

WOOD BLOCKING OR FRAMING

WINDOWS OR FRAMES TAG



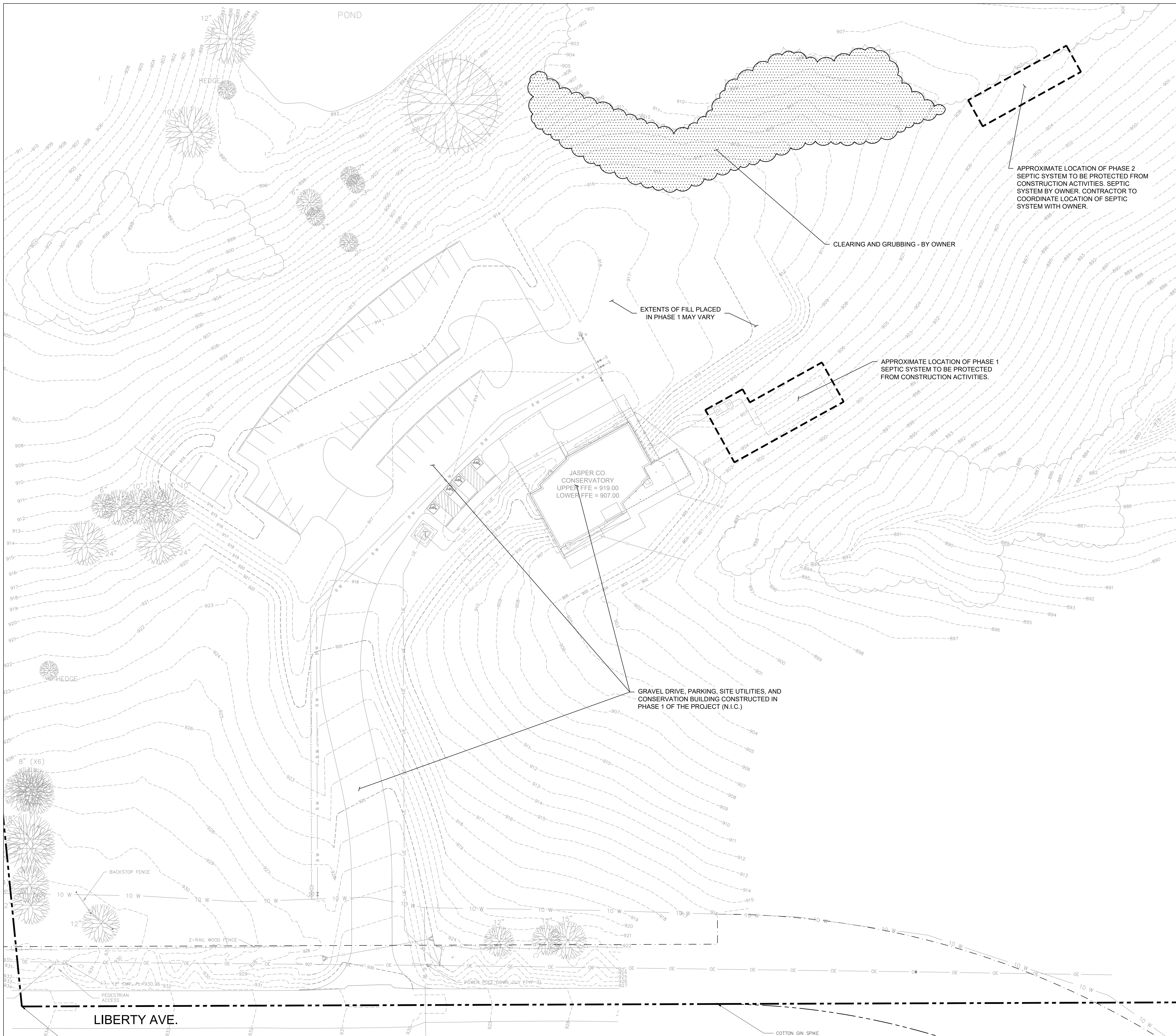
MECH/ELEC/PLUMB: DURANTEM MEP CONSULTING
3737 WOODLAND AVENUE, SUITE 420; WEST DES MOINES, IA 50266
PHONE: 515-452-8341 | EMAIL: INFO@DURANTEM.COM

C5	<u>ELECTRICAL SHEETS</u>
	ELECTRICAL NOTES & OVERALL ELECTRICAL
S001	ELECTRICAL CEILING

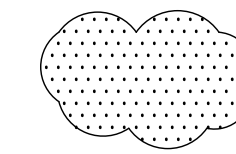
ASSEMBLIES
OVERALL FLOOR PLAN
RESTROOMS PLAN & ELEVATIONS
ROOF PLAN & DETAIL PLANS
EXTERIOR ELEVATIONS
BUILDING SECTIONS
DETAILS
DETAILS
INTERIOR ELEVATIONS & TYPICAL MOUNTING HEIGHTS
OPENING ELEVATIONS & SCHEDULE
CEILING PLANS

GES OR SHEETS COVERED BY THIS SEAL





SYMBOL LEGEND



EXISTING TREELINE TO BE CLEARED AND GRUBBED
AS NECESSARY TO COMPLETE SCOPE OF WORK.

EXISTING TREELINE TO REMAIN

DEMOLITION NOTES

1. Verify all existing utility locations.
2. It is the responsibility of the Contractor to perform or coordinate all necessary utility demolitions and relocations from existing utility locations to all onsite amenities and buildings. These connections include, but are not limited to, water, sanitary sewer, cable TV, telephone, gas, electric, site lighting, etc.
3. Prior to beginning work, contact Iowa One Call (800-292-8989) to locate utilities throughout the area under construction. The Contractor shall retain the services of a private utility locator to locate the private utilities.
4. Sawcut along edges of pavements, sidewalks, and curbs to remain.
5. All construction shall be performed in accordance with state and local standard specifications for construction.
6. All construction materials, dumpsters, detached trailers, or similar items are prohibited on public streets or within the public right-of-way.

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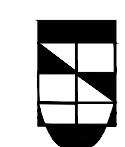
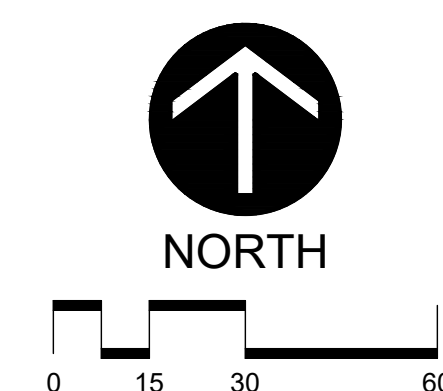
STUDIO MELEE
139 FOURTH STREET
WEST DES MOINES, IOWA 50265

PROJECT: GEISLER-PENQUITE LAND STEWARDSHIP LAB
ADDRESS: 5284 LIBERTY AVENUE, NEWTON, IOWA 50208
CLIENT: JASPER COUNTY CONSERVATION

PRINT DATE:
2025-12-03

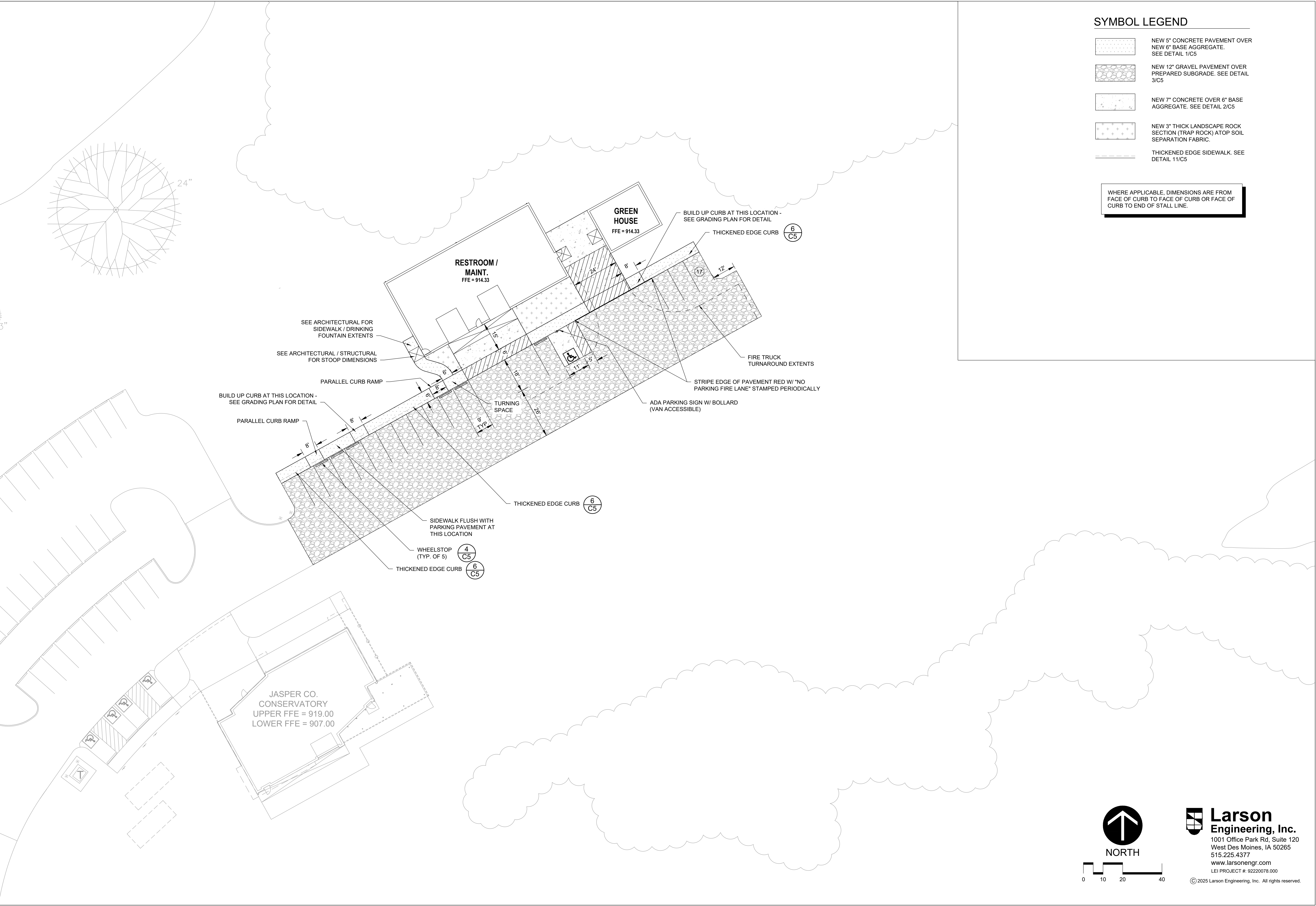
SHEET NAME:
EXISTING CONDITIONS AND
DEMOLITION PLAN

15



**Larson
Engineering, Inc.**
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515.225.4377
www.larsonengr.com
LEI PROJECT #: 92220078.000

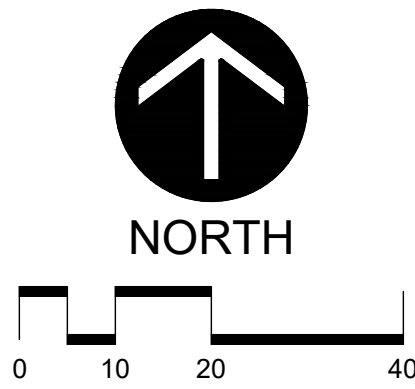
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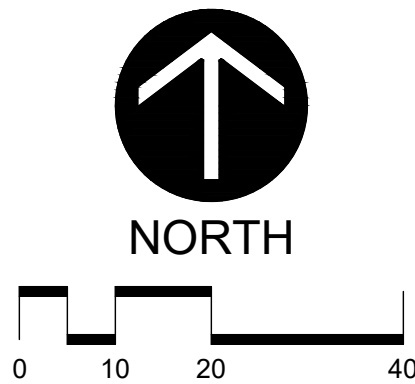
SYMBOL LEGEND

- NEW 5" CONCRETE PAVEMENT OVER NEW 6" BASE AGGREGATE. SEE DETAIL 1/C5
- NEW 12" GRAVEL PAVEMENT OVER PREPARED SUBGRADE. SEE DETAIL 3/C5
- NEW 7" CONCRETE OVER 6" BASE AGGREGATE. SEE DETAIL 2/C5
- NEW 3" THICK LANDSCAPE ROCK SECTION (TRAP ROCK) ATOP SOIL SEPARATION FABRIC.
- THICKENED EDGE SIDEWALK. SEE DETAIL 11/C5

WHERE APPLICABLE, DIMENSIONS ARE FROM FACE OF CURB TO FACE OF CURB OR FACE OF CURB TO END OF STALL LINE.



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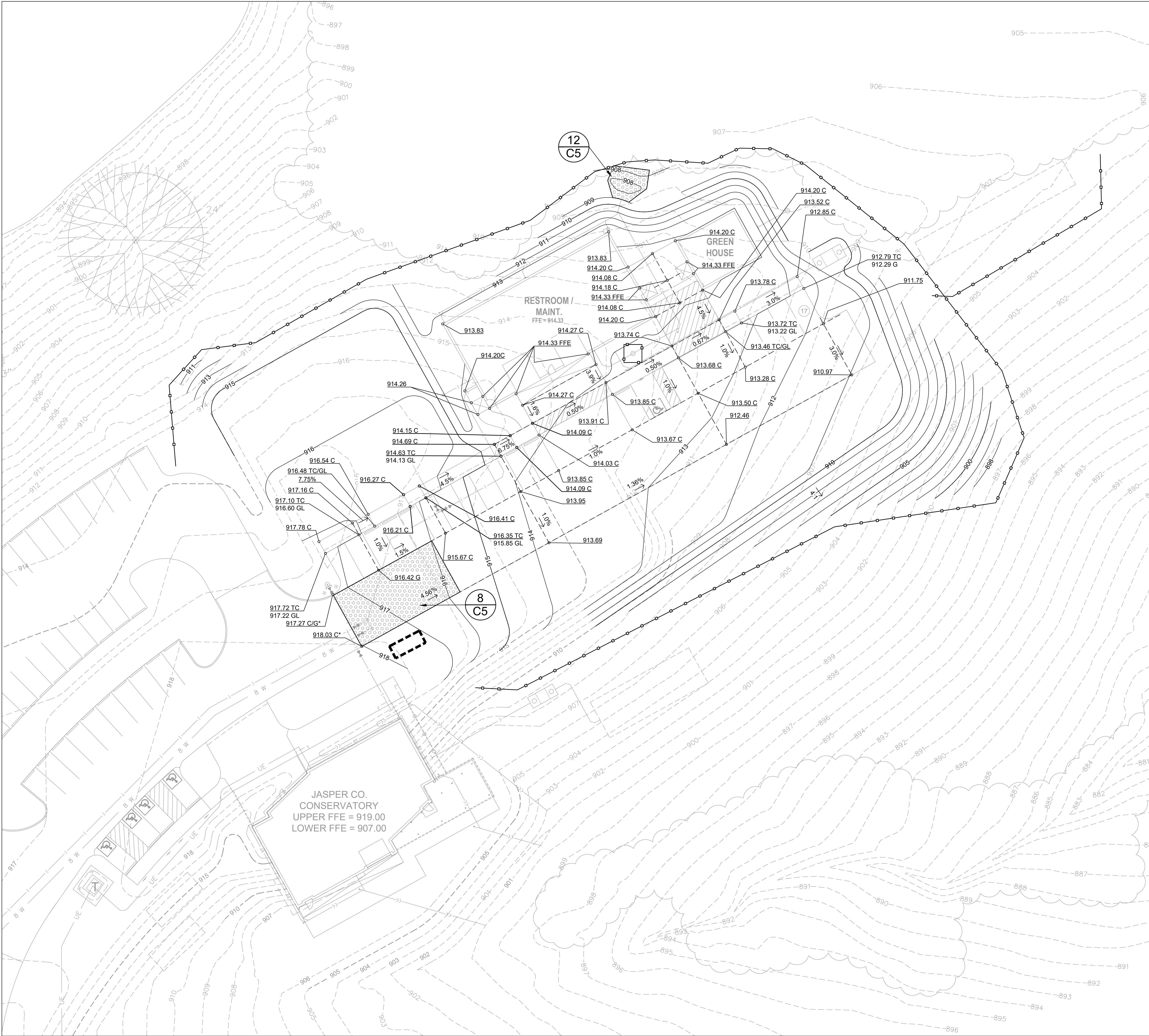
PRINT DATE:
2025-12-03
SHEET NAME:
PAVING PLAN - FUTURE PHASES

C2.1

PROJECT:
GEISLER-PENQUITE LAND STEWARDSHIP LAB
ADDRESS:
5284 LIBERTY AVENUE; NEWTON, IOWA 50208
CLIENT:
JASPER COUNTY CONSERVATION

STUDIO MELEE
139 FOURTH STREET
WEST DES MOINES, IOWA 50265

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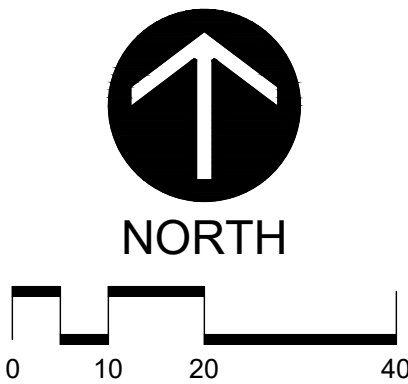


LEGEND

- EXISTING CONTOURS
- PROPOSED CONTOURS - MAJOR INTERVAL
- PROPOSED CONTOURS - MINOR INTERVAL
- GRADE BREAK LINE
- GRADE SLOPE
- SILT FENCE - SEE DETAIL 7/C5
- RIP-RAP / ROCK CONST. ENTRANCE
- INLET PROTECTION - SEE DETAIL 13/C5
- CONCRETE WASHOUT STATION
- SPOT ABBREVIATIONS:
 - TC - TOP OF CURB
 - GL - GUTTER LINE
 - B - BITUMUNOUS
 - C - CONCRETE
 - EO - EMERGENCY OVERFLOW
 - TW - TOP OF WALL
 - BW - BOTTOM OF WALL (F/G)
 - (*) - EXISTING TO BE VERIFIED

GRADING NOTES

- Tree protection consisting of snow fence or safety fence installed at the drip line shall be in place prior to beginning any grading or demolition work at the site.
- All elevations with an asterisk (*) shall be field verified. If elevations vary significantly, notify the Engineer for further instructions.
- Grades shown in paved areas represent finish elevation.
- Restore all disturbed areas with 6" of good quality topsoil and seed.
- All construction shall be performed in accordance with state and local standard specifications for construction.



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STORMWATER POLLUTION PREVENTION PLAN (SWPPP)

SECTION 1: GENERAL NOTES

- 1.1.

THE SWPPP IS COMPRISED OF THE ENCLOSED PLANS AND SPECIFICATIONS, AND THE SWPPP KEPT ONSITE.
- 1.2.

OWNER AND CONTRACTOR SHALL OBTAIN IOWA DNR-NPDES PERMIT. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL FEES PERTAINING TO THIS PERMIT. THE SWPPP SHALL BE KEPT ONSITE AT ALL TIMES.
- 1.3.

INSTALL TEMPORARY EROSION CONTROL MEASURES (INLET PROTECTION, SILT FENCE, AND ROCK CONSTRUCTION ENTRANCES) PRIOR TO BEGINNING ANY EXCAVATION OR DEMOLITION WORK AT THE SITE.
- 1.4.

EROSION CONTROL MEASURES SHOWN ON THE EROSION CONTROL PLAN ARE THE ABSOLUTE MINIMUM. THE CONTRACTOR SHALL INSTALL TEMPORARY EARTH DIKES, SEDIMENT TRAPS OR BASINS, ADDITIONAL SILTATION FENCING, AND/OR DISK THE SOIL PARALLEL TO THE CONTOURS AS DEEMED NECESSARY TO FURTHER CONTROL EROSION. ALL CHANGES SHALL BE RECORDED IN THE SWPPP.
- 1.5.

ALL CONSTRUCTION SITE ENTRANCES SHALL BE SURFACED WITH CRUSHED ROCK ACROSS THE ENTIRE WIDTH OF THE ENTRANCE AND FROM THE ENTRANCE TO A POINT 50' INTO THE CONSTRUCTION ZONE.
- 1.6.

THE TOE OF THE SILT FENCE SHALL BE TRENCHED IN A MINIMUM OF 6". THE TRENCH BACKFILL SHALL BE COMPACTED WITH A VIBRATORY PLATE COMPACTOR.
- 1.7.

ALL GRADING OPERATIONS SHALL BE CONDUCTED IN A MANNER TO MINIMIZE THE POTENTIAL FOR SITE EROSION. SEDIMENT CONTROL PRACTICES MUST BE ESTABLISHED ON ALL DOWN GRADIENT PERIMETERS BEFORE ANY UP GRADIENT LAND DISTURBING ACTIVITIES BEGIN.
- 1.8.

ALL EXPOSED SOIL AREAS MUST BE STABILIZED AS SOON AS POSSIBLE TO LIMIT SOIL EROSION BUT IN NO CASE LATER THAN 14 DAYS AFTER THE CONSTRUCTION ACTIVITY IN THAT PORTION OF THE SITE HAS TEMPORARILY OR PERMANENTLY CEASED. TEMPORARY STOCKPILES WITHOUT SIGNIFICANT SILT, CLAY OR ORGANIC COMPONENTS (E.G. CLEAN AGGREGATE STOCKPILES, DEMOLITION CONCRETE STOCKPILES, SAND STOCKPILES) AND THE CONSTRUCTED BASE COMPONENTS OF ROADS, PARKING LOTS AND SIMILAR SURFACES ARE EXEMPT FROM THIS REQUIREMENT.
- 1.9.

THE NORMAL WETTED PERIMETER OF ANY TEMPORARY OR PERMANENT DRAINAGE DITCH OR SWALE THAT DRAINS WATER FROM ANY PORTION OF THE CONSTRUCTION SITE, OR DIVERTS WATER AROUND THE SITE, MUST BE STABILIZED WITHIN 200 LINEAL FEET FROM THE PROPERTY EDGE, OR FROM THE POINT OF DISCHARGE INTO ANY SURFACE WATER. STABILIZATION OF THE LAST 200 LINEAL FEET MUST BE COMPLETED WITHIN 24 HOURS AFTER CONNECTING TO A SURFACE WATER. STABILIZATION OF THE REMAINING PORTIONS OF ANY TEMPORARY OR PERMANENT DITCHES OR SWALES MUST BE COMPLETE WITHIN 14 DAYS AFTER CONNECTING TO A SURFACE WATER AND CONSTRUCTION IN THAT PORTION OF THE DITCH HAS TEMPORARILY OR PERMANENTLY CEASED.
- 1.10.

PIPE OUTLETS MUST BE PROVIDED WITH ENERGY DISSIPATION WITHIN 24 HOURS OF CONNECTION TO SURFACE WATER.
- 1.11.

ALL RIPRAP SHALL BE INSTALLED WITH A FILTER MATERIAL OR SOIL SEPARATION FABRIC AND COMPLY WITH THE IOWA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS.
- 1.12.

ALL STORM SEWER CATCH BASINS NOT NEEDED FOR SITE DRAINAGE DURING CONSTRUCTION SHALL BE COVERED TO PREVENT RUNOFF FROM ENTERING THE STORM SEWER SYSTEM. CATCH BASINS NECESSARY FOR SITE DRAINAGE DURING CONSTRUCTION SHALL BE PROVIDED WITH INLET PROTECTION.
- 1.13.

IN AREAS WHERE CONCENTRATED FLOWS OCCUR (SUCH AS SWALES AND AREAS IN FRONT OF STORM CATCH BASINS AND INTAKES) THE EROSION CONTROL FACILITIES SHALL BE BACKED BY STABILIZATION STRUCTURE TO PROTECT THOSE FACILITIES FROM THE CONCENTRATED FLOWS.
- 1.14.

INSPECT THE CONSTRUCTION SITE ONCE EVERY SEVEN DAYS DURING ACTIVE CONSTRUCTION AND WITHIN 24 HOURS AFTER A RAINFALL EVENT GREATER THAN 0.5 INCHES IN 24 HOURS. ALL INSPECTIONS SHALL BE RECORDED IN THE SWPPP.
- 1.15.

ALL SILT FENCES MUST BE REPAIRED, REPLACED, OR SUPPLEMENTED WHEN THEY BECOME NONFUNCTIONAL OR THE SEDIMENT REACHES 1/3 OF THE HEIGHT OF THE FENCE. THESE REPAIRS MUST BE MADE WITHIN 24 HOURS OF DISCOVERY, OR AS SOON AS FIELD CONDITIONS ALLOW ACCESS. ALL REPAIRS SHALL BE RECORDED IN THE SWPPP.
- 1.16.

IF SEDIMENT ESCAPES THE CONSTRUCTION SITE, OFF-SITE ACCUMULATIONS OF SEDIMENT MUST BE REMOVED IN A MANNER AND AT A FREQUENCY SUFFICIENT TO MINIMIZE OFF-SITE IMPACTS.
- 1.17.

ALL SOILS TRACKED ONTO PAVEMENT SHALL BE REMOVED DAILY.
- 1.18.

TEMPORARY SOIL STOCKPILES MUST HAVE SILT FENCE OR OTHER EFFECTIVE SEDIMENT CONTROLS, AND CANNOT BE PLACED IN SURFACE WATERS, INCLUDING STORMWATER CONVEYANCES SUCH AS CURB AND GUTTER SYSTEMS, OR CONDUITS AND DITCHES UNLESS THERE IS A BYPASS IN PLACE FOR THE STORMWATER.
- 1.19.

COLLECTED SEDIMENT, ASPHALT AND CONCRETE MILLINGS, FLOATING DEBRIS, PAPER, PLASTIC, FABRIC, CONSTRUCTION AND DEMOLITION DEBRIS AND OTHER WASTES MUST BE DISPOSED OF PROPERLY AND MUST COMPLY WITH IOWA DNR DISPOSAL REQUIREMENTS.
- 1.20.

OIL, GASOLINE, PAINT AND ANY HAZARDOUS SUBSTANCES MUST BE PROPERLY STORED, INCLUDING SECONDARY CONTAINMENT, TO PREVENT SPILLS, LEAKS OR OTHER DISCHARGE. RESTRICTED ACCESS TO STORAGE AREAS MUST BE PROVIDED TO PREVENT VANDALISM. STORAGE AND DISPOSAL OF HAZARDOUS WASTE MUST BE IN COMPLIANCE WITH IOWA DNR REGULATIONS.
- 1.21.

EXTERNAL WASHING OF TRUCKS AND OTHER CONSTRUCTION VEHICLES MUST BE LIMITED TO A DEFINED AREA OF THE SITE. RUNOFF MUST BE CONTAINED AND WASTE PROPERLY DISPOSED OF. NO ENGINE DEGREASING IS ALLOWED ONSITE.
- 1.22.

ALL LIQUID AND SOLID WASTES GENERATED BY CONCRETE WASHOUT OPERATIONS MUST BE CONTAINED IN A LEAK-PROOF CONTAINMENT FACILITY OR IMPERMEABLE LINER. THE LIQUID AND SOLID WASTES MUST NOT CONTACT THE GROUND, AND THERE MUST NOT BE RUNOFF FROM THE CONCRETE WASHOUT OPERATIONS OR AREAS. LIQUID AND SOLID WASTES MUST BE DISPOSED OF PROPERLY AND IN COMPLIANCE WITH IOWA DNR REGULATIONS. A SIGN MUST BE INSTALLED ADJACENT TO EACH WASHOUT FACILITY TO INFORM CONCRETE EQUIPMENT OPERATORS TO UTILIZE THE PROPER FACILITIES.
- 1.23.

UPON COMPLETION OF THE PROJECT AND STABILIZATION OF ALL GRADED AREAS, ALL TEMPORARY EROSION CONTROL FACILITIES (SILT FENCES, HAY BALES, ETC.) SHALL BE REMOVED FROM THE SITE.
- 1.24.

SLOPES GREATER THAN OR EQUAL TO 4:1 SHALL BE STABILIZED WITH EROSION CONTROL FABRIC.
- 1.25.

ALL PERMANENT SEDIMENTATION BASINS MUST BE RESTORED TO THEIR DESIGN CONDITION IMMEDIATELY FOLLOWING STABILIZATION OF THE SITE.

SECTION 2: SITE EVALUATION, ASSESSMENT, AND PLANNING (CONTINUED)

- 2.3.

NATURE AND SEQUENCE OF CONSTRUCTION ACTIVITY

THE PROJECT SCOPE IS TO CONSIST OF CONSTRUCTING NEW CONCRETE ROADWAY ATOP AN EXISTING GRAVEL ROADWAY. PROJECT SCOPE WILL ALSO INCLUDE STORM WATER UTILITIES, EXISTING DETENTION BASIN EXPANSION, AND GENERAL SITE GRADING. THE PROJECT IS PROPOSED TO CONSIST OF TWO PHASES TO ALLOW ACCESS TO THE EXISTING BASEBALL/SOFTBALL COMPLEX.

SEQUENCE OF CONSTRUCTION ACTIVITIES AND STABILIZATION PRACTICE:

2.3.1.

PRIOR TO ANY WORK ON SITE

PERIMETER SILT FENCE IS TO BE INSTALLED BEFORE ANY WORK ON SITE IS STARTED. DO NOT DISTURB AN AREA UNTIL IT IS NECESSARY FOR CONSTRUCTION TO PROCEED. A CONSTRUCTION STAGING AREA IS TO BE CONSTRUCTED ON SITE IN A LOCATION THAT IS MINIMALLY AFFECTED BY STORMWATER RUNOFF. ALL CONSTRUCTION MATERIALS SHALL BE STORED AT THIS LOCATION. THE CONTRACTOR IS TO INSTALL A TEMPORARY GRAVEL ENTRANCE/EXIT DRIVE TO MINIMIZE THE AMOUNT OF DIRT TRACKING OFF SITE. TIME CONSTRUCTION ACTIVITIES TO LIMIT IMPACT FROM WEATHER/SEASONAL CHANGES.

2.3.2.

PRE-CONSTRUCTION INSPECTION

CONTACT THE CITY ENGINEER FOR A PRE-CONSTRUCTION INSPECTION.

2.3.3.

CLEARING & GRUBBING

VERIFY ALL SILT FENCING IS IN PLACE AND IN GOOD WORKING ORDER. CLEAR ALL AREAS THAT WILL BE AFFECTED BY CONSTRUCTION ACTIVITY. NO MATERIALS ARE TO BE BURIED ON SITE. ALL WASTE MATERIALS ARE TO BE DISPOSED OF PROPERLY AND MUST COMPLY WITH IOWA DNR DISPOSAL REQUIREMENTS. COVER OR STABILIZED DISTURBED AREAS IMMEDIATELY IF AN AREA WILL NOT BE ACTIVE FOR 14 DAYS OR MORE.

2.3.4.

ROUGH GRADING

VERIFY ALL PERIMETER SILT FENCE IS IN PLACE AND IN GOOD WORKING ORDER FOLLOWING CLEARING AND GRUBBING. CONSTRUCTION OF ANY DIVERSION DIKES AND/OR SILT BASINS ARE TO BE CONSTRUCTED FIRST TO PREVENT ANY EROSION FROM LEAVING THE SITE. AFTER COMPLETION OF ROUGH GRADING, ALL INTERIOR SILT FENCE OR OTHER EROSION CONTROL MEASURES ARE TO BE INSTALLED.

2.3.5.

SITE UTILITY CONSTRUCTION

VERIFY ALL SILT FENCING AND OTHER EROSION CONTROL MEASURES ARE IN PLACE AND IN GOOD WORKING ORDER FOLLOWING ROUGH GRADING. INSTALL SITE UTILITIES AND PLACE PERMANENT SEEDING ON ANY AREAS THAT ARE NOT TO BE DISTURBED BY FUTURE CONSTRUCTION ACTIVITY. STORM OUTLETS SHALL BE PROTECTED USING RIP-RAP AND ENGINEERING FABRIC. PROTECT ALL STORM SEWER INLETS FROM ANY EROSION INFILTRATION INTO THE STORM SEWER WITH AN APPROVED METHOD.

2.3.6.

PAVING CONSTRUCTION

VERIFY ALL SILT FENCING AND OTHER EROSION CONTROL MEASURES ARE IN PLACE AND IN GOOD WORKING ORDER FOLLOWING UTILITY CONSTRUCTION. CONSTRUCT ALL CURB AND GUTTER, SIDEWALK, INTAKES, AND MANHOLES IN PREPARATION FOR FINAL CURB/SIDEWALK BACKFILL. PROTECT ALL STORM SEWER INTAKES WITH AN APPROVED EROSION CONTROL METHOD, WHICH ARE TO BE LEFT IN PLACE UNTIL FINAL STABILIZATION IS REACHED.

2.3.7.

BUILDING CONSTRUCTION

VERIFY ALL SILT FENCING AND OTHER EROSION CONTROL MEASURES ARE IN PLACE AND IN GOOD WORKING ORDER FOLLOWING PAVING CONSTRUCTION. CONSTRUCT BUILDING BEING CAREFUL TO MINIMIZE DIRT BEING TRACKED ONTO PAVEMENT. DUMPSTERS SHALL BE COVERED TO PREVENT STORM WATER CONTAMINATION. ALL MATERIALS HAULED OFF SITE SHALL BE SECURED TO PREVENT LITTERING. ANY MATERIALS TRACKED ONTO STREETS SHALL BE REMOVED BY THE END OF THE WORK DAY.

2.3.8.

FINAL GRADING

VERIFY ALL SILT FENCING AND OTHER EROSION CONTROL MEASURES ARE IN PLACE AND IN GOOD WORKING ORDER. REMOVE ALL INTERIOR EROSION CONTROL MEASURES LONG ENOUGH TO COMPLETE FINAL GRADING, BEING SURE TO REINSTALL ALL MEASURES UNTIL FINAL STABILIZATION IS MET. ONCE SEEDING HAS BEEN COMPLETED, ANY TEMPORARY SILT BASINS CAN BE CLEANED AND REMOVED. DO NOT REMOVE PERIMETER CONTROLS UNTIL UPSTREAM AREAS ARE STABILIZED. INSTALL INFILTRATION CONTROLS AFTER UPSTREAM AREAS ARE STABILIZED.

2.3.9.

POST-CONSTRUCTION

CONTACT THE CITY ENGINEER FOR A POST-CONSTRUCTION INSPECTION. REMOVE TEMPORARY CONTROLS WHEN 70% STABILIZATION IS REACHED. FILE NOTICE OF DISCONTINUATION (NOD) WITHIN 30 DAYS OF REMOVAL. PROVIDE THE CITY ENGINEER A COPY OF THE NOD.

SEASONAL CONSIDERATIONS:

COLD CLIMATE CONSIDERATIONS - THE CONTRACTOR SHALL PLAN AHEAD AT THE START OF THE PROJECT, AND DEVELOP A SEQUENCED CONSTRUCTION SCHEDULE TO ENSURE THAT ALL EXPOSED AREAS HAVE COVER BEFORE THE FIRST FREEZE. PREPARATION OF VEGETATIVE COVER SHOULD BEGIN IN THE FALL. SEEDS MUST BE STARTED EARLY ENOUGH FOR THEM TO GERMINATE, ESTABLISH ROOTS AND PROVIDE COVER BEFORE THE WINTER BEGINS. REFERENCE THE IDOT STANDARD SPECIFICATIONS FOR THE LAST SEEDING DATE.

NOTE THAT SITE MUST REMAIN IN COMPLIANCE WITH THE NPDES PERMIT THROUGHOUT THE WINTER, EVEN IF NO CONSTRUCTION IS OCCURRING. FOR THIS REASON, ENSURE THE SITE IS COMPLIANT WITH THE PERMIT REQUIREMENTS PRIOR TO CEASING CONSTRUCTION DUE TO FROZEN CONDITIONS. THE SITE MUST BE INSPECTED AND MAINTAINED ON A REGULAR BASIS DURING THE WINTER MONTHS.

CONSTRUCTION ACTIVITY FUNCTION: PRIVATE ROAD CONSTRUCTION (SCHOOL / PUBLIC FACILITY)

ESTIMATED PROJECT START DATE: MAY 2025

ESTIMATED PROJECT COMPLETION DATE: AUGUST 2025

2.4.

SOILS, SLOPES, VEGETATION, AND CURRENT DRAINAGE PATTERNS

SOIL TYPE(S): THE EXISTING SITE CONSISTS OF APPROXIMATELY 1' OF TOPSOIL, UNDERLAIN BY LOESS AND GLACIAL SOILS. TOPSOIL WAS NOTED TO CONSIST OF LEAN TO FAT CLAY (CL-CH) WITH TRACE AMOUNTS OF ORGANIC MATTER. LOESS SOILS GENERALLY CONSIST OF MEDIUM STIFF TO STIFF FAT CLAY, LEAN TO FAT CLAY, LEAN CLAY, AND SILT (CL, CH, ML) AND GENERALLY EXTENDED TO DEPTHS OF 6-12 FEET. GLACIAL SOILS WE NOTED TO BE ENCOUNTERED BELOW THE LOESS SOILS AND GENERALLY CONSIST OF A MIXTURE OF SAND, SILT AND CLAY (CL, CH, SC) AND WERE ENCOUNTERED TO THE TERMINATION DEPTH OF THE ACQUIRED BORINGS.

SLOPES: EXISTING GRADES IN THE AREA OF THE PROPOSED BUILDING VARY BETWEEN ELEVATIONS OF 917 AND 900 FEET AND A RIDGE CURRENTLY EXISTS AT THE PROJECT LOCATION. THE SITE GENERALLY SLOPES FROM SOUTHWEST TO NORTHEAST. AT THE PROPOSED PROJECT SITE, THE SITE SLOPES FROM LIBERTY AVENUE TO THE NORTH WHERE THE EXISTING RIDE IS PRESENT IN THE OPEN FIELD. THE RIDGE THE SLOPES NORTH AND SOUTH TO EXISTING LOCAL PONDS. THE PROPOSED PARKING AND BUILDING ARE INTENDED TO BE PLACED ABOUT THE RIDGE, WITH THE PARKING LOT SLOPING TO THE SOUTHEAST AND THE BUILDINGS DRAINING TO THE NORTH. THE BUILDINGS ARE PROPOSED TO HAVE A FINISH FLOOR ELEVATION OF 914.33, GRADING WILL REQUIRE CUT DEPTHS OF +/- 3 FEET AND FILL THICKNESSES OF +/- 4 FEET.

DRAINAGE PATTERNS: AS NOTED ABOVE, THE SITE WILL CONTINUE TO UTILIZE THE EXISTING RIDGE FOR GENERAL SLOPE PATTERNS. THE SITE WILL DRAIN OVERLAND ACROSS EXISTING PASTURE/GRASSLAND TO THE EXISTING LOCAL PONDS. THE NORTH AND SOUTH PONDS ARE ESTIMATED TO HAVE AN OVERALL FOOTPRINT OF 1.25 AND 1.0 ACRES, RESPECTIVELY. WHILE NOT INCLUDED AS PART OF THE PROJECT, BOTH PONDS ARE ASSUMED TO HAVE A SMALL OUTLET DRAINING EASTERLY. VEGETATION: THE EXISTING VEGETATION IS PRIMARILY A MEADOW CONDITION WITH SMALL POCKETS OF SHORT GRASS. DISTURBED AREAS WILL BE RE-SEEDDED WITH A PERMANENT LAWN SEED MIXTURE MEETING SUDAS SPECIFICATIONS.

SECTION 2: SITE EVALUATION, ASSESSMENT, AND PLANNING (CONTINUED)

2.5.

CONSTRUCTION SITE ESTIMATES

TOTAL SITE AREA: 32.10 ACRES

CONSTRUCTION SITE AREA TO BE DISTURBED: 1.26 ACRES

PERCENTAGE IMPERVIOUS AREA BEFORE CONSTRUCTION: 3.35%

RUNOFF COEFFICIENT BEFORE CONSTRUCTION: 0.22 (PAVEMENT = 0.9, GRAVEL = 0.85, LAWN / VEGETATION = 0.2)

PERCENTAGE IMPERVIOUS AREA AFTER CONSTRUCTION: 5.64%

RUNOFF COEFFICIENT AFTER CONSTRUCTION: 0.24 (PAVEMENT = 0.9, GRAVEL = 0.85, LAWN / VEGETATION = 0.2)

2.6.

RECEIVING WATERS

THE SITE WILL DRAIN TO ON-SITE RETENTION PONDS THAT INCLUDE AN OUTLET PIPE THAT DRAINS OVERLAND TO THE EAST, ULTIMATELY TO ELK CREEK, A TRIBUTARY TO THE SOUTH SKUNK RIVER.

2.7.

POTENTIAL SOURCES OF POLLUTION

SITE GRADING IS THE LARGEST POTENTIAL SOURCE OF SEDIMENT RUNOFF ON SITE.

POTENTIAL POLLUTANTS AND SOURCES, OTHER THAN SEDIMENT, TO STORMWATER RUNOFF: DURING CONSTRUCTION, STORAGE OF MATERIALS AND VEHICLES CAN BE DEEMED AS POTENTIAL POLLUTANT SOURCES. OIL, FUEL, AND ANY HAZARDOUS MATERIAL MUST BE PROPERLY STORED TO PREVENT SPILLAGE, LEAKAGE, AND DISCHARGE. ADDITIONALLY, A LOCATION FOR WASHING OF VEHICLES AND/OR EQUIPMENT HAS BEEN DESIGNATED ON SHEET C305, EROSION CONTROL PLAN. UPON THE COMPLETION OF CONSTRUCTION, PARKING LOTS POSE AS POTENTIAL POLLUTANT SOURCES DUE TO VEHICULAR TRAFFIC.

2.8.

ENDANGERED SPECIES CERTIFICATION

THERE ARE NO DELINEATED AREAS OF ENDANGERED SPECIES ON THE U.S. FISH AND WILDLIFE SERVICE'S CRITICAL HABITAT FOR THREATENED AND ENDANGERED SPECIES MAP.

2.9.

HISTORIC PRESERVATION

ACCORDING TO THE IOWA DEPARTMENT OF CULTURAL AFFAIRS' MAP, THE PROJECT SITE IS NOT A HISTORIC SITE NOR DOES IS IT ADJACENT TO A HISTORIC SITE.

SECTION 2: SITE EVALUATION, ASSESSMENT, AND PLANNING

2.1.

PROJECT / SITE INFORMATION

PROJECT / SITE NAME: JASPER COUNTY CONSERVATION RESTROOM AND MAINTENANCE BUILDING

PROJECT STREET/LOCATION: 75284 LIBERTY AVENUE, NEWTON, IA 50208

COUNTY: JASPER

LATITUDE: 41° 40' 45" N

LONGITUDE: 92° 59' 18" W

METHOD FOR DETERMINING LATITUDE / LONGITUDE: GOOGLE EARTH PRO

2.2.

CONTACT INFORMATION / RESPONSIBLE PARTIES

SWPPP PREPARER:

LARSON ENGINEERING, INC.

GAGE L. DECOOK, P.E.

1001 OFFICE PARK ROAD, SUITE 120

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LEI PROJECT #: 92220078.000

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PRINT DATE:
2025-12-03

SHEET NAME:
GRADING AND EROSION
CONTROL PLAN

PROJECT:
GEISLER-PENQUITE LAND STEWARDSHIP LAB

ADDRESS:
5284 LIBERTY AVENUE, NEWTON, IOWA 50208

CLIENT:
JASPER COUNTY CONSERVATION

STUDIO MELEE
139 FOURTH STREET
WEST DES MOINES, IOWA 50265

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C3.2

STORMWATER POLLUTION PREVENTION PLAN (SWPPP)

SECTION 3: EROSION AND SEDIMENT CONTROL BMPS

THE FOLLOWING BMPS ARE LISTED AS GENERAL BMPS THAT ARE TO BE USED ON THE PROJECT SITE. SHOULD THE CONTRACTOR CHOOSE TO INCLUDE ADDITIONAL BMPS, THE SWPPP SHOULD BE UPDATED ACCORDINGLY. INSTALLATION AND MAINTENANCE PROCEDURES SHOULD FOLLOW THAT LISTED IN THE PROJECT SPECIFICATIONS, AS WELL AS APPLICABLE CITY, STATE, AND FEDERAL RULES AND REGULATIONS, INCLUDING THE MOST RECENT IOWA STATEWIDE URBAN DESIGN AND SPECIFICATIONS (SUDAS) AND IOWA STORM WATER MANUAL (ISWMM). LOCATION OF PROPOSED BMPS AND DETAILS CAN BE FOUND IN THE PROJECT PLANS.

- 3.1. MINIMIZE DISTURBED AREA AND PROTECT NATURAL FEATURES AND SOIL
- STABILIZATION PRACTICES:
- 3.1.1. STORMWATER MANAGEMENT
- STORM WATER RUNOFF WILL BE MANAGED BY STORM SEWER AND DRAINAGE SWALES. THE AREAS THAT ARE NOT DEVELOPED WILL BE GRADED AT THE SLOPES AS SHOWN ON THE GRADING PLAN, AND SHALL HAVE PERMANENT SEEDING OR LANDSCAPING UPON FINAL GRADING. ALL PIPE OUTLETS WILL BE STABILIZED WITH RIP-RAP AND ENGINEERING FABRIC TO REDUCE EROSION AT THE PIPE OUTLETS.
- 3.1.2. PERMANENT STABILIZATION PRACTICES
- PERMANENT SEEDING AND PLANTING OF ALL DISTURBED AREAS BY SEEDING, FERTILIZING, AND MULCHING SHALL BE COMPLETED AFTER FINAL GRADING IS FINISHED. THIS SHALL OCCUR IN A TIME OF YEAR THAT IS APPROPRIATE FOR SEED GERMINATION. ALL VEGETATION IN AREAS NOT DISTURBED DURING CONSTRUCTION IS TO BE MAINTAINED.
- 3.1.3. PERMANENT STRUCTURAL PRACTICES
- INLET PROTECTION SHALL BE PLACED AT EACH CATCH BASIN UNTIL VEGETATION IS FULLY ESTABLISHED.
- 3.1.4. TEMPORARY STABILIZATION PRACTICES
- IF CONSTRUCTION ACTIVITY CEASES AFTER STRIPPING AND STOCKPIILING FOR MORE THAN 21 DAYS, TEMPORARY SEED AND MULCHING SHALL BE PLACED NO MORE THAN 14 DAYS AFTER CONSTRUCTION CEASES. SILT FENCE MAY BE USED TO TEMPORARILY CHECK FLOWS ON SITE AND HELP PROTECT INTAKES AND MANHOLES ON SITE. ANY AREA WHERE RUNOFF FLOWS OFF SITE, SILT FENCE SHALL BE PLACED ALONG THE PERIMETER OF THE SITE PRIOR TO ANY GRADING. FREQUENT WATERING OF THE GRADE ON SITE SHALL ALSO BE PRACTICED TO MINIMIZE DUST POLLUTION ON SITE.
- 3.1.5. TEMPORARY STRUCTURAL PRACTICES
- TEMPORARY SEDIMENT TRAPS MAY BE USED AND PLACED NEAR OUTLETS FROM THE POND TO COLLECT SEDIMENT PRIOR TO ENTERING THE EXISTING POND. A COMBINATION OF SILT FENCES, SEDIMENT TRAPS, AND INLET PROTECTION MEASURES MAY BE USED TO REDUCE EROSION.
- 3.1.6. OTHER CONTROLS
- ALL DISPOSAL OF CONSTRUCTION MATERIALS AND WASTE SHALL FOLLOW ALL LOCAL, STATE, AND FEDERAL REGULATIONS FOR DISPOSAL OF SUCH MATERIALS. THE CONTRACTOR IS ALSO RESPONSIBLE FOR THE CONSTRUCTION AND MAINTENANCE OF A TEMPORARY GRAVEL ENTRANCE INTO THE PROJECT TO MINIMIZE THE AMOUNT OF TRACKING FROM THE SITE. THE BORDERING STREETS SHALL BE INSPECTED DAILY, AND ANY TRACKING SHALL BE CLEANED IMMEDIATELY.
- 3.2. CONTROL STORMWATER FLOWING ONTO AND THROUGH THE PROJECT
- BMP DESCRIPTION: SILT FENCE
- INSTALLATION SCHEDULE: FOLLOWING STORM SEWER INSTALLATION
- MAINTENANCE AND INSPECTION: ONCE EVERY 7 DAYS OR WITHIN 24 HOURS OF A 1/2" RAIN EVENT OR GREATER
- RESPONSIBLE STAFF: CONTRACTOR
- 3.3. STABILIZE SOILS
- BMP DESCRIPTION: ESTABLISH PERENNIAL VEGETATION
- PERMANENT/TEMPORARY: PERMANENT
- INSTALLATION SCHEDULE: FINAL STABILIZATION
- MAINTENANCE AND INSPECTION: WATER AND/OR FERTILIZE UNTIL TURF HAS ESTABLISHED.
- RESPONSIBLE STAFF: CONTRACTOR
- 3.4. PROTECT SLOPES
- THE PROPOSED FINAL GRADING OF THE DISTURBED AREA WILL NOT CONTAIN ANY SLOPES GREATER THAN 3:1.
- 3.5. PROTECT STORM DRAIN INLETS
- BMP DESCRIPTION: AREA INLET SEDIMENT BARRIER - SILT FENCE
- INSTALLATION SCHEDULE: FOLLOWING STORM SEWER INSTALLATION
- MAINTENANCE AND INSPECTION: ONCE EVERY 7 DAYS OR WITHIN 24 HOURS OF 1/2" RAIN EVENT OR GREATER.
- RESPONSIBLE STAFF: CONTRACTOR
- 3.6. ESTABLISH PERIMETER CONTROLS AND SEDIMENT BARRIERS
- 3.6.1. BMP DESCRIPTION: PERIMETER SILT FENCE
- INSTALLATION SCHEDULE: PRIOR TO LAND DISTURBANCE
- MAINTENANCE AND INSPECTION: ONCE EVRY 7 DAYS OR WITHIN 24 HOURS OF 1/2" RAIN EVENT OR GREATER.
- RESPONSIBLE STAFF: CONTRACTOR
- 3.6.2. BMP DESCRIPTION: CONSTRUCTION FENCING
- INSTALLATION SCHEDULE: PRIOR TO LAND DISTURBANCE
- MAINTENANCE AND INSPECTION: INSPECT AT MINIMUM ONCE EVERY 7 DAYS. NECESSARY REPAIRS SHALL BE MADE WITHIN 24 HOURS.
- RESPONSIBLE STAFF: CONTRACTOR
- 3.7. RETAIN SEDIMENT ON-SITE
- BMP DESCRIPTION: ROCK CONSTRUCTION ENTRANCE
- INSTALLATION SCHEDULE: PRIOR TO LAND DISTURBANCE
- MAINTENANCE AND INSPECTION: MAINTAIN 6" MINIMUM DEPTH. RESHAPE ENTRANCE AS NEEDED TO MAINTAIN FUNCTION AND INTEGRITY OF INSTALLATION. TOP DRESS WITH CLEAN AGGREGATE AS NEEDED.
- RESPONSIBLE STAFF: CONTRACTOR
- 3.8. ESTABLISH STABILIZED CONSTRUCTION EXITS
- BMP DESCRIPTION: ROCK CONSTRUCTION ENTRANCE
- INSTALLATION SCHEDULE: PRIOR TO LAND DISTURBANCE
- MAINTENANCE AND INSPECTION: MAINTAIN 6" MINIMUM DEPTH. RESHAPE ENTRANCE AS NEEDED TO MAINTAIN FUNCTION AND INTEGRITY OF INSTALLATION. TOP DRESS WITH CLEAN AGGREGATE AS NEEDED.
- RESPONSIBLE STAFF: CONTRACTOR

SECTION 4: GOOD HOUSEKEEPING BMPS

- 4.1. MATERIAL HANDLING AND WASTE MANAGEMENT
- 4.4.1. BMP DESCRIPTION: TRASH DUMPSTERS
- INSTALLATION SCHEDULE: DUMPSTERS WILL BE INSTALLED ONCE THE MATERIALS STORAGE AREA HAS BEEN ESTABLISHED.
- MAINTENANCE AND INSPECTION: DUMPSTERS TO BE INSPECTED WEEKLY AND IMMEDIATELY AFTER STORM EVENTS. IF TRASH AND CONSTRUCTION DEBRIS ARE EXCEEDING THE DUMPSTERS' CAPACITY, THE DUMPSTERS WILL BE EMPTIED MORE FREQUENTLY.
- RESPONSIBLE STAFF: CONTRACTOR
- 4.4.2. BMP DESCRIPTION: PORTABLE SANITARY FACILITIES (PORTABLE TOILETS)
- INSTALLATION SCHEDULE: PORTABLE TOILETS WILL BE BROUGHT TO THE SITE ONCE THE STAGING AREA HAS BEEN ESTABLISHED.
- MAINTENANCE AND INSPECTION: INSPECT WEEKLY FOR EVIDENCE OF LEAKAGE IN HOLDING TANKS. CONTRACTOR TO SCHEDULE SANITARY WASTE COLLECTION AS NECESSARY.
- RESPONSIBLE STAFF: CONTRACTOR
- 4.5. ESTABLISH PROPER BUILDING MATERIAL STAGING AREAS
- BMP DESCRIPTION: MATERIALS STAGING AREA
- INSTALLATION SCHEDULE: STAGING AREA TO BE ESTABLISHED PRIOR TO ANY INFRASTRUCTURE INSTALLATION.
- MAINTENANCE AND INSPECTION: INSPECT WEEKLY AND AFTER STORM EVENTS.
- RESPONSIBLE STAFF: CONTRACTOR
- 4.6. DESIGNATE WASHOUT AREAS
- BMP DESCRIPTION: CONCRETE WASHOUT
- INSTALLATION SCHEDULE: PRIOR TO THE PLACEMENT OF ANY CONCRETE.
- MAINTENANCE AND INSPECTION: INSPECTED DAILY TO ENSURE ALL CONCRETE WASHING IS BEING DISCHARGED INTO THE WASHOUT AREA, NO LEAKS ARE PRESENT, AND TO IDENTIFY WHEN CONCRETE WASTED NEED TO BE REMOVED.
- RESPONSIBLE STAFF: CONTRACTOR
- 4.7. ESTABLISH PROPER EQUIPMENT/VEHICLE FUELING AND MAINTENANCE PRACTICES
- BMP DESCRIPTION: VEHICLE/EQUIPMENT FUELING AND MAINTENANCE
- INSTALLATION SCHEDULE: START OF THE PROJECT
- MAINTENANCE AND INSPECTION: ALL MAJOR EQUIPMENT/VEHICLE FUELING AND MAINTENANCE WILL BE PERFORMED OFF SITE. WHEN VEHICLE FUELING MUST OCCUR ON SITE, THE FUELING ACTIVITY WILL OCCUR IN THE STAGING AREA. INSPECT EQUIPMENT/VEHICLE STORAGE AREAS AND FUEL TANK WEEKLY AND AFTER STORM EVENTS.
- RESPONSIBLE STAFF: CONTRACTOR
- 4.8. CONTROL EQUIPMENT/VEHICLE WASHING
- IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO ENSURE THAT ALL EQUIPMENT AND VEHICLE WASHING IS PERFORMED OFF-SITE.
- 4.9. SPILL PREVENTION AND CONTROL PLAN
- VEHICLE MAINTENANCE - VEHICLES AND EQUIPMENT WILL BE MAINTAINED OFF SITE. ALL VEHICLES AND EQUIPMENT INCLUDING SUBCONTRACTOR VEHICLES WILL BE CHECKED FOR LEAKING OIL AND FLUIDS. VEHICLES LEAKING FLUIDS WILL NOT BE ALLOWED ON SITE.
- HAZARDOUS MATERIAL STORAGE - HAZARDOUS MATERIALS WILL BE STORED IN ACCORDANCE WITH FEDERAL AND MUNICIPAL REGULATIONS.
- SPILLS - ALL SPILLS WILL BE CLEANED IMMEDIATELY UPON DISCOVERY. SPENT ABSORBENT MATERIALS AND RAGS WILL BE HAULED OFF SITE IMMEDIATELY AFTER THE SPILL IS CLEANED.
- MATERIAL SAFETY DATA SHEETS, MATERIAL INVENTORY, AND EMERGENCY CONTACT INFORMATION WILL BE MAINTAINED AT THE ON-SITE PROJECT TRAILER.
- 4.8. ALLOWABLE NON-STORMWATER DISCHARGE MANAGEMENT
- ANY CHANGES IN CONSTRUCTION ACTIVITIES THAT PRODUCE OTHER ALLOWABLE NON-STORMWATER DISCHARGES WILL BE IDENTIFIED BY THE CONTRACTOR, THE SWPPP WILL BE AMENDED, AND THE APPROPRIATE EROSION AND SEDIMENT CONTROL WILL BE IMPLEMENTED.
- 4.9. EMERGENCY CONTACT NUMBERS
- EMERGENCY SERVICES (POLICE, AMBULANCE SERVICE): 911
- IDNR: (515) 725-8694
- EMERGENCY SERVICES (POLICE, AMBULANCE SERVICE): 911
- IDNR: (515) 725-8694
- CITY OF NEWTON CITY HALL: (641) 792-2787
- CITY OF NEWTON FIRE DEPARTMENT: (641) 792-3347
- JASPER COUNTY ENGINEER'S OFFICE: (641) 792-5862
- JASPER COUNTY PUBLIC HEALTH DEPARTMENT: (641) 787-9224
- JASPER COUNTY COMMUNITY DEVELOPMENT DEPARTMENT: (641) 792-3084

SECTION 5: SELECTING POST-CONSTRUCTION BMPS

BMP DESCRIPTION: RIP RAP

INSTALLATION SCHEDULE: TO BE INSTALLED WITH STORM SEWER SYSTEM

MAINTENANCE AND INSPECTION: INSPECT WEEKLY AND IMMEDIATELY AFTER STORM EVENTS TO ENSURE RIP RAP IS STABILIZED

RESPONSIBLE STAFF: CONTRACTOR/OWNER

SECTION 6: INSPECTIONS

- 6.1. INSPECTIONS
- INSPECTIONS OF THE SITE WILL BE PERFORMED ONCE EVERY 7 DAYS, AND WITHIN 24 HOURS OF THE END OF A STORM EVENT OF 1/2" OR GREATER. THE INSPECTIONS WILL VERIFY THAT ALL BMPS REQUIRED IN SECTIONS 3 AND 4 ARE IMPLEMENTED, MAINTAINED, EFFECTIVELY MINIMIZING EROSION, AND PREVENTING STORMWATER CONTAMINATION FROM CONSTRUCTION MATERIALS.
- 7.1. RECORDKEEPING
- RECORDS WILL BE RETAINED FOR A MINIMUM PERIOD OF AT LEAST 3 YEARS AFTER THE PERMIT IS TERMINATED.
- 7.2. LOG OF CHANGES TO THE SWPPP
- ALL WORKERS ONSITE SHALL BE MADE AWARE OF CONTROLS AND REGULATIONS. SITE MAP SHALL BE UPDATED AS CONDITIONS AND/OR CONTROL LOCATIONS CHANGE. IF CONTROL LOCATIONS CANNOT BE PRE-DETERMINED, THE SWPPP MANAGER SHALL ADD THEM TO THE SITE MAP AS THEY ARE IMPLEMENTED. OFFICIAL LOG TO BE COMPLETED BY THE CONTRACTOR.

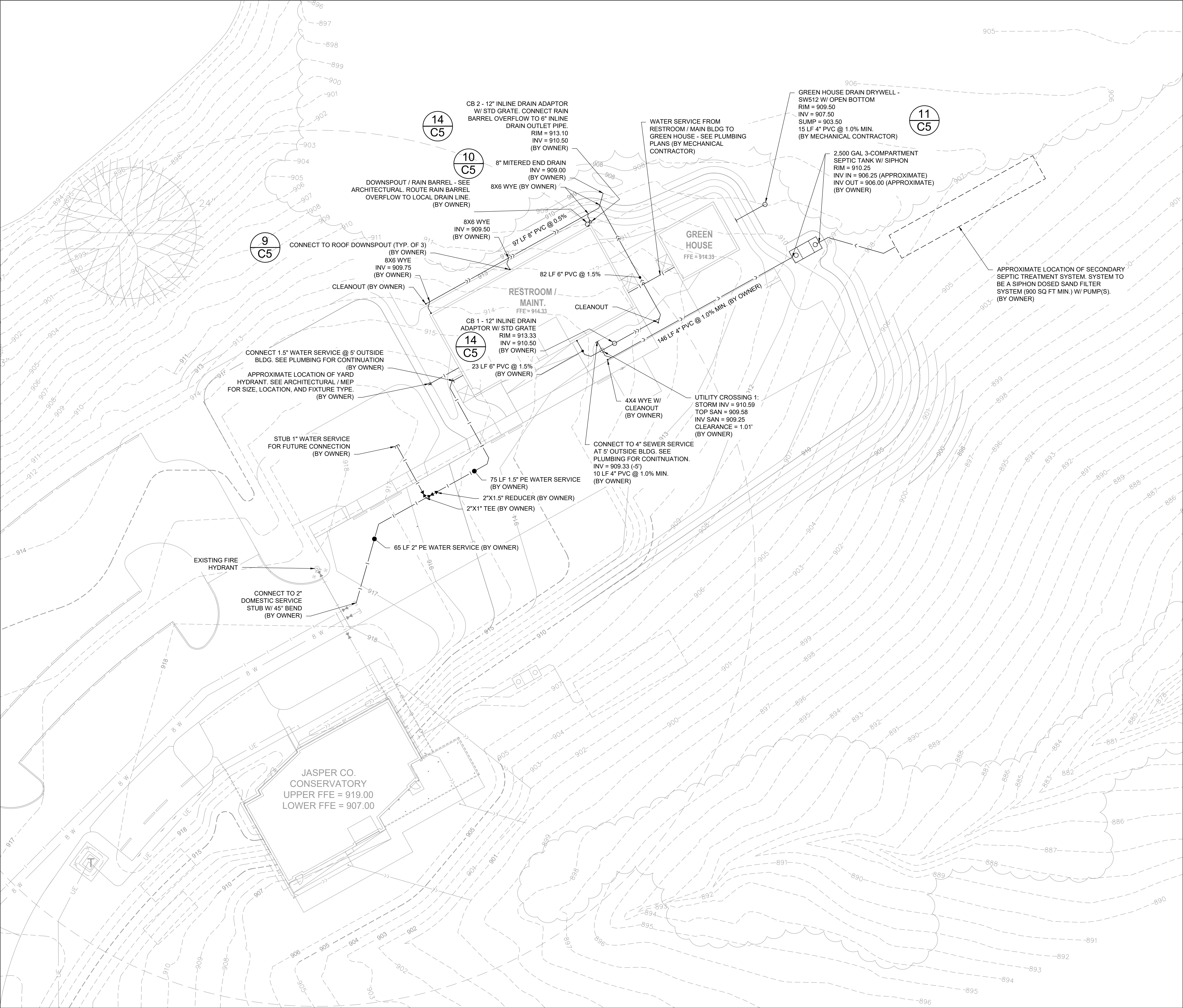
SECTION 8: FINAL STABILIZATION

BMP DESCRIPTION: PERMANENT SEEDING

INSTALLATION SCHEDULE: AFTER FINAL DESIGN GRADES ARE ACHIEVED.

MAINTENANCE AND INSPECTION: ALL SEEDED AREAS WILL BE INSPECTED WEEKLY DURING CONSTRUCTION ACTIVITIES FOR FAILURE, AND AFTER STORM EVENTS UNTIL A DENSE COVER OF VEGETATION HAS BEEN ESTABLISHED.

RESPONSIBLE STAFF: CONTRACTOR/OWNER



LEGEND

- STORM MANHOLE
- CATCH BASIN
- CURB INLET
- △ FLARED END
- SANITARY MANHOLE
- ⊕ HYDRANT
- ⊕ GATE VALVE & BOX
- ⊗ WATER SHUTOFF
- ⊙ LIGHT POLE
- CTV — CABLE UNDERGROUND LINE
- OE — ELECTRIC OVERHEAD LINE
- UE — ELECTRIC UNDERGROUND LINE
- FO — FIBER OPTIC UNDERGROUND LINE
- G — NATURAL GAS UNDERGROUND LINE
- > — SANITARY SEWER PIPE
- >> — STORM SEWER PIPE
- T — TELEPHONE UNDERGROUND LINE
- | — WATERMAIN PIPE
- — DRAINTILE PIPE

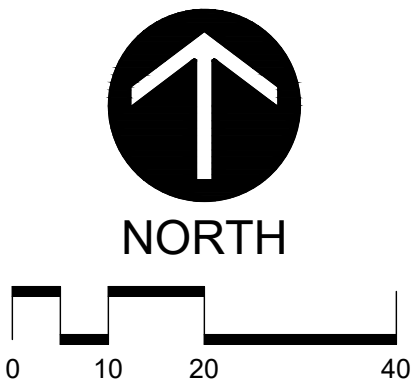
UTILITY NOTES:

- It is the responsibility of the contractor to perform or coordinate all necessary utility connections and relocations from existing utility locations to the proposed building, as well as to all onsite amenities. These connections include but are not limited to water, sanitary sewer, cable TV, telephone, gas, electric, site lighting, etc.
- All service connections shall be performed in accordance with state and local standard specifications for construction. Utility connections (sanitary sewer, watermain, and storm sewer) may require a permit from the City.
- The contractor shall verify the elevations at proposed connections to existing utilities prior to any demolition or excavation.
- The contractor shall notify all appropriate engineering departments and utility companies 72 hours prior to construction. All necessary precautions shall be made to avoid damage to existing utilities.
- Maintain a minimum of 5' of cover over all water lines and sanitary sewer lines. Install water lines 18" above sanitary sewers, where the sanitary sewer crosses over the water line, install sewer piping of materials equal to watermain standards for 9 feet on both sides and maintain 18" of separation.
- Cleanouts at pavement locations to include traffic rated lid.
- Where 5' of cover is not provided over sanitary sewer and water lines, install 2" rigid polystyrene insulation with a thermal resistance of at least R-5 and a compressive strength of at least 25 psi. Insulation shall be 8" wide, centered over pipe with 6" sand cushion between pipe and insulation.
- All watermain piping shall be class 52 ductile iron pipe unless noted otherwise.
- See Project Specifications for bedding requirements.
- Pressure test and disinfect all new watermains in accordance with state and local requirements.
- Sanitary sewer piping shall be PVC, SDR-26 for depths between up to 26', and class 52 D.I.P. for depths of 26' or more.
- Septic system installation shall meet requirements set forth in Iowa Code Chapter 69, 10 States Standards, and Iowa DNR Wastewater Treatment Design Standards.
- Final Septic System design and installation shall be completed by a licensed Septic Installer and permitted through Jasper County. Septic installer/contractor to be responsible for any electrical service from the building to the proposed system. A maintenance and operations manual shall be provided to the Owner at project completion.
- All private underground utility lines and pipes shall include a tracer line to facilitate above-ground locating.

ESTIMATED SEPTIC LOADING:

	Occupants:	GPD/OCC:	GPD Total:
Daily Employees:	10	20	200
Future Pavilion	250	5	1,250

Average Daily Load = 200 gal/day
Max Daily Load = 1,450 gal/day



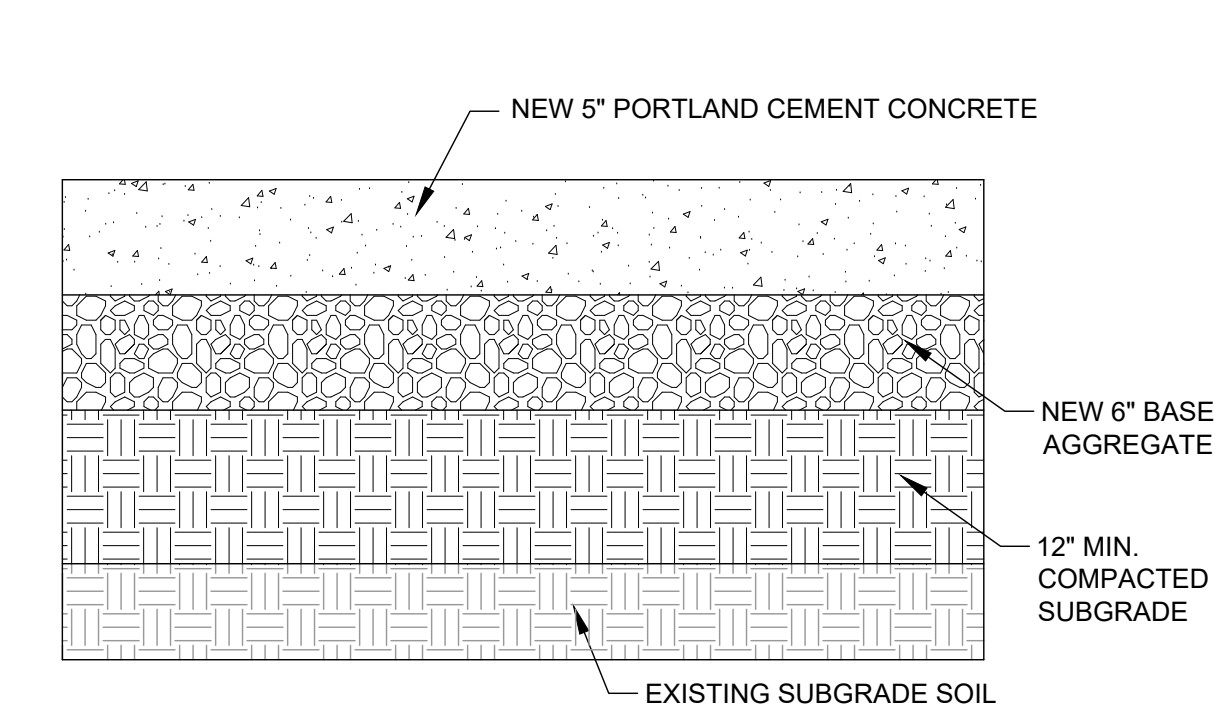
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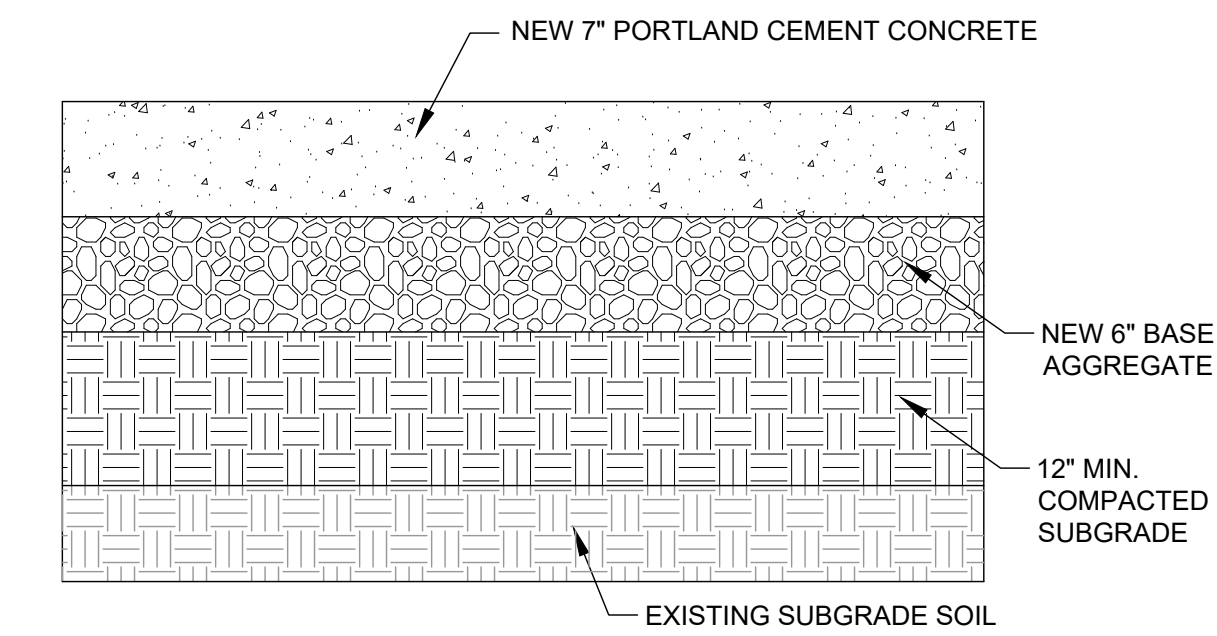
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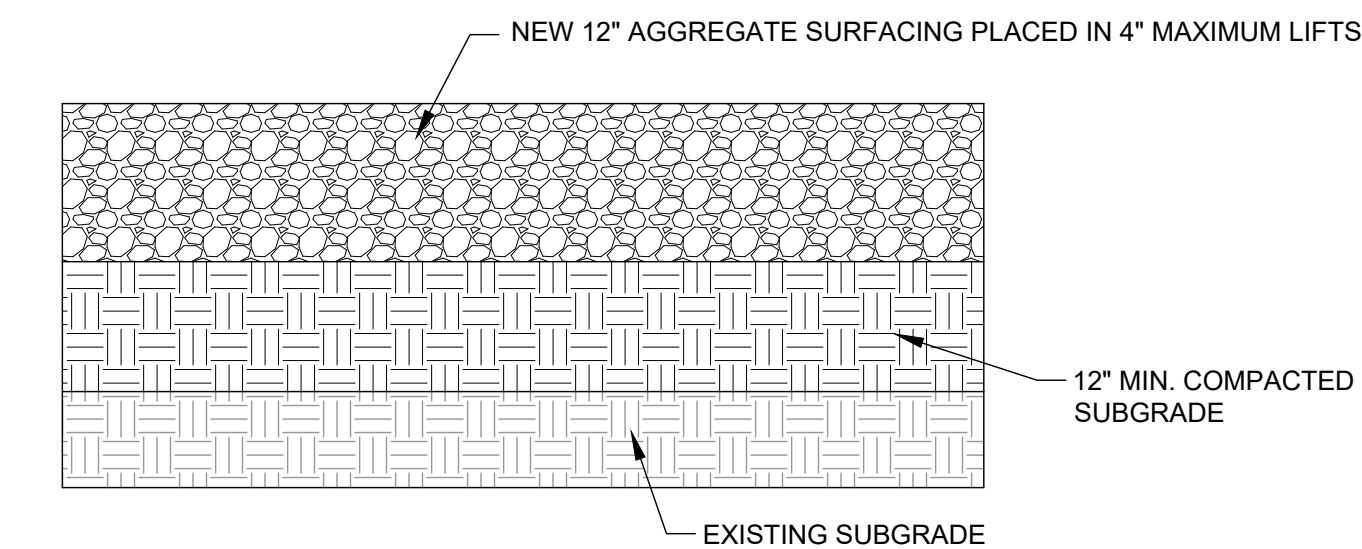
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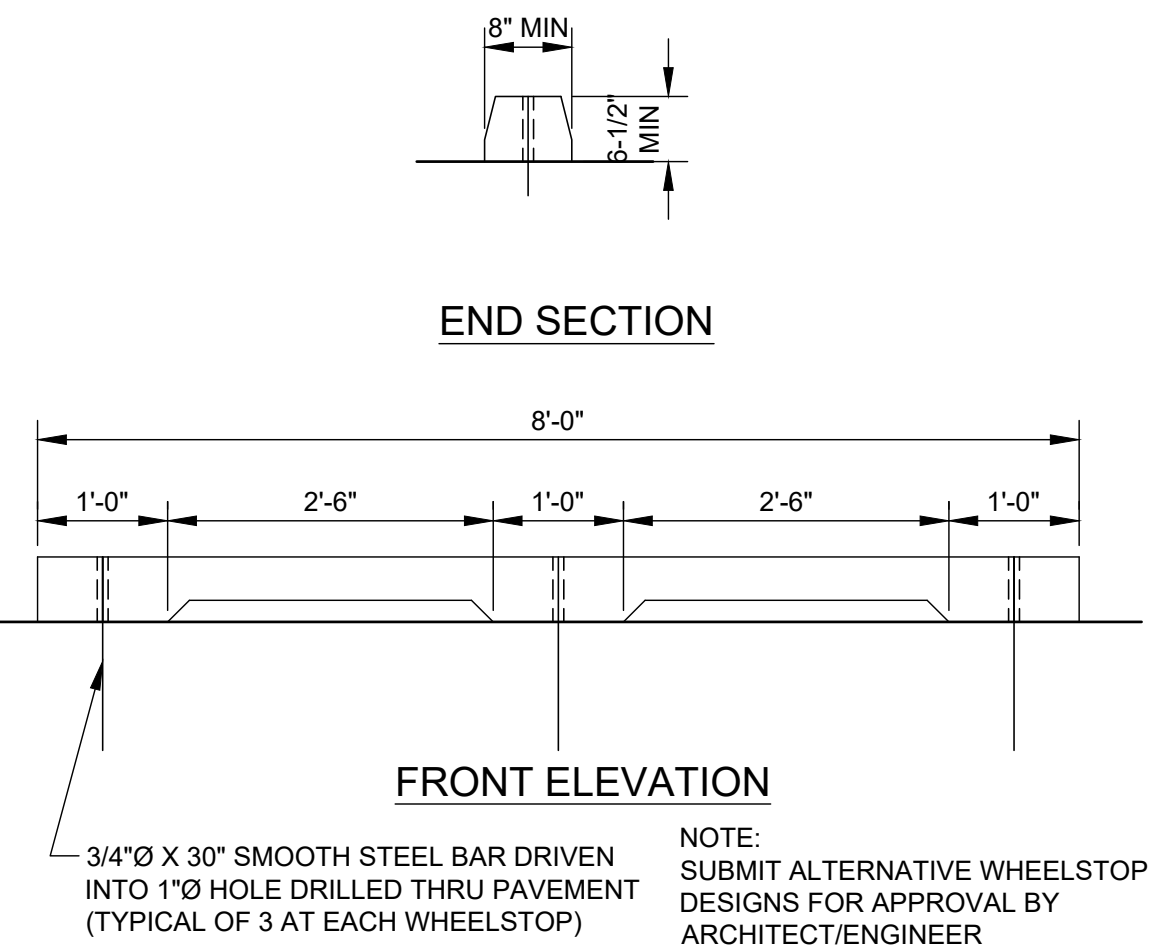
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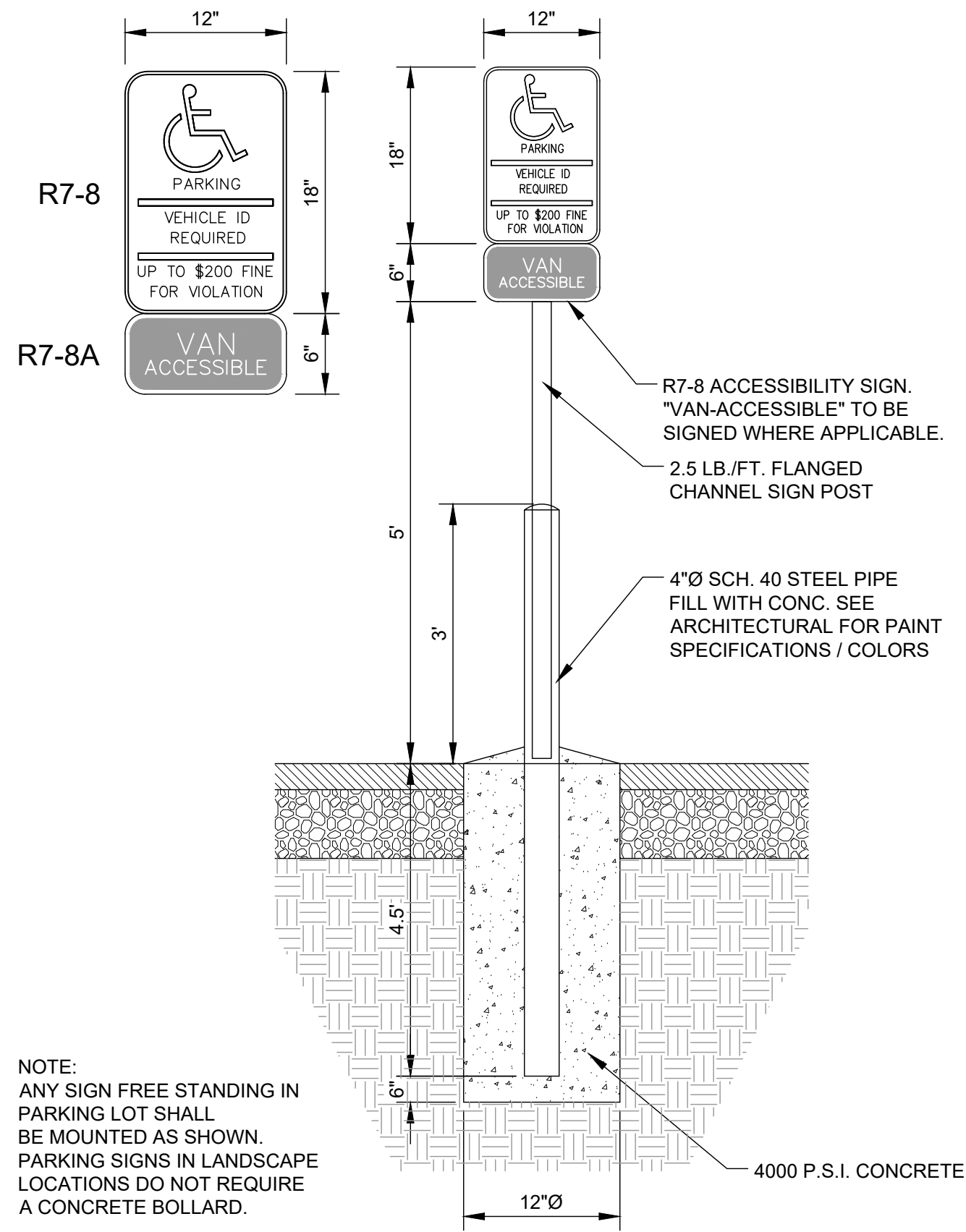
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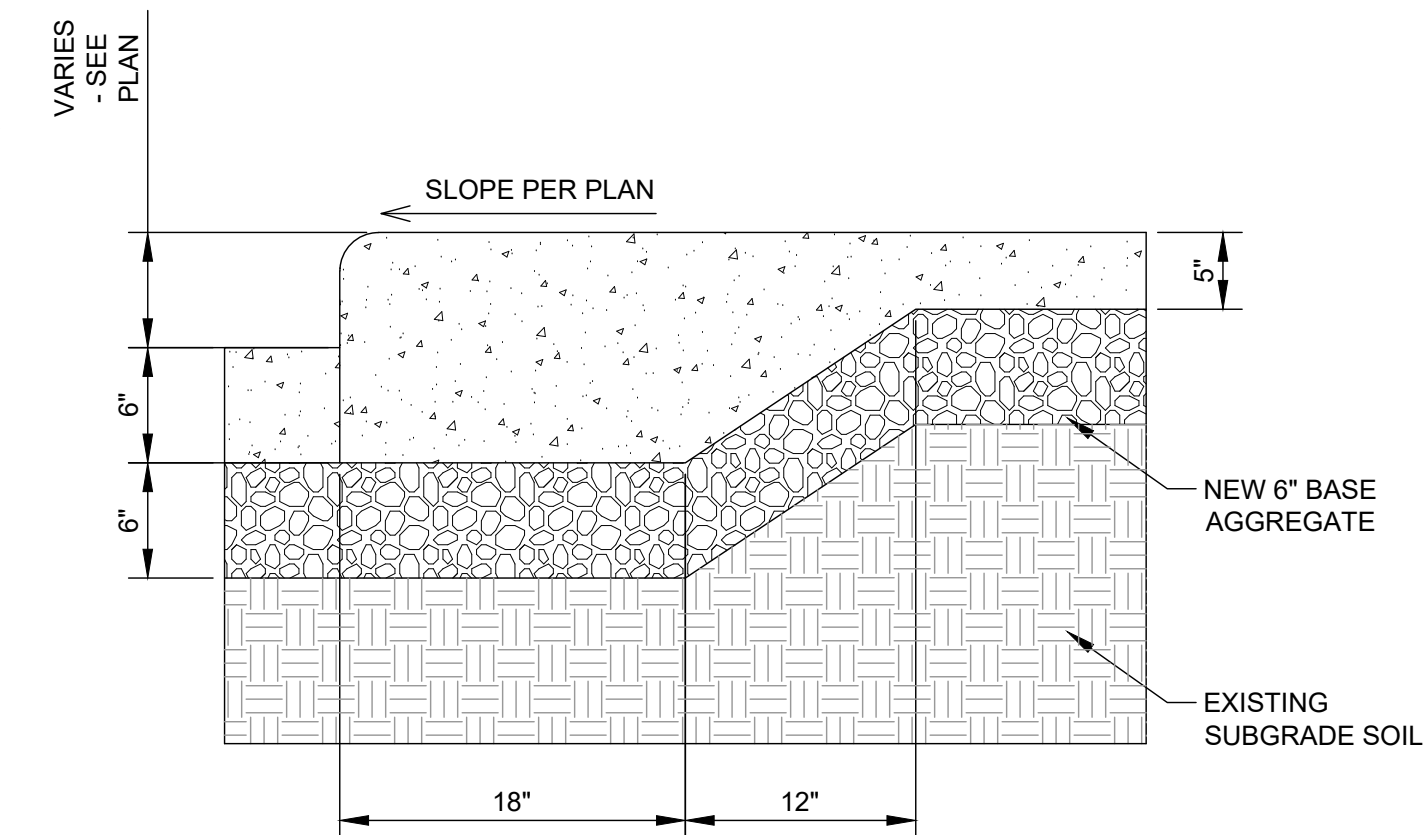
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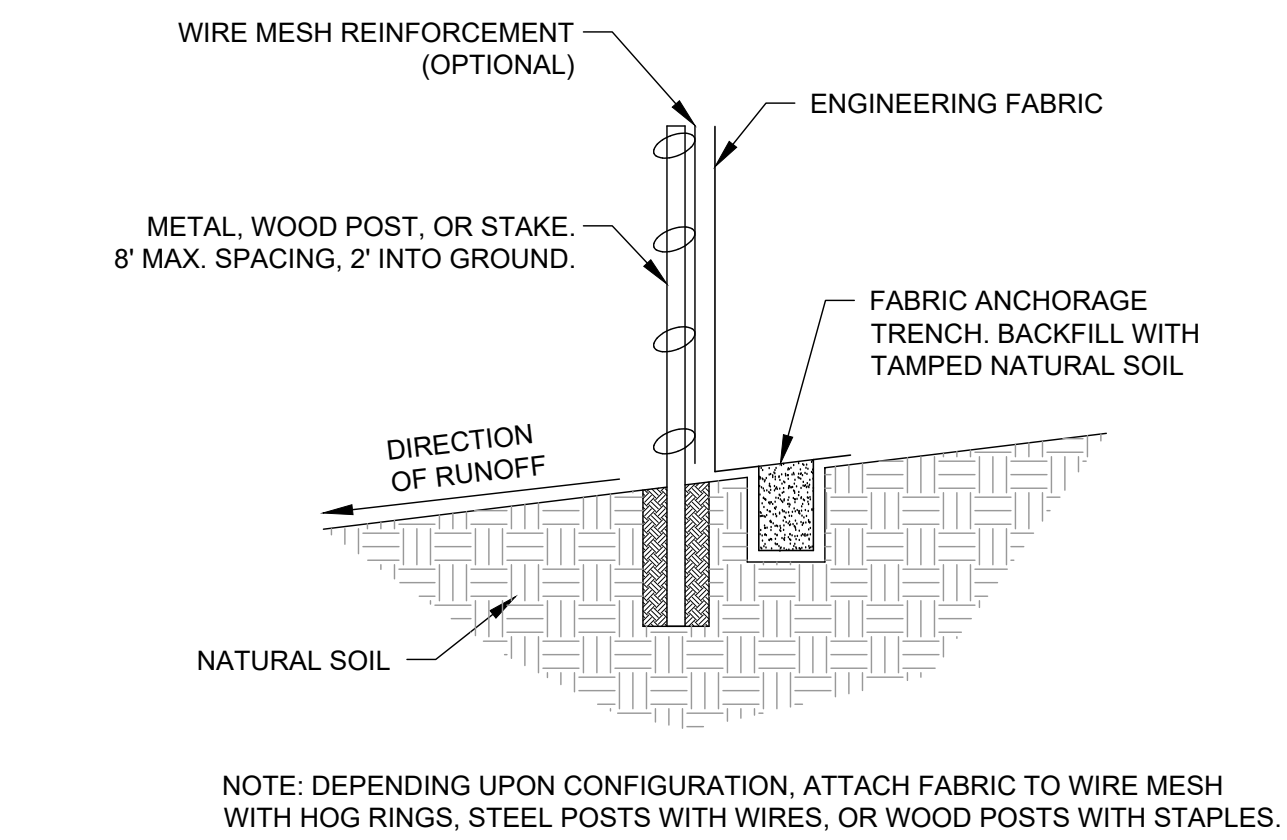
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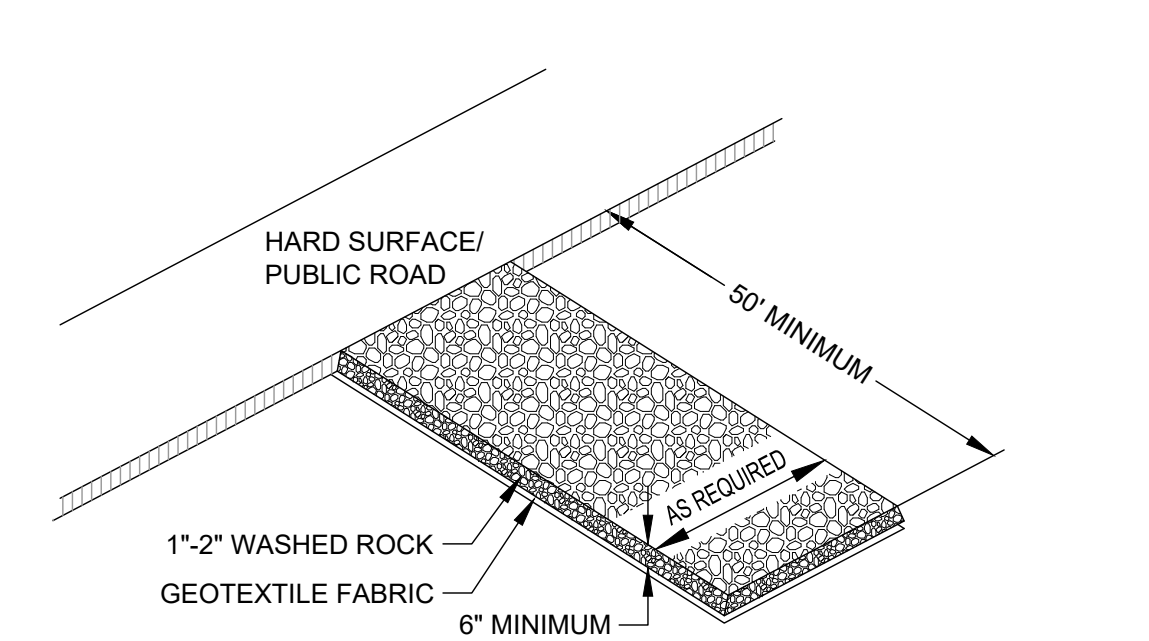
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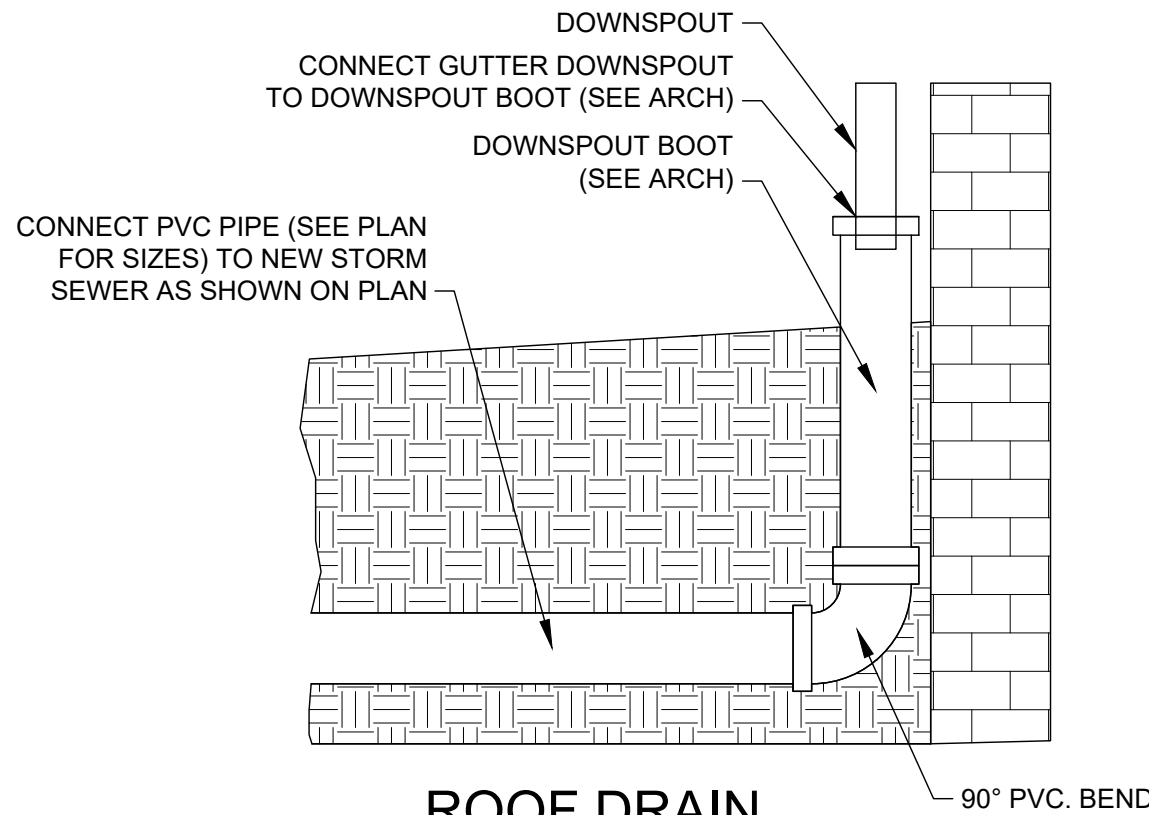
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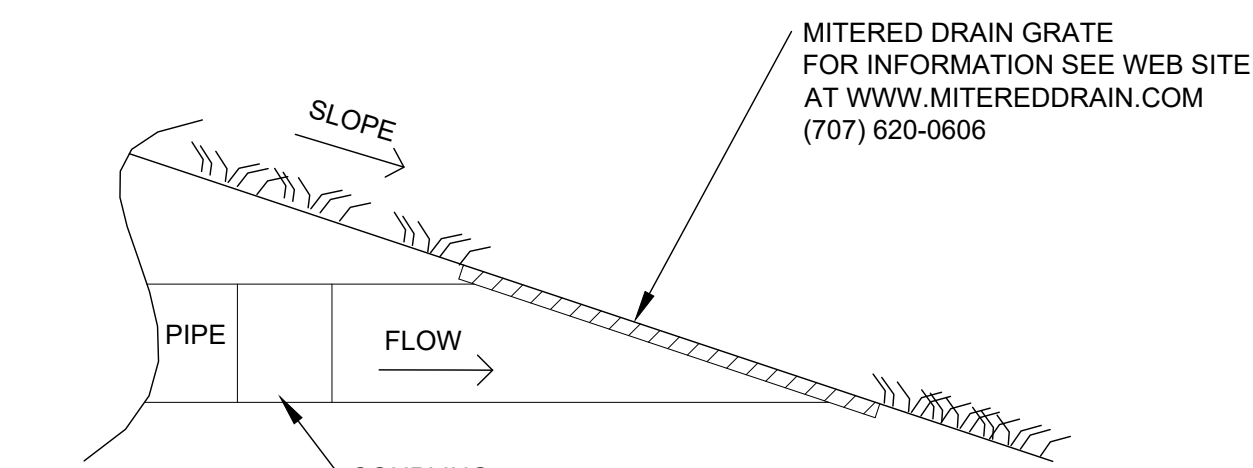
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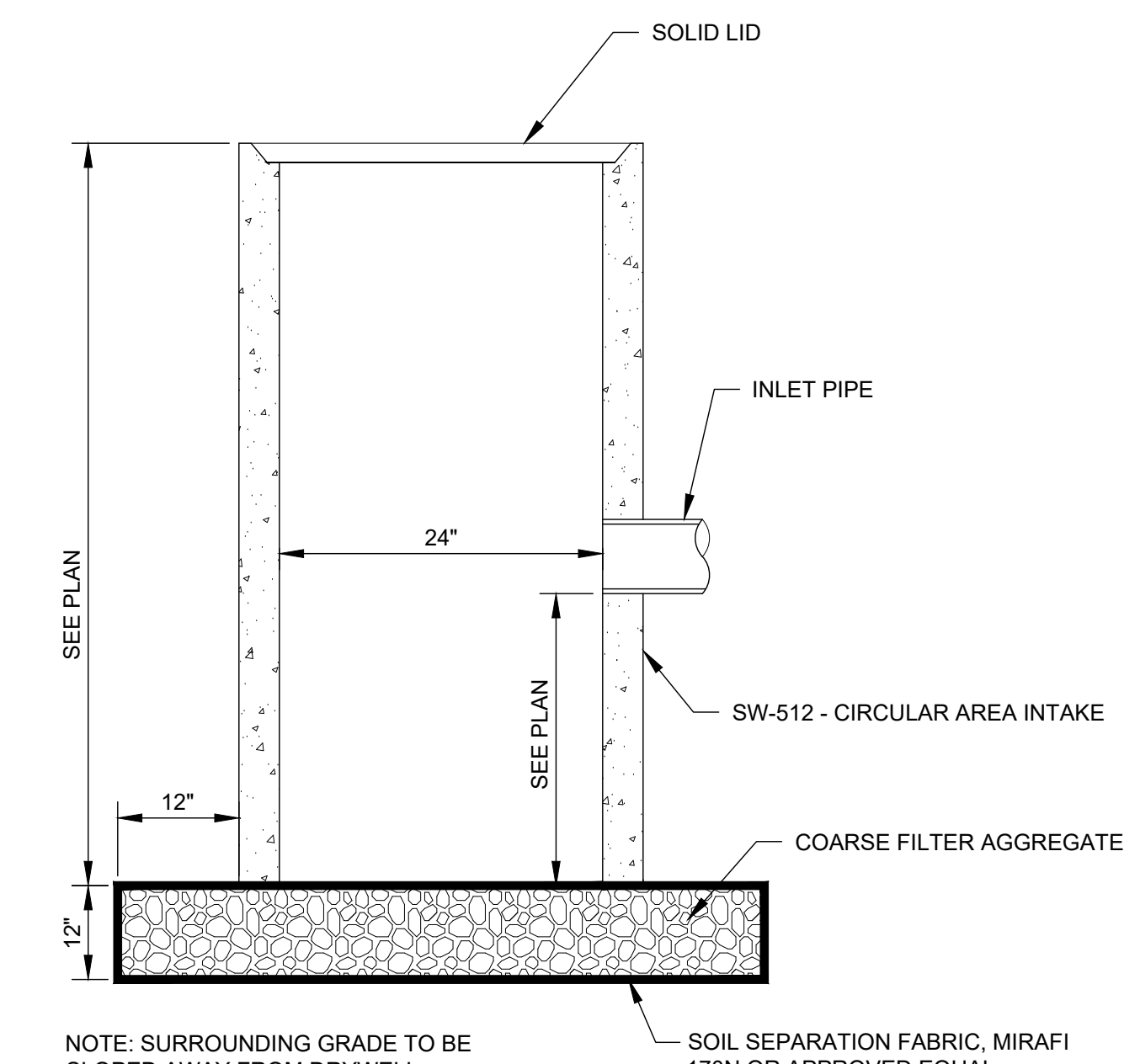
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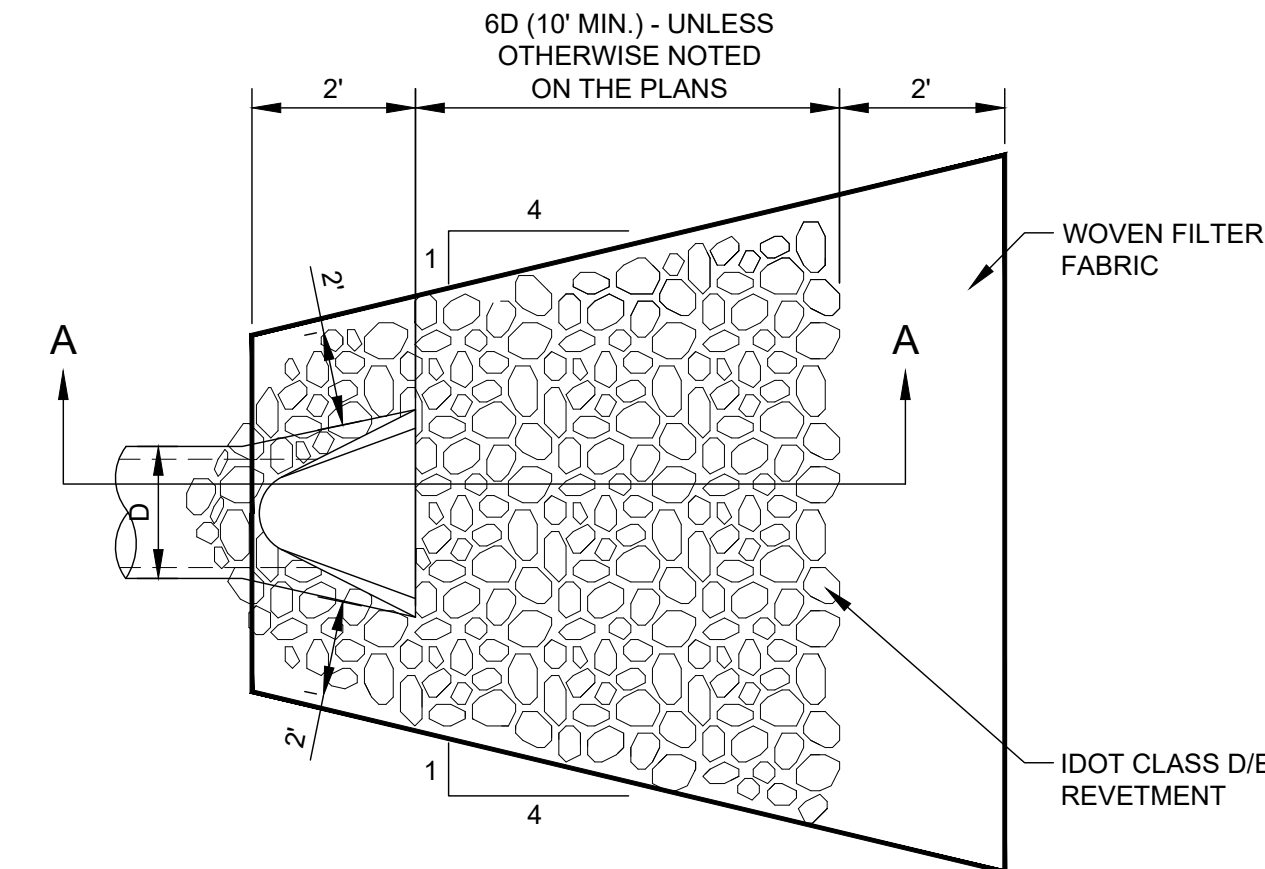
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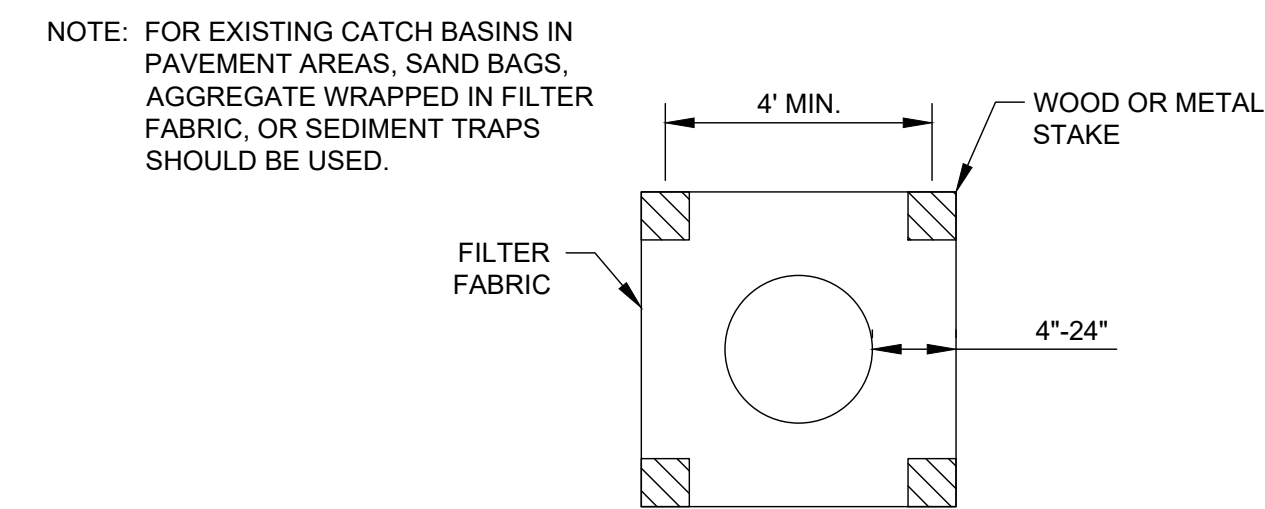
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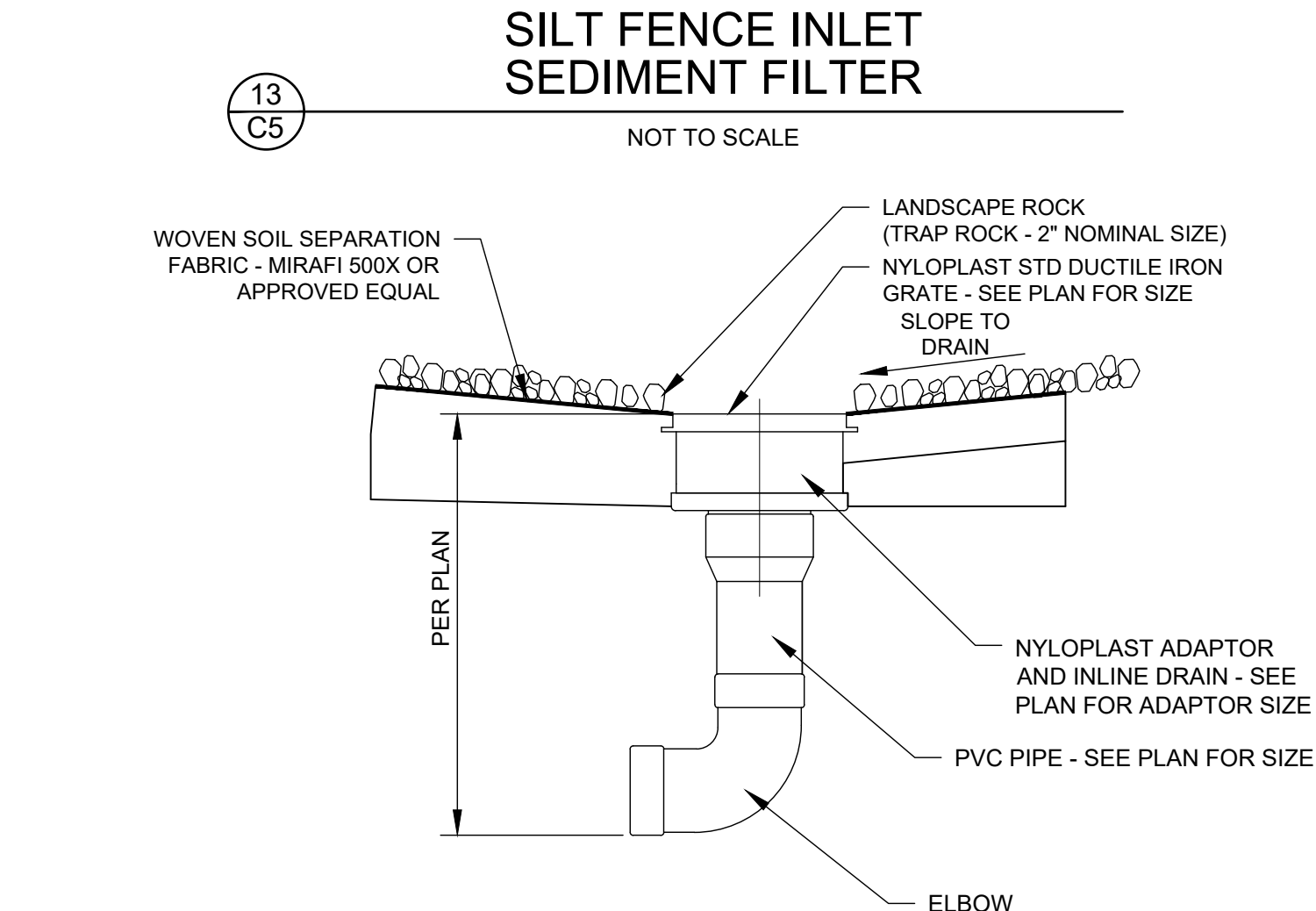
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DESIGN CODES:

- A. INTERNATIONAL BUILDING CODE (IBC) 2015 ADDITION & ADOPTED AMENDMENTS BY THE CITY OF NEWTON, IOWA
B. MINIMUM DESIGN LOADS FOR BUILDINGS AND OTHER STRUCTURES (ASCE/SEI 7-16)
C. SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS (AISC 360-16)
D. BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE (ACI 318-14)
1. HOT WEATHER CONCRETE: ACI 308
2. COLD WEATHER CONCRETE: ACI 306
E. BUILDING CODE FOR MASONRY STRUCTURES (TMS 402-2016)
F. NORTH AMERICAN SPECIFICATIONS FOR THE DESIGN OF COLD-FORMED STEEL STRUCTURAL MEMBER (AISI S100-16)
G. NATIONAL DESIGN SPECIFICATIONS FOR WOOD CONSTRUCTION (NDS 2016)
H. STEEL JOIST INSTITUTE STANDARD SPECIFICATION FOR OPEN WEB STEEL JOISTS, LONG-SPAN JOISTS, DEEP LONG-SPAN JOISTS, AND JOIST GIRDERS
I. MBMA METAL BUILDING SYSTEMS MANUAL 2018

DESIGN LOADS:

- A. OCCUPANCY CATEGORY: "II"
B. ROOF LIVE LOADS:
1. GROUND SNOW Pg = 30 psf
2. EXPOSURE FACTOR Ce = 1.0
3. IMPORTANCE FACTOR I = 1.0
4. THERMAL FACTOR Ct = 1.0
5. MINIMUM ROOF SNOW LOAD Pf = 25 psf
6. DRIFTING/SLIDING SNOW Pd = AS INDICATED ON DRAWINGS
C. PEB COLLATERAL LOADS:
1. ALL LOCATIONS: 5 psf
a. LIGHTING: 1 psf
b. INSULATION: 1 psf
c. HVAC: 1 psf
d. METAL CEILING: 1 psf
e. OTHER: 1 psf
D. WIND LOADS:
1. ULTIMATE WIND SPEED (3 SEC GUST) 115 MPH
2. IMPORTANCE FACTOR I = 1.0
3. EXPOSURE CATEGORY C
4. INTERNAL PRESSURE COEFFICIENT ± 0.18
5. WALLS (SERVICE OR 1.0W)
a. INTERIOR: 20 psf
b. END: 25 psf
c. PARAPET: 50 psf
6. ROOF (SERVICE OR 1.0W)
a. INTERIOR: 25 psf
b. EDGE: 30 psf
c. CORNER: 35 psf
d. NOTE: SUBTRACT 10 psf FOR NET UPLIFT LOADING, UNO
E. GEOTECHNICAL REPORT
1. BY TEAM SERVICES
2. REPORT NUMBER 1-5431
3. DATE MARCH 1, 2024
F. NET ALLOWABLE BEARING PRESSURES
1. ISOLATED FOOTINGS 2500 PSF PER GEOTECH
2. CONTINUOUS FOOTINGS 2500 PSF PER GEOTECH
G. FOUNDATION ITEMS
1. FROST DEPTH BELOW GRADE 42"
2. OVER-EXCAVATION REQUIRED YES, SEE GEOTECHNICAL REPORT
a. FOOTINGS NO
b. SLAB YES, 1'-6" (INCLUDING DRAINAGE LAYER). SEE GEOTECHNICAL REPORT.
3. DEEP FOUNDATIONS REQUIRED NO, ASSUMED
4. LARGE FILL DEPTH (SETTLEMENT) NO, ASSUMED. NOTIFY EOR.

GENERAL:

- A. THESE DRAWINGS REPRESENT THE COMPLETED PROJECT WHICH HAS BEEN DESIGNED FOR THE LOADS AND MATERIALS INDICATED ON THE DRAWINGS. THE STRUCTURAL ENGINEER HAS ONLY REVIEWED STABILITY OF THE STRUCTURE IN ITS COMPLETED FORM. DETERMINATION OF ALLOWABLE CONSTRUCTION LOADS AND DESIGN OF CONSTRUCTION FALSEWORK, FORMWORK, STAGING, BRACING, SHEETING AND SHORING, ETC. IS SOLELY THE CONTRACTOR'S RESPONSIBILITY.
B. STRUCTURAL ENGINEER IS NOT RESPONSIBLE FOR THE DESIGN OF SYSTEMS NOT SHOWN ON THE STRUCTURAL DOCUMENTS, INCLUDING BUT NOT LIMITED TO STEEL STAIRS, HANDRAILS, CURTAINWALL/WINDOW WALL SYSTEMS, OR COLD-FORMED METAL FRAMING, OR PRE-ENGINEERED BUILDINGS. SUCH SYSTEMS SHALL BE DESIGNED, FURNISHED, AND INSTALLED BY OTHERS. STRUCTURAL ENGINEER OF RECORD IS NOT RESPONSIBLE FOR CONNECTION OF THESE SYSTEMS TO THE STRUCTURE BUT THESE SYSTEM DESIGNERS SHALL CONFORM WITH THE DESIGN INTENT DEPICTED IN THE STRUCTURAL DOCUMENTS. REVIEW OF SHOP DRAWINGS FOR SUCH SYSTEMS BY THE STRUCTURAL ENGINEER OF RECORD SHALL BE FOR GENERAL CONFORMANCE WITH THE PROJECT PARAMETERS AS INDICATED ON THE DRAWINGS AND IN THE STRUCTURAL NOTES.
C. ALTERNATE PRODUCTS OF SIMILAR STRENGTH, NATURE AND FORM FOR SPECIFIED ITEMS MAY BE SUBMITTED WITH SUPPORTING TECHNICAL DOCUMENTATION, INCLUDING CALCULATIONS IF APPLICABLE. TO THE STRUCTURAL ENGINEER FOR REVIEW. ALTERNATES THAT DEVIATE SIGNIFICANTLY FROM THE DESIGN INTENT MAY BE REJECTED. ALTERNATES THAT REQUIRE SUBSTANTIAL REVIEW TIME WILL NOT BE REVIEWED UNLESS AUTHORIZED BY THE OWNER.
D. IF APPLICABLE, EXISTING BUILDING INFORMATION SHOWN IS AS INDICATED ON EXISTING BUILDING DRAWINGS OR FIELD MEASUREMENTS BY OTHERS. FIELD VERIFY ALL EXISTING CONDITIONS, DIMENSIONS, AND ELEVATIONS. NOTIFY ARCHITECT AND STRUCTURAL ENGINEER OF ANY DISCREPANCIES PRIOR TO STARTING WORK.
E. DO NOT CUT/MODIFY ANY BEAMS, COLUMNS, JOISTS, AND SLABS WITHOUT WRITTEN APPROVAL FROM THE STRUCTURAL ENGINEER.
F. CONTRACTOR HAS SOLE RESPONSIBILITY FOR MEANS AND METHODS, SAFETY, TECHNIQUES, SEQUENCES, AND PROCEDURES OF CONSTRUCTION. CONTRACTOR HAS SOLE RESPONSIBILITY TO COMPLY WITH ALL OSHA REGULATIONS
G. DO NOT SCALE DRAWINGS OR MEASURE OBJECTS IN ELECTRONIC FILES TO DETERMINE DIMENSIONS. NOTIFY ARCHITECT/STRUCTURAL ENGINEER OF ANY DISCREPANCIES OR REQUIREMENTS FOR ADDITIONAL DIMENSIONS NOT SHOWN.
H. WHERE CONFLICTS EXIST BETWEEN STRUCTURAL DOCUMENTS THE STRICTEST REQUIREMENTS SHALL GOVERN.
I. CONTRACTOR SHALL NOTIFY ARCHITECT AND STRUCTURAL ENGINEER OF DISCREPANCIES WITHIN STRUCTURAL DOCUMENTS AND BETWEEN DISCIPLINES OF THE DESIGN TEAM.
J. STRUCTUREFY ENGINEERING DOES NOT PROVIDE ANY WARRANTY, EXPRESSED OR IMPLIED, FOR CAD OR BIM FILES PROVIDED TO THE CONTRACTOR NOR ANY GUARANTEE OF THE ACCURACY OF INFORMATION FURNISHED VIA ELECTRONIC FORM. IN ALL CASES, THE HARD COPY OF THE STRUCTURAL CONTRACT DOCUMENTS SUPERSEDES ANY AND ALL CAD OR BIM FILES.

SUBMITTALS:

- A. SUBMITTAL OF SHOP DRAWINGS, ERECTION LAYOUTS, DETAILS, FITMENT, PLACEMENT AND PRODUCT DATA ARE REQUIRED FOR ITEMS INDICATED BELOW. SUBMITTALS MAY BE PROVIDED ELECTRONICALLY OR HARD COPY.
B. B SUBMITTALS SHALL BE MADE IN TIME TO PROVIDE A MINIMUM OF TWO WEEKS FOR REVIEW PRIOR TO THE ONSET OF FABRICATION. REVIEW TIME BY ENGINEER MAY BE LONGER THAN TWO WEEKS FOR LARGE SUBMITTALS. REVIEW OF MULTIPLE SUBMITTALS CONCURRENTLY WILL EXTEND THE REVIEW TIME. IN THESE INSTANCES, CONTRACTOR SHALL SUBMIT A PRIORITIZED LIST OF SHOP DRAWINGS REQUIRING REVIEW, TO BE REVIEWED IN PRIORITIZED ORDER.
C. PRIOR TO SUBMISSION TO THE ENGINEER, THE CONTRACTOR SHALL REVIEW THE SUBMITTAL FOR COMPLETENESS. DIMENSIONS AND QUANTITIES ARE NOT REVIEWED BY THE ENGINEER AND THEREFORE MUST BE VERIFIED BY THE GENERAL CONTRACTOR. CONTRACTOR SHALL PROVIDE ANY NECESSARY DIMENSIONAL DETAILS REQUESTED BY THE DETAILER AND PROVIDE THE CONTRACTOR'S REVIEW STAMP AND SIGNATURE BEFORE FORWARDING THE SUBMITTAL TO THE ENGINEER.
D. ONCE THE CONTRACTOR HAS COMPLETED HIS REVIEW, THE ENGINEER WILL REVIEW THE SUBMITTAL FOR GENERAL CONFORMANCE WITH THE DESIGN CONCEPT AND THE CONTRACT DOCUMENTS OF THE BUILDING AND WILL STAMP THE SUBMITTAL ACCORDINGLY. MARKUPS OR COMMENTS SHALL NOT BE CONSTRUED AS RELIEVING THE CONTRACTOR FROM COMPLIANCE WITH THE PROJECT PLANS AND SPECIFICATIONS, NOR DEPARTURES THERE FROM.
E. REQUIRED SUBMITTALS:
1. CONCRETE
a. MIX DESIGNS WITH TESTING DATA
b. REINFORCEMENT SIZE AND PLACEMENT
F. DEFERRED DESIGN SUBMITTALS THAT REQUIRE DRAWINGS, DETAILS, CONNECTIONS, AND SUBMITTALS SHALL BE STAMPED AND SEALED BY AN ENGINEER REGISTERED IN THE STATE THE PROJECT IS WITHIN.
G. DEFERRED DESIGN ITEMS SHALL BE DESIGNED TO RESIST THE LOADS INDICATED ON THE PLANS AND DETAILS INCLUDING: DEAD, LIVE, SNOW, WIND, NET UPLIFT, OTHERS INDICATED.
H. DEFERRED DESIGN SUBMITTALS ARE DESIGNED BY THE CONTRACTOR:
1. PRE-ENGINEERED BUILDING
a. LAYOUT AND DETAILS
b. CALCULATIONS

FOUNDATIONS:

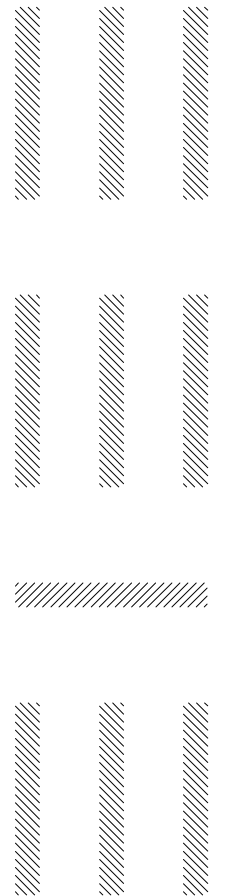
- A. EXCAVATIONS OF BURIED ITEMS, KNOWN OR UNKNOWN PRIOR TO CONSTRUCTION, SHALL BE BACKFILLED WITH ENGINEERED FILL IN COMPACTED LOOSE LIFTS OF 12" OR LESS, OR AS GUIDED BY THE GEOTECHNICAL ENGINEER
B. FOUNDATIONS SHALL BEAR ON NATIVE SOIL OR ON COMPACTED ENGINEERED FILL. BEARING CAPACITY AND EXPANSIVE SOIL PROPERTIES TO BE VERIFIED BY QUALIFIED GEOTECHNICAL ENGINEER AS PART OF THE SPECIAL INSPECTION AND TESTING PROGRAM PRIOR TO INSTALLATION OF FOOTINGS/FOUNDATIONS.
C. EXPANSIVE SOILS THAT REQUIRE OVER EXCAVATION AND BACKFILL ARE KNOWN TO BE IN THE AREA. REQUIRED DEPTH OF OVER EXCAVATION AND ENGINEERED FILL REQUIREMENTS TO BE DETERMINED BY GEOTECHNICAL ENGINEER AS PART OF THE SPECIAL INSPECTION AND TESTING PROGRAM.
D. ALL EXTERIOR FOOTINGS TO EXTEND BELOW FROST LINE. SEE DESIGN REQUIREMENTS FOR FROST DEPTH. DURING WINTER CONSTRUCTION ALL FOOTINGS TO EXTEND BELOW FROST LINE. CONTACT STRUCTURAL ENGINEER FOR REVISED REINFORCING.
E. IF INDICATED ON ARCHITECTURAL DRAWINGS, PROVIDE 2" RIGID INSULATION ON INSIDE FACE OF FOUNDATION WALL/FOOTINGS EXTENDING FROM TOP OF FOUNDATION TO FROST DEPTH, AND EXTENDING FROM INSIDE EDGE OF FOUNDATION TO 24" TOWARD MIDDLE OF THE STRUCTURE BELOW FLOOR SLAB.
F. FOOTINGS TO BE CENTERED UNDER WALLS/COLUMNS U.N.O.
G. DO NOT BACKFILL WALLS UNTIL BOTH TOP AND BOTTOM OF WALLS ARE ADEQUATELY BRACED BY SLAB OR FLOOR FRAMING. ANY REQUIRED TEMPORARY BRACING FOR BACKFILLING OF WALLS IS THE RESPONSIBILITY OF THE CONTRACTOR.
H. COORDINATE ALL CLEANOUTS, CONNECTIONS, AND DISCHARGE OF DRAIN TILE WITH CIVIL AND MECHANICAL DRAWINGS

CONCRETE AND REINFORCEMENT:

- A. CONCRETE SHALL CONFORM TO CHAPTER 19 OF THE IBC AND BE PLACED IN ACCORDANCE WITH "BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE (ACI 318)" AND "SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS (ACI 301)" U.N.O.
B. MINIMUM 28 DAY COMPRESSIVE STRENGTH (F_c)
1. FOOTINGS 3,500 psi
2. FOUNDATION WALLS 4,000 psi
3. ALL OTHER CONCRETE 4,000 psi
C. MAXIMUM WATER/CEMENT RATIO FOR GIVEN F_c:
1. 3,500 psi 0.50
2. 4,000 psi 0.45
3. 5,000 psi 0.40
D. CONCRETE SLUMP:
1. WITHOUT WATER REDUCER 3"-5"
2. WITH WATER REDUCER 6"-8"
E. AIR CONTENT:
1. EXPOSED TO EARTH OR WEATHER 6% PLUS OR MINUS 1.5%
2. ALL OTHER CONCRETE NATURAL
F. MATERIAL REQUIREMENTS:
1. PORTLAND CEMENT ASTM C595, TYPE II
2. NORMAL WEIGHT AGGREGATES ASTM C33
3. MAXIMUM AGGREGATE SIZE 1"
4. POTABLE WATER ASTM C94
5. DEFORMED BARS ASTM A615, GRADE 60
6. WELDED DEFORMED BARS ASTM A706, GRADE 60
7. WELDED WIRE FABRIC (MATS ONLY) ASTM A185
G. CONCRETE COVER OVER REINFORCING:
1. CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH 3"
2. EXPOSED TO EARTH OR WEATHER 2"
3. NOT EXPOSED TO EARTH OR WEATHER OR IN CONTACT WITH THE GROUND 2"
H. FLY ASH SHALL NOT EXCEED 15% OF ALL CEMENTITIOUS MATERIALS FOR ALL CONCRETE.
I. ALL ADMIXTURES TO BE INCLUDED IN THE CONCRETE MIX DESIGN SUBMITTAL FOR REVIEW/APPROVAL. NO ADMIXTURES TO BE USED WITHOUT APPROVAL BY STRUCTURAL ENGINEER.
J. NO ADMIXTURES OR MATERIALS CONTAINING CALCIUM CHLORIDE, SALT OR ANTIFREEZE IS PERMITTED TO BE USED IN CONCRETE.
K. DETAIL AND PLACE REINFORCING STEEL IN ACCORDANCE WITH "DETAILS AND DETAILING OF CONCRETE REINFORCEMENT" (ACI 315) U.N.O.
L. REINFORCING STEEL SHALL BE SECURED IN PLACE AND PROPERLY SUPPORTED PRIOR TO PLACING CONCRETE.
M. REINFORCING SPLICES SHALL HAVE CLASS B TENSION SPLICES U.N.O.
N. CORNER BARS TO BE PROVIDED AT ALL INTERSECTIONS OF HORIZONTAL REINFORCING IN WALLS AND FOOTINGS. LAP CORNER BARS 2'-0" EACH SIDE, MATCH SIZE AND SPACING OF SPACING OF HORIZONTAL BARS
O. VERTICAL REINFORCING TO BE CONTINUOUS WITHOUT SPLICES. U.N.O.
P. HORIZONTAL REINFORCEMENT TO BE CONTINUOUS THROUGH PILASTERS, COLUMNS, AND WALL INTERSECTIONS.
Q. PROVIDE 2 @ #5 x4'-0" DIAGONAL BARS AT EACH OPENING CORNER IN WALLS AND FLOOR SLABS. U.N.O. DIAGONAL BARS SHALL BE CENTERED AT OPENING CORNERS.
R. ALL EXPOSED EDGES TO HAVE A 3/4" CHAMFER. U.N.O.
S. SLABS-ON-GRADE:
1. REQUIRED DEPTH OF LOW PASTICITY BUFFER LAYER TO BE 1'-6" (INCLUDING DRAINAGE LAYER)
2. SLAB CONSTRUCTION SHALL BE SEE PLAN FOR THICKNESS OVER VAPOR BARRIER (SEE ARCHITECT) OVER BUFFER LAYER (1'-6" THICK TOTAL, INCLUDING 4" GRANULAR DRAINAGE FILL). SLAB SHALL BE REINFORCED WITH 6x6 W2.9xW2.9 WWF PLACED ON CHAIRS TO LOCATE THE REINFORCEMENT 1 1/2" FROM THE TOP OF SLAB. LOCATED AT MID-SLAB THICKNESS AT CONSTRUCTION JOINTS.
3. WET BURLAP CURE IS STRONGLY RECOMMENDED FOR ALL SLABS ON GRADE. ALTERNATES MAY BE PROVIDED BY THE CONTRACTOR.
4. ALL CMU WALLS TO HAVE A TF12A THICKENED SLAB FOOTING BELOW. U.N.O.
5. PROVIDE 1/2" EXPANSION JOINT BETWEEN SLABS-ON-GRADE AND ALL COLUMNS, WALLS, AND VERTICAL SURFACES
6. PROVIDE 1/8" X 1/4" DEEP CONTROL JOINTS OR FULL DEPTH CONSTRUCTION JOINTS IN SLABS-ON-GRADE. MAXIMUM SPACING IN OF CONTROL/CONSTRUCTION JOINTS TO BE 30 TIMES THE SLAB THICKNESS.
7. CONSTRUCTION JOINTS IN SLABS-ON-GRADE SHALL BE AT CONTROL JOINT LOCATIONS AS IDENTIFIED ABOVE WHEN ENTIRE FLOOR SLAB IS NOT PLACED IN ONE SEQUENCE. SEE DETAILS FOR PLATE DOWEL REQUIREMENTS.
8. SEE ARCHITECTURAL DRAWINGS FOR SLAB SLOPES AND DEPRESSIONS
9. USE IMPORTED SAND FOR EXPOSED SLAB ON GRADE AND FOUNDATION WALLS
T. FLOOR FLATNESS:
1. GENERAL / OFFICE (CARPET) / INDUSTRIAL:
A. OVERALL FF: 25
B. OVERALL FL: 20
C. LOCAL FF: 35
D. LOCAL FL: 20

PRE-ENGINEERED BUILDING:

- A. PRE-ENGINEERED BUILDINGS (PEB) SHALL CONFORM TO CHAPTER 22 OF THE IBC AND APPLICABLE BUILDING SYSTEMS MANUAL.
B. PEB FRAMING MATERIALS AND STRENGTHS:
1. BY PEB MANUF.
C. CONNECTIONS SHALL BE AS DIRECTED IN PEB DOCUMENTS.
D. TEMPORARY BRACING OF STRUCTURAL ELEMENTS IS THE RESPONSIBILITY OF THE CONTRACTOR. STRUCTURAL STABILITY SHALL BE MAINTAINED AT ALL TIMES DURING THE ERECTION PROCESS. CONSTRUCTION SHALL CONFORM TO OSHA GUIDELINES.
E. NOTIFY SUPPLIER AND ENGINEER OF ANY FABRICATION OR ERECTION ERRORS OR DEVIATIONS. WRITTEN APPROVAL IS REQUIRED BEFORE ANY FIELD CORRECTIONS ARE MADE.
F. PROVIDE ONE SHOP COAT OF PRIMER ON ALL STEEL EXCEPT FOR ITEMS TO BE HOT-DIP GALVANIZED OR SPRAY FIREPROOFED.
G. DIMENSIONS: BUILDING SIZE, COLUMN LOCATIONS, AND WALL SIZE TO MATCH AND BE COORDINATED WITH ARCHITECTURAL AND STRUCTURAL DRAWINGS. DEVIATION REQUESTS MUST BE SUBMITTED FOR APPROVAL PRIOR TO CHANGES BEING MADE.
H. ALL COMPONENTS AND ASSEMBLIES TO BE DESIGNED AND DETAILED BY THE MANUFACTURER TO RESIST THE LOADING ON THE DRAWINGS. NOTE THAT SOME MUNICIPALITIES DEVIATE SNOW AND OTHER LOADING FROM THE IBC AND SHALL BE INCLUDED IN THE DESIGN.
I. MAXIMUM ALLOWABLE DEFLECTION LIMITS:
1. ARCHITECTURAL
a. JOISTS/BEAMS: SPAN / 240
b. ROOF PANELS: SPAN / 180
c. WALL FRAMING: SPAN / 240
d. WALL FRAMING WITH BRICK: SPAN / 600
e. RIGID FRAME DRIFT: HEIGHT / 400
J. MEMBERS SUPPORTING BRICK AND OTHER BRITTLE CLADDING SHALL BE DESIGNED FOR HORIZONTAL AND VERTICAL DEFLECTION: SPAN / 600.
K. DEFLECTION OF PRIMARY MEMBERS SHALL BE ACCOMMODATED WITHIN DESIGN OF OTHER FRAMING COMPONENTS AND SYSTEMS.
L. ADJACENT BUILDING IS PRESENT:
1. NO



SPECIAL-INSPECTIONS & TESTING

- A. SPECIAL INSPECTIONS ARE REQUIRED PER IBC CHAPTER 17 AND AS SPECIFIED IN THE SPECIAL INSPECTION STATEMENT AND PROJECT SPECIFICATIONS.
- B. SPECIAL INSPECTORS SHALL BE EMPLOYED BY THE OWNER TO PROVIDE SPECIAL INSPECTIONS FOR THE PROJECT. SPECIAL INSPECTIONS MAY BE SCHEDULED AND COORDINATED BETWEEN OWNER AND CONTRACTOR.
- C. SPECIAL INSPECTION REPORTS SHALL BE FURNISHED TO THE BUILDING OFFICIAL, ARCHITECT, AND STRUCTURAL ENGINEER. DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE CONTRACTOR, AND, IF NOT CORRECTED, SHALL BE REPORTED TO THE BUILDING OFFICIAL, ARCHITECT, AND STRUCTURAL ENGINEER.
- D. SPECIAL INSPECTOR SHALL SUBMIT A FINAL REPORT STATING THAT THE STRUCTURAL WORK WAS, TO THE BEST OF THEIR KNOWLEDGE, PERFORMED IN ACCORDANCE WITH THE APPROVED DRAWINGS, SPECIFICATIONS, AND THE BUILDING CODE.
- E. SPECIAL INSPECTIONS ARE REQUIRED FOR THE FOLLOWING ITEMS:
 - 1. SOILS
 - 2. CONCRETE
 - 3. CAST-IN-PLACE FOUNDATIONS
 - 4. FABRICATED ITEMS

SPECIAL INSPECTION SCHEDULE: SOILS			
INSPECTION TASK	REQUIRED	FREQUENCY	
		CONTINUOUS	PERIODIC
VERIFY MATERIALS BELOW SHALLOW FOUNDATIONS ARE ADEQUATE TO ACHIEVE THE DESIGN BEARING CAPACITY	X	-	X
VERIFY EXCAVATIONS ARE EXTENDED TO PROPER DEPTH AND HAVE REACHED PROPER MATERIAL	X	-	X
PERFORM CLASSIFICATION AND TESTING OF COMPACTED FILL MATERIALS	X	-	X
VERIFY USE OF PROPER MATERIALS, DENSITIES AND LIFT THICKNESSES DURING PLACEMENT AND COMPACTION OF COMPACTED FILL	X	X	-
PRIOR TO PLACEMENT OF COMPACTED FILL, INSPECT SUBGRADE AND VERIFY THAT SITE HAS BEEN PREPARED PROPERLY	X		X

SPECIAL INSPECTION SCHEDULE: CIP FOUNDATION ELEMENTS			
INSPECTION TASK	REQUIRED	FREQUENCY	
		CONTINUOUS	PERIODIC
ISOLATED SPREAD CONCRETE FOOTINGS	X	-	X
CONTINUOUS CONCRETE FOOTINGS SUPPORTING WALLS	X	-	X
CONCRETE FOUNDATION WALLS	X	-	X

SPECIAL INSPECTION SCHEDULE: CONCRETE CONSTRUCTION			
INSPECTION TASK	REQUIRED	FREQUENCY	
		CONTINUOUS	PERIODIC
INSPECT REINFORCEMENT, INCLUDING PRESTRESSING TENDONS, AND VERIFY PLACEMENT	X	-	X
REINFORCING BAR WELDING			
1. VERIFY WELDABILITY OF REINFORCING BARS OTHER THAN ASTM A706	-	-	X
2. INSPECT SINGLE-PASS FILLET WELDS, MAXIMUM 5/16"	-	-	X
3. INSPECT ALL OTHER WELDS	X	X	-
INSPECT ANCHORS CAST IN CONCRETE	X	-	X
INSPECT ANCHORS POST-INSTALLED IN HARDENED CONCRETE MEMBER			
1. ADHESIVE ANCHORS INSTALLED IN HORIZONTALLY OR UPWARDLY INCLINED ORIENTATIONS TO RESIST SUSTAINED TENSION LOADS	X	X	-
2. MECHANICAL ANCHORS AND ADHESIVE ANCHORS NOT DEFINED ABOVE	X	-	X
VERIFY USE OF REQUIRED DESIGN MIX	X	-	X
PRIOR TO CONCRETE PLACEMENT, FABRICATE SPECIMENS FOR STRENGTH TESTS, PERFORM SLUMP AND AIR CONTENT TESTS, AND DETERMINE THE TEMPERATURE OF THE CONCRETE	X	X	-
INSPECT CONCRETE AND SHOTCRETE PLACEMENT FOR PROPER APPLICATION TECHNIQUES	X	X	-
VERIFY MAINTENANCE OF SPECIFIED CURING TEMPERATURE AND TECHNIQUES	X	-	X
INSPECT PRESTRESSED CONCRETE FOR			
1. APPLICATION OF PRESTRESSING FORCES	-	X	-
2. GROUTING OF BONDED PRESTRESSING TENDONS	-	X	-
INSPECT ERECTION OF PRECAST CONCRETE MEMBERS	-	-	X
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	-	X
INSPECT FORMWORK FOR SHAPE, LOCATION AND DIMENSIONS OF THE CONCRETE MEMBER BEING FORMED	X	-	X

THESE DOCUMENTS ARE INSTRUMENTS OF PROFESSIONAL SERVICE AND SHALL REMAIN THE PROPERTY OF MELLE, LLC. THEY HAVE BEEN PREPARED SPECIFICALLY FOR THIS PROJECT AND SHALL NOT BE USED ON ANY OTHER PROJECTS OR IN ANY OTHER LOCATIONS WITHOUT OBTAINING PRIOR WRITTEN CONSENT OF MELLE, LLC. UNAUTHORIZED REPRODUCTION IS PROHIBITED.

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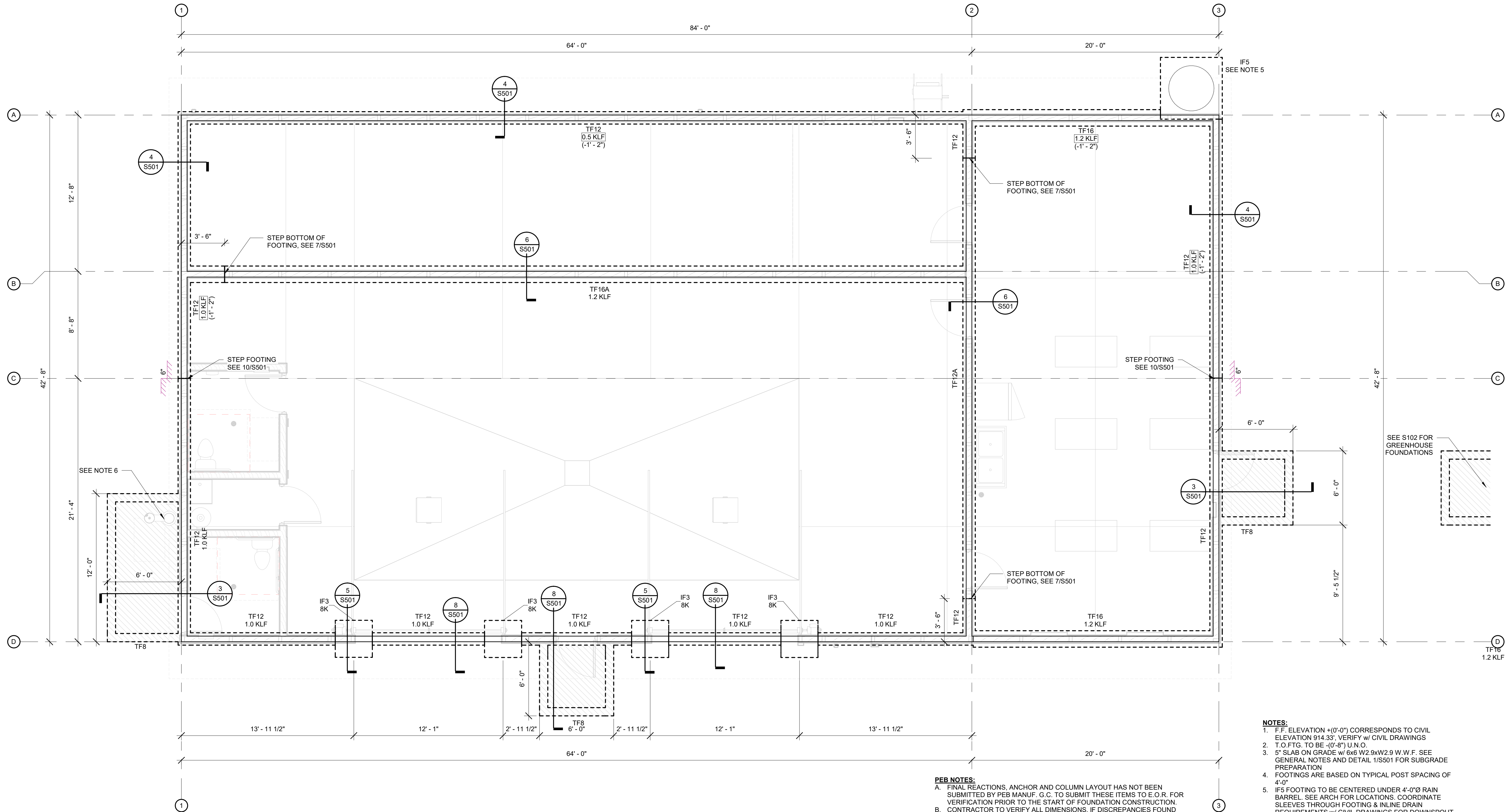
PROJECT: GEISLER-PENQUITE LAND STEWARDSHIP LAB
ADDRESS: 5284 LIBERTY AVENUE; NEWTON, IOWA 50208
CLIENT: LASPER COUNTY CONSERVATION

PHASE: **REBID** PRINT DATE: **2025-12-03**
SHEET NAME: **SPECIAL INSPECTIONS**

S002

CONTINUOUS FOOTING SCHEDULE			
TYPE	WIDTH	THICKNESS	REINFORCING
TF8	0' - 8"	3' - 6"	2 @ #5 TOP & BOTTOM CONT. w/ #4 VERT. @ 24" OC
TF12	1' - 0"	3' - 6"	2 @ #5 TOP & BOTTOM & #4 @ MID. CONT. w/ #4 VERT. @ 24" OC
TF12A	1' - 0"	1' - 0"	2 @ #5 CONT. w/ #5 TRANSVERSE @ 18" OC
TF16	1' - 4"	3' - 6"	2 @ #5 TOP & BOTTOM & #4 @ MID. CONT. w/ #4 VERT. @ 24" OC
TF16A	1' - 4"	1' - 0"	2 @ #5 CONT. w/ #5 TRANSVERSE @ 18" OC

ISOLATED FOOTING SCHEDULE				
TYPE	WIDTH	LENGTH	THICKNESS	REINFORCING
IF3	3' - 0"	3' - 0"	3' - 6"	4 @ #5 VERT. w/ #3 TIES @ 12" OC
IF3A	3' - 0"	3' - 0"	1' - 0"	4 @ #4 EACH WAY BOTTOM
IF5	5' - 0"	5' - 0"	3' - 6"	4 @ #5 VERT. w/ #3 TIES @ 12" OC

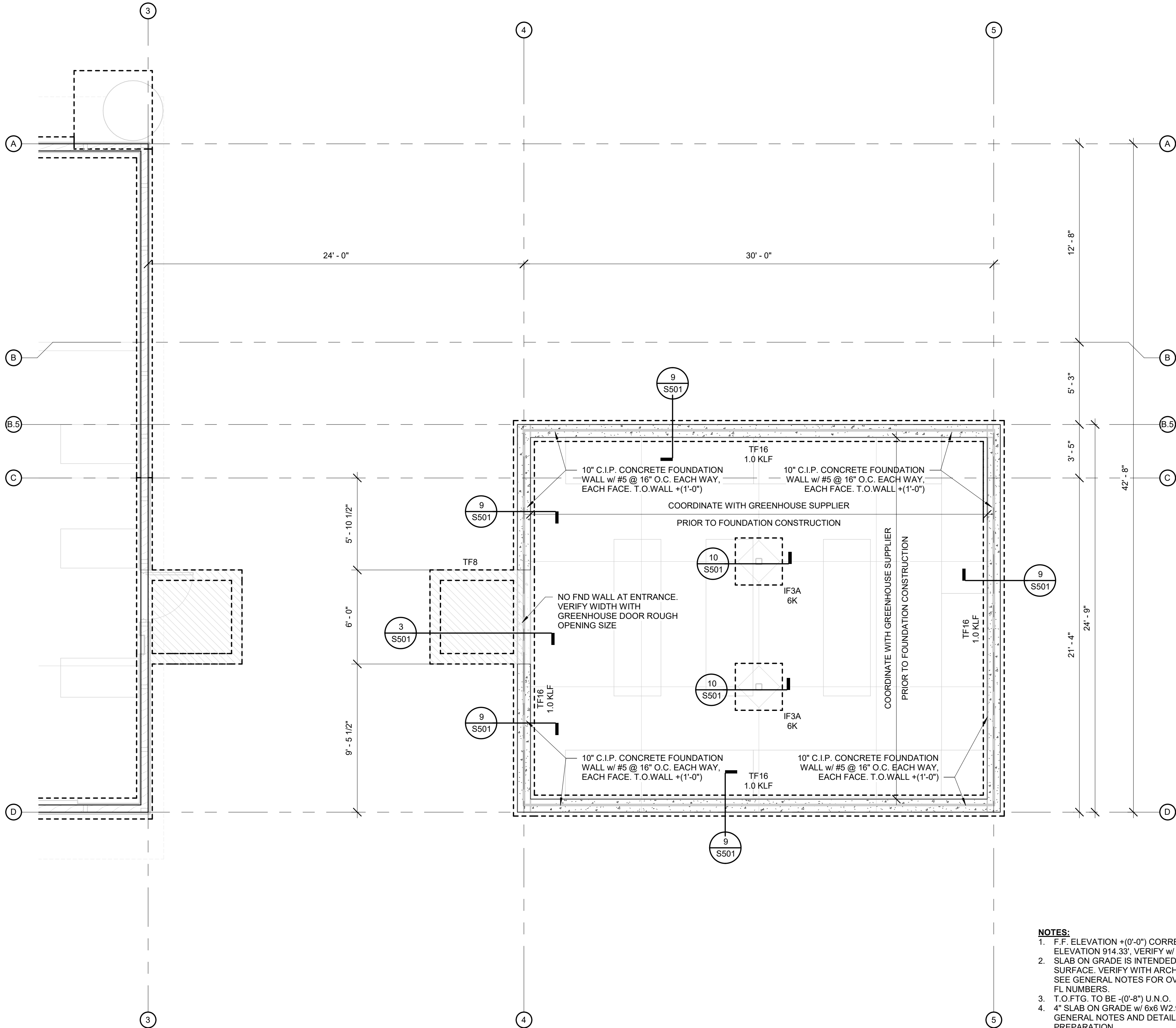


PEB NOTES:
A. FINAL REACTIONS, ANCHOR AND COLUMN LAYOUT HAS NOT BEEN SUBMITTED BY PEB MANUF. G.C. TO SUBMIT THESE ITEMS TO E.O.R. FOR VERIFICATION PRIOR TO THE START OF FOUNDATION CONSTRUCTION.
B. CONTRACTOR TO VERIFY ALL DIMENSIONS, IF DISCREPANCIES FOUND CONTACT E.O.R.
C. SEE PEB DRAWINGS FOR ANCHOR BOLT Ø'S AND LOCATIONS

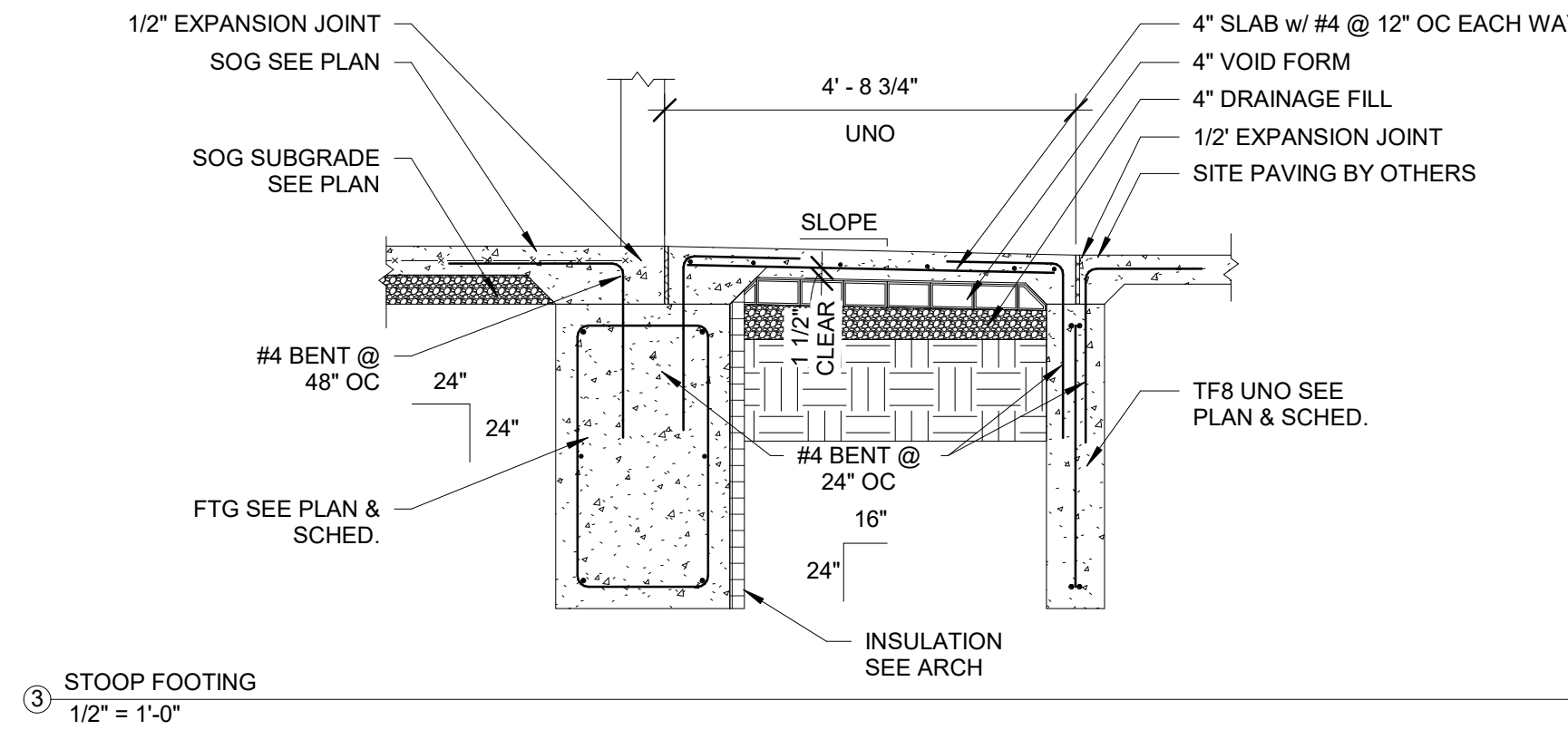
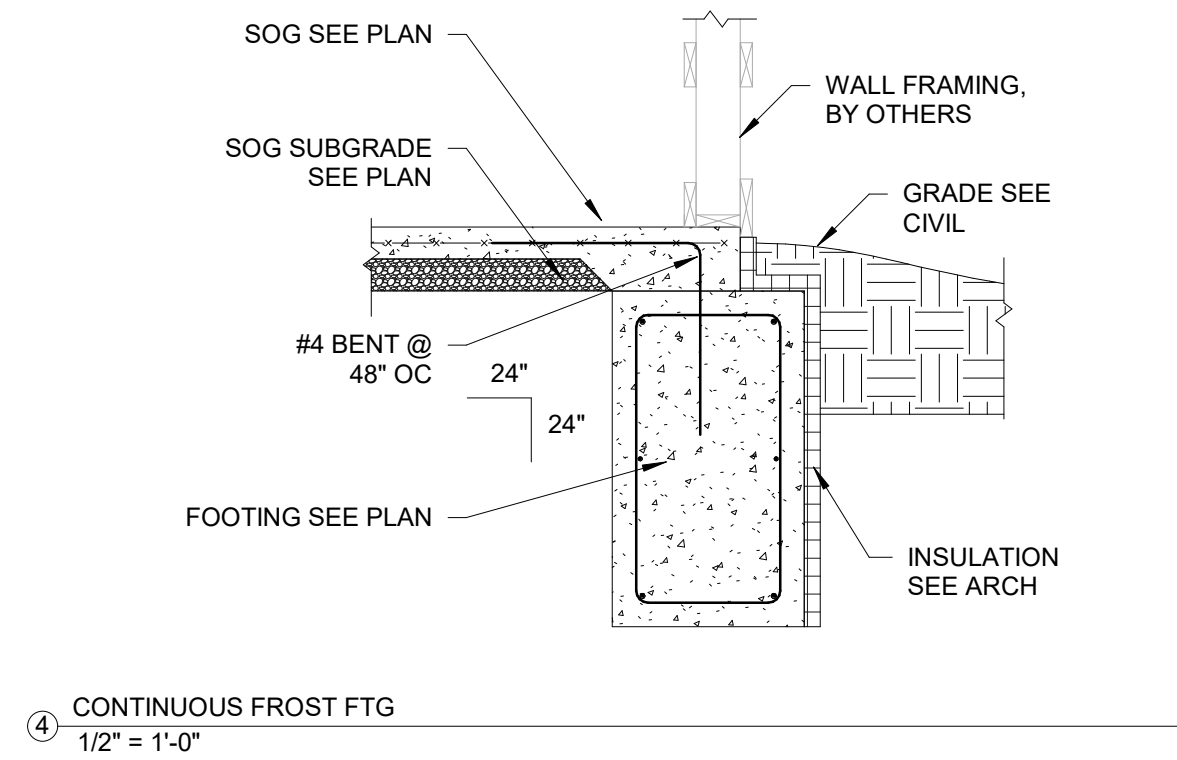
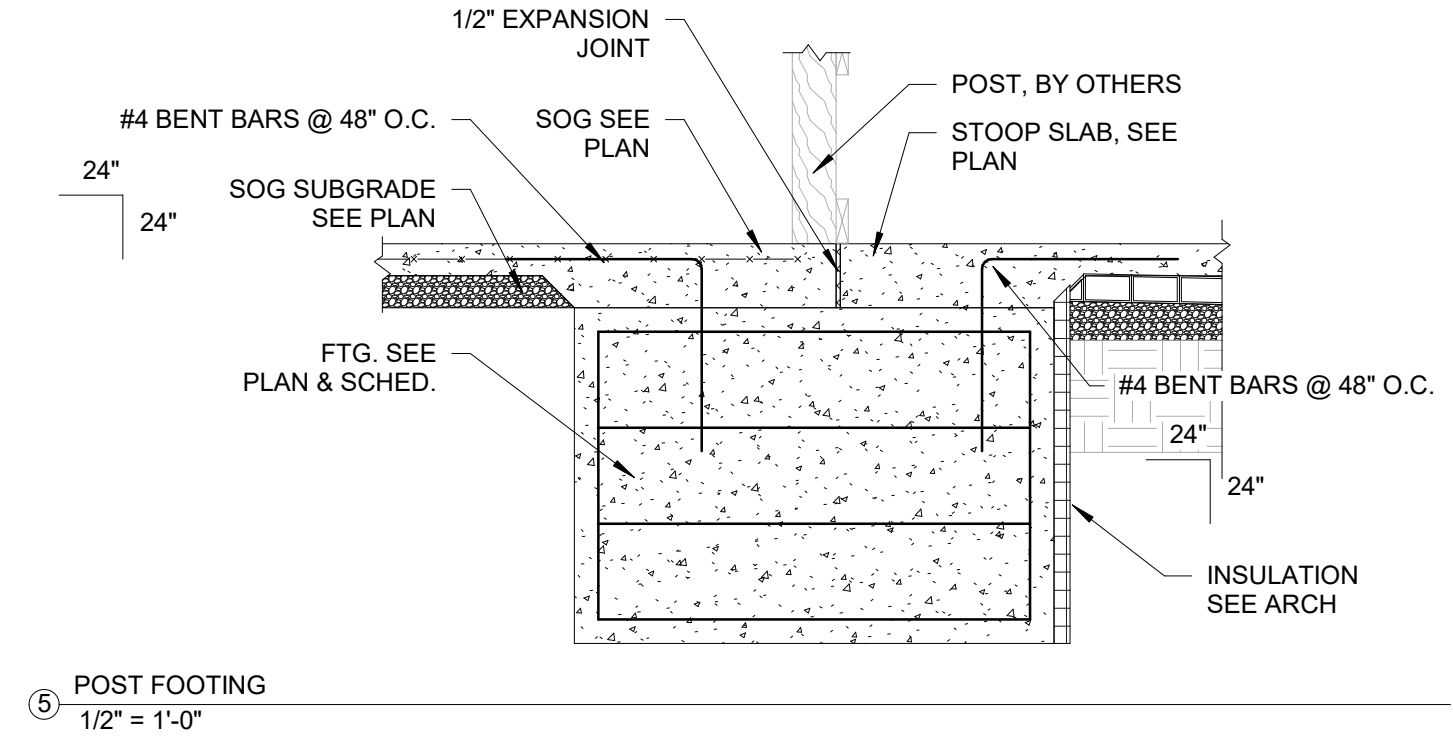
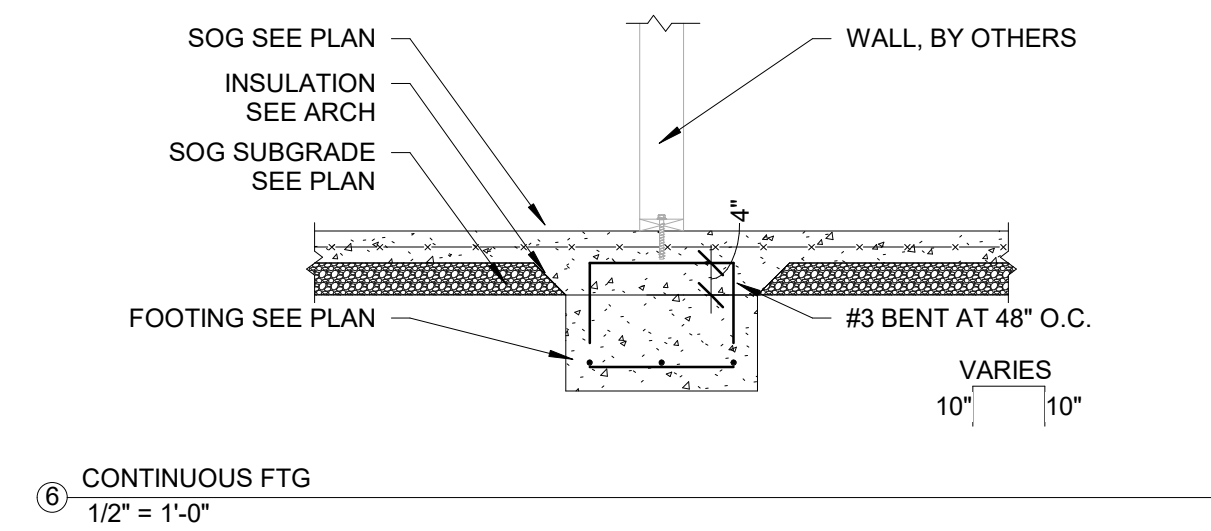
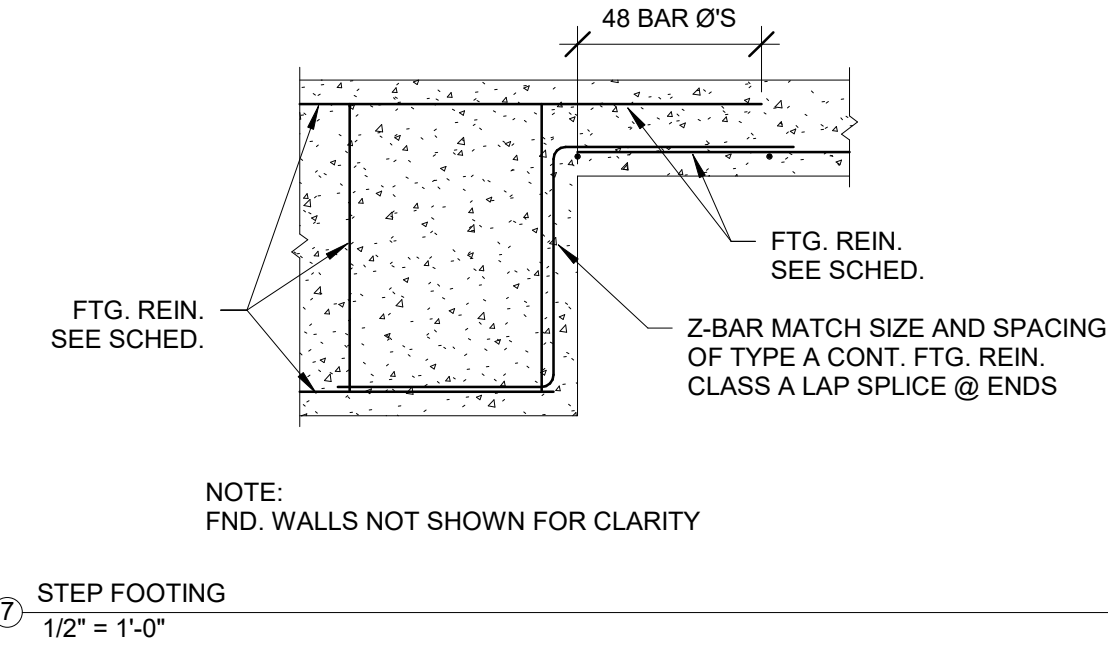
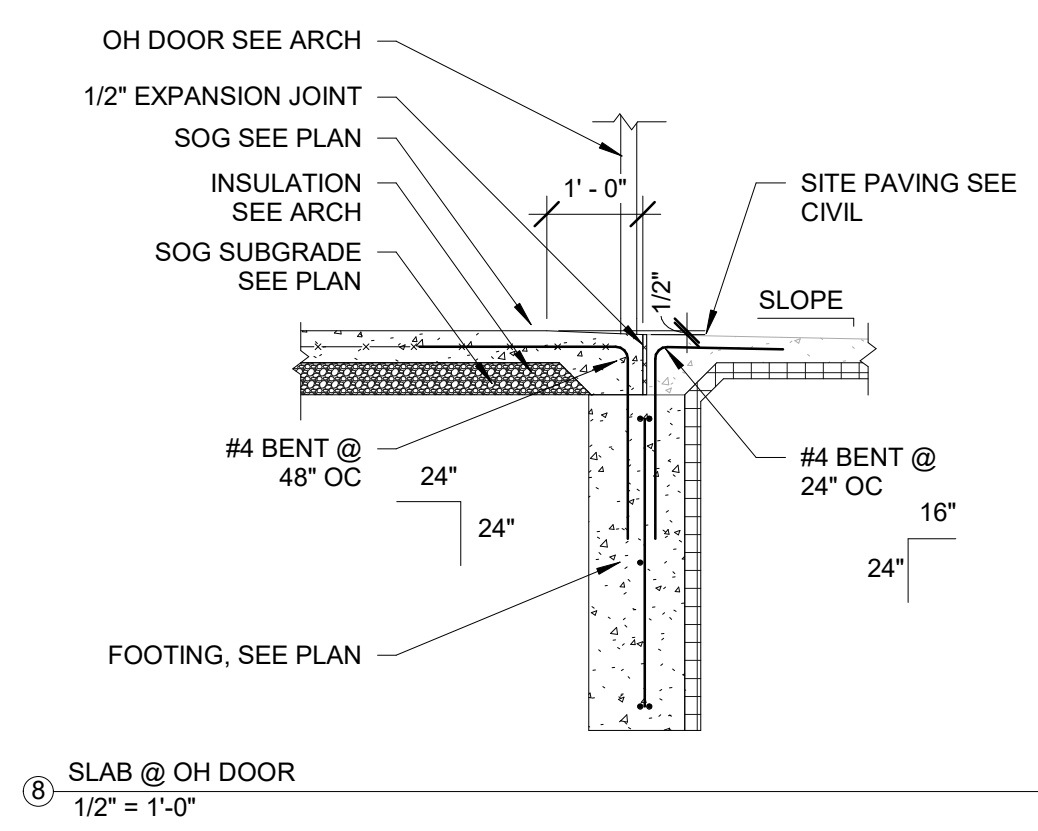
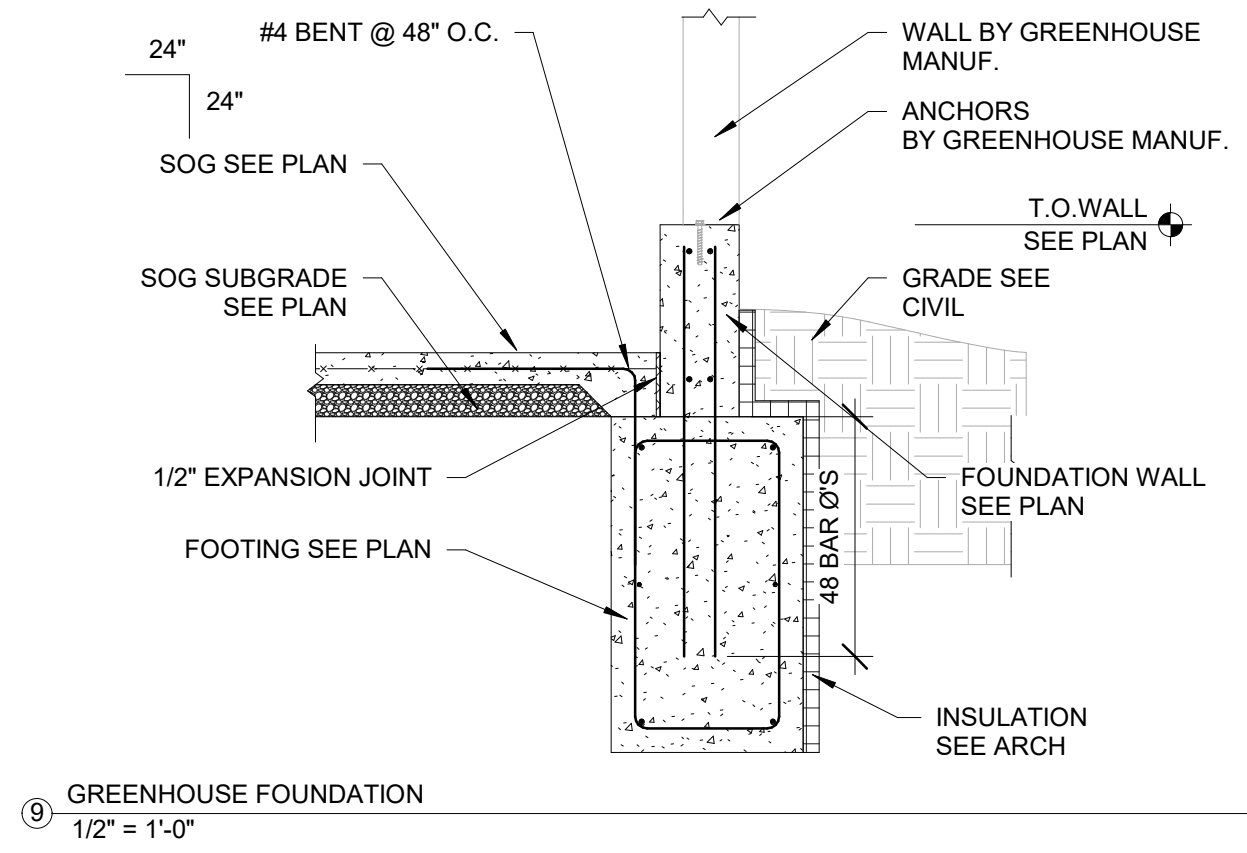
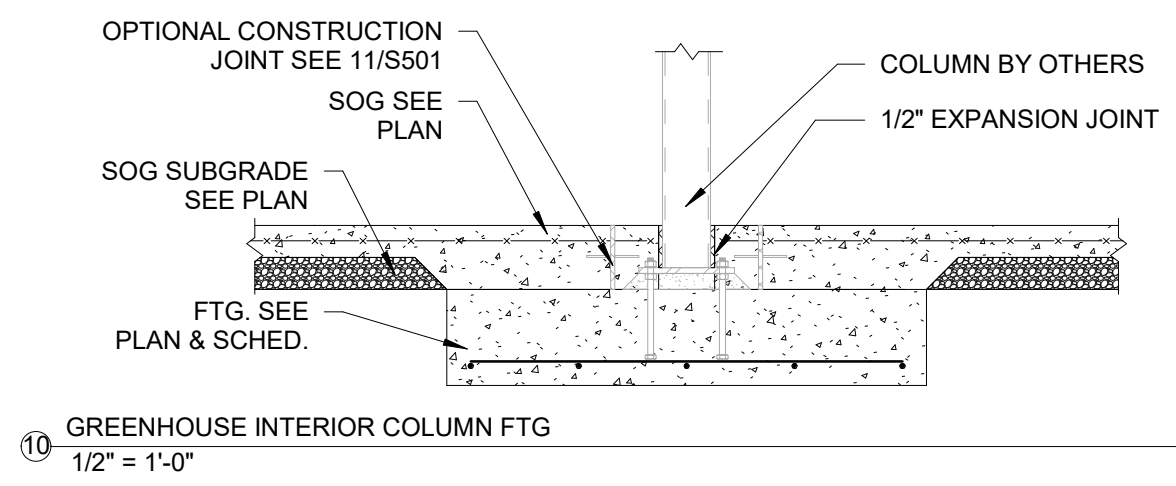
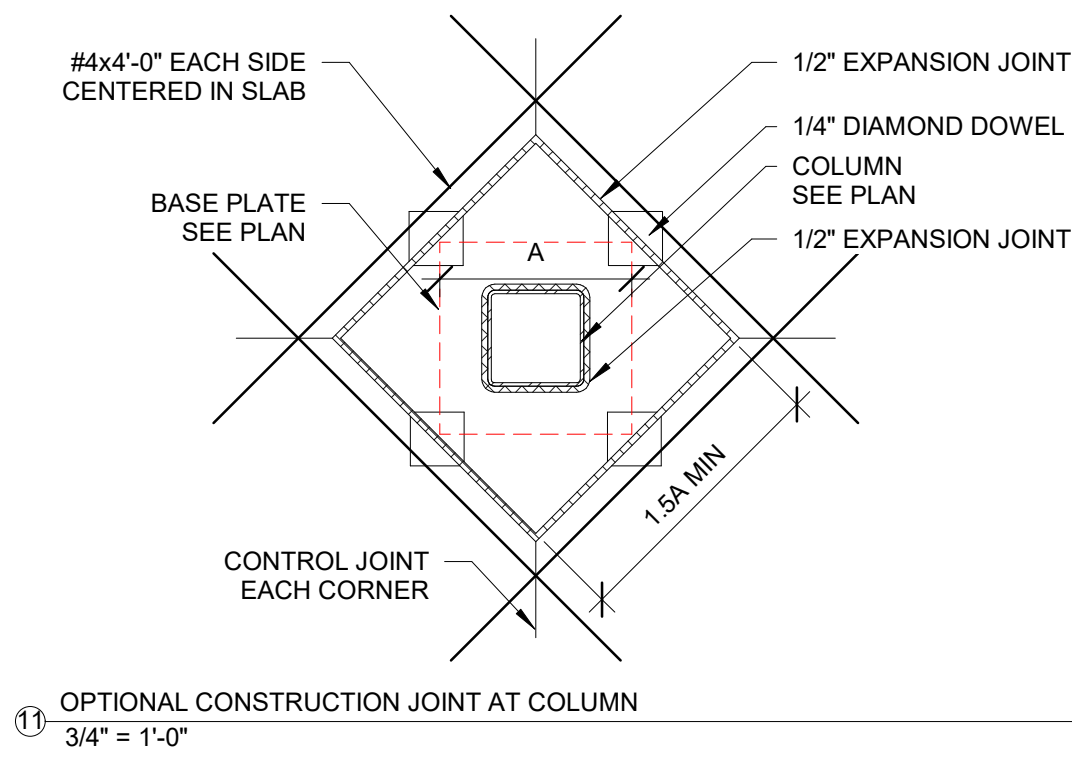
- NOTES:**
1. F.F. ELEVATION + (0'-0") CORRESPONDS TO CIVIL ELEVATION 914.33'. VERIFY W/ CIVIL DRAWINGS
2. T.O.FTG. TO BE -(0'-8") U.N.O.
3. 5" SLAB ON GRADE w/ 6x6 W2.9xW2.9 W.W.F. SEE GENERAL NOTES AND DETAIL 1/S501 FOR SUBGRADE PREPARATION
4. FOOTINGS ARE BASED ON TYPICAL POST SPACING OF 4'-0"
5. IF5 FOOTING TO BE CENTERED UNDER 4'-0"Ø RAIN BARREL. SEE ARCH FOR LOCATIONS. COORDINATE SLEEVES THROUGH FOOTING & INLINE DRAIN REQUIREMENTS w/ CIVIL DRAWINGS FOR DOWNSPOUT STORM TIE-IN
6. DRINKING FOUNTAIN. COORDINATE WATER/DRAIN LINE SLEEVES IN FOOTING/SLAB WITH MEP

ISOLATED FOOTING SCHEDULE				
TYPE	WIDTH	LENGTH	THICKNESS	REINFORCING
IF3	3'-0"	3'-0"	3'-6"	4 @ #5 VERT. w/ #3 TIES @ 12" OC
IF3A	3'-0"	3'-0"	1'-0"	4 @ #4 EACH WAY BOTTOM
IF5	5'-0"	5'-0"	3'-6"	4 @ #5 VERT. w/ #3 TIES @ 12" OC

CONTINUOUS FOOTING SCHEDULE				
TYPE	WIDTH	THICKNESS	REINFORCING	
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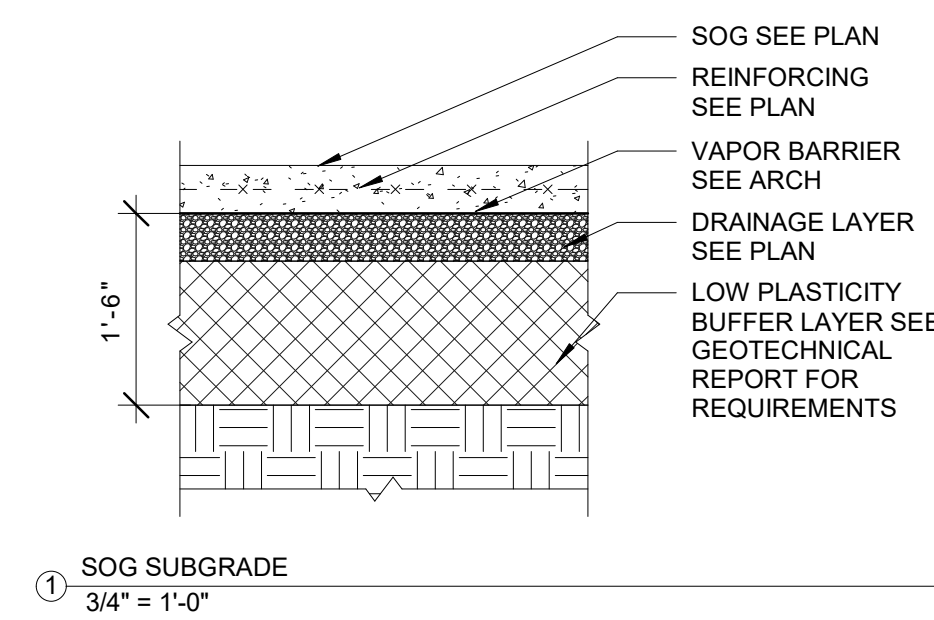


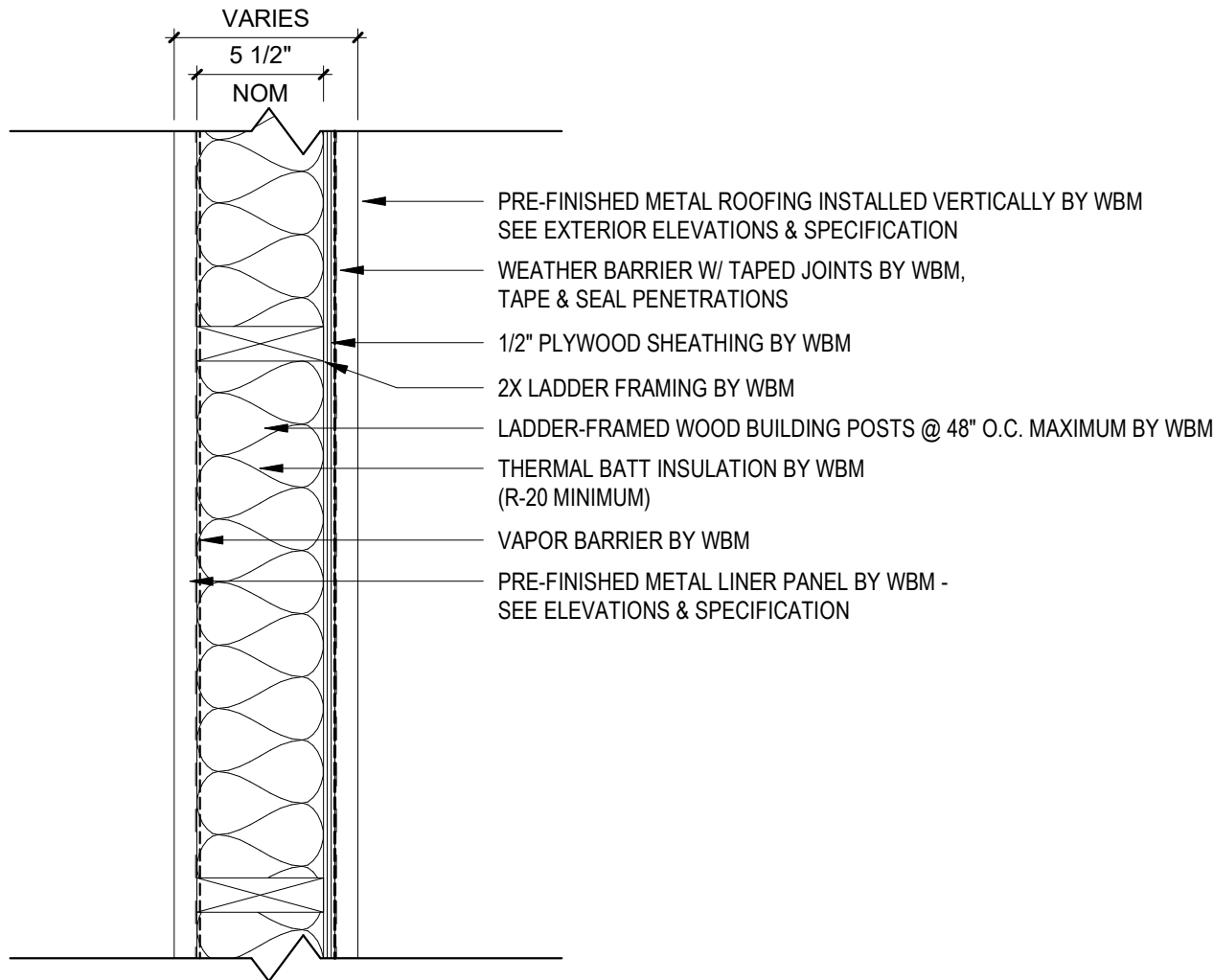
- NOTES:**
1. F.F. ELEVATION $+(0'-0'')$ CORRESPONDS TO CIVIL ELEVATION 914.33'. VERIFY w/ CIVIL DRAWINGS
 2. SLAB ON GRADE IS INTENDED TO HAVE POLISHED SURFACE. VERIFY WITH ARCHITECTURAL DRAWINGS. SEE GENERAL NOTES FOR OVERALL AND LOCAL FF & FL NUMBERS.
 3. T.O.FTG. TO BE $-(0'-8'')$ U.N.O.
 4. 4" SLAB ON GRADE w/ 6x6 W2.9kW2.9 W.W.F. SEE GENERAL NOTES AND DETAIL 1/S501 FOR SUBGRADE PREPARATION



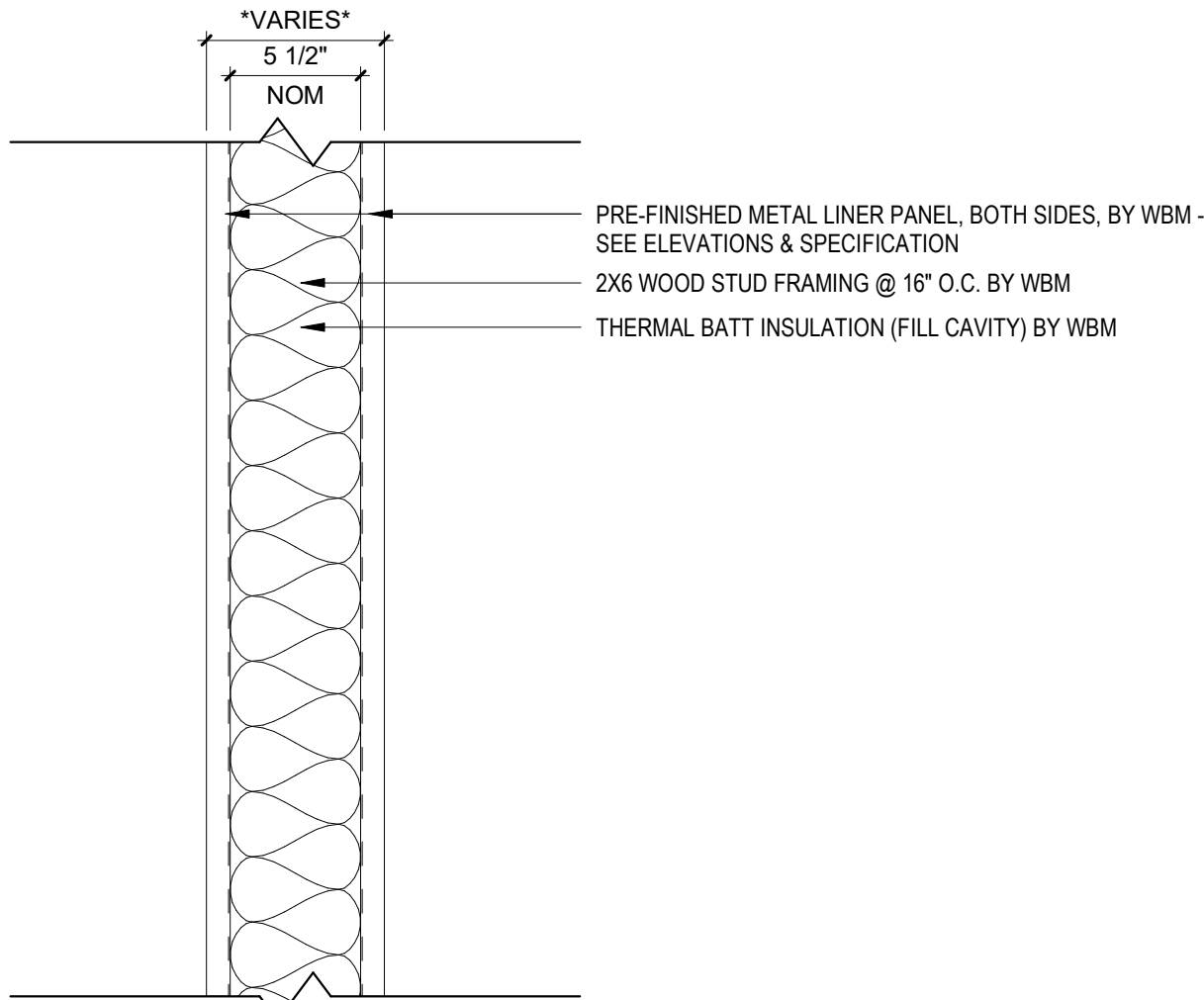
DIAMOND DOWELS		
SLAB THICKNESS	DOWEL THICKNESS	SPACING
5'-6"	1/4"	18" OC
7'-8"	3/8"	18" OC
9'-12"	3/4"	20" OC

CONTROL/CONSTRUCTION JOINTS	
SLAB THICKNESS	JOINT SPACING
4"	10'-0" +/- 2'
5"	12'-6" +/- 2'
6"	15'-0" +/- 3'
8"	20'-0" +/- 4'
10"	25'-0" +/- 5'
12"	30'-0" +/- 6'

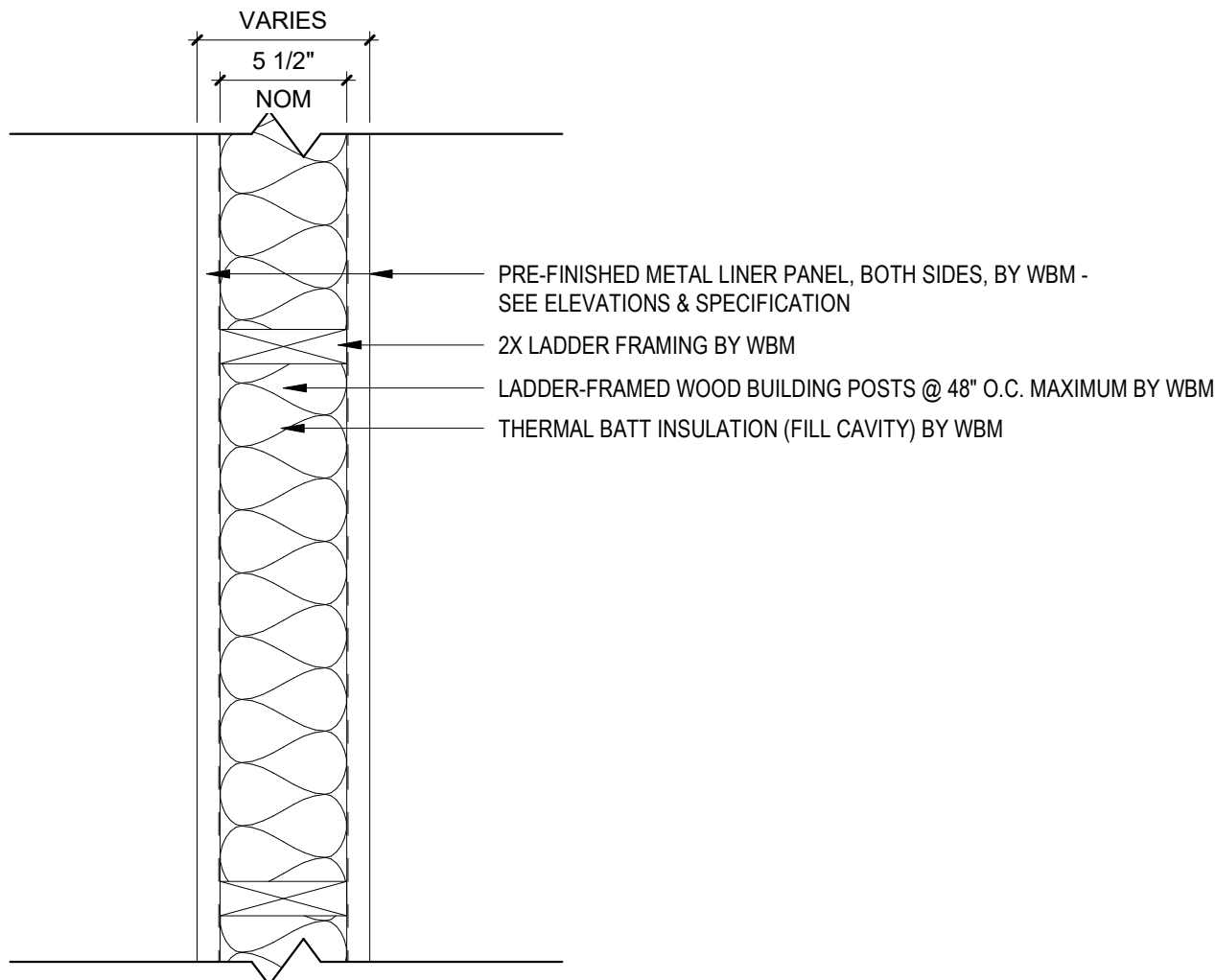




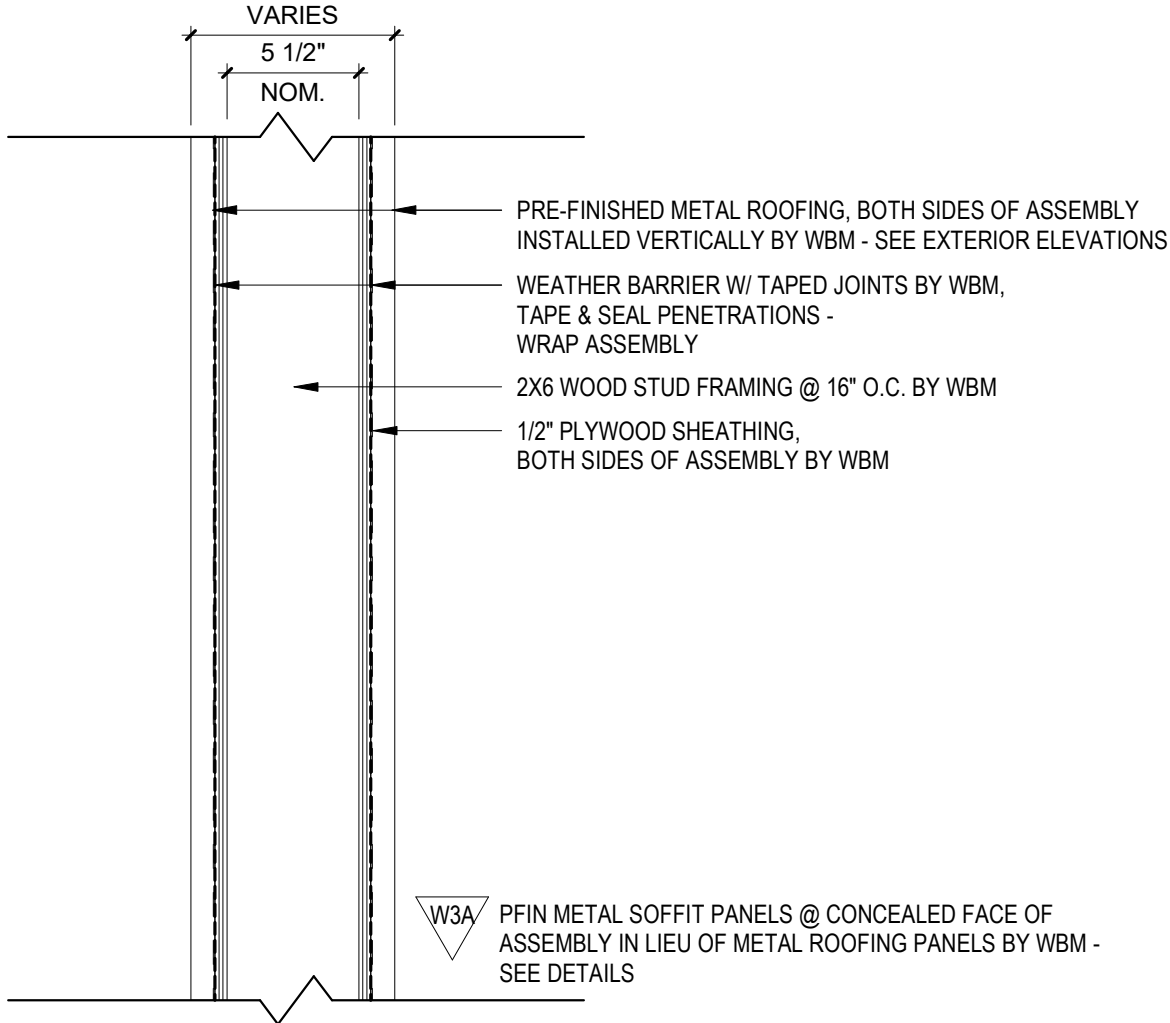
WALL IDENTIFICATION		W6
EXTERIOR WALL - LADDER-FRAMED		
WALL THICKNESS:	ACTUAL:	"VARIES"
	NOMINAL:	0' - 5 1/2"
WALL HEIGHT:	SEE EXTERIOR ELEVATIONS	
*** SEE SECTIONS, ELEVATIONS, & DETAILS FOR EXACT HEIGHTS***		
ACOUSTICAL RESISTANCE:	RATING (STC):	NA
	TEST NUMBER:	NA
FIRE RESISTANCE:	RATING (HOURS):	NA
	TEST NUMBER:	NA
WALL TYPE:		NA
GENERAL REMARKS:		
- AT EXTERIOR WALLS, SEAL ALL JOINTS & GAPS BETWEEN JOINING WOOD MEMBERS (STUD PACKS), TYPICAL.		
- LAP & TAPE ALL VAPOR RETARDER JOINTS, TYPICAL. SEAL ALL PERIMETER EDGES, OPENINGS, AND OTHER PENETRATIONS.		
- LAP & TAPE ALL WEATHER BARRIER JOINTS, TYPICAL. SEAL ALL PERIMETER EDGES, OPENINGS, & OTHER PENETRATIONS PER MANUFACTURER SPECIFICATIONS.		
- SEE PLANS FOR PROPOSED POST LAYOUT. FINAL LAYOUT BY WBM TO BE SUBMITTED FOR REVIEW BY DESIGN TEAM.		
NA = NOT APPLICABLE		
SCALE: 1 1/2" = 1'-0" WBM=WOOD BUILDING MANUFACTURER		



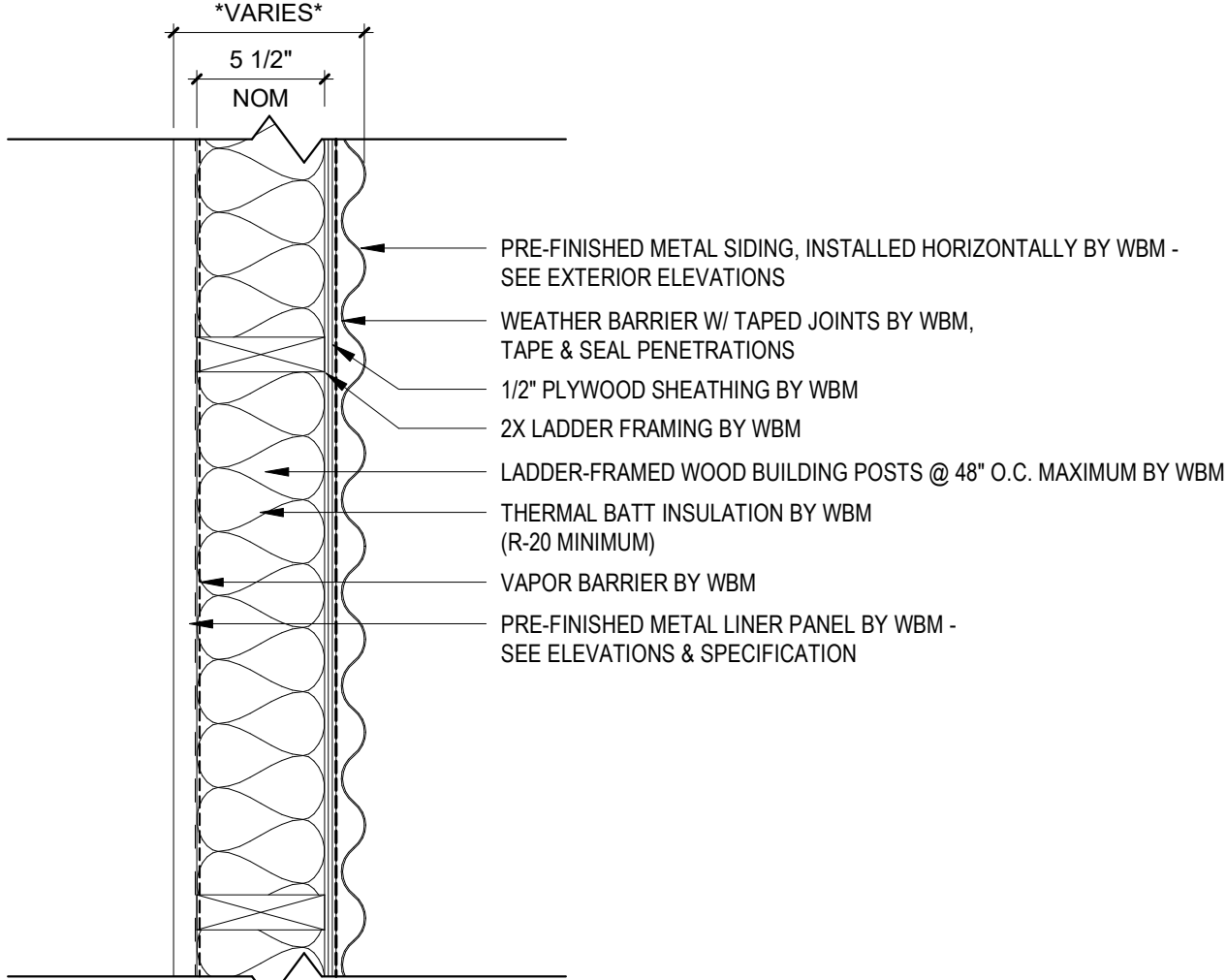
WALL IDENTIFICATION		W5
INTERIOR WALL - WOOD-FRAMED		
WALL THICKNESS:	ACTUAL:	"VARIES"
	NOMINAL:	0' - 5 1/2"
WALL HEIGHT:	"VARIES"	
*** SEE SECTIONS, ELEVATIONS, & DETAILS FOR EXACT HEIGHTS***		
ACOUSTICAL RESISTANCE:	RATING (STC):	NA
	TEST NUMBER:	NA
FIRE RESISTANCE:	RATING (HOURS):	NA
	TEST NUMBER:	NA
WALL TYPE:		NA
GENERAL REMARKS:		
- PROVIDE SEALANT, TYPICAL AT ALL EDGE PERIMETERS & PENETRATIONS - SEE INTERIOR ELEVATIONS & SPECIFICATION FOR PANEL LAYOUT.		
SCALE: 1 1/2" = 1'-0"		
NA = NOT APPLICABLE		



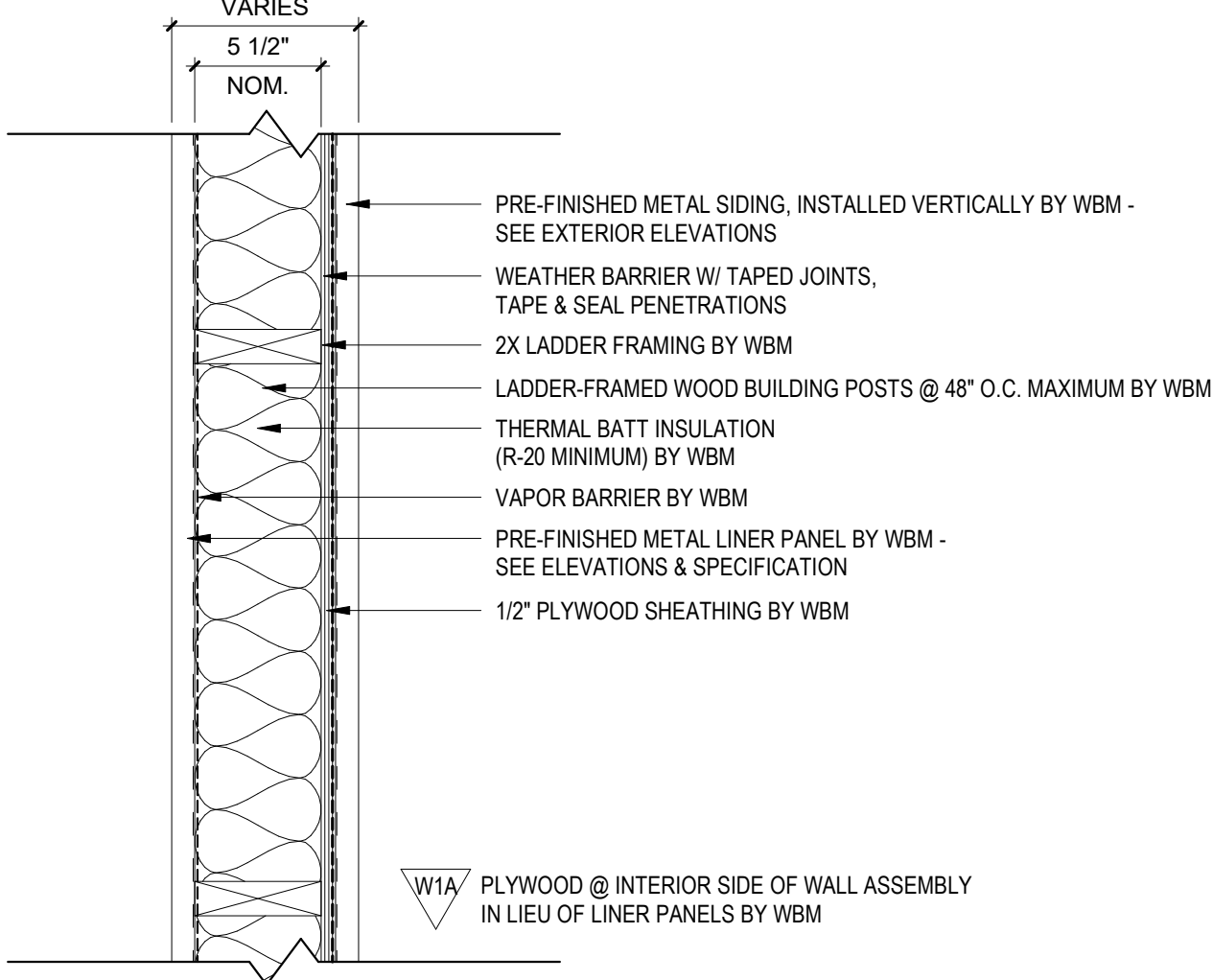
WALL IDENTIFICATION		W4
INTERIOR WALL - LADDER-FRAMED		
WALL THICKNESS:	ACTUAL:	"VARIES"
	NOMINAL:	0' - 5 1/2"
WALL HEIGHT:	AT OR ABOVE ROOF STRUCTURE	
*** SEE SECTIONS, ELEVATIONS, & DETAILS FOR EXACT HEIGHTS ***		
ACOUSTICAL RESISTANCE:	RATING (STC):	NA
	TEST NUMBER:	NA
FIRE RESISTANCE:	RATING (HOURS):	NA
	TEST NUMBER:	NA
WALL TYPE:		NA
GENERAL REMARKS:		
- AT EXTERIOR WALLS, SEAL ALL JOINTS & GAPS BETWEEN JOINING WOOD MEMBERS (STUD PACKS), TYPICAL. - LAP & TAPE ALL VAPOR RETARDER JOINTS, TYPICAL. SEAL ALL PERIMETER EDGES, OPENINGS, AND OTHER PENETRATIONS. - LAP & TAPE ALL WEATHER BARRIER JOINTS, TYPICAL. SEAL ALL PERIMETER EDGES, OPENINGS, & OTHER PENETRATIONS PER MANUFACTURER SPECIFICATIONS. - SEE PLANS FOR PROPOSED POST LAYOUT. FINAL LAYOUT BY WBM TO BE SUBMITTED FOR REVIEW BY DESIGN TEAM.		
NA = NOT APPLICABLE		
SCALE: 1 1/2" = 1'-0" WBM=WOOD BUILDING MANUFACTURER		



WALL IDENTIFICATION		W3
EXTERIOR WALL - WOOD-FRAMED		
WALL THICKNESS:	ACTUAL:	"VARIES"
	NOMINAL:	0' - 5 1/2"
WALL HEIGHT:	AT OR ABOVE ROOF STRUCTURE	
*** SEE SECTIONS, ELEVATIONS, & DETAILS FOR EXACT HEIGHTS***		
ACOUSTICAL RESISTANCE:	RATING (STC):	NA
	TEST NUMBER:	NA
FIRE RESISTANCE:	RATING (HOURS):	NA
	TEST NUMBER:	NA
WALL TYPE:		NA
GENERAL REMARKS:		
- AT EXTERIOR WALLS, SEAL ALL JOINTS & GAPS BETWEEN JOINING WOOD MEMBERS (STUD PACKS), TYPICAL. - LAP & TAPE ALL VAPOR RETARDER JOINTS, TYPICAL. SEAL ALL PERIMETER EDGES, OPENINGS, AND OTHER PENETRATIONS. - LAP & TAPE ALL WEATHER BARRIER JOINTS, TYPICAL. SEAL ALL PERIMETER EDGES, OPENINGS, & OTHER PENETRATIONS PER MANUFACTURER SPECIFICATIONS.		
NA = NOT APPLICABLE		
SCALE: 1 1/2" = 1'-0" WBM=WOOD BUILDING MANUFACTURER		

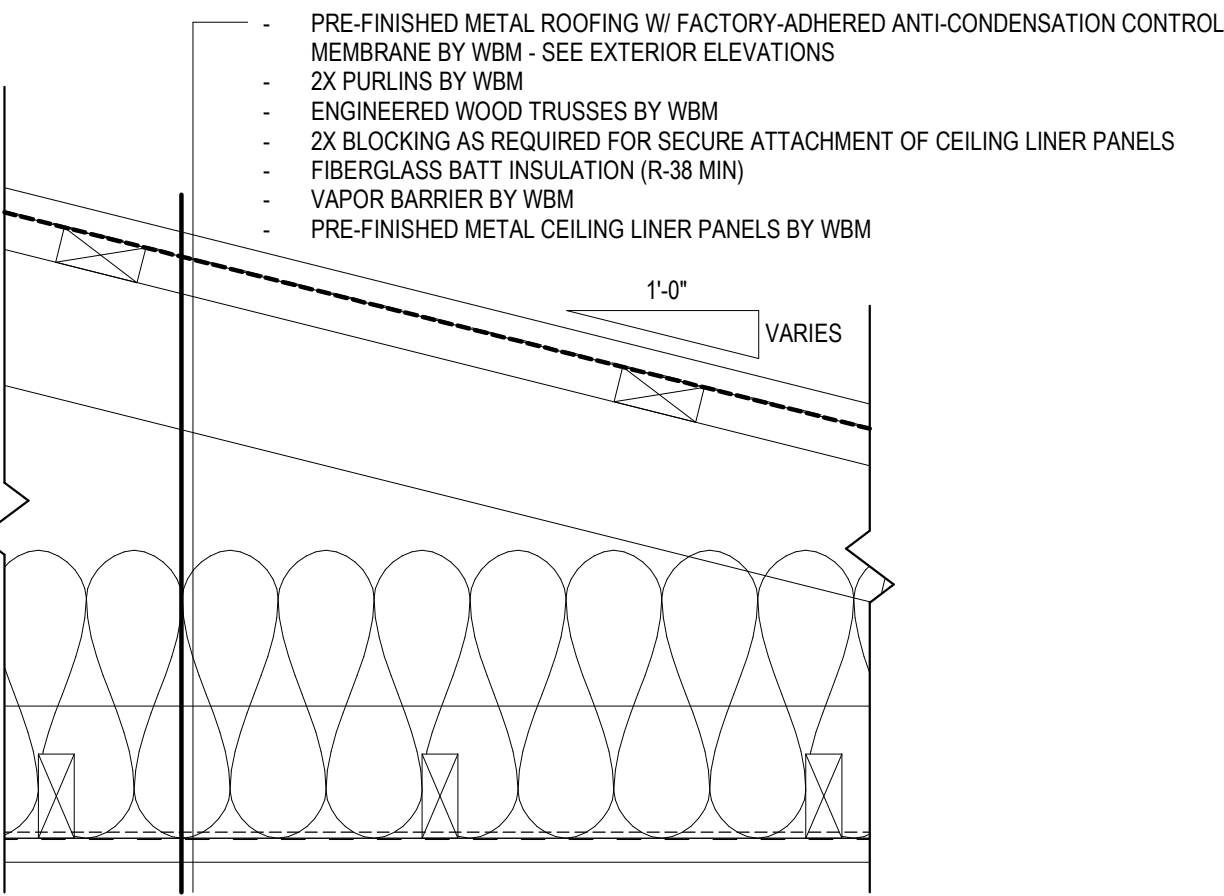


WALL IDENTIFICATION		W2
EXTERIOR WALL - LADDER-FRAMED		
WALL THICKNESS:	ACTUAL:	"VARIES"
	NOMINAL:	0' - 5 1/2"
WALL HEIGHT:	SEE EXTERIOR ELEVATIONS	
*** SEE SECTIONS, ELEVATIONS, & DETAILS FOR EXACT HEIGHTS***		
ACOUSTICAL RESISTANCE:	RATING (STC):	NA
	TEST NUMBER:	NA
FIRE RESISTANCE:	RATING (HOURS):	NA
	TEST NUMBER:	NA
WALL TYPE:		NA
GENERAL REMARKS:		
- AT EXTERIOR WALLS, SEAL ALL JOINTS & GAPS BETWEEN JOINING WOOD MEMBERS (STUD PACKS), TYPICAL.		
- LAP & TAPE ALL VAPOR RETARDER JOINTS, TYPICAL. SEAL ALL PERIMETER EDGES, OPENINGS, AND OTHER PENETRATIONS.		
- LAP & TAPE ALL WEATHER BARRIER JOINTS, TYPICAL. SEAL ALL PERIMETER EDGES, OPENINGS, & OTHER PENETRATIONS PER MANUFACTURER SPECIFICATIONS.		
- SEE PLANS FOR PROPOSED POST LAYOUT. FINAL LAYOUT BY WBM TO BE SUBMITTED FOR REVIEW BY DESIGN TEAM.		
NA = NOT APPLICABLE		
SCALE: 1 1/2" = 1'-0" WBM=WOOD BUILDING MANUFACTURER		

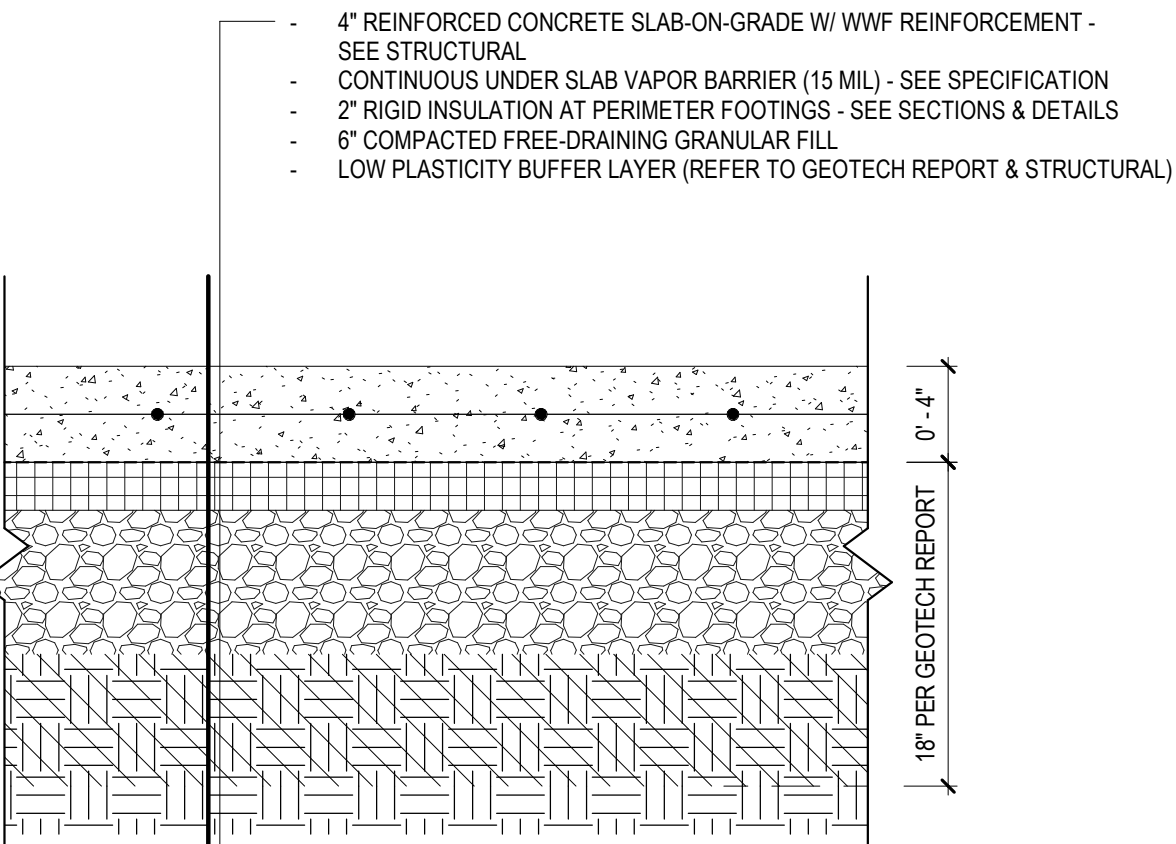


WALL IDENTIFICATION		W1
EXTERIOR WALL - LADDER-FRAMED		
WALL THICKNESS:	ACTUAL:	"VARIES"
	NOMINAL:	0' - 5 1/2"
WALL HEIGHT:	AT OR ABOVE ROOF STRUCTURE	
*** SEE SECTIONS, ELEVATIONS, & DETAILS FOR EXACT HEIGHTS***		
ACOUSTICAL RESISTANCE:	RATING (STC):	NA
	TEST NUMBER:	NA
FIRE RESISTANCE:	RATING (HOURS):	NA
	TEST NUMBER:	NA
WALL TYPE:		NA
GENERAL REMARKS:		
- AT EXTERIOR WALLS, SEAL ALL JOINTS & GAPS BETWEEN JOINING WOOD MEMBERS (STUD PACKS), TYPICAL.		
- LAP & TAPE ALL VAPOR RETARDER JOINTS, TYPICAL. SEAL ALL PERIMETER EDGES, OPENINGS, AND OTHER PENETRATIONS.		
- LAP & TAPE ALL WEATHER BARRIER JOINTS, TYPICAL. SEAL ALL PERIMETER EDGES, OPENINGS, & OTHER PENETRATIONS PER MANUFACTURER SPECIFICATIONS.		
- SEE PLANS FOR PROPOSED POST LAYOUT. FINAL LAYOUT BY WBM TO BE SUBMITTED FOR REVIEW BY DESIGN TEAM.		
NA = NOT APPLICABLE		
SCALE: 1 1/2" = 1'-0" WBM=WOOD BUILDING MANUFACTURER		

- ASSEMBLIES - GENERAL NOTES:
- WHERE WOOD STUD WALLS CONTAIN WALL OPENINGS, CONTRACTOR SHALL PROVIDE DOUBLE STUDS AT EACH JAMB, CONTINUOUS FROM BOTTOM PLATE TO TOP PLATE U.N.O. SEE STRUCTURAL FOR FURTHER INFORMATION.
 - REFER TO STRUCTURAL FOR INFORMATION ON WOOD STUD SIZE, GRADE, SPECIES, QUANTITY AND SPACING.
 - REFER TO STRUCTURAL FOR INFORMATION ON SHEAR WALLS & TIE DOWN LOCATIONS.
 - REFER TO FLOOR PLANS FOR EXACT WALL DIMENSIONS & RELATIVE LOCATION TO STRUCTURAL GRID LINES.
 - WHERE RIGID INSULATION IS PROVIDED, IT SHALL BE PROTECTED FROM IGNITION AT ALL TIMES, AS INDICATED IN SPECIFICATION SECTION 072100. THIS INCLUDES RIGID INSULATION IN ALL CEILING PLENUMS (LOCATED ABOVE THE CEILING BUT BELOW THE ROOF DECK). NO FOAM PLASTIC SHALL BE EXPOSED TO THE INTERIOR OF THE BUILDING. SEE WALL TYPES.
 - SWITCH, RECEPTACLE, ETC. JUNCTION BOXES SHALL NOT BE INSTALLED BACK TO BACK UNLESS CALLED FOR SPECIFICALLY.
 - SEE WALL TYPES FOR HEIGHT OF WALL ASSEMBLIES.
 - SEE ROOM FINISH SCHEDULE FOR WALL & CEILING FINISHES. REFERENCE SPECIFICATION MANUAL FOR ADDITIONAL INFORMATION.
 - PROVIDE IN-WALL & ABOVE CEILING BLOCKING AS REQUIRED FOR NEW WALL & CEILING MOUNTED CASEWORK, EQUIPMENT & DEVICES - SEE ALL TRADES. COORDINATE ADDITIONAL BLOCKING FOR ALL OWNER FURNISHED EQUIPMENT.
 - THE WOOD FRAMED BUILDING, STRUCTURAL MAIN FRAMES, END WALL FRAMES, GIRTS, PURLINS, METAL SIDING PANELS, METAL ROOFING, OVERHANGS, METAL SOFFITS, FASCIA, WEATHER BARRIER, SHEATHING, INSULATION, EXTRUDED METAL TRIMS, CLIPS, ANGLES, FASTENERS, ATTACHMENTS, AND ALL OTHER RELATED ACCESSORIES SHALL BE PROVIDED BY AN INDEPENDENT WOOD FRAME BUILDING CONTRACTOR AND ARE THE SOLE RESPONSIBILITY OF THE WOOD FRAME BUILDING MANUFACTURER AND INSTALLATION CONTRACTOR.



ROOF IDENTIFICATION		R1
ROOF ASSEMBLY - WOOD TRUSS & PURLIN		
ASSEMBLY THICKNESS:		"VARIES"
*** SEE FLOOR PLANS, BUILDING SECTIONS, WALL SECTIONS, DETAILS, FOOTING & FOUNDATION PLANS FOR EXACT SIZES, DIMENSIONS, REINFORCING AND ALL OTHER RELATED ELEMENTS***		
ACOUSTICAL RESISTANCE:	RATING (STC):	NA
	TEST NUMBER:	NA
FIRE RESISTANCE:	RATING (HOURS):	"VARIES"
	TEST NUMBER:	"VARIES"
WALL TYPE:		"VARIES"
GENERAL REMARKS:		
- SEE SECTIONS FOR BEARING HEIGHTS/TYPES.		
- SEE SECTIONS FOR OVERHANG FRAMING STYLE & LOCATIONS.		
- PROVIDE VENTED RIDGE CAP & SOFFIT PANELS AS REQUIRED BY THE INTERNATIONAL BUILDING CODE TO PROVIDE PROPER VENTILATION OF ATTIC SPACE		
NA = NOT APPLICABLE		
SCALE: 1 1/2" = 1'-0" WBM = WOOD BUILDING MANUFACTURER		



FLOOR IDENTIFICATION		F1
FLOOR ASSEMBLY - CONCRETE SLAB-ON-GRADE		
ASSEMBLY THICKNESS:		0' - 4"
*** SEE FLOOR PLANS, BUILDING SECTIONS, WALL SECTIONS, DETAILS, FOOTING & FOUNDATION PLANS FOR EXACT SIZES, DIMENSIONS, REINFORCING AND ALL OTHER RELATED ELEMENTS***		
ACOUSTICAL RESISTANCE:	RATING (STC):	NA
	TEST NUMBER:	NA
FIRE RESISTANCE:	RATING (HOURS):	NA
	TEST NUMBER:	NA
WALL TYPE:		NA
GENERAL REMARKS:		
- SEE SPECIFICATION FOR TREATMENTS OF SLAB & VAPOR RETARDER PENETRATIONS.		
- SEE DETAILS FOR SLAB PERIMETER CONDITIONS.		
- SEE PLANS FOR LOCATIONS WHERE SLAB WILL SLOPE TO SAND TRAP. COORDINATE SLAB DETAILING WITH SAND TRAP REQUIREMENTS		
- SEE STRUCTURAL & GEOTECH REPORT FOR SLAB OVEREXCAVATION REQUIREMENTS.		
NA = NOT APPLICABLE		
SCALE: 1 1/2" = 1'-0"		

FLOOR PLANS - GENERAL NOTES:

- ALL CONSTRUCTION IS INTENDED TO BE IN ACCORD WITH FEDERAL, AND STATE LAWS, CURRENT LOCAL ORDINANCES & BUILDING CODES & THE AMERICANS WITH DISABILITIES ACT (ADA). REPORT ANY DISCREPANCIES TO THE ARCHITECT BEFORE PROCEEDING WITH THE WORK.
- CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS AND REPORT ANY DISCREPANCIES TO THE ARCHITECT PRIOR TO THE START OF CONSTRUCTION.
- DIMENSIONS ARE TAKEN FROM THE FACE OF STUD UNLESS NOTED OTHERWISE. SEE WALL TYPES AND DETAILS FOR ACTUAL WALL THICKNESSES AND DIMENSION LOCATIONS. CONTRACTOR SHALL PROVIDE ALL NECESSARY BLOCKING AND NAILERS WHERE REQUIRED TO SECURELY ATTACH ACCESSORIES, GRAB BARS, DEVICES, FIXTURES, EQUIPMENT, MILLWORK, OR ANY OTHER ITEMS TO A WALL OR CEILING SURFACE.
- SEE INTERIOR ELEVATIONS, FINISH PLANS, AND SCHEDULES FOR INFORMATION ON LOCATION & TYPE OF MATERIALS, PAINTS, COLORS, & FINISHES.
- SEE MECHANICAL, ELECTRICAL AND/OR PLUMBING FOR FURTHER INFORMATION.
- ALL EXTERIOR CONCRETE STOOPS TO SLOPE 1/4" PER FOOT MAXIMUM, 1/8" PER FOOT MINIMUM AWAY FROM THE BUILDING.
- INSTALL NEW FLOOR DRAINS FLUSH WITH TOP OF FLOOR FINISH, TYPICAL.
- DIMENSIONS AT OPENINGS, WINDOWS, AND DOORS ARE SHOWN AS ROUGH OPENING DIMENSIONS. CONTRACTOR SHALL COORDINATE ACTUAL ROUGH OPENINGS WITH DOOR AND WINDOW MANUFACTURER'S REQUIREMENTS PRIOR TO ORDER AND INSTALLATION. SEE DETAILS FOR LOCATION OF ROUGH OPENING MEASUREMENTS AND INTERIOR LOCATIONS WHERE INTERIOR FINISH IS INTENDED TO CONTINUE INSIDE THE JAMB PRIOR TO INSTALLATION.
- THE WOOD FRAMED BUILDING, STRUCTURAL MAIN FRAMES, END WALL FRAMES, GIRTS, PURLINS, METAL SIDING PANELS, METAL ROOFING, OVERHANGS, METAL SOFFITS, FASCIA, WEATHER BARRIER, SHEATHING, INSULATION, EXTRUDED METAL TRIMS, CLIPS, ANGLES, FASTENERS, ATTACHMENTS, AND ALL OTHER RELATED ACCESSORIES SHALL BE PROVIDED BY AN INDEPENDENT WOOD FRAME BUILDING CONTRACTOR AND ARE THE SOLE RESPONSIBILITY OF THE WOOD FRAME BUILDING MANUFACTURER AND INSTALLATION CONTRACTOR.

GENERAL FLOOR PLAN REFERENCES:

WOOD FRAMED (LADDER)

WOOD FRAMED (TRADITIONAL)

R.O. = ROUGH OPENING DIMENSION

D.S. = DOWNSPOUT

F.F. = FINISHED FACE

THIS LEGEND IS FOR VISUAL REFERENCE ONLY

SEE WALL TYPES, ASSEMBLIES & DETAILS

THE NOTE ABOVE THE WALL TYPE/ASSEMBLY TAG INDICATES:

- THE GENERAL HEIGHT/EXTENT OF THE WALL ASSEMBLY "ABOVE" OR "BELOW" THE VIEW PLANE.
- THAT MULTIPLE WALLS ARE BEING TAGGED BY A SINGLE WALL TYPE/ASSEMBLY TAG (E.G. "X2X3").
- THE NUMBER ABOVE WALL TYPE TAG INDICATES THE HEIGHT/EXTENT OF THE WALL ASSEMBLY ABOVE CORRESPONDING FLOOR LEVEL.

FLOOR PLANS & ENLARGED PLANS - KEY NOTE LEGEND:

1A. REINFORCED CONCRETE STOOP:
PROVIDE & INSTALL REINFORCED CONCRETE STOOP AT THE LOCATIONS INDICATED. SEE STRUCTURAL.

1B. CONCRETE SLAB-ON-GRADE:
PROVIDE & INSTALL CONCRETE SLAB-ON-GRADE W/ CONTROL JOINTS (CJ) AS LABELED ON PLAN. SEE STRUCTURAL & ASSEMBLIES.

2A. ROOM SIGNAGE:
PROVIDE & INSTALL ROOM SIGNAGE. COORDINATE WITH OWNER. SEE INTERIOR ELEVATIONS FOR MOUNTING HEIGHT. SEE SPECIFICATION.

2B. ADDRESS SIGNAGE:
PROVIDE & INSTALL 1/4" ALUMINUM PLATE EXTERIOR ADDRESS SIGNAGE (4" TALL) W/ 1" STANDOFFS. COORDINATE FINAL PLACEMENT WITH AHJ.

2C. BUILDING SIGNAGE: (BY OWNER)
PROVIDE & INSTALL 1/4" ALUMINUM PLATE EXTERIOR BUILDING SIGNAGE (8" TALL) W/ 3" STANDOFFS. PROVIDE ANGLED BACKPLATE AS REQ'D TO MOUNT SIGNAGE PLUMB.

2D. RESTROOM SIGNAGE: (BY OWNER)
PROVIDE & INSTALL 1/4" ALUMINUM PLATE RESTROOM SIGNAGE W/ 1" STANDOFFS USING UNIVERSAL RESTROOM SYMBOL AT THE LOCATION INDICATED. SEE EXTERIOR ELEVATIONS.

3A. FIRE EXTINGUISHER CABINET & EXTINGUISHER:
PROVIDE & INSTALL SEMI-RECESSED FIRE EXTINGUISHER CABINET & FIRE EXTINGUISHER. SEE SPECIFICATION.

3B. FIRE EXTINGUISHER & MOUNTING HARDWARE:
PROVIDE & INSTALL FIRE EXTINGUISHER & ASSOCIATED MOUNTING HARDWARE. SEE SPECIFICATION.

3C. KNOX BOX:
PROVIDE & INSTALL FIRE DEPARTMENT APPROVED KNOX BOX. CONFIRM LOCATION WITH FIRE MARSHALL PRIOR TO INSTALLATION.

3D. EMERGENCY EYE WASH:
PROVIDE & INSTALL EMERGENCY EYE WASH STATION. SEE SPECIFICATION.

4A. PLUMBING FIXTURE/EQUIPMENT:
PROVIDE & INSTALL PLUMBING FIXTURE/EQUIPMENT. SEE INTERIOR ELEVATIONS FOR MOUNTING HEIGHT AND ACCESSIBILITY COMPLIANCE. SEE PLUMBING.

4B. DRINKING FOUNTAIN:
PROVIDE & INSTALL FREE-STANDING ADA-COMPLIANT OUTDOOR B-LEVEL DRINKING FOUNTAIN WITH BOTTLE FILLER. COORDINATE REQUIRED PIPING SLEEVES THRU FOOTING BETWEEN APPLICABLE TRADES. SEE STRUCTURAL & PLUMBING.

4C. MOP BASIN & FAUCET:
PROVIDE & INSTALL PRE-MOLDED MOP BASIN WITH STAINLESS STEEL WALL PROTECTION SURROUNDS, BROOM HOLDER AND CANTILEVER FAUCET. SEE PLUMBING.

4D. FLOOR DRAIN:
PROVIDE & INSTALL FLOOR DRAIN. SEE PLUMBING.

4E. HOSE BIB CONNECTION:
PROVIDE & INSTALL HOSE BIB CONNECTION. HEIGHT AT 18" ABOVE FINISHED FLOOR LEVEL, U.N.O. SEE PLUMBING.

4F. SAND TRAP & GRATE:
PROVIDE & INSTALL SAND TRAP, GRATE & ALL ASSOCIATED ACCESSORIES AS REQUIRED FOR PROPER OPERATION. SEE PLUMBING.

5A. MECHANICAL EQUIPMENT:
PROVIDE & INSTALL MECHANICAL EQUIPMENT & ALL ASSOCIATED ACCESSORIES AS REQUIRED FOR PROPER INSTALLATION. SEE MECHANICAL.

6A. ELECTRICAL METER:
PROVIDE & INSTALL ELECTRICAL METER, CONDUIT AND ACCESSORIES. COORDINATE WITH SERVICE PROVIDER. SEE ELECTRICAL.

6B. ELECTRICAL EQUIPMENT:
PROVIDE & INSTALL ELECTRICAL EQUIPMENT. SEE ELECTRICAL.

7A. GRAB BARS:
PROVIDE & INSTALL NEW GRAB BARS AT THE LOCATIONS INDICATED. FINISH SHALL BE STAINLESS STEEL WITH PEENED GRIP. SEE TYPICAL MOUNTING HEIGHTS.

7B. MIRROR:
PROVIDE & INSTALL WALL-MOUNTED MIRROR WITH STAINLESS STEEL FRAME AT LOCATIONS INDICATED. SEE INTERIOR ELEVATIONS FOR MOUNTING HEIGHT & SIZE. SEE SPECIFICATION.

7C. TOILET PAPER DISPENSER (OFCI):
INSTALL TOILET PAPER DISPENSER. SEE INTERIOR ELEVATIONS FOR MOUNTING HEIGHT.

7D. SOAP DISPENSER (OFCI):
INSTALL SURFACE-MOUNTED SOAP DISPENSER AT THE LOCATIONS INDICATED. SEE TYPICAL MOUNTING HEIGHTS. SEE SPECIFICATION.

7E. SANITARY NAPKIN DISPOSAL (OFCI):
INSTALL SURFACE-MOUNTED SANITARY NAPKIN DISPOSAL. SEE INTERIOR ELEVATIONS FOR MOUNTING HEIGHT.

7F. HAND DRYER:
PROVIDE & INSTALL ELECTRIC HAND DRYER. SEE TYPICAL MOUNTING HEIGHTS. SEE SPECIFICATION. SEE ELECTRICAL.

7G. PAPER TOWEL DISPENSER (OFCI):
INSTALL SURFACE-MOUNTED PAPER TOWEL DISPENSER. SEE TYPICAL MOUNTING HEIGHTS & SPECIFICATION.

8A. ARCHERY SIMULATOR (OFCI):
INSTALL ARCHERY SIMULATOR & ALL ASSOCIATED POWER, CABLING, FIXTURES, PADDING & ACCESSORIES AS REQUIRED FOR PROPER OPERATION. COORDINATE W/ MFG REQUIREMENTS. SEE CEILING PLANS. SEE ELECTRICAL.

- BASIS-OF-DESIGN:
 - BOWSIM 4D STANDARD BLOCK WALL (6.3'X10'X10") W/ VIDEO PROCESSING COMPUTER, WALL SENSOR, & ALL ASSOCIATED ACCESSORIES REQUIRED FOR PROPER OPERATION.

8B. RAIN TANK:
PROVIDE & INSTALL RAIN BARREL & INLINE DRAIN AT THE LOCATION INDICATED. HARD PIPE FROM OVERFLOW OUTLET TO INLINE DRAIN. SEE CIVIL & PLUMBING.

- BASIS-OF-DESIGN:
 - SNYDER WB23 300 GALLON BLACK POLY VERTICAL WATER STORAGE TANK OR APPROVED EQUAL.

9A. LADDER FRAME POSTS:
LADDER FRAMED POSTS SPACED AT 48" O.C. MAXIMUM BY WOOD-FRAMED BUILDING MANUFACTURER. SEE ASSEMBLIES & SECTIONS.

VINYL WINDOW:
THERMALLY-BROKEN VINYL WINDOW
SEE WINDOW ELEVATIONS. SEE SPECIFICATIONS.

DOOR ASSEMBLY:
SEE DOOR SCHEDULE & OPENING ELEVATIONS.
SEE SPECIFICATIONS.

NOTE: CONTRACTOR SHALL TAKE SPECIAL CARE IN ROUTING OF ALL EXPOSED PIPES, CONDUIT & DUCTWORK IN PUBLIC AREAS. COORDINATE FINAL ROUTING WITH ARCHITECT PRIOR TO FABRICATION & INSTALLATION

ROUTE EXPOSED PIPING & DUCTWORK REQUIRED TO BE EXPOSED TIGHT TO WEST WALL TO DESIGNATED LOCATION - SEE CEILING PLANS & MEP

MLP CEILING - SEE CEILING PLANS

MLP - SEE SPECIFICATION

GRAB BARS - SEE TYPICAL MOUNTING HEIGHTS & SPECIFICATION

HAND DRYER - SEE SPECIFICATIONS

PROVIDE IN-WALL 2X BLOCKING AS REQUIRED FOR SECURE ATTACHMENT OF ALL GRAB BARS & OTHER RESTROOM ACCESSORIES, TYP

ACCESSIBLE TOILET - SEE TYP MTG HEIGHTS & PLUMBING

TOILET PAPER DISPENSER (OFCI) - SEE TYP MTG HEIGHTS

3 **INTERIOR ELEVATION - RESTROOM #104 - EAST**
1/2" = 1'-0"

ROUTE EXPOSED PIPING & DUCTWORK REQUIRED TO BE EXPOSED TIGHT TO WEST WALL TO DESIGNATED LOCATION - SEE CEILING PLANS & MEP

MLP CEILING - SEE CEILING PLANS

MLP - SEE SPECIFICATION

GRAB BARS - SEE TYPICAL MOUNTING HEIGHTS & SPECIFICATION

24X36 MIRROR - CENTER ON LAVATORY

SOAP DISPENSER (OFCI) - SEE TYPICAL MOUNTING HEIGHTS

PROVIDE LAVATORY GUARD, TYP @ LAVATORY PIPING - SEE SPECIFICATION

PROVIDE IN-WALL 2X BLOCKING AS REQUIRED FOR SECURE ATTACHMENT OF ALL GRAB BARS & OTHER RESTROOM ACCESSORIES, TYP

LAVATORY (ACCESSIBLE)

SANITARY NAPKIN DISPOSAL (OFCI)

TOILET (ACCESSIBLE)

2 **INTERIOR ELEVATION - RESTROOM #104 - NORTH**
1/2" = 1'-0"

ROUTE EXPOSED PIPING & DUCTWORK REQUIRED TO BE EXPOSED TIGHT TO WEST WALL TO DESIGNATED LOCATION - SEE CEILING PLANS & MEP

MLP CEILING - SEE CEILING PLANS

MLP - SEE SPECIFICATION

GRAB BARS - SEE TYPICAL MOUNTING HEIGHTS & SPECIFICATION

HAND DRYER - SEE SPECIFICATIONS

PROVIDE IN-WALL 2X BLOCKING AS REQUIRED FOR SECURE ATTACHMENT OF ALL GRAB BARS & OTHER RESTROOM ACCESSORIES, TYP

ACCESSIBLE TOILET - SEE TYP MTG HEIGHTS & PLUMBING

TOILET PAPER DISPENSER (OFCI) - SEE TYP MTG HEIGHTS

5 **INTERIOR ELEVATION - RESTROOM #106 - WEST**
1/2" = 1'-0"

ROUTE EXPOSED PIPING & DUCTWORK REQUIRED TO BE EXPOSED TIGHT TO WEST WALL TO DESIGNATED LOCATION - SEE CEILING PLANS & MEP

MLP CEILING - SEE CEILING PLANS

MLP - SEE SPECIFICATION

GRAB BARS - SEE TYPICAL MOUNTING HEIGHTS & SPECIFICATION

24X36 MIRROR - CENTER ON LAVATORY

SOAP DISPENSER (OFCI) - SEE TYPICAL MOUNTING HEIGHTS

PROVIDE LAVATORY GUARD, TYP @ LAVATORY PIPING - SEE SPECIFICATION

PROVIDE IN-WALL 2X BLOCKING AS REQUIRED FOR SECURE ATTACHMENT OF ALL GRAB BARS & OTHER RESTROOM ACCESSORIES, TYP

LAVATORY (ACCESSIBLE)

SANITARY NAPKIN DISPOSAL (OFCI)

TOILET (ACCESSIBLE)

4 **INTERIOR ELEVATION - RESTROOM #106 - SOUTH**
1/2" = 1'-0"

1 **ENLARGED PLAN - RESTROOMS**
1/2" = 1'-0"

LOCATE OUTDOOR DRINKING FOUNTAIN TO COMPLY WITH ANSI 117.1 REQUIREMENTS FOR DRINKING FOUNTAIN APPROACH & PER MFG RECOMMENDATIONS - SEE CIVIL FOR PAVING LOCATIONS

SEE EXTERIOR ELEVATIONS FOR HEIGHT OF HORIZ METAL SIDING, TYP (W1 ASSEMBLY, ABOVE TYP)

ROOF LINE (ABOVE) - SEE ROOF PLANS

21'-4"

12'-0" STOOP

6'-0" STOOP

13'-6 1/2"

3'-4" R.O.

6 1/2"

3'-4" R.O.

2'-9 3/4"

3'-8"

2'-9 3/4"

3'-4" R.O.

4'-3"

9'-0"

8'-11"

8'-0"

7'-9 1/2"

9'-4"

8'-0"

7'-4"

4'-0"

2'-6"

8'-0"

6 1/2"

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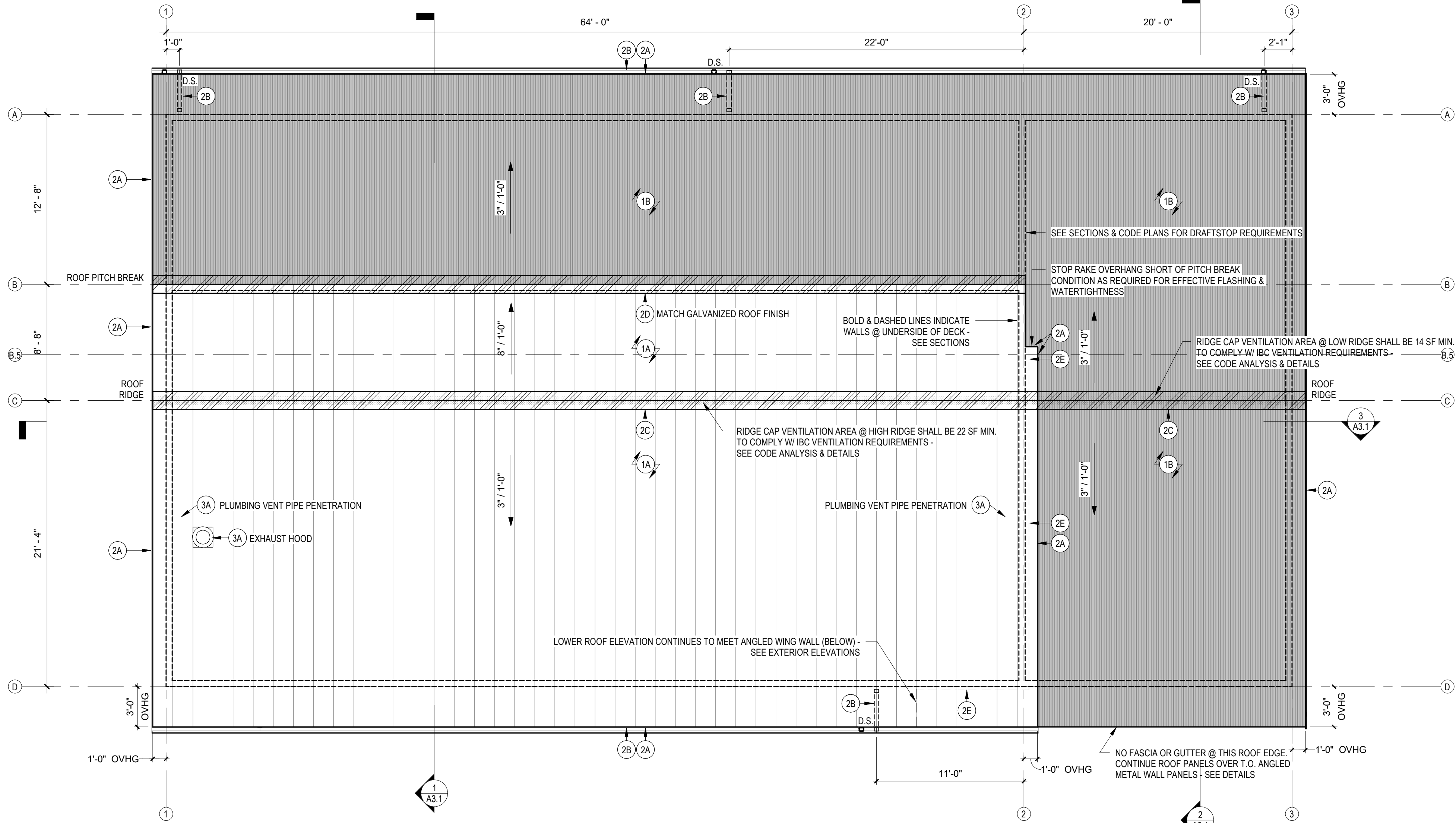
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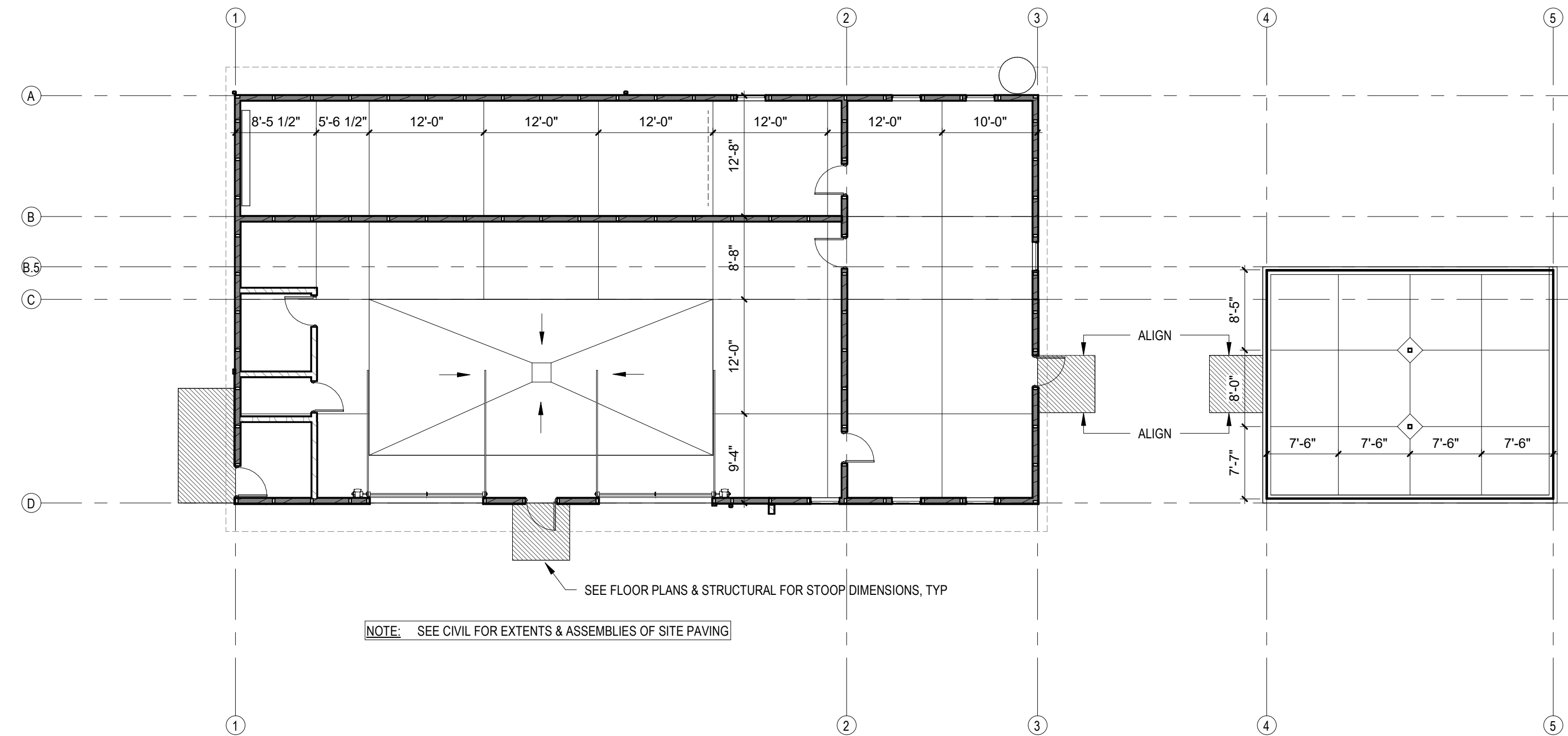
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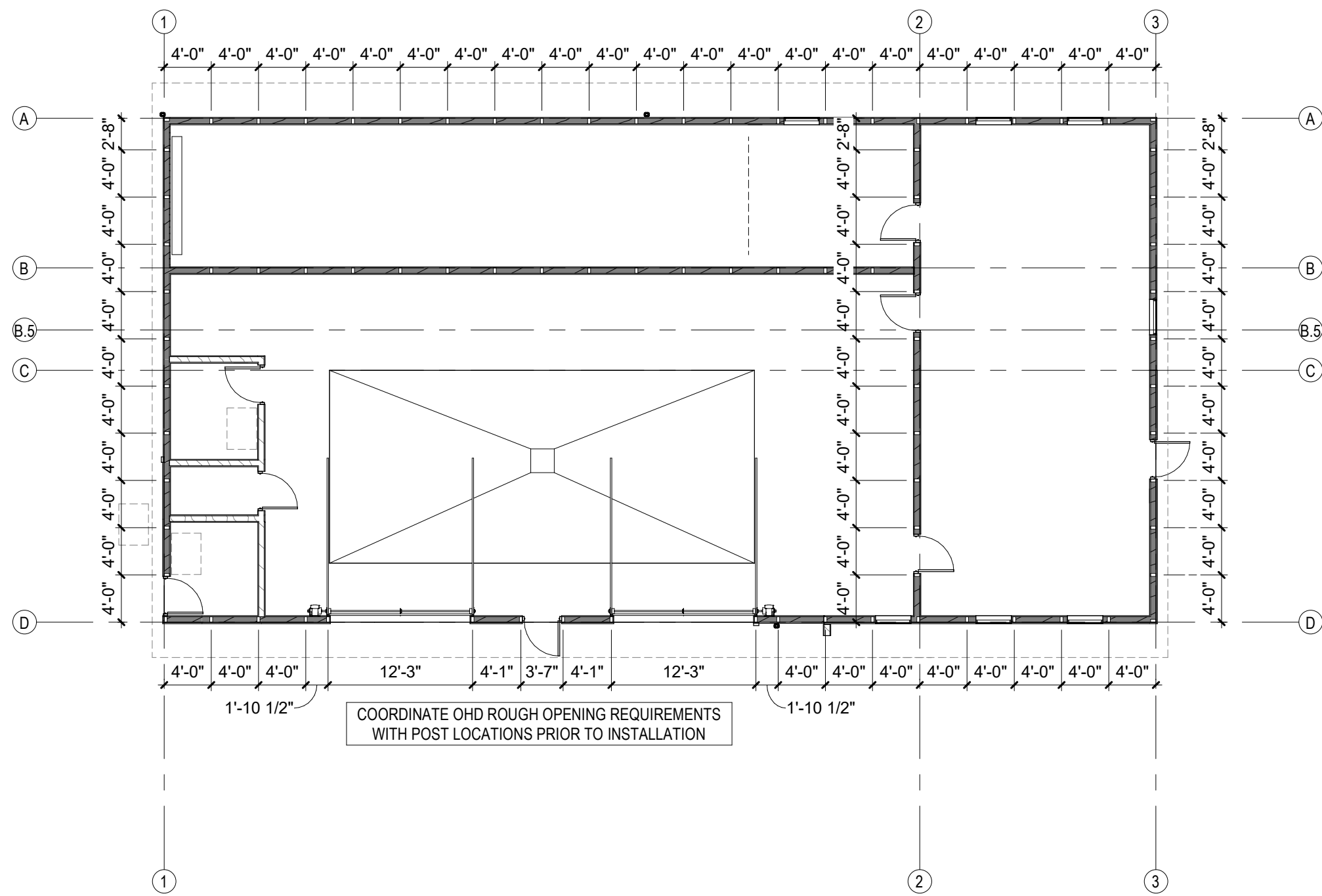
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1 ROOF PLAN
3/16" = 1'-0"



3 CONCRETE JOINT PLAN
3/32" = 1'-0"



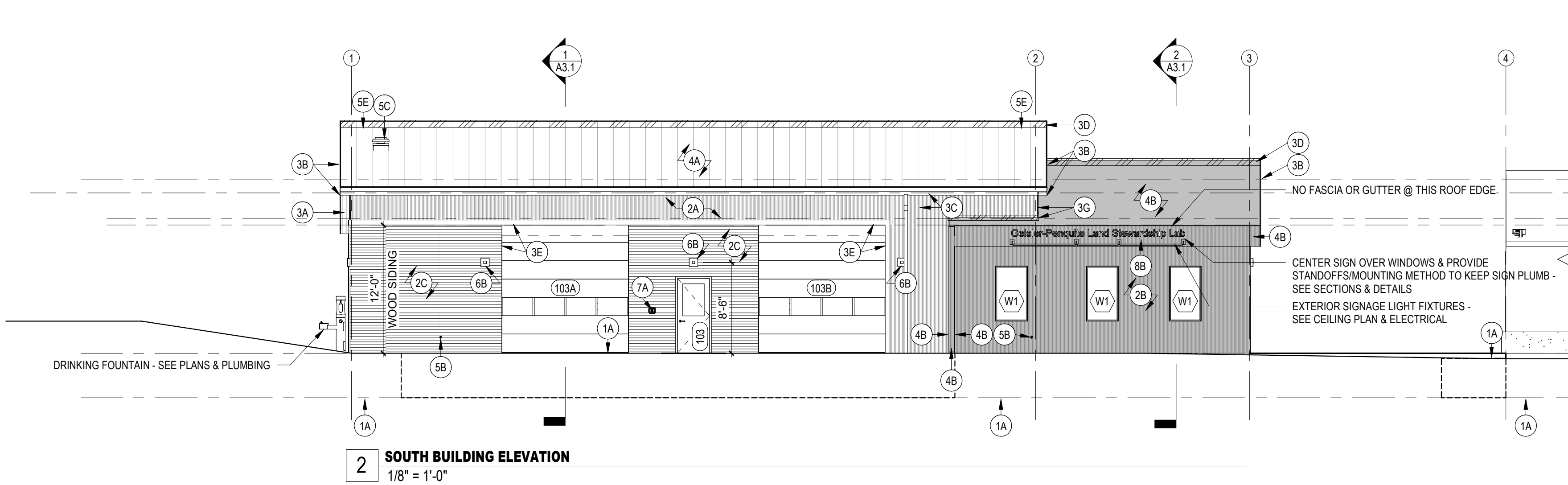
2 POST PLAN
3/32" = 1'-0"

THE WOOD FRAMED BUILDING, STRUCTURAL MAIN FRAMES, END WALL FRAMES, GIRTS, PURLINS, METAL SIDING PANELS, METAL ROOFING, OVERHANGS, METAL SOFFITS, FASCIA, SHEATHING, WEATHER BARRIER, INSULATION, EXTRUDED METAL TRIMS, CLIPS, ANGLES, FASTENERS, ATTACHMENTS, AND ALL OTHER RELATED ACCESSORIES SHALL BE PROVIDED BY AN INDEPENDENT WOOD FRAME BUILDING CONTRACTOR AND ARE THE SOLE RESPONSIBILITY OF THE WOOD FRAME BUILDING MANUFACTURER AND INSTALLATION CONTRACTOR.

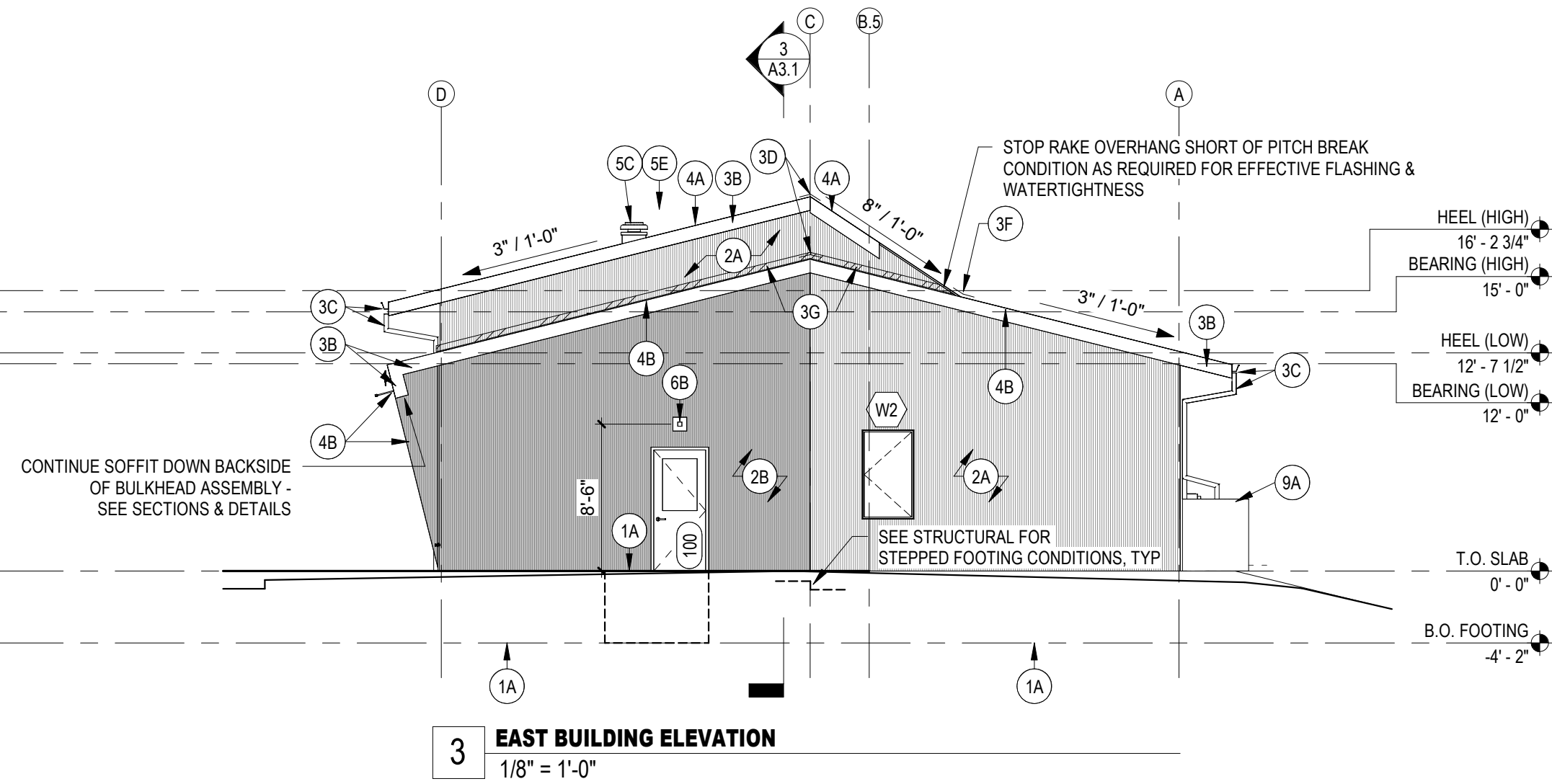
- ROOF PLAN - KEY NOTE LEGEND:**
- METAL ROOFING BY WBM:**
PROVIDE & INSTALL PRE-FINISHED METAL ROOFING WITH FACTORY-ADHERED ANTI-CONDENSATION CONTROL MEMBRANE. SEE SPECIFICATIONS.
- COLOR/FINISH: 'MATTE BLACK'
 - METAL ROOFING (GALVANIZED) BY WBM:**
PROVIDE & INSTALL PRE-FINISHED METAL ROOFING WITH FACTORY-ADHERED ANTI-CONDENSATION CONTROL MEMBRANE. SEE SPECIFICATIONS.
- COLOR/FINISH: 'GALVALUME PLUS'
 - METAL FASCIA BY WBM:**
PROVIDE & INSTALL PRE-FINISHED METAL FASCIA. SEE EXTERIOR ELEVATIONS & DETAILS. SEE SPECIFICATION.
- COLOR/FINISH: 'GALVALUME PLUS'
 - PRE-FINISHED METAL GUTTER & DOWNSPOUT:**
PROVIDE & INSTALL METAL GUTTER AND DOWNSPOUT TO MATCH PRE-FINISHED METAL FASCIA. SEE SPECIFICATION.
- GUTTER SIZE: 5" WIDE X 5" DEEP
- DOWNSPOUT SIZE: 4" WIDE X 3" DEEP
- COLOR/FINISH: 'GALVALUME PLUS'
 - VENTED RIDGE CAP BY WBM:**
PROVIDE & INSTALL METAL RIDGE CAP VENT. SEE SPECIFICATION.
 - METAL PITCH BREAK FLASHING BY WBM:**
PROVIDE & INSTALL PRE-FINISHED METAL PITCH BREAK FLASHING AT THE LOCATIONS INDICATED. FINISH TO MATCH METAL ROOFING. SEE DETAILS.
 - METAL HEADWALL FLASHING BY WBM:**
PROVIDE & INSTALL PRE-FINISHED METAL HEADWALL FLASHING AT THE LOCATIONS INDICATED. FINISH TO MATCH METAL ROOFING. SEE DETAILS.
 - ROOF PENETRATION:**
PROVIDE & INSTALL BOOT FLASHING, ROOF CRICKETS, CURBS & ALL ASSOCIATED ACCESSORIES AND SEALANTS. PAINT ALL VENT PIPES TO MATCH ADJACENT ROOF FINISH.

- GENERAL ROOF PLAN REFERENCES:**
- X'-X" OVERHANG DIMENSION
O.H.
- D.S. = DOWNSPOUT
OVHG = OVERHANG
- THIS LEGEND IS FOR VISUAL REFERENCE ONLY. SEE ASSEMBLIES, DETAILS, AND COORDINATING MECHANICAL, ELECTRICAL, AND PLUMBING SHEETS.

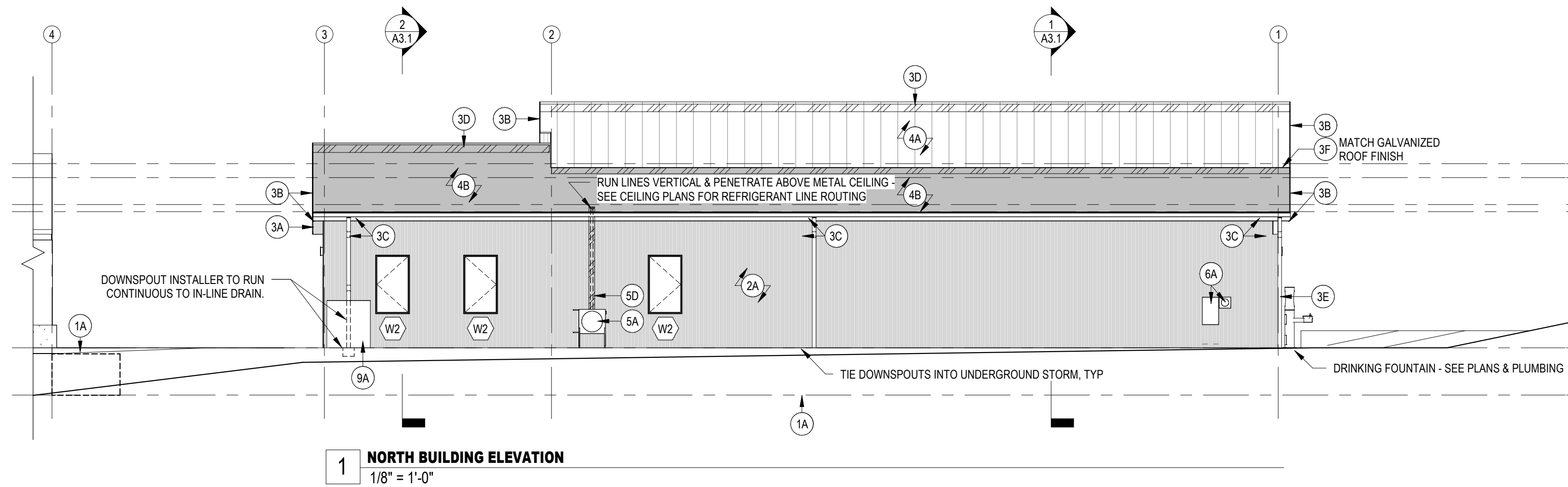
- ROOF PLAN - GENERAL NOTES:**
- EXTERIOR AND PERIMETER DIMENSIONS ARE TAKEN FROM FACE OF FINISH OR GRID.
 - COORDINATE DIMENSIONS BETWEEN ARCHITECTURAL, MECHANICAL, PLUMBING, ELECTRICAL, FIRE SUPPRESSION, AND SITE DRAWINGS. NOTIFY ARCHITECT OF ANY DISCREPANCIES FOR CLARIFICATION. COORDINATE ALL BUILT-IN ITEMS AND MECHANICAL/ELECTRICAL FIXTURES WITH ACTUAL DIMENSIONS AND ADJUST AS REQUIRED. DIMENSIONS PERTAINING TO MECHANICAL, PLUMBING, AND ELECTRICAL EQUIPMENT SHALL BE VERIFIED WITH RESPECTIVE TRADES. VERIFY EXACT DIMENSIONS WITH MANUFACTURER. TYPICAL.
 - WHERE RIGID INSULATION IS PROVIDED, IT SHALL BE PROTECTED FROM IGNITION AT ALL TIMES, AS INDICATED IN SPECIFICATION SECTION 07100. THIS INCLUDES RIGID INSULATION IN ALL CEILING PLENUMS (LOCATED ABOVE THE CEILING BUT BELOW THE ROOF DECK). NO FOAM PLASTIC SHALL BE EXPOSED TO THE INTERIOR OF THE BUILDING. SEE ASSEMBLIES.
 - REFER TO ALL STRUCTURAL, MEP, CIVIL, AND DESIGN-BUILD DOCUMENTS FOR ADDITIONAL INFORMATION, PROJECT NOTES, COORDINATION ITEMS, AND REQUIREMENTS.
 - PROVIDE INSULATION BAFFLES AT EAVES & PITCH BREAK CONDITIONS, TYPICAL BETWEEN EACH TRUSS BAY.
 - THE WOOD FRAMED BUILDING, STRUCTURAL MAIN FRAMES, END WALL FRAMES, GIRTS, PURLINS, METAL SIDING PANELS, METAL ROOFING, OVERHANGS, METAL SOFFITS, FASCIA, WEATHER BARRIER, SHEATHING, INSULATION, EXTRUDED METAL TRIMS, CLIPS, ANGLES, FASTENERS, ATTACHMENTS, AND ALL OTHER RELATED ACCESSORIES SHALL BE PROVIDED BY AN INDEPENDENT WOOD FRAME BUILDING CONTRACTOR AND ARE THE SOLE RESPONSIBILITY OF THE WOOD FRAME BUILDING MANUFACTURER AND INSTALLATION CONTRACTOR.



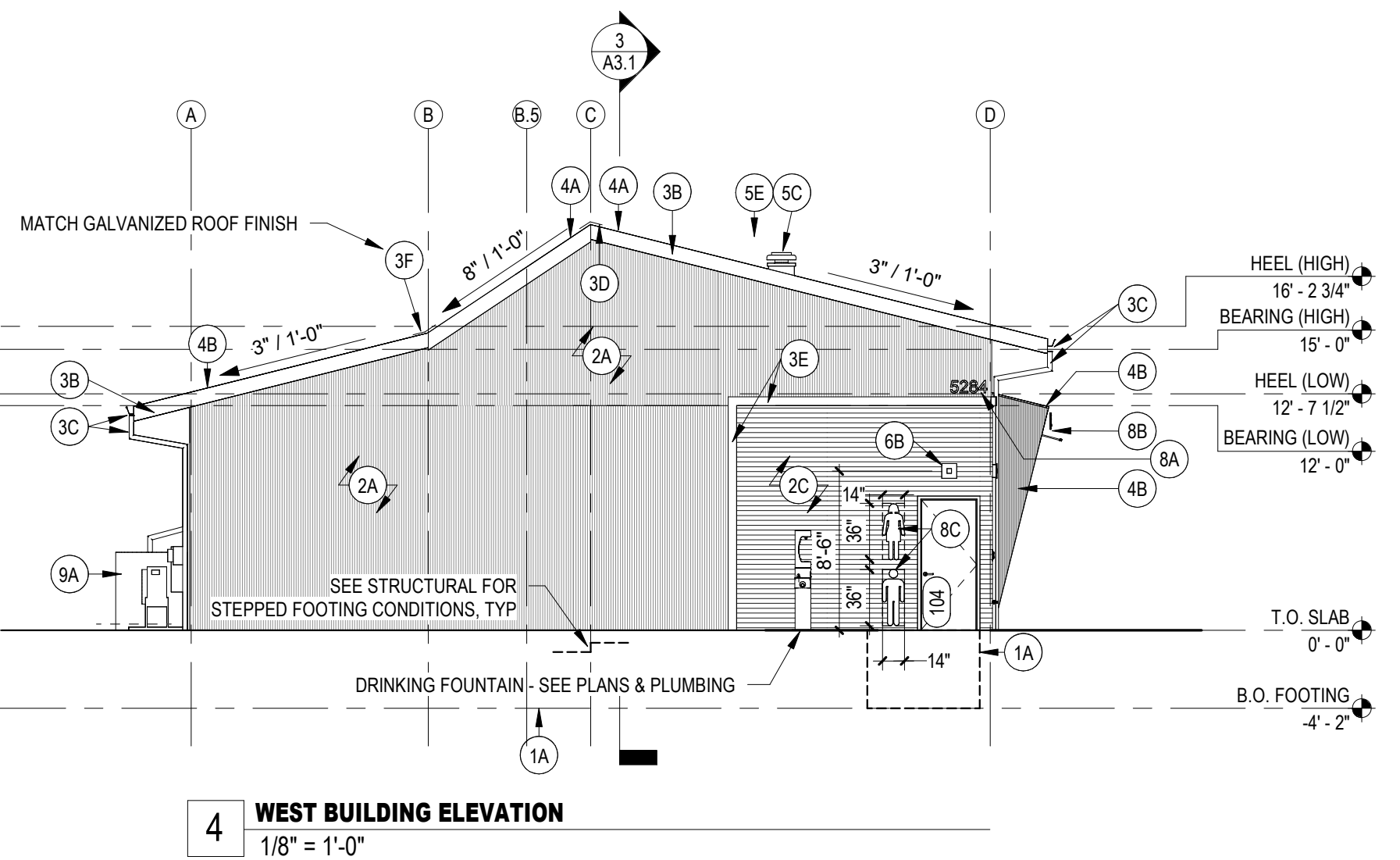
2 SOUTH BUILDING ELEVATION
1/8" = 1'-0"



3 EAST BUILDING ELEVATION
1/8" = 1'-0"



1 NORTH BUILDING ELEVATION
1/8" = 1'-0"



4 WEST BUILDING ELEVATION
1/8" = 1'-0"

EXTERIOR ELEVATIONS - KEYED NOTES:

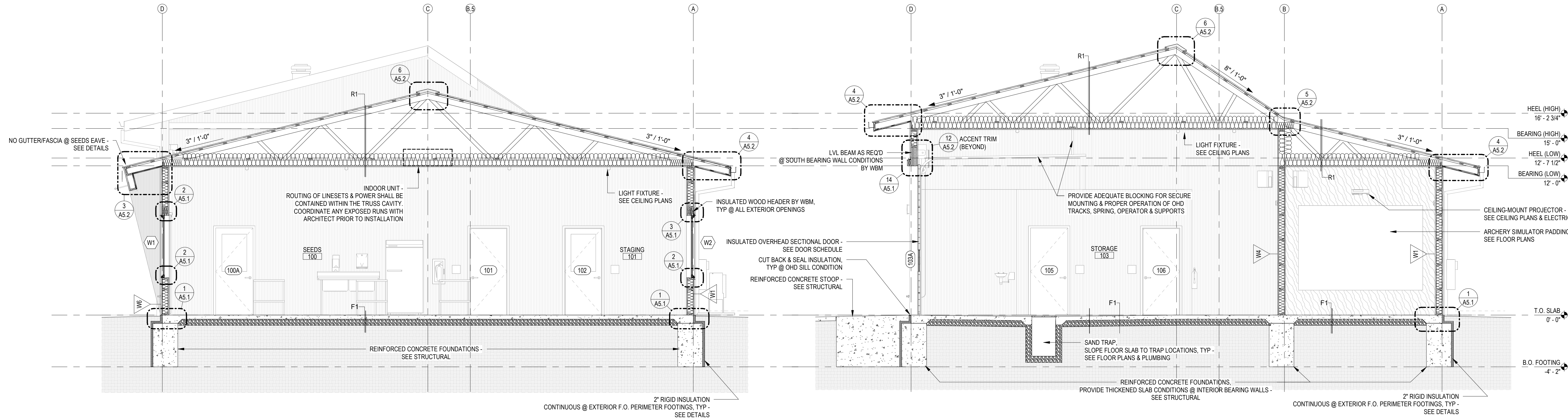
- 1A. CONCRETE SLAB/STOOP/FOUNDATION:
RADIUS-TROWEL ALL EXPOSED 90 DEGREE EDGES.
PROVIDE SMOOTH FINISH ON VERTICAL SURFACES.
PROVIDE BROOM FINISH ON HORIZONTAL SURFACES.
SEE STRUCTURAL.
2. METAL SIDING (VERTICAL) BY WBM:
PROVIDE & INSTALL PRE-FINISHED METAL SIDING & ALL ASSOCIATED TRIMS AND ACCESSORIES. SEE SPECIFICATIONS.
- 2A.
- COLOR: 'CHARCOAL'
- PROFILE: SEE SPECIFICATIONS
- 2B.
- COLOR: 'GALVALUME PLUS'
- PROFILE: SEE SPECIFICATIONS
- 2C. METAL SIDING (HORIZONTAL) BY WBM:
PROVIDE & INSTALL VERTICAL WOOD SIDING.
SEE SPECIFICATION.
- COLOR: 'ASH GRAY'
- PROFILE: SEE SPECIFICATIONS
- 3A. VENTED METAL SOFFIT BY WBM:
PROVIDE & INSTALL ALUMINUM SOFFIT & ALL ASSOCIATED ACCESSORIES. PROVIDE ADDITIONAL BLOCKING AS REQUIRED FOR SOFFIT INSTALL DIRECTION SHOWN. SEE CEILING PLANS.
SEE SPECIFICATION.
- COLOR: 'CHARCOAL'
- PROFILE: SEE SPECIFICATIONS
- 3B. PRE-FINISHED METAL FASCIA BY WBM:
PROVIDE & INSTALL PRE-FINISHED METAL FASCIA.
SEE SPECIFICATION.
- COLOR: 'GALVALUME PLUS'
- SIZE: SEE DETAILS
- 3C. PRE-FINISHED METAL GUTTER & DOWNSPOUT:
PROVIDE & INSTALL METAL GUTTER AND DOWNSPOUT TO MATCH PRE-FINISHED METAL FASCIA. SEE SPECIFICATION.
- SIZE: 4"x3" (DOWNSPOUT)
5"x5" (RECTANGULAR GUTTER)
- FINISH: 'GALVALUME PLUS'
- 3D. VENTED RIDGE CAP:
PROVIDE & INSTALL METAL VENTED RIDGE CAP. FINISH TO MATCH METAL ROOFING. SEE ROOF PLAN & DETAILS.

- 3E. PRE-FINISHED BRAKE METAL TRIM BY WBM:
PROVIDE & INSTALL PRE-FINISHED BRAKE METAL TRIM.
SEE DETAILS & SPECIFICATION.
- COLOR: 'CHARCOAL'
- 3F. METAL PITCH BREAK FLASHING BY WBM:
FLASHING AT THE LOCATIONS INDICATED. FINISH TO MATCH METAL ROOFING. SEE ROOF PLAN & DETAILS.
- 3G. METAL HEADWALL FLASHING BY WBM:
PROVIDE & INSTALL PRE-FINISHED METAL HEADWALL FLASHING AT THE LOCATIONS INDICATED. FINISH TO MATCH METAL ROOFING. SEE ROOF PLAN & DETAILS.
4. METAL ROOFING BY WBM:
PROVIDE & INSTALL PRE-FINISHED METAL ROOFING WITH FACTORY-ADHERED ANTI-CONDENSATION CONTROL MEMBRANE. SEE ROOF PLANS & SPECIFICATIONS.
- 4A.
- COLOR/FINISH: 'MATTE BLACK'
- PROFILE: SEE SPECIFICATIONS
- 4B.
- COLOR/FINISH: 'GALVALUME PLUS'
- PROFILE: SEE SPECIFICATIONS
- 5A. MECHANICAL EQUIPMENT:
PROVIDE & INSTALL MECHANICAL EQUIPMENT & ALL ASSOCIATED ACCESSORIES AS REQUIRED FOR PROPER INSTALLATION.
SEE MECHANICAL.
- 5B. HOSE BIB CONNECTION:
PROVIDE & INSTALL HOSE BIB CONNECTION. HEIGHT AS SHOWN ON ELEVATIONS. SEE PLUMBING.
- 5C. ROOF VENT:
PROVIDE & INSTALL ROOF INTAKE OR EXHAUST VENT/HOOD, CURBS, CRICKETS & ALL OTHER ASSOCIATED ACCESSORIES. COORDINATE FINAL LOCATION WITH ROOF FRAMING.
SEE MECHANICAL & PLUMBING.
- 5D. REFRIGERANT LINE SHROUD BY WBM:
ROUTE MINI-SPLIT SYSTEM REFRIGERANT LINES ON EXTERIOR OF BUILDING. PROVIDE PRE-FINISHED METAL SHROUD FOR PROTECTION OF REFRIGERANT LINES & ASSOCIATED PIPE INSULATION. FINISH TO MATCH METAL WALL PANELS.

- 5E. PLUMBING/EXHAUST VENT:
PROVIDE & INSTALL PLUMBING/EXHAUST VENT W/ PIPE BOOT FLASHING TO MATCH ROOF FINISH. PAINT ALL PVC PIPES EXPOSED TO THE EXTERIOR TO MATCH ROOF FINISH.
SEE MECHANICAL.
- 6A. ELECTRICAL METER:
PROVIDE & INSTALL ELECTRICAL METER, CONDUIT, WIRING ALL ASSOCIATED ACCESSORIES. SEE ELECTRICAL COORDINATE WITH SERVICE PROVIDER.
- 6B. LIGHT FIXTURE:
PROVIDE & INSTALL EXTERIOR LIGHT FIXTURE.
SEE ELECTRICAL.
- 7A. RAPID ACCESS ENTRY KEY BOX:
PROVIDE & INSTALL NEW RAPID ACCESS ENTRY KEYBOX (KNOX BOX). COORDINATE FINAL LOCATION WITH LOCAL FIRE DEPARTMENT.
- COLOR: BLACK
- 8A. ADDRESS SIGNAGE:
PROVIDE & INSTALL 14" ALUMINUM PLATE EXTERIOR ADDRESS SIGNAGE (4" TALL) W/ 1" STANDOFFS. COORDINATE FINAL PLACEMENT WITH A/HJ.
- 8B. BUILDING SIGNAGE (BY OWNER):
PROVIDE & INSTALL 14" ALUMINUM PLATE EXTERIOR BUILDING SIGNAGE (8" TALL) W/ 3" STANDOFFS. PROVIDE ANGLED BACKPLATE AS REQ'D TO MOUNT SIGNAGE PLUMB.
- 8C. RESTROOM SIGNAGE (BY OWNER):
PROVIDE & INSTALL 14" ALUMINUM PLATE RESTROOM SIGNAGE W/ 1" STANDOFFS USING UNIVERSAL RESTROOM SYMBOL AT THE LOCATION INDICATED. SEE EXTERIOR ELEVATIONS.
- 9A. RAIN TANK (BY OWNER):
PROVIDE & INSTALL RAIN BARREL AT THE LOCATION INDICATED. HARD PIPE FROM OVERFLOW OUTLET TO INLINE DRAIN.
SEE CIVIL & PLUMBING.
- BASIS-OF-DESIGN:
SNYDER 'WB23' 300 GALLON BLACK POLY VERTICAL WATER STORAGE TANK OR APPROVED EQUAL
- W# VINYL WINDOW:
THERMALLY-BROKEN VINYL WINDOW.
SEE WINDOW ELEVATIONS. SEE SPECIFICATIONS.
- XXX DOOR ASSEMBLY:
SEE DOOR SCHEDULE & OPENING ELEVATIONS.
SEE SPECIFICATIONS.

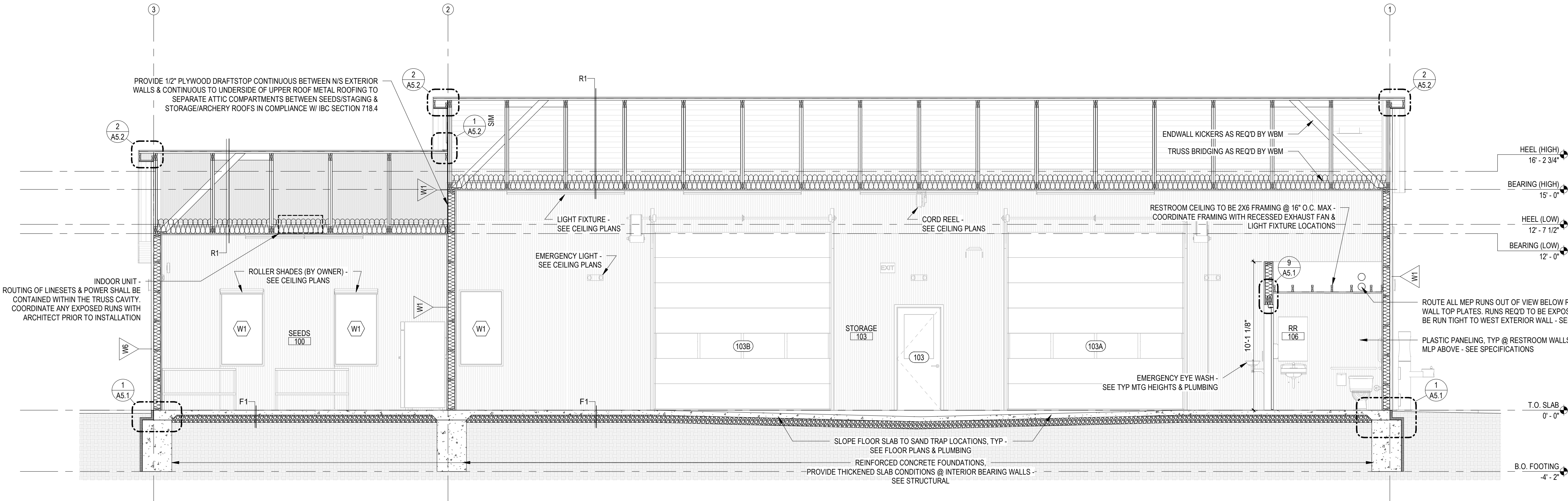
EXTERIOR ELEVATIONS - GENERAL NOTES:

1. DIMENSIONS SHOWN ARE BASED ON ACTUAL WALL THICKNESS. SEE WALL TYPES AND DETAILS FOR MORE INFORMATION.
2. DIMENSIONS AND ELEVATIONS AT WINDOWS AND DOORS ARE SHOWN AS ROUGH OPENING SILL/HEADER DIMENSIONS. CONTRACTOR SHALL COORDINATE ACTUAL ROUGH OPENINGS WITH BOTH THE WINDOW AND DOOR ELEVATIONS, ALONG WITH THE CLADDING MANUFACTURERS' REQUIREMENTS PRIOR TO ORDER & INSTALLATION.
3. CONTRACTOR SHALL PROVIDE BACKER RODS & SEALANT AROUND THE PERIMETER OF ALL WINDOWS, DOORS, OPENINGS, PENETRATIONS AND AT ALL JOINTS BETWEEN DISSIMILAR EXTERIOR FINISH/CLADDING MATERIALS. TYPICAL PROVIDE EXTERIOR SIGNAGE & ATTACHMENTS AS REQUIRED BY AUTHORITY HAVING JURISDICTION. CONTRACTOR SHALL COORDINATE WITH THE REQUIREMENTS PRIOR TO CONSTRUCTION. SIZE, LOCATION AND QUANTITY OF BUILDING SIGNS, MONUMENT SIGNS AND DESIGNER / ARCHITECT / ENGINEER UNDER A SEPARATE SET OF PERMIT DOCUMENTS.
4. ALL EXTERIOR CONCRETE STOOPS TO SLOPE 1/4" PER FOOT MAXIMUM AND 1/8" PER FOOT MINIMUM AWAY FROM THE BUILDING.
5. CONTRACTOR SHALL ELIMINATE THE RISK OF GALVANIC CORROSION BY PROVIDING ADDITIONAL COMPOSITE SHIMS, RUBBER STRIPS, GASKETS, AND/OR OTHER GAP-FILLING MATERIALS, AS REQUIRED, AT ALL LOCATIONS WHERE DISSIMILAR MATERIALS AND METALS (INCLUDING BUT NOT LIMITED TO THE EXTERIOR FINISH/CLADDING MATERIALS) ARE SHOWN TO BE FASTENED TOGETHER OR DIRECTLY ADJACENT TO EACH OTHER.
6. MECHANICAL PIPES, PLUMBING VENTS, EXHAUST FANS, LOUVERS, REGISTERS AND ALL OTHER PENETRATIONS SHALL NOT PASS THROUGH EXTERIOR WALLS UNLESS SHOWN ON THESE ELEVATIONS OR DISCUSSED WITH THE OWNER AND ARCHITECT PRIOR TO INSTALLATION.
7. THE WOOD FRAMED BUILDING, STRUCTURAL MAIN FRAMES, END WALL FRAMES, GIRTS, PURLINS, METAL SIDING PANELS, METAL ROOFING, OVERHANGS, METAL SOFFITS, FASCIA, WEATHER BARRIER, SHEATHING, INSULATION, EXTRUDED METAL TRIMS, CLIPS, ANGLES, FASTENERS, ATTACHMENTS, AND ALL OTHER RELATED ACCESSORIES SHALL BE PROVIDED BY AN INDEPENDENT WOOD FRAME BUILDING CONTRACTOR AND ARE THE SOLE RESPONSIBILITY OF THE WOOD FRAME BUILDING MANUFACTURER AND INSTALLATION CONTRACTOR.



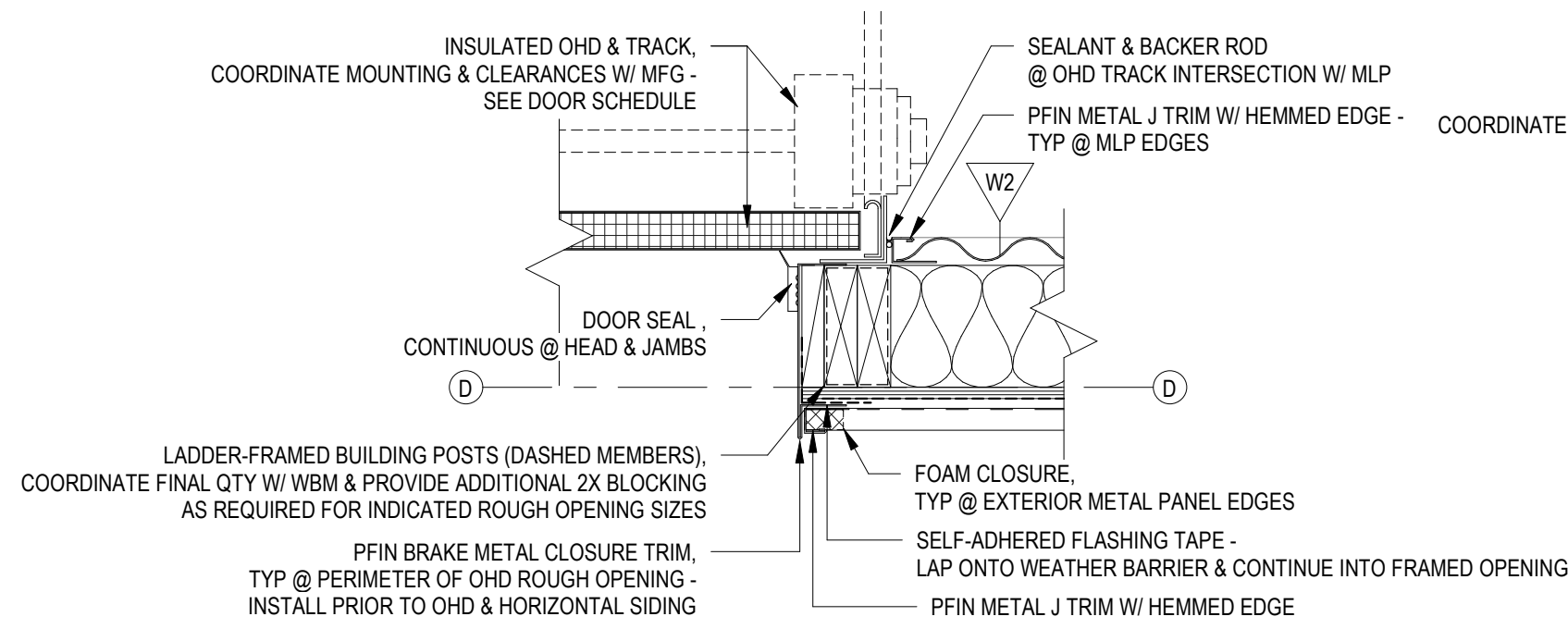
2 BUILDING SECTION - N/S THRU SEEDS
1/4" = 1'-0"

1 BUILDING SECTION - N/S THRU RESTROOMS
1/4" = 1'-0"

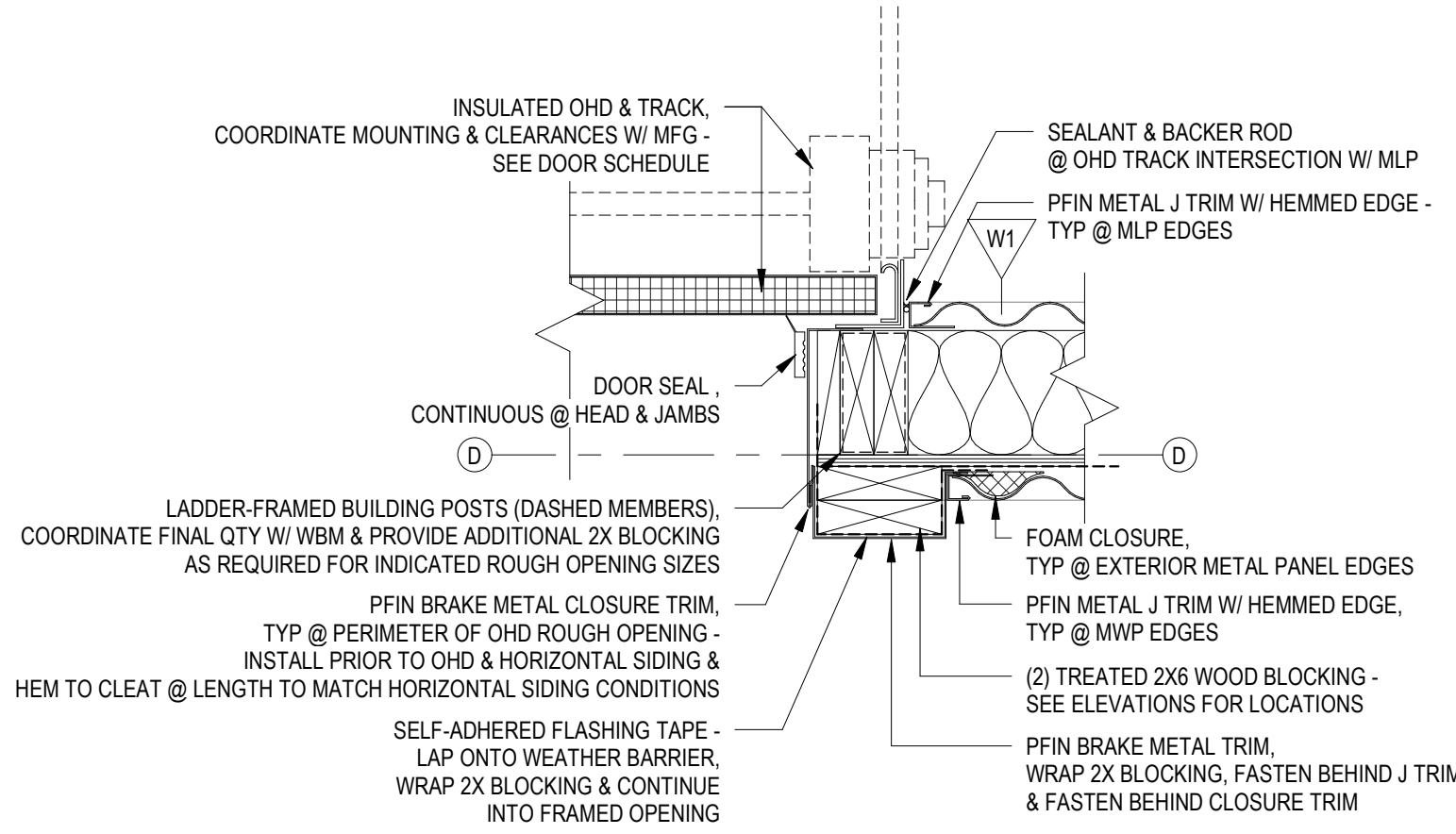


3 BUILDING SECTION - E/W THRU SEEDS
1/4" = 1'-0"

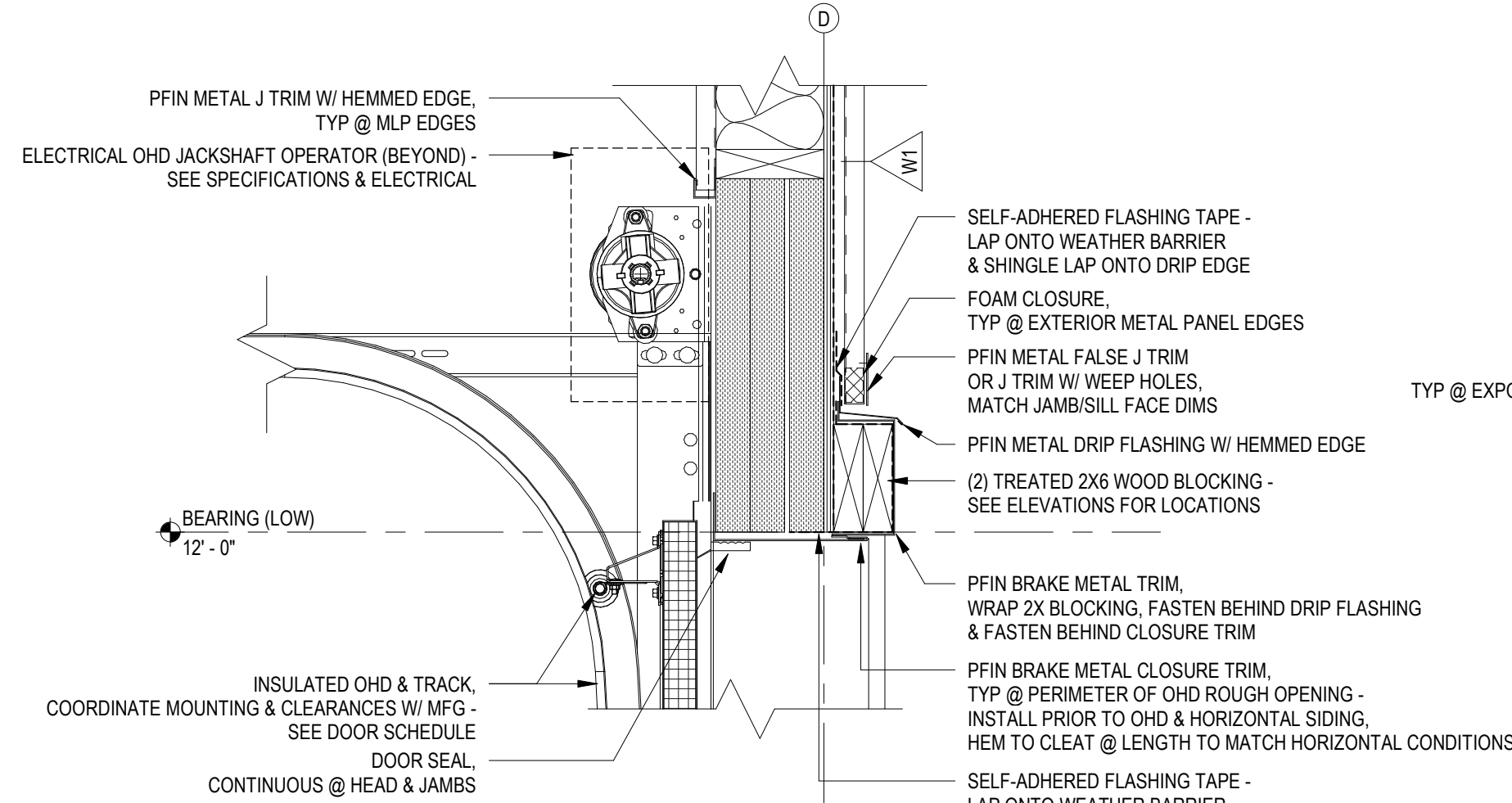
- SECTIONS - GENERAL NOTES:**
- ALL CONSTRUCTION IS INTENDED TO BE IN ACCORD WITH FEDERAL AND STATE LAWS, CURRENT LOCAL ORDINANCES & BUILDING CODES & THE AMERICANS WITH DISABILITIES ACT (ADA). REPORT ANY DISCREPANCIES TO THE ARCHITECT BEFORE PROCEEDING WITH THE WORK.
 - CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS AND REPORT ANY DISCREPANCIES TO THE ARCHITECT PRIOR TO THE START OF CONSTRUCTION.
 - DIMENSIONS ARE TAKEN FROM THE FACE OF STUD UNLESS NOTED OTHERWISE. SEE WALL TYPES AND DETAILS FOR ACTUAL WALL THICKNESSES AND DIMENSION LOCATIONS.
 - CONTRACTOR SHALL PROVIDE ALL NECESSARY BLOCKING AND NAILERS WHERE REQUIRED TO SECURELY ATTACH ACCESSORIES, GRAB BARS, DEVICES, FIXTURES, EQUIPMENT, MILLWORK, OR ANY OTHER ITEMS TO A WALL OR CEILING SURFACE.
 - SEE INTERIOR ELEVATIONS, FINISH PLANS, AND SCHEDULES FOR INFORMATION ON LOCATION & TYPE OF MATERIALS, PAINTS, COLORS, & FINISHES.
 - SEE MECHANICAL, ELECTRICAL AND/OR PLUMBING FOR FURTHER INFORMATION.
 - ALL EXTERIOR CONCRETE STOOPS TO SLOPE 1/4" PER FOOT MAXIMUM, 1/8" PER FOOT MINIMUM AWAY FROM THE BUILDING.
 - SLOPE EXTERIOR GRADE AS REQUIRED FOR POSITIVE DRAINAGE AWAY FROM THE BUILDING PERIMETER. SEE CIVIL.
 - INSTALL NEW FLOOR DRAINS FLUSH WITH TOP OF FLOOR FINISH, TYPICAL.
 - DIMENSIONS AT OPENINGS, WINDOWS, AND DOORS ARE SHOWN AS ROUGH OPENING DIMENSIONS. CONTRACTOR SHALL COORDINATE ACTUAL ROUGH OPENINGS WITH DOOR & WINDOW MANUFACTURER'S REQUIREMENTS PRIOR TO ORDER AND INSTALLATION. SEE DETAILS FOR LOCATION OF ROUGH OPENING MEASUREMENTS AND INTERIOR LOCATIONS WHERE INTERIOR FINISH IS INTENDED TO CONTINUE INSIDE THE JAMB PRIOR TO INSTALLATION.
 - THE WOOD FRAMED BUILDING, STRUCTURAL MAIN FRAMES, END WALL FRAMES, GIRTS, PURLINS, METAL SIDING PANELS, METAL ROOFING, OVERHANGS, METAL SOFFITS, FASCIA, SHEATHING, WEATHER BARRIER, INSULATION, EXTRUDED METAL TRIMS, CLIPS, ANGLES, FASTENERS, ATTACHMENTS, AND ALL OTHER RELATED ACCESSORIES SHALL BE PROVIDED BY AN INDEPENDENT WOOD FRAME BUILDING CONTRACTOR AND ARE THE SOLE RESPONSIBILITY OF THE WOOD FRAME BUILDING MANUFACTURER AND INSTALLATION CONTRACTOR.
 - IT IS THE INTENT THAT NEW MEP PIPING, RACEWAYS, BOXES AND THE LIKE ARE TO BE CONCEALED WITHIN NEW FLOOR, WALL & CEILING ASSEMBLIES. IF EXPOSED MEP RUNS ARE REQUIRED FOR PROPER INSTALLATION & OPERATION, COORDINATE WITH ARCHITECT PRIOR TO INSTALLATION.
- NOTE:** CONTRACTOR SHALL TAKE SPECIAL CARE IN ROUTING OF ALL EXPOSED PIPES, CONDUIT & DUCTWORK IN PUBLIC AREAS. COORDINATE FINAL ROUTING WITH ARCHITECT PRIOR TO FABRICATION & INSTALLATION



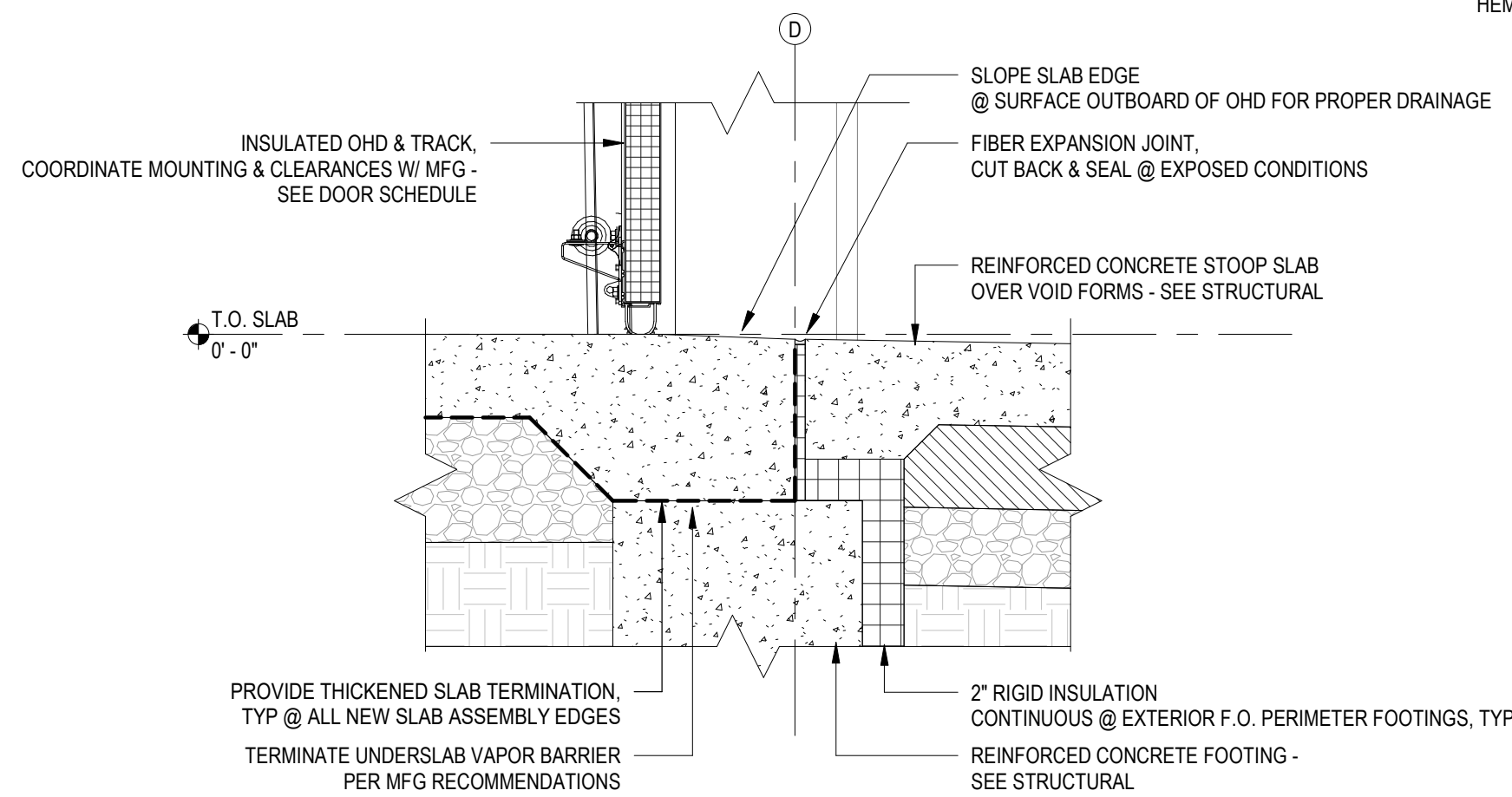
16 PLAN DETAIL - OHJ JAMB @ HORIZONTAL SIDING
1 1/2" = 1'-0"



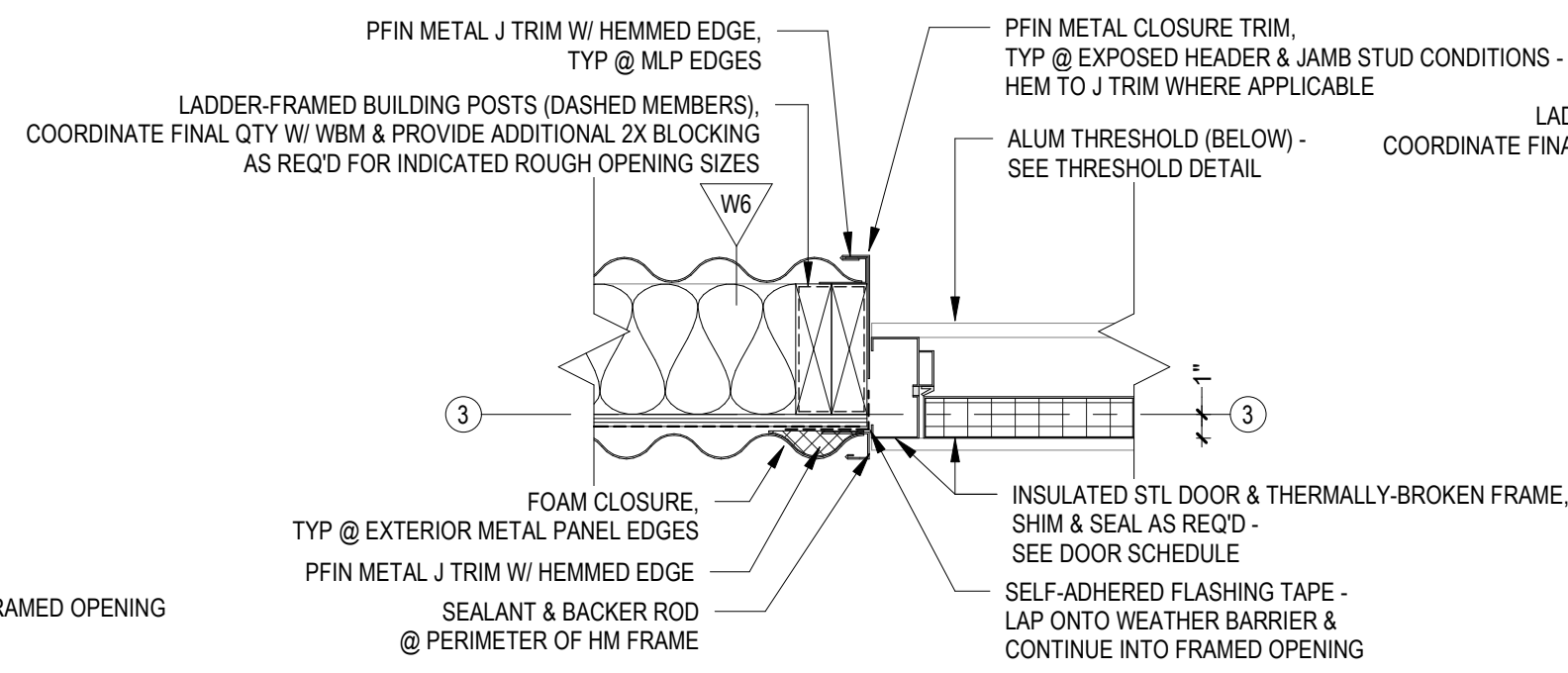
15 PLAN DETAIL - OHJ JAMB @ ACCENT TRIM
1 1/2" = 1'-0"



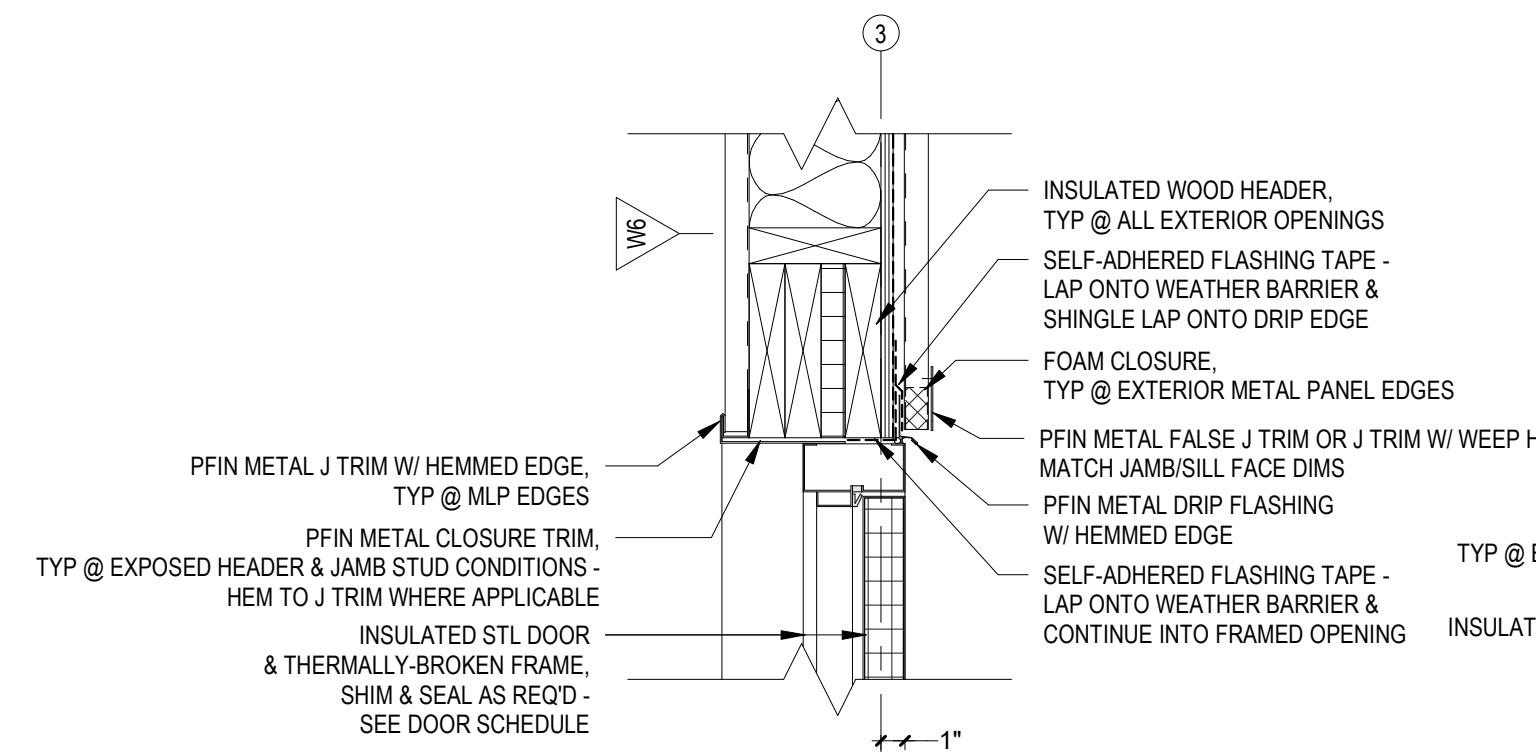
14 SECTION DETAIL - OHJ HEAD
1 1/2" = 1'-0"



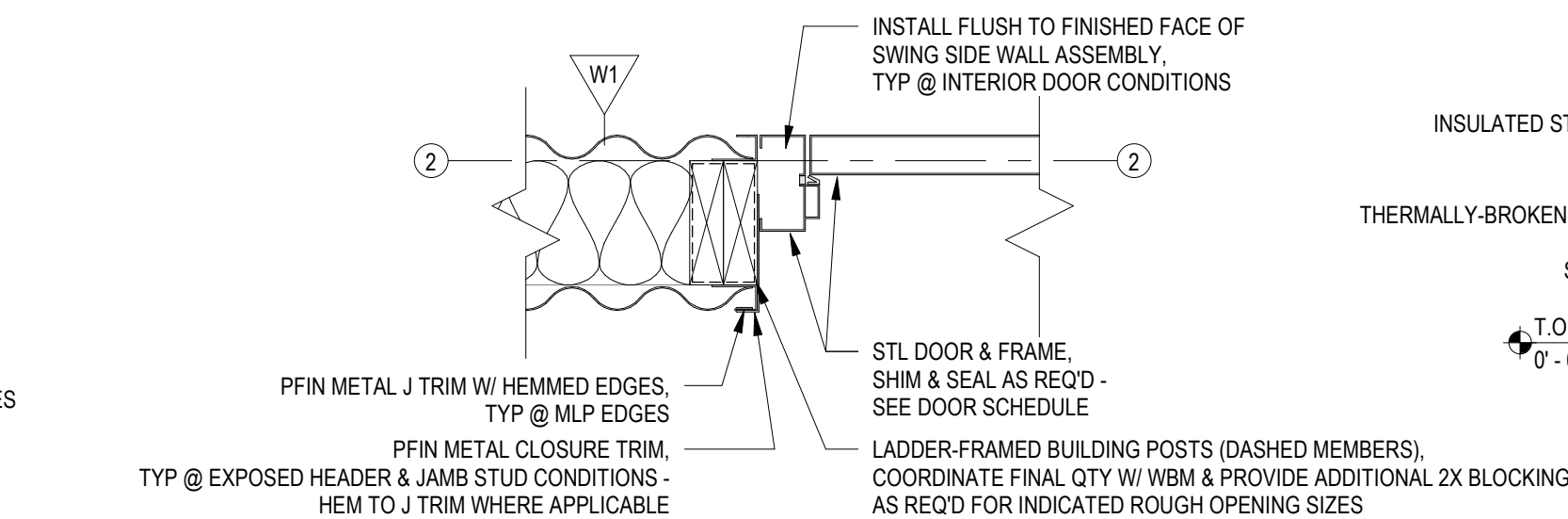
13 SECTION DETAIL - OHJ STOOP
1 1/2" = 1'-0"



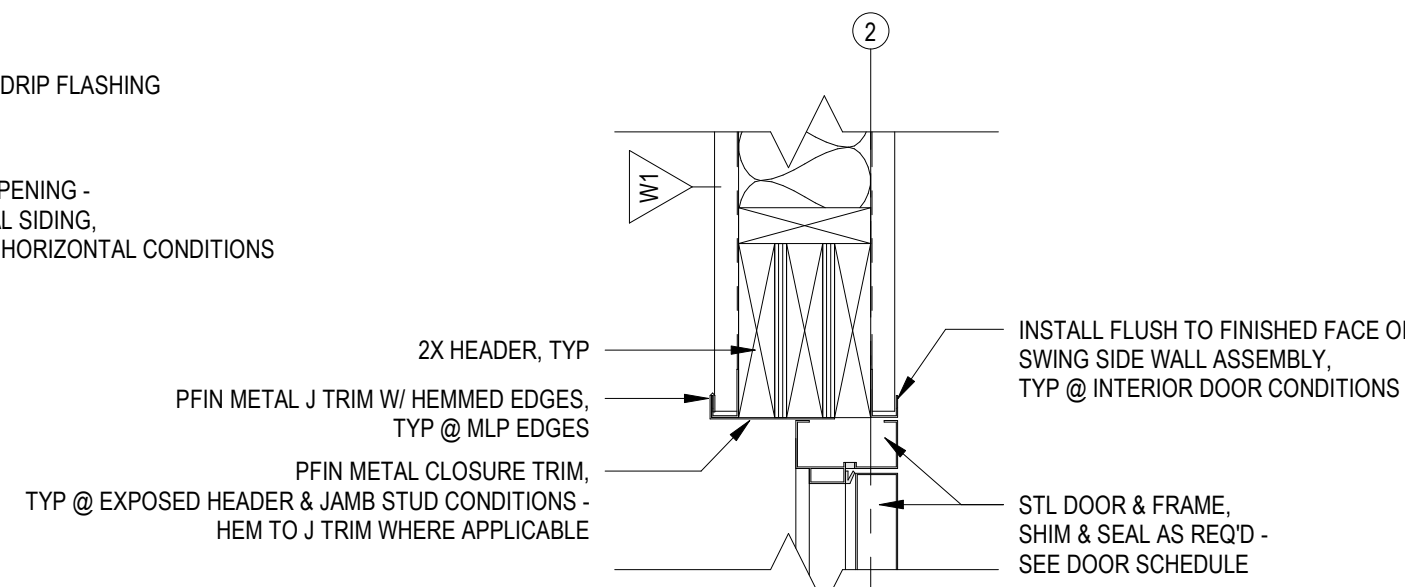
12 PLAN DETAIL - DOOR JAMB @ VERTICAL SIDING
1 1/2" = 1'-0"



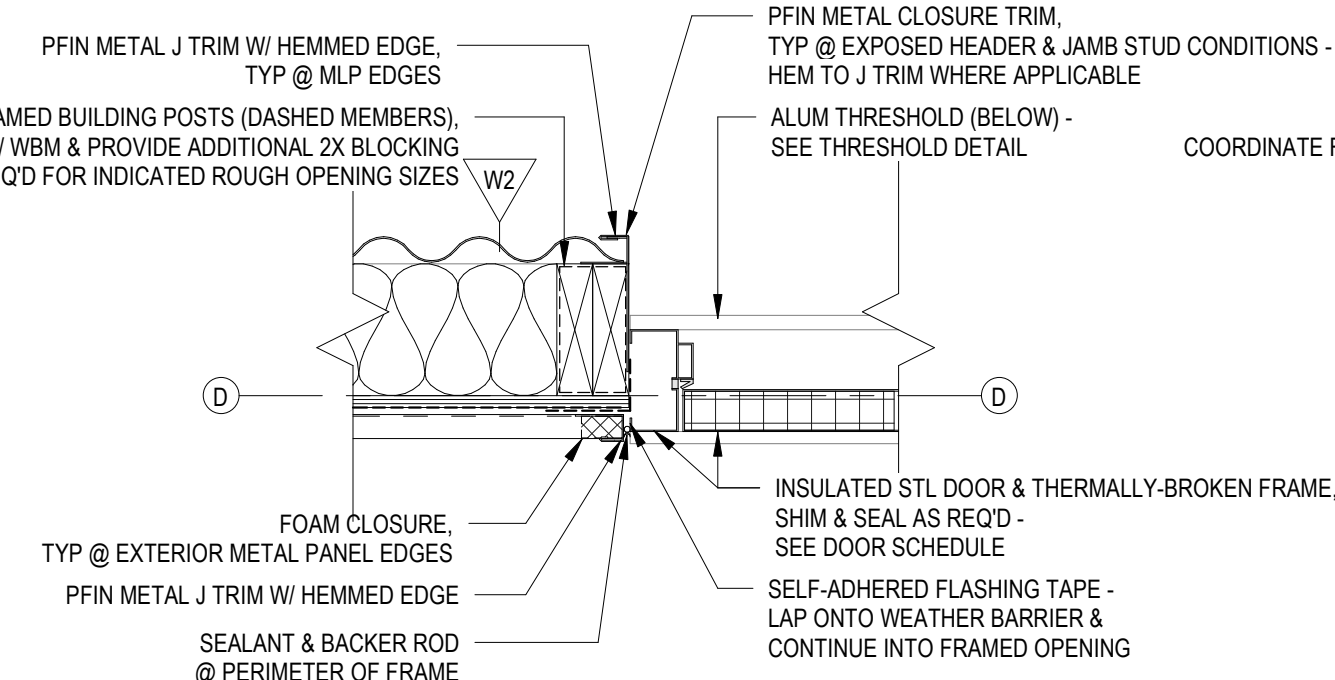
11 SECTION DETAIL - DOOR HEAD @ VERTICAL SIDING
1 1/2" = 1'-0"



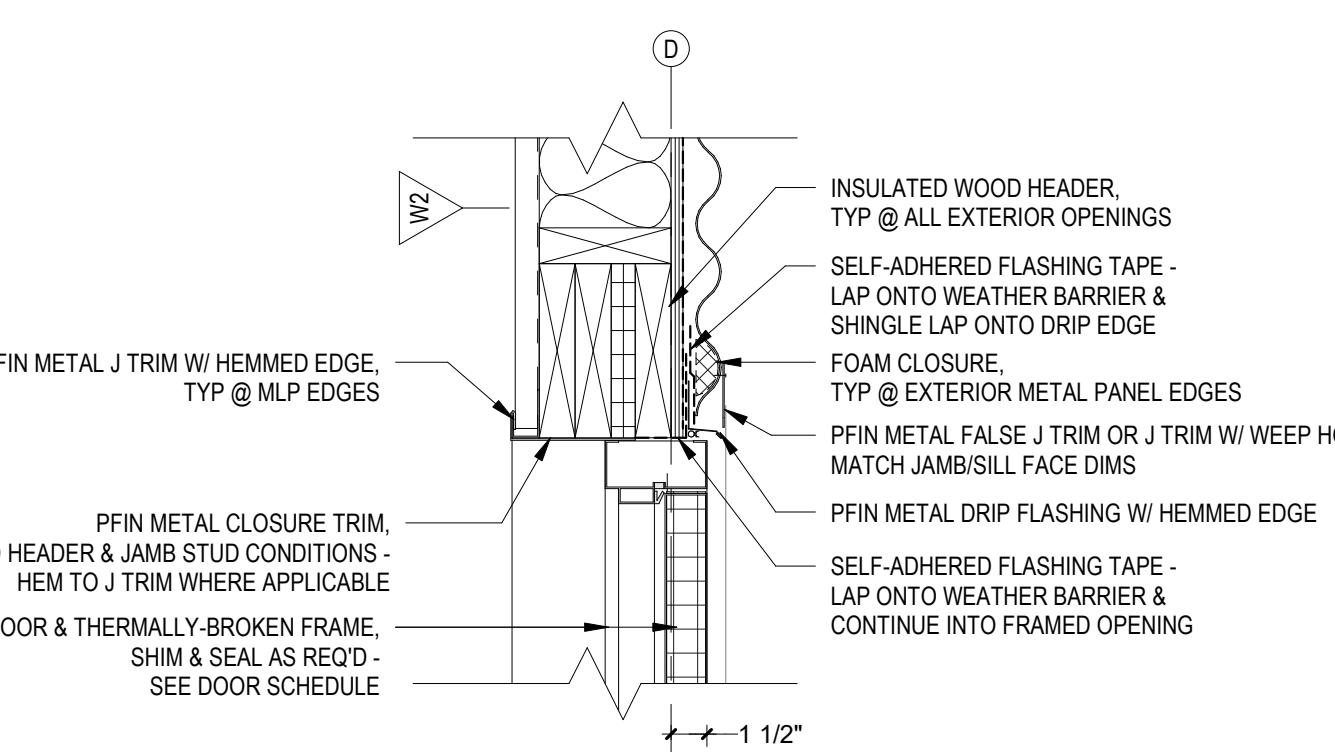
10 PLAN DETAIL - DOOR JAMB @ INTERIOR
1 1/2" = 1'-0"



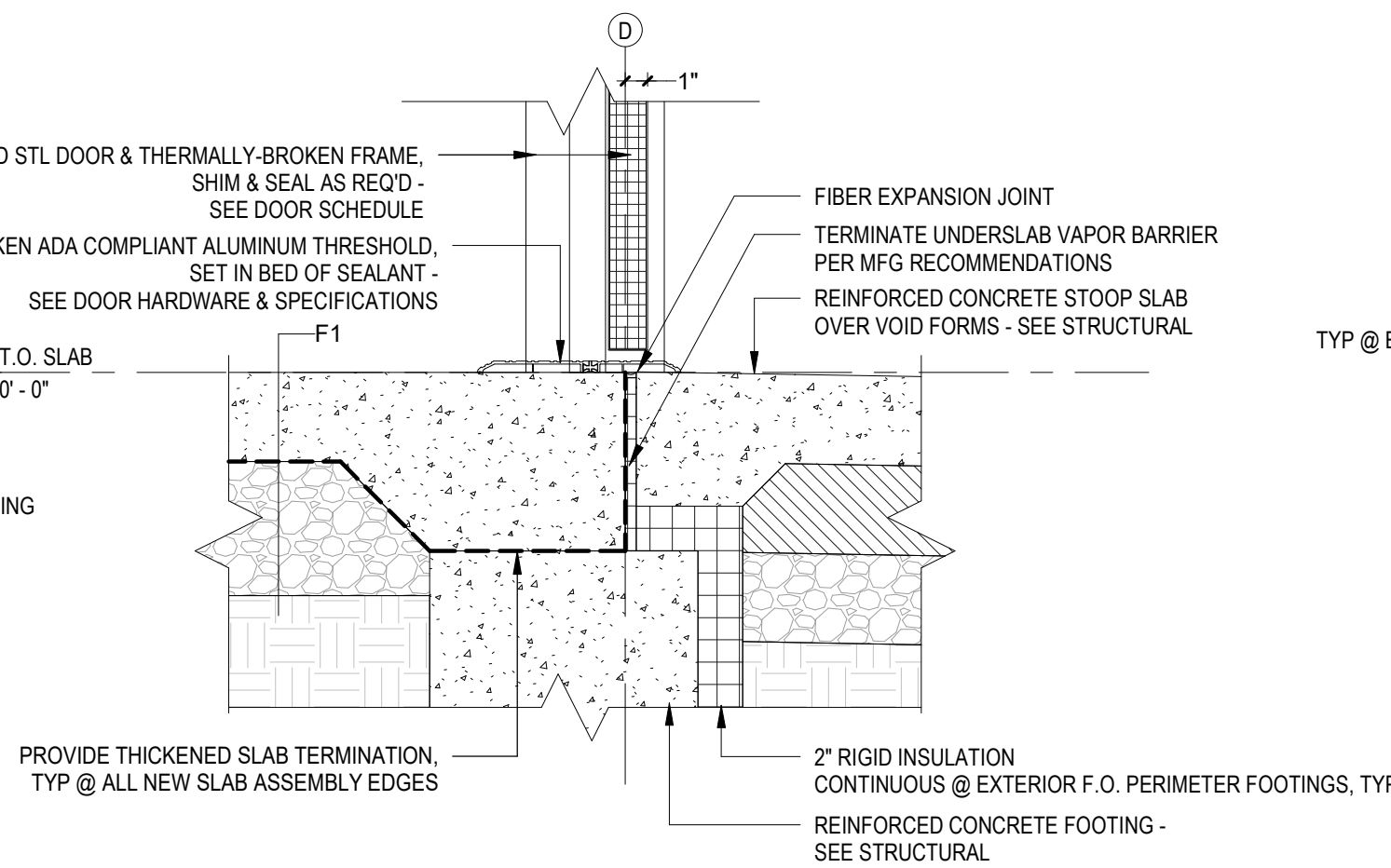
9 SECTION DETAIL - DOOR HEAD @ INTERIOR
1 1/2" = 1'-0"



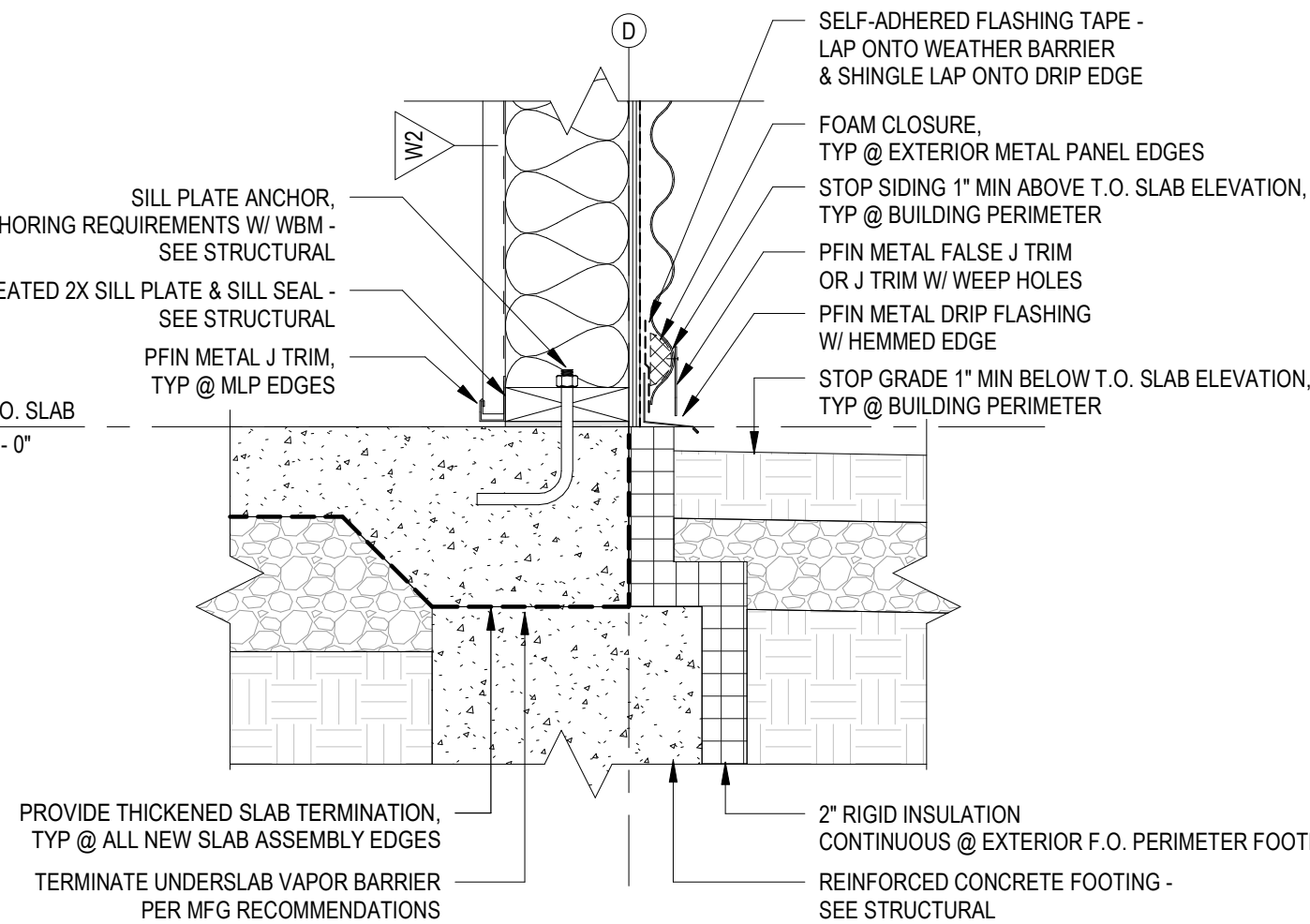
8 PLAN DETAIL - DOOR JAMB @ HORIZONTAL SIDING
1 1/2" = 1'-0"



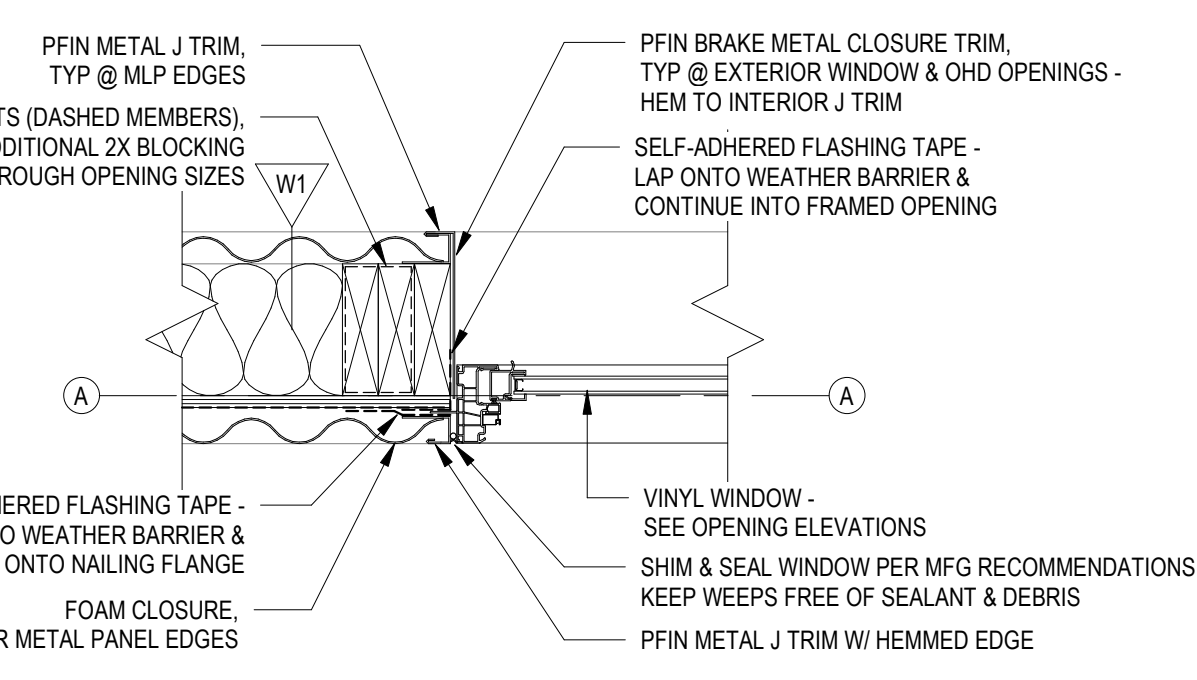
7 SECTION DETAIL - DOOR HEAD @ HORIZONTAL SIDING
1 1/2" = 1'-0"



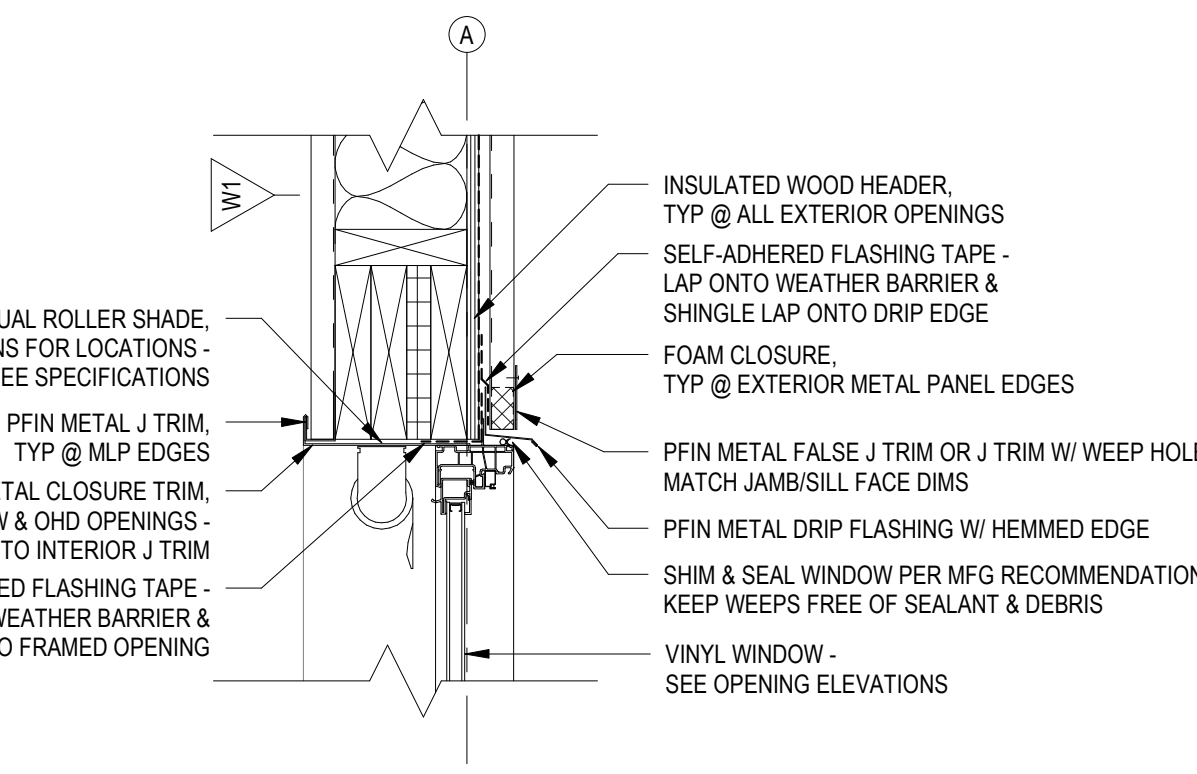
6 SECTION DETAIL - DOOR THRESHOLD
1 1/2" = 1'-0"



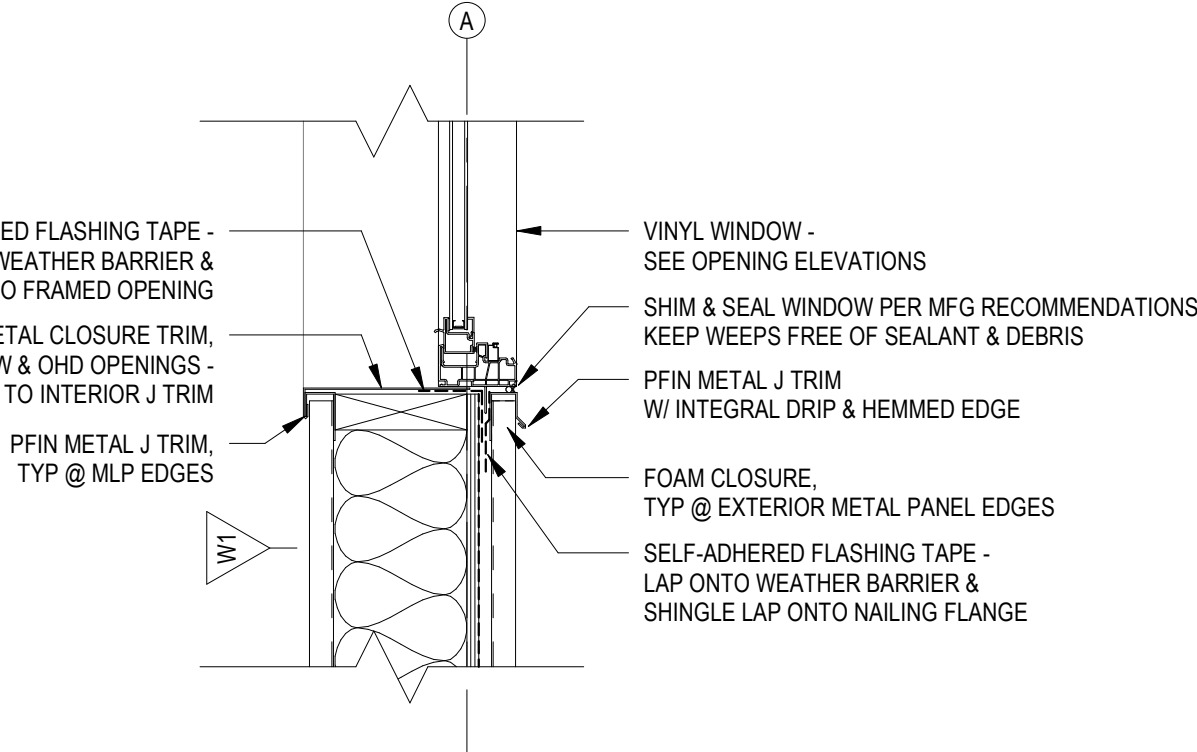
5 SECTION DETAIL - B.O. WALL @ HORIZONTAL SIDING
1 1/2" = 1'-0"



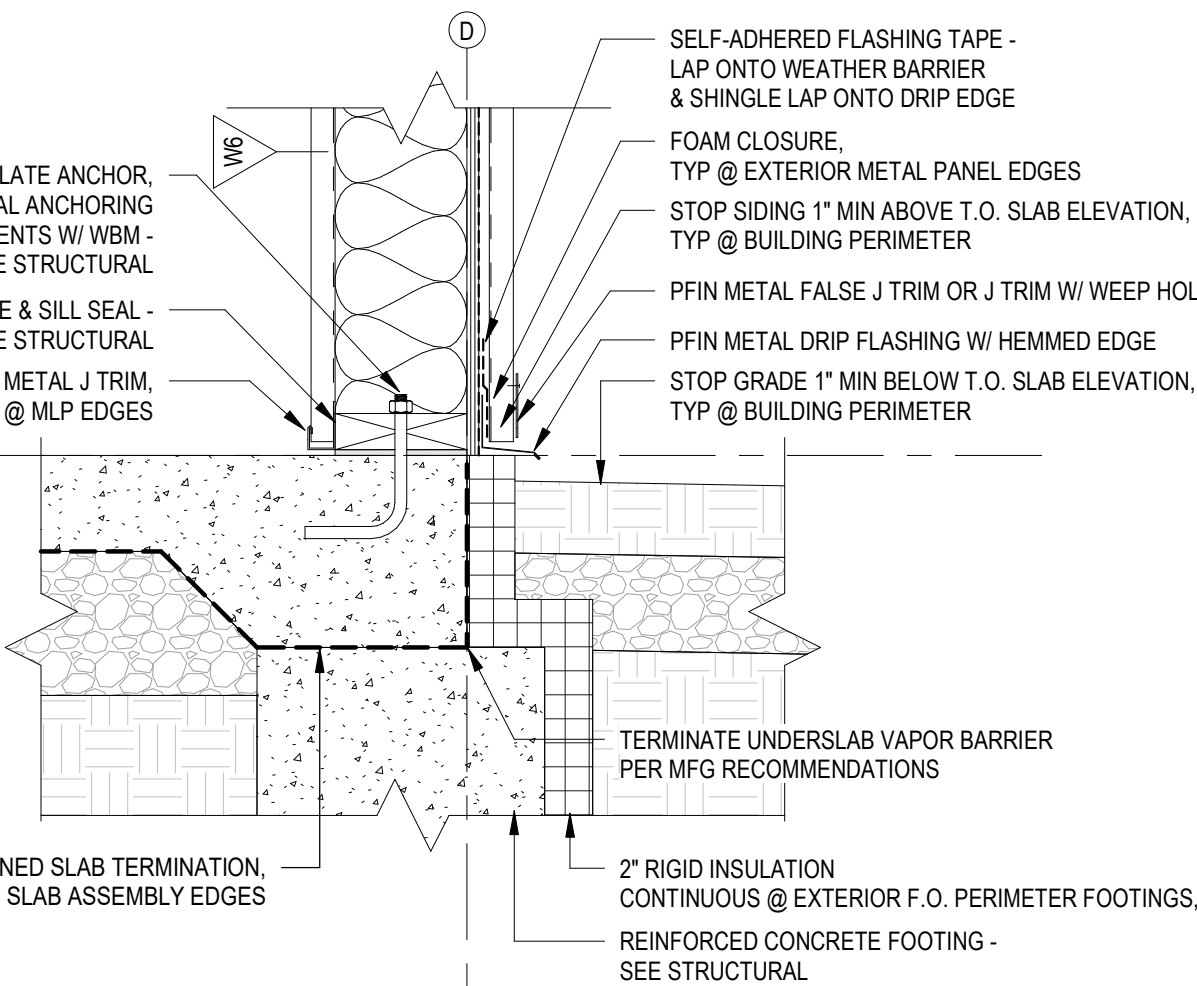
4 PLAN DETAIL - WINDOW JAMB @ VERTICAL SIDING
1 1/2" = 1'-0"



3 SECTION DETAIL - WINDOW HEAD @ VERTICAL SIDING
1 1/2" = 1'-0"



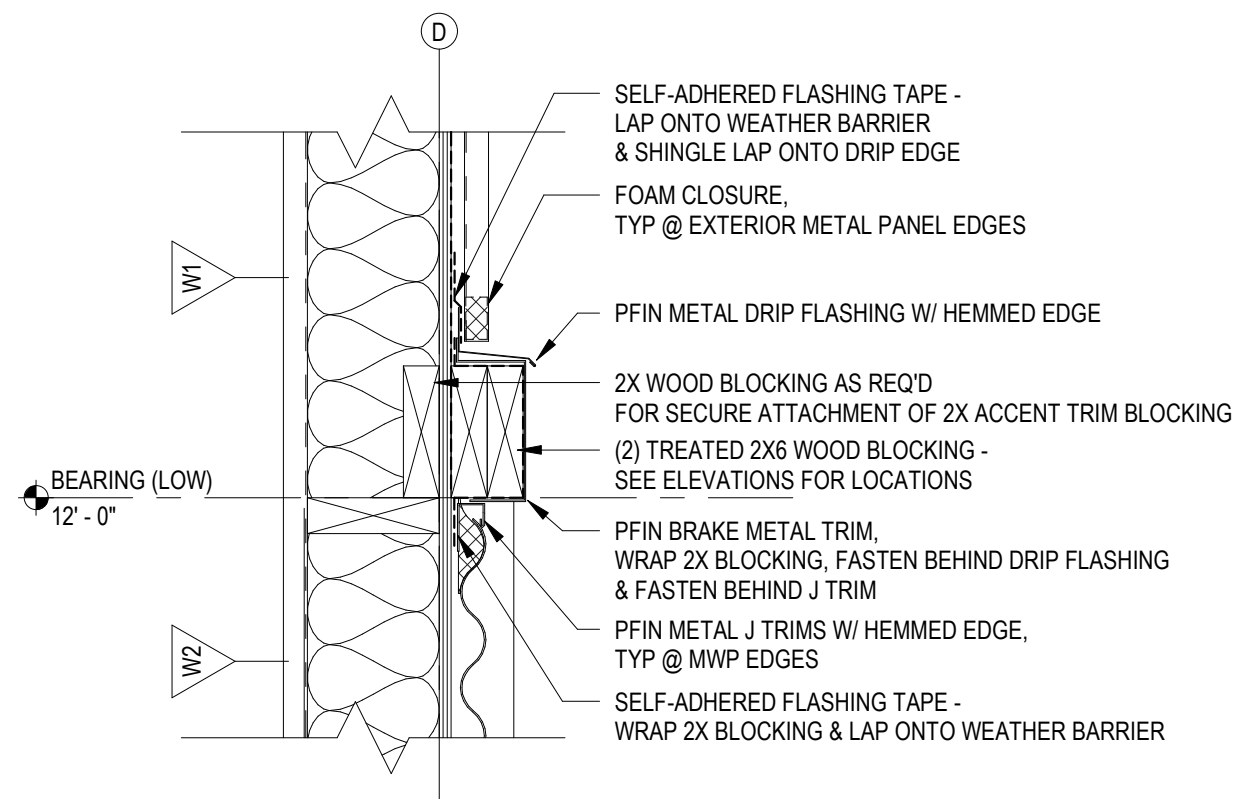
2 SECTION DETAIL - WINDOW SILL @ VERTICAL SIDING
1 1/2" = 1'-0"



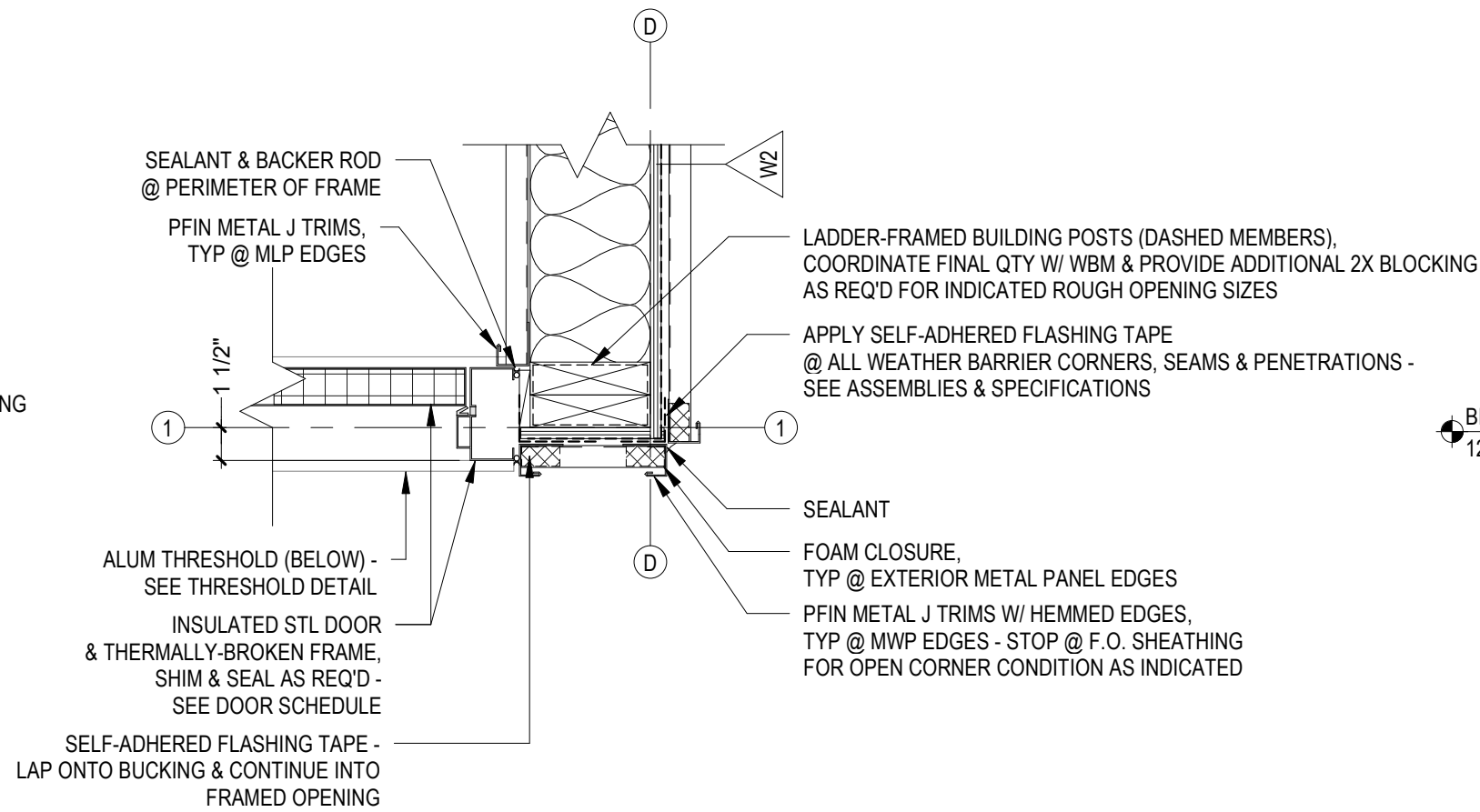
1 SECTION DETAIL - B.O. WALL @ VERTICAL SIDING
1 1/2" = 1'-0"

DETAILS - GENERAL NOTE:
THE WOOD FRAMED BUILDING, STRUCTURAL MAIN FRAMES, END WALL FRAMES, GIRTS, PURLINS, METAL SIDING PANELS, METAL ROOFING, OVERHANGS, METAL SOFFITS, FASCIA, WEATHER BARRIER, SHEATHING, INSULATION, EXTRUDED METAL TRIMS, CLIPS, ANGLES, FASTENERS, ATTACHMENTS, AND ALL OTHER RELATED ACCESSORIES SHALL BE PROVIDED BY AN INDEPENDENT WOOD FRAME BUILDING CONTRACTOR AND ARE THE SOLE RESPONSIBILITY OF THE WOOD FRAME BUILDING

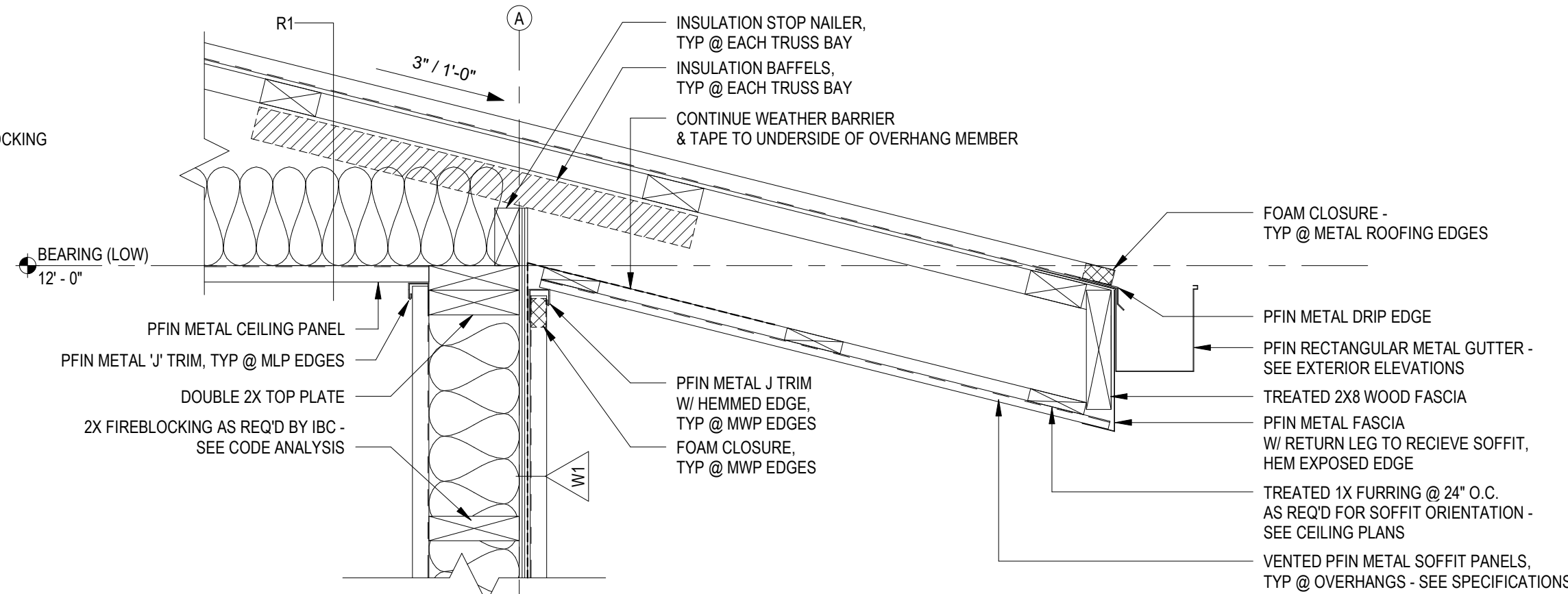
DETAILS - GENERAL NOTE:
METAL SIDING IS SHOWN GENERICALLY AS ALL ONE PROFILE IN DETAILS. SEE WALL ASSEMBLIES & EXTERIOR ELEVATIONS FOR FURTHER INFORMATION ON LOCATION OF DIFFERENT PROFILES/TYPES.



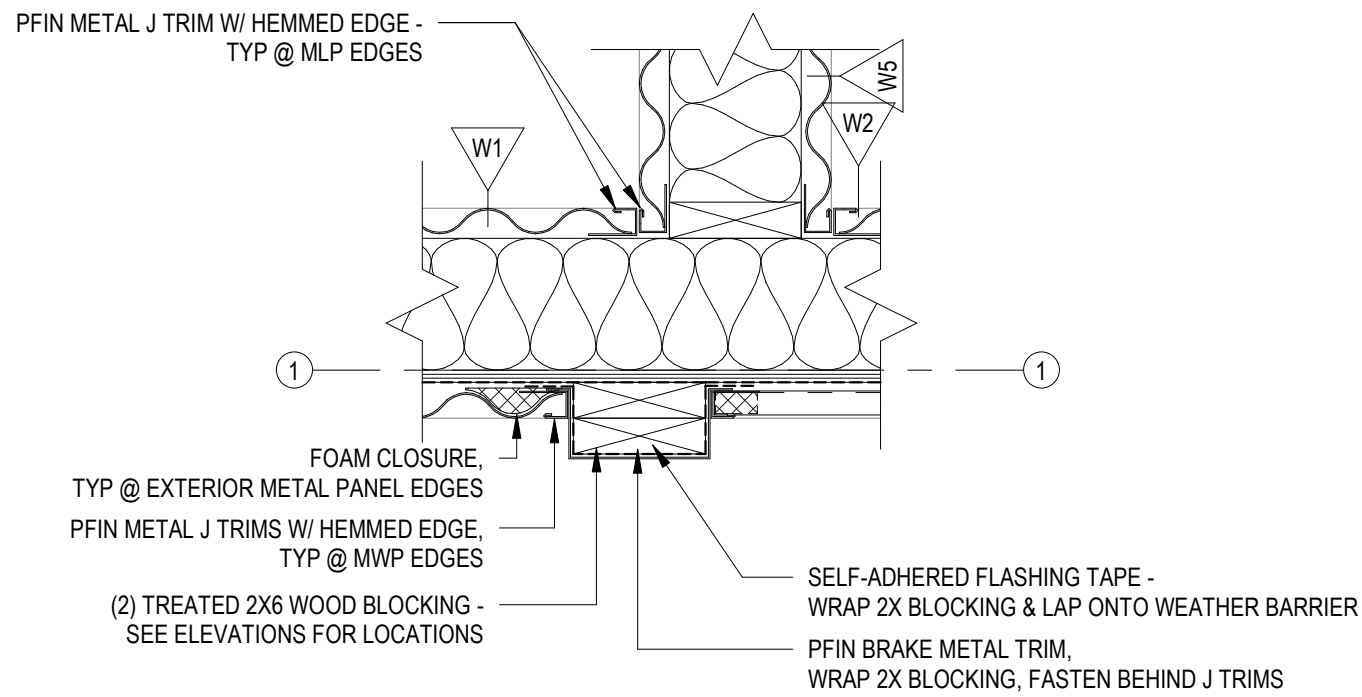
12 SECTION DETAIL - SOUTH ACCENT TRIM
1 1/2" = 1'-0"



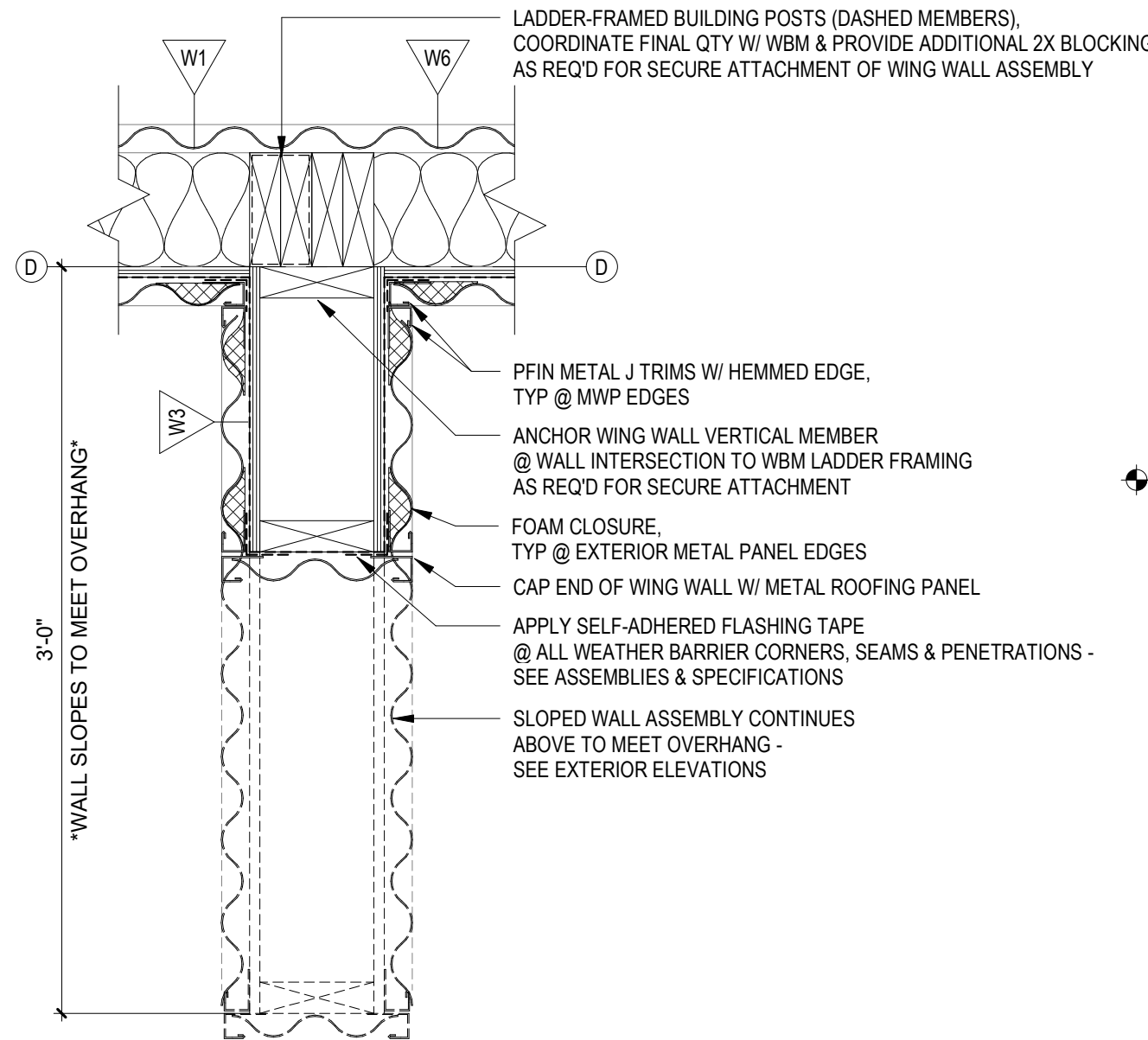
8 PLAN DETAIL - OUTSIDE CORNER @ HORIZONTAL SIDING
1 1/2" = 1'-0"



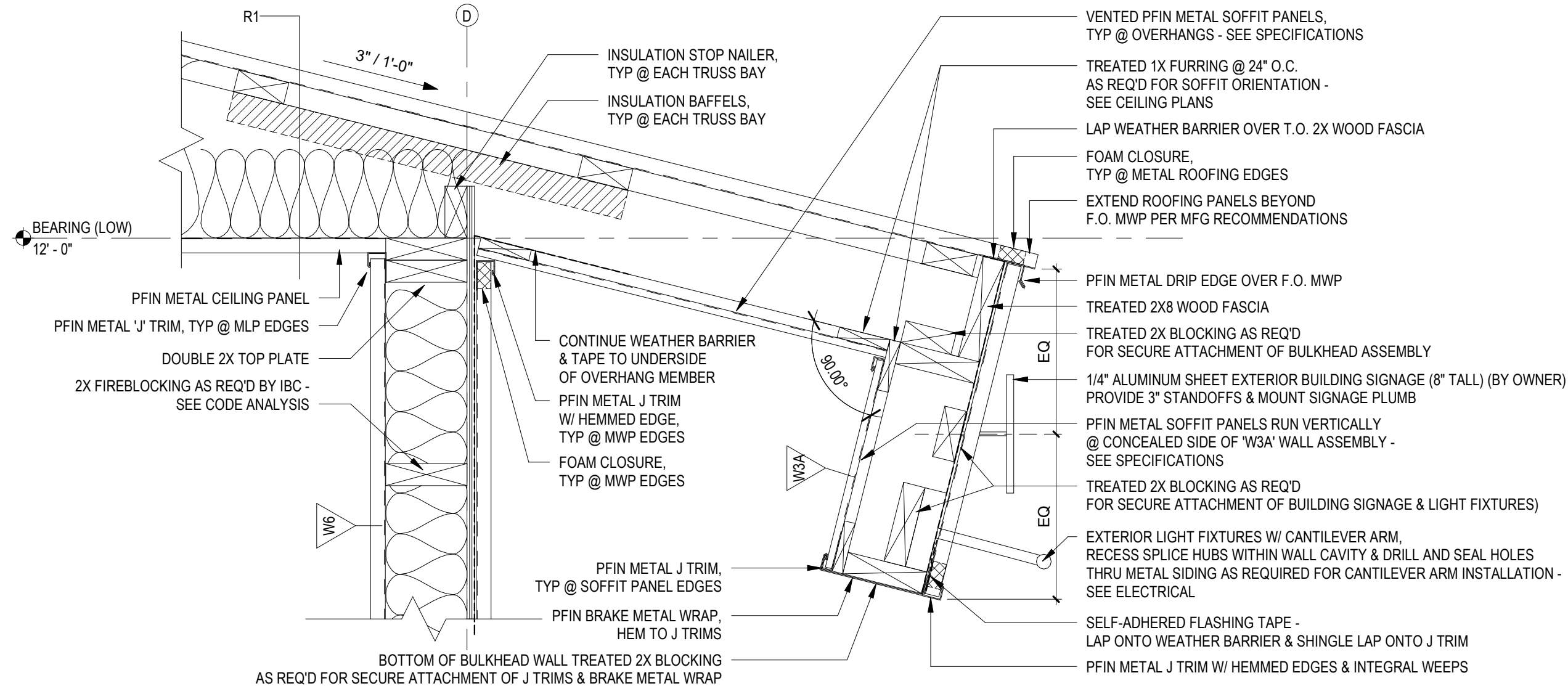
4 SECTION DETAIL - TYP EAVE
1 1/2" = 1'-0"



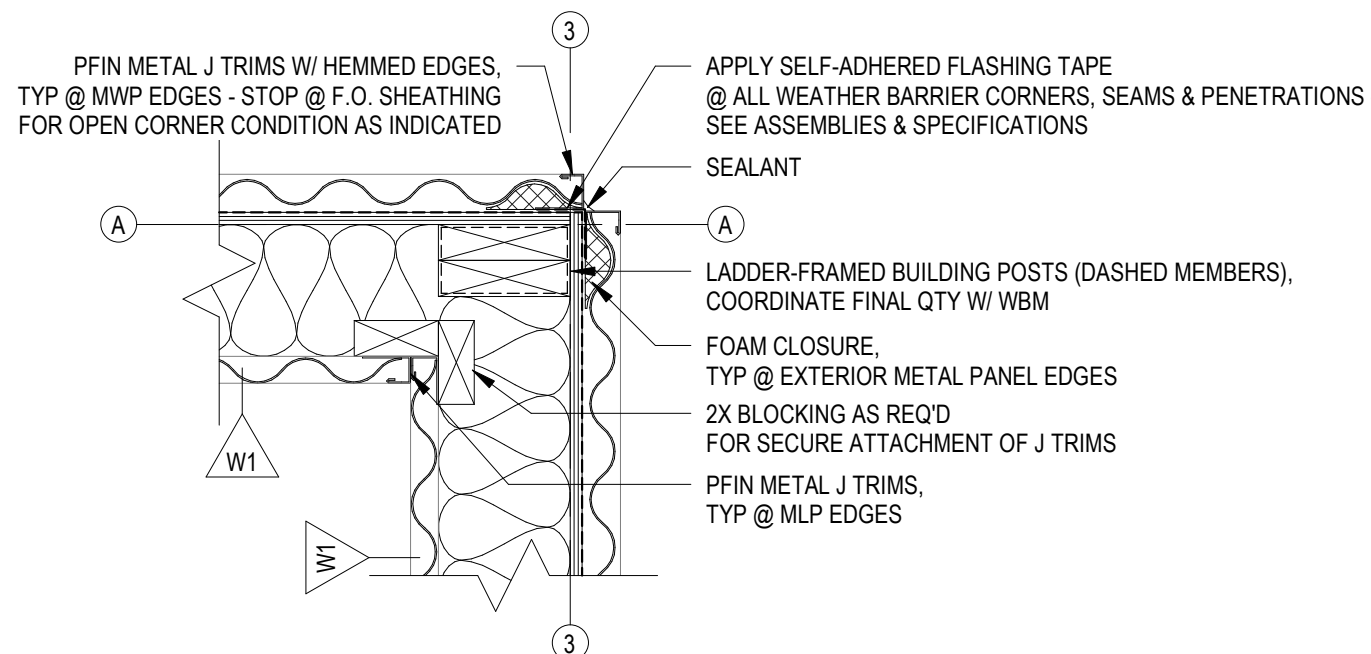
11 PLAN DETAIL - WEST ACCENT TRIM
1 1/2" = 1'-0"



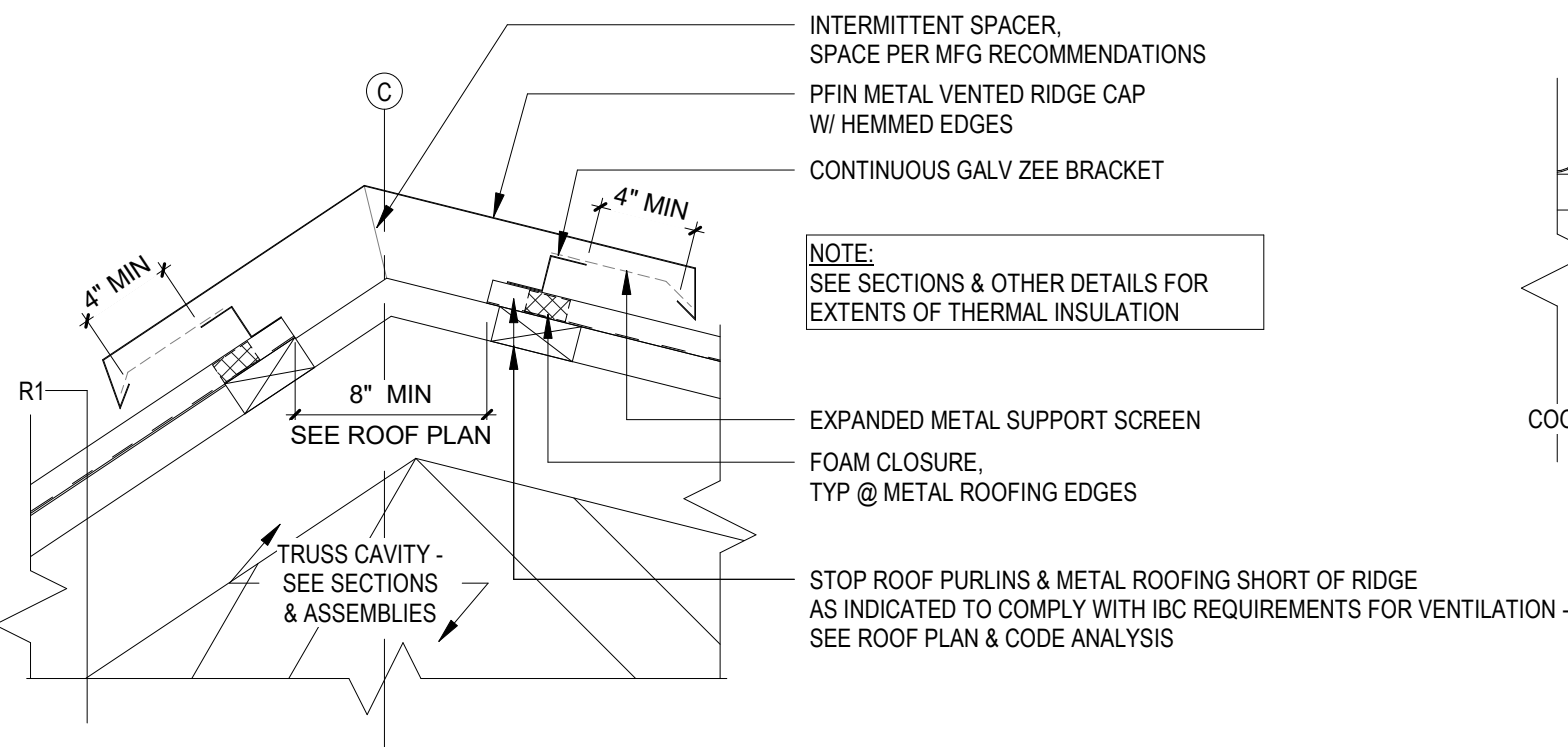
7 PLAN DETAIL - SOUTH WING WALL
1 1/2" = 1'-0"



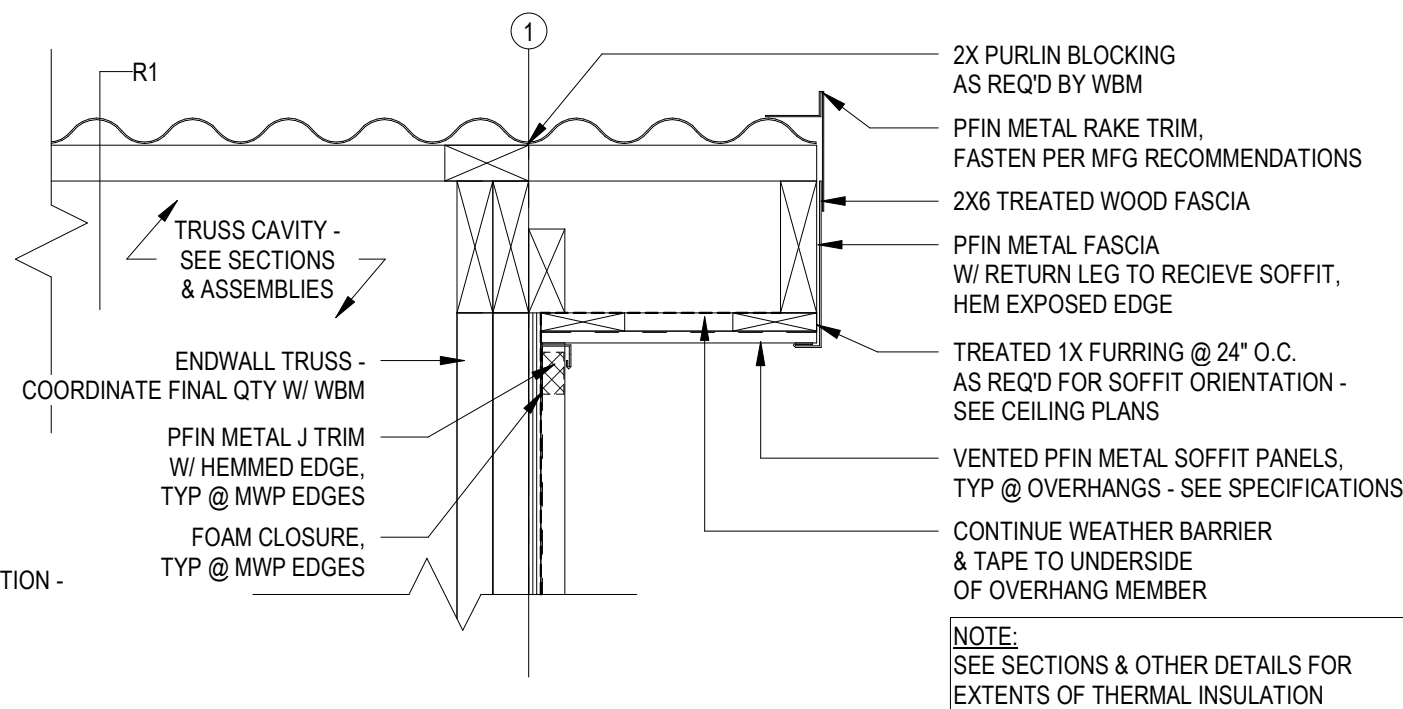
3 SECTION DETAIL - EAVE @ SEEDS
1 1/2" = 1'-0"



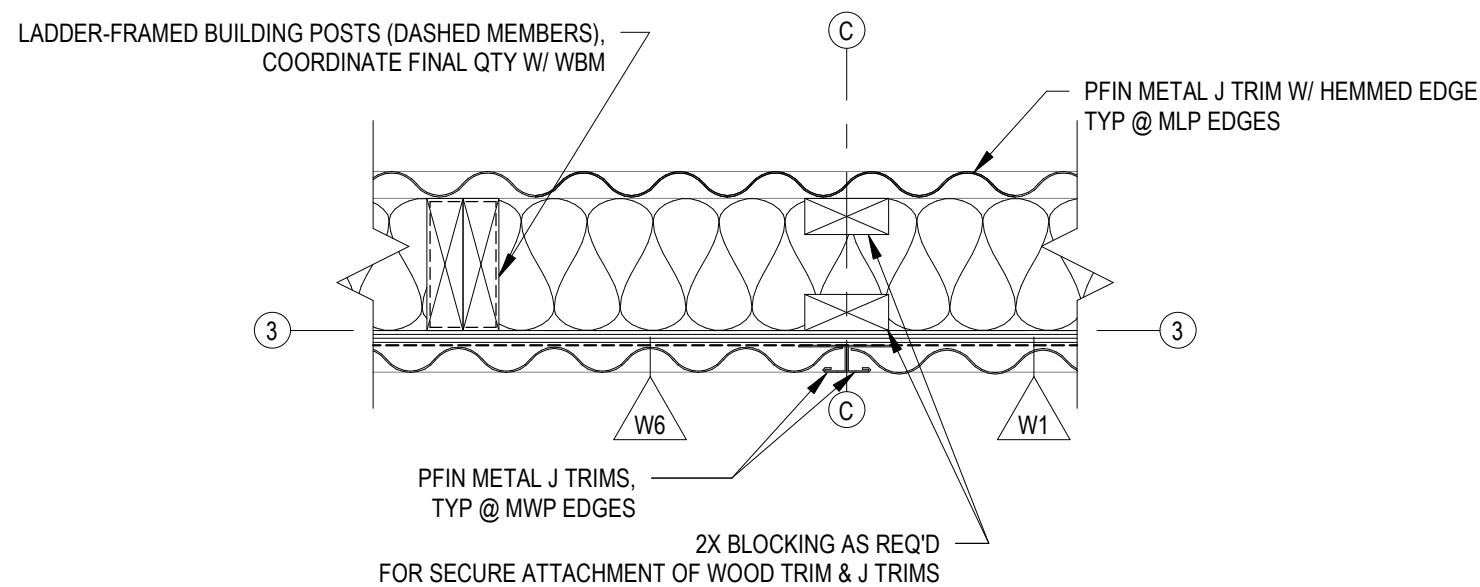
10 PLAN DETAIL - OUTSIDE CORNER @ METAL SIDING
1 1/2" = 1'-0"



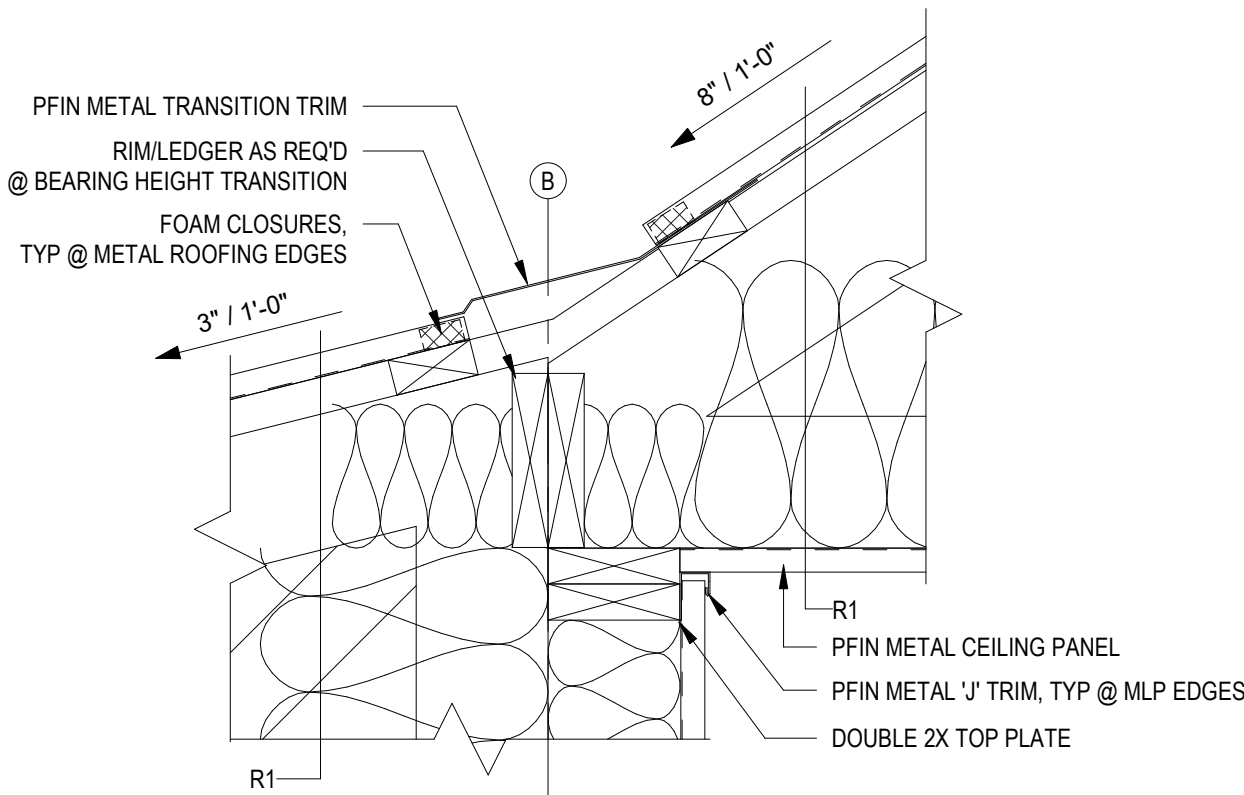
6 SECTION DETAIL - RIDGE CAP
1 1/2" = 1'-0"



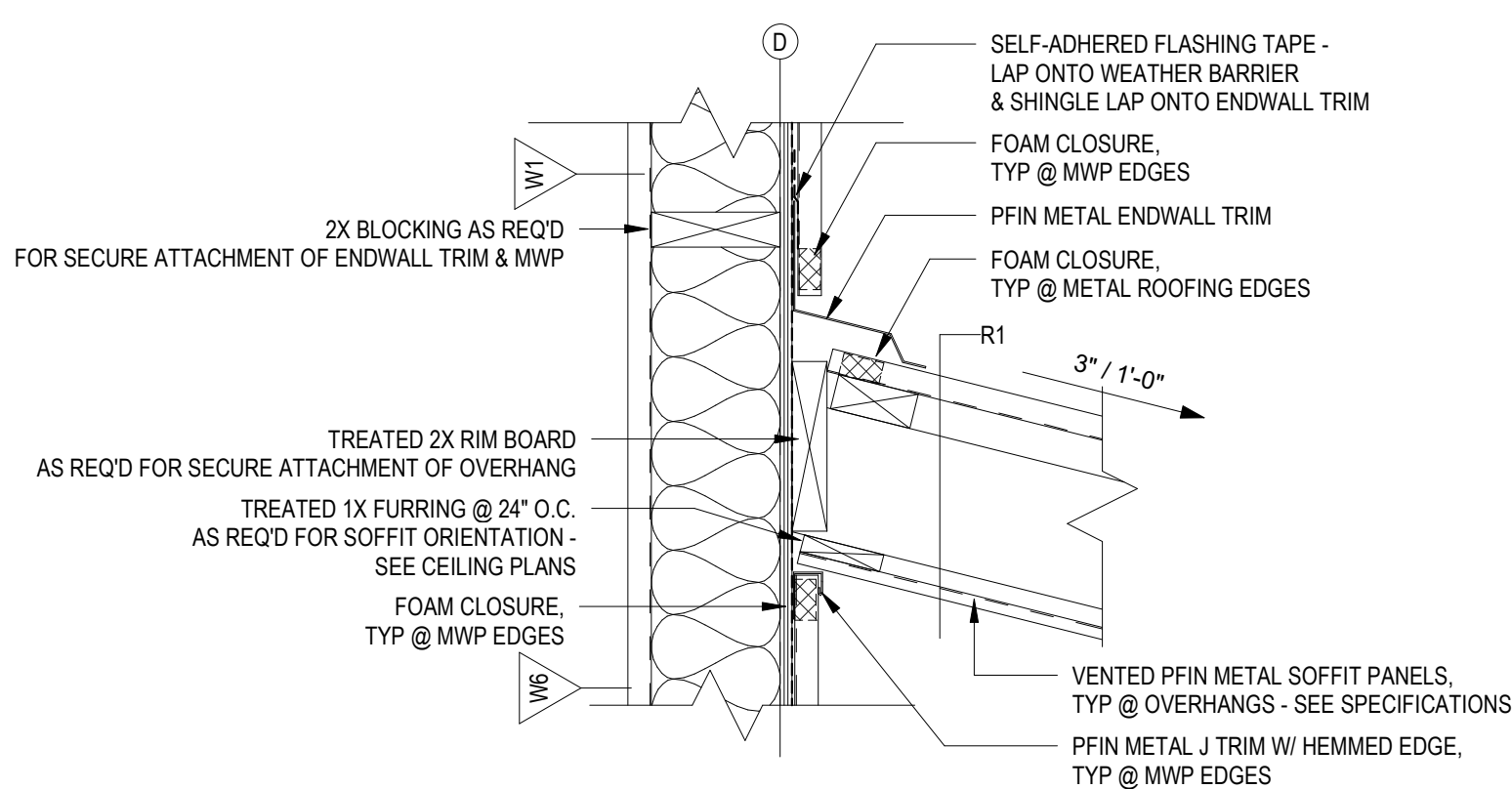
2 SECTION DETAIL - TYP RAKE
1 1/2" = 1'-0"



9 PLAN DETAIL - GRID C PANEL TRANSITION
1 1/2" = 1'-0"



5 SECTION DETAIL - VALLEY FLASHING
1 1/2" = 1'-0"



1 SECTION DETAIL - HEADWALL FLASHING
1 1/2" = 1'-0"

DETAILS - GENERAL NOTE:
THE WOOD FRAMED BUILDING, STRUCTURAL MAIN FRAMES, END WALL FRAMES, GIRTS, PURLINS, METAL SIDING PANELS, METAL ROOFING, OVERHANGS, METAL SOFFITS, FASCIA, SHEATHING, WEATHER BARRIER, INSULATION, EXTRUDED METAL TRIMS, CLIPS, ANGLES, FASTENERS, ATTACHMENTS, AND ALL OTHER RELATED ACCESSORIES SHALL BE PROVIDED BY AN INDEPENDENT WOOD FRAME BUILDING CONTRACTOR AND ARE THE SOLE RESPONSIBILITY OF THE WOOD FRAME BUILDING

DETAILS - GENERAL NOTE:
METAL SIDING IS SHOWN GENERALLY AS ALL ONE PROFILE IN DETAILS. SEE WALL ASSEMBLIES & EXTERIOR ELEVATIONS FOR FURTHER INFORMATION ON LOCATION OF DIFFERENT PROFILES/TYPES.

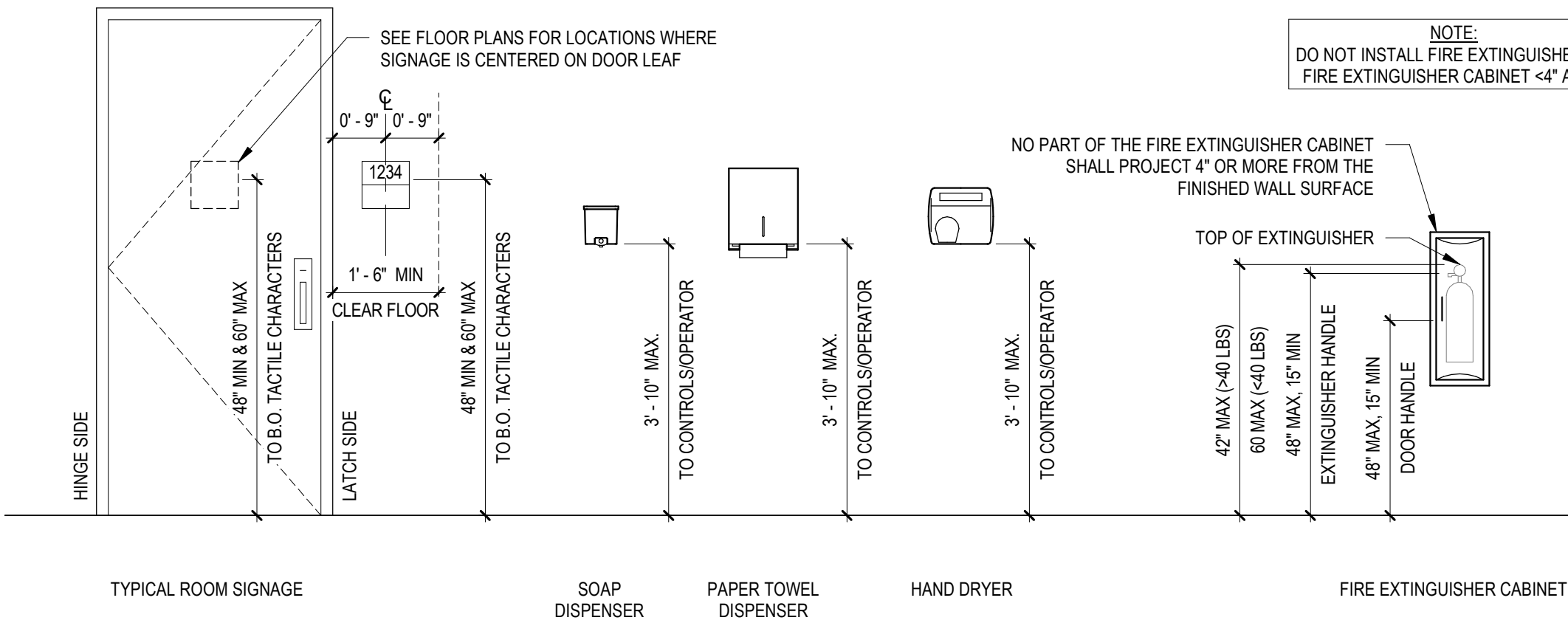
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139 4th STREET
DES MOINES, IOWA 50265

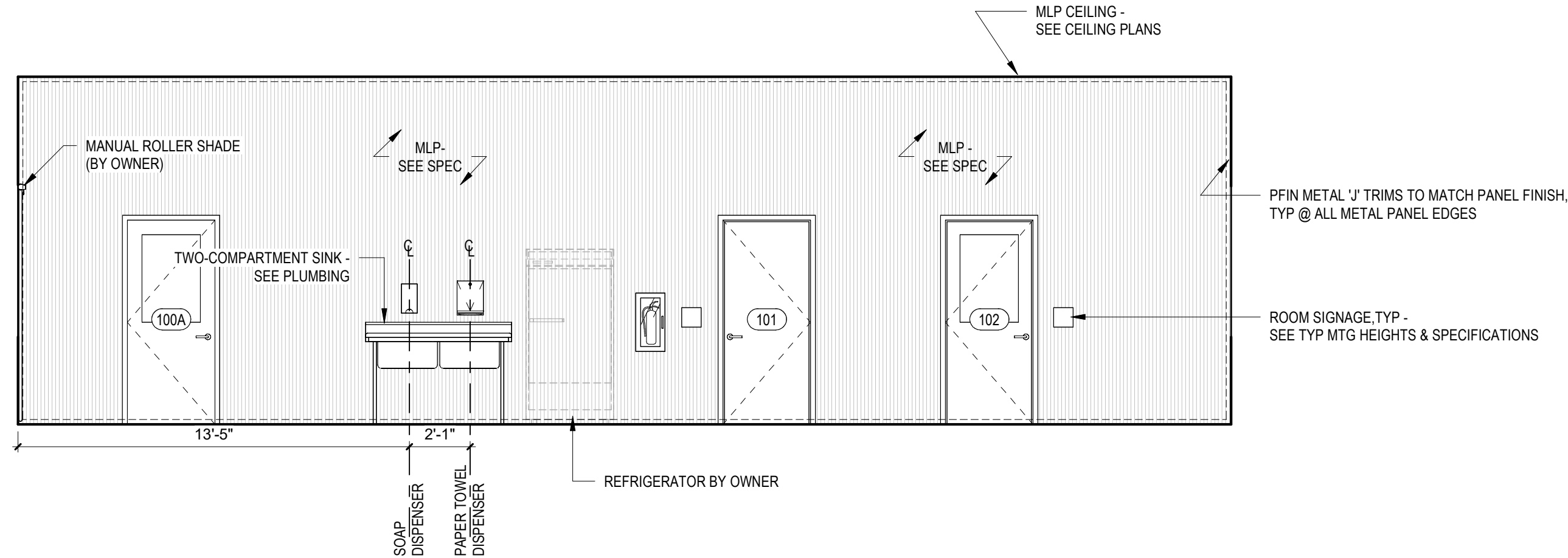
PROJECT: GEISLER-PENQUITE LAND STEWARDSHIP LAB
ADDRESS: 5284 LIBERTY AVENUE; NEWTON, IOWA 50208
CLIENT: JASPER COUNTY CONSERVATION

INCLUDES: 2025-12-03
PAGE: REBID
SHEET NAME: DETAILS

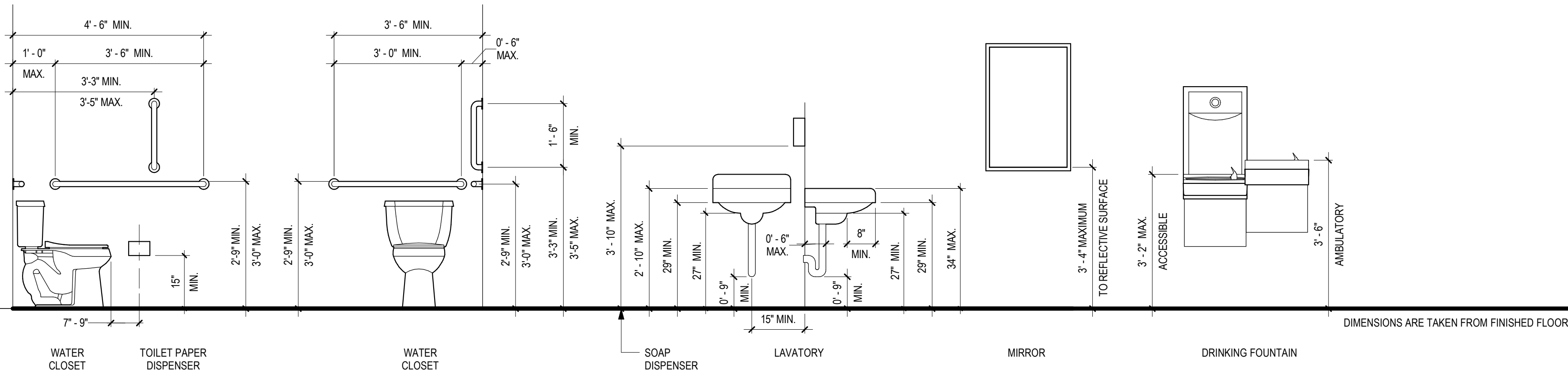
NOTE:
IF ROOM SIGN HAS BOTH WORDS & NUMBERS,
WORDS GO DIRECTLY BELOW NUMBERED SIGNS



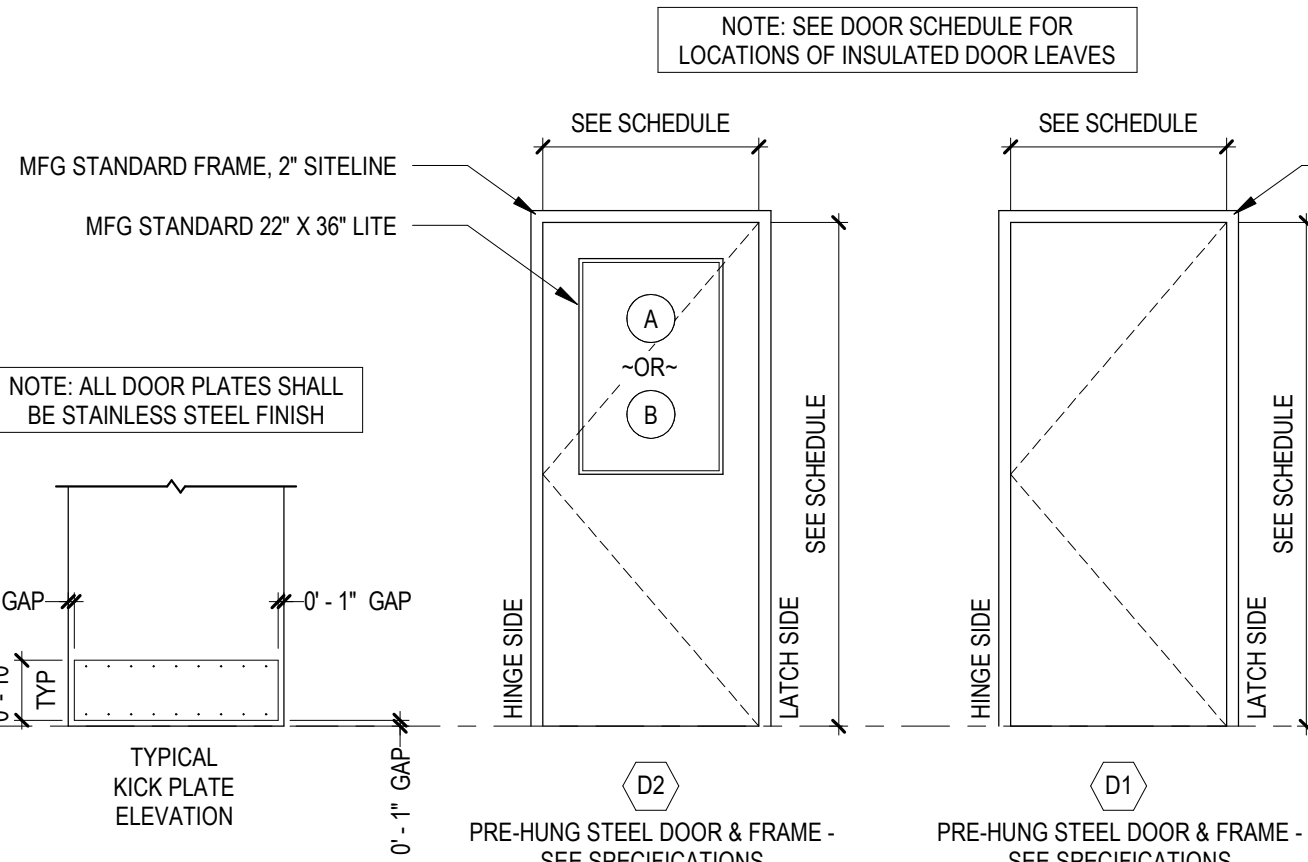
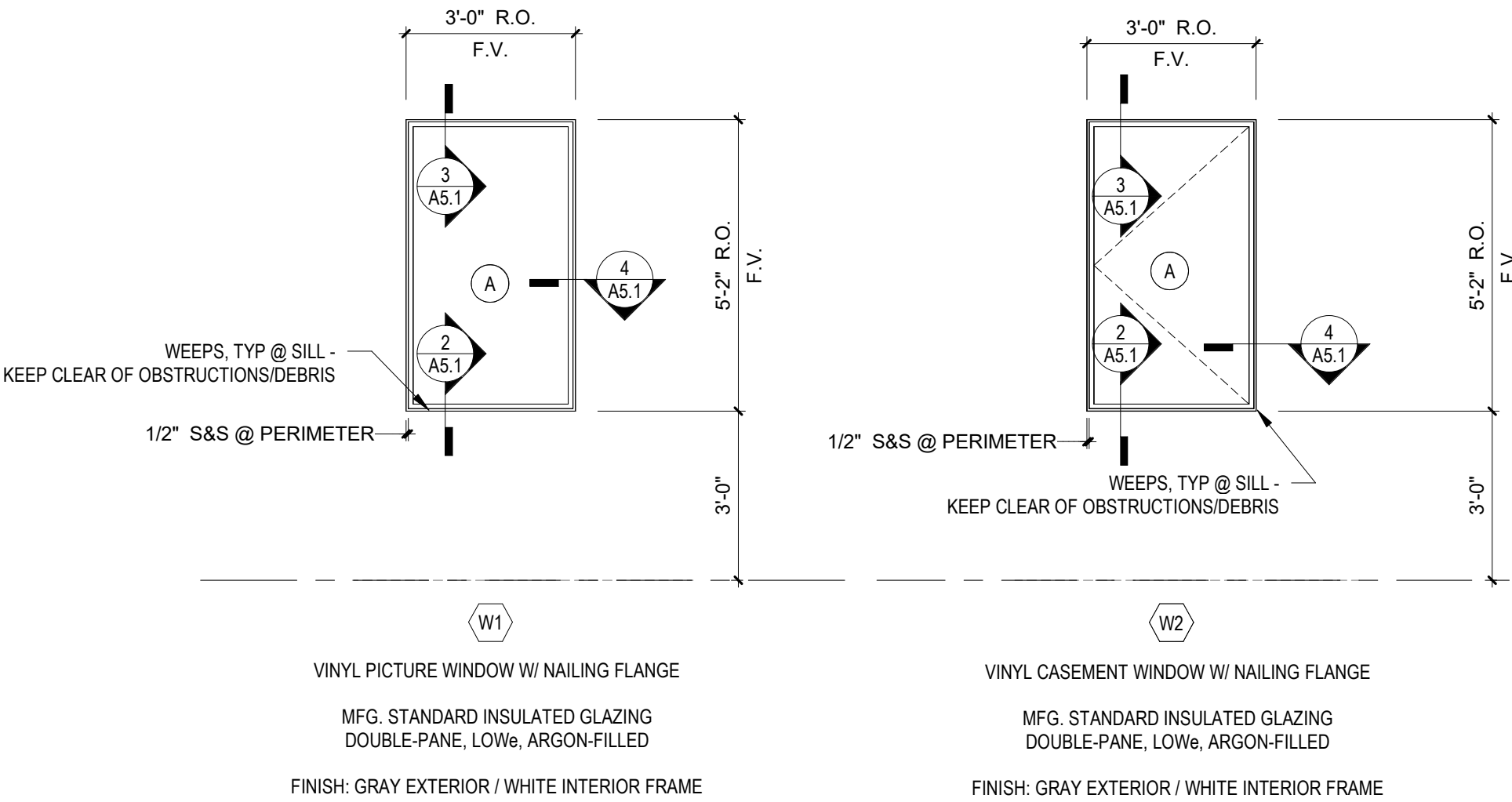
2 **TYPICAL MOUNTING HEIGHTS**
1/2" = 1'-0"



1 **INTERIOR ELEVATION - SEEDS - WEST**
1/4" = 1'-0"



DOOR SCHEDULE														
#	ROOM NAME	THERMALLY BROKEN	THRESHOLD	LEAF						FRAME		HARDWARE SET	REMARKS	
				THICKNESS	ELEVATION	WIDTH	HEIGHT	MATERIAL	FINISH	GLAZING	FINISH			FRAME DEPTH (FIELD VERIFY)
100	SEEDS	YES	YES	0'-1 3/4"	D2	3'-0"	7'-0"	STL	PFIN	A	PFIN	0'-4 1/4"	1.0	
100A	SEEDS	YES	NO	0'-1 3/4"	D2	3'-0"	7'-0"	STL	PFIN	A	PFIN	0'-4 1/2"	2.0	
101	STAGING	YES	NO	0'-1 3/4"	D1	3'-0"	7'-0"	STL	PT1	--	PFIN	0'-4 1/2"	2.0	
102	ARCHERY	NO	NO	0'-1 3/4"	D2	3'-0"	7'-0"	STL	PFIN	--	PFIN	0'-4 1/2"	2.0	
103	STORAGE	YES	YES	0'-1 3/4"	D2	3'-0"	7'-0"	STL	PFIN	A	PFIN	0'-4 1/4"	1.0	
103A	STORAGE	YES	NO	0'-2"	OHD	12'-0"	12'-0"	STL	PFIN	C	--		4.0	INSULATED STEEL DOOR PANELS, HIGH-LIFT TRACK, JACKSHAFT OPERATION
103B	STORAGE	YES	NO	0'-2"	OHD	12'-0"	12'-0"	STL	PFIN	C	--		4.0	INSULATED STEEL DOOR PANELS, HIGH-LIFT TRACK, JACKSHAFT OPERATION
104	RR	YES	YES	0'-1 3/4"	D1	3'-0"	7'-0"	STL	PT1	--	PFIN	0'-4 1/4"	1.0	
105	MECH	YES	NO	0'-1 3/4"	D1	3'-0"	7'-0"	STL	PT1	--	PFIN	0'-4 1/4"	3.0	
106	RR	NO	NO	0'-1 3/4"	D1	3'-0"	7'-0"	STL	PT1	--	PFIN	0'-4 1/4"	2.0	



- DOOR DETAILS:
- JAMB (INTERIOR) 10 / A5.1
 - JAMB (EXTERIOR, HORIZ) 8 / A5.1
 - JAMB (EXTERIOR, VERT) 12 / A5.1
 - HEAD (INTERIOR) 9 / A5.1
 - HEAD (EXTERIOR, HORIZ) 7 / A5.1
 - HEAD (EXTERIOR, VERT) 11 / A5.1
 - TYP THRESHOLD 6 / A5.1

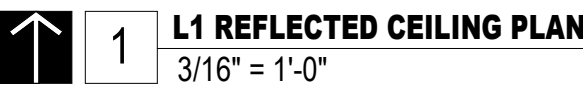
OPENING ELEVATIONS & SCHEDULE - GENERAL NOTES:		OPENINGS ELEVATIONS & SCHEDULES ABBREVIATIONS/DEFINITIONS:	
1. DOOR ELEVATIONS ARE SHOWN ONE DIRECTION FOR CLARITY. PRIOR TO FABRICATION, THE CONTRACTOR AND WINDOW PROVIDER SHALL DISTINGUISH ALL REVERSE (REV) WINDOWS AND THE OPERABLE SWING DIRECTION OF ALL DOORS & OPERABLE SASHES WITH WHAT IS SHOWN ON BOTH THE EXTERIOR ELEVATIONS AND THE FLOOR PLANS.		F.V. = FIELD VERIFY PRIOR TO FABRICATION & INSTALLATION	
2. CONTRACTOR SHALL PROVIDE TEMPERED/SAFETY GLAZING AT ALL LOCATIONS REQUIRED BY THE BUILDING CODE.		MFG = MANUFACTURER	
3. CONTRACTOR IS RESPONSIBLE FOR VERIFYING THAT ALL DOOR RELATED ITEMS AND COMPONENTS, INCLUDING DOOR HARDWARE AND THRESHOLDS, MEET APPLICABLE FEDERAL, STATE AND LOCAL BUILDING AND ACCESSIBILITY CODES.		PREFIN. = PRE-FINISHED	
4. CONTRACTOR SHALL FIELD VERIFY ALL ROUGH OPENINGS AND THE ACTUAL THICKNESS AND CONSTRUCTION ASSEMBLY OF ALL WALLS, PRIOR TO ORDER AND INSTALLATION OF DOORS AND FRAMES. CONTRACTOR AND/OR SUPPLIER SHALL MODIFY THE ELEVATIONS, DOORS, AND FRAMES, AS REQUIRED, TO ACCOUNT FOR TOLERANCES AND PROVIDE GAP AROUND PERIMETER FOR SHIM SPACE & SEALANT. VERIFY SYSTEM WEEPS ARE CLEARED, FREE OF SEALANT & OTHER DEBRIS.		R.O. = ROUGH OPENING	
5. FIELD VERIFY THE ACTUAL THICKNESS OF ALL WALLS, PRIOR TO FABRICATION OF DOOR FRAMES AND THROAT DEPTHS.		STL = STEEL	
6. PROVIDE ADDITIONAL DOOR STOPS AT LOCATIONS REQUESTED BY THE OWNER AFTER INSTALLATION.		* = SEE GENERAL REMARKS	
7. ALL DOOR FRAMES SHALL BE ALL-WELDED TYPE. WHERE FRAMES ARE LOCATED IN WOOD STUD FRAMED WALLS, CONTRACTOR SHALL PROVIDE ADDITIONAL BLOCKING AND ANCHORS AS REQUIRED FOR SECURE ATTACHMENT TO WALL ASSEMBLY.		GLAZING SCHEDULE:	
8. CONTRACTOR SHALL PROVIDE THRESHOLDS AT ALL EXTERIOR DOORS. THRESHOLDS SHALL NOT EXCEED 1/2 INCH IN HEIGHT ABOVE THE ADJACENT FINISHED FLOOR OR LANDING. RAISED THRESHOLDS AND FLOOR LEVEL CHANGES GREATER THAN 1/4 INCH AT DOORWAYS SHALL BE BEVELED WITH A SLOPE NOT GREATER THAN ONE UNIT VERTICAL IN TWO UNITS HORIZONTAL (50-PERCENT SLOPE).		(A) = MFG STANDARD 1" INSULATED GLAZING, DOUBLE-PANE, ARGON-FILLED, LOWe COATING ON THE THIRD FACE (TEMPERED WHERE REQ'D)	
9. ALL DOOR HANDLES, PULLS, LATCHES, LOCKS AND OTHER OPERATING DEVICES SHALL BE INSTALLED BETWEEN HEIGHTS OF 34" MIN. AND 48" MAX. ABOVE FINISHED FLOOR.		(B) = MFG STANDARD 1/4" SINGLE PANE GLAZING (TEMPERED WHERE REQ'D)	
10. OPENING SUPPLIERS TO PROVIDE DEFLECTION HEADS AS REQUIRED.		(C) = 1/2" INSULATED, DOUBLE STRENGTH GLASS	

THESE DOCUMENTS ARE INSTRUMENTS OF PROFESSIONAL SERVICE AND SHALL REMAIN THE PROPERTY OF GEISLER-PENQUITE LAND STEWARDSHIP LAB. THEY HAVE BEEN PREPARED SPECIFICALLY FOR THE PROJECT AND SHOULD NOT BE USED ON ANY OTHER PROJECT OR IN ANY OTHER LOCATION WITHOUT THE WRITTEN PERMISSION OF GEISLER-PENQUITE LAND STEWARDSHIP LAB. UNAUTHORIZED REPRODUCTION IS PROHIBITED.

STUDIO MEELE
1394th STREET
DES MOINES, IOWA 50265

PROJECT: GEISLER-PENQUITE LAND STEWARDSHIP LAB
ADDRESS: 5284 LIBERTY AVENUE; NEWTON, IOWA 50208
CLIENT: JASPER COUNTY CONSERVATION

DATE: 2025-12-03
REBID: 2025-12-03
SHEET NAME: OPENING ELEVATIONS & SCHEDULE



REFLECTED CEILING PLAN - GENERAL NOTES

7. CONTRACTOR SHALL COORDINATE ALL MECHANICAL, PLUMBING, AND ELECTRICAL FIXTURES, TYPES AND LOCATIONS WITH THE MECHANICAL, PLUMBING AND ELECTRICAL DRAWINGS AND SPECIFICATIONS. LIGHT FIXTURES AND ELECTRICAL ROSTERS ARE SHOWN FOR INFORMATION AND COORDINATION PURPOSES ONLY, NOT ALL FIXTURES ARE SHOWN. SEE MECHANICAL AND ELECTRICAL FOR TYPES AND QUANTITIES.
8. REFER TO SPECIFICATIONS, INTERIOR ELEVATIONS, AND ROOM FINISH SCHEDULE FOR PAINT AND PROTECTIVE COATINGS AND FINISHES.
9. REFER TO ALL STRUCTURAL, MEP, AND CIVIL DRAWINGS FOR ADDITIONAL INFORMATION, PROJECT NOTES, COORDINATION ITEMS, AND REQUIREMENTS.
10. THE WOOD FRAME BUILDING, STRUCTURAL MAIN FRAMES, END WALLS, GIRDERS, METAL SIDING PANELS, METAL ROOFING, OVERHANGS, METAL SOFFITS, FASCIA, WEATHER BARRIER, SHEATHING, INSULATION, EXTRUDED METAL TRIMS, CLIPS, ANGLES, FASTENERS, ATTACHMENTS, AND ALL OTHER RELATED ACCESSORIES SHALL BE PROVIDED BY AN APPROVED WOOD FRAME BUILDING MANUFACTURER AND BE THE SOLE RESPONSIBILITY OF THE WOOD FRAME BUILDING MANUFACTURER AND INSTALLATION CONTRACTOR.

1A. METAL PANEL CEILING:

- 3A. **LIGHT FIXTURE:**
PROVIDE & INSTALL LIGHT FIXTURE & ALL ASSOCIATED ACCESSORIES AS REQUIRED FOR PROPER OPERATION. SEE CEILING PLAN SYMBOL LEGEND FOR MOUNTING TYPE. SEE ELECTRICAL.
- 3B. **CORD REEL:**
PROVIDE & INSTALL CORD REEL & ALL ASSOCIATED ACCESSORIES & ELECTRICAL CABLING, BLOCKING & ACCESSORIES REQUIRED FOR PROPER OPERATION. SEE ELECTRICAL.
- 3C. **CEILING-MOUNT PROJECTOR (OFFC):**
INSTALL PROJECTOR, CEILING MOUNT BRACKET & ALL ASSOCIATED CABLING, BLOCKING & ACCESSORIES REQUIRED FOR PROPER OPERATION & INSTALLATION. COORDINATE FINAL LOCATION WITH MFG RECOMMENDATIONS & ARCHITECT'S SIMULATOR REQUIREMENTS. SEE ELECTRICAL.
- 4A. **MECHANICAL FIXTURE/EQUIPMENT:**
PROVIDE & INSTALL MECHANICAL EQUIPMENT & ALL ASSOCIATED ACCESSORIES AS REQUIRED FOR PROPER OPERATION. SEE CEILING PLAN SYMBOL LEGEND & MECHANICAL.

- 5A. GRILLE/REGISTER/LOUVER:
PROVIDE & INSTALL WALL OR IN-LINE GRILLE/REGISTER/LOUVER AT THE LOCATION INDICATED. PAINT TO MATCH ADJACENT WALL SURFACE AT CMU LOCATIONS. SEE ELEVATIONS & MECHANICAL.
- 6A. MANUAL ROLLER SHADE (BY OWNER):
WALL-MOUNTED ROLLER SHADE AT THE LOCATION INDICATED.
- 7A. CEILING FAN:
PROVIDE & INSTALL CEILING-MOUNTED BLADED FAN AT THE LOCATION INDICATED. COORDINATE BLOCKING AS REQUIRED. SEE MECHANICAL.

O.T.S. = OPEN TO STRUCTURE
EQ = EQUAL

MECHANICAL NOTES:

1. ALL WORK SHALL CONFORM TO THE REQUIREMENTS OF ALL APPLICABLE LOCAL, STATE, AND NATIONAL CODES, AS WELL AS LOCAL UTILITY REQUIREMENTS. PROVIDE ALL REQUIRED ACCESSORIES AND EQUIPMENT FOR A COMPLETE OPERATIONAL SYSTEM AND MAINTAIN WARRANTY REQUIREMENTS. VERIFY ALL EQUIPMENT PROVIDED IS SUITABLE FOR INTENDED USE.
2. WORK NOT SPECIFICALLY SHOWN IN DETAIL, REFERENCED, OR OTHERWISE IMPLIED, SHALL BE PROVIDED IN ACCORDANCE WITH TRADE OR INDUSTRY BEST STANDARD PRACTICES TO PROVIDE A COMPLETE OPERATIONAL SYSTEM.
3. ALL MATERIALS SHALL BE NEW AND SHALL BE OF THE TYPE AND SHALL MEET THE CAPACITIES OF EQUIPMENT SPECIFIED ON THE DRAWINGS.
4. ALL EQUIPMENT LISTED UNDER THESE SPECIFICATIONS SHALL BE LIMITED TO PRODUCTS REGULARLY PRODUCED AND RECOMMENDED FOR SERVICE IN ACCORDANCE WITH ENGINEERING DATA, RATINGS, OR OTHER COMPREHENSIVE LITERATURE MADE AVAILABLE TO THE PUBLIC AND IN EFFECT AT THE TIME OF OPENING BIDS.
5. EQUIPMENT SHALL BE INSTALLED IN STRICT ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS AND CODE REQUIREMENTS FOR TYPE AND CAPACITY OF EACH PIECE OF EQUIPMENT USED.
6. ALL CUTTING AND PATCHING REQUIRED FOR MECHANICAL WORK SHALL BE PERFORMED BY THE MECHANICAL CONTRACTOR UNLESS NOTED OTHERWISE. ALL FINISHED SURFACES THAT ARE CUT SHALL BE REPLACED IN KIND SO THERE IS NO VISIBLE EVIDENCE OF CUTTING AND/OR PATCHING.
7. INSTALL HANGERS AND SUPPORTS AS REQUIRED TO ADEQUATELY AND SECURELY SUPPORT MECHANICAL SYSTEM COMPONENTS IN A NEAT AND WORKMANLIKE MANNER. DO NOT FASTEN SUPPORTS TO PIPES, DUCTS, MECHANICAL EQUIPMENT, OR CONDUIT.
8. ALL ROOF PENETRATIONS SHALL BE SEALED BY ROOFING CONTRACTOR. COORDINATE PENETRATIONS WITH ALL TRADES.
9. ALL DUCTWORK, ELBOWS, TRANSITIONS, CONNECTIONS, ETC SHALL BE BUILT AND SEALED IN ACCORDANCE WITH SMACNA AND NFPA 90A STANDARDS AND GUIDELINES.

A. DUCTS: G60 GALVANIZED STEEL, UNLESS OTHERWISE INDICATED.

B. LOW PRESSURE SUPPLY (HEATING SYSTEMS): 2 INCH W.G. PRESSURE CLASS, GALVANIZED STEEL.

C. LOW PRESSURE SUPPLY (SYSTEM WITH COOLING COILS): 2 INCH W.G. PRESSURE CLASS, GALVANIZED STEEL.

D. RETURN AND RELIEF: 1 INCH W.G. PRESSURE CLASS, GALVANIZED STEEL.

E. GENERAL EXHAUST: 1 INCH W.G. PRESSURE CLASS, GALVANIZED STEEL.

F. SPIRAL DUCTS: ROUND SPIRAL LOCKSEAM DUCT WITH GALVANIZED STEEL OUTER WALL.

G. FLEXIBLE DUCTS: TWO PLY VINYL FILM SUPPORTED BY HELICALLY WOUND SPRING STEEL WIRE.

a. PRESSURE RATING: 10 INCHES WG (250 KPA) POSITIVE AND 1.0 INCHES WG (250 PA) NEGATIVE.
10. COORDINATE DUCTWORK ROUTING AND EQUIPMENT WITH BUILDING STRUCTURE AND ALL OTHER TRADES.
11. DUCTWORK DIMENSIONS ARE INTERNAL FREE AREA DIMENSIONS. LINED DUCTWORK SIZE SHALL BE INCREASED TO MAINTAIN REQUIRED FREE AREA. MAXIMUM HEIGHT OF DUCTWORK AND INSULATION SHALL BE LESS THAN 16'.
12. DUCTWORK SUPPORTS SHALL BE SECURED TO STRUCTURE AT 5'-0" ON CENTER.
13. PROVIDE VIBRATION ISOLATORS FOR MOTORIZED EQUIPMENT HUNG FROM STRUCTURE. HANG EQUIPMENT IN ACCORDANCE WITH THE INTERNATIONAL MECHANICAL CODE AND ALL OTHER REQUIREMENTS.
14. PROVIDE FLEXIBLE DUCT CONNECTIONS IMMEDIATELY UPSTREAM AND DOWNSTREAM OF ALL MOTORIZED EQUIPMENT.
15. PROVIDE BALANCING DAMPERS ON ALL DUCT BRANCHES AS REQUIRED TO BALANCE SYSTEM. DAMPERS INCLUDED WITH DIFFUSERS AND GRILLES DO NOT CONSTITUTE AS BALANCING DAMPERS.
16. DUCT INSULATION:

A. GLASS FIBER, FLEXIBLE

a. INSULATION: ASTM C553; FLEXIBLE, NONCOMBUSTIBLE BLANKET.

b. VAPOR BARRIER JACKET: KRAFT PAPER WITH GLASS FIBER YARN AND BONDED TO ALUMINIZED FILM.

B. GLASS FIBER, RIGID

a. INSULATION: ASTM C612; RIGID, NONCOMBUSTIBLE BLANKET.

b. VAPOR BARRIER JACKET: KRAFT PAPER WITH GLASS FIBER YARN AND BONDED TO ALUMINIZED FILM.

C. DUCT LINER

a. GLASS FIBER INSULATION: NON-CORROSIVE, INCOMBUSTIBLE GLASS FIBER COMPLYING WITH ASTM C1071; FLEXIBLE BLANKET AND RIGID BOARD; IMPREGNATED SURFACE AND EDGES COATED WITH POLY VINYL ACETATE POLYMER, ACRYLIC POLYMER, OR BLACK COMPOSITE.

D. INSULATION SCHEDULE:

a. SUPPLY DUCT IN CONCEALED AREAS: 1-1/2" FLEXIBLE WRAP.

b. SUPPLY DUCT IN UNCONDITIONED/EXTERIOR AREAS: 2" RIGID GLASS FIBER.

c. OUTSIDE AIR DUCT: 2" RIGID GLASS FIBER.

d. EXHAUST DUCT WITH-IN 3' OF EXTERIOR WALL OR ROOF: 1-1/2" FLEXIBLE WRAP.

e. RETURN DUCT, SOUND ELBOWS AND TRANSFER DUCT: 1" LINER.

17. ALL EXPOSED MATERIALS SHALL BE PLENUM RATED.

18. NO LOADS SHALL BE PERMITTED TO BE HUNG FROM ROOF DECKING. ALL HANGERS SHALL BE HUNG DIRECTLY FROM STRUCTURE.

19. OUTSIDE AIR INTAKES SHALL BE LOCATED A MINIMUM OF TEN (10) FEET HORIZONTALLY OR THREE (3) FEET VERTICALLY BELOW ANY EXHAUST OUTLET OR PLUMBING VENT AS REQUIRED BY THE INTERNATIONAL MECHANICAL CODE AND ALL OTHER REQUIREMENTS.

20. PROVIDE THIRD PARTY TESTING AND BALANCING OF MECHANICAL SYSTEM. REPORT RESULTS TO OWNER.

21. PROVIDE AS-BUILT DRAWINGS FOR MECHANICAL SYSTEMS WITHIN 30 DAYS OF FINAL COMPLETION.

22. PROVIDE O&M MANUALS FOR ALL SYSTEMS AND EQUIPMENT TO OWNER WITHIN 30 DAYS OF FINAL COMPLETION.

23. COORDINATE LOCATIONS OF CEILING FIXTURES AND DEVICES WITH ALL TRADES. ALIGN CENTERLINE OF FIXTURES AND DEVICES WHEREVER POSSIBLE.

MULTI-ZONE MINI-SPLIT SCHEDULE													
Indoor Unit Mark	Condensing Unit Mark	Manufacturer	Indoor Unit Model	Outdoor Unit Model	Area Served	Airflow (cfm)	Capacity (Btu/Hr)		Electrical				Notes
							Cooling	Heating	Voltage	Phase	MCA	MOCP	
SS-1a	SSHP-1	Daikin	FXFA09AAVJU	RXTA36AAVJU	100 Seeds	50	9,500	10,500	208	1	---	15	1 thru 6

Notes:

1. Indoor unit powered by outdoor unit.
2. Provide wired thermostat with contact for supplemental heat.
3. Provide refrigerant lines internal to units and between fan coil and condensing unit, factory cleaned, dried, pressurized and sealed, with insulated suction line.
4. Provide prefinished metal lineset covers to match adjacent metal siding finish, ceiling mounts, and condensate pumps.
5. System shall be capable of 100% heating capacity at 5°F and 93% heating capacity at -13°F.
6. Approved Manufacturers: Daikin, Mitsubishi, Samsung

VENTILATION CALCULATION SUMMARY														
Area Served	Equipment	Ventilation Calculation Summary						OA Total (cfm)	Exhaust Air					
		Rp (cfm/p)	Pz (People)	Ra (cfm/sf)	Az (sf)	Ez	Vbz Min (cfm)		Ra (cfm/sf)	Er (cfm/unit)	# Units	EA Min (cfm)	EA Total (cfm)	Equipment
100 Seeds		5	2	0.06	427	1.0	36	185	---	---	---	---	0	---
101 Staging		5	2	0.06	470	1.0	40		---	---	---	---	0	---
102 Archery		20	3	0.06	800	1.0	108		---	---	---	---	0	---
103 Storage		---	---	---	1833	---	---		---	---	---	---	0	---
104 Men RR		---	---	---	66	---	---		---	70	2	140	140	ERV-1
105 Mech		---	---	---	39	---	---		0.70	---	---	27	27	---
106 Women RR		---	---	---	75	---	---		---	70	2	140	140	ERV-1

Definitions (Per 2015 International Mechanical Code)

Rp - Outdoor Airflow Rate Required per Person

Pz - Zone Population

Ra - Outdoor Airflow Rate per Unit Area

Az - Zone Floor Area

Ez - Zone Aire Distribution Effectiveness

Vbz - Breathing Zone Outdoor Airflow

EXHAUST FAN SCHEDULE													
Mark	Manufacturer	Model	Area Served	Drive	Airflow (cfm)	ESP (in WC)	RPM	Power (hp)	Power (W)	Electrical		Sones	Notes
										Volts	Phase		
EF-1	Cook	GC-146	104 RR	Direct	70	0.25	900	---	34	120	1	1.3	1.2
EF-2	Cook	GC-146	106 RR	Direct	70	0.25	900	---	34	120	1	1.3	1.2

Notes:

1. Provide with backdraft damper.
2. Approved manufacturers: Acme, Cook, Greenheck

CONDENSING UNIT SCHEDULE											
Mark	Manufacturer	Model	Nominal Capacity (tons)	Refrig.	Comp. Type	No. of Comp.	Electrical				Notes
							Voltage	Phase	MCA	MOPD	
SSHP-1	Daikin	RXTA36AAVJU	3	R-32	Inverter	1	208	1	20	20	1.2

Notes:

1. Condenser shall be rated at 105F ambient temperature.
2. Provide snow/hail kit and 18" stand kit.
3. Provide prefinished metal lineset covers to match adjacent metal siding.

LOUVER SCHEDULE											
Mark	Manufacturer	Model	Frame Size (in)	Function	Free Area (sqft)	Free Area Velocity (fpm)	Pressure Drop (in WC)	Material		Finish	Notes
								Aluminum	Steel		
L-1	Ruskin	ELF375DX	14x14	Exhaust	0.56	630	0.07	X		Mill	1 thru 3

Notes:

1. Paint louver to match exterior wall. Coordinate with architectural.
2. Louver shall be AMCA rated for air and water.
3. Provide with all required supports to span distance indicated.

AIR HOOD SCHEDULE											
Mark	Manufacturer	Model	Function	Airflow (cfm)	Throat Size (in)	Throat Vel (FPM)	Hood Free Area (sqft)	Hood Vel (FPM)	SP (in WC)	Weight (lbs)	Notes
IH-1	Loren Cook	GI	Intake	185	12x12	600	1.0	200	0.02	92	1.2
EF-1	Loren Cook	PR	Exhaust	140	8.5x8.5	280	1.4	110	0.05	92	1.2

Notes:

1. Provide 9-1'2" insulated curb with tray, and insect screen.
2. Provide hinged base.

ELECTRIC CABINET UNIT HEATER SCHEDULE									
Mark	Manufacturer	Model	Airflow (cfm)	Capacity (kW)	Electrical				Notes
					Voltage	Phase	MCA	MOCP	
ECUH-1	Indeeco	933IW-4408-S	400	4	208	1	19.2	25	1 thru 3
ECUH-2	Indeeco	933IW-4408-S	400	4	208	1	19.2	25	1 thru 3
ECUH-3	Indeeco	933IW-4408-S	400	4	208	1	19.2	25	1 thru 3
ECUH-4	Indeeco	933IW-4408-S	400	4	208	1	19.2	25	1 thru 3

NOTES

1. Recessed mounting. Provide required hardware for installation.
2. Provide integral thermostat and disconnect.
3. Approved Manufacturers: Berko, Indeeco, Omark, Raywall, Redd-I, Stelpro

ELECTRIC UNIT HEATER SCHEDULE									
Mark	Manufacturer	Model	Airflow (cfm)	Capacity (kW)	Electrical				Notes
					Voltage	Phase	MCA	MOCP	
EUH-1	Indeeco	UHIR	350	2.5	208	1	12.3	20	1
EUH-2	Indeeco	UHIR	350	2.5	208	1	12.3	20	1
EUH-3	Indeeco	UHIR	350	5.6	208	1	27.1	30	1
EUH-4	Indeeco	UHIR	350	5.6	208	1	27.1	30	1

Notes:

1. Provide with mounting bracket, integral disconnect and 24V thermostat.

GAS-FIRED UNIT HEATER SCHEDULE											
Mark	Manufacturer	Model	Airflow (cfm)	Capacity (MBH)	AFUE (%)	Electrical					Notes
						Voltage	Phase	Motor HP	MCA	MOCP	
GUH-1	Modine	HD75	1160	75	83	120	1	1/4	8	15	1 thru 4
GUH-2	Modine	HD75	1160	75	83	120	1	1/4	8	15	1 thru 4

Notes:

1. Provide with 5-2 programmable thermostat.
2. Provide horizontal venting per manufacturer's recommendations through sidewall.
3. Provide propane regulator.
4. Approved manufacturers: Modine, Reznor

MECHANICAL LEGEND

- ⊖

CO2 SENSOR
- Ⓢ

THERMOSTAT
- EA

EXHAUST AIR
- OA

OUTDOOR AIR
- RA

RETURN AIR
- SA

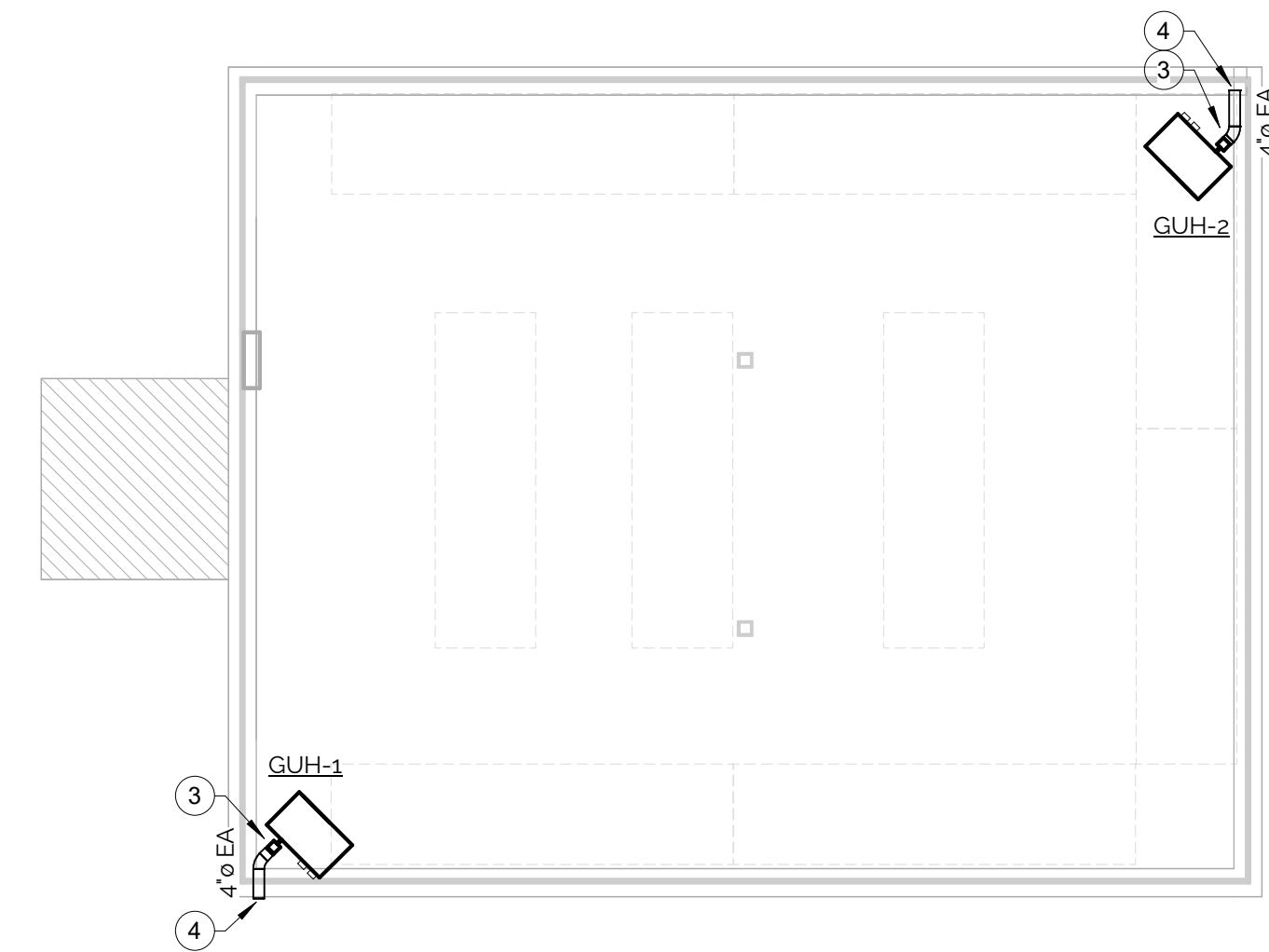
SUPPLY AIR
- AIRFLOW DIRECTION



DIFFUSER WITH PATTERN CONTROLLER

- X-#
- #"
- ### CFM

DIFFUSER/GRILLE TAG NUMBER
NECK SIZE
AIRFLOW



- KEYED NOTES - MECHANICAL
- | | |
|---|---|
| 1 | 8"x8" EA UP TO EXHAUST HOOD ON ROOF. |
| 2 | REFRIGERANT LINES AND CONDENSATE LINES IN TRUSS SPACE.
INSULATE AS REQUIRED. REFER TO MECHANICAL GENERAL NOTES
FOR DETAILS. |
| 3 | PROVIDE MANUFACTURER EXHAUST KIT, AND ROUTE PIPE TO
GAS-FIRED UNIT HEATER. TERMINATE AS CLOSE TO CEILING AS
POSSIBLE. |
| 4 | PROVIDE MANUFACTURER'S WALL CAP. |

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STUDIO M E L E E
139 4th STREET
DES MOINES, IOWA 50265

PROJECT: GEISLER-PENQUITE LAND STEWARDSHIP LAB
ADDRESS: 5284 LIBERTY AVE., NEWTON, IA 50208
CLIENT: LASPER COUNTY CONSERVATION

PHASE: REBID 2025-12-03
SHEET NAME: OVERALL MECHANICAL FLOOR PLAN

M1.1

① L1 MECHANICAL FLOOR PLAN
3/16" = 1'-0"

NOTE: CONTRACTOR SHALL TAKE SPECIAL CARE IN ROUTING OF ALL EXPOSED DUCTWORK, PIPES, AND CONDUIT IN PUBLIC AREAS. COORDINATE FINAL ROUTING WITH ARCHITECT PRIOR TO FABRICATION AND INSTALLATION.

PLUMBING NOTES:

1. ALL WORK SHALL CONFORM TO THE REQUIREMENTS OF ALL APPLICABLE LOCAL, STATE, AND NATIONAL CODES, AS WELL AS LOCAL UTILITY REQUIREMENTS. PROVIDE ALL REQUIRED ACCESSORIES AND EQUIPMENT FOR A COMPLETE OPERATIONAL SYSTEM AND MAINTAIN WARRANTY REQUIREMENTS. VERIFY ALL EQUIPMENT PROVIDED IS SUITABLE FOR INTENDED USE.
2. WORK NOT SPECIFICALLY SHOWN IN DETAIL, REFERENCED, OR OTHERWISE IMPLIED, SHALL BE PROVIDED IN ACCORDANCE WITH TRADE OR INDUSTRY BEST STANDARD PRACTICES TO PROVIDE A COMPLETE OPERATIONAL SYSTEM.
3. ALL MATERIALS AND EQUIPMENT SHALL BE NEW AND SHALL CONFORM TO GRADE, QUALITY, AND STANDARDS SPECIFIED HEREIN.
4. ALL EQUIPMENT LISTED UNDER THESE SPECIFICATIONS SHALL BE LIMITED TO PRODUCTS REGULARLY PRODUCED AND RECOMMENDED FOR SERVICE IN ACCORDANCE WITH ENGINEERING DATA, RATINGS, OR OTHER COMPREHENSIVE LITERATURE MADE AVAILABLE TO THE PUBLIC AND IN EFFECT AT THE TIME OF OPENING OF BIDS.
5. INSTALL HANGERS AND SUPPORTS AS REQUIRED TO ADEQUATELY AND SECURELY SUPPORT MECHANICAL SYSTEM COMPONENTS IN A NEAT AND WORKMANLIKE MANNER. DO NOT FASTEN SUPPORTS TO PIPES, DUCTS, MECHANICAL EQUIPMENT, OR CONDUIT.
6. ALL EQUIPMENT SHALL BE INSTALLED IN STRICT ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS FOR TYPE AND CAPACITY OF EACH PIECE OF EQUIPMENT USED.
7. ALL EXPOSED PIPES PASSING THROUGH WALLS, FLOORS, CEILINGS, ETC. SHALL BE PROVIDED WITH SOLID PATTERN HEAVY ESCUTCHEONS WITH SET SCREW UNLESS OTHERWISE NOTED. ESCUTCHEONS AND PLATES SHALL BE STEEL OR MALLEABLE IRON WITH PRIME COAT READY FOR PAINTING.
8. PLUMBING SYSTEMS SHALL BE TESTED WITH WATER OR AIR AND PROVEN TIGHT TO THE SATISFACTION OF REPRESENTATIVES OF THE OWNER AND/OR CODE INSPECTORS.
9. ALL WATER PIPING SHALL BE STERILIZED IN ACCORDANCE WITH A.W.W.A. SPECIFICATION C601-53T.
10. SANITARY, AND VENT PIPING:

A. PVC PIPE: ASTM D2665 OR ASTM D3034

a. FITTINGS: PVC DWV PATTERN

b. JOINTS: SOLVENT WELDED, WITH ASTM D2564 SOLVENT CEMENT.
11. DOMESTIC WATER PIPING:

A. BELOW GRADE:

a. CROSS-LINKED POLYETHYLENE (PEX) PIPE: ASTM F876 OR ASTM F877.

• PPI TR-4 PRESSURE DESIGN BASIS

• 160 PSIG AT MAXIMUM 73 DEGREES F.

B. ABOVE GRADE:

a. COPPER TUBE: ASTM B88 (ASTM B88M), TYPE L (B); DRAWN (H).

• FITTINGS: ASME B16.18, CAST COPPER ALLOY OR ASME B16.22, WROUGHT COPPER AND BRONZE

• JOINTS: ASTM B32, ALLOY SN95 SOLDER

• MECHANICAL PRESS SEALED FITTINGS: DOUBLE-PRESSED TYPE, NSF 61 AND NSF 372 APPROVED OR CERTIFIED, UTILIZING EPDM, NONTOXIC, SYNTHETIC RUBBER SEALING ELEMENTS.

b. CROSS-LINKED POLYETHYLENE (PEX) PIPE: ASTM F876 OR ASTM F877.

• MANUFACTURERS:

1. UPONOR, INC.: WWW.UPONORENGINEERING.COM

2. VIEGA LLC: WWW.VIEGA.US

3. ZURN INDUSTRIES, LLC: WWW.ZURN.COM

• PPI TR-4 PRESSURE DESIGN BASIS

• 160 PSIG AT MAXIMUM 73 DEGREES F.

• FITTINGS: BRASS AND COPPER

• JOINTS: BRASS AND ENGINEERED POLYMER (EP) ASTM F1960.

• JOINTS: ASTM F1960 COLD-EXPANSION FITTINGS

• PUSH-TO-CONNECT FITTINGS AND COUPLINGS.

12. PIPING INSULATION

A. PIPING INSULATION (THICKNESS SHALL BE AS LISTED BELOW, OR AS REQUIRED BY CODE, WHICHEVER IS STRICTER):

B. GLASS FIBER:

a. INSULATION: ASTM C547 AND ASTM C795; RIGID MOLDED, NONCOMBUSTIBLE.

b. VAPOR BARRIER JACKET: WHITE KRAFT PAPER WITH GLASS FIBER YARN, BONDED TO ALUMINIZED FILM; MOISTURE VAPOR TRANSMISSION WHEN TESTED IN ACCORDANCE WITH ASTM E96/E96M OF 0.02 PERM-INCHES.

C. SCHEDULES

a. DOMESTIC HOT WATER SUPPLY:

• GLASS FIBER INSULATION:

1. PIPE SIZE RANGE: LESS THAN 1-1/2 INCH.

A. THICKNESS: 1 INCH

2. PIPE SIZE RANGE: 1-1/2 TO 4 INCHES

A. THICKNESS: 1-1/2 INCHES

b. DOMESTIC COLD WATER:

• GLASS FIBER INSULATION:

1. PIPE SIZE RANGE: ALL SIZES

A. THICKNESS: 1 INCH

13. PLUMBING VENTS THRU ROOF, ROOF DRAINS, AND ROOF DRAIN LEADERS SHALL BE INSULATED WITH FIBERGLASS OR FLEXIBLE ELASTOMERIC INSULATION A MINIMUM OF 5" FROM THE ROOF.

14. NO LOADS SHALL BE PERMITTED TO BE HUNG FROM ROOF DECKING. ALL HANGERS SHALL BE HUNG DIRECTLY FROM STRUCTURE OR TRUSSES.

15. PROVIDE SHUT OFF VALVES ON DOMESTIC COLD WATER AND DOMESTIC HOT WATER PIPE BRANCHES AND ALL FIXTURE/EQUIPMENT CONNECTIONS.

16. PROVIDE CLEANOUTS WHERE SHOWN ON DRAWINGS, AT MINIMUM OF 100 FT INTERVALS AND AS REQUIRED BY CODE. COORDINATE LOCATIONS WITH ENGINEER.

17. CONTRACTOR(S) SHALL UNCONDITIONALLY WARRANTY IN WRITING ALL MATERIALS, EQUIPMENT, AND WORKMANSHIP FOR ONE YEAR FROM DATE OF ACCEPTANCE BY OWNER. CONTRACTOR(S) SHALL PROVIDE FREE SERVICE FOR ALL EQUIPMENT INVOLVED IN THEIR CONTRACT DURING THE WARRANTY PERIOD.

18. PROVIDE O&M MANUALS FOR ALL PLUMBING SYSTEMS AND EQUIPMENT TO OWNER WITHIN 30 DAYS OF FINAL COMPLETION.

19. COORDINATE UNDERFLOOR STUB-UP LOCATIONS AND INVERT ELEVATIONS PRIOR TO START OF WORK.

20. COORDINATE LOCATIONS OF PLUMBING FIXTURES WITH ARCHITECTURAL PLANS AND ALL OTHER TRADES PRIOR TO ROUGH-IN.
- | PLUMBING FIXTURE SCHEDULE | | | | | | | | | | | | |
|---------------------------|--------------------|-------------------|-----------|--|--|-----------------|------|------|--------|--------|---|-------|
| Mark | Description | Manufacturer | Model | Basis of Design | | Connection Size | | | | | Approved Manufacturers | Notes |
| | | | | Description | Trim | CW | HW | TW | Waste | Vent | | |
| BFP-1 | Backflow Preventer | Watts | LF009 | Reduced Zone Pressure assembly, 2 independent check valves with replaceable seats. Assembly shall be lead free construction suitable for water service entrance protection. | Provide with ball valves for isolation | 2' | --- | --- | --- | --- | Zurn | --- |
| EWS-1 | Eye Wash Station | Bradley | S19-22B | Wall mount, galvanized steel pipe and fittings, safety yellow coating. Universal identification sign and inspection tag. Push handle operation. ADA Compliant. | --- | --- | --- | 1/2' | 1-1/2' | 1-1/2' | --- | 2 |
| FD-1 | Round Floor Drain | Watts | FD-100-A | Epoxy coated cast iron floor drain with anchor flange, reversable clamping collar with primary and secondary weep holes, adjustable round heel proof nickel bronze strainer and no hub outlet. | 5" diameter strainer | --- | --- | --- | 2' | 2' | Josam, Smith, Zurn | --- |
| FD-2 | Round Floor Drain | Watts | FD-100-A | Epoxy coated cast iron floor drain with anchor flange, reversable clamping collar with primary and secondary weep holes, adjustable round heel proof nickel bronze strainer and no hub outlet. | 8" diameter strainer | --- | --- | --- | 4' | 2' | Josam, Smith, Zurn | --- |
| LAV-1 | Lavatory | American Standard | 0355.012 | Wall-hung, vitreous china, front overflow, D-shaped, 4" Center holes, faucet ledge, self-draining deck. Concealed arms support. ADA Compliant. | Delta DSP-87TLH.A, single hole, cast brass construction, polished chrome plated, vandal-resistant ADA lever handle, anti-rotation locking pins. | 1/2" | 1/2" | --- | 1-1/2" | 1-1/2" | Lavatory: American Standard, Zurn Faucet, American Standard, Chicago Faucets, Moen, T&S Brass | 3 |
| MB-1 | Mop Basin | Fiat | MSDIB2424 | Floor mounted, 24" x 24" x 10" molded fiberglass. Provide with stainless steel, combination dome strainer and lint basket. | Delta 28T9 Faucet
Cast brass, 2 handle with integral stops, rough chrome plated finish, pail hook, inline vacuum breaker, hose-end spout, wall brace and color indexed metal cross handles. | 1/2" | 1/2" | --- | 3' | 1-1/2" | Sink: Elkay Faucet, American Standard, Chicago Faucet, Moen, T&S Brass | 1 |
| S-1 | Sink | Elkay | B2C24X24X | 18 Gauge, 51" x 27-1/2" x 42" Two Compartment, Stainless Steel Legs, Center Drain. | T&S S-0231
8" Wall Mounted, 12" Swing Nozzle, Stainless Steel | 1/2" | 1/2" | --- | 2' | 1-1/2' | --- | 5 |
| ST-1 | Sand Trap | Watts | ST-20 | Epoxy coated steel sand trap, 20 GPM, 12"x24" heavy duty ductile iron grates, no hub connections. | --- | --- | --- | --- | 4' | 2' | Watts | --- |
| TD-1 | Trench Drain | Zurn | Z886 | Internally sloped, high density polyethylene trench drain system. Provide catch basins at outlet. | HDPE, heel-proof slotted, light duty grate. ADA compliant. | --- | --- | --- | 4' | --- | Smiths, Watts | --- |
| WC-1 | Water Closet | American Standard | 2234.001 | Floor mount, flush valve, 1.28 GPF, white vitreous china, 1-1/2" top spud, elongated bowl, ADA compliant with open front seat. | Sloan ECOS 8111
1.28 gpf, top-spud flush valve, with battery powered sensor and push button flush. Polished chrome finish, ADA compliant, with diaphragm valve. | 1' | --- | --- | 3' | 2' | American Standard, Zurn | --- |
| WH-1 | Wall Hydrant | Woodford | 67 | Freezeless wall hydrant, key operated, chrome plated brass construction, with integral double check backflow preventor. Hydrant shall drain with hose attached. | --- | 1/2' | --- | --- | --- | --- | Smith, Zurn | 4 |
| YH-1 | Yard Hydrant | Woodford | Y2 | Frost proof, automatic draining, backflow protected. | --- | 1' | --- | --- | --- | --- | Smith, Zurn | --- |
- Notes:
1. Provide with stainless steel wall protection surrounds, stainless steel mop hanger, and heavy duty hose.

2. Provide manufacturer thermostatic mixing valve set to 85° F.

3. Thermostatic mixing valve set to 110° F.

4. Provide with extra key.

5. Provide food waste disposer InSinkErator Model Evolution Essential XTR, 3/4 HP motor, stainless steel grind components and sink top switch.
- | PUMP SCHEDULE | | | | | | | | | | | | |
|---------------|--------------|--------------|---------------|--------|--------------|---------------------|------------|-----------|------------|---------|-------|-------|
| Mark | Manufacturer | Model | Configuration | System | Suction Size | Discharge Size (in) | Flow (gpm) | Head (ft) | Electrical | | | Notes |
| | | | | | | | | | HP | Voltage | Phase | |
| RP-1 | Grundfos | UPSe 15-558F | Recirc | DHC | 3/4/2025 | 1 | 6 | 13 | 1/2 | 115 | 1 | 1 |
- Notes:
1. Approved Manufacturers: Grundfos, Taco
- | ELECTRIC WATER HEATER SCHEDULE | | | | | | | | | | | |
|--------------------------------|--------------|---------|-------------------------|--------------------|-----------------------|------|------------|-------|-------|------|----------|
| Mark | Manufacturer | Model | Tank Capacity (gallons) | Element(s) (watts) | Recovery (gph @ 90°F) | UEF | Electrical | | | | Notes |
| | | | | | | | Voltage | Phase | MCA | MOPD | |
| EWH-1 | AO Smith | ENLB-30 | 28 | 4,500 | 21 | 0.8g | 240 | 1 | 18.75 | 25 | 1 thru 3 |
- Notes:
1. Electrical contractor shall provide electrical disconnect.

2. Provide manufacturer insulation blanket, and wall mounted stand.

3. Approved Manufactures: AO Smith, Bradford White, Rheem/Ruud
- | DRINKING FOUNTAIN SCHEDULE | | | | | | | | |
|----------------------------|--------------|------------|--------------------------------------|------------|-------|-----|------|-------|
| Mark | Manufacturer | Model | Rate of 50°F Water at 80°F Room Temp | Electrical | | | | Notes |
| | | | | Voltage | Phase | MCA | MOCP | |
| DF-1 | Elkay | LK4420BF1U | --- | --- | --- | --- | --- | 1 |
- Notes:
1. Drinking fountain with bottle filler, installed by Plumbing Contractor. Compliant with ADA/ANSI 117.1.
- | PLUMBING LEGEND | |
|---|---------------------|
|  | ELBOW UP |
|  | ELBOW DOWN |
|  | TEE UP |
|  | TEE DOWN |
|  | BALL VALVE |
|  | CHECK VALVE |
|  | CONDENSATE |
|  | DOMESTIC COLD WATER |
|  | DOMESTIC HOT WATER |
|  | SANITARY DRAIN |
|  | VENT |
|  | VENT THROUGH ROOF |
- PROJECT: GEISLER-PENQUITE LAND STEWARDSHIP LAB

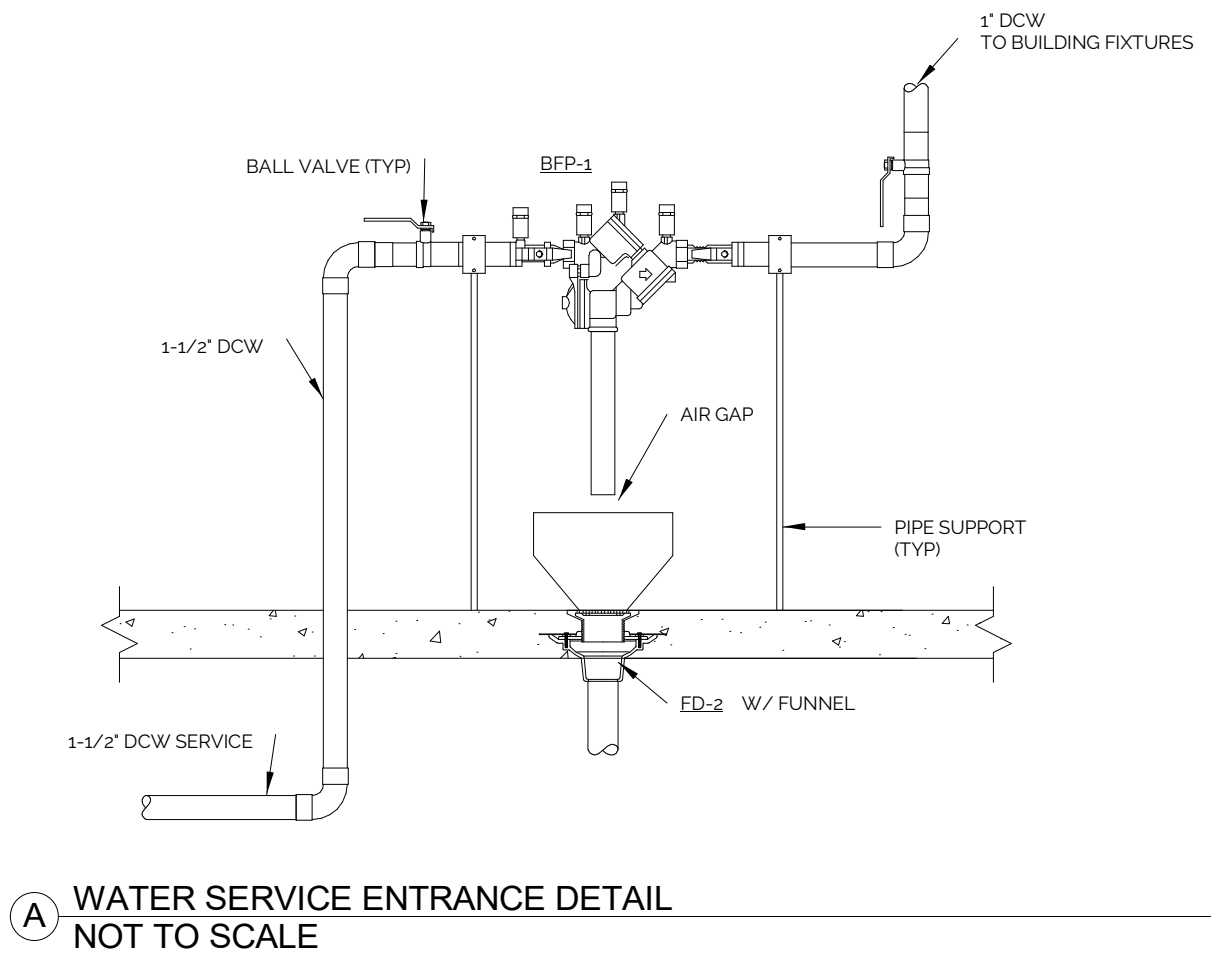
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CLIENT: JASPER COUNTY CONSERVATION

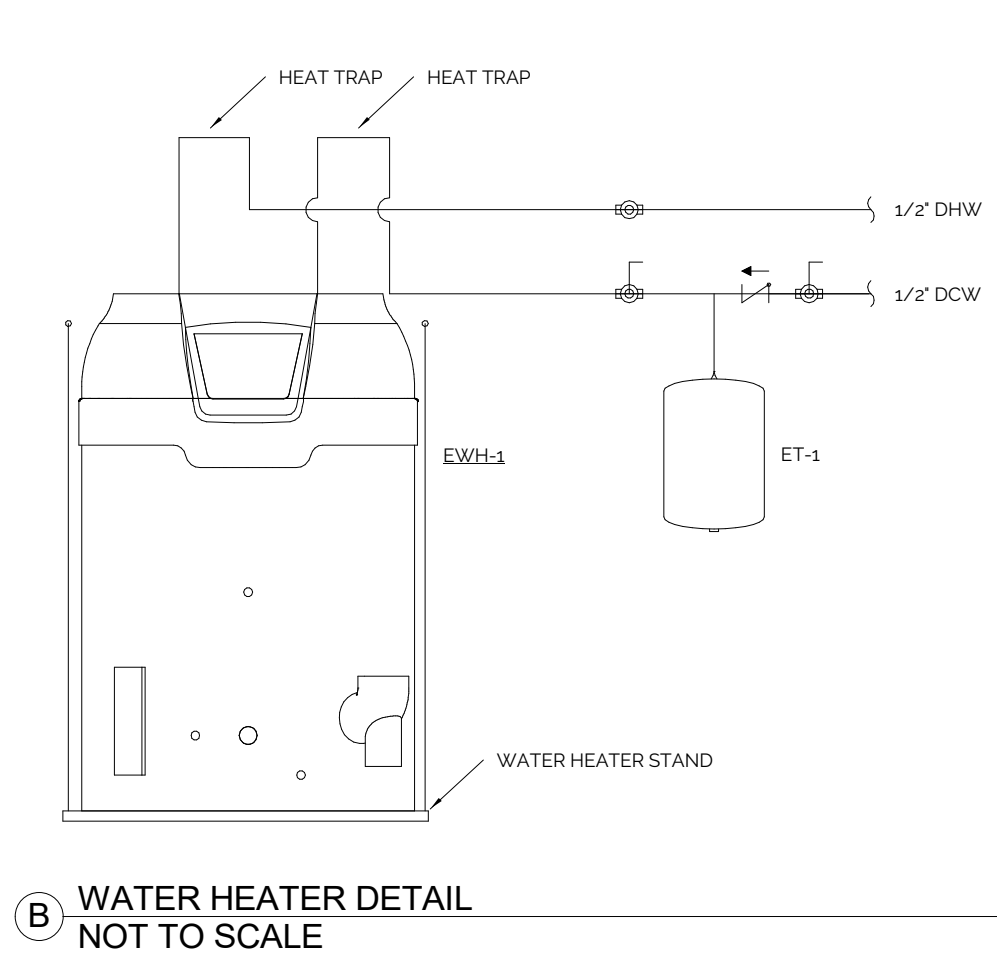
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REVISION: REBID

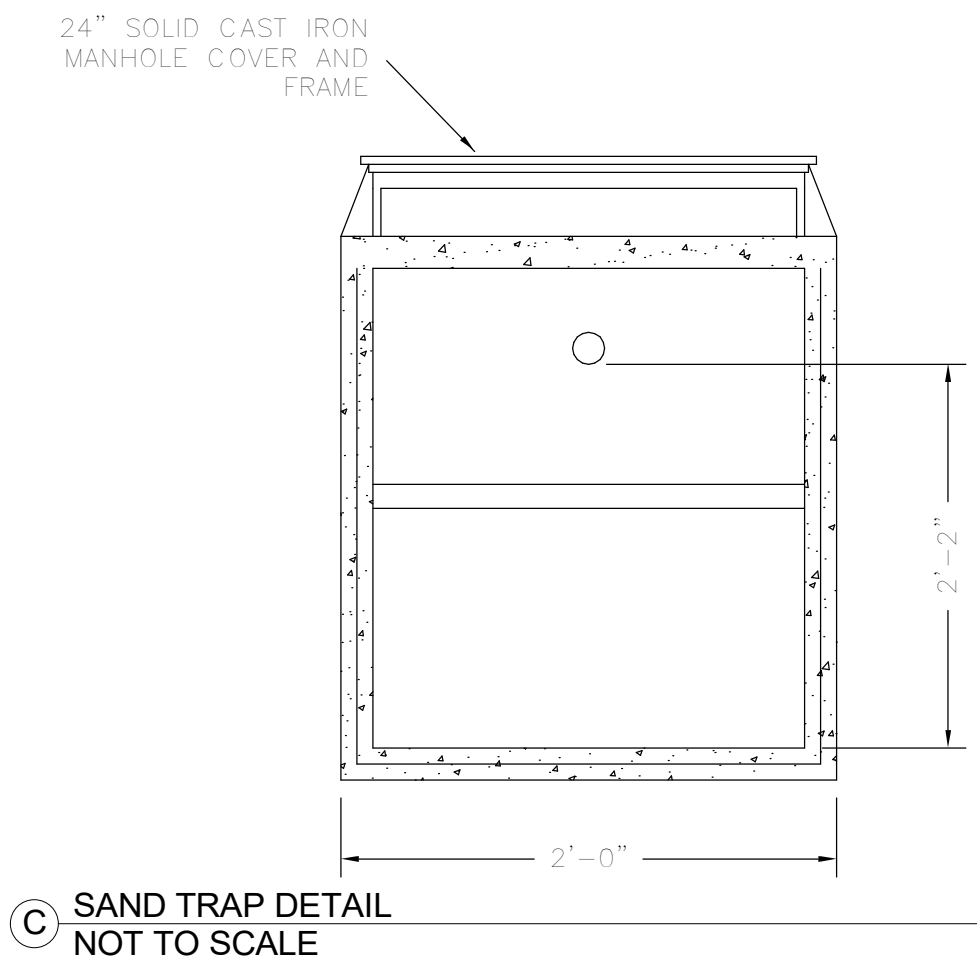
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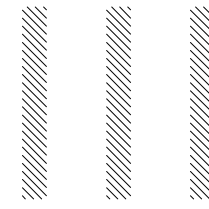
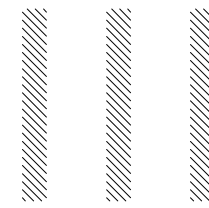
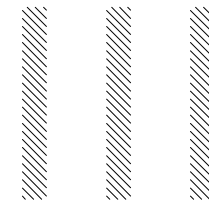
A WATER SERVICE ENTRANCE DETAIL
NOT TO SCALE



B WATER HEATER DETAIL
NOT TO SCALE



C SAND TRAP DETAIL
NOT TO SCALE

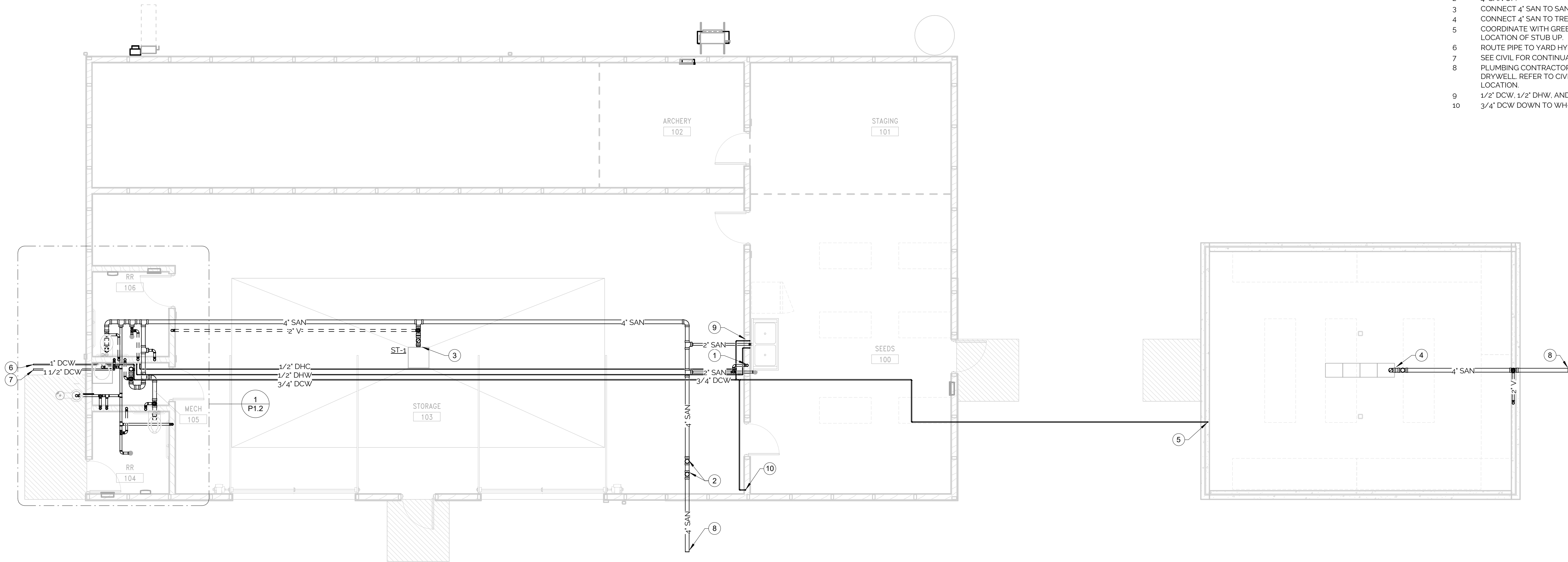


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1 3 9 4 t h S T R E E T
D E S M O I N E S , I O W A 5 0 2 6 5

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ADDRESS: 5284 LIBERTY AVE, NEWTON, IA 50208
CLIENT: JASPER COUNTY CONSERVATION

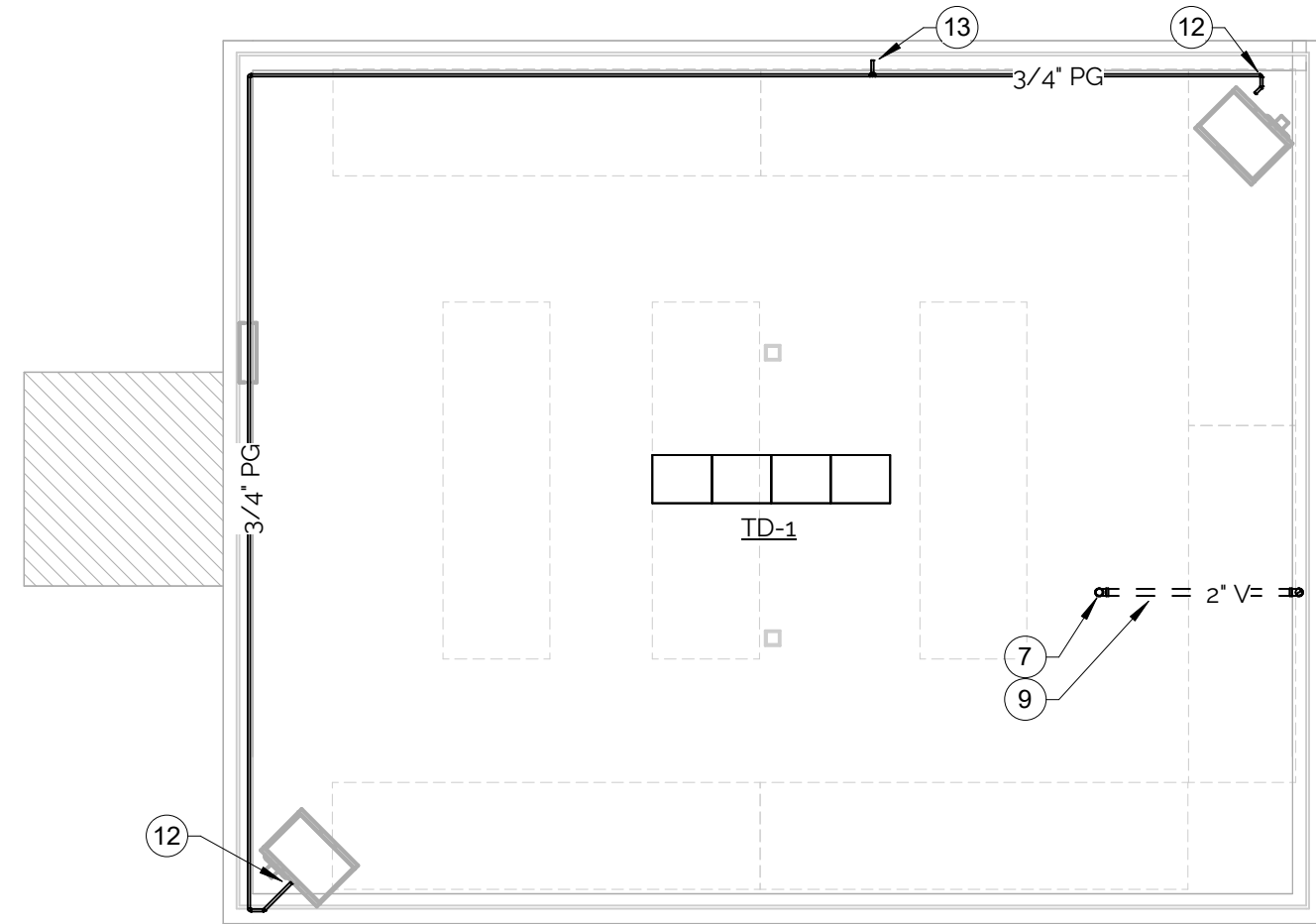
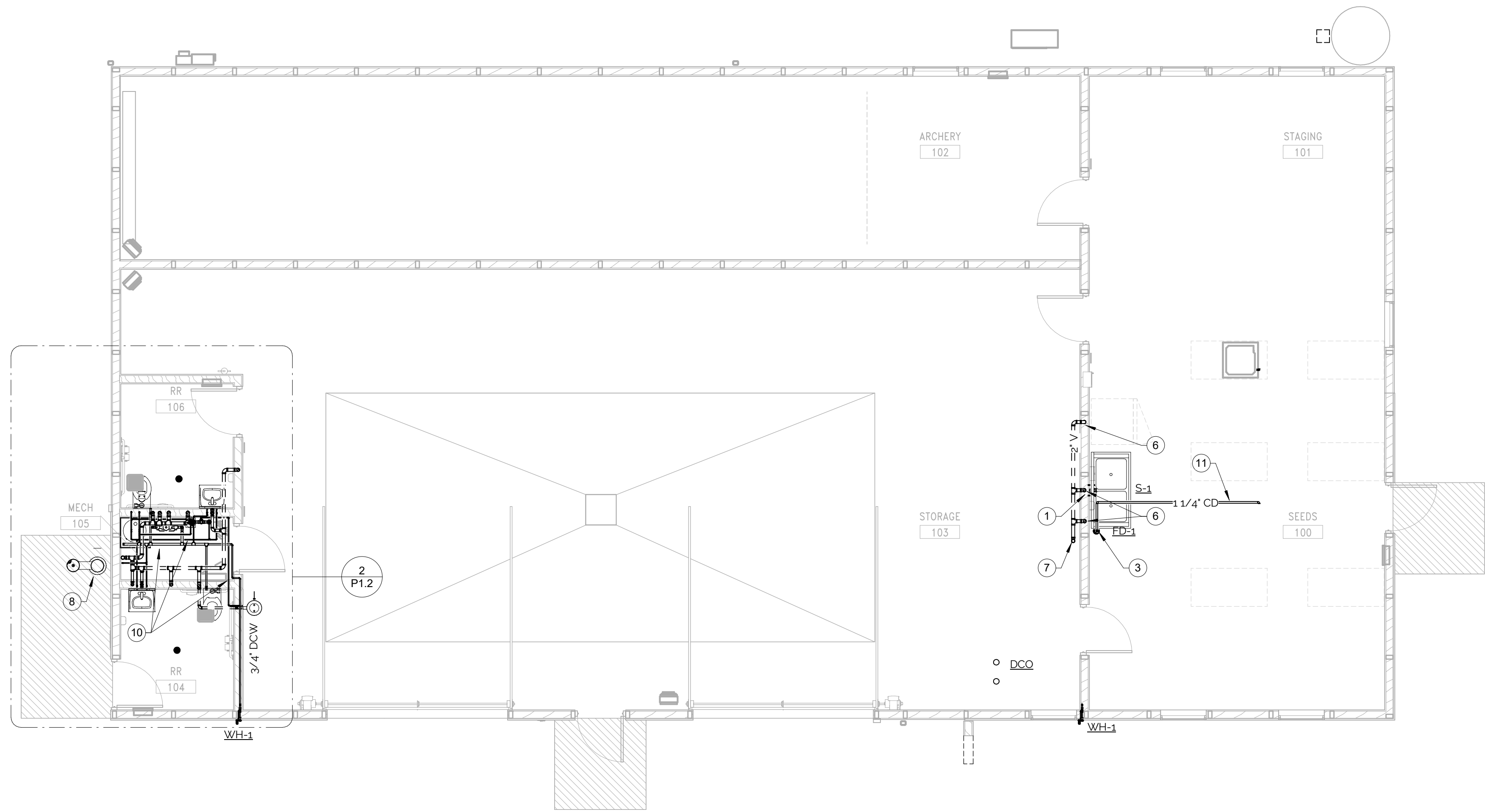
DATE: 2025-12-03
REBID: PLUMBING DETAILS
SHEET NAME:



KEYED NOTES - UNDERFLOOR PLUMBING

- 2" V UP.
- 4" SAN UP.
- CONNECT 4" SAN TO SAND TRAP.
- CONNECT 4" SAN TO TRENCH DRAIN.
- COORDINATE WITH GREENHOUSE CONTRACTOR FOR EXACT LOCATION OF STUB UP.
- ROUTE PIPE TO YARD HYDRANT. SEE CIVIL FOR CONTINUATION.
- SEE CIVIL FOR CONTINUATION.
- PLUMBING CONTRACTOR TO ROUTE SANITARY PIPING TO DRYWELL. REFER TO CIVIL SITE PLAN FOR EXACT DRYWELL LOCATION.
- 1/2" DCW, 1/2" DHW, AND 2" SAN UP TO SINK.
- 3/4" DCW DOWN TO WH-1

② L1 PLUMBING UNDERFLOOR PLAN
3/16" = 1'-0"



KEYED NOTES - PLUMBING

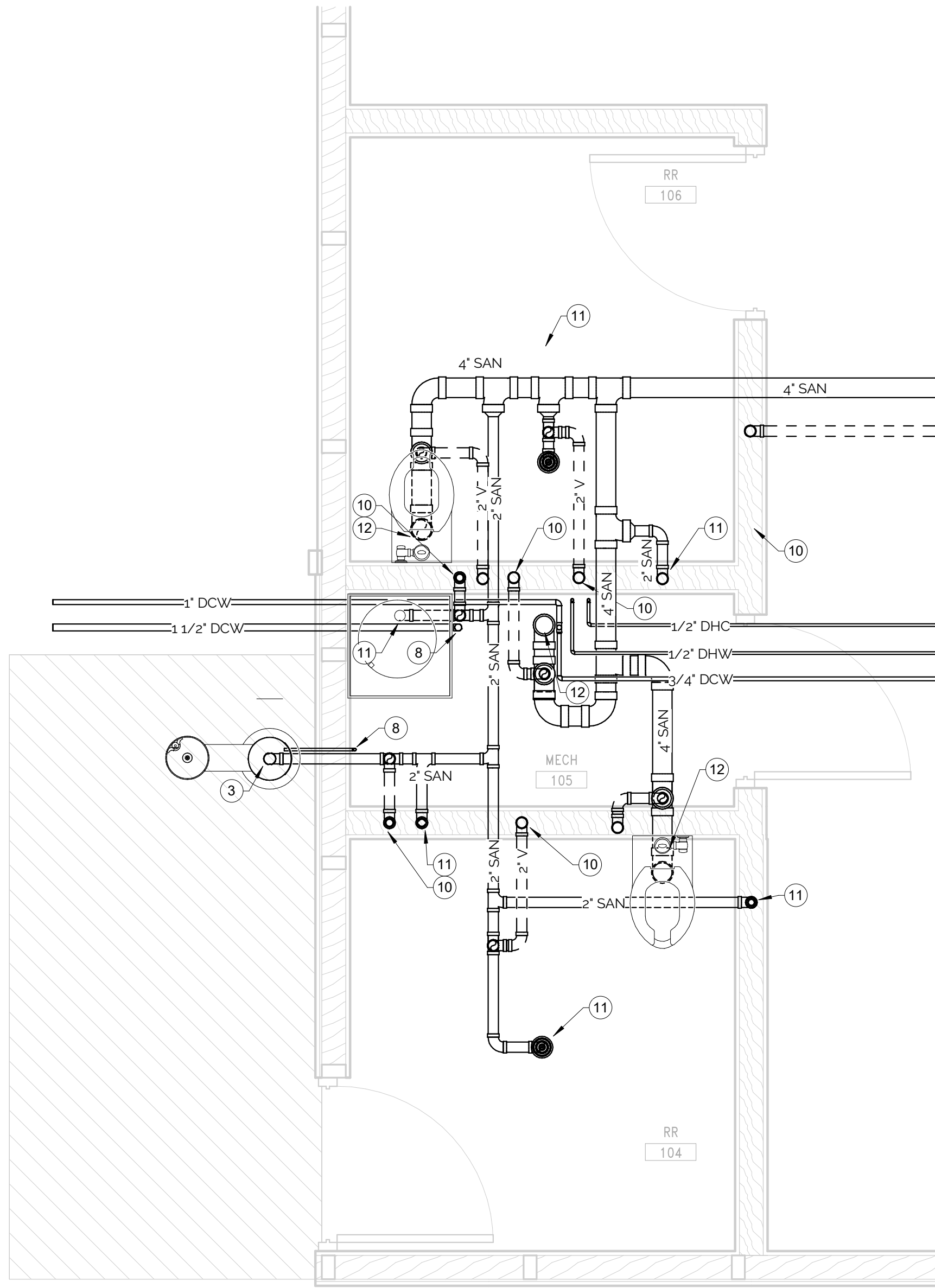
- 1-1/2" V DOWN TO SINK.
- 3/4" CD DOWN TO FLOOR DRAIN.
- 2" V DOWN.
- 4" VTR.
- COORDINATE WATER LINE SLEEVES WITH STRUCTURAL FOOTING. INSTALL TO COMPLY WITH ADA/ANSI 117.1 REQUIREMENTS.
- COORDINATE VENTING WITH WITH ALL OTHER GREENHOUSE COMPONENTS AND WITH GREENHOUSE CONTRACTOR BEFORE INSTALLATION.
- ROUTE ALL PIPING IN THIS AREA WITHIN WALL ASSEMBLIES OR BELOW TOP PLATES TO CONCEAL FROM VIEW.
- ROUTE CONDENSATE LINES IN TRUSS SPACE. INSULATE AS REQUIRED. REFER TO PLUMBING GENERAL NOTES.
- ROUTE 3/4" PG TO GAS-FIRED UNIT HEATER.
- ROUTE 3/4" PG INTO BUILDING AT 1'-6" AFF AND ROUTE UP WALL CLOSE TO CEILING. GRADE-MOUNTED PROPANE STORAGE TANK TO BE PROVIDED BY OWNER'S PROPANE VENDOR.

1 L1 PLUMBING FLOOR PLAN
3/16" = 1'-0"

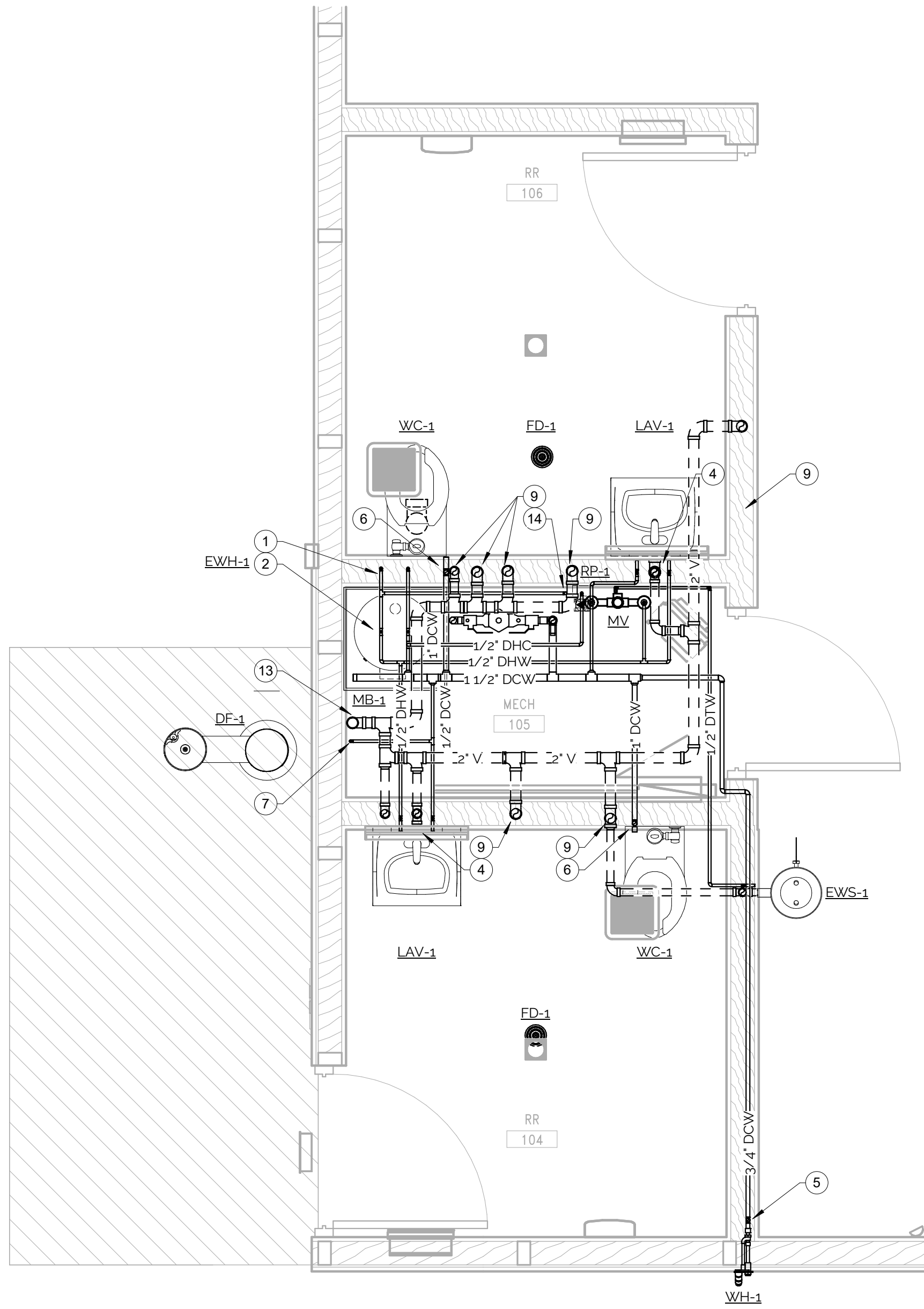
NOTE: CONTRACTOR SHALL TAKE SPECIAL CARE IN ROUTING OF ALL EXPOSED DUCTWORK, PIPES, AND CONDUIT IN PUBLIC AREAS. COORDINATE FINAL ROUTING WITH ARCHITECT PRIOR TO FABRICATION AND INSTALLATION.

KEYED NOTES - ENLARGED PLUMBING

- 1 1/2" DCW AND 1/2" DHW DOWN TO MOP BASIN.
- 2 1/2" DCW AND 1/2" DHW DOWN TO WATER HEATER.
- 3 1/2" DCW AND 2" SAN UP DRINKING FOUNTAIN.
- 4 1/2" DCW, 1/2" DHW, AND 1-1/2" V DOWN TO LAV.
- 5 3/4" DCW DOWN TO WH-1
- 6 1" DCW DOWN TO WATER CLOSET.
- 7 1-1/2" DCW DOWN.
- 8 1-1/2" DCW UP.
- 9 2" V DOWN.
- 10 2" V UP.
- 11 2" SAN UP.
- 12 4" SAN UP.
- 13 4" VTR.
- 14 1/2" DHC AND 1/2" DHW DOWN.



ENLARGED UNDERFLOOR PLUMBING PLAN -
① RESTROOMS
1/2" = 1'-0"



ENLARGED PLUMBING PLAN - RESTROOMS
② 1/2" = 1'-0"

NOTE: CONTRACTOR SHALL TAKE SPECIAL CARE IN ROUTING OF ALL EXPOSED DUCTWORK, PIPES, AND CONDUIT IN PUBLIC AREAS. COORDINATE FINAL ROUTING WITH ARCHITECT PRIOR TO FABRICATION AND INSTALLATION.

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1394th STREET
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PROJECT: GEISLER-PENQUITE LAND STEWARDSHIP LAB
ADDRESS: 5284 LIBERTY AVE, NEWTON, IA 50208
CLIENT: JASPER COUNTY CONSERVATION

PROJECT: 2025-12-03
REBID
SHEET NAME: ENLARGED PLUMBING
FLOOR PLAN

ELECTRICAL NOTES:

1. ALL WORK SHALL CONFORM TO THE REQUIREMENTS OF ALL APPLICABLE LOCAL, STATE, AND NATIONAL CODES, AS WELL AS LOCAL UTILITY REQUIREMENTS. PROVIDE ALL REQUIRED ACCESSORIES AND EQUIPMENT FOR A COMPLETE OPERATIONAL SYSTEM AND MAINTAIN WARRANTY REQUIREMENTS. VERIFY ALL EQUIPMENT PROVIDED IS SUITABLE FOR INTENDED USE. INSTALL ALL EQUIPMENT IN STRICT ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.
2. WORK NOT SPECIFICALLY SHOWN IN DETAIL, REFERENCED, OR OTHERWISE IMPLIED, SHALL BE PROVIDED IN ACCORDANCE WITH TRADE OR INDUSTRY BEST STANDARD PRACTICES TO PROVIDE A COMPLETE OPERATIONAL SYSTEM.
3. CIRCUIT ROUTING INDICATED IS DIAGRAMMATIC. WHEN CIRCUIT DESTINATION IS INDICATED AND ROUTING IS NOT SHOWN, DETERMINE EXACT ROUTING REQUIRED.
4. COORDINATE EXACT WIRING REQUIREMENTS WITH MANUFACTURER'S REQUIREMENTS FOR EACH FIXTURE AND PIECE OF EQUIPMENT.
5. CONDUCTORS:

A. MATERIAL:

a. ALL CONDUCTORS SHALL BE COPPER. ALUMINUM CONDUCTORS ARE NOT PERMITTED UNLESS OTHERWISE NOTED.

b. NONMETALLIC SHEATHED CABLE, ARMORED CABLE, AND METAL-CLAD CABLE ARE NOT PERMITTED.

• EXCEPTION: MC CABLING IS ALLOWED FOR CONNECTIONS TO RECESSED LIGHT FIXTURES. LENGTH SHALL NOT EXCEED 5'-0".

B. SIZING:

a. 20A CIRCUITS UP TO 75' SHALL BE MINIMUM SIZE #12 AWG CONDUCTORS.

b. 20A CIRCUITS FROM OVER 75' AND UNDER 150' SHALL BE MINIMUM SIZE #10 AWG CONDUCTORS.

c. 20A CIRCUITS OVER 150' AND UNDER 250' SHALL BE MINIMUM SIZE #8 AWG CONDUCTORS.

d. 20A CIRCUITS ABOVE 250' SHALL BE MINIMUM SIZE #6 AWG CONDUCTORS.

e. CONTROL CIRCUITS SHALL BE MINIMUM SIZE #14 AWG CONDUCTORS.

f. WHERE CONDUCTOR SIZING IS NOT INDICATED, SIZE TO COMPLY WITH NFPA 70 AND MANUFACTURER'S REQUIREMENTS. COMPLY WITH LARGEST SIZE REQUIRED.

C. SINGLE CONDUCTOR BUILDING WIRE:

a. FEEDERS AND BRANCH CIRCUITS:

• SIZE #10 AWG AND SMALLER: SOLID.

• SIZE #8 AWG AND LARGER: STRANDED.

• CONTROL CIRCUITS: STRANDED.

b. INSULATION:

• VOLTAGE RATING: 600V

• COPPER BUILDING WIRE: TYPE THHN/THWN OR THHN/THWN-2 EXCEPT AS NOTED BELOW:

1. SIZE #4 AWG AND LARGER: TYPE XHHW-2.

2. INSTALLED UNDERGROUND: TYPE XHHW-2.
6. INSTALL HANGERS AND SUPPORTS AS REQUIRED TO ADEQUATELY AND SECURELY SUPPORT ELECTRICAL SYSTEM COMPONENTS IN A NEAT AND WORKMANLIKE MANNER AS SPECIFIED IN NECA 1. DO NOT FASTEN SUPPORTS TO PIPES, DUCTS, MECHANICAL EQUIPMENT, OR CONDUIT.
7. CONDUIT

A. INSTALL CONDUIT SECURELY IN A NEAT AND WORKMANLIKE MANNER AS SPECIFIED IN NECA 1.

B. INSTALL NO MORE THAN EQUIVALENT OF THREE 90 DEGREE BENDS BETWEEN BOXES. USE CONDUIT BODIES TO MAKE SHARP CHANGES IN DIRECTION. AS AROUND BEAMS, SUPPORT CONDUIT USING COATED STEEL OR MALLEABLE IRON STRAPS, LAY-IN ADJUSTABLE HANGERS, CLEVIS HANGERS, AND SPLIT HANGERS.

C. APPLICATIONS:

a. UNDERGROUND: RIGID PVC.

b. CONCEALED WITHIN MASONRY OR HOLLOW STUD WALLS OR ABOVE ACCESSIBLE CEILINGS: ELECTRICAL METALLIC TUBING (EMT).

c. INTERIOR DAMP OR WET LOCATIONS: GALVANIZED STEEL RIGID METAL CONDUIT.

d. EXPOSED INTERIOR, NOT SUBJECT TO PHYSICAL DAMAGE: ELECTRICAL METALLIC TUBING (EMT).

e. EXPOSED INTERIOR, SUBJECT TO PHYSICAL DAMAGE: GALVANIZED STEEL RIGID METAL CONDUIT OR INTERMEDIATE METAL CONDUIT (IMC).

• LOCATIONS SUBJECT TO PHYSICAL DAMAGE INCLUDE, BUT ARE NOT LIMITED, TO LOCATIONS WHERE CONDUIT IS EXPOSED BELOW 8'-0", EXCEPT WITHIN ELECTRICAL/COMMUNICATIONS ROOMS AND CLOSETS.

f. EXPOSED EXTERIOR: GALVANIZED STEEL RIGID METAL CONDUIT OR PVC-COATED GALVANIZED STEEL RIGID METAL CONDUIT.

g. CONNECTIONS TO VIBRATING EQUIPMENT: DRY LOCATIONS: FLEXIBLE METAL CONDUIT.

h. DAMP, WET, OR CORROSIVE LOCATIONS: LIQUDTIGHT FLEXIBLE METAL CONDUIT.

i. MAXIMUM LENGTH: 6 FEET UNLESS OTHERWISE INDICATED.

D. SIZE:

a. BRANCH CIRCUITS: 1/2" TRADE SIZE.

b. BRANCH CIRCUIT HOMERUNS: 3/4" TRADE SIZE.

c. FLEXIBLE CONNECTIONS TO LUMINAIRES: 3/8" TRADE SIZE.

d. UNDERGROUND, INTERIOR: 3/4" TRADE SIZE.

e. UNDERGROUND, EXTERIOR: 1" TRADE SIZE.

f. WHERE CONDUIT SIZE IS NOT INDICATED, SIZE TO COMPLY WITH NFPA 70 BUT NOT LESS THAN APPLICABLE MINIMUM SIZE REQUIREMENTS SPECIFIED.
8. INSTALL DISCONNECT SWITCHES, CONTROLLERS, CONTROL STATIONS, AND CONTROL DEVICES TO COMPLETE EQUIPMENT WIRING REQUIREMENTS.
9. JUNCTION BOXES SHALL NOT BE LOCATED IN NON-ACCESSIBLE LOCATIONS.
10. USE FAR-SIDE SUPPORT TO SECURE FLUSH-MOUNTED BOXES SUPPORTED FROM SINGLE STUD IN HOLLOW STUD WALLS. REPAIR OR REPLACE SUPPORTS FOR BOXES THAT PERMIT EXCESSIVE MOVEMENT.
11. NO LOADS SHALL BE PERMITTED TO BE HUNG FROM ROOF DECKING. ALL HANGERS SHALL BE HUNG DIRECTLY FROM STRUCTURE OR SUPPLEMENTARY MEMBERS ACCEPTABLE TO THE STRUCTURAL ENGINEER AND ONLY WITH PRIOR APPROVAL.
12. LIGHTING CONTROLS

A. LIGHTING CONTROL SYSTEM SHOWN IS DIAGRAMMATIC ONLY. COORDINATE EXACT CONTROLS LOCATIONS WITH MANUFACTURER'S RECOMMENDATIONS.

B. TEST LIGHTING SYSTEMS TO ENSURE PROPER CALIBRATION, ADJUSTMENT, PROGRAMMING, AND OPERATION.

C. OCCUPANCY SENSORS:

a. MANUFACTURERS: ACUITY BRANDS, HUBBELL, INCORPORATED, ILC, STEINEL, WATTSTOPPER.

b. TURN-OFF DELAY: FIELD ADJUSTABLE WITH TIME DELAY SETTINGS UP TO 30 MINUTES.

c. SENSITIVITY: FIELD ADJUSTABLE.

d. ADAPTIVE TECHNOLOGY: FIELD SELECTABLE, CAPABLE OF SELF-ADJUSTING SENSITIVITY AND TIME DELAY ACCORDING TO CONDITIONS.

e. COMPATIBILITY (NON-DIMMING SENSORS): SUITABLE FOR CONTROLLING INDICATED LOADS WITH NO MINIMUM LOAD REQUIREMENTS.

f. ISOLATED RELAY FOR LOW VOLTAGE OCCUPANCY SENSORS: SPDT DRY CONTACTS, RATINGS AS REQUIRED FOR INTERFACE WITH SYSTEM INDICATED.

g. POWER PACKS FOR LOW VOLTAGE OCCUPANCY SENSORS:

• PLENUM RATED, SELF-CONTAINED LOW VOLTAGE CLASS 2 TRANSFORMER AND RELAY COMPATIBLE WITH SPECIFIED LOW VOLTAGE OCCUPANCY SENSORS FOR SWITCHING OF LINE VOLTAGE LOADS.

• PROVIDE QUANTITY AND CONFIGURATION OF POWER AND SLAVE PACKS WITH ALL ASSOCIATED WIRING AND ACCESSORIES AS REQUIRED TO CONTROL THE LOAD INDICATED ON DRAWINGS.

• INPUT SUPPLY VOLTAGE: DUAL RATE FOR 120/277V AC.

h. OUTDOOR PHOTO CONTROLS:

• MANUFACTURERS: INTERMATIC, TORK.

• BUTTON TYPE OUTDOOR PHOTO CONTROLS:

1. DIRECT-WIRED PHOTO CONTROL, UNIT COMPLYING WITH ANSI C136.24 WITH WEATHERPROOF GASKETED WALL PLATE, LISTED AND LABELED AS COMPLYING WITH UL 773A.

2. HOUSING: WEATHER RESISTANT POLYCARBONATE.

3. PHOTO SENSOR: CADMIUM SULFIDE.

4. LIGHT LEVEL ACTIVATION: 1 TO 3 FOOTCANDLES TURN-ON AND 3 TO 1 TURN-OFF TO TURN-ON RATIO WITH DELAYED TURN-OFF.

5. VOLTAGE: AS REQUIRED ON DRAWINGS.

6. FAILURE MODE: FAILS IN THE ON POSITION.

7. LOAD RATING: AS REQUIRED TO CONTROL THE LOAD INDICATED ON DRAWINGS.

LIGHT FIXTURE SCHEDULE																				
Mark	Fixture Description	Manufacturer	Basis of Design		Fixture Data							Mounting Type						Options	Notes	Approved Fixtures
												Location			Arrangement					
			Model	Driver	Delivered Lumens	Watts	Efficacy (lm/w)	Voltage	Color Temp	CRI (min)	Ceiling	Wall	Pole	Grade	Recessed	Surface				
A1	Linear Strip - 2'	Lithonia	CSS-L24-AL015-MVOLT-SWW3-80CRI-M6	---	2,648	19	139.4	120-277	4000K	80		X			X		Wall Mount @ 7'-0" AFF			
A2	Linear Strip - 4'	Lithonia	CSS-L48-AL015-MVOLT-SWW3-80CRI-M6	---	5,585	37	150.9	120-277	4000K	80	X				X		Surface Mount to Side of Structure			
A3	Linear Strip - 8'	Lithonia	CSS-L96-AL015-MVOLT-SWW3-80CRI-M6	---	10,907	74	147.4	120-277	4000K	80	X				X		Surface Mount to Bottom of Structure			
A4	Linear Strip - 8' - Gasketed	Lithonia	CSVT-L96-AL04-MVOLT-SWW3-80CRI	---	10,300	87.9	117.2	120-277	4000K	80	X				X		Surface Mount to Bottom of Structure			
B1	Linear - Exterior	Elliptipar	S151-L-4-HGC-0-07-M-OD-O-g30-ZX	0-10V	6,074	55	110.4	120-277	3100K	90		X			X					
B2	Linear - Exterior	Elliptipar	S151-L-6-HGC-0-07-M-OD-O-g30-ZX	0-10V	9,111	83	109.8	120-277	3100K	90		X			X		Provide HGE End of Row Kit			
C1	Downlight - 4" Square	Gotham	IVO4SQ-D-25LM-40K-80CRI-35RD-MIN10-MVOLT-ZT-E7W	0-10V	2,571	26.8	95.9	120-277	4000K	80	X			X			Battery Backup (90 min @ 7W)	White Trim/Flange	Alphabet NU4QD	
EL1	Emergency Light - Sconce	Evenlite	CRV-9-BK-DD	---	425	9	---	120	6350K	---		X			X				Dual Lite PGW	
EL2	Emergency Light - Remote	Lithonia	AFB-OELR-DOBTD-XD-WT	---	---	---	---	---	---	---		X			X					
EX1	Exit Sign	Evenlite	TLRC-RU-W-PILED-MV	---	---	5.5	---	120-277	Red	---		X			X		Remote Capacity			
WP1	Wall Pack	Bega	22 359	0-10V	464	7.7	60.3	120-277	2700K	80	X				X				Kim CY1	
WP1/E	Wall Pack	Bega	22 359	0-10V	464	7.7	60.3	120-277	2700K	80	X				X		Battery Backup Microinverter		Kim CY1	

- Notes:
1. Architect shall select fixture finishes from standard options during submittal review.
2. Fixtures noted on drawings with "/E" suffix shall be connected to lighting inverter for egress lighting. Provide shunt device(s) as required. Refer to lighting plans.
2. Exterior lighting shall be controlled by photocell and astronomical time clock unless noted otherwise.

13. REFER TO PANEL SCHEDULES FOR CIRCUITING OF DEVICES SHOWN ON FLOOR PLANS.
14. PROVIDE TYPE-WRITTEN PANEL DIRECTORY ON ELECTRICAL PANELS. HANDWRITTEN TEXT IS NOT ACCEPTABLE.
15. LABEL CIRCUITS WITH TYPE-WRITTEN LABELS AT ALL EQUIPMENT AND RECEPTACLE LOCATIONS. LABELS IN COMMON AREAS AND OFFICES SHALL BE ON THE BACKSIDE OF COVER PLATES.
16. PROVIDE TAMPER RESISTANT RECEPTACLES IN CORRIDORS PER NEC 406.12.
17. ALL POWER DEVICES IN WITHIN 6'-0" OF ANY SINK SHALL BE GFCI-PROTECTED PER NEC 210.8(B). REFER TO DRAWINGS FOR MORE INFORMATION.
18. COORDINATE COLOR OF RECEPTACLES AND COVER PLATES TO MATCH THE COLOR SCHEME PER ARCHITECTURAL DRAWINGS. ARCHITECT TO SELECT FINISH FROM MANUFACTURER'S FULL RANGE.
19. EMERGENCY LIGHTS AND EXIT SIGNS SHALL BE CONNECTED TO UNSWITCHED LEG OF CIRCUIT SERVING ADJACENT LIGHTING WITHIN THE AREA.
20. COORDINATE LOCATIONS OF CEILING FIXTURES AND DEVICES WITH ALL TRADES. ALIGN CENTERLINE OF FIXTURES AND DEVICES WHEREVER POSSIBLE.
21. PROVIDE WIRING AND CONNECTION FOR ALL TELEVISION, TELEPHONE, AND DATA FROM THE DEMARCATION POINT(S) OF ORIGINATION TO EACH TERMINAL LOCATION. THIS INCLUDES, BUT IS NOT LIMITED TO, TELEVISIONS, AND TELEPHONES. COORDINATE EXACT LOCATIONS AND REQUIREMENTS WITH OWNER AND EQUIPMENT MANUFACTURERS.
22. ALL EXPOSED CABLING SHALL BE PLENUM RATED.
23. PROVIDE AS-BUILT DRAWINGS FOR ELECTRICAL SYSTEMS WITHIN 30 DAYS OF FINAL COMPLETION.
24. PROVIDE O&M MANUALS FOR ALL SYSTEMS AND EQUIPMENT TO OWNER WITHIN 30 DAYS OF FINAL COMPLETION.
25. CONTRACTOR SHALL TAKE SPECIAL CARE IN ROUTING OF ALL EXPOSED DUCTWORK, PIPES, AND CONDUIT IN PUBLIC AREAS. COORDINATE ROUTING WITH ARCHITECT PRIOR TO FABRICATION ADN INSTALLATION.

Branch Panel: S

Location: MECH 105
Supply From:
Mounting: Surface
Enclosure: Type 1

Volts: 120/208 Wye
Phases: 3
Wires: 4

A.I.C. Rating:
Mains Type: MCB
Mains Rating: 200 A
MCB Rating: 200 A

Notes:

CKT	Circuit Description	Trip	Poles	A		B		C		Poles	Trip	Circuit Description	CKT
1	Lights - Exterior	20 A	1	23 VA	360 VA					1	20 A	Rcpt - RRs (AFCI)	2
3	Rcpt - Simulator Projector (AFCI)	20 A	1			180 VA	720 VA			1	20 A	Rcpt - Archery (AFCI)	4
5	Rcpt - Storage Cord Reel (AFCI)	20 A	1					180 VA	720 VA	1	20 A	Rcpt - Exterior (AFCI)	6
7	Fridge (Combo)	20 A	1	840 VA	1012...					1	20 A	East Door Opener	8
9	Hand Dryer - RR 104	20 A	1			1000...	1012...			1	20 A	West Door Opener	10
11	Hand Dryer - RR 106	20 A	1					1000...	1127 VA	1	15 A	Recirc Pump	12
13	Rcpt - Staging NW (AFCI)	20 A	1	1620...	0 VA								14
15	Lights - Interior	20 A	1			1306...	0 VA			2	30 A	EWB-1	16
17	Rcpt - Storage NW (AFCI)	20 A	1					1260...	360 VA	1	20 A	Rcpt - Simulator Computers (AFCI)	18
19	Rcpt - Server	20 A	1	360 VA	1321 VA								20
21						1279...	1321 VA			2	20 A	Mini-Split	22
23	EUH-1	20 A	2					1279...	--	1	--	Space	24
25	Space	--	1	--	1997...					2	25 A	ECUH-1	26
27						1500...	1997...						28
29								1500...	3212...	2	100 A	Pangel G	30
31	Space	--	1	--	3146...								32
33	Rcpt - Server	20 A	1			360 VA	1279...			2	20 A	EUH-3	34
35	Space	--	1					--	1279...				36
37													38
39	EUH-2	20 A	2	1279...	1997...			1279...	1997...	2	25 A	ECUH-2	40
41													42
43	EUH-4	20 A	2	1279...	1997...			1279...	1997...	2	25 A	ECUH-5	44
45													46
47	ECUH-4	25 A	2			1997...	--			1	--	Space	48
49								1997...	--	1	--	Space	50
49	Space	--	1	--	--					1	--	Space	50
51	Space	--	1			--	--			1	--	Space	52
53	Space	--	1					--	--	1	--	Space	54
55	Space	--	1	--	--					1	--	Space	56
57	Space	--	1			--	--			1	--	Space	58
59	Space	--	1					--	--	1	--	Space	60

Legend:

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
HVAC	28248 VA	100.00%	28248 VA		
Lighting	23 VA	100.00%	23 VA	Total Conn. Load:	51605 VA
Motor	8829 VA	100.00%	8829 VA	Total Est. Demand:	51085 VA
Other	240 VA	100.00%	240 VA	Total Conn. Current:	143 A
Power	0 VA	0.00%	0 VA	Total Est. Demand Current:	142 A

Notes:

Branch Panel: G

Location:
Supply From: S
Mounting: Surface
Enclosure: Type 4

Volts: 120/208 Single
Phases: 1
Wires: 3

A.I.C. Rating:
Mains Type: MLO
Mains Rating: 100 A
MCB Rating: 100 A

Notes:

CKT	Circuit Description	Trip	Poles	A		C		Poles	Trip	Circuit Description	CKT
1	Motorized Louvers	20 A	1	200 VA	920 VA			1	15 A	GUH-1	2
3	Lights	20 A	1			212 VA	920 VA	1	15 A	GUH-2	4
5	Gable Fan	20 A	1	1012 VA	1080 VA			1	20 A	Rcpt - South (AFCI)	6
7	Wall Exhaust Fan	20 A	1			1012 VA	1012 VA	1	20 A	Wall Exhaust Fan	8
9	Space	--	1	--	--			1	--	Space	10
11	Space	--	1			--	--	1	--	Space	12
13	Space	--	1	--	--			1	--	Space	14
15	Space	--	1			--	--	1	--	Space	16
17	Space	--	1	--	--			1	--	Space	18
19	Space	--	1			--	--	1	--	Space	20
21	Space	--	1	--	--			1	--	Space	22
23	Space	--	1			--	--	1	--	Space	24
25	Space	--	1	--	--			1	--	Space	26
27	Space	--	1			--	--	1	--	Space	28
29	Space	--	1	--	--			1	--	Space	30

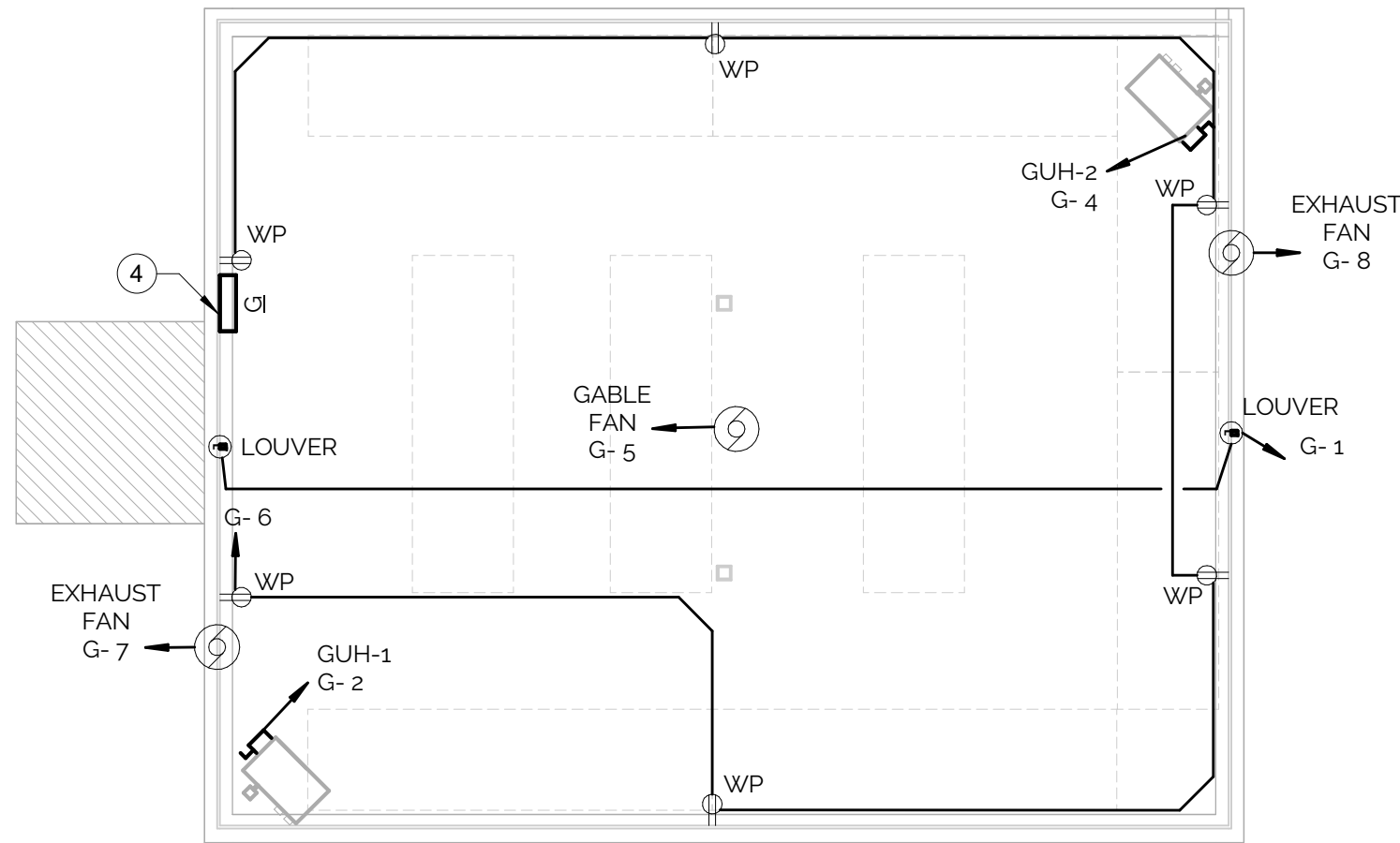
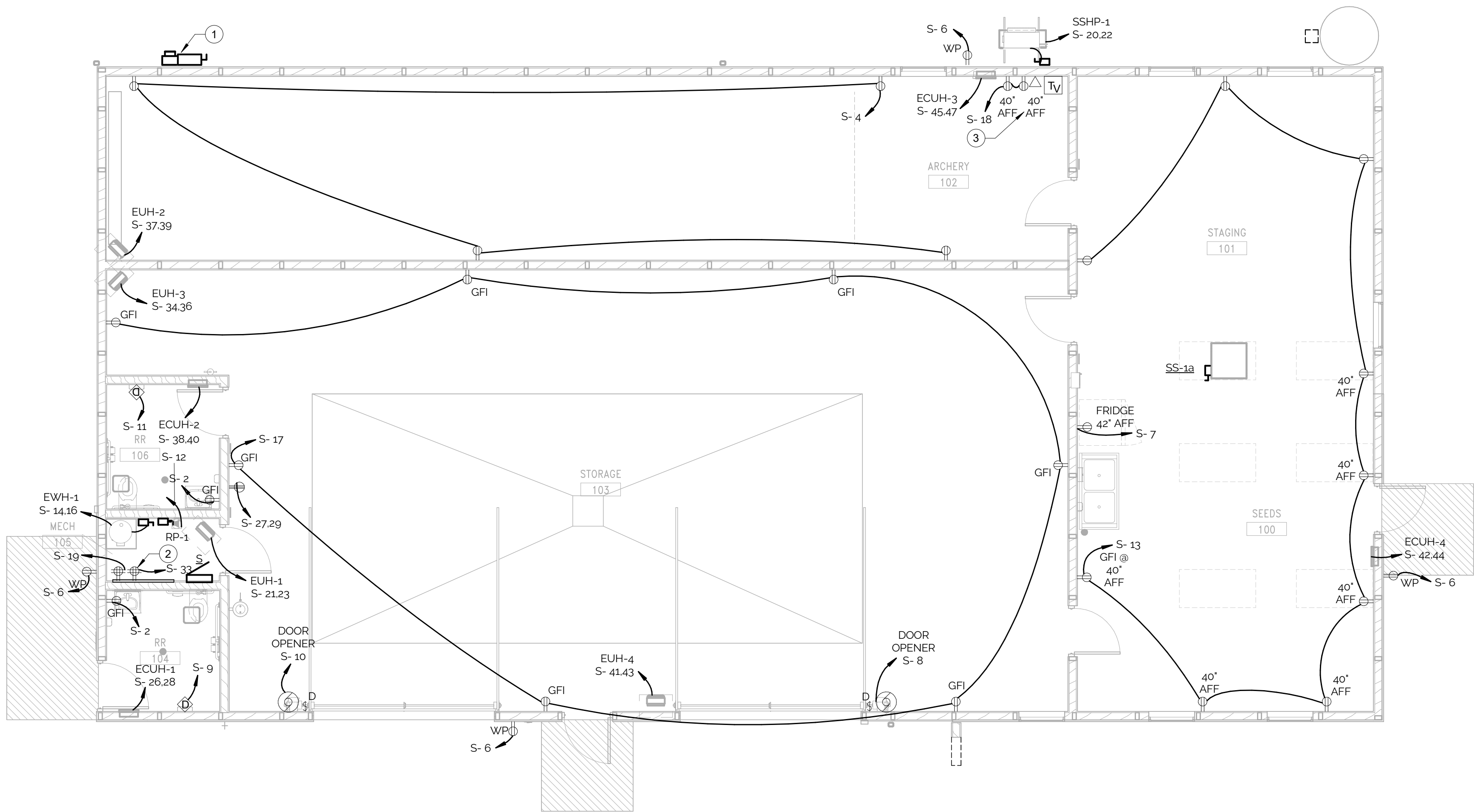
Legend:

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
HVAC	2040 VA	100.00%	2040 VA		
Motor	3036 VA	100.00%	3036 VA	Total Conn. Load:	6358 VA
Other	0 VA	0.00%	0 VA	Total Est. Demand:	6358 VA
Power	0 VA	0.00%	0 VA	Total Conn. Current:	31 A
				Total Est. Demand Current:	31 A

Notes:

ELECTRICAL LEGEND

- 20A DUPLEX GFI POWER RECEPTACLE
- 20A DUPLEX POWER RECEPTACLE (COUNTER HEIGHT)
- 20A DUPLEX GFI POWER RECEPTACLE (COUNTER HEIGHT)
- 20A DUPLEX POWER RECEPTACLE W/ HINGED WEATHERPROOF COVER
- 20A QUADRUPLUX POWER RECEPTACLE
- JUNCTION BOX
- EQUIPMENT DISCONNECT SWITCH
- EQUIPMENT DISCONNECT SWITCH (WEATHERPROOF)
- SINGLE POLE SWITCH
- DIMMER SWITCH
- FAN SWITCH
- PILOT LIGHT SWITCH
- WALL MOUNTED OCCUPANCY SENSOR
- CEILING MOUNTED OCCUPANCY SENSOR
- CEILING MOUNTED VACANCY SENSOR
- CEILING MOUNTED DAYLIGHT SENSOR
- PHOTOCELL
- VOICE/DATA RECEPTACLE
- CARD READER
- POWER FOR DOOR OPENER



- KEYED NOTES - ELECTRICAL
- 1 PROVIDE 200A, 208/3 ELECTRICAL SERVICE. ROUTE (3) #250 + (1) #2 GND ALUMINUM CONDUCTORS FROM TRANSFORMER. REFER TO SITE PLAN FOR TRANSFORMER LOCATION
 - 2 DEMARCATION LOCATION. ROUTE (2) 2" CONDUITS BELOW GRADE FROM EEC BUILDING TO THIS LOCATION. PROVIDE 19" WALL MOUNTED RACK WITH PATCH PANEL. RACK SHALL HAVE SPACE FOR PATCH PANEL(S) AND OWNER-PROVIDED 2U 24-PORT POE SWITCH. PATCH PANEL SHALL HAVE CAPACITY FOR DATA CABLING INDICATED ON DRAWINGS AND 25% SPARE CAPACITY.
 - 3 PROVIDE POWER, DATA, AND HDMI RECEPTACLES FOR SIMULATOR COMPUTER. PROVIDE DUPLEX POWER RECEPTACLE, DATA RECEPTACLE, AND HDMI PATHWAY AT 40" AFF. ROUTE HDMI CABLE INSIDE CONDUIT FROM WALL RECEPTACLE TO PROJECTOR LOCATION. COORDINATE EXACT REQUIREMENTS, LOCATION, AND HEIGHT WITH CASEWORK AND OWNER PRIOR TO ROUGH-IN.
 - 4 ROUTE (3) #3 + (1) #8 GND COPPER CONDUCTORS IN 1" PVC CONDUIT BELOW FLOOR/GRADE FROM PANEL S TO PANEL G IN GREENHOUSE.

1 L1 ELECTRICAL FLOOR PLAN
3/16" = 1'-0"

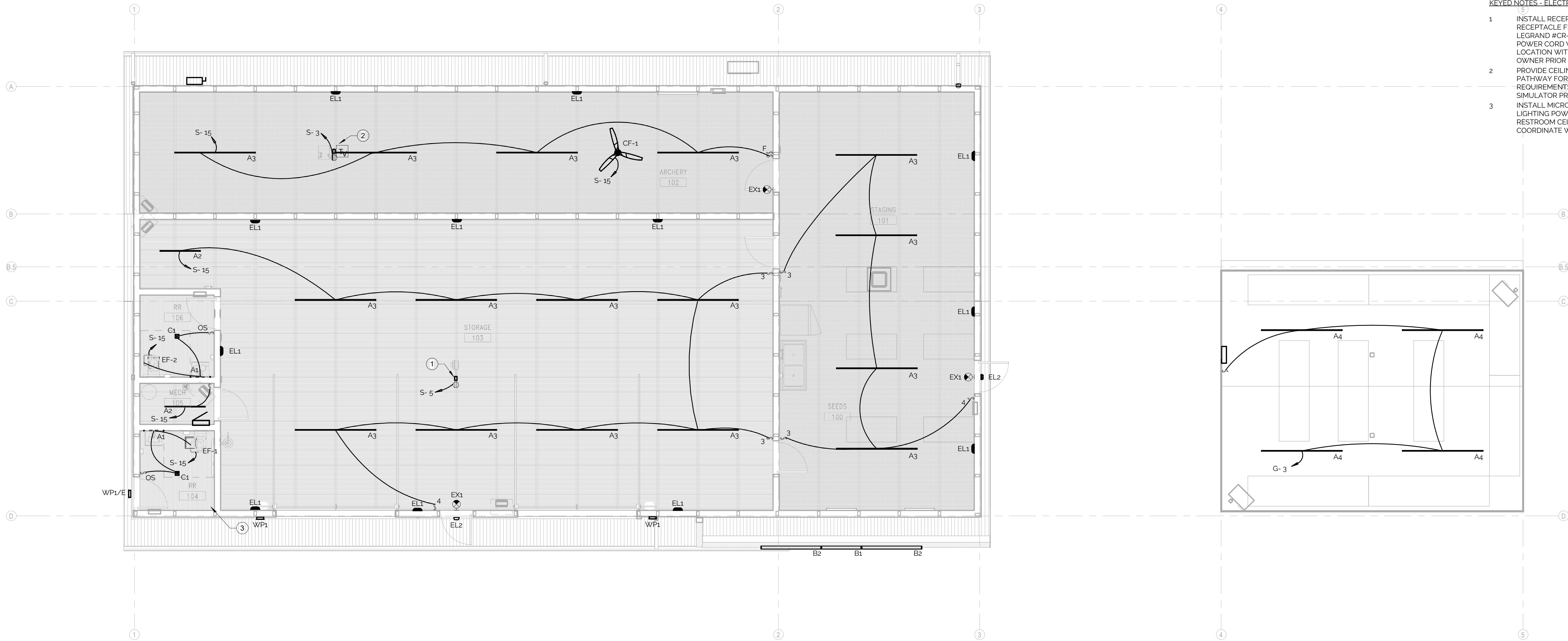
NOTE: CONTRACTOR SHALL TAKE SPECIAL CARE IN ROUTING OF ALL EXPOSED DUCTWORK, PIPES, AND CONDUIT IN PUBLIC AREAS. COORDINATE FINAL ROUTING WITH ARCHITECT PRIOR TO FABRICATION AND INSTALLATION.

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CLIENT: JASPER COUNTY CONSERVATION

PROJECT NO: 2025-12-03
REBID: OVERALL ELECTRICAL FLOOR PLAN



- KEYED NOTES - ELECTRICAL CEILING**
1. INSTALL RECEPTACLE BOX TO SIDE OF ROOF TRUSS. INSTALL RECEPTACLE FLUSH-MOUNTED TO METAL CEILING. PROVIDE LEGRAND #CR-CD-12-3-N-25-R-20 (OR EQUAL) RETRACTABLE POWER CORD WITH (4) RECEPTACLES. COORDINATE FINAL LOCATION WITH ARCHITECTURAL FURNITURE PLAN AND OWNER PRIOR TO ROUGH-IN.
 2. PROVIDE CEILING MOUNTED DUPLEX RECEPTACLE AND HDMI PATHWAY FOR PROJECTOR. COORDINATE EXACT REQUIREMENTS AND LOCATION WITH OWNER AND ARCHERY SIMULATOR PROVIDER PRIOR TO ROUGH-IN.
 3. INSTALL MICRO-INVERTER AND RELAY(S) FOR EMERGENCY LIGHTING POWER AND LIGHTING CONTROLS ABOVE RESTROOM CEILING(S). PROVIDE ACCESS PANEL IN CEILING. COORDINATE WITH ARCHITECTURAL.

① L1 ELEC CEILING PLAN
3/16" = 1'-0"

NOTE: CONTRACTOR SHALL TAKE SPECIAL CARE IN ROUTING OF ALL EXPOSED DUCTWORK, PIPES, AND CONDUIT IN PUBLIC AREAS. COORDINATE FINAL ROUTING WITH ARCHITECT PRIOR TO FABRICATION AND INSTALLATION. ALL CONDUIT SHALL BE RUN ABOVE METAL CEILINGS WITHIN TRUSS SPACE. ALL BOXES AND RECEPTACLE COVER PLATES SHALL BE FLUSH WITH METAL CEILING.