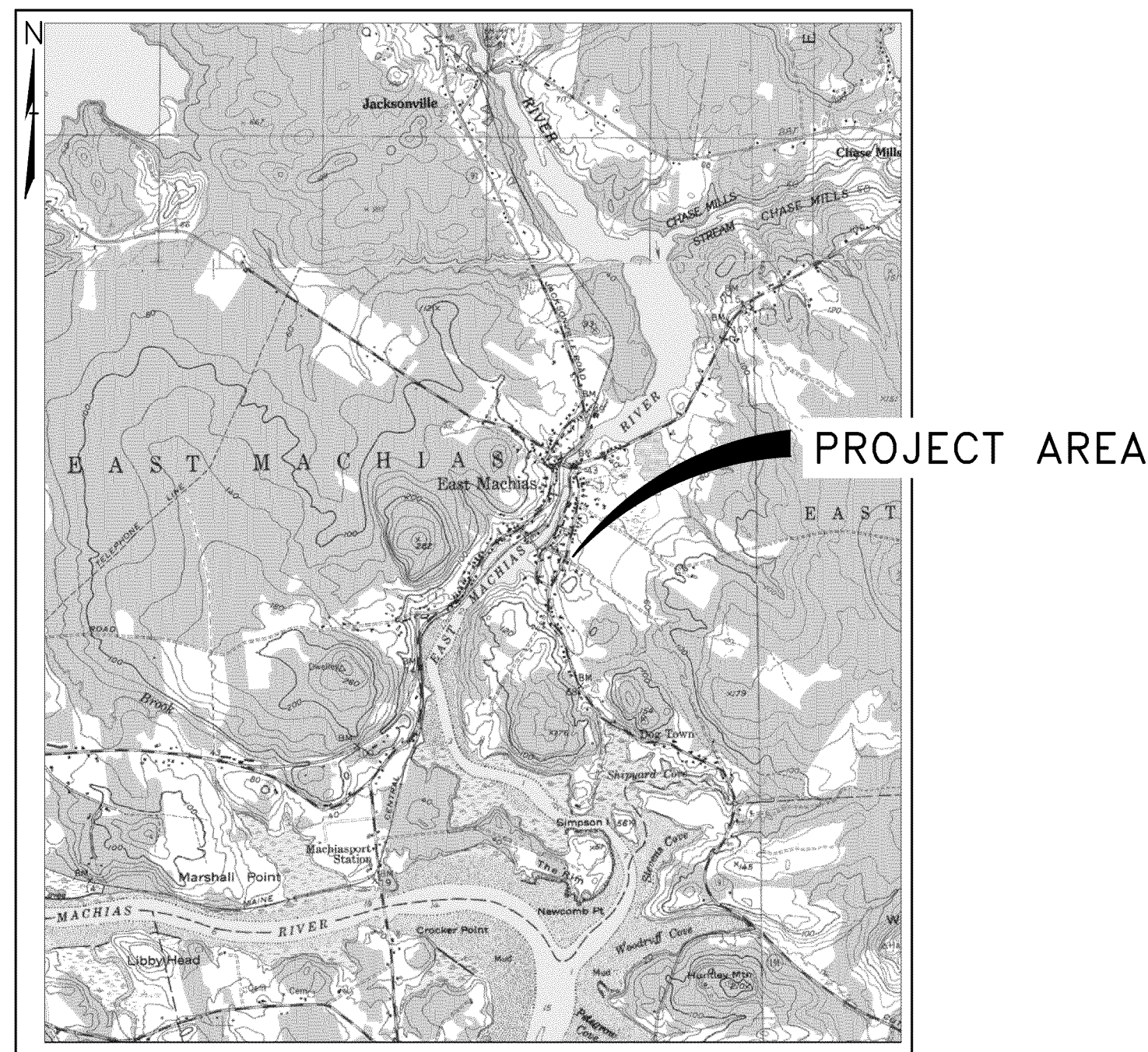
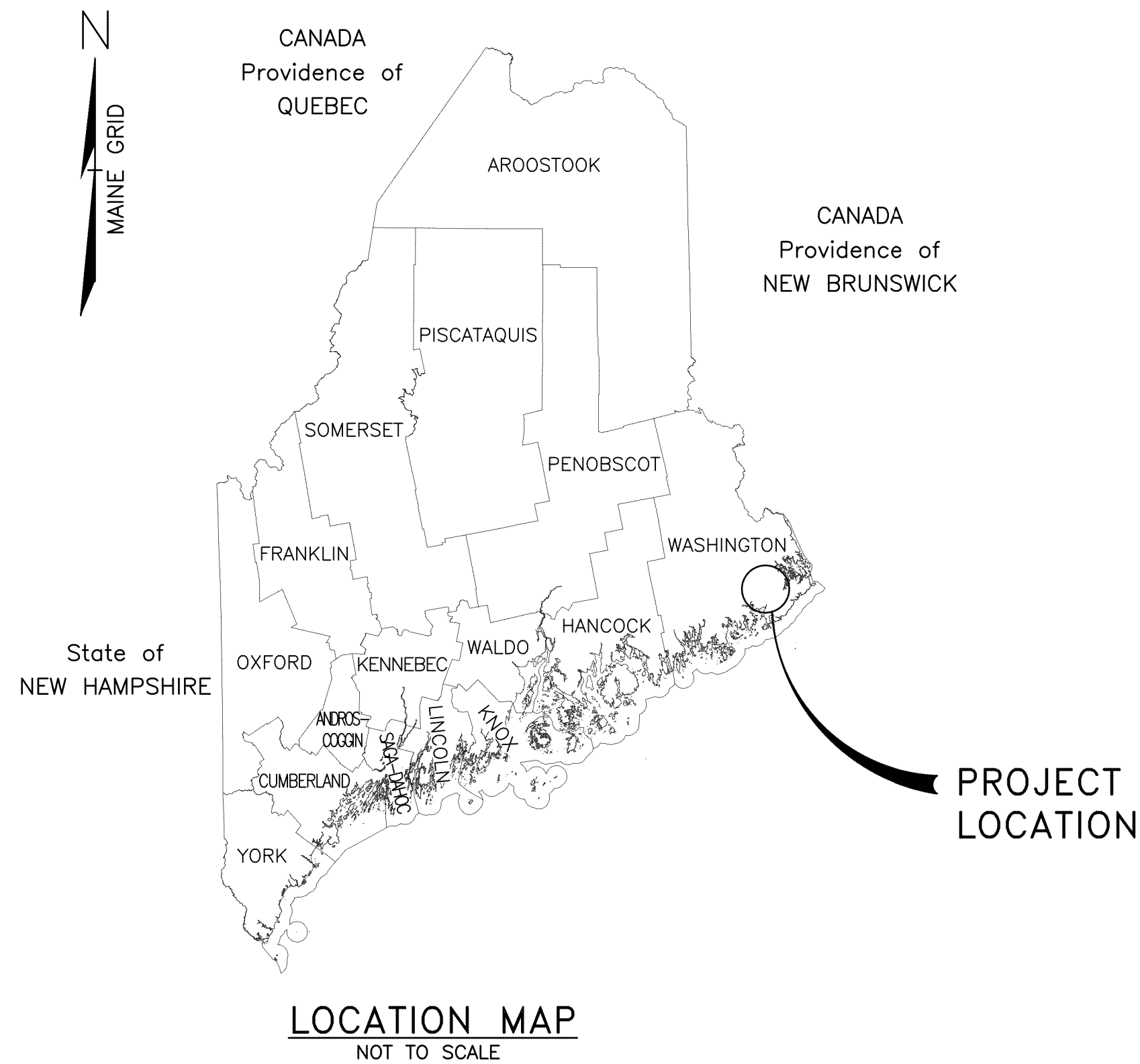


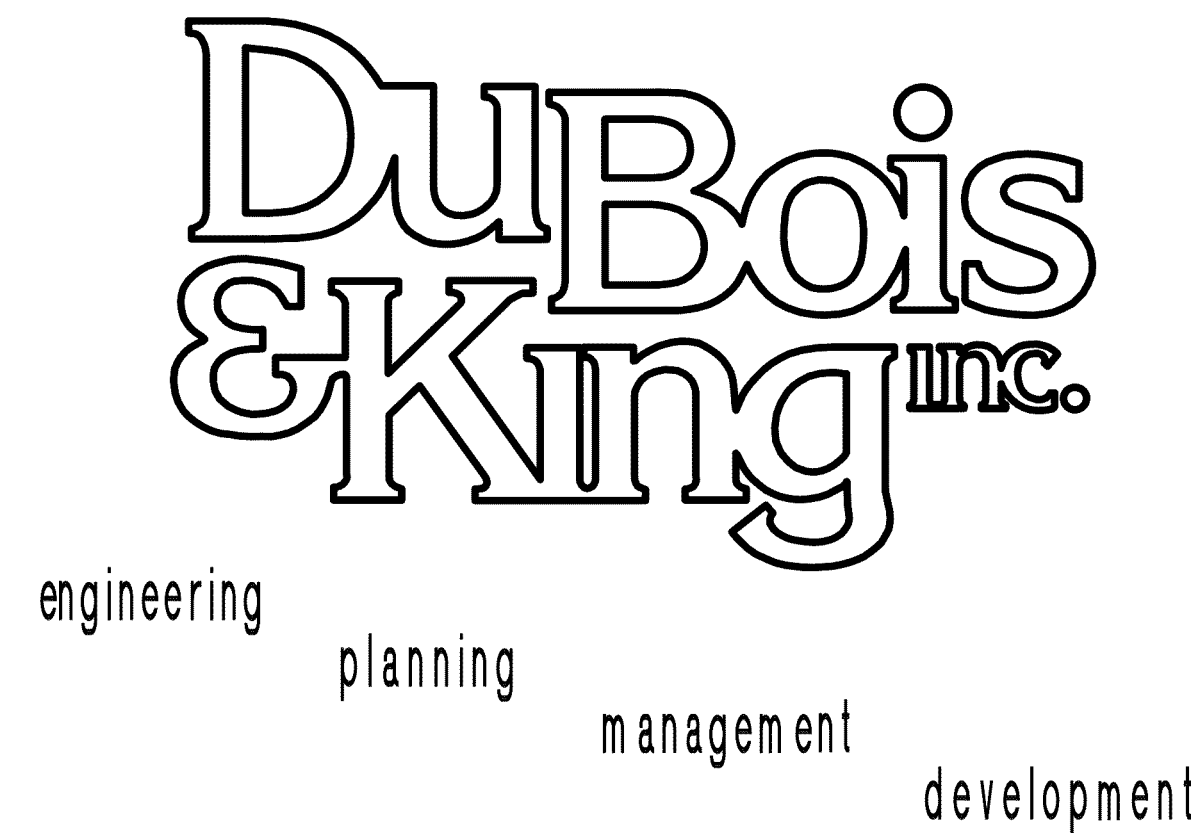
WASHINGTON ACADEMY EAST MACHIAS, ME

PUBLIC WATER SYSTEM CONSOLIDATION

**NOT FOR
CONSTRUCTION
BID SET**

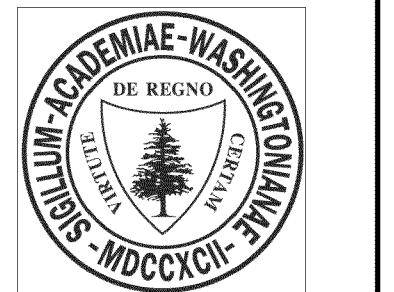


PROJECT AREA PLAN
SCALE: 1" = 3,000 FEET ±



REVISIONS	REVISION DESCRIPTION	BY	DATE	NUMBER

CLIENT NAME
WASHINGTON
ACADEMY



PROJECT NAME
PUBLIC WATER
SYSTEM
CONSOLIDATION

PROJECT ADDRESS
66 CUTLER ROAD
EAST MACHIAS, ME
04630

SHEET TITLE

TITLE SHEET

D&K PROJECT # PROJ. ENG.
229946 JTA

DRAWN BY CHECKED BY
NDB JTA

DATE
07-January-25

SHEET NUMBER

G1

BID SET
NOT FOR CONSTRUCTION 01/07/25

SHEET 1 OF 29

GENERAL NOTES:

- ALL WORK SHALL BE IN ACCORDANCE WITH APPLICABLE CODES, REGULATIONS AND STANDARDS AS SET FORTH WITHIN THIS PLAN SET AND SUPPLEMENTAL TECHNICAL SPECIFICATIONS.
- IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO CONTACT DIG SAFE. REACHING OUT TO 811, 888-344-7233 (888-DIG-SAFE) OR WWW.DIGSAFE.COM/EXACTIX TO OBTAIN A TICKET AT LEAST 72 HOURS PRIOR TO COMMENCING ANY CONSTRUCTION ACTIVITIES.
- THE CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE REGULATIONS OF THE OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (O.S.H.A.).
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ANY NECESSARY PERMITS PRIOR TO CONSTRUCTION. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO BE FAMILIAR WITH THE APPLICABLE PROVISIONS OF EACH PERMIT AS THEY APPLY TO THE WORK AND ABIDE BY THOSE PROVISIONS DURING CONSTRUCTION.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING "STREET OPENING PERMIT" FROM THE MAINE DEPARTMENT OF TRANSPORTATION PRIOR TO PERFORMING ANY WORK WITHIN THE CUTLER ROAD RIGHT-OF-WAY.
- THE CONTRACTOR IS REQUIRED TO SUBMIT A TRAFFIC CONTROL PLAN TO THE ENGINEER AND THE TOWN OF EAST MACHIAS ROAD AGENT PRIOR TO PERFORMING ANY ACTIVITIES WITHIN THE MUNICIPALITY'S RIGHTS-OF-WAY. THE MACHIAS POLICE DEPARTMENT (207-255-8558), EAST MACHIAS FIRE DEPARTMENT (207-255-3079), AND EAST MACHIAS ROAD AGENT (207-255-8598) ARE TO BE NOTIFIED AT LEAST 24 HOURS IN ADVANCE OF ANY STREET CLOSING OR DETOUR.
- CONTRACTOR SHALL INSTALL AND MAINTAIN TRAFFIC CONTROL DEVICES IN ACCORDANCE TO THE MOST CURRENT EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (M.U.T.C.D.).
- PRIOR TO THE COMMENCEMENT OF CONSTRUCTION OR SITE CLEARING, THE LIMIT OF WORK SHALL BE CLEARLY MARKED IN THE FIELD BY THE CONTRACTOR AT 50-FOOT (+/-) INTERVALS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL WORK WITHIN THE LIMIT OF WORK AND IS PROHIBITED FROM USING ANY AREA LOCATED OUTSIDE OF SUCH LIMIT.
- THE CONTRACTOR SHALL CONSTRUCT TEMPORARY AND PERMANENT EROSION AND SEDIMENTATION CONTROL FACILITIES PRIOR TO THE COMMENCEMENT OF EARTHWORK OPERATIONS. EROSION CONTROL MEASURES SHALL INCLUDE, BUT ARE NOT LIMITED TO, ITEMS IDENTIFIED WITHIN THIS PLAN SET OR WITHIN THE "MAINE EROSION AND SEDIMENT CONTROL PRACTICES FIELD GUIDE FOR CONTRACTORS", PUBLISHED BY THE MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTIONS (MDEP) DATED 2014 (OR CURRENT EDITION). SEE EROSION & SEDIMENTATION CONTROL NOTES SHEET FOR FURTHER DETAIL.
- ALL DISTURBED AREAS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. ALL DISTURBED AREAS SHALL NOT BE LEFT BARE FOR MORE THAN 30 DAYS. SHALL BE STABILIZED IN A MANNER TO MITIGATE EROSION OR SEDIMENTATION FROM EXITING THE LIMIT OF WORK AND SHALL BE RESTORED IN-KIND UPON COMPLETION OF THE PROJECT. THE MAXIMUM AREA ALLOWED TO BE DISTURBED AND LEFT UNSTABILIZED IS TWO (2) ACRES AT ANY ONE TIME. SEE EROSION & SEDIMENTATION CONTROL NOTES SHEET FOR FURTHER DETAIL.
- THE CONTRACTOR SHALL MAINTAIN EROSION CONTROL AND SEDIMENTATION CONTROL DEVICES THROUGHOUT THE PROJECT SITE FOR THE DURATION OF CONSTRUCTION. THE CONTRACTOR SHALL (DAILY OR AS REQUIRED) INSPECT AND RECORD FINDINGS OF ALL EROSION AND SEDIMENTATION CONTROL DEVICES TO ENSURE THAT ALL ITEMS ARE IN STABLE CONDITION. IN THE EVENT THAT SAID ITEMS ARE DETERMINED TO BE IN UNSATISFACTORY CONDITION, THE CONTRACTOR SHALL RECORD THE UNSATISFACTORY ISSUE, THE DATE THE UNSATISFACTORY FINDING, THE APPROPRIATE CORRECTIVE MEASURE AND THE DATE THE CORRECTIVE MEASURE WAS COMPLETED. SEE EROSION & SEDIMENTATION CONTROL NOTES SHEET FOR FURTHER DETAIL.
- ALL CONCRETE AND BITUMINOUS PATCH AREAS SHALL MATCH EXISTING GRADES.
- ALL CURB RADII ARE TO THE OUTSIDE FACE.
- EXISTING SIGNS IMPACTED BY THIS PROJECT SHALL BE RESET AT NO ADDITIONAL COST TO THE OWNER. PLACEMENT SHALL CONFORM TO THE REQUIREMENTS OF THE M.U.T.C.D. (LATEST EDITION).
- COMMON EXCAVATED MATERIALS MAY BE INCORPORATED INTO THE PROJECT. THIS PROVISION SHALL IN NO WAY RELIEVE THE CONTRACTOR OF THEIR OBLIGATIONS TO REMOVE AND DISPOSE OF ANY HAZARDOUS OR MATERIAL DETERMINED BY THE ENGINEER TO BE UNSUITABLE FOR BACKFILLING OR EXCESS SUITABLE MATERIAL.
 - CONTRACTOR SHALL ONLY DISPOSE OF COMMON EARTH AND LEDGE MATERIAL; NO ORGANIC.
 - CONTRACTOR SHALL DISPOSE OF HAZARDOUS OR WASTE PRODUCTS IN ACCORDANCE TO LOCAL, STATE OR FEDERAL LAWS AND REGULATIONS.
 - CONTRACTOR SHALL GRADE THAT DO NOT EXCEED 3H:1V SLOPES.
 - CONTRACTOR SHALL LOAM AND SEED ALL DISTURBED AREAS UPON COMPLETION OF AREA'S USE.
 - DISPOSAL AREA SHALL REMAIN UNDISTURBED IF NOT REQUIRED FOR USE BY THE CONTRACTOR. GRADING OF AREA SHALL CONFORM TO PRE-DISTURBANCE CONDITIONS TO THE EXTENT THAT SLOPES DO NOT EXCEED 3H:1V SLOPES. ALL STUMPS SHALL BE PROPERLY DISPOSED OF OFF-SITE.

SITE MAINTENANCE (UPON SUBSTANTIAL COMPLETION):

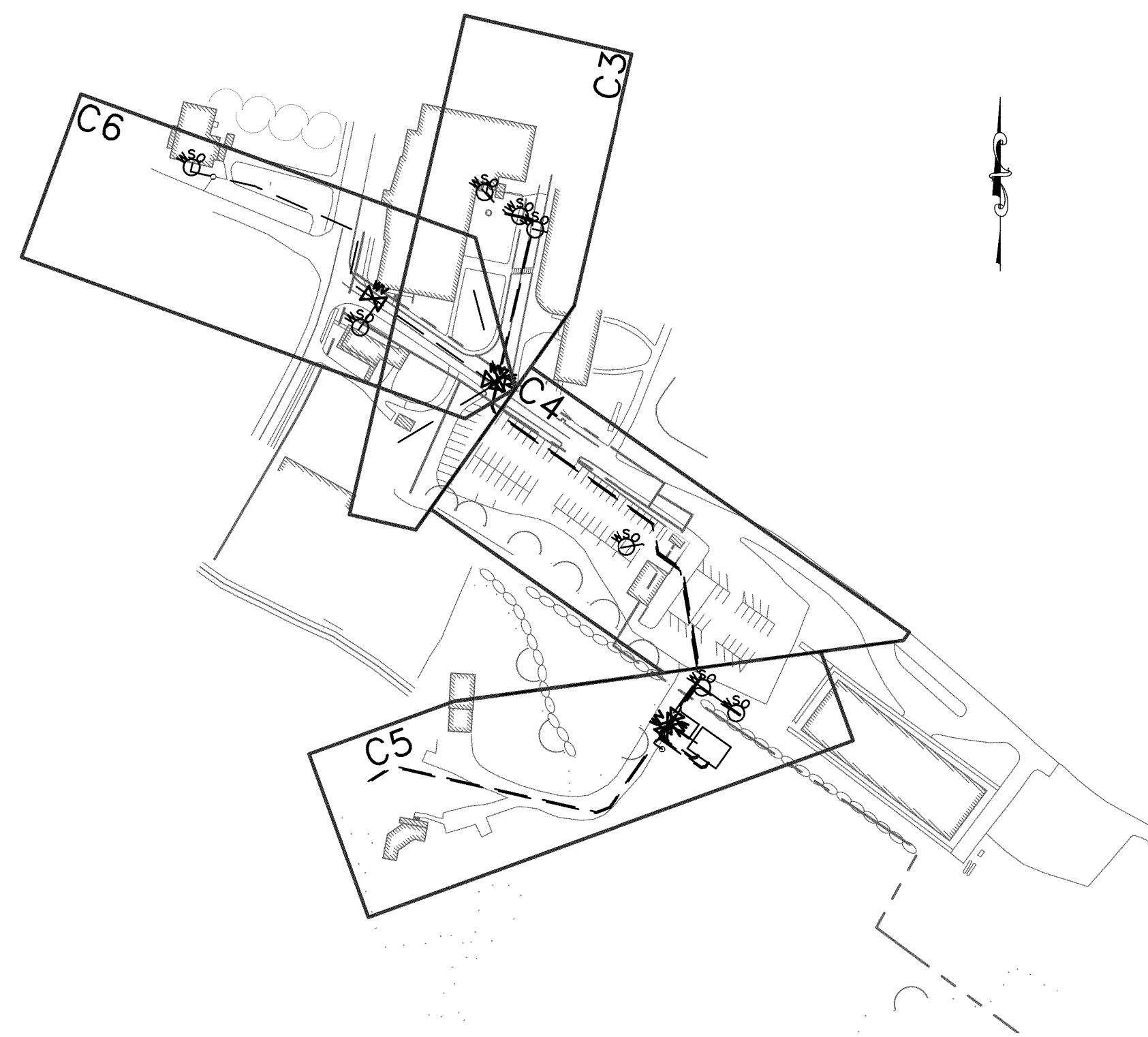
- THE CONTRACTOR SHALL PERFORM THE FOLLOWING TASKS UPON SUBSTANTIAL COMPLETION, AND UP TO FINAL COMPLETION, OF THE PROJECT. SUBSEQUENT TO FINAL COMPLETION THE OWNER SHALL CONTINUE PERFORMING THE FOLLOWING TASKS:
 - THE CONTRACTOR SHALL (NO LESS THAN A QUARTERLY BASIS) INSPECT AND RECORD FINDINGS OF ALL DRAINAGE STRUCTURES, PIPES, OUTLETS AND PONDS TO ENSURE THAT ALL DRAINAGE ITEMS ARE FREE FROM DEBRIS AND IN STABLE CONDITION. IN THE EVENT THAT DRAINAGE ITEMS ARE DETERMINED TO BE IN UNSATISFACTORY CONDITION, A RECORD OF THE UNSATISFACTORY ISSUE WILL BE DOCUMENTED AND INCLUDE THE DATE OF THE FINDING, THE APPROPRIATE CORRECTIVE MEASURE AND THE DATE THE CORRECTIVE MEASURE WAS COMPLETED.
 - THE CONTRACTOR SHALL (NO LESS THAN AN ANNUAL BASIS) SWEEP, COLLECT AND REMOVE WINTER MAINTENANCE SAND, LITTER, SALT, ETC. OF ALL PAVED AND CONCRETE AREAS.
 - THE CONTRACTOR SHALL (NO LESS THAN AN ANNUAL BASIS) INSPECT AND RECORD FINDINGS OF ALL APPARENT EROSION PROBLEMS, DESTABILIZATION OF SIDE SLOPES, EMBANKMENT SETTLING AND OTHER STRUCTURAL FAILURES. IN THE EVENT THAT ITEMS ARE DETERMINED TO BE IN UNSATISFACTORY CONDITION, A RECORD OF THE UNSATISFACTORY ISSUE WILL BE DOCUMENTED AND INCLUDE THE DATE OF THE UNSATISFACTORY FINDING, THE APPROPRIATE CORRECTIVE MEASURE AND THE DATE THE CORRECTIVE MEASURE WAS COMPLETED.
 - THE CONTRACTOR SHALL (NO LESS THAN AN ANNUAL BASIS) INSPECT PVC DRAINAGE STRUCTURES TO ENSURE TOPSOIL SETTLEMENT HAS NOT OCCURRED; IF FOUND, ADDITIONAL LOAM & SEED SHALL BE PLACED PRIOR TO SEASONAL MOWING.

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LEGEND - CIVIL

---	PROPERTY LINE
---	PROPERTY LINE SETBACK
---	MATCH LINE
---	EXISTING MINOR CONTOUR
---	EXISTING MAJOR CONTOUR
---	PROPOSED MINOR CONTOUR
---	PROPOSED MAJOR CONTOUR
---	GRAVEL ROAD
---	PAVED ROAD
---	SILT FENCE
---	PROPOSED TREE LINE
---	GAS LINE
---	WATERLINE
---	GRAVITY SEWER PIPE
---	STORM DRAIN PIPE
---	UNDERGROUND ELEC./TEL. & CABLE
---	OVERHEAD ELEC./TEL. & CABLE
---	ROOF DRAIN
---	FOUNDATION DRAIN
---	UNDERDRAIN
---	FORCE MAIN
---	EDGE OF WATER
---	STREAM/RIVER CENTERLINE
---	VERTICAL GRANITE CURB
---	LIMIT OF CURB TYPE
---	RETAINING WALL
---	GUARD RAIL
---	CHAIN LINK/ BARBED WIRE FENCE
---	TOP OF BANK
---	CATCH BASIN
---	DRAIN MANHOLE
---	SEWER MANHOLE
---	FORCEMAIN MANHOLE
---	ELECTRICAL MANHOLE
---	TELEPHONE MANHOLE
---	MANHOLE
---	WATER SHUT OFF
---	HYDRANT
---	GATE VALVE
---	CAP OR PLUG
---	LEDGE PROBE
---	BORING
---	PROBE
---	ELECTRICAL BOX
---	PIPE CLEANOUT
---	PUMP STATION
---	FLOW DIRECTION
---	FLOW DIRECTION WITH HIGHPOINT
---	BOX CULVERT
---	TEMPORARY BYPASS PIPE
---	PARKING ARROWS



KEY PLAN



NOT FOR CONSTRUCTION BID SET

REVISIONS	NUMBER	DATE	DESCRIPTION	
				BY

CLIENT NAME
WASHINGTON ACADEMY

PROJECT NAME
PUBLIC WATER SYSTEM CONSOLIDATION

PROJECT ADDRESS
66 CUTLER ROAD
EAST MACHIAS, ME
04630

SHEET TITLE
GENERAL NOTES, LEGEND

D&K PROJECT # 229946 PROJ. ENG. JTA

DRAWN BY NDB CHECKED BY JTA

DATE 07-January-25

SHEET NUMBER

G2

BID SET NOT FOR CONSTRUCTION 01/07/25

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EROSION AND SEDIMENTATION CONTROL

A PERSON WHO CONDUCTS, OR CAUSES TO BE CONDUCTED, AN ACTIVITY THAT INVOLVES FILLING, DISPLACING OR EXPOSING SOIL OR OTHER EARTHEN MATERIALS SHALL TAKE MEASURES TO PREVENT UNREASONABLE EROSION OF SOIL OR SEDIMENT BEYOND THE PROJECT SITE OR INTO A PROTECTED NATURAL RESOURCE AS DEFINED IN MAINE STATUTE 38 M.R.S. §480-B. EROSION CONTROL MEASURES MUST BE IN PLACE BEFORE THE ACTIVITY BEGINS. MEASURES MUST REMAIN IN PLACE AND FUNCTIONAL UNTIL THE SITE IS PERMANENTLY STABILIZED. ADEQUATE AND TIMELY TEMPORARY AND PERMANENT STABILIZATION MEASURES MUST BE TAKEN.

NOTE: THE MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION ("DEPARTMENT") HAS PREPARED PROTOCOLS FOR THE CONTROL OF EROSION AND SEDIMENTATION. SEE "MAINE EROSION AND SEDIMENT CONTROL BEST MANAGEMENT PRACTICES" AND "MAINE EROSION AND SEDIMENT CONTROL PRACTICES FIELD GUIDE FOR CONTRACTORS".

- POLLUTION PREVENTION. MINIMIZE DISTURBED AREAS AND PROTECT NATURAL DOWNGRAIDENT BUFFER AREAS TO THE EXTENT PRACTICABLE. CONTROL STORMWATER VOLUME AND VELOCITY WITHIN THE SITE TO MINIMIZE SOIL EROSION. MINIMIZE THE DISTURBANCE OF STEEP SLOPES. CONTROL STORMWATER DISCHARGES, INCLUDING BOTH PEAK FLOW RATES AND VOLUME, TO MINIMIZE EROSION AT OUTLETS. THE DISCHARGE MAY NOT RESULT IN EROSION OF ANY OPEN DRAINAGE CHANNELS, SWALES, STREAM CHANNELS OR STREAM BANKS, UPLAND, OR COASTAL OR FRESHWATER WETLANDS OFF THE PROJECT SITE.

WHENEVER PRACTICABLE, NO DISTURBANCE ACTIVITIES SHOULD TAKE PLACE WITHIN 50 FEET OF ANY PROTECTED NATURAL RESOURCE. IF DISTURBANCE ACTIVITIES TAKE PLACE BETWEEN 30 FEET AND 50 FEET OF ANY PROTECTED NATURAL RESOURCE, AND STORMWATER DISCHARGES THROUGH THE DISTURBED AREAS TOWARD THE PROTECTED NATURAL RESOURCE, PERIMETER EROSION CONTROLS MUST BE DOUBLED. IF DISTURBANCE ACTIVITIES TAKE PLACE LESS THAN 30 FEET FROM ANY PROTECTED NATURAL RESOURCE, AND STORMWATER DISCHARGES THROUGH THE DISTURBED AREAS TOWARD THE PROTECTED NATURAL RESOURCE, PERIMETER EROSION CONTROLS MUST BE DOUBLED AND DISTURBED AREAS MUST BE TEMPORARILY OR PERMANENTLY STABILIZED WITHIN 7 DAYS.

NOTE: BUFFERS IMPROVE WATER QUALITY BY HELPING TO FILTER POLLUTANTS IN RUN-OFF BOTH DURING AND AFTER CONSTRUCTION. MINIMIZING DISTURBED AREAS THROUGH PHASING LIMITS THE AMOUNT OF EXPOSED SOIL ON THE SITE THROUGH RETENTION OF NATURAL COVER AND BY RETIRING AREAS AS PERMANENTLY STABILIZED. LESS EXPOSED SOIL RESULTS IN FEWER EROSION CONTROLS TO INSTALL AND MAINTAIN. IF WORK WITHIN AN AREA IS NOT ANTICIPATED TO BEGIN WITHIN TWO WEEKS' TIME, CONSIDER LEAVING THE AREA IN ITS NATURALLY EXISTING COVER.

NOTE: MANY CONSTRUCTION ACTIVITIES WITHIN 75 FEET OF A PROTECTED NATURAL RESOURCE REQUIRE A PERMIT UNDER THE NATURAL RESOURCES PROTECTION ACT PRIOR TO INITIATION. FOR MORE INFORMATION REGARDING THE APPLICABILITY OF THE NRPA TO YOUR PROJECT, YOU CAN VISIT THE DEPARTMENT'S WEBSITE AT [HTTP://WWW.MAINE.GOV/DEPLAND/NRPA/INDEX.HTML](http://www.maine.gov/dep/land/nrpa/index.html) OR CONTACT STAFF OF THE DIVISION OF LAND RESOURCE REGULATION AT THE NEAREST REGIONAL OFFICE.

- SEDIMENT BARRIERS. PRIOR TO CONSTRUCTION, PROPERLY INSTALL SEDIMENT BARRIERS AT THE DOWNGRAIDENT EDGE OF ANY AREA TO BE DISTURBED AND ADJACENT TO ANY DRAINAGE CHANNELS WITHIN THE DISTURBED AREA. SEDIMENT BARRIERS SHOULD BE INSTALLED DOWNGRAIDENT OF SOIL OR SEDIMENT STOCKPILES AND STORMWATER PREVENTED FROM RUNNING ONTO THE STOCKPILE. MAINTAIN THE SEDIMENT BARRIERS BY REMOVING ACCUMULATED SEDIMENT, OR REMOVING AND REPLACING THE BARRIER, UNTIL THE DISTURBED AREA IS PERMANENTLY STABILIZED. WHERE A DISCHARGE TO A STORM DRAIN INLET OCCURS, IF THE STORM DRAIN CARRIES WATER DIRECTLY TO A SURFACE WATER AND YOU HAVE AUTHORITY TO ACCESS THE STORM DRAIN INLET, YOU MUST INSTALL AND MAINTAIN PROTECTION MEASURES THAT REMOVE SEDIMENT FROM THE DISCHARGE.

- STABILIZED CONSTRUCTION ENTRANCE. PRIOR TO CONSTRUCTION, PROPERLY INSTALL A STABILIZED CONSTRUCTION ENTRANCE (SCE) AT ALL POINTS OF EGRESS FROM THE SITE. THE SCE IS A STABILIZED PAD OF AGGREGATE, UNDERLAIN BY A GEOTEXTILE FILTER FABRIC, USED TO PREVENT TRAFFIC FROM TRACKING MATERIAL AWAY FROM THE SITE ONTO PUBLIC ROWS. MAINTAIN THE SCE UNTIL ALL DISTURBED AREAS ARE STABILIZED.

- TEMPORARY STABILIZATION. WITHIN 7 DAYS OF THE CESSATION OF CONSTRUCTION ACTIVITIES IN AN AREA THAT WILL NOT BE WORKED FOR MORE THAN 7 DAYS, STABILIZE ANY EXPOSED SOIL WITH MULCH, OR OTHER NON-ERODIBLE COVER. STABILIZE AREAS WITHIN 75 FEET OF A WETLAND OR WATERBODY WITHIN 48 HOURS OF THE INITIAL DISTURBANCE OF THE SOIL OR PRIOR TO ANY STORM EVENT, WHICHEVER COMES FIRST.

- REMOVAL OF TEMPORARY MEASURES. REMOVE ANY TEMPORARY CONTROL MEASURES, SUCH AS SILT FENCE, WITHIN 30 DAYS AFTER PERMANENT STABILIZATION IS ATTAINED. REMOVE ANY ACCUMULATED SEDIMENTS AND STABILIZE.

NOTE: IT IS RECOMMENDED THAT SILT FENCES BE REMOVED BY CUTTING THE FENCE MATERIALS AT GROUND LEVEL TO AVOID ADDITIONAL SOIL DISTURBANCE.

- PERMANENT STABILIZATION. IF THE AREA WILL NOT BE WORKED FOR MORE THAN ONE YEAR OR HAS BEEN BROUGHT TO FINAL GRADE, THEN PERMANENTLY STABILIZE THE AREA WITHIN 7 DAYS BY PLANTING VEGETATION, SEEDING, SOD, OR THROUGH THE USE OF PERMANENT MULCH, OR RIPRAP, OR ROAD SUB-BASE. IF USING VEGETATION FOR STABILIZATION, SELECT THE PROPER VEGETATION FOR THE LIGHT, MOISTURE, AND SOIL CONDITIONS; AMEND AREAS OF DISTURBED SUBSOILS WITH TOPSOIL, COMPOST, OR FERTILIZERS; PROTECT SEEDED AREAS WITH MULCH OR, IF NECESSARY, EROSION CONTROL BLANKETS; AND SCHEDULE SODDING, PLANTING, AND SEEDING SO TO AVOID DIE-OFF FROM SUMMER DROUGHT AND FALL FROSTS. NEWLY SEEDD OR SODDED AREAS MUST BE PROTECTED FROM VEHICLE TRAFFIC, EXCESSIVE PEDESTRIAN TRAFFIC, AND CONCENTRATED RUNOFF UNTIL THE VEGETATION IS WELL-ESTABLISHED WITH 90% COVER BY HEALTHY VEGETATION. IF NECESSARY, AREAS MUST BE REWORKED AND RESTABILIZED IF GERMINATION IS SPARSE, PLANT COVERAGE IS SPOTTY, OR TOPSOIL EROSION IS EVIDENT. ONE OR MORE OF THE FOLLOWING MAY APPLY TO A PARTICULAR SITE.

- SEEDD AREAS. FOR SEEDD AREAS, PERMANENT STABILIZATION MEANS A 90% COVER OF THE DISTURBED AREA WITH MATURE, HEALTHY PLANTS WITH NO EVIDENCE OF WASHING OR RILLING OF THE TOPSOIL.

- SODDED AREAS. FOR SODDED AREAS, PERMANENT STABILIZATION MEANS THE COMPLETE BINDING OF THE SOD ROOTS INTO THE UNDERLYING SOIL WITH NO SLUMPING OF THE SOD OR DIE-OFF.

- PERMANENT MULCH. FOR MULCHED AREAS, PERMANENT MULCHING MEANS TOTAL COVERAGE OF THE EXPOSED AREA WITH AN APPROVED MULCH MATERIAL. EROSION CONTROL MIX MAY BE USED AS MULCH FOR PERMANENT STABILIZATION ACCORDING TO THE APPROVED APPLICATION RATES AND LIMITATIONS.

- RIPRAP. FOR AREAS STABILIZED WITH RIPRAP, PERMANENT STABILIZATION MEANS THAT SLOPES STABILIZED WITH RIPRAP HAVE AN APPROPRIATE BACKING OF A WELL-GRADED GRAVEL OR APPROVED GEOTEXTILE TO PREVENT SOIL MOVEMENT FROM BEHIND THE RIPRAP. STONE MUST BE SIZED APPROPRIATELY. IT IS RECOMMENDED THAT ANGULAR STONE BE USED.

- AGRICULTURAL USE. FOR CONSTRUCTION PROJECTS ON LAND USED FOR AGRICULTURAL PURPOSES (E.G., PIPELINES ACROSS CROP LAND), PERMANENT STABILIZATION MAY BE ACCOMPLISHED BY RETURNING THE DISTURBED LAND TO AGRICULTURAL USE.

- PAVED AREAS. FOR PAVED AREAS, PERMANENT STABILIZATION MEANS THE PLACEMENT OF THE COMPACTED GRAVEL SUBBASE IS COMPLETED, PROVIDED IT IS FREE OF FINE MATERIALS THAT MAY RUNOFF WITH A RAIN EVENT

- DITCHES, CHANNELS, AND SWALES. FOR OPEN CHANNELS, PERMANENT STABILIZATION MEANS THE CHANNEL IS STABILIZED WITH A 90% COVER OF HEALTHY VEGETATION, WITH A WELL-GRADED RIPRAP LINING, TURF REINFORCEMENT MAT, OR WITH ANOTHER NON-EROSIVE LINING SUCH AS CONCRETE OR ASPHALT PAVEMENT. THERE MUST BE NO EVIDENCE OF SLUMPING OF THE CHANNEL LINING, UNDERCUTTING OF THE CHANNEL BANKS, OR DOWN-CUTTING OF THE CHANNEL.

- WINTER CONSTRUCTION. "WINTER CONSTRUCTION" IS CONSTRUCTION ACTIVITY PERFORMED DURING THE PERIOD FROM NOVEMBER 1 THROUGH APRIL 15. IF DISTURBED AREAS ARE NOT STABILIZED WITH PERMANENT MEASURES BY NOVEMBER 1 OR NEW SOIL DISTURBANCE OCCURS AFTER NOVEMBER 1, BUT BEFORE APRIL 15, THEN THESE AREAS MUST BE PROTECTED AND RUNOFF FROM THEM MUST BE CONTROLLED BY ADDITIONAL MEASURES AND RESTRICTIONS.

- SITE STABILIZATION. FOR WINTER STABILIZATION, HAY MULCH IS APPLIED AT TWICE THE STANDARD TEMPORARY STABILIZATION RATE. AT THE END OF EACH CONSTRUCTION DAY, AREAS THAT HAVE BEEN BROUGHT TO FINAL GRADE MUST BE STABILIZED. MULCH MAY NOT BE SPREAD ON TOP OF SNOW.

- SEDIMENT BARRIERS. ALL AREAS WITHIN 75 FEET OF A PROTECTED NATURAL RESOURCE MUST BE PROTECTED WITH A DOUBLE ROW OF SEDIMENT BARRIERS.

- DITCH. ALL VEGETATED DITCH LINES THAT HAVE NOT BEEN STABILIZED BY NOVEMBER 1, OR WILL BE WORKED DURING THE WINTER CONSTRUCTION PERIOD, MUST BE STABILIZED WITH AN APPROPRIATE STONE LINING BACKED BY AN APPROPRIATE GRAVEL BED OR GEOTEXTILE UNLESS SPECIFICALLY RELEASED FROM THIS STANDARD BY THE DEPARTMENT.

- SLOPES. MULCH NETTING MUST BE USED TO ANCHOR MULCH ON ALL SLOPES GREATER THAN 8% UNLESS EROSION CONTROL BLANKETS OR EROSION CONTROL MIX IS BEING USED ON THESE SLOPES.

NOTE: THE MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION HAS PREPARED PROTOCOLS FOR THE CONTROL OF EROSION AND SEDIMENTATION. SEE "MAINE EROSION AND SEDIMENT CONTROL BEST MANAGEMENT PRACTICES" AND "MAINE EROSION AND SEDIMENT CONTROL PRACTICES FIELD GUIDE FOR CONTRACTORS".

- STORMWATER CHANNELS, DITCHES, SWALES, AND OTHER OPEN STORMWATER CHANNELS MUST BE DESIGNED, CONSTRUCTED, AND STABILIZED USING MEASURES THAT ACHIEVE LONG-TERM EROSION CONTROL. DITCHES, SWALES AND OTHER OPEN STORMWATER CHANNELS MUST BE SIZED TO HANDLE, AT A MINIMUM, THE EXPECTED VOLUME RUN-OFF. EACH CHANNEL SHOULD BE CONSTRUCTED IN SECTIONS SO THAT THE SECTION'S GRADING, SHAPING, AND INSTALLATION OF THE PERMANENT LINING CAN BE COMPLETED THE SAME DAY. IF A CHANNEL'S FINAL GRADING OR LINING INSTALLATION MUST BE DELAYED, THEN DIVERSION BERMS MUST BE USED TO DIVERT STORMWATER AWAY FROM THE CHANNEL, PROPERLY-SPACED CHECK DAMS MUST BE INSTALLED IN THE CHANNEL TO SLOW THE WATER VELOCITY, AND A TEMPORARY LINING INSTALLED ALONG THE CHANNEL TO PREVENT SCOURING. PERMANENT STABILIZATION FOR CHANNELS IS ADDRESSED UNDER APPENDIX A(5)(G) ABOVE.

- THE CHANNEL SHOULD RECEIVE ADEQUATE ROUTINE MAINTENANCE TO MAINTAIN CAPACITY AND PREVENT OR CORRECT ANY EROSION OF THE CHANNEL'S BOTTOM OR SIDE SLOPES.

- WHEN THE WATERSHED DRAINING TO A DITCH OR SWALE IS LESS THAN 1 ACRE OF TOTAL DRAINAGE AND LESS THAN ¼ ACRE OF IMPERVIOUS AREA, DIVERSION OF RUNOFF TO ADJACENT WOODED OR OTHERWISE VEGETATED BUFFER AREAS IS ENCOURAGED WHERE THE OPPORTUNITY EXISTS.

- SEDIMENT BASINS. SEDIMENT BASINS MUST BE DESIGNED TO PROVIDE STORAGE FOR EITHER THE CALCULATED RUNOFF FROM A 2-YEAR, 24-HOUR STORM OR PROVIDE FOR 3,600 CUBIC FEET OF CAPACITY PER ACRE DRAINING TO THE BASIN. OUTLET STRUCTURES MUST DISCHARGE WATER FROM THE SURFACE OF THE BASIN WHENEVER POSSIBLE. EROSION CONTROLS AND VELOCITY DISSIPATION DEVICES MUST BE USED IF THE DISCHARGING WATERS ARE LIKELY TO CREATE EROSION. ACCUMULATED SEDIMENT MUST BE REMOVED AS NEEDED FROM THE BASIN TO MAINTAIN AT LEAST ½ OF THE DESIGN CAPACITY OF THE BASIN.

THE USE OF CATIONIC TREATMENT CHEMICALS, SUCH AS POLYMERS, FLOCCULANTS, OR OTHER CHEMICALS THAT CONTAIN AN OVERALL POSITIVE CHARGE DESIGNED TO REDUCE TURBIDITY IN STORMWATER MUST RECEIVE PRIOR APPROVAL FROM THE DEPARTMENT, WHEN REQUESTING APPROVAL TO USE CATIONIC TREATMENT CHEMICALS, YOU MUST DESCRIBE APPROPRIATE CONTROLS AND IMPLEMENTATION PROCEDURES TO ENSURE THE USE WILL NOT LEAD TO A VIOLATION OF WATER QUALITY STANDARDS. IN ADDITION, YOU MUST SPECIFY THE TYPE(S) OF SOIL LIKELY TO BE TREATED ON THE SITE, CHEMICALS TO BE USED AND HOW THEY ARE TO BE APPLIED AND IN WHAT QUANTITY, ANY MANUFACTURER'S RECOMMENDATIONS, AND ANY TRAINING HAD BY PERSONNEL WHO WILL HANDLE AND APPLY THE CHEMICALS.

- ROADS. GRAVEL AND PAVED ROADS MUST BE DESIGNED AND CONSTRUCTED WITH CROWNS OR OTHER MEASURES, SUCH AS WATER BARS, TO ENSURE THAT STORMWATER IS DELIVERED IMMEDIATELY TO ADJACENT STABLE DITCHES, VEGETATED BUFFER AREAS, CATCH BASIN INLETS, OR STREET GUTTERS.

NOTE: (1) GRAVEL AND PAVED ROADS SHOULD BE MAINTAINED SO THAT THEY CONTINUE TO CONFORM TO THIS STANDARD IN ORDER TO PREVENT EROSION PROBLEMS. (2) THE DEPARTMENT RECOMMENDS THAT IMPERVIOUS SURFACES, INCLUDING ROADS, BE DESIGNED AND CONSTRUCTED SO THAT STORMWATER IS DISTRIBUTED IN SHEET FLOW TO NATURAL VEGETATED BUFFER AREAS WHEREVER SUCH AREAS ARE AVAILABLE. ROAD DITCHES SHOULD BE DESIGNED SO THAT STORMWATER IS FREQUENTLY (AT LEAST EVERY 100 TO 200 FEET) DISCHARGED VIA DITCH TURNOUTS IN SHEET FLOW TO ADJACENT NATURAL BUFFER AREAS WHEREVER POSSIBLE.

- CULVERTS. CULVERTS MUST BE SIZED TO AVOID UNINTENDED FLOODING OF UPSTREAM AREAS OR FREQUENT OVERTOPPING OF ROADWAYS. CULVERT INLETS MUST BE PROTECTED WITH APPROPRIATE MATERIALS FOR THE EXPECTED ENTRANCE VELOCITY, AND PROTECTION MUST EXTEND AT LEAST AS HIGH AS THE EXPECTED MAXIMUM ELEVATION OF STORAGE BEHIND THE CULVERT. CULVERT OUTLET DESIGN MUST INCORPORATE MEASURES, SUCH AS APRONS, TO PREVENT SCOUR OF THE STREAM CHANNEL. OUTLET PROTECTION MEASURES MUST BE DESIGNED TO STAY WITHIN THE CHANNEL LIMITS. THE DESIGN MUST TAKE ACCOUNT OF TAILWATER DEPTH.

- PARKING AREAS. PARKING AREAS MUST BE CONSTRUCTED TO ENSURE RUNOFF IS DELIVERED TO ADJACENT SWALES, CATCH BASINS, CURB GUTTERS, OR BUFFER AREAS WITHOUT ERODING AREAS DOWNSLOPE. THE PARKING AREA'S SUBBASE COMPACTION AND GRADING MUST BE DONE TO ENSURE RUNOFF IS EVENLY DISTRIBUTED TO ADJACENT BUFFERS OR SIDE SLOPES. CATCH BASINS MUST BE LOCATED AND SET TO PROVIDE ENOUGH STORAGE DEPTH AT THE INLET TO ALLOW INFLOW OF PEAK RUNOFF RATES WITHOUT BY-PASS OF RUNOFF TO OTHER AREAS.

- ADDITIONAL REQUIREMENTS. ADDITIONAL REQUIREMENTS MAY BE APPLIED ON A SITE-SPECIFIC BASIS.

INSPECTION AND MAINTENANCE

THE FOLLOWING STANDARDS MUST BE MET DURING CONSTRUCTION.

- INSPECTION AND CORRECTIVE ACTION. INSPECT DISTURBED AND IMPERVIOUS AREAS, EROSION CONTROL MEASURES, MATERIALS STORAGE AREAS THAT ARE EXPOSED TO PRECIPITATION, AND LOCATIONS WHERE VEHICLES ENTER OR EXIT THE SITE. INSPECT THESE AREAS AT LEAST ONCE A WEEK AS WELL AS BEFORE AND WITHIN 24 HOURS AFTER A STORM EVENT (RAINFALL), AND PRIOR TO COMPLETING PERMANENT STABILIZATION MEASURES. A PERSON WITH KNOWLEDGE OF EROSION AND STORMWATER CONTROL, INCLUDING THE STANDARDS AND CONDITIONS IN THE PERMIT, SHALL CONDUCT THE INSPECTIONS.

- MAINTENANCE. IF BEST MANAGEMENT PRACTICES (BMPS) NEED TO BE REPAIRED, THE REPAIR WORK SHOULD BE INITIATED UPON DISCOVERY OF THE PROBLEM BUT NO LATER THAN THE END OF THE NEXT WORKDAY. IF ADDITIONAL BMPS OR SIGNIFICANT REPAIR OF BMPS ARE NECESSARY, IMPLEMENTATION MUST BE COMPLETED WITHIN 7 CALENDAR DAYS AND PRIOR TO ANY STORM EVENT (RAINFALL). ALL MEASURES MUST BE MAINTAINED IN EFFECTIVE OPERATING CONDITION UNTIL AREAS ARE PERMANENTLY STABILIZED.

- DOCUMENTATION. KEEP A LOG (REPORT) SUMMARIZING THE INSPECTIONS AND ANY CORRECTIVE ACTION TAKEN. THE LOG MUST INCLUDE THE NAME(S) AND QUALIFICATIONS OF THE PERSON MAKING THE INSPECTIONS, THE DATE(S) OF THE INSPECTIONS, AND MAJOR OBSERVATIONS ABOUT THE OPERATION AND MAINTENANCE OF EROSION AND SEDIMENTATION CONTROLS, MATERIALS STORAGE AREAS, AND VEHICLES ACCESS POINTS TO THE PARCEL. MAJOR OBSERVATIONS MUST INCLUDE BMPS THAT NEED MAINTENANCE, BMPS THAT FAILED TO OPERATE AS DESIGNED OR PROVED INADEQUATE FOR A PARTICULAR LOCATION, AND LOCATION(S) WHERE ADDITIONAL BMPS ARE NEEDED. FOR EACH BMP REQUIRING MAINTENANCE, BMP NEEDING REPLACEMENT, AND LOCATION NEEDING ADDITIONAL BMPS, NOTE IN THE LOG THE CORRECTIVE ACTION TAKEN AND WHEN IT WAS TAKEN.

THE LOG MUST BE MADE ACCESSIBLE TO DEPARTMENT STAFF AND A COPY MUST BE PROVIDED UPON REQUEST. THE PERMITTEE SHALL RETAIN A COPY OF THE LOG FOR A PERIOD OF AT LEAST THREE YEARS FROM THE COMPLETION OF PERMANENT STABILIZATION.

HOUSEKEEPING

- SPILL PREVENTION. CONTROLS MUST BE USED TO PREVENT POLLUTANTS FROM CONSTRUCTION AND WASTE MATERIALS STORED ON SITE TO ENTER STORMWATER, WHICH INCLUDES STORAGE PRACTICES TO MINIMIZE

EXPOSURE OF THE MATERIALS TO STORMWATER. THE SITE CONTRACTOR OR OPERATOR MUST DEVELOP, AND IMPLEMENT AS NECESSARY, APPROPRIATE SPILL PREVENTION, CONTAINMENT, AND RESPONSE PLANNING MEASURES.

NOTE: ANY SPILL OR RELEASE OF TOXIC OR HAZARDOUS SUBSTANCES MUST BE REPORTED TO THE DEPARTMENT. FOR OIL SPILLS, CALL 1-800-482-0777 WHICH IS AVAILABLE 24 HOURS A DAY. FOR SPILLS OF TOXIC OR HAZARDOUS MATERIAL, CALL 1-800-452-4664 WHICH IS AVAILABLE 24 HOURS A DAY. FOR MORE INFORMATION, VISIT THE DEPARTMENT'S WEBSITE AT : [HTTP://WWW.MAINE.GOV/DEP/SPILLS/EMERGSPILLRESP/](http://www.maine.gov/dep/spills/emergspillresp/)

- GROUNDWATER PROTECTION. DURING CONSTRUCTION, LIQUID PETROLEUM PRODUCTS AND OTHER HAZARDOUS MATERIALS WITH THE POTENTIAL TO CONTAMINATE GROUNDWATER MAY NOT BE STORED OR HANDLED IN AREAS OF THE SITE DRAINING TO AN INFILTRATION AREA. AN "INFILTRATION AREA" IS ANY AREA OF THE SITE THAT BY DESIGN OR AS A RESULT OF SOILS, TOPOGRAPHY AND OTHER RELEVANT FACTORS ACCUMULATES RUNOFF THAT INFILTRATES INTO THE SOIL, DIKES, BERMS, SUMPS, AND OTHER FORMS OF SECONDARY CONTAINMENT THAT PREVENT DISCHARGE TO GROUNDWATER MAY BE USED TO ISOLATE PORTIONS OF THE SITE FOR THE PURPOSES OF STORAGE AND HANDLING OF THESE MATERIALS. ANY PROJECT PROPOSING INFILTRATION OF STORMWATER MUST PROVIDE ADEQUATE PRE-TREATMENT OF STORMWATER PRIOR TO DISCHARGE OF STORMWATER TO THE INFILTRATION AREA, OR PROVIDE FOR TREATMENT WITHIN THE INFILTRATION AREA, IN ORDER TO PREVENT THE ACCUMULATION OF FINES, REDUCTION IN INFILTRATION RATE, AND CONSEQUENT FLOODING AND DESTABILIZATION.

NOTE: LACK OF APPROPRIATE POLLUTANT REMOVAL BEST MANAGEMENT PRACTICES (BMPS) MAY RESULT IN VIOLATIONS OF THE GROUNDWATER QUALITY STANDARD ESTABLISHED BY MAINE STATUTE 38 M.R.S.A. §465-C(1).

- FUGITIVE SEDIMENT AND DUST. ACTIONS MUST BE TAKEN TO ENSURE THAT ACTIVITIES DO NOT RESULT IN NOTICEABLE EROSION OF SOILS OR FUGITIVE DUST EMISSIONS DURING OR AFTER CONSTRUCTION. OIL MAY NOT BE USED FOR DUST CONTROL, BUT OTHER WATER ADDITIVES MAY BE CONSIDERED AS NEEDED. A STABILIZED CONSTRUCTION ENTRANCE (SCE) SHOULD BE INCLUDED TO MINIMIZE TRACKING OF MUD AND SEDIMENT. IF OFF-SITE TRACKING OCCURS, PUBLIC ROADS SHOULD BE SWEEPED IMMEDIATELY AND NO LESS THAN ONCE A WEEK AND PRIOR TO SIGNIFICANT STORM EVENTS. OPERATIONS DURING DRY MONTHS, THAT EXPERIENCE FUGITIVE DUST PROBLEMS, SHOULD WET DOWN UNPAVED ACCESS ROADS ONCE A WEEK OR MORE FREQUENTLY AS NEEDED WITH A WATER ADDITIVE TO SUPPRESS FUGITIVE SEDIMENT AND DUST.

NOTE: DEWATERING A STREAM WITHOUT A PERMIT FROM THE DEPARTMENT MAY VIOLATE STATE WATER QUALITY STANDARDS AND THE NATURAL RESOURCES PROTECTION ACT.

- DEBRIS AND OTHER MATERIALS. MINIMIZE THE EXPOSURE OF CONSTRUCTION DEBRIS, BUILDING AND LANDSCAPING MATERIALS, TRASH, FERTILIZERS, PESTICIDES, HERBICIDES, DETERGENTS, SANITARY WASTE AND OTHER MATERIALS TO PRECIPITATION AND STORMWATER RUNOFF. THESE MATERIALS MUST BE PREVENTED FROM BECOMING A POLLUTANT SOURCE.

NOTE: TO PREVENT THESE MATERIALS FROM BECOMING A SOURCE OF POLLUTANTS, CONSTRUCTION AND POST-CONSTRUCTION ACTIVITIES RELATED TO A PROJECT MAY BE REQUIRED TO COMPLY WITH APPLICABLE PROVISIONS OF RULES RELATED TO SOLID, UNIVERSAL, AND HAZARDOUS WASTE, INCLUDING, BUT NOT LIMITED TO, THE MAINE SOLID WASTE AND HAZARDOUS WASTE MANAGEMENT RULES; MAINE HAZARDOUS WASTE MANAGEMENT RULES; MAINE OIL CONVEYANCE AND STORAGE RULES; AND MAINE PESTICIDE REQUIREMENTS.

- EXCAVATION DE-WATERING. EXCAVATION DE-WATERING IS THE REMOVAL OF WATER FROM TRENCHES, FOUNDATIONS, COFFER DAMS, PONDS, AND OTHER AREAS WITHIN THE CONSTRUCTION AREA THAT RETAIN WATER AFTER EXCAVATION. IN MOST CASES THE COLLECTED WATER IS HEAVILY SILTED AND HINDERS CORRECT AND SAFE CONSTRUCTION PRACTICES. THE COLLECTED WATER REMOVED FROM THE PONDED AREA, EITHER THROUGH GRAVITY OR PUMPING, MUST BE SPREAD THROUGH NATURAL WOODED BUFFERS OR REMOVED TO AREAS THAT ARE SPECIFICALLY DESIGNED TO COLLECT THE MAXIMUM AMOUNT OF SEDIMENT POSSIBLE, LIKE A COFFERDAM SEDIMENTATION BASIN. AVOID ALLOWING THE WATER TO FLOW OVER DISTURBED AREAS OF THE SITE. EQUIVALENT MEASURES MAY BE TAKEN IF APPROVED BY THE DEPARTMENT.

NOTE: DEWATERING CONTROLS ARE DISCUSSED IN THE "MAINE EROSION AND SEDIMENT CONTROL BMPS, MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION."

- AUTHORIZED NON-STORMWATER DISCHARGES. IDENTIFY AND PREVENT CONTAMINATION BY NON-STORMWATER DISCHARGES. WHERE ALLOWED NON-STORMWATER DISCHARGES EXIST, THEY MUST BE IDENTIFIED AND STEPS SHOULD BE TAKEN TO ENSURE THE IMPLEMENTATION OF APPROPRIATE POLLUTION PREVENTION MEASURES FOR THE NON-STORMWATER COMPONENT(S) OF THE DISCHARGE. AUTHORIZED NON-STORMWATER DISCHARGES ARE:

- DISCHARGES FROM FIREFIGHTING ACTIVITY;
- FIRE HYDRANT FLUSHINGS;
- VEHICLE WASHWATER IF DETERGENTS ARE NOT USED AND WASHING IS LIMITED TO THE EXTERIOR OF VEHICLES (ENGINE, UNDERCARRIAGE AND TRANSMISSION WASHING IS PROHIBITED);
- DUST CONTROL RUNOFF IN ACCORDANCE WITH PERMIT CONDITIONS AND APPENDIX (C)(3);

- ROUTINE EXTERNAL BUILDING WASHDOWN, NOT INCLUDING SURFACE PAINT REMOVAL, THAT DOES NOT INVOLVE DETERGENTS;

- PAVEMENT WASHWATER (WHERE SPILLS/LEAKS OF TOXIC OR HAZARDOUS MATERIALS HAVE NOT OCCURRED, UNLESS ALL SPILLED MATERIAL HAD BEEN REMOVED) IF DETERGENTS ARE NOT USED;

- UNCONTAMINATED AIR CONDITIONING OR COMPRESSOR CONDENSATE;

- UNCONTAMINATED GROUNDWATER OR SPRING WATER;

- FOUNDATION OR FOOTER DRAIN-WATER WHERE FLOWS ARE NOT CONTAMINATED;

- UNCONTAMINATED EXCAVATION DEWATERING (SEE REQUIREMENTS IN APPENDIX C(5));

- POTABLE WATER SOURCES INCLUDING WATERLINE FLUSHINGS; AND

- LANDSCAPE IRRIGATION.

- UNAUTHORIZED NON-STORMWATER DISCHARGES. THE DEPARTMENT'S APPROVAL UNDER THIS CHAPTER DOES NOT AUTHORIZE A DISCHARGE THAT IS MIXED WITH A SOURCE OF NON-STORMWATER, OTHER THAN THOSE DISCHARGES IN COMPLIANCE WITH APPENDIX C (6). SPECIFICALLY, THE DEPARTMENT'S APPROVAL DOES NOT AUTHORIZE DISCHARGES OF THE FOLLOWING:

- WASTEWATER FROM THE WASHOUT OR CLEANOUT OF CONCRETE, STUCCO, PAINT, FORM RELEASE OILS, CURING COMPOUNDS OR OTHER CONSTRUCTION MATERIALS;

- FUELS, OILS OR OTHER POLLUTANTS USED IN VEHICLE AND EQUIPMENT OPERATION AND MAINTENANCE;

- SOAPS, SOLVENTS, OR DETERGENTS USED IN VEHICLE AND EQUIPMENT WASHING; AND

- TOXIC OR HAZARDOUS SUBSTANCES FROM A SPILL OR OTHER RELEASE.

- ADDITIONAL REQUIREMENTS. ADDITIONAL REQUIREMENTS MAY BE APPLIED ON A SITE-SPECIFIC BASIS.



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CLIENT NAME
WASHINGTON ACADEMY

PROJECT NAME
PUBLIC WATER SYSTEM CONSOLIDATION

PROJECT ADDRESS
66 CUTLER ROAD
EAST MACHIAS, ME
04630

SHEET TITLE

EROSION CONTROL NOTES

D&K PROJECT # 229946 PROJ. ENG. JTA

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SHEET TITLE

OVERALL SITE PLAN

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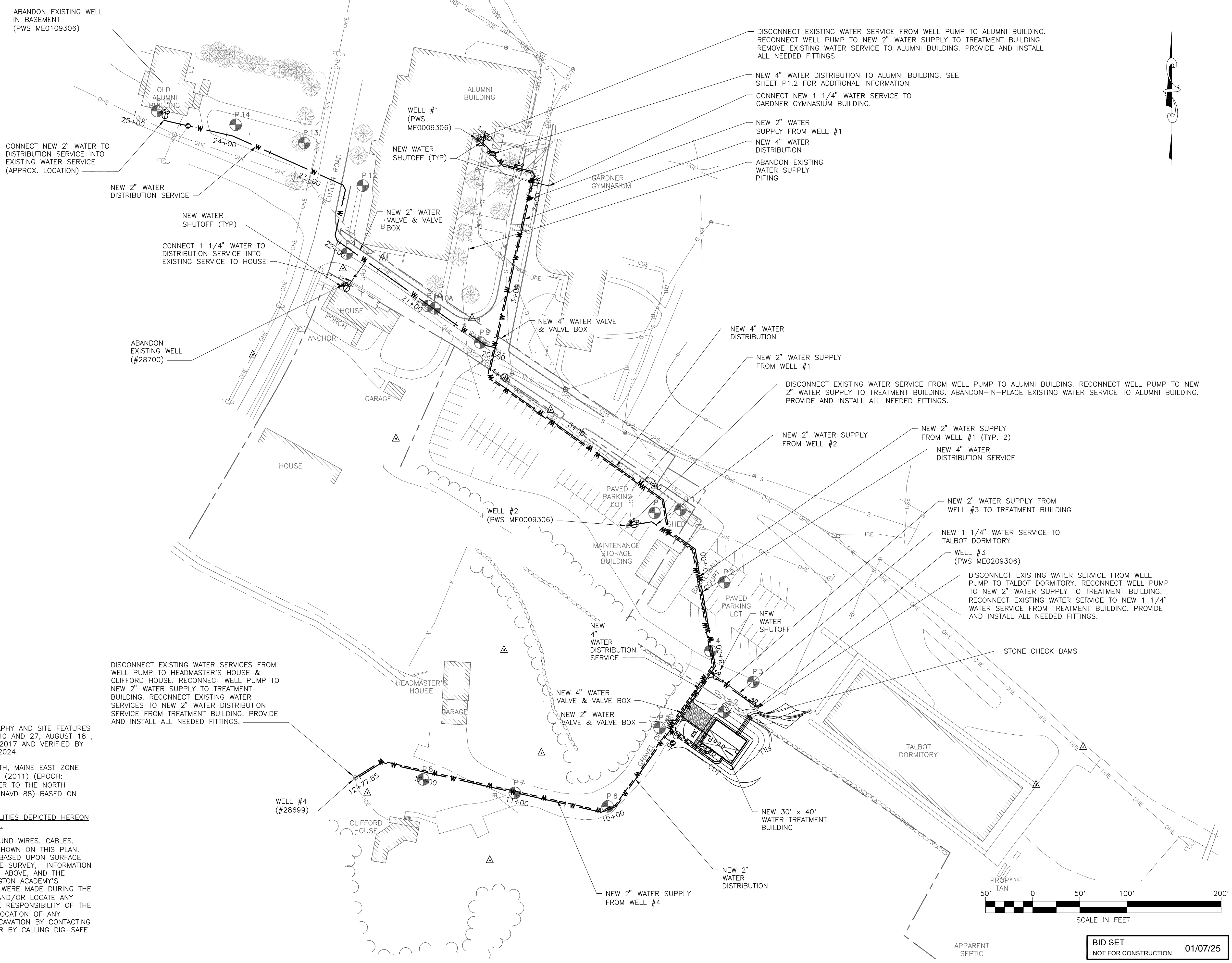
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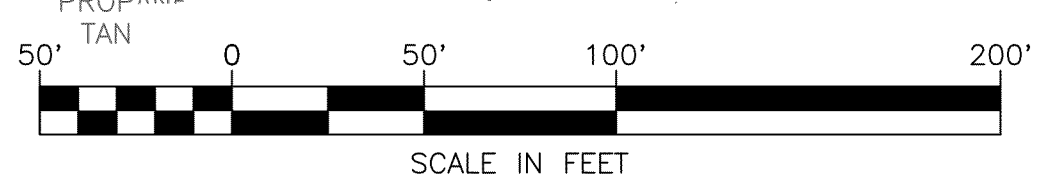
SHEET 5 OF 29



NOTES:

- THIS PLAN DEPICTS EXISTING TOPOGRAPHY AND SITE FEATURES AS SURVEYED BY CES, INC. IN JULY 10 AND 27, AUGUST 18, OCTOBER 31, AND NOVEMBER 27 OF 2017 AND VERIFIED BY DUBOIS & KING INC. ON MARCH 27, 2024.
- THIS PLAN IS ORIENTED TO GRID NORTH, MAINE EAST ZONE (1801) - REFERENCE FRAME: NAD 83 (2011) (EPOCH: 2010.0000). ELEVATIONS HEREON REFER TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88) BASED ON GPS OBSERVATIONS.
- ALL LOCATIONS OF UNDERGROUND UTILITIES DEPICTED HEREON SHOULD BE CONSIDERED APPROXIMATE.

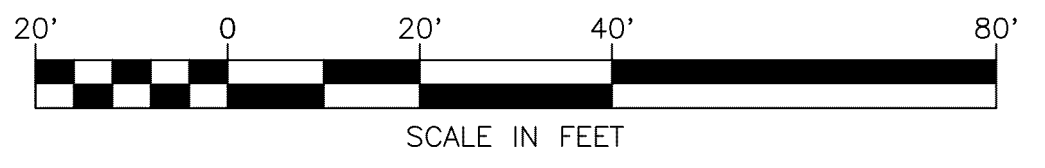
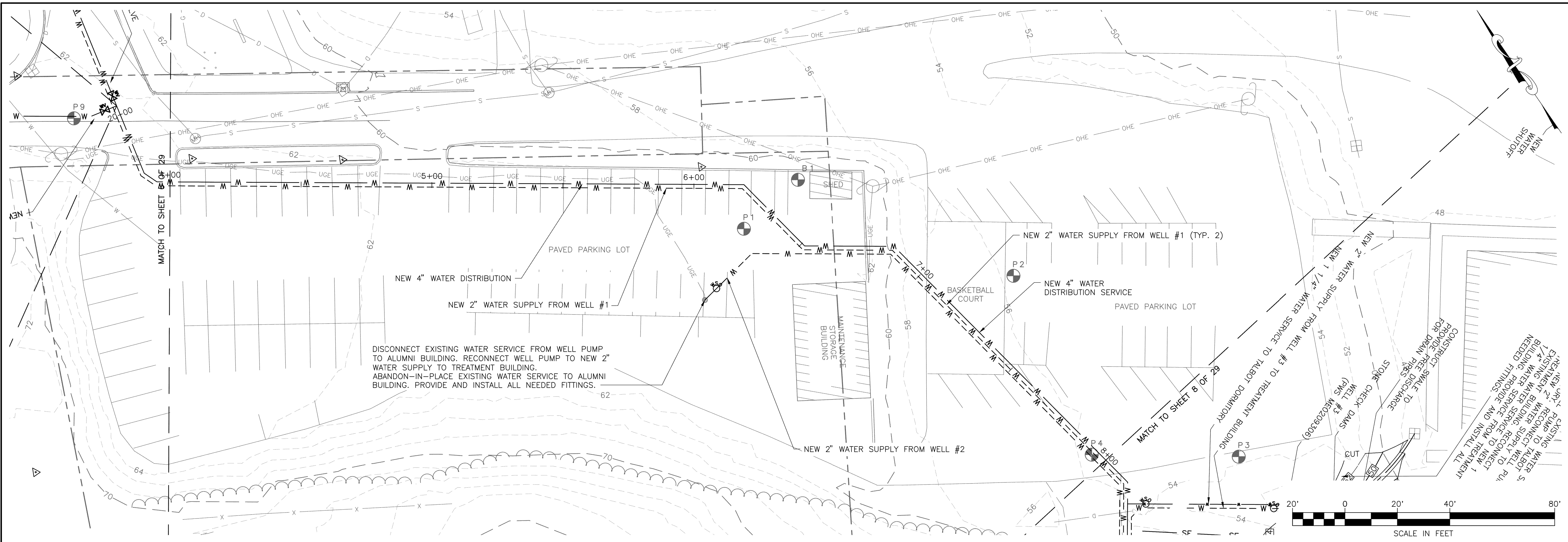
THERE MAY BE ADDITIONAL UNDERGROUND WIRES, CABLES, UTILITIES, AND/OR STRUCTURES NOT SHOWN ON THIS PLAN. THE LOCATIONS SHOWN HEREON ARE BASED UPON SURFACE FEATURES VISIBLE AT THE TIME OF THE SURVEY, INFORMATION DEPICTED ON THE PLANS REFERENCED ABOVE, AND THE INSTITUTIONAL KNOWLEDGE OF WASHINGTON ACADEMY'S FACILITIES MANAGER. NO EXCAVATIONS WERE MADE DURING THE COURSE OF THIS SURVEY TO VERIFY AND/OR LOCATE ANY UNDERGROUND STRUCTURES. IT IS THE RESPONSIBILITY OF THE OWNER/CONTRACTOR TO VERIFY THE LOCATION OF ANY UNDERGROUND UTILITIES PRIOR TO EXCAVATION BY CONTACTING THE APPROPRIATE UTILITY COMPANY OR BY CALLING DIG-SAFE AT 1-888-344-7233.



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EAST MACHIAS, ME
04630

SHEET TITLE

PLAN AND PROFILE SHEET 2 OF 4

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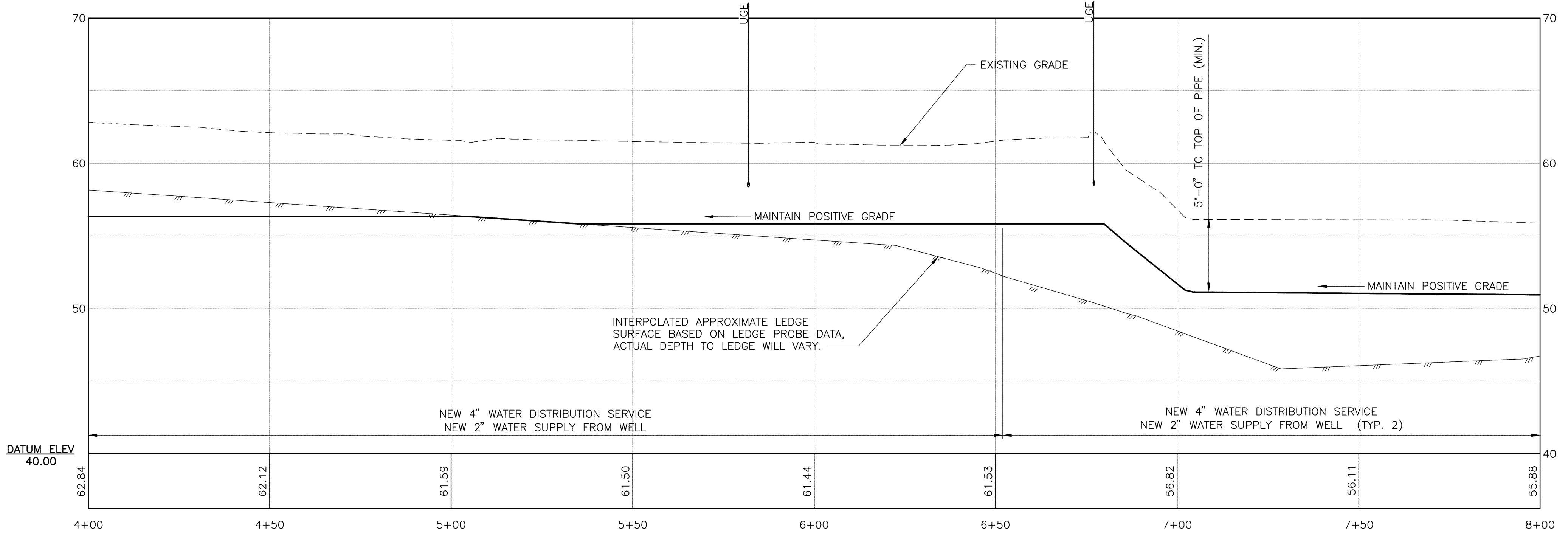
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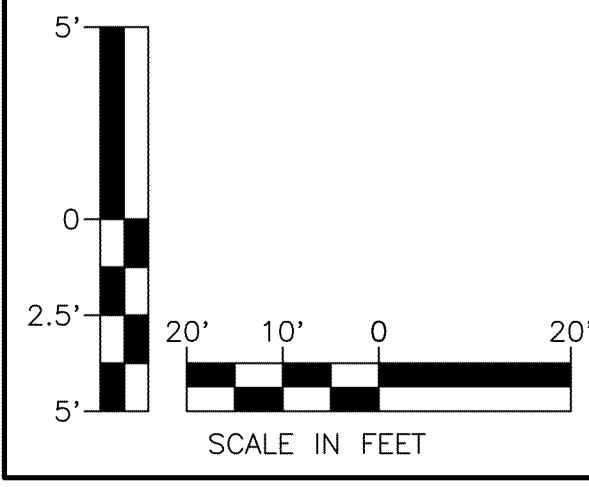
SHEET 7 OF 29



NOTES:
1. APPROXIMATE LOCATION OF EXISTING UTILITY. CONTRACTOR SHALL VERIFY LOCATION AND DEPTH WITH UTILITY LOCATOR AND NON DESTRUCTIVE EXCAVATION PRIOR TO CROSSING.

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PLAN AND PROFILE SHEET 3 OF 4

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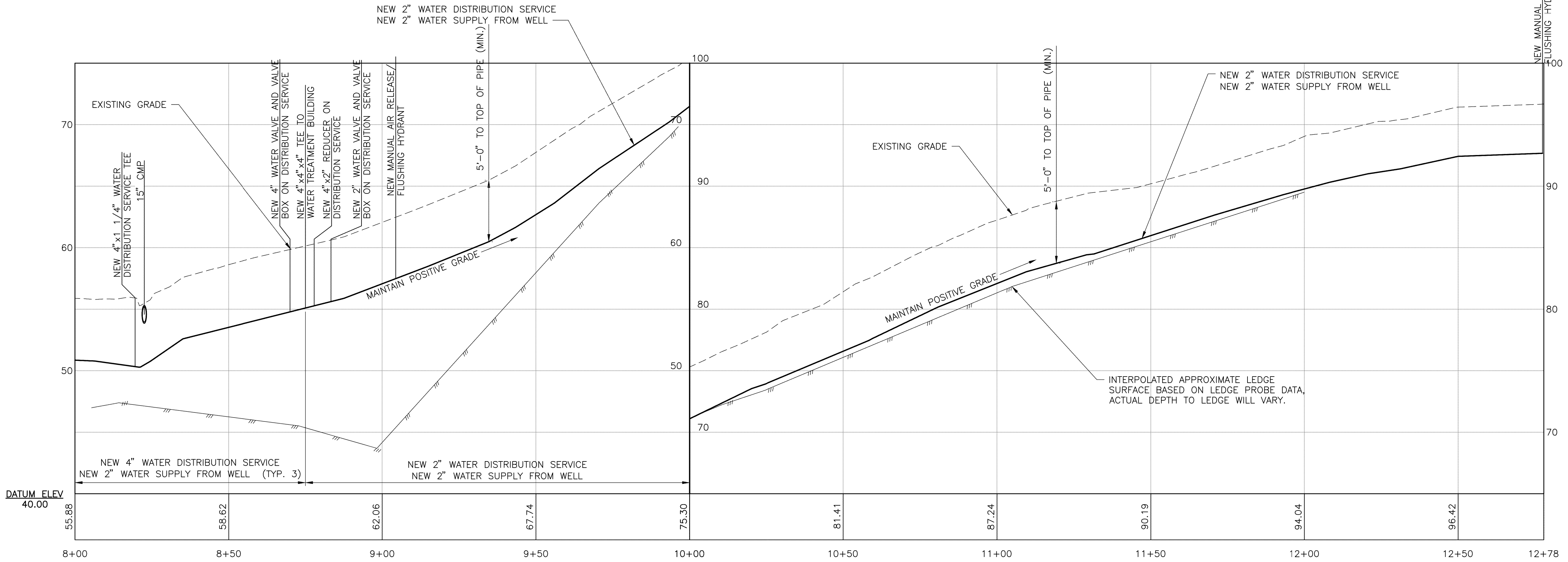
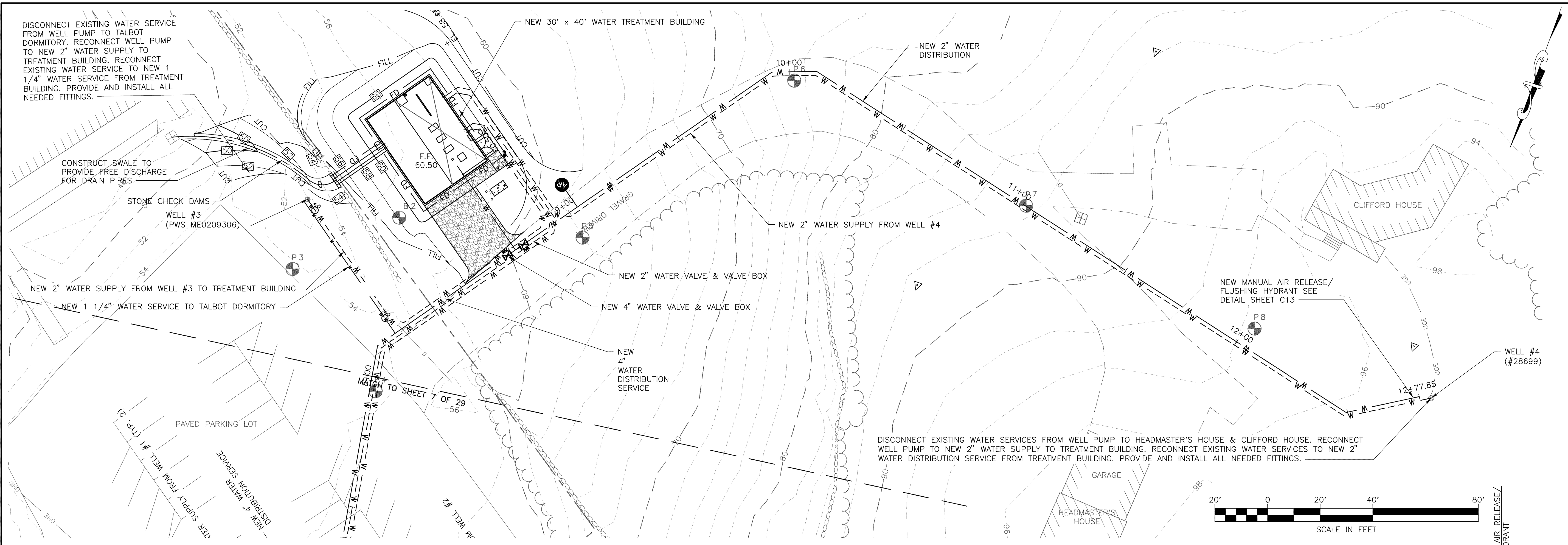
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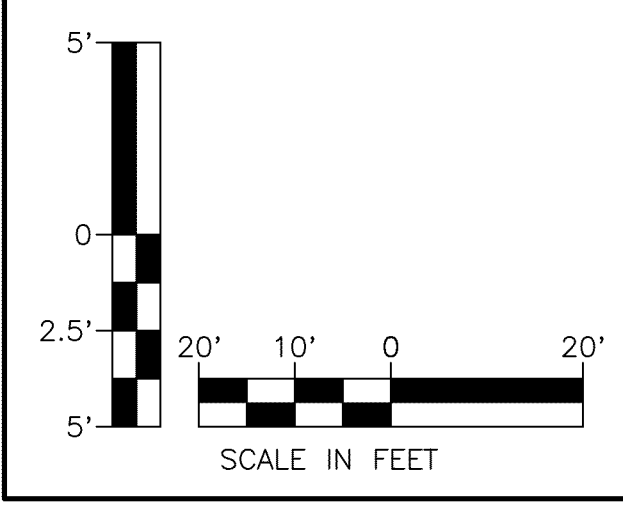
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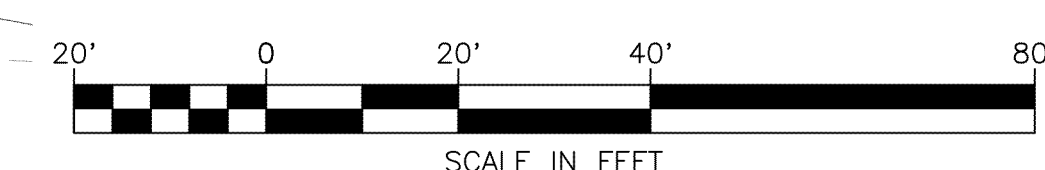
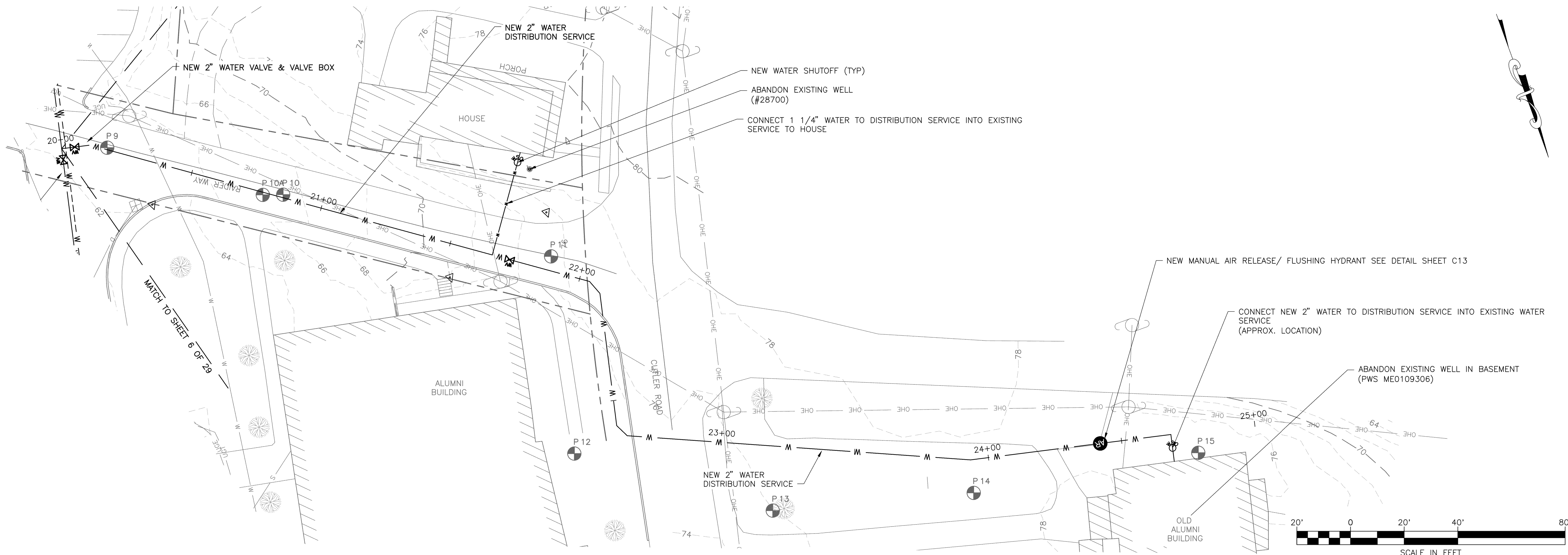
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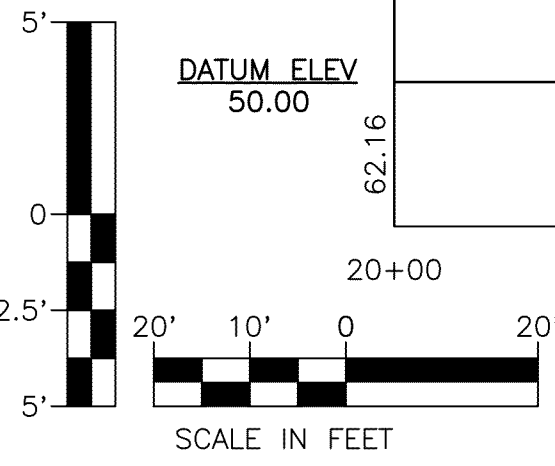
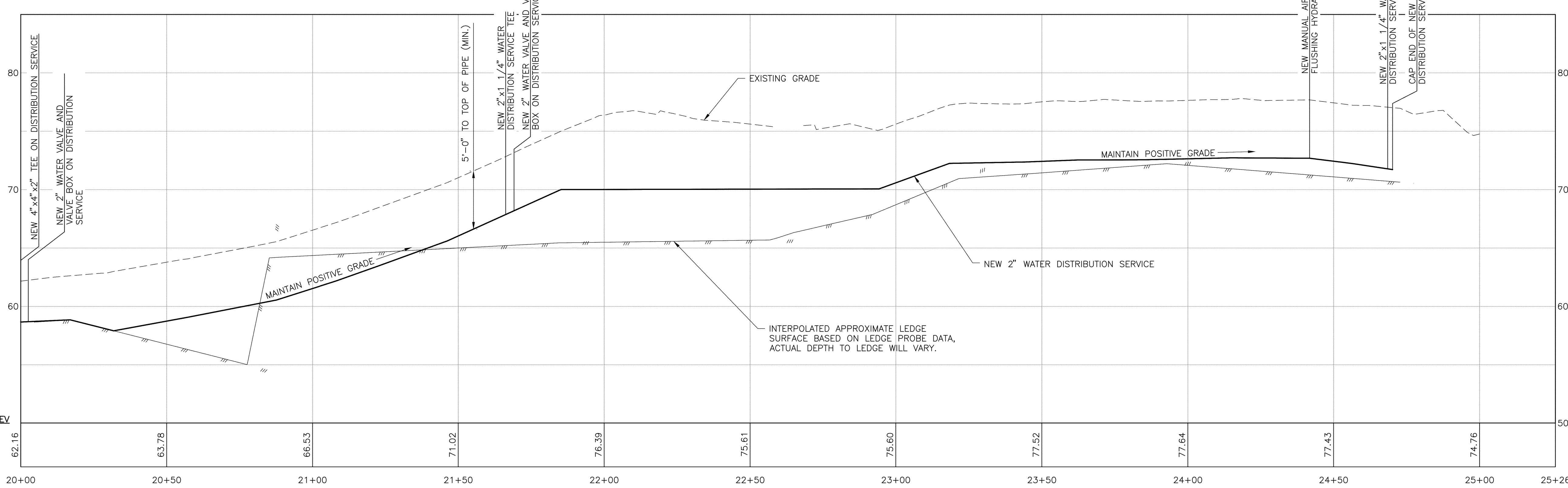
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SHEET NUMBER

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SHEET 9 OF 29



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TREATMENT BUILDING SITE PLAN

D&K PROJECT # 229946 PROJ. ENG. JTA

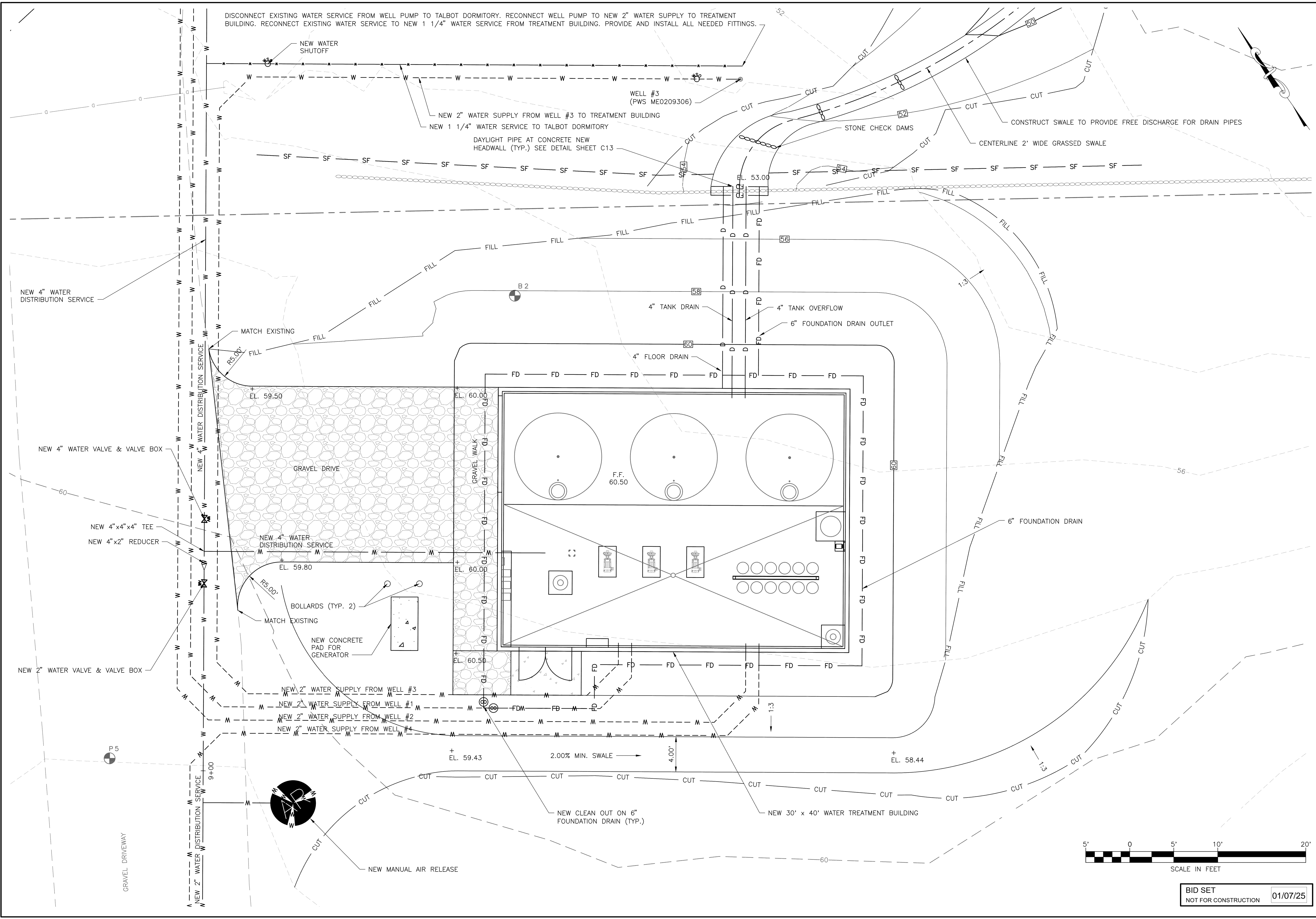
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SHEET 10 OF 29



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TREATMENT BUILDING SECTIONS SHEET 1 OF 2

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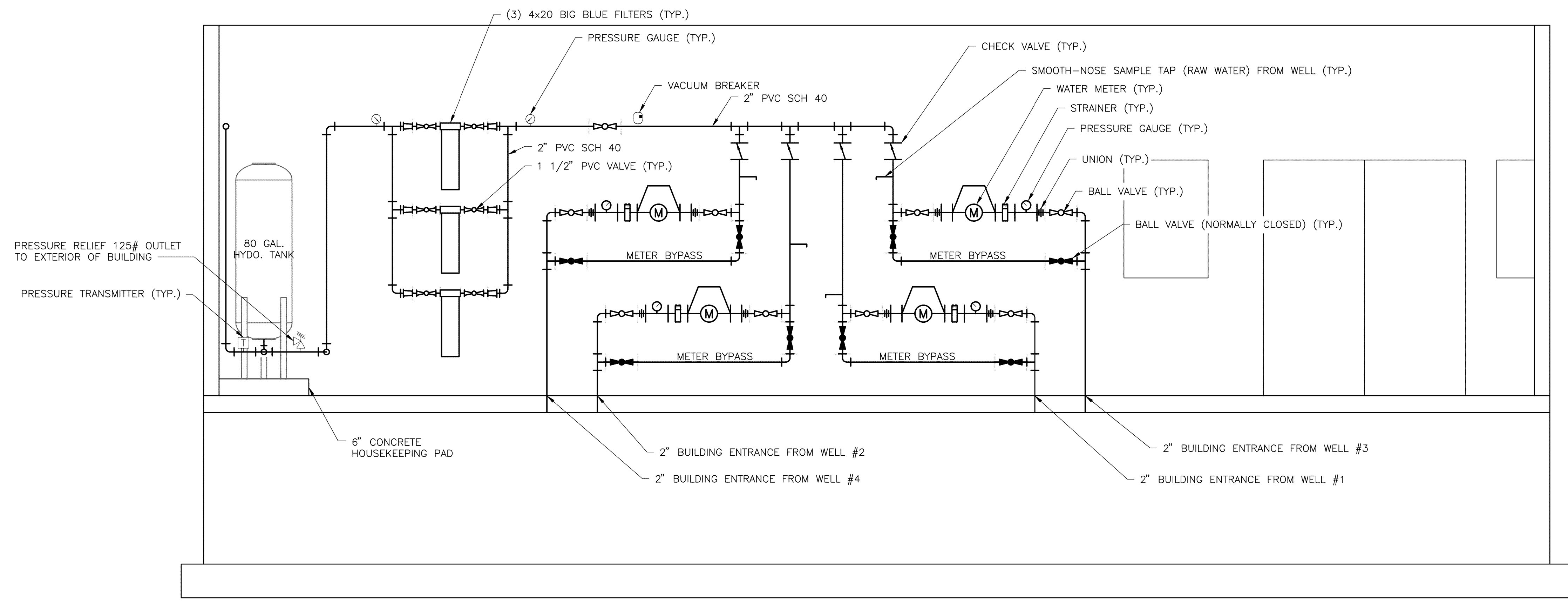
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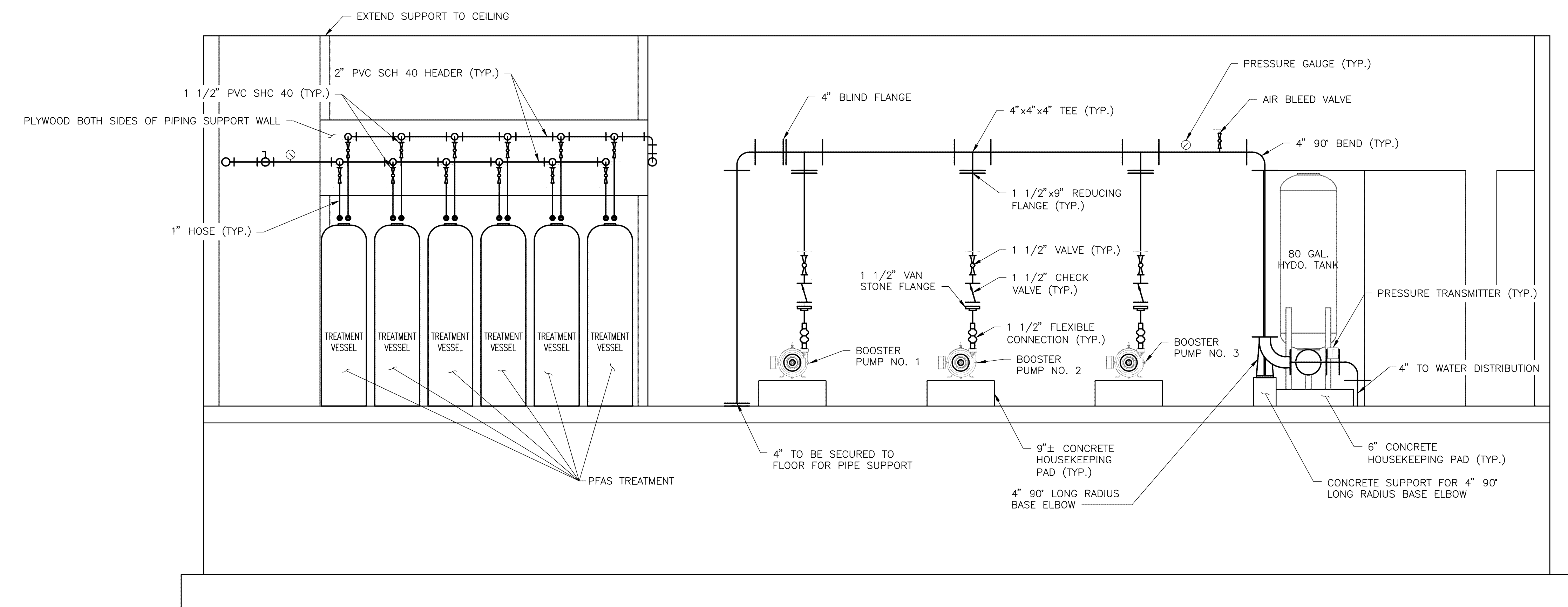
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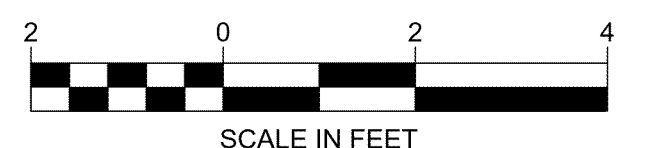
SHEET 12 OF 29



A PUMP HOUSE SECTION



B PUMP HOUSE SECTION



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CONTROL DIAGRAM

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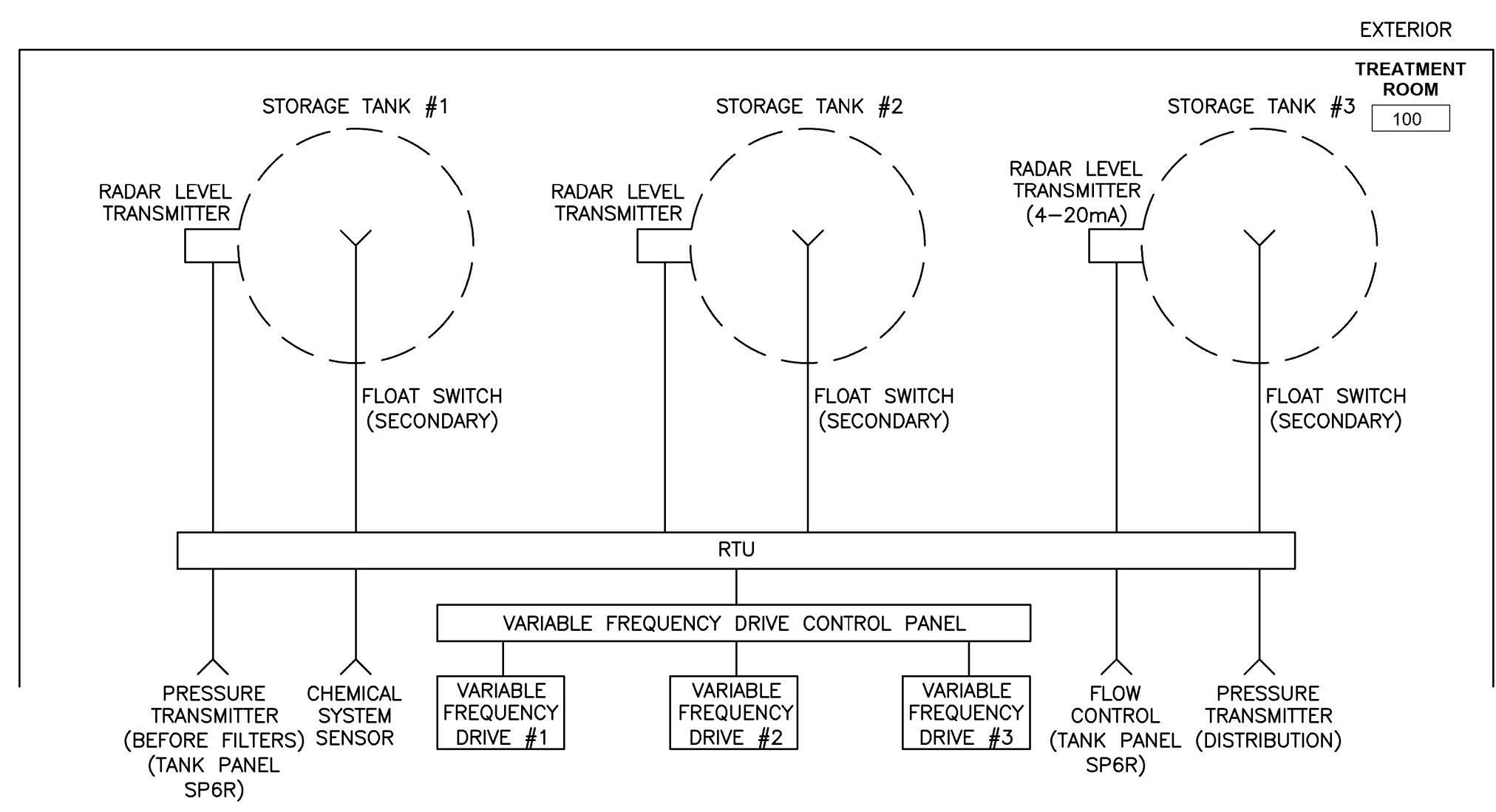
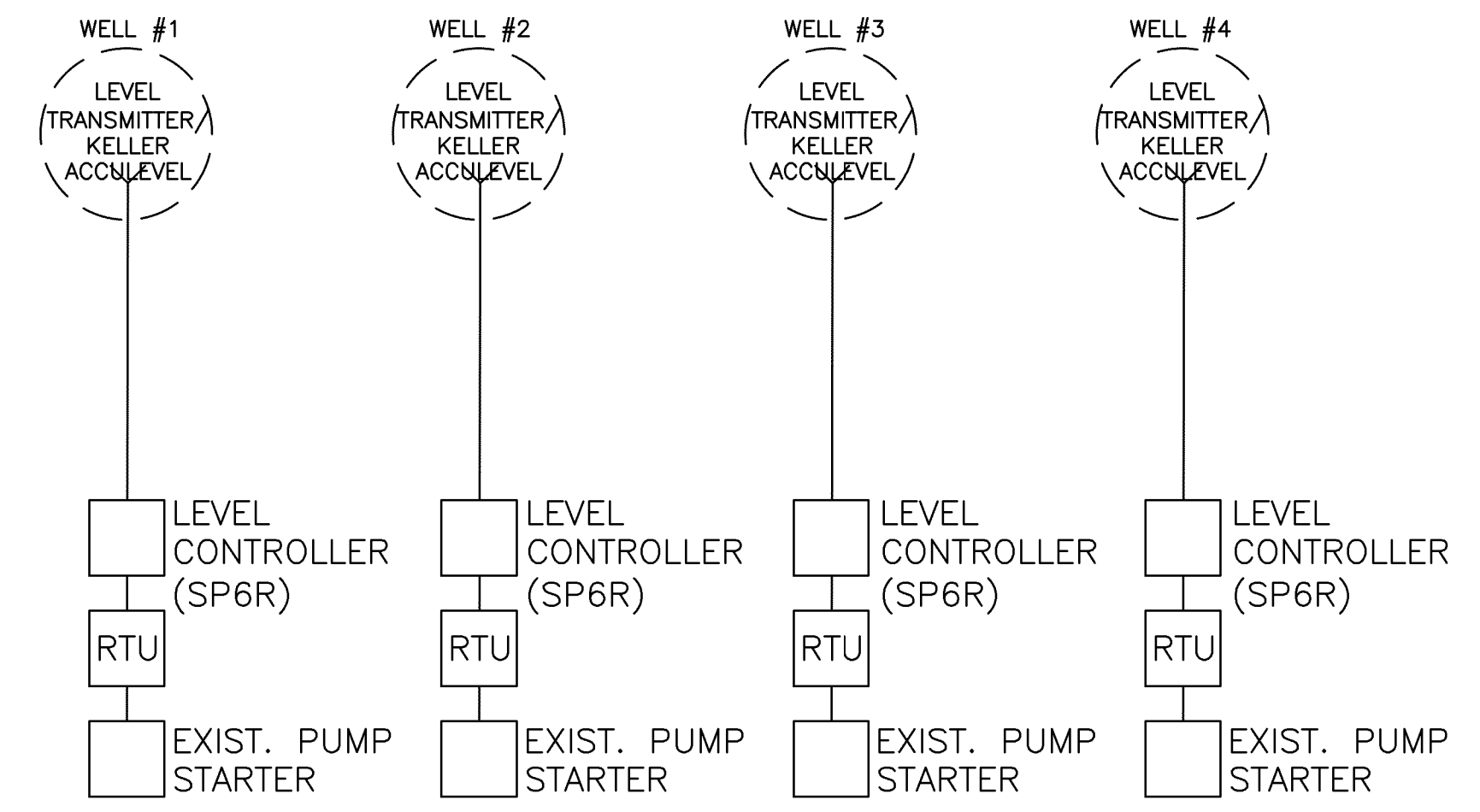
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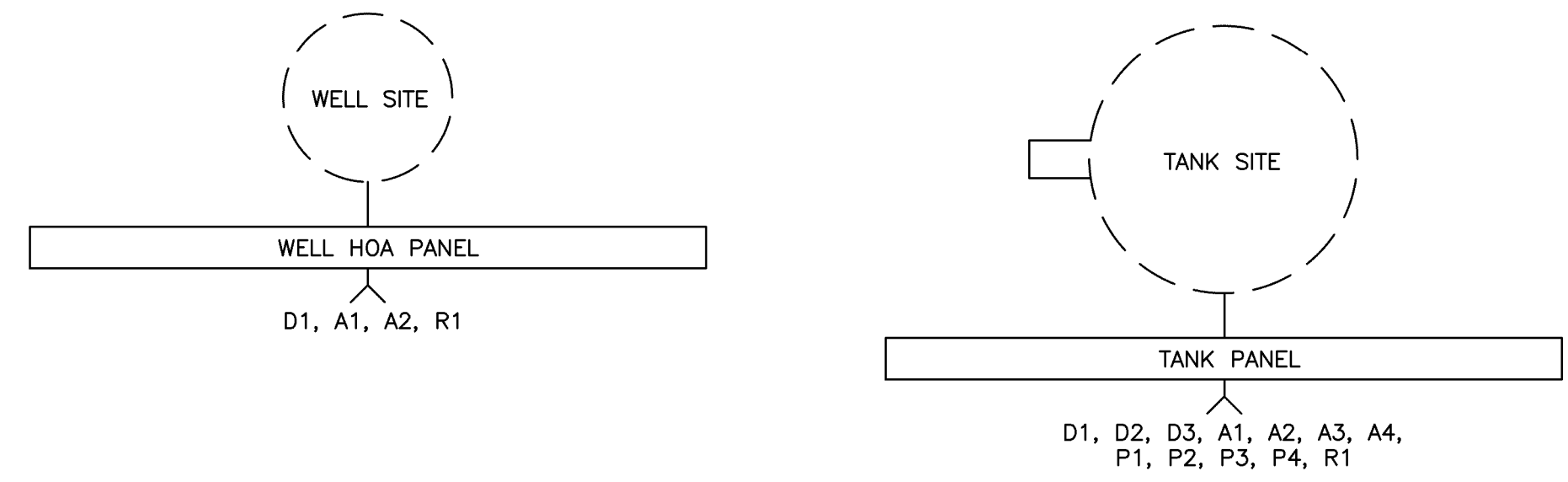
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Signal Type	Signal Description	Device	Location	Setpoints/Alarms
D1	Well Pump Run	Pump starter	Well Site	---
A1	Well Pump Amps	Current sensor	Well Site	---
A2	Well water depth	Level sensor	Well Site	---
R1	Pump run	Relay	Well Site	---
D1	LL Float	Float switch	Tank Site	---
D2	Intrusion	Intrusion sensor	Tank Site	---
D3	Filter Alarm	Pressure switch	Tank Site	---
A1	Tank 1 Radar	Radar level sensor	Tank Site	---
A2	System Pressure	Pressure sensor	Tank Site	---
A3	Chlorine	Chlorine sensor	Tank Site	---
A4	Filter Pressure	Pressure sensor	Tank Site	---
P1	Well 1 Flow	Flow meter	Tank Site	---
P2	Well 2 Flow	Flow meter	Tank Site	---
P3	Well 3 Flow	Flow meter	Tank Site	---
P4	Future pulse flow	Pulse flow meter	Tank Site	---
R1	Fill Valve	Solenoid valve	Tank Site	---



1 ONE-LINE DIAGRAM
NO SCALE



2 MISSION 850 CONTROL INPUTS
NO SCALE

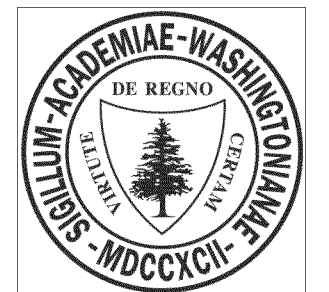
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REVISIONS	BY	DATE	NUMBER	REVISION DESCRIPTION

CLIENT NAME
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PROJECT NAME
PUBLIC WATER SYSTEM CONSOLIDATION

PROJECT ADDRESS
66 CUTLER ROAD
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04630

SHEET TITLE

WATER AND TRENCH DETAILS SHEET 1 OF 3

D&K PROJECT #

PROJ. ENG.

229946 JTA

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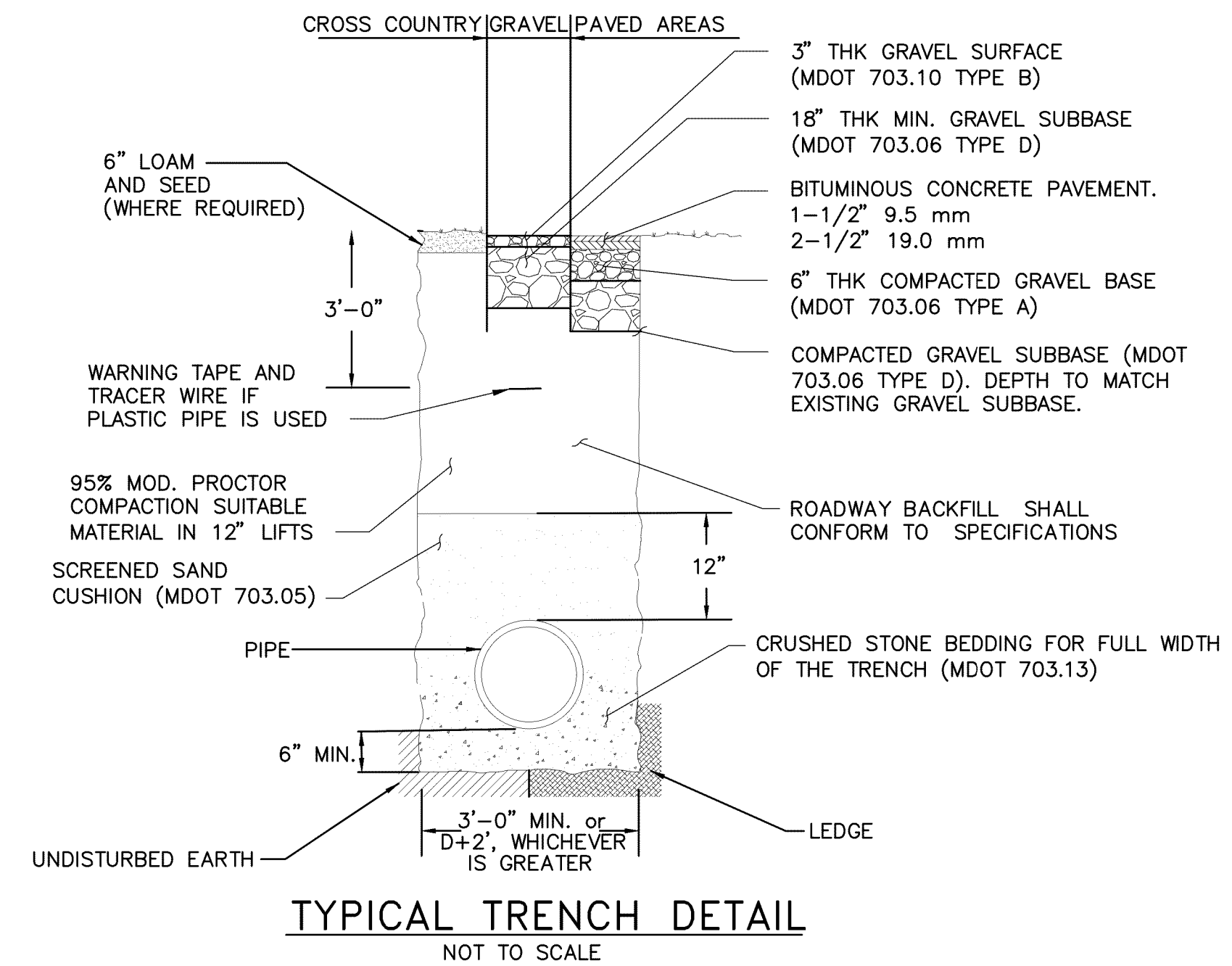
DATE

07-January-25

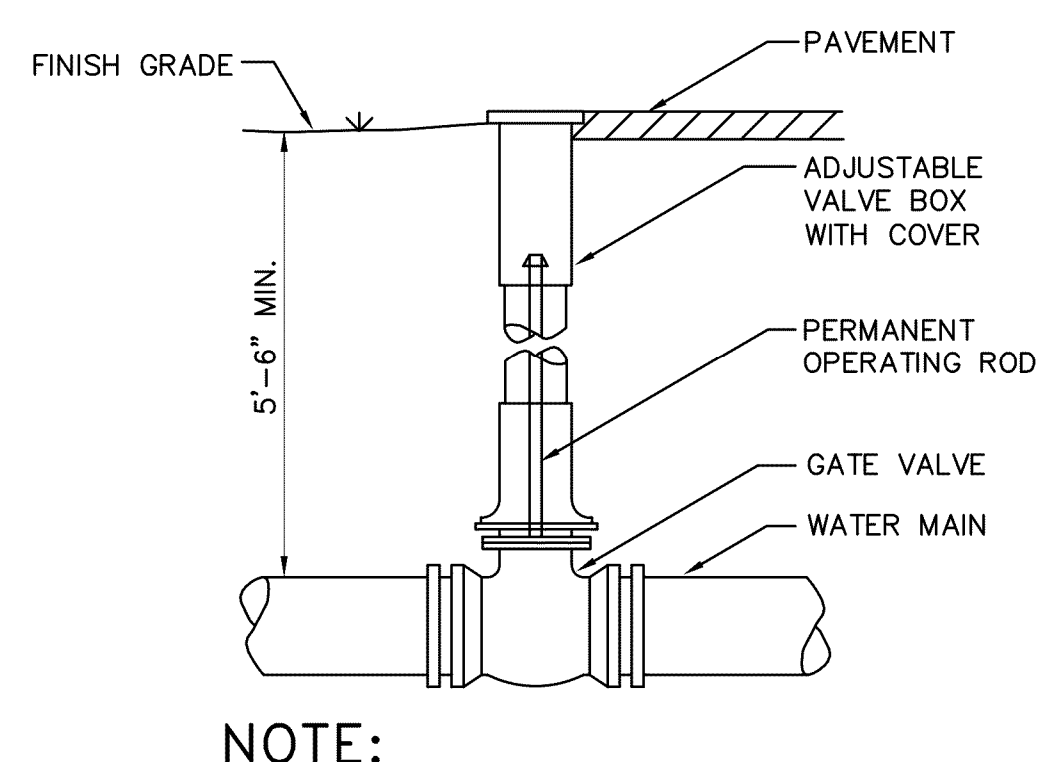
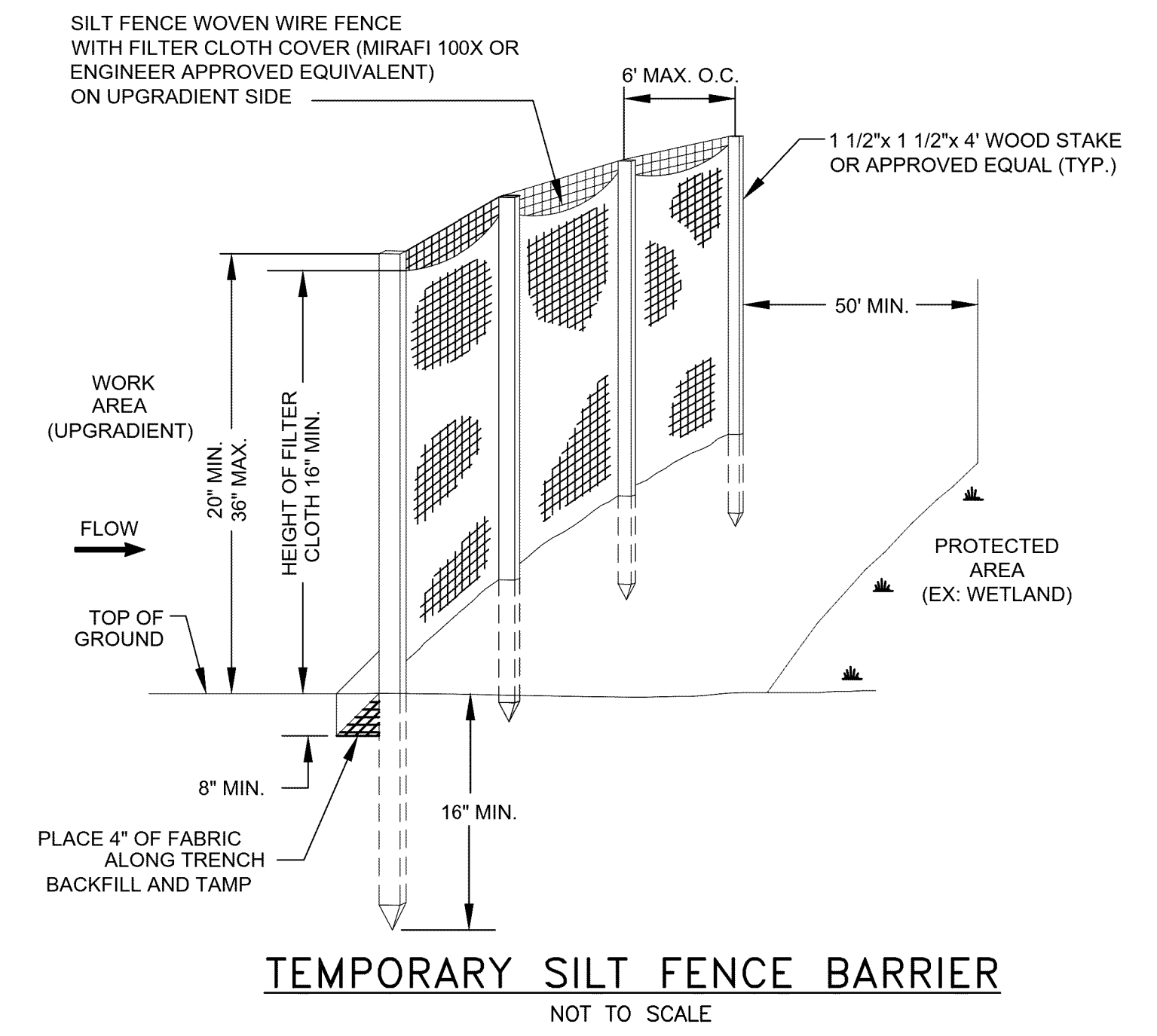
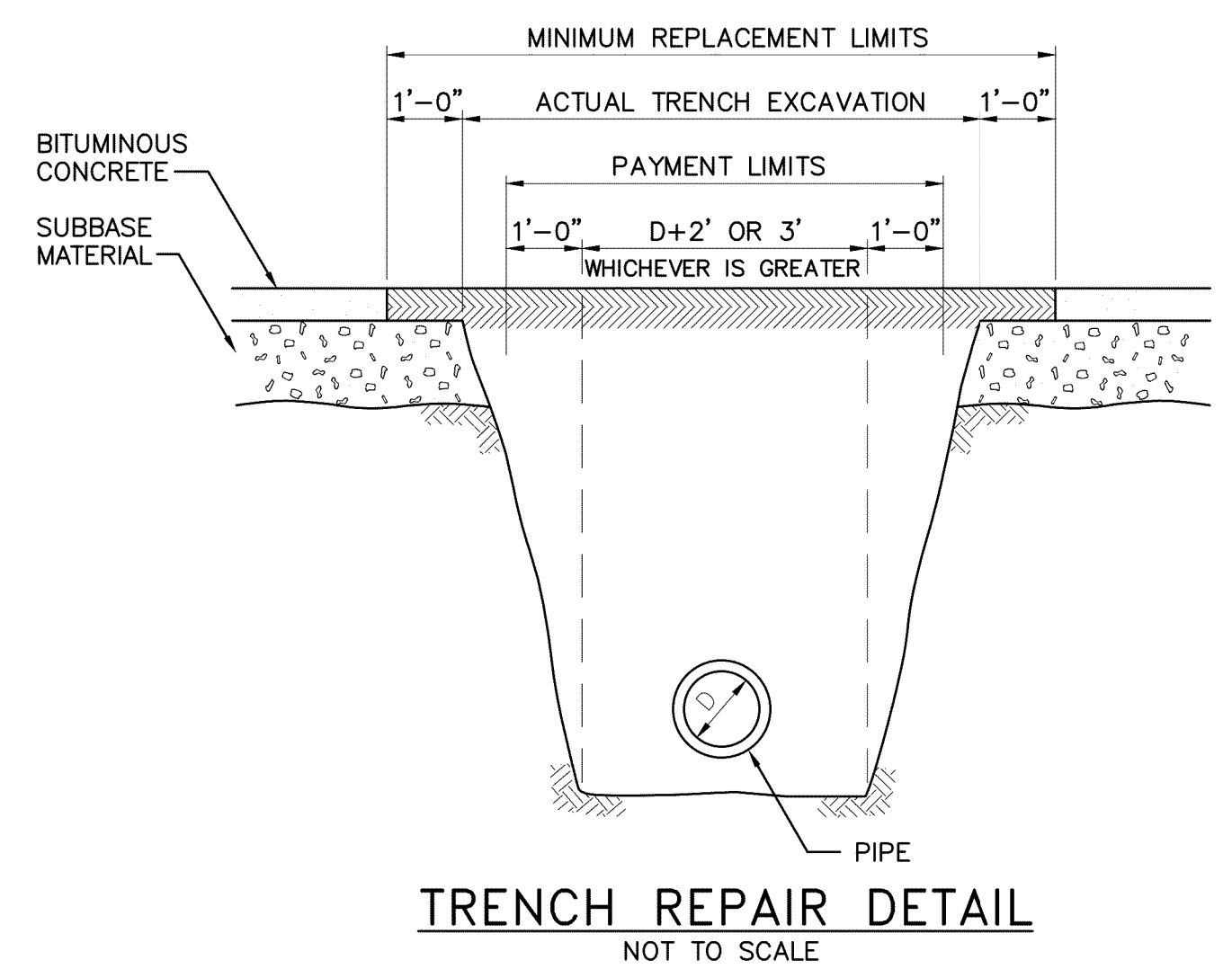
SHEET NUMBER

C12

SHEET 15 OF 29

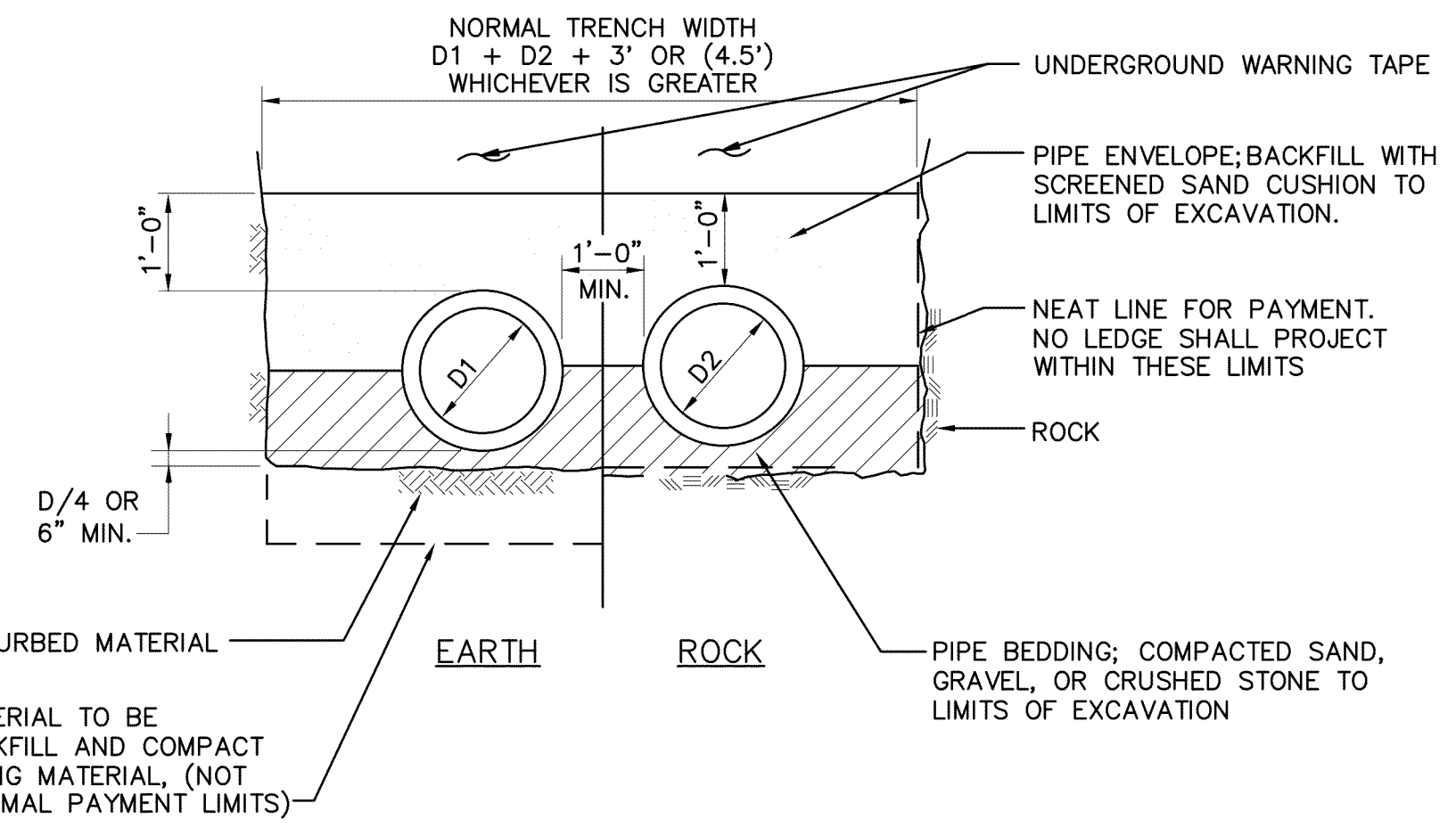


NOTE - ADD 4" OF RIGID INSULATION AT ALL STORM DRAIN CROSSINGS OF WATER AND SEWER, CLOSER THAN 3', ON THE SIDE OF ENCROACHMENT. EXTEND INSULATION 5- FEET BOTH SIDES OF THE CROSSING.

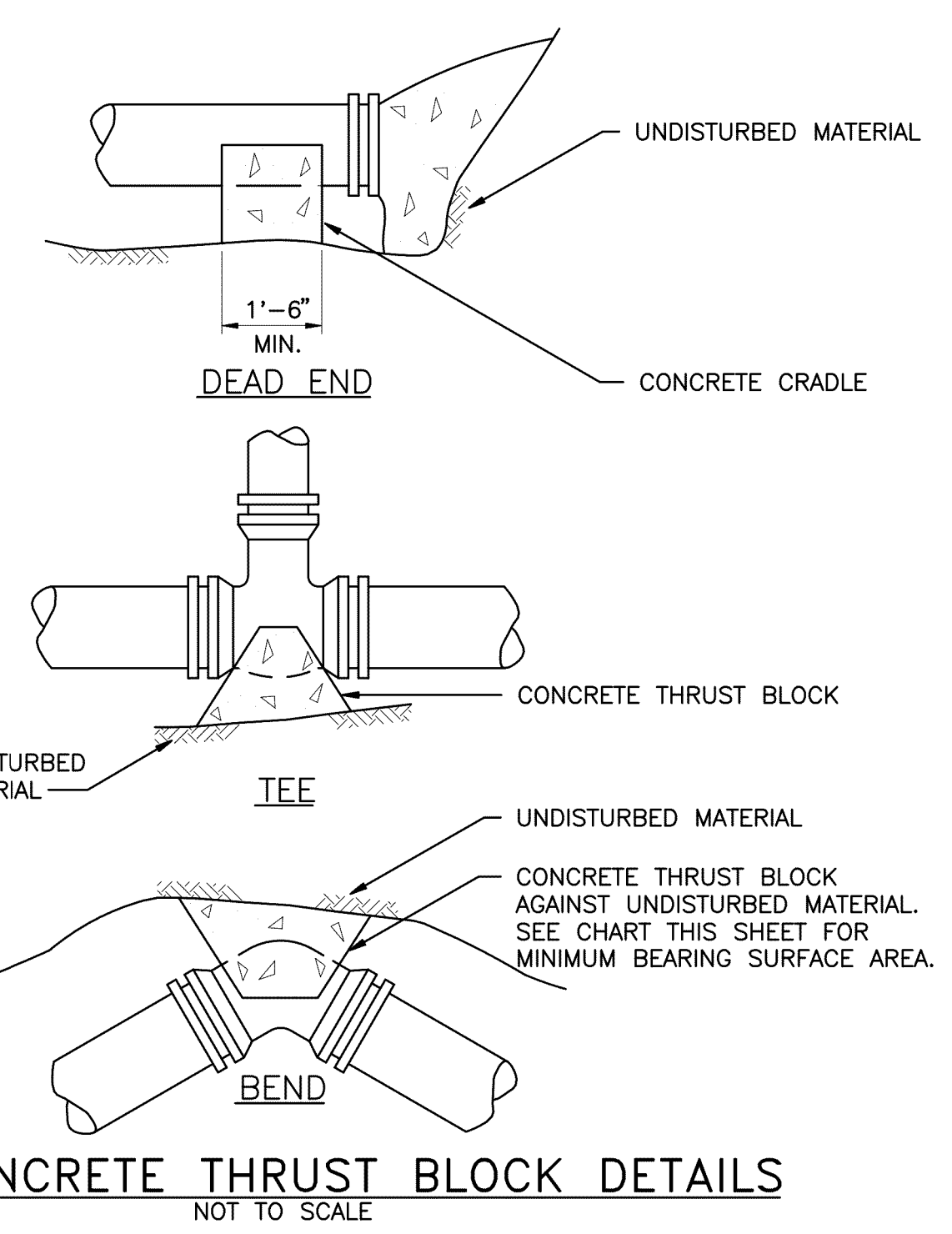


NOTE:
UNLESS OTHERWISE INDICATED ALL GATE VALVES SHALL HAVE PERMANENTLY INSTALLED OPERATING RODS TERMINATING AT LEAST 2'-0" AND NOT MORE THAN 3'-0" BELOW THE TOP OF THE VALVE BOX.

BURIED GATE VALVE DETAIL
NOT TO SCALE



UNSUITABLE MATERIAL TO BE EXCAVATED. BACKFILL AND COMPACT WITH PIPE BEDDING MATERIAL. (NOT INCLUDED IN NORMAL PAYMENT LIMITS)



AREA OF BEARING FACE OF CONCRETE THRUST BLOCKS IN SQUARE FEET

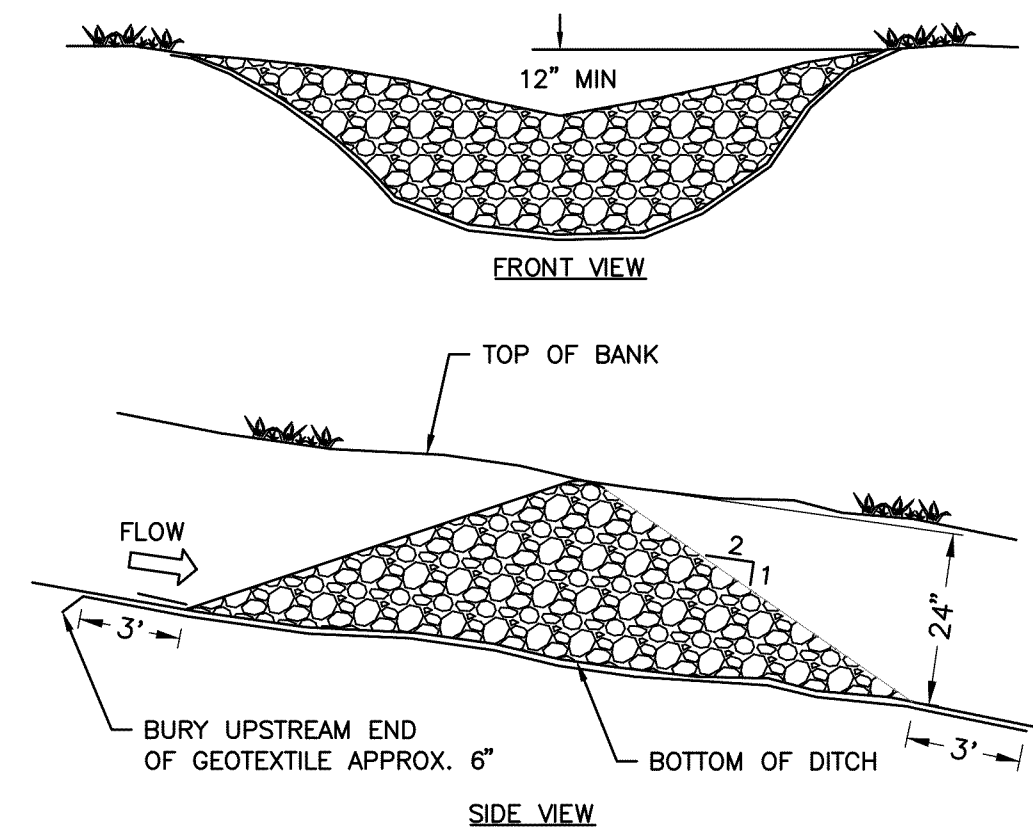
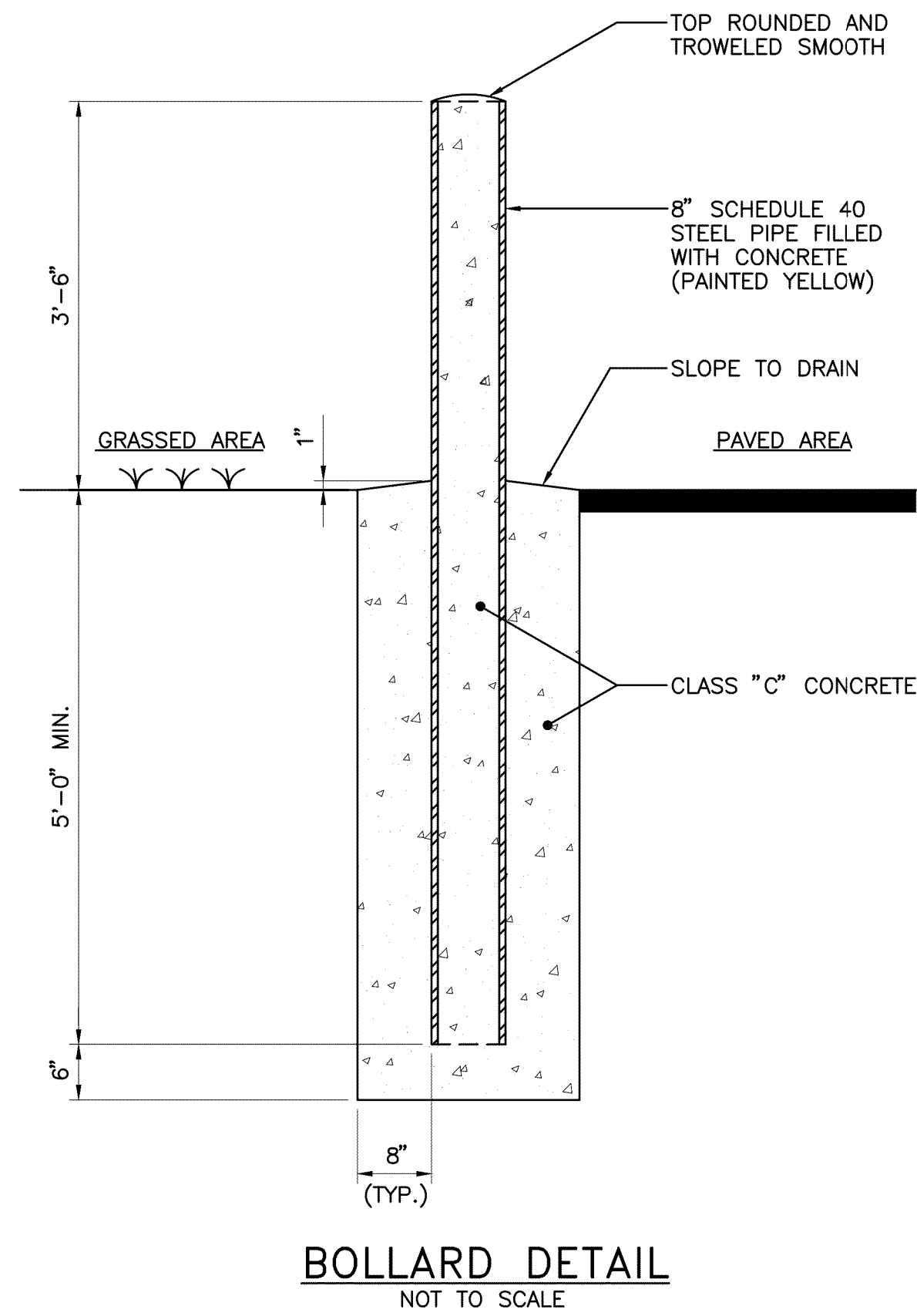
PIPE SIZE (IN)	SOFT WET CLAY, SAND OR SILT	DRY SAND	COMPACT COARSE SAND OR GRAVEL HARDPAN
	SOIL BEARING CAPACITIES (APPROXIMATE)		
	1,250 lbs/ft ²	4,000 lbs/ft ²	6,000 lbs/ft ²
DEAD END OR TEE			
8 OR LESS	15	5	4
1/4 BEND			
8 OR LESS	21	7	5
1/8 BEND			
8 OR LESS	12	4	3
1/16 BEND			
8 OR LESS	6	2	2

- THRUST BLOCK TABLE NOTES**
- FIGURES BASED ON 300 PSI.
 - FOR PIPE SIZES NOT LISTED USE NEXT LARGER PIPE SIZE.
 - WHEN MORE THAN ONE SOIL TYPE IS ENCOUNTERED, THE ONE WITH LEAST BEARING CAPACITY SHALL BE USED.
 - RETAINING RODS OR RESTRAINED JOINT PIPE, AS APPROVED BY THE ENGINEER, SHALL BE USED IN PLACE OF THRUST BLOCKS WHEN MUCK IS ENCOUNTERED.
 - CONTRACTOR MAY PROPOSE SMALLER THRUST BLOCKS BASED ON PIPE SIZES AND MAXIMUM PRESSURES.

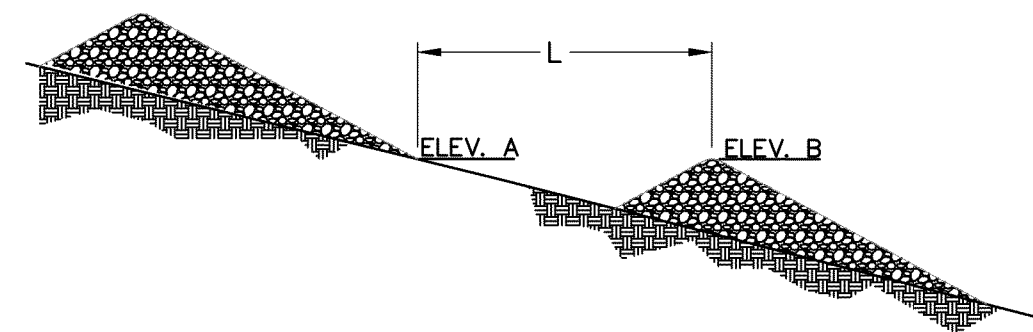
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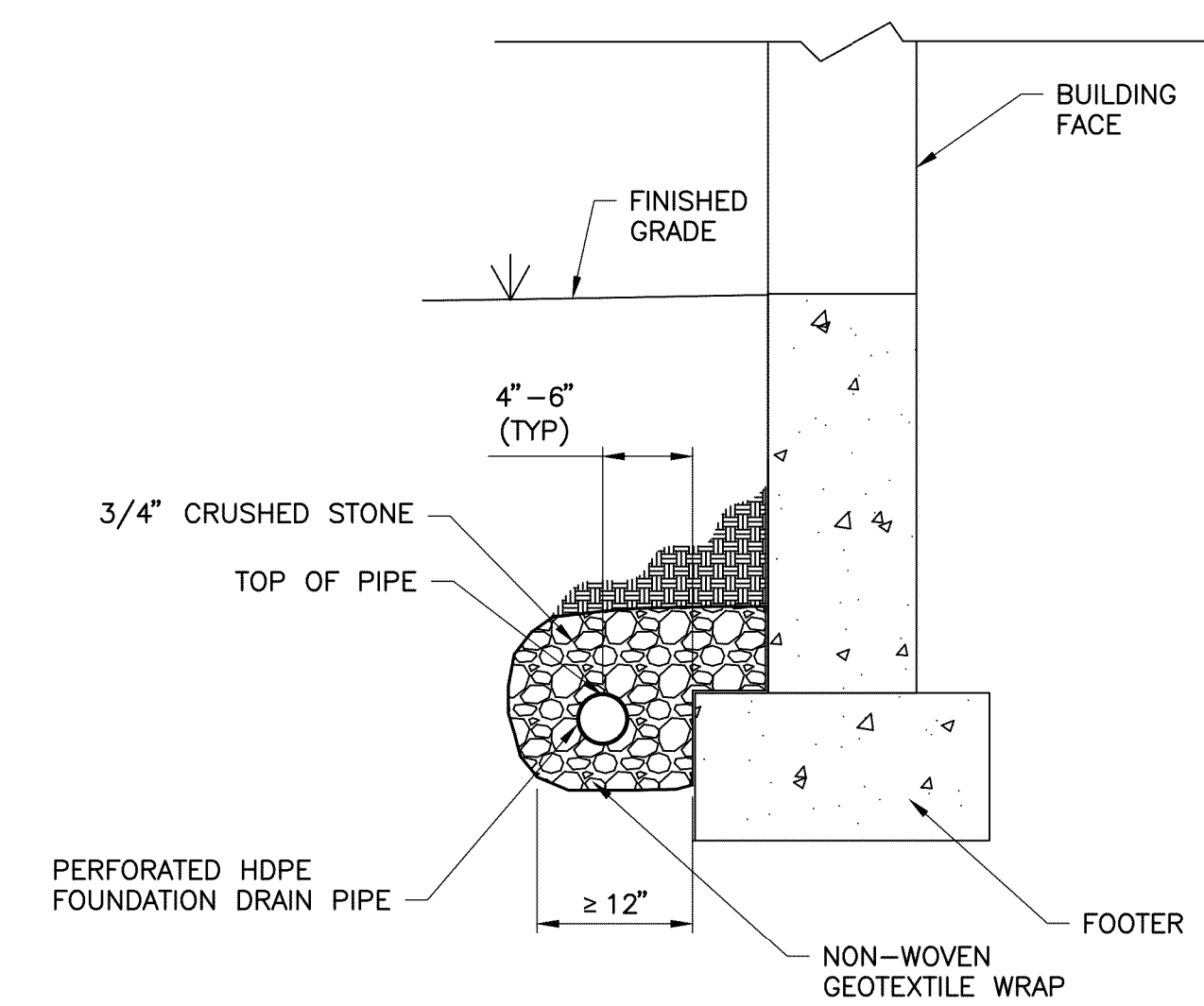
NOT FOR CONSTRUCTION BID SET



L = THE DISTANCE SUCH THAT POINTS A AND B ARE OF EQUAL ELEVATION.



SPACING OF CHECK DAMS
NOT TO SCALE



FOOTER DRAIN DETAIL
NOT TO SCALE

NOTES:

1. TOP OF PERFORATED PIPE MUST BE AT OR BELOW THE TOP OF FOOTING.
2. BACKFILL MUST BE SIZED AT LEAST ONE SIEVE SIZE (ROCK SIZE) LARGER THAN DIMENSIONS OF PERFORATIONS.
3. FOR NATIVE SOIL WITH HIGH SAND CONTENT, A GEOTEXTILE BETWEEN THE BACKFILL AND NATIVE SOIL SHOULD BE USED. FOR NATIVE SOIL WHERE THE CLAY EXCEEDS 40%, A GEOTEXTILE IS NOT REQUIRED AROUND THE PIPE.
4. FOR NATIVE SOIL WITH LESS THAN 50% PASSING THE NO. 200 SIEVE, THE APPARENT OPENING SIZE (AOS) OF THE FABRIC SHOULD BE AT LEAST A NO. 30 SIEVE. FOR NATIVE SOIL WITH MORE THAN 50% PASSING THE NO. 200 SIEVE, THE AOS OF THE FABRIC SHOULD BE AT LEAST A NO. 50 SIEVE.
5. IF VEHICULAR LOADS ARE EXPECTED, A MINIMUM OF 12-INCHES OF COVER IS REQUIRED OVER THE TOP OF THE PIPE.

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SHEET TITLE

WATER AND TRENCH DETAILS
SHEET 3 OF 3

D&K PROJECT # 229946

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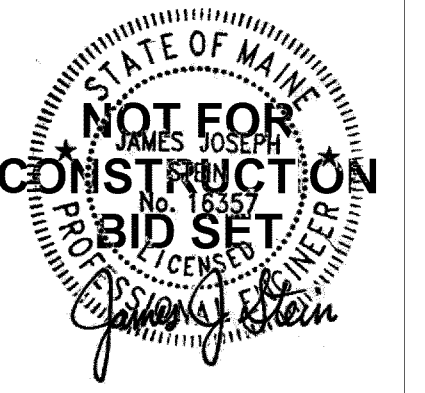
DATE 07-January-25

SHEET NUMBER

C14

BID SET
NOT FOR CONSTRUCTION 01/07/25

SHEET 17 OF 29



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SHEET TITLE

FLOOR PLAN & SECTIONS

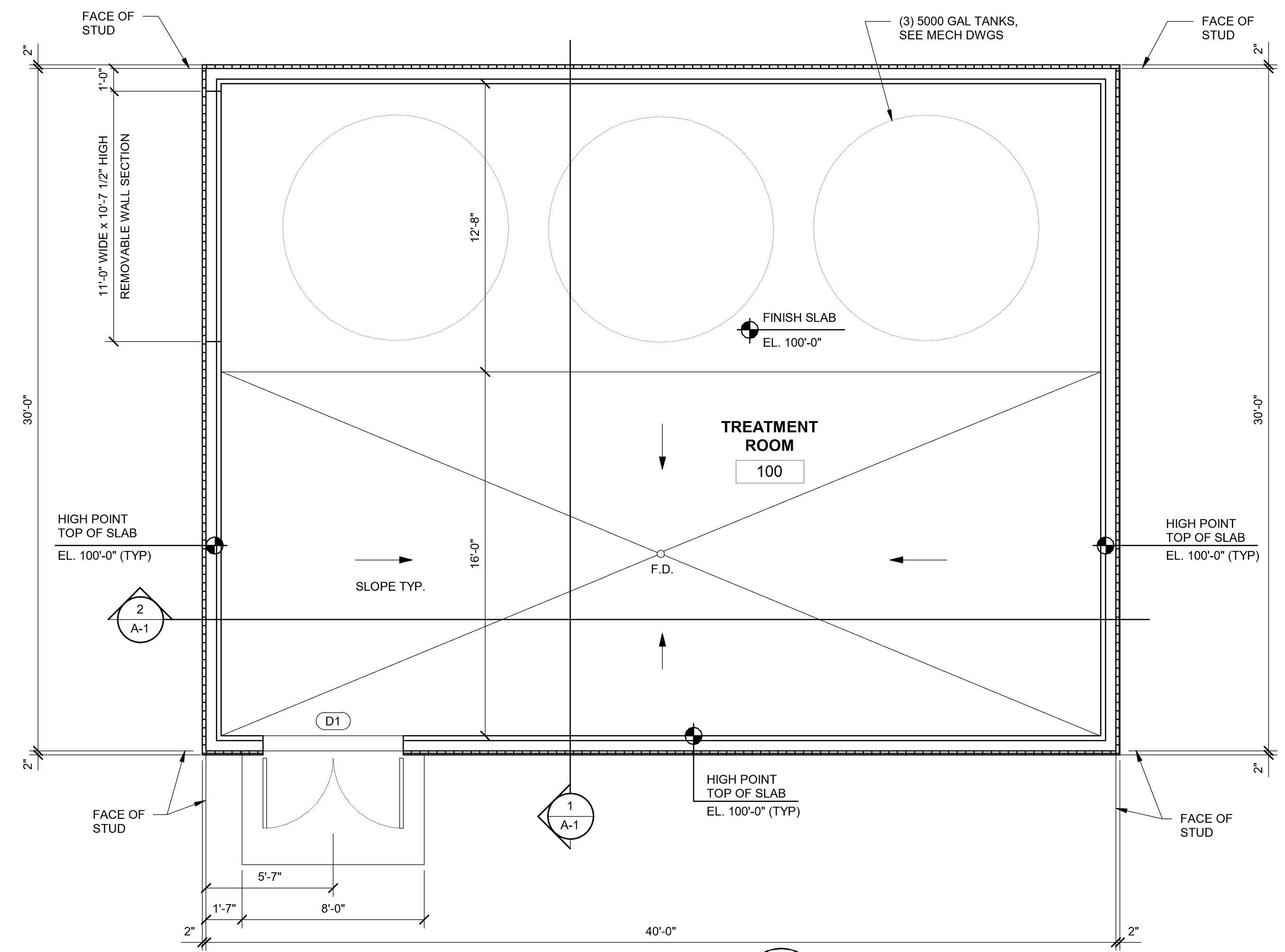
D&K PROJECT # 229946
PROJ. ENG. LF

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CHECKED BY

DATE
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SHEET NUMBER

A-1

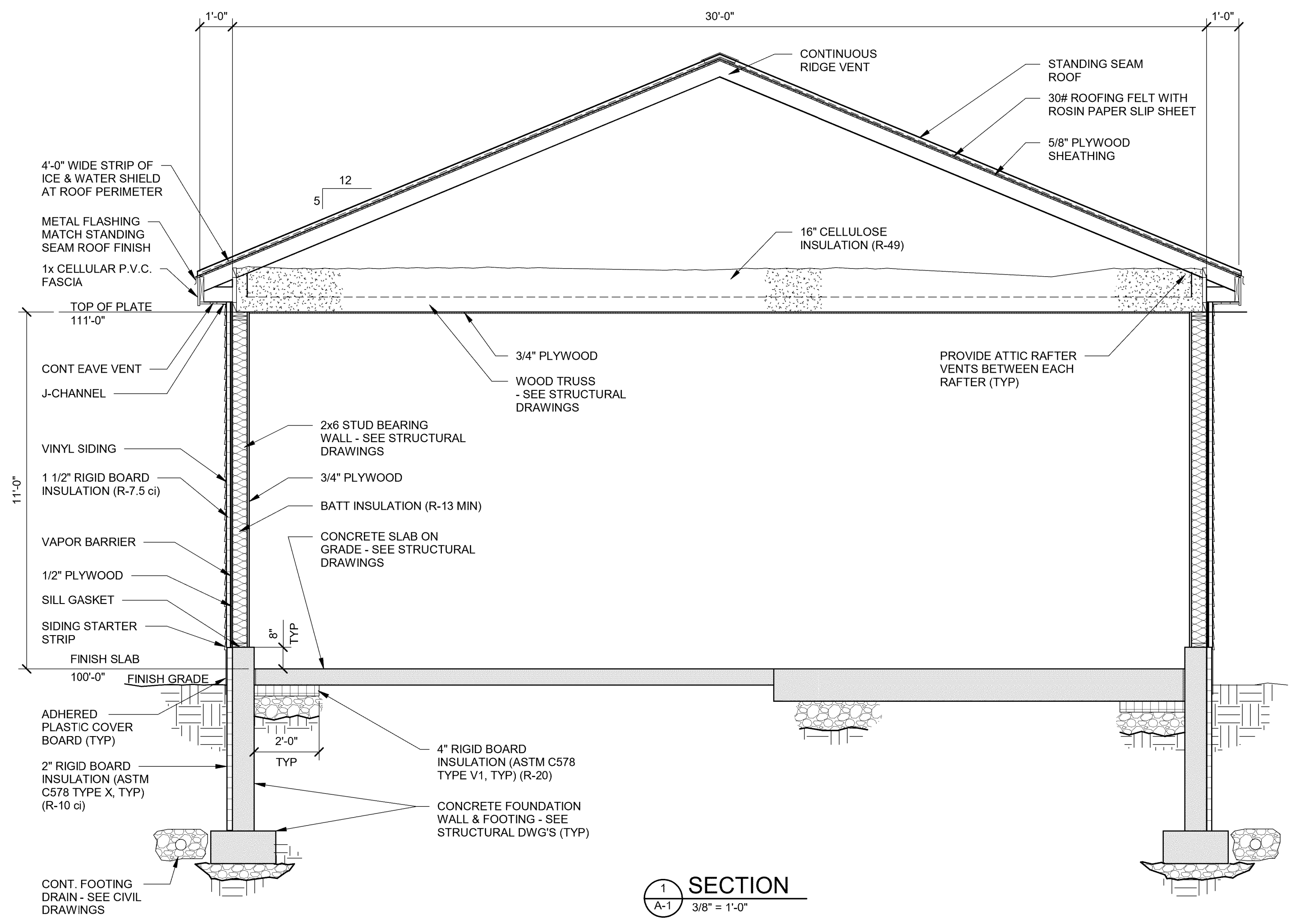


FLOOR PLAN
1/4" = 1'-0"

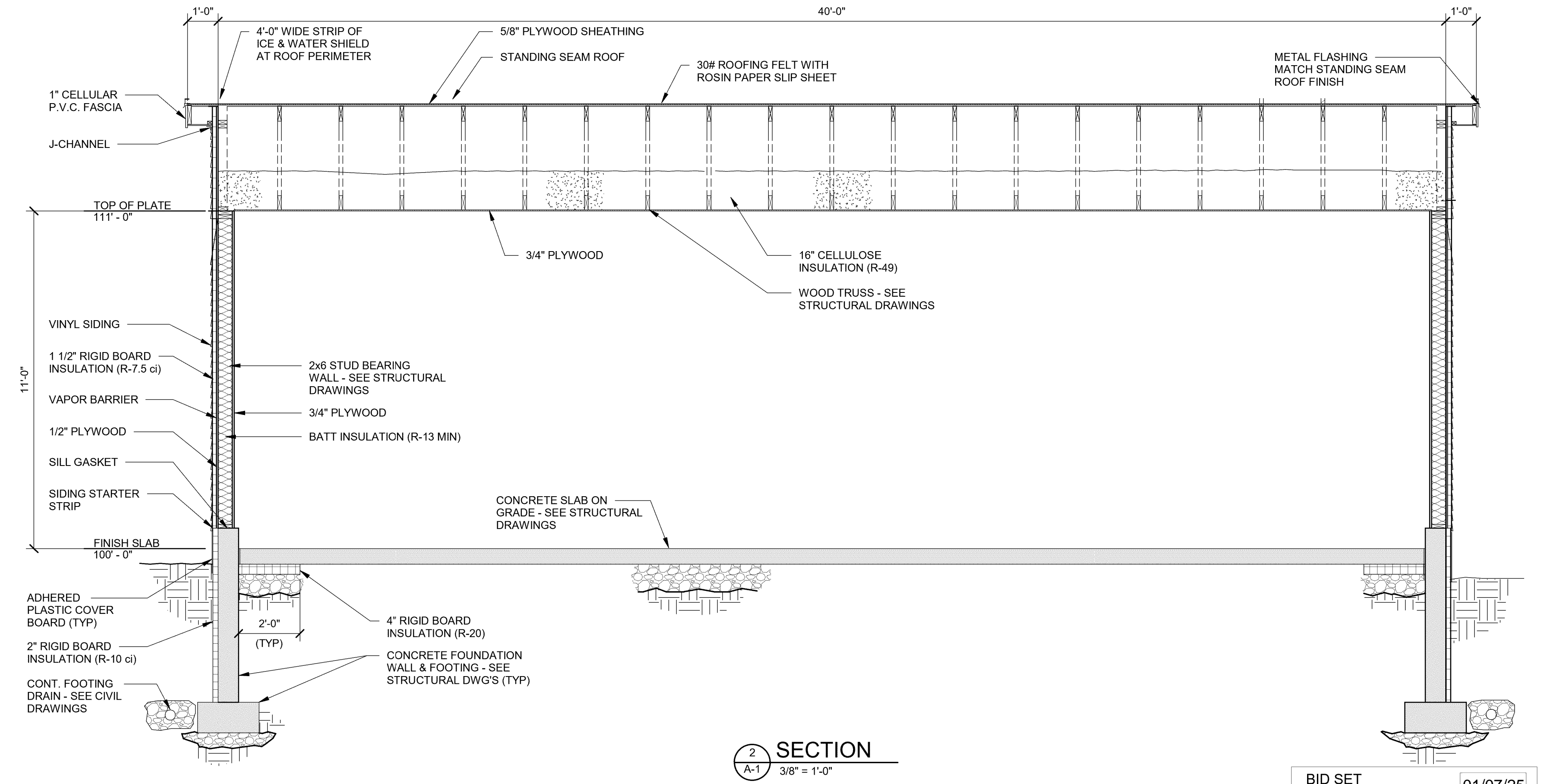
- BUILDING ELEVATION 100'-0" = SITE ELEVATION 60.50'.
- F.D. INDICATES FLOOR DRAIN, SEE MECHANICAL DRAWINGS

CODE REVIEW

1. APPLICABLE CODES:	IBC 2015 AS AMENDED BY MAINE UNIFORM BUILDING AND ENERGY CODE (MUBEC) IECC 2021 AS AMENDED BY MUBEC
2. BUILDING INFORMATION:	OCCUPANCY: IBC: 306.3, GROUP F-2, LOW-HAZARD INDUSTRIAL ONE STORY TYPE VB CONSTRUCTION (COMBUSTIBLE, UNPROTECTED) SPRINKLER SYSTEM NOT REQUIRED
3. AREAS:	MAIN FLOOR: 1,200 SF TOTAL AREA: 1,200 SF
4. IBC 2015:	TABLE 504.3: ALLOWABLE BUILDING HEIGHT = 40 FEET TABLE 504.4: ALLOWABLE NUMBER OF STORIES = 2 STORIES TABLE 506.2: ALLOWABLE AREA = 13,000 SF TABLE 601: CONSTRUCTION TYPE VB EXTERIOR BEARING WALLS 0 HR ROOFS 0 HR TABLE 602: RATINGS BASED ON FIRE SEPARATION DISTANCE DISTANCE GREATER THAN 30 FT 0 HR OCCUPANCY LOAD TABLE 1004.1.2 100 GROSS OCCUPANT LOAD 12 MEANS OF EGRESS FROM SPACE TABLE 1006.2.1: MAX OCCUPANT LOAD 49 TABLE 1006.2.1: MAX COMMON EGRESS PATH 75 FEET SINGLE MEANS OF EGRESS FROM SPACE PERMITTED PER 1006.2.1 WITH AS DESIGNED OCCUPANT LOAD OF 12 AND COMMON EGRESS PATH OF 50 FEET, WHICH ARE LESS THAN LIMITS OF TABLE 1006.2.1 MEANS OF EGRESS FROM STORY TABLE 1006.3.2(2): MAX OCCUPANT LOAD 49 TABLE 1006.3.2(2): MAX COMMON EGRESS PATH 75 FEET SINGLE MEANS OF EGRESS FROM SPACE PERMITTED PER 1006.3.2 EXCEPTION 1. 5. IECC 2021: TABLE C402.1.3: BUILDING ENVELOPE REQUIREMENTS ROOF, ATTIC: R-49 WALLS, ABOVE GRADE, WOOD FRAMED: R-13 + R-7.5ci WALLS BELOW GRADE: R-10ci SLAB-ON-GRADE: R-20 FOR 24" BELOW TABLE C402.4: BUILDING ENVELOPE FENESTRATION ENTRANCE DOOR, U-FACTOR: 0.63 C402.5.9 EXCEPTION 2, VESTIBULE NOT REQUIRED



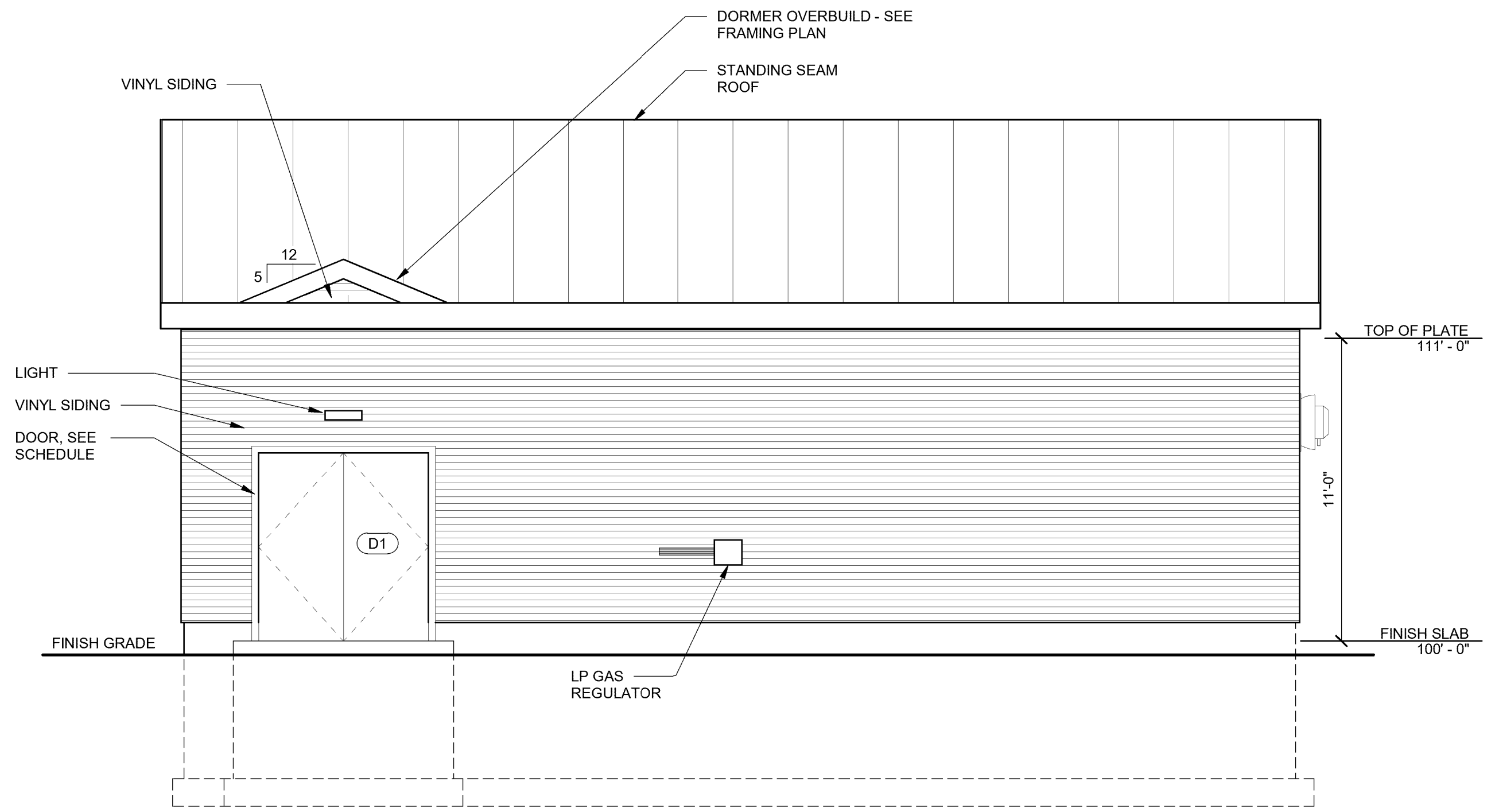
SECTION 1
A-1 3/8" = 1'-0"



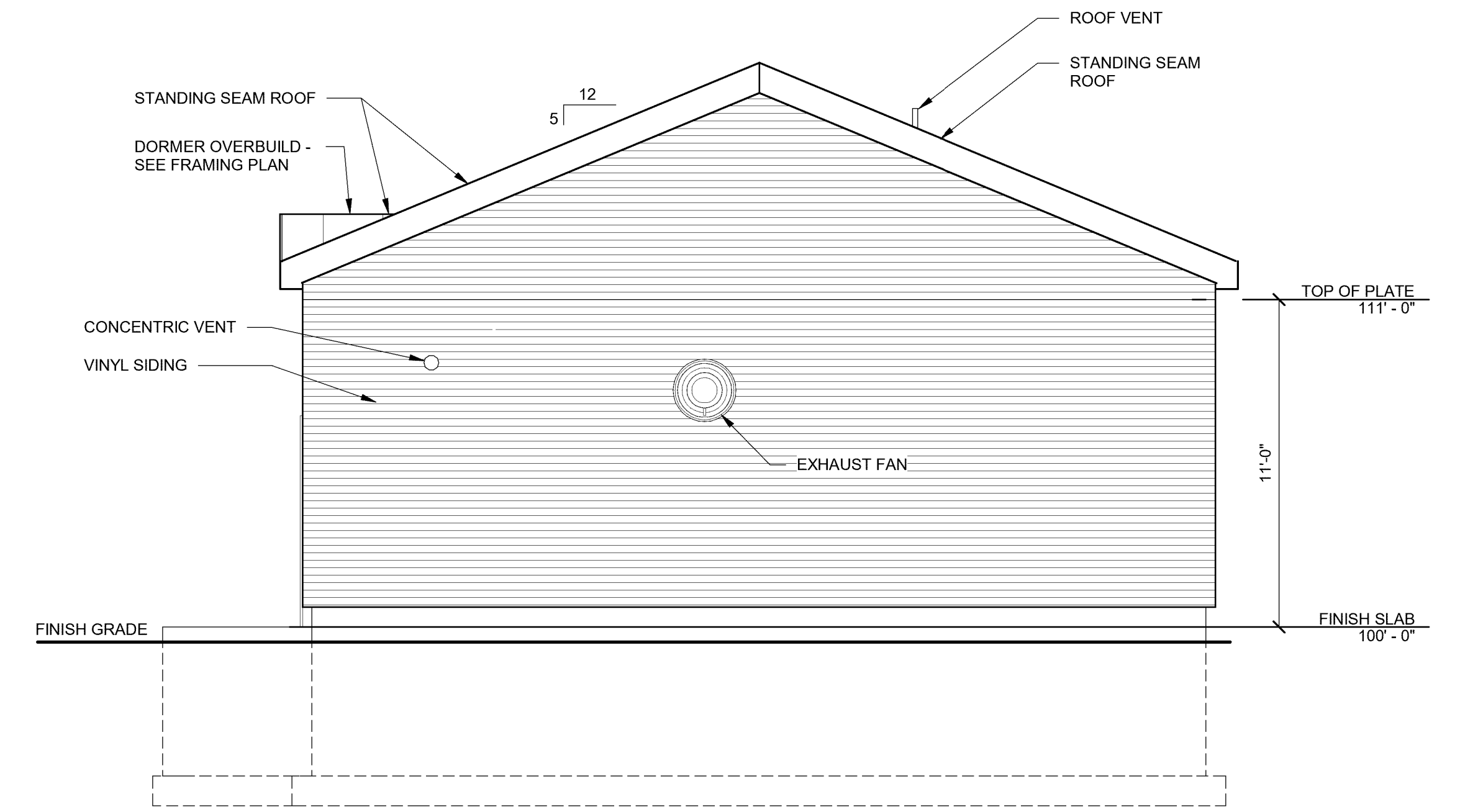
SECTION 2
A-1 3/8" = 1'-0"

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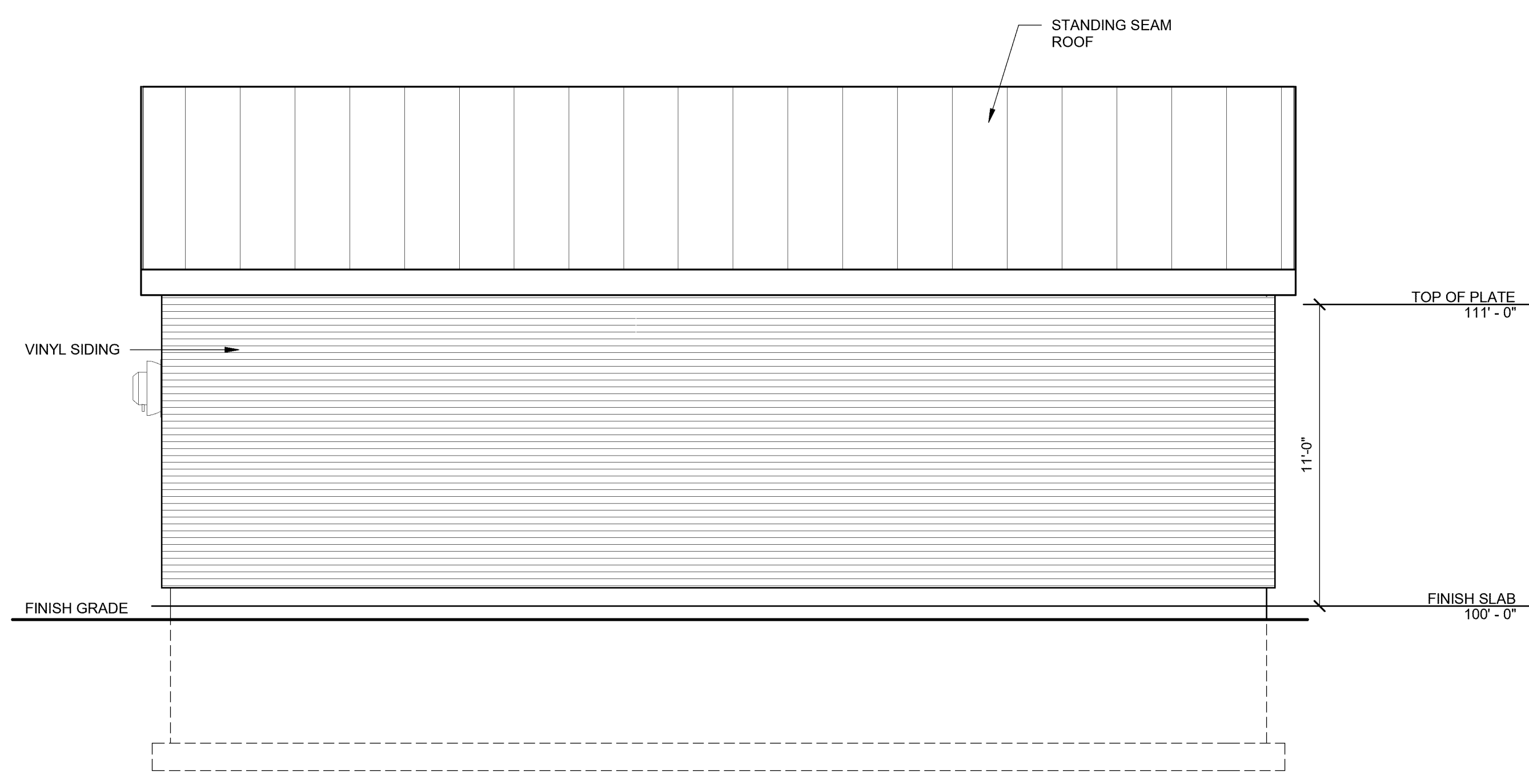
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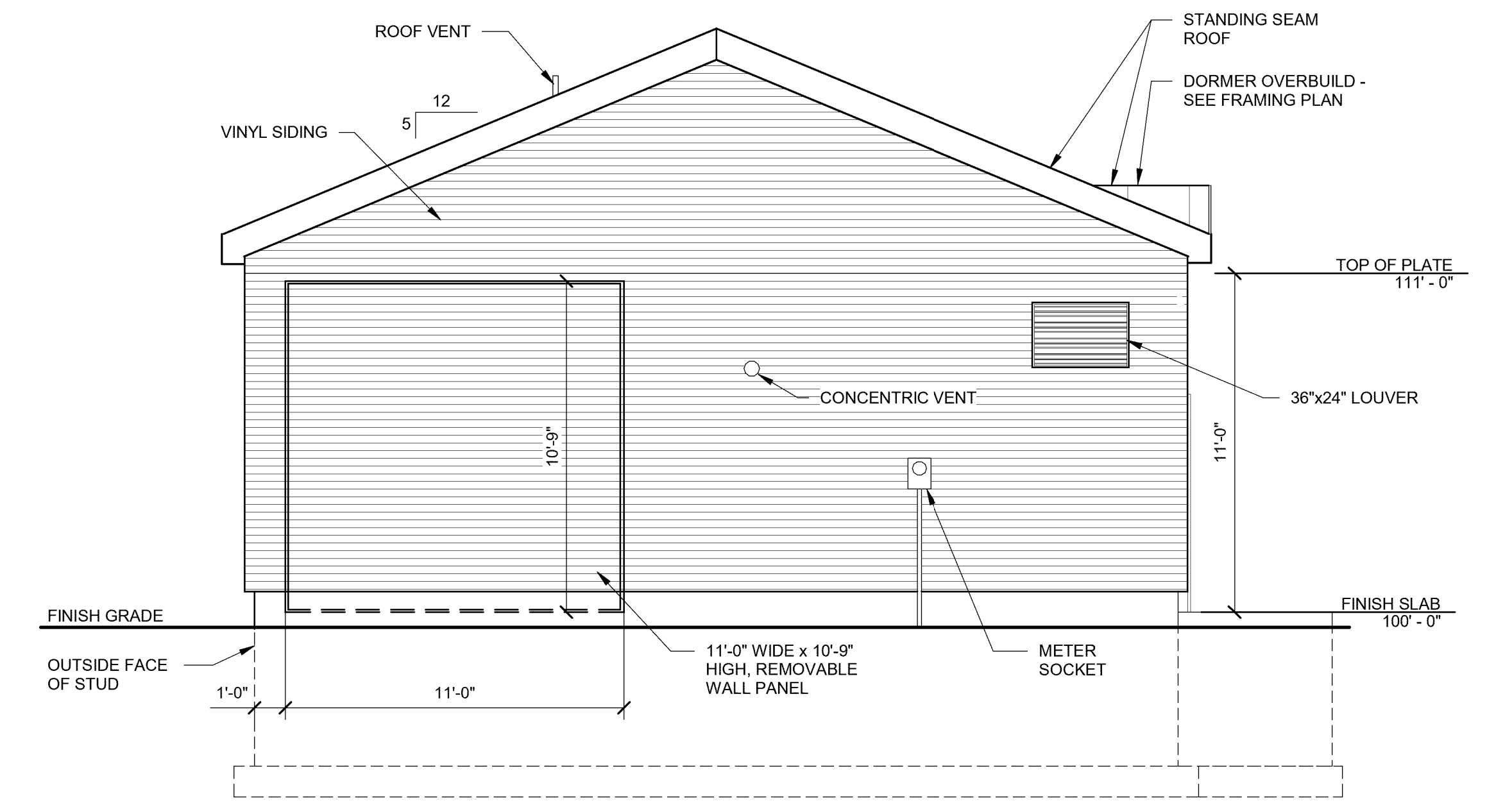
SOUTH ELEVATION
1/4" = 1'-0"



EAST ELEVATION
1/4" = 1'-0"



NORTH ELEVATION
1/4" = 1'-0"



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

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SHEET TITLE

ELEVATIONS

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229946

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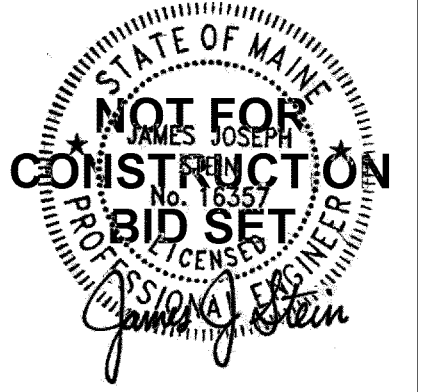
DATE
AUGUST 2024

SHEET NUMBER

A-2

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ROOM FINISH SCHEDULE							COMMENTS
NAME	FLOOR		WALLS		CEILING		
	MATERIAL	FINISH	MATERIAL	FINISH	MATERIAL	FINISH	
TREATMENT ROOM	CONCRETE	SEE STRUCTURAL NOTES	PLYWOOD	PAINTED - SEE NOTE 1	PLYWOOD	PAINTED - SEE NOTE 1	

1. PROVIDE PRIMER AND TWO COATS OF PAINT USING INTERIOR PAINT SYSTEM SUITABLE FOR INDUSTRIAL APPLICATIONS. COLOR TO BE SELECTED BY OWNER FROM MANUFACTURERS STANDARD COLOR CHART.

SHOP DRAWINGS AND PRODUCT DATA

1. SHOP DRAWINGS: SUBMIT ELECTRONICALLY TO THE ENGINEER FOR REVIEW. SHOP DRAWINGS WILL BE PROCESSED AND RETURNED ELECTRONICALLY.
2. PRODUCT DATA: SUBMIT ELECTRONICALLY TO THE ENGINEER, MARKING TO INDICATE ACTUAL PRODUCT TO BE PROVIDED. PRODUCT DATA WILL BE PROCESSED AND RETURNED ELECTRONICALLY.

INSULATED STEEL DOORS

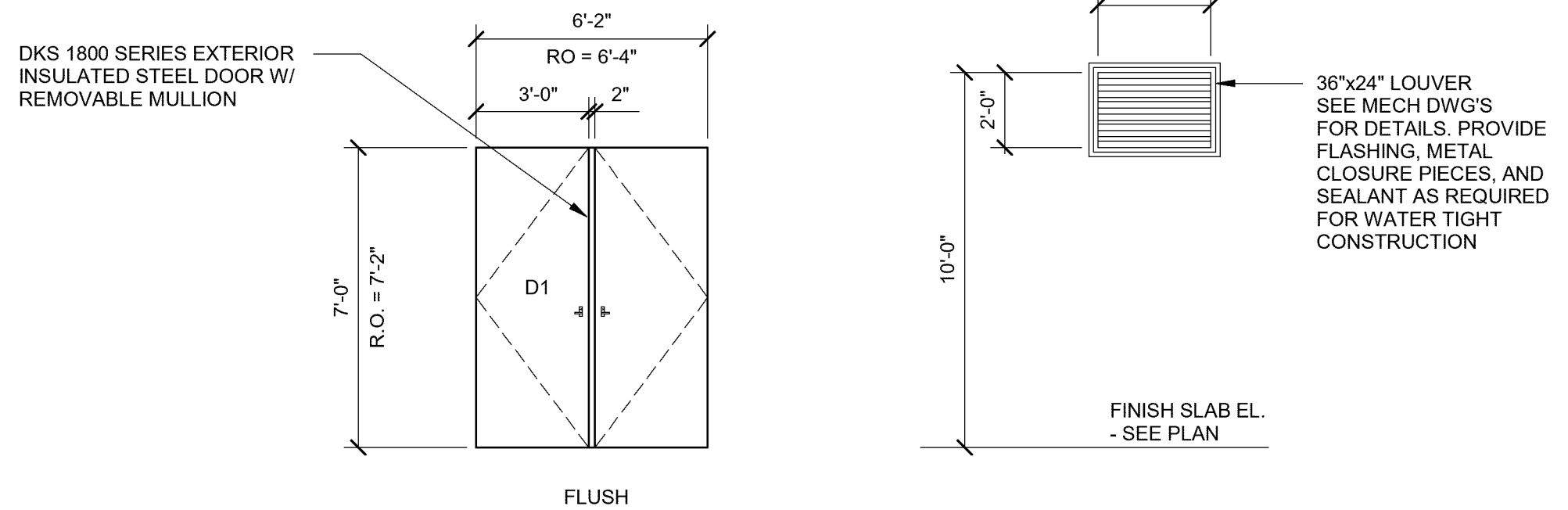
1. PROVIDE AND INSTALL STEEL DOOR AND FRAME AS MANUFACTURED BY DKS STEEL DOOR & FRAME SYSTEMS, INC. OR APPROVED EQUAL. DOOR AND FRAME TO MEET THERMAL REQUIREMENTS OF 2021 IECC. DOOR TO BE INSTALLED FOLLOWING MANUFACTURERS WRITTEN INSTALLATION INSTRUCTIONS. CONTRACTOR TO COORDINATE DOOR FRAME WITH PROPOSED WALL CONSTRUCTION. PROVIDE INTERNAL STIFFENERS AND REINFORCING AS REQUIRED FOR DOOR HARDWARE.
2. DOOR HARDWARE: PROVIDE AND INSTALL ALL FINISH AND MISCELLANEOUS HARDWARE AND ACCESSORIES TO FORM A COMPLETE SYSTEM MEETING LIFE SAFETY CODE REQUIREMENTS INCLUDING LATCH SET, PANIC BAR, DOOR CLOSER, WEATHER STRIPPING AND THRESHOLD. COORDINATE HARDWARE KEYING WITH OWNER.
3. FIELD PAINT DOOR, FRAME, AND TRIM AFTER INSTALLATION FOLLOWING MANUFACTURER'S WRITTEN INSTRUCTIONS. OWNER TO SELECT COLOR FROM MANUFACTURER'S STANDARD COLOR CHART.

STANDING SEAM ROOF SYSTEM

1. PROVIDE AND INSTALL A COMPLETE EXTERIOR STANDING SEAM METAL ROOF SYSTEM AS MANUFACTURER BY FABRAL, LANCASTER, PENNSYLVANIA OR APPROVED EQUAL.
2. ROOF: 1 1/2" SSR POST FRAME METAL ROOF MANUFACTURED FROM 24 GAUGE STEEL SHEETS WITH CONCEALED CLIP FASTENING SYSTEM ALLOWING FOR THERMAL MOVEMENT. PROVIDE ALL NECESSARY ACCESSORIES, TRIM AND FLASHING AS REQUIRED TO FORM A COMPLETE SYSTEM. COLOR TO BE SELECTED BY OWNER FROM MANUFACTURERS STANDARD COLOR CHART.
3. STANDING SEAM METAL ROOF SYSTEM TO BE INSTALLED FOLLOWING MANUFACTURER'S WRITTEN INSTALLATION INSTRUCTIONS.

VINYL SIDING

1. PROVIDE AND INSTALL A COMPLETE VINYL METAL SIDING SYSTEM AS MANUFACTURED BY GEORGIA-PACIFIC, CARY, NORTH CAROLINA OR APPROVED EQUAL.
2. PROVIDE COMPAS DOUBLE 4-INCH SIDING INCLUDING ALL ACCESSORIES, TRIM AND FLASHING AS NECESSARY TO FORM A COMPLETE SYSTEM. COLOR TO BE SELECTED BY OWNER FROM MANUFACTURER'S STANDARD COLOR CHART.
3. VINYL SIDING SYSTEM TO BE INSTALLED FOLLOWING MANUFACTURER'S WRITTEN INSTALLATION INSTRUCTIONS.



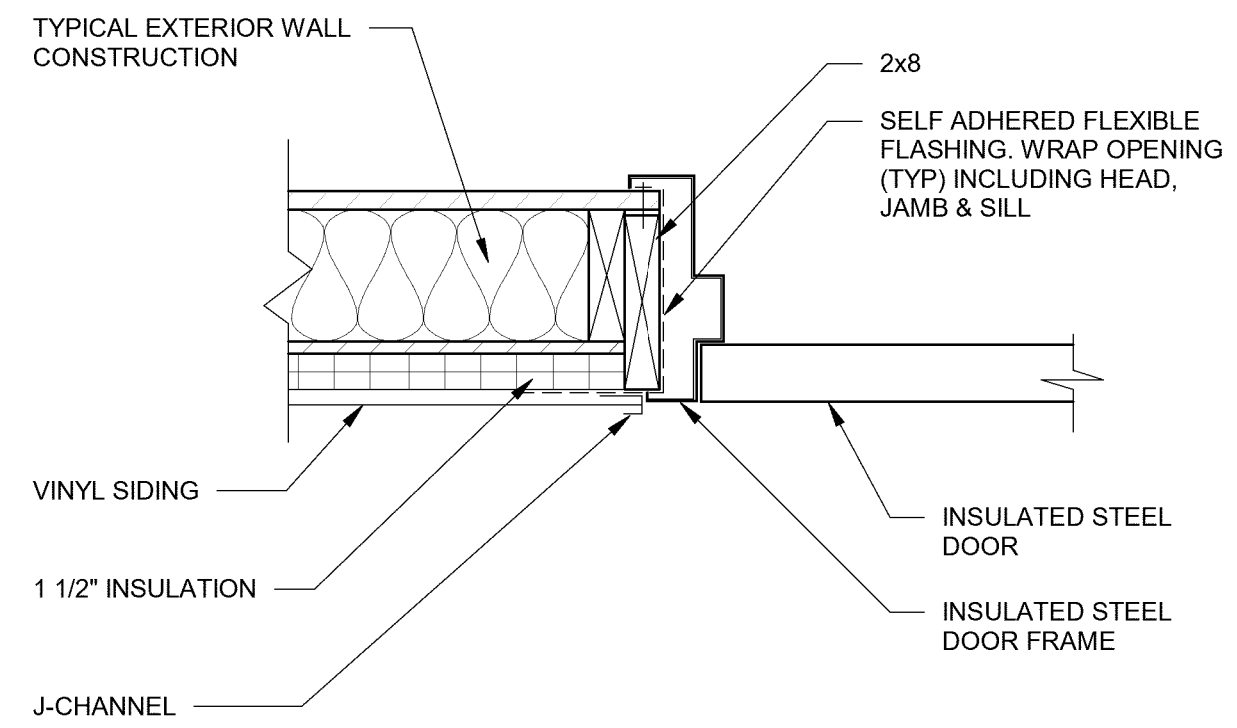
DOOR LEGEND

DOOR HARDWARE TO BE AS FOLLOWS:

- 3 PAIR 4.5" x 4.5" STAINLESS STEEL NRP HINGES
- (2) MILL PUBLIC ACCESS SILL (WITH THERMAL BREAK)
- (2) NORTON 8501 GRADE 1 CLOSER
- (2) FALCON 25 SERIES PANIC BAR
- (2) FALCON ESCUTCHEON LEVER, COORDINATE HARDWARE KEYING WITH OWNER
- (1) 7'-0" REMOVABLE MULLION
- (2) WEATHERSTRIP KITS

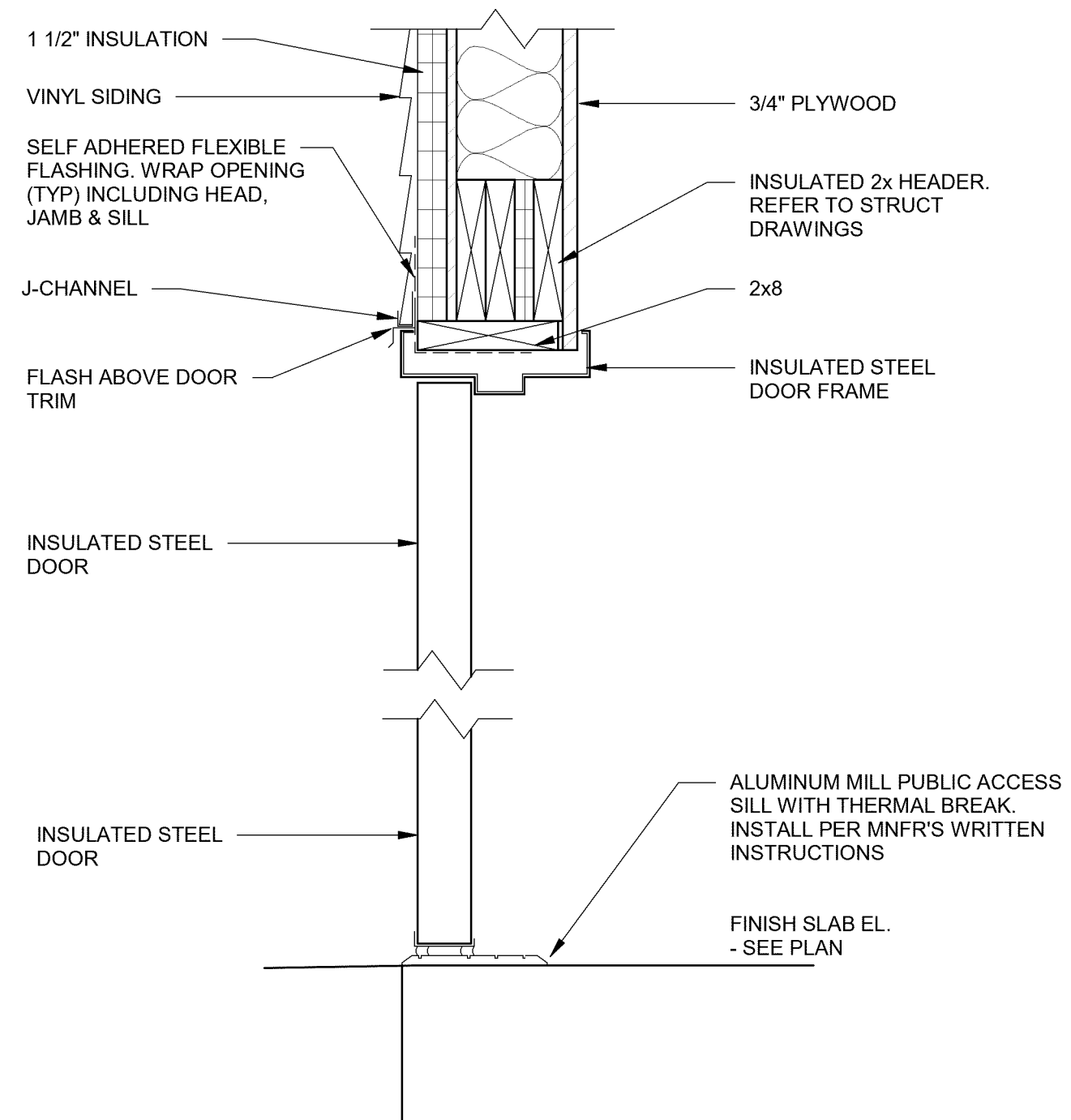
LOUVER LEGEND

1/4" = 1'-0"



TYPICAL DOOR JAMB DETAIL

1. PROVIDE SIMILAR DETAILS AT LOUVER



TYPICAL DOOR HEAD & SILL DETAILS

1. PROVIDE SIMILAR DETAILS AT LOUVER

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04630

SHEET TITLE

DETAILS

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SHEET NUMBER

A-3

SHEET 19 OF 29

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SHEET TITLE

STRUCTURAL PLANS

D&K PROJECT #
229946

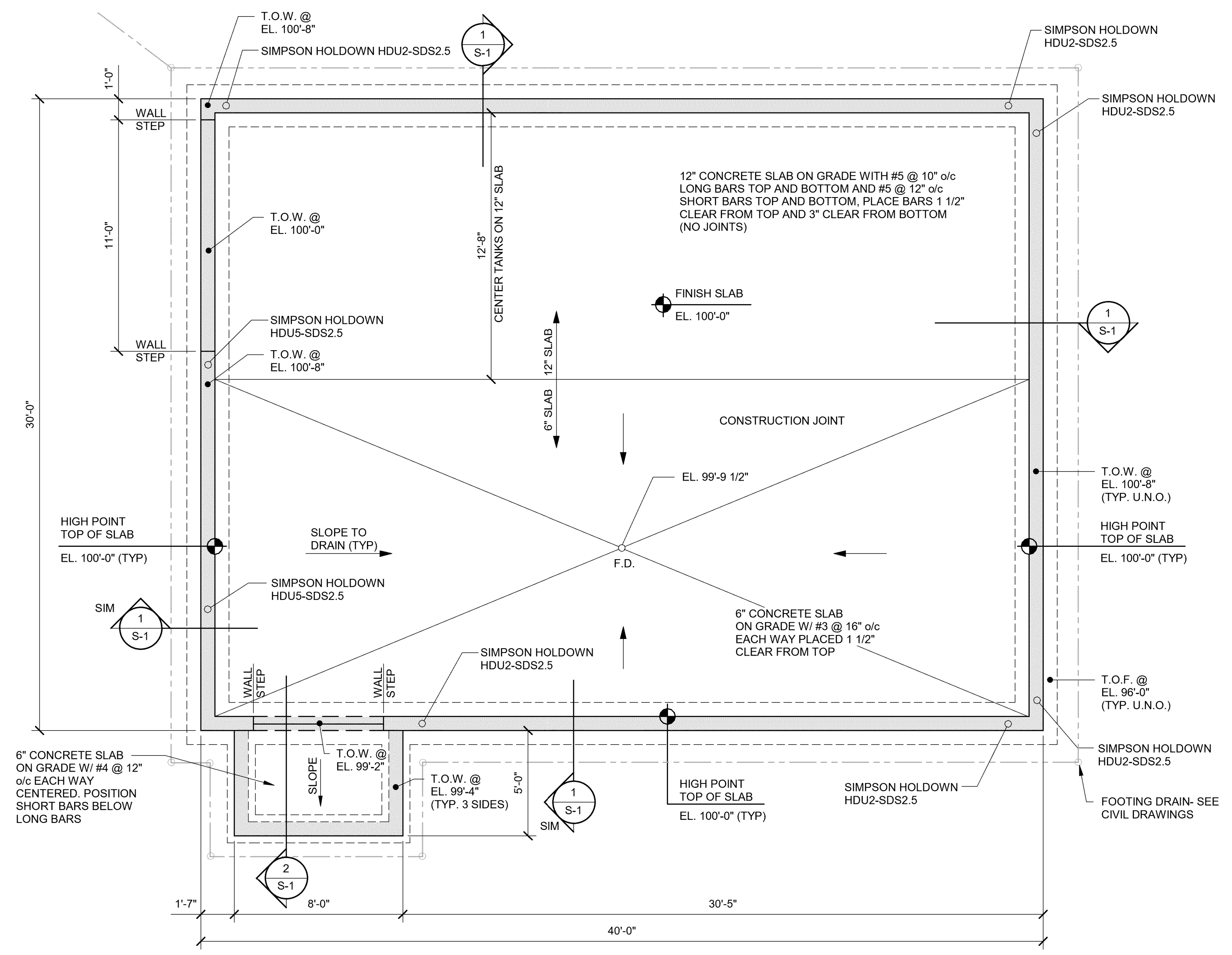
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DATE
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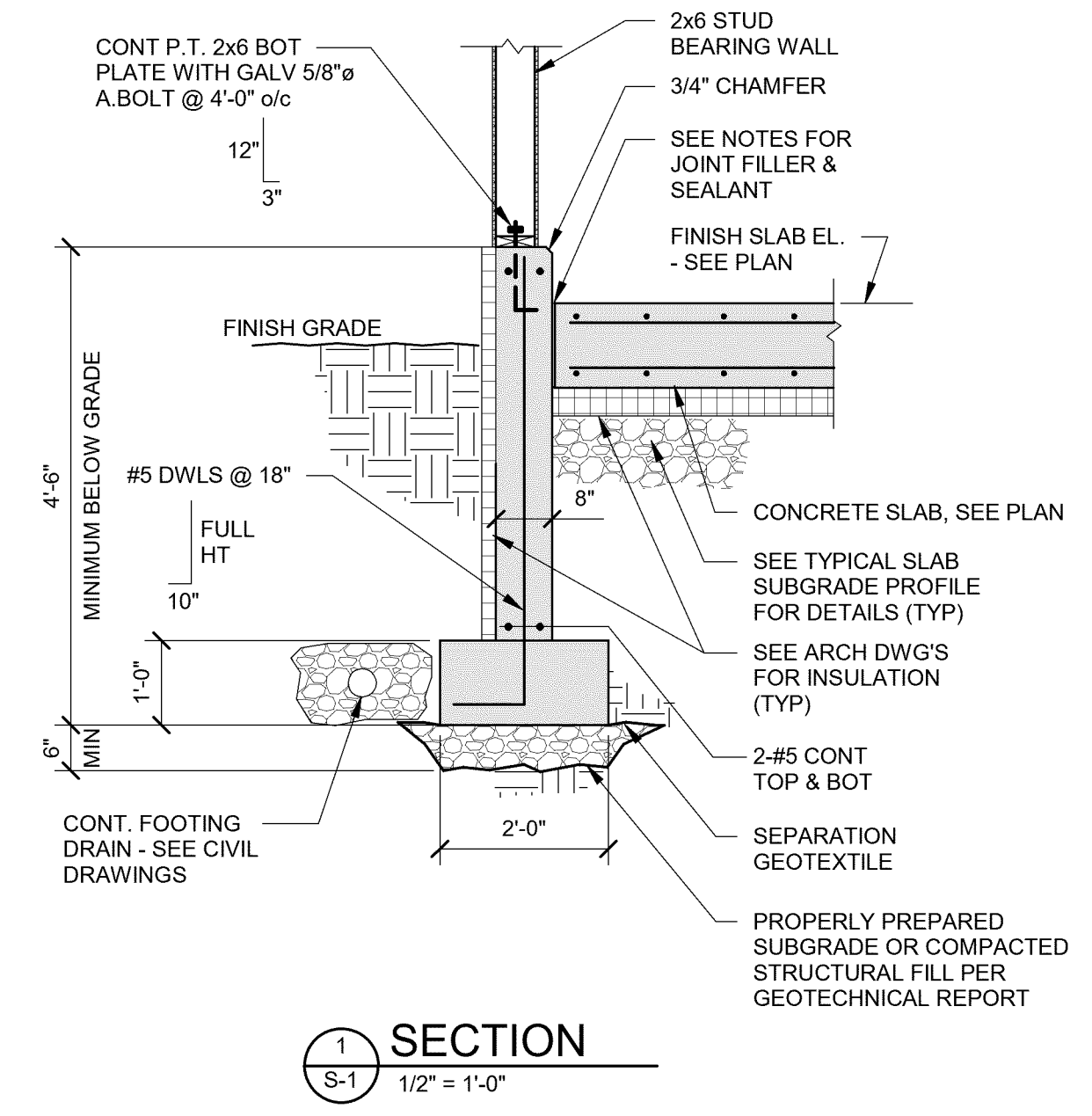
S-1

SHEET 20 OF 29

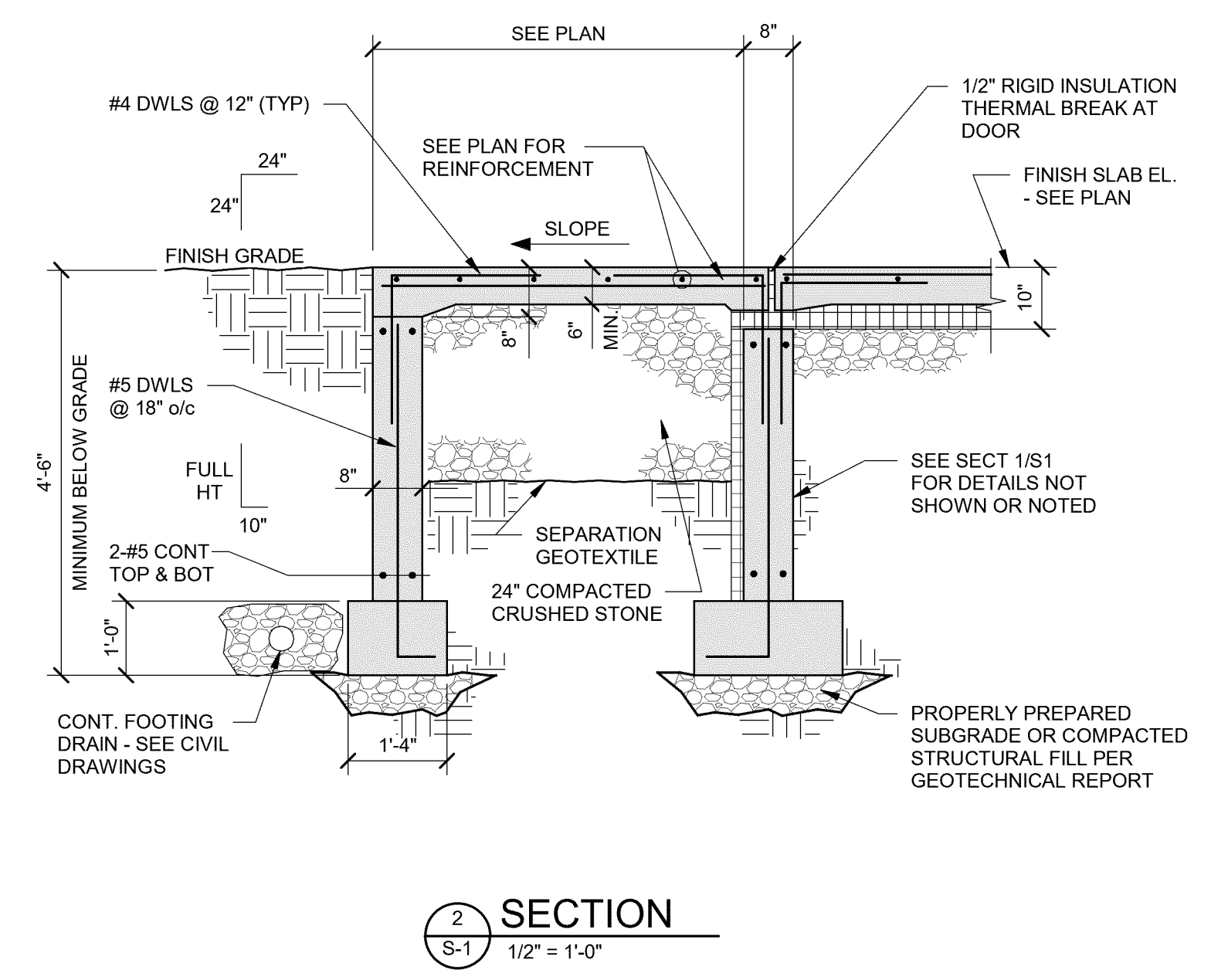


FOUNDATION PLAN
1/4" = 1'-0"

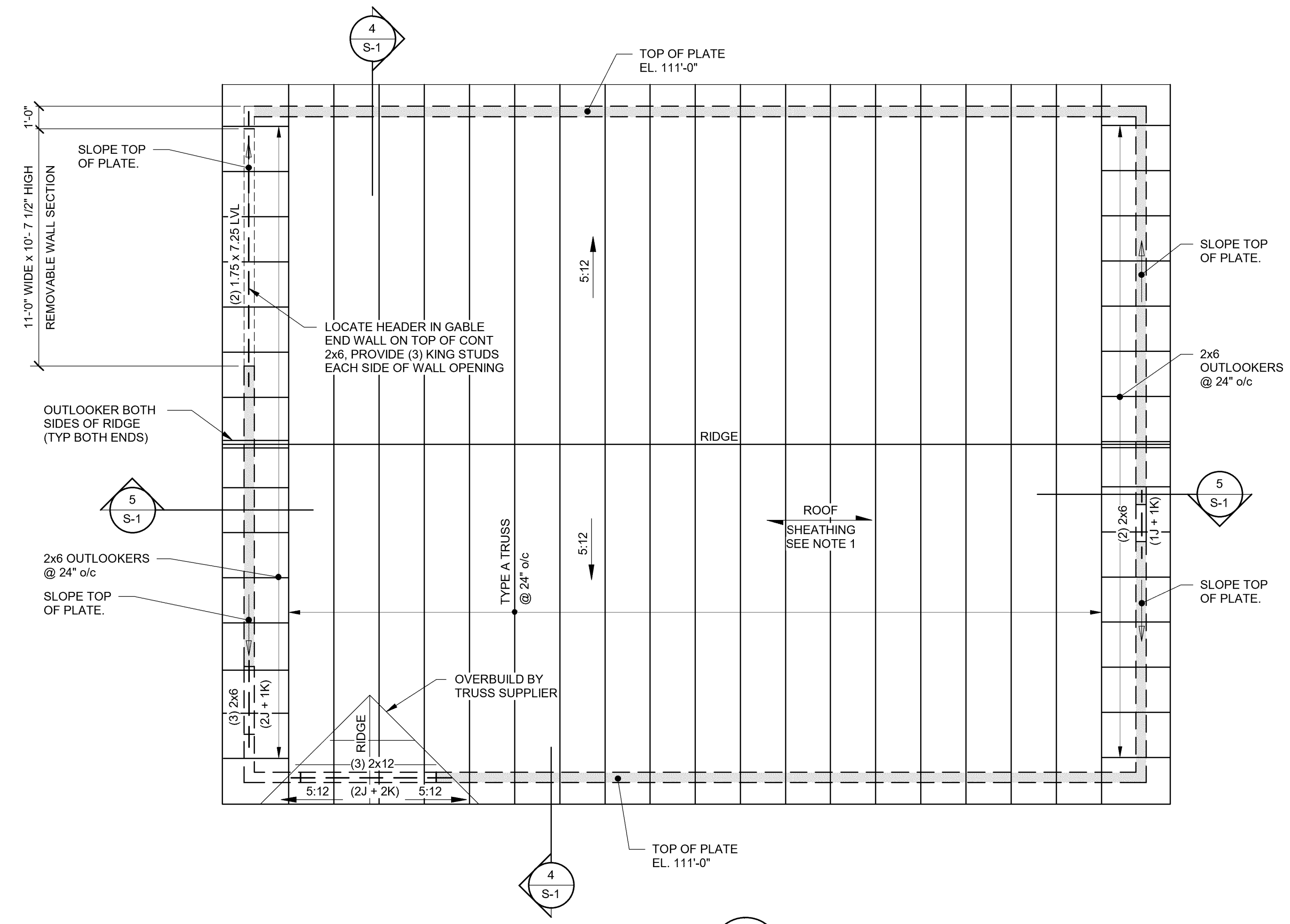
- BUILDING ELEVATION 100'-0" = SITE ELEVATION 60.50'.
- - INDICATES HOLDOWN AS MANUFACTURED BY SIMPSON STRONG-TIE.
- F.D. INDICATES FLOOR DRAIN - SEE MECHANICAL DRAWINGS.



SECTION 1
1/2" = 1'-0"



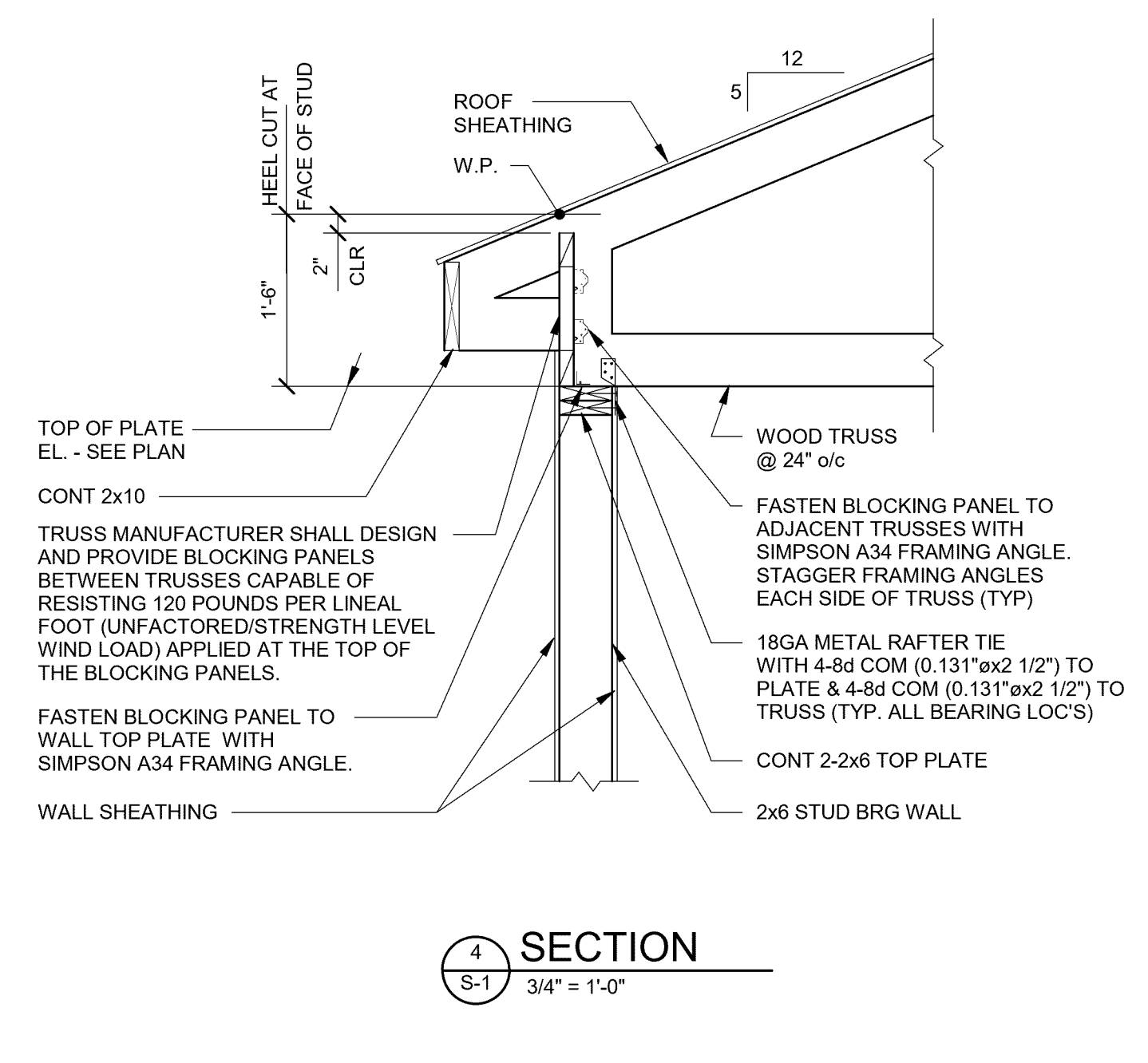
SECTION 2
1/2" = 1'-0"



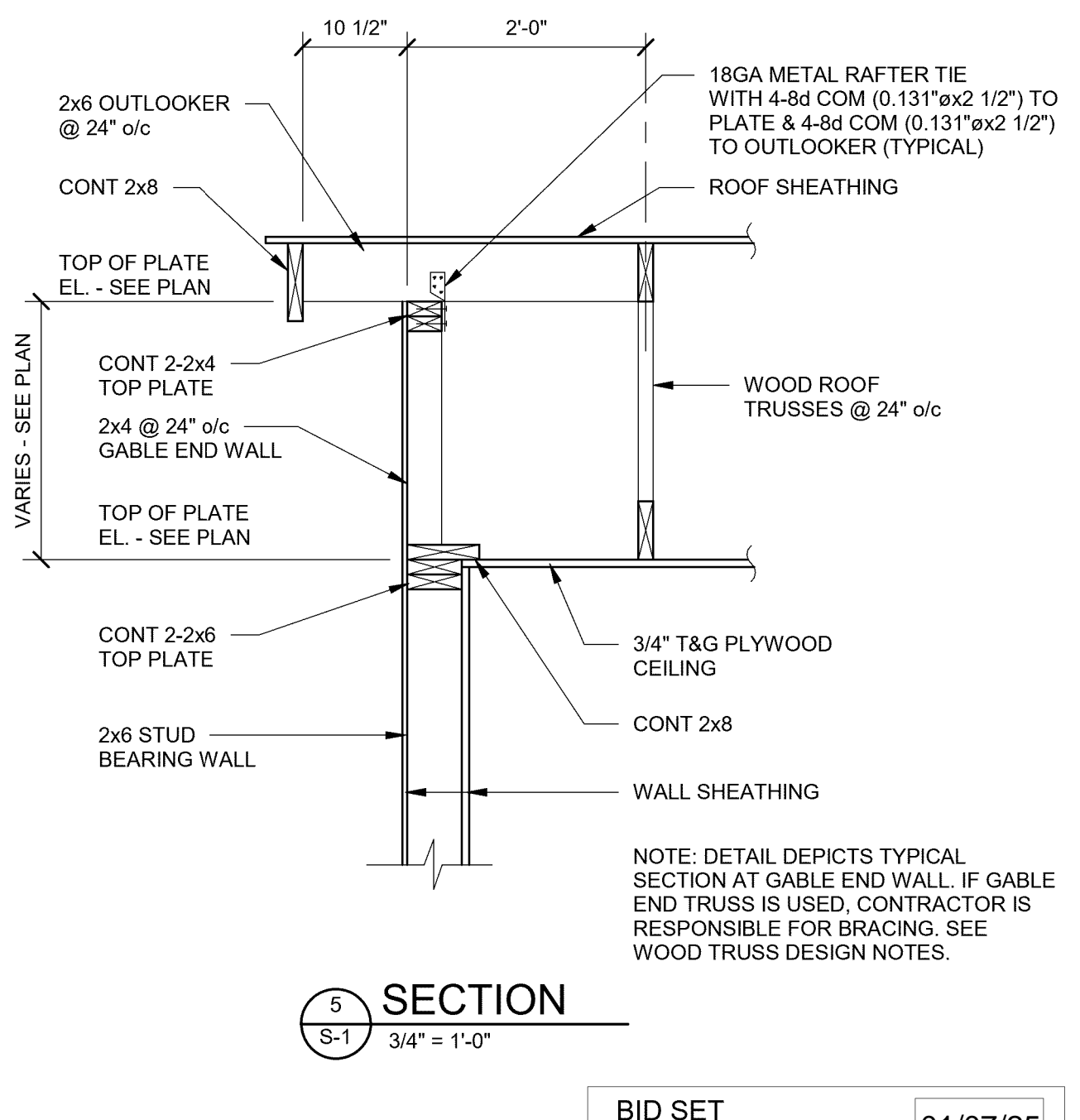
ROOF FRAMING PLAN
1/4" = 1'-0"

- ROOF SHEATHING SHALL BE 5/8" APA RATED SHEATHING FASTENED TO FRAMING WITH 8d COM (0.131" x 2 1/2") SPACED AT 6" o/c AT EDGES AND 12" o/c AT INTERMEDIATE SUPPORTS.
- STUD BEARING WALLS TO BE 2x6 @ 24" o/c. PROVIDE A STUD ALIGNED UNDER EACH TRUSS. AT DOOR OPENING PROVIDE 2 JACK + 2 CONT STUDS EACH SIDE OF OPENING. PROVIDE 1/2" APA RATED SHEATHING ON OUTSIDE FACE AND 3/4" APA RATED SHEATHING ON INSIDE FACE.
- ▨ - INDICATES SHEAR WALL. SEE TYPICAL DETAIL ON SHEET S-2.

NOTE: PROVIDE 2x6 SOLID BLOCKING AROUND PERIMETER WALLS FOR CEILING ATTACHMENT. NOT SHOWN FOR CLARITY



SECTION 4
3/4" = 1'-0"



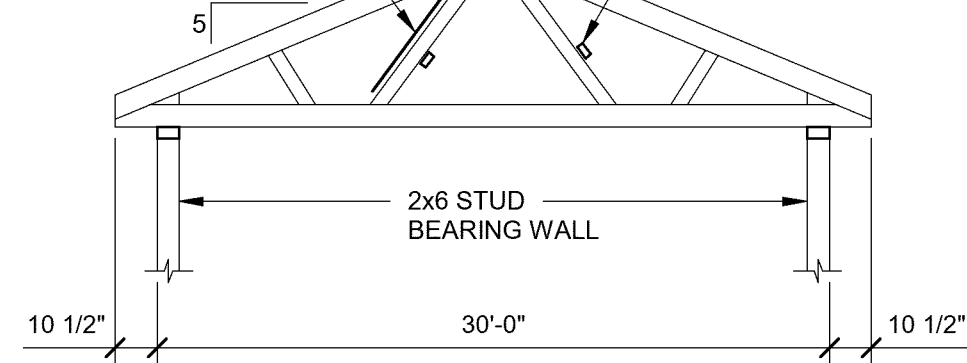
SECTION 5
3/4" = 1'-0"

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CONTINUOUS DIAG SWAY BRACING IN PLANE OF WEB. PLACE AT 45 DEG OR LESS FROM HORIZONTAL. SEE TRUSS BRACING DRAWINGS (BY OTHERS)

LATERAL BRACE AS REQ'D BY MANUFACTURER. SEE TRUSS BRACING DRAWINGS (BY OTHERS)



TYPE A TRUSS

1/4" = 1'-0"

WOOD TRUSS DESIGN NOTES

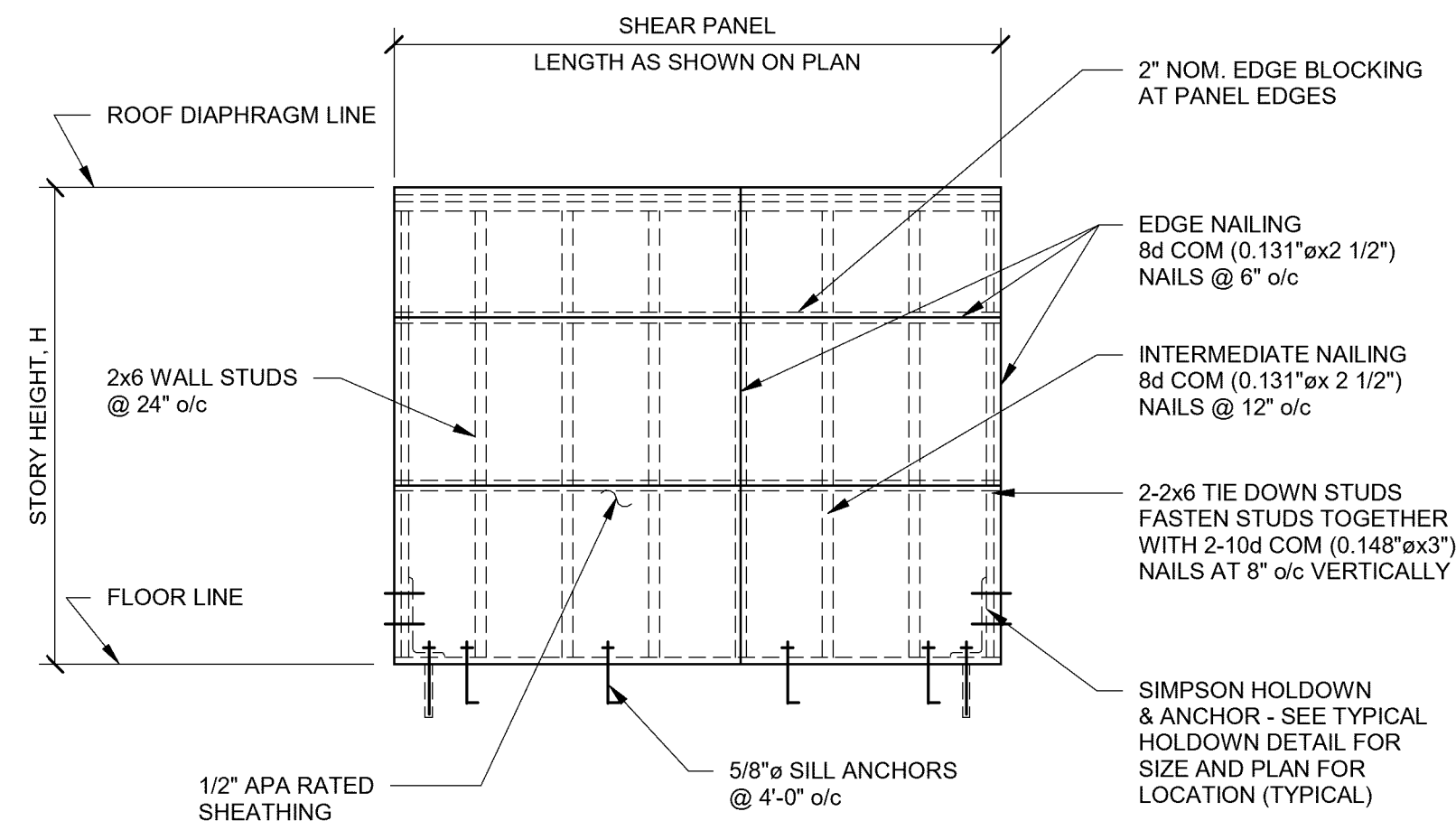
- TRUSS CONFIGURATION MAY VARY TO SUIT MANUFACTURER.
- MINIMUM CHORD SIZE SHALL BE A 2x6 (TOP AND BOTTOM CHORDS).
- TRUSSES SHALL BE DESIGNED TO SUPPORT LIVE LOAD, DRIFTING SNOW LOAD, AND UNBALANCED SNOW LOAD IN ACCORDANCE WITH 2015 IBC AND ASCE 7-10 USING A GROUND SNOW LOAD OF 50 PSF.

DESIGN LOADS: TOP CHORD DL = 10 PSF
LL = 20 PSF
SL = 42 PSF

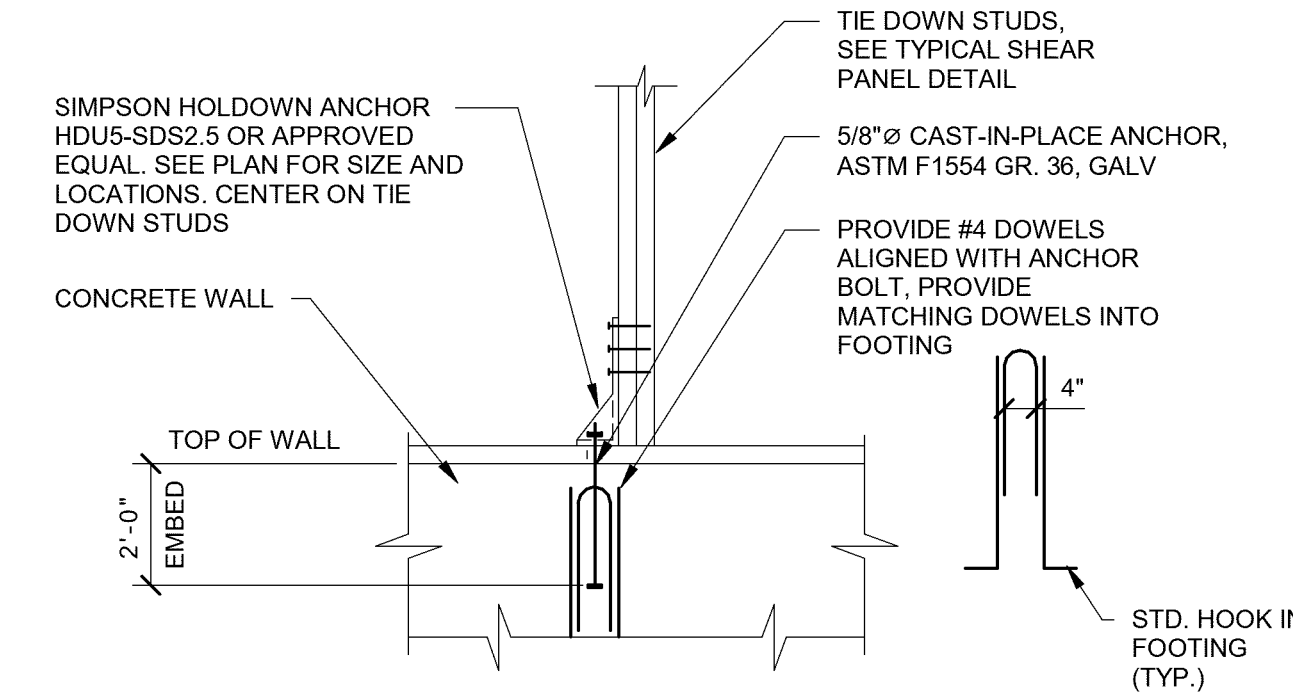
BOTTOM CHORD DL = 10 PSF

IN ADDITION TRUSS BOTTOM CHORDS ONLY SHALL BE ADEQUATE TO CARRY A 200 LBS CONCENTRATED LOAD PLACED ANYWHERE. LOAD DURATION FACTOR MAY BE INCREASED TO 1.50 WHEN THIS LOAD IS APPLIED.

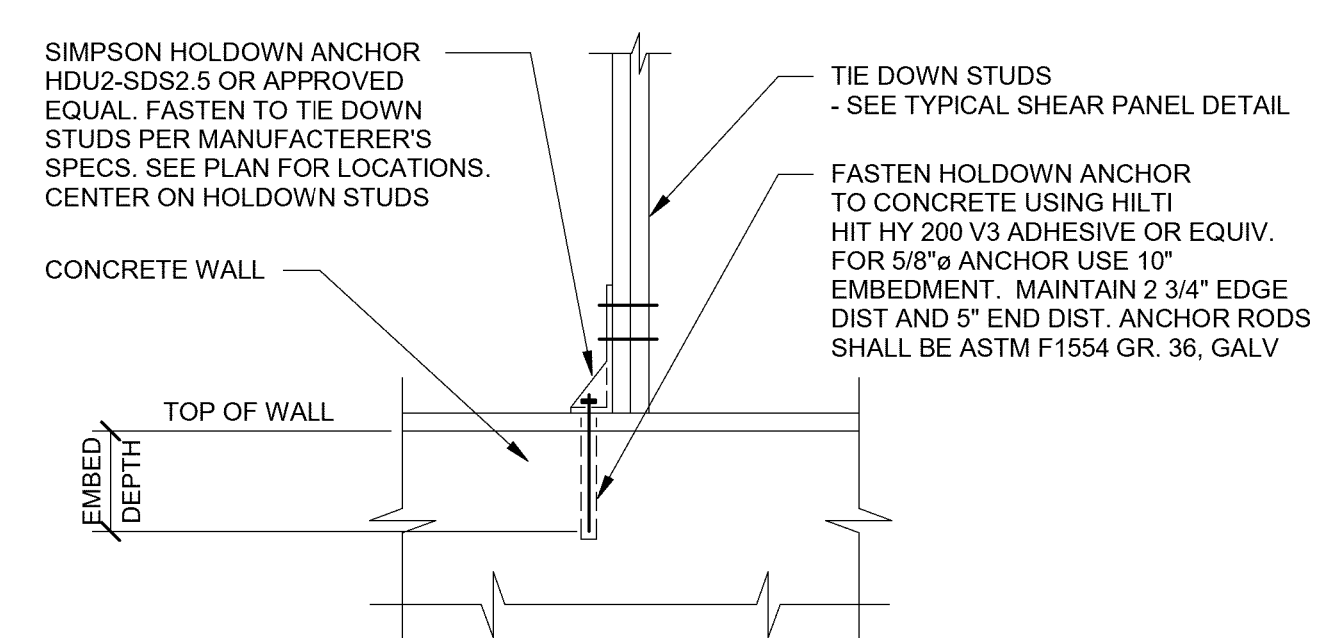
- THE GENERAL CONTRACTOR SHALL ENGAGE A QUALIFIED STRUCTURAL ENGINEER TO DESIGN TEMPORARY AND PERMANENT TRUSS BRACING BASED ON MEMBER FORCES PROVIDED BY THE TRUSS MANUFACTURER. SUBMIT STAMPED CALCULATIONS AND DRAWINGS FOR RECORD PURPOSES. BRACING FOR GABLE END TRUSSES IS CONSIDERED TRUSS BRACING AND SHALL BE INCLUDED IN THE TRUSS BRACING CALCULATION AND DRAWING PACKAGES.



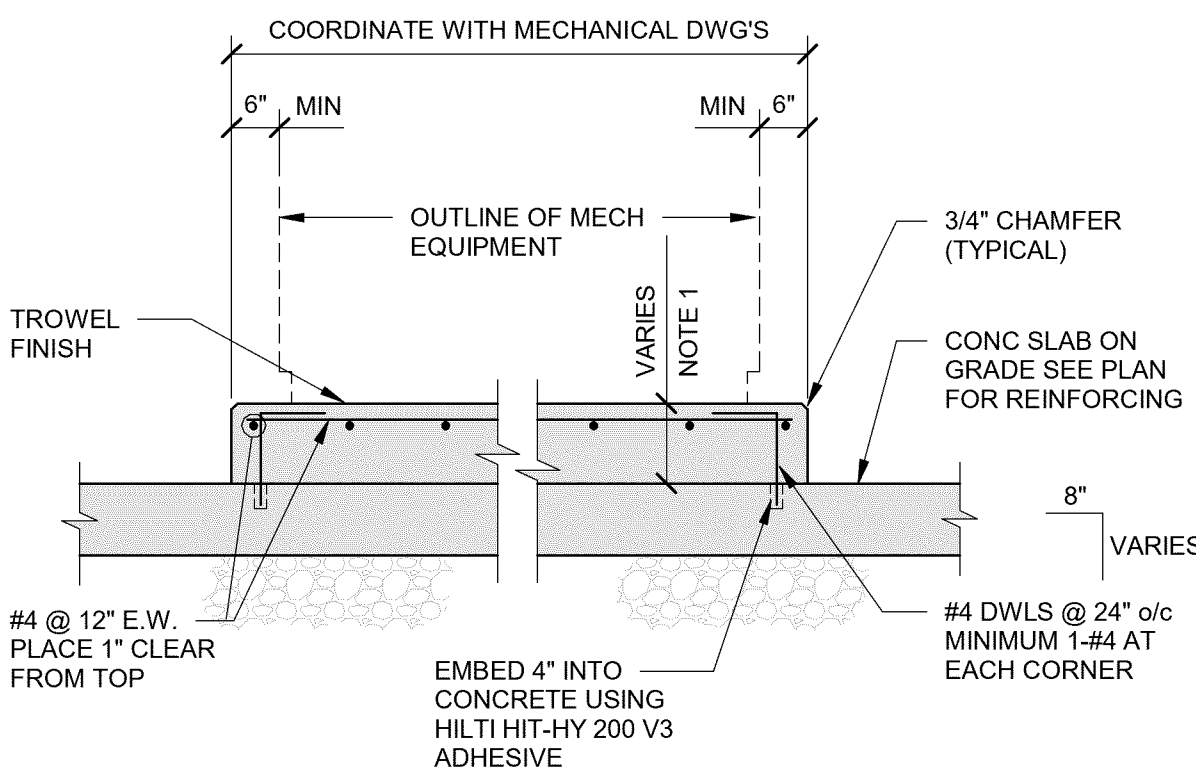
TYPICAL SHEAR PANEL DETAIL



TYPICAL HDU5-SDS2.5 HOLDDOWN ANCHOR DETAIL AT CONCRETE

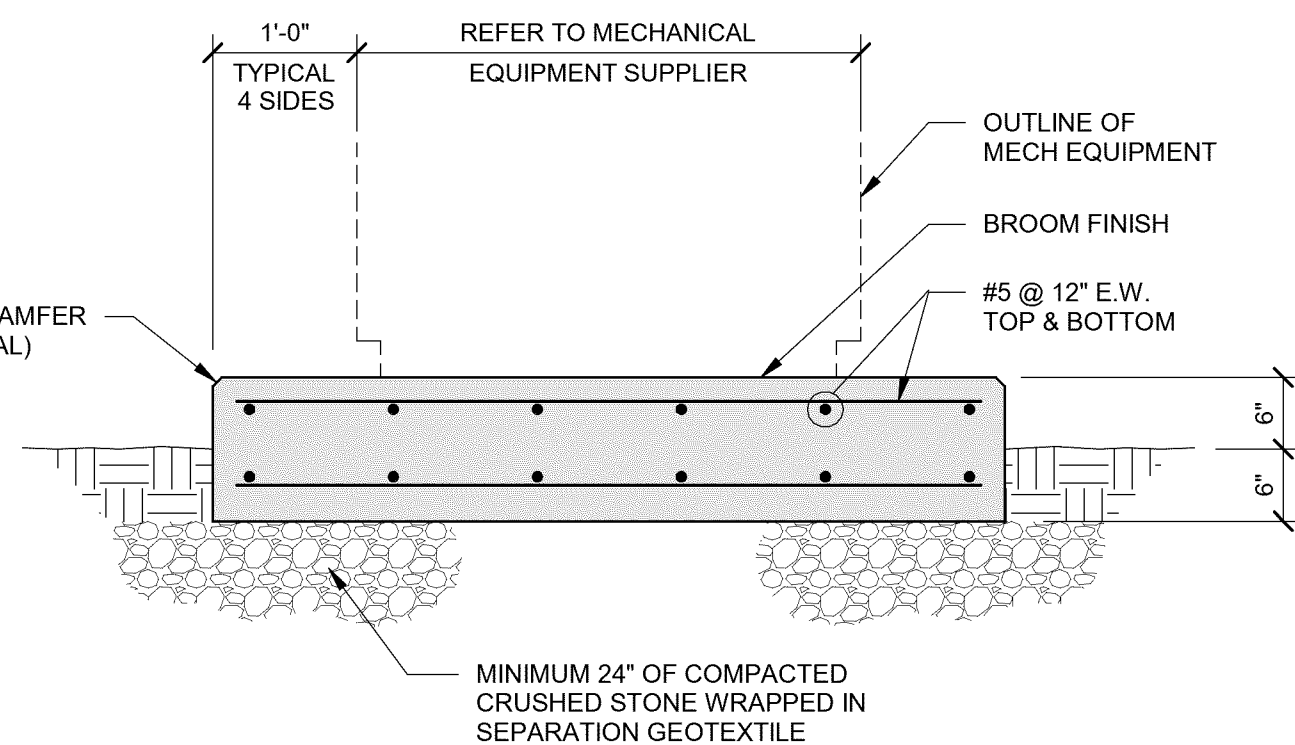


TYPICAL HDU2-SDS2.5 HOLDDOWN ANCHOR DETAIL AT CONCRETE



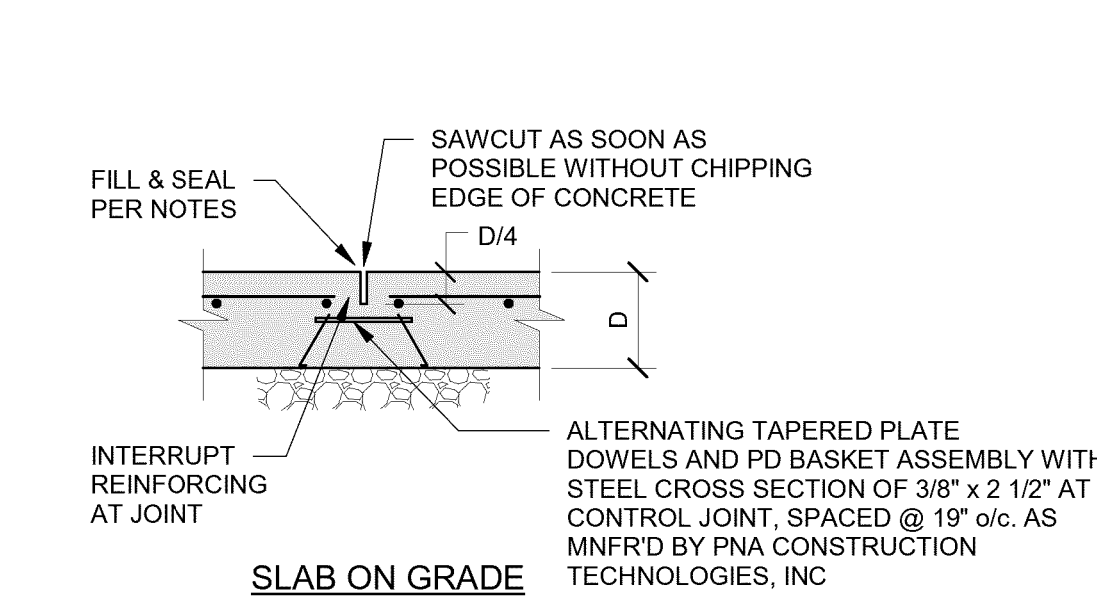
TYPICAL INTERIOR EQUIPMENT PAD DETAIL

- COORDINATE SIZE AND LOCATION WITH MECHANICAL DRAWINGS.

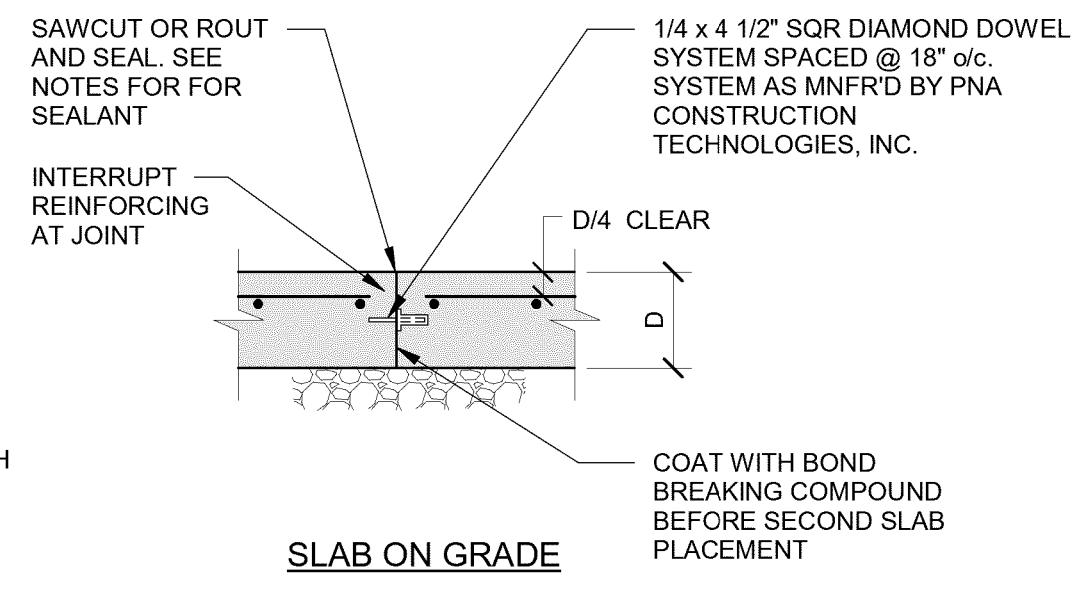


TYPICAL EXTERIOR EQUIPMENT PAD DETAIL

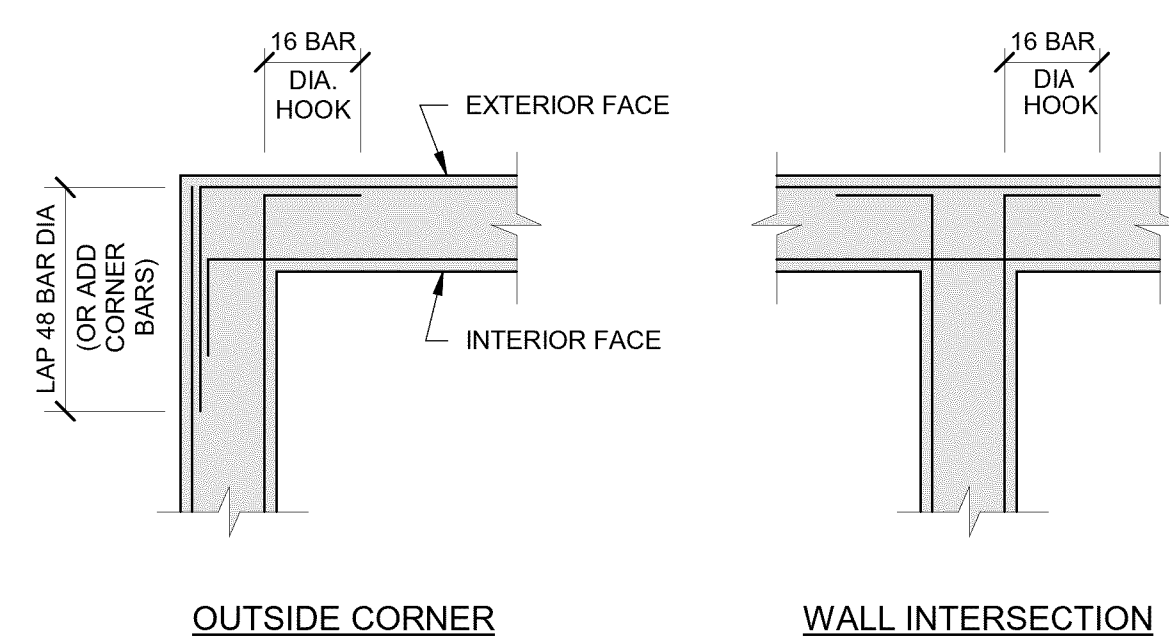
3/4" = 1'-0"



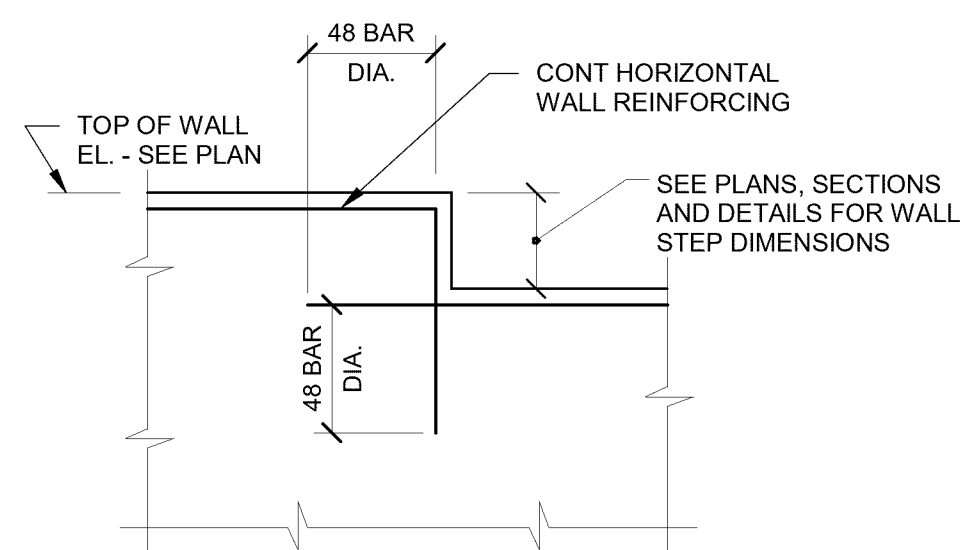
TYPICAL CONTROL JOINT DETAIL



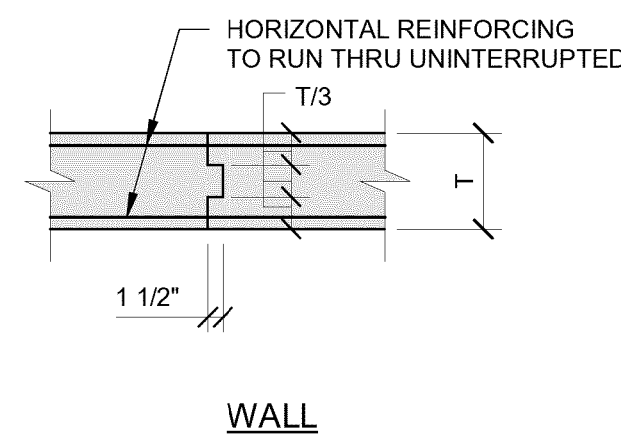
TYPICAL CONSTRUCTION JOINT DETAIL



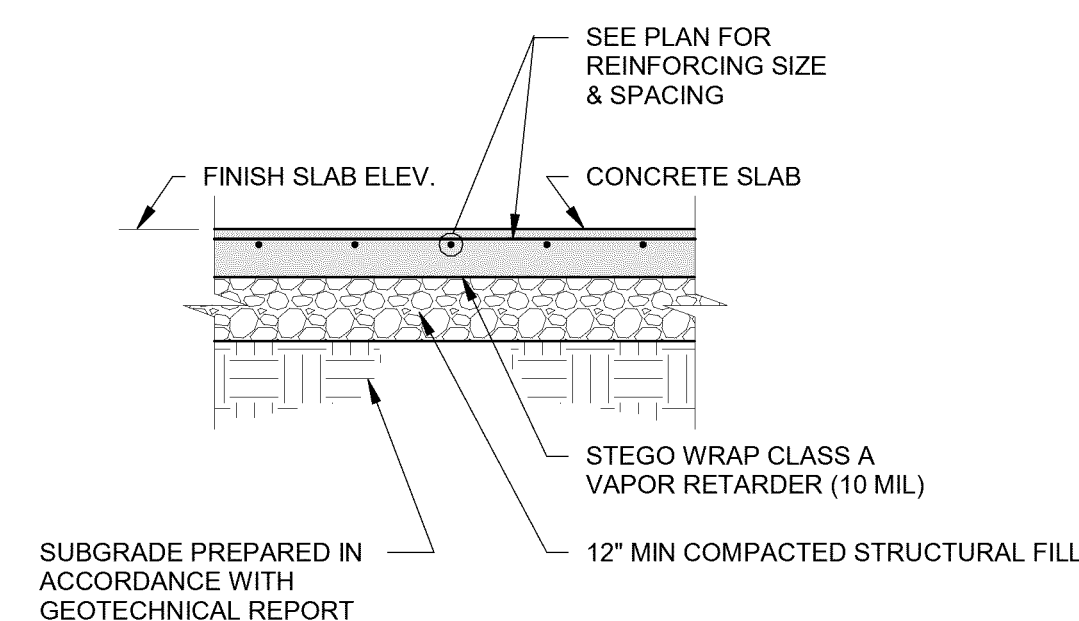
TYPICAL DETAILS OF REINFORCING AT CORNERS OF CONCRETE WALLS



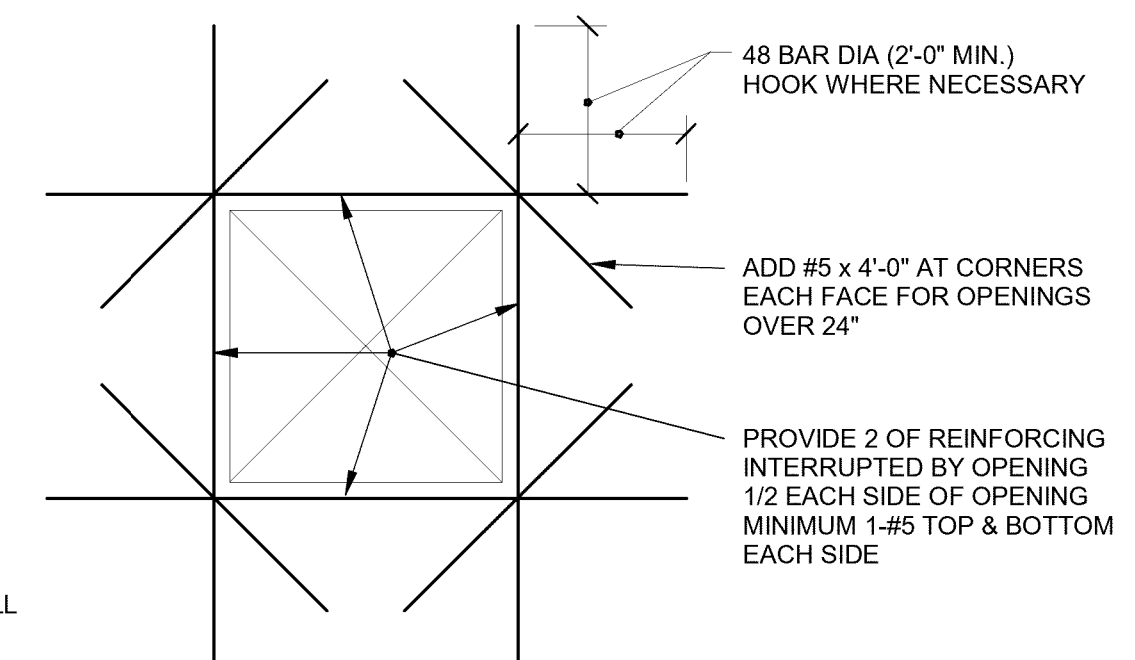
TYPICAL WALL STEP DETAIL



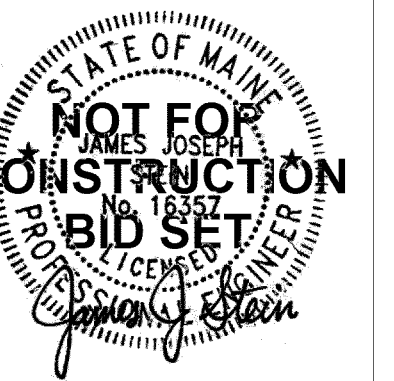
TYPICAL CONSTRUCTION JOINT DETAIL



TYPICAL SLAB/SUBGRADE PROFILE



TYPICAL DETAIL OF REINFORCING AT CONCRETE WALL OPENINGS



NUMBER	DATE	REVISION DESCRIPTION

CLIENT NAME
WASHINGTON ACADEMY



PROJECT NAME
PUBLIC WATER SYSTEM CONSOLIDATION

PROJECT ADDRESS
66 CUTLER ROAD
EAST MACHIAS, ME
04630

SHEET TITLE

SECTIONS & DETAILS

D&K PROJECT # 229946
PROJ. ENG. LF

DRAWN BY LF
CHECKED BY

DATE AUGUST 2024

SHEET NUMBER

S-2

BID SET
NOT FOR CONSTRUCTION 01/07/25

SHEET 21 OF 29

I:\229946 - Washington Academy Water System Consolidation\Drawings\Backgrounds\22x34 - Titleblock.dwg 3/20/2024 2:05 PM

GENERAL

- 1. USE STRUCTURAL DRAWINGS IN CONJUNCTION WITH THE SPECIFICATIONS AND ARCHITECTURAL, ELECTRICAL, MECHANICAL AND SITE DRAWINGS.
2. ALL WORK SHALL BE IN ACCORDANCE WITH APPLICABLE CODES, STANDARDS, AND REGULATIONS.
3. DIMENSIONS SHALL NOT BE SCALED FROM DRAWINGS.
4. DETAILS SHOWN ARE TYPICAL. SIMILAR DETAILS APPLY TO SIMILAR CONDITIONS UNLESS OTHERWISE NOTED.
5. CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS AND REPORT DISCREPANCIES TO ENGINEER BEFORE PROCEEDING WITH THE WORK.
6. IN CASE OF DISCREPANCIES BETWEEN THE DRAWINGS AND THE SPECIFICATIONS, THE DRAWINGS GOVERN.

SHOP DRAWINGS AND PRODUCT DATA

- 1. SHOP DRAWINGS: SUBMIT ELECTRONICALLY TO THE ENGINEER FOR REVIEW. SHOP DRAWINGS WILL BE PROCESSED AND RETURNED ELECTRONICALLY.
2. PRODUCT DATA: SUBMIT ELECTRONICALLY TO THE ENGINEER, MARKING TO INDICATE ACTUAL PRODUCT TO BE PROVIDED. PRODUCT DATA WILL BE PROCESSED AND RETURNED ELECTRONICALLY.

EARTHWORK

- 1. SUBMITTALS: SUBMIT TEST REPORTS ON BORROW MATERIAL, VERIFICATION OF FOOTING SUBGRADE MATERIAL, IN-PLACE SOIL DENSITY TEST AND OPTIMUM MOISTURE-MAXIMUM DENSITY CURVES.
2. EXISTING UTILITIES: LOCATE BY HAND EXCAVATION AND PROVIDE PROTECTION FROM DAMAGE. COOPERATE WITH OWNER AND UTILITY COMPANIES FOR MAINTAINING SERVICES.
3. PROTECTIONS: PROTECT STRUCTURES, UTILITIES, SIDEWALKS, PAVEMENTS, AND OTHER FACILITIES IN AREAS OF WORK. BARRICADE OPEN EXCAVATIONS AND PROVIDE WARNING LIGHTS. SLOPE SIDES OF EXCAVATIONS AS REQUIRED FOR SAFE WORKING CONDITIONS. COMPLY WITH REGULATIONS OF AUTHORITIES HAVING JURISDICTION INCLUDING OSHA REGULATIONS FOR ALL EXCAVATION AND BACKFILLING WORK.
4. GRANULAR BORROW: FILL TO RAISE GRADES IN BUILDING AREAS AND BACKFILL FOR OVER-EXCAVATIONS, OR TO REPAIR SOFT AREAS. MATERIAL SHALL BE SAND OR SILTY-SAND MEETING THE REQUIREMENTS OF 2020 MAINEDOT STANDARD SPECIFICATION 703.13 GRANULAR BORROW.
5. STRUCTURAL FILL: FILL TO RAISE GRADES IN BUILDING AREAS AND BACKFILL FOR FOUNDATIONS, OVER-EXCAVATED AREAS AND SLAB BASE. MATERIAL SHALL BE CLEAN, NON-FROST SUSCEPTIBLE SAND AND GRAVEL MEETING THE FOLLOWING GRADATION:
SIEVE SIZE PERCENT FINER BY WEIGHT
4 INCH 100
3 INCH 90 TO 100
3/4 INCH 25 TO 90
NO. 40 0 TO 30
NO. 200 0 TO 6
6. CRUSHED STONE: WASHED 3/4 INCH CRUSHED STONE MEETING THE REQUIREMENTS OF 2020 MAINEDOT STANDARD SPECIFICATION 703.13 CRUSHED STONE 3/4 INCH.
7. SEPARATION GEOTEXTILE: NON-WOVEN GEOTEXTILE FABRIC, MIRAFI 180N OR APPROVED EQUIVALENT.
8. EXCAVATION: REMOVE AND DISPOSE OF MATERIAL ENCOUNTERED TO OBTAIN REQUIRED SUBGRADE ELEVATIONS. REMOVE ALL UNCONTROLLED FILL FROM BENEATH THE PROPOSED BUILDING FOOTPRINT, EXTENT OF REMOVAL SHOULD EXTEND 1 FOOT LATERALLY OUTWARD FOR EVERY 1 FOOT OF EXCAVATION DEPTH. FINAL CUTS TO BE MADE USING SMOOTH EDGED BUCKETS TO MINIMIZE SOIL DISTURBANCE.
9. DEWATERING: PREVENT SURFACE WATER AND GROUND WATER FROM ENTERING EXCAVATIONS, FROM PONDING ON PREPARED SUBGRADES AND FROM FLOODING PROJECT SITE AND SURROUNDING AREA. PROTECT SUBGRADES FROM SOFTENING, UNDERMINING, WASHOUT, AND DAMAGE BY RAIN OR WATER ACCUMULATION.
10. BACKFILL AND FILL: PLACE SATISFACTORY BACKFILL AND FILL SOIL MATERIALS IN LAYERS NOT MORE THAN 12 INCHES IN LOOSE DEPTH, COMPACTING EACH LAYER SUCH THAT THE REQUIRED DENSITY IS ACHIEVED THROUGHOUT THE LIFT THICKNESS. DO NOT PLACE MATERIALS ON SURFACES THAT ARE MUDDY, FROZEN, OR CONTAIN ICE OR FROST. USE STRUCTURAL FILL UNDER INTERIOR SLABS ON GRADE. USE GRANULAR BORROW OR STRUCTURAL FILL WITHIN BUILDING FOOTPRINT AND WITHIN 5 FEET OF FOUNDATION WALLS OUTSIDE BUILDING FOOTPRINT.
11. COMPACTION: COMPACT EACH LAYER OF BACKFILL AND FILL SOIL MATERIALS TO 95 PERCENT MAXIMUM DENSITY AS DETERMINED BY ASTM D 1557. COMPACT CRUSHED STONE WITH 3 TO 5 PASSES OF A VIBRATORY PLATE COMPACTOR HAVING A STATIC WEIGHT OF AT LEAST 500 POUNDS.
12. TESTING: OWNER WILL ENGAGE SOILS TESTING AND INSPECTION SERVICE FOR QUALITY CONTROL TESTING DURING EARTHWORK OPERATIONS. TYPE AND QUANTITY OF TESTS SHALL BE AS PROVIDED IN THE PROJECT GEOTECHNICAL REPORT
13. SEPARATION GEOTEXTILE: NON-WOVEN GEOTEXTILE FABRIC, MIRAFI 180N OR APPROVED EQUIVALENT.
14. FOUNDATION DESIGN BASED ON RECOMMENDATIONS CONTAINED IN GEOTECHNICAL REPORT PREPARED BY S.W. COLE ENGINEERING, INC., DATED APRIL 12, 2024. SUBGRADE TO BE INSPECTED BY QUALIFIED GEOTECHNICAL ENGINEER PRIOR TO FOOTING INSTALLATION. EARTHWORK SHALL BE PERFORMED FOLLOWING THE GUIDELINES AND RECOMMENDATIONS PROVIDED IN THE GEOTECHNICAL REPORT.
15. FOOTINGS: PLACE FOOTINGS ON 6 INCH MINIMUM COMPACTED CRUSHED STONE WRAPPED IN SEPARATION GEOTEXTILE OVERLYING UNDISTURBED NATIVE SOIL OR COMPACTED STRUCTURAL FILL OVERLYING NATIVE SOIL. BEARING CAPACITY FOR FOUNDATION DESIGN IS 2,500 POUNDS PER SQUARE FOOT.

CONCRETE

- 1. ALL CONCRETE SHALL CONFORM TO REQUIREMENTS AND RECOMMENDATIONS OF ACI 318 "BUILDING CODE REQUIREMENTS OF REINFORCED CONCRETE" AND ACI FIELD REFERENCE MANUAL MNL-15.
2. CONCRETE WORK SHALL CONFORM TO ALL REQUIREMENTS OF ACI 301, "SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS," EXCEPT AS MODIFIED OR SUPPLEMENTED BELOW.
3. SHOP DRAWINGS AND DATA: SUBMIT SHOP DRAWINGS COMPLYING WITH ACI MNL-66 "ACI DETAILING MANUAL" AND PRODUCT DATA FOR ACCESSORIES, ADMIXTURES AND CURING COMPOUNDS.
4. CONCRETE COMPRESSIVE DESIGN STRENGTHS AND MIX PROPORTIONS SHALL BE AS OUTLINED BELOW. MIX PROPORTIONS AND DESIGNS SHALL BE SUBMITTED FOR APPROVAL. LIMIT MAXIMUM WATER-SOLUBLE CHLORIDE ION CONTENT IN CONCRETE BY WEIGHT OF CEMENT FOR CAST-IN-PLACE CONCRETE TO 0.3 FOR INTERIOR CONCRETE AND 0.15 FOR EXTERIOR CONCRETE.
CONCRETE USAGE CONCRETE CLASS COMPRESSIVE STRENGTH MAX W/CM RATIO AIR
FOOTINGS AND WALLS F1, S0, W1, C1 4,000 PSI AT 28 DAYS 0.50 5% +/- 1.5%
INTERIOR SLABS ON GRADE F0, S0, W0, C0 3,500 PSI AT 28 DAYS 0.50 < 3%
EXTERIOR SLABS ON GRADE F3, S0, W0, C2 5,000 PSI AT 28 DAYS 0.40 6% +/- 1.5%
5. STEEL REINFORCEMENT INSTALLATION (INCLUDING WELDED WIRE REINFORCEMENT): COMPLY WITH CRSI "MANUAL OF STANDARD PRACTICE" FOR FABRICATING, PLACING, AND SUPPORTING REINFORCEMENT. CLEAN REINFORCEMENT OF LOOSE RUST AND MILL SCALE, EARTH, ICE, AND OTHER FOREIGN MATERIALS THAT REDUCE BOND TO CONCRETE. ACCURATELY POSITION, SUPPORT, AND SECURE REINFORCEMENT AGAINST DISPLACEMENT.
6. REINFORCING STEEL: ASTM A 615 GRADE 60.
7. JOINT SEALANT: SIKAFLEX 1A AS MANUFACTURED BY SIKA CORPORATION OR APPROVED EQUAL.
8. EXPANSION AND ISOLATION JOINT FILLER: ASTM D1751, ASPHALT-SATURATED CELLULOSIC FIBER.
9. FOUNDATION INSULATION: SEE ARCH DRAWINGS FOR INSULATION SPECIFICATION.
10. ALL CONCRETE SHALL BE READY-MIX CONCRETE CONFORMING TO ASTM C 94 EXCEPT THAT ADDITION OF WATER WILL NOT BE PERMITTED.
11. ALL REINFORCING MARKED CONTINUOUS (CONT.) SHALL BE LAPPED 64 BAR DIAM. AT SPLICES AND CORNERS AND SHALL BE HOOKED OR EXTENDED 48 BAR DIAM. AT NON-CONTINUOUS ENDS.
12. REINFORCEMENT SHALL BE SECURELY TIED IN ITS PROPER PLACE BEFORE AND DURING CONCRETE PLACEMENT OPERATIONS USING APPROVED CHAIRS AND SPACERS AS REQUIRED.
13. SLABS ON GRADE SHALL BE PLACED OVER A POROUS 12 INCH LAYER OF COMPACTED STRUCTURAL FILL (MINIMUM), UNLESS OTHERWISE SHOWN ON PLANS. PROVIDE REINFORCING AS NOTED IN DRAWINGS. SAWCUT LENGTHS IN PANELS NOT TO EXCEED 20 FEET IN LENGTH OR WIDTH. SAW CUTTING SHALL BE DONE WITH "SOFF-CUT" SAWS. JOINTS TO BE LOCATED TO CONFORM TO BAY SPACING WHENEVER POSSIBLE (AT COLUMN CENTERLINES, HALF BAYS, THIRD BAYS). SLAB PANEL LENGTH TO WIDTH RATIO NOT TO EXCEED 1.5.
14. THE CONCRETE CONTRACTOR SHALL INSTALL OR GIVE OTHER TRADES AMPLE OPPORTUNITY TO INSTALL ALL ANCHORS, BOLTS, PLATES, NAILERS, SLOTS, CHASES, PIPE SLEEVES, ETC., AS REQUIRED BY THESE TRADES. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS BEFORE SETTING SCREEDS AND FORMS.
15. FOUNDATION WALLS SHALL BE PLACED IN ALTERNATE LENGTHS. CONSTRUCTION OR CONTROL JOINTS SHALL BE PLACED NOT MORE THAN 60 FEET APART NOR MORE THAN 30 FEET FROM A CORNER. NO HORIZONTAL JOINTS SHALL BE PERMITTED EXCEPT AS SHOWN ON PLANS. FOUNDATION WALLS SHALL BE BRACED UNTIL ADJOINING FLOOR CONSTRUCTION IS IN PLACE.
16. PROVIDE CLEARANCES FROM FACES OF CONCRETE TO REINFORCEMENT AS FOLLOWS (UNLESS NOTED OTHERWISE):
a. CONCRETE CAST AGAINST EARTH: 3" (ALL BARS)
b. CONCRETE EXPOSED TO EARTH OR WEATHER
i. #6 AND LARGER: 2"
ii. #5 AND SMALLER: 1-1/2"
c. CONCRETE NOT EXPOSED TO EARTH OR WEATHER:
i. SLABS, WALLS AND JOISTS: 3/4" (#11 AND SMALLER)
ii. BEAMS AND COLUMNS (MAIN STEEL AND TIES): 1-1/2" (ALL BARS)
17. ALL CONCRETE SHALL BE CONSOLIDATED USING MECHANICAL VIBRATING EQUIPMENT.
18. FORMED CONCRETE NOT EXPOSED TO VIEW SHALL RECEIVE A ROUGH FORM FINISH; FORMED CONCRETE EXPOSED TO VIEW SHALL RECEIVE A SMOOTH FORM FINISH.
19. CONCRETE SLABS SHALL BE WET CURED, USE OF MEMBRANE-FORMING CURING COMPOUND IS PROHIBITED.
20. CONCRETE SLABS SHALL RECEIVE A TROWELED FINISH FOR INTERIOR CONCRETE AND A BROOM FINISH FOR EXTERIOR CONCRETE.
21. INTERIOR SLABS ON GRADE SHALL RECEIVE A PENETRATING FLOOR SEALER. APPLY ASHFORD FORMULA BY CURECRETE, OR APPROVED EQUAL TO ALL EXPOSED CONCRETE SURFACES. IN STRICT COMPLIANCE WITH MANUFACTURER'S RECOMMENDATIONS.
22. TESTING: THE OWNER WILL EMPLOY A TESTING AGENCY TO PERFORM TESTS FOR QUALITY CONTROL DURING PLACEMENT. FIELD TESTING SHALL BE PERFORMED BY A GRADE 1 ACI FIELD TESTING TECHNICIAN. EACH DAY FOR EACH CONCRETE MIXTURE, OBTAIN AND TEST ONE SAMPLE FOR THE FIRST 25 CUBIC YARDS PLACED AND AN ADDITIONAL SAMPLE FOR EVERY ADDITIONAL 50 CUBIC YARDS PLACED. PERFORM THE FOLLOWING TESTS FOR EACH SAMPLE TAKEN:
a. SLUMP: ASTM C 143, ONE TEST AT POINT OF PLACEMENT.
b. AIR CONTENT: ASTM C 231, ONE TEST AT POINT OF PLACEMENT.
c. CONCRETE TEMPERATURE: ASTM C 1064, AT LEAST ONE TEST PER SAMPLE PLUS ONE TEST HOURLY DURING HOT OR COLD WEATHER CONCRETE WORK.
d. UNIT WEIGHT: ASTM C 567, ONE TEST AT POINT OF PLACEMENT.
e. COMPRESSION TEST: ASTM C 31, PREPARE (4) 8"x12" CYLINDERS AND TEST AS FOLLOWS: (1) AT 7 DAYS, (2) AT 28 DAYS, AND HOLD (1) FOR A 56 DAY BREAK IF REQUIRED.

POST-INSTALLED ANCHORS:

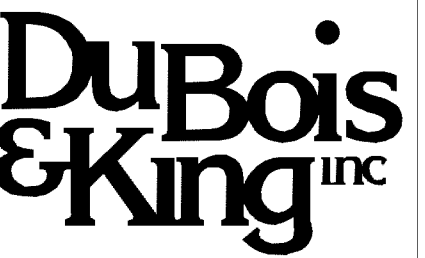
- 1. EXCEPT WHERE INDICATED ON THE DRAWINGS, POST-INSTALLED ANCHORS SHALL CONSIST OF THE FOLLOWING ANCHOR TYPES AS PROVIDED BY HILTI, INC.
A. ANCHORAGE TO CONCRETE
i. ADHESIVE ANCHORS FOR CRACKED AND UNCRACKED CONCRETE USE:
a. HILTI HIT-HY 200 V3 SAFE SET SYSTEM WITH HILTI HOLLOW DRILL BIT AND VC 150/300 WITH HILTI HAS THREADED ROD PER ICC ESR-4868
ii. BASIS OF DESIGN INCLUDES THE FOLLOWING DESIGN PARAMETERS:
a. CRACKED CONCRETE
b. DRY CONCRETE
c. BASE MATERIAL TEMPERATURE OF 23-104 DEGREES FAHRENHEIT
d. ALLOWABLE WITH HAMMER-DRILL, HOLLOW DRILL BIT SYSTEM, AND CORE DRILLING METHODS
2. ANCHOR CAPACITY USED IN DESIGN SHALL BE BASED ON THE TECHNICAL DATA PUBLISHED BY HILTI OR SUCH OTHER METHOD AS APPROVED BY THE STRUCTURAL ENGINEER OF RECORD. SUBSTITUTION REQUESTS FOR ALTERNATE PRODUCTS MUST BE APPROVED IN WRITING BY THE STRUCTURAL ENGINEER OF RECORD PRIOR TO USE. CONTRACTOR SHALL PROVIDE CALCULATIONS THAT HAVE BEEN SEALED BY ANOTHER LICENSED ENGINEER DEMONSTRATING THAT THE SUBSTITUTED PRODUCT IS CAPABLE OF MEETING THE PERFORMANCE OF THE SPECIFIED PRODUCT. SUBSTITUTIONS WILL BE EVALUATED BY THEIR HAVING AN ICC ESR SHOWING COMPLIANCE WITH THE RELEVANT BUILDING CODE FOR SEISMIC USES, LOAD RESISTANCE, INSTALLATION CATEGORY, AND AVAILABILITY OF COMPREHENSIVE INSTALLATION INSTRUCTIONS. ADHESIVE ANCHOR EVALUATION WILL ALSO CONSIDER CREEP, IN-SERVICE TEMPERATURE, INSTALLATION TEMPERATURE, MOISTURE CONDITION OF CONCRETE, AND DRILLING METHODS.
3. NSTALL ANCHORS PER THE MANUFACTURER PRINTED INSTALLATION INSTRUCTIONS (MPII), AS INCLUDED IN THE ANCHOR PACKAGING.
4. ADHESIVE ANCHORS IN UPWARDLY-INCLINED ORIENTATION AND/OR AT EMBEDMENT DEPTHS GREATER THAN 10 INCHES MUST BE INSTALLED USING THE HILTI PROFI PISTON PLUG SYSTEM.
5. THE CONTRACTOR SHALL ARRANGE AN ANCHOR MANUFACTURER'S REPRESENTATIVE TO PROVIDE ONSITE INSTALLATION TRAINING FOR ALL OF THE ANCHORING PRODUCTS SPECIFIED. THE STRUCTURAL ENGINEER OF RECORD MUST RECEIVE DOCUMENTED CONFIRMATION THAT ALL PERSONNEL WHO INSTALL ANCHORS ARE TRAINED PRIOR TO THE COMMENCEMENT OF ANCHOR INSTALLATION.
6. ANCHOR CAPACITY IS DEPENDENT UPON SPACING BETWEEN ADJACENT ANCHORS AND PROXIMITY OF ANCHORS TO EDGE OF CONCRETE. INSTALL ANCHORS IN ACCORDANCE WITH SPACING AND EDGE CLEARANCES INDICATED ON THE DRAWINGS.
7. EXISTING REINFORCING BARS IN THE CONCRETE STRUCTURE MAY CONFLICT WITH SPECIFIC ANCHOR LOCATIONS. UNLESS NOTED ON THE DRAWINGS THAT THE BARS CAN BE CUT, THE CONTRACTOR SHALL REVIEW THE EXISTING STRUCTURAL DRAWINGS AND SHALL UNDERTAKE TO LOCATE THE POSITION OF THE REINFORCING BARS AT THE LOCATIONS OF THE CONCRETE ANCHORS BY HILTI FERROSCAN, GPR, X-RAY OR OTHER MEANS.

WOOD FRAMING

- 1. ALL WOOD CONSTRUCTION SHALL CONFORM TO THE REQUIREMENTS OF THE "NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION" BY THE NATIONAL FOREST PRODUCTS ASSOCIATION AND TO LOCAL BUILDING CODES.
2. ALL WOOD MEMBERS SHALL BE SPRUCE-PINE-FIR NO. 2 GRADE AND BETTER EXCEPT WHERE NOTED ON PLANS.
3. ALL PRESERVATIVE TREATED WOOD MEMBERS SHALL BE NO. 2 GRADE AND BETTER SOUTHERN PINE. ALL METAL CONNECTORS, ANCHORS AND FASTENERS USED FOR PRESERVATIVE TREATED WOOD SHALL BE STAINLESS OR GALVANIZED AS RECOMMENDED BY THE CONNECTOR, ANCHOR OR FASTENER MANUFACTURER.
4. SECURELY ATTACH WOOD FRAMING BY FASTENING AS INDICATED. LOCATIONS NOT SPECIFIED TO BE ATTACHED FOLLOWING ICC INTERNATIONAL BUILDING CODE CHAPTER 23 TABLE TITLED "FASTENING SCHEDULE."
5. CONTINUITY IN FRAMING SHALL BE PROVIDED AT ALL BEARING WALLS IN ORDER TO TRANSFER THE LOADS TO THE FOUNDATION OR OTHER FRAMING.
6. METAL CONNECTORS AND ANCHORS SHALL BE INSTALLED PER MANUFACTURER'S INSTRUCTIONS USING MAX-FASTENERS SPICIFIED UNLESS NOTED OTHERWISE ON THE DRAWINGS.
7. WOOD TRUSSES SHALL BE DESIGNED BY THE MANUFACTURER TO RESIST LOADS SHOWN ON PLANS. DESIGN OF TRUSSES SHALL CONFORM TO THE REQUIREMENTS OF THE "NATIONAL DESIGN STANDARD FOR METAL PLATE CONNECTED WOOD TRUSS CONSTRUCTION," TPI-14. THE DESIGN OF TRUSSES SHALL BE STAMPED BY A REGISTERED PROFESSIONAL ENGINEER LICENSED IN THE PROJECT JURISDICTION AND SUBMITTED FOR APPROVAL. THE MANUFACTURER SHALL SHOW SPECIAL BEARINGS AND LATERAL BRACING AS REQUIRED. BRACING OF WOOD TRUSSES, INCLUDING PERMANENT BRACING AND TEMPORARY BRACING FOR TRUSS INSTALLATION, SHALL BE IN ACCORDANCE WITH RECOMMENDATIONS OF TPI-DSB-2022 "NATIONAL DESIGN STANDARD FOR BRACING METAL PLATE CONNECTED WOOD TRUSSES." THE GENERAL CONTRACTOR SHALL ENGAGE A QUALIFIED STRUCTURAL ENGINEER TO DESIGN TEMPORARY AND PERMANENT TRUSS BRACING BASED ON MEMBER FORCES PROVIDED BY THE TRUSS MANUFACTURER. SUBMIT STAMPED CALCULATIONS AND DRAWINGS FOR REVIEW. BRACING FOR GABLE END TRUSSES IS CONSIDERED TRUSS BRACING AND SHALL BE INCLUDED IN THE TRUSS BRACING CALCULATION AND DRAWING PACKAGES.
8. PLYWOOD SHEATHING SHALL BE APA RATED SHEATHING EXPOSURE 1. ALL PLYWOOD WHICH HAS ANY EDGE OR SURFACE PERMANENTLY EXPOSED TO THE WEATHER SHALL BE EXTERIOR TYPE. PANEL THICKNESS SHALL BE AS SHOWN ON PLANS AND MINIMUM PANEL SPAN RATING SHALL BE 42/20 FOR ROOFS AND 32/16 FOR SIDEWALLS. INSTALL SHEATHING WITH STRENGTH DIRECTION PERPENDICULAR TO SUPPORTING FRAMING. ALL PLYWOOD ROOF SHEATHING SHALL HAVE PLYCLIPS AT MIDSPAN. APPLICATIONS SHALL BE IN ACCORDANCE WITH RECOMMENDATIONS OF THE AMERICAN PLYWOOD ASSOCIATION.

DESIGN CRITERIA

- 1. CODES: IBC 2015 AND ASCE 7-10, AS AMENDED BY MUBEC.
2. BUILDING OR STRUCTURE RISK CATEGORY: III
3. ROOF LOADS:
DEAD LOAD: 20 PSF
GROUND SNOW LOAD (Pg): 50 PSF
FLAT ROOF SNOW LOAD (Pf): 42 PSF
SLOPED ROOF SNOW LOAD (Ps): Cs x Pf
EXPOSURE FACTOR (Ce): 1.0
THERMAL FACTOR (Ct): 1.1
IMPORTANCE FACTOR (Is): 1.1
4. 12" MAT SLAB ON GRADE (3) 5,000 GALLON TANKS 42,700 LBS FULL (EACH)
5. WIND LOAD:
ULTIMATE WIND SPEED (Vult): 120 MPH
NOMINAL DESIGN WIND SPEED (Vasd): 93 MPH
IMPORTANCE FACTOR (Iw): 1.0
WIND EXPOSURE: C
INT. PRESSURE COEFFICIENT (GCpi): +/- 0.18
COMPONENTS/GLADDING: ASCE 7-10
6. SEISMIC LOAD:
IMPORTANCE FACTOR (Ie): 1.25
MAPPED SPECTRAL RESPONSE COEFFICIENTS: Ss = 0.245 AND S1 = 0.073
SITE CLASS: C
SPECTRAL RESPONSE COEFFICIENTS: Sds = 0.196 AND Sd1 = 0.083
SEISMIC DESIGN CATEGORY: B
SEISMIC FORCE-RESISTING SYSTEM: LIGHT-FRAME WOOD WALLS SHEATHING WITH WOOD STRUCTURAL PANELS RATED FOR SHEAR RESISTANCE, R=6.5
DESIGN BASE SHEARS: V = 0.04W
ANALYSIS PROCEDURE: EQUIVALENT LATERAL FORCE METHOD



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Table with 4 columns: REVISIONS, REVISION DESCRIPTION, DATE, NUMBER

CLIENT NAME WASHINGTON ACADEMY
Logo of Washington Academy

PROJECT NAME PUBLIC WATER SYSTEM CONSOLIDATION

PROJECT ADDRESS 66 CUTLER ROAD EAST MACHIAS, ME 04630

SHEET TITLE

NOTES

D&K PROJECT # 229946 PROJ. ENG. LF

DRAWN BY LF CHECKED BY

DATE AUGUST 2024

SHEET NUMBER

S-3

SHEET 22 OF 29

BID SET NOT FOR CONSTRUCTION 01/07/25

NOT FOR CONSTRUCTION BID SET

EXHAUST FAN SCHEDULE											
NO.	SERVES	MAKE & MODEL	CFM	RPM	SP	HP	ELECTRICAL DATA			MOTOR STARTER BY M.C.	REMARKS
							VOLTS	PH	CY		
EF-1	TREATMENT ROOM	GREENHECK CUE-140-VG	1550	922	0.125"	1/4	120	1	60	REVERSE ACTING THERMOSTAT & OCC SENSOR	①
① FURNISH WITH ENERGY EFFICIENT EC MOTOR WITH UNIT MOUNTED POTENTIOMETER DIAL AND INTEGRAL OVERLOAD PROTECTION. SINGLE POINT WIRING, UNIT MOUNTED DISCONNECT SWITCH, ASSEMBLED WALL COLLAR, CLOSURE ANGLES, MOTOR SIDE GUARD, GALVANIZED WEATHERHOOD WITH BIRDSCREEN AND GRAY PRIMER FOR FINAL PAINTING IN FIELD (FINISH COLOR SELECTION BY OWNER), EXTENDED LUBRICATION LINES AND 120V INTERNALLY MOUNTED MOTOR OPERATED DAMPER WITH END SWITCH) MOD FACTORY WIRED TO OPEN WHEN FAN STARTS, CLOSE WHEN FAN STOPS), REVERSE ACTING THERMOSTAT SET TO 80°F (ADJ.) AND ALL REQUIRED MOUNTING HARDWARE.											

GAS FIRED UNIT HEATER SCHEDULE													
NO.	MAKE & MODEL	CFM	HEATING MBH		GAS TYPE	VENT SIZE	INLET SIZE	FAN RPM	HP	ELECTRICAL			REMARKS
			INPUT	OUTPUT						VOLTS	PH	CY	
GUH-1	REZNOR MODEL UDJ 30	769	30.0	24.6	LP	4"	4"	1550	0.06	120	1	60	①
GUH-2	REZNOR MODEL UDJ 30	769	30.0	24.6	LP	4"	4"	1550	0.06	120	1	60	①
① FURNISH WITH THERMALLY PROTECTED MOTOR, UNIT MOUNTED DISCONNECT, STAINLESS STEEL HEAT EXCHANGER, HORIZONTAL VENT TERMINAL/COMBUSTION AIR KIT, VERTICAL DEFLECTOR BLADES, SINGLE STAGE THERMOSTAT AND ALL EQUIPMENT REQUIRED FOR PROPER OPERATION. THE MECHANICAL CONTRACTOR SHALL FURNISH HANGING RODS AND NEOPRENE VIBRATION ISOLATORS.													

LOUVER SCHEDULE				
SYMBOL	MANUFACTURER	TYPE & MODEL	REMARKS (SIZE AND CFM AS SHOWN ON PLANS)	
△	GREENHECK	LOUVER (NO FLANGE) MODEL EDJ-401 W/BIRDSCREEN	ALUMINUM CONSTRUCTION, BAKED ENAMEL FINISH, COLOR SELECTION BY OWNER	

DEHUMIDIFIER SCHEDULE										
NO.	SERVES	MAKE & MODEL	WATER REMOVER (80°F & 60%RH)	KILOWATTS (80°F & 60%RH)	CFM	ELECTRICAL DATA			REMARKS	
						VOLTS	PH	CY		
DH-1	WATER TREATMENT ROOM	THERMA-STOR HI-E DRY 100	106 PINTS	0.61 KW	255	120	1	60	①	
① FURNISH WITH INTEGRAL CONDENSATE PUMP & ASSOCIATED CONDENSATE HOSE, 6' LONG POWER CORD WITH GROUND, UNIT PROVIDED FILTERS AND ALL ACCESSORIES REQUIRED FOR PROPER INSTALLATION. THE ELECTRICAL CONTRACTOR SHALL FURNISH INSTALL AND WIRE PROPERLY SIZED OUTLET.										

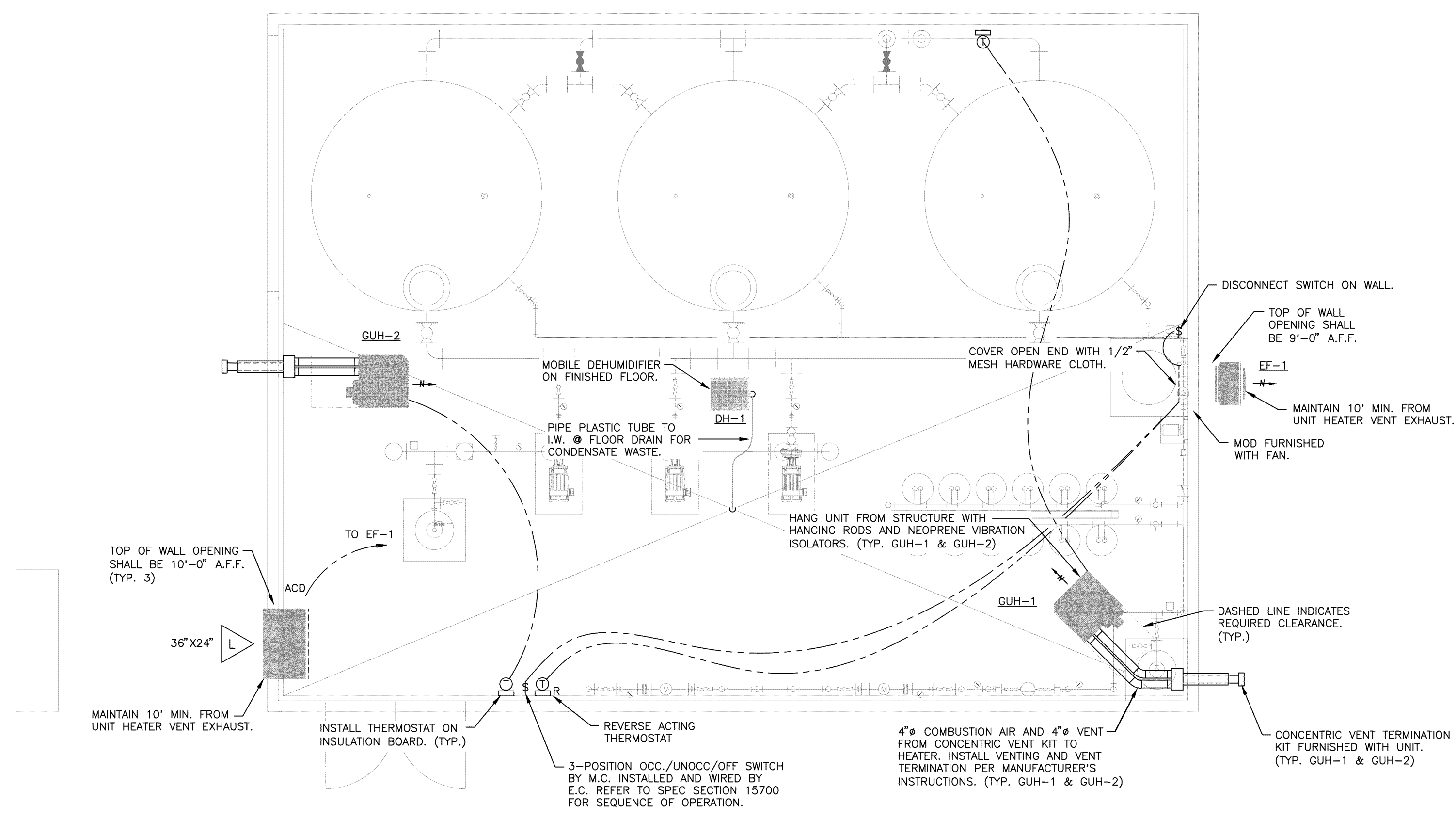
- GENERAL NOTES**
- ALL EQUIPMENT AND DUCTWORK SHOWN DIAGRAMMATICALLY ONLY. EXACT LOCATION TO BE DETERMINED AND COORDINATED IN THE FIELD WITH ALL BY ALL TRADES INVOLVED.
 - WATERPROOF BOTTOM AND SIDES OF ALL INTAKE, EXHAUST AND RELIEF PLENUMS.
 - ALL ROUGH OPENINGS THRU EXTERIOR WALLS SHALL BE SEALED/CAULKED WATERTIGHT WITH ELASTOMERIC SEALANT.
 - FIRE AND MOISTURE SEAL ALL DUCT PENETRATIONS THRU GENERAL CONSTRUCTION WITH SILICONE BASE ELASTOMERIC UL 1479 SEALANT.
 - PITCH DUCT CONNECTIONS TO LOUVERS TO DRAIN TOWARD LOUVER.
 - MOUNTING HEIGHTS FOR THERMOSTATS, EQUIPMENT ON/OFF SWITCHES, ETC., LOCATED IN HANDICAP ACCESSIBLE SPACES SHALL BE 48" TO TOP OF CONTROL UNLESS NOTED OTHERWISE.

LEGEND

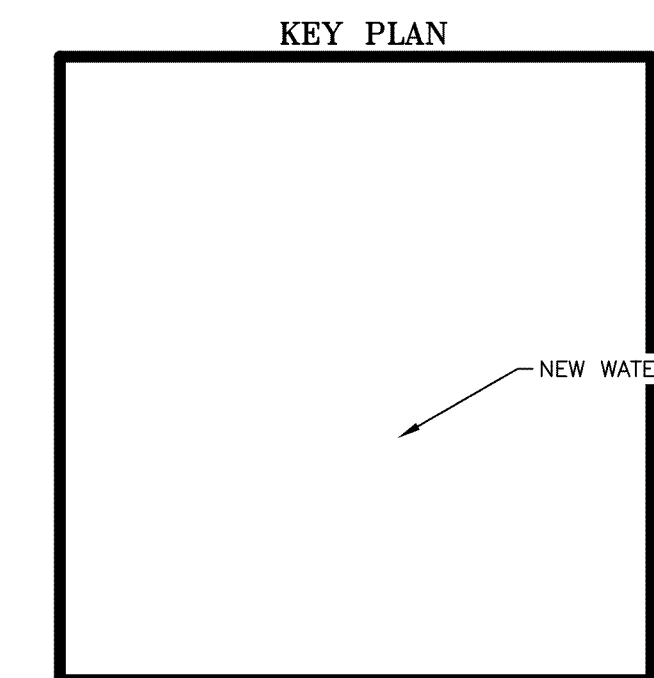
ACD	AUTOMATIC CONTROL DAMPER
AFF	ABOVE FINISHED FLOOR
ATC	AUTOMATIC TEMPERATURE CONTROL
CFM	CUBIC FEET PER MINUTE
EF	EXHAUST FAN
ESP	EXTERNAL STATIC PRESSURE
FAI	FRESH AIR INTAKE
GUH	GAS FIRED UNIT HEATER
MBH	THOUSAND BTU'S PER HOUR
MOD	MOTOR OPERATED DAMPER
RPM	REVOLUTIONS PER MINUTE
TYP.	TYPICAL
⊖	THERMOSTAT
⊖ ^R	REVERSE ACTING THERMOSTAT
▽	LOUVER SYMBOL
→	DIRECTION OF FLOW (AIR)
—	PIPE DROP

LOW VOLTAGE WIRING NOTE

ALL LOW VOLTAGE WIRING SHALL BE INSTALLED AND WIRED BY THE MECHANICAL CONTRACTOR. COORDINATE RESPONSIBILITIES IN THE FIELD WITH THE ELECTRICAL CONTRACTOR.



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



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01/07/25

REVISIONS	REVISION DESCRIPTION	BY	DATE	NUMBER

CLIENT NAME

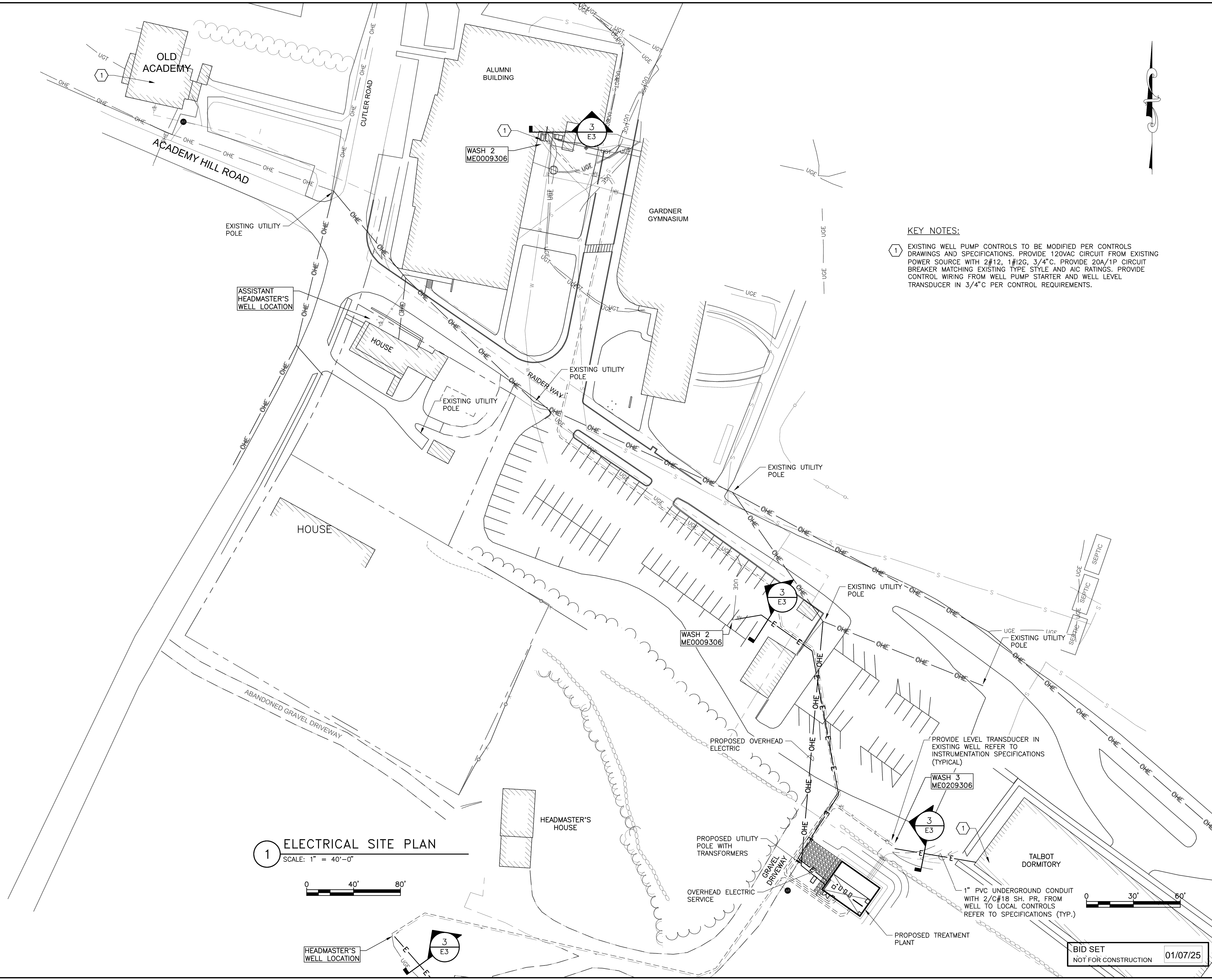
PROJECT NAME
PROJECT ADDRESS

SHEET TITLE
TREATMENT BUILDING HEATING & VENTILATING

D&K PROJECT # PROJ. ENG.
DRAWN BY CHECKED BY
DATE

SHEET NUMBER
M1.1
SHEET 24 OF 29

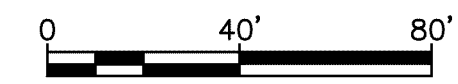
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KEY NOTES:

① EXISTING WELL PUMP CONTROLS TO BE MODIFIED PER CONTROLS DRAWINGS AND SPECIFICATIONS. PROVIDE 120VAC CIRCUIT FROM EXISTING POWER SOURCE WITH 2#12, 1#12G, 3/4" C. PROVIDE 20A/1P CIRCUIT BREAKER MATCHING EXISTING TYPE, STYLE AND AIC RATINGS. PROVIDE CONTROL WIRING FROM WELL PUMP STARTER AND WELL LEVEL TRANSDUCER IN 3/4" C PER CONTROL REQUIREMENTS.

1 ELECTRICAL SITE PLAN
SCALE: 1" = 40'-0"



DIG SAFE NOTE:

UTILITIES ARE PLOTTED FROM FIELD LOCATION AND ANY RECORD INFORMATION AVAILABLE, AND SHOULD BE CONSIDERED APPROXIMATE. OTHER UTILITIES MAY EXIST WHICH ARE NOT EVIDENT OR FOR WHICH RECORD INFORMATION WAS NOT AVAILABLE. CONTRACTORS MUST CONTACT ALL UTILITY COMPANIES BEFORE EXCAVATING AND DRILLING. ALSO, CALL "DIG SAFE" AT 1(888)344-7233 [1(888)DIG-SAFE] IN MA, ME, NH, RI AND, VT. DIG-SAFE WEBSITE: WWW.DIGSAFE.COM

REVISIONS	BY	DATE	NUMBER	REVISION DESCRIPTION

CLIENT NAME
WASHINGTON ACADEMY



PROJECT NAME
PUBLIC WATER SYSTEM CONSOLIDATION

PROJECT ADDRESS
66 CUTLER ROAD
EAST MACHIAS, ME
04630

SHEET TITLE

ELECTRICAL SITE PLAN

D&K PROJECT #

229946

PROJ. ENG.

JTA

DRAWN BY

NDB

CHECKED BY

JTA

DATE

07-January-25

SHEET NUMBER

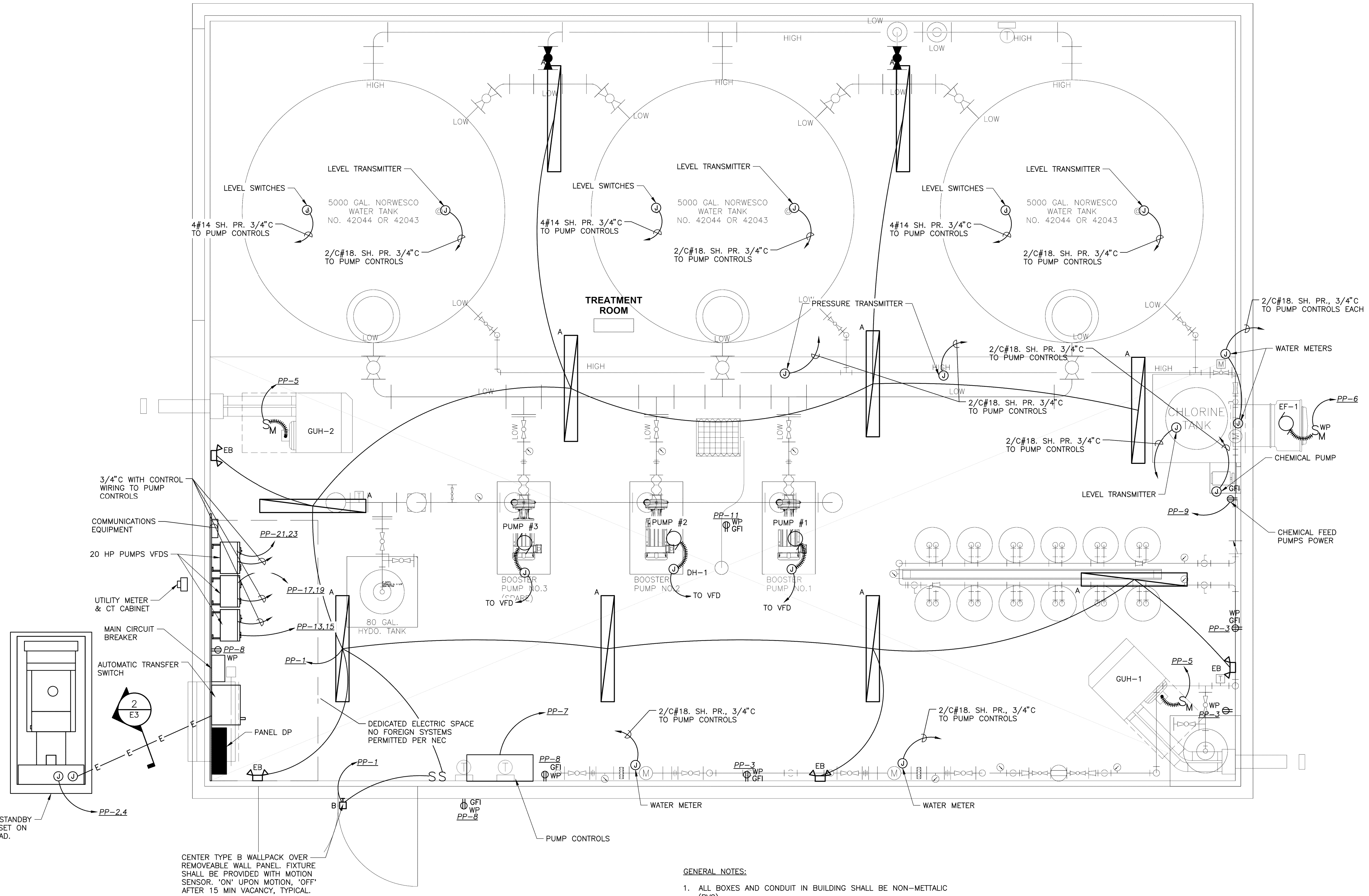
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SHEET 26 OF 29

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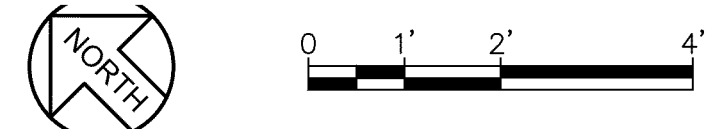
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CENTER TYPE B WALLPACK OVER REMOVEABLE WALL PANEL. FIXTURE SHALL BE PROVIDED WITH MOTION SENSOR. 'ON' UPON MOTION, 'OFF' AFTER 15 MIN VACANCY, TYPICAL.

- GENERAL NOTES:**
- ALL BOXES AND CONDUIT IN BUILDING SHALL BE NON-METALLIC (PVC).
 - REFER TO PROCESS AND CONTROLS DRAWING AND SPECIFICATIONS FOR LOCATIONS AND REQUIREMENTS OF PUMP CONTROLS.

1 TREATMENT PLANT ELECTRICAL PLAN
SCALE: 1/2" = 1'-0"



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01/07/25

REVISIONS	BY	DATE	NUMBER	REVISION DESCRIPTION

CLIENT NAME
WASHINGTON ACADEMY



PROJECT NAME
PUBLIC WATER SYSTEM CONSOLIDATION

PROJECT ADDRESS
66 CUTLER ROAD
EAST MACHIAS, ME
04630

SHEET TITLE

TREATMENT PLANT ELECTRICAL PLAN

D&K PROJECT #	PROJ. ENG.
229946	JTA
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NDB	JTA

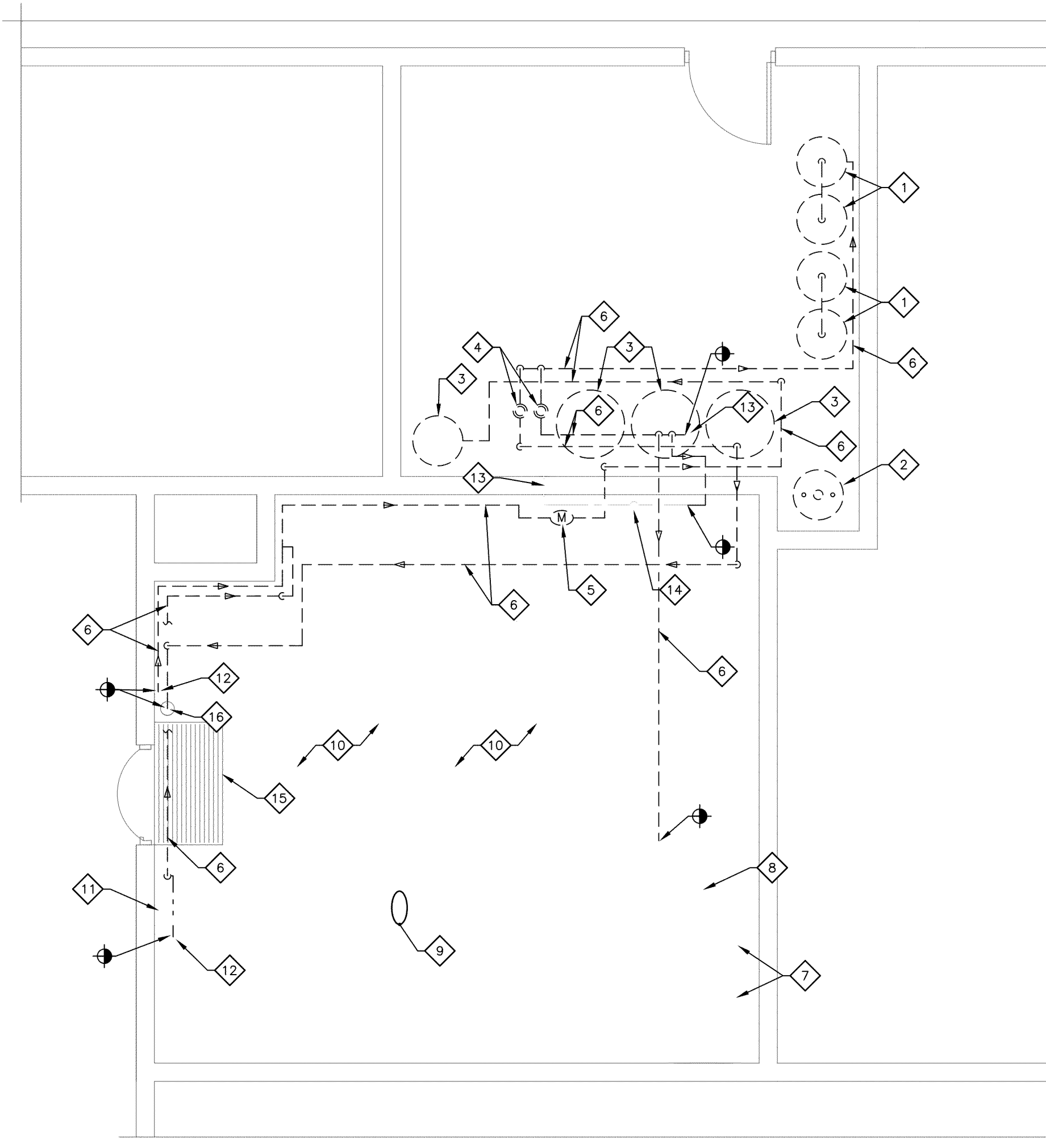
DATE
07-January-25

SHEET NUMBER

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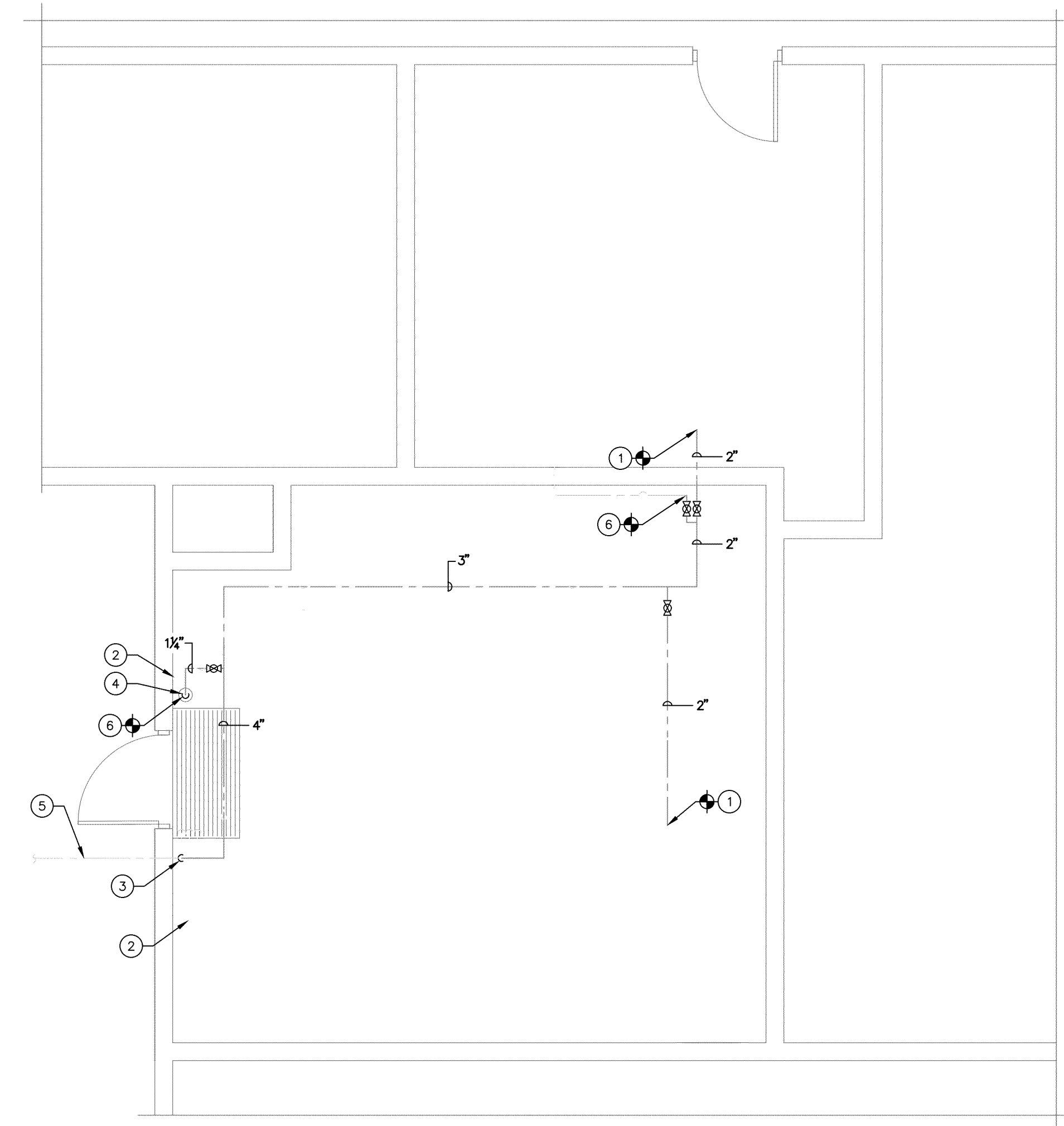
SCALE: 1/4" = 1'-0"

PLUMBING DEMOLITION KEYNOTES

1. REMOVE EXISTING DOMESTIC WATER STORAGE TANK AND ALL ASSOCIATED PIPING AND VALVES COMPLETE.
2. REMOVE EXISTING CHLORINE FEEDER TANK AND ASSOCIATED PIPE, TUBING AND VALVES COMPLETE.
3. REMOVE EXISTING WELL EXPANSION TANK AND ASSOCIATED PIPING, VALVES AND SPECIALTIES COMPLETE.
4. REMOVE EXISTING WATER FILTER AND ASSOCIATED PIPING COMPLETE.
5. REMOVE EXISTING DOMESTIC WATER METER AND ASSOCIATED PIPING AND VALVES COMPLETE. RETAIN METER AND TURN OVER TO OWNER.
6. REMOVE EXISTING DOMESTIC WATER PIPE AND VALVES COMPLETE TO POINT(S) INDICATED.
7. EXISTING DOMESTIC WATER HEATER AND STORAGE TANK TO REMAIN AS IS.
8. EXISTING DOMESTIC HOT WATER RECIRCULATION PUMP TO REMAIN AS IS.
9. EXISTING DOMESTIC COLD, HOT & RECIRCULATION WATER PIPE TO REMAIN AS IS.
10. EXISTING BOILER TO REMAIN AS IS.
11. EXISTING DOMESTIC COLD, HOT & RECIRCULATION WATER PIPES TO UNDERGROUND TO REMAIN AS IS.
12. EXISTING WELL PIPE UP FROM UNDERGROUND TO REMAIN. REMOVE AND REPLACE EXISTING SHUTOFF VALVE WITH NEW BALL VALVE. CAP OR REWORK REMAINING PIPE AS NOTED ON NEW WORK PLAN.
13. EXISTING COLD WATER PIPE TO REMAIN AS IS. REWORK AS NEEDED FOR CONNECTION TO NEW PIPE.
14. EXISTING BOILER MAKE-UP WATER TO REMAIN AS IS.
15. EXISTING RECESSED FLOOR PIT WITH METAL GRATE TO REMAIN AS IS.
16. EXISTING UNDERGROUND COLD WATER SUPPLY PIPE TO I.A. TO REMAIN. CUT ABOVE FLOOR AND REWORK FOR NEW CONNECTION AS SHOWN ON NEW WORK PLAN.

DEMOLITION LINE TYPE LEGEND

- EXISTING EQUIPMENT, PIPING, DUCTWORK, ETC. TO BE REMOVED.
- EXISTING EQUIPMENT, PIPING, DUCTWORK, ETC. TO REMAIN.
- EXISTING GENERAL CONSTRUCTION TO BE REMOVED.

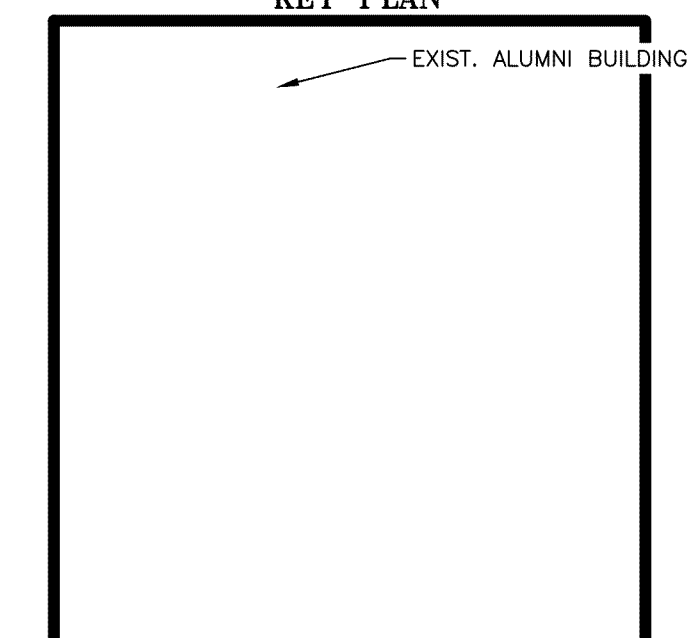


SCALE: 1/4" = 1'-0"

PLUMBING NEW WORK KEYNOTES

1. CONNECT NEW 2" DOMESTIC COLD WATER SUPPLY PIPE TO EXISTING. FIELD VERIFY SIZE OF EXISTING.
2. CAP EXISTING PIPE ABOVE NEW VALVE.
3. NEW 4" DOMESTIC COLD WATER UP FROM CONNECTION TO COLD WATER SUPPLY FROM NEW WATER CONSOLIDATION BUILDING. INCLUDE SHUTOFF VALVE AT CONNECTION.
4. NEW 1 1/2" DOMESTIC COLD WATER DOWN TO CONNECTION TO EXISTING PIPE.
5. NEW 4" DOMESTIC COLD WATER SUPPLY FROM NEW WATER CONSOLIDATION BUILDING INTO AND UP THROUGH THE FLOOR BY SITE CONTRACTOR. COORDINATE EXACT LOCATION WITH SITE CONTRACTOR.
6. CONNECT NEW 1 1/2" DOMESTIC COLD WATER TO EXISTING. FIELD VERIFY SIZE OF EXISTING.

KEY PLAN



REVISIONS	BY	DATE	NUMBER	REVISION DESCRIPTION

CLIENT NAME



PROJECT NAME

PROJECT ADDRESS

SHEET TITLE

ALUMNI BUILDING DEMO & NEW WORK PLANS - PLUMBING

D&K PROJECT # PROJ. ENG.

DRAWN BY CHECKED BY

DATE

SHEET NUMBER

P1.2

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SHEET 30 OF 29