUCK COMES AS SCHEDULED, GENERAL CONTRACTOR TO ASSIST TSC STORE MANAGER WITH THE UNLOADING AND STORAGE OF ALL SOS TRUCK CONTENTS. IF GENERAL CONTRACTOR REQUESTS SOS TRUCK EARLY, GENERAL CONTRACTOR IS RESPONSIBLE FOR ALL LABOR AND EQUIPMENT REQUIRED TO UNLOAD AND PROPER PLACEMENT AND STORAGE OF CONTENTS ONCE OFF SOS TRUCK.
21. GENERAL CONTRACTOR TO PROVIDE 2 COPIES OF SITE PLAN AND ELEVATIONS TO SIGN COMPANY ASSIGNED TO THIS PROJECT. VERIFY SIGN COMPANY W/ TSC. 1 COPY OF ELEVATIONS TO POP SOLUTIONS, RICK TOWNE @ 901.795.5936 -- ARCHITECT TO E-MAIL CAD BASE OF FLOOR PLAN TO THOMAS PAYNE, THPAYNE@TRACTORSUPPLY.COM), NO LATER THAN TWO WEEKS OF STARTING CONSTRUCTION.
22. GENERAL CONTRACTOR SHALL COORDINATE ENTIRE PROJECT AND SCHEDULE THE ALARM COMPANY FOR ALL ROUGH-IN AND FINAL CONNECTIONS AND INSPECTIONS. CONTACT TSC, RICH WOOD @ 615.440.4721 FOR THE ALARM COMPANY ASSIGNED TO THIS LOCATION NO LATER THAN TWO WEEKS AFTER CONSTRUCTION START. REFER TO THE SECURITY VENDOR PRE-CONSTRUCTION AND PRE-INSTALLATION CHECKLIST.
23. CLOSE-OUT REQUIREMENTS, REFER TO LEASE / CONTRACT. FOR QUESTIONS, CONTACT JULIE BANE @ 615.440.4795.
24. THE MECHANICAL CONTRACTOR SHALL FURNISH AND INSTALL ANY DUCT SMOKE DETECTOR FOR NEW WORK ONLY. COORDINATE WITH THE ASSIGNED ALARM COMPANY.
25. THE GENERAL CONTRACTOR SHALL PAY FOR ALL UTILITY COST DURING CONSTRUCTION AND CONTACT DEEANA GHOLSON AT ECOVA, INC. #509.329.7516 TWO WEEKS PRIOR TO FIXTURE DATE FOR TRANSFER TO TSC.
26. DOCK ACCESS FROM ROAD MUST BE ACHIEVED 3 WEEKS PRIOR TO FIXTURE DATE.
27. THE GENERAL CONTRACTOR OR LANDLORD SHALL SUBMIT A REPORT, ON A WEEKLY BASIS INDICATING THE PERCENT COMPLETE FOR EACH LINE ITEM ON THE SCHEDULE USING THE TSC WEEKLY PROGRESS REPORT ALONG WITH PHOTOS PER PHOTO LOG ON THE BLANK REPORTS PROVIDED BY TSC.
28. THE GENERAL CONTRACTOR SHALL PROVIDE FOR INDEPENDENT INSPECTION AND CERTIFICATION FOR FOOTING COMPACTION, AND CONCRETE QUALITY AND STRENGTH. THE RESULTS ARE TO BE SUBMITTED TO THE OWNER THE G.C. SHALL LIKEWISE PROVIDE AN INDEPENDENT INSPECTOR TO CERTIFY PROPER INSTALLATION OF THE STRUCTURAL STEEL OR PRE-ENGINEERED METAL BUILDING SYSTEM.
29. FOR RED STRIPING, CONTACT POP SOLUTIONS AT 901-795-5936, ACCOUNT REP.: RICK TOWNE.
30. LANDLORD/LANDLORD GENERAL CONTRACTOR TO VERIFY WITH LOCAL POSTMASTER IF A MAILBOX IS REQUIRED. IF SO, GENERAL CONTRACTOR TO INSTALL MAILBOX TYPE AND LOCATION PER THE POSTMASTER RECOMMENDATION AND PER USPS STANDARDS.
31. 'J' MOLD TO BE USED AT ALL INTERSECTIONS OF GYPSUM BOARD AND ANY OTHER NON-GYPSUM MATERIAL.
32. CORNER GUARDS TO BE USED AT ALL INTERIOR 'OUTSIDE' CORNER CONDITIONS.
33. DURING CONSTRUCTION, ANY PARTIALLY COMPLETED MASONRY WALLS (CMU, BRICK, ETC.) SHALL BE COVERED WITH STRONG WEATHER RESISTIVE MATERIAL DURING ALL TIMES WHEN CONSTRUCTION IS NOT IN PROGRESS AND ESPECIALLY AT THE END OF EACH WORK DAY. THE COVER SHALL BE DRAPED OVER THE WALL AND EXTEND A MINIMUM OF (2) TWO FEET DOWN FROM BOTH SIDES AND SECURELY HELD IN PLACE.
34. FOR SOS TRUCK DELIVERIES ON RELO STORES, COORDINATE WITH TSC STORE SERVICES SPECIALIST [CAROLINE RICE (CRICE@TRACTORSUPPLY.COM)] FOR RENTAL TOW-MOTOR DROP. RENTAL TOW-MOTOR SHOULD ARRIVE NO LATER THAN THE WEDNESDAY PRIOR TO FIXTURE DATE. THE RENTAL TOW-MOTOR WILL BE PICKED-UP THE MONDAY FOLLOWING THE STORE'S SOFT OPENING DATE.
35. FINISHED SPACE SHALL BE PROVIDED IN A MANNER THAT PREVENTS RODENT INTRUSION. SEAL PENETRATIONS THROUGH EXTERIOR WALL SURFACES WITH AN AEROSOL, MOISTURE-CURING POLYURETHANE FOAM SIMILAR TO "PUR BLACK" BY TODOL PRODUCTS, INC. @ 508.651.3818 OR APPROVED EQUAL.
36. CONCRETE MASONRY UNITS AND EXTERIOR CONCRETE MOISTURE CONTENT CRITERIA. GENERAL CONTRACTOR, OR, THE OWNERS TESTING COMPANY SHALL PROVIDE MOISTURE TESTING OF ALL CMU AND CONCRETE EXTERIOR WALL PER ASTM D4263 PRIOR TO APPLICATION OF PAINT.
37. TSC PROJECT MANAGER MUST APPROVE THE APPLICATION OF PAINT IN WRITING, IF THE MOISTURE CONTENT IS ABOVE 15%.
38. GENERAL CONTRACTOR TO HAVE A LOCAL CONTACT WITHIN 2-HOURS FOR ALL (NON)WARRANTY ELECTRICAL AND/OR PLUMBING CALL BACK REPAIRS.
39. ADD STEEL WOOL AT ALL CONDUIT/PIPE PENETRATIONS AT EXTERIOR WALLS AND ADD ESCUTCHEON PLATE AND PROVIDE SEALANT AT ALL ESCUTCHEON EDGES TO PREVENT RODENT INTRUSION.
40. AT EXISTING HVAC CURBS, CONTRACTOR TO INSTALL STEEL WOOL AND CLOSED-CELL SPRAY FOAM AT ALL CURB PENETRATIONS TO PREVENT RODENT INTRUSION. CONTRACTOR TO VERIFY ALL WARRANTIES REMAIN INTACT AND APPROVED BY LANDLORD.

FINAL FIXTURE PLAN TO BE RECEIVED BY CONTRACTOR AND/OR LL APPROXIMATELY 8 WEEKS PRIOR TO FIXTURE DATE TO ESTABLISH PROPER PLACEMENT OF ALL COUNTERS, POWER POLES, AND WOOD GRAIN FLOORING.

CLOSE-OUT BINDER REQUIREMENTS

Q4 2023

PM **STORE # CITY/STATE** ______________________ **SO** __________

X = REQUIRED			
PROTO	RETRO		CONTRACTOR SHALL PROVIDE OWNER WITH ONE ELECTRONIC CLOSE-OUT BINDER ON A CD. ALL INFORMATION BELOW MUST BE INCLUDED. THE CLOSE-OUT BINDER SHALL BE SENT ATTN TO THE CONSTRUCTION COORDINATOR AT THE OWNER'S ADDRESS: 5401 VIRGINIA WAY, BRENTWOOD, TN 37027.
X	X	1.	NAME, ADDRESS AND TELEPHONE NUMBER OF THE CONTRACTOR AND ALL SUBCONTRACTORS.
X	X	2.	THE FINAL CERTIFICATE OF OCCUPANCY OR THE EQUIVALENT THEREOF DESCRIBED IN ARTICLE 15.5.2(b)
X	X	3.	AN ASSIGNMENT BY THE CONTRACTOR OF ALL GUARANTEES AND WARRANTIES FROM ALL SUBCONTRACTORS, VENDORS, SUPPLIERS, AND MANUFACTURERS, TOGETHER WITH ORIGINALS OF ALL SUCH GUARANTEES, WARRANTIES, AND OPERATING MANUALS (E.G. HVAC, ROOF, DOORS, WATER HEATER, ETC. AS APPLICABLE).
X	X	4.	COMPLETE LIST OF EQUIPMENT - COMPLETE TEMPLATE.
X	X	5.	CONFIRMATION IN WRITING FROM THE INSTALLER OF THE HVAC SYSTEM OR COMPONENTS THEREOF CONFIRMING THAT THE PROPER START-UP PROCEDURES WERE FOLLOWED.
N/A	X	6.	COMPLETE RETROFIT HVAC BREAKDOWN OF COSTS - COMPLETE TEMPLATE.
X	N/A	7.	COMPLETE PROTOTYPE HVAC INFORMATION - COMPLETE TEMPLATE.
N/A	X	8.	CERTIFICATE OF SEWER CLEAN-OUT BY THE PERSON WHO PERFORMED THE SAME.
X	X	9.	DISABILITY ACCESSIBILITY INSPECTION REPORTS SENT TO THE TEXAS DEPARTMENT OF LICENSING AND REGULATION (FOR TEXAS STORES ONLY).
X	X	10.	A COPY OF THE PUNCH LIST ITEMS SIGNED BY THE OWNER (OR STORE MANAGER, IF SO AUTHORIZED BY OWNER) CONFIRMING ALL PUNCH LIST ITEMS ARE COMPLETED.
X	X	11.	(1) PDF CONTAINING WORKING DRAWINGS AND PLANS AND SPECIFICATIONS REFLECTING 'AS-BUILT' CONDITIONS, WITH A SUMMARY LIST OF CHANGES, INCLUDING IN .PDF FORMAT.
X	X	12.	A COMPLETE SET OF FIRE SPRINKLER SHOP DRAWINGS, IF APPLICABLE.
N/A	X	13.	A CERTIFICATE EVIDENCING THAT INSURANCE REQUIRED UNDER THE CONTRACT DOCUMENTS SHALL REMAIN IN FORCE AFTER FINAL PAYMENT AND SHALL NOT BE CANCELED, REDUCED, OR ALLOWED TO EXPIRE UNTIL AT LEAST 30 DAYS PRIOR WRITTEN NOTICE HAS BEEN GIVEN TO THE OWNERS.
X	X	14.	CERTIFICATION OF WATER WELLS AN/OR SEPTIC SYSTEMS THAT DEMONSTRATE INSPECTION AND ACCEPTANCE BY THE MUNICIPALITY. THIS SHOULD INCLUDE ANY ONGOING TESTING AND/OR INSPECTIONS THAT ARE REQUIRED AS WELL AS THE INTERVAL AT WHICH TESTING AND/OR INSPECTION MUST BE COMPLETED.
N/A	X	15.	DIGITAL PHOTOGRAPHS OF THE 'BEFORE' AND 'AFTER' OF THE FRONT VIEW OF THE STORE.
X	X	16.	ROOFING INSPECTION REPORT FROM THE ROOFING MANUFACTURER (SHOULD REFLECT ROOF PROPERLY INSTALLED AND AS SUCH WARRANTY 100% IN TACT).
X	N/A	17.	CERTIFICATION FROM THE PROJECT CIVIL ENGINEER THAT THE STORM WATER DRAINAGE SYSTEM HAS BEEN CONSTRUCTED AND INSTALLED IN ACCORDANCE WITH THE APPROVED PLANS AND ALL APPLICABLE LAWS (SEE LEASE EXHIBIT).

TSC PM - SIGNATURE DATE

NOTE: GENERAL CONTRACTOR / LANDLORD TO SEE LEASE / CONTRACT FOR SPECIFIC CHECKLIST

EXHIBIT H-1: TRAINING CERTIFICATION

COPY OF THIS EXECUTED DOCUMENT TO BE INCLUDED IN THE CLOSE OUT DOCUMENTS PROVIDED BY THE GENERAL CONTRACTOR **(**FOR RETRO FIT BY TENANT) OR LANDLORD (RETRO FIT BY LL AND GROUND UP PROJECTS) **TO TRACTOR SUPPLY COMPANY!**

INITIAL TSC STORE MANAGER	INITIAL GC	TRAINING HAS BEEN COMPLETED WITH THE STORE MANAGER BY THE GENERAL CONTRACTOR (GC) ON HOW TO USE, OPERATE AND MAINTAIN:
		THE IRRIGATION SYSTEM. ALSO, THE TSC STORE MANAGER HAS BEEN ADVISED THAT THE STORE IS RESPONSIBLE FOR MAINTAINING ALL LANDSCAPING STARTING AT EITHER FIXTURE DATE OR COMPLETION DATE, THE LATTER OF THE TWO DATES.
		THE LIGHT TIMER SYSTEM INCLUDING REVIEW OF THE SCHEDULE
		THE HVAC SYSTEM OPERATION INCLUDING HOW TO ADJUST THE PROGRAMMABLE THERMOSTATS.
		THE AUTOMATIC FRONT DOORS OPERATIONS INCLUDING SENSOR ADJUSTMENTS.
		THE OVERHEAD DOORS OPERATIONS INCLUDING TIMER, TIMER OVERIDE, AND SAFETY EDGE.
		THE DELAY EGRESS DOOR (THE RESET BUTTON IS IN THE CONTROL BOX AND HAS TO BE RESET ANY TIME POWER IS LOST).

STORE # ______________________

CITY/STATE ______________________

STORE MANAGER ______________________

GENERAL CONTRACTOR

TSC & VENDOR CONTACT INFORMATION

(CLOSED SPECIFICATIONS)

TRACTOR SUPPLY FIXTURE PLANS

THOMAS PAYNE, RETAIL STORE PLANNER
#615.647.2647
thpayne@tractorsupply.com

PEYTON TONEY, RETAIL STORE PLANNER
ptoney@tractorsupply.com

DOORS, FRAMES, & DOOR HARDWARE

NATIONAL ACCOUNTS CONSTRUCTION TEAM (NAC)
DH PACE
#888.722.3667 X 10031
tscdoors@dhpace.com
LEAD TIME:
2 WEEKS - HOLLOW METAL FRAMES
3 WEEKS - PRE-PAINTED & HPI DOORS
6-8 WEEKS - WIND RATED ASSEMBLIES & COASTAL
*DH PACE UNCRATING DOOR PACKAGE QR CODE:
SCAN WITH SMARTPHONE OR TABLET TO WATCH VIDEO

SECTIONAL DOORS

NATIONAL ACCOUNTS CONSTRUCTION TEAM (NAC)
DH PACE
#888.722.3667 X 10031
tscdoors@dhpace.com
LEAD TIME:
5-6 WEEKS - SECTIONAL & COILING DOORS
*USE COILING DOORS IN HIGH IMPACT REGIONS

STOREFRONT DOORS

BILL GERARDIN, NATIONAL ACCOUNT MANAGER
ALLEGION ACCESS TECHNOLOGIES
#480.257.0619
william.gerardin@allegion.com

SAMANTHA FAULSTICK, NATIONAL ACCOUNTS PM
ALLEGION ACCESS TECHNOLOGIES
#843.962.0996
samantha.faulstick@allegion.com
LEAD TIME: 6 WEEKS

LIGHTING PROVIDER

BRYAN BIRDWELL
VILLA LIGHTING SUPPLY, INC.
#314.633.0546
bryan.birdwell@villalighting.com

ADAM CARRIER, NATIONAL ACCOUNTS MANAGER
VILLA LIGHTING SUPPLY, INC.
#314.633.0532
adam.carrier@villalighting.com

ANNE VOELKER, PRICING CONTACT
VILLA LIGHTING SUPPLY, INC.
#314.633.0554
tractorsupply@villalighting.com
LEAD TIME:
3-5 DAYS - INT/EXT LIGHTING
3-4 WEEKS - SITE POLE LIGHTING

HVAC PROVIDER

STEVEN PETER, NATIONAL ACCOUNTS
LENNOX
#404.403.7083
steven.peter@lennoxind.com

GARRY BAKER
LENNOX
#800.367.6285
lennoxnationalaccounts@lennoxind.com
LEAD TIME: 20 WEEKS

DAVID ARPS, ACCOUNT MANAGER
YORK / JOHNSON CONTROLS
#414.687.7101 DIRECT
#800.481.9738 TECH SUPPORT
david.w.arps@jci.com
be-na-tractorsupply@jci.com

JOE RAY, PRODUCT APPLICATION ENGINEER
YORK / JOHNSON CONTROLS
#405.419.6631 DIRECT
#800.481.9738 TECH SUPPORT
joe.ray@jci.com
be-na-tractorsupply@jci.com
LEAD TIME: 15-24 WEEKS

METAL RAMP DISTRIBUTOR

TONY HAMILTON
QSI ENVIRONMENTAL & INDUSTRIAL STEEL FABRICATORS
#334.793.6878
thamilton@qsisteel.com
LEAD TIME: 3 WEEKS

ANDREW STREUTKER
DURA-RAMP, INC.
#604.795.9799
andrew@duraramp.com
LEAD TIME: 3-5 WEEKS

GARDEN CENTER

JALIYAH SANFORD
MERCHNEY GREENHOUSES
#864.314.0603
jaliyah@merchneygreenhouses.com

PAINT

DANIEL CHAISSON, REGIONAL ACCOUNT EXECUTIVE
THE SHERWIN-WILLIAMS COMPANY
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daniel.chaisson@sherwin.com

TOM KERR, CORPORATE ACCOUNT MANAGER
PPG PAINTS
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thomas.kerr@ppg.com

FIXTURE ANCHORING

BRENDON COLLINS, PROJECT MANAGER
TAMARACK GROVE
#208.908.7874
brendon.collins@tamarackgrove.com

UTILITY TRANSFER INFORMATION

JAMES MASTERS, TSC ENERGY MANAGER
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#615.440.4396
jmasters@tractorsupply.com
tractorsupplyopcl.insight@engie.com
(FOR LP ACCOUNTS FOR BUILDING HEAT CALL AMERIGAS)

FIRE ALARM & SECURITY SYSTEMS

RON KING, NATIONAL ACCOUNTS MANAGER
ADT
ronaldking@adt.com

DUKE DAUGHTREY, PROJECT MANAGER
ADT
#229.896.5041
ddaughtrey@adt.com

ELECTRIC PANEL

CAMERON KEANE, ACCOUNT MANAGER
CAROLINA PRODUCTS, INC. (CPI)
#704.364.9029 OFFICE
#919.621.9038 CELL
cameronk@cpipanels.com
LEAD TIME: 6 WEEKS

EMS

GAGE PERRY
PHILIPS TELETROL
#603.716.0636
g.perry@brainboxai.com

LOW VOLTAGE PROVIDER

TERRY L CORPENING
MERCURY TECH PARTNERS, INC.
#828.465.7348 x 4221
terry@gomtp.com

DUANE MULLINS
MERCURY TECH PARTNERS, INC.
#828.465.7348 x 4344
duane@gomtp.com

RESTROOM DRYERS

ASHLEY MAY
WORLD DRYERS DISTRIBUTOR
#800.459.7099
ashley.may@hjcinc.com

BALER

CORY GARDNER, NATIONAL ACCOUNTS MANAGER
JWR, INC.
888.699.2848
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PROPANE COORDINATION

MOLLIE TRELOAR
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MARIAH CRAYTON
ASSOCIATE BUYER - HEATING AND COOLING
TRACTOR SUPPLY COMPANY
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mcrayton@tractorsupply.com

PARKING SIGNS / BOLLARD COVERS

STEPHEN COATS
MCCUE
#404.405.8101
scoats@mccue.com

PROPANE CANOPY

SPENCER BRATTON
VERSATUBE BUILDING SYSTEMS
#901.614.2192

ELECTRIC FORKLIFT

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BRANDEN HARRISON
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SIGNS

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BUTCH JACKSON
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bjackson@tsrfl.com

VINYL PLANK FLOORING

MEGAN HUFFMAN
NORTHSTAR FLOORING
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tractorsupply@northstarflooring.com

(RECOMMENDED ONLY)

FIRE SPRINKLER SYSTEMS

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WASTE AND RECYCLING VENDOR

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ROCKTENN COMPANY
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dhueffme@rocktenn.com

SKYLIGHTS

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VELUX COMMERCIAL DAYLIGHTING
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susan.flanagan@velux.com

RED STRIPING

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PRINTING

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Architecture
Planning
Interior Architecture

TRACTOR SUPPLY COMPANY

LILLINGTON
NORTH CAROLINA

Job Number: 2360

Date: 03.22.2024

Revisions:

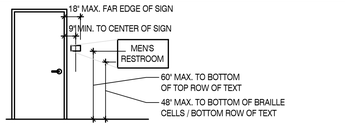
Revisions:

Revisions:
TENANT CRITERIA & VENDOR INFORMATION

Sheet Number: A0.0

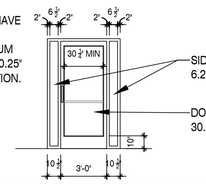
ADA SIGNAGE

INSTALL RAISED CHARACTER, BRAILLE SIGNS COMPLYING WITH ANSI A117.1 INDICATING, 'EXIT', AT LATCH SIDE OF EACH EXIT DOOR. SEE PLAN FOR EXIT SIGN LOCATIONS.



PET WASH STOREFRONT

NOTE: DOOR SHALL HAVE NARROW STILES TO ALLOW FOR A MINIMUM GLAZING WIDTH OF 30.25" FOR DECAL APPLICATION.



SIDELITE GLASS TO ACCEPT 6.25" X 48.85" VINYL FILM

DOOR WINDOW GLASS TO ACCEPT 30.25" X 57.825" VINYL FILM

DRAIN MANAGEMENT PROGRAM

PROTO	RETRO	NOTE:
X	X	1. ALL DRAINS, VENTS, ETC. MUST BE TAPED OVER DURING CONSTRUCTION TO PREVENT DEBRIS FROM INFILTRATING THE LINES
X	X	2. GC/DEVELOPER IS REQUIRED TO SUBMIT PHOTOS OF TAPED DRAINS
	X	3. GC WILL BE FINED $150 PER DAY IF PHOTOS ARE NOT SUBMITTED BY THE BEGINNING OF WEEK TWO OF THE PROJECT OR IF ANY DRAIN IS DISCOVERED UNCOVERED DURING A PM SITE VISIT. FINES WILL TERMINATE ON THE DAY THAT PHOTOGRAPHIC EVIDENCE OF COMPLETION IS SUBMITTED TO AND VERIFIED BY THE TRACTOR SUPPLY PM.
X	X	4. GC/DEVELOPER WILL BE REQUIRED TO JET AND CAMERA ANY LINE IN WHICH THE DRAIN IS DISCOVERED UNCOVERED. RECEIPTS AND VIDEO MUST BE SUBMITTED TO TRACTOR SUPPLY FOR VERIFICATION.
X	X	5. DRAIN MANAGEMENT SIGNAGE WILL BE PROVIDED BY TRACTOR SUPPLY AND INSTALLED BY THE GC/DEVELOPER.
X	X	6. IF SIGNAGE IS NOT INSTALLED @ PUNCH, CLEANING/CAMERA POLICY WILL APPLY.
	X	7. GC WILL BE FINED $150 PER DAY IF SIGNAGE IS NOT INSTALLED AT PUNCH. FINES WILL TERMINATE ON THE DAY THAT PHOTOGRAPHIC EVIDENCE OF COMPLETION IS SUBMITTED TO AND VERIFIED BY THE TRACTOR SUPPLY PM.

COLOR SCHEDULE

EXTERIOR BUILDING FINISHES:

CORRUGATED SIDING - 22 GAUGE GALVANIZED CORRUGATED STEEL PANEL - 'MATTE / WEATHERED' FINISH
ROOF AT VESTIBULE GABLE - GALVANIZED STANDING SEAM METAL ROOFING

CONCRETE MASONRY UNITS AND EXTERIOR CONCRETE MOISTURE CONTENT CRITERIA.
GENERAL CONTRACTOR, OR, THE OWNERS TESTING COMPANY SHALL PROVIDE MOISTURE TESTING OF ALL CMU AND CONCRETE EXTERIOR WALL PER ASTM D4263 PRIOR TO APPLICATION OF PAINT. TSC PROJECT MANAGER MUST APPROVE THE APPLICATION OF PAINT IN WRITING, IF THE MOISTURE CONTENT IS ABOVE 15%.

CONCRETE MASONRY UNITS FOR CONVENTIONAL BUILDINGS.
ELASTOMERIC SYSTEM
FLAT FINISH - COLOR TO MATCH SW7513 SANDERLING TO 4'-0" A.F.F., SW7532 URBAN PUTTY FROM 4'-0" A.F.F. TO TOP OF C.M.U. ON ALL SIDES.
1ST COAT: S-W LOXON ACRYLIC BLOCK SURFACER, LX01W0200 (50-100 SQ FT/ GAL @ 16 MILS WET; 8 MILS DRY)
2ND COAT: S-W CONFLEX XL SMOOTH HIGH BUILD ACRYLIC COATING, CF11 SERIES
3RD COAT: S-W CONFLEX XL SMOOTH HIGH BUILD ACRYLIC COATING, CF11 SERIES (16 MILS WET; 7.5 MILS PER DRY COAT) (ACCEPTABLE TOLERANCE IS 9-10 PINHOLES PER SQ. FT.)

NOTE: APPLICATIONS MAY UTILIZE BRUSH, ROLLER OR AIRLESS SPRAYER; **HOWEVER, ALL COATS MUST BE BACK-ROLLED.** SEE SHERWIN WILLIAMS DATA SHEET APPLICATION RECOMMENDATIONS

RED ACCENT STRIPE (CONCRETE MASONRY UNITS)
HIGH GLOSS FINISH - COLOR TO MATCH SW4081 SAFETY RED FROM 10'-0" A.F.F. TO 10'-8" A.F.F., FRONT, LEFT, AND RIGHT SIDES
2 COATS: S-W ACROLON 100, B65R720 PART A SAFETY RED/ B65V720 PART B HARDENER - APPLY AS NEEDED FOR COMPLETE COVERAGE)
APPLY TO EXTERIOR RED STRIPE ONLY - CLEAR COAT GLOSS FINISH - DIAMOND-CLAD WB
3 COMPONENT, LOW VOC WATERBASED ACRYLIC POLYURETHANE CLEAR COAT
DIAMOND-CLAD CLEAR COAT URETHANE GLOSS CLEAR PART A (B65T175)
DIAMOND-CLAD CLEAR COAT URETHANE HARDNER PART B (B65V175)
DIAMOND-CLAD CLEAR COAT URETHANE CATALYST PART C (B65C175)
MIX COMPONENTS PER MANUFACTURERS SPECIFICATIONS COAT ACROLON WITHIN 48 HOURS
RECOMMENDED SPREAD RATE (WET MILS: 2.4-4.8 AND DRY MILS: 1.0-2.0)

RED STRIPE (AROUND VESTIBULE BUMP OUT) - BY POP SOLUTIONS TO MATCH RED STRIPE SW 4081 SAFETY RED

LIGHTING POLE BASES
GLOSS FINISH - COLOR TO BE SW4084 SAFETY YELLOW
1ST COAT: S-W LOXON ACRYLIC BLOCK SURFACER, LX01W0200 (50-100 SQ FT/ GAL @ 16 MILS WET; 8 MILS DRY)
2ND COAT: S-W CONFLEX XL SMOOTH HIGH BUILD ACRYLIC COATING, CF11 SERIES
3RD COAT: S-W CONFLEX XL SMOOTH HIGH BUILD ACRYLIC COATING, CF11 SERIES (APPLY AS NEEDED FOR COMPLETE COVERAGE)
PRODUCT IS PACKAGE SAFETY YELLOW; COLOR ACCEPTANCE SHOULD BE APPROVED BY TSC.

LOADING DOCK GUARDRAILS, HOLLOW METAL DOOR FRAMES, STEEL ROOF LADDER
GLOSS FINISH - COLOR TO MATCH SW1012 POWER GREY
1ST COAT: S-W KEM KROMIK UNIVERSAL METAL PRIMER, B50Z SERIES - OMIT FOR H.M. DOOR FRAMES (6.0 - 8.0 MLS WET / 3.0 -4.0 MLS DRY PER COAT)
2ND COAT: S-W INDUSTRIAL ENAMEL HS, B54Z400 SERIES
3RD COAT: S-W INDUSTRIAL ENAMEL HS, B54Z400 SERIES (2.0 - 4.0 MILS DRY PER COAT) (APPLY AS NEEDED FOR COMPLETE COVERAGE)

HOLLOW METAL DOORS
FACTORY FINISHED SHER-CRYL HPA SW1012 POWER GRAY

PIPE BOLLARDS AND COVERS	6" SCHEDULE 40 CONCRETE FILLED PIPE BOLLARD WITH MCCUE POST COVER CSPC-6-307 (SEE MANUFACTURER FOR BOLLARD SIZES OTHER THAN 6" DIA.) COLOR TO BE STANDARD YELLOW
STOREFRONT FINISH	CLEAR ANODIZED ALUMINUM
STOREFRONT GLAZING VESTIBULE	EXTERIOR 1" TEMP. INSULATED GREY TINTED GLASS INTERIOR 1/4" TEMP. CLEAR GLASS

INTERIOR FINISHES:

MASONRY (CONCRETE, SCORED, SMOOTH, HIGH/LOW DENSITY)
SEMI-GLOSS FINISH - COLOR TO MATCH SW7005 PURE WHITE
1ST COAT: S-W PREPRITE BLOCK FILLER B25W25 (75-125 SQ. FT./GAL @ 16 MILS WET; 8 MILS DRY)
2ND COAT: S-W PROMAR 400 ZERO VOC INTERIOR LATEX SEMI-GLOSS, B31W04651 SERIES
3RD COAT: S-W PROMAR 400 ZERO VOC INTERIOR LATEX SEMI-GLOSS, B31W04651 SERIES (4 MILS WET, 1.3 MILS DRY PER COAT)

NOTE: APPLICATIONS MAY UTILIZE BRUSH, ROLLER OR AIRLESS SPRAYER; **HOWEVER, ALL COATS MUST BE BACK-ROLLED.** SEE SHERWIN WILLIAMS DATA SHEET APPLICATION RECOMMENDATIONS

RED ACCENT STRIPE (IN RETAIL SALES AREA - 10'-3" TO BOTTOM OF STRIPE, 12" STRIPE)
SEMI-GLOSS FINISH - SW 4081 SAFETY RED
1ST COAT: S-W PROMAR 200 ZERO VOC INTERIOR LATEX PRIMER, B28W02600 (4 MILS. WET, 1.2 MILS DRY)
2ND COAT: S-W PROMAR 200 ZERO VOC INTERIOR LATEX SEMI-GLOSS, B31R02658
3RD COAT: S-W PROMAR 200 ZERO VOC INTERIOR LATEX SEMI-GLOSS, B31R02658

NOTE: CONTRACTOR TO ACCESS STANDARD CRITERIA PLANS FOR ALTERNATE PAINT SPECIFICATION BY PPG.

OUTER CORE AREAS DRYWALL AND INTERIOR DRESSING ROOM WALLS (WALLS, GYPSUM BOARD, PLASTER BOARD, ETC.)
SEMI-GLOSS FINISH - COLOR TO MATCH SW7005 PURE WHITE
1ST COAT: S-W PROMAR 200 ZERO VOC INTERIOR LATEX PRIMER, B28W02600 (4 MILS WET, 1.3 MILS DRY PER COAT)
2ND COAT: S-W PROMAR 400 ZERO VOC INTERIOR LATEX SEMI-GLOSS, B31W04651 SERIES
3RD COAT: S-W PROMAR 400 ZERO VOC INTERIOR LATEX SEMI-GLOSS, B31W04651 SERIES (4 MILS WET, 1.3 MILS DRY PER COAT)

INNER CORE AREAS
SEMI-GLOSS FINISH - COLOR TO MATCH SW7036 ACCESSIBLE BEIGE
1ST COAT: S-W PROMAR 200 ZERO VOC INTERIOR LATEX PRIMER, B28W02600 (4 MILS WET, 1.3 MILS DRY PER COAT)
2ND COAT: S-W PROMAR 400 ZERO VOC INTERIOR LATEX SEMI-GLOSS, B31W04651 SERIES
3RD COAT: S-W PROMAR 400 ZERO VOC INTERIOR LATEX SEMI-GLOSS, B31W04651 SERIES (4 MILS WET, 1.3 MILS DRY PER COAT)

OUTER DRESSING ROOM WALLS
1ST COAT: S-W PREPRITE 200 ZERO VOC INTERIOR LATEX PRIMER, B28W02600 (4 MILS WET, 1.3 MILS DRY PER COAT)
TSC TO PROVIDE AND INSTALL WALLPAPER

EXPOSED CONDUIT IN CLOTHING AREA
GC TO PAINT CONDUIT RUST-OLEUM UNIVERSAL HAMMERED ALL SURFACE PAINT + PRIMER BROWN

EXPOSED CONDUIT IN RETAIL SALES AREA
GC TO PAINT CONDUIT TO MATCH WALL FINISH

EXPOSED DECK & JOISTS
PRE-PRIMED GREY PREFERRED OR AS APPROVED BY TRACTOR SUPPLY COMPANY

INTERIOR COLUMNS (METAL)
GLOSS FINISH - COLOR TO MATCH SW1012 POWER GREY
1ST COAT: S-W KEM KROMIK UNIVERSAL METAL PRIMER, B50Z SERIES (6.0 - 8.0 MILS WET / 3.0 - 4.0 MILS DRY PER COAT)
2ND COAT: S-W PROMAR 400 ZERO VOC INTERIOR LATEX SEMI-GLOSS, B31W04651 SERIES
3RD COAT: S-W PROMAR 400 ZERO VOC INTERIOR LATEX SEMI-GLOSS, B31W04651 SERIES (4 MILS WET, 1.3 MILS DRY PER COAT)

METAL DOOR FRAMES
GLOSS FINISH - COLOR TO MATCH SW1012 POWER GREY
COLOR TO MATCH SW7513 SANDERLING @ DRESSING ROOM DOOR ONLY
1ST COAT: FACTORY PRIMED
2ND COAT: S-W PROMAR 400 ZERO VOC INTERIOR LATEX SEMI-GLOSS, B31W04651 SERIES
3RD COAT: S-W PROMAR 400 ZERO VOC INTERIOR LATEX SEMI-GLOSS, B31W04651 SERIES (4 MILS WET, 1.3 MILS DRY PER COAT)

EXTERIOR METAL AND INTERIOR WOOD DOORS
COLOR TO MATCH SW1012 POWER GREY
COLOR TO MATCH SW7513 SANDERLING @ DRESSING ROOM DOOR ONLY
1ST COAT: FACTORY PRIMED
REMAINING COATS: FACTORY FINISHED

TOUCH-UP PAINT: PROVIDED BY DH PACE

METAL DOOR FRAMES - OPTION (HARDER FINISH AND BETTER COLOR/GLOSS RETENTION)
GLOSS FINISH - COLOR TO MATCH SW1012 POWER GREY
COLOR TO MATCH SW7513 SANDERLING @ DRESSING ROOM DOOR ONLY
1ST COAT: FACTORY PRIMED
2ND COAT: S-W PRO INDUSTRIAL WATERBASED ALKYD URETHANE ENAMEL B53W01051 SERIES
3RD COAT: S-W PRO INDUSTRIAL WATERBASED ALKYD URETHANE ENAMEL B53W01051 SERIES (4 MILS WET, 1.6 MILS DRY PER COAT)

VINYL PLANK FLOORING	SWIFF-TRAIN COMPANY EARTHWERKS WOOD CLASSIC IN SENORA GWC 9812 OR NORTH STAR FLOORING SOMA IN RUSSET, SEE TERRITORY MAP A0.0 FOR VENDOR SELECTION
VINYL BASE	JOHNSONITE VINYL #40 BLACK IN ALL SPACES W/ PREFORMED INSIDE AND OUTSIDE CORNERS
PLASTIC LAMINATE	WILSONART 4857-60 SHADOW ZEPHYR AT EMPLOYEE LOUNGE COUNTERTOP PROVIDED BY TSC
TOILET PARTITIONS	GLOBAL INDUSTRIES PLASTIC LAMINATE FLOOR MOUNTED TOILET PARTITIONS TO BE FINISHED WITH WILSONART LAMINATE, 4857-60 SHADOW ZEPHYR OR EQUAL AS REQUIRED BY LOCAL CODE.
FIBERGLASS REINFORCED PANEL (FRP)	WAINSCOT TO 4' A.F.F. ON NON-MASONRY WALLS IN RESTROOMS AND WALLS ADJACENT TO THE WATER FOUNTAIN. SEE DETAILS A5.0 FOR MOP SINK CONDITION & DETAILS A5.1 FOR PET WASH WALL CONDITION. FRP BY GLASTEEL, GLASLINER FRP, COLOR: XA WHITE, FINISH: TEXTURED.
LAY-IN CEILING & GRID (VESTIBULE)	GRID STONE GYPSUM CEILING PANELS 1/2" X 2' X 4'
LAY-IN CEILING & GRID (OFFICE CORE)	ARMSTRONG DUNE 1776 2X4, WHITE, SQUARE LAYIN, OR EQUAL

FLOOR IN VESTIBULE, SALES, RESTROOMS, CORRIDOR, MANAGER'S OFFICE, EMPLOYEE LOUNGE
CONCRETE FLOORING SPECIFICATIONS, PROVIDE THE FOLLOWING:

- ANY FLOOR AREAS OVER 3" ROUND WILL BE PREPPED BY THE "GC".
- MECHANICALLY GROUND AND POLISHED FLOOR SURFACE TO A 400 GRIT RESIN DIAMOND FOLLOWED BY 800 GRIT DIAMOND PAD BURNISH FOR A MID LEVEL GLOSS. INCLUDED IN THIS PROCESS IS CONCRETE DENSIFICATION, JOINT/CRACK FILLING UP TO 1150 LF AND PATCHING OF HOLES SMALLER THAN 3" THAT POSE A TRIP HAZARD. PROCESS TO BE INSTALLED BY FLOORING SUBCONTRACTOR.

FLOOR IN STOCKROOM, IT ROOM
CONCRETE FLOORING SPECIFICATIONS, PROVIDE THE FOLLOWING:

- 1 CUT GRIND THEN SEALED WITH GUARD/ SEALER INSTALLED BY FLOORING SUBCONTRACTOR.

FLOOR IN PET WASH
CONCRETE AND EPOXY FLOORING SPECIFICATIONS, PROVIDE THE FOLLOWING:

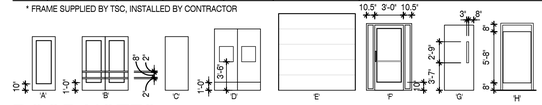
- DO NOT BROOM FINISH THIS AREA. PLACE AND FINISH CONCRETE AS SPECIFIED IN SECTION 3.04 "CONCRETE FINISHES AND TOLERANCES", PARAGRAPH A "GENERAL FINISHES". CURE USING "KUREZ DR VOX" OR "KUREZ DR 100" AT AN APPLICATION RATE OF 400 SF/GALLON
- JOINT FILLING: FILL ALL CONTROL JOINTS AS SPECIFIED IN SECTION 3.07 "INTERIOR CONCRETE JOINT FILLER", PARAGRAPH B.
- SURFACE PREPARATION: EPOXY FLOOR COATING SYSTEM IS DESIGNED FOR APPLICATION ON CONCRETE SUBSTRATES. NEWLY PLACED CONCRETE SURFACES SHOULD BE CURED FOR A MINIMUM OF 28 DAYS PRIOR TO COATING. CONCRETE SURFACES MUST BE STRUCTURALLY SOUND, FREE OF LOOSE OR DETERIORATED CONCRETE AND FREE OF DUST, DIRT, PAINT, EFFLORESCENCE, OIL AND OTHER CONTAMINANTS. MECHANICALLY ABRADE THE SURFACE TO ACHIEVE A SURFACE PROFILE EQUAL TO CSP 2-3 IN ACCORDANCE WITH ICRI GUIDELINE 310.2. PROPERLY CLEAN PROFILED AREA. THE pH OF THE SURFACE SHOULD BE CHECKED ACCORDING TO ASTM D 4262. FOLLOWING SURFACE PREPARATION, THE CLEANED SURFACE SHOULD HAVE A MINIMUM SURFACE-TENSILE STRENGTH OF 200 PSI WHEN TESTED WITH AN ELCOMETER OR SIMILAR PULL TESTER (ASTM D 4541).
- INITIAL COAT MIXING: PRE-MIX "INCRETE HIGH PERFORMANCE EPOXY" (GRAY) PART A AND PART B, THEN COMBINE 2 PARTS BY VOLUME OF PART A WITH ONE PART BY VOLUME OF PART B, AND THEN MIX THOROUGHLY USING A LOW-SPEED DRILL MOTOR AND A "JIFFY" TYPE MIXER. MIX ONLY THE AMOUNT OF MATERIAL THAT CAN BE APPLIED DURING THE POT LIFE. DO NOT AERATE THE MIX.
- INITIAL COAT APPLICATION: APPLY "INCRETE HIGH PERFORMANCE EPOXY" (GRAY) AT 120 SF/GALLON. SPREAD THE MIXED EPOXY WITH A NOTCHED SQUEEGEE WHILE WEARING SPIKED SHOES. START FROM ONE END OF THE FLOOR AND WORK BACKWARDS AND SIDEWAYS TRYING TO KEEP A WET-TO-WET EDGE. THE COATING SHOULD THEN BE ROLLED IN ONE DIRECTION USING A 3/8" NAP, SHED-RESISTANT ROLLER. MAKE SURE THE MATERIAL IS APPLIED AS QUICKLY AS POSSIBLE WITHOUT LEAVING PUDDLES.
- PIGMENTED CHIP APPLICATION: BROADCAST UNTIL REFUSAL, "INCRETE GRANITE COAT CHIPS" (MICA) IN A HIGH ARCING MOTION INTO THE WET EPOXY. ALLOW TO CURE. ONCE DRY, VACUUM/SCRAPE OFF EXCESS FLAKES. ALLOW TO DRY.
- GROUT COAT: APPLY "INCRETE HIGH PERFORMANCE EPOXY" (CLEAR) AT 120 SF/GALLON. ALLOW TO DRY.
- WEAR COAT: APPLY A FINAL COAT OF "INCRETE POLYSEAL POLYASPARTIC" (CLEAR) AT 120 SF/GALLON. ALLOW TO DRY.
- COVE BASE: IN ADDITION TO THE SEAMLESS INTEGRAL FLOOR, PROVIDE A 4" COVE BASE FROM THE FLOOR TO THE FRP WALL TRANSITION. COVE BASE SHALL CONSIST OF A MIXTURE OF "INCRETE HIGH PERFORMANCE EPOXY" AND FINELY GRADED, CLEAN DRY , TROWELABLE AGGREGATES, TROWELED TO THE PREVIOUSLY INSTALLED VERTICAL CEMENT BOARD SURFACE, TO A HEIGHT OF 4 INCHES. CREATE A COVED, SEAMLESS, INTEGRAL TRANSITION AT JOINT BETWEEN WALL AND FLOOR. BROADCAST UNTIL REFUSAL, "INCRETE GRANITE COAT CHIPS" (MICA) INTO THE WET EPOXY. FINISH COVE BASE DETAIL WITH THE GROUT COAT AND WEAR COAT AS SPECIFIED HEREIN. ONCE COMPLETED, THE FLOOR AND COVE BASE SHALL BE SEAMLESS IN FUNCTION AND APPEARANCE.

a. INSTALL CEMENT WALL BOARD SO THAT THE BOTTOM EDGE IS FLUSH WITH THE FLOOR AS SPECIFIED.
b. INSTALL CEMENT WALL BOARD TAPE, SIMILAR TO GOLDBLATT PROFESSIONAL CEMENT BOARD TAPE, TO ALL JOINT OF CEMENT BOARD.
c. INSTALL FIBER REINFORCED PANELS (FRP) AS REQUIRED. DO NOT APPLY ADHESIVE TO ANY AREAS CONTACTING THE 4" COVE BASE INSTALLATION. DO NOT APPLY WATER TO ANY OF THESE SURFACES PRIOR TO INSTALLATION OF THE EPOXY FLOOR OR COVE SYSTEM.
d. INSTALL 4" COVE BASE DIRECTLY TO CEMENT BOARD. COVE BASE SHALL COME IN DIRECT CONTACT WITH THE BOTTOM EDGE OF THE FIBER REINFORCED PANELS SO THAT THE FLOOR AND COVE BASE SHALL BE SEAMLESS IN FUNCTION AND APPEARANCE.

DOOR SCHEDULE

MARK	SIZE	TYPE	MATERIAL	FRAME	HARDWARE SET	REMARKS
1	3'-6" X 7'-0"	A	STORE FRONT GLASS	ALUM.	1A	SEE NOTES 10, 13 & 14
2	3'-6" X 7'-0"	A	STORE FRONT GLASS	ALUM.	1B	SEE NOTES 10, 13 & 14
3	NOT USED					
4	3'-0" X 5'-8"	H	S.C. WOOD	H. MTL.	4	SEE NOTE 21
5A	PR 3'-0"X7'-0"	B	STORE FRONT GLASS	ALUM.	1C	SEE NOTES 4, 10, 17 & 22
5B	PKG 9'-0" X 7'-8"	A	STORE FRONT GLASS	ALUM.	1A	SEE NOTES 10, 13, 14 & 22
6*	PR 3'-0"X8'-0"	D	ALUM. / GLASS	MTL.	2	SEE NOTE 18
7	CASED OPENING					FURR DOWN TO 7'-10" A.F.F.
8	3'-0" X 7'-0"	C	S.C. WOOD	H. MTL.	8	SEE NOTE 5
9	3'-0" X 7'-0"	C	S.C. WOOD	H. MTL.	8	SEE NOTE 5
10	3'-0" X 7'-0"	C	S.C. WOOD	H. MTL.	6	SEE NOTE 16
11	3'-0" X 7'-0"	C	S.C. WOOD	H. MTL.	7	SEE NOTE 16
12	3'-0" X 7'-0"	C	INSUL MTL.	INSUL. MTL.	5	SEE NOTES 2, 3 & 10
13A	10'-0" X 10'-0"	E	INSUL MTL.	MTL.	2	SEE NOTES 1, 12 & 15
13B	10'-0" X 10'-0"	E	INSUL MTL.	MTL.	2	SEE NOTES 1, 12 & 15
14	3'-0" X 7'-0"	G	S.C. WOOD	H. MTL.	6	SEE NOTE 20
15	3'-0" X 7'-0"	C	INSUL MTL.	INSUL. MTL.	5B	SEE NOTES 2, 10 & 11
16	3'-0" X 7'-0"	C	S.C. WOOD	H. MTL.	7	SEE NOTE 16
17	3'-0" X 7'-0"	F	STORE FRONT GLASS	ALUM.	1D	SEE NOTES 4, 10, 19 & 22
18	3'-0" X 3'-0"	C	INSUL MTL.	MTL.		SEE NOTE 23

* FRAME SUPPLIED BY TSC, INSTALLED BY CONTRACTOR



DOOR NOTES

1. 10' WIDE X 10' HIGH INSULATED SECTIONAL DOOR W/ ELECTRIC OPERATOR, (2) RADIO REMOTES, TIMER, CHAIN KEEPER AND REVERSING SAFETY EDGE. OVERRIDE BUTTON TO BE SUPPLIED BY OVERHEAD DOOR VENDOR AND INSTALLED BY GENERAL CONTRACTOR'S ELECTRICIAN. COLOR TO BE FACTORY FINISHED WHITE; IMPACT RESISTANT COILING DOOR IN HIGH IMPACT ZONES.
2. KEY OUTSIDE.
3. DOOR #12 TO HAVE DOOR BELL. RINGERS TO BE LOCATED @ RECEIVING DESK AND CASH REGISTER. "BIG EYE" VIEWER IN DOOR.
4. DOOR #5A & #17 TO HAVE 4" ALUM. HEAD AND THRESHOLD.
5. SIGNAGE TO BE PROVIDED BY TSC.
6. NOTE THAT DOORS REQUIRE A MINIMUM 10" BOTTOM RAIL TO RECEIVE KICK PLATES.
7. ALL DOORS TO HAVE ADA APPROVED HARDWARE.
8. GENERAL CONTRACTOR TO CHANGE OUT CONSTRUCTION CORES OF ALL HARDWARE PRIOR TO TURNOVER OF STORE. KEY AND TURNOVER DOCUMENT TO BE SIGNED BY G.C. AND STORE MANAGER.
9. ALL LOCKSETS KEYED TO ESTABLISH TSC GRANDMASTER KEY. ESTABLISH A NEW MASTER KEY AND KEY INDIVIDUALLY AS DIRECTED TO OPERATE ALL CYLINDERS & LOCK SETS. FURNISH (4) COPIES OF THE MASTER KEY, FURNISH 2 KEYS PER LOCK.
10. DOOR #1, #2 , #5A, #5B, #15 & #17 KEYED ALIKE. DOOR #12 KEYED SEPARATELY.
11. ELECTRICIAN RESPONSIBLE FOR MAKING FINAL CONNECTION BETWEEN SECURITY VENDOR WORK AND DOOR WIRING.
12. CONTRACTOR TO INSTALL PLASTIC AIR CURTAIN WITH 50% PANEL OVERLAP @ NEW MASONRY OPENING INSIDE NEW DOOR. AIR CURTAIN INCLUDED WITH OVERHEAD DOOR VENDOR PACKAGE. INCLUDES ALL OVERHEAD DOORS IN RETROFIT STORES.
13. CONTRACTOR TO PROVIDE AND INSTALL DOOR SWEEPS.
14. DOORS TO HAVE FLAT THRESHOLD PROVIDED BY DOOR MANUFACTURER.
15. THE CHANNELS THAT MAKE UP THE JAMBS AND HEAD FOR THE ROLLING SERVICE DOOR AND ITS ATTACHMENT POINTS SHOULD BE FLUSH AND SMOOTH WITH THE SURROUNDING INTERIOR WALLS AS WELL AS ABOVE THE INTERIOR OPENING. PROVIDE A STRUCTURAL SURFACE IN LINE WITH THE JAMBS THAT EXTENDS ABOVE THE OPENING FOR A MINIMUM OF 30" FOR ATTACHMENT POINTS. STRUCTURAL SURFACE TO BE CAPABLE OF WITHSTANDING 1850 LB. POINT FORCE IN EITHER TENSION, COMPRESSION OR SHEAR.
16. PROVIDE AND INSTALL "EMPLOYEES ONLY" SIGN WHERE INDICATED.
17. W/ 2 EACH CRASH RAILS ON INSIDE OF EACH DOOR.
18. 72" X 96", 72" X 84" OR 36" X 96" OPENINGS TO BE PROVIDED AS: P11PLUS, WITH 10" X 30" ADA COMPLIANT WINDOWS, 18" TALL BUMPERS, COLOR: RED. (OR) OPENINGS 96" X 120" TO BE: DURULITE STANDARD DOORS WITH 20" X 30" ADA COMPLIANT WINDOWS, 36" TALL BUMPERS, COLOR: RED.
19. INSTALL CLEAR ANODIZED STOREFRONT FRAMING WITH 1/4" TEMP. CLEAR GLASS SIDELIGHTS. DOOR TO SWING OPEN TO SALES AREA. SIDELIGHT GLASS TO ACCEPT 6.25" X 48.85" VINYL FILM. NARROW STILE DOOR WINDOW GLASS TO ACCEPT 30.25" X 57.825" VINYL FILM.
20. ANEMOSTAT WINDOW KIT WITH CLEAR TEMPERED 1/4" GLASS WITH GLAZING TAPE APPLIED (BOTH SHIPPED LOOSE). BY DH PACE.
21. CONTRACTOR TO PAINT FRAME SW7513 SANDERLING BOTH SIDES.
22. SFIC COMPATIBLE HARDWARE.
23. ACCESS PANEL TO BE SUPPLIED AND INSTALLED BY GC.

FINISH SCHEDULE

ROOM NO.	ROOM	WALLS	CEILING	BASE	FLOOR	REMARKS
101	VESTIBULE	PTD. C.M.U. / STOREFRONT	GYP. BD. CEILING PANELS @ 10'-0" A.F.F.	-	POLISHED CONC.	6, 9
102	RETAIL SALES	PTD. GYP. / C.M.U. (SEMI-GLOSS, WHITE)	EXP. STRUCTURE FACTORY PRIMED (GRAY)	VINYL	POLISHED CONC./ VINYL PLANK	2, 3, 9
103	NOT USED					
104	DRESSING ROOM	PTD. GYP. / C.M.U. (SEMI-GLOSS, WHITE)	OPEN TO DECK ABOVE	VINYL	VINYL PLANK	2, 8
105	STOCKROOM	PTD. GYP. / C.M.U. / PLYWOOD (SEMI-GLOSS, WHITE) TO DECK	EXP. STRUCTURE FACTORY PRIMED (GRAY)	-	POLISHED CONC.	9
106	CORRIDOR	PTD. GYP. / F.R.P.	A.C.T. @ 8'-0" A.F.F.	VINYL	POLISHED CONC.	1, 4, 7, 9
107	MANAGER'S OFFICE	PTD. GYP.	A.C.T. @ 8'-0" A.F.F.	VINYL	POLISHED CONC.	1, 4, 9
108	EMPLOYEE LOUNGE	PTD. GYP.	A.C.T. @ 8'-0" A.F.F.	VINYL	POLISHED CONC.	1, 4, 9
109	MEN	PTD. GYP. / C.M.U. / F.R.P.	A.C.T. @ 8'-0" A.F.F.	VINYL	POLISHED CONC.	1, 4, 5, 9
110	WOMEN	PTD. GYP. / C.M.U. / F.R.P.	A.C.T. @ 8'-0" A.F.F.	VINYL	POLISHED CONC.	1, 4, 5, 9
111	IT / ELECTRICAL	PTD. C.M.U. / PLYWOOD (SEMI-GLOSS, WHITE) TO DECK	EXP. STRUCTURE FACTORY PRIMED (GRAY)	-	POLISHED CONC.	9
112	PET WASH	F.R.P. / ALUMINUM MESH	ALUMINUM MESH SCREEN @ 10'-0" A.F.F.	EPOXY	EPOXY	

1. CEILING TILE: 2' x 4' X 3/4" MINERAL BOARD, NON-DIRECTIONAL FISSURED, MEDIUM TEXTURE, FLAME RESISTANCE CLASS A, FLAME SPREAD CLASS I
2. VINYL PLANK: TO BE DELIVERED BY TSC; SUPPLIED, PURCHASED AND INSTALLED BY CONTRACTOR. BEVELED EDGE VINYL PLANK TO BE USED AT EXPOSED TRANSITION OF VINYL PLANK FLOORING TO CONCRETE.
3. RED ACCENT STRIPE @ 10'-3" FROM FINISH FLOOR TO BOTTOM OF STRIPE - 1'-0" STRIPE
4. WALL COLOR TO BE (SW7036 ACCESSIBLE BEIGE). TRIM AND DOORS TO BE (SW1012 POWER GRAY).
5. FRP WAINSCOT TO BE INSTALLED ON ALL NON-MASONRY WALLS 4'-0" A.F.F. COLOR: XA WHITE, FINISH: TEXTURED.
6. GRID STONE GYPSUM CEILING PANELS 1/2" X 2' X 4'
7. FRP WAINSCOT TO BE INSTALLED BEHIND AND ON ALL SIDES OF THE WATER COOLER ALCOVE TO 4'-0" A.F.F. COLOR: XA WHITE, FINISH: TEXTURED.
8. EXTERIOR DRESSING ROOM GYP. WALLS TO BE WALLPAPER PROVIDED AND INSTALLED BY TSC. GYP. WALL CAP AND EXTERIOR WALL EXTENDING ABOVE 9'-0" A.F.F. TO BE PAINTED PURE WHITE W/ RED STRIPE TO MATCH RETAIL SALES WALLS. WALLPAPER TO BE INSTALLED PRIOR TO TURNOVER.
9. GENERAL CONTRACTOR RESPONSIBLE FOR ALL CONCRETE REPLACEMENT, TRENCH POUR BACKS AND FILLING/PATCHING BACK OF HOLES 3" OR LARGER AND IN-GROUND ELECTRICAL BOXES NOT IN USE.

HARDWARE SCHEDULE

SET #	DOORS	QUANTITY	ITEM	MANUFACTURER
1A	1, 5B	1 EA. 1 EA. 1 EA.	MORTISE CYLINDER 28107-1-26D 1CC7A2 (GREEN CONSTRUCTION CORE)-GREEN MORTISE THUMB TURN CYLINDER-26D BALANCE OF HARDWARE BY DOOR SUPPLIER	ILC BEST ILC
1B	2	2 EA.	DUMMY CYLINDER 7160DC-26D BALANCE OF HARDWARE BY DOOR SUPPLIER	ILC
1C	5A	1 EA. 1 EA. 1 EA.	THUMB TURN -CYLINDER -26D MORTISE CYLINDER 28107-1-26D DRIP CAP 16A X 76 - A BALANCE OF HARDWARE BY DOOR SUPPLIER	ILC ILC NAT
1D	17	1 EA. 1 EA. 1 EA.	MORTISE CYLINDER 28107-1-26D DUMMY CYLINDER 7160DC-26D CYLINDER CORE 1CC7A2 (GREEN CONSTRUCTION CORE) BALANCE OF HARDWARE BY DOOR SUPPLIER	ILC ILC BEST
2	6, 13A, 13B		ALL HARDWARE BY DOOR SUPPLIER	
3	NOT USED	3 EA. 1 EA. 1 EA. 1 EA. 3 EA.	HINGES MPB79 4 1/2 X 4 1/2 NRP- 26D SURFACE CLOSER SC81A RW/PA AS SPECIFIED- 689 STOREROOM LOCKSET T581BD X D X 23981145 X 5164 X 1 3/4 WALL STOP WS407 - CCV-US32D SILENCER SR64-GRY	MCK FAL FAL IVE IVE
4	4	1 EA. 1 EA. 3 EA.	CONTINUOUS HINGE 22HD PRIVACY LOCK T301S X D X 23981137 X 5164 X 1 3/4- 626 SILENCER SR64- GRY	MCK FAL IVE
5	12	3 EA. 1 EA. 2 EA. 1 EA. 1 EA. 1 EA. 1 EA. 1 EA. 1 EA. 1 EA.	HINGES MPB79 4 1/2 X 4 1/2 NRP- 26D ALARMED EXIT DEVICE ECL-230D-GRAY RIM CYLINDER R28207-9 SURFACE PULL 8N US28 CLOSER, PARALLEL ARM SC81 A X DS X SLIM-689 THRESHOLD 896V- MILL DOOR BOTTOM 795WH- MILL WEATHERSTRIP 160V - MILL DRIP CAP 16A-A VIEWER U698 B26D (MOUNT 60" CL/A.F.F.) (DOOR 12 ONLY)	MCK DET ILC HAG FAL NAT NAT NAT NAT IVE
5B	15	3 EA. 1 EA, 1 EA. 1 EA. 1 EA. 1 EA. 1 EA. 1 EA.	HINGES MPB79 4 1/2 X 4 1/2 NRP- 26D RIM EXIT DEVICE V40 X DC X EE X TSC- 711 POWER TRANSFER PT5 MORTISE CYLINDER 28107-1-26D CLOSER, PARALLEL ARM SC81A X DS X SLIM-689 THRESHOLD 896 V- MIL WEATHER STRIPING 160V- MILL DRIP CAP 16A-A	MCK DET DET ILC FAL NAT NAT NAT
6	10, 14	3 EA. 1 EA. 1 EA. 1 EA. 1 EA. 3 EA.	HINGES MPB79 4 1/2 X 4 1/2 NRP- 26D PUSH PLATE 8200 X 4 X 16 - US32D PULL PLATE 8302-0 X 4 X 16- US 32D CLOSER SC81A X RW/PA X SLIM-689 WALL STOP WS407-CCV-US32D SILENCERS SR64- GRY	MCK IVE IVE FAL IVE IVE
7	11, 16	3 EA. 1 EA. 1 EA. 1 EA. 3 EA.	HINGES MPB79 4 1/2 X 4 1/2 NRP- 26D OFFICE LOCKSET T511 X D X 23981137 X 5164 X 1 3/4-626 CLOSER SC81A X RW/PA X SLIM-689 (DOOR 11 ONLY) WALL STOP WS407-CCV-US32D SILENCERS SR64- GRY	MCK FAL FAL IVE IVE
8	8, 9	3 EA. 1 EA. 1 EA. 1 EA. 3 EA.	HINGES MPB79 4 1/2 X 4 1/2 NRP- 26D PRIVACY LOCKSET T301S X D 23981137 X 5164 X 1 3/4 -626 CLOSER SC81A X RW/PA X SLIM-689 WALL STOP WS407-CCV- US32D SILENCERS SR64-GRY	MCK FAL FAL IVE IVE
GABLE FACADE ACCESS PANEL		1 EA. 1 EA. 1 EA. 1 EA.	ACCESS PANEL BXTM-36X36-C DUMMY CYLINDER 7160DC-26D CYLINDER CORE 1CC7A2 (GREEN CONSTRUCTION CORE) BALANCE OF HARDWARE BY DOOR SUPPLIER	BAB ILC ILC BEST

* IF SECONDARY EXIT IS REQUIRED IN STOCKROOM ALARMED EXIT DEVICE ECL-230D-GRAY IS TO BE INSTALLED.
ALL LOCKSETS WILL BE FURNISHED CONSTRUCTION KEYED. AT THE END OF THE CONSTRUCTION PERIOD NEW PERMANENT CORES BY INSTAKEY WILL BE FURNISHED TO THE CONTRACTOR WHO WILL THEN CHANGE THEM OUT AND RETURN THE CONSTRUCTION CORES TO THE SUPPLIER.
THERE WILL BE A SEALED CARTON WITH THE SHIPMENT. THE CONTRACTOR IS TO TURN THAT SEALED CARTON OVER TO THE TSC STORE MANAGER AND GET THEIR SIGNATURE ON THE ENCLOSED RECEIPT. FORWARD THAT RECEIPT ALONG WITH THE CONSTRUCTION CORES AND CONTROL KEYS TO THE SUPPLIER "DH PACE".
THE ITEMS IN THE SEALED CARTON ARE FOR FUTURE STORE OPERATIONS AND ARE NOT CONSTRUCTION RELATED.

NOTE: TRACTOR SUPPLY COMPANY HAS A NATIONAL ACCOUNT WITH DH PACE FOR DOOR HARDWARE.
CONTACT: CHARLES GIRTMAN @ TSCDOORS@DHPACE.COM OR #816.221.0543

DOOR-OPENING FORCE - FIRE DOORS SHALL HAVE THE MINIMUM OPENING FORCE ALLOWABLE BY THE APPROPRIATE ADMINISTRATIVE AUTHORITY. THE FORCE FOR PUSHING OR PULLING OPEN DOORS OTHER THAN FIRE DOORS SHALL BE AS FOLLOWS:

1. INTERIOR HINGED DOOR: 5.0 POUNDS MAXIMUM
2. SLIDING OR FOLDING DOOR: 5.0 POUNDS MAXIMUM

THESE FORCES DO NOT APPLY TO THE FORCE REQUIRED TO RETRACT LATCH BOLTS OR DISENGAGE OTHER DEVICES THAT HOLD THE DOOR IN A CLOSED POSITION.

ALL LOCKSETS WILL BE FURNISHED CONSTRUCTION KEYED. AT THE END OF THE CONSTRUCTION PERIOD, NEW PERMANENT CORES BY INSTAKEY WILL BE FURNISHED TO THE CONTRACTOR WHO WILL THEN CHANGE THEM OUT AND RETURN THE CONSTRUCTION CORES TO THE SUPPLIER. THERE WILL BE A SEALED CARTON WITH THE SHIPMENT. THE CONTRACTOR IS TO TURN THAT SEALED CARTON OVER TO THE TSC STORE MANAGER AND GET THEIR SIGNATURE ON THE ENCLOSED RECEIPT. FORWARD THAT RECEIPT ALONG WITH THE CONSTRUCTION CORES AND CONTROL KEYS TO THE SUPPLIER "MJW". THE ITEMS IN THE SEALED CARTON ARE FOR FUTURE STORE OPERATIONS AND ARE NOT CONSTRUCTION RELATED.

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DOOR & FINISH SCHEDULES

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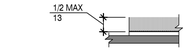

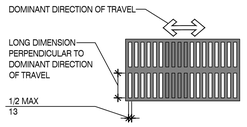

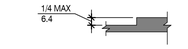

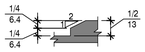

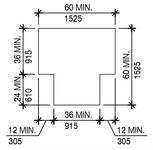

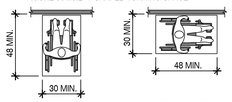

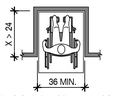

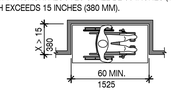

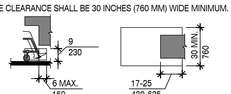

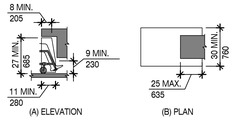

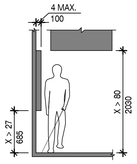

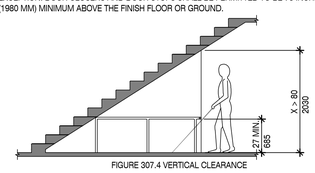

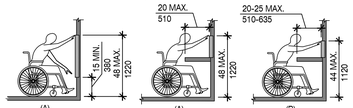

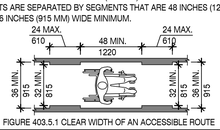

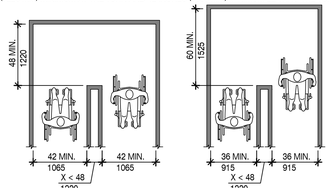

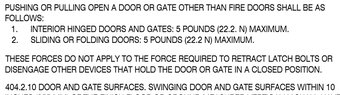

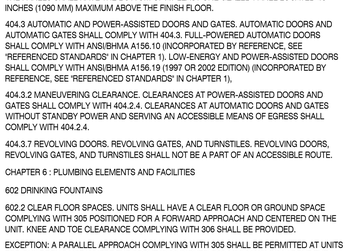

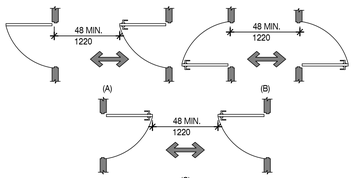

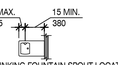

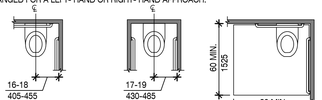

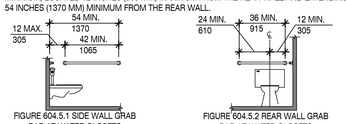

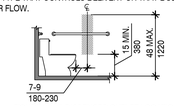

ACCESSIBILITY STANDARDS

CHAPTER 3: BUILDING BLOCKS

302 - FLOOR OR GROUND SURFACES

302.2 CARPET . CARPET OR CARPET TILE SHALL BE SECURELY ATTACHED AND SHALL HAVE A FIRM CUSHION, PAD, OR BACKING OR NO CUSHION OR PAD. CARPET OR CARPET TILE SHALL HAVE A LEVEL LOOP, TEXTURED LOOP, LEVEL CUT PILE, OR LEVEL CUT/UNCUT PILE TEXTURE.

PILE HEIGHT SHALL BE 1/2 INCH (13 MM) MAXIMUM. EXPOSED EDGES OF CARPET SHALL BE FASTENED TO FLOOR SURFACES AND SHALL HAVE TRIM ON THE ENTIRE LENGTH OF THE EXPOSED EXPOSED EDGE. CARPET EDGE TRIM SHALL COMPLY WITH 303.

FIGURE 302.2 CARPET PILE HEIGHT

302.3 OPENINGS. OPENINGS IN FLOOR OR GROUND SURFACES SHALL NOT ALLOW PASSAGE OF A SPHERE MORE THAN 1/2 INCH (13 MM) DIAMETER EXCEPT AS ALLOWED IN 407.4.3, 409.4.3, 410.4, 810.5.3 AND 810.10. ELONGATED OPENINGS SHALL BE PLACED SO THAT THE LONG DIMENSION IS PERPENDICULAR TO THE DOMINANT DIRECTION OF TRAVEL.

FIGURE 302.3 ELONGATED OPENINGS IN FLOOR OR GROUND SURFACES

303.2 VERTICAL. CHANGES IN LEVEL OF 1/4 INCH (6.4 MM) HIGH MAXIMUM SHALL BE PERMITTED TO BE VERTICAL.

FIGURE 303.2 VERTICAL CHANGE IN LEVEL

303.3 BEVELED. CHANGES IN LEVEL BETWEEN 1/4 INCH (6.4 MM) HIGH MINIMUM AND 1/2 INCH (13 MM) HIGH MAXIMUM SHALL BE BEVELED WITH A SLOPE NOT STEEPER THAN 1:2.

FIGURE 303.3 BEVELED CHANGE IN LEVEL

304 TURNING SPACE

304.3.1 CIRCULAR SPACE. THE TURNING SPACE SHALL BE A SPACE OF 60 INCHES (1525 MM) DIAMETER MINIMUM. THE SPACE SHALL BE PERMITTED TO INCLUDE KNEE AND TOE CLEARANCE COMPLYING WITH 306.

304.3.2 T-SHAPED SPACE. THE TURNING SPACE SHALL BE A T-SHAPED SPACE WITHIN A 60 INCH (1525 MM) SQUARE MINIMUM WITH ARMS AND BASE 36 INCHES (915 MM) WIDE MINIMUM. EACH ARM OF THE T SHALL BE CLEAR OF OBSTRUCTIONS 12 INCHES (305 MM) MINIMUM IN EACH DIRECTION AND THE BASE SHALL BE CLEAR OF OBSTRUCTIONS 24 INCHES (610 MM) MINIMUM. THE SPACE SHALL BE PERMITTED TO INCLUDE KNEE AND TOE CLEARANCE COMPLYING WITH 306 ONLY AT THE END OF EITHER THE BASE OR ONE ARM.

FIGURE 304.3.2 T-SHAPED TURNING SPACE

(A) FORWARD (B) PARALLEL

FIGURE 305.5 POSITION OF CLEAR FLOOR OR GROUND SPACE

305.7.1 FORWARD APPROACH . ALCOVES SHALL BE 36 INCHES (915 MM) WIDE MINIMUM WHERE THE DEPTH EXCEEDS 24 INCHES (610 MM).

FIGURE 305.7.1 MANEUVERING CLEARANCE IN AN ALCOVE, FORWARD APPROACH

305.7.2 PARALLEL APPROACH. ALCOVES SHALL BE 60 INCHES (1525 MM) WIDE MINIMUM WHERE THE DEPTH EXCEEDS 15 INCHES (380 MM).

FIGURE 305.7.2 MANEUVERING CLEARANCE IN AN ALCOVE PARALLEL APPROACH

306 KNEE AND TOE CLEARANCE

306.2 TOE CLEARANCE

306.2.1 GENERAL. SPACE UNDER AN ELEMENT BETWEEN THE FINISH FLOOR OR GROUND AND 9 INCHES (230 MM) ABOVE THE FINISH FLOOR OR GROUND SHALL BE CONSIDERED TOE CLEARANCE AND SHALL COMPLY WITH 306.2.

306.2.2 MAXIMUM DEPTH. TOE CLEARANCE SHALL EXTEND 25 INCHES (635 MM) MAXIMUM UNDER AN ELEMENT.

306.2.3 MINIMUM REQUIRED DEPTH. WHERE TOE CLEARANCE IS REQUIRED AT AN ELEMENT AS PART OF A CLEAR FLOOR SPACE, THE TOE CLEARANCE SHALL EXTEND 17 INCHES (430 MM) MINIMUM UNDER THE ELEMENT.

306.2.4 ADDITIONAL CLEARANCE. SPACE EXTENDING GREATER THAN 6 INCHES (150 MM) BEYOND THE AVAILABLE KNEE CLEARANCE AT 9 INCHES (230 MM) ABOVE THE FINISH FLOOR OR GROUND SHALL NOT BE CONSIDERED TOE CLEARANCE

306.2.5 WIDTH. TOE CLEARANCE SHALL BE 30 INCHES (760 MM) WIDE MINIMUM.

(A) ELEVATION (B) PLAN

FIGURE 306.2 TOE CLEARANCE

306.3 KNEE CLEARANCE

306.3.1 GENERAL. SPACE UNDER AN ELEMENT BETWEEN 9 INCHES (230 MM) AND 27 INCHES (685 MM) ABOVE THE FINISH FLOOR OR GROUND SHALLL BE CONSIDERED KNEE CLEARANCE AND SHALL COMPLY WITH 306.3.

306.3.2 MAXIMUM DEPTH. KNEE CLEARANCE SHALL EXTEND 25 INCHES (635 MM) MAXIMUM UNDER AN ELEMENT AT 9 INCHES (230 MM) ABOVE THE FINISH FLOOR OR GROUND.

306.3.3 MINIMUM REQUIRED DEPTH. WHERE KNEE CLEARANCE IS REQUIRED UNDER AN ELEMENT AS PART OF A CLEAR FLOOR SPACE, THE KNEE CLEARANCE SHALL BE 11 INCHES (280 MM) DEEP MINIMUM AT 9 INCHES (230 MM) ABOVE THE FINISH FLOOR OR GROUND, AND 8 INCHES (205 MM) DEEP MINIMUM AT 27 INCHES (685 MM) ABOVE THE FINISH FLOOR OR GROUND.

306.3.4 CLEARANCE REDUCTION. BETWEEN 9 INCHES (230 MM) AND 27 INCHES (685 MM) ABOVE THE FINISH FLOOR OR GROUND, THE KNEE CLEARANCE SHALL BE PERMITTED TO REDUCE AT A RATE OF 1 INCH (25 MM) IN DEPTH FOR EACH 6 INCHES (150 MM) IN HEIGHT.

306.3.5 WIDTH. KNEE CLEARANCE SHALL BE 30 INCHES (760 MM) WIDE MINIMUM.

307 PROTRUDING OBJECTS

(A) ELEVATION (B) PLAN

FIGURE 306.3 KNEE CLEARANCE

307.2 PROTRUSION LIMITS. OBJECTS WITH LEADING EDGES MORE THAN 27 INCHES (685 MM) AND NOT MORE THAN 80 INCHES (2030 MM) ABOVE THE FINISH FLOOR OR GROUND SHALL PROTRUDE 4 INCHES (100 MM) MAXIMUM HORIZONTALLY INTO THE CIRCULATION PATH.

EXCEPTION: HANDRAILS SHALL BE PERMITTED TO PROTRUDE 4 ½ INCHES (115 MM) MAXIMUM.

FIGURE 307.2 LIMITS OF PROTRUDING OBJECTS

307.4 VERTICAL CLEARANCE. VERTICAL CLEARANCE SHALL BE 80 INCHES (2030 MM) HIGH MINIMUM. GUARDRAILS OR OTHER BARRIERS SHALL BE PROVIDED WHERE THE VERTICAL CLEARANCE IS LESS THAN 80 INCHES (2030 MM) HIGH. THE LEADING EDGE OF SUCH GUARDRAIL OR BARRIER SHALL BE LOCATED 27 INCHES (685 MM) MAXIMUM ABOVE THE FINISH FLOOR OR GROUND.

EXCEPTION: DOOR CLOSERS AND DOOR STOPS SHALL BE PERMITTED TO BE 78 INCHES (1980 MM) MINIMUM ABOVE THE FINISH FLOOR OR GROUND.

FIGURE 307.4 VERTICAL CLEARANCE

308.2 FORWARD REACH

308.2.1 UNOBSTRUCTED. WHERE A FORWARD REACH IS UNOBSTRUCTED, THE HIGH FORWARD REACH SHALL BE 48 INCHES (1220 MM) MAXIMUM AND THE LOW FORWARD REACH SHALL BE 15 INCHES (380 MM) MINIMUM ABOVE THE FINISH FLOOR OR GROUND.

(A)

FIGURE 308.2.1 UNOBSTRUCTED HIGH FORWARD REACH

(A) (B)

FIGURE 308.2.2 OBSTRUCTED HIGH FORWARD REACH

308.2.2 OBSTRUCTED HIGH REACH. WHERE A HIGH FORWARD REACH IS OVER AN OBSTRUCTION, THE CLEAR FLOOR SPACE SHALL EXTEND BENEATH THE ELEMENT FOR A DISTANCE NOT LESS THAN REQUIRED REACH DEPTH OVER THE OBSTRUCTION. THE HIGH FORWARD REACH SHALL BE 48 INCHES (1220 MM) MAXIMUM WHERE THE REACH DEPTH IS 20 INCHES (510 MM) MAXIMUM. WHERE THE REACH DEPTH EXCEEDS 20 INCHES (510 MM), THE HIGH FORWARD REACH SHALL BE 44 INCHES (1120 MM) MAXIMUM AND THE REACH DEPTH SHALL BE 25 INCHES (635 MM) MAXIMUM.

308.3 SIDE REACH

308.3.1 UNOBSTRUCTED. WHERE A CLEAR FLOOR OR GROUND SPACE ALLOWS A PARALLEL APPROACH TO AN ELEMENT AND THE SIDE REACH IS UNOBSTRUCTED, THE HIGH SIDE REACH SHALL BE 48 INCHES (1220 MM) MAXIMUM AND THE LOW SIDE REACH SHALL BE 15 INCHES (380 MM) MINIMUM ABOVE THE FINISH FLOOR OR GROUND.

(A)

FIGURE 308.3.1 UNOBSTRUCTED SIDE REACH

(A) (B)

FIGURE 308.3.2 OBSTRUCTED HIGH SIDE REACH

308.3.2 OBSTRUCTED HIGH REACH. WHERE A CLEAR FLOOR OR GROUND SPACE ALLOWS A PARALLEL APPROACH TO AN ELEMENT AND THE HIGH SIDE REACH IS OVER AN OBSTRUCTION, THE HEIGHT OF THE OBSTRUCTION SHALL BE 34 INCHES (865 MM) MAXIMUM AND THE DEPTH OF THE OBSTRUCTION SHALL BE 24 INCHES (610 MM) MAXIMUM. THE HIGH SIDE REACH SHALL BE 48 INCHES (1220 MM) MAXIMUM FOR A REACH DEPTH OF 10 INCHES (255 MM) MAXIMUM. WHERE THE REACH DEPTH EXCEEDS 10 INCHES (255 MM), THE HIGH SIDE REACH SHALL BE 46 INCHES (1170 MM) MAXIMUM FOR A REACH DEPTH OF 24 INCHES (610 MM) MAXIMUM.

309 OPERABLE PARTS

309.2 CLEAR FLOOR SPACE. A CLEAR FLOOR OR GROUND SPACE COMPLYING WITH 305 SHALL BE PROVIDED.

309.3 HEIGHT. OPERABLE PARTS SHALL BE PLACED WITHIN ONE OR MORE OF THE REACH RANGES SPECIFIED IN 308.

309.4 OPERATION. OPERABLE PARTS SHALL BE OPERABLE WITH ONE HAND AND SHALL NOT REQUIRE TIGHT GRASPING, PINCHING, OR TWISTING OF THE WRIST. THE FORCE REQUIRED TO ACTIVATE OPERABLE PARTS SHALL BE 5 POUNDS (22. 2 N) MAXIMUM.

CHAPTER 4 : ACCESSIBLE ROUTES

402.2 COMPONENTS. ACCESSIBLE ROUTES SHALL CONSIST OF ONE OR MORE OF THE FOLLOWING COMPONENTS: WALKING SURFACES WITH A RUNNING SLOPE NOT STEEPER THAN 1:20, DOORWAYS, RAMPS, CURB RAMPS EXCLUDING THE FLARED SIDES, ELEVATORS, AND PLATFORM LIFTS. ALL COMPONENTS OF AN ACCESSIBLE ROUTE SHALL COMPLY WITH THE APPLICABLE REQUIREMENTS OF CHAPTER 4.

ADVISORY 402.2 COMPONENTS. WALKING SURFACES MUST HAVE RUNNING SLOPES NOT STEEPER THAN 1:20, SEE 403.3. OTHER COMPONENTS OF ACCESSIBLE ROUTES, SUCH AS RAMP (405) AND CURB RAMPS (406), ARE PERMITTED TO BE MORE STEEPLY SLOPED.

403 WALKING SURFACES

403.1 GENERAL. WALKING SURFACES THAT ARE A PART OF AN ACCESSIBLE ROUTE SHALL COMPLY WITH 403.

403.2 FLOOR OR GROUND SURFACE. FLOOR OR GROUND SURFACE SHALL COMPLY WITH 302.

403.3 SLOPE. THE RUNNING SLOPE OF WALKING SURFACES SHALL NOT BE STEEPER THAN 1:20. THE CROSS SLOPE OF WALKING SURFACES SHALL NOT BE STEEPER THAN 1:48.

403.4 CHANGE IN LEVEL. CHANGES IN LEVEL SHALL COMPLY WITH 303.

403.5 CLEARANCES. WALKING SURFACE SHALL PROVIDE CLEARANCES COMPLYING WITH 403.5.

EXCEPTION : WITHIN EMPLOYEE WORK AREAS, CLEARANCES ON COMMON USE CIRCULATION PATHS SHALL BE PERMITTED TO BE DECREASED BY WORK AREA EQUIPMENT PROVIDED THAT THE DECREASE IS ESSENTIAL TO THE FUNCTION OF THE WORK BEING PERFORMED.

403.5.1 CLEAR WIDTH. EXCEPT AS PROVIDED IN 403.5.2 AND 403.5.3, THE CLEAR WIDTH OF WALKING SURFACES SHALL BE 36 INCHES (915 MM) MINIMUM.

EXCEPTION : THE CLEAR WIDTH SHALL BE PERMITTED TO BE REDUCED TO 32 INCHES (815 MM) MINIMUM FOR A LENGTH OF 24 INCHES (610 MM) MAXIMUM PROVIDED THAT REDUCED WIDTH SEGMENTS ARE SEPARATED BY SEGMENTS THAT ARE 48 INCHES (1220 MM) LONG MINIMUM AND 36 INCHES (915 MM) WIDE MINIMUM.

FIGURE 403.5.1 CLEAR WIDTH OF AN ACCESSIBLE ROUTE

403.5.2 CLEAR WIDTH AT TURN. WHERE THE ACCESSIBLE ROUTE MAKES A 180 DEGREE TURN AROUND AN ELEMENT WHICH IS LESS THAN 48 INCHES (1220MM) WIDE, CLEAR WIDTH SHALL BE 42 INCHES (1065 MM) MINIMUM APPROACHING THE TURN, 48 INCHES (1220 MM) MINIMUM AT THE TURN AND 42 INCHES (1065 MM) MINIMUM LEAVING THE TURN.

(A) 180 DEGREE TURN (B) 180 DEGREE TURN

FIGURE 403.5.2 CLEAR WIDTH AT TURN

403.5.3 PASSING SPACES. AN ACCESSIBLE ROUTE WITH A CLEAR WIDTH LESS THAN 60 INCHES (1525 MM) SHALL PROVIDE PASSING SPACES AT INTERVALS AT 200 FEET (61 M) MAXIMUM.

404 DOORS, DOORWAYS, AND GATES

404.2.3 CLEAR WIDTH. DOOR OPENINGS SHALL PROVIDE A CLEAR WIDTH OF 32 INCHES (815 MM) MINIMUM. CLEAR OPENINGS OF DOORWAYS WITH SWINGING DOORS SHALL BE MEASURED BETWEEN THE FACE OF THE DOOR AND THE STOP, WITH THE DOOR OPEN 90 DEGREES, OPENINGS MORE THAN 24 INCHES (610 MM) DEEP SHALL PROVIDE A CLEAR OPENING OF 36 INCHES (915 MM) MINIMUM. THERE SHALL BE NO PROJECTIONS INTO THE REQUIRED CLEAR OPENING WIDTH LOWER THAN 34 INCHES (865 MM) ABOVE THE FINISH FLOOR OR GROUND. PROJECTIONS INTO THE CLEAR OPENING WIDTH BETWEEN 34 INCHES (865 MM) AND 80 INCHES (2030 MM) ABOVE THE FINISH FLOOR OR GROUND SHALL NOT EXCEED 4 INCHES (100 MM).

(A) HINGED DOOR (B) SLIDING DOOR (C) FOLDING DOOR

FIGURE 404.2.3 CLEAR WIDTH OF DOORWAYS

404.2.4 MANEUVERING CLEARANCES. MINIMUM MANEUVERING CLEARANCES AT DOORS AND GATES SHALL COMPLY WITH 404.2.4. MANEUVERING CLEARANCES SHALL EXTEND THE FULL WIDTH OF THE DOORWAY AND THE REQUIRED LATCH OR HINGE SIDE CLEARANCE.

404.2.4.3 RECESSED DOORS AND GATES. MANEUVERING CLEARANCES FOR FORWARD APPROACH SHALL BE PROVIDED WHEN ANY OBSTRUCTION WITHIN 18 INCHES (455 MM) OF THE LATCH SIDE OF A DOORWAY PROJECTS MORE THAN 8 INCHES (205 MM) BEYOND THE FACE OF THE DOOR, MEASURED PERPENDICULAR TO THE FACE OF THE DOOR OR GATE.

(A) PULL SIDE (B) PUSH SIDE

(C) PUSH SIDE, DOOR PROVIDED WITH BOTH CLOSER AND LATCH

FIGURE 404.2.4.3 MANEUVERING CLEARANCES AT RECESSED DOORS AND GATES

404.2.6 DOORS IN SERIES AND GATES IN SERIES, THE DISTANCE BETWEEN TWO HINGED OR PIVOTED DOORS IN SERIES AND GATES IN SERIES SHALL BE 48 INCHES (1220 MM) MINIMUM PLUS THE WIDTH OF DOORS OR GATES SWINGING INTO THE SPACE.

FIGURE 404.2.4.6 DOORS IN SERIES AND GATES IN SERIES

404.2.7 DOOR AND GATE HARDWARE. HANDLES, PULLS, LATCHES, LOCKS, AND OTHER OPERABLE PARTS ON DOORS AND GATES SHALL COMPLY WITH 309.4. OPERABLE PARTS OF SUCH HARDWARE SHALL BE 34 INCHES (865 MM) MINIMUM AND 48 INCHES (1220 MM) MAXIMUM ABOVE THE FINISH FLOOR OR GROUND. WHERE SLIDING DOORS ARE IN THE FULLY OPEN POSITION, OPERATING HARDWARE SHALL BE EXPOSED AND USABLE FROM BOTH SIDES.

404.2.8.1 DOOR CLOSERS AND GATE CLOSERS. DOOR CLOSERS AND GATE CLOSERS SHALL BE ADJUSTED SO THAT FROM AN OPEN POSITION OF 90 DEGREES, THE TIME REQUIRED TO MOVE THE DOOR TO A POSITION OF 12 DEGREES FROM THE LATCH IS 5 SECONDS MINIMUM.

404.2.8.2 SPRING HINGES. DOOR AND GATE SPRING HINGES SHALL BE ADJUSTED SO THAT FROM THE OPEN POSITION OF 70 DEGREES, THE DOOR OR GATE SHALL MOVED TO THE CLOSED POSITION IN 1.5 SECONDS MINIMUM.

404.2.9 DOOR AND GATE OPENING FORCE. FIRE DOORS SHALL HAVE A MINIMUM OPENING FORCE ALLOWABLE BY THE APPROPRIATE ADMINISTRATIVE AUTHORITY. THE FORCE FOR PUSHING OR PULLING OPEN A DOOR OR GATE OTHER THAN FIRE DOORS SHALL BE AS FOLLOWS:

1. INTERIOR HINGED DOORS AND GATES: 5 POUNDS (22.2. N) MAXIMUM.
2. SLIDING OR FOLDING DOORS: 5 POUNDS (22.2 N) MAXIMUM.

THESE FORCES DO NOT APPLY TO THE FORCE REQUIRED TO RETRACT LATCH BOLTS OR DISENGAGE OTHER DEVICES THAT HOLD THE DOOR OR GATE IN A CLOSED POSITION.

404.2.10 DOOR AND GATE SURFACES. SWINGING DOOR AND GATE SURFACES WITHIN 10 INCHES (255 MM) OF THE FINISH FLOOR OR GROUND MEASURED VERTICALLY SHALL HAVE A SMOOTH SURFACE ON THE PUSH SIDE EXTENDING THE FULL WIDTH OF THE DOOR OR GATE. PARTS CREATING HORIZONTAL OR VERTICAL JOINTS IN THESE SURFACE SHALL BE WITHIN 1/16 INCH (1.6 MM) OF THE SAME PLANE AS THE OTHER. CAVITIES CREATED BY ADDED KICK PLATES SHALL BE CAPPED

404.2.11 VISION LIGHTS. DOORS, GATES, AND SIDE LIGHTS ADJACENT TO DOORS OR GATES, CONTAINING ONE OR MORE GLAZING PANELS THAT PERMIT VIEWING THROUGH THE PANELS SHALL HAVE THE BOTTOM OF AT LEAST ONE GLAZED PANEL LOCATED 43 INCHES (1090 MM) MAXIMUM ABOVE THE FINISH FLOOR.

404.3 AUTOMATIC AND POWER-ASSISTED DOORS AND GATES. AUTOMATIC DOORS AND AUTOMATIC GATES SHALL COMPLY WITH 404.3. FULL-POWERED AUTOMATIC DOORS SHALL COMPLY WITH ANSI/BHMA A156.10 (INCORPORATED BY REFERENCE, SEE "REFERENCED STANDARDS" IN CHAPTER 1). LOW-ENERGY AND POWER-ASSISTED DOORS SHALL COMPLY WITH ANSI/BHMA A156.19 (1997 OR 2002 EDITION) (INCORPORATED BY REFERENCE, SEE "REFERENCED STANDARDS" IN CHAPTER 1),

404.3.2 MANEUVERING CLEARANCE. CLEARANCES AT POWER-ASSISTED DOORS AND GATES SHALL COMPLY WITH 404.2.4. CLEARANCES AT AUTOMATIC DOORS AND GATES WITHOUT STANDBY POWER AND SERVING AN ACCESSIBLE MEANS OF EGRESS SHALL COMPLY WITH 404.2.4.

404.3.7 REVOLVING DOORS. REVOLVING GATES, AND TURNSTILES. REVOLVING DOORS, REVOLVING GATES, AND TURNSTILES SHALL NOT BE A PART OF AN ACCESSIBLE ROUTE.

CHAPTER 6 : PLUMBING ELEMENTS AND FACILITIES

602 DRINKING FOUNTAINS

602.2 CLEAR FLOOR SPACES. UNITS SHALL HAVE A CLEAR FLOOR OR GROUND SPACE COMPLYING WITH 305 POSITIONED FOR A FORWARD APPROACH AND CENTERED ON THE UNIT. KNEE AND TOE CLEARANCE COMPLYING WITH 306 SHALL BE PROVIDED.

EXCEPTION: A PARALLEL APPROACH COMPLYING WITH 305 SHALL BE PERMITTED AT UNITS FOR CHILDREN'S USE WHERE THE SPOUT IS 30 INCHES (760 MM) MAXIMUM ABOVE THE FINISH FLOOR OR GROUND AND IS 3 ½ INCHES (90 MM) MINIMUM FROM THE FRONT EDGE OF THE UNIT, INCLUDING BUMPERS.

602.3 OPERABLE PARTS. OPERABLE PARTS SHALL COMPLY WITH 309.

602.4 SPOUT HEIGHTS. SPOUT OUTLETS SHALL BE 36 INCHES (915 MM) MAXIMUM ABOVE THE FINISH FLOOR OR GROUND.

602.5 SPOUT LOCATION. THE SPOUT SHALL BE LOCATED 15 INCHES (380 MM) MINIMUM FROM THE VERTICAL SUPPORT AND 5 INCHES (125 MM) MAXIMUM FROM THE FRONT EDGE OF THE UNIT, INCLUDING BUMPERS.

FIGURE 602.5 DRINKING FOUNTAIN SPOUT LOCATION

602.6 WATER FLOW. THE SPOUT SHALL PROVIDE A FLOW OF WATER 4 INCHES (100 MM) HIGH MINIMUM AND SHALL BE LOCATED 5 INCHES (125 MM) MAXIMUM FROM THE FRONT FACE OF THE UNIT. THE ANGLE OF THE WATER STREAM SHALL BE MEASURED HORIZONTALLY RELATIVE TO THE FRONT FACE OF THE UNIT. WHERE SPOUTS ARE LOCATED LESS THAN 3 INCHES (75 MM) OF THE FRONT OF THE UNIT, ANGLE OF THE WATER STREAM SHALL BE 30 DEGREE MAXIMUM. WHERE SPOUTS ARE LOCATED BETWEEN 3 INCHES (75 MM) AND 5 INCHES (125 MM) MAXIMUM FROM THE FRONT OF THE UNIT, THE ANGLE OF THE WATER STREAM SHALL BE 15 DEGREES MAXIMUM.

602.7 DRINKING FOUNTAINS FOR STANDING PERSON. SPOUT OUTLETS OF DRINKING FOUNTAINS FOR STANDING PERSONS SHALL BE 38 INCHES (965 MM) MINIMUM AND 43 INCHES (1090 MM) MAXIMUM ABOVE THE FINISH FLOOR OR GROUND.

603 TOILET AND BATHING ROOMS

603.2 CLEARANCE. CLEARANCES SHALL COMPLY WITH 603.2

603.2.1 TURNING SPACE. TURNING SPACE COMPLYING WITH 304 SHALL BE PROVIDED WITHIN THE ROOM.

603.2.2 OVERLAP. REQUIRED CLEAR FLOOR SPACES, CLEARANCE AT FIXTURES, AND TURNING SPACE SHALL BE PERMITTED TO OVERLAP.

603.2.3 DOOR SWING. DOORS SHALL NOT SWING INTO THE CLEAR FLOOR SPACE OR CLEARANCE REQUIRED FOR ANY FIXTURE. DOORS SHALL BE PERMITTED TO SWING INTO THE REQUIRED TURNING SPACE.

603.3 MIRRORS. MIRRORS LOCATED ABOVE LAVATORIES OR COUNTERTOPS SHALL BE INSTALLED WITH THE BOTTOM EDGE OF THE REFLECTING SURFACE 40 INCHES (1015 MM) MAXIMUM ABOVE THE FINISH FLOOR OR GROUND. MIRRORS NOT LOCATED ABOVE LAVATORIES OR COUNTERTOPS SHALL BE INSTALLED WITH THE BOTTOM EDGE OF THE REFLECTING SURFACE 35 INCHES (890 MM) MAXIMUM ABOVE THE FINISH FLOOR OR GROUND.

603.4 COAT HOOKS AND SHELVES. COAT HOOKS SHALL BE LOCATED WITHIN ONE OF THE REACH RANGES SPECIFIED IN 308. SHELVES SHALL BE LOCATED 40 INCHES (1015 MM) MINIMUM AND 48 INCHES (1220 MM) MAXIMUM ABOVE THE FINISH FLOOR.

604 WATER CLOSETS AND TOILET COMPARTMENTS

604.2 LOCATION. THE WATER CLOSET SHALL BE POSITIONED WITH A WALL OR PARTITION TO THE REAR AND TO ONE SIDE. THE CENTERLINE OF THE WATER CLOSET SHALL BE 16 INCHES (405 MM) MINIMUM TO 18 INCHES (455 MM) MAXIMUM FROM THE SIDE WALL OR PARTITION, EXCEPT THAT THE WATER CLOSET SHALL BE 17 INCHES (430 MM) MINIMUM AND 19 INCHES (485 MM) MAXIMUM FROM THE SIDE WALL OR PARTITION IN THE AMBULATORY ACCESSIBLE TOILET COMPARTMENT SPECIFIED IN 604.8.2. WATER CLOSETS SHALL BE ARRANGED FOR A LEFT- HAND OR RIGHT- HAND APPROACH.

(A) WHEELCHAIR ACCESSIBLE WATER CLOSETS (B) AMBULATORY ACCESSIBLE WATER CLOSETS

FIGURE 604.2 LOCATION AT WATER CLOSETS

FIGURE 604.3.1 SIZE OF CLEARANCE AT WATER CLOSETS

604.3.1 SIZE. CLEARANCE AROUND A WATER CLOSET SHALL BE 60 INCHES (1525 MM) MINIMUM MEASURED PERPENDICULAR FROM THE SIDE WALL AND 60 INCHES (1525 MM) MINIMUM MEASURED PERPENDICULAR FROM THE REAR WALL.

604.3.2 OVERLAP. THE REQUIRED CLEARANCE AROUND THE WATER CLOSET SHALL BE PERMITTED TO OVERLAP THE WATER CLOSET, ASSOCIATED GRAB BARS, DISPENSERS, SANITARY NAPKIN DISPOSAL UNITS, COAT HOOKS, SHELVES, ACCESSIBLE ROUTES, CLEAR FLOOR SPACE AND CLEARANCES REQUIRED AT OTHER FIXTURES, AND THE TURNING SPACE. NO OTHER FIXTURES OR OBSTRUCTIONS SHALL BE LOCATED WITHIN THE REQUIRED WATER CLOSET CLEARANCE.

604.4 SEATS. THE SEAT HEIGHT OF A WATER CLOSET ABOVE THE FINISH FLOOR SHALL BE 17 INCHES (430 MM) MINIMUM AND 19 INCHES (485 MM) MAXIMUM MEASURED TO THE TOP OF THE SEAT. SEATS SHALL NOT BE SPRUNG TO RETURN TO A LIFTED POSITION.

604.5 GRAB BARS. GRAB BARS FOR WATER CLOSETS SHALL COMPLY WITH 609. GRAB BARS SHALL BE PROVIDED ON THE SIDE WALL CLOSEST TO THE WATER CLOSET AND ON THE REAR WALL.

604.5.1 SIDE WALL. THE SIDE WALL GRAB BAR SHALL BE 42 INCHES (1065 MM) LONG MINIMUM, LOCATED 12 INCHES (305 MM) MAXIMUM FROM THE REAR WALL AND EXTENDING 54 INCHES (1370 MM) MINIMUM FROM THE REAR WALL.

FIGURE 604.5.1 SIDE WALL GRAB BAR AT WATER CLOSETS

FIGURE 604.5.2 REAR WALL GRAB BAR AT WATER CLOSETS

604.5.2 REAR WALL. THE REAR WALL GRAB BAR SHALL BE 36 INCHES (915 MM) LONG MINIMUM AND EXTEND FROM THE CENTERLINE OF THE WATER CLOSET 12 INCHES (305 MM) MINIMUM ON ONE SIDE AND 24 INCHES (610 MM) MINIMUM ON THE OTHER SIDE.

604.6 FLUSH CONTROLS. FLUSH CONTROLS SHALL BE HAND OPERATED OR AUTOMATIC. HAND OPERATED FLUSH CONTROLS SHALL COMPLY WITH 309. FLUSH CONTROLS SHALL BE LOCATED ON THE OPEN SIDE OF THE WATER CLOSET EXCEPT IN AMBULATORY ACCESSIBLE COMPARTMENTS COMPLYING WITH 604.8.2

604.7 DISPENSERS. TOILET PAPER DISPENSERS SHALL COMPLY WITH 309.4 AND SHALL BE 7 INCHES (180 MM) MINIMUM AND 9 INCHES (230 MM) MAXIMUM IN FRONT OF THE WATER CLOSET MEASURED TO THE CENTERLINE OF THE DISPENSER. THE OUTLET OF THE DISPENSER SHALL BE 15 INCHES (380 MM) MINIMUM AND 48 INCHES (1220 MM) MAXIMUM ABOVE THE FINISH FLOOR AND SHALL NOT BE LOCATED BEHIND GRAB BARS. DISPENSERS SHALL NOT BE OF A TYPE THAT CONTROLS DELIVERY OR THAT DOES NOT ALLOW CONTINUOUS PAPER FLOW.

FIGURE 604.7 DISPENSER OUTLET LOCATION

604.8 TOILET COMPARTMENTS. WHEELCHAIR ACCESSIBLE TOILET COMPARTMENTS SHALL MEET THE REQUIREMENTS OF 604.8.1 AND 604.8.3. COMPARTMENTS CONTAINING MORE THAN ONE PLUMBING FIXTURE SHALL COMPLY WITH 603. AMBULATORY ACCESSIBLE COMPARTMENTS SHALL COMPLY WITH 604.8.2 AND 604.8.3.

604.8.1 WHEELCHAIR ACCESSIBLE COMPARTMENTS. WHEELCHAIR ACCESSIBLE COMPARTMENTS SHALL COMPLY WITH 604.8.1

604.8.1.1 SIZE. WHEELCHAIR ACCESSIBLE COMPARTMENTS SHALL BE 60 INCHES (1525 MM) WIDE MINIMUM MEASURED PERPENDICULAR TO THE SIDE WALL, AND 56 INCHES (1420 MM) DEEP MINIMUM FOR WALL HUNG WATER CLOSETS AND 59 INCHES (1500 MM) DEEP MINIMUM FOR FLOOR MOUNTED WATER CLOSETS MEASURED PERPENDICULAR TO THE REAR WALL. WHEELCHAIR ACCESSIBLE COMPARTMENTS FOR CHILDREN'S USE SHALL BE 60 INCHES (1525 MM) WIDE MINIMUM MEASURED PERPENDICULAR TO THE SIDE WALL, AND 59 INCHES (1500 MM) DEEP MINIMUM FOR WALL HUNG AND FLOOR MOUNTED WATER CLOSETS MEASURED PERPENDICULAR TO THE REAR WALL.

(A) ADULT WALL HUNG WATER CLOSET (B) ADULT FLOOR MOUNTED WATER CLOSET AND CHILDREN'S WATER CLOSET

FIGURE 604.8.1.1 SIZE OF WHEELCHAIR ACCESSIBLE TOILET COMPARTMENTS

604.8.1.2 DOORS. TOILET COMPARTMENT DOORS, INCLUDING DOOR HARDWARE, SHALL COMPLY WITH 404 EXCEPT THAT IF THE APPROACH IS TO THE LATCH SIDE OF THE COMPARTMENT DOOR, CLEARANCE BETWEEN THE DOOR SIDE OF THE COMPARTMENT AND ANY OBSTRUCTION SHALL BE 42 INCHES (1065 MM) MINIMUM. DOORS SHALL BE LOCATED IN THE FRONT PARTITION OR IN THE SIDE WALL OR PARTITION FARTHEST FROM THE WATER CLOSET. WHERE LOCATED IN THE FRONT PARTITION, THE DOOR OPENING SHALL BE 4 INCHES (100 MM) MAXIMUM FROM THE SIDE WALL OR PARTITION FARTHEST FROM THE WATER CLOSET. WHERE LOCATED IN THE SIDE WALL OR PARTITION, THE DOOR OPENING SHALL BE 4 INCHES (100 MM) MAXIMUM FROM THE FRONT PARTITION. THE DOOR SHALL BE SELF-CLOSING. A DOOR PULL COMPLYING WITH 404.2.7 SHALL BE PLACED ON BOTH SIDES OF THE DOOR NEAR THE LATCH. TOILET COMPARTMENT DOORS SHALL NOT SWING INTO THE MINIMUM REQUIRED COMPARTMENT AREA.

FIGURE 604.8.1.2 WHEELCHAIR ACCESSIBLE TOILET COMPARTMENT DOORS

604.8.1.3 APPROACH. COMPARTMENTS SHALL BE ARRANGED FOR LEFT- HAND OR RIGHT- HAND APPROACH TO THE WATER CLOSET.

604.8.1.4 TOE CLEARANCE. THE FRONT PARTITION AND AT LEAST ONE SIDE PARTITION SHALL PROVIDE A TOE CLEARANCE OF 9 INCHES (230 MM) MINIMUM ABOVE THE FINISH FLOOR AND 6 INCHES (150 MM) DEEP MINIMUM BEYOND THE COMPARTMENT - SIDE FACE OF THE PARTITION, EXCLUSIVE OF PARTITION SUPPORT MEMBERS. COMPARTMENTS FOR CHILDREN'S USE SHALL PROVIDE A TOE CLEARANCE OF 12 INCHES (305 MM) MINIMUM ABOVE THE FINISH FLOOR.

EXCEPTION: TOE CLEARANCE AT THE FRONT PARTITION IS NOT REQUIRED IN A COMPARTMENT GREATER THAN 62 INCHES (1575 MM) DEEP WITH A WALL - HUNG WATER CLOSET OR 65 INCHES (1650 MM) DEEP WITH A FLOOR - MOUNTED WATER CLOSET. TOE CLEARANCE AT THE SIDE PARTITION IS NOT REQUIRED IN A COMPARTMENT GREATER THAN 66 INCHES (1675 MM) WIDE. TOE CLEARANCE AT THE FRONT PARTITION IS NOT REQUIRED IN A COMPARTMENT FOR CHILDREN'S USE THAT IS GREATER THAN 65 INCHES (1650 MM) DEEP.

(A) ELEVATION: ADULT (B) ELEVATION: CHILDREN (C) PLAN

FIGURE 604.8.1.4 WHEELCHAIR ACCESSIBLE TOILET COMPARTMENT TOE CLEARANCE

604.8.1.5 GRAB BARS. GRAB BARS SHALL COMPLY WITH 609. A SIDE-WALL GRAB BAR COMPLYING WITH 604.5.1 SHALL BE PROVIDED AND SHALL BE LOCATED ON THE WALL CLOSEST TO THE WATER CLOSET. IN ADDITION, A REAR-WALL GRAB BAR COMPLYING WITH 604.5.2 SHALL BE PROVIDED.

604.8.1.2 AMBULATORY ACCESSIBLE COMPARTMENTS. AMBULATORY ACCESSIBLE COMPARTMENTS SHALL COMPLY WITH 604.8.2.

604.8.1.2.1 SIZE. AMBULATORY ACCESSIBLE COMPARTMENTS SHALL HAVE A DEPTH OF 60 INCHES (1525 MM) MINIMUM AND A WIDTH OF 35 INCHES (890 MM) MINIMUM AND 37 INCHES (940 MM) MAXIMUM.

604.8.2.2 DOORS. TOILET COMPARTMENT DOORS, INCLUDING DOOR HARDWARE, SHALL COMPLY WITH 404, EXCEPT THAT IF THE APPROACH IS TO THE LATCH SIDE OF THE COMPARTMENT DOOR, CLEARANCE BETWEEN THE DOOR SIDE OF THE COMPARTMENT AND ANY OBSTRUCTION SHALL BE 42 INCHES (1065 MM) MINIMUM. THE DOOR SHALL BE SELF-CLOSING. A DOOR PULL COMPLYING WITH 404.2.7 SHALL BE PLACED ON BOTH SIDES OF THE DOOR NEAR THE LATCH. TOILET COMPARTMENT DOORS SHALL NOT SWING INTO THE MINIMUM REQUIRED COMPARTMENT AREA.

604.8.2.3 GRAB BARS. GRAB BARS SHALL COMPLY WITH 609. A SIDE - WALL GRAB BAR COMPLYING WITH 604.5.1 SHALL BE PROVIDED ON BOTH SIDE OF THE COMPARTMENT.

FIGURE 604.8.2 AMBULATORY ACCESSIBLE TOILET COMPARTMENT

604.8.3 COAT HOOKS AND SHELVES. COAT HOOKS SHALL BE LOCATED WITHIN ONE OF THE REACH RANGES SPECIFIED IN 308. SHELVES SHALL BE LOCATED 40 INCHES (1015 MM) MINIMUM AND 48 INCHES (1220MM) MAXIMUM ABOVE THE FINISH FLOOR.

604.9 WATER CLOSETS AND TOILET COMPARTMENTS FOR CHILDREN'S USE. WATER CLOSETS AND TOILET COMPARTMENTS FOR CHILDREN'S USE SHALL COMPLY WITH 604.9.

604.9.1 LOCATION. THE WATER CLOSET SHALL BE LOCATED WITH A WALL OR PARTITION TO THE REAR AND TO ONE SIDE. THE CENTERLINE OF THE WATER CLOSET SHALL BE 12 INCHES (305 MM) MINIMUM AND 18 INCHES (455 MM) MAXIMUM FROM THE SIDE WALL OR PARTITION, EXCEPT THAT THE WATER CLOSET SHALL BE 17 INCHES (430 MM) MINIMUM AND 19 INCHES (485 MM) MAXIMUM FROM THE SIDE WALL OR PARTITION IN THE AMBULATORY ACCESSIBLE TOILET COMPARTMENT SPECIFIED IN 604.8.2. COMPARTMENTS SHALL BE ARRANGED FOR LEFT-HAND OR RIGHT-HAND APPROACH TO THE WATER CLOSET.

604.9.2 CLEARANCE. CLEARANCE AROUND A WATER CLOSET SHALL COMPLY WITH 604.3.

604.9.3 HEIGHT. THE HEIGHT OF WATER CLOSETS SHALL BE 11 INCHES (280 MM) MINIMUM AND 17 INCHES (430 MM) MAXIMUM MEASURED TO THE TOP OF THE SEAT. SEATS SHALL NOT BE SPRUNG TO RETURN TO A LIFTED POSITION.

604.9.4 GRAB BARS. GRAB BARS FOR WATER CLOSETS SHALL COMPLY WITH 604.5.

604.9.5 FLUSH CONTROLS. FLUSH CONTROLS SHALL BE HAND OPERATED OR AUTOMATIC. HAND OPERATED FLUSH CONTROLS SHALL COMPLY WITH 309.2 AND 309.4 AND SHALL BE INSTALLED 36 INCHES (915 MM) MAXIMUM ABOVE THE FINISH FLOOR. FLUSH CONTROLS SHALL BE LOCATED ON THE OPEN SIDE OF THE WATER CLOSET EXCEPT IN AMBULATORY ACCESSIBLE COMPARTMENTS COMPLYING WITH 604.8.2.

604.9.6 DISPENSERS. TOILET PAPER DISPENSERS SHALL COMPLY WITH 309.4 AND SHALL BE 7 INCHES (180 MM) MINIMUM AND 9 INCHES (230 MM) MAXIMUM IN FRONT OF THE WATER CLOSET MEASURED TO THE CENTERLINE OF THE DISPENSER. THE OUTLET OF THE DISPENSER SHALL BE 14 INCHES (355 MM) MINIMUM AND 19 INCHES (485 MM) MAXIMUM ABOVE THE FINISH FLOOR. THERE SHALL BE A CLEARANCE OF 1 ½ INCHES (38 MM) MINIMUM BELOW THE GRAB BAR. DISPENSERS SHALL NOT BE OF A TYPE THAT CONTROLS DELIVERY OR THAT DOES NOT ALLOW CONTINUOUS PAPER FLOW.

604.9.7 TOILET COMPARTMENTS. TOILET COMPARTMENTS SHALL COMPLY 604.8.

605 URINALS

605.2 HEIGHT AND DEPTH. URINALS SHALL BE THE STALL-TYPE OR THE WALL-HUNG TYPE WITH THE RIM 17INCHES (430 MM) MAXIMUM ABOVE THE FINISH FLOOR OR GROUND. URINALS SHALL BE 13 ½ INCHES (345 MM) DEEP MINIMUM MEASURED FROM THE OUTER FACE OF THE URINAL RIM TO THE BACK OF THE FIXTURE.

(A) WALL HUNG TYPE (B) STALL TYPE

FIGURE 605.2 HEIGHT AND DEPTH OF URINALS

605.3 CLEAR FLOOR SPACE. A CLEAR FLOOR OR GROUND SPACE COMPLYING WITH 305 POSITIONED FOR FORWARD APPROACH SHALL BE PROVIDED.

605.4 FLUSH CONTROLS. FLUSH CONTROLS SHALL BE HAND OPERATED OR AUTOMATIC. HAND OPERATED FLUSH CONTROLS SHALL COMPLY WITH 309.

606 LAVATORIES AND SINKS

606.2 CLEAR FLOOR SPACE. A CLEAR FLOOR SPACE COMPLYING WITH 305, POSITIONED FOR A FORWARD APPROACH , AND KNEE AND TOE CLEARANCE COMPLYING WITH 306 SHALL BE PROVIDED.

606.3 HEIGHT. LAVATORIES AND SINKS SHALL BE INSTALLED WITH THE FRONT OF THE HIGHER OF THE RIM OR COUNTER SURFACE 34 INCHES (865 MM) MAXIMUM ABOVE THE FINISH FLOOR OR GROUND.

606.4 FAUCETS. CONTROLS FOR FAUCETS SHALL COMPLY WITH 309. HAND-OPERATED METERING FAUCETS SHALL REMAIN OPEN FOR 10 SECONDS MINIMUM.

606.5 EXPOSED PIPES AND SURFACES. WATER SUPPLY AND DRAIN PIPES UNDER LAVATORIES AND SINKS SHALL BE INSULATED OR OTHERWISE CONFIGURED TO PROTECT AGAINST CONTACT. THERE SHALL BE NO SHARP OR ABRASIVE SURFACES UNDER LAVATORIES AND SINKS.

CHAPTER 7: COMMUNICATION ELEMENTS AND FEATURES

702 FIRE ALARM SYSTEMS

702.1 GENERAL. FIRE ALARM SYSTEMS SHALL HAVE PERMANENTLY INSTALLED AUDIBLE AND VISIBLE ALARMS COMPLYING WITH NFPA 72 (1999 OR 2002 EDITION) (INCORPORATED BY REFERENCE, SEE "REFERENCED STANDARDS" IN CHAPTER 1), EXCEPT THAT THE MAXIMUM ALLOWABLE SOUND LEVEL OF AUDIBLE NOTIFICATION APPLIANCES COMPLYING WITH SECTION 4-3.2.1 OF NFPA 72 (1999 EDITION) SHALL HAVE A SOUND LEVEL NO MORE THAN 110 DB AT THE MINIMUM HEARING DISTANCE FROM THE AUDIBLE APPLIANCE. IN ADDITION, ALARMS IN GUEST ROOMS REQUIRED TO PROVIDE COMMUNICATION FEATURES SHALL COMPLY WITH SECTIONS 4-3 AND 4-4 OF NFPA 72 (1999 EDITION) OR SECTIONS 7.4 AND 7.5 OF NFPA 72 (2002 EDITION).

703 SIGNS

703.1 GENERAL. SIGNS SHALL COMPLY WITH 703. WHERE BOTH VISUAL AND TACTILE CHARACTERS ARE REQUIRED, EITHER ONE SIGN WITH BOTH VISUAL AND TACTILE CHARACTERS OR TWO SEPARATE SIGNS, ONE WITH VISUAL AND ONE WITH TACTILE CHARACTERS, SHALL BE PROVIDED.

703.2 RAISED CHARACTERS. RAISED CHARACTERS SHALL COMPLY WITH 703.2 AND SHALL BE DUPLICATED IN BRAILLE COMPLYING WITH 703.3. RAISED CHARACTERS SHALL BE INSTALLED IN ACCORDANCE WITH 703.4.

703.2.1 DEPTH. RAISED CHARACTERS SHALL BE 1/32 INCH (0.8 MM) MINIMUM ABOVE THEIR BACKGROUND.

703.2.2 CASE. CHARACTERS SHALL BE UPPERCASE.

703.2.3 STYLE. CHARACTERS SHALL BE SANS SERIF. CHARACTERS SHALL NOT BE ITALIC, OBLIQUE, SCRIPT, HIGHLY DECORATIVE, OR OF OTHER UNUSUAL FORMS.

703.2.4 CHARACTER PROPORTIONS. CHARACTERS SHALL BE SELECTED FROM FONTS WHERE THE WIDTH OF THE UPPERCASE LETTER "0" IS 55 PERCENT MINIMUM AND 110 PERCENT MAXIMUM OF THE HEIGHT OF THE UPPERCASE LETTER "I".

703.2.5 CHARACTER HEIGHT. CHARACTER HEIGHT MEASURED VERTICALLY FROM THE BASELINE OF THE CHARACTER SHALL BE 5/8 INCH (16MM) MINIMUM AND 2 INCHES (51 MM) MAXIMUM BASED ON THE HEIGHT OF THE UPPERCASE LETTER "I".

FIGURE 703.2.5 HEIGHT OF RAISED CHARACTERS

703.2.6 STROKE THICKNESS. STROKE THICKNESS OF THE UPPERCASE LETTER "I" SHALL BE 15 PERCENT MAXIMUM OF THE HEIGHT OF THE CHARACTER.

703.2.7 CHARACTER SPACING. CHARACTER SPACING SHALL BE MEASURED BETWEEN THE TWO CLOSEST POINTS OF ADJACENT RAISED CHARACTERS WITHIN A MESSAGE, EXCLUDING WORD SPACES. WHERE CHARACTERS HAVE RECTANGULAR CROSS SECTIONS, SPACING BETWEEN INDIVIDUAL RAISED CHARACTERS SHALL BE 1/8 INCH (3.2 MM) MINIMUM AND 4 TIMES THE RAISED CHARACTER STROKE WIDTH MAXIMUM. WHERE CHARACTERS HAVE OTHER CROSS SECTIONS, SPACING BETWEEN INDIVIDUAL RAISED CHARACTERS SHALL BE 1/16 INCH (1.6 MM) MINIMUM AND 4 TIMES THE RAISED CHARACTER STROKE WIDTH MAXIMUM AT THE BASE OF THE CROSS SECTIONS, AND 1/8 INCH (3.2 MM) MINIMUM AND 4 TIMES THE RAISED CHARACTER STROKE WIDTH MAXIMUM AT THE TOP OF THE CROSS SECTIONS. CHARACTERS SHALL BE SEPARATED FROM RAISED BORDERS AND DECORATIVE ELEMENTS 3/8 INCH (9.5 MM) MINIMUM.

703.2.8 LINE SPACING. SPACING BETWEEN THE BASELINES OF SEPARATE LINES OF RAISED CHARACTERS WITHIN A MESSAGE SHALL BE 135 PERCENT MINIMUM AND 170 PERCENT MAXIMUM OF THE RAISED CHARACTER HEIGHT.

703.3 BRAILLE. BRAILLE SHALL BE CONTRACTED (GRADE 2) AND SHALL COMPLY WITH 703.3 AND 703.4.

703.3.1 DIMENSIONS AND CAPITALIZATION. BRAILLE DOTS SHALL HAVE A DOMED OR ROUNDED SHAPE AND SHALL COMPLY WITH TABLE 703.3.1. THE INDICATION OF AN UPPERCASE LETTER OR LETTERS SHALL ONLY BE USED BEFORE THE FIRST WORD OF SENTENCES, PROPER NOUNS AND NAMES, INDIVIDUAL LETTERS OF THE ALPHABET, INITIALS AND ACRONYMS.

FIGURE 703.3.1 BRAILLE MEASUREMENT

703.3.2 POSITION. BRAILLE SHALL BE POSITIONED BELOW THE CORRESPONDING TEXT. IF TEXT IS MULTI-LINED, BRAILLE SHALL BE PLACED BELOW THE ENTIRE TEXT. BRAILLE SHALL BE SEPARATED 3/8 INCH (9.5 MM) MINIMUM FROM ANY OTHER TACTILE CHARACTERS AND 3/8 INCH (9.5 MM) MINIMUM FROM RAISED BORDERS AND DECORATIVE ELEMENTS.

FIGURE 703.3.2 POSITION OF BRAILLE

703.4 INSTALLATION HEIGHT AND LOCATION. SIGNS WITH TACTILE CHARACTERS SHALL COMPLY WITH 703.4.

703.4.1 HEIGHT ABOVE FINISH FLOOR OR GROUND. TACTILE CHARACTERS ON SIGNS SHALL BE LOCATED 48 INCHES (1220 MM) MINIMUM ABOVE THE FINISH FLOOR OR GROUND SURFACE, MEASURED FROM THE BASELINE TO THE LOWEST TACTILE CHARACTER AND 60 INCHES (1525 MM) MAXIMUM ABOVE THE FINISH FLOOR OR GROUND SURFACE, MEASURED FROM THE BASELINE OF THE HIGHEST TACTILE CHARACTER.

FIGURE 703.4.1 HEIGHT OF TACTILE CHARACTERS ABOVE FINISH FLOOR OR GROUND

703.4.2 LOCATION. WHERE A TACTILE SIGN IS PROVIDED AT A DOOR, THE SIGN SHALL BE LOCATED ALONGSIDE THE DOOR AT THE LATCH SIDE. WHERE A TACTILE SIGN IS PROVIDED AT DOUBLE DOORS WITH ONE ACTIVE LEAF, THE SIGN SHALL BE LOCATED ON THE INACTIVE LEAF. WHERE A TACTILE SIGN IS PROVIDED AT DOUBLE DOORS WITH TWO ACTIVE LEAFS, THE SIGN SHALL BE LOCATED TO THE RIGHT OF THE RIGHT HAND DOOR. WHERE THERE IS NO WALL SPACE AT THE LATCH SIDE OF A SINGLE DOOR OR AT THE RIGHT SIDE OF DOUBLE DOORS, SIGNS SHALL BE LOCATED ON THE NEAREST ADJACENT WALL. SIGNS CONTAINING TACTILE CHARACTERS SHALL BE LOCATED SO THAT A CLEAR FLOOR SPACE OF 18 INCHES (455 MM) MINIMUM BY 18 INCHES (455 MM) MINIMUM, CENTERED ON THE TACTILE CHARACTERS, IS PROVIDED BEYOND THE ARC OF ANY DOOR SWING BETWEEN THE CLOSED POSITION AND 45 DEGREE OPEN POSITION.

FIGURE 703.4.2 LOCATION OF TACTILE SIGNS AT DOORS

703.5 VISUAL CHARACTERS. VISUAL CHARACTERS SHALL COMPLY WITH 703.5.

703.5.1 FINISH AND CONTRAST. CHARACTERS AND THEIR BACKGROUND SHALL HAVE A NON-GLARE FINISH. CHARACTERS SHALL CONTRAST WITH THEIR BACKGROUND WITH EITHER LIGHT CHARACTERS ON A DARK BACKGROUND OR DARK CHARACTERS ON A LIGHT BACKGROUND.

703.5.2 CASE. CHARACTERS SHALL BE UPPERCASE OR LOWERCASE OR A COMBINATION OF BOTH.

703.5.3 STYLE. CHARACTERS SHALL BE CONVENTIONAL IN FORM. CHARACTERS SHALL NOT BE ITALIC, OBLIQUE, SCRIPT, HIGHLY DECORATIVE, OR OF OTHER UNUSUAL FORMS.

703.5.4 CHARACTER PROPORTIONS. CHARACTERS SHALL BE SELECTED FROM FONTS WHERE THE WIDTH OF THE UPPERCASE LETTER "0" IS 55 PERCENT MINIMUM AND 110 PERCENT MAXIMUM OF THE HEIGHT OF THE UPPERCASE LETTER "I".

703.5.5 CHARACTER HEIGHT. MINIMUM CHARACTER HEIGHT SHALL COMPLY WITH TABLE 703.5.5. VIEWING DISTANCE SHALL BE MEASURED AS THE HORIZONTAL DISTANCE BETWEEN THE CHARACTER AND AN OBSTRUCTION PREVENTING FURTHER APPROACH TOWARDS THE SIGN. CHARACTER HEIGHT SHALL BE BASED ON THE UPPERCASE LETTER "I".

703.5.6 HEIGHT FROM FINISH FLOOR OR GROUND. VISUAL CHARACTERS SHALL BE 40 INCHES (1015 MM) MINIMUM ABOVE THE FINISH FLOOR OR GROUND.

703.5.7 STROKE THICKNESS. STROKE THICKNESS OF THE UPPERCASE LETTER "I" SHALL BE 10 PERCENT MINIMUM AND 30 PERCENT MAXIMUM OF THE HEIGHT OF THE CHARACTER.

703.5.8 CHARACTER SPACING. CHARACTER SPACING SHALL BE MEASURED BETWEEN THE TWO CLOSEST POINTS OF ADJACENT CHARACTERS, EXCLUDING WORD SPACES. SPACING BETWEEN INDIVIDUAL CHARACTERS SHALL BE 10 PERCENT MINIMUM AND 35 PERCENT MAXIMUM OF CHARACTER HEIGHT.

703.5.9 LINE SPACING. SPACING BETWEEN THE BASELINES OF SEPARATE LINES OF CHARACTERS WITHIN A MESSAGE SHALL BE 135 PERCENT MINIMUM AND 170 PERCENT MAXIMUM OF THE CHARACTER HEIGHT.

703.6 PICTOGRAMS. PICTOGRAMS SHALL COMPLY WITH 703.6.

703.6.1 PICTOGRAM FIELD. PICTOGRAMS SHALL HAVE A FIELD HEIGHT OF 6 INCHES (150MM) MINIMUM. CHARACTERS AND BRAILLE SHALL NOT BE LOCATED IN THE PICTOGRAM FIELD.

FIGURE 703.6.1 PICTOGRAM FIELD DARK-ON-LIGHT

703.6.2 FINISH AND CONTRAST. PICTOGRAMS AND THEIR FIELD SHALL HAVE A NON-GLARE FINISH. PICTOGRAMS SHALL CONTRAST WITH THEIR FIELD WITH EITHER A LIGHT PICTOGRAM ON A DARK FIELD OR A DARK PICTOGRAM ON A LIGHT FIELD.

703.6.3 TEXT DESCRIPTORS. PICTOGRAMS SHALL HAVE TEXT DESCRIPTORS LOCATED DIRECTLY BELOW THE PICTOGRAM FIELD. TEXT DESCRIPTORS SHALL COMPLY WITH 703.2, 703.3, AND 703.4.

703.7 SYMBOLS OF ACCESSIBILITY. SYMBOLS OF ACCESSIBILITY SHALL COMPLY WITH 703.7.

703.7.1 FINISH AND CONTRAST. SYMBOLS OF ACCESSIBILITY AND THEIR BACKGROUND SHALL HAVE A NON-GLARE FINISH. SYMBOLS OF ACCESSIBILITY SHALL CONTRAST WITH THEIR BACKGROUND WITH EITHER A LIGHT SYMBOL ON A DARK BACKGROUND OR A DARK SYMBOL ON A LIGHT BACKGROUND.

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Job Number: 2360
Date: 03.22.2024
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Revisions:
ACCESSIBILITY STANDARDS
Sheet Number: A0.2

2018 APPENDIX B
BUILDING CODE SUMMARY
FOR ALL COMMERCIAL PROJECTS
(EXCEPT 1 AND 2-FAMILY DWELLINGS AND TOWNHOUSES)
(Reproduce the following data on the building plans sheet 1 or 2)

Name of Project: TSC – Lillington, NC
Address: NC Highway 210, Lillington, NC Zip Code 27546
Owner/Authorized Agent: Glen P. Oxford Phone # 615.256.3455 E-Mail glen@oxfordarchitecture.com
Owned By: ☐ City/County ☒ Private ☐ State
Code Enforcement Jurisdiction: ☐ City ☒ County Harnett ☐ State

CONTACT: Glen P. Oxford

DESIGNER	FIRM	NAME	LICENSE #	TELEPHONE #	E-MAIL
Architectural	Oxford Architecture	Glen P. Oxford	6286	615.256.3455	glen@oxfordarchitecture.com
Civil	Quible & Associates	Alan W. Moseley	28400	704.565.7070	amoseley@blcompanies.com
Electrical	Parsons Engineering	Anthony J Pezzi	044922	615.386.9396	apezzi@parsonsengineering.com
Fire Alarm					
Plumbing	Schelton Engineering	Gary W. Schelton	29721	615.730.9111	gary@scheltonengineering.com
Mechanical	Schelton Engineering	Gary W. Schelton	29721	615.730.9111	gary@scheltonengineering.com
Sprinkler-Standpipe					
Structural	Bennett & Pless	Fred Weis	13569	615.450.0834	fweis@bennett-pless.com
Retaining Walls					
Other					

("Others" should include firms and individuals such as truss, precast, pre-engineered, interior designers, etc.)

2018 NC CODE FOR: ☒ New Construction ☐ Addition ☐ Renovation
☐ 1st Time Interior Completion
☐ Shell/Core
☐ Phased Construction – Shell/Core
☐ Renovation

2018 NC EXISTING BUILDING CODE: ☐ Prescriptive ☐ Repair ☐ Chapter 14
Alteration: ☐ Level I ☐ Level II ☐ Level III
☐ Historic Property ☐ Change of Use

CONSTRUCTED:(date) ________ **ORIGINAL OCCUPANCY(S)** (Ch. 3): ____________
RENOVATED: (date) ________ **CURRENT OCCUPANCY(S)** (Ch. 3): ____________
RISK CATEGORY (table 1604.5) **Current:** ☐ I ☐ II ☐ III ☐ IV
Proposed: ☐ I ☐ II ☐ III ☐ IV

BASIC BUILDING DATA
Construction Type: (check all that apply) ☐ I-A ☐ I-B ☐ II-A ☒ II-B ☐ III-A ☐ III-B ☐ IV ☐ V-A ☐ V-B
Sprinklers: ☐ No ☐ Partial ☒ Yes ☒ NFPA 13 ☐ NFPA 13R ☐ NFPA 13D
Standpipes: ☐ No ☐ Yes Class ☐ I ☐ II ☐ III ☒ Wet ☐ Dry
Fire District: ☐ No ☐ Yes (Primary) **Flood Hazard Area:** ☐ No ☐ Yes
Special Inspections Required: ☐ No ☒ Yes

Gross Building Area:

FLOOR	EXISTING (SQ FT)	NEW (SQ FT)	RENO/ALTER (SQ.FT)	SUB-TOTAL
6th Floor		N/A		
5th Floor		N/A		
4th Floor		N/A		
3rd Floor		N/A		
2nd Floor		N/A		
Mezzanine		N/A		
1st Floor		21,930		
Basement		N/A		
TOTAL		21,930		

ALLOWABLE AREA

Primary Occupancy Classification: **SELECT ONE**
Assembly ☐ A-1 ☐ A-2 ☐ A-3 ☐ A-4 ☐ A-5
Business ☐
Educational ☐
Factory ☐ F-1 Moderate ☐ F-2 Low
Hazardous ☐ H-1 Detonate ☐ H-2 Deflagrate ☐ H-3 Combust ☐ H-4 Health ☐ H-5 HPM
Institutional ☐ I-1 Condition ☐ 1 ☐ 2
☐ 1-2 Condition ☐ 1 ☐ 2
☐ 1-3 Condition ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5
☐ 1-4
Mercantile ☒
Residential ☐ R-1 ☐ R-2 ☐ R-3 ☐ R-4
Storage ☐ S-1 Moderate ☐ S-2 Low ☐ High-piled
☐ Parking Garage ☐ Open ☐ Enclosed ☐ Repair Garage
Utility and Miscellaneous ☐

Accessory Occupancy Classification(s): **B and S-1**
Incidental Uses (Table 509): ____________
Special Uses (Chapter 4 – List Code Sections) ____________
Special Provisions: (Chapter 5 – List Code Sections): ____________
Mixed Occupancy: ☐ No ☒ Yes Separation: ____ Hr. Exception: 508.2.4
☒ Non-Separated Use (508.3)
The required type of construction for the building shall be determined by applying the height and area limitations for each of the applicable occupancies to the entire building. The most restrictive type of construction, so determined, shall apply to the entire building.
☐ Separated Use (508.4) -
See below for area calculations for each story, the area of the occupancy shall be such that the sum of the ratios of the actual floor area of each use divided by the allowable floor area for each use shall not exceed 1.

$$\frac{\text{Actual Area of Occupancy A}}{\text{Allowable Area of Occupancy A}} + \frac{\text{Actual Area of Occupancy B}}{\text{Allowable Area of Occupancy B}} \leq 1$$

(15,416 + 228)/50,000 +4,945/70,000 + 1,341/92,000 = 0.398 ≤ 1.00

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STORY NO.	DESCRIPTION AND USE	(A) BLDG AREA PER STORY (ACTUAL)	(B) TABLE 506.2[4] AREA	(C) AREA FOR FRONTAGE INCREASE[1,5]	(D) ALLOWABLE AREA PER STORY OR UNLIMITED[2,3]
1	Mercantile	15,644	50,000		UL per section 507.4
1	Stockroom	4,945	70,000		UL per section 507.4
1	Office Core	1,341	92,000		UL per section 507.4
1	Total	21,930			UL per section 507.4

[1] Frontage area increases from Section 506.3 are computed thus:
a. Perimeter which fronts a public way or open space having 20 feet minimum width = _______ (F)
b. Total Building Perimeter = _________ (P)
c. Ratio (F/P) = ___________ (F/P)
d. W = Minimum width of public way = _________ (W)
e. Percent of frontage increase $I_f = 100 [F/P - 0.25] \times W/30$ = _______ (%)
[2] Unlimited area applicable under conditions of Section 507.
[3] Maximum Building Area = total number of stories in the building x D (maximum 3 stories) (506.2).
[4] The maximum area of open parking garages must comply with Table 406.5.4
[5] Frontage increase is based on the unsprinklered area value in Table 506.2.

ALLOWABLE HEIGHT

	ALLOWABLE (TABLE 503)	SHOWN ON PLANS	CODE REFERENCE
Building Height in Feet (Table 504.3)	55	21'-4"/30'-8"	
Building Height in Stories (Table 504.4)	3	1	

[1] Provide code reference if the "Show on Plans" quantity is not based on Table 504.3 or 504.4.
[2] The maximum height of air traffic control towers must comply with Table 412.3.1
[3] The maximum height of open parking garages must comply with Table 406.5.4

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FIRE PROTECTION REQUIREMENTS

BUILDING ELEMENT	FIRE SEPARATION DISTANCE (FEET)	RATING REQ'D	RATING PROVIDED (W/_____* REDUCTION)	DETAIL # AND SHEET #	DESIGN # FOR RATED ASSEMBLY	DESIGN # FOR RATED PENETRATION	DESIGN # FOR RATED JOINTS
Structural Frame, including columns, girders, trusses	N/A	0					
Bearing Walls							
Exterior							
North	N/A	0					
East	N/A	0					
West	N/A	0					
South	N/A	0					
Interior							
Nonbearing Walls and Partitions							
Exterior walls							
North	N/A	0					
East	N/A	0					
West	N/A	0					
South	N/A	0					
Interior walls and partitions							
Floor Construction Including supporting beams and joists	N/A	0					
Floor Ceiling Assembly							
Column Supporting Floors							
Roof Construction, including supporting beams and joists	N/A	0					
Roof Ceiling Assembly							
Column Supporting Roof							
Shaft Enclosures - Exit							
Shaft Enclosures - Other							
Corridor Separation							
Occupancy/Fire Barrier Separation							
Party/Fire Wall Separation							
Smoke Barrier Separation							
Smoke Partition							
Tenant/Dwelling Unit/ Sleeping Unit Separation							
Incidental Use Separation							

* Indicate section number permitting reduction

PERCENTAGE OF WALL OPENING CALCULATIONS

FIRE SEPARATION DISTANCE (FEET FROM PERPERTY LINES	DEGREES OF OPENINGS PROTECTION (TABLE 705.8)	ALLOWABLE AREA (%)	ACTUAL SHOWN ON PLANS (%)

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LIFE SAFETY SYSTEM REQUIREMENTS

Emergency Lighting: ☐ No ☒ Yes
Exit Signs: ☐ No ☒ Yes
Fire Alarm: ☐ No ☒ Yes
Smoke Detection Systems: ☐ No ☒ Yes ☐ Partial _______
Carbon Monoxide Detection: ☐ No ☒ Yes

LIFE SAFETY PLAN REQUIREMENTS

Life Safety Plan Sheet #: A8.0
- ☐ Fire and/or smoke rated wall locations (Chapter 7)
- ☒ Assumed and real property line locations. See AS1.0.
- ☐ Exterior wall opening area with respect to distance to assumed property lines (705.8)
- ☐ Occupancy types for each area as it relates to occupant load calculation (Table 1004.1.2)
- ☒ Occupant loads for each area
- ☒ Exit access travel distances (1017)
- ☒ Common path of travel distances (1006.2.1 & 2006.3.2(1))
- ☐ Dead end lengths (1020.4)
- ☒ Clear exit widths for each exit door
- ☒ Maximum calculated occupant load capacity each exit door can accommodate based on egress width (1005.3)
- ☒ Actual occupant load for each exit door
- ☐ A separate schematic plan indicating where fire rated floor/ceiling and/or roof structure is provided for purposes of occupancy separation and supporting construction for a fire barrier/fire partition/smoke barrier.
- ☒ Location of doors with panic hardware (1010.1.10)
- ☒ Location of doors with delayed egress locks and the amount of delay (1010.1.9.7)
- ☐ Location of doors with electromagnetic egress locks (1010.1.9.9)
- ☐ Location of doors equipped with hold-open devices
- ☐ Location of emergency escape windows (1030)
- ☐ The square footage of each fire area (202)
- ☐ The square footage of each smoke compartment for Occupancy Classification I-2 (407.5)
- ☐ Note any code exceptions or table notes that may have been utilized regarding the items above

Section/Table/Note	Title

ACCESSIBLE DWELLING UNITS
(SECTION 1107)

TOTAL UNITS	ACCESSIBLE UNITS REQUIRED	ACCESSIBLE UNITS PROVIDED	TYPE A UNITS REQUIRED	TYPE A UNITS PROVIDED	TYPE B UNITS REQUIRED	TYPE B UNITS PROVIDED	TOTAL ACCESSIBLE UNITS PROVIDED

ACCESSIBLE PARKING

2018 NC Administrative Code and Policies Appendix B for Building

(SECTION 1106)

LOT OR PARKING AREA	TOTAL # OF PARKING SPACES REQUIRED	TOTAL # OF PARKING SPACES PROVIDED	# OF ACCESSIBLE SPACES PROVIDED: REGULAR WITH 5' ACCESS AISLE	VAN SPACES WITH 132" ACCESS AISLE	VAN SPACES WITH 8' ACCESS AISLE	TOTAL # ACCESSIBLE PROVIDED
TOTAL	60	60	2		1	3

PLUMBING FIXTURE REQUIREMENTS
(TABLE 2902.1)

USE		WATER CLOSETS MALE	WATER CLOSETS FEMALE	WATER CLOSETS UNISEX	URINALS	LAVATORIES MALE	LAVATORIES FEMALE	LAVATORIES UNISEX	SHOWERS / TUBS	DRINKING FOUNTAINS REGULAR	DRINKING FOUNTAINS ACCESSIBLE
SPACE	EXIST'G										
	NEW	1	1			1	1			1	1
	REQ'D	1	1			1	1			1	1

SPECIAL APPROVALS

Special approval: (Local Jurisdiction, Department of Insurance, SCO, DPI, DHHS, ICC, etc., describe below)
____
____
____

2018 NC Administrative Code and Policies Appendix B for Building

ENERGY SUMMARY

ENERGY REQUIREMENTS:
The following data shall be considered minimum and any special attribute required to meet the **North Carolina Energy Conservation Code** shall also be provided. Each Designer shall furnish the required portions of the project information for the plan data sheet. If performance method, state the annual energy cost for the standard reference design vs annual energy cost for the proposed design.

Existing building envelope complies with code: ☐ No ☐ Yes (The remainder of this section is not applicable)
Exempt Building: ☐ No ☐ Yes (Provide Code or Statutory reference): ____________

Climate Zone: ☐ 3A ☒ 4A ☐ 5A
Method of Compliance: Energy Code ☐ Performance ☒ Prescriptive
ASHRAE 90.1 ☐ Performance ☐ Prescriptive
(If "Other" specify source here) ____________

THERMAL ENVELOPE (Prescriptive method only)

Roof/ceiling Assembly (each assembly)
Description of assembly: Insulation entirely above deck
U-Value of total assembly: 0.032
R-Value of insulation: 30.0
Skylights in each assembly: N/A
U-Value of skylight: N/A
Total square footage of skylights in each assembly: N/A

Exterior Walls (each assembly)
Description of assembly: 8" CMU partially grouted, foam filled w/ Core Fill 500
U-Value of total assembly: 0.078
R-Value of insulation: N/A
Openings (windows or doors with glazing)
U-Value of assembly: 0.77
Solar heat gain coefficient: 0.25
Projection factor: 0.00
Door R-Values: N/A

Walls below grade (each assembly)
Description of assembly: N/A
U-Value of total assembly: N/A
R-Value of insulation: N/A

Floors over unconditioned space (each assembly)
Description of assembly: N/A
U-Value of total assembly: N/A
R-Value of insulation: N/A

Floors slab on grade
Description of assembly: Slab on grade
U-Value of total assembly: 0.52
R-Value of insulation: 15.0
Horizontal/Vertical requirement: N/A
Slab Heated: N/A

2018 NC Administrative Code and Policies Appendix B for Building

2018 APPENDIX B
BUILDING CODE SUMMARY FOR ALL COMMERCIAL PROJECTS
STRUCTURAL DESIGN
(PROVIDE ON THE STRUCTURAL SHEETS IF APPLICABLE)

DESIGN LOADS:

Importance Factors: Snow (I_S) I = 1.0
Seismic (I_E) I = 1.0

Live Loads: Roof 20 psf
Mezzanine N/A
Floor 100 psf / 250 psf stockroom

Ground Snow Load: 15 psf

Wind Load: Ultimate Wind Speed 117 mph (ASCE-7)
Exposure Category C

SEISMIC DESIGN CATEGORY: ☐ A ☐ B ☒ C ☐ D
Provide the following Seismic Design Parameters:
Occupancy Category (Table 1604.5) ☐ I ☒ II ☐ III ☐ IV
Spectral Response Acceleration S_S: 0.183 S_1: 0.086
Site Classification (ASCE 7) ☐ A ☐ B ☐ C ☒ D ☐ E ☐ F
Data Source: ☐ Field Test ☒ Presumptive ☐ Historical Data
Basic structural system ☒ Bearing Wall ☐ Dual w/Special Moment Frame
☐ Building Frame ☐ Dual w/Intermediate R/C or Special Steel
☐ Moment Frame ☐ Inverted Pendulum
Analysis Procedure: ☐ Simplified ☐ Equivalent Lateral Force ☐ Dynamic
Architectural, Mechanical, Components anchored? ☐ Yes ☒ No

LATERAL DESIGN CONTROL: Earthquake ☐ Wind ☒

SOIL BEARING CAPACITIES:
Field Test (provide copy of test report) 2,000 psf
Presumptive Bearing capacity ____________
Pile size, type, and capacity ____________

2018 NC Administrative Code and Policies Appendix B for Building

2018 APPENDIX B
BUILDING CODE SUMMARY FOR ALL COMMERCIAL PROJECTS
MECHANICAL DESIGN
(PROVIDE ON THE MECHANICL SHEETS IF APPLICABLE)

MECHANICAL SUMMARY

MECHANICAL SYSTEMS, SERVICE SYSTEMS AND EQUIPMENT

Thermal Zone
winter dry bulb: 16°F
summer dry bulb: 94°F

Interior design conditions
winter dry bulb: 70°F
summer dry bulb: 75°F
relative humidity: 50%

Building heating load: 433 MBH

Building cooling load: 607 MBH

Mechanical Spacing Conditioning System
Unitary
description of unit: Natural Gas-Fired Packaged Units
heating efficiency: 80%
cooling efficiency: 12 EER
size category of unit: (3) 12.5 ton, (1) 10 ton, (1) 3 ton
Boiler
Size category. If oversized, state reason.:
Chiller
Size category. If oversized, state reason.:

List equipment efficiencies: See M2.0.

2018 NC Administrative Code and Policies Appendix B for Building

2018 APPENDIX B
BUILDING CODE SUMMARY FOR ALL COMMERCIAL PROJECTS
ELECTRICAL DESIGN
(PROVIDE ON THE ELECTRICAL SHEETS IF APPLICABLE)

ELECTRICAL SUMMARY

ELECTRICAL SYSTEM AND EQUIPMENT

Method of Compliance: Energy Code: ☒ Prescriptive ☐ Performance
ASHRAE 90.1: ☐ Prescriptive ☐ Performance

Lighting schedule (each fixture type) See E1.0.
lamp type required in fixture
number of lamps in fixture
ballast type used in the fixture
number of ballasts in fixture
total wattage per fixture
total interior wattage specified vs. allowed (whole building or space by space)
total exterior wattage specified vs. allowed

Additional Efficiency Package Options
(When using the 2018 NCECC; not required for ASHRAE 90.1)
- ☐ C406.2 More Efficient Mechanical Equipment
- ☒ C406.3 Reduced Lighting Power Density
- ☐ C406.4 Enhanced Digital Lighting Controls
- ☐ C406.5 On-Site Renewable Energy
- ☐ C406.6 Dedicated Outdoor Air System
- ☐ C406.7 Reduced Energy Use in Service Water Heating

2018 NC Administrative Code and Policies Appendix B for Building

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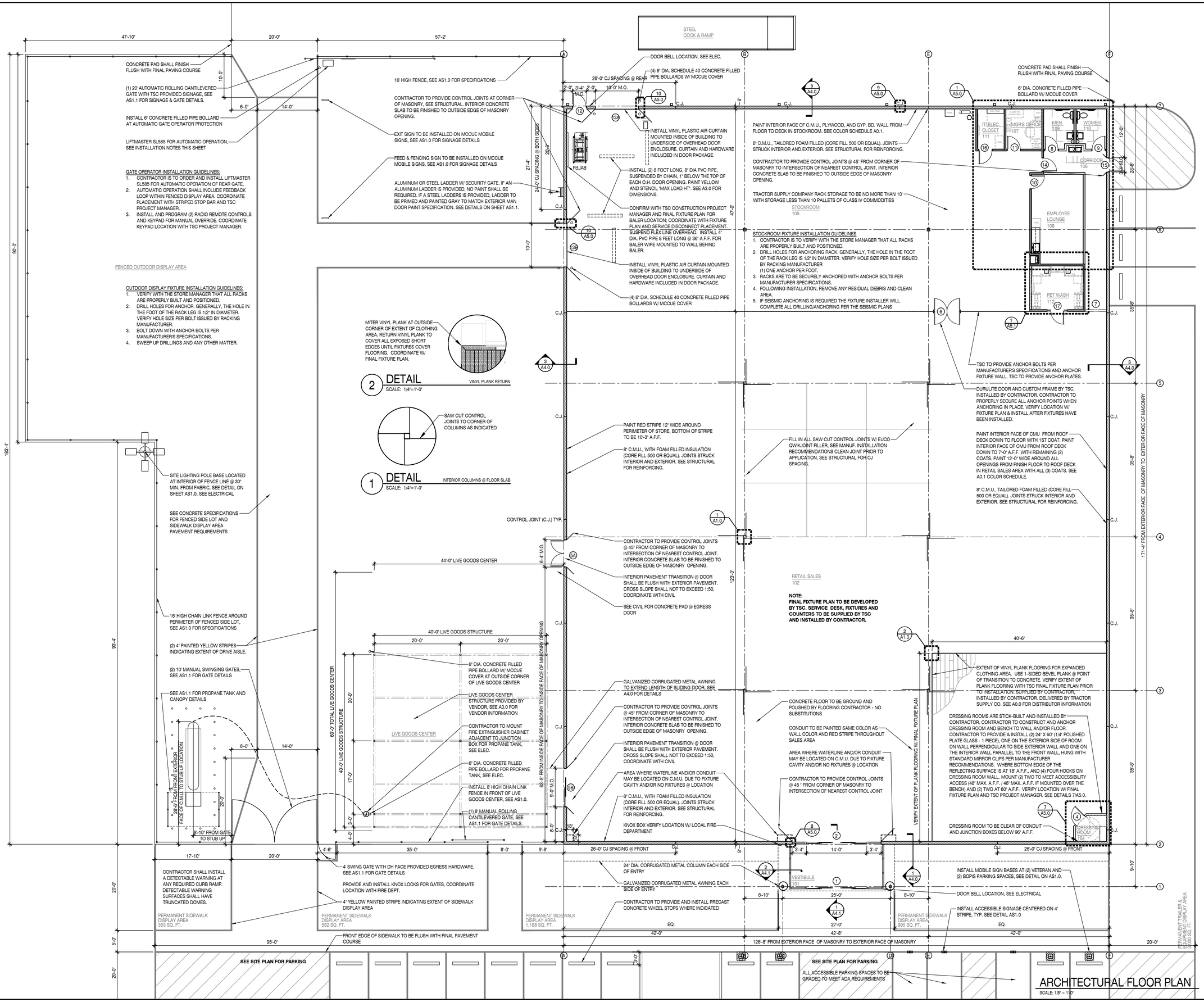
Job Number: 2360
Date: 03.22.2024
Revisions:
Revisions:
Revisions:

APPENDIX B

Sheet Number: A0.3



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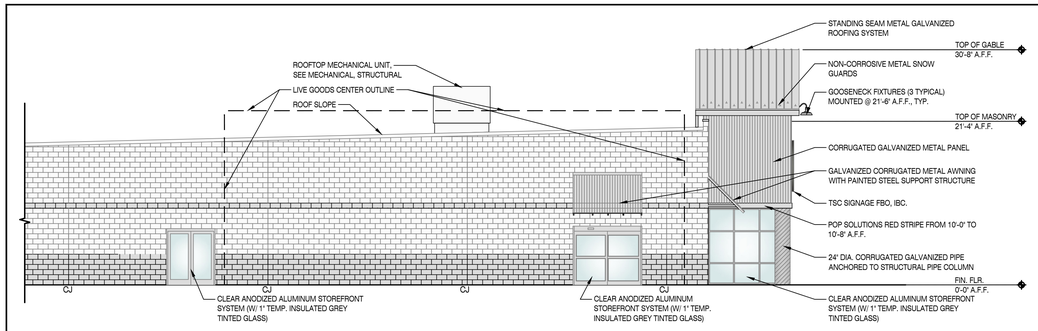
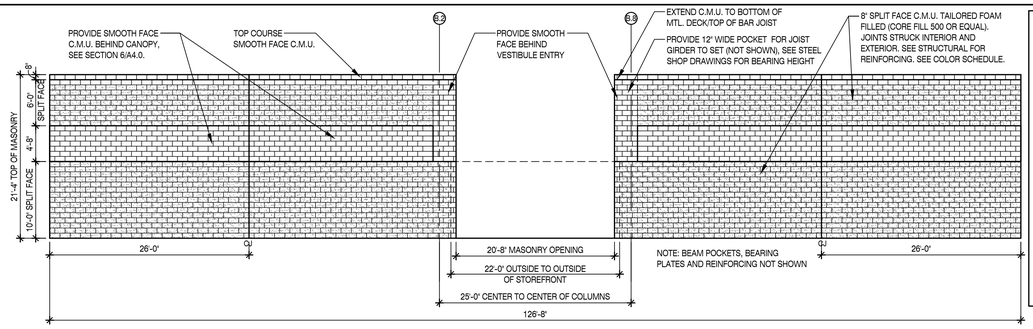
ARCHITECTURAL FLOOR PLAN

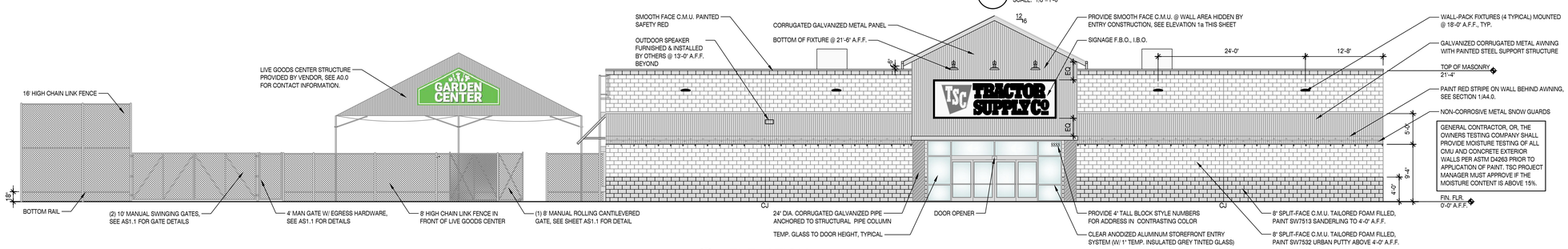
Sheet Number: A1.0





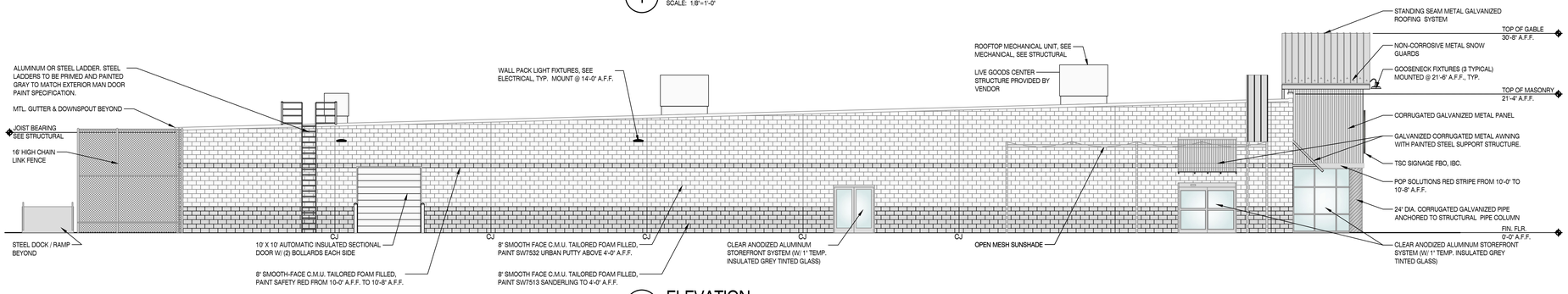
UNLESS PREVIOUSLY DIRECTED BY THE BUILDING OWNER IN WRITING, DURING CONSTRUCTION THE CONTRACTOR SHALL BE RESPONSIBLE FOR COVERING ANY PARTIALLY COMPLETED MASONRY WALL(S) (CMU, BRICK, ETC.) WITH STRONG WEATHER RESISTIVE MATERIAL DURING ALL TIMES WHEN CONSTRUCTION IS NOT IN PROGRESS AND ESPECIALLY AT THE END OF EACH WORK DAY TO PREVENT WATER/MOISTURE FROM ENTERING THE MASONRY WALL(S). THE COVER SHALL BE DRAPED OVER THE WALL AND EXTEND A MINIMUM OF (2) TWO FEET DOWN FROM BOTH SIDES AND SECURELY HELD IN PLACE. CONTINUE THIS PROCESS UNTIL MASONRY WALL IS WEATHER-TIGHT AND/OR THE ROOFING MEMBRANE IS INSTALLED AND SECURED.

1a ELEVATION — FRONT MASONRY
SCALE: 1/8"=1'-0"

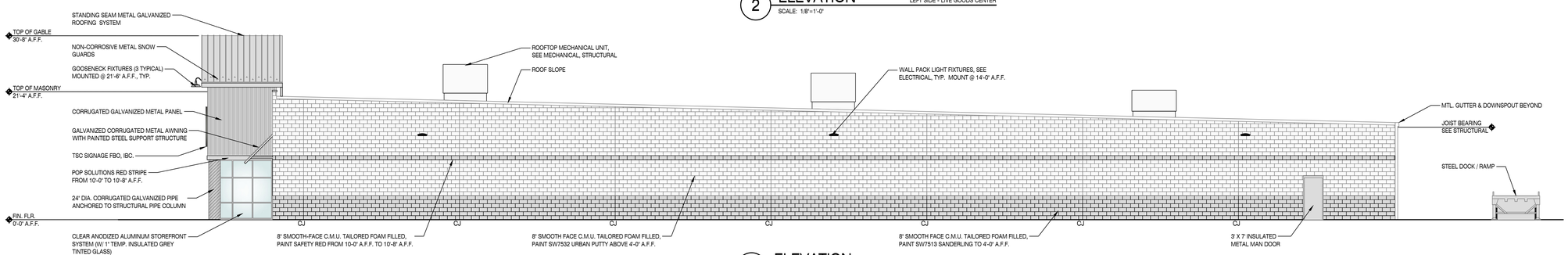


GENERAL CONTRACTOR, OR, THE OWNERS TESTING COMPANY SHALL PROVIDE MOISTURE TESTING OF ALL CMU AND CONCRETE EXTERIOR WALLS PER ASTM D4263 PRIOR TO APPLICATION OF PAINT. TSC PROJECT MANAGER MUST APPROVE IF THE MOISTURE CONTENT IS ABOVE 15%.

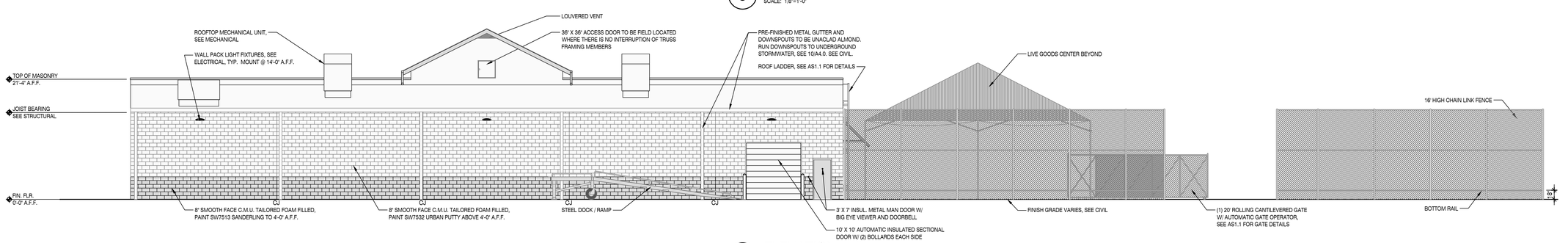
1 ELEVATION — FRONT
SCALE: 1/8"=1'-0"



2 ELEVATION — LEFT SIDE - LIVE GOODS CENTER
SCALE: 1/8"=1'-0"



3 ELEVATION — RIGHT SIDE
SCALE: 1/8"=1'-0"



4 ELEVATION — REAR
SCALE: 1/8"=1'-0"

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Revisions:

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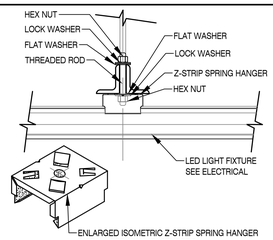
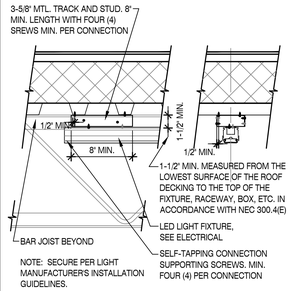
ARCHITECTURAL ELEVATIONS

Sheet Number: A2.0



1 Z-STRIP SPRING HANGER

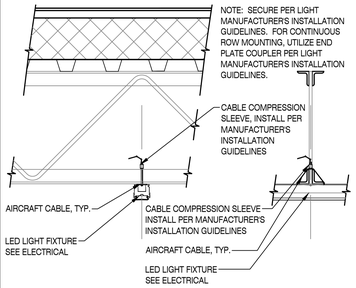
SCALE: 1-1/2"=1'-0" — LIGHTS IN RETAIL SALES AREA



NOTE: SECURE PER LIGHT MANUFACTURER'S INSTALLATION GUIDELINES.

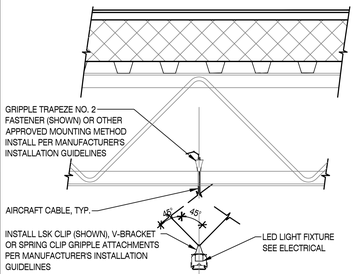
2 DECK ATTACHMENT DETAIL

SCALE: 3/4"=1'-0" — LIGHTS IN STOCKROOM AREA



3 ALTERNATE ATTACHMENT DTL.

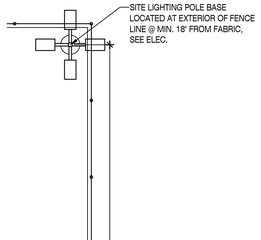
SCALE: 3/4"=1'-0" — LIGHTS IN RETAIL SALES AREA



NOTE: LIGHT FIXTURE SHALL HAVE ONE VERTICAL SUPPORT AND ONE SET OF DIAGONAL SUPPORTS LOCATED 6" - 12" FROM EACH END OF THE FIXTURE. LIGHT FIXTURE SHALL HAVE A MINIMUM OF (2) SUPPORTS WITH EACH SUPPORT LOCATED 6" FROM THE END OF THE FIXTURE. NON-CABLE OR FIXTURES MOUNTED DIRECTLY TO THE BOTTOM OF THE SUPPORTING STRUCTURE DO NOT REQUIRE DIAGONAL SUPPORT. AIRCRAFT CABLE IS ALLOWED; NO CHAIN.

4 ALTERNATE ATTACHMENT DTL.

SCALE: 3/4"=1'-0" — LIGHT ABOVE PET WASH



FENCED OUTDOOR DISPLAY AREA

STEEL DOCK & RAMP

LED LIGHT FIXTURES WALL MOUNTED @ 14'-0" A.F.F. ON SIDES AND REAR UNLESS OTHERWISE NOTED, SEE ELECTRICAL

24'-0" | 39'-4" | 39'-4" | 24'-0"

INSTALL (3) 8 FOOT LONG, 6" DIA PVC PIPE, SUSPENDED BY CHAIN, 1" BELOW THE TOP OF THE O.H. DOOR OPENING. PAINT YELLOW AND STENCIL 'MAX LOAD HT"

INSTALL LIGHT FIXTURE ON CABLE OVER RECEIVING DESK TO 10'-0" A.F.F.

1'-0" FROM END OF TRACK

MOUNT ALL CONSTRUCTION ELEMENTS TIGHT TO DECK IN STOCKROOM, MINIMUM 13'-6" A.F.F. CLEAR. DO NOT MOUNT TO BOTTOM OF JOISTS (CONDUIT, WATERLINES, CONDENSATE LINES, SPRINKLER LINES, LIGHTS, ETC.).

MOUNT LIGHT FIXTURES FROM BAR JOISTS, NOT TO EXCEED 16'-0" A.F.F. MOUNT DIRECTLY TO BAR JOISTS WHEN STRUCTURE IS BELOW 16'-0" A.F.F.

STOCKROOM 105 — EXPOSED CEILING

IT / ELEC CLOSET 107 — EXPOSED CEILING

MEN'S OFFICE 108 — 8'-0" A.F.F.

WOMEN 110 — 8'-0" A.F.F.

CORRIDOR 109 — 8'-0" A.F.F.

EMPLOYEE LOUNGE 103 — 8'-0" A.F.F.

PET WASH 112 — 10'-0" A.F.F.

MOUNT LIGHT FIXTURE OVER PET WASH @ 1'-0" ABOVE CEILING FRAMING

AT CHICK DAY POWER LOCATION, GC TO PROVIDE AND INSTALL STEEL CORD REEL PER MANUFACTURERS INSTRUCTIONS, COORDINATE W/ ELECTRICAL FOR CHICK DAY POWER LOCATION. REEL TO BE HUBBELL #HBLC40123TT

EXPOSED CEILING — RETAIL SALES 102

LIVE GOODS CENTER

CENTERED BETWEEN COLUMNS ON MAIN FRAME LINE, TYP.

PENDANT LED LIGHT FIXTURE BENEATH PROPANE DISPENSING TANK CANOPY, MOUNTED OFF 1" CONDUIT ATTACHED TO SKID/DISPENSING ENCLOSURE. CIRCUIT OFF EXISTING PROPANE TANK CIRCUIT, SEE E3.2. SEE AS1.1 FOR CANOPY DETAILS.

LED LIGHT FIXTURES WALL MOUNTED @ 18'-0" A.F.F. ON FRONT OF BUILDING, SEE A2.0, SEE ELEC.

10'-0" A.F.F. — VESTIBULE 101

PREFINISHED METAL SOFFIT

LAY-IN GYP. CEILING W/ HOLD-DOWN CLIPS

(3) DECORATIVE GOOSENECK FIXTURES

DRESSING ROOM 104

PERMANENT SIDEWALK DISPLAY AREA 353 SQ. FT.

PERMANENT SIDEWALK DISPLAY AREA 582 SQ. FT.

PERMANENT SIDEWALK DISPLAY AREA 1,188 SQ. FT.

PERMANENT SIDEWALK DISPLAY AREA 995 SQ. FT.

85'-8" | 76'-0" | 60'-8" | 25'-0"

CEILING PLAN LEGEND

- EMERGENCY LIGHTS (2 LIGHTS)
- EXIT LIGHTS
- LED WALL MOUNTED LIGHT FIXTURE, SEE ELECTRICAL
- PROPANE PENDANT FIXTURE, SEE ELECTRICAL
- 8' LED LIGHT FIXTURE SEE PLAN FOR MOUNTING HEIGHTS
- 4' LED LIGHT FIXTURE SEE PLAN FOR MOUNTING HEIGHTS
- DECORATIVE GOOSE NECK WALL MTD. FIXTURE

NOTES

1. VERIFY FINAL LOCATION OF LIGHT FIXTURES WITH FIXTURE PLAN.
2. LIGHTS IN STOCKROOM TO BE MOUNTED AS HIGH AS POSSIBLE. SEE FIXTURE PLAN FOR EXTENTS OF STOCKROOM.
3. VERIFY LOCATION OF SECURITY DOMES WITH SECURITY VENDOR PLANS.

REFLECTED CEILING PLAN

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

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LILLINGTON
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Job Number: 2360

Date: 03.22.2024

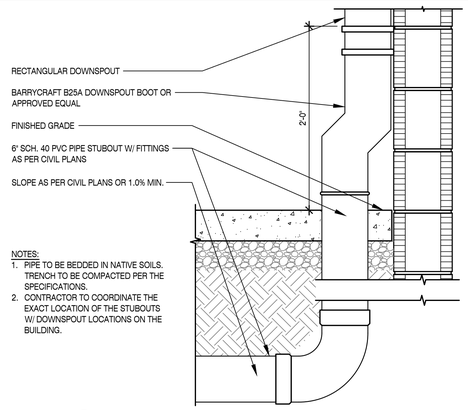
Revisions:

Revisions:

Revisions:

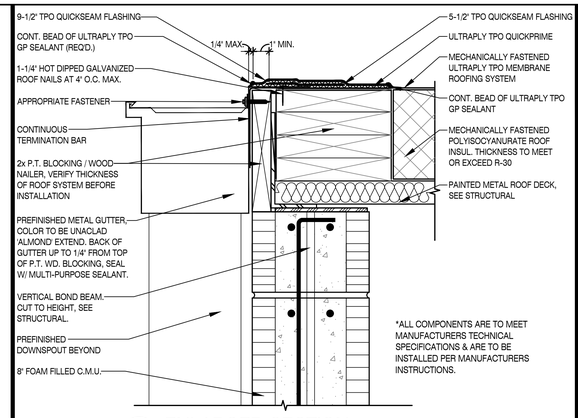
REFLECTED CEILING PLAN

Sheet Number: A3.0



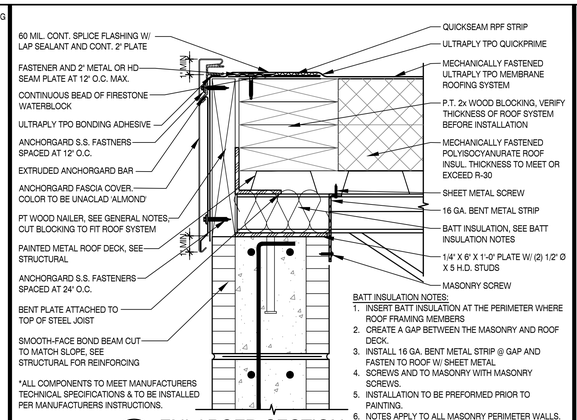
NOTES:
1. PIPE TO BE BEDDED IN NATIVE SOILS. TRENCH TO BE COMPACTED PER THE SPECIFICATIONS.
2. CONTRACTOR TO COORDINATE THE EXACT LOCATION OF THE STUBOUTS W/ DOWNSPOUT LOCATIONS ON THE BUILDING.

10 ENLARGED SECTION @ DOWNSPOUT
SCALE: 3" = 1'-0"



*ALL COMPONENTS ARE TO MEET MANUFACTURERS TECHNICAL SPECIFICATIONS & ARE TO BE INSTALLED PER MANUFACTURERS INSTRUCTIONS.

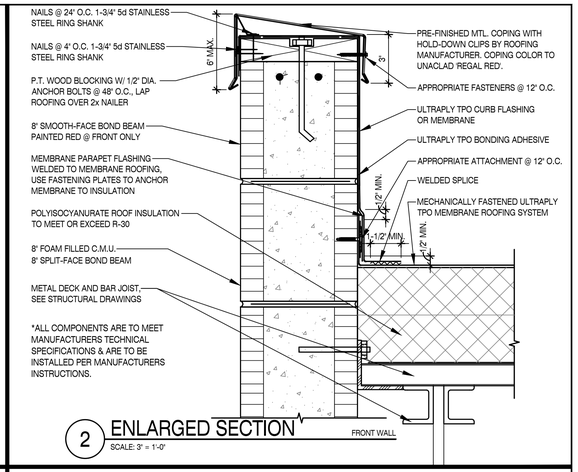
6 ENLARGED SECTION GUTTER
SCALE: 3" = 1'-0"



*ALL COMPONENTS TO MEET MANUFACTURERS TECHNICAL SPECIFICATIONS & TO BE INSTALLED PER MANUFACTURERS INSTRUCTIONS.

BATT INSULATION NOTES:
1. INSERT BATT INSULATION AT THE PERIMETER WHERE ROOF FRAMING MEMBERS
2. CREATE A GAP BETWEEN THE MASONRY AND ROOF DECK.
3. INSTALL 16 GA. BENT METAL STRIP @ GAP AND FASTEN TO ROOF W/ SHEET METAL.
4. SCREWS AND TO MASONRY WITH MASONRY SCREWS.
5. INSTALLATION TO BE PREFORMED PRIOR TO PAINTING.
6. NOTES APPLY TO ALL MASONRY PERIMETER WALLS.

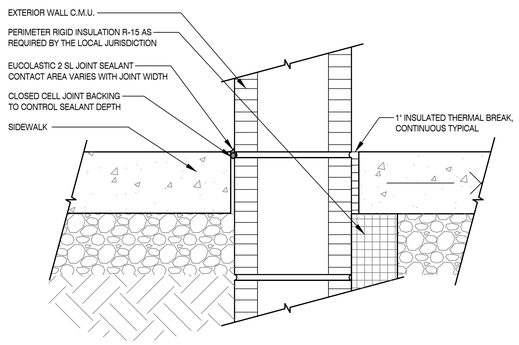
4 ENLARGED SECTION SIDE WALL
SCALE: 3" = 1'-0"



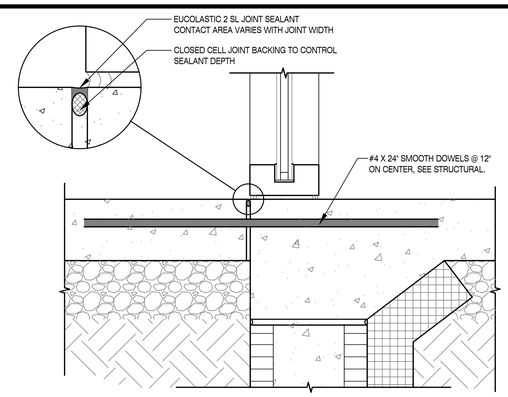
*ALL COMPONENTS ARE TO MEET MANUFACTURERS TECHNICAL SPECIFICATIONS & ARE TO BE INSTALLED PER MANUFACTURERS INSTRUCTIONS.

2 ENLARGED SECTION FRONT WALL
SCALE: 3" = 1'-0"

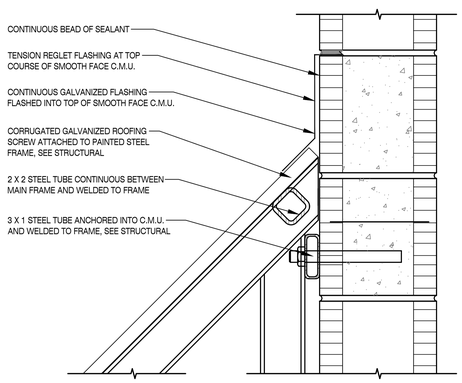
NOTE: SEE MANUFACTURERS INSTALLATION INSTRUCTIONS FOR PROPER PLACEMENT OF EUCOLASTIC II SEALANT



9 ENLARGED SECTION JOINT @ SLAB
SCALE: 3" = 1'-0"

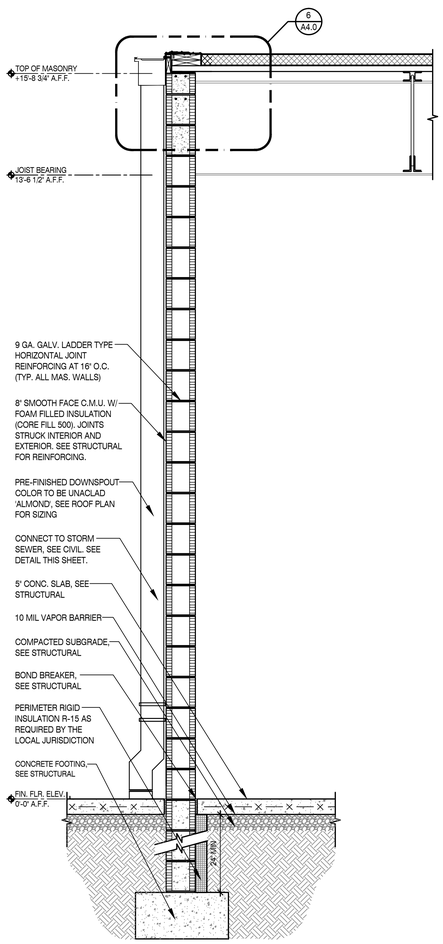


8 ENLARGED SECTION JOINT @ EXTERIOR ENTRY
SCALE: 3" = 1'-0"

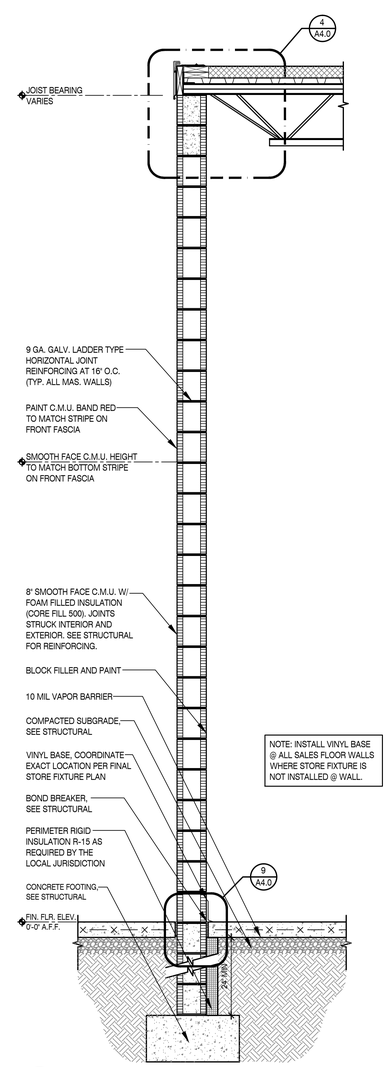


7 ENLARGED SECTION TOP CANOPY CONNECTION
SCALE: 3" = 1'-0"

GENERAL NOTES:
1. ROUND ALL METAL CORNERS & PLACE BACK OF GUTTER STRAP 1/4" BELOW TOP OF WOOD NAILER.
2. DO NOT PRE-NAIL MEMBRANE TO THE FACE OF THE WD. NAILER.
3. ANCHOR GUTTER IN ACCORDANCE WITH SMACNA RECOMMENDATIONS.
4. WOOD NAILERS MUST BE INSTALLED TO MEET APPLICABLE BUILDING CODES OR 200 LBS PER LINEAR FOOT MIN. IN ANY GIVEN DIRECTION.
5. FLANGE OF METAL GUTTER MUST BE FULLY SUPPORTED BY WOOD & TERMINATE AT LEAST 1/2" FROM EDGE OF WOOD.
6. IF THE FLANGE OF THE METAL GUTTER IS NOT COMPLETELY COVERED WITH QUICKSEAM FLASHING, THEN AN ADDITIONAL PEACE OF QUICKSEAM FLASHING SHALL BE INSTALLED AT ALL METAL SPLICES.

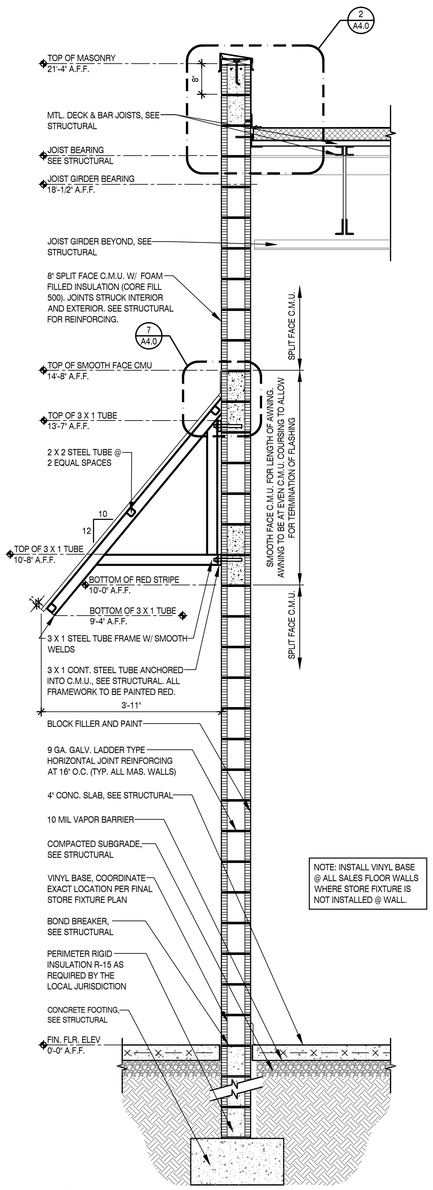


5 SECTION REAR WALL
SCALE: 3/4" = 1'-0"



NOTE: INSTALL VINYL BASE @ ALL SALES FLOOR WALLS WHERE STORE FIXTURE IS NOT INSTALLED @ WALL.

3 SECTION SIDE WALL
SCALE: 3/4" = 1'-0"



NOTE: INSTALL VINYL BASE @ ALL SALES FLOOR WALLS WHERE STORE FIXTURE IS NOT INSTALLED @ WALL.

1 SECTION FRONT WALL
SCALE: 3/4" = 1'-0"

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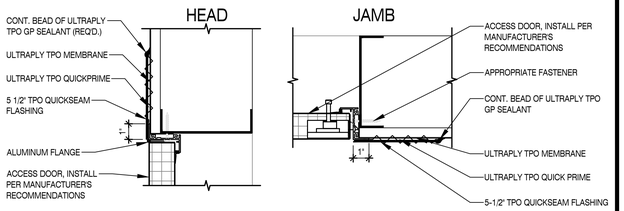
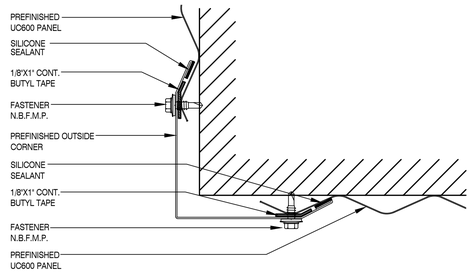
SECTIONS & DETAILS
Sheet Number: A4.0



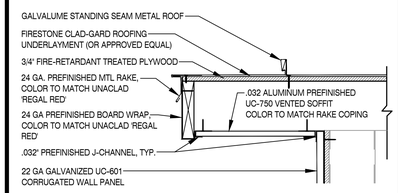
NOTE: USE 'LAP SPLICE USING TPO HEAD SEAM' DETAIL (SEE MANUFACTURER) AT ALL FOUR CORNERS OF THE ACCESS DOOR.

* ALL COMPONENTS ARE TO MEET MANUFACTURERS TECHNICAL SPECIFICATIONS & ARE TO BE INSTALLED PER MANUFACTURERS INSTRUCTIONS.

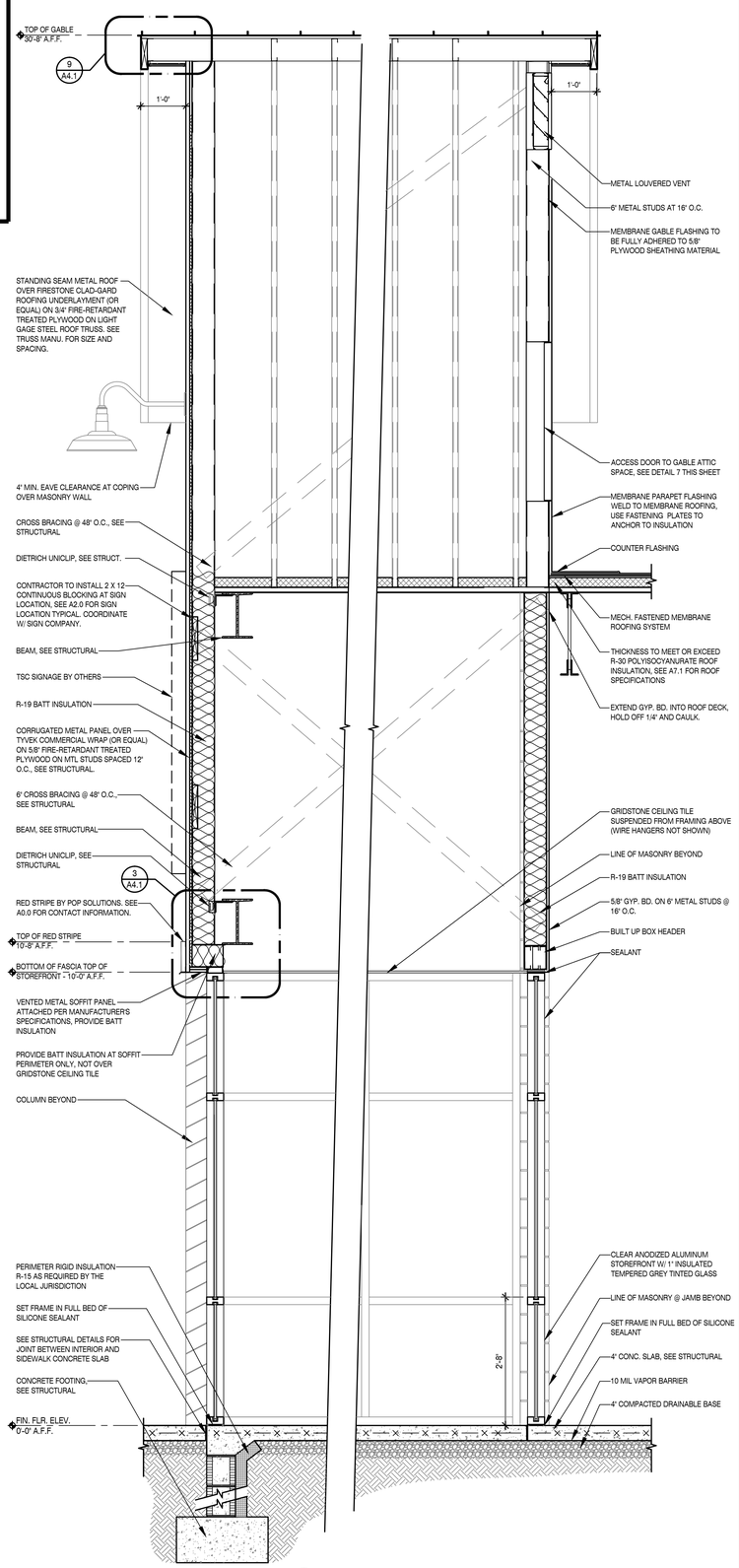
7 ENLARGED DETAIL @ ACCESS DOOR
SCALE: 3" = 1'-0"



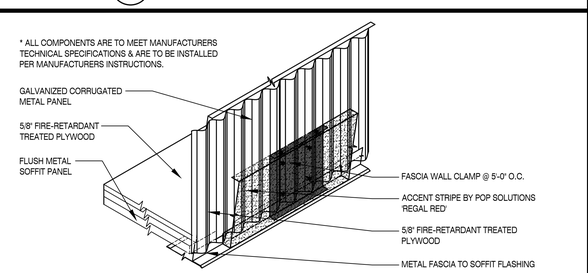
8 ENLARGED DETAIL @ OUTSIDE CORNER
SCALE: NONE



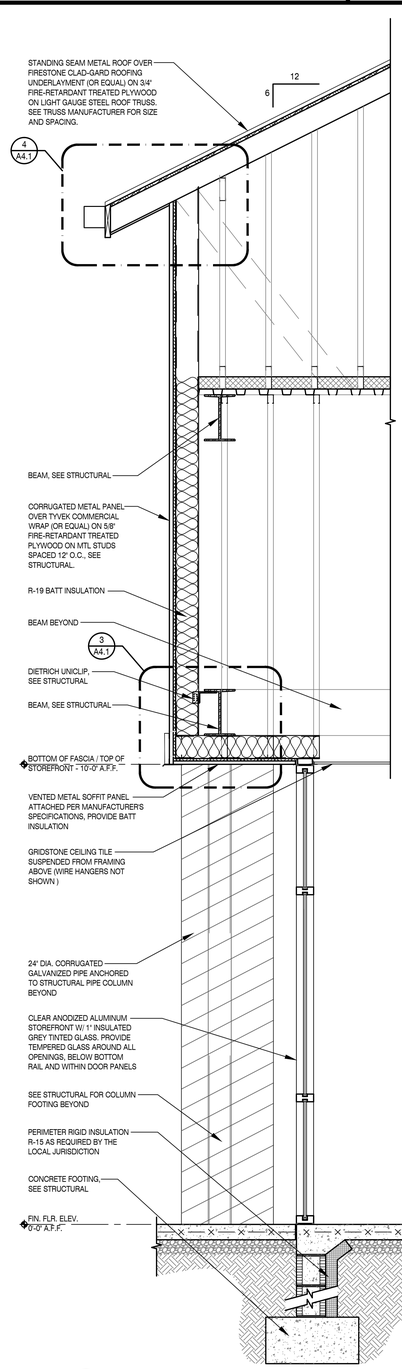
9 ENLARGED DETAIL @ RAKE
SCALE: NONE



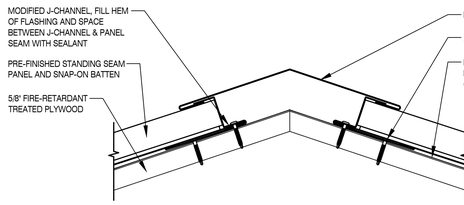
1 WALL SECTION AT SIGN
SCALE: 3/4" = 1'-0"



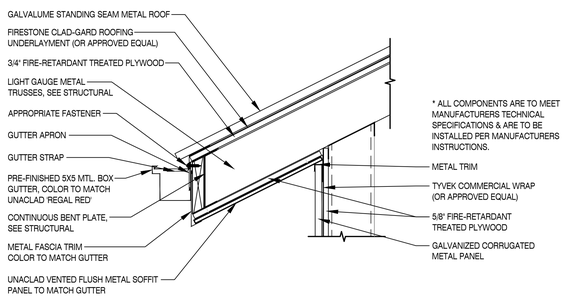
6 ISOMETRIC DETAIL POP SOLUTIONS STRIPE
SCALE: NO SCALE



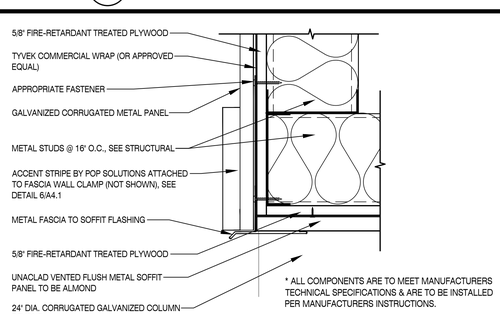
2 SECTION @ VESTIBULE CANOPY
SCALE: 3/4" = 1'-0"



5 ENLARGED DETAIL ROOF CAP
SCALE: 6" = 1'-0"



4 ENLARGED DETAIL GUTTER
SCALE: 1-1/2" = 1'-0"



3 ENLARGED DETAIL POP SOLUTIONS STRIPE
SCALE: 3" = 1'-0"

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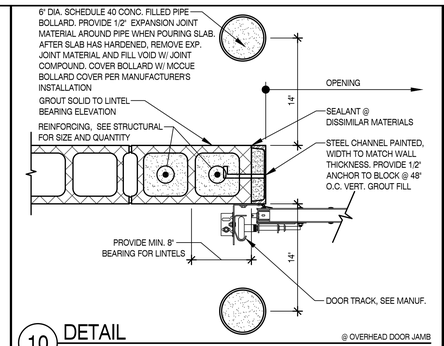
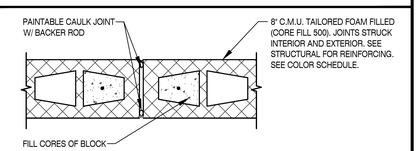


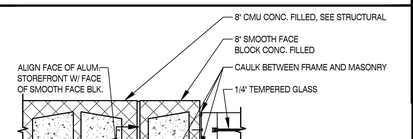
10 DETAIL
SCALE: 1-1/2" = 1'-0"

@ OVERHEAD DOOR JAMB



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

@ CONTROL JOINT



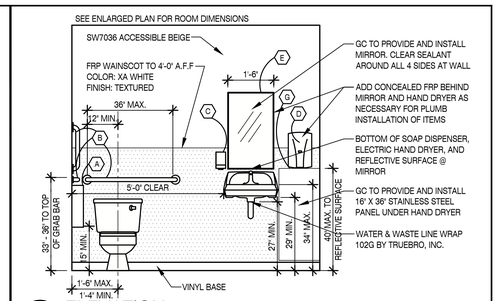
8 DETAIL
SCALE: 1-1/2" = 1'-0"

@ STOREFRONT

TOILET ACCESSORIES SCHEDULE

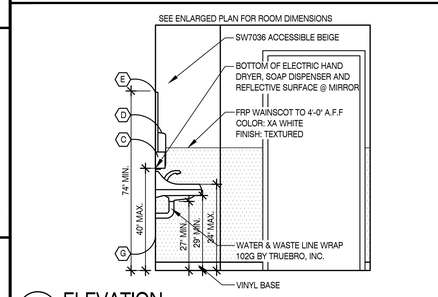
	TYPE	MANUF.	MODEL #	MOUNTING HT.
A	TOILET PAPER DISPENSER	F.B.O., I.B.C.		
B	GRAB BAR	BRADLEY	8320-001-18 8320-001-36 8320-001-42	39" - 41" TO BOTTOM 33" - 36" TO TOP, MAX. 33" - 36" TO TOP, MAX.
C	SOAP DISPENSER	F.B.O., I.B.C.		40" MAX. TO CONTROL
D	VERDEDRI	WORLD DRYER	Q-974A	40" TO BOTTOM OF UNIT
E	1/4" POLISHED PLATE GLASS MIRROR, 18" X 36"			40" TO BOTTOM OF REFLECTIVE SURFACE
F	PAPER TOWEL DISPENSER	F.B.O., I.B.C.		40" MAX. TO CONTROL
G	STAINLESS STEEL WALL PANEL, 16" X 36"			40" MAX. TO TOP

NOTE:
1. ALL HAND DRYERS, MIRRORS, STAINLESS STEEL WALL PANEL, AND GRAB BARS TO BE PROVIDED AND INSTALLED BY GC. TSC IS NOT RESPONSIBLE.
2. F.B.O., I.B.C. (FURNISHED BY OWNER; INSTALLED BY CONTRACTOR)
3. FLUSH CONTROL SHALL BE LOCATED ON THE OPEN SIDE OF THE WATER CLOSET PER ICC/ANSI 117.1 SECTION 604.6.
4. FRP TO 4'-0" A.F.F. ON ALL WALLS EXCEPT CMU UNLESS NOTED OTHERWISE.
5. ALL PLUMBING FIXTURES TO BE ANCHORED PER ALL ANCHOR POINTS.
6. PROVIDE CEILING BATT INSULATION FOR RESTROOMS.
7. NO ITEMS SHALL BE LOCATED FROM FLOOR TO CEILING WITHIN 18" OF THE EDGE OF THE FULL-SIDE OF THE BATHROOM DOORS.



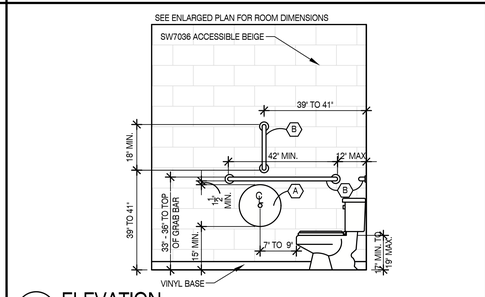
3 ELEVATION
SCALE: 1/2" = 1'-0"

@ RESTROOM



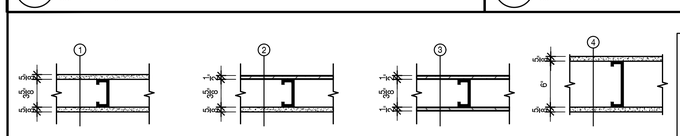
4 ELEVATION
SCALE: 1/2" = 1'-0"

@ RESTROOM



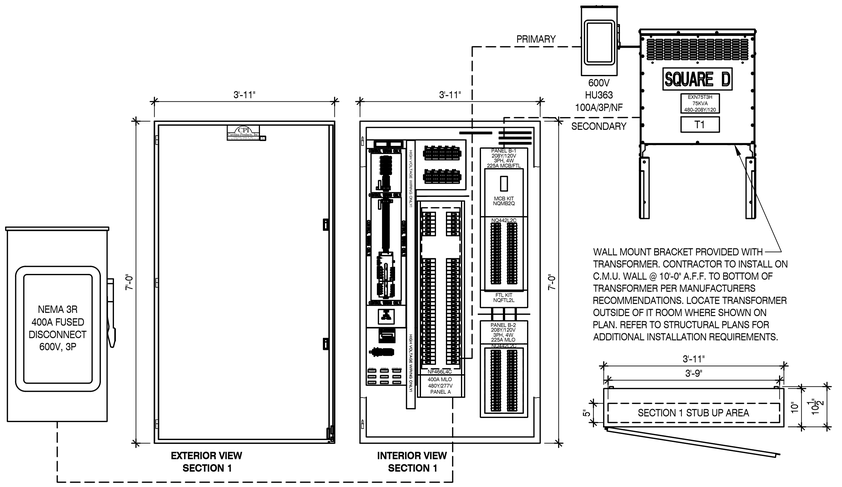
2 ELEVATION
SCALE: 1/2" = 1'-0"

@ RESTROOM



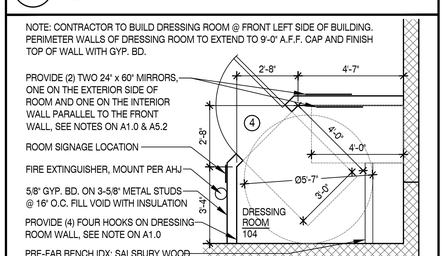
WALL THICKNESS

1. 5/8" TYPE 'X' GYP. BD. BOTH SIDES OF 3-5/8" METAL STUDS
2. 5/8" TYPE 'X' GYP. BD. ON ROOM SIDE AND 1/2" F.R.T. PLYWOOD IN STOCKROOM ON 3-5/8" METAL STUDS
3. 1/2" F.R. PLYWOOD BOTH SIDES OF 3-5/8" METAL STUDS
4. 5/8" TYPE 'X' GYP. BD. BOTH SIDES OF 6" METAL STUDS

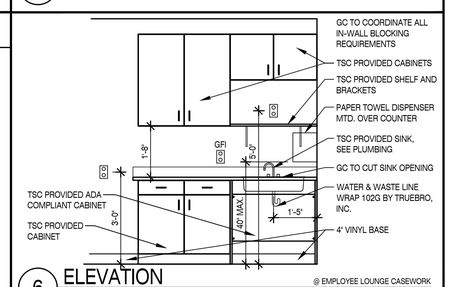


12 PLAN & ELEVATION
SCALE: 3/4" = 1'-0"

@ ELECTRICAL PANEL

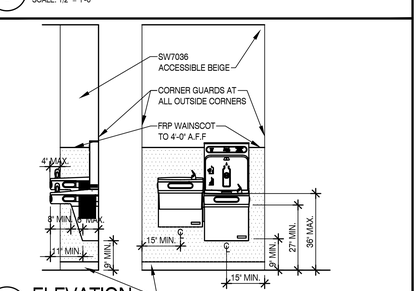


7 ENLARGED DRESSING ROOM PLAN
SCALE: 3/8" = 1'-0"



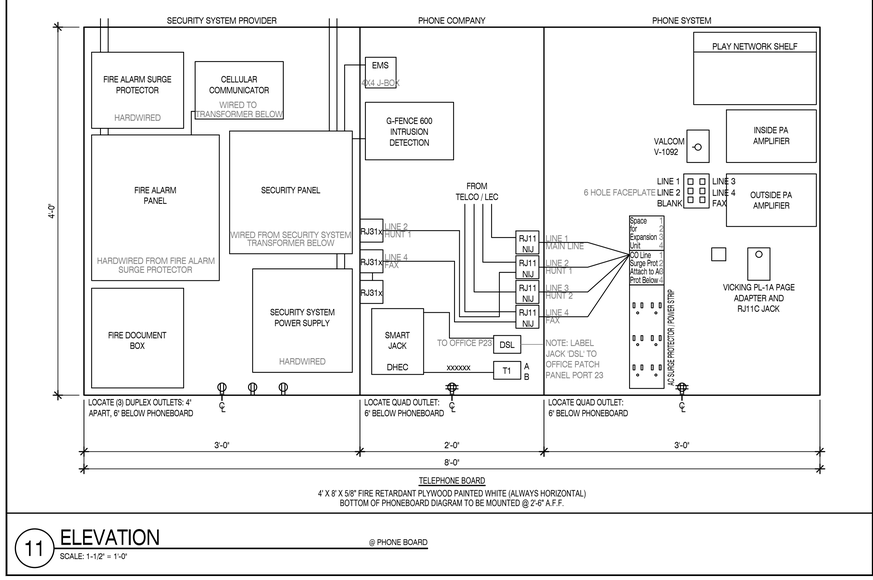
6 ELEVATION
SCALE: 1/2" = 1'-0"

@ EMPLOYEE LOUNGE CASEWORK



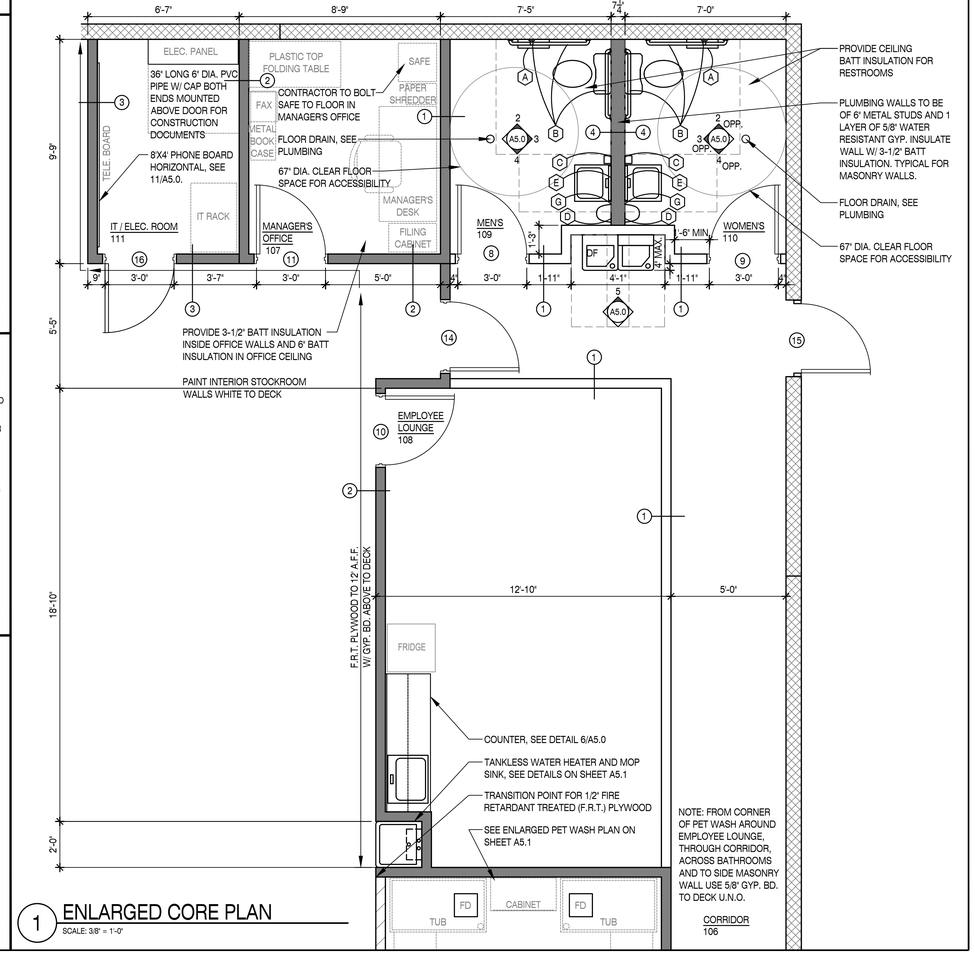
5 ELEVATION
SCALE: 1/2" = 1'-0"

@ DRINKING FOUNTAIN



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

@ PHONE BOARD



1 ENLARGED CORE PLAN
SCALE: 3/8" = 1'-0"

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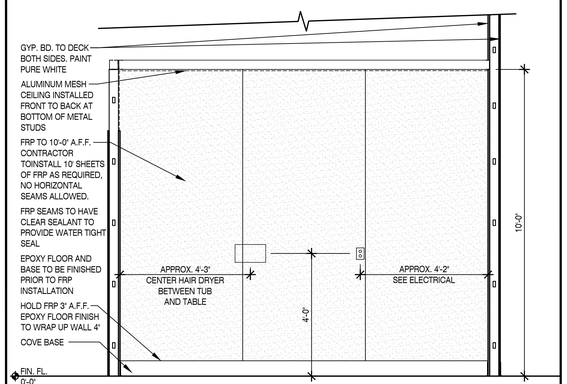
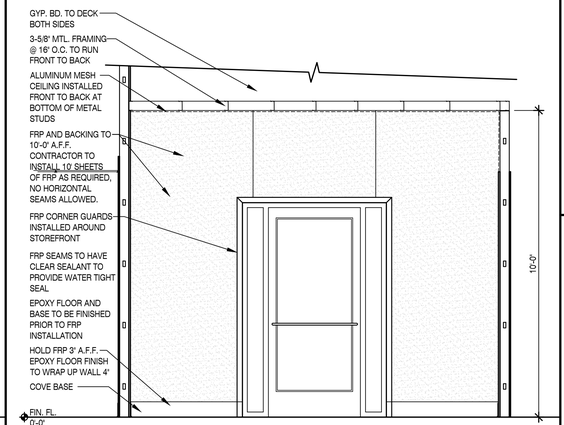
Interior Architecture

TRACTOR SUPPLY COMPANY
LILLINGTON
NORTH CAROLINA

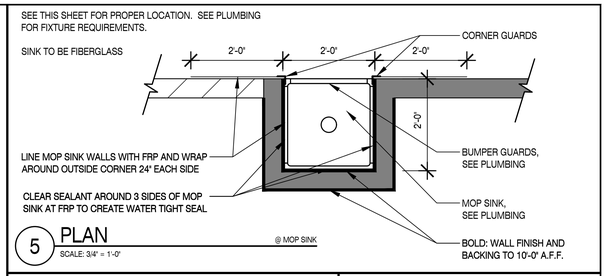
Job Number: 2360
Date: 03.22.2024
Revisions:
Revisions:
Revisions:
INTERIOR PLANS, ELEVATIONS & DETAILS
Sheet Number: A5.0



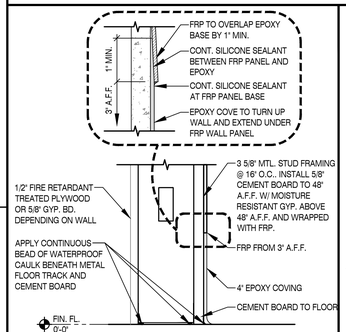
11 ELEVATION @ INTERIOR PET WASH LEFT SIDE
SCALE: 1/4" = 1'-0"



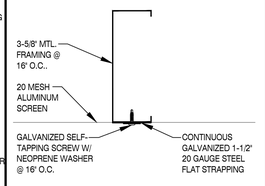
8 ELEVATION @ INTERIOR PET WASH FRONT WALL
SCALE: 1/4" = 1'-0"



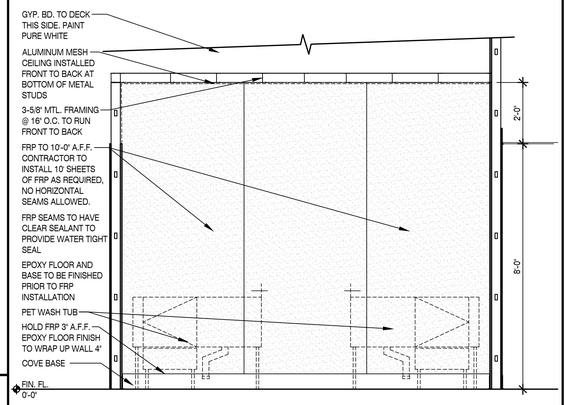
5 PLAN @ MOP SINK
SCALE: 3/4" = 1'-0"



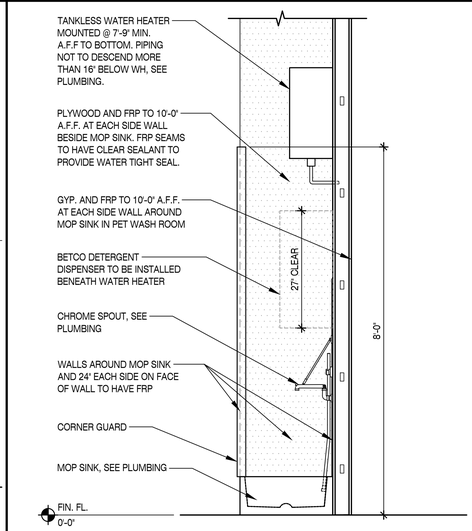
3 DETAIL @ WALL BASE
SCALE: 3" = 1'-0"



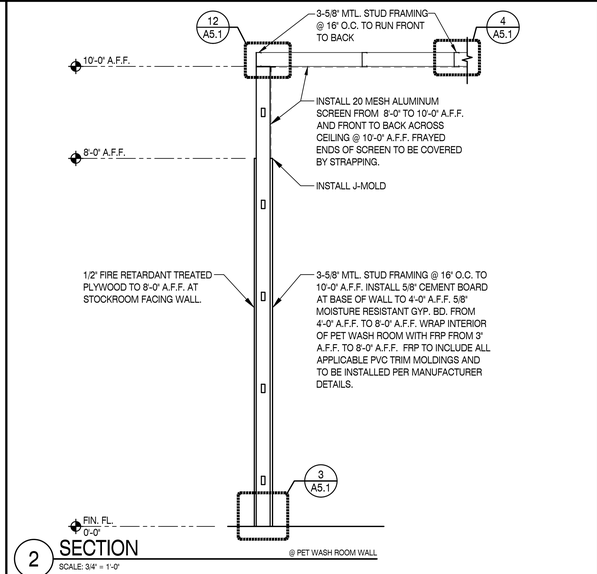
4 DETAIL @ SCREEN ATTACHMENT
SCALE: 6" = 1'-0"



10 ELEVATION @ INTERIOR PET WASH REAR WALL
SCALE: 1/4" = 1'-0"

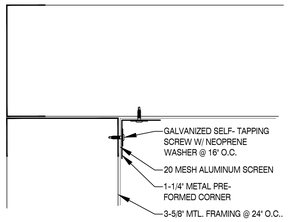


7 SECTION @ MOP SINK
SCALE: 3/4" = 1'-0"

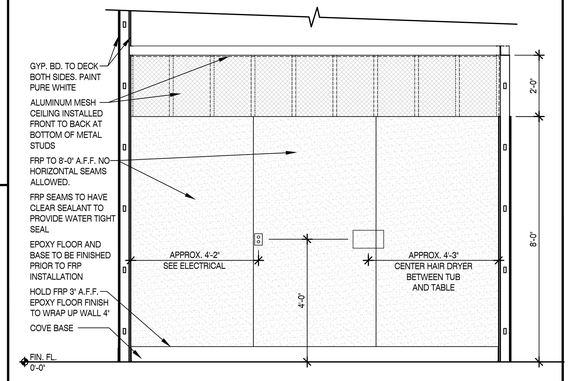


2 SECTION @ PET WASH ROOM WALL
SCALE: 3/4" = 1'-0"

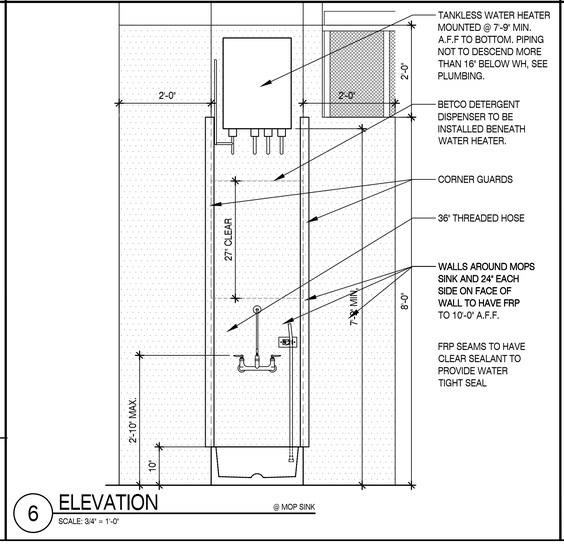
13 PERSPECTIVE PROTOTYPICAL PET WASH
SCALE: NO SCALE



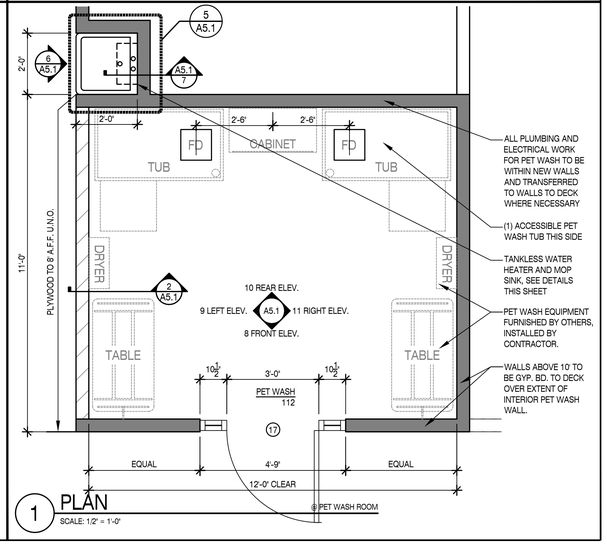
12 DETAIL @ SCREEN WALL/CEILING CONNECTION
SCALE: 6" = 1'-0"



9 ELEVATION @ INTERIOR PET WASH RIGHT SIDE
SCALE: 1/4" = 1'-0"



6 ELEVATION @ MOP SINK
SCALE: 3/4" = 1'-0"



1 PLAN @ PET WASH ROOM
SCALE: 1/2" = 1'-0"

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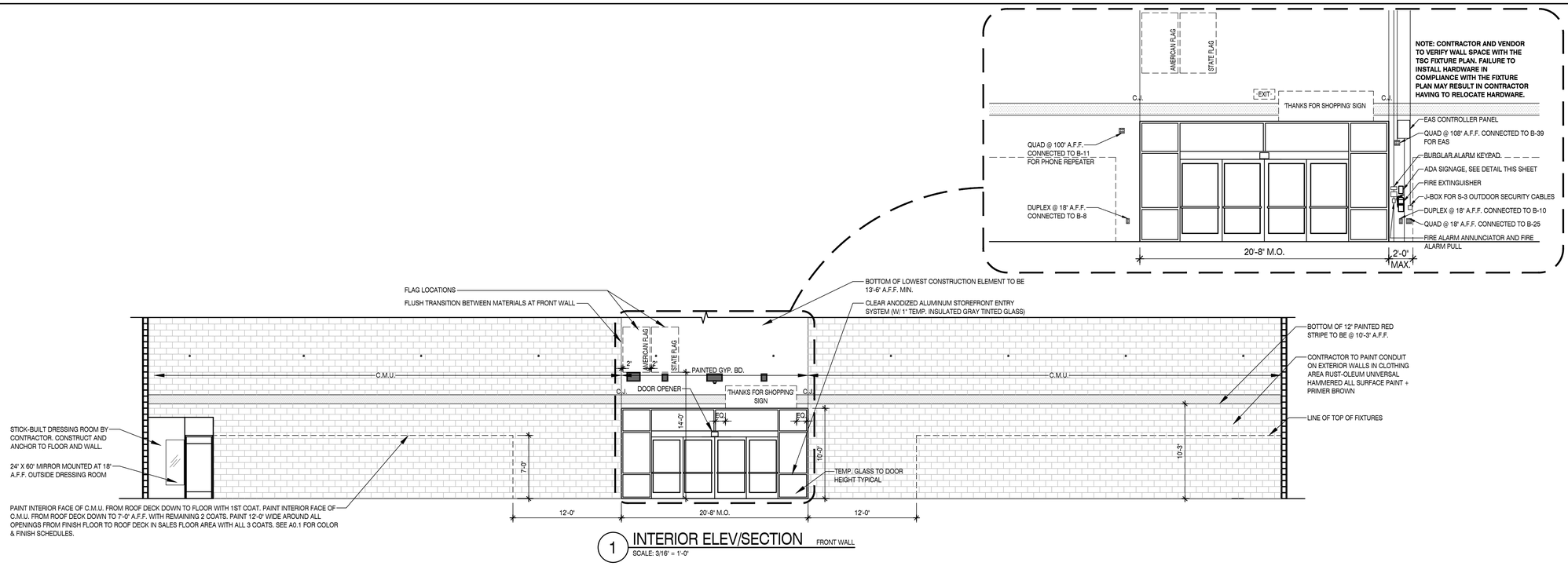
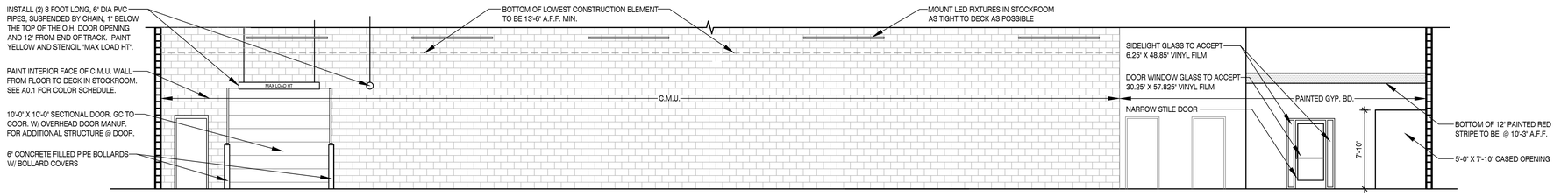
NORTH CAROLINA

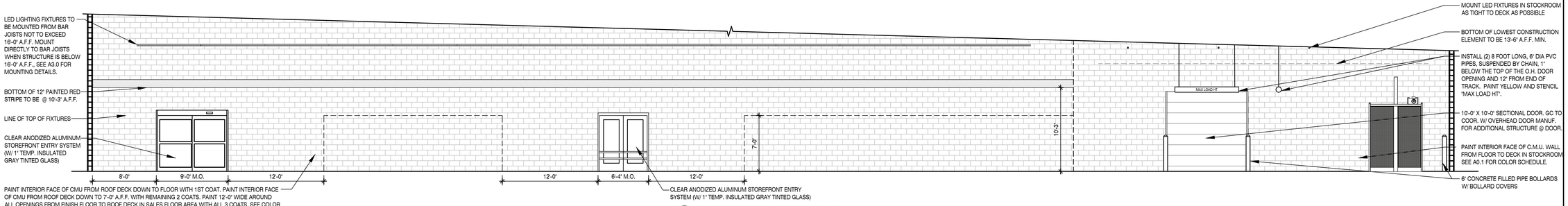
Job Number: 2360
Date: 03.22.2024
Revisions:
Revisions:
Revisions:
PET WASH PLAN, ELEVATIONS & DETAILS
Sheet Number: A5.1



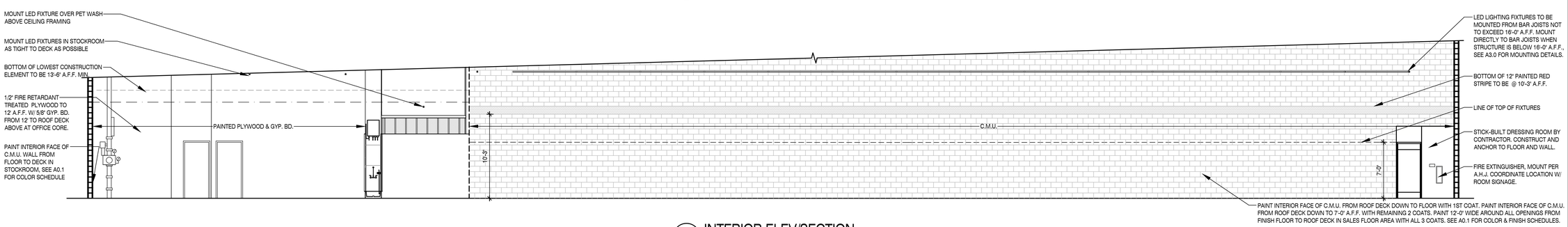
1 INTERIOR ELEV/SECTION FRONT WALL
SCALE: 3/16" = 1'-0"



2 INTERIOR ELEV/SECTION REAR WALL
SCALE: 3/16" = 1'-0"



3 INTERIOR ELEV/SECTION LEFT WALL
SCALE: 3/16" = 1'-0"



4 INTERIOR ELEV/SECTION RIGHT WALL
SCALE: 3/16" = 1'-0"

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Job Number: 2360
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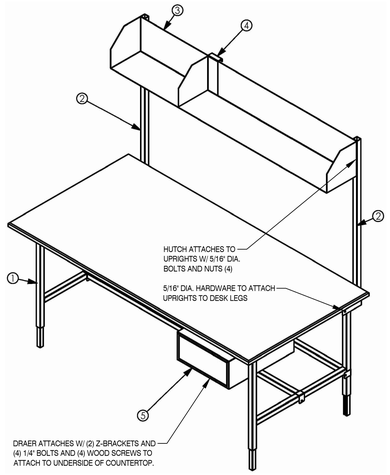
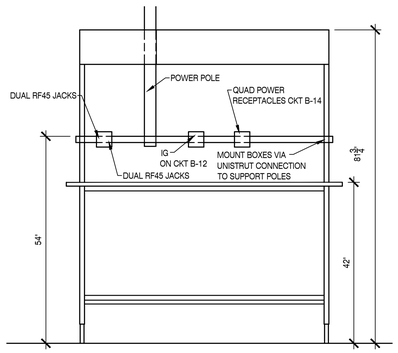
Revisions:
INTERIOR ELEVATIONS

Sheet Number: A5.2

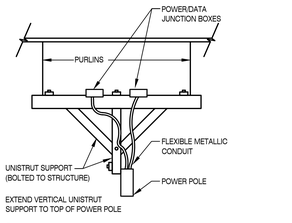
RECEIVING DESK



22 RECEIVING TABLE ISOMETRIC
SCALE: NONE



21 RECEIVING TABLE LAYOUT
SCALE: NONE



10 SERVICE AND DISPLAY COUNTER
SCALE: NONE

CASEWORK DAMAGE PROTOCOL

GC TO SEND E-MAIL TO TSC PM WITH DESCRIPTION, PICTURES, AND BILL OF XXXXXX

EXHIBIT H-1
TRAINING CERTIFICATION

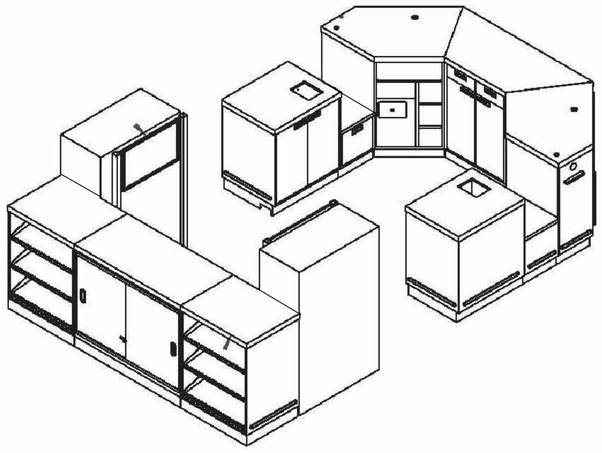
INITIAL TSC STORE MANAGER	INITIAL GC	TRAINING HAS BEEN COMPLETED WITH THE STORE MANAGER BY THE GENERAL CONTRACTOR ON HOW TO USE, OPERATE AND MAINTAIN:
		THE IRRIGATION SYSTEM. ALSO, THE TSC STORE MANAGER HAS BEEN ADVISED THAT THE STORE IS RESPONSIBLE FOR MAINTAINING ALL LANDSCAPING STARTING AT EITHER FIXTURE DATE OR COMPLETION DATE, THE LATTER OF THE TWO DATES.
		THE LIGHT TIMER SYSTEM INCLUDING REVIEW OF THE SCHEDULE
		THE HVAC SYSTEM OPERATION INCLUDING HOW TO ADJUST THE PROGRAMMABLE THERMOSTATS.
		THE AUTOMATIC FRONT DOORS OPERATIONS INCLUDING SENSOR ADJUSTMENTS.
		THE OVERHEAD DOORS OPERATIONS INCLUDING TIMER, TIMER OVERIDE, AND SAFETY EDGE.
		THE DELAY EGRESS DOOR (THE RESET BUTTON IS IN THE CONTROL BOX AND HAS TO BE RESET ANY TIME POWER IS LOST).

STORE # _____ CITY/STATE _____

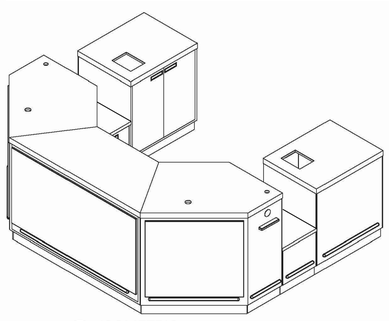
STORE MANAGER _____ GENERAL CONTRACTOR _____

COPY OF THIS EXECUTED DOCUMENT TO BE INCLUDED IN THE CLOSE OUT DOCUMENTS PROVIDED BY THE GENERAL CONTRACTOR (FOR RETRO FIT BY TENANT) OR LANDLORD (RETRO FIT BY LL AND GROUND UP PROJECTS) **TO TRACTOR SUPPLY COMPANY!**

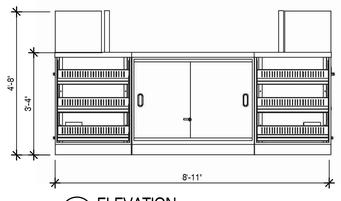
9 EXHIBIT H-1
TRAINING CERTIFICATION



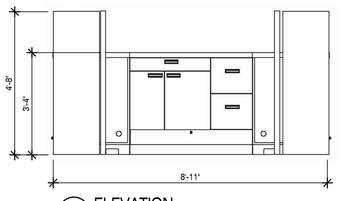
8 ISOMETRIC
SCALE: 1/2" = 1'-0"
CHECK OUT COUNTER



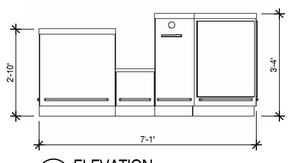
7 ISOMETRIC
SCALE: 1/2" = 1'-0"
CHECK OUT COUNTER



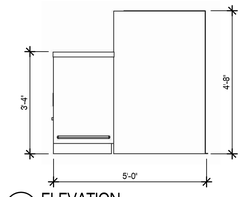
6 ELEVATION
SCALE: 1/2" = 1'-0"
CHECK OUT COUNTER



5 ELEVATION
SCALE: 1/2" = 1'-0"
CHECK OUT COUNTER



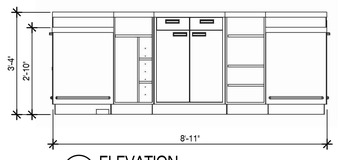
3 ELEVATION
SCALE: 1/2" = 1'-0"
CHECK OUT COUNTER



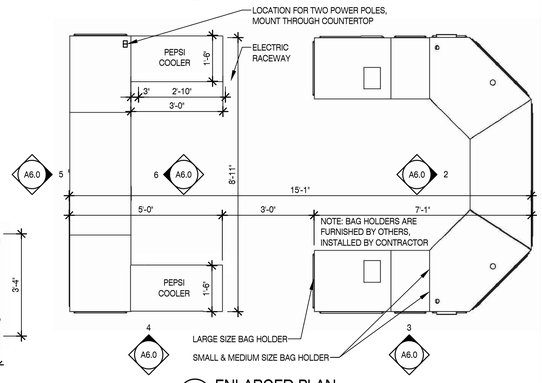
4 ELEVATION
SCALE: 1/2" = 1'-0"
CHECK OUT COUNTER

"U" REGISTER COUNTER

LANDLORD/ GENERAL CONTRACTOR RESPONSIBLE FOR RECEIVING' PLACING AND ASSEMBLY OF ALL TENANT SUPPLIED MILLWORK.



2 ELEVATION
SCALE: 1/2" = 1'-0"
CHECK OUT COUNTER



1 ENLARGED PLAN
SCALE: 1/2" = 1'-0"
CHECK OUT COUNTER

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Job Number: 2360

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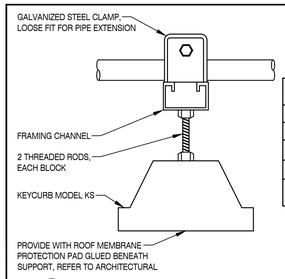
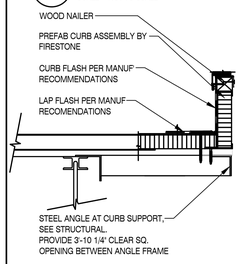
RECEIVING / SERVICE COUNTER DETAILS

Sheet Number: A6.0



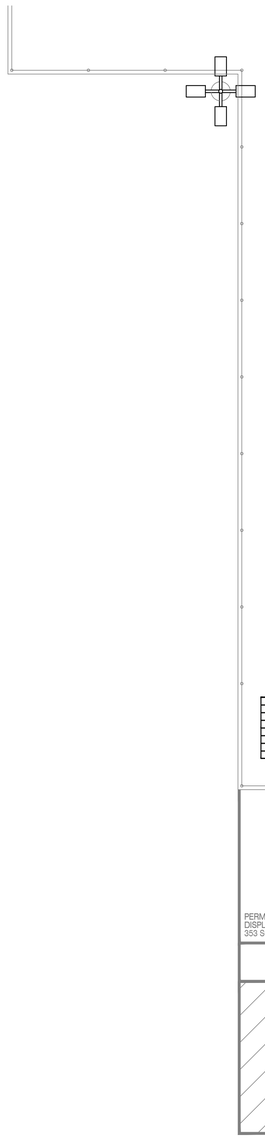
BLOCK SPACING CHART (METAL PIPE)	
PIPE SIZE	MAX SPACING
½" - 1½"	6'
2" - 2½"	10'
3" - 4"	12'
* BLOCK SPACING FOR PLASTIC PIPE (ALL SIZES) SHALL BE 4' MAX	

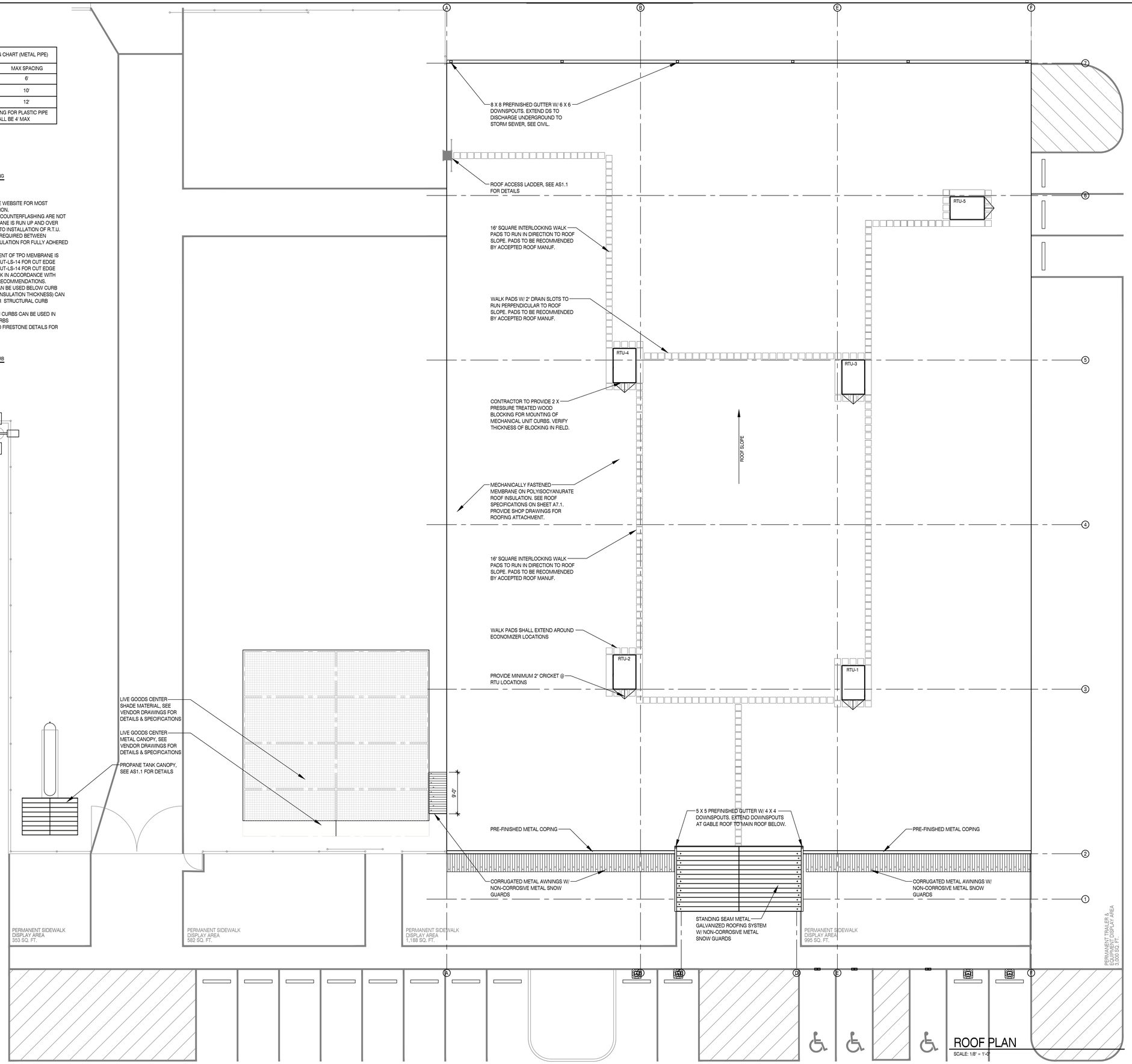
2 DETAIL — PIPE SUPPORTING
SCALE = NOT TO SCALE



NOTES
1. REFER TO FIRESTONE WEBSITE FOR MOST CURRENT INFORMATION.
2. NAILING AND METAL COUNTERFLASHING ARE NOT REQUIRED IF MEMBRANE IS RUN UP AND OVER CURB WALLS PRIOR TO INSTALLATION OF R.T.U.
3. BONDING ADHESIVE REQUIRED BETWEEN MEMBRANE AND INSULATION FOR FULLY ADHERED SYSTEMS.
4. WHEN REINFORCEMENT OF TPO MEMBRANE IS EXPOSED, REFER TO UT-LS-14 FOR CUT EDGE EXPOSED, REFER TO UT-LS-14 FOR CUT EDGE
5. INSTALL METAL WORK IN ACCORDANCE WITH CURRENT SMACNA RECOMMENDATIONS.
6. WOOD BLOCKING CAN BE USED BELOW CURB FLANGE (TO MATCH INSULATION THICKNESS) CAN BE SUBSTITUTED FOR STRUCTURAL CURB ATTACHMENT
7. APPROVED WOODEN CURBS CAN BE USED IN PLACE OF METAL CURBS
8. REFER TO STANDARD FIRESTONE DETAILS FOR CORNER FLASHING

1 DETAIL — @ R.T.U. CURB
SCALE = NOT TO SCALE





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

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Date: 03.22.2024

Revisions:

Revisions:

Revisions:

ROOF PLAN

Sheet Number: A7.0

SECTION 07500

MEMBRANE ROOFING

PART 1 GENERAL

1.01 SUMMARY

- A. PROJECT NAME: TRACTOR SUPPLY.
- B. FURNISH AND INSTALL ELASTOMERIC SHEET ROOFING SYSTEM, INCLUDING:
  - 1. ROOFING MANUFACTURER'S REQUIREMENTS FOR THE SPECIFIED WARRANTY.
  - 2. PREPARATION OF ROOFING SUBSTRATES.
  - 3. WOOD NAILERS FOR ROOFING ATTACHMENT.
  - 4. INSULATION.
  - 5. ELASTOMERIC MEMBRANE ROOFING.
  - 6. METAL ROOF EDGING AND COPINGS.
  - 7. FLASHINGS.
  - 8. WALKWAY PADS.
  - 9. OTHER ROOFING-RELATED ITEMS SPECIFIED OR INDICATED ON THE DRAWINGS OR OTHERWISE NECESSARY TO PROVIDE A COMPLETE WEATHERPROOF ROOFING SYSTEM.
- C. DISPOSAL OF DEMOLITION DEBRIS AND CONSTRUCTION WASTE IS THE RESPONSIBILITY OF CONTRACTOR. PERFORM DISPOSAL IN MANNER COMPLYING WITH ALL APPLICABLE FEDERAL, STATE, AND LOCAL REGULATIONS.
- D. COMPLY WITH THE PUBLISHED RECOMMENDATIONS AND INSTRUCTIONS OF THE ROOFING MEMBRANE MANUFACTURER, AT HTTP://MANUAL.FSBP.COM.
- E. COMMENCEMENT OF WORK BY THE CONTRACTOR SHALL CONSTITUTE ACKNOWLEDGEMENT BY THE CONTRACTOR THAT THIS SPECIFICATION CAN BE SATISFACTORILY EXECUTED, UNDER THE PROJECT CONDITIONS AND WITH ALL NECESSARY PREREQUISITES FOR WARRANTY ACCEPTANCE BY ROOFING MEMBRANE MANUFACTURER. NO MODIFICATION OF THE CONTRACT SUM WILL BE MADE FOR FAILURE TO ADEQUATELY EXAMINE THE CONTRACT DOCUMENTS OR THE PROJECT CONDITIONS.

1.02 REFERENCES

- A. REFERENCED STANDARDS: THESE STANDARDS FORM PART OF THIS SPECIFICATION ONLY TO THE EXTENT THEY ARE REFERENCED AS SPECIFICATION REQUIREMENTS.
- B. ASTM C 1289 - STANDARD SPECIFICATION FOR FACED RIGID CELLULAR POLYISOCYANURATE THERMAL INSULATION BOARD; 2004.
- C. ASTM C 1549 - STANDARD TEST METHOD FOR DETERMINATION OF SOLAR REFLECTANCE NEAR AMBIENT TEMPERATURE USING A PORTABLE SOLAR REFLECTOMETER; 2004.
- D. ASTM D 751 - STANDARD TEST METHODS FOR COATED FABRICS
- E. ASTM D 1079 - STANDARD TERMINOLOGY RELATING TO ROOFING, WATERPROOFING, AND BITUMINOUS MATERIALS; 2005A.
- F. ASTM D 6878 - STANDARD SPECIFICATION FOR THERMOPLASTIC POLYOLEFIN BASED SHEET ROOFING; 2003.
- G. CAN-ULC-S770 - STANDARD TEST METHOD DETERMINATION OF L-TERM THERMAL RESISTANCE OF CLOSED-CELL THERMAL INSULATING FOAMS; 2003.
- H. FM 1-28 - DESIGN WIND LOADS; FACTORY MUTUAL SYSTEM; 2002.
- I. FM 1-29 - ROOF DECK SECUREMENT AND ABOVE DECK ROOF COMPONENTS; FACTORY MUTUAL SYSTEM; 2005.
- K. SPRI ES-1 - WIND DESIGN STANDARD FOR EDGE SYSTEMS USED WITH LOW SLOPE ROOFING SYSTEMS; 2003. (ANSI/SPRI ES-1).

1.03 DEFINITIONS

- A. ROOFING TERMINOLOGY: REFER TO ASTM D 1079 FOR DEFINITION OF TERMS RELATED TO ROOFING WORK NOT OTHERWISE DEFINED IN THE SECTION.
- B. LTTR: LONG TERM THERMAL RESISTANCE, AS DEFINED BY CAN-ULC S770.

1.04 SUBMITTALS

- A. PRODUCT DATA:
  - 1. PROVIDE MEMBRANE MANUFACTURER'S PRINTED DATA SUFFICIENT TO SHOW THAT ALL COMPONENTS OF ROOFING SYSTEM, INCLUDING INSULATION AND FASTENERS, COMPLY WITH THE SPECIFIED REQUIREMENTS AND WITH THE MEMBRANE MANUFACTURER'S REQUIREMENTS AND RECOMMENDATIONS FOR THE SYSTEM TYPE SPECIFIED; INCLUDE DATA FOR EACH PRODUCT USED IN CONJUNCTION WITH ROOFING MEMBRANE.
  - 2. WHERE UL OR FM REQUIREMENTS ARE SPECIFIED, PROVIDE DOCUMENTATION THAT SHOWS THAT THE ROOFING SYSTEM TO BE INSTALLED IS UL-CLASSIFIED OR FM-APPROVED, AS APPLICABLE; INCLUDE DATA ITEMIZING THE COMPONENTS OF THE CLASSIFIED OR APPROVED SYSTEM.
  - 3. INSTALLATION INSTRUCTIONS: PROVIDE MANUFACTURER'S INSTRUCTIONS TO INSTALLER, MARKED UP TO SHOW EXACTLY HOW ALL COMPONENTS WILL BE INSTALLED; WHERE INSTRUCTIONS ALLOW INSTALLATION OPTIONS, CLEARLY INDICATE WHICH OPTION WILL BE USED.
- B. SAMPLES: SUBMIT SAMPLES OF EACH PRODUCT TO BE USED.
- C. SHOP DRAWINGS: PROVIDE:
  - 1. THE ROOF MEMBRANE MANUFACTURER'S STANDARD DETAILS CUSTOMIZED FOR THIS PROJECT FOR ALL RELEVANT CONDITIONS, INCLUDING FLASHINGS, BASE TIE-INS, ROOF EDGES, TERMINATIONS, EXPANSION JOINTS, PENETRATIONS, AND DRAINS.
- D. SPECIMEN WARRANTY: SUBMIT PRIOR TO STARTING WORK.
- E. PRE-INSTALLATION NOTICE: COPY TO SHOW THAT MANUFACTURER'S REQUIRED PRE INSTALLATION NOTICE (PIN) HAS BEEN ACCEPTED AND APPROVED BY THE MANUFACTURER.
- F. EXECUTED WARRANTY.

1.05 QUALITY ASSURANCE

- A. APPLICATOR QUALIFICATIONS: ROOFING INSTALLER SHALL HAVE THE FOLLOWING:
  - 1. CURRENT FIRESTONE MASTER CONTRACTOR STATUS.
  - 2. AT LEAST FIVE YEARS EXPERIENCE IN INSTALLING SPECIFIED SYSTEM.

1.06 DELIVERY, STORAGE AND HANDLING

- A. DELIVER PRODUCTS IN MANUFACTURER'S ORIGINAL CONTAINERS, DRY AND UNDAMAGED, WITH SEALS AND LABELS INTACT AND LEGIBLE.
- B. STORE MATERIALS CLEAR OF GROUND AND MOISTURE WITH WEATHER PROTECTIVE COVERING.
- C. KEEP COMBUSTIBLE MATERIALS AWAY FROM IGNITION SOURCES.

1.07 WARRANTY

- A. COMPLY WITH ALL WARRANTY PROCEDURES REQUIRED BY MANUFACTURER, INCLUDING NOTIFICATIONS, SCHEDULING, AND INSPECTIONS.
- B. WARRANTY: FIRESTONE 15 YEAR RED SHIELD LIMITED WARRANTY COVERING MEMBRANE, ROOF INSULATION, AND MEMBRANE ACCESSORIES.
  - 1. LIMIT OF LIABILITY: NO DOLLAR LIMITATION.
  - 2. SCOPE OF COVERAGE: REPAIR LEAKS IN THE ROOFING SYSTEM CAUSED BY:
    - a. ORDINARY WEAR AND TEAR OF THE ELEMENTS.
    - b. MANUFACTURING DEFECT IN FIRESTONE BRAND MATERIALS.
    - c. DEFECTIVE WORKMANSHIP USED TO INSTALL THESE MATERIALS.
    - d. DAMAGE DUE TO WINDS UP TO 55 MPH (88 KM/H).
  - 3. NOT COVERED:
    - a. DAMAGE DUE TO WINDS IN EXCESS OF 55 MPH (88 KM/H).
    - b. DAMAGE DUE HURRICANES OR TORNADOES.
    - c. HAIL.
    - d. INTENTIONAL DAMAGE.
    - e. UNINTENTIONAL DAMAGE DUE TO NORMAL ROOFTOP INSPECTIONS, MAINTENANCE, OR SERVICE.

PART 2 PRODUCTS

2.01 MANUFACTURERS

- A. ACCEPTABLE MANUFACTURER - ROOFING SYSTEM: FIRESTONE BUILDING PRODUCTS CO., INDIANAPOLIS, IN. WWW.FIRESTONEBPCO.COM.
  - 1. ROOFING SYSTEMS MANUFACTURED BY OTHERS ARE ACCEPTABLE PROVIDED THE ROOFING SYSTEM IS COMPLETELY EQUIVALENT IN MATERIALS AND WARRANTY CONDITIONS AND THE MANUFACTURER MEETS THE FOLLOWING QUALIFICATIONS:
    - a. SPECIALIZING IN MANUFACTURING THE ROOFING SYSTEM TO BE PROVIDED.
    - b. MINIMUM TEN YEARS OF EXPERIENCE MANUFACTURING THE ROOFING SYSTEM TO BE PROVIDED.
    - c. ABLE TO PROVIDE A NO DOLLAR LIMIT, SINGLE SOURCE ROOF SYSTEM WARRANTY THAT IS BACKED BY CORPORATE ASSETS IN EXCESS OF ONE BILLION DOLLARS.
    - d. ISO 9002 CERTIFIED.
    - e. ABLE TO PROVIDE ISOCYANURATE INSULATION THAT IS PRODUCED IN OWN FACILITIES.
    - f. ROOFING SYSTEMS MANUFACTURED BY THE COMPANIES LISTED BELOW ARE ACCEPTABLE PROVIDED THEY ARE COMPLETELY EQUIVALENT IN MATERIALS AND WARRANTY CONDITIONS:
      - 1) VERSICO
      - 2) CARLISLE SYNTEC SYSTEMS.
      - 3) GAF
- B. MANUFACTURER OF INSULATION AND COVER BOARDS: SAME MANUFACTURER AS ROOF MEMBRANE.
- C. MANUFACTURER OF METAL ROOF EDGING: SAME MANUFACTURER AS ROOF MEMBRANE.
  - 1. METAL ROOF EDGING PRODUCTS BY OTHER MANUFACTURERS ARE NOT ACCEPTABLE.
- D. SUBSTITUTION PROCEDURES: SEE INSTRUCTIONS TO BIDDERS.
  - 1. SUBMIT EVIDENCE THAT THE PROPOSED SUBSTITUTION COMPLIES WITH THE SPECIFIED REQUIREMENTS.

2.02 ROOFING SYSTEM DESCRIPTION

- A. ROOFING SYSTEM:
  - 1. MEMBRANE: THERMOPLASTIC OLEFIN (TPO).
  - 2. THICKNESS: AS SPECIFIED ELSEWHERE.
  - 3. MEMBRANE ATTACHMENT: MECHANICALLY ATTACHED WITH PLATES IN SEAMS.
  - 4. COMPLY WITH APPLICABLE LOCAL BUILDING CODE REQUIREMENTS.
  - 5. PROVIDE ASSEMBLY HAVING UNDERWRITERS LABORATORIES, INC. (UL) CLASS A FIRE HAZARD CLASSIFICATION.
  - 6. PROVIDE ASSEMBLY COMPLYING WITH FACTORY MUTUAL CORPORATION (FM) ROOF ASSEMBLY CLASSIFICATION, FM DS 1-28 AND 1-29, AND MEETING MINIMUM REQUIREMENTS OF **FM 1-75** WIND UPLIFT RATING.
  - 7. PROVIDE ASSEMBLY TO MEET THE FOLLOWING MINIMUM DESIGN UPLIFT-RESISTANCE CAPACITIES:
    - -SEE STRUCTURAL SHEET S5.0.
- B. INSULATION:
  - 1. TOTAL R VALUE: 30.0, MINIMUM.
  - 2. MAXIMUM BOARD THICKNESS: 3.25 INCHES (63 MM); USE AS MANY LAYERS AS NECESSARY; STAGGER JOINTS IN ADJACENT LAYERS.
  - 3. BASE LAYER: POLYISOCYANURATE FOAM BOARD, NON-COMPOSITE.
    - a. ATTACHMENT: LOOSE LAID, NO ATTACHMENT.
  - 4. TOP LAYER: POLYISOCYANURATE FOAM BOARD, NON-COMPOSITE.
    - a. ATTACHMENT: MECHANICAL FASTENING.

2.03 TPO MEMBRANE MATERIALS (THIS PROJECT REQUIRES 45 MIL. MEMBRANE)

- A. MEMBRANE: FLEXIBLE, HEAT WELDABLE SHEET COMPOSED OF THERMOPLASTIC POLYOLEFIN POLYMER AND ETHYLENE PROPYLENE RUBBER; COMPLYING WITH ASTM D 6878, WITH POLYESTER WEFT INSERTED REINFORCEMENT AND THE FOLLOWING ADDITIONAL CHARACTERISTICS:
  - 1. THICKNESS: 0.060 INCH (1.14 MM) PLUS/MINUS 10 PERCENT, WITH COATING THICKNESS OVER REINFORCEMENT OF 0.015 INCH (0.38 MM) FOR 45 MIL PLUS/MINUS 10 PERCENT. REFER TO ASTM D7635 STANDARD TEST METHOD FOR MEASUREMENT OF THICKNESS OF COATINGS OVER FABRIC REINFORCEMENT.
  - 2. SHEET WIDTH: PROVIDE SHEETS OF WIDTH NECESSARY TO ACCOMMODATE BATTEN SPACING REQUIRED BY MANUFACTURER FOR PROJECT CONDITIONS.
  - 3. PUNCTURE RESISTANCE: 265 LBF (1174 N), MINIMUM, WHEN TESTED IN ACCORDANCE FTM 101C METHOD 2031.
  - 4. SOLAR REFLECTANCE: 0.79, MINIMUM, WHEN TESTED IN ACCORDANCE WITH ASTM C 1549.
  - 5. COLOR: WHITE.
  - 6. ACCEPTABLE PRODUCT: ULTRAPLY TPO BY FIRESTONE.
- B. MEMBRANE FASTENERS: TYPE AND SIZE AS REQUIRED BY ROOF MEMBRANE MANUFACTURER FOR ROOFING SYSTEM AND WARRANTY TO BE PROVIDED; USE ONLY FASTENERS FURNISHED BY ROOF MEMBRANE MANUFACTURER.
- C. CURB AND PARAPET FLASHING: SAME MATERIAL AS MEMBRANE, WITH ENCAPSULATED EDGE WHICH ELIMINATES NEED FOR SEAM SEALING THE FLASHING-TO-ROOF SPLICE; PRECUT TO 18 INCHES (457 MM) WIDE.
- D. FORMABLE FLASHING: NON-REINFORCED, FLEXIBLE, HEAT WELDABLE SHEET, COMPOSED OF THERMOPLASTIC POLYOLEFIN POLYMER AND ETHYLENE PROPYLENE RUBBER.
  - 1. THICKNESS: 0.045 INCH (1.14 MM) PLUS/MINUS 10 PERCENT.
  - 2. TENSILE STRENGTH: 1550 PSI (10.7 MPA), MINIMUM, WHEN TESTED IN ACCORDANCE WITH ASTM D 638 AFTER HEAT AGING.
  - 3. ELONGATION AT BREAK: 650 PERCENT, MINIMUM, WHEN TESTED IN ACCORDANCE WITH ASTM D 638 AFTER HEAT AGING.
  - 4. TEARING STRENGTH: 12 LBF (53 N), MINIMUM, WHEN TESTED IN ACCORDANCE WITH ASTM D 1004 AFTER HEAT AGING.
  - 5. COLOR: WHITE.
  - 6. ACCEPTABLE PRODUCT: ULTRAPLY TPO FLASHING BY FIRESTONE.
- E. TAPE FLASHING: 5-1/2 INCH (140 MM) NOMINAL WIDE TPO MEMBRANE LAMINATED TO CURED RUBBER POLYMER SEAMING TAPE, OVERALL THICKNESS 0.065 INCH (1.6 MM) NOMINAL; TPO QUICKSEAM FLASHING BY FIRESTONE.
- F. POURABLE SEALER: TWO-PART POLYURETHANE, TWO-COLOR FOR RELIABLE MIXING; POURABLE SEALER BY FIRESTONE.
- G. SEAM PLATES: STEEL WITH BARBS AND GALVALUME COATING; CORROSION-RESISTANCE COMPLYING WITH FM 4470.
- H. TERMINATION BARS: ALUMINUM BARS WITH INTEGRAL CAULK LEDGE; 1.3 INCHES (33 MM) WIDE BY 0.10 INCH (2.5 MM) THICK; FIRESTONE TERMINATION BAR BY FIRESTONE.
- I. CUT EDGE SEALANT: SYNTHETIC RUBBER-BASED, FOR USE WHERE MEMBRANE REINFORCEMENT IS EXPOSED; ULTRAPLY TPO CUT EDGE SEALANT BY FIRESTONE.
- J. GENERAL PURPOSE SEALANT: EPDM-BASED, ONE PART, WHITE GENERAL PURPOSE SEALANT; ULTRAPLY TPO GENERAL PURPOSE SEALANT BY FIRESTONE.
- K. MOLDED FLASHING ACCESSORIES: UNREINFORCED TPO MEMBRANE PRE-MOLDED TO SUIT A VARIETY OF FLASHING DETAILS, INCLUDING PIPE BOOTS, INSIDE CORNERS, OUTSIDE CORNERS, ETC.; ULTRAPLY TPO SMALL AND LARGE PIPE FLASHING BY FIRESTONE.
- L. ROOF WALKWAY PADS: NON-REINFORCED TPO WALKWAY PADS, 0.130 INCH (3 MM) BY 30 INCHES (760 MM) BY 50 FEET (15.24 M) LONG WITH PATTERNED TRAFFIC BEARING SURFACE; ULTRAPLY TPO WALKWAY PADS BY FIRESTONE.

2.04 ROOF INSULATION AND COVER BOARDS

- A. POLYISOCYANURATE BOARD INSULATION: CLOSED CELL POLYISOCYANURATE FOAM WITH BLACK GLASS REINFORCED MAT LAMINATED TO FACES, COMPLYING WITH ASTM C 1289 TYPE I CLASS 1, WITH THE FOLLOWING ADDITIONAL CHARACTERISTICS:
  - 1. THICKNESS: AS INDICATED ELSEWHERE.
  - 2. SIZE: 48 INCHES (1220 MM) BY 96 INCHES (2440 MM), NOMINAL.
    - a. EXCEPTION: INSULATION TO BE ATTACHED USING ADHESIVE OR ASPHALT MAY BE NO LARGER THAN 48 INCHES (1220 MM) BY 48 INCHES (1220 MM), NOMINAL.
  - 3. R-VALUE (LTTR):
    - a. 1.0 INCH (25 MM) THICKNESS: 5.6, MINIMUM.
    - b. 1.5 INCH (38 MM) THICKNESS: 8.5, MINIMUM.
    - c. 2.0 INCH (51 MM) THICKNESS: 11.4, MINIMUM.
    - d. 2.5 INCH (64 MM) THICKNESS: 14.4, MINIMUM.
  - 4. COMPRESSIVE STRENGTH: 20 PSI (138 KPA) WHEN TESTED IN ACCORDANCE WITH ASTM C 1289.
  - 5. OZONE DEPLETION POTENTIAL: ZERO; MADE WITHOUT CFC OR HCFC BLOWING AGENTS.
  - 6. RECYCLED CONTENT: 19 PERCENT POST-CONSUMER AND 15 PERCENT POST-INDUSTRIAL, AVERAGE.
- B. INSULATION FASTENERS: TYPE AND SIZE AS REQUIRED BY ROOF MEMBRANE MANUFACTURER FOR ROOFING SYSTEM AND WARRANTY TO BE PROVIDED; USE ONLY FASTENERS FURNISHED BY ROOF MEMBRANE MANUFACTURER.

2.05 METAL ACCESSORIES

- A. METAL ROOF EDGING AND FASCIA: CONTINUOUS METAL EDGE MEMBER SERVING AS TERMINATION OF ROOF MEMBRANE AND RETAINER FOR METAL FASCIA; WATERTIGHT WITH NO EXPOSED FASTENERS; MOUNTED TO ROOF EDGE NAILER.
  - 1. WIND PERFORMANCE:
    - a. MEMBRANE PULL-OFF RESISTANCE: 100 LBS/FT (1460 N/M), MINIMUM, WHEN TESTED IN ACCORDANCE WITH ANSI/SPRI ES-1 TEST METHOD RE-1, CURRENT EDITION.
    - b. FASCIA PULL-OFF RESISTANCE: AT LEAST THE MINIMUM REQUIRED WHEN TESTED IN ACCORDANCE WITH ANSI/SPRI ES-1 TEST METHOD RE-2, CURRENT EDITION.
    - c. PROVIDE PRODUCT LISTED IN CURRENT FACTORY MUTUAL RESEARCH CORPORATION APPROVAL GUIDE WITH AT LEAST FM 1-270 RATING.
  - 2. DESCRIPTION: TWO-PIECE; EXTRUDED ALUMINUM T-SHAPED EDGE MEMBER SECURING TOP AND BOTTOM EDGES OF FLAT-FACED FORMED METAL FASCIA; FIRESTONE ANCHORGARD.
  - 3. FASCIA FACE HEIGHT: 5 INCHES (127 MM).
  - 4. EDGE MEMBER HEIGHT ABOVE NAILER: 1-1/4 INCHES (31 MM).
  - 5. FASCIA MATERIAL AND FINISH: 0.040 INCH (1.0 MM) THICK FORMED ALUMINUM, NATURAL MILL FINISH; MATCHING CONCEALED JOINT SPLICE PLATES; FACTORY-INSTALLED PROTECTIVE PLASTIC FILM.
  - 6. LENGTH: 120 INCHES (3048 MM).
  - 7. FUNCTIONAL CHARACTERISTICS: FASCIA RETAINER SUPPORTS WHILE ALLOWING FOR FREE THERMAL CYCLING OF FASCIA.
  - 8. ALUMINUM BAR: CONTINUOUS 6063-T6 ALLOY ALUMINUM EXTRUSION WITH PRE-PUNCHED SLOTTED HOLES; MITERS WELDED; INJECTION MOLDED EPDM SPLICES TO ALLOW THERMAL EXPANSION.
  - 9. ANCHOR BAR CLEAT: 20 GAGE, 0.036 INCH (0.9 MM) G90 COATED COMMERCIAL TYPE GALVANIZED STEEL WITH PRE-PUNCHED HOLES.
  - 10. CURVED APPLICATIONS: FACTORY MODIFIED.
  - 11. FASTENERS: FACTORY-PROVIDED CORROSION RESISTANT FASTENERS, WITH DRIVERS; NO EXPOSED FASTENERS PERMITTED.
  - 12. SPECIAL SHAPED COMPONENTS: PROVIDE FACTORY-FABRICATED PIECES NECESSARY FOR COMPLETE INSTALLATION, INCLUDING MITERS, SCUPPERS, AND END CAPS; MINIMUM 14 INCH (355 MM) LONG LEGS ON CORNER PIECES.
  - 13. SCUPPERS: WELDED WATERTIGHT.
  - 14. ACCESSORIES: PROVIDE MATCHING BRICK WALL CAP, DOWNSPOUT, EXTENDERS, AND OTHER SPECIAL FABRICATIONS AS SHOWN ON THE DRAWINGS.
- B. PARAPET COPINGS: FORMED METAL COPING WITH GALVANIZED STEEL ANCHOR/SUPPORT CLEATS FOR CAPPING ANY PARAPET WALL; WATERTIGHT, MAINTENANCE FREE, WITHOUT EXPOSED FASTENERS; BUTT TYPE JOINTS WITH CONCEALED SPLICE PLATES; MECHANICALLY FASTENED AS INDICATED; FIRESTONE PTCF.
  - 1. WIND PERFORMANCE:
    - a. AT LEAST THE MINIMUM REQUIRED WHEN TESTED IN ACCORDANCE WITH ANSI/SPRI ES-1 TEST METHOD RE-3, CURRENT EDITION.
    - b. PROVIDE PRODUCT LISTED IN CURRENT FACTORY MUTUAL RESEARCH CORPORATION APPROVAL GUIDE WITH AT LEAST FM 1-180 RATING.
  - 2. DESCRIPTION: COPING SECTIONS ALLOWED TO EXPAND AND CONTRACT FREELY WHILE LOCKED IN PLACE ON ANCHOR CLEATS BY MECHANICAL PRESSURE FROM HARDENED STAINLESS STEEL SPRINGS FACTORY ATTACHED TO ANCHOR CLEATS; 8 INCH (200 MM) WIDE SPLICE PLATES WITH FACTORY APPLIED DUAL NON-CURING SEALANT STRIPS CAPABLE OF PROVIDING WATERTIGHT SEAL.
  - 3. MATERIAL AND FINISH: 24 GA. THICK FORMED ALUMINUM, CLEAR ANODIZED FINISH; MATCHING CONCEALED JOINT SPLICE PLATES; FACTORY-INSTALLED PROTECTIVE PLASTIC FILM.
  - 4. DIMENSIONS:
    - a. WALL WIDTH: AS INDICATED ON THE DRAWINGS.
    - b. PIECE LENGTH: MINIMUM 120 INCHES (3048 MM).
    - c. CURVED APPLICATION: FACTORY FABRICATED IN TRUE RADIUS.
  - 5. ANCHOR/SUPPORT CLEATS: 20 GAGE, 0.036 INCH (0.9 MM) THICK PREPUNCHED GALVANIZED CLEAT WITH 12 INCH (305 MM) WIDE STAINLESS STEEL SPRING MECHANICALLY LOCKED TO CLEAT AT 72 INCHES (1820 MM) ON CENTER.
  - 6. SPECIAL SHAPED COMPONENTS: PROVIDE FACTORY-FABRICATED PIECES NECESSARY FOR COMPLETE INSTALLATION, INCLUDING MITERS, CORNERS, INTERSECTIONS, CURVES, PIER CAPS, AND END CAPS; MINIMUM 14 INCH (355 MM) LONG LEGS ON CORNER, INTERSECTION, AND END PIECES.
  - 7. FASTENERS: FACTORY-FURNISHED; ELECTROLYTICALLY COMPATIBLE; MINIMUM PULL OUT RESISTANCE OF 240 POUNDS (109 KG) FOR ACTUAL SUBSTRATE USED; NO EXPOSED FASTENERS.

PART 3 INSTALLATION

3.01 GENERAL

- A. INSTALL ROOFING, INSULATION, FLASHINGS, AND ACCESSORIES IN ACCORDANCE WITH ROOFING MANUFACTURER'S PUBLISHED INSTRUCTIONS AND RECOMMENDATIONS FOR THE SPECIFIED ROOFING SYSTEM. WHERE MANUFACTURER PROVIDES NO INSTRUCTIONS OR RECOMMENDATIONS, FOLLOW GOOD ROOFING PRACTICES AND INDUSTRY STANDARDS. COMPLY WITH FEDERAL, STATE, AND LOCAL REGULATIONS.
- B. OBTAIN ALL RELEVANT INSTRUCTIONS AND MAINTAIN COPIES AT PROJECT SITE FOR DURATION OF INSTALLATION PERIOD.

3.02 EXAMINATION

- A. EXAMINE ROOF DECK TO DETERMINE THAT IT IS SUFFICIENTLY RIGID TO SUPPORT INSTALLERS AND THEIR MECHANICAL EQUIPMENT AND THAT DEFLECTION WILL NO STRAIN OR RUPTURE ROOF COMPONENTS OR DEFORM DECK.
- B. VERIFY THAT SURFACES AND SITE CONDITIONS ARE READY TO RECEIVE WORK. CORRECT DEFECTS IN THE SUBSTRATE BEFORE COMMENCING WITH ROOFING WORK.
- C. EXAMINE ROOF SUBSTRATE TO VERIFY THAT IT IS PROPERLY SLOPED TO DRAINS.
- D. VERIFY THAT THE SPECIFICATIONS AND DRAWING DETAILS ARE WORKABLE AND NOT IN CONFLICT WITH THE ROOFING MANUFACTURER'S RECOMMENDATIONS AND INSTRUCTIONS; START OF WORK CONSTITUTES ACCEPTABLE OF PROJECT CONDITIONS AND REQUIREMENTS.
- E. VERIFY THAT WOOD NAILERS HAVE BEEN PROPERLY INSTALLED.

3.03 PREPARATION

- A. TAKE APPROPRIATE MEASURES TO ENSURE THAT FUMES FROM ADHESIVE SOLVENTS ARE NOT DRAWN INTO THE BUILDING THROUGH AIR INTAKES.
- B. PRIOR TO PROCEEDING, PREPARE ROOF SURFACE SO THAT IT IS CLEAN, DRY, AND SMOOTH, AND FREE OF SHARP EDGES, FINS, ROUGHENED SURFACES, LOOSE OR FOREIGN MATERIALS, OIL, GREASE AND OTHER MATERIALS THAT MAY DAMAGE THE MEMBRANE.
- C. FILL ALL SURFACE VOIDS IN THE IMMEDIATE SUBSTRATE THAT ARE GREATER THAN 1/4 INCH (6 MM) WIDE WITH FILL MATERIAL ACCEPTABLE INSULATION TO MEMBRANE MANUFACTURER.
- D. SEAL, GROUT, OR TAPE DECK JOINTS, WHERE NEEDED, TO PREVENT BITUMEN SEEPAGE INTO BUILDING.

3.04 INSULATION AND COVER BOARD INSTALLATION

- A. INSTALL INSULATION IN CONFIGURATION AND WITH ATTACHMENT METHOD(S) SPECIFIED IN PART 2, UNDER ROOFING SYSTEM.
- B. INSTALL ONLY AS MUCH INSULATION AS CAN BE COVERED WITH THE COMPLETED ROOFING SYSTEM BEFORE THE END OF THE DAY'S WORK OR BEFORE THE ONSET OF INCLEMENT WEATHER.
- C. LAY ROOF INSULATION IN COURSES PARALLEL TO ROOF EDGES.
- D. NEATLY AND TIGHTLY FIT INSULATION TO ALL PENETRATIONS, PROJECTIONS, AND NAILERS, WITH GAPS NOT GREATER THAN 1/4 INCH (6 MM). FILL GAPS GREATER THAN 1/4 INCH (6 MM) WITH ACCEPTABLE INSULATION. DO NOT LEAVE THE ROOFING MEMBRANE UNSUPPORTED OVER A SPACE GREATER THAN 1/4 INCH (6 MM).
- E. LOOSE LAID INSTALLATION: INSTALL INSULATION BY LAYING LOOSE OVER SUBSTRATE WITHOUT MECHANICAL SECUREMENT OF ANY KIND.
- F. MECHANICAL FASTENING: USING SPECIFIED FASTENERS AND INSULATION PLATES ENGAGE FASTENERS THROUGH INSULATION INTO DECK TO DEPTH AND IN PATTERN REQUIRED BY FACTORY MUTUAL FOR FM CLASS SPECIFIED IN PART 2 AND MEMBRANE MANUFACTURER, WHICHEVER IS MORE STRINGENT.

3.05 ELASTOMERIC MEMBRANE INSTALLATION

- A. BEGINNING AT LOW POINT OF ROOF, PLACE MEMBRANE WITHOUT STRETCHING OVER SUBSTRATE AND ALLOW TO RELAX AT LEAST 30 MINUTES BEFORE ATTACHMENT OR SPLICING; IN COLDER WEATHER ALLOW FOR LONGER RELAX TIME.
- B. LAY OUT THE MEMBRANE PIECES SO THAT FIELD AND FLASHING SPLICES ARE INSTALLED TO SHED WATER.
- C. INSTALL MEMBRANE WITHOUT WRINKLES AND WITHOUT GAPS OR FISHMOUTHS IN SEAMS; BOND AND TEST SEAMS AND LAPS IN ACCORDANCE WITH MEMBRANE MANUFACTURER'S INSTRUCTIONS AND DETAILS.
- D. EDGE SECUREMENT: SECURE MEMBRANE AT ALL LOCATIONS WHERE MEMBRANE TERMINATES OR GOES THROUGH AN ANGLE CHANGE GREATER THAN 2 IN 12 INCHES (1:6) USING MECHANICALLY FASTENED REINFORCED PERIMETER FASTENING STRIPS, PLATES, OR METAL EDGING AS INDICATED OR AS RECOMMENDED BY ROOFING MANUFACTURER.
  - 1. EXCEPTIONS: ROUND PIPE PENETRATIONS LESS THAN 18 INCHES (460 MM) IN DIAMETER AND SQUARE PENETRATIONS LESS THAN 4 INCHES (200 MM) SQUARE.
  - 2. METAL EDGING IS NOT MERELY DECORATIVE; ENSURE ANCHORAGE OF MEMBRANE AS INTENDED BY ROOFING MANUFACTURER.

3.06 FLASHING AND ACCESSORIES INSTALLATION

- A. INSTALL FLASHINGS, INCLUDING LAPS, SPLICES, JOINTS, BONDING, ADHESION, AND ATTACHMENT, AS REQUIRED BY MEMBRANE MANUFACTURER'S RECOMMENDATIONS AND DETAILS.
- B. METAL ACCESSORIES: INSTALL METAL EDGINGS, GRAVEL STOPS, AND COPINGS IN LOCATIONS INDICATED ON THE DRAWINGS, WITH HORIZONTAL LEG OF EDGE MEMBER OVER MEMBRANE AND FLASHING OVER METAL ONTO MEMBRANE.
  - 1. FOLLOW ROOFING MANUFACTURER'S INSTRUCTIONS.
  - 2. REMOVE PROTECTIVE PLASTIC SURFACE FILM IMMEDIATELY BEFORE INSTALLATION.
  - 3. INSTALL WATER BLOCK SEALANT UNDER THE MEMBRANE ANCHORAGE LEG.
  - 4. FLASH WITH MANUFACTURER'S RECOMMENDED FLASHING SHEET UNLESS OTHERWISE INDICATED.
  - 5. WHERE SINGLE APPLICATION OF FLASHING WILL NOT COMPLETELY COVER THE METAL FLANGE, INSTALL ADDITIONAL PIECE OF FLASHING TO COVER THE METAL EDGE.
  - 6. IF THE ROOF EDGE INCLUDES A GRAVEL STOP AND SEALANT IS NOT APPLIED BETWEEN THE LAPS IN THE METAL EDGING, INSTALL AN ADDITIONAL PIECE OF SELF-ADHESIVE FLASHING MEMBRANE OVER THE METAL LAP TO THE TOP OF THE GRAVEL STOP; APPLY SEAM EDGE TREATMENT AT THE INTERSECTIONS OF THE TWO FLASHING SECTIONS.
  - 7. WHEN THE ROOF SLOPE IS GREATER THAN 1:12, APPLY SEAM EDGE TREATMENT ALONG THE BACK EDGE OF THE FLASHING.
- C. SCUPPERS: SET IN SEALANT AND SECURE TO STRUCTURE; FLASH AS RECOMMENDED BY MANUFACTURER.
- D. ROOFING EXPANSION JOINTS: INSTALL AS SHOWN ON DRAWINGS AND AS RECOMMENDED BY ROOFING MANUFACTURER.
- E. FLASHING AT WALLS, CURBS, AND OTHER VERTICAL AND SLOPED SURFACES: INSTALL WEATHERTIGHT FLASHING AT ALL WALLS, CURBS, PARAPETS, CURBS, SKYLIGHTS, AND OTHER VERTICAL AND SLOPED SURFACES THAT THE ROOFING MEMBRANE ABUTS TO; EXTEND FLASHING AT LEAST 8 INCHES (200 MM) HIGH ABOVE MEMBRANE SURFACE.
  - 1. USE THE LONGEST PRACTICAL FLASHING PIECES.
  - 2. EVALUATE THE SUBSTRATE AND OVERLAY AND ADJUST INSTALLATION PROCEDURE IN ACCORDANCE WITH MEMBRANE MANUFACTURER'S RECOMMENDATIONS.
  - 3. COMPLETE THE SPLICE BETWEEN FLASHING AND THE MAIN ROOF SHEET WITH SPECIFIED SPLICE ADHESIVE BEFORE ADHERING FLASHING TO THE VERTICAL SURFACE.
  - 4. PROVIDE TERMINATION DIRECTLY TO THE VERTICAL SUBSTRATE AS SHOWN ON ROOF DRAWINGS.
- F. ROOF DRAINS:
  - 1. TAPER INSULATION AROUND DRAIN TO PROVIDE SMOOTH TRANSITION FROM ROOF SURFACE TO DRAIN. USE SPECIFIED PRE-MANUFACTURED TAPERED INSULATION WITH FACER OR SUITABLE BONDING SURFACE TO ACHIEVE SLOPE; SLOPE NOT TO EXCEED MANUFACTURER'S RECOMMENDATIONS.
  - 2. POSITION MEMBRANE, THEN CUT A HOLE FOR ROOF DRAIN TO ALLOW 1/2 TO 3/4 INCH (12 TO 19 MM) OF MEMBRANE TO EXTEND INSIDE CLAMPING RING PAST DRAIN BOLTS.
  - 3. MAKE ROUND HOLES IN MEMBRANE TO ALIGN WITH CLAMPING BOLTS; DO NOT CUT MEMBRANE BACK TO BOLT HOLES.
  - 4. APPLY SEALANT ON TOP OF DRAIN BOWL WHERE CLAMPING RING SEATS BELOW THE MEMBRANE
  - 5. INSTALL ROOF DRAIN CLAMPING RING AND CLAMPING BOLTS; TIGHTEN CLAMPING BOLTS TO ACHIEVE CONSTANT COMPRESSION.
- G. FLASHING AT PENETRATIONS: FLASH ALL PENETRATIONS PASSING THROUGH THE MEMBRANE; MAKE FLASHING SEALS DIRECTLY TO THE PENETRATION.
  - 1. PIPES, ROUND SUPPORTS, AND SIMILAR ITEMS: FLASH WITH SPECIFIED PRE-MOLDED PIPE FLASHINGS WHEREVER PRACTICAL; OTHERWISE USE SPECIFIED SELF-CURING ELASTOMERIC FLASHING.
  - 2. PIPE CLUSTERS AND UNUSUAL SHAPED PENETRATIONS: PROVIDE PENETRATION POCKET AT LEAST 2 INCHES (50 MM) DEEP, WITH AT LEAST 1 INCH (25 MM) CLEARANCE FROM PENETRATION, SLOPED TO SHED WATER.
  - 3. STRUCTURAL STEEL TUBING: IF CORNER RADII ARE GREATER THAN 1/4 INCH (6 MM) AND LONGEST SIDE OF TUBE DOES NOT EXCEED 12 INCHES (305 MM), FLASH AS FOR PIPES; OTHERWISE, PROVIDE A STANDARD CURB WITH FLASHING.
  - 4. FLEXIBLE AND MOVING PENETRATIONS: PROVIDE WEATHERTIGHT GOOSENECK SET IN SEALANT AND SECURED TO DECK, FLASHED AS RECOMMENDED BY MANUFACTURER.
  - 5. HIGH TEMPERATURE SURFACES: WHERE THE IN-SERVICE TEMPERATURE IS, OR IS EXPECTED TO BE, IN EXCESS OF 180 DEGREES F (82 DEGREES C), PROTECT THE ELASTOMERIC COMPONENTS FROM DIRECT CONTACT WITH THE HOT SURFACES USING AN INTERMEDIATE INSULATED SLEEVE AS FLASHING SUBSTRATE AS RECOMMENDED BY MEMBRANE MANUFACTURER.

3.07 FINISHING AND WALKWAY INSTALLATION

- A. INSTALL WALKWAYS AT ACCESS POINTS TO THE ROOF, AROUND ROOFTOP EQUIPMENT THAT MAY REQUIRE MAINTENANCE, AND WHERE INDICATED ON THE DRAWINGS.
- B. WALKWAY PADS: ADHERE TO THE ROOFING MEMBRANE, SPACING EACH PAD AT MINIMUM OF 1.0 INCH (25 MM) AND MAXIMUM OF 3.0 INCHES (75 MM) FROM EACH OTHER TO ALLOW FOR DRAINAGE.
- C. DO NOT START WORK UNTIL PRE-INSTALLATION NOTICE HAS BEEN SUBMITTED TO MANUFACTURER AS NOTIFICATION THAT THIS PROJECT REQUIRES A MANUFACTURER'S WARRANTY.
- D. PERFORM WORK USING COMPETENT AND PROPERLY EQUIPPED PERSONNEL.
- E. TEMPORARY CLOSURES, WHICH ENSURE THAT MOISTURE DOES NOT DAMAGE ANY COMPLETED SECTION OF THE NEW ROOFING SYSTEM, ARE THE RESPONSIBILITY OF THE APPLICATOR. COMPLETION OF FLASHINGS, TERMINATIONS, AND TEMPORARY CLOSURES SHALL BE COMPLETED AS REQUIRED TO PROVIDE A WATERTIGHT CONDITION.
- F. INSTALL ROOFING MEMBRANE ONLY WHEN SURFACES ARE CLEAN, DRY, SMOOTH AND FREE OF SNOW OR ICE; DO NOT APPLY ROOFING MEMBRANE DURING INCLEMENT WEATHER OR WHEN AMBIENT CONDITIONS WILL NOT ALLOW PROPER APPLICATION; CONSULT MANUFACTURER FOR RECOMMENDED PROCEDURES DURING COLD WEATHER. DO NOT WORK WITH SEALANTS AND ADHESIVES WHEN MATERIAL TEMPERATURE IS OUTSIDE THE RANGE OF 60 TO 80 DEGREES F (15 TO 25 DEGREES C).
- G. PROTECT ADJACENT CONSTRUCTION, PROPERTY, VEHICLES, AND PERSONS FROM DAMAGE RELATED TO ROOFING WORK; REPAIR OR RESTORE DAMAGE CAUSED BY ROOFING WORK.
  - 1. PROTECT FROM SPILLS AND OVERSPRAY FROM BITUMEN, ADHESIVES, SEALANTS AND COATINGS.
  - 2. PARTICULARLY PROTECT METAL, GLASS, PLASTIC, AND PAINTED SURFACES FROM BITUMEN, ADHESIVES, AND SEALANTS WITHIN THE RANGE OF WIND-BORNE OVERSPRAY.
  - 3. PROTECT FINISHED AREAS OF THE ROOFING SYSTEM FROM ROOFING RELATED WORK TRAFFIC AND TRAFFIC BY OTHER TRADES.
- H. UNTIL READY FOR USE, KEEP MATERIALS IN THEIR ORIGINAL CONTAINERS AS LABELED BY THE MANUFACTURER.
- I. CONSULT MEMBRANE MANUFACTURER'S INSTRUCTIONS, CONTAINER LABELS, AND MATERIAL SAFETY DATA SHEETS (MSDS) FOR SPECIFIC SAFETY INSTRUCTIONS. KEEP ALL ADHESIVES, SEALANTS, PRIMERS AND CLEANING MATERIALS AWAY FROM ALL SOURCES OF IGNITION.
  - 1. IF INSTALLATION OF WALKWAY PADS OVER FIELD FABRICATED SPLICES OR WITHIN 6 INCHES (150 MM) OF A SPLICE EDGE CANNOT BE AVOIDED, ADHERE ANOTHER LAYER OF FLASHING OVER THE SPLICE AND EXTENDING BEYOND THE WALKWAY PAD A MINIMUM OF 6 INCHES (150 MM) ON EITHER SIDE.
  - 2. PRIME THE MEMBRANE, REMOVE THE RELEASE PAPER ON THE PAD, PRESS IN PLACE, AND WALK ON PAD TO ENSURE PROPER ADHESION.

3.08 FIELD QUALITY CONTROL

- A. INSPECTION BY MANUFACTURER: PROVIDE FINAL INSPECTION OF THE ROOFING SYSTEM BY A TECHNICAL REPRESENTATIVE EMPLOYED BY ROOFING SYSTEM MANUFACTURER SPECIFICALLY TO INSPECT INSTALLATION FOR WARRANTY PURPOSES (I.E. NOT A SALES PERSON).
- B. PERFORM ALL CORRECTIONS NECESSARY FOR ISSUANCE OF WARRANTY.

3.09 CLEANING

- A. CLEAN ALL CONTAMINANTS GENERATED BY ROOFING WORK FROM BUILDING AND SURROUNDING AREAS, INCLUDING BITUMEN, ADHESIVES, SEALANTS, AND COATINGS.
- B. REPAIR OR REPLACE BUILDING COMPONENTS AND FINISHED SURFACES DAMAGED OR DEFACED DUE TO THE WORK OF THIS SECTION; COMPLY WITH RECOMMENDATIONS OF MANUFACTURERS OF COMPONENTS AND SURFACES.
- C. REMOVE LEFTOVER MATERIALS, TRASH, DEBRIS, EQUIPMENT FROM PROJECT SITE AND SURROUNDING AREAS.

3.10 PROTECTION

- A. WHERE CONSTRUCTION TRAFFIC MUST CONTINUE OVER FINISHED ROOF MEMBRANE, PROVIDE DURABLE PROTECTION AND REPLACE OR REPAIR DAMAGED ROOFING TO ORIGINAL CONDITION.

END OF SECTION

NOTE: TRACTOR SUPPLY COMPANY REQUIRES THE ROOFING MEMBRANE TO BE WHITE

ROOF SPECIFICATIONS

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Job Number: 2360
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Revisions:
ROOF SPECIFICATIONS
Sheet Number: A7.1

MAXIMUM FLOOR AREA ALLOWANCES PER OCCUPANT

2015 IBC - TABLE 1004.1.2

FUNCTION OF SPACE	FLOOR AREA IN SQ. FT. PER OCCUPANT
BUSINESS AREAS	100 GROSS
MERCANTILE STORAGE, STOCK, SHIPPING AREAS	60 GROSS 300 GROSS

EGRESS WIDTH PER OCCUPANT LOAD

2015 IBC - SECTION 1005.3.2

	WITHOUT SPRINKLER SYSTEM		WITH SPRINKLER SYSTEM	
OCCUPANCY	STAIRWAYS (INCHES PER OCCUPANT)	OTHER EGRESS COMPONENTS (INCHES PER OCCUPANT)	STAIRWAYS (INCHES PER OCCUPANT)	OTHER EGRESS COMPONENTS (INCHES PER OCCUPANT)
OCCUPANCIES OTHER THAN THOSE LISTED BELOW	0.3	0.2	0.2	0.15
HAZARDOUS: H-1, H-2, H-3 AND H-4	0.7	0.4	0.3	0.2
INSTITUTIONAL: I-2	N/A	N/A	0.3	0.2

EGRESS ACCESS TRAVEL DISTANCE

2015 IBC - TABLE 1017.2

OCCUPANCY	WITHOUT SPRINKLER SYSTEM (FEET)	WITH SPRINKLER SYSTEM (FEET)
M	200	250
B	200	300

PROJECT DATA

THIS PROJECT IS BASED ON THE REQUIREMENTS OF THE FOLLOWING CODES:

2018 NORTH CAROLINA BUILDING CODE
2018 NORTH CAROLINA PLUMBING CODE
2018 NORTH CAROLINA MECHANICAL CODE
2020 NATIONAL ELECTRIC CODE
2018 NORTH CAROLINA FIRE CODE
2018 NORTH CAROLINA ENERGY CODE
2018 NORTH CAROLINA GAS CODE

OCCUPANCY CLASSIFICATION: M / S-1 - NON-SEPARATED MIXED USE

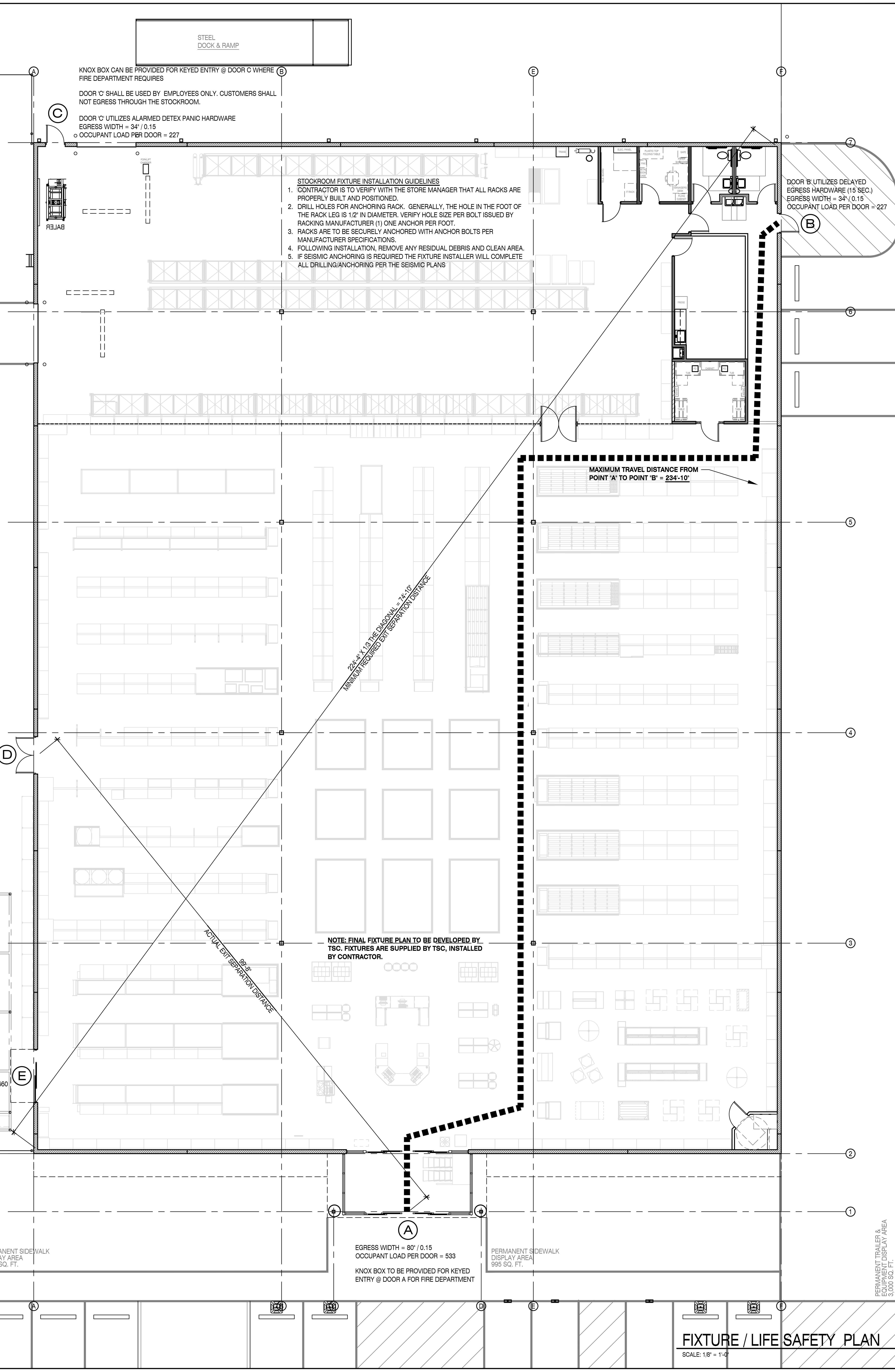
CONSTRUCTION TYPE: IIB

FIRE SUPRESSION: SPRINKLERED

BUILDING AREA LIMITS			OCCUPANCY LOAD
VESTIBULE	=	228 SQ. FT. / 60	= 3.80 OR 4
RETAIL SALES	=	15,416 SQ. FT. / 60	= 256.9 OR 257
OFFICE CORE & WALLS	=	1,341 SQ. FT. / 150	= 8.94 OR 9
STOCKROOM	=	4,945 SQ. FT. / 300	= 16.48 OR 17
TOTAL BUILDING AREA	=	21,930 SQ. FT.	
TOTAL OCCUPANT LOAD	=		= 287

LIFE SAFETY DATA

ITEM	REQUIRED	PROVIDED
EXIT / EGRESS	287 X 0.15 = 44"	216"
MAX. TRAVEL DISTANCE	250'-0"	223'-6"
NUMBER OF SALES EXITS	3	3
NUMBER OF TENANT EXITS	4	4
MIN. EXIT SEPARATION	74'-10"	99'-8"



FIXTURE / LIFE SAFETY PLAN

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

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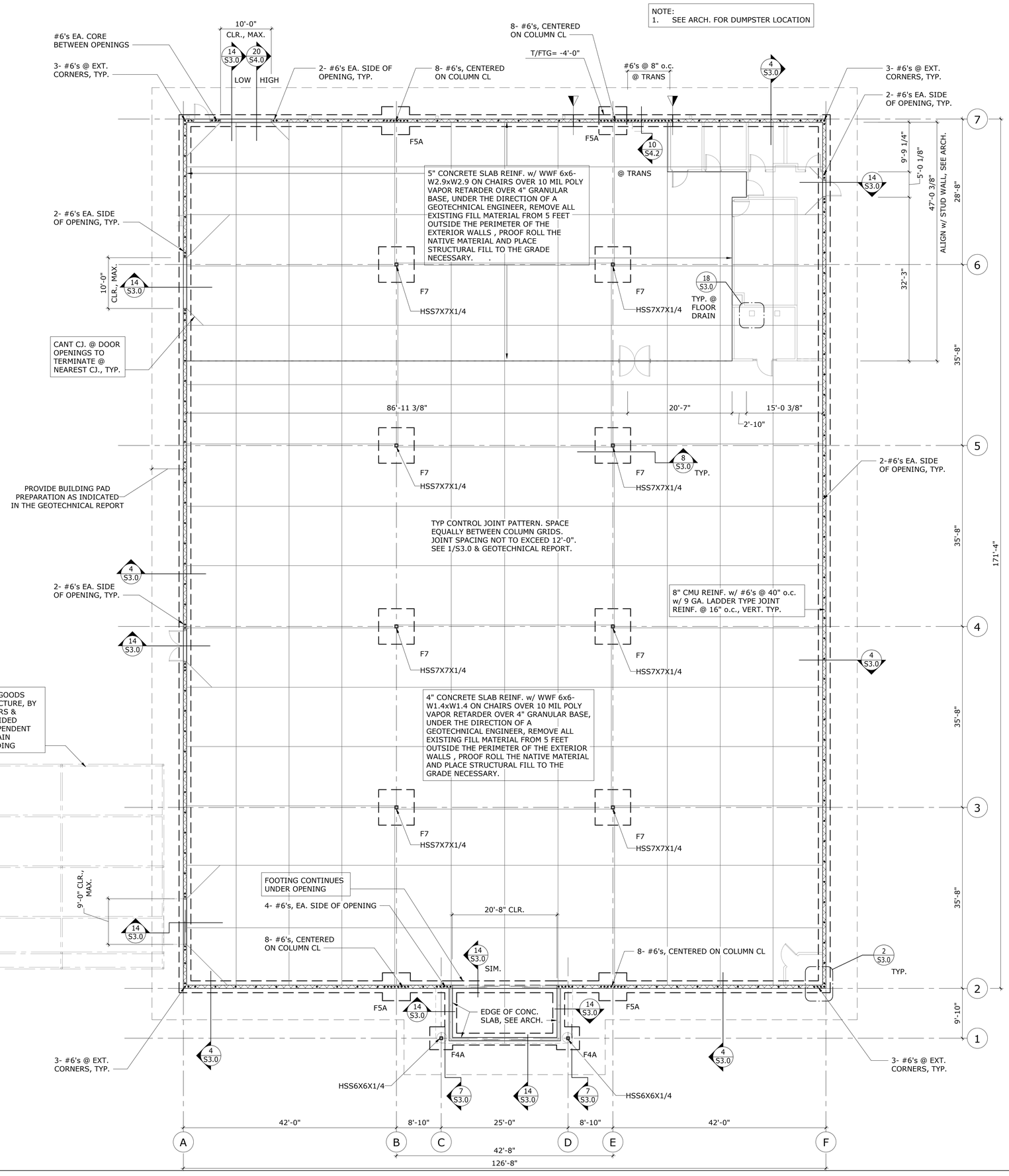
LIFE SAFETY / FIXTURE PLAN

Sheet Number: A8.0

NOTE:
1. SEE ARCH. FOR DUMPSTER LOCATION



STRUCTURAL SHEET INDEX - CO PROTOTYPE

SHEET NO.	SHEET NAME
S1.0	FOUNDATION PLAN
S2.0	ROOF FRAMING PLAN
S2.1	ROOF FRAMING PLAN, CONT.
S3.0	DETAILS
S4.0	DETAILS
S4.1	DETAILS
S4.2	DETAILS
S4.3	DETAILS
S5.0	STRUCTURAL GENERAL NOTES
S5.1	STRUCTURAL GENERAL NOTES, CONT.
S5.2	QUALITY ASSURANCE / PROPOSED STATEMENT OF SPECIAL INSPECTIONS
S5.3	QUALITY ASSURANCE / PROPOSED STATEMENT OF SPECIAL INSPECTIONS, CONT.
S5.4	CONCRETE SPECIFICATIONS

FOOTING SCHEDULE

MARK	SIZE			REBAR	REMARKS
	LENGTH	WIDTH	THICK.		
F4A	4'-6"	4'-6"	1'-4"	5- #5's, EA. WAY, TOP & BTM.	
F5A	5'-6"	5'-6"	1'-4"	6- #6's, EA. WAY, TOP & BTM.	
F7	7'-0"	7'-0"	1'-4"	7- #6's, EA. WAY, TOP & BTM.	

NOTE:
1. REMOVE ALL EXISTING IN PLACE FILL, PROOF ROLL THE NATIVE SOILS AND FILL TO GRADE WITH APPROVED STRUCTURAL FILL, TEST, AND REMEDIATE ALL SUBGRADE AS RECOMMENDED BY THE GEOTECHNICAL ENGINEER.
2. VERIFY SOIL BELOW FOOTINGS WITH GEOTECHNICAL ENGINEER PRIOR TO PLACEMENT.

1 FOUNDATION PLAN

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

NOTES:

1. TOP OF FOOTING:
   - A. EXTERIOR ISOLATED FOOTINGS = -16" MINIMUM BELOW FINISH FLOOR OR GRADE, WHICHEVER IS LOWER.
   - B. CONTINUOUS WALL FOOTING = -16" MINIMUM BELOW FINISH FLOOR OR FINISH GRADE, WHICHEVER IS LOWER.
   - C. INTERIOR ISOLATED FOOTINGS = -16" BELOW FINISH FLOOR.
   - D. NOTE: G.C. SHALL VERIFY REQUIRED FROST DEPTH AND EXISTING BEARING MEDIA WITH AHJ PRIOR TO COMMENCING WORK. SEE GEOTECHNICAL REPORT.
2. THE CONTRACTOR SHALL COORDINATE ANY UNDER SLAB PIPING, CONDUITS, AND/ OR UTILITIES PRIOR TO PLACING FOOTINGS. IMMEDIATELY REPORT ANY CONFLICTS TO THE ENGINEER.
3. SEE DETAIL 1 / S3.0 FOR SLAB CONTROL JOINTS.
4. DOWELS SHOWN ON PLAN INDICATE GROUT FILLED REINFORCED CORES. SEE DETAIL 13 / S3.0 & 11 / S3.0.
5. SEE 12 / S3.0 & 16 / S3.0 FOR ADDITIONAL REINFORCING AT WALL JOINTS. SEE ARCHITECTURAL DRAWINGS FOR CONTROL JOINT LOCATIONS.
6. ▶——— INDICATES FOOTING STEP. G.C. SHALL COORDINATE REQUIRED STEPS WITH GRADING AND SUBGRADE SYSTEM REQUIREMENTS SEE 3 / S3.0 .
7. SEE DETAILS 7 / S4.2 , 8 / S4.2 , AND 9 / S4.2 FOR FOOTING CONDITIONS ADJACENT TO PLUMBING, ELECTRICAL, AND FIRE PROTECTION SYSTEMS.

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3.22.24

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FOUNDATION PLAN

Sheet Number: S1.0

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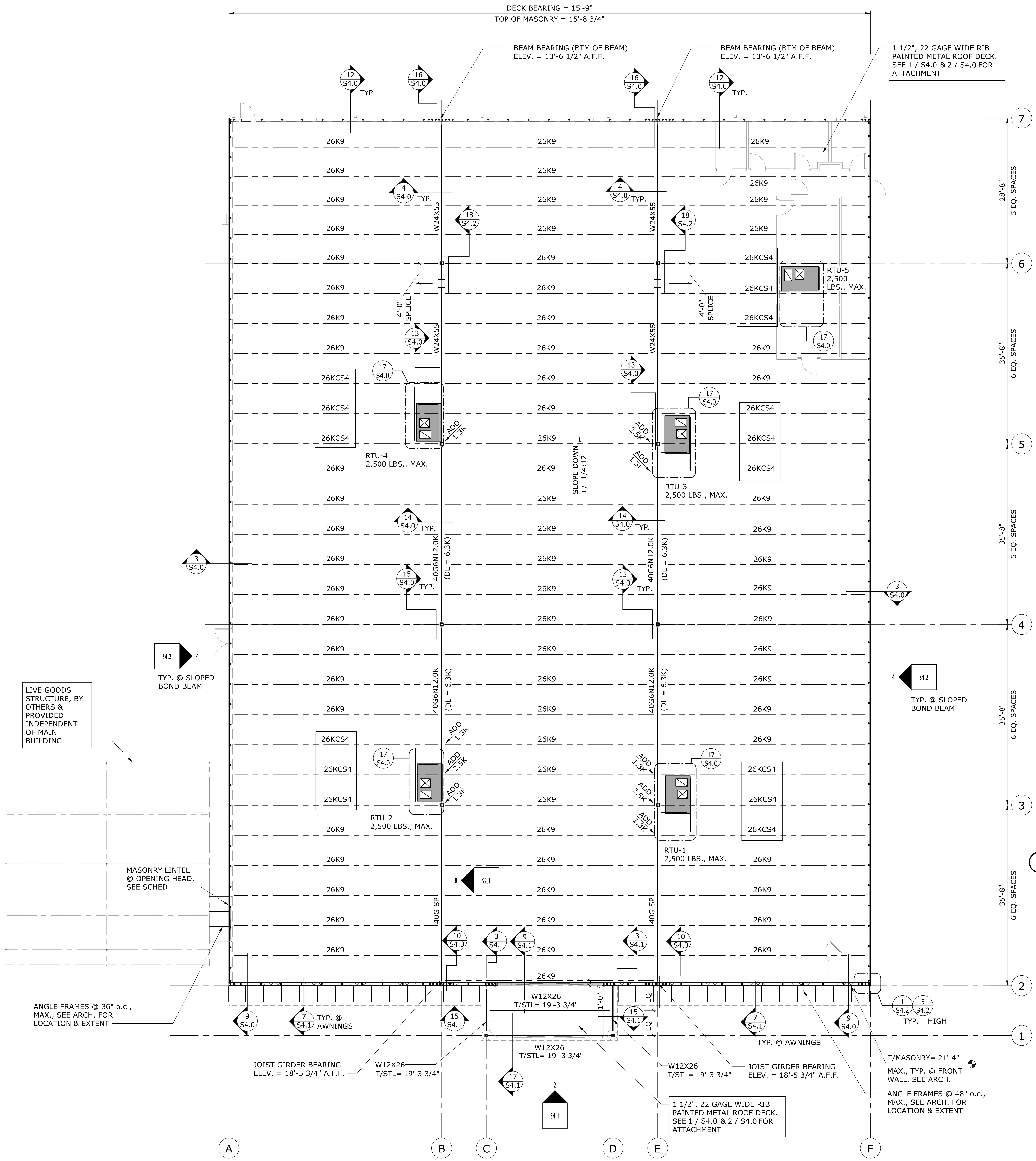

1 ROOF FRAMING PLAN

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

NOTES:

1. JOIST BEARING ELEVATION VARIES.
2. ALL ROOF JOISTS TO HAVE 2 1/2" DEEP SEATS (U.N.O.)
3. HORIZONTAL BRIDGING REQUIRED FOR ALL BAR JOISTS PER SJI CODE OF STANDARD PRACTICE.
4. SEE ARCHITECTURAL DRAWINGS FOR LOCATIONS OF BEARING WALLS AND DIMENSIONS NOT SHOWN.
5. BAR JOISTS SUPPORTING ROOF TOP UNITS HAVE BEEN DESIGNED TO CARRY THE ADDITIONAL LOAD INDICATED ON THE PLAN. PRIOR TO ORDERING JOISTS, VERIFY THE RTU EQUIPMENT COMPLIES WITH THE DESIGN ASSUMPTIONS SHOWN ON THE DRAWINGS.
6. SEE DETAIL 17 / S4.0 FOR RTU SUPPORT FRAMING.
7. SEE DETAIL 18 / S4.0 FOR ROOF OPENING FRAMING.
8. REFER TO SHEET S5 FOR WIND UPLIFT PRESSURES FOR JOIST AND JOIST GIRDER DESIGNS.
9. STRUCTURAL DESIGN IS BASED ON THE MAIN BUILDING INCLUDING A FRONT PARAPET ONLY. NO REAR OR SIDE PARAPETS ARE TO BE PROVIDED. IF PROVISIONS CHANGE, NOTIFY ARCHITECT IN WRITING PRIOR TO COMMENCING WORK.
10. SEE DETAIL 19 / S4.0 FOR ADDITONAL REINFORCING @ NON-PANEL POINTS JOIST LOADING.
11. LOADS ON JOIST GIRDERS ARE PROVIDED AS ASD VALUES.
12. SEE 13 / S2.1 FOR STANDARD LINTEL SCHEDULE.

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ROOF FRAMING PLAN

Sheet Number: S2.0

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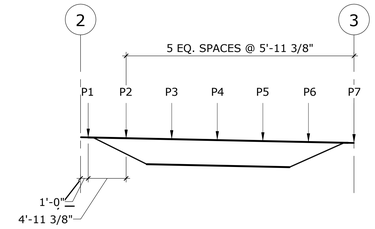
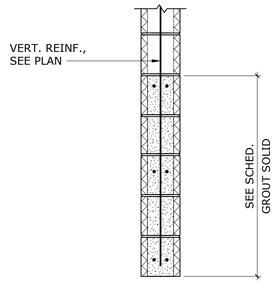


DESIGNATION	TOTAL LOAD (KIPS)
P1	5.6 k
P2	12.4 k
P3	12.0 k
P4	12.0 k
P5	12.0 k
P6	12.0 k
P7	12.0 k

NOTE:
1. ABOVE LOADS DO NOT CONTAIN ADDITIONAL LOADS FROM RTU'S. RTU LOADING IS ADDITIONAL, SEE ROOF FRAMING PLAN
2. SEE JOIST GIRDER FOR LOADING & PANEL POINT REQUIREMENTS.

8 40G SP LOAD DIAGRAM
SCALE: 1/8" = 1'-0"



BOND BEAM LINTEL

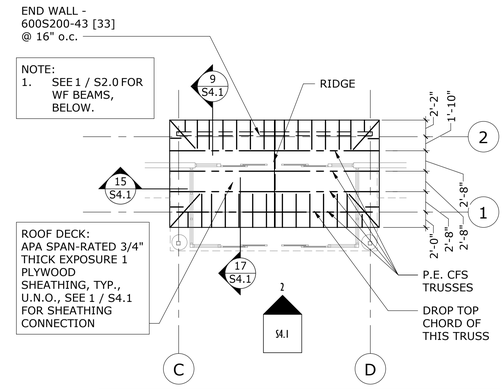
OPENINGS UP TO 6'-0"		
WALL SIZE	LINTEL TYPE	REMARKS
8" BLOCK	8" x 8" BOND BM. w/ 1- #5, TOP & BTM.	

OPENINGS 6'-1" TO 8'-0"		
WALL SIZE	LINTEL TYPE	REMARKS
8" BLOCK	8" x 16" BOND BM. w/ 1- #6, TOP & BTM.	

OPENINGS 8'-1" TO 10'-0"		
WALL SIZE	LINTEL TYPE	REMARKS
8" BLOCK	8" x 24" BOND BM. w/ 2- #5's TOP, MIDDLE, & BTM.	MIN. BRG - 16", EA. SIDE FEED ROOM OPENING IS LIMITED TO 10'-0"

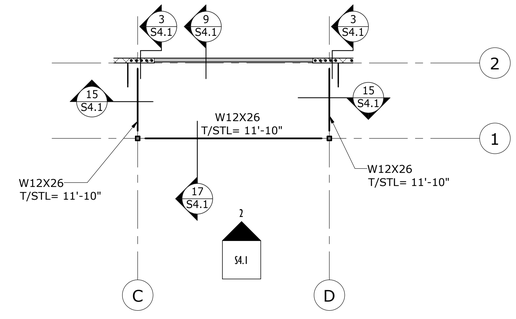
OPENINGS 10'-1" TO 12'-0"		
WALL SIZE	LINTEL TYPE	REMARKS
8" BLOCK	8" x 40" BOND BM. w/ 2- #6's, TOP, MIDDLE & BTM.	MIN. BRG - 16", EA. SIDE EXTERIOR OPENINGS ONLY

13 LINTEL SCHEDULE
SCALE: 1" = 1'-0"



NOTES:
1. TOP OF STEEL ELEV. = SEE 1 / S2.0 .
2. SEE ARCHITECTURAL DRAWINGS FOR LOCATION OF BEARING WALLS AND DIMENSIONS NOT SHOWN.
3. ROOF TRUSSES SHALL BEAR AT SIDE BEAMS.
4. **BLOCKING TRUSSES SHALL HAVE A UNIFORM LATERAL CAPACITY OF 0.30 K/FT (ASD).**

6 HIGH ENTRY FRAMING PLAN
SCALE: 1/8" = 1'-0"



NOTES:
1. SEE ARCHITECTURAL DRAWINGS FOR LOCATION OF BEARING WALLS AND DIMENSIONS NOT SHOWN.

5 LOW ENTRY FRAMING PLAN
SCALE: 1/8" = 1'-0"

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ROOF FRAMING PLAN, CONT.

Sheet Number: S2.1

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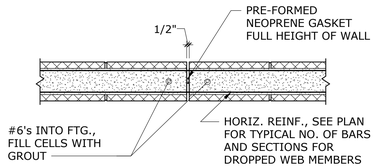
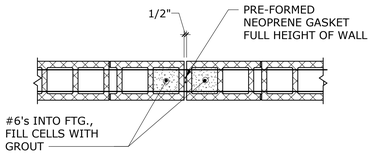


NOTES:
1. SEE ARCH. FOR EXACT LOCATION OF CONTROL JOINTS.
2. DO NOT LOCATE CONTROL JOINTS WITHIN 2'-0" OF OPENINGS OR EXTERIOR CORNERS.
3. HORIZ. REINFORCING STEEL IN BOND BEAMS SHALL BE CONTINUOUS ACROSS JOINTS.
4. VERT. REINFORCEMENT SHALL EXTEND INTO FTG.

CONTROL JOINT DETAIL REINFORCED MASONRY - JOIST BEARING COURSES

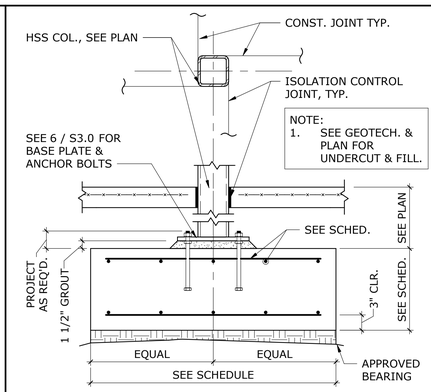
16 SCALE: NONE



NOTES:
1. SEE ARCH. FOR EXACT LOCATION OF CONTROL JOINTS.
2. DO NOT LOCATE CONTROL JOINTS WITHIN 2'-0" OF OPENINGS OR EXTERIOR CORNERS.
3. HORIZONTAL JOINT REINFORCEMENT TO BE DISCONTINUOUS AT JOINT.
4. VERT. REINFORCEMENT SHALL EXTEND INTO FTG.

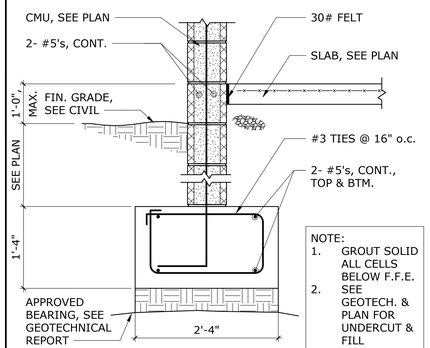
CONTROL JOINT DETAIL REINFORCED MASONRY - TYP. NON JOIST BRG/. COURSES

12 SCALE: NONE



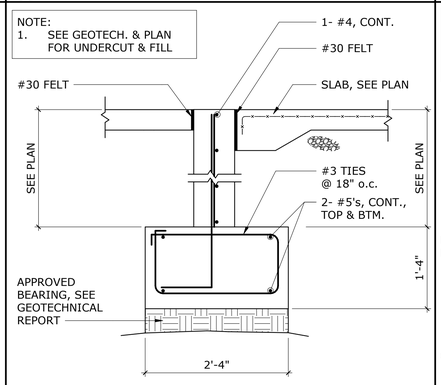
SECTION @ INTERIOR COLUMN

8 SCALE: 1" = 1'-0"



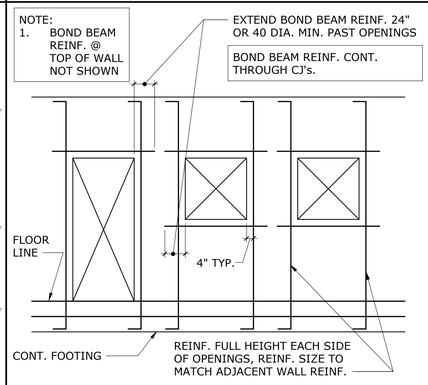
SECTION EXTERIOR WALL

4 SCALE: 1" = 1'-0"



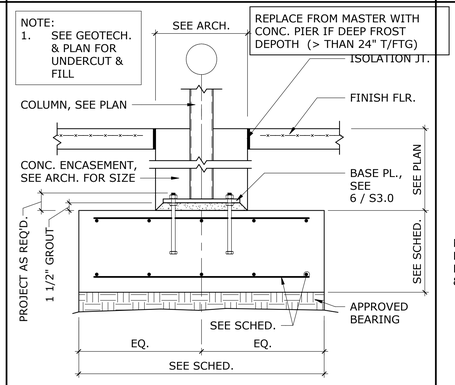
SECTION @ EXT. DOOR - ALT.

14A SCALE: 1" = 1'-0"



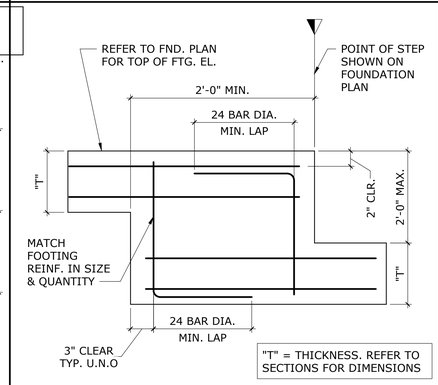
TYP. CMU WALL REINFORCING

11 SCALE: NONE



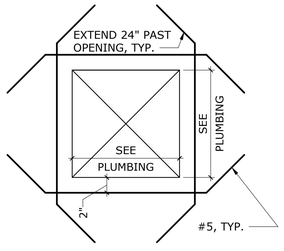
SECTION @ EXTERIOR COLUMN

7 SCALE: 1" = 1'-0"



TYP. STEPPED FOOTING

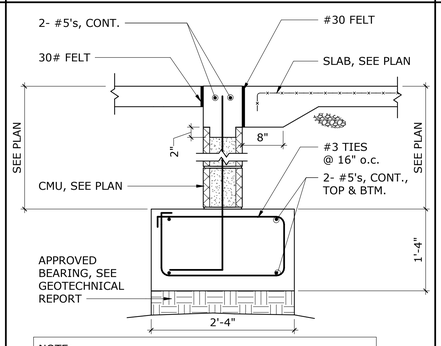
3 SCALE: NONE



TYP. @ FLOOR SLAB OPENINGS GREATER THAN 8" DIA. (U.N.O.)

FLOOR OPENING REINF. @ FLOOR DRAIN

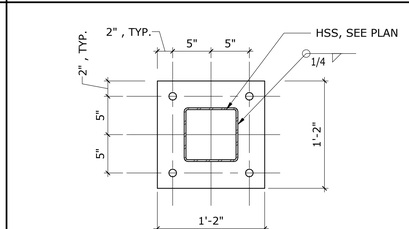
18 SCALE: 1 1/2" = 1'-0"



NOTE:
1. SEE GEOTECH. & PLAN FOR UNDERCUT & FILL.
2. GROUT SOLID ALL CELLS BELOW F.F.E.

SECTION @ EXTERIOR DOOR

14 SCALE: 1" = 1'-0"

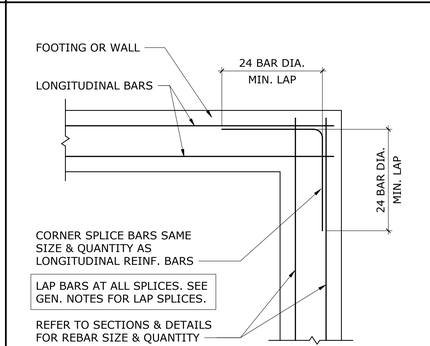


BASE PLATE = 1" x1'-2" x1'-2"
A.B. = 4- 1" DIA. x12" EMBED

NOTE:
1. POST INSTALLED ANCHOR BOLTS ARE NOT PERMITTED.
2. SEE GENERAL NOTES FOR A.B. COMPOSITION.

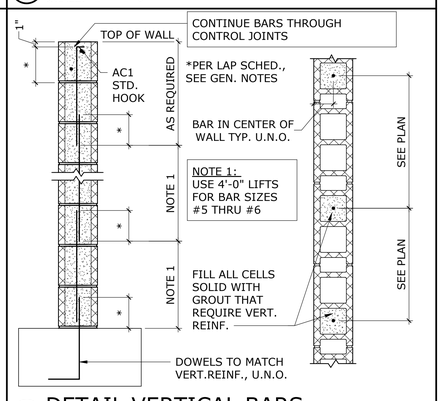
BASE PLATE DETAILS

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



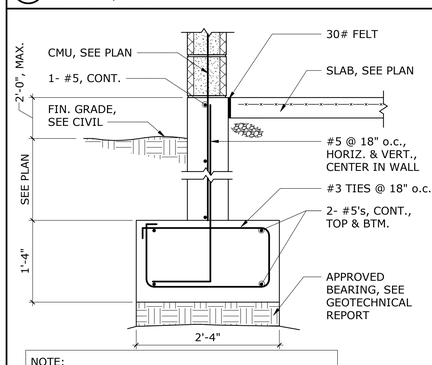
TYP. CONTINUITY CORNER

2 SCALE: NONE



DETAIL VERTICAL BARS

13 SCALE: NONE

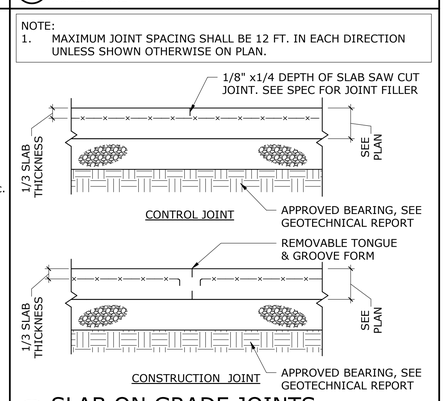


NOTE:
1. SEE GEOTECH. & PLAN FOR UNDERCUT & FILL.

SECTION @ EXT WALL - ALT

4A SCALE: 1" = 1'-0"

NOTE:
1. MAXIMUM JOINT SPACING SHALL BE 12 FT. IN EACH DIRECTION UNLESS SHOWN OTHERWISE ON PLAN.



SLAB ON GRADE JOINTS

1 SCALE: NONE

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NORTH CAROLINA PROFESSIONAL SEAL 23569 ENGINEER FREDERICK A. WEIS, JR.
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Job Number: 2360

Date: 03.22.2024

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Revisions: △

Revisions: △

DETAILS

Sheet Number: S3.0

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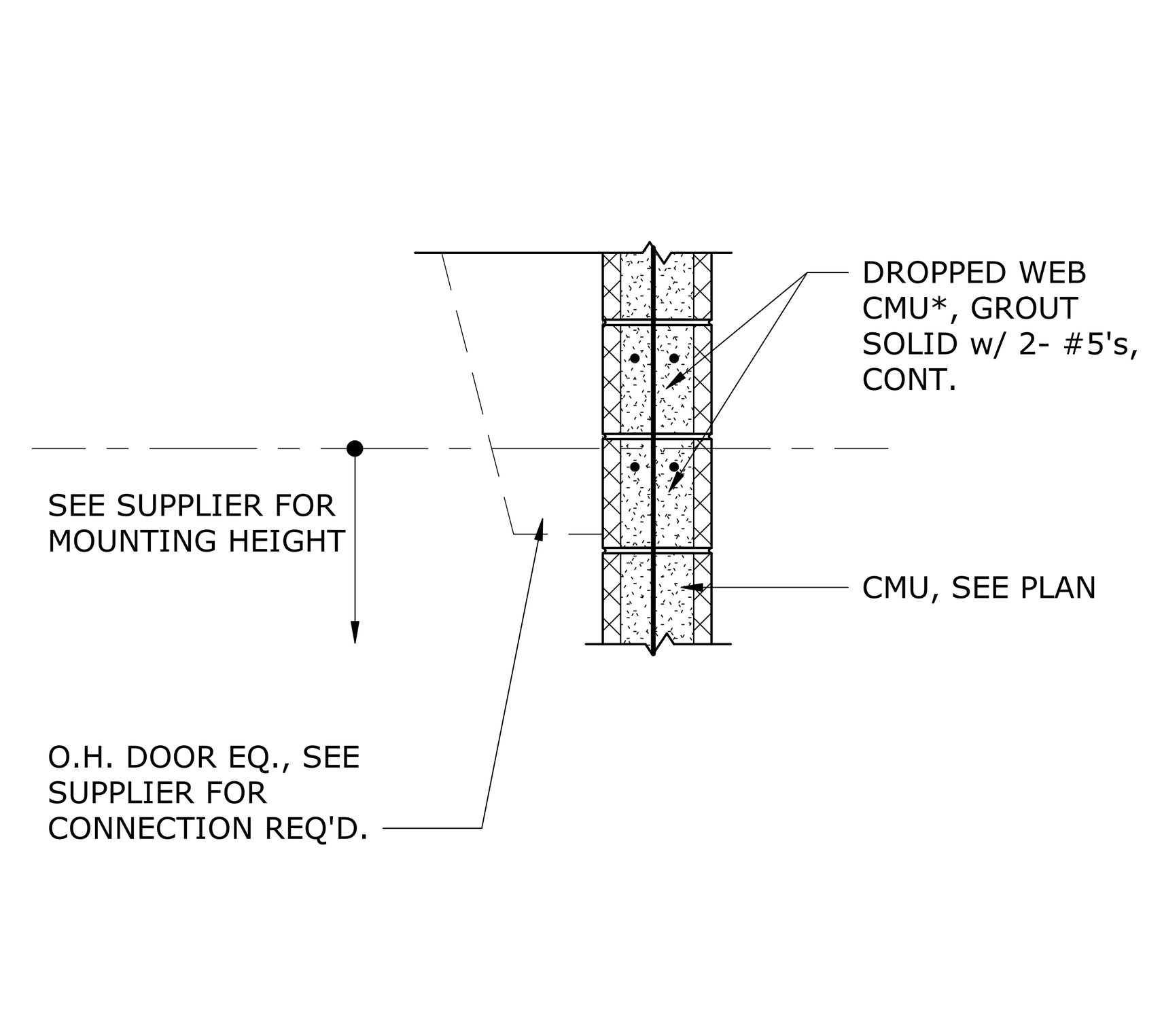
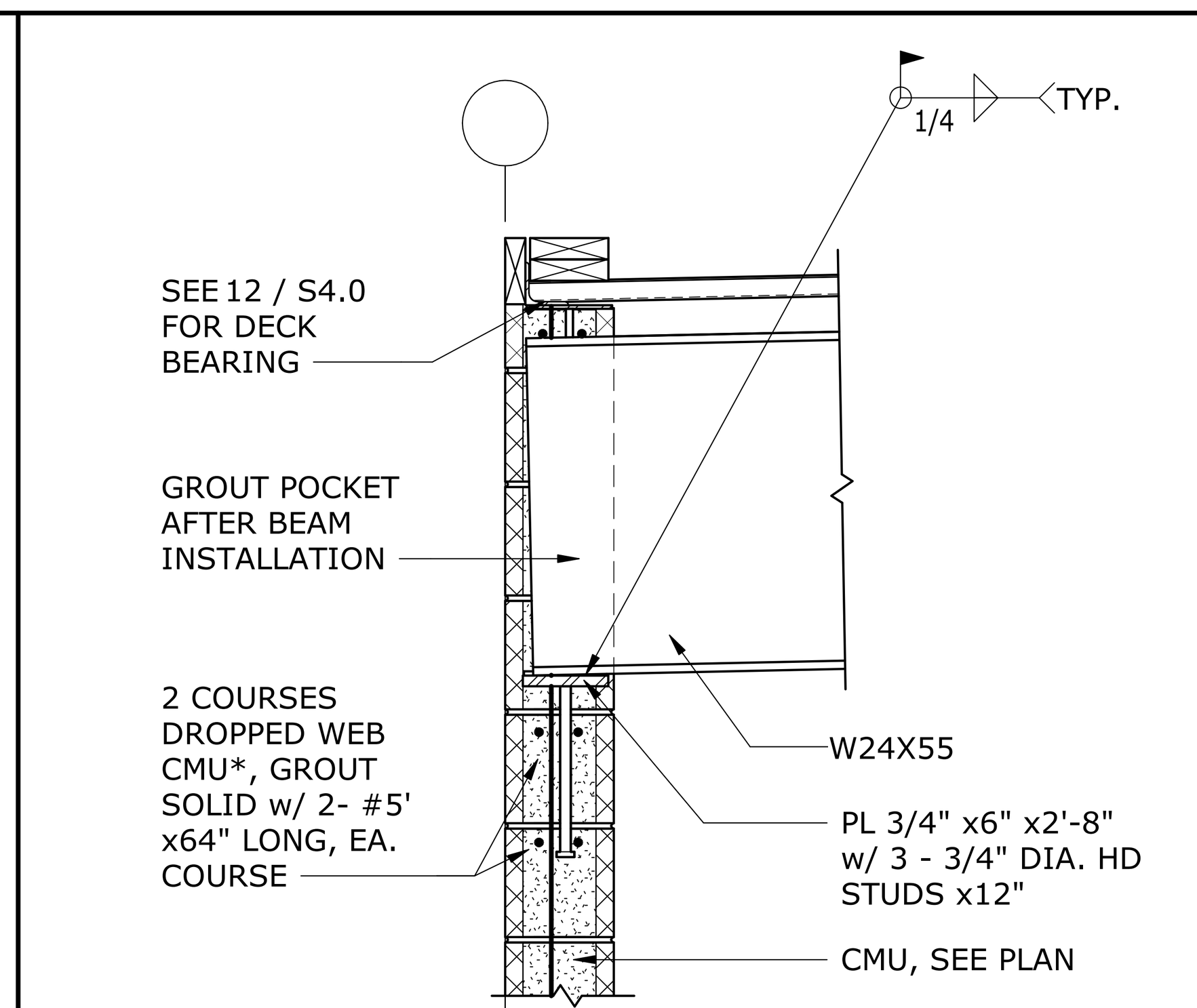
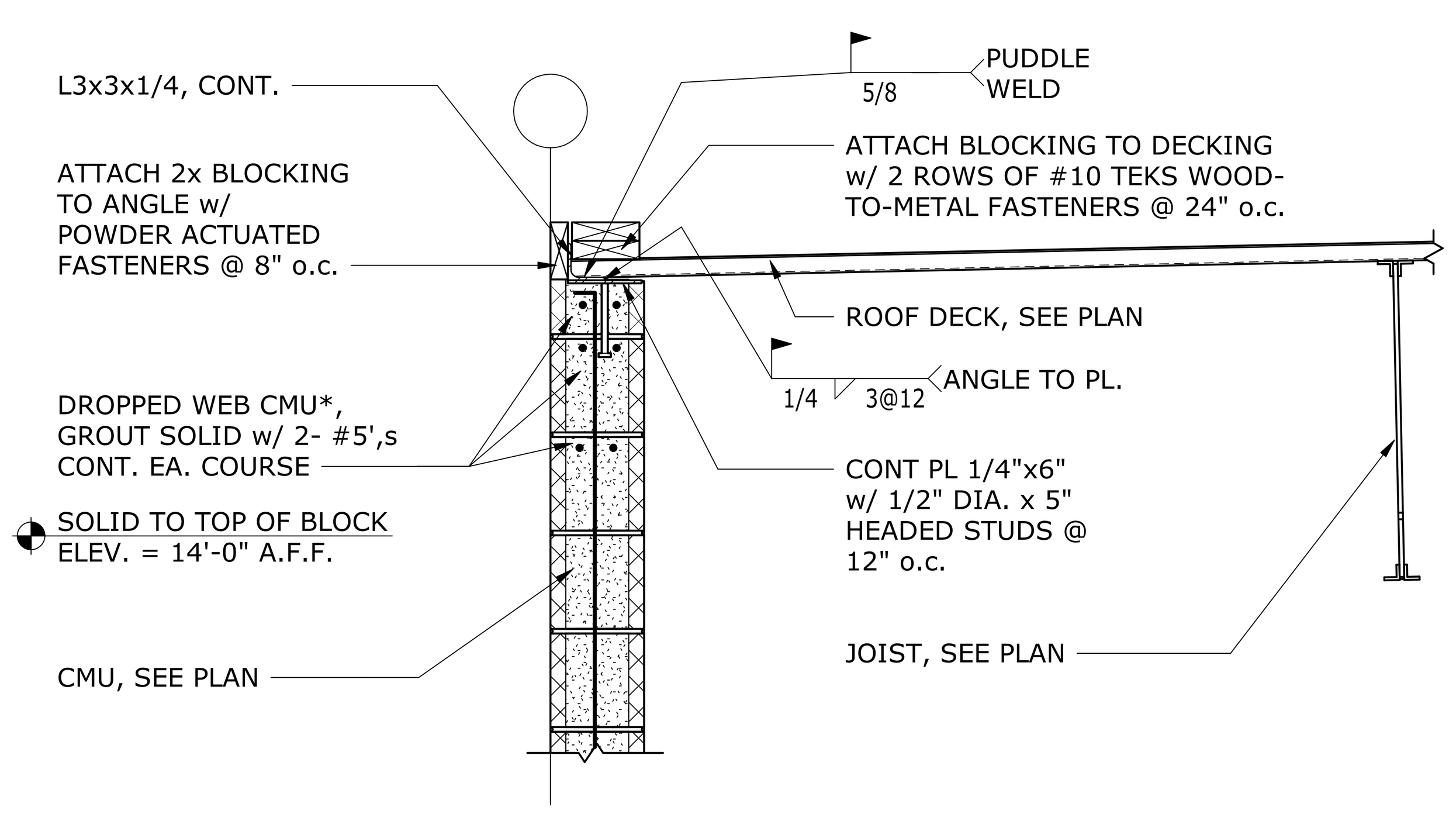


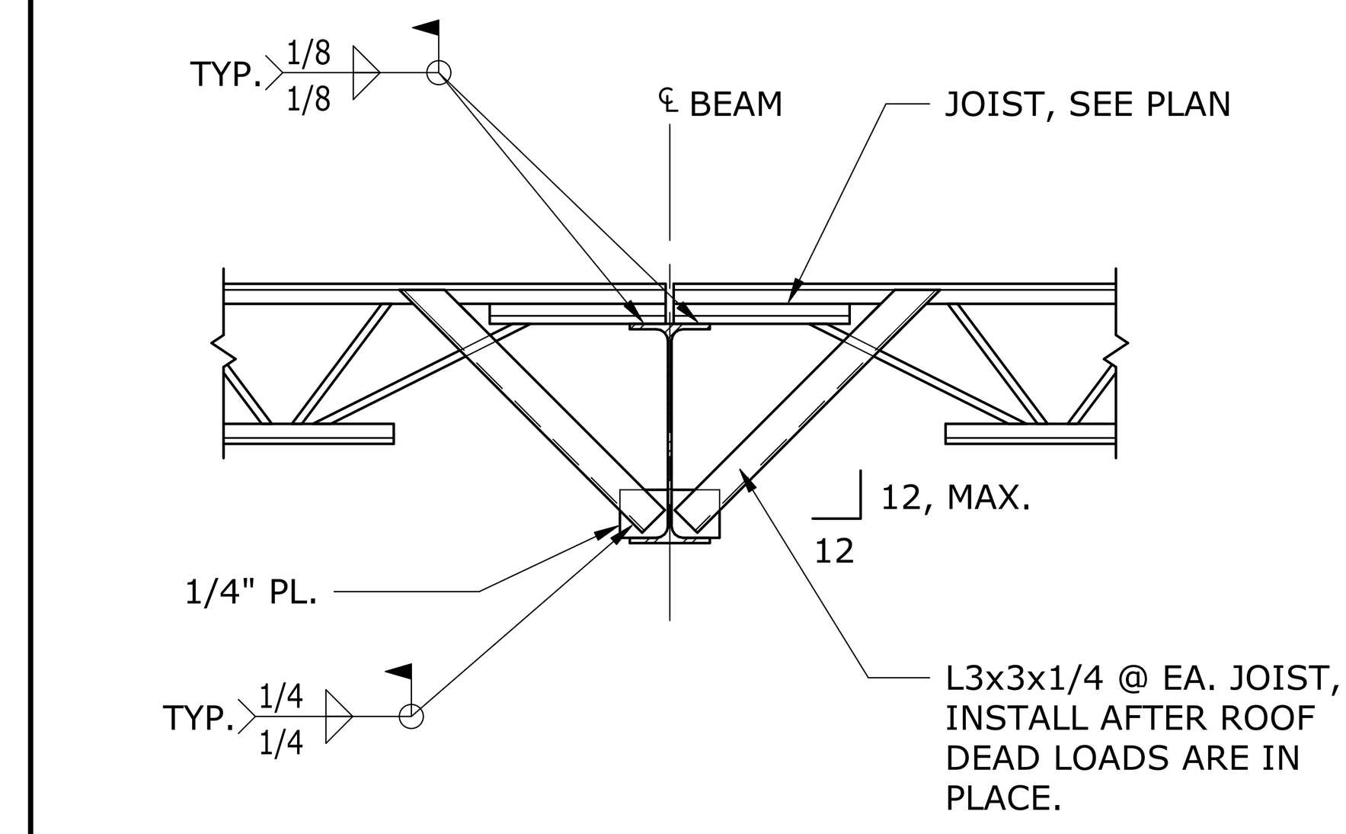
20 SECTION @ O.H. DOOR PAD
SCALE: 1" = 1'-0"



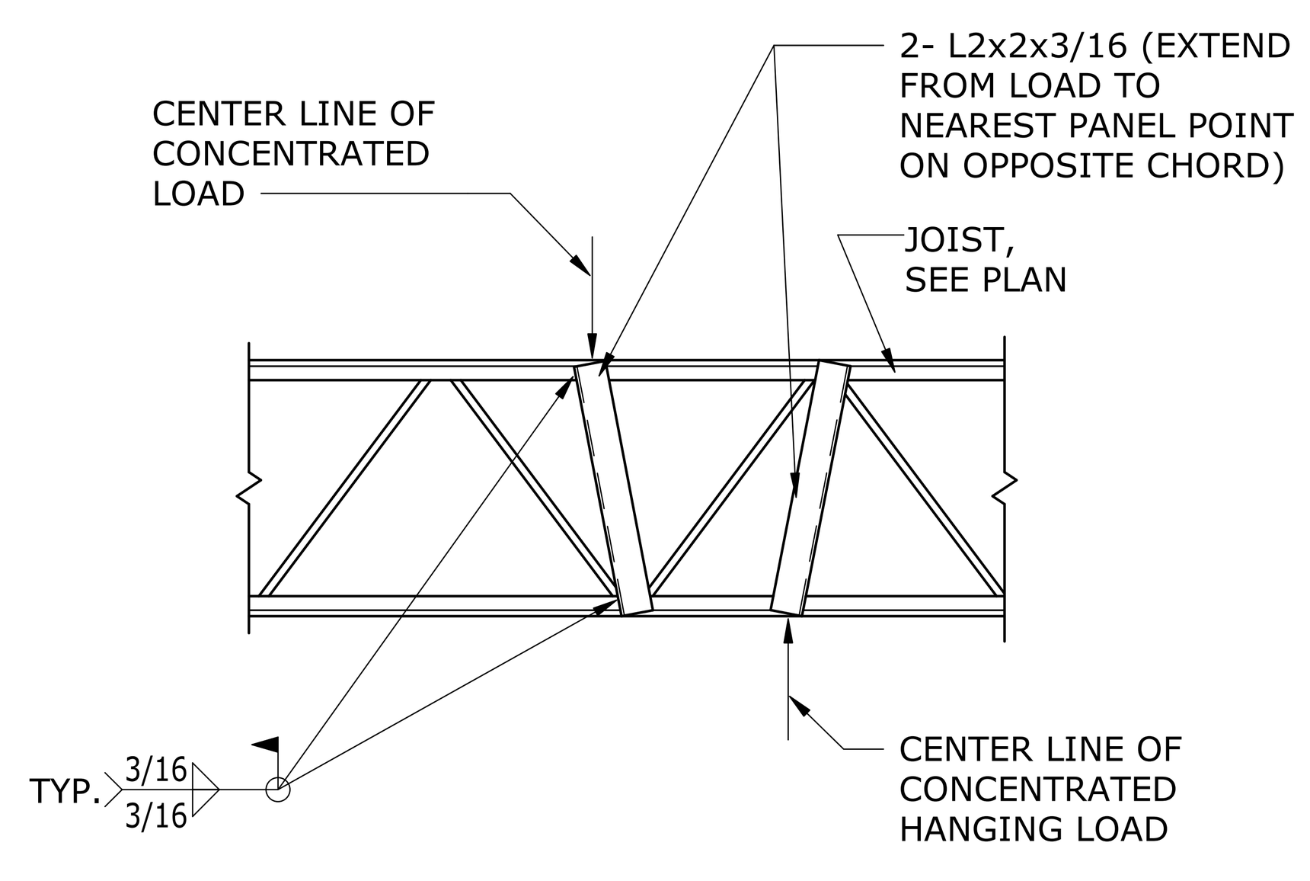
16 SECTION @ BEAM BRG. - REAR WALL
SCALE: 1" = 1'-0"



12 SECTION @ DECK BRG. - REAR
SCALE: 1" = 1'-0"

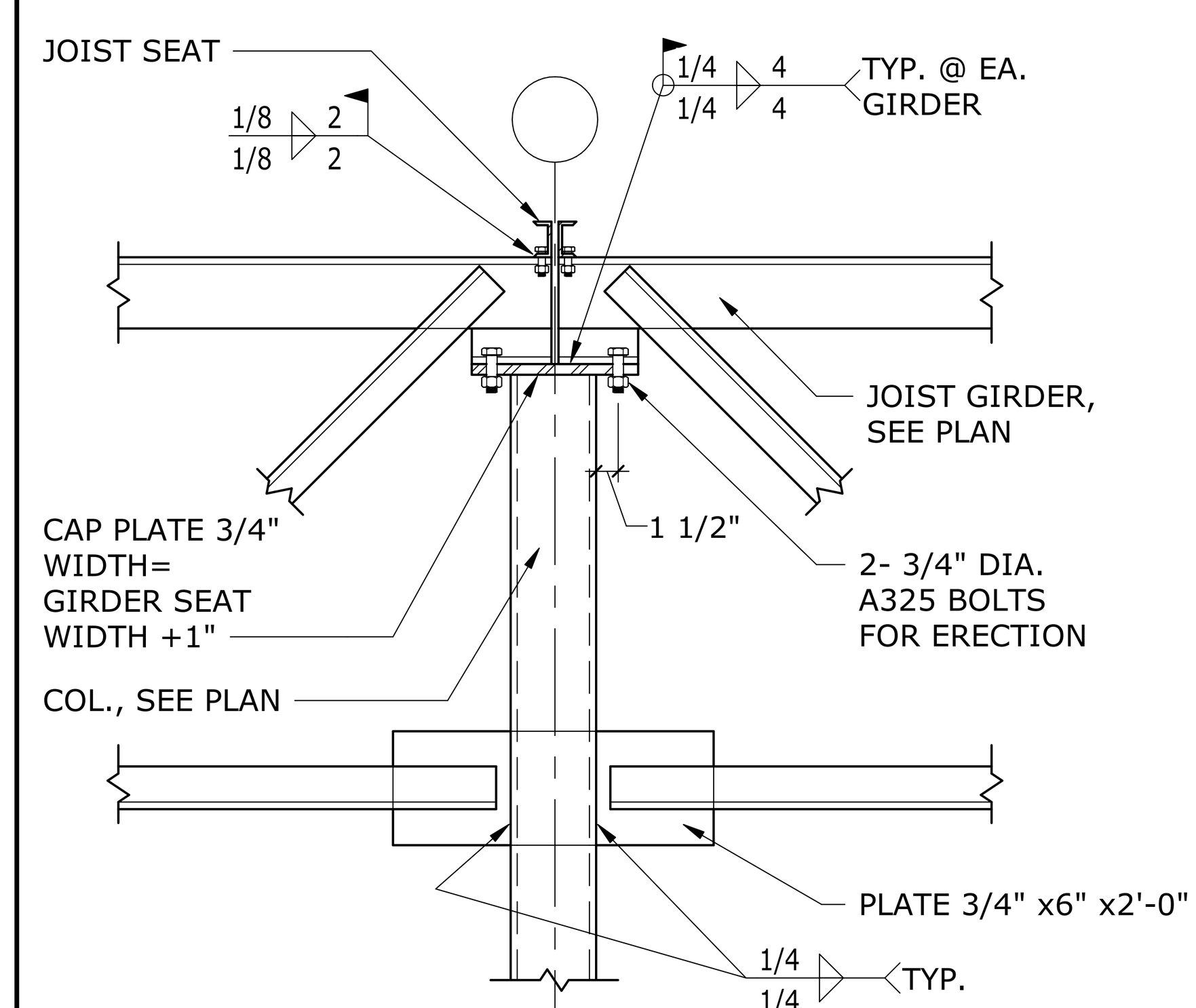


4 TYP. BEAM BOTTOM FLANGE BRACING
SCALE: NONE



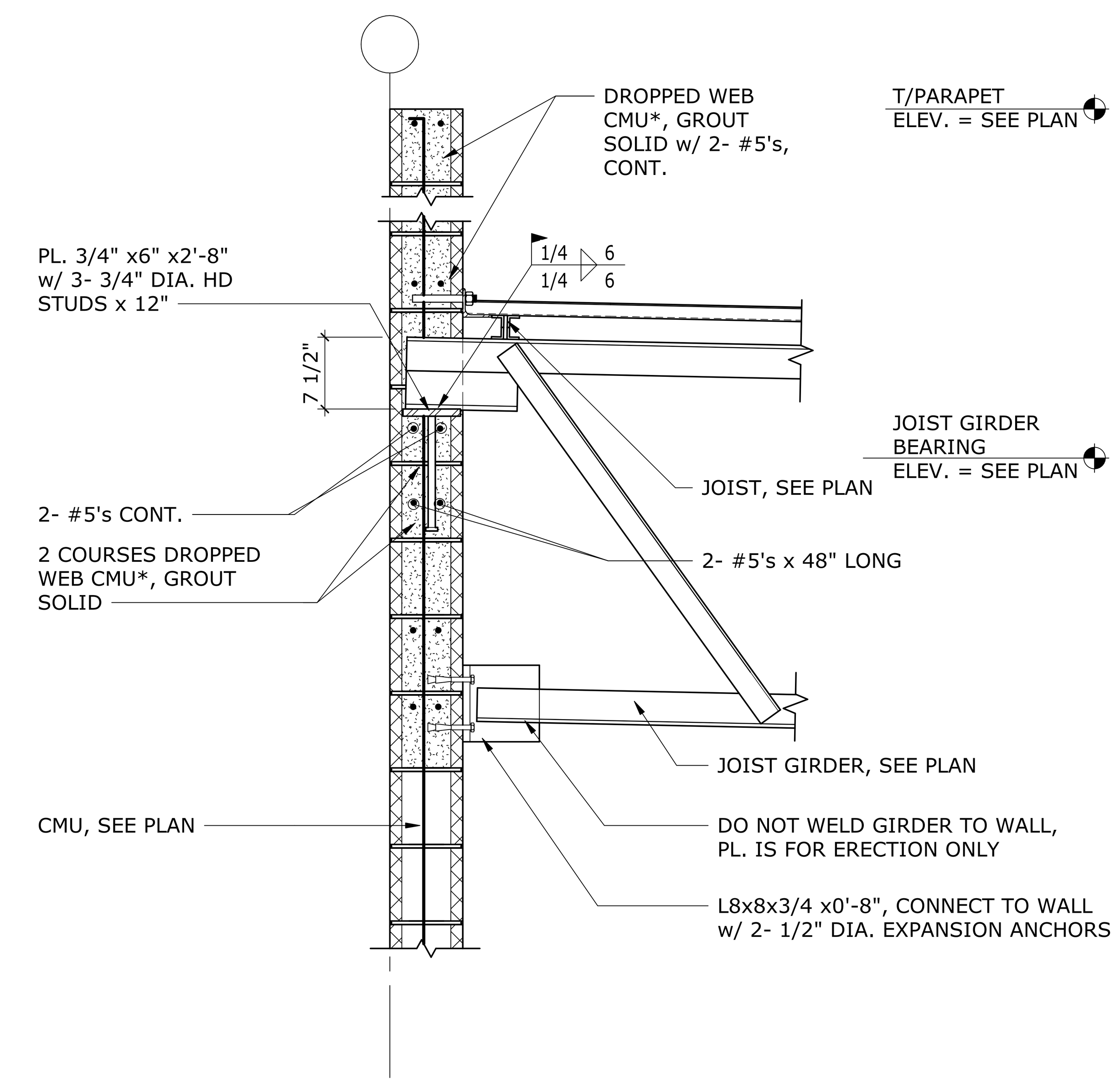
NOTE:
1. AT ALL CONCENTRATED LOADS NOT OCCURRING AT PANEL PTS.

19 JOIST REINF. @ NON-PANEL POINTS
SCALE: NONE

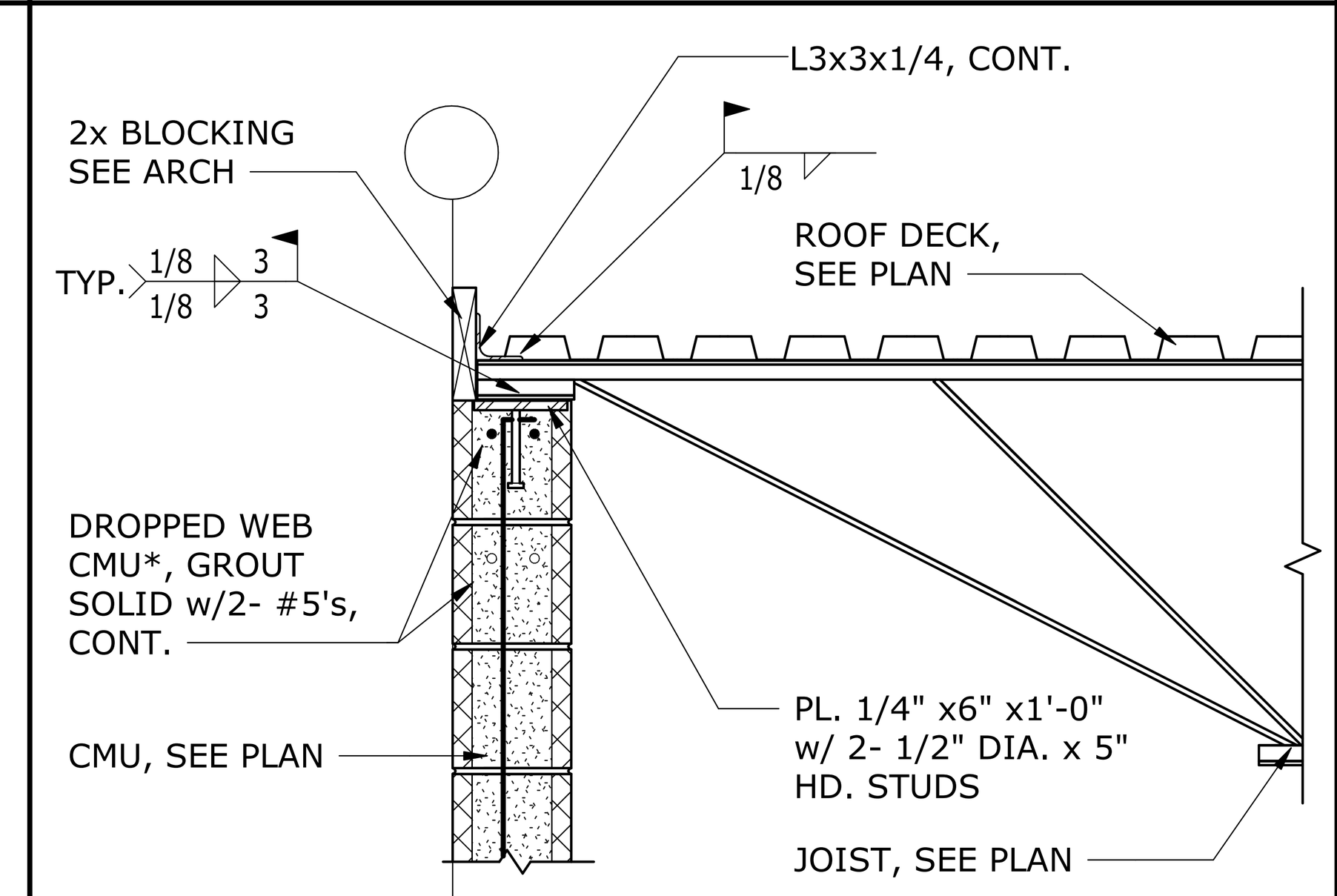


15 JOIST GIRDER @ COLUMN
SCALE: 1" = 1'-0"

NOTE:
1. SEE 9 / S4.0 FOR PARAPET & DECK CONNECTION INFO NOT SHOWN.

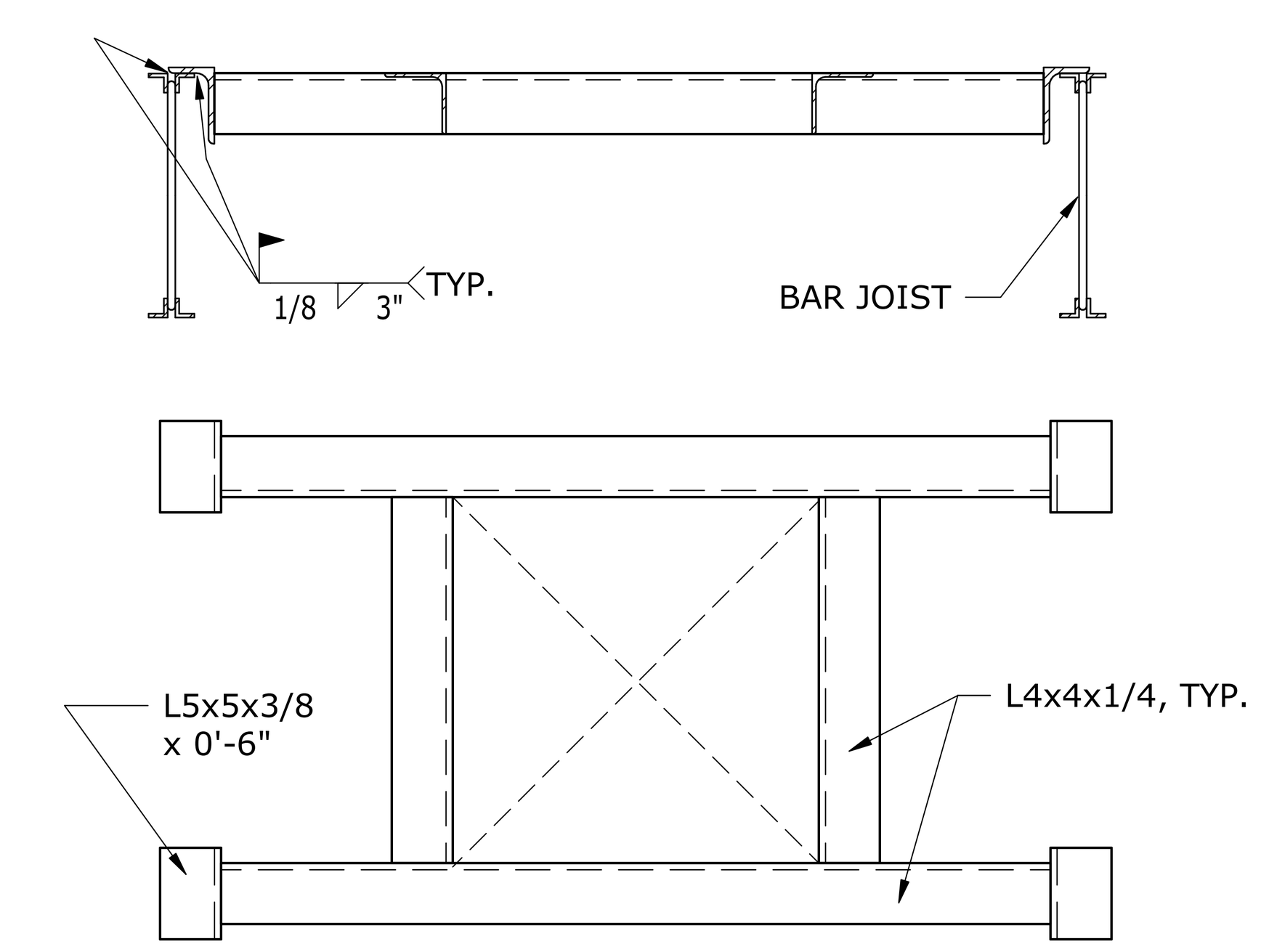


10 JOIST GIRDER BRG. ON CMU
SCALE: 1" = 1'-0"



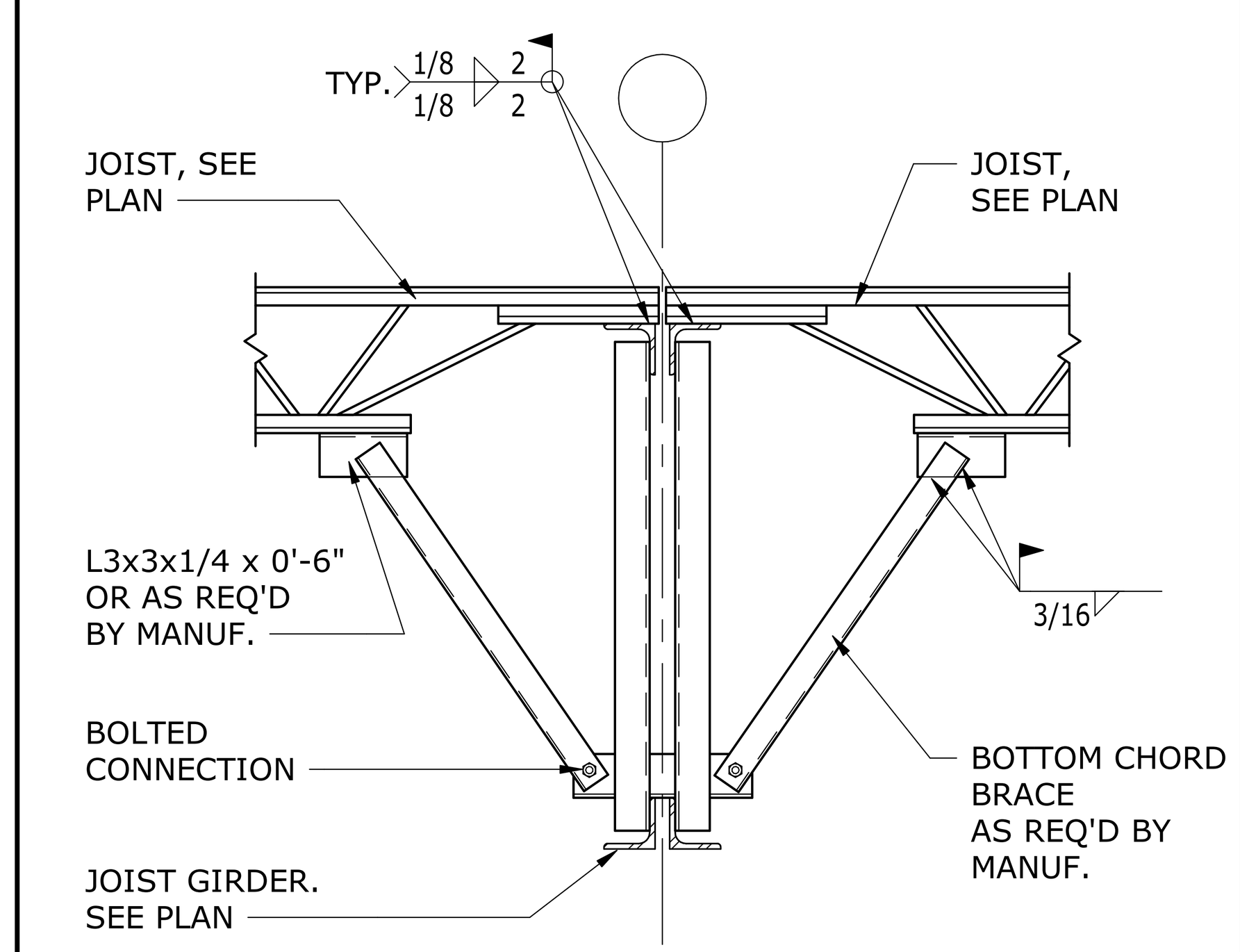
NOTE:
1. REFER TO ARCH. DWGS. FOR EXACT EAVE CONDITIONS & BLOCKING REQUIREMENTS.

3 SECTION @ DECK BRG. - SIDE WALL
SCALE: 1" = 1'-0"



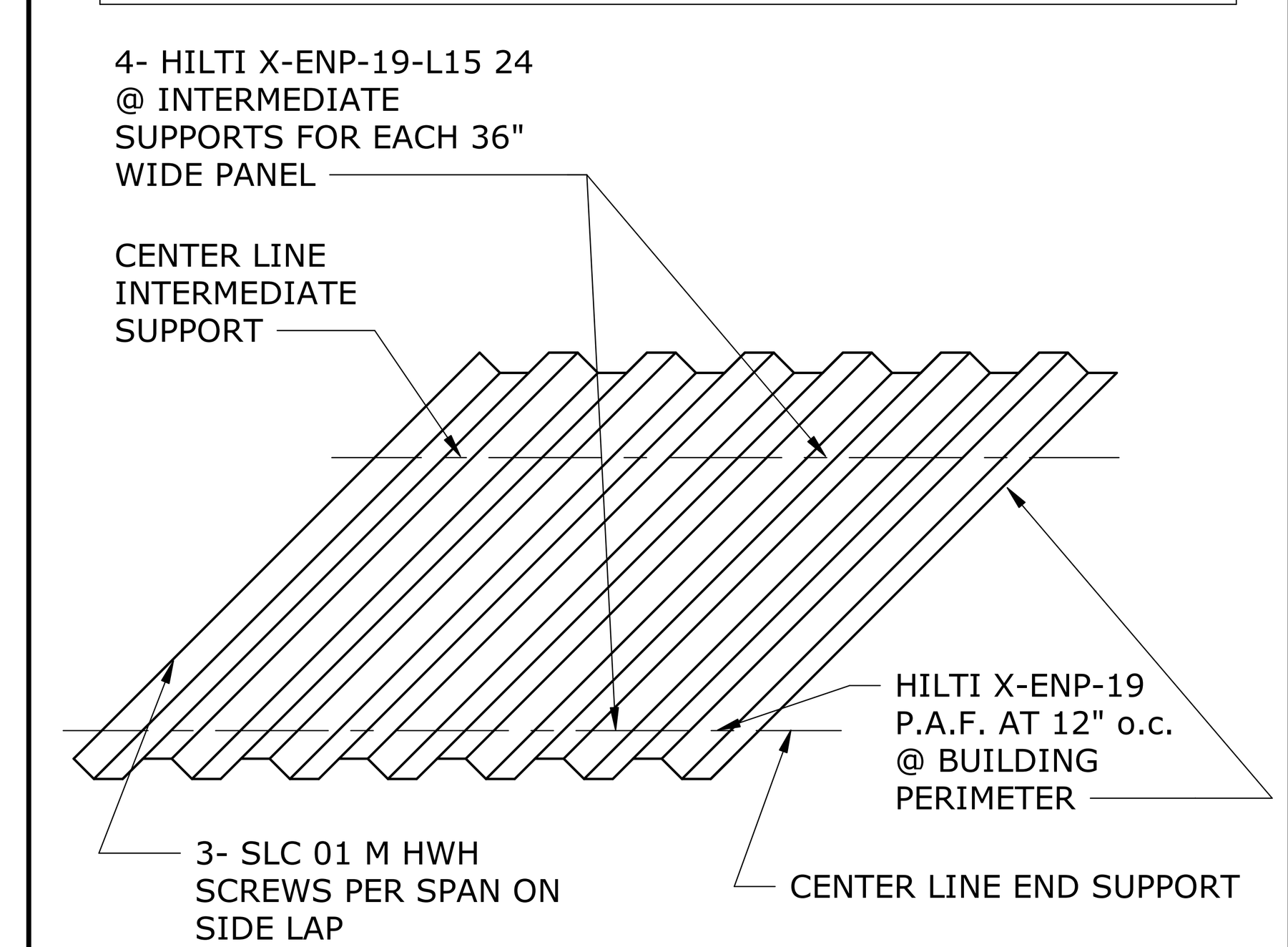
NOTE:
1. COORDINATE w/ ARCH. & MECH. FOR OPENING SIZE.

18 TYPICAL ROOF OPENING FRAME
SCALE: NONE

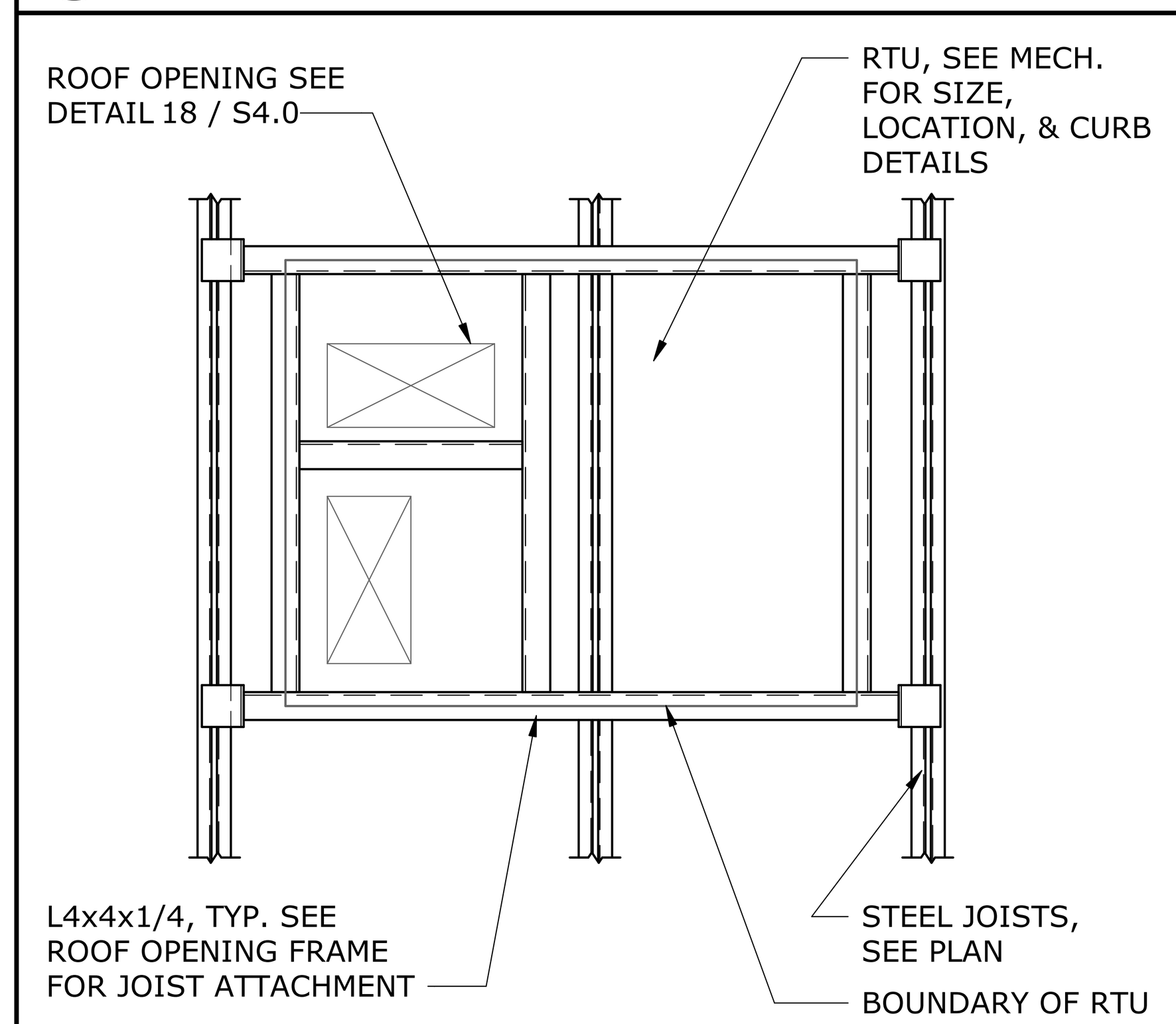


14 JOIST @ JOIST GIRDER
SCALE: NONE

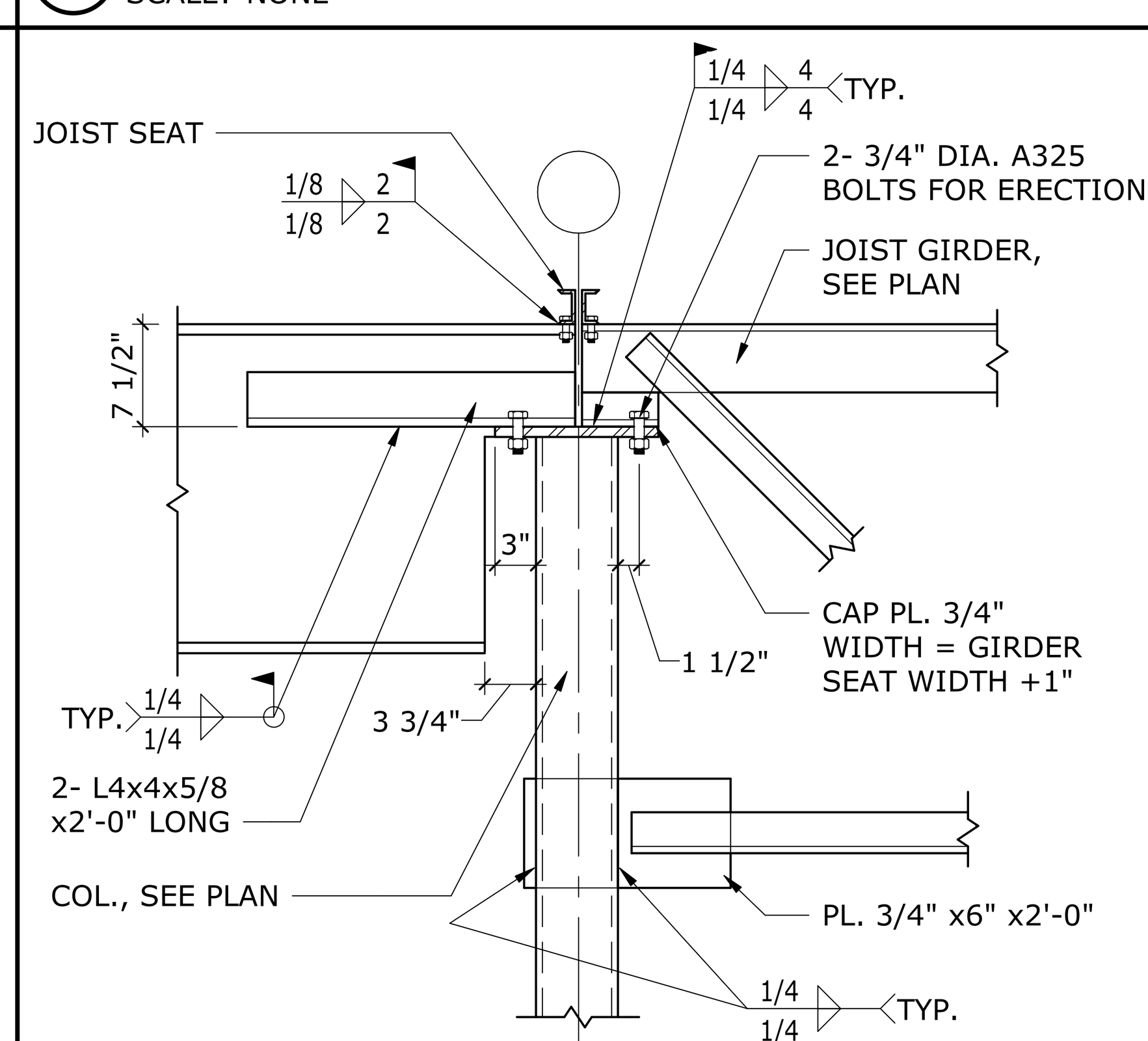
NOTE:
1. CONCENTRATED LOADS SHALL NOT BE PERMITTED @ DECK



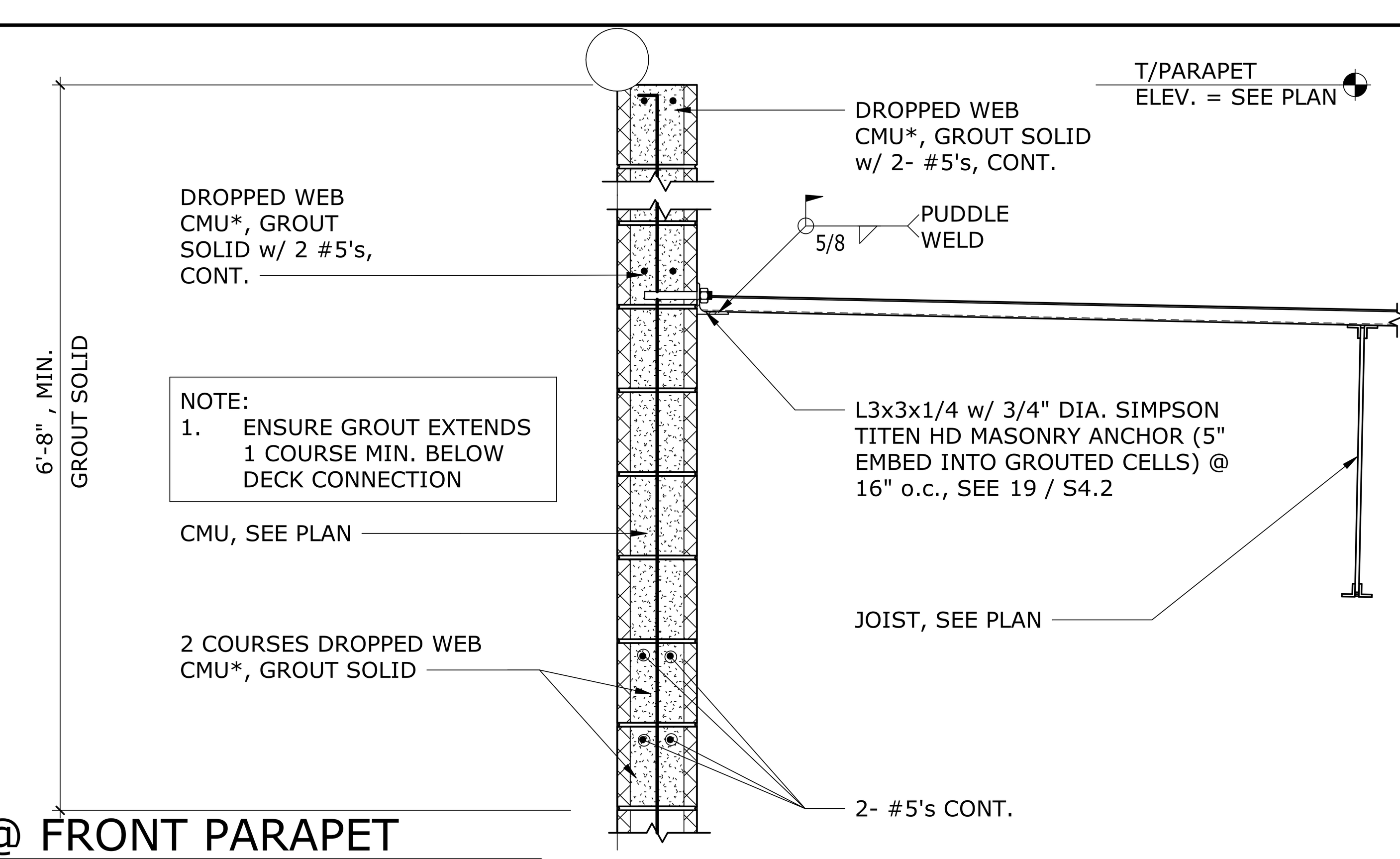
2 ROOF DECK ATTACHMENT - ALT.
SCALE: NONE



17 RTU SUPPORT FRAME
SCALE: NONE



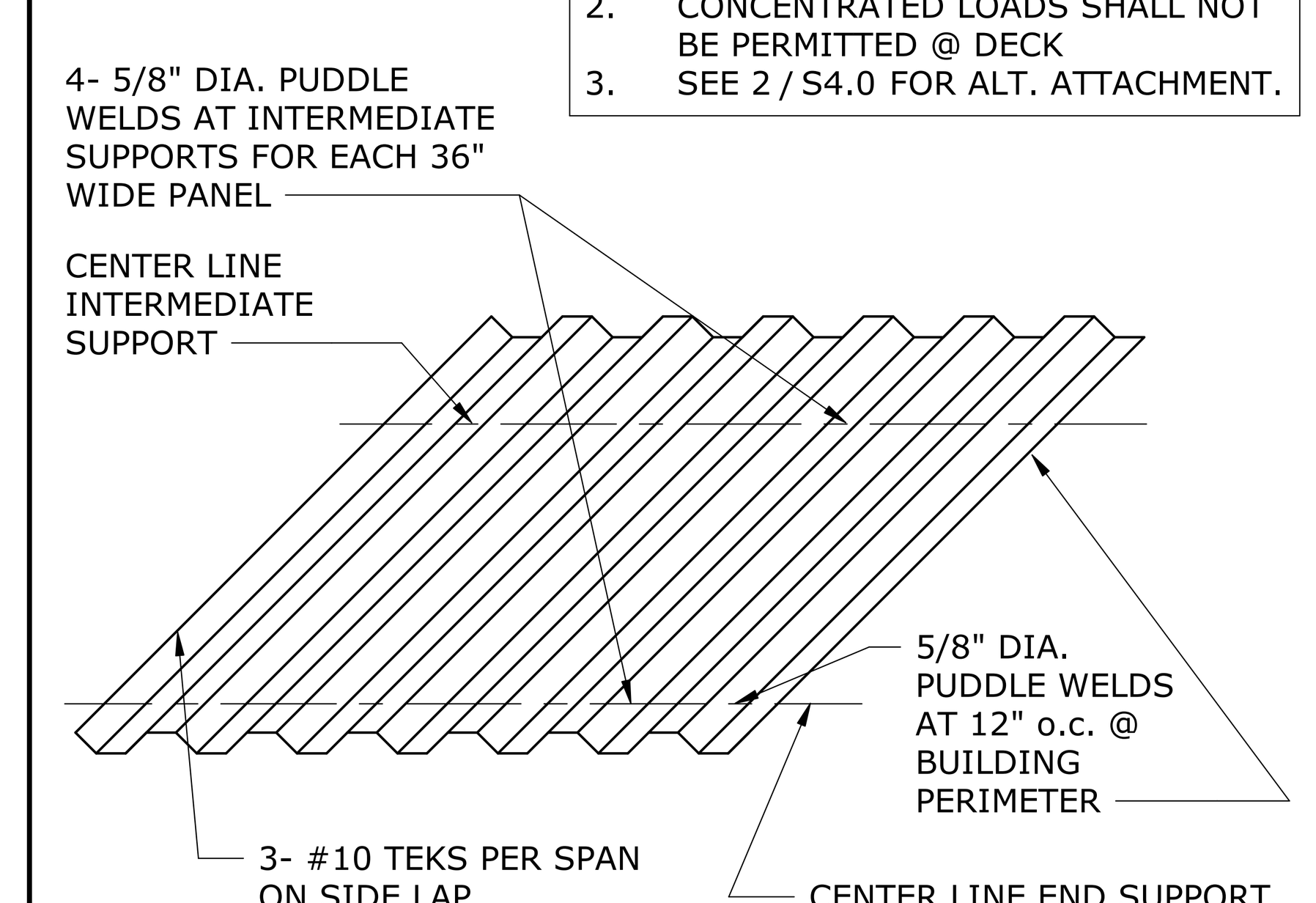
13 SECTION @ BEAM/ JOIST GIRDER
SCALE: 1" = 1'-0"



NOTE:
1. ENSURE GROUT EXTENDS 1 COURSE MIN. BELOW DECK CONNECTION

9 SECTION @ FRONT PARAPET
SCALE: 1" = 1'-0"

NOTE:
1. WELDING WASHERS MUST BE USED WITH DECK THINNER THAN 22 GA.
2. CONCENTRATED LOADS SHALL NOT BE PERMITTED @ DECK
3. SEE 2 / S4.0 FOR ALT. ATTACHMENT.



1 ROOF DECK ATTACHMENT
SCALE: NONE

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Job Number: 2360
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Revisions: △
Revisions: △
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Sheet Number: S4.0
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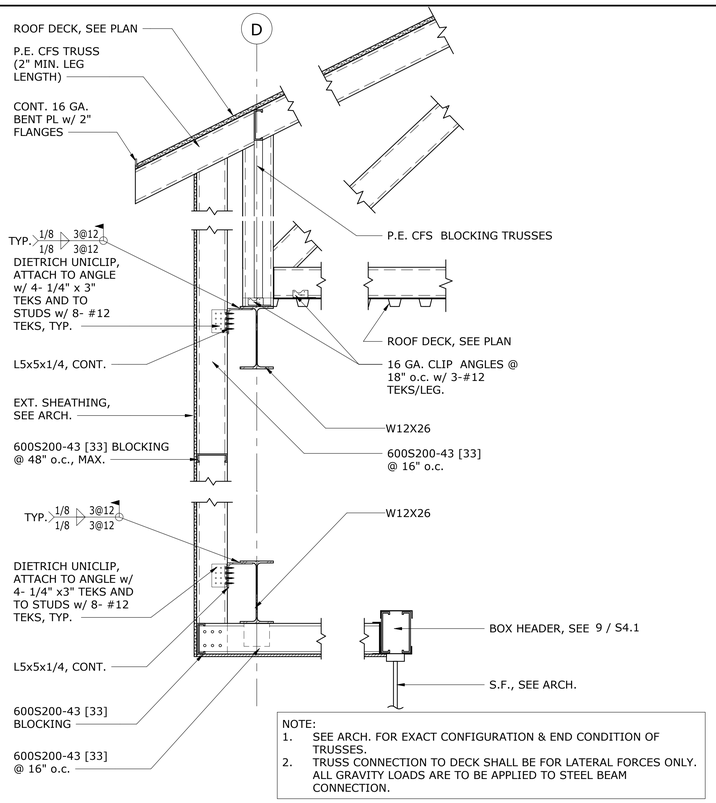
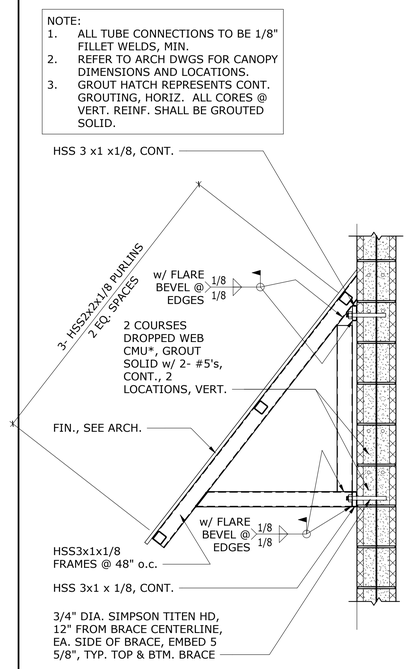


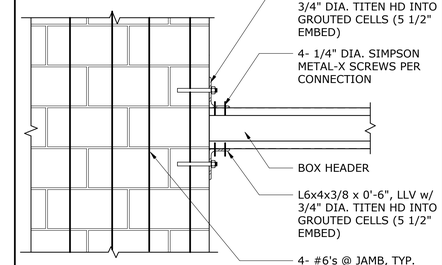
NOTE:
1. SEE ARCH. FOR EXACT CONFIGURATION & END CONDITION OF TRUSSES.
2. TRUSS CONNECTION TO DECK SHALL BE FOR LATERAL FORCES ONLY. ALL GRAVITY LOADS ARE TO BE APPLIED TO STEEL BEAM CONNECTION.

15 SECTION @ FRONT ENTRY
SCALE: 1" = 1'-0"

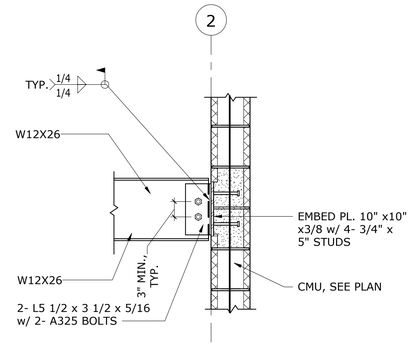


NOTE:
1. ALL TUBE CONNECTIONS TO BE 1/8" FILLET WELDS, MIN.
2. REFER TO ARCH DWGS FOR CANOPY DIMENSIONS AND LOCATIONS.
3. GROUT HATCH REPRESENTS CONT. GROUTING, HORIZ. ALL CORES @ VERT. REINF. SHALL BE GROUTED SOLID.

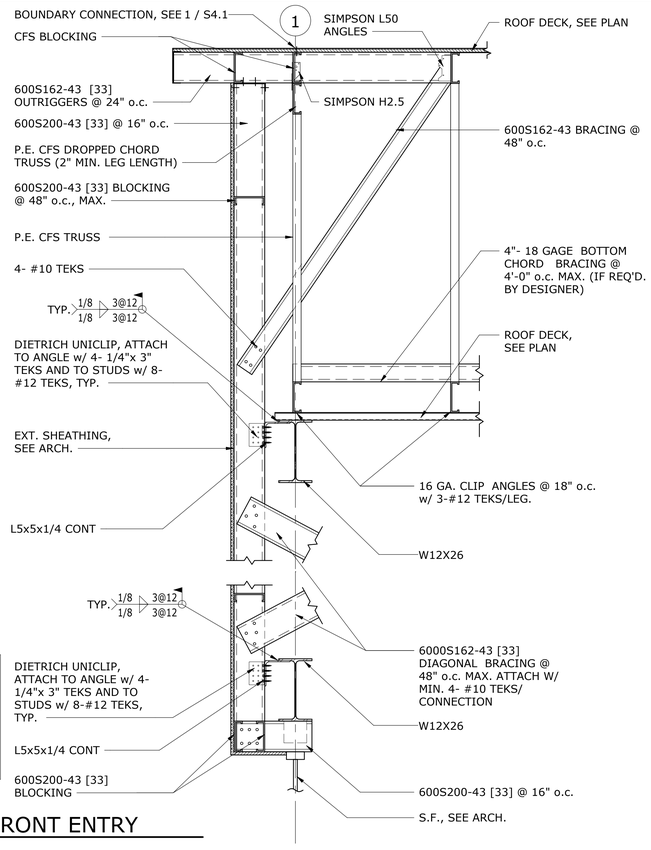
7 SECTION @ AWNING FRAME
SCALE: 1" = 1'-0"



4 SECTION @ BOX HEADER - INTERIOR
SCALE: 1" = 1'-0"

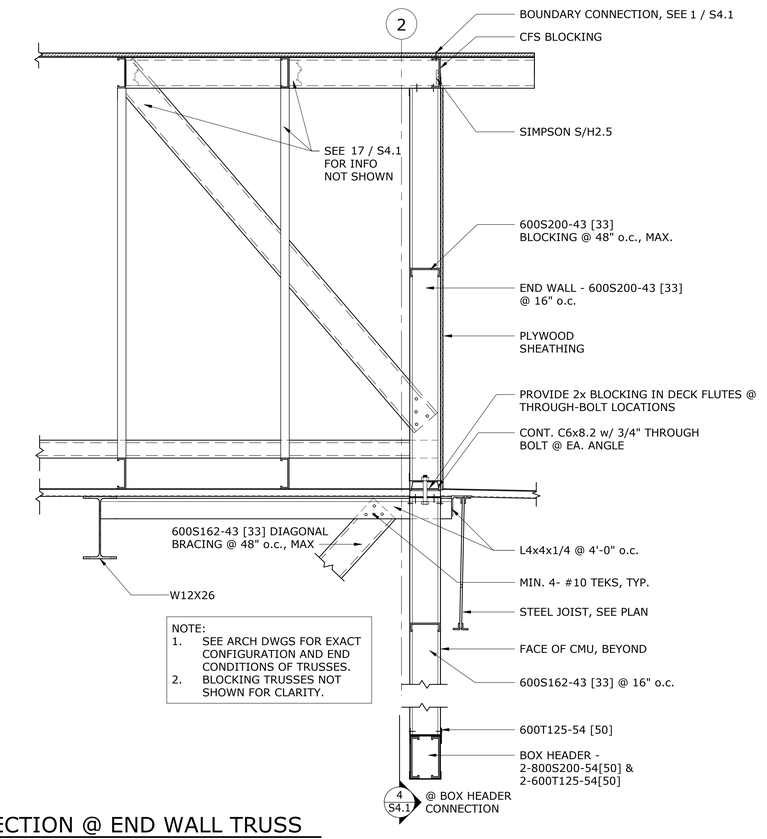


3 SECTION @ BEAM BRG.
SCALE: 1" = 1'-0"



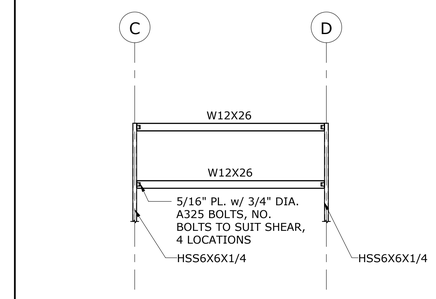
NOTE:
1. SEE ARCH. FOR EXACT CONFIGURATION AND END CONDITION OF TRUSSES.
2. BLOCKING TRUSSES NOT SHOWN FOR CLARITY.

17 SECTION @ FRONT ENTRY
SCALE: 1" = 1'-0"

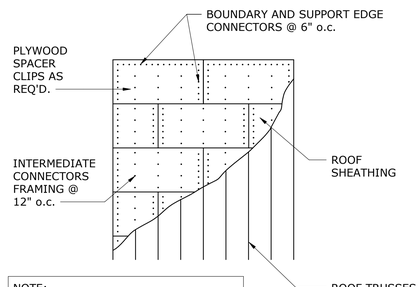


NOTE:
1. SEE ARCH DWGS FOR EXACT CONFIGURATION AND END CONDITIONS OF TRUSSES.
2. BLOCKING TRUSSES NOT SHOWN FOR CLARITY.

9 SECTION @ END WALL TRUSS
SCALE: 1" = 1'-0"



2 ELEVATION @ ENTRY BEAMS
SCALE: 1/8" = 1'-0"



NOTE:
1. PROVIDE 1/8" GAP AT ALL PANEL JOINTS
2. ALL CONNECTORS TO BE TEKS 12-24 PFH SCREWS, SPACED AS NOTED.

1 ROOF SHEATHING ATTACHMENT
SCALE: NONE

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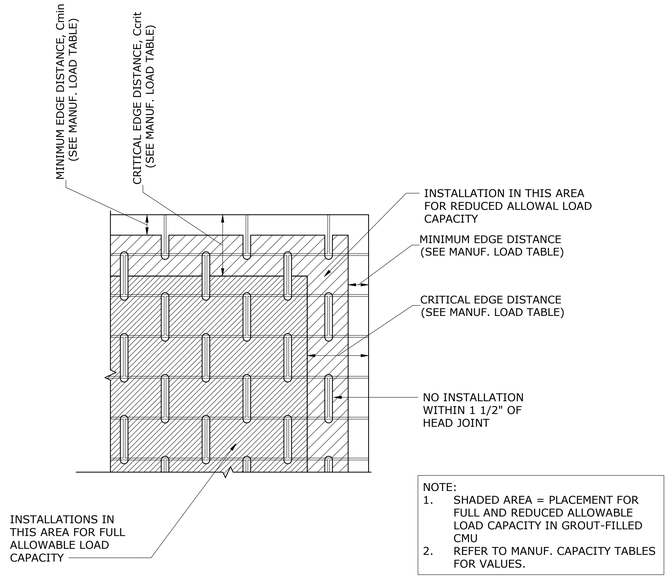
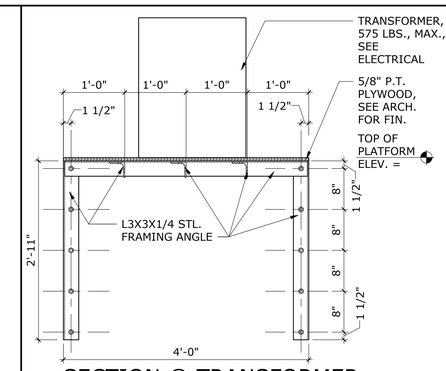


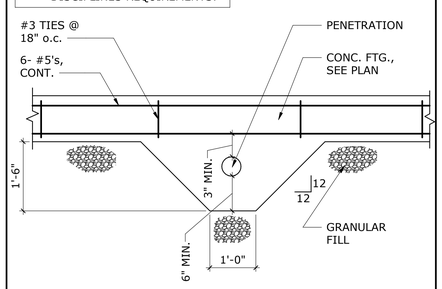
NOTE:
1. SHADED AREA = PLACEMENT FOR FULL AND REDUCED ALLOWABLE LOAD CAPACITY IN GROUT-FILLED CMU
2. REFER TO MANUF. CAPACITY TABLES FOR VALUES.

19 SIMPSON TITEN HD ANCHOR PARAMETERS
SCALE: NONE

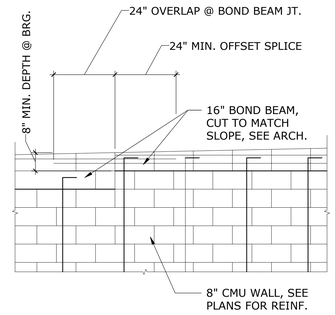


12 SECTION @ TRANSFORMER PLATFORM
SCALE: 1" = 1'-0"

NOTE:
1. G.C. TO COORDINATE PENETRATION LOCATIONS & ELEVATIONS w/SPECIFIC DISCIPLINES REQUIREMENTS.

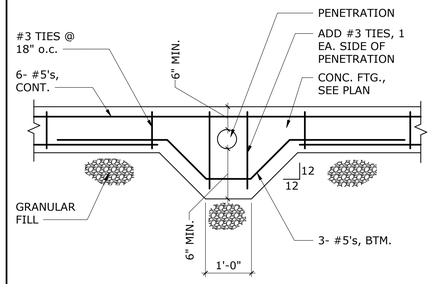


8 SECTION @ DROPPED FTG.
SCALE: NONE

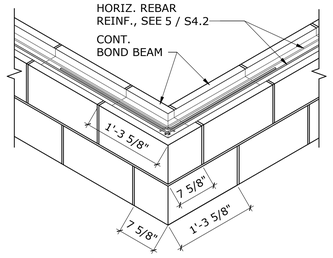


4 SECTION @ SLOPED BOND BEAM
SCALE: NONE

NOTE:
1. G.C. TO COORDINATE PENETRATION LOCATIONS & ELEVATIONS w/SPECIFIC DISCIPLINES REQUIREMENTS.



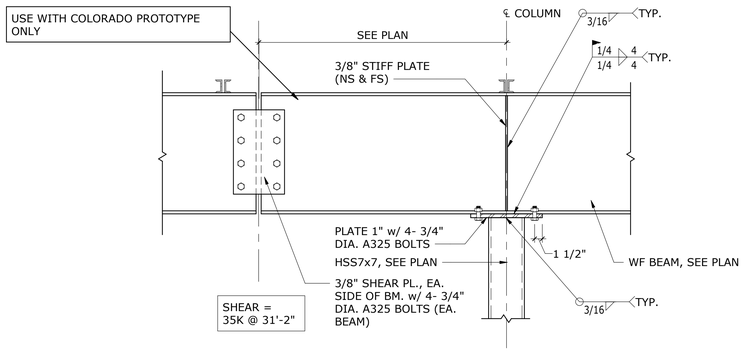
7 SECTION @ DROPPED FTG.
SCALE: NONE



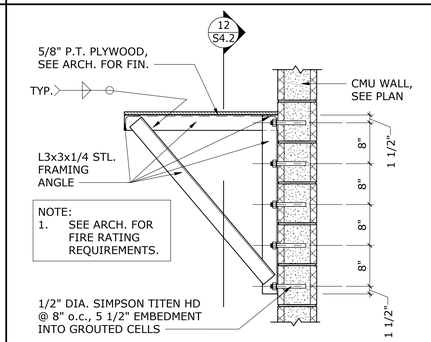
8" WALL USING STANDARD UNITS

NOTE:
1. SEE 2 / S3.0 FOR BOND BEAM REINF. PARAMETERS.
2. LADDER-TYPE JT. REINF. NOT SHOWN FOR CLARITY.
3. SEE PLANS FOR VERT. REINF.
4. CONTROL & EXPANSION JOINTS @ CORNER ARE PROHIBITED.

3 ISOMETRIC @ RUNNING BOND CORNER
SCALE: NONE

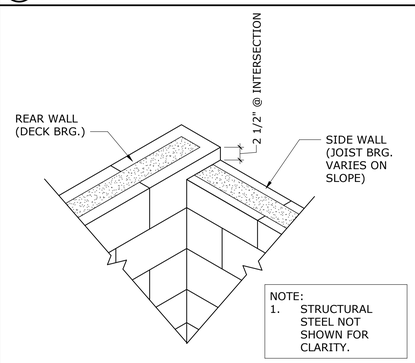


18 SECTION @ BEAM SPLICE
SCALE: 1" = 1'-0"



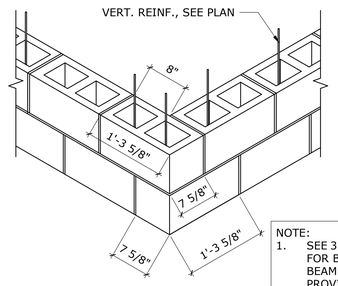
NOTE:
1. SEE ARCH. FOR FIRE RATING REQUIREMENTS.

10 SECTION @ TRANSFORMER PLATFORM
SCALE: 1" = 1'-0"



NOTE:
1. STRUCTURAL STEEL NOT SHOWN FOR CLARITY.

6 ISOMETRIC @ CMU TRANSITION - REAR WALL
SCALE: NONE

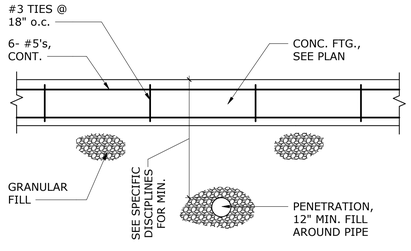


8" WALL USING STANDARD UNITS

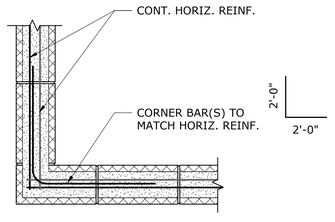
NOTE:
1. SEE 3 / S4.2 FOR BOND BEAM PROVISIONS @ RUNNING BOND CORNERS.

2 ISOMETRIC @ RUNNING BOND MASONRY
SCALE: NONE

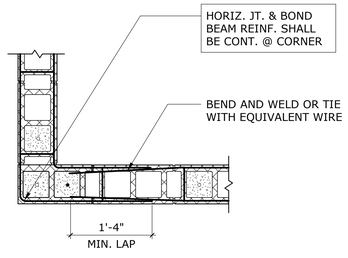
NOTE:
1. G.C. TO COORDINATE PENETRATION LOCATIONS & ELEVATIONS w/ SPECIFIC DISCIPLINES REQUIREMENTS.



9 SECTION @ FTG. / PENETRATION
SCALE: NONE



5 BOND BEAM REINF. @ CORNER
SCALE: NONE



1 CMU REINF. @ CORNER
SCALE: NONE

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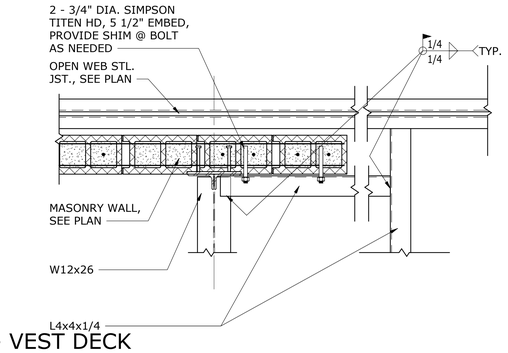

5 PLAN VIEW - VEST DECK CONNECTION
SCALE: 1" = 1'-0"

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DETAILS

Sheet Number: S4.3

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STRUCTURAL GENERAL NOTES

DESIGN AND CODE INFORMATION

1. ALL CONSTRUCTION SHALL CONFORM TO THE NORTH CAROLINA BUILDING CODE, 2018 EDITION (BASED ON THE INTERNATIONAL BUILDING CODE, 2015 EDITION).

2. VERIFY EXISTING CONDITIONS AND ALL DIMENSIONS AND NOTIFY ARCHITECT OF ANY CONDITIONS WHICH CONFLICT WITH OTHER PLANS AND SPECIFICATIONS. STRUCTURAL DRAWINGS MUST BE COORDINATED WITH ARCHITECTURAL DRAWINGS. STRUCTURAL DRAWINGS ARE NOT INTENDED FOR BUILDING LAYOUT.

3. SHOP DRAWINGS WILL NOT BE REVIEWED BY THE DESIGNER UNTIL AFTER THE GENERAL CONTRACTOR HAS THOROUGHLY REVIEWED THE SHOP DRAWINGS, VERIFIED EXISTING CONDITIONS, AND COORDINATED THE SHOP DRAWINGS WITH OTHER AFFECTED TRADES. SUBMIT FOUR COPIES OF REVIEWED DRAWINGS FOR ENGINEER'S REVIEW. ONLY THREE SETS OF MARKED UP SHOP DRAWINGS SHALL BE RETURNED BY THE DESIGNER. REPRODUCTION OF STRUCTURAL DRAWINGS FOR SHOP DRAWINGS IS NOT PERMITTED.

4. THE STRUCTURE IS UNSTABLE UNTIL ALL LOAD BEARING WALLS ARE ERECTED AND STEEL MEMBERS ARE ERECTED, CONNECTIONS ARE COMPLETELY BOLTED AND/OR WELDED AND INSPECTED, THE STEEL DECK ATTACHED TO THE STEEL FRAMING, AND THE CONCRETE FLOORS PLACED AND ATTAINS 75% OF 28-DAY STRENGTH. UNTIL SUCH TIME, TEMPORARY BRACING IS REQUIRED. THE DESIGN ADEQUACY OF TEMPORARY BRACING AND SHORING IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR.

5. DO NOT SCALE STRUCTURAL DRAWINGS, AND FOR LOCATION OF MISCELLANEOUS ITEMS (OPENINGS, BENT PLATES, INSERTS, ETC.) AFFECTING STRUCTURAL WORK, SEE ARCHITECTURAL, MECHANICAL, PLUMBING AND ELECTRICAL DRAWINGS.

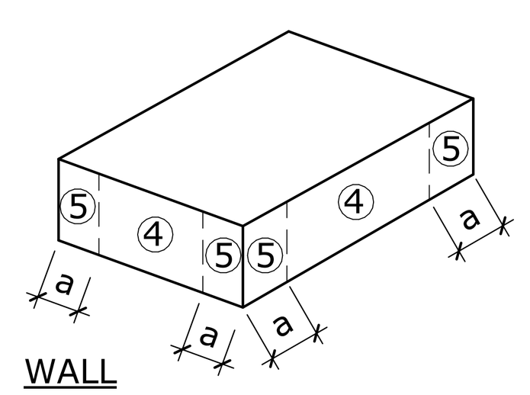
6. RISK CATEGORY: II

7. LIVE LOADS:
   A. FLOORS: 100 PSF
   B. STOCKROOM FLOOR: 250 PSF
   C. ROOFS: 20 PSF

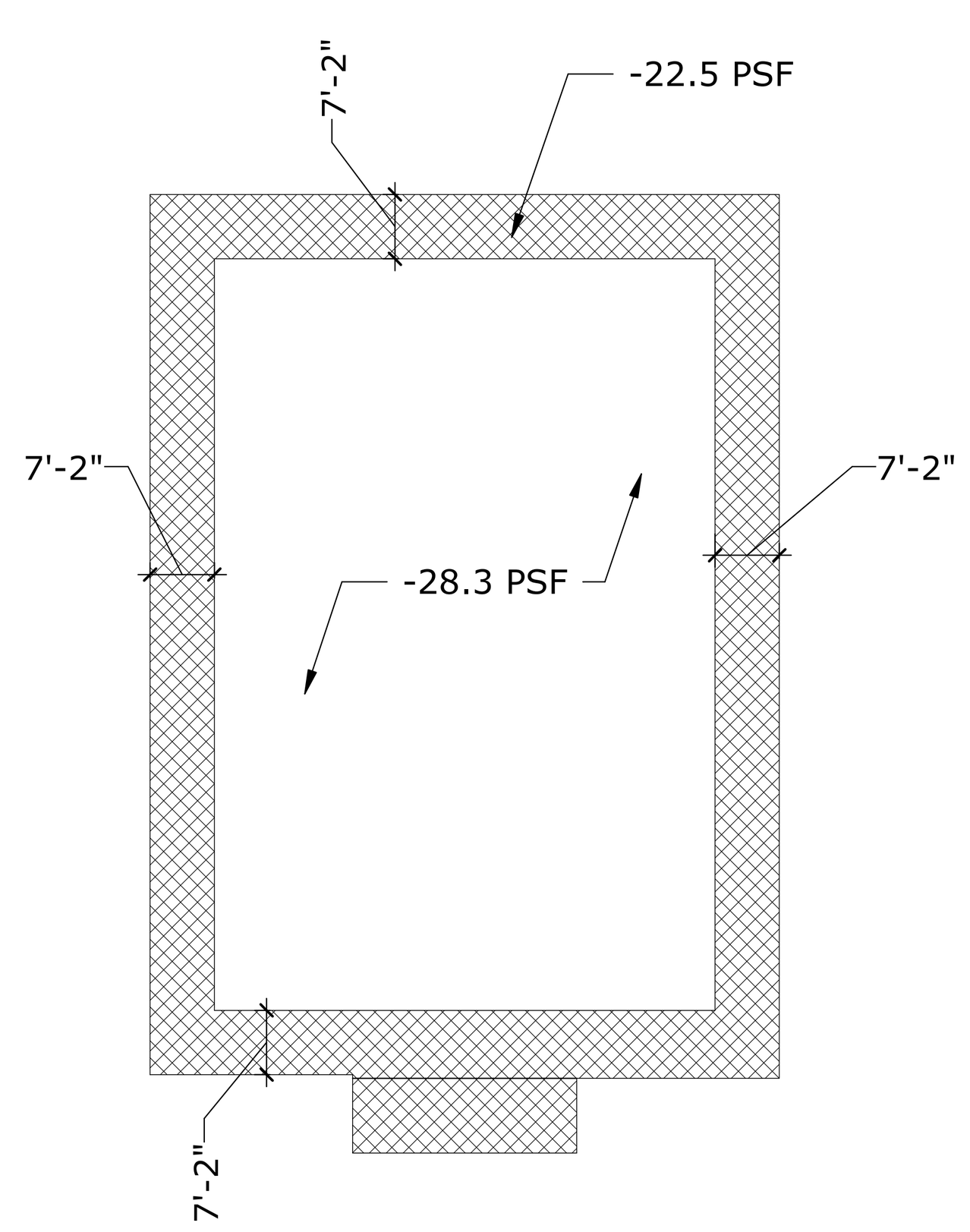
8. ROOF LOADS:
   A. GROUND SNOW LOAD: 15 PSF
   B. SNOW EXPOSURE Ce: 1.0
   C. SNOW IMPORTANCE I: 1.0
   D. THERMAL FACTOR: 1.0
   E. FLAT ROOF SNOW LOAD: 17 PSF

9. WIND LOADS:
   A. BASIC WIND SPEED: 117 MPH (3-SEC GUST)
   B. IMPORTANCE FACTOR: I=1.0
   C. OCCUPANCY CATEGORY: II
   D. EXPOSURE CATEGORY: C
   E. BASE SHEAR:
      a. MAIN BUILDING: Vx = 99.6 K
         VY = 83.6 K

COMPONENTS & CLADDING (WALLS)				
AREA	GCp +/- GCpi			
	10 SF	100 SF	200 SF	500 SF
NEGATIVE ZONE 4	-1.17	-1.01	-0.96	-0.90
NEGATIVE ZONE 5	-1.44	-1.12	-1.03	-0.90
POSITIVE ZONE 4 & 5	1.08	0.92	0.87	0.81
AREA	SURFACE PRESSURE (PSF)			
	10 SF	100 SF	200 SF	500 SF
NEGATIVE ZONE 4	-30.7	-26.5	-25.2	-23.6
NEGATIVE ZONE 5	-37.7	-29.4	-26.9	-23.6
POSITIVE ZONE 4 & 5	28.3	24.1	22.9	21.2



WALL



ROOF - NET WIND UPLIFT PRESSURES

BASIC WIND SPEED: 117 MPH (3-SECOND GUST)
EXPOSURE CATEGORY: C, Aeff > 100 SF
FOR DL OF ROOF, USE 10 PSF
POSITIVE WIND PRESSURE : 16 PSF

DESIGN AND CODE INFORMATION, CONT.

10. SEISMIC DESIGN LOADS:
    A. IMPORTANCE FACTOR: I = 1.0
    B. RISK CATEGORY: II
    C. MAPPED SPECTRAL RESPONSE ACCELERATIONS:
       a. Ss = 0.183
       b. S1 = 0.086
    D. SITE CLASS: D
    E. DESIGN SPECTRAL RESPONSE ACCELERATIONS:
       a. SDs = 0.195
       b. SD1 = 0.138
    F. DESIGN CATEGORY: C
    G. BASIC SEISMIC FORCE RESISTING SYSTEM: MAIN BUILDING:
       a. INTERMEDIATE REINFORCED MASONRY SHEAR WALLS
    H. DESIGN BASE SHEAR: 60.3 K
    I. RESPONSE MODIFICATION FACTOR: R = 3.5
    J. REDUNDANCY FACTOR: P = 1.0
    K. RESPONSE COEFFICIENT Cs: 0.056

SPECIAL INSPECTIONS AND TESTING

1. THE OWNER SHALL EMPLOY AN INDEPENDENT TESTING COMPANY TO PERFORM THE ON SITE INSPECTIONS AND TESTING AS INDICATED ON SHEETS S5.2 & S5.3.

STRUCTURAL OBSERVATIONS

1. THE CONTRACTOR/OWNER SHALL EMPLOY A LICENSED STRUCTURAL ENGINEER OR ARCHITECT TO PERFORM PERIODIC VISUAL OBSERVATIONS OF THE STRUCTURE DURING CONSTRUCTION FOR GENERAL CONFORMANCE TO THE DESIGN DRAWINGS.

FOUNDATION NOTES

1. FOUNDATION DESIGN IS BASED ON A REPORT BY ECS SOUTHEAST, LLP, DATED SEPTEMBER 1, 2023 (REPORT NO. 33:6534).

2. THE CONTINUOUS AND ISOLATED FOOTINGS ARE DESIGNED TO BEAR ON NATURAL SOILS OR COMPACTED FILL CAPABLE OF SUPPORTING 2,000 PSF. THE BOTTOM OF ALL EXTERIOR FOOTINGS SHALL BE 32" MINIMUM BELOW FINISHED GRADE. DESIGN ASSUMES DIFFERENTIAL AND TOTAL SETTLEMENT ARE WITHIN ACCEPTED TOLERANCES FOR THE TYPE OF CONSTRUCTION USED.
   A. SUPPLEMENTAL GEOTECHNICAL RECOMMENDATIONS ARE NEEDED TO GET EXACT RECOMMENDATIONS FOR SYSTEM DESIRED

3. WHERE FOOTING EXCAVATIONS ARE TO REMAIN OPEN AND MAY BE EXPOSED TO RAINFALL, THE EXCAVATIONS SHALL BE UNDERCUT AND A 3 INCH THICK MUD MAT OF 2000 PSI CONCRETE SHALL BE PLACED IN THE BOTTOM TO PROTECT THE BEARING SOILS.

4. WHERE FOOTING STEPS ARE NECESSARY, THEY SHALL BE NO STEEPER THAN 1 VERTICAL TO 2 HORIZONTAL, UNLESS SHOWN OTHERWISE ON PLANS.

DELEGATED DESIGN

1. THE FOLLOWING ELEMENTS SHALL BE CONSIDERED DELEGATED DESIGN AND SHALL REQUIRE SIGNED AND SEALED SHOP DRAWINGS AND CALCULATIONS PREPARED BY A PROFESSIONAL ENGINEER LICENSED IN THE PROJECT STATE.
   A. PRE-ENGINEERED METAL BUILDING
   B. PRE-ENGINEERED TRUSSES
   C. STOREFRONT OPENING SYSTEMS.
   D. LIVE GOODS FRAMING AND FOUNDATION

STRUCTURAL SUBMITTALS

1. CONCRETE MIX DESIGNS
2. CONCRETE REINFORCING FOR ALL FOUNDATION COMPONENTS
3. CONCRETE MASONRY UNIT (CMU) REINFORCING FOR ALL MASONRY PORTIONS OF THE WORK.
4. CONCRETE MASONRY UNIT (CMU) AND ACCESSORY PRODUCT DATA INCLUDING:
   a. COMPOSITION AND LEGACY TESTING DATA FOR CMU
   b. COMPOSITION AND LEGACY TESTING DATA FOR MORTAR
   c. COMPOSITION AND LEGACY TESTING DATA FOR GROUT
   d. LADDER-TYPE JOINT REINFORCING
   e. JOINT AND JOINT COVER MATERIAL
5. STRUCTURAL STEEL COLUMNS, BASE PLATES, CAP PLATES, SHEAR PLATES, CONNECTIONS BETWEEN / AMONG ALL STRUCTURAL STEEL MEMBERS.
6. STRUCTURAL STEEL JOIST AND DECK, INCLUDING LAYOUT, COMPOSITION, AND CONNECTIONS.
7. COLD FORMED STEEL (CFS) PRE-ENGINEERED TRUSSES:
   a. MATERIALS
   b. DESIGN DRAWINGS, STAMPED BY THE TRUSS DESIGNER, LICENSED IN THE PROJECT STATE
8. NON-LOAD BEARING COLD FORMED STEEL (CFS) PRE-ENGINEERED STUDS AND JOISTS.

REINFORCED CONCRETE

1. ALL CONCRETE WORK SHALL CONFORM TO THE "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE," ACI 318-14.

2. REINFORCING STEEL SHALL BE DEFORMED BARS ASTM A-615 (GRADE 60).

3. THE COMPRESSIVE STRENGTH AT 28 DAYS OF ALL CAST IN PLACE CONCRETE SHALL BE 4000 PSI USING TYPE I, II, I/II, OR IL PORTLAND CEMENT. SEE CIVIL DRAWINGS FOR SITE CONCRETE. FOUNDATION CONCRETE SHALL HAVE A 28-DAY COMPRESSIVE STRENGTH OF 4,000 PSI.

4. LAP SPLICES FOR REINFORCING BARS SHALL BE CLASS B IN ACCORDANCE WITH ACI 318-14, UNLESS NOTED OTHERWISE.

5. CLEAR CONCRETE COVER FOR REINFORCING STEEL:
   A. WALLS: 2" EXTERIOR FACES; 3/4" INTERIOR FACES
   B. MASONRY WALLS: LOCATE IN CENTER OF WALL (U.N.O.)
   C. SLAB ON GRADE: 3/4" TOP STEEL; 1 1/2" BOTTOM STEEL
   D. FOOTINGS: 2" FORMED EDGES

6. THE LONGITUDINAL REINFORCING STEEL IN BOND BEAMS, WALLS, AND FOOTINGS SHALL BE CONTINUOUS AROUND CORNERS. SEE TYPICAL DETAILS.

7. MECHANICAL VIBRATORS SHALL VIBRATE ALL CONCRETE.

8. UNLESS OTHERWISE DIRECTED BY THE OWNER, CONCRETE SLABS SHALL BE FINISHED TO THE FLATNESS CRITERIA NOTED IN THE CONCRETE SPECIFICATIONS ON SHEET S5.4, UNDER SECTION 3.04 - "CONCRETE FLOOR FINISHES AND TOLERANCES"

9. CONCRETE TESTING REPORTS SHALL BE KEPT ON FILE AT THE JOB SITE.

STRUCTURAL STEEL

1. ALL STRUCTURAL STEEL WORK SHALL CONFORM TO THE ANSI/AISC 360-16 SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS.

2. STRUCTURAL STEEL ROLLED SHAPES SHALL BE ASTM A-992 GRADE 50 UNLESS NOTED OTHERWISE. STRUCTURAL STEEL PLATES AND ANGLES SHALL BE ASTM A-36.

3. STRUCTURAL PIPE COLUMNS SHALL BE ASTM A500 ROUND, TYPE E OR S, GRADE C. STRUCTURAL TUBES SHALL BE ASTM A500, GRADE C.

4. **NON-SHRINK GROUT FOR PLACEMENT BELOW ALL STRUCTURAL STEEL BASE PLATES SHALL BE NON-SHRINK GROUT PROVIDED SPECIFICALLY FOR USE BELOW STRUCTURAL STEEL BASE PLATES AND ACHIEVE A COMPRESSIVE STRENGTH OF 10,000 PSI AT 28 DAYS. GROUT BELOW BASE PLATES SHALL CONFORM TO ASTM C-109.**

5. **FRAMED BEAM CONNECTIONS SHALL DE DESIGNED BY A QUALIFIED PROFESSIONAL ENGINEER EMPLOYED BY THE FABRICATOR TO DEVELOP THE BEAM REACTIONS SHOWN ON STRUCTURAL PLANS. IN NO CASE SHALL THE LENGTH OF THE FRAMED CONNECTION BE LESS THAN 1/2 THE "T" DIMENSION OF THE BEAM WEB. WHERE REACTIONS ARE NOT SHOWN, THE BEAM END CONNECTIONS SHALL DEVELOP ONE HALF THE MAXIMUM ALLOWABLE UNIFORM LOAD FOR THE BEAM ASSUMING THE BEAM IS CONTINUOUSLY SUPPORTED LATERALLY.**

6. STEEL FRAMING CONNECTIONS SHALL BE BOLTED OR WELDED. BOLTS SHALL BE 3/4 INCH DIAMETER MINIMUM AND SHALL BE ASTM A-325-N, UNLESS NOTED OTHERWISE.

7. **USE CALIBRATED WRENCHES OR DIRECT TENSION INDICATORS AND HARDENED WASHERS WITH ALL HIGH STRENGTH BOLTS OR USE LOAD INDICATOR BOLTS.**

8. STEEL JOISTS SHALL BE CAMBERED PER STEEL JOIST INSTITUTE SPECIFICATIONS. STEEL JOIST SHALL ALSO BE DESIGNED TO RESIST THE NEW WIND UPLIFT LOADS INDICATED ON UPLIFT PRESSURES DIAGRAM, THIS SHEET. FOR UPLIFT CALCULATIONS, DEAD LOAD OF ROOFING SYSTEM AND STEEL DECK IS ASSUMED TO BE 10 PSF.

9. METAL DECK SHALL BE INSTALLED IN ACCORDANCE WITH THE STEEL DECK INSTITUTE SPECIFICATIONS, LATEST EDITION.

10. WELD WASHERS SHALL BE USED WITH METAL DECK THINNER THAN 22 GAUGE.

11. ANCHOR BOLTS SHALL BE F1554, GR 55 SUPPLEMENT 1 (WELDABLE) HEADED BOLTS. MINIMUM ANCHOR BOLT EMBEDMENT SHALL BE 12 BOLT DIAMETERS UNLESS NOTED OTHERWISE. CLEAN ANCHOR BOLTS OF ALL GREASE, DIRT, ETC., BEFORE INSTALLATION.

12. **FRAMED BEAM CONNECTIONS SHALL DEVELOP ONE HALF OF THE ALLOWABLE UNIFORM LOAD FOR LATERALLY SUPPORTED BEAMS AS SHOWN IN PART 2 OF THE AISC MANUAL. IN NO CASE SHALL THE LENGTH OF THE CONNECTION BE LESS THAN THE "T" DIMENSION.**

13. WELDS SHOWN ON THE STRUCTURAL DRAWINGS ARE THE MINIMUM REQUIRED BY DESIGN. THE FABRICATOR'S DRAWINGS SHALL SHOW WELDS AND THEY SHALL CONFORM TO AWS D1.1 STRUCTURAL WELDING CODE BY THE AMERICAN WELDING SOCIETY. ALL WELDING SHALL BE DONE WITH E-70 SERIES ELECTRODES.

14. HARDENED WASHERS SHALL BE INSTALLED OVER SHORT SLOTTED OR OVERSIZE HOLES OCCURRING IN AN OUTER PLY OF A CONNECTION.

15. THE STEEL JOIST & JOIST GIRDER MANUFACTURER SHALL DESIGN THE JOISTS & JOIST GIRDERS FOR A NET UPLIFT FORCE AS SHOWN ON THE UPLIFT DIAGRAM ON THIS SHEET, AND SHALL FURNISH THE NECESSARY FRAMING TO ENSURE PROPER JOIST & JOIST GIRDER PERFORMANCE UNDER UPLIFT DUE TO WIND AS WELL AS GRAVITY LOADING CONDITIONS.

16. PROVIDE SPECIAL JOIST SEATS WHERE REQUIRED BY NARROW BEARING CONDITIONS.

17. PAINT ALL STRUCTURAL STEEL WITH ONE COAT OF RUST-INHIBITIVE PRIMER 2.5 MILS IN THICKNESS. THE COMPATIBILITY OF PRIMER AND ANY TOP COAT SHALL BE VERIFIED BEFORE ANY PAINTING IS PERFORMED. TOUCH-UP ALL EXPOSED METAL AFTER FIELD INSTALLATION. ALL STRUCTURAL STEEL WHICH IS EXPOSED TO THE ELEMENTS SHALL RECEIVE TWO COATS OF EXTERIOR ENAMEL WHICH IS COMPATIBLE WITH THE PRIMED SURFACE.

18. **STRUCTURAL STEEL SHOP DRAWINGS SHALL INCLUDE COMPLETE DETAILS, CONNECTIONS, AND SCHEDULES FOR FABRICATION AND ASSEMBLY OF STRUCTURAL STEEL MEMBERS. STRUCTURAL STEEL SHOP DRAWINGS SHALL NOT INCLUDE MISCELLANEOUS STEEL. SHOP DRAWINGS WILL NOT BE REVIEWED BY THE DESIGNER UNTIL AFTER THE GENERAL CONTRACTOR HAS THOROUGHLY REVIEWED THE SHOP DRAWINGS, AND COORDINATED THE SHOP DRAWINGS WITH OTHER AFFECTED TRADES. ONLY THREE SETS OF MARKED UP SHOP DRAWINGS SHALL BE RETURNED BY THE DESIGNER. REPRODUCTION OF STRUCTURAL DRAWINGS FOR SHOP DRAWINGS IS NOT PERMITTED.**

19. STEEL JOISTS AND JOIST GIRDER SHOP DRAWINGS SHALL BEAR THE SEAL AND SIGNATURE OF A REGISTERED ENGINEER IN THE PROJECT STATE CONFIRMING THE DESIGN OF JOISTS AND JOIST GIRDERS TO SJI SPECIFICATIONS AND FOR ALL LOADINGS SPECIFIED ON THE DRAWINGS. STEEL JOISTS SHOP DRAWINGS SHALL BE REVIEWED BY THE STRUCTURAL STEEL SUBCONTRACTOR PRIOR TO ENGINEER'S REVIEW.

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Job Number: 2360

Date: 03.22.2024

Revisions: △

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STRUCTURAL GENERAL NOTES

Sheet Number: S5.0

WE-??

STRUCTURAL GENERAL NOTES, CONT.

POST INSTALLED ANCHORS IN CONCRETE, CONCRETE MASONRY, AND ADHESIVE ANCHOR REINFORCING

1. POST-INSTALLED ANCHORS AND ADHESIVE ANCHORED REINFORCING STEEL SHALL ONLY BE USED WHERE SPECIFIED ON THE CONSTRUCTION DOCUMENTS. THE GENERAL CONTRACTOR SHALL OBTAIN APPROVAL FROM THE STRUCTURAL ENGINEER OF RECORD PRIOR TO USING POST INSTALLED ANCHORS FOR MISSING OR MISPLACED CAST-IN-PLACE ANCHORS. CARE SHALL BE GIVEN TO AVOID CONFLICTS WITH EXISTING REINFORCING. HOLES SHALL BE DRILLED AND CLEANED PER THE MANUFACTURER'S PRINTED INSTALLATION INSTRUCTIONS. ANCHORS SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S PRINTED INSTALLATION INSTRUCTIONS.

2. ALL POST INSTALLED ANCHORS AND ADHESIVES SHALL HAVE VALID AND CURRENT ICC-ESR REPORTS.

3. SUBSTITUTION REQUESTS, FOR PRODUCTS OTHER THAN THOSE SPECIFIED, SHALL BE SUBMITTED TO THE ARCHITECT AND STRUCTURAL ENGINEER OF RECORD WITH CALCULATIONS THAT ARE PREPARED AND SEALED BY A REGISTERED DESIGN PROFESSIONAL IN THE STATE IN WHICH THE PROJECT IS LOCATED SHOWING THAT THE SUBSTITUTED PRODUCT WILL ACHIEVE AN EQUIVALENT CAPACITY USING THE APPROPRIATE DESIGN PROCEDURE REQUIRED BY THE REFERENCED BUILDING CODE.

4. MECHANICAL ANCHORS FOR CONCRETE AS SHOWN ON THE CONSTRUCTION DOCUMENTS SHALL BE PROVIDED AS SPECIFIED WITHIN THE CONTRACT DOCUMENTS.

5. IN ADDITION TO THE MANUFACTURER'S PRINTED INSTALLATION INSTRUCTIONS, THE FOLLOWING GUIDELINES SHALL BE FOLLOWED FOR INSTALLATION OF ADHESIVE ANCHORS:
   A. ADHESIVE ANCHORS SHALL BE INSTALLED IN CONCRETE HAVING A MINIMUM AGE OF 21 DAYS AT TIME OF ANCHOR INSTALLATION.
   B. ADHESIVE ANCHORS SHALL BE INSTALLED IN DRY CONCRETE, AND DURING DRY CONDITIONS.
   C. ADHESIVE ANCHORS SHALL BE INSTALLED IN HOLES PREDRILLED WITH A CARBIDE TIPPED DRILL BIT.
   D. ADHESIVE ANCHORS SHALL BE INSTALLED WITHIN THE TEMPERATURE RANGE SPECIFIED IN THE MANUFACTURER'S PRINTED INSTALLATION INSTRUCTIONS, BUT NOT OUTSIDE OF THE DESIGN TEMPERATURE RANGE. (ADHESIVE ANCHOR DESIGN TEMPERATURE RANGE IS 75 DEGREES FAHRENHEIT (LONG TERM) AND 104 DEGREES FAHRENHEIT (SHORT TERM)) LOADS SHALL NOT BE APPLIED TO ADHESIVE ANCHORS UNTIL THE FULL CURING TIME ASSOCIATED WITH THE INSTALLATION TEMPERATURE HAS ELAPSED.

6. INSTALLATION OF ADHESIVE ANCHORS SHALL BE PERFORMED BY PERSONNEL CERTIFIED BY AN APPLICABLE CERTIFICATION PROGRAM. CERTIFICATION SHALL INCLUDE WRITTEN AND PERFORMANCE TESTS IN ACCORDANCE WITH THE ACI/CRSI ADHESIVE ANCHORS INSTALLER CERTIFICATION PROGRAM, OR EQUIVALENT.

7. CONTINUOUS SPECIAL INSPECTIONS SHALL BE PROVIDED FOR POST-INSTALLED ANCHORS IN ACCORDANCE WITH THE ANCHOR MPII AND/OR EVALUATION REPORT, UNLESS MORE SPECIFIC REQUIREMENTS ARE SPECIFIED IN THE CONSTRUCTION DOCUMENTS.

CONCRETE MASONRY

1. CONCRETE MASONRY SHALL CONFORM TO TMS 402-16, "BUILDING CODE REQUIREMENTS FOR MASONRY STRUCTURES," AND TMS 602-16, "SPECIFICATIONS FOR MASONRY STRUCTURES," AND SHALL HAVE A MINIMUM PRISM STRENGTH (F'M) OF 2,000 PSI.

2. MASONRY WALL CONTROL JOINTS SHALL BE LOCATED AS SHOWN ON THE ARCHITECTURAL DRAWINGS.

3. MASONRY UNITS SHALL CONFORM WITH ASTM C90 "STANDARD SPECIFICATIONS FOR LOADBEARING CONCRETE MASONRY UNITS" AND HAVE MINIMUM AVERAGE NET-AREA COMPRESSIVE STRENGTH OF 2150 PSI. MASONRY UNITS SHALL HAVE AN AVERAGE DENSITY WITHIN THE RANGE OF 105 TO 125 POUNDS PER CUBIC FEET.

4. GROUT FOR FILLING CONCRETE MASONRY CELLS SHALL CONFORM TO ASTM C476-09, "STANDARD SPECIFICATION FOR GROUT FOR MASONRY," AND SHALL HAVE A COMPRESSIVE PRISM STRENGTH (F'M) OF 3000 PSI AT 28 DAYS. THE SLUMP SHALL BE BETWEEN 9 INCHES AND 11 INCHES. WHERE THE MINIMUM DIMENSION OF ANY CONTINUOUS VERTICAL CELL IS 3 INCHES OR LESS, USE FINE GROUT. OTHERWISE, USE COARSE (PEA GRAVEL) GROUT.

5. MORTAR FOR CONCRETE MASONRY SHALL BE TYPE "S" AND SHALL CONFORM TO ASTM C270-08, "SPECIFICATION FOR MORTAR FOR UNIT MASONRY" AND HAVE A MINIMUM COMPRESSIVE STRENGTH OF 1800 PSI.

6. MASONRY CONSTRUCTION SHALL BE BUILT IN LIFTS NOT TO EXCEED 4 FEET PRIOR TO GROUTING CORES. KEY NEXT GROUT LIFT INTO PRIOR LIFT BY STOPPING FIRST LIFT 2" BELOW TOP OF BLOCK.

7. ALL REINFORCING BARS IN FILLED CELLS SHALL BE DOWELED INTO FOOTINGS WITH STANDARD 90-DEGREE HOOKS AND DOWELED 7 INCHES INTO BOND BEAMS AT TOP OF WALLS.

8. REINFORCEMENT IN WALLS SHALL BE PLACED IN THE CENTER OF THE WALL UNLESS NOTED OTHERWISE. SEE PLANS FOR REINFORCING.

9. MASONRY LAP SPLICES: SEE TABLE BELOW.

CONCRETE MASONRY REINFORCING LAP LENGTH SCHEDULE			MINIMUM BEND DIAMETERS
BAR SIZE	8" WALL	12" WALL	MIN. DIA. 6d
#3	16"	16"	NOTE: 1. d= BAR DIAMETER. BARS REQUIRED TO BE FIELD BENT SHALL BE BENT COLD TO THE MINIMUM DIAMETER SPECIFIED. FIELD BENDING IN EXCESS OF A 90 DEGREE BEND IS PROHIBITED.
#4	21"	21"	
#5	26"	26"	
#6	43"	40"	
#7	60"	46"	

NOTE:
*WHERE DROPPED WEB MASONRY IS INDICATED , MASONRY BOND BEAMS WITH U-NOTCHES OR BOTTOMS REMOVED FOR PASSAGE OF GROUT & REINFORCING MAY BE SUBSTITUTED. WHERE DROPPED WEB MASONRY IS USED, PROVIDE ACI APPROVED SCREENING/GROUT RETENTION MATERIAL TO ENSURE STOPPAGE OF GROUT TO CELLS BELOW WHERE LIMIT OF GROUTED CELLS ARE INDICATED.

PRE-ENGINEERED COLD FORMED STEEL TRUSSES

1. ROOF TRUSSES SHALL BE DESIGNED TO SUPPORT THE FOLLOWING LOADS:
   A. TOP CHORD: DEAD LOAD - 17 PSF LIVE LOAD - 20 PSF SNOW LOAD - 10 PSF
   B. BOTTOM CHORD: DEAD LOAD - 8 PSF

2. IN ADDITION TO UNIFORM LOADING SPECIFIED FOR TRUSS DESIGN, THE TRUSS SUPPLIER SHALL INCLUDE ANY CONCENTRATED LOADS CAUSED BY ARCHITECTURAL FEATURES OR MECHANICAL EQUIPMENT IN THE TRUSS DESIGN.

3. SEE ARCHITECTURAL DRAWINGS FOR TRUSS PROFILES, DIMENSIONS AND BEARING CONDITIONS.

4. A REGISTERED ENGINEER IN THE PROJECT STATE SHALL DESIGN THE TRUSSES AND THEIR CONNECTIONS TO THE SUPPORTING STRUCTURES. SHOP DRAWINGS, INCLUDING TRUSS DESIGN AND LAYOUT, BEARING THE ENGINEER'S SEAL AND SIGNATURE, SHALL BE SUBMITTED FOR REVIEW.

5. TRUSSES SHALL BE DESIGNED, FABRICATED, AND ERECTED IN ACCORDANCE WITH APPLICABLE STANDARDS OF THE AMERICAN IRON AND STEEL INSTITUTE "SPECIFICATIONS FOR THE DESIGN OF COLD FORMED STEEL STRUCTURAL MEMBERS" AND "DESIGN OF COLD-FORMED STEEL TRUSSES" AND THE LIGHT GAGE STEEL TRUSS ENGINEER'S ASSOCIATION "FIELD INSTALLATION GUIDE FOR COLD-FORMED STEEL TRUSSES".

COLD FORMED STUDS (CFS)

1. ALL WORK SHALL CONFORM WITH THE FOLLOWING STANDARDS:
   A. AISI S100-07/SI-10, "NORTH AMERICAN SPECIFICATION FOR THE DESIGN OF COLD FORMED STEEL STRUCTURAL MEMBERS, WITH SUPPLEMENT 1, DATED 2010."
   B. AISI S200-07, "NORTH AMERICAN STANDARD FOR COLD FORMED STEEL FRAMING – GENERAL PROVISIONS."
   C. AISI S210-07, "NORTH AMERICAN STANDARD FOR COLD FORMED STEEL FRAMING – FLOOR AND ROOF SYSTEM DESIGN."
   D. AISI S211-07, "NORTH AMERICAN STANDARD FOR COLD FORMED STEEL FRAMING – WALL STUD DESIGN."
   E. AISI S212-07, "NORTH AMERICAN STANDARD FOR COLD FORMED STEEL FRAMING - HEADER DESIGN."
   F. AISI S213-07/SI-10 "NORTH AMERICAN STANDARD FOR COLD FORMED STEEL FRAMING - LATERAL DESIGN, WITH SUPPLEMENT 1, DATED 2010."

2. COMPONENT SECTION PROPERTIES INCLUDING, BUT NOT LIMITED TO, AREA (A), MOMENT OF INERTIA (Ix AND Iy) AND RADIUS OF GYRATION (Rx, Ry) SHALL MEET OR EXCEED PUBLISHED VALUES BY CLARKDIETRICH BUILDING SYSTEMS FOR MEMBER SIZES INDICATED.

3. PROVIDE FRAMING ACCESSORIES THAT MEET OR EXCEED BASIS OF DESIGN PRODUCTS BY CLARKDIETRICH BUILDING SYSTEMS. THESE PRODUCTS MAY INCLUDE BUT ARE NOT LIMITED TO:
   A. SUPPLEMENTARY FRAMING.
   B. BRACING, BRIDGING, AND SOLID BLOCKING.
   C. ANCHOR CLIPS.
   D. END CLIPS.
   E. FOUNDATION CLIPS.
   F. GUSSET PLATES.
   G. STUD KICKERS AND KNEE BRACES.
   H. JOIST HANGERS AND END CLOSURES.
   I. HOLE REINFORCING PLATES.
   J. BACKER PLATES.

4. OTHER CONNECTORS FROM SIMPSON STRONG-TIE COMPANY MAY BE SPECIFIED ON THE DRAWINGS.

5. SCREWS SHALL BE SELF-DRILLING, SELF-TAPPING STEEL SCREWS COMPLYING WITH ASTM C1513. GALVANIZED, PLATED OR OIL-PHOSPHATE COATING SHALL COMPLY WITH ASTM B633 AND BE PROVIDED AS NEEDED FOR REQUIRED CORROSION RESISTANCE.

6. WELDING IS PERMITTED ON 18 GAUGE OR HEAVIER MATERIAL ONLY. QUALITY WELDING OPERATORS SHALL BE QUALIFIED IN ACCORDANCE WITH AWS D1.3-2008, "STRUCTURAL WELDING CODE—SHEET METAL." TOUCH UP ALL WELDS WITH ZINC RICH PAINT IN COMPLIANCE WITH ASTM A780.

7. THE JOIST ENDS SHALL BE REINFORCED TO ADEQUATELY STIFFEN THE JOIST WEB AND TRANSFER LOADS TO THE SUPPORTS. MINIMUM END BEARING SHALL BE 1 1/2 INCHES.

8. STUDS SHALL SIT SQUARELY IN THE TOP AND BOTTOM RUNNER TRACK WITH FIRM ABUTMENT AGAINST TRACK WEBS. STUDS SHALL BE ALIGNED OR PLUMBED AND SECURELY FASTENED TO THE FLANGES OF BOTH TOP AND BOTTOM RUNNER TRACK. STUDS SHALL BE POSITIONED IN THE RUNNER TRACK SO AS TO BE ALIGNED DIRECTLY BELOW FLOOR ROOF OR CEILING FRAMING MEMBERS OVERHEAD. IF UNABLE TO CENTER AND DIRECTLY TRANSFER LOADS FROM FLOOR OR ROOF FRAMING (SUCH AS AT OPENINGS) TO THE STUDS, LINTELS SHALL BE PROVIDED.

9. JOINING OF FRAMING MEMBERS SHALL BE MADE WITH SELF-DRILLING SCREWS OR WELDING. WIRE TYING OF FRAMING MEMBERS IN STRUCTURAL APPLICATIONS SHALL NOT BE PERMITTED.

10. SPLICES IN STEEL JOISTS OR STUDS SHALL NOT BE PERMITTED.

11. DURING ERECTION, THE CONTRACTOR SHALL PROVIDE MEANS OF ADEQUATE DISTRIBUTION OF CONCENTRATED LOADS SO THAT THE LOAD CARRYING CAPACITYOF ANY STEEL MEMBER IS NOT EXCEEDED.

12. PERFORMANCE REQUIREMENTS
   A. CALCULATE STRUCTURAL PROPERTIES PER AISI - SPECIFICATIONS FOR THE DESIGN OF COLD-FORMED STEEL STRUCTURAL MEMBERS, 2007.

13. SUBMITTALS
   A. SUBMIT DOCUMENTATION.
   B. PRODUCT DATA: MANUFACTURER'S DATA SHEETS ON EACH PRODUCT TO BE USED, INCLUDING:
      a. PREPARATION INSTRUCTIONS AND RECOMMENDATIONS.
      b. STORAGE AND HANDLING REQUIREMENTS AND RECOMMENDATIONS.
      c. INSTALLATION METHODS.
   C. STRUCTURAL CALCULATIONS:
      a. ALL SHOP DRAWING SUBMITTALS SHALL BE SEALED BY A PROFESSIONAL ENGINEER REGISTERED IN THE PROVINCE OF THE PROJECT LOCATION. ENGINEER SHALL HAVE A MINIMUM OF 5 YEARS EXPERIENCE WITH PROJECTS OF SIMILAR SCOPE.
      b. DESCRIPTION OF DESIGN CRITERIA.
      c. SELECTION OF FRAMING COMPONENTS, ACCESSORIES AND WELDED CONNECTION REQUIREMENTS.
      d. VERIFICATION OF ATTACHMENTS TO STRUCTURE AND ADJACENT FRAMING COMPONENTS.

ABBREVIATIONS

ARCH	ARCHITECT, ARCHITECTURAL
BRG	BEARING
C/L	CENTERLINE
CFS	COLD FORMED STEEL
CMU	CONCRETE MASONRY UNIT
CONC	CONCRETE
CONT	CONTINUOUS
DIA	DIAMETER
DWGS	DRAWINGS
EL	ELEVATION
FDN	FOUNDATION
FFE	FINISHED FLOOR ELEVATION
FTG	FOOTING
FV	FIELD VERIFY
INFO	INFORMATION
JST	JOIST
PEMB	PRE-ENGINEERED METAL BUILDING
PL	PLATE
REINF	REINFORCING
RTU	ROOF TOP UNIT
SHT	SHEET
SPC	SPACING
UNO	UNLESS NOTED OTHERWISE
&	AND

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B & P Job Number 23.02.003.002

NORTH CAROLINA PROFESSIONAL SEAL 23569 ENGINEER FREDERICK A. WEIS, JR.

3.22.24

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LILLINGTON
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STRUCTURAL GENERAL NOTES, CONT.

Sheet Number: S5.1

WE-??

QUALITY ASSURANCE PLAN / PROPSED STATEMENT OF SPECIAL INSPECTION

STRUCTURAL SPECIAL INSPECTION STATEMENT

THIS STATEMENT OF SPECIAL INSPECTIONS IS SUBMITTED AS A CONDITION FOR PERMIT ISSUANCE IN ACCORDANCE WITH THE SPECIAL INSPECTION AND STRUCTURAL TESTING REQUIREMENTS OF THE BUILDING CODE. IT INCLUDES A SCHEDULE OF SPECIAL INSPECTION SERVICES APPLICABLE TO THIS PROJECT AS WELL AS THE NAME OF THE SPECIAL INSPECTOR TO BE RETAINED FOR CONDUCTING THESE INSPECTIONS AND TESTS. THIS STATEMENT OF SPECIAL INSPECTIONS ENCOMPASSES STRUCTURAL DISCIPLINE.

THE SPECIAL INSPECTOR SHALL KEEP RECORDS OF ALL INSPECTIONS AND SHALL FURNISH INSPECTION REPORTS TO THE BUILDING OFFICIAL AND THE REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE OF SPECIAL INSPECTION. DISCOVERED DISCREPANCIES SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE CONTRACTOR FOR CORRECTION. IF SUCH DISCREPANCIES ARE NOT CORRECTED, THE DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE BUILDING OFFICIAL AND THE REGISTERED DESIGN PROFESSIONAL RESPONSIBLE IN CHARGE OF SPECIAL INSPECTION. THE SPECIAL INSPECTION PROGRAM DOES NOT RELIEVE THE CONTRACTOR OF HIS OR HER RESPONSIBILITIES.

INTERIM REPORTS SHALL BE SUBMITTED TO THE BUILDING OFFICIAL AND THE REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE OF SPECIAL INSPECTION AND THE ENGINEER OF RECORD.

A FINAL REPORT OF SPECIAL INSPECTIONS DOCUMENTING COMPLETION OF ALL REQUIRED SPECIAL INSPECTIONS, TESTING AND CORRECTION OF ANY DISCREPANCIES NOTES IN THE INSPECTIONS SHALL BE SUBMITTED BY ALL SPECIAL INSPECTORS AND THE DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE OF SPECIAL INSPECTIONS PRIOR TO ISSUANCE OF A CERTIFICATE OF USE AND OCCUPANCY.

JOB SITE SAFETY MEANS AND METHODS OF CONSTRUCTION ARE SOLELY THE RESPONSIBILITY OF THE CONTRACTOR.

THIS STATEMENT OF SPECIAL INSPECTIONS INCLUDES THE FOLLOWING BUILDING SYSTEMS:

☒ FABRICATORS	☐ PRECAST CONCRETE	☐ SEISMIC RESISTANCE
☒ SOILS	☒ MASONRY LEVEL 1	☐ WIND RESISTANCE
☐ PILE FOUNDATIONS	☐ MASONRY LEVEL 2	☐ WOOD CONSTRUCTION
☐ PIER FOUNDATIONS	☒ STRUCTURAL STEEL	☐ SPECIAL CASES
☒ CONCRETE CONSTRUCTION	☐ COLD-FORMED STEEL FRAMING	☒ OPEN-WEB STEEL JOISTS AND JOIST GIRDERS
	☒ STEEL CONSTRUCTION: OTHER	

REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE**

RESPONSIBILITY	FIRM	ADDRESS AND TELEPHONE NUMBER
1.	-	-
2.	-	-
3.	-	-

NOTE:
1. **REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE: A REGISTERED DESIGN PROFESSIONAL ENGAGED BY THE OWNER TO REVIEW AND COORDINATION THE SPECIAL INSPECTION AS DETERMINED BY THE BUILDING OFFICIAL, FOR COMPATIBILITY WITH THE DESIGN OF THE BUILDING OF STRUCTURE INCLUDING SUBMITTAL DOCUMENTS PREPARED BY OTHERS, DEFERRED SUBMITTAL DOCUMENTERS AND PHASED SUBMITTAL DOCUMENTS.
2. ENGINEER OF RECORD HAS NOT BEEN ENGAGED AS THE REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE OF SPECIAL INSPECTIONS.

SPECIAL INSPECTION AGENCIES

1.	-	-
2.	-	-
3.	-	-

NOTES:

1. THE INSPECTORS AND TESTING AGENCIES SHALL BE ENGAGED BY THE OWNER OR THE OWNER'S AGENT, AND NOT BY THE CONTRACTOR.
2. ANY CONFLICT OF INTEREST MUST BE DISCLOSED TO THE BUILDING OFFICIAL AND THE DESIGN PROFESSIONAL PRIOR TO COMMENCING WORK.
3. THE MINIMUM QUALIFICATIONS OF THE SPECIAL INSPECTOR(S) AND/OR TESTING AGENCIES SHALL BE THOSE LISTED IN THE MINIMUM SPECIAL INSPECTOR QUALIFICATIONS TABLE. THE QUALIFICATIONS OF THE SPECIAL INSPECTOR(S) AND/OR TESTING AGENCIES MAY BE SUBJECT TO THE APPROVAL OF THE BUILDING OFFICIAL.
4. INSPECTION OF FABRICATORS IS NOT REQUIRED WHERE THE FABRICATOR IS APPROVED IN ACCORDANCE WITH SECTION 1704.2.2 OF THE BUILDING CODE.

SPECIAL INSPECTION SCHEDULE: FABRICATORS

VERIFICATION AND INSPECTION TASK	APPLICABLE TO THIS PROJECT?	FREQUENCY	
		CONTINUOUS	PERIODIC
1. VERIFY FABRICATION AND IMPLEMENTATION PROCEDURES:	YES	-	X
A. STEEL CONSTRUCTION **	YES	-	X
B. CONCRETE CONSTRUCTION (INCLUDING REBAR FABRICATION)	YES	-	X
C. WOOD CONSTRUCTION **	NO	-	X
D. COLD FORMED METAL CONSTRUCTION	YES	-	X
E. OTHER CONSTRUCTION	YES	-	X

**IF FABRICATOR IS NOT EXEMPT PER IBC CHAPTER 17.

SPECIAL INSPECTION SCHEDULE: SOILS

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

SPECIAL INSPECTION SCHEDULE: CONCRETE CONSTRUCTION

VERIFICATION AND INSPECTION TASK	APPLICABLE TO THIS PROJECT?	FREQUENCY	
		CONTINUOUS	PERIODIC
1. INSPECTION OF REINFORCING STEEL, INCLUDING PLACEMENT.	YES	-	X
2. INSPECTION OF REINFORCING STEEL WELDING IN ACCORDANCE WITH THE SPECIAL INSPECTION SCHEDULE: STEEL CONSTRUCTION OTHER THAN STRUCTURAL STEEL ITEM 3.	YES	-	X
3. INSPECTION OF ANCHORS CAST IN CONCRETE WHERE ALLOWABLE LOADS HAVE BEEN INCREASED OR WHERE STRENGTH DESIGN IS USED.	YES	-	X
4. INSPECTION OF ANCHORS POST-INSTALLED IN HARDENED CONCRETE MEMBERS.	YES	-	X
5. VERIFYING USE OF REQUIRED DESIGN MIX.	YES	-	X
6. AT THE TIME FRESH CONCRETE IS SAMPLED TO FABRICATE SPECIMENS FOR STRENGTH TESTS, PERFORM SLUMP AND AIR CONTENT TESTS, AND DETERMINE THE TEMPERATURE OF THE CONCRETE.	YES	X	-
7. INSPECTION OF CONCRETE AND SHOTCRETE PLACEMENT FOR PROPER APPLICATION TECHNIQUES	YES	X	-
8. INSPECTION FOR MAINTENANCE OF SPECIFIED CURING TEMPERATURE AND TECHNIQUES.	YES	-	X
9. INSPECTION OF PRESTRESSED CONCRETE: A. APPLICATION OF PRESTRESSING FORCES.	NO	X	-
B. GROUTING OF BONDED PRESTRESSING TENDONS IN THE SEISMIC- FORCE-RESISTING SYSTEM.	NO	X	-
10. ERECTION OF PRECAST CONCRETE MEMBERS.	NO	-	X
11. VERIFICATION OF IN-SITU CONCRETE STRENGTH, PRIOR TO STRESSING OF TENDONS IN POST-TENSIONED CONCRETE AND PRIOR TO REMOVAL OF SHORES AND FORMS FROM BEAMS AND STRUCTURAL SLABS.	YES	-	X
12. INSPECT FORMWORK FOR SHAPE, LOCATION AND DIMENSIONS OF THE CONCRETE MEMBER BEING FORMED.	YES	-	X

NOTE:
1. SPECIAL INSPECTIONS FOR ISOLATED SPREAD CONCRETE FOOTINGS, CONTINUOUS CONCRETE FOOTINGS SUPPORTING WALLS, AND CONCRETE FOUNDATION WALLS SHALL BE IN ACCORDANCE WITH THIS TABLE.

SPECIAL INSPECTION SCHEDULE: MASONRY CONSTRUCTION - LEVEL 1

VERIFICATION AND INSPECTION TASK	APPLICABLE TO THIS PROJECT?	FREQUENCY	
		CONTINUOUS	PERIODIC
1. COMPLIANCE WITH REQUIRED INSPECTION PROVISIONS OF THE CONSTRUCTION DOCUMENTS AND THE APPROVED SUBMITTALS SHALL BE VERIFIED.	YES	-	X
2. VERIFICATION OF f'm AND f'AAC PRIOR TO CONSTRUCTION EXCEPT WHERE SPECIFICALLY EXEMPTED BY THE BUILDING CODE.	YES	-	X
3. VERIFICATION OF SLUMP FLOW AND VSI AS DELIVERED TO THE SITE FOR SELF-CONSOLIDATING GROUT.	YES	X	-
4. AS MASONRY CONSTRUCTION BEGINS, THE FOLLOWING SHALL BE VERIFIED TO ENSURE COMPLIANCE: A. PROPORTIONS OF SITE-PREPARED MORTAR.	YES	-	X
B. CONSTRUCTION OF MORTAR JOINTS.	YES	-	X
C. LOCATION OF REINFORCEMENT, CONNECTORS, ANCHORAGES.	YES	-	X
D. PRESTRESSING TECHNIQUE.	NO	-	X
E. GRADE AND SIZE OF PRESTRESSING TENDONS AND ANCHORAGES.	NO	-	X
5. DURING CONSTRUCTION, THE INSPECTION PROGRAM SHALL VERIFY: A. SIZE AND LOCATION OF STRUCTURAL ELEMENTS.	YES	-	X
B. TYPE, SIZE AND LOCATION OF ANCHORS, INCLUDING OTHER DETAILS OF ANCHORAGE OF MASONRY TO STRUCTURAL MEMBERS FRAMES OR OTHER CONSTRUCTION.	YES	-	X
C. SPECIFIED SIZE, GRADE AND TYPE OF REINFORCEMENT.	YES	-	X
D. WELDING OF REINFORCING BARS.	YES	X	-
E. PREPARATION, CONSTRUCTION AND PROTECTION OF MASONRY DURING COLD WEATHER (TEMPERATURE BELOW 40°F) OR HOT WEATHER (TEMPERATURE ABOVE 90°F).	YES	-	X
F. APPLICATION AND MEASUREMENT OF PRESTRESSING FORCE.	NO	-	X
6. PRIOR TO GROUTING, THE FOLLOWING SHALL BE VERIFIED TO ENSURE COMPLIANCE: A. GROUT SPACE IS CLEAN.	YES	-	X
B. PLACEMENT OF REINFORCEMENT AND CONNECTORS.	YES	-	X
C. PROPORTIONS OF SITE-PREPARED GROUT AND PRESTRESSING GROUT FOR BONDED TENDONS.	NO	-	X
D. CONSTRUCTION OF MORTAR JOINTS.	YES	-	X
7. GROUT PLACEMENT SHALL BE VERIFIED TO ENSURE COMPLIANCE WITH CODE AND CONSTRUCTION DOCUMENT PROVISIONS.	YES	X	-
A. GROUTING OF PRESTRESSING BONDED TENDONS.	NO	X	-
8. PREPARATION OF ANY REQUIRED GROUT SPECIMENS, MORTAR SPECIMENS AND/OR PRISMS SHALL BE OBSERVED.	YES	-	X

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LILLINGTON
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Job Number: 2360

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QUALITY ASSURANCE / PROPOSED STATEMENT OF SPECIAL INSPECTIONS

Sheet Number: S5.2

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QUALITY ASSURANCE PLAN / PROPSED STATEMENT OF SPECIAL INSPECTION, CONT.

SPECIAL INSPECTION SCHEDULE: STRUCTURAL STEEL CONSTRUCTION

VERIFICATION AND INSPECTION TASK	APPLICABLE TO THIS PROJECT?	FREQUENCY	
		CONTINUOUS	PERIODIC
1. MATERIAL VERIFICATION OF HIGH-STRENGTH BOLTS, NUTS AND WASHERS: A. IDENTIFICATION MARKINGS TO CONFORM TO ASTM STANDARDS SPECIFIED IN THE APPROVED CONSTRUCTION DOCUMENTS.	YES	-	X
B. MANUFACTURER'S CERTIFICATE OF COMPLIANCE REQUIRED.	YES	-	X
2. INSPECTION OF HIGH-STRENGTH BOLTING:	YES	-	X
A. PRETENSIONED AND SLIP CRITICAL JOINTS USING TURN-OF-NUT WITH MATCHMARKING, TWIST-OFF BOLT, CALIBRATED WRENCH, OR DIRECT TENSION INDICATOR METHODS OF INSTALLATION.	YES	-	X
B. PRETENSIONED AND SLIP-CRITICAL JOINTS USING TURN-OF-NUT WITHOUT MATCHMARKING OR CALIBRATED WRENCH METHODS OF INSTALLATION .	NO	X	-
3. MATERIAL VERIFICATION OF STRUCTURAL STEEL: A. IDENTIFICATION MARKINGS TO CONFORM TO ASTM STANDARDS SPECIFIED IN THE APPROVED CONSTRUCTION DOCUMENTS AND AISC 360.	YES	-	X
B. MANUFACTURER'S CERTIFIED TEST REPORTS.	YES	-	X
4. MATERIAL VERIFICATION OF WELD FILLER MATERIALS: A. IDENTIFICATION MARKINGS TO CONFORM TO AWS SPECIFICATION IN THE APPROVED CONSTRUCTION DOCUMENTS	YES	-	X
B. MANUFACTURER'S CERTIFICATE OF COMPLIANCE REQUIRED.	YES	-	X
5. INSPECTION OF WELDING, STRUCTURAL STEEL: A. COMPLETE AND PARTIAL PENETRATION GROOVE WELDS.	YES	X	-
B. MULTIPASS FILLET WELDS	YES	X	-
C. SINGLE-PASS FILLET WELDS > 5/16"	YES	X	-
D. SINGLE-PASS FILLET WELDS ≤ 5/16"	YES	-	X
6. INSPECTION OF STEEL FRAME JOINT DETAILS FOR COMPLIANCE WITH APPROVED CONSTRUCTION DOCUMENTS: A. DETAILS SUCH AS BRACING AND STIFFENING.	YES	-	X
B. MEMBER LOCATIONS.	YES	-	X
C. APPLICATION OF JOINT DETAILS AT EACH CONNECTION.	YES	-	X

SPECIAL INSPECTION SCHEDULE: STEEL CONSTRUCTION OTHER THAN STRUCTURAL STEEL

VERIFICATION AND INSPECTION TASK	APPLICABLE TO THIS PROJECT?	FREQUENCY	
		CONTINUOUS	PERIODIC
1. MATERIAL VERIFICATION OF COLD-FORMED STEEL DECK: A. IDENTIFICATION MARKINGS TO CONFORM TO ASTM STANDARDS SPECIFIED IN THE APPROVED CONSTRUCTION DOCUMENTS.	YES	-	X
B. MANUFACTURER'S CERTIFICATE OF COMPLIANCE REQUIRED.	YES	-	X
2. INSPECTION OF WELDING, COLD-FORMED STEEL DECK: A. ROOF DECK WELDS.	YES	-	X
3. INSPECTION OF WELDING, REINFORCING STEEL: A. VERIFICATION OF WELDABILITY OF REINFORCING STEEL OTHER THAN ASTM A 706.	YES	-	X
B. REINFORCING STEEL RESISTING FLEXURAL AND AXIAL FORCES IN INTERMEDIATE AND SPECIAL MOMENT FRAMES, AND BOUNDARY ELEMENTS OF SPECIAL STRUCTURAL WALLS OF CONCRETE AND SHEAR REINFORCEMENT.	NO	X	-
C. SHEAR REINFORCEMENT.	YES	X	-
D. OTHER REINFORCING STEEL.	YES	-	X
4. INSPECTION OF COLD-FORMED STEEL TRUSSES: A. VERIFY TEMPORARY INSTALLATION RESTRAINT/BRACING ARE INSTALLED IN ACCORDANCE WITH APPROVED TRUSS SUBMITTAL PACKAGE.	YES	-	X
B. VERIFY PERMANENT INDIVIDUAL TRUSS MEMBER RESTRAINT/BRACING ARE INSTALLED IN ACCORDANCE WITH APPROVED TRUSS SUBMITTAL PACKAGE.	YES	-	X

SPECIAL INSPECTION SCHEDULE: OPEN-WEB STEEL JOISTS AND JOIST GIRDERS

VERIFICATION AND INSPECTION TASK	APPLICABLE TO THIS PROJECT?	FREQUENCY	
		CONTINUOUS	PERIODIC
1. INSTALLATION OF OPEN-WEB STEEL JOISTS AND JOIST GIRDERS A. END CONNECTIONS - WELDING OR BOLTED.	YES	-	X
B. BRIDGING - HORIZONTAL OR DIAGONAL	YES	-	X
2. STANDARD BRIDGING	YES	-	X
3. BRIDGING THAT DIFFERS FROM THE SJI SPECIFICATIONS LISTED IN SECTION 2207.1	YES	-	X

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QUALITY ASSURANCE / PROPOSED STATEMENT OF SPECIAL INSPECTIONS, CONT.

Sheet Number: S5.3

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CONCRETE SPECIFICATIONS

PART 1 - GENERAL

1.01 QUALITY ASSURANCE

A. Ready-Mix Concrete Supplier: A firm experienced in producing ready-mixed concrete that complies with ASTM C94 requirements for production facilities and equipment. Comply with ACI 301, "Specification for Structural Concrete."
  1. Manufacturer certified according to NRMCA's "Certification of Ready-Mixed Concrete Production Facilities." Certification shall not be more than twelve months old.

B. Concrete Contractor Qualification: Concrete contractor shall include in their bid package to the general contractor, a minimum of three similar and successful projects that clearly indicates the ability to successfully perform the work and to achieve the interior slab on ground tolerances required in this specification. The Concrete Contractor's team shall have participated in the majority of the referenced projects, and that team shall remain the same throughout the duration of this project. Concrete Contractor's qualification shall be submitted as part of the bid package. The Owner has rights to reject the Concrete Contractor.

C. Testing Agency Qualifications: An independent agency, qualified according to ASTM C1077 and ASTM E329 for testing indicated, as documented according to ASTM E548.
  1. Personnel conducting field tests shall be qualified as ACI Concrete Field-Testing Technician, Grade 1, according to ACI CP-01 or an equivalent certification program.
  2. Personnel performing laboratory tests shall be ACI-certified Concrete Strength Testing Technician and Concrete Laboratory Testing Technician - Grade I. Testing Agency laboratory supervisor shall be an ACI-certified Concrete Laboratory Testing Technician - Grade II.

D. Trained Applicator: General contractors bidding or negotiating a Tractor Supply project shall contact Euclid Chemical to obtain a list of Trained Applicators located within the geographic region of the project. General Contractors shall solicit and accept pricing only from those applicators as provided by Euclid Chemical. **The Trained Applicator selected for the initial application of joint filler and liquid densifier/sealer shall be the same as for the polishing process and additional application of liquid densifier/sealer.**
  1. Philip Brandt: Euclid Chemical - 877-438-3826 / pbrandt@euclidchemical.com

E. Concrete Slab on Ground Pre-Installation Conference (Tractor Supply Requirement): At least 30 days prior to the start of concrete slab construction, the general contractor shall conduct a meeting to review the proposed concrete mix designs and to discuss the required methods and procedures to achieve the requirements of this specification. The general contractor shall send a pre-concrete conference agenda to all attendees 10 days prior to the scheduled date of the conference.
  1. The general contractor shall require responsible representatives of every party concerned with the concrete work to attend the conference, including, but not limited to the following:
    a. General Contractor: Project Manager and Superintendent
    b. Ready-mix Concrete Producer: Quality Control Manager
    c. Concrete Contractor: Foreman
    d. Testing Agency: Project Manager and Field Rep for concrete mixes, quality control, floor tolerance testing, etc.
    e. Owner Representative: If Required
    f. Trained Applicator: Liquid densifier sealer and joint filling applicator
    g. Phil Brandt: Euclid Chemical (877-438-3826) / pbrandt@euclidchemical.com
  2. Minutes of the meeting shall be recorded, typed, and printed by the general contractor and distributed to all concerned parties, including the architect, structural engineer, and Tractor Supply Project Manager, within three days of the meeting.
  3. The minutes shall include a statement by the ready-mix concrete supplier stating that the proposed concrete mix designs will produce the concrete quality required by these specifications.
  4. The minutes shall include a statement by the concrete contractor that the proposed concrete mix designs will provide appropriate workability and setting times, to ensure that the concrete contractor can achieve the requirements of this specification.

PART 2 - PRODUCTS

2.01 MATERIALS

A. Concrete materials:
  1. Portland Cement: ASTM C150/C150M, Type I/II, or ASTM C-595, Type IL (Portland Limestone Cement). Use one brand of cement throughout the project.
  Coarse and Fine Aggregates: ASTM C 33. Combined aggregate gradation for slabs on grade and other designated concrete shall be 8% - 18% for large top size aggregates (1½") or 8% - 22% for smaller top size aggregates (1" or ¾") retained on each sieve below the top size and above the No. 100 sieve.
    a. Footings and Piers: Unless indicated otherwise on drawings, footings and piers shall have a maximum aggregate size of 1" (#57 stone), and beams ¾" (#67 stone).
    b. Interior Slab on Ground: Unless indicated otherwise on drawings, interior slab on ground shall have a maximum coarse aggregate size of 1" (#57 stone).
    c. Exterior Slab on Ground: Unless indicated otherwise on drawings, exterior slab on ground shall have a maximum coarse aggregate size of 1" (#57 stone).
  2. Water: complying with ASTM C94.
  3. Air-Entraining Admixture **(Interior Slab on Ground)**: **Air-entraining admixture shall not be used for interior slab on ground concrete work.**
  4. Air-Entraining Admixture **(Exterior Slab on Ground Concrete)**: ASTM C-260. Admixture manufacturer shall provide written certification that the air-entraining admixture is compatible with other required admixtures. All exterior slab on ground shall be air-entrained (4% - 6%). Acceptable products: Euclid Chemical AEA-92 or Air 40; Master Builders Micro Air; W.R. Grace Daravair or Darex.
  5. Water-Reducing Admixture: ASTM C494, Type A containing not more than 0.05% chloride ions. Acceptable products: Euclid Chemical Eucon series; Master Builders Pozzolith series; W.R. Grace WRDA or Daracem series.
  6. Water-Reducing, Retarding Admixture: ASTM C494, Type D containing not more than 0.05% chloride ions. Acceptable products: Euclid Chemical Retarder 75; Master Builders Pozzolith series or Delvo; W.R. Grace Daratard 17.
  7. High Range Water-Reducing Admixture (Superplasticizer): ASTM C494, Type F or G containing not more than 0.05% chloride ions. Acceptable products: Euclid Chemical Eucon 37; Master Builders Rheobuild 1000; W.R. Grace Daracem-100.
  8. Water-Reducing, Non-Corrosive Accelerating Admixture: ASTM C494, Type C or E containing not more chloride ions than are present in municipal drinking water. The admixture manufacturer must have long-term, non-corrosive test data from an independent testing laboratory (of at least a year's duration) using an acceptable accelerated corrosion test method such as that using electrical potential measures. Acceptable products: Euclid Chemical Accelguard 80/90 or NCA; Master Builders NC534 or Pozzutec 20; W.R. Grace Polarset.
  9. Prohibited admixtures:
    a. Calcium chloride or admixtures containing more than 0.05% chloride ions are not permitted.
    b. Fly ash is only permitted in exterior slab on ground subject to Alkali Silica Reactivity (ASR); up to 20% exchange by weight.
  10. Macro-Synthetic fibers **(Exterior Slab on Ground Concrete)**: Comply with ASTM C1116. "Structural" fibers shall be a patented coarse monofilament, self-fibrillating, polypropylene/polyethylene fiber with a minimum tensile strength of 73ksi and minimum length of 2 inches.
    a. Acceptable macro-synthetic fiber (No Substitutions): "Tuf-Strand SF" by Euclid Chemical. Phil Brandt 877-438-3826 / pbrandt@euclidchemical.com

B. Related Materials:
  1. Evaporation Retarder: Waterborne, monomolecular film forming, manufactured for application to fresh concrete.
    a. Acceptable manufacturer: "Eucobar" by Euclid Chemical.
  2. Interior Slab on Ground Curing: ASTM C309 with a maximum VOC content of 350g/l. The interior slab on ground shall be cured using a reduced odor, dissipating or removable liquid membrane forming curing compound.
    a. Acceptable manufacturer: "Kurez DR VOX" or "Kurez DR 100" by Euclid Chemical.
    b. Interior Slab on Ground: Unless indicated otherwise on drawings, interior slab on ground shall have a maximum coarse aggregate size of 1" (#57 stone).
    c. Exterior Slab on Ground: Unless indicated otherwise on drawings, exterior slab on ground shall have a maximum coarse aggregate size of 1" (#57 stone).
  3. Interior Slab on Ground Semi-Rigid Polyurea Joint Filler: Comply with ACI 302, shall be a two (2) component, 100% solids, UV Resistant compound, with minimum shore "A" hardness of 80. Color to match adjacent concrete surfaces.
    a. Acceptable manufacturer: "QWIKjoint UVR" by Euclid Chemical.
  4. Interior Slab on Ground Liquid Densifier/Sealer: Sodium siliconate containing at least 24% solids by weight.
    a. Acceptable manufacturer: "Euco Diamond Hard" by Euclid Chemical.
    b. Project service: General Contractor shall contact the Manufacturer prior to bidding for pricing and application requirements, and at least 10 days prior to application of liquid densifier and sealer, for jobsite service. If necessary, the representative will be on site during the first application of liquid densifier/sealer.
  5. Exterior Slab on Ground Curing: ASTM C1315 with a maximum VOC content of 700 g/l. All exterior slab on ground shall be cured using a liquid membrane-forming curing compound.
    a. Acceptable manufacturer: "Super Rez Seal" or "Super Diamond Clear VOX" by Euclid Chemical.
  6. Exterior Slab on Ground Urethane Joint Sealant: ASTM C920-86, Type S, Grade NS, and Class 25 Industrial gun grade polyurethane sealant shall exhibit a shore "A" hardness of 40 and an elongation of 250%.
    a. Acceptable manufacturer: "Eucolastic 1 NS/SL" by Euclid Chemical.

2.02 CONCRETE MIXES

A. Comply with ACI 301 requirements for concrete mixes. Concrete mixes shall be proportioned according to ACI 301, for normal-weight concrete determined by either laboratory trial mix or field test data.

B. Compressive strength:
  1. Interior Slab on Ground: 4000 psi @ 28 days, with a maximum water/cement ratio of 0.53, unless otherwise indicated on the drawings.
  2. Exterior Slab on Ground: 4000 psi @ 28 days, with a maximum water/cement ratio of 0.45, unless otherwise indicated on the drawings.
  3. Concrete materials included in the mix design shall be the same materials provided to the project and shall be prepared by an independent testing laboratory approved by the Owner. Per ACI requirements, if sufficient backup data is not available, the laboratory mix shall exceed the desired job strength of concrete by 1,200 psi.

C. Slump: Concrete shall have a maximum slump of 5½" for the interior and exterior slabs on ground. Unless indicated on drawings, all other concrete shall not exceed a 4" slump.

D. Macro-synthetic fiber addition: All exterior slab on ground shall contain the specified macro-synthetic fiber used at a rate of no less than 3.0 lbs./cyd. Actual fiber dosage may vary based on job-site conditions and shall be calculated by strength equivalency to conventional reinforcement requirements. Required information may include, but not be limited to site prep, subbase, and concrete properties, curing, and loading conditions. The "Engineer of Record" shall contact Euclid Chemical to discuss actual project conditions and the resultant required fiber dosage rate. Fibers may be added at plant location or jobsite and shall be mixed in concrete for a minimum of 4 minutes. Euclid Contact: Mike Mahoney: 216-692-8301

E. Adjustment to Concrete Mixes: Mix adjustments may be requested by the general contractor when characteristics of materials, job conditions, weather, test results or other circumstances warrant; at no additional cost to the Owner and as accepted by the Owner. Laboratory test data for revised mix and strength results must be submitted to and accepted by the Owner prior to work. Testing Agency and Concrete Contractor shall verify that the concrete mix design will produce concrete that will meet the specifications for this project. In addition, the General Contractor and Concrete Contractor shall verify that the workability, finishability and setting times are appropriate for concrete installations. Placement shall be made by concrete truck chute. If concrete pumping is required, the proportions established above shall not be altered to suit the capabilities of the pumping equipment. For concrete containing macro-synthetic fibers, additional water reducer may be necessary. The addition of water is not permitted into concrete mixture after the addition of macro-synthetic fibers.

F. **Interior Slab on Ground Concrete:** Concrete shall be designed to meet 4000 psi compressive strength @ 28 days and exhibit ≤0.04% shrinkage @ 28 days. The mix shall contain approximately 12 cubic feet of 1" top size aggregate (#57 stone), the specified water reducing admixture, and achieve a w/cm ratio of 0.53 (max.). Air-entrainment is prohibited. Proposed mix design shall be similar to the following:

Interior Slab on Ground Prototype mix:

a.	**Materials**	**Prototype mix**
b.	**Cement**	**517-564 lbs.**
c.	**Fly ash/slag**	**Prohibited**
d.	**Coarse aggregate**	**12 cubic feet +/- .50 (#57 stone)**
e.	**Fine aggregate**	**7 cubic feet +/- (adjust as necessary)**
f.	**Water content**	**274 - 298 lbs. (or less)**
g.	**Air content (Entrapped Air Only)**	**3.0% (max.)**
h.	**Water Reducer (Type A/F)**	**3oz.-10oz./100wt +/- (mid-Range)**
i.	**W/CM Ratio**	**0.53 (max.)**
j.	**Initial slump (water)**	**3"**
k.	**Final slump (with water reducer)**	**5.5" (max.)**
l.	**Maximum Shrinkage**	**≤ 0.04% @ 28 days**

G. Exterior Slab on Ground Concrete: Concrete shall be designed to meet 4000 psi compressive strength @ 28 days and exhibit ≤0.04% shrinkage @ 28 days. The mix shall contain approximately 12 cubic feet of 1" top size aggregate (#57 stone), the specified water reducing admixture and achieve a w/cm ratio of 0.45 (max.). Air-entrainment shall be as specified. Proposed mix design shall be similar to the following:

Exterior Slab on Ground Prototype mix:

a.	**Materials**	**Prototype mix**
b.	**Cement**	**517-564 lbs.**
c.	**Fly ash/slag**	**Prohibited, Except in areas of known Alkali Silica Reactivity (Up to 20% by weight exchange)**
d.	**Coarse aggregate**	**12 cubic feet +/- .50 (#57 stone)**
e.	**Fine aggregate**	**7 cubic feet +/- (adjust as necessary)**
f.	**Water content**	**232-253 lbs. (or less)**
g.	**Air content (Entrained Air)**	**6.0% (max.)**
h.	**Water Reducer (Type A/F)**	**3oz.-10oz./100wt +/- (Mid-Range)**
i.	**W/CM Ratio**	**0.45 (max.)**
j.	**Initial slump (water)**	**3"**
k.	**Final slump (with water reducer)**	**5.5" (max.)**
l.	**Macro Synthetic Fiber (Tuf-Strand SF)**	**3 lbs / cubic yard (min.)**
m.	**Maximum Shrinkage**	**≤ 0.04% @ 28 days**

PART 3 - EXECUTION

3.01 INSTALLATION (GENERAL)

A. Base Material: Local state department of transportation approved road base material with 100 percent passing the 1.5" (38 mm) sieve, 15 percent to 55 percent passing the No. 4 (4.75 mm) sieve, and less than 12 percent passing the No. 200 sieve). Install "crusher run" base type material to the minimum compacted thickness as indicated on the construction documents. Crushed stone shall be compacted to 98% Modified Proctor density in accordance with ASTM D1557. The in-place density shall be tested for compliance no more than 48 hours prior to concrete placement using ASTM D1556, ASTM D2167, or ASTM D2922. One copy of test results shall be forwarded to the Owner.

B. Formwork: Design, construct, erect, shore, brace, and maintain formwork according to ACI 301.
  1. Form Work: Form all slabs, stairs and other formed concrete with metal forms or ¾" plywood. For exposed surfaces use forms with an undamaged face. Form ties used shall be snap ties. Concrete release agent shall be a VOC compliant, light viscosity, non-staining oil.

C. Vapor Retarder: ASTM E1643 (if indicated on drawings): Install, protect, and repair vapor-retarder sheets; place sheets in position with longest dimension parallel with direction of pour.
  1. Plastic vapor retarder for concrete floor slab shall be 10-mil (minimum) polyethylene. Seal vapor retarder completely around all pipes and conduits. Inspect vapor retarder thoroughly and repair all punctures and tears immediately prior to placing concrete. All laps shall be 18" minimum and sealed with a completely continuous pressure sensitive tape.

D. Steel Reinforcement (if indicated on drawings): Comply with CRSI's "Manual of Standard Practice" for fabricating, placing, and supporting reinforcement.
  a. Do not cut or puncture vapor retarder. Repair damage and reseal vapor retarder before placing concrete.
  b. Install all anchors, ties, chairs, and other supports as per ACI 301/302 requirements, to ensure reinforcing is supported at proper locations. All reinforcing shall be wired in place using #16 annealed wire. Wood or clay brick chairs are not acceptable.
  c. Welded wire fabric mesh (if indicated on drawings) shall be lapped a minimum of 6" at side laps and secured with tie wires no more than 4 feet on center.

3.02 CONCRETE PLACEMENT

A. Carbon Monoxide / Carbon Dioxide Exposure: If the building is enclosed and the interior slab on ground is placed last, general contractor shall be responsible for monitoring interior slab on ground exposure to excessive exhaust gases containing carbon dioxide (CO_2) or carbon monoxide (CO). To minimize potential damage to the interior slab on ground during placement and curing periods, maximum CO_2 levels shall be 4,500 parts per million and maximum CO levels shall be 15 parts per million at concrete surface within 5 feet of any source of exhaust gases. Unvented combustion heaters shall not be in operation during concrete placement, and equipment inside the building during concrete placement shall be limited to the equipment necessary to place and finish concrete. Only one concrete truck shall be in the building at any given time, and under no circumstance shall there be any earth moving equipment, dump trucks, grading equipment, or any other motorized equipment in operation until after the interior slab on ground is placed and protected by specified curing method. Carbon Monoxide and Carbon Dioxide shall be checked using an appropriate meter from a company similar to the following: CEA Instruments, Inc., Phone (201-967-5660); website: HYPERLINK "http://www.ceainstr.com" www.ceainstr.com.

B. Comply with requirements in ACI 301 for measuring, mixing, transporting, and placing concrete.
  1. Cooperate with all other trades. Confer with electrical, mechanical, plumbing, carpenters, steel workers, etc. Make sure that all sleeves, anchor, insert, conduit, floor boxes, pipes, fittings, and other items are installed before placing concrete. Make provisions for door saddles, and thresholds.
  2. General Contractor shall ensure the accuracy, placement, and alignment of all under-slab work. The placement of all boxes shall be square, level, and true in all respects.
  3. Concrete shall be mixed and delivered in accordance with the requirements of ASTM C94.

C. Comply with ACI 305, "Hot Weather Concrete," and ACI 306, "Cold Weather Concrete" for protection during placing, finishing, and curing.

D. Form-Release Agent: Coat all removable wood and metal forming with a VOC compliant, non-staining, concrete form-release agent and allow excess liquid to drain off before forms are placed.

E. Transport: Place at point of use and consolidate with a concrete vibrator. Do not allow concrete to segregate. Maximum free fall for concrete is 3 feet. A vibrator is required for placement of concrete in walls, piers, footings, and turndowns.

F. Concrete Placement: Place on firm, undisturbed earth, or properly compacted fill. Consolidate by vibrating without segregation. Do not place concrete when temperature is 40°F and falling or when freezing weather is predicted within 24 hours.
  1. Place concrete within the minimum temperature range as specified in ACI 301.
  2. Protect concrete as required in ACI 301.
  3. Concrete shall not contain Type III, high early strength cement, calcium chloride, corrosive accelerators, or antifreeze.
  4. Concrete shall be placed before initial set occurs, and in no event after it has contained its water content for more than 1½ hours.
  5. Unless otherwise specified, all concrete shall be placed upon clean, damp, smooth surfaces that are free from running water. Subgrade and base shall be properly consolidated and rut-free.
  6. Concrete shall not be placed upon soft mud or dry porous earth. The concrete shall be consolidated and worked, in an approved manner, into all corners and angles of the forms and around reinforcement and embedded fixtures in such a manner as to prevent segregation of the coarse aggregate as required in ACI 301.

G. During concrete placement, carefully protect all masonry and metal building walls by covering with waterproof paper.

H. Water may be added in accordance with ASTM C94. Water shall only be added at the job site under the direct supervision of a representative from the Testing Agency. Do not add more water than is indicated as allowable on the batch ticket. Water added at the job site shall be documented on the batch ticket.

3.03 FORMED SURFACE FINISHES

A. Rough-Formed Finish: As-cast concrete texture imparted by form-facing material with tie holes and defective areas repaired and patched, and fins and other projections exceeding ¼" in height shall be rubbed down or chipped off.
  1. Apply to concrete surfaces not exposed to public view.

B. Smooth-Formed Finish: As-cast concrete texture imparted by form-facing material, arranged in an orderly and symmetrical manner with a minimum of seams. Repair and patch tie holes and defective areas. Completely remove fins and other projections. All exposed concrete walls are to be grouted and hand rubbed.
  1. Apply to concrete surfaces exposed to public view or to be covered with a coating or covering material applied directly to concrete, such as waterproofing, damp-proofing, veneer plaster, or painting.
  2. Do not apply rubbed finish to smooth-formed finish.
  3. Apply smooth-rubbed finish, defined in ACI 301, to smooth-formed finished concrete.

C. Related Unformed Surfaces: At tops of walls, horizontal offsets, and similar unformed surfaces adjacent to formed surfaces, strike off smooth and finish with a texture matching adjacent formed surfaces. Continue final surface treatment of formed surfaces uniformly across adjacent unformed surfaces, unless otherwise indicated.

3.04 CONCRETE FINISHES AND TOLERANCES

A. General: Unless otherwise noted by Owner, interior slab on ground shall be cast in one continuous placement. Concrete shall be placed, screeded, re-straightened, and finished to meet the specified F_F and F_L tolerance requirements. Interior slab on ground machine trowel finish shall be achieved within a 2" tolerance of all walls, columns, and partitions. Do not wet concrete surfaces while finishing concrete.
  1. Laser screeds (required), vibratory screeds, highway straightedges and wood or resinous bull floats shall be used to initiate screeding and floating process to form a uniform and open-textured surface plane before excess moisture or bleed water appears on the surface. A back-up laser screed is required during concrete placement of the interior slab on ground. Remove excess water before starting floating operations. Do not further disturb surfaces before starting finishing operations.Highway straightedge operations shall continue before, during, and after troweling operation, until the minimum specified floor tolerances are achieved.
  2. Highway straightedge operations shall continue before, during, and after troweling operation, until the minimum specified floor tolerances are achieved.
  3. Trowel finish (Interior Slab on Ground): Trowel surfaces with trowel machines equipped with adjustable blades. Trowel the surface sufficiently to produce a smooth, tight, abrasion resistant surface. Care shall be taken not to overwork or burn the surface. Use 6" wide finish style steel-reinforced blades on final passes. Finishing blades shall be in new condition and completely clean of any deleterious materials.
  4. Trowel finish (Other Floor Areas): Apply a hard trowel finish to surfaces indicated and to floor and slab surfaces exposed to view or to be covered with resilient flooring, carpet, ceramic, or quarry tile set over a cleavage membrane, paint, or another thin film-finish coating system.
  5. Heavy broom finish: Side yard, main entry and exit vestibules, cart storage, ramps, aprons, and walks shall receive a heavy broom finish.
  6. Protection: Care shall be taken to protect newly placed concrete. Entrances shall include clean floor mats to prevent mud stains and all equipment on the floor shall be diapered to prevent spills. Cutting oils are not allowed on the interior slab on ground at any time during the construction process.

B. Pet Wash Area:
  1. Concrete Finish and Curing: Do not broom finish this area. Place and finish concrete as specified in paragraph A, "General Finishes," Section 3.04, "Concrete Finishes and Tolerances." After final troweling, cure using "Kurez DR VOX" or "Kurez DR 100" at an application rate of 400sf/gallon.
  2. Joint Filling: Fill all control joints as specified in paragraph B, Section 3.07, "Interior Slab on Ground Joint Filler."
  3. Surface Preparation: Epoxy floor coating system is designed for application on concrete substrates. Newly placed concrete surfaces should be cured for a minimum of 28 days prior to coating. Concrete surfaces must be structurally sound, free of loose or deteriorated concrete and free of dust, dirt, paint, efflorescence, oil, and other contaminants. Mechanically abrade the surface to achieve a surface profile equal to CSP 2-3 in accordance with ICRI Guideline 310.2. Properly clean profiled area. The pH of the surface should be checked according to ASTM D 4262. Following surface preparation, the cleaned surface should have a minimum surface-tensile strength of 200 psi when tested with an Elcometer or similar pull tester (ASTM D 4541).
  4. Products:
    a. Initial Coat: "Increte High Performance Epoxy" 1-gallon kit (Gray Color) by Euclid Chemical.
    b. Pigmented Chips: "Increte Granite Coat Chips" (Mica Color) by Euclid Chemical.
    c. Grout Coat: "Increte High Performance Epoxy" 1-gallon kit (Clear Color) by Euclid Chemical.
    d. Final Wear Coat: "Increte Polyseal Polyaspartic" 2-gallon kit (Clear Color) by Euclid Chemical.
  5. Initial Coat Mixing: Pre-mix Increte High Performance Epoxy (Gray) Part A and Part B, then combine 2 parts by volume of Part A with one part by volume of Part B, and then mix thoroughly using a low-speed drill motor and a "Jiffy" type mixer. Mix only the amount of material that can be applied during the pot life. Do not aerate the mix.
  6. Initial Coat Application: Apply Increte High Performance Epoxy (Gray) at 120sf/gallon. Spread the mixed epoxy with a notched squeegee while wearing spiked shoes. Start from one end of the floor and work backwards and sideways trying to keep a wet-to-wet edge. Roll coating in one direction using a 3/8" nap, shed-resistant roller. Make sure the material is applied as quickly as possible without leaving puddles.
  7. Pigmented Chip Application: Broadcast until refusal, Increte Granite Coat Chips (Mica) in a high arcing motion into the wet epoxy. Allow to cure. Once dry, vacuum / scrape off excess flakes.
  8. Grout Coat: Apply Increte High Performance Epoxy (Clear) at 120sf/gallon. Allow to dry.
  9. Wear Coat: Apply a final coat of Increte Polyseal Polyaspartic (Clear) at 120sf/gallon. Allow to dry.
  10. Cove Base: In addition to the seamless integral floor, provide a 4" cove base from the floor to the "FRP" wall transition. Cove base shall consist of a mixture of Increte High Performance Epoxy and finely graded, clean dry, trowelable aggregates, troweled to the previously installed vertical cement board surface, to a height of 4". Create a coved, seamless, integral transition at joint between wall and floor. Broadcast until refusal, Increte Granite Coat Chips (Mica) into the wet epoxy. Finish Cove Base detail with the Grout Coat and Wear Coat as specified herein. Once completed, the floor and cove base shall be seamless in function and appearance.
    a. Install cement wall board so that the bottom edge is flush with the floor as specified.
    b. Install cement wall board tape, similar to Goldblatt Professional Cement Board Tape, to all joints of cement board.
    c. Install Fiber Reinforced Panels (FRP) as required. Do not apply adhesive to any areas contacting the 4" cove base installation. Do not apply water to any of these surfaces prior to installation of the epoxy floor or cove system.
    d. Install 4" cove base directly to cement board. Cove base shall come in direct contact with the bottom edge of the Fiber Reinforced Panels so that the floor and cove base shall be seamless in function and appearance.

C. Tolerances: ACI 117, "Specifications for Tolerances for Concrete Construction & Materials." General contractor is responsible for all costs associated with floor tolerance testing. A copy of the final floor tolerance report shall be provided by the general contractor to Owner within 24 hours of receiving the report from the testing laboratory.
  1. All perimeter areas and edges of the interior floor shall exhibit the same final finish.

a.	Location	Interior Slab on Ground	Exterior Slab on Ground
b.	F_F Tolerance	35	25
c.	F_L Tolerance	20	17

3.05 CAST-IN-PLACE CONCRETE JOINTS

A. General: Joints shall be cut as indicated on drawings, and as soon as the slab will support the weight of the saw and operator and when cutting action will not tear, abrade, or otherwise damage the concrete surface. Cuts must be made before concrete develops random contraction cracks. Employ sufficient number of saws and workers to complete cutting of saw joints within 2 hours after final finish of interior slab on ground. After saw cutting, immediately vacuum up and remove all residues completely.
  1. Construction Joints:
    a. Construction joints shall be true to line with faces perpendicular to surface plane of concrete (refer to drawings), so as not to impair strength or appearance of concrete.
    b. Construction joints in slab on grade shall be butt joints with square plate dowels. Do not use metal keyways.
  2. Control Joints: Form weakened-plane control joints, sectioning concrete into areas as indicated:
    a. All saw cutting shall be accomplished with a "Soff-Cut" saw, by Husqvarna Construction Products (800-288-5040), equipped with a patented color-coded, diamond blade and skid plate in new condition. Concrete Subcontractor must have documented successful experience in the use of this method prior to this project. Using a 1/8" thick blade, cut the interior slab on ground a minimum of 1.25" deep for 4" thick slabs and 1.67" for 5" thick slabs. White chalk lines and concrete dust shall be removed completely and immediately after cutting operation.
    b. Random depth checks shall be performed by an independent testing company to confirm that the specified depth of cut is made. Any cut(s) found to be less than proper depth shall be re-cut to the proper depth and filled with specified joint filler at the general contractor's expense.
  3. Isolation Joints: Install joint-filler strips at junctions with slabs-on-grade and vertical surfaces, such as column pedestals, foundation walls, grade beams, and other locations, as indicated.
    a. Extend joint fillers full width and depth of joint, terminating flush with finished concrete surface, unless otherwise indicated.

3.06 INTERIOR SLAB ON GROUND PROTECTION AND CURING

A. Protection: Protect freshly placed concrete from premature drying and excessive cold or hot temperatures. Comply with ACI 305 for hot-weather protection and ACI 306 for cold-weather protection during placing and curing. For concrete placement during hot, dry, and windy conditions, General Contractor shall use the specified evaporation retarder as per manufacturer instructions to maintain a moist condition and to minimize plastic drying shrinkage cracking.

B. **Interior Slab on Ground Concrete Curing**: The interior slab on ground shall be cured using the specified dissipating liquid membrane-forming curing compound. All applications shall be made by a trained applicator immediately following final finish. The concrete and air temperature shall be above 50ºF. Surface shall be damp, but not wet and can no longer be marred by walking workmen. Apply "Kurez DR VOX" or "Kurez DR 100" at an application rate of 400sf/gallon.

C. **Interior Slab on Ground Protection**: Take the following measures to protect the interior slab on ground:
  1. Wrap or diaper all motorized and hydraulic equipment to prevent fluid leaks
  2. Provide non-marking tires on rubber-tired vehicles or equip rubber tires with tire boots made of nylon fabric
  3. Provide mats at all entrances to prevent mud stains

D. **Exterior Slab on Ground Concrete Curing**: All exterior slab on ground shall be cured using the specified liquid membrane-forming curing compound. Application shall be made by a trained applicator immediately following final finish. Concrete and air temperature shall be above 50ºF. Surface shall be clean and damp, but not wet and can no longer be marred by walking workmen. Apply "Super Rez Seal" or "Super Diamond Clear VOX" at an application rate of 400sf/gallon.

3.07 INTERIOR SLAB ON GROUND JOINT FILLER

A. General: Do not commence installation of semi-rigid polyurea joint filler, liquid densifier / sealer and polishing processes until the building is completely enclosed, permanent power and lighting is operating, and the building is thermostatically controlled. Installation of these materials shall commence approximately two weeks prior to "fixture date."

B. Joint Filler Installation: Comply with ACI 302 as applicable to materials, applications, and conditions.
  1. Surface cleaning of joints: Clean joints immediately before installing joint filler. Remove foreign material that could interfere with adhesion of joint filler by brushing, grinding, blast cleaning, mechanical abrading, or a combination of these methods to produce a clean, sound substrate capable of developing optimum bond with joint filler. Remove loose particles remaining from above cleaning operations by vacuuming or blowing out joints with oil-free compressed air. Also remove all laitance and form-release agents from concrete surface. Clean nonporous surfaces with chemical cleaners or other means that do not stain, harm substrates, or leave residues could interfere with adhesion of joint sealants. All surfaces to be filled shall be clean and dry.
  2. Mixing: Joint filler is a two-part product requiring machine mixing and placing. Premix Part "B" separately before using. Follow pump manufacturer's equipment instructions.
  3. Placement: For proper load transfer, joints must be filled full depth, but in no case should the joint filler be any less than 1" deep in the joint. No backer rod is allowed. Joints should be overfilled and shaved level with the surface, giving the floor joints a flat, smooth appearance.
  4. Joint filler separation: The trained joint filling applicator shall include in their bid a cost per linear foot to make one return trip to refill joints if joint filler sidewall separation or splitting exceeds 1/16", or if surface profile is concave, chattered or if voids occur. This shall take place one week prior to grand opening, or at Owner's request.

C. Initial cleaning for liquid densifier and sealer application: thoroughly clean the interior slab on ground prior to the initial application of liquid densifier/sealer and polishing process. Completely remove the remnants of the specified dissipating or removable curing compound from the floor surface. The following floor stripper or removal solution shall be applied to the floor at the proper ratio to thoroughly strip, clean and remove all curing compound residue:
  a. "Euco Clean & Strip" by Euclid chemical

D. Polishing process and application of liquid densifier / sealer: prior to application, inspect interior slab on ground to ensure that slab is clean and free of dust, grease, oils, or other contaminants that might prohibit the proper application and penetration of the liquid densifier and sealer.
  1. The following process is provided as a guide. Many factors, including, but not limited to interior slab on ground finish, hardness and flatness will determine the initial diamond tooling, including additional grinding and/or polishing operations required to meet the requirements specified herein. The trained applicator shall provide a test polish, including application of liquid densifier/sealer to a designated area of the interior slab on ground, using the same equipment, tools and methods as will be used to polish the interior slab on ground. Floor polishing and application of liquid densifier/sealer shall not commence until general contractor has accepted the polished interior slab on ground test slab.
  2. Step one: using equipment with sufficient head pressure (≥ 150 psi), thoroughly clean, and then grind concrete floor with a combo set of 60 grit resin bond diamonds and 100 grit resin bond diamonds (not pads). Each pass must overlap 50% of the previous pass. Grind the concrete floor to allow for an even scratch pattern. Clean floor thoroughly after this pass.
  3. Step two: apply Euclid diamond hard liquid densifier/sealer at 225 square feet per gallon.
  4. Step three: using equipment with sufficient head pressure (≥ 150 psi) polish concrete floor with a combo set of 100 grit resin bond diamonds and 200 grit resin bond diamonds (not pads). Each pass must overlap 50% of the previous pass. Polish the concrete floor to allow for an even scratch pattern. Clean floor thoroughly after this pass.
  5. Step four: using equipment with sufficient head pressure (≥ 150 psi) polish concrete floor with 400 grit resin bond diamonds (not pads). Each pass must overlap 50% of the previous pass. Polish the concrete floor to allow for an even scratch pattern. Clean floor thoroughly after this pass.
  6. Step five: apply Euclid diamond hard liquid densifier/sealer at 700 square feet per gallon.
  7. Step six: burnish/polish concrete floor with 800 grit diamond impregnated pads
  8. Step seven: burnish/polish concrete floor with 1500 grit diamond impregnated pads
  9. Polish results: perform polishing process to reach a specified overall gloss value (SOGV) of ≥35 as measured with a HORIBA ig-320, and a specified minimum gloss reading (SMGV) of ≥30. The trained applicator shall take four gloss measurement readings at 90° from each other, and then averaged for one reading at each location. A minimum of 25 readings shall be taken throughout the interior slab on ground. The overall measurement shall be reported to general contractor within 24 hours of the polishing process. Gloss shall be considered a quantitative value that expresses the degree of reflection when light hits the concrete floor surface. Gloss measurements will be taken independent of ambient lighting and will be taken within a sealed measurement window located beneath the test unit.

3.08 URETHANE EXPANSION JOINT SEALANT APPLICATION

A. Urethane Joint Sealant Application:
  1. Apply joint sealants in accordance with manufacturer's written instructions.
  2. Back-up material:
    a. Install appropriate size backer rod, larger than the joint where necessary per manufacturer's recommendations and in a manner to provide concave sealant profile.
    b. Where joint depth does not permit installation of backer rod, install adhesive-backed polyethylene bond-breaker tape along the entire back of joint to prevent 3-sided adhesion of joint sealant.
  3. Sealant: Verify that the temperature and moisture conditions are within manufacturer's acceptable limits. Using fresh sealant and equipment that is in proper working order, completely fill joint with sealant, filling from bottom up to avoid entrapping air.
  4. Using clean, dry tool with rounded edge and of appropriate width for each joint, tool freshly installed sealant to provide preferred concave profile, to ensure intimate contact between sealant and substrate and to provide neat appearance. Where surface aggregate does not permit proper tooling, install sealant and backer rod so that face of joint is recessed behind exposed aggregate and sealant is bonded to firm, even surface. Use dry tooling method. Do not use tooling agents such as soapy water or tooling agents that have not been approved by sealant manufacturer.

UNLESS OTHERWISE NOTED BY TSC, CONCRETE FLOOR SLAB SHALL BE CAST AS ONE CONTINUOUS POUR. CONTRACTOR SHALL PROVIDE TERMITE PROTECTION. APPLY TERMITICIDE TO SUB-BASE BEFORE CONCRETE IS POURED. PROVIDE ONE GALLON OF DILUTED TERMITICIDE PER 10 SQUARE FEET OF SLAB AREA. APPLY AN ADDITIONAL 2-4 GALLONS PER 10 LINEAR FEET AT THE FOUNDATION PERIMETER.

NOTE: THIS SPEC IS WRITTEN AROUND ASTM STANDARDS. GENERAL CONTRACTOR AND DEVELOPER SHALL BE RESPONSIBLE FOR OVERALL QUALITY OF PRODUCTS SELECTED AND WORKMANSHIP OF SLAB.

ARCHITECT AND CONTRACTOR TO PAY SPECIAL ATTENTION TO ACHIEVE DESIGN THAT PREVENTS THE CONCRETE FROM HEAVING AT ALL DOORWAYS ESPECIALLY IN COLD WEATHER LOCATIONS.

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Architecture
Planning
Interior Architecture

bennett&pless
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SEAL
13569
FREDERICK A. WEIS, JR.
3.22.24

TRACTOR SUPPLY COMPANY
LILLINGTON
NORTH CAROLINA

Job Number: 2360

Date: 03.22.2024

Revisions: △

Revisions: △

Revisions: △

CONCRETE SPECIFICATIONS

Sheet Number: S5.4

WE-??

INTERNATIONAL MC 403.3 COMPLIANCE SCHEDULE

UNIT NUMBER	RTU-1, 2, 3, & 4			RTU-5				TOTAL
AREA SERVED	RETAIL SALES	STOCKROOM		EMPLOYEE LOUNGE	OFFICE	CORRIDOR	I.T. CLOSET	
AREA (SQ. FT)	15,416	4,945		246	78	238	58	
NO. PEOPLE/1000 SQ. FT. (TABLE 403.3)	15	N/A		50	5	–	–	
PEOPLE QUANTITY	50***	N/A		10 *	1	–	–	
AIRFLOW PER PERSON (TABLE 403.3)	7.5	N/A		5	5	–	–	
CFM / SQ. FT.	.12	.12		.06	.06	.06	.06	
TOTAL O.A. REQUIRED (CFM)	2,225	NAT. VENTILATION**		65	10	15	5	2,320
WITH VENTILATION EFFICIENCY = .8	2,785	NAT. VENTILATION**		85	15	30	10	2,925
TOTAL O.A. PROVIDED (CFM)	2,785	NAT. VENTILATION**		85	15	30	10	2,925

NOTES:
* MAX. OCCUPANCY IN **EMPLOYEE LOUNGE** FURNISHED BY OWNER.
** OPERABLE OPENING AREAS IN **STOCKROOM** EXCEEDS 4% OF FLOOR SPACE PER IMC SECTION 402.2.
*** MAXIMUM OCCUPANCY BASED ON OWNER FURNISHED DATA

TRACTOR SUPPLY LIGHTING & HEATING SCHEDULE

	PYLON/BUILDING SIGN PARKING LOT LIGHTS	BUILDING LIGHTS WALL PACKS	BUSINESS LIGHTS	EMPLOYEE LIGHTS	HEATING	COOLING	SUNDAY
ON	DUSK (BY PHOTOCELL)	DUSK TO DAWN PHOTOCELL (ALWAYS ON DURING DARK)	7:30 AM	7:30 AM	68 DEGREES AT 8:00 AM	74 DEGREES AT 8:00 AM	SAME TEMPS AT 10:00 AM
OFF	9:15 PM	DURING THE DAY	8:30 PM	8:30 PM	62 DEGREES AT 9:00 PM	80 DEGREES AT 9:00 PM	SAME TEMPS AT 6:00 PM
LIGHTING CONTROL ZONE	LZ-3	LZ-2	LZ-1B	LZ-1A			
NOTES: CONTROL ZONE	THE SYSTEM CAN BE OVERRIDDEN BY THE OVERRIDE SWITCH IN CASE THE STORE IS OPEN EARLIER OR LATER THAN NORMAL STORE HOURS.						
NOTES: CONTRACTOR RESPONSIBILITIES	1. LZ-X DENOTES ROUTING THRU A LIGHTING CONTRACTOR IN THE UNITIZED BOARD. 2. GC RESPONSIBLE FOR PROGRAMMING ALL NON EMS CONTROLLED THERMOSTATS AND LIGHTING CONTROLS. 3. TEMPERATURE SET POINTS SHALL BE COORDINATED WITH OWNER/EMS SYSTEM PROVIDER AT TIME OF INSTALLATION. MAINTAIN MIN. 5 DEGREE DEADBAND BETWEEN HEATING AND COOLING SET POINTS.						

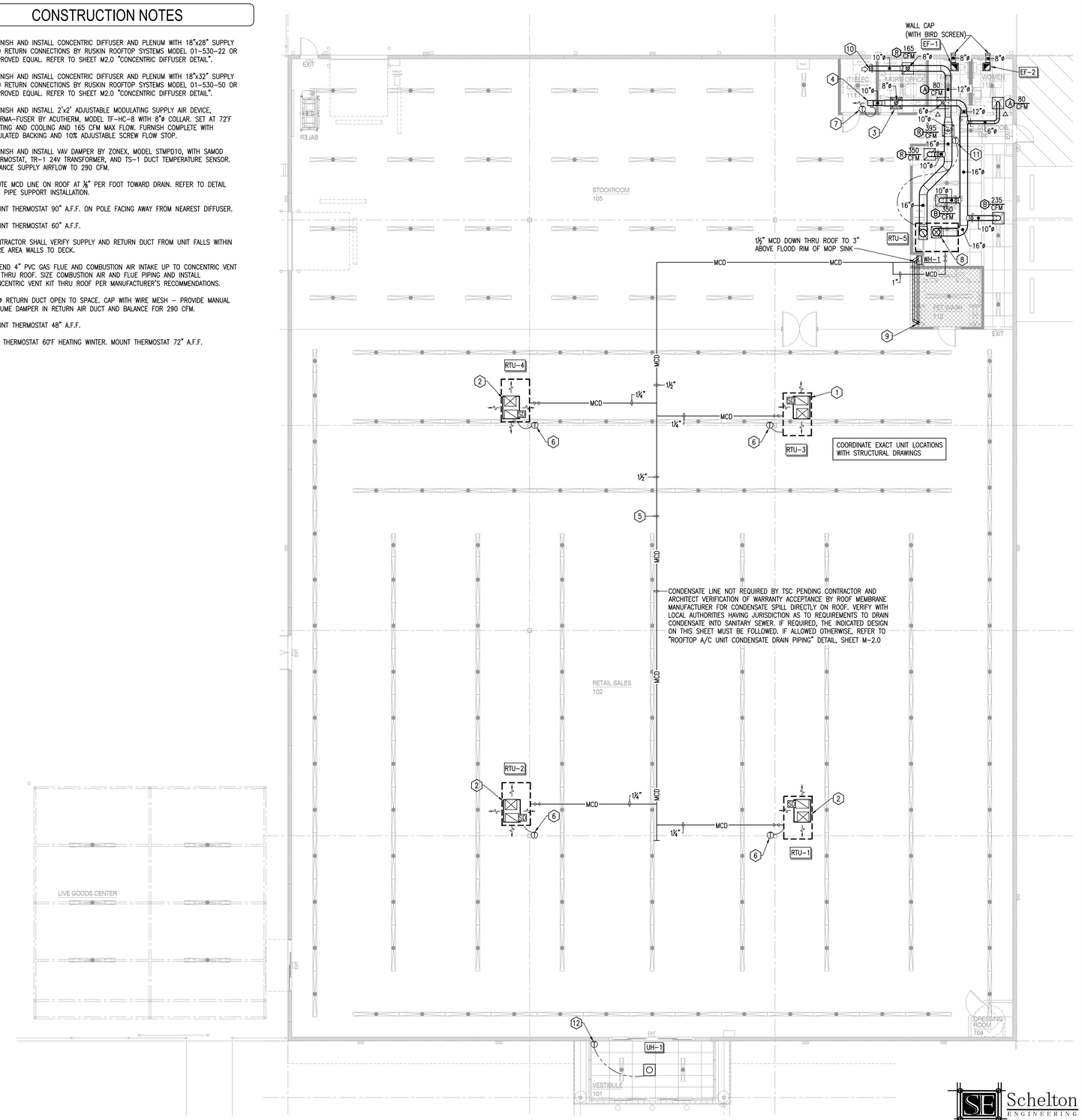
GENERAL NOTES:
- THERMOSTATS SERVING RTU-1, 2, 3, & 4 SHALL BE INTERLOCKED IN ORDER TO PREVENT SIMULTANEOUS HEATING/COOLING.
- REFER TO SHEET E3.1 FOR THERMOSTAT MOUNTING DETAILS.
- RETURN AIR GRILLE FLOW QUANTITIES SHOWN INDICATE 100% AIR FLOW RETURN DURING UNOCCUPIED HOURS OF OPERATION
- CONTRACTORS ARE TO SCHEDULE AND PAY FOR ANY INSPECTIONS REQUIRED DUE TO APPENDIX 5 OF THE NC STATE BUILDING CODE.

MECHANICAL LEGEND

SYMBOL	DESCRIPTION
	NEW SUPPLY AIR DUCTWORK
	NEW RETURN AIR DUCTWORK
	NEW EXHAUST AIR DUCTWORK
	MANUAL VOLUME DAMPER
	CEILING DIFFUSER
	CEILING RETURN AIR GRILLE
	CEILING MOUNTED EXHAUST FAN
(B) 200 CFM	SUPPLY CFM
A.F.F.	ABOVE FINISHED FLOOR
O.A.	OUTSIDE AIR
—MCD—	MECHANICAL CONDENSATE DRAIN
SD	DUCT MOUNTED SMOKE DETECTOR
EF-1	EQUIPMENT LABEL (SEE MECH. SCHEDULE FOR INFO.)
T	THERMOSTAT
	AIR FLOW
△	UNDERCUT DOOR ¾"

CONSTRUCTION NOTES

1. FURNISH AND INSTALL CONCENTRIC DIFFUSER AND PLENUM WITH 18"x28" SUPPLY AND RETURN CONNECTIONS BY RUSKIN ROOFTOP SYSTEMS MODEL 01-530-22 OR APPROVED EQUAL. REFER TO SHEET M2.0 "CONCENTRIC DIFFUSER DETAIL".
2. FURNISH AND INSTALL CONCENTRIC DIFFUSER AND PLENUM WITH 18"x32" SUPPLY AND RETURN CONNECTIONS BY RUSKIN ROOFTOP SYSTEMS MODEL 01-530-50 OR APPROVED EQUAL. REFER TO SHEET M2.0 "CONCENTRIC DIFFUSER DETAIL".
3. FURNISH AND INSTALL 2'x2' ADJUSTABLE MODULATING SUPPLY AIR DEVICE, THERMA-FUSER BY ACUTHERM, MODEL TF-HC-8 WITH 8"ø COLLAR. SET AT 72°F HEATING AND COOLING AND 165 CFM MAX FLOW. FURNISH COMPLETE WITH INSULATED BACKING AND 10% ADJUSTABLE SCREW FLOW STOP.
4. FURNISH AND INSTALL VAV DAMPER BY ZONEX, MODEL STMPD10, WITH SAMOD THERMOSTAT, TR-1 24V TRANSFORMER, AND TS-1 DUCT TEMPERATURE SENSOR. BALANCE SUPPLY AIRFLOW TO 290 CFM.
5. ROUTE MCD LINE ON ROOF AT ¼" PER FOOT TOWARD DRAIN. REFER TO DETAIL FOR PIPE SUPPORT INSTALLATION.
6. MOUNT THERMOSTAT 90" A.F.F. ON POLE FACING AWAY FROM NEAREST DIFFUSER.
7. MOUNT THERMOSTAT 60" A.F.F.
8. CONTRACTOR SHALL VERIFY SUPPLY AND RETURN DUCT FROM UNIT FALLS WITHIN CORE AREA WALLS TO DECK.
9. EXTEND 4" PVC GAS FLUE AND COMBUSTION AIR INTAKE UP TO CONCENTRIC VENT KIT THRU ROOF. SIZE COMBUSTION AIR AND FLUE PIPING AND INSTALL CONCENTRIC VENT KIT THRU ROOF PER MANUFACTURER'S RECOMMENDATIONS.
10. 10"ø RETURN DUCT OPEN TO SPACE. CAP WITH WIRE MESH – PROVIDE MANUAL VOLUME DAMPER IN RETURN AIR DUCT AND BALANCE FOR 290 CFM.
11. MOUNT THERMOSTAT 48" A.F.F.
12. SET THERMOSTAT 60°F HEATING WINTER. MOUNT THERMOSTAT 72" A.F.F.



MECHANICAL FLOOR PLAN
SCALE: 1/8" = 1'-0"

OXFORD ARCHITECTURE
2934 Sidco Drive
Suite 120
Nashville, TN 37204
Architecture
Planning
Interior Architecture

TRACTOR SUPPLY COMPANY
LILLINGTON
NORTH CAROLINA

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Date: 03.22.2024
Revisions:
Revisions:
Revisions:

MECHANICAL FLOOR PLAN
Sheet Number: M1.0

HEATING, VENTILATING AND AIR CONDITIONING SPECIFICATIONS

PART 1 GENERAL

1. FURNISH ALL MATERIALS, LABOR, TOOLS, TRANSPORTATION AND INCIDENTALS TO COMPLETE IN EVERY DETAIL, AND LEAVE IN WORKING ORDER ALL ITEMS CALLED FOR HEREIN OR SHOWN ON THE ACCOMPANYING DRAWINGS.

2. IT IS THE RESPONSIBILITY OF CONTRACTOR TO READ ALL SPECIFICATIONS AND CONSULT ALL DRAWINGS WHICH MAY AFFECT THE INSTALLATION AND COORDINATION OF HIS WORK WITH OTHER TRADES. CONTRACTOR SHALL COORDINATE AND MAKE MINOR ADJUSTMENTS IN LOCATION OF EQUIPMENT AND MATERIALS AS NECESSARY TO SECURE COORDINATION.

3. LAYOUT SHOWN IN DRAWINGS IS BASED ON A PARTICULAR MAKE OF EQUIPMENT. CONTRACTOR SHALL PROVIDE SIX SUBMITTAL SETS OF SHOP DRAWINGS TO ENGINEER FOR APPROVAL PRIOR TO STARTING WORK. IF ANOTHER MAKE OF EQUIPMENT IS DESIRED, THESE SUBMITTALS SHALL ALSO SHOW ALL REQUIRED MODIFICATIONS AND CHANGES, INCLUDING THOSE INVOLVING OTHER TRADES, AND COST THEREOF SHALL BE INCLUDED IN HIS BID. REQUESTS FOR SUBSTITUTION OF PRODUCTS NOT SPECIFICALLY NAMED SHALL BE SUBMITTED IN WRITING A MINIMUM OF TEN (10) CALENDAR DAYS PRIOR TO THE BID DATE. REQUESTS SHALL INCLUDE DESCRIPTION OF ITEM(S), NAME OF MANUFACTURER TO BE SUBSTITUTED AND CATALOG DATA. REQUESTS SHALL BE REVIEWED ONLY TO APPROVE OR REJECT SUBMISSION OF PRODUCT. DETAILED SUBMITTALS SHALL BE SUBMITTED AS NOTED IN OTHER PORTIONS OF THIS SPECIFICATION. DO NOT SUBSTITUTE MATERIALS, EQUIPMENT OR METHODS UNLESS SUCH SUBSTITUTION HAS BEEN APPROVED IN WRITING. DO NOT ASSUME THAT MATERIALS, EQUIPMENT OR METHODS WILL BE APPROVED UNTIL SPECIFIC WRITTEN APPROVAL HAS BEEN GIVEN. THE BURDEN OF PROOF FOR REQUESTED SUBSTITUTIONS RESTS WITH THE CONTRACTOR. CONTRACTOR MUST RECEIVE APPROVED SUBMITTAL COPY, SIGNED BY ENGINEER BEFORE PROCEEDING WITH ANY MODIFICATIONS. WORK INSTALLED USING UNAPPROVED SUBSTITUTIONS SHALL BE REPLACED AT NO ADDITIONAL COST TO THE OWNER.

4. CONTRACTOR SHALL VISIT THE SITE AND FULLY INFORM HIMSELF CONCERNING ALL CONDITIONS AFFECTING SCOPE OF WORK. FAILURE TO DO SO SHALL NOT RELIEVE CONTRACTOR OF ANY RESPONSIBILITY IN THE PERFORMANCE OF HIS WORK. ALL WORKMANSHIP SHALL BE OF THE HIGHEST QUALITY IN ACCORDANCE WITH THE BEST PRACTICES OF THE TRADE BY CRAFTSMEN SKILLED IN THIS PARTICULAR WORK. CONTRACTOR SHALL FILE ALL DRAWINGS, PAY ALL FEES AND OBTAIN ALL PERMITS AND CERTIFICATES OF INSPECTION RELATIVE TO THIS WORK.

5. COMPLETED INSTALLATION SHALL CONFORM TO ALL APPLICABLE FEDERAL, STATE AND LOCAL CODES AND ORDINANCES, INCLUDING BUT NOT LIMITED TO THE LATEST APPROVED EDITIONS OF THE FOLLOWING:

   STATE BUILDING CODE, INTERNATIONAL BUILDING CODE, INTERNATIONAL MECHANICAL CODE, INTERNATIONAL ENERGY CONSERVATION CODE NFPA-90A, NFPA-101, NFPA-54.

   ALL EQUIPMENT SHALL BE ARI CERTIFIED AND U.L. LISTED.

6. SYSTEM LAYOUT IS SCHEMATIC AND EXACT LOCATIONS SHALL BE DETERMINED BY STRUCTURAL CONDITIONS, COORDINATION WITH OTHER TRADES, COORDINATION WITH FINISHES AND OTHER CONDITIONS. STRUCTURAL SUPPORTS SHALL NOT BE CUT OR ALTERED TO ASSURE FIT OF HVAC SYSTEM.

7. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL DEFECTS, REPAIRS AND REPLACEMENTS IN MATERIALS AND WORKMANSHIP FOR A PERIOD OF ONE (1) YEAR AFTER FINAL PAYMENT IS APPROVED. CONTRACTOR SHALL HONOR FACTORY WARRANTIES ON ALL EQUIPMENT PROVIDED AS PART OF THIS SYSTEM. COMPRESSORS SHALL BE PROVIDED WITH A MINIMUM OF FIVE (5) YEAR (PARTS ONLY) WARRANTY.

8. UPON COMPLETION OF PROJECT, ALL SYSTEM EQUIPMENT AND MATERIALS SHALL BE IN NEW, CLEAN CONDITION WITH ALL DAMAGE RESTORED TO ACCEPTABLE CONDITION. ALL EQUIPMENT, COMPONENTS AND DUCTWORK SHALL BE INSPECTED AND THOROUGHLY CLEANED, READY FOR USE. AT COMPLETION OF JOB, ALL MISCELLANEOUS TOOLS, SCAFFOLDING, SURPLUS MATERIALS, RUBBISH AND DEBRIS SHALL BE REMOVED BY CONTRACTOR.

9. IF HVAC EQUIPMENT IS USED FOR TEMPORARY HEATING, ETC., THE CONTRACTOR SHALL ASSUME THE RESPONSIBILITY FOR CLEANING FILTERS, COILS, ETC. FINAL PERMANENT CONNECTIONS OF SERVICES TO UNITS SHALL BE COMPLETE PRIOR TO ANY START-UP OF EQUIPMENT.

10. WHERE PIPES, DUCTS, ETC., ARE TO PASS THROUGH WALLS, FLOORS, ETC. SLEEVES SHALL BE PROVIDED PRIOR TO WALL CONSTRUCTION. SLEEVES SHALL BE OF EQUAL OR GREATER GAUGE METAL THAN PIPES OR DUCTS PASSING THROUGH. WHERE SLEEVES PENETRATE EXTERIOR SURFACES, VOIDS SHALL BE SEALED WATER TIGHT. WHERE SLEEVES PASS THROUGH RATED PARTITIONS, SLEEVE PACKING SHALL BE OF U.L. LISTED FIRE SAFE TYPE.

11. CONTRACTOR SHALL SUBMIT THREE SETS (3) OF INSTRUCTION BOOKS, INCLUDING INSTALLATION, OPERATION AND MAINTENANCE INSTRUCTIONS, PAMPHLETS OR BROCHURES AND ALL EQUIPMENT WARRANTIES OBTAINED FROM EACH MANUFACTURER OF EQUIPMENT.

PART 2 PRODUCTS

1. HEATING AND COOLING EQUIPMENT

   A. NEW ROOFTOP UNITS SHALL BE THE YORK PREDATOR/SUNLINE SERIES OR LENNOX "L SERIES" ROOFTOP UNITS WITH ELECTRIC COOLING AND GAS HEATING. THE MECHANICAL CONTRACTOR SHALL CONTACT YORK AT 405-419-6531 OR LENNOX AT 404-403-7083 TO REQUEST PRICING AND TECHNICAL SUPPORT ON THE TRACTOR SUPPLY COMPANY NATIONAL ACCOUNT.

   B. UNIT SHALL BE FACTORY ASSEMBLED, TESTED AND HAVE COMPLETE REFRIGERANT - 410A CHARGE, READY TO OPERATE. ALL TUBING JOINTS SHALL BE BRAZED. COIL SHALL BE MINIMUM OF 3-ROWS DEEP.

   C. FAN SHALL BE STATICALLY AND DYNAMICALLY BALANCED, DOUBLE INLET, FORWARD CURVED BLOWER CAPABLE OF DELIVERING DESIGN CFM. FAN SHALL BE QUIET IN OPERATION AND INTERNALLY VIBRATION ISOLATED.

   D. EQUIPMENT SHALL BE COMPLETELY FACTORY WIRED WITH ALL CONTROL AND PROTECTIVE DEVICES. ALL ROOFTOP EQUIPMENT 2000 CFM OR OVER SHALL HAVE SMOKE DETECTOR AND CONTROLS FOR SMOKE DETECTORS SHUTDOWN.

   E. FURNISH AND INSTALL CONDENSATE DRAIN PAN FLOAT SWITCH IN PRIMARY DRAIN PAN, DIVERSITECH MODEL CC-1 OR APPROVED EQUAL. INTERLOCK WITH DEDICATED UNIT FOR UNIT SHUTDOWN.

2. FANS

   A. FANS SHALL BE EQUAL TO THE MAKE AND MODEL(S) INDICATED AND SHALL BE LOCATED AS SHOWN ON DRAWINGS. FANS SHALL BE PENN, ACME, LOREN COOK OR GREENHECK.

   B. FANS SHALL BE FURNISHED COMPLETE WITH VIBRATION ISOLATION, PLUG TYPE DISCONNECT, NON-YELLOWING PLASTIC GRILLE, THERMAL OVER LOAD PROTECTION, AND INSULATED HOUSING.

3. UNIT HEATERS (ELECTRIC)

   A. UNIT HEATERS SHALL BE EQUAL TO THE MAKE AND MODEL(S) INDICATED AND SHALL BE LOCATED AS SHOWN ON THE DRAWINGS. UNIT HEATERS SHALL BE BY MARKEL, BERKO, OR EMERSON. FINISH SHALL BE AS SELECTED BY ARCHITECT.

4. ROOF CURBS

   A. CONTRACTOR SHALL PROVIDE ALL ROOF CURBS FOR ROOF MOUNTED EQUIPMENT. PREFAB ROOF CURB ASSEMBLIES SHALL BE GALVANIZED STEEL WITH WOOD NAILER STRIP. PITCHES SHALL MATCH SLOPE OF ROOF TO PROVIDE LEVEL EQUIPMENT MOUNTING.

5. DUCTWORK AND INSULATION

   A. ALL DUCTWORK SHALL BE SHEETMETAL EXCEPT AS NOTED. CONSTRUCTION STANDARDS AND RECOMMENDATIONS OF SMACNA SHALL BE FOLLOWED WITH RESPECT TO CONSTRUCTION, INSTALLATION AND SUPPORTING OF ALL DUCTWORK. ALL JOINTS LONGITUDINAL AND TRANSVERSE SEAMS SHALL BE SEALED WITH GASKETS, MASTICS (ADHESIVES), TAPES, ETC. ALL SEALANT MATERIAL SHALL BE LISTED IN ACCORDANCE WITH UL 181A OR 181B.

   B. DIMENSIONS FOR SHEETMETAL WORK ON DRAWINGS ARE INSIDE CLEAR UNLESS OTHERWISE NOTED.

   C. ALL CONCEALED SUPPLY AND RETURN DUCTS SHALL BE EXTERNALLY INSULATED WITH 2" THICK FIBERGLASS FLEXIBLE DUCT INSULATION WITH VAPOR BARRIER, MANVILLE CORPORATION, CERTAINTEED OR KNAUF. INSULATION MATERIALS AND COMPONENTS SHALL HAVE MAXIMUM COMPOSITE FIRE AND SMOKE HAZARD RATINGS OF 25 FLAME SPREAD, 50 SMOKE DEVELOPED AND 50 FOR FLAME SPREAD. APPLY VAPOR BARRIER JACKET TO COMPLETELY SEAL BARRIER AND REPAIR PUNCTURES. STAPLE ALL SEAMS AND SEAL WITH REINFORCED FOIL TAPE.

   D. EXPOSED SUPPLY AND RETURN DUCTS WITHIN CONDITIONED SPACE SHALL HAVE 1" THICK INTERNAL INSULATION AT 1.5 LB DENSITY, GLUED AND PINNED. WHERE INTERNAL LINER AND EXTERNAL WRAP MEET, THEY SHALL OVERLAP BY MINIMUM OF 6". INSULATION SHALL BE BY MANVILLE CORPORATION, CERTAINTEED OR KNAUF. PAINT PER ARCHITECT.

   E. TRUNK DUCTS SHALL BE ISOLATED FROM UNIT VIBRATION WITH THE USE OF NFPA AND U.L. APPROVED FLEXIBLE CONNECTORS IN BOTH SUPPLY AND RETURN.

   F. ALL ROUND DUCT SHALL BE SIZED AS SHOWN ON DRAWINGS. PROVIDE 2" THICK SLEEVE INSULATION TO PREVENT CONDENSATION. INSULATED FLEXIBLE DUCT MAY BE UTILIZED FOR CONNECTION TO GRILLES AND REGISTERS IN MAXIMUM LENGTHS OF 6'-0" PER BRANCH RUN. FLEXIBLE DUCT SHALL BE CERTAINTEED, WIREMOLD OR MANVILLE CORPORATION, FLEX METAL INSULATED WITH ACOUSTICAL VINYL VAPOR BARRIER, U.L. APPROVED WITH CONDUCTANCE .22 AT 75 DEGREES F. FLEXIBLE CONNECTIONS SHALL BE TESTED IN ACCORDANCE WITH UL181 AND LISTED AS CLASS 0 OR CLASS 1.

   G. ROUND PIPE TAKE-OFFS SHALL BE SPIN-IN OR AIR-TIGHT TYPE WITH DAMPERS, NO AIR SCOOPS. ALL ROUND PIPE TO BE CONNECTED WITH SHEET METAL SCREWS AND SUPPORTED WITH 1" METAL STRAP. RECTANGULAR TAKE-OFFS AND BRANCHES SHALL BE 45 DEGREE ANGLE BOOT OR TEE.

   H. RADIUSED DUCTWORK ELBOWS SHALL HAVE A CENTERLINE RADIUS OF 1.5 TIMES THE DUCT WIDTH (OR DIAMETER) UNLESS NOTED OTHERWISE.

   I. ALL MITERED ELBOWS (RECTANGULAR AND ROUND) SHALL HAVE DOUBLE THICKNESS TURNING VANES INSTALLED UNLESS NOTED OTHERWISE ON DRAWINGS.

   J. ALL DUCTWORK BRANCHES SHALL BE SUPPLIED WITH A VOLUME DAMPER FOR BALANCING. VOLUME DAMPER SHALL HAVE A 2" OFFSET TO ACCOMMODATE EXTERNAL INSULATION.

6. AIR DEVICES

   A. AIR DEVICES SHALL BE PRICE, TITUS OR METALAIRE WITH FRAME TYPE SUITABLE FOR CEILING FINISH. ALL CEILING DIFFUSERS WITHIN A SPACE SHALL HAVE UNIFORM FACE DIMENSIONS UNLESS OTHERWISE NOTED.

   B. CEILING DIFFUSERS SHALL BE SQUARE LOUVER TYPE WITH OPPOSED BLADE DAMPERS, OFF WHITE FINISH, SIZES AS SHOWN ON DRAWINGS.

   C. SUPPLY AIR REGISTERS SHALL BE HORIZONTAL FACE TYPE WITH OPPOSED BLADE DAMPERS, ALUMINUM, OFF WHITE FINISH, SIZES AS SHOWN ON DRAWINGS.

   D. CEILING RETURN AIR AND EXHAUST GRILLES SHALL BE 1/2" x 1/2" EGGCRATE TYPE WITH OFF-WHITE FINISH, ALUMINUM, SIZES AS SHOWN ON DRAWINGS.

   E. SIDEWALL RETURN AIR GRILLES SHALL BE HORIZONTAL FACE TYPE OF ALUMINUM CONSTRUCTION, OFF-WHITE FINISH OR AS SPECIFIED BY OWNER, SIZE AS SHOWN ON DRAWINGS.

7. GAS FIRED EQUIPMENT

   A. ALL GAS FIRED EQUIPMENT SHALL BE AGA CERTIFIED.

   B. BURNERS SHALL BE EQUIPPED WITH CONTROLS AND SAFETIES REQUIRED FOR COMPLETE AND FULLY OPERATIONAL SYSTEM. PILOT SHALL BE INTERMITTENT ELECTRIC IGNITION TYPE.

   C. HEAT EXCHANGER SHALL BE PROVIDED WITH A MINIMUM TEN (10) YEAR (PARTS ONLY) WARRANTY.

8. FLUES AND VENTS

   A. CONTRACTOR SHALL FURNISH AND INSTALL ALL FLUES AND VENTS SERVING SEALED COMBUSTION FURNACES SHALL BE POLYPROPYLENE VENT SYSTEM MEETING U.L. 1738 STANDARDS, CENTROTHERM OR APPROVED EQUAL. FLUES AND VENTS SERVING 80% EFFICIENT ATMOSPHERIC BURNERS SHALL BE U.L. LISTED DOUBLE WALL TYPE B WITH SIZES AS INDICATED ON DRAWINGS. PROVIDE WINDPROOF VENT CAPS AT ALL FLUE OUTLETS.

   B. CONSTRUCTION AND HEIGHT OF FLUE ABOVE ROOF SHALL CONFORM TO REQUIREMENTS OF NFPA 54 AND LOCAL CODES.

9. SLEEVES

   A. PROVIDE 18 GAGE SLEEVING AT MASONRY WALLS, ETC.

   B. SEAL ALL PENETRATIONS OF RATED PARTITIONS WITH U.L. LISTED FIRE BARRIER MATERIAL.

10. CONTROLS

   A. LOW VOLTAGE VENDOR SHALL FURNISH, ROUTE, AND INSTALL CONTROL WIRING & THERMOSTATS FOR HVAC SYSTEMS INCLUDING PACKAGED GAS UNITS.
   CONTROL WIRING CONNECTIONS TO BE MADE BY MECHANICAL CONTRACTOR. GC SHALL FURNISH AND INSTALL TEMPORARY THERMOSTATS.

   B. INSTALL THERMOSTATS AT 90" A.F.F. UNLESS NOTED OTHERWISE. THERMOSTAT LOCATIONS SHALL BE COORDINATED WITH FINAL LOCATIONS OF WALL-MOUNTED ARCHITECTURAL AND ELECTRICAL EQUIPMENT. FINAL LOCATIONS MUST BE APPROVED BY THE ARCHITECT AND OWNER. THERMOSTATS SHALL NOT BE INSTALLED ON EXTERIOR WALLS IF INTERIOR WALLS ARE AVAILABLE WITHIN SPACE SERVED BY THERMOSTAT. SHOULD THE THERMOSTAT REQUIRE INSTALLATION ON AN EXTERIOR WALL AN INSULATED BACKING PLATE MUST BE PROVIDED TO PREVENT FALSE READINGS BY THE THERMOSTAT.

11. CONDENSATE PIPING

   A. CONDENSATE DRAINS SHALL BE CONSTRUCTED WITH SCHEDULE 40 PVC, CPVC PIPING, OR TYPE L HARD DRAWN COPPER, SIZE AND ROUTING INDICATED ON PLANS. COPPER DRAIN PIPE AND FITTINGS SHALL BE JOINED USING 95-5 SILVER SOLDER, PVC PIPE AND FITTINGS SHALL BE JOINED USING SOLVENT CEMENT. PROVIDE 1/2" THICK, CLOSED CELL ELASTOMERIC INSULATION, ARMAFLEX, RUBATEX OR APPROVED EQUAL, FROM UNIT CONNECTION TO DISCHARGE FOR ALL INTERIOR CONDENSATE DRAIN PIPING. PROVIDE P-TRAP WITH CLEANOUT AT EACH EQUIPMENT CONDENSATE DRAIN CONNECTION. PROVIDE POSITIVE SLOPE FOR CONDENSATE DRAIN PIPING FROM P-TRAP TO DISCHARGE, MINIMUM SLOPE 1/8" PER LINEAR HORIZONTAL FOOT. SUPPORT CONDENSATE PIPING AT 5'-0" MAXIMUM INTERVALS.

PART 3 EXECUTION

1. FURNISH AND INSTALL SYSTEM IN ACCORDANCE WITH REFERENCED STANDARDS, APPLICABLE CODES, MANUFACTURERS RECOMMENDATIONS AND AS INDICATED ON DRAWINGS.

2. CONTRACTOR SHALL TEST AND BALANCE MECHANICAL SYSTEM. CONTRACTOR SHALL PROVIDE ALTERNATE PRICE FOR 3RD PARTY AABC CERITIFIED TEST & BALANCE TO ASSURE CONFORMANCE WITH DESIGN. CONTRACTOR SHALL SUBMIT WRITTEN TEST AND BALANCE REPORT TO LOCAL CODE OFFICIALS AS REQUIRED.

3. CONTRACTOR SHALL INSTRUCT THE OWNER'S REPRESENTATIVE IN ALL MATTERS PERTAINING TO THE PROPER MAINTENANCE OF EQUIPMENT FURNISHED UNDER THIS CONTRACT.

4. CONTRACTOR SHALL PROGRAM ALL THERMOSTATS FOR OCCUPIED/UNOCCUPIED HOURS OF OPERATION. HOURS OF OPERATION AND TEMPERATURE SET POINTS PER OWNERS REQUEST. FAN SHALL RUN CONTINUOUSLY DURING OCCUPIED HOURS.

FAN SCHEDULE

FAN IDENTIFICATION	EF-1	EF-2	
MANUFACTURER	GREENHECK	GREENHECK	
MODEL NUMBER	SP-A190	SP-A190	
SERVICE AREA	MEN'S RR	WOMEN'S RR	
FAN TYPE	CABINET CENT.	CABINET CENT.	
CFM	150	150	
ESP	0.35	0.35	
SONES	1.5	1.5	
MOTOR POWER	46 WATTS	46 WATTS	
VOLTAGE/PHASE	115/60/1ø	115/60/1ø	
WEIGHT	17 LBS	17 LBS	
ACCESSORIES REQUIRED	A,B,C	A,B,C	

ACCESSORIES:
A: BACKDRAFT DAMPER
B: WALL CAP
C: VARIABLE SPEED CONTROLLER

REMARKS:
- EF-1 & 2 SHALL BE INTERLOCKED WITH LIGHTSWITCH SERVING THEIR RESPECTIVE SPACES.

ELECTRIC UNIT HEATER SCHEDULE

IDENTIFICATION	UH-1
MANUFACTURER	MARKEL
MODEL NO.	Y3485A1
KW	5
FAN CFM	425
AMPS	6.1
VOLTAGE / PHASE	480/3ø
APPLICABLE NOTES	1,2,3,4,5,6,7

NOTES:
1. UNITS SHALL BE U.L. LISTED
2. PROVIDE THERMAL OVERLOAD PROTECTION.
3. PROVIDE REMOTE THERMOSTAT. SET TEMPERATURE AT 60°F
4. PROVIDE UNIT WITH INTEGRAL DISCONNECT SWITCH.
5. PROVIDE 24 VOLT TRANSFORMER START/STOP RELAY.
6. ACCEPTABLE EQUAL SHALL BE QMARK.
7. LOW VOLTAGE VENDOR TO PROVIDE, INSTALL AND PRE-WIRE FOR FUTURE EMS. SEE DRAWING E-3A FOR DETAILS.

PACKAGED GAS FIRED AC UNIT SCHEDULE

424.6 SQ FT. PER TON

IDENTIFICATION	RTU-1, 2 & 4	RTU-3	RTU-5
MANUFACTURER	YORK	YORK	YORK
MODEL NUMBER	ZJ150N18	ZJ120N18	ZJ037N08
NOMINAL TONS	12-1/2	10	3
SEER	-	-	15.0
EER	12.0	12.0	12.2
VOLTAGE	480/3ø	480/3ø	480/3ø
UNIT M.C.A.	39.1	24.2	9.6
UNIT M.O.C.P.	50.0	30.0	15.0
TOTAL COOLING CAP. (MBH)	170.8	130.0	37.0
SENSIBLE COOLING CAP. (MBH)	121.3	96.0	26.8
FAN SECTION:			
CFM SUPPLY	5,000	4,000	1,200
CFM O.A. MIN	735	580	140
EVAP. FAN H.P.	5	3	1-1/2
ESP-IN WG.	.8	.8	.35
HEATING SECTION:			
FUEL	NAT. GAS	NAT. GAS	NATURAL GAS
HEATING INPUT (MBH)	180.0	180.0	80.0
HEATING OUTPUT MBH	144.0	144.0	65.0
FILTER	2"	2"	2"
OPERATING WT. (LBS.)	1,615	1,405	1,075
NOTES	1 THRU 22	1 THRU 22	1 THRU 8, 10 THRU 22

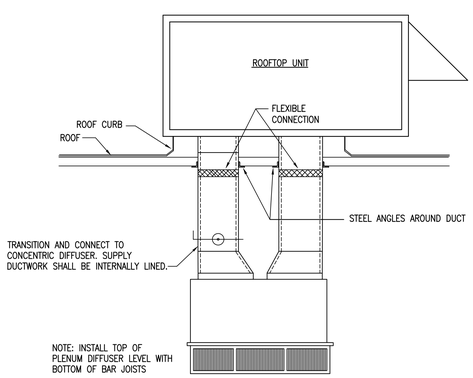
NOTES:
1. TRACTOR SUPPLY COMPANY HAS NATIONAL ACCOUNTS WITH YORK/JOHNSON CONTROLS & LENNOX. FOR YORK PLEASE EMAIL JOE.RAY@JCI.COM OR CALL 1-405-419-6613 FOR YORK/JOHNSON CONTROLS QUOTATIONS AND TECHNICAL SUPPORT. FOR LENNOX PLEASE EMAIL STEVEN.PETER@LENNOXIND.COM OR CALL 1-800-367-6285 FOR LENNOX QUOTATIONS AND TECHNICAL SUPPORT. ACCEPTABLE ALTERNATE MANUFACTURER: LENNOX 'L' SERIES. **MUST BE COMPATIBLE WITH TSC FURNISHED EMS. MUST BE EQUAL TO OR BETTER THAN YORK PREDATOR/SUNLINE SERIES INCLUDING HINGED DOORS, HIGH EFFICIENCY, WARRANTY, AND MAINTENANCE REQUIREMENTS.**
2. COOLING CAPACITIES BASED ON 80°F DB / 67°F WB ENTERING COIL, 95°F DB ENTERING CONDENSER.
3. HEATING CAPACITY BASED ON NATURAL GAS AT 1000 BTU PER CUBIC FOOT AND 0.5 SPECIFIC GRAVITY.
4. PROVIDE FACTORY FURNISHED 14" HIGH INSULATED ROOF CURB.
5. PROVIDE FACTORY INSTALLED DIRTY FILTER SWITCH AND BLOWER PROVING SWITCH.
6. PROVIDE 1 YEAR LABOR AND 3 YEAR PARTS WARRANTY.
7. PROVIDE 5 YEAR PARTS WARRANTY ON COMPRESSORS.
8. PROVIDE 10 YEAR HEAT EXCHANGER WARRANTY.
9. PROVIDE FACTORY INSTALLED SMOKE DETECTORS ON THE RETURN DUCT DISCHARGES.
10. PROVIDE FACTORY INSTALLED DIFFERENTIAL ENTHALPY ECONOMIZER AND BAROMETRIC RELIEF. O.A. DAMPER SHALL CLOSE DURING UNOCCUPIED HOURS.
11. MECHANICAL CONTRACTOR SHALL PROVIDE A SECOND SET OF FILTERS TO BE INSTALLED PRIOR TO STORE OPENING.
12. UNIT SHALL USE R-410A REFRIGERANT (NO EXCEPTIONS).
13. **MECHANICAL CONTRACTOR SHALL PROVIDE A START UP CHECKLIST CONFIRMING ALL UNITS HAVE BEEN PROPERLY STARTED AND CONFIRMED RUNNING PROPERLY. CHECKLIST MUST BE PROVIDED TO TSC VIA CLOSE-OUT BINDER.**
14. STENCIL TAG NUMBER ON SIDE OF UNITS (FACING ROOF HATCH) WITH 3" HIGH LETTERS AND BLACK EXTERIOR PAINT.
15. NON-POWERED CONVENIENCE OUTLET.
16. PROVIDE COIL (HAIL) GUARDS.
17. ALL WORK TO INSTALL ALL CONTROL DEVICES AND WIRING SHALL BE COORDINATD BETWEEN THE GENERAL CONTRACTOR, MECHANICAL CONTRACTOR, ELECTRICAL CONTRACTOR, LOW VOLTAGE VENDOR, AND EMS VENDOR.
18. ELECTRICAL CONTRACTOR SHALL FURNISH AND INSTALL ALL CONDUITS AND GANG BOXES FOR THERMOSTATS. SEE DRAWINGS E5.1 FOR DETAILS.
19. ELECTRICAL CONTRACTOR SHALL FURNISH AND INSTALL ALL CONDUITS AND GANG BOXES AS SHOWN ON E5.0. AS NECESSARY FOR FINAL CONNECTIONS TO FUTURE EMS. COORDINATE FINAL LOCATION OF EMX PANEL WITH EMS VENDOR. SEE DRAWING E5.1 FOR DETAILS.
20. MECHANICAL CONTRACTOR SHALL FURNISH AND INSTALL TEMPORARY THERMOSTATS AND WIRING FOR CONNECTION TO HVAC UNITS. VERIFY FINAL HEIGHT AND PROVIDE 5' OF ADDITIONAL COILED CABLE.
21. LOW VOLTAGE VENDOR SHALL FURNISH AND INSTALL FINAL THERMOSTATS, CARBON DIOXIDE SENSORS, HUMIDITY SENSORS, AND PRE-WIRE FOR EMS. SEE DRAWINGS E5.1 FOR DETAILS.
22. FINAL CONTROL CONNECTIONS TO EMS PANEL TO BE MADE BY EMS VENDOR.

REMARKS:
- PROVIDE POWER TO UNITS THROUGH KNOCK-OUTS, OR IN CURB. DO NOT PENETRATE ROOF.
- REFER TO E3.1 FOR THERMOSTAT MOUNTING INSTRUCTIONS.
- O.A. DAMPER SHALL CLOSE DURING UNOCCUPIED HOURS.

AIR DISTRIBUTION SCHEDULE

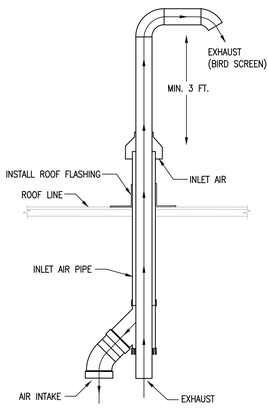
SYMBOL	MFGR. & MODEL #	DEVICE	FACE	DEVICE SIZE	VOLUME CONTROL	COLLAR SIZE	REMARKS
A	TITUS MOD. TMSA-AA	SUPP. DIFF.	LOUVERED	24" x 24"	M.V.D.	6"ø	SEE NOTE 1-4
B	TITUS MOD. TMSA-AA	SUPP. DIFF.	LOUVERED	24" x 24"	M.V.D.	10"ø	SEE NOTE 1-4
R	TITUS MOD. 50 F	RET. GRILLE	EGGCRATE	24" x 24"			SEE NOTE 5

NOTES:
1. ALL AIR DEVICES TO HAVE COLOR PER ARCHITECT
2. PROVIDE ROUND NECK COLLARS FOR CEILING DIFFUSERS UNLESS NOTED OTHERWISE.
3. PROVIDE LAY-IN TYPE BORDER FOR CEILING WITH ACOUSTICAL TILE AND SURFACE MTD. TYPE BORDER FOR GYPBOARD CEILINGS (REFER ARCHITECTURAL DWG'S)
4. ALL SQUARE CEILING DIFFUSERS ARE TO BE FULL LOUVERED FACE (NO BLANK PANEL)
5. PROVIDE RETURN AIR GRILLES WITH NECK SIZE EQUIVALENT TO RUNOUT SHOWN ON DRAWING.



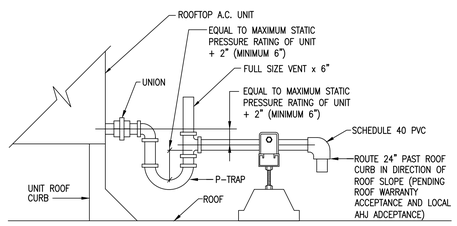
CONCENTRIC DIFFUSER DETAIL

SCALE: NONE



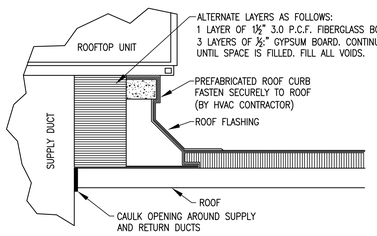
VERTICAL CONCENTRIC VENT DETAIL

SCALE: NONE



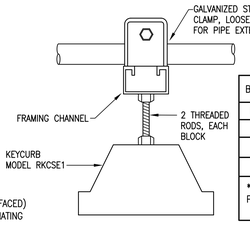
ROOFTOP A/C UNIT
CONDENSATE DRAIN PIPING

SCALE: NONE



ROOFTOP UNIT CURB DETAIL

SCALE: NONE



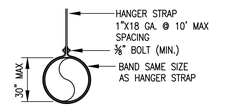
BLOCK SPACING CHART (METAL PIPE)	
PIPE SIZE	MAX SPACING
½" - 1½"	6'
2" - 2½"	10'
3" - 4"	12'

* BLOCK SPACING FOR PLASTIC PIPE (ALL SIZES) SHALL BE 4' MAX

PIPE SUPPORT DETAIL

SCALE: NONE

NOTE:
NO WOOD ALLOWED FOR PIPE SUPPORTS.



ROUND DUCT SUPPORT DETAIL

SCALE: NONE

Schelton ENGINEERING
1163 West Main St.
Franklin, TN 37064
Tel: 615.730.9111 / Fax: 615.224.3599
gary@scheltonengineering.com
Project #24-027

OXFORD ARCHITECTURE
2934 Sidco Drive Architecture
Suite 120 Planning
Nashville, TN 37204 Interior Architecture

TSC

TRACTOR SUPPLY COMPANY

LILLINGTON
NORTH CAROLINA

Job Number: 2360

Date: 03.22.2024

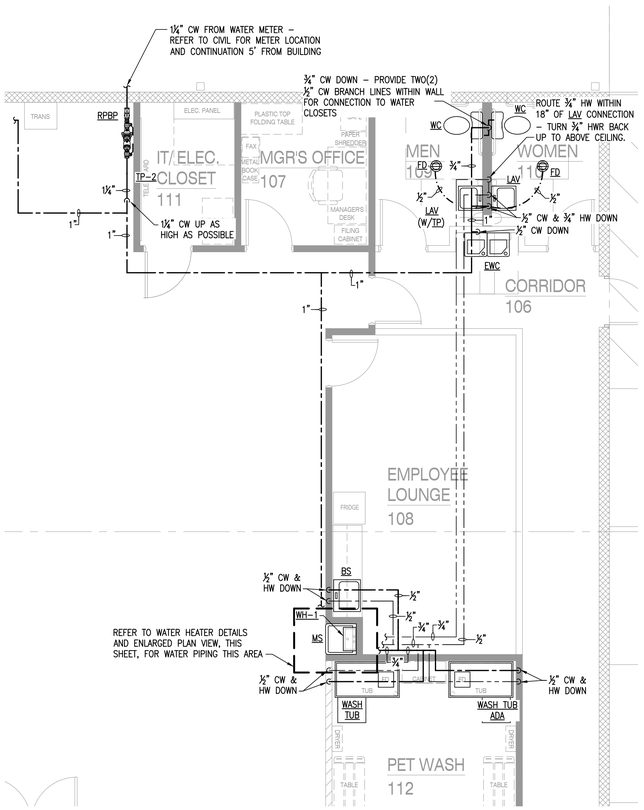
Revisions:

Revisions:

Revisions:

MECHANICAL SCHEDULES, DETAILS, AND SPECIFICATIONS

Sheet Number: M2.0

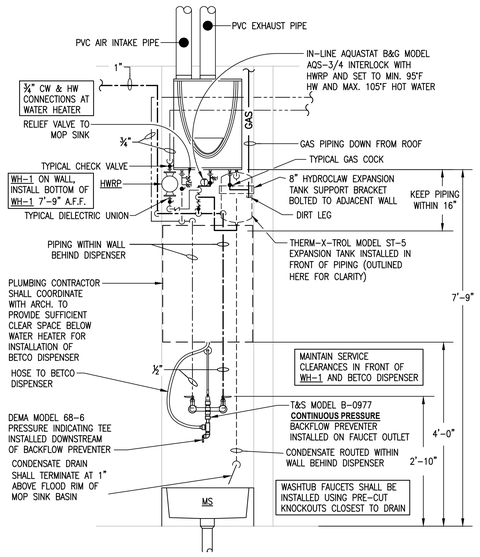


ENLARGED PLUMBING PLAN: WATER

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

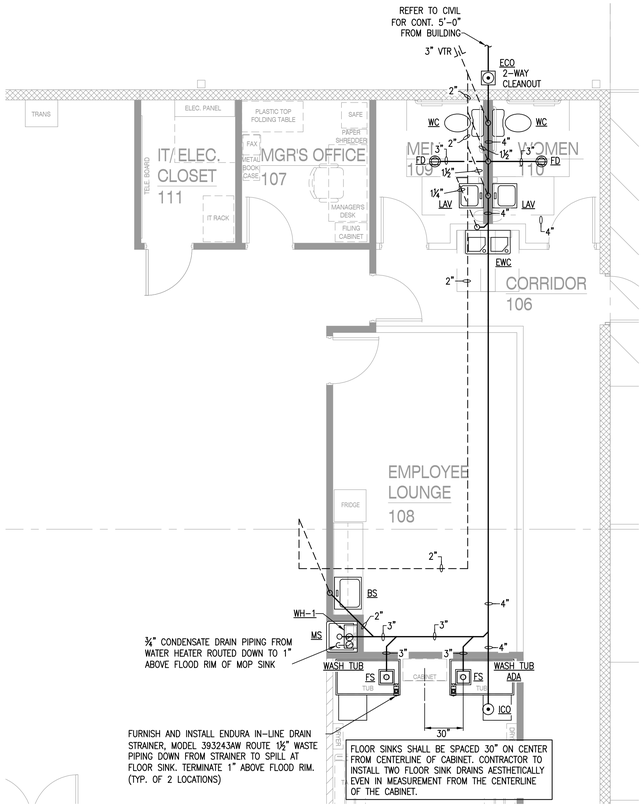
PLUMBING FIXTURE LEGEND

SYMBOL	DESCRIPTION
	COLD WATER ABOVE SLAB
	HOT WATER ABOVE SLAB
	COLD WATER BELOW SLAB OR GRADE
	WASTE LINE BELOW SLAB OR GRADE
	VENT LINE ABOVE OR BELOW SLAB
GAS	GAS LINE ABOVE SLAB OR GRADE
	EXTERIOR CLEANOUT UP FROM BELOW SLAB OR GRADE
	CLEANOUT UP FROM BELOW FLOOR OR SLAB
	PIPE TURNED DOWN
	PIPE TURNED UP
	BALL VALVE
	HOSE BIBB
	NEW FIXTURES
WC-1, ETC.	FIXTURE IDENTIFICATIONS
CW	COLD WATER
HW	HOT WATER
VTR	VENT THRU ROOF
ECO	EXTERIOR CLEANOUT
ICO	INTERIOR CLEANOUT
WCO	WALL CLEANOUT
A.F.F.	ABOVE FINISHED FLOOR
	PRESSURE REGULATING VALVE



INSTANTANEOUS WATER HEATER ABOVE MOP SINK DETAIL - ELEVATION VIEW

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



ENLARGED PLUMBING PLAN: WASTE/VENT

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

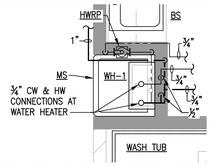
UTILITY INFORMATION

WATER	TOWN OF LILLINGTON 102 EAST FRONT STREET LILLINGTON, NC 27546 ASHLEY WIMBERLY PHONE: (910) 893-2654 EMAIL: awimberly@lillingotnnc.org
NATURAL GAS	PIEDMONT NATURAL GAS COMPANY 2625 UNHARRIE RD, HIGH POINT, NC 27263 PHONE: 1-800-752-7504

CONSTRUCTION NOTES

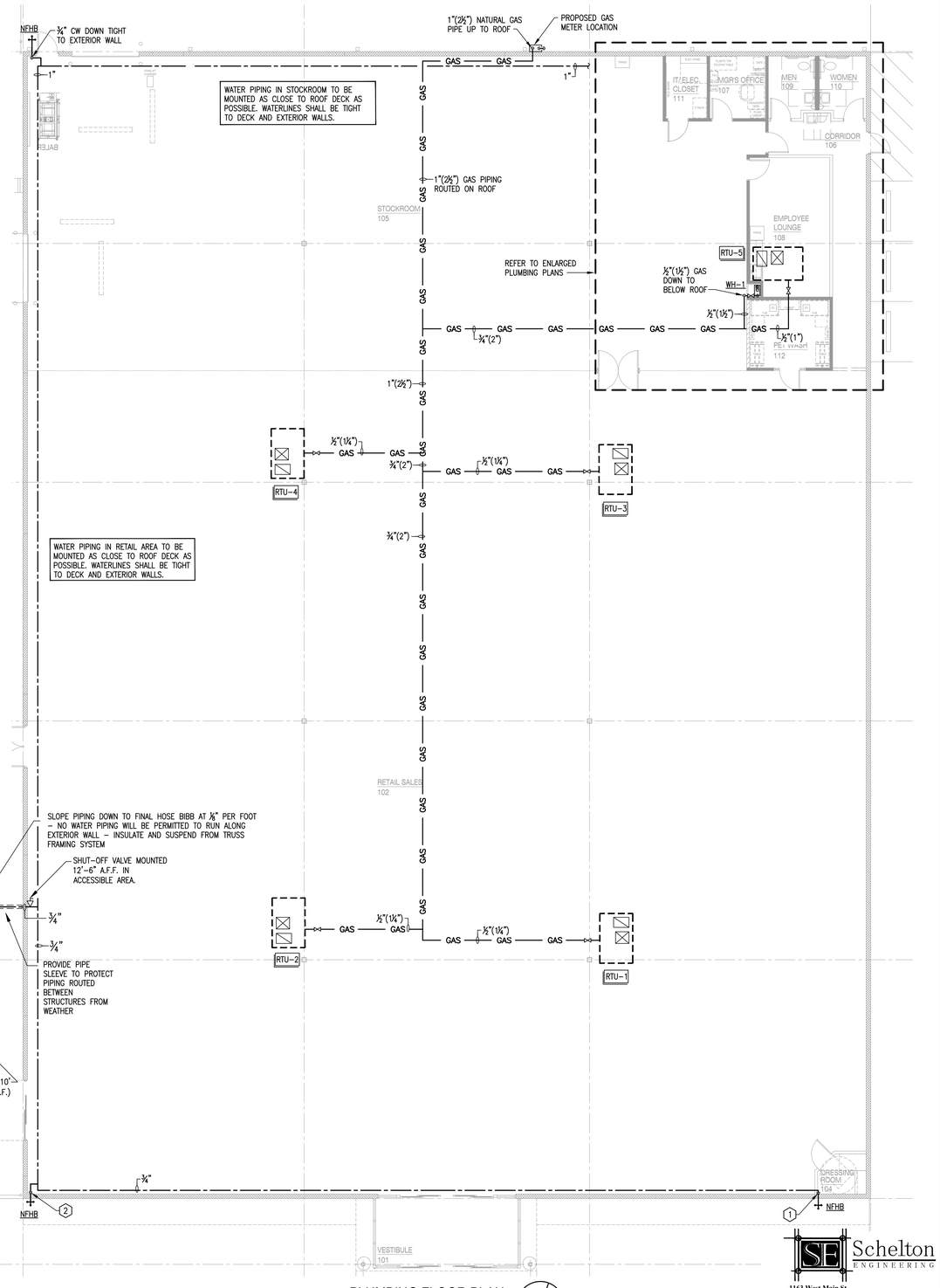
1. TURN ¾" CW DOWN TIGHT TO EXTERIOR WALL – PROVIDE ISOLATION SHUT-OFF VALVE MOUNTED AT 9'-6" A.F.F. – EXTEND DOWN WITHIN STICK BUILD WALL. NO PIPES ALLOWED TO BE SURFACED MOUNTED AND EXPOSED INSIDE OF DRESSING ROOM WALLS.
2. TURN ¾" CW DOWN WITHIN 18" OF BUILDING CORNER.
3. CONNECT HOSE BIBB TO HOSE REEL USING ¾" RUBBER TUBING WITH ADEQUATE SLACK FOR HOSE REEL TO PIVOT AND ROTATE FREELY. THE ¾" PIPING FOR HOSE REEL SHOULD BE INSULATED AND MOUNTED/SUSPENDED TO GARDEN CENTER TRUSS FRAMING SYSTEM.

GENERAL NOTE:
– CONTRACTORS ARE TO SCHEDULE AND PAY FOR ANY INSPECTIONS REQUIRED DUE TO APPENDIX 5 OF THE NC STATE BUILDING CODE.



INSTANTANEOUS WATER HEATER ABOVE MOP SINK ENLARGED PLAN

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



PLUMBING FLOOR PLAN

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

OXFORD ARCHITECTURE
2934 Sidco Drive
Suite 120
Nashville, TN 37204
Architecture
Planning
Interior Architecture

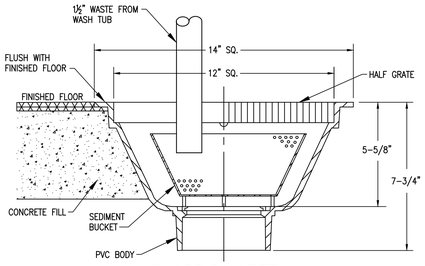
TSC
TRACTOR SUPPLY COMPANY
LILLINGTON
NORTH CAROLINA

SE Schelton ENGINEERING
1163 West Main St.
Franklin, TN 37064
Tel: 615.730.9111 / Fax: 615.224.3599
gary@scheltonengineering.com
Project #24-027

Job Number: 2360
Date: 03.22.2024
Revisions:
Revisions:
Revisions:

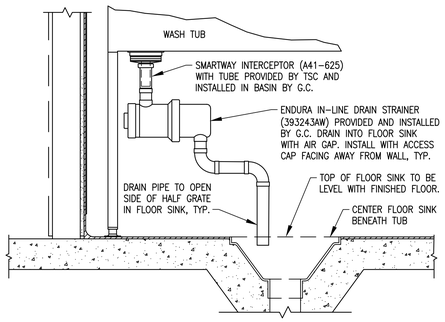
PLUMBING FLOOR PLAN

Sheet Number: P1.0



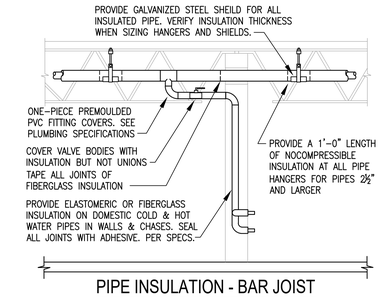
FLOOR SINK DETAIL

SCALE: NONE



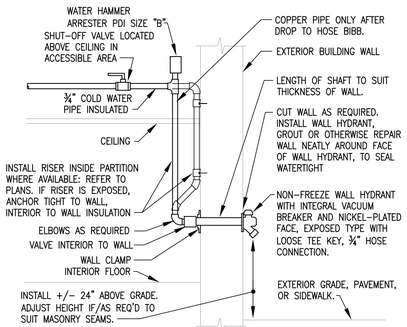
WASH TUB AT FLOOR SINK

SCALE: NONE



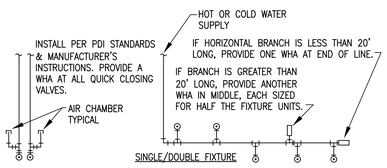
PIPE INSULATION - BAR JOIST

SCALE: NONE



NON-FREEZE WALL HYDRANT

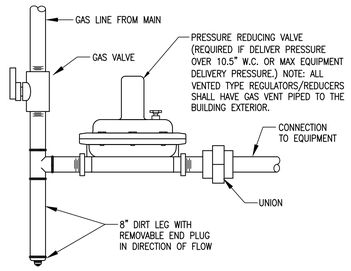
SCALE: NONE



PDI SIZE	PIPE SIZE	FIXTURE UNIT LOAD
A	½"	1-11
B	¾"	12-32
C	1"	33-60
D	1¼"	61-113
E	1½"	114-154
F	2"	154-330

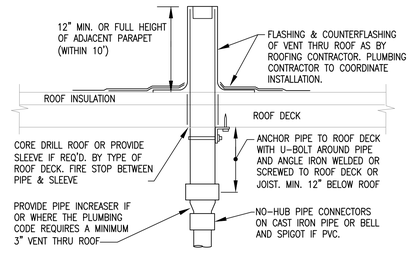
WATER HAMMER ARRESTERS

SCALE: NONE



TYPICAL GAS CONNECTION DETAIL

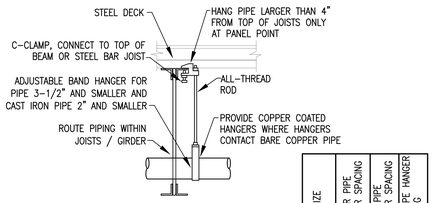
SCALE: NONE



REFER TO PLANS FOR VTR PIPE SIZES AND LOCATIONS. LOCATE VTR MIN. THREE FEET FROM PROPERTY LINE, OR TEN FEET HORIZONTAL OR THREE FEET VERTICAL ABOVE ANY BUILDING OPENING OR FRESH AIR INTAKE, OR ONE FOOT FROM ANY VERTICAL SURFACE. LOCATE VTR MINIMUM 18" FROM PARAPET, EXPANSION JOINT, EQUIPMENT CURB, ETC. OFFSET IN CEILING SPACE WHERE REQUIRED TO MEET THESE CONDITIONS.

VENT THRU ROOF - VTR

SCALE: NONE

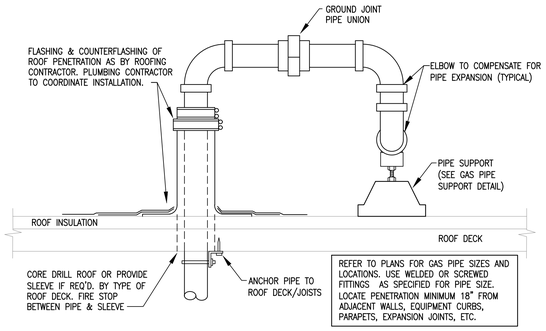


PROVIDE UPPER ATTACHMENT AS REQUIRED FOR CASES NOT SHOWN HERE. DO NOT INSTALL HANGER INSIDE INSULATION OR OTHERWISE PENETRATE VAPOR BARRIER. DO NOT HANG ONE PIPE FROM ANOTHER EXCEPT IN CHASES. SLOPE ALL WATER PIPING SLIGHTLY TOWARD DRAINABLE LOCATIONS. HANGER SPACING FOR PIPE SIZE: AS INDICATED ON TABLE. CAST IRON:: 10' AND WITHIN 1'-0" OF ALL JOINTS. ROD SIZES FOR PIPE SIZE: 2" AND SMALLER = ⅜", 2½" TO 3" = ½", 4=⅝", 6"=¾", 8" AND LARGER = ⅞". LOCATE HANGERS WITHIN 1'-0" OF VALVES AND FITTINGS. PROVIDE SUPPLEMENTARY STEEL STRUTS BETWEEN JOISTS IF REQUIRED. LOCATE HANGERS WITHIN 1'-0" OR EQUIPMENT CONNECTIONS. ANCHOR WATER PIPE AGAINST SWAYING DUE TO CHANGES IN WATER VELOCITY. CHAINS AND PERFORATED STRAP IRON AND STEEL ARE NOT ACCEPTABLE. DO NOT SUSPEND PIPE FROM JOIST BRACING MEMBERS. REFER TO CODE AND SPECIFICATIONS FOR FURTHER INFORMATION. PROVIDE SEISMIC BRACING IF/AS REQUIRED BY LOCAL AUTHORITIES. TRAPEZE HANGERS MAY BE USED FOR MULTIPLE PARALLEL PIPES, SEE "TRAPEZE PIPE HANGER DETAIL."

PIPE SIZE	COPPER PIPE HANGER SPACING	STEEL PIPE HANGER SPACING	PEX PIPE HANGER SPACING
½"	5'	7'	32"
¾"	5'	7'	32"
1"	6'	7'	32"
1¼"	7'	8'	32"
1½"	8'	9'	32"
2"	8'	10'	32"
2½"	10'	11'	32"
3"	11'	12'	32"
4"	12'	12'	32"

PIPE HANGER - BAR JOIST

SCALE: NONE

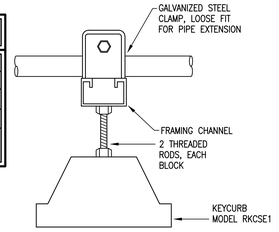


REFER TO PLANS FOR GAS PIPE SIZES AND LOCATIONS. USE WELDED OR SCREWED FITTINGS AS SPECIFIED FOR PIPE SIZE. LOCATE PENETRATION MINIMUM 18" FROM ADJACENT WALLS, EQUIPMENT CURBS, PARAPETS, EXPANSION JOINTS, ETC.

GAS PIPING ROOF PENETRATION

SCALE: NONE

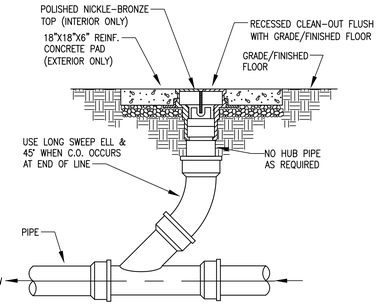
BLOCK SPACING CHART (METAL PIPE)	
PIPE SIZE	MAX SPACING
½" - 1½"	6'
2" - 2½"	10'
3" - 4"	12'
* BLOCK SPACING FOR PLASTIC PIPE (ALL SIZES) SHALL BE 4' MAX	



NOTE:
NO WOOD ALLOWED FOR PIPE SUPPORTS.

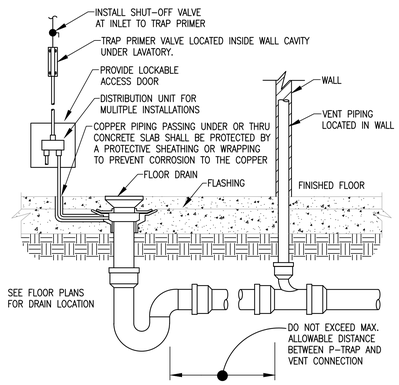
GAS PIPE SUPPORT DETAIL

SCALE: NONE



CLEAN-OUT DETAIL

SCALE: NONE



FLOOR DRAIN DETAIL

SCALE: NONE

GAS CONNECTION SCHEDULE

EQUIPMENT	LOAD
RTU-1	180,000 BTUH
RTU-2	180,000 BTUH
RTU-3	180,000 BTUH
RTU-4	180,000 BTUH
RTU-5	80,000 BTUH
WH-1	199,000 BTUH
TOTAL NEW CONNECTED LOAD:	999,000 BTUH
ALL NATURAL GAS PIPING IS SIZED FOR SCHEDULE 40 METALLIC PIPE.	
GAS LINE SIZED AT 2.0 PSI INLET PRESSURE WITH 1.0 PSI PRESSURE LOSS FOR 250'-0" FURNISH AND INSTALL PRV AT EQUIPMENT CONNECTION AS REQUIRED. CONTRACTOR SHALL VERIFY GAS AVAILABILITY @ 2 PSI WITH LOCAL PROVIDER PRIOR TO CONSTRUCTION.	
IF 2 PSI INLET PRESSURE IS UNAVAILABLE REFER TO PIPE SIZES INDICATED IN PARENTHESIS ON DRAWING SHEET P1.0.	

PLUMBING FIXTURE SCHEDULE

MARK	DESCRIPTION	UTILITIES CW	HW	DR	VENT
WC	WATER CLOSET (FLOOR MOUNTED ADA., PRESSURE ASSISTED FLUSH TANK, MOTION ACTIVATED): KOHLER HIGHLINE K-3519, 12" ROUGH-IN, 1.0 GPF, WITH SLOAN FLUSHMATE PRESSURE ASSIST, LOW CONSUMPTION, VITREOUS CHINA, 17-1/8" HIGH, ELONGATED BOWL FLUSH TANK WATER CLOSET WITH LEFT HAND TRIP LEVER. PROVIDE BEMIS 1055 SSC ELONGATED OPEN FRONT TOILET SEAT, K-5420 BOLT CAPS. FOR RIGHT HAND TRIP LEVER PROVIDE WITH ALTERNATE TANK CONFIGURATION MODEL K-3519-RH. CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING CORRECT TANK SELECTION WITH LATEST ARCHITECTURAL DRAWINGS TO ACCOMMODATE ADA ACCESSIBILITY PRIOR TO ORDERING. RETROFIT WITH INTELLI-FLUSH K-100101 WALL SENSOR, POWERED BY FOUR(4) AA BATTERIES, CHROME FINISH. INTELLI-FLUSH SYSTEM MUST BE ORDERED SEPARATELY FROM FLUSHMATE. CONTACT LORI FELTMATE AT FLUSHMATE FOR ORDERING INFORMATION. PH:(248)446-8159 EMAIL: Lori.Feltmate@Flushmate.com	½"	X	4"	2"
LAV	LAVATORY (ACCESSIBLE, WALL HUNG, MOTION ACTIVATED): KOHLER KINGSTON WALL-MOUNT K-2005, VITREOUS CHINA LAVATORY WITH A ZURN AQUASENSE BATTERY POWERED Z6915-XL FAUCET, POLISHED CHROME FINISH, KOHLER K-23726 DRAIN, KOHLER K-8998 P-TRAP AND KOHLER K-23725 CAST IRON CLEANER. MOUNT FIXTURE WITH FLOOD RIM 34" AFF. FURNISH AND INSTALL WITH ZURN MODEL ZW3870XLT THERMAL MIXING VALVE FOR MAX. 110°F HOT WATER.	½"	½"	1¼"	1¼"
BS	BREAKROOM SINK: (SINGLE BOWL, S.S., GOOSENECK): PROVIDED BY TRACTOR SUPPLY COMPANY & INSTALLED BY CONTRACTOR.	½"	½"	1½"	1¼"
EWC	ELECTRIC WATER COOLER (ACCESSIBLE, MOTION SENSOR, DUAL-HEIGHT): MURDOCK MODEL A172108F-UG-B512-BCD WITH INFRARED SENSOR CONTROL AND WALL MOUNTING BRACKET. 8 GPH, 115/1/60. MOUNT HIGH UNIT AT 42" MAX. FROM FLOOR TO SPOUT OUTLET AND LOW UNIT AT 36" MAXIMUM FROM FLOOR TO SPOUT OUTLET. PROVIDE MCGUIRE 8912 P-TRAP AND MCGUIRE 165 SUPPLY WITH STOP. COORDINATE WITH ELECTRICAL CONTRACTOR TO LOCATE RECEPTACLE BEHIND WATER COOLER CABINET. PROVIDE WITH BOTTLE FILLER. CONTACT BERRY JONES FOR ORDERING INFORMATION. PH: 800-459-7099 EMAIL: berry.jones@hjcinc.com.	½"	X	1¼"	1¼"
MS	MOP SINK : MUSTEE MODEL 63M 24"x24" FIBERGLASS MOP SERVICE BASIN. COMPLETE WITH MODEL 63.401 EXTRUDED BUMPER GUARD, CHICAGO MODEL 897-RCF CHROME PLATED SPOUT WITH VACUUM BREAKER, ¾" HOSE THREAD OUTLET, PAIL HOOK. WALL SUPPORT, INTEGRAL STOPS, MODEL 369 2½" METAL LEVER HANDLES AND 36" LENGTH OF THREADED HOSE. FURNISH AND INSTALL T&S MODEL B-0977 THREADED CONTINUOUS PRESSURE VACUUM BREAKER AND DEMA MODEL 68-6 PRESSURE INDICATING TEE ON FAUCET OUTLET FOR HOSE CONNECTION TO BETCO DISPENSER. VACUUM BREAKER TO BE INSTALLED UPSTREAM OF PRESSURE INDICATING TEE.	½"	½"	3"	1½"
WH-1	WATER HEATER (GAS INSTANTANEOUS, 96% EFFICIENCY, 120V/1Ø, 4 AMPS): A.O. SMITH MODEL 540H OR EQUAL, INTERIOR WALL MOUNTED, GAS, INSTANTANEOUS WATER HEATER, RATED AT 13,000 TO 199,000 BTUH, WITH CAPACITY OF 0.26-9.8 GAL./MIN. WATER HEATER SHALL CONFORM TO IECC 701, 504, AND ASHRAE 90.1. SET TO 120°F OUTLET TEMP. PROVIDE W/ ISOLATION VALVE, CONDENSATE NEUTRALIZER PART #100112163, AND CONCENTRIC VENT KIT.	¾"	¾"	X	X
FD	FLOOR DRAIN (3" DIA. OUTLET): ROUND TOP, J.R. SMITH MODEL 2005Y-A-P050-PB WITH CAST IRON BODY AND FLASHING COLLAR, TRAP PRIMER CONNECTION AND POLISHED BRONZE STRAINER. INSTALL WITH TOP FLUSH WITH FINISHED FLOOR.	X	X	3"	1½"
TP	TRAP PRIMER: JOSAM FIG. NO. 88250, AUTOMATIC TRAP PRIMER, MOUNTED INSIDE WALL CAVITY UNDER LAVATORY. PROVIDE 8" X 8" ACCESS PANEL TO CLEAR LAVATORY ROUGH-IN AND PAINTED TO MATCH WALL. RUN 1/2" COPPER LINE FROM TRAP PRIMER TO ADJACENT FLOOR DRAIN AS SHOWN ON THE CONTRACT DRAWINGS. **INLINE FLOOR DRAIN TRAP SEAL MAY BE USED IN LIEU OF TRAP PRIMERS PENDING LOCAL CODE APPROVAL. TRAP SEALS SHALL MEET REQUIREMENTS OF ASSE 1072 AND SHALL BE MADE OF CHEMICALLY RESISTANT ELASTOMER.**	½"	X	X	X
WHA	WATER HAMMER ARRESTER: JOSAM FIG. NO. 75001 THROUGH 75006, SIZE AS RECOMMENDED BY MANUFACTURER.	X	X	X	X
HB	HOSE BIBB (METAL WHEEL HANDLE): WOODFORD MODEL 24, ANTI SIPHON, NIDEL MODEL 34HF VACUUM BREAKER. PROVIDE WITH METAL WHEEL HANDLE.	¾"	X	X	X
NFHB	HOSE BIBB (NON-FREEZE, KEYED HANDLE): WOODFORD MODEL 67, ¾", AUTOMATIC DRAINING BRASS FINISH, NIDEL MODEL 34HA VACUUM BREAKER. PROVIDE LOOSE TEE KEY FOR EACH HYDRANT.	¾"	X	X	X
FS	FLOOR SINK (14"X14"): ZURN MODEL FS12-6-PV3 14"X14" PVC FLOOR SINK WITH 3" PVC HUB CONNECTION. FURNISH WITH SEDIMENT BUCKET JP2370-Y3, HALF-GRATE JP2370-H, AND P-TRAP. FLOOR SINKS SHALL BE INSTALLED 30" ON CENTER FROM CENTERLINE OF MOP SINK.	X	X	3"	1½"
WASH TUB & WASH TUB ADA	PET WASH TUB: TUB AND ANTI-SIPHON TYPE FAUCET TO BE PROVIDED BY TSC AND INSTALLED BY CONTRACTOR. CONTRACTOR TO FURNISH AND INSTALL WITH ENDURA IN-LINE DRAIN STRAINER, MODEL 393243AW, BELOW TUB IN PLACE OF P-TRAP. STRAINER CLEANOUT SHALL BE INSTALLED IN EASILY ACCESSIBLE LOCATION. TSC TO FURNISH AND CONTRACTOR TO INSTALL SMARTWAY HAIR INTERCEPTOR IN PLACE OF A STRAINER BASKET IN BASIN OF EACH WASH TUB. COORDINATE LEFT HAND / RIGHT HAND CONFIGURATION AS SHOWN ON DRAWINGS WITH TSC. FURNISH COMPLETE WITH TEMPERATURE LIMITING MIXING VALVE.	½"	½"	1½"	1½"
RPBP	REDUCED PRESSURE BACKFLOW PREVENTER : WATTS MODEL 919-QTS, 1¼" REDUCED PRESSURE BACKFLOW PREVENTER WITH A MODEL 919-AG AIR GAP DRAIN. INSTALL UNIT IN HORIZONTAL POSITION WITH CENTERLINE A MAXIMUM OF 4'-6" AFF. REFER TO DETAIL ON DRAWINGS.	1¼"	X	X	X
HWRP	HOT WATER RECIRCULATION PUMP (FOR USE AT WATER HEATER): BELL & GOSSETT MODEL PL-30B WITH ¾" CONNECTIONS, RATED @ 1/12 HP, 120-1-60, .5 GPM AT .75 TDH. PROVIDE MAIN CUTOFF SWITCH (MANUAL) FOR PUMP TO CUT OFF POWER AS REQUIRED UNDER ASHRAE STANDARD 9075, PARAGRAPH 7.6. INSTALL & SUPPORT PUMP PER SCHEMATIC ON CONTRACT DRAWINGS AND MANUFACTURER'S RECOMMENDATIONS.	¾"	X	X	X
HR	HOSE REEL: REEL CRAFT MODEL GCD83050 OLP. MOUNT FROM STRUCTURE. COORDINATE EXACT LOCATION WITH LATEST TSC FIXTURE PLAN AND TSC PM.	¾"	X	X	X

WASTE & WATER FIXTURE LOAD CALCULATIONS

FIXTURE TAG	FIXTURE/EQUIPMENT	QUANTITY	WATER CW F.U. PER FIXTURE	WATER HW F.U. PER FIXTURE	WATER TOTAL F.U. PER FIXTURE	WATER TOTAL F.U.	WASTE WASTE F.U. PER FIXTURE	WASTE TOTAL F.U.
WC	WATER CLOSET	2	5.0	–	5.0	10.0	4.0	8.0
LAV	LAVATORY	2	1.5	1.5	2.0	4.0	1.0	2.0
BS	BREAK ROOM SINK	1	1.0	1.0	1.4	2.0	2.0	2.0
EWC	ELECT. WATER COOLER	1	0.25	–	0.25	0.25	–	–
MS	MOP SINK	1	2.25	2.25	3.0	3.0	2.0	2.0
FD	FLOOR DRAIN	2	–	–	–	–	2.0	4.0
WASH TUB	PET WASHING TUB	2	2.25	2.25	3.0	6.0	2.0	4.0
FS	FLOOR SINK	2	–	–	–	–	4.0	4.0
TOTALS						24.65		26.0
MAXIMUM WATER DEMAND AT 24.65 F.U. = 23 GPM + 25 GPM (H.B.) = 1 1/4" MIN. WATER MAIN SUPPLY								
MAXIMUM WASTE DEMAND AT 26.0 F.U. = 4" SANITARY SEWER WASTE								
FIXTURE UNITS BASED ON 2015 INTERNATIONAL PLUMBING CODE								

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Job Number: 2360
Date: 03.22.2024
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Revisions:
Revisions:

PLUMBING SCHEDULES AND DETAILS

Sheet Number: P2.0

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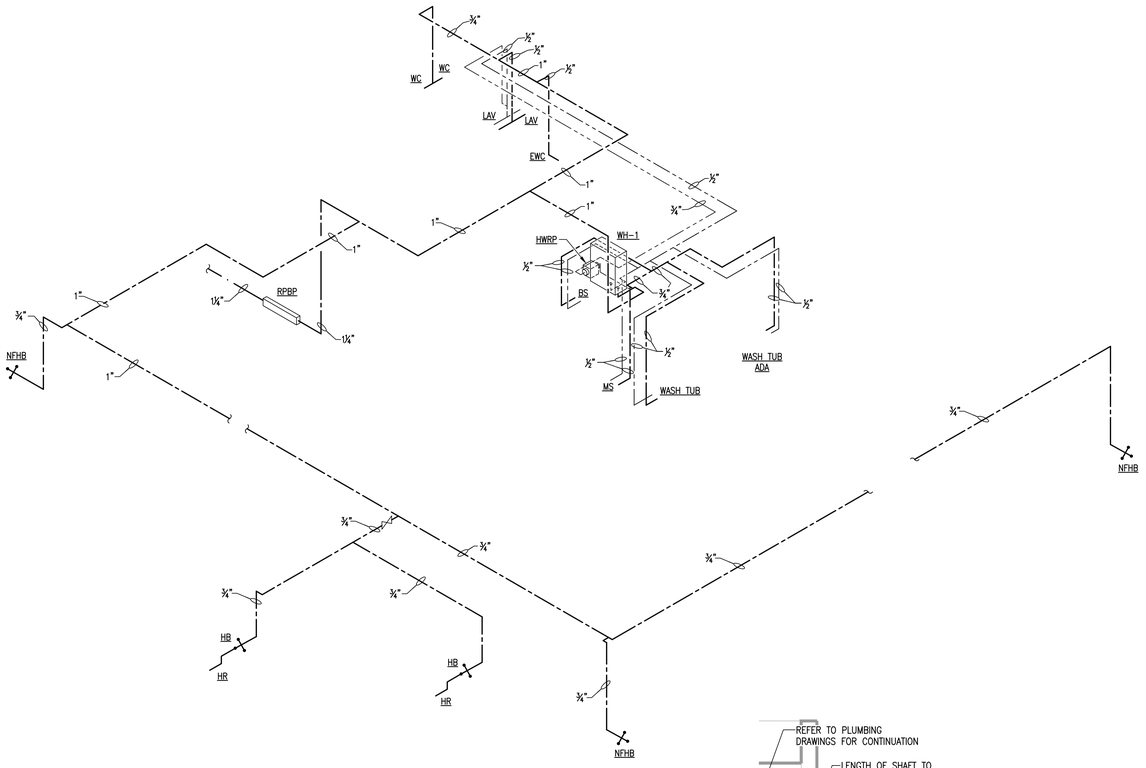
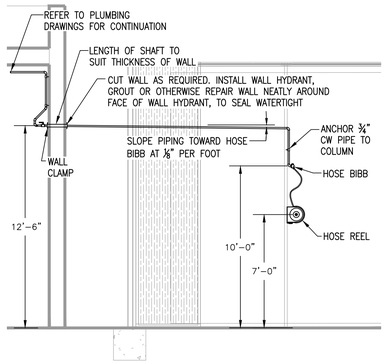


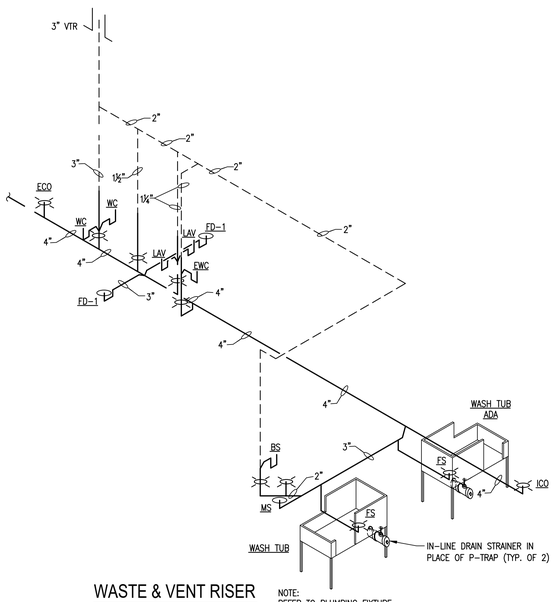
DOMESTIC WATER RISER

SCALE: NONE



LIVE GOODS CENTER HOSE REEL AND HOSE BIBB SERVICE PIPING DETAIL

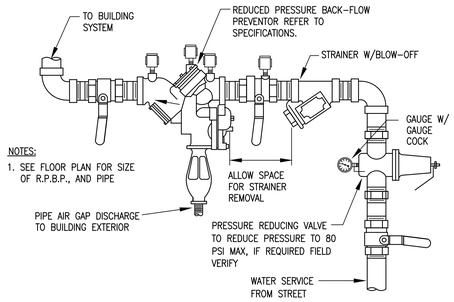
SCALE: NONE



WASTE & VENT RISER

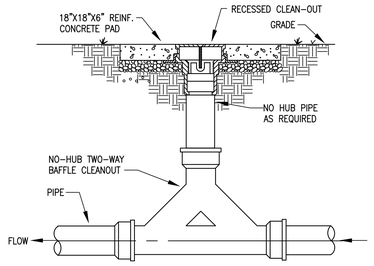
SCALE: NONE

NOTE:
REFER TO PLUMBING FIXTURE SCHEDULE FOR ADDITIONAL PIPE SIZES



REDUCED PRESSURE BACKFLOW PREVENTER DETAIL

SCALE: NONE



EXTERIOR TWO-WAY CLEAN-OUT SCHEMATIC

SCALE: NONE

PLUMBING SPECIFICATIONS

PART 1 GENERAL

1. COMPLETED INSTALLATION SHALL CONFORM TO ALL APPLICABLE FEDERAL, STATE AND LOCAL CODES AND ORDINANCES, INCLUDING BUT NOT LIMITED TO THE LATEST APPROVED EDITIONS OF THE FOLLOWING:

   STATE BUILDING CODE, INTERNATIONAL BUILDING CODE, INTERNATIONAL PLUMBING CODE, INTERNATIONAL ENERGY CONSERVATION CODE, NFPA-90A, NFPA-101, NFPA-54.

2. OBTAIN AND PAY FOR ALL REQUIRED PERMITS, INSPECTION FEES, TAPPING FEES, CONNECTION CHARGES, AND UTILITY COMPANY SERVICE CHARGES.

3. INSTALLATION SHALL BE DONE IN A NEAT AND WORKMANLIKE MANNER.

4. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO PROVIDE ALL LABOR AND INSTALL ALL MATERIAL CALLED FOR IN THE CONTRACT DOCUMENTS PER LOCAL CODE REQUIREMENT AND THE MANUFACTURER'S INSTALLATION INSTRUCTIONS.

5. THE CONTRACTOR'S INSTALLATION SHALL INCLUDE ALL REQUIRED ROUGH-INS, DUCTWORK, PIPING OR ELECTRICAL WIRING INCLUDING DEVICES (GAGES, VALVES, DISCONNECTS, STARTERS, ETC.) NEEDED FOR ALL SYSTEMS TO BE COMPLETE AND FULLY OPERATIONAL WHETHER OR NOT SHOWN OR NOTED ON THE CONTRACT DOCUMENTS.

6. THE CONTRACTOR'S BID SHALL INCLUDE ALL SUCH ITEMS REASONABLY INFERRED OR REQUIRED FOR COMPLETE SYSTEMS. THE CONTRACTOR SHALL NOTIFY THE DESIGN ENGINEER PROMPTLY OF ANY CONFLICT BETWEEN BUILDING CODES AND/OR THE MANUFACTURER'S INSTALLATION INSTRUCTIONS AND THE CONTRACT DOCUMENTS.

7. NO DEVIATIONS OR ADJUSTMENTS SHALL BE MADE TO THE CONTRACT DOCUMENTS WITHOUT COORDINATION AND THE APPROVAL OF THE DESIGN ENGINEER. ANY SUCH APPROVED DEVIATIONS OR ADJUSTMENTS TO THE CONTRACT DOCUMENTS SHALL BE MARKED ON A SET OF RECORD DRAWINGS BY THE CONTRACTOR. THE RECORD AS-BUILT DRAWINGS SHALL BE TURNED OVER TO THE DESIGN ENGINEER AT THE COMPLETION OF CONSTRUCTION.

PART 2 PRODUCTS

1. ALL PIPING AND FITTINGS FOR THE DOMESTIC WATER SYSTEM SHALL BE CERTIFIED BY THE UNDERWRITERS LABORATORY TO MEET THE ANSI NSF, 61 SECTION 9 STANDARD.

2. ALL PIPING INSIDE THE BUILDING AND BELOW SLAB TO 5'-0" OUTSIDE THE BUILDING SHALL BE ASTMF876 APPROVED CROSSLINKED POLYETHYLENE (PEX) TUBING WITH A MINIMUM CLASS 1006 CHLORINE RESISTANCE RATING, WATTS, ZURNER, OR NIBCO. FITTINGS SHALL BE BARBED CRIMP PIPING OR QUICK CONNECT FITTINGS, WATTS, ZURNER, OR NIBCO. EXPOSED PIPING INSIDE SHALL BE 10' OR 20' STICKS. ROLLS MAY BE USED IN WALLS NOT EXPOSED AND UNDERSLAB. ALL PIPING (PEX) UNDER INTERIOR SLAB SHALL BE SLEEVED. NO FITTINGS SHALL BE PERMITTED UNDER GROUND.

   OR

   ALL DOMESTIC WATER PIPING INSIDE THE BUILDING ABOVE SLAB SHALL BE TYPE "L" HARD COPPER. DOMESTIC WATER PIPING BELOW SLAB AND TO 5'-0" OUTSIDE SHALL BE TYPE "K" SOFT SEAMLESS. NO JOINTS SHALL BE ALLOWED BELOW SLAB. COPPER PIPE FITTINGS SHALL BE SWEATED JOINT WROUGHT COPPER SWEEP PATTERN FITTINGS, SOLDERED USING 95-5 LEAD-FREE SOLDER.

3. ALL SANITARY WASTE AND VENT PIPING INSIDE AND UNDERSLAB TO 5'-0" OUTSIDE THE BUILDING SHALL BE SCHEDULE 40 PVC, DWV OR SERVICE WEIGHT CAST IRON WITH DRAINAGE FITTINGS.

4. JOINT FOR PVC SANITARY WASTE AND VENT PIPING SHALL BE SOLVENT WELD TYPE INSIDE AND UNDERSLAB TO 5'-0" OUTSIDE THE BUILDING. JOINTS FOR CAST IRON PIPE SHALL BE NO-HUB TYPE ABOVE, SLAB ON GRADE AS MANUFACTURED BY CLAMP-ALL OR ANACO HUSKY. CAST IRON SOIL PIPING INSTITUTE NO-HUB, DOUBLE BAND CONNECTORS SHALL NOT BE ALLOWED. JOINTS FOR CAST IRON PIPE BELOW SLAB OR GRADE SHALL BE NEOPRENE PUSH-ON TYPE.

5. HANGERS: PIPE SIZES 1/2" TO 1-1/2": ADJUSTABLE WROUGHT STEEL LOOP (COPPER, ELECTROPLATE IF APPLICABLE).

6. HANGERS: PIPE SIZES 2" AND UP: ADJUSTABLE WROUGHT STEEL CLEVIS (COPPER, ELECTROPLATE IF APPLICABLE).

7. MULTIPLE OR TRAPEZE HANGERS: STEEL CHANNELS WITH WELDED SPACERS AND HANGER RODS.

8. PROVIDE STEEL HANGER RODS, THREADED BOTH ENDS, THREADED ONE END, OR CONTINUOUS THREADED AS REQUIRED.

9. INSULATE DOMESTIC HOT AND COLD WATER PIPING WITH FIBERGLASS INSULATION WITH MOLDED FIBERGLASS PIPE COVERING AND CONTINUOUS VAPOR AS MANUFACTURED BY MANVILLE CORPORATION, OWENS-CORNING, KNAUF, OR CERTAINTEED.

   OR

   INSULATE (PEX) PIPING WITH SELF SEALING ELASTOMERIC RUBBER INSULATION. SEAL ENDS WITH CONTACT ADHESIVE AND TAPE PER MANUFACTURER'S RECOMMENDATIONS.

10. INSULATE ALL DOMESTIC HOT WATER PIPING WITH 1" THICK INSULATION. INSULATE ALL DOMESTIC COLD WATER PIPING WITH 1/2" THICK INSULATION.

11. INSULATE ALL DOMESTIC WATER PIPING BELOW SLAB AND TO 5'-0" OUTSIDE THE BUILDING WITH 1/2" ARMAFLEX.

12. PIPE INSULATION AND COVERINGS SHALL HAVE A RATING OF NO GREATER THAN 25 FLAME SPREAD, NO HIGHER THAN 50 SMOKE DEVELOPED, AND NO MORE THAN 50 FUEL CONTRIBUTED.

13. ALL GAS PIPING SHALL BE SCHEDULE 40 BLACK STEEL WITH SCREWED OR WELDED FITTINGS AND GASKET TYPE UNIONS AND FLANGES. ALL GAS PIPING INSTALLED OUTDOORS SHALL BE COATED WITH A CORROSION RESISTANT PAINT. PAINT COLOR SHALL BE ORANGE OR YELLOW.

14. CONCRETE ANCHORS (WEDGE ANCHORS) SHALL BE ZINC-PLATED CARBON STEEL WEDGE ANCHORS AVAILABLE IN ANCHOR/DRILL SIZES 1/4" TO 3/4" AND LENGTHS OF 1-3/4" THROUGH 12", MEETING U.S. GOVERNMENT G.S.A. SPECIFICATIONS FF-S-325 GROUP II, TYPE 4, CLASS 1, FOR FASTENING PLUMBING SYSTEMS TO CONCRETE AND PIPE HANGING. ITW RAMSET/RED HEAD BRAND OR APPROVED EQUAL.

15. NATURAL GAS REGULATORS SHALL BE MAXITROL 325 SERIES OR EQUAL.

16. ACCEPTABLE FIXTURE MANUFACTURERS

    A. NO OTHER MANUFACTURER SUBSTITUTIONS SHALL BE ALLOWED WITHOUT PRIOR WRITTEN APPROVAL FROM THE ENGINEER FIVE (5) DAYS BEFORE BIDDING.

    B. CONTRACTOR SHALL PROVIDE FAUCETS AND FITTINGS THAT ARE CERTIFIED BY UNDERWRITERS LABORATORY TO MEET THE ANSI NSF 61, SECTION 9 STANDARD.

    C. FITTINGS: AMERICAN STANDARD, KOHLER, DELTA, MOEN, SYMMONS, LEONARD, CHICAGO FAUCET COMPANY, T&S BRASS, OR POWERS REGULATOR.

PART 3 EXECUTION

1. EXCAVATION, BACKFILLING AND TRENCH WORK SHALL BE DONE IN ACCORDANCE WITH O.S.H.A. AND EXISTING SAFETY STANDARDS.

   A. PROVIDE SHORING AND CLEANING NECESSARY TO KEEP TRENCHES IN WORKING CONDITIONS, INCLUDING PUMPING OUT WATER.

   B. IN MOSTLY ROCK MATERIAL, TRENCHES SHALL BE EXCAVATED TO AT LEAST 6" BELOW THE ELEVATION OF THE BOTTOM OF THE PIPES. AFTER EXCAVATION, TRENCH SHALL THEN BE FILLED TO THE PROPER ELEVATION WITH CRUSHED LIMESTONE. GRAVEL SHALL BE SCOOPED OUT UNDER PIPE BELLS SO THE PIPE RESTS FIRMLY ON THE TRENCH BOTTOM.

   C. IN MOSTLY EARTH OR SAND MATERIAL, THE LAST 6" OF EXCAVATION SHALL BE DONE BY HAND. TRENCH BOTTOM SHALL BE SCOOPED OUT AT PIPE BELLS SO THE PIPE RESTS FIRMLY ON THE TRENCH BOTTOM.

   D. BACKFILLING AND TAMPING SHALL BE CAREFULLY DONE SIMULTANEOUSLY ALONG BOTH SIDES OF THE PIPE USING ROCK FREE EARTH, CRUSHED STONE OR SAND UNTIL THE PIPE IS COVERED TO A DEPTH OF AT LEAST 12". THE REST OF THE FILL UP TO THE TOPSOIL LAYER MAY BE GRAVEL OR ROCK FREE EARTH. ACCEPTABLE SOIL MATERIALS FOR BACKFILL AND FILL SHALL BE FREE OF CLAY, ROCK OR GRAVEL LARGER THAN 2" IN ANY DIMENSION, DEBRIS: WASTE, FROZEN MATERIALS AND OTHER DELETERIOUS MATTER HAVING A PLASTICITY INDEX LESS THAN 30. BACKFILL SHALL BE DONE IN LAYERS OF NOT MORE THAN 8" AND EACH LAYER SHALL BE COMPACTED. THE LAST 12" OF BACKFILL SHALL BE ROCK FREE TOPSOIL.

   E. SURFACE SHALL BE RESTORED TO ITS ORIGINAL CONDITION.

2. EXPOSED HOT AND COLD WATER TRIM IN FINISHED AREAS SHALL BE CHROME FINISHED.

3. ALL HORIZONTAL AND VERTICAL PIPING SHALL BE SUPPORTED IN ACCORDANCE WITH APPLICABLE STATE AND LOCAL CODE RECOMMENDATIONS. SUPPORTS SHALL SECURELY HOLD PIPING, PREVENT VIBRATION, COMPENSATE FOR ALL STATIC AND OPERATIONAL CONDITIONS OF THE VARIOUS SYSTEMS AND SHALL NOT BE SUBJECT TO ELECTROLYTIC ACTION. THIS SHALL BE ACCOMPLISHED BY USING THE SUMMER SYSTEM, THE POSIFIX, STAKFIX, PIPEFIX OR CHANNEL.

4. WATER HAMMER ARRESTERS SHALL BE INSTALLED ON ALL HOT AND COLD WATER BRANCH LINES CONTAINING SINGLE LEVER FAUCETS, FLUSH VALVES OR QUICK CLOSING VALVES SUCH AS DISHWASHERS, CLOTHES WASHERS, AND OTHER EQUIPMENT, BETWEEN THE LAST TWO FIXTURES. SHOCK ABSORBERS SHALL BE MOUNTED IN THEIR VERTICAL POSITION.

5. SANITARY WASTE AND VENT PIPING SHALL BE UNIFORMLY GRADED TO ELEVATIONS SHOWN. IF NO ELEVATIONS ARE GIVEN, SEWERS SHALL BE PITCHED NOT LESS THAN 1/4" PER FOOT FOR ALL PIPING 3" IN DIAMETER AND SMALLER AND 1/8" PER FOOT FOR PIPE LARGER THAN 3" IN DIAMETER.

6. SUPPORT HORIZONTAL PIPING AS FOLLOWS: REFER TO IPC 2009 TABLE 308.5 FOR HANGER SPACING REQUIREMENTS.

NOMINAL PIPE SIZE (IN.)	MAXIMUM HANGER ROD DIAMETER (IN.)
1/2	3/8
3/4 TO 1-1/4	3/8
1-1/2 TO 2	3/8
2-1/2 TO 3	1/2
4	5/8
6	3/4
8 AND UP	7/8

7. HANGERS FOR PIPING GREATER THAN 1" SHALL PASS OVER THE INSULATION. PROVIDE SADDLES FOR INSULATED PIPING.

8. HANGERS SHALL BE ATTACHED TO STRUCTURAL STEEL WORK BY CLAMPING OR OTHER APPROVED METHODS, EXCEPT THAT STRUCTURAL WORK SHALL NOT BE DRILLED AND PUNCHED.

9. INSULATION SHALL BE APPLIED WITH JOINTS TIGHTLY BUTTED. OPEN CRACKS, VOIDS AND DEPRESSIONS SHALL BE FILLED WITH HYDRAULIC SETTING CEMENT AND LAPPING MATCHING THE FINISH SHALL BE PASTED NEATLY OVER JOINTS.

10. FITTINGS AND VALVES SHALL BE INSULATED WITH THE SAME TYPE INSULATION AS THE PIPING OR WITH HYDRAULIC SETTING CEMENT, BUILT UP TO THE SAME THICKNESS AS LINES. COVER SHALL BE SAME AS ADJACENT PIPING OR PVC PREFORMED JACKET.

11. PROVIDE AND INSTALL A CUT-OFF VALVE, UNION AND FULL SIZE DIRT LEG AT CONNECTION TO EACH GAS-FIRED PIECE OF EQUIPMENT.

12. SEAL ALL PENETRATIONS OF RATED PARTITIONS WITH U.L. RATED FIRE BARRIER MATERIAL.

13. AIR ADMITTANCE VALVES SHALL NOT BE ALLOWED ON SANITARY WASTE AND VENT SYSTEMS.

14. THE SYSTEM TESTS DESCRIBED HEREIN ARE MINIMUM REQUIREMENTS. HOWEVER, ADDITIONAL TESTS AS REQUIRED BY THE AUTHORITY HAVING JURISDICTION SHALL ALSO BE PERFORMED.

15. DOMESTIC WATER PIPING SHALL BE TESTED AT 125 PSI. IN ADDITION, PIPING SHALL BE TESTED IN ACCORDANCE WITH APPLICABLE CODE REQUIREMENTS.

16. THE DOMESTIC WATER SYSTEM SHALL BE FLUSHED OUT PROGRESSIVELY BY OPENING OUTLETS AND FLOWING WATER UNTIL IT RUNS CLEAR. AFTER PIPE CLEANING IS COMPLETED, THE STRAINERS SHALL BE REMOVED, CLEANED, AND REPLACED. THEN THE ENTIRE DOMESTIC WATER SYSTEM SHALL BE DISINFECTED IN ACCORDANCE WITH THE AUTHORITY HAVING JURISDICTION.

17. THE SANITARY WASTE SYSTEM SHALL BE FLUSHED OUT PROGRESSIVELY WITH FLOWING WATER UNTIL IT RUNS CLEAR.

18. THE ENTIRE SANITARY WASTE SYSTEM SHALL BE TESTED AGAINST A HEAD PRESSURE OF 10' TSH FOR 8 HOURS WITHOUT LEAKAGE.

19. GAS PIPING SHALL BE LEAK TESTED AT 30 PSI FOR 24 HOURS.

20. THE CONTRACTOR SHALL SUBMIT TO THE ENGINEER A LETTER STATING THAT THE ABOVE MENTIONED TESTING, CLEANING AND DISINFECTING WAS COMPLETED, AND ALL LEAKS (IF ANY) WERE REPAIRED AND SYSTEM CLEANED AND RETESTED. THE LETTER SHALL BE SIGNED AS WITNESSED BY THE LOCAL AUTHORITY HAVING JURISDICTION, THE GENERAL SUPERINTENDENT OR THE DESIGN ENGINEER.

21. FIXTURES SHALL BE MOUNTED RIGID TO WALLS AND FLOOR.

22. PROVIDE HEAT TRAPS ON INLET AND OUTLET OF ALL WATER HEATING STORAGE TANKS.

23. DRAIN MANAGEMENT PROGRAM:

    A. ALL DRAINS, VENTS, ETC. MUST BE TAPED OVER DURING CONSTRUCTION TO PREVENT DEBRIS FROM INFILTRATING THE LINES.

    B. GC/DEVELOPER IS REQUIRED TO SUBMIT PHOTOS OF TAPED DRAINS.

    C. GC WILL BE FINED $150 PER DAY IF PHOTOS ARE NOT SUBMITTED BY THE BEGINNING OF WEEK TWO OF THE PROJECT OR IF ANY DRAIN IS DISCOVERED TO BE UNCOVERED DURING A PM SITE VISIT. FINES WILL TERMINATE ON THE DAY THAT PHOTOGRAPHIC EVIDENCE OF COMPLETION IS SUBMITTED TO AND VERIFIED BY THE TRACTOR SUPPLY PM.

    D. GC/DEVELOPER WILL BE REQUIRED TO JET AND CAMERA ANY LINE IN WHICH THE DRAIN IS DISCOVERED TO BE UNCOVERED. RECEIPTS AND VIDEO MUST BE SUBMITTED TO TRACTOR SUPPLY FOR VERIFICATION.

    E. DRAIN MANAGEMENT SIGNAGE WILL BE PROVIDED BY TRACTOR SUPPLY AND INSTALLED BY THE GC/DEVELOPER.

    F. IF SIGNAGE IS NOT INSTALLED AT PUNCH, CLEANING/CAMERA POLICY WILL APPLY.

    G. GC WILL BE FINED $150 PER DAY IF SIGNAGE IS NOT INSTALLED AT PUNCH. FINES WILL TERMINATE ON THE DAY THAT PHOTOGRAPHIC EVIDENCE OF COMPLETION IS SUBMITTED TO AND VERIFIED BY TRACTOR SUPPLY PM.

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TRACTOR SUPPLY COMPANY

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NORTH CAROLINA

Job Number: 2360

Date: 03.22.2024

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Revisions:

Revisions:

PLUMBING RISERS AND SPECIFICATIONS

Sheet Number: P3.0

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SPRINKLER INTENT INFORMATION

	SALES AREA	OFFICE AREA AND PET WASH	STOCKROOM AREA	
ZONE CLASSIFICATION **	ORDINARY HAZARD GROUP 2	LIGHT HAZARD	MISCELLANEOUS STORAGE <12', CLASS III COMMODITIES * ORDINARY HAZARD GROUP 2	
DENSITY	.20 GPM/ SQ. FT.	.10 GPM/ SQ. FT.	.20 GPM/ SQ. FT.	
COVERAGE AREA	1500 SQ. FT.	1500 SQ. FT.	1500 SQ. FT.	
COVERAGE PER SPRINKLER	130 SQ. FT.	225 SQ. FT.	130 SQ. FT.	
DISCHARGE TEMPERATURE	165°F	165°F	165°F	
MAXIMUM HEAD SPACING	15 FT.	15 FT.	15 FT.	
HOSE STREAM ALLOWANCE	250 GPM	100 GPM	250 GPM	

COMMENTS:

* COMMODITY CLASS REDUCED TO CLASS III BASED ON STORAGE OF LESS THAN 10 PALLET OF CLASS IV COMMODITIES.

** ZONE CLASSIFICATION SUBJECT TO AUTHORITY HAVING JURISDICTION.

SPRINKLER LEGEND

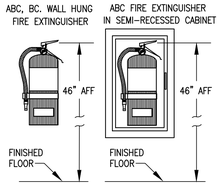
SYMBOL	DESCRIPTION
◎	RECESSED CHROME PENDANT HEAD (165°F)
○	UPRIGHT HEAD (165°)
✪	CHROME PENDANT HEAD (165°)
△	SPRINKLER RISER
●FE	FIRE EXTINGUISHER

GENERAL NOTES

1. TSC TO FURNISH AND CONTRACTOR TO INSTALL MINIMUM OF 11 PORTABLE FIRE EXTINGUISHERS. LOCATIONS SHALL BE DETERMINED BY STORE FIXTURES AND SHELVING TO MAINTAIN A MAXIMUM TRAVEL DISTANCE OF 75'–0".
2. SPRINKLER LINES, MAINS, AND BRANCHES SHALL BE AS HIGH AS POSSIBLE IN STOCKROOM.
3. TSC IS TO APPROVE ALL SPRINKLER DRAWINGS PRIOR TO INSTALLATION.
4. FIRE SPRINKLER CONTRACTOR SHALL BE RESPONSIBLE FOR SUBMITTING FORMAL "DESIGN INTENT" DRAWINGS INCLUDING FULL HYDRAULIC CALCULATIONS, SEALED BY A PROFESSIONAL ENGINEER MEETING ALL STATE AND LOCAL CODE REQUIREMENTS.
5. FIRE EXTINGUISHERS SHALL BE UL & ULC RATED AT 2A:10B:C OR BETTER.
6. ACTUAL SPRINKLER HEAD LAYOUT MAY VARY BASED ON ROOF SLOPE AND ORIENTATION. COORDINATE WITH GARDEN CENTER AND FEED STORAGE BUILDING MANUFACTURER PRIOR TO FINAL SPRINKLER DRAWING LAYOUT.
7. CONTRACTOR TO RAISE SPRINKLER LINES, MAINS, AND BRANCHES AS HIGH AS POSSIBLE IN ALL EXPOSED TO DECK LOCATIONS.

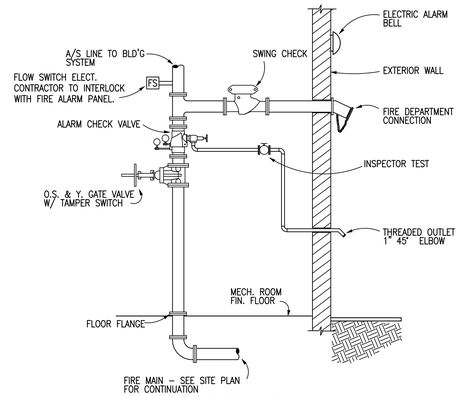
FIRE PROTECTION SPECIFICATIONS

1. THE SPRINKLER SYSTEM SHALL CONFORM TO NATIONAL FIRE PROTECTION ASSOCIATION 13 AND ALL APPLICABLE REGULATORY REQUIREMENTS AND BUILDING CODES AS INTERPRETED BY THE AUTHORITY HAVING JURISDICTION IN THE LOCALE OF THE PROJECT. WHERE CONFLICTS EXIST BETWEEN SUCH REGULATORY OR CODE REQUIREMENTS, SUCH CONFLICT SHALL BE IDENTIFIED FOR THE REVIEW OF THE ARCHITECT AND ENGINEER.
2. CONTRACTOR SHALL FURNISH AND INSTALL A COMPLETE AND HYDRAULICALLY CALCULATED SPRINKLER SYSTEM AS INDICATED ON FLOOR PLANS. MINIMUM SCOPE OF WORK SHALL INCLUDE PROVIDING NEW PENDANT SPRINKLER HEADS AND/OR RELOCATING EXISTING SPRINKLER HEADS AS REQUIRED IN THE VESTIBULE, SALES AREA, TOILETS, OFFICES, AND BREAKROOM. RELOCATE EXISTING UPRIGHT SPRINKLER HEADS OR PROVIDE NEW SPRINKLER HEADS AS REQUIRED IN THE STOCK ROOM. PROVIDE BRANCH PIPING FOR ALL NEW SPRINKLER HEADS AND ROUTE PIPING TO NEAREST BRANCH MAIN OR CROSS MAIN. PROVIDE SUPPORTS AS REQUIRED By NFPA 13. FIELD VERIFY EXISTING CONDITIONS.
3. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL DEFECTS, REPAIRS AND REPLACEMENTS IN MATERIAL AND WORKMANSHIP FOR A PERIOD OF ONE (1) YEAR AFTER FINAL PAYMENT IS APPROVED.
4. SUBMIT FOR APPROVAL THE NUMBER OF SHOP DRAWINGS AND MANUFACTURERS LITERATURE ON ALL MATERIALS AS REQUIRED TO THE ARCHITECT OR OWNER'S REPRESENTATIVE.
5. SUBMIT DRAWINGS AND CALCULATIONS TO THE DEPARTMENT OF FIRE PREVENTION OF THE STATE AND LOCAL AUTHORITIES HAVING JURISDICTION.
6. CONTRACTOR SHALL VISIT THE SITE AS WELL AS ADJACENT SPACES AND FULLY INFORM HIMSELF CONCERNING ALL CONDITIONS AFFECTING SCOPE OF WORK. VERIFY PIPE SIZES, LOCATION OF EXISTING COMPONENTS, AND SUITABILITY OF THE EXISTING SYSTEMS TO MEET THE HYDRAULIC CALCULATIONS PRIOR TO BID.
7. DRAWINGS ARE DIAGRAMMATIC AND INTENDED TO SHOW APPROXIMATE LOCATIONS. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO REVIEW ALL ARCHITECTURAL, CIVIL, STRUCTURAL, ELECTRICAL, AND MECHANICAL DRAWINGS AND COORDINATE WITH OTHER TRADES FOR PIPE ROUTING AND EQUIPMENT PLACEMENT. INSTALL ALL WORK WITHOUT CONFLICT WITH OTHER TRADES AND MAKE MINOR ALTERATIONS AS REQUIRED WITHOUT ADDITIONAL COST TO OWNER.
8. THE SPRINKLER SYSTEM SHALL BE INSTALLED BY A FIRE PROTECTION SPRINKLER SYSTEM CONTRACTOR WITH A VALID CERTIFICATE OF REGISTRATION ISSUED BY THE AUTHORITY HAVING JURISDICTION.
9. CONTRACTOR SHALL COORDINATE WITH ELECTRICAL CONTRACTOR ALL VOLTAGES, ELECTRICAL LOADS, ETC. OF ELECTRICALLY OPERATED EQUIPMENT PRIOR TO PURCHASING EQUIPMENT. ALL EQUIPMENT SHALL BE U.L. AND NEMA APPROVED.
10. MAINTAIN A MINIMUM CLEARANCE OF 3'–0" IN FRONT OF ALL ELECTRICAL PANELS AND 1'–0" ON EITHER SIDE OF ELECTRICAL PANEL TO STRUCTURE.
11. ALL HORIZONTAL AND VERTICAL PIPING SHALL BE SUPPORTED IN ACCORDANCE WITH NFPA 13 AND STATE AND LOCAL REQUIREMENTS. SUPPORTS HALL SECURELY HOLD PIPING, PREVENT VIBRATION, COMPENSATE FOR STATIC AND OPERATIONAL CONDITIONS OF THE VARIOUS SYSTEMS, AND SHALL NOT BE SUBJECT TO ELECTROLYTIC ACTION.
12. ALL SPRINKLER SYSTEM MATERIALS INSTALLED SHALL BE U.L. LISTED AND FACTORY MUTUAL APPROVED FOR FIRE PROTECTION USE.
13. CONTROL VALVES SHALL BE SLOW CLOSING INDICATING VALVES LISTED FOR FIRE PROTECTION USE. EACH CONTROL SHALL HAVE A SUPERVISORY SWITCH.
14. SPRINKLER PIPING PENETRATING ONE–HOUR OR GREATER RATED FIRE WALLS SHALL BE SLEEVED AND CAULKED TO MEET U.L. LISTED ASSEMBLY FOR RATING OF WALL.
15. CONTRACTOR SHALL FLUSH WATER SYSTEM AFTER INSTALLATION PER REQUIREMENTS OF NFPA 24.
16. SPRINKLER HEADS SHALL BE TYCO, RELIABLE, CENTRAL, VIKING OR EQUAL.
17. OFFICE AREA AND SIMILAR OCCUPANCIES SHALL HAVE DENSITY OF ADJACENT AREAS IF NOT SEPARATED BY WALLS. IF SEPARATED BY WALLS, THE AREA SHALL BE HYDRAULICALLY BALANCED TO PRODUCE 0.1 G.P.M. PER SQUARE FOOT DENSITY OVER THE MOST REMOTE 1,500 SQ. FT., HEAD COVERAGE 225 SQ. FT./HEAD MAXIMUM, USING 165°F HEADS.
18. SALES AREA, VESTIBULE, AND SIMILAR OCCUPANCIES SHALL SHALL BE HYDRAULICALLY BALANCED TO PRODUCE 0.2 GPM PER SQUARE FOOT DENSITY OVER THE MOST REMOTE 1,500 SQ. FT., HEAD COVERAGE 130 SQ. FT./HEAD MAXIMUM, USING 165°F HEADS.
19. RECEIVING AREA AND STOCKROOM SHALL BE HYDRAULICALLY BALANCED TO PRODUCE .20 GPM PER SQUARE FOOT DENSITY OVER THE MOST REMOTE 1,500 SQ. FT., HEAD COVERAGE 130 FT./HEAD MAXIMUM, USING 165°F HEADS.
20. BUILDING AWNING AND CANOPY AREAS SHALL BE HYDRAULICALLY BALANCED TO PRODUCE 0.2 G.P.M. PER SQUARE FOOT DENSITY OVER THE MOST REMOTE 1,500 SQ. FT., HEAD COVERAGE 80 SQ. FT./HEAD MAXIMUM, USING 200°F HEADS.
21. ALL SPRINKLER HEADS IN AREAS WITH FINISHED CEILING SHALL BE CHROME–PLATED RECESSED PENDANT TYPE WITH TEMPERATURE RATING AS CONDITIONS DICTATE. ASSOCIATED SPRINKLER PIPING SHALL BE ENTIRELY CONCEALED.
22. ALL SPRINKLER HEADS IN AREAS WITHOUT FINISHED CEILINGS SHALL BE BRASS UPRIGHT HEADS WITH TEMPERATURE RATING AS CONDITIONS DICTATE. ASSOCIATED SPRINKLER PIPING SHALL BE RUN EXPOSED. DO NOT PAINT HEADS.
23. THE SPRINKLER CONTRACTOR SHALL COORDINATE THE LOCATION OF PIPING AND HEADS WITH LIGHT FIXTURES, DIFFUSERS, DUCTWORK, PLUMBING LINES, ETC. AND MAKE MINOR ADJUSTMENTS IN THE SPRINKLER LAYOUT WHERE REQUIRED OR DEEMED NECESSARY BY THE ARCHITECT.
24. MODIFICATIONS TO THE SPRINKLER SYSTEM SHALL BE IN ACCORDANCE WITH NFPA 13.



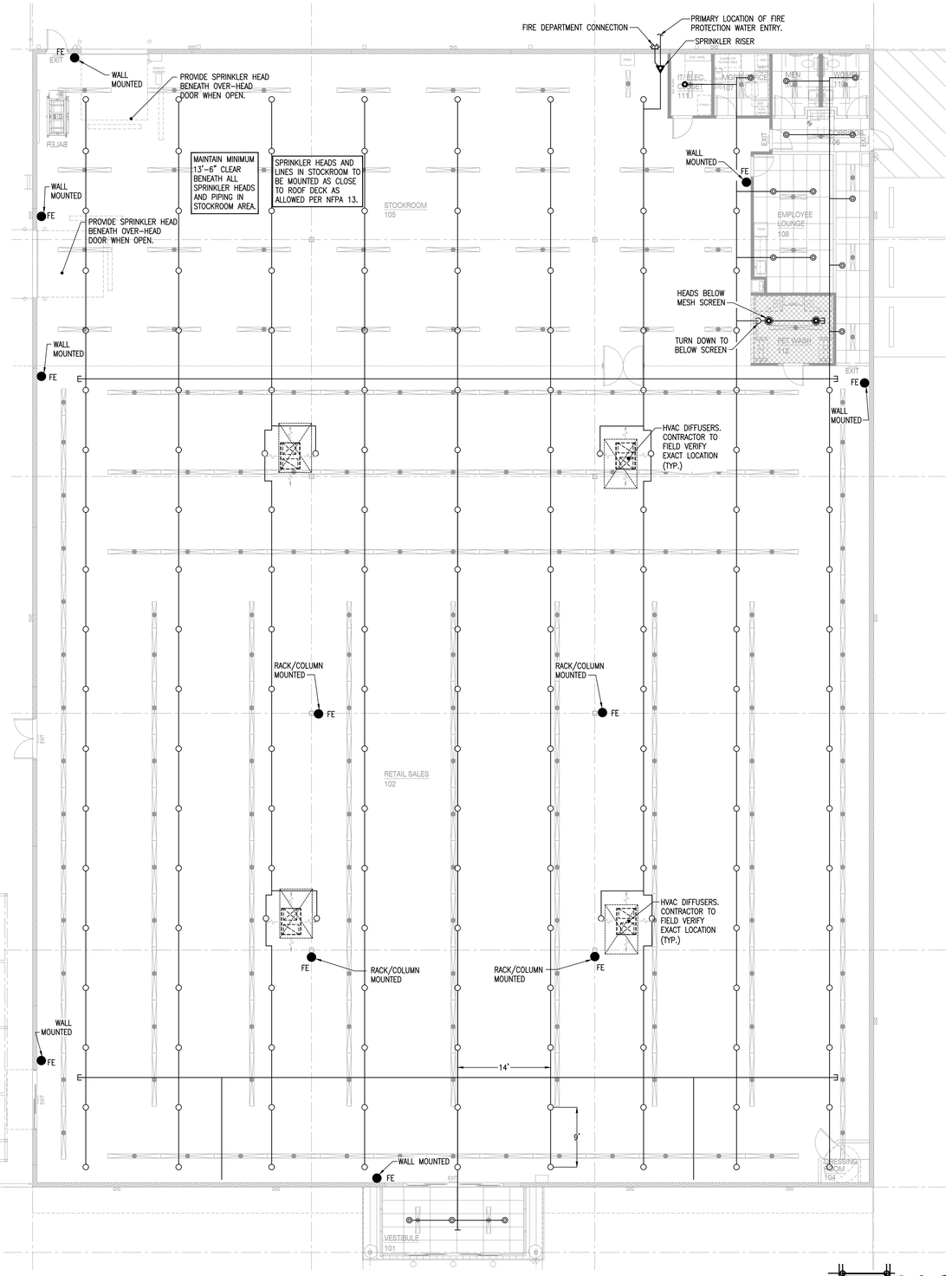
FIRE EXTINGUISHER MOUNTING HEIGHT

SCALE: NONE



FIRE LINE ENTRANCE DETAIL

SCALE: NONE



FIRE PROTECTION PLAN

SCALE: 1/8" = 1'–0"

OXFORD ARCHITECTURE

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TRACTOR SUPPLY COMPANY

LILLINGTON
NORTH CAROLINA

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FIRE PROTECTION PLAN

Sheet Number: FP1.0

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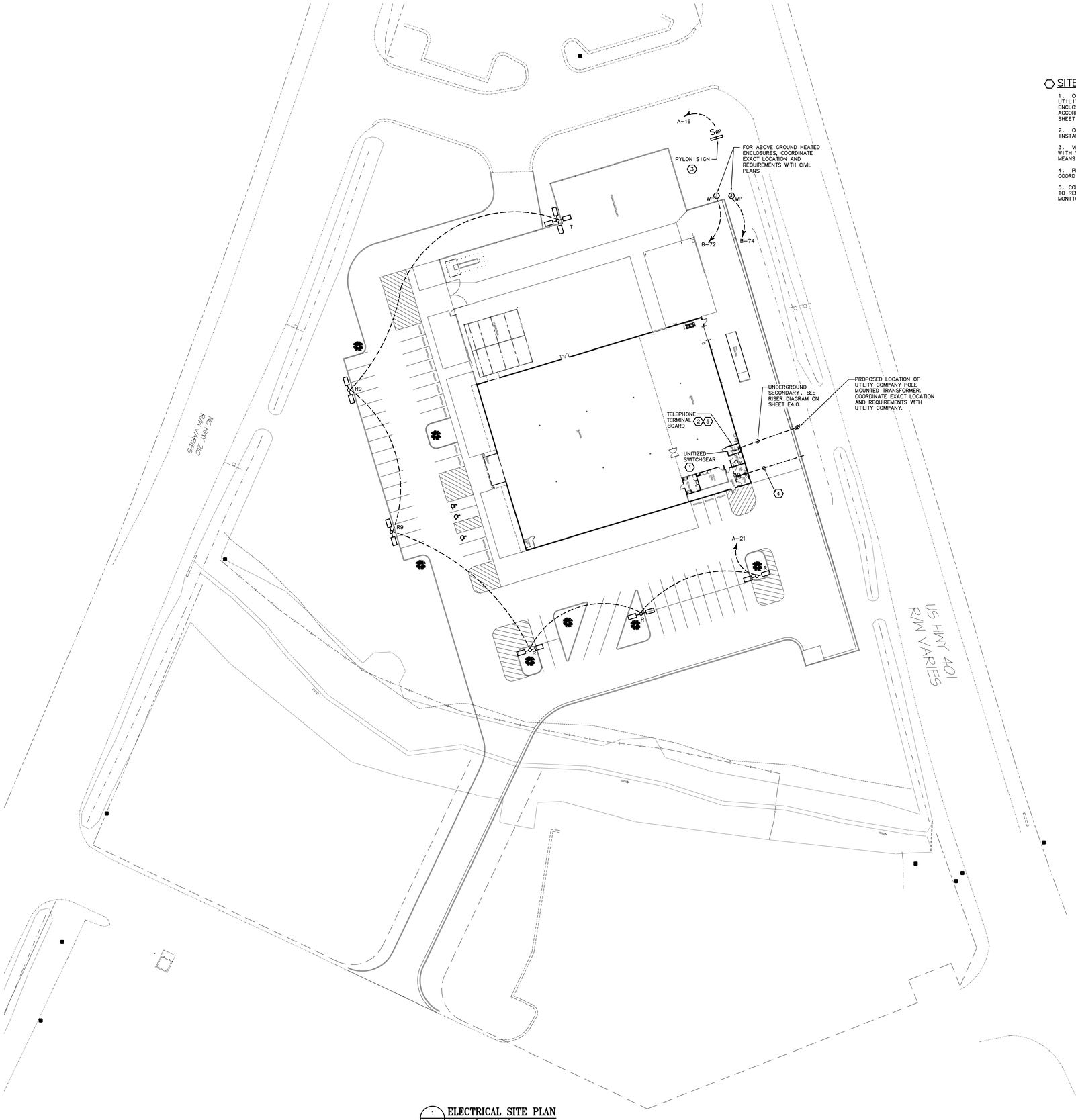


1 ES1.0 **ELECTRICAL SITE PLAN**
SCALE: 1" = 30'-0"

SITE PLAN NOTES

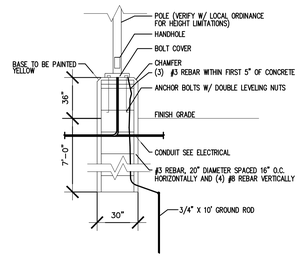
1. COORDINATE INSTALLATION OF NEW UNDERGROUND SERVICE WITH LOCAL ELECTRIC UTILITY COMPANY. PROVIDE TRENCHING, CONDUIT, CONDUCTORS, METER BASE, CT ENCLOSURE, CONCRETE PAD, AND OTHER ITEMS AS REQUIRED. INSTALL SERVICE IN ACCORDANCE WITH CURRENT UTILITY COMPANY REQUIREMENTS. SEE RISER DIAGRAM ON SHEET E4.0.

2. COORDINATE INSTALLATION OF TELEPHONE SERVICE CONDUITS WITH LOCAL TELEPHONE COMPANY. INSTALL (2) 2" CONDUITS FROM TELEPHONE SERVICE POINT TO TELEPHONE TERMINAL BOARD.

3. VERIFY LOCATION OF PYLON SIGN WITH OWNER. VERIFY EXACT ELECTRICAL REQUIREMENTS WITH VENDOR. PROVIDE CIRCUIT PER VENDOR'S RECOMMENDATIONS. PROVIDE DISCONNECTING MEANS IF NOT PROVIDED WITH SIGN AND LOCATE PER VENDOR'S RECOMMENDATIONS.

4. PROVIDE A 1-1/2" CONDUIT FROM IRRIGATION CONTROLLER TO OUTSIDE OF CURBLINE. COORDINATE EXACT LOCATION WITH GC.

5. CONTRACTOR SHALL INSTALL 1"C WITH PULLSTRING FROM THE TELEPHONE TERMINAL BOARD TO REMOTE PIV, BACKFLOW, OR WATER VALVES THAT THE LOCAL AHJ REQUIRES TO BE MONITORED BY THE FIRE ALARM SYSTEM.



POLE BASE DETAIL

NO SCALE
POLE BASE DETAIL PROVIDED FOR SCOPE AND BID PURPOSES. CONTRACTOR SHALL SUBMIT A POLE BASE DESIGN SUITABLE FOR LOCAL CONDITIONS AND APPROVED BY A STRUCTURAL ENGINEER.

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TSC

TRACTOR SUPPLY COMPANY

LILLINGTON
NORTH CAROLINA

PRELIMINARY
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PARSONS
ENGINEERING, INC.
NASHVILLE, TENNESSEE
PARSONSENGINEERING.COM

Job Number: 2360
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ELECTRICAL SITE PLAN
Sheet Number: ES1.0

Project: 24066 Drawing: 24066-ES1.0.dwg

LIGHTING FIXTURE SCHEDULE

LIGHTING FIXTURE SCHEDULE – ELECTRICAL CONTRACTOR SHALL PURCHASE LIGHTING FIXTURES THROUGH TRACTOR SUPPLY COMPANY'S NATIONAL AGREEMENT WITH VILLA LIGHTING SUPPLY, INC. CONTACT ANNE VOELKER (tractorsupply@villalighting.com) AT 314-633-0554 FOR PRICING.

TYPE	MANUFACTURER	CATALOG NUMBER	VOLT	LAMPS QTY	LAMPS TYPE	WATTAGE	MOUNTING	REMARKS
A	LITHONIA LIGHTING	CLX-L96-10000LM-SEF-FDL-MVOLT-GZ10-40K-80CRI-PLR2ANG-WH	277		10000 LUMEN LED 4000K	70.8 WATTS	SURFACE MOUNTED	8' LED STRIP
AE	LITHONIA LIGHTING	CLX-L96-10000LM-SEF-FDL-MVOLT-GZ10-40K-80CRI-PS1050-SPD-PLR2BELBNG-WH	277		10000 LUMEN LED 4000K	70.8 WATTS	SURFACE MOUNTED	SAME AS 'A' BUT WITH INTEGRAL EMERGENCY BATTERY
A1	LITHONIA LIGHTING	CLX-L48-5000LM-SEF-FDL-MVOLT-GZ10-40K-80CRI-PLR2ANG-WH	277		5000 LUMEN LED 4000K	35.4 WATTS	SURFACE MOUNTED	4' LED STRIP
A1E	LITHONIA LIGHTING	CLX-L48-5000LM-SEF-FDL-MVOLT-GZ10-40K-80CRI-PS1050-SPD-PLR2BELBNG-WH	277		5000 LUMEN LED 4000K	35.4 WATTS	SURFACE MOUNTED	SAME AS 'A1' BUT WITH INTEGRAL EMERGENCY BATTERY
B	LITHONIA LIGHTING	CLX-L96-10000LM-SEF-FDL-MVOLT-GZ10-40K-80CRI-PLR2ANG-WH	277		10000 LUMEN LED 4000K	70.8 WATTS	SUSPENDED MOUNTED	8' LED STRIP
BE	LITHONIA LIGHTING	CLX-L96-10000LM-SEF-FDL-MVOLT-GZ10-40K-80CRI-PS1050-SPD-PLR2BELBNG-WH	277		10000 LUMEN LED 4000K	70.8 WATTS	SUSPENDED MOUNTED	SAME AS 'B' BUT WITH INTEGRAL EMERGENCY BATTERY
B1	LITHONIA LIGHTING	CLX-L48-5000LM-SEF-FDL-MVOLT-GZ10-40K-80CRI-PLR2ANG-WH	277		5000 LUMEN LED 4000K	35.4 WATTS	SUSPENDED MOUNTED	4' STRIP
B1E	LITHONIA LIGHTING	CLX-L48-5000LM-SEF-FDL-MVOLT-GZ10-40K-80CRI-PS1050-SPD-PLR2BELBNG-WH	277		5000 LUMEN LED 4000K	35.4 WATTS	SUSPENDED MOUNTED	SAME AS 'B1' BUT WITH INTEGRAL EMERGENCY BATTERY
G	MAXLITE	HLRS-45-U-L-P	UNV	1	5,760 LUMEN LED 5000K	45.0 WATTS	PENDANT	EXTERIOR HAZARDOUS AREA LED PENDANT LIGHT
K	LITHONIA LIGHTING	DSXW1-LED-10C-1000-50K-T3M-MVOLT-DDBXD	UNV	1	3,970 LUMEN LED 5000K	39.0 WATTS	SURFACE	EXTERIOR LED WALL LIGHT
K1	HI-LITE	H-15118-97/HL-AHD-27"-97/21/LED2/40/D/BCM-M	277	1	18W LED 4000K	18.0 WATTS	WALL MOUNT	EXTERIOR GOOSENECK WALL LIGHT
R	LITHONIA LIGHTING	RSX1-LED-P3-50K-R3-MVOLT-SPA	UNV	2	14,000 LUMEN LED 5000K	218 WATTS	TWO HEADS AT 180 DEGREES POLE MOUNTED ON 22' BRONZE POLE	PARKING LOT LIGHTS
R9	LITHONIA LIGHTING	RSX1-LED-P3-50K-R3-MVOLT-SPA	UNV	2	14,000 LUMEN LED 5000K	218 WATTS	TWO HEADS AT 180 DEGREES WITH ROTATED OPTICS, POLE MOUNTED ON 22' BRONZE POLE	PARKING LOT LIGHTS
T	LITHONIA LIGHTING	RSX1-LED-P3-50K-R3-MVOLT-SPA	UNV	4	14,000 LUMEN LED 5000K	436 WATTS	FOUR HEADS AT 90 DEGREES POLE MOUNTED ON 22' BRONZE POLE	PARKING LOT LIGHTS
X	EXITRONIX LIGHTING	VEX-U-BP-WB-WH-R6	UNV	–	INCL.	0.8 WATTS	SURFACE	LED EXIT SIGN
XR	EXITRONIX LIGHTING	VEX-U-BP-WB-WH-R6 / MLED2-G-WP	UNV	–	INCL.	3.8 WATTS	SURFACE	LED EXIT SIGN WITH EXTERIOR REMOTE HEADS
XW	EXITRONIX LIGHTING	VEX-WPC-1-R-W-IH-R-2RL1-WP	UNV	–	INCL.	3.6 WATTS	SURFACE	WET LOCATION RATED LED COMBINATION EXIT/EMERGENCY LIGHT WITH INTEGRAL BATTERY AND TWO REMOTE HEADS
Y	METALUX	8VT2-LD5-9-DR-UNV-L850-CD1-WL-U	UNV		9000 LUMEN LED 5000K	66.0 WATTS	SUSPENDED MOUNTED	8' LED STRIP W/ LENS AND GASKET
YE	METALUX	8VT2-LD5-9-DR-UNV-EL10W-L850-CD1-WL-U	UNV		9000 LUMEN LED 5000K	66.0 WATTS	SUSPENDED MOUNTED	SAME AS 'Y' BUT WITH INTEGRAL EMERGENCY BATTERY.

2 E1.0 **TYPICAL BATTERY PACK WIRING DIAGRAM**
NO SCALE

GENERAL NOTES

A. SUBSTANTIAL COMPLETION MUST BE ACHIEVED ONE WEEK PRIOR TO THE FIXTURE DATE ESTABLISHED BY TSC AND THE G.C. SUBSTANTIAL COMPLETION INCLUDES PERMANENT POWER, SECURE BUILDING READY FOR FIXTURES, COMPLETED OFFICE/RESTROOMS, SALES FLOOR, DOCK WITH ALL WEATHER ACCESS, AND SIDEYARD WITH FENCING.

B. ALL LIGHTING SHALL BE CONTROLLED BY LIGHTING CONTROL SYSTEM EXCEPT THE NIGHT LIGHTS(NL) AND EMERGENCY LIGHTING. ALL NIGHT LIGHTS(NL) AND EMERGENCY LIGHTING SHALL BE UNSWITCHED.

C. UNLESS NOTED OTHERWISE, FIXTURES WITH EMERGENCY BATTERY PACKS SHALL HAVE CONNECTION TO LOCAL SWITCHING (WHERE INDICATED) AND CONNECTION TO CIRCUIT HOMERUN. LOCAL SWITCHING SHALL PROVIDE NORMAL ON/OFF CONTROL. UPON LOSS OF CIRCUIT POWER, EMERGENCY BATTERY PACKS SHALL PROVIDE IMMEDIATE ILLUMINATION ON BATTERY POWER, REGARDLESS OF LOCAL SWITCHING. REFER TO "TYPICAL EMERGENCY BATTERY PACK DETAIL" ON THIS SHEET.

D. ALL EXIT SIGNS AND STANDALONE EMERGENCY LIGHTING FIXTURES SHALL BE CONNECTED TO CONTINUOUSLY HOT UNSWITCHED CIRCUIT CONDUCTOR OF CIRCUIT INDICATED.

E. ALL NIGHT LIGHT FIXTURES SHALL BE FED FROM CIRCUIT A-2.

F. COORDINATE EXACT LOCATION OF ALL LIGHTING FIXTURES WITH ARCHITECTURAL REFLECTED CEILING PLAN.

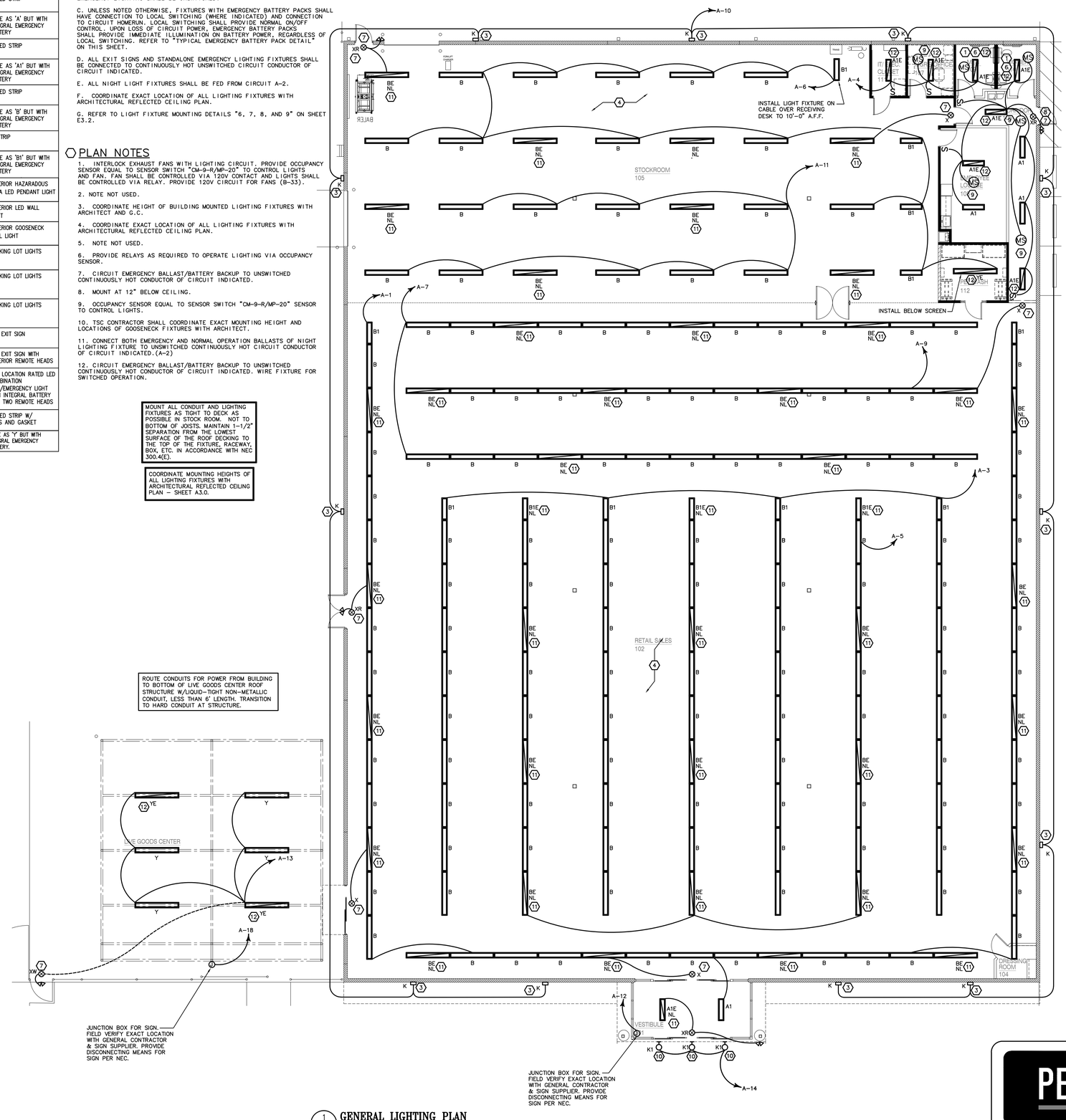
G. REFER TO LIGHT FIXTURE MOUNTING DETAILS "6, 7, 8, AND 9" ON SHEET E3.2.

PLAN NOTES

1. INTERLOCK EXHAUST FANS WITH LIGHTING CIRCUIT. PROVIDE OCCUPANCY SENSOR EQUAL TO SENSOR SWITCH "CM-9-R/MP-20" TO CONTROL LIGHTS AND FAN. FAN SHALL BE CONTROLLED VIA 120V CONTACT AND LIGHTS SHALL BE CONTROLLED VIA RELAY. PROVIDE 120V CIRCUIT FOR FANS (B-33).
2. NOTE NOT USED.
3. COORDINATE HEIGHT OF BUILDING MOUNTED LIGHTING FIXTURES WITH ARCHITECT AND G.C.
4. COORDINATE EXACT LOCATION OF ALL LIGHTING FIXTURES WITH ARCHITECTURAL REFLECTED CEILING PLAN.
5. NOTE NOT USED.
6. PROVIDE RELAYS AS REQUIRED TO OPERATE LIGHTING VIA OCCUPANCY SENSOR.
7. CIRCUIT EMERGENCY BALLAST/BATTERY BACKUP TO UNSWITCHED CONTINUOUSLY HOT CONDUCTOR OF CIRCUIT INDICATED.
8. MOUNT AT 12" BELOW CEILING.
9. OCCUPANCY SENSOR EQUAL TO SENSOR SWITCH "CM-9-R/MP-20" SENSOR TO CONTROL LIGHTS.
10. TSC CONTRACTOR SHALL COORDINATE EXACT MOUNTING HEIGHT AND LOCATIONS OF GOOSENECK FIXTURES WITH ARCHITECT.
11. CONNECT BOTH EMERGENCY AND NORMAL OPERATION BALLASTS OF NIGHT LIGHTING FIXTURE TO UNSWITCHED CONTINUOUSLY HOT CIRCUIT CONDUCTOR OF CIRCUIT INDICATED.(A-2)
12. CIRCUIT EMERGENCY BALLAST/BATTERY BACKUP TO UNSWITCHED CONTINUOUSLY HOT CONDUCTOR OF CIRCUIT INDICATED. WIRE FIXTURE FOR SWITCHED OPERATION.

MOUNT ALL CONDUIT AND LIGHTING FIXTURES AS TIGHT TO DECK AS POSSIBLE IN STOCK ROOM. NOT TO BOTTOM OF JOISTS. MAINTAIN 1-1/2" SEPARATION FROM THE LOWEST SURFACE OF THE ROOF DECKING TO THE TOP OF THE FIXTURE, RACEWAY, BOX, ETC. IN ACCORDANCE WITH NEC 300.4(E).

COORDINATE MOUNTING HEIGHTS OF ALL LIGHTING FIXTURES WITH ARCHITECTURAL REFLECTED CEILING PLAN – SHEET A3.0.



1 E1.0 **GENERAL LIGHTING PLAN**
SCALE: 1/8" = 1'-0"

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GENERAL LIGHTING PLAN

Sheet Number: E1.0

PRELIMINARY
NOT FOR CONSTRUCTION

PARSONS ENGINEERING, INC.
NASHVILLE, TENNESSEE
PARSONSENGINEERING.COM

Project: 24066 Drawing: 24066-E1.0.dwg

PLAN NOTES:

1. INTERLOCK EXHAUST FANS WITH LIGHTING CIRCUIT. PROVIDE OCCUPANCY SENSOR EQUAL TO SENSOR SWITCH "CM-9-R/MP-20" TO CONTROL LIGHTS AND FAN. FAN SHALL BE CONTROLLED VIA 120V CONTACT AND LIGHTS SHALL BE CONTROLLED VIA RELAY. PROVIDE 120V CIRCUIT FOR FANS (B-33).

2. COORDINATE CONDUIT ROUGH-IN FOR TAMPER AND FLOW CONNECTIONS AS WELL AS ALL OTHER FIRE ALARM DEVICES WITH FIRE ALARM CONTRACTOR.

3. FURNISH AND INSTALL POWER POLES FROM SALES COUNTERTOPS TO CEILING STRUCTURE. SPECIFY RELOC #PP2-L186-HW-B-BLACK OR EQUIVALENT. REFER TO OFFICIAL TSC FIXTURE PLAN LAYOUT SENT FROM TSC TO GC FOR EXACT LOCATIONS. ATTACH POWER POLE TOP TO UNI-STRUT AT BAR JOIST WITH A "U" CLAMP TO THE TOP OF THE POWER POLE AT THE BAR JOIST. LOOSEN THE "U" BOLT USED TO TIGHTEN THE CONNECTION TO THE POWER POLE SO THAT THE POWER POLE IS ABLE TO REMAIN IN POSITION AND THE ROOF CAN FLEX DURING EXPANSION AND CONTRACTION WITHOUT DAMAGING THE POWER POLE. REFER TO DETAILS ON SHEET E3.1.

4. RECEPTACLE FOR "STORE OPEN" AND "CUB CADET" SIGN MOUNTED IN CEILING WITHIN 6" OF VERTICAL STOREFRONT GLASS.

5. JUNCTION BOX FURNISHED AND INSTALLED FOR THE FIRE PROTECTION SYSTEM ELECTRIC GONG. ELECTRICAL CONTRACTOR TO INSTALL AND WIRE FIRE GONG, COORDINATE WITH FIRE SUPPRESSION CONTRACTOR FOR VOLTAGE. PROVIDE LOW VOLTAGE TRANSFORMER AS REQUIRED.

6. JUNCTION BOX FURNISHED AND INSTALLED BY ELECTRICAL CONTRACTOR FOR POWER DOORS.

7. ELECTRICAL CONTRACTOR SHALL PROVIDE AND INSTALL AN EDWARDS 55-4GS DOOR BELL AND AN EDWARDS 592 TRANSFORMER AT TWO LOCATIONS SHOWN. ELECTRICAL CONTRACTOR SHALL PROVIDE AND INSTALL AN EDWARDS 250 PUSHBUTTON TO CONTROL BOTH DOOR BELLS. PUSHBUTTON SHALL BE INSTALLED IN A WEATHERPROOF ENCLOSURE. TEST TO ASSURE WORKING SYSTEM. MOUNT TRANSFORMER & BELL AT 14'-0" AFF.

8. REFER TO SHEET E4.0 MATRIX AND E3.1 COUNTER DETAILS FOR RECEPTACLE AND DATA OUTLET LOCATIONS AT REGISTER COUNTERS (2) RED RECEPTACLES PER CIRCUIT MAXIMUM. (COORDINATE COUNTER LOCATIONS WITH FIXTURE DRAWINGS AND G.C.) THE OUTLET BOXES WILL BE PRE-INSTALLED IN CASEWORK.

9. (3) DUPLEX RECEPTACLES FURNISHED AND INSTALLED FOR SECURITY.

10. ALL ROOFTOP EQUIPMENT CONNECTIONS SHALL BE MADE THROUGH THE UNIT ROOF CURB. ROOF PENETRATIONS ARE NOT ACCEPTABLE. ALL RTU'S AND AC UNITS SHALL HAVE A 3/4" CONDUIT OR SEAL TIGHT INSTALLED FOR LOW VOLTAGE CABLE.

11. EDWARDS 55-4GB DOOR BELL ❶ CASH REGISTER & CONNECT TO SYSTEM AS NECESSARY. COORDINATE WITH G.C. FOR EXACT LOCATION OF BELL.

12. ALARM CO. SHALL PROVIDE & INSTALL NECESSARY HOOK-UPS TO FACP. ALARM CO. SHALL ALSO PROVIDE COMPLETE FIRE ALARM SYSTEM AS REQUIRED BY AHJ, ADA, NATIONAL AND LOCAL CODES.

13. VERIFY A/C UNIT MANUFACTURER AND LOAD REQUIREMENTS. FURNISH AND INSTALL BRANCH CIRCUIT RATED FOR UNIT LOAD.

14. REFER TO CASEWORK ELEVATIONS AND DETAILS ON PLAN E3.1 FOR ADDITIONAL INFORMATION ON REGISTER AND DISPLAY COUNTERS.

15. ALL CONDUIT TO RUN PARALLEL OR PERPENDICULAR TO STRUCTURE. HORIZONTAL CONDUIT SHALL BE NO LOWER THAN 15'-6". NO HORIZONTAL CONDUITS ALLOWED TO BE MOUNTED ON THE SALES WALLS.

16. COORDINATE WITH SECURITY VENDOR FOR THEIR INSTALLATION OF FIRE ALARM AND SECURITY SYSTEMS PANELS. PROVIDE TWO JUNCTION BOXES FOR HARDWIRED POWER CONNECTION.

17. PROVIDE RED RECEPTACLE IN POWER POLE.

18. COORDINATE ALL REQUIREMENTS OF BALER WITH SUPPLIER. COORDINATE EXACT LOCATION WITH TSC FINAL FIXTURE PLAN. E.C. SHALL MAKE FINAL CONNECTION TO BALER. LOCATE DISCONNECT WITHIN TEN FEET OF BALER AND SUCH THAT IT DOES NOT INTERFERE WITH THE FINAL FIXTURE PLAN.

19. PROVIDE OCCUPANCY SENSOR EQUAL TO SENSOR SWITCH "CM-9-R/MP-20" TO CONTROL LIGHTS. SENSOR SHALL BE CENTERED IN ROOM AS MUCH AS POSSIBLE.

20. IF GFI OUTLETS ARE NOT INSTALLED, OUTLETS SHALL BE CIRCUITED TO A GFI BREAKER. LABEL OUTLETS THAT ARE ON THE GFI BREAKER.

21. PROVIDE TYPE "G" LIGHTING FIXTURE AT CANOPY CONTROLLED BY AN EXPLOSION PROOF SWITCH. CONNECT LIGHT TO PROPANE DISPENSING CIRCUIT. SEE DETAIL 2 ON SHEET E3.2. ALL CONDUIT SHALL BE RGS.

22. ELECTRICAL CONDUITS AND BOXES IN THE VICINITY OF THE BANNERS ON THE OUTSIDE FACE OF THE EXTERIOR WALL SHALL BE INSTALLED ABOVE THE LOWER MEMBER OF THE 'A'FRAME TO AVOID INTERFERENCE WITH THE BANNERS. COORDINATE EXACT LOCATION WITH FINAL FIXTURE PLAN AND TSC PROJECT MANAGER.

23. J-BOX FOR POWER TO THE SERIES 800 POWER SUPPLY MOUNTED ABOVE THE CEILING IN LINE WITH THE HINGE SIDE OF THE DOOR. PROVIDE A 1/2" CONDUIT FROM THE POWER SUPPLY TO THE ELECTRIC POWER TRANSFER DEVICE (PT-5) OF THE DOOR FRAME, CONCEALED MORTISE MOUNT. PROVIDE AND PULL TWO #18 AWG WIRE FROM THE POWER SUPPLY TO THE POWER TRANSFER DEVICE AND INTO THE DOOR. CONTRACTOR TO COMPLETE WIRING AND CONNECTION OF THE DELAYED RIM EXIT DEVICE AFTER NEW DOOR AND RIM EXIT HARDWARE IS INSTALLED. COORDINATE ALL REQUIREMENTS WITH SUPPLIER/INSTALLER. SEE DETAIL 12/E3.2.

24. PROVIDE A 1-1/2" CONDUIT FROM IRRIGATION CONTROLLER TO OUTSIDE OF CURBLINE. COORDINATE EXACT LOCATION WITH GC.

25. 120 VOLT COMPRESSOR OUTLET LOCATED IN THE ASSEMBLY AREA. VERIFY FINAL LOCATION WITH THE TSC FINAL FIXTURE PLAN.

26. LOCATE WP/GFI OUTLET 14" AS MEASURED FROM INSIDE CORNER OF WALL. EXPOSED CONDUIT FOR ELECTRICAL OUTLET SHALL BE ROUTED WITHIN 18" OF INTERIOR BUILDING CORNER.

27. EXTERIOR OUTLET TO BE FLUSH MOUNTED IN WALL AT 36" AFF.

28. BULK PROPANE NOTE: LOCATION FOR CONDUIT PENETRATION THROUGH GRADE FROM BUILDING TO PROPANE GAS DISPENSING SYSTEM. ALL CONDUIT FOR BULK PROPANE SHALL BE RGS. VERIFY WITH TSC PROJECT MANAGER IF SCP CAN NOT BE FOLLOWED. REFERENCE DETAILS 2,3,4,5,/E3.2.

29. BULK PROPANE NOTE: BOLLARD MOUNTED PROPANE DISPENSING SYSTEM EMERGENCY STOP PUSHBUTTON IN WEATHER PROOF JUNCTION BOX. MOUNT EMERGENCY STOP BUTTON AT 4'-6" AFG. CONTRACTOR SHALL PROVIDE SIGN AT PUSHBUTTON TO IDENTIFY AS "PROPANE – CONTAINER LIQUID VALVE EMERGENCY SHUTOFF". COORDINATE EXACT MOUNTING LOCATION OF PUSHBUTTON WITH ARCHITECT. REFERENCE DETAIL 1/E3.2 FOR CONTROL DIAGRAM. PUSHBUTTON SHALL BE INSTALLED AND LABELED PER NFPA 58 6.13.4 AND 6.13.5.

30. VERIFY EXACT LOCATION OF RECEPTACLE WITH FINAL FIXTURE PLAN. RECEPTACLES SHOWN AT +100" SHALL BE INSTALLED AT 100" ABOVE FINISHED FLOOR TO BOTTOM OF BOX.

31. CONTRACTOR SHALL ROUTE CONDUIT FOR ELECTRICAL DEVICES LOCATED BELOW 96" AFF RECESSED IN THE WALL. CONDUIT MAY BE ROUTED EXPOSED ABOVE 96"AFF. PAINT TO MATCH WALL.

32. SPRING AND JAMB MOUNTING PADS TO BE FURNISHED AND INSTALLED BY GENERAL CONTRACTOR. FACTORY WIRED OPERATORS AND CONTROLS FOR OVERHEAD DOOR TO BE FURNISHED AND INSTALLED BY DH PACE (LOW-VOLTAGE ONLY). ALL CONDUIT RACEWAYS, DISCONNECTS, ELECTRICAL BOXES, WIRING, AND CONNECTIONS ARE BY ELECTRICAL CONTRACTOR. DH PACE WILL LANS AND TERMINATE WIRING FOR LOW-VOLTAGE EQUIPMENT.

33. QUADRAPLEX RECEPTACLE WALL MOUNTED AT 100" ABOVE FINISHED FLOOR FOR CORDLESS PHONE REPEATER. COORDINATE EXACT MOUNTING HEIGHT AND LOCATION WITH TSC CONSTRUCTION MANAGER PRIOR TO ROUGH-IN.

34. PROVIDE AND INSTALL (1) EXPLOSION PROOF JUNCTION BOX AT THE DISPENSING UNIT. JUNCTION BOX TO BE: COOPER CROUSE HINDS MODEL # GUAW26. INSTALL SUCH THAT BOX IS IN A VERTICAL POSITION SO THE MAXIMUM WIDTH IS 4-1/4". COORDINATE EXACT LOCATIONS AND REQUIREMENTS WITH PROPANE DISPENSING VENDOR PRIOR TO ROUGH-IN. COORDINATE LOCATION OF CONDUIT ENTRIES WITH PROPANE DISPENSING VENDOR PRIOR TO ORDERING. JUNCTION BOX MUST BE CLASS 1, DIVISION 1 RATED, MEET ALL DIVISION REQUIREMENTS PER NFPA, AND MUST PASS ELECTRICAL INSPECTION.

35. CONDUITS SHALL NOT BE RUN EXPOSED OR SURFACE MOUNTED INSIDE THE DRESSING ROOM. ANY CONDUIT FOR EXTERIOR DEVICES SHALL BE RUN CONCEALED IN THE WALL. INTERIOR DRESSING ROOM WALLS TO BE CLEAR OF CONDUIT AND JUNCTION BOXES BELOW 96" ABOVE FINISHED FLOOR.

36. NOTE NOT USED.

37. ALL CONDUITS INSTALLED IN THE STOCKROOM AREA SHALL BE INSTALLED AS TIGHT TO ROOF DECK AS ALLOWED BY CODE.

38. PROVIDE 120V-24V TRANSFORMER AS NEEDED FOR VAV DAMPER. COORDINATE EXACT REQUIREMENTS FOR VAV DAMPER WITH MECHANICAL PLANS/MECHANICAL CONTRACTOR.

39. "CHICK DAYS" OUTLET. INSTALL OUTLET TO BOTTOM OF JOIST AT DIMENSIONED LOCATION. VERIFY EXACT LOCATION WITH TSC FINAL FIXTURE PLAN. INSTALL CONTRACTOR PROVIDED POWER REEL CONNECTED TO OUTLET. POWER REEL SHALL BE HUBBELL #HBLC40123TT.

40. J-BOX FOR CONNECTION TO HAND DRYER. COORDINATE EXACT LOCATION AND MOUNTING HEIGHT WITH ARCHITECT.

41. QUADRAPLEX RECEPTACLE WALL MOUNTED AT 108" ABOVE FINISHED FLOOR FOR EAS. COORDINATE EXACT MOUNTING HEIGHT AND LOCATION WITH TSC CONSTRUCTION MANAGER PRIOR TO ROUGH-IN.

42. PROVIDE ELECTRICAL DROP FOR LED LIGHTING ASSOCIATED WITH FIXTURING. PROVIDE DUPLEX RECEPTACLE INSTALLED ON END OF CONDUIT DROP. RECEPTACLE SHALL BE INSTALLED AT TOP OF FIXTURE. HEIGHTS MAY VARY. COORDINATE EXACT LOCATION AND REQUIREMENTS WITH TSC PROJECT MANAGER AND FINAL FIXTURE PLAN.

43. POWER AND DATA TO FRONT COUNTER TO BE ROUTED IN SURFACE RACEWAY FROM REAR COUNTER. ALL POWER AND DATA TO SERVICE COUNTER AREA TO BE ROUTED IN TWO CHANNEL POWER POLE DESCRIBED IN NOTE #3.

44. RECEPTACLE FOR FLOOR SCRUBBER. PROVIDE LABEL ABOVE RECEPTACLE STATING "OUTLET FOR FLOOR SCRUBBER ONLY". IN RETROFIT STORES LOCATE 18"AFF AND 36" FROM SIDE OF MOP SINK ON SIDE MOST CLEAR OF OTHER ITEMS. COORDINATE LOCATION WITH FINAL FIXTURE PLAN PRIOR TO ROUGH-IN. RECEPTACLE TO BE SURFACE MOUNTED ON THE PLYWOOD.

45. PROVIDE POWER FOR SLIDING GATE AS REQUIRED. COORDINATE EXACT REQUIREMENTS WITH GATE VENDOR. THE REAR GATE IS TO BE CONTROLLED BY AN INDUCTIVE LOOP DETECTOR AND HAVE A POST MOUNTED KEYPAD FOR MANUAL OVERRIDE. PROVIDE CONTROL WIRING AS REQUIRED PER VENDOR RECOMMENDATIONS.

46. PROVIDE WP DUPLEX RECEPTACLE W/ WEATHER PROOF WHILE-IN-USE COVER IN CAST BOX MOUNTED TO SHADE STRUCTURE POST FOR MOBILE POS SYSTEM.

47. PROVIDE 3/4"C STUB FROM BUILDING INTO LIVE GOODS CENTER STRUCTURE BELOW EAVE FOR LOW VOLTAGE/SECURITY WIRING. ROUT CONDUITS OVERHEAD TO BOTTOM OF LIVE GOODS CENTER ROOF STRUCTURE W/ LIQUID-TIGHT NON-METALLIC CONDUIT, LESS THAN 6' LENGTH, TERMINATE W/ CLAMP AT UNDERSIDE OF STRUCTURE.

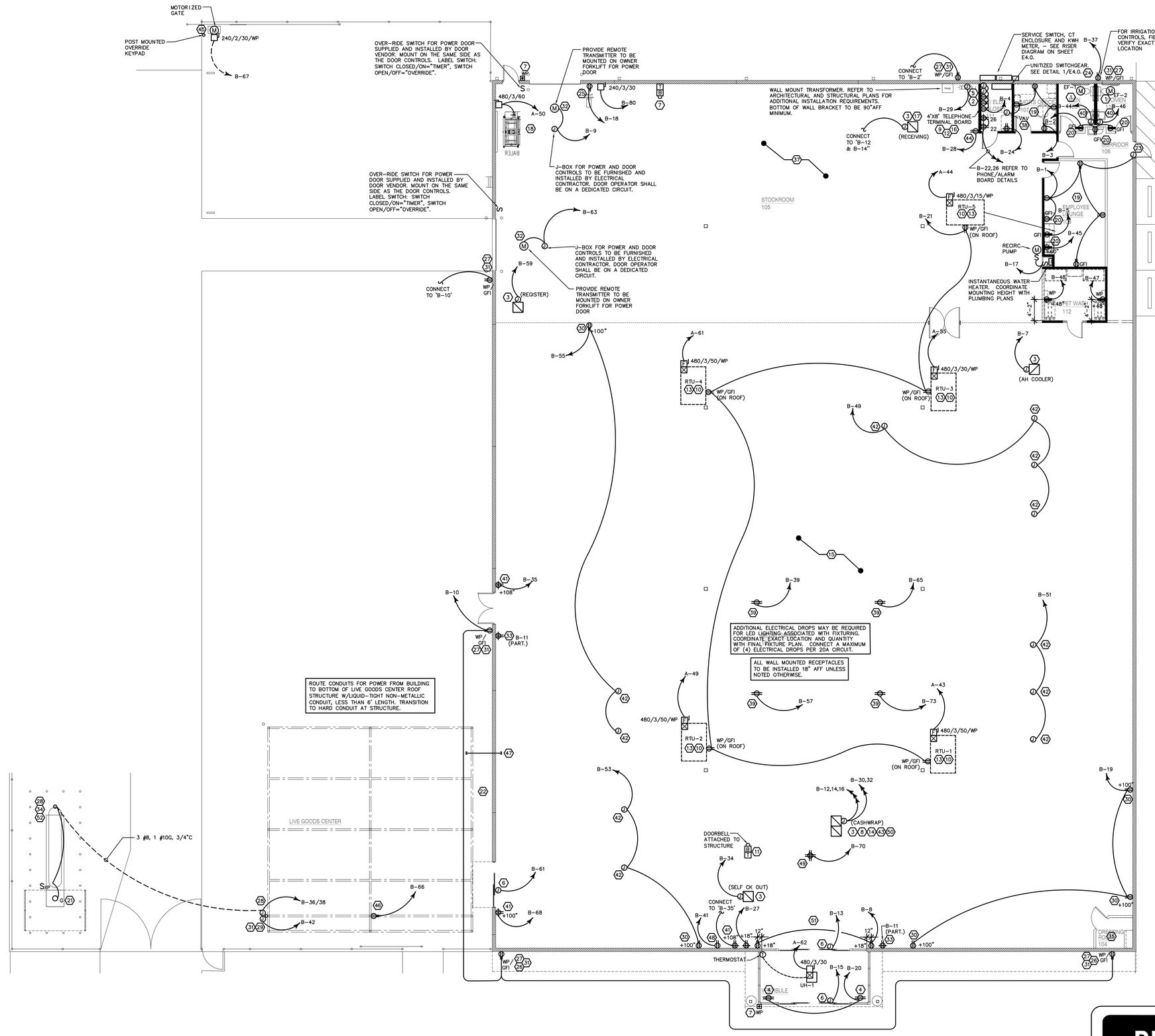
48. RECEPTACLE FOR CHAINSAW POG. VERIFY EXACT LOCATION AND MOUNTING HEIGHT WITH TSC CONSTRUCTION MANAGER AND FINAL FIXTURE PLAN.

49. QUADRAPLEX RECEPTACLE MOUNTED AT 9'-6" AFF ON TV MOUNTING BRACKET. RECEPTACLE TO BE INSTALLED ON THE INSIDE OF ONE OF THE STEEL BRACKETS. CONTRACTOR SHALL RUN MC CABLE ON THE OUTSIDE OF THE STEEL SUSPENSION POLE AND SECURE TO THE POLE. LEAVE 16" OF SLACK MC CABLE COILED AT THE BAR JOIST FOR POSSIBLE FUTURE RELOCATION. COORDINATE EXACT LOCATION WITH FINAL FIXTURE PLAN AND TSC CONSTRUCTION MANAGER.

50. TWO POWER POLES MOUNTED BACK TO BACK. ONE FOR POWER WIRING AND ONE FOR LOW VOLTAGE WIRING. SECURE POWER POLES TO TOP OF COUNTER ON RIGHT CORNER BEHIND TSC COMPUTER. VERIFY EXACT LOCATION WITH TSC PROJECT MANAGER AND FINAL FIXTURE PLAN.

51. REFER TO ARCHITECTURAL ELEVATIONS OF STOREFRONT FOR EXACT PLACEMENT OF DEVICES ON FRONT WALL.

52. PROVIDE BUCK-BOOST TRANSFORMER TO PROVIDE 240V AT PROPANE DISPENSER. BUCK-BOOST TRANSFORMER SHALL BE FEDERAL PACIFIC #K1KGF12-0.5 OR APPROVED EQUAL. MOUNT BUCK BOOST TRANSFORMER ADJACENT TO ELECTRICAL PANEL. 240V MUST BE PROVIDED AT THE PROPANE DISPENSER.



1 E2.0 **GENERAL POWER PLAN**
SCALE: 1/8" = 1'-0"

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Job Number: 2360
Date: 03.22.2024
Revisions:
Revisions:
Revisions:

GENERAL POWER PLAN
Sheet Number: E2.0

PARSONS ENGINEERING, INC.
NASHVILLE, TENNESSEE
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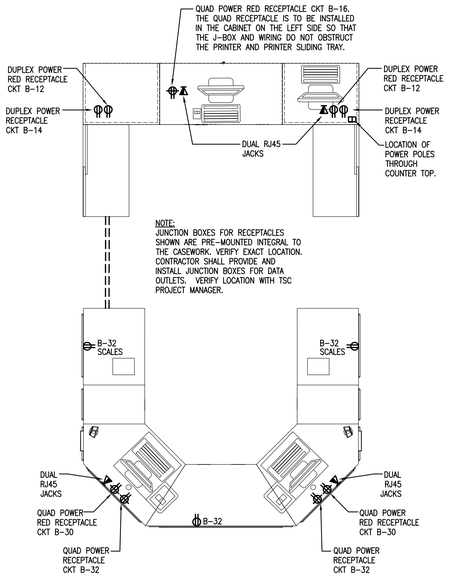
Project: 24066 Drawing: 24066-E2.0.dwg

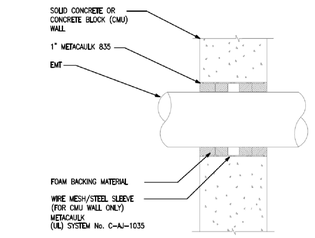


7 E3.1 **FUSION CASHWRAP DETAIL**
N.T.S.

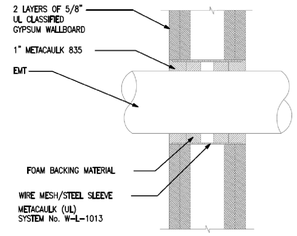
6 E3.1 **NOT USED**
N.T.S.

8 E3.1 **NOT USED**
N.T.S.

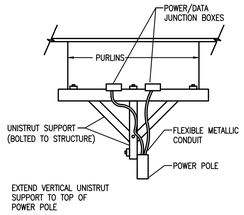
9 E3.1 **NOT USED**
N.T.S.



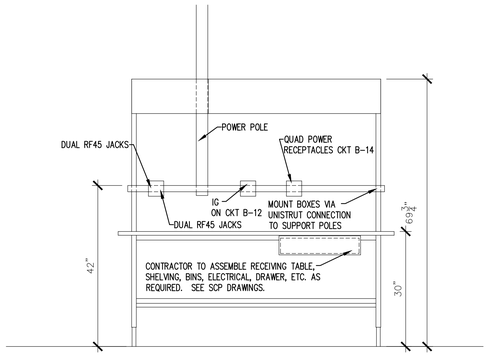
1 E3.1 **CONCRETE WALL PENETRATION (2HR.)**
N.T.S.



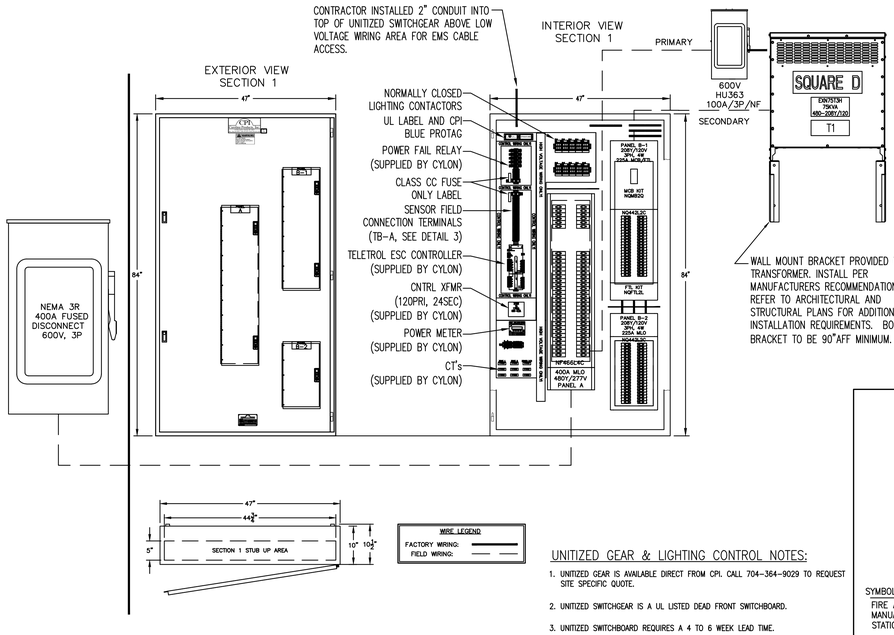
2 E3.1 **GYPSUM WALL PENETRATION (2HR.)**
N.T.S.



3 E3.1 **POWER POLE CONNECTION DETAIL**
N.T.S.



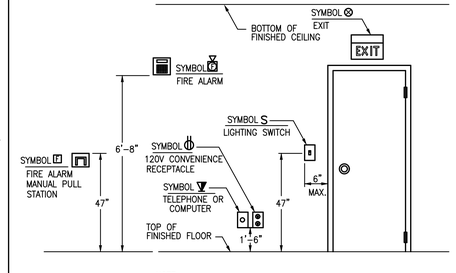
5 E3.1 **RECEIVING TABLE LAYOUT**
N.T.S.



4 E3.1 **UNITIZED SWITCHGEAR ELEVATION**
N.T.S.

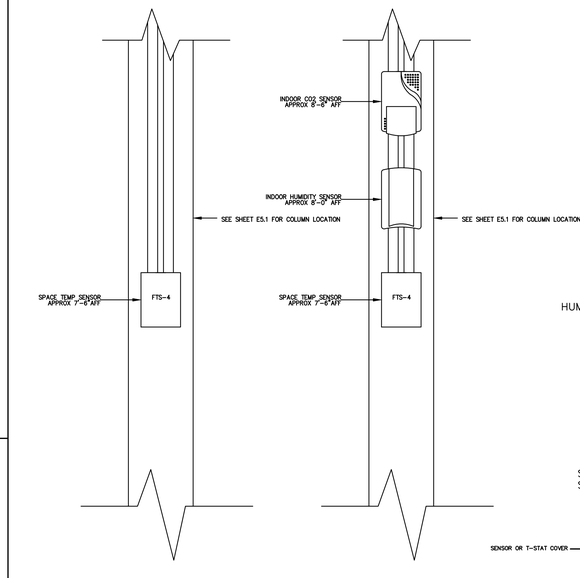
UNITIZED GEAR & LIGHTING CONTROL NOTES:

1. UNITIZED GEAR IS AVAILABLE DIRECT FROM CPI. CALL 704-364-9029 TO REQUEST SITE SPECIFIC QUOTE.
2. UNITIZED SWITCHGEAR IS A UL LISTED DEAD FRONT SWITCHBOARD.
3. UNITIZED SWITCHBOARD REQUIRES A 4 TO 6 WEEK LEAD TIME.
4. EC AND GC PLANS ARE IN THE BINDER NOTEBOOK INSIDE CPI DOOR.



NOTE:
VERIFY HEIGHTS SHOWN COMPLY WITH LOCAL BUILDING CODE.

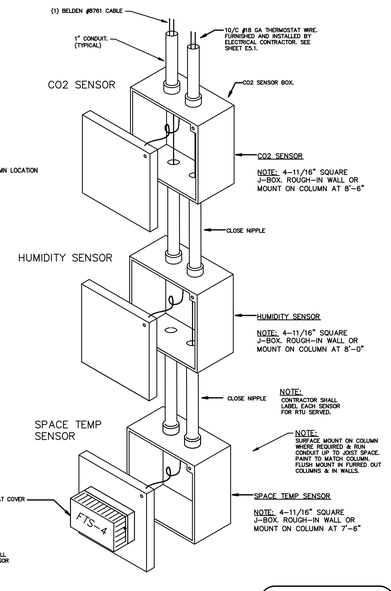
10 E3.1 **TYPICAL DEVICE MOUNTING HEIGHT**
N.T.S.



NOTE:
ALL SENSORS ARE MOUNTED TO COLUMNS ON THE SALES FLOOR AND MUST BE AFFIXED TO THE SURFACE OF THE COLUMN THAT FACES THE CENTER OF THE SALES AREA. ALL SENSORS ARE INSTALLED BY EMS VENDOR. CONTRACTOR SHALL INSTALL CONDUIT, BOXES, AND CONTROL CABLING AS SHOWN FOR FUTURE INSTALLATION OF SENSORS. MECHANICAL CONTRACTOR SHALL PROVIDE TEMPORARY T-STATS TO RUN THE UNITS PRIOR TO EMS INSTALLATION.

SPACE TEMP SENSOR, HUMIDITY SENSOR, AND CO2 SENSOR DETAIL

11 E3.1 **T-STAT MOUNTING DETAIL**
N.T.S.



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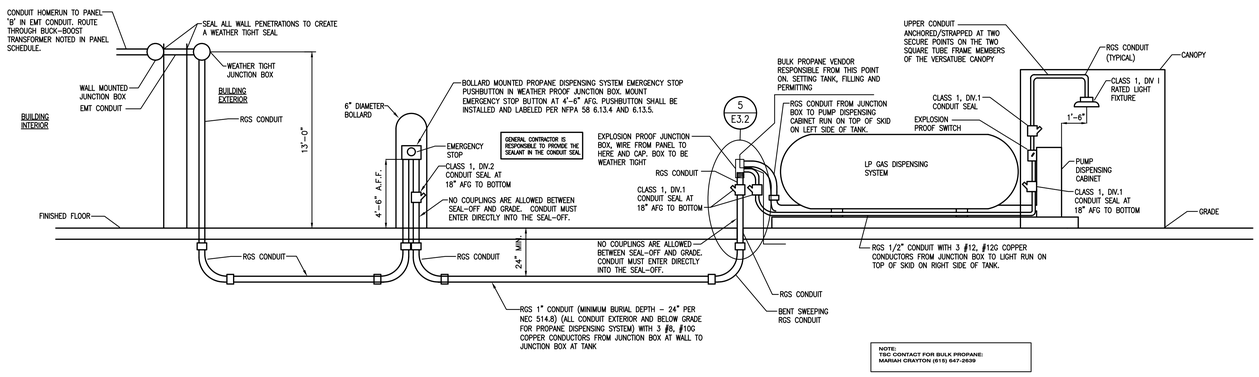
Job Number: 2360
Date: 03.22.2024
Revisions:
Revisions:
Revisions:
ELEC SYSTEM/VENDOR DETAILS

Sheet Number: E3.1

Project: 24066 Drawing: 24066-E3.1.dwg



DETAIL NOTES: (11/E1B.0 ONLY)

1. CONDUIT FROM BUILDING TO DISPENSING SYSTEM SHALL BE ROUTED MINIMUM 24" BELOW GRADE PER NEC ARTICLE 514.8.
2. ALL EQUIPMENT LOCATED WITHIN FIVE FEET OF TANK SHALL BE RATED FOR USE IN CLASS 1, DIVISION 1 HAZARDOUS LOCATIONS.
3. ALL EQUIPMENT LOCATED BETWEEN FIVE FEET OF TANK AND 20 FEET OF TANK SHALL BE RATED FOR USE IN CLASS 1, DIVISION 2 HAZARDOUS LOCATIONS.
4. ALL CONDUIT SHALL BE RGS. NO MC OR BLACK IRON PERMITTED. ALL FITTINGS ON RGS CONDUITS SHALL BE THREADED.
5. CONDUIT SEALS SHALL BE INSTALLED ON ALL CONDUITS THAT PASS INTO OR THROUGH THE CLASS 1, DIVISION 1 OR 2 HAZARDOUS BOUNDARIES WITHIN TEN FEET AFTER PENETRATION ABOVE GRADE ON EACH END OF CONDUIT PER NEC 514.9.
6. PROVIDE AND INSTALL (1) EXPLOSION PROOF JUNCTION BOX AT THE DISPENSING UNIT. JUNCTION BOX TO BE COOPER CROUSE HINDS MODEL # GUA62S. INSTALL SUCH THAT BOX IS IN A VERTICAL POSITION SO THE MAXIMUM WIDTH IS 4-1/4". COORDINATE EXACT LOCATIONS AND REQUIREMENTS WITH PROPANE DISPENSING VENDOR PRIOR TO ROUGH-IN. COORDINATE LOCATION OF CONDUIT ENTRIES WITH PROPANE DISPENSING VENDOR PRIOR TO ORDERING.
7. REFERENCE SHEET A-1 FOR EXACT LOCATION OF CONDUIT STUB-UP AT PROPANE TANK.

PROPANE RESPONSIBILITY NOTES:

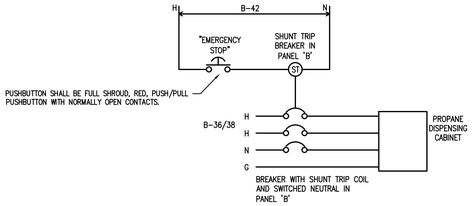
IF PROPANE IS DELIVERED PRIOR TO FIXTURE DATE:

1. GC IS RESPONSIBLE FOR INFRASTRUCTURE RELATED TO PROPANE TANK INSTALLATION.
2. GC IS RESPONSIBLE FOR ELECTRICAL PERMITTING AND FINAL CONNECTION TO PUMP DISPENSING CABINET.
3. BULK PROPANE VENDOR IS RESPONSIBLE FOR GAS PERMITTING OF THE TANK.
4. BULK PROPANE VENDOR IS RESPONSIBLE FOR INSTALLATION AND FINAL GAS CONNECTION AND INSPECTION OF THE TANK.

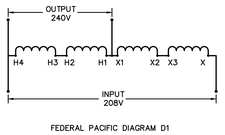
IF PROPANE TANK IS DELIVERED AFTER FIXTURE DATE:

1. GC IS RESPONSIBLE FOR INFRASTRUCTURE RELATED TO PROPANE TANK INSTALLATION.
2. BULK PROPANE VENDOR IS RESPONSIBLE FOR ELECTRICAL PERMITTING AND FINAL CONNECTION TO PUMP DISPENSING CONTROL PANEL.
3. BULK PROPANE VENDOR IS RESPONSIBLE FOR GAS PERMITTING OF THE TANK.
4. BULK PROPANE VENDOR IS RESPONSIBLE FOR INSTALLATION AND FINAL GAS CONNECTION AND INSPECTION OF THE TANK.

2 E3.2 PROPANE DISPENSING SYSTEM DETAIL
N.T.S.

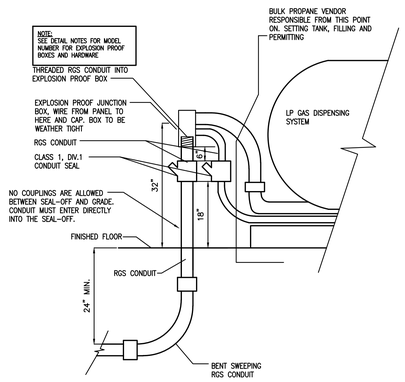


1 E3.2 PROPANE DISPENSING SYSTEM CONTROL DIAGRAM
N.T.S.

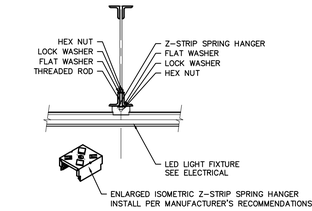


FEDERAL PACIFIC DIAGRAM D1

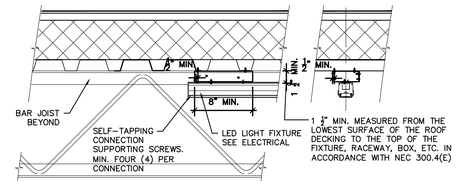
3 E3.2 PROPANE DISPENSING SYSTEM BUCK-BOOST TRANSFORMER WIRING DIAGRAM
N.T.S.



5 E3.2 ENLARGED DETAIL
N.T.S.

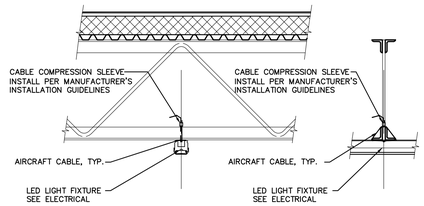


6 E3.2 Z-STRIP SPRING HANGER
N.T.S.



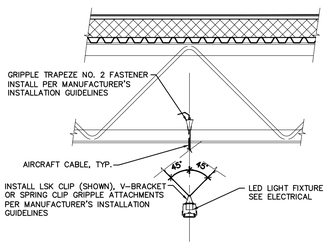
NOTE: SECURE PER LIGHT MANUFACTURER'S INSTALLATION GUIDELINES.

7 E3.2 DECK ATTACHMENT DETAIL
N.T.S.



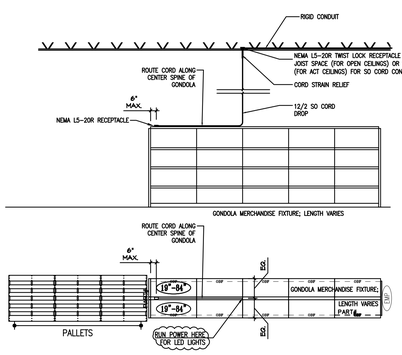
NOTE: SECURE PER LIGHT MANUFACTURER'S INSTALLATION GUIDELINES. FOR CONTINUOUS ROW MOUNTING, UTILIZE END PLATE COUPLER PER LIGHT MANUFACTURER'S INSTALLATION GUIDELINES.

8 E3.2 ALTERNATE ATTACHMENT DTL
N.T.S.

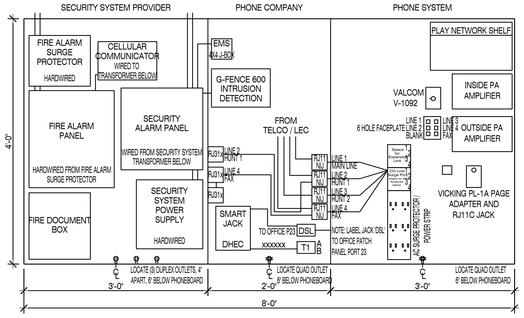


NOTE: EACH CONTINUOUS ROW OF LIGHT FIXTURES SHALL HAVE ONE VERTICAL SUPPORT AND ONE SET OF DIAGONAL SUPPORTS LOCATED 6" - 12" FROM EACH END OF THE ROW. EACH LIGHT FIXTURE IN A CONTINUOUS ROW SHALL HAVE A MINIMUM OF (1) ONE SUPPORT. WHERE APPLICABLE DIAGONAL SUPPORTS SHALL BE LOCATED AT NO GREATER THAN 12'-0" APART. ANY LIGHT FIXTURE WHICH IS INDEPENDENTLY SUPPORTED SHALL HAVE A MINIMUM OF (2) SUPPORTS WITH EACH SUPPORT LOCATED 6" FROM THE END OF THE FIXTURE. NON-CABLE OR FIXTURES MOUNTED DIRECTLY TO THE BOTTOM OF THE SUPPORTING STRUCTURE DO NOT REQUIRE DIAGONAL SUPPORT. AIRCRAFT CABLE IS ALLOWED; NO CHAIN.

9 E3.2 ALTERNATE ATTACHMENT DTL
N.T.S.

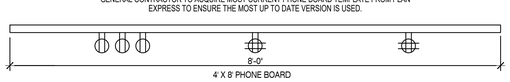


10 E3.2 ELECTRICAL DROP DETAIL
NO SCALE



TELEPHONE BOARD
4' X 8' X 5/8" FIRE RETARDANT PLYWOOD PAINTED WHITE (ALWAYS HORIZONTAL)
BOTTOM OF PHONEBOARD DIAGRAM TO BE MOUNTED @ 2'-6" A.F.F.

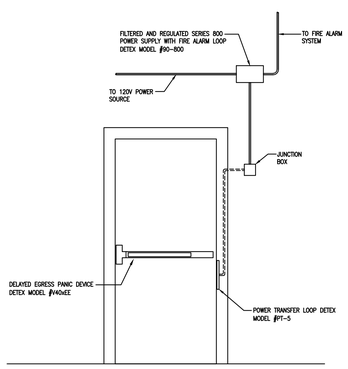
GENERAL CONTRACTOR TO ACQUIRE MOST CURRENT PHONE BOARD TEMPLATE FROM PLAN EXPRESS TO ENSURE THE MOST UP TO DATE VERSION IS USED.



4' X 8' PHONE BOARD

SEE SHEET A1.0 / A5.0 FOR PROPER LOCATIONS

11 E3.2 TELEPHONE BOARD DETAIL
NO SCALE



DETAIL NOTES: (7/E1B.0 ONLY)

1. CONTRACTOR IS RESPONSIBLE FOR FURNISHING AND INSTALLING THE DETEX HARDWARE MATERIALS TO BE ORDERED FROM DH PACE.
2. CONTRACTOR IS RESPONSIBLE FOR INSTALLING THE VADEE DELAYED EGRESS PANIC DEVICE.
3. CONTRACTOR IS RESPONSIBLE FOR INSTALLING THE 90-800 24VDC FILTERED POWER SUPPLY (24V TRANSFORMER MOUNTED ABOVE CEILING LINE).
4. CONTRACTOR WIRES THE DELAYED EGRESS PANIC DEVICE THROUGH THE PT-5 POWER TRANSFER DEVICE MOUNTED ON THE JAMB LEG OF THE DOOR AND UP TO THE POWER SUPPLY TRANSFORMER.
5. FIRE ALARM VENDOR MAKES CONNECTION FROM THE FIRE LOOP CONTACTORS ON THE 90-800 POWER SUPPLY TO THE FIRE ALARM PANEL.

12 E3.2 DETEX EXIT DEVICE DETAIL
NO SCALE

PRELIMINARY
NOT FOR CONSTRUCTION

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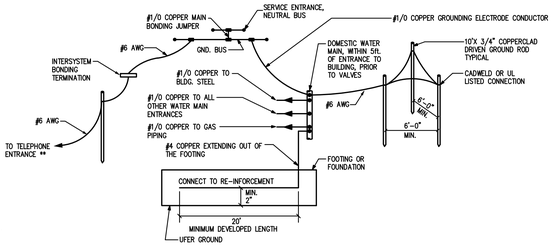

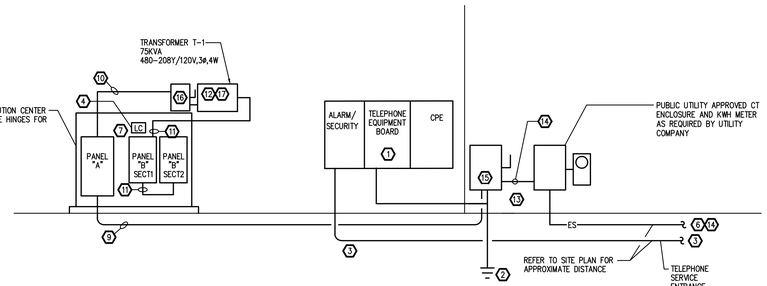

ELECTRICAL SPECIFICATIONS

SECTION 16000 GENERAL PROVISIONS

PART 1 GENERAL

1.01 REFERENCE STANDARDS

A. NFPA 70 NATIONAL ELECTRICAL CODE

B. NFPA 101 LIFE SAFETY CODE

C. ALL OTHER APPLICABLE STATE AND LOCAL CODES.

1.02 SUBMITTALS

A. SHOP DRAWINGS:

1. SUBMIT FOR APPROVAL, PRIOR TO INSTALLATION, SIX COPIES OF COMPLETE DESCRIPTIVE DATA ON ALL EQUIPMENT AND SYSTEMS AS REQUIRED BY OTHER SECTIONS OF THIS SPECIFICATION. CLEARLY INDICATE ALL PROPOSED SUBSTITUTIONS AND DEVIATIONS FROM DRAWINGS AND SPECIFICATIONS.

2. CHECK ALL SUBMITTALS FOR CLEARANCES AND COORDINATION WITH OTHER TRADES. SUBMITTALS SHALL BE CERTIFIED, BY THE CONTRACTOR'S APPROVAL STAMP, THAT ALL CONDITIONS HAVE BEEN CHECKED AND THAT NO CONFLICTS EXIST.

B. RECORD DRAWINGS

1. SUBMIT, TO THE OWNER, RECORD DRAWINGS SHOWING FIELD CHANGES MARKED IN RED.

1.03 COORDINATION

A. UTILITY COMPANIES

1. COORDINATE WITH UTILITY COMPANIES FOR SPECIFIC REQUIREMENTS FOR ELECTRICAL POWER AND TELEPHONE SERVICE.

2. INSTALL ELECTRICAL SERVICE IN ACCORDANCE WITH CURRENT UTILITY COMPANY REQUIREMENTS.

B. OTHER TRADES

1. COORDINATE WITH MECHANICAL DRAWINGS FOR POWER AND CONTROL REQUIREMENTS FOR THE SPECIFIC EQUIPMENT TO BE INSTALLED AND FOR EQUIPMENT SUCH AS STARTERS AND DISCONNECT SWITCHES THAT MAY BE FURNISHED WITH THE EQUIPMENT.

C. OWNER FURNISHED EQUIPMENT

1. COORDINATE WITH VENDOR'S OF OWNER FURNISHED EQUIPMENT FOR POWER REQUIREMENTS PRIOR TO ROUGH-IN. COORDINATION SHALL INCLUDE BUT NOT BE LIMITED TO OVERCURRENT PROTECTION TYPE AND SIZE, WIRE SIZE, NEMA CONFIGURATION OF ASSOCIATED RECEPTACLES, ETC.

1.04 WORK INCLUDED

A. THE WORK OF THIS SECTION INCLUDES FURNISHING OF LABOR AND MATERIALS AS REQUIRED FOR INSTALLATION OF A NEW ELECTRICAL DISTRIBUTION SYSTEM INCLUDING SERVICE, FEEDERS, PANELBOARDS, BRANCH CIRCUITS, LIGHTING, AND CONNECTIONS TO ALL EQUIPMENT REQUIRING ELECTRICAL POWER.

B. INSTALLATION OF CONDUIT FOR TELEPHONE AND DATA WIRING.

C. INSTALLATION OF SEISMIC RESTRAINT SYSTEMS FOR ELECTRICAL COMPONENTS IN SEISMIC REGIONS.

1.05 DRAWINGS

A. THE DRAWINGS ARE PARTLY DIAGRAMMATIC AND DO NOT SHOW IN DETAIL ALL REQUIRED FEATURES OF THE WORK NOR CONCEALED CONDITIONS. THEY SHALL BE SUPPLEMENTED BY THE CONTRACTOR'S KNOWLEDGE AND EXPERIENCE.

PART 2 PRODUCTS

2.01 GENERAL

A. ALL ELECTRICAL EQUIPMENT INSTALLED SHALL BEAR THE UL LABEL EXCEPT WHERE UL DOES NOT LABEL SUCH EQUIPMENT.

2.02 GUARANTEE

A. FURNISH A WRITTEN GUARANTEE THAT ALL EQUIPMENT FURNISHED AND INSTALLED WILL BE FREE OF DEFECTS OF MATERIAL AND WORKMANSHIP FOR A PERIOD OF 1 YEAR FROM DATE OF ACCEPTANCE OF THE WORK BY THE OWNER. PROMPTLY REPLACE AND REPAIR ALL DEFECTIVE EQUIPMENT AND ALL OTHER EQUIPMENT DAMAGED THEREBY AT NO ADDITIONAL COST TO THE OWNER.

PART 3 EXECUTION

3.01 GENERAL

A. VISIT PROJECT SITE BEFORE SUBMISSION OF BID AND BECOME FAMILIAR WITH EXISTING CONDITIONS AND LOCATIONS OF EXISTING UTILITIES.

B. THE ENTIRE INSTALLATION SHALL BE MADE IN A NEAT MANNER BY PERSONS SKILLED IN THE ELECTRICAL TRADE AND SHALL BE IN ACCORDANCE WITH THE REFERENCE STANDARDS LISTED ABOVE.

C. MAKE POWER CONNECTIONS TO AIR CONDITIONING EQUIPMENT AND OWNER FURNISHED EQUIPMENT. FURNISH AND INSTALL ALL ASSOCIATED RECEPTACLES AND DISCONNECT SWITCHES. FUSE SIZES FOR DISCONNECT SWITCHES SHALL BE AS RECOMMENDED BY THE EQUIPMENT MANUFACTURER.

D. FURNISH AND INSTALL CONDUIT AND WIRE FOR AIR CONDITIONING CONTROL EQUIPMENT. SEE MECHANICAL DRAWINGS FOR LOCATIONS AND REQUIREMENTS.

E. PROVIDE SEISMIC RESTRAINT SYSTEMS TO MEET TOTAL DESIGN LATERAL FORCE REQUIREMENTS FOR SUPPORT AND RESTRAINT OF PIPING, CONDUIT, CABLE TRAYS, LIGHTING FIXTURES AND OTHER SIMILAR SYSTEMS AND EQUIPMENT AS REQUIRED BY THE ENFORCED EDITION OF THE INTERNATIONAL BUILDING CODE, ASCE-7, AND LOCAL AUTHORITIES. RESTRAINT SELECTION AND INSTALLATION DETAILS SHALL BE APPROVED BY A LICENSED ENGINEER EXPERIENCED IN SEISMIC RESTRAINT DESIGN.

3.02 TESTING

A. ALL SYSTEMS AND EQUIPMENT INSTALLED SHALL BE COMPLETELY TESTED AND SHALL BE LEFT IN GOOD WORKING ORDER.

SECTION 16050 BASIC ELECTRICAL MATERIALS AND METHODS

PART 1 GENERAL

NOT APPLICABLE

PART 2 PRODUCTS

2.01 RACEWAYS

A. RIGID STEEL CONDUIT

B. ELECTRICAL METALLIC TUBING

C. POLYVINYLCHLORIDE CONDUIT

2.02 WIRES AND CABLES

A. SERVICE AND FEEDERS: COPPER, 600 VOLT, TYPE THHN OR THWN INSULATION OR ALUMINUM CONDUCTOR, 600 VOLT, TYPE XHHW-2 INSULATION. SIZES INDICATED ON DRAWINGS ARE FOR COPPER. ALUMINUM CONDUCTORS SHALL BE SIZED TO HAVE AMPACITY EQUAL TO COPPER CONDUCTORS INDICATED ON DRAWINGS.

B. BRANCH CIRCUIT WIRES: COPPER CONDUCTOR, 600 VOLT, TYPE THHN OR THWN INSULATION.

C. BRANCH CIRCUIT CABLES: COPPER CONDUCTOR, 600 VOLT, TYPE MC WITH INSULATED EQUIPMENT GROUNDING CONDUCTOR.

D. CONTROL CIRCUIT CABLES: COPPER CONDUCTOR, NO.14 AWG, TYPE THHN, OR AS REQUIRED BY EQUIPMENT MANUFACTURER.

2.03 JUNCTION BOXES – PROVIDE STEEL BOXES FOR INTERIOR APPLICATIONS AND CAST TYPE BOXES FOR OUTDOOR APPLICATIONS.

2.04 WIRING DEVICES

A. WALL SWITCHES: AC GENERAL USE SNAP SWITCH WITH TOGGLE HANDLE, SPECIFICATION GRADE, 20 AMPERES, 120-277 VOLTS.

B. WALL DIMMER SWITCHES, APPROPRIATE FOR LED APPLICATIONS.

C. WALL OCCUPANCY SENSORS TO BE DUAL TECHNOLOGY (PASSIVE INFRARED AND ULTRASONIC). COMBINATION DIMMING TYPE WHERE INDICATED.

D. CEILING MOUNTED OCCUPANCY SENSORS, DUAL TECHNOLOGY (PASSIVE INFRARED AND ULTRASONIC) TYPE. CORRIDOR APPLICATION SENSORS TO BE PASSIVE INFARED TYPE. PROVIDE POWER PACKS AND/OR RELAYS AND ADDITIONAL SENSORS WHERE REQUIRED BY VENDOR.

E. RECEPTACLES: TYPE 5-15R, UNLESS INDICATED OTHERWISE, SPECIFICATION GRADE. DUPLEX RECEPTACLES ON DEDICATED CIRCUITS SHALL BE NEMA TYPE 5-20R. LISTED TAMPER RESISTANT RECEPTACLES SHALL BE PROVIDED IN THOSE AREAS DESIGNATED PER NEC 406.12. OUTDOOR RECEPTACLES SHALL BE WEATHER RESISTANT. DEVICE COLOR TO BE SELECTED BY ARCHITECT.

F. COVERPLATES

1. INDOOR: NYLON, COLOR TO BE SELECTED BY ARCHITECT.

2. OUTDOOR & INDOOR WET LOCATIONS: PAINTED, CAST ALUMINUM, EXTRA DUTY RATED, WEATHERPROOF WHILE IN USE TYPE.

2.05 IDENTIFICATION

A. PROVIDE LAMINATED PLASTIC TAGS FOR ALL PANELBOARDS AND DISCONNECT SWITCHES. TAGS SHALL COMPLETELY IDENTIFY EQUIPMENT MARKED OR CONTROLLED.

PART 3 EXECUTION

3.01 RACEWAYS

A. ALL RACEWAYS SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURERS' INSTRUCTIONS.

B. PERMITTED USAGE:

1. ALL INTERIOR RACEWAYS SHALL BE GALVANIZED ELECTRICAL METALLIC TUBING (EMT).

2. RACEWAYS UNDERGROUND, EXPOSED TO EXTERIOR, OR CAST IN CONCRETE SHALL BE GALVANIZED RIGID STEEL CONDUIT (RGS) OR SCHEDULE 40 PVC.

C. INSTALLATION:

1. IN LONG RACEWAYS FURNISH AND INSTALL THE PROPER NUMBER AND SIZE PULL BOXES TO FACILITATE INSTALLATION OF CONDUCTORS.

2. INSTALL SEPARATE GROUNDING CONDUCTOR IN EACH RACEWAY.

3. PROVIDE RIGID GALVANIZED STEEL ELBOWS AND VERTICAL SECTIONS FOR RUNS OF PVC CONDUIT ENTERING GROUND OR FLOOR IN UNPROTECTED LOCATIONS.

3.02 WIRES AND CABLES

A. CONDUCTORS SHOWN ON DRAWINGS AS SIZED FOR COPPER UNLESS NOTED OTHERWISE. WHEN USING ALUMINUM, SIZE FOR EQUAL OR GREATER AMPACITY, AND RESIZE CONDUIT AS REQUIRED.

B. ALL POWER WIRING SHALL BE INSTALLED IN CONDUIT EXCEPT AS PERMITTED BELOW.

C. BRANCH CIRCUITS RUN CONCEALED IN WALLS OR CEILINGS AND RATED AT 20 AMPS MAY BE TYPE MC CABLE.

D. LOW VOLTAGE CONTROL AND SIGNAL CABLE MAY BE RUN OPEN WHEN CONCEALED ABOVE ACCESSIBLE CEILINGS. CABLES AND CABLE SUPPORTS INSTALLED IN AIR PLENUMS MUST BE PLENUM RATED. OPEN WIRING SHALL BE SUPPORTED FROM STRUCTURE.

SECTION 16400 SERVICE AND DISTRIBUTION

PART 1 GENERAL

1.01 SUBMITTALS

A. UNITIZED SWITCHGEAR

B. DISCONNECT SWITCHES

C. TRANSFORMERS

D. FUSES

PART 2 PRODUCTS

2.01 UNITIZED SWITCHGEAR

A. UNITIZED SWITCHGEAR SHALL CONTAIN BREAKERS AS DESCRIBED ON THE PANEL SCHEDULES. UNITIZED SWITCHGEAR SHALL BE RATED FOR THE SHORT CIRCUIT INTERRUPTING CAPACITY INDICATED AND SERIES COMBINATION RATINGS MUST BE UL RECOGNIZED. UNITIZED SWITCHGEAR SHALL BE PURCHASED FROM NATIONAL ACCOUNT VENDOR LISTED ON THE PLANS.

2.02 DISCONNECT SWITCHES

A. FUSIBLE OR NONFUSIBLE QUICK-MAKE, QUICK-BREAK, LOAD INTERRUPTER ENCLOSED KNIFE SWITCH WITH EXTERNALLY OPERABLE HANDLE INTERLOCKED TO PREVENT OPENING FRONT COVER WITH SWITCH IN "ON" POSITION. APPROVED MANUFACTURERS ARE CUTLER-HAMMER, GENERAL ELECTRIC, SIEMENS, AND SQUARE D.

2.03 TRANSFORMERS(DOE EFFICIENT DRY-TYPE)

A. AIR COOLED, 480 VOLT DELTA PRIMARY, 208/120 VOLT WYE SECONDARY, KVA SIZE AS INDICATED, 150 DEGREES C RISE, WITH TWO 2-1/2% TAPS ABOVE NORMAL VOLTAGE AND TWO 2-1/2% TAPS BELOW NORMAL VOLTAGE. ACCEPTABLE MANUFACTURERS ARE EATON-CUTLER HAMMER, ABB-GENERAL ELECTRIC, SIEMENS, AND SQUARE D.

2.04 FUSES

A. FUSES RATED ABOVE 600 AMPS SHALL BE UL CLASS L EQUAL TO BUSSMAN LOW-PEAK KRP-C. FUSES RATED AT 600 AMPS AND BELOW SHALL BE UL CLASS RK1 EQUAL TO BUSSMAN LOW-PEAK LPN-RK (250 VOLT) OR LPS-RK (600 VOLT).

PART 3 EXECUTION

3.01 GENERAL

A. MAINTAIN CODE REQUIRED WORKING CLEARANCES AROUND ALL ELECTRICAL EQUIPMENT. COORDINATE INSTALLATION WITH ARCHITECTURAL FEATURES, PIPING LOCATIONS, AND DUCTWORK.

B. ELECTRICAL EQUIPMENT SUCH AS SWITCHBOARDS, PANELBOARDS, DISCONNECTS, ENCLOSED CIRCUIT BREAKERS, INDUSTRIAL CONTROL PANELS, METER SOCKET ENCLOSURES, AND MOTOR CONTROL CENTERS, THAT ARE LIKELY TO REQUIRE EXAMINATION, ADJUSTMENT, SERVICING, OR MAINTENANCE WHILE ENERGIZED SHALL BE FIELD MARKED TO WARN QUALIFIED PERSONS OF POTENTIAL ELECTRIC ARC HAZARDS PER NEC 110.16. THE MARKING SHALL BE LOCATED AS TO BE CLEARLY VISIBLE TO QUALIFIED PERSONS BEFORE EXAMINATION, ADJUSTMENT, SERVICING, OR MAINTENANCE OF THE EQUIPMENT.

3.02 UNITIZED SWITHCGEAR/PANELBOARDS

A. INSTALL NEW UNITIZED SWITCHGEAR/PANELBOARDS AS INDICATED.

B. ALL PANELS SHALL HAVE ENGRAVED PLASTIC LABELS AND TYPEWRITTEN DIRECTORIES. DIRECTORIES SHALL DESCRIBE LOAD FOR EACH BRANCH CIRCUIT.

3.03 TRANSFORMERS

A. MOUNT TRANSFORMERS ON VIBRATION ISOLATORS. GROUND NEUTRAL OF SECONDARY SIDE TO COLD WATER PIPE AND BUILDING STEEL.

B. WHERE TRANSFORMERS ARE SHOWN MOUNTED ABOVE FLOOR, PROVIDE STRUCTURAL SUPPORTS AS REQUIRED. VERIFY CAPACITY OF WALL OR STRUCTURE TO SUPPORT SUSPENDED TRANSFORMERS.

C. PROVIDE MINIMUM 6" SPACE BEHIND AND BESIDE TRANSFORMER FOR AIR CIRCULATION/VENTILATION.

SECTION 16500 LIGHTING

PART 1 GENERAL

1.01 SUBMITTALS

A. LIGHTING FIXTURES

PART 2 PRODUCTS

2.01 GENERAL

A. PROVIDE LIGHTING FIXTURES AS SPECIFIED ON LIGHTING FIXTURE SCHEDULE OF SIZES, TYPES, RATINGS, AND WITH FEATURES INDICATED. FIXTURES SHALL BE PURCHASED FROM NATIONAL ACCOUNT VENDOR LISTED ON LIGHTING FIXTURES SCHEDULE. SUBSTITUTIONS ARE NOT ALLOWED.

B. FIXTURES SHALL BE COMPLETE WITH LAMPS, BALLASTS, DRIVERS, AND ALL PARTS, HARDWARE, AND ACCESSORIES FOR INSTALLATION AND PROPER OPERATION.

2.02 EMERGENCY LIGHTING BATTERY UNITS

A. MINIMUM 1500 LUMENS FOR 90 MINUTES WHETHER INTEGRAL OR REMOTE.

PART 3 EXECUTION

3.01 GENERAL

A. INSTALL FIXTURES AS INDICATED ON DRAWINGS. REFER TO REFLECTED CEILING PLAN FOR EXACT LOCATIONS.

END OF ELECTRICAL SPECIFICATIONS

ELECTRICAL LEGEND

MOUNTING HEIGHTS MEASURED TO ℄

⌒	CONDUIT RUN CONCEALED IN WALL, CEILING, OR FLOOR
⌒	CONDUIT RUN, CONCEALED IN FLOOR OR UNDERGROUND
⤻	HOMERUN TO PANEL INDICATED
⊖	RECEPTACLE, DUPLEX, 120V, 15A. UNO, @ 18" AFF TO BOTTOM
⊖	RECEPTACLE, DUPLEX, 120V, 15A. UNO, SMH
⊕	RECEPTACLE, QUADRAPLEX, 120V, 15A. UNO, @ 18" AFF TO BOTTOM
⊕	RECEPTACLE, QUADRAPLEX, 120V, 15A. UNO, SMH
⊜	RECEPTACLE, SINGLE, 250V, AMPS AS NOTED, @ 8" AFF TO BOTTOM
⊖	RECEPTACLE, DUPLEX, 120V, 15A. UNO, CEILING MOUNTED
Ⓙ	JUNCTION BOX, SIZE AS REQUIRED
S	SWITCH, SINGLE POLE, 120/277V, 20A, 48" AFF TO BOTTOM
S_3	SWITCH, THREE WAY, 120/277V, 20A, 45" AFF TO BOTTOM
(MS)	MOTION SENSOR SWITCH
◁W	PHONE/DATA OUTLET, 4x4 BOX W/1"C TO ABOVE CL'G – @ 52" AFF TO BOTTOM
◁	PHONE/DATA OUTLET, 4x4 BOX W/1"C TO ABOVE CL'G – @ 15" AFF TO BOTTOM
◁	PHONE/DATA OUTLET, 4x4 BOX W/1"C TO ABOVE CL'G – SMH
▭ ▭ □ ⊗ ○	LIGHTING FIXTURES SEE FIXTURE SCHEDULE
□	DISCONNECT SWITCH, NON-FUSED, DESCRIBED BY: VOLTAGE RATING/NO. OF POLES/SWITCH SIZE IN AMPS
F	DISCONNECT SWITCH, FUSED, DESCRIBED BY: VOLTAGE RATING/NO. OF POLES/FUSE SIZE IN AMPS
S_M	SWITCH, MOTOR STARTING, MANUAL, SIZE AS REQUIRED
☒	MOTOR STARTER, MAGNETIC, SIZE AS REQUIRED
Ⓜ	MOTOR, SEE PANEL SCHEDULE FOR SIZE AND SERVICE

ABBREVIATIONS:

AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
BRKR	BREAKER
℄	CENTERLINE
CL'G	CEILING
EF	EXHAUST FAN
GFI	GROUND FAULT INTERRUPTER
MTD	MOUNTED
RTU	ROOF TOP UNIT
SMH	SPECIAL MOUNTING HEIGHT (4" ℄ ABOVE CASEWORK/BACKSPLASH OR 45" ℄ AFF IF NO CASEWORK/BACKSPLASH)
UNO	UNLESS NOTED OTHERWISE
WH	WATER HEATER
WP	WEATHERPROOF

PANEL SCHEDULE NOTES

G	GFI CIRCUIT BREAKER
HT	PROVIDE HANDLE TIE – POLES IN ()
R	PROVIDE RED RECEPTACLE FOR OUTLETS ON THIS CIRCUIT TO IDENTIFY CIRCUITS FOR COMPUTER LOADS ONLY. DO NOT PLUG REFRIGERATORS OR COMPRESSORS INTO THIS CIRCUIT.
LO	PROVIDE LOCK-ON/OFF DEVICE FOR CIRCUIT BREAKER
LZ-X	CIRCUIT TO BE CONTROLLED BY LIGHTING CONTROLS VIA RELAYS IN UNITIZED SWITCHGEAR
ST	BREAKER WITH SHUNT TRIP
BB	PROVIDE BUCK-BOOST TRANSFORMER FOR 240V OPERATION. FEDERAL PACIFIC #K1XGF16-0.5 OR EQUAL. MOUNT ADJACENT TO PANEL.

POWER MATRIX

	COMPUTER OUTLETS				OTHER OUTLETS				
LOCATION	IG	DEDICATED	DUPLEX	QUAD	120V	DUPLEX	QUAD	IG	DED.
SERVICE COUNTER	X	X		X	X		X		
REGISTER	X	X		X	X		X		
RECEIVING	X	X		X	X		X		
PHONE/PA					X		X		X
FIRE ALARM/SECURITY					X	X(3)			X

ALL ISOLATED GROUND DEDICATED OUTLETS FOR THE COMPUTERS CAN BE ON ONE CIRCUIT.
CASH REGISTERS ARE ALL RUN THROUGH POWER POLES.
ALL OUTLETS ARE TO BE MOUNTED UNDER THE COUNTER TOP TO THE BACK OF THE COUNTER

PHONE BOARD SHALL BE A 4'X8' AREA LAID OUT ON THE PLYWOOD WALL OR ON A PIECE OF PLYWOOD. OUTLETS CAN BE SURFACED MOUNTED. BUT CONDUIT MUST BE RUN DOWN THE EDGES OF EACH SECTION. THE 120V DUPLEX IS A CONVENIENCE OUTLET RUN FROM ANY NON-DEDICATED CIRCUIT. EACH OUTLET IS TO BE CLEARLY LABELED "DEDICATED CPE", "DEDICATED TSC ALARMS" OR "CONVENIENCE OUTLET". ALL OUTLETS THAT ARE MOUNTED WITHIN 6 FEET OF SINK SHALL BE GFI

PROVIDE (3) DUPLEX RECEPTACLES AT THE ALARM/SECURITY SECTION OF THE PHONE BOARD. MOUNT 4" APART MINIMUM, 6" BELOW THE PHONE BOARD FOR CORD AND PLUG CONNECTIONS TO THE VENDOR SUPPLIED SECURITY SYSTEM EQUIPMENT. ALL THREE RECEPTACLES SHALL BE POWERED FROM ONE 120 VOLT DEDICATED CIRCUIT. PROVIDE TWO SURFACE MOUNTED JUNCTION BOXES ADJACENT TO THE DEDICATED DUPLEX RECEPTACLES FOR HARDWIRED POWER CONNECTIONS TO THE FIRE ALARM EQUIPMENT PANEL, DUCT MONITOR AND THE TWO FIRE ALARM SYSTEM POWER SUPPLIES. CONTRACTOR SHALL WIRE FROM THE JUNCTION BOXES WITH TYPE MC CABLE. CONNECT TWO DEVICES TO ONE JUNCTION BOX.

RISER NOTES:

1. FURNISH AND INSTALL 4' X 8' X 3/4 " PLYWOOD TELEPHONE EQUIPMENT BACKBOARD, PAINTED WHITE. FURNISH AND INSTALL GROUNDING TERMINAL STRIP ON BACKBOARD (SQUARE D #PK18GTA OR EQUIVALENT). FURNISH AND INSTALL 1 #6 COPPER GROUNDING CONDUCTOR IN 1/2 " FROM BACKBOARD GROUNDING TERMINAL TO ELECTRIC SERVICE GROUNDING ELECTRODE.
2. FURNISH AND INSTALL GROUNDING ELECTRODE AND GROUNDING ELECTRODE CONDUCTOR FOR SERVICE ENTRANCE PANELBOARD. CONNECTIONS AND BONDING JUMPERS SHALL BE INSTALLED IN ACCORDANCE WITH NEC ART. 250. REFER TO DETAIL 2/E4.0 ON THIS SHEET.
3. FURNISH AND INSTALL TWO 2" SCHEDULE 40 PVC CONDUITS FOR TELECOMMUNICATIONS SERVICE ENTRY RACEWAYS. RACEWAYS SHALL EXTEND FROM TELEPHONE EQUIPMENT BACKBOARD LOCATION TO SERVICE PROVIDER'S SPECIFIED POINT-OF-SERVICE. COORDINATE WITH LOCAL TELECOMMUNICATIONS SERVICE PROVIDER.
4. LIGHTING CIRCUITS SHALL BE CONTROLLED AS INDICATED IN PANEL SCHEDULES (DENOTED LZ-1A&B, LZ-2, ETC.) BY LIGHTING CONTROLLER VIA CONTACTORS.
5. COORDINATE CONNECTIONS TO THERMOSTATS WITH MECHANICAL CONTRACTOR. THERMOSTATS TO BE LOCATED ON THE SALES FLOOR COLUMNS.
6. COORDINATE INSTALLATION OF NEW UNDERGROUND SERVICE WITH LOCAL ELECTRIC UTILITY COMPANY. PROVIDE TRENCHING, CONDUIT, CONDUCTORS, METER BASE, CT ENCLOSURE, CONCRETE PAD, AND OTHER ITEMS AS REQUIRED. INSTALL SERVICE IN ACCORDANCE WITH CURRENT UTILITY COMPANY REQUIREMENTS.
7. CONTACTORS FOR CONTROL OF SALES FLOOR GENERAL LIGHTING.
8. NOTE NOT USED.
9. 2 SETS EACH WITH [4-#250KCMIL, #1G, 3-1/2"C] ALUMINUM TO SERVICE DISCONNECT .
10. 3#2, #6G; 1-1/4"C COPPER TO TRANSFORMER.
11. 4#4/0, #4G; 2-1/2"C COPPER TO PANEL B FROM TRANSFORMER. ROUTE CONDUIT ABOVE IT ROOM AND NOT DOWN EXTERIOR WALL ADJACENT TO IT ROOM.
12. GROUND PER NEC.
13. SERVICE EQUIPMENT SHALL BE LEGIBLY MARKED IN THE FIELD WITH MAXIMUM AVAILABLE FAULT CURRENT. CONTRACTOR SHALL REQUEST THE MAXIMUM AVAILABLE FAULT CURRENT AT THE TRANSFORMER AND PROVIDE THIS INFORMATION ALONG WITH THE DISTANCE OF THE SECONDARY CONDUCTORS TO THE ELECTRICAL ENGINEER. THE ELECTRICAL ENGINEER WILL CALCULATE THE MAXIMUM AVAILABLE FAULT CURRENT AT THE SERVICE EQUIPMENT AND GIVE RESULTS TO CONTRACTOR FOR MARKING.
14. SERVICE ENTRANCE: 2 SETS EACH WITH [4-#250KCMIL, 3-1/2"C] ALUMINUM TO UTILITY TRANSFORMER.
15. SERVICE DISCONNECT, 480V, 3 POLE, FUSED @400A, S.E. RATED, NEMA 3R, 100K AIC.
16. DISCONNECT, 480V, 3 POLE, NON-FUSED, 100A.
17. WALL MOUNT 10'-0" AFF PER DETAIL 4 ON E3.1 UNLESS REQUIRED TO BE FLOOR MOUNTED BY THE AHJ.

1 E4.0 POWER RISER DIAGRAM - 480/277V, 3ø, 4W, 400A
SCALE: N.T.S.

NOTE:
THE CONTRACTOR SHALL COORDINATE THE SYSTEM VOLTAGE AND ALL ASSOCIATED COSTS TO BRING SERVICE AS INDICATED TO BUILDING. CONTRACTOR SHALL INCLUDE ALL COSTS IN BID AND SHALL COORDINATE ALL ELECTRICAL EQUIPMENT AND EQUIPMENT PROVIDED BY OTHER TRADES REQUIRING ELECTRICAL ROUGH-IN WITH SERVICE VOLTAGE USED PRIOR TO BID. CONTRACTOR SHALL ESTABLISH SERVICE IN CONTRACTOR'S NAME AND TRANSFER SERVICE TO TSC UP ON TURN OVER TO TSC.

GENERAL ELECTRICAL NOTES

1. VISIT PROJECT SITE BEFORE SUBMISSION OF BID AND BECOME FAMILIAR WITH EXISTING CONDITION AND LOCATIONS OF UTILITIES.
2. COORDINATE INSTALLATION OF NEW SERVICE WITH LOCAL ELECTRIC UTILITY COMPANY. PROVIDE TRENCHING, CONDUIT, METER BASE, CONCRETE PAD, AND OTHER ITEMS AS REQUIRED. INSTALL SERVICE IN ACCORDANCE WITH CURRENT UTILITY COMPANY REQUIREMENTS.
3. COORDINATE INSTALLATION OF TELEPHONE SERVICE CONDUIT WITH LOCAL TELEPHONE COMPANY. INSTALL (2) 2" CONDUITS FROM TELEPHONE SERVICE POINT TO TELEPHONE TERMINAL BOARD.
4. FURNISH AND INSTALL A 4'X 8'X 3/4" PLYWOOD TELEPHONE TERMINAL BOARD, PAINTED WHITE. FURNISH AND INSTALL GROUNDING TERMINAL STRIP ON BACKBOARD (SQUARE D #PK18GTA OR EQUIVALENT). FURNISH AND INSTALL 1 #6 COPPER GROUNDING CONDUCTOR IN 1/2" CONDUIT FROM BACKBOARD GROUNDING TERMINAL TO ELECTRICAL SERVICE GROUNDING ELECTRODE.
5. INSTALL 1" CONDUIT FROM EACH TELEPHONE AND/OR DATA OUTLET TO ABOVE NEAREST ACCESSIBLE CEILING WITH AN INSULATED BUSHING ON EACH END.
6. PROVIDE CONTROL POWER SOURCE FOR ALL STARTERS AND CONTROL PANELS NOT SUPPLIED WITH CONTROL POWER TRANSFORMERS. INSTALL AND CONNECT ALL CONTROL DEVICES IN ACCORDANCE WITH MANUFACTURERS' RECOMMENDATIONS.
7. VERIFY ELECTRICAL POWER REQUIREMENTS FOR ALL EQUIPMENT. PROVIDE CIRCUITS AND FUSES SIZED IN ACCORDANCE WITH MANUFACTURERS' RECOMMENDATIONS.
8. MAINTAIN CODE REQUIRED WORKING CLEARANCE AT ALL ELECTRICAL PANELS, DISCONNECT SWITCHES, AND STARTERS.
9. PROVIDE DISCONNECT SWITCH FOR ANY HARDWIRED EQUIPMENT NOT SUPPLIED WITH DISCONNECTING MEANS.
10. SEE MECHANICAL DRAWINGS AND SPECIFICATIONS FOR LOCATIONS AND CONTROL REQUIREMENTS FOR MECHANICAL EQUIPMENT AND FOR STARTERS, DISCONNECT SWITCHES AND CONVENIENCE RECEPTACLES THAT MAY BE FURNISHED WITH THE EQUIPMENT.
11. COORDINATE EXACT LOCATION OF ALL CEILING MOUNTED LIGHT FIXTURES WITH ARCHITECTURAL DRAWINGS. PROVIDE FIXTURES COMPATIBLE WITH CEILING TYPE INSTALLED.
12. LIGHTING FIXTURES FOR EMERGENCY USE SHALL BE PROVIDED WITH INTEGRAL BATTERY. THOSE FIXTURES SHALL BE CIRCUITED SUCH THAT THEY AUTOMATICALLY SWITCH TO BATTERY OPERATION UPON FAILURE OF POWER TO CIRCUIT. EXIT LIGHTS SHALL BE UNSWITCHED.
13. ALL RECEPTACLES ON DEDICATED CIRCUITS SHALL BE RATED NO LESS THAN CIRCUIT OVERCURRENT DEVICE.
14. PROVIDE UL LISTED TECHNIQUES FOR PENETRATIONS OF RATED WALL AND CEILING WITH CONDUIT OR OPEN WIRING. SEE ARCHITECTURAL DRAWINGS FOR WALL AND CEILING RATINGS.
15. INSTALL ELECTRICAL BOXES LOCATED ON OPPOSITE SIDES OF RATED WALLS SUCH THAT THEY ARE SEPARATED BY A HORIZONTAL DISTANCE OF 24 INCHES MINIMUM.

TRACTOR SUPPLY
LIGHTING & HEATING SCHEDULE

	PYLON/BUILDING SIGN PARKING LOT LIGHTS	BUILDING LIGHTS WALL PACKS	BUSINESS LIGHTS	EMPLOYEE LIGHTS	HEATING	COOLING	SUNDAY
ON	DUSK (BY PHOTOCELL)	DUSK TO DAWN PHOTOCELL (ALWAYS ON DURING DARK)	7:30 AM	7:30 AM	68 DEGREES AT 8:00 AM	74 DEGREES AT 8:00 AM	SAME TEMPS AT 10:00 AM
OFF	9:15 PM	DURING THE DAY	8:30 PM	8:30 PM	62 DEGREES AT 9:00 PM	80 DEGREES AT 9:00 PM	SAME TEMPS AT 6:00 PM
LIGHTING CONTROL ZONE	LZ-3	LZ-2	LZ-1B	LZ-1A			
NOTES: CONTROL ZONE	THE SYSTEM CAN BE OVERRIDDEN BY THE OVERRIDE SWITCH IN CASE THE STORE IS OPEN EARLIER OR LATER THAN NORMAL STORE HOURS.						

LZ-X DENOTES LIGHTING CONTROL ZONE VIA CONTACTOR IN THE UNITIZED SWITCHGEAR.
GC REPONSIBLE FOR PROGRAMMING ALL THERMOSTATS AND LIGHTING CONTROLS.
LIGHTSTAT TME THERMOSTAT MODEL TME-DGC. SEE MECHANICAL PLANS FOR MORE INFORMATION.

BIDDING MECHANICAL AND ELECTRICAL CONTRACTORS SHALL COORDINATE WITH GC PRIOR TO BID ON ALL WORK AS IT RELATES TO THE PROGRAMMING OF NON-EMS THERMOSTATS AND LIGHT TIMERS.

2 E4.0 SERVICE ENTRANCE GROUNDING
SCALE: N.T.S.

NOTE: ALL GROUNDING ELECTRODE CONDUCTORS SHALL BE SIZED IN ACCORDANCE WITH NEC 250.66. ALL METAL CONDUIT SHALL BE BONDED TO TERMINATING BOXES.

** SEPERATE GROUND ROD REQUIRED ONLY IF TELEPHONE SERVICE BOARD IS GREATER THAN 20 FEET FROM ELECTRICAL SERVICE

VOLTAGE: 480/277V., 3PH., 4W. | MAIN BKR: --- | BUS: 400 AMP MLO | A.I.C.: 35 K | INTEGRATED MOUNTED

**–VERIFY SIGN VOLTAGE WITH VENDOR

NOTE	DESCRIPTION	KVA/PHASE A	KVA/PHASE B	KVA/PHASE C	WIRE SIZE	BKR AMPS	CKT #	CKT #	BKR AMPS	WIRE SIZE	KVA/PHASE A	KVA/PHASE B	KVA/PHASE C	DESCRIPTION	NOTE
LZ-1A	L-SALES	2.2			12	20	1	2	20	10	3.0			L-NL/EMERG	LO
LZ-1B	L-SALES		2.7		12	20	3	4	20	12		0.4		L-OFFICE/RESTROOMS	
LZ-1A	L-SALES			2.4	12	20	5	6	20	12			0.9	L-STOCKROOM	LZ-1A
LZ-1B	L-SALES	1.5			12	20	7	8	20	--	0			SPARE	
LZ-1A	L-SALES		0.7		12	20	9	10	20	10		0.5		L-WALL PACK	LZ-2
LZ-1A	L-FEED STORAGE			0.7	12	20	11	12	20	10			1.5	FUTURE BUILDING SIGN	LZ-3 **
LZ-1A	L-LIVE GOODS CENTER	0.5			12	20	13	14	20	12	0.2			BUILDING LIGHTS	LZ-3
	SPARE		0		--	20	15	16	20	6		1.2		PYLON SIGN	LZ-3 **
	SPARE			0	--	20	17	18	20	10			1.5	BUILDING SIGN	LZ-3 **
	SPARE	0			--	20	19	20	20	--	0			SPARE	
LZ-3	L-SIDE/PARKING LOT		1.4		6	20	21	22	20	--		0		SPARE	
	SPARE			0	--	20	23	24	20	--			0	SPARE	
	SPARE	0			--	20	25	26	20	--	0			SPARE	
	SPARE		0		--	20	27	28	20	--		0		SPARE	
	SPARE			0	--	20	29	30	20	--			0	SPARE	
	SPARE	0			--	20	31	32	20	--	0			SPARE	
	SPARE		0		--	20	33	34	20	--		0		SPARE	
	SPARE			0	--	20	35	36	20	--			0	SPARE	
	SPARE	0			--	20	37	38	20	--	0			SPARE	
	SPARE		0		--	20	39	40	20	--		0		SPARE	
	SPARE			0	--	20	41	42	20	--			0	SPARE	
	RTU-1	9.8			6	50	43	44	15	12	2.4			RTU-5	
			9.8		6		45	46		12		2.4			
				9.8	6		47	48		12			2.4		
	RTU-2	9.8			6	50	49	50	50	6	5.8			BALER	
			9.8		6		51	52		6		5.8			
				9.8	6		53	54		6			5.8		
	RTU-3	6.1			10	30	55	56	100	2	22.2			PANEL "B" VIA 75KVA TRANSFORMER	
			6.1		10		57	58		2		23.2			
				6.1	10		59	60		2			17.9		
	RTU-4	9.8			6	50	61	62	15	12	1.7			UH-1	
			9.8		6		63	64		12		1.7			
				9.8	6		65	66		12			1.7		
		39.7					PANEL "A"				35.3			A:	75.0 KVA
			41.3									35.2		B:	76.5 KVA
				38.6									31.7	C:	70.3 KVA
														TOTAL:	221.8 KVA

VOLTAGE: 208/120V., 3PH., 4W. | MAIN BKR: 225/3 | BUS: 225 AMP --- | A.I.C.: 10 K | INTEGRATED MOUNTED

TWO SECTION PANEL WITH FEED-THRU LUGS

NOTE	DESCRIPTION	KVA/PHASE A	KVA/PHASE B	KVA/PHASE C	WIRE SIZE	BKR AMPS	CKT #	CKT #	BKR AMPS	WIRE SIZE	KVA/PHASE A	KVA/PHASE B	KVA/PHASE C	DESCRIPTION	NOTE
HT(3)	R-LOUNGE POWER	1.5			12	20	1	2	20	12	1.0			R-TOILETS/EWC	G
HT(3)	R-MANAGER OFFICE		1.1		12	20	3	4	20	12		1.6		R-SECURITY/ALARMS	R,LO
HT(3)	R-LOUNGE			0.2	12	20	5	6	20	--			0	SPARE	
G	ANIMAL HLTH COOLER	1.7			12	20	7	8	20	12	1.1			R-SALES FLOOR	HT(2)
	DOCK DOOR OPERATOR		1.2		12	20	9	10	20	12		0.4		R-EXTERIOR	HT(2)
	R-SALES FLOOR			1.3	12	20	11	12	20	12			0.6	POWER POLE REC/CASH	R, HT(3)
	AUTO ENTRY DOORS	0.7			12	20	13	14	20	12	0.6			POWER POLE REC/CASH	HT(3)
	AUTO ENTRY DOORS		0.7		12	20	15	16	20	12		0.4		POWER POLE CASHWRAP	HT(3)
	INST WATER HEATER			0.5	12	15	17	18	20	12			1.8	COMPRESSOR – STKRM	
	R-CLOTHING	1.2			12	20	19	20	20	12	0.4			R-OPEN SIGN	
	R-ROOF		0.9		12	20	21	22	20	12		0.4		R-TELE. TERM. BOARD	R.
	SPARE			0	--	20	23	24	20	12			0.8	R-IT RACK	R.
	SPARE	0			--	20	25	26	20	12	0.4			R-TELE. TERM. BOARD	R.
	R-MOBILE POS		1.4		12	20	27	28	20	12		1.8		R-FLOOR SCRUBBER	
LO	ELECTRIC GONG			0.2	12	20	29	30	20	12			0.8	POWER POLE CASHIER	R, HT(2)
	EMS POWER	0.5			12	20	31	32	20	12	1.4			POWER POLE CASHIER	HT(2)
	TOILET EF/RELAY		0.5		12	20	33	34	20	12		0.5		POWER POLE SLF CK	
	R-EAS			0.8	12	20	35	36	20	8			1.0	PROPANE DISPENSING SYSTEM	BB, ST
	IRRIGATION CONTROLLER	0.2			12	20	37	38		8	1.0				
G	R-CHICK DAYS		1.8		12	20	39	40		12		0		SHUNT TRIP	
	R-CHAINSAW POG			0.4	12	20	41	42	20	12			0.1	PROPANE SHUNT PWR	
	LIGHTING CONTROLS	0.5			12	20	43	44	20	12	1.7			HAND DRYER	LO
G	MICROWAVE		1.2		12	20	45	46	20	12		1.7		HAND DRYER	LO
G	PET DRYER			1.7	12	20	47	48	20	12			1.7	PET DRYER	G
	POWER DROP-FIX LTG	1.6			12	20	49	50	15	--	0			SPARE	
	POWER DROP-FIX LTG		1.2		12	20	51	52	15	--		0		SPARE	
	POWER DROP-FIX LTG			1.2	12	20	53	54	15	--			0	SPARE	
	POWER DROP-FIX LTG	1.2			12	20	55	56	15	--	0			SPARE	
G	R-CHICK DAYS		1.8		12	20	57	58	20	--		0		SPARE	
	POWER POLE REGISTER			0.8	12	20	59	60	20	--			0	SPARE	
	AUTO ENTRY DOOR	0.7			12	20	61	62	15	--	0			SPARE	
	OVERHEAD DOOR		1.2		12	20	63	64	15	--		0		SPARE	
	R-CHICK DAYS			1.8	12	20	65	66	20	12			0.5	REMOTE POS	
	SLIDING GATE	0.9			8	20	67	68	20	12	0.4			R-EAS	
			0.9		8		69	70	20	12		0.8		R-HUB TV'S	
	SPARE			0	--	20	71	72	20	--			0	SPARE	
	R-CHICK DAYS	1.8			12	20	73	74	20	--	0			SPARE	
	SPARE		0		--	20	75	76	20	--		0		SPARE	
	SPARE			0	--	20	77	78	20	--			0	SPARE	
	SPARE	0			--	20	79	80	30	10	1.7			FORKLIFT CHARGER	
	SPARE		0		--	20	81	82		10		1.7			
	SPARE			0	--	20	83	84		10			1.7		
		12.5					PANEL "B"				9.7			A:	22.2 KVA
			13.9									9.3		B:	23.2 KVA
				8.9									9.0	C:	17.9 KVA
														TOTAL:	63.3 KVA

ELECTRICAL CONTRACTOR TO INSTALL AND WIRE FIRE GONG, COORDINATE WITH FIRE SUPPRESSION CONTRACTOR FOR VOLTAGE. PROVIDE LOW VOLTAGE TRANSFORMER AS REQUIRED.

PRELIMINARY
NOT FOR CONSTRUCTION

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Architecture
Planning
Interior Architecture

TSC

TRACTOR SUPPLY COMPANY
LILLINGTON
NORTH CAROLINA

PE
PARSONS
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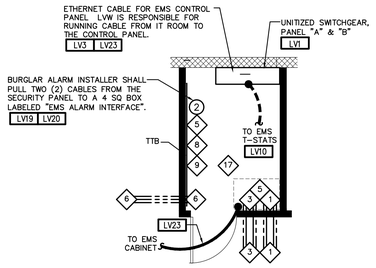
NASHVILLE, TENNESSEE
PARSONSENGINEERING.COM

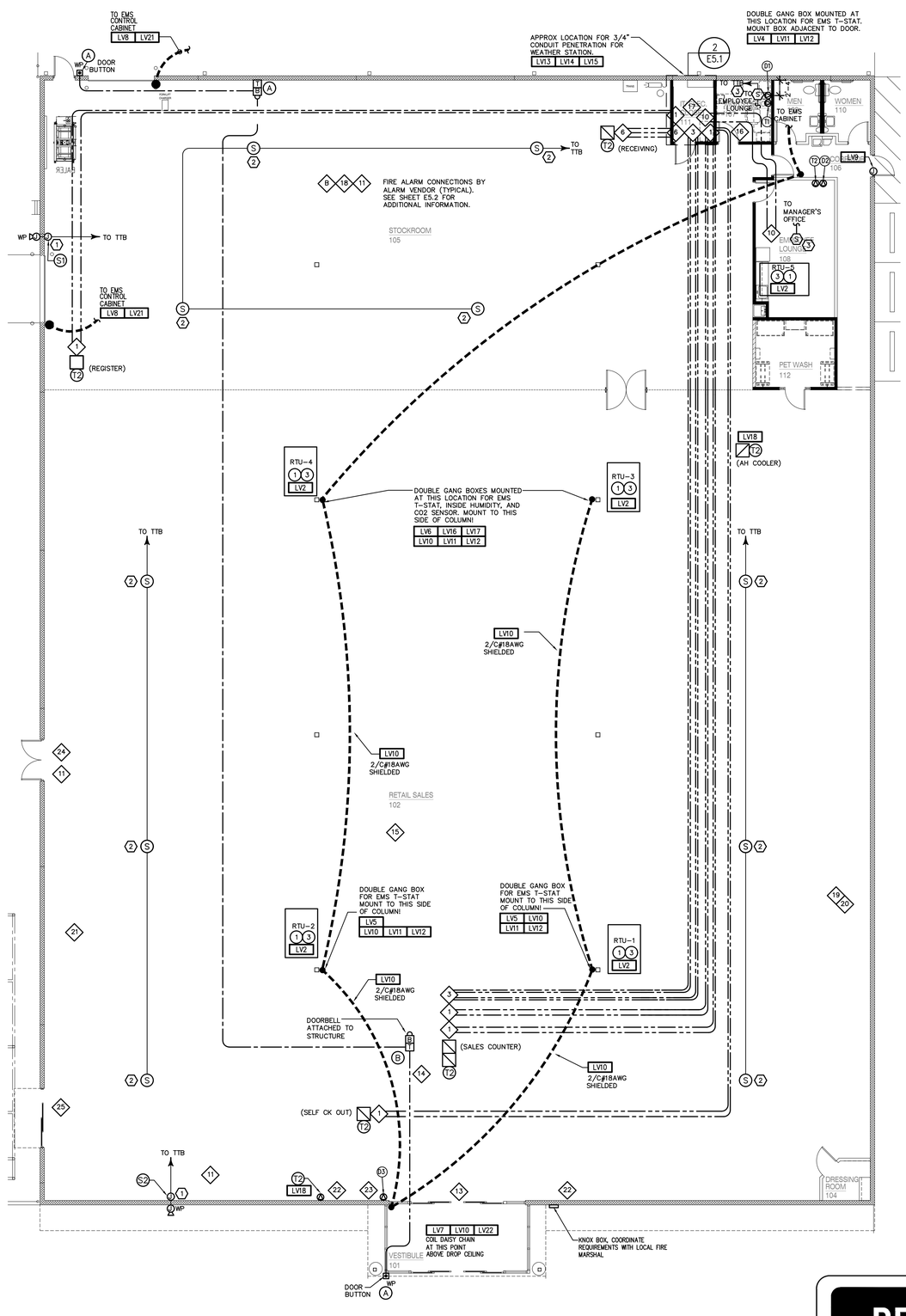
Job Number: 2360
Date: 03.22.2024
Revisions:
Revisions:
Revisions:
ELEC LEGEND & DETAILS
Sheet Number: E4.0

Project: 24066 Drawing: 24066-E4.0.dwg



2 E5.0 **ENLARGED PLAN - IT ROOM**
SCALE: 1/4" = 1'-0"

SEE SHEET E5.1 FOR NOTES ASSOCIATED WITH THIS SHEET.



1 E5.0 **SYSTEMS FLOOR PLAN**
SCALE: 1/8" = 1'-0"

PRELIMINARY
NOT FOR CONSTRUCTION

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Job Number: 2360
Date: 03.22.2024
Revisions:
Revisions:
Revisions:

SYSTEMS FLOOR PLAN

Sheet Number: E5.0

PARSONS ENGINEERING, INC.
NASHVILLE, TENNESSEE
PARSONSENGINEERING.COM

Project: 24066 Drawing: 24066-E5.0.dwg

TSC LVW CONTROL WIRING AND EMS PREWIRE:

ALL LOW VOLTAGE WIRING (LVW) (EXCEPT FOR TEMPORARY AND PERMANENT THERMOSTATS FOR HVAC) TO BE INSTALLED BY THE LVW VENDOR. THIS INCLUDES THE DOOR BELLS. GC'S ARE RESPONSIBLE TO COMMUNICATE, TO MANAGE, AND TO INCLUDE THIS IN THEIR COSTS.

Cable Specifications:

ALL cable must be jacketed in a fire-retardant material, shielded (unless otherwise noted) and WHITE in color. In the event that a specific cable is not available, Contractor may substitute for a cable with more conductors (i.e. 2 conductor can be substituted with 3 conductor of the same ratings).

Maximum cable length shall not exceed 330 feet.

Do not route cables over or touching a fluorescent light. Cross over fluorescent lights perpendicular to the length of the fixture.

All cables shall be supported from the ceiling joist above. Do not lay cables on the grid of a drop ceiling.

Type
one twisted pair – 18ga – shielded – plenum rated – white jacket
one CAT5 Cable

Preface: This store will be wired for a future EMS system This contractor shall price in the base bid wiring.

LV1 G.C. shall install a 2" EMT conduit into the top of the future EMS section of the unitized switchboard (hereafter referred to as the EMS cabinet) so as to provide EMS cable access to the panel without having to route the cables past substantial line voltage wire.

LV2 G.C. shall provide a 3/4" (inch) trade size rigid conduit or seal tight from the RTU control panel stubbed into the TSC space for low voltage wiring access.

LV3 Tractor Supply shall provide EMS jack in one of 6– up boxes in the IT CLOSET and an orange patch, with white boot, cable connected to port 23 on the 2960 switch and run to port #46 on the patch panel.

LV4 G.C. shall install a recessed single gang switch box in corridor next to manager's office – see mechanical drawings for exact placement. This box should be mounted 60" AFF. This box is for installation of the RTUS thermostat / future EMS control thermostat.

LV5 G.C. shall install a double gang switch box (4 11/16" with the appropriate adapter plates) on the column closest to each sales floor RTU 1 and 2 for the purpose of installing the Thermostat /future EMS thermostat (see LV6 for specifics about RTU 3 and 4). If HVAC is needed to condition the building prior to the installation of the LVW by the TSC LVW vendor, the G.C. is to make HVAC units operable using temporary bi–metal thermostats to be hung in return air duct. This allows for conditioning of the building temporarily until the TSC LVW vendor installs permanent LVW per the timing and action calendar contained within the set of plans. Once the LVW vendor installs the LVW, the G.C. is responsible to remove the temporary bi–metal thermostats and make final connections of the thermostats to the newly installed LVW as mentioned above.

LV6 G.C. shall install 3 double gang switch boxes (4 11/16" with the appropriate adapter plates) on the column closest to RTU 3 and 4. These 3 boxes shall be mounted vertically; one above the other, separated by no less than 6" with the bottom box mounted at a height of approximately 7' 6" AFF and MUST be mounted to the surface of the column that faces the center of the building so as to shield the sensor from direct supply air. A quantity of (2) 1" (inch) conduits shall be installed above & between the boxes so as to provide a path for continuous wire pull from the overhead into the bottom most box. These boxes are for (from top to bottom) the installation of the CO2 sensor, the humidity sensor, and the RTU thermostat / future EMS thermostat in the bottom box each of which requires a dedicated double gang box. "Doubling up" the sensors in a 2 gang box is not acceptable.

LV7 G.C. shall install a single gang box and a 3/4" EMT conduit for the vestibule Unit Heater and the greenhouse's Unit Heater. The conduits shall be installed from the ceiling deck to each unit heater's thermostat designated mounting location in the vestibule and stockroom. G.C. is to make each unit heater operate using the thermostats provided with the unit heaters and installed wiring.

LV8 G.C. shall install a 3/4" EMT conduit from the ceiling deck to 12" (inches) AFF so as to provide future EMS cable access for routing the LV cable from above the dock door to the finished floor. The conduit is to be installed directly adjacent to the dock door, within 2" (inches) of the rollup door track.

LV9 J–box for power to the series 800 power supply mounted above the ceiling in line with the hinge side of the door. Provide a 1/2" conduit from the power supply to the electric power transfer device (PT–5) of the door frame, concealed mortise mount. Provide and pull two #18 AWG wire from the power supply to the power transfer device and into the door. Contractor to complete wiring and connection of the delayed rim exit device after new door and rim exit hardware is installed. Coordinate all requirements with supplier/installer. See detail 12/E3.2.

LV10 LVW vendor shall install a total of (1) 18/2 SHIELDED plenum cable. The cable shall be pulled continuous from the future "EMS Cabinet" in the electrical switchgear to each Unit Heater's & RTU's thermostat gang boxes location (see LV5 and LV6 for specifics) in turn (Daisy Chain) starting with the Unit Heater / RTU thermostat mounting location closest to the electrical room. The wire shall be pulled into the RTU's designated gang box, leaving a 5' coil. Label both un–spliced ends of this cable pull as "TStat COMM".

LV11 LVW vendor shall install a total of (1) 18/10 NON–SHIELDED plenum cable. The cable shall be pulled from each RTU's control cabinet to the RTU specific thermostat gang box, leaving a 5' coil at both ends. Label both ends of this cable "RTUx CONTROL", where x is the RTU #.

LV12 LVW vendor shall install a total of (1) 18/10 NON–SHIELDED plenum cable. The cable shall be pulled from each RTU's supply hard air duct, just below ceiling, to the corresponding RTUs thermostat gang box, leaving a 10' coil at both ends. Label both ends of this cable "RTUx SUPPLY", where x is the RTU #.

LV13 LVW vendor shall install a total of (1) 18/10 NON–SHIELDED plenum cable. The cable shall be pulled from the EMS cabinet to the future "WeatherStation", leaving a 5' coil at both ends. Label both ends of this cable "OA TEMP".

LV14 LVW vendor shall install a total of (1) 18/10 NON–SHIELDED plenum cable. The cable shall be pulled from the EMS cabinet to the future "WeatherStation", leaving a 5' coil at both ends. Label both ends of this cable "OA HUMID".

LV15 LVW vendor shall install a total of (1) 18/10 NON–SHIELDED plenum cable. The cable shall be pulled from the EMS cabinet to the future "WeatherStation", leaving a 5' coil at both ends. Label both ends of this cable "OUTDOOR LIGHT LEVEL".

LV16 For each indoor humidity sensor specified, the LVW vendor shall install a total of (1) 18/4 NON–SHIELDED plenum cables. The cables shall be pulled from the EMS cabinet to the top single gang box installed as per note LV6, leaving a 5' coil at both ends. Label both ends of this cable "INSIDE HUMID #1" and, if installed, "INSIDE HUMID #2".

LV17 LVW vendor shall install a total of (1) 18/2 NON–SHIELDED plenum cable. The cables shall be pulled from the EMS cabinet to the next to the top single gang box installed as per note LV6, leaving a 5' coil at both ends. Label both ends of this cable "CO2".

LV18 LVW vendor shall install a total of (1) 18/2 NON–SHIELDED plenum cable in 1/2" conduit. The cable shall be pulled from the EMS cabinet to the vaccine case, leaving a 5' coil at both ends. Label both ends of this cable "VACCINE TEMP". Coordinate with the GC to determine the exact location. NOTE: IN THE EVENT THAT THE FINAL LOCATION OF THE ANIMAL HEALTH CASE IS UNKNOWN, LEAVE A 50' COIL OF CABLE IN THE APPROXIMATE LOCATION.

LV19 LVW vendor shall install a total of (1) 18/4 NON–SHIELDED plenum cable. The cables shall be pulled from the EMS cabinet to the alarm installer's junction box labeled "EMS/SI ALARM INTERFACE" (located on the telephone board, beside the security alarm panel), leaving a 5' coil of each at both ends. Label both ends of each these cables "OCCUPANCY" and "ALL LIGHTS ON" respectively. If the security system installer has not installed this junction box, install and label these cables leaving a 15' loop of each at the ceiling joist on the vicinity of the building security system equipment.

LV20 ALARM VENDOR shall install a total of two twisted pair, 18ga plenum cables (Windy City # 002320–S or equivalent). The cables shall be pulled from the Security Panel to the junction box labeled "EMS/SI ALARM INTERFACE" (located on the telephone board, at the designated location beside the security alarm panel). ALARM VENDOR to terminate this wiring to the appropriate security system "ARM/DISARM" and "ALARM" outputs to the corresponding terminals within the "EMS/SI Alarm interface" junction box (installed by the LVW vendor). If the LVW Vendor has not installed this junction box, ALARM VENDOR to install and label their cables leaving a 5' loop at the designated location of the EMS/SI ALARM interface" on the telephone backboard.

LV21 LVW vendor shall install a total of (1) 18/2 NON–SHIELDED plenum cable. The cable shall be pulled from the EMS cabinet through the EMT conduit installed for dock door monitoring, leaving a 5' coil at both ends. Label both ends of this cable "DOCK DOOR". This is used for future EMS monitoring and is in addition to the cabling required for the security system door monitoring. This EMS cable should be pulled down through the conduit that is installed to monitor the dock door via the EMS (see LV8). Coordinate with the GC to determine the exact location. NOTE: IN THE EVENT THAT THE FINAL LOCATION OF THE DOCK DOOR EMS CONDUIT IS UNKNOWN, LEAVE A 50' COIL OF CABLE ABOVE THE DOCK DOOR.

LV22 LVW Vendor to install a total of (1) 18/4 NON–SHIELDED plenum cable for each unit heater. The cable shall be pulled from each Unit Heater's control cabinet to the Unit Heater's specific thermostat gang box, leaving a 5' coil at both ends. Label both ends of this cable "UH Control". Note: In the event that the location of the unit heater is unknown, leave a 50' coil of cable at this location.

LV23 LVW VENDOR to provide a CAT5 cable run from the patch panel in the IT CLOSET to the future EMS cabinet location.

PUBLIC ADDRESS SYSTEM:

GENERAL NOTES:

A. TSC SHALL FURNISH & INSTALL THE PUBLIC ADDRESS SYSTEM

B. LVW VENDOR SHALL PROVIDE ALL SPEAKER WIRING. SPEAKER WIRING SHALL BE 18AWG / 2 CONDUCTOR WITH WHITE JACKETS.

C. ALL CABLES ROUTED EXPOSED IN CEILING JOIST SHALL BE RUN PERPENDICULAR AND PARALLEL TO THE CEILING JOIST ORIGINATING FROM TELEPHONE BOARD.

D. PUBLIC ADDRESS SYSTEM DEVICES SHOWN FOR REFERENCE ONLY. GENERAL CONTRACTOR SHALL FURNISH AND INSTALL JUNCTION BOXES AND RACEWAYS PER THE PUBLIC ADDRESS SYSTEM VENDOR RECOMMENDATIONS. PUBLIC ADDRESS SYSTEM DEVICES FURNISHED AND INSTALLED BY THE SYSTEM VENDOR.

E. LVW VENDOR SHALL BE RESPONSIBLE FOR DETERMINING IF CABLES SHALL BE PLENUM RATED TO MEET CODES.

PUBLIC ADDRESS SPEAKER CABLE– (S1) (S2)

1. PROVIDE A BLACK 4" X 4" WEATHERPROOF JUNCTION BOX AT THE EXTERIOR SPEAKER LOCATION MOUNTED 13'–0" AFF OR ABOVE THE AWNING. PROVIDE A SLEEVE THRU WALL TO THE INTERIOR 4" x4" JUNCTION BOX LOCATED ON THE INTERIOR WALL. COORDINATE EXACT MOUNTING HEIGHTS AND LOCATIONS WITH THE ARCHITECTURAL DRAWINGS PRIOR TO ROUGH–IN.

2. PROVIDE JUNCTION BOX AND CONDUIT (1" EMT) FROM EXTERIOR SPEAKER TO THE RETAIL SALES INTERIOR WALL.

KEYED NOTES:

(1) JUNCTION BOX ON WALL WITH 1" CONDUIT STUBBED OUTSIDE FOR SPEAKER MOUNTING. COORDINATE EXACT REQUIREMENTS WITH PUBLIC ADDRESS SYSTEM PRIOR TO ROUGH–IN. ROUTE ONE TWO CONDUCTOR #18 AWG SPEAKER WIRE FROM JUNCTION BOX TO TELEPHONE BOARD. COIL 6 FEET OF SPEAKER WIRE OUTSIDE OF BUILDING AT PROPOSED SPEAKER LOCATION. PROVIDE 20 FEET OF CABLE AT THE CEILING ABOVE THE TELEPHONE BOARD. COIL 15 FEET OF CABLE AND SUSPEND 10 FEET AFF. TYPICAL OF 2 LOCATIONS.

(2) LOCATION IN BAR JOIST FOR PUBLIC ADDRESS SPEAKER. ROUTE ONE TWO CONDUCTOR #18 AWG SPEAKER WIRE BETWEEN LOCATIONS LEAVING SIX FEET OF COILED WIRING AT EACH LOCATION FOR CONNECTION OF SPEAKERS. COORDINATE EXACT REQUIREMENTS WITH PUBLIC ADDRESS SYSTEM PRIOR TO ROUGH–IN. HOME RUN SPEAKER CABLE FROM LAST DEVICE LOCATION AS SHOWN AND PROVIDE 20 FEET OF CABLE AT THE CEILING ABOVE THE TELEPHONE BOARD. COIL 15 FEET OF CABLE AND SUSPEND AT 10 FEET AFF.

(3) LOCATION IN SUSPENDED CEILING FOR PUBLIC ADDRESS SPEAKER. ROUTE ONE TWO CONDUCTOR #18 AWG SPEAKER WIRE BETWEEN LOCATIONS LEAVING SIX FEET OF COILED WIRING AT EACH LOCATION FOR CONNECTION OF SPEAKERS. COORDINATE EXACT LOCATION AND REQUIREMENTS WITH ARCHITECTURAL REFLECTED CEILING PLAN AND THE PUBLIC ADDRESS SYSTEM INSTALLER PRIOR TO ROUGH–IN. HOME RUN SPEAKER CABLE FROM LAST DEVICE AS SHOWN AND PROVIDE 20 FEET OF CABLE AT THE CEILING ABOVE THE TELEPHONE BOARD. COIL 15 FEET OF CABLE AND SUSPEND AT 10 FEET AFF.

LOW VOLTAGE DOOR BELL SYSTEM:

GENERAL NOTES:

A. ALL LOW VOLTAGE WIRING BY LVW VENDOR (DOOR BELL, ETC.) SHALL BE 18AWG / 2 CONDUCTOR WITH WHITE TEFLON JACKET IN CONDUIT TO CEILING AND EXPOSED ALONG CEILING STRUCTURE.

B. ALL CABLES ROUTED EXPOSED IN CEILING JOIST SHALL BE RUN PERPENDICULAR AND PARALLEL TO THE CEILING JOIST.

C. GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING IF CABLES SHALL BE PLENUM RATED TO MEET CODES.

KEYED NOTES:

(A) ELECTRICAL CONTRACTOR SHALL PROVIDE AND INSTALL AN EDWARDS 55–405 DOOR BELL AND AN EDWARDS 592 TRANSFORMER AT TWO LOCATIONS SHOWN. ELECTRICAL CONTRACTOR SHALL PROVIDE AND INSTALL AN EDWARDS 250 PUSHBUTTON TO CONTROL BOTH DOOR BELLS. PUSHBUTTON SHALL BE INSTALLED IN A WEATHERPROOF ENCLOSURE. TEST TO ASSURE WORKING SYSTEM. MOUNT TRANSFORMER & BELL AT 14'–0" AFF.

(B) EDWARDS 55–405 DOOR BELL @ CASH REGISTER & CONNECT TO SYSTEM AS NECESSARY. COORDINATE WITH G.C. FOR EXACT LOCATION OF BELL.

PUBLIC ADDRESS SYSTEM LEGEND

(S) OPEN BARJOIST MOUNTED SPEAKER

(S) CEILING BARJOIST MOUNTED SPEAKER

(J) PUBLIC ADDRESS SYSTEM JUNCTION BOX

(2) WP EXTERIOR WEATHERPROOF PUBLIC ADDRESS SYSTEM JUNCTION BOX.

LOW VOLTAGE WIRING SYSTEM LEGEND

PUBLIC ADDRESS (PA) SYSTEM WIRING

DATA/TELEPHONE SYSTEM WIRING

EMS SYSTEM WIRING

EMS SYSTEM WIRING

DOOR BELL SYSTEM WIRING

GENERAL NOTES:

(B) ALL CONDUITS INSTALLED IN THE STOCKROOM AREA SHALL BE INSTALLED AS TIGHT TO ROOF DECK AS ALLOWED BY CODE.

DATA SYSTEM:

GENERAL NOTES:

A. TSC SHALL FURNISH & INSTALL ALL POS, PA & PHONE SYSTEMS. GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR FURNISHING AND INSTALLING ALL BACKBOXES AND CONDUITS. LVW VENDOR RESPONSIBLE FOR WIRING.

B. LVW VENDOR SHALL PROVIDE ALL DATA AND TELEPHONE WIRING WITH WHITE JACKETS. ALL PHONE AND DATA CABLE MUST BE CAT5E CERTIFIED, NO EXCEPTIONS.

C. ALL CABLES ROUTED EXPOSED IN CEILING JOIST SHALL BE RUN PERPENDICULAR AND PARALLEL TO THE CEILING JOIST.

D. LVW VENDOR SHALL BE RESPONSIBLE FOR DETERMINING IF CABLES SHALL BE PLENUM RATED TO MEET CODES.

E. ROUTE CAT5E CABLES TO IT ROOM TO CEILING SPACE ABOVE THE RED POWER RECEPTACLE (CIRCUIT B–24). REFERENCE DRAWING E2.0 FOR RECEPTACLE LOCATION. REFER TO KEYED NOTE '5' BELOW.

TELEPHONE CABLE– (T1) (T2)

1. PROVIDE STANDARD OUTLET BOXES AT ALL TELEPHONE LOCATIONS WITH 3/4" CONDUIT (WITH PULL WIRE) TO ACCESSIBLE CEILING AREA OR TO BAR JOIST.

DATA CABLE–(D1) (D2) (D3)

1. PROVIDE STANDARD OUTLET BOXES AT ALL DATA LOCATIONS WITH 3/4" INCH CONDUIT (WITH PULL WIRE) TO ACCESSIBLE CEILING AREA OR TO BAR JOIST.

KEYED NOTES:

(1) LVW VENDOR SHALL ROUTE TWO CAT5E CABLES FROM REGISTER TO THE IT ROOM. PROVIDE 20 FEET OF CABLE AT BOTH ENDS AT THE CEILING. COIL 15 FEET OF CABLE AT EACH END AND SUSPEND AT 10 FEET AFF. PROVIDE AS REQUIRED FOR EACH ADDITIONAL REGISTER. PROVIDE LABELS FOR EACH CABLE ON BOTH ENDS. LABEL CABLES 'REG1A' AND 'REG1B' FOR REGISTER ONE AND 'REG2A' AND 'REG2B' FOR REGISTER 2. LABEL ADDITIONAL REGISTER CABLES 'REG3A' AND 'REG3B', ETC. AS REQUIRED FOR ADDITIONAL REGISTERS.

(2) NOTE NOT USED.

(3) LVW VENDOR SHALL ROUTE FOUR CAT5E CABLES FROM SERVICE DESK TO THE IT ROOM. PROVIDE 20 FEET OF CABLE AT BOTH ENDS AT THE CEILING. COIL 15 FEET OF CABLE AT EACH END AND SUSPEND AT 10 FEET AFF. PROVIDE LABELS FOR EACH CABLE ON BOTH ENDS. LABEL CABLES 'SDA', 'SDB', 'SDC', 'SDD'.

(4) NOTE NOT USED.

(5) LVW VENDOR SHALL ROUTE CAT5E CABLES TO IT ROOM TO CEILING SPACE ABOVE THE RED POWER RECEPTACLE (CIRCUIT B–24). REFERENCE DRAWING E2.0 FOR RECEPTACLE LOCATION. REFER TO GENERAL NOTE 'E' ABOVE.

(6) LVW VENDOR SHALL ROUTE THREE CAT5E CABLES FROM RECEIVING DESK TO THE IT ROOM. PROVIDE 20 FEET OF CABLE AT BOTH ENDS AT THE CEILING. COIL 15 FEET OF CABLE AT EACH END AND SUSPEND AT 10 FEET AFF. PROVIDE LABELS FOR EACH CABLE ON BOTH ENDS. LABEL CABLES 'RDA', 'RDB', 'RDC'.

(7) NOTE NOT USED.

(8) LVW VENDOR SHALL ROUTE THREE CAT5E CABLES FROM IT ROOM ABOVE THE RED POWER RECEPTACLE (CIRCUIT B–24) TO THE TELEPHONE BOARD. PROVIDE 20 FEET OF CABLE AT BOTH ENDS AT THE CEILING. COIL 15 FEET OF CABLE AT EACH END AND SUSPEND AT 10 FEET AFF. PROVIDE AS REQUIRED FOR EACH ADDITIONAL REGISTER. PROVIDE LABELS FOR EACH CABLE ON BOTH ENDS. LABEL CABLES 'DSL', 'TIA' AND 'TIB'.

(9) LVW VENDOR SHALL ROUTE THREE CAT5E CABLES FROM THE IT ROOM AT THE DATA WALL OUTLET TO THE TELEPHONE BOARD. PROVIDE 20 FEET OF CABLE AT BOTH ENDS AT THE CEILING. COIL 15 FEET OF CABLE AT EACH END AND SUSPEND AT 10 FEET AFF. PROVIDE LABELS FOR EACH CABLE ON BOTH ENDS. LABEL CABLES 'DIAL TONE', 'FAX', AND 'MUSIC ON HOLD'.

(10) LVW VENDOR SHALL ROUTE TWO CAT5E CABLES FROM THE BREAKROOM AT THE CEILING ABOVE THE POWER OUTLET TO THE IT ROOM ABOVE THE RED POWER RECEPTACLE. PROVIDE 20 FEET OF CABLE AT BOTH ENDS AT THE CEILING. COIL 15 FEET OF CABLE AT EACH END AND SUSPEND AT 10 FEET AFF. PROVIDE LABELS FOR EACH CABLE ON BOTH ENDS. LABEL CABLES 'LRA' AND 'LRB'.

(11) LVW SHALL ROUTE SIX CAT5E DATA CABLES (TWO PER ACCESS POINT) BACK TO IT ROOM. SEE ACCESS POINT SITE SPECIFIC MAP PROVIDED BY TSC FOR EXACT LOCATION OF EACH ACCESS POINT.

(12) NOTE NOT USED.

(13) LVW VENDOR SHALL ROUTE CAT5E CABLE FROM MAIN ENTRANCE TO THE IT CLOSET. PROVIDE 20 FEET OF CABLE AT BOTH ENDS AT THE CEILING. COIL 15 FEET OF CABLE AT EACH END AND SUSPEND AT 10 FEET AFF. PROVIDE LABEL AT BOTH ENDS. LABEL CAM1.

(14) LVW VENDOR SHALL ROUTE CAT5E CABLE FROM REAR OF REGISTER BAYS TO THE IT CLOSET. PROVIDE 20 FEET OF CABLE AT BOTH ENDS AT THE CEILING. COIL 15 FEET OF CABLE AT EACH END AND SUSPEND AT 10 FEET AFF. PROVIDE LABEL AT BOTH ENDS. LABEL CAM2.

(15) LVW VENDOR SHALL ROUTE CAT5E CABLE FROM POD AREA CENTERED ON TOOLS TO THE IT CLOSET. PROVIDE 20 FEET OF CABLE AT BOTH ENDS AT THE CEILING. COIL 15 FEET OF CABLE AT EACH END AND SUSPEND AT 10 FEET AFF. PROVIDE LABEL AT BOTH ENDS. LABEL CAM3.

(16) LVW VENDOR SHALL ROUTE CAT5E CABLE FROM MANAGERS OFFICE TO THE IT CLOSET. PROVIDE 20 FEET OF CABLE AT BOTH ENDS AT THE CEILING. COIL 15 FEET OF CABLE AT EACH END AND SUSPEND AT 10 FEET AFF. PROVIDE LABEL AT BOTH ENDS. LABEL CAM4.

(17) LVW VENDOR SHALL ROUTE CAT5E CABLE FROM IT CLOSET TO THE IT CLOSET. PROVIDE 20 FEET OF CABLE AT BOTH ENDS AT THE CEILING. COIL 15 FEETOF CABLE AT EACH END AND SUSPEND AT 10 FEET AFF. PROVIDE LABEL AT BOTH ENDS. LABEL CAM5.

(18) LVW VENDOR SHALL ROUTE CAT5E CABLE FROM RECEIVING AREA TO THE IT CLOSET. PROVIDE 20 FEET OF CABLE AT BOTH ENDS AT THE CEILING. COIL 15 FEET OF CABLE AT EACH END AND SUSPEND AT 10 FEET AFF. PROVIDE LABEL AT BOTH ENDS. LABEL CAM6.

(19) LVW VENDOR SHALL ROUTE CAT5E CABLE FROM THE 90 DEGREE CORNER OF BOOTS TO THE IT CLOSET. PROVIDE 20 FEET OF CABLE AT BOTH ENDS AT THE CEILING. COIL 15 FEET OF CABLE AT EACH END AND SUSPEND AT 10 FEET AFF. PROVIDE LABEL AT BOTH ENDS. LABEL CAM8.

(20) LVW VENDOR SHALL ROUTE 16/2 CABLE FOR PUBLIC VIEW MONITOR FROM THE 90 DEGREE CORNER OF BOOTS TO THE IT CLOSET. PROVIDE 20 FEET OF CABLE AT BOTH ENDS AT THE CEILING. COIL 15 FEET OF CABLE AT EACH END AND SUSPEND AT 10 FEET AFF. PROVIDE LABEL AT BOTH ENDS. LABEL PVM1.

(21) LVW VENDOR SHALL ROUTE CAT5E CABLE FROM AREA BETWEEN SIDE LOT ENTRANCE AND FRONT OF BUILDING TO THE IT CLOSET. PROVIDE 20 FEET OF CABLE AT BOTH ENDS AT THE CEILING. COIL 15 FEET OF CABLE AT EACH END AND SUSPEND AT 10 FEET AFF. PROVIDE LABEL AT BOTH ENDS. LABEL CAM9.

(22) LVW VENDOR SHALL ROUTE CAT5E CABLE FROM SIDE OF VESTIBULE THAT WILL DISPLAY POWER EQUIPMENT TO THE IT CLOSET. VERIFY LOCATION ON SITE. PROVIDE 20 FEET OF CABLE AT BOTH ENDS AT THE CEILING. COIL 15 FEET OF CABLE AT EACH END AND SUSPEND AT 10 FEET AFF. PROVIDE LABEL AT BOTH ENDS. LABEL CAM10.

(23) LVW VENDOR SHALL ROUTE CAT5E CABLE FOR EAS FROM ENTRANCE TO THE IT CLOSET. PROVIDE 20 FEET OF CABLE AT BOTH ENDS AT THE CEILING. COIL 15 FEET OF CABLE AT EACH END AND SUSPEND AT 10 FEET AFF. PROVIDE LABEL AT BOTH ENDS. LABEL EAS1.

(24) LVW VENDOR SHALL ROUTE CAT5E CABLE FOR EAS FROM SIDE LOT ENTRANCE TO THE IT CLOSET. PROVIDE 20 FEET OF CABLE AT BOTH ENDS AT THE CEILING. COIL 15 FEET OF CABLE AT EACH END AND SUSPEND AT 10 FEET AFF. PROVIDE LABEL AT BOTH ENDS. LABEL EAS2.

(25) LVW VENDOR SHALL ROUTE CAT5E CABLE FOR EAS FROM LIVE GOODS CENTER ENTRANCE TO THE IT CLOSET. PROVIDE 20 FEET OF CABLE AT BOTH ENDS AT THE CEILING. COIL 15 FEET OF CABLE AT EACH END AND SUSPEND AT 10 FEET AFF. PROVIDE LABEL AT BOTH ENDS. LABEL EAS3.

KEYED NOTES:

(1) ALL ROOFTOP EQUIPMENT CONNECTIONS SHALL BE MADE THROUGH THE UNIT ROOF CURB. ROOF PENETRATIONS ARE NOT ACCEPTABLE.

(2) FIRE ALARM CONTROL PANEL TO BE MOUNTED ON TELEPHONE BOARD. REFERENCE DETAIL 1/E4.0. CONNECT TO DEDICATED 120 VOLT POWER CIRCUIT.

(3) TO HVAC/FAN CONTROLLER FOR SHUTDOWN OF UNIT UPON ACTIVATION OF GENERAL ALARM. CONTROLLER TO BE FURNISHED BY CONTRACTOR. RELAY MODULE TO BE LOCATED WITHIN THREE FEET OF CONTROLLER.

LVW RESPONSIBILITY AND TIMING PLAN

LATEST – Q4 2023

PROTOTYPES

ACTION	BY WHO	WHEN	SPECIAL NOTES
STORE ADDED TO SOS	TSC REAL ESTATE	1ST MONDAY OF EACH MONTH	
CODES AND BUILDING TYPE (CONTACT TSC PM AS NECESSARY) RESEARCHED, BA AND FA PLANS COMPLETED	JCI/ADT	WITHIN 30 DAYS AFTER ADDED TO THE SOS	PLEASE BE SURE TO VERIFY HVAC SYSTEMS (GROUND MOUNT VS. ROOF MOUNT, ETC...) SECURITY SYSTEMS CONTRACTOR TO IDENTIFY EXIST. HVAC UNITS BY LL PER THE CHECKLIST
SECURITY SYSTEMS CONTRACTOR COMPLETES PLANS SENDS TO RICH WOOD AND TSC PM	JCI/ADT	ON 30TH DAY AFTER ADDED TO SOS	
PLANS FORWARDED TO LL AND/OR HIS ARCHITECT IF KNOWN	TSC PM	31 DAYS	
TSC TO REVIEW LL PLANS FOR ACCURACY	TSC PM	WHEN SENT BY LL PRIOR TO CONSTRUCTION START	
LL TO COMPLETE ALL LVW SOW PER PLANS USING TSC VENDOR	MERCURY TECH	NO LESS THAN 2 WEEKS PRIOR TO FD FROM 2 WEEKS	
SECURITY SYSTEMS CONTRACTOR TO INSTALL THEIR EQUIPMENT AND MAKE TERMINATIONS	JCI/ADT	STARTING APPROXIMATELY 3 WEEKS FROM FD TO BE DONE LAST AS LVW VENDOR COMPLETES NO LATER THAN 2 WEEKS PRIOR TO FD.	
INSTALLATION OF PA SYSTEM, PHONE SYSTEM, SPEAKERS, OUTSIDE HORNS, PHONES, PATCH PANEL, AP'S W/ ANTENNAS	STAN KOLIC / MERCURY TECH	MONDAY AND TUESDAY BEFORE FD	
INSTALLATION OF POS SYSTEMS AT ALL LOCATIONS AND TESTING OF AP SYSTEM	STAN KOLIC / AGILYSIS	TUESDAY BEFORE FD	

ON DEVELOPER OWNED PROJECTS, DEVELOPER IS RESPONSIBLE FOR 100 % OF COST OF LVW VENDOR AND WIRING.

PRELIMINARY
NOT FOR CONSTRUCTION

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Job Number: 2360

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SYSTEMS FLOOR NOTES

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Project: 24066 Drawing: 24066–E5.1.dwg