

I-71 Rest Areas

Mile Marker 34 South Bound

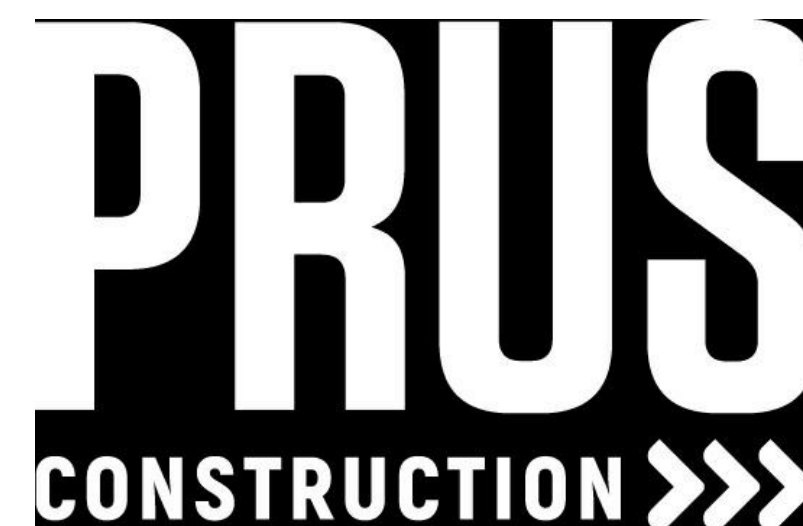
Warren County, Ohio

Record Drawings
09/16/2019

August 3, 2018

CONSTRUCTION DOCUMENTS

18084



Plotted 8/6/2018 4:58:29 PM

General Notes

1. CONTRACTOR SHALL RECEIVE A WRITTEN NOTICE TO PROCEED FROM THE OWNER BEFORE STARTING ANY WORK.
2. ALL BUILDING, ZONING, AND TRADE PERMITS SHALL BE OBTAINED AND PAID FOR BY THE CONTRACTOR.
3. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH APPLICABLE STATE AND LOCAL BUILDING CODES. CONTRACTOR TO NOTIFY ARCHITECT IMMEDIATELY IN WRITING IF DOCUMENTS VARY FROM THESE REGULATIONS.
4. ALL ELECTRICAL WORK SHALL BE INSTALLED PER THE LATEST EDITION OF THE NATIONAL ELECTRIC CODE.
5. MECHANICAL WORK SHALL BE INSTALLED ACCORDING TO THE REQUIREMENT OF THE LATEST EDITION OF THE OHIO BUILDING CODE, THE OHIO MECHANICAL CODE, AND THE OHIO PLUMBING CODE.
6. CONTRACTOR SHALL MAINTAIN A NEAT AND ORDERLY WORK AND STORAGE AREA.
7. THE CONTRACTOR SHALL PROVIDE AND PAY FOR LABOR, MATERIALS, EQUIPMENT, TOOLS, CONSTRUCTION EQUIPMENT AND MACHINERY, WATER, HEAT, UTILITIES, TRANSPORTATION, AND OTHER SERVICES NECESSARY FOR COMPLETION OF THE WORK, UNLESS NOTED OTHERWISE IN AGREEMENTS.
8. NO SUBSTITUTIONS SHALL BE ALLOWED WITHOUT EVALUATION BY THE ARCHITECT AND WRITTEN CONSENT OF THE OWNER.
9. PRIOR TO COMMENCING CONSTRUCTION, THE CONTRACTOR SHALL PREPARE AND PRESENT A SCHEDULE FOR THE COMPLETION OF THE WORK.
10. CONTRACTOR SHALL INSTALL BARRICADES AND DUST BARRIERS TO PROTECT THE PUBLIC, RESIDENTS, OWNER'S PERSONNEL, AND ADJACENT PROPERTY FROM DEMOLITION AND CONSTRUCTION OPERATIONS.
11. THE CONTRACTOR SHALL CAREFULLY STUDY AND COMPARE DRAWINGS AND OTHER CONTRACT DOCUMENTS. THE CONTRACTOR SHALL TAKE FIELD MEASUREMENTS AND OBSERVE CONDITIONS OF THE WORK RELATED TO THE CONTRACT DOCUMENTS. THE ARCHITECT SHALL BE NOTIFIED PROMPTLY OF ANY INCONSISTENCIES FOR CLARIFICATION AND COORDINATION BEFORE PROCEEDING WITH THE WORK.
12. THE CONTRACTOR SHALL WARRANT ALL LABOR AND MATERIALS FOR A PERIOD OF ONE YEAR FROM THE DATE OF SUBSTANTIAL COMPLETION. THIS REQUIREMENT SHALL NOT SUPERSEDE OTHER SPECIFIC MATERIAL WARRANTIES WHICH MAY BE LONGER.
13. IN PREPARATION FOR A SUBSTANTIAL COMPLETION INSPECTION, THE CONTRACTOR SHALL PREPARE A PUNCH LIST AND COMPLETE THIS WORK PRIOR TO THE ARCHITECT'S PERFORMING A FINAL PUNCH LIST. THE CONTRACTOR SHALL COMPLETE THIS WORK WITHIN ONE MONTH OF DATE ISSUED AND PRIOR TO FINAL PAYMENT.
14. CONTRACTORS ARE RESPONSIBLE FOR OBTAINING FROM THE GENERAL CONTRACTOR AND DISTRIBUTING TO OTHERS CONSTRUCTION DOCUMENTS IN THEIR ENTIRETY.
15. 100.00' FINISH FLOOR ELEVATION IS USED FOR CONVENIENCE (ACTUAL ELEVATION WILL VARY BY PROJECT.)

THE PROTOTYPE DESIGN IS BASED ON THE 2011 OHIO BUILDING CODE (OBC), THE NEW 2017 OHIO BUILDING CODE WILL BE IN EFFECT NOVEMBER 1, 2017. THE ARCHITECT OF RECORD WILL BE RESPONSIBLE FOR DETERMINING WHICH VERSION OF THE CODE WILL BE IN EFFECT AT THE TIME OF THE DESIGN AND FOR ANY MODIFICATIONS TO THE PROTOTYPE DESIGN RESULTING FROM ANY CHANGES TO THE CODE.

THE FOLLOWING CHAPTERS OF THE OBC HAVE BEEN USED TO DEVELOP THE DESIGN:

CHAPTER 3 - USE AND OCCUPANCY CLASSIFICATION:
SECTION 304 BUSINESS GROUP B (BUSINESS) LOBBY, VENDING, AND RESTROOMS
SECTION 311 STORAGE GROUP S-1 (STORAGE MODERATE HAZARD) MAINTENANCE AND MECHANICAL

CHAPTER 5 - GENERAL BUILDING HEIGHTS AND AREAS:
SECTION 503 GENERAL BUILDING HEIGHT AND LIMITATIONS AND TABLE 503 - BASED ON THE CONSTRUCTION TYPE: V (MINIMUM):
ALLOWABLE AREA LIMIT: 9,000 SQUARE FEET

ACTUAL AREA:
INTERIOR AREA: 3,835 SQUARE FEET
PORCH AREA: 1,244 SQUARE FEET
TOTAL AREA: 5,079 SQUARE FEET

SECTION 504 BUILDING HEIGHT:
ALLOWABLE HEIGHT LIMIT: 1 STORY
ACTUAL HEIGHT: 1 STORY

CHAPTER 6 - TYPES OF CONSTRUCTION:
SECTION 602.5: TABLE 503 ALLOWS TYPE VB CONSTRUCTION AS DEFINED BY SECTION 602.5 FOR THE BUILDING'S HEIGHT AND AREA. TABLE 601 AND 602 CONTAIN NO FIRE-RESISTANCE RATING REQUIREMENTS FOR BUILDING ELEMENTS.

CHAPTER 7 - FIRE-RESISTANCE-RATED CONSTRUCTION:
SECTION 717.4.3 DRAFTSTOPPING - ATTIC AREA IS LESS THAN 3,000 SQUARE FEET. DRAFTSTOPPING IS NOT REQUIRED.

CHAPTER 8 - INTERIOR FINISHES:
SECTION 803 - WALL AND CEILING FINISHES
EXIT ENCLOSURES AND EXIT PASSAGEWAYS: CLASS A
CORRIDORS: CLASS B
ROOMS AND ENCLOSED SPACES: CLASS C

SECTION 804 - INTERIOR FLOOR FINISHES
EXIT ENCLOSURES AND EXIT PASSAGEWAYS: CLASS II
CORRIDORS: CLASS II
ROOMS AND ENCLOSED SPACES: CLASS II
ALL OTHER AREAS FLOOR COVERING MATERIALS COMPLY WITH THE DOC FF-1 "PILL TEST".

CHAPTER 9 - FIRE PROTECTION SYSTEM:
SECTION 906 PORTABLE FIRE EXTINGUISHERS - TYPE ABC-20 POUND FIRE EXTINGUISHERS SHALL BE LOCATED IN THE MAINTENANCE ROOM AND THE MECHANICAL ROOM.

CHAPTER 10 - MEANS OF EGRESS:
SECTION 1015 EXIT AND EXIT ACCESS DOORWAYS: TWO EXITS OR EXIT ACCESS DOORWAYS FROM ANY SPACE SHALL BE PROVIDED WHERE ONE OF THE FOLLOWING CONDITIONS EXISTS: OCCUPANT LOAD IS MORE THAN:

ALLOWABLE ACTUAL
USE GROUP B: 400 120
USE GROUP S-1: 10 20 10

THE MAXIMUM COMMON PATH OF TRAVEL ALLOWED IS 75 FEET:
THE COMMON PATH OF TRAVEL WITH ONLY ONE SET OF DOORS LOCATED AT THE VESTIBULE EXCEEDS 75 FEET
THE ACTUAL MAXIMUM COMMON PATH OF TRAVEL WITH THE EMERGENCY EGRESS EXIT DOOR ON THE SOUTH SIDE OF THE LOBBY IS 61 FEET.

SECTION 1016 EXIT EGRESS TRAVEL DISTANCE: SECTION 1016.1 - TRAVEL DISTANCE LIMITATIONS AND TABLE 1016.1 LIMIT THE TRAVEL DISTANCE TO 200 FEET. THE MAXIMUM TRAVEL DISTANCE FROM THE NORTH MENS RESTROOM IS 83'-10".

CHAPTER 11 - ACCESSIBILITY:
SECTION 1101.2 DESIGN - THE PROJECT IS DESIGNED AND SHALL BE CONSTRUCTED TO COMPLY WITH THE CODE AND ICC A117.1 AS AMENDED IN SECTION 1112 OF THE OBC.

CHAPTER 12 - INTERIOR ENVIRONMENT:
SECTIONS 1203.1 AND 1205.1 - THE PROJECT IS DESIGNED AND SHALL BE CONSTRUCTED WITH MECHANICAL VENTILATION AND ARTIFICIAL LIGHT IN COMPLIANCE WITH THE MECHANICAL CODE AND SECTION 1205.3.

CHAPTER 13 - ENERGY EFFICIENCY:
THE PROJECT IS DESIGNED AND SHALL BE CONSTRUCTED IN COMPLIANCE WITH THIS CHAPTER.

CHAPTER 14 - EXTERIOR WALLS:
THE PROJECT IS DESIGNED AND SHALL BE CONSTRUCTED IN COMPLIANCE WITH SECTIONS 1404.2, 1404.4, AND 1404.10.

CHAPTER 15 - ROOF ASSEMBLIES AND ROOFTOP STRUCTURES:
SECTION 1504.3.2 - THE METAL ROOF PANELS ARE DESIGNED AND SHALL BE CONSTRUCTED IN COMPLIANCE WITH THIS SECTION.

CHAPTER 16 - STRUCTURAL DESIGN:
SECTION 1608.2 - DESIGN SNOW LOADS SHALL BE DETERMINED IN ACCORDANCE WITH CHAPTER 7 OF THE ASCE 7 OR FIGURE 1608.2, BUT THE DESIGN ROOF LOAD SHALL NOT BE LESS THAN THAT DETERMINED BY SECTION 1607.
SECTION 1609 WIND LOADS - WIND LOADS SHALL BE DETERMINED IN ACCORDANCE WITH CHAPTER 6 OF ASCE 7 AND DETERMINED BY FIGURE 1609 OF THE CODE.

CHAPTER 17 - SPECIAL TESTS AND SPECIAL INSPECTIONS:
SEE THE STRUCTURAL DRAWINGS FOR REQUIREMENTS FOR THIS SECTION.

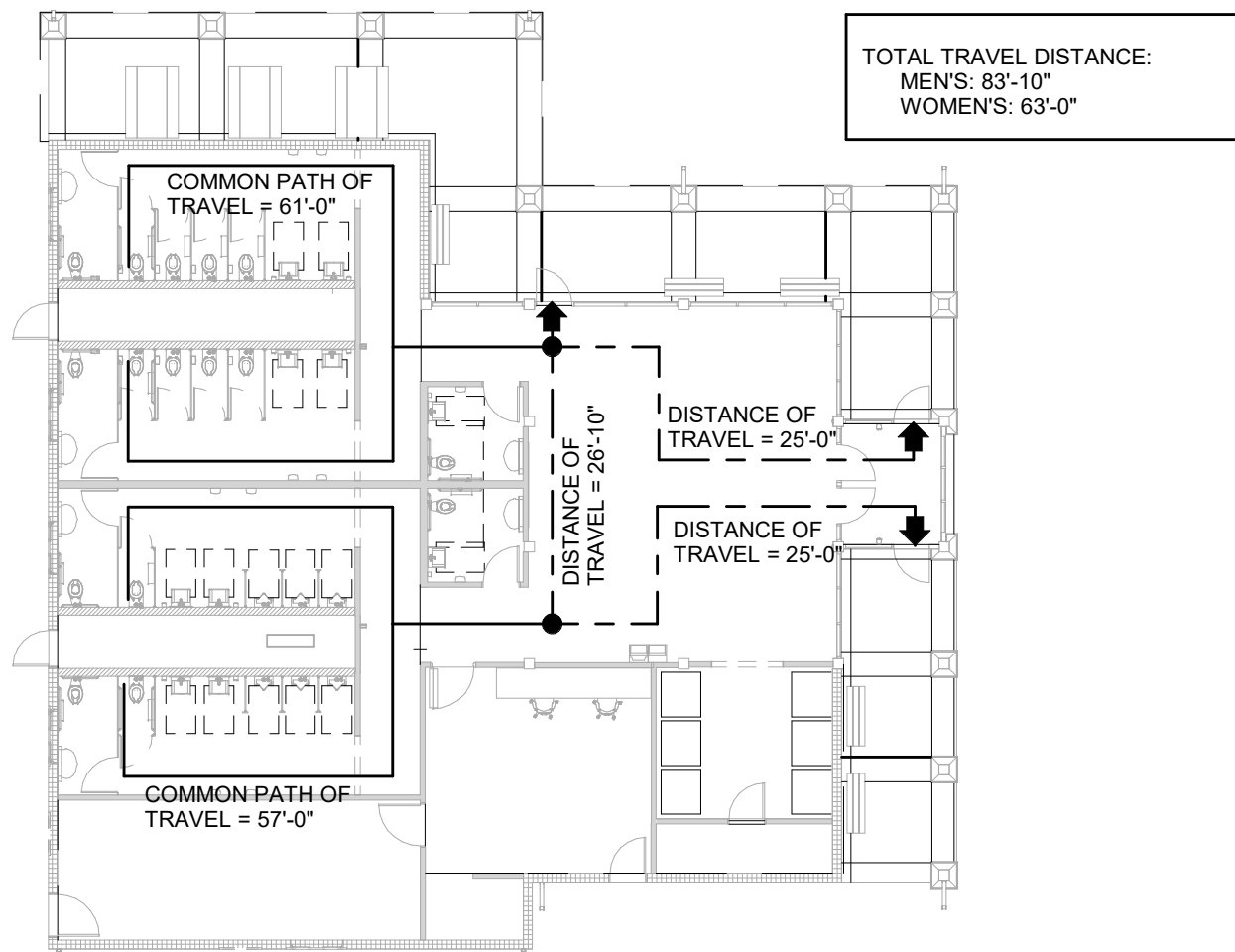
CHAPTER 18 - SOILS AND FOUNDATIONS:
SECTIONS 1803.2 AND 1803.6: GEOTECHNICAL INVESTIGATIONS SHALL BE CONDUCTED IN ACCORDANCE WITH SECTION 1803.2 AND REPORTED IN ACCORDANCE WITH SECTION 1803.6. FOUNDATIONS AND SLABS ARE DESIGNED AND SHALL BE BUILT IN ACCORDANCE WITH THIS CHAPTER. LOCAL CONDITIONS SHALL BE REVIEWED AND DESIGN SHALL BE IN COMPLIANCE WITH LOCAL FROST DEPTHS AND SOIL CONDITIONS FOUND IN THE GEOTECHNICAL REPORT.

CHAPTER 19 - CONCRETE:
SEE THE STRUCTURAL DRAWINGS FOR REQUIREMENTS FOR THIS SECTION.

CHAPTER 20 - MASONRY:
MASONRY WALLS ARE NOT LOAD-BEARING.

CHAPTER 23 - WOOD:
SEE THE STRUCTURAL DRAWINGS FOR REQUIREMENTS FOR THIS SECTION.

CHAPTER 26 - PLASTIC:
SECTION 2603.4 - FOAM PLASTIC SHALL BE SEPARATED FROM THE INTERIOR BY A THERMAL BARRIER OF 1/2" INCH GYPSUM WALLBOARD OR EQUIVALENT THERMAL BARRIER MATERIAL.



General
CVR Cover
SG101 Title Sheet
SG102 Abbreviations and Symbols

Civil
C101 SWPPP South Bound
C102 SWPPP North Bound
C103 Demolition Plan South Bound
C104 Demolition Plan North Bound
C105 Layout and Materials Plan South Bound
C106 Layout and Materials Plan North Bound
C107 Grading and Drainage Plan South Bound
C108 Grading and Drainage Plan North Bound
C109 Utility Plan South Bound
C110 Utility Plan North Bound
C201 Profiles South Bound
C202 Profiles North Bound
C501 SWPPP Details
C502 Details
C503 Details

Landscape
L101 Landscape Plan South Bound
L102 Landscape Plan North Bound

Structural
SS001 Structural Notes
SS101 Foundation Plan
SS201 Foundation Sections
SS301 Roof Framing Plan
SS401 Framing Sections
SS402 Framing Sections

Architectural
SA001 Interior ADA Guidelines
SA002 Schedules
SA101 Floor Plan
SA102 Reflected Ceiling Plan
SA103 Roof Plan
SA201 Exterior Elevations
SA301 Building Sections
SA302 Wall Sections
SA401 Details
SA402 Details
SA403 Metal Roof Panel Details
SA501 Interior Elevations and Enlarged Plans
SA502 Interior Elevations
SA601 Finish Plan

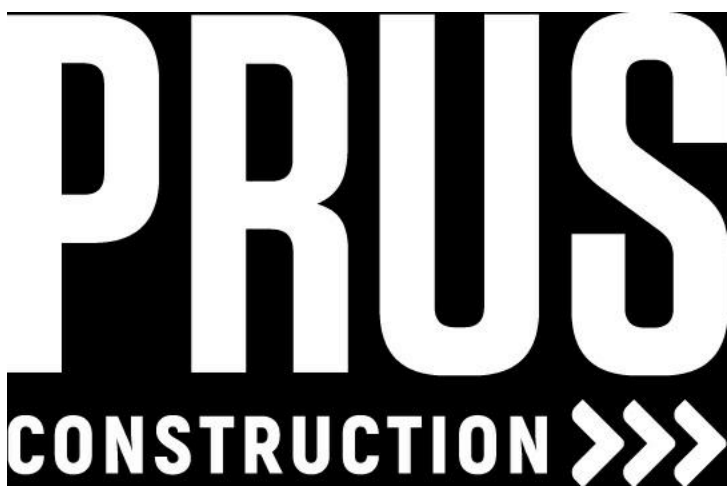
Plumbing
SP001 Plumbing Title Sheet
SP002 Plumbing Schedules
SP100 Underfloor Plumbing Plan
SP101 Plumbing Plan
SP401 Plumbing Details
SP402 Plumbing Riser Details

Mechanical
SH001 HVAC Title Sheet
SH002 HVAC Schedules
SH101 HVAC Plan
SH401 HVAC Details

Electrical
SE101 Electrical Power Plan
SE201 Electrical Lighting Plan
SE401 Electrical Schedules and Details
SE402 Riser Diagrams and Schedules

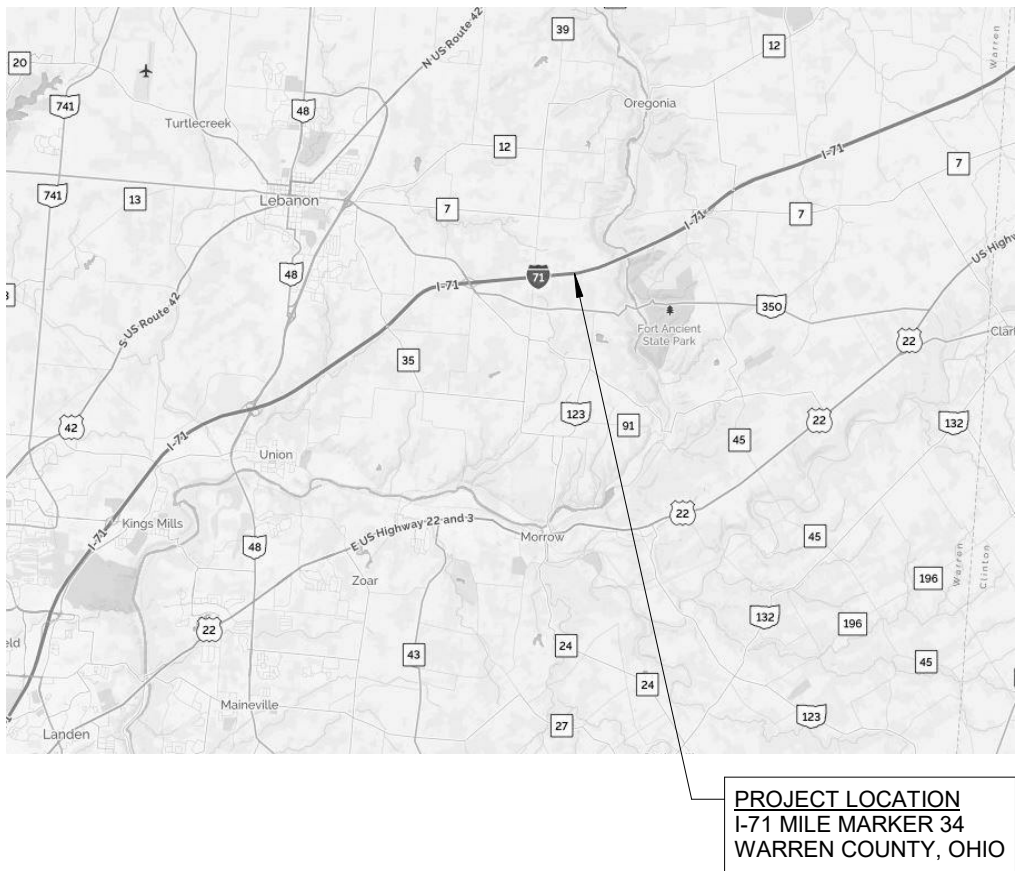


Lexington · Cincinnati · Cleveland · Dallas

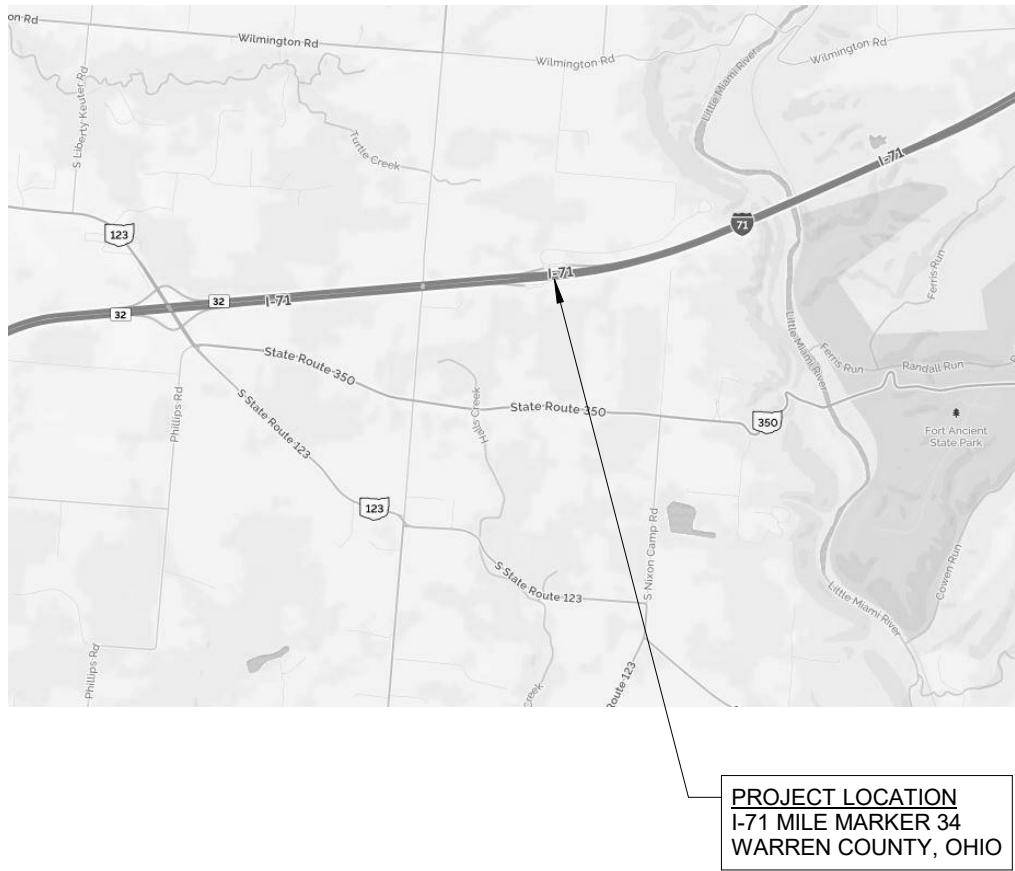


Record Drawings
09/16/2019

Area Map



Vicinity Map



Design Project Team / Agencies & Utilities

ARCHITECT OF RECORD	MECHANICAL & ELECTRICAL ENGINEER	WATER SERVICE	ELECTRIC SERVICE
Brandstetter Carroll Inc. 2360 Chauvin Drive Lexington, Kentucky 40517 Phone: 859.268.1933 fax: 859.268.3341	Elevar Design Group Cincinnati 555 Carr Street Cincinnati, Ohio 45203 Phone: 513.721.0600 Fax: 513.721.0611	Phone: Fax:	Phone: Fax:
CIVIL ENGINEER	OWNER GROUP	GAS SERVICE	TELEPHONE
Brandstetter Carroll Inc. 2360 Chauvin Drive Lexington, Kentucky 40517 Phone: 859.268.1933 fax: 859.268.3341	Phone: Fax:	Phone: Fax:	Phone: Fax:
STRUCTURAL ENGINEER	ELECTRIC SERVICE	SEWER SERVICE	CABLE
GOP Limited 644 Linn Street, Suite 936 Cincinnati, Ohio 45203 Phone: 513.621.7073 Fax:	Phone: Fax:	Phone: Fax:	Phone: Fax:

Revisions:
Issue Date: August 3, 2018

I-71 Rest Areas

Mile Marker 34
South Bound
Warren County, Ohio

Title Sheet

Project No.

18084

SG101

ABBREVIATIONS

NOTE: ABBREVIATIONS APPLY TO ARCHITECTURAL DRAWINGS ONLY. IF ANY ABBREVIATION IS NOT DEFINED CALL THE ARCHITECT FOR CLARIFICATIONS.

SYMBOLS

@
+
Ø
⊥
□

A

A.B. ANCHOR BOLT
AC.B. ACOUSTIC BOARD
AC.PL. ACOUSTIC PLASTER
AC.T. ACOUSTIC TILE
A.C. AREA DRAIN
A.D. ABOVE FINISH FLOOR
A.F.F. ALTERNATE
ALUM. ALUMINUM
ANCH. ANCHOR
APPROX. APPROXIMATELY
ATTEN. ATTENUATION
ARCH. ARCHITECTURAL
ARCHS. ARCHITECTS

B

B/B. BACK TO BACK
BD. BOARD
BLDG. BUILDING
BI. BUILT-IN CABINETRY
BLK. BLOCK
BLKG. BLOCKING
B.M. BENCH MARK
BOT. BOTTOM
BRG. BEARING
BRK. BRICK
BSMT. BASEMENT

C

CANT. CANTILEVER
CAR. CARRIER
C.B. CATCH BASIN
CAB. CABINET
CEM. CEMENT
CER.M. CERAMIC MOSAIC
CER.T. CERAMIC TILE
CLR. CLEAR
CHAN. CHANNEL
C.I. CAST IRON
CLG. CEILING
C.H. CEILING HEIGHT
COL. COLUMN
CONC. CONCRETE
C.M.U. CONCRETE MASONRY UNIT
CONST. CONSTRUCTION
CONTR. CONTRACTOR
C.J. CONTROL JOINT
CTG. COATING
C.O. CLEAN OUT
CONT. CONTINUOUS

D

DIA. DIAMETER
DIM. DIMENSION
D.F. DRINKING FOUNTAIN
D.L. DEADLOAD
DN. DOWN
DS. DOWNSPOUT
DTL. DETAIL
DW. DRYWALL
DWG. DRAWING
DBL. DOUBLE
DISP. DISPENSER
DR. DOOR
DWR. DISHWASHER
DWGS. DRAWINGS

E

E. EAST
EA. EACH
E.J. EXPANSION JOINT
E.W. EACH WAY
ENAM. ENAMEL
ELEC. ELECTRIC
ELEV. ELEVATION
EPXY. EPOXY
EQ. EQUAL
EQUIP. EQUIPMENT
EXIST. EXISTING
EXP. EXPOSED
EXPSN. EXPANSION
EX RM. EXISTING TO REMAIN
EX.RP. EXISTING TO BE REPAIRED
EXT. EXTERIOR
EPS. EXPANDED POLY-STYRENE

F

F.D. FLOOR DRAIN
FDTN. FOUNDATION
F.E. FIRE EXTINGUISHER
FIN. FINISHED
FLR. FLOOR
FLG. FLOORING
FTG. FOOTING
FND. FOUNTAIN
FRM. FRAME
FLUOR. FLUORESCENT
F.PR.G. FIRE PROOFING
FPL. FIREPLACE
FT. FOOT

G

GA. GAGE, GAUGE
GALV. GALVANIZED
GEN. GENERAL
G.C. GENERAL CONTRACTOR
G.F.I. GROUND FAULT INTERUPPT
G.I. GALVANIZED IRON
GL. GLASS
GL.T. GLAZED TILE
GND. GROUND
GRT. GROUT
GP.DW. GYPSUM DRYWALL
GYP. GYPSUM

H

HDR. HEADER
HDW. HARDWARE
H.M. HOLLOWMETAL
HOR. HORIZONTAL
HT. HEIGHT
HGT. HEIGHT
HTG. HEATING
H.V.A.C. HEATING, VENTILATING, &
H.W.H. HOT WATER HEATER
HR. HANDRAIL
H.C. HOLLOW CORE
HDWD. HARDWOOD

I

INT. INTERIOR
INV. INVERT
I.D. INSIDE DIAMETER
IN. INCH
INSUL. INSULATION
INV. INVERT

J

JT. JOINT
JAN. JANITOR
J.B. JUNCTION BOX
JSTS. JOISTS

L

LAB. LABORATORY
LAM. LAMINATE
LAV. LAVATORY
L.L. LIVE LOAD
LAM. LAMINATE
LINO. LINOLEUM
LVR. LOUVER

M

MAS. MASONRY
MAX. MAXIMUM
MBL. MARBLE
MBR. MEMBER
MED. MEDIUM
MET. METAL
MFG. MANUFACTURER
MFGRD. MANUFACTURED
MH. MANHOLE
MIN. MINIMUM
MISC. MISCELLANEOUS
MTL. MATERIAL
MT.(G.)D. MOUNT, MOUNTING, MOUNTED
M.O. MASONRY OPENING
M.O. MACHINE
MECH. MECHANICAL
MUL. MULLION
MER. MANUFACTURER

N

N. NORTH
NAT. NATURAL
N.I.C. NOT IN CONTRACT
NOM. NOMINAL
N.T.S. NOT TO SCALE
No. NUMBER

O

O.B.C. OHIO BUILDING CODE
O.C. ON CENTER(S)
O.D. OUTSIDE DIAMETER
OPENG. OPENING
OPP. OPPOSITE
OH. OVERHEAD
OSB. ORIENTED STRAND BOARD

P

P.C.F. PER CUBIC FT.
PLAS. PLASTER
PLAST. PLASTIC
P.LAM. PLASTIC LAMINATE
PLBG. PLUMBING
P.L.F. PER LINEAR FT.
PLY. PLYWOOD
PNT. PAINT
PROP. PROPERTY
P.S.F. PER SQUARE FOOT
P.S.I. PER SQUARE INCH
PT. POINT
PNT.DW. PAINTED DRYWALL
P.V.C. POLYVINYL CHLORIDE
P.VMT. PAVEMENT
PARTN. PARTITION
PL. PLATE

Q

Q.T. QUARRY TILE

R

R. RISER
RAD. RADIUS
REF. REFER
REF. REFERENCE
REFR. REFRIGERATOR
REINFOR. REINFORCE(D)ING
REM. REMOVE
RESL. RESILIENT
RET. RETURN
REV. REVISION(S), REVISED
R.D. ROOF DRAIN
RM. ROOM
R.O. ROUGH OPENING
R.T. RUBBER TILE
RUB. RUBBER
REC. RECESSED
REQD. REQUIRED
RES. RESISTANT

S

S.C.W. SOUTHS
SEAL. SOLID CORE WOOD
SEALER SEALER
S.V. SHEET VINYL
SCHED. SCHEDULE
STUC. STUCCO
S.D. STORM DRAIN
SEC. SECTION
SHEET SHEET
SIM. SIMILAR
SL. SLATE
SPEC. SPECIFICATION(S)
SQ. SQUARE
S.S. STAINLESS STEEL
ST. STONE
STD. STANDARD
STOR. STORAGE
STRUCT. STRUCTURAL
SUS. SUSPENDED
STEEL STEEL
S.I.P. STRUCTURAL INSULATED PANEL

T

T. TREADS
T & B TOP & BOTTOM
TEL. TELEPHONE
TEMP. TEMPERED
TERR. TERRAZZO
T. & G. TONGUE & GROOVE
THK. THICK
T.O.F. TOP OF FOUNDATION
T/WALL TOP OF WALL
T/MAS. TOP OF MASONRY
T/STL. TOP OF STEEL
T/CONC. TOP OF CONCRETE
TV. TELEVISION
TYP. TYPICAL

U

U.D. UNIT DIMENSION
U.N.O. UNLESS NOTED OTHERWISE
UR. URINAL

V

VAP. VAPOR
VAR. VARNISH
V.C.T. VINYL COMPOSITION TILE
VERT. VERTICAL
V.I.F. VERIFY IN FIELD
VIN. VINYL
V.W.C. VINYL WALL COVERING
V.V.C. VITRIFIED CLAY PIPE
VIN. VINYL (BY OWNER)

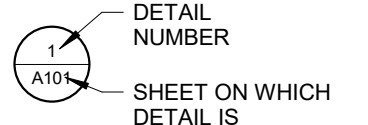
W

W. WEST
W/ WITH
W.C. WATER CLOSET
WD. WOOD
WP. WATERPROOF
WSCOT. WAINSCOT
W/W/ WALL TO WALL
W.F. WIDE FLANGE
W.PNL. WOOD PANELING
W.W.F. WELDED WIRE FABRIC

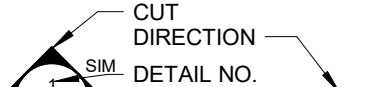
SYMBOLS

SYMBOL

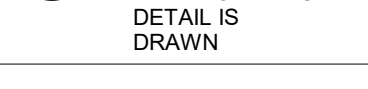
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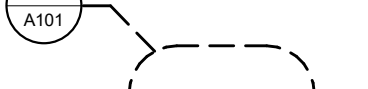
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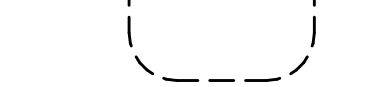
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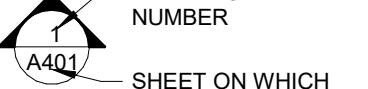
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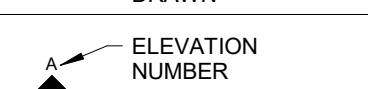
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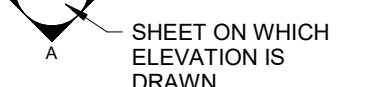
ENLARGED REFERENCE



ELEVATION NUMBER



SHEET ON WHICH ELEVATION IS DRAWN



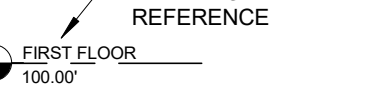
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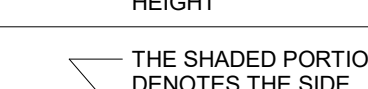
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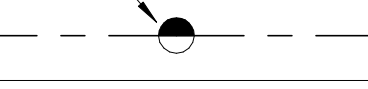
COLUMNS & STRUCTURAL GRID



ELEVATION REFERENCE



ELEVATION REFERENCE



THE SHADED PORTION DENOTES THE SIDE CONSIDERED



NORTH

SYMBOL

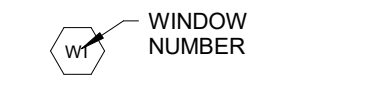
DESCRIPTION



ROOM NAME



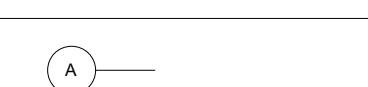
ROOM NUMBER



DOOR NUMBER



WINDOW NUMBER



NOTE NUMBER



ITEM NUMBER



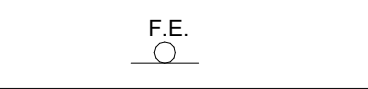
WALL TYPE REFERENCE



REVISION TAG AND CLOUD



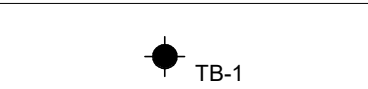
DOOR & WINDOW SWING (ELEVATION)



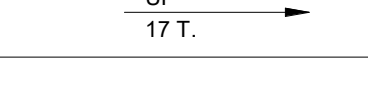
FIRE EXTINGUISHER IN SEMI-RECESSED CABINET



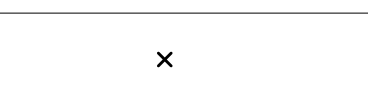
FIRE EXTINGUISHER ON WALL BRACKET



FLOOR DRAIN



ROOF DRAIN



TEST BORING



STAIR DIRECTION



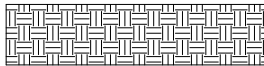
1 HOUR FIRE RATING



POINT OF INTERSECTION BETWEEN RADIUS AND EXTERIOR WALLS

MATERIAL SYMBOLS

EARTHWORK

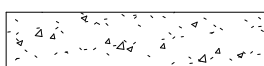


EARTH OR COMPACT FILL

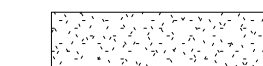


GRANULAR FILL

CONCRETE

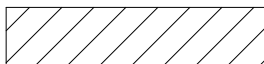


CAST-IN-PLACE/ PRECAST



LIGHT WEIGHT CONCRETE

MASONRY



TYP. CMU

CULTURED STONE

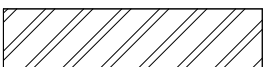


TYP. CUT STONE

METAL



ALUMINUM

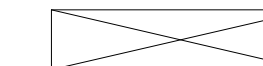


STEEL/ OTHER MATERIALS

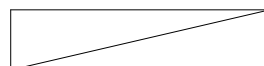
WOOD



FINISH



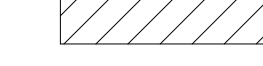
ROUGH



BLOCKING

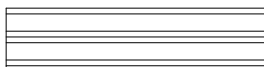


PLYWOOD- LARGE SCALE



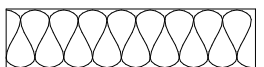
PLYWOOD- SMALL SCALE

GLASS

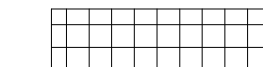


GLASS

INSULATION



LOOSE OR BATT



RIGID



SPRAY FOAM

FINISHES



GYPSUM WALLBOARD



PLASTIC

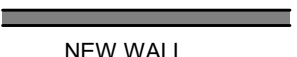


LATH AND PLASTER



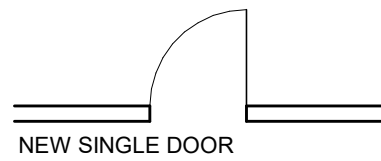
CERAMIC TILE

WALL TYPES

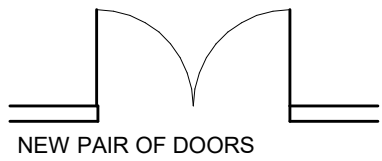


NEW WALL

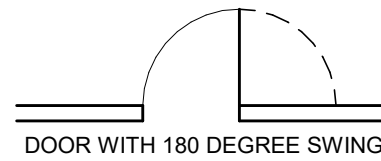
TYPICAL DOOR CONVENTIONS



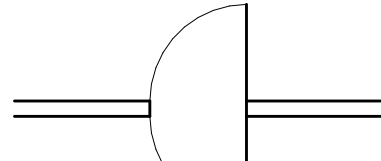
NEW SINGLE DOOR



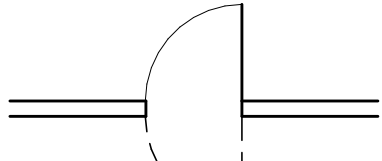
NEW PAIR OF DOORS



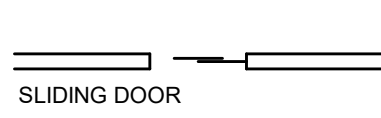
DOOR WITH 180 DEGREE SWING



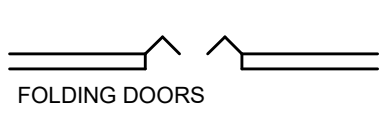
DOUBLE ACTING DOOR



DOOR WITH EMERGENCY RELEASE HDW.



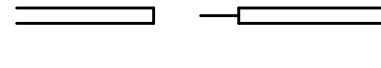
SLIDING DOOR



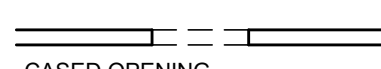
FOLDING DOORS



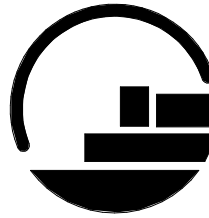
ACCORDIAN FOLDING DOOR



POCKET DOOR

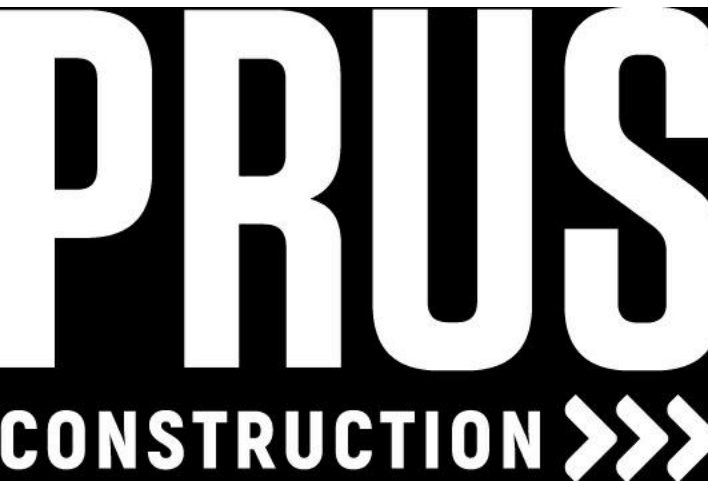


CASIED OPENING



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Record Drawings
09/16/2019

Revisions:
Issue Date: August 3, 2018

I-71 Rest Areas

Mile Marker 34
South Bound
Warren County, Ohio

Abbreviations and
Symbols

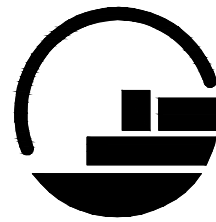
Project No.

SG102

18084

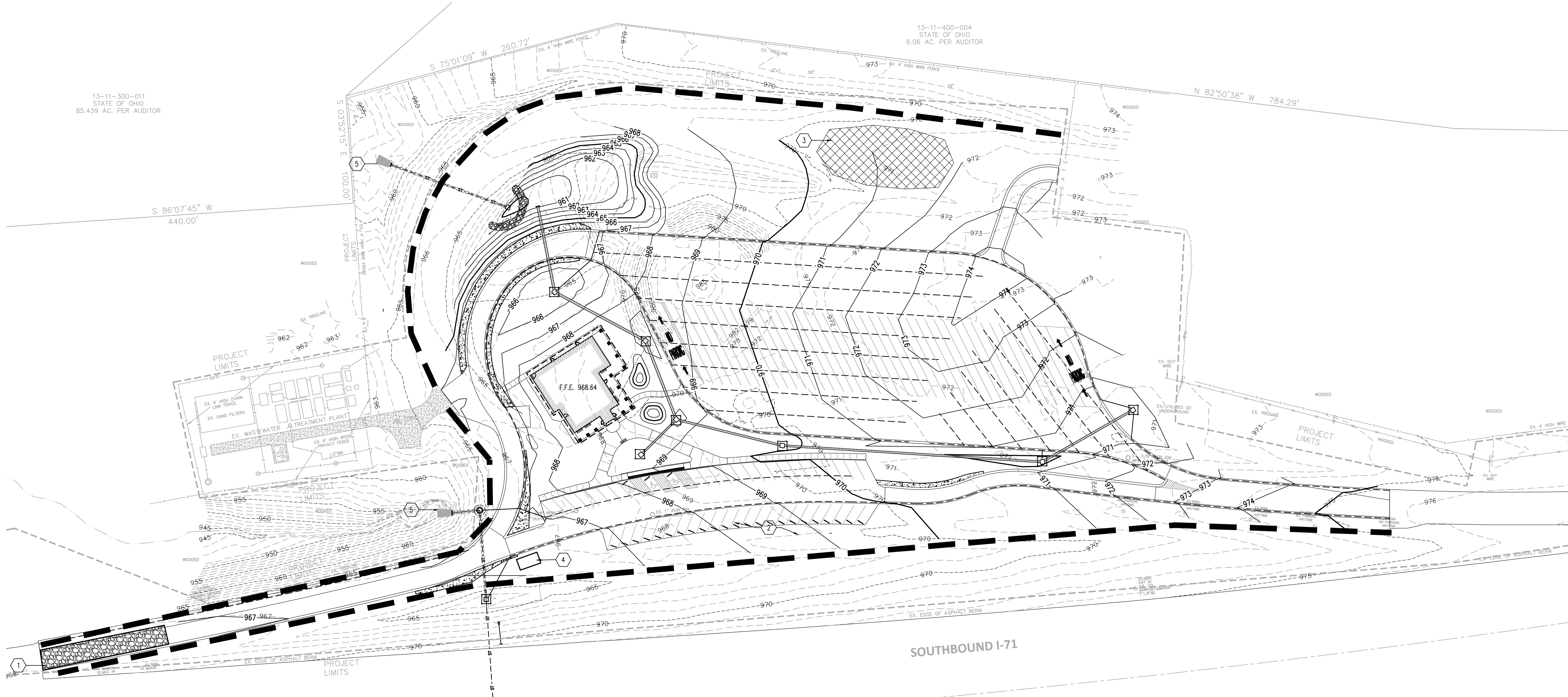
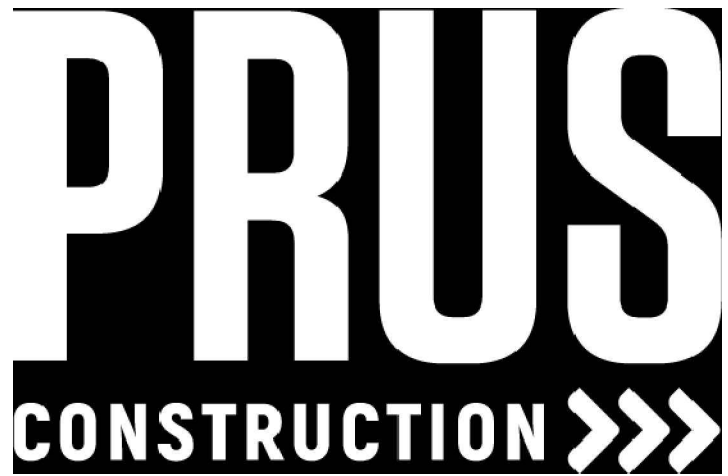
13-11-300-011
STATE OF OHIO
85.439 AC. PER AUDITOR

13-11-400-004
STATE OF OHIO
6.06 AC. PER AUDITOR



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General Notes

1. THE CONTRACTOR(S) SHALL CONDUCT WORK IN AN ENVIRONMENTALLY SOUND MANNER AND SHALL UTILIZE "BEST MANAGEMENT PRACTICES" (BMP'S) TO REDUCE OR ELIMINATE POLLUTANTS IN STORM WATER DISCHARGE DURING THE CONSTRUCTION OF THIS PROJECT.
2. PROVIDE EROSION CONTROL DEVICES COMPLETELY AROUND STORM WATER STRUCTURES.
3. CONTRACTORS ARE ADVISED THAT CARE SHOULD BE EXERCISED DURING UNDERGROUND EXCAVATION IN THE EVENT THAT UTILITY LINES ARE PRESENT THAT ARE UNCHARTED OR UNDOCUMENTED.
4. THE EXISTING UTILITY INFORMATION DEPICTED ARE APPROXIMATE LOCATIONS. THE CONTRACTOR IS RESPONSIBLE FOR CONFIRMING THE LOCATION OF ALL EXISTING UTILITIES (2) WORKING DAYS BEFORE ANY EXCAVATION OCCURS ON SITE AND PRIOR TO THE COORDINATION OF THE NEW UTILITIES LAYOUT AND INSTALLATION BY CALLING APPROPRIATE AGENCIES FOR LOCATING UTILITIES.
5. IF, DURING THE CONSTRUCTION, INTERFERENCE ARISES WITH EXISTING UTILITIES IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO NOTIFY THE UTILITY COMPANY INVOLVED. THE CONTRACTOR SHALL NOTIFY, AT LEAST (7) SEVEN DAYS BEFORE BREAKING GROUND, ALL PUBLIC SERVICE CORPORATIONS HAVING WIRES, POLES, PIPES, CONDUITS, MANHOLES, OR OTHER STRUCTURES THAT MAY BE AFFECTED BY THIS OPERATION, INCLUDING ALL STRUCTURES WHICH ARE AFFECTED AND NOT SHOWN ON THESE PLANS. THERE WILL BE NO DELAYS ALLOWED FOR UTILITY INTERFERENCES.
6. ALL AREAS DISTURBED OR DAMAGED OUTSIDE THE LIMITS OF CONSTRUCTION SHALL BE REPAIRED AT NO COST TO THE OWNER AND TO THE SATISFACTION OF THE OWNER AND ARCHITECT/ENGINEER.
7. THERE SHALL BE NO CONSTRUCTION EQUIPMENT, VEHICLES, OR STORAGE ON ANY FINISHED SURFACE, UNLESS OWNER OR ARCHITECT/ENGINEER HAVE GIVEN PERMISSION.
8. PRIOR TO COMMENCEMENT OF EARTH DISTURBING ACTIVITIES, A PRE-CONSTRUCTION MEETING IS TO BE HELD. ALL REQUIRED CONTACT NAMES AND NUMBERS WILL BE LISTED ON A PRE-CONSTRUCTION MEETING FORM PROVIDED SEPARATELY BY CONSTRUCTION MANAGER/ARCHITECT. ANY SUBCONTRACTOR(S) REQUIRED TO BE A CO-PERMITTEE BY LOCAL JURISDICTIONS MUST BE LISTED AND PROVIDE A COPY OF THEIR NOTICE OF INTENT OR CO-PERMIT TO THE OWNER AND ATTACH TO THIS SWPPP.
9. PRIOR TO COMMENCEMENT OF EARTH DISTURBANCE ACTIVITIES ALL EROSION AND SEDIMENT CONTROL MEASURES MUST BE INSTALLED AND REVIEWED AND APPROVED BY LOCAL DIVISION OF ENGINEERING. ALL CONSTRUCTION AND PERMANENT ENTRANCE BONDS TO BE PAID PRIOR TO WORK STARTING.
10. CONTRACTOR TO PROVIDE A REFUNDABLE DEPOSIT OF \$7,000 FOR ENTRANCES. DEPOSIT TO BE PAID TO DIVISION OF ENGINEERING.
11. CONTRACTOR RESPONSIBLE FOR PROVIDING THE NOTICE OF INTENT (NOI) FROM KENTUCKY DIVISION OF WATER (KDOW) AND PROVIDE COPY TO DIVISION OF ENGINEERING.

Construction Sequence

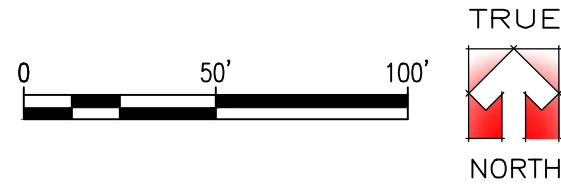
1. INSTALL TEMPORARY CONSTRUCTION ENTRANCE PER THE SITE DRAWINGS BEFORE ANY CONSTRUCTION BEGINS OR SUPPLIES ARE DELIVERED.
2. ALL PERIMETER SILT FENCE AND OTHER INITIAL EROSION CONTROLS APPLICABLE ON THE SITE DRAWINGS SHALL BE IN PLACE BEFORE ANY OTHER EARTH MOVING ACTIVITIES COMMENCE.
3. POST ALL APPLICABLE SIGNS, INCLUDING THE NOTICE OF INTENT (NOI), AND HAVE THIS SWP3 WITH EROSION AND SEDIMENT CONTROL PLANS AT THE SITE FOR CONTINUAL USE AND MODIFICATION. POST "CONSTRUCTION SITE NOTICE" SIGN INCLUDING INFORMATION SUCH AS THE GENERAL CONTRACTOR NAME, GENERAL CONTRACTOR ADDRESS, GENERAL CONTRACTOR CONTACT/NUMBER, AND PROJECT NAME.
4. PHASE WORK TO ALLOW EXISTING VEGETATIVE AREAS OR BUFFERS TO REMAIN AS LONG AS POSSIBLE.
5. EROSION CONTROL DEVICES MUST BE INSPECTED ONCE EVERY 7 DAYS AND WITHIN 24 HOURS OF 0.5 INCHES OR GREATER RAINFALL. SEE PART 11LG OF THE KENTUCKY DOW GENERAL CONSTRUCTION PERMIT FOR MORE INFORMATION. FOLLOWING EACH INSPECTION, A CHECKLIST MUST BE COMPLETED AND SIGNED BY THE QUALIFIED INSPECTION PERSONNEL REPRESENTATIVE. THE INSPECTION REPORT MUST INCLUDE AT A MINIMUM:
 - A) INSPECTION DATE
 - B) NAMES, TITLES AND QUALIFICATIONS OF INSPECTION PERSONNEL
 - C) WEATHER INFORMATION FOR THE PERIOD SINCE THE LAST INSPECTION (OR SINCE COMMENCEMENT OF CONSTRUCTION OF ACTIVITY IF 1ST INSPECTION)
 - D) WEATHER INFO AND A DESCRIPTION OF ANY DISCHARGES OCCURRING AT THE TIME OF INSPECTION
 - E) LOCATION(S) OF BMP'S THAT NEED TO BE MAINTAINED
 - F) LOCATION(S) OF BMP'S THAT FAILED TO OPERATE AS DESIGNED OR PROVED INADEQUATE FOR A PARTICULAR LOCATION
 - G) LOCATION(S) WHERE ADDITIONAL BMP'S ARE NEEDED THAT DID NOT EXIST AT THE TIME OF INSPECTION, AND
- H) CORRECTIVE ACTION REQUIRED INCLUDING ANY CHANGES TO THE SWP3 NECESSARY AND IMPLEMENTATION DATES. DOCUMENTS REGARDING THESE INSPECTIONS MUST BE KEPT AT THE SITE AND BE MADE AVAILABLE UPON REQUEST.
6. INSTALL ANY SEDIMENT TRAPS AND/OR BASINS PER THE SITE DRAWINGS, AS SOON AS POSSIBLE, DURING THE CLEARING AND EXCAVATION OF THE SITE. PROVIDE TEMPORARY GRADING TO DIRECT WATER TO TRAPS/BASINS.
7. ALL SILT FENCES MUST BE INSPECTED AND NEEDED REPAIRS IMPLEMENTED AFTER EVERY STORM EVENT. SEDIMENT DEPOSITS SHALL BE REMOVED WHEN MATERIAL REACHES DEPTH OF ONE-THIRD (1/3) THE FENCE HEIGHT.
8. SEDIMENT TRAPS SHALL HAVE THE COLLECTED SEDIMENT REMOVED WHEN SEDIMENT HAS ACCUMULATED TO THE TOP OF THE SEDIMENT STORAGE ZONE (WHEN 40 PERCENT OF THE POND DEPTH HAS BEEN FILLED). THIS ELEVATION SHALL BE IDENTIFIED WITH BY THE TOP OF A STAKE LOCATED NEAR THE CENTER OF TRAP.
9. PERIODICALLY, THE STONE IN THE CONSTRUCTION ENTRANCE SHOULD BE RAKED TO INCREASE INFILTRATION AND FILTERING.
10. ANY SEDIMENT REACHING A PUBLIC OR PRIVATE ROAD SHALL BE REMOVED. BULK CLEARINGS OF ACCUMULATED SEDIMENT BY FLUSHING THE AREA WITH WATER SHALL NOT BE PERMITTED. CLEARED SEDIMENT SHALL BE RETURNED TO THE POINT OF LIKELY ORIGIN OR OTHER APPROVED LOCATION BEFORE THE END OF EACH WORKDAY, EITHER BY SCRAPING OR SWEEPING.
11. CONTINUE INSTALLING/MODIFYING EROSION CONTROLS AS THE CONSTRUCTION OF SITE UTILITIES, FOUNDATIONS, AND STRUCTURES CHANGE THE TOPOGRAPHY OF THE SITE.
12. THE GENERAL CONTRACTOR WILL KEEP WRITTEN DOCUMENTATION OF MAJOR EARTHMOVING ACTIVITIES USING A SITE LOG INDICATING START AND STOP DATES FOR DEFINED AREAS OF THE SITE. NOTE THESE AREAS ON THE DRAWINGS WHEN POSSIBLE.
13. REMOVE TEMPORARY OR SEDIMENT CONTROL PRACTICES ONCE FINAL STABILIZATION/ VEGETATION HAS BEEN ESTABLISHED.
14. FILE THE APPROPRIATE NOTICE OF TERMINATION (NOT) WHEN THE ENTIRE PROJECT IS COMPLETE.
15. KEEP ALL SWPPP DOCUMENTS, INCLUDING INSPECTION CHECKLISTS, ON FILE FOR THREE YEARS FROM TERMINATION.

Soil Stabilization Notes

1. ALL DISTURBED AREAS WHICH REMAIN INACTIVE FOR MORE THAN 14 DAYS BUT LESS THAN ONE YEAR OR FOR AREAS TO BE PERMANENTLY STABILIZED AT FINAL GRADE SHALL BE STABILIZED BY SEEDING, SODDING, MULCHING, COVERING OR OTHER EQUIVALENT EROSION CONTROL MEASURES AS SOON AS PRACTICAL BUT IN NO CASE MORE THAN SEVEN (7) DAYS AFTER THE CONSTRUCTION ACTIVITY IN THAT PORTION OF THE SITE HAS TEMPORARILY OR PERMANENTLY CEASED. SEEDING SHALL BE DONE IN ACCORDANCE WITH THE TECHNICAL SPECIFICATIONS.
2. AREAS TO BE PERMANENTLY STABILIZED FOR FINAL GRADE SHALL BE STABILIZED BY SEEDING, SODDING, MULCHING, COVERING OR OTHER EQUIVALENT EROSION CONTROL MEASURES WITHIN SEVEN DAYS OF THE MOST RECENT DISTURBANCE OR WITHIN SEVEN (7) DAYS OF REACHING FINAL GRADE.
3. ALL DISTURBED AREAS WHICH REMAIN INACTIVE FOR ONE YEAR OR MORE SHALL BE STABILIZED BY SEEDING, SODDING, MULCHING, COVERING OR OTHER EQUIVALENT EROSION CONTROL MEASURES WITHIN SEVEN DAYS AFTER THE CONSTRUCTION ACTIVITY IN THAT PORTION OF THE SITE HAS TEMPORARILY OR PERMANENTLY CEASED. ALL SUCH AREAS REMAINING INACTIVE OVER WINTER SEASON SHALL BE STABILIZED BY SEEDING, SODDING, MULCHING, COVERING OR OTHER EQUIVALENT EROSION CONTROL MEASURES AS SOON AS PRACTICAL BEFORE THE ONSET OF WINTER WEATHER.

Coded Notes

- 1 → STONE CONSTRUCTION ENTRANCE. DETAIL A4/C-501
- 2 → PARKING AND MATERIALS STORAGE AREA
- 3 → OVERBURDEN STOCKPILE LOCATION
- 4 → CONCRETE WASHOUT PIT
- 5 → RIPRAP OUTLET PROTECTION AT HEADWALL



Legend - Erosion and Sediment Control Measures

	SILT FENCING. C4/C-501
	OVERBURDEN STOCKPILE
	ROCK CHECK DAM. A3/C-501
	SEDIMENT TRAP 900FT ₃
	SILT FENCE INLET PROTECTION. A5/C-501
	EXISTING CONTOURS
	NEW CONTOURS



RECORD DRAWING - SEPTEMBER 12, 2019

Revisions:

Issue Date: August 31, 2018

I-71 Rest Areas

Mile Marker 34

Warren County, Ohio

SWPPP
South Bound

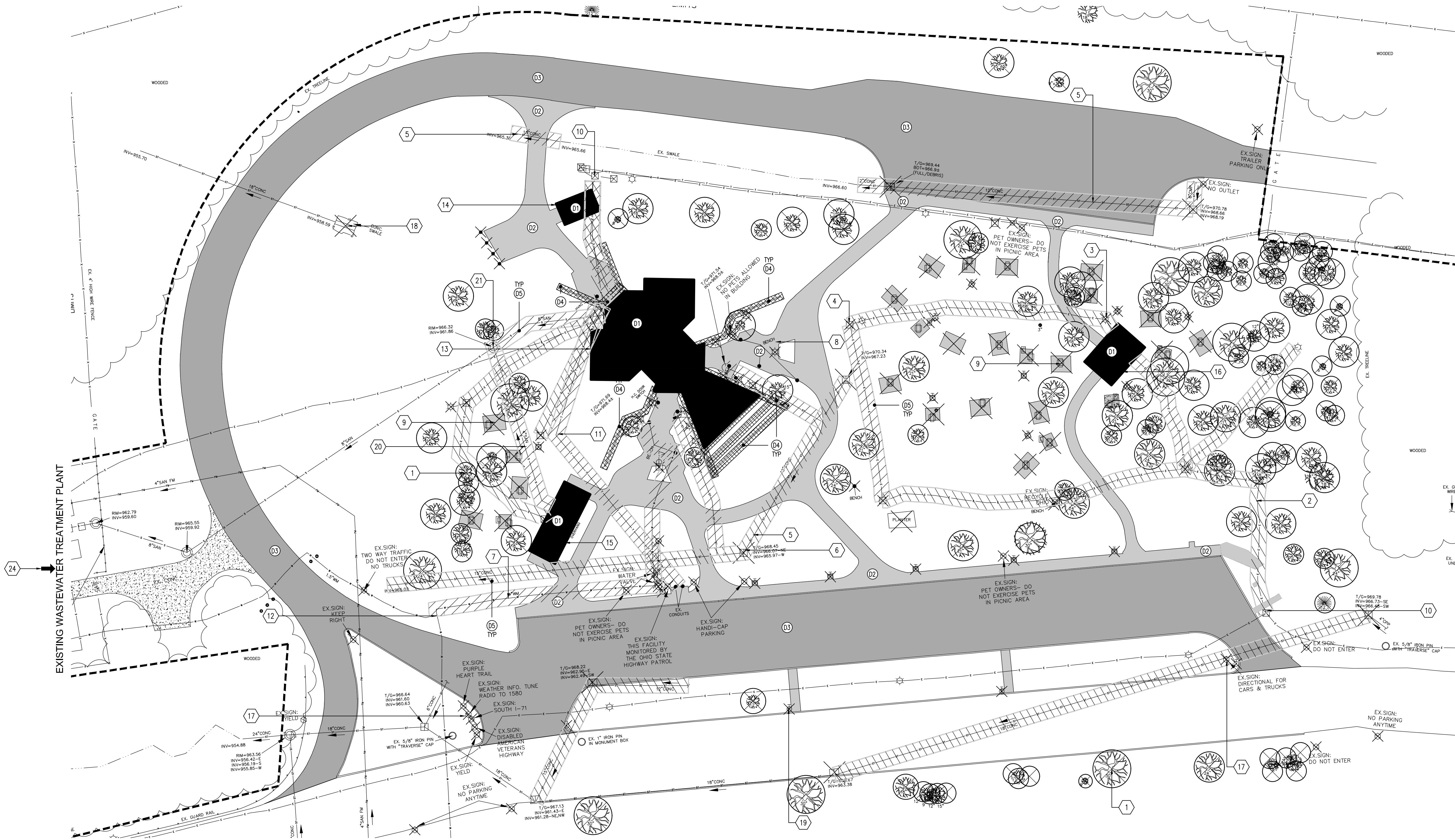
Project No.

18084

C-101

Demolition - Legend

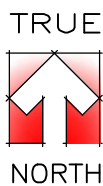
01	BUILDING DEMOLITION	05	UTILITY DEMOLITION
02	CONCRETE WALK DEMOLITION	06	REMOVE TREE ON GROUND WITH STUMP REMAINING
03	CONCRETE PAVEMENT WITH ASPHALT OVERLAY DEMOLITION	07	MISCELLANEOUS DEMOLITION ITEM
04	CONCRETE WALL DEMOLITION	08	CODED NOTE

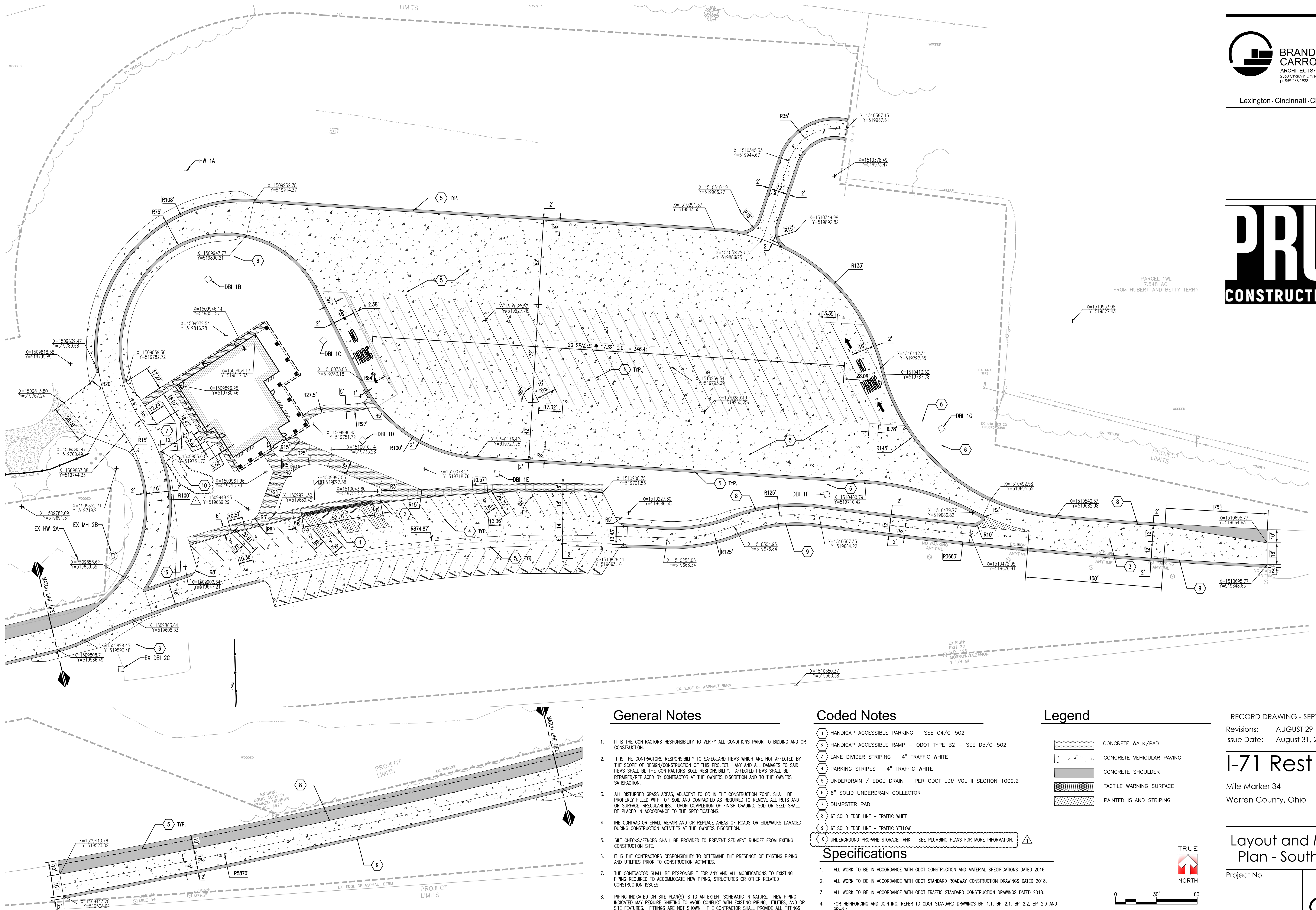


CONTRACTOR NOTE:
THE OWNER
HAS OPTION TO CLAIM AS SALVAGE, ITEM(S) SCHEDULED FOR
DEMOLITION AND SUBSEQUENT REMOVAL FROM SITE.

Coded Notes

- | | | | | |
|--|---|--|---|--|
| 1 FELLED TREE NEXT TO STUMP - REMOVE STUMP 2'-0" BELOW FINISHED GRADE ELEVATION. | 5 REMOVE EXISTING STORM SEWER LINE - TYPICAL. | 10 REMOVE ELECTRIC LINE TO EXISTING BOX (WHICH REMAINS) - TYPICAL. | 14 REMOVE EXISTING SHED IN ITS ENTIRETY. | 19 REMOVE EXISTING TRASH RECEPTACLE - TYPICAL. |
| 2 REMOVE EXISTING ELECTRIC LINE - TYPICAL. | 6 REMOVE EXISTING STORM SEWER CONCRETE STRUCTURE - TYPICAL. | 11 REMOVE EXISTING TELEPHONE LINE AND ALL APPURTENANCES - TYPICAL. | 15 REMOVE EXISTING BUILDING IN ITS ENTIRETY. | 20 REMOVE EXISTING SANITARY SEWER LINE. |
| 3 REMOVE EXISTING LIGHT POLE - TYPICAL. | 7 REMOVE EXISTING WATER LINE (VALVES, ETC.) - TYPICAL. | 12 REMOVE EXISTING WATER LINE TO THIS POINT - TYPICAL. | 16 REMOVE EXISTING SHELTER IN ITS ENTIRETY. | 21 REMOVE SANITARY SEWER LINE TO EXISTING MANHOLE (WHICH REMAINS). |
| 4 REMOVE EXISTING ELECTRIC BOX - TYPICAL. | 8 REMOVE EXISTING BENCH - TYPICAL. | 13 REMOVE EXISTING MAIN REST AREA BUILDING IN ITS ENTIRETY. | 17 REMOVE EXISTING SIGN INCLUDING FOUNDATION - TYPICAL. | 22 REMOVE EXISTING STORM SEWER TO THIS POINT - EXISTING CATCH BASIN TO REMAIN. |
| 9 REMOVE EXISTING PICNIC TABLE WITH CONCRETE PAD - TYPICAL. | | | | |
| | | | | 23 TO CLARIFY THIS AREA = EXISTING SANITARY SEWER LINE TO REMAIN. |
| | | | | 24 PROVIDE TEMPORARY ELECTRICAL SERVICE TO EXISTING WASTEWATER TREATMENT PLANT - ENSURE FULL PLANT OPERATION DURING CONSTRUCTION ACTIVITIES. |





General Notes

- IT IS THE CONTRACTORS RESPONSIBILITY TO VERIFY ALL CONDITIONS PRIOR TO BIDDING AND OR CONSTRUCTION.
- IT IS THE CONTRACTORS RESPONSIBILITY TO SAFEGUARD ITEMS WHICH ARE NOT AFFECTED BY THE SCOPE OF DESIGN/CONSTRUCTION OF THIS PROJECT. ANY AND ALL DAMAGES TO SAID ITEMS SHALL BE THE CONTRACTORS SOLE RESPONSIBILITY. AFFECTED ITEMS SHALL BE REPAIRED/REPLACED BY CONTRACTOR AT THE OWNERS DISCRETION AND TO THE OWNERS SATISFACTION.
- ALL DISTURBED GRASS AREAS, ADJACENT TO OR IN THE CONSTRUCTION ZONE, SHALL BE PROPERLY FILLED WITH TOP SOIL AND COMPACTED AS REQUIRED TO REMOVE ALL RUTS AND OR SURFACE IRREGULARITIES. UPON COMPLETION OF FINISH GRADING, SOIL OR SEED SHALL BE PLACED IN ACCORDANCE TO THE SPECIFICATIONS.
- THE CONTRACTOR SHALL REPAIR AND OR REPLACE AREAS OF ROADS OR SIDEWALKS DAMAGED DURING CONSTRUCTION ACTIVITIES AT THE OWNERS DISCRETION.
- SILT CHECKS/FENCES SHALL BE PROVIDED TO PREVENT SEDIMENT RUNOFF FROM EXISTING CONSTRUCTION SITE.
- IT IS THE CONTRACTORS RESPONSIBILITY TO DETERMINE THE PRESENCE OF EXISTING PIPING AND UTILITIES PRIOR TO CONSTRUCTION ACTIVITIES.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY AND ALL MODIFICATIONS TO EXISTING PIPING REQUIRED TO ACCOMMODATE NEW PIPING, STRUCTURES OR OTHER RELATED CONSTRUCTION ISSUES.
- PIPING INDICATED ON SITE PLAN(S) IS TO AN EXTENT SCHEMATIC IN NATURE. NEW PIPING INDICATED MAY REQUIRE SHIFTING TO AVOID CONFLICT WITH EXISTING PIPING, UTILITIES, AND OR SITE FEATURES. FITTINGS ARE NOT SHOWN. THE CONTRACTOR SHALL PROVIDE ALL FITTINGS REQUIRED (INCLUDING FITTINGS REQUIRED TO TRANSITION OVER NEW AND EXISTING PIPING).
- CALL BEFORE YOU DIG (811).

Coded Notes

- HANDICAP ACCESSIBLE PARKING - SEE C4/C-502
- HANDICAP ACCESSIBLE RAMP - ODOT TYPE B2 - SEE D5/C-502
- LANE DIVIDER STRIPING - 4" TRAFFIC WHITE
- PARKING STRIPES - 4" TRAFFIC WHITE
- UNDERDRAIN / EDGE DRAIN - PER ODOT LDM VOL II SECTION 1009.2
- 6" SOLID UNDERDRAIN COLLECTOR
- DUMPSTER PAD
- 6" SOLID EDGE LINE - TRAFFIC WHITE
- 6" SOLID EDGE LINE - TRAFFIC YELLOW
- UNDERGROUND PROPANE STORAGE TANK - SEE PLUMBING PLANS FOR MORE INFORMATION.

Specifications

- ALL WORK TO BE IN ACCORDANCE WITH ODOT CONSTRUCTION AND MATERIAL SPECIFICATIONS DATED 2016.
- ALL WORK TO BE IN ACCORDANCE WITH ODOT STANDARD ROADWAY CONSTRUCTION DRAWINGS DATED 2018.
- ALL WORK TO BE IN ACCORDANCE WITH ODOT TRAFFIC STANDARD CONSTRUCTION DRAWINGS DATED 2018.
- FOR REINFORCING AND JOINTING, REFER TO ODOT STANDARD DRAWINGS BP-1.1, BP-2.1, BP-2.2, BP-2.3 AND BP-2.4.
- FOR PAVEMENT JOINTS AT RAMP TERMINUS, REFER TO STANDARD DRAWING BP-6.1.
- FOR PAVEMENT MARKINGS AND STRIPES, REFER TO ODOT STANDARD DRAWINGS TC-71.10, TC-72.20 AND TC-73.20.

Legend

- | | |
|--|---------------------------|
| | CONCRETE WALK/PAD |
| | CONCRETE VEHICULAR PAVING |
| | CONCRETE SHOULDER |
| | TACTILE WARNING SURFACE |
| | PAINTED ISLAND STRIPING |

RECORD DRAWING - SEPTEMBER 12, 2019
Revisions: AUGUST 29, 2018
Issue Date: August 31, 2018

I-71 Rest Areas

Mile Marker 34
Warren County, Ohio

Layout and Materials
Plan - South Bound

Project No.

18084

C-105

Specifications

1. ALL STORM DRAINAGE WORK TO BE IN ACCORDANCE WITH ODOT 611
2. ALL STORM SEWER PIPING UNDER PAVEMENT SHALL BE ODOT 707.65 - "SANITITE" HP-PP PIPE
3. ALL STORM SEWER PIPING OUTSIDE OF PAVEMENT SHALL BE ODOT 707.33 - SMOOTH WALL CORRUGATED POLYETHYLENE.
4. PIPE BEDDING SHALL BE ODOT 603.04
5. BACKFILL OF TRENCHES SHALL BE ODOT 603.08
6. EXCAVATION AND BACKFILL SHALL BE TO ODOT 203.
7. SUBGRADE COMPACTION AND PROOF ROLLING SHALL BE TO ODOT 204.

Legend - Abbreviations

FFe	FINISH FLOOR ELEVATION
ELEV	SPOT ELEVATION
IE	INLET ELEVATION
OE	OUTLET ELEVATION
BC	BOTTOM OF CURB
TC	TOP OF CURB
BW	BOTTOM OF WALL
TW	TOP OF WALL
AD	AREA DRAIN.
TD	TRENCH DRAIN.
CBI	CURB BOX INLET.
DBI	DROP BOX INLET.
OCS	OUTLET CONTROL STRUCTURE
C	CENTER LINE
RIM	RIM OF DRAIN
INV	BOTTOM INVERT OF DRAIN PIPE
HP	HIGH POINT
LP	LOW POINT

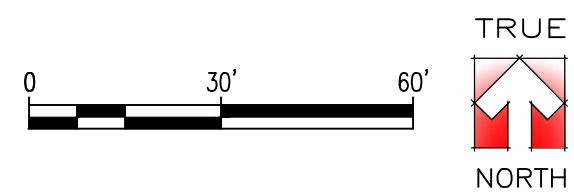
PRUS
CONSTRUCTION >>>

General Notes

1. IT IS THE CONTRACTORS RESPONSIBILITY TO VERIFY ALL CONDITIONS PRIOR TO BIDDING AND OR CONSTRUCTION.
2. IT IS THE CONTRACTORS RESPONSIBILITY TO SAFEGUARD ITEMS WHICH ARE NOT AFFECTED BY THE SCOPE OF DESIGN/CONSTRUCTION OF THIS PROJECT. ANY AND ALL DAMAGES TO SAID ITEMS SHALL BE THE CONTRACTORS SOLE RESPONSIBILITY. AFFECTED ITEMS SHALL BE REPAIRED/REPLACED BY CONTRACTOR AT THE OWNERS DISCRETION AND TO THE OWNERS SATISFACTION.
3. ALL DISTURBED GRASS AREAS, ADJACENT TO OR IN THE CONSTRUCTION ZONE, SHALL BE PROPERLY FILLED WITH TOP SOIL AND COMPACTED AS REQUIRED TO REMOVE ALL RUTS AND OR SURFACE IRREGULARITIES. UPON COMPLETION OF FINISH GRADING, SOO OR SEED SHALL BE PLACED IN ACCORDANCE TO THE SPECIFICATIONS.
4. THE CONTRACTOR SHALL REPAIR AND OR REPLACE AREAS OF ROADS OR SIDEWALKS DAMAGED DURING CONSTRUCTION ACTIVITIES AT THE OWNERS DISCRETION.
5. SILT CHECKS/FENCES SHALL BE PROVIDED TO PREVENT SEDIMENT RUNOFF FROM EXITING CONSTRUCTION SITE.
6. IT IS THE CONTRACTORS RESPONSIBILITY TO DETERMINE THE PRESENCE OF EXISTING PIPING AND UTILITIES PRIOR TO CONSTRUCTION ACTIVITIES.
7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY AND ALL MODIFICATIONS TO EXISTING PIPING REQUIRED TO ACCOMMODATE NEW PIPING, STRUCTURES OR OTHER RELATED CONSTRUCTION ISSUES.
8. PIPING INDICATED ON SITE PLAN(S) IS TO AN EXTENT SCHEMATIC IN NATURE. NEW PIPING INDICATED MAY REQUIRE SHIFTING TO AVOID CONFLICT WITH EXISTING PIPING, UTILITIES, AND OR SITE FEATURES. FITTINGS ARE NOT SHOWN. THE CONTRACTOR SHALL PROVIDE ALL FITTINGS REQUIRED (INCLUDING FITTINGS REQUIRED TO TRANSITION OVER NEW AND EXISTING PIPING).
9. CALL BEFORE YOU DIG (811).

Legend - Utilities

EXISTING	PROPOSED	
---	---	WATER LINE (SIZE INDICATED)
---	---	SANITARY SEWER LINE (SIZE INDICATED)
---	---	FORCE MAIN
---	---	STORM SEWER LINE
---	---	OVERHEAD ELECTRIC
---	---	UNDERGROUND ELECTRIC
---	---	OVERHEAD TELEPHONE
---	---	UNDERGROUND TELEPHONE
---	---	NATURAL GAS OR PROPANE



RECORD DRAWING - SEPTEMBER 12, 2019

Revisions: AUGUST 29, 2018

Issue Date: August 31, 2018

I-71 Rest Areas

Mile Marker 34

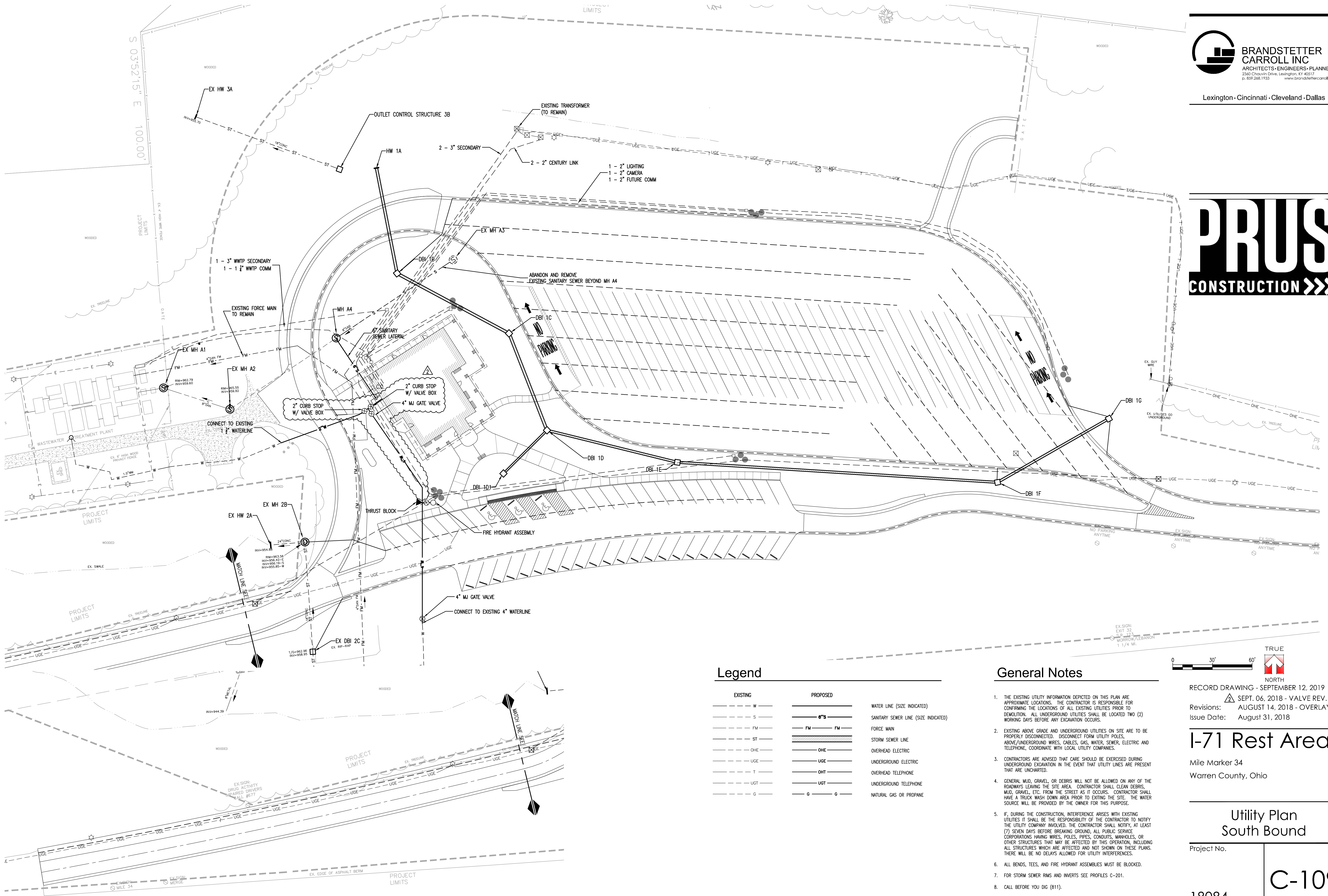
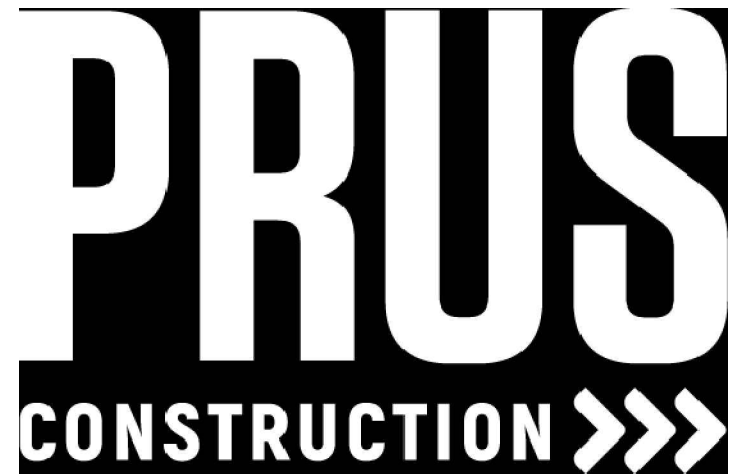
Warren County, Ohio

Grading and Drainage Plan - South Bound

Project No.

18084

C-107

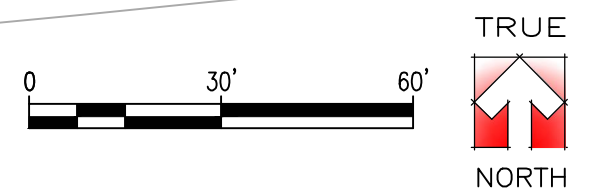


Legend

EXISTING	PROPOSED	
---	---	WATER LINE (SIZE INDICATED)
---	---	SANITARY SEWER LINE (SIZE INDICATED)
---	---	FORCE MAIN
---	---	STORM SEWER LINE
---	---	OVERHEAD ELECTRIC
---	---	UNDERGROUND ELECTRIC
---	---	OVERHEAD TELEPHONE
---	---	UNDERGROUND TELEPHONE
---	---	NATURAL GAS OR PROPANE

General Notes

- THE EXISTING UTILITY INFORMATION DEPICTED ON THIS PLAN ARE APPROXIMATE LOCATIONS. THE CONTRACTOR IS RESPONSIBLE FOR CONFIRMING THE LOCATIONS OF ALL EXISTING UTILITIES PRIOR TO DEMOLITION. ALL UNDERGROUND UTILITIES SHALL BE LOCATED TWO (2) WORKING DAYS BEFORE ANY EXCAVATION OCCURS.
- EXISTING ABOVE GRADE AND UNDERGROUND UTILITIES ON SITE ARE TO BE PROPERLY DISCONNECTED. DISCONNECT FORM UTILITY POLES, ABOVE/GROUND WIRES, CABLES, GAS, WATER, SEWER, ELECTRIC AND TELEPHONE, COORDINATE WITH LOCAL UTILITY COMPANIES.
- CONTRACTORS ARE ADVISED THAT CARE SHOULD BE EXERCISED DURING UNDERGROUND EXCAVATION IN THE EVENT THAT UTILITY LINES ARE PRESENT THAT ARE UNCHARTED.
- GENERAL MUD, GRAVEL, OR DEBRIS WILL NOT BE ALLOWED ON ANY OF THE ROADWAYS LEAVING THE SITE AREA. CONTRACTOR SHALL CLEAN DEBRIS, MUD, GRAVEL, ETC. FROM THE STREET AS IT OCCURS. CONTRACTOR SHALL HAVE A TRUCK WASH DOWN AREA PRIOR TO EXITING THE SITE. THE WATER SOURCE WILL BE PROVIDED BY THE OWNER FOR THIS PURPOSE.
- IF, DURING THE CONSTRUCTION, INTERFERENCE ARISES WITH EXISTING UTILITIES IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO NOTIFY THE UTILITY COMPANY INVOLVED. THE CONTRACTOR SHALL NOTIFY, AT LEAST (7) SEVEN DAYS BEFORE BREAKING GROUND, ALL PUBLIC SERVICE CORPORATIONS HAVING WIRES, POLES, PIPES, CONDUITS, MANHOLES, OR OTHER STRUCTURES THAT MAY BE AFFECTED BY THIS OPERATION, INCLUDING ALL STRUCTURES WHICH ARE AFFECTED AND NOT SHOWN ON THESE PLANS. THERE WILL BE NO DELAYS ALLOWED FOR UTILITY INTERFERENCES.
- ALL BENDS, TEES, AND FIRE HYDRANT ASSEMBLIES MUST BE BLOCKED.
- FOR STORM SEWER RIMS AND INVERTS SEE PROFILES C-201.
- CALL BEFORE YOU DIG (811).



RECORD DRAWING - SEPTEMBER 12, 2019
Revisions: SEPT. 06, 2018 - VALVE REV.
AUGUST 14, 2018 - OVERLAY
Issue Date: August 31, 2018

I-71 Rest Areas

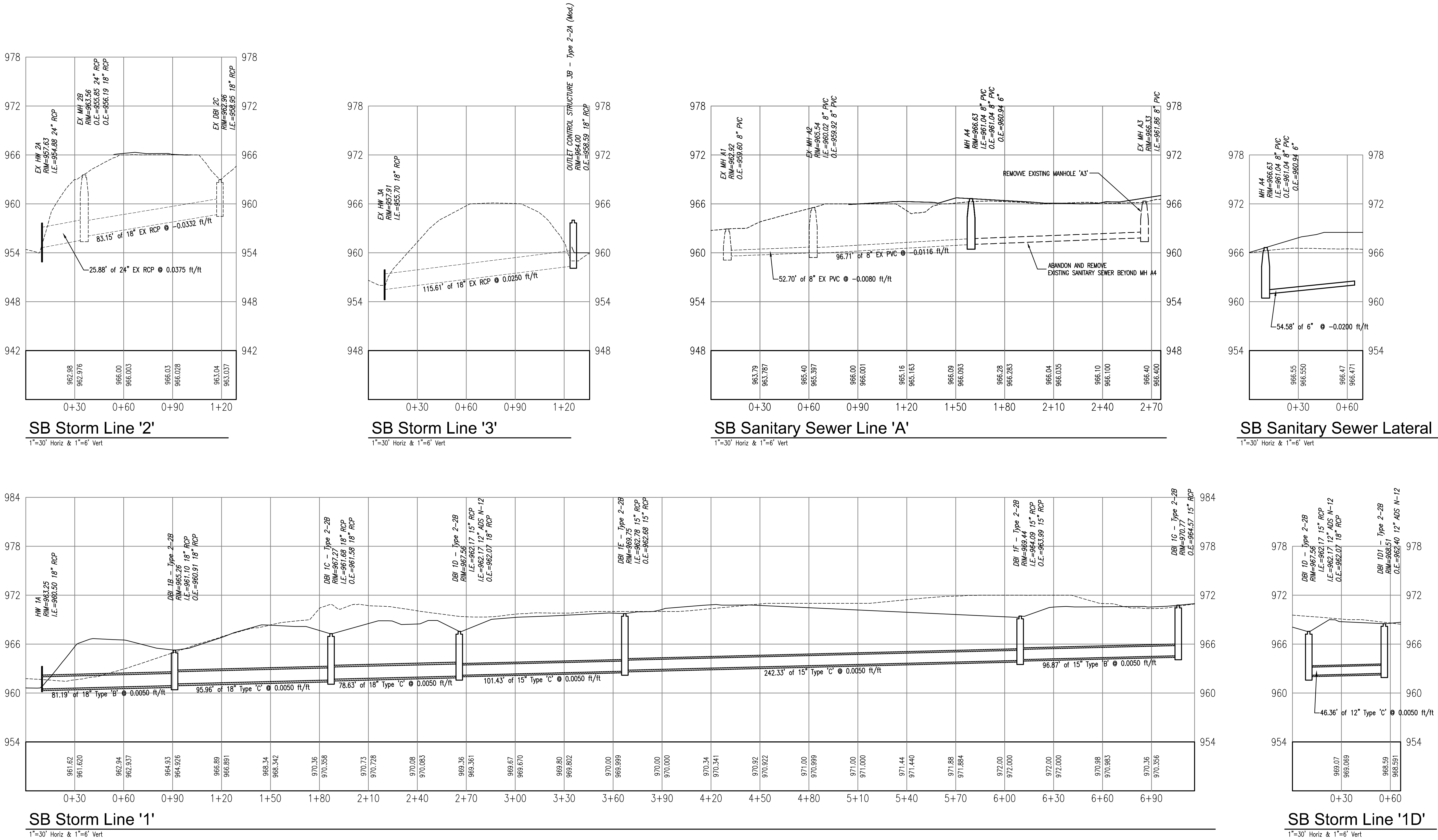
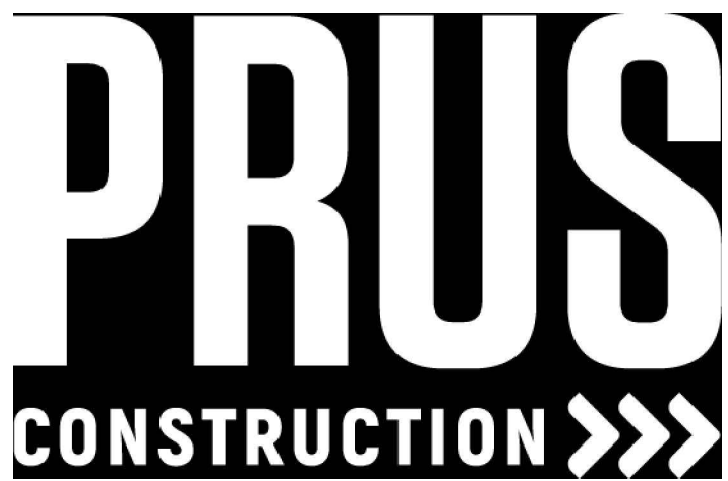
1/2 Mile Marker 34
Warren County, Ohio

Utility Plan South Bound

Project No.

18084

C-109



RECORD DRAWING - SEPTEMBER 12, 2019
Revisions:
Issue Date: August 31, 2018

I-71 Rest Areas

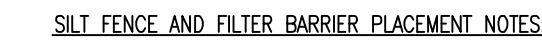
Mile Marker 34
Warren County, Ohio

Profiles South Bound

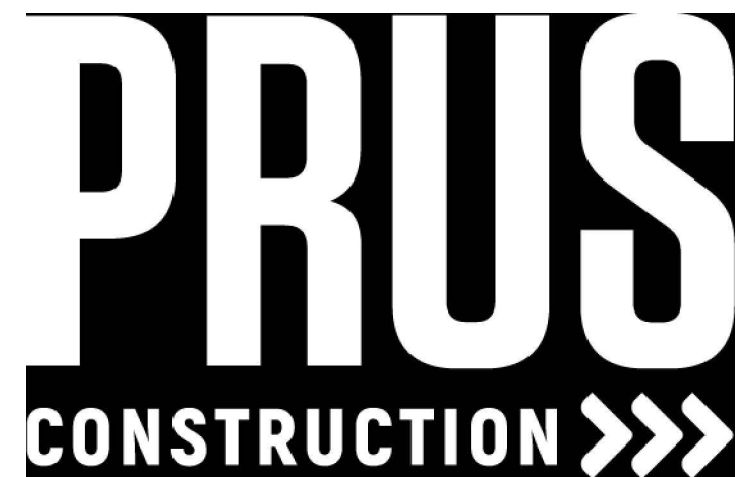
Project No.

18084

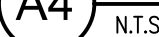
C-201



- I. SHEET (OVERLAND) AND CHANNEL FLOW APPLICATIONS
 1. THE HEIGHT OF THE FILTER BARRIER SHALL BE AT LEAST FIFTEEN (15) INCHES AND NO GREATER THAN EIGHTEEN (18) INCHES.
 2. STANDARD STRENGTH FILTER FABRIC SHALL BE PURCHASED IN A CONTINUOUS ROLL TO AVOID JOINTS.
 3. STAKES FOR FILTER BARRIERS SHALL BE AT A MINIMUM OF ONE INCH BY TWO INCH (1" X 2") WOOD OR EQUIVALENT METAL WITH A MINIMUM LENGTH OF THREE (3) FEET.
 4. MAXIMUM STAKE SPACING SHALL BE THREE (3) FEET.
 5. CONSTRUCT A FOUR INCH BY FOUR INCH (4" X 4") TRENCH ALONG THE LINE OF THE STAKES AND UPSLOPE FROM THE BARRIER.
 6. THE FILTER MATERIAL IS EXTENDED INTO THE TRENCH.
 7. THE TRENCH SHALL BE BACKFILLED AND THE SOIL COMPACTED OVER THE FILTER MATERIAL.
 8. IF A FILTER BARRIER IS TO BE CONSTRUCTED ACROSS A DITCH LINE OR SWALE, THE BARRIER SHALL BE OF SUFFICIENT LENGTH TO ELIMINATE END FLOW, AND THE PLAN CONFIGURATION SHALL RESEMBLE AN ARC OR HORSESHOE. PLACEMENT OF FILTER BARRIER SHALL FOLLOW THE CONTOUR.
- II. MAINTENANCE
 1. FILTER BARRIERS SHALL BE INSPECTED AFTER EACH RAIN EVENT.
 2. SEDIMENT REMOVAL SHALL OCCUR WHEN THE DEPOSITS REACH APPROXIMATELY ONE-THIRD THE HEIGHT OF THE BARRIER.
 3. ANY SEDIMENT DEPOSITS REMAINING IN PLACE AFTER THE FILTER BARRIER IS NO LONGER REQUIRED SHALL BE DRESSED TO CONFORM WITH THE EXISTING GRADE, PREPARED, AND SEEDED.



(C4) N.T.S.



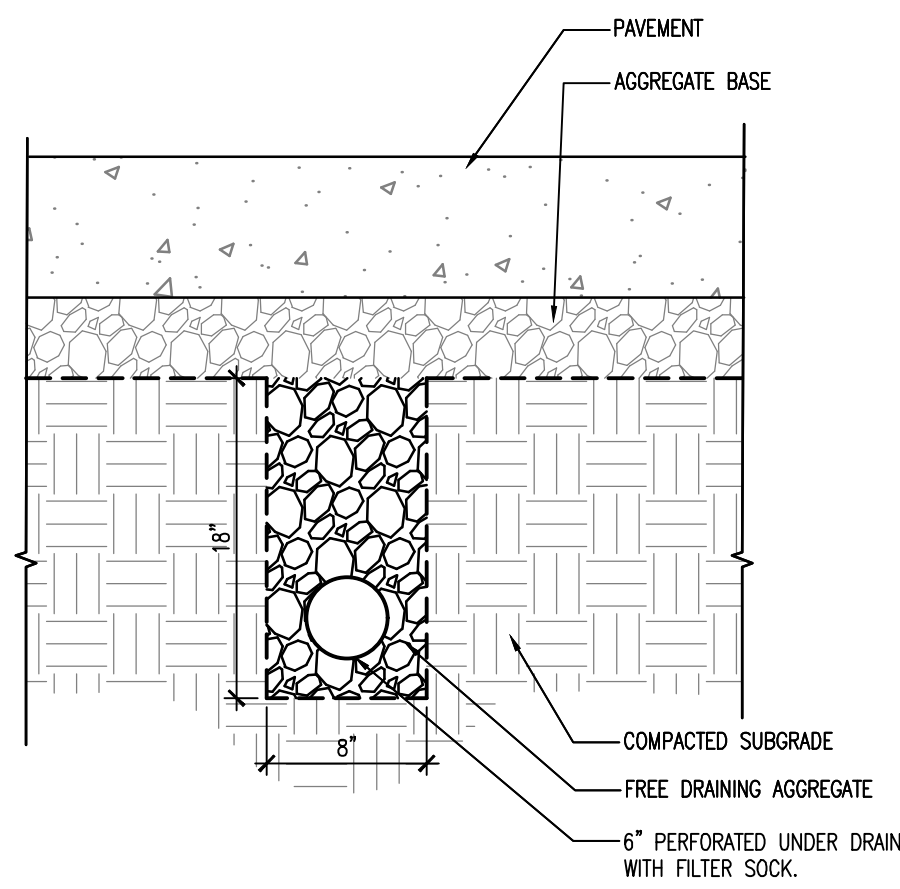
1. INLET PROTECTION SHALL BE CONSTRUCTED EITHER BEFORE UPOUSE LAND DISTURBANCE BEGINS OR BEFORE THE STORM DRAIN BECOMES OPERABLE.
2. THE EARTH AROUND THE INLET SHALL BE EXCAVATED COMPLETELY TO A DEPTH AT LEAST 18 IN.
3. THE WOODEN FRAME SHALL BE CONSTRUCTED OF 2-BY-4 IN. CONSTRUCTION GRADE LUMBER. THE 2-BY-4 IN. POSTS SHALL BE BROWN 1 FT. INTO THE GROUND AT FOUR CORNERS OF THE INLET AND THE TOP PORTION OF THE 2-BY-4 IN. FRAME ASSEMBLY SHALL BE JOINTED TOGETHER AT THE TOP OF THE FRAME SHALL BE AT LEAST 6 IN. BELOW ADJACENT ROADS IF PONDED WATER CAN POSE A SAFETY HAZARD TO TRAFFIC.
5. GEOTEXTILE SHALL HAVE AN EQUIVALENT OPENING SIZE OF 20-40 SIEVE AND BE RESISTANT TO SUNLIGHT. IT SHALL BE STRETCHED TIGHTLY AROUND THE FRAME AND FASTENED TO THE FRAME. IT SHALL EXTEND FROM THE TOP OF THE FRAME TO 18 IN. BELOW THE INLET NOTCH LEVEL. THE GEOTEXTILE SHALL OVERLAP ACROSS ONE SIDE OF THE INLET SO THE DRAINAGE CLOTH ARE NOT BACKFILLED TO THE SAME POST.
6. BASTION SHALL BE PLACED AROUND THE INLET IN COMPACTED 6-IN. LAYERS UNTIL THE EARTH IS EVEN WITH THE NOTCH ELEVATION ON ENDS AND TOP ELEVATION ON SIDES.

A COMPACTED EARTH DIKE OR CHECK DAM SHALL BE CONSTRUCTED IN THE DITCH LINE BELOW THE INLET IF THE INLET IS NOT IN A DEPRESSION AND IF RUNOFF BYPASSING THE INLET WILL NOT FLOW TO A SETTLING POND. THE TOP OF EARTH DIKES SHALL BE AT LEAST 6 IN. HIGHER THAN THE TOP OF THE FRAME.

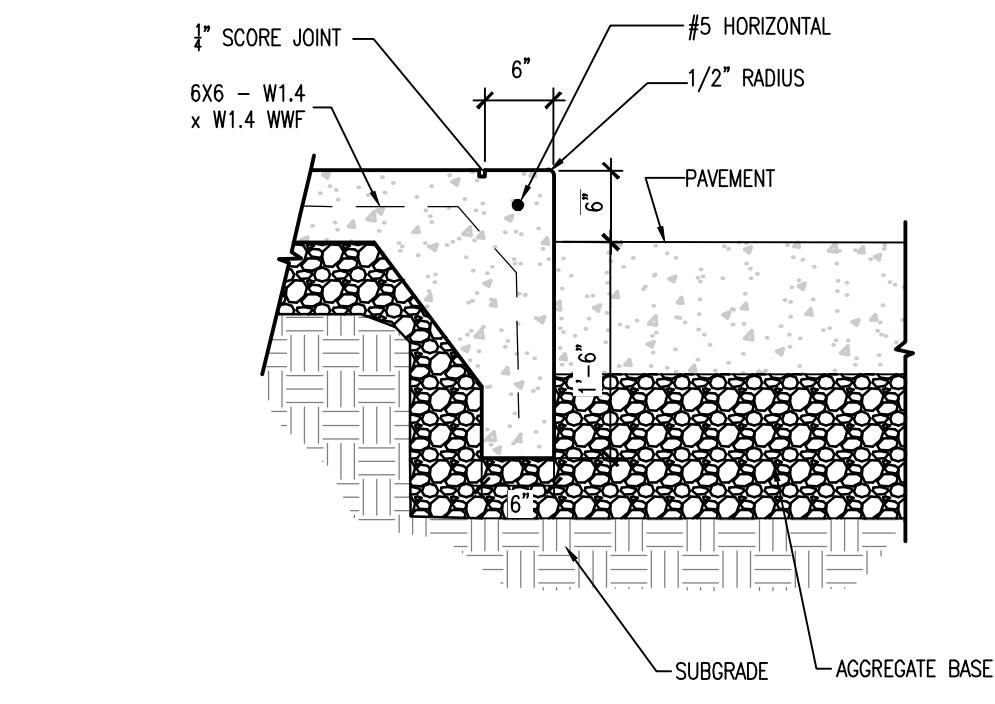
MAINTENANCE

1. THE STRUCTURE SHALL BE INSPECTED AFTER EACH RAIN EVENT.
2. SEDIMENT SHALL BE REMOVED AND THE TRAP RESTORED TO ITS ORIGINAL DIMENSIONS WHEN THE SEDIMENT HAS ACCUMULATED TO ONE-HALF THE DESIGN DEPTH OF THE TRAP.
3. STRUCTURES SHALL BE REMOVED AND THE AREA STABILIZED WHEN THE REMAINING DRAINAGE AREA HAS BEEN PROPERLY STABILIZED.

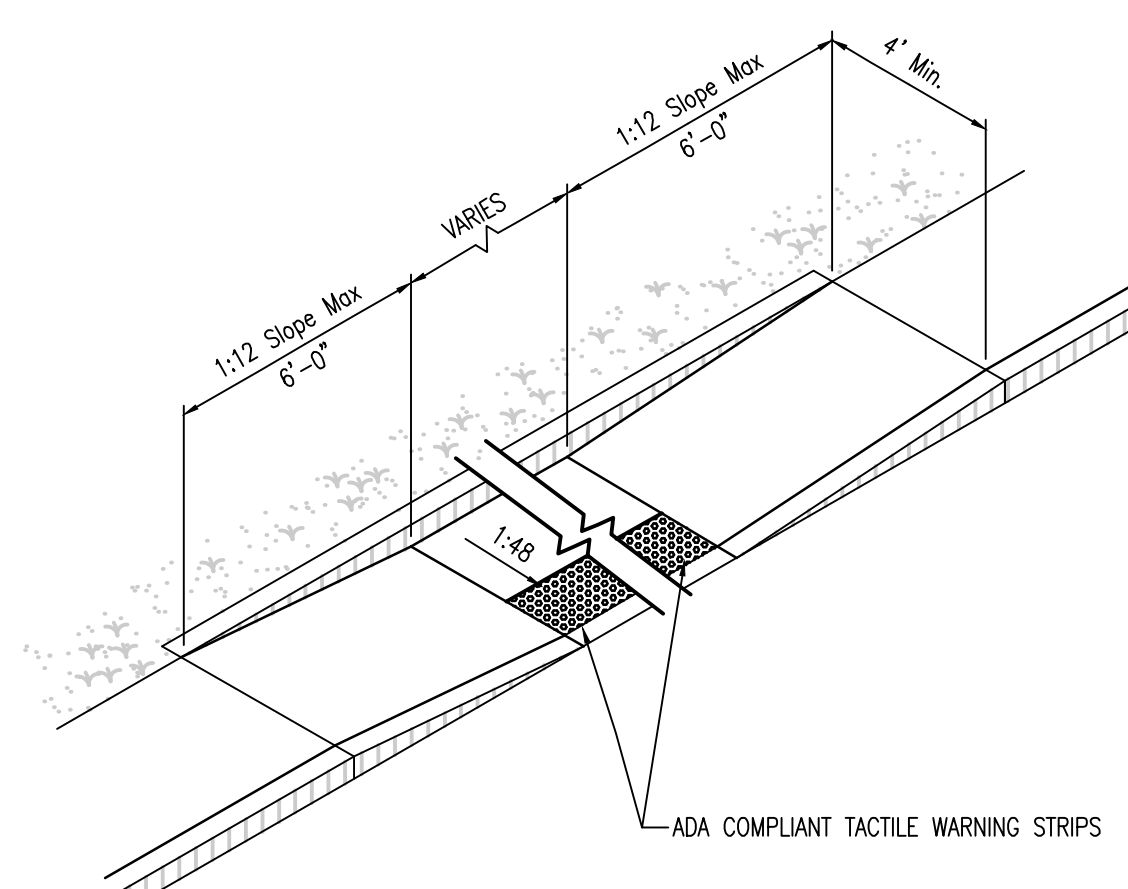
N.T.S.



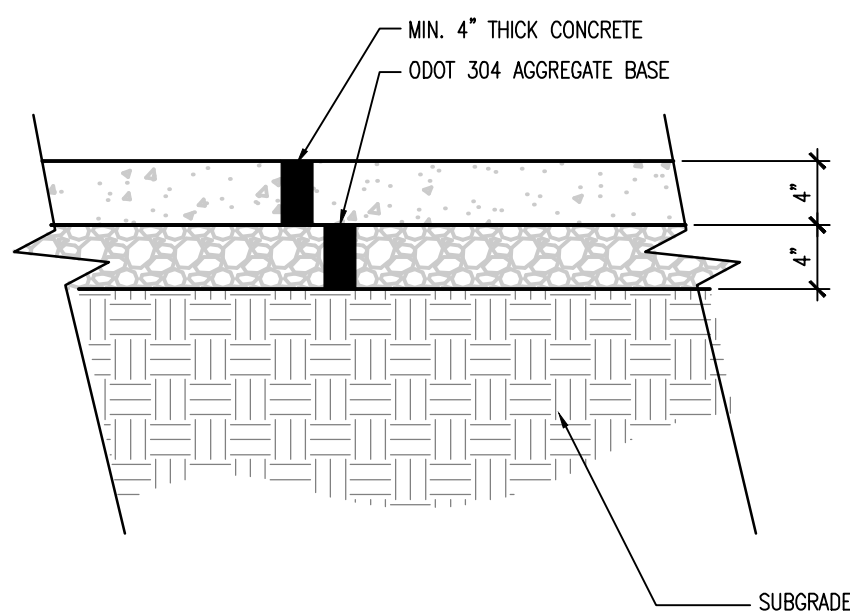
D3 6" Pipe Underdrain
NTS



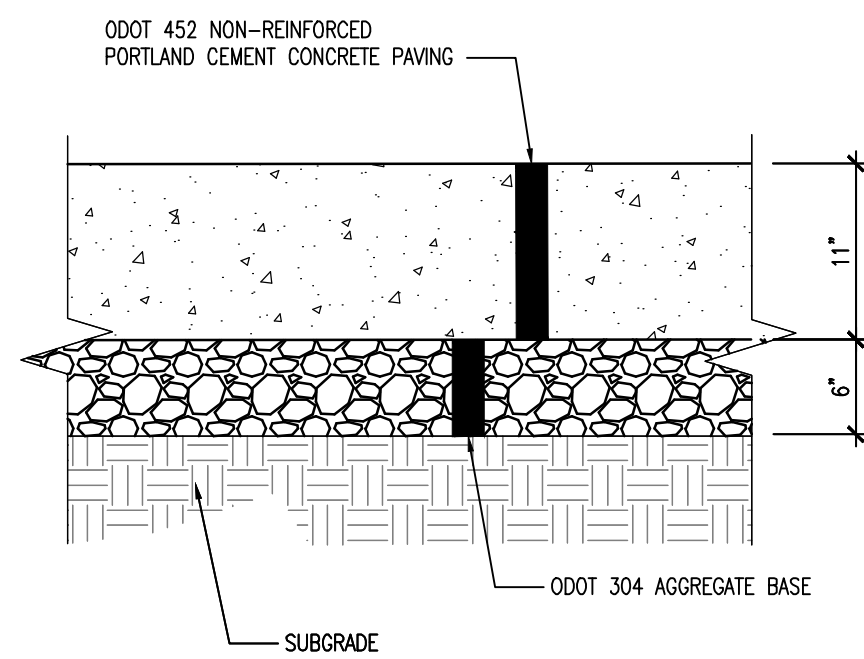
D4 Integral Curb and Sidewalk
3/4"=1'-0"



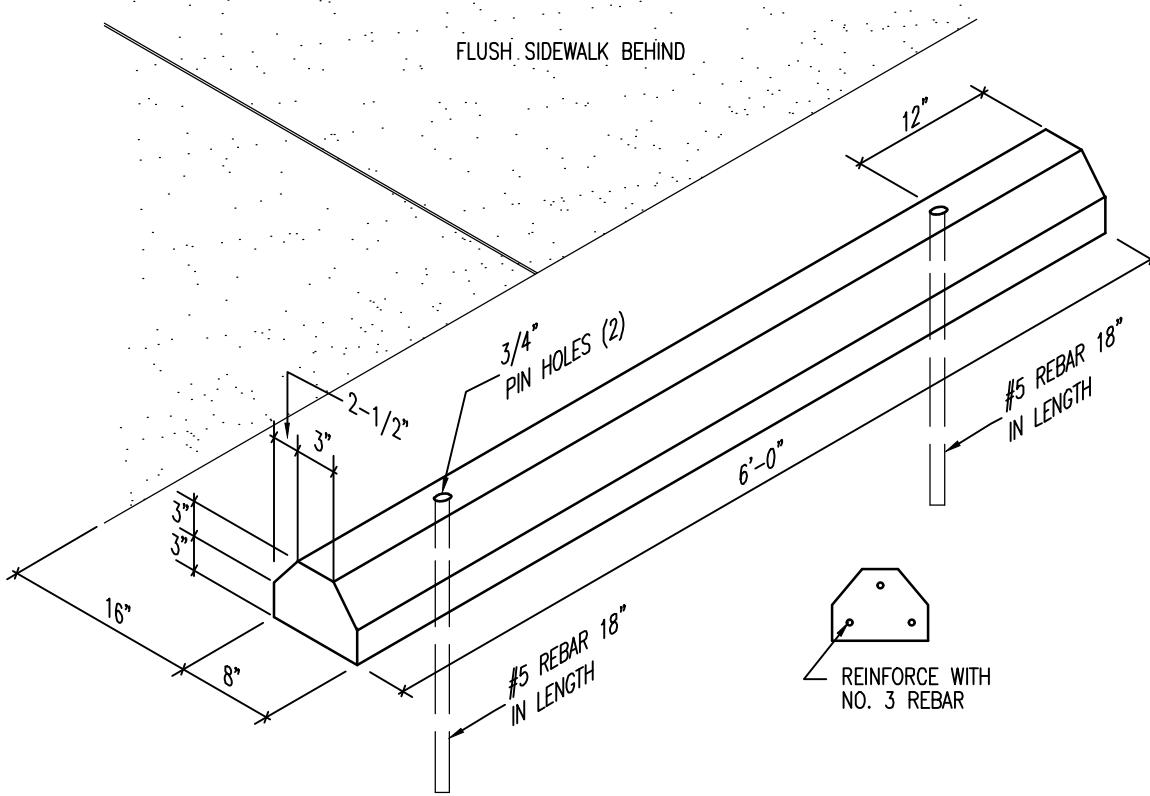
D5 Parallel Curb Ramp - Type B2
NTS



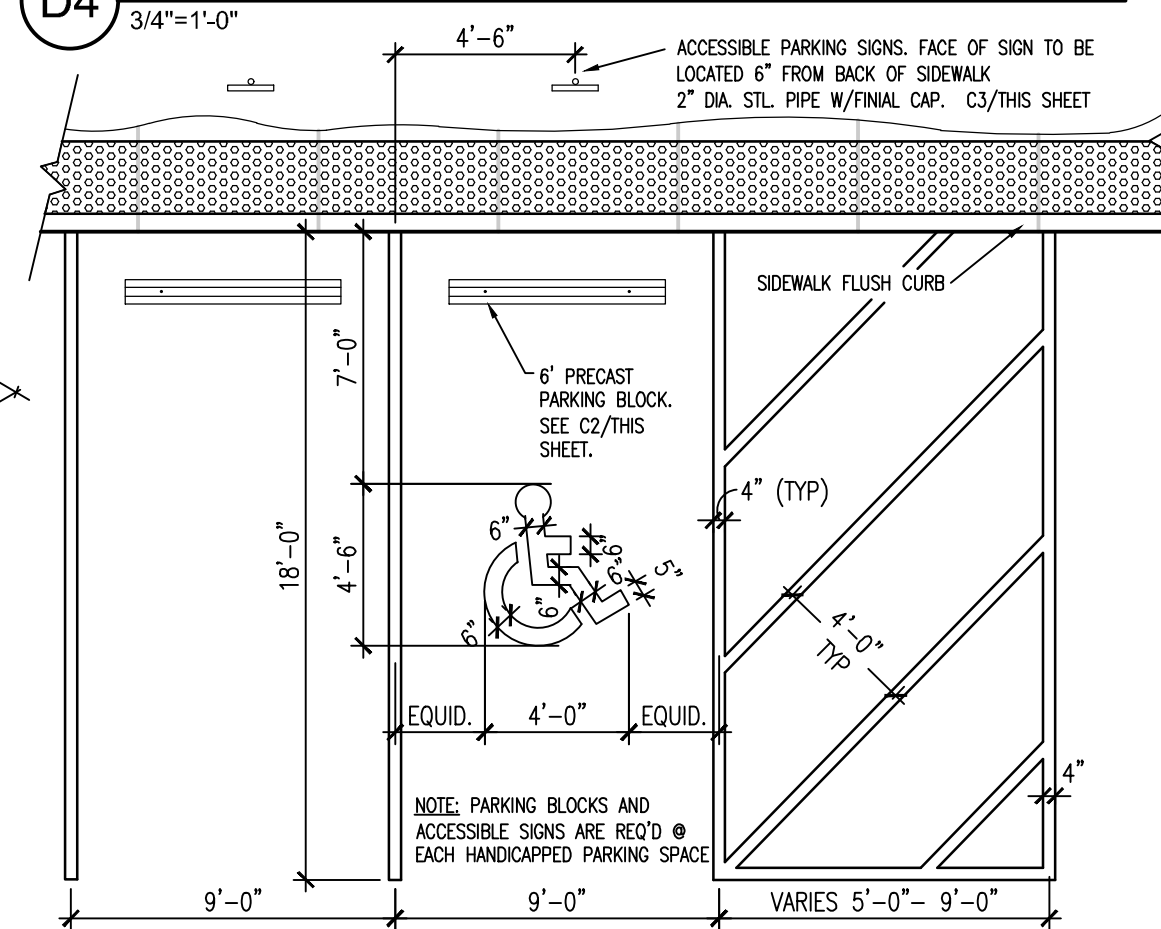
C1 Typical Concrete Sidewalk Detail
NTS



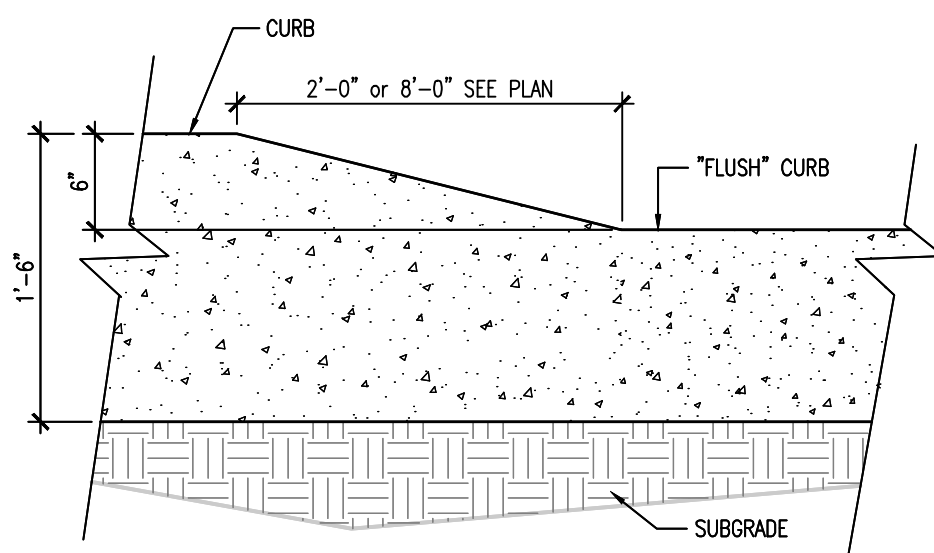
C2 Concrete Paving Section
1"=1'-0"



C3 Precast Concrete Parking Block
Scale 3/4"= 1'-0"

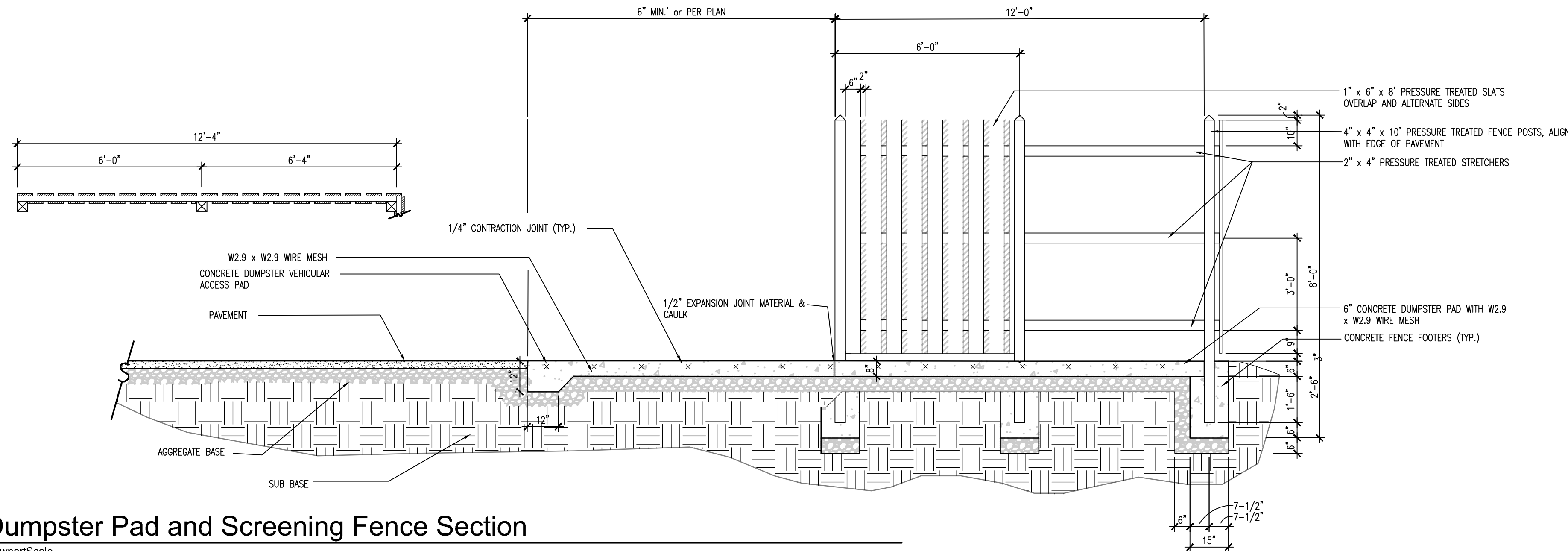


C4 Van Accessible
Pavement Marking Layout
3/4"=1'-0"



NOTE: TAPERED CURBS SHALL BE INSTALLED AT ALL CURB OPENING LOCATIONS (BREECHES)

B1 Tapered Curb Elevation
1"=1'-0"

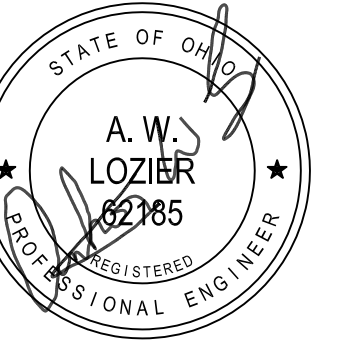


A2 Dumpster Pad and Screening Fence Section
ViewportScale



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KEYNOTES

- 1 PROVIDE NEW PULL BOXES AS REQUIRED. SIZE PER NEC REQUIREMENTS.
- 2 EXISTING POLE AND BASE TO REMAIN. REPLACE EXISTING FIXTURE WITH NEW LED FIXTURE.
- 3 EC SHALL PROVIDE VOLTAGE DROP CALCULATIONS AND INCREASE WIRING SIZES PER NEC REQUIREMENTS.
- 4 PROVIDE EMPTY 2" PVC CONDUIT AND PULL ROPE FROM RM. 117 TO AN IN GROUND QUAZITE BOX NEAR LIGHT POLE FOR FUTURE SECURITY CAMERAS. VERIFY FINAL LOCATIONS WITH ODOT PROJECT MANAGER.
- 5 EXTEND BUILDING EXTERIOR WALL MOUNTED LIGHT CIRCUIT TO NEW FLAG POLE. CONTRACTOR TO PROVIDE LED POLE MOUNTED FLAG LIGHTS AS REQUIRED BY ODOT.
- 6 PROVIDE EMPTY 2" PVC CONDUIT AND PULL ROPE FROM RM. 117 TO A POINT 5' BEYOND SEMI-TRUCK PARKING AREA. TERMINATE AT A GROUND QUAZITE BOX MIDWAY BETWEEN THE ENDS OF THE SEMI-TRUCK PARKING AREA. CONDUIT TO BE USED FOR FUTURE SEMI-TRUCK MONITORING EQUIPMENT. VERIFY FINAL LOCATIONS WITH PROJECT MANAGER.

Record Drawings
09/16/2019

Revisions:
Issue Date: July 20, 2018

I-71 Rest Areas

Mile Marker 34
South Bound
Warren County, Ohio

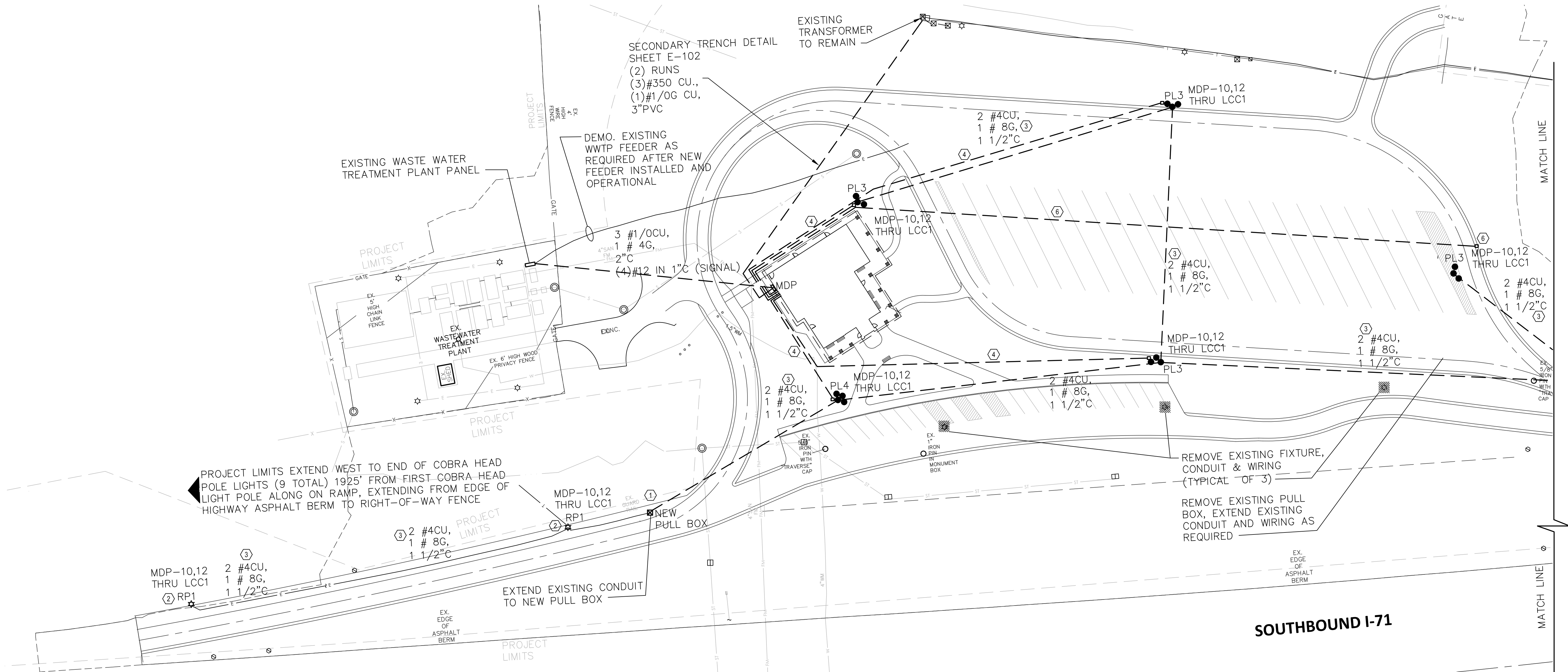
ELECTRICAL SITE PLAN SOUTH BOUND

Project No.

ES101

18084

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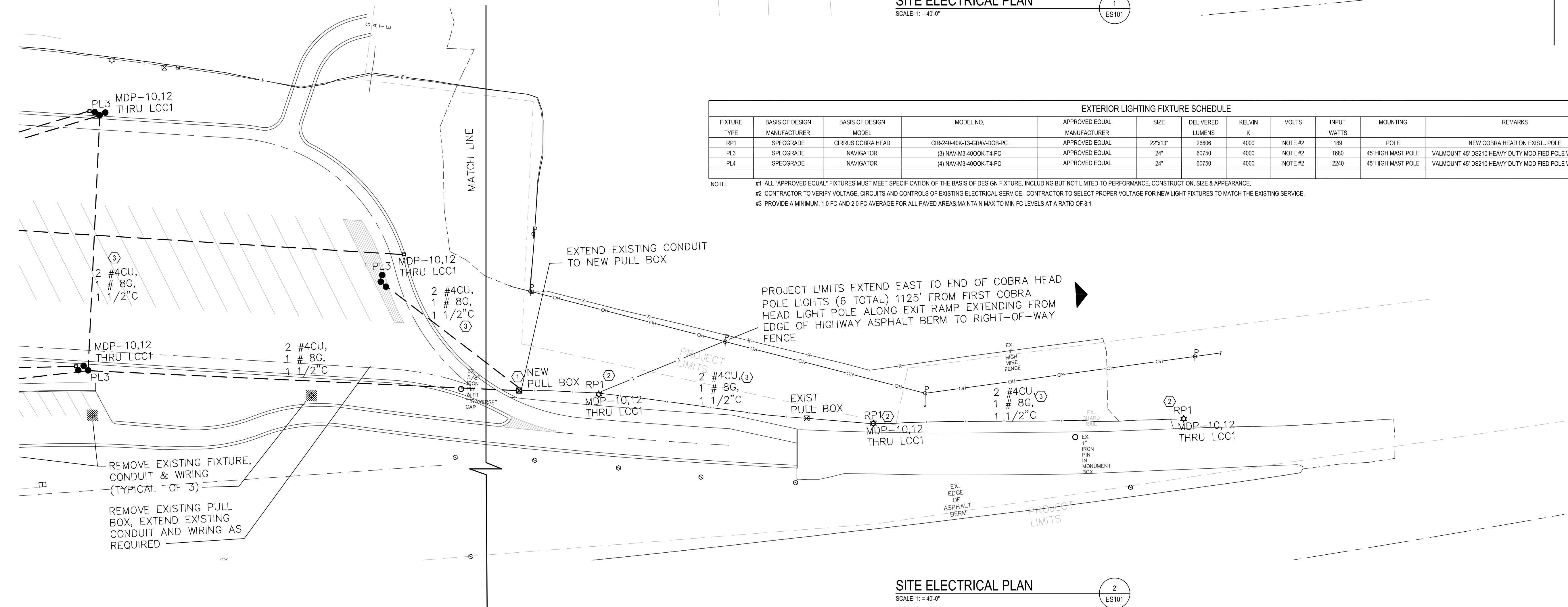
SITE ELECTRICAL PLAN

SCALE: 1" = 40'-0"

1
ES101

EXTERIOR LIGHTING FIXTURE SCHEDULE											
FIXTURE TYPE	BASIS OF DESIGN MANUFACTURER	BASIS OF DESIGN MODEL	MODEL NO.	APPROVED EQUAL MANUFACTURER	SIZE	DELIVERED LUMENS	KELVIN K	VOLTS	INPUT WATTS	MOUNTING	REMARKS
RP1	SPECGRADE	CIRRUS COBRA HEAD	CIR-240-40K-T3-GRV-DOB-PC	APPROVED EQUAL	22"x13"	26806	4000	NOTE #2	169	POLE	NEW COBRA HEAD ON EXIST. POLE
PL3	SPECGRADE	NAVIGATOR	(3) NAV-M3-4000K-T4-PC	APPROVED EQUAL	24"	60750	4000	NOTE #2	1680	45' HIGH MAST POLE	VALMOUNT 45' DS210 HEAVY DUTY MODIFIED POLE W/4 HEADS
PL4	SPECGRADE	NAVIGATOR	(4) NAV-M3-4000K-T4-PC	APPROVED EQUAL	24"	60750	4000	NOTE #2	2240	45' HIGH MAST POLE	VALMOUNT 45' DS210 HEAVY DUTY MODIFIED POLE W/4 HEADS

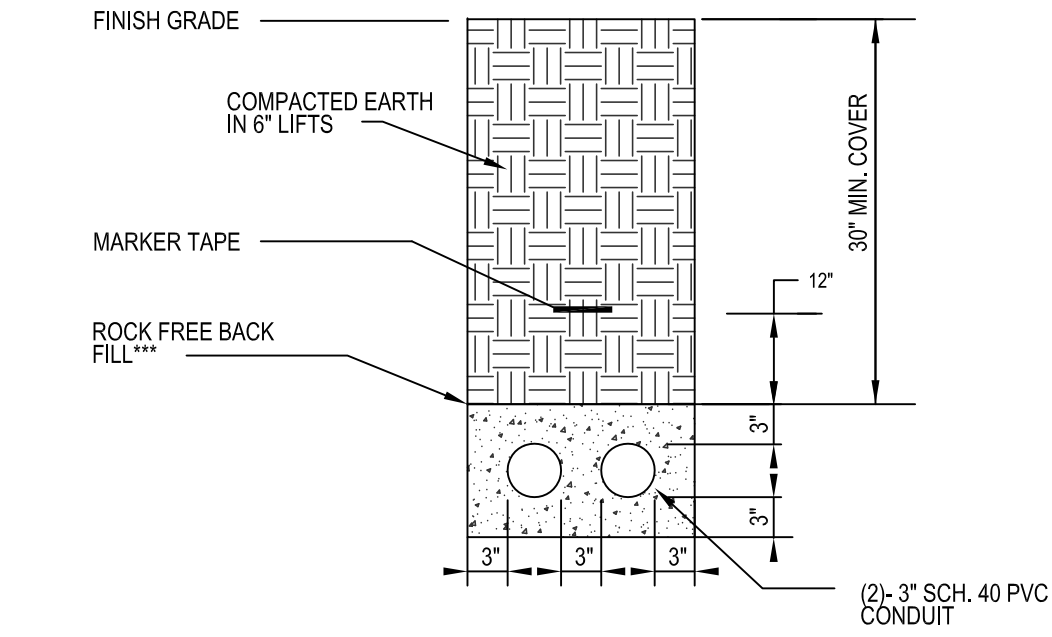
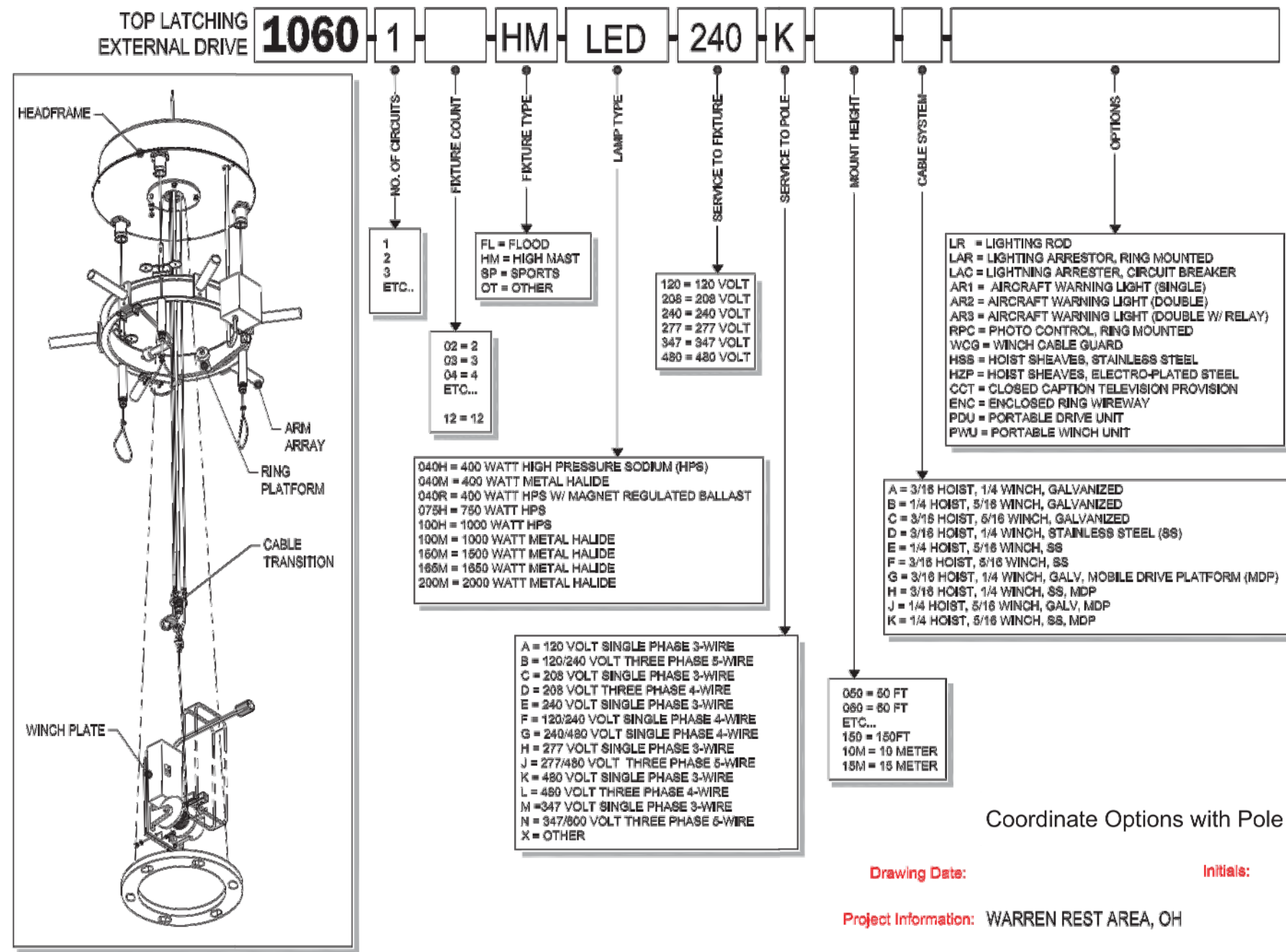
NOTE: #1 ALL "APPROVED EQUAL" FIXTURES MUST MEET SPECIFICATION OF THE BASIS OF DESIGN FIXTURE, INCLUDING BUT NOT LIMITED TO PERFORMANCE, CONSTRUCTION, SIZE & APPEARANCE.
#2 CONTRACTOR TO VERIFY VOLTAGE, CIRCUITS AND CONTROLS OF EXISTING ELECTRICAL SERVICE. CONTRACTOR TO SELECT PROPER VOLTAGE FOR NEW LIGHT FIXTURES TO MATCH THE EXISTING SERVICE.
#3 PROVIDE A MINIMUM, 1.0 FC AND 2.0 FC AVERAGE FOR ALL PAVED AREAS. MAINTAIN MAX TO MIN FC LEVELS AT A RATIO OF 8:1



SITE ELECTRICAL PLAN

SCALE: 1" = 40'-0"

2
ES101



*** UNDERGROUND RACEWAYS SHALL BE CONCRETE ENCASED UNDER AND WITHIN 5'-0" OF HARD SURFACES SUCH AS PAVED LOTS, GRAVEL AREAS, SIDEWALKS AND EQUIPMENT PADS. ALL BENDS AND 3 FEET BEYOND SHALL BE CONCRETE ENCASED, INCLUDING THE UNDERGROUND RISERS.

REVISION DATE **04-21-2017**

STATE OF OHIO DEPARTMENT OF TRANSPORTATION ADMINISTRATION

DESIGNER **David L. Holstein**

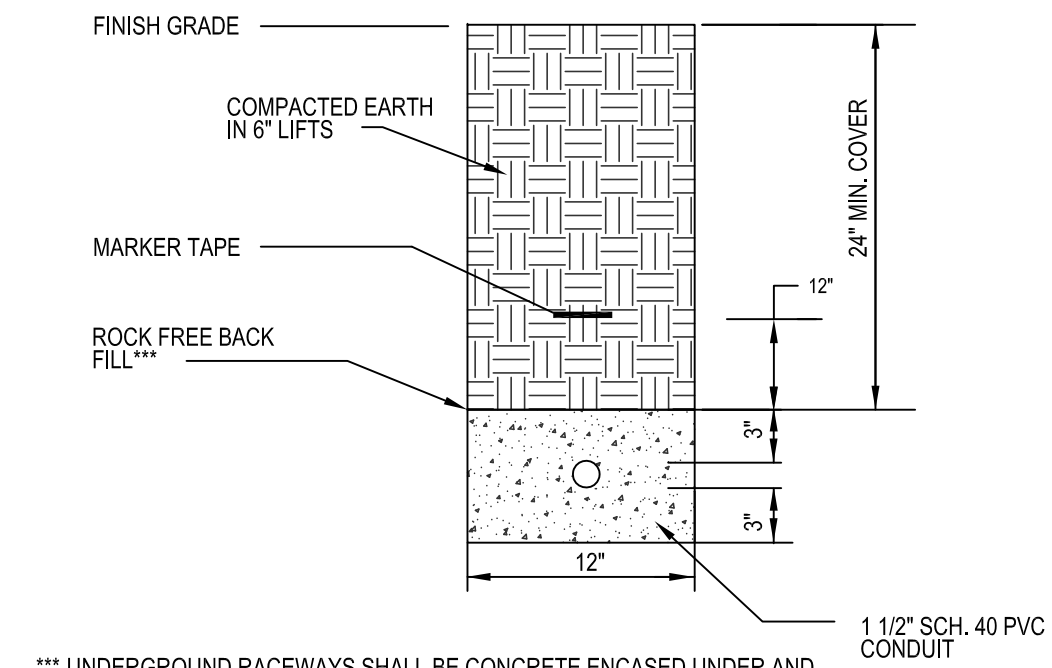
STATUS **Duennel**

OFFICE OF ROADWAY ENGINEERING

MISC. LIGHT POLE FOUNDATION & TRENCH DETAILS

HL - 20.11

1 / 1



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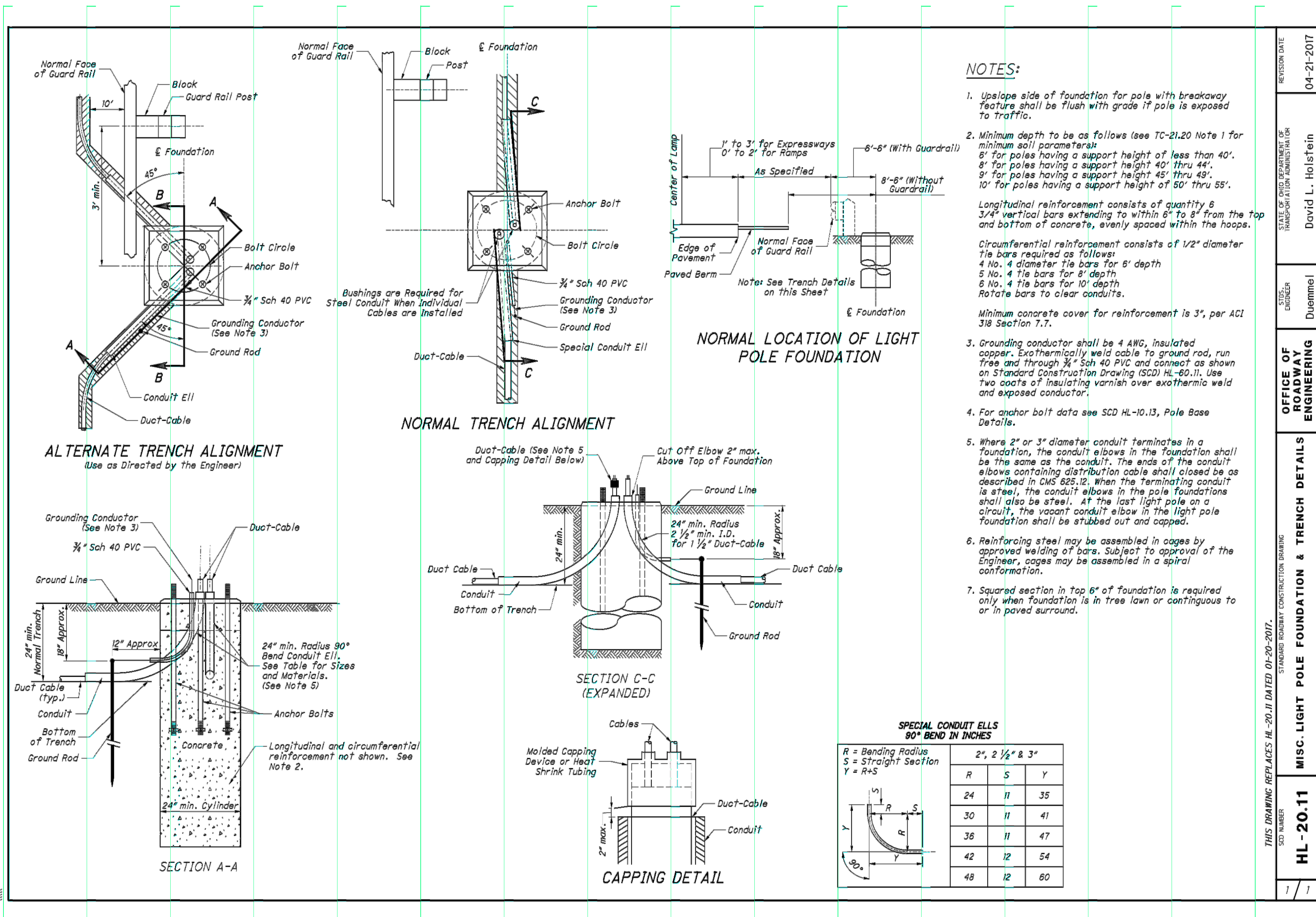
STATUS **Duennel**

OFFICE OF ROADWAY ENGINEERING

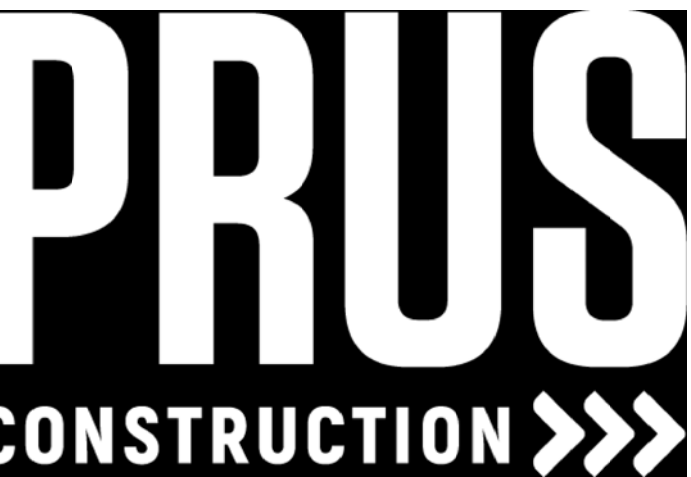
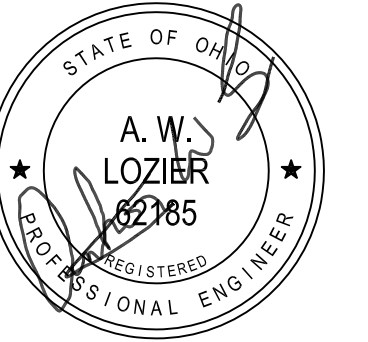
MISC. LIGHT POLE FOUNDATION & TRENCH DETAILS

HL - 20.11

1 / 1



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Record Drawings
09/16/2019

Revisions:
Issue Date: July 20, 2018

I-71 Rest Areas

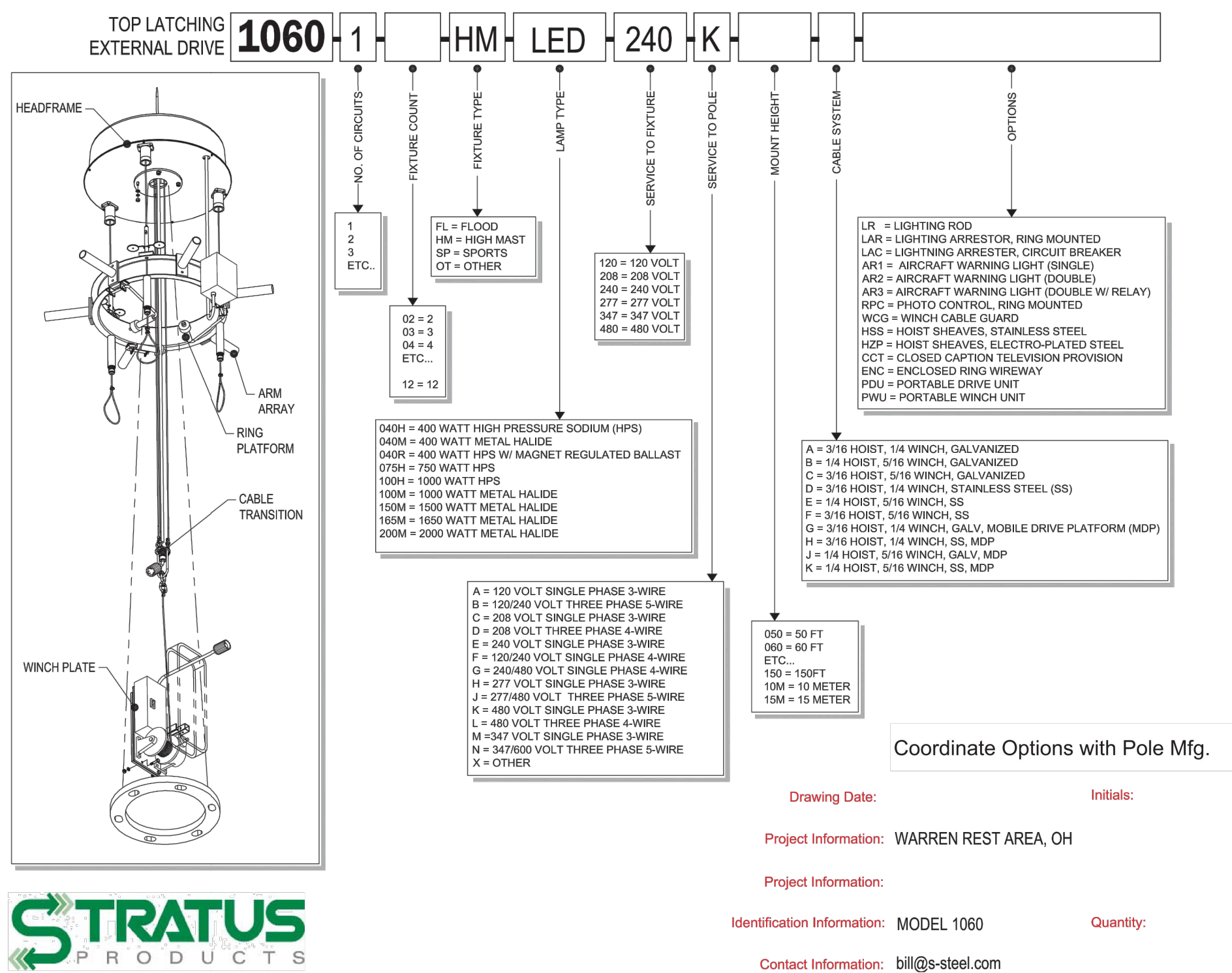
Mile Marker 34
North Bound
Warren County, Ohio

SITE LIGHTING DETAILS

Project No.

ES102

18084



Design Criteria Notes

REFERENCED DESIGN CODE:
OHIO BUILDING CODE (2017)

ENVIRONMENTAL LOADS:
MINIMUM FROST DEPTH (FIN. GRADE TO BOTTOM OF FOOTING) = 30 IN.
ROOF SNOW LOAD:
GROUND SNOW LOAD, P_g = 20 PSF
FLAT ROOF SNOW LOAD, P_f = 20 PSF
SNOW EXPOSURE FACTOR, C_e = 1.0
SNOW LOAD IMPORTANCE FACTOR, I_s = 1.0
THERMAL FACTOR, C_t = 1.1
WIND LOAD:
BASIC WIND SPEED (3 SECOND GUST) = 115 MPH (V_{ult})
RISK CATEGORY = II
WIND EXPOSURE = C
INTERNAL PRESSURE COEFFICIENT = +/- 0.18
COMPONENT AND CLADDING TO BE USED FOR ALL ITEMS NOT SPECIFICALLY DESIGNED BY ENGINEER OF RECORD =
ROOFS = +20 PSF / 45 PSF (asd)
WALLS = +20 PSF / 24 PSF (asd)
EARTHQUAKE LOAD:
SEISMIC IMPORTANCE FACTOR, I_s = 1.0
MAPPED SPECTRAL ACCELERATION, S_s = 0.141
SITE CLASS = D (ASSUMED)
DESIGN SPECTRAL ACCELERATION: S_{ah} = 0.151
S_{ah} = 0.117
SEISMIC DESIGN CATEGORY = B
BASIC SEISMIC FORCE-RESISTING SYSTEM (RESPONSE MODIFICATION FACTOR) =
[Reference: ASCE 7-10 Table 12.2-1]
A15 LIGHT FRAMED WALLS SHEATHED WITH WOOD STRUCTURAL PANELS
RATED FOR SHEAR RESISTANCE (R=6.5)
A17 LIGHT FRAMED WALLS WITH SHEAR PANELS OF ALL OTHER MATERIALS (R=2.0)
SEISMIC RESPONSE COEFFICIENT, CS = 0.075
ANALYSIS PROCEDURE USED = EQUIVALENT LATERAL FORCE PROCEDURE
DESIGN BASE SHEAR (1.0E) = 10.8 KIPS
SPECIAL LOADS:
SEE PLAN FOR SPECIAL LOADING CONDITIONS

DESIGN UNIFORM LOADS:
DEAD LOAD: REFER TO DEAD LOAD TABULATION TABLES
ROOF LIVE LOAD: 20 PSF (MINIMUM PER OBC SECTION 1607.12.2)
UNIFORM FLOOR LIVE LOAD (CONCENTRATED LOAD):
1. REFER TO OBC 1607.4 FOR CONCENTRATED LOAD APPLICATION AREA
2. MINIMUM CONCENTRATED LOAD NOTED IN BRACKETS BELOW []
3. LIVE LOAD REDUCTION - **NOT USED** FOR COLUMNS AND FOOTINGS PER 1607.10

LIGHT COMMERCIAL		
MINIMUM FLOOR LIVE LOAD, U.N.O.	100 PSF	
CORRIDORS, FIRST FLOOR	100 PSF	[2000 LBS]
STORAGE, LIGHT	125 PSF	
MECHANICAL	150 PSF	
LOBBIES	100 PSF	[2000 LBS]

General Structural Notes

GENERAL (ALL TRADES)
1. IN ACCORDANCE WITH SECTION 1704 OF THE OHIO BUILDING CODE, SPECIAL INSPECTIONS WILL BE REQUIRED FOR THIS PROJECT. SPECIAL INSPECTIONS SHALL BE PERFORMED IN ACCORDANCE WITH THE "SPECIAL INSPECTION REQUIREMENTS" SCHEDULE. ALL FABRICATORS SHALL SATISFY THE "EXCEPTION" NOTED IN SECTION 1704 WHICH REQUIRES THE FABRICATOR TO MAINTAIN AN AGREEMENT WITH AN APPROVED INDEPENDENT INSPECTION OR QUALITY CONTROL AGENCY.
2. STRUCTURAL DRAWINGS SHALL BE USED IN CONJUNCTION WITH THE DRAWINGS AND SPECIFICATIONS OF ALL OTHER DISCIPLINES. THE CONTRACTOR SHALL VERIFY THE REQUIREMENTS OF OTHER TRADES AS TO SLEEVES, CHASES, HANGERS, INSERTS, ANCHORS, HOLES, AND OTHER ITEMS TO BE PLACED OR SET IN THE STRUCTURAL WORK.
3. THE STRUCTURAL DRAWINGS HEREIN REPRESENT THE FINISHED STRUCTURE. THE CONTRACTOR SHALL PROVIDE ALL TEMPORARY GUYING AND BRACING REQUIRED TO ERECT AND HOLD THE STRUCTURE IN PROPER ALIGNMENT UNTIL ALL STRUCTURAL WORK AND CONNECTIONS HAVE BEEN COMPLETED. THE INVESTIGATION, DESIGN, SAFETY, ADEQUACY AND INSPECTION OF ERECTION BRACING, SHORING, TEMPORARY SUPPORTS, ETC. IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
4. GOP LTD SHALL NOT BE RESPONSIBLE FOR THE METHODS, TECHNIQUES, AND SEQUENCES OF PROCEDURES TO PERFORM THE WORK.

POST INSTALLED ANCHORS
1. INSTALL ALL ANCHORS PER THE MANUFACTURER'S PUBLISHED INSTALLATION INSTRUCTIONS (MPII).
2. WHERE NOT INDICATED ON THE DRAWINGS, POST-INSTALLED ANCHORS SHALL CONSIST OF THE FOLLOWING ANCHOR TYPES AS PROVIDED BY HILTI, INC.
3. **CONCRETE SUBSTRATE** - U.N.O. USE 3/4" DIAM. HILTI HAS THREADED RODS OR HIT-Z ANCHOR RODS WITH HIT-HY 200 SAFE SET SYSTEM, ICC ESR-3187, MINIMUM EMBEDMENT 0'-6 3/4".
4. **REINFORCING INTO CONCRETE** - U.N.O. USE HILTI HIT-RE 500 V3 EPOXY, ICC ESR-3814, MINIMUM EMBEDMENT INTO CONCRETE 4X 1 BAR DIAMETER U.N.O.
5. **GROUTED CONCRETE MASONRY** (INSTALLED IN WALL FACE) MIN. 8" GROUT AROUND ALL ANCHORS - U.N.O. USE 3/4" DIAM. HILTI KWIK BOLT 3 ANCHORS, ICC-ES ESR-1385, MINIMUM EMBEDMENT 0'-4 3/4".
6. **GROUTED CONCRETE MASONRY** (INSTALLED VERTICALLY IN TOP COURSE OF WALL) - U.N.O. USE 3/4" DIAM. HILTI KWIK HUS EZ SCREW ANCHORS, ICC-ES ESR-3056, MINIMUM EMBEDMENT 0'-4 1/4".
7. **UNGROUTED CONCRETE MASONRY** - USE THE HILTI HIT HY-70 ADHESIVE SYSTEM ICC-ES ESR-2682. U.N.O. STEEL ANCHORS SHALL BE 1/2" DIAM. HILTI HAS-E CONTINUOUSLY THREADED ROD x 0'-4" MINIMUM EMBEDMENT. USE TWO APPROPRIATELY SIZED MESH SLEEVES PER ANCHOR.

DIVISION 3 - FOUNDATIONS AND CONCRETE
1. ALLOWABLE NET SOIL BEARING CAPACITY = **1500 PSF ASSUMED**
2. ALL EXCAVATIONS SHALL BE INSPECTED BY A GEOTECHNICAL ENGINEER PRIOR TO PLACING CONCRETE.
3. CONCRETE WORK SHALL BE ACCOMPLISHED IN ACCORDANCE WITH THE LATEST "AMERICAN CONCRETE INSTITUTE" INCLUDING THE REQUIREMENTS OF ACI 301, "SPECIFICATION FOR STRUCTURAL CONCRETE BUILDINGS". CONCRETE MIXES SHALL BE DESIGNED PER ACI 301, USING PORTLAND CEMENT CONFORMING TO ASTM C150 OR C595, AGGREGATE CONFORMING TO ASTM C33, AND ADMIXTURES CONFORMING TO ASTM C494, C1017, C618, C899 AND C260. CONCRETE SHALL BE READY-MIXED IN ACCORDANCE WITH ASTM C94.
4. HOT WEATHER CONCRETING SHALL BE IN ACCORDANCE WITH ACI 305. COLD WEATHER CONCRETING SHALL BE IN ACCORDANCE WITH ACI 306.
5. CONCRETE SHALL ATTAIN THE FOLLOWING ULTIMATE 28 DAY COMPRESSIVE STRENGTHS: 3,000 P.S.I. FOR FOOTINGS; 4,000 P.S.I. FOR INT. SLABS ON GRADE, WALLS, WALL PIERS, BEAMS AND COLUMNS; 4,500 P.S.I. FOR EXT. SLABS ON GRADE; SLUMP SHALL BE 4" ± 1".
6. ALL CONCRETE TO BE PERMANENTLY EXPOSED TO WEATHER SHALL BE AIR ENTRAINED (4.5 TO 7.5%) WITH AN ADMIXTURE THAT CONFORMS TO ASTM C260. MAXIMUM W/C RATIO = 0.45.
7. ALL REINFORCING STEEL SHALL CONFORM TO ASTM A615 OR ASTM A996, GRADE 60.
8. TOP OF FOOTING ELEVATIONS SHALL BE AS SHOWN ON THE FOUNDATION PLAN. THESE ELEVATIONS ARE A MAXIMUM AND SHALL BE LOWERED AS REQUIRED TO OBTAIN THE REQUIRED DESIGN BEARING PRESSURE PER THE GEOTECHNICAL ENGINEER'S SPECIFICATION. REFER TO SCHEDULES AND DETAILS FOR MINIMUM FOOTING THICKNESSES.

DIVISION 4 - MASONRY
1. MASONRY CONSTRUCTION SHALL CONFORM TO THE REQUIREMENTS OF THE "SPECIFICATIONS FOR MASONRY STRUCTURES (ACI 530.1-08)", PUBLISHED BY THE AMERICAN CONCRETE INSTITUTE.
2. HOLLOW LOAD BEARING MASONRY UNITS SHALL CONFORM TO ASTM C90. COMPRESSIVE STRENGTH OF THE BLOCK SHALL BE A MINIMUM 2650 PSI.
3. ALL MORTAR SHALL MEET THE "PROPORTION SPECIFICATION" OF ASTM C-270 AND BE MADE WITH PORTLAND CEMENT/UNE (NON AIR-ENTRAINED). USE TYPE 'S' FOR WALLS BELOW GRADE AND TYPE 'N' FOR ALL OTHER WALLS.
4. THE MINIMUM 28 DAY NET COMPRESSIVE STRENGTH OF THE MASONRY ASSEMBLY (I' m) SHALL BE 2000 P.S.I., AS DETERMINED BY THE UNIT STRENGTH METHOD OF ACI 530.1.
DIVISION 5 - METALS
STRUCTURAL STEEL
1. ALL STRUCTURAL STEEL SHALL BE FABRICATED AND ERECTED IN ACCORDANCE WITH THE LATEST AISC RECOMMENDATIONS AND CONFORM TO ANSIAISC 360-10 AND AISC 360-10 INCLUDED IN THE 14TH EDITION OF THE "STEEL CONSTRUCTION MANUAL".
2. UNLESS NOTED OTHERWISE, ALL MATERIALS SHALL BE IN ACCORDANCE WITH THE FOLLOWING ASTM SPECIFICATIONS: PLATES A36 (36 KSI)
3. BASE PLATE ANCHOR RODS SHALL BE ASTM F1554 (36 KSI); USE NONSHRINK GROUT C1107 (8000 PSI).
4. UNLESS NOTED OTHERWISE, PROVIDE CONTINUOUS 1/4 FILLET WELDS PER AISC REQUIREMENTS.
5. UNLESS NOTED OTHERWISE, ALL STRUCTURAL STEEL PERMANENTLY EXPOSED TO THE WEATHER, INCLUDING ALL BRICK LINTEL ANGLES AND PLATES, SHALL BE HOT-DIPPED GALVANIZED IN ACCORDANCE WITH ASTM A153.

DIVISION 6 - WOOD
1. WOOD FRAMING SHALL BE OF THE FOLLOWING MINIMUM GRADE AND SPECIES, U.N.O.:
BUILT-UP STUD COLUMNS AND WALL PLATES SHALL BE No.2 SOUTHERN YELLOW PINE (SYP). THE REMAINDER OF THE STUD FRAMING SHALL BE No.1 No.2 SPRUCE-PINE-FIR (SPF).
2. DIMENSIONAL LUMBER JOISTS AND RAFTERS SHALL BE No.2 SOUTHERN YELLOW PINE.
3. OTHER MISCELLANEOUS WOOD FRAMING - No.1/No.2 SPF
4. ALL NAILING NOT OTHERWISE INDICATED SHALL BE IN ACCORDANCE WITH THE "FASTENING SCHEDULE" PER OBC TABLE 2304.10.1
5. HOLES AND NOTCHES DRILLED OR CUT INTO THE WALL STUD FRAMING SHALL NOT EXCEED THE RESTRICTIONS SET FORTH IN OBC 2308.5.9 AND 2308.5.10
6. PREFABRICATED METAL JOIST HANGERS, HURRICANE CLIPS, HOLDOWN ANCHORS AND OTHER ACCESSORIES SHALL BE AS MANUFACTURED BY "SIMPSON STRONG-TIE COMPANY". INSTALL ALL ACCESSORIES PER THE MANUFACTURER'S REQUIREMENTS. CONNECTORS IN CONTACT WITH PRESSURE TREATED WOOD SHALL BE SPECIFIED WITH "Z-MAX" GALVANIZATION.
7. ALL WOOD SHEATHING CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE AMERICAN PLYWOOD ASSOCIATION (APA) SPECIFICATIONS, AND SHALL MEET THE REQUIREMENTS OF THE LATEST EDITION OF "VOLUNTARY PRODUCT STANDARDS PS1, PS2, OR APA PRP-108 PERFORMANCE STANDARDS."
8. APA RATED SHEATHING APPLIES TO PLYWOOD OR ORIENTED STRAND BOARD (OSB), UNLESS SPECIFICALLY NOTED, EITHER MAY BE USED.
9. ALL ROOF PANELS SHALL BE 7/16" APA RATED SHEATHING, EXPOSURE 1 ("CDX"), U.N.O. SUITABLE EDGE SUPPORT SHALL BE PROVIDED BY USE OF PANEL CLIPS OR BLOCKING BETWEEN FRAMING, AS RECOMMENDED BY APA, WHEN TONGUE & GROOVE ROOF SHEATHING IS NOT PROVIDED. CONNECT ROOF SHEATHING WITH 8D COMMON NAILS (D=0.131", L=2-1/2") AT 6"o.c. AT SUPPORTED PANEL EDGES AND 12"o.c. AT INTERMEDIATE SUPPORTS, U.N.O. INCREASE NAILING TO 4"o.c. AT ALL OVERHANGS.
10. UNLESS NOTED OTHERWISE AS A SHEARWALL, ALL WALL PANELS SHALL BE 7/16 APA RATED SHEATHING, EXPOSURE 1 ("CDX"). CONNECT WALL SHEATHING WITH 8D COMMON NAILS (D=0.131", L=2-1/2") AT 6"o.c. AT SUPPORTED PANEL EDGES AND 12"o.c. AT INTERMEDIATE SUPPORTS, U.N.O.
PRE-ENGINEERED WOOD TRUSSES
1. WOOD TRUSSES SHALL BE DESIGNED BY THE MANUFACTURER IN ACCORDANCE WITH THE APPLICABLE PROVISIONS OF THE OHIO BUILDING CODE (2017), ASCE 7-10 "MINIMUM DESIGN LOADS FOR BUILDINGS AND OTHER STRUCTURES", ANSITPI 1-2014 "NATIONAL DESIGN STANDARD FOR METAL PLATE CONNECTED WOOD TRUSSES", AND THE LATEST EDITION OF THE NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION.
2. WOOD TRUSSES SHALL BE INSTALLED IN ACCORDANCE WITH THE TRUSS MANUFACTURER'S REQUIREMENTS AND THE GUIDELINES SET FORTH IN THE LATEST WTCAT/PI JOINT PUBLICATION OF BCSI "GUIDE TO GOOD PRACTICE FOR HANDLING, INSTALLING, RESTRAINING AND BRACING OF METAL PLATE CONNECTED WOOD TRUSSES" AS A MINIMUM REQUIREMENT. THE TRUSS SUPPLIER SHALL HAND DELIVER A COPY OF THIS DOCUMENT TO THE TRUSS INSTALLER AT THE SITE BEFORE TRUSSES ARE ERECTED.
3. WOOD TRUSSES SHALL BE DESIGNED BY THE TRUSS MFR. TO SUPPORT THE FOLLOWING LOADS:

- a. TOP CHORD LIVE LOAD: 25 PSF (SNOW LOAD DURATION);

b. SEE PLAN FOR SNOW DRIFT LOADS;

c. CHECK EAVES AND OVERHANGS FOR 2"p PER ASCE 7 (Section 7.4.5) ;

d. TOP CHORD DEAD LOAD: 15 PSF ;

e. ADD ADDITIONAL 4 PSF DEAD LOAD ON TRUSSES BELOW BUILT-UP FRAMING OR VALLEY SET AREAS.

f. BOTTOM CHORD LIVE LOAD: USE MINIMUM PER TRUSS MFR.

g. BOTTOM CHORD DEAD LOAD: 10 PSF

h. SPRINKLER LOCATIONS, IF APPLICABLE, TO BE PROVIDED BY G.C. PRIOR TO TRUSS DESIGN

i. REFER TO PLAN FOR SPECIAL LOADING CONDITIONS

SPECIFICATIONS FOR GLUED-LAMINATED WOOD CONSTRUCTION

GENERAL
1. **CODE AND REFERENCE STANDARDS:**
AISC "TIMBER CONSTRUCTION MANUAL", LATEST EDITION.
ANSI / AF&PA "NATIONAL DESIGN SPECIFICATIONS FOR WOOD CONSTRUCTION", LATEST EDITION.
2. **DESCRIPTION OF WORK:**
THE EXTENT OF GLUED-LAMINATED TIMBER WORK IS SHOWN ON DRAWINGS, EITHER BY TERMINOLOGY USED IN THIS SPECIFICATION OR BY THE ABBREVIATIONS AS INDICATED. GLUED-LAMINATED TIMBER IS HEREBY DEFINED TO INCLUDE WOOD MEMBERS FABRICATED FROM 1 OR 2 INCH NOMINAL THICKNESS LUMBER GLUED FACE-TO-FACE WITH THE GRAIN OF ALL LAMINATES APPROXIMATELY PARALLEL LONGITUDINALLY.
3. **QUALITY ASSURANCE:**
STANDARDS
TO COMPLY WITH THE "STRUCTURAL GLUED-LAMINATED TIMBER" ANSI/AITC A190.1-LATEST EDITION.
MANUFACTURER
PROVIDE FACTORY-GLUED TIMBER UNITS, PRODUCED BY A SINGLE AITC LICENSED FIRM, QUALIFIED TO ISSUE THE AITC "QUALITY INSPECTED" MARK. FACTORY MARK EACH PIECE OF GLUED-LAMINATED TIMBER WITH AITC QUALITY INSPECTED MARK. PLACE AITC MARK ON TIMBER SURFACES THAT WILL NOT BE EXPOSED IN COMPLETED WORK.
1. APPROVED MANUFACTURER: STRUCTURAL WOOD SYSTEMS, P.O. BOX 250, GREENVILLE, AL 36037, CONTACT RICK TAYLOR @ (334) 382-6534 SALES@STRUCTURALWOOD.COM
2. OTHER MANUFACTURER WITH PRIOR APPROVAL.

4. **SUBMITTALS:**
PRODUCT DATA
SUBMIT CERTIFICATION, INDICATING GLUED-LAMINATED TIMBERS COMPLY WITH REQUIREMENTS OF ANSI/AITC A190.1-LATEST EDITION.

SHOP DRAWINGS:
SUBMIT SHOP DRAWINGS PREPARED UNDER THE SUPERVISION OF A PROFESSIONAL ENGINEER, LICENSED IN THE STATE WHERE THE PROJECT IS LOCATED, SHOWING FULL DIMENSIONS OF EACH MEMBER, INDICATE SPECIES AND STRESS GRADE OF LUMBER, TYPE OF GLUE, AND OTHER VARIABLES IN REQUIRED WORK. FURNISH ELECTRONIC SETS OF SHOP DRAWINGS IN PDF FORMAT FOR APPROVAL BY THE BUYERS APPROVING AGENCY. THE CONTRACTOR SHALL VERIFY DIMENSIONS AND BE RESPONSIBLE FOR COORDINATING SAME. LAMINATED TIMBER MANUFACTURER IS REQUIRED TO HAVE A LICENSED PROFESSIONAL ENGINEER ON STAFF.

5. **MATERIALS:**
LUMBER
COMPLY WITH ANSI/AITC A190.1 AND APPLICABLE LUMBER ASSOCIATION STANDARDS CITED THEREIN FOR GRADES REQUIRED TO ACHIEVE GLUED-LAMINATED TIMBER REQUIREMENTS FOR A LOWWASHABLE APPEARANCE. FABRICATION LIMITATIONS AND SPECIES LAMINATING COMBINATIONS SHALL BE VISUALLY GRADED AS DETERMINED BY MANUFACTURER.

PRESERVATIVE TREATMENT (AT EXPOSED BEAMS AND COLUMNS)
WHERE PRESERVATIVE TREATMENT IS SPECIFIED OR SHOWN ON PLANS, PRESSURE TREAT LUMBER PRIOR TO GLUING WITH PENTACHLOROPHENOL IN MINERAL SPIRITS IN ACCORDANCE WITH AITC 109 "STANDARD FOR PRESERVATIVE TREATMENT OF STRUCTURAL GLUED-LAMINATED TIMBER." (0.3 PCF) ABOVE GROUND.

LUMBER SPECIES:
SOUTHERN PINE

ADHESIVE
ADHESIVES SHALL BE WET-USE (WATERPROOF) COMPLYING WITH ANSI/AITC A190.1. ADHESIVES SHALL CONTAIN NO UREA FORMALDEHYDE.

6. **TIMBER DESIGN:**
GENERAL
GLUED LAMINATED MEMBERS TO BE SIZED BY MANUFACTURER EXCEPT AS SHOWN ON DRAWINGS. FINAL CROSS SECTIONS WILL BE BASED ON MANUFACTURER'S STANDARD WIDTHS AND DEPTHS. MANUFACTURER TO PROVIDE DESIGN VALUES (STRESSES) TO FULFILL STRUCTURAL DEMAND IN ACCORDANCE WITH APPLICABLE PROVISIONS OF AITC 117 "DESIGN", STANDARD SPECIFICATIONS FOR STRUCTURAL GLUED-LAMINATED TIMBER OF SOUTHWOOD SPECIES.

CAMBER
EXCEPT AS OTHERWISE INDICATED, FABRICATE HORIZONTAL LOAD BEARING MEMBERS WITH A CAMBER AS SHOWN ON THE DRAWINGS.

STEEL CONNECTIONS
LAMINATED TIMBER MANUFACTURER TO SUPPLY ALL FABRICATED STEEL CONNECTIONS TO JOIN LAMINATED TO LAMINATED, AND LAMINATED TO SUPPORTS EXCLUSIVE OF ITEMS EMBEDDED IN CONCRETE OR WELDED TO STRUCTURAL STEEL, OR CONNECTED TO STUD WALLS. HARDWARE SHALL BE PRE-FIT AND MATCH-MARKED IN THE MANUFACTURING FACILITY.
A. STEEL WORK TO CONFORM TO A.I.S.C. SPECIFICATIONS.
B. STEEL SHALL CONFORM TO ASTM A-36.
C. BOLTS SHALL CONFORM TO ASTM A-307.
D. SHOP PAINT FABRICATED STEEL WITH ONE COAT OF RUST INHIBITIVE PRIMER.
E. WHERE WET-USE GLULAM WORK IS INDICATED, FINISH FABRICATED ASSEMBLIES WITH HOT-DIP GALVANIZED COATING (ASTM A 153), INCLUDING BOLTS AND OTHER FASTENERS.
F. **GLULAM TO GLULAM CONNECTIONS SHALL UTILIZE CONCEALED CONNECTORS TO THE LARGEST EXTENT PRACTICAL.**

7. **APPEARANCE GRADE:**
PROVIDE **PREMIUM APPEARANCE GRADE** TIMBERS COMPLYING WITH AITC 110. PREMIUM IS THE HIGHEST STANDARD APPEARANCE GRADE.
8. **FINISH:**
FACTORY FINISHED WITH (1) COAT OF MANUFACTURERS SEMI-TRANSPARENT OIL-BASED STAIN. MANUFACTURER TO SUBMIT COLOR SELECTION SAMPLES OF FINISH FOR APPROVAL.
9. **FACTORY APPLIED PROTECTION:**
IMMEDIATELY AFTER END-CUTTING EACH MEMBER TO FINAL LENGTH, APPLY A SATURATION COAT OF END SEALER TO ENDS AND OTHER CROSS-CUT SECTIONS. INDIVIDUALLY WRAP GLUED LAMINATED TIMBERS WITH MANUFACTURER'S STANDARD WATER-RESISTANT, PLASTIC COATED PAPER.

10. **PRODUCT HANDLING:**
SCHEDULE DELIVERY AND INSTALLATION OF GLUE-LAMINATED WOOD MEMBERS TO AVOID EXTENDED ON-SITE STORAGE. COMPLY WITH AITC III-RECOMMENDED PRACTICE FOR PROTECTION OF STRUCTURAL GLUED-LAMINATED TIMBER DURING TRANSIT, STORAGE AND ERECTION "KEEP LAMINATED WOOD MEMBERS AS DRY AS POSSIBLE DURING ALL PHASES OF CONSTRUCTION. IF JOBSITE STORAGE IS NECESSARY, PLACE MEMBERS ON BLOCKING AWAY FROM PONDING WATER AND COVER WITH A WATERPROOF COVERING WHICH WILL NOT ALLOW ULTRAVIOLET RAY PENETRATION. TIME OF REMOVAL OF FACTORY WRAPPING IS OPTIONAL, BUT IT MUST BE EMPHASIZED THAT FACTORY APPLIED WRAPPING PROVIDES ADDITIONAL PROTECTION FROM DAMAGE IN HANDLING AND IN-TRANSIT ONLY. IF FURTHER UTILIZATION OF THE WRAP IS DESIRED FOR PROTECTION AFTER SHIPMENT, THE MEMBERS SHOULD BE INSPECTED AND PROVIDED WITH ADDITIONAL PROTECTION AS NECESSARY. IF IT IS IMPRACTICAL TO REPLACE WRAPPING, ALL OF IT SHOULD BE REMOVED. DO NOT LEAVE MEMBERS PARTIALLY EXPOSED DUE TO POTENTIAL SUN BLEACHING. DO NOT ALLOW MOISTURE TO ACCUMULATE INSIDE WRAPPING. DO NOT REMOVE WRAPPING ON INDIVIDUALLY WRAPPED MEMBERS UNTIL IT WILL SERVE NO USEFUL PURPOSE, INCLUDING PROTECTION FROM THE WEATHER, SOILING AND DAMAGE FROM WORK OF OTHER TRADES. IT IS IMPERATIVE THAT THE FIELD HANDLING INSTRUCTIONS SHEET THAT COMES WITH THE MATERIAL SHIPMENT BE THOROUGHLY REVIEWED BEFORE UNLOADING.
11. **INSTALLATION:**
GENERAL
THE ANCHOR BOLT SETTINGS AND/OR BEARING ELEVATIONS MUST BE HELD WITHIN 1/8" OF THE DIMENSIONS SHOWN ON THE SHOP DRAWINGS. ALL MEMBERS MUST BE ADEQUATELY BRACED UNTIL THE COMPLETE STRUCTURAL SYSTEM (ALL PERTINENT CONSTRUCTION MATERIALS) HAS BEEN INSTALLED. CORRECTION OF MINOR MISFITS AND A REASONABLE AMOUNT OF CUTTING, REAMING, RE-DRILLING OR ALIGNMENT WITH DRIFT PINS WILL BE CONSIDERED A LEGITIMATE EXPENSE OF ERECTION.

BOLTS SHALL BE TIGHTENED TO SNUG TIGHT DRAWING ALL PLIES OF MATERIALS TO BE JOINED TOGETHER. WASHERS ARE REQUIRED UNDER ALL BOLT HEADS AND NUTS AND TIGHTENING OF BOLTS SHALL NOT CRUSH WOOD FIBERS.

Material and Work Requiring Special Inspections
(PER 2017 OHIO BUILDING CODE)

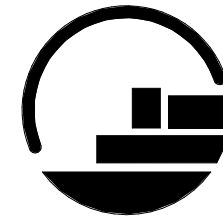
1. **INSPECTION OF FABRICATORS**
UNLESS EXEMPT BY CODE SECTION 1705.2, THE SPECIAL INSPECTOR SHALL VERIFY THAT THE FABRICATOR MAINTAINS DETAILED FABRICATION AND QUALITY CONTROL PROCEDURES THAT PROVIDE A BASIS FOR INSPECTION CONTROL OF THE WORKMANSHIP AND THE FABRICATOR'S ABILITY TO CONFORM TO APPROVED CONSTRUCTION DOCUMENTS AND REFERENCED STANDARDS. THE SPECIAL INSPECTOR SHALL REVIEW THE PROCEDURES FOR COMPLETENESS AND ADEQUACY RELATIVE TO THE CODE REQUIREMENTS FOR THE FABRICATOR'S SCOPE OF WORK.
2. **CONCRETE CONSTRUCTION**
UNLESS EXEMPT BY CODE SECTION 1705.3 THE SPECIAL INSPECTIONS AND VERIFICATIONS FOR CONCRETE CONSTRUCTION SHALL BE AS REQUIRED BY TABLE 1705.3.
3. **SOILS** (PERFORMED BY SITE TESTING AGENCY)
SOILS SHALL BE INSPECTED AND EVALUATED IN ACCORDANCE WITH THE REQUIREMENTS OF TABLE 1705.6. REFER TO DRAWING S001 & S101 FOR ALLOWABLE SOIL BEARING PRESSURE VERIFICATION.

Table 1705.6 (2017 OHIO BUILDING CODE) REQUIRED SPECIAL INSPECTIONS AND TESTS OF SOILS			
TYPE	CONTINUOUS SPECIAL INSPECTION	PERIODIC SPECIAL INSPECTION	
1. Verify materials below shallow foundations are adequate to achieve the design bearing capacity.	-	X	
2. Verify excavations are extended to proper depth and have reached proper material.	-	X	
3. Perform classification and testing of compacted fill materials.	-	X	
4. Verify use of proper materials, densities and lift thicknesses during placement and compaction of compacted fill.	X	-	
5. Prior to placement of compacted fill, inspect subgrade and verify that site has been prepared properly.	-	X	

Table 1705.3 (2017 OHIO BUILDING CODE) REQUIRED SPECIAL INSPECTIONS AND TESTS OF CONCRETE CONSTRUCTION				
TYPE	CONTINUOUS	PERIODIC	REFERENCED STANDARD *	IBC REFERENCE
1. Inspect reinforcement, including prestressing tendons, and verify placement.	-	X	ACI 318 Ch. 20, 25.2, 25.3, 26.6, 1-26.6.3	1908.4
2. Reinforcing bar welding: a. Verify weldability of reinforcing bars other than ASTM A706; b. Inspect single-pass fillet welds, maximum 5/16"; and c. Inspect all other welds.	X	X	AWS D1.4 ACI 318: 26.6.4	-
3. Inspect anchors cast in concrete.	-	X	ACI 318: 17.8.2	-
4. Inspect anchors post-installed in hardened concrete members. b a. Adhesive anchors installed in horizontally or upwardly inclined orientations to resist sustained tension loads. b. Mechanical anchors and adhesive anchors not defined in 4.a.	X		ACI 318: 17.8.2.4	-
5. Verify use of required design mix.	-	X	ACI 318: Ch. 19, 26.4.3, 26.4.4	1904.1/2 & 1908.2/3
6. Prior to concrete placement, fabricate specimens for strength tests, perform slump and air content tests, and determine the temperature of the concrete.	X	-	ASTM C172 ASTM C31 ACI 318: 26.4, 26.12	1908.10
7. Inspect concrete and shotcrete placement for proper application techniques.	X	-	ACI 318: 26.5	1908.6, 1908.7, 1908.8
8. Verify maintenance of specified curing temperature and techniques.	-	X	ACI 318: 26.5.3-26.5.5	1908.9
9. Inspect prestressed concrete for: a. Application of prestressing forces; and b. Grouting of bonded prestressing tendons.	X X	- -	ACI 318: 26.10	-
10. Inspect erection of precast concrete members.	-	X	ACI 318: Ch. 26.8	-
11. Verify in-situ concrete strength, prior to stressing of tendons in post-tensioned concrete and prior to removal of shores and forms from beams and structural slabs.	-	X	ACI 318: 28.11.2	-
12. Inspect formwork for shape, location and dimensions of the concrete member being formed.	-	X	ACI 318: 26.11.1.2(b)	-

For Sl: 1 inch = 25.4 mm.
a. Where applicable, see also Section 1705.12, Special inspection for seismic resistance.
b. Specific requirements for special inspection shall be included in the research report for the anchor issued by an approved source in accordance with 17.8.2 in ACI 318, or other qualification procedures. Where specific requirements are not provided, special inspection requirements shall be specified by the registered design professional and shall be submitted to the building official prior to the commencement of the work.

STRUCTURAL INSULATED PANELS (SIP)	
INSPECTION TYPE	REQUIREMENT
ICC-ESR EVALUATION REPORT	Confirm SIP has published and tested shear wall and diaphragm values in a code approved Evaluation Report
ELEMENT CONDITION	Verify: 1. Surface condition 2. Element temperature
SITE CONDITION	Verify: 1. Ambient temperature 2. Ambient humidity 3. Ventilation 4. Weather protection
PRE-INSTALL	A qualified member of the SIP manufacturer shall lead a pre-install meeting with the manufacturer's certified installer to go over installation procedures and any special installation issues related to the SIP assembly.
FIELD OBSERVATION	A qualified member of the SIP manufacturer shall review the final construction of SIP assemblies and verify conformance with the manufacturers published installation procedures



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Record Drawings
09/16/2019

Revisions:
Issue Date: July 20, 2018

I-71 Rest Areas
Mile Marker 34
South Bound
Warren County, Ohio

STRUCTURAL NOTES

Project No.

SS001

18084

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Record Drawings
09/16/2019

Revisions:
Issue Date: July 20, 2018

I-71 Rest Areas

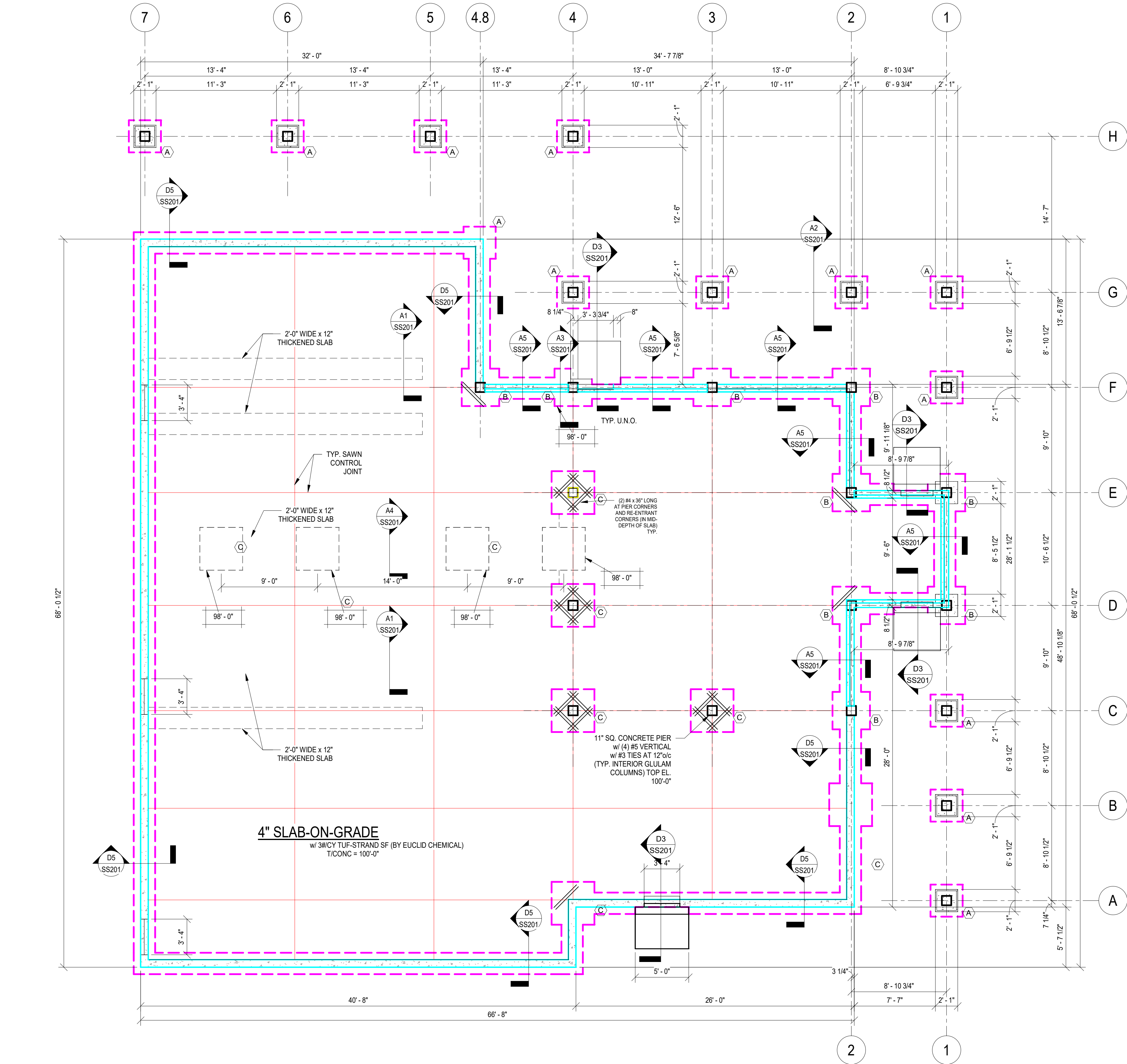
Mile Marker 34
South Bound
Warren County, Ohio

FOUNDATION PLAN

Project No.

18084

SS101



A1 Foundation Plan
3/16" = 1'-0"



FOOTING SCHEDULE			
MARK	SIZE	REINFORCING	NOTES
A	3'-0"SQ. x 12"	(3) - #5 E.W.	
B	4'-0"SQ. x 12"	(4) - #5 E.W.	
C	4'-0"SQ. x 12"	(4) - #5 E.W.	TOP EL. 98'-6"
Footnote: Allowable Soil Bearing Capacity = 1500 PSF			

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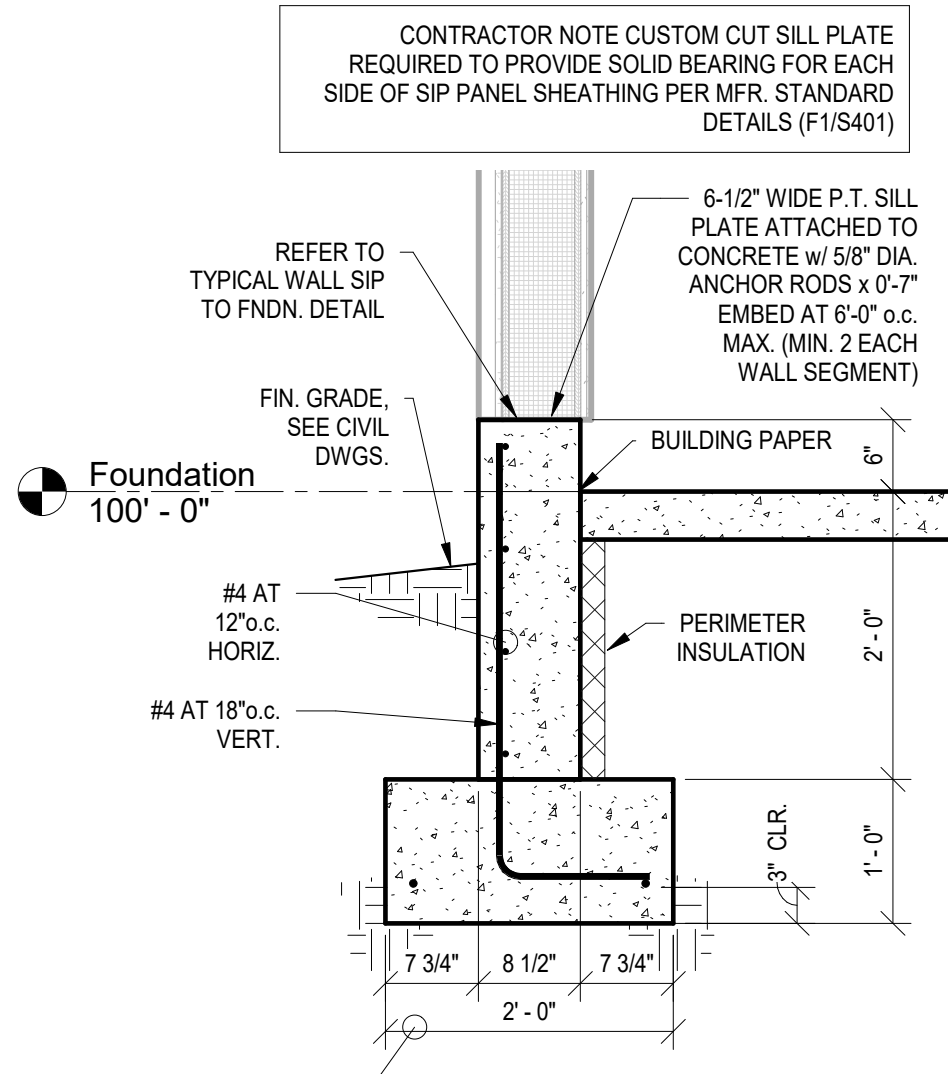
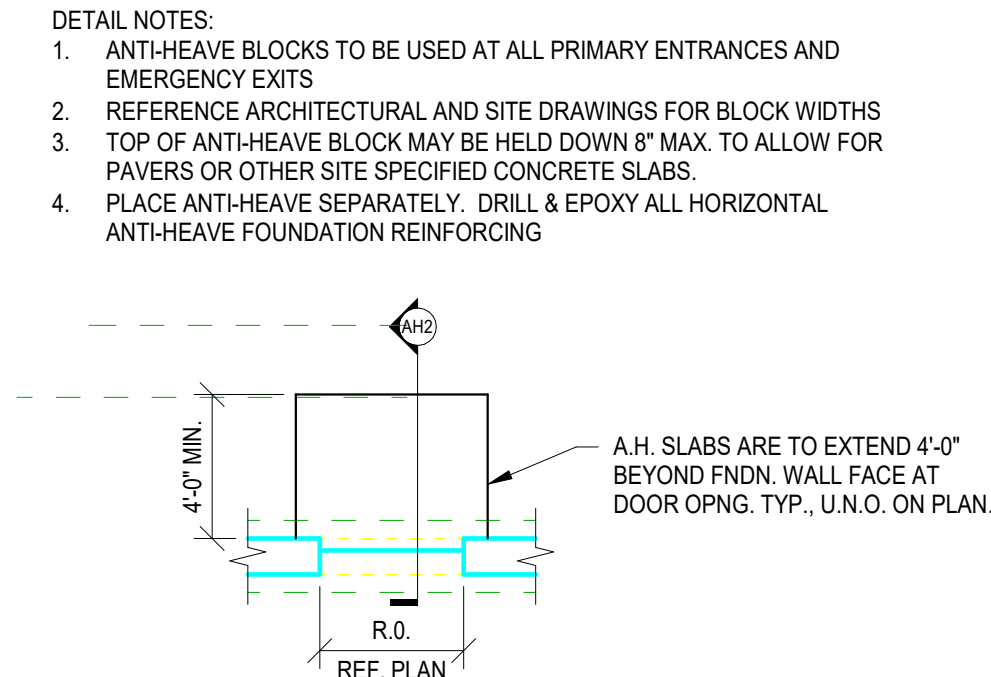
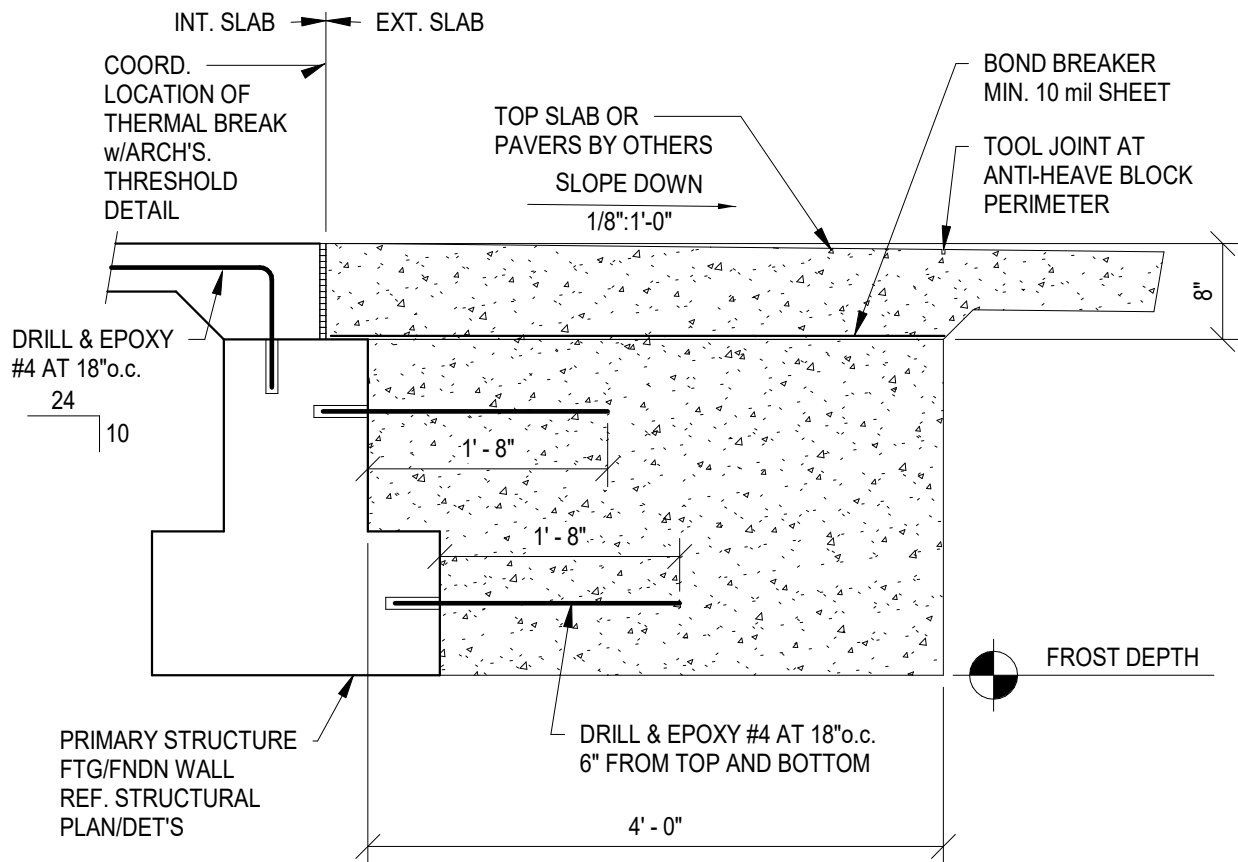
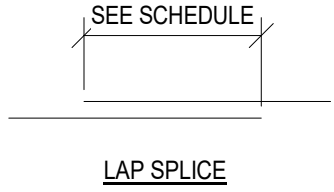
MINIMUM LAP SPLICE SCHEDULE

CASE	LOCATION	BAR SIZE	COVER (in.)
A	Concrete cast against and permanently exposed to earth ¹	ALL SIZES	3"
B	Concrete exposed to earth or weather	#5 & Smaller #6 thru #18	1 1/2" 2"
C	Concrete NOT exposed to weather or in contact with earth	#11 & Smaller	3/4"

1 - All foundations cast against earth without using formwork shall use CASE 'A' for reinforcement clearances.

BAR SIZE	LAP LENGTH ¹
#3	24"
#4	32"
#5	40"
#6	48"

1 - Based on minimum $f_c = 4000$ psi



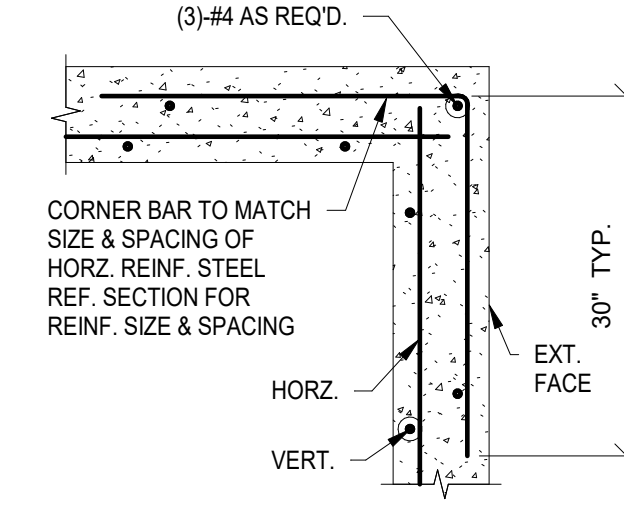
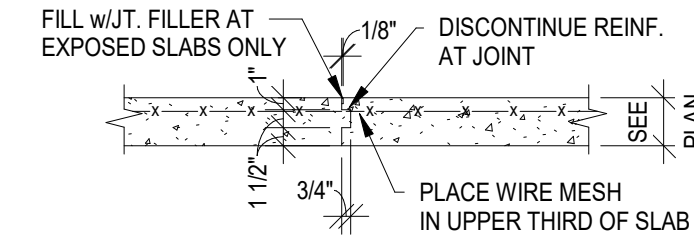
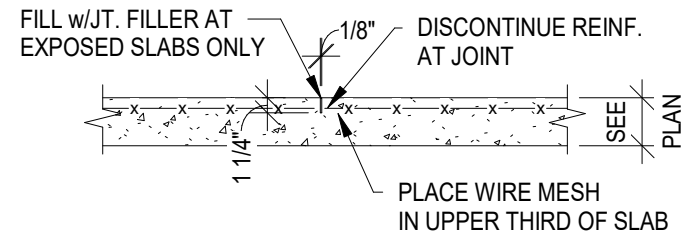
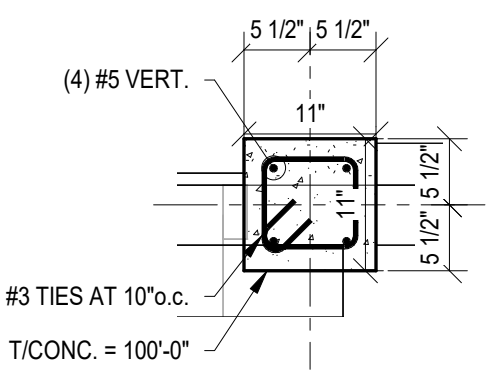
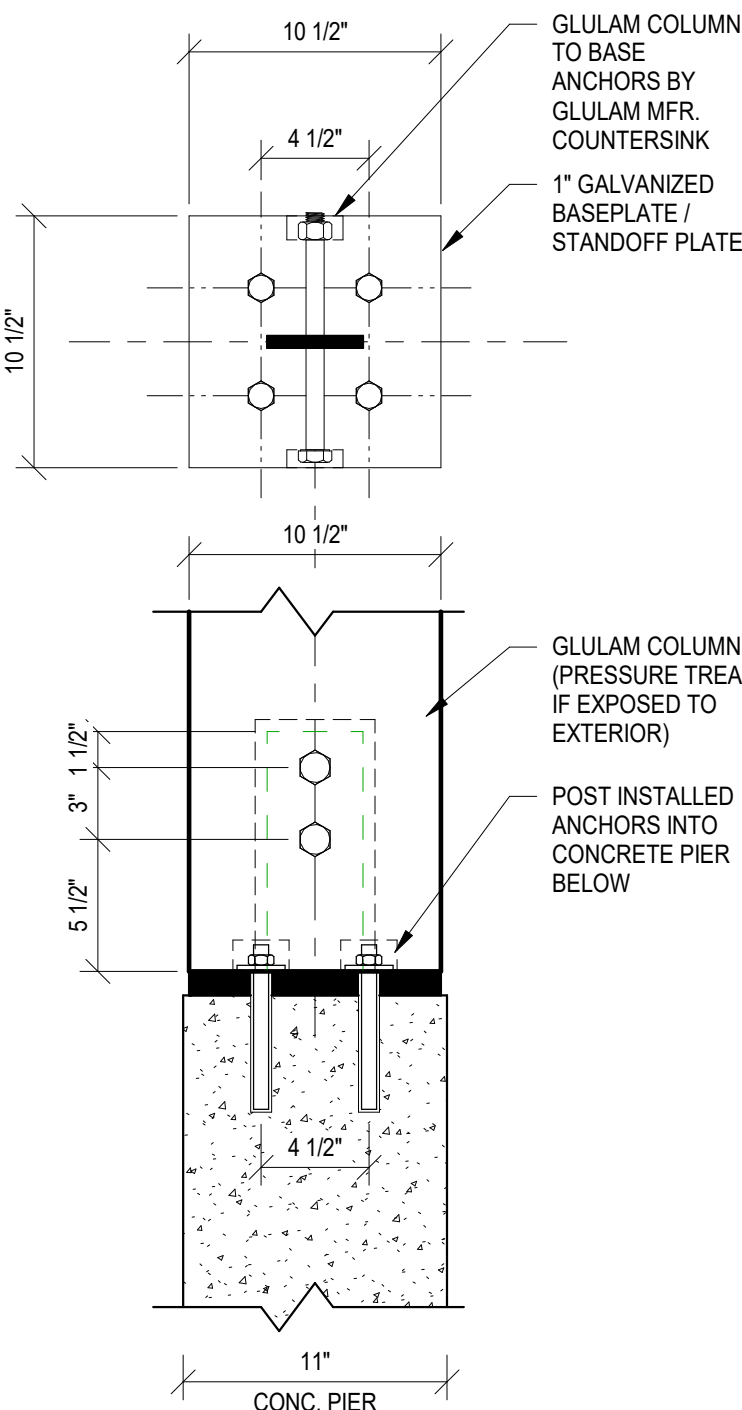
D1 Concrete Reinforcing Cover
3/4" = 1'-0"

D2 Concrete Reinf. Splice Schedule
3/4" = 1'-0"

D3 Typical Anti-Heave Block Detail
3/4" = 1'-0"

D4 Anti-Heave Block Types
N.T.S.

D5 Section
3/4" = 1'-0"



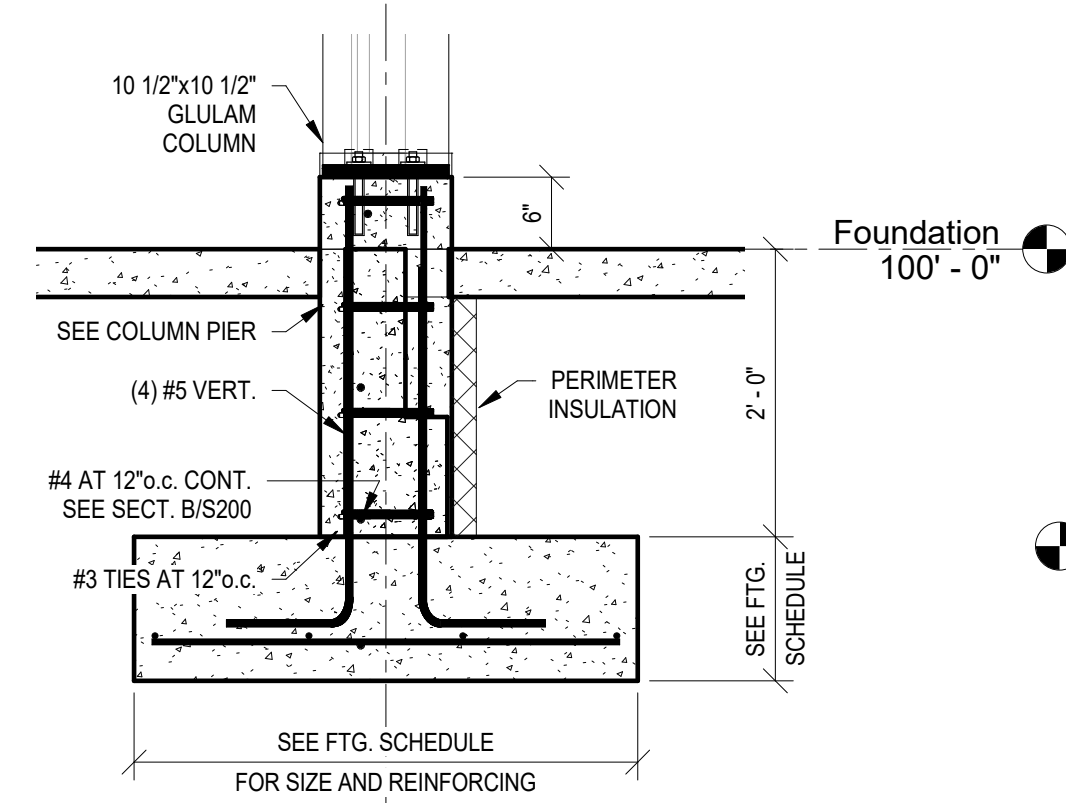
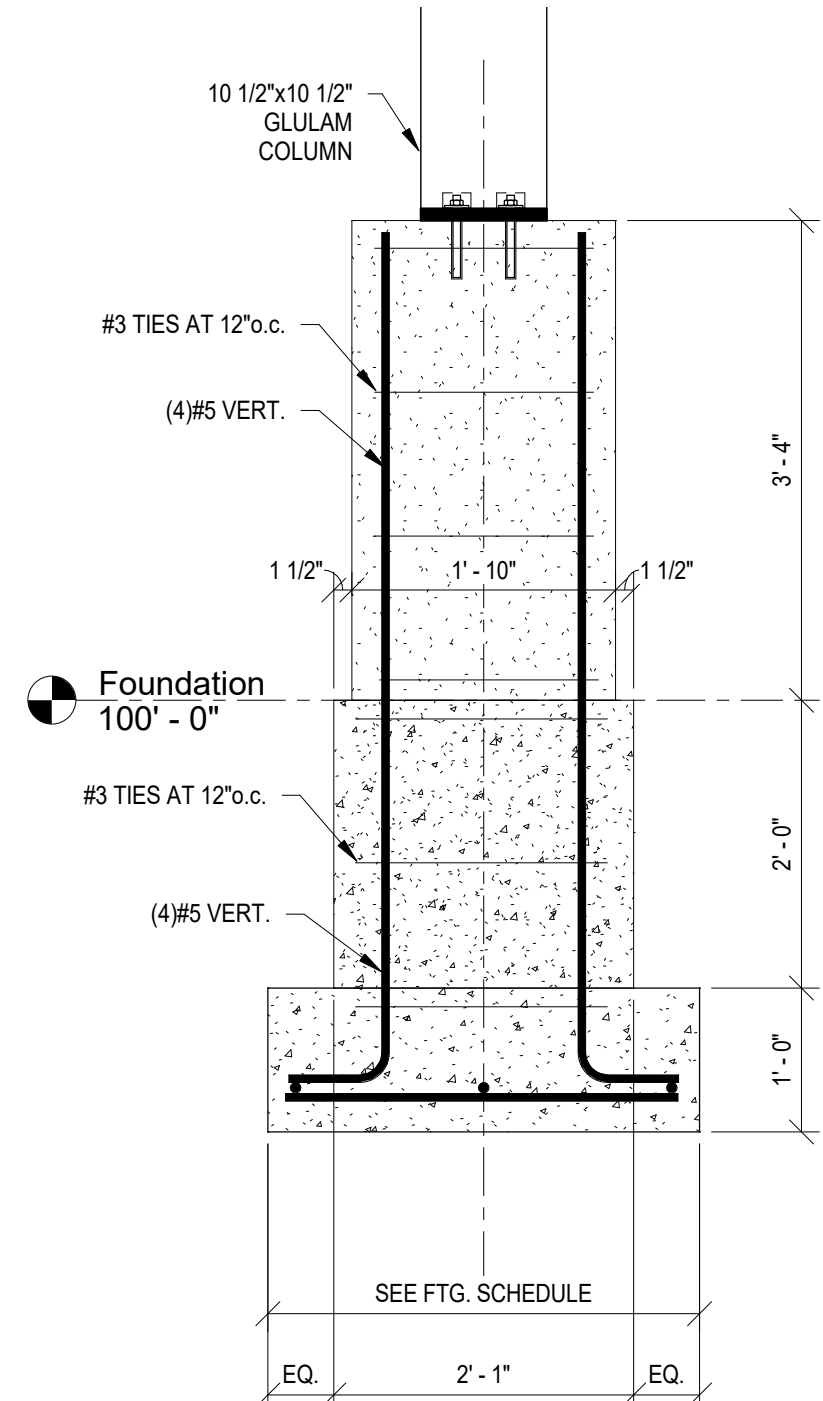
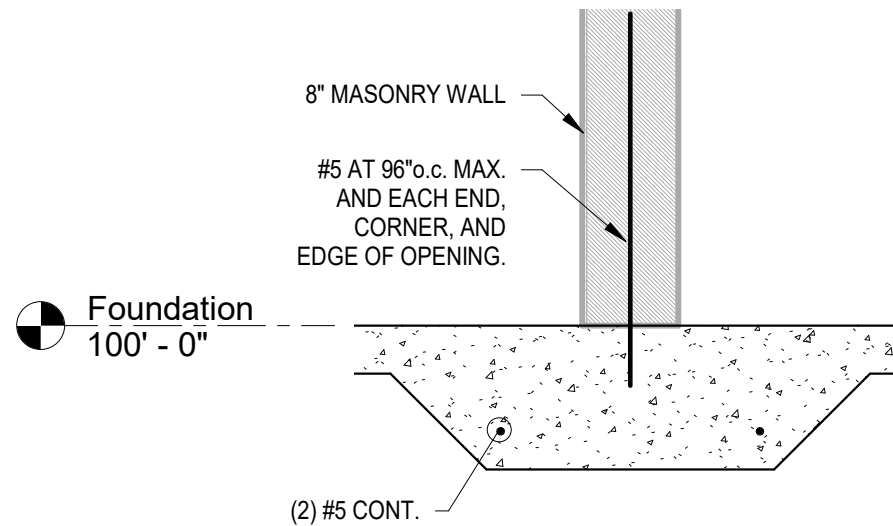
C2 Typical 11" SQ. Pier Detail
3/4" = 1'-0"

C3 Typical Control Joint Detail
N.T.S.

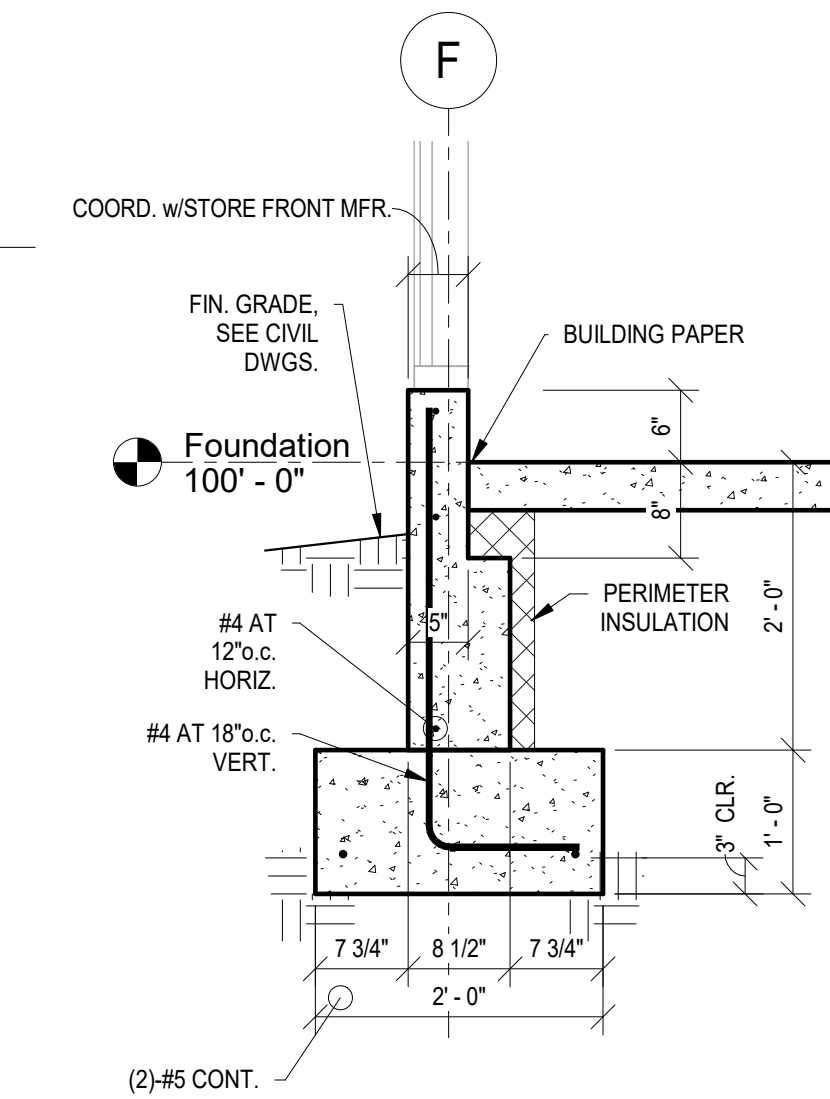
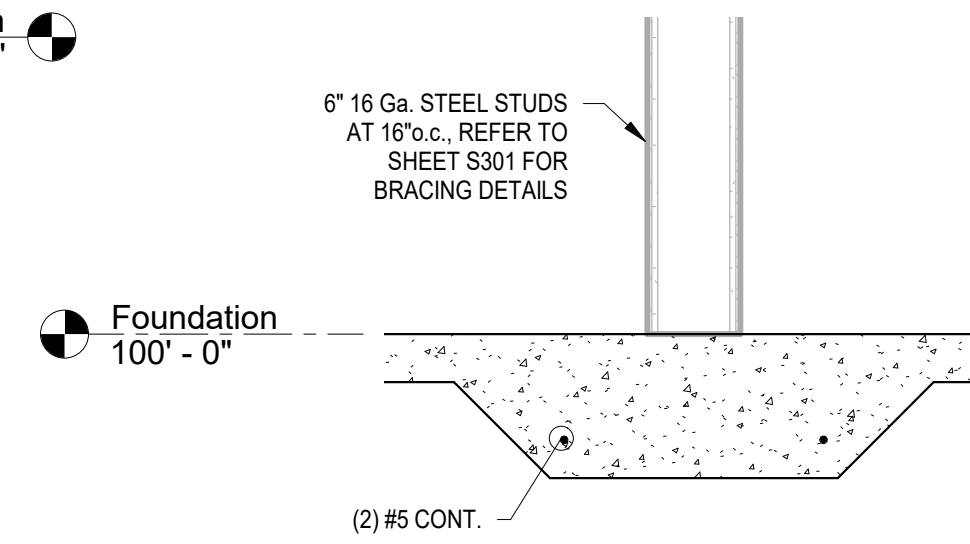
C4 Typical Construction Joint Detail
N.T.S.

C5 Typical Corner Bar Detail
N.T.S.

B1 Typical Column Pier Detail
1 1/2" = 1'-0"



B4 Typical Pipe Sleeve Detail
N.T.S.



A1 Section
3/4" = 1'-0"

A2 Section
3/4" = 1'-0"

A3 Section
3/4" = 1'-0"

A4 Section
3/4" = 1'-0"

A5 Section
3/4" = 1'-0"



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09/16/2019

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I-71 Rest Areas

Mile Marker 34
South Bound
Warren County, Ohio

FOUNDATION
SECTIONS

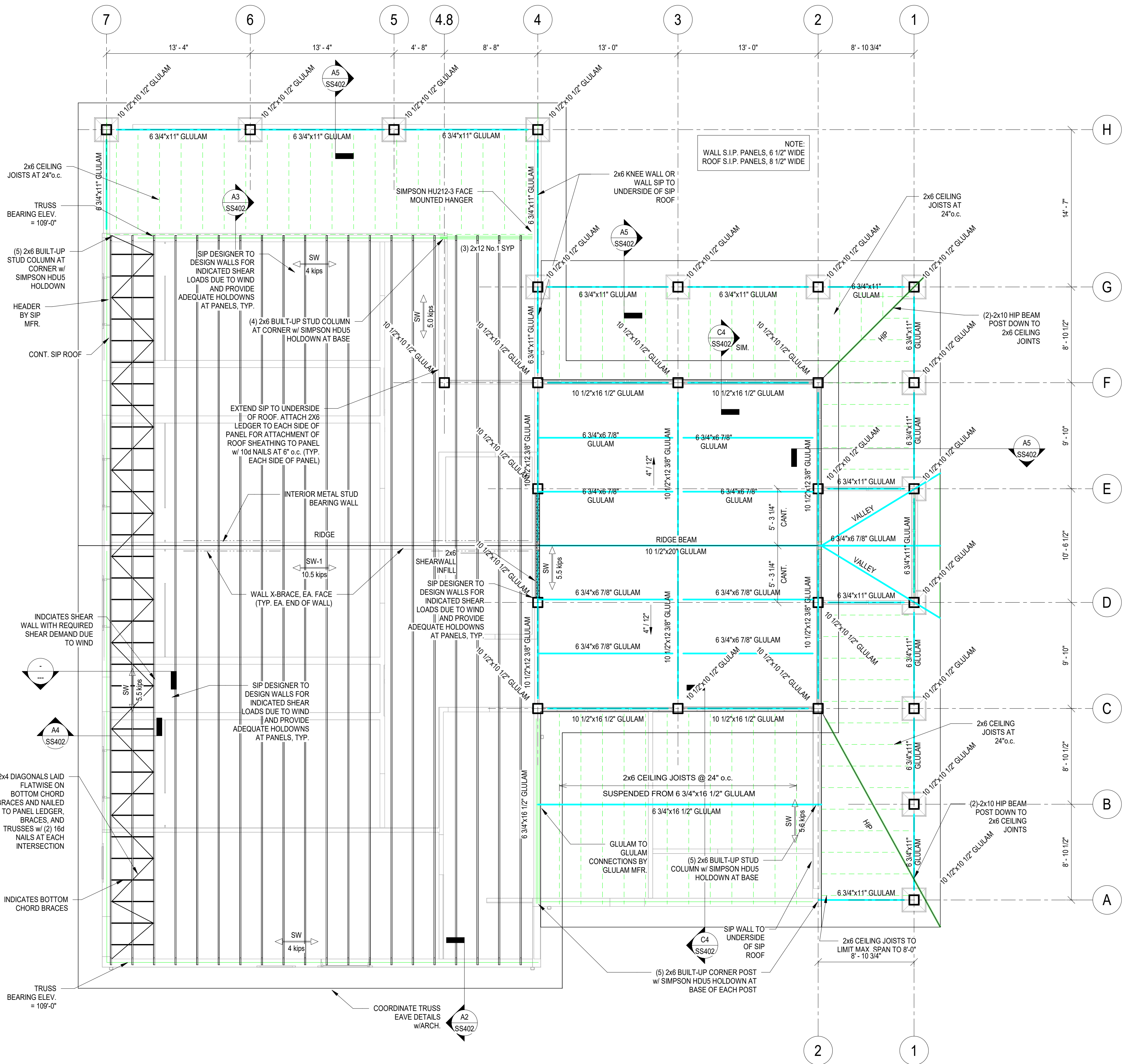
Project No.

18084

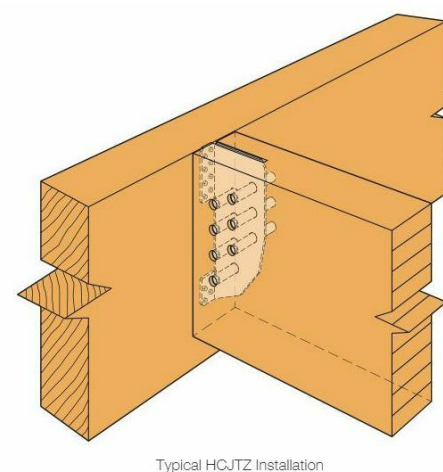
SS201

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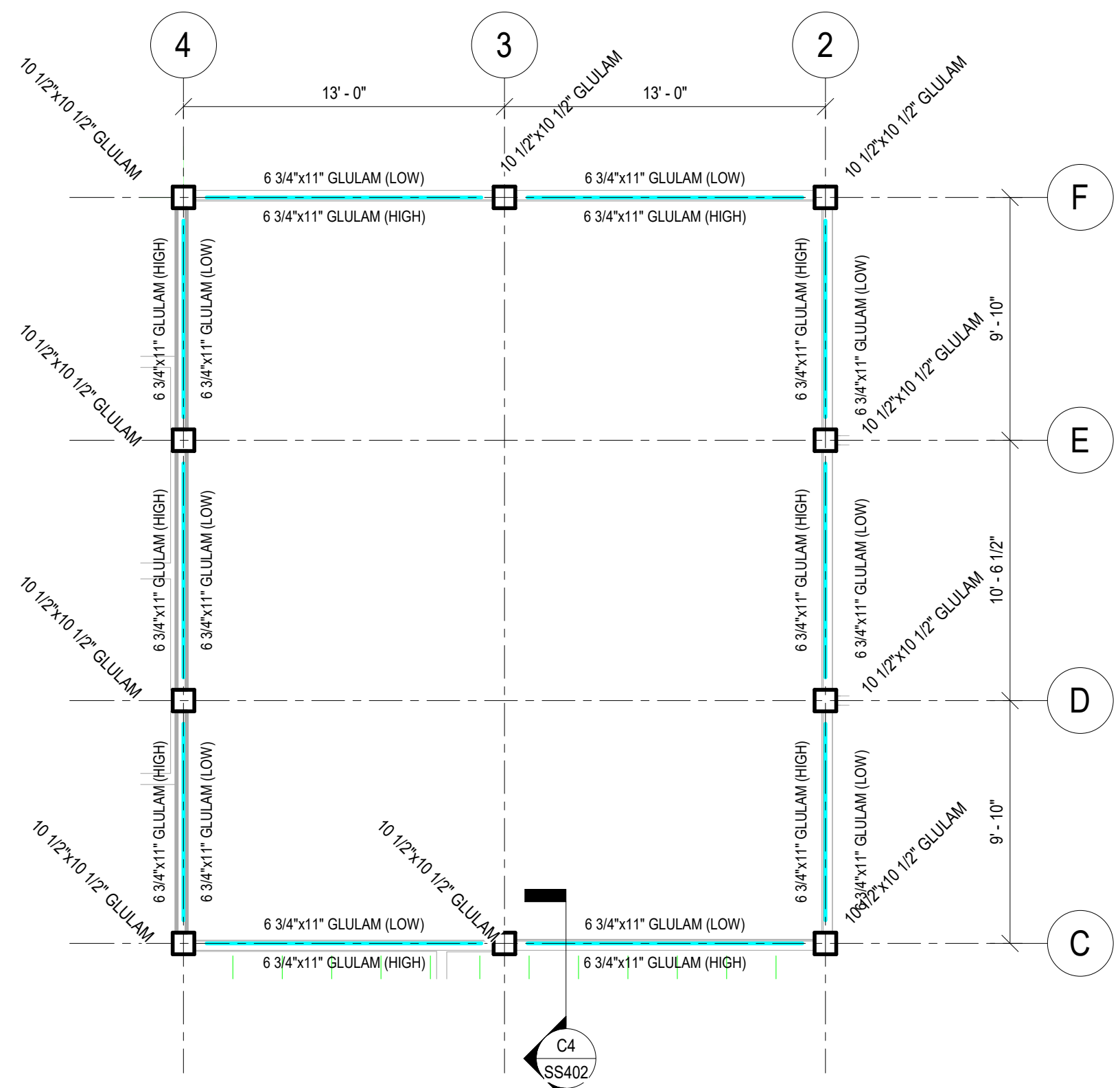


A1 Roof Framing Plan
3/16" = 1'-0"



1. GLULAM TO GLULAM CONNECTORS SHALL BE DESIGNED AND PROVIDED BY THE GLULAM MFR.
2. CONNECTION PLATES SHALL BE CONCEALED TO THE LARGEST EXTENT PRACTICAL.
3. FINAL CONNECTION DESIGN TO BE APPROVED BY THE ARCHITECT
4. PRODUCT INDICATED IS PROVIDED BY SIMPSON STRONG-TIE. GLULAM MFR. MAY PROVIDE SIMILAR APPROVED CONNECTORS.

D5 Typical Concealed Connector Detail
1/4" = 1'-0"



A5 Mid-Level Framing Plan
3/16" = 1'-0"

Record Drawings
09/16/2019

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Issue Date: July 20, 2018

I-71 Rest Areas

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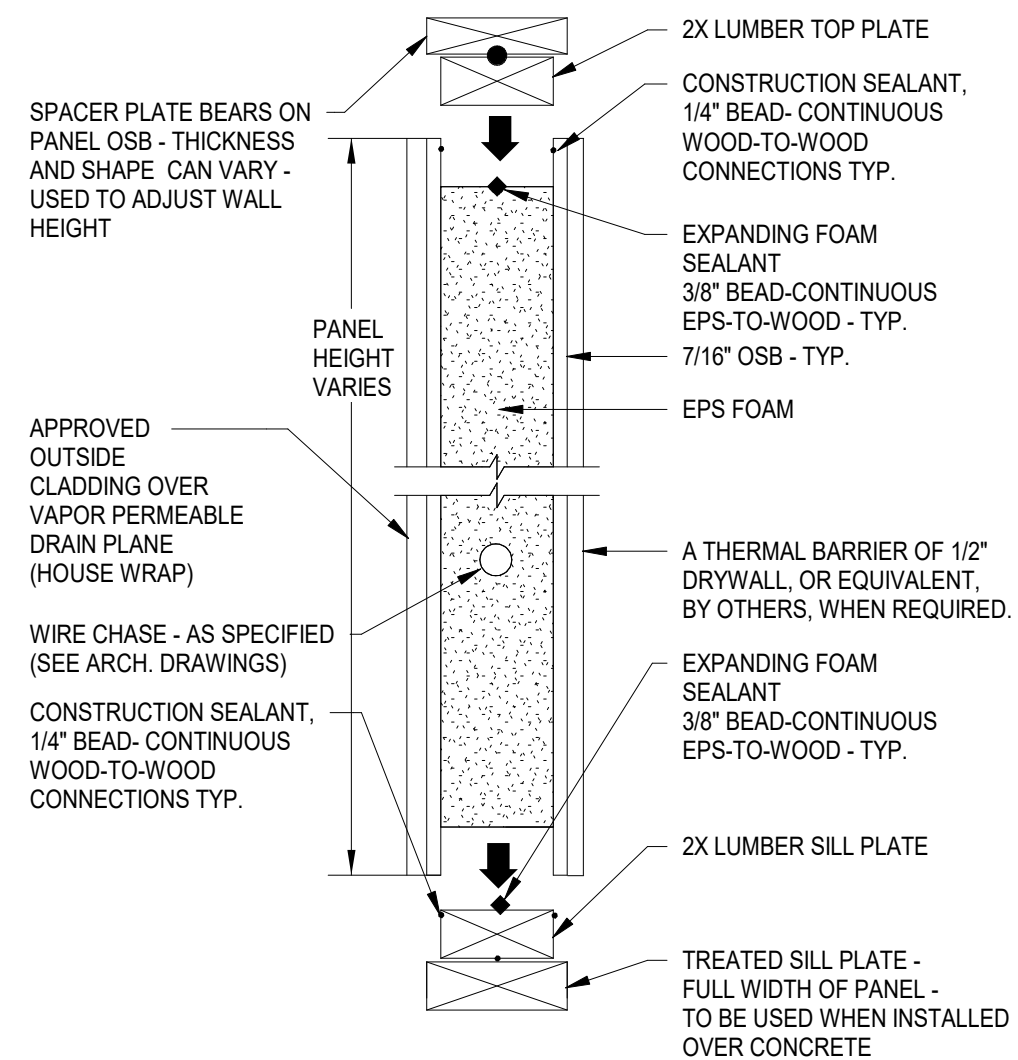
ROOF FRAMING PLAN

Project No.

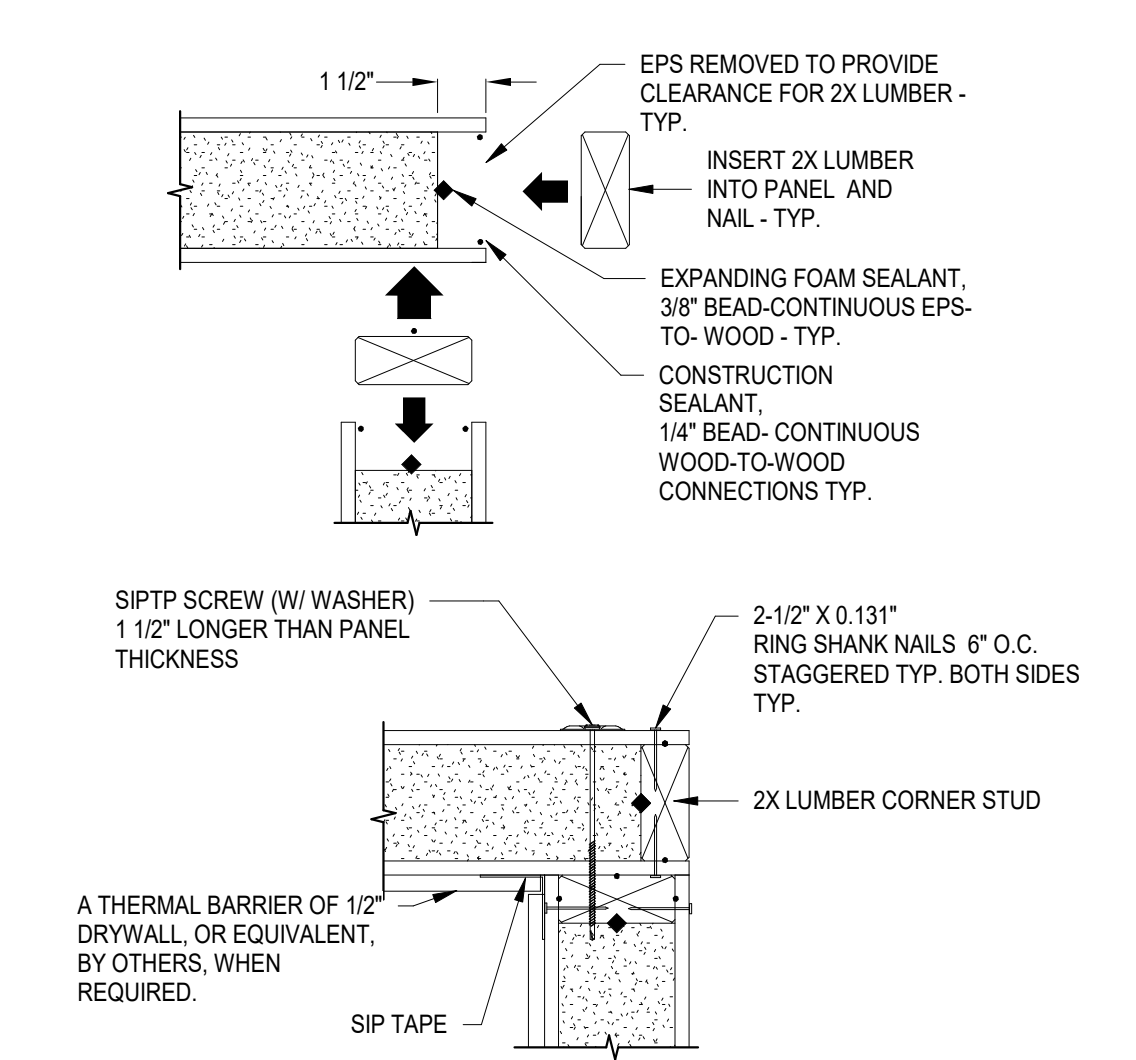
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SS301

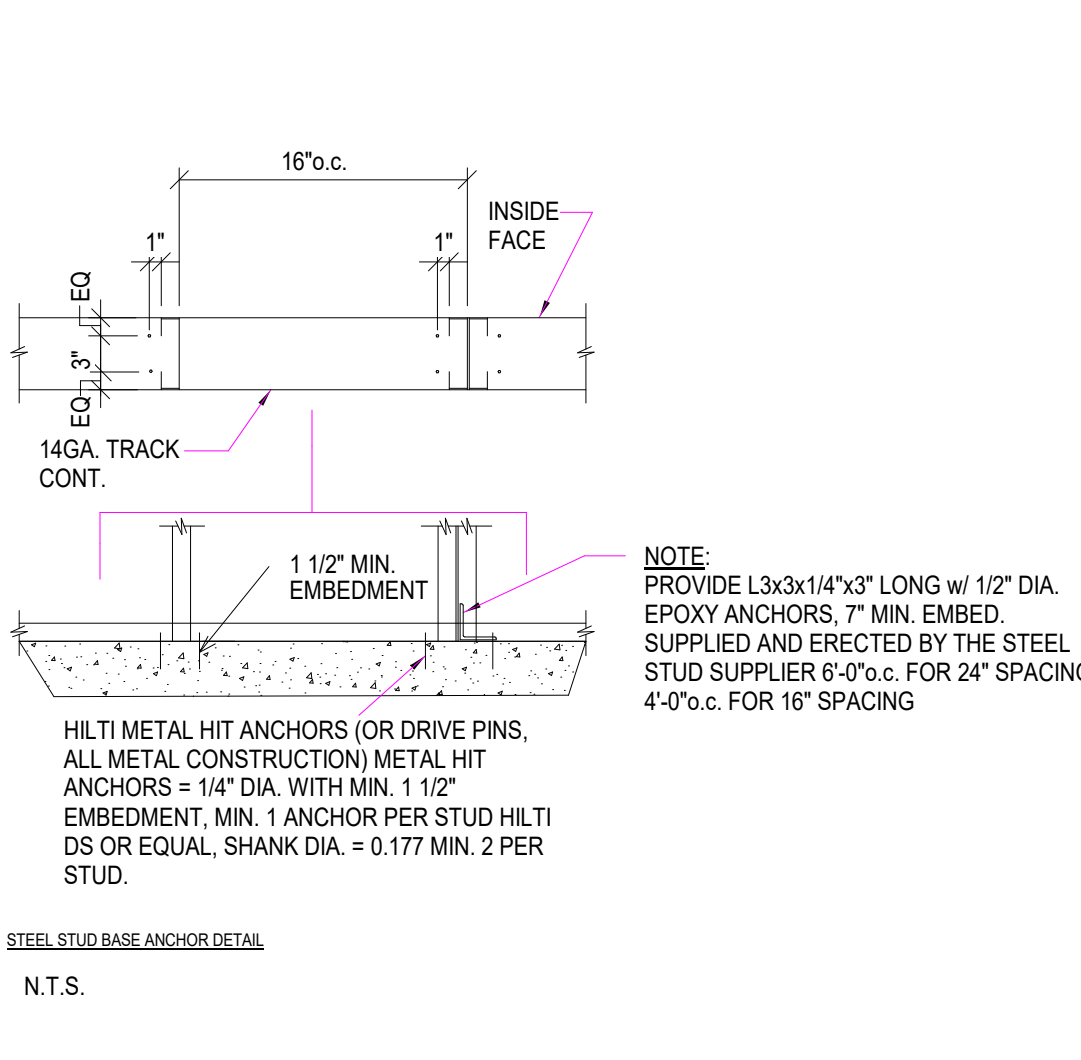
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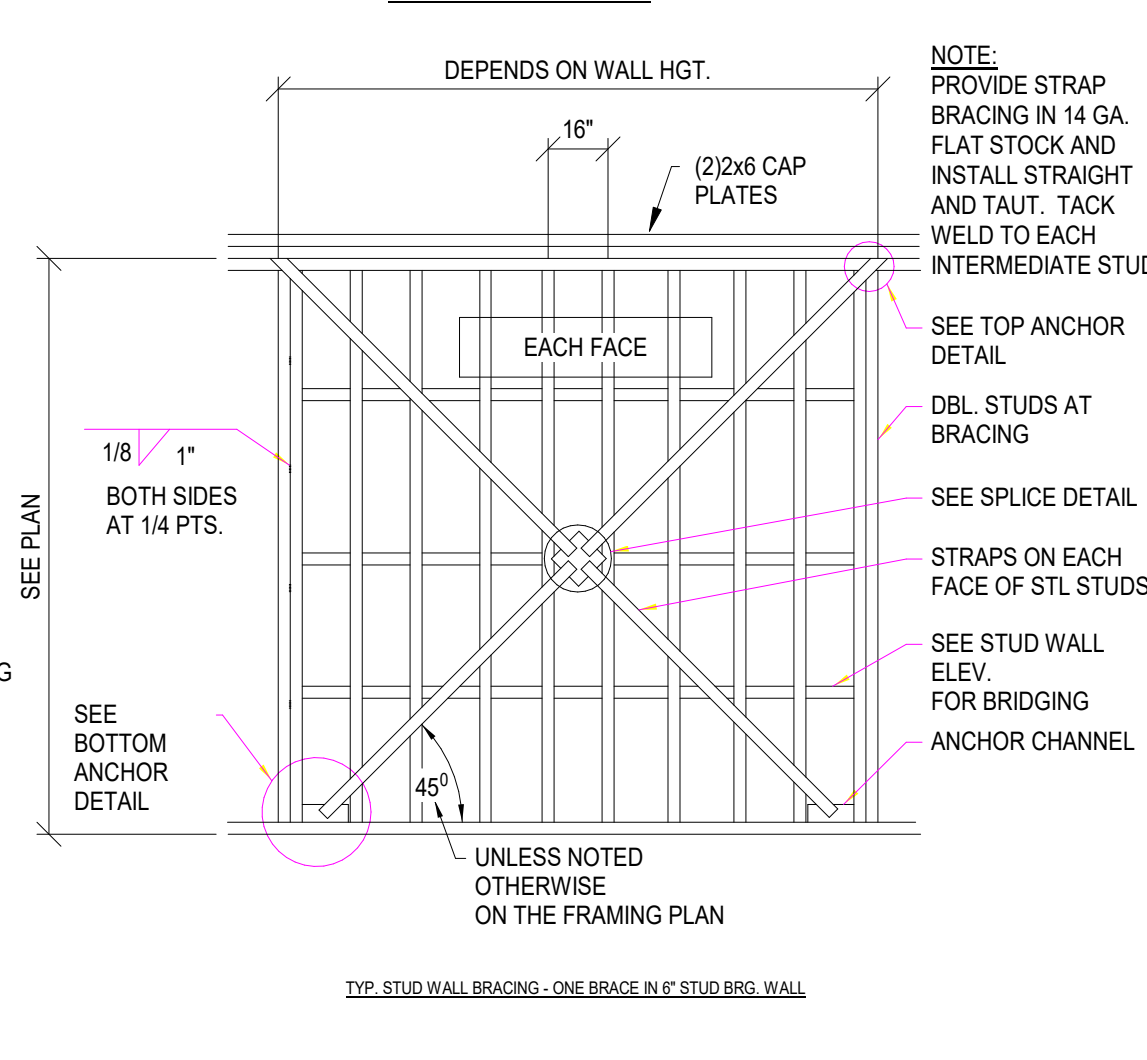
C1 Typical Wall Section
N.T.S.



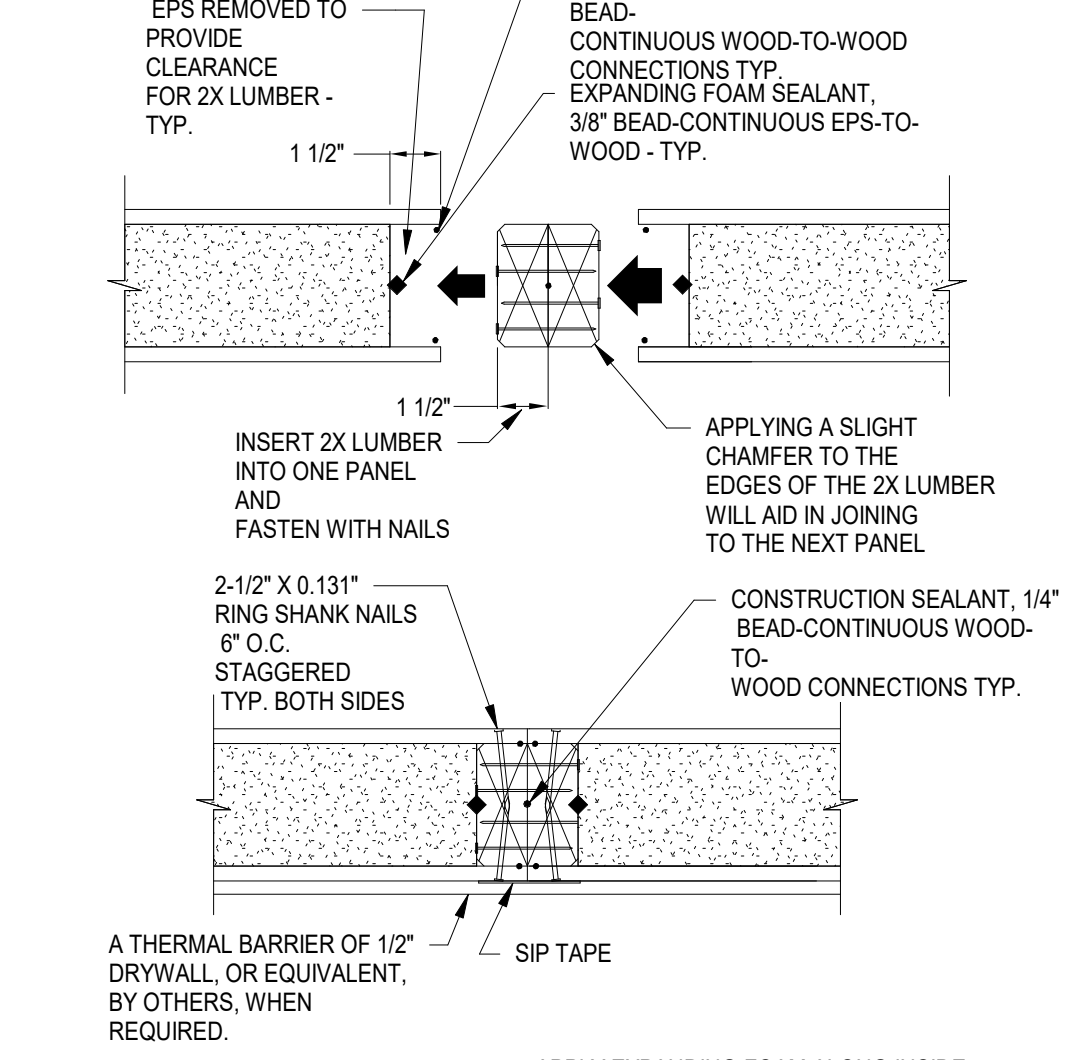
C2 Typical Corner Connection
N.T.S.



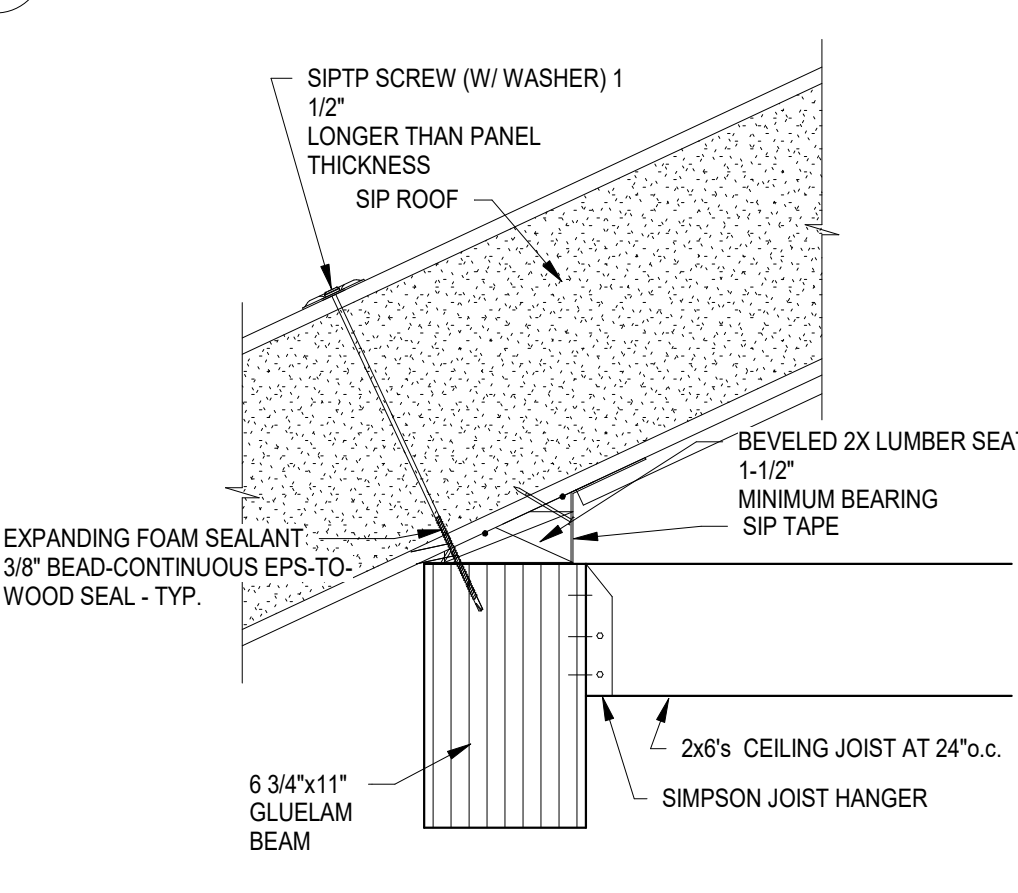
C3 Typical Base Anchor Detail
N.T.S.



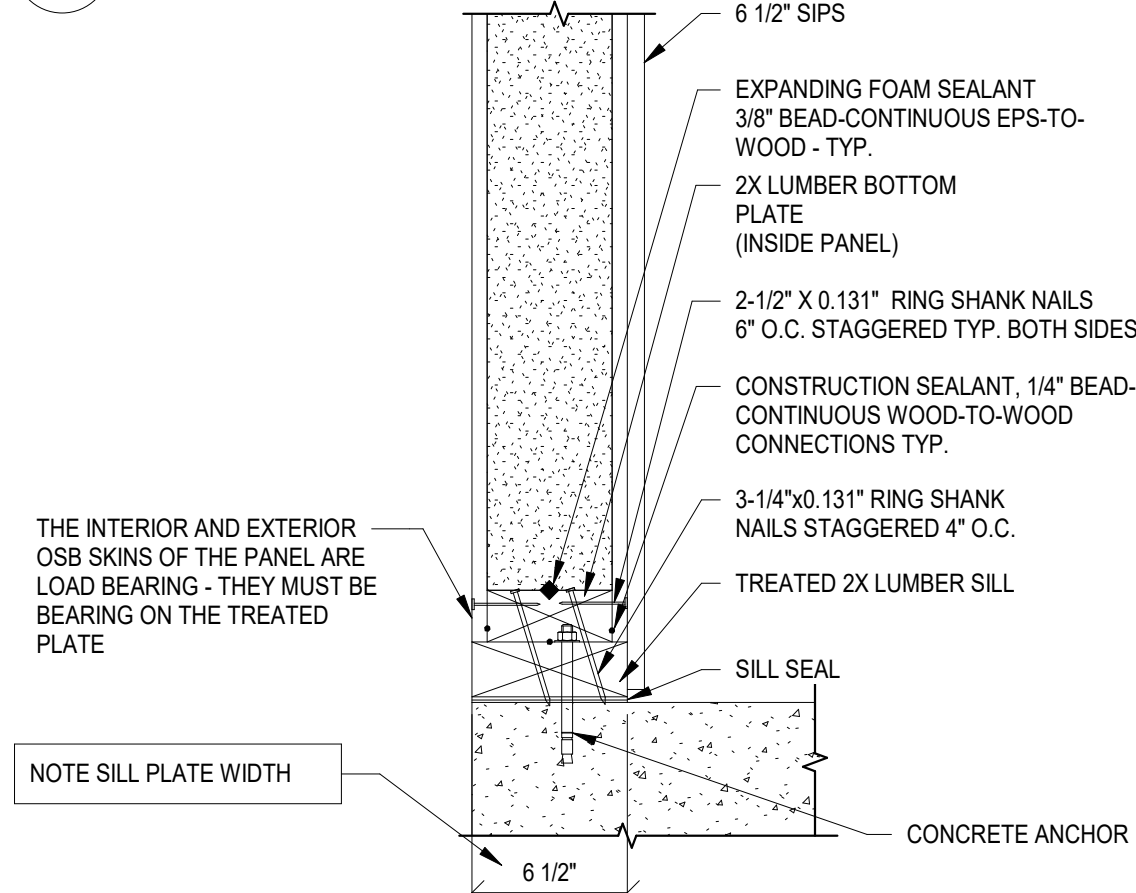
C4 Typical Steel Stud Wall
N.T.S.



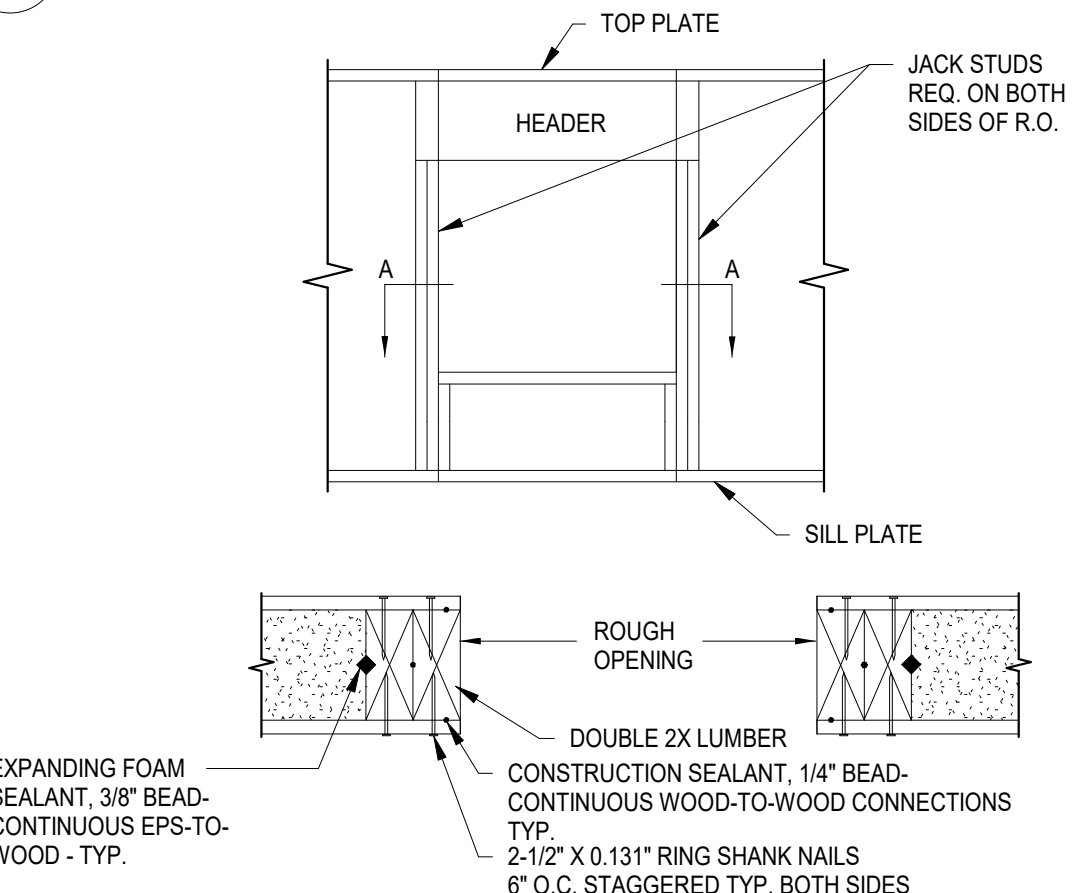
C5 Horizontal Section WALL OR ROOF PANELS BEFORE ASSEMBLY



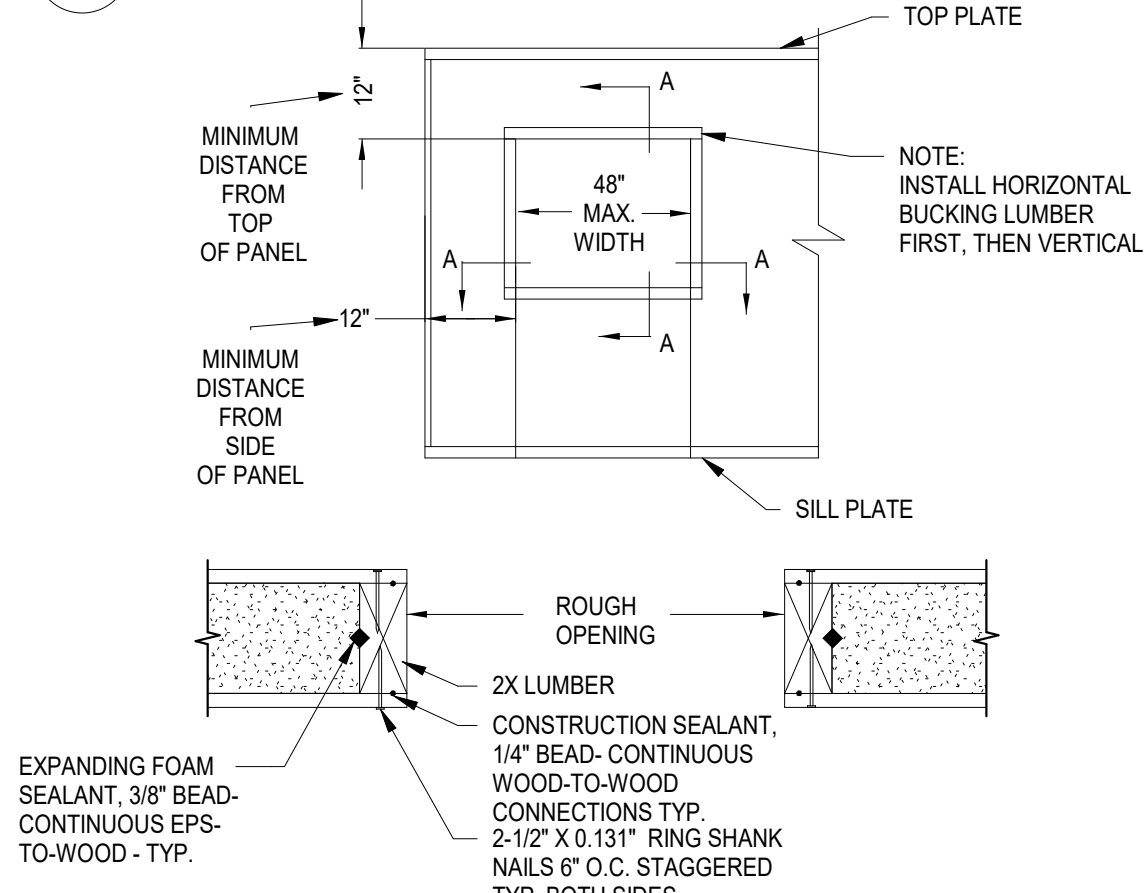
B1 Typical Roof-to-Beam Connection
N.T.S.



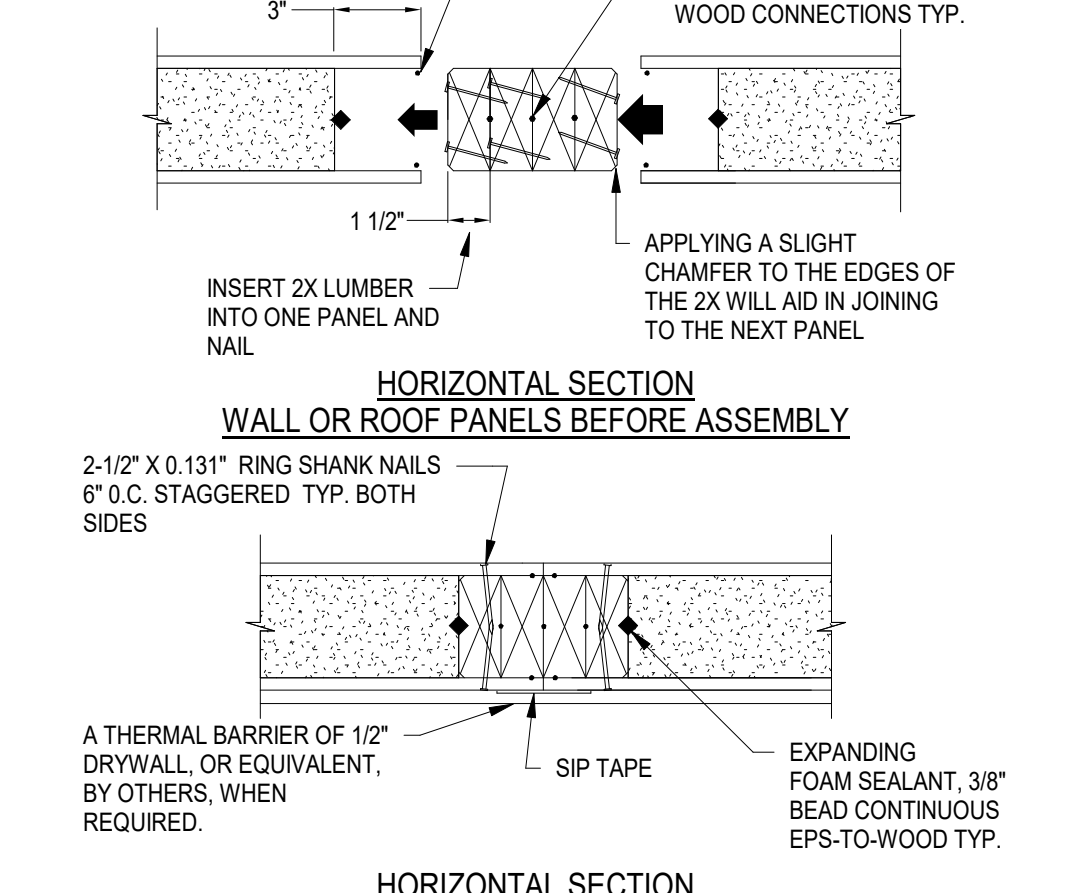
B2 Typical Panel on Foundation Wall
N.T.S.



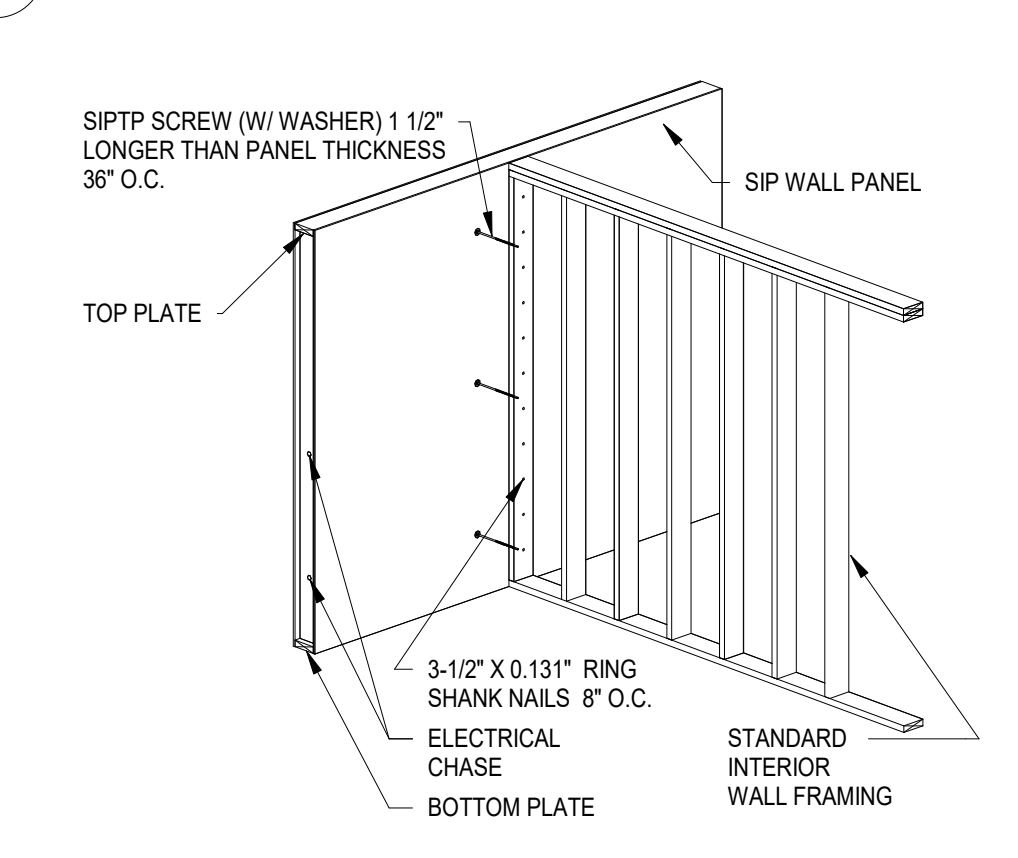
B3 Typical Header @ Rough Opening
N.T.S.



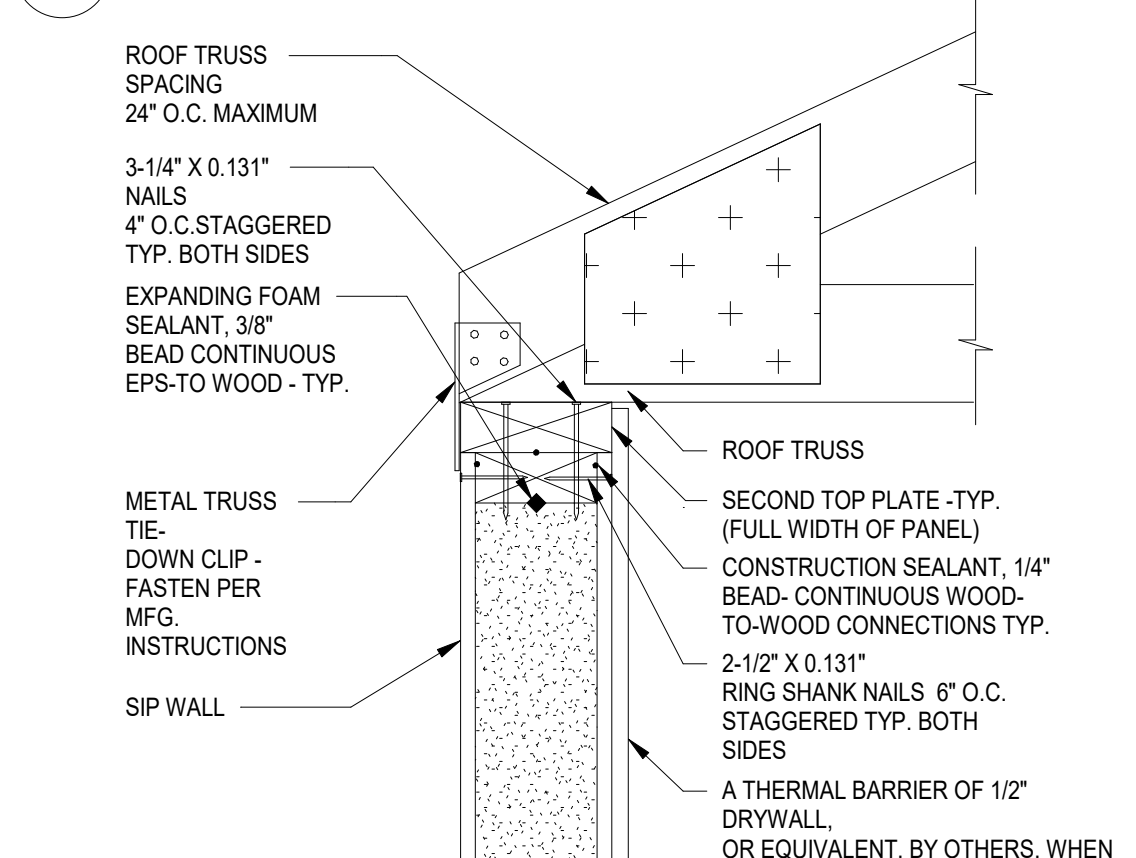
B4 Non-Load Bearing Wall Opening
N.T.S.



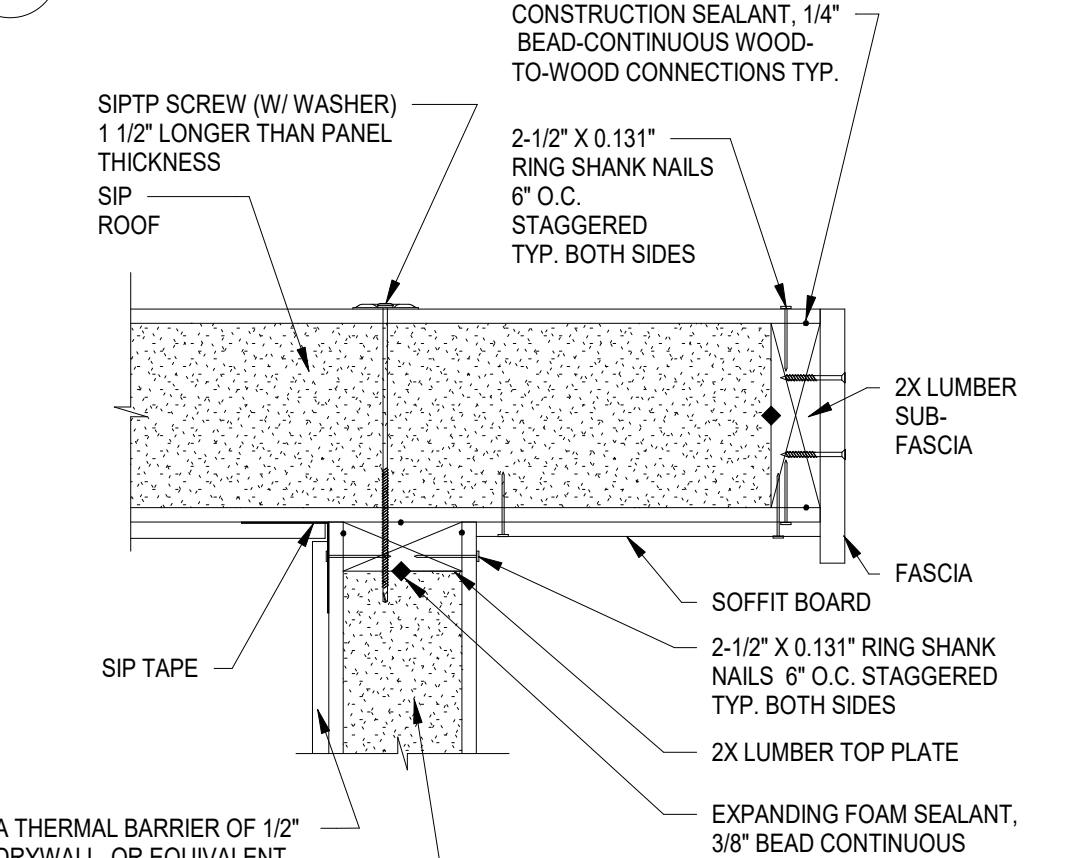
B5 Typical Panel-to-Panel Connection
N.T.S.



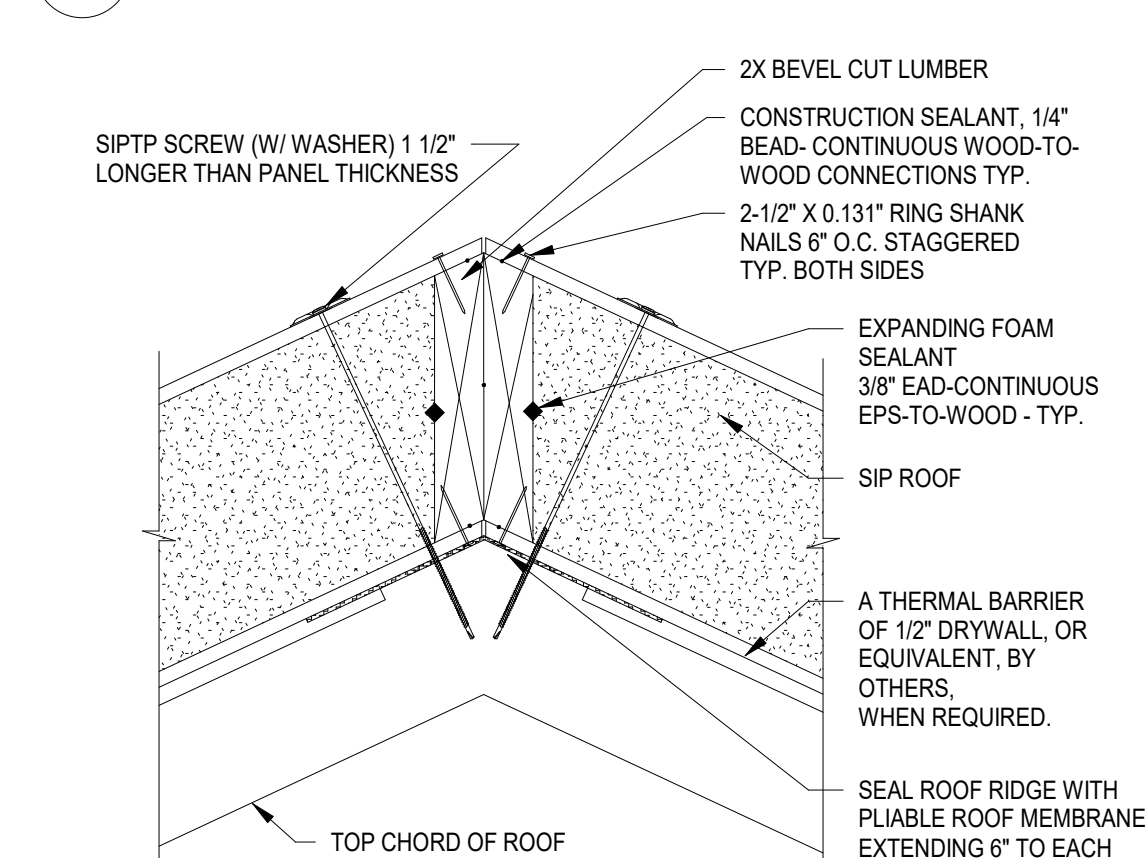
A1 Iso. of Interior Wall Connection
N.T.S.



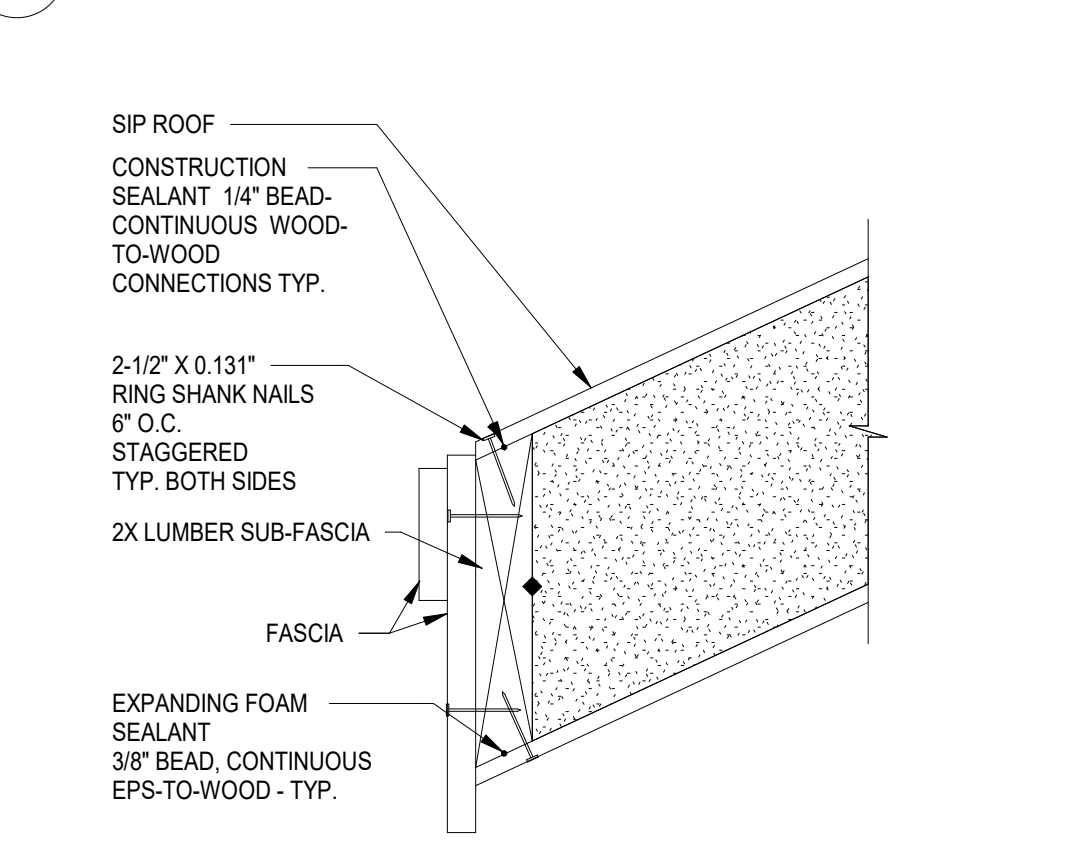
A2 Typical Roof Truss to Wall Conn.
N.T.S.



A3 Typical Roof-to-Wall Connection @ Gable End
N.T.S.



A4 Ridge Conn. W/ Solid Blocking
N.T.S.



A5 Plumb Cut Roof Eave Detail
N.T.S.

Revisions:
Issue Date: July 20, 2018

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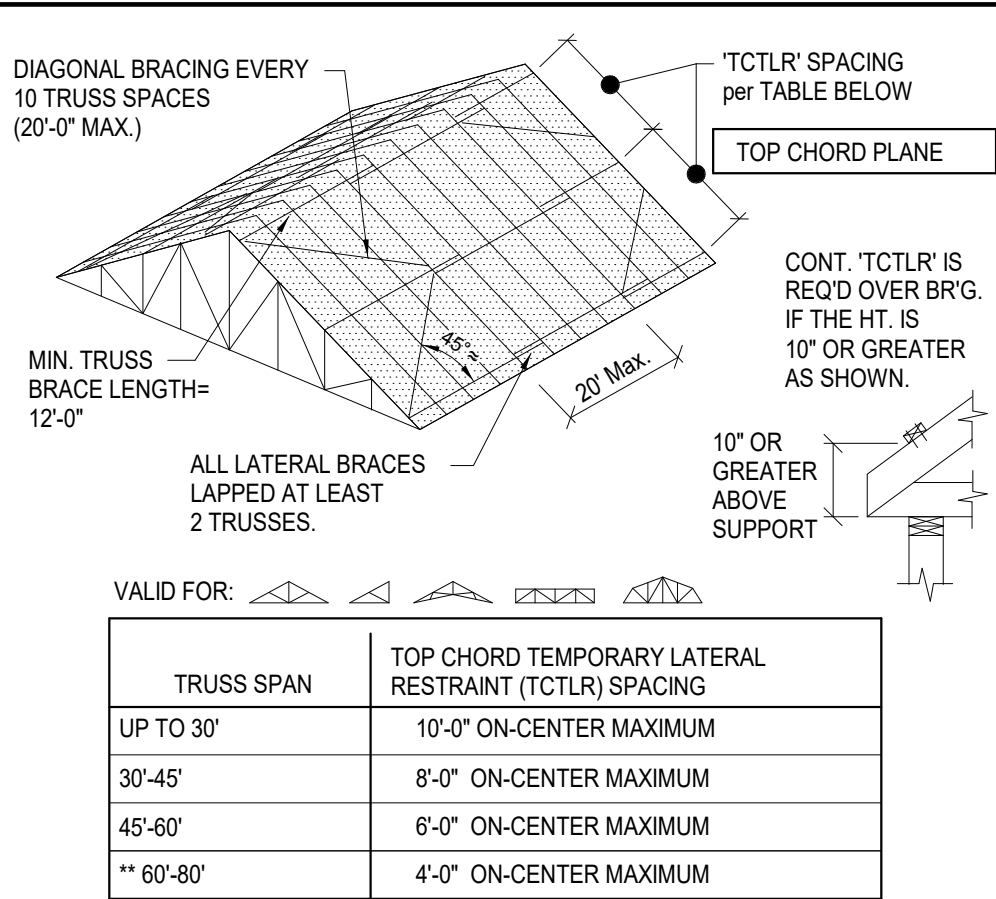
Mile Marker 34
South Bound
Warren County, Ohio

FRAMING SECTIONS

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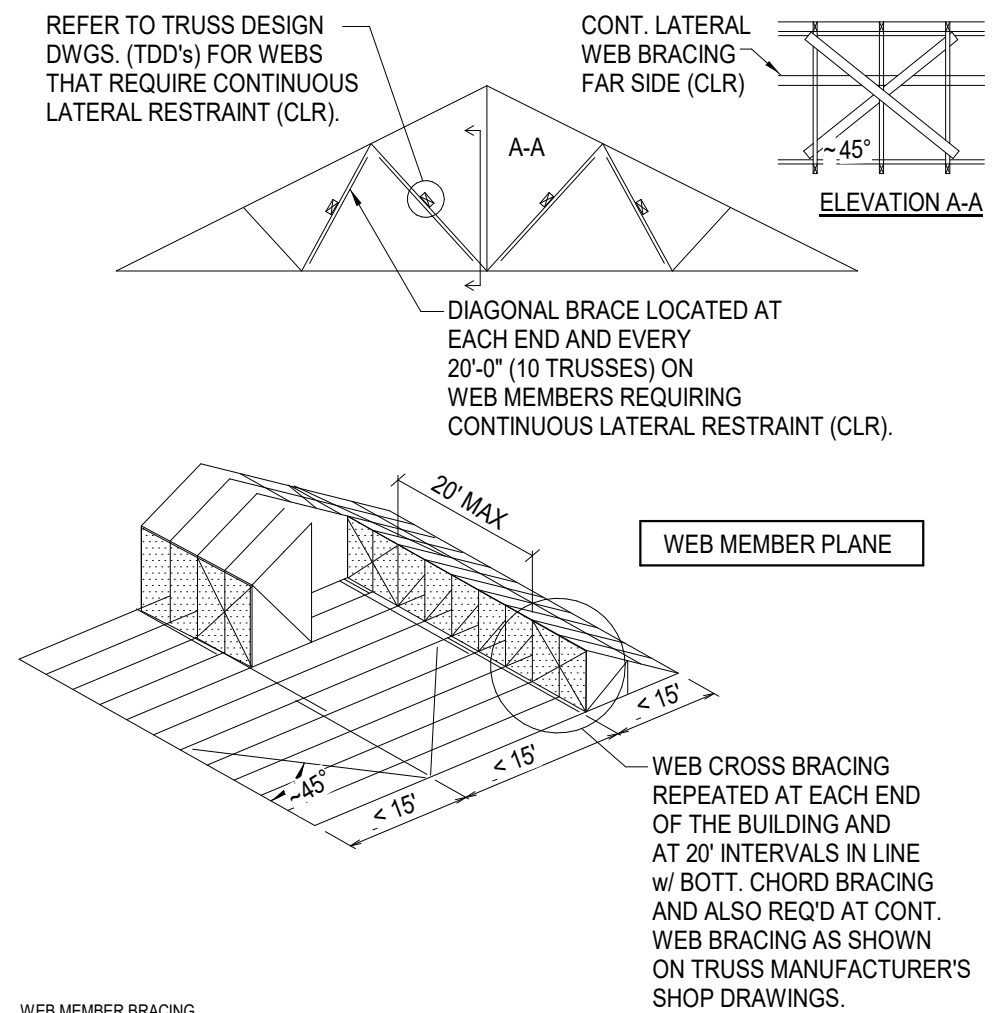
SS401



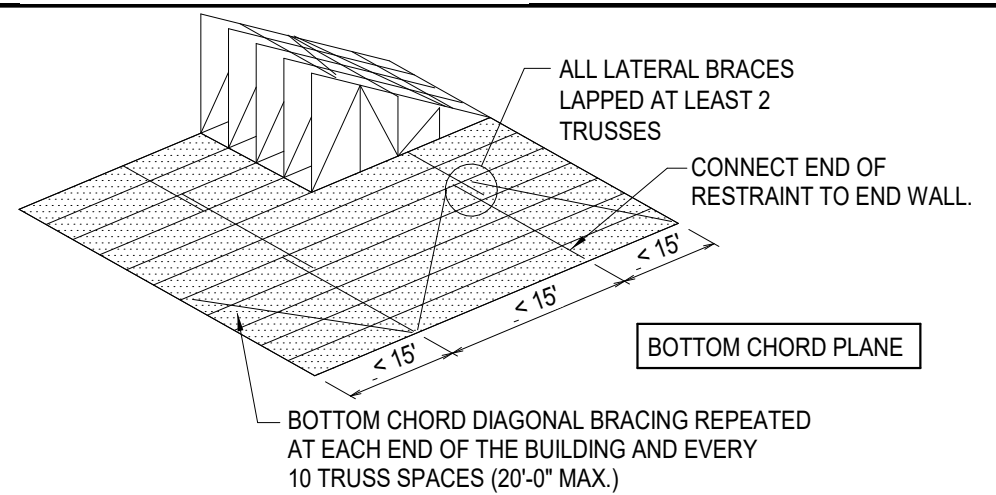
- TOP CHORD BRACING (TCTLR)**
1. APPLIES TO ALL SLOPING CHORD TRUSSES, SCISSORS TRUSSES, 2x PARALLEL CHORD TRUSSES AND PIGGYBACK TRUSSES.
 2. LOCATE A TCTLR AT EACH PITCH BREAK ALONG THE TOP CHORD.
 3. PROVIDE LATERAL BRACING AT TOP CHORD SCISSORS TRUSS SPLICES
 4. INSTALL TCTLR TO THE UNDERSIDE OF TOP CHORD TO ALLOW INSTALLATION OF ROOF SHEATHING.

TOP CHORDS THAT ARE LATERALLY BRACED CAN BUCKLE TOGETHER AND CAUSE COLLAPSE IF THERE IS NO DIAGONAL BRACING. DIAGONAL BRACING SHOULD BE NAILED TO THE UNDERSIDE OF THE TOP CHORD WHEN PURLINS OR SHEATHING ARE ATTACHED TO THE TOPSIDE OF THE TOP CHORD.

- **LONG SPAN TRUSS NOTES (60' - 80')**
1. ONLY USE INSTALLERS WHO HAVE EXPERIENCE IN INSTALLING LONG SPAN TRUSSES.
 2. TRUSSES SPANNING GREATER THAN 60' REQUIRE A PRE-ERECTION MEETING WITH A REPRESENTATIVE OF GOP LTD AND THOSE INVOLVED IN THE ERECTION OF THE LONG-SPAN TRUSSES. PLEASE CONTACT GOP LTD A MINIMUM OF TWO WEEKS PRIOR TO TRUSS ERECTION.
 3. ASSEMBLE THE FIRST FIVE TRUSSES WITH ALL RESTRAINT, BRACING AND STRUCTURAL SHEATHING PRIOR TO INSTALLING OTHER TRUSSES. THIS MAY BE DONE ON THE GROUND AND LIFTED INTO PLACE.



- WEB MEMBER BRACING**
1. INSTALL DIAGONAL BRACING ON WEB MEMBERS (VERTICAL WEBS WHENEVER POSSIBLE), AT OR NEAR BOTTOM CHORD LATERAL RESTRAINT (SEE BELOW).
 2. WEB MEMBERS THAT REQUIRE MORE THAN ONE ROW OF CLR SHALL HAVE THE CLR'S AND DIAGONAL BRACING INSTALLED AS THE TRUSSES ARE INSTALLED.
 3. MONO TRUSSES, DEEP FLAT TRUSSES AND OTHER TYPES OF TRUSSES WITH DEEP ENDS ALSO REQUIRE CLR'S AND DIAGONAL BRACING ON THE LONG WEB MEMBERS AT THE DEEP END OF THE TRUSS.
 4. REFER TO BCS1-B2 AND BCS1-B3 FOR ADDITIONAL INFORMATION PERTAINING TO WEB MEMBER RESTRAINT AND BRACING.



- BOTTOM CHORD BRACING**
1. INSTALL BOTTOM CHORD TEMPORARY LATERAL RESTRAINT (BCTLR) IN ROWS NO MORE THAN 15'-0" O.C.
 2. IF NO SHEATHING IS TO BE INSTALLED TO THE UNDERSIDE OF THE BOTTOM CHORDS, INSTALL BOTTOM CHORD PERMANENT LATERAL RESTRAINT AT THE LOCATIONS REQUIRED BY THE TRUSS DESIGN DRAWINGS (OR 10'-0" O.C. MAX.).
 3. ADDITIONAL BOTTOM CHORD BRACING IS REQUIRED AT ALL GABLE END WALLS.
 4. PROVIDE LATERAL BRACING AT BOTT. CHORD SCISSORS TRUSS SPLICES

NOTE TO CONTRACTOR:
COST OF TEMPORARY AND PERMANENT BRACING IS USUALLY NOT INCLUDED AS PART OF THE PRE-ENGINEERED TRUSS PACKAGE. ALL BRACING REQUIRED ON THIS SHEET IS THE RESPONSIBILITY OF THE GENERAL CONTRACTOR.

GENERAL TRUSS BRACING NOTES

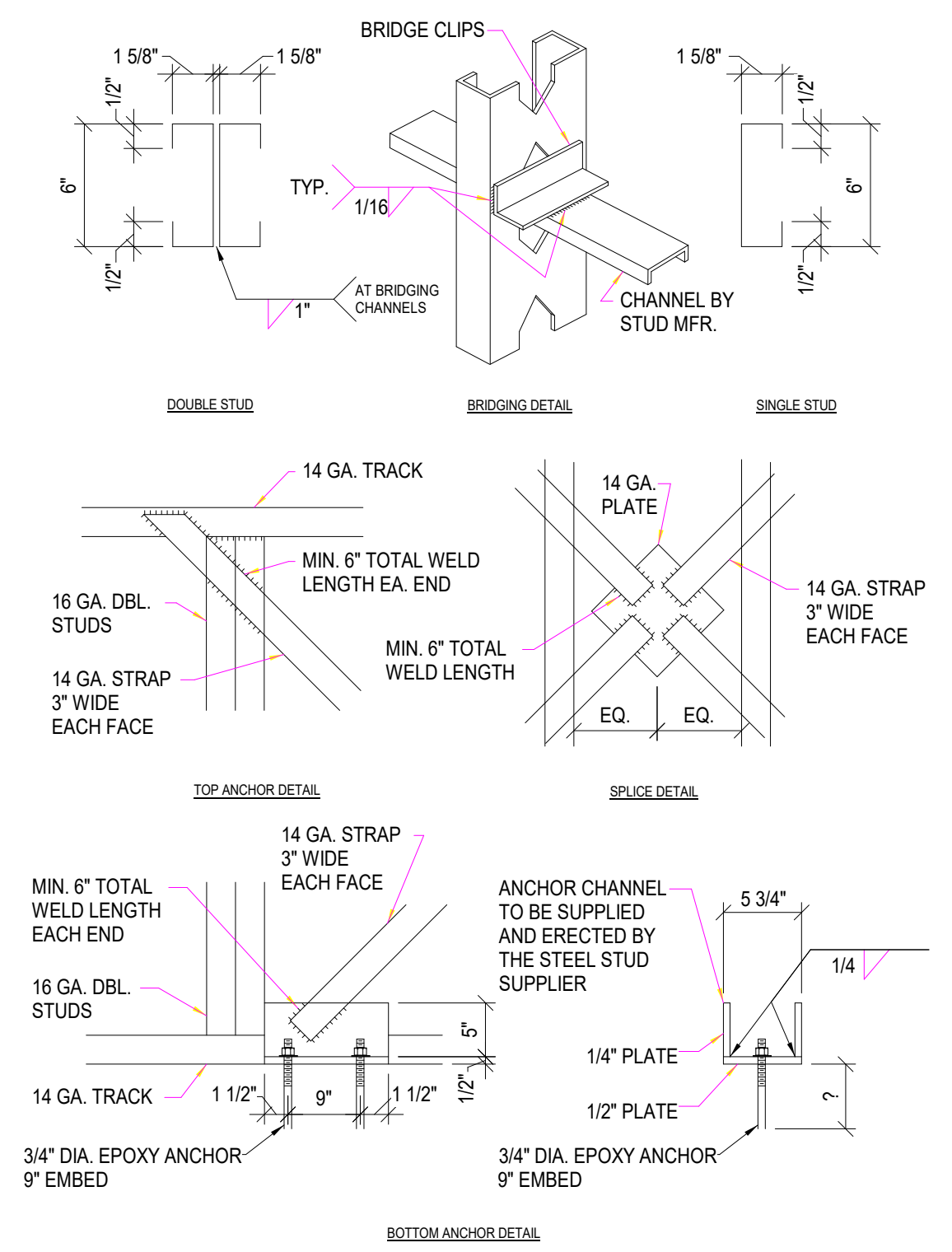
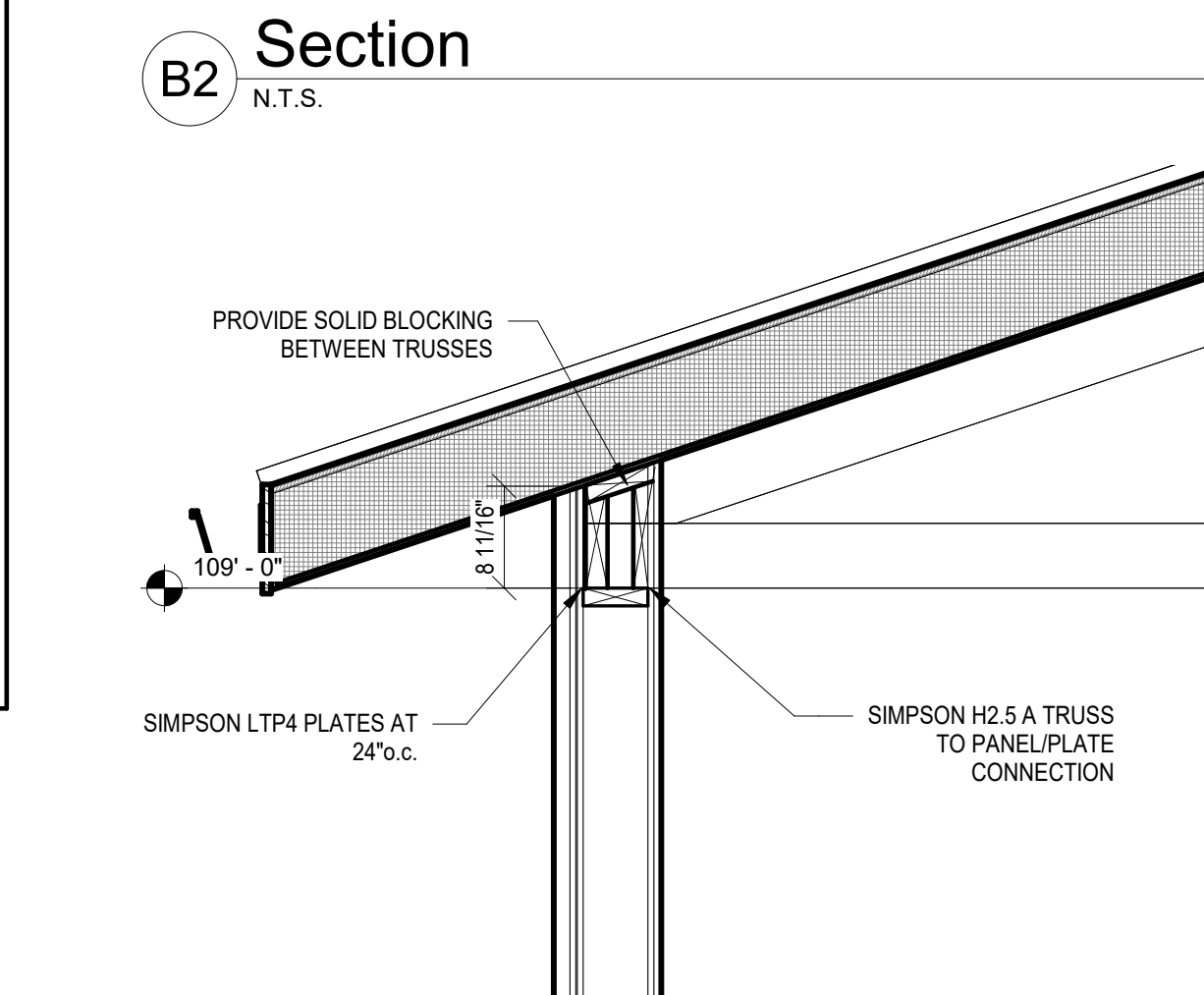
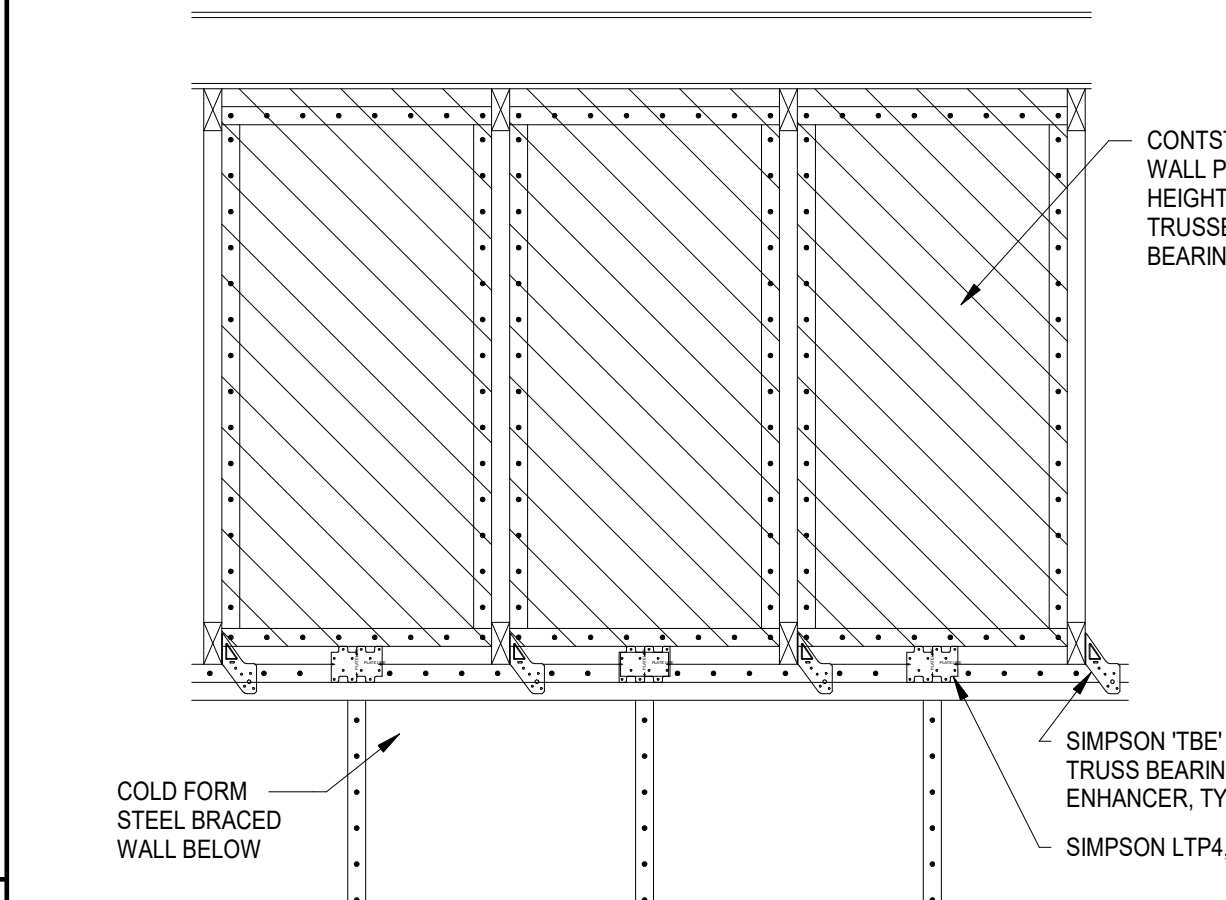
1. TEMPORARY BRACING MUST BE APPLIED TO ALL OF THE FOLLOWING PLANES OF THE TRUSSES TO ENSURE STABILITY: TOP CHORD PLANE (Roof Plane), WEB MEMBER PLANE (Sloping or vertical plane perpendicular to trusses), BOTTOM CHORD PLANE (ceiling plane).
2. GROUND BRACING (NOT SHOWN) IS REQUIRED FOR ALL INSTALLATIONS.
3. ALL CONNECTIONS SHALL BE MADE WITH A MINIMUM OF (2) 16d NAILS (D=0.131", L=3.5") GALVANIZED OR COATED. DRIVE NAILS FLUSH OR USE DOUBLE-HEADED (DUPLEX) NAILS FOR EASE OF REMOVAL.
4. ALL TEMPORARY BRACING SHALL BE NO LESS THAN 2x4 STRESS-GRADED LUMBER.
5. LATERAL BRACING ALONE IS NOT ADEQUATE WITHOUT DIAGONAL BRACING. ALWAYS DIAGONALLY BRACE FOR SAFETY.
6. TRUSS SPACERS ARE FOR SPACING ONLY! NEVER USE THE COMMERCIALLY AVAILABLE LIGHT-GAUGE METAL FOLD-OUT/NON-STRUCTURAL SINGLE UNIT SPACER PRODUCTS FOR TRUSS LATERAL RESTRAINT.
7. BRACING FOR WOOD TRUSSES IS THE RESPONSIBILITY OF THE CONTRACTOR AND THE ERECTOR. TRUSSES SHALL BE BRACED IN ACCORDANCE WITH THE "GUIDE TO GOOD PRACTICE FOR HANDLING, INSTALLING, RESTRAINING & BRACING METAL PLATE CONNECTED WOOD TRUSSES" (BCS) JOINTLY PRODUCED BY THE WOOD TRUSS COUNCIL OF AMERICA (WTCA) AND THE TRUSS PLATE INSTITUTE (TPI). THIS REQUIRED DOCUMENT IS AVAILABLE BY CALLING WTCA AT (608) 274-4849 OR TPI AT (703) 685-1010.

WARNING: FAILURE TO FOLLOW THESE RECOMMENDATIONS AND THOSE OF WTCATPI COULD RESULT IN SEVERE PERSONAL INJURY OR DAMAGE TO TRUSSES OR BUILDINGS.

Table 6: Allowable In-Plane Shear Strength (Pounds per Foot) for SIP Shear Walls (Wind and Seismic Loads in Seismic Design Categories A, B, and C)

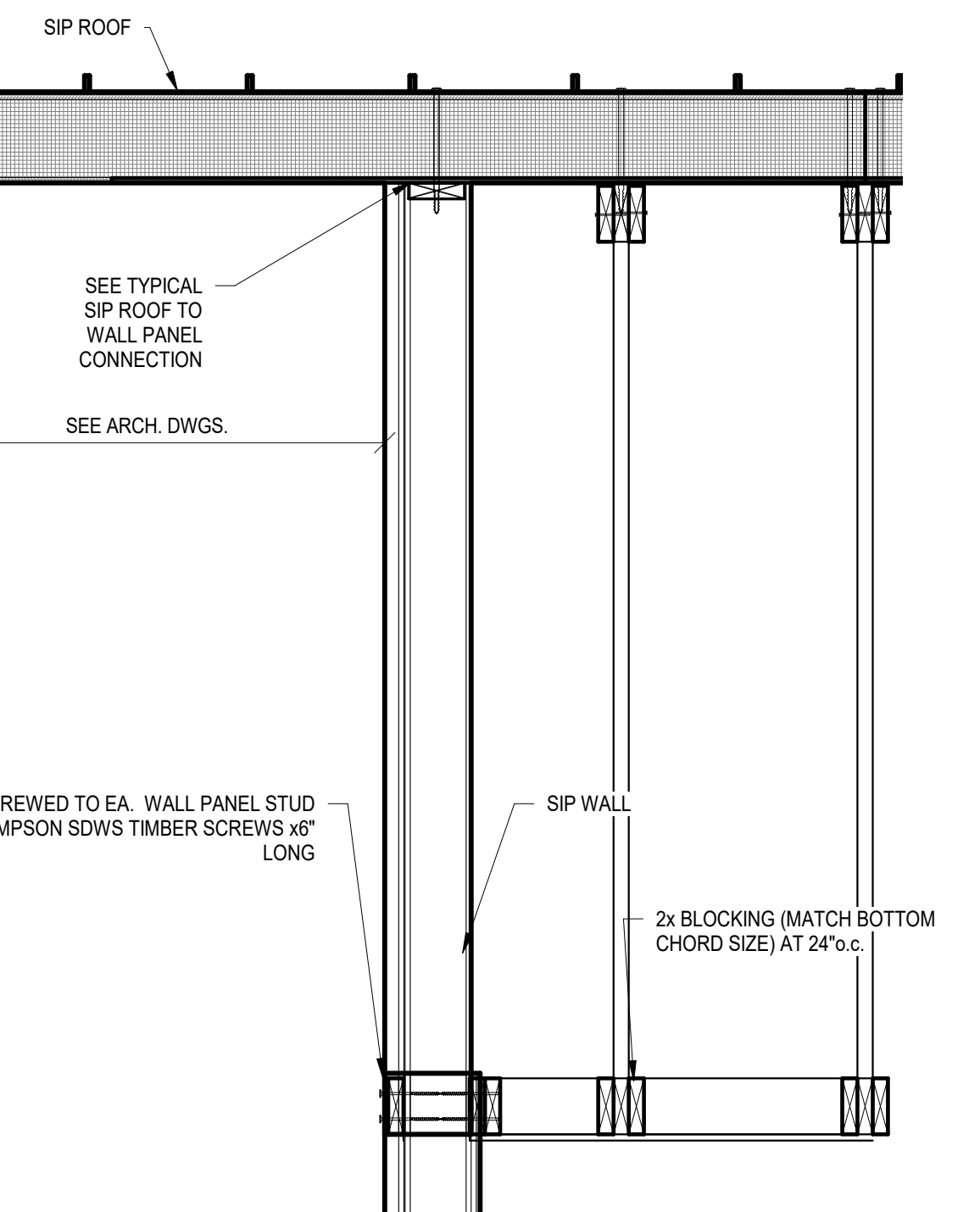
Spline Type ⁴	Nominal SIP Thickness (in.)	Minimum Facing Connections ⁵			Shear Strength (plf)
		Chord ³	Plate ³	Spline ⁴	
Block or Surface Spline	4.625	0.131"x2-1/2" nails, 6" oc	0.131"x2-1/2" nails, 6" oc	0.131"x2-1/2" nails, 6" oc	380
	6.625	0.131"x2-1/2" nails, 6" oc	0.131"x2-1/2" nails, 6" oc	0.131"x2-1/2" nails, 6" oc	380
	8.375	0.131"x2-1/2" nails, 6" oc	0.131"x2-1/2" nails, 6" oc	0.131"x2-1/2" nails, 6" oc	400

¹ Maximum shear wall dimensions ratio shall not exceed 2:1 (height: width) for resisting wind or seismic loads.
² Maximum shear wall dimension ratio shall not exceed 1:1 (height: width) for resisting wind or seismic loads.
³ Chords, hold downs and connections to other structural elements must be designed by a registered design professional in accordance with accepted engineering practice.
⁴ Spline type at interior panel-to-panel joints only. Solid chord members are required at each end of each shear wall segment.
⁵ Required connections must be made on each side of the panel. Dimensional or engineered lumber shall have an equivalent specific gravity of 0.42 or greater.

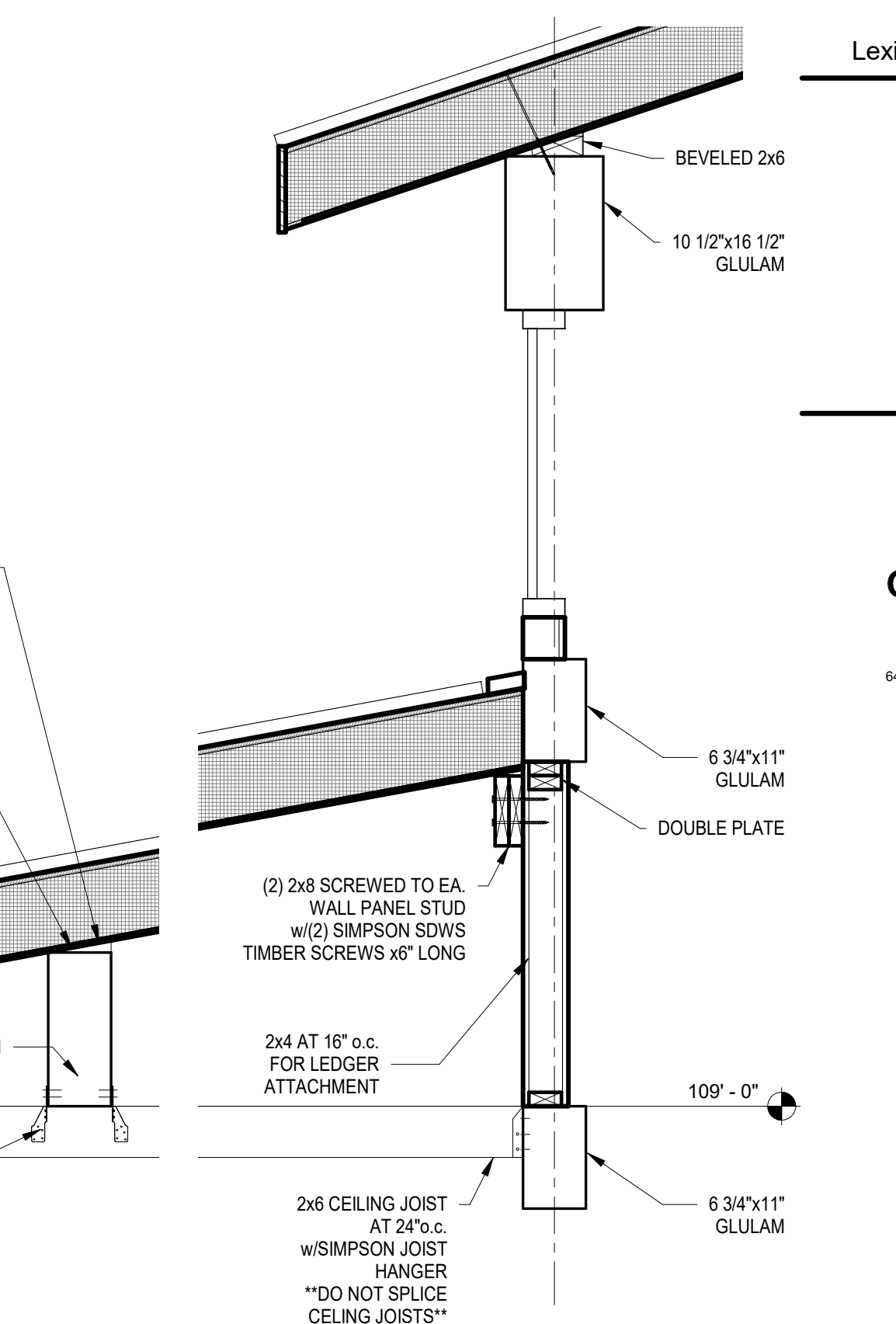


C3 Typical Strap Bracing Details
N.T.S.

C4 Section
3/4" = 1'-0"



A4 Section
3/4" = 1'-0"



A5 Section
3/4" = 1'-0"

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1220 West 6th Street, Suite 300, Cleveland, OH 44113
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Structural Engineers

644 Linn Street, Suite 936, Cincinnati, Ohio 45203 (513) 621-7073

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09/16/2019

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Issue Date: July 20, 2018

I-71 Rest Areas

Mile Marker 34
South Bound
Warren County, Ohio

FRAMING SECTIONS

Project No.

18084

SS402

ANSI-117.1 2009

302 FLOOR SURFACES

302.1 **General.** Floor surfaces shall be stable, firm, and slip resistant, and shall comply with Section 302. Changes in level in floor surfaces shall comply with Section 303.

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. The pile shall be 1/2 inch (13 mm) maximum in height. Exposed edges of carpet shall be fastened to the floor and shall have trim along the entire length of the exposed edge. Carpet edge trim shall comply with Section 303.

302.3 **Openings.** Openings in floor surfaces shall be of a size that does not permit the passage of a 12 inch (31 mm) diameter sphere, except as allowed in Sections 407.4.3, 408.4.3, 409.4.3, 410.4, and 805.10. Elongated openings shall be placed so that the long dimension is perpendicular to the predominant direction of travel.

304 TURNING SPACE

304.1 **General.** A turning space shall comply with Section 304.

304.2 **Floor Surface.** Floor surfaces of a turning space shall comply with Section 302. Changes in level are not permitted within the turning space.

EXCEPTION: Slopes not steeper than 1:48 shall be permitted.

304.3 **Size.** Turning spaces shall comply with Section 304.3.1 or 304.3.2.

304.3.1 **Circular Space.** The turning space shall be a circular space with a 60-inch (1525 mm) minimum diameter. The turning space shall be permitted to include knee and toe clearance complying with Section 306.

304.3.2 **T-Shaped Space.** The turning space shall be a T-shaped space within a 60-inch (1525 mm) minimum square, with arms and base 36 inches (915 mm) minimum in width. 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 turning space shall be permitted to include knee and toe clearance complying with Section 306 only at the end of either the base or 304.4 Door Swing. Unless otherwise specified, doors shall be permitted to swing into turning spaces.

305 CLEAR FLOOR SPACE

305.1 **General.** A clear floor space shall comply with Section 305.

305.2 **Floor Surfaces.** Floor surfaces of a clear floor space shall comply with Section 302. Changes in level are not permitted within the clear floor space.

EXCEPTION: Slopes not steeper than 1:48 shall be permitted.

305.3 **Size.** The clear floor space shall be 48 inches (1220 mm) minimum in length and 30 inches (760 mm) minimum in width.

305.4 **Knee and Toe Clearance.** Unless otherwise specified, clear floor space shall be permitted to include knee and toe clearance complying with Section 306.

305.5 **Position.** Unless otherwise specified, the clear floor space shall be positioned for either forward or parallel approach to an element.

305.6 **Approach.** One full, unobstructed side of the clear floor space shall adjoin or overlap an accessible route or adjoin another clear floor space.

305.7 **Alcoves.** If a clear floor space is in an alcove or otherwise confined on all or part of three sides, additional maneuvering clearances complying with Sections 305.7.1 and 305.7.2 shall be provided, as applicable.

305.7.1 **Parallel Approach.** Where the clear floor space is positioned for a parallel approach, the alcove shall be 60 inches (1525 mm) minimum in width where the depth exceeds 15 inches (380 mm).

305.7.2 **Forward Approach.** Where the clear floor space is positioned for a forward approach, the alcove shall be 36 inches (915 mm) minimum in width where the depth exceeds 24 inches (610 mm).

306 KNEE & TOE CLEARANCE

306.1 **General.** Where space beneath an element is included as part of clear floor space at an element, knee and toe clearance, or turning space, the space shall comply with Section 306. Additional space shall not be prohibited beneath an element, but shall not be considered as part of the clear floor space or turning space.

306.2 **Toe Clearance.**

306.2.1 **General.** Space beneath an element between the floor and 9 inches (230 mm) above the floor shall be considered toe clearance and shall comply with Section 306.2.

306.2.2 **Maximum Depth.** Toe clearance shall be permitted to extend 25 inches (635 mm) maximum under an element.

306.2.3 **Minimum Depth.** Where toe clearance is required at an element as part of a clear floor space complying with Section 305, the toe clearance shall extend 17 inches (430 mm) minimum beneath 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 floor shall not be considered toe clearance.

306.2.5 **Width.** Toe clearance shall be 30 inches (760 mm) minimum in width.

306.3 **Knee Clearance.**

306.3.1 **General.** Space beneath an element between 9 inches (230 mm) and 27 inches (685 mm) above the floor shall be considered knee clearance and shall comply with Section 306.3.

306.3.2 **Maximum Depth.** Knee clearance shall be permitted to extend 25 inches (635 mm) maximum under an element at 9 inches (230 mm) above the floor.

306.3.3 **Minimum Depth.** Where knee clearance is required beneath an element as part of a clear floor space complying with Section 305, the knee clearance shall be 11 inches (280 mm) minimum in depth at 9 inches (230 mm) above the floor, and 8 inches (205 mm) minimum in depth at 27 inches (685 mm) above the floor.

306.3.4 **Clearance Reduction.** Between 9 inches (230 mm) and 27 inches (685 mm) above the floor, the knee clearance shall be permitted to be reduced 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) minimum in width.

307 PROTRUDING OBJECTS

307.1 **General.** Protruding objects on circulation paths shall comply with Section 307.

307.2 **Protrusion Limits.** Objects with leading edges more than 27 inches (685 mm) and not more than 80 inches (2030 mm) above the floor shall protrude 4 inches (100 mm) maximum horizontally into the circulation path.

307.3 **Post-Mounted Objects.** Objects on posts or pylons shall be permitted to overhang 4 inches (100 mm) maximum where more than 27 inches (685 mm) and not more than 80 inches (2030 mm) above the floor. Objects on multiple posts or pylons where the clear distance between the posts or pylons is greater than 12 inches (305 mm) shall have the lowest edge of such object either 27 inches (685 mm) maximum or 80 inches (2030 mm) minimum above the floor.

EXCEPTION: Slipping portions of handrails between the top and bottom riser of stairs and above the ramp run shall not be required to comply with Section 307.3.

307.4 **Vertical Clearance.** Vertical clearance shall be 80 inches (2030 mm) minimum. Rails or other barriers shall be provided where the vertical clearance is less than 80 inches (2030 mm). The leading edge of such rails or barrier shall be located 27 inches (685 mm) maximum above the floor.

EXCEPTION: Door closers and door stops shall be permitted to be 78 inches (1980 mm) minimum above the floor.

308.2.2 **Obstructed High Reach.** Where a high forward reach is over an obstruction, the clear floor space complying with Section 305 shall extend beneath the element for a distance not less than the required reach depth over the obstruction. The high forward reach shall be 48 inches (1220 mm) maximum above the floor 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 above the floor, and the reach depth shall be 25 inches (635 mm) maximum.

308.3 **Side Reach.**

308.3.1 **Unobstructed.** Where a clear floor space complying with Section 305 allows a parallel approach to an element and the edge of the clear floor space is 10 inches (255 mm) maximum from the element, 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 floor.

EXCEPTION: Existing elements that are not altered shall be permitted at 54 inches (1370 mm) maximum above the floor.

308.3.2 **Obstructed High Reach.** Where a clear floor space complying with Section 305 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 above the floor and the depth of the obstruction shall be 24 inches (610 mm) maximum. The high side reach shall be 48 inches (1220 mm) maximum above the floor 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 above the floor for a reach depth of 24 inches (610 mm) maximum.

EXCEPTION: At washing machines and clothes dryers, the height of the obstruction shall be permitted to be 36 inches (915 mm) maximum above the floor.

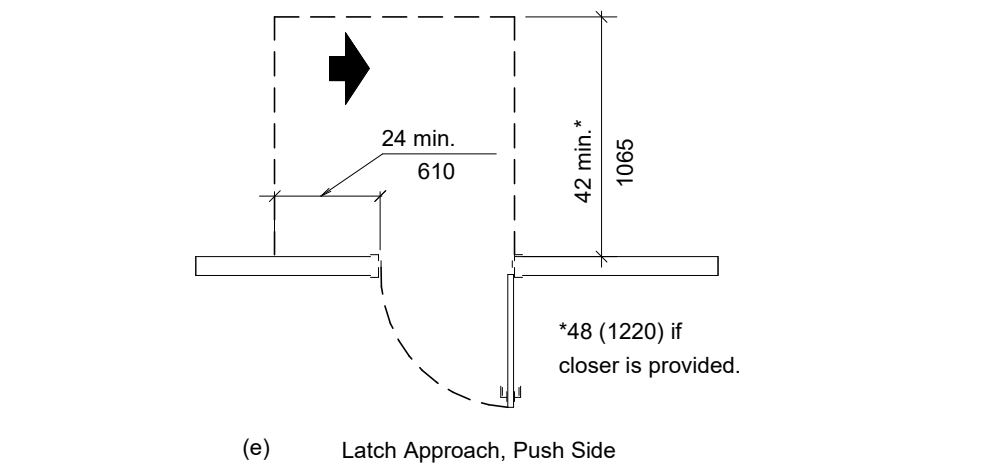
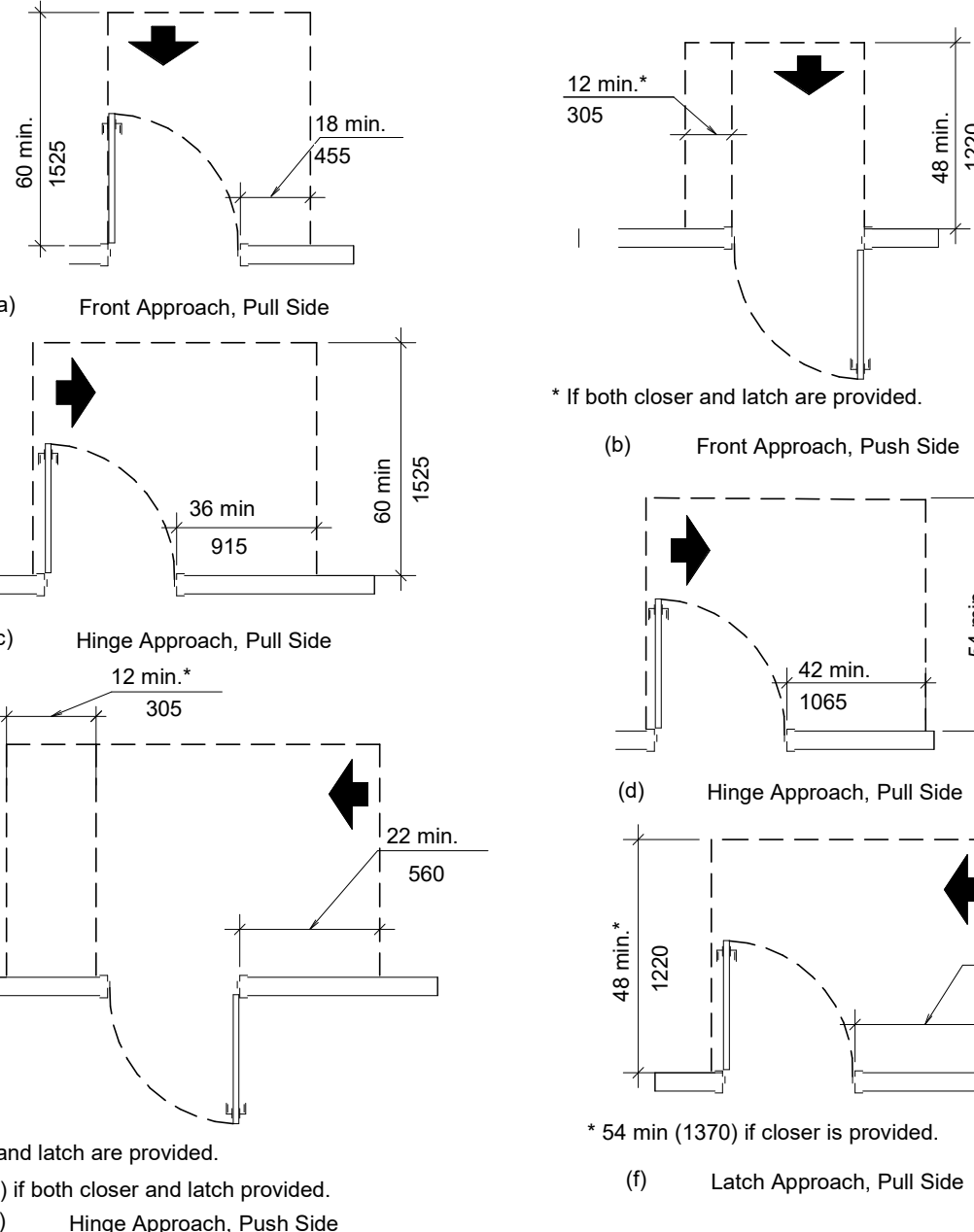
309 OPERABLE PARTS

309.1 **General.** Operable parts required to be accessible shall comply with Section 309.

309.2 **Clear Floor Space.** A clear floor space complying with Section 305 shall be provided.

309.3 **Height.** Operable parts shall be placed within one or more of the reach ranges specified in Section 306.

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 5.0 pounds (22.2 N) maximum.



MANEUVERING CLEARANCE AT MANUAL SWINGING DOORS

602 DRINKING FOUNTAINS

602 DRINKING FOUNTAINS

602.2 **Clear Floor Space.** A clear floor space complying with Section 305, positioned for a forward approach to the drinking fountain, shall be provided. Knee and toe space complying with Section 306 shall be provided. The clear floor space shall be centered on the drinking fountain.

EXCEPTIONS:

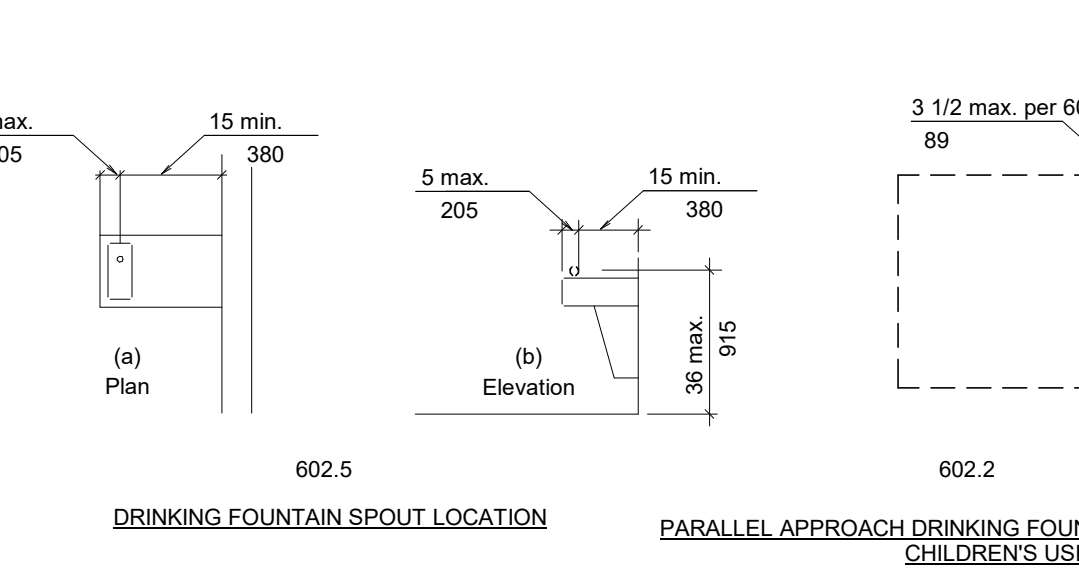
- Drinking fountains for standing persons.
- Drinking fountains primarily for children's use shall be permitted where the spout outlet is 30 inches (760 mm) maximum above the floor, a parallel approach complying with Section 305 is provided and the clear floor space is entered on the drinking fountain.

602.3 **Operable Parts.** Operable parts shall comply with Section 309.

602.4 **Spout Outlet Height.** Spout outlets of wheelchair accessible drinking fountains shall be 36 inches (915 mm) maximum above the floor. Spout outlets of drinking fountains for standing persons shall be 38 inches (965 mm) minimum and 43 inches (1090 mm) maximum above the floor (see Fig. 27).

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 drinking fountain, including bumpers.

602.6 **Water Flow.** The spout shall provide a flow of water 4 inches (100 mm) minimum in height. The angle of the water stream from spouts within 3 inches (75 mm) of the front of the drinking fountain shall be 30 degrees maximum, and from spouts between 3 inches (75 mm) and 5 inches (125 mm) from the front of the drinking fountain shall be 15 degrees maximum, measured horizontally relative to the front face of the drinking fountain.



DRINKING FOUNTAIN SPOUT LOCATION

PARALLEL APPROACH DRINKING FOUNTAINS PRIMARILY FOR CHILDREN'S USE

404 DOORS AND DOORWAYS

404.1 **General.** Doors and doorways that are part of an accessible route shall comply with Section 404.

404.2 **Manual Doors.** Manual doors and doorways, and manual gates, including ticket gates, shall comply with Section 404.2.

EXCEPTION: Doors, doorways, and gates designed to be operated only by security personnel shall not be required to comply with Sections 404.2.6, 404.2.7, and 404.2.8.

404.2.1 **Double-leaf Doors and Gates.** At least one of the active leaves of doorways with two leaves shall comply with Sections 404.2.2 and 404.2.3.

404.2.2 **Clear Width.** Doorways shall have a clear opening width of 32 inches (815 mm) minimum. Clear opening width of doorways with swinging doors shall be measured between the face of door and stop, with the door open 90 degrees. Openings more than 24 inches (610 mm) in depth at doors and doorways without doors shall provide a clear opening width of 36 inches (915 mm) minimum. There shall be no projections into the clear opening width lower than 34 inches (865 mm) above the floor. Projections into the clear opening width between 34 inches (865 mm) and 80 inches (2030 mm) above the floor shall not exceed 4 inches (100 mm).

EXCEPTIONS: 1. Door closers and door stops shall be permitted to be 78 inches (1980 mm) minimum above the floor.

2. In alterations, a projection of 5/8 inch (16 mm) maximum into the required clear opening width shall be permitted for the latch side stop.

404.2.3 **Maneuvering Clearances.** Minimum maneuvering clearances at doors shall comply with Section 404.2.3.1 and shall include the full clear opening width of the doorway. Required door maneuvering clearances shall not include knee and toe clearance.

404.2.3.1 **Floor Surface.** Floor surface within the maneuvering clearances shall have a slope not steeper than 1:48 and shall comply with Section 302.

404.2.3.2 **Swinging Doors.** Swinging doors shall have maneuvering clearances complying with Table 404.2.3.2.

404.2.3.3 **Sliding and Folding Doors.** Sliding doors and folding doors shall have maneuvering clearances complying with Table 404.2.3.3.

404.2.3.4 **Doors without Doors.** Doorways without doors that are less than 36 inches (915 mm) in width shall have maneuvering clearances complying with Table 404.2.3.4.

404.2.3.5 **Recessed Doors.** Where 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, maneuvering clearances for a forward approach shall be provided.

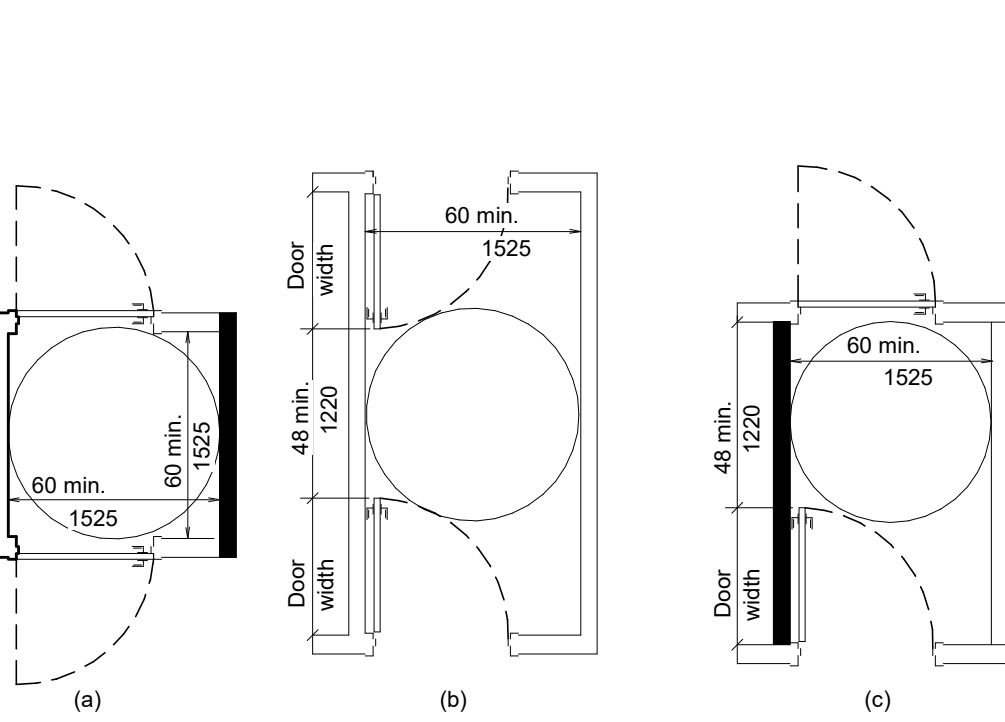
404.2.4 **Thresholds.** If provided, thresholds at doorways shall be 1/2 inch (13 mm) maximum in height. Raised thresholds and changes in level at doorways shall comply with Sections 302 and 303.

EXCEPTION: An existing or altered threshold shall be permitted to be 3/4 inch (19 mm) maximum in height provided that the threshold has a beveled edge on each side with a maximum slope of 1:2 for the height exceeding 1/4 inch (6.4 mm).

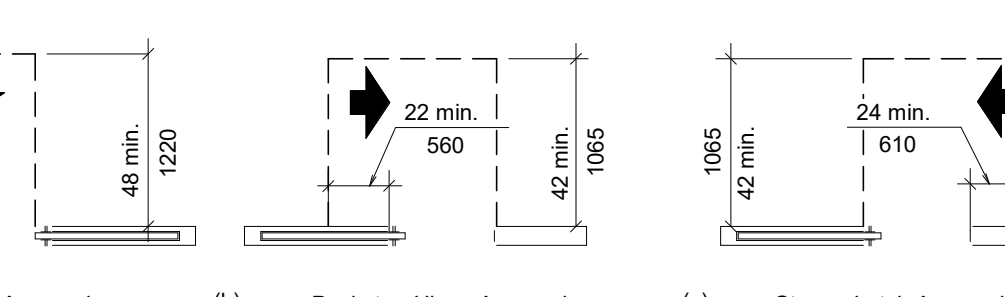
404.2.5 **Two Doors in Series.** Distance between two hinged or pivoted doors in series shall be 48 inches (1220 mm) minimum plus the width of any door swinging into the space. The space between the doors shall provide a turning space complying with Section 304.

404.3 **Maneuvering Clearances.** Maneuvering clearances at power-assisted doors shall comply with Section 404.2.3.

404.3.3 **Thresholds.** Thresholds and changes in level at doorways shall comply with Section 404.2.4.



TWO DOORS IN SERIES



MANEUVERING CLEARANCE AT SLIDING AND FOLDING DOORS

603 TOILET AND BATHING ROOMS

603.1 **General.** Accessible toilet and bathing rooms shall comply with Section 603.

603.2 **Clearances.**

603.2.1 **Turning Space.** A turning space complying with Section 304 shall be provided within the room. The required turning space shall not be provided within a toilet compartment.

603.2.2 **Door Swing.** Doors shall not swing into the clear floor space or clearance for any fixture.

603.3 **Mirrors.** Where mirrors are located above lavatories, a mirror shall be located over the accessible lavatory and shall be mounted with the bottom edge of the reflecting surface 40 inches (1015 mm) maximum above the floor. Where mirrors are located above counters that do not contain lavatories, the mirror shall be mounted with the bottom edge of the reflecting surface 40 inches (1015 mm) maximum above the floor.

603.4 **Coat Hooks and Shelves.** Coat hooks shall be located within one of the reach ranges specified in Section 306. Shelves shall be 40 inches (1015 mm) minimum and 48 inches (1220 mm) maximum above the floor.

603.5 **Diaper Changing Tables.** Diaper changing tables shall comply with Sections 309 and 902.

603.6 **Operable Parts.** Operable parts on towel dispensers and hand dryers serving accessible lavatories shall comply with Table 603.6.

604 WATER CLOSETS AND TOILET COMPARTMENTS

604.1 **General.** Accessible water closets and toilet compartments shall comply with Section 604.

Compartments containing more than one plumbing fixture shall comply with Section 603. Wheelchair accessible compartments shall comply with Section 604.9.

604.2 **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 16 inches (405 mm) minimum and 18 inches (455 mm) maximum from the side wall or partition. Water closets located in ambulatory accessible compartments specified in Section 604.10 shall have the centerline of the water closet 17 inches (430 mm) minimum and 19 inches (485 mm) maximum from the side wall or partition.

604.3 **Clearance.**

604.3.1 **Clearance Width.** Clearance around a water closet shall be 60 inches (1525 mm) minimum in width, measured perpendicular to the side wall.

604.3.2 **Clearance Depth.** Clearance around a water closet shall be 56 inches (1420 mm) minimum in depth, measured perpendicular from the rear wall.

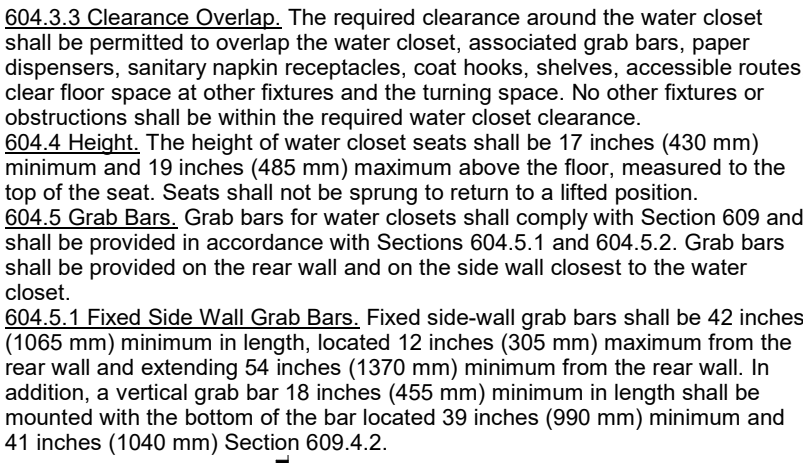


FIG. 604.5.1

SIDE WALL GRAB BAR FOR WATER CLOSET

NOTE: For children's dimensions see Fig. 209.4.2

FIG. 604.5.2

REAR WALL GRAB BAR FOR WATER CLOSET

NOTE: For children's dimensions see Fig. 209.4.2

FIG. 604.9.1

WHEELCHAIR ACCESSIBLE COMPARTMENTS

FIG. 604.9.2

WHEELCHAIR ACCESSIBLE TOILET COMPARTMENTS

FIG. 604.9.3

WHEELCHAIR ACCESSIBLE TOILET COMPARTMENTS

FIG. 604.9.4

WHEELCHAIR ACCESSIBLE TOILET COMPARTMENTS

FIG. 604.9.5

WHEELCHAIR ACCESSIBLE TOILET COMPARTMENTS

FIG. 604.9.6

WHEELCHAIR ACCESSIBLE TOILET COMPARTMENTS

FIG. 604.9.7

WHEELCHAIR ACCESSIBLE TOILET COMPARTMENTS

FIG. 604.9.8

WHEELCHAIR ACCESSIBLE TOILET COMPARTMENTS

FIG. 604.9.9

WHEELCHAIR ACCESSIBLE TOILET COMPARTMENTS

FIG. 604.9.10

WHEELCHAIR ACCESSIBLE TOILET COMPARTMENTS

FIG. 604.9.11

WHEELCHAIR ACCESSIBLE TOILET COMPARTMENTS

FIG. 604.9.12

WHEELCHAIR ACCESSIBLE TOILET COMPARTMENTS

FIG. 604.9.13

WHEELCHAIR ACCESSIBLE TOILET COMPARTMENTS

FIG. 604.9.14

WHEELCHAIR ACCESSIBLE TOILET COMPARTMENTS

FIG. 604.9.15

WHEELCHAIR ACCESSIBLE TOILET COMPARTMENTS

FIG. 604.9.16

WHEELCHAIR ACCESSIBLE TOILET COMPARTMENTS

FIG. 604.9.17

WHEELCHAIR ACCESSIBLE TOILET COMPARTMENTS

FIG. 604.9.18

WHEELCHAIR ACCESSIBLE TOILET COMPARTMENTS

FIG. 604.9.19

WHEELCHAIR ACCESSIBLE TOILET COMPARTMENTS

FIG. 604.9.20

WHEELCHAIR ACCESSIBLE TOILET COMPARTMENTS

FIG. 604.9.21

WHEELCHAIR ACCESSIBLE TOILET COMPARTMENTS

FIG. 604.9.22

WHEELCHAIR ACCESSIBLE TOILET COMPARTMENTS

FIG. 604.9.23

WHEELCHAIR ACCESSIBLE TOILET COMPARTMENTS

FIG. 604.9.24

WHEELCHAIR ACCESSIBLE TOILET COMPARTMENTS

FIG. 604.9.25

WHEELCHAIR ACCESSIBLE TOILET COMPARTMENTS

FIG. 604.9.26

WHEELCHAIR ACCESSIBLE TOILET COMPARTMENTS

FIG. 604.9.27

WHEELCHAIR ACCESSIBLE TOILET COMPARTMENTS

FIG. 604.9.28

WHEELCHAIR ACCESSIBLE TOILET COMPARTMENTS

FIG. 604.9.29

WHEELCHAIR ACCESSIBLE TOILET COMPARTMENTS

FIG. 604.9.30

WHEELCHAIR ACCESSIBLE TOILET COMPARTMENTS

FIG. 604.9.31

WHEELCHAIR ACCESSIBLE TOILET COMPARTMENTS

FIG. 604.9.32

WHEELCHAIR ACCESSIBLE TOILET COMPARTMENTS

FIG. 604.9.33

WHEELCHAIR ACCESSIBLE TOILET COMPARTMENTS

FIG. 604.9.34

WHEELCHAIR ACCESSIBLE TOILET COMPARTMENTS

FIG. 604.9.35

WHEELCHAIR ACCESSIBLE TOILET COMPARTMENTS

FIG. 604.9.36

WHEELCHAIR ACCESSIBLE TOILET COMPARTMENTS

FIG. 604.9.37

WHEELCHAIR ACCESSIBLE TOILET COMPARTMENTS

FIG. 604.9.38

WHEELCHAIR ACCESSIBLE TOILET COMPARTMENTS

FIG. 604.9.39

WHEELCHAIR ACCESSIBLE TOILET COMPARTMENTS

FIG. 604.9.40

WHEELCHAIR ACCESSIBLE TOILET COMPARTMENTS

FIG. 604.9.41

WHEELCHAIR ACCESSIBLE TOILET COMPARTMENTS

FIG. 604.9.42

WHEELCHAIR ACCESSIBLE TOILET COMPARTMENTS

FIG. 604.9.43

WHEELCHAIR ACCESSIBLE TOILET COMPARTMENTS

FIG. 604.9.44

WHEELCHAIR ACCESSIBLE TOILET COMPARTMENTS

FIG. 604.9.45

WHEELCHAIR ACCESSIBLE TOILET COMPARTMENTS

FIG. 604.9.46

WHEELCHAIR ACCESSIBLE TOILET COMPARTMENTS

FIG. 604.9.47

WHEELCHAIR ACCESSIBLE TOILET COMPARTMENTS

FIG. 604.9.48

WHEELCHAIR ACCESSIBLE TOILET COMPARTMENTS

FIG. 604.9.49

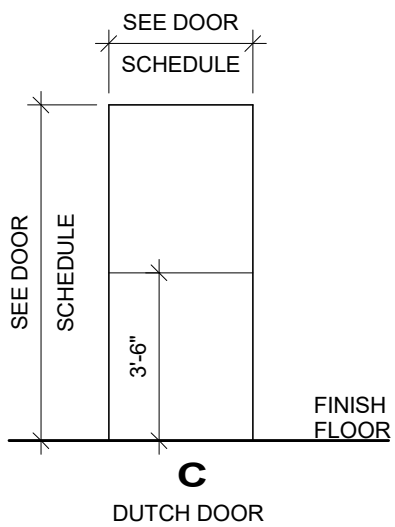
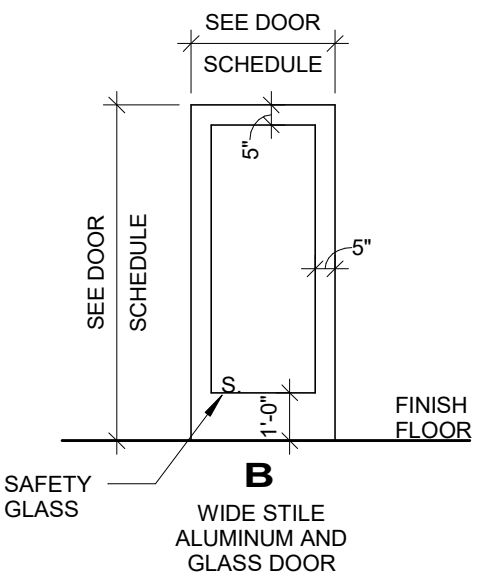
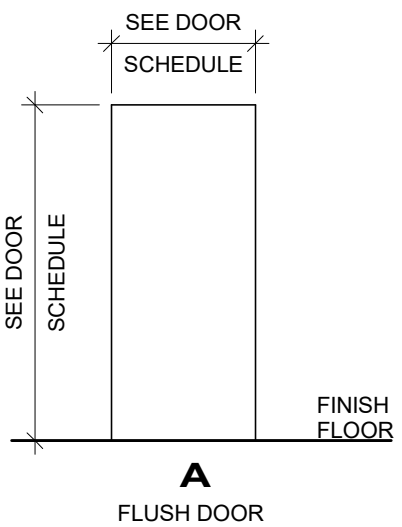
WHEELCHAIR ACCESSIBLE TOILET COMPARTMENTS

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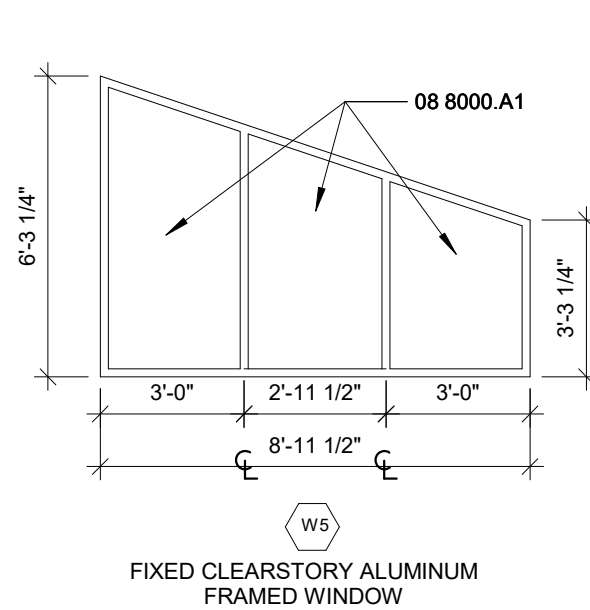
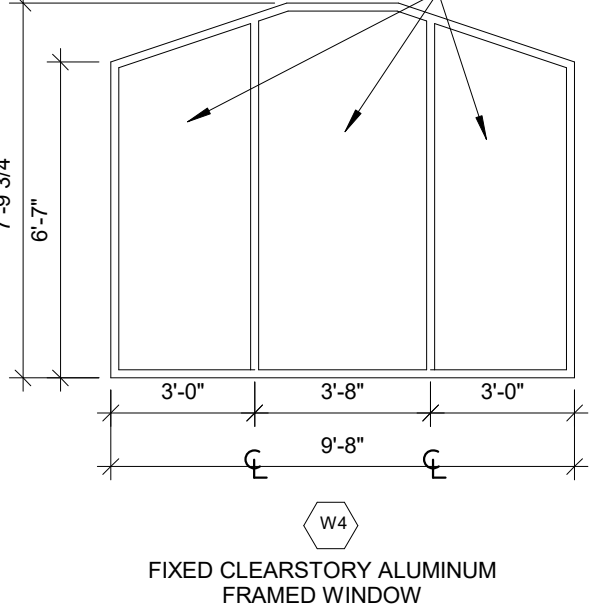
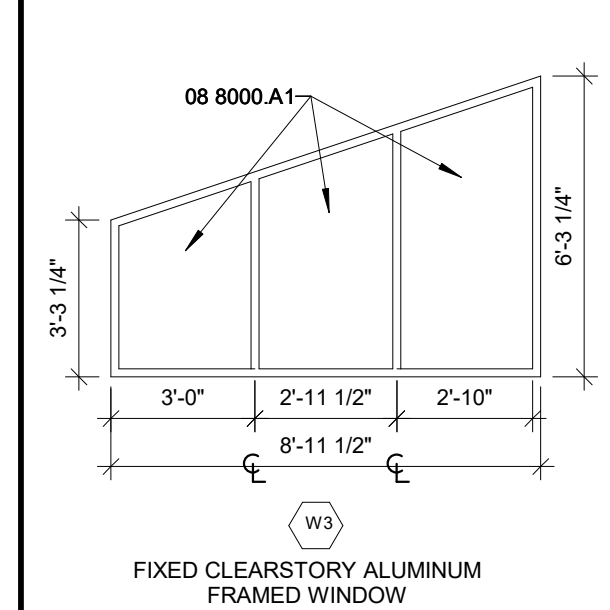
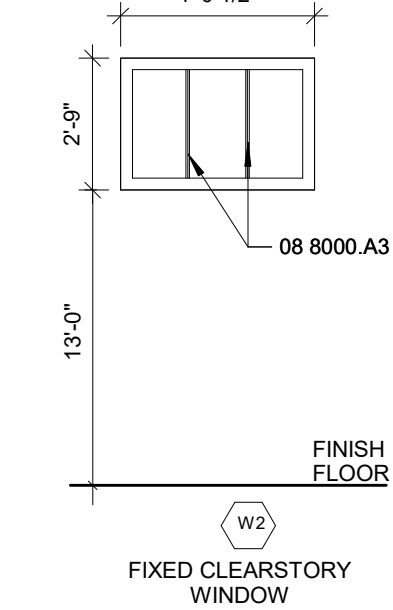
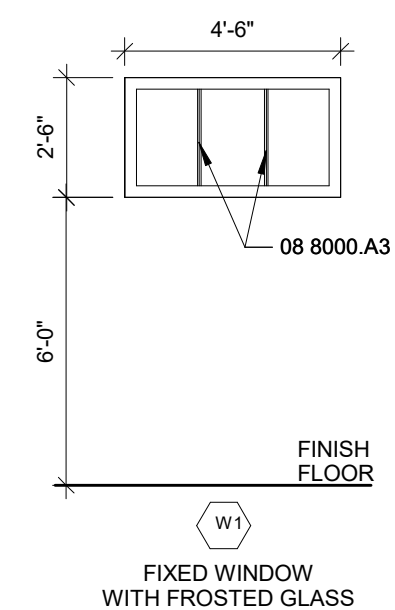
Door Schedule												
DOOR #	DOOR OPENING SIZE		DOOR THICKNESS	TYPE	DOOR		FRAME			HARDWARE SET	THRESHOLD TYPE	REMARKS
	WIDTH	HEIGHT			MATERIAL	FINISH	MATERIAL	FINISH	TYPE			
101A	3'-0"	7'-0"		B	ALUM	ANODIZED	ALUM	ANODIZED	I	1.0	I	
101B	3'-0"	7'-0"		B	ALUM	ANODIZED	ALUM	ANODIZED	I	1.0	I	
102A	3'-0"	7'-0"		B	ALUM	ANODIZED	ALUM	ANODIZED	I	2.0		
102B	3'-0"	7'-0"		B	ALUM	ANODIZED	ALUM	ANODIZED	I	2.0		
102C	3'-0"	7'-0"		B	ALUM	ANODIZED	ALUM	ANODIZED	I	9.0	I	
104A	3'-0"	7'-0"	1 3/4"	A	METAL	PAINT	HM	PAINT	III	5.0	II	
105A	3'-0"	7'-0"	1 3/4"	A	METAL	PAINT	HM	PAINT	11B	4.0	II	INSULATED
105B	3'-6"	7'-0"	1 3/4"	C	METAL	PAINT	HM	PAINT	III	6.0		
107A	3'-0"	7'-0"	1 3/4"	A	METAL	PAINT	HM	PAINT	III	8.0		
108A	3'-0"	7'-0"	1 3/4"	A	METAL	PAINT	HM	PAINT	III	8.0		
111A	3'-0"	7'-0"	1 3/4"	A	METAL	PAINT	HM	PAINT	IIA	3.0	III	INSULATED
114A	3'-0"	7'-0"	1 3/4"	A	METAL	PAINT	HM	PAINT	IIA	3.0	III	INSULATED
117A	3'-6"	7'-0"	1 3/4"	A	METAL	PAINT	HM	PAINT	III	7.0	II	
117B	3'-6"	7'-0"	1 3/4"	A	METAL	PAINT	HM	PAINT	11B	3.0	II	INSULATED

REMARKS:

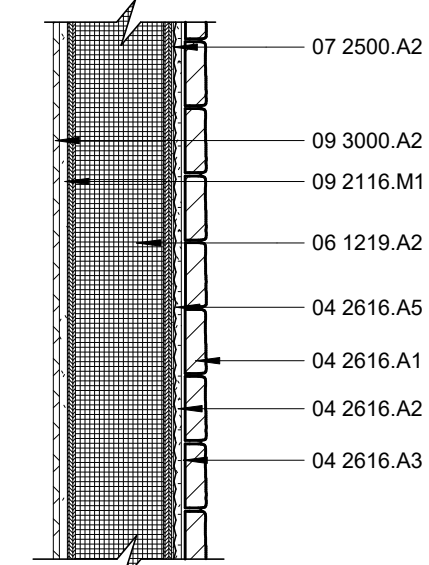
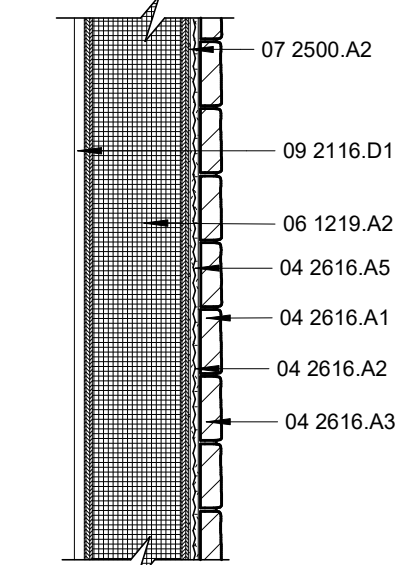
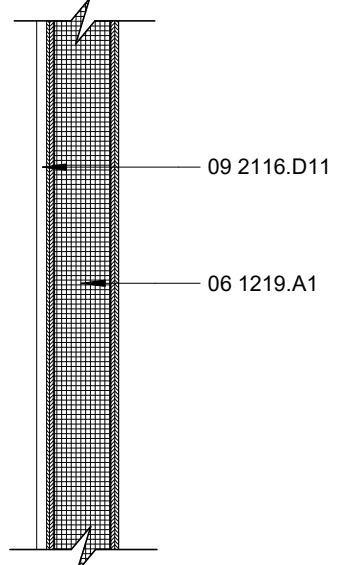
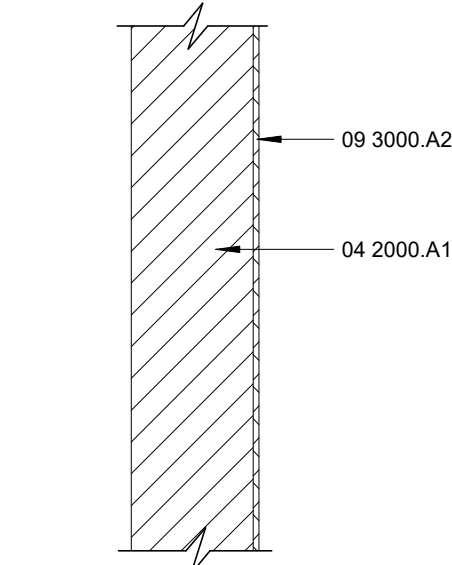
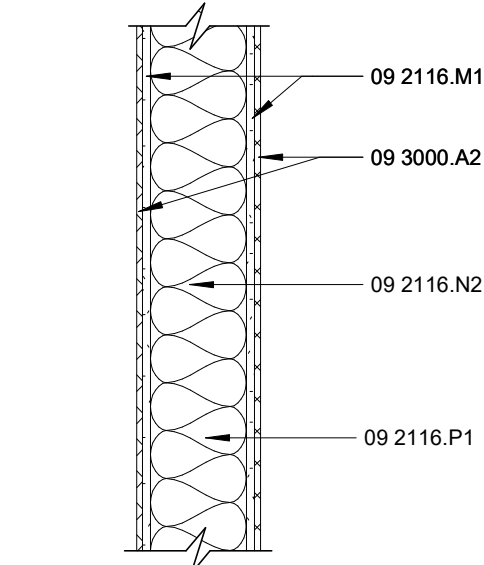
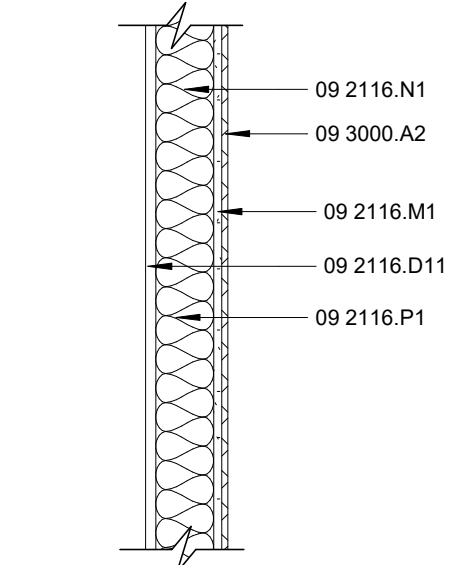
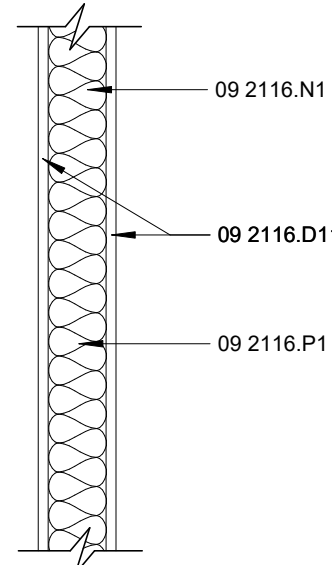
1. PROVIDE A 1 1/4" SPACE BETWEEN THE TOP OF THE CONCRETE AND THE BOTTOM OF DOOR 104A.



3 Door Elevations and Schedule



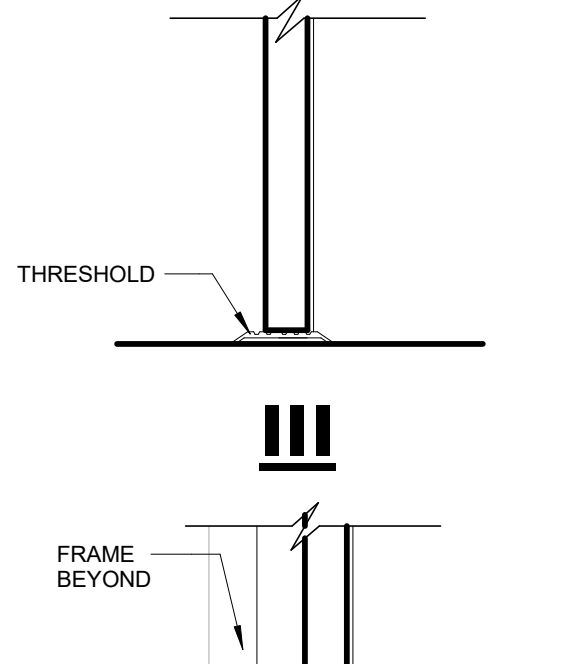
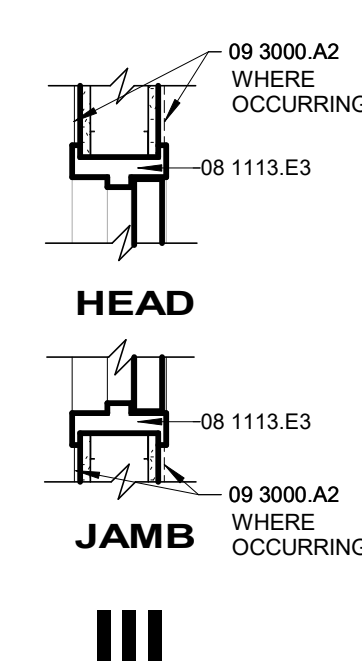
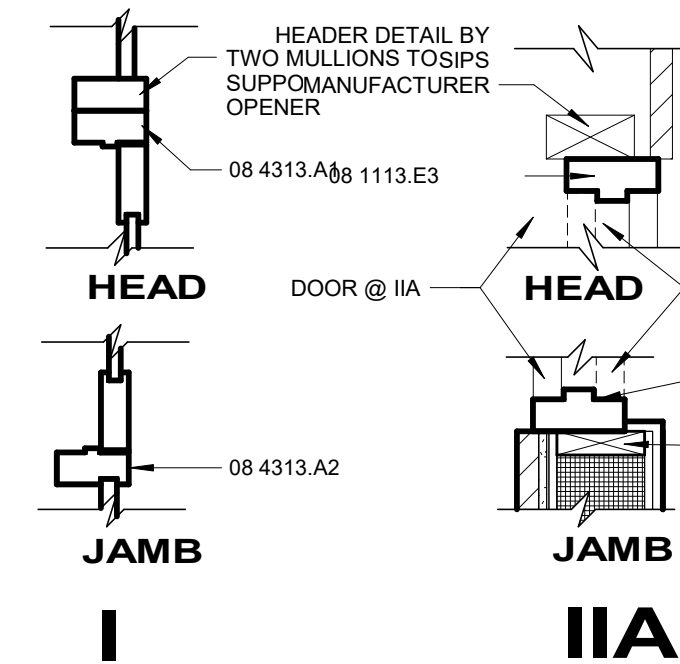
2 Window Types and Elevations



1 Wall Types

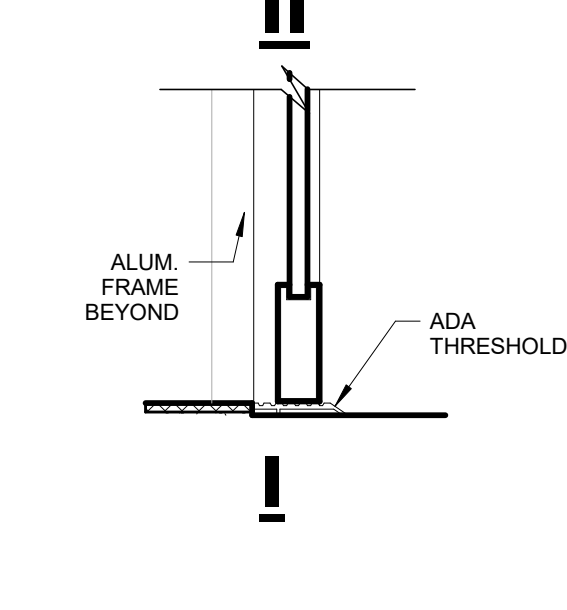
Room Finish Schedule

ROOM #	ROOM NAME	FLOOR	WALL BASE	WALLS	CEILING	REMARKS
		CERAMIC TILE	SEALED CONCRETE	VINYL BASE	PORCELAIN COVE	PAINTED DRYWALL
101	VESTIBULE	FF-1		WB-1	PT-1	
102	LOBBY	FF-1		WB-1	PT-1	
103	VENDING	FF-1		WB-1	PT-1	
104	VENDING STORAGE	FF-2	WB-2	PT-1		
105	MAINTENANCE	FF-1	WB-2	PT-1		
106	JANITOR CLOSET	FF-1		WB-1	PT-1	
107	FAMILY RESTROOM	FF-1		WB-1	PT-1	
108	FAMILY RESTROOM	FF-1		WB-1	PT-1	
109	RESTROOM ENTRANCE	FF-1		WB-1	PT-1	
110	WOMEN'S RESTROOM	FF-1		WB-1	PT-1	
111	PLUMBING CHASE	FF-2	WB-2	PT-1		
112	WOMEN'S RESTROOM	FF-1		WB-1	PT-1	
113	MEN'S RESTROOM	FF-1		WB-1	PT-1	
114	PLUMBING CHASE	FF-2	WB-2	PT-1		
115	MEN'S RESTROOM	FF-1		WB-1	PT-1	
116	RESTROOM ENTRANCE	FF-1		WB-1	PT-1	
117	MECHANICAL ROOM	FF-2	WB-2	PT-1		



4 Door Head/Jamb Details

N.T.S.



N.T.S.

5 Door Threshold

Finish Legend

TILE

- FF-1 DAL-TILE PORCELAIN
STYLE: AYERS ROCK
COLOR: RUSTIC REMNANT AY05
SIZE: 20x20 FIELD TILE
13x13 FIELD TILE
6 1/2x6 1/2 FIELD TILE
PATTERN: TRIAD-HOPSCOTCH
GROUT COLOR: TEC 982 SUMMER WHEAT
* PROVIDE ADDITIONAL 25 S.F. OF EACH SIZE FOR ATTIC STOCK AT END OF PROJECT

WT-1

- DAL-TILE PORCELAIN
STYLE: AYERS ROCK
COLOR: RUSTIC REMNANT AY05
SIZE: 13x20 FIELD TILES
GROUT COLOR: TEC 982 SUMMER WHEAT
* PROVIDE ADDITIONAL 50 S.F. OF EACH SIZE FOR ATTIC STOCK AT END OF PROJECT

WT-2

- DAL-TILE MOSAIC
STYLE: SLATE RADIANCE
COLOR: SADDLE
GROUT COLOR: TEC 982 SUMMER WHEAT
* PROVIDE ADDITIONAL 10 S.F. OF EACH SIZE FOR ATTIC STOCK AT END OF PROJECT

WB-1

- DAL-TILE PORCELAIN
STYLE: AYERS ROCK
COLOR: RUSTIC REMNANT AY05
TILE SIZE: 6x13 COVE BASE
GROUT COLOR: TEC 982 SUMMER WHEAT
* PROVIDE ADDITIONAL 20 L.F. OF EACH SIZE FOR ATTIC STOCK AT END OF PROJECT

WT-3

- CUSTOM WATER-JET CUT WALL TILE
MURAL BACKGROUND TO TO BE WT-1 AND LETTERS TO BE WT-4.
SEE DETAILS 5/A502 AND 6/A502.
* DUPLICATE SET OF WT-3 FOR MEN AND WOMEN FOR ATTIC STOCK

WT-4

- DAL-TILE PORCELAIN
STYLE: FABRIC ART
COLOR: MODERN TEXTILE BEIGE MT51
TILE SIZE: 12x24
GROUT COLOR: TEC 988 PEARL
* PROVIDE ADDITIONAL 10 S.F. OF EACH SIZE FOR ATTIC STOCK AT END OF PROJECT

PAINT

- PT-1 SHERWIN-WILLIAMS
FINISH: EGGSHELL
COLOR: SW7013 IVORY LACE
DOOR FRAME COLOR: CARAIBE SW9090

PT-2

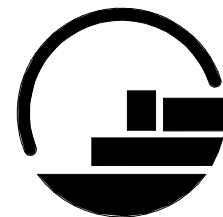
- SHERWIN-WILLIAMS
FINISH: FLAT
COLOR: SW7757 HIGH REFLECTANCE WHITE

VINYL WALL BASE

- WB-2 JOHNSONITE
PROFILE: TRADITIONAL
WALL BASE
COLOR: 47 BROWN

Material Notes

- 04 2000.A1 8" X 8" X 16" CMU - 2 CORE
04 2616.A1 ADHERED MASONRY VENEER
04 2616.A2 MORTAR SCRATCH COAT
04 2616.A3 MORTAR SETTING BED
04 2616.A5 LATH
06 1219.A1 4 1/2" STRUCTURAL INSULATED PANEL
06 1219.A2 6 1/2" STRUCTURAL INSULATED PANEL
07 2500.A2 2 LAYERS WATER-RESISTIVE BARRIER (PER VENEERED MASONRY MANUF. SPECIFICATIONS)
08 1113.E3 6" DOUBLE RABBIT HM DOOR FRAME
08 4313.A1 STOREFRONT DOOR HEAD
08 4313.A2 STOREFRONT DOOR JAMB AT SIDELIGHT
08 8000.A1 1" CLEAR INSULATING GLASS - TEMPERED
08 8000.A3 MUTTONS WITH-IN INSULATING GLASS PANELS
09 2116.D11 5/8" TYPE "X" GYPSUM WALLBOARD
09 2116.M1 1/2" CEMENTITIOUS BACKING BOARD
09 2116.N1 3 5/8" METAL STUDS @ 16" O.C.
09 2116.N2 6" METAL STUDS @ 16" O.C.
09 2116.P1 SOUND ATTENUATION BATTS
09 3000.A2 TILE



BRANDSTETTER
CARROLL INC
ARCHITECTS - ENGINEERS - PLANNERS
2360 Chovvin Drive, Lexington, KY 40517
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Record Drawings
09/16/2019

Revisions:
Issue Date: August 3, 2018

I-71 Rest Areas

Mile Marker 34
South Bound
Warren County, Ohio

Schedules

Project No.

SA002

18084

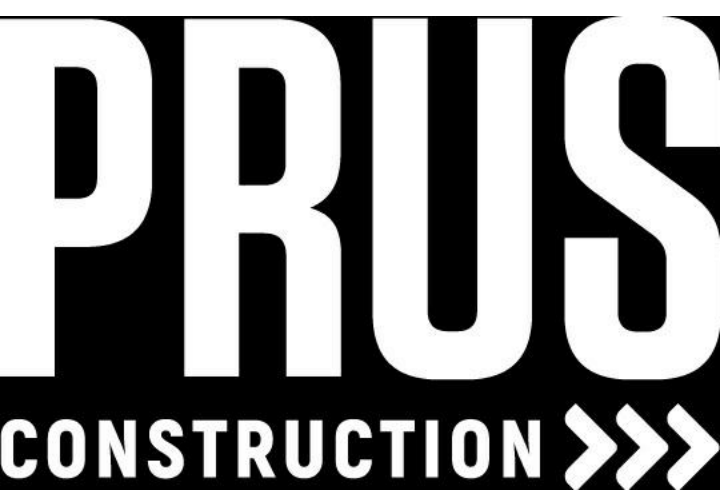
A1 Floor Plan
3/16" = 1'-0"



1. SEE SHEET SG101 & SG102 FOR GENERAL PROJECT NOTES.
2. DIMENSIONS ARE TO FACE OF STUD OR SIPs PANEL UNLESS NOTED OTHERWISE.
3. SEE SHEET SA002 FOR WALL TYPES.
4. REFER TO FINISH SCHEDULE FOR INTERIOR FINISHES.
5. REFER TO PLUMBING SHEETS FOR FIXTURES SPECIFICATIONS.
6. MANUFACTURER OF SIPs PANELS TO PROVIDE WIRE CHASE IN WALL FOR ELECTRICAL EQUIPMENT AND OUTLETS. COORDINATE WITH ELECTRICAL DRAWINGS.
7. APPLY TRANSPARENT ANTI-GRAFFITI COATING TO ALL WOOD STRUCTURE (INTERIOR & EXTERIOR SURFACES) AFTER ASSEMBLY BUT PRIOR TO INSTALLING WALLS, STOREFRONT, SIPs ROOFING PANELS, ETC.

08 4313.A9	STOREFRONT TYPICAL MULLION
08 7100.C2	AUTOMATIC DOOR OPENER PUSH BUTTON
08 7100.C3	PEDESTAL WITH DUAL AUTOMATIC DOOR OPENER PUSH BUTTONS
08 8000.A1	1" CLEAR INSULATING GLASS - TEMPERED
09 3000.B1	ROUNDED METAL TILE FINISHING EDGE AND CORNER PROTECTION
10 1400.D1	ACCESSIBLE WOMEN'S RESTROOM SIGN
10 1400.D2	ACCESSIBLE FAMILY RESTROOM SIGN
10 1400.D3	ACCESSIBLE MEN'S RESTROOM SIGN
10 1400.D4	ACCESSIBLE VENDING ROOM SIGN
10 1400.D5	ACCESSIBLE MAINTENANCE ROOM SIGN
10 1400.D6	ACCESSIBLE VENDING STORAGE SIGN
10 1400.D7	ACCESSIBLE MECHANICAL ROOM SIGN
32 1313.B3	4" CONCRETE WALK W/ BROOM FINISH
32 1313.C3	TOOLED JOINT

1. REINFORCING IN PORCH SLAB AT REENTRANT CORNERS, SEE STRUCTURAL.
2. TOOLED CONTROL JOINT UNLESS OTHERWISE NOTED, SEE STRUCTURAL.
3. EXPANSION JOINT, SEE STRUCTURAL.
4. TO UNDERGROUND DRAINAGE SYSTEM.
5. LINE OF EAVE.
6. DOOR PROVIDED FOR EMERGENCY EGRESS ONLY.
7. SOLID SURFACE DESK.
8. VENDING MACHINES N.I.C. (TYPICAL OF 6).



Revisions:
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Mile Marker 34
South Bound
Warren County, Ohio

Project No.

18084

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General Notes

- SEE SHEET SG101 & SG102 FOR GENERAL PROJECT NOTES.
- DIMENSIONS ARE TO FACE OF STUD OR SIPs PANEL UNLESS NOTED OTHERWISE.
- SEE SHEET SA002 FOR WALL TYPES.
- REFER TO FINISH SCHEDULE FOR INTERIOR FINISHES.
- REFER TO PLUMBING SHEETS FOR FIXTURES SPECIFICATIONS.
- 100.00' FINISH FLOOR ELEVATION IS USED FOR SIMPLICITY OF DRAWINGS (ACTUAL ELEVATION WILL VARY BY LOCATION).
- NORTH WILL VARY BY LOCATION.
- APPLY TRANSPARENT ANTI-GRAFFITI COATING TO ALL WOOD STRUCTURE (INTERIOR & EXTERIOR SURFACES) AFTER ASSEMBLY BUT PRIOR TO INSTALLING WALLS, STOREFRONT, SIPs ROOFING PANELS, ETC.

Material Notes

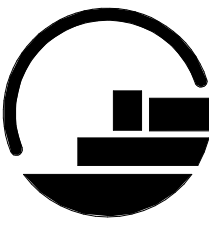
- | | |
|-------------|---|
| 06 1000.A2 | WOOD BLOCKING AS REQUIRED |
| 06 2000.B1 | POLYMER COMPOSITE V-GROOVED TONGUE AND GROOVE |
| 06 2000.D1 | FIBER-CEMENT UNVENTED SOFFIT |
| 07 4113.E1 | 3" X 4" DOWNSPOUT |
| 07 4113.E3 | 6" X 6" BEVELED GUTTER |
| 09 2116.D11 | 5/8" TYPE "X" GYPSUM WALLBOARD |

Sheet Notes

- 22 1/2" X 54" ATTIC ACCESS TO BE INSTALLED BETWEEN ROOF TRUSSES. PROVIDE 6 SHEETS OF 4' X 8' PLYWOOD TO BE INSTALLED IN ATTIC AT OWNER'S DIRECTION.
- WALL TILE ON THE BOTTOM SIDE OF OPENING WITH ROUNDED METAL TILE EDGE. TILE TO MATCH WALL TILE.
- STRUCTURAL MEMBERS - SEE STRUCTURAL DRAWINGS.

Legend

- | | |
|--|---|
| | 6" RECESSED CAN LIGHT |
| | 6" RECESSED EMERGENCY CAN LIGHT |
| | SURFACE MOUNTED LIGHT FIXTURE |
| | EMERGENCY SURFACE MOUNTED LIGHT FIXTURE |
| | WALL MOUNTED EXIT SIGN |
| | JUNCTION BOX - SEE ELECTRICAL DRAWINGS. |
| | CEILING MOUNTED, DOUBLE FACED EXIT SIGN WITH DIRECTION ARROWS |
| | EXHAUST FAN |
| | AIR DIFFUSER |
| | RETURN AIR |
| | OCCUPANCY SENSOR |
| | POWER PACK |
| | EMERGENCY WALL LIGHT |
| | LED EXTERIOR WALL-PACK |
| | LED EXTERIOR WALL-PACK |
| | TRACK LIGHTING |
| | CHANDELIER |



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I-71 Rest Areas

Mile Marker 34
South Bound
Warren County, Ohio

Reflected Ceiling Plan

Project No.

18084

SA102

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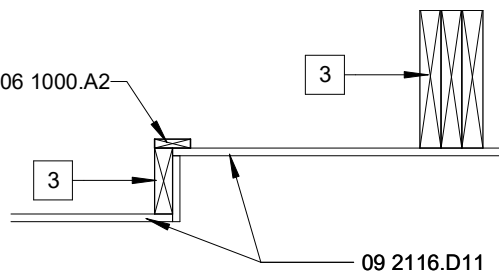
A1 Reflected Ceiling Plan

3/16" = 1'-0"

NORTH
↑
PLAN

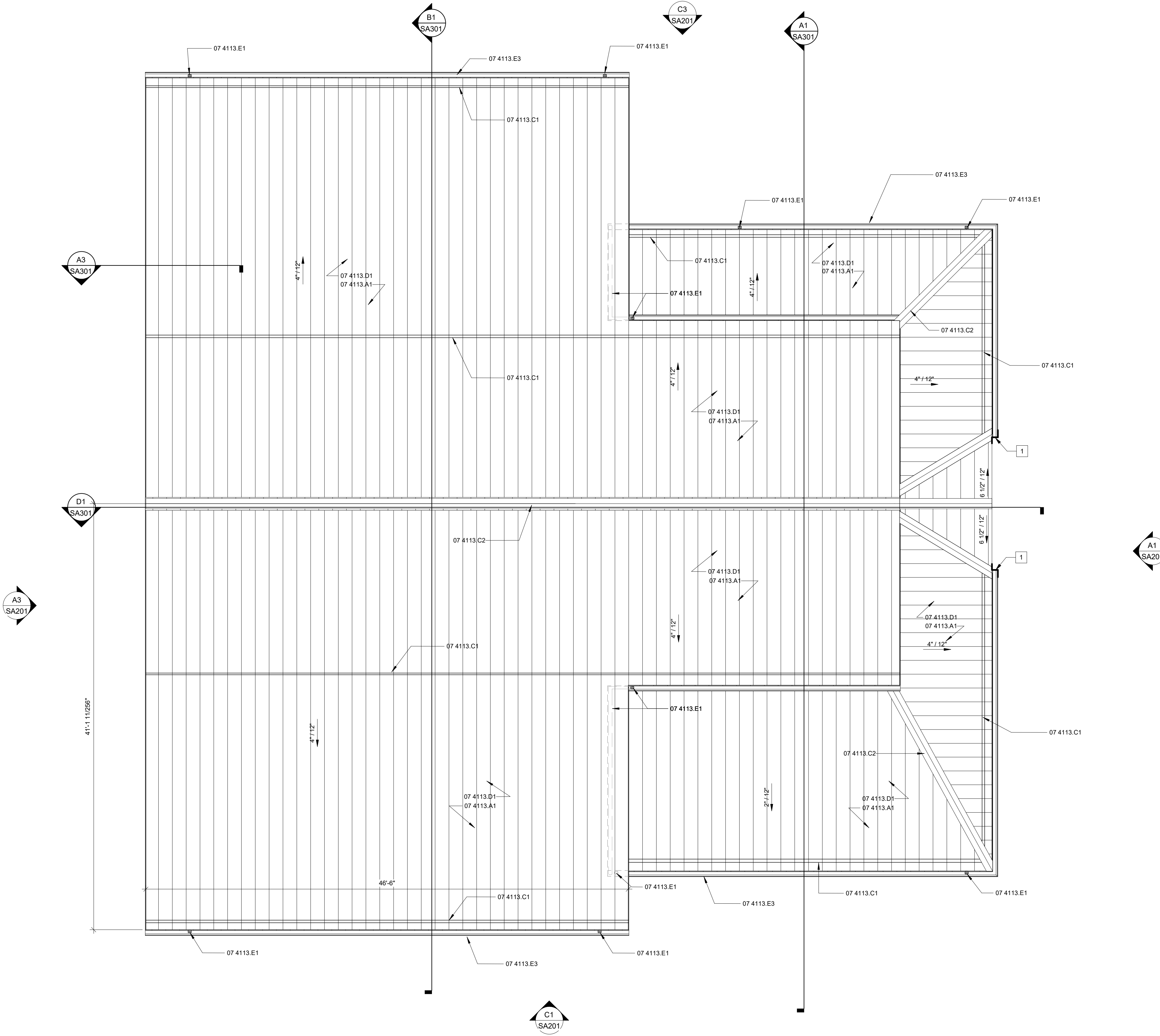
A5 Ceiling Height Transition

3/4" = 1'-0"



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A1
Roof Plan
3/16" = 1'-0"



General Notes

1. SEE SHEET SG101 & SG102 FOR GENERAL PROJECT NOTES.
2. REFER TO PLUMBING SHEETS FOR VTR ROUTING.
3. NORTH WILL VARY BY LOCATION.
4. APPLY TRANSPARENT ANTI-GRAFFITI COATING TO ALL WOOD STRUCTURE (INTERIOR & EXTERIOR SURFACES) AFTER ASSEMBLY BUT PRIOR TO INSTALLING WALLS, STOREFRONT, SIPS ROOFING PANELS, ETC.
5. ENTIRE ROOF AREA TO RECEIVE ICE AND WATER SHIELD.
6. SEE SHEETS SA301, SA402, AND SA403 FOR ENLARGED STANDING SEAM METAL ROOF PANELS. DETAILS BASED DMI DIMENSIONAL METAL INC - BASIS OF DESIGN.

Material Notes

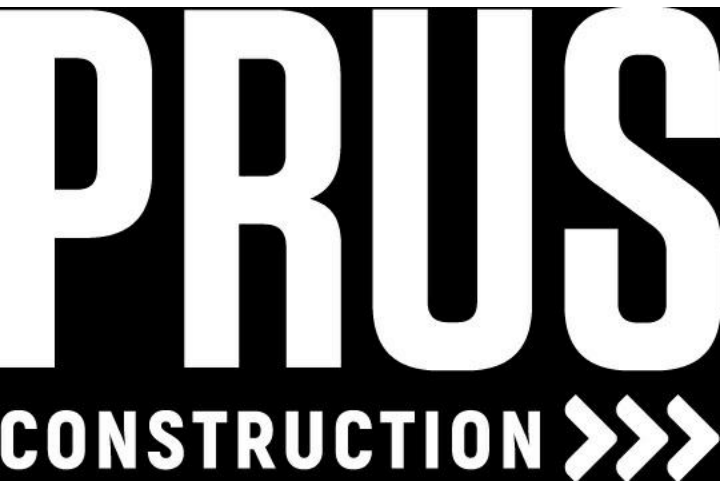
- 07 4113.A1 STANDING SEAM METAL ROOF PANELS
- 07 4113.C1 METAL SNOW GUARD
- 07 4113.C2 RIDGE CAP
- 07 4113.D1 ICE AND WATER SHIELD
- 07 4113.E1 3" X 4" DOWNSPOUT

Sheet Notes

1. GUTTER SPLASH GUARD. COLOR TO MATCH GUTTERS AND STANDING SEAM METAL ROOF.



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I-71 Rest Areas

Mile Marker 34
South Bound
Warren County, Ohio

Roof Plan

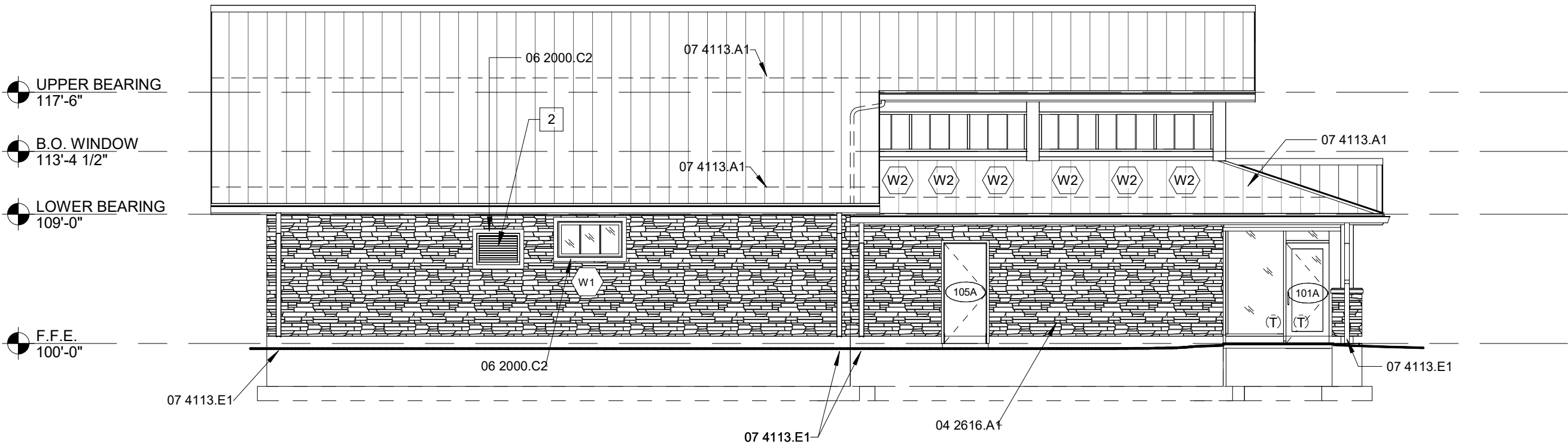
Project No.

18084

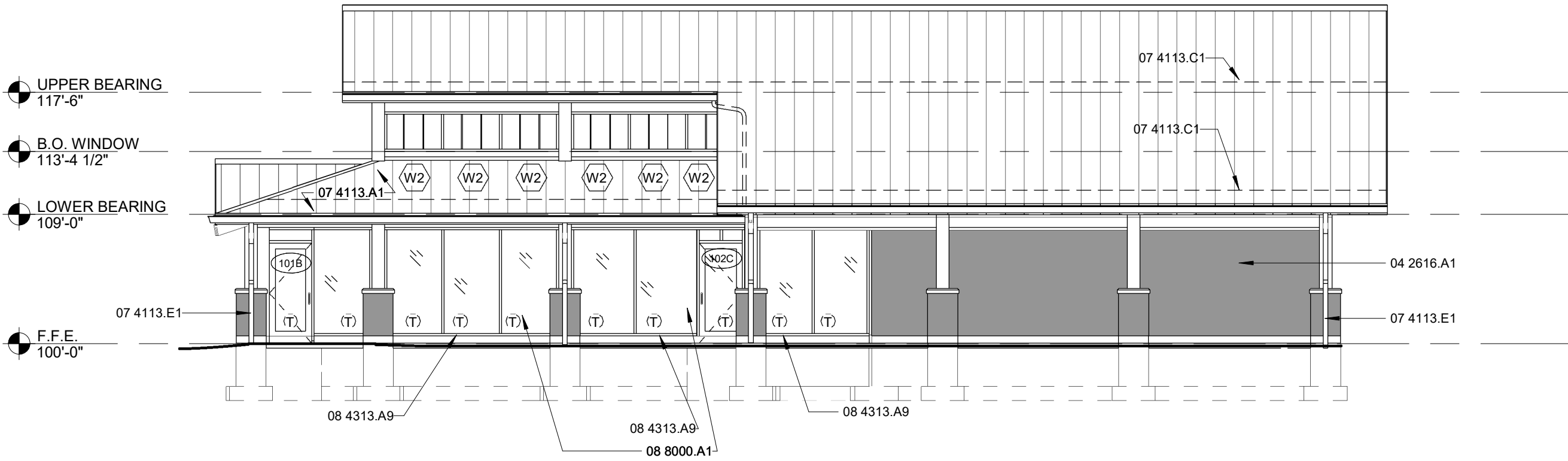
SA103

General Notes

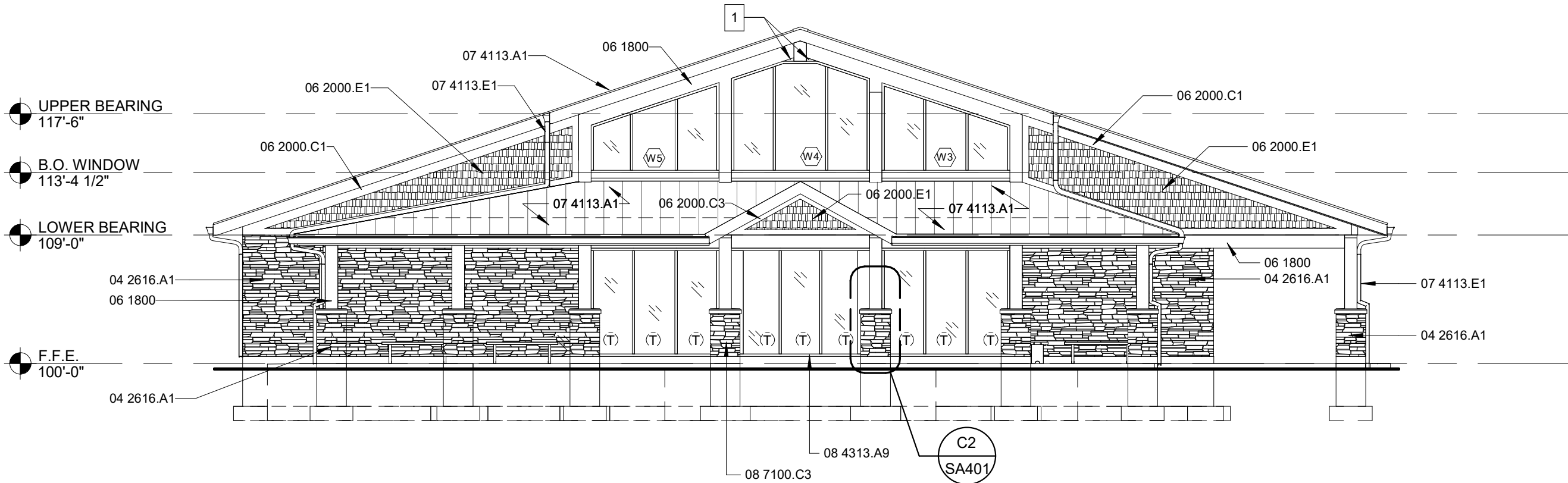
1. SEE SHEET SG101 & SG102 FOR GENERAL PROJECT NOTES.
2. 100.00' FINISH FLOOR ELEVATION IS USED FOR SIMPLICITY OF DRAWINGS (ACTUAL ELEVATION WILL VARY BY LOCATION)
3. NORTH WILL VARY BY LOCATION.
4. APPLY TRANSPARENT ANTI-GRAFFITI COATING TO ALL WOOD STRUCTURE (INTERIOR & EXTERIOR SURFACES) AFTER ASSEMBLY BUT PRIOR TO INSTALLING WALLS, STOREFRONT, SIGNS ROOFING PANELS, ETC.



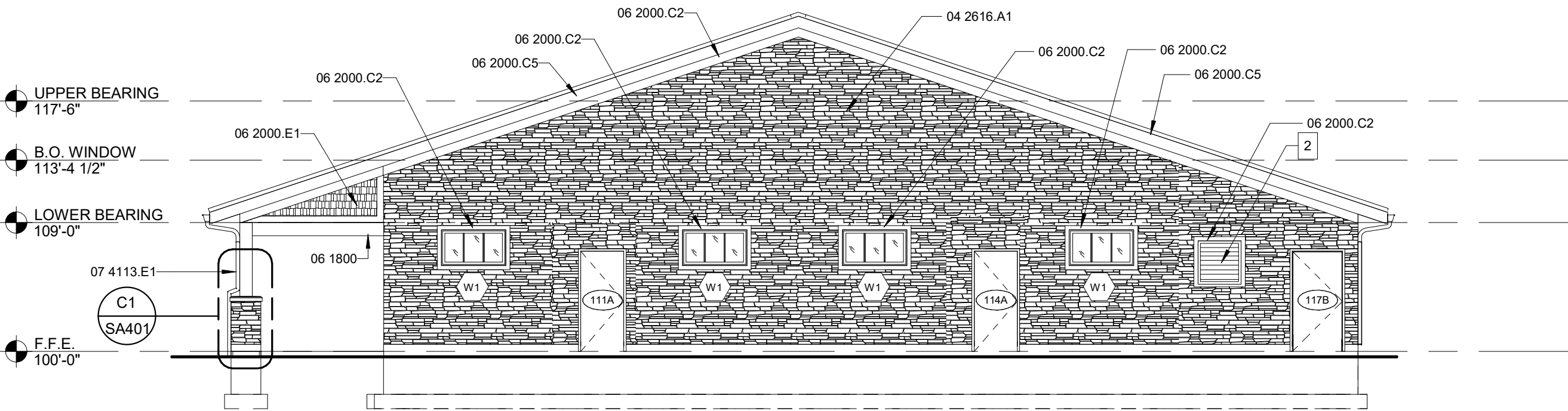
C1 South Elevation
1/8" = 1'-0"



C3 North Elevation
1/8" = 1'-0"



A1 East Elevation
1/8" = 1'-0"



A3 **West Elevation**
1/8" = 1'-0"

Record Drawings

Revisions:
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I-71 Rest Areas

Mile Marker 34
South Bound
Warren County, Ohio

Exterior Elevations

Project No

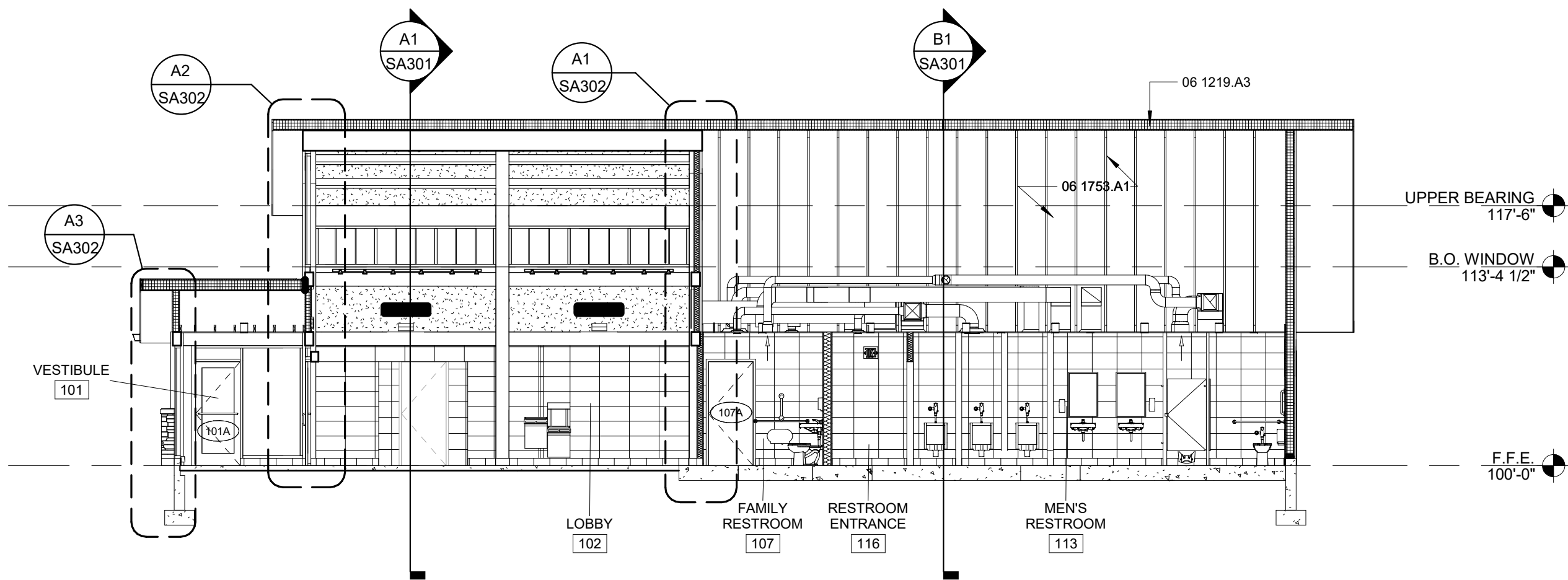
18084

SA201

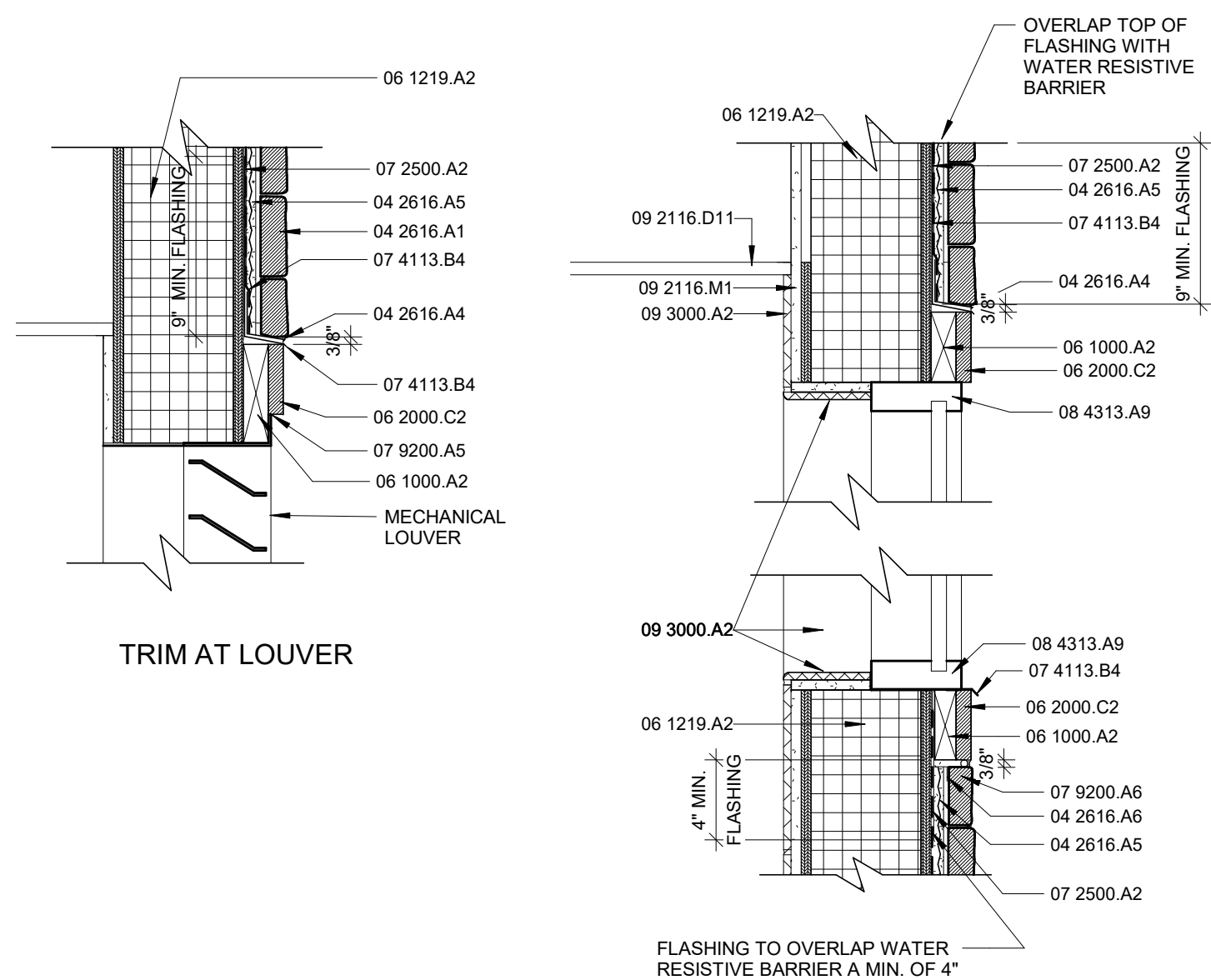


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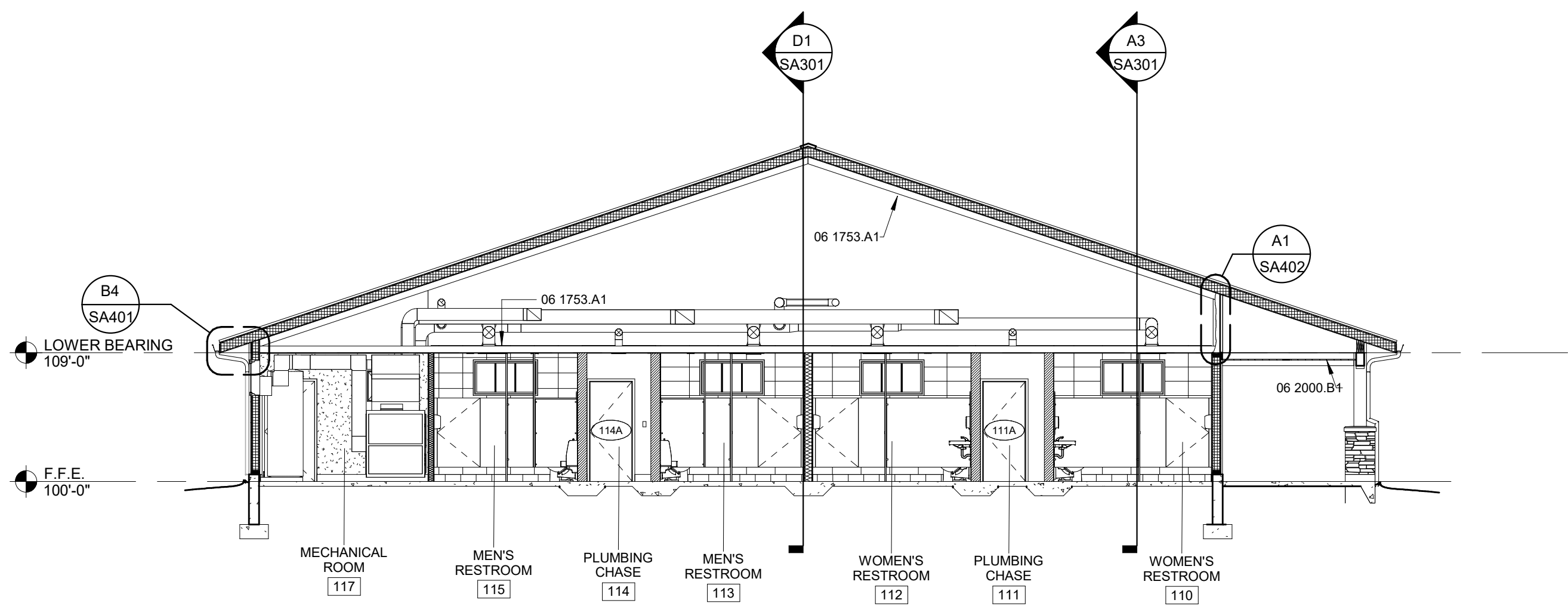
DI $1/8" = 1'-0"$



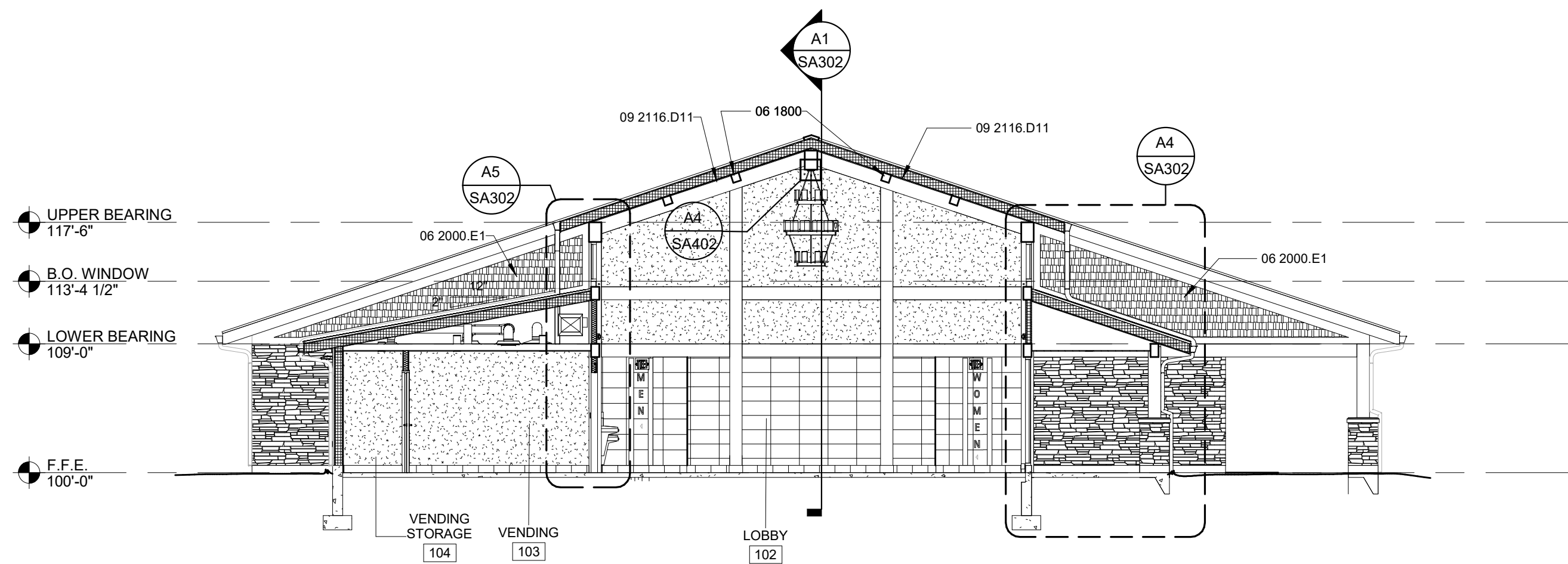
D3 $1\frac{1}{2}'' = 1'-0''$



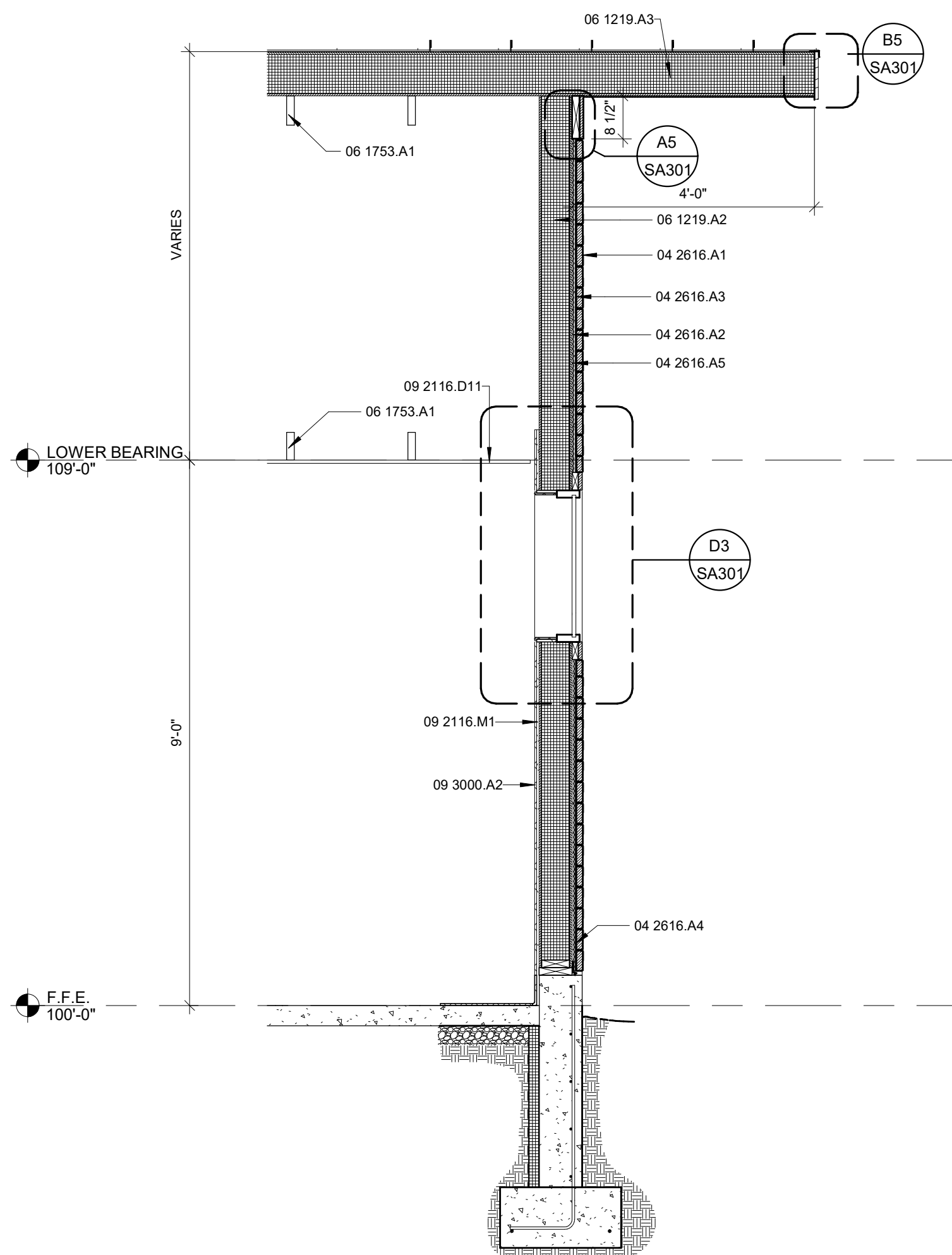
B1 $1/8" = 1'-0"$



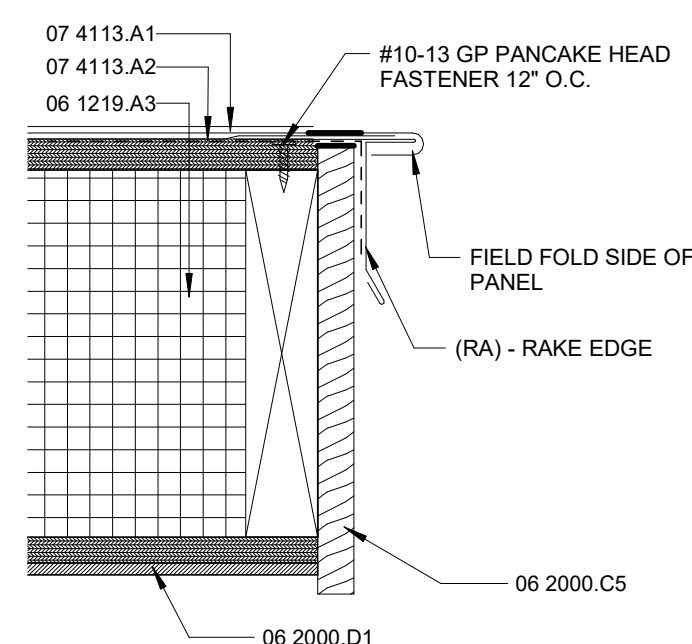
A1 CROS



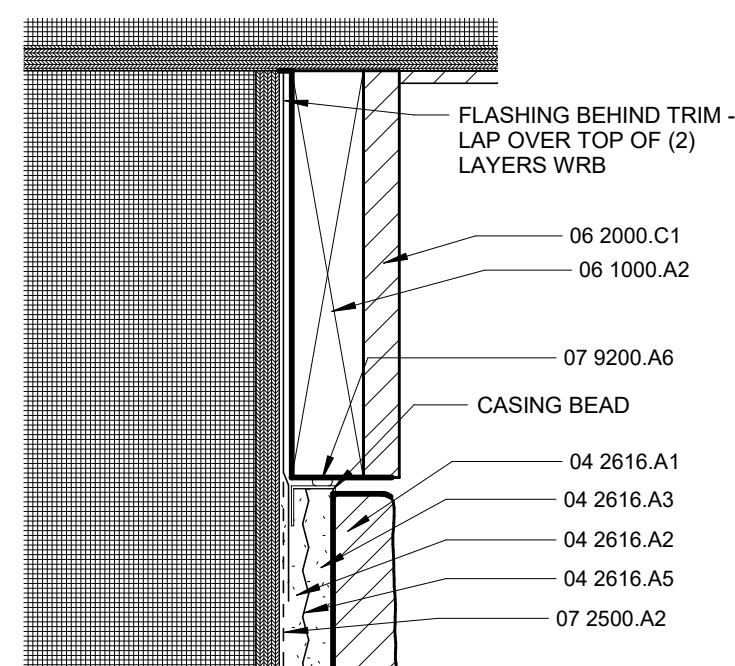
A3 vves



3" = 1'-0"



5. Тип



Record Drawings

09/16/2019

Revisions:
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I-71 Rest Areas

Mile Marker 34
South Bound
Warren County, Ohio

Building Sections

Project No.

SA301

18084



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CONSTRUCTION >>>

Record Drawings

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I-71 Rest Areas

Mile Marker 34
South Bound
Warren County, Ohio

Wall Sections

Project No. _____

18084

SA302

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Material Notes

03 3000.A1	UNDER SLAB VAPOR RETARDER
03 3000.A2	#4 REBAR
03 3000.A3	CONCRETE SLAB - SEE STRUCTURAL DRAWINGS
03 3000.B1	2" INSULATED DRAINAGE BOARD
06 1000.A3	2x6 CEILING JOIST - SEE STRUCTURAL DRAWINGS
06 1219.A1	4 1/2" STRUCTURAL INSULATED PANEL
06 1219.A3	8 5/8" STRUCTURAL INSULATED ROOFING PANEL
06 1753.A1	PRE-FABRICATED WOOD TRUSSES
06 1800.A1	GLUE-LAMINATED BEAM (SEE STRUCTURAL DRAWINGS)
06 1800.A2	GLUE-LAMINATED COLUMN (SEE STRUCTURAL DRAWINGS)
06 2000.B1	POLYMER COMPOSITE V-GROOVED TONGUE AND GROOVE
06 2000.C3	1X6 FIBER-CEMENT TRIM BOARD

Material Notes

06 2000.C5	1X10 FIBER-CEMENT BOARD FASCIA
06 2000.D1	FIBER-CEMENT UNVENTED SOFFIT
06 2000.E1	FIBER-CEMENT SHINGLE SIDING
07 4113.A1	STANDING SEAM METAL ROOF PANELS
07 4113.A2	ROOF UNDERLAYMENT
07 4113.B2	ALUMINUM STEP FLASHING
07 4113.B3	ALUMINUM DRIP EDGE
07 4113.B4	ALUMINUM FLASHING
07 4113.C1	METAL SNOW GUARD
07 4113.D1	ICE AND WATER SHIELD
07 4113.E1	3" X 4" DOWNSPOUT
07 4113.E3	6" x 6" BEVELED GUTTER
08 4313.A9	STOREFRONT TYPICAL MULLION
08 4313.A10	ANODIZED SILL FLASHING
08 4313.C3	STOREFRONT DOOR

Material Notes

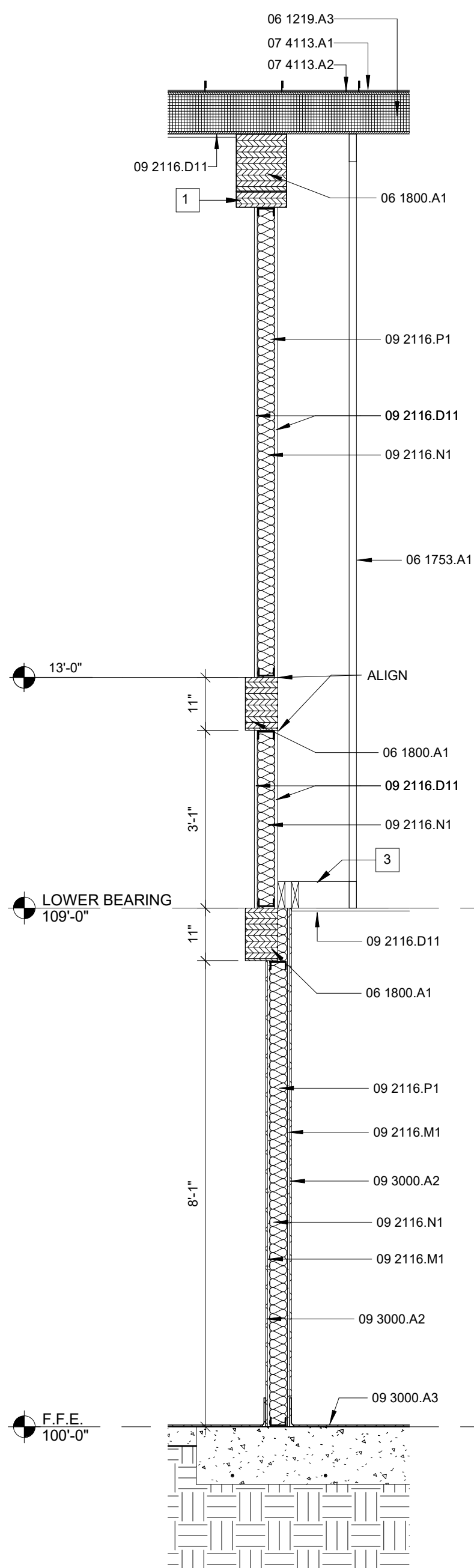
08 5113.A3	ALUMINUM FIXED WINDOW HEAD/JAMB
08 5113.A5	ALUMINUM FIXED WINDOW FIXED JAMB
08 7100.C1	AUTOMATIC DOOR OPENER
08 8000.A1	1" CLEAR INSULATING GLASS - TEMPERED
08 8000.A2	LAMINATED GLASS
09 2116.D11	5/8" TYPE "X" GYPSUM WALLBOARD
09 2116.M1	1/2" CEMENTITIOUS BACKING BOARD
09 2116.N1	3/8" METAL STUDS @ 16" O.C.
09 2116.P1	SOUND ATTENUATION BATTS
09 3000.A2	TILE
09 3000.A3	FLOOR TILE
32 1313.B7	4" CONCRETE SLAB WITH 3#/CY TUF STRAND
32 1313.C4	GRAVEL

Sheet Notes ☐

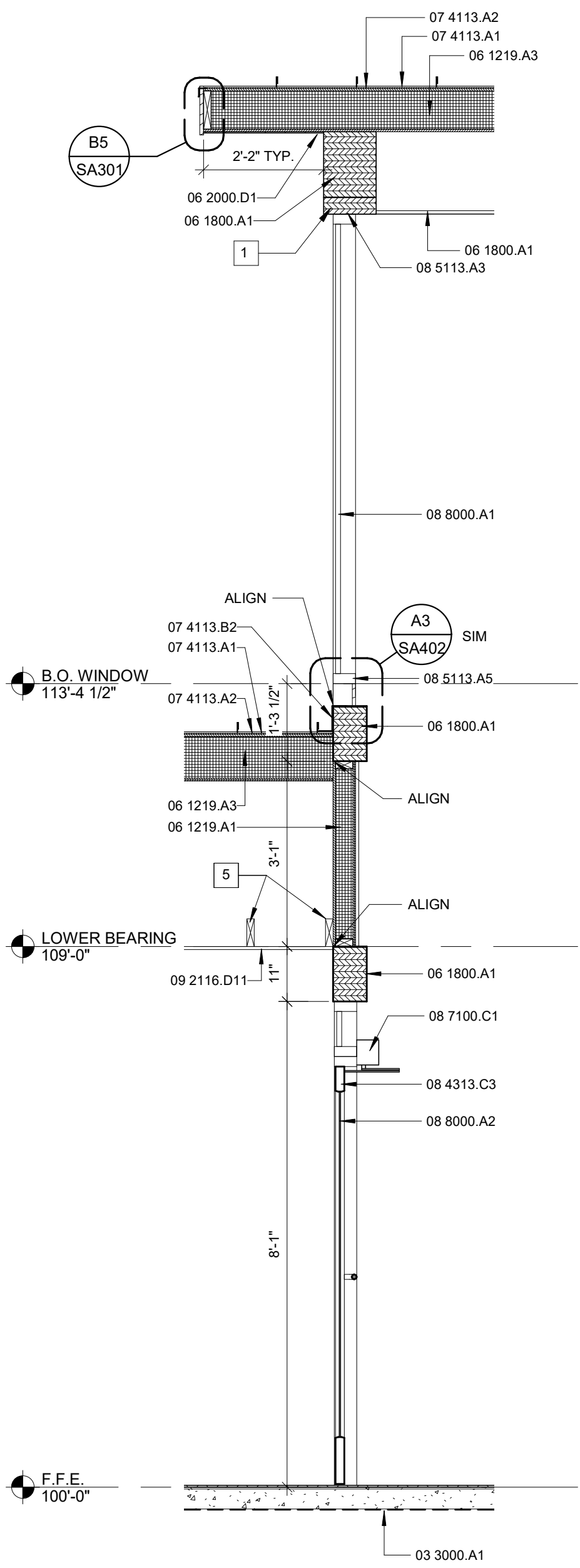
1. PROVIDE BLOCKING AT RIDGE BEAM TO FRAME IN WINDOW. BLOCKING TO MATCH NEW GLULAM TIMBER FRAME. PROVIDED BY GLULAM TIMBER MANUFACTURER.
2. CONNECT DOWNSPOUTS TO UNDERGROUND DRAINAGE SYSTEM.
3. WOOD FRAMING 16" O.C. TO ATTACH GYP. BOARD CEILING.
4. TURN EDGES OF FLASHING UNDER
5. 2x6 CEILING JOISTS @ 16" O.C.

General Notes

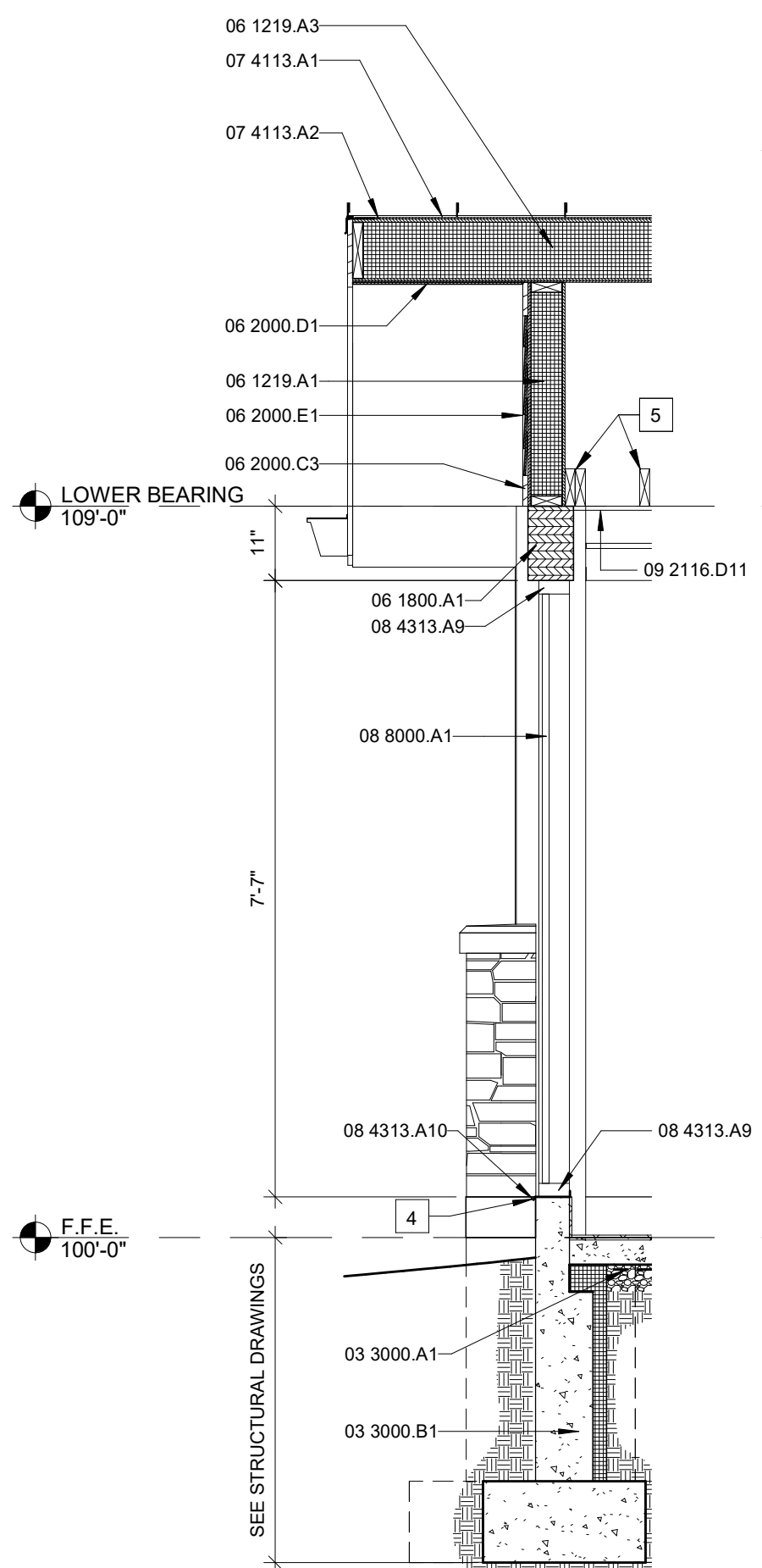
1. SEE SHEET SG101 & SG102 FOR GENERAL PROJECT NOTES.
2. DIMENSIONS ARE TO FACE OF STUD OR SIPs PANEL UNLESS NOTED OTHERWISE.
3. SEE SHEET SA002 FOR WALL TYPES.
4. 100.00' FINISH FLOOR ELEVATION IS USED FOR SIMPLICITY OF DRAWINGS (ACTUAL ELEVATION WILL VARY BY LOCATION).
5. NORTH WALL VARY BY LOCATION.
6. REFER TO STRUCTURAL DETAILS FOR SIPs PANEL CONNECTION DETAILS.
7. APPLY TRANSPARENT ANTI-GRAFFITI COATING TO ALL WOOD STRUCTURE (INTERIOR & EXTERIOR SURFACES) AFTER ASSEMBLY BUT PRIOR TO INSTALLING WALLS, STOREFRONT, SIPs ROOFING PANELS, ETC.



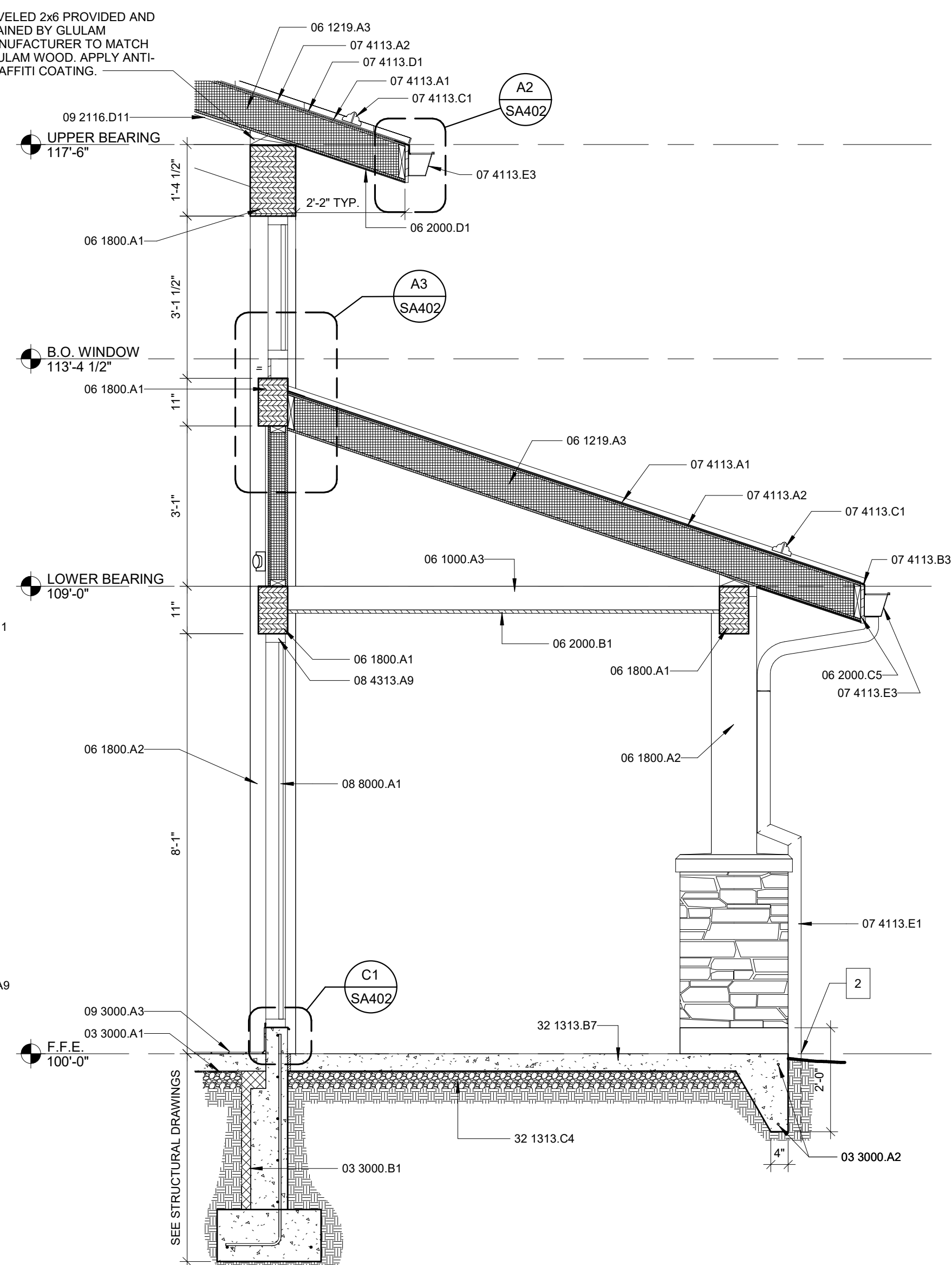
Wall Section-Lobby
West Wall



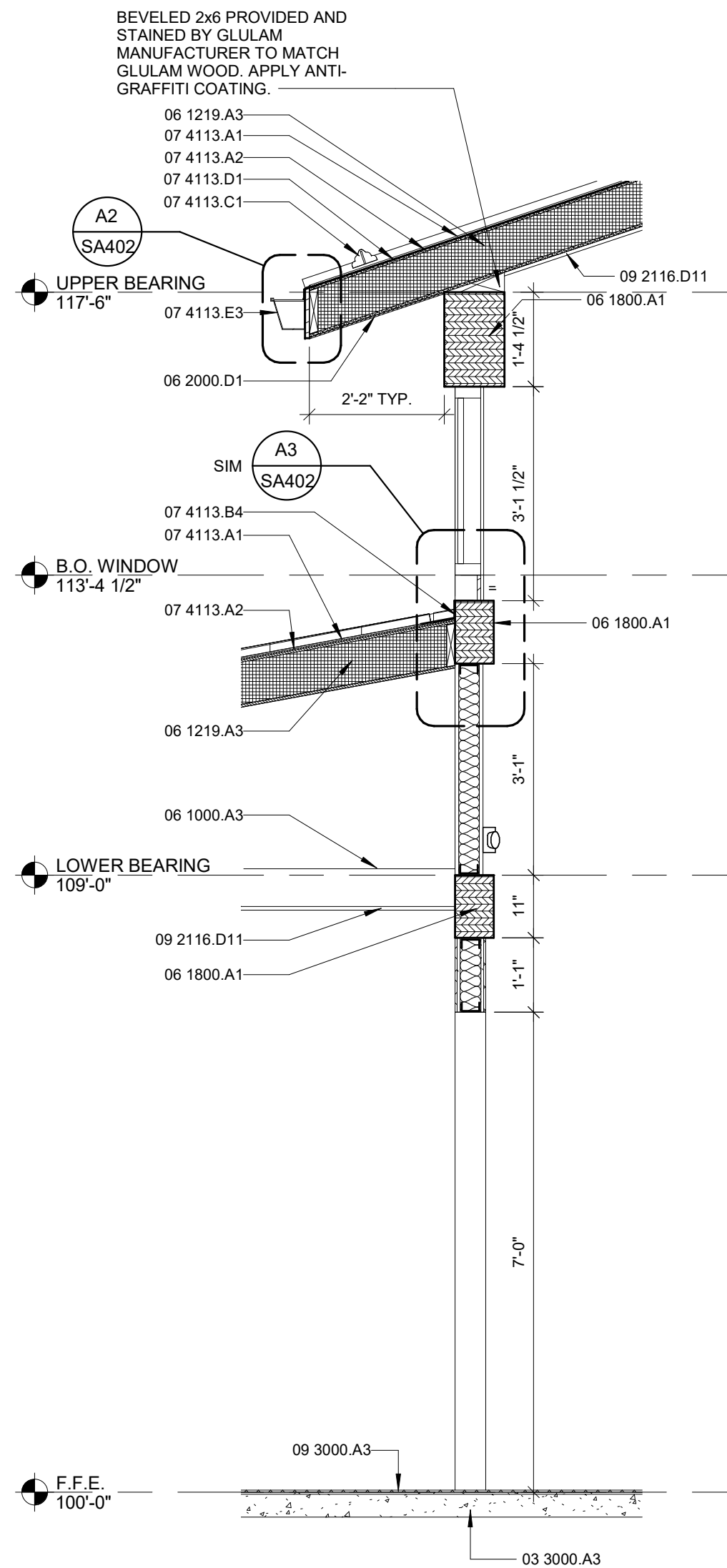
Wall Section-Lobby
East Wall



A3 Vestible East Wall
1/2" = 1'-0"

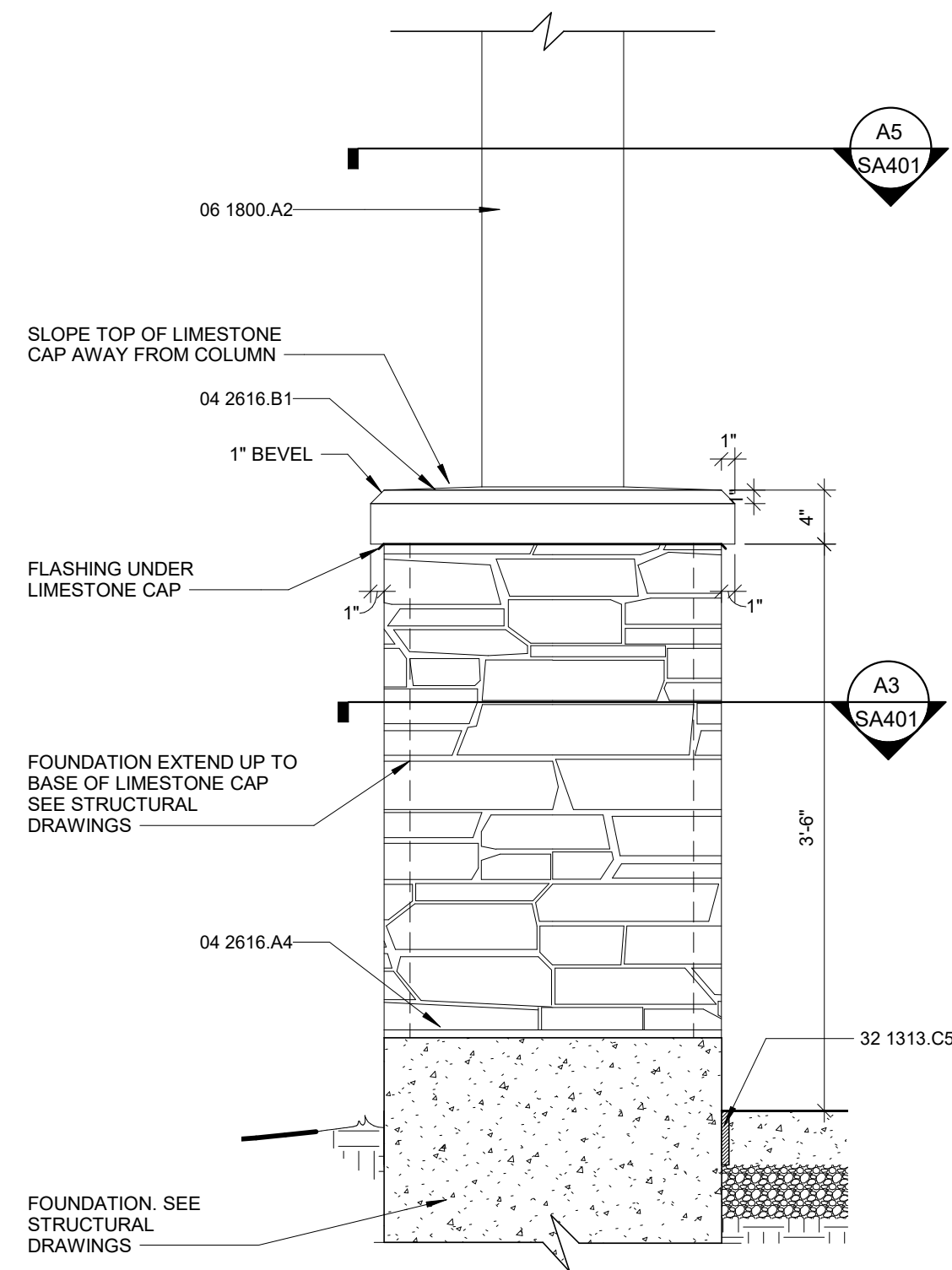


A4 Wall Section-Lobby South Wall
1/2" = 1'-0"

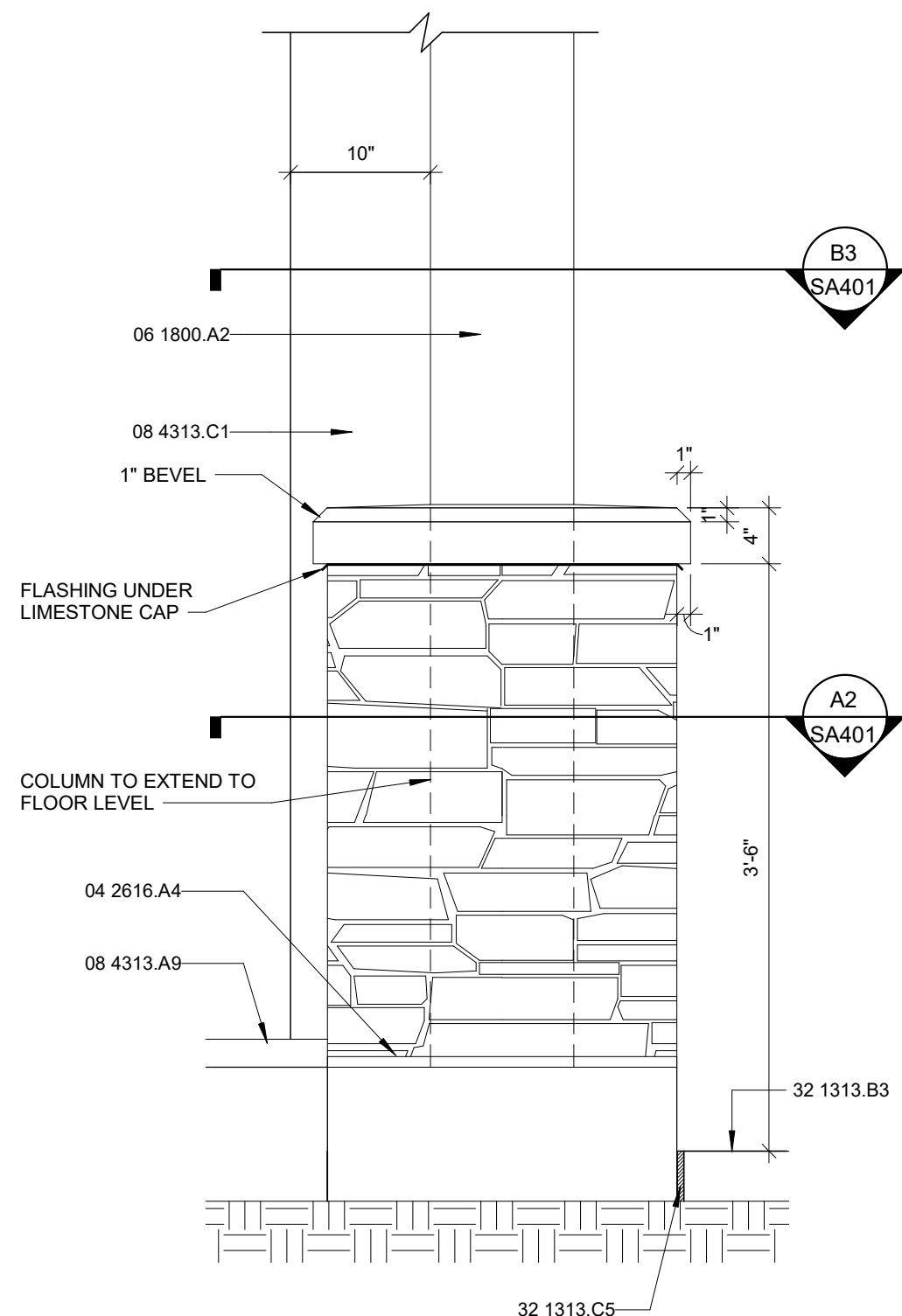


Wall Section-Lobby
North Wall

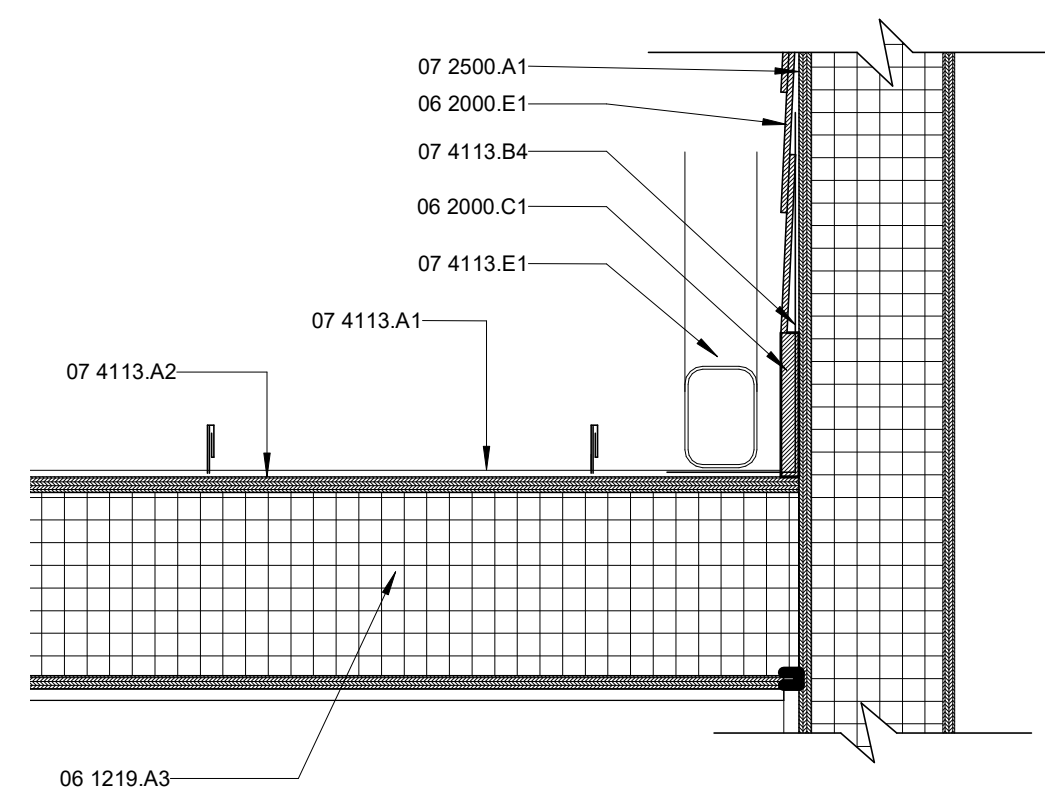
A5 1/2" = 1'-0"



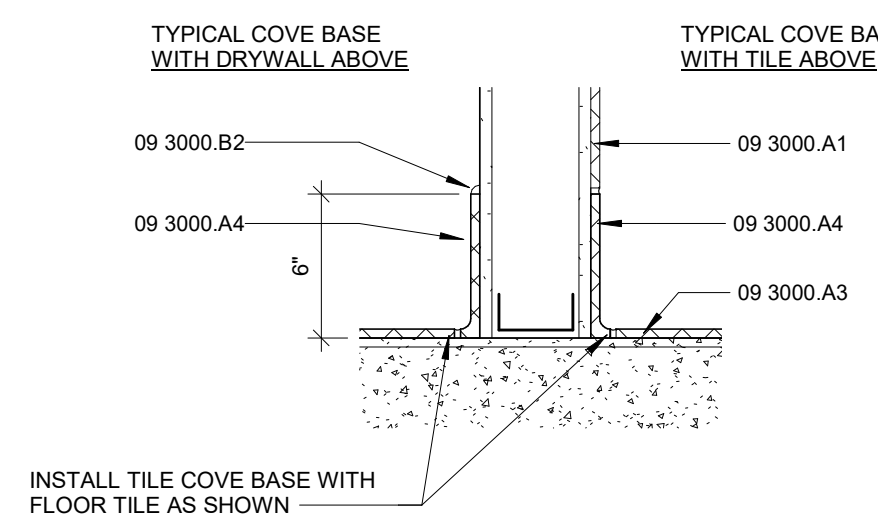
C1 Typical Exterior Column Detail
1" = 1'-0"



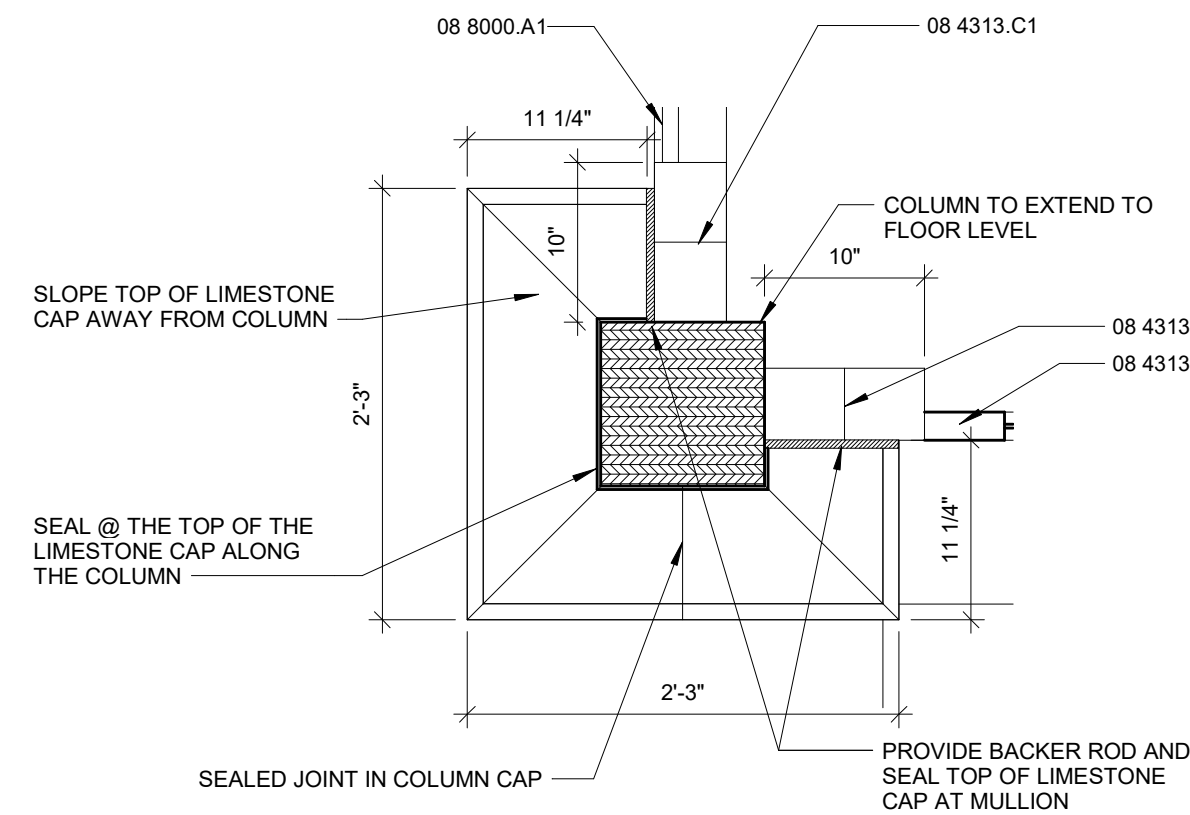
Vestibule Corner
Column Elevation Detail



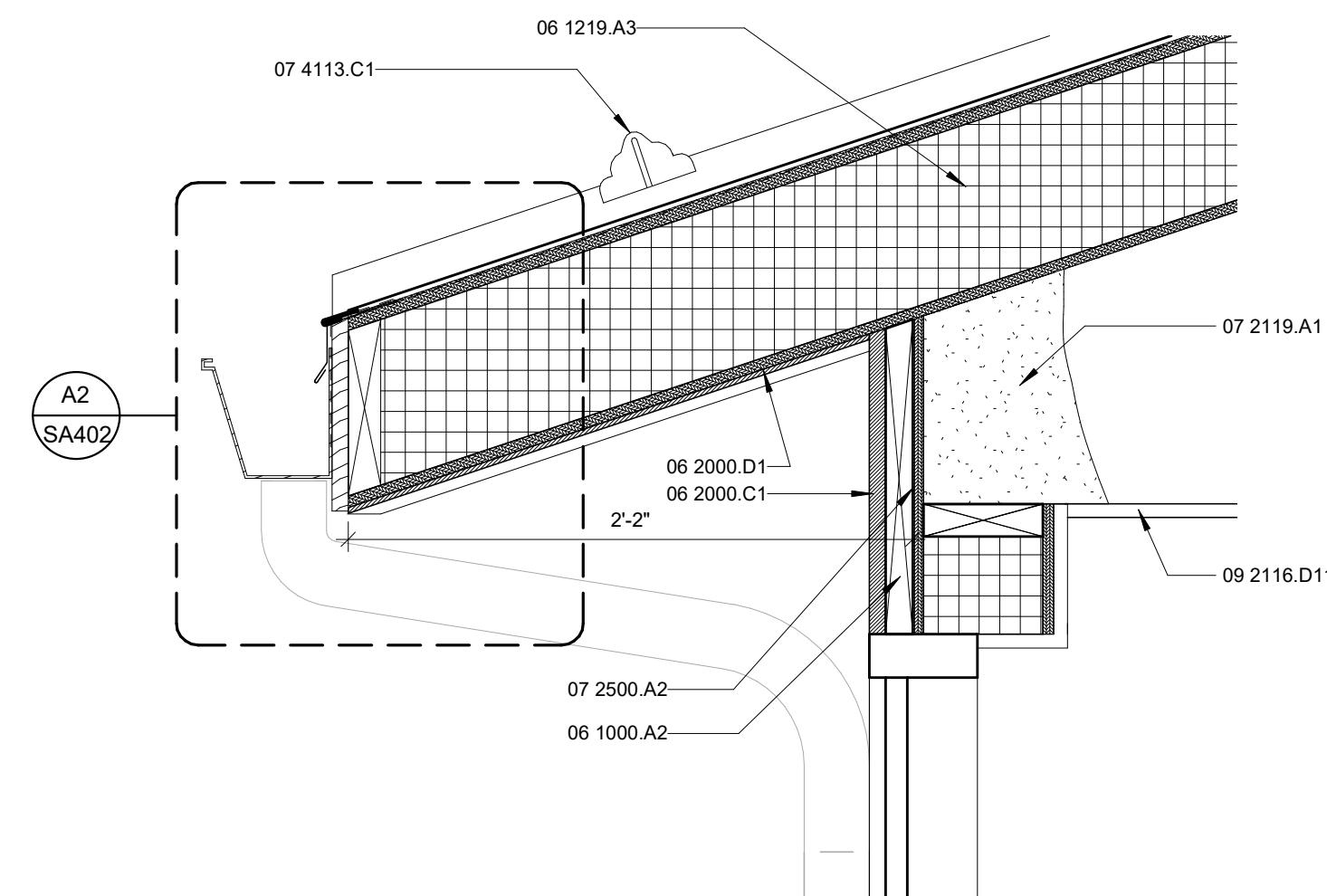
B1 Roof Detail @ Wall
1 1/2" = 1'-0"



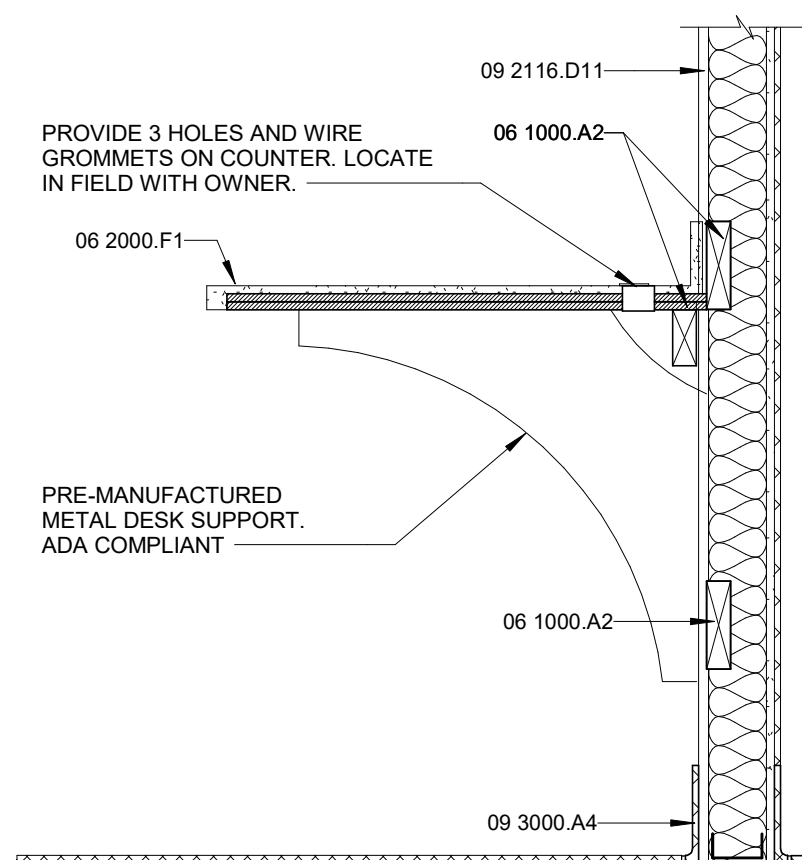
B2 Typical Cove Tile Wall Base Detail
1 1/2" = 1'-0"



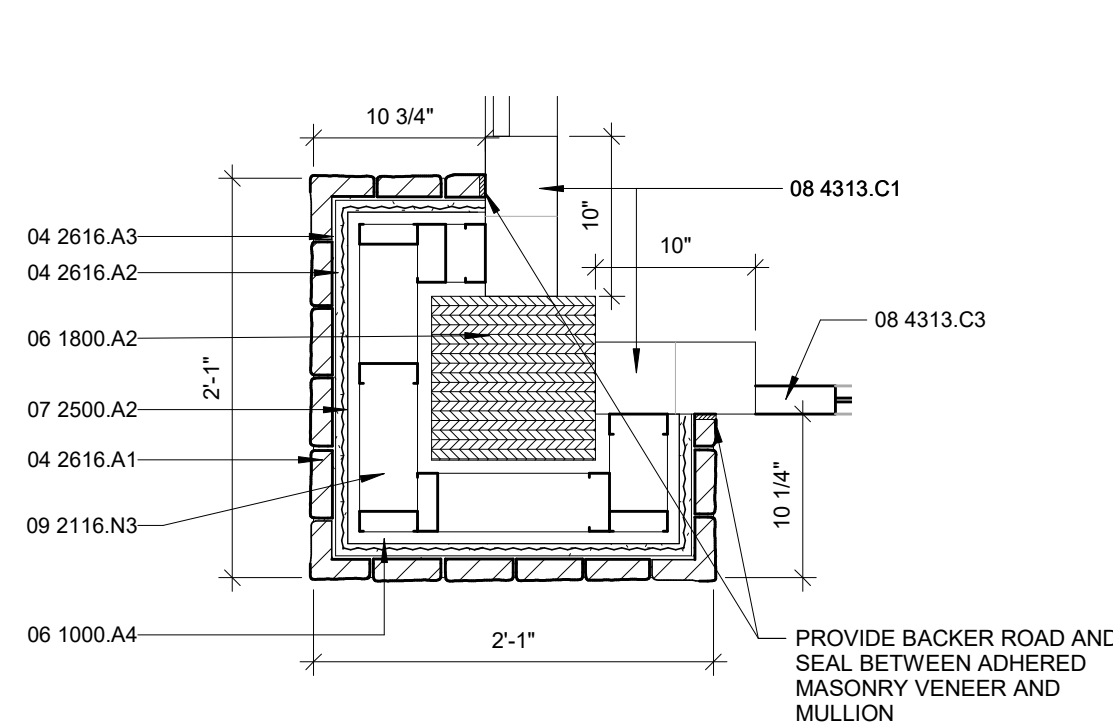
B3 Vestibule Corner Column Detail
1" = 1'-0"



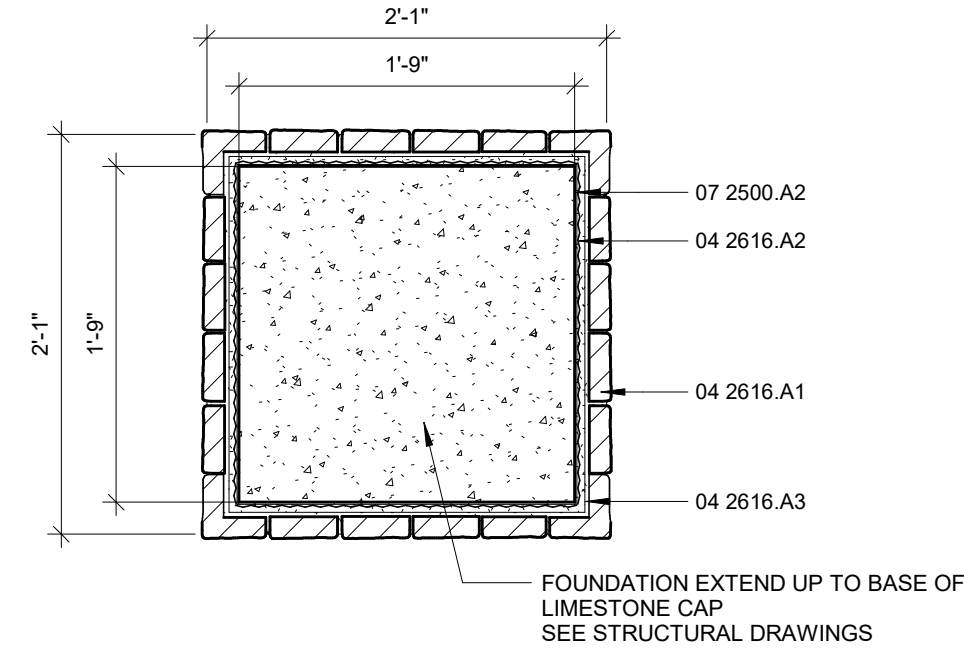
B4 Typical Eave Detail



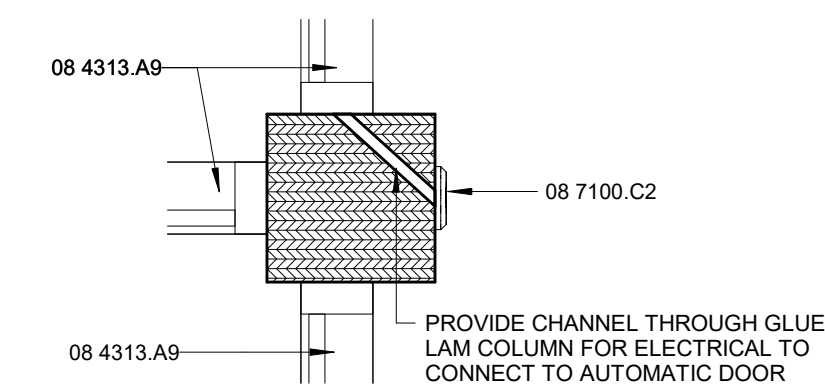
A1 Desk Section
1" = 1'-0"



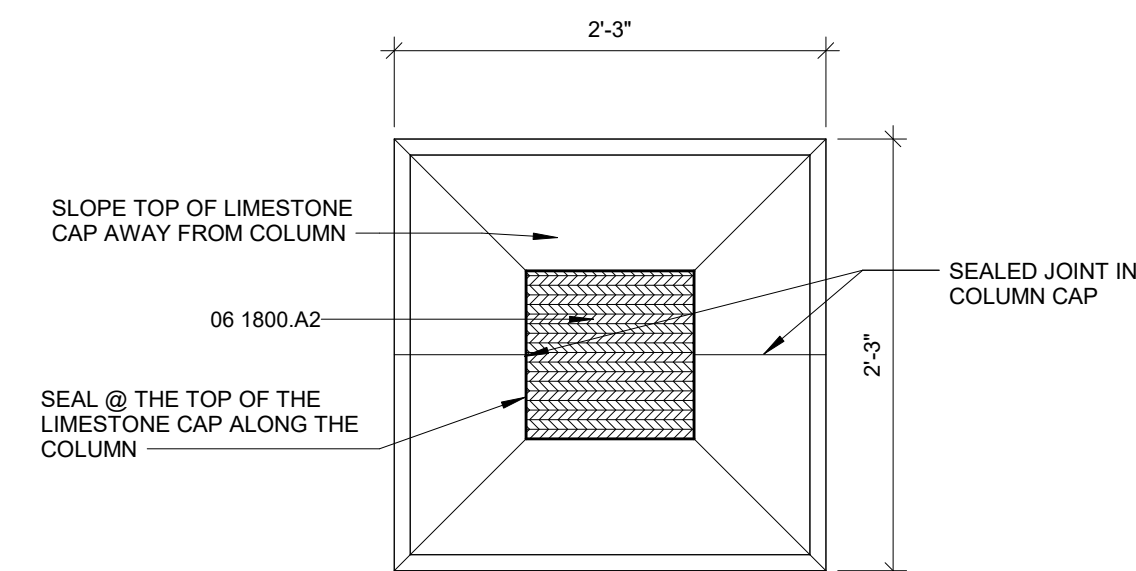
Vestibule Corner
Column Base Detail
A2 1" = 1'-0"



A3 Exterior Column Base Detail
1" = 1'-0"



A4 Door Paddle @ Column Detail
1" = 1'-0"



A5 Exterior Column Detail
1" = 1'-0"

Material Notes

04 2616.A1	ADHERED MASONRY VENEER
04 2616.A2	MORTAR SCRATCH COAT
04 2616.A3	MORTAR SETTING BED
04 2616.A4	WEEP SCREED
04 2616.B1	LIMESTONE CAP
06 1000.A2	WOOD BLOCKING AS REQUIRED
06 1000.A4	3/4" EXTERIOR GRADE PLYWOOD
06 1219.A3	8 1/2" STRUCTURAL INSULATED ROOFING PANEL
06 1800.A2	GLUE-LAMINATED COLUMN (SEE STRUCTURAL DRAWINGS)
06 2000.C1	FIBER-CEMENT TRIM BOARD
06 2000.D1	FIBER-CEMENT UNVENTED SOFFIT
06 2000.E1	FIBER-CEMENT SINGLE SIDING

Material Notes

06 2000.F1	SOLID SURFACE
07 2119.A1	FOAMED-IN-PLACE INSULATION
07 2500.A1	WATER-RESISTIVE BARRIER
07 2500.A2	2 LAYERS WATER-RESISTIVE BARRIER (PER VENEREED MASONRY MANUF. SPECIFICATIONS)
07 4113.A1	STANDING SEAM METAL ROOF PANELS
07 4113.A2	ROOF UNDERLAYMENT
07 4113.B4	ALUMINUM FLASHING
07 4113.C1	METAL SNOW GUARD
07 4113.E1	3" X 4" DOWNSPOUT
08 4313.A9	STOREFRONT TYPICAL MULLION
08 4313.C1	STANDARD 2-PIECE ALUMINUM STOREFRONT MULLION

Material Notes

08 4313.C3	STOREFRONT DOOR
08 7100.C2	AUTOMATIC DOOR OPENER PUSH BUTTON
08 8000.A1	1" CLEAR INSULATING GLASS - TEMPERED
09 2116.D11	5/8" TYPE "X" GYPSUM WALLBOARD
09 2116.N3	3 5/8" GALVANIZED METAL STUDS @ 16" O.C.
09 3000.A1	PORCELAIN WALL TILE
09 3000.A3	FLOOR TILE
09 3000.A4	TILE COVE BASE
09 3000.B2	ROUTED METAL TILE FINISHING EDGE
32 1313.B3	4" CONCRETE WALK W/ BROOM FINISH
32 1313.C5	EXPANSION JOINT

General Notes

1. SEE SHEET SG101 & SG102 FOR GENERAL PROJECT NOTES.
2. DIMENSIONS ARE TO FACE OF STUD OR SIPs PANEL UNLESS NOTED OTHERWISE.
3. SEE SHEET SA002 FOR WALL TYPES.
4. 100.00' FINISH FLOOR ELEVATION IS USED FOR SIMPLICITY OF DRAWINGS (ACTUAL ELEVATION WILL VARY BY LOCATION).
5. NORTH WILL VARY BY LOCATION.
6. REFER TO STRUCTURAL DETAILS FOR SIPs PANEL CONNECTION DETAILS.
7. APPLY TRANSPARENT ANTI-GRAFFITI COATING TO ALL WOOD STRUCTURE (INTERIOR & EXTERIOR SURFACES) AFTER ASSEMBLY BUT PRIOR TO INSTALLING WALLS, STOREFRONT, SIPs ROOFING PANELS, ETC.



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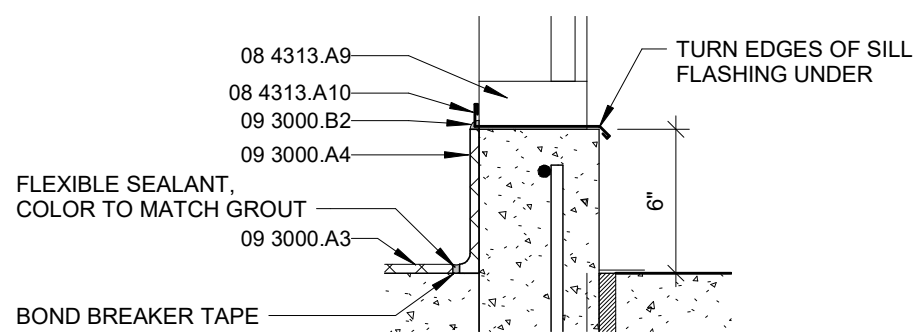
Mile Marker 34
South Bound
Warren County, Ohio

Details

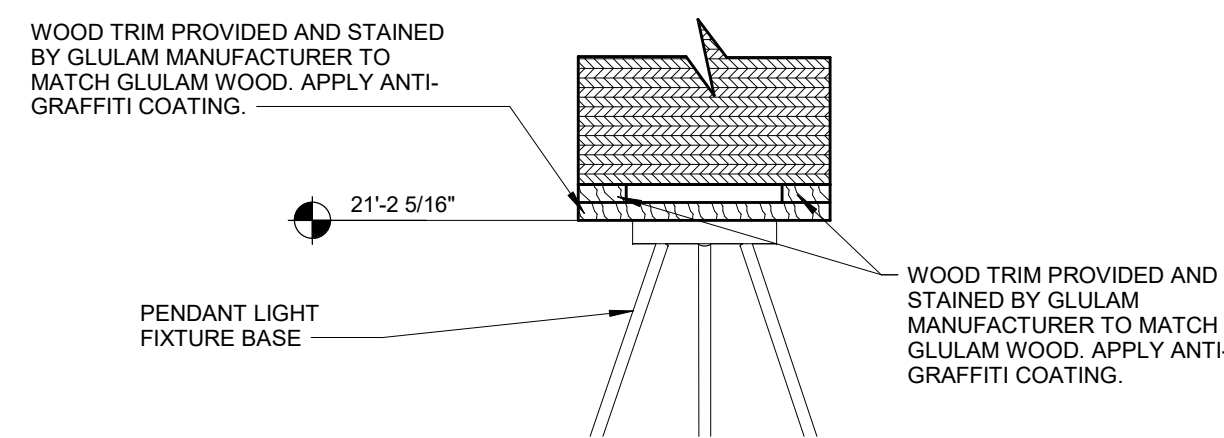
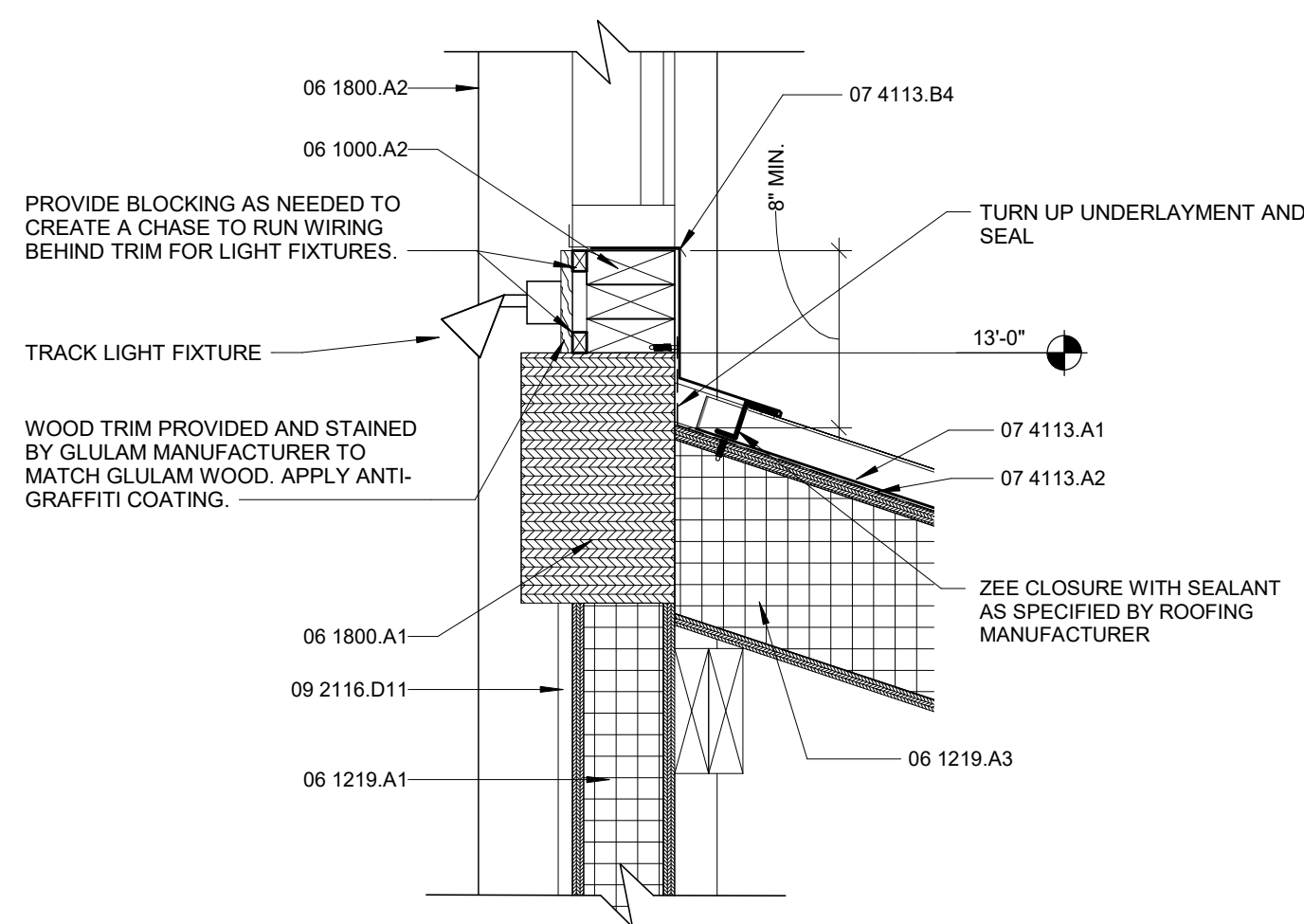
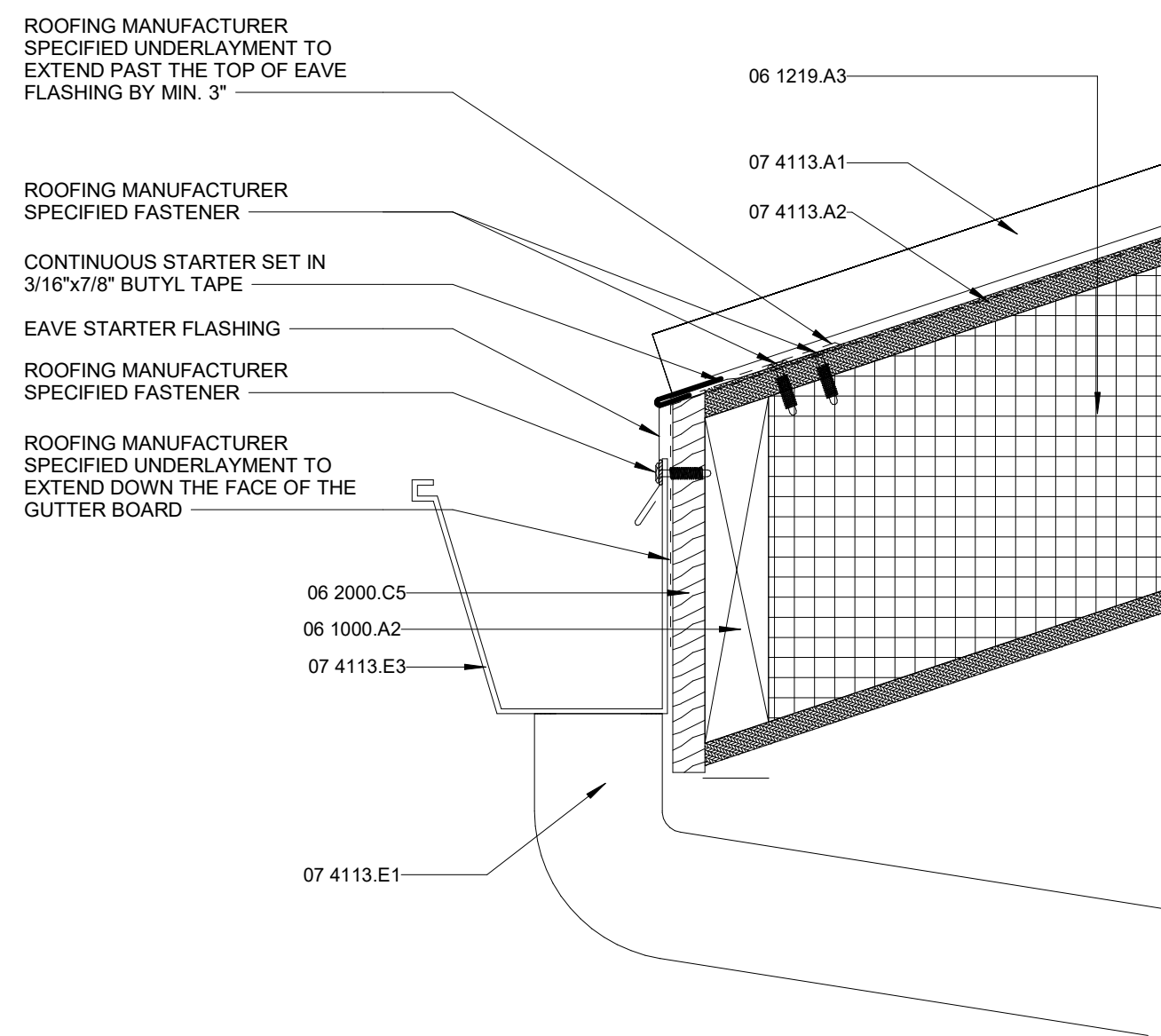
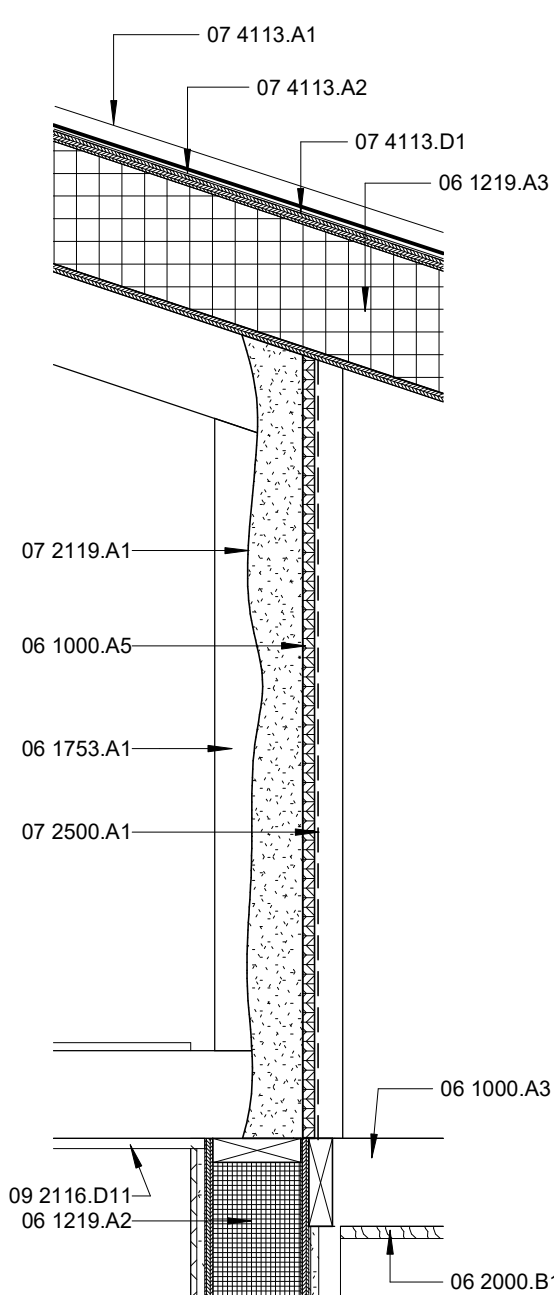
Project No.

SA401

18084



Tile Base @
Storefront Detail (Perimeter Joint)



A1 Spray Foam Insulation Detail
1" = 1'-0"

A2 Typical Metal Roofing Eave Detail
3" = 1'-0"

A3 Roof Detail @ Clearstory Windows

**Typical Wire Chase
Detail on Bottom of Ridge Beam**

Material Notes

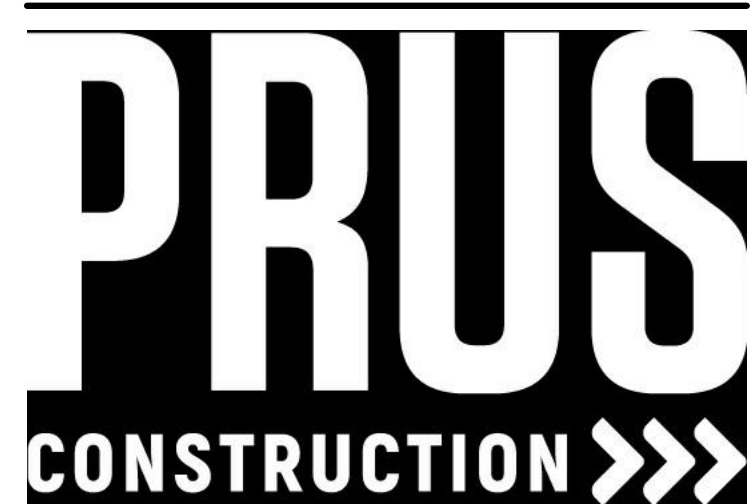
06 1000.A2	WOOD BLOCKING AS REQUIRED
06 1000.A3	2x6 CEILING JOIST - SEE STRUCTURAL DRAWINGS
06 1000.A5	3/4" PLYWOOD SHEATHING
06 1219.A1	4 1/2" STRUCTURAL INSULATED PANEL
06 1219.A2	6 1/2" STRUCTURAL INSULATED PANEL
06 1219.A3	8 5/8" STRUCTURAL INSULATED ROOFING PANEL
06 1753.A1	PRE-FABRICATED WOOD TRUSSES
06 1800.A1	GLUE-LAMINATED BEAM (SEE STRUCTURAL DRAWINGS)
06 1800.A2	GLUE-LAMINATED COLUMN (SEE STRUCTURAL DRAWINGS)
06 2000.B1	POLYMER COMPOSITE V-GROOVED TONGUE AND GROOVE
06 2000.C5	1X10 FIBER-CEMENT BOARD FASCIA

Material Notes

07 2119.A1	FOAMED-IN-PLACE INSULATION
07 2500.A1	WATER-RESISTIVE BARRIER
07 4113.A1	STANDING SEAM METAL ROOF PANELS
07 4113.A2	ROOF UNDERLAYMENT
07 4113.B4	ALUMINUM FLASHING
07 4113.D1	ICE AND WATER SHEILD
07 4113.E1	3" x 4" DOWNSPOUT
07 4113.E3	6" x 6" BEVELED GUTTER
08 4313.A9	STOREFRONT TYPICAL MULLION
08 4313.A10	ANODIZED SILL FLASHING
09 2116.D11	5/8" TYPE "X" GYPSUM WALLBOARD
09 3000.A3	FLOOR TILE
09 3000.A4	TILE COVE BASE
09 3000.B2	ROUNDED METAL TILE FINISHING EDGE

General Notes

1. SEE SHEET SG101 & SG102 FOR GENERAL PROJECT NOTES.
2. DIMENSIONS ARE TO FACE OF STUD OR SIPs PANEL UNLESS NOTED OTHERWISE.
3. SEE SHEET SA002 FOR WALL TYPES.
4. 100.00' FINISH FLOOR ELEVATION IS USED FOR SIMPLICITY OF DRAWINGS (ACTUAL ELEVATION WILL VARY BY LOCATION).
5. NORTH WILL VARY BY LOCATION.
6. REFER TO STRUCTURAL DETAILS FOR SIPs PANEL CONNECTION DETAILS.
7. APPLY TRANSPARENT ANTI-GRAFFITI COATING TO ALL WOOD STRUCTURE (INTERIOR & EXTERIOR SURFACES) AFTER ASSEMBLY BUT PRIOR TO INSTALLING WALLS, STOREFRONT, SIPs ROOFING PANELS, ETC.



Record Drawings

Revisions:
Issue Date: August 3, 2018

I-71 Rest Areas

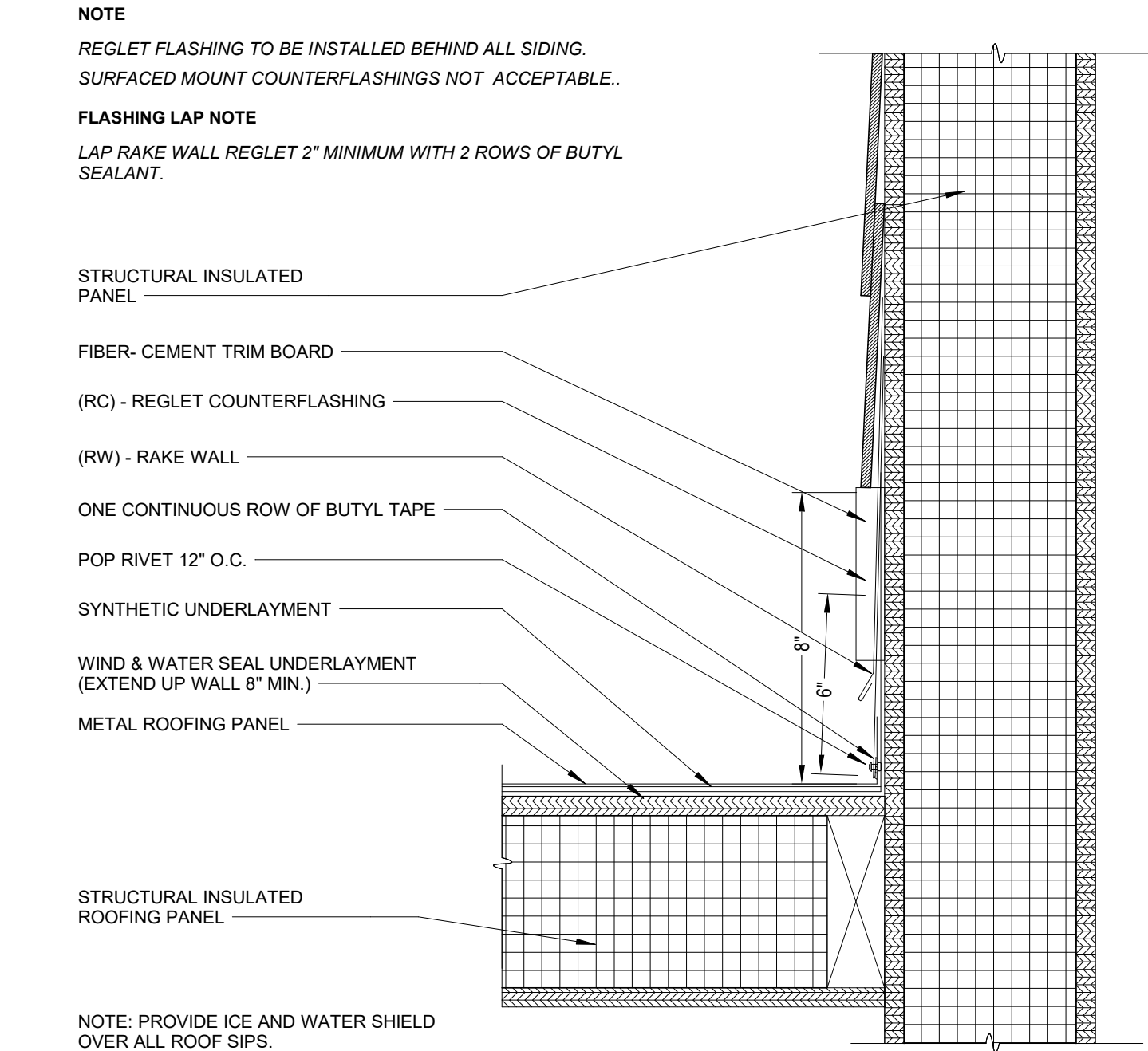
Mile Marker 34
South Bound
Warren County, Ohio

Details

Project No.

18084

SA402



D1 Rake Wall
3" = 1'-0"

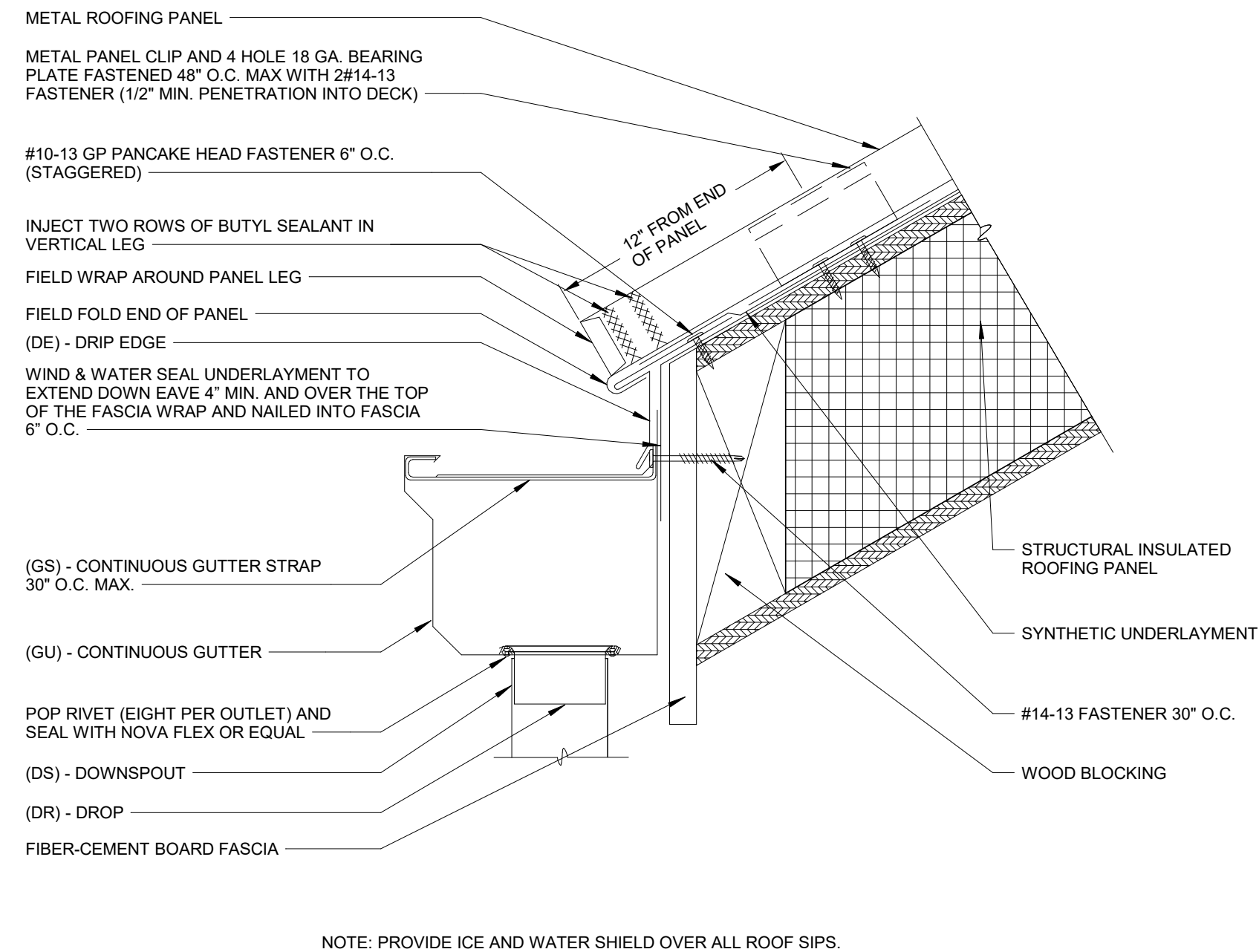
PANEL EXPANSION NOTE
FOR STEEL PANELS < 40' WITH A 1 1/2" TURN DOWN AND 1 1/2" HEM CLEARANCE:
1. 1/4" FOR INSTALLATION TEMPERATURE BELOW 30 DEGREES FAHRENHEIT
2. 1/2" FOR INSTALLATION TEMPERATURE ABOVE 30 DEGREES FAHRENHEIT.

FOR STEEL PANELS > 40' WITH A 2" TURN DOWN AND 2" HEM CLEARANCE:
1. 1/4" FOR INSTALLATION TEMPERATURE BELOW 30 DEGREES FAHRENHEIT
2. 1/2" FOR INSTALLATION TEMPERATURE ABOVE 30 DEGREES FAHRENHEIT.

GUTTER LAP NOTE
LAP GUTTER 3" MIN W/ 2 ROWS OF APPROVED SEALANT AND POP RIVET JOINT 2" O.C. SET IN AND CAP POP RIVETS IN APPROVED SEALANT.

FLASHING LAP NOTE
LAP FLASHINGS 2" MIN W/ 1 ROW OF BUTYL SEALANT.

FULL ICE AND WATER UNDERLAYMENT NOTE
FOR PANEL AREAS WITH FULL ICE AND WATER UNDERLAYMENT: STRIP IN DRIP EDGE WITH 6" STRIP OF APPROVED ICE AND WATER UNDERLAYMENT.



A1 Eave with Gutter
3" = 1'-0"

PANEL EXPANSION NOTE
FOR STEEL PANELS < 40' WITH A 1 1/2" TURN DOWN AND 1 1/2" HEM CLEARANCE:
1. 1/4" FOR INSTALLATION TEMPERATURE BELOW 30 DEGREES FAHRENHEIT
2. 1/2" FOR INSTALLATION TEMPERATURE ABOVE 30 DEGREES FAHRENHEIT.

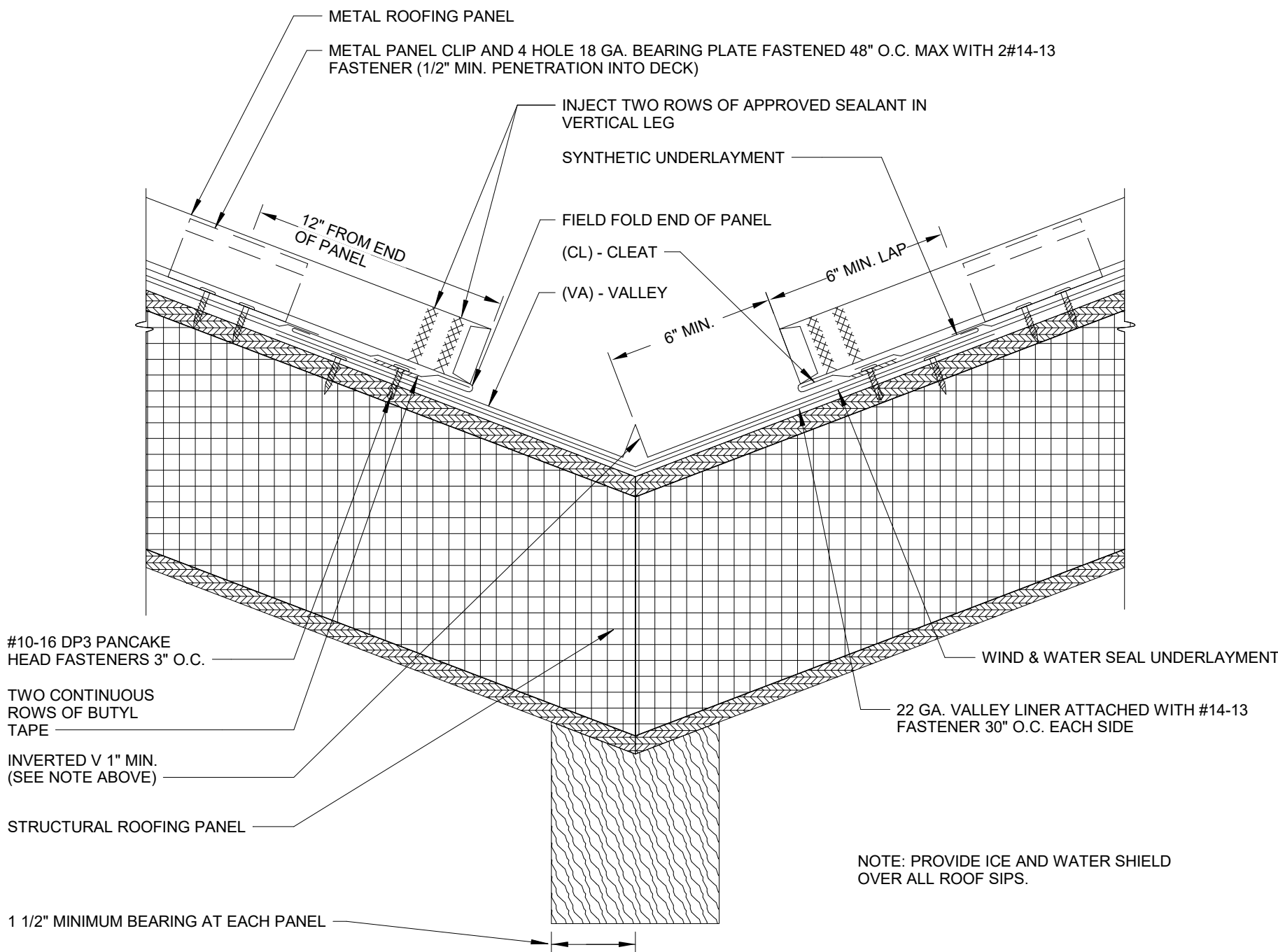
FOR STEEL PANELS > 40' WITH A 2" TURN DOWN AND 2" HEM CLEARANCE:
1. 1/4" FOR INSTALLATION TEMPERATURE BELOW 30 DEGREES FAHRENHEIT
2. 1/2" FOR INSTALLATION TEMPERATURE ABOVE 30 DEGREES FAHRENHEIT.

PANELS EXCEEDING 40' ADD 1" PER 10' TO EACH SIDE OF VALLEY EXPOSURE.

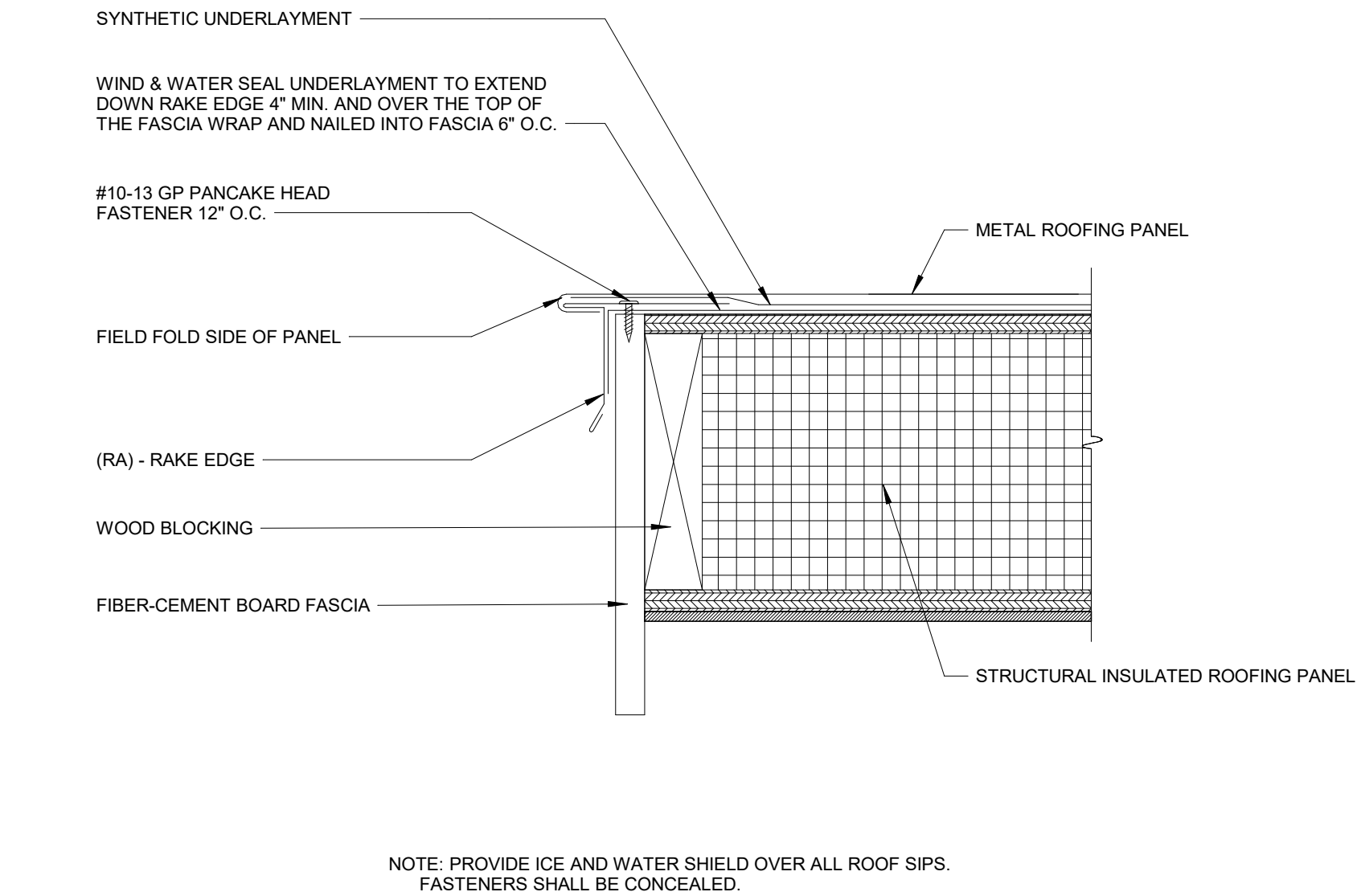
NO POP RIVETS OR FASTENERS ON EXPOSED WEATHER SIDE OF CLEAT.

INVERTED V NOTE
ON ROOF PITCHES OVER 6:12 OR PANEL LENGTHS EXCEEDING 60' OR ON DISSIMILAR PITCHES INCREASE THE INVERTED V IN THE VALLEY TO 2".

FLASHING LAP NOTE
LAP VALLEY 8" MIN. WITH 2 ROWS OF APPROVED SEALANT.

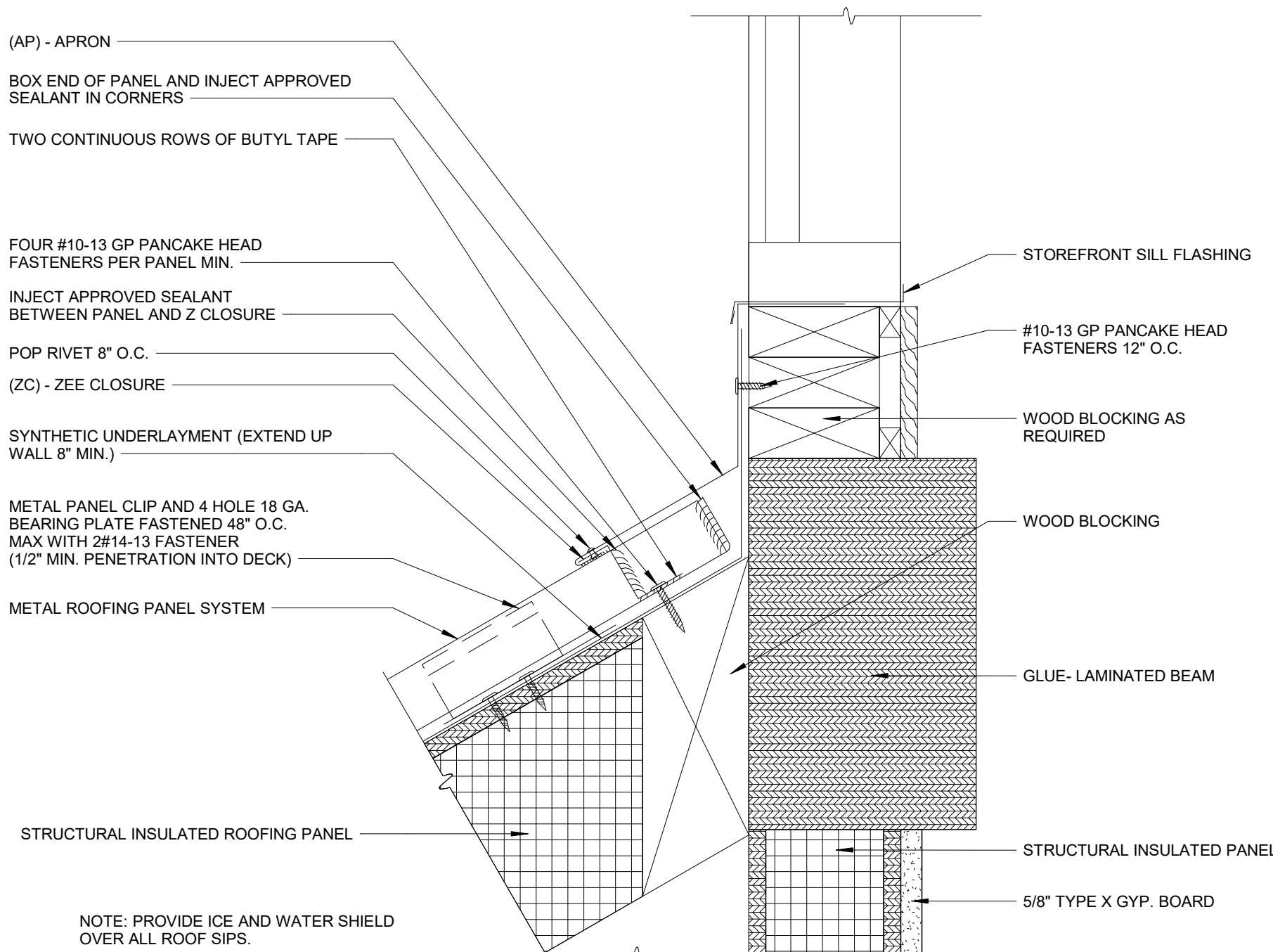


D3 Valley
3" = 1'-0"



A3 Rake Edge
3" = 1'-0"

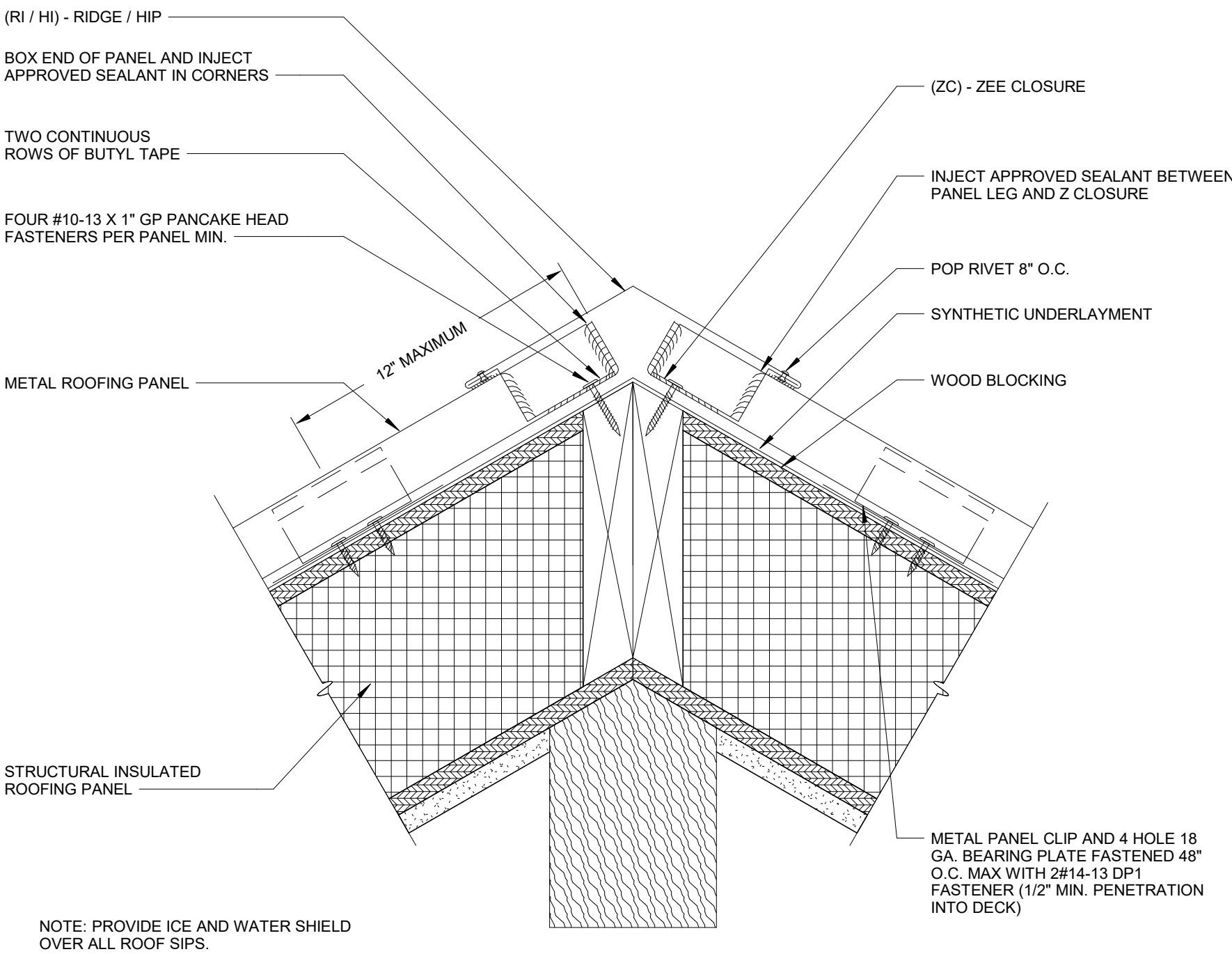
FLASHING LAP NOTE
LAP APRON AND RAT GUARD (SLOPED) 2" MINIMUM WITH 2 ROWS OF BUTYL SEALANT.



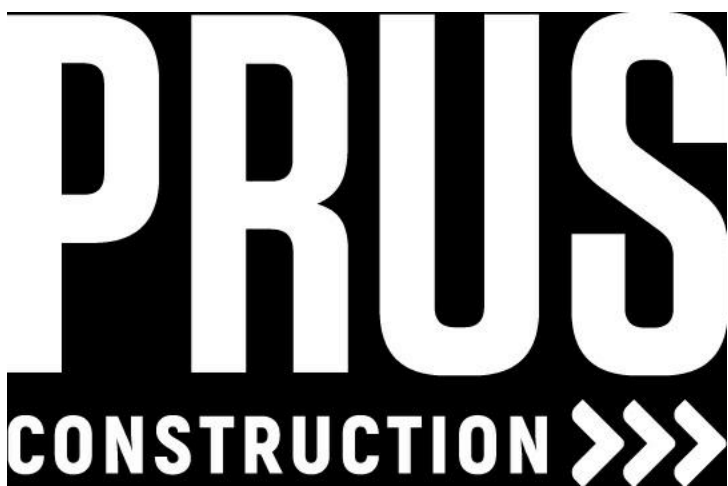
D5 Rake Wall-1
3" = 1'-0"

EXPANSION NOTE
RIDGES EXCEEDING 100'-0" IN LENGTH REQUIRE THE USE OF A 6" COVER PLATE.

FLASHING LAP NOTE
LAP RIDGE/HIP 4" MIN W/ 2 ROWS OF BUTYL SEALANT. DO NOT POP RIVET LAPPED FLASHINGS.



A5 Ridge - Hip
3" = 1'-0"



Record Drawings
09/16/2019

Revisions:
Issue Date: August 3, 2018

I-71 Rest Areas

Mile Marker 34
South Bound
Warren County, Ohio

Metal Roof Panel Details

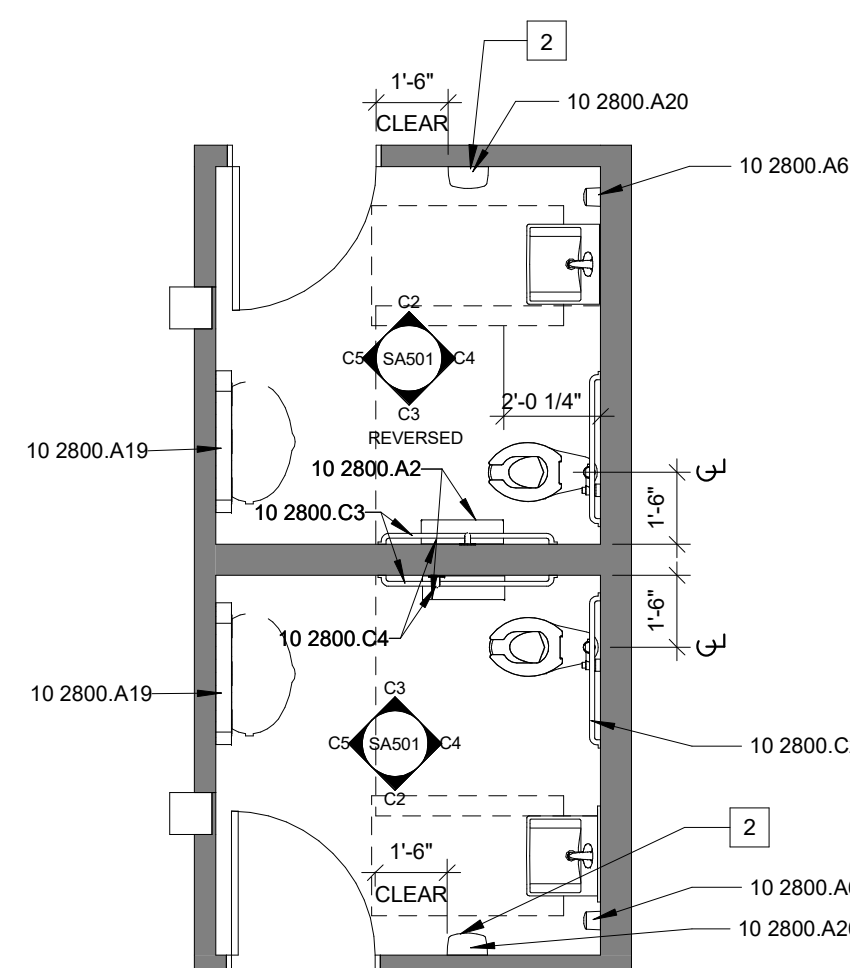
Project No.

18084

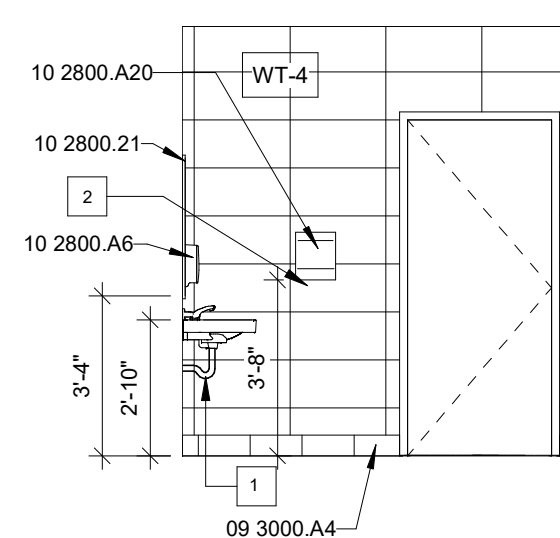
SA403



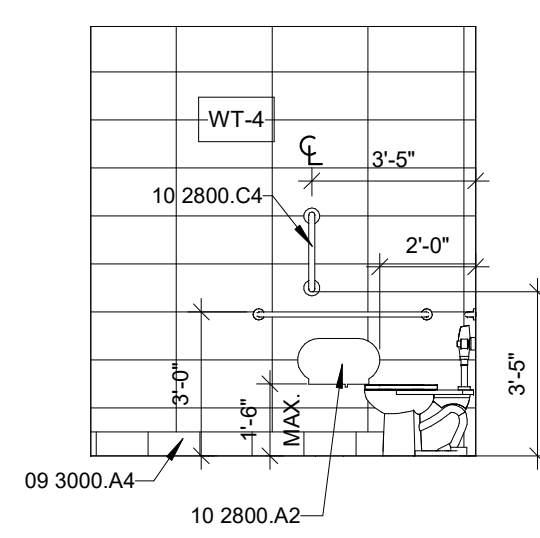
PRUS
CONSTRUCTION >>>



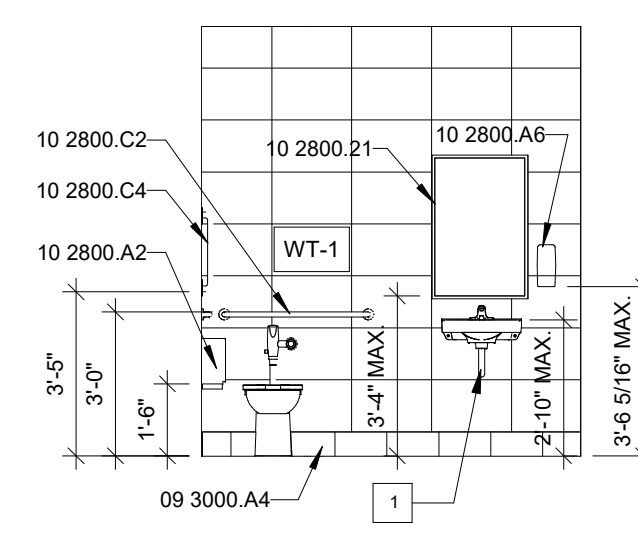
C1 Enlarged Plan - Family Restroom
1/4" = 1'-0"



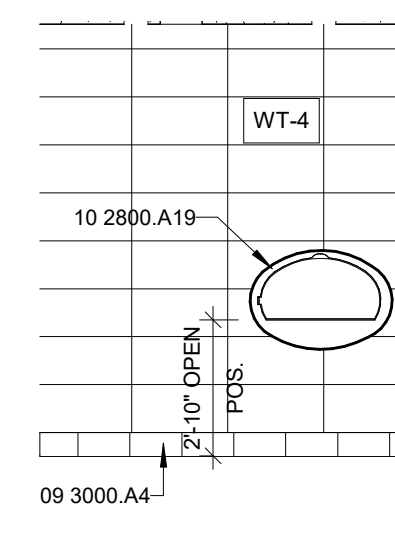
South Wall
Family Restroom



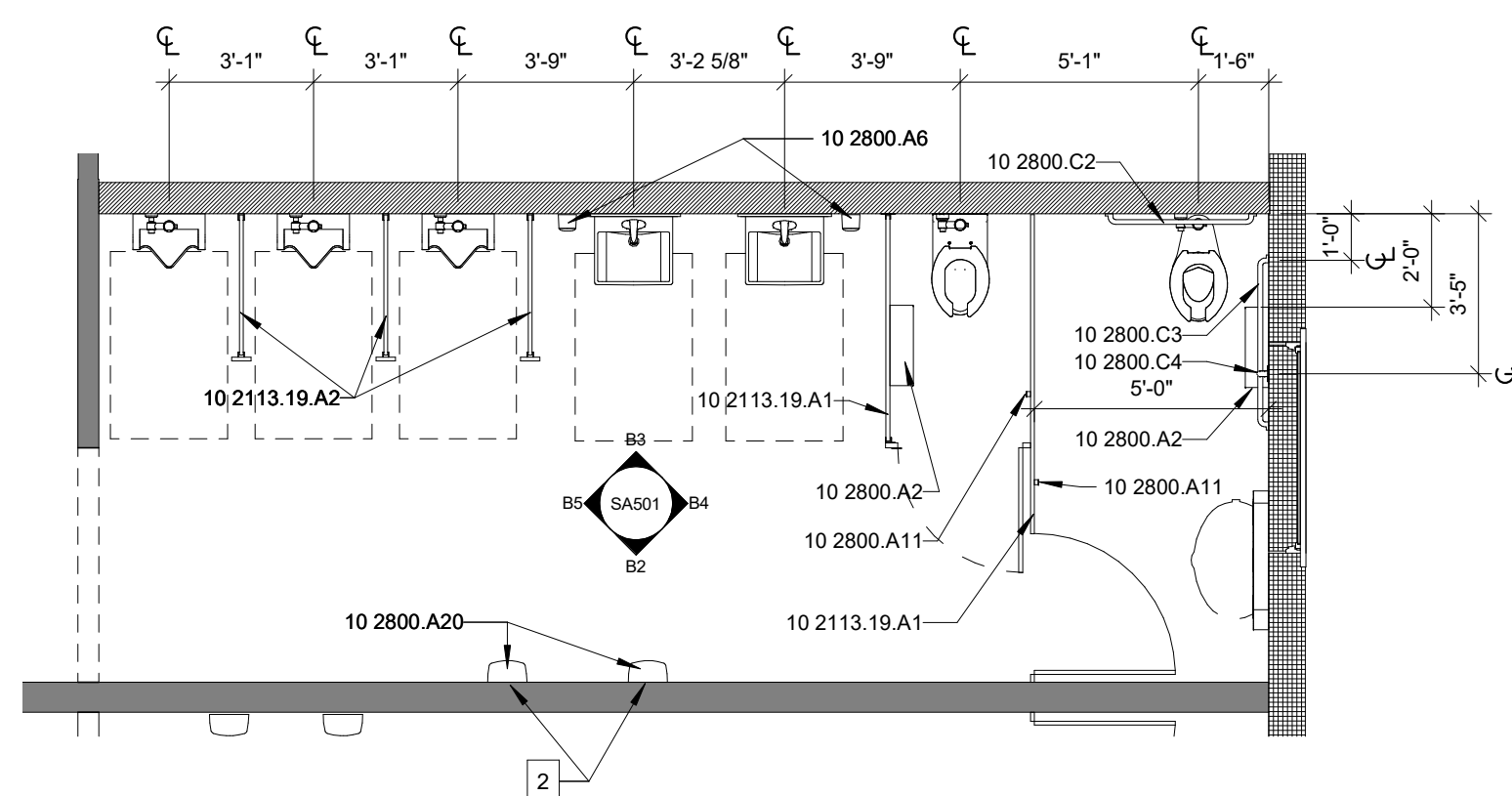
North Wall
Family Restroom



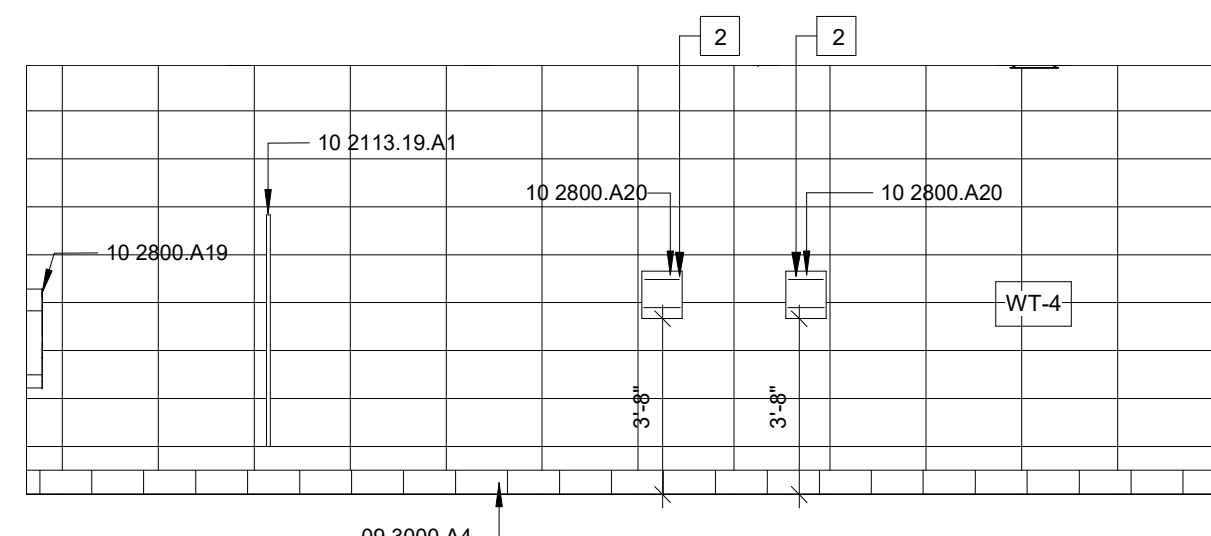
West Wall
Family Restroom
C4
1/4" = 1'-0"



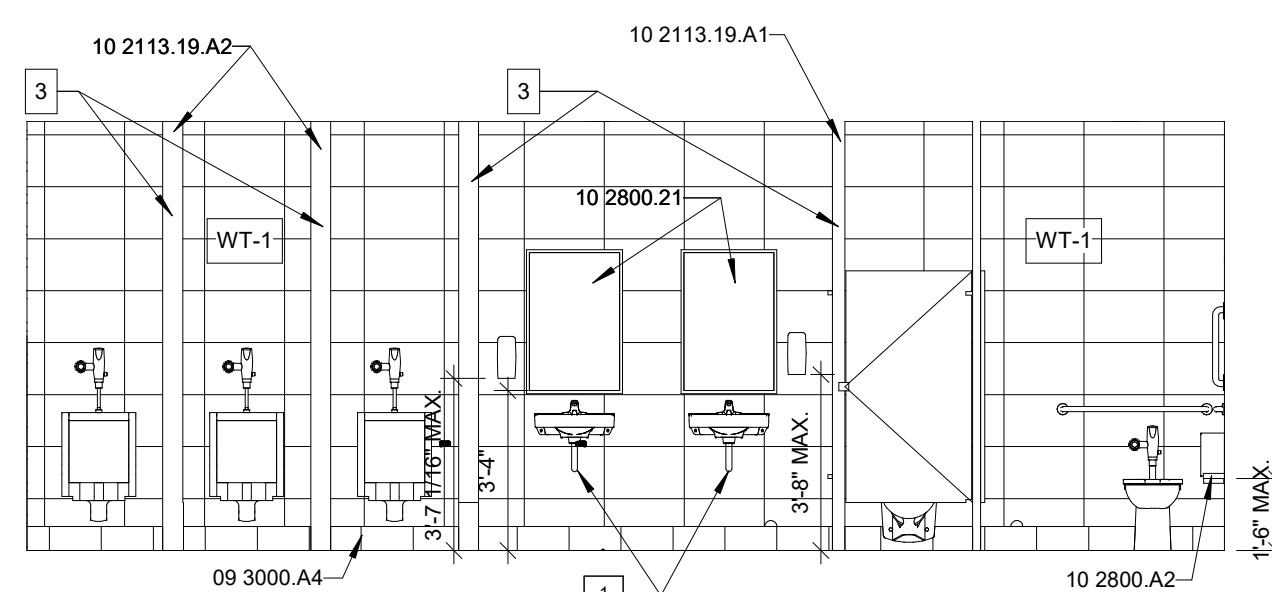
East Wall
Family Restroom



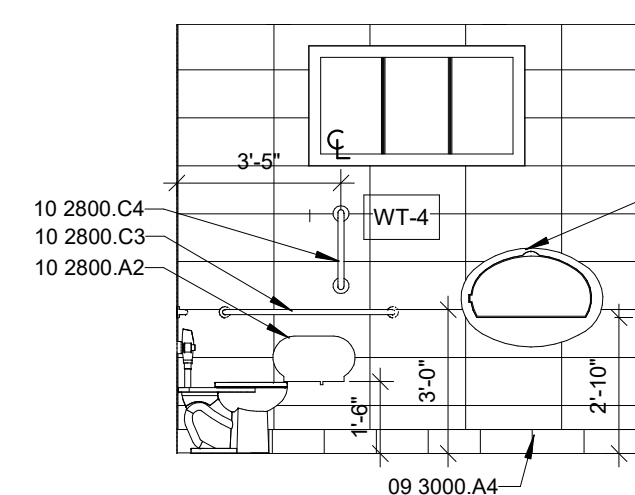
B1 Enlarged Plan - Men's Restroom
1/4" = 1'-0"



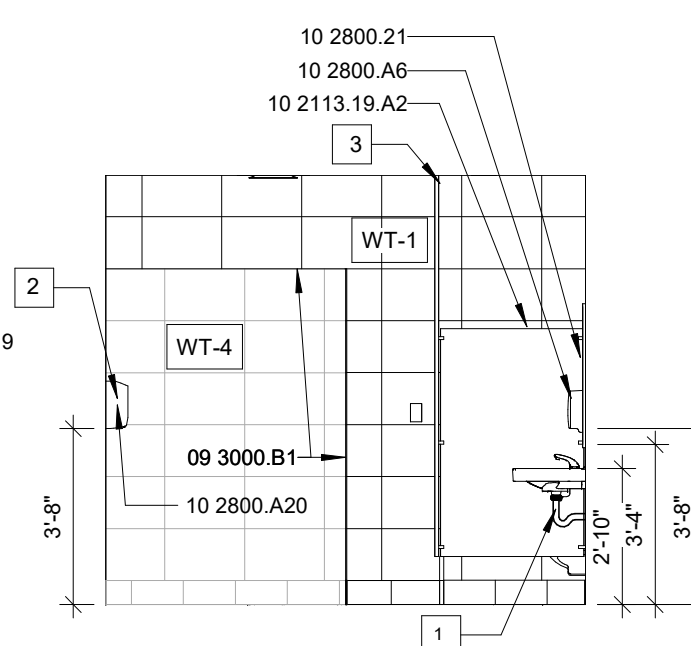
South Wall
Men's Restroom
B2 1/4" = 1'-0"



North Wall
Men's Restroom
B3 1/4" = 1'-0"

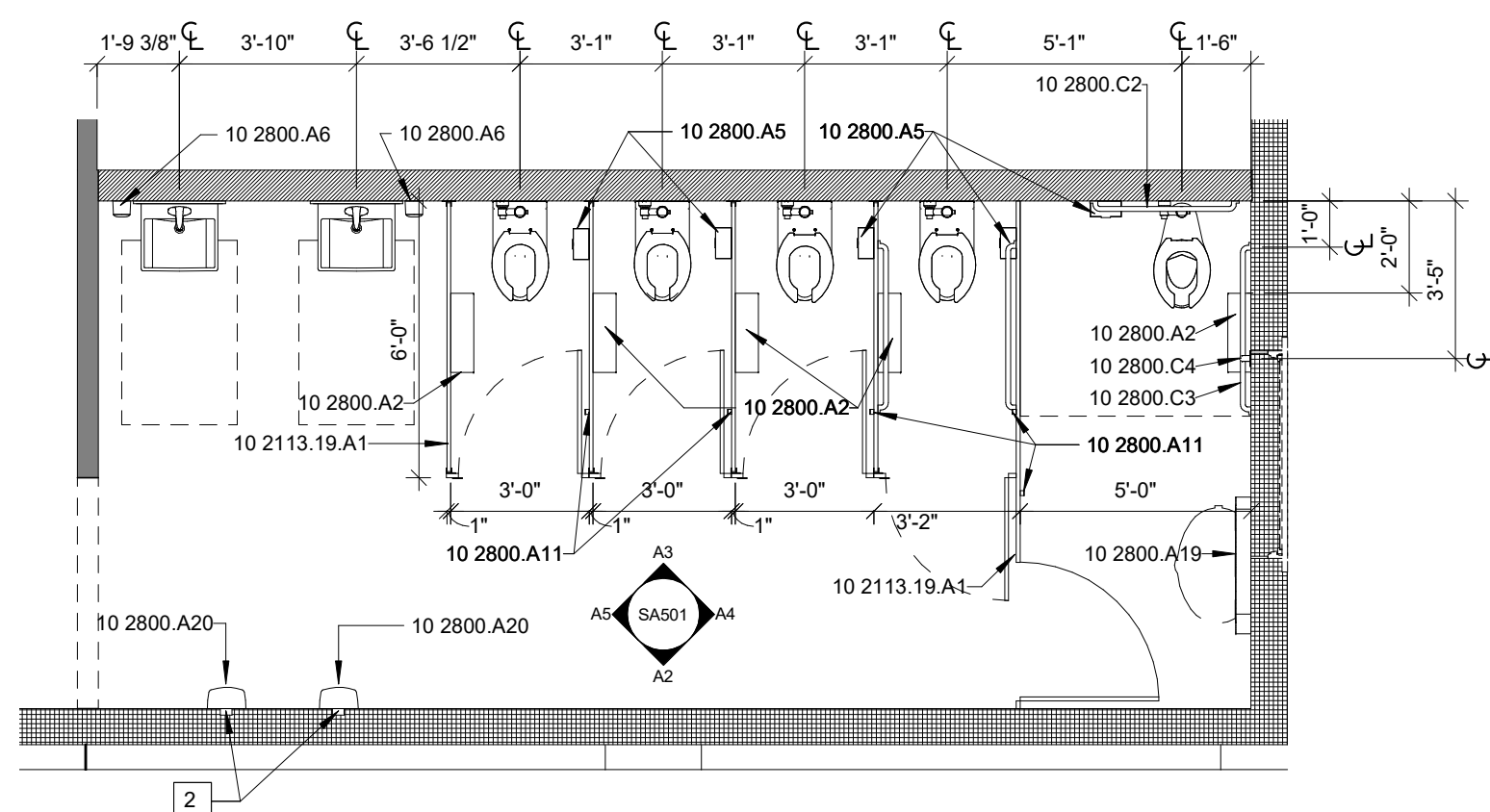


West Wall
Men's Restroom
B4 1/4" = 1'-0"

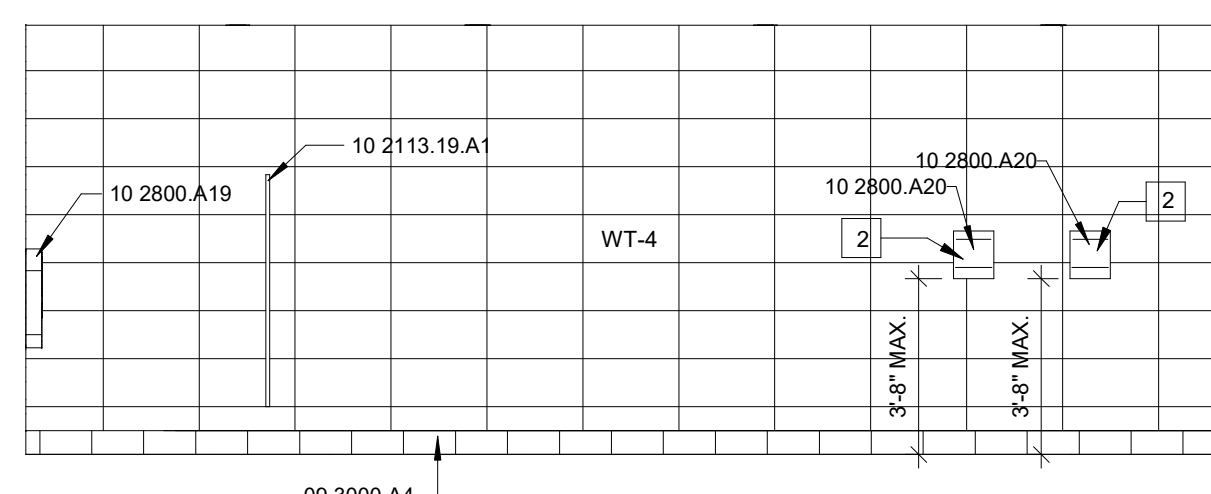


East Wall
Men's Restroom
B5
1/4" = 1'-0"

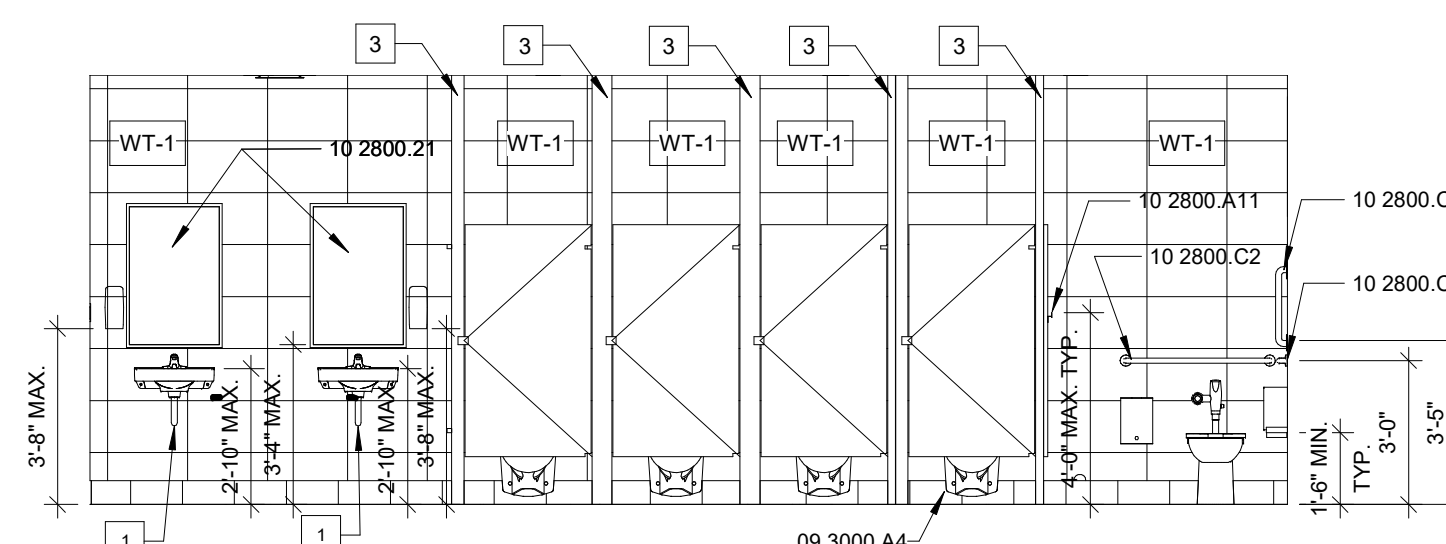
Record Drawings



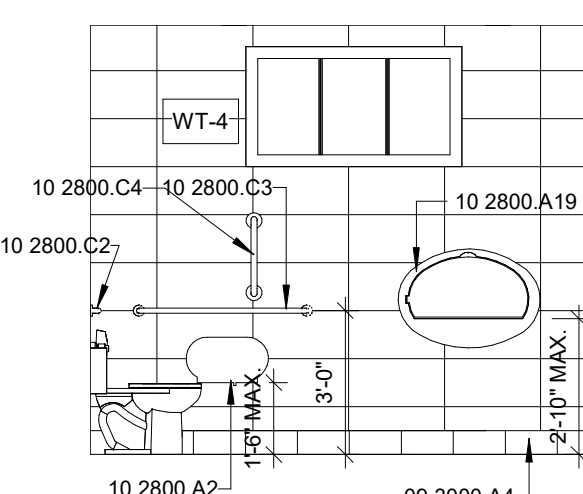
A1 Enlarged Plan - Women's Restroom
1/4" = 1'-0"



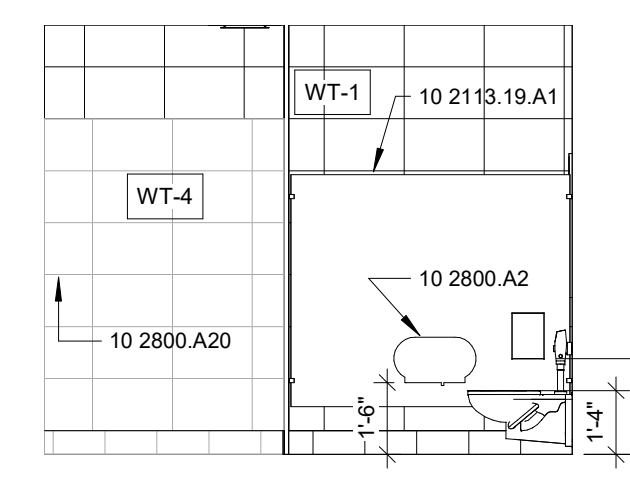
South Wall
Women's Restroom



North Wall
Women's Restroom



West Wall
A4 Women's Restroom
1/4" = 1'-0"



East Wall
Women's Restroom
A5 1/4" = 1'-0"

Revisions:
Issue Date: August 3, 2018

I-71 Rest Areas

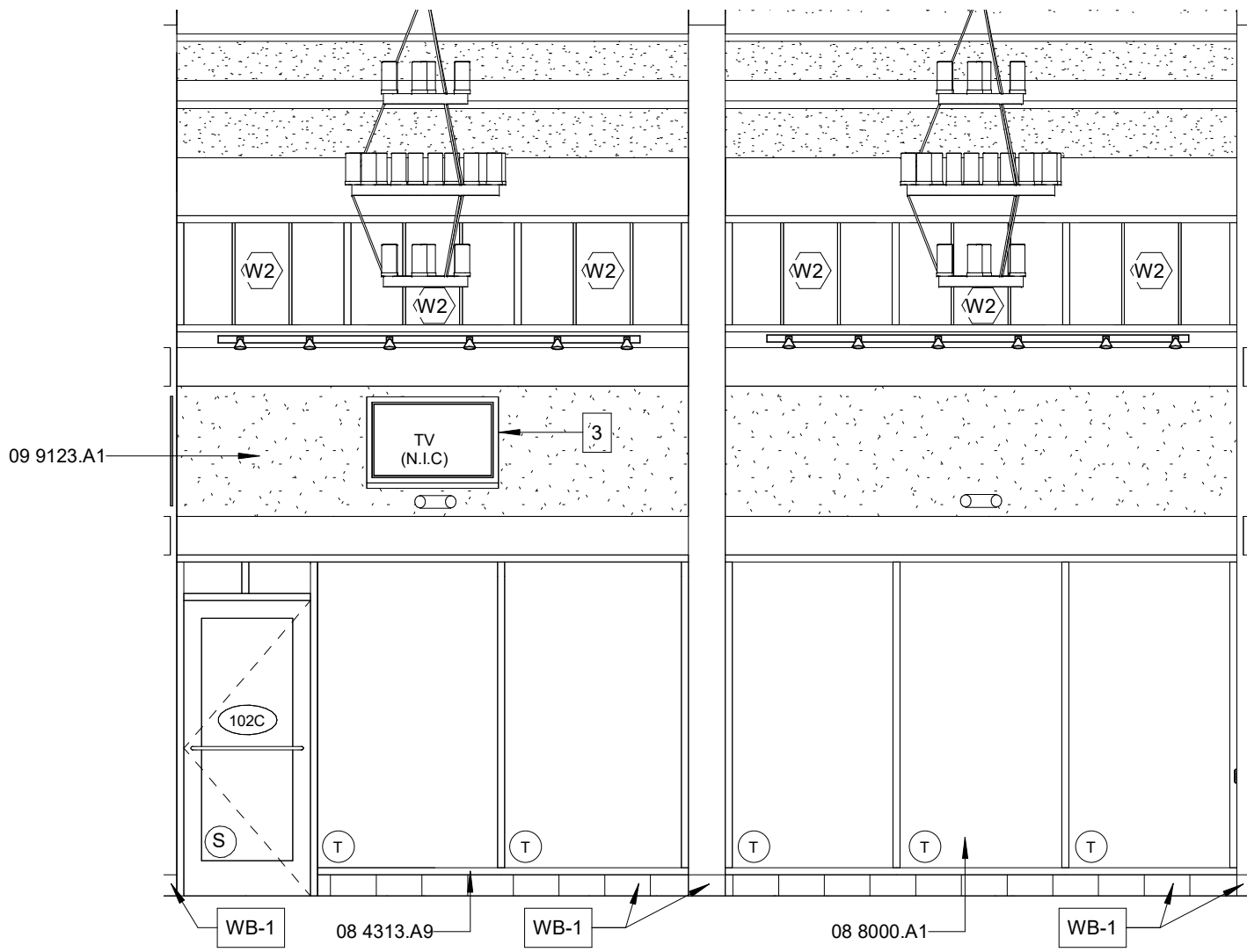
Mile Marker 34
South Bound
Warren County, Ohio

Interior Elevations and Enlarged Plans

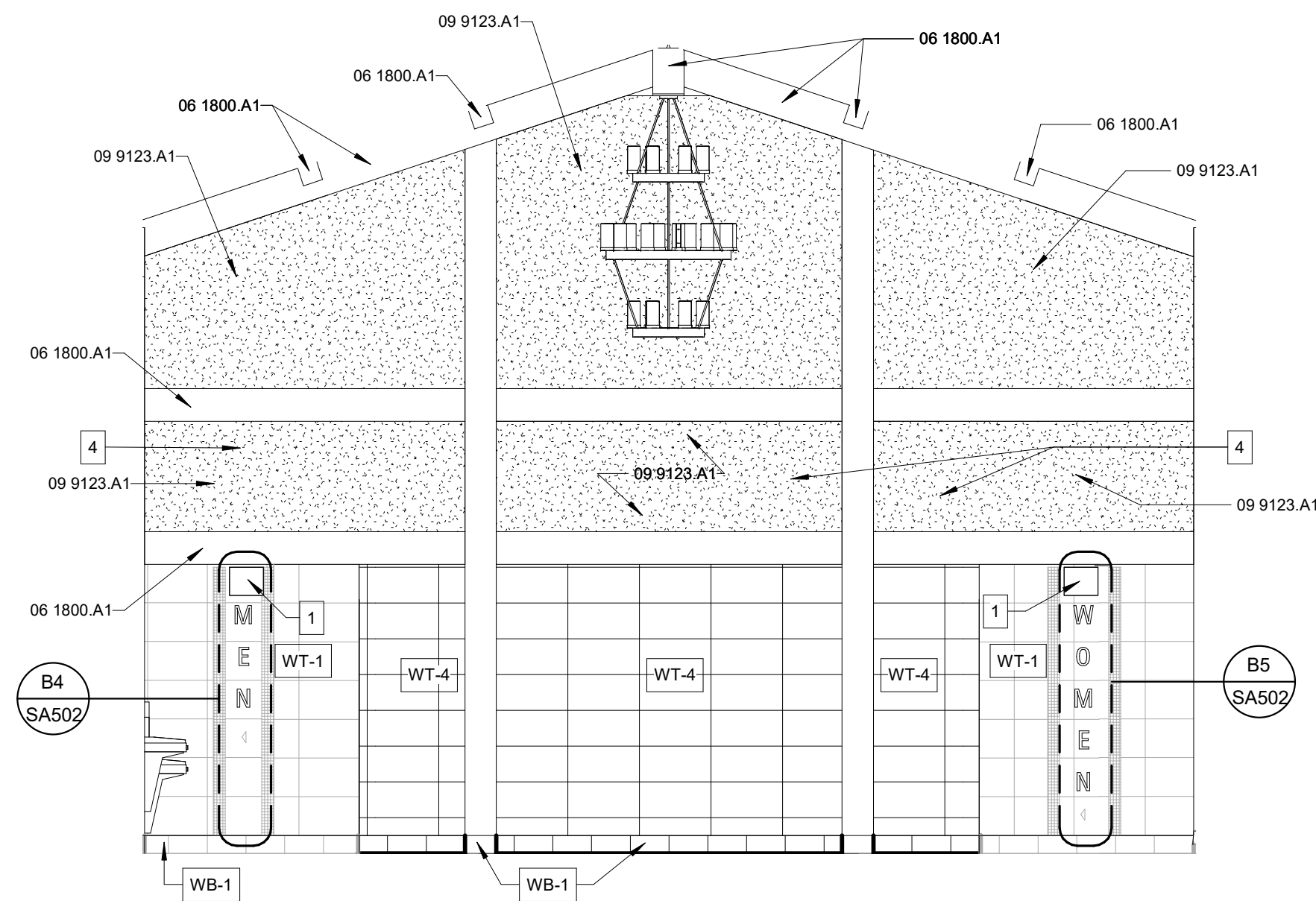
Project No. _____

SA501

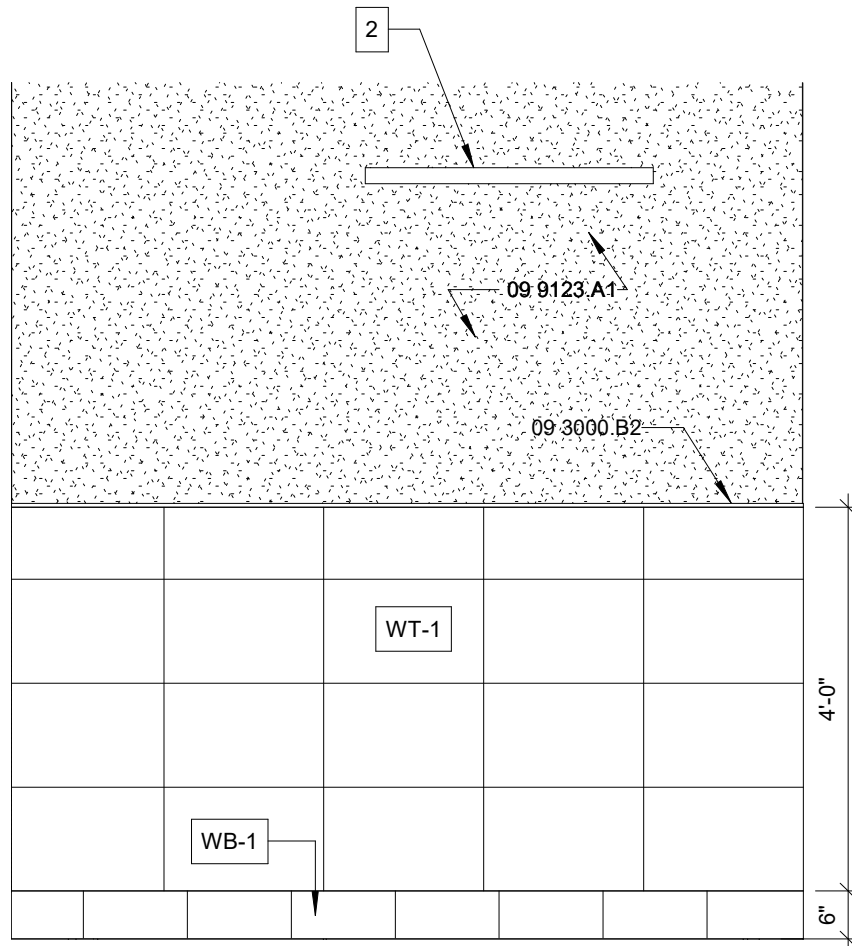
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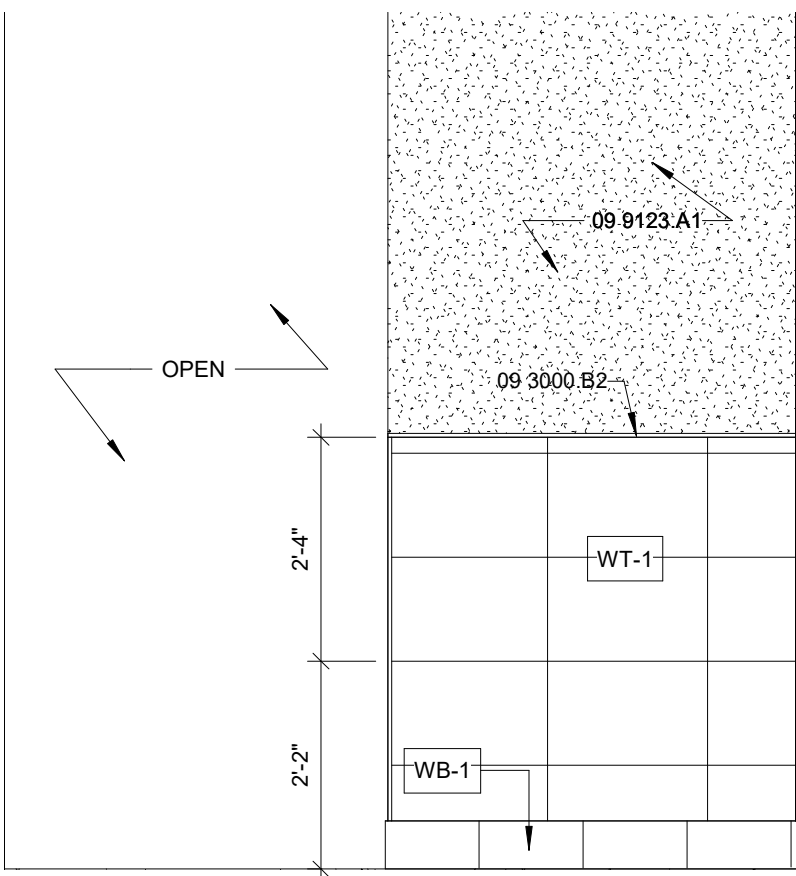
B1 Lobby South Wall Interior Elevation
1/4" = 1'-0"



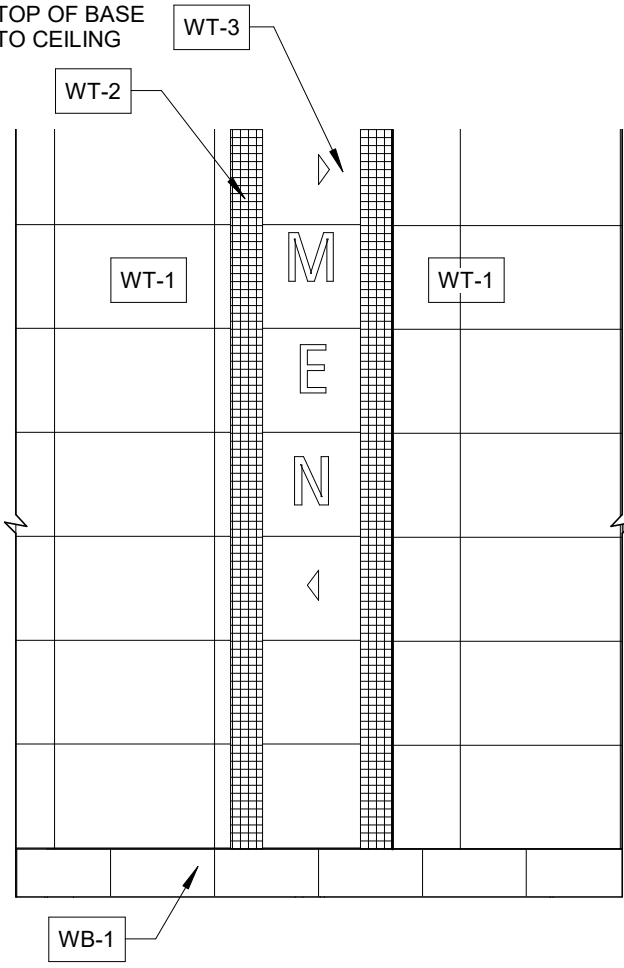
B2 Lobby West Wall Interior Elevation
1/4" = 1'-0"



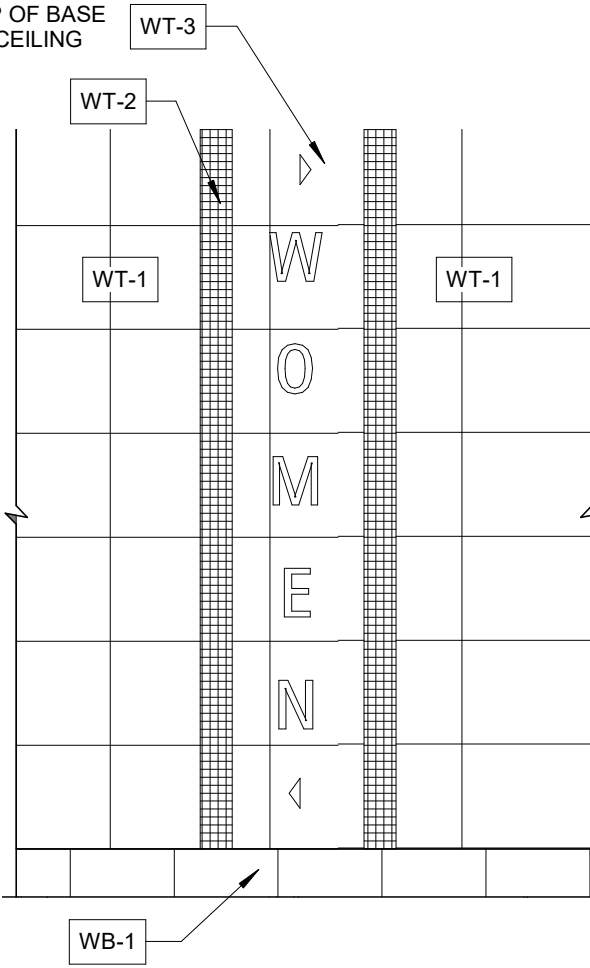
C4 Janitor Closet North Elevation
1/2" = 1'-0"



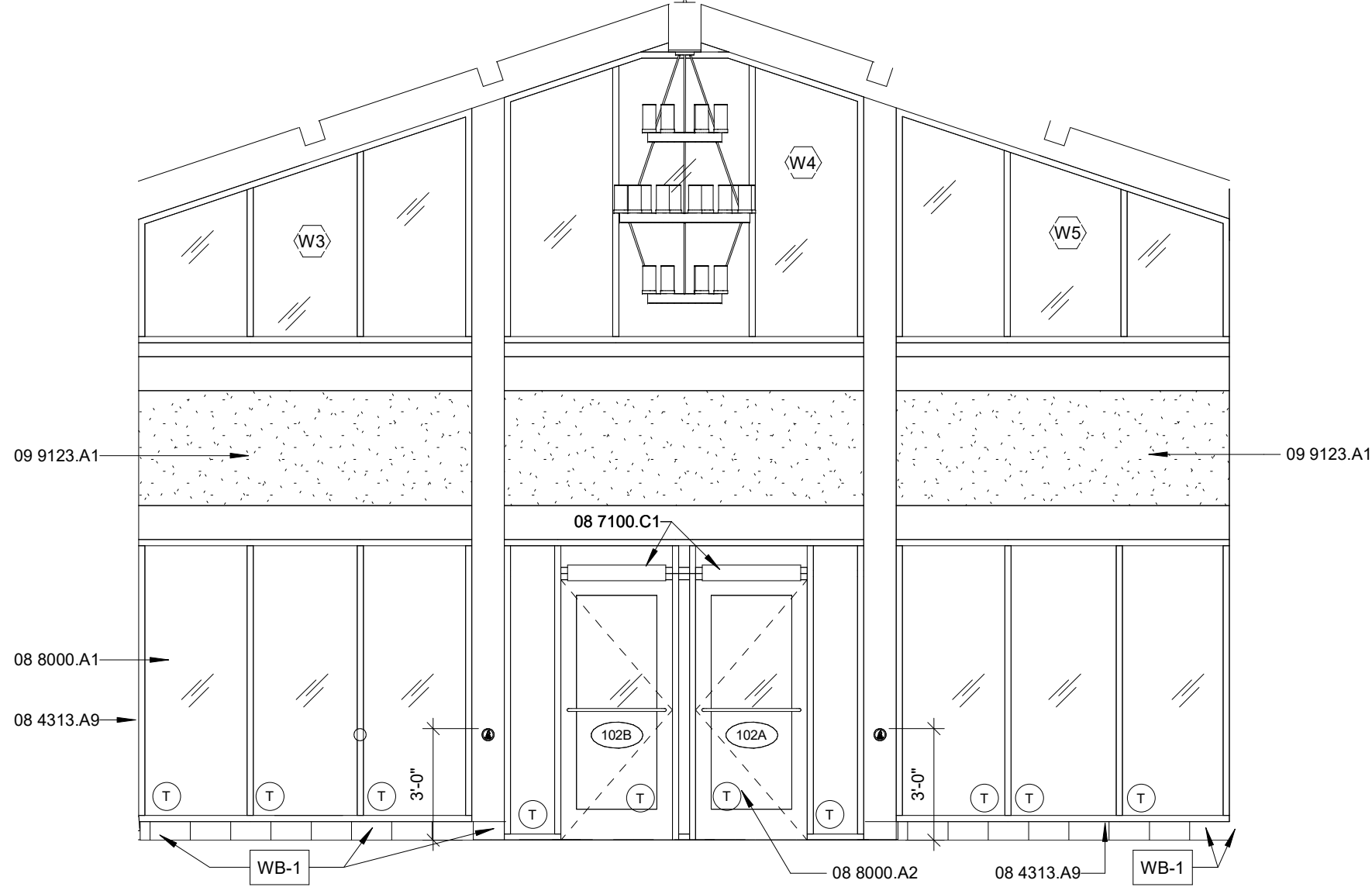
C5 Janitor Closet South Elevation
1/2" = 1'-0"



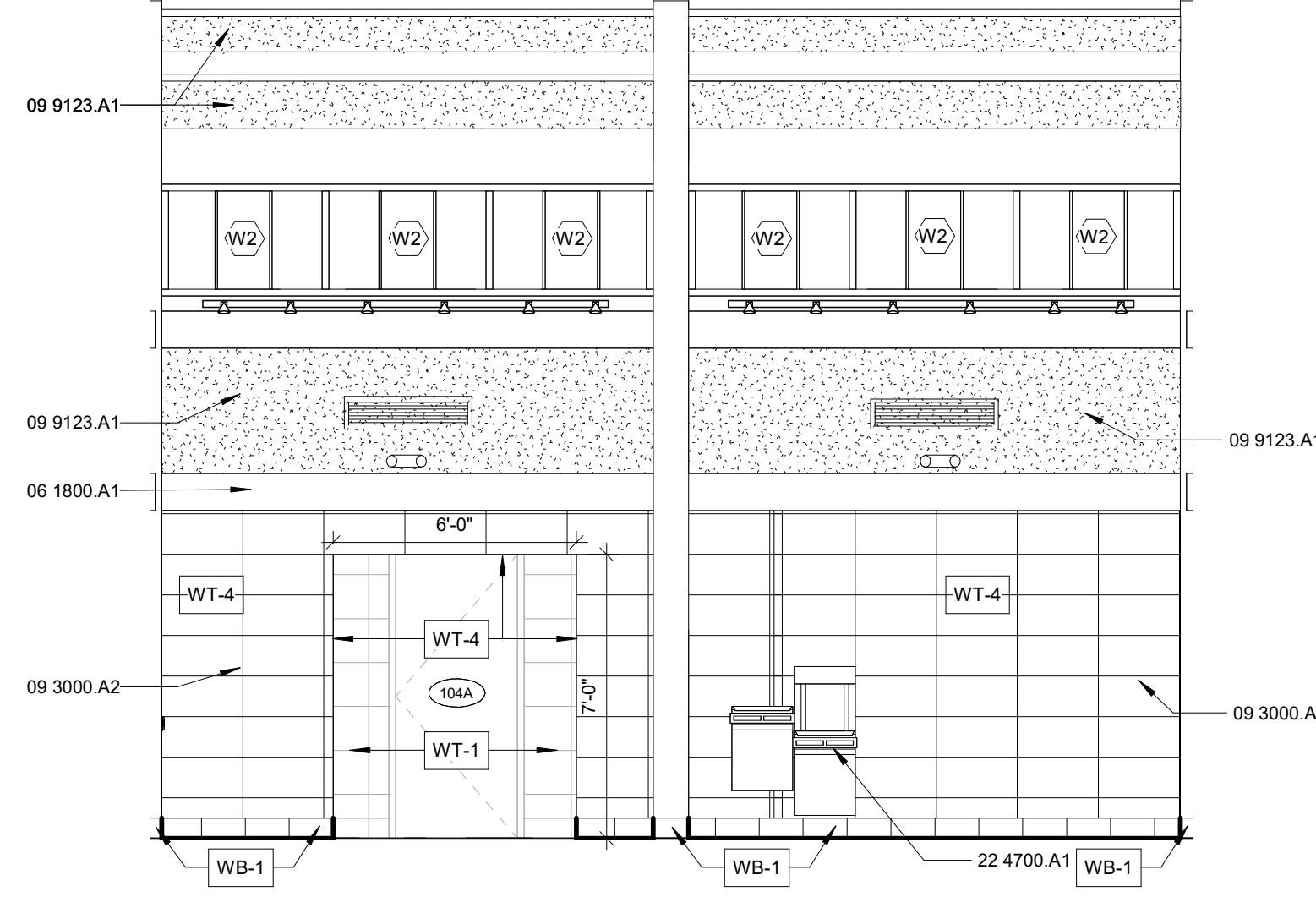
B4 Men's Restroom Entrance Sign
1/2" = 1'-0"



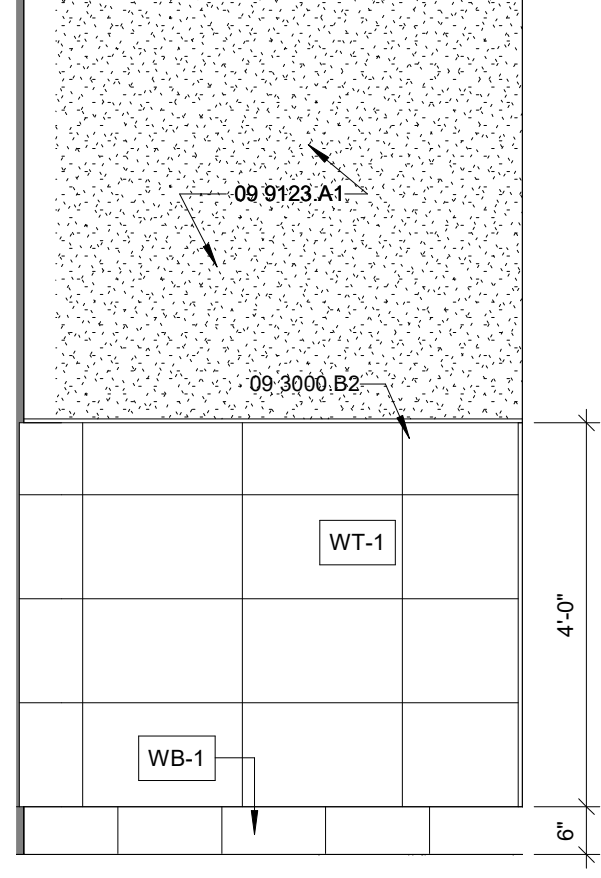
B5 Women's Restroom Entrance Sign
1/2" = 1'-0"



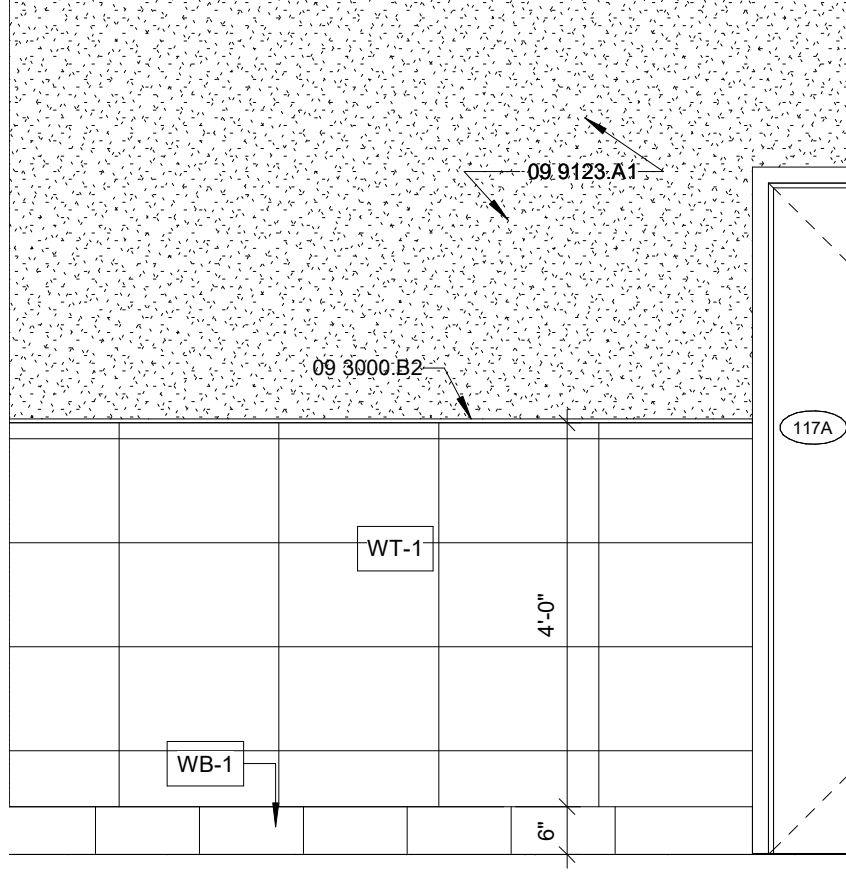
A1 Lobby East Wall Interior Elevation
1/4" = 1'-0"



A2 Lobby North Wall Interior Elevation
1/4" = 1'-0"



A4 Janitor Closet East Elevation
1/2" = 1'-0"



A5 Janitor Closet West Elevation
1/2" = 1'-0"

Revisions:
Issue Date: August 3, 2018

I-71 Rest Areas

Mile Marker 34
South Bound
Warren County, Ohio

Interior Elevations

Project No

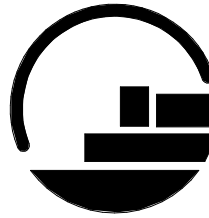
18084

SA502

Plotted 8/6/2018 4:58:27 PM

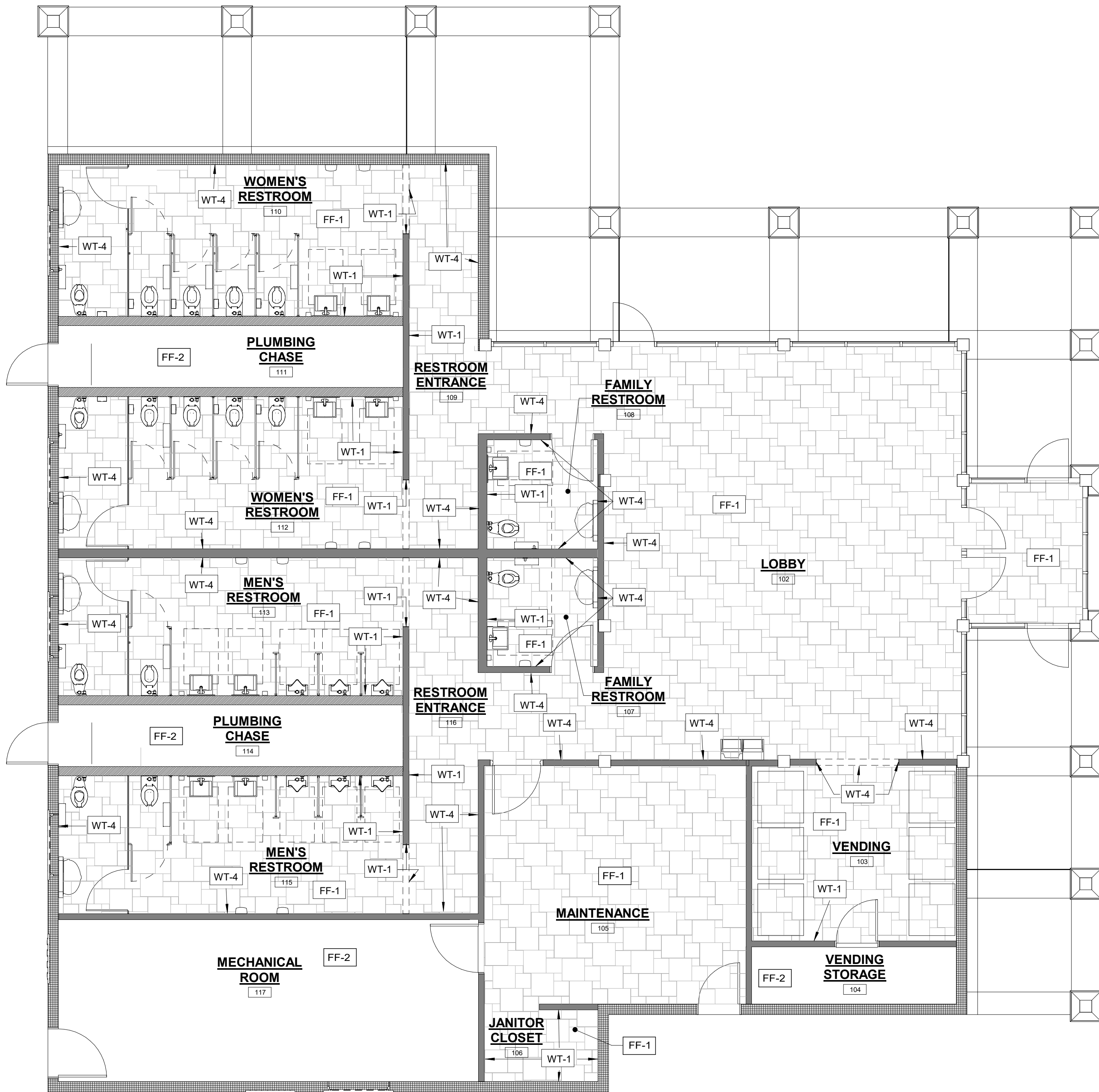
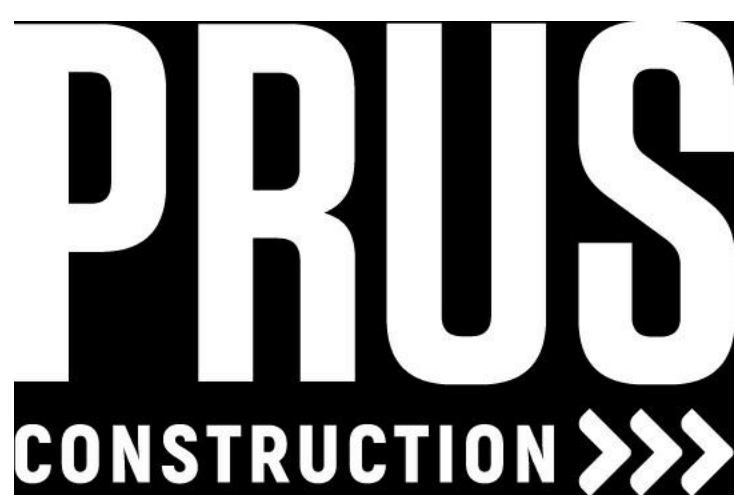
General Notes

- 1. SEE SHEET SG101 & SG102 FOR GENERAL PROJECT NOTES.
- 2. DIMENSIONS ARE TO FACE OF STUD OR SIPs PANEL UNLESS NOTED OTHERWISE.
- 3. SEE SHEET SA002 FOR WALL TYPES.
- 4. REFER TO FINISH SCHEDULE FOR INTERIOR FINISHES.
- 5. REFER TO PLUMBING SHEETS FOR FIXTURES SPECIFICATIONS.
- 6. 100.00' FINISH FLOOR ELEVATION IS USED FOR SIMPLICITY OF DRAWINGS (ACTUAL ELEVATION WILL VARY BY LOCATION).
- 7. NORTH WILL VARY BY LOCATION.
- 8. REFER TO FINISH LEGEND ON SHEET SA002 TO FINISH REFERENCES.



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Record Drawings
09/16/2019

Revisions:
Issue Date: August 3, 2018

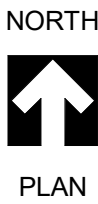
I-71 Rest Areas

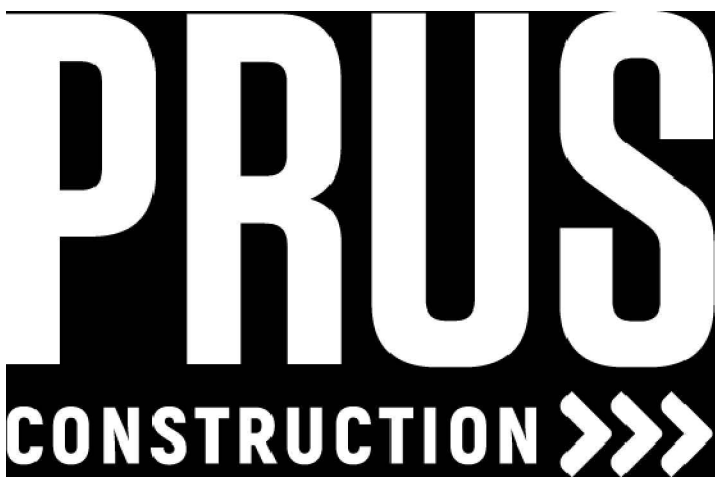
Mile Marker 34
South Bound
Warren County, Ohio

Finish Plan

Project No.	SA601
18084	

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09/16/2019

Revisions:
Issue Date: August 3, 2018

I-71 Rest Areas

Mile Marker 34
South Bound
Warren County, Ohio

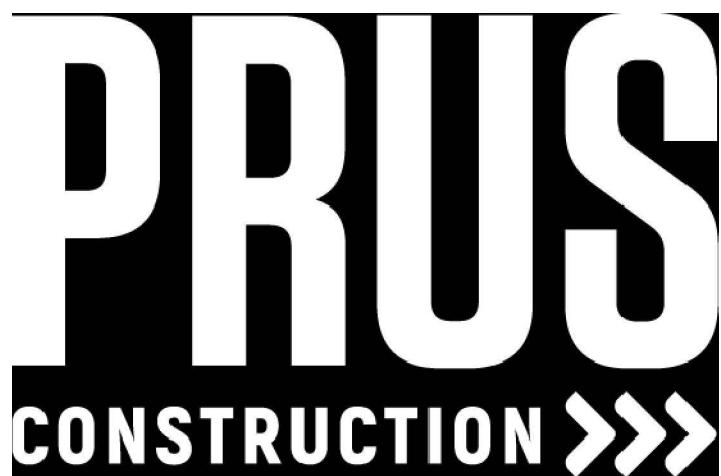
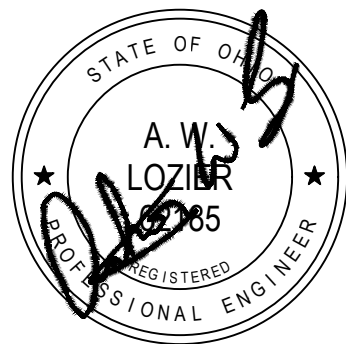
Plumbing Title Sheet

Project No.

SP001

18084

GENERAL MECHANICAL SYMBOLS		ABBREVIATIONS		PROJECT GENERAL NOTES																																							
	REVISION NUMBER - SHOWN ON PLANS	& Ø A AB ABV AC ACOUS AD ADD ADDL AFF AFUE AG ALT ALUM AP APPROX ARCH AV AW AUTO BFF BLDG BLW BM BO BOT BSMT BTU BTUH BTWN CAP CB CCW CFM CFW CI CLG COL COMB CONC COND CONF CONN CONST CONT CONTR COORD CTR CUFT CV CW CW D DB DET DIA DIAG DISCH DIV DI DMPR DN DWG DW EA EAT EL ELEC ELEV EXP EQ EQUIP EWC EWT E/A EAH EXIST EXP EXPT EXT F FCO FD FDV FHC FL FLEX FLG FO FOV FOR FOS FPM FRP FS FS FT FTG FTR FUT GA GAL GALV GC GEN GENL GPH GR GW HB HD HORZ HP HP HTG HTR HYD	POINT WHERE NEW CONNECTS TO EXISTING NUMBER OF DETAIL ON SHEET NUMBER OF SHEET WHERE DETAIL APPEARS KEYNOTE CONTINUATION SYMBOL ROOM NAME AND NUMBER ITEM TO BE DEMOLISHED AREA NOT IN CONTRACT	AND ROUND AIR ABOVE BASE ABOVE AIR CONDITIONING ACOUSTICAL AREA DRAIN ADDENDUM ADDITIONAL ABOVE FINISHED FLOOR ANNUAL FUEL UTILIZATION EFFICIENCY ABOVE GROUND ALTERNATE ALUMINUM ACCESS PANEL APPROXIMATE ARCHITECT/ARCHITECTURAL ACID RESISTANT VENT ACID RESISTANT WASTE AUTOMATIC BELOW FINISHED FLOOR BUILDING BELOW BEAM BY OTHER BOTTOM BASEMENT BRITISH THERMAL UNITS BRITISH THERMAL UNITS PER HOUR BETWEEN CAPACITY CATCH BASIN COUNTER CLOCKWISE CONSTANT FLOW CONTROL VALVE CUBIC FEET PER MINUTE CIRCULATING HOT WATER CAST IRON CEILING COOLING CLEAN OUT COLUMN COMBINATION CONCRETE CONDENSATE CONFERENCE CONNECT CONSTRUCTION CONTINUE/CONTINUATION CONTRACT/CONTRACTOR COORDINATE CENTER CUBIC FEET CHECK VALVE COLD WATER CLOCKWISE DEGREE DRY BULB DETAIL DIAMETER DIAGONAL DISCHARGE DIVISION DEIONIZED WATER DAMPER DOWN DRAWING DISTILLED WATER EACH ENTERING AIR TEMPERATURE ELBOW ELECTRICAL ELEVATION EXPLOSION PROOF EQUAL EQUIPMENT ELECTRIC WATER COOLER ENTERING WATER TEMPERATURE EXHAUST AIR EXHAUST HOOD EXISTING EXPANSION EXPANSION JOINT EXTERIOR DEGREES FAHRENHEIT FLOOR CLEAN OUT FLOOR DRAIN FIRE DAMPER FIRE DEPARTMENT VALVE FIRE HOSE CABINET FLOOR FLEXIBLE FLANGE FUEL OIL FUEL OIL VENT FUEL OIL RETURN FUEL OIL SUPPLY FEET PER MINUTE FIBERGLASS REINFORCED PIPE FULL SIZE FLOOR SINK FOOT/FEET FOOTING FIN TUBE RADIATION FUTURE GAGE/GAUGE GALLON GALVANIZED GENERAL CONTRACTOR GENERATOR GENERAL GALLONS PER MINUTE GRADE GREASE WASTE HOSE BIB HEAD HORIZONTAL HORSE POWER HIGH PRESSURE HEATING HEATER HOT WATER HYDRANT	ID INDIRECT INCH INLET INSUL INSULATION INTERIOR INVERT INCHES WATER GAUGE JOIST SPACE JOINT LAB LABORATORY LB POUND LB/HR POUNDS PER HOUR LAT LEAVING AIR TEMPERATURE LF LINEAL FOOT LOC LOCATION LP LOW PRESSURE LP LIQUEFIED PETROLEUM GAS LR LIQUID REFRIGERANT LS LAWN SPRINKLER LVR LOUVER LWT LEAVING WATER TEMPERATURE M/A MIXED AIR MAN MANUAL MATL MATERIAL MAV MANUAL AIR VENT MAX MAXIMUM MBD MOTORIZED BYPASS DAMPER MBH ONE THOUSAND BTU PER HOUR MCF ONE THOUSAND CUBIC FEET MCW MAKE-UP COLD WATER MD MOTORIZED DAMPER MECH MECHANICAL MFR MANUFACTURER MH MANHOLE MIN MINIMUM MISC MISCELLANEOUS MTR MOTOR MU/A MAKE-UP/AIR N NECK NC NOISE CRITERIA NC NORMALLY CLOSED NIC NOT IN CONTRACT NO NUMBER NO NORMALLY OPEN NOM NOMINAL NTS NOT TO SCALE O OXYGEN O/A OUTSIDE AIR OC ON CENTER OF OVERFLOW OPNG OPENING OFRD OVERFLOW ROOF DRAIN PD PRESSURE DROP PIV POST INDICATOR VALVE PLBG PLUMBING PR PAIR PREL PRELIMINARY PRESS PRESSURE PRIM PRIMARY PRV PRESSURE REDUCING VALVE PSI POUNDS PER SQUARE INCH PSIG POUNDS PER SQUARE INCH GAUGE PW POTABLE WATER PWR POWER R DUCT RISER R/A RETURN AIR RCP RADIANT CEILING PANEL RD ROOF DRAIN REC RECESSED RED REDUCER REFR REFRIGERATION RH RELATIVE HUMIDITY REQD REQUIRED REV REVERSE RL/A RELIEF AIR RM ROOM RPM REVOLUTIONS PER MINUTE RW RAIN WATER SF SQUARE FOOT S/A SUPPLY AIR SAN SANITARY SCHED SCHEDULE SECT SECTION SF SQUARE FOOT SD SMOKE DAMPER SHT SHEET SIM SIMILAR SLV SLEEVE SM SURFACE MOUNT SP STANDPIPE SP STATIC PRESSURE SPEC SPECIFICATION SPS STATIC PRESSURE STATION SQ SQUARE SR SUCTION REFRIGERANT SSD SOIL SUBDRAIN SS STAINLESS STEEL STD STANDARD STM STEAM STRUCT STRUCTURAL SUCT SUCTION SUSP SUSPENDED T THERMOSTAT TCP TEMPERATURE CONTROL PANEL TD TEMPERATURE DROP TDR TRENCH DRAIN TEFC TOTALLY ENCLOSED FAN COOLED TEMP TEMPERATURE TYP TYPICAL UFD UNDER FLOOR DUCT UG UNDERGROUND VAC VACUUM V VENT VAV VARIABLE AIR VOLUME VEL VELOCITY VENT VENTILATION VERT VERTICAL VOL VOLUME VTR VENT THROUGH ROOF W WASTE WB WET BULB WCO WALL CLEAN OUT WH WALL HYDRANT	* NEW 1 COORDINATE INSTALLATION OF PIPING, DUCTWORK, CONDUIT, LIGHTS, CABLE TRAY, STRUCTURE, AND EQUIPMENT TO PREVENT CONFLICTS. * NEW 2 THE CONTRACTOR SHALL BE FAMILIAR WITH ALL THE CONDITIONS BOTH EXISTING AND THOSE ILLUSTRATED BY THESE DOCUMENTS AS WELL AS THOSE WHICH CAN BE REASONABLY ANTICIPATED INCLUDING, BUT NOT LIMITED TO ARCHITECTURAL, ELECTRICAL, VENTILATION, PLUMBING, AND OTHER SYSTEMS INVOLVED ON THIS PROJECT. * NEW 3 FINAL PRODUCT SHALL BE A COMPLETE AND FUNCTIONING SYSTEM, AND SHALL CONFORM TO ALL REQUIREMENTS OF APPLICABLE FEDERAL, STATE, AND LOCAL CODES, INCLUDING BUT NOT LIMITED TO THE INTERNATIONAL BUILDING CODE AND INTERNATIONAL MECHANICAL CODE. * NEW 4 LOCATE EQUIPMENT REQUIRING ACCESS 2'-0" MAXIMUM ABOVE CEILING. * NEW 5 ALL ROOF MOUNTED EQUIPMENT SHALL BE A MINIMUM 10'-0" FROM EDGE OF ROOF. * NEW 6 LOCATE DUCTWORK, PIPING AND MECHANICAL EQUIPMENT AWAY FROM THE SPACE ABOVE ELECTRICAL PANELS, TRANSFORMERS AND OTHER ELECTRICAL EQUIPMENT. * NEW 7 FIRE SEAL AROUND DUCT AND PIPING PENETRATIONS OF FIRE RATED WALLS. REFER TO SPECIFICATION. * NEW 8 PROVIDE SLEEVES AND/OR OPENINGS TO RUN PIPES AND DUCTS THROUGH FOUNDATIONS, FLOORS, WALLS, AND ROOF. * NEW 9 ADJUST PIPING AND DUCTWORK SIZES TO PROPERLY CONNECT TO MECHANICAL EQUIPMENT. * NEW 10 REFER TO PLUMBING SERIES DRAWINGS FOR GAS AND A.C. CONDENSATE DRAIN PIPING. * NEW 11 PIPE SIZES SHOWN SHALL BE CONTINUED IN THE DIRECTION OF FLOW UNTIL ANOTHER SIZE IS SHOWN. * NEW 12 FOR DETAILS, EQUIPMENT CONNECTIONS, AND PIPE SIZES NOT SHOWN ON THE SEGMENTS, REFER TO DETAILS, SCHEDULES, AND SPECIFICATIONS. * NEW 13 INSTALL ALL EQUIPMENT IN ACCORDANCE WITH THE RESPECTIVE MANUFACTURER'S WRITTEN INSTALLATION INSTRUCTIONS, AT A LEVEL OF QUALITY AND WORKMANSHIP CONSISTENT WITH THE SPECIFICATIONS. * NEW 14 LOCATIONS OF PIPING, DUCTWORK AND EQUIPMENT AS INDICATED ON THE DRAWING, ARE APPROXIMATE AND SUBJECT TO MINOR ADJUSTMENTS IN THE FIELD. WORK SHALL BE COORDINATED WITH ALL OTHER TRADES TO AVOID INTERFERENCE IN THE FIELD. * NEW 15 INSTALL EXPOSED PIPING AND DUCTWORK AS HIGH AS PRACTICAL IN ROOMS WITHOUT CEILINGS.																																					
PLUMBING AND PIPING SYMBOLS		EQUIPMENT ABBREVIATIONS		PLUMBING GENERAL NOTES * EXISTING 1 FIELD VERIFY ALL NEW WATER, WASTE, AND VENT PIPING CONNECTIONS AND PROVIDE NEW CONNECTIONS AS REQUIRED FOR PROPERLY OPERATING SYSTEMS. * NEW 1 PITCH UNDERFLOOR SANITARY WASTE AND STORM PIPING 3" AND GREATER AT 1/8" PER FOOT, UNLESS NOTED OTHERWISE. PITCH ALL OTHER WASTE PIPING AT 1/4" PER FOOT UNLESS OTHERWISE NOTED. * NEW 2 FIELD VERIFY LOCATION AND INVERTS OF SITE UTILITIES PRIOR TO INSTALLATION. * NEW 3 ROUTE DOMESTIC WATER, FIRE PROTECTION, SANITARY SEWER, AND STORM SEWER SERVICES TO SITE UTILITIES 5'-0" FROM BUILDING UNLESS NOTED OTHERWISE. REFER TO CIVIL PLANS. * NEW 4 WASTE AND VENT PIPING BELOW FLOOR AND THROUGH FLOOR SHALL BE 2" MINIMUM. * NEW 5 PROVIDE CLEANOUT IN ACCESSIBLE LOCATION AT THE BASE OF ALL PLUMBING RISERS.																																							
	PIPE SIZE TAG (DIAMETER)	AC ACC ACCU AFMS AHU AS B CF CFE CFP CH CRU CT CWP DBP DC DCP EF EDC ET EVH FCU	AIR CONDITIONING UNIT AIR COOLED CONDENSER AIR COOLING CONDENSING UNIT AIR FLOW MEASURING STATION AIR HANDLING UNIT AIR SEPARATOR BOILER CABINET FAN CHEMICAL FEEDER CHEMICAL FEEDER PUMP CHILLER CONDENSATE RETURN UNIT COOLING TOWER CABINET UNIT HEATER CONDENSER WATER PUMP CHILLED WATER PUMP DOMESTIC WATER BOOSTER PUMP DUCT MOUNTED COIL DOMESTIC WATER CIRCULATING PUMP EXHAUST FAN ELECTRIC DUCT COIL EXPANSION TANK ELECTRIC WATER HEATER FAN COIL UNIT	FP GI GRV H HWP HX HPU HRU ILC ILF PRV RTU RE SA SAT SEP SF SH SP UH US UV WFMS WH	FIRE PUMP GREASE INTERCEPTOR GRAVITY ROOF VENTILATOR HUMIDIFIER HEATING WATER PUMP HEAT EXCHANGER HEAT PUMP UNIT HEAT RECOVERY UNIT INLINE CENTRIFUGAL PROPELLER FAN POWER ROOF VENTILATOR POWER WALL FAN RETURN/EXHAUST FAN ROOFTOP UNIT SHOCK ABSORBER SOUND ATTENUATOR SEWAGE EJECTOR PUMP SUPPLY FAN SUMP PUMP UNIT HEATER UTILITY SET UNIT VENTILATOR WATER FLOW MEASURING STATION WATER HEATER																																						
	KEYNOTE			ROOM ID LIST <table><tr><th>NUMBER</th><th>NAME</th></tr><tr><td>101</td><td>VESTIBULE</td></tr><tr><td>102</td><td>LOBBY</td></tr><tr><td>103</td><td>VENDING</td></tr><tr><td>104</td><td>STORAGE</td></tr><tr><td>105</td><td>MAINTAINACE</td></tr><tr><td>106</td><td>JANITOR CLOSET</td></tr><tr><td>107</td><td>FAMILY RESTROOM</td></tr><tr><td>108</td><td>FAMILY RESTROOM</td></tr><tr><td>109</td><td>RESTROOM ENTRANCE</td></tr><tr><td>110</td><td>WOMEN'S RESTROOM</td></tr><tr><td>111</td><td>PLUMBING CHASE</td></tr><tr><td>112</td><td>WOMEN'S RESTROOM</td></tr><tr><td>113</td><td>MEN'S RESTROOM</td></tr><tr><td>114</td><td>PLUMBING CHASE</td></tr><tr><td>115</td><td>MEN'S RESTROOM</td></tr><tr><td>116</td><td>RESTROOM ENTRANCE</td></tr><tr><td>117</td><td>MECHANICAL ROOM</td></tr><tr><td>118</td><td>PORCH</td></tr></table>		NUMBER	NAME	101	VESTIBULE	102	LOBBY	103	VENDING	104	STORAGE	105	MAINTAINACE	106	JANITOR CLOSET	107	FAMILY RESTROOM	108	FAMILY RESTROOM	109	RESTROOM ENTRANCE	110	WOMEN'S RESTROOM	111	PLUMBING CHASE	112	WOMEN'S RESTROOM	113	MEN'S RESTROOM	114	PLUMBING CHASE	115	MEN'S RESTROOM	116	RESTROOM ENTRANCE	117	MECHANICAL ROOM	118	PORCH
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118	PORCH																																										
	CONTINUATION SYMBOL			* NOTE * ALL OF GENERAL NOTES ON THIS SHEET ARE TO BE APPLIED TO ALL OTHER DRAWINGS IN THIS SET. THE SYMBOLS AND ABBREVIATIONS SHOWN ON THIS SHEET MAY OR MAY NOT BE USED IN THIS SET OF DRAWINGS.																																							
	ROOM NAME AND NUMBER																																										
	ITEM TO BE DEMOLISHED																																										
	AREA NOT IN CONTRACT																																										
	PIPE SLOPE TAG																																										
	PIPE INVERT ELEVATION TAG																																										
	EXISTING PIPE TAG																																										
	PIPING BEING DEMOLISHED																																										
	COMBINATION WASTE & VENT																																										
	COMPRESSED AIR																																										
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	DOMESTIC COLD WATER-FILTERED																																										
	DOMESTIC COLD WATER-HARD																																										
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PLUMBING FIXTURE SCHEDULE																			
FIXTURE SYMBOL	DESCRIPTION	MANUFACTURER	MODEL	MATERIAL DESCRIPTION	TRIM					FLOW FIXTURE		FLUSH FIXTURE		PIPE CONNECTIONS				SPECIFICATIONS	
					MANUFACTURER	MODEL NO.	FINISH	TYPE	MOTION SENSOR CONTROL	FLOW	TIMER DURATION (SEC)	VOLUME PER FLUSH	MIN. VOLUME PER FLUSH	SANITARY ROUGH-IN PIPE DIAMETER	VENT PIPE DIAMETER	COLD WATER ROUGH-IN PIPE DIAMETER	HOT WATER ROUGH-IN PIPE DIAMETER	COMMENTS	REMARKS
EW-C-1	ELECTRIC WATER COOLER - DUAL HEIGHT	OASIS	PG8EBFSL	GALVANIZED STEEL			STAINLESS STEEL CABINET	MANUAL	No	0.1 GPM				1 1/2"	1 1/2"	1/2"		TWO LEVEL WALL HUNG WATER COOLER WITH BOTTLE FILLING STATION. THE UNIT SHALL BE COMPLETE WITH CABINET, MOUNTING FRAME, SELF CLOSING EASY TOUCH SIDE AND FRONT PUSHBAR CONTROLS, FLEXIGUARD SAFETY BUBBLER, REFRIGERATING SYSTEM, AIR COOLED, 120 VOLT, 60 CYCLE, SINGLE PHASE POWER CONNECTION, FULLY AUTOMATIC, COMPLETE AND READY TO OPERATE.	
HYD-2	EXTERIOR WALL HYDRANT	WOODFORD	68	STAINLESS STEEL			CHROME			2.5 GPM						3/4"		WALL HYDRANT, WITH DOUBLE CHECK BACKFLOW PREVENTER, VALVE ON THE INSIDE OF THE WALL, SPOUT WITH BACKFLOW PREVENTER, AND LOOSE KEY SOCKET WITH HINGED COVER ON THE OUTSIDE OF THE WALL. COORDINATE OVERALL HYDRANT LENGTH TO ENSURE VALVE IS ON INSIDE OF WALL. PROVIDE SHUTOFF VALVE IN ACCESSIBLE LOCATION.	VANDAL RESISTANT WALL HYDRANT WITH INTEGRAL VACUUM BREAKER
JS-1	JANITOR SINK	FIAT	MSB-2424	MOLDED STONE	CHICAGO FAUCET CO	897-CP	CHROME	MANUAL	No	2.5 GPM				3"	1 1/2"	3/4"	3/4"	SERVICE BASIN WITH STAINLESS STEEL COMBINATION DOME STRAINER AND LINT BASKET. FAUCET SHALL INCLUDE VACUUM BREAKER SPOUT WITH PAIL HOOK AND WALL BRACE.	PROVIDE WITH FIAT MODEL 832-AA HOSE AND HOSE BRACKET, MODEL 889-CC MOP HANGER, MODEL MSG 2424 WALL GUARDS ON ABUTTING WALLS, AND VINYL BUMPER GUARDS ON ALL EXPOSED SIDES.
LAV-1	LAVATORY - WALL HUNG	AMERICAN STANDARD	DECORUM 9024.001EC	WHITE VITREOUS CHINA	SLOAN	ETF-610-B-BD T CP	CHROME	ELECTRONIC	Yes	0.5 GPM	12			1 1/2"	1 1/2"	1/2"	1/2"	WALL HUNG LAVATORY, SINGLE FAUCET HOLE. DECK-MOUNTED FAUCET WITH SENSOR, AC POWER WITH VANDAL RESISTANT AERATOR.	PROVIDE WITH ASSE 1051 THERMOSTATIC MIXING VALVE, GRID DRAIN, LOOSE KEY ANGLE STOPS AND SUPPLIES. INSULATE WATER AND WASTE WITH INSULATION KIT.
LAV-1A	LAVATORY - WALL HUNG - ADA	AMERICAN STANDARD	DECORUM 9024.001EC	WHITE VITREOUS CHINA	SLOAN	ETF-610-B-BD T CP	CHROME	ELECTRONIC	Yes	0.5 GPM	12			1 1/2"	1 1/2"	1/2"	1/2"	WALL HUNG LAVATORY, SINGLE FAUCET HOLE. DECK-MOUNTED FAUCET WITH SENSOR, AC POWER WITH VANDAL RESISTANT AERATOR.	PROVIDE WITH ASSE 1051 THERMOSTATIC MIXING VALVE, GRID DRAIN, LOOSE KEY ANGLE STOPS AND SUPPLIES. INSULATE WATER AND WASTE WITH INSULATION KIT.
U-1A	URINAL - ADA	AMERICAN STANDARD	WASHBROOK 6590.001EC	WHITE VITREOUS CHINA	SLOAN	ROYAL 186-0.125 ESS TMO	CHROME	ELECTRONIC	Yes			0.13 gal	0.13 gal	2"	1 1/2"	3/4"		WALL HUNG URINAL WITH WASHOUT ACTION, TOP SPUD, SIZE 18" WITH INTEGRAL EXTENDED SHIELDS SUPPORTED BY THROUGH GOING BOLTS AND C.P. NUTS, WITH AC POWERED SENSOR ACTIVATED FLUSHOMETER WITH TRUE MECHANICAL OVERRIDE.	PROVIDE WITH HEAVY-DUTY CARRIER. MOUNT AT ADA COMPLIANT HEIGHT.
WC-1	WATER CLOSET - WALL HUNG	AMERICAN STANDARD	AFWALL 3351.101	WHITE VITREOUS CHINA	SLOAN	ROYAL 111-1.28 ESS TMO	CHROME	ELECTRONIC	Yes			1.28 gal	1.28 gal	4"	2"	1"		ELONGATED WALL HUNG WATER CLOSET, 1-1/2" TOP SPUD, WITH AC POWERED SENSOR ACTIVATED FLUSHOMETER WITH TRUE MECHANICAL OVERRIDE.	PROVIDE WITH HEAVY-DUTY CARRIER, AMERICAN STANDARD #5905.110 ELONGATED OPEN FRONT SEAT.
WC-2	WATER CLOSET - FLOOR MOUNT - REAR OUTLET - FLUSH VALVE - ADA	AMERICAN STANDARD	PRIOLO 3695.001	WHITE VITREOUS CHINA	SLOAN	ROYAL 111-1.28 ESS TMO	CHROME	ELECTRONIC	Yes			1.28 gal	1.28 gal	4"	2"	1"		ELONGATED FLOOR MOUNTED WATER CLOSET WITH REAR OUTLET, 1-1/2" TOP SPUD, WITH AC POWERED SENSOR ACTIVATED FLUSHOMETER WITH TRUE MECHANICAL OVERRIDE.	PROVIDE WITH AMERICAN STANDARD #5905.110 ELONGATED OPEN FRONT SEAT.
WC-3	WATER CLOSET - FLOOR MOUNT - FLUSH VALVE - ADA	AMERICAN STANDARD	MADERA 3461.001	WHITE VITREOUS CHINA	SLOAN	ROYAL 111-1.28 ESS TMO	CHROME	ELECTRONIC	Yes			1.28 gal	1.28 gal	4"	2"	1"		ELONGATED FLOOR MOUNTED WATER CLOSET, 1-1/2" TOP SPUD, WITH AC POWERED SENSOR ACTIVATED FLUSHOMETER WITH TRUE MECHANICAL OVERRIDE.	PROVIDE WITH AMERICAN STANDARD #5905.110 ELONGATED OPEN FRONT SEAT.

FLOOR DRAIN SCHEDULE									
FIXTURE SYMBOL	DESCRIPTION	MANUFACTURER	MODEL	MATERIAL DESCRIPTION		PIPE CONNECTIONS		SPECIFICATIONS	
				DRAIN BODY	GRATE/STRAINER	WASTE PIPE DIAMETER	VENT PIPE DIAMETER	COMMENTS	REMARKS
FD-1	FLOOR DRAIN - ROUND	ZURN	ZN415-P-6B	EPOXY COATED CAST IRON	NICKEL BRONZE	3"	2"	FLOOR DRAIN WITH ANCHOR FLANGE, REVERSIBLE CLAMPING COLLAR WITH PRIMARY AND SECONDARY WEEPHOLES, AND ADJUSTABLE HEAVY DUTY ROUND HEEL PROOF STRAINER	FURNISH WITH PROSET TRAPGUARD DRAIN INSERT.
FD-2	FLOOR DRAIN - ROUND	ZURN	ZN415-CP-P-6B	EPOXY COATED CAST IRON	CHROME-PLATED BRONZE	3"	2"	FLOOR DRAIN WITH ANCHOR FLANGE, REVERSIBLE CLAMPING COLLAR WITH PRIMARY AND SECONDARY WEEPHOLES, AND ADJUSTABLE ROUND HEEL PROOF STRAINER	FURNISH WITH PROSET TRAPGUARD DRAIN INSERT.
FD-3	FLOOR DRAIN - SQUARE	ZURN	Z611-P	EPOXY COATED CAST IRON	EPOXY COATED CAST IRON	3"	2"	FLOOR DRAIN WITH ANCHOR FLANGE, REVERSIBLE CLAMPING COLLAR WITH PRIMARY AND SECONDARY WEEPHOLES, AND MEDIUM DUTY SQUARE SLOTTED GRATE WITH SUSPENDED SEDIMENT BUCKET.	FURNISH WITH PROSET TRAPGUARD DRAIN INSERT.

PROPANE WATER HEATER SCHEDULE								
UNIT NO.	MANUFACTURER	MODEL NO.	TYPE	GAS INPUT	RECOVERY @90° RISE	WATER VOLUME	UNIT WEIGHT	REMARKS
				BTU				
WH-1	A. O. SMITH	GPDT50	STORAGE	45,000	50.0 gal/h	50.0 gal	192 lb	PROVIDE EXPANSION TANK

Record Drawings
09/16/2019

Revisions:
Issue Date: August 3, 2018

I-71 Rest Areas

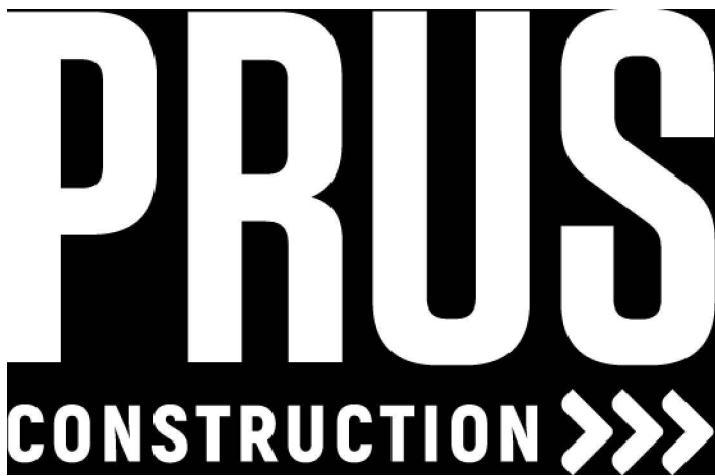
Mile Marker 34
South Bound
Warren County, Ohio

Plumbing
Schedules

Project No.

18084

SP002



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Record Drawings
09/16/2019

Revisions:
Issue Date: August 3, 2018

I-71 Rest Areas

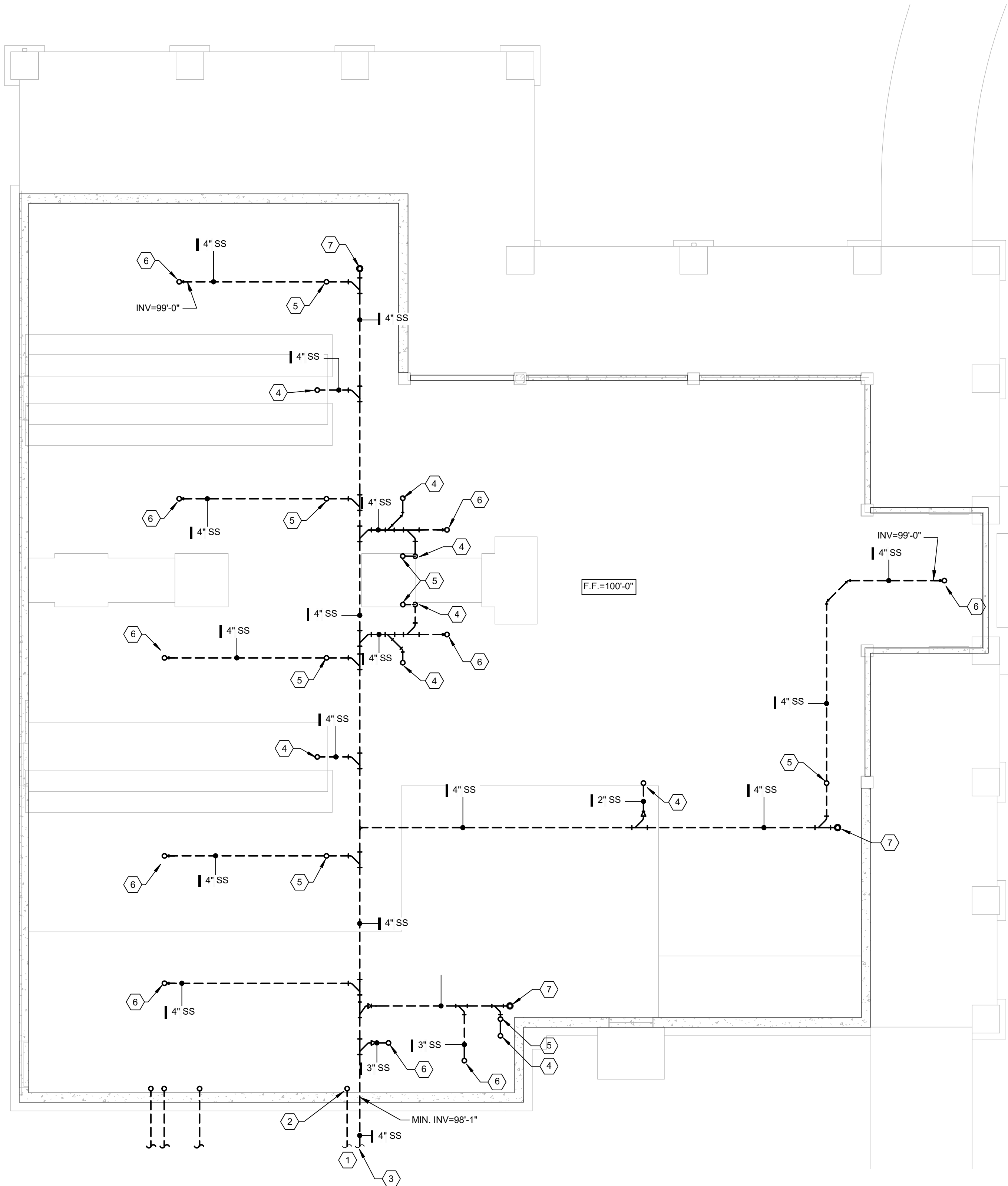
Mile Marker 34
South Bound
Warren County, Ohio

Plumbing
Underfloor Plan

Project No.

18084

SP100

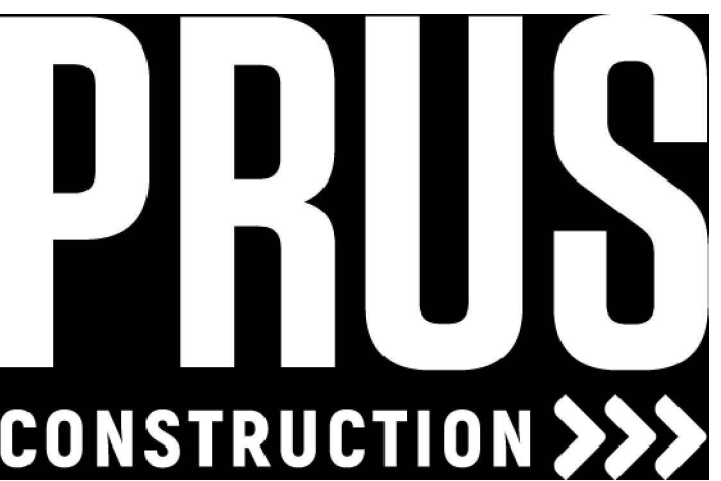
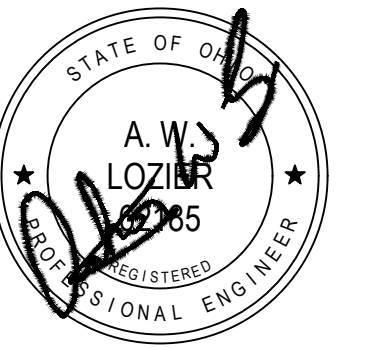


KEYNOTES

- 1 2" DOMESTIC COLD WATER SERVICE.
- 2 DOMESTIC COLD WATER SERVICE LINE UP THROUGH SLAB TO FIRST FLOOR. SEE P101 FOR CONTINUATION.
- 3 SANITARY SEWER INVERT AT THIS LOCATION.
- 4 SANITARY SEWER UP THROUGH SLAB AT THIS LOCATION. SEE P101 FOR CONTINUATION.
- 5 SANITARY VENT UP THROUGH SLAB AT THIS LOCATION. SEE P101 FOR CONTINUATION.
- 6 SANITARY SEWER LINE UP TO FLOOR DRAIN. SEE P101 FOR CONTINUATION.
- 7 SANITARY SEWER LINE UP TO FLOOR CLEAN OUT. SEE P101 FOR CONTINUATION.

1 OVERAOLL UNDERFLOOR PLUMBING PLAN
P100 3/16" = 1'-0"

0 4' 8' 12'



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Record Drawings
09/16/2019

△ Bulletin 3: December 10, 2018
△ Revisions: August 29, 2018
Issue Date: August 3, 2018

I-71 Rest Areas

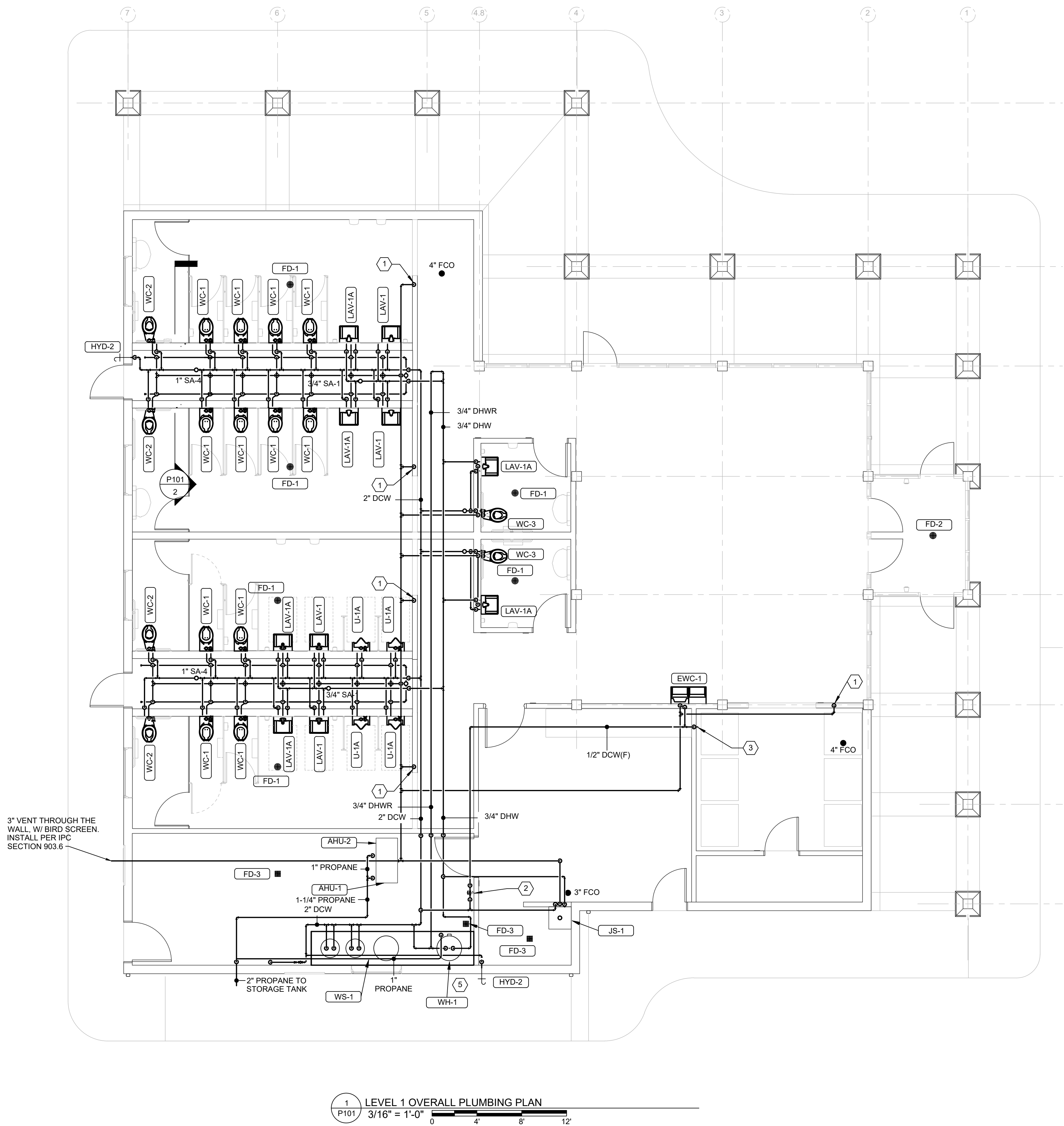
Mile Marker 34
South Bound
Warren County, Ohio

PLUMBING PLAN

Project No.

18084

SP101

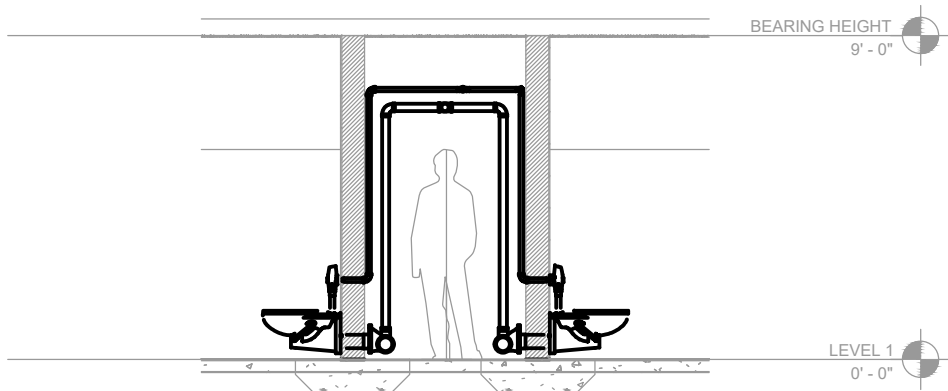


KEYNOTES

- 2" VENT DOWN IN WALL.
- 1/2" DCW WATER FILTER MOUNTED TO WALL. SEE DETAIL ON THIS SHEET FOR ADDITIONAL INFORMATION.
- 1/2" DCW DOWN IN WALL TO COFFEE MACHINE. PROVIDE GUY GREY 1/2" DCW WATER VALVE BOX MODEL MIB1AB AND PROVIDE INLINE DUAL CHECK TO VENDING MACHINE.
- CONTRACTOR TO PROVIDE NEW VENT FOR PROPANE WATER HEATER AS REQUIRED. CONTRACTOR TO COORDINATE PROPANE TANK LOCATION AND SIZE WITH PROPANE SUPPLIER. CONTRACTOR RESPONSIBLE FOR PROPANE PIPING, ASSOCIATED ACCESSORIES AND REQUIRED EQUIPMENT FOR COMPLETE WORKING SYSTEM.
- PROVIDE AQUA SYSTEMS MULTI UNIT MODEL #500. PROVIDE ALL ASSOCIATED COMPONENTS INCLUDING RESIN TANKS, BRINE TANK, PIPING, VALVES AND CONTROLS. NEEDED FOR A COMPLETE OPERATIONAL SOFTENER SYSTEM.

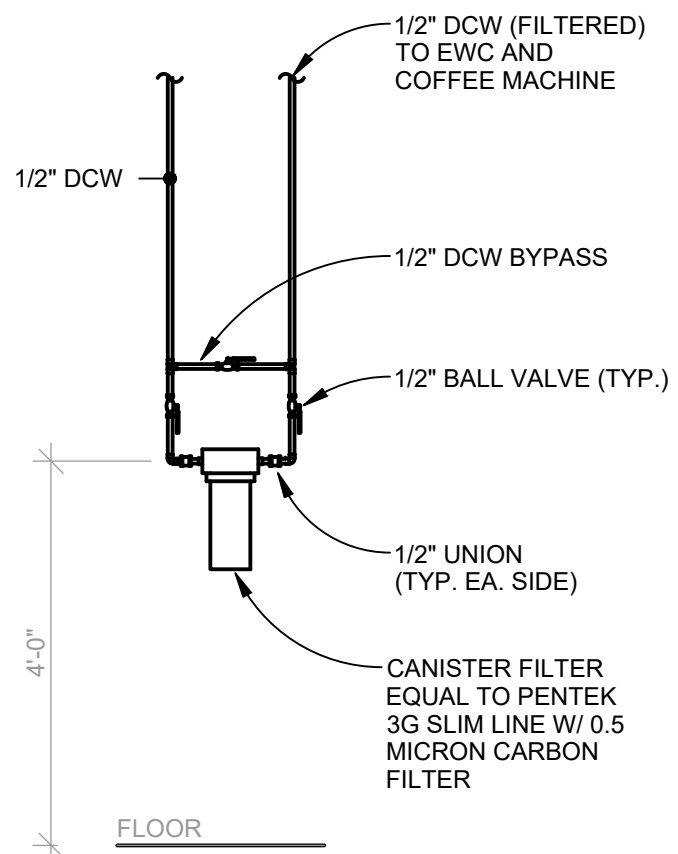
GENERAL NOTES

- PROVIDE "T" FITTINGS AT THE TOP OF ALL RISERS.



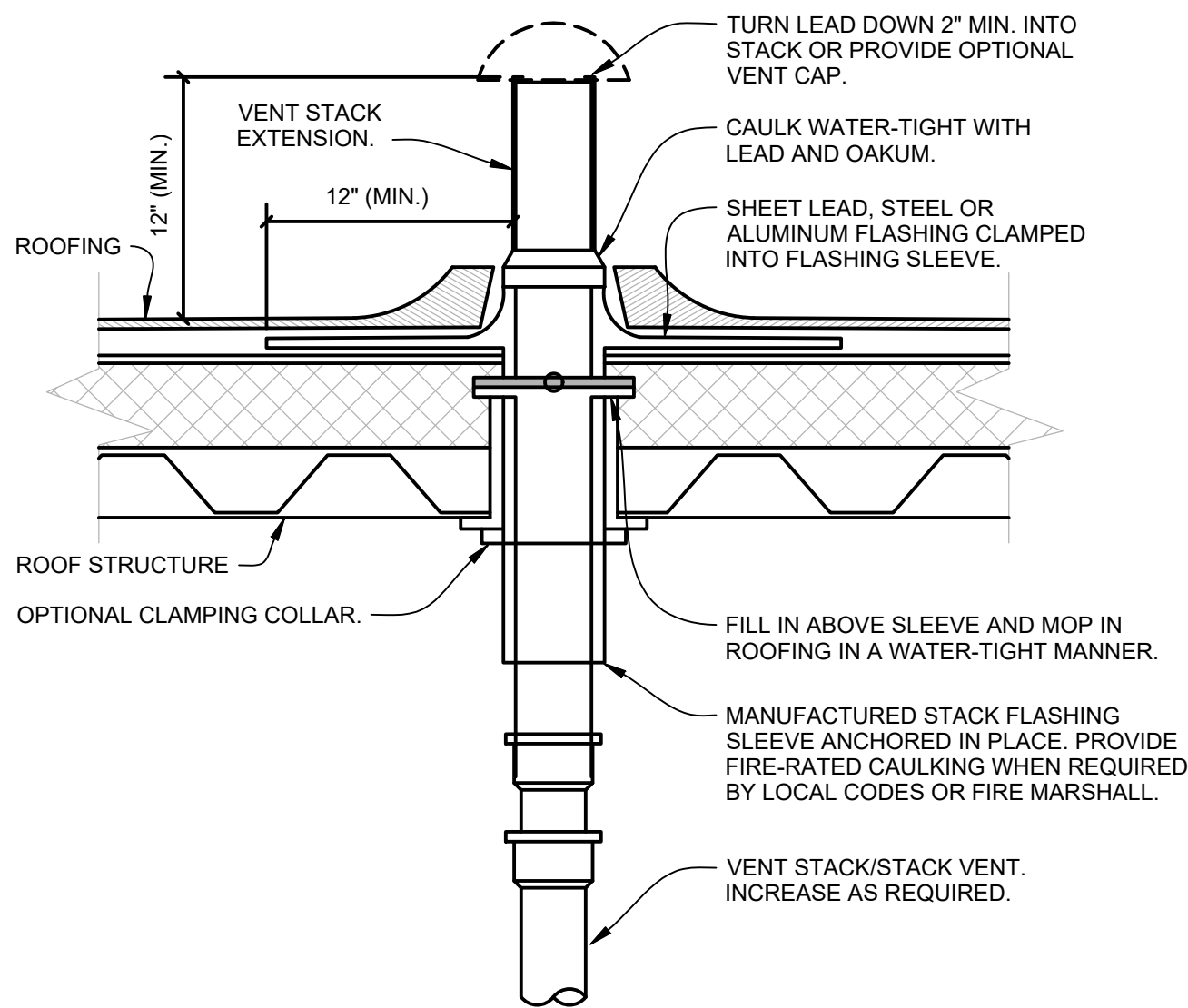
2 SECTION AT PLMB. CHASE

P101 3/16" = 1'-0" 0 4 8 12

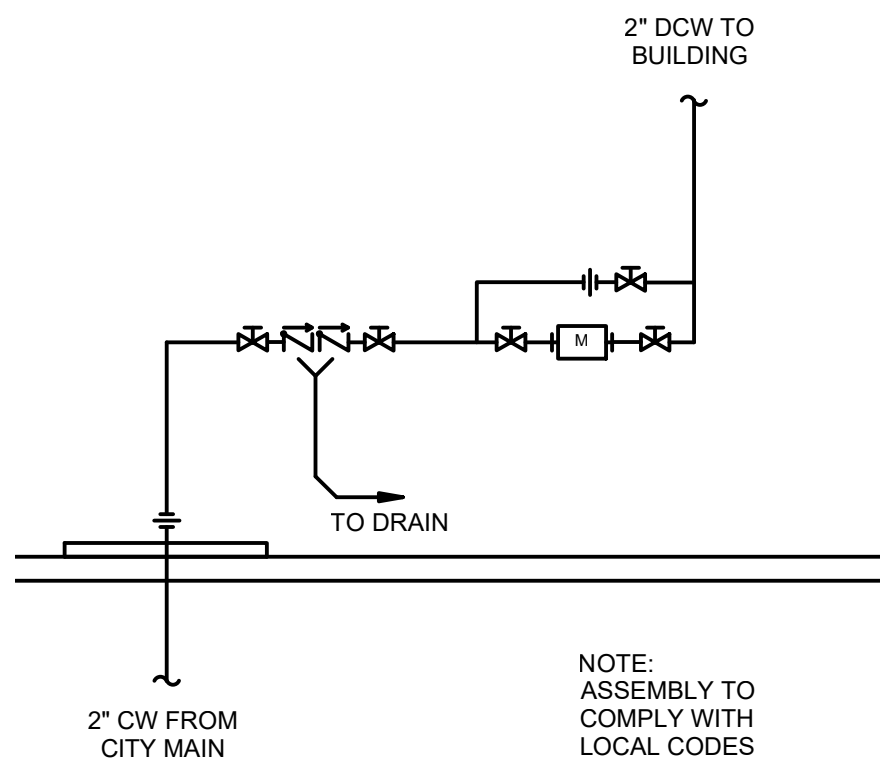


3 SECTION AT FILTER

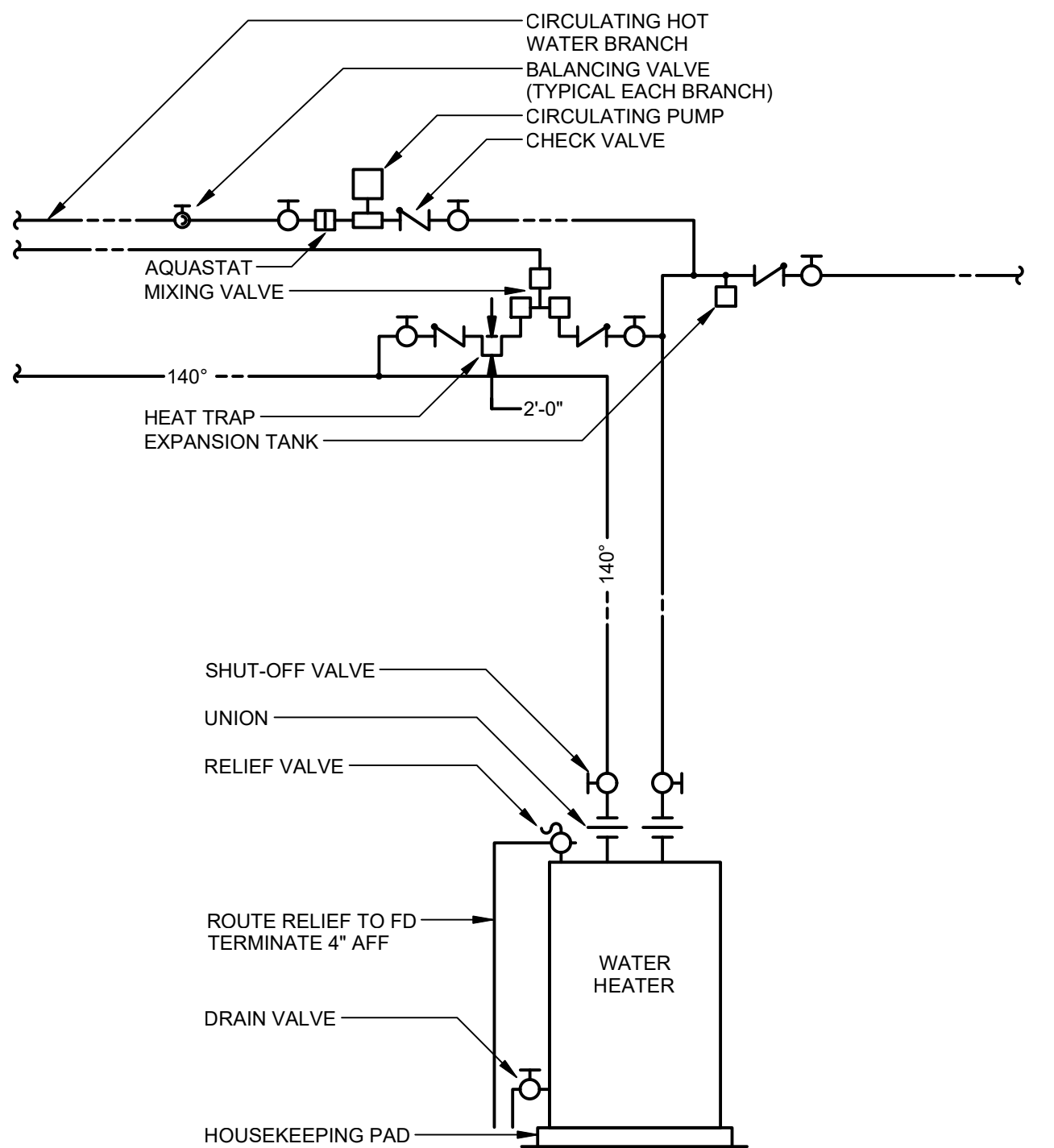
P101 1/2" = 1'-0"



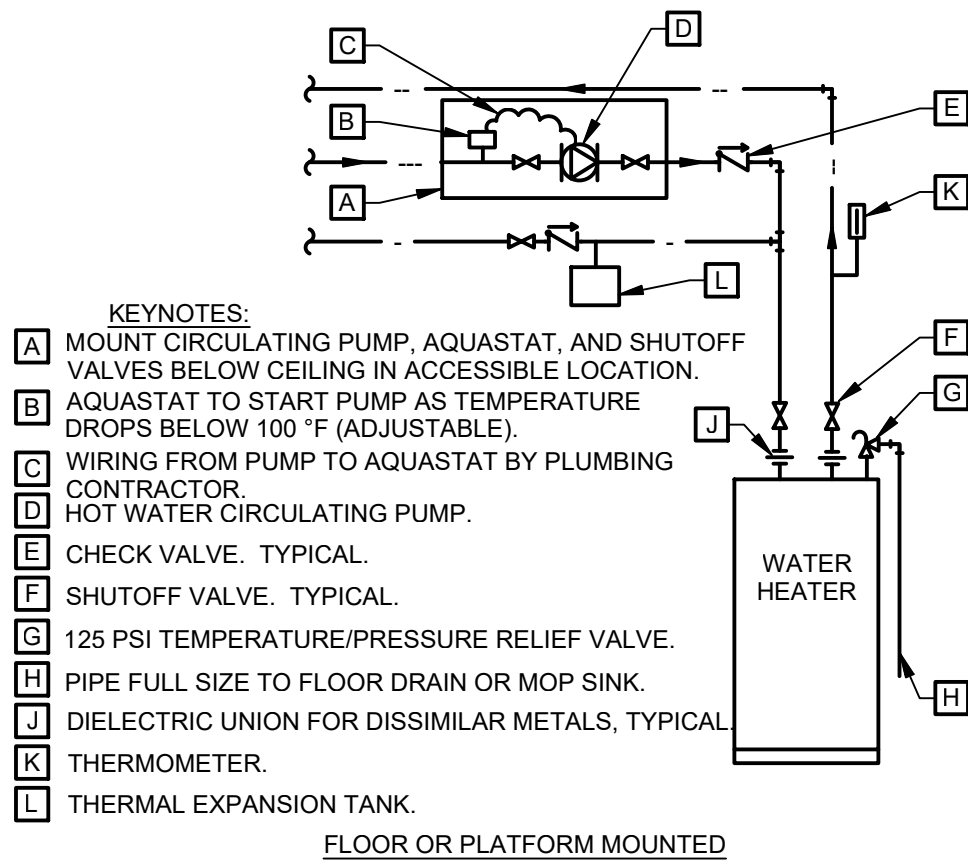
1 VENT THROUGH ROOF SCHEMATIC
P401 NO SCALE



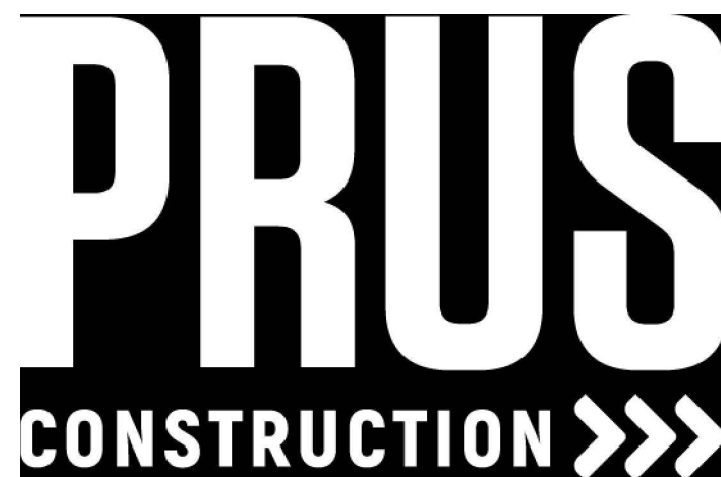
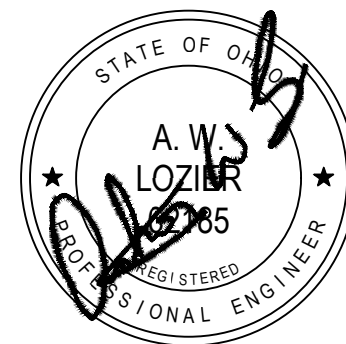
2 CITY WATER SERVICE PIPING DETAIL
P401 NO SCALE



3 WATER HEATER PIPING DETAIL - SINGLE DUAL TEMPERATURE
P401 NO SCALE



4 HOT WATER CIRCULATING PUMP PIPING DETAIL
P401 NO SCALE



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 (5 1 3) . 7 2 1 . 0 6 1 1

Record Drawings
 09/16/2019

Revisions:
 Issue Date: August 3, 2018

I-71 Rest Areas

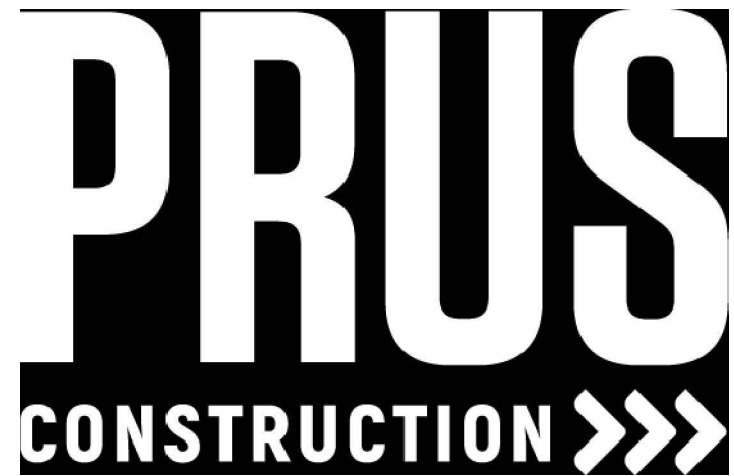
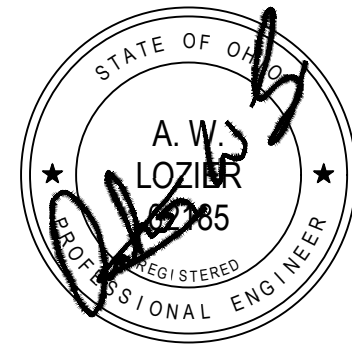
Mile Marker 34
 South Bound
 Warren County, Ohio

Plumbing
 Details

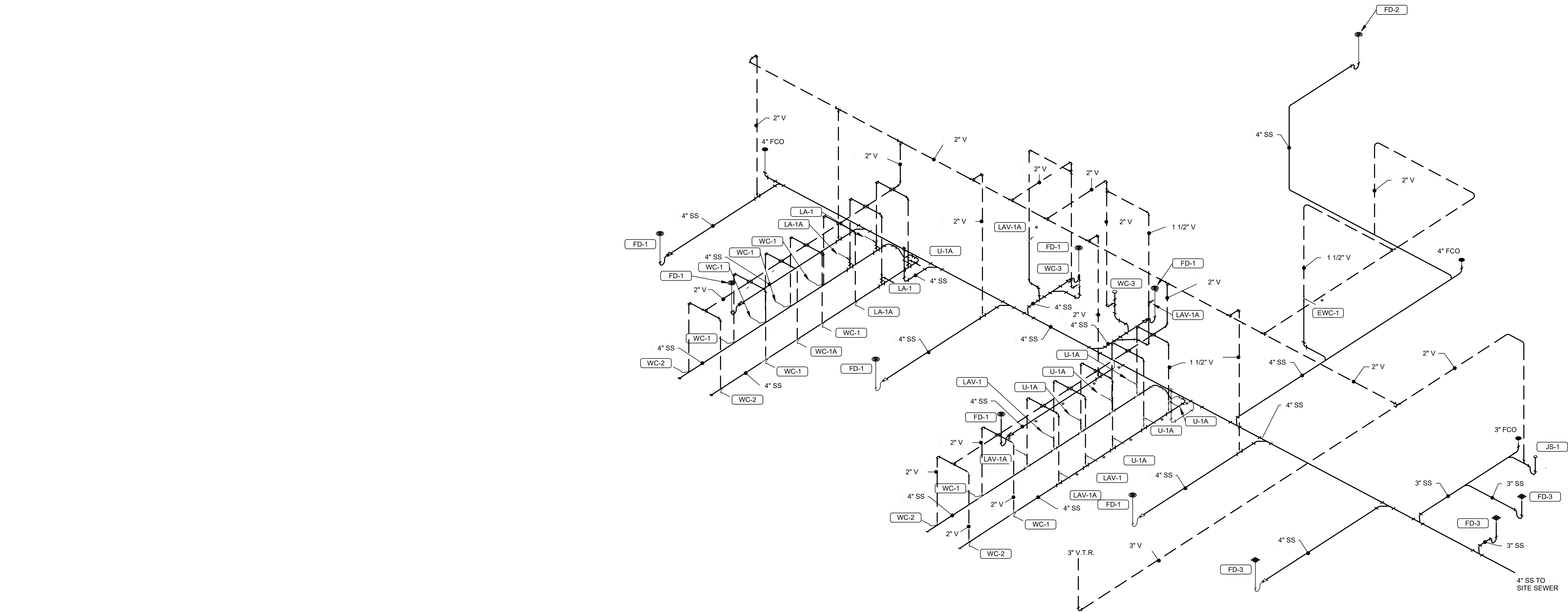
Project No.

18084

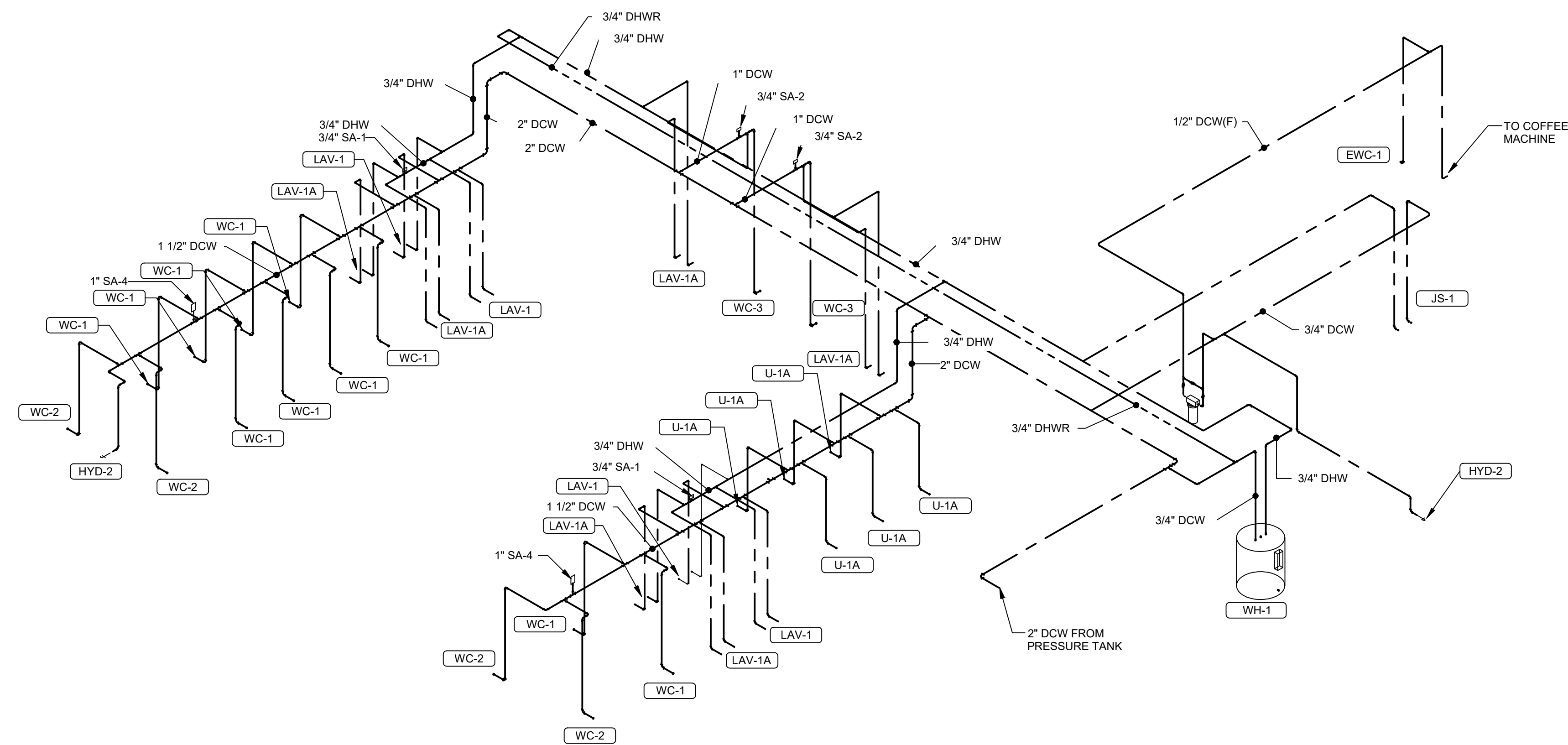
SP401



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2 WASTE & VENT RISER DIAGRAM
P402 NO SCALE



1 DOMESTIC WATER RISER DIAGRAM
P402 NO SCALE

Record Drawings
09/16/2019

Revisions:
Issue Date: August 3, 2018

I-71 Rest Areas

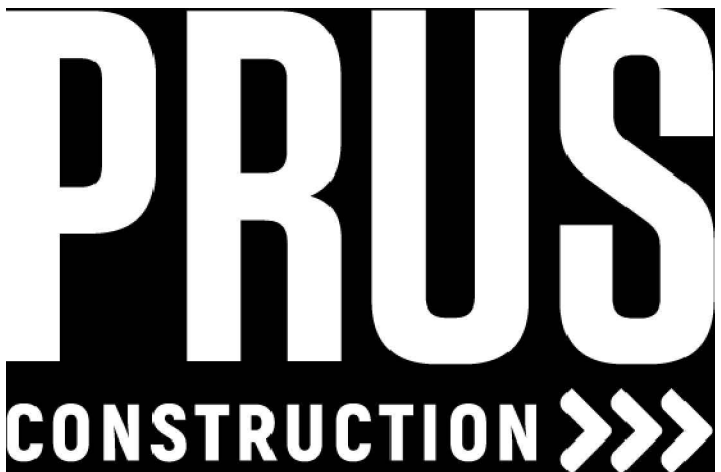
Mile Marker 34
South Bound
Warren County, Ohio

Plumbing
Riser Diagrams

Project No.

18084

SP402



Record Drawings

09/16/2019

Revisions:

Issue Date: August 3, 2018

I-71 Rest Areas

Mile Marker 34

South Bound

Warren County, Ohio

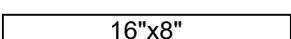
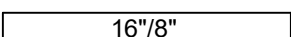
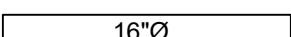
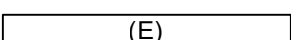
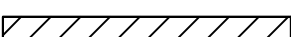
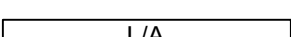
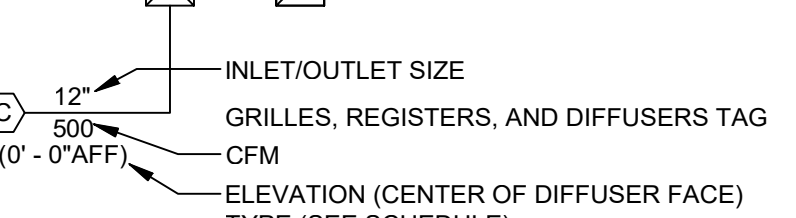
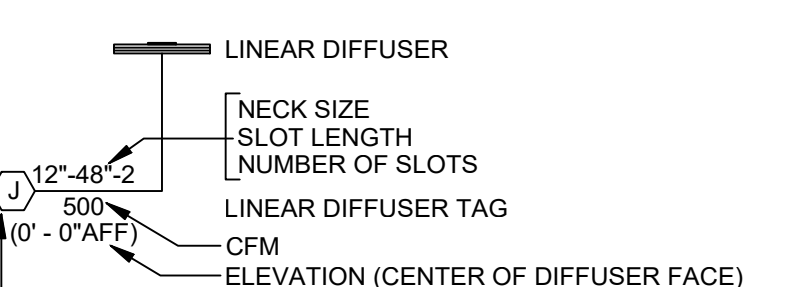
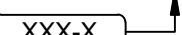
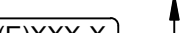
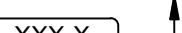
HVAC

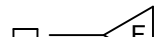
Title Sheet

Project No.

18084

SH001

GENERAL MECHANICAL SYMBOLS	
	REVISION NUMBER - SHOWN ON PLANS
	POINT WHERE NEW CONNECTS TO EXISTING
	NUMBER OF DETAIL ON SHEET NUMBER OF SHEET WHERE DETAIL APPEARS
	KEYNOTE
	CONTINUATION SYMBOL
	ROOM NAME AND NUMBER
	ITEM TO BE DEMOLISHED
	AREA NOT IN CONTRACT
HVAC SYMBOLS	
	SQUARE DUCT SIZE TAG (WIDTH x HEIGHT)
	OVAL DUCT SIZE TAG (WIDTH / HEIGHT)
	ROUND DUCT SIZE TAG (DIAMETER)
	EXISTING DUCT TAG
	DUCT BEING DEMOLISHED
	SUPPLY AIR
	OUTSIDE AIR
	RETURN AIR
	TRANSFER AIR
	EXHAUST AIR
	RELIEF AIR
	GREASE EXHAUST AIR
	SMOKE EXHAUST AIR
	RECTANGULAR SUPPLY/OUTSIDE AIR DUCT RISE
	ROUND SUPPLY/OUTSIDE AIR DUCT RISE
	RECTANGULAR RETURN/TRANSFER AIR DUCT RISE
	ROUND RETURN/TRANSFER AIR DUCT RISE
	RECTANGULAR EXHAUST/RELIEF AIR DUCT RISE
	ROUND EXHAUST/RELIEF AIR DUCT RISE
	SUPPLY OUTLET
	RETURN/EXHAUST INLET
	INLET/OUTLET SIZE GRILLES, REGISTERS, AND DIFFUSERS TAG CFM ELEVATION (CENTER OF DIFFUSER FACE) TYPE (SEE SCHEDULE)
	LINEAR DIFFUSER NECK SIZE SLOT LENGTH NUMBER OF SLOTS LINEAR DIFFUSER TAG CFM ELEVATION (CENTER OF DIFFUSER FACE) TYPE (SEE SCHEDULE)
	MECHANICAL EQUIPMENT
	MECHANICAL EQUIPMENT TAG
	EXISTING MECHANICAL EQUIPMENT
	EXISTING MECHANICAL EQUIPMENT TAG (TYPICAL FOR ALL EXISTING TAGS)
	MECHANICAL EQUIPMENT FOR REFERENCE
	MECHANICAL EQUIPMENT TAG (REFER TO OTHER DISCIPLINE FOR ADDITIONAL INFORMATION)

HVAC DEVICE SYMBOLS	
	CARBON DIOXIDE SENSOR
	CARBON MONOXIDE SENSOR
	NITROGEN DIOXIDE SENSOR
	HUMIDITY SENSOR
	HUMIDISTAT
	TEMPERATURE & HUMIDITY SENSOR
	TEMPERATURE SENSOR
	THERMOSTAT
	MANUAL SWITCH
	SENSOR
	FIRE DAMPER
	SMOKE DAMPER
	MOTORIZED DAMPER
	MANUAL BALANCING DAMPER
	BACKDRAFT DAMPER
	COMBINATION FIRE/SMOKE DAMPER

EQUIPMENT ABBREVIATIONS	
AC	AIR CONDITIONING UNIT
ACC	AIR COOLED CONDENSER
ACCU	AIR COOLING CONDENSING UNIT
AFMS	AIR FLOW MEASURING STATION
AHU	AIR HANDLING UNIT
AS	AIR SEPARATOR
B	BOILER
CF	CABINET FAN
CF	CHEMICAL FEEDER
CFP	CHEMICAL FEEDER PUMP
CH	CHILLER
CRU	CONDENSATE RETURN UNIT
CT	COOLING TOWER
CUH	CABINET UNIT HEATER
CWP	CONDENSER WATER PUMP
CHWP	CHILLED WATER PUMP
DBP	DOMESTIC WATER BOOSTER PUMP
DC	DUCT MOUNTED COIL
DCP	DOMESTIC WATER CIRCULATING PUMP
EF	EXHAUST FAN
EDC	ELECTRIC DUCT COIL
EWV	EXPANSION TANK
FCU	ELECTRIC WATER HEATER
FAN COIL UNIT	FAN COIL UNIT
FP	FIRE PUMP
GI	GREASE INTERCEPTOR
GRV	GRAVITY ROOF VENTILATOR
H	HUMIDIFIER
HWP	HEATING WATER PUMP
HX	HEAT EXCHANGER
HPU	HEAT PUMP UNIT
HRU	HEAT RECOVERY UNIT
ILC	INLINE CENTRIFUGAL
PF	PROPELLER FAN
PRV	POWER ROOF VENTILATOR
PWF	POWER WALL FAN
RE	RETURN/EXHAUST FAN
RTU	ROOFTOP UNIT
SA	SHOCK ABSORBER
SAT	SOUND ATTENUATOR
SEP	SEWAGE EJECTOR PUMP
SF	SUPPLY FAN
SP	SUMP PUMP
UH	UNIT HEATER
US	UTILITY SET
UV	UNIT VENTILATOR
WFMS	WATER FLOW MEASURING STATION
WH	WATER HEATER

ABBREVIATIONS	
&	AND
Ø	ROUND
A	AIR
AB	ABOVE BASE
ABV	ABOVE
AC	AIR CONDITIONING
ACOUS	ACOUSTICAL
AD	AREA DRAIN
ADD	ADDENDUM
ADDL	ADDITIONAL
AFF	ABOVE FINISHED FLOOR
LB/HR	POUNDS PER HOUR
AG	ABOVE GROUND
ALT	ALTERNATE
ALUM	ALUMINUM
AP	ACCESS PANEL
APPROX	APPROXIMATE
ARCH	ARCHITECT/ARCHITECTURAL
AV	ACID RESISTANT VENT
AW	ACID RESISTANT WASTE
AUTO	AUTOMATIC
BFF	BELOW FINISHED FLOOR
BLDG	BUILDING
BLW	BELOW
BM	BEAM
BO	BY OTHER
BOT	BOTTOM
BSMT	BASEMENT
BTU	BRITISH THERMAL UNITS
BTUH	BRITISH THERMAL UNITS PER HOUR
BTWN	BETWEEN
CAP	CAPACITY
CB	CATCH BASIN
CCW	COUNTER CLOCKWISE
CFCV	CONSTANT FLOW CONTROL VALVE
CFM	CUBIC FEET PER MINUTE
CHW	CIRCULATING HOT WATER
CI	CAST IRON
CLG	CEILING
CLG	COOLING
CO	CLEAN OUT
COL	COLUMN
COMB	COMBINATION
CONC	CONCRETE
COND	CONDENSATE
CONF	CONFERENCE
CONN	CONNECT
CONST	CONSTRUCTION
CONT	CONTINUE/CONTINUATION
CONTR	CONTRACT/CONTRACTOR
COORD	COORDINATE
ORD	CENTER
CUFT	CUBIC FEET
CV	CHECK VALVE
CW	COLD WATER
CW	CLOCKWISE
D	DEGREE
DB	DRY BULB
DET	DETAIL
DIA	DIAMETER
DIAG	DIAGONAL
DISCH	DISCHARGE
DIV	DIVISION
DI	DEIONIZED WATER
DMPR	DAMPER
DN	DOWN
DWG	DRAWING
DW	DISTILLED WATER
EA	EACH
EAT	ENTERING AIR TEMPERATURE
EL	ELBOW
ELEC	ELECTRICAL
ELEV	ELEVATION
EP	EXPLOSION PROOF
EQ	EQUAL
EQUIP	EQUIPMENT
EWC	ELECTRIC WATER COOLER
EWT	ENTERING WATER TEMPERATURE
E/A	EXHAUST AIR
EAH	EXHAUST HOOD
EXIST	EXISTING
EXP	EXPANSION
EXPJT	EXPANSION JOINT
SECT	SECTION
EXT	EXTERIOR
F	DEGREES FAHRENHEIT
FCO	FLOOR CLEAN OUT
FD	FLOOR DRAIN
FD	FIRE DAMPER
FDV	FIRE DEPARTMENT VALVE
FHC	FIRE HOSE CABINET
FL	FLOOR
FLEX	FLEXIBLE
FLG	FLANGE
FO	FUEL OIL
FOV	FUEL OIL VENT
FOR	FUEL OIL RETURN
FOS	FUEL OIL SUPPLY
FPM	FEET PER MINUTE
FRP	FIBERGLASS REINFORCED PIPE
FS	FULL SIZE
FS	FLOOR SINK
FT	FOOT/FEET
FTG	FOOTING
FTR	FIN TUBE RADIATION
FUT	FUTURE
GA	GAGE/GAUGE
GAL	GALLON
GALV	GALVANIZED
GC	GENERAL CONTRACTOR
GEN	GENERATOR
GENL	GENERAL
GPH	GALLONS PER MINUTE
GR	GRADE
GW	GREASE WASTE
HB	HOSE BIB
HD	HEAD
HORZ	HORIZONTAL
HP	HORSE POWER
HP	HIGH PRESSURE
HTG	HEATING
HTR	HEATER
HW	HOT WATER
HYD	HYDRANT
ID	INDIRECT
INCH	INCH
INL	INLET
INSUL	INSULATION
INT	INTERIOR
INV	INVERT
INWG	INCHES WATER GAUGE
JST SPC	JOIST SPACE
JT	JOINT
LAB	LABORATORY
LB	POUND
LB/HR	POUNDS PER HOUR
LAT	LEAVING AIR TEMPERATURE
LF	LINEAL FOOT
LOC	LOCATION
LP	LOW PRESSURE
LPG	LIQUEFIED PETROLEUM GAS
LR	LIQUID REFRIGERANT
LS	LAWN SPRINKLER
LVR	LOUVER
LWT	LEAVING WATER TEMPERATURE
M/A	MIXED AIR
MAN	MANUAL
MATL	MATERIAL
MAV	MANUAL AIR VENT
MAX	MAXIMUM
MBD	MOTORIZED BYPASS DAMPER
MBH	ONE THOUSAND BTU PER HOUR
MCV	ONE THOUSAND CUBIC FEET
MCW	MAKE-UP COLD WATER
MD	MOTORIZED DAMPER
MECH	MECHANICAL
MFR	MANUFACTURER
MH	MANHOLE
MIN	MINIMUM
MISC	MISCELLANEOUS
MTR	MOTOR
MUA	MAKE-UP/AIR
N	NECK
NC	NOISE CRITERIA
NC	NORMALLY CLOSED
NIC	NOT IN CONTRACT
NO	NUMBER
NO	NORMALLY OPEN
NOM	NOMINAL
NTS	NOT TO SCALE
O	OXYGEN
O/A	OUTSIDE AIR
OC	ON CENTER
OF	OVERFLOW
OPNG	OPENING
ORD	OVERFLOW ROOF DRAIN
PD	PRESSURE DROP
PIV	POST INDICATOR VALVE
PLBG	PLUMBING
PR	PAIR
PREL	PRELIMINARY
PRESS	PRESSURE
PRIM	PRIMARY
PRV	PRESSURE REDUCING VALVE
PSI	POUNDS PER SQUARE INCH
PSIG	POUNDS PER SQUARE INCH GAUGE
PW	POTABLE WATER
PWR	POWER
R	DUCT RISER
R/A	RETURN AIR
RCP	RADIANT CEILING PANEL
RD	ROOF DRAIN
REC	RECESSED
RED	REDUCER
REFR	REFRIGERATION
RH	RELATIVE HUMIDITY
REQD	REQUIRED
REV	REVERSE
R/LA	RELIEF AIR
RM	ROOM
RPM	REVOLUTIONS PER MINUTE
RW	RAIN WATER
SF	SQUARE FOOT
S/A	SUPPLY AIR
SAN	SANITARY
SCHED	SCHEDULE
SECT	SECTION
SF	SQUARE FOOT
SD	SMOKE DAMPER
SHT	SHEET
SIM	SIMILAR
SLV	SLEEVE
SM	SURFACE MOUNT
SP	STANDPIPE
SP	STATIC PRESSURE
SPEC	SPECIFICATION
SPS	STATIC PRESSURE STATION
SQ	SQUARE
SR	SUCTION REFRIGERANT
SSDRAIN	SOIL SUBDRAIN
SS	STAINLESS STEEL
STD	STANDARD
STM	STEAM
STRUCT	STRUCTURAL
SUCT	SUCTION
SUSP	SUSPENDED
T	THERMOSTAT
TCP	TEMPERATURE CONTROL PANEL
TD	TEMPERATURE DROP
TDR	TRENCH DRAIN
TEFC	TOTALLY ENCLOSED FAN COOLED
TEMP	TEMPERATURE
TYP	TYPICAL
UFD	UNDER FLOOR DUCT
UG	UNDERGROUND
VAC	VACUUM
V	VENT
VAV	VARIABLE AIR VOLUME
VEL	VELOCITY
VENT	VENTILATION
VERT	VERTICAL
VOL	VOLUME
VTR	VENT THROUGH ROOF
W	WASTE
WB	WET BULB
WCO	WALL CLEAN OUT
WH	WALL HYDRANT

PROJECT GENERAL NOTES	
* NEW 1	COORDINATE INSTALLATION OF PIPING, DUCTWORK, CONDUIT, LIGHTS, CABLE TRAY, STRUCTURE, AND EQUIPMENT TO PREVENT CONFLICTS.
* NEW 2	THE CONTRACTOR SHALL BE FAMILIAR WITH ALL THE CONDITIONS BOTH EXISTING AND THOSE ILLUSTRATED BY THESE DOCUMENTS AS WELL AS THOSE WHICH CAN BE REASONABLY ANTICIPATED INCLUDING, BUT NOT LIMITED TO ARCHITECTURAL, ELECTRICAL, VENTILATION, PLUMBING, AND OTHER SYSTEMS INVOLVED ON THIS PROJECT.
* NEW 3	FINAL PRODUCT SHALL BE A COMPLETE AND FUNCTIONING SYSTEM, AND SHALL CONFORM TO ALL REQUIREMENTS OF APPLICABLE FEDERAL, STATE, AND LOCAL CODES, INCLUDING BUT NOT LIMITED TO THE INTERNATIONAL BUILDING CODE AND INTERNATIONAL MECHANICAL CODE.
* NEW 4	LOCATE EQUIPMENT REQUIRING ACCESS 2'-0" MAXIMUM ABOVE CEILING.
* NEW 5	ALL ROOF MOUNTED EQUIPMENT SHALL BE A MINIMUM 10'-0" FROM EDGE OF ROOF.
* NEW 6	LOCATE DUCTWORK, PIPING AND MECHANICAL EQUIPMENT AWAY FROM THE SPACE ABOVE ELECTRICAL PANELS, TRANSFORMERS AND OTHER ELECTRICAL EQUIPMENT.
* NEW 7	FIRE SEAL AROUND DUCT AND PIPING PENETRATIONS OF FIRE RATED WALLS. REFER TO SPECIFICATION.
* NEW 8	PROVIDE SLEEVES AND/OR OPENINGS TO RUN PIPES AND DUCTS THROUGH FOUNDATIONS, FLOORS, WALLS, AND ROOF.
* NEW 9	ADJUST PIPING AND DUCTWORK SIZES TO PROPERLY CONNECT TO MECHANICAL EQUIPMENT.
* NEW 10	REFER TO PLUMBING SERIES DRAWINGS FOR GAS AND A.C. CONDENSATE DRAIN PIPING.
* NEW 11	PIPE SIZES SHOWN SHALL BE CONTINUED IN THE DIRECTION OF FLOW UNTIL ANOTHER SIZE IS SHOWN.
* NEW 12	FOR DETAILS, EQUIPMENT CONNECTIONS, AND PIPE SIZES NOT SHOWN ON THE SEGMENTS, REFER TO DETAILS, SCHEDULES, AND SPECIFICATIONS.
* NEW 13	INSTALL ALL EQUIPMENT IN ACCORDANCE WITH THE RESPECTIVE MANUFACTURER'S WRITTEN INSTALLATION INSTRUCTIONS, AT A LEVEL OF QUALITY AND WORKMANSHIP CONSISTENT WITH THE SPECIFICATIONS.
* NEW 14	LOCATIONS OF PIPING, DUCTWORK AND EQUIPMENT AS INDICATED ON THE DRAWING, ARE APPROXIMATE AND SUBJECT TO MINOR ADJUSTMENTS IN THE FIELD. WORK SHALL BE COORDINATED WITH ALL OTHER TRADES TO AVOID INTERFERENCE IN THE FIELD.
* NEW 15	INSTALL EXPOSED PIPING AND DUCTWORK AS HIGH AS PRACTICAL IN ROOMS WITHOUT CEILINGS.
HVAC GENERAL NOTES	
* NEW 2	CONTRACTOR SHALL LOCATE THERMOSTATS AND TEMPERATURE SENSORS AT 5'-0" AFF, A MINIMUM OF 8" FROM LIGHT SWITCH.
* NEW 4	CONDENSATE DRAINS SHALL BE SUPPLIED FOR ALL COOLING EQUIPMENT. CONTRACTOR SHALL ENSURE PROPER INSTALLATION AND DRAINAGE AS REQUIRED BY FEDERAL, STATE, AND LOCAL CODES. CONDENSATE PIPING SHALL BE TYPE "L" COPPER.
* NEW 5	PROVIDE A 4" HOUSEKEEPING PAD FOR EACH PIECE OF MECHANICAL EQUIPMENT. COORDINATE SIZES WITH MECHANICAL EQUIPMENT SELECTED.
* NEW 6	ALL SUPPLY, RETURN, AND EXHAUST DUCTWORK SHALL BE RATED FOR PRESSURE CLASS OF 2" W.G. UNLESS NOTED OTHERWISE.
* NEW 7	THIS CONTRACTOR SHALL BE REQUIRED TO REPLACE FILTERS ON HVAC EQUIPMENT AFTER ALL DUST PRODUCING CONSTRUCTION HAS BEEN COMPLETED AND PRIOR TO THE FINAL PUNCH.
ROOM ID LIST	
NUMBER	NAME
101	VESTIBULE
102	LOBBY
103	VENDING
104	STORAGE
105	MAINTAINANCE
106	JANITOR CLOSET
107	FAMILY RESTROOM
108	FAMILY RESTROOM
109	RESTROOM ENTRANCE
110	WOMEN'S RESTROOM
111	PLUMBING CHASE
112	WOMEN'S RESTROOM
113	MEN'S RESTROOM
114	PLUMBING CHASE
115	MEN'S RESTROOM
116	RESTROOM ENTRANCE
117	MECHANICAL ROOM
118	PORCH
* NOTE *	
ALL OF GENERAL NOTES ON THIS SHEET ARE TO BE APPLIED TO ALL OTHER DRAWINGS IN THIS SET. THE SYMBOLS AND ABBREVIATIONS SHOWN ON THIS SHEET MAY OR MAY NOT BE USED IN THIS SET OF DRAWINGS.	

AIR HANDLING UNIT SCHEDULE																												
UNIT NO.	MANUFACTURER	MODEL NO.	TYPE	ARRANGEMENT	OUTDOOR AIRFLOW	INDOOR FURNACE			GAS HEAT EXCHANGER						FILTERS			INDOOR EVAPORATOR COOLING COIL						ELECTRICAL		REMARKS		
						AIRFLOW	EXT. STATIC PRESS.	FAN RPM	MOTOR		BURNER QTY.	BURNER STAGES	HEATING INPUT	FUEL TYPE	HEATING OUTPUT	TYPE	AREA	EFFICIENCY	MODEL	TOTAL CLG. CAP.	SENSIBLE CLG. CAP.	ENTERING AIR TEMP. DB	ENTERING AIR TEMP. WB	LEAVING AIR TEMP. DB	LEAVING AIR TEMP. WB		VOLTAGE	PHASE
									QTY.	POWER																		
AHU-1	TRANE	S9X2D120U5PSA	SPLIT SYSTEM HEAT PUMP	UPFLOW	1010 CFM	2000 CFM	1.00 in-wg	1075	1	1 hp	1	2	120,000 Btu/h	LP	107,000 Btu/h	1" PLEATED	4.2 SF	MERV 8	4PXCDU60BS3	58677 Btu/h	41631 Btu/h	77.7 °F	66.3 °F	58.2 °F	56.6 °F	120 V	1	PROVIDE WITH PROGRAMABLE THERMOSTAT WITH REMOTE SENSOR.
AHU-2	TRANE	S9X2D120U5PSA	SPLIT SYSTEM HEAT PUMP	UPFLOW	1010 CFM	2000 CFM	1.00 in-wg	1075	1	1 hp	1	2	120,000 Btu/h	LP	107,000 Btu/h	1" PLEATED	4.2 SF	MERV 8	4PXCDU60BS3	58677 Btu/h	41631 Btu/h	77.7 °F	66.3 °F	58.2 °F	56.6 °F	120 V	1	PROVIDE WITH PROGRAMABLE THERMOSTAT WITH REMOTE SENSOR.

AIR COOLED CONDENSING UNIT SCHEDULE															
UNIT NO.	MANUFACTURER	MODEL NO.	CONDENSER FAN		COMPRESSOR					ELECTRICAL				INTERLOCK	REMARKS
			MOTOR		TYPE	UNLOADING STEPS	REFRIGERANT TYPE	OUTDOOR AIR TEMP.	COOLING EFFICIENCY (EER)	MCA	MOP	VOLTAGE	PHASE		
			QUANTITY	POWER											
CU-1	TRANE	4TWR7060A	1	0.25 hp	SCROLL	2	R410A	95.0 °F	13	41.0 A	60 A	240 V	1	AHU-2	PROVIDE DUAL REFRIGERATION LINE SETS, COMPLETE WITH ALL REQUIRED ACCESSORIES AND CONTROLS, FROM CONDENSING UNIT TO AIR HANDLER.
CU-2	TRANE	4TWR7060A	1	0.25 hp	SCROLL	2	R410A	95.0 °F	13	41.0 A	60 A	240 V	1	AHU-2	PROVIDE DUAL REFRIGERATION LINE SETS, COMPLETE WITH ALL REQUIRED ACCESSORIES AND CONTROLS, FROM CONDENSING UNIT TO AIR HANDLER.

ENERGY RECOVERY UNIT SCHEDULE																										
UNIT NO.	MANUFACTURER	MODEL NO.	TYPE	COOLING DESIGN HEAT EXCHANGER				HEATING DESIGN HEAT EXCHANGER				SUPPLY FAN				EXHAUST FAN				FILTERS		UNIT WEIGHT	ELECTRICAL		REMARKS	
				OUTDOOR AIR				EXHAUST AIR	OUTDOOR AIR			EXHAUST AIR	AIRFLOW	EXT. STATIC PRESS.	MOTOR		AIRFLOW	EXT. STATIC PRESS.	MOTOR		PRE-FILTER		EFFICIENCY	VOLTAGE		PHASE
				ENTERING AIR TEMP. DB	ENTERING AIR TEMP. WB	LEAVING AIR TEMP. DB	LEAVING AIR TEMP. WB	ENTERING AIR TEMP. DB	ENTERING AIR TEMP. DB	LEAVING AIR TEMP. DB	ENTERING AIR TEMP. DB	QUANTITY			POWER	QUANTITY			POWER	TYPE						
ERU-1	RENEWAIRE	HE2XINH	STATIC PLATE	90.0 °F	73.0 °F	80.5 °F	68.6 °F	75.0 °F	-2.0 °F	43.7 °F	70.0 °F	2020 CFM	0.50 in-wg	1	2 hp	1920 CFM	0.75 in-wg	1	2 hp	2" PLEATED	MERV 8	530 lb	240 V	1	1, 2, 3, 4, 5	

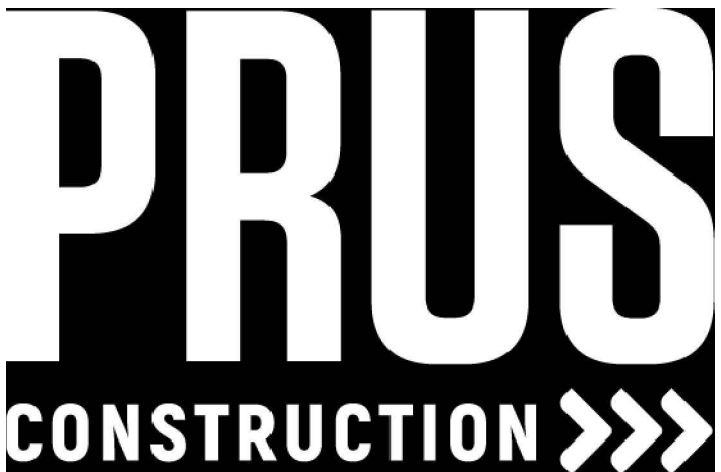
REMARKS:
1. NTERLOCK WITH AHU-2 FOR ERU START/STOP CONTROL AND L-1 FOR DAMPER OPEN SIGNAL.
2. M.C. TO PROVIDE ALL LOW-VOLTAGE WIRING.
3. PROVIDE WITH FACTORY-INSTALLED VFD'S, ONE FOR EACH FAN.
4. PROVIDE WITH INTEGRATED PROGRAMMABLE CONTROLS.
5. PROVIDE WITH FACTORY-MOUNTED FILTER ALARMS.

LOUVER SCHEDULE										
TAG	MANUFACTURER	MODEL	FUNCTION	SIZE	FREE AREA	AIRFLOW	VELOCITY	MATERIAL	DAMPER	REMARKS
L-1	RUSKIN	ELC6375DAX	OUTSIDE AIR	42"x36"	4.6 SF	2020 CFM	437 FPM	ALUMINUM	MOTOR OPERATED	PROVIDE WITH BIRD SCREEN AND 24 VDC DAMPER ACTUATOR. STANDARD COLOR SELECTION BY ARCHITECT. INTERLOCK MOTOR-OPERATED DAMPER WITH ERU-1. M.C. TO PROVIDE ALL LOW-VOLTAGE WIRING.
L-2	RUSKIN	ELBD375E	EXHAUST AIR	30"x30"	2.4 SF	1920 CFM	787 FPM	ALUMINUM	BACKDRAFT	PROVIDE WITH BIRD SCREEN. STANDARD COLOR SELECTION BY ARCHITECT.
L-3	RUSKIN	ELBD375E	EXHAUST AIR	12"x30"	0.2 SF	150 CFM	682 FPM	ALUMINUM	BACKDRAFT	PROVIDE WITH BIRD SCREEN. STANDARD COLOR SELECTION BY ARCHITECT.

ELECTRIC RADIANT HEATER SCHEDULE									
UNIT NO.	MANUFACTURER	MODEL NO.	TYPE	PANEL		ELECTRICAL		PHASE	REMARKS
				WIDTH	LENGTH	HEATING CAP.	VOLTAGE		
RHP-1	INDEECO	AS2448-750-120	RADIANT CEILING PANEL	2' - 0"	4' - 0"	750 W	120 V	1	PROVIDE WITH LINE-VOLTAGE, REMOTE CEILING MOUNTED THERMOSTAT AND PLASTER FRAME FLUSH MOUNT KIT.

EXHAUST FAN SCHEDULE																	
UNIT NO.	MANUFACTURER	MODEL NO.	EXHAUST FAN									UNIT WEIGHT	ELECTRICAL			INTERLOCK	REMARKS
			AIRFLOW	TYPE	WHEEL TYPE	EXT. STATIC PRESS.	FAN RPM	DRIVE TYPE	FAN POWER BHP	MOTOR			FLA	VOLTAGE	PHASE	UNIT NO.	
										QTY.	POWER						
EF-1	GREENHECK	SQ-97-VG	150 CFM	SQUARE INLINE	BACKWARD INCLINED	0.75 in-wg	1640	DIRECT	0.13 hp	1	0.25 hp	47 lb	2.85 A	120 V	1		PROVIDE WITH ECM MOTOR WITH FAN SPEED CONTROLLER. PROVIDE AND INSTALL REMOTE-MOUNTED THERMOSTAT. ALL LOW-VOLTAGE WIRING IS BY M.C.

GRILLES, REGISTERS AND DIFFUSERS SCHEDULE								
TYPE	SYSTEM	MANUFACTURER	MODEL NO.	VOLUME DAMPER	MATERIAL DESCRIPTION	FINISH	SPECIFICATION	REMARKS
A	CEILING DIFFUSER	TITUS	TMSA	---	STEEL	WHITE ENAMEL	24x24 MODULAR FULL-FACE DIFFUSER WITH ROUND NECK	PROVIDE WITH MODEL "PF" SURFACE MOUNTING FRAME.
B	CEILING DIFFUSER	TITUS	TMSA	---	STEEL	WHITE ENAMEL	12x12 MODULAR FULL-FACE DIFFUSER WITH ROUND NECK	PROVIDE WITH MODEL "PF" SURFACE MOUNTING FRAME.
H	SUPPLY REGISTER	TITUS	300RL	OPPOSED BLADE DAMPER	STEEL	WHITE ENAMEL	DOUBLE DEFLECTION REGISTER WITH FRONT BLADES PARALLEL TO LONG DIMENSION. 3/4" SPACING.	
M	CEILING RETURN / TRANSFER GRILLE	TITUS	50F	---	ALUMINUM	WHITE ENAMEL	1/2" x 1/2" x 1" EGGCRATE GRID.	PROVIDE WITH TYPE #3 LAY-IN BORDER AND MODEL "PF" SURFACE MOUNTING FRAME.
O	EXHAUST GRILLE	TITUS	350RL	OPPOSED BLADE DAMPER	STEEL	WHITE ENAMEL	35 DEG. FIXED DEFLECTION REGISTER WITH BLADES PARALLEL TO LONG DIMENSION. 1/2" SPACING.	PROVIDE WITH TYPE "C" CONCEALED SCREW FASTENING.



Record Drawings

09/16/2019

Revisions:
Issue Date: August 3, 2018

I-71 Rest Areas

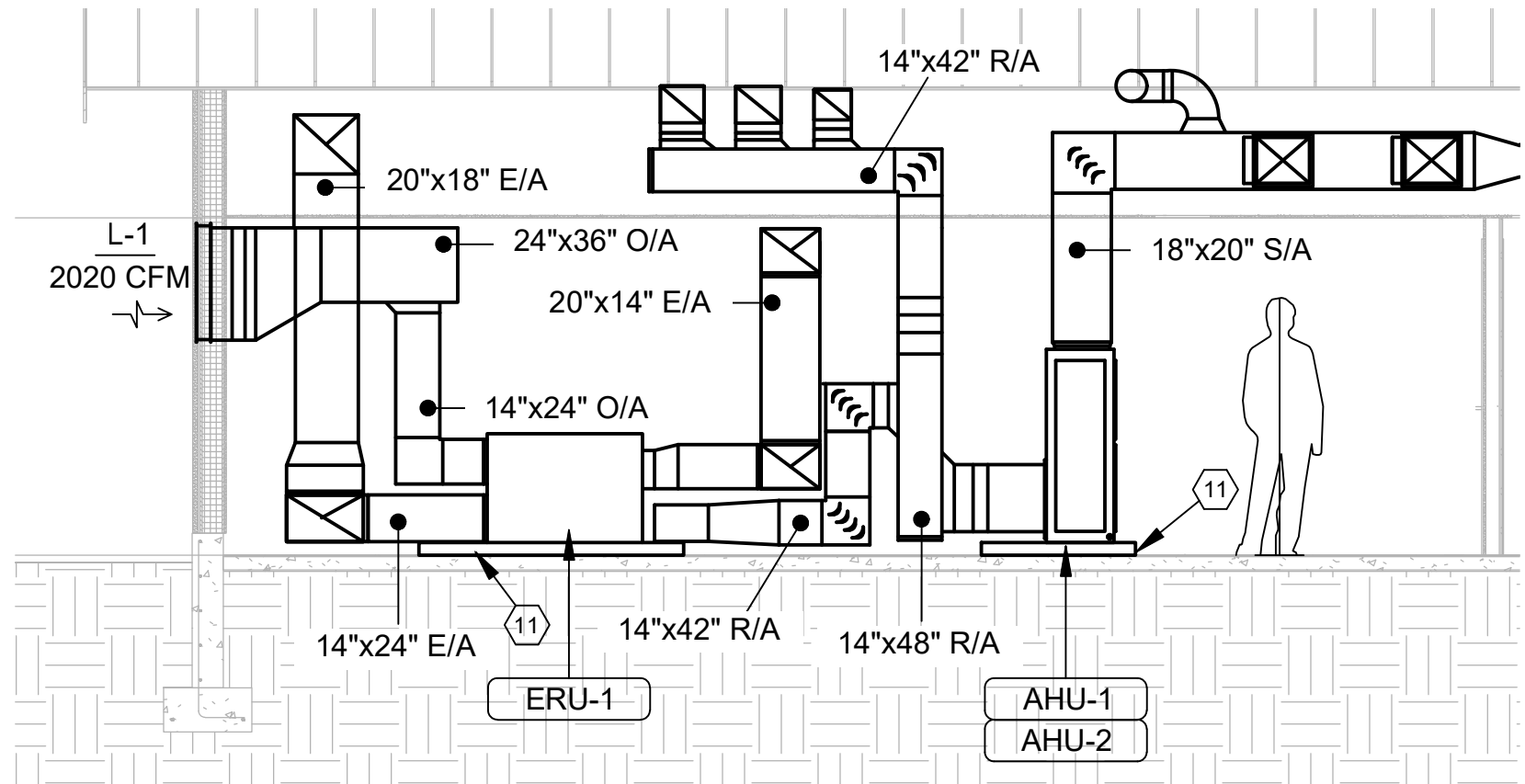
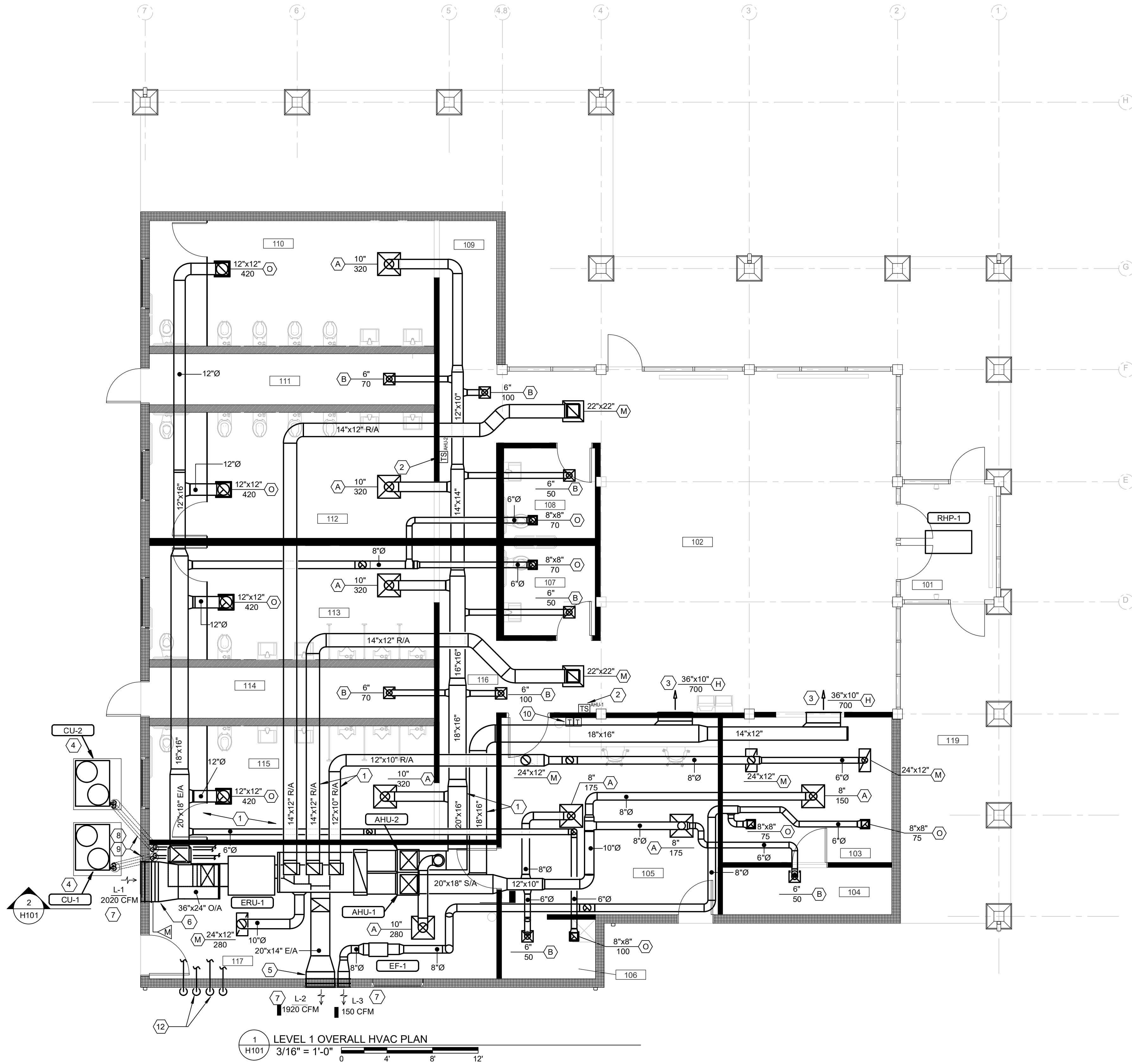
Mile Marker 34
South Bound
Warren County, Ohio

HVAC Schedules

Project No.

18084

SH002



COORDINATE ALL DUCTWORK ROUTING WITH ROOF TRUSS LAYOUT. ALL DUCTWORK RUN IN ATTIC IS TO BE RUN ABOVE BOTTOM CHORD OF TRUSSES.

KEYNOTES

1. RUN DUCTWORK ABOVE CEILING, CENTERED BETWEEN TRUSSES
2. THERMOSTAT REMOTE TEMPERATURE SENSOR. THERMOSTAT SHALL BE LOCATED IN MAINTENANCE ROOM #106, SEE CODED NOTE #10. M.C. TO PROVIDE ALL LOW-VOLTAGE WIRING AND CONTROLS BACK TO THERMOSTAT.
3. WALL MOUNTED SUPPLY REGISTER. MOUNT REGISTERED AT 10'-6" A.F.F. TO CENTERLINE (COORDINATE EXACT LOCATION AND ELEVATION WITH ARCHITECT)
4. CONDENSING UNIT SET ON CONCRETE HOUSEKEEPING PAD. LOCATION SHOWN FOR REFERENCE ONLY. FIELD COORDINATE EXACT LOCATION TO FIT WITHIN NEW LANDSCAPE DESIGN. CONDENSER SHALL BE LOCATED A MINIMUM OF 10'-0" AWAY FROM INTAKE LOUVER L-1.
5. TRANSITION DUCTWORK FROM FULL LOUVER SIZE AND ELEVATION TO DUCT SIZE INDICATED AND UP AS HIGH AS POSSIBLE.
6. PROVIDE LOUVER FULL-SIZE MOTOR-OPERATED DAMPER AND PLENUM BOX (DEPTH AS REQUIRED TO INSTALL DAMPER). TRANSITION FROM PLENUM TO DUCT AS SHOWN IN SECTION 2 ON THIS SHEET AND DETAIL 7 ON SHEET H401
7. WALL MOUNTED LOUVER. COORDINATE EXACT LOCATION AND ELEVATION WITH ARCHITECT.
8. PROVIDE AND INSTALL 6" DIA. SCH. 40 PVC ELECTRICAL CONDUIT (WITH LONG SWEEP ELBOWS) FROM THE CONDENSER PAD TO INSIDE BUILDING. EXTEND CONDUIT UP ABOVE SLAB A MIN. OF 3" AND SEAL PENETRATION WEATHER-TIGHT. (TYP. AT EACH END). PROVIDE SLEEVE FOR CONDUIT AT EXTERIOR WALL FOUNDATION. ROUTE REFRIGERANT LINE SET(S) IN CONDUIT AND SEAL ALL PENETRATIONS WEATHER-TIGHT.
9. ROUTE REFRIGERANT PIPING FROM CU-1/2 TO AHU-1/2 AND PROVIDE ALL ACCESSORIES REQUIRED PER MANUFACTURERS RECOMMENDATIONS.
10. THERMOSTAT FOR AIR HANDLER. M.C. TO PROVIDE ALL LOW-VOLTAGE WIRING AND CONTROLS BACK TO AIR HANDLER.
11. PROVIDE MIN. 3-1/2" HIGH CONCRETE HOUSEKEEPING PAD UNDER MECHANICAL EQUIPMENT.
12. ROUTE COMBUSTION INLET AND EXHAUST PIPING FROM AHU-1/2. TERMINATE AT EXTERIOR WITH LOW-PROFILE CONCENTRIC VENT KIT PROVIDED BY UNIT MANUFACTURER.

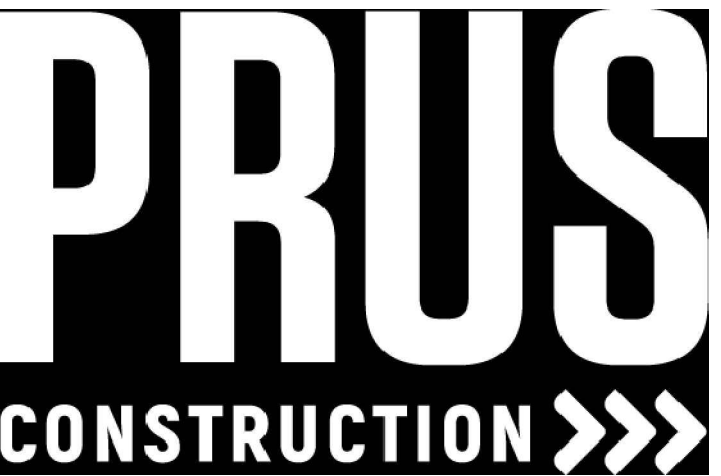
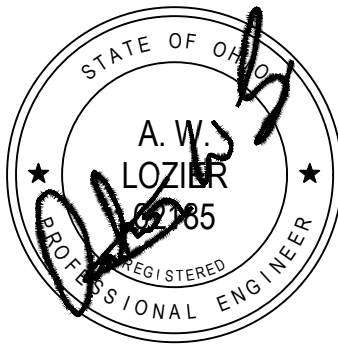
OUTDOOR AIR VENTILATION SCHEDULE: AHU-1 & AHU-2

ROOM NAME	ROOM NUMBER	GROSS FL AREA (SQ. FT.)	NET FL AREA (SQ. FT.)	OCCUPANCY CATEGORY	MAX. NO. OF OCCUPANTS (PER 1000 SF)	OUTSIDE AIR PER OCC. CFM	OUTSIDE AIR PER FL AREA CFM/SQ.FT.	DESIGN NUMBER OF PEOPLE	ACTUAL NUMBER OF PEOPLE	AIR SYSTEM EFFECTIVENESS	INITIAL ZONE OUTSIDE AIR CFM	SYSTEM OCCUPANT DIVERSITY	UNCORRECTED OUTSIDE AIR CFM	DESIGN SUPPLY AIR CFM	OUTSIDE AIR PRIMARY AIR RATIO, (Zp)	ACTUAL OA CFM	ACTUAL OUTDOOR AIR %	EXHAUST REQUIREMENTS				ACTUAL EXHAUST CFM
																		NO. OF FIXTURES	CFM PER FIXTURE	CFM PER SQ. FT.	REQUIRED CFM	
LOBBY	102	860	860	MAIN ENTRY LOBBIES	10	0.06	0.06	9	3	80%	121	100%	97	1400	0.09	707	50.5%				0	
VENDING	103	190	190	SALES	15	7.5	0.12	3	3	80%	57	100%	45	150		76	50.5%			0	0	150
VENDING STORAGE	104	60	60	STORAGE ROOMS	0	0	0.12	0	0	80%	9	100%	7	50	0.18	25	50.5%			0	0	
MAINTENANCE	105	325	325	OFFICE SPACE	5	5	0.06	2	2	80%	37	100%	30	350	0.11	177	50.5%			0	0	
JANITOR CLOSET	106	42	42	JANITOR CLOSET	0	0	0	0	0	80%	0	100%	0	50	0.00	25	50.5%			1	42	100
FAMILY RESTROOM	107	60	60	TOILET ROOM - PUBLIC	0	0	0	0	0	80%	0	100%	0	50	0.00	25	50.5%	1	70	0	70	70
FAMILY RESTROOM	108	60	60	TOILET ROOM - PUBLIC	0	0	0	0	0	80%	0	100%	0	50	0.00	25	50.5%	1	70	0	70	70
RESTROOM ENTRANCE	109	140	140	CORRIDORS	0	0	0.06	0	0	80%	11	100%	8	100	0.11	51	50.5%			0	0	
WOMENS LARGE GROUP RESTROOM	110	275	275	TOILET ROOM - PUBLIC	0	0	0	0	0	80%	0	100%	0	320	0.00	162	50.5%	5	70	0	350	420
PLUMBING CHASE	111	110	110	STORAGE ROOMS	0	0	0	0	0	80%	0	100%	0	70	0.00	35	50.5%			0	0	
WOMENS LARGE GROUP RESTROOM	112	275	275	TOILET ROOM - PUBLIC	0	0	0	0	0	80%	0	100%	0	320	0.00	162	50.5%	5	70	0	350	420
MENS LARGE GROUP RESTROOM	113	250	250	TOILET ROOM - PUBLIC	0	0	0	0	0	80%	0	100%	0	320	0.00	162	50.5%	5	70	0	350	420
PLUMBING CHASE	114	110	110	STORAGE ROOMS	0	0	0	0	0	80%	0	100%	0	70	0.00	35	50.5%			0	0	
MENS LARGE GROUP RESTROOM	115	250	250	TOILET ROOM - PUBLIC	0	0	0	0	0	80%	0	100%	0	320	0.00	162	50.5%	5	70	0	350	420
RESTROOM ENTRANCE	116	130	130	CORRIDORS	0	0	0.06	0	0	80%	10	100%	8	100	0.10	51	50.5%			0	0	
MECHANICAL	117	350	350	WAREHOUSES	0	0	0.06	0	0	80%	26	100%	21	280	0.09	141	50.5%			0	0	
TOTALS:		3,487	3,487					14	14		270		216	4000	37.8%	2020						2070

NOTE: 1. The design number of people shown for each room is the estimated maximum for each room per Ohio Mechanical Code. The actual number of people is based on either the estimated actual occupancy or the short term occupancy.

2. The ventilation air calculations for this schedule are based on Ohio Mechanical Code.

Sum of Room Peak Occupancies =	14	Sum of Room Supply Air Quantities =	4000	CFM	Uncorrected Outdoor Air Flow	V _{ou} =	216	CFM
Peak System Occupancy =	14	Supply Fan Diversity Factor =	100%		Ventilation Efficiency	E _v =	0.70	(Per Ohio Mechanical Code)
Occupant Diversity Factor, (D) =	100%	Actual Total System Supply Air Flow =	4000	CFM	Required OA Flow	V _{ot} =	308	CFM
					Actual Final Outdoor Air Flow		2020	CFM



Revisions:
Issue Date: August 3, 2018

I-71 Rest Areas

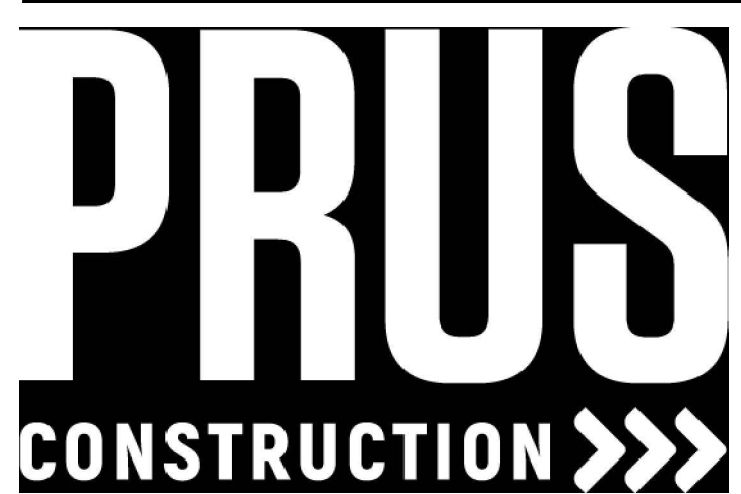
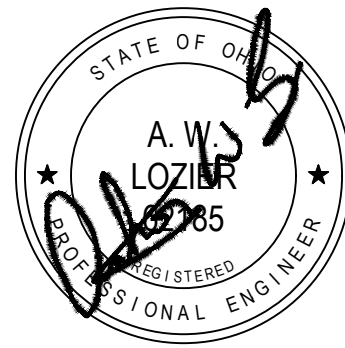
Mile Marker 34
South Bound
Warren County, Ohio

HVAC
Plan

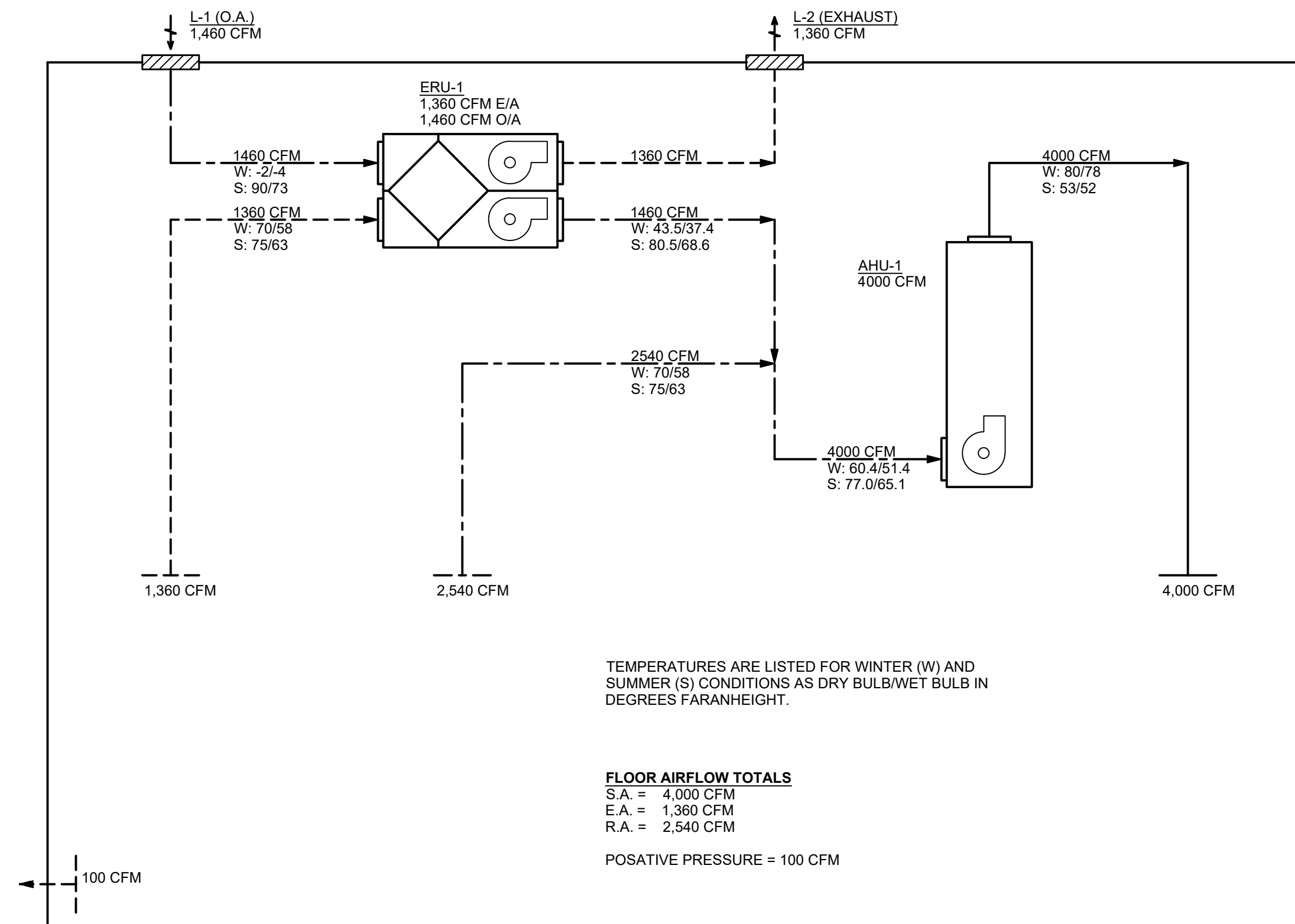
Project No.

SH101

18084

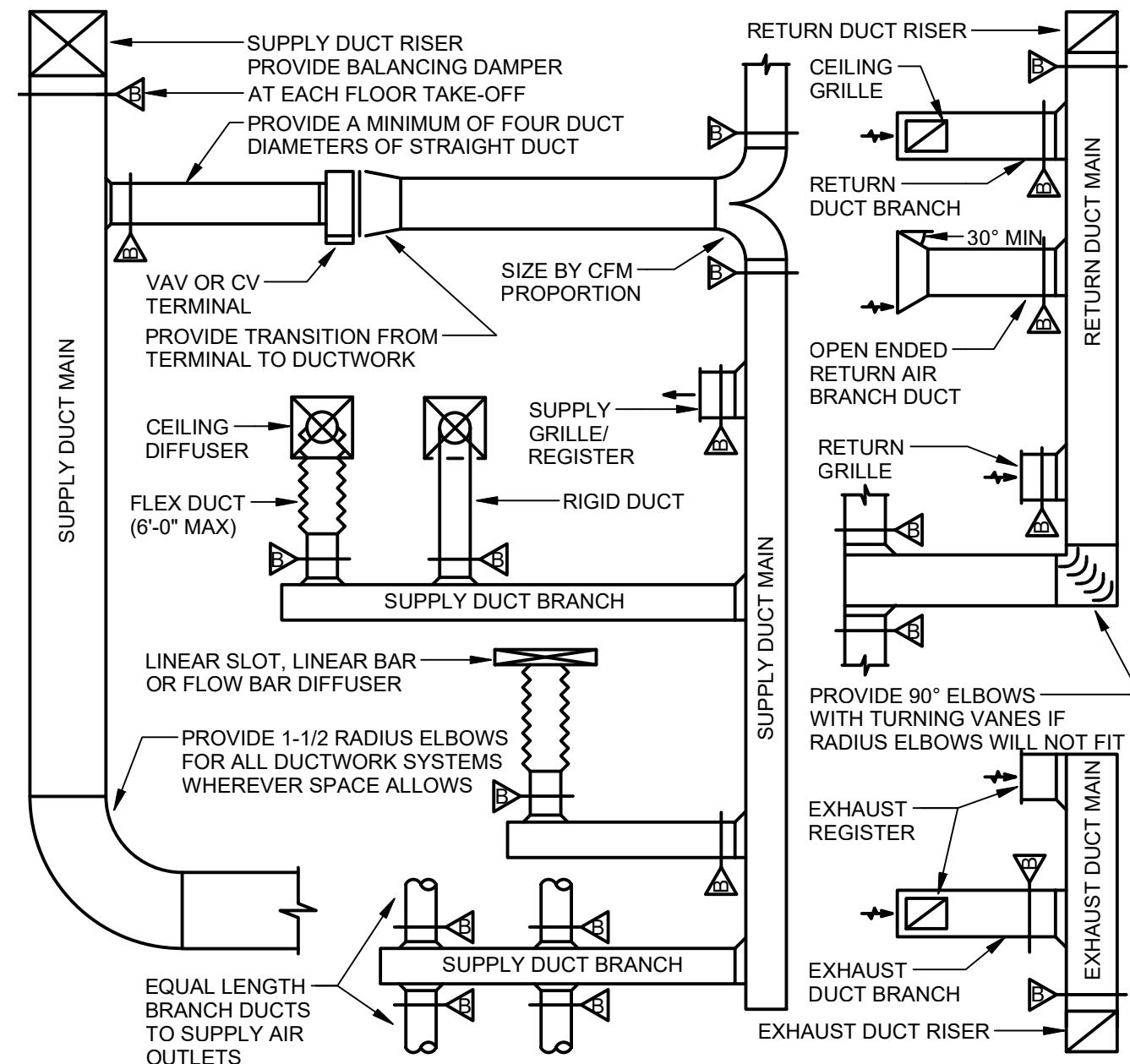


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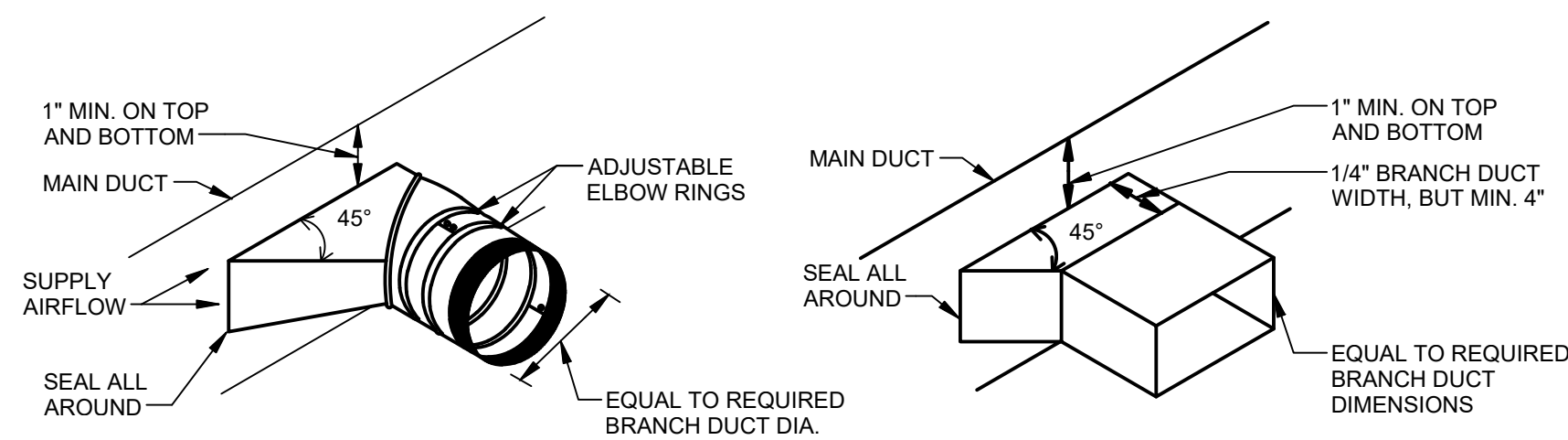


1 AIRFLOW SCHEMATIC
N.T.S.

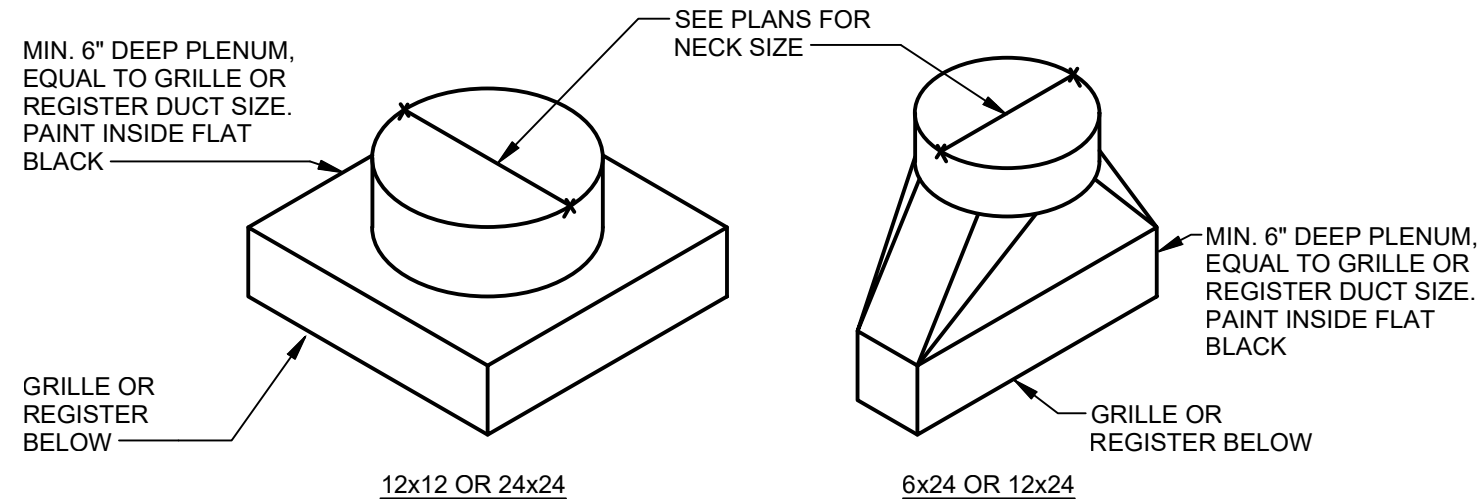
- NOTES:
1. REFER TO HVAC FLOOR PLANS FOR DUCT SIZES
 2. REFER TO SCHEDULES FOR GRILLES, REGISTERS, DIFFUSERS AND TERMINAL SIZES AND TYPES
 3. PROVIDE A MANUAL TYPE BALANCING DAMPER FOR EACH SUPPLY OUTLET AND RETURN INLET
 4. ALL DUCT RUNOUTS TO DIFFUSERS SHALL BE THE SAME SIZE AS DIFFUSER NECK SIZE, UNLESS OTHERWISE NOTED
 5. FLEX DUCT WILL NOT BE ALLOWED ON RETURN OR EXHAUST DUCTWORK SYSTEMS
 6. PROVIDE 12" AIR CUSHION AT THE END OF EACH SUPPLY MAIN AND BRANCH DUCT
 7. INDIVIDUAL BRANCH BALANCING DAMPERS NOT REQUIRED FOR SUPPLY OR EXHAUST REGISTERS



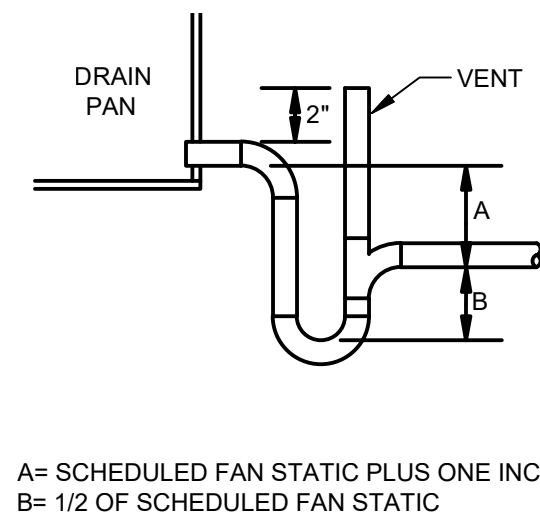
2 DUCTWORK INSTALLATION DIAGRAM
N.T.S.



3 TYPICAL BRANCH TAKEOFF FITTING DETAIL
N.T.S.

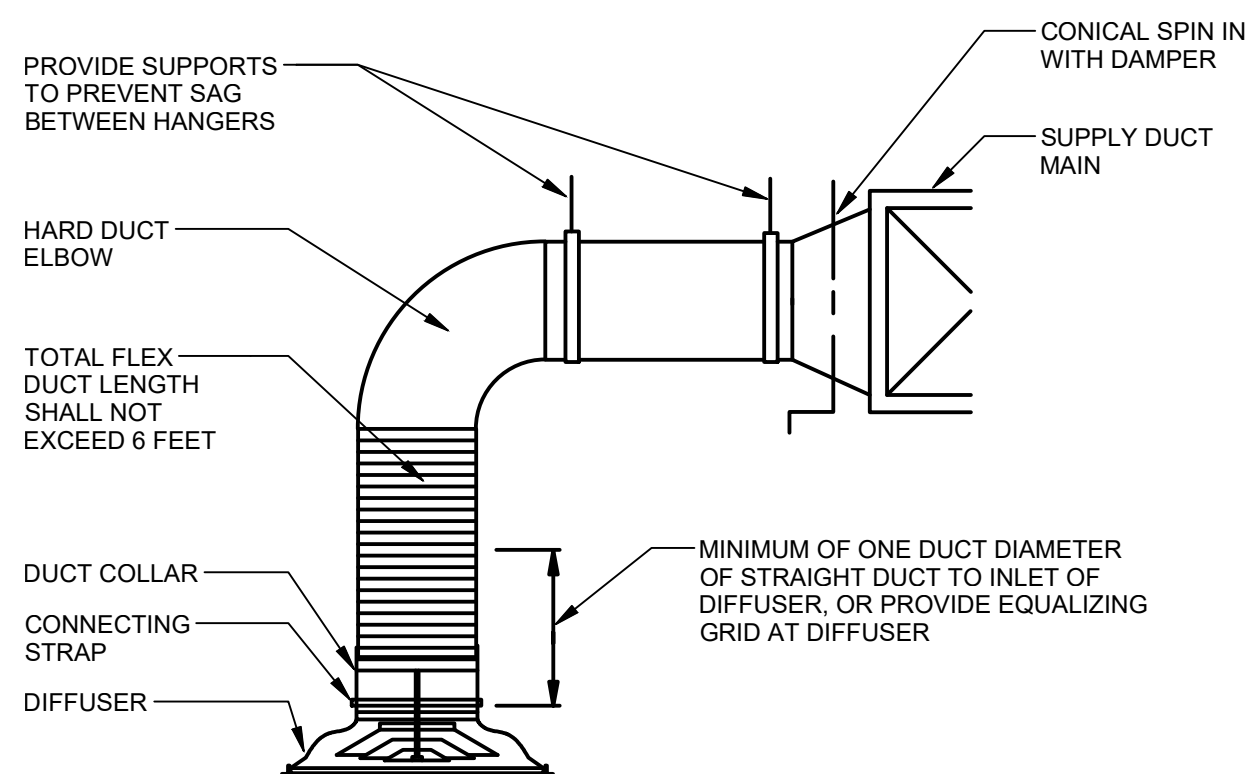


4 GRILLE & REGISTER BOOT DETAIL
N.T.S.

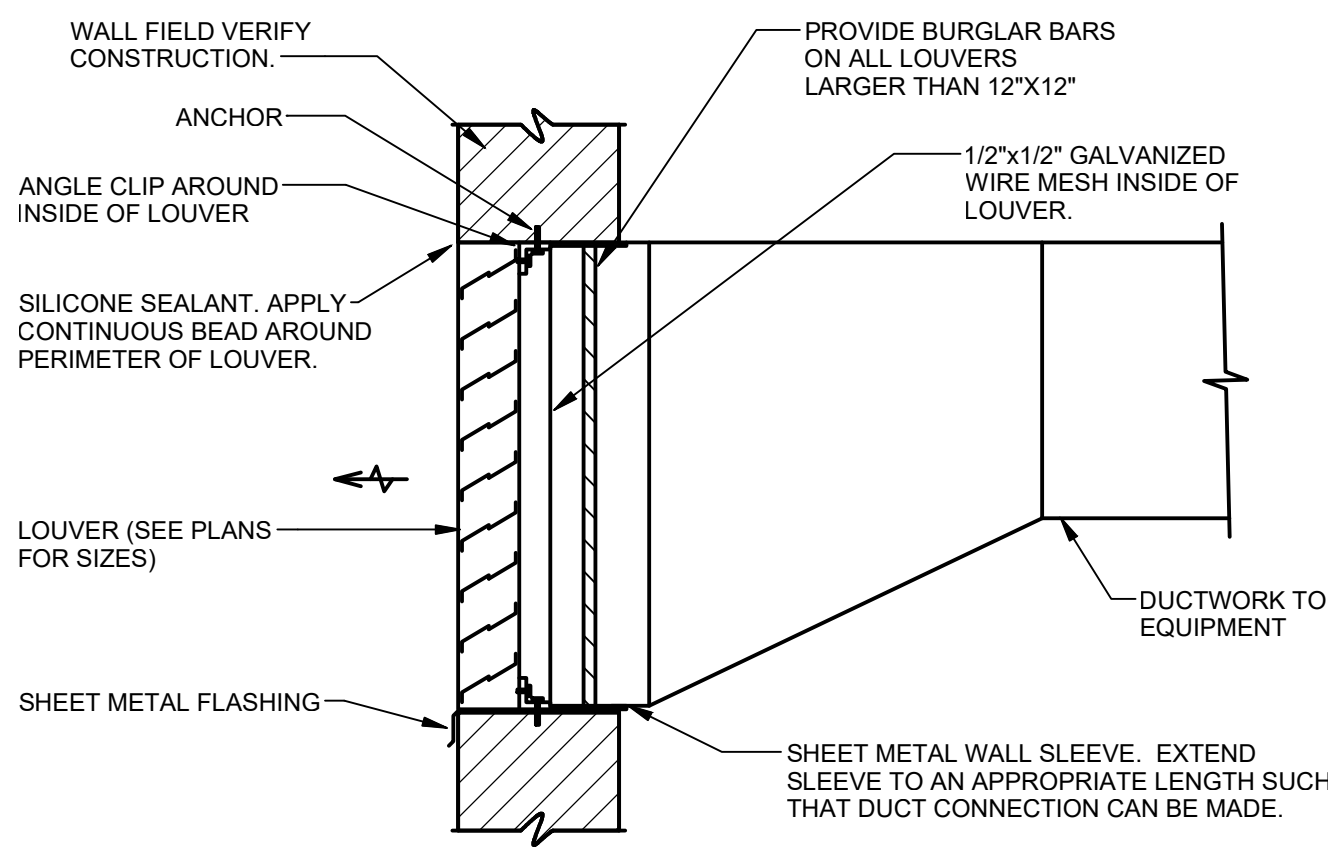


6 COIL CONDENSATE DRAIN DETAIL
N.T.S.

Record Drawings
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5 DIFFUSER FLEXIBLE DUCT CONNECTION
N.T.S.



7 LOUVER ASSEMBLY DETAIL
N.T.S.

Revisions:
Issue Date: August 3, 2018

I-71 Rest Areas

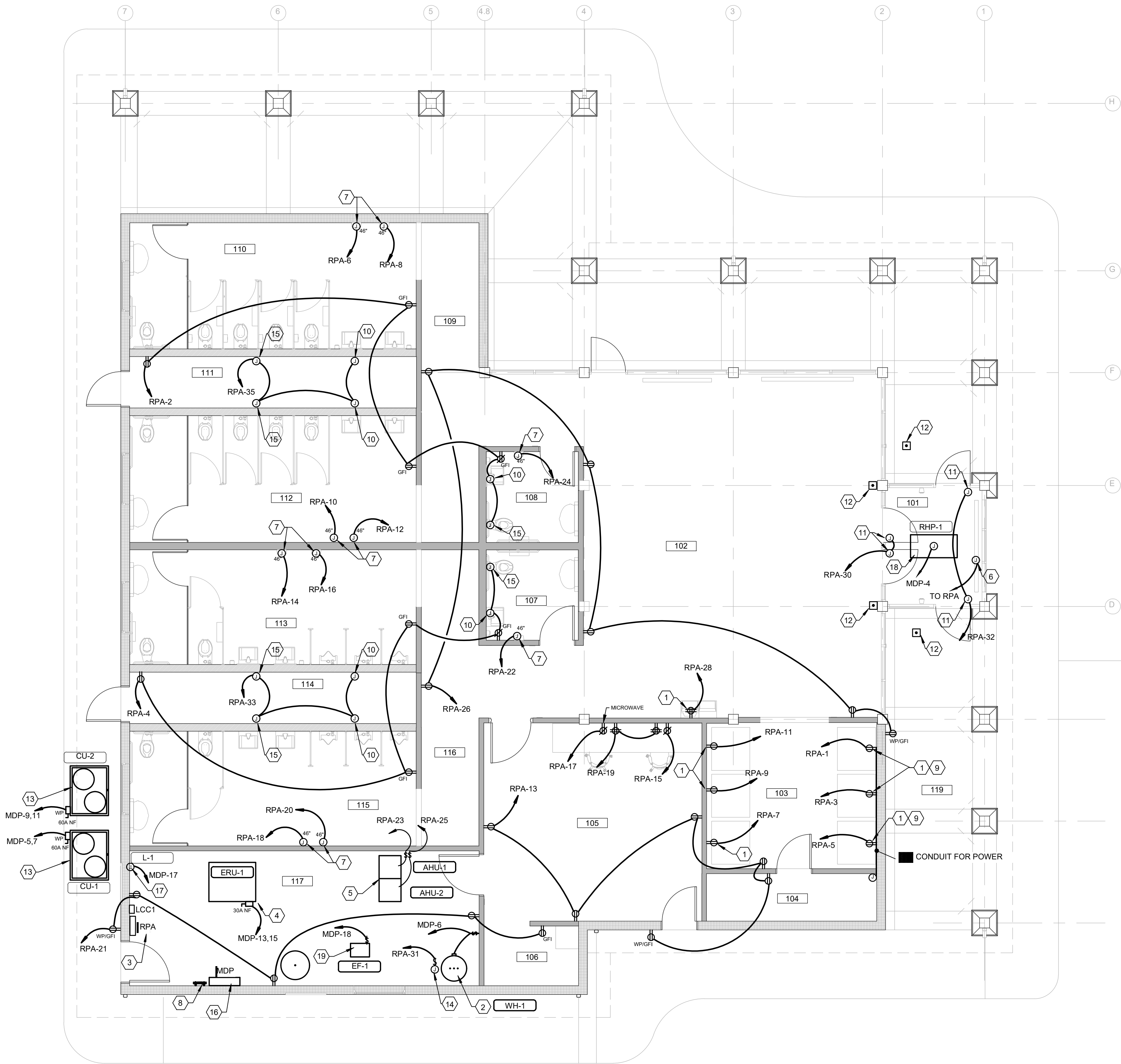
Mile Marker 34
South Bound
Warren County, Ohio

HVAC
Details

Project No.

18084

SH401



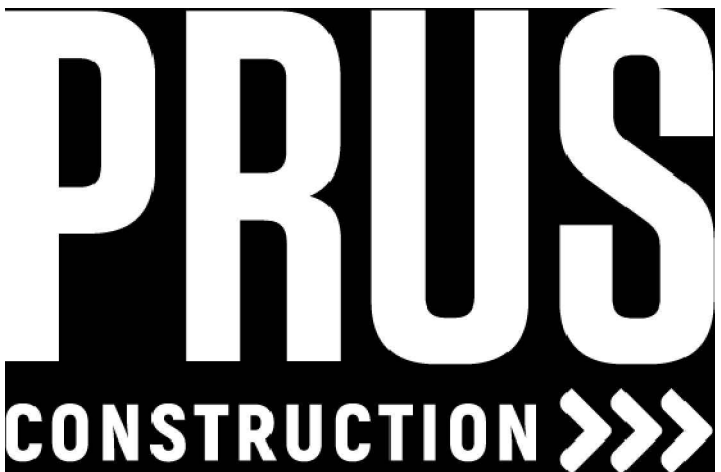
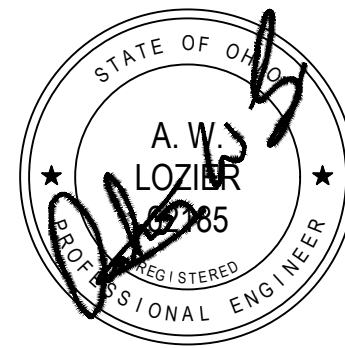
POWER GENERAL NOTES

A SEE BRANCH CIRCUIT GENERAL NOTE ON SHEET E401 FOR CONDUCTOR LENGTH INFORMATION.

B ELECTRICAL CONTRACTOR TO COORDINATE WITH ARCHITECTURAL, PLUMBING, HVAC AND STRUCTURAL PLANS PRIOR TO ROUGH-IN (TO AVOID CONFLICTS OF ROUTING OR PLACEMENT).

C SEE SYMBOLS LEGEND ON SHEET E401.

- KEYNOTES**
- CONNECT TO A GFCI CIRCUIT BREAKER IN PANEL.
 - PROPANE WATER HEATER (WH-1): 120V, 1PH, 200W RUN (2) #12 AND (1) #12GRD. IN A 3/4" CONDUIT FROM UNIT, THROUGH A LOCAL DISCONNECT SWITCH, WITH NEMA 1 ENCLOSURE. (FURNISHED/INSTALLED BY ELECTRICAL CONTRACTOR) TO A DEDICATED BREAKER IN PANEL. MAKE FINAL POWER CONNECTIONS. COORDINATE INSTALLATION WITH PLUMBING CONTRACTOR.
 - POWER PANELBOARD "RPA". SEE RISER DIAGRAM AND PANELBOARD SCHEDULE FOR MORE INFORMATION.
 - ENERGY RECOVERY UNIT (ERU-1): 240V, 1PH, (1) 2HP. RUN (2) #10 AND (1) #10GRD. IN A 3/4" CONDUIT FROM UNIT, THROUGH A 30A/2P NON-FUSED DISCONNECT SWITCH WITH NEMA 1 ENCLOSURE (FURNISHED/INSTALLED BY ELECTRICAL CONTRACTOR) TO A DEDICATED BREAKER IN PANEL. MAKE FINAL POWER CONNECTIONS. COORDINATE INSTALLATION WITH MECHANICAL CONTRACTOR.
 - AIR HANDLING UNITS (AHU-1 & AHU-2): PROPANE GAS, 120V, 1PH. PROVIDE LOCAL DISCONNECT SWITCH WITH NEMA 1 ENCLOSURE. COORDINATE INSTALLATION WITH MECHANICAL CONTRACTOR.
 - ROUTE A 3/4" CONDUIT FROM PANEL RPA TO J-BOX AND BLANK COVER PLATE, WITH PULL ROPE. ROUTE TO RAISED CURB UNDER WINDOW. COORDINATE WITH OWNER'S REP AND MECHANICAL CONTRACTOR.
 - HAND DRYER - 1.2KW, 120V, 1PH. CONNECT TO A 20A-1P CIRCUIT, USING (2) #10, (1) #10GRD. IN A 3/4" CONDUIT. COORDINATE EXACT MOUNTING HEIGHT WITH ARCHITECTURAL DRAWINGS.
 - GROUND BUS BAR. SEE DETAILS ON SHEET E402 FOR INFORMATION.
 - SURFACE MOUNT BACKBOX TO EXTERIOR WALL. RUN CONDUIT HORIZONTALLY ACROSS WALL TO STORAGE ROOM. MOUNT CONDUIT AT 18" AFF. COORDINATE INSTALLATION WITH EXTERIOR WALL PANELING.
 - PROVIDE 120V CONNECTION TO AUTOMATIC FAUCET POWER TRANSFORMER. COORDINATE CONNECTION AND INSTALLATION WITH PLUMBING CONTRACTOR.
 - AUTO DOOR POWER SUPPLY. CONNECT TO POWER CIRCUIT INDICATED, PER MANUFACTURER SPECIFICATIONS. COORDINATE INSTALLATION WITH HARDWARE PROVIDER AND GENERAL CONTRACTOR.
 - WIRELESS BUTTONS FOR AUTO DOORS. COORDINATE LOCATION.
 - CONDENSING UNIT (CU-1 & CU-2): PROVIDE 240V, 1PH, 41FLA. RUN (1) #4 AND (1) #10GRD. IN A 1" CONDUIT FROM UNIT, THROUGH A 60A/2P NON-FUSED DISCONNECT SWITCH WITH NEMA 3R ENCLOSURE. (FURNISHED/INSTALLED BY ELECTRICAL CONTRACTOR) TO A DEDICATED BREAKER IN PANEL. MAKE FINAL POWER CONNECTIONS. COORDINATE INSTALLATION WITH MECHANICAL CONTRACTOR.
 - PROVIDE 120V, 20A CIRCUIT FOR RE-CIRC. WATER PUMP (RCP-1). WIRE TO A 20A RATED TOGGLE SWITCH. MAKE FINAL POWER CONNECTION. COORDINATE INSTALLATION WITH PLUMBING CONTRACTOR.
 - PROVIDE 120V CONNECTION TO AUTOMATIC FLUSH VALVE TRANSFORMER. COORDINATE CONNECTION AND INSTALLATION WITH PLUMBING CONTRACTOR.
 - MAIN DISTRIBUTION PANEL "MDP". SEE RISER DIAGRAM AND PANELBOARD SCHEDULE FOR MORE INFORMATION.
 - WALL MOUNTED MOTORIZED DAMPER ACTUATOR/LOUVER. EC SHALL PROVIDE 120V, 20A CKT. AND INTERLOCK WITH DAMPER WITH ERU-1. MC TO PROVIDE ALL LOW VOLTAGE WIRING.
 - PROVIDE RADIANT HEATER CONNECTION RATED 750W, 120V, 1PH. PROVIDE DISCONNECT SWITCH AND INSTALL PER MFGS. INSTRUCTIONS AND NEC. COORDINATE MOUNTING WITH OWNER'S REP. AND MC.
 - PROVIDE EF-1 CONNECTION RATED 2.85A, 120V, 1PH. PROVIDE DISCONNECT SWITCH AND INSTALL PER MFGS. INSTRUCTIONS AND NEC. COORDINATE MOUNTING WITH OWNER'S REP. AND MC.



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Record Drawings
09/16/2019

Revisions:
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I-71 Rest Areas

Mile Marker 34
South Bound
Warren County, Ohio

Electrical
Power Plan

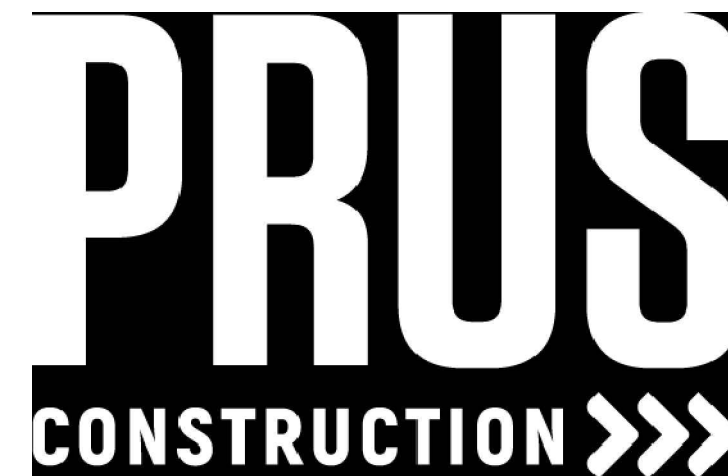
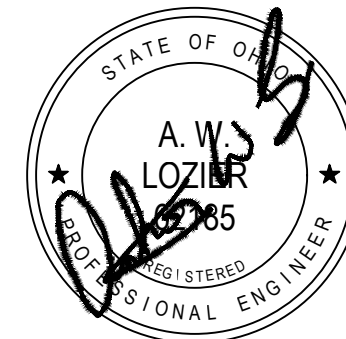
Project No.

SE101

18084

ROOM ID LIST	
NUMBER	NAME
101	VESTIBULE
102	LOBBY
103	VENDING
104	STORAGE
105	MAINTAINACE
106	JANITOR CLOSET
107	FAMILY RESTROOM
108	FAMILY RESTROOM
109	RESTROOM ENTRANCE

ROOM ID LIST	
NUMBER	NAME
110	WOMEN'S RESTROOM
111	PLUMBING CHASE
112	WOMEN'S RESTROOM
113	MEN'S RESTROOM
114	PLUMBING CHASE
115	MEN'S RESTROOM
116	RESTROOM ENTRANCE
117	MECHANICAL ROOM
118	PORCH



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LIGHTING GENERAL NOTES

- SEE BRANCH CIRCUIT GENERAL NOTE ON SHEET E401 FOR CONDUCTOR LENGTH INFORMATION.
- REFER TO ARCHITECTURAL REFLECTED CEILING PLANS FOR EXACT LOCATION OF ALL CEILING MOUNTED DEVICES AS SHOWN ON THIS SHEET.
- ELECTRICAL CONTRACTOR TO COORDINATE WITH ARCHITECTURAL, PLUMBING, HVAC AND STRUCTURAL PLANS PRIOR TO ROUGH-IN (TO AVOID CONFLICTS OF ROUTING OR PLACEMENT).
- SEE SHEET E401 FOR LIGHTING FIXTURE SCHEDULE AND SYMBOLS LEGEND.
- EMERGENCY LIGHTING FIXTURES AND EXIT SIGNS SHALL BE CONNECTED TO LOCAL NORMAL LIGHTING CIRCUIT, AHEAD OF ANY SWITCHING.

KEYNOTES

- FIXTURE FURNISHED WITH INTEGRAL BATTERY PACK AND SHALL SERVE AS EMERGENCY LIGHT. CONNECT INTEGRAL BATTERY PACK TO LOCAL LIGHTING CIRCUIT, AHEAD OF ANY SWITCHING PER MANUFACTURER SPECIFICATIONS.
- CONNECT EXIT SIGN TO LOCAL LIGHTING CIRCUIT, AHEAD OF ANY SWITCHING.
- WALL OCCUPANCY SENSOR SWITCH TO BE PIR WITH MANUAL OVERRIDE BUTTON OPTION. BASIS OF DESIGN: SENSOR SWITCH WSD-WH, APPROVED EQUALS BY HUBBELL OR COOPER GREENGATE.
- LOW-VOLTAGE WALL SWITCH FOR ON/OFF AND DIM CONTROL OF LIGHTS IN ROOM. PROVIDE 3-BUTTON STATION (1-"ON/OFF", 1-"RAISE" AND 1-"LOWER" BUTTONS). CONNECT TO ROOM LIGHTING CONTROLS AS REQUIRED. BASIS OF DESIGN: LITHONIA N-LIGHT #nPPDM-DX-WH, APPROVED EQUALS BY WATTSTOPPER OR COOPER GREENGATE.
- RELAY POWER PACK WITH 0-10V DIMMING OUTPUT FOR CONTROL OF LIGHTS IN ROOM. CONNECT TO OCCUPANCY SENSOR AND LOW VOLTAGE SWITCHES AS REQUIRED. PROVIDE #18/2 CABLE (0-10V DIMMING) CABLES FROM POWER PACK TO LIGHTING FIXTURES FOR DIMMING CONTROLS. BASIS OF DESIGN: N-LITE #nPP16D, APPROVED EQUALS BY WATTSTOPPER OR COOPER GREENGATE.
- DUAL TECHNOLOGY (PIR & US) CEILING MOUNTED OCCUPANCY SENSOR. BASIS OF DESIGN: N-LIGHT #nCM-PDT-9, APPROVED EQUALS BY WATTSTOPPER OR COOPER GREENGATE. CONNECT TO RELAY PACK PER MANUFACTURER SPECIFICATIONS.
- LIGHTING CONTACTOR FOR EXTERIOR LIGHTS. SEE EXTERIOR LIGHTING CONTROLS DETAIL, THIS SHEET.
- HOMERUN TO A NEW 20A-1P BREAKER IN PANEL USING (2) #10, (1) #10GRD. IN A 3/4" CONDUIT. CIRCUIT TO BE CONTROLLED BY LIGHTING CONTACTOR "LCC1". ROUTE CIRCUIT THROUGH CONTACTOR.
- PROVIDE \$2500 ALLOWANCE FOR NEW LED PENDANT MOUNTED CHANDELIER. REFER ARCHITECTURAL DRAWINGS FOR ADDITIONAL MOUNTING INFORMATION.

DESIGNER NOTES

- PROVIDE DAYLIGHTING CONTROLS IN LOBBY WHERE REQUIRED BY ENERGY CODE. BASIS OF DESIGN TO BE N-LITE SYSTEM (DIMMING RELAY MODULE #nPP16D, DAYLIGHT SENSOR #nCM ADCX(RJB)), EQUALS BY COOPER GREENGATE AND WATTSTOPPER.

1
E201
LEVEL 1 - ELECTRICAL LIGHTING PLAN
3/16" = 1'-0"
0 4 8 16

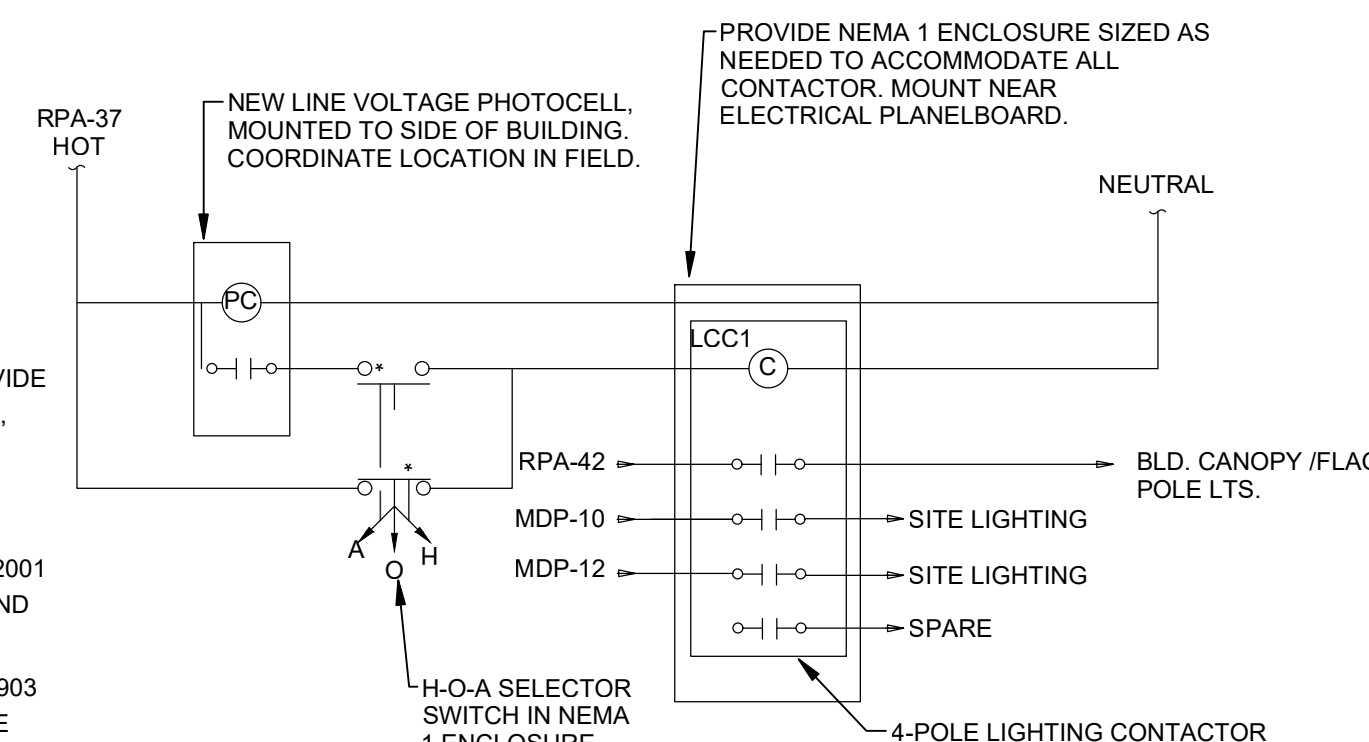
ROOM ID LIST	
NUMBER	NAME
101	VESTIBULE
102	LOBBY
103	VENDING
104	STORAGE
105	MAINTAINACE
106	JANITOR CLOSET
107	FAMILY RESTROOM
108	FAMILY RESTROOM
109	RESTROOM ENTRANCE

ROOM ID LIST	
NUMBER	NAME
110	WOMEN'S RESTROOM
111	PLUMBING CHASE
112	WOMEN'S RESTROOM
113	MEN'S RESTROOM
114	PLUMBING CHASE
115	MEN'S RESTROOM
116	RESTROOM ENTRANCE
117	MECHANICAL ROOM
118	PORCH

2 EXTERIOR LIGHTING CONTROLS DETAIL N.T.S.

NOTES:

- THIS DETAIL IS SCHEMATIC IN NATURE. PROVIDE ALL NECESSARY WIRING, CONDUIT, DEVICES, BOXES, ETC FOR A COMPLETE OPERATING LIGHTING SYSTEM.
- PHOTOCELL** - PROVIDE LINE-VOLTAGE PHOTOCELL, TORK 2001 SERIES. EQUALS BY LEVITON, INTERMATIC AND HUBBELL.
- CONTACTOR** - PROVIDE SQUARE D MODEL 8903 ELECTRICALLY HELD CONTACTOR WITH POLE QUANTITY AS INDICATED. EQUALS BY CUTLER HAMMER, GE AND SIEMENS.
- H-O-A SELECTOR SWITCH** - PROVIDE SQUARE D #KS43BH13 HAND-OFF-AUTO SWITCH IN A NEMA 1 ENCLOSURE. EQUALS BY CUTLER HAMMER, GE OR SIEMENS. MOUNT NEAR PANEL. LABEL EXTERIOR LIGHTING CONTROLS.



Revisions:
Issue Date: August 3, 2018

I-71 Rest Areas

Mile Marker 34
South Bound
Warren County, Ohio

Electrical Lighting Plan

Project No.

18084

SE201

E- LIGHTING FIXTURE SCHEDULE					
Type Mark	Manufacturer	Model	Lamp	Description	Notes
CL1	LITHONIA METALUX COLUMBIA	LBL4W-8000-80CRI-35K-MIN1-ZT-MVOLT	LED (8000LUM, 3500K, 65W)	SURFACE MOUNTED LED FIXTURE WITH 8000 LUMEN, 3500K LED PACKAGE, WRAP AROUND ACRYLIC LENS AND 0-10V DIMMING DRIVER.	
CL1A	LITHONIA METALUX COLUMBIA	LBL4W-8000-80CRI-35K-MIN1-ZT-MVOLT-EL14L	LED (8000LUM, 3500K, 65W)	SAME AS CL1, WITH INTEGRAL EMERGENCY BATTERY PACK WITH 1400 LUMEN EMERGENCY LIGHTING OUTPUT.	
CL2	LITHONIA HE WILLIAMS COLUMBIA	WL4-40L-EZ1-LP835	LED (4000LUM, 3500K, 40W)	SURFACE MOUNTED LED FIXTURE WITH 4000 LUMEN, 3500K LED PACKAGE, STEEL HOUSING WITH DIE-CAST END CAPS, FROSTED ACRYLIC LENS AND 0-10V DIMMING DRIVER.	
R1	GOTHAM PORTFOLIO PRESCOLITE	EVO-35/20-6AR-MDW-LSS-MVOLT-EZ10	LED (2000LUM, 3500K, 23W)	6" DIAMETER RECESSED LED CAN LIGHT WITH SEMI-SPECULAR REFLECTOR AND INTEGRAL DRIVER, MEDIUM WIDE DISTRIBUTION, 2000 LUMEN PACKAGE.	
R1A	GOTHAM PORTFOLIO PRESCOLITE	EVO-35/20-6AR-MDW-LSS-MVOLT-EZ10-EL	LED (2000LUM, 3500K, 23W)	SAME AS R1, WITH INTEGRAL EMERGENCY BATTERY PACK WITH 1000 LUMEN EMERGENCY LIGHTING OUTPUT.	
R2	GOTHAM PORTFOLIO PRESCOLITE	EVO-VR-35/18-6AR-T73-MVOLT-EZ10-DOB	LED (1800LUM, 3500K, 37W)	6" DIAMETER RECESSED LED CAN LIGHT WITH VANDEL RESISTANT TRIM AND INTEGRAL DRIVER, MEDIUM WIDE DISTRIBUTION, 2000 LUMEN PACKAGE.	
R2A	GOTHAM PORTFOLIO PRESCOLITE	EVO-VR-35/18-6AR-T73-MVOLT-EZ10-DOB-ELR	LED (1800LUM, 3500K, 37W)	SAME AS R2, WITH INTEGRAL EMERGENCY BATTERY PACK WITH 1000 LUMEN EMERGENCY LIGHTING OUTPUT.	
W1	LITHONIA HUBBELL MCGRAW-EDISON	WSRLED-1-10A700/40K-SR2-MVOLT-PE-DOBXD	LED (2000LMN, 4000K, 24W)	LED EXTERIOR WALL PACK WITH DIE-CAST ALUMINUM HOUSING, ACRYLIC LENS (TYPE 2), 2000LUMEN, 4000K LED PACKAGE, INTEGRAL PHOTOCELL, MULTI-VOLT DRIVER. CONFIRM FINISH COLOR (DARK BRONZE) WITH ARCHITECT PRIOR TO ORDERING. MOUNT AT 12" ABOVE DOOR FRAME.	
W1A	LITHONIA HUBBELL MCGRAW-EDISON	WSRLED-1-10A700/40K-SR2-MVOLT-PE-ELCW-DOBXD	LED (2000LMN, 4000K, 24W)	SAME AS W1, WITH INTEGRAL EMERGENCY BATTERY PACK WITH 1000 LUMEN EMERGENCY LIGHTING OUTPUT.	
W2	ELLIPTIPAR	S104-5036-Z02-8-V0-0-35-ZX	LED (4000LUM, 3500K, 52W)	WALL MOUNTED INDIRECT UPLIGHT WITH ALUMINUM HOUSING, ASYMMETRIC DISTRIBUTION, 3500K LED'S, CUT OFF SHIELD AND INTEGRAL 0-10V DIMMING DRIVER. SURFACE MOUNT FIXTURE TO BEAM. CONCEAL BRANCH CIRCUITING CONDUIT BEHIND BEAM.	
X1	LITHONIA SURE-LITES DUAL-LITE	LE-S-1-R-ELN	LED (WITH FIXTURE)	UNIVERSAL WALL/CEILING MOUNTED EXIT SIGN WITH BRUSHED ALUMINUM HOUSING, SINGLE FACE, AND RED STENCIL LETTERS. PROVIDE WITH ARROWS AS INDICATED ON LIGHTING PLAN	
X2	LITHONIA SURE-LITES DUAL-LITE	LE-S-2-R-ELN	LED (WITH FIXTURE)	UNIVERSAL WALL/CEILING MOUNTED EXIT SIGN WITH BRUSHED ALUMINUM HOUSING, DOUBLE FACE, AND RED STENCIL LETTERS. PROVIDE WITH ARROWS AS INDICATED ON LIGHTING PLAN	

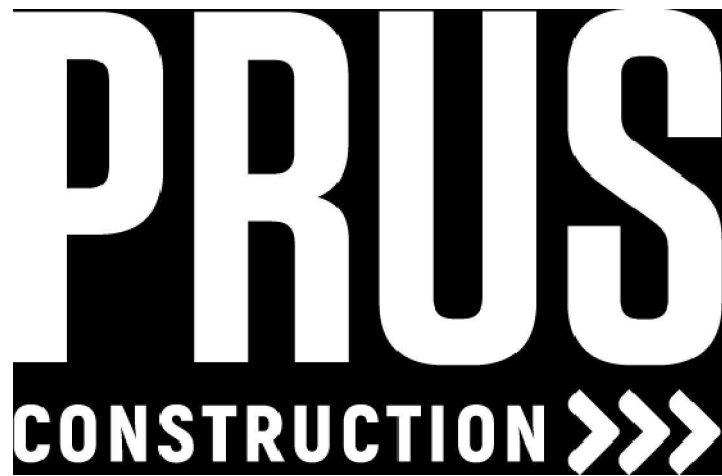
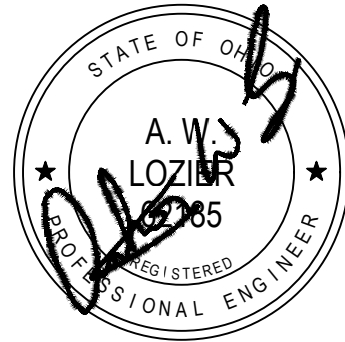
NOTES:
A. VERIFY FINAL FIXTURE PLACEMENT WITH ARCHITECT REFLECTED CEILING PLANS.

ELECTRICAL SYMBOLS		
SYMBOL	DESCRIPTION	MOUNTING HEIGHT TO CENTERLINE UNLESS NOTED OTHERWISE
LIGHT FIXTURES, OUTLETS, AND JUNCTION BOXES		
	CEILING FIXTURE	—
	WALL FIXTURE	SEE DRAWINGS
	CEILING MOUNTED, DOUBLE FACED EXIT SIGN WITH DIRECTIONAL ARROWS	—
	WALL MOUNTED EXIT SIGN	SEE DRAWINGS
	CEILING MOUNTED, COMBINATION EXIT SIGN/EMERGENCY HEAD UNIT	—
	WALL MOUNTED EMERG. LIGHT	SEE DRAWINGS
	TRACK LIGHTING	SEE DRAWINGS
	STRIP LIGHT FIXTURE	CEILING
	SURFACE MOUNTED LIGHT FIXTURE	CEILING
	SURFACE MOUNTED LIGHT FIXTURE (WITH EM. LTG. PACK)	CEILING
	WALL OUTLET	SEE DRAWINGS
	WIRED JUNCTION BOX	SEE DRAWINGS
	PLUG-IN RACEWAY, LENGTH PER DRAWINGS	SEE DRAWINGS
RECEPTACLES		
	DUPLEX RECEPTACLE, 3 WIRE GROUND TYPE	18"
	DUPLEX RECEPTACLE, FLOOR MOUNTED	—
	DUPLEX RECEPTACLE, CEILING MOUNTED	—
	DUPLEX RECEPTACLE, WEATHERPROOF	18"
	GROUND FAULT PROTECTED DUPLEX RECEPTACLE	18"
	DOUBLE DUPLEX (QUAD) RECEPTACLE	18"
	DUPLEX RECEPTACLE, ABOVE COUNTER	48"
	WALL MOUNTED SPECIAL OUTLET, AS REQUIRED	18"
SWITCHES AND MOTOR CONTROLS		
	TOGGLE SWITCH - SINGLE, 3-WAY, 4-WAY	48"
	TOGGLE SWITCH - KEY OPERATED	48"
	TOGGLE SWITCH - WITH PILOT LIGHT	48"
	TOGGLE SWITCH, WEATHERPROOF	48"
	WALL BOX - DIMMER	48"
	LINE VOLTAGE THERMOSTAT	48"
	ELECTRIC PANEL - SURFACE MOUNTED	6'-0" TO TOP
	ELECTRIC PANEL - FLUSH MOUNTED	6'-0" TO TOP
	SAFETY SWITCH (NON-FUSED)	AS REQUIRED
	SAFETY SWITCH (FUSED)	AS REQUIRED
	3-PHASE MAGNETIC MOTOR STARTER	AS REQUIRED
	COMBINATION STARTER/SAFETY SWITCH	AS REQUIRED
	MANUAL MOTOR STARTING SWITCH	48"
	MANUAL MOTOR STARTING SWITCH WITH PILOT LIGHT PUSHBUTTON STATION	48"
	START/STOP PUSHBUTTON STATION	48"
	MOTOR - 1 PHASE	AS REQUIRED
	MOTOR - 3 PHASE	AS REQUIRED
	TIME CLOCK	AS REQUIRED
	OCCUPANCY SENSOR	AS REQUIRED
	PHOTOCELL	AS REQUIRED

NOTE: NOT ALL ITEMS MAYBE USED IN THIS PROJECT.

BRANCH CIRCUIT GENERAL NOTE
BRANCH CIRCUIT WIRE SIZING CHART TO BE UTILIZED AS GUIDELINE FOR VOLTAGE DROP COMPENSATION. INCREASE EQUIPMENT GROUND AND CONDUIT SIZE PER NATIONAL ELECTRICAL CODE.
20A - 120V CIRCUITS: #12 WIRE - 75' LENGTH MAXIMUM #10 WIRE - 125' LENGTH MAXIMUM #8 WIRE - 190' LENGTH MAXIMUM

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Record Drawings
09/16/2019

Revisions:
Issue Date: August 3, 2018

I-71 Rest Areas

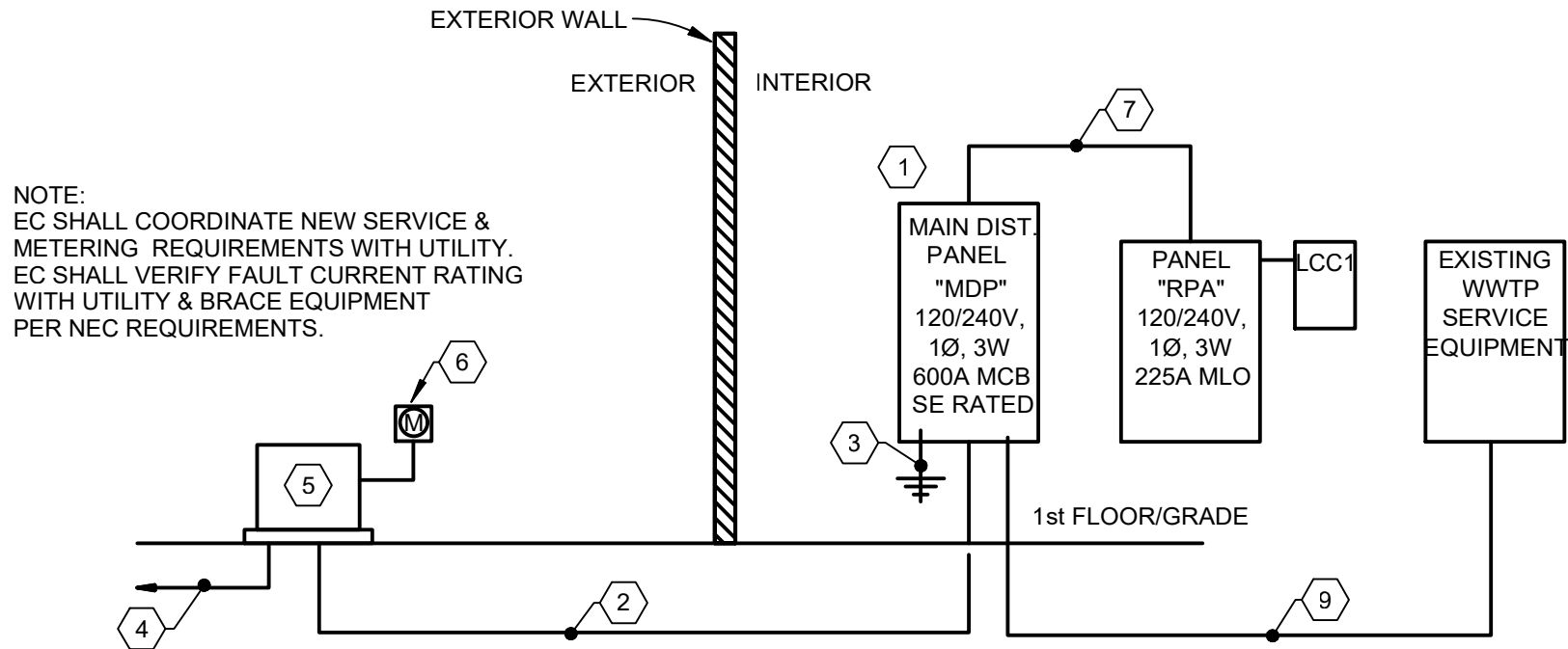
Mile Marker 34
South Bound
Warren County, Ohio

Electrical Schedules
and Details

Project No.

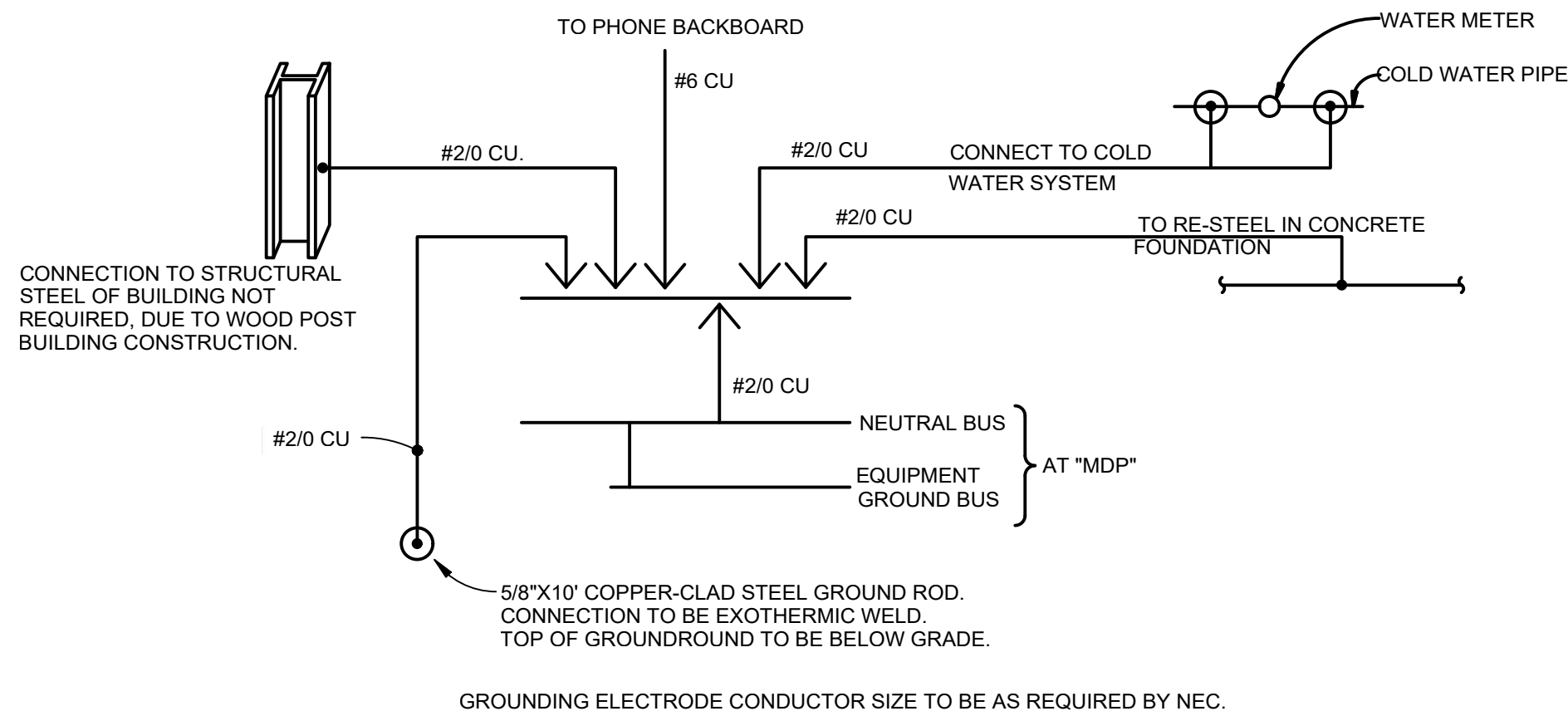
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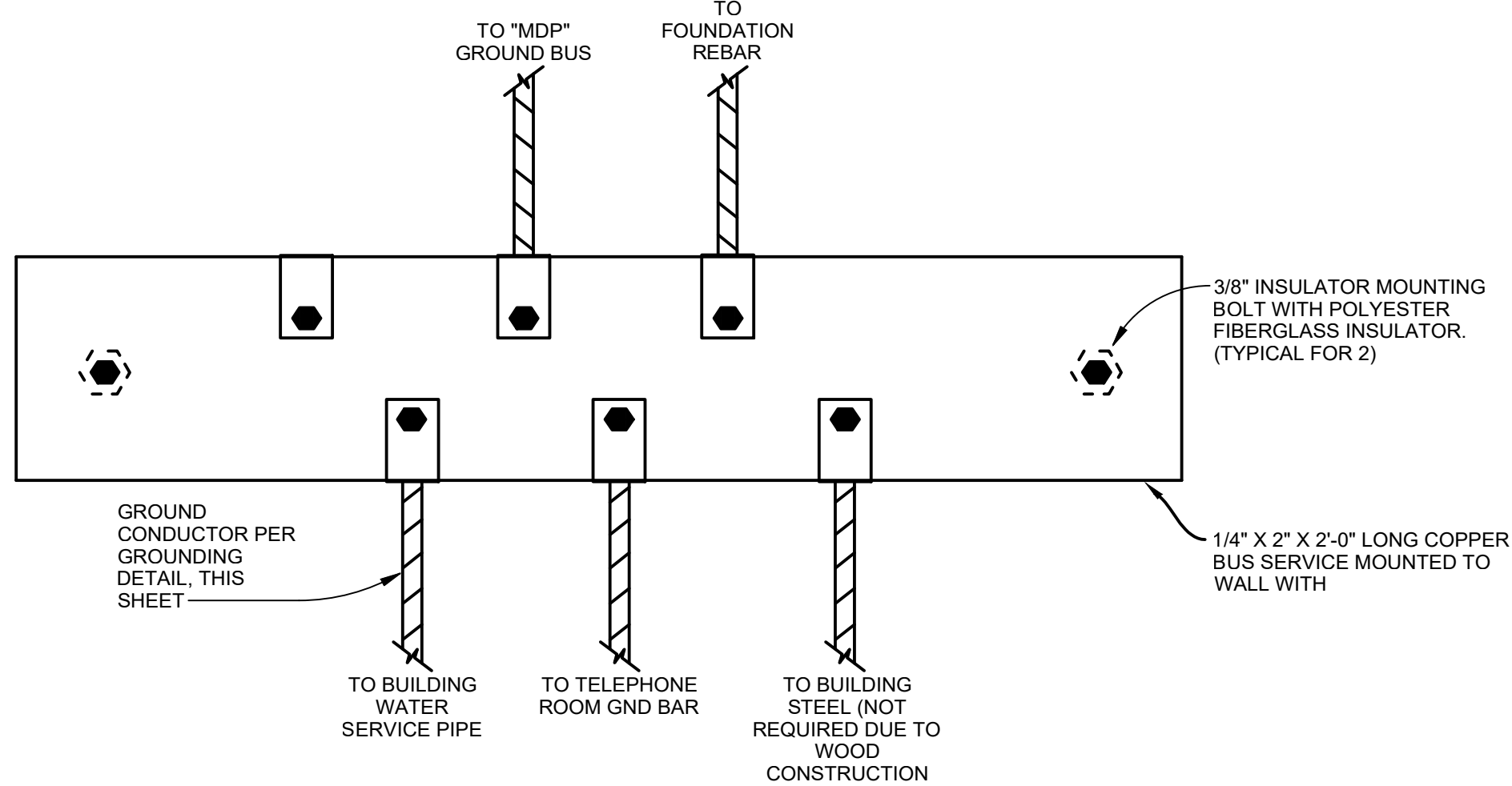
1 RISER DIAGRAM

N.T.S.



2 GROUNDING DETAIL

N.T.S.



3 BUILDING GROUNDING BUS DETAIL

N.T.S.

KEYNOTES (RISER DIAGRAM)

- SERVICE ENTRANCE RATED DISTRIBUTION BOARD. SEE SCHEDULE FOR MORE INFORMATION.
- NEW 2 RUNS OF [(3) #350kcmil (CU.), (1) #1GRD. (CU.) IN 3" CONDUIT].
- GROUND ELECTROIDE TO BUILDING GROUND BUS BAR IN ELECTRIC ROOM. REFER TO DETAILS. THIS SHEET.
- PRIMARY CABLE DUCTBANK PER POWER COMPANY REQUIREMENTS.
- UTILITY COMPANY PAD MOUNTED TRANSFORMER.
- UTILITY COMPANY METER. PROVIDE METER PER POWER COMPANY REQUIREMENTS. COORDINATE REQUIREMENTS WITH POWER COMPANY.
- NEW (3) #3/0AWG (CU.), (1) #6GRD. (CU.) IN A 2" CONDUIT.
- EC SHALL VERIFY FAULT CURRENT RATING WITH UTILITY & BRACE EQUIPMENT PER NEC REQUIREMENTS.
- NEW (3) #1AWG (CU.), (1) #8GRD., (CU) IN 1 1/2" CONDUIT TO EXISTING WWTP SERVICE EQUIPMENT. COORDINATE AND VERIFY ELECTRICAL REQUIREMENTS WITH OWNER'S REP.

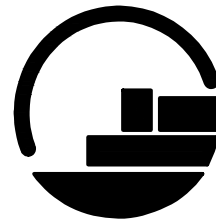
LOAD SUMMARY
NEW PANEL MDP CONN. LOAD = 90.2KW
TOTAL CONNECTED LOAD = 376 AMPS @ 240V,1PH

PANEL MDP										120/240V, 1PH, 3W			
DISTRIBUTION PANEL BASIS OF DESIGN: SQ. D, I-LINE (TYPE HCM) 36" BREAKER SPACE										600A MCB			
PANEL TO BE SERVICE ENTRANCE RATED, VERIFY FAULT CURRENT WITH UTILITY										22,000 AIC			
SERVES: BUILDING LOADS										SER			
LOCATION: MECH. RM. 117													
SURFACE MOUNT: NEMA 1													
LOAD IN KVA PER PHASE													
CKT	DESCRIPTION	#	BKR	PL	A		B		PL	BKR	#	DESCRIPTION	CKT
1	PANEL RPA		200	2	18.74	0.00			1	20		SPARE	2
3	* * * *		-	-			18.74	0.75	1	20		RADIANT HEATER-VEST	4
5	CU-1 (HACR) 41MCA		60	2	4.18	0.20			1	20		PROPANE WATER HEATER	6
7	* * * *		-	-			4.18	0.00	1	20		SPARE	8
9	CU-2 (HACR) 41MCA		60	2	4.18	5.20			2	60		AREA/RAMP LIGHTING	10
11	* * * *		-	-			4.18	5.20	-	-		* * * *	12
13	ERU-1 (HACR)		20	2	1.44	10.50			2	100		EX. WWTP SERVICE EQUIPMENT	14
15	* * * *		-	-			1.44	10.50	-	-		* * * *	16
17	LOUVER L-1		20	1	0.50	0.30			1	20		EF-1	18
19	SPARE		20	1			0.00	0.00	1	20		SPARE	20
21	SPARE		20	1	0.00	0.00			1	20		SPARE	22
23	SPACE						0.00	0.00				SPACE	24
25	SPACE				0.00	0.00						SPACE	26
27	SPACE						0.00	0.00				SPACE	28
29	SPACE				0.00	0.00						SPACE	30
TOTAL PER PHASE:					45.25		45.00						
					377.05		374.97						
TOTAL CONNECTED LOAD:					90.24		KVA		376.01		AMPS		
FEEDER DEMAND LOAD:					83.47		KVA		347.80		AMPS		
PROVIDE SWITCHING DUTY CIRCUIT BREAKERS FOR ALL LIGHTING CIRCUITS													
PROVIDE HACR CIRCUIT BREAKERS FOR HVAC AND REFRIGERATION EQUIPMENT													
# (GF) = GROUND FAULT INTERRUPTER													
# (ST) = SHUNT TRIP, (LO) = LOCKOUT, (IG) = ISOLATED GROUND													
# (DC) = DEDICATED CIRCUIT, (HV) = HACR BREAKER													
# (C*) = CONTACTOR DESIGNATION													

PANEL RPA										120/240V, 1PH, 3W			
DISTRIBUTION PANEL BASIS OF DESIGN: SQ. D, NQOD										225A MLO			
										22,000 AIC			
SERVES: RECEPTACLE LOADS													
LOCATION: MECH. RM. 117													
SURFACE MOUNT: NEMA 1													
LOAD IN KVA PER PHASE													
CKT	DESCRIPTION	#	BKR	PL	A		S		PL	BKR	#	DESCRIPTION	CKT
1	VENDING-103		GF	20	1	1.44	0.92		1	20		RECS-112,110,108	2
3	VENDING-103			20	1			1.44	0.92	1	20	RECS-113,115,107	4
5	VENDING-103			20	1	1.44	1.20			1	20	HAND DRYER 110	6
7	VENDING-103			20	1			1.44	1.20	1	20	HAND DRYER 110	8
9	VENDING-103			20	1	1.44	1.20			1	20	HAND DRYER 112	10
11	VENDING-103			20	1			1.44	1.20	1	20	HAND DRYER 112	12
13	RECS-104,105,103			20	1	1.08	1.20			1	20	HAND DRYER 113	14
15	COUNTER REC-105			20	1			0.18	1.20	1	20	HAND DRYER 113	16
17	COUNTER REC-105			20	1	0.18	1.20			1	20	HAND DRYER 115	18
19	RECS-105			20	1			0.90	1.20	1	20	HAND DRYER 115	20
21	RECS-117,106			20	1	0.90	1.20			1	20	HAND DRYER 107	22
23	AHU-1			20	1			1.20	1.20	1	20	HAND DRYER 108	24
25	AHU-2			20	1	1.20	1.08			1	20	RECS-116,109,102	26
27	SPARE			20	1			0.00	0.60	1	20	GF EWC-1 - 102	28
29	LTS-102			20	1	0.91	1.40			1	20	AUTO DOORS-101	30
31	RECIRC PUMP (RCP-1)			20	1			0.10	1.40	1	20	AUTO DOORS-101	32
33	AUTOVALVES-MENS			20	1	0.40	0.33			1	20	LTS-107,113,114,116,115	34
35	AUTOVALVES-MENS			20	1			0.40	0.46	1	20	LTS-112,113	36
37	LITG CONTROLS LCC1			20	1	0.50	0.33			1	20	LTS-108,109,110,111,112	38
39	SPARE			20	1			0.00	0.76	1	20	LTS-104,105,106,117	40
41	SPARE			20	1	0.00	0.69			1	20	EXTERIOR LTS-BLDG	42
43	SPARE			20	1			0.00	0.00			SPACE	44
45	SPARE			20	1	0.00	0.00					SPACE	46
47	SPARE			20	1			0.00	0.00			SPACE	48
49	SPARE			20	1	0.00	0.00					SPACE	50
51	SPARE			20	1			0.00	0.00			SPACE	52
53	SPARE			20	1	0.00	0.00					SPACE	54
TOTAL PER PHASE:					20.24		17.24						
					168.63		143.67						
TOTAL CONNECTED LOAD:					37.48		KVA	156.15		AMPS			
FEEDER DEMAND LOAD:					32.26		KVA	134.42		AMPS			
PANEL TO BE SUPPLIED BY CONTRACTOR													
PROVIDE SWITCHING DUTY CIRCUIT BREAKERS FOR ALL LIGHTING CIRCUITS													
PROVIDE HACR CIRCUIT BREAKERS FOR HVAC AND REFRIGERATION EQUIPMENT													
# (GF) = GROUND FAULT INTERRUPTER													
# (ST) = SHUNT TRIP, (LO) = LOCKOUT, (IG) = ISOLATED GROUND													
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# (C*) = CONTACTOR DESIGNATION													

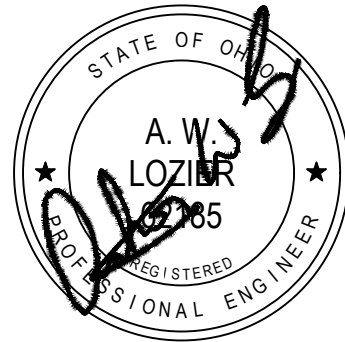
DESIGNER NOTES

- UTILIZE 120/208V, 3 PHASE, 4 WIRE ELECTRICAL SERVICE IF AVAILABLE FROM LOCAL UTILITY.
- FINAL SERVICE SIZE TO BE BASED ON SITE SPECIFIC LOADS AND EQUIPMENT SELECTION.
- CONNECT WELL PUMPS, WATER TREATMENT SYSTEM(S), SITE/ROADWAY LIGHTING, ETC. TO PANEL "MDP".
- CALCULATE FAULT CURRENT BASED ON MAXIMUM AVAILABLE FAULT CURRENT FROM UTILITY TRANSFORMER.
- ADJUST CIRCUITING BASED ON SITE SPECIFIC EQUIPMENT SELECTION.



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Record Drawings
09/16/2019

Revisions:
Issue Date: August 3, 2018

I-71 Rest Areas

Mile Marker 34
South Bound
Warren County, Ohio

Riser Diagrams
and Schedules

Project No.

SE402

18084

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