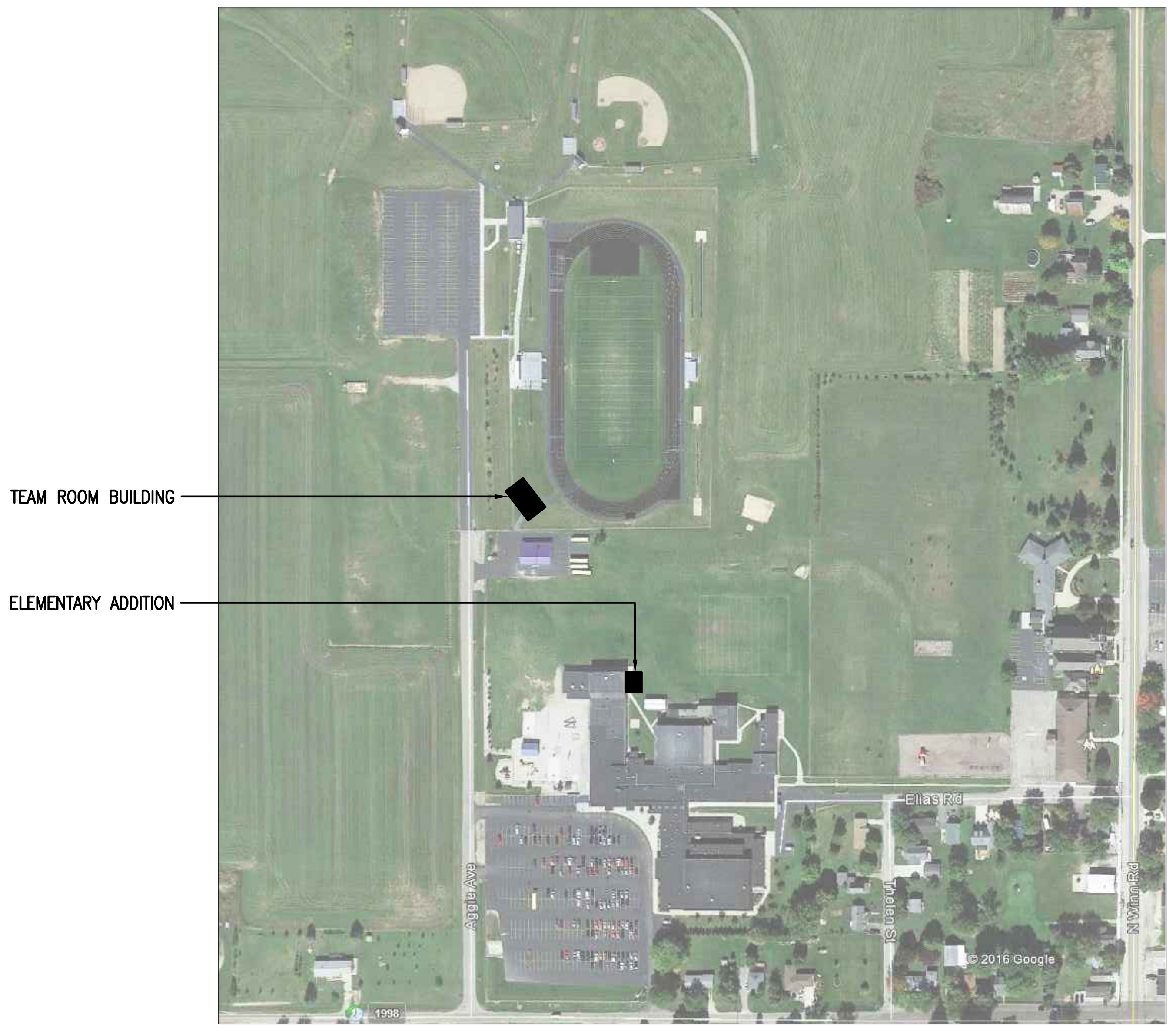
BEAL CITY PUBLIC SCHOOLS
MT. PLEASANT, MICHIGAN

2024 PROJECTS - PHASE 1 BID PACK 2

GENERAL NOTES

1. DO NOT SCALE DRAWINGS; USE FIGURED DIMENSIONS ONLY. IF DIMENSIONS ARE IN QUESTION, THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING CLARIFICATION FROM THE ARCHITECT BEFORE CONTINUING WITH CONSTRUCTION.
2. FIELD VERIFY: ALL DIMENSIONS AND CONDITIONS BEFORE PROCEEDING WITH WORK.
3. ENLARGED PLANS: WHERE ENLARGED OR PARTIAL PLANS ARE REFERENCED. DIMENSIONS, SPECIAL DETAILING, OR FINISH REQUIREMENTS ARE NOTED ON THE ENLARGED PLANS AND OMITTED ON THE SMALLER SCALE OR OVERALL PLANS.
4. PARTITION STANDARD: IT IS INTENDED THAT THE FACE OF EVERY CONTINUOUS PARTITION BE FLUSH, WITHOUT OFFSETS, EVEN AT AN INTERMEDIATE CHANGE IN PARTITION THICKNESS. CHANGES IN PARTITION THICKNESS OCCUR ONLY AT INSIDE OR OUTSIDE CORNERS. THE FACES OF CORRIDOR WALLS MUST ALIGN WITHOUT OFFSETS (UNLESS GRAPHICALLY SHOWN OTHERWISE) ALONG THEIR ENTIRE LENGTH.
5. INTERMEDIATE BREAKS OR INTERRUPTIONS. ALL ADJUSTMENTS DUE TO CHANGE IN PARTITION THICKNESS MUST OCCUR ON THE ADJOINING ROOM SIDE OF CORRIDOR PARTITIONS AT THE NEAREST INSIDE OR OUTSIDE CORNER.
6. ALL ELECTRICAL PANELS, FIRE EXTINGUISHER CABINETS, ETC., LOCATED IN RELATED PARTITIONS SHALL BE BACKED WITH GYPSUM BOARD AS REQUIRED TO RETAIN PARTITION
7. WHEN CONTRADICTIONS OCCUR BETWEEN PLANS AND SPECIFICATIONS CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING CLARIFICATION FROM THE ARCHITECT BEFORE CONTINUING WITH CONSTRUCTION.
8. WORK SHALL BE IN ACCORDANCE WITH ALL FEDERAL, STATE AND LOCAL CODES, LAWS AND REGULATIONS.
9. REFER TO ELECTRICAL, MECHANICAL, STRUCTURAL AND CIVIL DRAWINGS AS APPLICABLE FOR ADDITIONAL SCOPE OF WORK.
10. REFER TO WALL SECTIONS AND BUILDING SECTIONS FOR WALL CONSTRUCTION, MATERIALS, HEIGHTS, ETC.
11. ALL DOOR FRAMES ARE 4" FROM ADJACENT WALL, UNLESS NOTED OTHERWISE.
12. INTERIOR/EXTERIOR DIMENSIONS ARE FROM FACE OF GYPSUM BOARD BOARD/CMU.
13. ALL CMU WALL CORNERS SHALL BE BULLNOSED.

REFER TO DRAWING SHEETS T-A2.0 FOR TEAM ROOM CODE AND LIFE SAFETY INFORMATION
REFER TO DRAWING SHEET R-A2.0 FOR ELEMENTARY ADDITION CODE AND LIFE SAFETY INFORMATION



BEAL CITY PUBLIC SCHOOLS
3180 W. BEAL CITY RD.
MT. PLEASANT, MI 48858

LOCATION MAP
NO SCALE

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SHEET INDEX:

COVER

CIVIL

	SITE SURVEY
C0.0	CIVIL NOTES
C0.1	CIVIL SHEET INDEX
C1.0	DEMOLITION PLAN
C1.1	DEMOLITION PLAN
C1.2	DEMOLITION PLAN
C1.3	DEMOLITION PLAN
C1.4	DEMOLITION PLAN
C2.0	SITE PLAN
C2.1	SITE PLAN
C2.2	SITE PLAN
C2.3	SITE PLAN
C2.3A	SITE PLAN ADD ALTERNATE
C2.4	SITE PLAN
C3.0	GRADING PLAN
C3.1	GRADING PLAN
C3.2	GRADING PLAN
C3.3	GRADING PLAN
C3.3A	GRADING PLAN ADD ALTERNATE
C4.0	UTILITY PLAN
C4.1	UTILITY PLAN
C4.2	UTILITY PLAN
C4.3	UTILITY PLAN
C5.0	FENCING PLAN
C5.1	FENCING PLAN
C6.0	SITE DETAILS
C6.1	SITE DETAILS
C6.2	SITE DETAILS
C6.3	SITE DETAILS
C6.4	SITE DETAILS
C6.5	TRACK LAYOUT
C6.6	SLIT TRENCH LAYOUT

TEAM ROOM BUILDING

STRUCTURAL

T-S0.1	GENERAL STRUCTURAL NOTES & QUALITY ASSURANCE TABLES
T-S0.2	QUALITY CONTROL TABLES
T-S1.0	FOUNDATION PLAN
T-S2.0	FRAMING PLAN
T-S3.0	FOUNDATION DETAILS
T-S4.0	FRAMING DETAILS

ARCHITECTURAL

T-A2.0	CODE INFO, LIFE SAFETY, FLOOR PLANS
T-A2.1	CEILING PLAN, ROOF PLAN, EXTERIOR ELEVATIONS
T-A3.0	BUILDING SECTIONS
T-A3.1	WALL SECTIONS
T-A3.2	WALL SECTIONS
T-A4.0	INTERIOR ELEVATIONS
T-A4.1	INTERIOR ELEVATIONS
T-A5.0	SCHEDULES AND DETAILS
T-A6.0	DETAILS

MECHANICAL/PLUMBING

T-M2.0	MECHANICAL NEW WORK PLAN
T-M3.0	MECHANICAL SCHEDULES
T-M4.0	MECHANICAL DETAILS
T-P2.0	PLUMBING NEW WORK PLANS
T-P3.0	PLUMBING DETAILS & SCHEDULES

ELECTRICAL

T-E0.0	ELECTRICAL SYMBOLS LEGEND
T-E0.1	ELECTRICAL COMPOSITE PLAN – NORTH
T-E0.2	ELECTRICAL COMPOSITE PLAN – SOUTH
T-E1.0	ELECTRICAL LIGHTING PLAN
T-E1.1	ELECTRICAL POWER PLAN
T-E2.0	ELECTRICAL SCHEDULES & RISER
T-ES1.0	ELECTRICAL SITE PLAN

ELEMENTARY ADDITION

STRUCTURAL

R-S0.1	GENERAL STRUCTURAL NOTES & QUALITY ASSURANCE TABLES
R-S0.2	QUALITY CONTROL TABLES
R-S1.0	FOUNDATION PLAN
R-S2.0	FRAMING PLAN
R-S3.0	FOUNDATION DETAILS
R-S4.0	FRAMING DETAILS

ARCHITECTURAL

R-A2.0	CODE INFO, LIFE SAFETY, DEMOLITION PLAN, FLOOR PLANS
R-A2.1	CEILING PLAN, ROOF PLAN, EXTERIOR ELEVATIONS
R-A3.0	BUILDING SECTIONS
R-A3.1	WALL SECTIONS
R-A3.2	WALL SECTIONS
R-A4.0	INTERIOR ELEVATIONS
R-A5.0	SCHEDULES AND DETAILS
R-A6.0	DETAILS

MECHANICAL/PLUMBING

R-M2.0	MECHANICAL NEW WORK PLAN
R-M3.0	MECHANICAL SCHEDULES
R-M4.0	MECHANICAL DETAILS
R-MP2.0	MECHANICAL & PLUMBING ROOF PLAN
R-P2.0	PLUMBING PLAN BELOW GRADE
R-P2.1	PLUMBING PLAN ABOVE GRADE
R-P3.0	PLUMBING DETAILS & SCHEDULES

ELECTRICAL

R-E0.0	ELECTRICAL SYMBOLS LEGEND
R-E0.1	ELECTRICAL COMPOSITE PLAN
R-E1.0	ELECTRICAL DEMOLITION PLANS
R-E2.0	ELECTRICAL LIGHTING PLAN
R-E2.1	ELECTRICAL POWER PLANS
R-E3.0	ELECTRICAL SCHEDULES AND RISERS

IDI
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ENGINEERING
CONSULTING

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IDI Project No: 22-037

FOR CONSTRUCTION
MARCH 27, 2025

GENERAL NOTES

1. ALL WORK SHALL CONFORM TO THE MICHIGAN DEPARTMENT OF TRANSPORTATION (MDOT) STANDARD SPECIFICATIONS FOR CONSTRUCTION, 2012 EDITION AND SUPPLEMENTAL SPECIFICATIONS, UNLESS OTHERWISE SPECIFIED IN THE PLANS OR SPECIFICATIONS.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR FIELD VERIFYING ALL DIMENSIONS AND SITE CONDITIONS BEFORE PROCEEDING WITH WORK. IF DIMENSIONS ARE IN QUESTION, THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING CLARIFICATION FROM THE ENGINEER BEFORE PROCEEDING.
3. THE CONTRACTOR SHALL BE REQUIRED TO RESTORE ALL EXISTING TURF AREAS WHICH ARE DISTURBED BY CONSTRUCTION ACTIVITIES THROUGHOUT THE PROJECT OR AS SPECIFIED. TURF AREAS SHALL MATCH ADJACENT GRADES IN ADDITION TO GRADES SPECIFIED. TURF RESTORATION CONSISTS OF: SCREENED TOPSOIL SURFACE, 6 INCH; CHEMICAL FERTILIZER NUTRIENT, IF REQUIRED; MDOT SEED MIXTURE TDS; STRAW MULCH BLANKETS AND MULCH ANCHORING. THE CONTRACTOR SHALL BE REQUIRED TO WATER TURF AREAS TO PROMOTE HEALTHY GROWTH UNTIL THE FIRST CUTTING. AT THAT TIME THE OWNER SHALL TAKE ALL RESPONSIBILITY FOR MAINTENANCE.
4. THE CONTRACTOR IS RESPONSIBLE TO RESTORE ANY AND ALL AREAS DISTURBED OR DAMAGED OUTSIDE OF THE OWNERS PROPERTY, AS A RESULT OF THE CONTRACTORS OPERATIONS, AT NO ADDITIONAL COST TO THE PROJECT.
5. THE CONTRACTOR SHALL COMPLY WITH ALL STATE AND LOCAL REGULATIONS AND ORDINANCES FOR WORK AT THE SITE. THIS SHALL INCLUDE ALL M.I.O.S.H.A. REGULATIONS.
6. THE CONTRACTOR SHALL CONTROL NOISE, CARRY OUT A PROGRAM FOR DUST CONTROL AND SHALL ALLOW NO ONSITE BURNING, WITHOUT PRIOR APPROVAL FROM THE OWNER, ENGINEER AND THE LOCAL FIRE DEPARTMENT.
7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR FEES AND OBTAINING ANY REQUIRED PERMITS FOR WORKING WITHIN THE RIGHT–OF–WAY INCLUDING SEWER TAPS, OFF STREET PARKING, SIDEWALK AND/OR ROAD CLOSURES, SIDEWALK AND CURB REPLACEMENT, ETC. THE CONTRACTOR SHALL PROVIDE THE LOCAL MUNICIPALITY WITH ANY ROAD CLOSURE AND DETOUR PLAN, IF REQUIRED, PRIOR TO PROCEEDING WITH WORK. CONTACT LOCAL MUNICIPALITY FOR REQUIREMENTS BEFORE PROCEEDING WITH WORK.
8. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL CONSTRUCTION STAKING AND LAYOUT FOR THIS PROJECT. THE CONTRACTOR SHALL PROTECT OR PLACE NEW BENCHMARKS AND/OR CONTROL POINTS, AS REQUIRED. AN ELECTRONIC COPY OF THE AUTOCAD ".DWG" FILE SHALL BE PROVIDED TO THE CONTRACTOR OR THEIR SURVEYOR.
9. ANY PROPERTY IRONS DAMAGED OR REMOVED BY THE CONTRACTORS OPERATIONS, SHALL BE REPLACED BY A SURVEYOR LICENSED IN THE STATE OF MICHIGAN AT NO COST TO THE PROJECT.
10. THE CONTRACTOR WILL BE REQUIRED TO COORDINATE THEIR WORK WITH THE BUILDING CONTRACTORS OR UTILITY COMPANIES' WORK AT NO ADDITIONAL COST TO THE PROJECT.
11. SITE CLEARING SHALL INCLUDE SURFACE DEBRIS, REMOVING ABOVE AND BELOW GROUND IMPROVEMENTS, ROCKS, DESIGNATED TREES, SHRUBS AND OTHER VEGETATION AND ABANDONED UTILITIES AS NECESSARY TO PERFORM THE WORK IN THE CONTRACT. ALL REMOVAL ITEMS SHALL BECOME THE PROPERTY OF THE CONTRACTOR UNLESS OTHERWISE SPECIFIED. THE CONTRACTOR SHALL PROTECT ALL SURVEY CONTROL POINTS, BENCHMARKS AND/OR EXISTING STRUCTURES TO REMAIN FROM DAMAGE OR DISPLACEMENT.
12. TREES IN THE INFLUENCE OF THE PROPOSED NEW WORK SHALL BE REMOVED. TREE REMOVAL SHALL INCLUDE COMPLETE REMOVAL OF THE STUMP AND INCLUDE REMOVAL OF ANY ROOTS WHICH ARE LOCATED WITHIN THE INFLUENCE OF THE SUBBASE EXCAVATION, BUILDING CONSTRUCTION AND UTILITY TRENCH EXCAVATION. WHEN EXCAVATING THROUGH ROOTS, PERFORM WORK BY HAND AND CUT ROOTS WITH A SHARP AXE.
13. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE DISPOSAL OF REMOVED, SURPLUS AND/OR WASTE MATERIAL FROM THE SITE. ALL TRANSPORTATION AND DISPOSAL OF THE REMOVED ITEMS SHALL BE DONE IN ACCORDANCE WITH THE SPECIFICATION AND ALL LOCAL, STATE AND FEDERAL LAWS.
14. SAW CUT EXISTING PAVEMENT TO FULL DEPTH PRIOR TO REMOVAL. WHERE SAW CUT IS REQUIRED IN CONCRETE SLABS AND/OR CURB & GUTTER, SAW CUT FULL DEPTH AT THE NEAREST JOINT. IF A SAWCUT EDGE BECOMES DAMAGED PRIOR TO THE INSTALLATION OF NEW WORK, THE EDGE SHALL BE RECUT, AS DIRECTED BY THE ENGINEER, AND THE PAVEMENT REPLACED AT NO ADDITION COST TO THE PROJECT.

TRAFFIC CONTROL AND MAINTENANCE

1. TRAFFIC SHALL BE MAINTAINED IN ACCORDANCE WITH THE MICHIGAN MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MMUTCD), 2011 EDITION AND ALL CURRENT MDOT STANDARD PLANS, AS REQUIRED. THE CONTRACTOR SHALL SUBMIT A TRAFFIC MAINTENANCE PLAN TO THE ENGINEER FOR APPROVAL, 10 DAYS PRIOR TO BEGINNING WORK.
2. ALL SIGNS, BARRICADES, WARNING LIGHTS AND OTHER TRAFFIC CONTROL DEVICES SHALL BE IN ACCORDANCE WITH THE MMUTCD. SIGNING FOR STREET CLOSURES SHALL BE IN ACCORDANCE WITH THE MMUTCD. ANY SIGNS TEMPORARILY REMOVED DUE TO CONSTRUCTION ACTIVITIES, SHALL BE TEMPORARILY RELOCATED, AS DIRECTED BY THE ENGINEER, UNTIL FINAL RESTORATION IS COMPLETED AND THEN RETURNED TO THEIR ORIGINAL LOCATION.
3. DURING CONSTRUCTION ACTIVITIES, THE CONTRACTOR SHALL PLACE THE PROPER CONSTRUCTION SIGNING IN ACCORDANCE WITH THE CURRENT EDITIONS OF THE MICHIGAN MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MMUTCD) AND ALL CURRENT MDOT STANDARD PLANS, AS REQUIRED.
4. THE CONTRACTOR SHALL PROVIDE THE LOCAL MUNICIPALITY WITH ANY ROAD CLOSURE AND DETOUR PLAN, IF REQUIRED, PRIOR TO PROCEEDING WITH WORK. CONTACT LOCAL MUNICIPALITY FOR REQUIREMENTS BEFORE PROCEEDING WITH WORK.

UTILITY NOTES

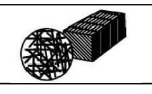
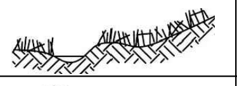
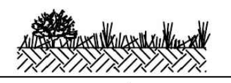
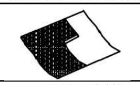
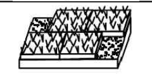
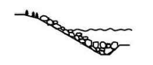
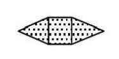
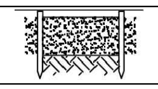
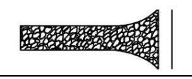
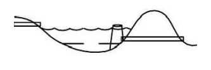
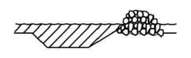
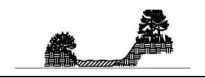
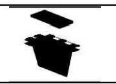
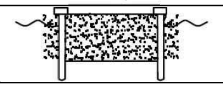
1. UTILITIES AND UTILITY SERVICE INFORMATION, SHOWN ON THE PLANS, ARE BASED ON UTILITY STAKING AND IS FOR INFORMATION ONLY, AS ACTUAL LOCATIONS MAY VARY. THE CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFYING ALL UTILITY LOCATIONS BEFORE PROCEEDING WITH WORK.
2. FOR THE PROTECTION OF UNDERGROUND UTILTIES AND IN CONFORMANCE WITH PUBLIC ACT 174 OF 2013, THE CONTRACTOR IS REQUIRED TO CONTACT "MISS DIG" BY PHONE AT 811 OR 800–482–7171 OR VIA THE WEB AT EITHER ELOCATE.MISSDIG.ORG FOR SINGLE ADDRESS OR RTE.MISSDIG.ORG, A MINIMUM OF 72 HOURS (EXCLUDING SATURDAYS, SUNDAYS AND HOLIDAYS) IN ADVANCE OF ANY EXCAVATION.
3. THE CONTRACTOR WILL BE REQUIRED TO COORDINATE ALL OF THEIR WORK WITH THE UTILITY COMPANIES WORK, IF ANY, AT NO ADDITIONAL COST TO THE PROJECT.
4. COSTS AND FEES CHARGED BY THE UTILITY COMPANIES ARE THE RESPONSIBILITY OF THE CONTRACTOR AND ARE TO BE MADE A PART OF THE CONTRACT.
5. DAMAGE TO EXISTING UTILITIES, OUTSIDE THE SCOPE OF WORK SHOWN ON THE PLANS, IS THE RESPONSIBILITY OF THE CONTRACTOR AND REPAIR, AS SUCH, SHALL BE AT NO ADDITIONAL COST TO THE PROJECT.
6. IN CASES WHERE EXISTING SEWERS, DRAINS, GAS SERVICE CONNECTIONS, TELEPHONE OR ELECTRICAL FACILITIES, WATER SERVICE CONNECTIONS, ETC. ARE ENCOUNTERED, THE CONTRACTOR SHALL PERFORM THEIR WORK IN SUCH A MANNER THAT THE SERVICE WILL BE UNINTERRUPTED. THE CONTRACTORS METHOD FOR MAINTAINING AND SUPPORTING THE EXISTING UTILITIES AND THEIR SERVICE CONNECTIONS, IF REQUIRED, SHALL BE AS SUCH TO AVOID SETTLEMENT OF THE UTILITIES BEFORE AND AFTER PLACING BACKFILL.
7. STORM SEWER MATERIALS AND CONSTRUCTION SHALL CONFORM TO THE BEAL CITY STANDARD SPECIFICATION FOR STORM WATER COLLECTION SYSTEMS.
8. SANITARY SEWER MATERIALS AND CONSTRUCTION SHALL CONFORM TO THE BEAL CITY STANDARD SPECIFICATION FOR SANITARY SEWER COLLECTION SYSTEMS.
9. SEE ELECTRICAL, MECHANICAL AND PLUMBING PLANS FOR EXACT CONNECTIONS TO PROPOSED BUILDING UTILITIES.
10. UTILITY DISINFECTION AND ALL OTHER TESTING AS REQUIRED BY THE GOVERNING CODE IS THE RESPONSIBILITY OF THE CONTRACTOR.

MISS DIG
811.
Know what's below.
Call before you dig.

EROSION CONTROL NOTES

1. THE SITE CONTRACTOR IS RESPONSIBLE FOR OBTAINING A SOIL EROSION AND SEDIMENTATION CONTROL (SESC) PERMIT FOR THIS PROJECT. CONTACT THE ISABELLA COUNTY COMMUNITY DEVELOPMENT DEPARTMENT FOR MORE INFORMATION AND REQUIREMENTS.
2. APPROPRIATE SOIL EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE IN PLACE PRIOR TO THE COMMENCEMENT OF EARTH DISTURBING ACTIVITIES AND SHALL REMAIN IN PLACE UNTIL ALL AREAS ARE FULLY RESTORED.
3. ALL SOIL EROSION & SEDIMENT CONTROL (SESC) MEASURES PLACED BY THE CONTRACTOR SHALL BE IN FULL COMPLIANCE WITH PUBLIC ACT 347 OF 1972 AS AMENDED AND THE ADMINISTRATIVE RULES. THE CONTRACTOR SHALL HAVE A DEQ CERTIFIED STORM WATER OPERATOR ASSIGNED TO THIS PROJECT.
4. A TRACKING PAD IS REQUIRED AT ANY CONTRACTOR INGRESS AND/OR EGRESS LOCATION WHERE SEDIMENT MAY BE TRACKED OFF–SITE. THE CONTRACTOR IS REQUIRED TO CLEAN ADJACENT STREETS OF ACCUMULATED SEDIMENT AS A RESULT OF THE CONTRACTORS ACTIVITY, AS DIRECTED BY THE ENGINEER, AT NO ADDITIONAL COST TO THE PROJECT.
5. INSTALL SEDIMENT CONTROL, INLET PROTECTION, FABRIC DROP (S58) AT EXISTING AND NEWLY CONSTRUCTED CATCH BASINS. AFTER RAIN EVENTS AND AT THE COMPLETION OF THE PROJECT, REMOVE AND CLEAN ALL ACCUMULATED SEDIMENT FROM THE CATCH BASINS.
6. AT THE COMPLETION OF THE PROJECT, ONCE ALL DISTURBED AREAS HAVE BEEN FULLY RESTORED, REMOVE ALL TEMPORARY EROSION CONTROL DEVICES AND ANY ACCUMULATED SEDIMENT.
7. THE CONTRACTOR SHALL REMOVE TEMPORARY MEASURES AS SOON AS PERMANENT STABILIZATION OF THE SITE HAS BEEN ESTABLISHED.
8. THE CONTRACTOR SHALL RESTORE DISTURBED AREAS AS SOON AS POSSIBLE.

MICHIGAN UNIFIED KEYING SYSTEM
SOIL EROSION AND SEDIMENTATION CONTROL

KEY	BEST MANAGEMENT PRACTICES	SYMBOL	WHERE USED
	SEDIMENT CONTROLS		
E2	GRUBBING OMITTED		FOR USE ON STEEP SLOPES TO PREVENT RILLING, GULLYING AND REDUCE SHEET FLOW VELOCITY OR WHERE CLEAR VISION CORRIDORS ARE NECESSARY.
E5	DUST CONTROL		FOR USE ON CONSTRUCTION SITES, UNPAVED ROADS, ETC. TO REDUCE DUST AND SEDIMENTATION FROM WIND AND CONSTRUCTION ACTIVITIES.
E6	MULCH		FOR USE ON IN AREAS SUBJECT TO EROSIVE SURFACE FLOWS OR SEVERE WIND OR ON NEWLY SEEDED AREAS.
E7	TEMPORARY SEEDING		STABILIZATION METHOD UTILIZED ON CONSTRUCTION SITES WHERE EARTH CHANGE HAS BEEN INITIATED BUT NOT COMPLETED WITHIN A 2 WEEK PERIOD.
E8	PERMANENT SEEDING		STABILIZATION METHOD UTILIZED ON SITES WHERE EARTH CHANGE HAS BEEN COMPLETED (FINAL GRADING ATTAINED).
E9	MULCH BLANKETS		ON EXPOSED SLOPES, NEWLY SEEDED AREAS, NEW DITCH BOTTOMS OR AREAS SUBJECT TO EROSION.
E10	SODDING		ON AREAS AND SLOPES WHERE IMMEDIATE STABILIZATION IS REQUIRED.
E12	RIPRAP		USE ALONG SHORELINES, WATERWAYS, OR WHERE CONCENTRATED FLOWS OCCUR. SLOWS VELOCITY, REDUCES SEDIMENT LOAD, AND REDUCES EROSION.
	EROSION CONTROLS		
S31	CHECK DAM		USED TO REDUCE SURFACE FLOW VELOCITIES WITHIN CONSTRUCTED AND EXISTING FLOW CORRIDORS.
S51	SILT FENCE		USED ADJACENT TO CRITICAL AREAS, TO PREVENT SEDIMENT LADEN SHEET FLOW FROM ENTERING THESE AREAS.
S53	STABILIZED CONSTRUCTION ENTRANCE		USED AT EVERY POINT WHERE CONSTRUCT TRAFFIC ENTERS OR LEAVES A CONSTRUCTION SITE.
S55	SEDIMENT BASIN		AT THE OUTLET OF DISTURBED AREAS AND AT THE LOCATION OF A PERMANENT DETENTION BASIN.
S56	SEDIMENT TRAP		IN SMALL DRAINAGE AREAS, ALONG CONSTRUCTION SITE PERIMETERS AND ABOVE CHECK DAMS OR DRAIN INLETS.
S57	VEGETATED BUFFER/ FILTER STRIP		USE ALONG SHORELINES, WATERWAYS, OR OTHER SENSITIVE AREAS. SLOWS VELOCITY, REDUCES SEDIMENT LOAD, AND REDUCES EROSION IN AREAS OF SHEET FLOW.
S58	INLET PROTECTION FABRIC DROP		USE AT STORM WATER INLETS, ESPECIALLY AT CONSTRUCTION SITES.
S61	TURBIDITY CURTAIN		USED DURING CONSTRUCTION ADJACENT TO A WATER RESOURCE, TO CONTAIN SEDIMENT WITHIN THE WORK AREA WHEN OTHER BMP'S CANNOT BE USED.

PROPOSED SITE WORK

1. CONCRETE FOR SIDEWALKS, DUMPSTER PADS, CURB & GUTTER, ETC. SHALL MEET EITHER MDOT GRADE P1 OR S2 SPECIFICATION, UNLESS OTHERWISE SPECIFIED.
2. AGGREGATE BASE MATERIAL SHALL MEET MDOT 21AA SPECIFICATIONS AND SHALL BE COMPACTED TO 98% OF MAXIMUM DENSITY, ACCORDING TO THE SPECIFICATIONS.
3. SUBBASE AND EMBANKMENT MATERIAL SHALL MEET MDOT CLASS II SPECIFICATIONS AND SHALL BE COMPACTED TO 95% MAXIMUM DENSITY, ACCORDING TO THE SPECIFICATIONS.
4. PLACE ½" EXPANSION JOINT BETWEEN SIDEWALKS AND ANY STRUCTURE. CUT CONTROL JOINTS AT 5' O.C. AND PLACE EXPANSION JOINTS AT 20' O.C. OR AS DIRECTED BY THE ENGINEER.
5. PLACE 1" FIBER JOINT AT 400' MAXIMUM INTERVAL IN CURB AND GUTTER. PLACE ½" EXPANSION JOINT BETWEEN CURB AND GUTTER AND CATCH BASINS. PLACE CONTRACTION JOINTS AT 40' MAXIMUM INTERVALS.
6. AREAS OF UNSTABLE SUBBASE NOT MEETING COMPACTION REQUIREMENTS, SHALL BE UNDERCUT AND BACKFILLED, IN ACCORDANCE WITH MDOT SUBGRADE UNDERCUTTING, TYPE II. THIS WORK SHALL BE MEASURED BY THE CUBIC YARD (CYD) AND SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE FOR "SUBGRADE UNDERCUTTING".
7. CURB AND GUTTER RADII ARE DIMENSIONED FROM THE FRONT EDGE OF THE GUTTER PAN.

GRADING

1. FINAL GRADING SHALL PROVIDE POSITIVE DRAINAGE ACROSS THE ENTIRE SITE AWAY FROM BUILDINGS.
2. THE CONTRACTOR SHALL GRADE THE SITE ACCORDING TO THE GRADING PLAN. IN THE ABSENCE OF A PLAN, THE CONTRACTOR IS TO GRADE THE SITE SO THAT THE NEW GRADES BLEND GENTLY INTO THE EXISTING GRADES. CONTRACTOR TO SLOPE GRADE AWAY FROM BUILDINGS A MINIMUM OF 2 INCHES IN 10 FEET.
3. MAINTAIN OPTIMUM MOISTURE CONTENT OF MATERIALS WHEN GRADING.

NOTES APPLYING TO STANDARD PLANS & SPECIAL DETAILS

WHERE THE FOLLOWING ITEMS ARE CALLED FOR ON THE PLANS., THEY ARE TO BE CONSTRUCTED ACCORDING TO THE MICHIGAN DEPARTMENT OF TRANSPORTATION (MDOT) STANDARD PLAN LISTED BELOW, UNLESS NOTED OTHERWISE. COPIES OF THESE MDOT STANDARD PLANS CAN BE OBTAINED FROM THE MDOT WEBSITE (WWW.MICHIGAN.GOV/MDOT).

ROAD STANDARD PLANS:

R–29–I	DRIVEWAY OPENINGS & APPROACHES AND CURB AND GUTTER
R–30–G	CONCRETE CURB AND CONCRETE CURB & GUTTER
R–37–B	ISOLATION JOINT DETAILS
R–74–D	BUMPER & PARKING RAILS AND MISC. WOOD POSTS
R–80–E	GRANULAR BLANKET, UNDERDRAINS, OUTLET ENDINGS FOR UNDERDRAINS, AND SEWER BULKHEADS
R–82–D	BEDDING AND FILLING AROUND PIPE CULVERTS
R–83–C	UTILITY TRENCHES
R–95–F	CULVERT SLOPED END SECTION
R–96–E	SOIL EROSION & SEDIMENTATION CONTROL MEASURES
R–100–H	SEEDING AND TREE PLANTING
R–107–H	SUPERELEVATION AND PAVEMENT CROWNS

ROAD SPECIAL DETAILS:

R–1–G	DRAINAGE STRUCTURES
R–28–J	SIDEWALK RAMP AND DETECTABLE WARNING DETAILS

PAVEMENT MARKING STANDARD PLANS:

PAVE–900–F	PAVEMENT ARROW AND MESSAGE DETAILS
PAVE–905–D	LONGITUDINAL LINE TYPES AND PLACEMENT
PAVE–930–C	PAVEMENT MARKINGS FOR NON–SIGNALIZED INTERSECTIONS
PAVE–935–D	LEFT TURN LANE MARKINGS
PAVE–940–C	RIGHT TURN LANE AND ISLAND PAVEMENT MARKINGS
PAVE–945–C	INTERSECTION, STOP BAR AND CROSSWALK MARKINGS
PAVE–955–B	ON–STREET PARKING ZONE MARKINGS
PAVE–956–C	PARKING AREA PAVEMENT MARKINGS
PAVE–957–A	BACK–IN ANGLE PARKING
PAVE–960–B	SCHOOL MARKINGS
PAVE–965–D	RAILROAD GRADE CROSSING PAVEMENT MARKINGS

TRAFFIC SIGNING STANDARD PLANS:

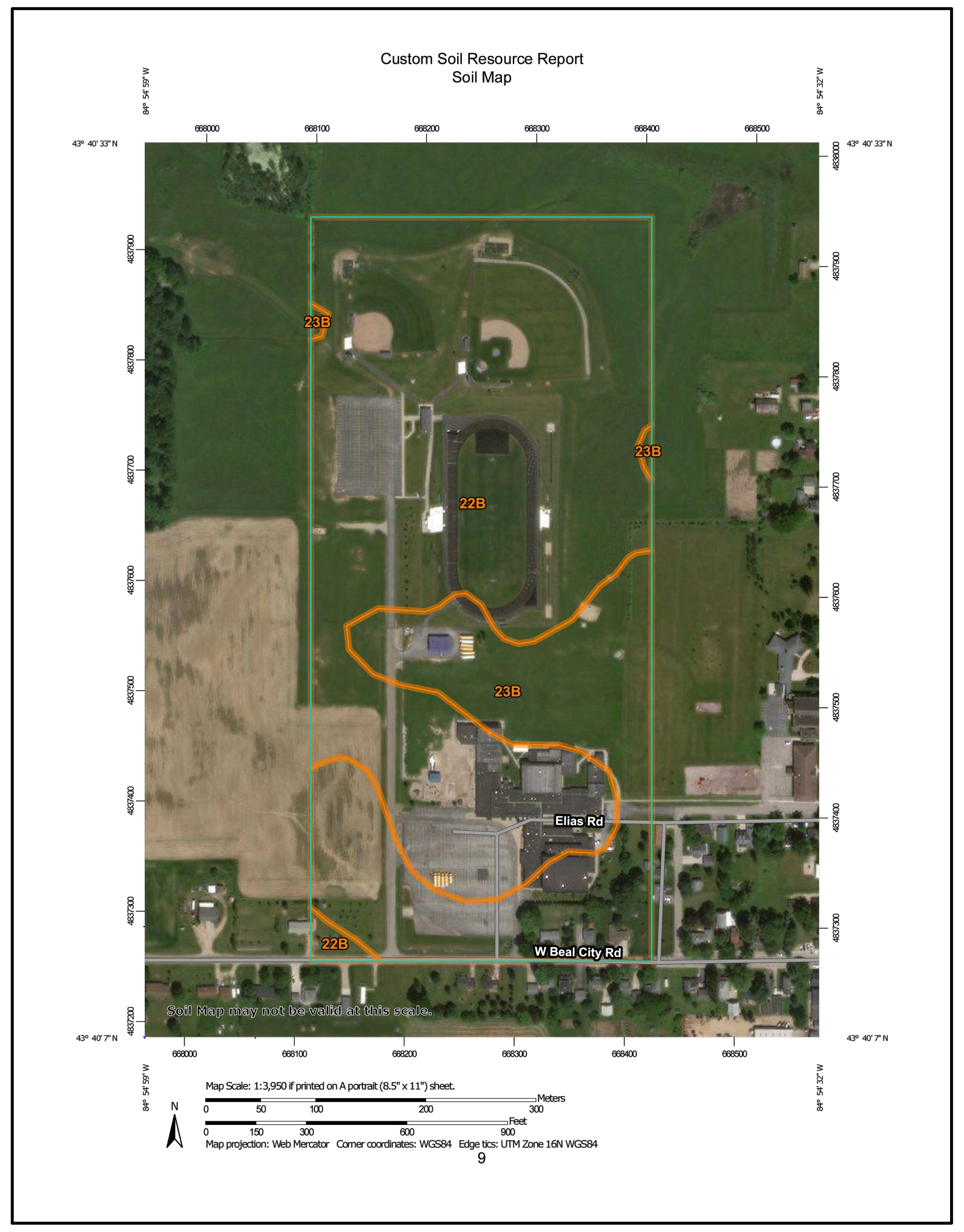
SIGN–115–C	SIGN LOCATION CODES PLACEMENT
SIGN–130–B	RAILROAD CROSSING SIGN
SIGN–150–D	SIGN SUPPORT SELECTION CHARTS
SIGN–200–D	STEEL POSTS
SIGN–210–B	WOOD POSTS
SIGN–230–A	FOUNDATION (BREAK–AWAY)
SIGN–740–B	MISCELLANEOUS SIGN CONNECTION DETAILS

TRAFFIC SIGNING SPECIAL DETAILS:

SIGN–100–G	STANDARD SIGN INSTALLATIONS
SIGN–120–E	ROADSIDE SIGN LOCATIONS AND SUPPORT SPACING
SIGN–205–A	PERFORATED STEEL SQUARE TUBE SIGN BREAKAWAY SYS
SIGN–207–D	PERFORATED STEEL SQUARE TUBE SIGN BREAKAWAY SYS

SITE DATA

1. PROJECT LOCATION: SECTION 21, TOWNSHIP 15N, RANGE 5W
   NOTTAWA TOWNSHIP, ISABELLA COUNTY, MICHIGAN
2. STREET ADDRESS: 3180 WEST BEAL CITY ROAD
   MT. PLEASANT, MI 48858


Custom Soil Resource Report
Soil Map
84° 54' 59" W
84° 54' 32" W
22B
23B
Elise Rd
W Beal City Rd
Soil Map may not be valid at this scale.
Map Scale: 1:3,950 if printed on A portrait (8.5" x 11") sheet.
Meters
Feet
0
150
300
600
900
Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 16N WGS84
9

MAP UNIT SYMBOL	MAP UNIT NAME	ACRES IN AOI	PERCENT OF AOI
22B	ONEKAMA LOAM, SAGINAW LOBE, 2 TO 6 PERCENT SLOPES	36.3	70.0%
23B	ITHACA LOAM, 0 TO 4 PERCENT SLOPES	15.6	30.0%
TOTALS FOR AREA OF INTEREST		51.9	100.0%

LEGEND

2.00%	GRADE
	EXISTING CONTOUR
	PROPOSED CONTOUR
EXISTING ELEVATION	582.34
PROPOSED ELEVATION	582.63 EB
GND	GROUND
BDG	BUILDING
ADJ	ADJUST ITEM
EB	EDGE OF HMA
EC	EDGE OF CONCRETE
IE	INVERT ELEVATION
BW	BACK OF WALK
FW	FACE OF WALK
TW	TOP OF WALK
EX	EXISTING
PR	PROPOSED
LF	LINEAR FEET
MP	MID POINT
PC	POINT OF CURVATURE
FFE	FINISHED FLOOR ELEVATION
TR	TOP OF ROCK
GRV	GRAVEL
CB	CATCH BASIN
MH	MANHOLE
STM	STORM SEWER
SAN	SANITARY SEWER
REM	REMOVE ITEM
REL	RELOCATE ITEM
FL	FLOW LINE

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2024 BOND PROJECT
MT. PLEASANT, MICHIGAN
PROJECT NO. 22-037

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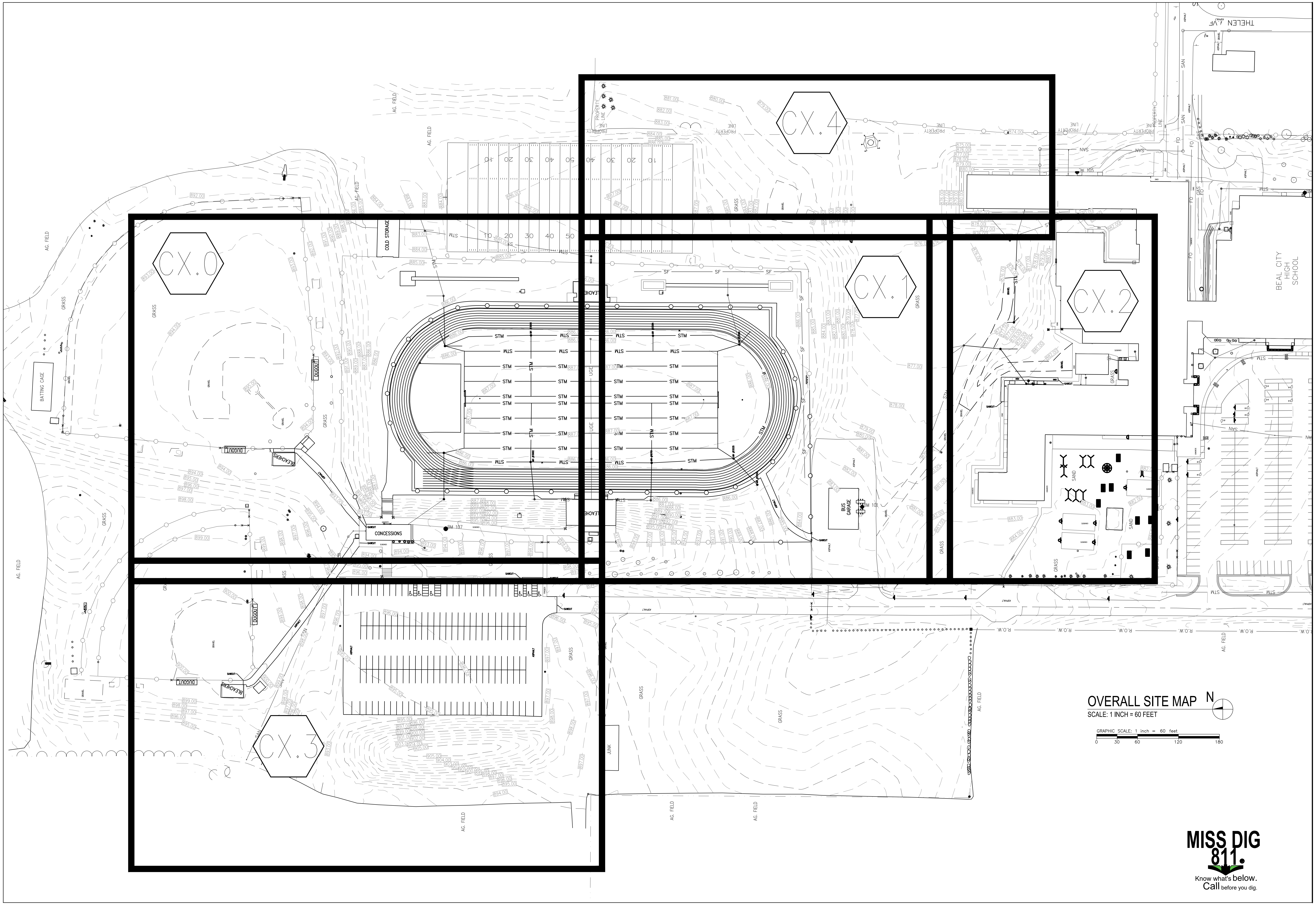
–	–	–
–	–	–

	BY	DATE
DESIGN	ADM	–
DRAWN	ADM	–
CHECKED	BLK	–
APPROVED	ADM	–

CIVI NOTES

C0.0



OVERALL SITE MAP

SCALE: 1 INCH = 60 FEET

GRAPHIC SCALE: 1 inch = 60 feet
0 30 60 120 180

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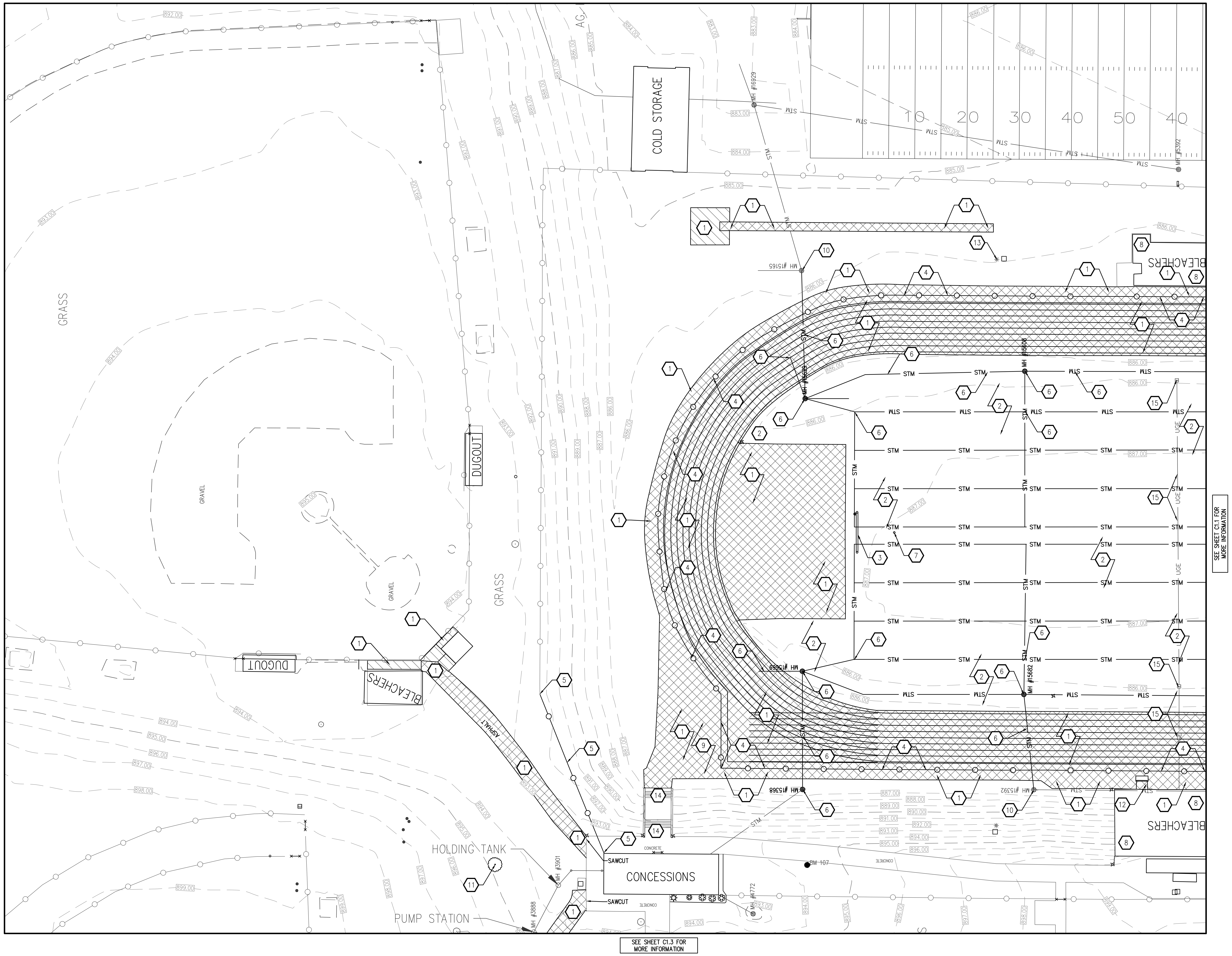
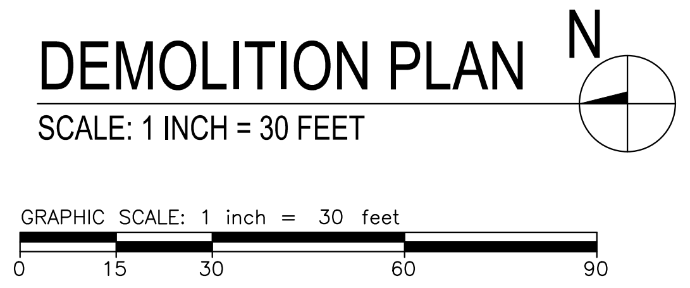
OVERALL
SITE MAP

C0.1



DEMOLITION PLAN

SCALE: 1 INCH = 30 FEET



⬡ KEYNOTES ⬡

– SEE CURRENT MDOT SPECIFICATIONS FOR MATERIALS AND INSTALLATION REQUIREMENTS UNLESS OTHERWISE SPECIFIED –

1. REMOVE EXISTING HMA, CONCRETE SIDEWALKS AND SLABS, RUBBER RUNNING SURFACE AND UNDERLYING MATERIAL AS REQUIRED FOR NEW WORK. SAWCUT EXISTING PAVEMENT TO FULL DEPTH PRIOR TO REMOVAL. IF A SAWCUT EDGE BECOMES DAMAGED PRIOR TO THE INSTALLATION OF NEW MATERIAL, THE EDGE SHALL BE RE-CUT AS DIRECTED BY THE OWNER AND THE PAVEMENTS REPLACED AT NO ADDITIONAL COST TO THE PROJECT.
2. REMOVE EXISTING EXISTING IRRIGATION SYSTEM AND DRAIN TILE (SIZE VARIES 4 INCH TO 6 INCH) LOCATED THROUGHOUT THE FOOTBALL FIELD. FRAISE MOW THE EXISTING FIELD TO REMOVE TURFGRASS. REMOVE AND SALVAGE EXISTING TOPSOIL FOR RE-USE ON THIS SITE.
3. REMOVE EXISTING GOAL POST SYSTEM AND ANY ASSOCIATED BASE OR CONCRETE FOOTINGS.
4. REMOVE ±1,570 LF (ENTIRE SITE) OF EXISTING 4 FT CHAIN LINK FENCE SYSTEM AND ASSOCIATED GATES, REMOVAL OF THE FENCE INCLUDES REMOVAL OF ALL CONCRETE BELOW GRADE. SALVAGE FENCE AND GATES FOR RE-INSTALLATION AT THIS SITE. SEE SITE PLAN.
5. REMOVE ±407 LF (ENTIRE SITE) OF EXISTING 6 FT CHAIN LINK FENCE SYSTEM AND ASSOCIATED GATES, REMOVAL OF THE FENCE INCLUDES REMOVAL OF ALL CONCRETE BELOW GRADE. SALVAGE FENCE AND GATES FOR RE-INSTALLATION AT THIS SITE. SEE SITE PLAN.
6. REMOVE EXISTING STORM SEWER SYSTEM TO THE LIMITS SHOWN. THE CONTRACTOR IS RESPONSIBLE FOR PROTECTING PIPES AND STRUCTURES TO REMAIN.
7. REMOVE EXISTING TRACK RADIUS MONUMENT. LOCATIONS SHOWN ARE FOR INFORMATION ONLY.
8. DO NOT DISTURB EXISTING BLEACHERS.
9. A TRACKING PAD IS REQUIRED AT ALL CONTRACTOR INGRESS/EGRESS LOCATIONS WHERE SEDIMENT MAY BE TRACKED OFF SITE. LOCATIONS SHOWN ARE FOR INFORMATION ONLY AND MAY VARY WITH CONTRACTORS OPERATIONS. SEE CONTRACTORS ACCESS PLAN, C0.1 AND THE DETAIL SHEET.
10. INSTALL SEDIMENT CONTROL, INLET PROTECTION, FILTER DROP AT CATCHBASINS. AT THE COMPLETION OF THE PROJECT, ONCE THE TURF IS WELL ESTABLISHED, REMOVE INLET PROTECTIONS AND CLEAN ALL ACCUMULATED SEDIMENT FROM THE CATCHBAISN.
11. REMOVE EXISTING TREE, INCLUDING ANY ASSOCIATED ROOTS.
12. REMOVE EXISTING STAIR TOWERS FROM THE BLEACHERS. SALVAGE FOR RE-INSTALLATION AT THIS SITE ONCE THE CONCRETE PAD HAS BEEN REPLACED.
13. DO NOT DISTURB EXISTING LIGHT POLE.
14. DO NOT DISTURB EXISTING CONCRETE STEPS.
15. APPROXIMATE LOCATION OF EXISTING COMMUNICATIONS BOX AND ASSOCIATED BURIED CONDUIT. DO NOT DISTURB.

ALL KEYNOTES ARE SPECIFIC TO THAT SHEET ONLY

LEGEND

▨	▨
HMA REMOVAL LIMITS	CONC. REMOVAL LIMITS

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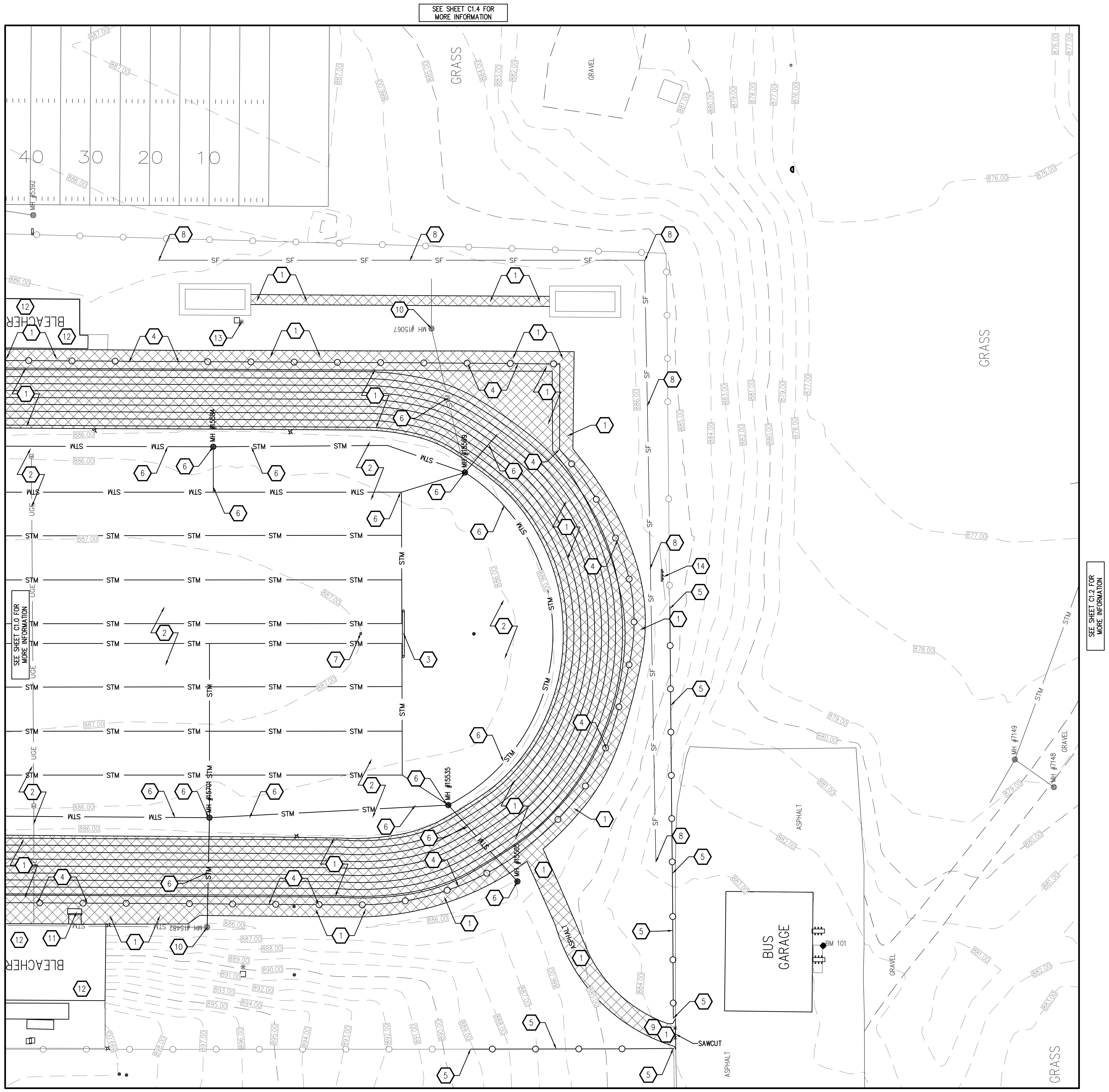
DEMOLITION PLAN

C1.0



DEMOLITION PLAN

SCALE: 1 INCH = 30 FEET

GRAPHIC SCALE: 1 inch = 30 feet
0 15 30 60 90

⬡ KEYNOTES ⬡

– SEE CURRENT MDOT SPECIFICATIONS FOR MATERIALS AND INSTALLATION REQUIREMENTS UNLESS OTHERWISE SPECIFIED –

1. REMOVE EXISTING HMA, CONCRETE SIDEWALKS AND SLABS, RUBBER RUNNING SURFACE AND UNDERLYING MATERIAL AS REQUIRED FOR NEW WORK. SAWCUT EXISTING PAVEMENT TO FULL DEPTH PRIOR TO REMOVAL. IF A SAWCUT EDGE BECOMES DAMAGED PRIOR TO THE INSTALLATION OF NEW MATERIAL, THE EDGE SHALL BE RE–CUT AS DIRECTED BY THE OWNER AND THE PAVEMENTS REPLACED AT NO ADDITIONAL COST TO THE PROJECT.
2. REMOVE EXISTING EXISTING IRRIGATION SYSTEM AND DRAIN TILE (SIZE VARIES 4 INCH TO 6 INCH) LOCATED THROUGHOUT THE FOOTBALL FIELD. FRAISE MOW THE EXISTING FIELD TO REMOVE TURFGRASS. REMOVE AND SALVAGE EXISTING TOPSOIL FOR RE–USE ON THIS SITE.
3. REMOVE EXISTING GOAL POST SYSTEM AND ANY ASSOCIATED BASE OR CONCRETE FOOTINGS.
4. REMOVE ±1,570 LF (ENTIRE SITE) OF EXISTING 4 FT CHAIN LINK FENCE SYSTEM AND ASSOCIATED GATES, REMOVAL OF THE FENCE INCLUDES REMOVAL OF ALL CONCRETE BELOW GRADE. SALVAGE FENCE AND GATES FOR RE–INSTALLATION AT THIS SITE. SEE SITE PLAN.
5. REMOVE ±407 LF (ENTIRE SITE) OF EXISTING 6 FT CHAIN LINK FENCE SYSTEM AND ASSOCIATED GATES, REMOVAL OF THE FENCE INCLUDES REMOVAL OF ALL CONCRETE BELOW GRADE. SALVAGE FENCE AND GATES FOR RE–INSTALLATION AT THIS SITE. SEE SITE PLAN.
6. REMOVE EXISTING STORM SEWER SYSTEM TO THE LIMITS SHOWN. THE CONTRACTOR IS RESPONSIBLE FOR PROTECTING PIPES AND STRUCTURES REMAIN.
7. REMOVE EXISTING TRACK RADIUS MONUMENT. LOCATIONS SHOWN ARE FOR INFORMATION ONLY.
8. INSTALL ±550 LF OF SEDIMENT CONTROL, SILT FENCE (THIS SHEET). AT THE COMPLETION OF THE PROJECT, ONCE THE TURF IS WELL ESTABLISHED, CLEAN ALL ACCUMULATED SEDIMENT AND REMOVE THE SILT FENCE.
9. A TRACKING PAD IS REQUIRED AT ALL CONTRACTOR INGRESS/EGRESS LOCATIONS WHERE SEDIMENT MAY BE TRACKED OFF SITE. LOCATIONS SHOWN ARE FOR INFORMATION ONLY AND MAY VARY WITH CONTRACTORS OPERATIONS. SEE CONTRACTORS ACCESS PLAN, C0.1 AND THE DETAIL SHEET.
10. INSTALL SEDIMENT CONTROL, INLET PROTECTION, FILTER DROP AT CATCHBASINS. AT THE COMPLETION OF THE PROJECT, ONCE THE TURF IS WELL ESTABLISHED, REMOVE INLET PROTECTIONS AND CLEAN ALL ACCUMULATED SEDIMENT FROM THE CATCHBAISN.
11. REMOVE EXISTING STAIR TOWERS FROM THE BLEACHERS. SALVAGE FOR RE–INSTALLATION AT THIS SITE ONCE THE CONCRETE PAD HAS BEEN REPLACED.
12. DO NOT DISTURB EXISTING BLEACHERS OR ASSOCIATED CONCRETE PAD.
13. DO NOT DISTURB EXISTING LIGHT POLE.
14. DO NOT DISTURB EXISTING SCORE BOARD.

ALL KEYNOTES ARE SPECIFIC TO THAT SHEET ONLY

LEGEND

▨ HMA REMOVAL LIMITS

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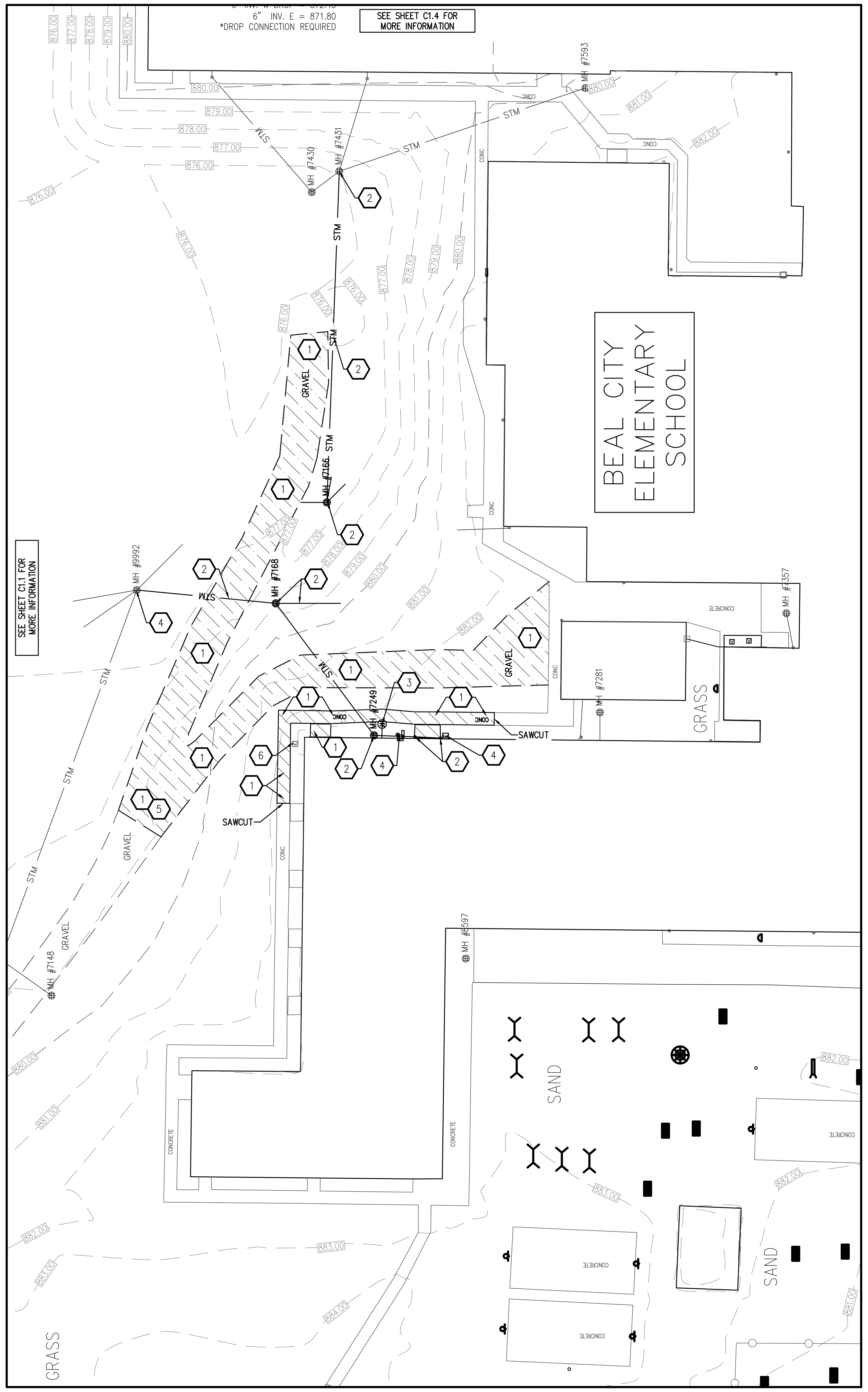
DEMOLITION PLAN

C1.1



DEMOLITION PLAN

SCALE: 1 INCH = 30 FEET

GRAPHIC SCALE: 1 inch = 30 feet
0 15 30 60 90

⬡ KEYNOTES ⬡

– SEE CURRENT MDOT SPECIFICATIONS FOR MATERIALS AND INSTALLATION REQUIREMENTS UNLESS OTHERWISE SPECIFIED –

1. REMOVE EXISTING GRAVEL, CONCRETE SIDEWALKS AND SLABS AND UNDERLYING MATERIAL AS REQUIRED FOR NEW WORK. SAWCUT EXISTING PAVEMENT TO FULL DEPTH PRIOR TO REMOVAL. IF A SAWCUT EDGE BECOMES DAMAGED PRIOR TO THE INSTALLATION OF NEW MATERIAL, THE EDGE SHALL BE RE-CUT AS DIRECTED BY THE OWNER AND THE PAVEMENTS REPLACED AT NO ADDITIONAL COST TO THE PROJECT.
2. REMOVE EXISTING STORM SEWER SYSTEM TO THE LIMITS SHOWN THE CONTRACTOR IS RESPONSIBLE FOR PROTECTING PIPES AND STRUCTURES TO REMAIN.
3. ABANDON EXISTING WELL. REMOVE WATER LINE FROM WELL TO BUILDING. COORDINATE WITH THE PLUMBING CONTRACTOR AND THE CENTRAL MICHIGAN HEALTH DEPARTMENT. SEE PLUMBING PLANS.
4. REMOVE ELECTRICAL CONDUIT. COORDINATE WITH THE ELECTRICAL CONTRACTOR. SEE ELECTRICAL PLANS.
5. A TRACKING PAD IS REQUIRED AT ALL CONTRACTOR INGRESS/EGRESS LOCATIONS WHERE SEDIMENT MAY BE TRACKED OFF SITE. LOCATIONS SHOWN ARE FOR INFORMATION ONLY AND MAY VARY WITH CONTRACTORS OPERATIONS. SEE CONTRACTORS ACCESS PLAN, C0.1 AND THE DETAIL SHEET.
6. DO NOT DISTURB EXISTING ELECTRICAL CONDUIT.

ALL KEYNOTES ARE SPECIFIC TO THAT SHEET ONLY

LEGEND

▨ CONC. REMOVAL LIMITS

▨ GRAVEL REMOVAL LIMITS

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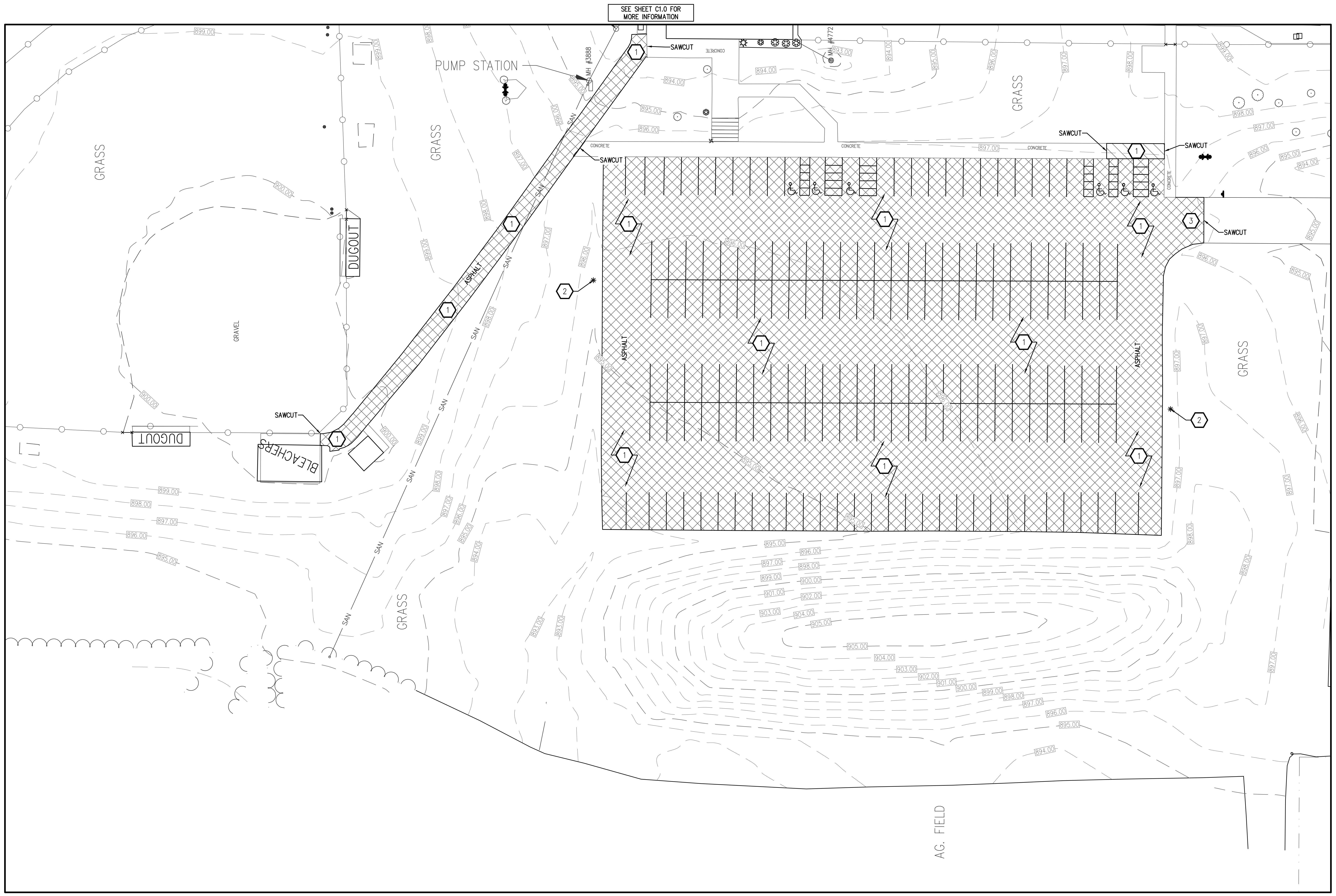
DEMOLITION PLAN

C1.2



DEMOLITION PLAN

SCALE: 1 INCH = 30 FEET

GRAPHIC SCALE: 1 inch = 30 feet
0 15 30 60 90

⬡ KEYNOTES ⬡

– SEE CURRENT MDOT SPECIFICATIONS FOR MATERIALS AND INSTALLATION REQUIREMENTS UNLESS OTHERWISE SPECIFIED –

1. REMOVE EXISTING HMA, CONCRETE SIDEWALKS AND SLABS AND UNDERLYING MATERIAL AS REQUIRED FOR NEW WORK. SAWCUT EXISTING PAVEMENT TO FULL DEPTH PRIOR TO REMOVAL. IF A SAWCUT EDGE BECOMES DAMAGED PRIOR TO THE INSTALLATION OF NEW MATERIAL, THE EDGE SHALL BE RE–CUT AS DIRECTED BY THE OWNER AND THE PAVEMENTS REPLACED AT NO ADDITIONAL COST TO THE PROJECT.
2. REMOVE EXISTING LIGHT POLE, INCLUDING ANY CONCRETE BELOW GRADE. COORDINATE WITH THE ELECTRICAL CONTRACTOR. SEE ELECTRICAL PLANS.
3. A TRACKING PAD IS REQUIRED AT ALL CONTRACTOR INGRESS/EGRESS LOCATIONS WHERE SEDIMENT MAY BE TRACKED OFF SITE. LOCATIONS SHOWN ARE FOR INFORMATION ONLY AND MAY VARY WITH CONTRACTORS OPERATIONS. SEE CONTRACTORS ACCESS PLAN, C0.1 AND THE DETAIL SHEET.

ALL KEYNOTES ARE SPECIFIC TO THAT SHEET ONLY

LEGEND

▩	▨
HMA REMOVAL LIMITS	CONC. REMOVAL LIMITS

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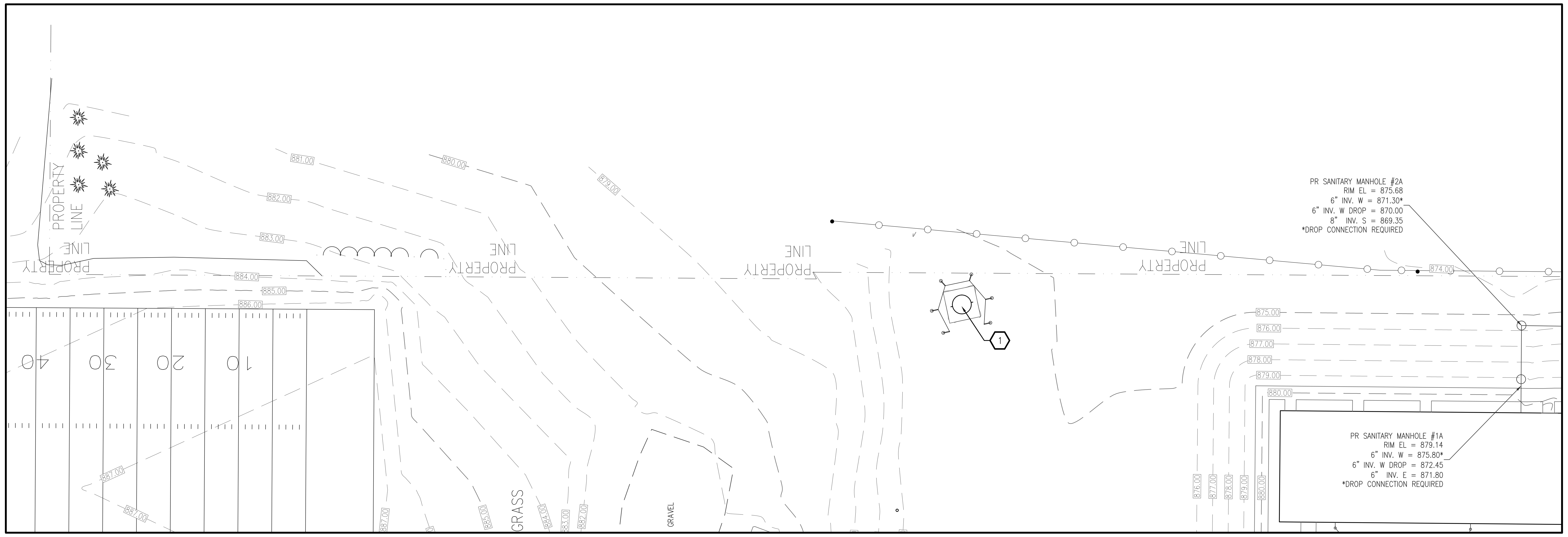
DEMOLITION PLAN

C1.3



PR SANITARY MANHOLE #2A
RIM EL = 875.68
6" INV. W = 871.30*
6" INV. W DROP = 870.00
8" INV. S = 869.35
*DROP CONNECTION REQUIRED

PR SANITARY MANHOLE #1A
RIM EL = 879.14
6" INV. W = 875.80*
6" INV. W DROP = 872.45
6" INV. E = 871.80
*DROP CONNECTION REQUIRED

SEE SHEET C1.1 FOR
MORE INFORMATION

SEE SHEET C1.2 FOR
MORE INFORMATION

DEMOLITION PLAN

SCALE: 1 INCH = 30 FEET

N

GRAPHIC SCALE: 1 inch = 30 feet
0 15 30 60 90

⬡ KEYNOTES ⬡

– SEE CURRENT MDOT SPECIFICATIONS FOR MATERIALS AND INSTALLATION REQUIREMENTS UNLESS OTHERWISE SPECIFIED –

1. DO NOT DISTURB EXISTING DISCUS PAD AND ASSOCIATED CAGE.

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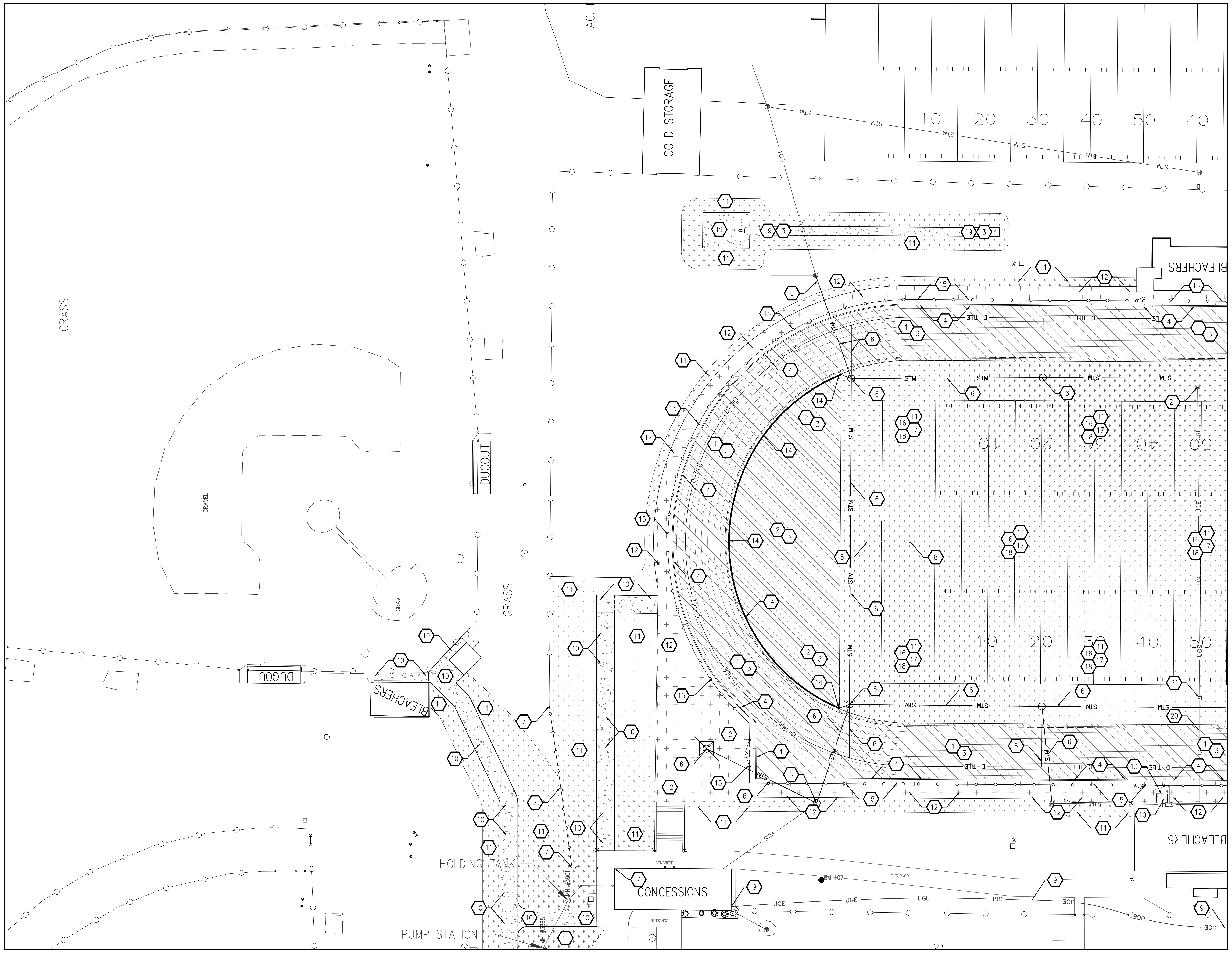
DEMOLITION PLAN

C1.4



SEE SHEET C2.1 FOR MORE INFORMATION

SITE PLAN

SCALE: 1 INCH = 30 FEET

N

GRAPHIC SCALE: 1 inch = 30 feet
0 15 30 60 90

⬡ KEYNOTES ⬡

– SEE CURRENT MDOT SPECIFICATIONS FOR MATERIALS AND INSTALLATION REQUIREMENTS UNLESS OTHERWISE SPECIFIED –

1. CONSTRUCT AN 8–LANE, 400 METER, EQUAL QUADRANT TRACK WITH ±1,452 LF OF 4 INCH PERFORATED DRAIN TILE, CONNECT PROPOSED DRAIN TILE TO PROPOSED STORM SEWER SYSTEM AS SHOWN. THE RUNNING TRACK SHALL CONSIST OF 10 INCHES MDOT, CLASS II SAND, 6 INCHES, MDOT 21AA AGGREGATE BASE, 3 INCHES HMA PLACED IN TWO LIFTS OF 165#/SYD (1.5 INCH) HMA, 4EL LEVELING AND 165#/SYD (1.5 INCH) HMA, 5EL TOP COURSE. AN ASBA LEVEL 4 TRACK CERTIFICATION IS REQUIRED. SEE SPECS, UTILITY AND DETAIL SHEET.
2. CONSTRUCT HIGH JUMP AREA. THE HIGH JUMP AREA SHALL CONSIST OF 10 INCHES MDOT, CLASS II SAND, 6 INCHES, MDOT 21AA AGGREGATE BASE, 3 INCHES HMA PLACED IN TWO LIFTS OF 165#/SYD (1.5 INCH) HMA, 4EL LEVELING AND 165#/SYD (1.5 INCH) HMA, 5EL TOP COURSE. SEE DETAIL SHEET.
3. PLACE ½" POLYURETHANE TRACK SURFACE WITH STRUCTURAL SPRAY AND MARKINGS FOR 8–LANE, 400 METER, EQUAL QUADRANT TRACK, AS WELL AS HIGH JUMP, LONG JUMP AND POLE VAULT AREAS. AN ASBA LEVEL 4 TRACK CERTIFICATION IS REQUIRED. SEE DETAIL SHEET FOR LOCATIONS AND EXTENTS OF PLACEMENT. SEE SPECS.
4. INSTALL ±1,535 LF (TOTAL) OF 6 INCH X 12 INCH CONCRETE CURB. REINFORCEMENT SHALL BE #4 CONTINUOUS BARS. TOP OF CONCRETE CURB SHALL BE CONSTRUCTED FLUSH WITH THE PROPOSED TRACK SURFACE SURFACE. SEE GRADING AND DETAIL SHEET.
5. INSTALL HIGH SCHOOL REGULATION FOOTBALL GOAL POST, TWO (2) TOTAL. FIELD VERIFY EXACT LOCATION AND COORDINATE INSTALLATION WITH IRRIGATION CONTRACTOR. SEE SPECS, GRADING AND DETAIL SHEET.
6. PROPOSED STORM SEWER. SEE UTILITY SHEET.
7. RE–INSTALL ±301 LF (MULTIPLE LOCATIONS) OF 6 FT CHAIN LINK FENCE AND GATES SALVAGED FROM THIS SITE. ANY REPLACEMENT FENCE COMPONENTS SHALL MATCH THE EXISTING FENCE SYSTEM. SEE DETAIL SHEET AND FENCING PLAN.
8. INSTALL PROPOSED TRACK RADIUS MONUMENT. SEE DETAIL SHEET.
9. PROPOSED ELECTRICAL LINE FOR THE TEAM ROOM. COORDINATE WITH THE ELECTRICAL CONTRACTOR. SEE ELECTRICAL PLANS..
10. CONSTRUCT 6–INCH–THICK REINFORCED CONCRETE SIDEWALK ON SUB–BASE, 6 INCH CIP MDOT CLASS II. REINFORCEMENT SHALL BE WWF, 6X6, W2.1XW2.1. SEE GRADING AND DETAIL SHEET.
11. TURF RESTORATION. SEE DETAIL SHEET.
12. CONSTRUCT A NEW PAVEMENT STRUCTURE THAT SHALL CONSIST OF 6 INCH MDOT 21AA AGGREGATE BASE, HMA, 3 INCHES PLACED IN 2 LIFTS CONSISTING OF HMA, 4EL 165#/SYD LEVELING COURSE (1.5 INCH THICKNESS), AND HMA, 5EL 165#/SYD TOP COURSE (1.5 INCH THICKNESS). SUBBASE AND AGGREGATE BASE SHALL EXTEND 2 FEET PAST PROPOSED HMA SURFACING LIMITS. IF AREAS OF UNSUITABLE SUBBASE ARE ENCOUNTERED, PERFORM MDOT SUBGRADE UNDERCUTTING, TYPE II AT CONTRACT UNIT PRICE. SEE GRADING AND DETAIL SHEET.
13. REINSTALL BLEACHERS STAIR ON CONCRETE PAD. SEE DETAIL SHEET.
14. INSTALL ±240 LF OF TRENCH DRAIN, BETWEEN HIGH JUMP AREA AND THE PROPOSED TRACK WITH TWO (2) IN–LINE CATCH BASINS. OUTLET TO EXISTING CATCHBASIN WITH 6" SDR–26 STORM SEWER PIPE AS SHOWN. SEE GRADING, UTILITY AND DETAIL SHEET.
15. RE–INSTALL ±1,555 LF (TOTAL) OF 4 FT CHAIN LINK FENCE AND GATES SALVAGED FROM THIS SITE. THE TRACK FENCE SHALL BE A MINIMUM 3 FOOT OFFSET FROM THE EDGE OF THE OUTSIDE RUNNING LANE. ANY REPLACEMENT FENCE COMPONENTS SHALL MATCH THE EXISTING FENCE SYSTEM. THE FENCE SHALL BE INSTALLED AFTER THE COMPLETION OF THE ASPHALT PAVING AND THE INSTALLATION OF THE FENCE SHALL INCLUDING CORING THE PAVEMENT, AS REQUIRED, TO INSTALL THE FENCE POSTS. SEE DETAIL SHEET AND FENCING PLAN.
16. RE–GRADE AND CROWN FOOTBALL FIELD. SEE GRADING SHEET.
17. FULL COVERAGE IRRIGATION SYSTEM TO BE INSTALLED UNDER A SEPARATE CONTRACT. COORDINATE THE WORK IN THE FOOTBALL FIELD WITH THE IRRIGATION CONTRACTOR.
18. INSTALL SLIT TRENCH UNDERDRAIN SYSTEM THAT SHALL CONSIST OF 2" PERFORATED PIPE IN 14" DEEP TRENCH FILLED WITH PEA STONE AND MDOT CLASS II SAND. SPACE SLIT TRENCH DRAINS AT 5' O.C SLOPED AT THE SAME SLOPE AS THE FOOTBALL FIELD. TERMINATE SLIT TRENCH DRAINS AT THE PERFORATED COLLECTOR PIPE THAT RUNS AROUND THE OUTSIDE OF THE FIELD. SEE GRADING AND DETAIL SHEET.
19. CONSTRUCT CONCRETE POLE VAULT RUNWAY AND LANDING AREA. PLACE 6 INCH THICK REINFORCED CONCRETE WITH 6 MIL VAPOR BARRIER ON SUB–BASE, 6" CIP MDOT CLASS II SAND FOR RUNWAY. REINFORCEMENT SHALL BE WWF, 6X6, W2.1XW2.1, WITH #5 CONTINUOUS BARS. PRIOR TO POURING CONCRETE, INSTALL STAINLESS STEEL PLANTING BOX, PER MANUFACTURES RECOMMENDATION, ONE (1) TOTAL, SEE DETAIL SHEET.
20. SLEEVE EXISTING ELECTRICAL LINE UNDER TRACK FOR A MINIMUM DISTANCE OF 5 FT OUTSIDE THE SURFACING LIMITS.
21. ADJUST EXISTING COMMUNICATIONS BOX TO GRADE. SEE GRADING SHEET.

ALL KEYNOTES ARE SPECIFIC TO THAT SHEET ONLY

LEGEND

▨ PROPOSED CONCRETE	▨ PROPOSED NON–TRACK WALKING PATH HMA
▨ PROPOSED TRACK HMA	▨ PROPOSED TURF RESTORATION

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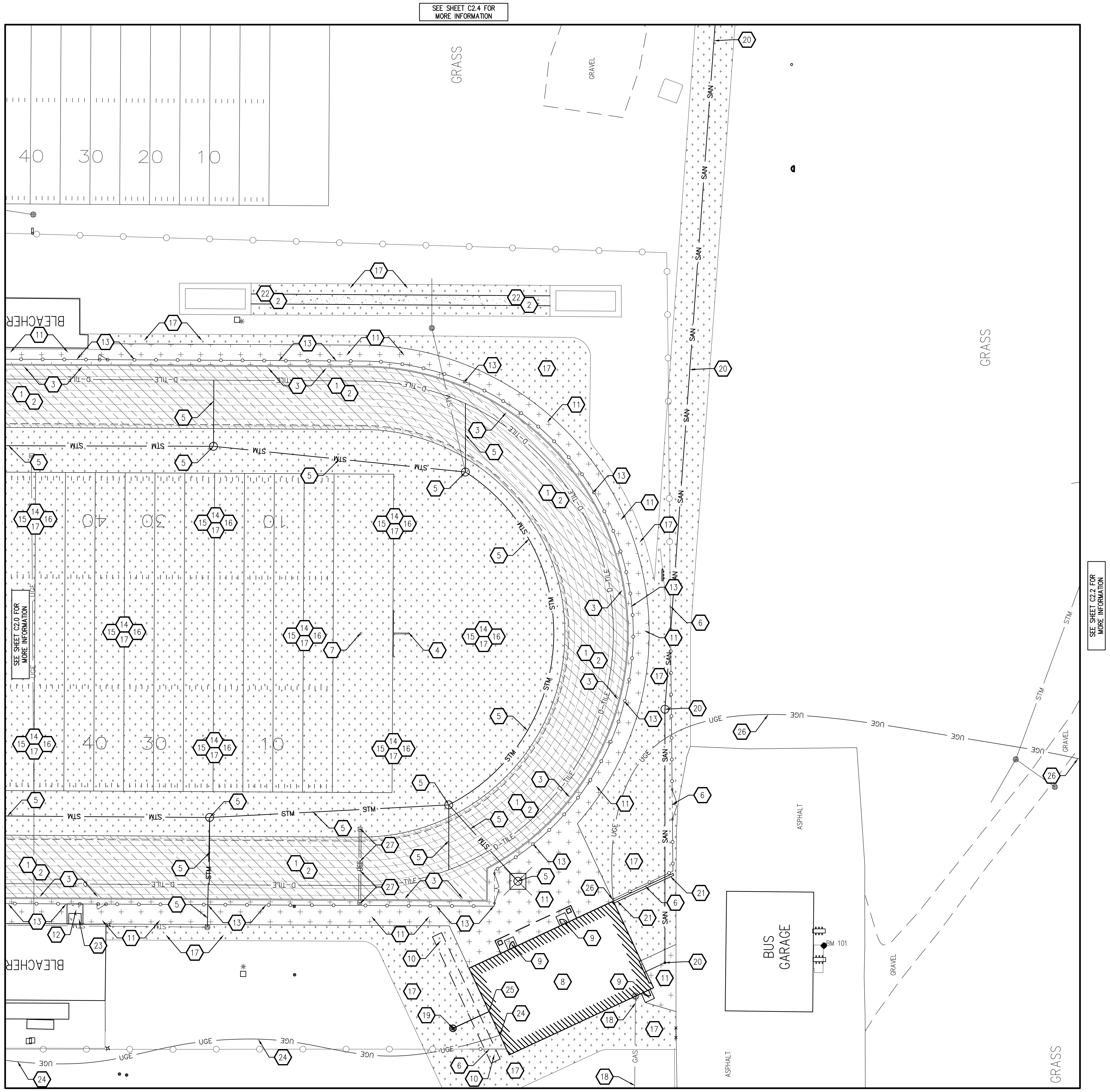
BEAL CITY PUBLIC SCHOOLS
2024 BOND PROJECT
MT. PLEASANT, MICHIGAN
PROJECT NO. 22-037

NO.	REVISIONS	DATE
A	DD'S	01.16.25
B	FINAL REVIEW	03.14.25
0	FOR CONSTRUCTION	03.27.25

	BY	DATE
DESIGN	ADM	
DRAWN	ADM	
CHECKED	BLK	
APPROVED	ADM	

SITE PLAN

C2.0


SEE SHEET C2.4 FOR MORE INFORMATION
SEE SHEET C2.0 FOR MORE INFORMATION
SEE SHEET C2.2 FOR MORE INFORMATION
GRASS
GRAVEL
BLEACHER
ASPHALT
BUS GARAGE
BM 101
STM
SAN
UGE
D-TILE
GAS
40
30
20
10

SITE PLAN

SCALE: 1 INCH = 30 FEET

N

GRAPHIC SCALE: 1 inch = 30 feet

0 15 30 60 90

⬡ KEYNOTES ⬡

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1. CONSTRUCT AN 8-LANE, 400 METER, EQUAL QUADRANT TRACK WITH ±1,452 LF OF 4 INCH PERFORATED DRAIN TILE, CONNECT PROPOSED DRAIN TILE TO PROPOSED STORM SEWER SYSTEM AS SHOWN. THE RUNNING TRACK SHALL CONSIST OF 10 INCHES MDOT, CLASS II SAND, 6 INCHES, MDOT 21AA AGGREGATE BASE, 3 INCHES HMA PLACED IN TWO LIFTS OF 165#/SYD (1.5 INCH) HMA, 4EL LEVELING AND 165#/SYD (1.5 INCH) HMA, 5EL TOP COURSE. AN ASBA LEVEL 4 TRACK CERTIFICATION IS REQUIRED. SEE SPECS, UTILITY AND DETAIL SHEET.
2. PLACE ½" POLYURETHANE TRACK SURFACE WITH STRUCTURAL SPRAY AND MARKINGS FOR 8-LANE, 400 METER, EQUAL QUADRANT TRACK, AS WELL AS HIGH JUMP, LONG JUMP AND POLE VAULT AREAS. AN ASBA LEVEL 4 TRACK CERTIFICATION IS REQUIRED. SEE DETAIL SHEET FOR LOCATIONS AND EXTENTS OF PLACEMENT. SEE SPECS.
3. INSTALL ±1,535 LF (TOTAL) OF 6 INCH X 12 INCH CONCRETE CURB. REINFORCEMENT SHALL BE #4 CONTINUOUS BARS. TOP OF CONCRETE CURB SHALL BE CONSTRUCTED FLUSH WITH THE PROPOSED TRACK SURFACE SURFACE. SEE GRADING AND DETAIL SHEET.
4. INSTALL HIGH SCHOOL REGULATION FOOTBALL GOAL POST, TWO (2) TOTAL. FIELD VERIFY EXACT LOCATION AND COORDINATE INSTALLATION WITH IRRIGATION CONTRACTOR. SEE SPECS, GRADING AND DETAIL SHEET.
5. PROPOSED STORM SEWER. SEE UTILITY SHEET.
6. RE-INSTALL ±301 LF (MULTIPLE LOCATIONS) OF 6 FT CHAIN LINK FENCE AND GATES SALVAGED FROM THIS SITE. ANY REPLACEMENT FENCE COMPONENTS SHALL MATCH THE EXISTING FENCE SYSTEM. SEE DETAIL SHEET AND FENCING PLAN.
7. INSTALL PROPOSED TRACK RADIUS MONUMENT. SEE DETAIL SHEET.
8. PROPOSED TEAM ROOM BUILDING. SEE ARCHITECTURAL AND STRUCTURAL PLANS.
9. CONSTRUCT SUPPORTED SLAB FOR PROPOSED DOOR. SEE STRUCTURAL AND ARCHITECTURAL PLANS.
10. PROPOSED SWALE. SEE GRADING SHEET.
11. CONSTRUCT A NEW PAVEMENT STRUCTURE THAT SHALL CONSIST OF 6 INCH MDOT 21AA AGGREGATE BASE, HMA, 3 INCHES PLACED IN 2 LIFTS CONSISTING OF HMA, 4EL 165#/SYD LEVELING COURSE (1.5 INCH THICKNESS), AND HMA, 5EL 165#/SYD TOP COURSE (1.5 INCH THICKNESS). SUBBASE AND AGGREGATE BASE SHALL EXTEND 2 FEET PAST PROPOSED HMA SURFACING LIMITS. IF AREAS OF UNSUITABLE SUBBASE ARE ENCOUNTERED, PERFORM MDOT SUBGRADE UNDERCUTTING, TYPE II AT CONTRACT UNIT PRICE. SEE GRADING AND DETAIL SHEET.
12. REINSTALL BLEACHERS STAIR ON CONCRETE PAD. SEE DETAIL SHEET.
13. RE-INSTALL ±1,555 LF (TOTAL) OF 4 FT CHAIN LINK FENCE AND GATES SALVAGED FROM THIS SITE. THE TRACK FENCE SHALL BE A MINIMUM 3 FOOT OFFSET FROM THE EDGE OF THE OUTSIDE RUNNING LANE. ANY REPLACEMENT FENCE COMPONENTS SHALL MATCH THE EXISTING FENCE SYSTEM. THE FENCE SHALL BE INSTALLED AFTER THE COMPLETION OF THE ASPHALT PAVING AND THE INSTALLATION OF THE FENCE SHALL INCLUDING CORING THE PAVEMENT, AS REQUIRED, TO INSTALL THE FENCE POSTS. SEE DETAIL SHEET AND FENCING PLAN.
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17. TURF RESTORATION. SEE DETAIL SHEET
18. PROPOSED GAS LINE. SEE UTILITY SHEET.
19. NEW WELL TO BE INSTALLED UNDER A SEPARATE CONTRACT TO SUPPLY A MINIMUM DEMAND OF 50 GPM. SEE PLUMBING PLANS AND COORDINATE WITH THE PLUMBING CONTRACTOR AND THE CENTRAL MICHIGAN HEALTH DEPARTMENT.
20. PROPOSED SANITARY SEWER. SEE UTILITY SHEET.
21. PROPOSED RETAINING WALL. SEE GRADING AND STRUCTURAL PLANS FOR MORE INFORMATION.
22. CONSTRUCT CONCRETE LONG JUMP RUNWAY UTILIZING THE EXCISING LANDING AREAS. PLACE 6 INCH THICK REINFORCED CONCRETE WITH 6 MIL VAPOR BARRIER ON SUB-BASE, 6" CIP MDOT CLASS II SAND FOR RUNWAY. REINFORCEMENT SHALL BE WWF, 6X6, W2.1XW2.1, WITH #5 CONTINUOUS BARS. INSTALL LONG JUMP BOARD, PER MANUFACTURES RECOMMENDATION, TWO (2) TOTAL. SEE DETAIL SHEET.
23. CONSTRUCT 6-INCH-THICK REINFORCED CONCRETE SIDEWALK ON SUB-BASE, 6 INCH CIP MDOT CLASS II. REINFORCEMENT SHALL BE WWF, 6X6, W2.1XW2.1. SEE GRADING AND DETAIL SHEET.
24. PROPOSED ELECTRICAL LINE FOR THE TEAM ROOM. COORDINATE WITH THE ELECTRICAL CONTRACTOR. SEE ELECTRICAL PLANS.
25. PROPOSED WATER LINE FROM NEW WELL. COORDINATE WITH THE PLUMBING CONTRACTOR. SEE PLUMBING PLANS.
26. PROPOSED BURIED ELECTRICAL LINE. COORDINATE WITH THE ELECTRICAL CONTRACTOR. SEE ELECTRICAL PLAN.
27. INSTALL TWO (2) ELECTRICAL ENCLOSURE BOXES, HUBBELL QUAZITE PG STYLE 12"X12"X12" TIER 22, OR APPROVED EQUAL. INSTALL TWO (2) 1.5-INCH DIA. CONDUIT ±34 LF EACH FOR FUTURE USE AND TERMINATE IN ENCLOSURE BOXES.

ALL KEYNOTES ARE SPECIFIC TO THAT SHEET ONLY

L E G E N D

▨ PROPOSED CONCRETE	▨ PROPOSED NON-TRACK WALKING PATH HMA
▨ PROPOSED TRACK HMA	▨ PROPOSED TURF RESTORATION

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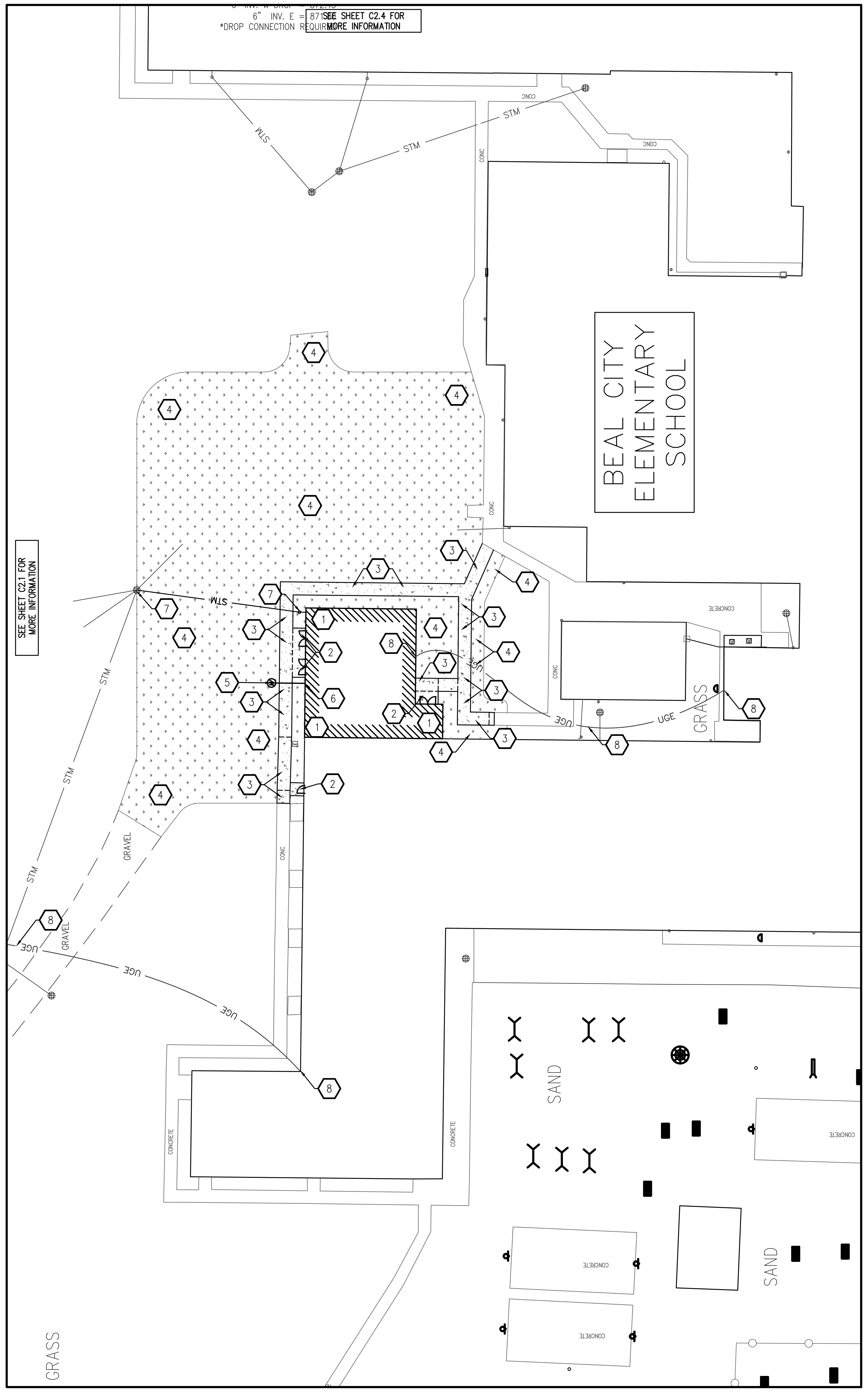
SITE PLAN

C2.1


6" INV. E = 871.6
*DROP CONNECTION REQUIRED
SEE SHEET C2.4 FOR MORE INFORMATION
SEE SHEET C2.1 FOR MORE INFORMATION
BEAL CITY ELEMENTARY SCHOOL
STM
UGE
CONC
CONCRETE
GRAVEL
GRASS
SAND
1
2
3
4
5
6
7
8

SITE PLAN

SCALE: 1 INCH = 30 FEET

GRAPHIC SCALE: 1 inch = 30 feet

0 15 30 60 90

N

⬡ KEYNOTES ⬡

– SEE CURRENT MDOT SPECIFICATIONS FOR MATERIALS AND INSTALLATION REQUIREMENTS UNLESS OTHERWISE SPECIFIED –

1. PROPOSED BUILDING ADDITION. SEE ARCHITECTURAL AND STRUCTURAL DRAWINGS FOR MORE INFORMATION.
2. CONSTRUCT SUPPORTED SLAB FOR PROPOSED DOOR. SEE STRUCTURAL AND ARCHITECTURAL PLANS.
3. CONSTRUCT 6–INCH–THICK REINFORCED CONCRETE SIDEWALK ON SUB–BASE, 6 INCH CIP MDOT CLASS II. REINFORCEMENT SHALL BE WWF, 6X6, W2.1XW2.1. SEE GRADING AND DETAIL SHEET.
4. RESTORE DISTURBED AREA PER TURF RESTORATION DETAIL. SEE DETAIL SHEET.
5. NEW WELL TO BE INSTALLED UNDER A SEPARATE CONTRACT TO SUPPLY A MINIMUM OF X GPM. SEE PLUMBING PLANS AND COORDINATE WITH THE PLUMBING CONTRACTOR AND THE CENTRAL MICHIGAN HEALTH DEPARTMENT.
6. PROPOSED WATER LINE FROM NEW WELL. COORDINATE WITH THE PLUMBING CONTRACTOR. SEE PLUMBING PLANS.
7. PROPOSED STORM SEWER. SEE UTILITY SHEET.
8. PROPOSED BURIED ELECTRICAL LINE. COORDINATE WITH THE ELECTRICAL CONTRACTOR. SEE ELECTRICAL PLAN.

ALL KEYNOTES ARE SPECIFIC TO THAT SHEET ONLY

LEGEND

▨	▨
PROPOSED CONCRETE	PROPOSED TURF RESTORATION

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PROJECT NO. 22-037

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0	FOR CONSTRUCTION	03.27.25

	BY	DATE
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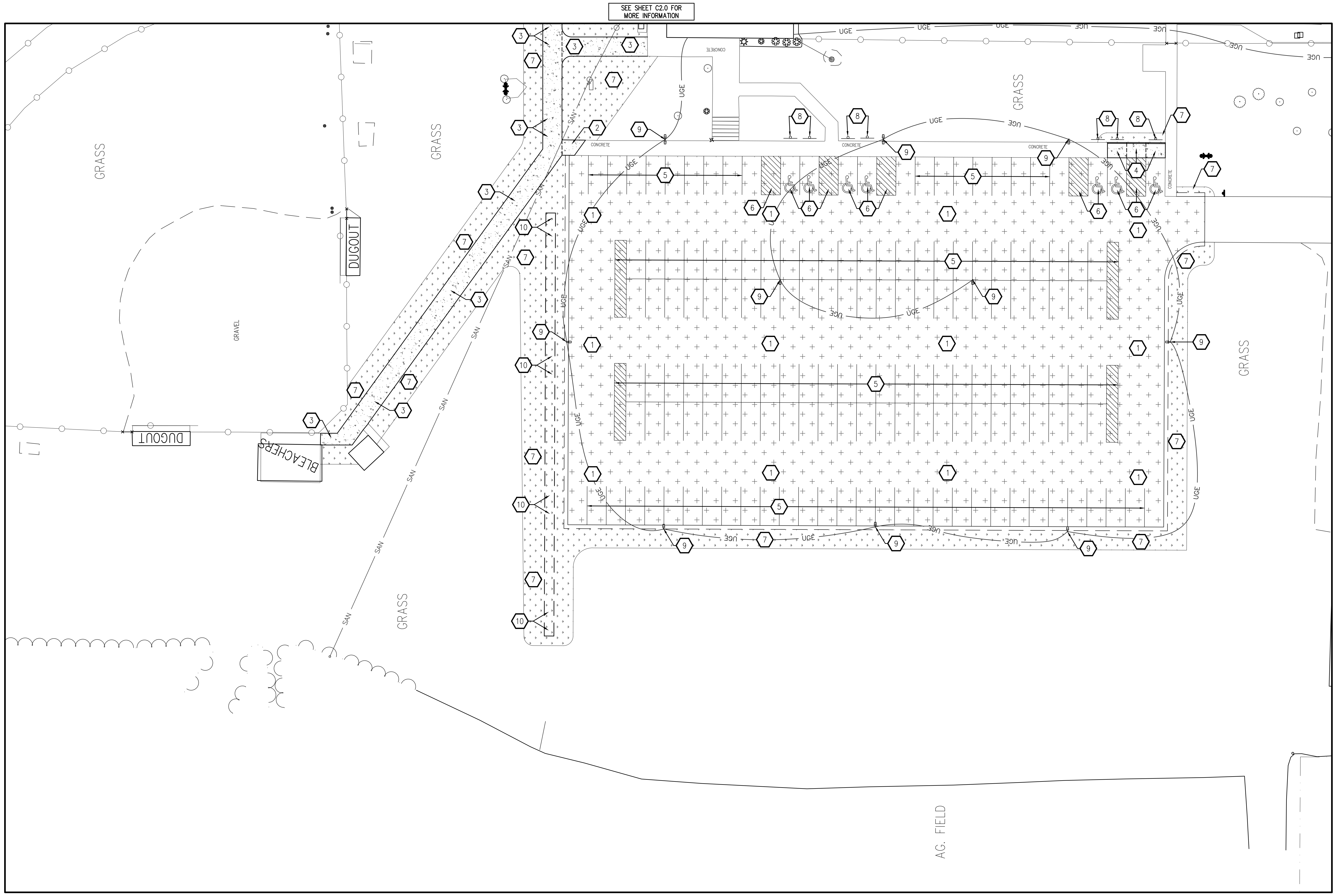
DRAWN	ADM	
CHECKED	BLK	
APPROVED	ADM	

SITE PLAN

C2.2



SITE PLAN

SCALE: 1 INCH = 30 FEET

N

GRAPHIC SCALE: 1 inch = 30 feet
0 15 30 60 90

KEYNOTES

– SEE CURRENT MDOT SPECIFICATIONS FOR MATERIALS AND INSTALLATION REQUIREMENTS UNLESS OTHERWISE SPECIFIED –

1. CONSTRUCT A NEW PAVEMENT STRUCTURE THAT SHALL CONSIST OF SUBBASE, 12 INCH MDOT CLASS II, 8 INCH MDOT 22A AGGREGATE BASE, HMA, 4 INCHES PLACED IN 2 LIFTS CONSISTING OF HMA, 4EL 220#/SYD LEVELING COURSE (2.0 INCH THICKNESS), AND HMA, 5EL 220#/SYD TOP COURSE (2.0 INCH THICKNESS). SUBBASE AND AGGREGATE BASE SHALL EXTEND 2 FEET PAST PROPOSED HMA SURFACING LIMITS. CONSTRUCT A 2 FOOT MDOT SHOULDER, 23A, 4 INCH THICK AT AREAS NOT ADJACENT TO HARD SURFACING. IF AREAS OF UNSUITABLE SUBBASE ARE ENCOUNTERED, PERFORM MDOT SUBGRADE UNDERCUTTING, TYPE II AT CONTRACT UNIT PRICE. SEE GRADING AND DETAIL SHEET.
2. CONSTRUCT 6-INCH-THICK REINFORCED CONCRETE MONOLITHIC FACED SIDEWALK ON SUB-BASE, 6 INCH CIP MDOT CLASS II. REINFORCEMENT SHALL BE WWF, 6X6, W2.1XW2.1. SEE GRADING AND DETAIL SHEET.
3. CONSTRUCT 6-INCH-THICK REINFORCED CONCRETE SIDEWALK ON SUB-BASE, 6 INCH CIP MDOT CLASS II. REINFORCEMENT SHALL BE WWF, 6X6, W2.1XW2.1. SEE GRADING AND DETAIL SHEET.
4. CONSTRUCT BARRIER FREE RAMP. RAMP SHALL CONSIST OF 6-INCH-THICK REINFORCED CONCRETE ON SUB-BASE, 6 INCH CIP MDOT CLASS II. REINFORCEMENT SHALL BE WWF, 6X6, W2.1XW2.1. SEE GRADING AND DETAIL SHEET.
5. PLACE PAVEMENT MARKINGS, 4 INCH, YELLOW, WATERBORNE, FROM MDOT QUALIFIED PRODUCTS LIST AS SHOWN ON PLANS.
6. PLACE ADA PARKING STALL LINE STRIPING, HATCH AND SYMBOLS. ADA "BLUE" OR AS REQUIRED TO MEET CURRENT ADA STANDARDS. PLACE ADA COMPLIANT PARKING SIGNS AT EACH STALL AND "VAN ACCESSIBLE" SIGNS AT LOCATIONS SHOWN. SEE UTILITY AND DETAIL SHEET.
7. RESTORE DISTURBED AREA PER TURF RESTORATION DETAIL. SEE DETAIL SHEET.
8. PROPOSED SIGN. SEE GRADING AND DETAIL SHEET.
9. PROPOSED LIGHT POLE AND ASSOCIATED UNDERGROUND ELECTRICAL CONDUIT. COORDINATE WITH THE ELECTRICAL CONTRACTOR. SEE ELECTRICAL DRAWINGS.
10. PROPOSED SWALE. SEE GRADING SHEET.

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LEGEND

▨	PROPOSED CONCRETE
▨	PROPOSED PARKING LOT HMA
▨	PROPOSED TURF RESTORATION

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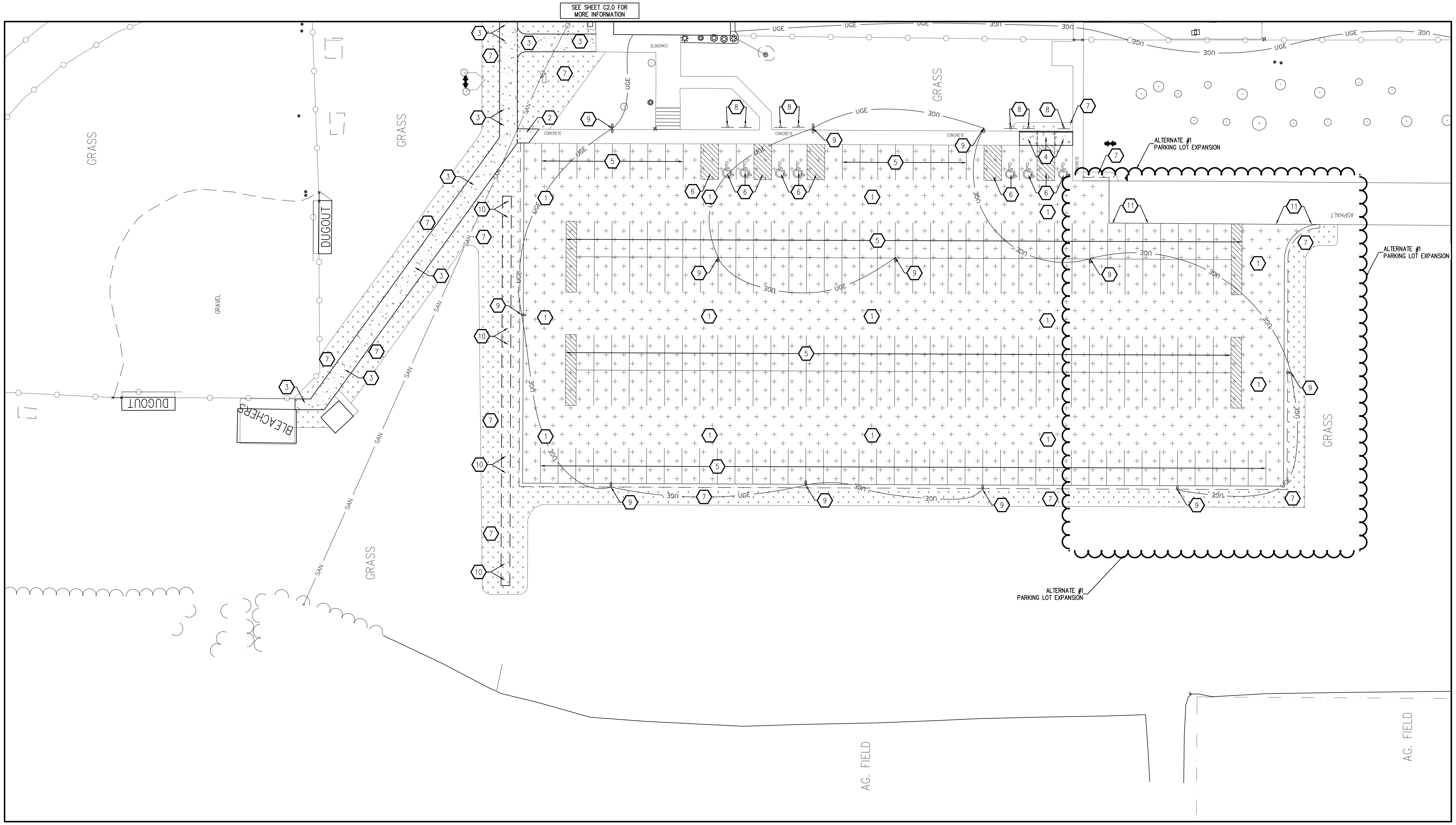
CHECKED	BLK		0	FOR CONSTRUCTION	03.27.25
APPROVED	ADM		----		

SITE PLAN

C2.3


SEE SHEET C2.0 FOR MORE INFORMATION
GRASS
GRASS
GRASS
GRASS
GRASS
DUGOUT
DUGOUT
BLEACHERS
GRAVEL
CONCRETE
CONCRETE
CONCRETE
CONCRETE
ASPHALT
ALTERNATE #1 PARKING LOT EXPANSION
ALTERNATE #1 PARKING LOT EXPANSION
ALTERNATE #1 PARKING LOT EXPANSION
UGE
SAN
AG. FIELD
AG. FIELD
1
2
3
4
5
6
7
8
9
10
11

SITE PLAN

SCALE: 1 INCH = 30 FEET

N

GRAPHIC SCALE: 1 inch = 30 feet
0
15
30
60
90

LEGEND

▨	PROPOSED CONCRETE
+	PROPOSED PARKING LOT HMA
▨	PROPOSED TURF RESTORATION

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9. PROPOSED LIGHT POLE AND ASSOCIATED UNDERGROUND ELECTRICAL CONDUIT. COORDINATE WITH THE ELECTRICAL CONTRACTOR. SEE ELECTRICAL DRAWINGS.
10. PROPOSED SWALE. SEE GRADING SHEET.
11. SAW CUT EDGE OF EXISTING PAVEMENT AND REMOVE ~1 FT OF ASPHALT TO MAKE A CLEAN EDGE TO PAVE AGAINST

ALL KEYNOTES ARE SPECIFIC TO THAT SHEET ONLY

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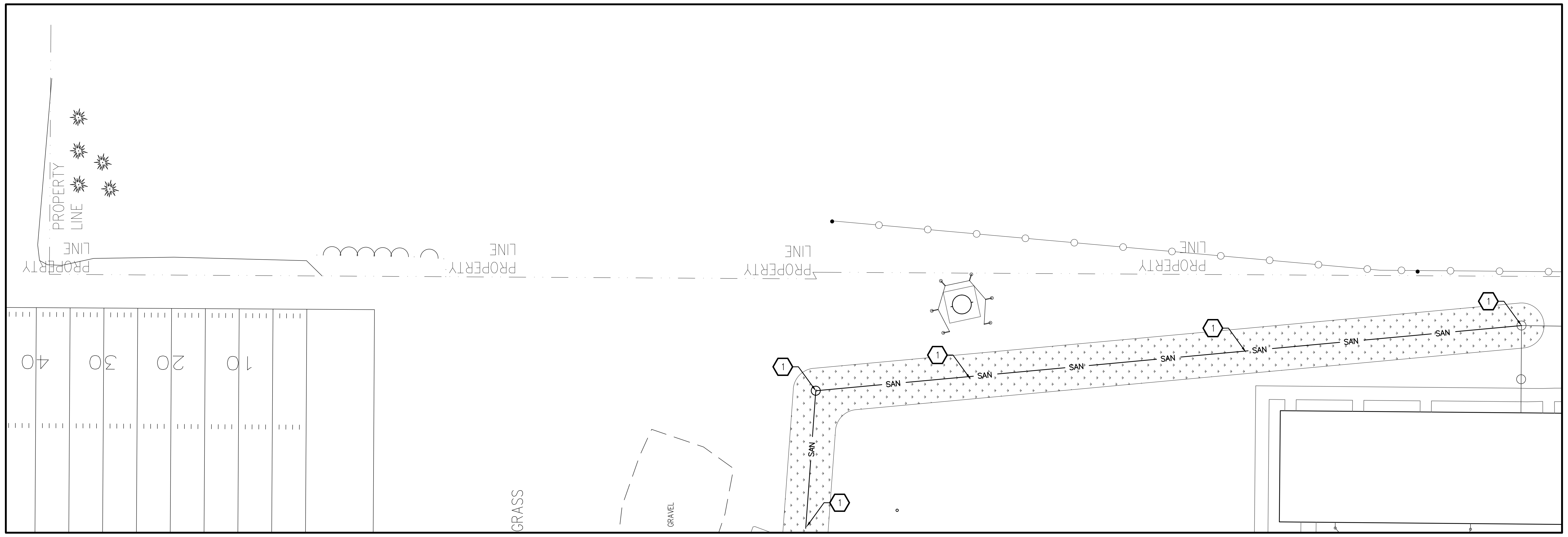
BEAL CITY PUBLIC SCHOOLS
2024 BOND PROJECT
MT. PLEASANT, MICHIGAN
PROJECT NO. 22-037

NO.	REVISIONS	DATE
A	DD'S	01.16.25
B	FINAL REVIEW	03.14.25

	BY	DATE
DESIGN	ADM	
DRAWN	ADM	
CHECKED	BLK	
APPROVED	ADM	

SITE PLAN
ADD ALTERNATE

C2.3A



SEE SHEET C2.1 FOR MORE INFORMATION

SEE SHEET C2.2 FOR MORE INFORMATION

SITE PLAN

SCALE: 1 INCH = 30 FEET

N

GRAPHIC SCALE: 1 inch = 30 feet

0 15 30 60 90

KEYNOTES

– SEE CURRENT MDOT SPECIFICATIONS FOR MATERIALS AND INSTALLATION REQUIREMENTS UNLESS OTHERWISE SPECIFIED –

1. SANITARY SEWER. SEE UTILITY SHEET.
2. TURF RESTORATION. SEE DETAIL SHEET.

ALL KEYNOTES ARE SPECIFIC TO THAT SHEET ONLY

LEGEND

▨ PROPOSED TURF RESTORATION

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PROJECT NO. 22-037

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NO.	REVISIONS	DATE
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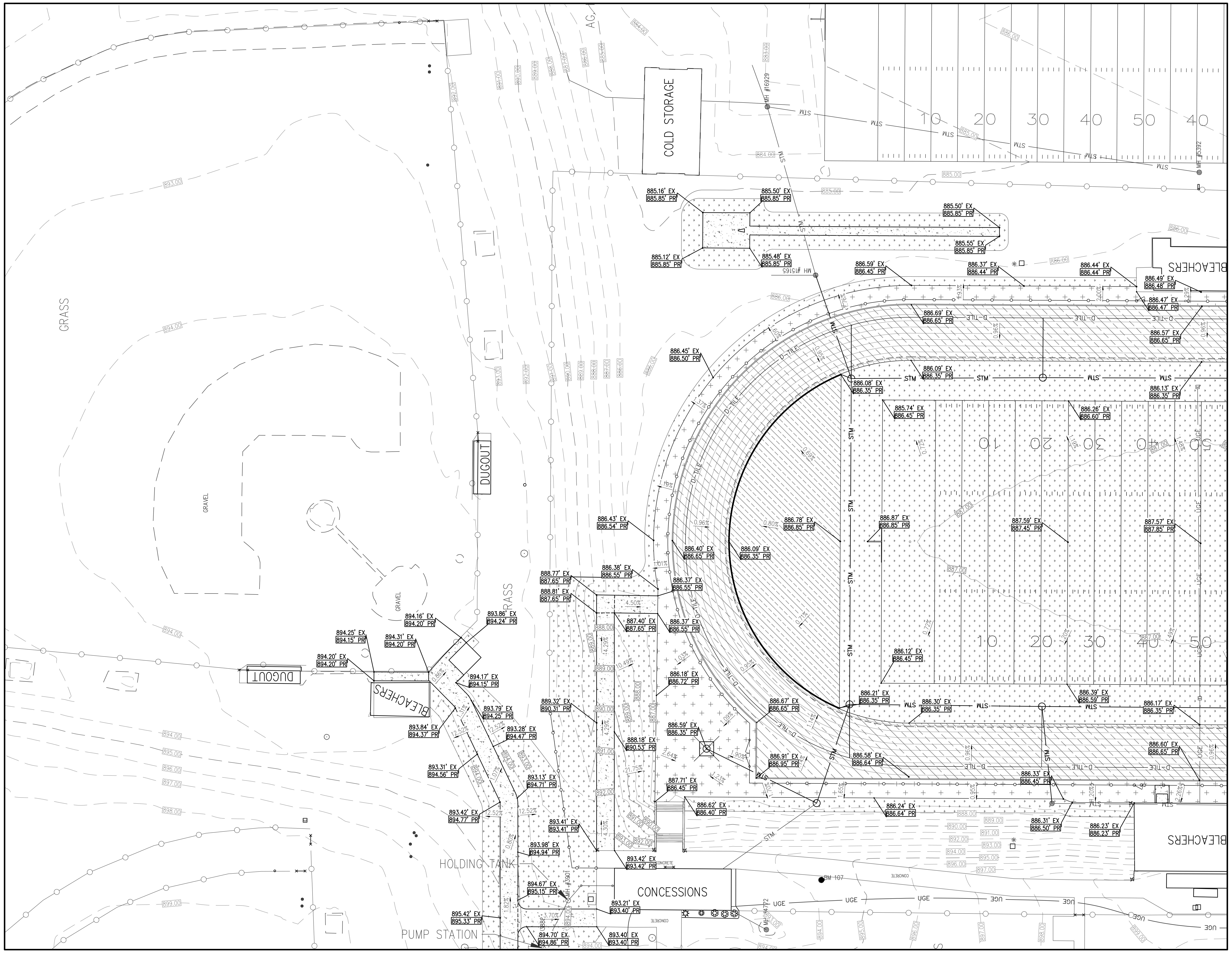
SITE PLAN

C2.4



GRADING PLAN

SCALE: 1 INCH = 30 FEET

GRAPHIC SCALE: 1 inch = 30 feet

0 15 30 60 90

N

L E G E N D

2.00%	GRADE
	EXISTING CONTOUR
	PROPOSED CONTOUR
EXISTING ELEVATION	582.34
PROPOSED ELEVATION	582.63 EB
GND	GROUND
BDG	BUILDING
ADJ	ADJUST ITEM
EB	EDGE OF HMA
EC	EDGE OF CONCRETE
IE	INVERT ELEVATION
BW	BACK OF WALK
FW	FACE OF WALK
TW	TOP OF WALK
EX	EXISTING
PR	PROPOSED
LF	LINEAR FEET
MP	MID POINT
PC	POINT OF CURVATURE
FFE	FINISHED FLOOR ELEVATION
TR	TOP OF ROCK
GRV	GRAVEL
CB	CATCH BASIN
MH	MANHOLE
STM	STORM SEWER
SAN	SANITARY SEWER
REM	REMOVE ITEM
REL	RELOCATE ITEM
FL	FLOW LINE

L E G E N D

░	PROPOSED CONCRETE
+	PROPOSED NON-TRACK WALKING PATH HMA
▨	PROPOSED TRACK HMA
░	PROPOSED TURF RESTORATION

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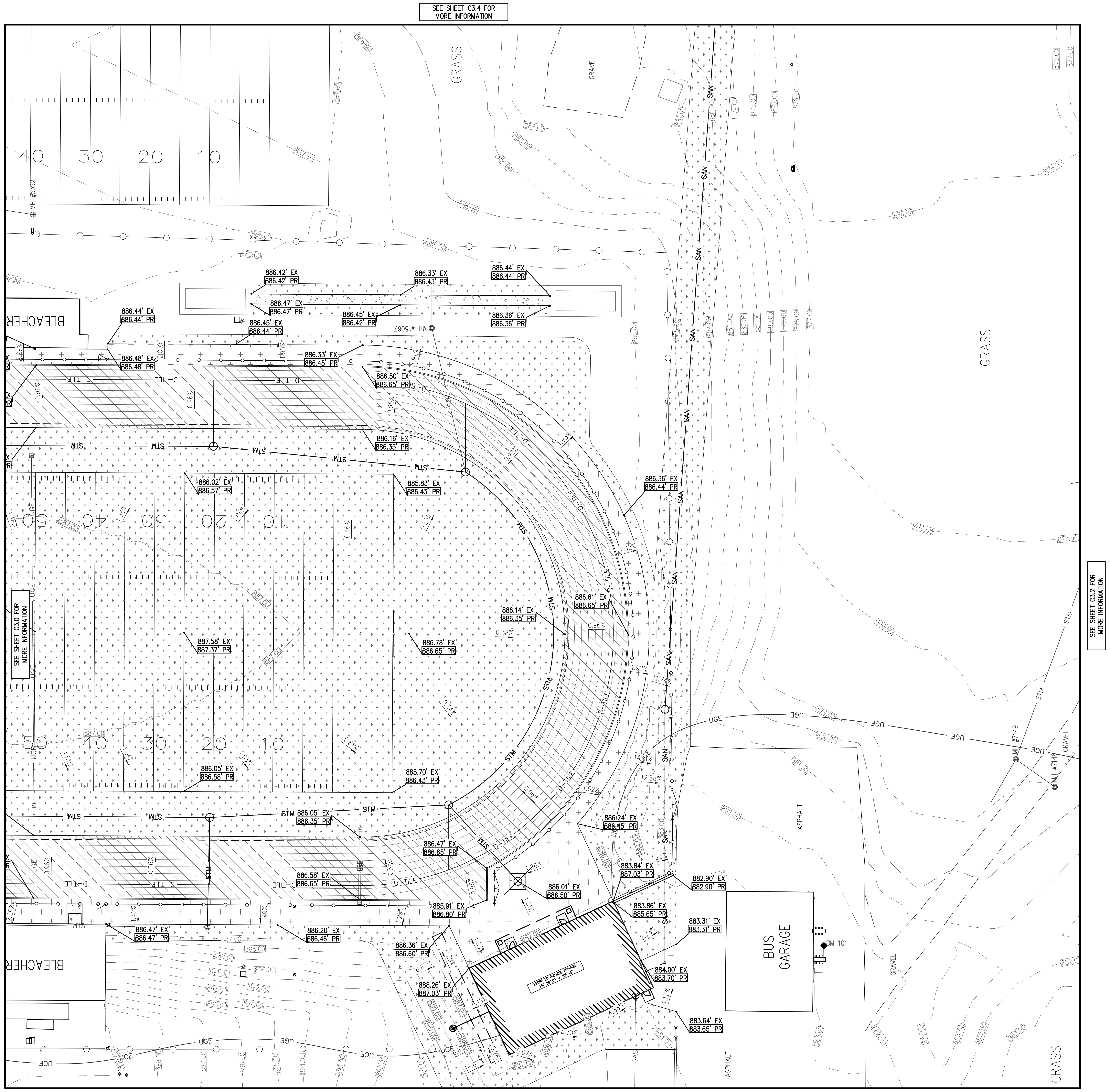
GRADING PLAN



GRADING PLAN

SCALE: 1 INCH = 30 FEET

L E G E N D

2.00%	GRADE
- - - -	EXISTING CONTOUR
———	PROPOSED CONTOUR
EXISTING ELEVATION	582.34
PROPOSED ELEVATION	582.63 EB
GND	GROUND
BDG	BUILDING
ADJ	ADJUST ITEM
EB	EDGE OF HMA
EC	EDGE OF CONCRETE
IE	INVERT ELEVATION
BW	BACK OF WALK
FW	FACE OF WALK
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EX	EXISTING
PR	PROPOSED
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STM	STORM SEWER
SAN	SANITARY SEWER
REM	REMOVE ITEM
REL	RELOCATE ITEM
FL	FLOW LINE

L E G E N D

▒ PROPOSED CONCRETE	▒ PROPOSED NON-TRACK WALKING PATH HMA
▨ PROPOSED TRACK HMA	▒ PROPOSED TURF RESTORATION

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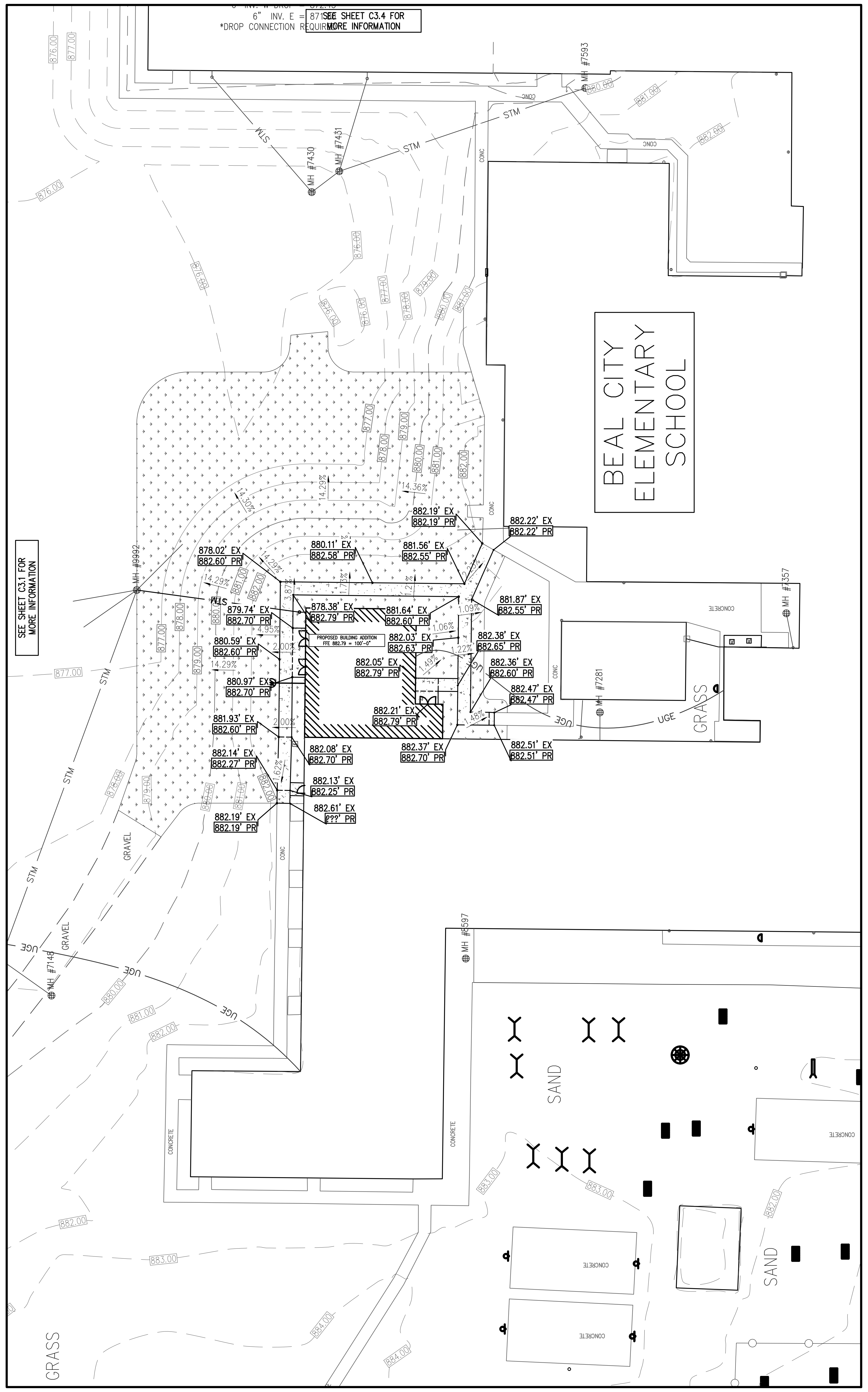
GRADING PLAN



GRADING PLAN

SCALE: 1 INCH = 30 FEET

N

GRAPHIC SCALE: 1 inch = 30 feet
0 15 30 60 90

LEGEND

2.00%	GRADE
	EXISTING CONTOUR
	PROPOSED CONTOUR
EXISTING ELEVATION	582.34
PROPOSED ELEVATION	582.63 EB
GND	GROUND
BDG	BUILDING
ADJ	ADJUST ITEM
EB	EDGE OF HMA
EC	EDGE OF CONCRETE
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BW	BACK OF WALK
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MH	MANHOLE
STM	STORM SEWER
SAN	SANITARY SEWER
REM	REMOVE ITEM
REL	RELOCATE ITEM
FL	FLOW LINE

LEGEND

▨	▨
PROPOSED CONCRETE	PROPOSED TURF RESTORATION

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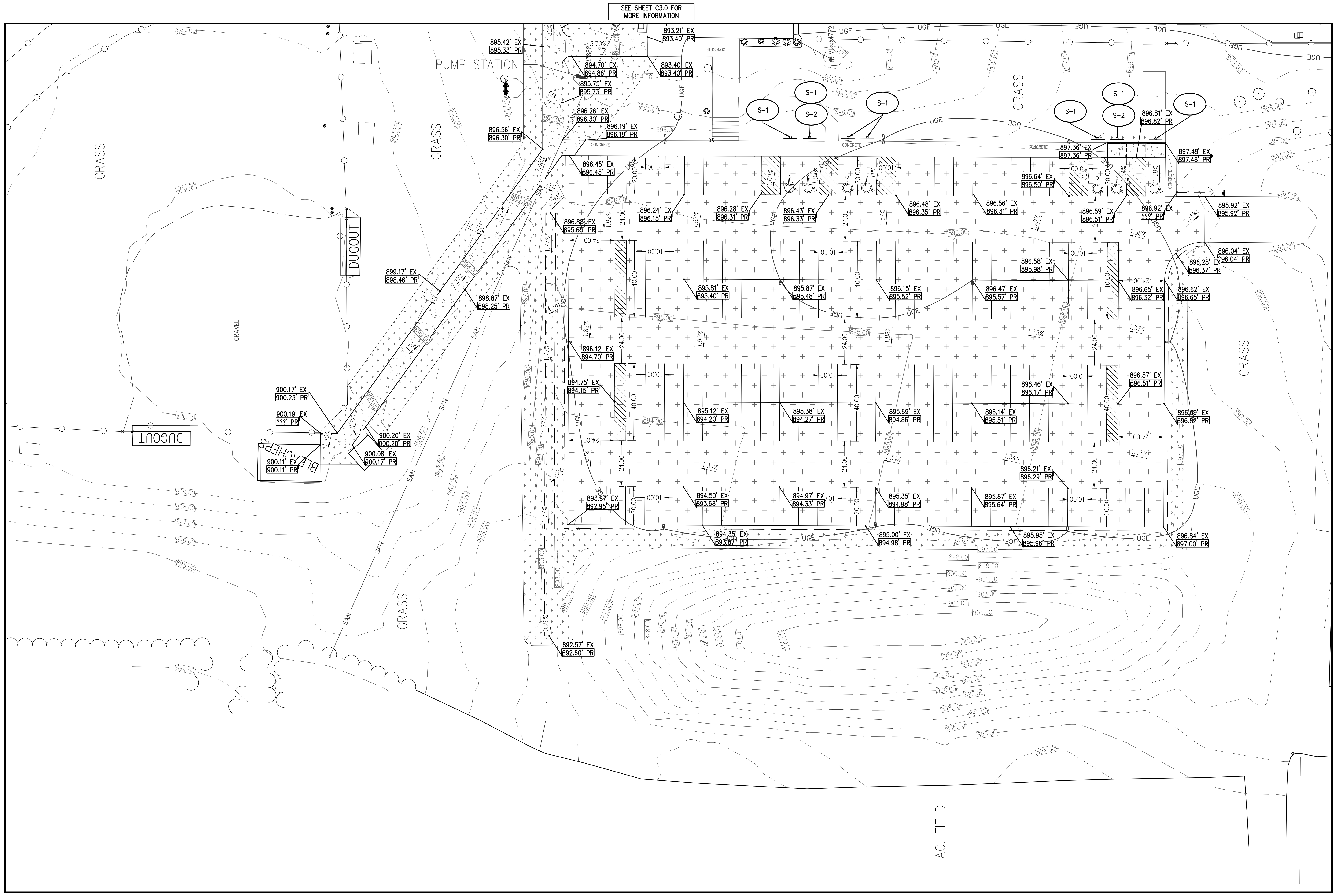
GRADING PLAN

C3.2



GRADING PLAN

SCALE: 1 INCH = 30 FEET

GRAPHIC SCALE: 1 inch = 30 feet

0 15 30 60 90

L E G E N D	
2.00%	GRADE
- - -	EXISTING CONTOUR
⁀	PROPOSED CONTOUR
EXISTING ELEVATION	582.34
PROPOSED ELEVATION	582.63 EB
GND	GROUND
BDG	BUILDING
ADJ	ADJUST ITEM
EB	EDGE OF HMA
EC	EDGE OF CONCRETE
IE	INVERT ELEVATION
BW	BACK OF WALK
FW	FACE OF WALK
TW	TOP OF WALK
EX	EXISTING
PR	PROPOSED
LF	LINEAR FEET
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CB	CATCH BASIN
MH	MANHOLE
STM	STORM SEWER
SAN	SANITARY SEWER
REM	REMOVE ITEM
REL	RELOCATE ITEM
FL	FLOW LINE

L E G E N D

- ▨ PROPOSED CONCRETE
- ⊞ PROPOSED PARKING LOT HMA
- ▨ PROPOSED TURF RESTORATION

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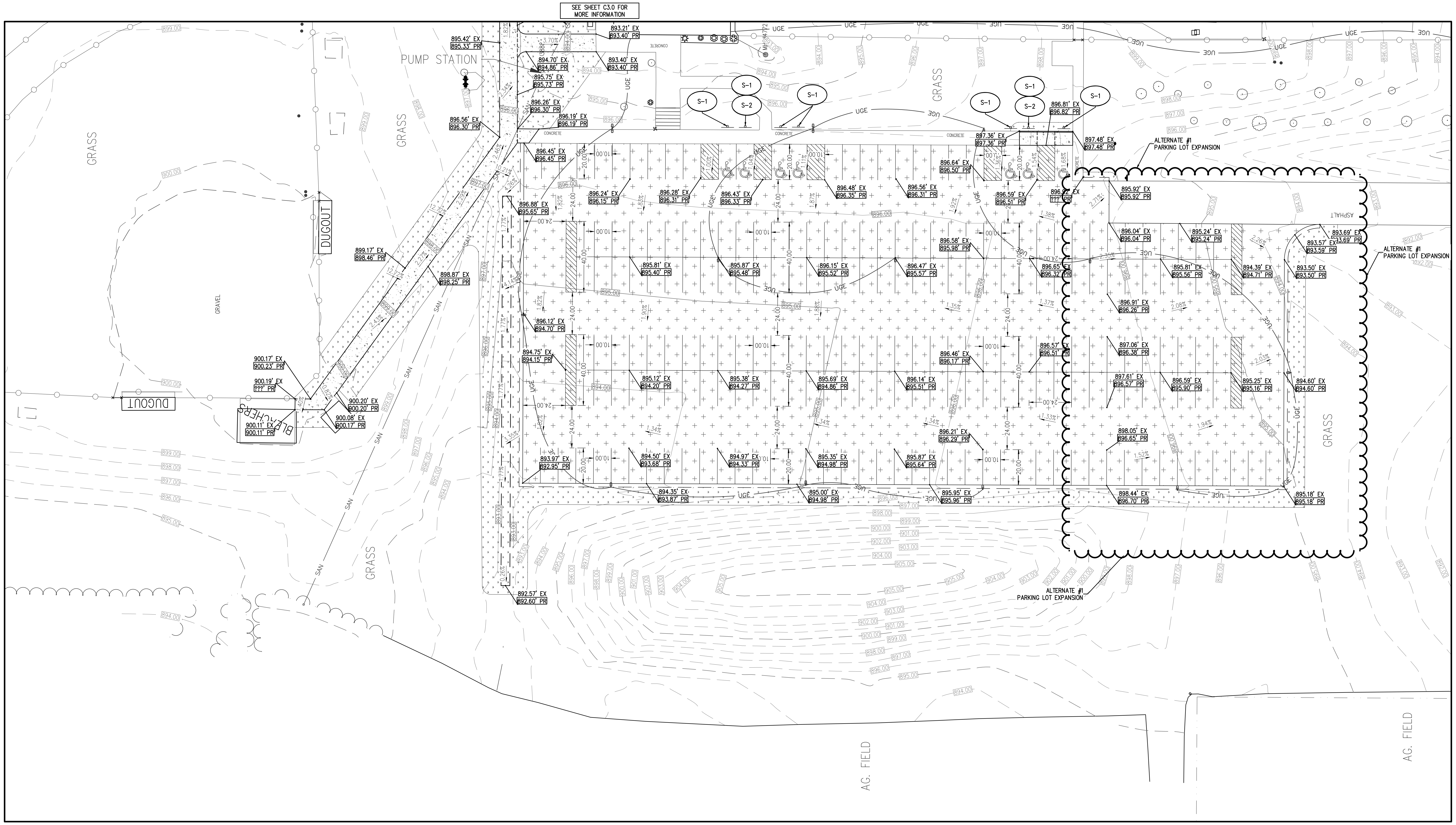
APPROVED	ADM	

GRADING PLAN

C3.3



GRADING PLAN

SCALE: 1 INCH = 30 FEET

L E G E N D

2.00%	GRADE
	EXISTING CONTOUR
	PROPOSED CONTOUR
EXISTING ELEVATION	582.34
PROPOSED ELEVATION	582.63 EB
GND	GROUND
BDG	BUILDING
ADJ	ADJUST ITEM
EB	EDGE OF HMA
EC	EDGE OF CONCRETE
IE	INVERT ELEVATION
BW	BACK OF WALK
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MH	MANHOLE
STM	STORM SEWER
SAN	SANITARY SEWER
REM	REMOVE ITEM
REL	RELOCATE ITEM
FL	FLOW LINE

L E G E N D

PROPOSED CONCRETE

PROPOSED PARKING LOT HMA

PROPOSED TURF RESTORATION

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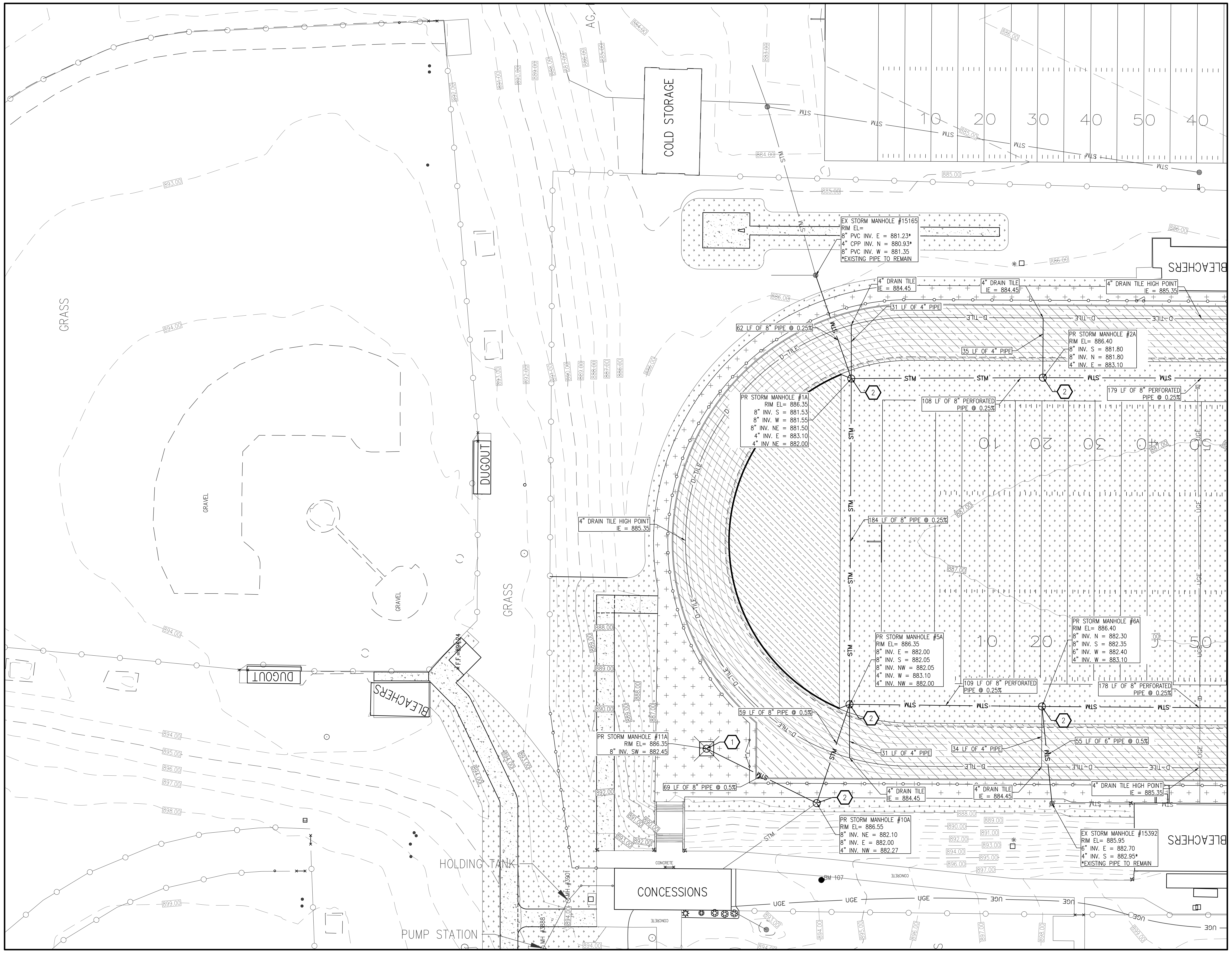
GRADING PLAN
ADD ALTERNATE



UTILITY PLAN

SCALE: 1 INCH = 30 FEET

⬡ KEYNOTES ⬡

– SEE CURRENT MDOT SPECIFICATIONS FOR MATERIALS AND INSTALLATION REQUIREMENTS UNLESS OTHERWISE SPECIFIED –

1. INSTALL 4 FT DIA PRECAST CONCRETE STORM SEWER CATCH BASIN WITH 2 FT SUMP. CONSTRUCT A CONCRETE APRON AROUND CATCHBASIN COVER. INSTALL FOUR (4) 10 FT MINIMUM LENGTHS OF 6 INCH SUBGRADE UNDERDRAIN UNDER PROPOSED PAVEMENT AT EACH NEW CATCH BASIN. SEE GRADING AND DETAIL SHEETS.
2. INSTALL 4 FT DIA PRECAST CONCRETE STORM SEWER CATCH BASIN WITH 2 FT SUMP. SEE GRADING AND DETAIL SHEETS.

ALL KEYNOTES ARE SPECIFIC TO THAT SHEET ONLY

LEGEND

▨ PROPOSED CONCRETE	▨ PROPOSED NON-TRACK WALKING PATH HMA
▨ PROPOSED TRACK HMA	▨ PROPOSED TURF RESTORATION

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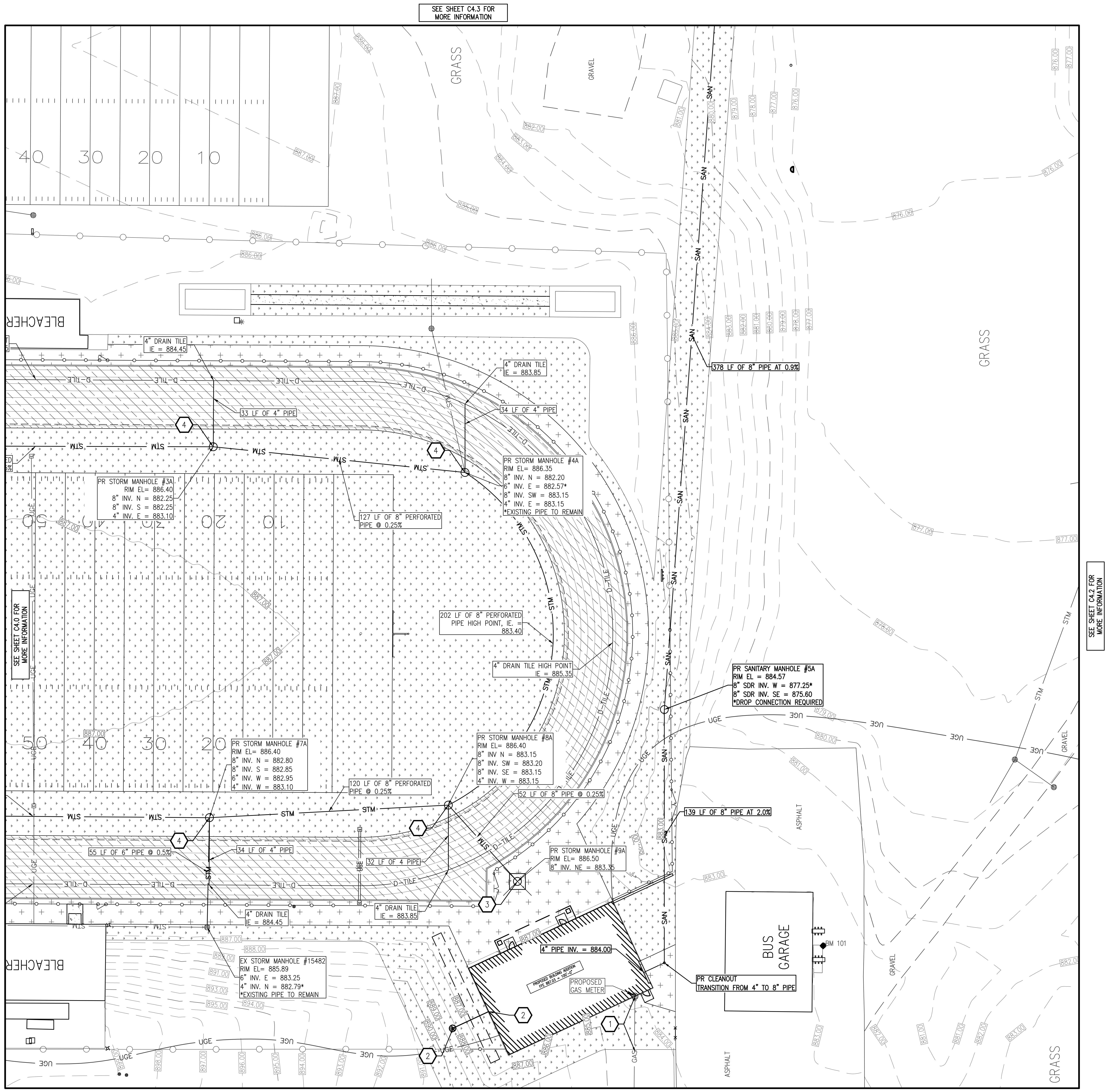
UTILITY PLAN



UTILITY PLAN

SCALE: 1 INCH = 30 FEET

GRAPHIC SCALE: 1 inch = 30 feet
0 15 30 60 90

KEYNOTES

– SEE CURRENT MDOT SPECIFICATIONS FOR MATERIALS AND INSTALLATION REQUIREMENTS UNLESS OTHERWISE SPECIFIED –

1. PROPOSED GAS LINE AND METER TO BE INSTALLED BY OTHERS. COORDINATE WITH UTILITY COMPANY (DTE) AND MECHANICAL CONTRACTOR. SEE MECHANICAL PLANS FOR GAS LINE SIZE REQUIREMENTS. GAS LINE WILL BE CONNECTED TO THE GAS MAIN LOCATED ALONG WEST BEAL CITY ROAD AND WILL BE INSTALLED ALONG AGGIE AVE TO THE PROPOSED BUILDING.
2. INSTALL 2 INCH WATER LINE TO CONNECT PROPOSED WELL. COORDINATE WITH THE PLUMBING CONTRACTOR. SEE DETAIL SHEET AND PLUMBING PLANS.
3. INSTALL 4 FT DIA PRECAST CONCRETE STORM SEWER CATCH BASIN WITH 2 FT SUMP. CONSTRUCT A CONCRETE APRON AROUND CATCHBASIN COVER. INSTALL FOUR (4) 10 FT MINIMUM LENGTHS OF 6 INCH SUBGRADE UNDERDRAIN UNDER PROPOSED PAVEMENT AT EACH NEW CATCH BASIN. SEE GRADING AND DETAIL SHEETS.
4. INSTALL 4 FT DIA PRECAST CONCRETE STORM SEWER CATCH BASIN WITH 2 FT SUMP. SEE GRADING AND DETAIL SHEETS.

ALL KEYNOTES ARE SPECIFIC TO THAT SHEET ONLY

LEGEND

▨ PROPOSED CONCRETE	▨ PROPOSED NON-TRACK WALKING PATH HMA
▨ PROPOSED TRACK HMA	▨ PROPOSED TURF RESTORATION

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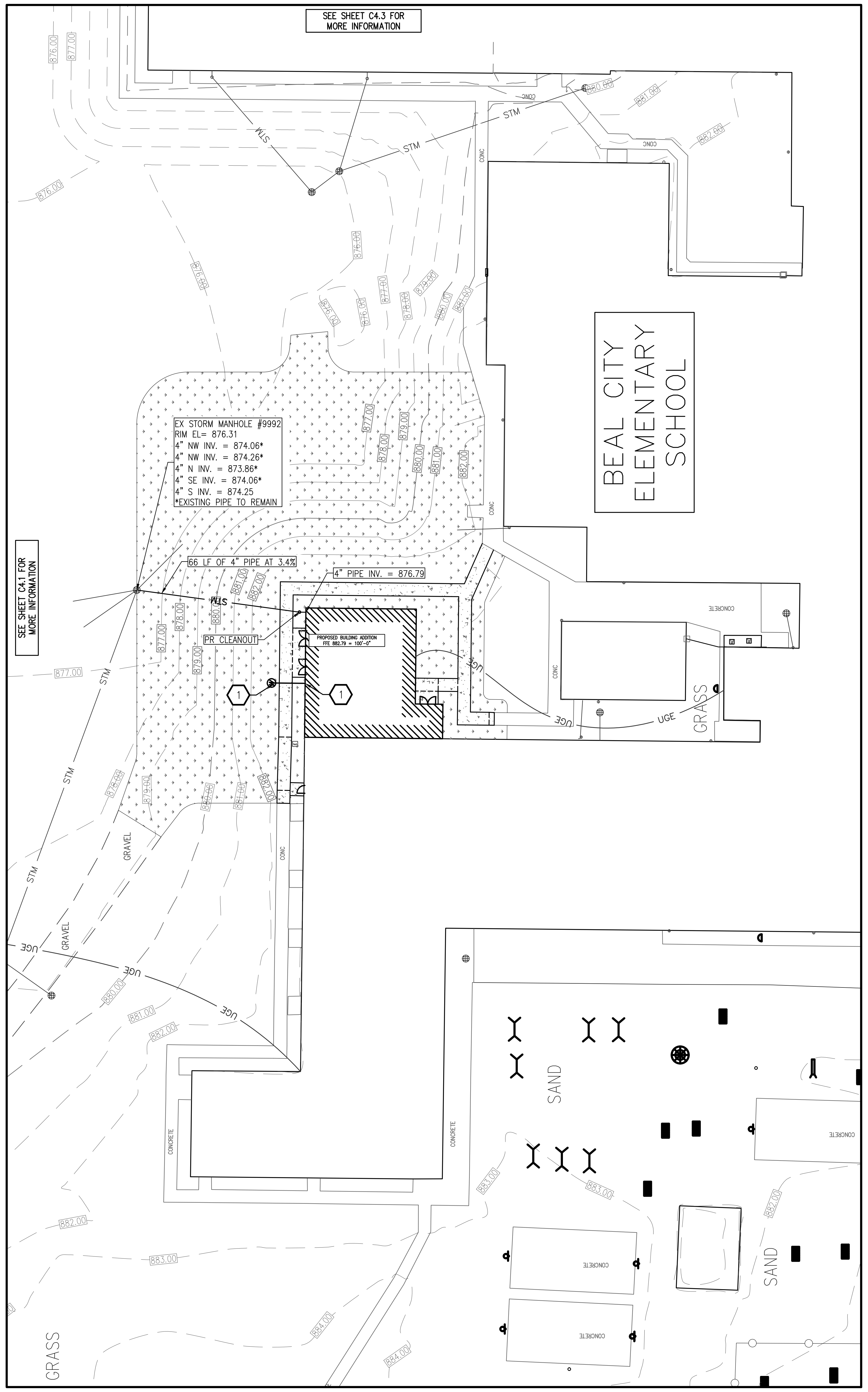
UTILITY PLAN

C4.1



UTILITY PLAN

SCALE: 1 INCH = 30 FEET

N

GRAPHIC SCALE: 1 inch = 30 feet

0 15 30 60 90

⬡ KEYNOTES ⬡

– SEE CURRENT MDOT SPECIFICATIONS FOR MATERIALS AND INSTALLATION REQUIREMENTS UNLESS OTHERWISE SPECIFIED –

1. INSTALL 2 INCH WATER LINE TO CONNECT PROPOSED WELL. COORDINATE WITH THE PLUMBING CONTRACTOR. SEE DETAIL SHEET AND PLUMBING PLANS.

ALL KEYNOTES ARE SPECIFIC TO THAT SHEET ONLY

LEGEND

▨ PROPOSED CONCRETE

▨ PROPOSED TURF RESTORATION

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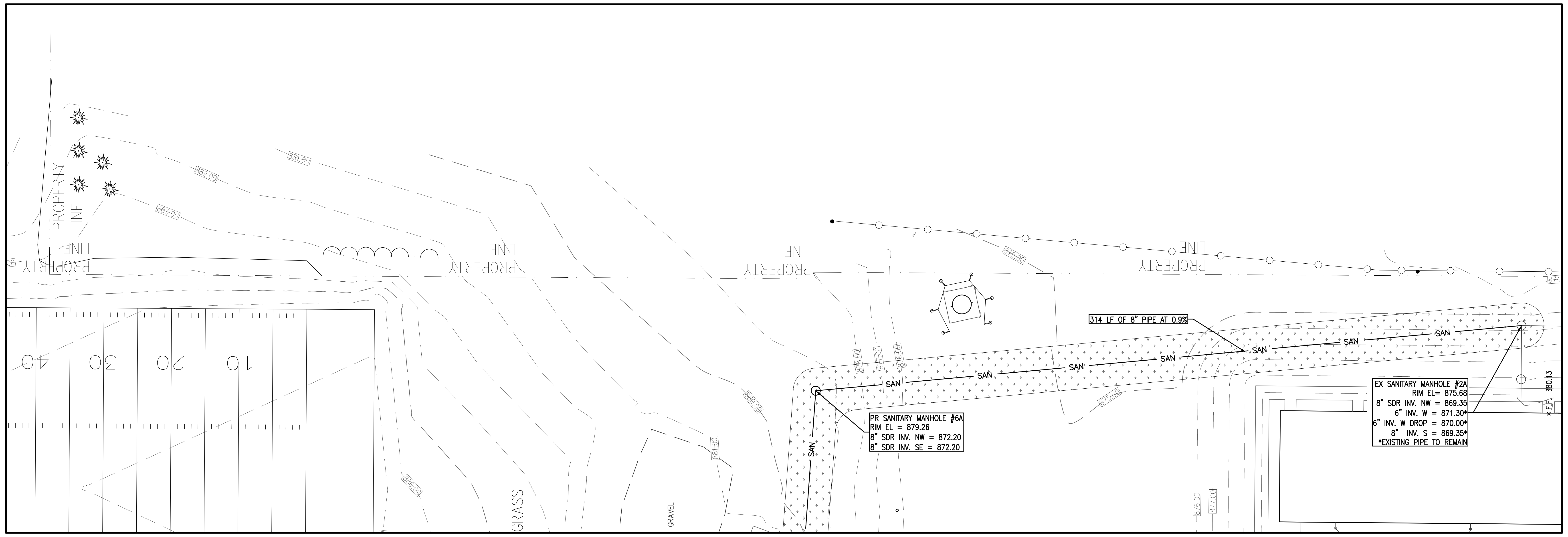
UTILITY PLAN



SEE SHEET C4.1 FOR MORE INFORMATION

SEE SHEET C4.2 FOR MORE INFORMATION

UTILITY PLAN

SCALE: 1 INCH = 30 FEET

N

GRAPHIC SCALE: 1 inch = 30 feet

0 15 30 60 90

LEGEND

▨ PROPOSED TURF RESTORATION

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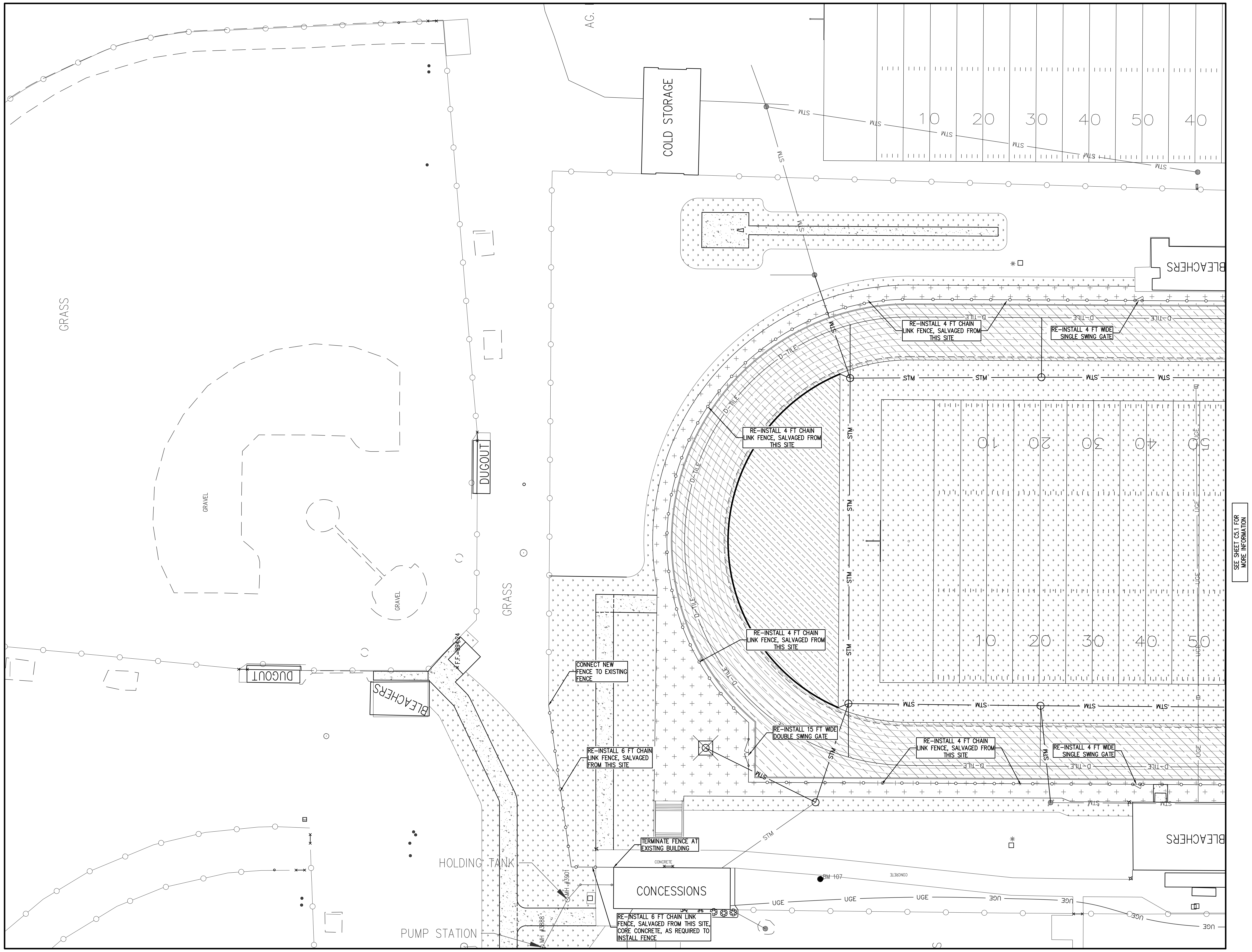
UTILITY PLAN

C4.3


COLD STORAGE
AG.
GRASS
GRAVEL
DUGOUT
BLEACHERS
F.F.=894.24
HOLDING TANK
PUMP STATION
MH #3901
MH #3888
CONCESSIONS
CONCRETE
BM 107
STM
UGE
D-TILE
10
20
30
40
50
RE-INSTALL 4 FT CHAIN LINK FENCE, SALVAGED FROM THIS SITE
RE-INSTALL 4 FT WIDE SINGLE SWING GATE
RE-INSTALL 4 FT CHAIN LINK FENCE, SALVAGED FROM THIS SITE
RE-INSTALL 4 FT CHAIN LINK FENCE, SALVAGED FROM THIS SITE
CONNECT NEW FENCE TO EXISTING FENCE
RE-INSTALL 15 FT WIDE DOUBLE SWING GATE
RE-INSTALL 4 FT CHAIN LINK FENCE, SALVAGED FROM THIS SITE
RE-INSTALL 4 FT WIDE SINGLE SWING GATE
RE-INSTALL 6 FT CHAIN LINK FENCE, SALVAGED FROM THIS SITE
TERMINATE FENCE AT EXISTING BUILDING
RE-INSTALL 6 FT CHAIN LINK FENCE, SALVAGED FROM THIS SITE, CORE CONCRETE, AS REQUIRED TO INSTALL FENCE
SEE SHEET C5.1 FOR MORE INFORMATION

FENCING PLAN

SCALE: 1 INCH = 30 FEET

N

GRAPHIC SCALE: 1 inch = 30 feet
0 15 30 60 90

LEGEND

▨ PROPOSED CONCRETE	▨ PROPOSED NON-TRACK WALKING PATH HMA
▨ PROPOSED TRACK HMA	▨ PROPOSED TURF RESTORATION

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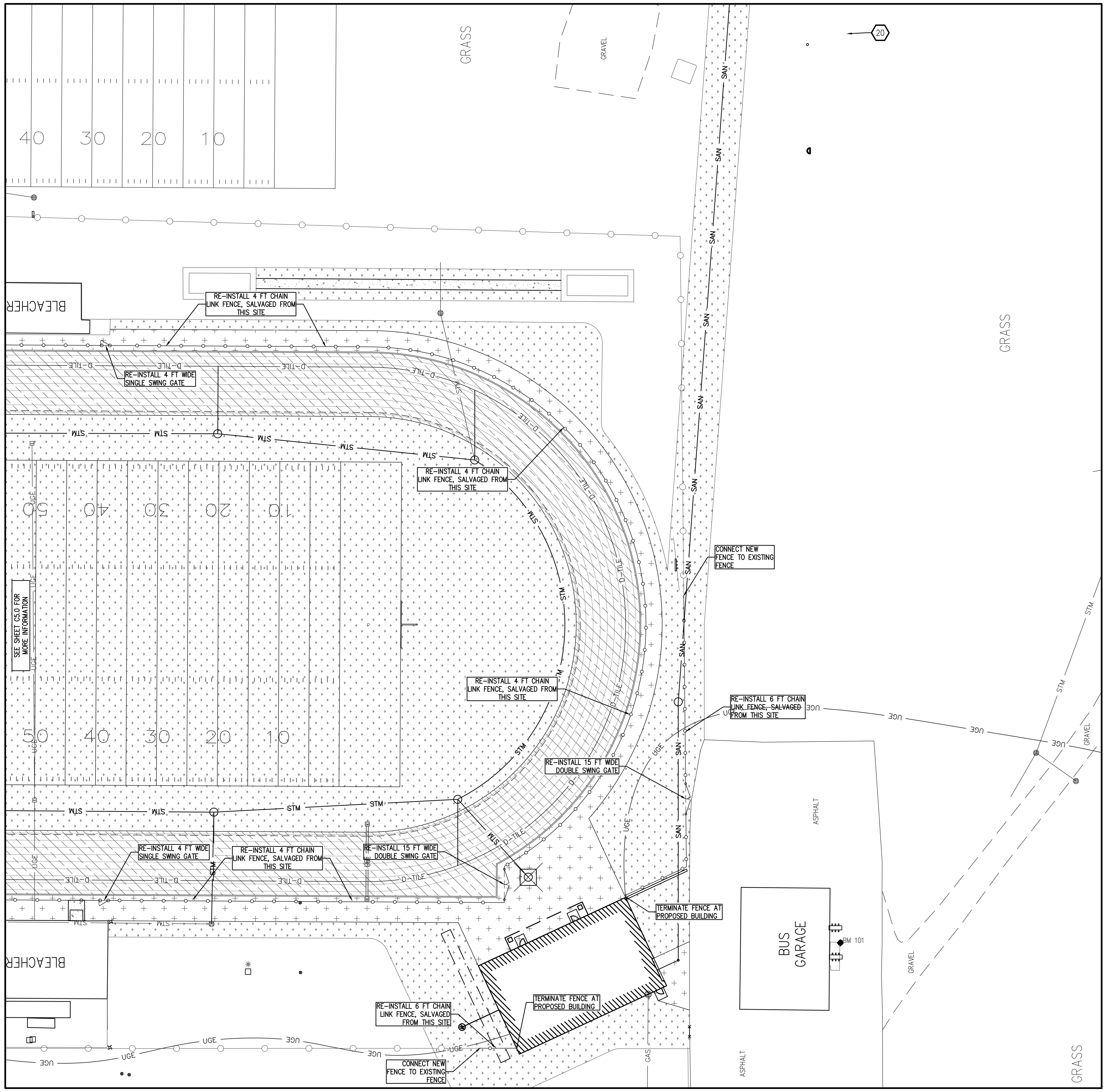
APPROVED	ADM	

FENCING PLAN

C5.0


RE-INSTALL 4 FT CHAIN LINK FENCE, SALVAGED FROM THIS SITE
RE-INSTALL 4 FT WIDE SINGLE SWING GATE
RE-INSTALL 4 FT CHAIN LINK FENCE, SALVAGED FROM THIS SITE
CONNECT NEW FENCE TO EXISTING FENCE
RE-INSTALL 4 FT CHAIN LINK FENCE, SALVAGED FROM THIS SITE
RE-INSTALL 6 FT CHAIN LINK FENCE, SALVAGED FROM THIS SITE
RE-INSTALL 15 FT WIDE DOUBLE SWING GATE
RE-INSTALL 4 FT WIDE SINGLE SWING GATE
RE-INSTALL 4 FT CHAIN LINK FENCE, SALVAGED FROM THIS SITE
RE-INSTALL 15 FT WIDE DOUBLE SWING GATE
TERMINATE FENCE AT PROPOSED BUILDING
TERMINATE FENCE AT PROPOSED BUILDING
RE-INSTALL 6 FT CHAIN LINK FENCE, SALVAGED FROM THIS SITE
CONNECT NEW FENCE TO EXISTING FENCE
SEE SHEET C5.0 FOR MORE INFORMATION
BLEACHER
BLEACHER
BUS GARAGE
BM 101
GRASS
GRAVEL
ASPHALT
SAN
STM
UGE
D-TILE
GAS
20
50 40 30 20 10
40 30 20 10

FENCING PLAN

SCALE: 1 INCH = 30 FEET

GRAPHIC SCALE: 1 inch = 30 feet

0 15 30 60 90

N

LEGEND

▨ PROPOSED CONCRETE	▨ PROPOSED NON-TRACK WALKING PATH HMA
▨ PROPOSED TRACK HMA	▨ PROPOSED TURF RESTORATION

MISS DIG 811.
Know what's below.
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BEAL CITY PUBLIC SCHOOLS
2024 BOND PROJECT
MT. PLEASANT, MICHIGAN
PROJECT NO. 22-037

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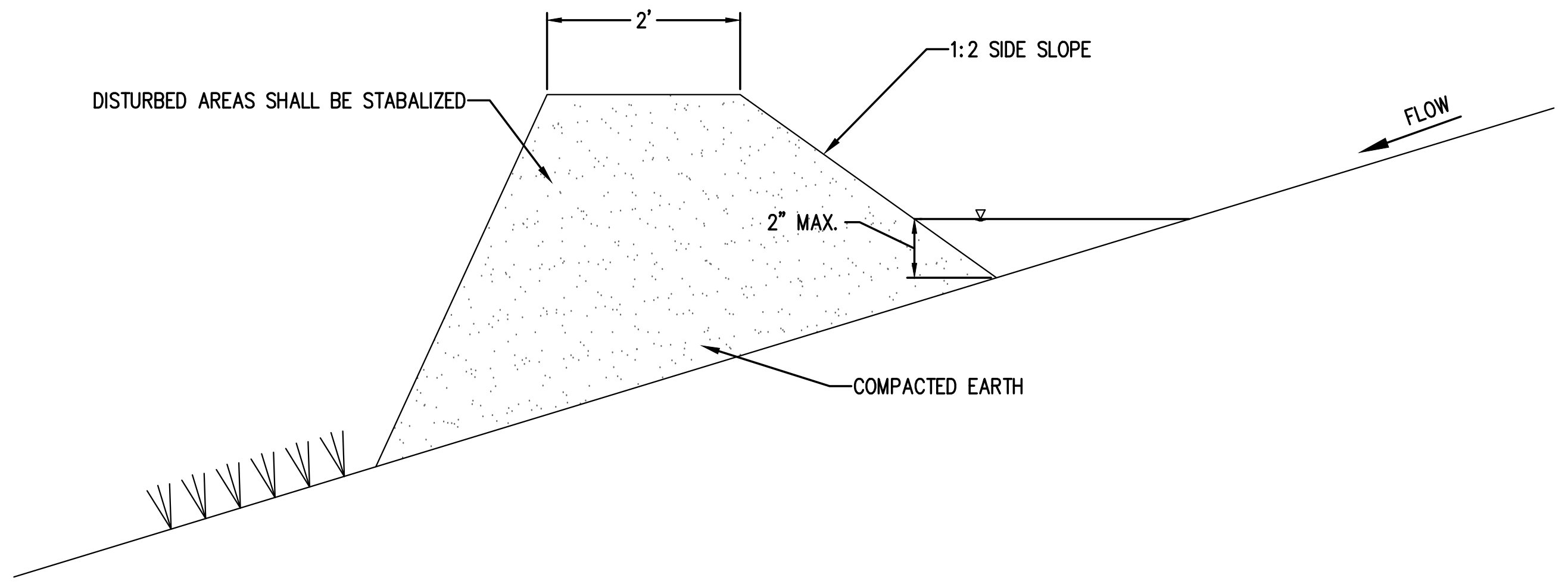
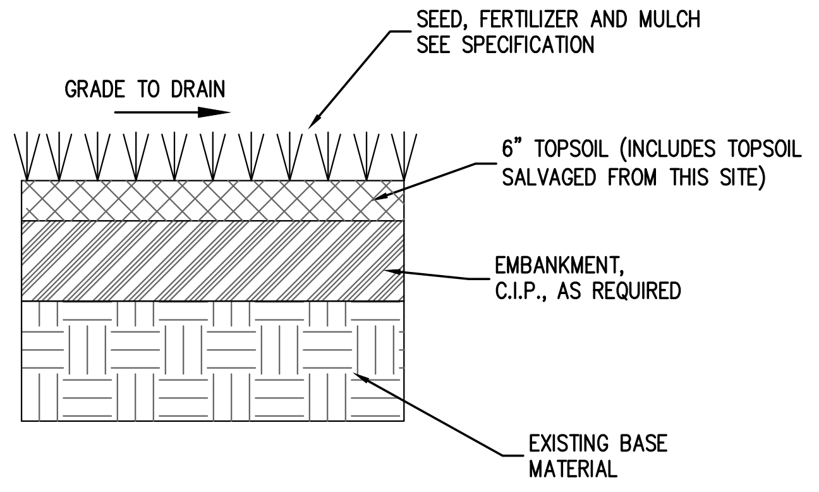
CHECKED	BLK	
APPROVED	ADM	

FENCING PLAN

C5.1



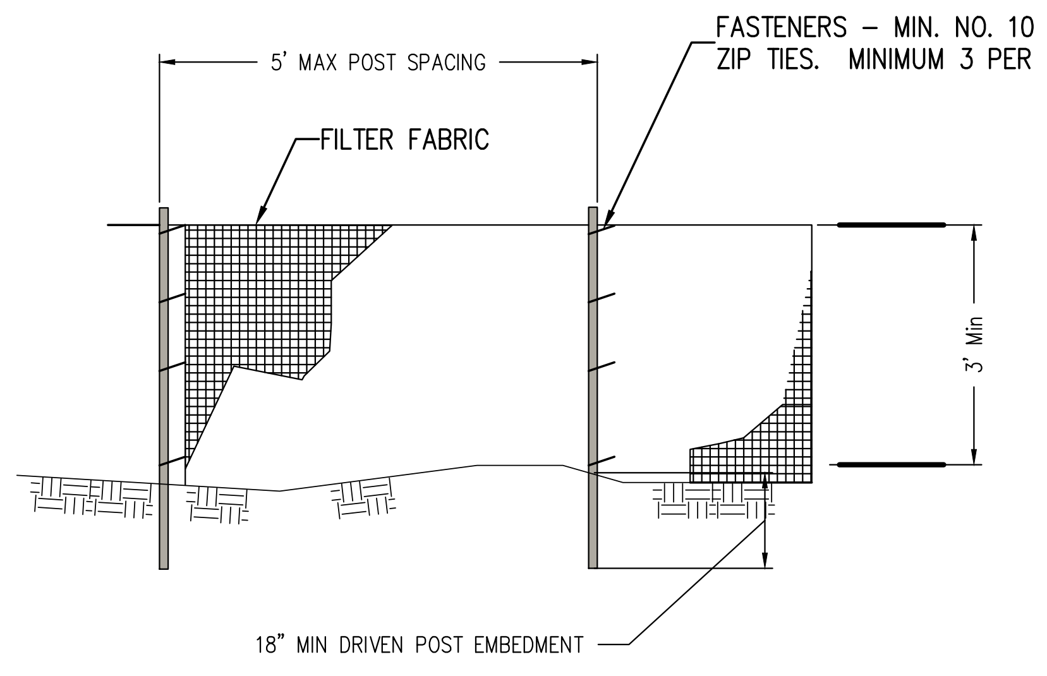
DIVERSION BERM DETAIL
NO SCALE


SEED, FERTILIZER AND MULCH SEE SPECIFICATION
GRADE TO DRAIN
6" TOPSOIL (INCLUDES TOPSOIL SALVAGED FROM THIS SITE)
EMBANKMENT, C.I.P., AS REQUIRED
EXISTING BASE MATERIAL

TURF RESTORATION DETAIL
NOT TO SCALE

NOTE: ON SLOPES EXCEEDING 1%, STABILIZATION SHALL BE ACCOMPLISHED WITH SEED AND STRAW MULCH WITH A TACKIFIER OR STRAW BLANKETS PEGGED IN PLACE.

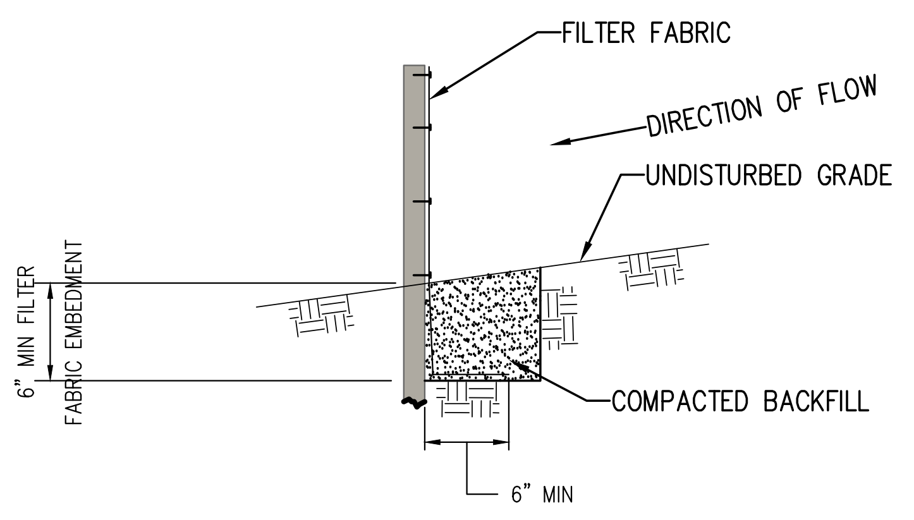
SEEDING RATE = 210 LBS PER ACRE MINIMUM
FERTILIZER RATE = 150 LBS PER ACRE MINIMUM
MULCHING RATE = MINIMUM 3" DEPTH (1.5 – 2.0 TONS PER ACRE)


5' MAX POST SPACING
FASTENERS – MIN. NO. 10 GAGE WIRE OR 50 LB PLASTIC ZIP TIES. MINIMUM 3 PER POST
FILTER FABRIC
3' Min
18" MIN DRIVEN POST EMBEDMENT

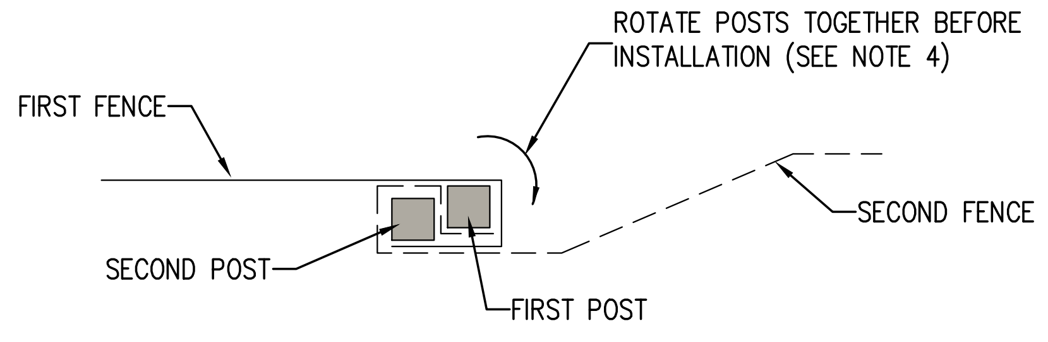
ELEVATION

NOTES:
1. TEMPORARY SILT FENCE SHALL BE INSTALLED PRIOR TO ANY GRADING WORK IN THE AREA TO BE PROTECTED. FENCE SHALL BE MAINTAINED THROUGHOUT THE CONSTRUCTION PERIOD AND REMOVED IN CONJUNCTION WITH THE FINAL GRADING AND SITE STABILIZATION.
2. FILTER FABRIC SHALL MEET THE REQUIREMENTS OF MATERIAL SPECIFICATION 592 GEOTEXTILE TABLE 1 OR 2, CLASS L WITH EQUIVALENT OPENING SIZE OF AT LEAST 30 FOR NONWOVEN AND 50 FOR WOVEN.
3. FENCE POSTS SHALL BE EITHER WOOD POST WITH A MINIMU CROSS–SECTIONAL AREA OF 1.5" X 1.5" OR A STANDARD STEEL POST.
4. WHEN SPLICES ARE NECESSARY MAKE SPLICE AT POST ACCORDING TO SPLICE DETAIL. PLACE THE END POST OF THE SECOND FENCE INSIDE THE END POST OF THE FIRST FENCE. ROTATE BOTH POSTS TOGETHER AT LEAST 180 DEGREES TO CREATE A TIGHT SEAL WITH THE FABRIC MATERIAL. CUT THE FABRIC NEAR THE BOTTOM OF THE POSTS TO ACCOMMODATE THE 6 INCH FLAP. THEN DRIVE BOTH POSTS AND BURY THE FLAP. COMPACT BACKFILL WELL.

DETAIL MODIFIED FROM NRCS–IL STANDARD DRAWING NRCS141P2_029360

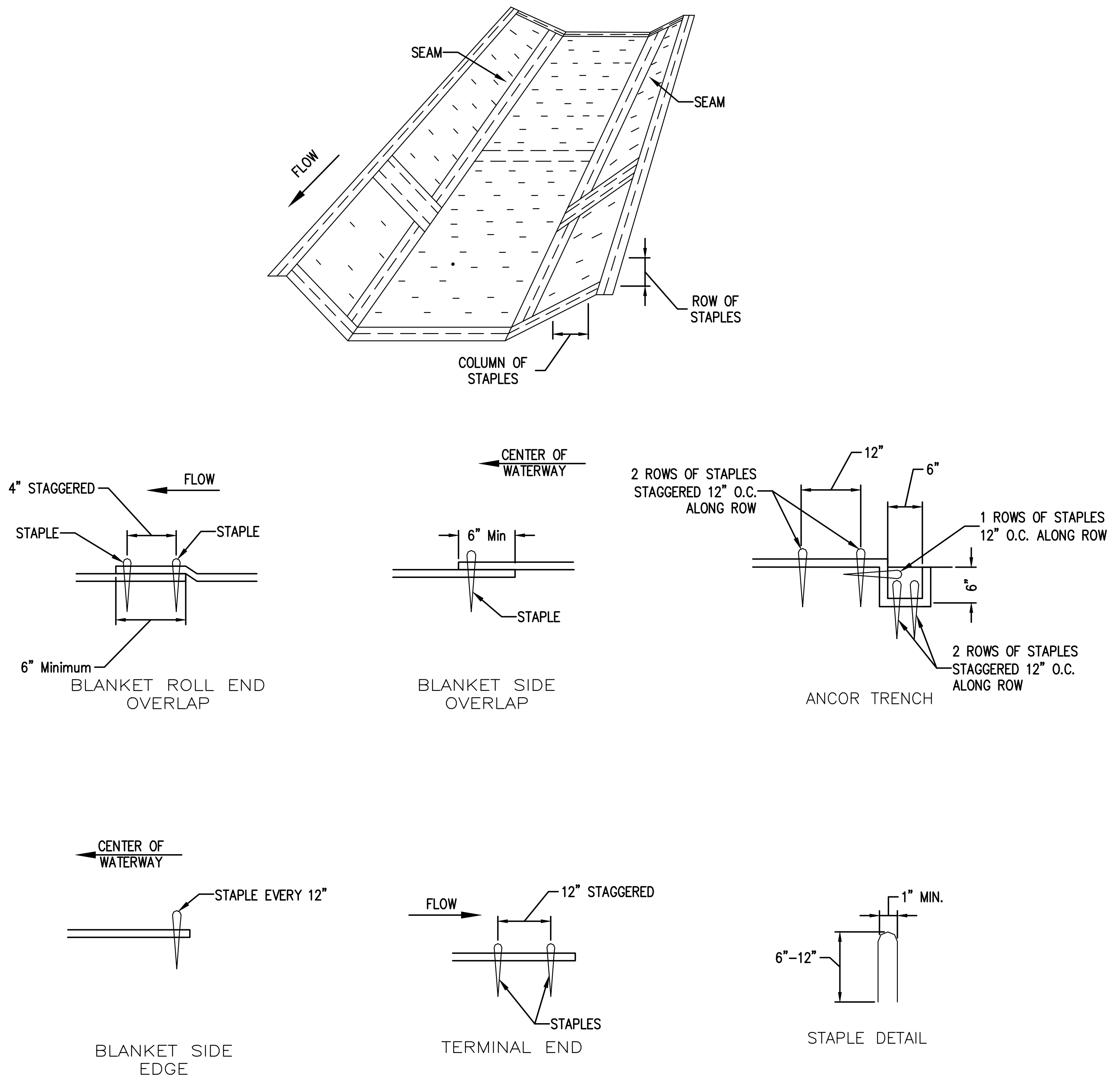


FABRIC ANCHOR DETAIL

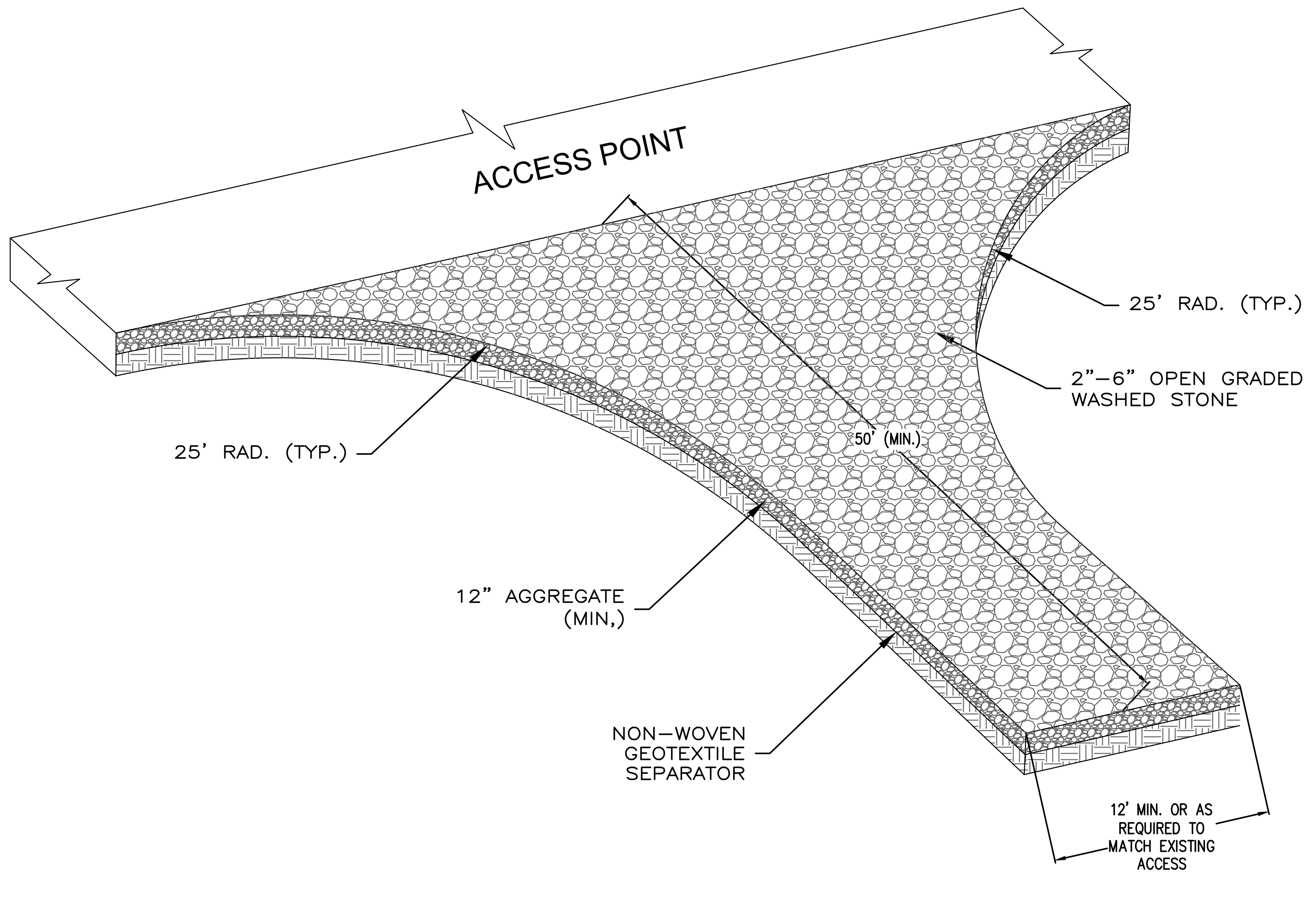


SPLICE DETAIL–PLAN VIEW

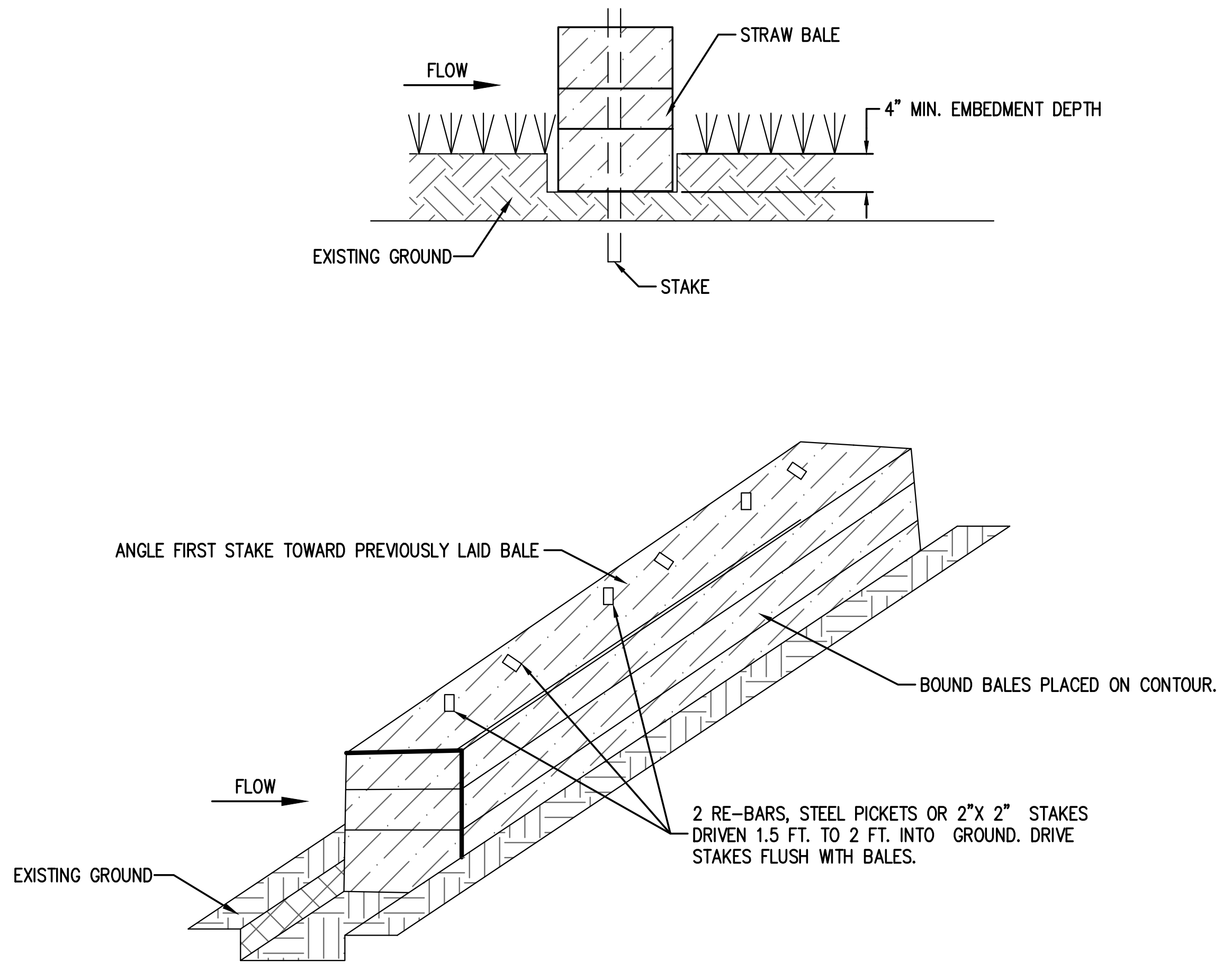
SILT FENCE INSTALLATION DETAIL
NOT TO SCALE



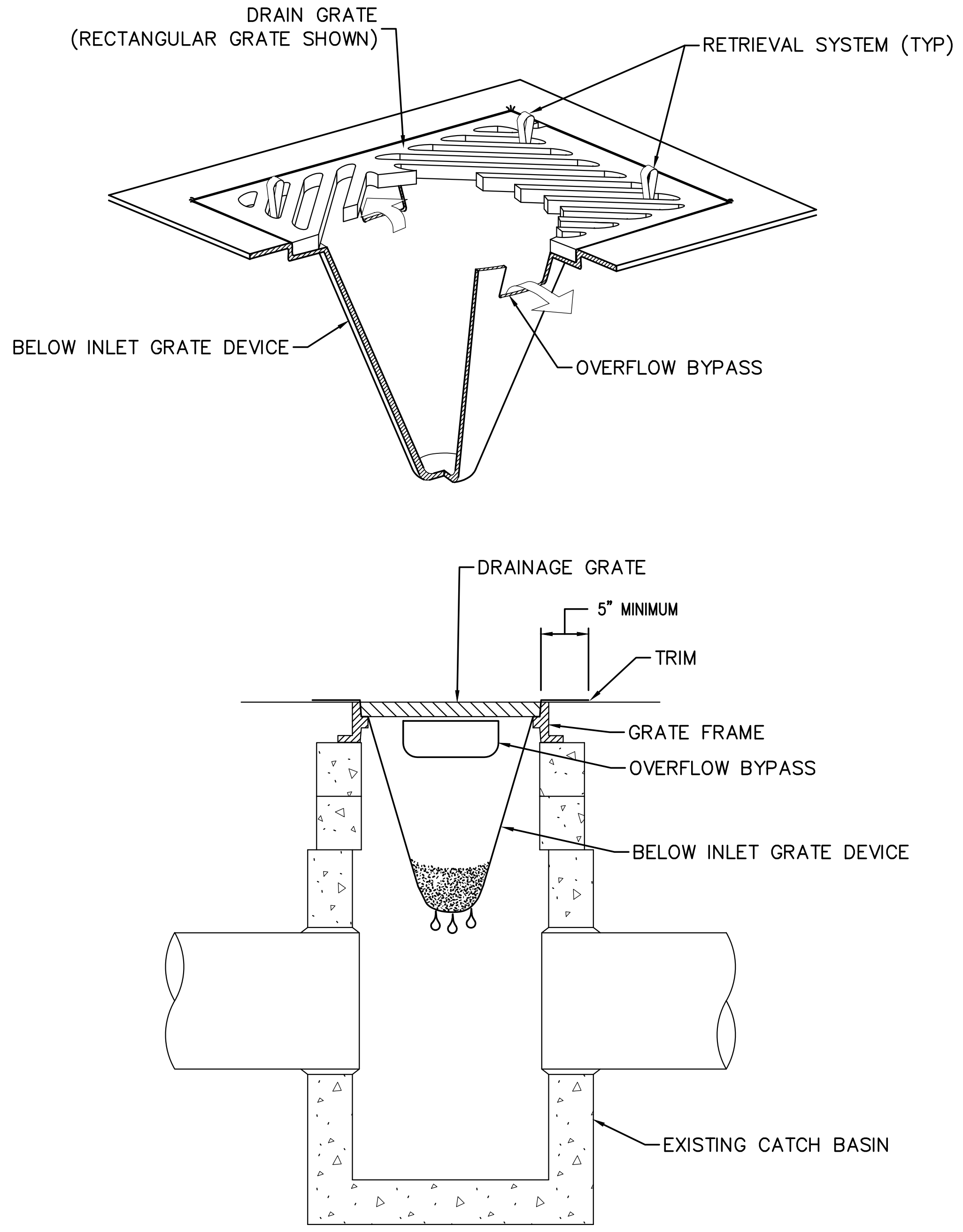
EROSION CONTROL BLANKET DETAIL
NO SCALE


ACCESS POINT
25' RAD. (TYP.)
2"–6" OPEN GRADED WASHED STONE
25' RAD. (TYP.)
50' (MIN.)
12" AGGREGATE (MIN,)
NON–WOVEN GEOTEXTILE SEPARATOR
12' MIN. OR AS REQUIRED TO MATCH EXISTING ACCESS

STABILIZED CONSTRUCTION ENTRANCE DETAIL
NOT TO SCALE


FLOW
STRAW BALE
4" MIN. EMBEDMENT DEPTH
EXISTING GROUND
STAKE
ANGLE FIRST STAKE TOWARD PREVIOUSLY LAID BALE
BOUND BALES PLACED ON CONTOUR.
FLOW
2 RE–BARS, STEEL PICKETS OR 2"X 2" STAKES DRIVEN 1.5 FT. TO 2 FT. INTO GROUND. DRIVE STAKES FLUSH WITH BALES.
EXISTING GROUND

STRAW BALE DETAIL
NO SCALE



INLET PROTECTION FABRIC DROP
NOT TO SCALE

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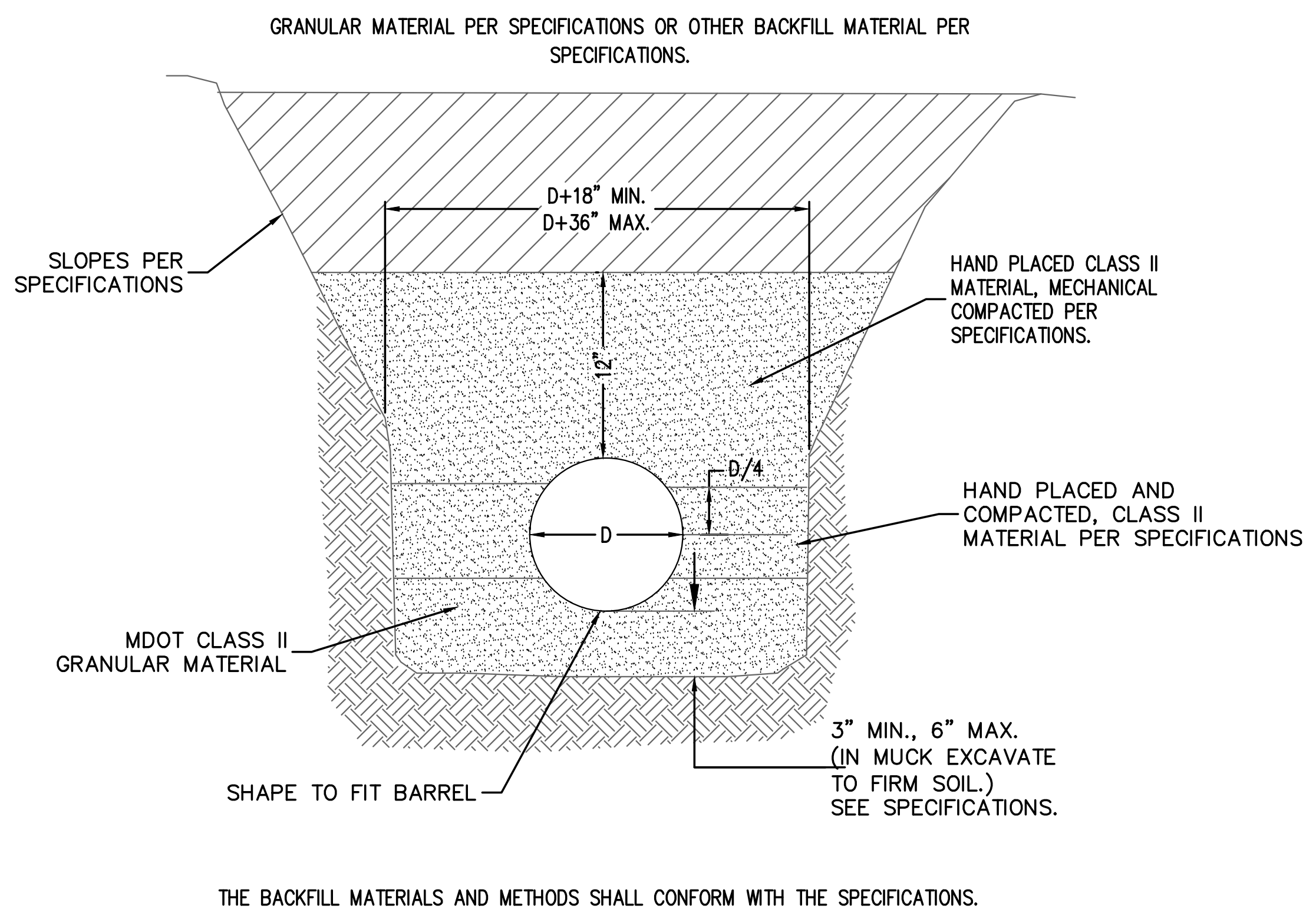
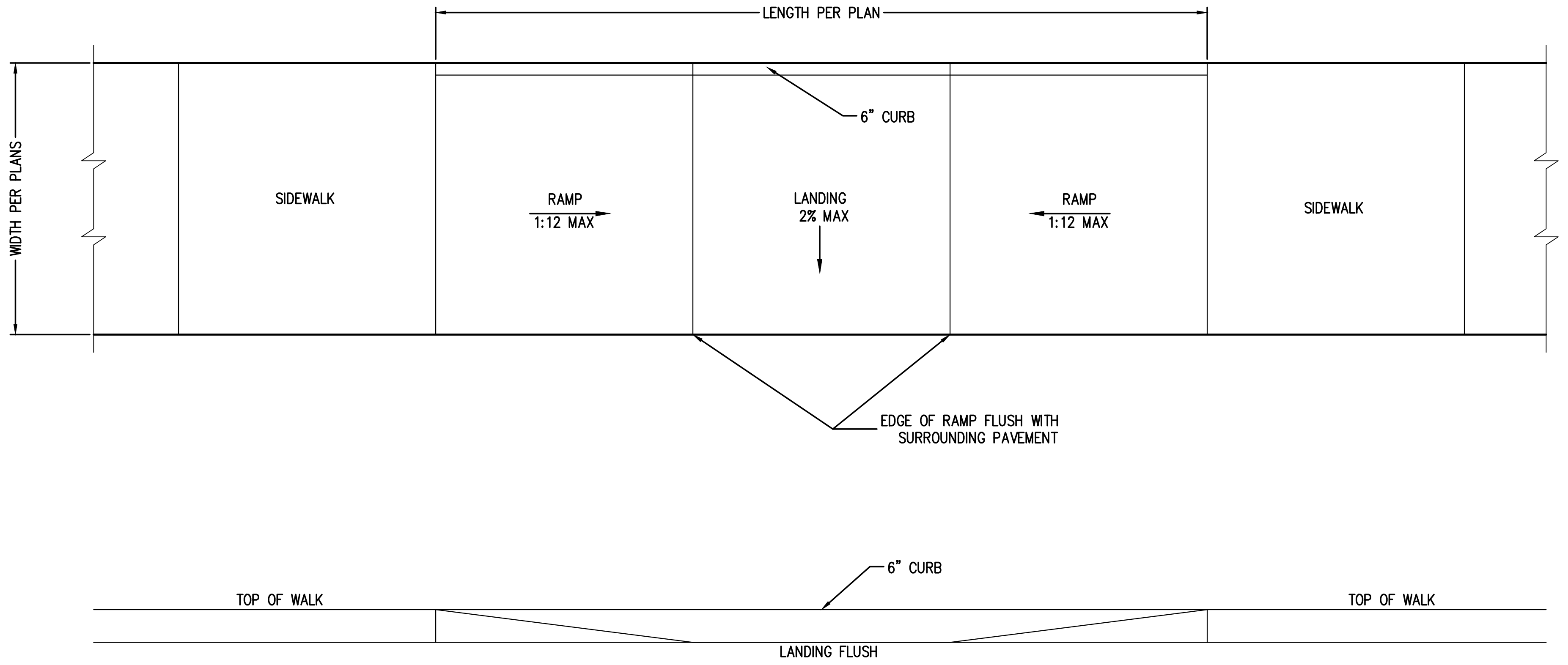
SITE DETAILS

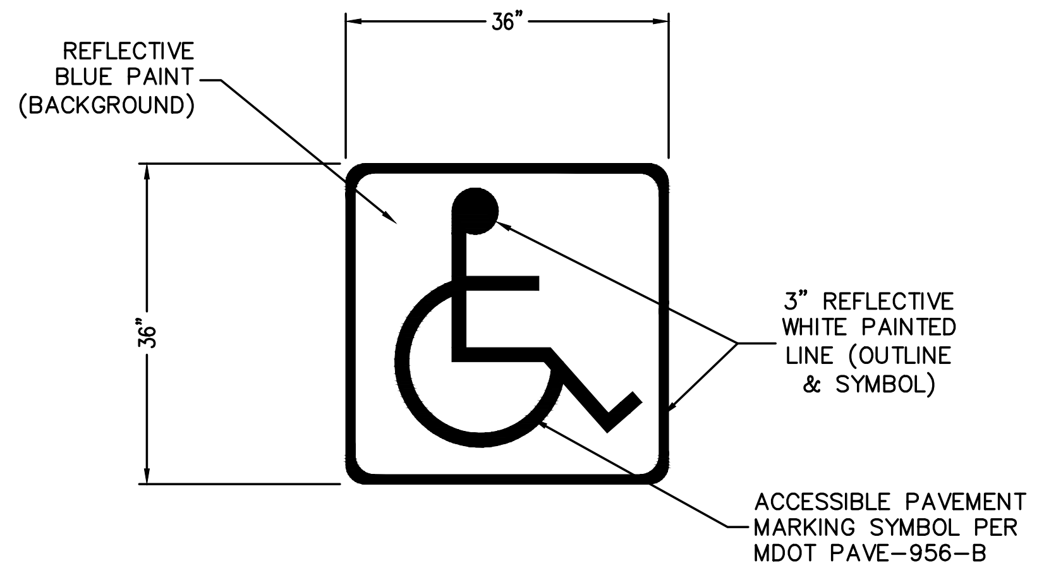
C6.0


GRANULAR MATERIAL PER SPECIFICATIONS OR OTHER BACKFILL MATERIAL PER SPECIFICATIONS.
SLOPES PER SPECIFICATIONS
D+18" MIN.
D+36" MAX.
12"
HAND PLACED CLASS II MATERIAL, MECHANICAL COMPACTED PER SPECIFICATIONS.
D/4
D
HAND PLACED AND COMPACTED, CLASS II MATERIAL PER SPECIFICATIONS
MDOT CLASS II GRANULAR MATERIAL
SHAPE TO FIT BARREL
3" MIN., 6" MAX. (IN MUCK EXCAVATE TO FIRM SOIL.) SEE SPECIFICATIONS.
THE BACKFILL MATERIALS AND METHODS SHALL CONFORM WITH THE SPECIFICATIONS.

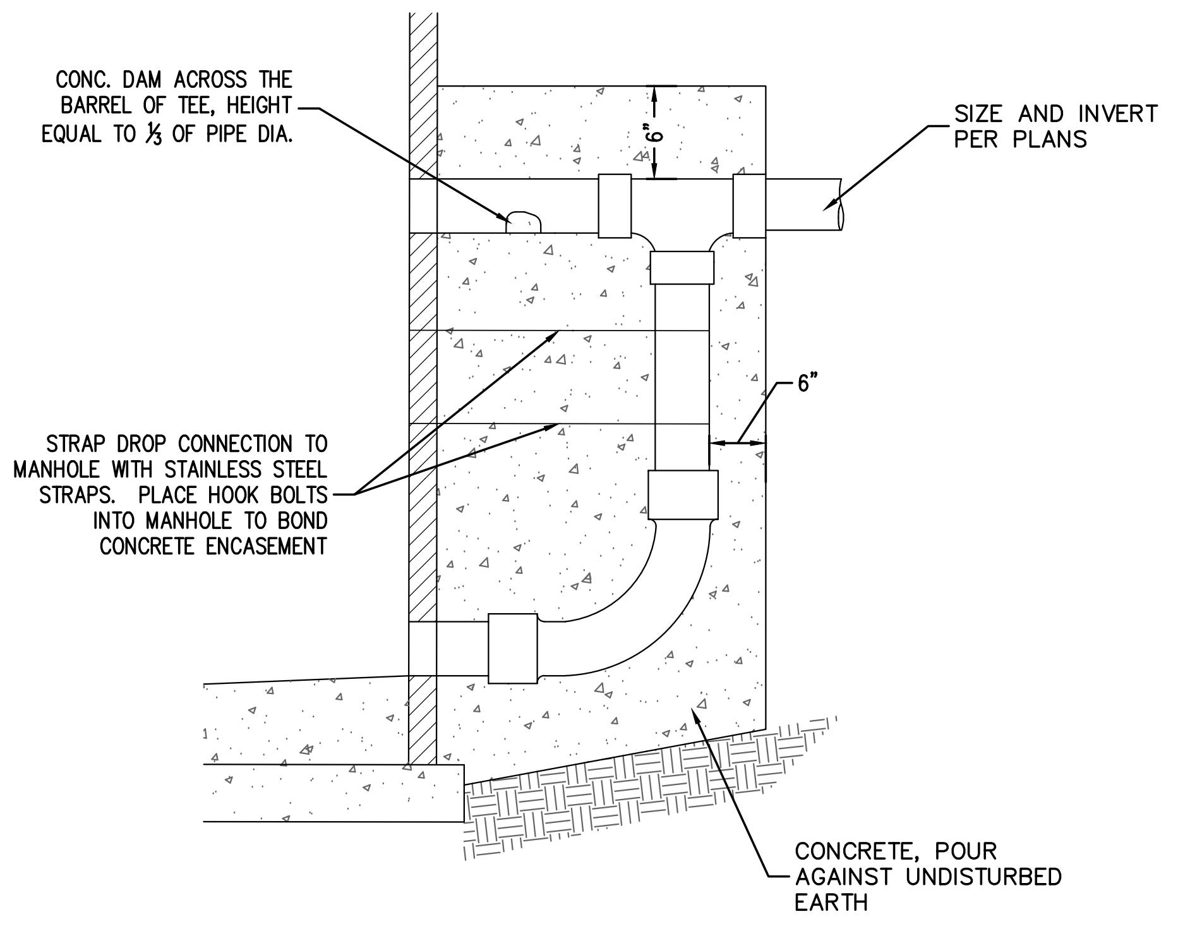
UTILITY TRENCH
NOT TO SCALE



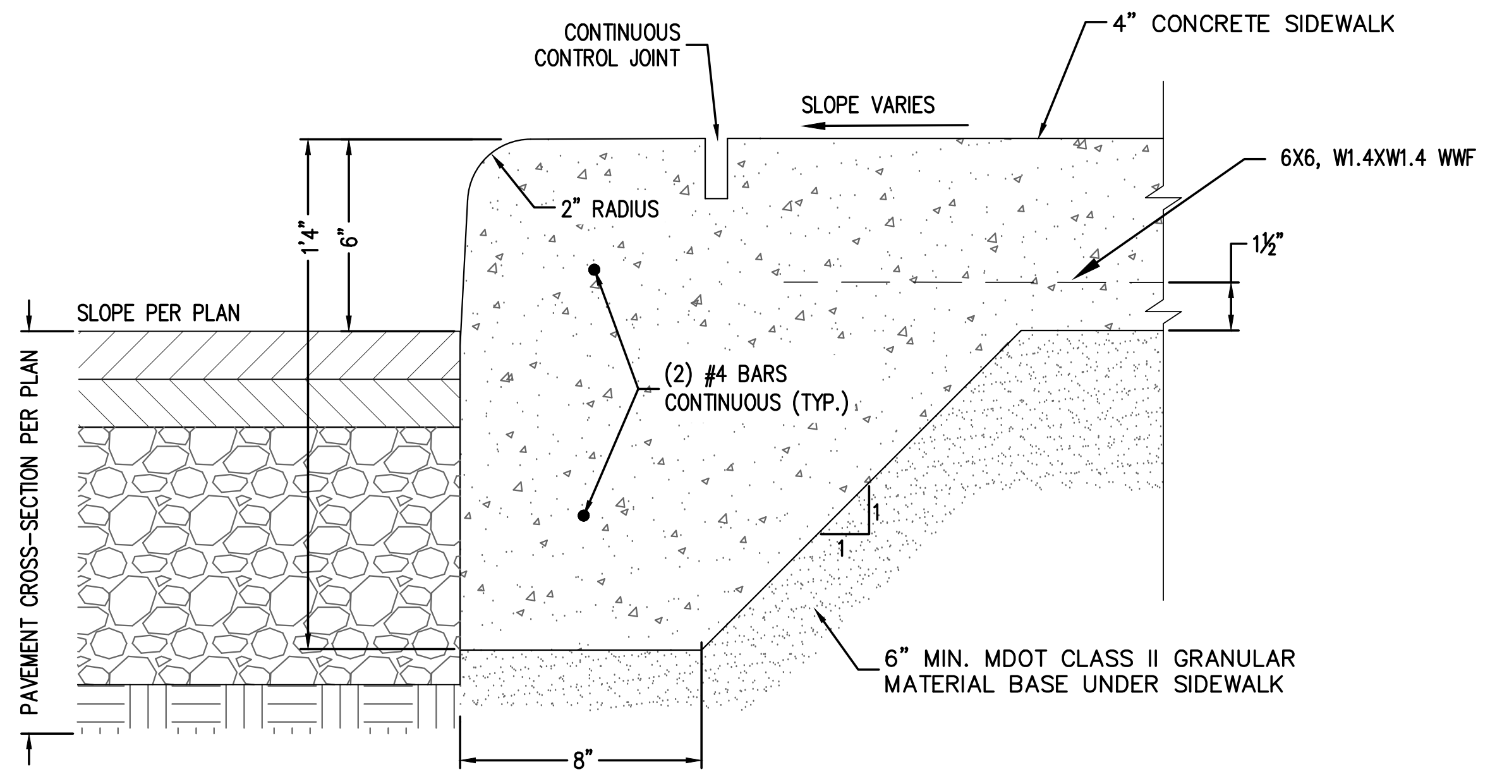
BARRIER FREE RAMP DETAIL
NOT TO SCALE


36"
REFLECTIVE BLUE PAINT (BACKGROUND)
36"
3" REFLECTIVE WHITE PAINTED LINE (OUTLINE & SYMBOL)
ACCESSIBLE PAVEMENT MARKING SYMBOL PER MDOT PAVE-956-B

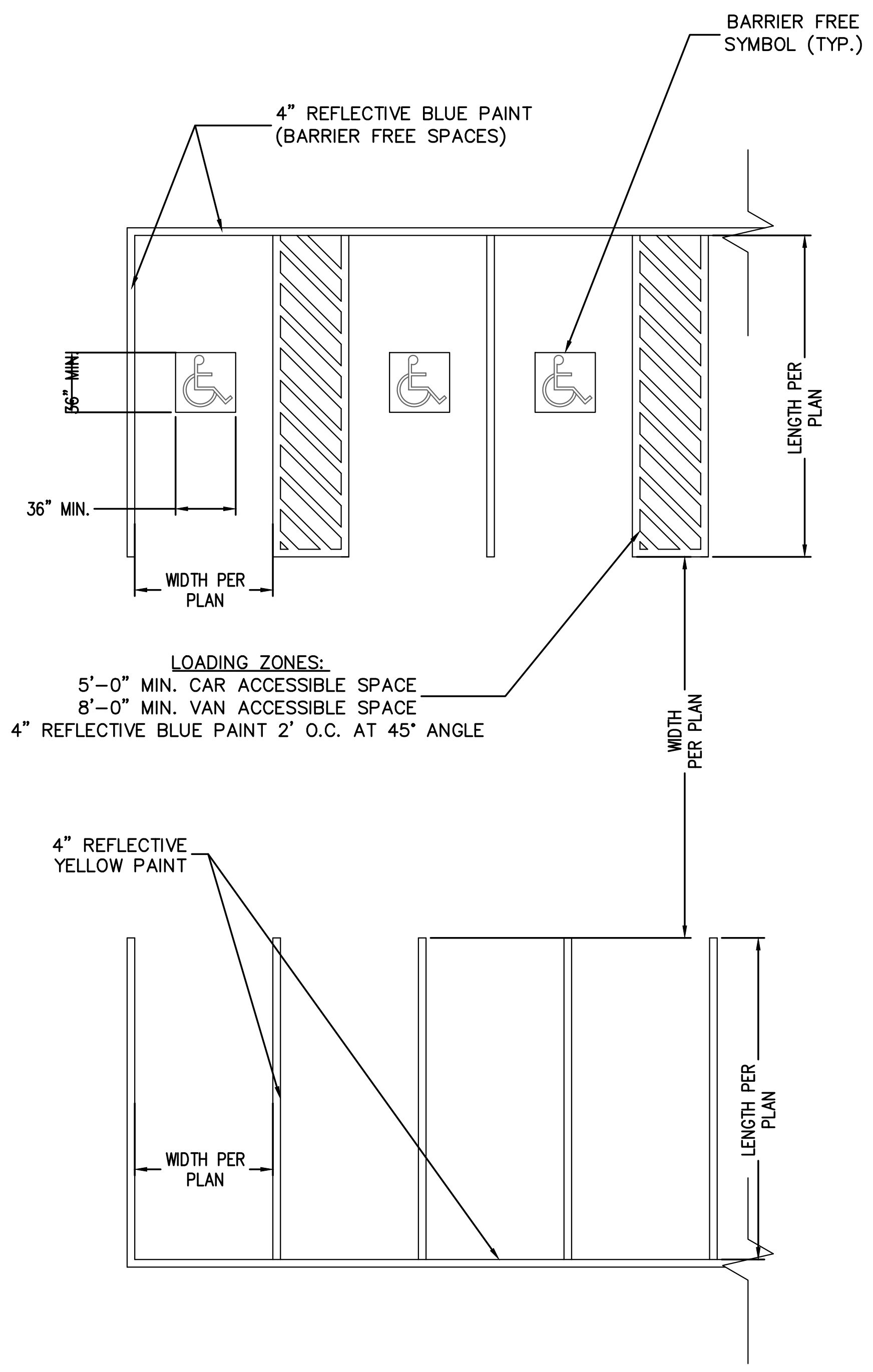
ACCESSIBLE PAVEMENT MARKING SYMBOL
NOT TO SCALE


CONC. DAM ACROSS THE BARREL OF TEE, HEIGHT EQUAL TO ⅓ OF PIPE DIA.
6"
SIZE AND INVERT PER PLANS
6"
STRAP DROP CONNECTION TO MANHOLE WITH STAINLESS STEEL STRAPS. PLACE HOOK BOLTS INTO MANHOLE TO BOND CONCRETE ENCASEMENT
CONCRETE, POUR AGAINST UNDISTURBED EARTH

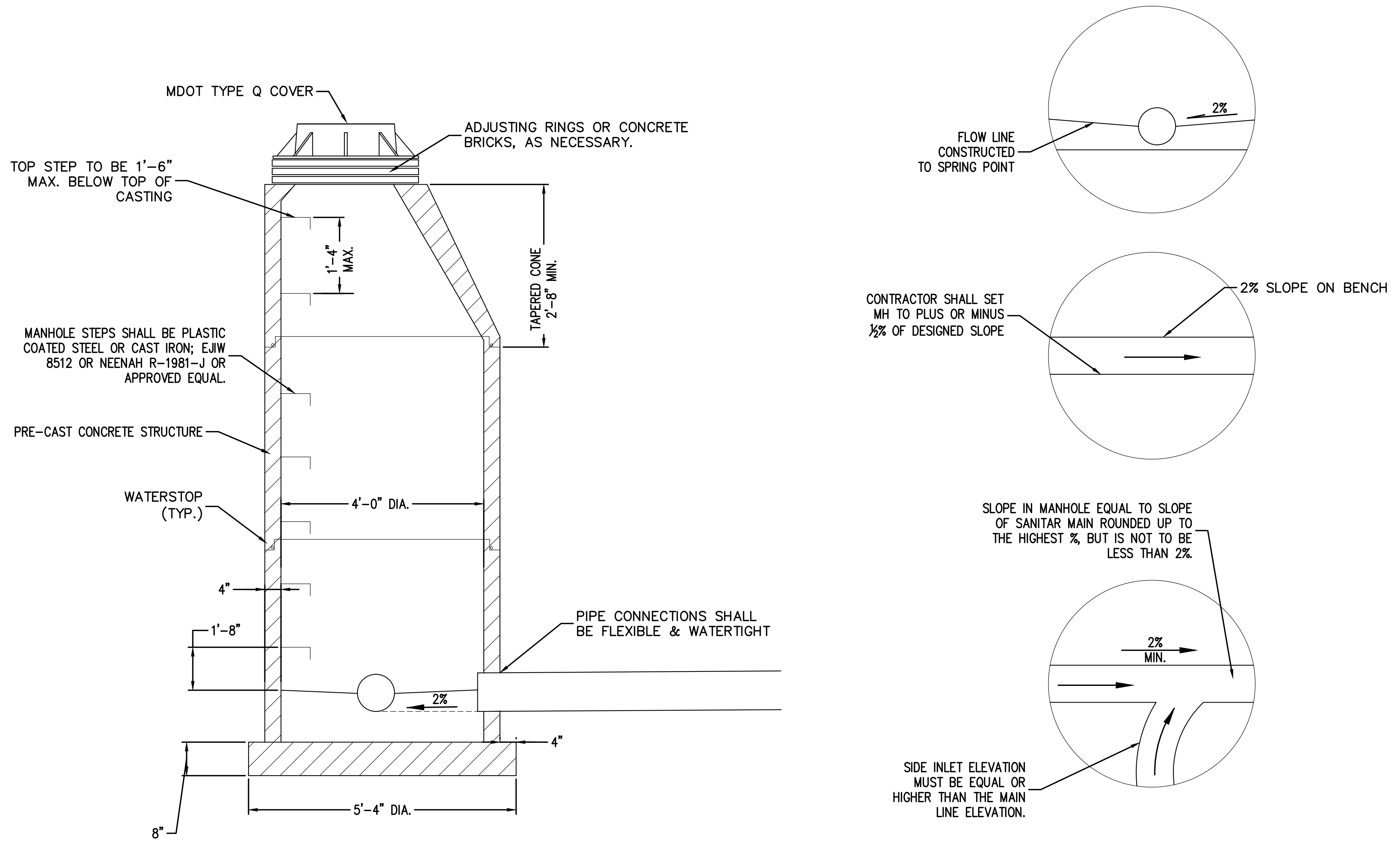
SANITARY EXTERNAL DROP CONNECTION
NOT TO SCALE


CONTINUOUS CONTROL JOINT
4" CONCRETE SIDEWALK
SLOPE VARIES
6X6, W1.4XW1.4 WWF
2" RADIUS
1'4"
6"
1½"
SLOPE PER PLAN
PAVEMENT CROSS-SECTION PER PLAN
(2) #4 BARS CONTINUOUS (TYP.)
1
1
6" MIN. MDOT CLASS II GRANULAR MATERIAL BASE UNDER SIDEWALK
8"

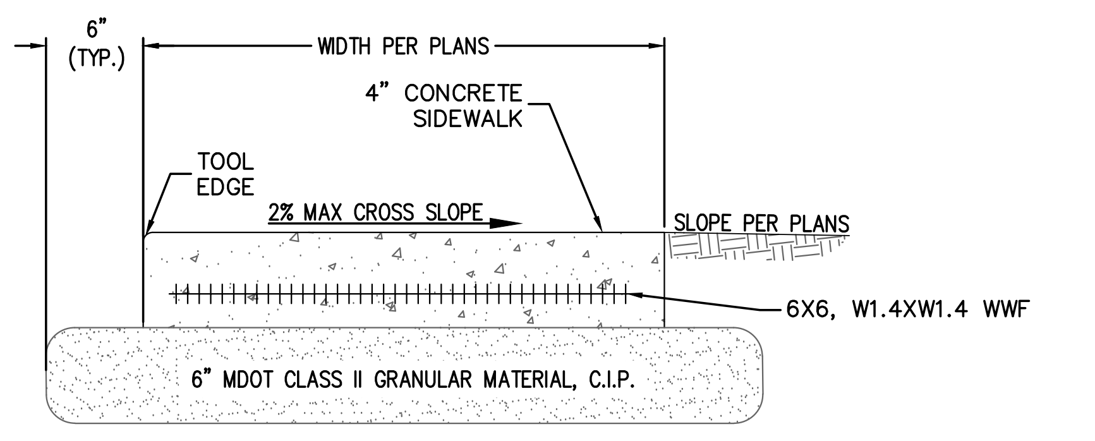
SIDEWALK WITH INTEGRAL CURB DETAIL
NOT TO SCALE


BARRIER FREE SYMBOL (TYP.)
4" REFLECTIVE BLUE PAINT (BARRIER FREE SPACES)
36" MIN.
36" MIN.
WIDTH PER PLAN
LENGTH PER PLAN
LOADING ZONES:
5'-0" MIN. CAR ACCESSIBLE SPACE
8'-0" MIN. VAN ACCESSIBLE SPACE
4" REFLECTIVE BLUE PAINT 2' O.C. AT 45° ANGLE
WIDTH PER PLAN
4" REFLECTIVE YELLOW PAINT
WIDTH PER PLAN
LENGTH PER PLAN

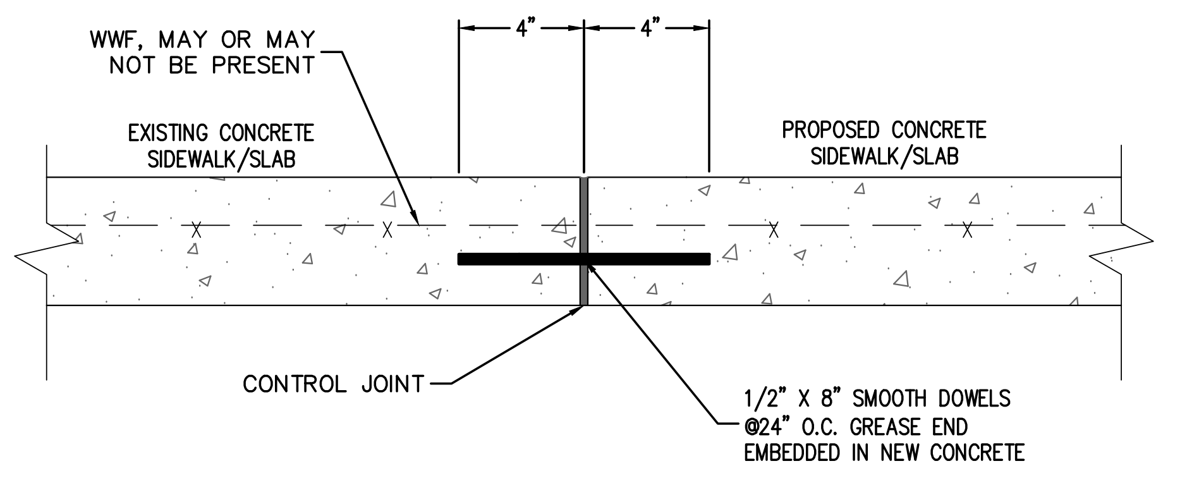
TYPICAL PARKING LOT STRIPING DETAILS
NOT TO SCALE


MDOT TYPE Q COVER
ADJUSTING RINGS OR CONCRETE BRICKS, AS NECESSARY.
TOP STEP TO BE 1'-6" MAX. BELOW TOP OF CASTING
1'-4" MAX.
TAPERED CONE 2'-8" MIN.
MANHOLE STEPS SHALL BE PLASTIC COATED STEEL OR CAST IRON; EJIW 8512 OR NEENAH R-1981-J OR APPROVED EQUAL.
PRE-CAST CONCRETE STRUCTURE
WATERSTOP (TYP.)
4'-0" DIA.
4"
1'-8"
PIPE CONNECTIONS SHALL BE FLEXIBLE & WATERTIGHT
2%
4"
5'-4" DIA.
8"
FLOW LINE CONSTRUCTED TO SPRING POINT
2%
CONTRACTOR SHALL SET MH TO PLUS OR MINUS ½% OF DESIGNED SLOPE
2% SLOPE ON BENCH
SLOPE IN MANHOLE EQUAL TO SLOPE OF SANITAR MAIN ROUNDED UP TO THE HIGHEST %, BUT IS NOT TO BE LESS THAN 2%.
2% MIN.
SIDE INLET ELEVATION MUST BE EQUAL OR HIGHER THAN THE MAIN LINE ELEVATION.

STANDARD CONCRETE MANHOLE
NOT TO SCALE



4" CONCRETE SIDEWALK
NOT TO SCALE


WWF, MAY OR MAY NOT BE PRESENT
4"
4"
EXISTING CONCRETE SIDEWALK/SLAB
PROPOSED CONCRETE SIDEWALK/SLAB
CONTROL JOINT
1/2" X 8" SMOOTH DOWELS @24" O.C. GREASE END EMBEDDED IN NEW CONCRETE

EXISTING & PROPOSED CONCRETE INTERFACE
NOT TO SCALE

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C6.1

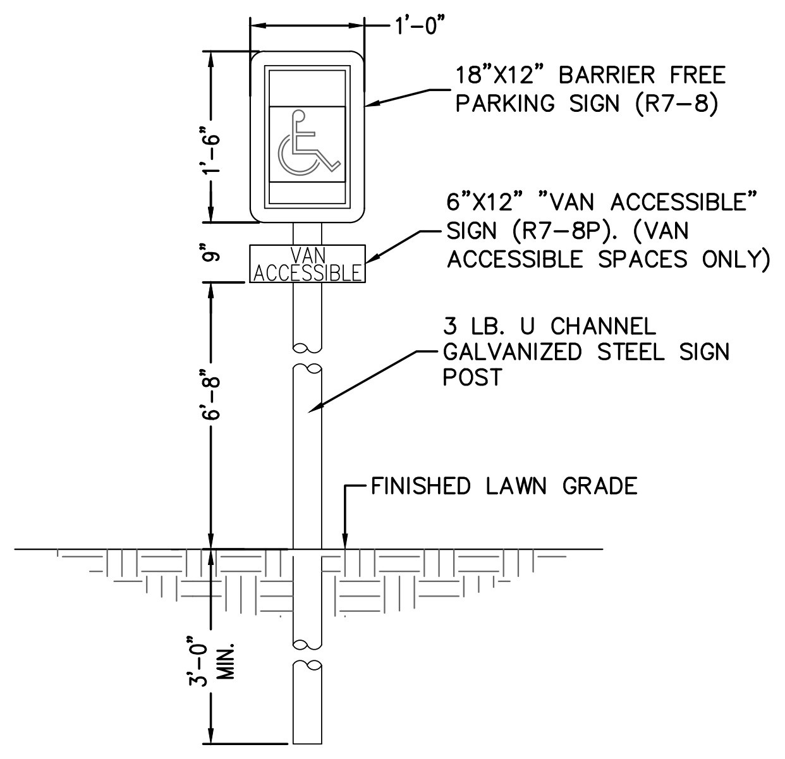
IDENTIFICATION NUMBER	SIGN OR PLAQUE	MMUTCD SIGN DESIGNATION	SIGN TYPE	AREA	SUPPORTS	NOTES
S-1	ADA PARKING	R7-8	IIIB	1.50 SFT	1-3# POST (7 FT)	NONE
S-2	VAN ACCESSIBLE	R7-8P	IIIB	0.50 SFT	NONE	TO BE MOUNTED ON THE SAME POST AS THE ADA PARKING (R7-8) SIGN WHERE NOTED IN THE PLANS.

NOTES:

-SHOP DRAWINGS OF PROPOSED SIGNS SHALL BE SUBMITTED TO ENGINEER FOR APPROVAL.

ALL TRAFFIC SIGNS SHALL CONFORM WITH THE REQUIREMENTS OF THE 2011 MICHIGAN MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MMUTCD).

TRAFFIC CONTROL SIGNS

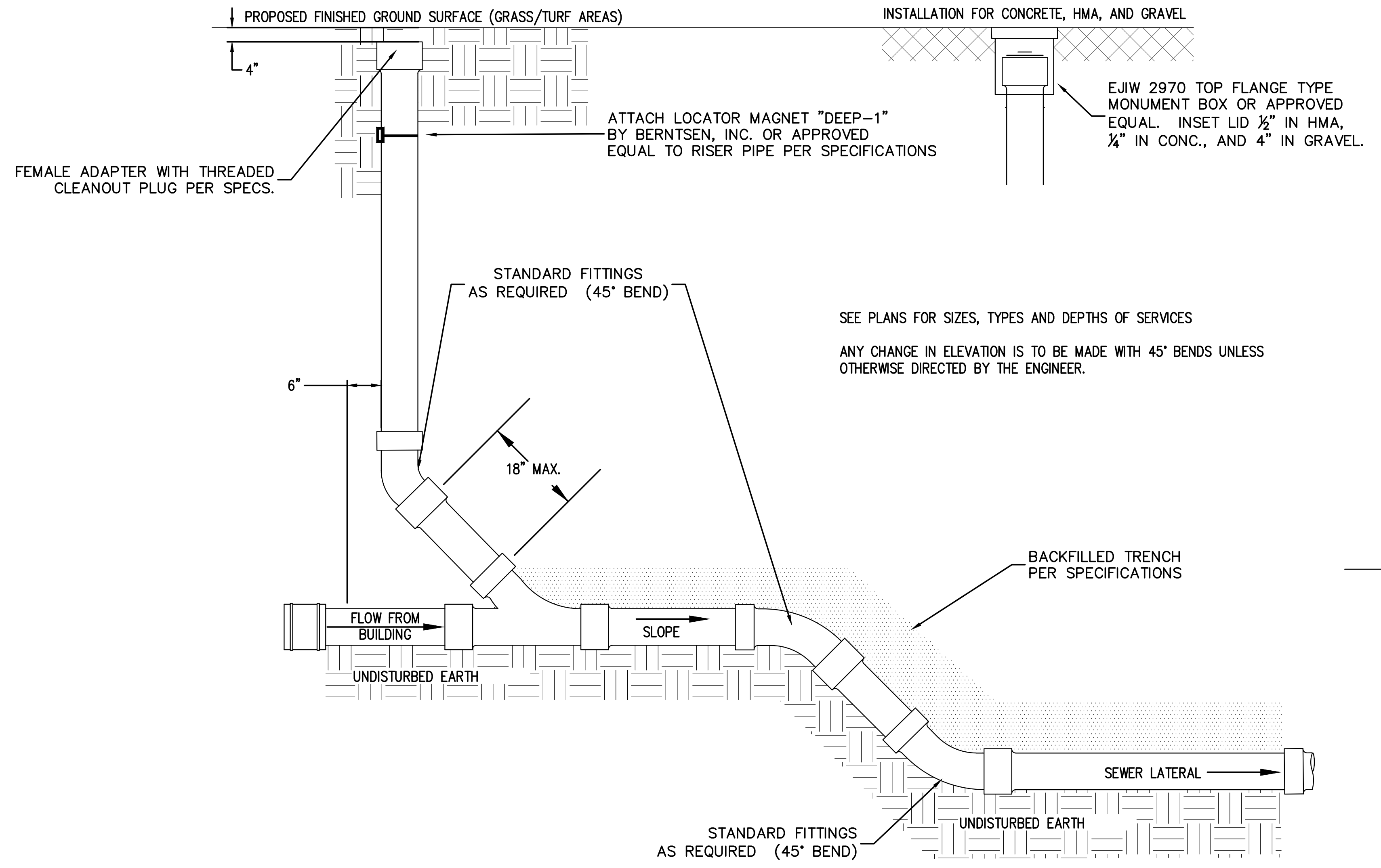


1'-0"
18"X12" BARRIER FREE PARKING SIGN (R7-8)
1'-6"
VAN ACCESSIBLE
9"
6"X12" "VAN ACCESSIBLE" SIGN (R7-8P). (VAN ACCESSIBLE SPACES ONLY)
3 LB. U CHANNEL GALVANIZED STEEL SIGN POST
6'-8"
FINISHED LAWN GRADE
3'-0" MIN.

NOTES:
PROVIDE 1 (ONE) SIGN FOR EACH HANDICAP STALL. SIGNS SHALL MEET THE REQUIREMENTS OF THE STATE OF MICHIGAN AND ADA.

GRASS AREAS HANDICAP SIGNAGE DETAIL

NOT TO SCALE



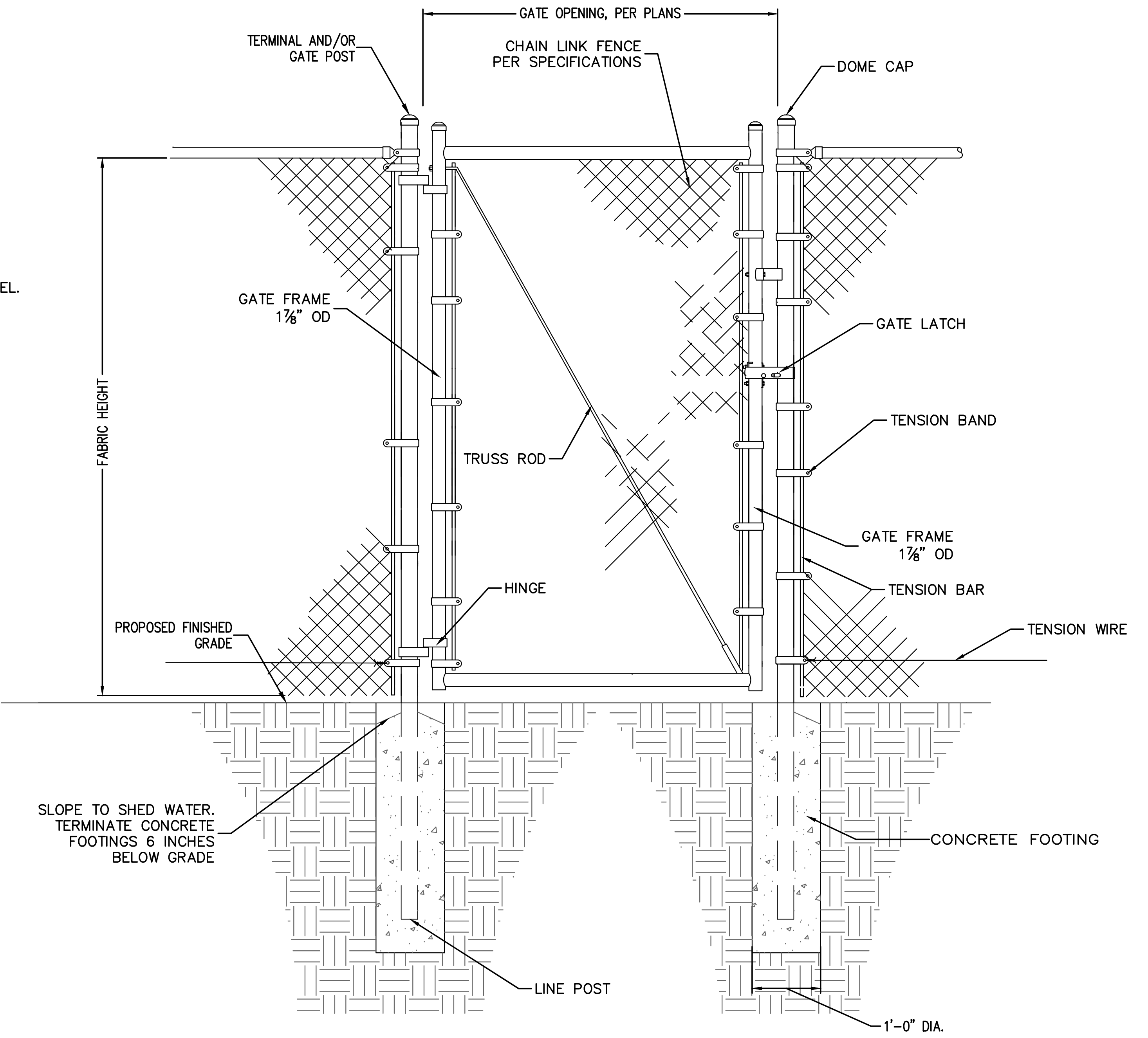
PROPOSED FINISHED GROUND SURFACE (GRASS/TURF AREAS)
4"
FEMALE ADAPTER WITH THREADED CLEANOUT PLUG PER SPECS.
ATTACH LOCATOR MAGNET "DEEP-1" BY BERNTSEN, INC. OR APPROVED EQUAL TO RISER PIPE PER SPECIFICATIONS
INSTALLATION FOR CONCRETE, HMA, AND GRAVEL
EJIW 2970 TOP FLANGE TYPE MONUMENT BOX OR APPROVED EQUAL. INSET LID ½" IN HMA, ¼" IN CONC., AND 4" IN GRAVEL.
STANDARD FITTINGS AS REQUIRED (45° BEND)
6"
18" MAX.
FLOW FROM BUILDING
SLOPE
UNDISTURBED EARTH
BACKFILLED TRENCH PER SPECIFICATIONS
SEWER LATERAL
UNDISTURBED EARTH
STANDARD FITTINGS AS REQUIRED (45° BEND)

SEE PLANS FOR SIZES, TYPES AND DEPTHS OF SERVICES

ANY CHANGE IN ELEVATION IS TO BE MADE WITH 45° BENDS UNLESS OTHERWISE DIRECTED BY THE ENGINEER.

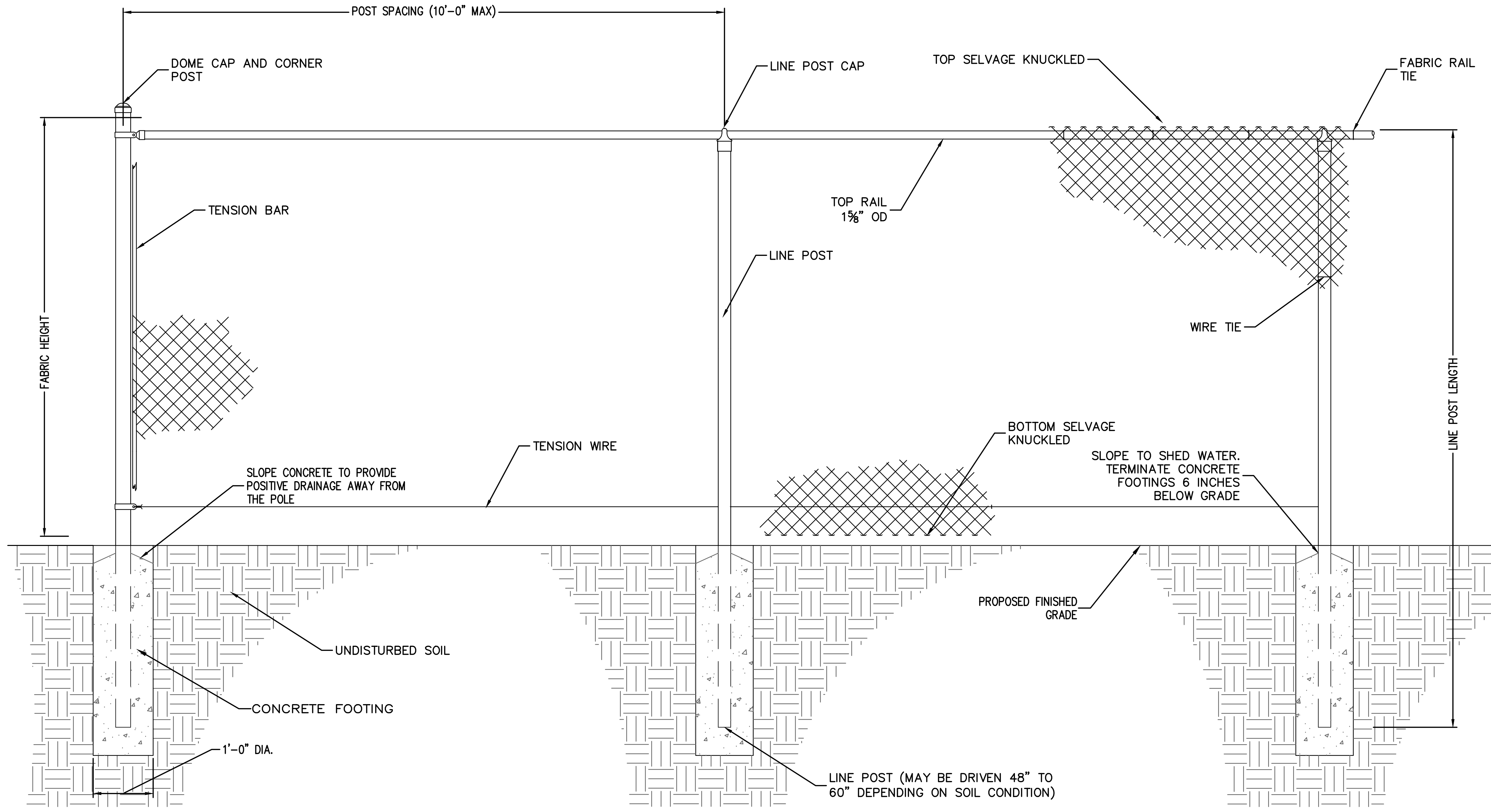
SANITARY/STORM SEWER LATERAL RISER DETAIL

NOT TO SCALE



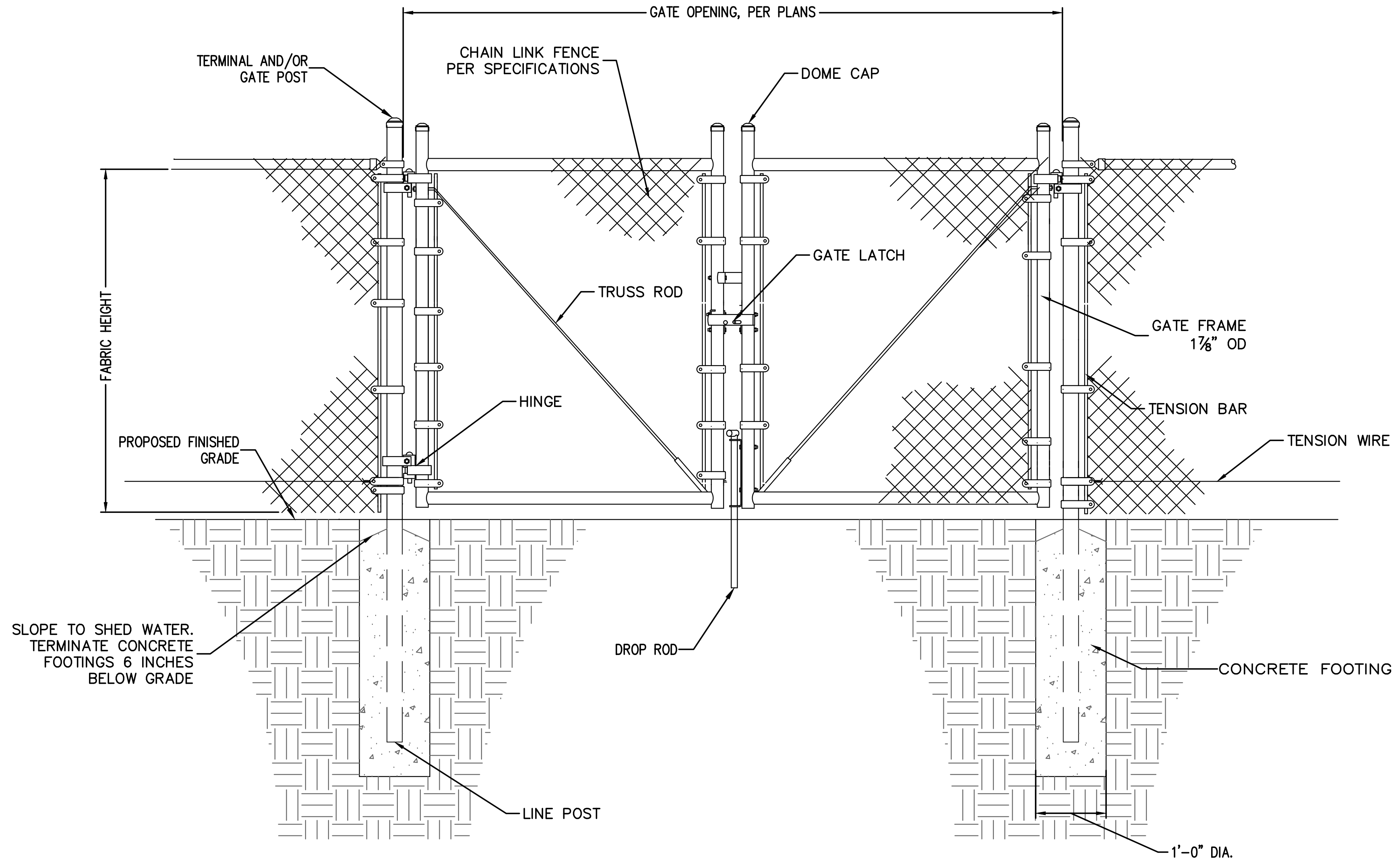
CHAIN LINK FENCE – SINGLE SWING GATE DETAIL

NOT TO SCALE



CHAIN LINK FENCE DETAIL

NOT TO SCALE



CHAIN LINK FENCE – DOUBLE SWING GATE DETAIL

NOT TO SCALE

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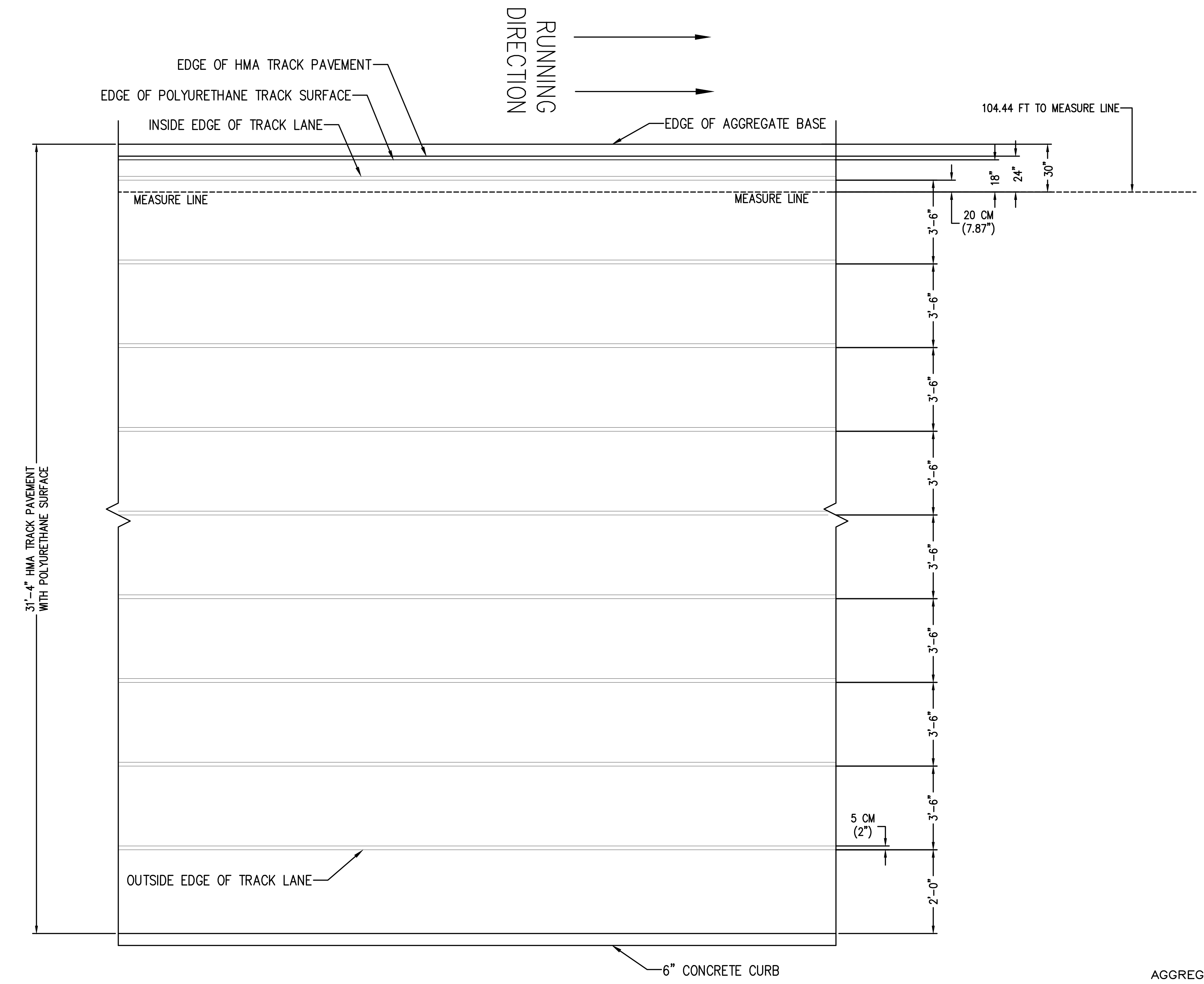
C6.2

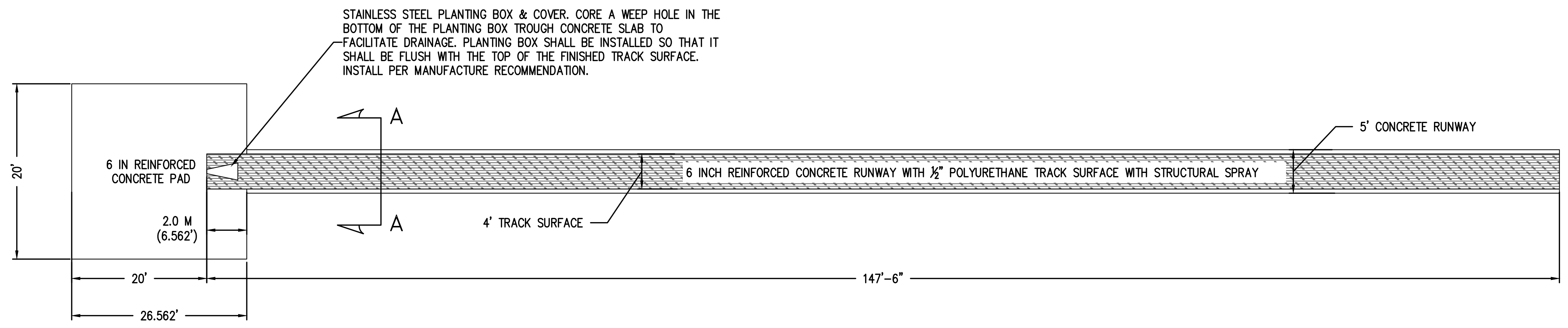
NOTE: THE CONSTRUCTION AND DIMENSIONS FOR ALL ATHLETIC FACILITIES SHALL CONFORM TO THE NATIONAL FEDERATION OF STATE HIGH SCHOOL ASSOCIATIONS (NFHS) "COURT AND FIELD DIAGRAM GUIDE", CURRENT EDITION. THE CONTRACTOR SHALL REFERENCE THIS GUIDE BEFORE STARTING CONSTRUCTION.

NOTE: THE LATERAL INCLINATION SHALL NOT EXCEED 2:100 (2%)
THE INCLINATION IN THE RUNNING DIRECTION SHALL NOT EXCEED 1:1000 (0.1%)


RUNNING DIRECTION
EDGE OF HMA TRACK PAVEMENT
EDGE OF POLYURETHANE TRACK SURFACE
INSIDE EDGE OF TRACK LANE
EDGE OF AGGREGATE BASE
104.44 FT TO MEASURE LINE
18"
24"
30"
MEASURE LINE
MEASURE LINE
20 CM (7.87")
3'-6"
3'-6"
3'-6"
3'-6"
3'-6"
3'-6"
3'-6"
3'-6"
5 CM (2")
2'-0"
31'-4" HMA TRACK PAVEMENT WITH POLYURETHANE SURFACE
OUTSIDE EDGE OF TRACK LANE
6" CONCRETE CURB

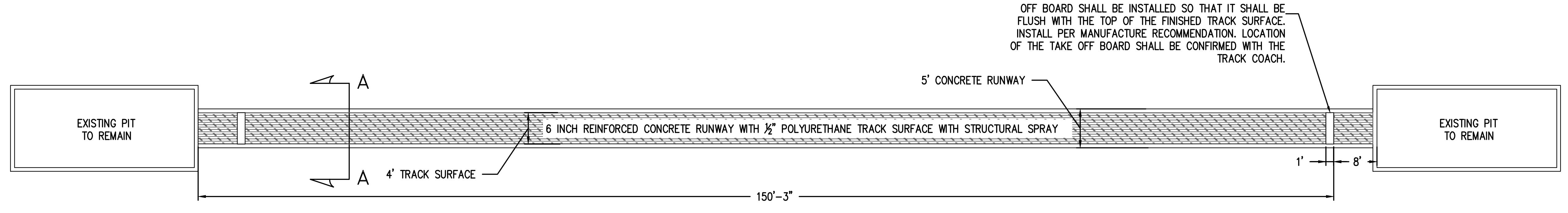
EIGHT LANE TRACK LAYOUT

SCALE: NOT TO SCALE


STAINLESS STEEL PLANTING BOX & COVER. CORE A WEEP HOLE IN THE BOTTOM OF THE PLANTING BOX TROUGH CONCRETE SLAB TO FACILITATE DRAINAGE. PLANTING BOX SHALL BE INSTALLED SO THAT IT SHALL BE FLUSH WITH THE TOP OF THE FINISHED TRACK SURFACE. INSTALL PER MANUFACTURE RECOMMENDATION.
A
A
5' CONCRETE RUNWAY
20'
6 IN REINFORCED CONCRETE PAD
6 INCH REINFORCED CONCRETE RUNWAY WITH ½" POLYURETHANE TRACK SURFACE WITH STRUCTURAL SPRAY
2.0 M (6.562')
4' TRACK SURFACE
20'
147'-6"
26.562'

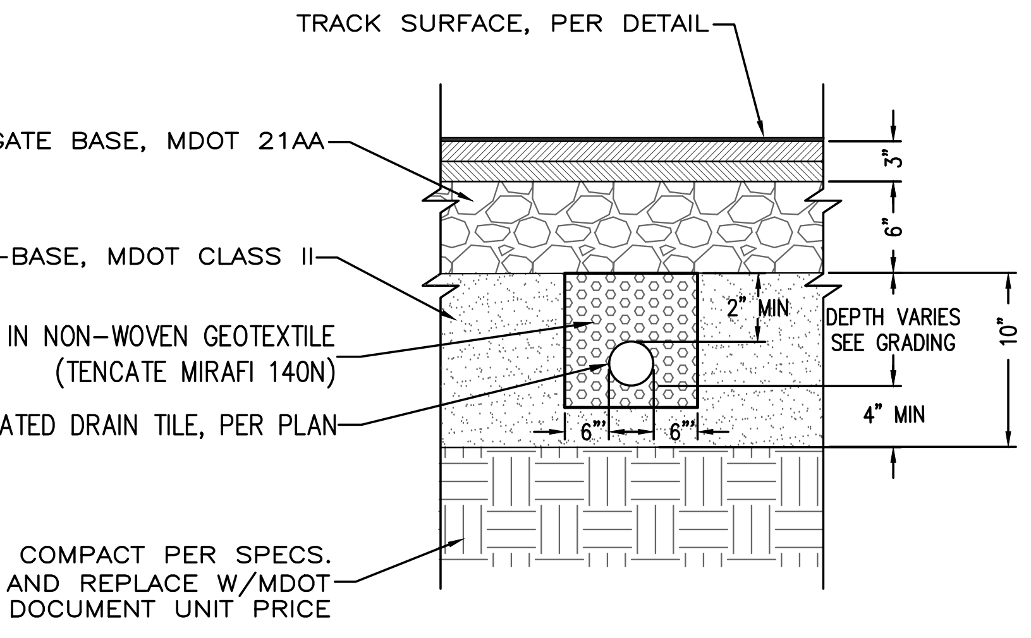
POLE VAULT

NOT TO SCALE


12" TAKE OFF BOARD (TYP.) CORE A WEEP HOLE IN THE BOTTOM OF THE STAINLESS STEEL TRAY ASSEMBLY TROUGH CONCRETE SLAB TO FACILITATE DRAINAGE. TAKE OFF BOARD SHALL BE INSTALLED SO THAT IT SHALL BE FLUSH WITH THE TOP OF THE FINISHED TRACK SURFACE. INSTALL PER MANUFACTURE RECOMMENDATION. LOCATION OF THE TAKE OFF BOARD SHALL BE CONFIRMED WITH THE TRACK COACH.
A
5' CONCRETE RUNWAY
EXISTING PIT TO REMAIN
6 INCH REINFORCED CONCRETE RUNWAY WITH ½" POLYURETHANE TRACK SURFACE WITH STRUCTURAL SPRAY
EXISTING PIT TO REMAIN
A
4' TRACK SURFACE
1'
8'
150'-3"

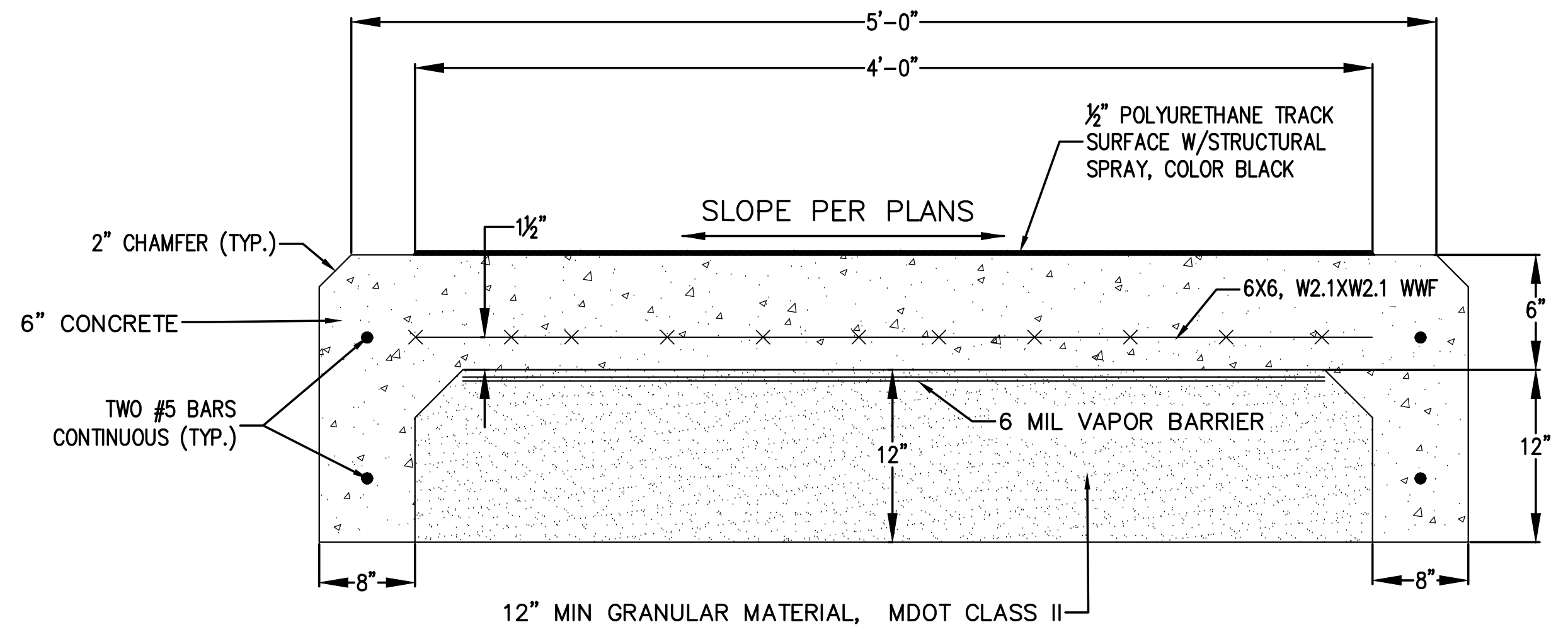
LONG JUMP

NOT TO SCALE


TRACK SURFACE, PER DETAIL
AGGREGATE BASE, MDOT 21AA
3"
6"
GRANULAR SUB–BASE, MDOT CLASS II
2" MIN
DEPTH VARIES SEE GRADING
10"
AASHTO NO.67 STONE WRAPPED IN NON–WOVEN GEOTEXTILE (TENCATE MIRAFI 140N)
4" PERFORATED DRAIN TILE, PER PLAN
6"
6"
4" MIN
EXISTING SUB–GRADE, COMPACT PER SPECS. IF COMPACTION CAN'T BE MET REMOVE AND REPLACE W/MDOT CLII EMBANKMENT PER CONTRACT DOCUMENT UNIT PRICE

TRACK UNDERDRAIN DETAIL

NOT TO SCALE

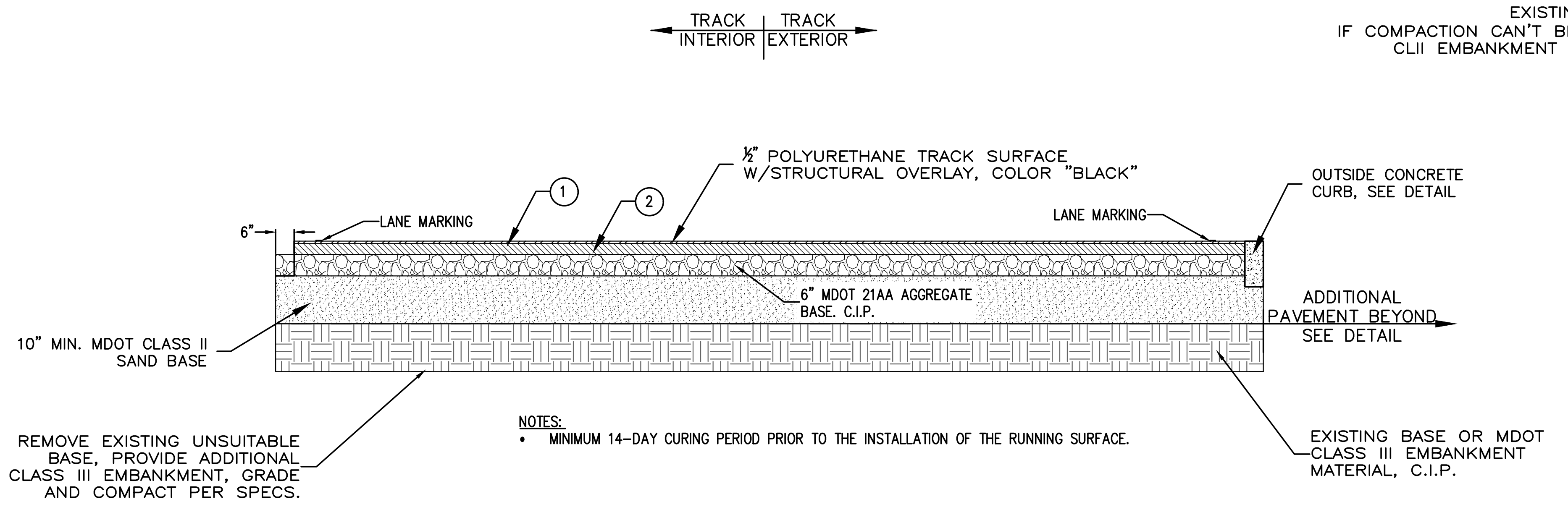

5'-0"
4'-0"
½" POLYURETHANE TRACK SURFACE W/STRUCTURAL SPRAY, COLOR BLACK
SLOPE PER PLANS
2" CHAMFER (TYP.)
1½"
6X6, W2.1XW2.1 WWF
6" CONCRETE
6"
TWO #5 BARS CONTINUOUS (TYP.)
6 MIL VAPOR BARRIER
12"
12"
8"
8"
12" MIN GRANULAR MATERIAL, MDOT CLASS II

SECTION A–A, CONCRETE RUNWAY

NOT TO SCALE

NOTES:

- FINISH CONCRETE RUNWAYS WITH A MEDIUM BROOM FINISH.
- NO CURING OR HARDENING AGENTS ARE ALLOWED FOR THE RUNWAY CONCRETE MIX.
- TOOL CONTROL JOINTS AT 30 FT INTERVALS, INSTALL FULL–DEPTH EXPANSION JOINTS AT ALL BREAKS IN CONCRETE POURS.
- MINIMUM 28–DAY CURING PERIOD PRIOR TO THE INSTALLATION OF THE RUNNING SURFACE.


TRACK INTERIOR
TRACK EXTERIOR
½" POLYURETHANE TRACK SURFACE W/STRUCTURAL OVERLAY, COLOR "BLACK"
①
②
6"
LANE MARKING
LANE MARKING
OUTSIDE CONCRETE CURB, SEE DETAIL
6" MDOT 21AA AGGREGATE BASE. C.I.P.
ADDITIONAL PAVEMENT BEYOND SEE DETAIL
10" MIN. MDOT CLASS II SAND BASE
REMOVE EXISTING UNSUITABLE BASE, PROVIDE ADDITIONAL CLASS III EMBANKMENT, GRADE AND COMPACT PER SPECS.
EXISTING BASE OR MDOT CLASS III EMBANKMENT MATERIAL, C.I.P.

NOTES:

- MINIMUM 14–DAY CURING PERIOD PRIOR TO THE INSTALLATION OF THE RUNNING SURFACE.

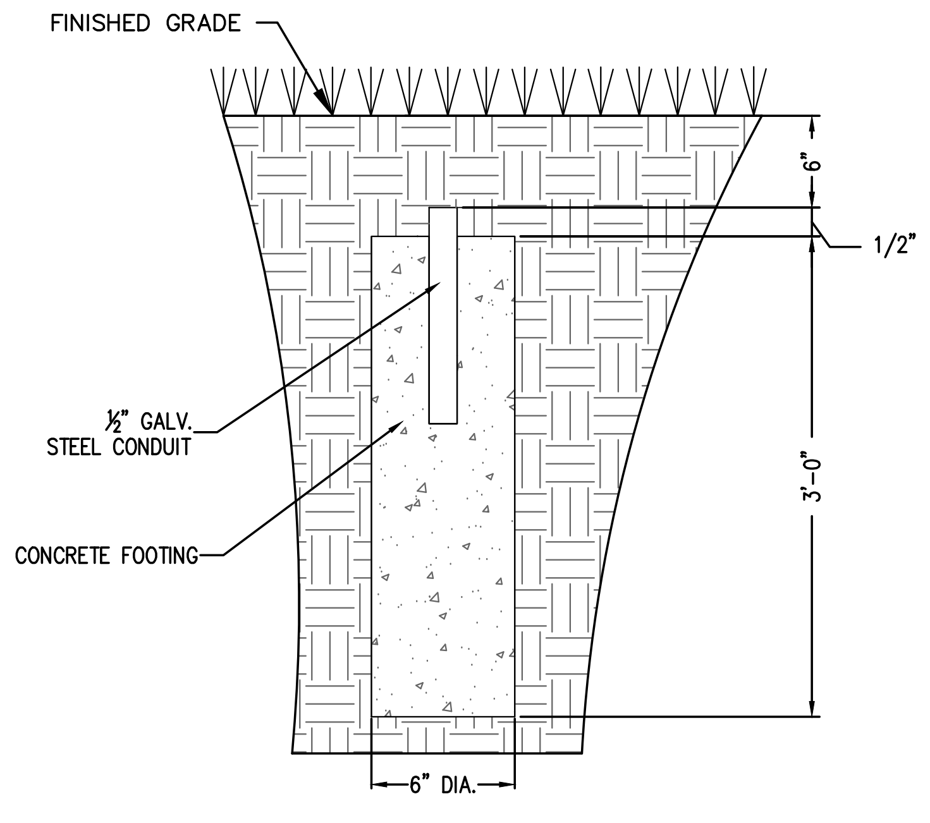
PROPOSED TRACK CROSS–SECTION

SCALE: NOT TO SCALE

HMA APPLICATION TABLE

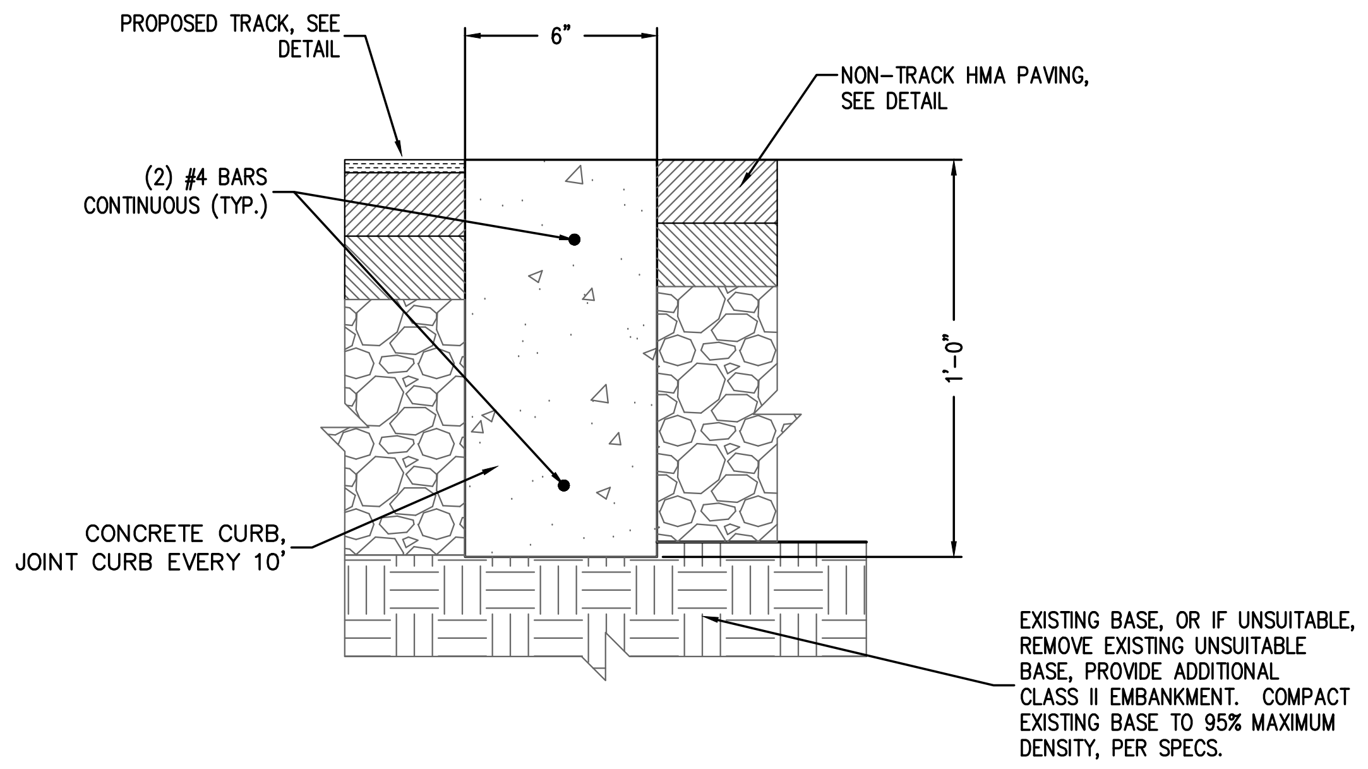
IDENT. NO.	ITEM	APPLICATION RATE	PERFORMANCE GRADE	REMARKS
①	HMA, 5EL*	165#/SYD	58–28	TOP COURSE
②	HMA, 4EL	165#/SYD	58–28	LEVELING COURSE
HMA BOND COAT		0.05 – 0.15 GAL/SYD		FOR INFO ONLY

* 3% TARGET AIR VOIDS. USE OF RECYCLED ASPHALT MATERIALS (RAP) IS NOT ALLOWED IN THE TOP COURSE.



TRACK MONUMENT DETAIL

NOT TO SCALE


PROPOSED TRACK, SEE DETAIL
6"
NON–TRACK HMA PAVING, SEE DETAIL
(2) #4 BARS CONTINUOUS (TYP.)
1'-0"
CONCRETE CURB, JOINT CURB EVERY 10'
EXISTING BASE, OR IF UNSUITABLE, REMOVE EXISTING UNSUITABLE BASE, PROVIDE ADDITIONAL CLASS II EMBANKMENT. COMPACT EXISTING BASE TO 95% MAXIMUM DENSITY, PER SPECS.

CONCRETE CURB DETAIL

NOT TO SCALE

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BEAL CITY PUBLIC SCHOOLS
2024 BOND PROJECT
MT. PLEASANT, MICHIGAN
PROJECT NO. 20-037

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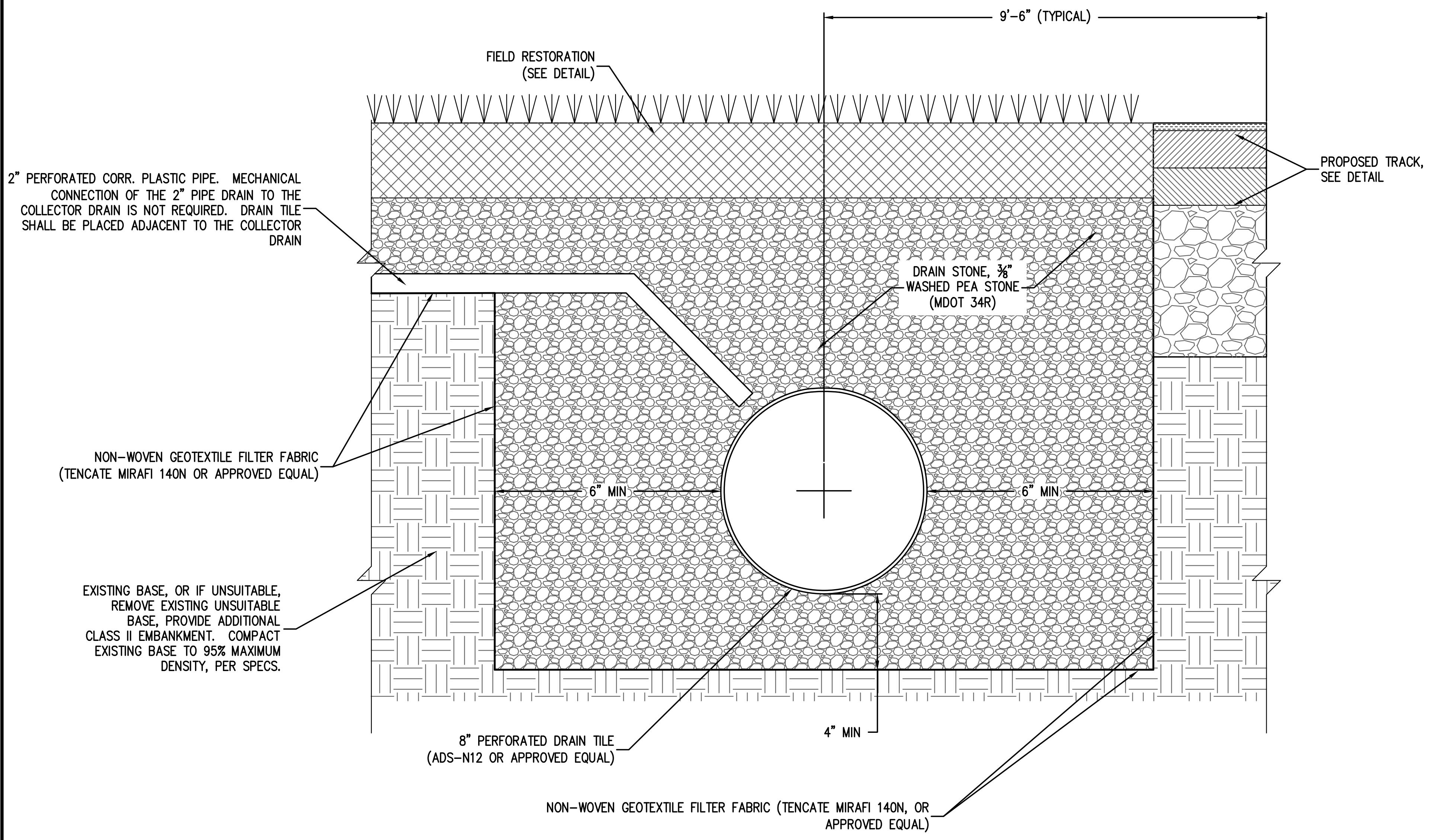
	BY	DATE
DESIGN	ADM	
DRAWN	ADM	
CHECKED	BLK	
APPROVED	ADM	

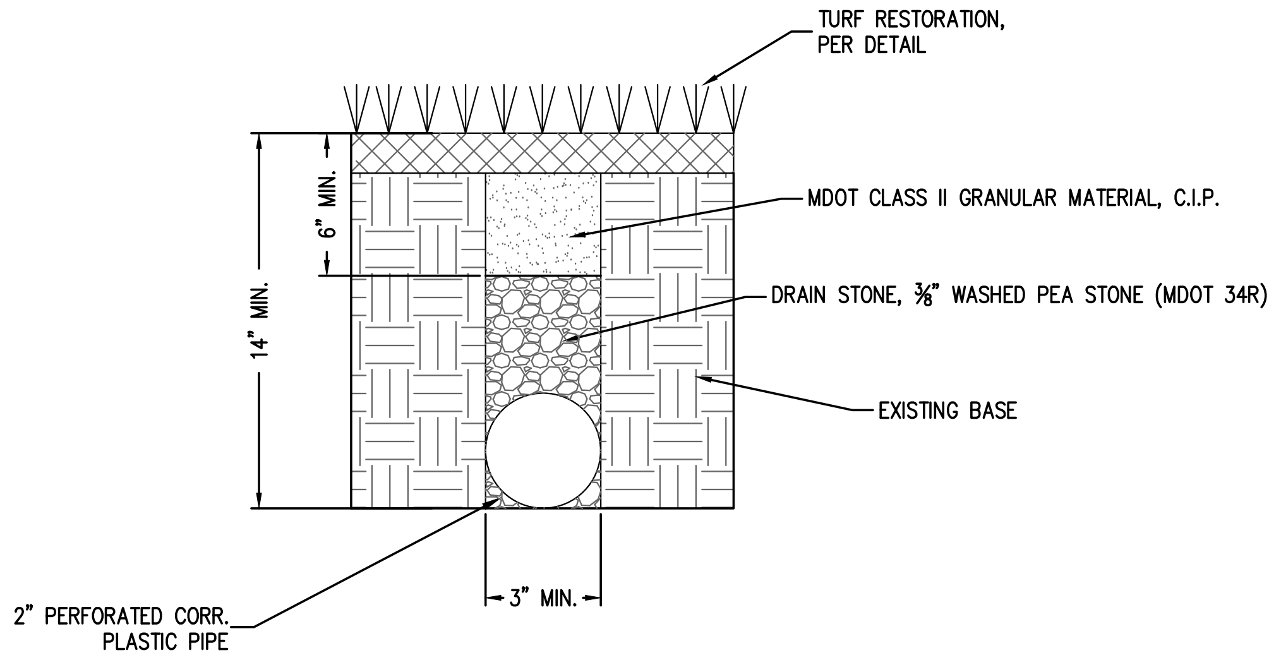
SITE DETAILS

C6.3


9'-6" (TYPICAL)
FIELD RESTORATION (SEE DETAIL)
PROPOSED TRACK, SEE DETAIL
2" PERFORATED CORR. PLASTIC PIPE. MECHANICAL CONNECTION OF THE 2" PIPE DRAIN TO THE COLLECTOR DRAIN IS NOT REQUIRED. DRAIN TILE SHALL BE PLACED ADJACENT TO THE COLLECTOR DRAIN
DRAIN STONE, ⅜" WASHED PEA STONE (MDOT 34R)
NON-WOVEN GEOTEXTILE FILTER FABRIC (TENCATE MIRAFI 140N OR APPROVED EQUAL)
6" MIN
6" MIN
EXISTING BASE, OR IF UNSUITABLE, REMOVE EXISTING UNSUITABLE BASE, PROVIDE ADDITIONAL CLASS II EMBANKMENT. COMPACT EXISTING BASE TO 95% MAXIMUM DENSITY, PER SPECS.
4" MIN
8" PERFORATED DRAIN TILE (ADS-N12 OR APPROVED EQUAL)
NON-WOVEN GEOTEXTILE FILTER FABRIC (TENCATE MIRAFI 140N, OR APPROVED EQUAL)

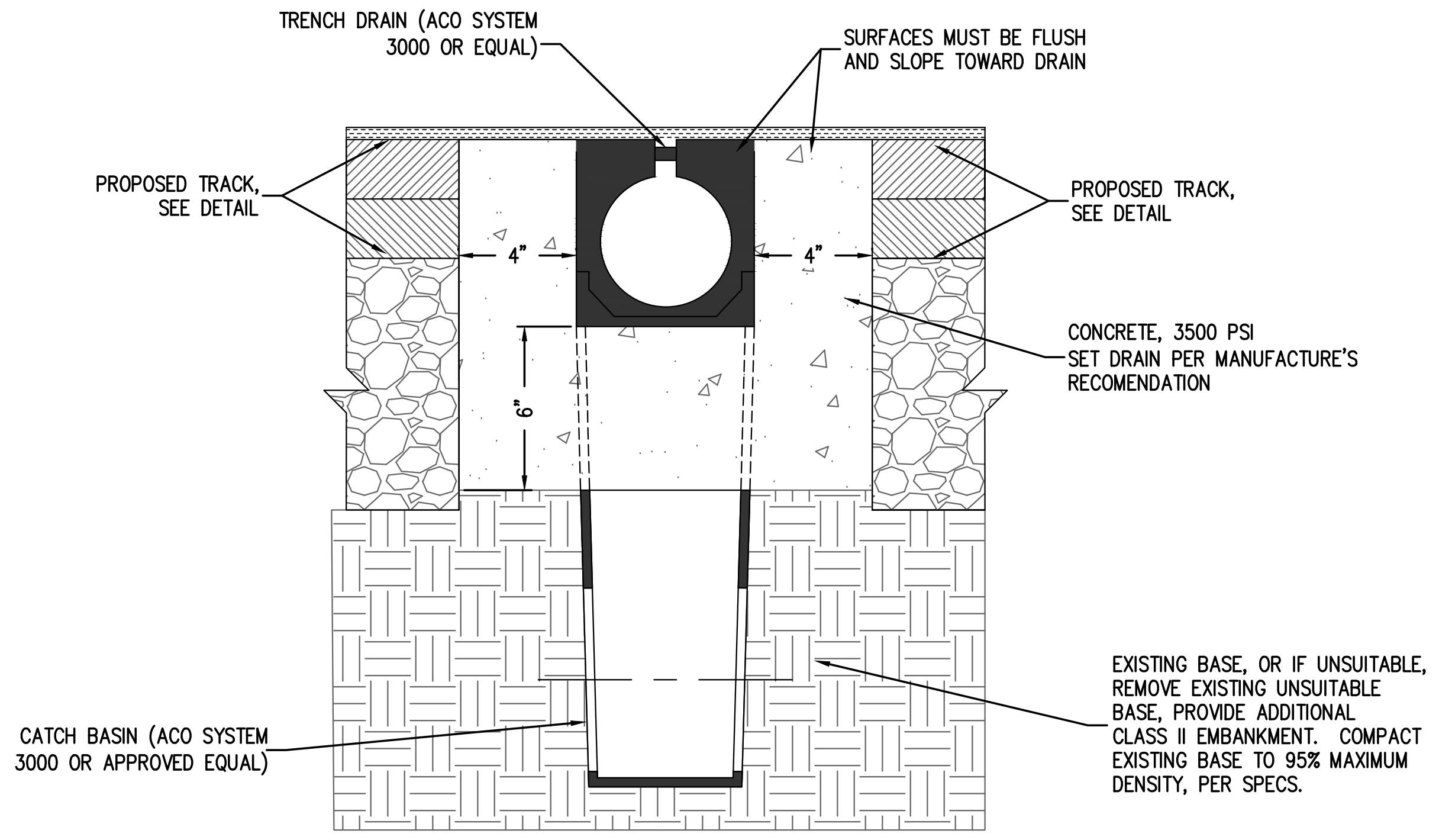
SLIT TRENCH COLLECTOR DRAIN

NOT TO SCALE


TURF RESTORATION, PER DETAIL
6" MIN.
14" MIN.
MDOT CLASS II GRANULAR MATERIAL, C.I.P.
DRAIN STONE, ⅜" WASHED PEA STONE (MDOT 34R)
EXISTING BASE
2" PERFORATED CORR. PLASTIC PIPE
3" MIN.

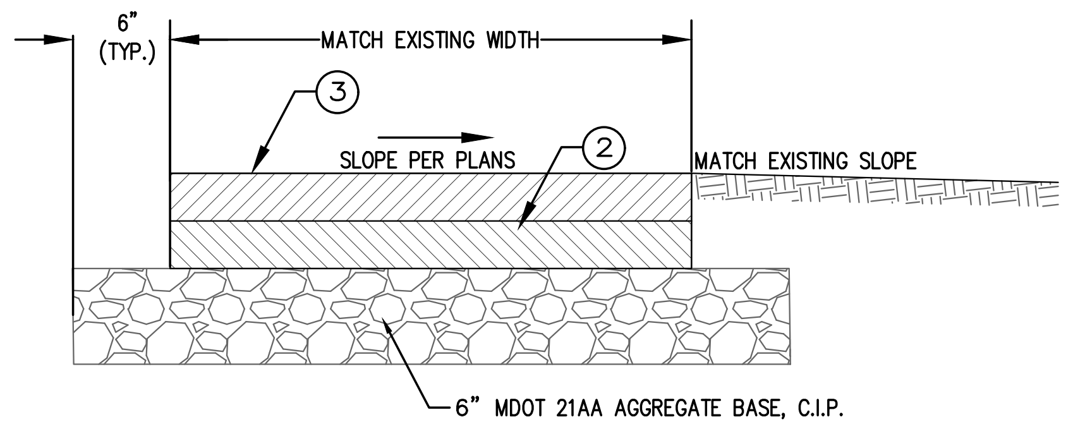
SLIT TRENCH UNDERDRAIN

NOT TO SCALE


TRENCH DRAIN (ACO SYSTEM 3000 OR EQUAL)
SURFACES MUST BE FLUSH AND SLOPE TOWARD DRAIN
PROPOSED TRACK, SEE DETAIL
PROPOSED TRACK, SEE DETAIL
4"
4"
6"
CONCRETE, 3500 PSI SET DRAIN PER MANUFACTURE'S RECOMENDATION
EXISTING BASE, OR IF UNSUITABLE, REMOVE EXISTING UNSUITABLE BASE, PROVIDE ADDITIONAL CLASS II EMBANKMENT. COMPACT EXISTING BASE TO 95% MAXIMUM DENSITY, PER SPECS.
CATCH BASIN (ACO SYSTEM 3000 OR APPROVED EQUAL)

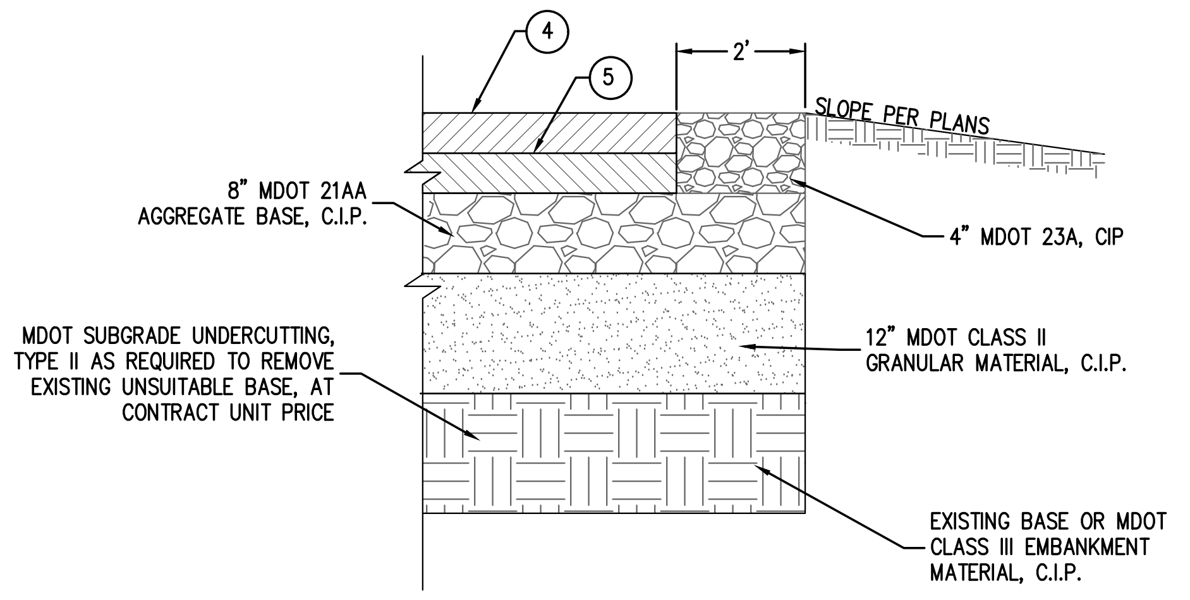
TRENCH DRAIN DETAIL

NOT TO SCALE



NON TRACK – HMA PAVING

NOT TO SCALE

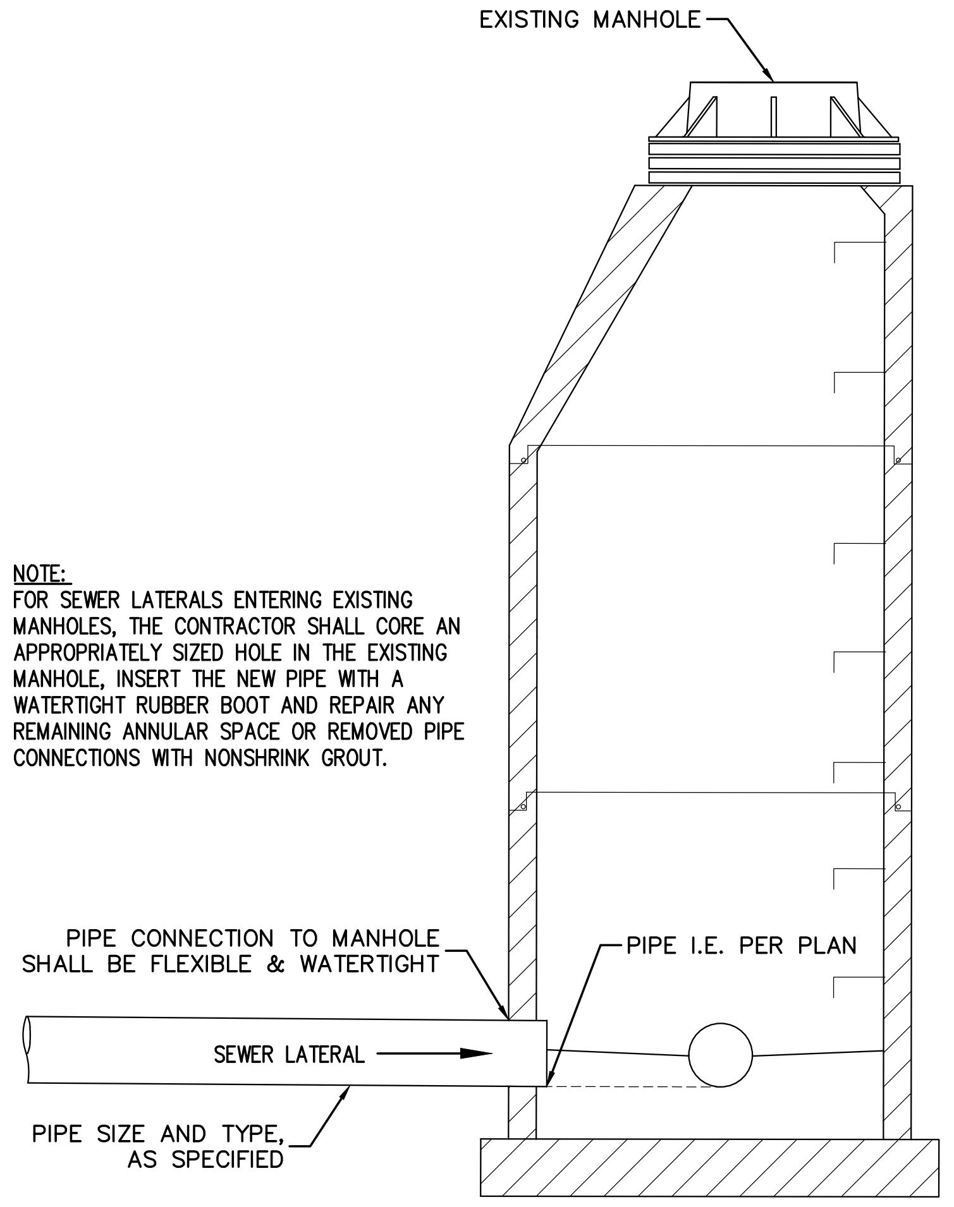

④
⑤
2'
SLOPE PER PLANS
8" MDOT 21AA AGGREGATE BASE, C.I.P.
4" MDOT 23A, CIP
MDOT SUBGRADE UNDERCUTTING, TYPE II AS REQUIRED TO REMOVE EXISTING UNSUITABLE BASE, AT CONTRACT UNIT PRICE
12" MDOT CLASS II GRANULAR MATERIAL, C.I.P.
EXISTING BASE OR MDOT CLASS III EMBANKMENT MATERIAL, C.I.P.

PARKING LOT – HMA PAVING

NOT TO SCALE

HMA APPLICATION TABLE

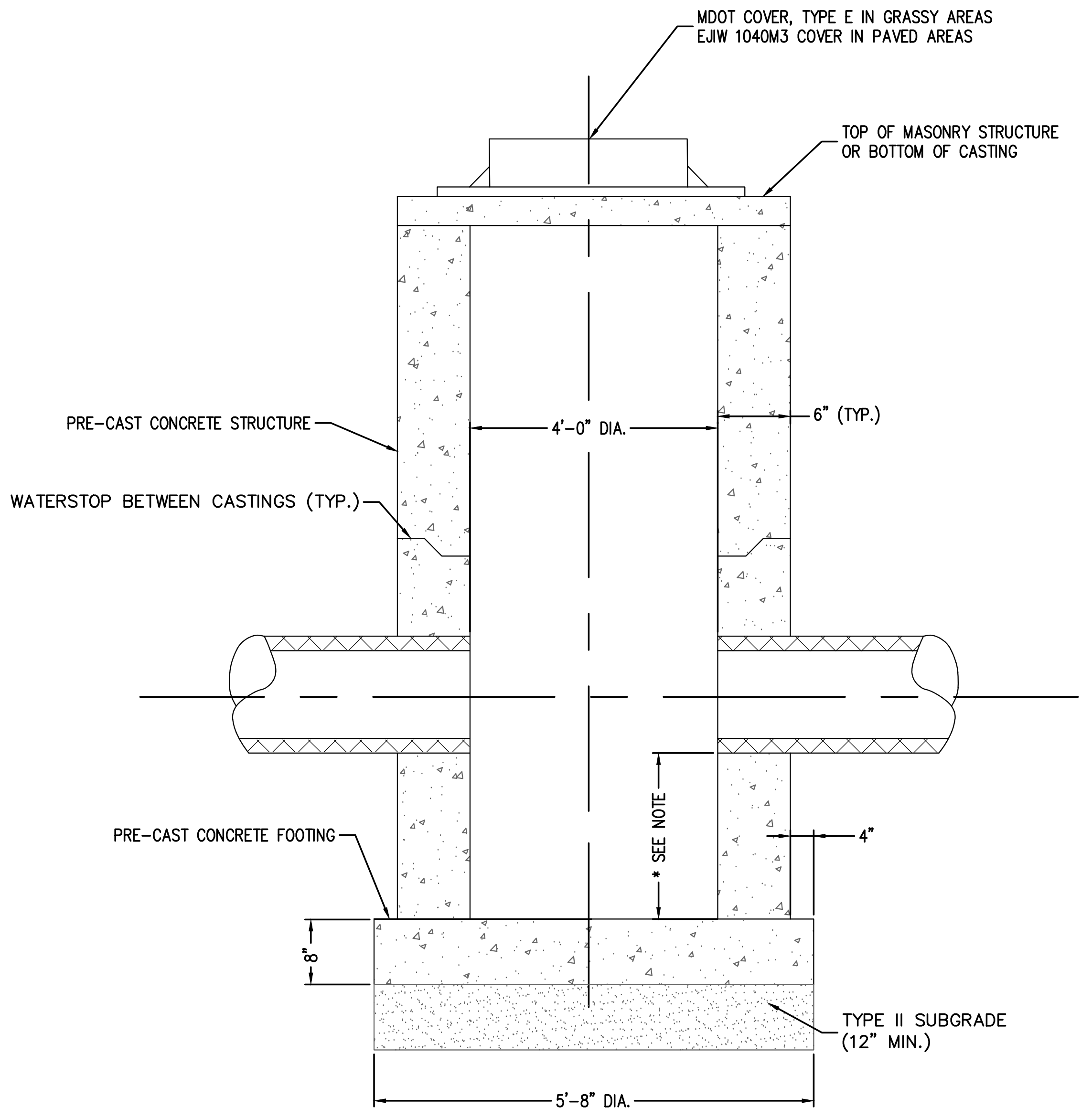
IDENT. NO.	ITEM	APPLICATION RATE	PERFORMANCE GRADE	REMARKS
②	HMA, 4EL	165#/SYD	58–28	LEVELING COURSE
③	HMA, 5EL	165#/SYD	58–28	TOP COURSE
④	HMA, 5EL	220#/SYD	58–28	TOP COURSE
⑤	HMA, 4EL	220#/SYD	58–28	LEVELING COURSE
HMA BOND COAT		0.05 – 0.15 GAL/SYD		FOR INFO ONLY


EXISTING MANHOLE
PIPE CONNECTION TO MANHOLE SHALL BE FLEXIBLE & WATERTIGHT
PIPE I.E. PER PLAN
SEWER LATERAL
PIPE SIZE AND TYPE, AS SPECIFIED

NOTE:
FOR SEWER LATERALS ENTERING EXISTING MANHOLES, THE CONTRACTOR SHALL CORE AN APPROPRIATELY SIZED HOLE IN THE EXISTING MANHOLE, INSERT THE NEW PIPE WITH A WATERTIGHT RUBBER BOOT AND REPAIR ANY REMAINING ANNULAR SPACE OR REMOVED PIPE CONNECTIONS WITH NONSHRINK GROUT.

CONNECTION TO EXISTING MANHOLE

NOT TO SCALE

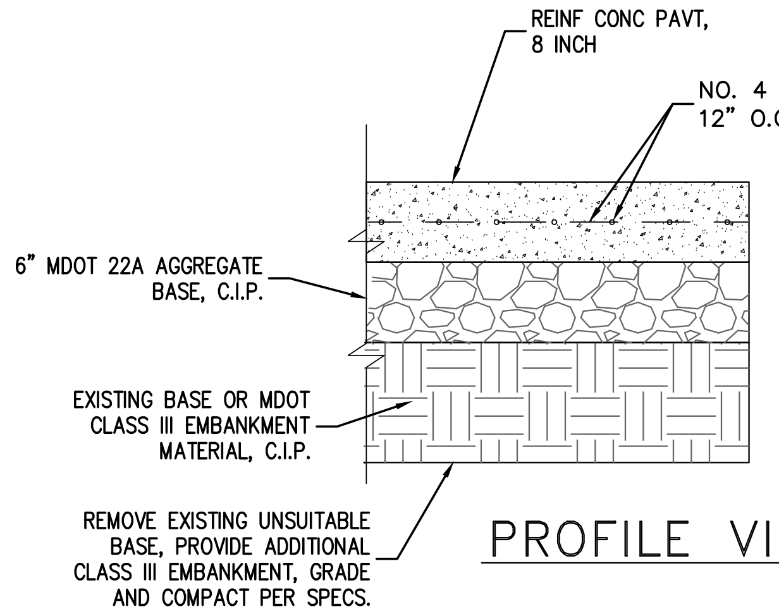

MDOT COVER, TYPE E IN GRASSY AREAS EJIW 1040M3 COVER IN PAVED AREAS
TOP OF MASONRY STRUCTURE OR BOTTOM OF CASTING
PRE-CAST CONCRETE STRUCTURE
4'-0" DIA.
6" (TYP.)
WATERSTOP BETWEEN CASTINGS (TYP.)
PRE-CAST CONCRETE FOOTING
* SEE NOTE
4"
8"
TYPE II SUBGRADE (12" MIN.)
5'-8" DIA.

*NOTE: 2'-0" MIN. SUMP WHEN CALLED FOR ON PLANS.

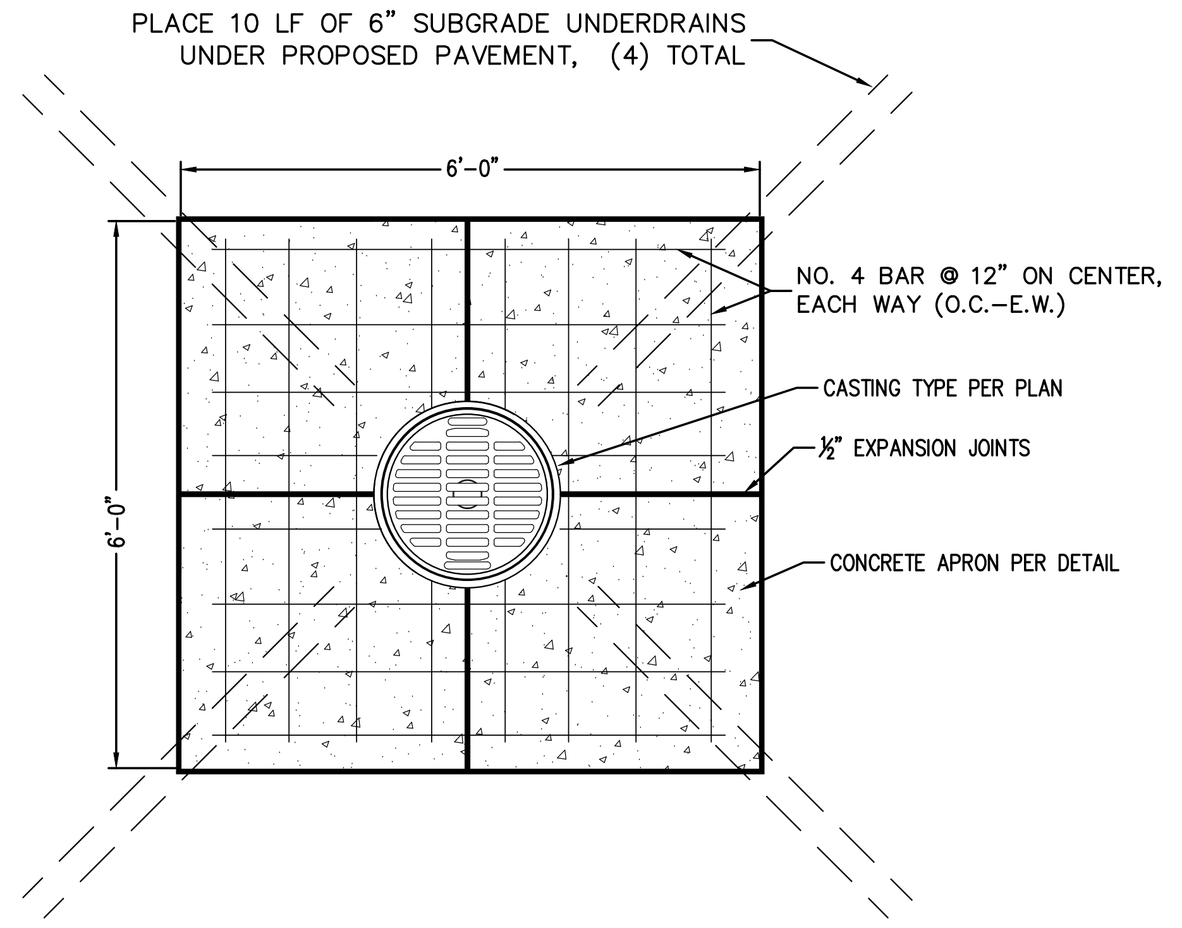
NOTES:
1. MATERIALS SHALL MEET MDOT SPECIFICATIONS .
2. SUMP CAN BE PRECAST CONCRETE UNIT, OR 16" CONCRETE BLOCKS ON A PRECAST BASE.

STORM WATER STRUCTURE

NOT TO SCALE

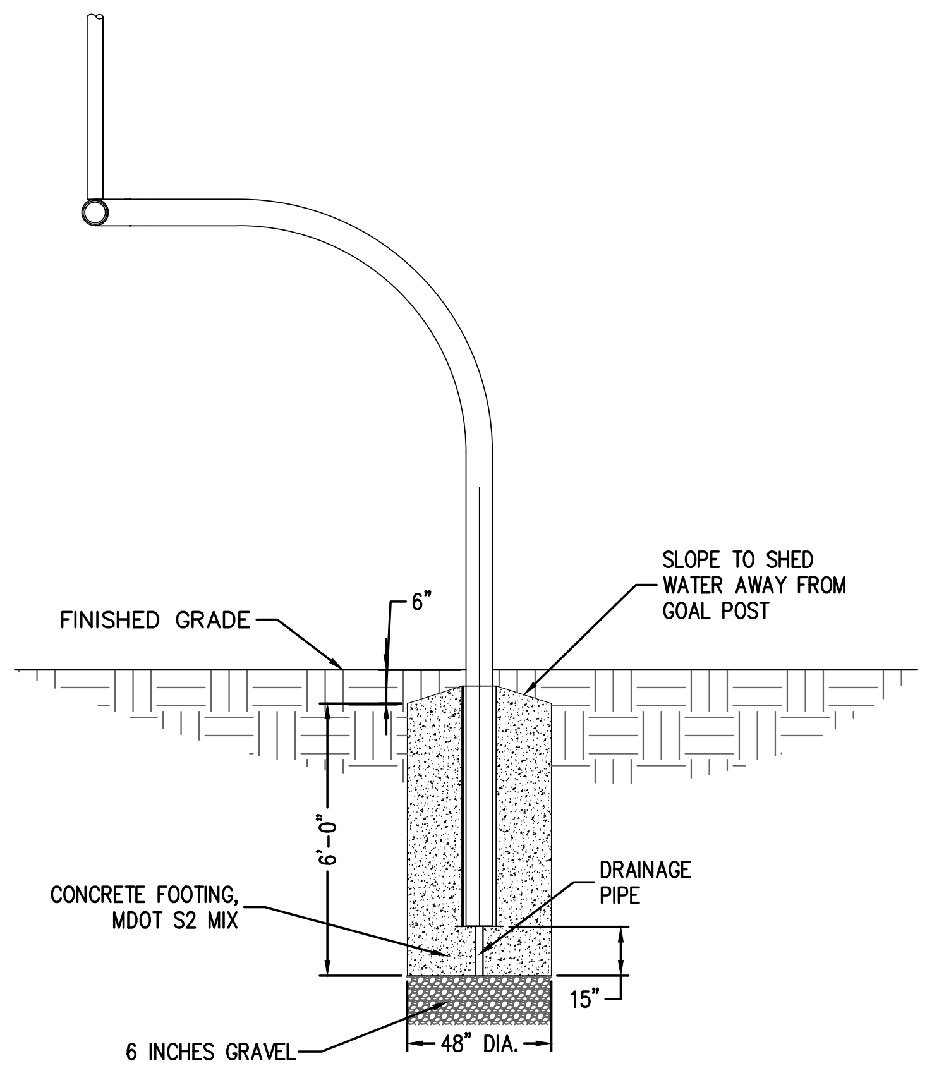

REINF CONC PAVT, 8 INCH
NO. 4 BAR @ 12" O.C–E.W.
6" MDOT 22A AGGREGATE BASE, C.I.P.
EXISTING BASE OR MDOT CLASS III EMBANKMENT MATERIAL, C.I.P.
REMOVE EXISTING UNSUITABLE BASE, PROVIDE ADDITIONAL CLASS III EMBANKMENT, GRADE AND COMPACT PER SPECS.

PROFILE VIEW


PLACE 10 LF OF 6" SUBGRADE UNDERDRAINS UNDER PROPOSED PAVEMENT, (4) TOTAL
6'-0"
6'-0"
NO. 4 BAR @ 12" ON CENTER, EACH WAY (O.C.–E.W.)
CASTING TYPE PER PLAN
½" EXPANSION JOINTS
CONCRETE APRON PER DETAIL

8" REINFORCED CONCRETE APRON

NOT TO SCALE


FINISHED GRADE
6"
SLOPE TO SHED WATER AWAY FROM GOAL POST
6'-0"
CONCRETE FOOTING, MDOT S2 MIX
DRAINAGE PIPE
15"
6 INCHES GRAVEL
48" DIA.

GOAL POST INSTALLATION

NOT TO SCALE

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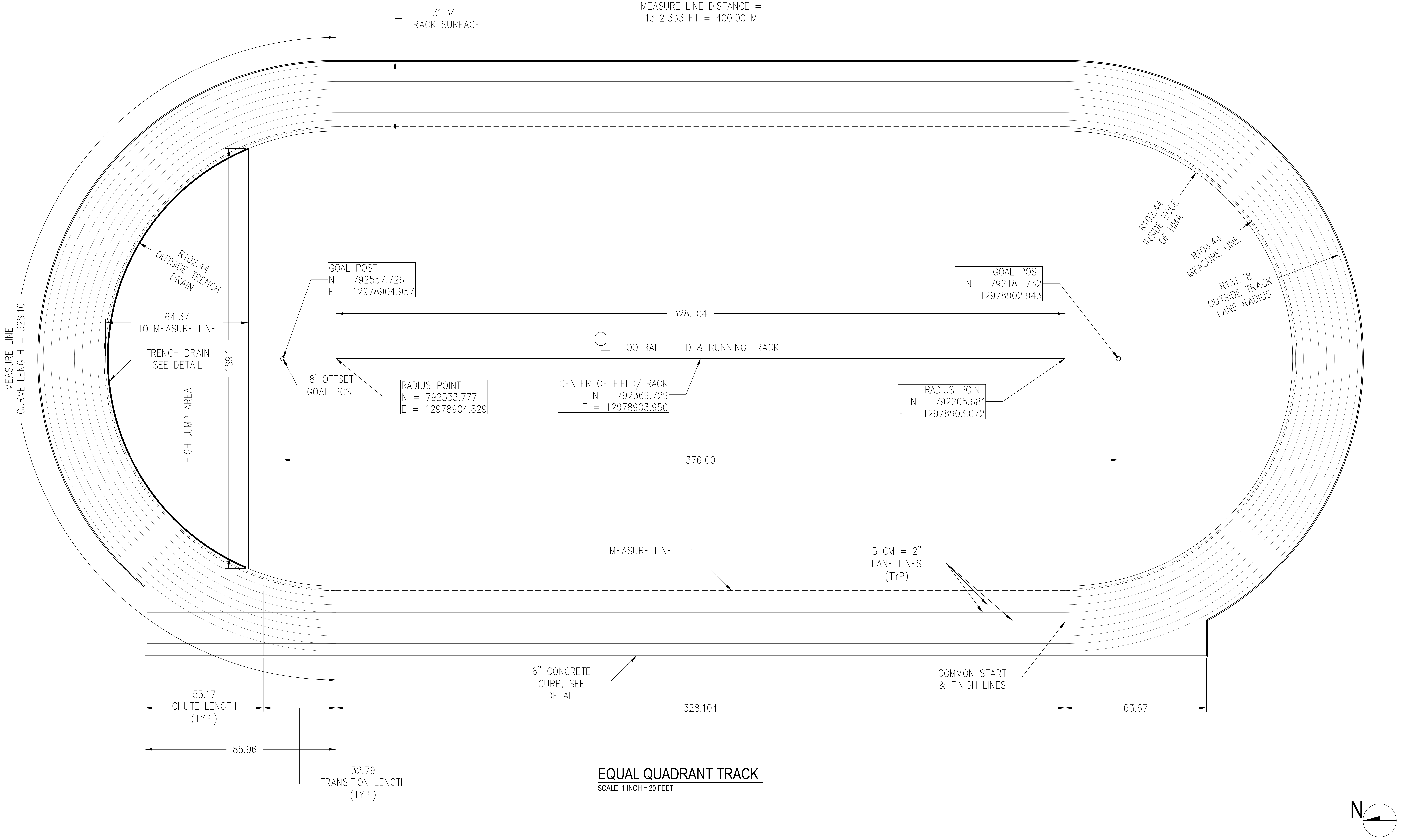
CHECKED	BLK	
APPROVED	ADM	

SITE DETAILS

C6.4


MEASURE LINE DISTANCE = 1312.333 FT = 400.00 M
31.34 TRACK SURFACE
MEASURE LINE CURVE LENGTH = 328.10
R102.44 OUTSIDE TRENCH DRAIN
64.37 TO MEASURE LINE
TRENCH DRAIN SEE DETAIL
189.11
HIGH JUMP AREA
GOAL POST N = 792557.726 E = 12978904.957
8' OFFSET GOAL POST
RADIUS POINT N = 792533.777 E = 12978904.829
328.104
℄ FOOTBALL FIELD & RUNNING TRACK
CENTER OF FIELD/TRACK N = 792369.729 E = 12978903.950
GOAL POST N = 792181.732 E = 12978902.943
RADIUS POINT N = 792205.681 E = 12978903.072
376.00
R102.44 INSIDE EDGE OF HMA
R104.44 MEASURE LINE
R131.78 OUTSIDE TRACK LANE RADIUS
MEASURE LINE
5 CM = 2" LANE LINES (TYP)
6" CONCRETE CURB, SEE DETAIL
COMMON START & FINISH LINES
53.17 CHUTE LENGTH (TYP.)
85.96
32.79 TRANSITION LENGTH (TYP.)
328.104
63.67
N

EQUAL QUADRANT TRACK

SCALE: 1 INCH = 20 FEET

NOTE: THE LATERAL INCLINATION SHALL NOT EXCEED 2:100 (2%)
THE INCLINATION IN THE RUNNING DIRECTION SHALL NOT EXCEED 1:1000 (0.1%)

NOTE: THE CONSTRUCTION AND DIMENSIONS FOR ALL ATHLETIC FACILITIES SHALL CONFORM TO THE NATIONAL FEDERATION OF STATE HIGH SCHOOL ASSOCIATIONS (NFHS) "COURT AND FIELD DIAGRAM GUIDE", CURRENT EDITION. THE CONTRACTOR SHALL REFERENCE THIS GUIDE BEFORE STARTING CONSTRUCTION.

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APPROVED	ADM	

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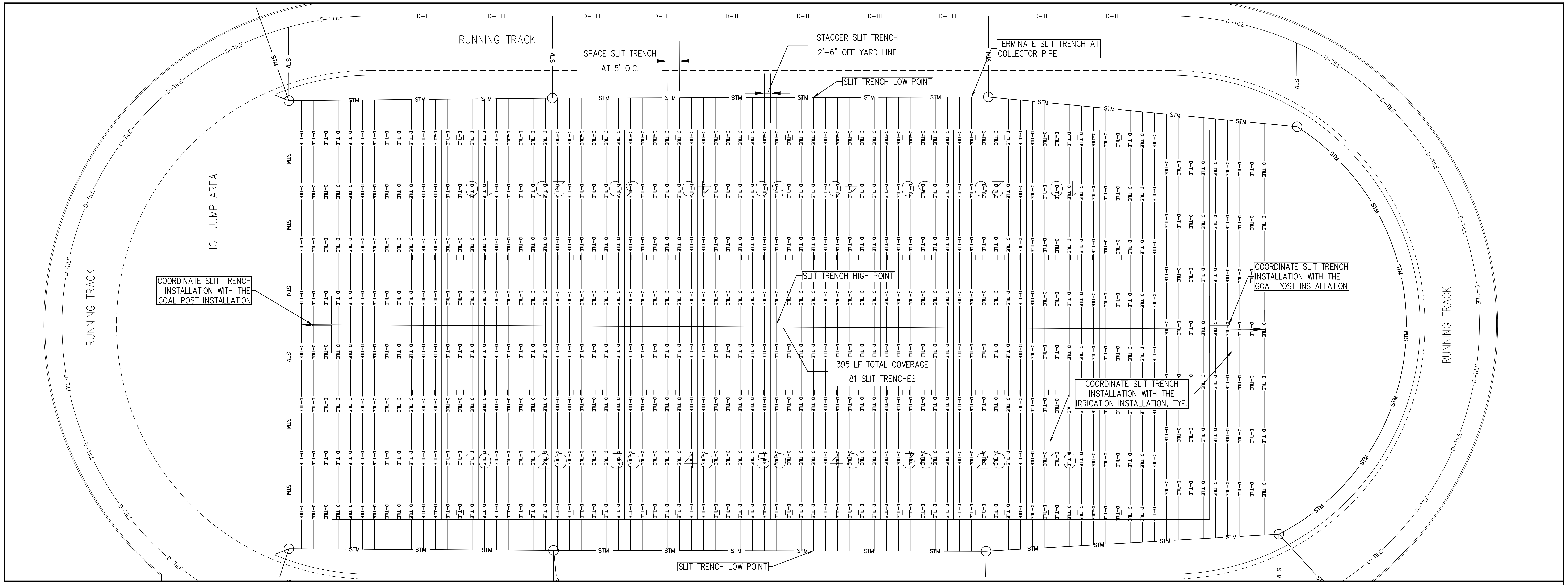
TRACK LAYOUT

C6.5



SLIT TRENCH LAYOUT

SCALE: 1 INCH = 20 FEET

N

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CHECKED	BLK	
APPROVED	ADM	

SLIT TRENCH LAYOUT

C6.6

WOOD NOTES

1. EXISTING STRUCTURAL INFORMATION, LOCATIONS AND ELEVATIONS ARE BASED ON RECORD DRAWINGS AND/OR FIELD OBSERVATIONS. THE CONTRACTOR SHALL FIELD VERIFY THIS INFORMATION PRIOR TO BEGINNING CONSTRUCTION.

2. PRE_ENGINEERED WOOD TRUSSES SHALL BE DESIGNED FOR THE FOLLOWING CRITERIA:
   A. DEAD LOADS_
      i. TOP CHORD................10 PSF
      ii. BOTTOM CHORD......10 PSF
   B. LIVE LOADS_
      i. TOP CHORD................31 PSF–UNIFORM SNOW LOAD
      ii. TOP CHORD.................UNBALANCED SNOW LOAD–SEE DIAGRAM(S) ON PLAN
      iii. TOP CHORD................DRIFT(SNOW) OR SLIDING SNOW LOAD–SEE DIAGRAM(S) ON PLAN
      iv. TOP CHORD................20 PSF–WIND LOAD
   C. DEFLECTION(LIVE LOAD)_SPAN/360

3. WHERE UNBALANCED SNOW LOADS, SLIDING SNOW LOADS OR DRIFT LOADS CREATE LARGER REACTIONS FOR THE PRIMARY ROOF TRUSSES THAN DOES THE UNIFORM SNOW LOAD, ANY GIRDER TRUSSES, OR OTHER FRAMING CARRYING PRIMARY TRUSSES, INCLUDING CONNECTION HARDWARE, SHALL BE DESIGNED BASED UPON THE LARGER REACTIONS

4. WHERE PIGGYBACK TRUSSES ARE USED TO ACHIEVE FULL ROOF HEIGHT, OR TO FRAME HIPS AND VALLEYS, ETC., THE PRIMARY LOADCARRYING TRUSSES BELOW SHALL HAVE THEIR TOP CHORDS FULLY SHEATHED AS PART OF THE ROOF DIAPHRAGM.

5. WOOD TRUSS SHOP DRAWINGS SHALL BE SUBMITTED TO THE ARCHITECT FOR APPROVAL PRIOR TO FABRICATION.
   A. TRUSS TO TRUSS CONNECTIONS SHALL BE DESIGNED BY THE TRUSS SUPPLIER AND SHALL BE CLEARLY SHOWN ON THE ERECTION PLANS.
   B. INCLUDED WITH THE SHOP DRAWING SUBMITTAL SHALL BE CUT SHEETS OF ANY TRUSS–TO–TRUSS CONNECTION HARDWARE, SHOWING DIMENSIONS AND LOAD CAPACITIES.
   C. SHOP DRAWINGS SHALL BE BEAR THE STAMP OF AN ENGINEER LICENSED IN THE STATE OF MICHIGAN.
   D. ERECTION PLANS WHICH CALL OUT TRUSS–TO–TRUSS CONNECTIONS & HARDWARE SHALL BE BEAR THE STAMP OF AN ENGINEER LICENSED IN THE STATE OF MICHIGAN.

6. LUMBER FOR JOISTS, RAFTERS, HEADERS AND BUILT UP BEAMS SHALL BE SPRUCE_PINE_FIR, #2 OR BETTER, OR APPROVED EQUAL, U.N.O.

7. LUMBER FOR ALL OTHER APPLICATIONS SHALL BE SPRUCE_PINE_FIR, STUD GRADE OR APPROVED EQUAL, U.N.O.

8. BOLTS FOR WOOD TO WOOD AND WOOD TO STEEL CONNECTIONS SHALL BE ASTM A307.

9. ROOF AND WALL SHEATHING SHALL BE APA PERFORMANCE_RATED STRUCTURAL_USE PANELS, EITHER PLYWOOD OR NONVENEER PANELS, EXPOSURE 1 CLASSIFICATION.

10. ALL LUMBER AND SHEATHING SHALL HAVE A GRADE STAMP RECOGNIZED BY THE NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION OR THE AMERICAN PLYWOOD ASSOCIATION.

11. PRESERVATIVE TREATED LUMBER SHALL BE IN ACCORDANCE WITH AWPA STANDARD U1–07. WATERBORNE PRESERVATIVE SHALL HAVE THE FOLLOWING RETENTIONS, BASED ON THE USE OF COPPER AZOLE(CA–B) PRESERVATIVE:
    A. ABOVE GROUND, EXPOSED TO WEATHER...........0.10 lb/cu. ft.
    B. GROUND CONTACT...0.21 lb/cu. ft.
    C. PERMANENT WOOD FOUNDATIONS.......................0.31 lb/cu. ft.
    OTHER PRESERVATIVES MAY BE SUBSTITUTED, UPON WRITTEN APPROVAL BY THE ARCHITECT OF ACCEPTABLE DOCUMENTATION DEMONSTRATING EQUAL PERFORMANCE & QUALITY OF THE SUBSTITUTED PRESERVATIVE.

12. FIELD CUT OR DRILLED TREATED LUMBER SHALL BE FIELD TREATED BY LIBERALLY BRUSHING ON A SOLUTION OF COPPER NAPHTHENATE CONTAINING A MINIMUM OF 2% METALLIC COPPER IN SOLUTION IN ACCORDANCE WITH AWPA STANDARD M4.

13. ALL FASTENERS(FOUNDATION ANCHORS, NAILS, SCREWS, BOLTS, ETC.) IN CONTACT WITH PRESERVATIVE TREATED LUMBER SHALL BE GALVANIZED TO EQUIVALENT OF G185 COATING IN ACCORDANCE WITH ASTM A153. ALL CONNECTORS & OTHER HARDWARE MADE FROM SHEET STEEL IN CONTACT WITH PRESERVATIVE TREATED LUMBER SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A653, CLASS G185. ANY COMPONENTS MADE FROM STRUCTURAL STEEL IN CONTACT WITH PRESERVATIVE TREATED LUMBER SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A123.

14. GLUED LAMINATED(GLULAM) TIMBER BEAMS SHALL CONFORM TO AITC COMBINATION SYMBOL 24F_V3 SP/SP, OR APPROVED EQUAL, AND SHALL CONFORM TO THE "ARCHITECTURAL" APPEARANCE GRADE OF AITC 110.

STEEL NOTES

1. EXISTING STRUCTURAL INFORMATION, LOCATIONS AND ELEVATIONS ARE BASED ON RECORD DRAWINGS AND/OR FIELD OBSERVATIONS. THE CONTRACTOR SHALL FIELD VERIFY THIS INFORMATION PRIOR TO BEGINNING CONSTRUCTION.

2. STEEL MEMBER DESIGN IS BASED UPON THE ALLOWABLE STRENGTH(LOAD & RESISTANCE FACTOR) DESIGN METHOD OF THE 13TH EDITION OF THE AISC MANUAL OF STEEL CONSTRUCTION.

3. STRUCTURAL STEEL WIDE FLANGE("W") SHAPES–ASTM A992(50 KSI STEEL)
   ALL OTHER STRUCTURAL STEEL PLATES & RODS_ASTM A36
   STEEL PIPE WITH WALL THICKNESS GREATER THAN 5/8"_ASTM A53, GRADE B
   ALL OTHER ROUND, SQUARE & RECTANGULAR HOLLOW STRUCTURAL SECTIONS_ASTM A500 GRADE B

4. BEAM CONNECTIONS SHALL BE DESIGNED TO SUPPORT HALF THE MAXIMUM TOTAL UNIFORM LOAD, FOR THE SPAN OF THE BEAM SHOWN ON THE PLANS. MAXIMUM TOTAL UNIFORM LOADS ARE PROVIDED IN TABLE 3–6 OF THE AISC MANUAL OF STEEL CONSTRUCTION, THIRTEENTH EDITION.

5. ALL STEEL TO STEEL CONNECTIONS SHALL BE MADE WITH 3/4" DIAMETER ASTM A325_N HEAVY HEX HEAD, TYPE 1, HIGH STRENGTH BOLTS OR E70XX ELECTRODES, U.N.O. ALL WELDING SHALL BE IN ACCORDANCE WITH LATEST AWS SPECIFICATIONS. MINIMUM WELD SIZE SHALL BE 3/16", U.N.O.

6. ALL BOLTS SHALL BE TIGHTENED TO "SNUG TIGHT"(PER 8.1 OF AISC SPECIFICATION FOR STRUCTURAL JOINTS USING ASTM A325 OR A490 BOLTS), U.N.O. BOLTS DESIGNATED ON THE PLANS TO BE "FULLY TENSIONED" SHALL BE TIGHTENED TO THE REQUIRED LOAD BY THE "TURN OF THE NUT" METHOD.

7. ALL FIELD CONNECTIONS SHALL BE BOLTED, U.N.O.

8. MEMBER CONNECTIONS SHALL BE DETAILED FOR A MINIMUM FORCE OF NO LESS THAN 10 KIPS.

9. ALL JOISTS AND JOIST GIRDERS SHALL CONFORM TO SJI STANDARDS. EXTEND BOTTOM CHORDS TO CONNECT AT ALL COLUMNS. PROVIDE BRIDGING PER SJI STANDARDS. JOIST CAMBER FOR FLOOR JOISTS SHALL BE PER SJI SPECIFICATIONS. ROOF JOISTS SHALL BE CAMBERED NO MORE THAN REQUIRED TO OFFSET DEFELECTION DUE TO THE JOIST'S OWN WEIGHT.

10. METAL ROOF DECK SHALL BE ASTM A611, GRADES C, D OR E, AS APPLICABLE, FOR UNCOATED OR PAINTED DECK. FOR GALVANIZED ROOF DECK, CONFORM TO ASTM A653 STRUCTURAL QUALITY GRADE 33 OR HIGHER; WITH G60 GALVANIZED COATING CONFORMING TO ASTM A525. ALL ROOF DECK SHALL CONFORM TO SDI STANDARDS, AND BE PAINTED, EXCEPT WHERE SPRAYED ON FIREPROOFING IS TO BE APPLIED, WHERE DECK SHALL BE UNCOATED.

11. OPENINGS THROUGH ROOF DECK MAY OR MAY NOT BE SHOWN ON FRAMING PLANS. GENERAL CONTRACTOR SHALL COORDINATE WITH ALL TRADES AND PROVIDE FOR OPENINGS AND FRAMES/REINFORCING AS FOLLOWS:
    A. OPENINGS UP TO 18"x18"–PROVIDE L2x2x3/16 ANGLES PERPENDICULAR TO DECK FLUTES, ON BOTH SIDES OF OPENING. EXTEND ANGLES A MINIMUM OF 2 FLUTES BEYOND EDGE OF OPENING. FASTEN ANGLES TO EACH FLUTE WITH #10 TEK SCREWS.
    B. OPENINGS LARGER THAN 18"x18"–PROVIDE A WELDED L4x4x1/4 FRAME SUPPORTED BY STEEL JOISTS OR BEAMS AS SHOWN IN "TYPICAL JOIST REINFORCING DETAIL" (SEE SHEET S4.0). REINFORCE STEEL JOISTS PER THE SAME DETAIL.

12. PROVIDE CONTINUOUS 12 GAUGE, 12"(MINIMUM) WIDE COVER PLATE WHERE ROOF DECK CHANGES DIRECTION. FASTEN TO DECK ON BOTH SIDES OF JOINT WITH #10 TEK SCREWS AT 12" O.C.

13. METAL FORM DECK SHALL BE ASTM A653 STRUCTURAL QUALITY GRADE 33 OR HIGHER; WITH G60 GALVANIZED COATING CONFORMING TO ASTM A525 OR PAINTED FINISH, AS INDICATED ON PLANS.

14. UNLESS NOTED OTHERWISE, METAL DECK SHALL BE FASTENED TO SUPPORT MEMBERS AT 18" O.C. PROVIDE TWO SIDELAP FASTENERS EVENLY SPACED BETWEEN SUPPORT MEMBERS. SUPPORT MEMBER FASTENERS SHALL BE #12 TEK SCREWS. SIDELAP FASTENERS SHALL BE #10 TEK SCREWS. METAL DECK SHALL NOT BE WELDED.

15. STEEL PAINTING_PROVIDE RED OXIDE SHOP COAT.

16. LOADS INDICATED ON PLANS ARE FULLY ADJUSTED CONNECTION DESIGN LOADS DO NOT INCREASE ALLOWABLE STRESSES FOR WIND, ETC.

17. SHOP DRAWINGS SHALL BE SUBMITTED TO THE ARCHITECT FOR APPROVAL PRIOR TO FABRICATION. FABRICATOR SHALL PRODUCE ERECTION DRAWINGS WITHOUT PHOTOCOPYING OR OTHERWISE REPRODUCING THE ARCHITECT'S DESIGN PLANS.

MASONRY NOTES

1. THE CONTRACTOR SHALL RETAIN THE SERVICES OF A QUALIFIED, INDEPENDENT, INSPECTION FIRM TO PERFORM ON–SITE INSPECTIONS OF MASONRY AS REQUIRED BY TABLE 1704.5.1 OF THE 2003 MICHIGAN BUILDING CODE. THE INSPECTION FIRM SHALL PERFORM THE FOLLOWING INSPECTION TASKS FROM THAT TABLE: 1a, 1b, 1c, 2a, 2b, 2c, 3a, 3b, 3c, 3d AND 4a.

2. ALL CONCRETE MASONRY SHALL CONFORM TO ASTM C90, HOLLOW LOADBEARING BLOCK UNITS. LAY BLOCK IN RUNNING BOND. ADD "DRY–BLOCK" BLOCK ADMIXTURE TO THE MIX FOR ALL CMU TO BE USED IN THE EXTERIOR WYTHE FOR ALL WALLS.

3. ALL MORTAR FOR CONCRETE MASONRY SHALL CONFORM TO ASTM C270, TYPE S. JOINTS SHALL BE TOOLED CONCAVE. ADD "DRY–BLOCK" MORTAR ADMIXTURE TO THE MIX FOR ALL MORTAR TO BE USED IN THE EXTERIOR WYTHE FOR ALL WALLS.

4. ALL GROUT SHALL CONFORM TO ASTM C476. MORTAR SHALL NOT BE SUBSTITUTED FOR GROUT. CORES CONTAINING REBAR SHALL BE GROUTED SOLID.
   REBAR LAPS
      VERTICAL WALL REINFORCING–48 BAR DIAMENTERS
      BOND BEAMS–30 BAR DIAMETERS
   REBAR SHOP DRAWINGS SHALL BE SUBMITTED TO THE ARCHITECT FOR APPROVAL PRIOR TO FABRICATION.

5. HORIZONTAL JOINT REINFORCEMENT SHALL BE LADDER TYPE, GALVANIZED FINISH, COLD DRAWN STEEL WITH 9 GAUGE SIDE RODS AND CROSS TIES. INSTALL JOINT REINFORCEMENT AT 16" O.C., VERTICALLY.

6. SEE LINTEL SCHEDULE FOR STEEL LINTELS. PROVIDE BOND BEAM MASONRY LINTELS OVER ALL WALL OPENINGS NOT SCHEDULED FOR STEEL LINTELS. BOND BEAM LINTELS SHALL BE 8" HIGH WITH TWO #5 BOTTOM BARS, U.N.O.

7. IN SINGLE WYTHE AND MULTI–WYTHE SOLID WALLS, STEEL LINTELS SHALL BE CENTERED ON THE WALL. IN MULTI–WYTHE CAVITY WALLS, STEEL LINTELS SHALL BE CENTERED ON THE CONCRETE MASONRY WYTHE AND THE BOTTOM PLATE FOR VENEER SUPPORT SHALL BE OFFSET AS REQUIRED.

8. STEEL BOTTOM PLATES SHALL BE WELDED TO BEAM SECTIONS TO CARRY MASONRY. PLATE WIDTH SHALL BE THE NOMINAL WALL THICKNESS MINUS 1". PLATE THICKNESS SHALL BE 1/4" FOR PLATES 12" AND LESS WIDE, AND 5/16" FOR PLATES WIDER THAN 12".

9. ALL LINTELS SHALL BEAR 8" EACH END, UNLESS A BEARING PLATE IS CALLED FOR ON THE PLANS.

10. GROUT MASONRY CORES DIRECTLY BELOW JOIST, BEAM AND LINTEL BEARINGS IN NEW AND EXISTING MASONRY A MINIMUM OF ONE COURSE, U.N.O.

11. PROVIDE VERTICAL CONTROL JOINTS AT THE FOLLOWING LOCATIONS:
    A. AS SHOWN ON THE PLANS
    B. IF CONTROL JOINTS ARE NOT SHOWN ON THE PLANS, LOCATE AS FOLLOWS:

1. INTERSECTIONS OF PERPENDICULAR WALLS
2. CHANGES IN WALL HEIGHT
3. CHANGES IN WALL THICKNESS
4. TRANSITION BETWEEN SLAB & FOOTING SUPPORTED WALLS
5. SPACED NO MORE THAN 25 FEET OR TWICE THE WALL HEIGHT APART, WHICHEVER IS LESS

12. DO NOT PLACE VERTICAL CONTROL JOINTS THROUGH BOND BEAM MASONRY LINTELS, OR WITHIN 16" OF A BEAM, LINTEL OR JOIST BEARING POINT.

13. ALL "CAST_IN" ANCHOR RODS FOR STRUCTURAL STEEL COLUMNS SHALL BE ASTM F1554, GRADE 36.

14. ALL FOUNDATION ANCHORS FOR WOOD CONSTRCUTION SHALL BE ASTM A307 STEEL, U.N.O. GALVANIZE TO G60 COATING PER ASTM A153 FOR EXTERIOR AND HIGH HUMIDITY LOCATIONS; GALVANIZE TO G185 COATING PER ASTM A153 FOR ITEMS IN CONTACT WITH PRESERVATIVE TREATED WOOD; PLAIN FINISH FOR ALL OTHER LOCATIONS.

15. DRILLED IN CONCRETE ANCHORS(DCA'S) FOR GROUTED MASONRY SHALL BE AS FOLLOWS:
    A. HILTI HEAVY DUTY "KWIK BOLTS"
    B. RAMSET/REDHEAD "DYNABOLT SLEEVE"
    C. POWERS/RAWL "POWERBOLT"
    D. SIMPSON STRONG–TIE "WEDGE–ALL"
    E. E APPROVED EQUAL
    PROVIDE STAINLESS STEEL OR GALVANIZED TO G185 COATING PER ASTM A153 FOR DCA'S IN CONTACT WITH PRESERVATIVE TREATED WOOD.

16. DRILLED IN CONCRETE ANCHORS(DCA'S) FOR HOLLOW MASONRY SHALL BE AS FOLLOWS:
    A. HILTI "SLEEVE ANCHORS"
    B. RAMSET/REDHEAD "DYNABOLT SLEEVE"
    C. POWERS/RAWL "LOK/BOLT"
    D. SIMPSON STRONG–TIE "SLEEVE–ALL"
    E. APPROVED EQUAL
    PROVIDE STAINLESS STEEL OR GALVANIZED TO G185 COATING PER ASTM A153 FOR DCA'S IN CONTACT WITH PRESERVATIVE TREATED WOOD.

17. NO FILL SHALL BE PLACED AGAINST CONCRETE MASONRY WALLS UNTIL MORTAR HAS REACHED 75% OF DESIGN STRENGTH OR UNTIL DIRECTED BY THE ARCHITECT.

18. ALL INTERSECTING MASONRY WALLS(LOAD AND NONLOADBEARING) SHALL BE ANCHORED OR BONDED TOGETHER BY ONE OF THE METHODS DESCRIBED IN THE 2006 MICHIGAN BUILDING CODE 2109.7.2.1 THROUGH 2109.7.2.5, U.N.O. MASONRY WALLS INTERSECTING A PERPENDICULAR WALL OF DIFFERENT MATERIAL SHALL BE ANCHORED TO THAT WALL BY MEANS OF STEEL CONNECTORS PER THE 2006 MICHIGAN BUILDING CODE 2109.7.2.2 OR 2109.7.2.5, U.N.O.

19. INTERIOR NONLOADBEARING MASONRY WALLS, WITH AN UNSUPPORTED LENGTH BETWEEN INTERSECTING PERPENDICULAR WALLS GREATER THAN 36 TIMES THE WALL THICKNESS, SHALL BE BRACED TO THE FLOOR OR ROOF STRUCTURE ABOVE AT INTERVALS NOT EXCEEDING 36 TIMES THE WALL THICKNESS, U.N.O.

20. ALL COLD WEATHER MASONRY WORK SHALL BE DONE IN ACCORDANCE WITH "IMIAWC: RECOMMENDED PRACTICES AND GUIDE SPECIFICATION FOR COLD WEATHER MASONRY CONSTRUCTION". THE "IMIAWC" PROVISIONS SHALL BE CONSIDERED TO BE MANDATORY.

CONCRETE NOTES

1. ALL REINFORCING STEEL SHALL CONFORM TO ASTM A615, GRADE 60. ALL WELDED WIRE FABRIC SHALL CONFORM TO ASTM A185 WITH MINIMUM LAPS OF 8".

2. PROVIDE CORNER BARS TO MATCH ALL HORIZONTAL REINFORCING IN WALLS AND FOOTINGS. ALL LAPS SHALL BE A MINIMUM OF 30 BAR DIAMETERS, U.N.O.

3. PROVIDE DOWELS BETWEEN ALL FOOTINGS, WALLS, AND PIERS TO MATCH SIZE AND SPACING OF VERTICAL REINFORCING. ALL LAPS SHALL BE A MINIMUM OF 30 BAR DIAMETERS, U.N.O.

4. ALL "CAST_IN" ANCHOR RODS FOR STRUCTURAL STEEL COLUMNS SHALL BE ASTM A307.

5. ALL FOUNDATION ANCHORS FOR WOOD CONSTRCUTION SHALL BE ASTM A307 STEEL, U.N.O. GALVANIZE TO G60 COATING PER ASTM A153 FOR EXTERIOR AND HIGH HUMIDITY LOCATIONS; GALVANIZE TO G185 COATING PER ASTM A153 FOR ITEMS IN CONTACT WITH PRESERVATIVE TREATED WOOD; PLAIN FINISH FOR ALL OTHER LOCATIONS.

6. ALL CONCRETE SHALL ATTAIN THE FOLLOWING 28 DAY COMPRESSIVE STRENGTHS:
   A. FOOTINGS, WALLS, PIERS........................3000 PSI
   B. SLABS ON GRADE OR METAL DECK......4000 PSI

7. PROVIDE AIR ENTRAINING FOR ALL CONCRETE EXCEPT INTERIOR SLABS AND INTERIOR FOOTINGS.

8. CONCRETE SHALL CONFORM TO THE FOLLOWING:
   A. ACI 301: SPECIFICATIONS FOR STRUCTURAL CONCRETE
   B. ACI 305: HOT WEATHER CONCRETING
   C. ACI 306: COLD WEATHER CONCRETING

9. NO FILL SHALL BE PLACED AGAINST CONCRETE WALLS UNTIL CONCRETE HAS REACHED 75% OF DESIGN STRENGTH OR UNTIL DIRECTED BY THE ARCHITECT.

10. DRILLED IN CONCRETE ANCHORS(DCA'S) SHALL BE AS FOLLOWS:
    A. HILTI HEAVY DUTY "KWIK BOLTS"
    B. RAMSET/REDHEAD "DYNABOLT SLEEVE"
    C. POWERS/RAWL "POWERBOLT"
    D. SIMPSON STRONG–TIE "WEDGE–ALL"
    E. APPROVED EQUAL
    PROVIDE STAINLESS STEEL OR GALVANIZED TO G185 COATING PER ASTM A153 FOR DCA'S IN CONTACT WITH PRESERVATIVE TREATED WOOD.

11. ALL EXPOSED EDGES OF CONCRETE SHALL BE CHAMFERED 3/4".

12. ELECTRICAL CONDUITS, PIPES, DRAINS, ETC. SHALL BE IN PLACE BEFORE CONCRETE IS PLACED.

13. REBAR SHOP DRAWINGS SHALL BE SUBMITTED TO THE ARCHITECT FOR APPROVAL PRIOR TO FABRICATION. ALL SHOP DRAWINGS SHALL BE PREPARED IN ACCORDANCE WITH THE LATEST EDITION OF THE ACI DETAILING MANUAL.

LIGHT GAGE STEEL FRAMING NOTES

1. DESIGN LOADS_IN ACCORDANCE WITH THE 2015 MICHIGAN BUILDING CODE & SEI/ASCE 7–10. SEE "STRUCTURAL LOADS" NOTES ON PLANS.

2. EXISTING PIPING, EQUIPMENT, STRUCTURAL INFORMATION, LOCATIONS AND ELEVATIONS ARE BASED ON RECORD DRAWINGS AND/OR FIELD OBSERVATIONS. THE CONTRACTOR SHALL FIELD VERIFY THIS INFORMATION PRIOR TO BEGINNING CONSTRUCTION.

3. ALL LIGHT GAUGE STEEL STUDS, JOISTS, HEADERS & POSTS INDICATED ON PLANS ARE OF 33 KSI STEEL, U.N.O., & CONFORM TO CLARK PROFILE CSJ, U.N.O.

4. THE SIZES, GAUGES & STEEL STRENGTHS INDICATED ON THE PLANS ARE MINIMUMS.

5. THE LIGHT WEIGHT STEEL FRAMING SUPPLIER SHALL DESIGN THE LIGHT WEIGHT STEEL FRAMING; JOISTS, STUDS, HEADERS, POSTS, CONNECTIONS, ETC. THE DESIGN SHALL BE PERFORMED BY A STRUCTURAL ENGINEER LICENSED IN THE STATE OF MICHIGAN.

6. REFER TO SPECIFICATION SECTION 05400, "COLD–FORMED METAL FRAMING", FOR MORE INFORMATION.

7. SHOP DRAWINGS SHALL BE SUBMITTED TO THE ARCHITECT FOR APPROVAL PRIOR TO FABRICATION. FABRICATOR SHALL PRODUCE ERECTION DRAWINGS WITHOUT PHOTOCOPYING OR OTHERWISE REPRODUCING THE ARCHITECT'S DESIGN PLANS.

STRUCTURAL LOADS

1. DESIGN LOADS_IN ACCORDANCE WITH THE 2015 MICHIGAN BUILDING CODE & SEI/ASCE 7–10.

2. SNOW LOAD INFORMATION
   A. Pg=40 PSF
   B. Is=1.1(CATEGORY III)
   C. Ce=1.0(EXPOSURE B)
   D. Ct=1.0
   E. Pf=31 PSF=(40 PSF)(0.7)(1.1)(1.0)(1.0)
   UNBALANCED SNOW LOAD, DRIFT LOAD AND SLIDING SNOW LOAD CONDITIONS HAVE BEEN TAKEN INTO ACCOUNT FOR THE STRUCTURAL DESIGN – SEE DIAGRAM ON PLANS

3. WIND LOAD INFORMATION
   A. V=120 MPH
   B. Iw=1.0(CATEGORY III)
   C. EXPOSURE C
   D. GCpi=+0.18 & –0.18
   E. MWFS DESIGN PRESSURE = 18 PSF
   F. COMPONENTS & CLADDING DESIGN WIND PRESSURE=38 PSF

4. SEISMIC LOAD INFORMATION
   A. SEISMIC USE GROUP III(Ie=1.25)
   B. SPECTRAL RESPONSE ACCELERATIONS
      1. Ss=0.060g
      2. S1=0.039g
   C. SITE CLASS D
   D. SPECTRAL RESPONSE COEFFICIENTS
      1. Sds=0.064g
      2. Sd1=0.062g
   E. SEISMIC DESIGN CATEGORY A
   F. BASIC SEISMIC FORCE RESISTING SYSTEM=ORDINARY PLAIN MASONRY SHEAR WALLS
   G. DESIGN BASE SHEAR= 13,245 lb (PER 2015 MBC 1613.1)
   H. SEISMIC RESPONSE COEFFICIENT Cs=0.032
   I. RESPONSE MODIFICATION FACTOR R=2.5
   J. ANALYSIS PROCEDURE USED–EQUIVALENT LATERAL FORCE PROCEDURE PER 2015 MBC SECTION 1613.1

SITE PREP NOTES

1. REFER TO THE GEOTECHNICAL REPORT BY G2 CONSULTING GROUP. IN SPECIFICATION SECTION 02010–GEOTECHNICAL REPORT. THOSE PORTIONS OF THE GEOTECHNICAL REPORT INDICATED IN THESE "SITE PREPARATION NOTES" SHALL BE CONSIDERED REQUIRED WORK FOR THE PROJECT.

2. WITHIN THE BUILDING FOOTPRINT AND 5 FEET BEYOND, REMOVE ALL MATERIAL IDENTIFIED AS TOPSOIL AND EXISTING FILL BY THE GEOTECHNICAL REPORT (SEE SECTION SITE PREPARATION OF THE GEOTECHNICAL REPORT).

3. FOOTINGS ARE DESIGNED TO BEAR ON NATURAL MATERIALS/ENGINEERED FILL WITH A NET ALLOWABLE BEARING CAPACITY OF 400 PSF AS DESCRIBED IN THE FOUNDATION RECOMMENDATIONS OF THE GEOTECHNICAL REPORT(CONTRACTOR TO VERIFY BY QUALIFIED TESTING AGENCY IN THE FIELD). IF MATERIAL OF THIS CAPACITY IS NOT FOUND AT THE ELEVATIONS INDICATED, FOOTINGS SHALL BE LOWERED OR ENLARGED AT THE DIRECTION OF THE ARCHITECT.

4. TO ACHIEVE PROPER GRADE FOR THE BUILDING, STRUCTURAL FILL SHALL BE PROVIDED AS DESCRIBED IN THE GEOTECHNICAL REPORT.

5. THE FINAL 6" OF SOIL DIRECTLY BELOW FLOOR SLABS SHALL BE WELL GRADED MATERIAL COMPACTED TO 95% OF MODIFIED PROCTOR AS DESCRIBED IN THE FLOOR SLAB SECTION OF THE GEOTECHNICAL REPORT.

6. DO NOT UNDERMINE THE EXISTING FOUNDATIONS WHEN EXCAVATING ADJACENT TO THE EXISTING BUILDING. SHOULD IT BECOME NECESSARY TO EXCAVATE TO AN ELEVATION BELOW THE EXISTING FOOTINGS, THE EXCAVATION CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING & DESIGNING TEMPORARY SHORING OF EXISTING FOOTINGS, OR OTHER MEANS OF SAFEGUARDING THE EXISTING FOUNDATIONS.

7. THE GEOTECHNICAL REPORT CONSTITUTES ALL INFORMATION AVAILABLE REGARDING SUBSURFACE CONDITIONS. THE CONTRACTOR SHALL READ AND BECOME FAMILIAR WITH THE GEOTECHNICAL REPORT, WITH PARTICULAR REGARD FOR THE IMPACT OF SUBSURFACE CONDITIONS ON THE CONSTRUCTION PROCESS. ANY MEASURES NECESSARY TO FACILITATE THE CONSTRUCTION PROCESS ITSELF, INCLUDING, BUT NOT LIMITED TO, TEMPORARY SHORING OF EXCAVATIONS AND TEMPORARY DEWATERING, SHALL BE THE CONTRACTOR'S RESPONSIBILITY AND SHALL BE INCLUDED IN THE BID PRICE.

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ARCHITECTURE
ENGINEERING
CONSULTING

IDI
INTEGRATED DESIGNS INC.

BEAL CITY
2024 BOND WORK - PHASE 2
MT. PLEASANT, MICHIGAN
PROJECT NO. 22-037

	BY	DATE
DESIGN	NPC	06.14.23
DRAWN	NPC	06.14.23
CHECKED	NPC	--
APPROVED	NPC	--

NO.	REVISIONS	DATE
A	FINAL REVIEW	03.14.25
0	FOR CONSTRUCTION	03.27.25
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GENERAL STRUCTURAL NOTES AND QUALITY ASSURANCE TABLES

TS0.1

TABLE 1.19.2
LEVEL C REQUIRED VERIFICATION AND INSPECTION OF MASONRY CONSTRUCTION

VERIFICATION AND INSPECTION	FREQUENCY OF INSPECTION		REFERENCE FOR CRITERIA		
	CONTINUOUS	PERIODIC	IBC SECTION	TMS 402/ACI 530/ASCE 5	TMS 602/ACI 530.1/ASCE 6
1. VERIFY COMPLIANCE WITH THE APPROVED SUBMITTALS.	-	X	-	-	ART 1.5
2. VERIFICATION OF f'm AND f'aac PRIOR TO CONSTRUCTION EXCEPT WHERE SPECIFICALLY EXEMPTED BY THIS CODE.	-	X	-	-	ART 1.4B
3. VERIFICATION OF SLUMP FLOW AND VSI AS DELIVERED TO THE SITE FOR SELF-CONSOLIDATING GROUT.	X	-	-	-	ART 1.5B.1.b.3
4. THE FOLLOWING SHALL BE VERIFIED TO ENSURE COMPLIANCE:					
a. PROPORTIONS OF SITE-PREPARED MORTAR	-	X	-	-	ART 2.1, 2.6A
b. GRADE AND SIZE OF PRESTRESSING TENDONS AND ANCHORAGES	-	X	-	-	ART 2.4B, 2.4H
c. PLACEMENT OF MASONRY UNITS AND CONSTRUCTIONS OF MORTAR JOINTS	-	X	-	-	ART 3.3B
d. LOCATION OF REINFORCEMENT, CONNECTORS, AND PRESTRESSING TENDONS AND ACHORAGES	-	X	-	-	ART 3.4, 3.6A
e. PRESTRESSING TECHNIQUE	-	X	-	-	ART 3.6B
f. PROPERTIES OF THIN-BED MORTAR FOR AAC MASONRY	$X^{(a)}$	$X^{(b)}$	-	-	ART 2.1C
3. PRIOR TO GROUTING, VERIFY THAT THE FOLLOWING ARE IN COMPLIANCE:					
a. GROUT SPACE	-	X	-	-	ART 3.2D, 3.2F
b. GRADE, TYPE, AND SIZE OF REINFORCEMENT AND ANCHOR BOLTS, AND PRESTRESSING TENDONS AND ACNHORAGES	X	-	-	SEC 1.16	ART 2.4, 3.4
c. PLACEMENT OF REINFORCEMENT, CONNECTORS, AND PRESTRESSING TENDONS AND ANCHORAGES	-	X	-	SEC. 1.16	ART. 3.2E, 3.4, 3.6A
d. PROPORTIONS OF SITE-PREPARED GROUT AND PRESTRESSING GROUT FOR BONDED TENDONS	-	X	-	-	ART 2.6B, 2.4G.1.b
e. CONSTRUCTION OF MORTAR JOINTS	-	X	-	-	ART 3.3B
4. VERIFY DURING CONSTRUCTION:					
a. SIZE AND LOCATION OF STRUCTURAL ELEMENTS	-	X	-	-	ART 3.3F
b. SIZE, TYPE AND LOCATION OF ANCHORS, INCLUDEING OTHER DETAILS OF ANCHORAGE OF MASONRY TO STRUCTURAL MEMBERS, FRAMES, OR OTHER CONSTRUCTION	-	X	-	SEC 1.16.4.3, 1.17.1	-
c. WELDING OF REINFORCEMENT	X	-	-	SEC 2.1.7.7.2, 3.3.3.4(c), 8.3.3.4(b)	-
d. PREPARATION, CONSTRUCTION, AND PROTECTION OF MASONRY DURING COLD WEATHER (TEMPERATURE BELOW 40°F (4.4°C)) OR HOT WEATHER (TEMPERATURE ABOVE 90°F (32.2°C))	-	X	-	-	ART 1.8C, 1.8D
e. APPLICATION AND MEASUREMENT OF PRESTRESSING FORCE	X	-	-	-	ART 3.6B
f. PLACEMENT OF GROUT AND PRESTRESSING GROUT FOR BONDED TENDONS IS IN COMPLIANCE	X	-	-	-	ART 3.5,3.6C
g. PLACEMENT OF AAC MASONRY UNITS AND CONSTRUCTION OF THIN-BED MORTAR JOINTS	$X^{(a)}$	$X^{(b)}$	-	-	ART 2.1C
5. OBSERVE PREPARATION OF GROUT SPECIMENS, MORTAR SPECIMENS, AND/OR PRISMS	-	X	-	-	ART 1.4B.2.a.3, 1.4B.2.b.3, 1.4B.2.c.3,1.4B.3, 1.4B.4

(a) REQUIRED FOR THE FIRST 5000 SQAURE FEET (465 SQUARE METERS) OF AAC MASONRY.

(b) REQUIRED AFTER THE FIRST 5000 SQAURE FEET (465 SQUARE METERS) OF AAC MASONRY.

TABLE 1705.6
REQUIRED VERIFICATION AND INSPECTION OF SOILS

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

TABLE 1705.2
REQUIRED VERIFICATION AND INSPECTION OF STEEL CONSTRUCTION

VERIFICATION AND INSPECTION	CONTINUOUS	PERIODIC	REFERENCED STANDARD	IBC REFERENCED
1. MATERIAL VERIFICATION OF STRUCTURAL STEEL	-	X		
2. INSPECTION TASKS FOR STRUCTURAL STEEL WELDING:				
a. PRIOR TO WELDING (OBSERVE, OR PERFORM FOR EACH WELDED JOINT OR MEMBER, THE QA TASKS LISTED IN AISC 360 TABLE N5.4-1)	SEE REFERENCED TABLE	SEE REFERENCED TABLE	AISC 360, SECTION N5.4 TABLE N5.4-1, AISC N5.4	
b. DURING WELDING (OBSERVE, OR PERFORM FOR EACH WELDED JOINT OR MEMBER, THE QA TASKS LISTED IN AISC 360 TABLE N5.4-2)	SEE REFERENCED TABLE	SEE REFERENCED TABLE	AISC 360, SECTION N5.4 TABLE N5.4-2, AISC N5.4	
c. AFTER WELDING (OBSERVE, OR PERFORM FOR EACH WELDED JOINT OR MEMBER, THE QA TASKS LISTED IN AISC 360 TABLE N5.4-3)	SEE REFERENCED TABLE	SEE REFERENCED TABLE	AISC 360, SECTION N5.4 TABLE N5.4-3, AISC N5.4	
d. NONDESTRUCTIVE TESTING (NDT) OF WELDED JOINTS:				
1) COMPLETE PENETRATION GROOVE WELDS $\frac{5}{16}$" OR GREATER IN RISK CATEGORY III OR IV	-	X	AISC 360, SECTION N5.5, AISC N5.5	
2) COMPLETE PENETRATION GROOVE WELDS $\frac{5}{16}$" OR GREATER IN RISK CATEGORY II	-	X		
3) THERMALLY CUT SURFACES OF ACCESS HOLES WHEN MATERIAL t > 2"	-	X		
4) WELDED JOINTS SUBJECTED TO FATIGUE WHEN REQUIRED BY AISC 360, APPENDIX 3, TABLE A-3.1	-	X	AISC 360, APPENDIX 3	
5) MANUFACTURERS NDT REPORTS WHEN PERFORMED	-	X		
2. INSPECTION TASKS FOR STRUCTURAL STEEL BOLTING:				
a. PRIOR TO BOLTING (OBSERVE, OR PERFORM TASKS FOR EACH BOLTED CONNECTION, IN ACCORDANCE WITH QA TASKS LISTED IN AISC 360, TABLE N5.6-1)	SEE REFERENCED TABLE	SEE REFERENCED TABLE	AISC 360, SECTION N5.6 TABLE N5.6-2, AISC N5.6	
b. DURING BOLTING (OBSERVE THE QA TASKS LISTED IN AISC 360, TABLE N5.6-2)	SEE REFERENCED TABLE	SEE REFERENCED TABLE	AISC 360, SECTION N5.6 TABLE N5.6-2, AISC N5.6	
1) PRETENSIONED AND SLIP-CRITICAL JOINTS USING TURN-OF-NUT WITH MATCHMARKING, TWIST-OFF BOLT OR DIRECT TENSION INDICATOR METHODS OF INSTALLATION.	-	X	AISC 360, SECTION M2.5	
2) PRETENSIONED AND SLIP-CRITICAL JOINTS USING TURN-OF-NUT WITHOUT MATCHMARKING OR CALIBRATED WRENCH METHODS OF INSTALLATION.	X	-		
3) SNUG TIGHT JOINTS.	-	X		
c. AFTER BOLTING (PERFORM TASKS FOR EACH BOLTED CONNECTION IN ACCORDANCE WITH QA TASKS LISTED IN AISC 360, TABLE N5.6-3)	SEE REFERENCED TABLE	SEE REFERENCED TABLE	AISC 360, SECTION N5.6 TABLE N5.6-3, AISC N5.6	
3. REINFORCING STEEL:				
a. VERIFICATION OF WELDABILITY OF REINFORCING STEEL OTHER THAN ASTM A 706.	-	X		
2) REINFORCING STEEL RESISTING FLEXURAL AND AXIAL FORCES IN INTERMEDIATE AND SPECIAL MOMENT FRAMES, AND BOUNDARY ELEMENTS OF SPECIAL STRUCTURAL WALLS OF CONCRETE AND SHEAR REINFORCEMENT.	X	-		
3) SHEAR REINFORCEMENT.	X	-		
4) OTHER REINFORCING STEEL.	-	X		
4. INSPECTION OF STEEL FRAME JOINT DETAILS FOR COMPLIANCE:				
a. DETAILS SUCH AS BRACING AND STIFFENING.	-	X		
b. MEMBER LOCATIONS.	X	-		
c. APPLICATION OF JOINT DETAILS AT EACH CONNECTION.	-	X		
5. MATERIAL VERIFICATION OF COLD-FORMED STEEL DECK:				
a. IDENTIFICATION MARKINGS	-	X		
b. MANUFACTURERS CERTIFIED TEST REPORTS	-	X		
6. CONNECTION OF COLD-FORMED DECK TO SUPPORTING STRUCTURE:				
a. WELDING	-	X		
b. OTHER FASTENERS				
1) VERIFY FASTENERS ARE IN CONFORMANCE WITH APPROVED SUBMITTAL	-	X	AISC 360, SECTION N6	
2) VERIFY FASTENER INSALLATION IS IN CONFORMANCE WITH APPROVED SUBMITTAL AND MANUFACTURER'S RECOMMENDATIONS	-	X		

TABLE 1705.3
REQUIRED VERIFICATION AND INSPECTION OF CONCRETE CONSTRUCTION

VERIFICATION AND INSPECTION	CONTINUOUS	PERIODIC	REFERENCED STANDARD	IBC REFERENCED
1. INSPECTION OF REINFORCEMENT, INCLUDING PRESTRESSING TENDONS, AND VERIFY PLACEMENT	-	X	ACI 318: CH. 20, 25.2, 25.3, 26.6.1-26.6.3	1908.4
2. REINFORCING BAR WELDING:			AWS D1.4 ACI 318: 26.6.4	
a. VERIFY WELDABILITY OF REINFORCING BARS OTHER THAN ASTM A706	-	X		
b. INSPECT SINGLE-PASS FILLET WELDS, MAXIMUM $\frac{5}{16}$"; AND	-	X		
c. INSPECT ALL OTHER WELDS.	X	-		
3. INSPECT ANCHORS CAST IN CONCRETE	-	X	ACI 318: 17.8.2	
4. INSPECT ANCHORS POST-INSTALLED IN HARDENED CONCRETE MEMBERS.				
a. ADHESIVE ANCHORS INSTALLED IN HORIZONTALLY OR UPWARDLY INCLINED ORIENTATIONS TO RESIST SUSTAINED TENSION LOADS.	X	-	ACI 318: 17.8.2.4	
b. MECHANICAL ANCHORS AND ADHESIVE ANCHORS NOT DEFINED IN 4.a.	-	X	ACI 318: 17.8.2	
5. VERIFY USE OF REQUIRED DESIGN MIX.	-	X	ACI 318: CH. 19, 26.4.3, 26.4.4	1904.1, 1904.2, 1908.2, 1908.3
6. PRIOR TO CONCRETE PLACEMENT, FABRICATE SPECIMENS FOR STRENGTH TESTS, PERFORM SLUMP AND AIR CONTENT TESTS, AND DETERMINE THE TEMPERATURE OF THE CONCRETE.	X	-	ASTM C 172, ASTM C 31 ACI 318: 26.4, 26.12	1908.10
7. INSPECT CONCRETE AND SHOTCRETE PLACEMENT FOR PROPER APPLICATION TECHNIQUES.	X	-	ACI 318: 26.5	1908.6, 1908.7, 1908.8
8. VERIFY MAINTENANCE OF SPECIFIED CURING TEMPERATURE AND TECHNIQUES.	-	X	ACI 318: 26.5.3-26.5.5	1908.9
9. INSPECT PRESTRESSED CONCRETE FOR:			ACI 318: 26.10	
a. APPLICATION OF PRESTRESSING FORCES; AND	X	-		
b. GROUTING OF BONDED PRESTRESSING TENDONS.	X	-		
10. ERECTION OF PRECAST CONCRETE MEMBERS.	-	X	ACI 318: CH 26.8	
11. VERIFICATION OF IN-SITU CONCRETE STRENGTH, PRIOR TO STRESSING OF TENDONS IN POST-TENSIONED CONCRETE AND PRIOR TO REMOVAL OF SHORES AND FORMS FROM BEAMS AND STRUCTURAL SLABS.	-	X	ACI 318: 26.11.2	
12. INSPECT FORMWORK FOR SHAPE, LOCATION AND DIMENSIONS OF CONCRETE BEING FORMED.	-	X	ACI 318: 26.11.1.2(b)	

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MT. PLEASANT, MICHIGAN
PROJECT NO. 22-037

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A	FINAL REVIEW	03.14.25
0	FOR CONSTRUCTION	03.27.25
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	BY	DATE
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DRAWN	---	---
CHECKED	---	---
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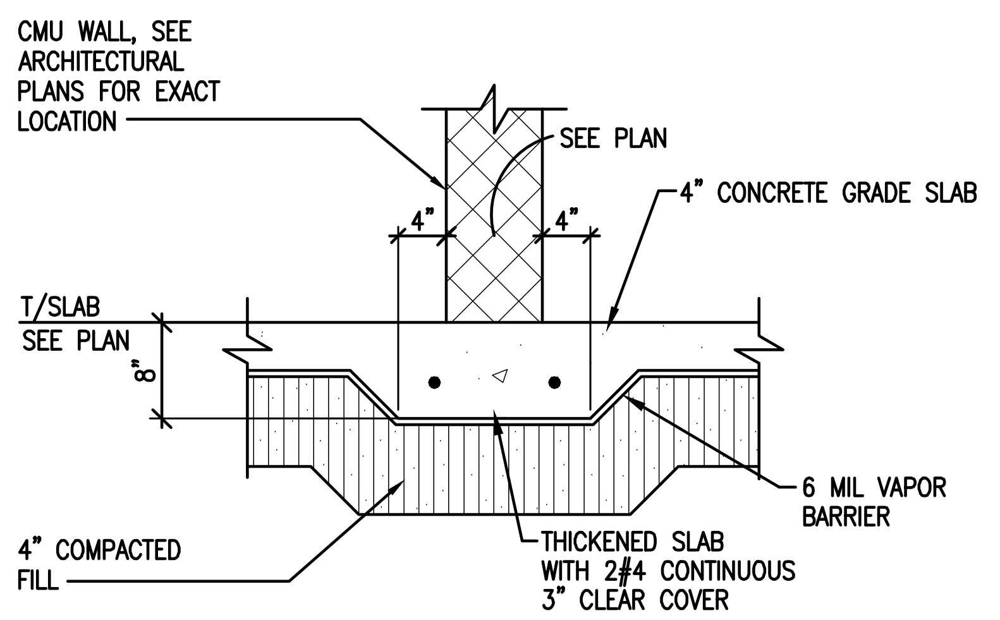
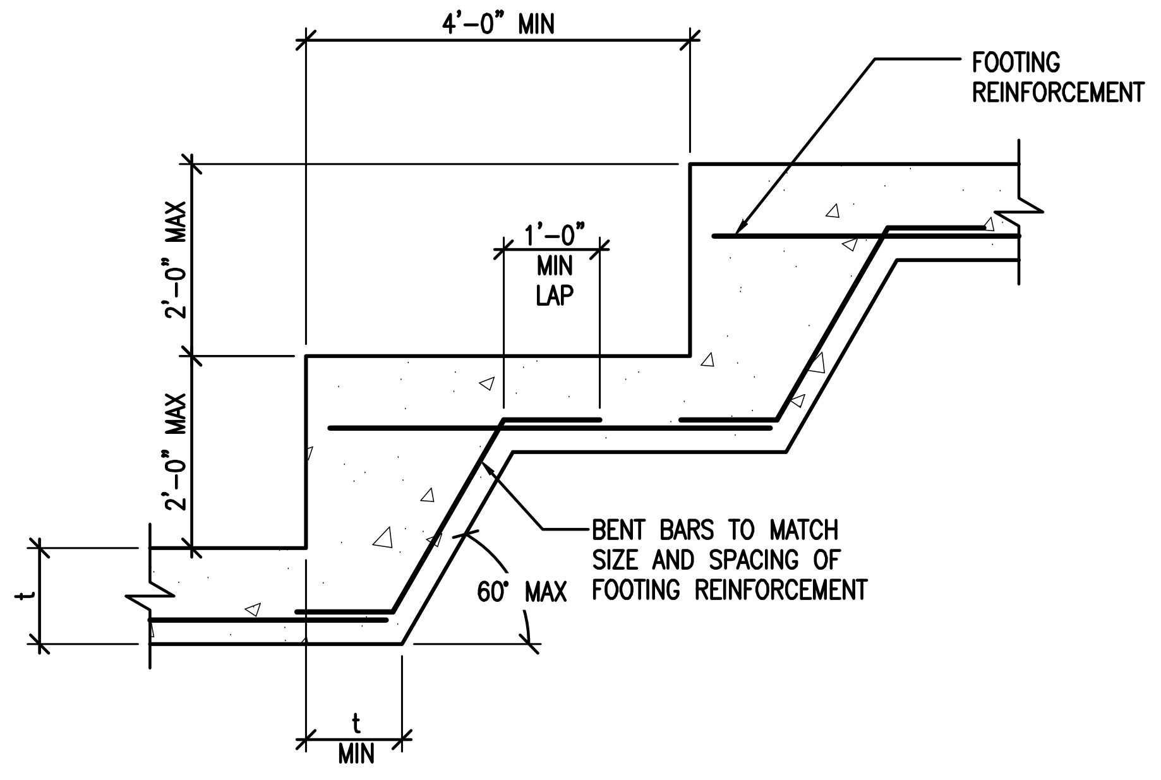
QUALITY CONTROL
TABLES

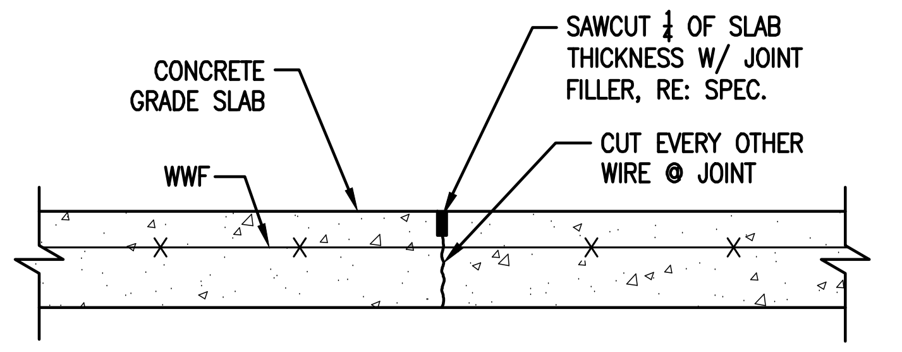
TS0.2


CMU WALL, SEE ARCHITECTURAL PLANS FOR EXACT LOCATION
SEE PLAN
4" CONCRETE GRADE SLAB
4"
4"
T/SLAB SEE PLAN
8"
6 MIL VAPOR BARRIER
4" COMPACTED FILL
THICKENED SLAB WITH 2#4 CONTINUOUS 3" CLEAR COVER

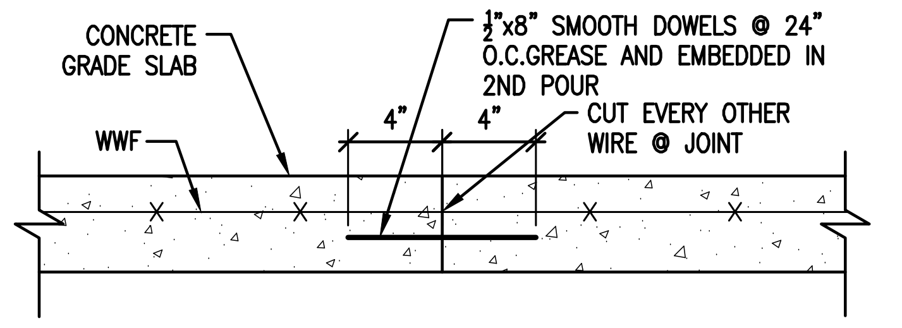
THICKENED SLAB
SCALE: 3/4" = 1'-0"



FOOTING STEP DETAIL
NO SCALE

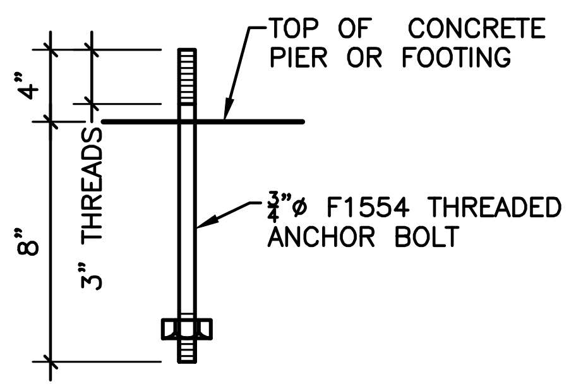

CONCRETE GRADE SLAB
WWF
SAWCUT ¼ OF SLAB THICKNESS W/ JOINT FILLER, RE: SPEC.
CUT EVERY OTHER WIRE @ JOINT

CONTROL JOINT

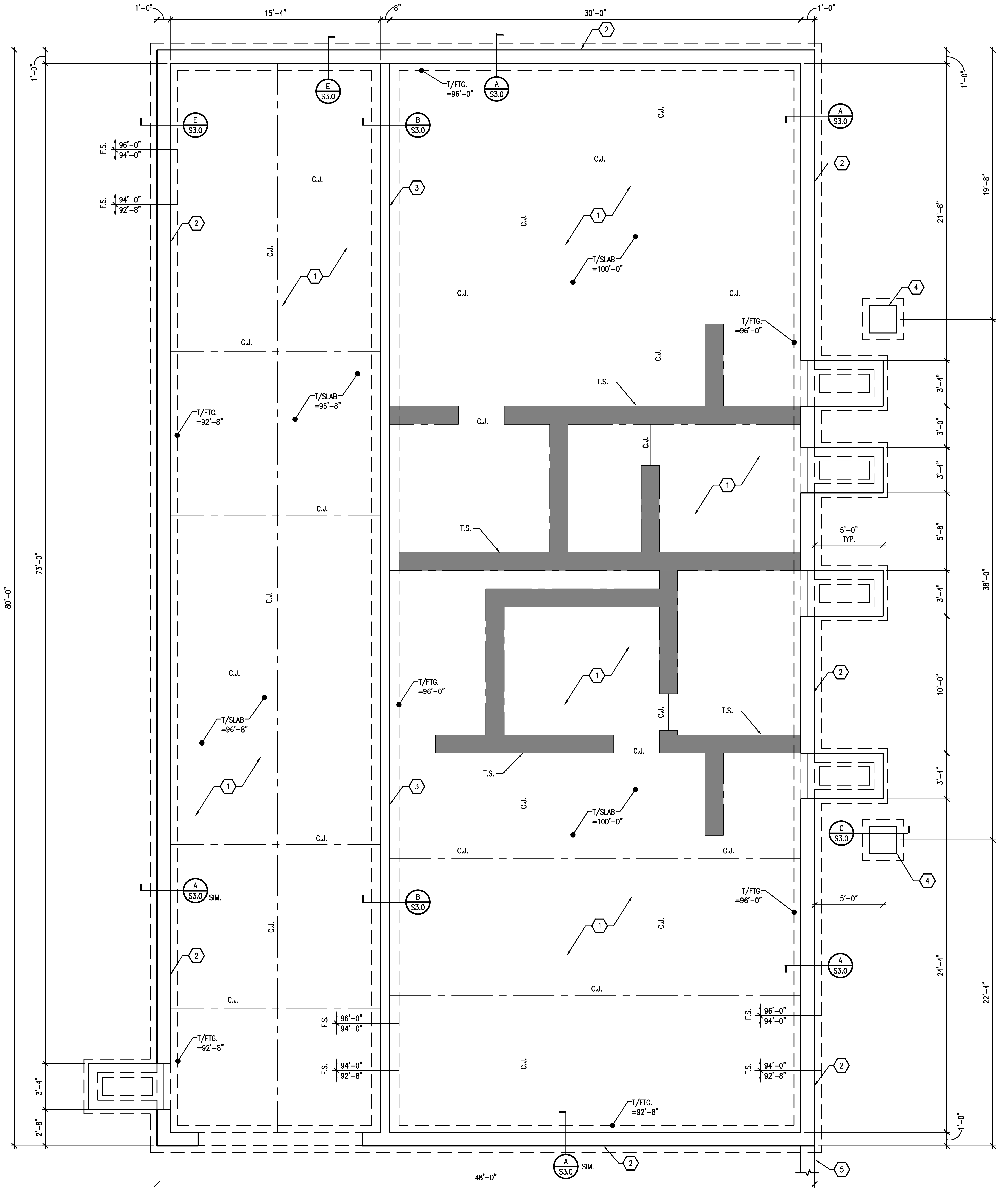

CONCRETE GRADE SLAB
WWF
½"x8" SMOOTH DOWELS @ 24" O.C.GREASE AND EMBEDDED IN 2ND POUR
4"
4"
CUT EVERY OTHER WIRE @ JOINT

CONSTRUCTION JOINT

CONTROL/ CONSTRUCTION JOINTS
NO SCALE


TOP OF CONCRETE PIER OR FOOTING
4"
8"
3" THREADS
¾"ø F1554 THREADED ANCHOR BOLT

TYPICAL COL. ANCHORS
NO SCALE



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

T/SLAB = 100'-0" U.N.O. = 887.03' CIVIL
T/FTG. = 96'-0" U.N.O.

⬡ KEYNOTES ⬡

1. 4" CONC. GRADE SLAB W/ WWF, 6x6–W1.4xW1.4 IN TOP ⅓ OF SLAB ON 6 MIL VAPOR BARRIER ON 6" COMPACTED GRANULAR FILL.
2. 12" REINF. MASONRY FOUNDATION WALL W/ CONT. 12"x24" REINF. CONC. FOOTING.
3. 8" REINF. MASONRY RETAIN. WALL W/ CONT. 12"x24" REINF. CONC. FOOTING.
4. 24"x24" REINF. CONC. PIER W/ 12"x3'–0"x3'–0" REINF. CONC. SPREAD FOOTING.
5. 12" CMU RETAINING WALL, SEE DETAIL ON S3.0 & CIVIL DWGS FOR EXTENTS.

LEGEND

F.S.	FOOTING STEP
T/	"TOP OF"
EXIST.	EXISTING
F–x	FOOTING MARK
T.S.	THICKENED SLAB ▨
TYP.	TYPICAL
C.J.	CONTROL/CONSTRUCTION JOINT
SIM.	SIMILAR
T/S	TOP OF STEEL
F.V.	FIELD VERIFY
N.T.S.	NOT TO SCALE
U.N.O.	UNLESS NOTED OTHERWISE

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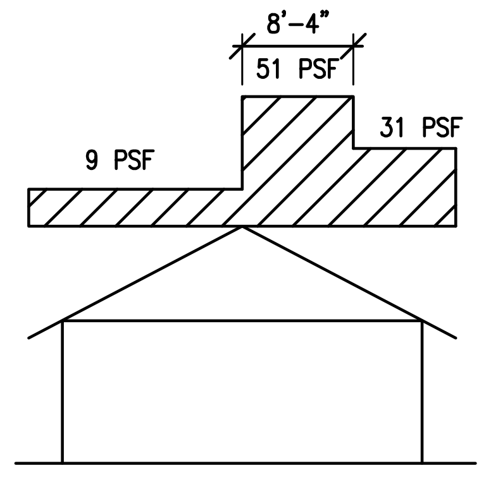
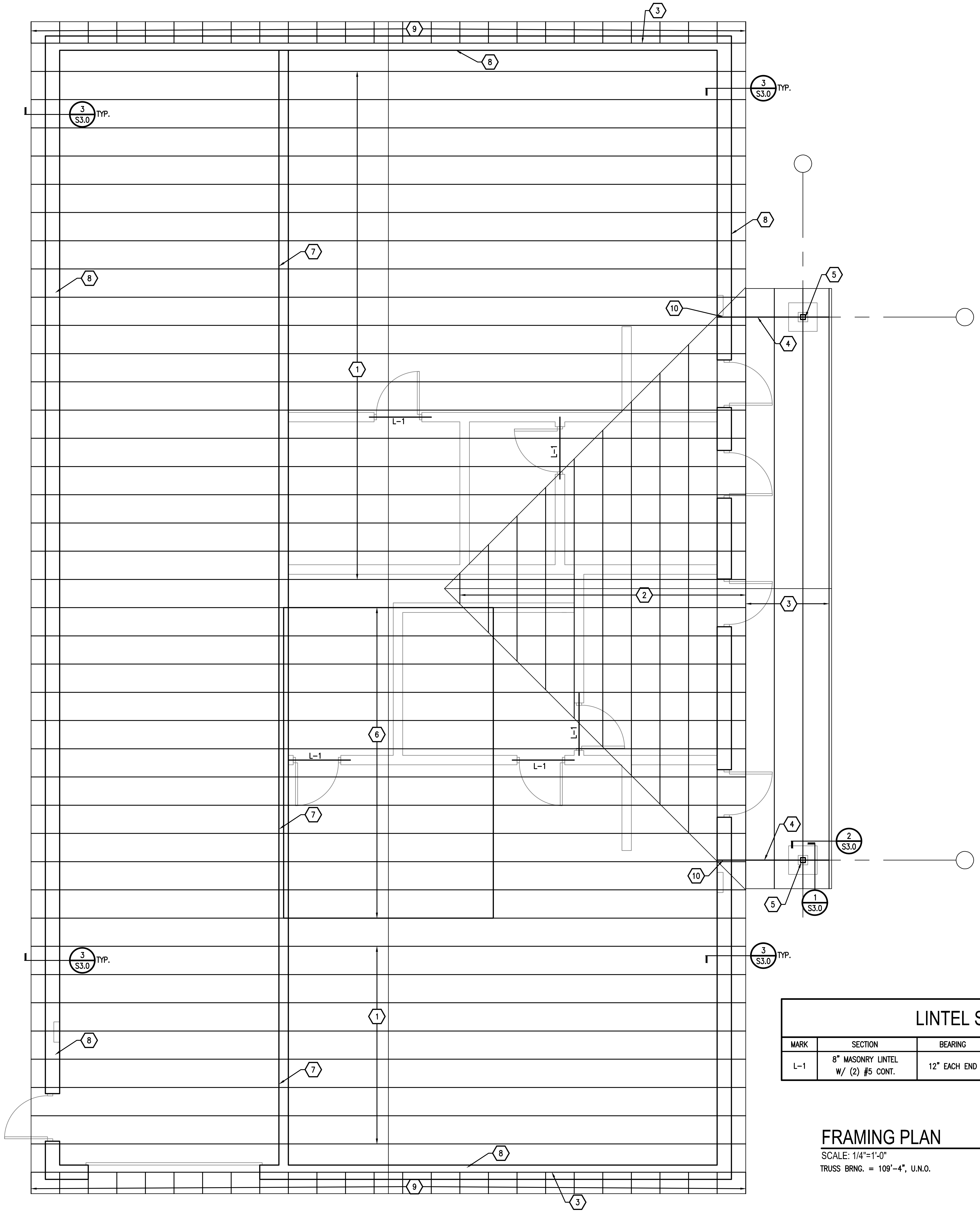
FOUNDATION PLAN

TS1.0



SLOPED ROOF



LINTEL SCHEDULE

MARK	SECTION	BEARING	REMARKS
L-1	8" MASONRY LINTEL W/ (2) #5 CONT.	12" EACH END	--

FRAMING PLAN

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

TRUSS BRNG. = 109'-4", U.N.O.

⬡ KEYNOTES ⬡

1. PRE-ENGINEERED WOOD GABLE TRUSS @ 24" O.C. MAX.
2. STEP TRUSSES @ 24" O.C. MAX.
3. PRE-ENGINEERED WOOD GABLE END TRUSS.
4. HSS4x4x¼" STEEL BEAM.
5. STEEL COLUMN – HSS4x4x¼" W/ ¾"x10"x0'-10" STEEL BASE PLATE AND (4) TYPE I ANCHOR BOLTS.
6. PRE-ENGINEERED WOOD ATTIC TRUSSES @ 24" O.C. MAX., SEE TRUSS PROFILE SHEET S4.0
7. CONT. 2x TOP PLATE AT TOP OF WALL W/ ½" DIA. BOLTS @ 24" O.C.
8. 6" 18 GA. S162 METAL STUD @ 16" O.C. (SELECTION BASED ON CLARK DIETRICH TABLES), OR APPROVED EQ.
9. OUTRIGGERS @ 24" O.C.
10. BUILT UP STUD COLUMN FOR TUBE BEARING.

LEGEND

T/	"TOP OF"
EXIST.	EXISTING
F-x	FOOTING MARK
TYP.	TYPICAL
STEEL JOIST	— — — —
BEAM/LINTEL	———
L-x	LINTEL MARK
HORIZONTAL BRIDGING	———
CROSS BRIDGING	✕
J.B.	JOIST BEARING ELEVATION
O.H.	OPPOSITE HAND
SIM.	SIMILAR
T/S	TOP OF STEEL
F.V.	FIELD VERIFY
N.T.S.	NOT TO SCALE
U.N.O.	UNLESS NOTED OTHERWISE

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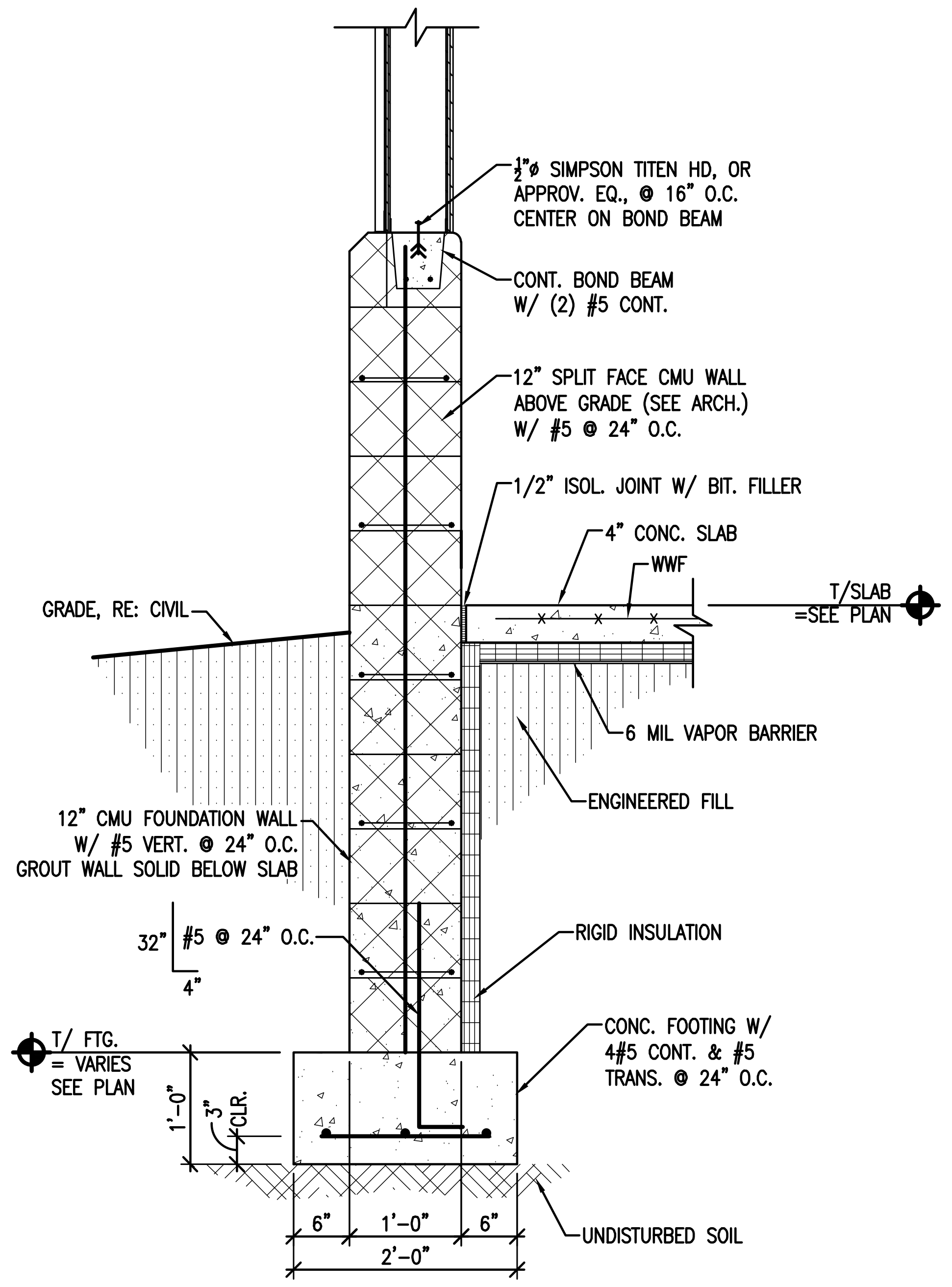
FRAMING PLAN

TS2.0

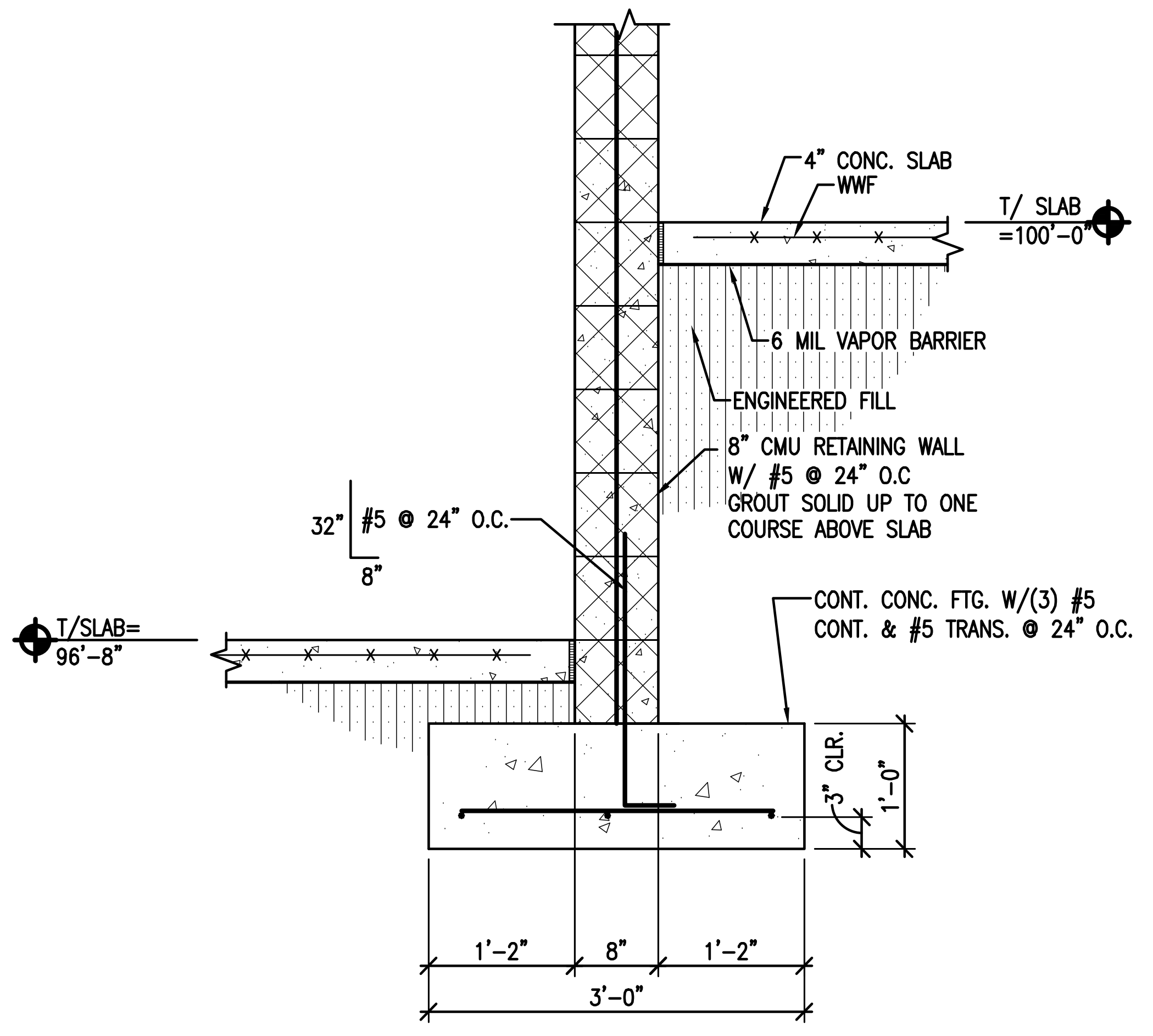


½"ø SIMPSON TITEN HD, OR APPROV. EQ., @ 16" O.C. CENTER ON BOND BEAM
CONT. BOND BEAM W/ (2) #5 CONT.
12" SPLIT FACE CMU WALL ABOVE GRADE (SEE ARCH.) W/ #5 @ 24" O.C.
1/2" ISOL. JOINT W/ BIT. FILLER
4" CONC. SLAB
WWF
T/SLAB =SEE PLAN
GRADE, RE: CIVIL
6 MIL VAPOR BARRIER
ENGINEERED FILL
12" CMU FOUNDATION WALL W/ #5 VERT. @ 24" O.C. GROUT WALL SOLID BELOW SLAB
32"
#5 @ 24" O.C.
4"
RIGID INSULATION
T/ FTG. = VARIES SEE PLAN
CONC. FOOTING W/ 4#5 CONT. & #5 TRANS. @ 24" O.C.
1'-0"
3" CLR.
6"
1'-0"
6"
2'-0"
UNDISTURBED SOIL

DETAIL

A
S1.0

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

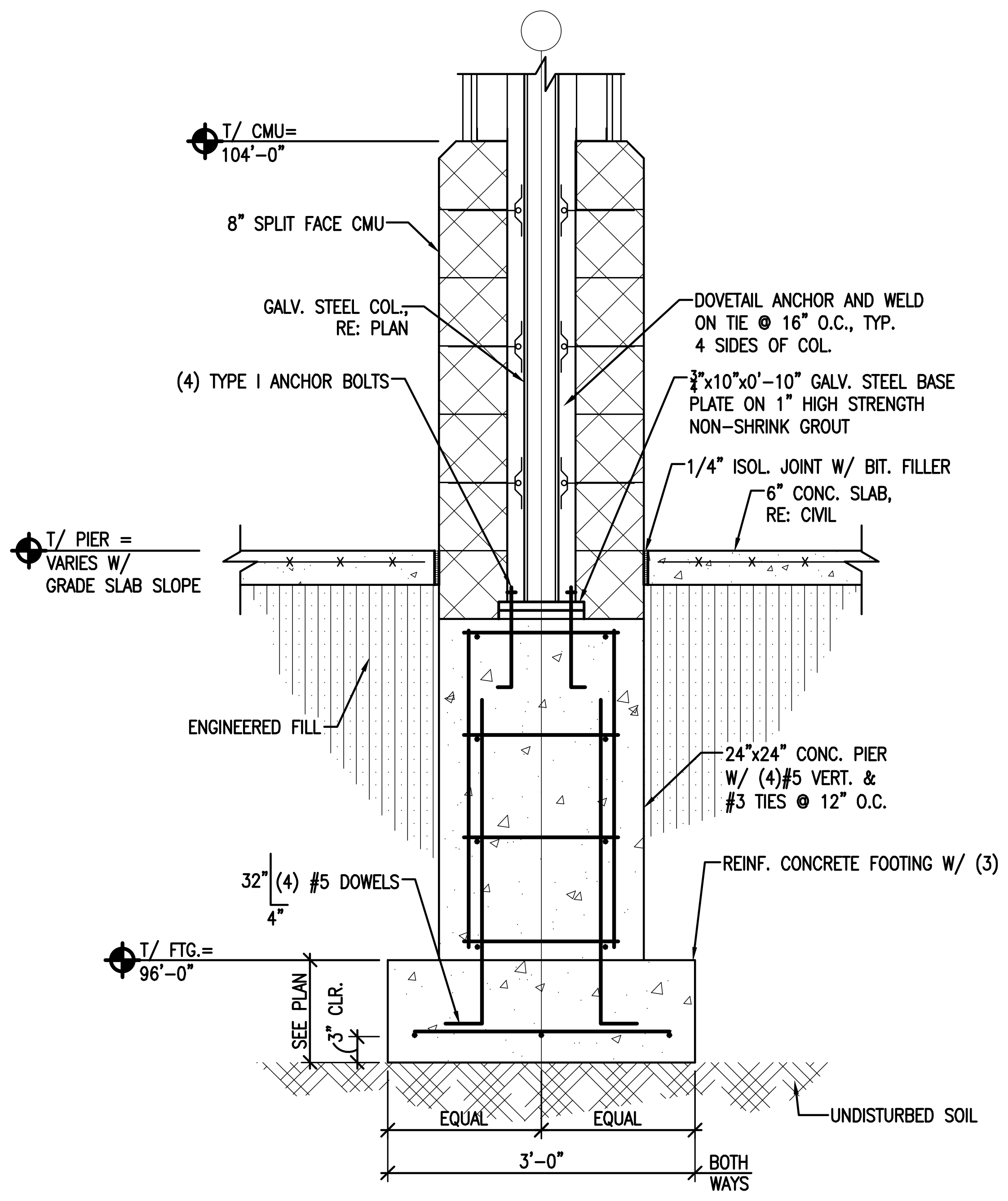


4" CONC. SLAB
WWF
T/ SLAB =100'-0"
6 MIL VAPOR BARRIER
ENGINEERED FILL
8" CMU RETAINING WALL W/ #5 @ 24" O.C GROUT SOLID UP TO ONE COURSE ABOVE SLAB
32"
#5 @ 24" O.C.
8"
T/SLAB= 96'-8"
CONT. CONC. FTG. W/(3) #5 CONT. & #5 TRANS. @ 24" O.C.
3" CLR.
1'-0"
1'-2"
8"
1'-2"
3'-0"

DETAIL

B
S1.0

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

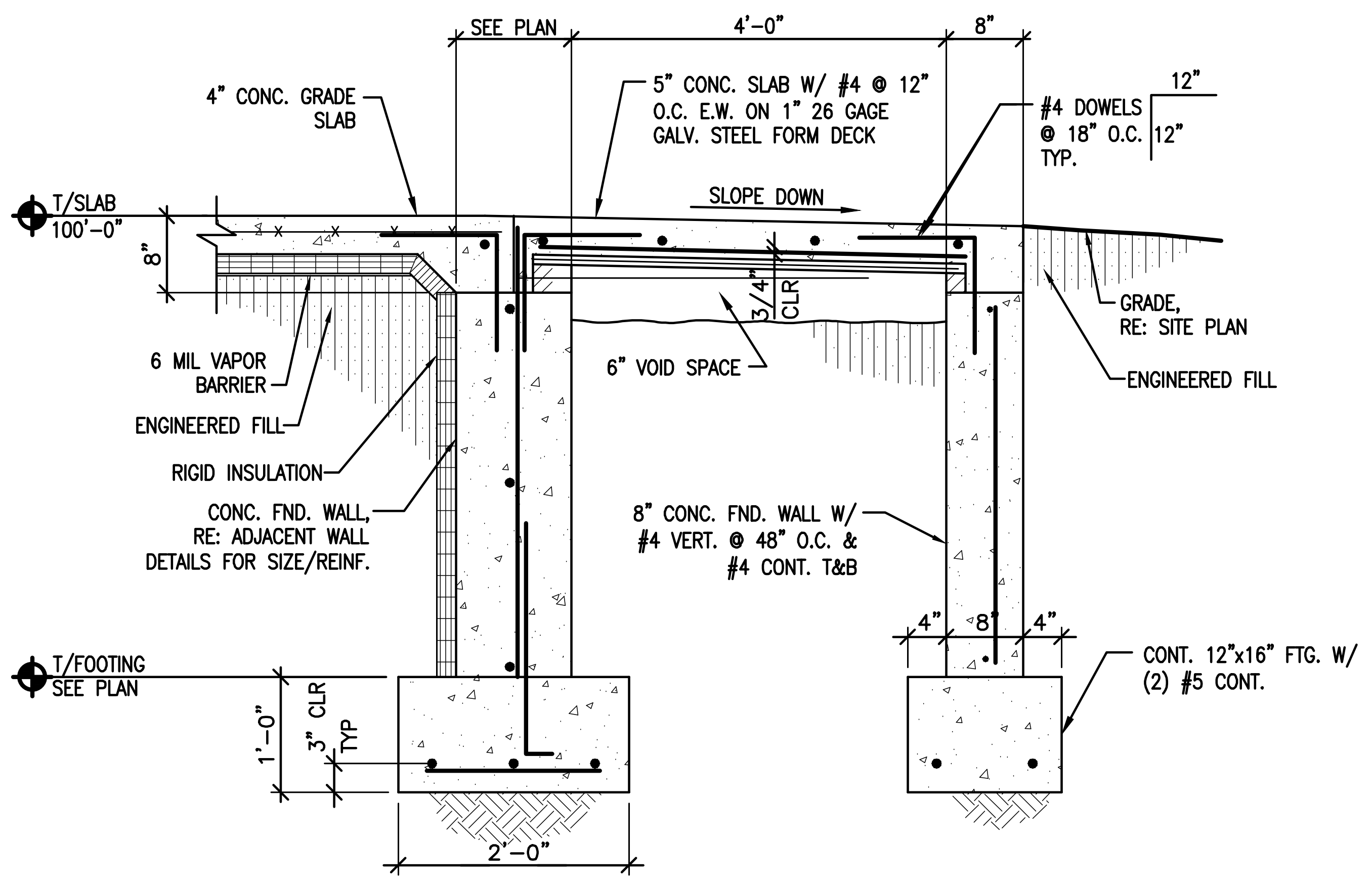


T/ CMU= 104'-0"
8" SPLIT FACE CMU
GALV. STEEL COL., RE: PLAN
(4) TYPE I ANCHOR BOLTS
DOVETAIL ANCHOR AND WELD ON TIE @ 16" O.C., TYP. 4 SIDES OF COL.
¾"x10"x0'-10" GALV. STEEL BASE PLATE ON 1" HIGH STRENGTH NON-SHRINK GROUT
1/4" ISOL. JOINT W/ BIT. FILLER
6" CONC. SLAB, RE: CIVIL
T/ PIER = VARIES W/ GRADE SLAB SLOPE
ENGINEERED FILL
24"x24" CONC. PIER W/ (4)#5 VERT. & #3 TIES @ 12" O.C.
32"
(4) #5 DOWELS
4"
REINF. CONCRETE FOOTING W/ (3) #5 E.W.
T/ FTG.= 96'-0"
SEE PLAN
3" CLR.
EQUAL
EQUAL
3'-0"
BOTH WAYS
UNDISTURBED SOIL

DETAIL

C
S1.0

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

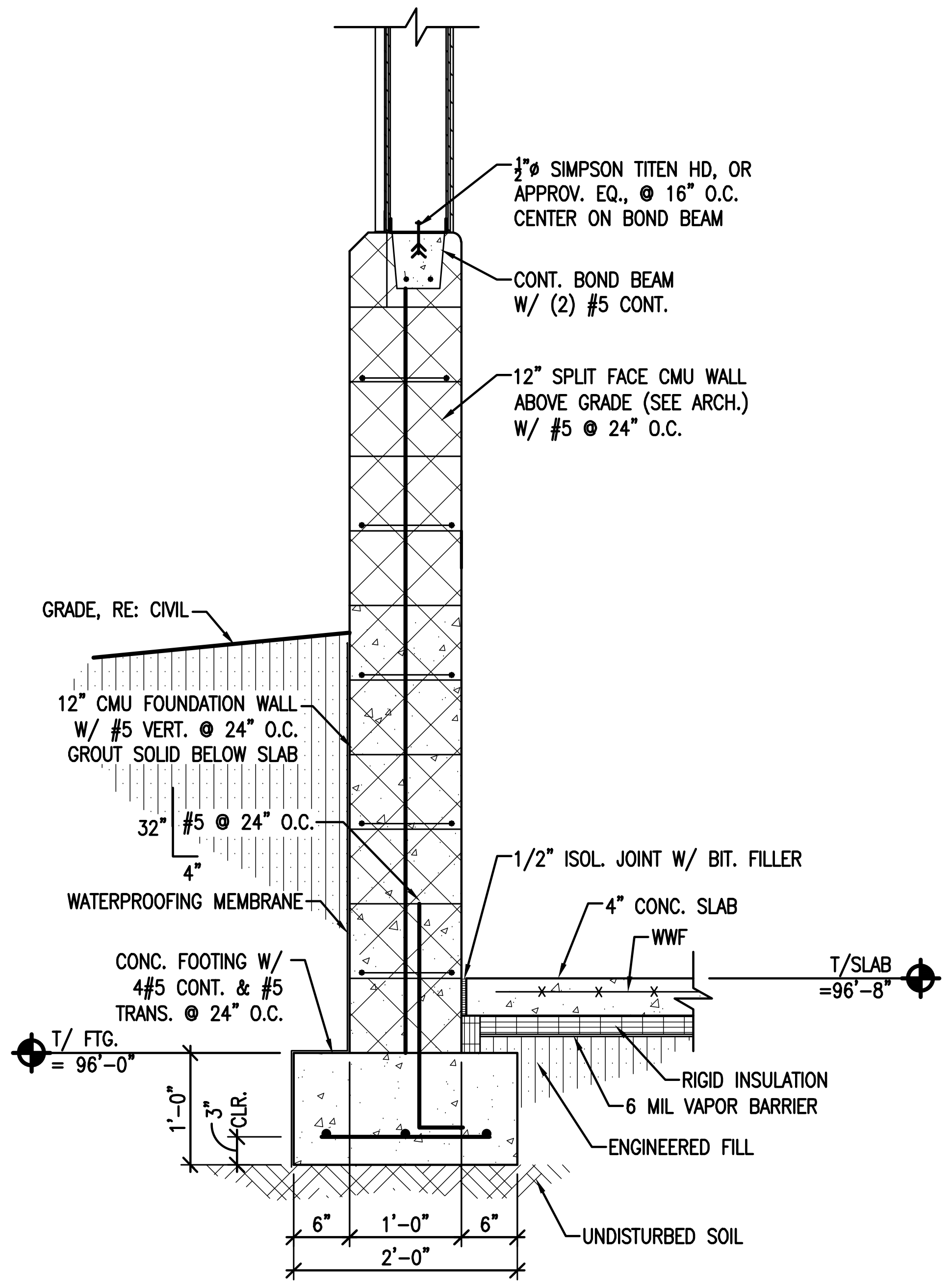


SEE PLAN
4'-0"
8"
4" CONC. GRADE SLAB
5" CONC. SLAB W/ #4 @ 12" O.C. E.W. ON 1" 26 GAGE GALV. STEEL FORM DECK
#4 DOWELS @ 18" O.C. TYP.
12"
12"
SLOPE DOWN
T/SLAB 100'-0"
8"
3/4" CLR
GRADE, RE: SITE PLAN
6" VOID SPACE
ENGINEERED FILL
6 MIL VAPOR BARRIER
ENGINEERED FILL
RIGID INSULATION
CONC. FND. WALL, RE: ADJACENT WALL DETAILS FOR SIZE/REINF.
8" CONC. FND. WALL W/ #4 VERT. @ 48" O.C. & #4 CONT. T&B
4"
8"
4"
T/FOOTING SEE PLAN
CONT. 12"x16" FTG. W/ (2) #5 CONT.
1'-0"
3" CLR TYP
2'-0"

DETAIL

D
S1.0

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

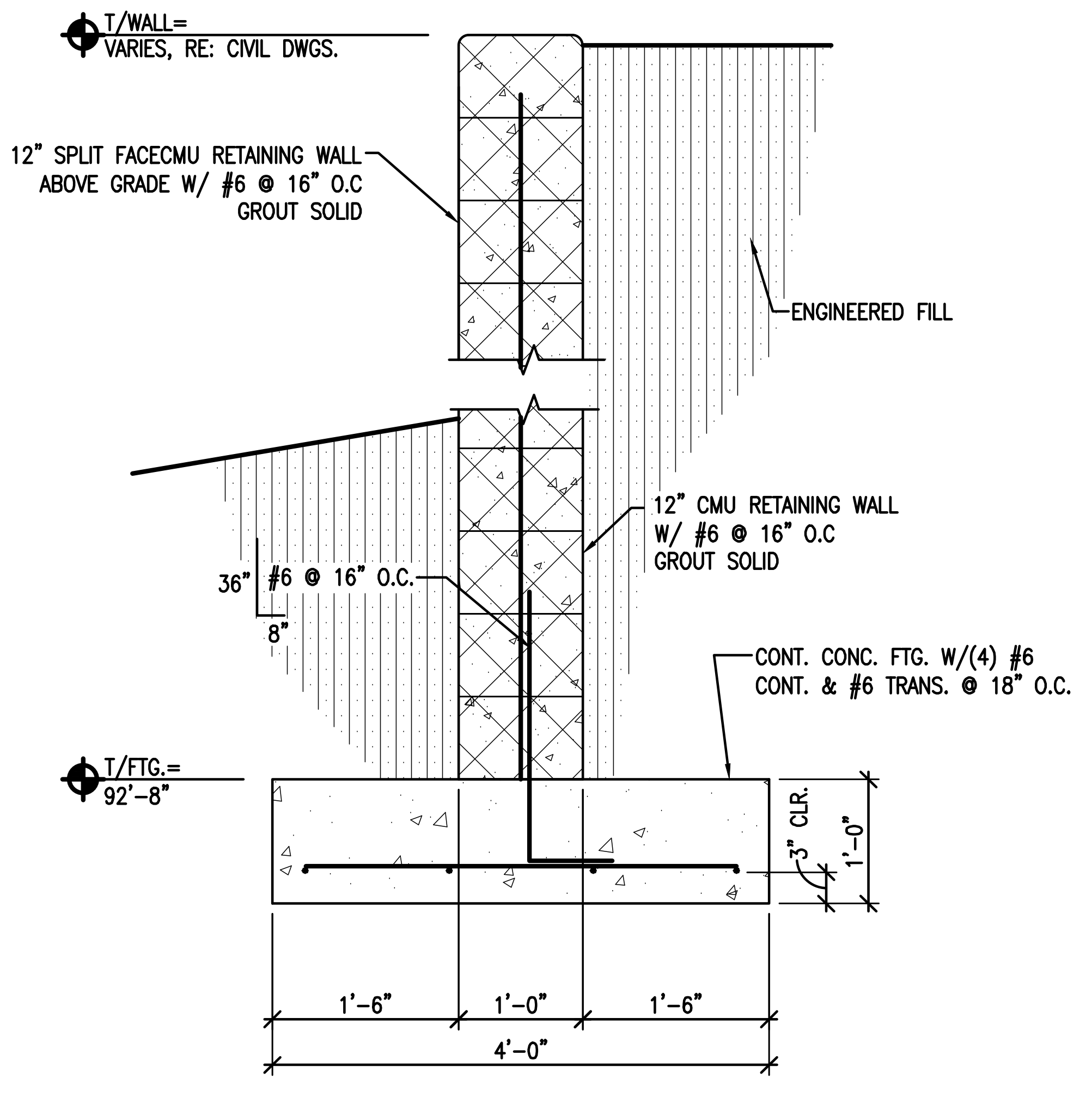


½"ø SIMPSON TITEN HD, OR APPROV. EQ., @ 16" O.C. CENTER ON BOND BEAM
CONT. BOND BEAM W/ (2) #5 CONT.
12" SPLIT FACE CMU WALL ABOVE GRADE (SEE ARCH.) W/ #5 @ 24" O.C.
GRADE, RE: CIVIL
12" CMU FOUNDATION WALL W/ #5 VERT. @ 24" O.C. GROUT SOLID BELOW SLAB
32"
#5 @ 24" O.C.
4"
1/2" ISOL. JOINT W/ BIT. FILLER
WATERPROOFING MEMBRANE
4" CONC. SLAB
WWF
CONC. FOOTING W/ 4#5 CONT. & #5 TRANS. @ 24" O.C.
T/SLAB =96'-8"
T/ FTG. = 96'-0"
RIGID INSULATION
6 MIL VAPOR BARRIER
ENGINEERED FILL
1'-0"
3" CLR.
6"
1'-0"
6"
2'-0"
UNDISTURBED SOIL

DETAIL

E
S1.0

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



T/WALL= VARIES, RE: CIVIL DWGS.
12" SPLIT FACECMU RETAINING WALL ABOVE GRADE W/ #6 @ 16" O.C GROUT SOLID
ENGINEERED FILL
12" CMU RETAINING WALL W/ #6 @ 16" O.C GROUT SOLID
36"
#6 @ 16" O.C.
8"
CONT. CONC. FTG. W/(4) #6 CONT. & #6 TRANS. @ 18" O.C.
T/FTG.= 92'-8"
3" CLR.
1'-0"
1'-6"
1'-0"
1'-6"
4'-0"

RETAINING WALL DETAIL

SCALE: 3/4" = 1'-0"
*COORDINATE W/ CIVIL DWGS.
FOR LOCATION AND LENGTH

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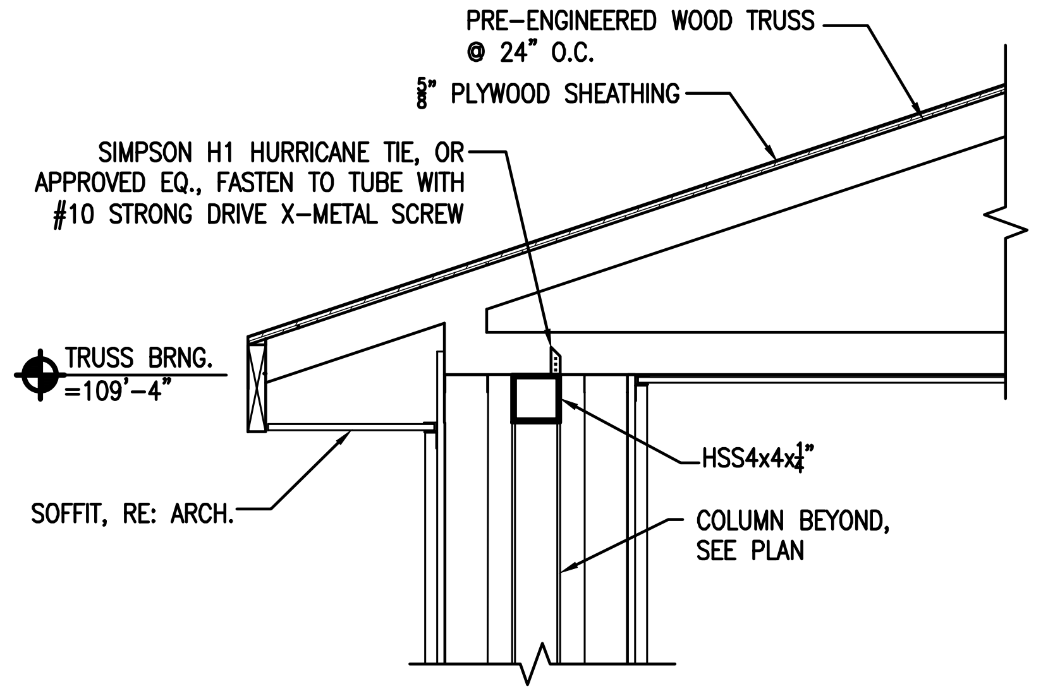
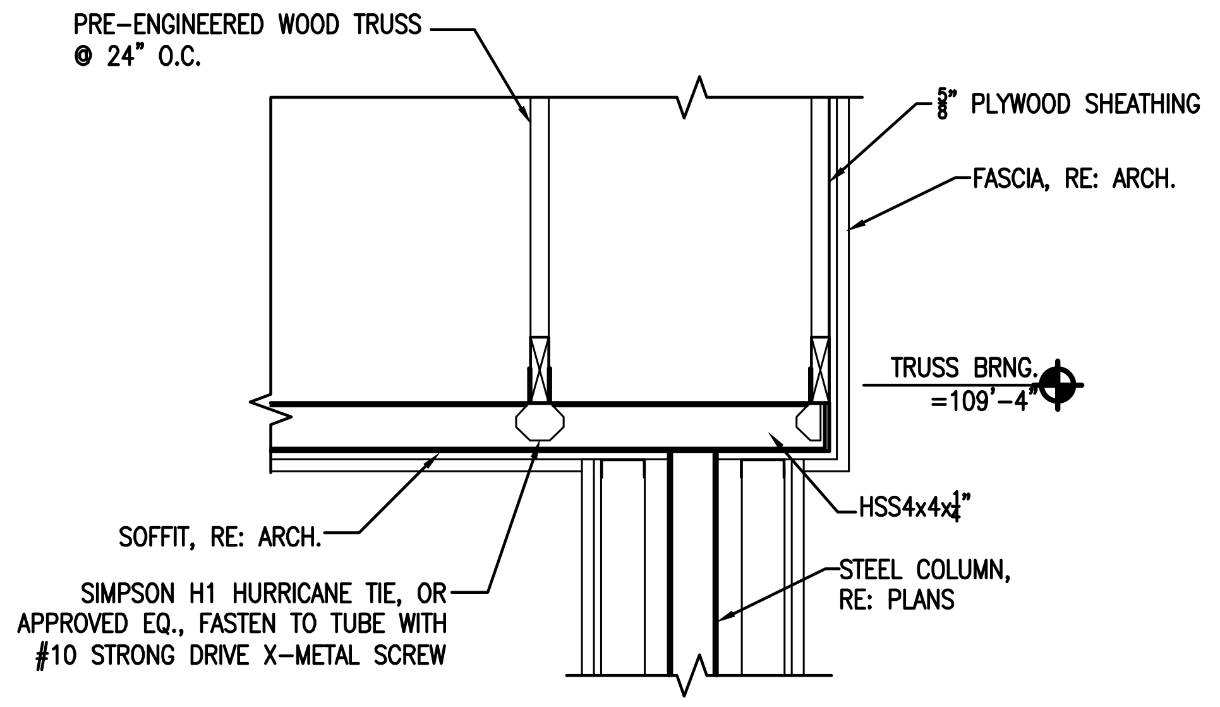
FOUNDATION DETAILS

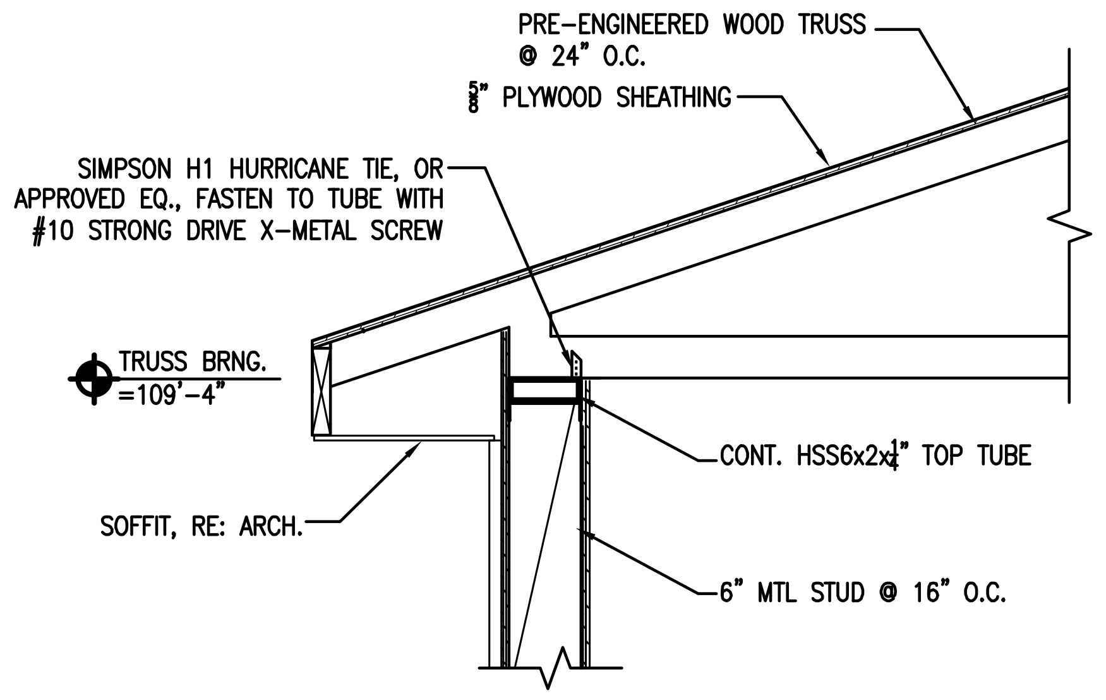
TS3.0


PRE-ENGINEERED WOOD TRUSS @ 24" O.C.
⅝" PLYWOOD SHEATHING
SIMPSON H1 HURRICANE TIE, OR APPROVED EQ., FASTEN TO TUBE WITH #10 STRONG DRIVE X-METAL SCREW
TRUSS BRNG. =109'-4"
HSS4x4x¼"
SOFFIT, RE: ARCH.
COLUMN BEYOND, SEE PLAN

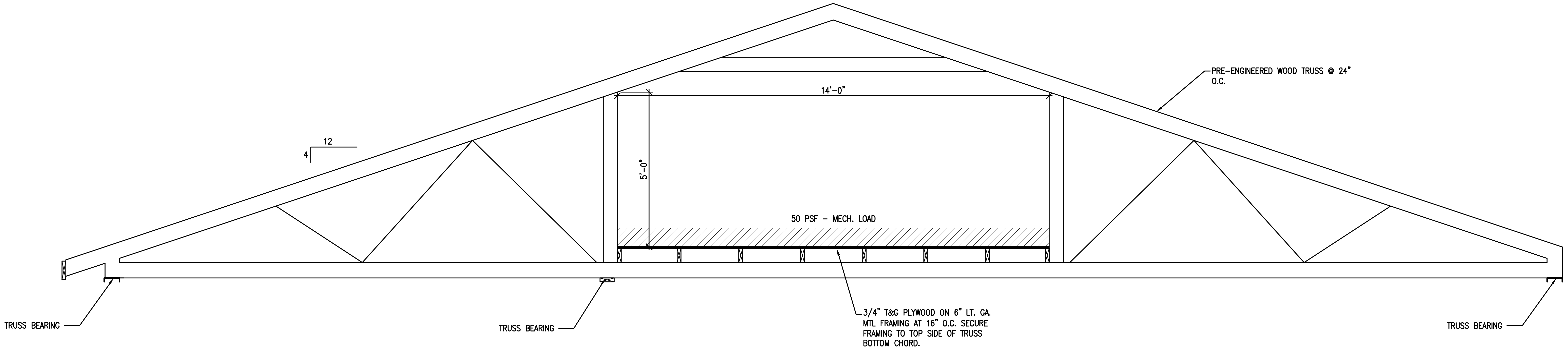
DETAIL
SCALE: 3/4" = 1'-0"
1
S1.0


PRE-ENGINEERED WOOD TRUSS @ 24" O.C.
⅝" PLYWOOD SHEATHING
FASCIA, RE: ARCH.
TRUSS BRNG. =109'-4"
SOFFIT, RE: ARCH.
HSS4x4x¼"
SIMPSON H1 HURRICANE TIE, OR APPROVED EQ., FASTEN TO TUBE WITH #10 STRONG DRIVE X-METAL SCREW
STEEL COLUMN, RE: PLANS

DETAIL
SCALE: 3/4" = 1'-0"
2
S1.0


PRE-ENGINEERED WOOD TRUSS @ 24" O.C.
⅝" PLYWOOD SHEATHING
SIMPSON H1 HURRICANE TIE, OR APPROVED EQ., FASTEN TO TUBE WITH #10 STRONG DRIVE X-METAL SCREW
TRUSS BRNG. =109'-4"
CONT. HSS6x2x¼" TOP TUBE
SOFFIT, RE: ARCH.
6" MTL STUD @ 16" O.C.

DETAIL
SCALE: 3/4" = 1'-0"
3
S1.0


PRE-ENGINEERED WOOD TRUSS @ 24" O.C.
14'-0"
5'-0"
4
12
50 PSF - MECH. LOAD
TRUSS BEARING
TRUSS BEARING
TRUSS BEARING
3/4" T&G PLYWOOD ON 6" LT. GA. MTL FRAMING AT 16" O.C. SECURE FRAMING TO TOP SIDE OF TRUSS BOTTOM CHORD.

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

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ARCHITECTURE
ENGINEERING
CONSULTING

IDI
INTEGRATED DESIGNS INC.

BEAL CITY
2024 BOND WORK - PHASE 2
MT PLEASANT, MICHIGAN
PROJECT NO. 22-037

NO.	REVISIONS	DATE
A	FINAL REVIEW	03.14.25
0	FOR CONSTRUCTION	03.27.25
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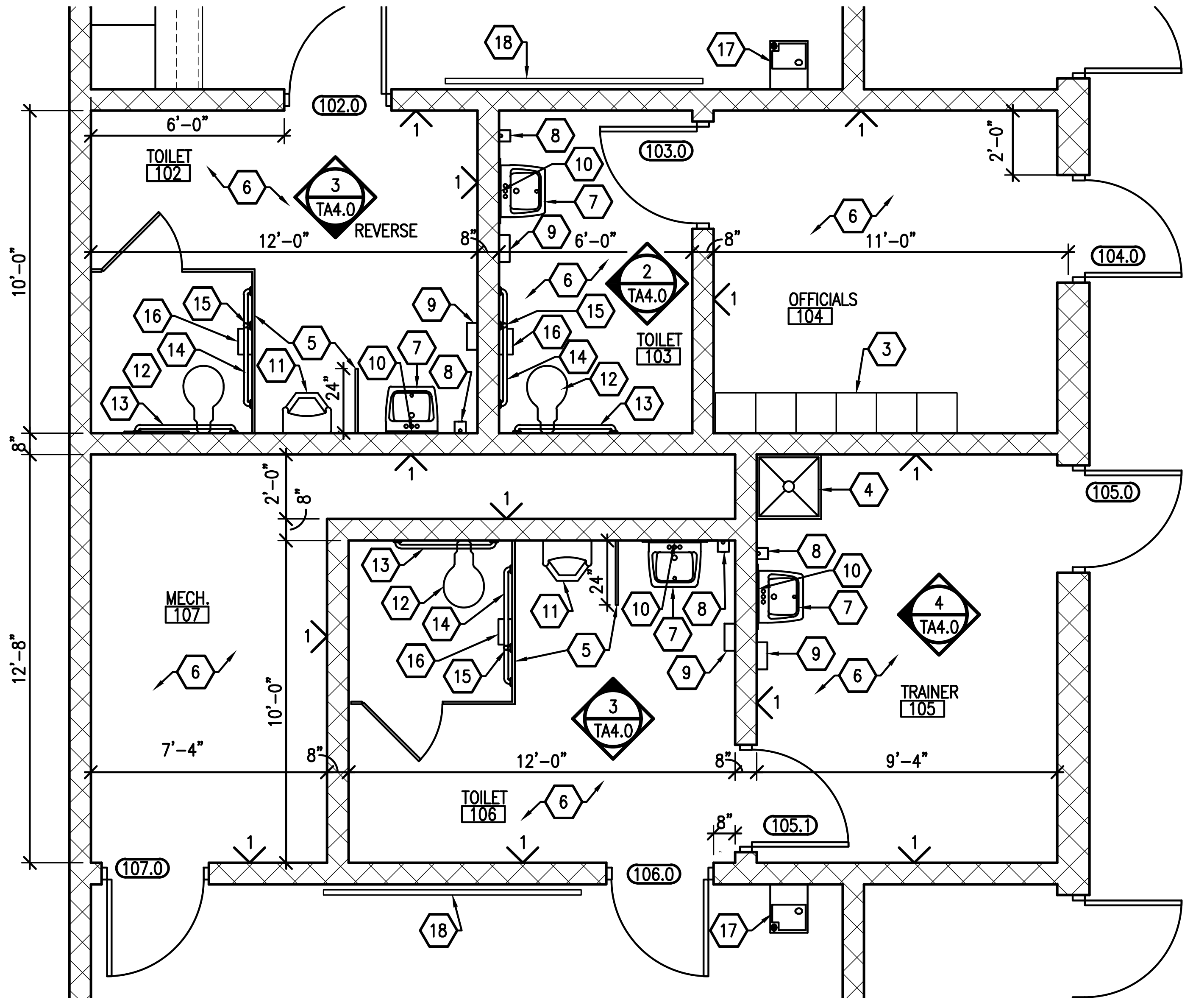
	BY	DATE
DESIGN	---	---
DRAWN	---	---
CHECKED	---	---
APPROVED	---	---

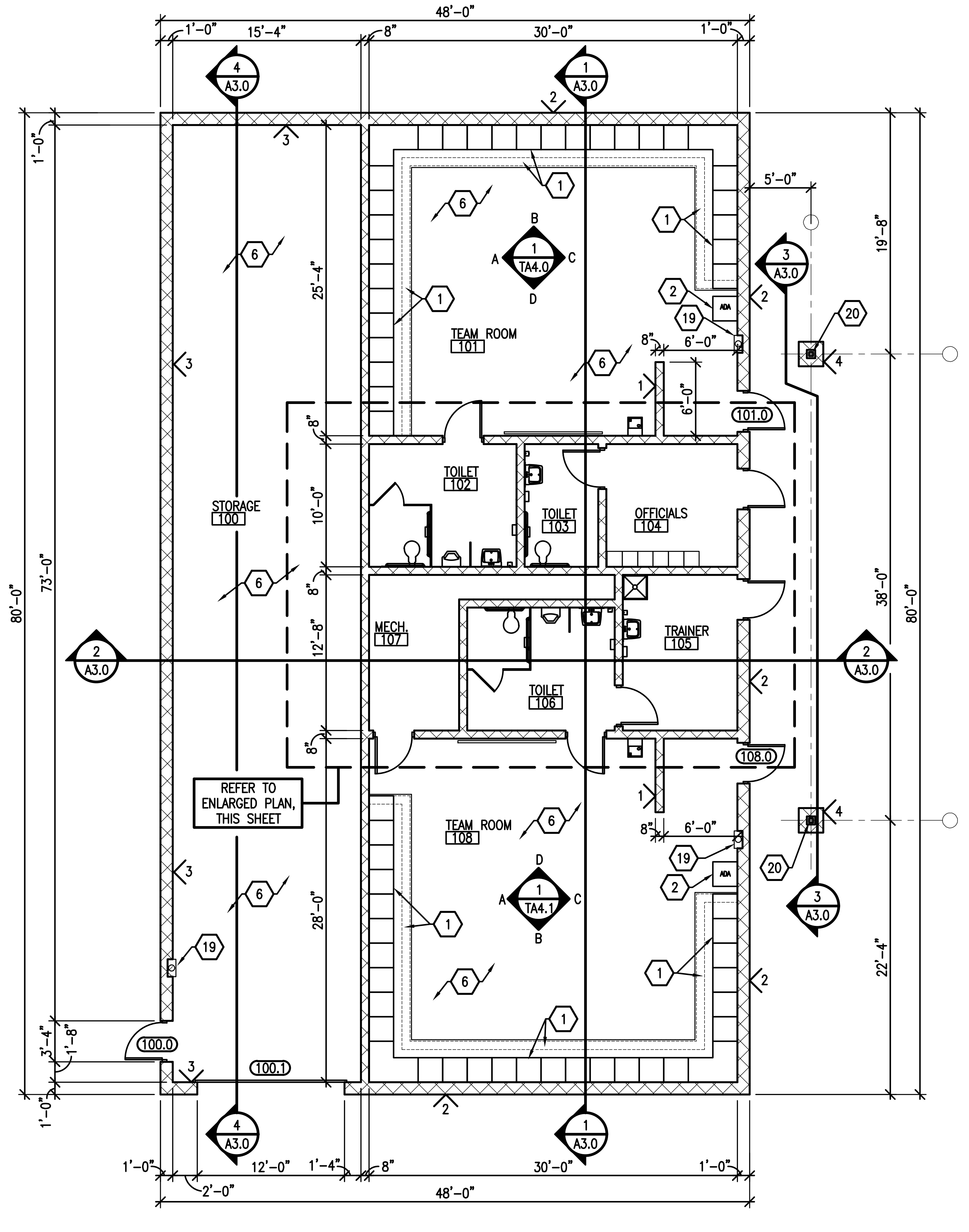
FRAMING DETAILS



ENLARGED FLOOR PLAN

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

PLAN NORTH TRUE NORTH



FLOOR PLAN

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

PLAN NORTH TRUE NORTH

CODE TO SCHEDULES

HM	HOLLOW METAL, PAINT FINISH DISTRICT STANDARD COLOR.
ALUM	ALUMINUM
FRP	FIBERGLASS REINFORCED PANEL
GYP-1	5/8" HIGH IMPACT GYPSUM BOARD. TAPE, SAND SMOOTH, PAINT FINISH PT-2
CONC-1	SEALED CONCRETE SLAB.
EPOX-1	POURED EPOXY FLOORING
VB-1	4" COVED VINYL WALL BASE.
PNT-1	WALL PAINT, DISTRICT STANDARD. COORDINATE WITH OWNER.
PNT-2	CEILING PAINT. FLAT WHITE

⬡ KEYNOTES ⬡

1. 24x24x72 METAL ATHLETIC LOCKERS AND WOOD BENCH SYSTEM. REFER TO SPECIFICATIONS AND INTERIOR ELEVATIONS.
2. 24x24x72 ADA ATHLETIC LOCKER ON METAL LOCKER BASE, REFER TO INTERIOR ELEVATIONS.
3. 15x15x72 METAL LOCKERS, REFER TO INTERIOR ELEVATIONS.
4. FLOOR/MOP SINK, REFER TO PLUMBING PLANS.
5. SOLID PLASTIC TOILET PARTITIONS/URINAL SCREEN, REFER TO INTERIOR ELEVATIONS.
6. SEALED CONCRETE SLAB.
7. WALL HUNG LAVATORY, REFER TO PLUMBING PLANS
8. SOAP DISPENSER PROVIDED BY OWNER, INSTALLED BY CONTRACTOR.
9. PAPER TOWEL DISPENSER PROVIDED BY OWNER, INSTALLED BY CONTRACTOR.
10. WALL MOUNTED MIRROR, CENTER ABOVE LAVATORY.
11. WALL MOUNTED URINAL, REFER TO PLUMBING PLANS.
12. WALL MOUNTED TOILET, REFER TO PLUMBING PLANS.
13. 36" HORIZONTAL GRAB BAR,
14. 42" HORIZONTAL GRAB BAR.
15. 18" VERTICAL GRAB BAR.
16. TOILET TISSUE DISPENSER. SUPPLIED BY OWNER, INSTALLED BY CONTRACTOR.
17. DRINKING FOUNTAIN WITH BOTTLE FILLER, REFER TO PLUMBING.
18. 4'-0" x 8'-0" WHITE BOARD.
19. FIRE EXTINGUISHER AND RECESSED CABINET, REFER TO SPECIFICATIONS.
20. STRUCTURAL COLUMN, REFER TO FRAMING PLAN

<- WALL TYPES ->

1. REINFORCED 8" CONCRETE MASONRY UNIT WALL. EXTEND FROM CONCRETE SLAB (100'-0") TO UNDERSIDE OF TRUSSES. APPROXIMATELY 109'-4" A.F.F. PAINT FINISH. REFER TO BUILDING AND WALL SECTIONS.
2. REINFORCED 12" CONCRETE MASONRY UNIT, SPLIT FACED WHERE EXPOSED, EXTEND FROM CONCRETE SLAB (100'-0" OR 96'-8") TO 103'-4". AT TOP OF MASONRY EXTEND 6" METAL STUDS TO TRUSS BEARING AT 109'-4". INSTALL 5/8" HIGH IMPACT GYPSUM BOARD ON INTERIOR OF STUD, FILL STUD CAVITY WITH SPRAY FOAM INSULATION, INSTALL 5/8" SHEATHING, WEATHER BARRIER AND METAL PANEL SIDING TO EXTERIOR SIDE OF METAL STUD. PAINT FINISH INTERIOR SURFACES. REFER TO BUILDING AND WALL SECTIONS.
3. REINFORCED 12" CONCRETE MASONRY UNIT, SPLIT FACED WHERE EXPOSED, EXTEND FROM CONCRETE SLAB (100'-0" OR 96'-8") TO 103'-4". AT TOP OF MASONRY EXTEND 6" METAL STUDS TO TRUSS BEARING AT 109'-4". INSTALL 3/4" OSB SHEATHING ON INTERIOR SIDE OF STUDS, FILL STUD CAVITY WITH SPRAY FOAM INSULATION, INSTALL 5/8" SHEATHING, WEATHER BARRIER AND METAL PANEL SIDING TO EXTERIOR SIDE OF METAL STUD. REFER TO BUILDING AND WALL SECTIONS.
4. 8" SPLIT FACE CONCRETE MASONRY COLUMN WRAP, EXTEND TO 103'-4" AT TOP OF MASONRY EXTEND 3-5/8" METAL STUDS UP TO STRUCTURE ABOVE, APPROXIMATELY 109'-0" REFER TO BUILDING AND WALL SECTIONS.

CODE SUMMARY

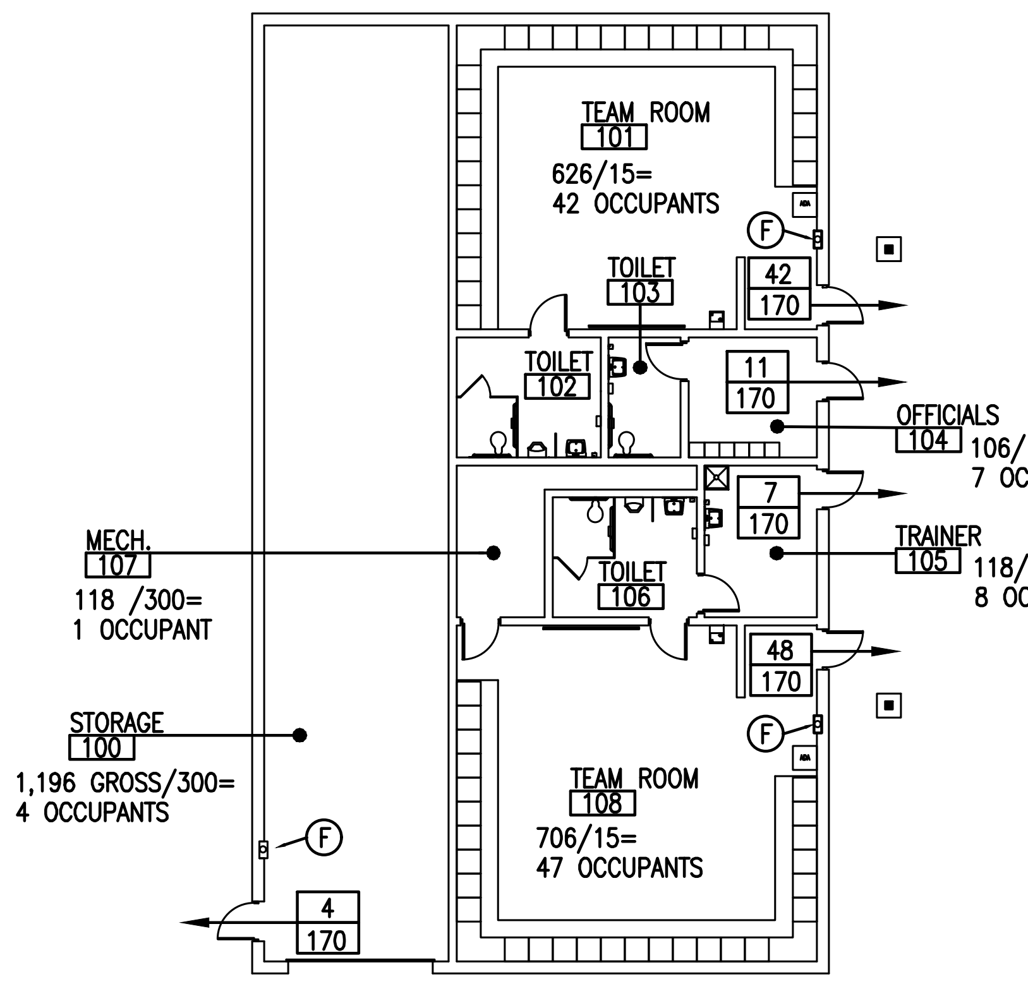
CODES			
	2015 MICHIGAN BUILDING CODE		FIRE MARSHALL RULES
	STATE OF MICHIGAN BARRIER FREE ACCESS DESIGN RULES (2009 ICC/ANSI A117.1)		MICHIGAN DEPARTMENT OF LABOR CONSTRUCTION CODE COMMISSION GENERAL RULES
	NATIONAL FIRE PROTECTION ASSOCIATION (NFPA)		2021 MICHIGAN MECHANICAL CODE
	2021 MICHIGAN PLUMBING CODE		MICHIGAN UNIFORM ENERGY CODE
	NATIONAL ELECTRICAL SAFETY CODE		2023 MICHIGAN ELECTRICAL CODE
CODE FIRE RESISTIVE ANALYSIS			
	CLASSIFICATIONS		CONSTRUCTION PROTECTIONS
1	STORIES	0	INTERIOR NON-LOAD BEARING PARTITIONS
A5	OCCUPANCY TYPE	0	STRUCTURAL FRAME
V-B	CONSTRUCTION TYPE	0	EXTERIOR NON-BEARING WALLS
NO	SPRINKLER SYSTEM	0	ROOF
YES	FIRE PROTECTION: PORTABLE FIRE EXTINGUISHERS PER SECTION 907		

TOTAL BUILDING AREA SF: 3,840

LIFE SAFETY LEGEND

ROOM	ROOM NAME
101	ROOM NUMBER
40	EGRESS OCCUPANT LOAD
270	EGRESS OCCUPANT CAPACITY
← (F)	RECESSED FIRE EXTINGUISHER CABINET, TRAVEL DISTANCE NOT TO EXCEED 75 FT.
200 NET/20=10	OCCUPANT LOCAD CALCULATION

LIFE SAFETY PLAN



DRAWING SCALE: 1/16" = 1'-0"

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PROJECT NO. 22-037

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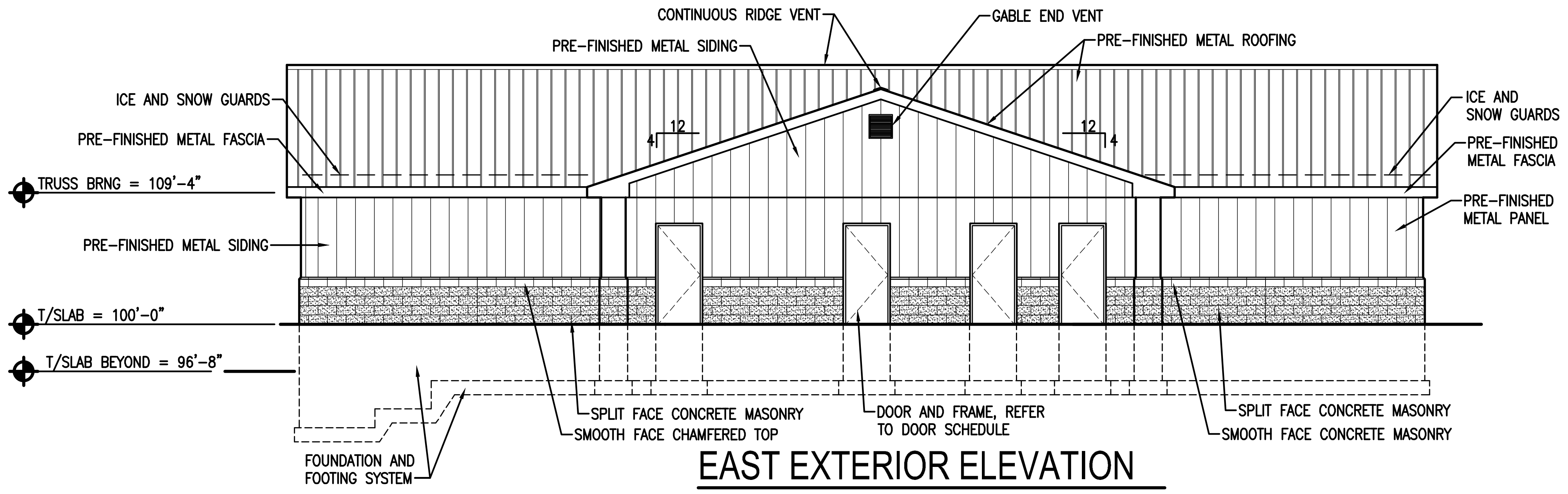
APPROVED	---	---

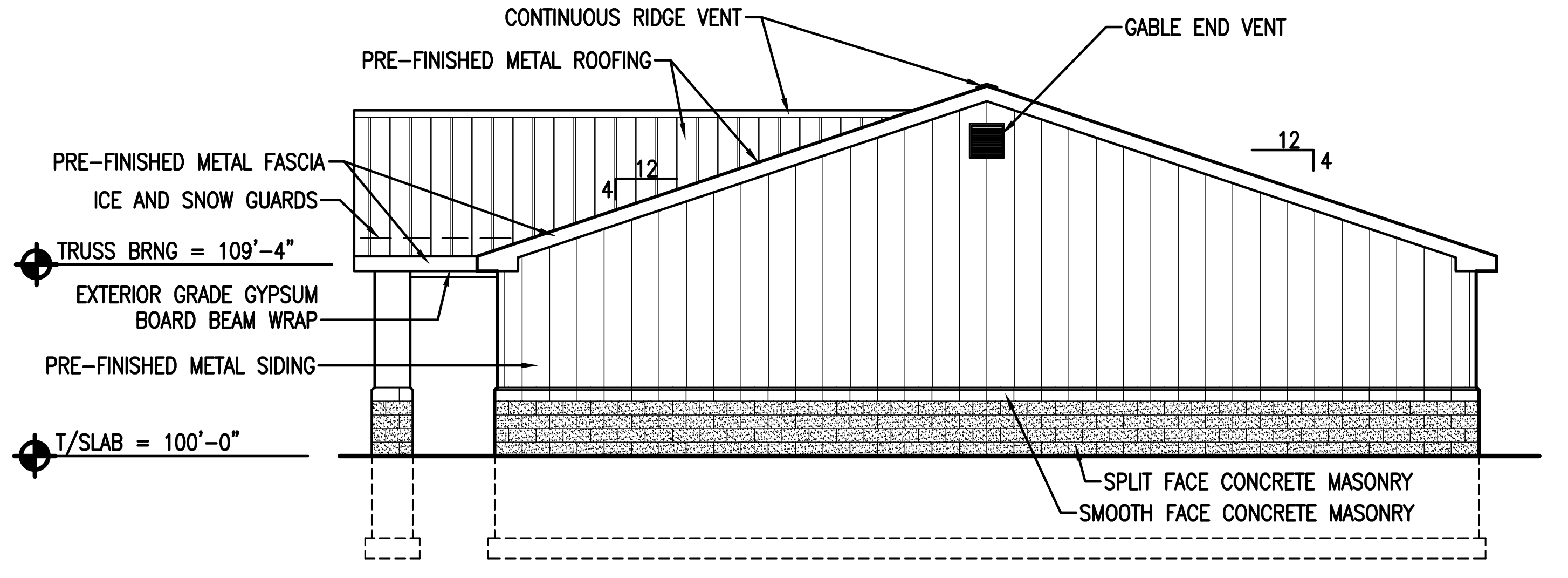
CODE INFO, LIFE SAFETY
& FLOOR PLAN

T-A2.0


CONTINUOUS RIDGE VENT
GABLE END VENT
PRE-FINISHED METAL SIDING
PRE-FINISHED METAL ROOFING
ICE AND SNOW GUARDS
PRE-FINISHED METAL FASCIA
TRUSS BRNG = 109'-4"
PRE-FINISHED METAL SIDING
T/SLAB = 100'-0"
T/SLAB BEYOND = 96'-8"
ICE AND SNOW GUARDS
PRE-FINISHED METAL FASCIA
PRE-FINISHED METAL PANEL
12
4
SPLIT FACE CONCRETE MASONRY
SMOOTH FACE CHAMFERED TOP
DOOR AND FRAME, REFER TO DOOR SCHEDULE
SPLIT FACE CONCRETE MASONRY
SMOOTH FACE CONCRETE MASONRY
FOUNDATION AND FOOTING SYSTEM

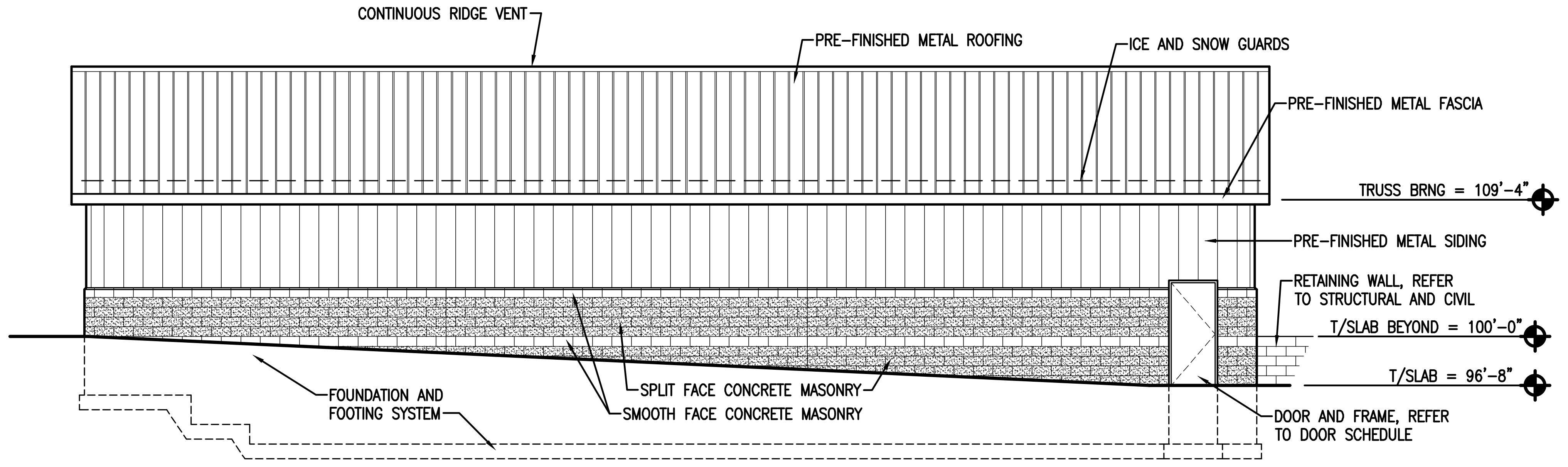
EAST EXTERIOR ELEVATION

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


CONTINUOUS RIDGE VENT
GABLE END VENT
PRE-FINISHED METAL ROOFING
PRE-FINISHED METAL FASCIA
ICE AND SNOW GUARDS
TRUSS BRNG = 109'-4"
EXTERIOR GRADE GYPSUM BOARD BEAM WRAP
PRE-FINISHED METAL SIDING
T/SLAB = 100'-0"
12
4
SPLIT FACE CONCRETE MASONRY
SMOOTH FACE CONCRETE MASONRY

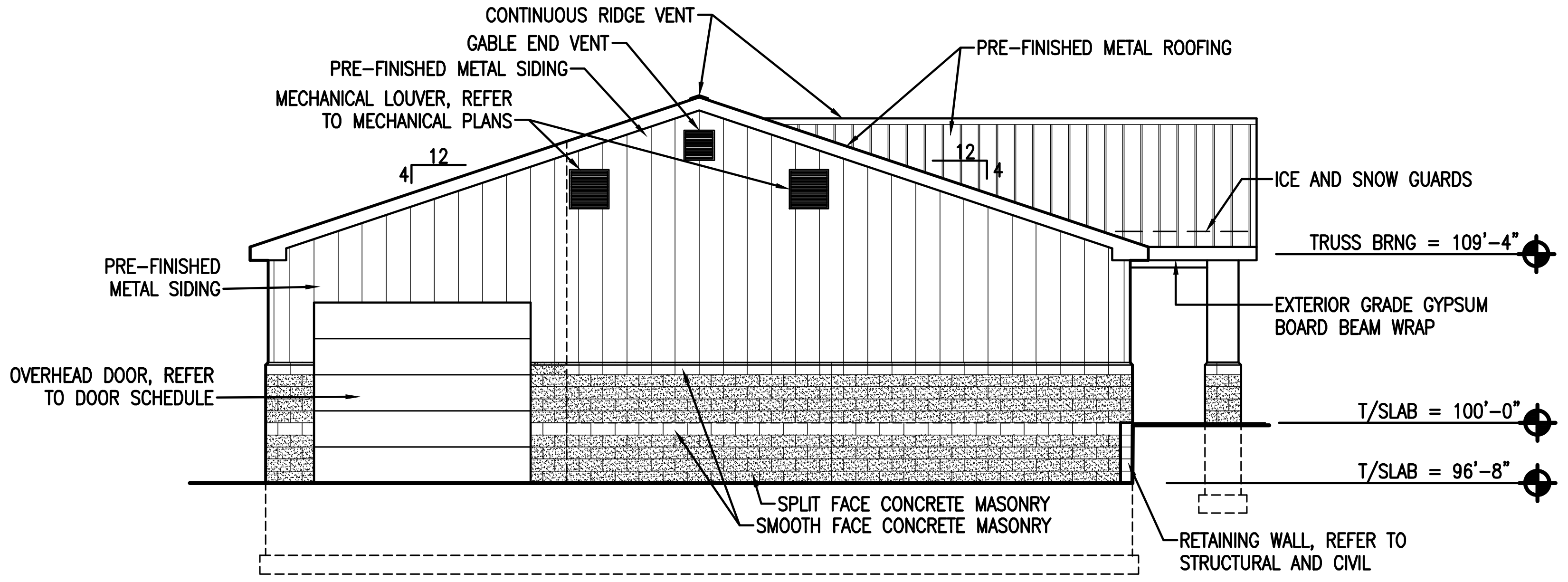
NORTH EXTERIOR ELEVATION

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


CONTINUOUS RIDGE VENT
PRE-FINISHED METAL ROOFING
ICE AND SNOW GUARDS
PRE-FINISHED METAL FASCIA
TRUSS BRNG = 109'-4"
PRE-FINISHED METAL SIDING
RETAINING WALL, REFER TO STRUCTURAL AND CIVIL
T/SLAB BEYOND = 100'-0"
T/SLAB = 96'-8"
FOUNDATION AND FOOTING SYSTEM
SPLIT FACE CONCRETE MASONRY
SMOOTH FACE CONCRETE MASONRY
DOOR AND FRAME, REFER TO DOOR SCHEDULE

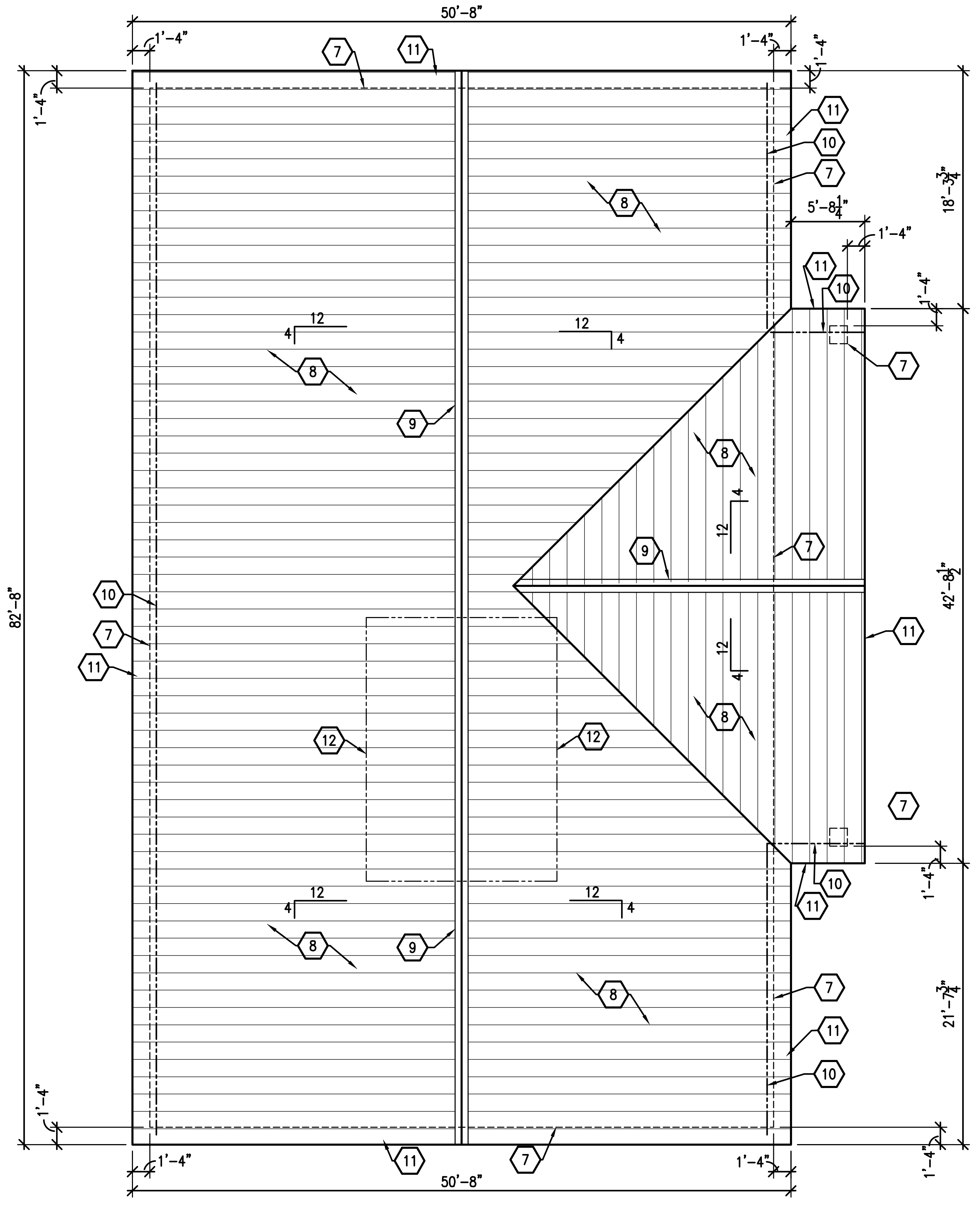
WEST EXTERIOR ELEVATION

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


CONTINUOUS RIDGE VENT
GABLE END VENT
PRE-FINISHED METAL SIDING
MECHANICAL LOUVER, REFER TO MECHANICAL PLANS
PRE-FINISHED METAL ROOFING
12
4
ICE AND SNOW GUARDS
TRUSS BRNG = 109'-4"
PRE-FINISHED METAL SIDING
EXTERIOR GRADE GYPSUM BOARD BEAM WRAP
OVERHEAD DOOR, REFER TO DOOR SCHEDULE
T/SLAB = 100'-0"
T/SLAB = 96'-8"
SPLIT FACE CONCRETE MASONRY
SMOOTH FACE CONCRETE MASONRY
RETAINING WALL, REFER TO STRUCTURAL AND CIVIL

SOUTH EXTERIOR ELEVATION

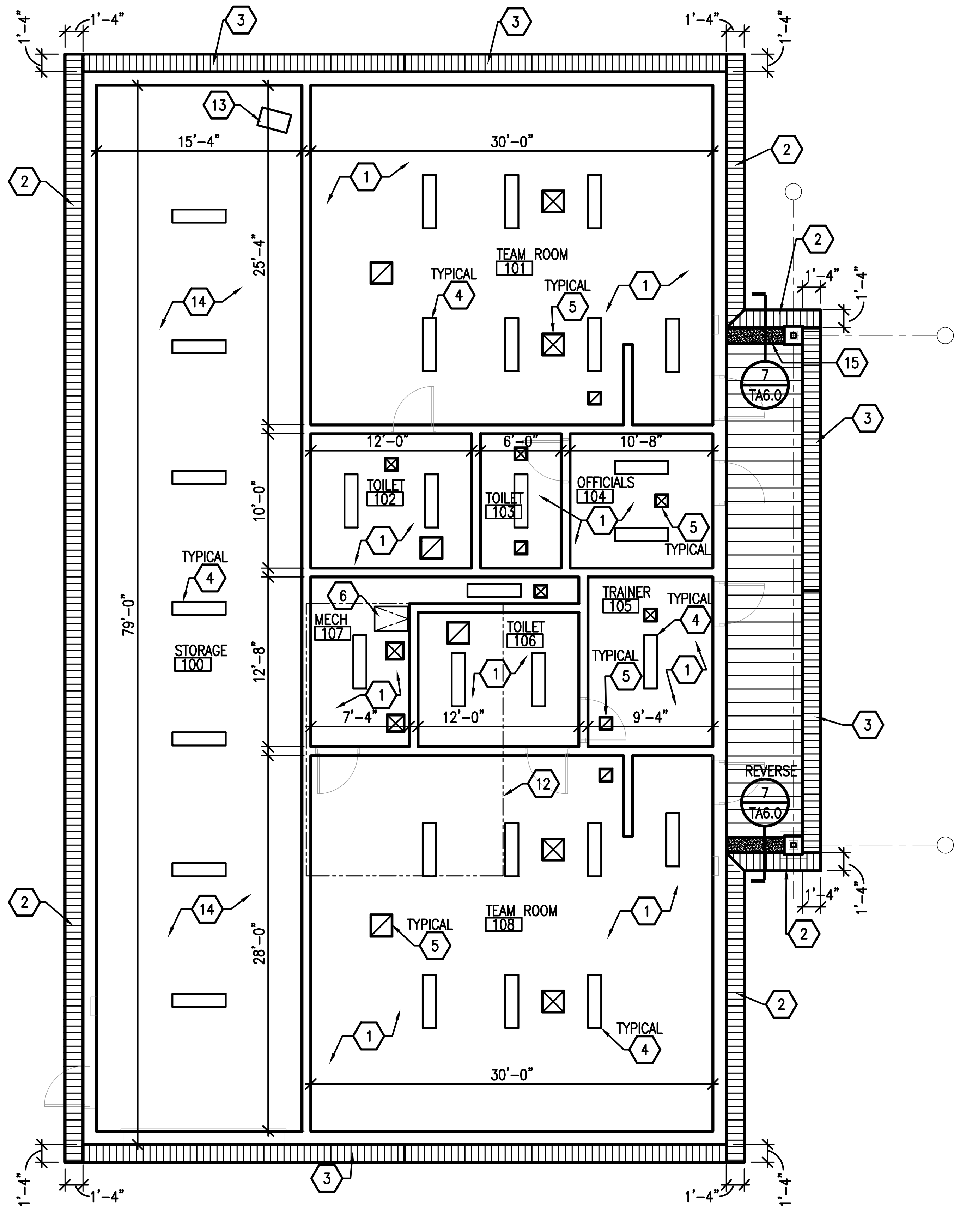
SCALE: 1/8" = 1'-0"



ROOF PLAN

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

PLAN NORTH TRUE NORTH



CEILING PLAN

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

PLAN NORTH TRUE NORTH

KEYNOTES

1. 5/8" HIGH IMPACT GYPSUM BOARD SECURED TO UNDERSIDE OF TRUSSES. PAINT FINISH. BOTTOM OF GYP
2. PRE-FINISHED VENTED METAL SOFFIT PANEL.
3. PRE-FINISHED NON VENTED METAL SOFFIT PANEL.
4. LIGHTING FIXTURE, REFER TO ELECTRICAL PLANS.
5. MECHANICAL GRILLE/DIFFUSER, REFER TO MECHANICAL PLANS.
6. PROVIDE AND INSTALL 22x30 ATTIC ACCESS HATCH INSTALLED BETWEEN TRUSSES, FIELD VERIFY EXACT LOCATION. COORDINATE LOCATION WITH MECHANICAL CONTRACTOR AS TO NOT INTERFERE WITH LOCATION OF MECHANICAL EQUIPMENT IN ATTIC.
7. DASHED LINE INDICATES OUTLINE OF BUILDING BELOW.
8. PRE-FINISHED METAL ROOFING ON ROOFING FELT ON 5/8" SHEATHING. PROVIDE SELF ADHESIVE ICE AND WATER SHIELD AT ALL EAVES AND VALLEYS.
9. CONTINUOUS PRE-FINISHED METAL RIDGE CAP.
10. INSTALL ICE AND SNOW GUARDS AT ROOF EDGES.
11. PRE-FINISHED METAL FASCIA
12. LINE INDICATES APPROXIMATE EXTENTS OF ATTIC TRUSSES ABOVE. REFER TO FRAMING PLAN.
13. MECHANICAL EQUIPMENT, REFER TO MECHANICAL PLANS.
14. 3/4" OSB SHEATHING SECURED TO UNDERSIDE OF TRUSSES.
15. 5/8" EXTERIOR GRADE GYPSUM BOARD ON 3-5/8" METAL STUDS. TAPE, SAND SMOOTH, PAINT FINISH

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2024 BOND WORK
MT PLEASANT, MICHIGAN
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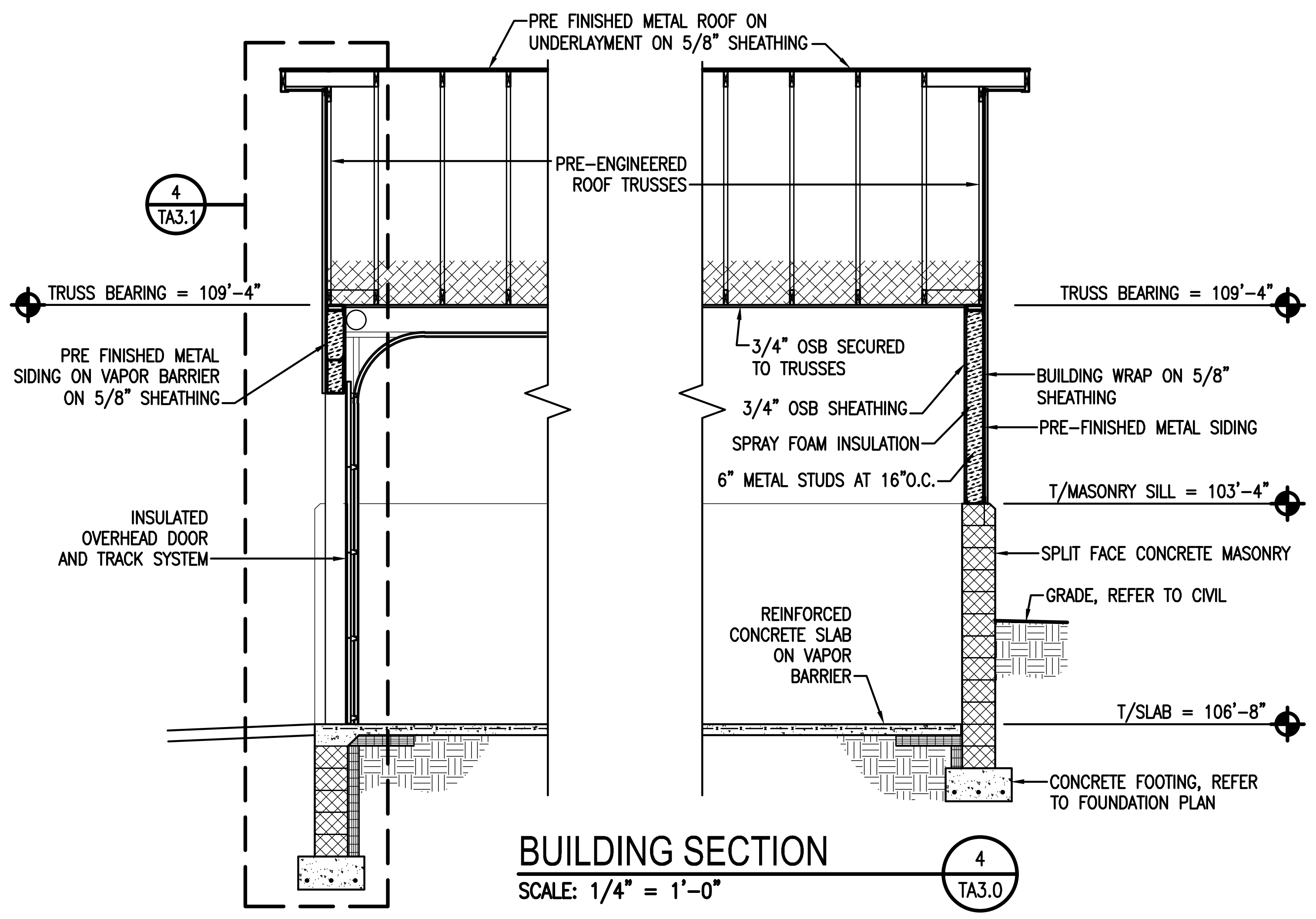
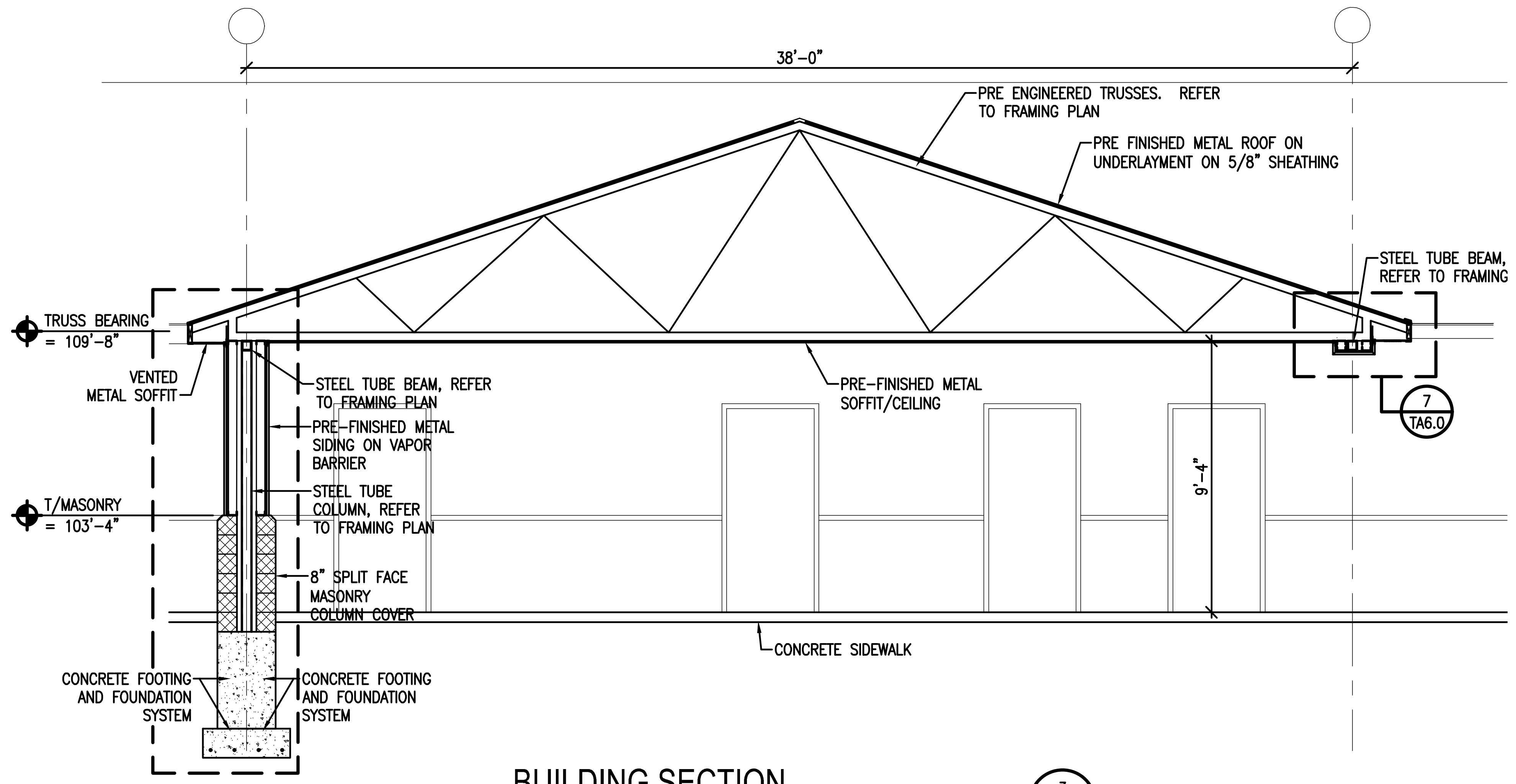
CEILING PLAN, ROOF PLAN
EXTERIOR ELEVATIONS

T-A2.1


PRE FINISHED METAL ROOF ON UNDERLAYMENT ON 5/8" SHEATHING
PRE-ENGINEERED ROOF TRUSSES
4 TA3.1
TRUSS BEARING = 109'-4"
PRE FINISHED METAL SIDING ON VAPOR BARRIER ON 5/8" SHEATHING
INSULATED OVERHEAD DOOR AND TRACK SYSTEM
TRUSS BEARING = 109'-4"
3/4" OSB SECURED TO TRUSSES
3/4" OSB SHEATHING
BUILDING WRAP ON 5/8" SHEATHING
SPRAY FOAM INSULATION
PRE-FINISHED METAL SIDING
6" METAL STUDS AT 16" O.C.
T/MASONRY SILL = 103'-4"
SPLIT FACE CONCRETE MASONRY
GRADE, REFER TO CIVIL
REINFORCED CONCRETE SLAB ON VAPOR BARRIER
T/SLAB = 106'-8"
CONCRETE FOOTING, REFER TO FOUNDATION PLAN

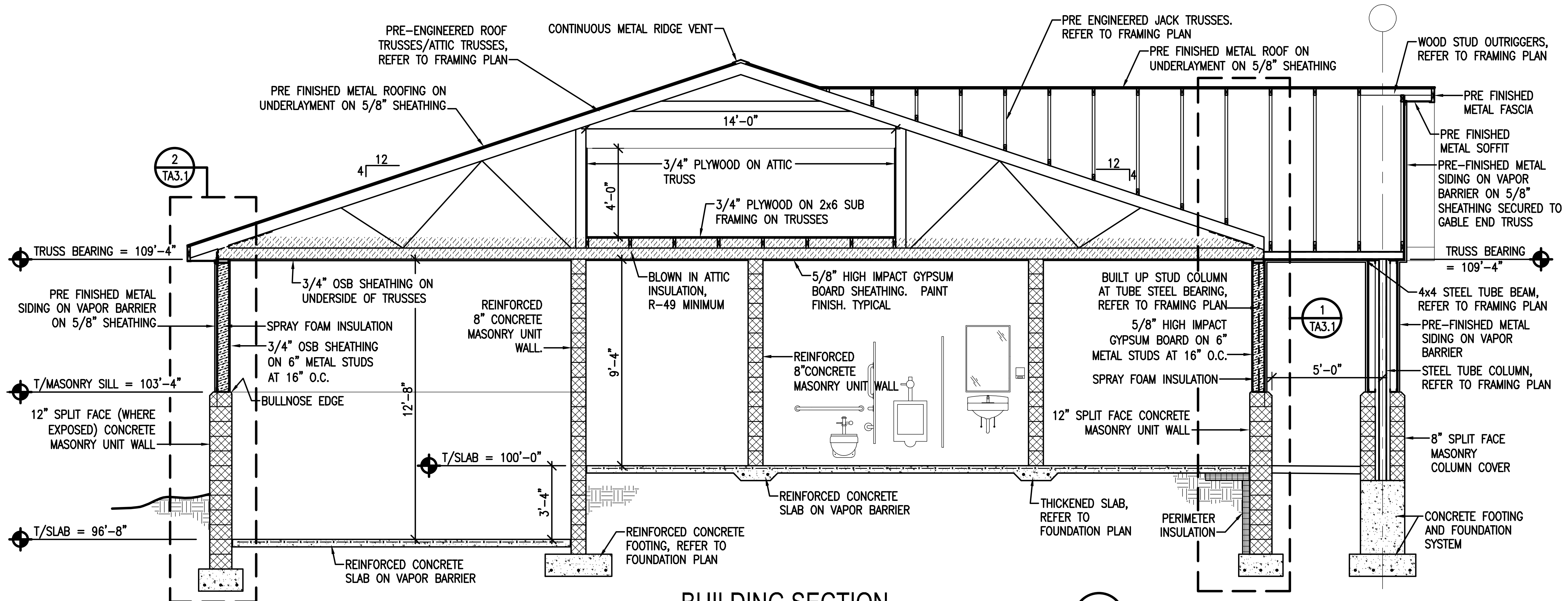
BUILDING SECTION
4 TA3.0

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


38'-0"
PRE ENGINEERED TRUSSES. REFER TO FRAMING PLAN
PRE FINISHED METAL ROOF ON UNDERLAYMENT ON 5/8" SHEATHING
STEEL TUBE BEAM, REFER TO FRAMING
7 TA6.0
TRUSS BEARING = 109'-8"
VENTED METAL SOFFIT
STEEL TUBE BEAM, REFER TO FRAMING PLAN
PRE-FINISHED METAL SIDING ON VAPOR BARRIER
PRE-FINISHED METAL SOFFIT/CEILING
9'-4"
T/MASONRY = 103'-4"
STEEL TUBE COLUMN, REFER TO FRAMING PLAN
8" SPLIT FACE MASONRY COLUMN COVER
CONCRETE SIDEWALK
CONCRETE FOOTING AND FOUNDATION SYSTEM
CONCRETE FOOTING AND FOUNDATION SYSTEM

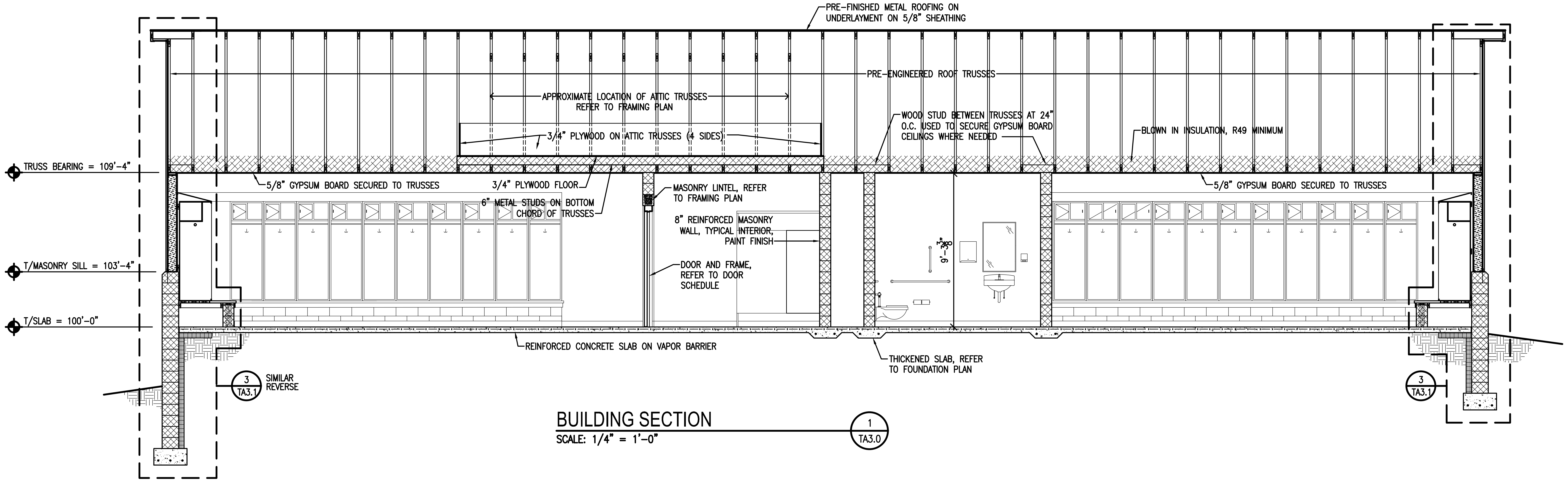
BUILDING SECTION
3 TA3.0

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


PRE-ENGINEERED ROOF TRUSSES/ATTIC TRUSSES, REFER TO FRAMING PLAN
CONTINUOUS METAL RIDGE VENT
PRE ENGINEERED JACK TRUSSES. REFER TO FRAMING PLAN
WOOD STUD OUTRIGGERS, REFER TO FRAMING PLAN
PRE FINISHED METAL ROOF ON UNDERLAYMENT ON 5/8" SHEATHING
PRE FINISHED METAL ROOFING ON UNDERLAYMENT ON 5/8" SHEATHING
PRE FINISHED METAL FASCIA
14'-0"
12
4
2 TA3.1
3/4" PLYWOOD ON ATTIC TRUSS
4'-0"
3/4" PLYWOOD ON 2x6 SUB FRAMING ON TRUSSES
PRE FINISHED METAL SOFFIT
PRE-FINISHED METAL SIDING ON VAPOR BARRIER ON 5/8" SHEATHING SECURED TO GABLE END TRUSS
TRUSS BEARING = 109'-4"
TRUSS BEARING = 109'-4"
3/4" OSB SHEATHING ON UNDERSIDE OF TRUSSES
BLOWN IN ATTIC INSULATION, R-49 MINIMUM
5/8" HIGH IMPACT GYPSUM BOARD SHEATHING. PAINT FINISH. TYPICAL
BUILT UP STUD COLUMN AT TUBE STEEL BEARING, REFER TO FRAMING PLAN
4x4 STEEL TUBE BEAM, REFER TO FRAMING PLAN
PRE FINISHED METAL SIDING ON VAPOR BARRIER ON 5/8" SHEATHING
REINFORCED 8" CONCRETE MASONRY UNIT WALL
1 TA3.1
5/8" HIGH IMPACT GYPSUM BOARD ON 6" METAL STUDS AT 16" O.C.
PRE-FINISHED METAL SIDING ON VAPOR BARRIER
SPRAY FOAM INSULATION
3/4" OSB SHEATHING ON 6" METAL STUDS AT 16" O.C.
9'-4"
REINFORCED 8"CONCRETE MASONRY UNIT WALL
SPRAY FOAM INSULATION
5'-0"
STEEL TUBE COLUMN, REFER TO FRAMING PLAN
T/MASONRY SILL = 103'-4"
BULLNOSE EDGE
12'-8"
12" SPLIT FACE (WHERE EXPOSED) CONCRETE MASONRY UNIT WALL
12" SPLIT FACE CONCRETE MASONRY UNIT WALL
8" SPLIT FACE MASONRY COLUMN COVER
T/SLAB = 100'-0"
REINFORCED CONCRETE SLAB ON VAPOR BARRIER
THICKENED SLAB, REFER TO FOUNDATION PLAN
3'-4"
PERIMETER INSULATION
CONCRETE FOOTING AND FOUNDATION SYSTEM
T/SLAB = 96'-8"
REINFORCED CONCRETE FOOTING, REFER TO FOUNDATION PLAN
REINFORCED CONCRETE SLAB ON VAPOR BARRIER

BUILDING SECTION
2 TA3.0

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


PRE-FINISHED METAL ROOFING ON UNDERLAYMENT ON 5/8" SHEATHING
PRE-ENGINEERED ROOF TRUSSES
APPROXIMATE LOCATION OF ATTIC TRUSSES REFER TO FRAMING PLAN
3/4" PLYWOOD ON ATTIC TRUSSES (4 SIDES)
WOOD STUD BETWEEN TRUSSES AT 24" O.C. USED TO SECURE GYPSUM BOARD CEILINGS WHERE NEEDED
BLOWN IN INSULATION, R49 MINIMUM
TRUSS BEARING = 109'-4"
5/8" GYPSUM BOARD SECURED TO TRUSSES
3/4" PLYWOOD FLOOR
6" METAL STUDS ON BOTTOM CHORD OF TRUSSES
MASONRY LINTEL, REFER TO FRAMING PLAN
8" REINFORCED MASONRY WALL, TYPICAL INTERIOR, PAINT FINISH
DOOR AND FRAME, REFER TO DOOR SCHEDULE
5/8" GYPSUM BOARD SECURED TO TRUSSES
T/MASONRY SILL = 103'-4"
T/SLAB = 100'-0"
REINFORCED CONCRETE SLAB ON VAPOR BARRIER
THICKENED SLAB, REFER TO FOUNDATION PLAN
3 TA3.1 SIMILAR REVERSE
3 TA3.1

BUILDING SECTION
1 TA3.0

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

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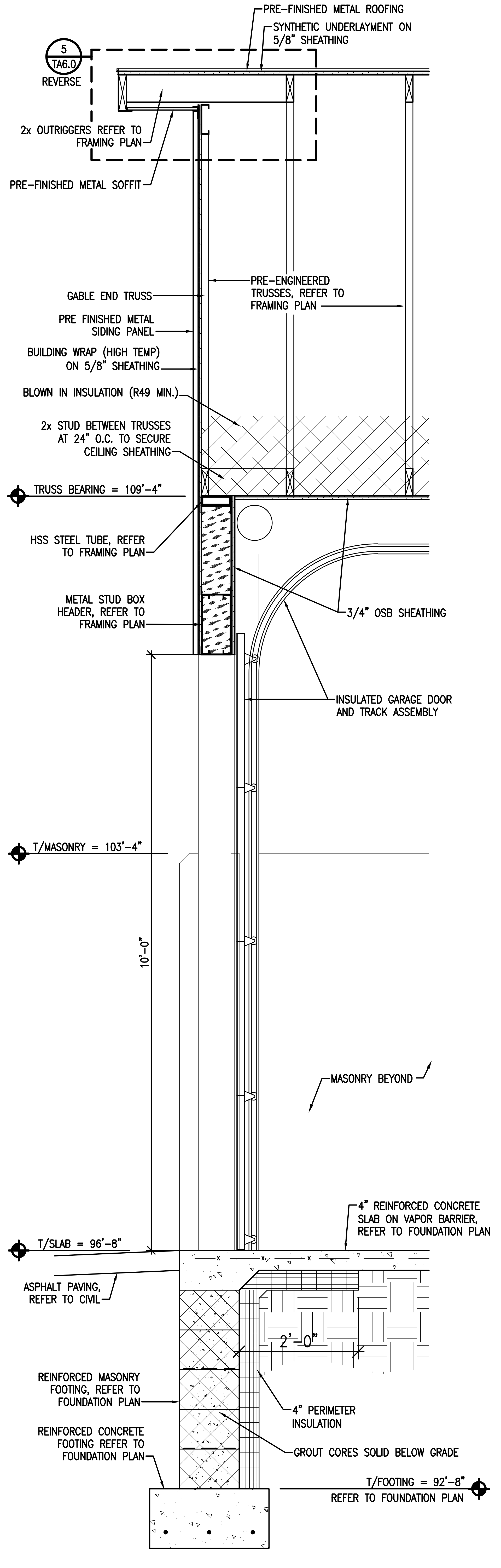
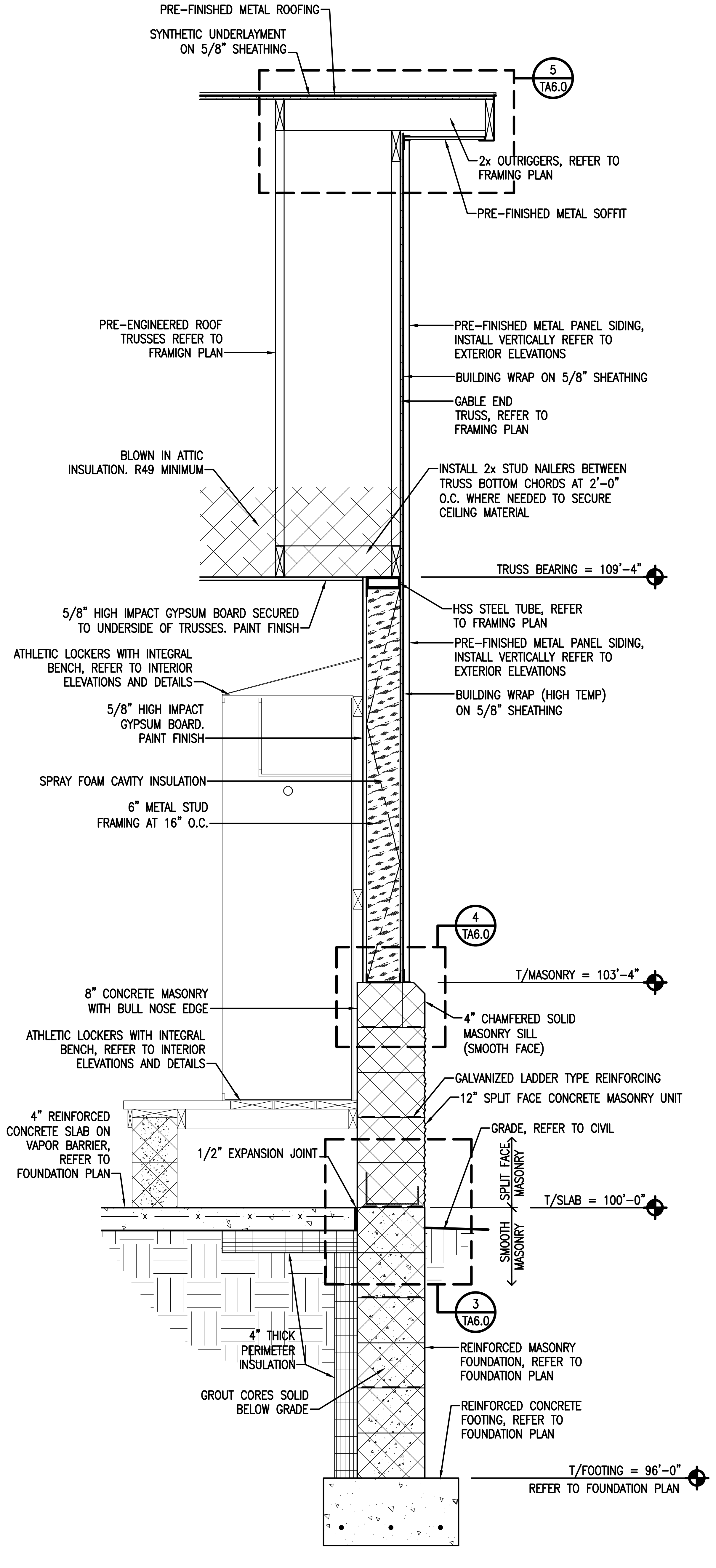
BUILDING SECTIONS

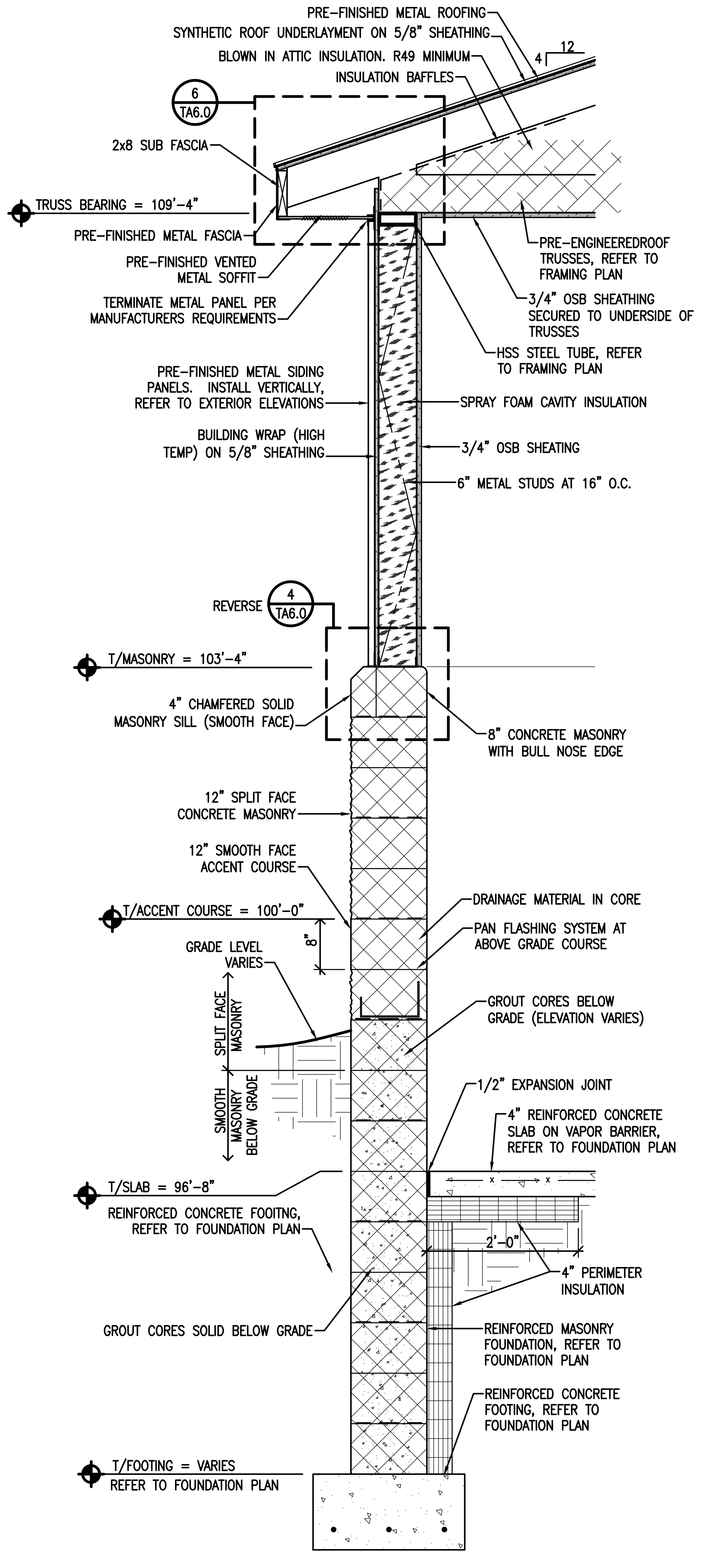
T-A3.0


PRE-FINISHED METAL ROOFING
SYNTHETIC UNDERLAYMENT ON 5/8" SHEATHING
5 TA6.0 REVERSE
2x OUTRIGGERS REFER TO FRAMING PLAN
PRE-FINISHED METAL SOFFIT
GABLE END TRUSS
PRE-ENGINEERED TRUSSES, REFER TO FRAMING PLAN
PRE FINISHED METAL SIDING PANEL
BUILDING WRAP (HIGH TEMP) ON 5/8" SHEATHING
BLOWN IN INSULATION (R49 MIN.)
2x STUD BETWEEN TRUSSES AT 24" O.C. TO SECURE CEILING SHEATHING
TRUSS BEARING = 109'-4"
HSS STEEL TUBE, REFER TO FRAMING PLAN
METAL STUD BOX HEADER, REFER TO FRAMING PLAN
3/4" OSB SHEATHING
INSULATED GARAGE DOOR AND TRACK ASSEMBLY
T/MASONRY = 103'-4"
10'-0"
MASONRY BEYOND
T/SLAB = 96'-8"
4" REINFORCED CONCRETE SLAB ON VAPOR BARRIER, REFER TO FOUNDATION PLAN
ASPHALT PAVING, REFER TO CIVIL
2'-0"
REINFORCED MASONRY FOOTING, REFER TO FOUNDATION PLAN
4" PERIMETER INSULATION
REINFORCED CONCRETE FOOTING REFER TO FOUNDATION PLAN
GROUT CORES SOLID BELOW GRADE
T/FOOTING = 92'-8"
REFER TO FOUNDATION PLAN

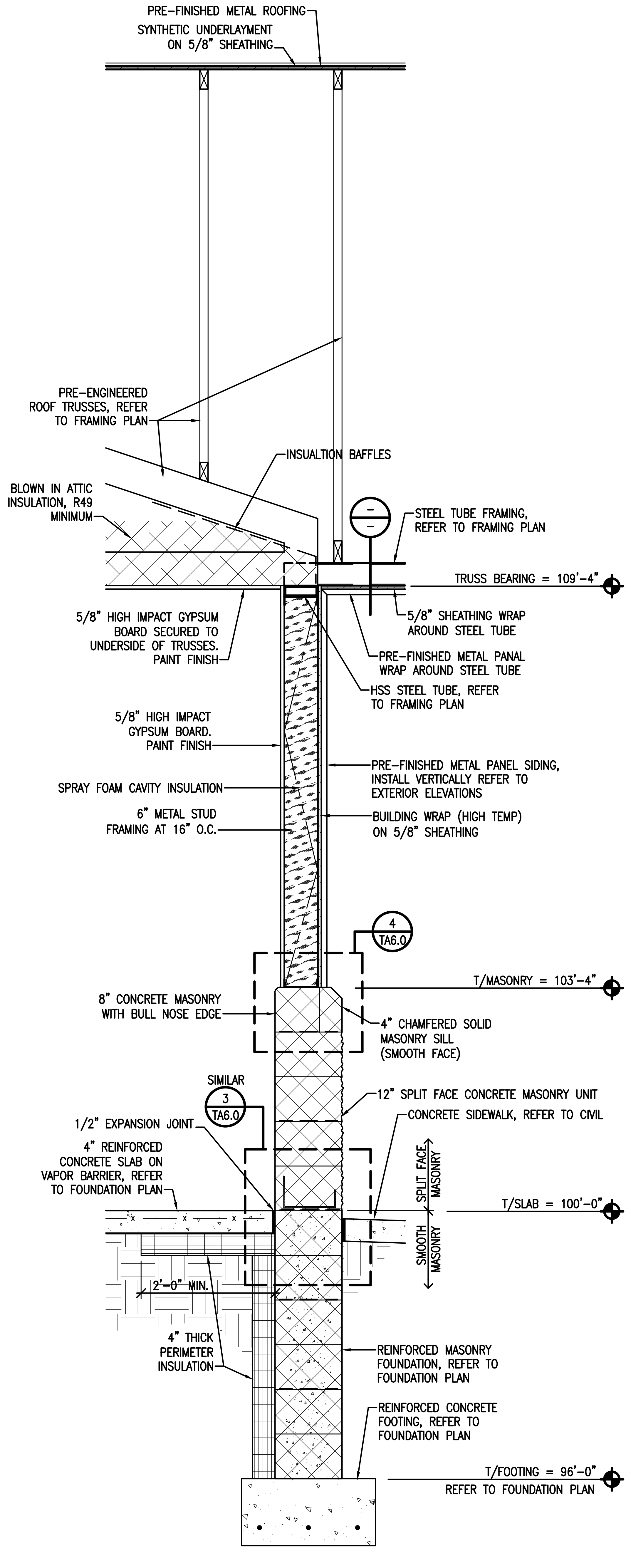
WALL SECTION
SCALE: 3/4" = 1'-0"
4 TA3.1


PRE-FINISHED METAL ROOFING
SYNTHETIC UNDERLAYMENT ON 5/8" SHEATHING
5 TA6.0
2x OUTRIGGERS, REFER TO FRAMING PLAN
PRE-FINISHED METAL SOFFIT
PRE-ENGINEERED ROOF TRUSSES REFER TO FRAMIGN PLAN
PRE-FINISHED METAL PANEL SIDING, INSTALL VERTICALLY REFER TO EXTERIOR ELEVATIONS
BUILDING WRAP ON 5/8" SHEATHING
GABLE END TRUSS, REFER TO FRAMING PLAN
BLOWN IN ATTIC INSULATION. R49 MINIMUM
INSTALL 2x STUD NAILERS BETWEEN TRUSS BOTTOM CHORDS AT 2'-0" O.C. WHERE NEEDED TO SECURE CEILING MATERIAL
TRUSS BEARING = 109'-4"
5/8" HIGH IMPACT GYPSUM BOARD SECURED TO UNDERSIDE OF TRUSSES. PAINT FINISH
HSS STEEL TUBE, REFER TO FRAMING PLAN
PRE-FINISHED METAL PANEL SIDING, INSTALL VERTICALLY REFER TO EXTERIOR ELEVATIONS
ATHLETIC LOCKERS WITH INTEGRAL BENCH, REFER TO INTERIOR ELEVATIONS AND DETAILS
5/8" HIGH IMPACT GYPSUM BOARD. PAINT FINISH
BUILDING WRAP (HIGH TEMP) ON 5/8" SHEATHING
SPRAY FOAM CAVITY INSULATION
6" METAL STUD FRAMING AT 16" O.C.
4 TA6.0
T/MASONRY = 103'-4"
8" CONCRETE MASONRY WITH BULL NOSE EDGE
4" CHAMFERED SOLID MASONRY SILL (SMOOTH FACE)
ATHLETIC LOCKERS WITH INTEGRAL BENCH, REFER TO INTERIOR ELEVATIONS AND DETAILS
GALVANIZED LADDER TYPE REINFORCING
12" SPLIT FACE CONCRETE MASONRY UNIT
4" REINFORCED CONCRETE SLAB ON VAPOR BARRIER, REFER TO FOUNDATION PLAN
1/2" EXPANSION JOINT
GRADE, REFER TO CIVIL
SPLIT FACE MASONRY
SMOOTH MASONRY
T/SLAB = 100'-0"
3 TA6.0
4" THICK PERIMETER INSULATION
GROUT CORES SOLID BELOW GRADE
REINFORCED MASONRY FOUNDATION, REFER TO FOUNDATION PLAN
REINFORCED CONCRETE FOOTING, REFER TO FOUNDATION PLAN
T/FOOTING = 96'-0"
REFER TO FOUNDATION PLAN

WALL SECTION
SCALE: 3/4" = 1'-0"
3 TA3.1


PRE-FINISHED METAL ROOFING
SYNTHETIC ROOF UNDERLAYMENT ON 5/8" SHEATHING
BLOWN IN ATTIC INSULATION. R49 MINIMUM
INSULATION BAFFLES
4
12
6 TA6.0
2x8 SUB FASCIA
TRUSS BEARING = 109'-4"
PRE-FINISHED METAL FASCIA
PRE-FINISHED VENTED METAL SOFFIT
PRE-ENGINEEREDROOF TRUSSES, REFER TO FRAMING PLAN
TERMINATE METAL PANEL PER MANUFACTURERS REQUIREMENTS
3/4" OSB SHEATHING SECURED TO UNDERSIDE OF TRUSSES
HSS STEEL TUBE, REFER TO FRAMING PLAN
PRE-FINISHED METAL SIDING PANELS. INSTALL VERTICALLY, REFER TO EXTERIOR ELEVATIONS
SPRAY FOAM CAVITY INSULATION
BUILDING WRAP (HIGH TEMP) ON 5/8" SHEATHING
3/4" OSB SHEATING
6" METAL STUDS AT 16" O.C.
REVERSE
4 TA6.0
T/MASONRY = 103'-4"
4" CHAMFERED SOLID MASONRY SILL (SMOOTH FACE)
8" CONCRETE MASONRY WITH BULL NOSE EDGE
12" SPLIT FACE CONCRETE MASONRY
12" SMOOTH FACE ACCENT COURSE
DRAINAGE MATERIAL IN CORE
T/ACCENT COURSE = 100'-0"
8"
PAN FLASHING SYSTEM AT ABOVE GRADE COURSE
GRADE LEVEL VARIES
SPLIT FACE MASONRY
GROUT CORES BELOW GRADE (ELEVATION VARIES)
SMOOTH MASONRY BELOW GRADE
1/2" EXPANSION JOINT
4" REINFORCED CONCRETE SLAB ON VAPOR BARRIER, REFER TO FOUNDATION PLAN
T/SLAB = 96'-8"
REINFORCED CONCRETE FOOTING, REFER TO FOUNDATION PLAN
2'-0"
4" PERIMETER INSULATION
GROUT CORES SOLID BELOW GRADE
REINFORCED MASONRY FOUNDATION, REFER TO FOUNDATION PLAN
REINFORCED CONCRETE FOOTING, REFER TO FOUNDATION PLAN
T/FOOTING = VARIES
REFER TO FOUNDATION PLAN

WALL SECTION
SCALE: 3/4" = 1'-0"
2 TA3.1


PRE-FINISHED METAL ROOFING
SYNTHETIC UNDERLAYMENT ON 5/8" SHEATHING
PRE-ENGINEERED ROOF TRUSSES, REFER TO FRAMING PLAN
INSULTION BAFFLES
BLOWN IN ATTIC INSULATION, R49 MINIMUM
STEEL TUBE FRAMING, REFER TO FRAMING PLAN
TRUSS BEARING = 109'-4"
5/8" HIGH IMPACT GYPSUM BOARD SECURED TO UNDERSIDE OF TRUSSES. PAINT FINISH
5/8" SHEATHING WRAP AROUND STEEL TUBE
PRE-FINISHED METAL PANAL WRAP AROUND STEEL TUBE
HSS STEEL TUBE, REFER TO FRAMING PLAN
5/8" HIGH IMPACT GYPSUM BOARD. PAINT FINISH
PRE-FINISHED METAL PANEL SIDING, INSTALL VERTICALLY REFER TO EXTERIOR ELEVATIONS
SPRAY FOAM CAVITY INSULATION
6" METAL STUD FRAMING AT 16" O.C.
BUILDING WRAP (HIGH TEMP) ON 5/8" SHEATHING
4 TA6.0
T/MASONRY = 103'-4"
8" CONCRETE MASONRY WITH BULL NOSE EDGE
4" CHAMFERED SOLID MASONRY SILL (SMOOTH FACE)
SIMILAR
3 TA6.0
12" SPLIT FACE CONCRETE MASONRY UNIT
1/2" EXPANSION JOINT
CONCRETE SIDEWALK, REFER TO CIVIL
4" REINFORCED CONCRETE SLAB ON VAPOR BARRIER, REFER TO FOUNDATION PLAN
SPLIT FACE MASONRY
SMOOTH MASONRY
T/SLAB = 100'-0"
2'-0" MIN.
4" THICK PERIMETER INSULATION
REINFORCED MASONRY FOUNDATION, REFER TO FOUNDATION PLAN
REINFORCED CONCRETE FOOTING, REFER TO FOUNDATION PLAN
T/FOOTING = 96'-0"
REFER TO FOUNDATION PLAN

WALL SECTION
SCALE: 3/4" = 1'-0"
1 TA3.1

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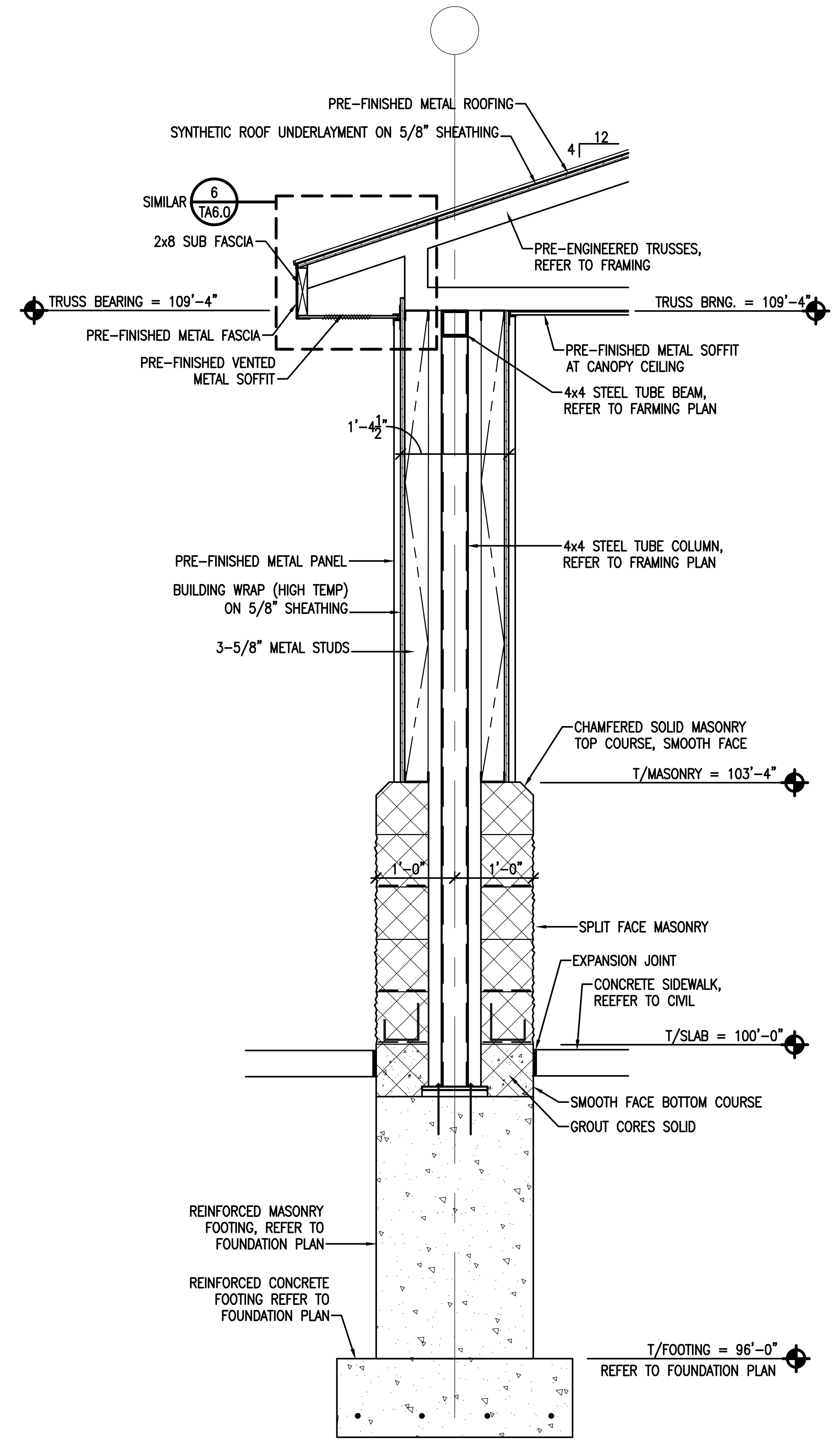
BEAL CITY PUBLIC SCHOOLS
2024 BOND WORK
MT PLEASANT, MICHIGAN
PROJECT NO. 22-037

NO.	REVISIONS	DATE
B	FINAL REVIEW	3-14-25
0	FOR CONSTRUCTION	3-27-25

	BY	DATE
DESIGN	---	---
DRAWN	---	---
CHECKED	---	---
APPROVED	---	---

WALL SECTIONS

T-A3.0


PRE-FINISHED METAL ROOFING
SYNTHETIC ROOF UNDERLAYMENT ON 5/8" SHEATHING
4
12
SIMILAR
6
TA6.0
2x8 SUB FASCIA
PRE-ENGINEERED TRUSSES, REFER TO FRAMING
TRUSS BEARING = 109'-4"
TRUSS BRNG. = 109'-4"
PRE-FINISHED METAL FASCIA
PRE-FINISHED VENTED METAL SOFFIT
PRE-FINISHED METAL SOFFIT AT CANOPY CEILING
4x4 STEEL TUBE BEAM, REFER TO FARMING PLAN
1'-4½"
PRE-FINISHED METAL PANEL
4x4 STEEL TUBE COLUMN, REFER TO FRAMING PLAN
BUILDING WRAP (HIGH TEMP) ON 5/8" SHEATHING
3-5/8" METAL STUDS
CHAMFERED SOLID MASONRY TOP COURSE, SMOOTH FACE
T/MASONRY = 103'-4"
1'-0"
1'-0"
SPLIT FACE MASONRY
EXPANSION JOINT
CONCRETE SIDEWALK, REEFER TO CIVIL
T/SLAB = 100'-0"
SMOOTH FACE BOTTOM COURSE
GROUT CORES SOLID
REINFORCED MASONRY FOOTING, REFER TO FOUNDATION PLAN
REINFORCED CONCRETE FOOTING REFER TO FOUNDATION PLAN
T/FOOTING = 96'-0"
REFER TO FOUNDATION PLAN

WALL SECTION

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

1
TA3.2

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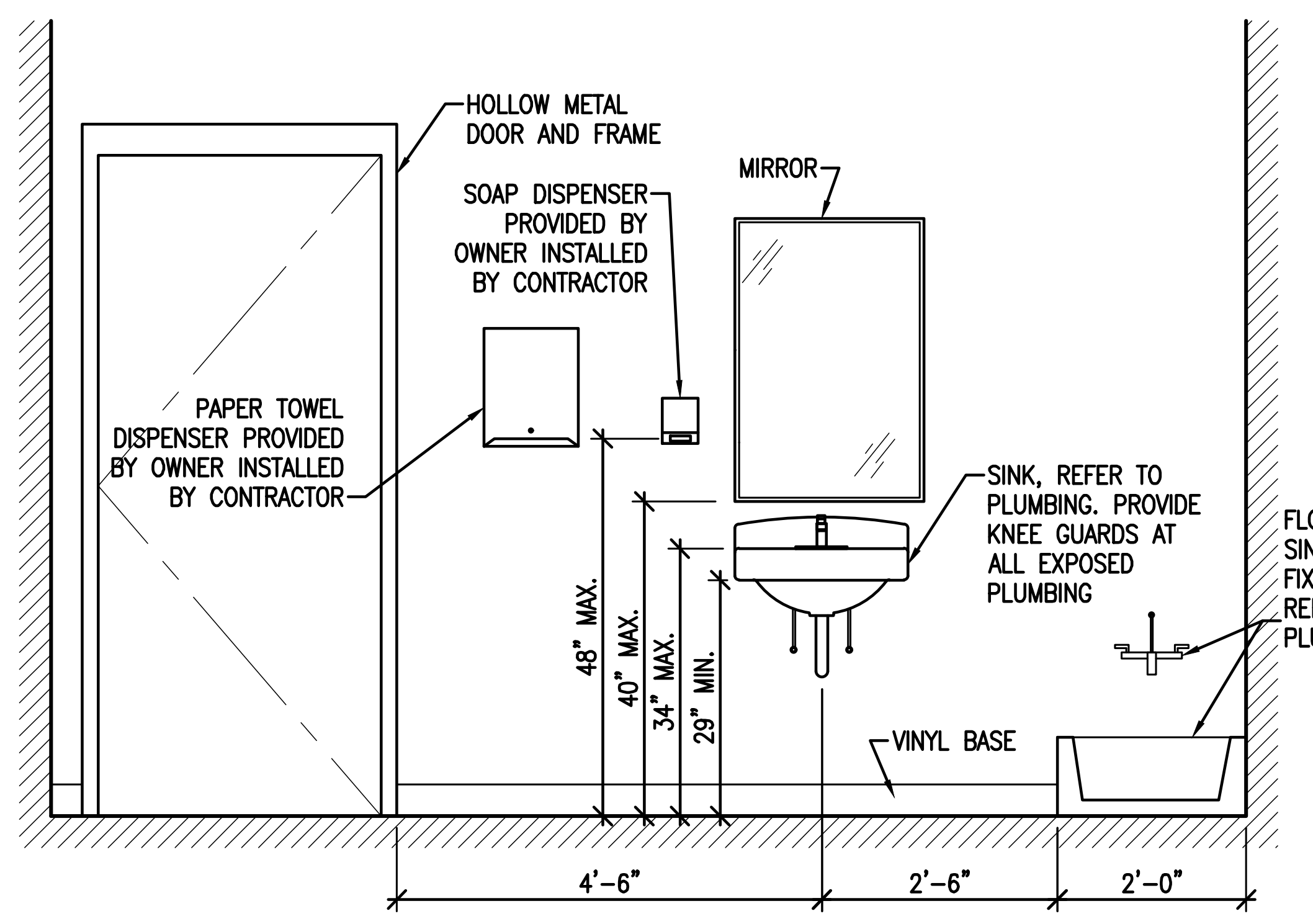
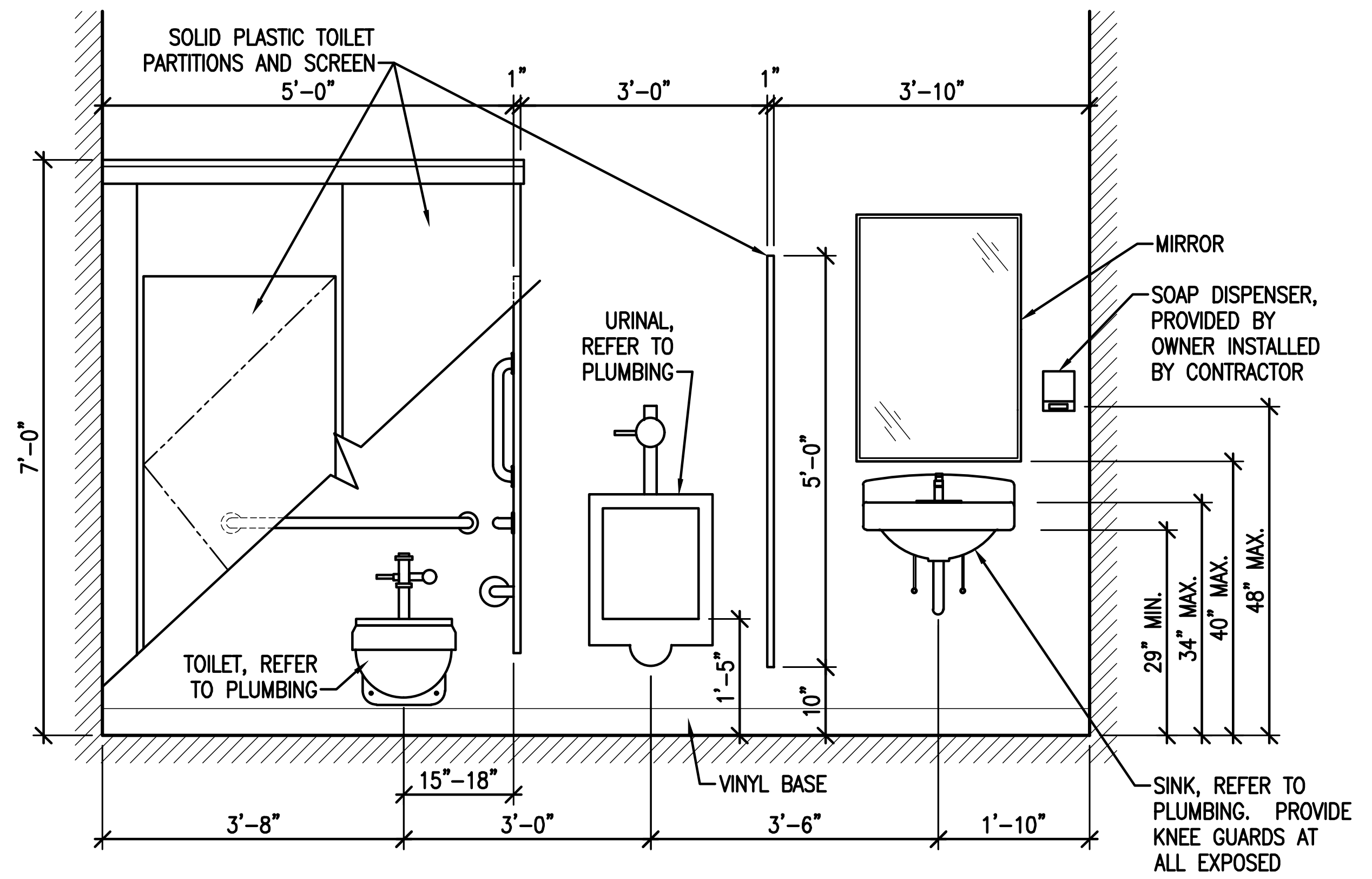
APPROVED	---	---

WALL SECTIONS

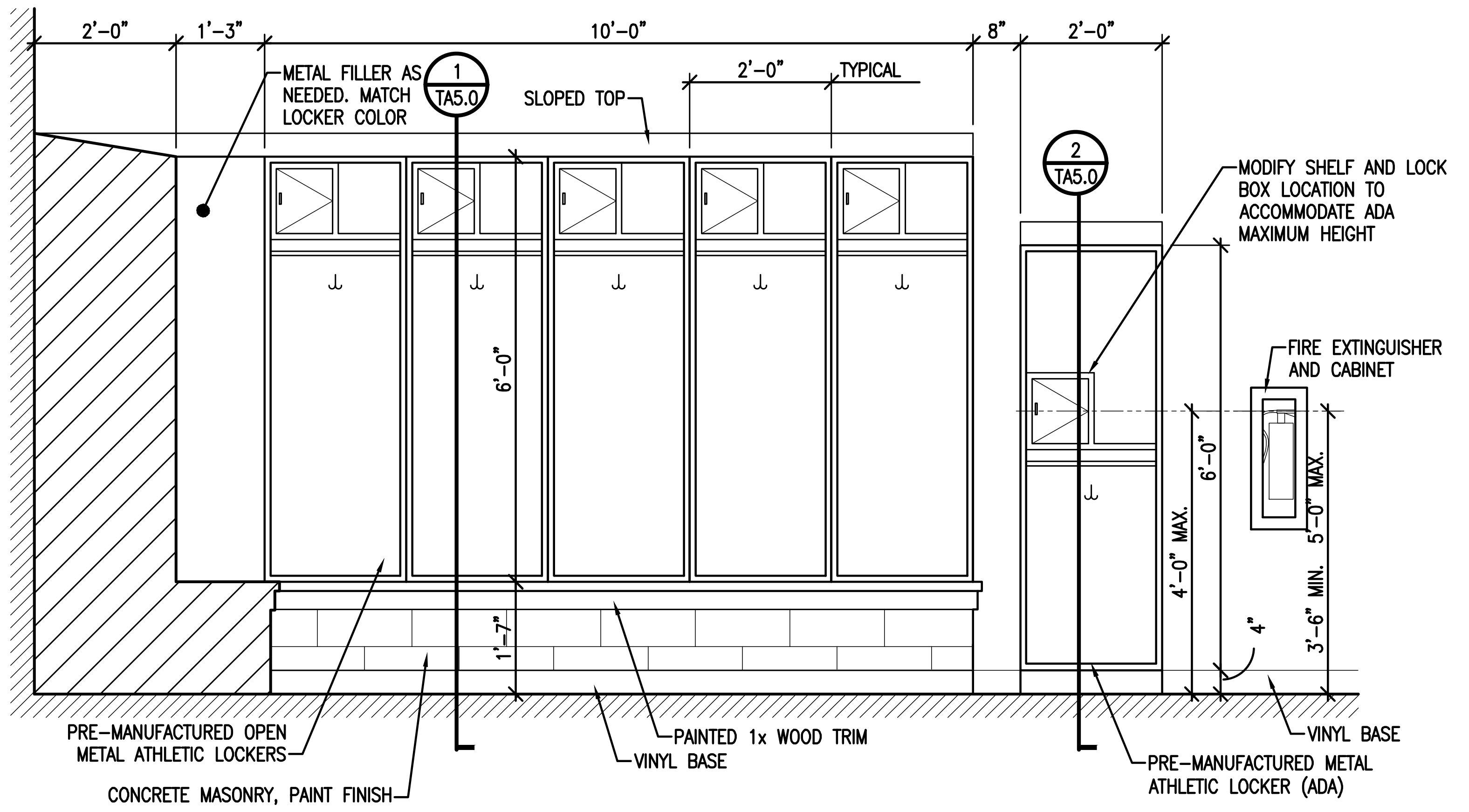
T-A3.2


HOLLOW METAL DOOR AND FRAME
SOAP DISPENSER PROVIDED BY OWNER INSTALLED BY CONTRACTOR
MIRROR
PAPER TOWEL DISPENSER PROVIDED BY OWNER INSTALLED BY CONTRACTOR
SINK, REFER TO PLUMBING. PROVIDE KNEE GUARDS AT ALL EXPOSED PLUMBING
FLOOR SINK AND FIXTURE, REFER TO PLUMBING
48" MAX.
40" MAX.
34" MAX.
29" MIN.
VINYL BASE
4'-6"
2'-6"
2'-0"

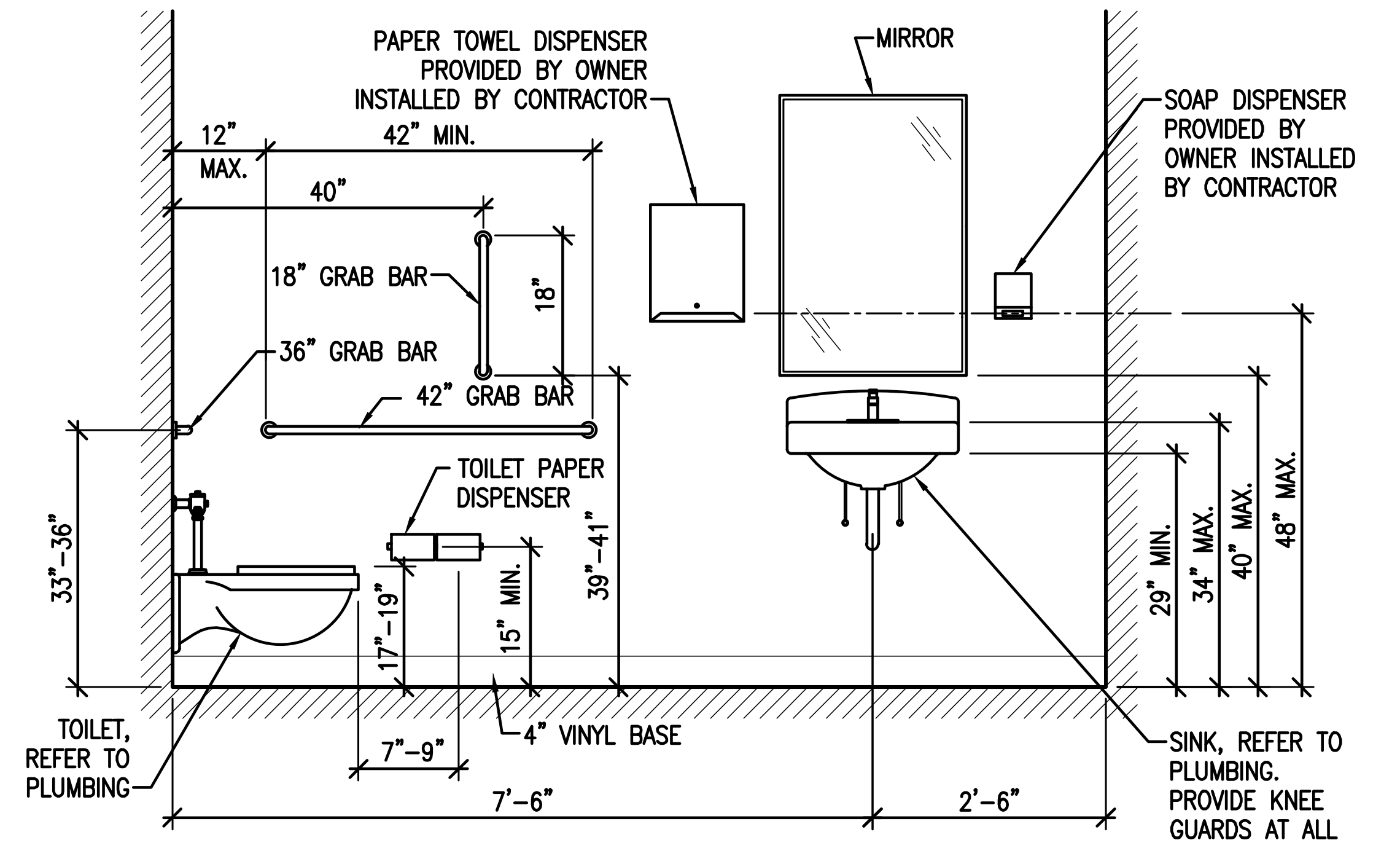
INTERIOR ELEVATION - TRAINER 105
SCALE: 1/2" = 1'-0"
4 TA4.0


SOLID PLASTIC TOILET PARTITIONS AND SCREEN
5'-0"
1"
3'-0"
1"
3'-10"
7'-0"
URINAL, REFER TO PLUMBING
5'-0"
MIRROR
SOAP DISPENSER, PROVIDED BY OWNER INSTALLED BY CONTRACTOR
TOILET, REFER TO PLUMBING
1'-5"
10"
29" MIN.
34" MAX.
40" MAX.
48" MAX.
15"-18"
VINYL BASE
3'-8"
3'-0"
3'-6"
1'-10"
SINK, REFER TO PLUMBING. PROVIDE KNEE GUARDS AT ALL EXPOSED PLUMBING

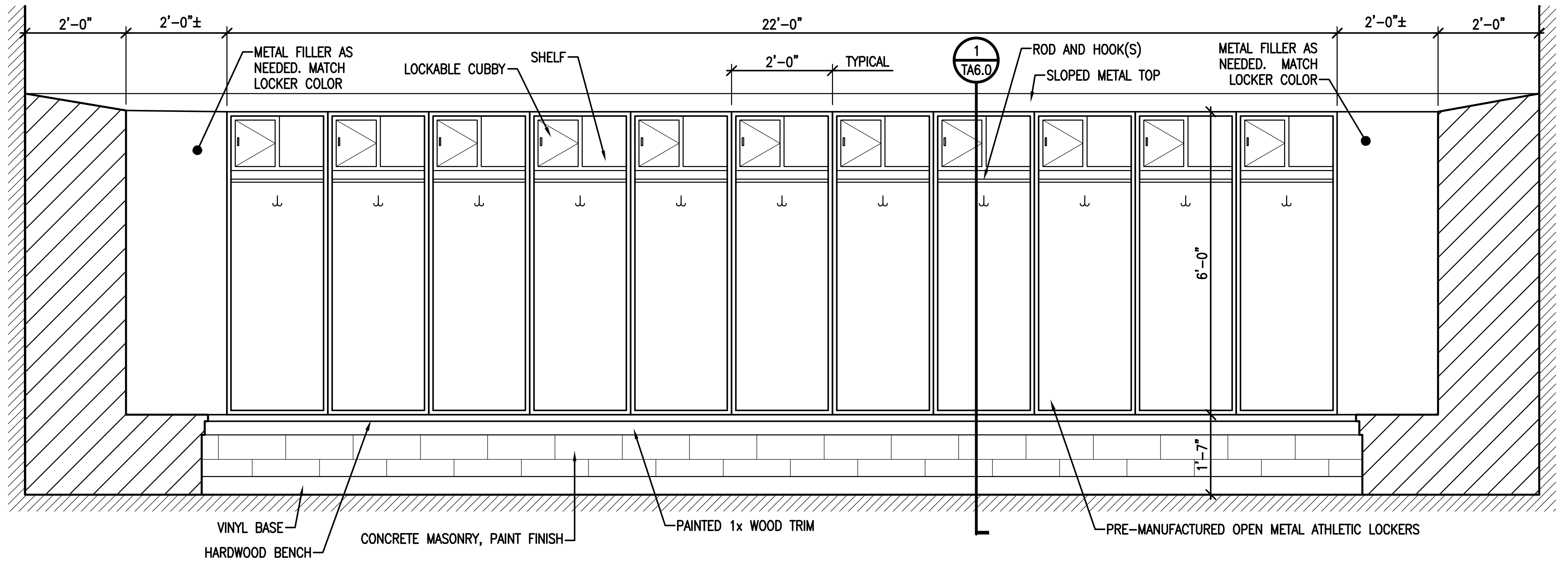
INTERIOR ELEVATION - TOILET 106 & 102
SCALE: 1/2" = 1'-0"
MIRROR AT TOILET 102
3 TA4.0


2'-0"
1'-3"
10'-0"
8"
2'-0"
METAL FILLER AS NEEDED. MATCH LOCKER COLOR
1 TA5.0
SLOPED TOP
2'-0"
TYPICAL
2 TA5.0
MODIFY SHELF AND LOCK BOX LOCATION TO ACCOMMODATE ADA MAXIMUM HEIGHT
FIRE EXTINGUISHER AND CABINET
6'-0"
6'-0"
4'-0" MAX.
5'-0" MIN.
3'-6" MIN.
4"
1'-7"
PRE-MANUFACTURED OPEN METAL ATHLETIC LOCKERS
CONCRETE MASONRY, PAINT FINISH
PAINTED 1x WOOD TRIM
VINYL BASE
VINYL BASE
PRE-MANUFACTURED METAL ATHLETIC LOCKER (ADA)

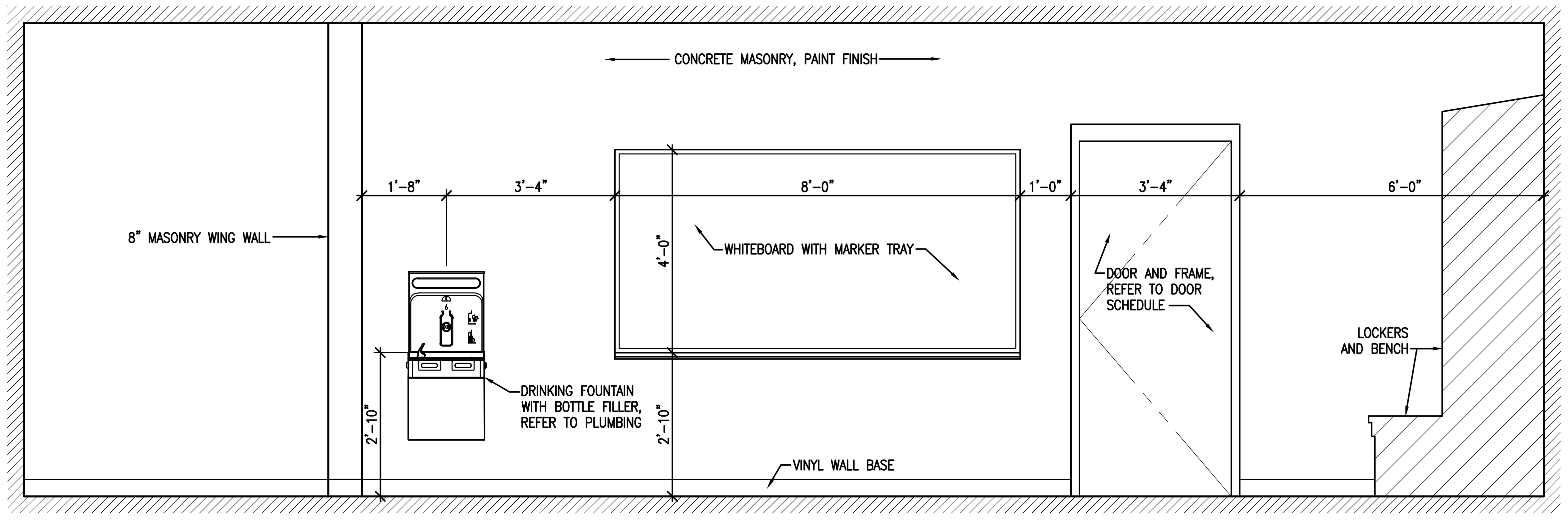
INTERIOR ELEVATION - TEAM ROOM 101
SCALE: 1/2" = 1'-0"
1C TA4.0


PAPER TOWEL DISPENSER PROVIDED BY OWNER INSTALLED BY CONTRACTOR
MIRROR
SOAP DISPENSER PROVIDED BY OWNER INSTALLED BY CONTRACTOR
12" MAX.
42" MIN.
40"
18" GRAB BAR
18"
36" GRAB BAR
42" GRAB BAR
TOILET PAPER DISPENSER
33"-36"
17"-19"
15" MIN.
39"-41"
29" MIN.
34" MAX.
40" MAX.
48" MAX.
TOILET, REFER TO PLUMBING
7"-9"
4" VINYL BASE
7'-6"
2'-6"
SINK, REFER TO PLUMBING. PROVIDE KNEE GUARDS AT ALL EXPOSED PLUMBING

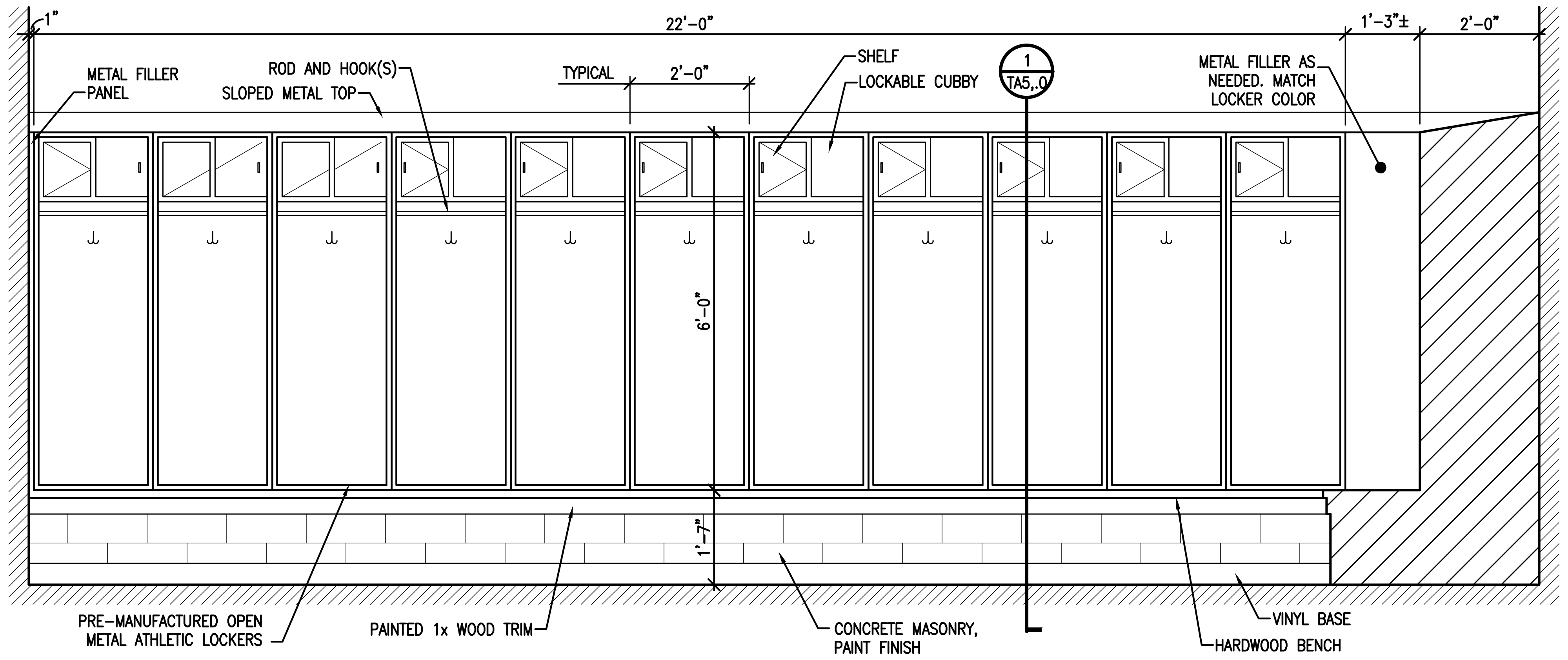
INTERIOR ELEVATION - TOILET 103
SCALE: 1/2" = 1'-0"
2 TA4.0


2'-0"
2'-0"±
22'-0"
2'-0"±
2'-0"
METAL FILLER AS NEEDED. MATCH LOCKER COLOR
LOCKABLE CUBBY
SHELF
2'-0"
TYPICAL
1 TA6.0
ROD AND HOOK(S)
SLOPED METAL TOP
METAL FILLER AS NEEDED. MATCH LOCKER COLOR
6'-0"
1'-7"
VINYL BASE
HARDWOOD BENCH
CONCRETE MASONRY, PAINT FINISH
PAINTED 1x WOOD TRIM
PRE-MANUFACTURED OPEN METAL ATHLETIC LOCKERS

INTERIOR ELEVATION - TEAM ROOMS 101 & 108
SCALE: 1/2" = 1'-0"
1B TA4.0. TA4.1


CONCRETE MASONRY, PAINT FINISH
8" MASONRY WING WALL
1'-8"
3'-4"
8'-0"
1'-0"
3'-4"
6'-0"
4'-0"
WHITEBOARD WITH MARKER TRAY
DOOR AND FRAME, REFER TO DOOR SCHEDULE
LOCKERS AND BENCH
DRINKING FOUNTAIN WITH BOTTLE FILLER, REFER TO PLUMBING
2'-10"
2'-10"
VINYL WALL BASE

INTERIOR ELEVATION - TEAM ROOM 101
SCALE: 1/2" = 1'-0"
1D TA4.0



INTERIOR ELEVATION - TEAM ROOM 101
SCALE: 1/2" = 1'-0"
1A TA4.0

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BEAL CITY PUBLIC SCHOOLS
2024 BOND WORK
MT PLEASANT, MICHIGAN
PROJECT NO. 22-037

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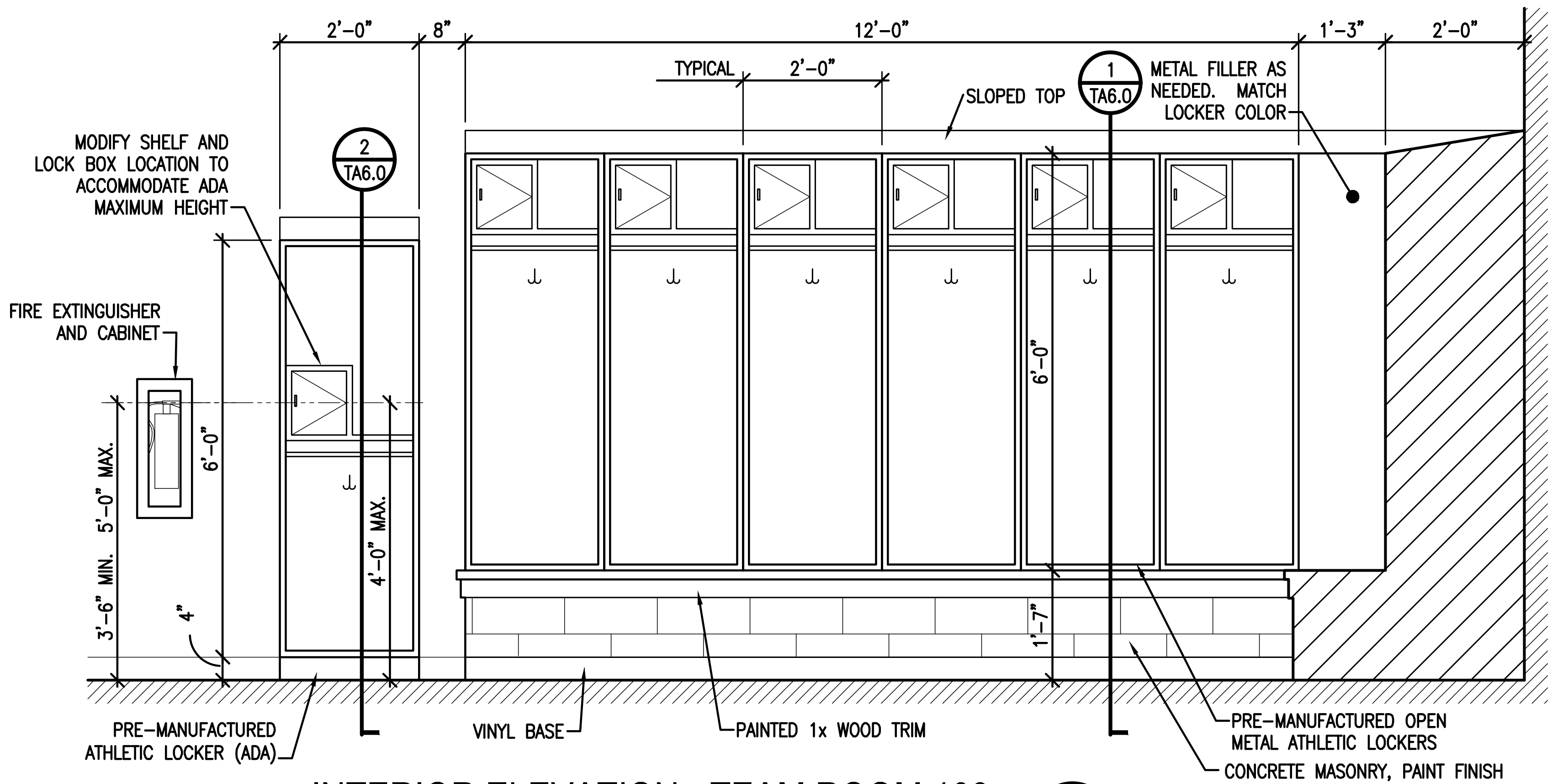
A	DD REVIEW	1-16-25
B	FINAL REVIEW	3-14-25
0	FOR CONSTRUCTION	3-27-25

	BY	DATE
DESIGN	-	-
DRAWN	-	-
CHECKED	-	-
APPROVED	-	-

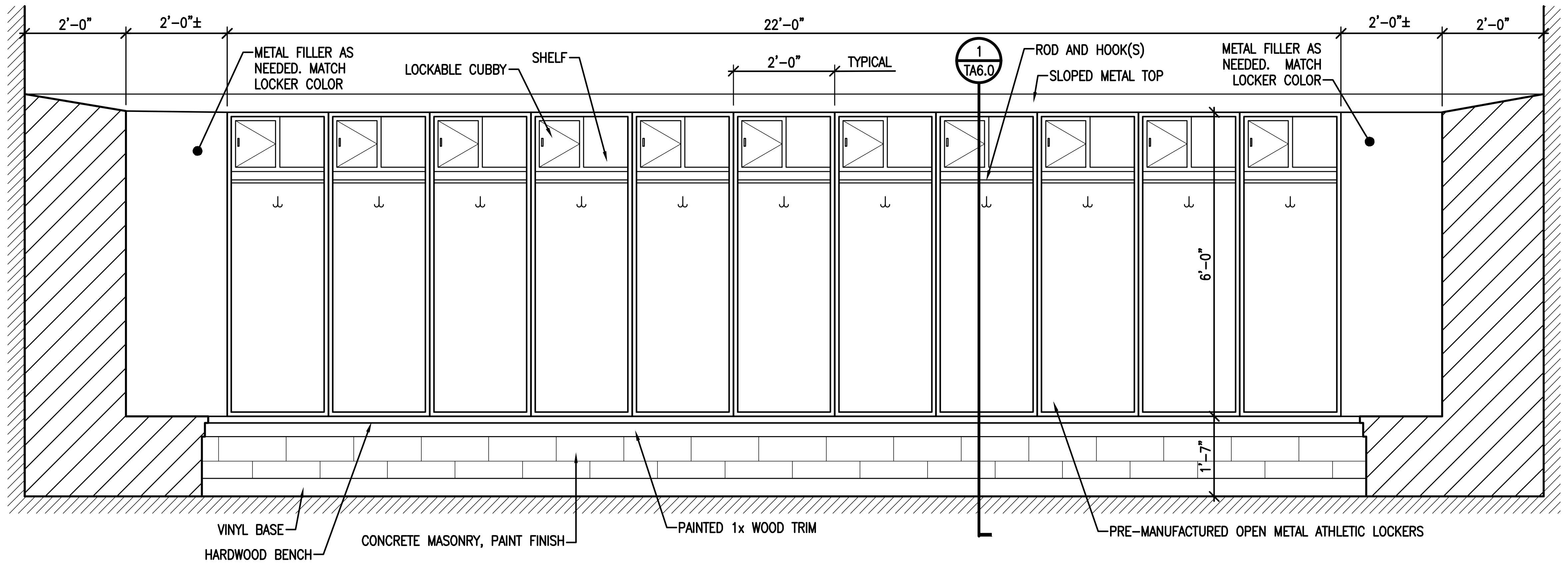
INTERIOR ELEVATIONS

T-A4.0


2'-0"
8"
12'-0"
1'-3"
2'-0"
TYPICAL
2'-0"
SLOPED TOP
1
TA6.0
METAL FILLER AS NEEDED. MATCH LOCKER COLOR
MODIFY SHELF AND LOCK BOX LOCATION TO ACCOMMODATE ADA MAXIMUM HEIGHT
2
TA6.0
FIRE EXTINGUISHER AND CABINET
3'-6" MIN. 5'-0" MAX.
6'-0"
4'-0" MAX.
4"
6'-0"
1'-7"
PRE-MANUFACTURED ATHLETIC LOCKER (ADA)
VINYL BASE
PAINTED 1x WOOD TRIM
PRE-MANUFACTURED OPEN METAL ATHLETIC LOCKERS
CONCRETE MASONRY, PAINT FINISH

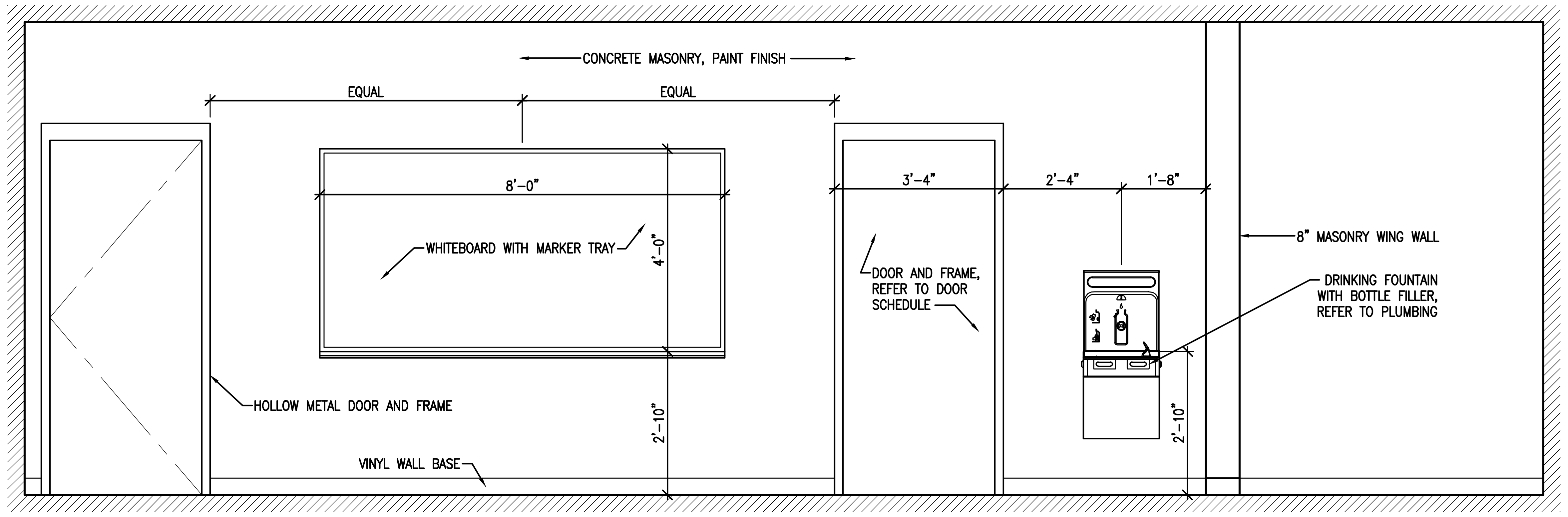
INTERIOR ELEVATION - TEAM ROOM 108 C/TA4.1

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


2'-0"
2'-0"±
22'-0"
2'-0"±
2'-0"
METAL FILLER AS NEEDED. MATCH LOCKER COLOR
LOCKABLE CUBBY
SHELF
2'-0"
TYPICAL
1
TA6.0
ROD AND HOOK(S)
SLOPED METAL TOP
METAL FILLER AS NEEDED. MATCH LOCKER COLOR
6'-0"
1'-7"
VINYL BASE
HARDWOOD BENCH
CONCRETE MASONRY, PAINT FINISH
PAINTED 1x WOOD TRIM
PRE-MANUFACTURED OPEN METAL ATHLETIC LOCKERS

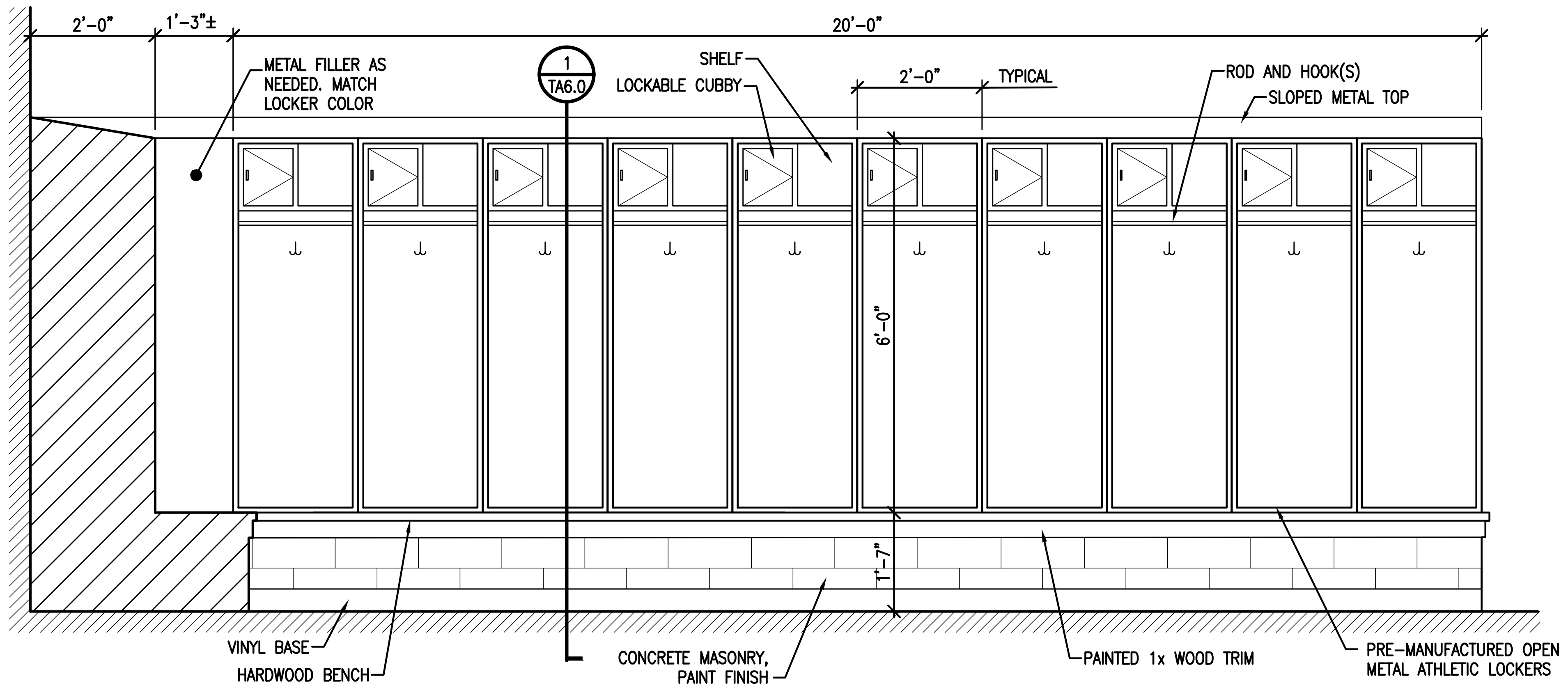
INTERIOR ELEVATION - TEAM ROOMS 101 & 108 1B/TA4.0, TA4.1

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


CONCRETE MASONRY, PAINT FINISH
EQUAL
EQUAL
8'-0"
3'-4"
2'-4"
1'-8"
WHITEBOARD WITH MARKER TRAY
4'-0"
DOOR AND FRAME, REFER TO DOOR SCHEDULE
8" MASONRY WING WALL
DRINKING FOUNTAIN WITH BOTTLE FILLER, REFER TO PLUMBING
HOLLOW METAL DOOR AND FRAME
2'-10"
2'-10"
VINYL WALL BASE

INTERIOR ELEVATION - TEAM ROOM 108 1D/TA4.1

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



INTERIOR ELEVATION - TEAM ROOM 108 1A/TA4.1

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

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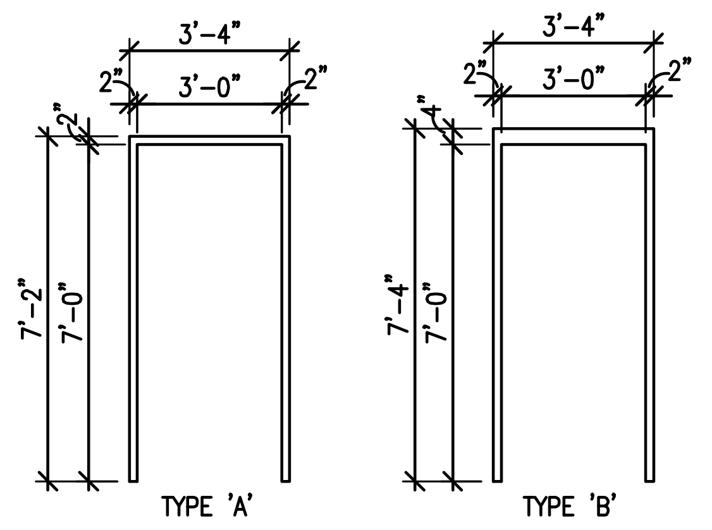
APPROVED	-	-

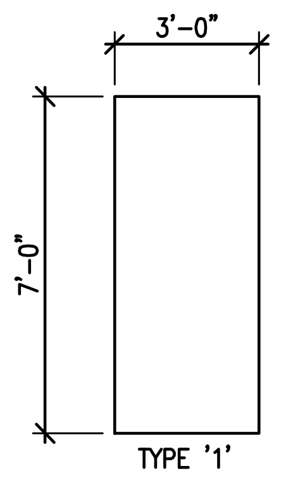
INTERIOR ELEVATIONS

T-A4.1

FRAME TYPES



DOOR TYPES



DOOR SCHEDULE

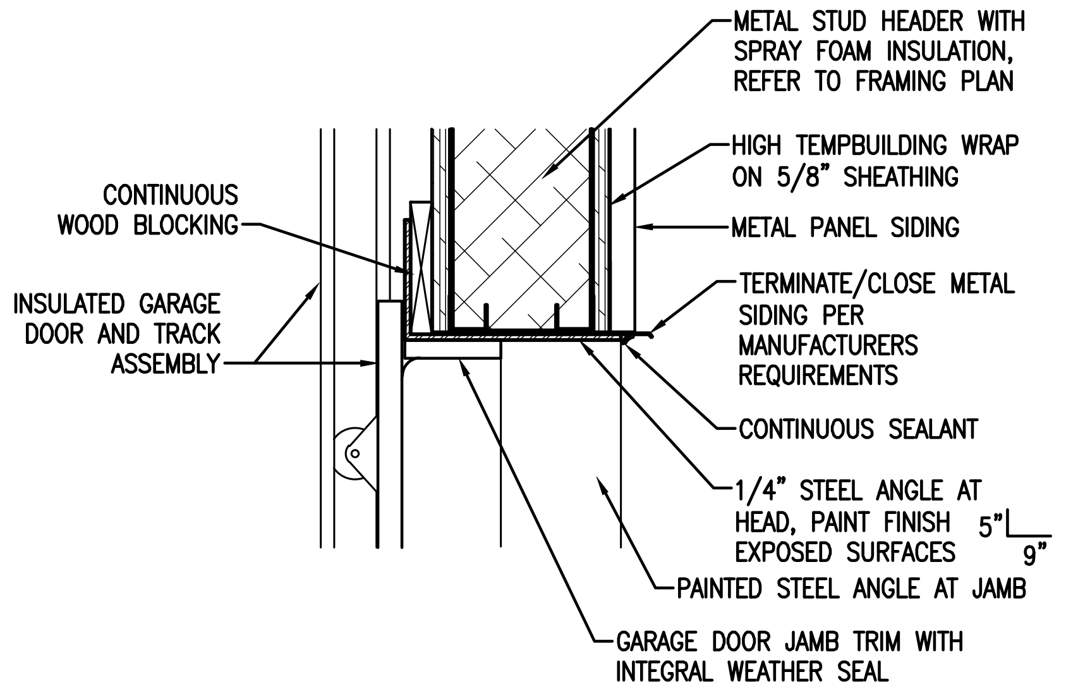
DOOR NUMBER	FRAME		DOOR				HARDWARE SET	DETAIL REFERENCE				REMARKS
	MATERIAL	TYPE	MATERIAL	TYPE	FIRE RATING	SIZE		HEAD	JAMB	THRESHOLD	MULLION	
100.0	ALUM	A	FRP	1		3'-0" x 7'-0"	12	3/TA5.0	5/TA5.0	6/TA5.0		
100.1	OVERHEAD DOOR					12'-0" x 10'-0"	01	9/TA6.0	7 & 8/TA6.0			
101.0	ALUM	A	FRP	1		3'-0" x 7'-0"	13	3/TA5.0	4 & 5/TA5.0	6/TA5.0		
102.0	HM	B	HM	1		3'-0" x 7'-0"	06	1/TA5.0	2/TA5.0			
103.0	HM	B	HM	1		3'-0" x 7'-0"	07	1/TA5.0	2/TA5.0			
104.0	ALUM	A	FRP	1		3'-0" x 7'-0"	14	3/TA5.0	4 & 5/TA5.0	6/TA5.0		
105.0	ALUM	A	FRP	1		3'-0" x 7'-0"	14	3/TA5.0	4 & 5/TA5.0	6/TA5.0		
105.1	HM	B	HM	1		3'-0" x 7'-0"	05	1/TA5.0	2/TA5.0			
106.0	HM	B	HM	1		3'-0" x 7'-0"	06	1/TA5.0	2/TA5.0			
107.0	HM	B	HM	1		3'-0" x 7'-0"	08	1/TA5.0	2/TA5.0			
108.0	ALUM	A	FRP	1		3'-0" x 7'-0"	13	3/TA5.0	4 & 5/TA5.0	6/TA5.0		

ROOM FINISH SCHEDULE

ROOM		CEILING TYPE	FLOOR	BASE	WALLS					SIGN TYPE	REMARKS
NUMBER	NAME				TYPICAL	NORTH	EAST	SOUTH	WEST		
100	STORAGE	OSB-1	CONC-1	VB-1		PNT-1	PNT-1	PNT-1	PNT-1		
101	TEAM ROOM	GYP-1	EPOX-1	VB-1		PNT-1	PNT-1	PNT-1	PNT-1		
102	TOILET	GYP-1	EPOX-1	VB-1		PNT-1	PNT-1	PNT-1	PNT-1		
103	TOILET	GYP-1	CONC-1	VB-1		PNT-1	PNT-1	PNT-1	PNT-1		
104	OFFICIALS	GYP-1	CONC-1	VB-1		PNT-1	PNT-1	PNT-1	PNT-1		
105	TRAINER	GYP-1	CONC-1	VB-1		PNT-1	PNT-1	PNT-1	PNT-1		
106	TOILET	GYP-1	EPOX-1	VB-1		PNT-1	PNT-1	PNT-1	PNT-1		
107	MECHANICAL	GYP-1	CONC-1	VB-1		PNT-1	PNT-1	PNT-1	PNT-1		
108	TEAM ROOM	GYP-1	EPOX-1	VB-1		PNT-1	PNT-1	PNT-1	PNT-1		

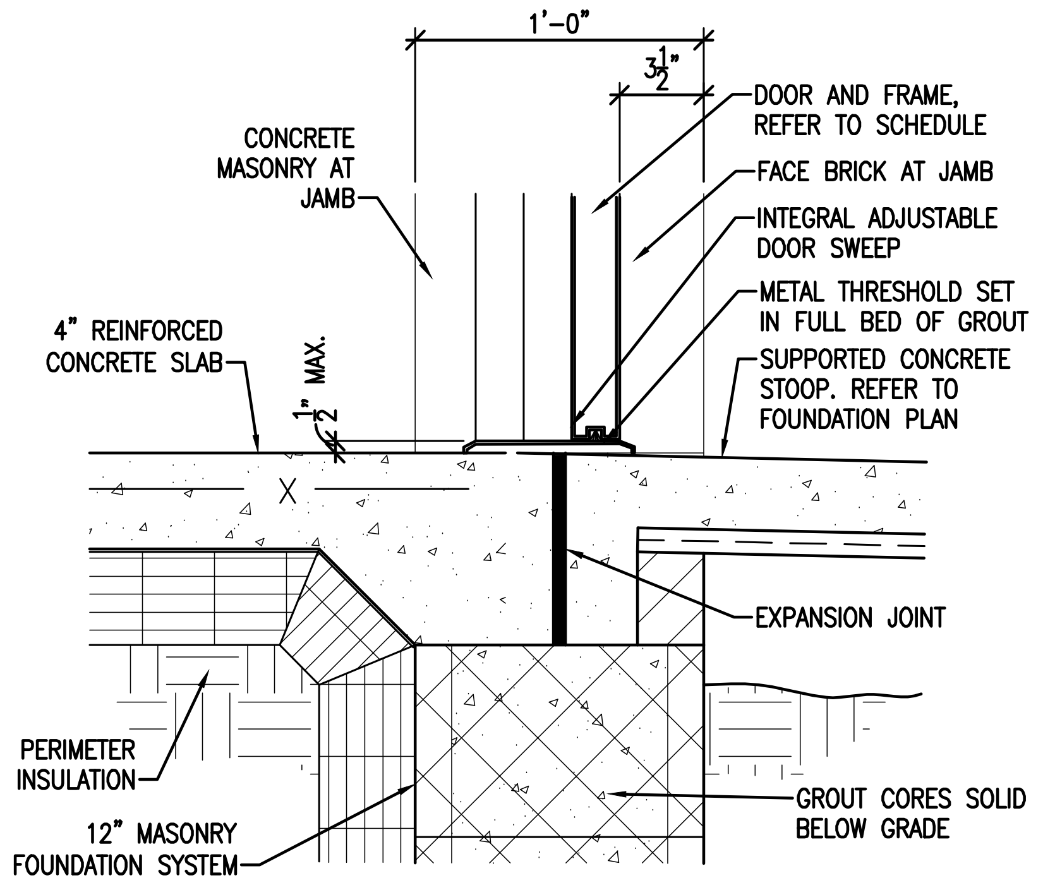
CODE TO SCHEDULES

HM	HOLLOW METAL, PAINT FINISH DISTRICT STANDARD COLOR.
ALUM	ALUMINUM
FRP	FIBERGLASS REINFORCED PANEL
GYP-1	5/8" HIGH IMPACT GYPSUM BOARD. TAPE, SAND SMOOTH, PAINT FINISH PT-2
OSB-1	3/4" OSB SHEATHING
EPOX-1	POURED EPOXY FLOORING
CONC-1	SEALED CONCRETE SLAB.
VB-1	4" COVED VINYL WALL BASE.
PNT-1	WALL PAINT, DISTRICT STANDARD. COORDINATE WITH OWNER.
PNT-2	CEILING PAINT. FLAT WHITE


METAL STUD HEADER WITH SPRAY FOAM INSULATION, REFER TO FRAMING PLAN
HIGH TEMPBUILDING WRAP ON 5/8" SHEATHING
CONTINUOUS WOOD BLOCKING
METAL PANEL SIDING
INSULATED GARAGE DOOR AND TRACK ASSEMBLY
TERMINATE/CLOSE METAL SIDING PER MANUFACTURERS REQUIREMENTS
CONTINUOUS SEALANT
1/4" STEEL ANGLE AT HEAD, PAINT FINISH EXPOSED SURFACES
5"
9"
PAINTED STEEL ANGLE AT JAMB
GARAGE DOOR JAMB TRIM WITH INTEGRAL WEATHER SEAL

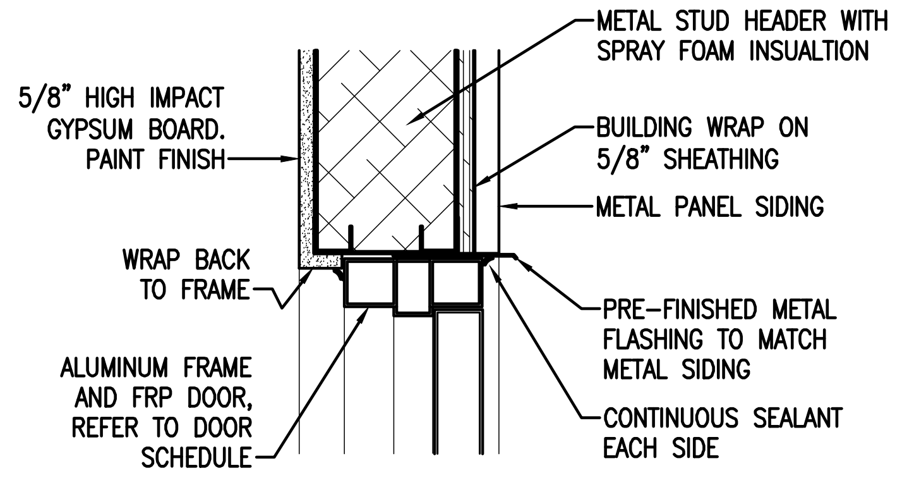
DOOR HEAD DETAIL 9/TA5.0

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


1'-0"
3½"
DOOR AND FRAME, REFER TO SCHEDULE
CONCRETE MASONRY AT JAMB
FACE BRICK AT JAMB
INTEGRAL ADJUSTABLE DOOR SWEEP
METAL THRESHOLD SET IN FULL BED OF GROUT
4" REINFORCED CONCRETE SLAB
½" MAX.
SUPPORTED CONCRETE STOOP. REFER TO FOUNDATION PLAN
EXPANSION JOINT
PERIMETER INSULATION
12" MASONRY FOUNDATION SYSTEM
GROUT CORES SOLID BELOW GRADE

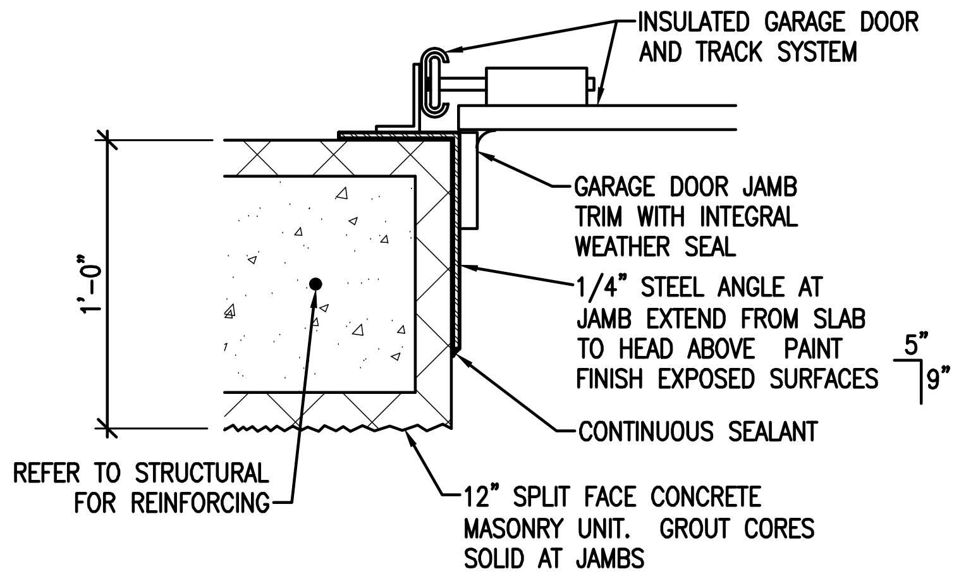
THRESHOLD DETAIL 6/TA5.0

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


METAL STUD HEADER WITH SPRAY FOAM INSUALTION
5/8" HIGH IMPACT GYPSUM BOARD. PAINT FINISH
BUILDING WRAP ON 5/8" SHEATHING
METAL PANEL SIDING
WRAP BACK TO FRAME
PRE-FINISHED METAL FLASHING TO MATCH METAL SIDING
ALUMINUM FRAME AND FRP DOOR, REFER TO DOOR SCHEDULE
CONTINUOUS SEALANT EACH SIDE

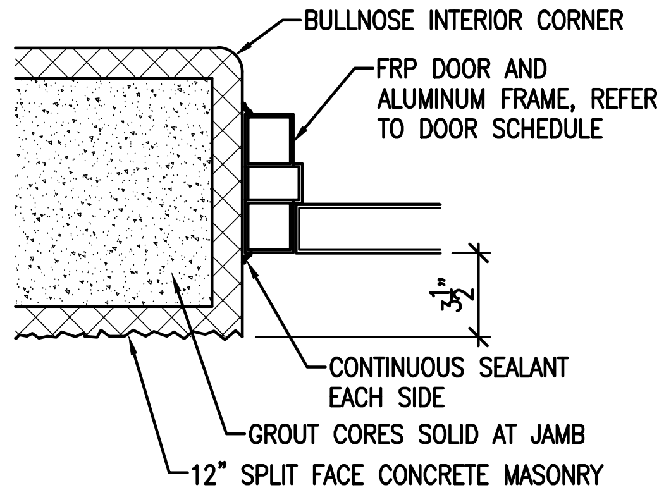
DOOR HEAD DETAIL 3/TA5.0

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


INSULATED GARAGE DOOR AND TRACK SYSTEM
1'-0"
GARAGE DOOR JAMB TRIM WITH INTEGRAL WEATHER SEAL
1/4" STEEL ANGLE AT JAMB EXTEND FROM SLAB TO HEAD ABOVE PAINT FINISH EXPOSED SURFACES
5"
9"
CONTINUOUS SEALANT
REFER TO STRUCTURAL FOR REINFORCING
12" SPLIT FACE CONCRETE MASONRY UNIT. GROUT CORES SOLID AT JAMBS

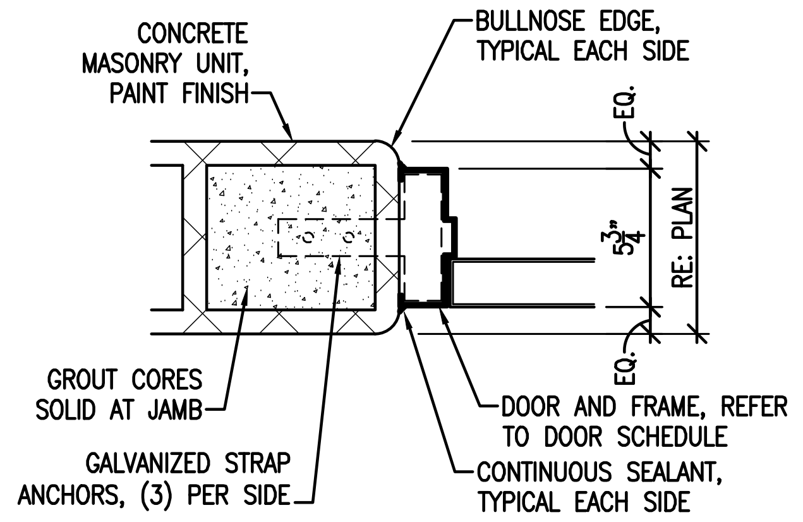
DOOR JAMB DETAIL 8/TA5.0

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


BULLNOSE INTERIOR CORNER
FRP DOOR AND ALUMINUM FRAME, REFER TO DOOR SCHEDULE
3½"
CONTINUOUS SEALANT EACH SIDE
GROUT CORES SOLID AT JAMB
12" SPLIT FACE CONCRETE MASONRY

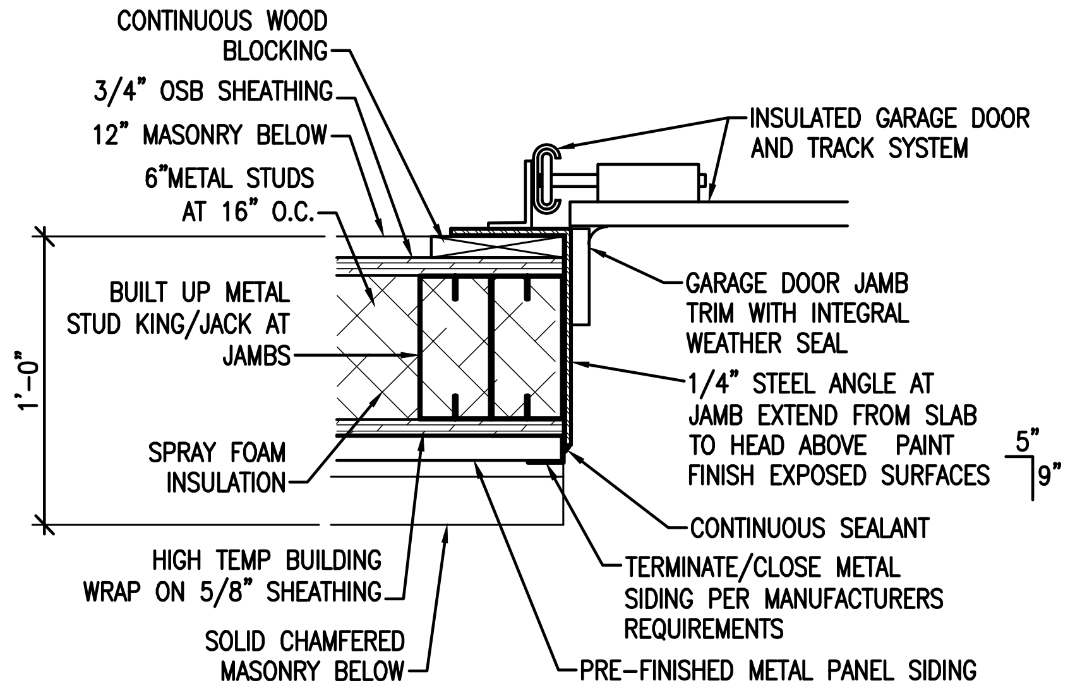
DOOR JAMB DETAIL 5/TA5.0

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


CONCRETE MASONRY UNIT, PAINT FINISH
BULLNOSE EDGE, TYPICAL EACH SIDE
EQ.
5¾"
RE: PLAN
EQ.
GROUT CORES SOLID AT JAMB
DOOR AND FRAME, REFER TO DOOR SCHEDULE
GALVANIZED STRAP ANCHORS, (3) PER SIDE
CONTINUOUS SEALANT, TYPICAL EACH SIDE

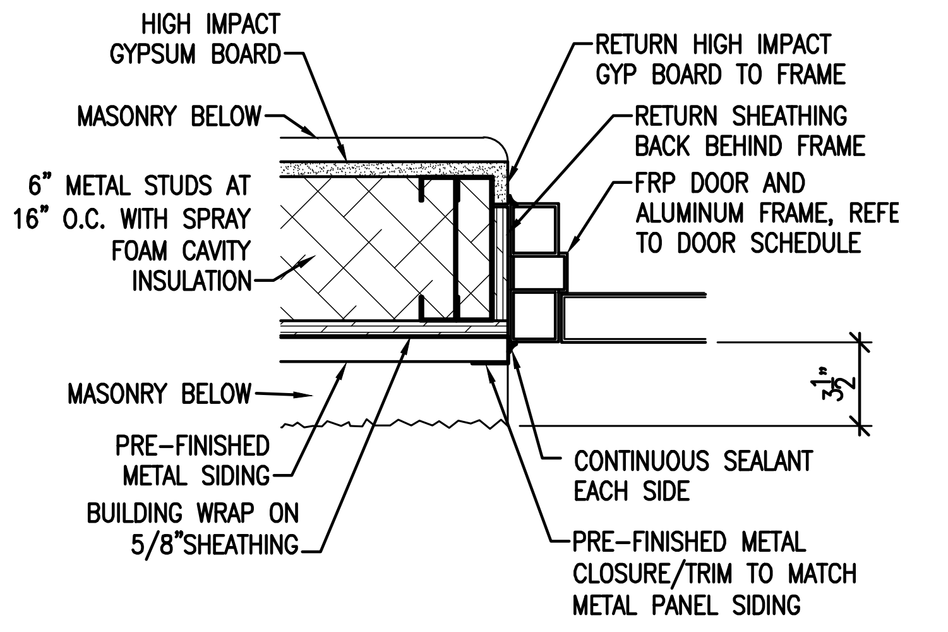
DOOR JAMB DETAIL 2/TA5.0

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


CONTINUOUS WOOD BLOCKING
3/4" OSB SHEATHING
12" MASONRY BELOW
6"METAL STUDS AT 16" O.C.
INSULATED GARAGE DOOR AND TRACK SYSTEM
BUILT UP METAL STUD KING/JACK AT JAMBS
1'-0"
GARAGE DOOR JAMB TRIM WITH INTEGRAL WEATHER SEAL
1/4" STEEL ANGLE AT JAMB EXTEND FROM SLAB TO HEAD ABOVE PAINT FINISH EXPOSED SURFACES
5"
9"
SPRAY FOAM INSULATION
CONTINUOUS SEALANT
HIGH TEMP BUILDING WRAP ON 5/8" SHEATHING
TERMINATE/CLOSE METAL SIDING PER MANUFACTURERS REQUIREMENTS
SOLID CHAMFERED MASONRY BELOW
PRE-FINISHED METAL PANEL SIDING

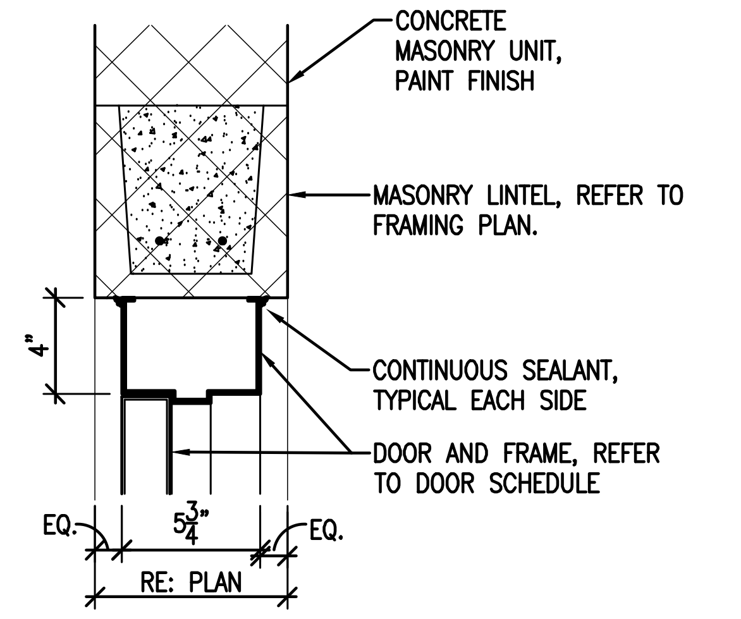
DOOR JAMB DETAIL 7/TA5.0

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


HIGH IMPACT GYPSUM BOARD
RETURN HIGH IMPACT GYP BOARD TO FRAME
MASONRY BELOW
RETURN SHEATHING BACK BEHIND FRAME
6" METAL STUDS AT 16" O.C. WITH SPRAY FOAM CAVITY INSULATION
FRP DOOR AND ALUMINUM FRAME, REFE TO DOOR SCHEDULE
3½"
MASONRY BELOW
PRE-FINISHED METAL SIDING
CONTINUOUS SEALANT EACH SIDE
BUILDING WRAP ON 5/8"SHEATHING
PRE-FINISHED METAL CLOSURE/TRIM TO MATCH METAL PANEL SIDING

DOOR JAMB DETAIL 4/TA5.0

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


CONCRETE MASONRY UNIT, PAINT FINISH
MASONRY LINTEL, REFER TO FRAMING PLAN.
4"
CONTINUOUS SEALANT, TYPICAL EACH SIDE
DOOR AND FRAME, REFER TO DOOR SCHEDULE
EQ.
5¾"
EQ.
RE: PLAN

DOOR HEAD DETAIL 1/TA5.0

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

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ARCHITECTURE
ENGINEERING
CONSULTING

INTEGRATED DESIGNS INC.

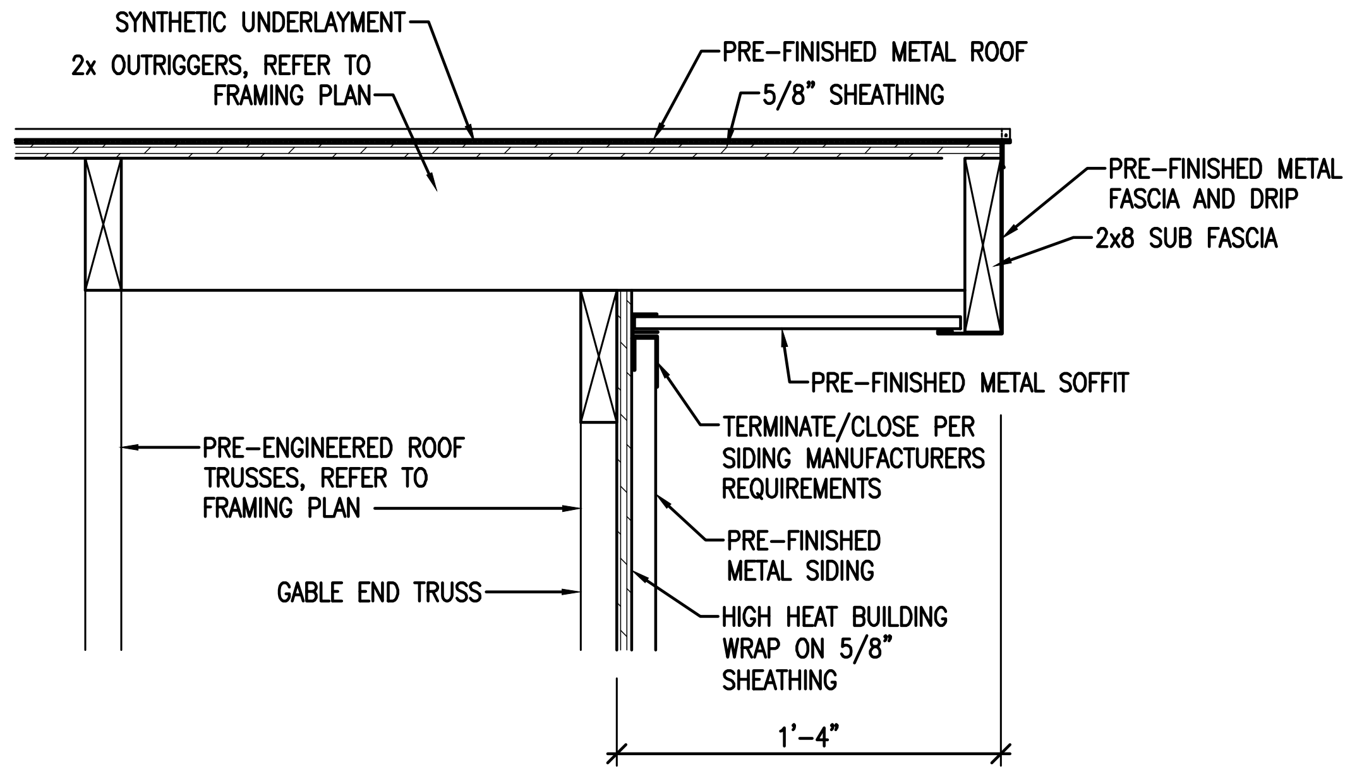
BEAL CITY PUBLIC SCHOOLS
2024 BOND WORK
MT PLEASANT, MICHIGAN
PROJECT NO. 22-037

NO.	REVISIONS	DATE
B	FINAL REVIEW	3-14-25
0	FOR CONSTRUCTION	3-27-25

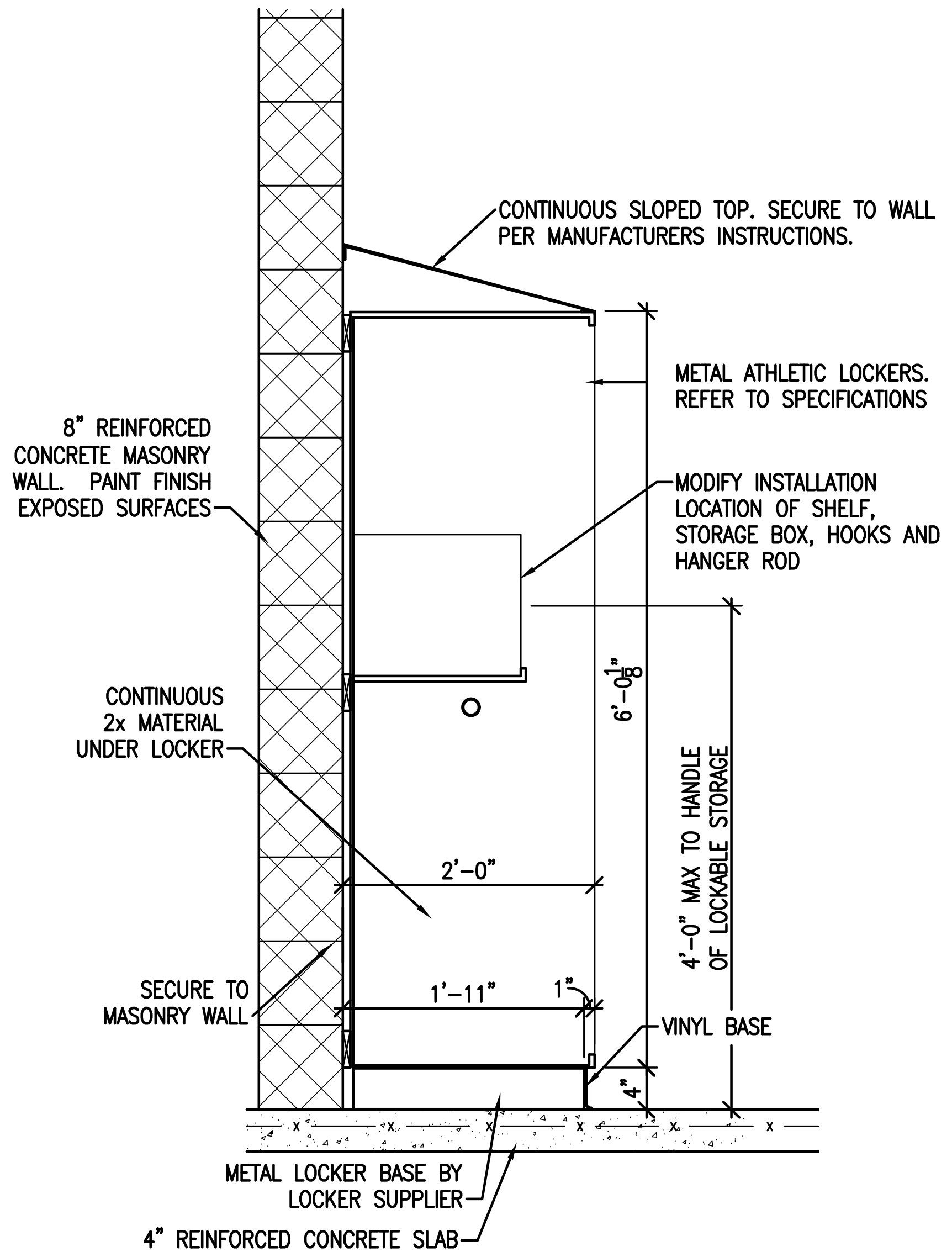
	BY	DATE
DESIGN	---	---
DRAWN	---	---
CHECKED	---	---
APPROVED	---	---

SCHEDULES AND DETAILS

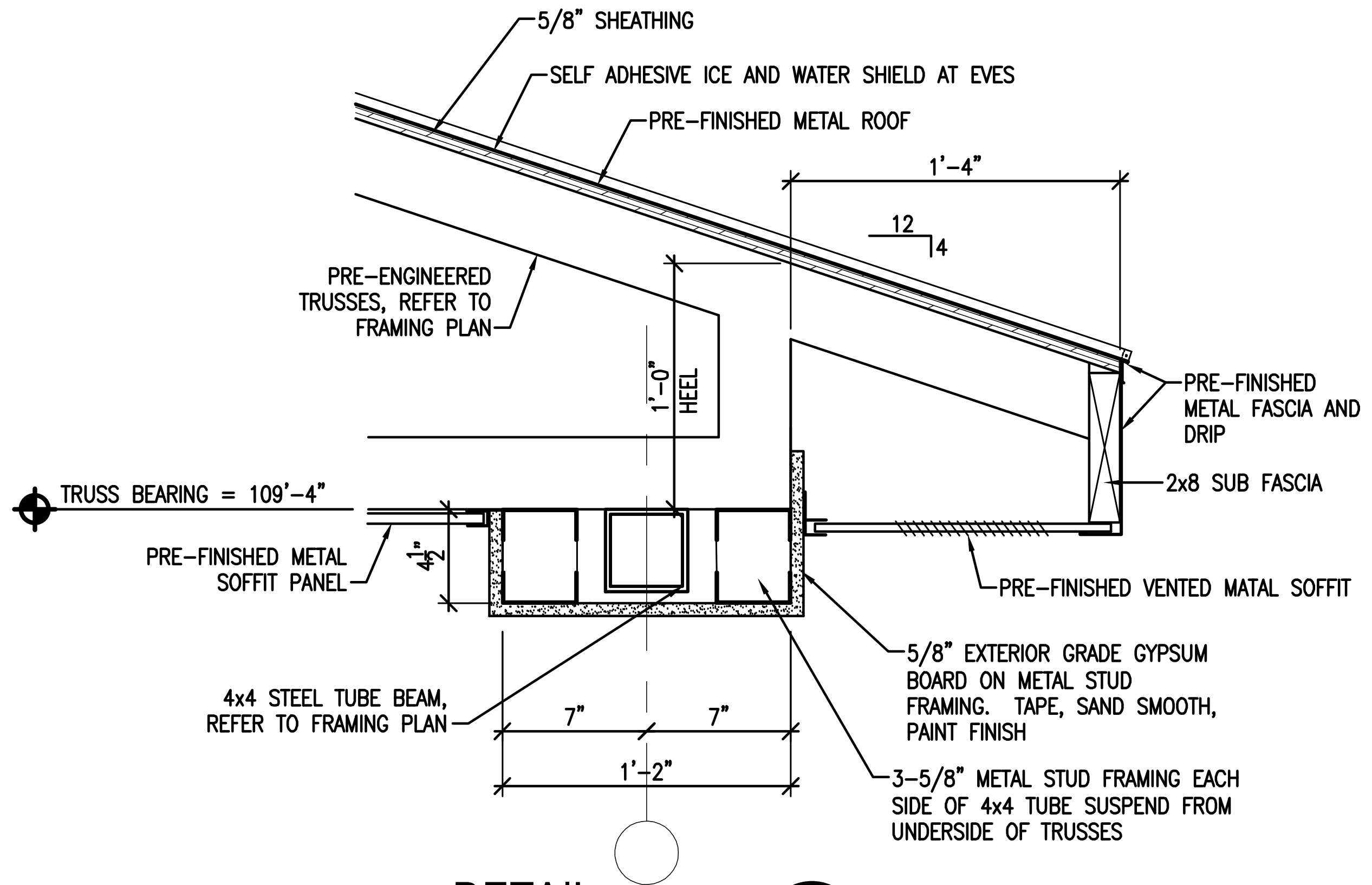
T-A5.0


SYNTHETIC UNDERLAYMENT
2x OUTRIGGERS, REFER TO FRAMING PLAN
PRE-FINISHED METAL ROOF
5/8" SHEATHING
PRE-FINISHED METAL FASCIA AND DRIP
2x8 SUB FASCIA
PRE-FINISHED METAL SOFFIT
PRE-ENGINEERED ROOF TRUSSES, REFER TO FRAMING PLAN
TERMINATE/CLOSE PER SIDING MANUFACTURERS REQUIREMENTS
PRE-FINISHED METAL SIDING
GABLE END TRUSS
HIGH HEAT BUILDING WRAP ON 5/8" SHEATHING
1'-4"

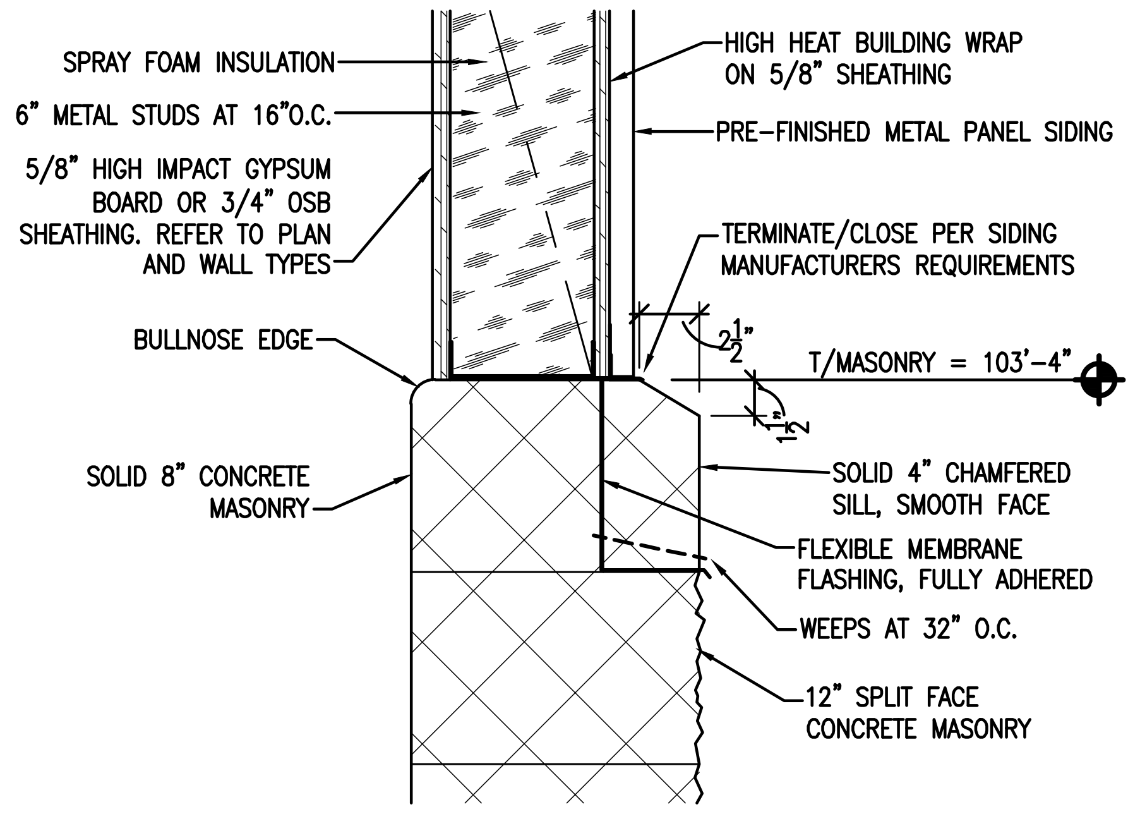
DETAIL 5
SCALE: 1-1/2" = 1'-0" TA6.0


CONTINUOUS SLOPED TOP. SECURE TO WALL PER MANUFACTURERS INSTRUCTIONS.
METAL ATHLETIC LOCKERS. REFER TO SPECIFICATIONS
8" REINFORCED CONCRETE MASONRY WALL. PAINT FINISH EXPOSED SURFACES
MODIFY INSTALLATION LOCATION OF SHELF, STORAGE BOX, HOOKS AND HANGER ROD
CONTINUOUS 2x MATERIAL UNDER LOCKER
6'-0$\frac{1}{8}$"
4'-0" MAX TO HANDLE OF LOCKABLE STORAGE
2'-0"
SECURE TO MASONRY WALL
1'-11"
1"
VINYL BASE
4"
METAL LOCKER BASE BY LOCKER SUPPLIER
4" REINFORCED CONCRETE SLAB

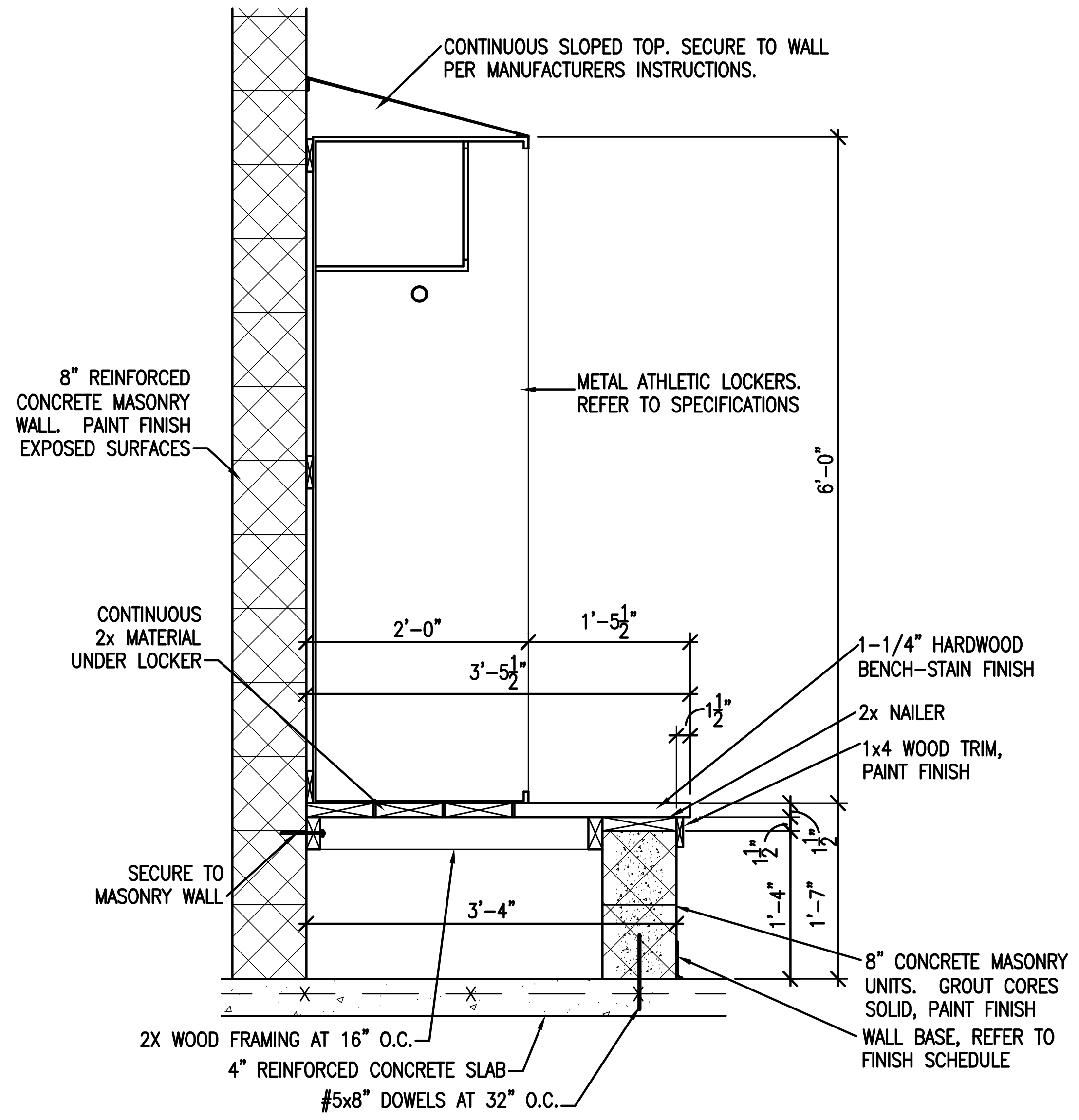
DETAIL 2
SCALE: 3/4" = 1'-0" TA6.0


5/8" SHEATHING
SELF ADHESIVE ICE AND WATER SHIELD AT EVES
PRE-FINISHED METAL ROOF
1'-4"
12
4
PRE-ENGINEERED TRUSSES, REFER TO FRAMING PLAN
1'-0" HEEL
PRE-FINISHED METAL FASCIA AND DRIP
TRUSS BEARING = 109'-4"
2x8 SUB FASCIA
PRE-FINISHED METAL SOFFIT PANEL
4$\frac{1}{2}$"
PRE-FINISHED VENTED MATAL SOFFIT
5/8" EXTERIOR GRADE GYPSUM BOARD ON METAL STUD FRAMING. TAPE, SAND SMOOTH, PAINT FINISH
4x4 STEEL TUBE BEAM, REFER TO FRAMING PLAN
7"
7"
1'-2"
3-5/8" METAL STUD FRAMING EACH SIDE OF 4x4 TUBE SUSPEND FROM UNDERSIDE OF TRUSSES

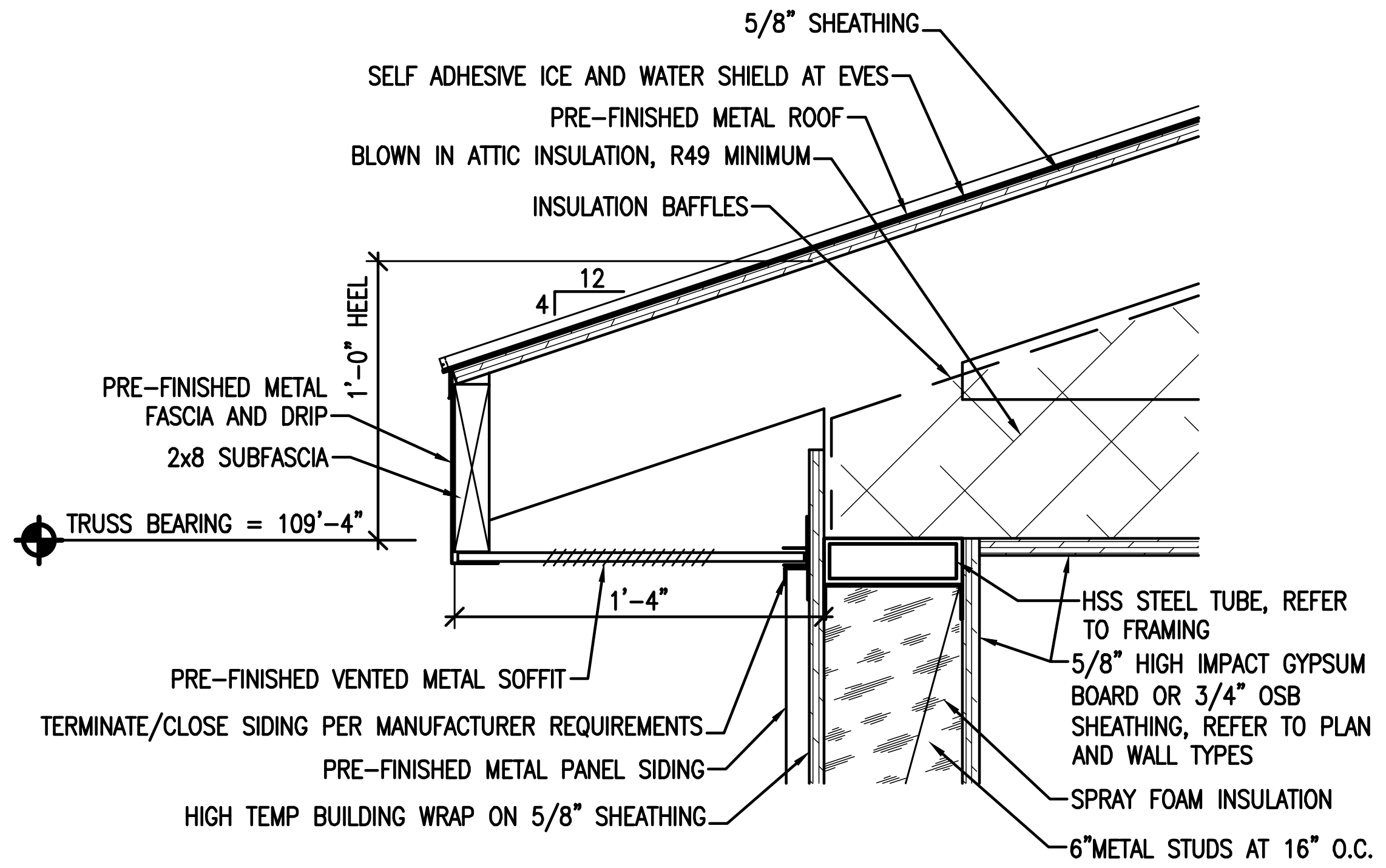
DETAIL 7
SCALE: 1-1/2" = 1'-0" TA6.0


SPRAY FOAM INSULATION
6" METAL STUDS AT 16"O.C.
5/8" HIGH IMPACT GYPSUM BOARD OR 3/4" OSB SHEATHING. REFER TO PLAN AND WALL TYPES
HIGH HEAT BUILDING WRAP ON 5/8" SHEATHING
PRE-FINISHED METAL PANEL SIDING
TERMINATE/CLOSE PER SIDING MANUFACTURERS REQUIREMENTS
2$\frac{1}{2}$"
BULLNOSE EDGE
T/MASONRY = 103'-4"
1$\frac{1}{2}$"
SOLID 8" CONCRETE MASONRY
SOLID 4" CHAMFERED SILL, SMOOTH FACE
FLEXIBLE MEMBRANE FLASHING, FULLY ADHERED
WEEPS AT 32" O.C.
12" SPLIT FACE CONCRETE MASONRY

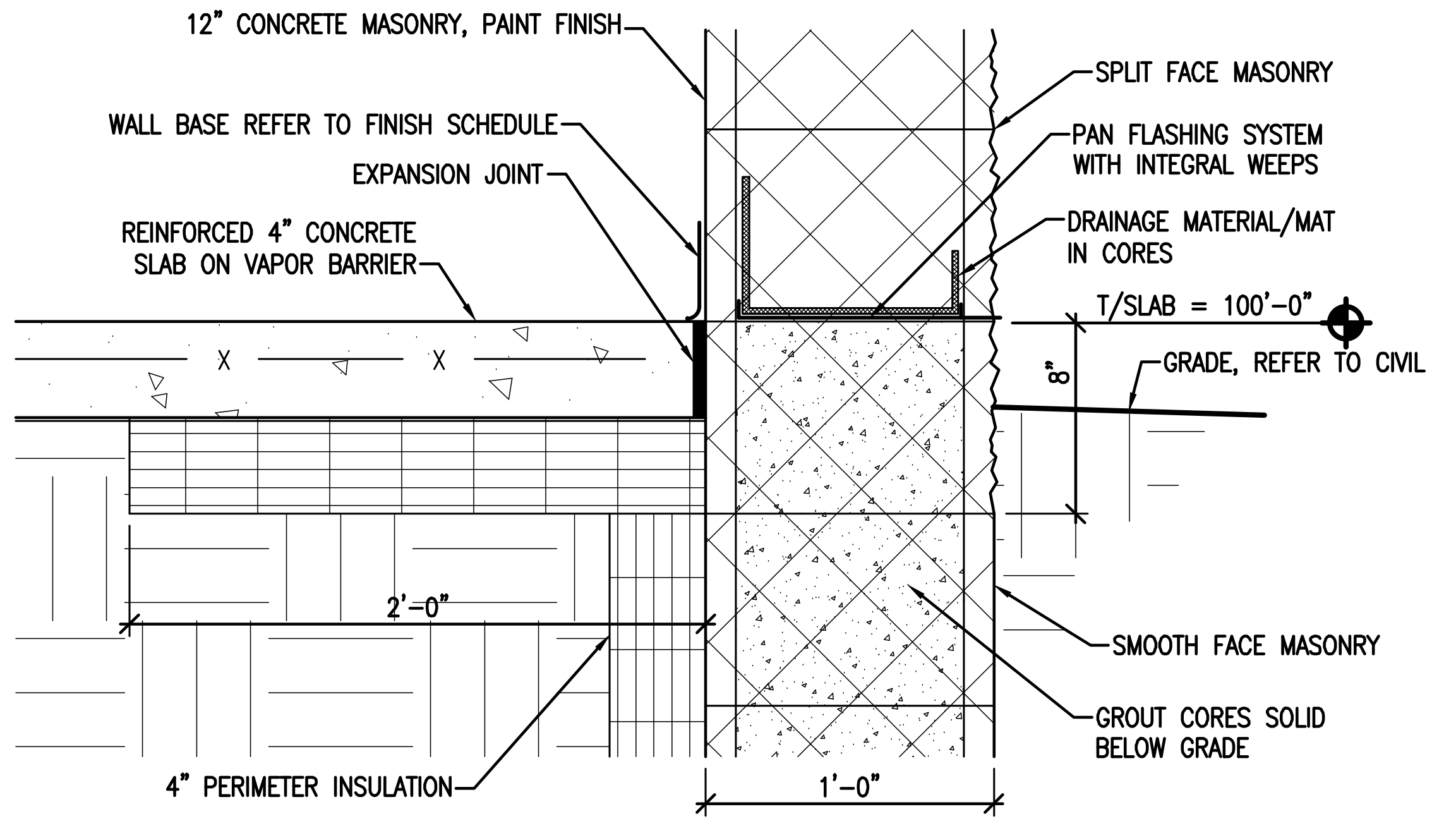
DETAIL 4
SCALE: 1-1/2" = 1'-0" TA6.0


CONTINUOUS SLOPED TOP. SECURE TO WALL PER MANUFACTURERS INSTRUCTIONS.
8" REINFORCED CONCRETE MASONRY WALL. PAINT FINISH EXPOSED SURFACES
METAL ATHLETIC LOCKERS. REFER TO SPECIFICATIONS
6'-0"
CONTINUOUS 2x MATERIAL UNDER LOCKER
2'-0"
1'-5$\frac{1}{2}$"
3'-5$\frac{1}{2}$"
1-1/4" HARDWOOD BENCH-STAIN FINISH
1$\frac{1}{2}$"
2x NAILER
1x4 WOOD TRIM, PAINT FINISH
SECURE TO MASONRY WALL
3'-4"
1$\frac{1}{2}$"
1'-4"
1$\frac{1}{2}$"
1'-7"
8" CONCRETE MASONRY UNITS. GROUT CORES SOLID, PAINT FINISH
WALL BASE, REFER TO FINISH SCHEDULE
2X WOOD FRAMING AT 16" O.C.
4" REINFORCED CONCRETE SLAB
#5x8" DOWELS AT 32" O.C.

DETAIL 1
SCALE: 3/4" = 1'-0" TA6.0


5/8" SHEATHING
SELF ADHESIVE ICE AND WATER SHIELD AT EVES
PRE-FINISHED METAL ROOF
BLOWN IN ATTIC INSULATION, R49 MINIMUM
INSULATION BAFFLES
1'-0" HEEL
12
4
PRE-FINISHED METAL FASCIA AND DRIP
2x8 SUBFASCIA
TRUSS BEARING = 109'-4"
1'-4"
HSS STEEL TUBE, REFER TO FRAMING
5/8" HIGH IMPACT GYPSUM BOARD OR 3/4" OSB SHEATHING, REFER TO PLAN AND WALL TYPES
PRE-FINISHED VENTED METAL SOFFIT
TERMINATE/CLOSE SIDING PER MANUFACTURER REQUIREMENTS
PRE-FINISHED METAL PANEL SIDING
SPRAY FOAM INSULATION
HIGH TEMP BUILDING WRAP ON 5/8" SHEATHING
6"METAL STUDS AT 16" O.C.

DETAIL 6
SCALE: 1-1/2" = 1'-0" TA6.0


12" CONCRETE MASONRY, PAINT FINISH
SPLIT FACE MASONRY
WALL BASE REFER TO FINISH SCHEDULE
PAN FLASHING SYSTEM WITH INTEGRAL WEEPS
EXPANSION JOINT
DRAINAGE MATERIAL/MAT IN CORES
REINFORCED 4" CONCRETE SLAB ON VAPOR BARRIER
T/SLAB = 100'-0"
8"
GRADE, REFER TO CIVIL
2'-0"
SMOOTH FACE MASONRY
GROUT CORES SOLID BELOW GRADE
4" PERIMETER INSULATION
1'-0"

DETAIL 3
SCALE: 1-1/2" = 1'-0" TA6.0

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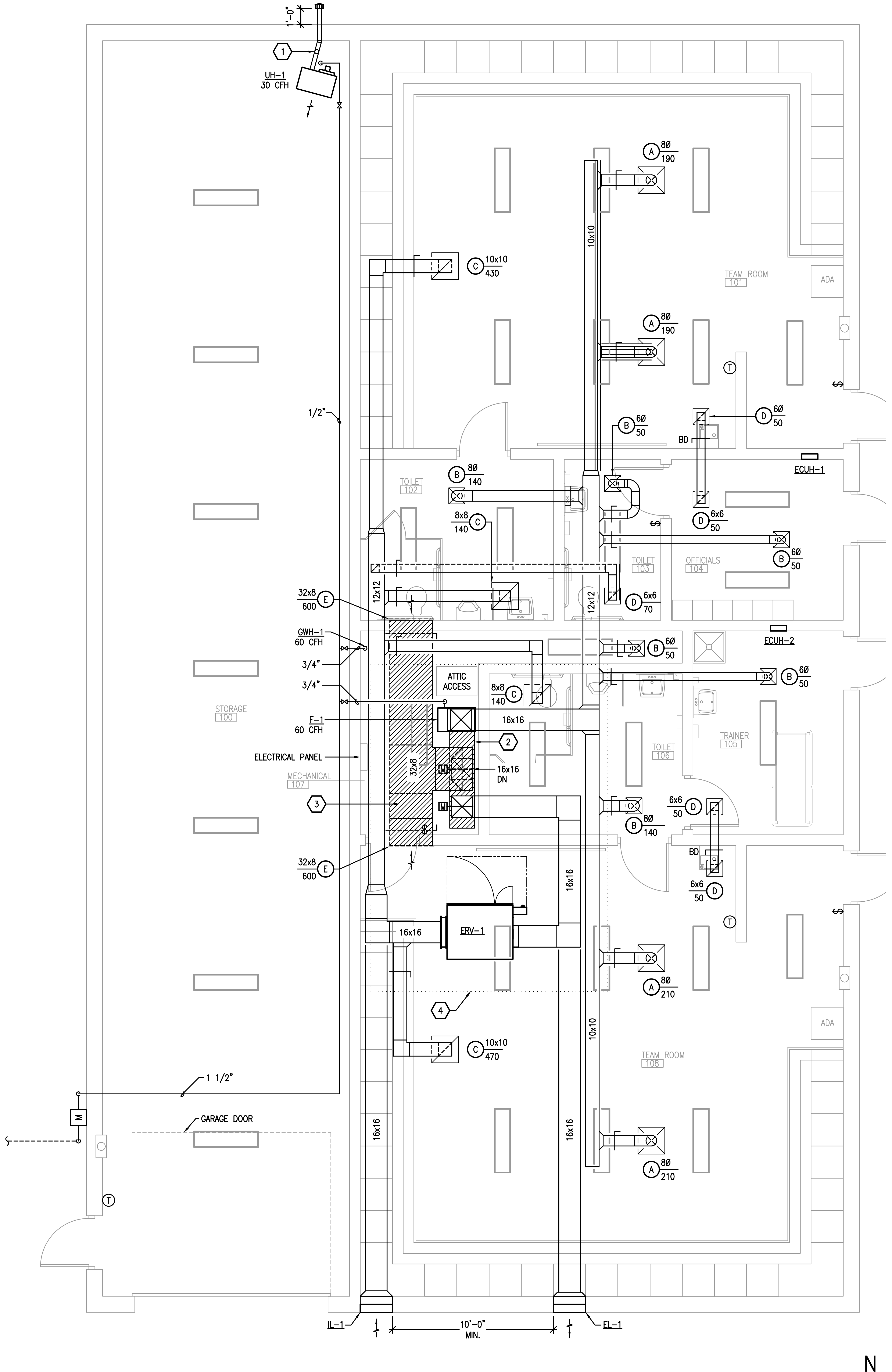
BEAL CITY PUBLIC SCHOOLS
2024 BOND WORK
MT PLEASANT, MICHIGAN
PROJECT NO. 22-037

NO.	REVISIONS	DATE
A	DD REVIEW	1-16-25
0	FOR CONSTRUCTION	3-27-25

	BY	DATE
DESIGN	---	---
DRAWN	---	---
CHECKED	---	---
APPROVED	---	---

DETAILS

T-A6.0



MECHANICAL NEW WORK PLAN

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

⬡ KEYNOTES ⬡

1. 3"Ø HORIZONTAL VENT TERMINATION THROUGH WALL. REFER TO DETAIL FOR ADDITIONAL INFORMATION.
2. MODIFY RETURN DUCT SIZE AS REQUIRED TO INSTALL FILTER RACK.
3. LOCATE RETURN DUCT/GRILLES WITHIN BLOCK DIMENSION ABOVE DOOR, LEAVING APPROXIMATELY 8" FROM CEILING FOR ROUTING OF ELECTRICAL CONDUIT AND OTHER DISCIPLINE WORK.
4. LINE INDICATES APPROXIMATE EXTENTS OF ATTIC TRUSSES ABOVE. REFER TO FRAMING PLAN.

GENERAL NOTES

1. THESE DRAWINGS ARE DIAGRAMMATIC AND INDICATE THE GENERAL EXTENT OF THE WORK. PROVIDE MECHANICAL SYSTEMS COMPLETE PER SPECIFICATION, SMACNA STANDARDS, AND PER APPLICABLE CODES.
2. CONTRACTOR SHALL COORDINATE THEIR WORK WITH THE WORK OF ALL OTHER TRADES. VERIFY ALL CLEARANCES PRIOR TO THE FABRICATION OF ANY WORK.
3. DUCTWORK/PIPING SHALL NOT BE LOCATED OVER ELECTRICAL EQUIPMENT/PANELS. PROVIDE REQUIRED CLEARANCE IN FRONT OF OR ABOVE ELECTRICAL EQUIPMENT. DUCTWORK/PIPING SHALL NOT INTERFERE WITH ELECTRICAL EQUIPMENT CLEARANCE.
4. THE CONTRACTOR SHALL PROVIDE SUPPLEMENTAL STEEL AS REQUIRED FOR THE PROPER SUPPORT OF ALL MECHANICAL SYSTEMS.
5. COORDINATE FLOOR, WALL, ROOF PENETRATIONS, LOUVER SIZES, PAD LOCATIONS, ETC. WITH ARCHITECTURAL TRADES.
6. ALL THERMOSTATS OR TEMPERATURE SENSORS SHALL BE PROVIDED WITH INSULATED BASES.
7. PIPING SHALL NOT BE INSTALLED IN A LOCATION THAT RESTRICTS THE ACCESS TO MECHANICAL DEVICES REQUIRING ACCESS.
8. PROVIDE CODE REQUIRED CLEARANCE/ACCESS DOORS FOR DAMPERS AND VALVES LOCATED IN WALLS OR ABOVE HARD CEILINGS. COORDINATE LOCATIONS WITH ARCHITECT.
9. FOR EQUIPMENT VALVING, COMPONENT, AND PIPING ARRANGEMENT REFER TO PIPING DIAGRAMS AND DETAILS.
10. BRANCH DUCTWORK TO GRILLES, REGISTERS, AND DIFFUSERS SHALL BE THE SAME SIZE AS THE GRILLE, REGISTER, OR DIFFUSER NECK SIZE WHERE NO DUCT SIZE IS INDICATED ON PLAN.
11. COORDINATE FINAL DUCT SIZE AND ROUTING WITH TRUSS WEBS.

IDI
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BEAL CITY PUBLIC SCHOOLS
2024 BOND WORK
MT PLEASANT, MICHIGAN
PROJECT NO. 22-037

	BY	NO.	REVISIONS	DATE
DESIGN	CRP	A	DES. DEVELOPMENT	01.16.25
DRAWN	CRP	B	FINAL OWNER REVIEW	03.14.25
CHECKED	SLB	0	FOR CONSTRUCTION	03.27.25
APPROVED	SLB			

MECHANICAL
NEW WORK PLAN

T-M2.0

ENERGY RECOVERY UNIT SCHEDULE

			ESP (IN.WG)		HEAT EXCHANGER – SUMMER						HEAT EXCHANGER – WINTER						ELECTRICAL			DISCONNECT			DIMENSIONS				
					RETURN AIR		OUTSIDE AIR		SUPPLY AIR		RETURN AIR		OUTSIDE AIR		SUPPLY AIR												
SYM	SUPPLY AIRFLOW (CFM)	EXHAUST AIRFLOW (CFM)	SUP.	EXH.	EAT (DB°F)	EAT (WB°F)	EAT (DB°F)	EAT (WB°F)	LAT (DB°F)	LAT (WB°F)	EAT (DB°F)	EAT (WB°F)	EAT (DB°F)	EAT (WB°F)	LAT (DB°F)	LAT (WB°F)	MOP	MCA	VOLTS/ PHASE	FURN. BY	INST. BY	TYPE	LENGTH (IN)	WIDTH (IN)	HEIGHT (IN)	WEIGHT (LBS)	MANUFACTURER AND MODEL
ERV–1	1200	1200	0.7	0.7	75.0	62.5	90.0	74.0	79.0	67.9	70.0	54.2	–5	–5	49.9	42.6	15	10.1	208–230/3	MANUF.	MANUF.	NON–FUSED SWITCH	64.25	42.875	35.5	489	RENEWAIRE – HE–2XJINH

NOTE:
1. PROVIDE WITH ECM FAN MOTORS.
2. PROVIDE WITH MERV 13 FILTERS ON OUTSIDE AIR AND MERV 8 FILTERS ON RETURN AIR. FURNISH UNIT WITH FILTER MONITORS.
3. PROVIDE WITH INTEGRATED PROGRAMMABLE BACNET COMPATABLE CONTROLLER.
4. PROVIDE WITH OUTSIDE AIR AND EXHAUST BACKDRAFT DAMPERS.

GAS-FIRED FURNACE SCHEDULE

			FAN			HEATING (NATURAL GAS)								CONNECTIONS			ELECTRICAL			DISCONNECT			DIMENSIONS				
SYM	SUPPLY AIRFLOW (CFM)	OUTSIDE AIRFLOW (CFM)	E.S.P. (IN WG)	DRIVE	SPEEDS (NO.)	STAGE 1 INPUT (MBH)	STAGE 1 OUTPUT (MBH)	TEMP RISE (°F)	STAGE 2 INPUT (MBH)	STAGE 2 OUTPUT (MBH)	TEMP RISE (°F)	AFUE (%)	RET. AIR MIN/MAX (°F)	AIR INTAKE (IN)	VENT (IN)	GAS (IN)	MOP	MCA	VOLTS/ PHASE	FURN. BY	INST. BY	TYPE	LENGTH (IN)	WIDTH (IN)	HEIGHT (IN)	WEIGHT (LBS)	MANUFACTURER AND MODEL
F–1	1270	1270	0.5	DIRECT	9	39.0	37.8	25–55	60	58.2	30–60	96.0	45–80	3	3	1/2	15	11.3	120/1	ELEC.	ELEC.	NON–FUSED SWITCH	28.8	17.7	34.06	122	TRANE S9X2B060U4PSBB

NOTES:
1. PROVIDE WITH CONDENSATE TRAP, CONCENTRIC VENT KIT AND ALL VENT AND COMBUSTION AIR PIPING THRU ROOF,
2. MOUNT TO ATTIC FLOOR WITH ELASTOMERIC FLOOR MOUNT FOR VIBRATION ISOLATION.

LOUVER SCHEDULE

								SIZE (IN)			
SYM	PURPOSE	AIRFLOW (CFM)	MINIMUM FREE AREA (SQ.FT.)	FRONT BLADE ORIENTATION	VELOCITY (FPM)	STATIC PRESSURE DROP (IN.WC.)	MATERIAL	WIDTH	HEIGHT	DEPTH	MANUFACTURER AND MODEL
EL–1	EXHAUST	1200	2.2	HORIZONTAL	589	0.05	ALUMINUM	26	26	6	GREENHECK ESD–635–26x26
IL–1	INTAKE	1270	2.2	HORIZONTAL	589	0.05	ALUMINUM	26	26	6	GREENHECK ESD–635–26x26

NOTES:
1. PROVIDE WITH BIRD SCREEN AND BACKDRAFT DAMPER.
2. FLANGED.
3. MILL FINISH.

GAS-FIRED UNIT HEATER SCHEDULE

				FAN		ELECTRICAL			
SYM	INPUT CAPACITY (MBH)	OUTPUT CAPACITY (MBH)	AIRFLOW (CFM)	HP	RPM	VOLTS	PHASE	VENT CONNECTION SIZE	MANUF. & MODEL
CUH–1	30.0	24.9	505	1/15	1550	115	1	3"Ø	MODINE HDS–30

NOTES:
1. SEPARATED COMBUSTION.
2. PROVIDE WITH ADDITIONAL 24V FOR REMOTE THERMOSTAT IN ADDITION TO SERVICE VOLTAGE

WALL UNIT HEATER (ELECTRIC) SCHEDULE

			ELECTRICAL				DISCONNECT			DIMENSIONS			
SYM	SERVICE	BTU/H	WATTS	AMPS	VOLTS	PHASE	FURN. BY	INST. BY	TYPE	DEPTH (IN)	WIDTH (IN)	HEIGHT (IN)	MANUFACTURER AND MODEL
EH–1	OFFICIALS 104	5120	1500	12.5	120	1	MANUF.	MANUF.	DOUBLE–POLE ON/OFF SWITCH	4.875	10.625	12.125	QMARK CWH1151DSF
EH–2	TRAINER 105	5120	1500	12.5	120	1	MANUF.	MANUF.	DOUBLE–POLE ON/OFF SWITCH	4.875	10.625	12.125	QMARK CWH1151DSF

NOTES:
1. PROVIDE WITH SURFACE MOUNTING FRAME, TAMPER RESITANT FRONT COVER, SINGLE POLE THERMOSTAT, THERMAL CUTOUT SELF–HOLD (MANUAL–RESET) TYPE FOR OVERHEATING.
2. FAN CONTROL SHALL BE THE BI–METALLIC, SNAP–ACTION TYPE AND SHALL ACTIVATE FAN AFTER HEATING ELEMENT REACHES OPERATING TEMPERATURE, AND CONTINUE TO OPERATE FAN AFTER THE THERMOSTAT IS SATISFIED AND UNTIL ALL HEATED AIR HAS BEEN DISCHARGED.

GRILLE, REGISTER, DIFFUSER SCHEDULE

SYM	PURPOSE	FACE SIZE	FINISH	MATERIAL	TYPE	MANUFACTURER AND MODEL	NOTES
A	SUPPLY	24"x24"	WHITE	STEEL	SQUARE CONE	PRICE – SCDA	FULLY ADJUSTABLE
B	SUPPLY	12"x12"	WHITE	STEEL	SQUARE CONE	PRICE – SCDA	FULLY ADJUSTABLE
C	RETURN	12"x12"	WHITE	STEEL	PERFORATED	PRICE – PDDR	
D	RETURN	24"x24"	WHITE	STEEL	PERFORATED	PRICE – PDDR	
E	RETURN	32"x8"	WHITE	STEEL	EGG CRATE	PRICE – 80	

NOTES:
1. REFER TO ARCHITECTURAL CEILING PLAN AND COORDINATE FRAME TYPE ACCORDINGLY.

NATURAL GAS REQUIREMENTS

SYM	EQUIPMENT	CAPACITY (CFH)	REQUIRED OPERATING PRESSURE (IN.WC.)
UH–1	UNIT HEATER	30.0	3.5–10.5
F–1	FURNACE	60.0	3.5–10.5
GWH–1	WATER HEATER	60.0	4.5–14
	TOTAL	150.0	
		REQUIRED PRESSURE:	7"

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	BY
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DRAWN	CRP
CHECKED	SLB
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NO.	REVISIONS	DATE
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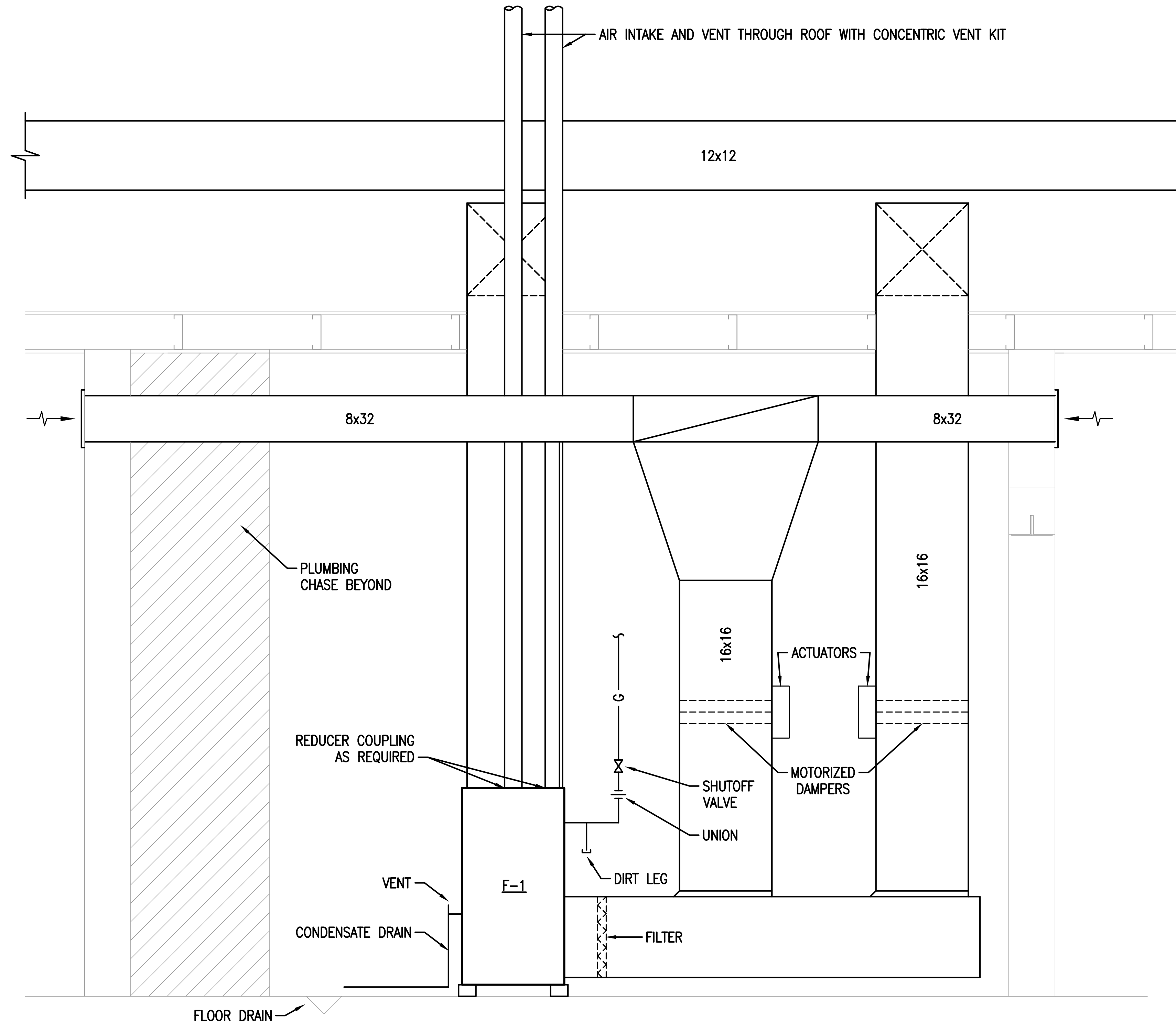
0	FOR CONSTRUCTION	03.27.25

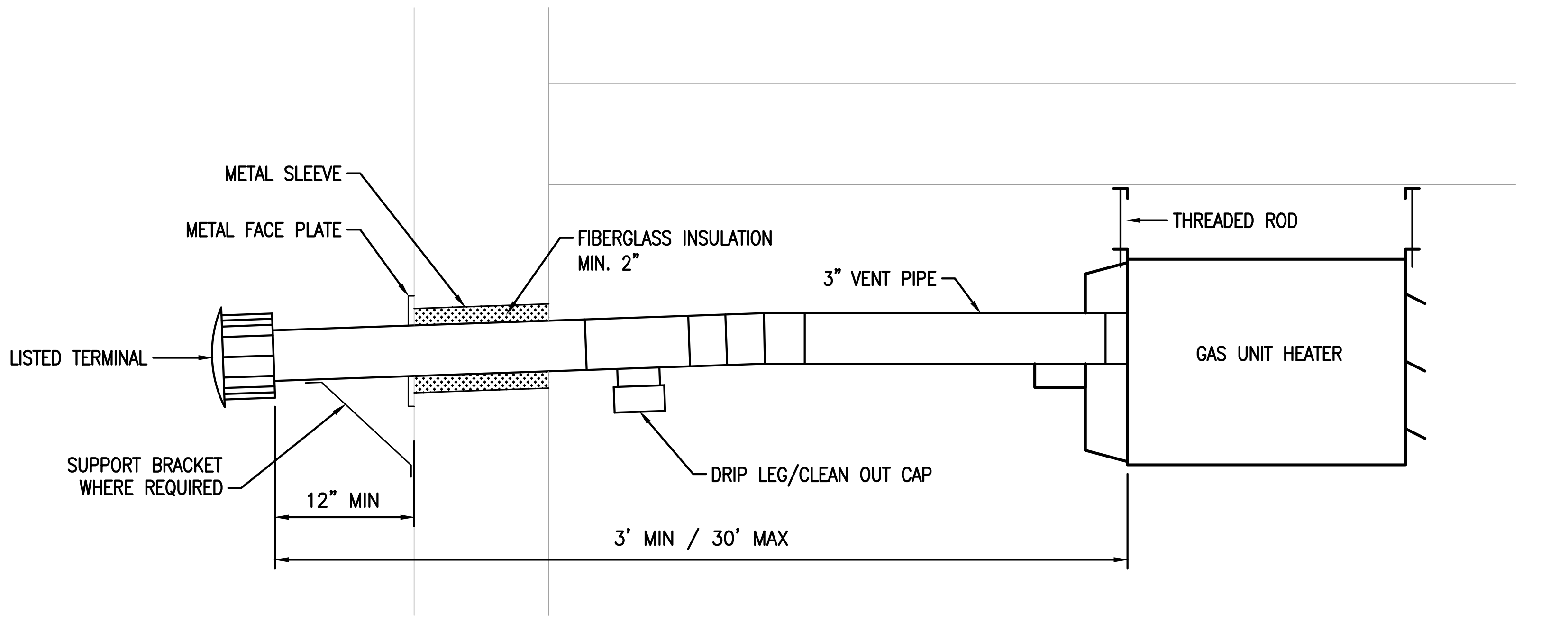
MECHANICAL
SCHEDULES

T-M3.0



FURNACE AND ERV SECTION DETAIL

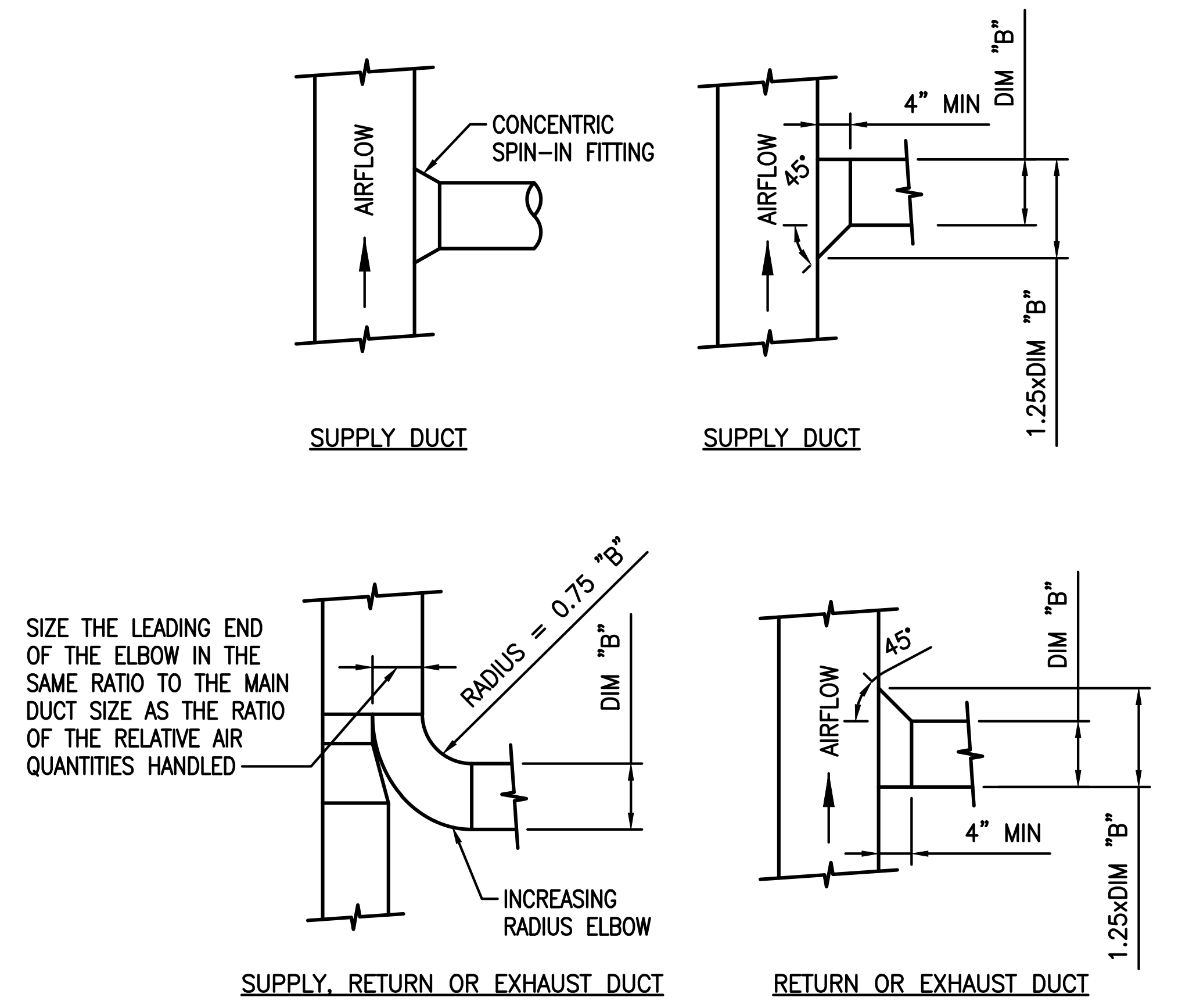
N.T.S.



NOTES:
1. REFER TO MANUFACTURER'S INSTALLATION REQUIREMENETS FOR EXACT VENTING AND MOUNTING METHODS

GAS-FIRED UNIT HEATER DETAIL

N.T.S. TYP.


AIRFLOW
CONCENTRIC SPIN-IN FITTING
SUPPLY DUCT
AIRFLOW
45°
4" MIN
DIM "B"
1.25xDIM "B"
SUPPLY DUCT
SIZE THE LEADING END OF THE ELBOW IN THE SAME RATIO TO THE MAIN DUCT SIZE AS THE RATIO OF THE RELATIVE AIR QUANTITIES HANDLED
RADIUS = 0.75 "B"
DIM "B"
INCREASING RADIUS ELBOW
SUPPLY, RETURN OR EXHAUST DUCT
AIRFLOW
45°
DIM "B"
4" MIN
1.25xDIM "B"
RETURN OR EXHAUST DUCT

FOR USE WHEN A BRANCH TAKE-OFF IS TO HANDLE MORE THAN 25% OF THE AIR HANDLED BY THE MAIN DUCT

RECTANGULAR DUCT BRANCH TAKE-OFF DETAILS

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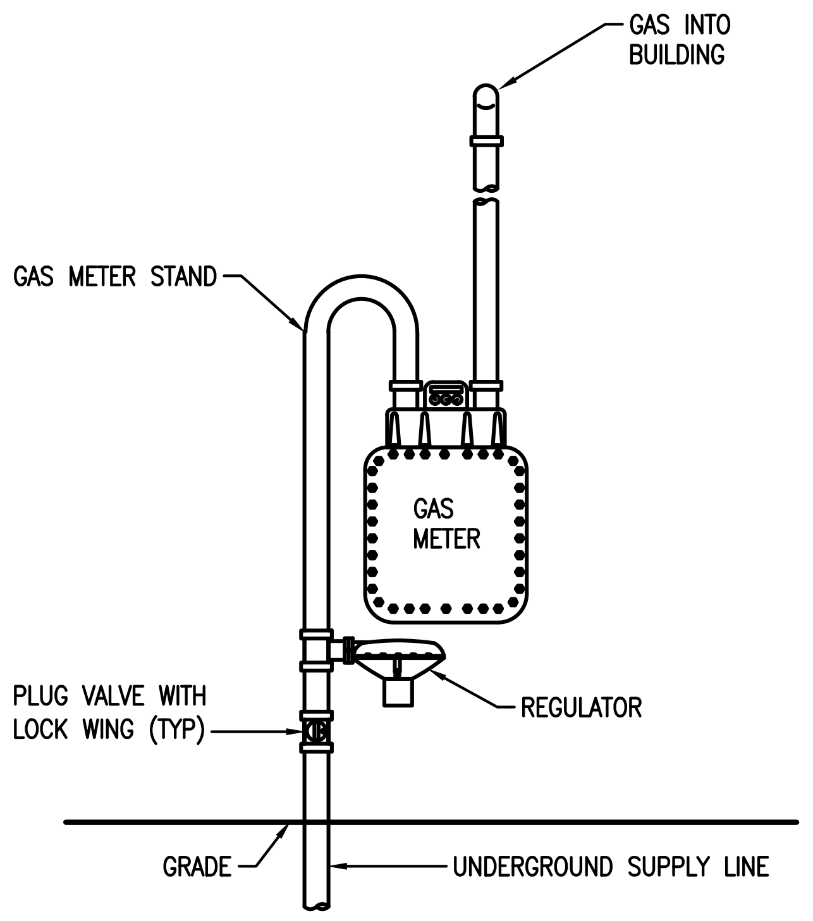
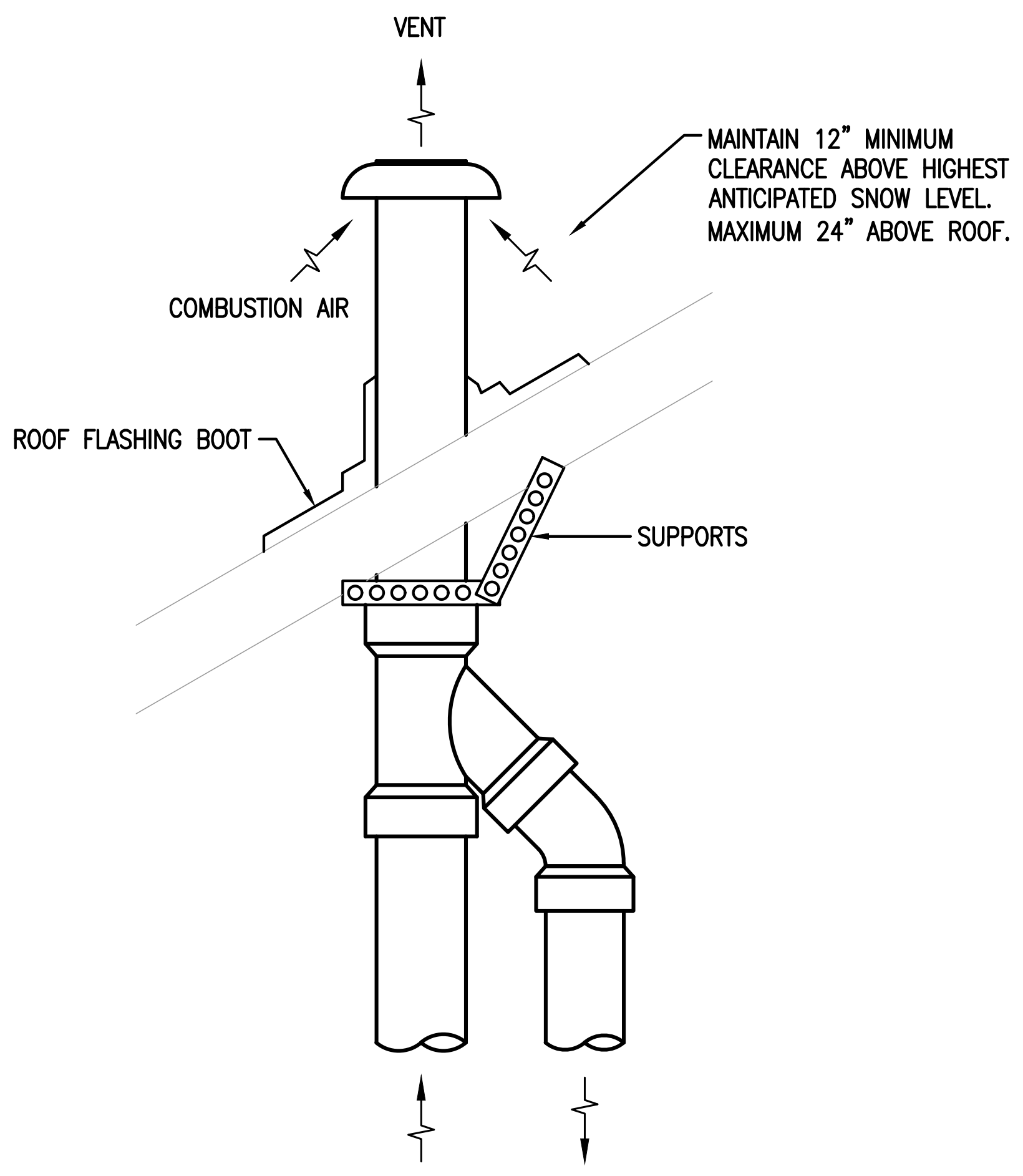


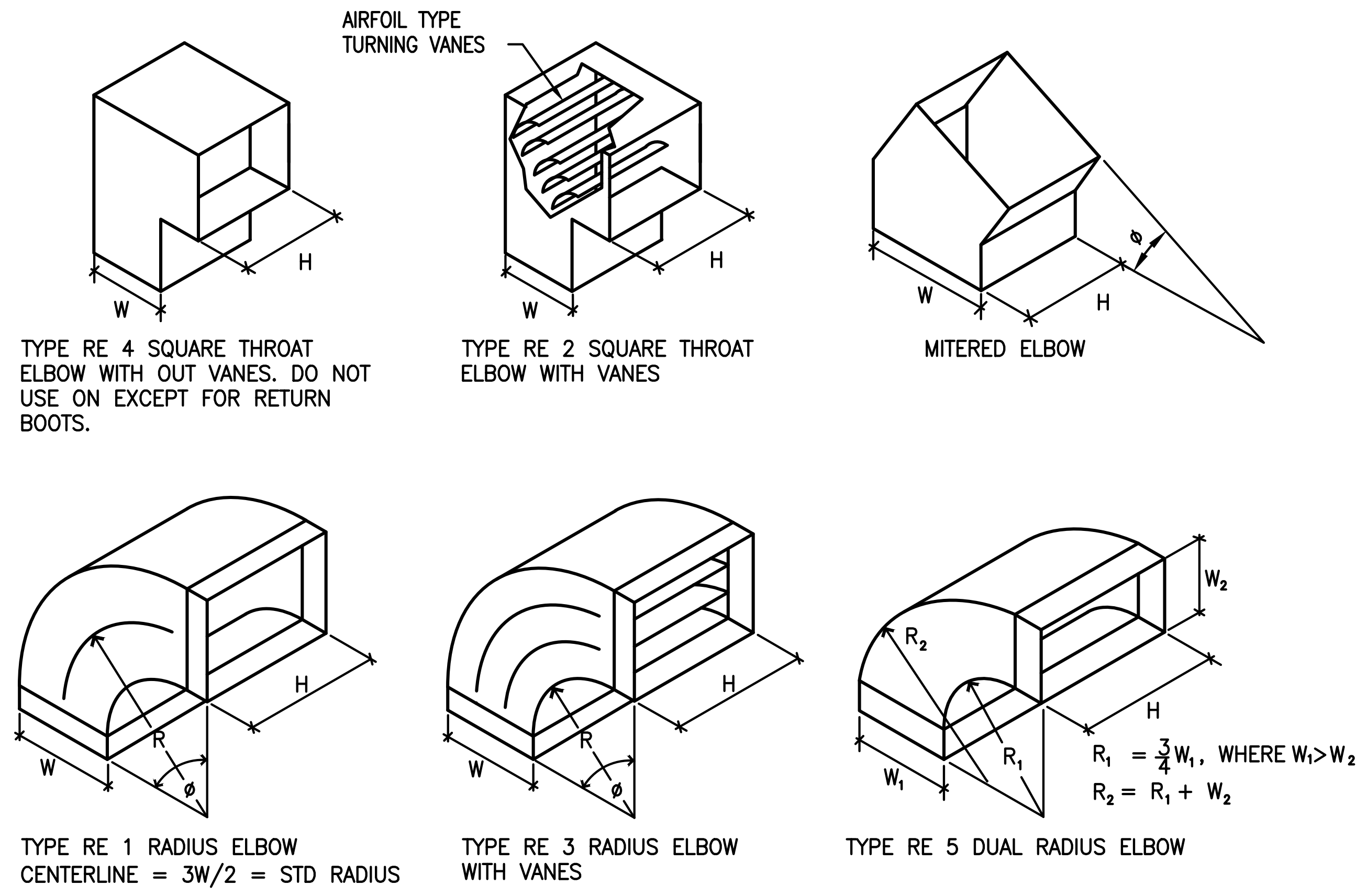
GAS METER DETAIL

N.T.S.


VENT
MAINTAIN 12" MINIMUM CLEARANCE ABOVE HIGHEST ANTICIPATED SNOW LEVEL. MAXIMUM 24" ABOVE ROOF.
COMBUSTION AIR
ROOF FLASHING BOOT
SUPPORTS

CONCENTRIC VENT KIT

N.T.S.


AIRFOIL TYPE TURNING VANES
W
H
TYPE RE 4 SQUARE THROAT ELBOW WITH OUT VANES. DO NOT USE ON EXCEPT FOR RETURN BOOTS.
W
H
TYPE RE 2 SQUARE THROAT ELBOW WITH VANES
W
H
ø
MITERED ELBOW
W
R
H
ø
TYPE RE 1 RADIUS ELBOW CENTERLINE = 3W/2 = STD RADIUS
W
R
H
ø
TYPE RE 3 RADIUS ELBOW WITH VANES
R₂
R₁
W₁
W₂
H
R₁ = ³⁄₂W₁, WHERE W₁>W₂
R₂ = R₁ + W₂
TYPE RE 5 DUAL RADIUS ELBOW

RECTANGULAR SHEET-METAL ELBOWS

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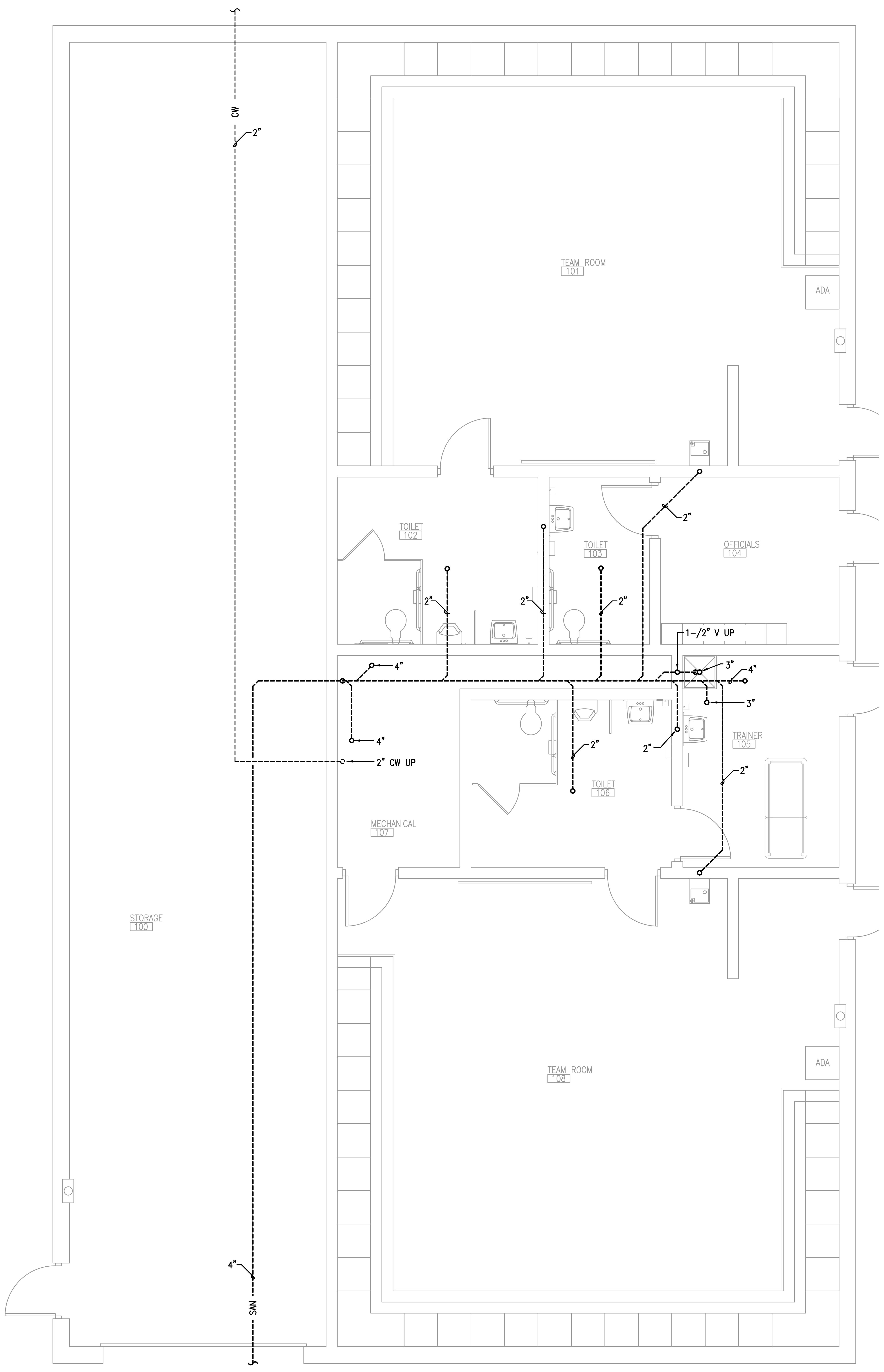
MECHANICAL
DETAILS

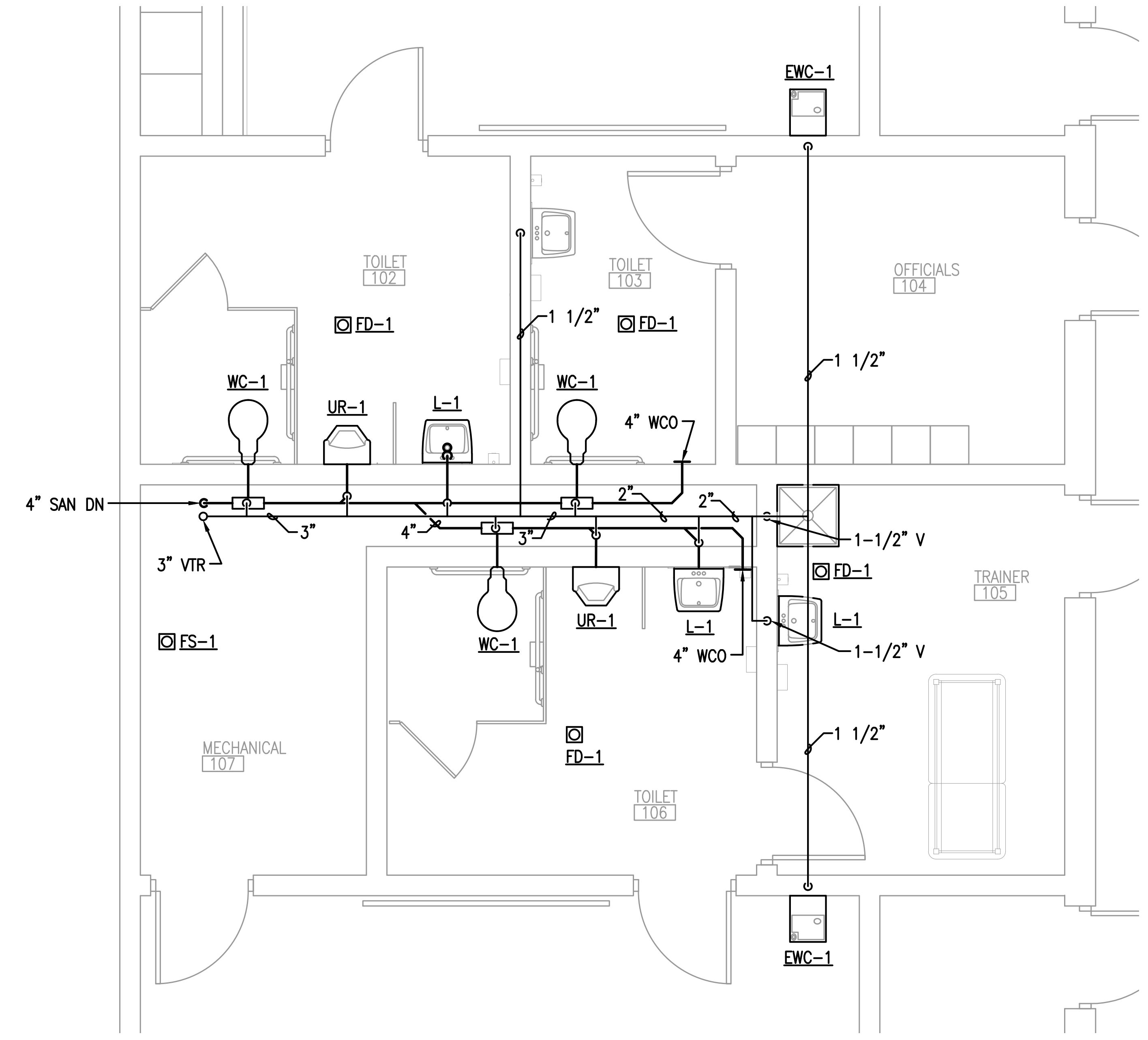
T-M4.0



PLUMBING NEW WORK PLAN - BELOW GRADE

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

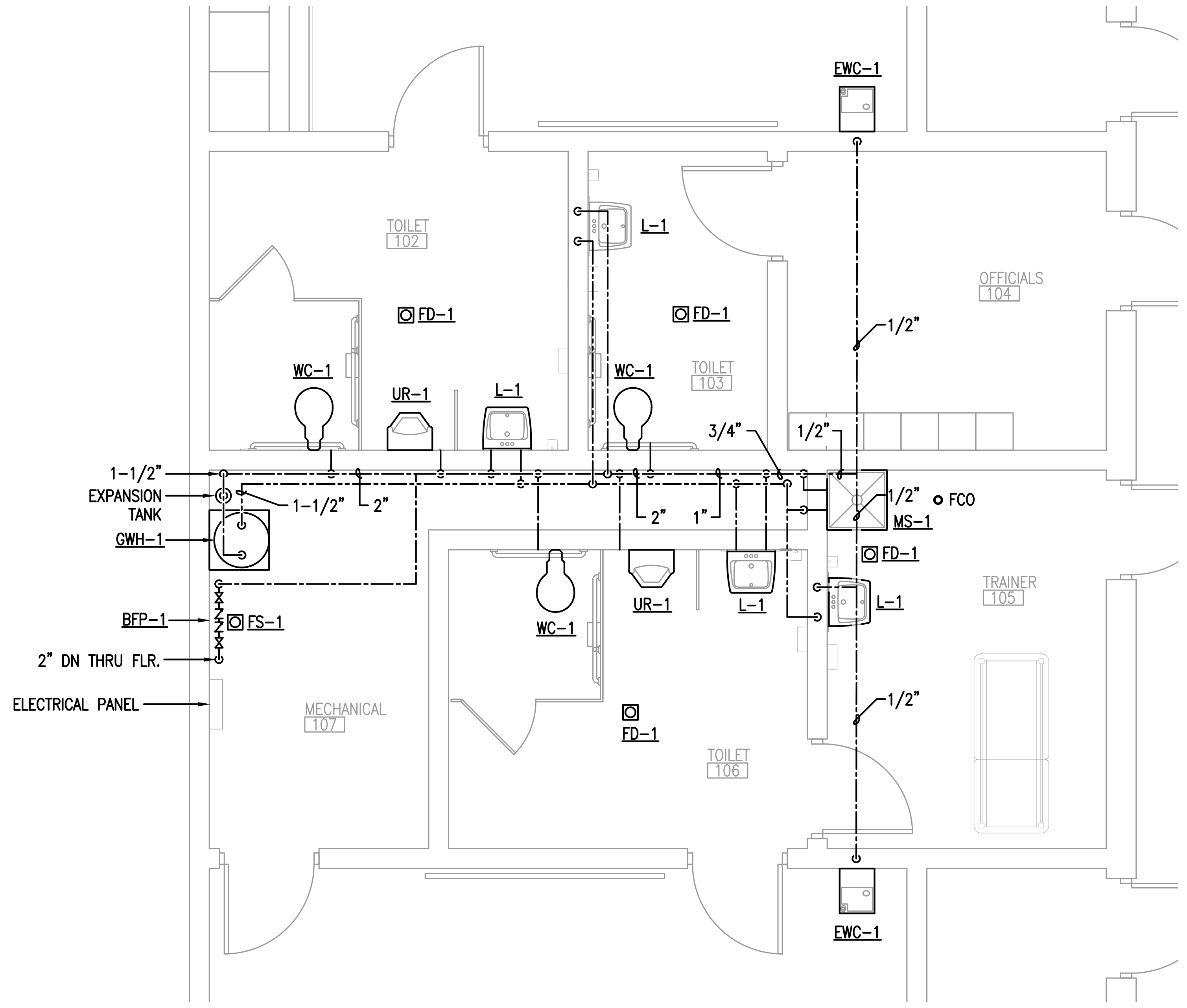
N



PLUMBING NEW WORK PLAN
ABOVE GRADE SANITARY AND VENT

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

N



PLUMBING NEW WORK PLAN
ABOVE GRADE DOMESTIC WATER

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

N

⬡ KEYNOTES ⬡

1. COORDINATE CONTINUATION WITH CIVIL.

GENERAL NOTES

1. THESE DRAWINGS ARE DIAGRAMMATIC AND INDICATE THE GENERAL EXTENT OF THE WORK. PROVIDE PLUMBING SYSTEMS COMPLETE AND PER APPLICABLE CODES.
2. CONTRACTOR SHALL COORDINATE THE INSTALLATION OF PLUMBING AND PIPING WITH THE WORK OF ALL OTHER TRADES.
3. PIPING SHALL NOT BE LOCATED NEAR ELECTRICAL EQUIPMENT/PANELS. PROVIDE REQUIRED CLEARANCE IN FRONT OF ELECTRICAL EQUIPMENT. PIPING SHALL NOT INTERFERE WITH ELECTRICAL EQUIPMENT CLEARANCE.
4. REFER TO ARCHITECTURAL PLANS FOR SPECIFICATIONS OF AND EXACT LOCATIONS OF FIXTURES (STANDARD AND BARRIER FREE), SINKS, ETC. REFER TO PLUMBING FIXTURE SCHEDULES FOR CONNECTION SIZES, ACCESSORIES, AND ADDITIONAL INFORMATION.

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PLUMBING
NEW WORK PLANS

T-P2.0

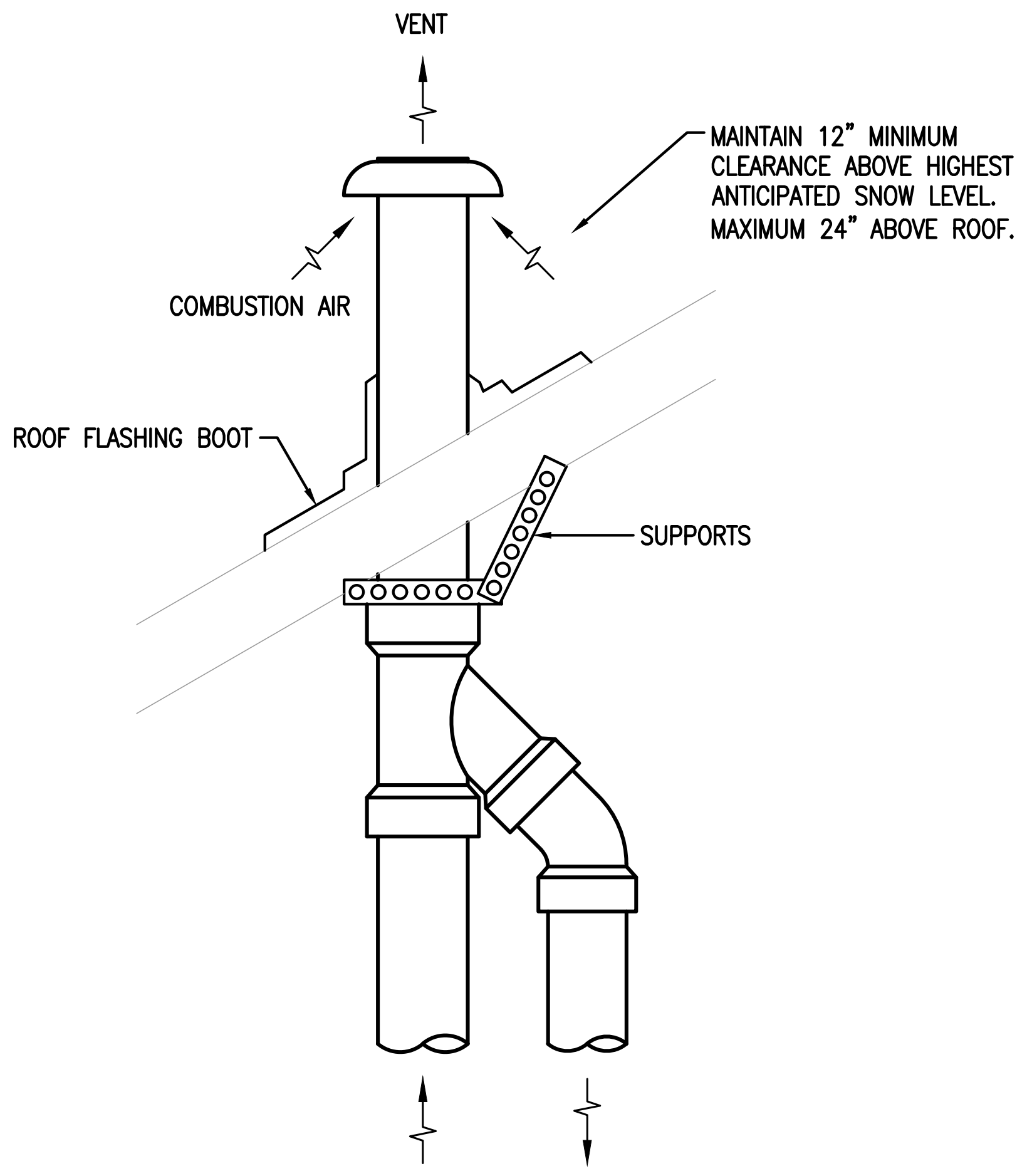
PLUMBING FIXTURE SCHEDULE

SYM	DESCRIPTION	WASTE	VENT	CW	HW
BFP-1	BACKFLOW PREVENTER – WATTS #LF009, REDUCED PRESSURE ZONE ASSEMBLY, ASSE 1013 COMPLIANT. WITH AIR GAP FITTING.	–	–	2"	–
EWC-1	ELECTRIC WATER COOLER – MURDOCK #A171.8-UG-BF12-BCD, WALL MOUNTED WATER COOLER WITH SENSOR OPERATED BOTTLE FILLER, BOTTLE COUNTER DISPLAY, BARRIER FREE. FURNISH WITH WF3EZ FILTER FOR "FILTER FIRST" COMPLIANCE.	1 1/4"	–	1/2"	–
EXP-1	EXPANSION TANK – AMTROL #ST5, 2-GALLON, 150 PSI WORKING PRESSURE, DIAPHRAGM TYPE.	1 1/4"	–	1/2"	–
FD-1	FLOOR DRAIN – ZURN #Z415B DURA-COATED CAST IRON BODY WITH BOTTOM NO HUB OUTLET, COMBINATION INVERTIBLE MEMBRANE CLAMP AND ADJUSTABLE COLLAR WITH SEEPAGE SLOTS AND 5"Ø POLISHED NICKEL BRONZE, LIGHT-DUTY STRAINER. PROVIDE WITH SURESEAL OR EQUIVALENT WATERLESS INLINE TRAP SEAL.	SEE PLANS	–	–	–
FS-1	FLOOR SINK – ZURN #FD2375, 12"x12"x6" DEEP, CAST IRON BODY WITH WHITE ACID-RESISTING PORCELAIN ENAMEL INTERIOR COATING, AND AN ABS ANTI-SPLASH DOME STRAINER. NO HUB OUTLET. PROVIDE WITH HALF-GRATE TOP. PROVIDE WITH SURESEAL OR EQUIVALENT WATERLESS INLINE TRAP SEAL.	SEE PLANS	–	–	–
LAV-1	LAVATORY – SLOAN #SS-3003, WALL-MOUNTED, VITREOUS CHINA, SELF-DRAINING DECK AREA WITH BACK AND SIDE SPLASH SHIELDS, 4" CENTERSET, ADA COMPLIANT FAUCET – SLOAN #SF-2350, BATTERY-POWERED, DECK-MOUNTED, MID INTEGRATED BASE BODY, CHROME FINISH, 3-HOLES, 4" CENTERSET. FURNISH WITH ASSE 1070 COMPLIANT MIXING VALVE.	1 1/2"	1 1/2"	1/2"	1/2"
MS-1	MOP SINK – FIAT, #MSB2424; MOLDED STONE MOP BASIN, 24"x24"x10", STAINLESS STEEL DRAIN BODY, 3"Ø. FAUCET: FIAT #830-AA, WALL MOUNTED, CHROME PLATED WITH VACUUM BREAKER, INTEGRAL STOPS, ADJUSTABLE WALL BRACE, 3/4" HOSE THREAD ON SPOUT.	3"	1 1/2"	1/2"	1/2"
TS-1	TRAP SEAL – SURESEAL. IN-LINE FLOOR DRAIN TRAP SEAL, PREASSEMBLED, ABS PLASTIC HOUSING, NEOPRENE RUBBER DIAPHRAGM WITH 2" SOFT RUBBER GASKETS, ASSE 1072.	1 1/2"	1 1/2"	1/2"	1/2"
UR-1	URINAL – SLOAN #SU-1009, WALL-MOUNTED, VITREOUS CHINA, WASHDOWN, INTEGRAL FLUSHING RIM, ADA COMPLIANT. FLUSH VALVE – SLOAN #ROYAL 180 SMO, EXPOSED SENSOR OPERATED, 1.0 GPF, SEMI-RED BRASS COMPONENTS	3"	1 1/2"	–	3/4"
WC-1	WATER CLOSET – SLOAN #ST-2459, WALL-MOUNTED, ELONGATED, VITREOUS CHINA, SIPHON JET FLUSHING, ADA COMPLIANT FLUSH VALVE – SLOAN #ROYAL 111 SMO, EXPOSED SENSOR OPERATED, 1.6 GPF, SEMI-RED BRASS COMPONENTS	4"	2"	–	1 1/2"

FUEL-FIRED, DOMESTIC-WATER HEATER SCHEDULE

UNIT ID	STORAGE CAPACITY (GAL.)	FUEL TYPE	GAS PRESSURE MIN.-MAX. (IN.WG)	INPUT (MBH)	RECOVERY @ 100°F (GPH)	THERMAL EFFICIENCY @ MAX INPUT	VENT TYPE	COLD NPT (IN)	HOT NPT (IN)	GAS NPT (IN)	AIR INTAKE PVC (IN)	EXHAUST VENT PVC (IN)	ELECTRICAL		DISCONNECT			DIMENSIONS		MANUFACTURER AND MODEL
													MOCP	VOLT/ PHASE	FURN. BY	INST. BY	TYPE	DIA (IN)	HEIGHT (IN)	
GWH-1	34	NAT. GAS	4.5–14	60.0	55	77%	POWER-DIRECT	3/4	3/4	1/2	3	3	15	115/1	ELEC.	ELEC.	NON-FUSED SWITCH	22	67.5	BRADFORD WHITE LG2PDV50H603N

NOTES:
1. PROVIDE WITH CONCENTRIC VENT KIT THROUGH ROOF.
2. COORDINATE SIZE OF VENT PIPE WITH TOTAL RUN LENGTH. SIZE PER MANUFACTURER'S RECOMMENDATIONS.


VENT
MAINTAIN 12" MINIMUM CLEARANCE ABOVE HIGHEST ANTICIPATED SNOW LEVEL. MAXIMUM 24" ABOVE ROOF.
COMBUSTION AIR
ROOF FLASHING BOOT
SUPPORTS

CONCENTRIC VENT KIT

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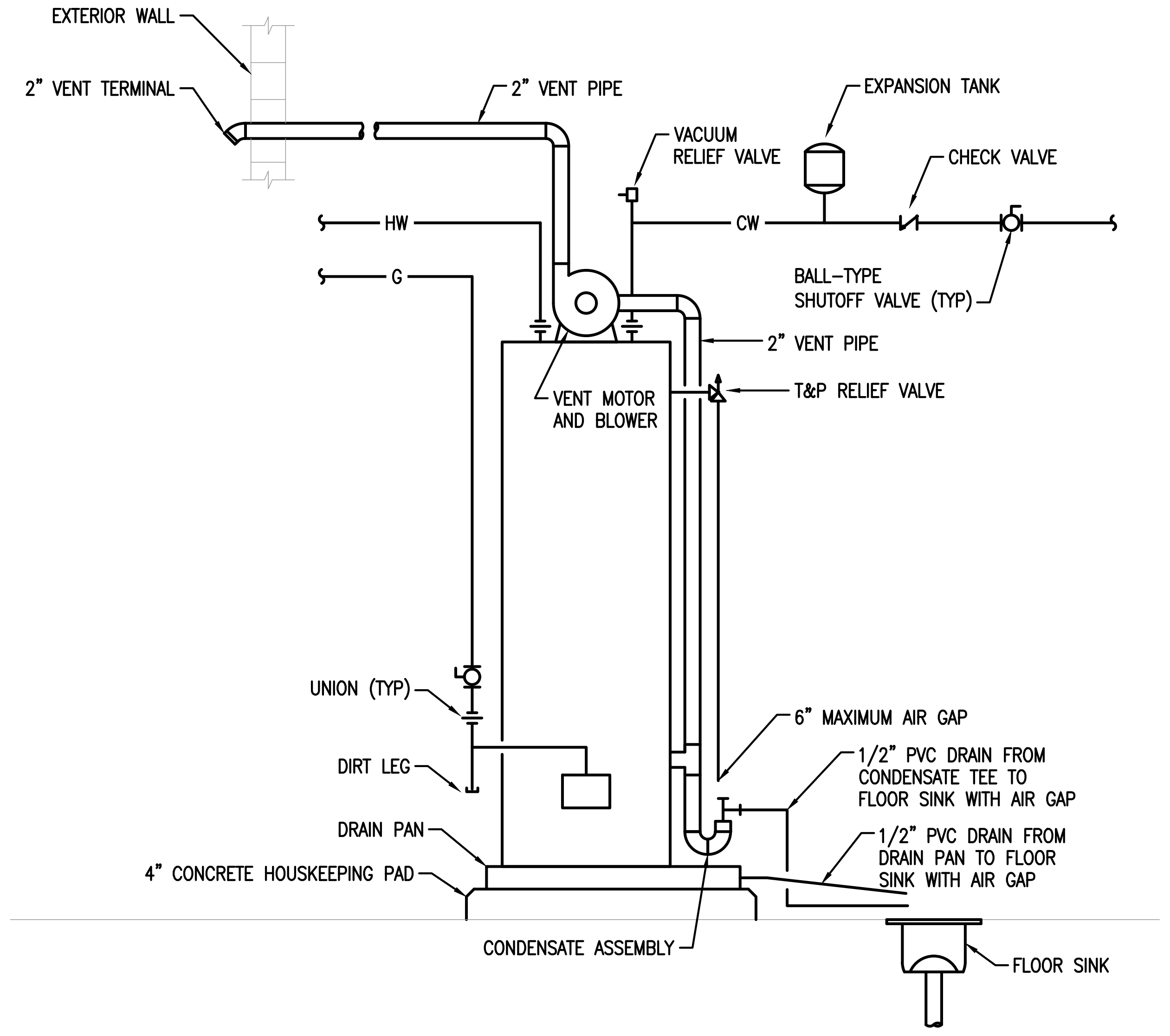
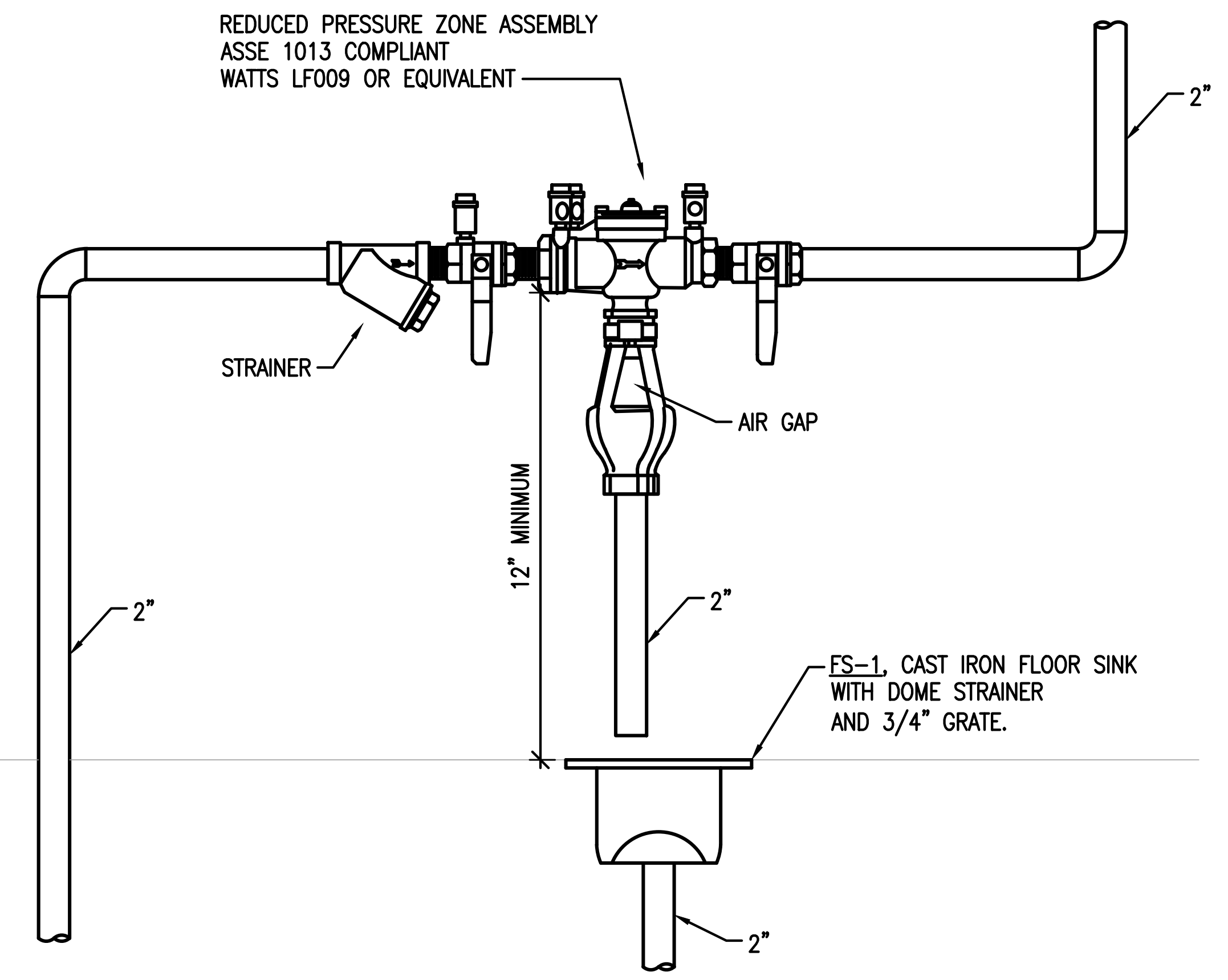


GAS-FIRED DOMESTIC-WATER HEATER PIPING DIAGRAM

N.T.S.


REDUCED PRESSURE ZONE ASSEMBLY ASSE 1013 COMPLIANT WATTS LF009 OR EQUIVALENT
2"
STRAINER
AIR GAP
12" MINIMUM
2"
2"
FS-1, CAST IRON FLOOR SINK WITH DOME STRAINER AND 3/4" GRATE.
2"

INCOMING DOMESTIC WATER PIPING DIAGRAM

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PLUMBING
DETAILS &
SCHEDULES

T-P3.0

ELECTRICAL SYMBOL LIST

NOTE: SOME SYMBOLS SHOWN MAY NOT APPLY TO THIS PROJECT

⊠	2'x2' RECESSED LIGHTING FIXTURE
⊠	2'x4' RECESSED LIGHTING FIXTURE
□	2'x2' SURFACE MOUNTED LIGHTING FIXTURE
▭	2'x4' SURFACE MOUNTED LIGHTING FIXTURE
⊙	PENDANT DECORATIVE LIGHTING FIXTURE
▭	PENDANT LINEAR LIGHTING FIXTURE
□	HIGH-BAY LIGHTING FIXTURE
▭	WALL MOUNTED LIGHTING FIXTURE
◠	WALL SCONCE
○	POLE MOUNTED LIGHTING FIXTURE
⊗	LIGHTED EXIT SIGN WITH DIRECTIONAL ARROWS SHADED AREA INDICATEDS FACE
⊗	LIGHTED EXIT SIGN - WALL MOUNTED
◡	EMERGENCY LIGHTING UNIT
WX	WALL STATION X - WALL STATION TYPE
$	SINGLE POLE TOGGLE SWITCH
$\$_3$	3-WAY TOGGLE SWITCH
$\$_4$	4-WAY TOGGLE SWITCH
$\$_D$	DIMMER SWITCH
$\$_K$	KEY OPERATED SWITCH
C	AREA CONTROLLER
R	REMOTE RELAY SWITCH
TC	TIME CLOCK
Ⓢ	OCCUPANCY SENSOR
Ⓟ	PHOTOCELL
⏀	DUPLEX RECEPTACLE
⏀	ABOVE COUNTER DUPLEX RECEPTACLE
⏀	QUAD RECEPTACLE
⏀	ABOVE COUNTER QUAD RECEPTACLE
⏀	SPECIALTY RECEPTACLE
⊖	CEILING MOUNTED DUPLEX RECEPTACLE
◐	HARD WIRED POWER CONNECTION
⊙	FLOORBOX / POKE-THROUGH
Ⓙ	JUNCTION BOX
∘ ▫	POWER POLE
⏀ ⏀ ⏀	RACEWAY
▭	CORD REEL
$\$_M$	MOTORIZED SWITCH
▣	PUSH BUTTON
▼X	DATA OUTLET 'X' INDICATES PORT COUNT
▼X	ABOVE COUNTER DATA OUTLET 'X' INDICATES PORT COUNT
▼X	CEILING MOUNTED DATA OUTLET 'X' INDICATES PORT COUNT
A	WIRELESS ACCESS POINT
XA/XP/XV	NON-FUSED DISCONNECT SWITCH XA - AMP RATING / XP - POLES QUANTITY / XV - VOLTAGE RATING
XA/XP/XV/XAF	FUSED DISCONNECT SWITCH XA - AMP RATING / XP - POLES QUANTITY / XV - VOLTAGE RATING / XAF - FUSE RATING
XX	STARTER SWITCH
▭	BRANCH CIRCUIT BREAKER PANEL
▭	DISTRIBUTION PANEL
T	TRANSFORMER
ATS	AUTOMATIC TRANSFER SWITCH
○	BELL DEVICE
S	WALL MOUNTED SPEAKER
S	CELING MOUNTED SPEAKER
◷	WALL MOUNTED SINGLE FACE CLOCK
◷	CELING MOUNTED SINGLE FACE CLOCK
⊖	WALL MOUNTED DOUBLE FACE CLOCK
⊖	CEILING MOUNTED DOUBLE FACE CLOCK
I	INTERCOM
▣B	DOOR RELEASE BUZZER
DL	DOOR LOCK
K	KEY PAD
CR	CARD READER
PS	DOOR POSITION SWITCH
▭◁	SECURITY CAMERA
F	FIRE ALARM MANUAL PULL STATION
SD	SMOKE DETECTOR
DD	DUCT MOUNTED SMOKE DETECTOR
CO	CARBON MONOXIDE DETECTOR
HD	HEAT DETECTOR
TS	TAMPER SWITCH
FS	FLOW SWITCH
DH	MAGNETIC DOOR HOLD OPEN
XXcd	WALL MOUNTED AUDIO FIRE ALARM DEVICE XXcd - CANDELA RATING
F XXcd	CEILING MOUNTED AUDIO FIRE ALARM DEVICE XXcd - CANDELA RATING
XXcd	WALL MOUNTED VISUAL FIRE ALARM DEVICE XXcd - CANDELA RATING
F XXcd	CELING MOUNTED VISUAL FIRE ALARM DEVICE XXcd - CANDELA RATING
XXcd	WALL MOUNTED COMBO VISUAL & AUDIO FIRE ALARM DEVICE XXcd - CANDELA RATING
F XXcd	CEILING MOUNTED COMBO VISUAL & AUDIO FIRE ALARM DEVICE XXcd - CANDELA RATING
▭	FIRE ALARM CONTROL PANEL

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2024 BOND WORK
MT. PLEASANT, MICHIGAN
PROJECT NO. 22-037

NO.	REVISIONS	DATE
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B	FINAL OWNER REVIEW	03.14.25
0	FOR CONSTRUCTION	03.27.25

	BY
DESIGN	BAD
DRAWN	BAD
CHECKED	AJM
APPROVED	AJM

ELECTRICAL SYMBOL
LEGEND

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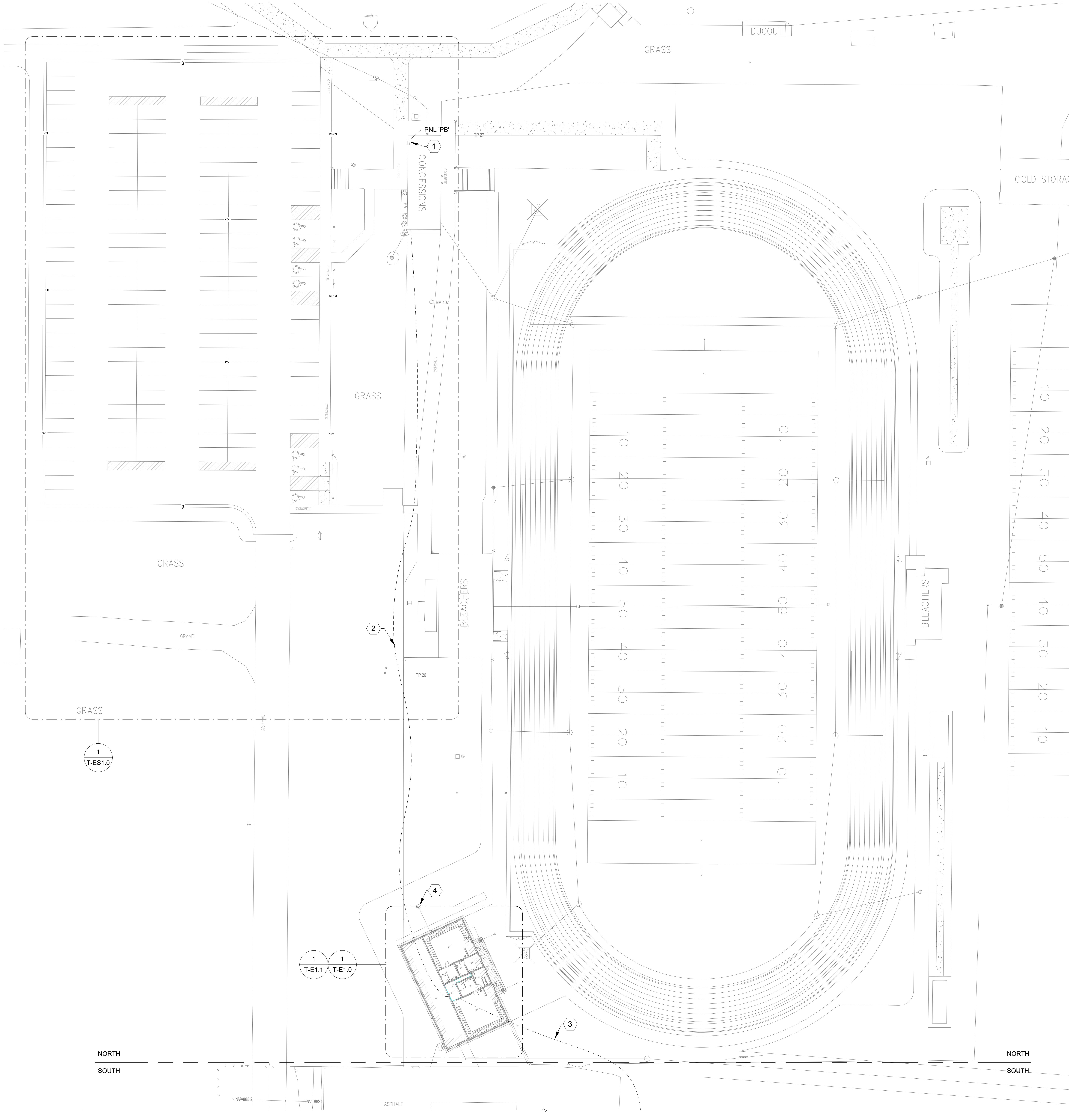

ELECTRICAL COMPOSITE PLAN - NORTH

1" = 40'-0"

KEYNOTES

1. PROVIDE NEW 100A BREAKER IN EXISTING SQUARE D PANEL. SEE SHEET T-E2.0 FOR ADDITIONAL DETAILS.
2. DIRECTIONAL BORE FEEDER. AVOID EXISTING TREES DURING CONSTRUCTION.
3. CONTINUATION OF FIBER CONDUIT. STUB UP IN MECHANICAL ROOM. SEE SHEET T-E0.2 & T-E1.1 FOR ADDITIONAL DETAILS.
4. NEW WELL SHALL BE DRILLED UNDER SEPARATE CONTRACT. EXACT LOCATION AND SIZE TO BE DETERMINED. CARRY AN ALLOWANCE FOR (1) 1PH, 240V, 30A CIRCUIT TO RUN 80' FROM PANEL 'TEAM RM'.

GENERAL NOTES

1. UNLESS NOTED OTHERWISE, All LIGHTING, DEVICES, EQUIPMENT, CIRCUITRY, ETC. DENOTED WITH BOLD (DARK) LINES REPRESENT WORK TO BE PERFORMED. All LIGHTING, DEVICES, EQUIPMENT, CIRCUITRY, ETC. DENOTED WITH LIGHT (SCREENED) LINES REPRESENT EXISTING TO REMAIN AND BE MAINTAINED.
2. EXISTING CONDITIONS SHOWN ON THESE DRAWINGS HAVE BEEN OBTAINED FROM EXISTING DRAWINGS AND FIELD INSPECTIONS. CONTRACTOR SHALL VERIFY EXACT LOCATIONS. REPORT DISCREPANCIES TO ARCHITECT/ENGINEER BEFORE DEMOLITION.
3. All NEW FEEDER AND BRANCH CIRCUIT CONDUIT AND WIRING SHALL BE RUN CONCEALED WITHIN EXISTING WALL CAVITIES OR ABOVE CEILINGS. EXPOSED RACEWAY ACCEPTABLE ONLY WHERE APPROVED BY OWNER, CONSTRUCTION MANAGER AND ENGINEER IN WHICH CASES WIREMOLD 700 (IVORY), OR EQUAL, SURFACE MOUNTED RACEWAY IS ACCEPTABLE. CONTRACTORS SHALL FIELD VERIFY EXISTING CONSTRUCTION CONDITIONS PRIOR TO BIDDING.

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ELECTRICAL COMPOSITE
PLAN - NORTH

T-E0.1

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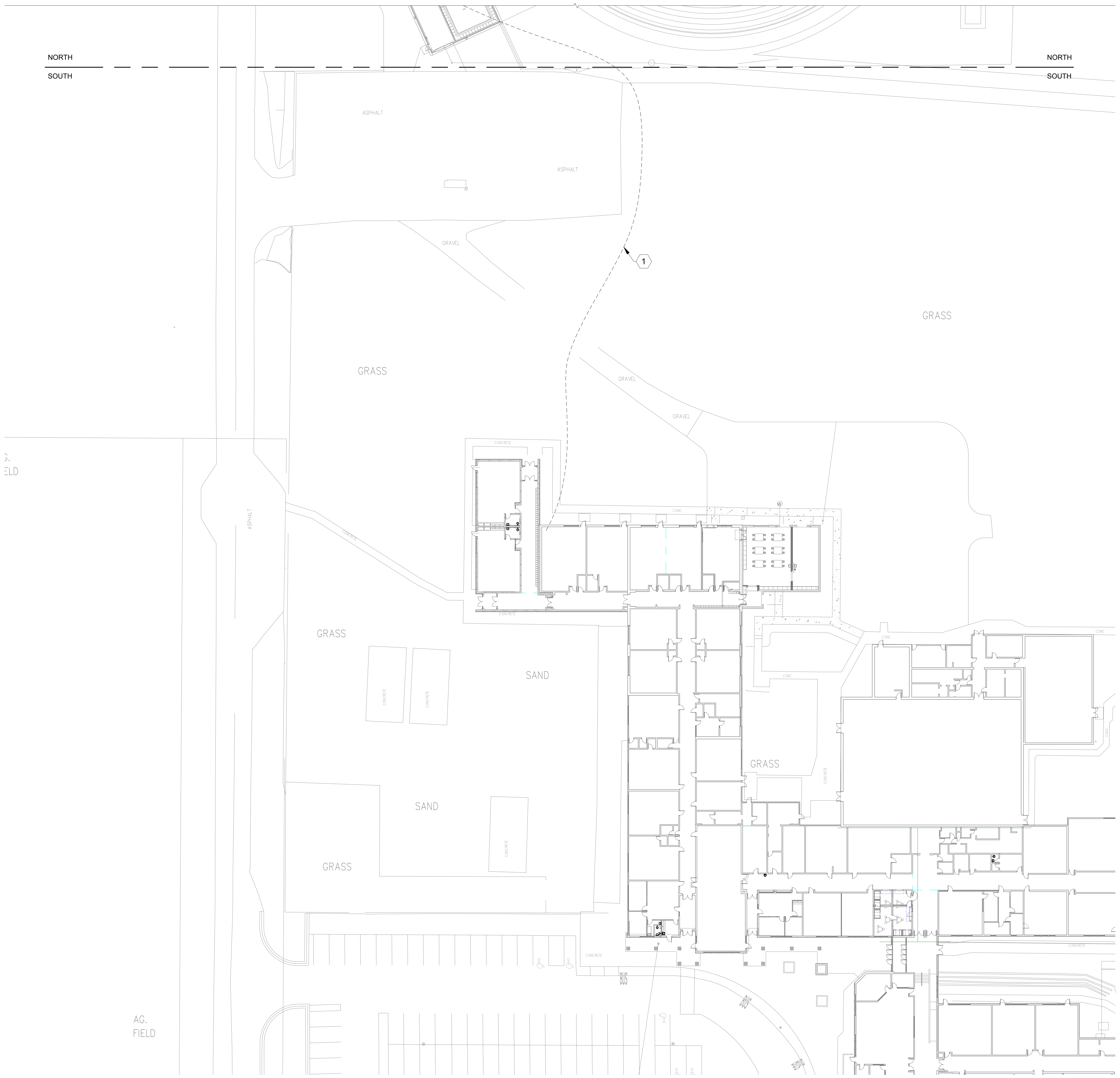

ELECTRICAL COMPOSITE PLAN - SOUTH

1 1" = 40'-0"

KEYNOTES

1. PROVIDE EMPTY 2" CONDUIT FROM EXISTING IDF RACK OUT TO NEW TEAM ROOM.

GENERAL NOTES

1. UNLESS NOTED OTHERWISE, All LIGHTING, DEVICES, EQUIPMENT, CIRCUITRY, ETC. DENOTED WITH BOLD (DARK) LINES REPRESENT WORK TO BE PERFORMED. All LIGHTING, DEVICES, EQUIPMENT, CIRCUITRY, ETC. DENOTED WITH LIGHT (SCREENED) LINES REPRESENT EXISTING TO REMAIN AND BE MAINTAINED.
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ELECTRICAL COMPOSITE
PLAN - SOUTH

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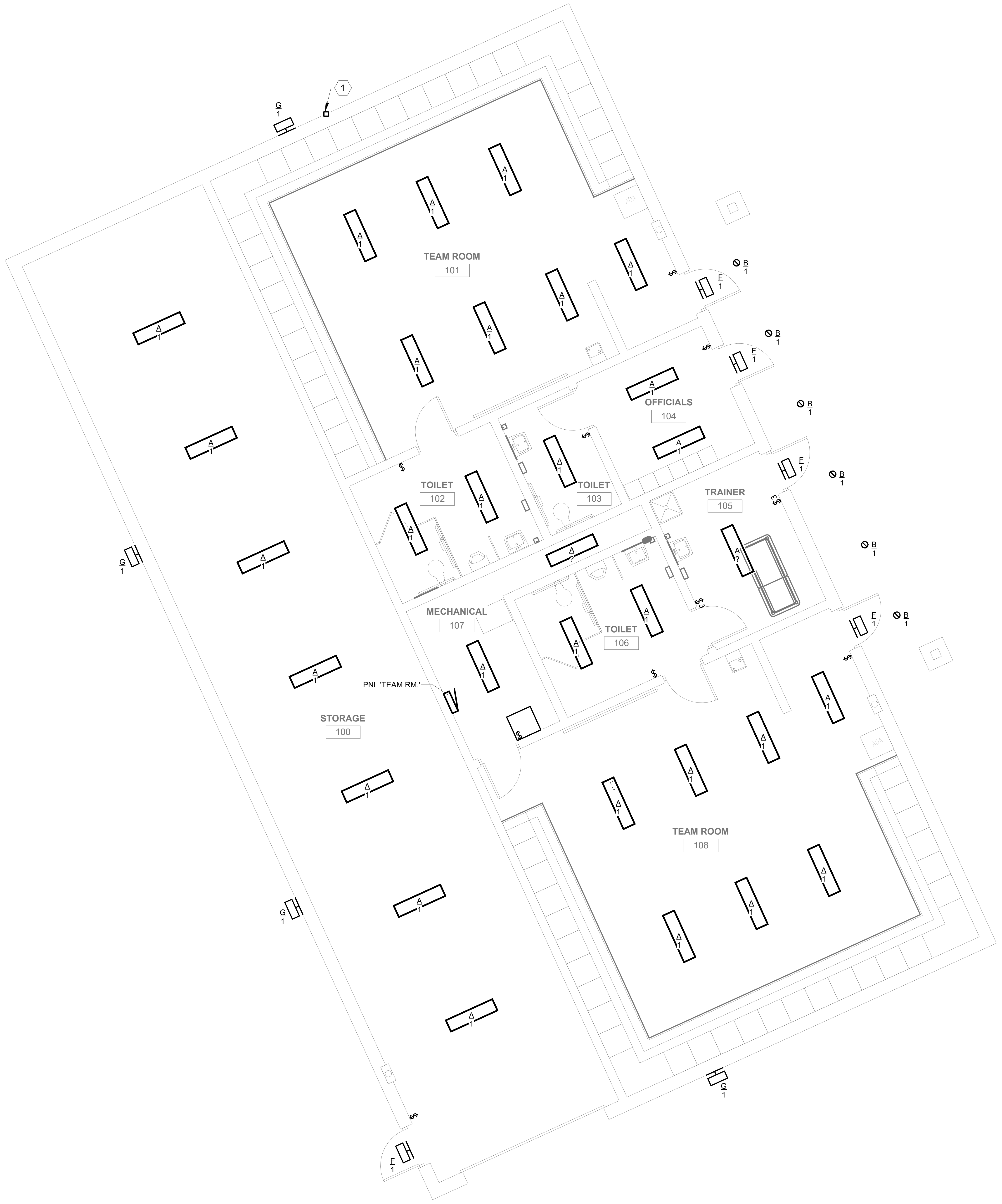

ELECTRICAL LIGHTING PLAN

1
3/16" = 1'-0"

KEYNOTES

1. PROVIDE LINE VOLTAGE PHOTOCELL TO CONTROL EXTERIOR FIXTURES.

GENERAL NOTES

1. UNLESS NOTED OTHERWISE, All LIGHTING, DEVICES, EQUIPMENT, CIRCUITRY, ETC. DENOTED WITH BOLD (DARK) LINES REPRESENT WORK TO BE PERFORMED. All LIGHTING, DEVICES, EQUIPMENT, CIRCUITRY, ETC. DENOTED WITH LIGHT (SCREENED) LINES REPRESENT EXISTING TO REMAIN AND BE MAINTAINED.
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ELECTRICAL LIGHTING PLAN

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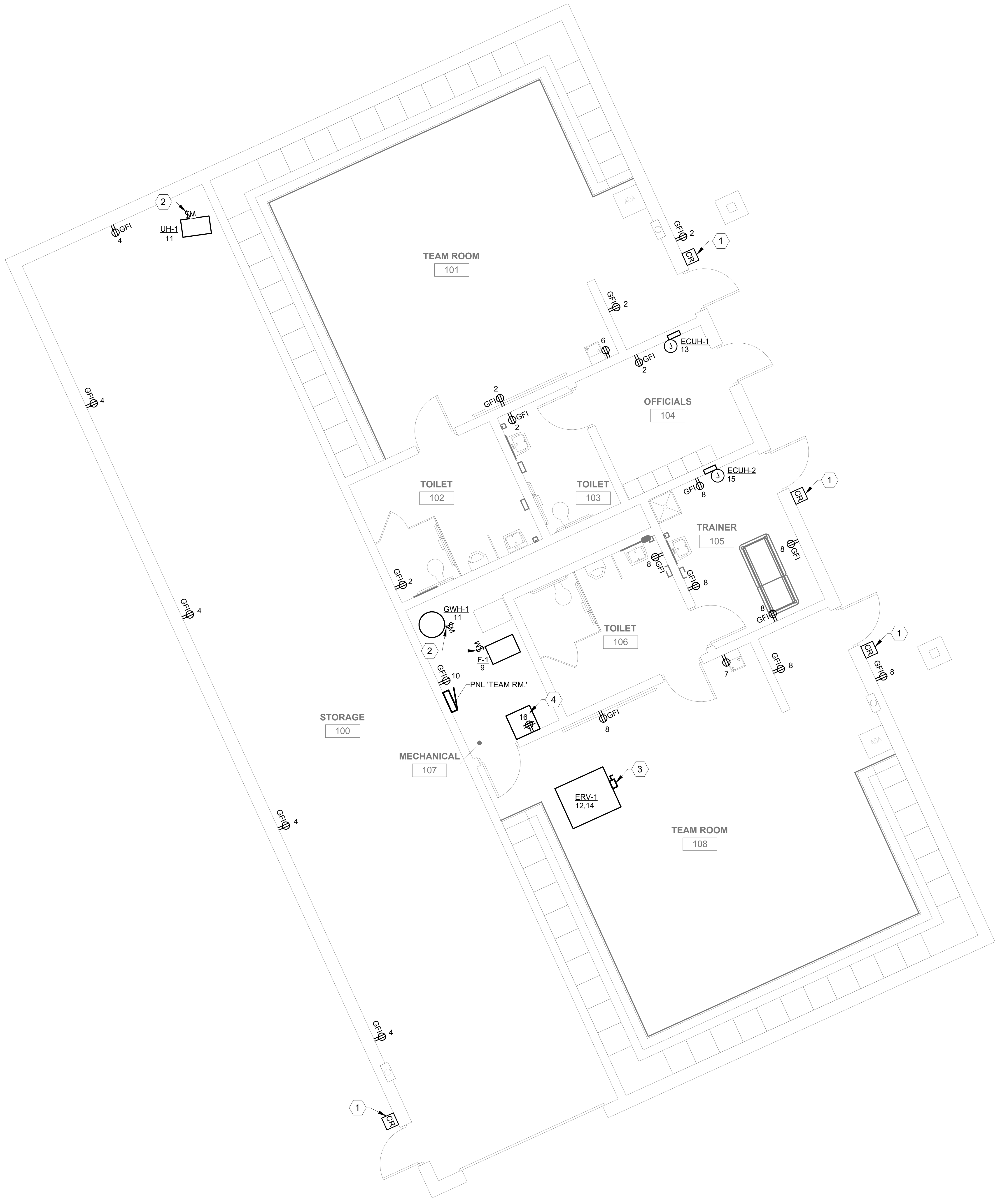

ELECTRICAL POWER PLAN

① 3/16" = 1'-0"

KEYNOTES

1. PROVIDE ROUGH-IN FOR FUTURE CARD READER. PROVIDE BLANK COVER.
2. PROVIDE 120V (TOGGLE STYLE) DISCONNECT SWITCH AND CIRCUITRY AS INDICATED.
3. FACTORY DISCONNECT. PROVIDE CIRCUITRY AS INDICATED.
4. STUB UP 2" FIBER CONDUIT. PROVIDE WALL MOUNTED 12U RACK. COORDINATE EXACT LOCATION WITH OTHER TRADES. PROVIDE BRANCH CIRCUIT AS INDICATED.

GENERAL NOTES

1. UNLESS NOTED OTHERWISE, All LIGHTING, DEVICES, EQUIPMENT, CIRCUITRY, ETC. DENOTED WITH BOLD (DARK) LINES REPRESENT WORK TO BE PERFORMED. All LIGHTING, DEVICES, EQUIPMENT, CIRCUITRY, ETC. DENOTED WITH LIGHT (SCREENED) LINES REPRESENT EXISTING TO REMAIN AND BE MAINTAINED.
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ELECTRICAL POWER PLAN

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Branch Panel: TEAM RM.

Location: MECHANICAL 107
Supply From:
Mounting: SURFACE
Enclosure: TYPE 1

Volts: 120/240 Single
Phases: 1
Wires: 3

A.I.C. Rating: 10kAIC
Mains Type: COPPER
Mains Rating: 100A
MCB Rating: MLO

Notes:

CKT	Circuit Description	Trip	Poles	A		B		Poles	Trip	Circuit Description	CKT
1	LIGHTING	20 A	1	1184	1080			1	20 A	RECEPT - NORTH	2
3	WELL PUMP	30 A	2			1000	900	1	20 A	RECEPT - STORAGE 100	4
5	--	--	--	1000	800			1	20 A	EWC (GFI BREAKER)	6
7	EWC (GFI BREAKER)	20 A	1			800	1440	1	20 A	RECEPT - SOUTH	8
9	F-1	15 A	1	1000	180			1	20 A	RECEPT - MECH ROOM	10
11	CUH-1 & GWH-1	20 A	1			1180	2000	2	25 A	ERV-1	12
13	ECUH-1	20 A	1	1500	2000			--	--	--	14
15	ECUH-2	20 A	1			1500	360	1	20 A	RECEPT - NETWORK RACK	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
			Total Load:	8701 VA		9180 VA					
			Total Amps:	73 A		77 A					

Legend:

Panel Totals

Total Conn. Load: 17878 VA

Total Conn.: 75 A

Notes:

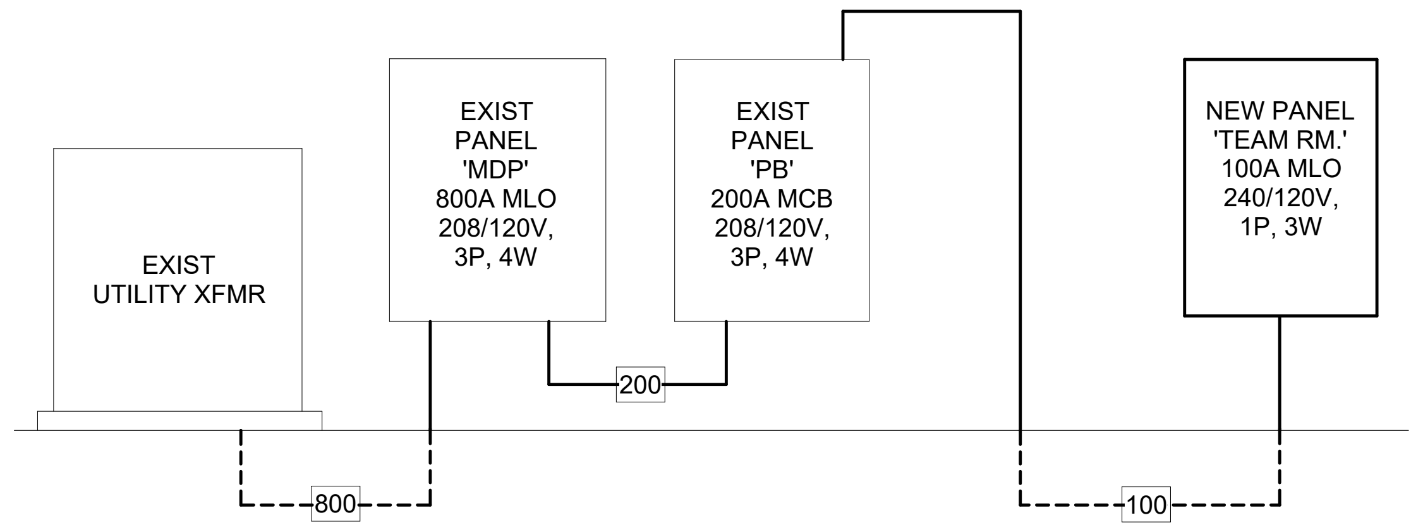
LIGHTING FIXTURE SCHEDULE - TEAM ROOM			
TYPE	DESCRIPTION	MANUFACTURER	VOLTS
A	VANDAL RESIST. SURFACE WRAP	FAIL-SAFE #HVL8-4-LD4-1-STD-40-UNV-O-EDC-1-S	120V
B	RECESSED DOWNLIGHT	HALO #LTC406FS5B	120V
F	EXTERIOR EGRESS	ISOLITE #OWL-EM-BZ-MB	120V
G	EXTERIOR AREA LIGHT	RAB #WPLED26	120V

○	FEEDER SCHEDULE
100	NEW - (2 SETS) 1 1/2"C - 3 #1/0 THHN/THWN & 1 #8 GND (CU) EACH
200	EXISTING - 2 1/2"C - 4 #4/0 THHN/THWN & 1 #6 GND (CU)
800	EXISTING - (3 SETS) 3"C - 4 #300 MCM (CU) EACH

FEEDER IS OVERSIZED TO ACCOUNT FOR VOLTAGE DROP PROVIDE PARALLEL KITS AS NECESSARY

LOAD SCHEDULE	
SWITCHBOARD 'MDP'	CONNECTED LOAD (KVA)
PREVIOUS LOAD	226
ADDED LOAD	17.5
TOTAL LOAD	243.5

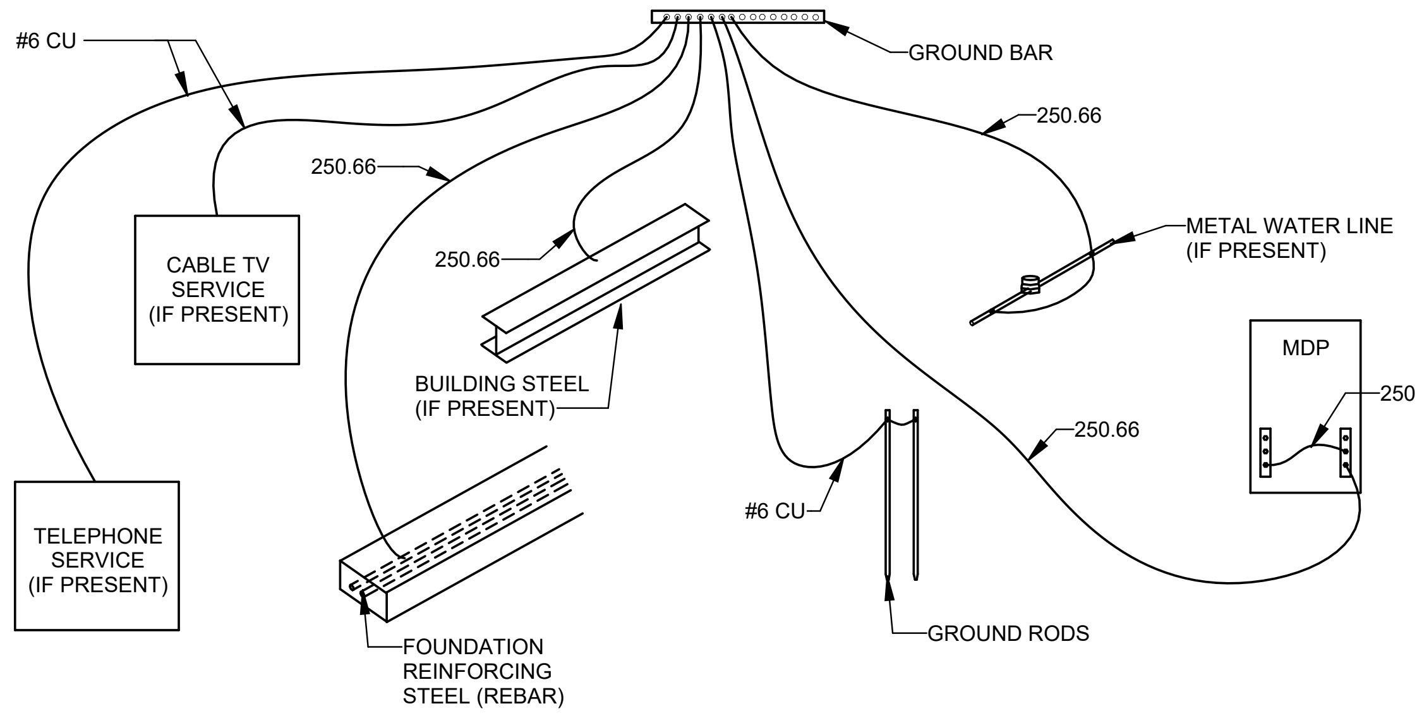
SERVICE SIZE IS ADEQUATE FOR ADDED LOAD



NOTE:
PROVIDE GROUNDING PER NATIONAL ELECTRICAL CODE (NEC) ARTICLE 250. CONNECT TO BUILDING ADDITION FOUNDATION REINFORCING STEEL AND WATER SERVICE.

PARTIAL RISER DIAGRAM - TEAM ROOM

N.T.S.



GROUNDING/BONDING DETAIL

N.T.S.

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ELECTRICAL SCHEDULES & RISER

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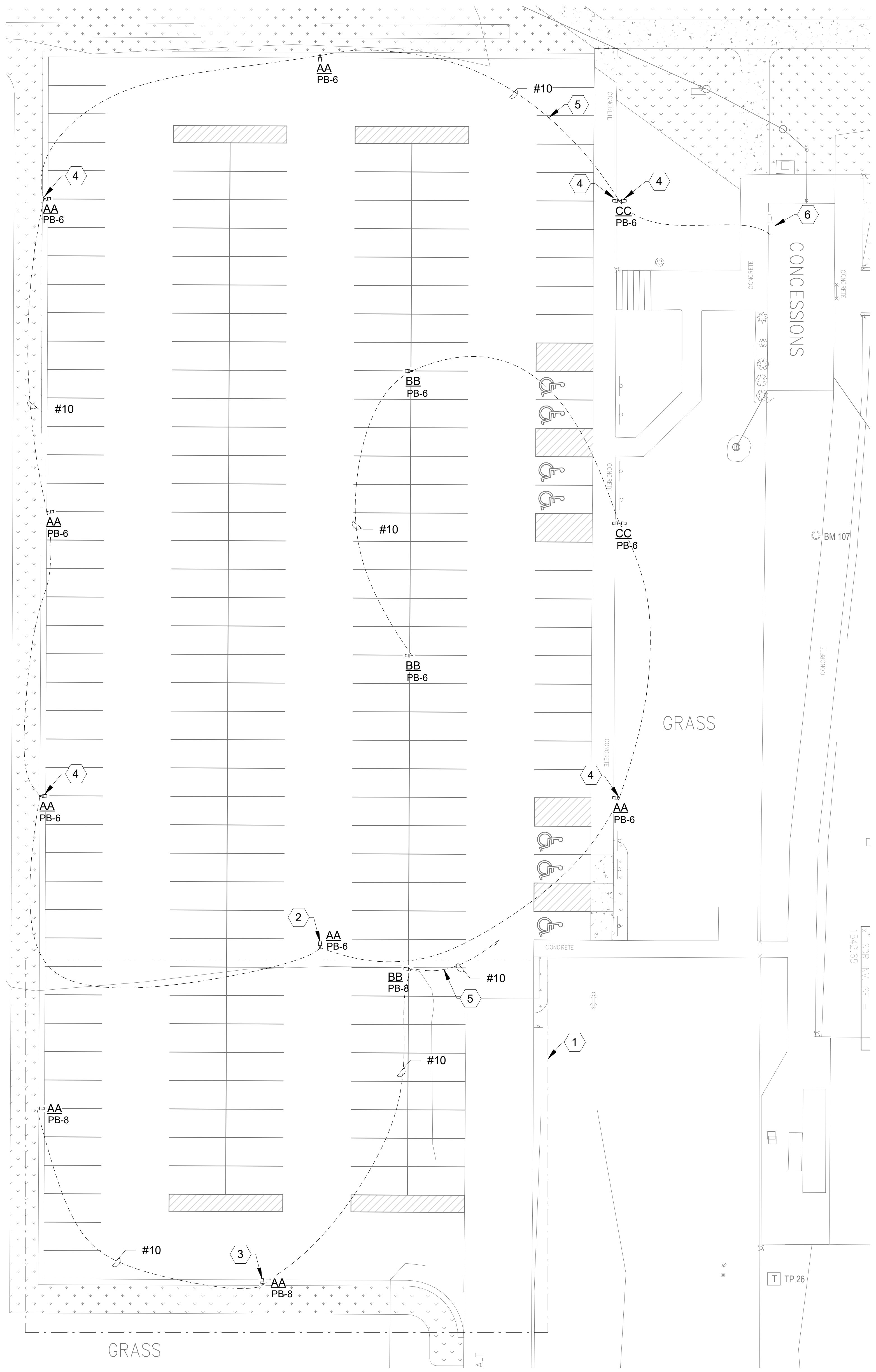
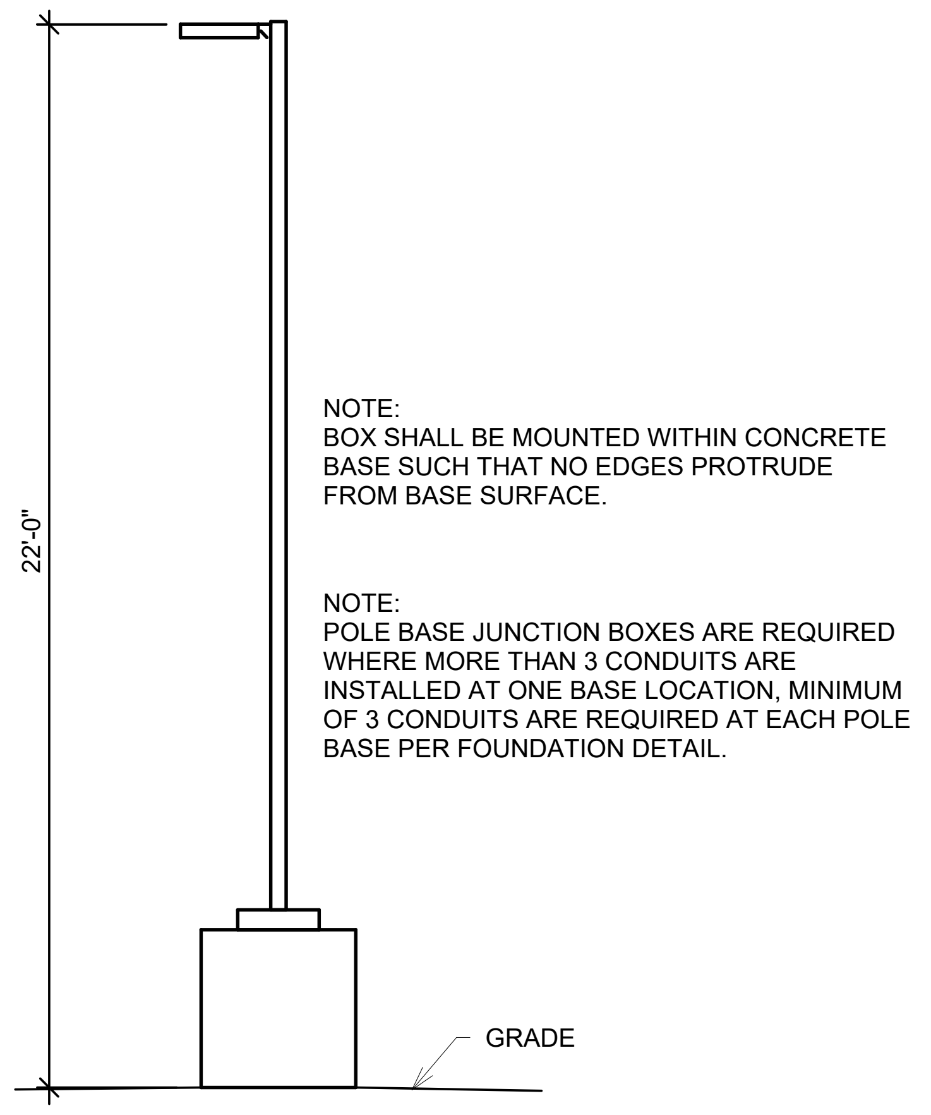


① ELECTRICAL SITE PLAN

1" = 30'-0"

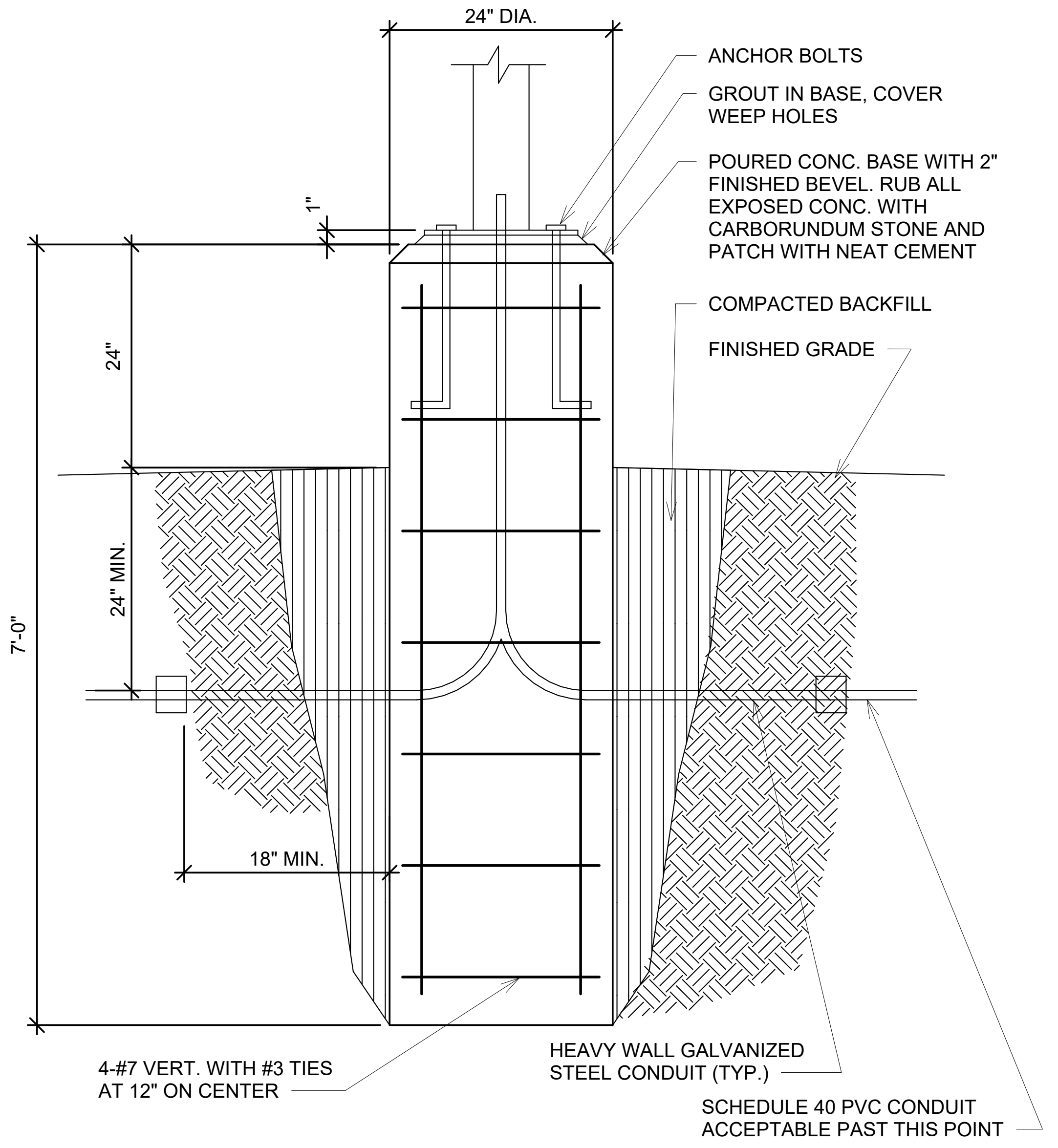


NOTE:
BOX SHALL BE MOUNTED WITHIN CONCRETE BASE SUCH THAT NO EDGES PROTRUDE FROM BASE SURFACE.

NOTE:
POLE BASE JUNCTION BOXES ARE REQUIRED WHERE MORE THAN 3 CONDUITS ARE INSTALLED AT ONE BASE LOCATION, MINIMUM OF 3 CONDUITS ARE REQUIRED AT EACH POLE BASE PER FOUNDATION DETAIL.

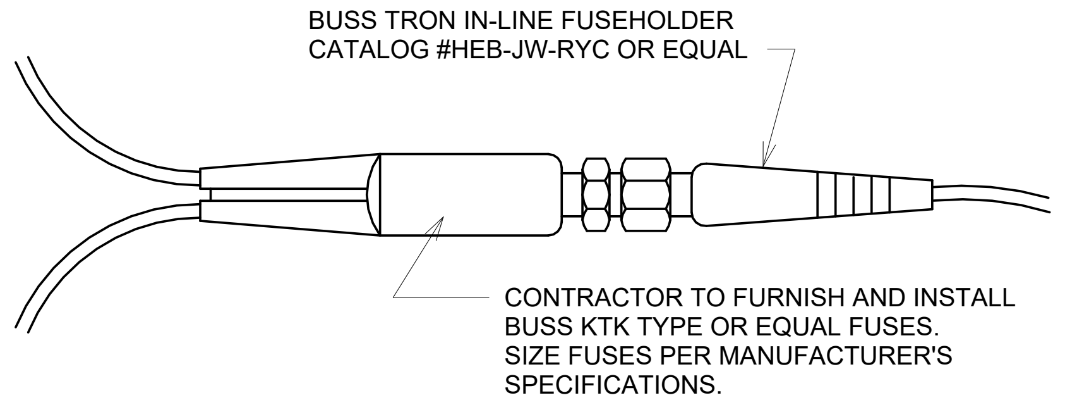
SITE LIGHING FIXTURE & POLE BASE INSTALLATION DETAIL

N.T.S.


24" DIA.
ANCHOR BOLTS
GROUT IN BASE, COVER WEEP HOLES
POURED CONC. BASE WITH 2" FINISHED BEVEL. RUB ALL EXPOSED CONC. WITH CARBORUNDUM STONE AND PATCH WITH NEAT CEMENT
COMPACTED BACKFILL
FINISHED GRADE
1"
24"
24" MIN.
7'-0"
18" MIN.
4-#7 VERT. WITH #3 TIES AT 12" ON CENTER
HEAVY WALL GALVANIZED STEEL CONDUIT (TYP.)
SCHEDULE 40 PVC CONDUIT ACCEPTABLE PAST THIS POINT

LIGHT POLE BASE

N.T.S.


BUSS TRON IN-LINE FUSEHOLDER CATALOG #HEB-JW-RYC OR EQUAL
CONTRACTOR TO FURNISH AND INSTALL BUSS KTK TYPE OR EQUAL FUSES. SIZE FUSES PER MANUFACTURER'S SPECIFICATIONS.

LIGHTING POLE BASE CONNECTOR DETAIL

N.T.S.

LIGHTING FIXTURE SCHEDULE - PARKING LOT

TYPE	DESCRIPTION	MANUFACTURER	VOLTS
AA	POLE MOUNTED LIGHT AND POLE	(1) MCGRAW EDISON #GALN-SA2C-740-U-T4FT-BZ-WLS4BZ (1) MCGRAW EDISON #SSS4A20SFX1 (POLE)	120V
BB	POLE MOUNTED LIGHT AND POLE	(1) MCGRAW EDISON #GALN-SA2C-740-U-T4W-BZ-WLS4BZ (1) MCGRAW EDISON #SSS4A20SFX1 (POLE)	120V
CC	POLE MOUNTED LIGHTS AND POLE	(1) MCGRAW EDISON #GALN-SA2C-740-U-T4FT-BZ-WLS4BZ (1) MCGRAW EDISON #GALN-SA2C-740-U-T4W-BZ-WLS4BZ (1) MCGRAW EDISON #SSS4A20SFX1 (POLE)	120V

KEYNOTES

1. THIS PORTION OF PARKING LOT IS PART OF AN ALTERNATE. FIXTURES AND CAMERA WORK IN THIS AREA SHALL BE PRICED SEPARATELY AS PART OF THAT ALTERNATE. SEE CIVIL PLANS AND BID DOCUMENTS FOR ADDITIONAL DETAILS.
2. IF THE ALTERNATE IS APPROVED, THIS FIXTURE SHALL MOVE DOWN TO KEYNOTE 3.
3. THIS FIXTURE IS PART OF BASE BID. INCLUDE ADDITIONAL CONDUIT AND WIRE ONLY FOR ALTERNATE.
4. FUTURE CAMERA LOCATION.
5. PROVIDE (2) EMPTY 1" CONDUITS ALONG SIDE LIGHTING CONDUITS FOR FUTURE CAMERA POWER/DATA.
6. PROVIDE 20A BREAKER(S) TO MATCH EXISTING SQUARE D PANEL 'PB'

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ELECTRICAL SITE PLAN

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STEEL NOTES

1. EXISTING STRUCTURAL INFORMATION, LOCATIONS AND ELEVATIONS ARE BASED ON RECORD DRAWINGS AND/OR FIELD OBSERVATIONS. THE CONTRACTOR SHALL FIELD VERIFY THIS INFORMATION PRIOR TO BEGINNING CONSTRUCTION.
2. STEEL MEMBER DESIGN IS BASED UPON THE ALLOWABLE STRENGTH(LOAD & RESISTANCE FACTOR) DESIGN METHOD OF THE 13TH EDITION OF THE AISC MANUAL OF STEEL CONSTRUCTION.
3. STRUCTURAL STEEL WIDE FLANGE("W") SHAPES–ASTM A992(50 KSI STEEL)
   ALL OTHER STRUCTURAL STEEL PLATES & RODS_ASTM A36
   STEEL PIPE WITH WALL THICKNESS GREATER THAN 5/8"_ASTM A53, GRADE B
   ALL OTHER ROUND, SQUARE & RECTANGULAR HOLLOW STRUCTURAL SECTIONS_ASTM A500 GRADE B
4. BEAM CONNECTIONS SHALL BE DESIGNED TO SUPPORT HALF THE MAXIMUM TOTAL UNIFORM LOAD, FOR THE SPAN OF THE BEAM SHOWN ON THE PLANS. MAXIMUM TOTAL UNIFORM LOADS ARE PROVIDED IN TABLE 3–6 OF THE AISC MANUAL OF STEEL CONSTRUCTION, THIRTEENTH EDITION.
5. ALL STEEL TO STEEL CONNECTIONS SHALL BE MADE WITH 3/4" DIAMETER ASTM A325_N HEAVY HEX HEAD, TYPE 1, HIGH STRENGTH BOLTS OR E70XX ELECTRODES, U.N.O. ALL WELDING SHALL BE IN ACCORDANCE WITH LATEST AWS SPECIFICATIONS. MINIMUM WELD SIZE SHALL BE 3/16", U.N.O.
6. ALL BOLTS SHALL BE TIGHTENED TO "SNUG TIGHT"(PER 8.1 OF AISC SPECIFICATION FOR STRUCTURAL JOINTS USING ASTM A325 OR A490 BOLTS), U.N.O. BOLTS DESIGNATED ON THE PLANS TO BE "FULLY TENSIONED" SHALL BE TIGHTENED TO THE REQUIRED LOAD BY THE "TURN OF THE NUT" METHOD.
7. ALL FIELD CONNECTIONS SHALL BE BOLTED, U.N.O.
8. MEMBER CONNECTIONS SHALL BE DETAILED FOR A MINIMUM FORCE OF NO LESS THAN 10 KIPS.
9. ALL JOISTS AND JOIST GIRDERS SHALL CONFORM TO SJI STANDARDS. EXTEND BOTTOM CHORDS TO CONNECT AT ALL COLUMNS. PROVIDE BRIDGING PER SJI STANDARDS. JOIST CAMBER FOR FLOOR JOISTS SHALL BE PER SJI SPECIFICATIONS. ROOF JOISTS SHALL BE CAMBERED NO MORE THAN REQUIRED TO OFFSET DEFELECTION DUE TO THE JOIST'S OWN WEIGHT.
10. METAL ROOF DECK SHALL BE ASTM A611, GRADES C, D OR E, AS APPLICABLE, FOR UNCOATED OR PAINTED DECK. FOR GALVANIZED ROOF DECK, CONFORM TO ASTM A653 STRUCTURAL QUALITY GRADE 33 OR HIGHER; WITH G60 GALVANIZED COATING CONFORMING TO ASTM A525. ALL ROOF DECK SHALL CONFORM TO SDI STANDARDS, AND BE PAINTED, EXCEPT WHERE SPRAYED ON FIREPROOFING IS TO BE APPLIED, WHERE DECK SHALL BE UNCOATED.
11. OPENINGS THROUGH ROOF DECK MAY OR MAY NOT BE SHOWN ON FRAMING PLANS. GENERAL CONTRACTOR SHALL COORDINATE WITH ALL TRADES AND PROVIDE FOR OPENINGS AND FRAMES/REINFORCING AS FOLLOWS:
    A. OPENINGS UP TO 18"x18"–PROVIDE L2x2x3/16 ANGLES PERPENDICULAR TO DECK FLUTES, ON BOTH SIDES OF OPENING. EXTEND ANGLES A MINIMUM OF 2 FLUTES BEYOND EDGE OF OPENING. FASTEN ANGLES TO EACH FLUTE WITH #10 TEK SCREWS.
    B. OPENINGS LARGER THAN 18"x18"–PROVIDE A WELDED L4x4x1/4 FRAME SUPPORTED BY STEEL JOISTS OR BEAMS AS SHOWN IN "TYPICAL JOIST REINFORCING DETAIL" (SEE SHEET S4.0). REINFORCE STEEL JOISTS PER THE SAME DETAIL.
12. PROVIDE CONTINUOUS 12 GAUGE, 12"(MINIMUM) WIDE COVER PLATE WHERE ROOF DECK CHANGES DIRECTION. FASTEN TO DECK ON BOTH SIDES OF JOINT WITH #10 TEK SCREWS AT 12" O.C.
13. METAL FORM DECK SHALL BE ASTM A653 STRUCTURAL QUALITY GRADE 33 OR HIGHER; WITH G60 GALVANIZED COATING CONFORMING TO ASTM A525 OR PAINTED FINISH, AS INDICATED ON PLANS.
14. UNLESS NOTED OTHERWISE, METAL DECK SHALL BE FASTENED TO SUPPORT MEMBERS AT 18" O.C. PROVIDE TWO SIDELAP FASTENERS EVENLY SPACED BETWEEN SUPPORT MEMBERS. SUPPORT MEMBER FASTENERS SHALL BE #12 TEK SCREWS. SIDELAP FASTENERS SHALL BE #10 TEK SCREWS. METAL DECK SHALL NOT BE WELDED.
15. STEEL PAINTING_PROVIDE RED OXIDE SHOP COAT.
16. LOADS INDICATED ON PLANS ARE FULLY ADJUSTED CONNECTION DESIGN LOADS DO NOT INCREASE ALLOWABLE STRESSES FOR WIND, ETC.
17. SHOP DRAWINGS SHALL BE SUBMITTED TO THE ARCHITECT FOR APPROVAL PRIOR TO FABRICATION. FABRICATOR SHALL PRODUCE ERECTION DRAWINGS WITHOUT PHOTOCOPYING OR OTHERWISE REPRODUCING THE ARCHITECT'S DESIGN PLANS.

MASONRY NOTES

1. THE CONTRACTOR SHALL RETAIN THE SERVICES OF A QUALIFIED, INDEPENDENT, INSPECTION FIRM TO PERFORM ON–SITE INSPECTIONS OF MASONRY AS REQUIRED BY TABLE 1704.5.1 OF THE 2003 MICHIGAN BUILDING CODE. THE INSPECTION FIRM SHALL PERFORM THE FOLLOWING INSPECTION TASKS FROM THAT TABLE: 1a, 1b, 1c, 2a, 2b, 2c, 3a, 3b, 3c, 3d AND 4a.
2. ALL CONCRETE MASONRY SHALL CONFORM TO ASTM C90, HOLLOW LOADBEARING BLOCK UNITS. LAY BLOCK IN RUNNING BOND. ADD "DRY–BLOCK" BLOCK ADMIXTURE TO THE MIX FOR ALL CMU TO BE USED IN THE EXTERIOR WYTHE FOR ALL WALLS.
3. ALL MORTAR FOR CONCRETE MASONRY SHALL CONFORM TO ASTM C270, TYPE S. JOINTS SHALL BE TOOLED CONCAVE. ADD "DRY–BLOCK" MORTAR ADMIXTURE TO THE MIX FOR ALL MORTAR TO BE USED IN THE EXTERIOR WYTHE FOR ALL WALLS.
4. ALL GROUT SHALL CONFORM TO ASTM C476. MORTAR SHALL NOT BE SUBSTITUTED FOR GROUT. CORES CONTAINING REBAR SHALL BE GROUTED SOLID.
   REBAR LAPS
   VERTICAL WALL REINFORCING–48 BAR DIAMENTERS
   BOND BEAMS–30 BAR DIAMETERS
   REBAR SHOP DRAWINGS SHALL BE SUBMITTED TO THE ARCHITECT FOR APPROVAL PRIOR TO FABRICATION.
5. HORIZONTAL JOINT REINFORCEMENT SHALL BE LADDER TYPE, GALVANIZED FINISH, COLD DRAWN STEEL WITH 9 GAUGE SIDE RODS AND CROSS TIES. INSTALL JOINT REINFORCEMENT AT 16" O.C., VERTICALLY.
6. SEE LINTEL SCHEDULE FOR STEEL LINTELS. PROVIDE BOND BEAM MASONRY LINTELS OVER ALL WALL OPENINGS NOT SCHEDULED FOR STEEL LINTELS. BOND BEAM LINTELS SHALL BE 8" HIGH WITH TWO #5 BOTTOM BARS, U.N.O.
7. IN SINGLE WYTHE AND MULTI–WYTHE SOLID WALLS, STEEL LINTELS SHALL BE CENTERED ON THE WALL. IN MULTI–WYTHE CAVITY WALLS, STEEL LINTELS SHALL BE CENTERED ON THE CONCRETE MASONRY WYTHE AND THE BOTTOM PLATE FOR VENEER SUPPORT SHALL BE OFFSET AS REQUIRED.
8. STEEL BOTTOM PLATES SHALL BE WELDED TO BEAM SECTIONS TO CARRY MASONRY. PLATE WIDTH SHALL BE THE NOMINAL WALL THICKNESS MINUS 1". PLATE THICKNESS SHALL BE 1/4" FOR PLATES 12" AND LESS WIDE, AND 5/16" FOR PLATES WIDER THAN 12".
9. ALL LINTELS SHALL BEAR 8" EACH END, UNLESS A BEARING PLATE IS CALLED FOR ON THE PLANS.
10. GROUT MASONRY CORES DIRECTLY BELOW JOIST, BEAM AND LINTEL BEARINGS IN NEW AND EXISTING MASONRY A MINIMUM OF ONE COURSE, U.N.O.
11. PROVIDE VERTICAL CONTROL JOINTS AT THE FOLLOWING LOCATIONS:
    A. AS SHOWN ON THE PLANS
    B. IF CONTROL JOINTS ARE NOT SHOWN ON THE PLANS, LOCATE AS FOLLOWS:

1. INTERSECTIONS OF PERPENDICULAR WALLS
2. CHANGES IN WALL HEIGHT
3. CHANGES IN WALL THICKNESS
4. TRANSITION BETWEEN SLAB & FOOTING SUPPORTED WALLS
5. SPACED NO MORE THAN 25 FEET OR TWICE THE WALL HEIGHT APART, WHICHEVER IS LESS

12. DO NOT PLACE VERTICAL CONTROL JOINTS THROUGH BOND BEAM MASONRY LINTELS, OR WITHIN 16" OF A BEAM, LINTEL OR JOIST BEARING POINT.
13. ALL "CAST_IN" ANCHOR RODS FOR STRUCTURAL STEEL COLUMNS SHALL BE ASTM F1554, GRADE 36.
14. ALL FOUNDATION ANCHORS FOR WOOD CONSTRCUTION SHALL BE ASTM A307 STEEL, U.N.O. GALVANIZE TO G60 COATING PER ASTM A153 FOR EXTERIOR AND HIGH HUMIDITY LOCATIONS; GALVANIZE TO G185 COATING PER ASTM A153 FOR ITEMS IN CONTACT WITH PRESERVATIVE TREATED WOOD; PLAIN FINISH FOR ALL OTHER LOCATIONS.
15. DRILLED IN CONCRETE ANCHORS(DCA'S) FOR GROUTED MASONRY SHALL BE AS FOLLOWS:
    A. HILTI HEAVY DUTY "KWIK BOLTS"
    B. RAMSET/REDHEAD "DYNABOLT SLEEVE"
    C. POWERS/RAWL "POWERBOLT"
    D. SIMPSON STRONG–TIE "WEDGE–ALL"
    E. E APPROVED EQUAL
    PROVIDE STAINLESS STEEL OR GALVANIZED TO G185 COATING PER ASTM A153 FOR DCA'S IN CONTACT WITH PRESERVATIVE TREATED WOOD.
16. DRILLED IN CONCRETE ANCHORS(DCA'S) FOR HOLLOW MASONRY SHALL BE AS FOLLOWS:
    A. HILTI "SLEEVE ANCHORS"
    B. RAMSET/REDHEAD "DYNABOLT SLEEVE"
    C. POWERS/RAWL "LOK/BOLT"
    D. SIMPSON STRONG–TIE "SLEEVE–ALL"
    E. APPROVED EQUAL
    PROVIDE STAINLESS STEEL OR GALVANIZED TO G185 COATING PER ASTM A153 FOR DCA'S IN CONTACT WITH PRESERVATIVE TREATED WOOD.
17. NO FILL SHALL BE PLACED AGAINST CONCRETE MASONRY WALLS UNTIL MORTAR HAS REACHED 75% OF DESIGN STRENGTH OR UNTIL DIRECTED BY THE ARCHITECT.
18. ALL INTERSECTING MASONRY WALLS(LOAD AND NONLOADBEARING) SHALL BE ANCHORED OR BONDED TOGETHER BY ONE OF THE METHODS DESCRIBED IN THE 2006 MICHIGAN BUILDING CODE 2109.7.2.1 THROUGH 2109.7.2.5, U.N.O. MASONRY WALLS INTERSECTING A PERPENDICULAR WALL OF DIFFERENT MATERIAL SHALL BE ANCHORED TO THAT WALL BY MEANS OF STEEL CONNECTORS PER THE 2006 MICHIGAN BUILDING CODE 2109.7.2.2 OR 2109.7.2.5, U.N.O.
19. INTERIOR NONLOADBEARING MASONRY WALLS, WITH AN UNSUPPORTED LENGTH BETWEEN INTERSECTING PERPENDICULAR WALLS GREATER THAN 36 TIMES THE WALL THICKNESS, SHALL BE BRACED TO THE FLOOR OR ROOF STRUCTURE ABOVE AT INTERVALS NOT EXCEEDING 36 TIMES THE WALL THICKNESS, U.N.O.
20. ALL COLD WEATHER MASONRY WORK SHALL BE DONE IN ACCORDANCE WITH "IMIAWC: RECOMMENDED PRACTICES AND GUIDE SPECIFICATION FOR COLD WEATHER MASONRY CONSTRUCTION". THE "IMIAWC" PROVISIONS SHALL BE CONSIDERED TO BE MANDATORY.

CONCRETE NOTES

1. ALL REINFORCING STEEL SHALL CONFORM TO ASTM A615, GRADE 60. ALL WELDED WIRE FABRIC SHALL CONFORM TO ASTM A185 WITH MINIMUM LAPS OF 8".
2. PROVIDE CORNER BARS TO MATCH ALL HORIZONTAL REINFORCING IN WALLS AND FOOTINGS. ALL LAPS SHALL BE A MINIMUM OF 30 BAR DIAMETERS, U.N.O.
3. PROVIDE DOWELS BETWEEN ALL FOOTINGS, WALLS, AND PIERS TO MATCH SIZE AND SPACING OF VERTICAL REINFORCING. ALL LAPS SHALL BE A MINIMUM OF 30 BAR DIAMETERS, U.N.O.
4. ALL "CAST_IN" ANCHOR RODS FOR STRUCTURAL STEEL COLUMNS SHALL BE ASTM A307.
5. ALL FOUNDATION ANCHORS FOR WOOD CONSTRCUTION SHALL BE ASTM A307 STEEL, U.N.O. GALVANIZE TO G60 COATING PER ASTM A153 FOR EXTERIOR AND HIGH HUMIDITY LOCATIONS; GALVANIZE TO G185 COATING PER ASTM A153 FOR ITEMS IN CONTACT WITH PRESERVATIVE TREATED WOOD; PLAIN FINISH FOR ALL OTHER LOCATIONS.
6. ALL CONCRETE SHALL ATTAIN THE FOLLOWING 28 DAY COMPRESSIVE STRENGTHS:
   A. FOOTINGS, WALLS, PIERS........................3000 PSI
   B. SLABS ON GRADE OR METAL DECK......4000 PSI
7. PROVIDE AIR ENTRAINING FOR ALL CONCRETE EXCEPT INTERIOR SLABS AND INTERIOR FOOTINGS.
8. CONCRETE SHALL CONFORM TO THE FOLLOWING:
   A. ACI 301: SPECIFICATIONS FOR STRUCTURAL CONCRETE
   B. ACI 305: HOT WEATHER CONCRETING
   C. ACI 306: COLD WEATHER CONCRETING
9. NO FILL SHALL BE PLACED AGAINST CONCRETE WALLS UNTIL CONCRETE HAS REACHED 75% OF DESIGN STRENGTH OR UNTIL DIRECTED BY THE ARCHITECT.
10. DRILLED IN CONCRETE ANCHORS(DCA'S) SHALL BE AS FOLLOWS:
    A. HILTI HEAVY DUTY "KWIK BOLTS"
    B. RAMSET/REDHEAD "DYNABOLT SLEEVE"
    C. POWERS/RAWL "POWERBOLT"
    D. SIMPSON STRONG–TIE "WEDGE–ALL"
    E. APPROVED EQUAL
    PROVIDE STAINLESS STEEL OR GALVANIZED TO G185 COATING PER ASTM A153 FOR DCA'S IN CONTACT WITH PRESERVATIVE TREATED WOOD.
11. ALL EXPOSED EDGES OF CONCRETE SHALL BE CHAMFERED 3/4".
12. ELECTRICAL CONDUITS, PIPES, DRAINS, ETC. SHALL BE IN PLACE BEFORE CONCRETE IS PLACED.
13. REBAR SHOP DRAWINGS SHALL BE SUBMITTED TO THE ARCHITECT FOR APPROVAL PRIOR TO FABRICATION. ALL SHOP DRAWINGS SHALL BE PREPARED IN ACCORDANCE WITH THE LATEST EDITION OF THE ACI DETAILING MANUAL.

STRUCTURAL LOADS

1. DESIGN LOADS_IN ACCORDANCE WITH THE 2015 MICHIGAN BUILDING CODE & SEI/ASCE 7–10.
2. SNOW LOAD INFORMATION
   A. Pg=40 PSF
   B. Is=1.1(CATEGORY III)
   C. Ce=1.0(EXPOSURE B)
   D. Ct=1.0
   E. Pf=31 PSF=(40 PSF)(0.7)(1.1)(1.0)(1.0)
   UNBALANCED SNOW LOAD, DRIFT LOAD AND SLIDING SNOW LOAD CONDITIONS HAVE BEEN TAKEN INTO ACCOUNT FOR THE STRUCTURAL DESIGN – SEE DIAGRAM ON PLANS
3. WIND LOAD INFORMATION
   A. V=120 MPH
   B. Iw=1.0(CATEGORY III)
   C. EXPOSURE C
   D. GCpi=+0.18 & –0.18
   E. MWFS DESIGN PRESSURE = 18 PSF
   F. COMPONENTS & CLADDING DESIGN WIND PRESSURE=38 PSF
4. SEISMIC LOAD INFORMATION
   A. SEISMIC USE GROUP III(Ie=1.25)
   B. SPECTRAL RESPONSE ACCELERATIONS
      1. Ss=0.060g
      2. S1=0.039g
   C. SITE CLASS D
   D. SPECTRAL RESPONSE COEFFICIENTS
      1. Sds=0.064g
      2. Sd1=0.062g
   E. SEISMIC DESIGN CATEGORY A
   F. BASIC SEISMIC FORCE RESISTING SYSTEM=ORDINARY PLAIN MASONRY SHEAR WALLS
   G. DESIGN BASE SHEAR= 13,245 lb (PER 2015 MBC 1613.1)
   H. SEISMIC RESPONSE COEFFICIENT Cs=0.032
   I. RESPONSE MODIFICATION FACTOR R=2.5
   J. ANALYSIS PROCEDURE USED–EQUIVALENT LATERAL FORCE PROCEDURE PER 2015 MBC SECTION 1613.1

SITE PREP NOTES

1. REFER TO THE GEOTECHNICAL REPORT BY G2 CONSULTING GROUP. IN SPECIFICATION SECTION 02010–GEOTECHNICAL REPORT. THOSE PORTIONS OF THE GEOTECHNICAL REPORT INDICATED IN THESE "SITE PREPARATION NOTES" SHALL BE CONSIDERED REQUIRED WORK FOR THE PROJECT.
2. WITHIN THE BUILDING FOOTPRINT AND 5 FEET BEYOND, REMOVE ALL MATERIAL IDENTIFIED AS TOPSOIL AND EXISTING FILL BY THE GEOTECHNICAL REPORT (SEE SECTION SITE PREPARATION OF THE GEOTECHNICAL REPORT).
3. FOOTINGS ARE DESIGNED TO BEAR ON NATURAL MATERIALS/ENGINEERED FILL WITH A NET ALLOWABLE BEARING CAPACITY OF 400 PSF AS DESCRIBED IN THE FOUNDATION RECOMMENDATIONS OF THE GEOTECHNICAL REPORT(CONTRACTOR TO VERIFY BY QUALIFIED TESTING AGENCY IN THE FIELD). IF MATERIAL OF THIS CAPACITY IS NOT FOUND AT THE ELEVATIONS INDICATED, FOOTINGS SHALL BE LOWERED OR ENLARGED AT THE DIRECTION OF THE ARCHITECT.
4. TO ACHIEVE PROPER GRADE FOR THE BUILDING, STRUCTURAL FILL SHALL BE PROVIDED AS DESCRIBED IN THE GEOTECHNICAL REPORT.
5. THE FINAL 6" OF SOIL DIRECTLY BELOW FLOOR SLABS SHALL BE WELL GRADED MATERIAL COMPACTED TO 95% OF MODIFIED PROCTOR AS DESCRIBED IN THE FLOOR SLAB SECTION OF THE GEOTECHNICAL REPORT.
6. DO NOT UNDERMINE THE EXISTING FOUNDATIONS WHEN EXCAVATING ADJACENT TO THE EXISTING BUILDING. SHOULD IT BECOME NECESSARY TO EXCAVATE TO AN ELEVATION BELOW THE EXISTING FOOTINGS, THE EXCAVATION CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING & DESIGNING TEMPORARY SHORING OF EXISTING FOOTINGS, OR OTHER MEANS OF SAFEGUARDING THE EXISTING FOUNDATIONS.
7. THE GEOTECHNICAL REPORT CONSTITUTES ALL INFORMATION AVAILABLE REGARDING SUBSURFACE CONDITIONS. THE CONTRACTOR SHALL READ AND BECOME FAMILIAR WITH THE GEOTECHNICAL REPORT, WITH PARTICULAR REGARD FOR THE IMPACT OF SUBSURFACE CONDITIONS ON THE CONSTRUCTION PROCESS. ANY MEASURES NECESSARY TO FACILITATE THE CONSTRUCTION PROCESS ITSELF, INCLUDING, BUT NOT LIMITED TO, TEMPORARY SHORING OF EXCAVATIONS AND TEMPORARY DEWATERING, SHALL BE THE CONTRACTOR'S RESPONSIBILITY AND SHALL BE INCLUDED IN THE BID PRICE.

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BEAL CITY
2024 BOND WORK - PHASE 2
MT. PLEASANT, MICHIGAN
PROJECT NO. 22-037

NO.	REVISIONS	DATE
A	FINAL REVIEW	03.14.25
0	FOR CONSTUCTION	03.27.25
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	BY	DATE
DESIGN	NPC	06.14.23
DRAWN	NPC	06.14.23
CHECKED	NPC	---
APPROVED	NPC	---

GENERAL STRUCTURAL NOTES
AND
QUALITY ASSURANCE TABLES

RS0.1

TABLE 1.19.2
LEVEL C REQUIRED VERIFICATION AND INSPECTION OF MASONRY CONSTRUCTION

VERIFICATION AND INSPECTION	FREQUENCY OF INSPECTION		REFERENCE FOR CRITERIA		
	CONTINUOUS	PERIODIC	IBC SECTION	TMS 402/ACI 530/ASCE 5	TMS 602/ACI 530.1/ASCE 6
1. VERIFY COMPLIANCE WITH THE APPROVED SUBMITTALS.	-	X	-	-	ART 1.5
2. VERIFICATION OF f'm AND f'aac PRIOR TO CONSTRUCTION EXCEPT WHERE SPECIFICALLY EXEMPTED BY THIS CODE.	-	X	-	-	ART 1.4B
3. VERIFICATION OF SLUMP FLOW AND VSI AS DELIVERED TO THE SITE FOR SELF-CONSOLIDATING GROUT.	X	-	-	-	ART 1.5B.1.b.3
4. THE FOLLOWING SHALL BE VERIFIED TO ENSURE COMPLIANCE:					
a. PROPORTIONS OF SITE-PREPARED MORTAR	-	X	-	-	ART 2.1, 2.6A
b. GRADE AND SIZE OF PRESTRESSING TENDONS AND ANCHORAGES	-	X	-	-	ART 2.4B, 2.4H
c. PLACEMENT OF MASONRY UNITS AND CONSTRUCTIONS OF MORTAR JOINTS	-	X	-	-	ART 3.3B
d. LOCATION OF REINFORCEMENT, CONNECTORS, AND PRESTRESSING TENDONS AND ACHORAGES	-	X	-	-	ART 3.4, 3.6A
e. PRESTRESSING TECHNIQUE	-	X	-	-	ART 3.6B
f. PROPERTIES OF THIN-BED MORTAR FOR AAC MASONRY	$X^{(a)}$	$X^{(b)}$	-	-	ART 2.1C
3. PRIOR TO GROUTING, VERIFY THAT THE FOLLOWING ARE IN COMPLIANCE:					
a. GROUT SPACE	-	X	-	-	ART 3.2D, 3.2F
b. GRADE, TYPE, AND SIZE OF REINFORCEMENT AND ANCHOR BOLTS, AND PRESTRESSING TENDONS AND ACNHORAGES	X	-	-	SEC 1.16	ART 2.4, 3.4
c. PLACEMENT OF REINFORCEMENT, CONNECTORS, AND PRESTRESSING TENDONS AND ANCHORAGES	-	X	-	SEC. 1.16	ART. 3.2E, 3.4, 3.6A
d. PROPORTIONS OF SITE-PREPARED GROUT AND PRESTRESSING GROUT FOR BONDED TENDONS	-	X	-	-	ART 2.6B, 2.4G.1.b
e. CONSTRUCTION OF MORTAR JOINTS	-	X	-	-	ART 3.3B
4. VERIFY DURING CONSTRUCTION:					
a. SIZE AND LOCATION OF STRUCTURAL ELEMENTS	-	X	-	-	ART 3.3F
b. SIZE, TYPE AND LOCATION OF ANCHORS, INCLUDEING OTHER DETAILS OF ANCHORAGE OF MASONRY TO STRUCTURAL MEMBERS, FRAMES, OR OTHER CONSTRUCTION	-	X	-	SEC 1.16.4.3, 1.17.1	-
c. WELDING OF REINFORCEMENT	X	-	-	SEC 2.1.7.7.2, 3.3.3.4(c), 8.3.3.4(b)	-
d. PREPARATION, CONSTRUCTION, AND PROTECTION OF MASONRY DURING COLD WEATHER (TEMPERATURE BELOW 40°F (4.4°C)) OR HOT WEATHER (TEMPERATURE ABOVE 90°F (32.2°C))	-	X	-	-	ART 1.8C, 1.8D
e. APPLICATION AND MEASUREMENT OF PRESTRESSING FORCE	X	-	-	-	ART 3.6B
f. PLACEMENT OF GROUT AND PRESTRESSING GROUT FOR BONDED TENDONS IS IN COMPLIANCE	X	-	-	-	ART 3.5,3.6C
g. PLACEMENT OF AAC MASONRY UNITS AND CONSTRUCTION OF THIN-BED MORTAR JOINTS	$X^{(a)}$	$X^{(b)}$	-	-	ART 2.1C
5. OBSERVE PREPARATION OF GROUT SPECIMENS, MORTAR SPECIMENS, AND/OR PRISMS	-	X	-	-	ART 1.4B.2.a.3, 1.4B.2.b.3, 1.4B.2.c.3,1.4B.3, 1.4B.4

(a) REQUIRED FOR THE FIRST 5000 SQAURE FEET (465 SQUARE METERS) OF AAC MASONRY.

(b) REQUIRED AFTER THE FIRST 5000 SQAURE FEET (465 SQUARE METERS) OF AAC MASONRY.

TABLE 1705.6
REQUIRED VERIFICATION AND INSPECTION OF SOILS

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

TABLE 1705.2
REQUIRED VERIFICATION AND INSPECTION OF STEEL CONSTRUCTION

VERIFICATION AND INSPECTION	CONTINUOUS	PERIODIC	REFERENCED STANDARD	IBC REFERENCED
1. MATERIAL VERIFICATION OF STRUCTURAL STEEL	-	X		
2. INSPECTION TASKS FOR STRUCTURAL STEEL WELDING:				
a. PRIOR TO WELDING (OBSERVE, OR PERFORM FOR EACH WELDED JOINT OR MEMBER, THE QA TASKS LISTED IN AISC 360 TABLE N5.4-1)	SEE REFERENCED TABLE	SEE REFERENCED TABLE	AISC 360, SECTION N5.4 TABLE N5.4-1, AISC N5.4	
b. DURING WELDING (OBSERVE, OR PERFORM FOR EACH WELDED JOINT OR MEMBER, THE QA TASKS LISTED IN AISC 360 TABLE N5.4-2)	SEE REFERENCED TABLE	SEE REFERENCED TABLE	AISC 360, SECTION N5.4 TABLE N5.4-2, AISC N5.4	
c. AFTER WELDING (OBSERVE, OR PERFORM FOR EACH WELDED JOINT OR MEMBER, THE QA TASKS LISTED IN AISC 360 TABLE N5.4-3)	SEE REFERENCED TABLE	SEE REFERENCED TABLE	AISC 360, SECTION N5.4 TABLE N5.4-3, AISC N5.4	
d. NONDESTRUCTIVE TESTING (NDT) OF WELDED JOINTS:				
1) COMPLETE PENETRATION GROOVE WELDS $\frac{5}{16}$" OR GREATER IN RISK CATEGORY III OR IV	-	X	AISC 360, SECTION N5.5, AISC N5.5	
2) COMPLETE PENETRATION GROOVE WELDS $\frac{5}{16}$" OR GREATER IN RISK CATEGORY II	-	X		
3) THERMALLY CUT SURFACES OF ACCESS HOLES WHEN MATERIAL t > 2"	-	X		
4) WELDED JOINTS SUBJECTED TO FATIGUE WHEN REQUIRED BY AISC 360, APPENDIX 3, TABLE A-3.1	-	X	AISC 360, APPENDIX 3	
5) MANUFACTURERS NDT REPORTS WHEN PERFORMED	-	X		
2. INSPECTION TASKS FOR STRUCTURAL STEEL BOLTING:				
a. PRIOR TO BOLTING (OBSERVE, OR PERFORM TASKS FOR EACH BOLTED CONNECTION, IN ACCORDANCE WITH QA TASKS LISTED IN AISC 360, TABLE N5.6-1)	SEE REFERENCED TABLE	SEE REFERENCED TABLE	AISC 360, SECTION N5.6 TABLE N5.6-2, AISC N5.6	
b. DURING BOLTING (OBSERVE THE QA TASKS LISTED IN AISC 360, TABLE N5.6-2)	SEE REFERENCED TABLE	SEE REFERENCED TABLE	AISC 360, SECTION N5.6 TABLE N5.6-2, AISC N5.6	
1) PRETENSIONED AND SLIP-CRITICAL JOINTS USING TURN-OF-NUT WITH MATCHMARKING, TWIST-OFF BOLT OR DIRECT TENSION INDICATOR METHODS OF INSTALLATION.	-	X	AISC 360, SECTION M2.5	
2) PRETENSIONED AND SLIP-CRITICAL JOINTS USING TURN-OF-NUT WITHOUT MATCHMARKING OR CALIBRATED WRENCH METHODS OF INSTALLATION.	X	-		
3) SNUG TIGHT JOINTS.	-	X		
c. AFTER BOLTING (PERFORM TASKS FOR EACH BOLTED CONNECTION IN ACCORDANCE WITH QA TASKS LISTED IN AISC 360, TABLE N5.6-3)	SEE REFERENCED TABLE	SEE REFERENCED TABLE	AISC 360, SECTION N5.6 TABLE N5.6-3, AISC N5.6	
3. REINFORCING STEEL:				
a. VERIFICATION OF WELDABILITY OF REINFORCING STEEL OTHER THAN ASTM A 706.	-	X		
2) REINFORCING STEEL RESISTING FLEXURAL AND AXIAL FORCES IN INTERMEDIATE AND SPECIAL MOMENT FRAMES, AND BOUNDARY ELEMENTS OF SPECIAL STRUCTURAL WALLS OF CONCRETE AND SHEAR REINFORCEMENT.	X	-		
3) SHEAR REINFORCEMENT.	X	-		
4) OTHER REINFORCING STEEL.	-	X		
4. INSPECTION OF STEEL FRAME JOINT DETAILS FOR COMPLIANCE:				
a. DETAILS SUCH AS BRACING AND STIFFENING.	-	X		
b. MEMBER LOCATIONS.	X	-		
c. APPLICATION OF JOINT DETAILS AT EACH CONNECTION.	-	X		
5. MATERIAL VERIFICATION OF COLD-FORMED STEEL DECK:				
a. IDENTIFICATION MARKINGS	-	X		
b. MANUFACTURERS CERTIFIED TEST REPORTS	-	X		
6. CONNECTION OF COLD-FORMED DECK TO SUPPORTING STRUCTURE:				
a. WELDING	-	X		
b. OTHER FASTENERS				
1) VERIFY FASTENERS ARE IN CONFORMANCE WITH APPROVED SUBMITTAL	-	X	AISC 360, SECTION N6	
2) VERIFY FASTENER INSALLATION IS IN CONFORMANCE WITH APPROVED SUBMITTAL AND MANUFACTURER'S RECOMMENDATIONS	-	X		

TABLE 1705.3
REQUIRED VERIFICATION AND INSPECTION OF CONCRETE CONSTRUCTION

VERIFICATION AND INSPECTION	CONTINUOUS	PERIODIC	REFERENCED STANDARD	IBC REFERENCED
1. INSPECTION OF REINFORCEMENT, INCLUDING PRESTRESSING TENDONS, AND VERIFY PLACEMENT	-	X	ACI 318: CH. 20, 25.2, 25.3, 26.6.1-26.6.3	1908.4
2. REINFORCING BAR WELDING:				
a. VERIFY WELDABILITY OF REINFORCING BARS OTHER THAN ASTM A706	-	X	AWS D1.4 ACI 318: 26.6.4	
b. INSPECT SINGLE-PASS FILLET WELDS, MAXIMUM $\frac{5}{16}$"; AND	-	X		
c. INSPECT ALL OTHER WELDS.	X	-		
3. INSPECT ANCHORS CAST IN CONCRETE	-	X	ACI 318: 17.8.2	
4. INSPECT ANCHORS POST-INSTALLED IN HARDENED CONCRETE MEMBERS.				
a. ADHESIVE ANCHORS INSTALLED IN HORIZONTALLY OR UPWARDLY INCLINED ORIENTATIONS TO RESIST SUSTAINED TENSION LOADS.	X	-	ACI 318: 17.8.2.4	
b. MECHANICAL ANCHORS AND ADHESIVE ANCHORS NOT DEFINED IN 4.a.	-	X	ACI 318: 17.8.2	
5. VERIFY USE OF REQUIRED DESIGN MIX.	-	X	ACI 318: CH. 19, 26.4.3, 26.4.4	1904.1, 1904.2, 1908.2, 1908.3
6. PRIOR TO CONCRETE PLACEMENT, FABRICATE SPECIMENS FOR STRENGTH TESTS, PERFORM SLUMP AND AIR CONTENT TESTS, AND DETERMINE THE TEMPERATURE OF THE CONCRETE.	X	-	ASTM C 172, ASTM C 31 ACI 318: 26.4, 26.12	1908.10
7. INSPECT CONCRETE AND SHOTCRETE PLACEMENT FOR PROPER APPLICATION TECHNIQUES.	X	-	ACI 318: 26.5	1908.6, 1908.7, 1908.8
8. VERIFY MAINTENANCE OF SPECIFIED CURING TEMPERATURE AND TECHNIQUES.	-	X	ACI 318: 26.5.3-26.5.5	1908.9
9. INSPECT PRESTRESSED CONCRETE FOR:				
a. APPLICATION OF PRESTRESSING FORCES; AND	X	-	ACI 318: 26.10	
b. GROUTING OF BONDED PRESTRESSING TENDONS.	X	-		
10. ERECTION OF PRECAST CONCRETE MEMBERS.	-	X	ACI 318: CH 26.8	
11. VERIFICATION OF IN-SITU CONCRETE STRENGTH, PRIOR TO STRESSING OF TENDONS IN POST-TENSIONED CONCRETE AND PRIOR TO REMOVAL OF SHORES AND FORMS FROM BEAMS AND STRUCTURAL SLABS.	-	X	ACI 318: 26.11.2	
12. INSPECT FORMWORK FOR SHAPE, LOCATION AND DIMENSIONS OF CONCRETE BEING FORMED.	-	X	ACI 318: 26.11.1.2(b)	

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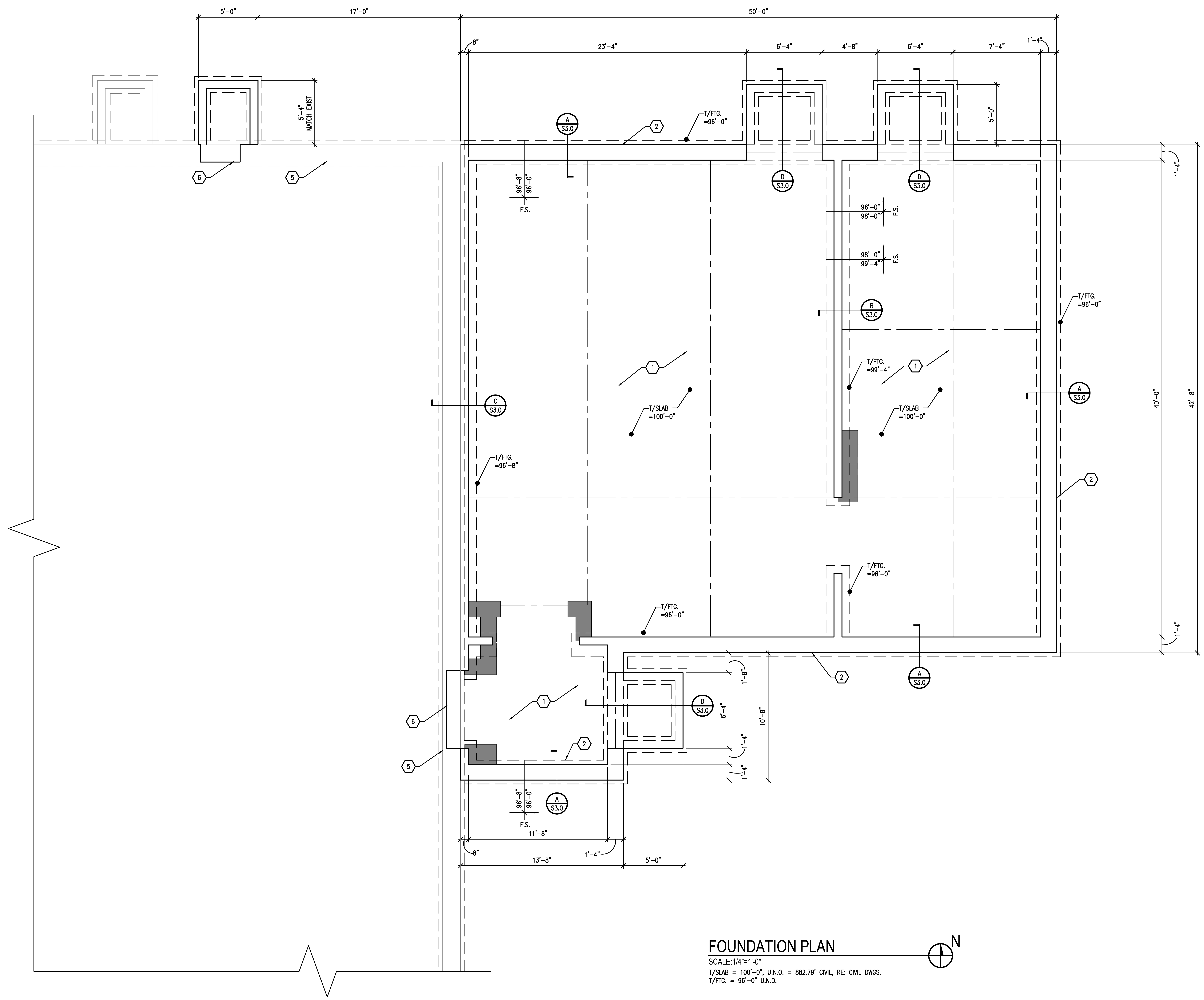
QUALITY CONTROL
TABLES

RS0.2



FOUNDATION PLAN

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

T/SLAB = 100'-0", U.N.O. = 882.79' CIVIL, RE: CIVIL DWGS.
T/FTG. = 96'-0" U.N.O.

⬡ KEYNOTES ⬡

1. 4" CONC. GRADE SLAB W/ WWF, 6x6–W1.4xW1.4 IN TOP $\frac{1}{3}$ OF SLAB ON 6 MIL VAPOR BARRIER ON 6" COMPACTED GRANULAR FILL.
2. 16" REINF. CONC. FOUNDATION WALL W/ CONT. 12"x24" REINF. CONC. FOOTING.
3. 8" CMU WALL W/ CONT. 12"x24" REINF. CONC. FOOTING.
4. 8" REINF. CONC. FOUNDATION WALL W/ CONT. REINF. CONC. FOOTING.
5. EXISTING FOUNDATION SYSTEM.
6. DEMO EXISTING FOUNDATION WALL DOWN 8" BELOW T/SLAB AND POUR NEW SLAB OVER TOP AT THRESHOLD.

LEGEND

F.S.	FOOTING STEP
T/	"TOP OF"
EXIST.	EXISTING
F–x	FOOTING MARK
T.S.	THICKENED SLAB ▨
TYP.	TYPICAL
C.J.	CONTROL/CONSTRUCTION JOINT
SIM.	SIMILAR
T/S	TOP OF STEEL
F.V.	FIELD VERIFY
N.T.S.	NOT TO SCALE
U.N.O.	UNLESS NOTED OTHERWISE

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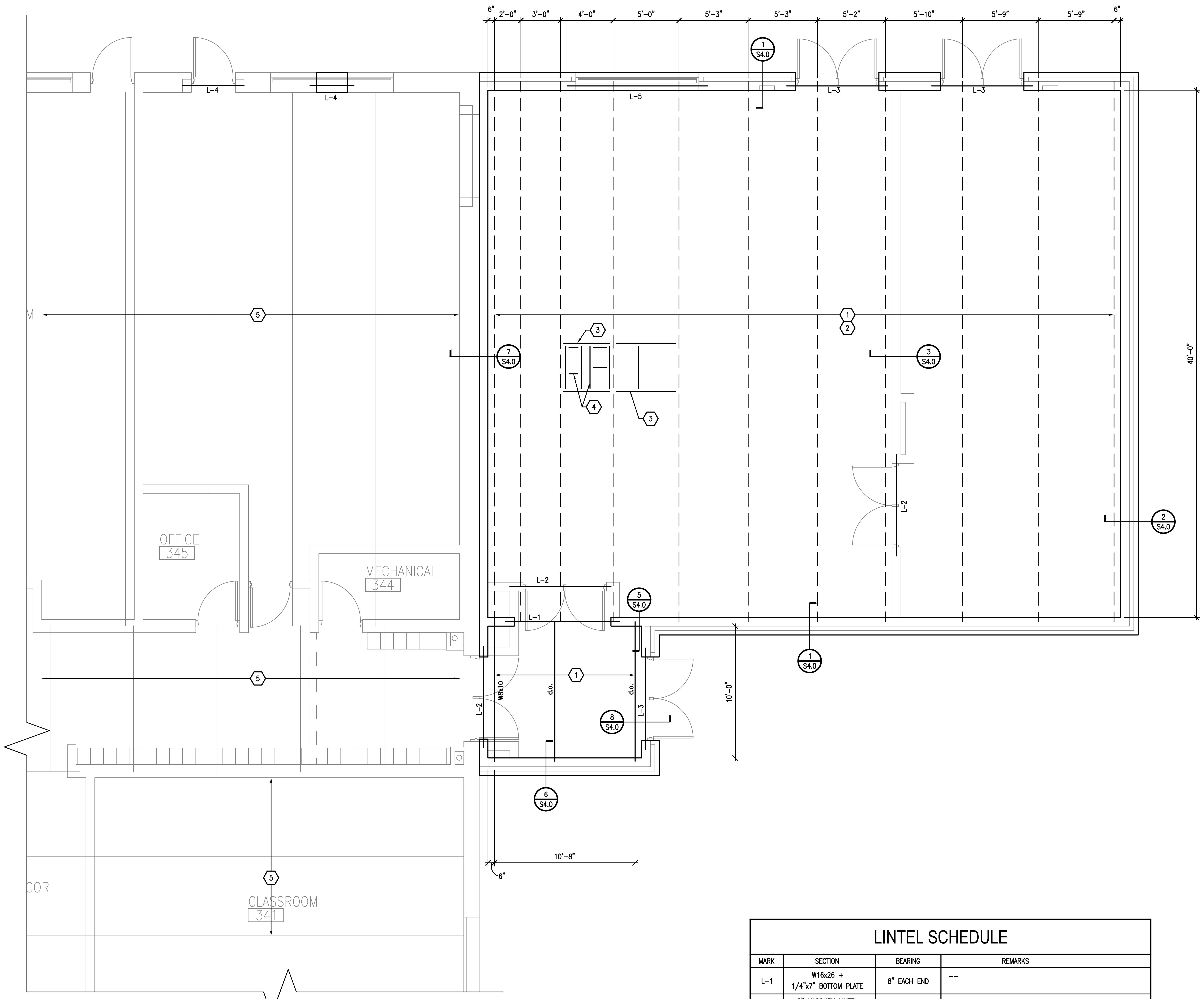
FOUNDATION PLAN

RS1.0



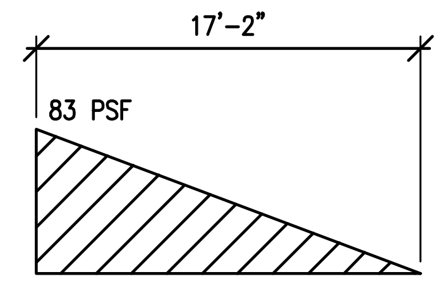
FRAMING PLAN

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

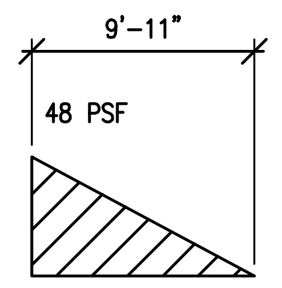
KEYNOTES

1. 1 1/2" 22 GAGE, WIDE RIB PAINTED STEEL ACCOUSTICAL ROOF DECK W/ GLASS FIBER ABSORBING BATTS, MINIMUM 3 SPANS CONTINUOUS, FASTEN TO SUPPORT MEMBERS W/ #12 TEK SCREWS @ 36/5 AND (4) #10 SIDELAP FASTENERS EVENLY SPACED.
2. 24LH06 STEEL JOIST W/ 2 ROWS OF WELDED HORIZONTAL BRIDGING.
3. PROVIDE ANGLE FRAMING AT MECH. RTU, COORD. LOCATION W/ MECH. DWGS. & MECH. CONTRACTOR. RE: TYPICAL JOIST REINFORCING DETAIL.
4. ANGLE FRAMING AT ROOF PENETRATION PER "STEEL NOTES" #11.
5. EXIST. ROOF STRUCTURE.

DRIFT SNOW LOAD FROM EXIST.



DRIFT SNOW LOAD FROM ADD.



LINTEL SCHEDULE

MARK	SECTION	BEARING	REMARKS
L-1	W16x26 + 1/4"x7" BOTTOM PLATE	8" EACH END	--
L-2	8" MASONRY LINTEL W/ (2) #5 CONT.	12" EACH END	--
L-3	16" MASONRY LINTEL W/ (2) #5 CONT.	12" EACH END	L6x3 1/2"x5/16" BRICK LEDGER AT EXTERIOR CONDITION
L-4	W8x10 + 1/4"x17" BOTTOM PLATE	8" EACH END	PROVIDE 1/4" TRIANGULAR STIFFENERS @ 24" O.C. FROM BOTTOM PL TO WEB.
L-5	24" MASONRY LINTEL W/ (4) #5 CONT.	12" EACH END	L6x3 1/2"x5/16" BRICK LEDGER AT EXTERIOR CONDITION

LEGEND

T/	"TOP OF"
EXIST.	EXISTING
F-x	FOOTING MARK
TYP.	TYPICAL
STEEL JOIST	— — — —
BEAM/LINTEL	———
L-x	LINTEL MARK
HORIZONTAL BRIDGING	———
CROSS BRIDGING	✕
J.B.	JOIST BEARING ELEVATION
O.H.	OPPOSITE HAND
SIM.	SIMILAR
T/S	TOP OF STEEL
F.V.	FIELD VERIFY
N.T.S.	NOT TO SCALE
U.N.O.	UNLESS NOTED OTHERWISE

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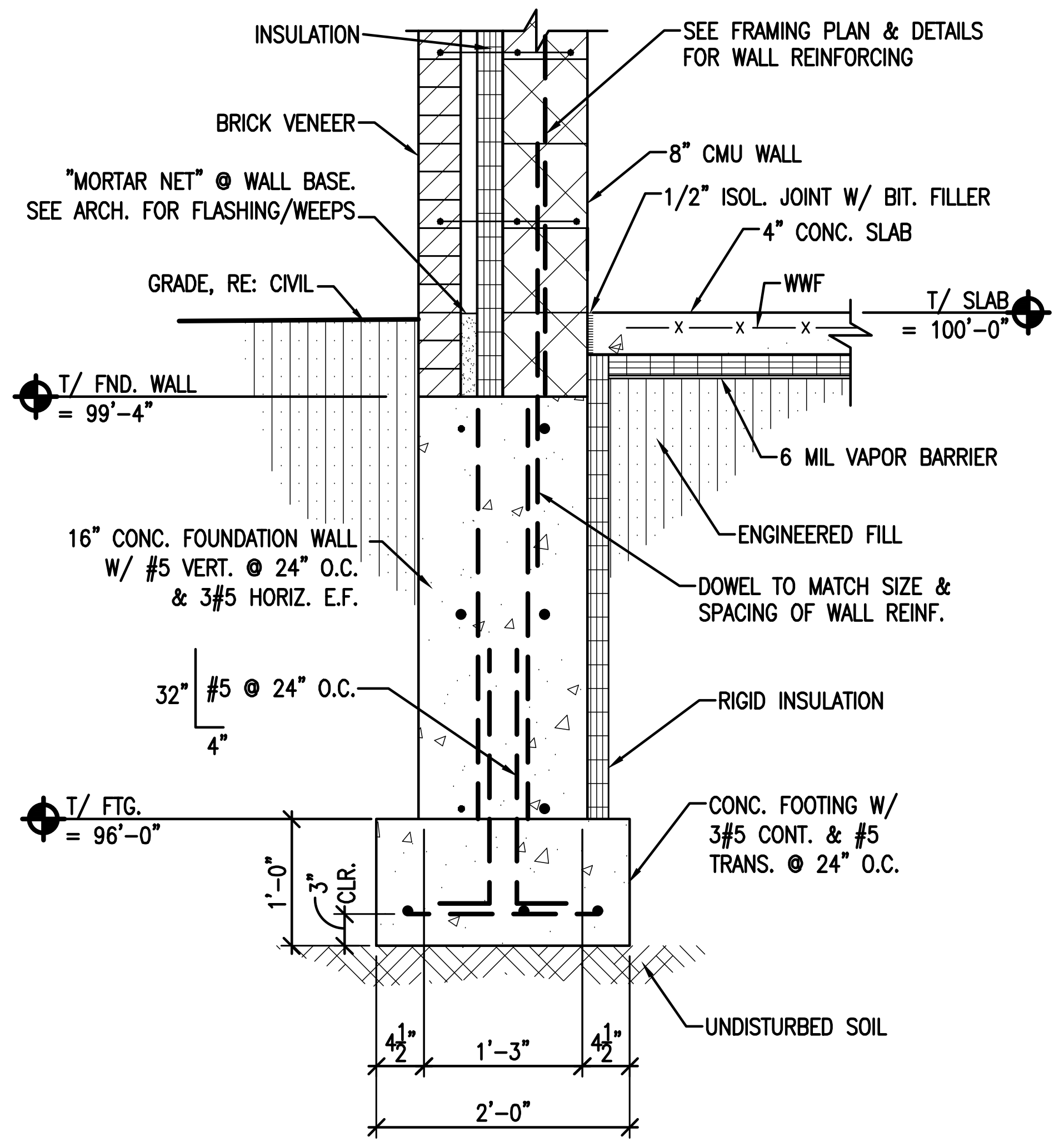
FRAMING PLAN

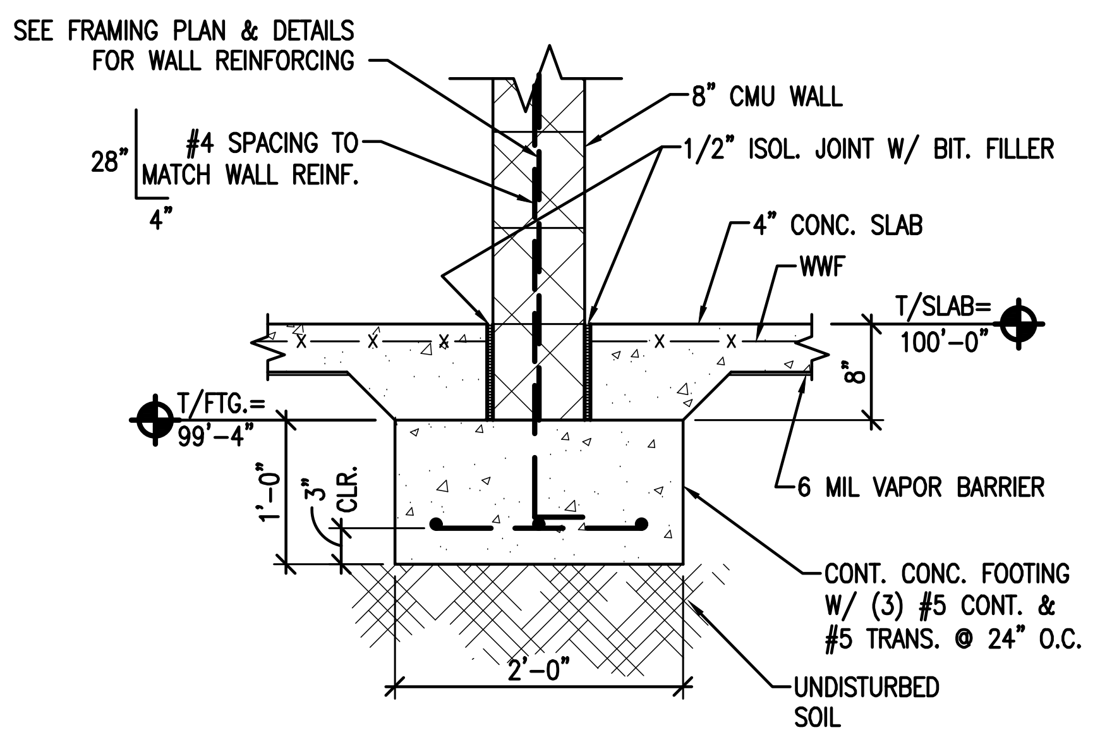
RS2.0


INSULATION
SEE FRAMING PLAN & DETAILS FOR WALL REINFORCING
BRICK VENEER
8" CMU WALL
"MORTAR NET" @ WALL BASE. SEE ARCH. FOR FLASHING/WEEPS
1/2" ISOL. JOINT W/ BIT. FILLER
4" CONC. SLAB
GRADE, RE: CIVIL
WWF
T/ SLAB = 100'-0"
T/ FND. WALL = 99'-4"
6 MIL VAPOR BARRIER
ENGINEERED FILL
16" CONC. FOUNDATION WALL W/ #5 VERT. @ 24" O.C. & 3#5 HORIZ. E.F.
DOWEL TO MATCH SIZE & SPACING OF WALL REINF.
32"
#5 @ 24" O.C.
4"
RIGID INSULATION
T/ FTG. = 96'-0"
CONC. FOOTING W/ 3#5 CONT. & #5 TRANS. @ 24" O.C.
1'-0"
3" CLR.
UNDISTURBED SOIL
4½"
1'-3"
4½"
2'-0"

DETAIL

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

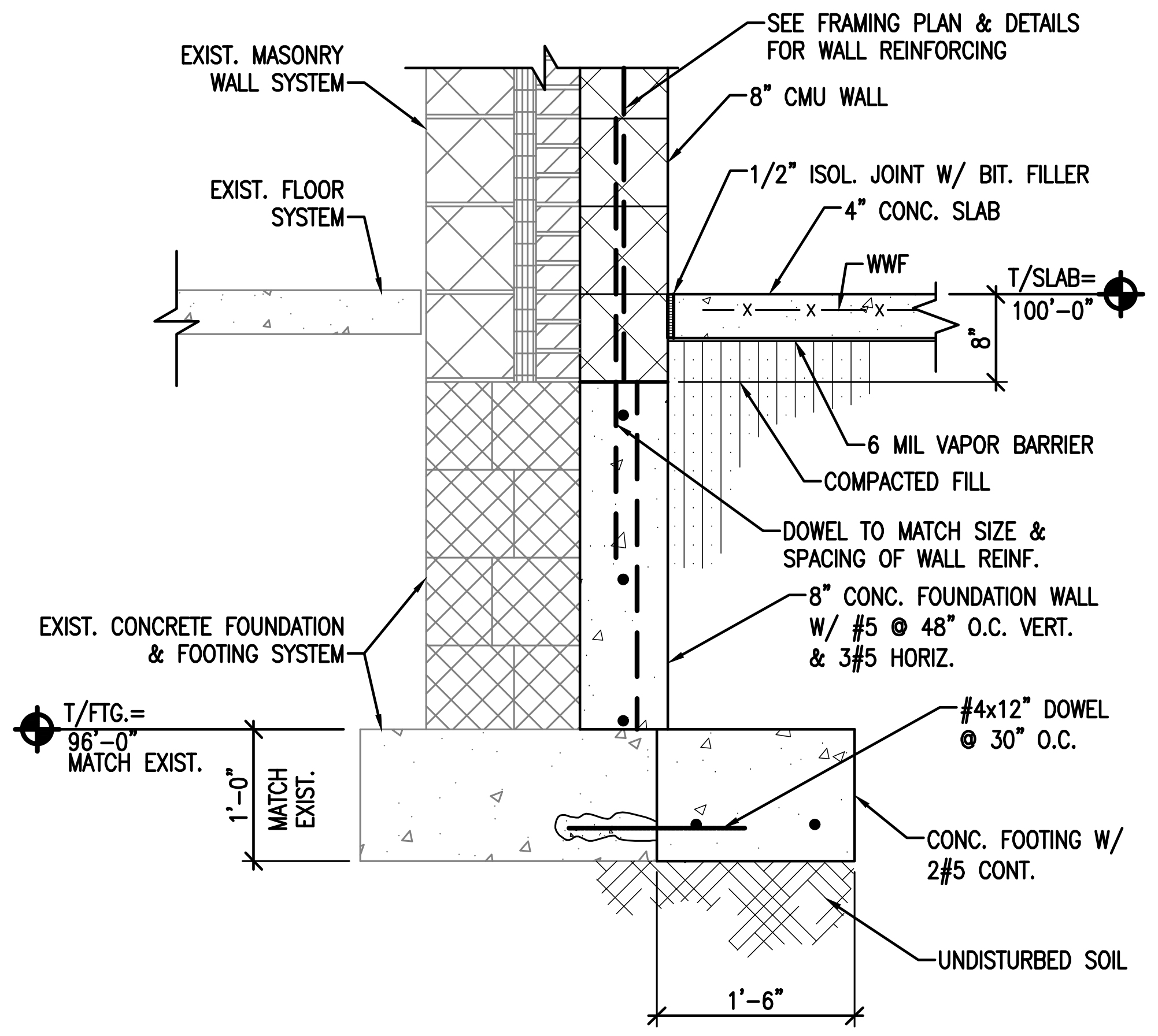
A
S1.0


SEE FRAMING PLAN & DETAILS FOR WALL REINFORCING
8" CMU WALL
28"
#4 SPACING TO MATCH WALL REINF.
4"
1/2" ISOL. JOINT W/ BIT. FILLER
4" CONC. SLAB
WWF
T/SLAB= 100'-0"
8"
T/FTG.= 99'-4"
6 MIL VAPOR BARRIER
1'-0"
3" CLR.
CONT. CONC. FOOTING W/ (3) #5 CONT. & #5 TRANS. @ 24" O.C.
2'-0"
UNDISTURBED SOIL

DETAIL

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

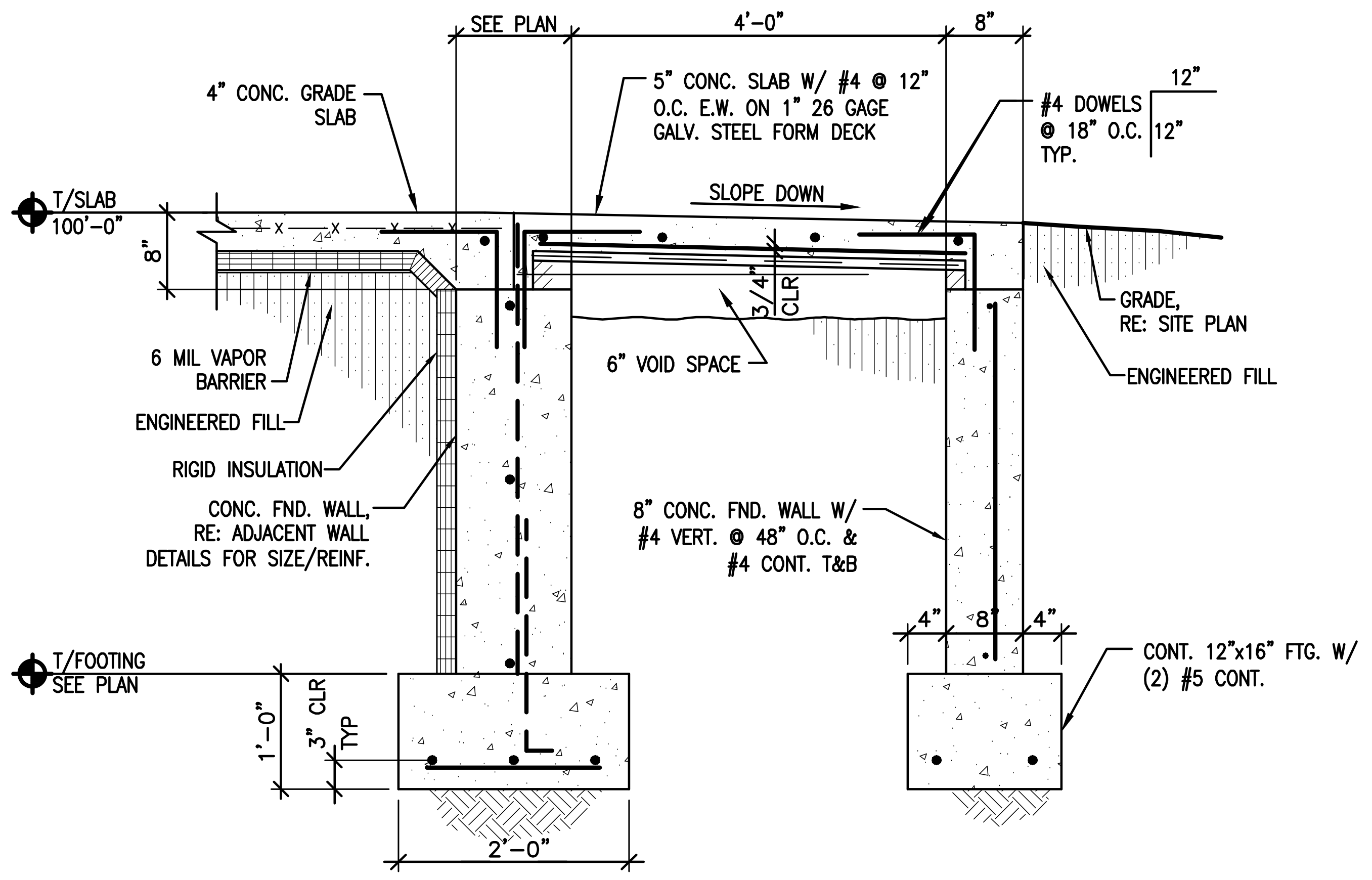
B
S1.0


EXIST. MASONRY WALL SYSTEM
SEE FRAMING PLAN & DETAILS FOR WALL REINFORCING
8" CMU WALL
EXIST. FLOOR SYSTEM
1/2" ISOL. JOINT W/ BIT. FILLER
4" CONC. SLAB
WWF
T/SLAB= 100'-0"
8"
6 MIL VAPOR BARRIER
COMPACTED FILL
DOWEL TO MATCH SIZE & SPACING OF WALL REINF.
8" CONC. FOUNDATION WALL W/ #5 @ 48" O.C. VERT. & 3#5 HORIZ.
EXIST. CONCRETE FOUNDATION & FOOTING SYSTEM
T/FTG.= 96'-0" MATCH EXIST.
#4x12" DOWEL @ 30" O.C.
1'-0"
MATCH EXIST.
CONC. FOOTING W/ 2#5 CONT.
UNDISTURBED SOIL
1'-6"

DETAIL

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

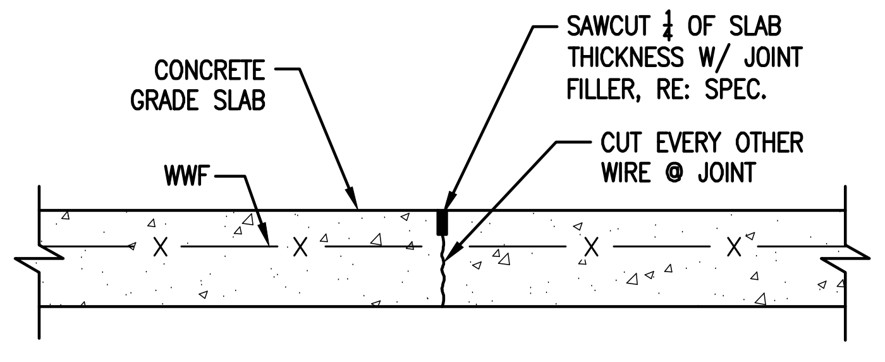
C
S1.0


SEE PLAN
4'-0"
8"
4" CONC. GRADE SLAB
5" CONC. SLAB W/ #4 @ 12" O.C. E.W. ON 1" 26 GAGE GALV. STEEL FORM DECK
#4 DOWELS @ 18" O.C. TYP.
12"
12"
SLOPE DOWN
T/SLAB 100'-0"
8"
3/4" CLR
6 MIL VAPOR BARRIER
6" VOID SPACE
GRADE, RE: SITE PLAN
ENGINEERED FILL
ENGINEERED FILL
RIGID INSULATION
CONC. FND. WALL, RE: ADJACENT WALL DETAILS FOR SIZE/REINF.
8" CONC. FND. WALL W/ #4 VERT. @ 48" O.C. & #4 CONT. T&B
4"
8"
4"
T/FOOTING SEE PLAN
CONT. 12"x16" FTG. W/ (2) #5 CONT.
1'-0"
3" CLR TYP
2'-0"

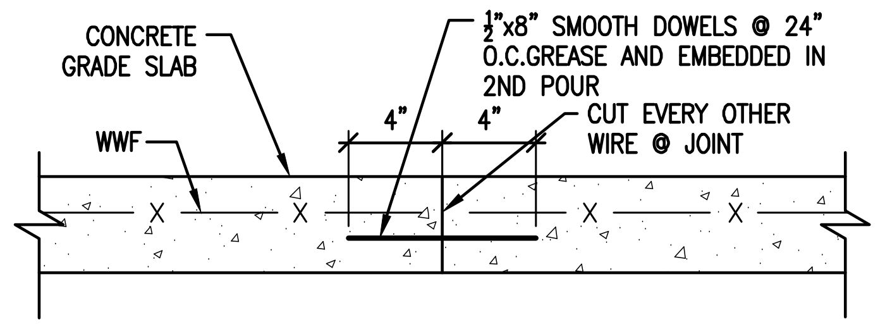
DETAIL

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

D
S1.0


CONCRETE GRADE SLAB
SAWCUT ¼ OF SLAB THICKNESS W/ JOINT FILLER, RE: SPEC.
CUT EVERY OTHER WIRE @ JOINT
WWF

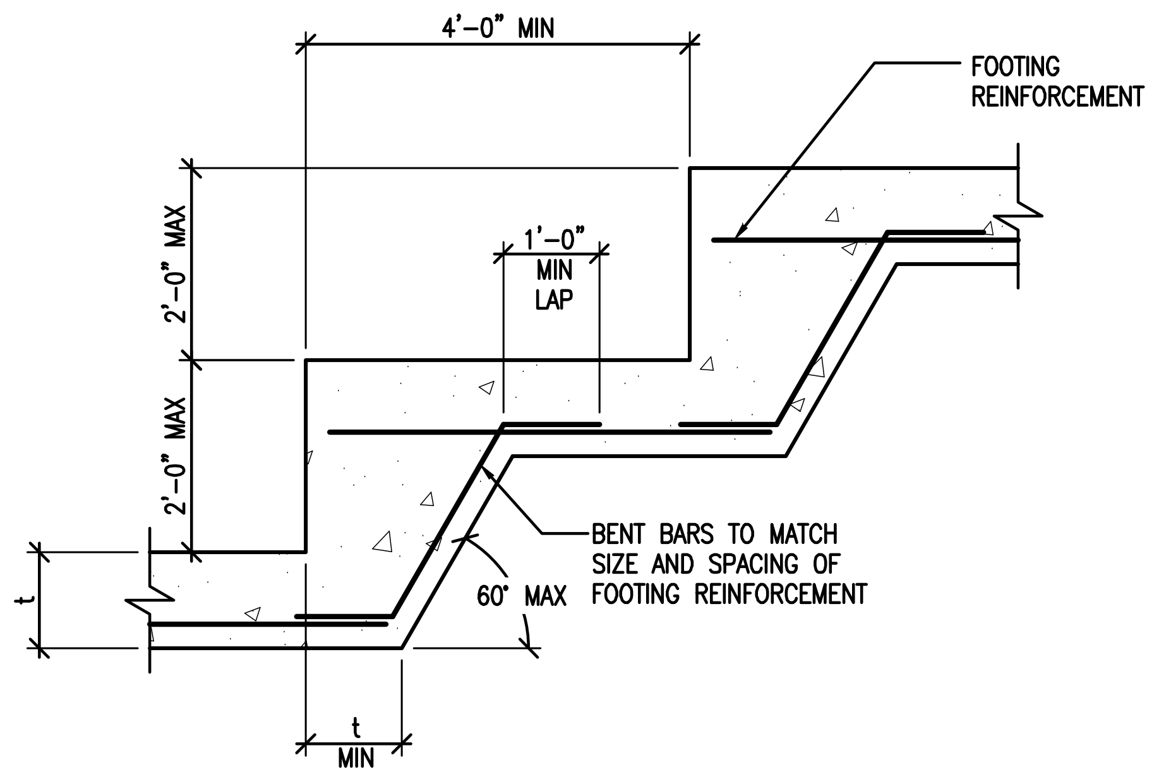
CONTROL JOINT


CONCRETE GRADE SLAB
½"x8" SMOOTH DOWELS @ 24" O.C.GREASE AND EMBEDDED IN 2ND POUR
4"
4"
CUT EVERY OTHER WIRE @ JOINT
WWF

CONSTRUCTION JOINT

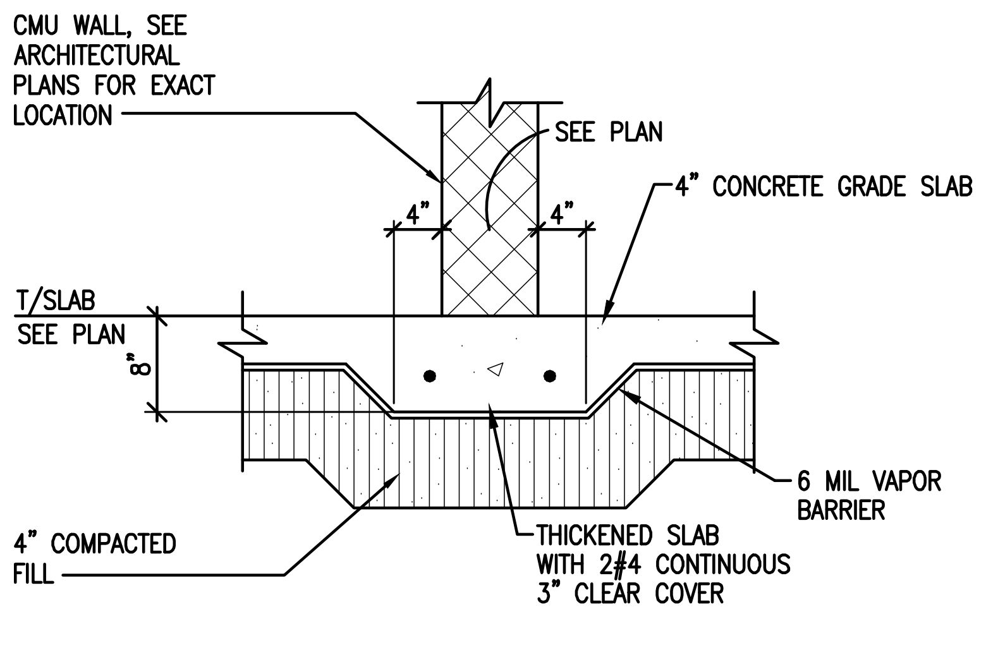
CONTROL/ CONSTRUCTION JOINTS

NO SCALE



FOOTING STEP DETAIL

NO SCALE


CMU WALL, SEE ARCHITECTURAL PLANS FOR EXACT LOCATION
SEE PLAN
4" CONCRETE GRADE SLAB
4"
4"
T/SLAB SEE PLAN
8"
6 MIL VAPOR BARRIER
4" COMPACTED FILL
THICKENED SLAB WITH 2#4 CONTINUOUS 3" CLEAR COVER

THICKENED SLAB

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

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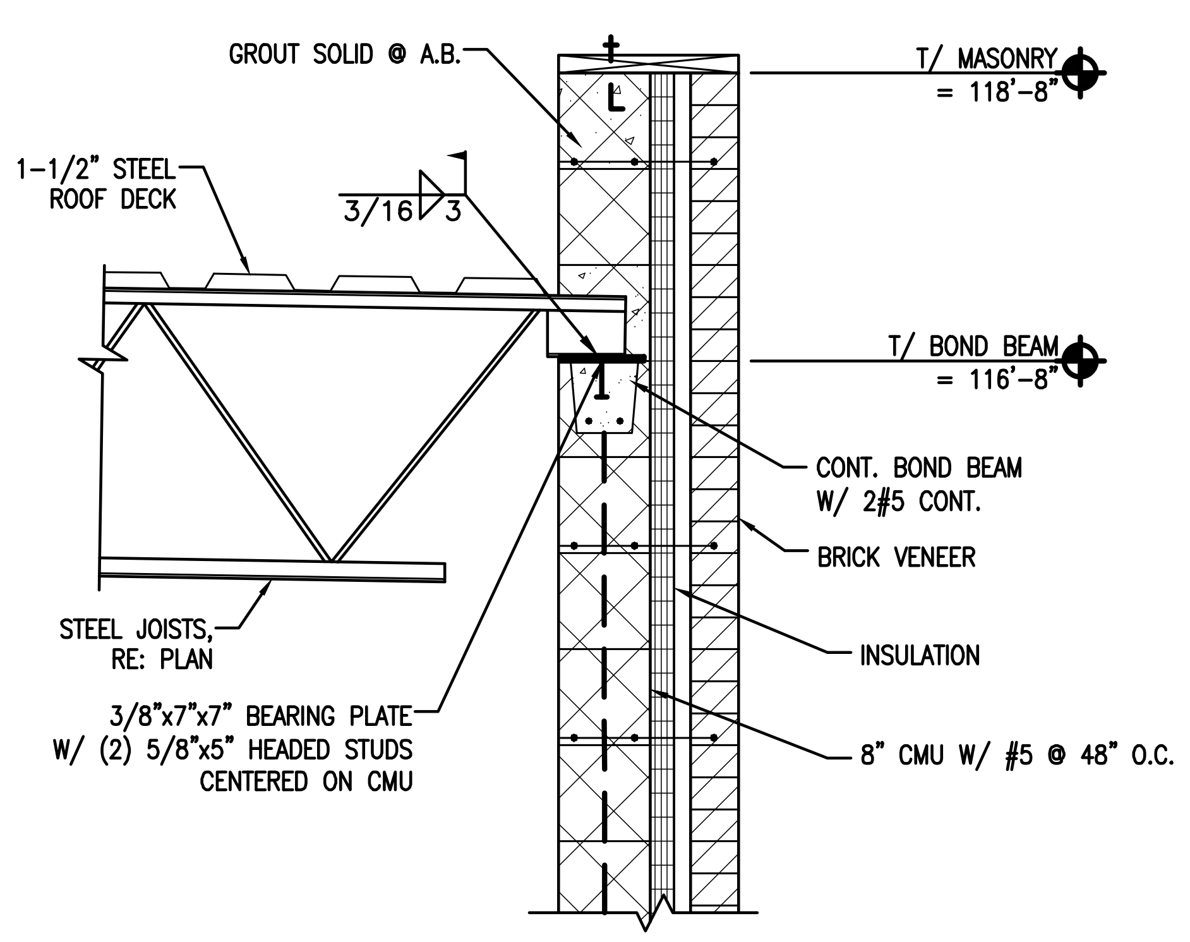
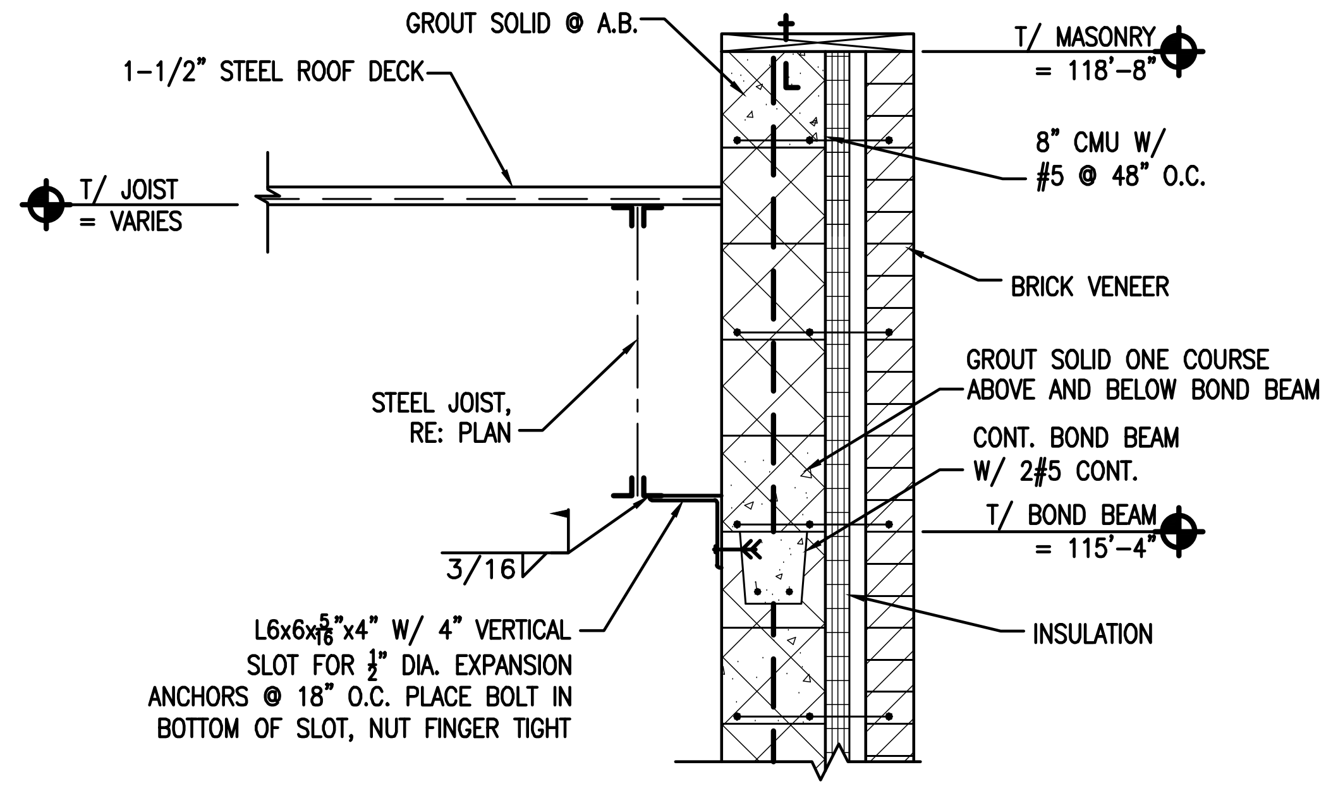
FOUNDATION DETAILS

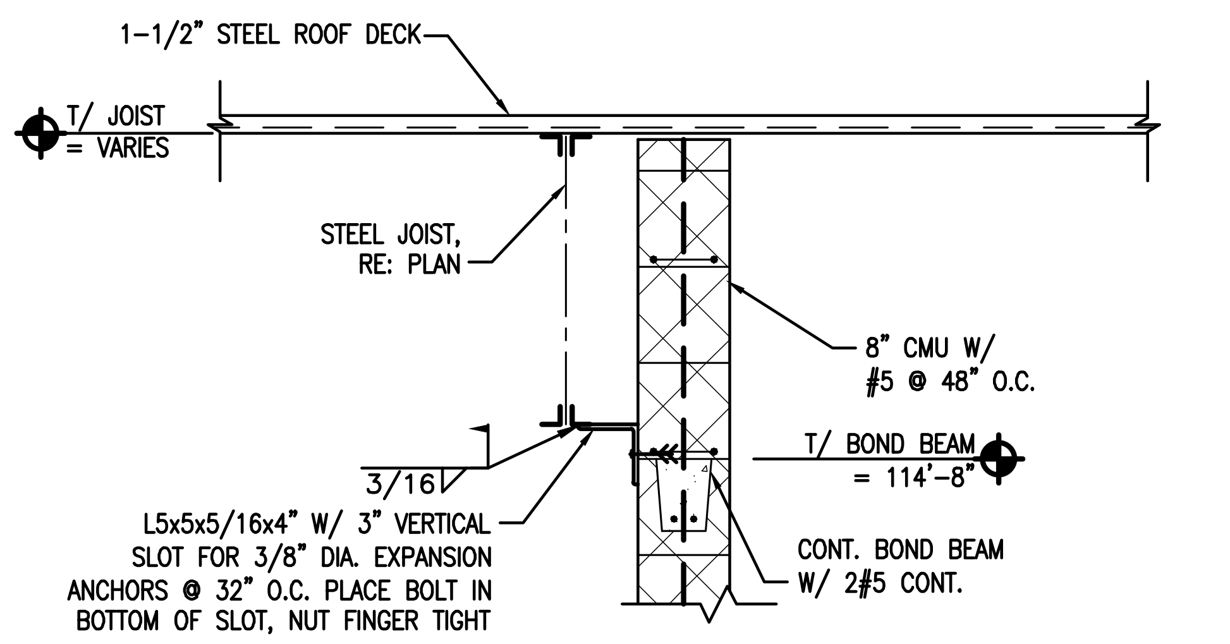
RS3.0



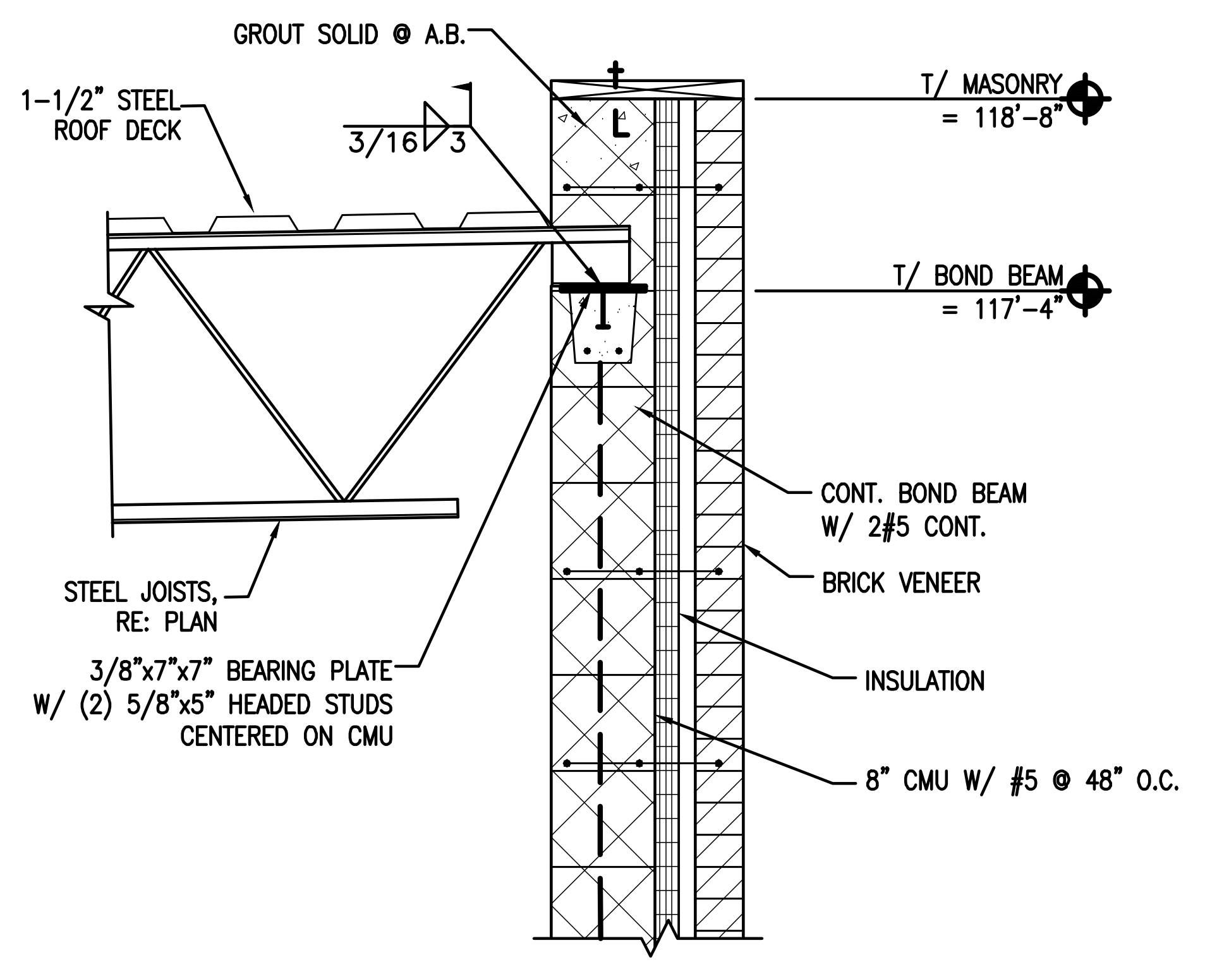
DETAIL 1 S2.0
SCALE: 3/4" = 1'-0"



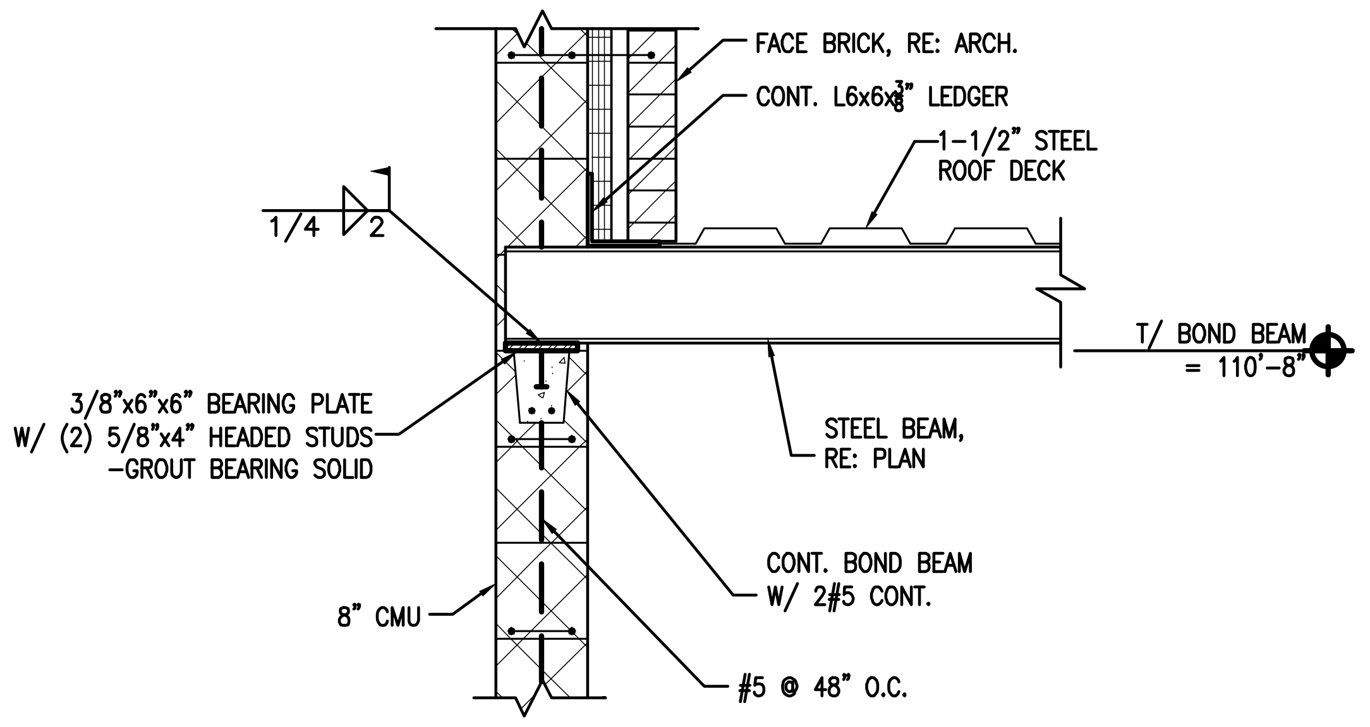
DETAIL 2 S2.0
SCALE: 3/4" = 1'-0"



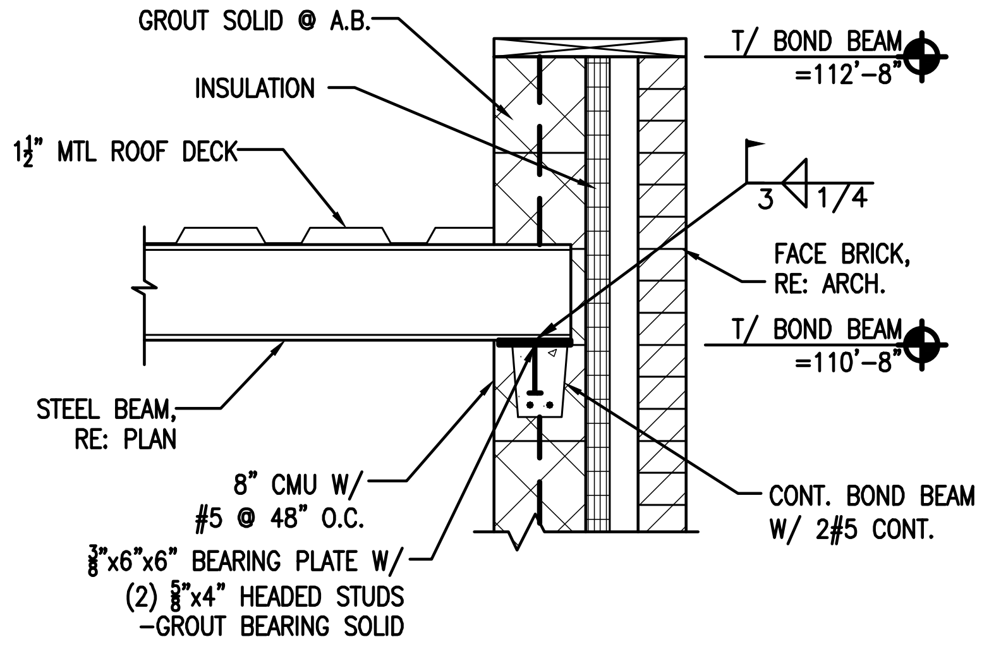
DETAIL 3 S2.0
SCALE: 3/4" = 1'-0"



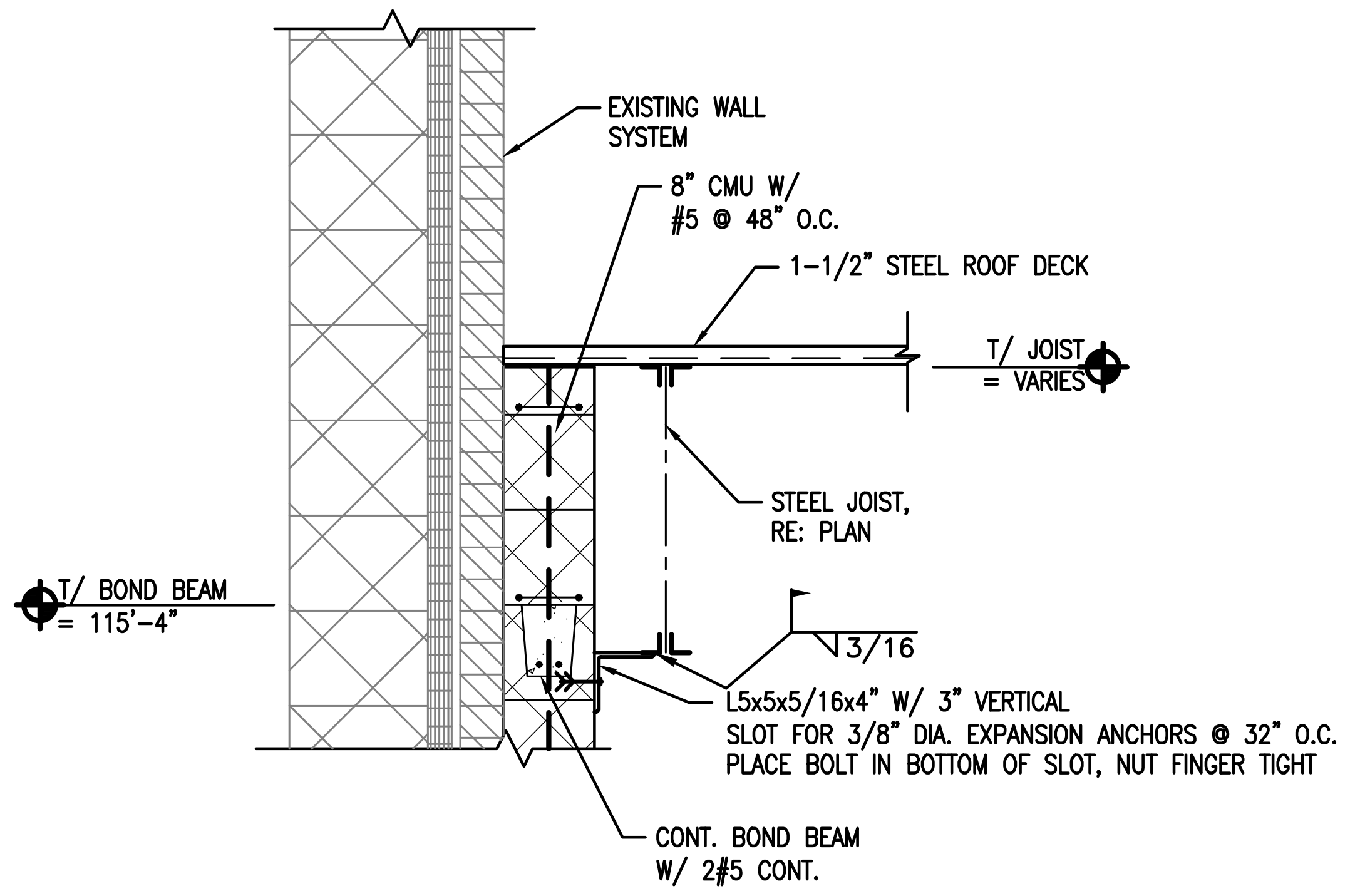
DETAIL 4 S2.0
SCALE: 3/4" = 1'-0"



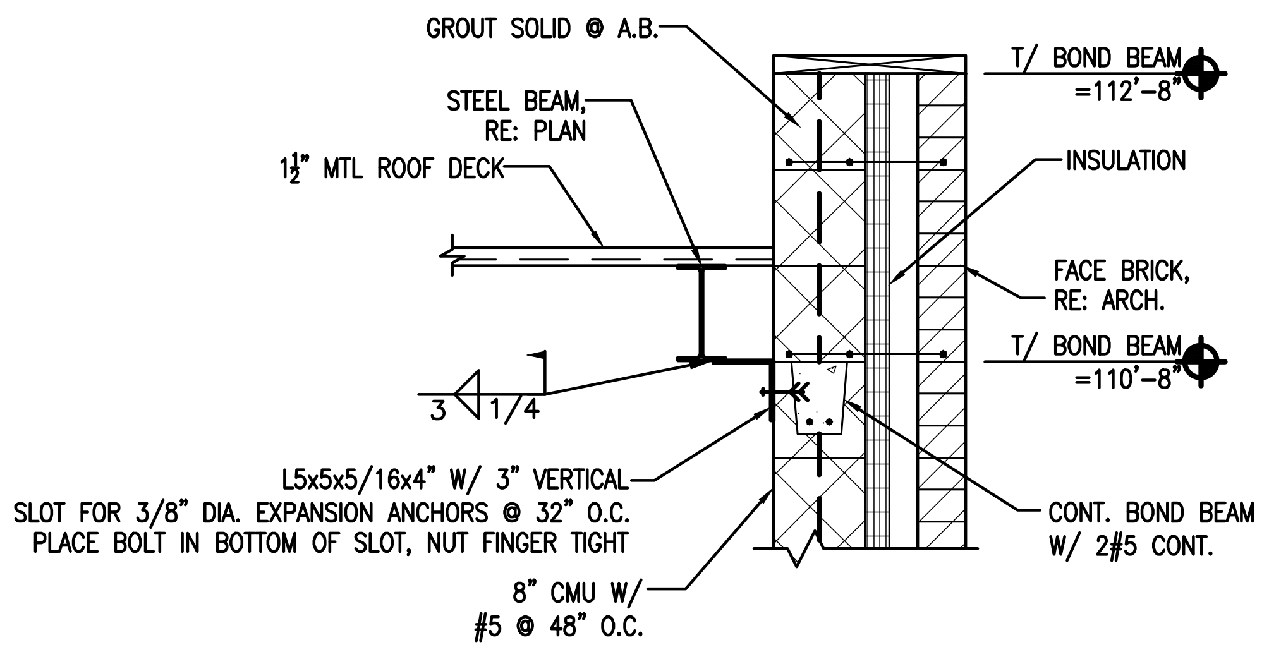
DETAIL 5 S2.0
SCALE: 3/4" = 1'-0"



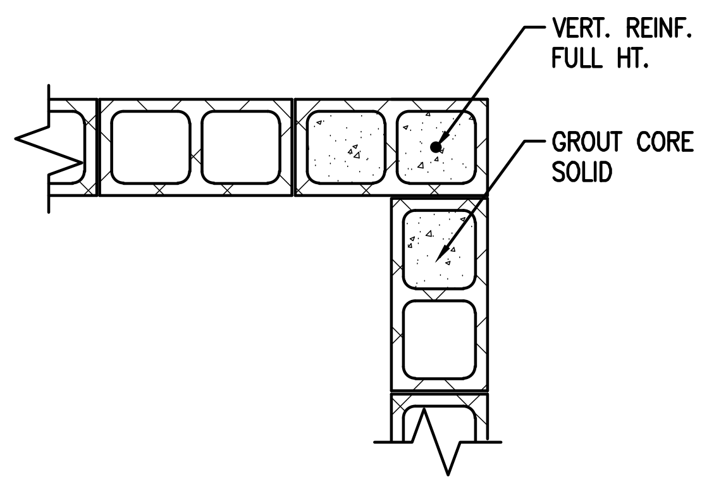
DETAIL 6 S2.0
SCALE: 3/4" = 1'-0"



DETAIL 7 S2.0
SCALE: 3/4" = 1'-0"

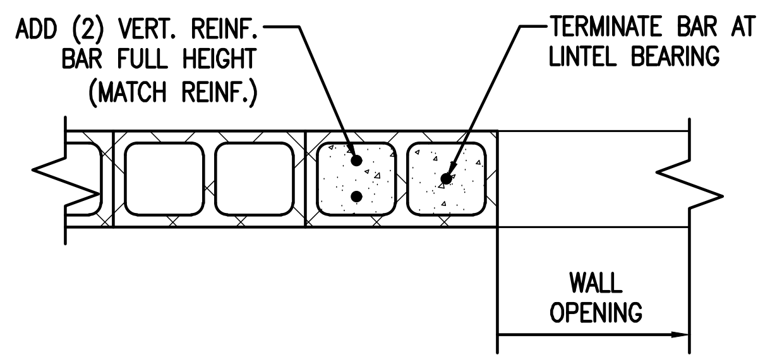


DETAIL 8 S2.0
SCALE: 3/4" = 1'-0"



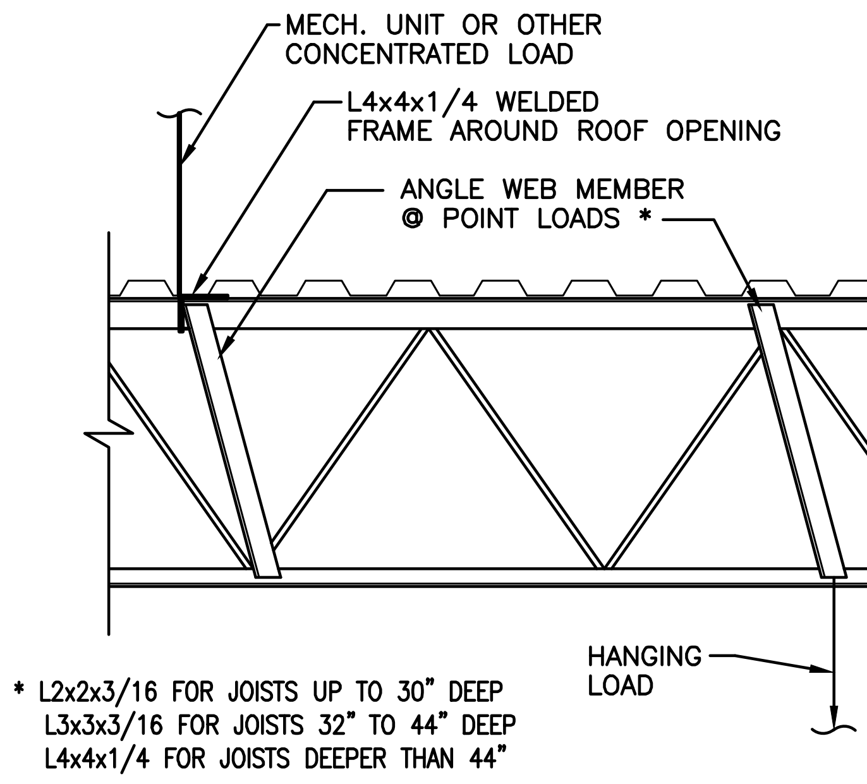
TYPICAL MASONRY WALL REINFORCING AT CORNERS

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



TYPICAL WALL REINFORCING AT OPENING

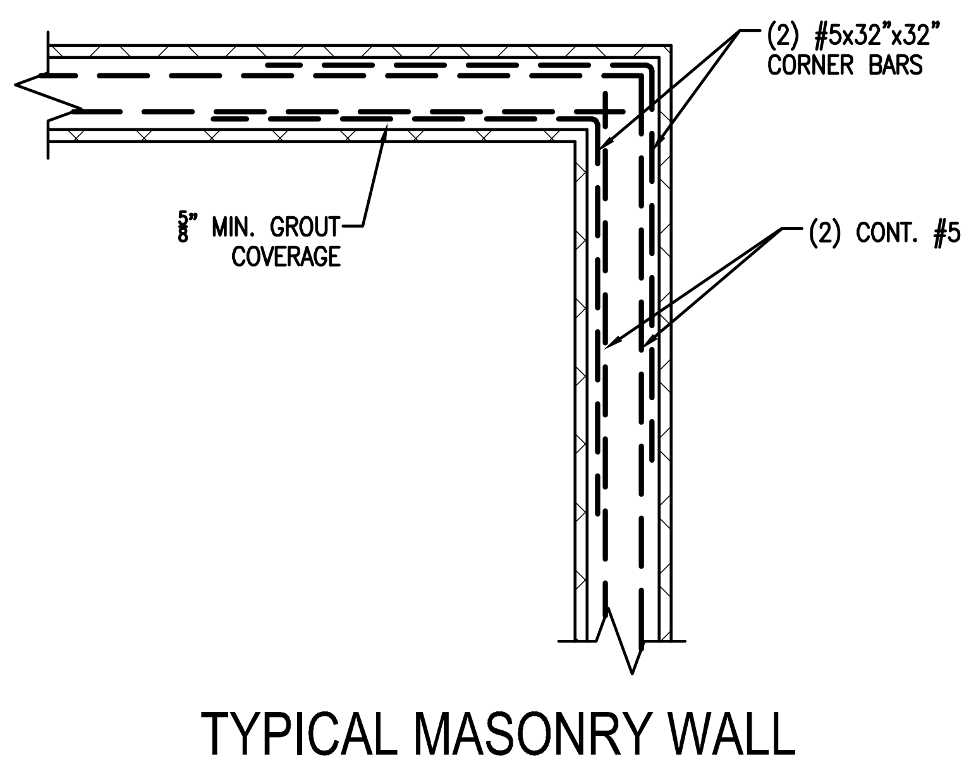
SCALE: 3/4" = 1'-0"



* L2x2x3/16 FOR JOISTS UP TO 30" DEEP
L3x3x3/16 FOR JOISTS 32" TO 44" DEEP
L4x4x1/4 FOR JOISTS DEEPER THAN 44"

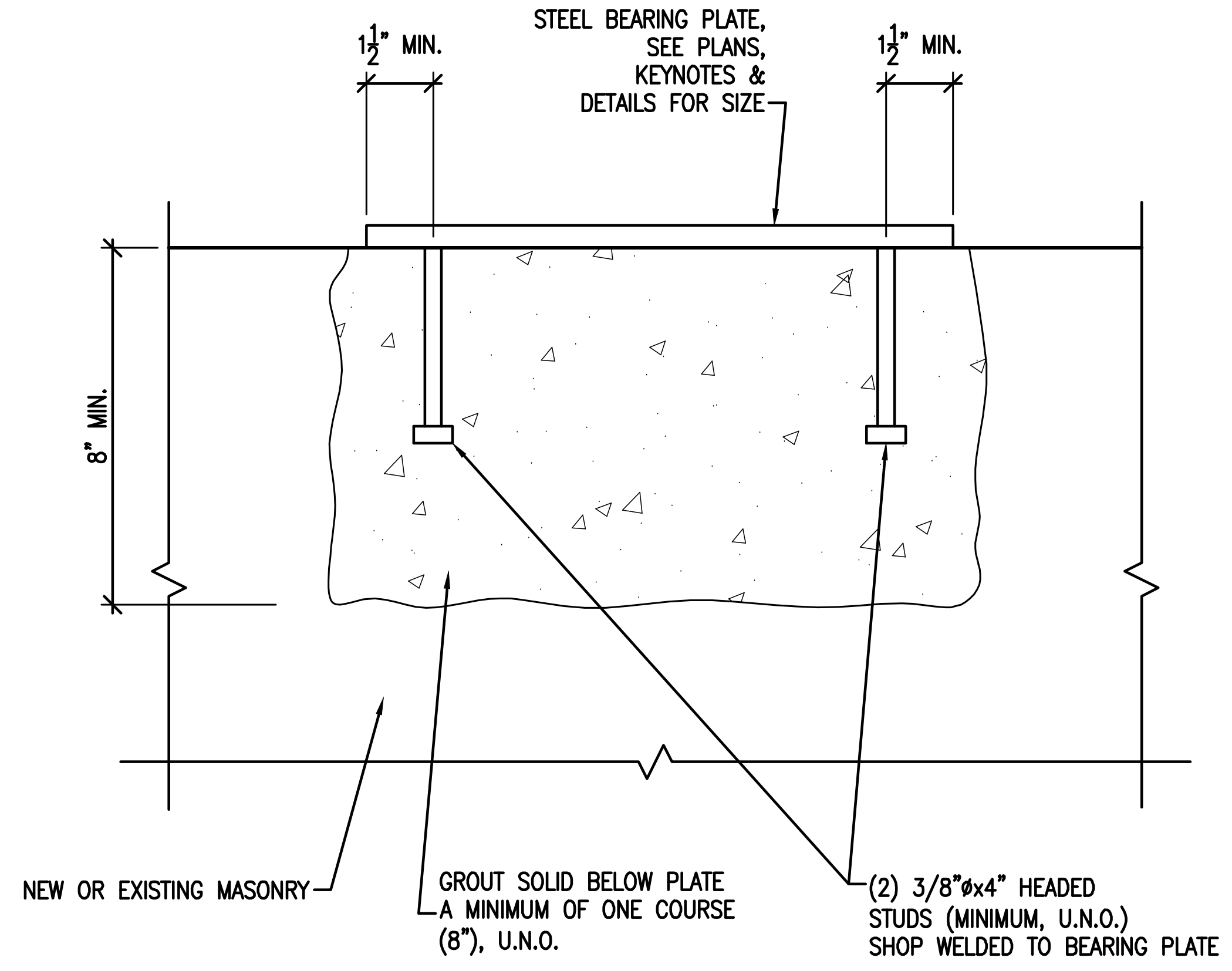
TYPICAL JOIST REINFORCING DETAIL

NO SCALE



TYPICAL MASONRY WALL BOND BEAM CORNER

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



BEARING PLATE DETAIL

NO SCALE

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ARCHITECTURE
ENGINEERING
CONSULTING

INTEGRATED DESIGNS INC.

BEAL CITY
2024 BOND WORK - PHASE 2
MT PLEASANT, MICHIGAN
PROJECT NO. 22-037

NO.	REVISIONS	DATE
A	FINAL REVIEW	03.14.25
0	FOR CONSTRUCTION	03.25.27
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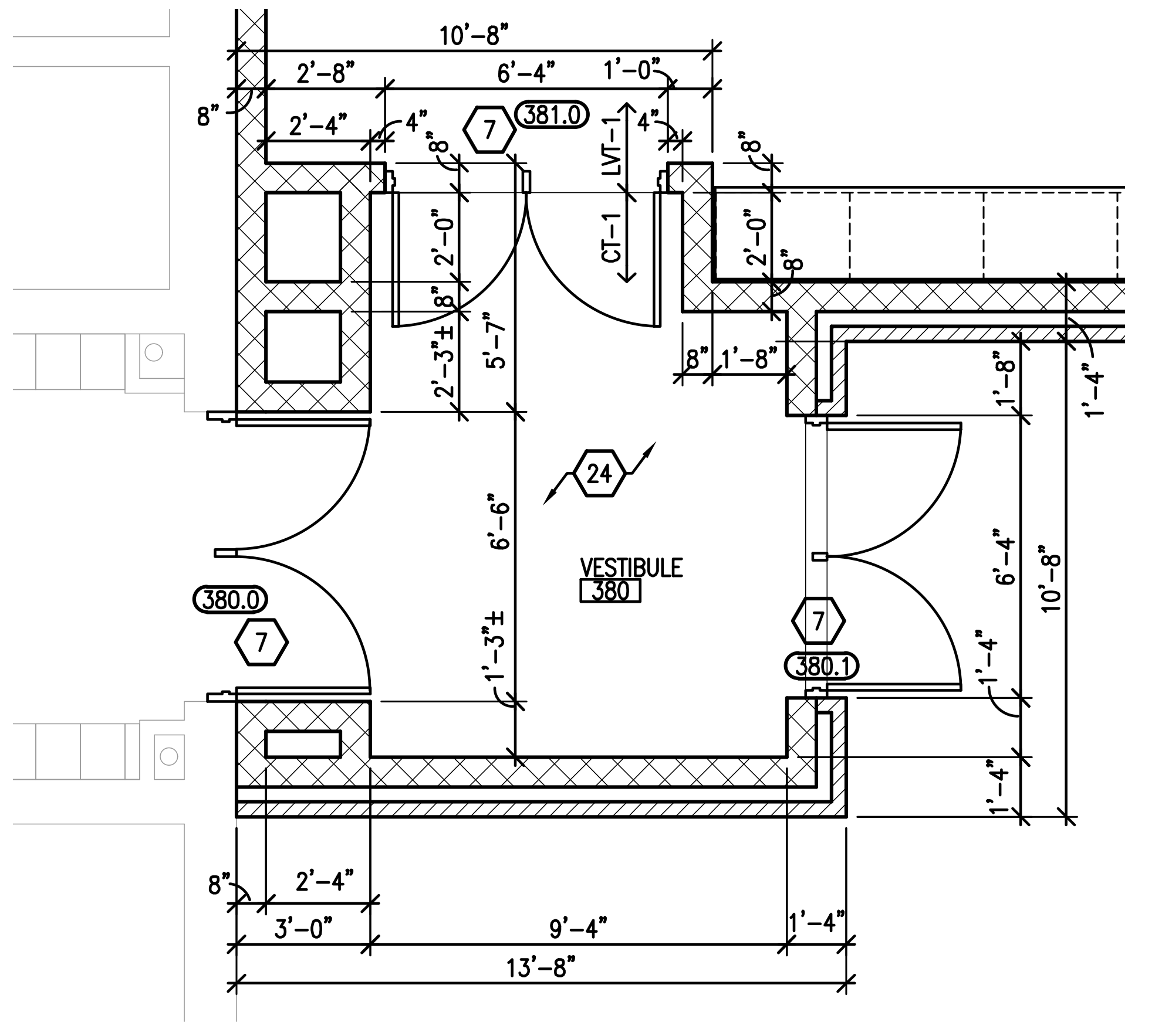
	BY	DATE
DESIGN	---	---
DRAWN	---	---
CHECKED	---	---
APPROVED	---	---

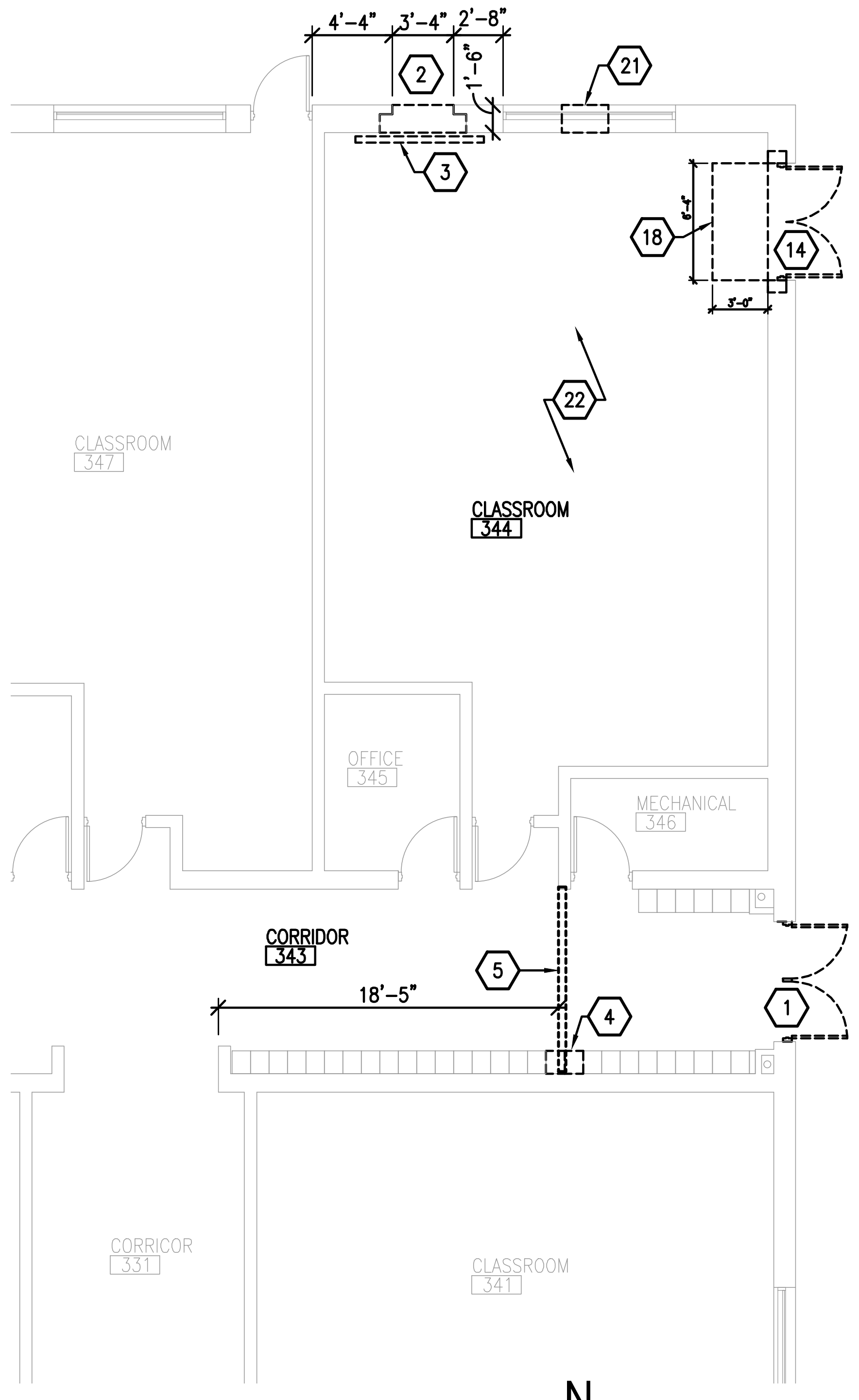
FRAMING DETAILS

RS4.0



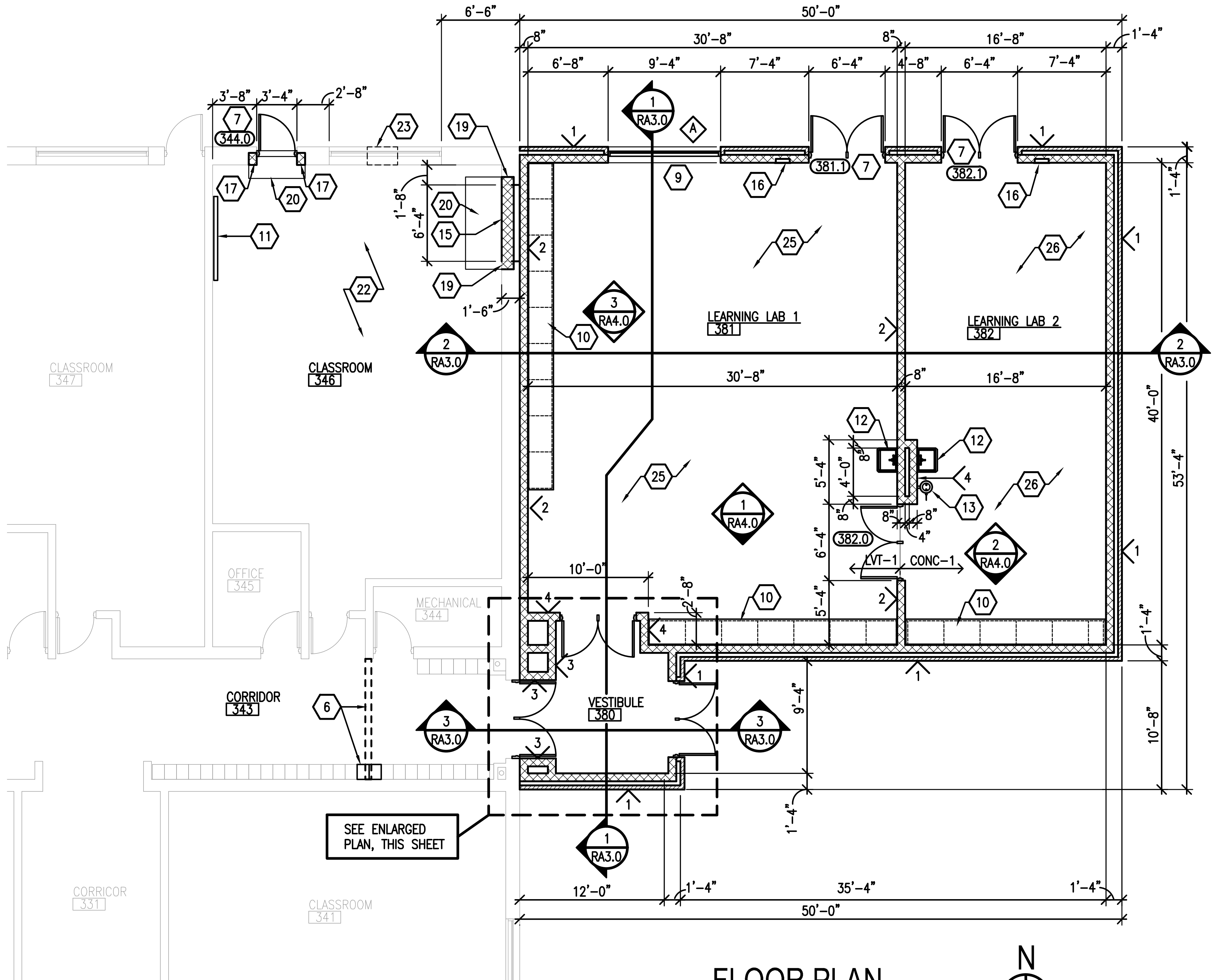
ENLARGED PLAN

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



DEMOLITION PLAN

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



FLOOR PLAN

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

KEYNOTES

1. REMOVE EXISTING DOOR AND FRAME IN THEIR ENTIRETY. REMOVE ALL ASSOCIATED FASTENERS AND ACCESSORIES.
2. REMOVE PORTION OF EXISTING CONCRETE MASONRY AND FACE BRICK WALL TO ACCOMMODATE NEW DOOR, FRAME, LINTEL, AND BULL NOSE MASONRY AT JAMBS. BRACE WALL AS NECESSARY UNTIL NEW LINTELS ARE INSTALLED. REFER TO STRUCTURAL.
3. REMOVE EXISTING WALL MOUNTED SMART TV INCLUDING ALL MOUNTING HARDWARE, BRACKETS, AND ACCESSORIES. SALVAGE FOR REINSTALLATION IN NEW LOCATION.
4. REMOVE TWO (2) +/- METAL LOCKERS AS NEEDED TO CONSTRUCT TEMPORARY CONSTRUCTION WALL. FIELD VERIFY EXACT LOCKERS AND NUMBER OR LOCKERS REQUIRED. SALVAGE LOCKERS FOR REINSTALLATION AFTER NEW CONSTRUCTION IS COMPLETE.
5. CONSTRUCT TEMPORARY CONSTRUCTION WALL. EXTEND FROM FLOOR TO CEILING ABOVE. FIELD VERIFY EXACT LOCATION AND WALL HEIGHT.
6. WHEN ALL NEW CONSTRUCTION IS COMPLETE, INSPECTED AND APPROVED FOR OCCUPANCY, REMOVE TEMPORARY CONSTRUCTION WALL. RESTORE FLOOR, WALLS, AND CEILING TO PRE-CONSTRUCTION CONDITION. REINSTALL PREVIOUSLY SALVAGED METAL LOCKERS.
7. DOOR AND FRAME, REFER TO DOOR SCHEDULE.
8. NOT USED.
9. ALUMINUM WINDOW UNIT, REFER TO WINDOW SCHEDULE.
10. PLASTIC LAMINATE FACED COUNTERTOP AND BASE CABINETS, REFER TO INTERIOR ELEVATIONS.
11. REINSTALL PREVIOUSLY SALVAGED WALL MOUNTED SMART TV. COORDINATE EXACT LOCATION WITH OWNER.
12. UTILITY SINK, REFER TO PLUMBING. MOUNT AT 2'-10" TO TOP OF SINK (ADA)
13. EMERGENCY EYE WASH STATION, REFER TO PLUMBING.
14. REMOVE EXISTING DOOR AND FRAME. REMOVE ALL ASSOCIATED FASTENERS AND ACCESSORIES. AT HEAD CONDITION REMOVE EXISTING GYPSUM BOARD AND ASSOCIATED FRAMING. EXISTING MASONRY, FACE BRICK, AND ASSOCIATED LINTELS TO REMAIN. FIELD VERIFY EXISTING CONDITIONS AND CONSTRUCTION.
15. INFILL EXISTING MASONRY OPENING WHERE DOORS PREVIOUSLY REMOVED WITH 12" CONCRETE MASONRY UNITS. ALIGN WITH EXISTING ADJACENT WALLS. TOOTH NEW MASONRY INTO EXISTING ADJACENT MASONRY. PAINT FINISH.
16. SEMI RECESSED FIRE EXTINGUISHER CABINET AND FIRE EXTINGUISHER, REFER TO SPECIFICATIONS. MOUNT CABINET MAXIMUM 48" TO BOTTOM OF CABINET.
17. TOOTH NEW BULLNOSE MASONRY UNITS INTO EXISTING MASONRY AT NEW DOOR OPENING. MATCH EXISTING MASONRY WIDTH AND COURSING.
18. REMOVE EXISTING CERAMIC TILE FLOORING AND VINYL BASE IN OPENING. CONCRETE SLAB TO REMAIN CLEAN SLAB AS NEEDED AND PREPARE FOR NEW CARPET PATCH.
19. TOOTH NEW 12" MASONRY INTO EXISTING ADJACENT. MATCH EXISTING COURSING.
20. PATCH NEW CARPET AND NEW WALL BASE INTO EXISTING, FIELD VERIFY EXTENTS. NEW CARPET AND BASE TO MATCH EXISTING CPT-1 AND VB-1 REFER TO FINISH SCHEDULE.
21. REMOVE PORTION OF EXISTING CONCRETE MASONRY AND FACE BRICK WALL TO ACCOMMODATE RELOCATED MECHANICAL DUCTWORK LOCATED ABOVE EXISTING CEILING AND OVER EXISTING WINDOW. COORDINATE EXACT LOCATION, SIZE AND REQUIREMENTS WITH MECHANICAL CONTRACTOR. BRACE WALL AS NECESSARY UNTIL NEW LINTELS ARE INSTALLED. REFER TO STRUCTURAL.
22. REMOVE EXISTING CEILING TILES AS NEEDED TO ACCOMMODATE MECHANICAL WORK ABOVE CEILING. SALVAGE TILES AND REINSTALL WHEN WORK IS COMPLETE. COORDINATE EXTENTS WITH MECHANICAL CONTRACTOR.
23. INSTALL MODIFIED DUCTWORK AND MECHANICAL LOUVER ABOVE CEILING. REFER TO MECHANICAL PLANS.
24. CERAMIC TILE FLOORING. REFER TO FINISH SCHEDULE TILE TO MATCH AND EXTEND FROM EXISTING CORRIDOR.
25. VINYL PLANK FLOORING, REFER TO FINISH SCHEDULE. PROVIDE AND INSTALL APPROPRIATE TRANSITION STRIPS BETWEEN DIFFERING FLOOR FINISHES.
26. SEALED CONCRETE FLOORING, REFER TO FINISH SCHEDULE. PROVIDE AND INSTALL APPROPRIATE TRANSITION STRIPS BETWEEN DIFFERING FLOOR FINISHES.

WALL TYPES

1. REINFORCED 8" CONCRETE MASONRY UNIT, 3" SPRAY FOAM INSULATION, AIR SPACE, FACE BRICK. EXTEND WALL FROM TOP OF FOUNDATION TO 118'-8" A.F.F. REFER TO BUILDING AND WALL SECTIONS. PAINT FINISH EXPOSED INTERIOR WALL SURFACES.
2. 8" REINFORCED CONCRETE MASONRY UNIT WALL. EXTEND FROM CONCRETE SLAB TO METAL ROOF DECK ABOVE, HEIGHT VARIES. PAINT FINISH EXPOSED WALL SURFACES.
3. 8" REINFORCED CONCRETE MASONRY UNIT WALL. EXTEND FROM CONCRETE SLAB TO MINIMUM 4" ABOVE FINISHED CEILING APPROXIMATELY 10'-0" A.F.F. PAINT FINISH EXPOSED WALL SURFACES.
4. 8" REINFORCED CONCRETE MASONRY UNIT WALL. EXTEND FROM CONCRETE SLAB TO APPROXIMATELY 10'-0" A.F.F. ON TOP OF MASONRY EXTEND TO ROOF DECK 5/8" GYPSUM BOARD ON 3-5/8" METAL STUD AT 16" O.C.. PAINT FINISH EXPOSED WALL SURFACES.

CODE SUMMARY

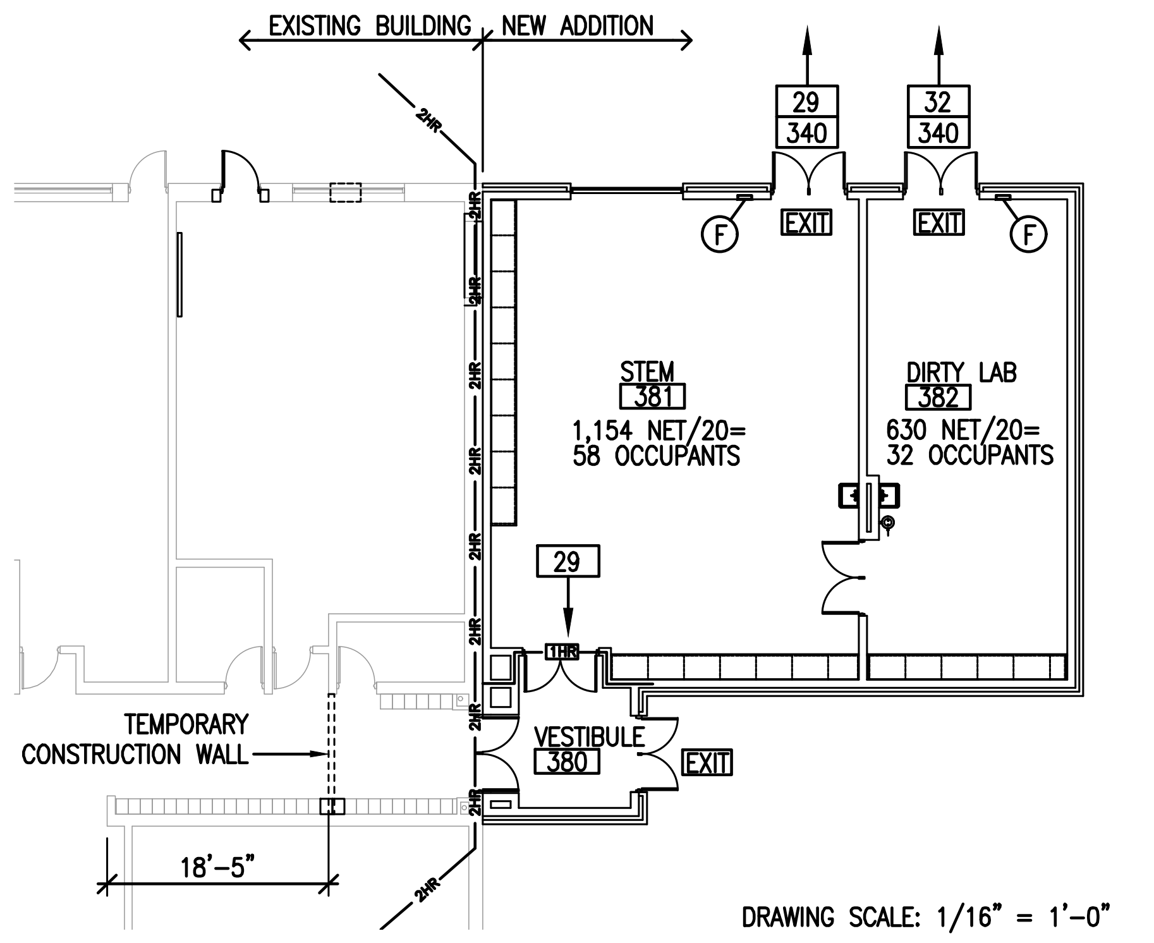
CODES			
	2015 MICHIGAN BUILDING CODE		FIRE MARSHALL RULES
	STATE OF MICHIGAN BARRIER FREE ACCESS DESIGN RULES (2009 ICC/ANSI A117.1)		MICHIGAN DEPARTMENT OF LABOR CONSTRUCTION CODE COMMISSION GENERAL RULES
	NATIONAL FIRE PROTECTION ASSOCIATION (NFPA)		2021 MICHIGAN MECHANICAL CODE
	2021 MICHIGAN PLUMBING CODE		MICHIGAN UNIFORM ENERGY CODE
	NATIONAL ELECTRICAL SAFETY CODE		2023 MICHIGAN ELECTRICAL CODE
CODE FIRE RESISTIVE ANALYSIS			
	CLASSIFICATIONS		CONSTRUCTION PROTECTIONS
1	STORIES	0	INTERIOR NON-LOAD BEARING PARTITIONS
E	OCCUPANCY TYPE	0	STRUCTURAL FRAME
II-B	CONSTRUCTION TYPE	0	EXTERIOR NON-BEARING WALLS
NO	SPRINKLER SYSTEM	0	ROOF
YES	FIRE PROTECTION: PORTABLE FIRE EXTINGUISHERS PER SECTION 907		
YES	FIRE PROTECTION: FIRE ALARM AND DETECTION SYSTEM PER SECTION 907 (EXISTING FIRE PROTECTION SYSTEM WILL BE EXTENDED INTO AREA OF ADDITION)		

TOTAL BUILDING ADDITION SF: 2,280
(SEPARATION VIA 2 HOUR PARTITION)

LIFE SAFETY LEGEND

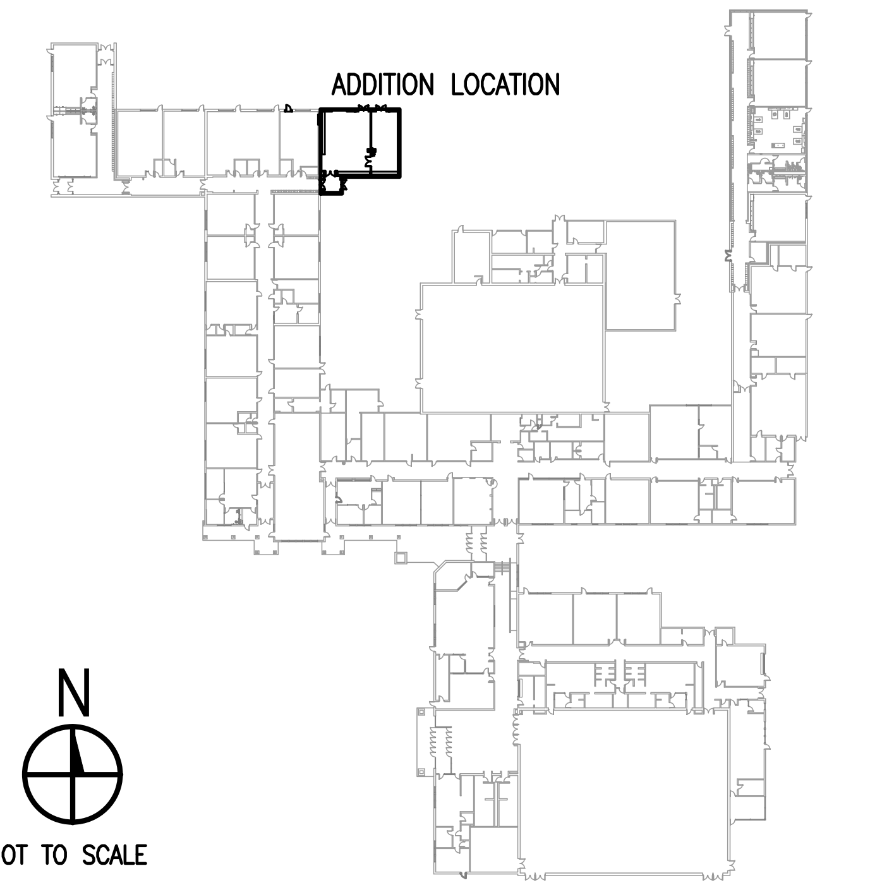
—1HR— 1HR—	1 HOUR FIRE PARTITION
—2HR— 2HR—	2 HOUR FIRE PARTITION
ROOM	ROOM NAME
101	ROOM NUMBER
40	EGRESS OCCUPANT LOAD
270	EGRESS OCCUPANT CAPACITY
Ⓕ	RECESSED FIRE EXTINGUISHER CABINET, TRAVEL DISTANCE NOT TO EXCEED 75 FT.
200 NET/20=10	OCCUPANT LOCAD CALCULATION

LIFE SAFETY PLAN



DRAWING SCALE: 1/16" = 1'-0"

KEY PLAN



NOT TO SCALE

INTEGRATED DESIGNS INC.

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2024 BOND WORK
MT PLEASANT, MICHIGAN
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B	FINAL REVIEW	3-14-25
0	FOR CONSTRUCTION	3-27-25

	BY	DATE
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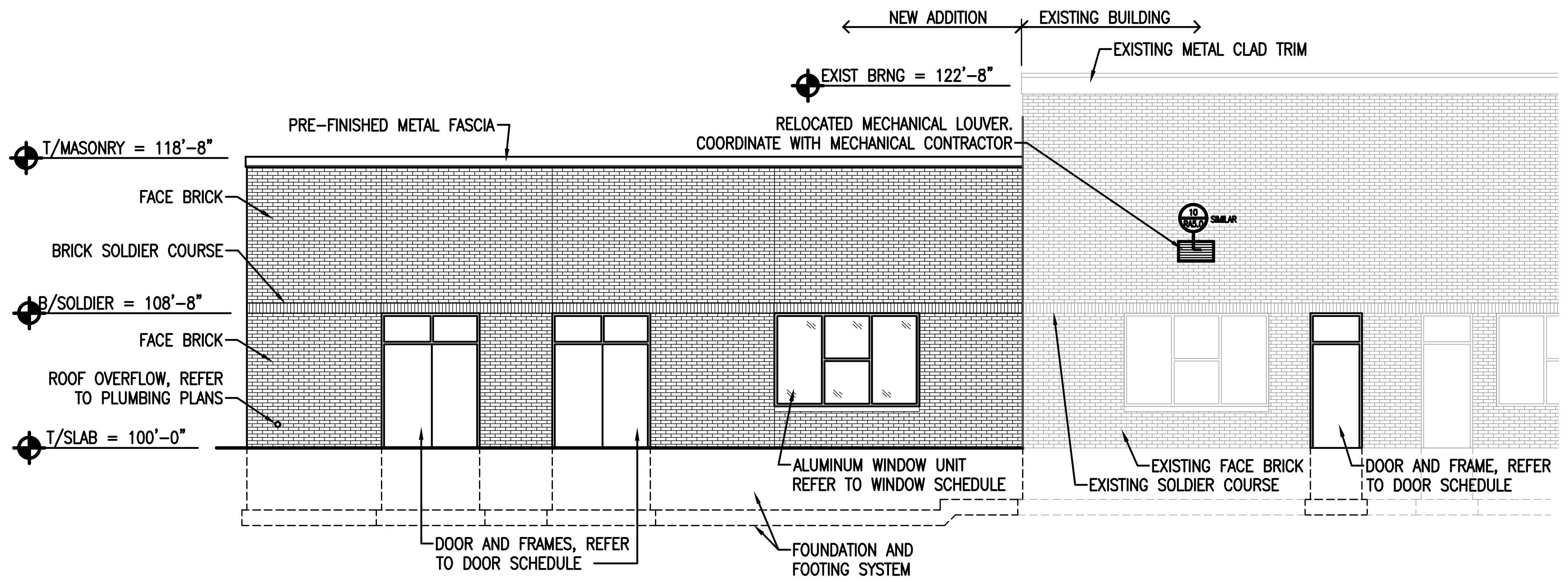
CHECKED	---	---
APPROVED	---	---

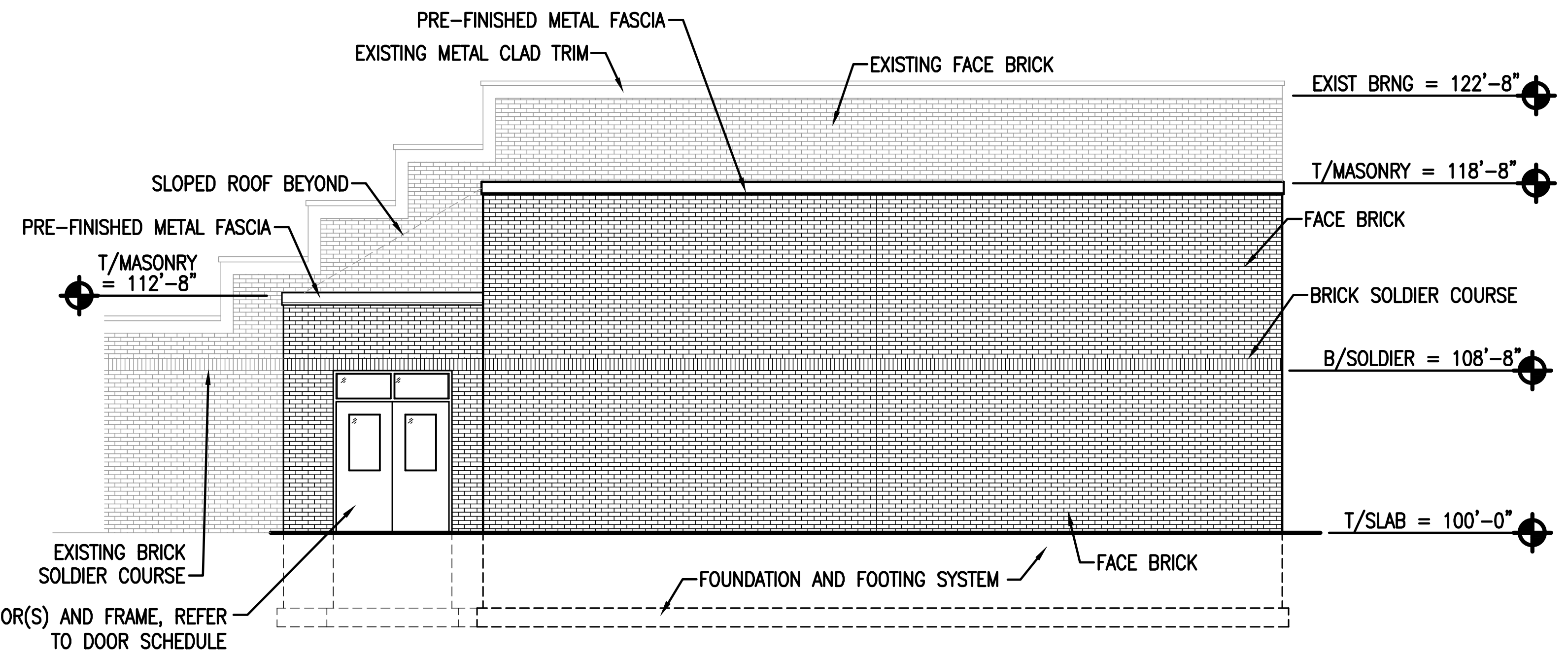
CODE & LIFE SAFETY INFO
DEMOLITION PLAN
FLOOR PLAN

R-A2.0


NEW ADDITION
EXISTING BUILDING
EXISTING METAL CLAD TRIM
EXIST BRNG = 122'-8"
PRE-FINISHED METAL FASCIA
RELOCATED MECHANICAL LOUVER. COORDINATE WITH MECHANICAL CONTRACTOR
T/MASONRY = 118'-8"
FACE BRICK
BRICK SOLDIER COURSE
B/SOLDIER = 108'-8"
FACE BRICK
ROOF OVERFLOW, REFER TO PLUMBING PLANS
T/SLAB = 100'-0"
10
RA5.0
SIMILAR
ALUMINUM WINDOW UNIT REFER TO WINDOW SCHEDULE
EXISTING FACE BRICK
EXISTING SOLDIER COURSE
DOOR AND FRAME, REFER TO DOOR SCHEDULE
DOOR AND FRAMES, REFER TO DOOR SCHEDULE
FOUNDATION AND FOOTING SYSTEM

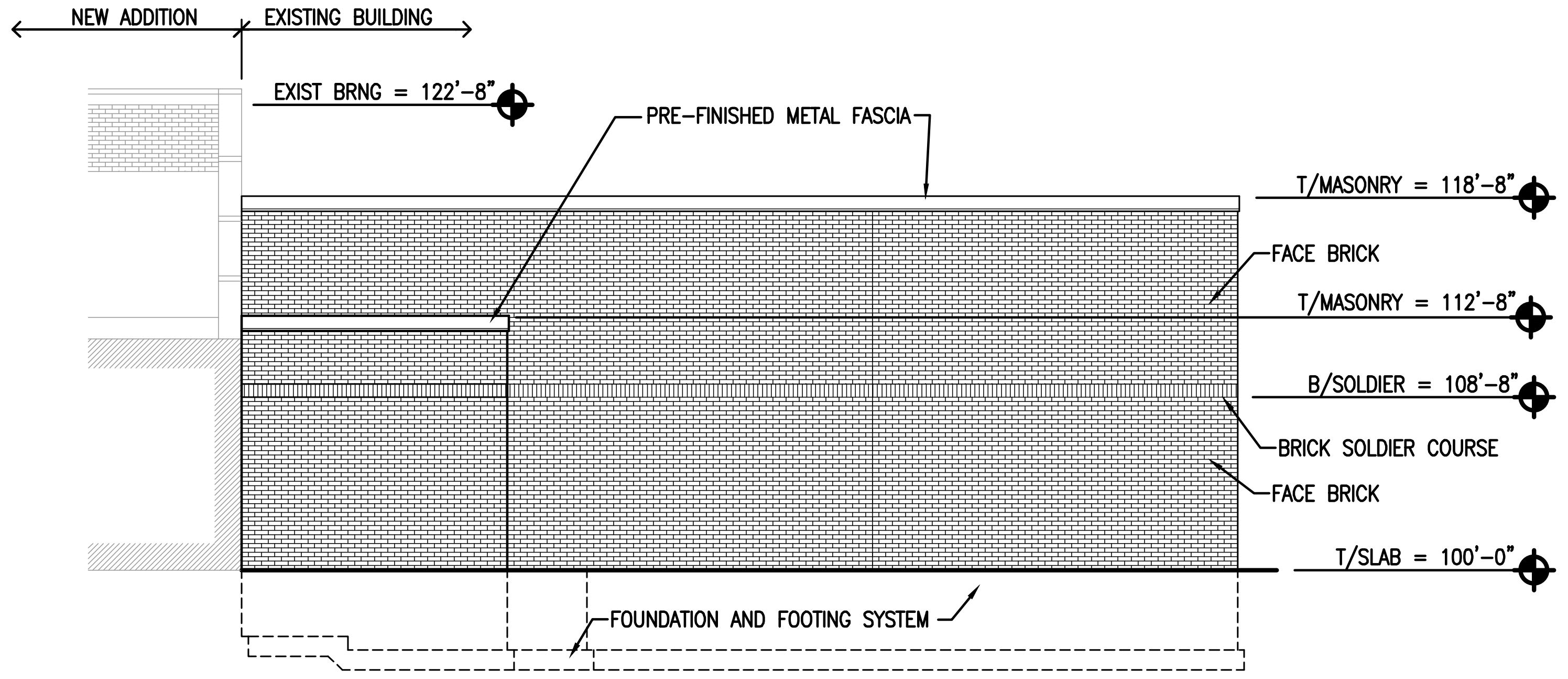
NORTH ELEVATION

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



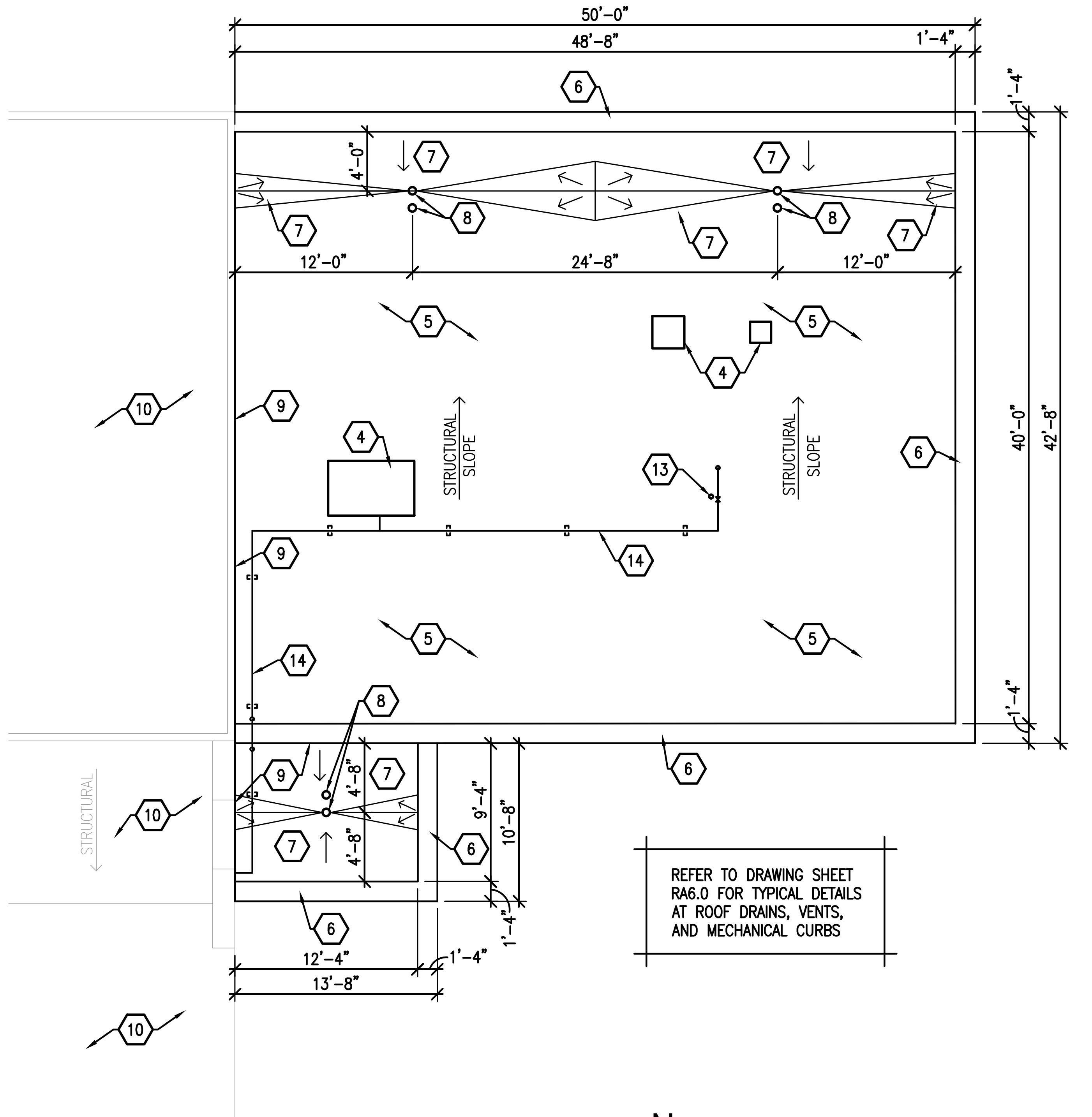
WEST ELEVATION

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



SOUTH ELEVATION

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

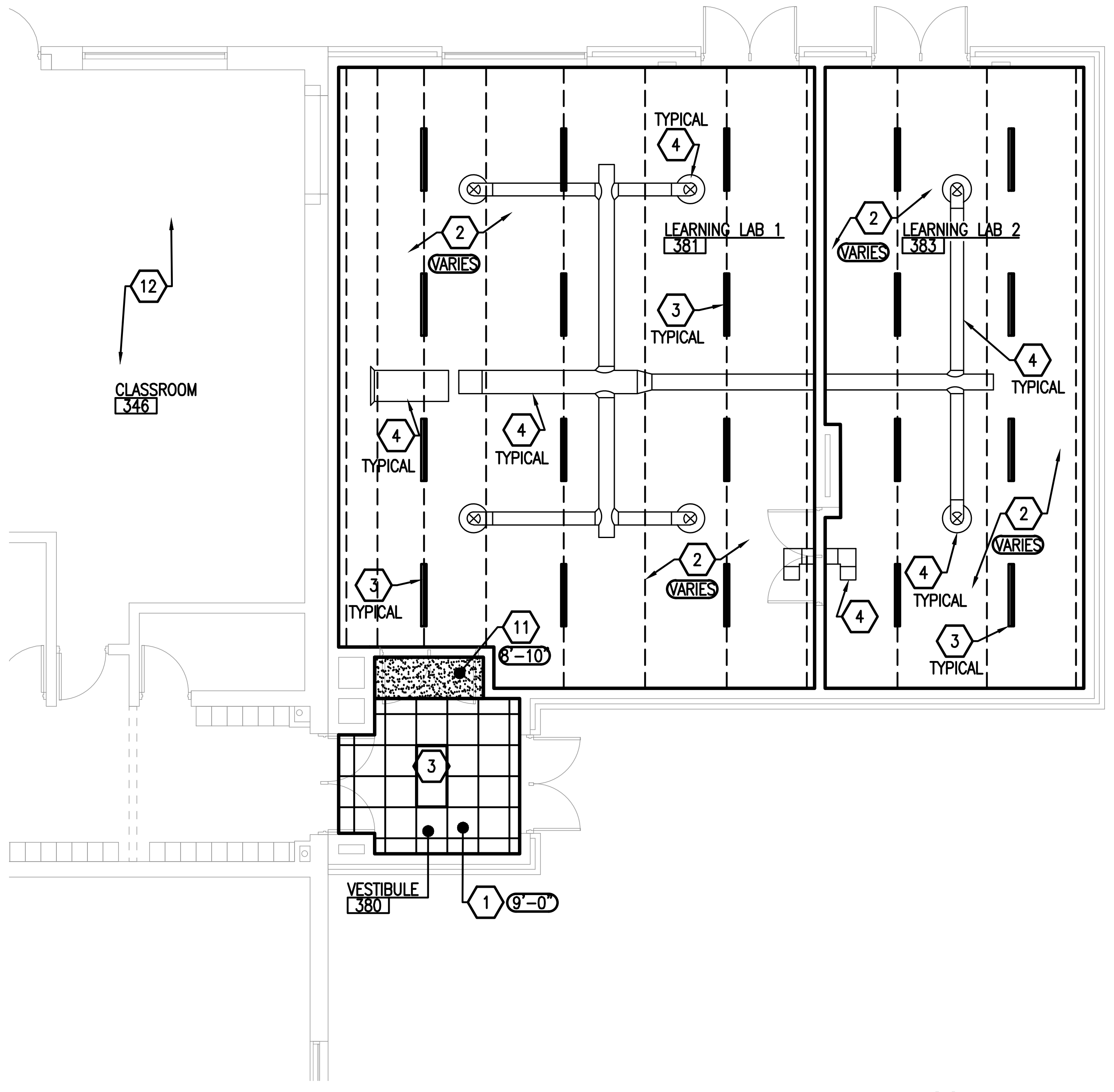


REFER TO DRAWING SHEET RA6.0 FOR TYPICAL DETAILS AT ROOF DRAINS, VENTS, AND MECHANICAL CURBS

ROOF PLAN

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

N



CEILING PLAN

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

N

⬡ KEYNOTES ⬡

1. 2x2 ACOUSTICAL CEILING TILE IN SUSPENDED METAL GRID SYSTEM.
2. EXPOSED METAL TRUSSES AND ROOF DECK. REFER TO FRAMING PLANS. PAINT FINISH.
3. INDICATES LIGHTING FIXTURE, REFER TO ELECTRICAL PLANS.
4. INDICATES MECHANICAL EQUIPMENT/DUCTWORK, REFER TO MECHANICAL PLANS.
5. MEMBRANE ROOFING ON 5.2" RIGID INSULATION ON METAL ROOF DECK.
6. PRE-FINISHED METAL PARAPET CAP. SLOPE TOWARDS BUILDING INTERIOR.
7. TAPERED INSULATION AND SADDLES TO PROVIDE POSITIVE DRAINAGE TOWARDS ROOF DRAINS. MINIMUM SLOPE 1/4" PER 1'-0".
8. ROOD DRAIN AND OVERFLOW DRAIN, REFER TO PLUMBING PLANS.
9. EXTEND MEMBRANE UP VERTICAL WALL MINIMUM 1'-0". TERMINATE PER ROOFING MANUFACTURERS REQUIREMENTS.
10. EXISTING ROOFING TO REMAIN.
11. TWO LAYERS 5/8" TYPE 'X' GYPSUM BOARD ON 3-5/8" METAL STUD FRAMING. TAPE, SAND SMOOTH, PAINT FINISH.
12. REMOVE EXISTING CEILING TILES AS NEEDED TO ACCOMMODATE MECHANICAL WORK ABOVE CEILING. SALVAGE TILES AND REINSTALL WHEN WORK IS COMPLETE. COORDINATE EXTENTS WITH MECHANICAL CONTRACTOR.
13. VENT THROUGH ROOF, COORDINATE WITH PLUMBING CONTRACTOR.
14. NEW GAS LINE ACROSS ROOF PROVIDE PIPE SUPPORTS, REFER TO MECHANICAL PLANS. FIRE SEAL ALL PENETRATIONS THRU EXISTING WALLS.

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2024 BOND WORK
MT PLEASANT, MICHIGAN
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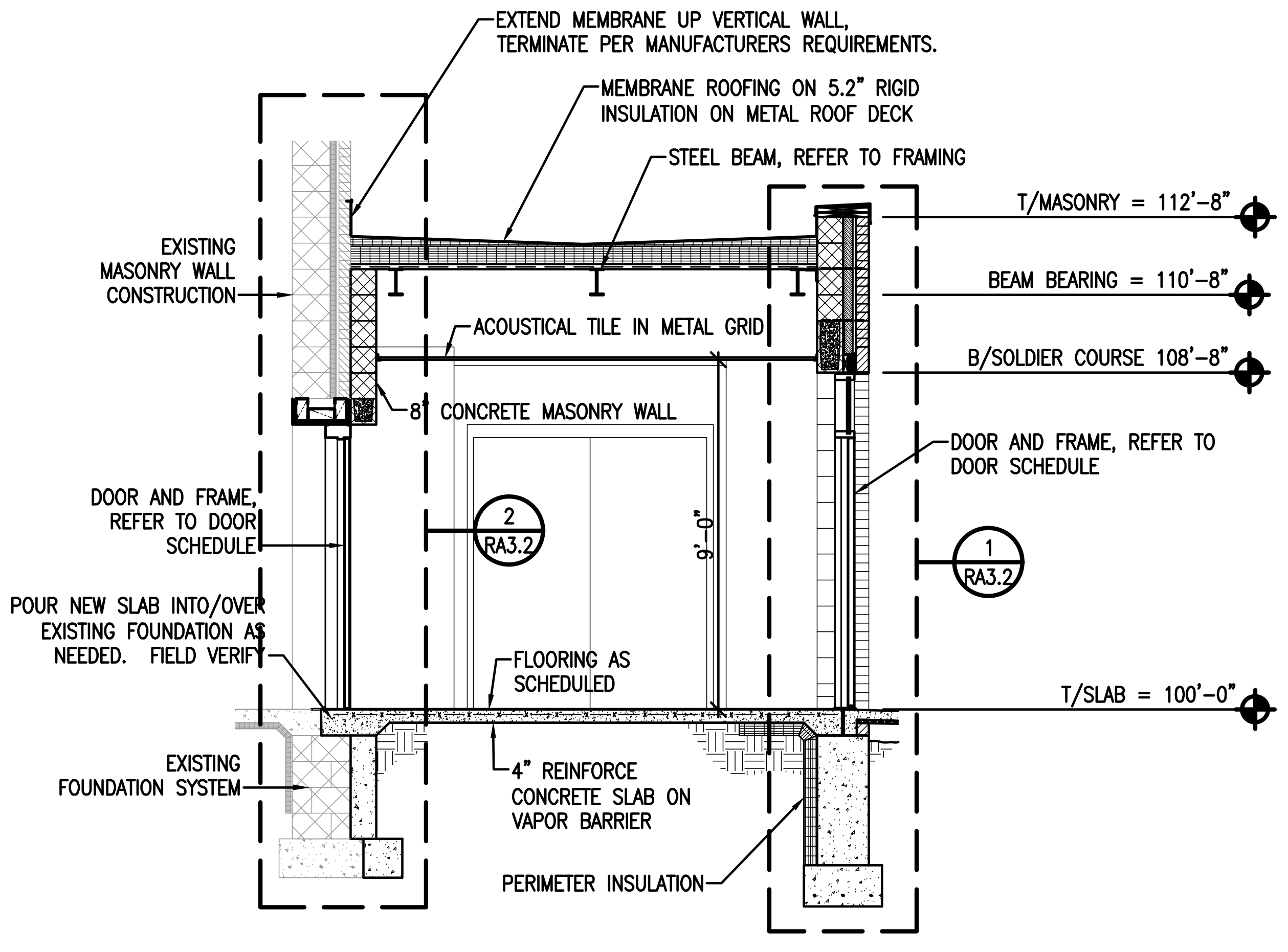
CEILING PLAN, ROOF PLAN
EXTERIOR ELEVATIONS

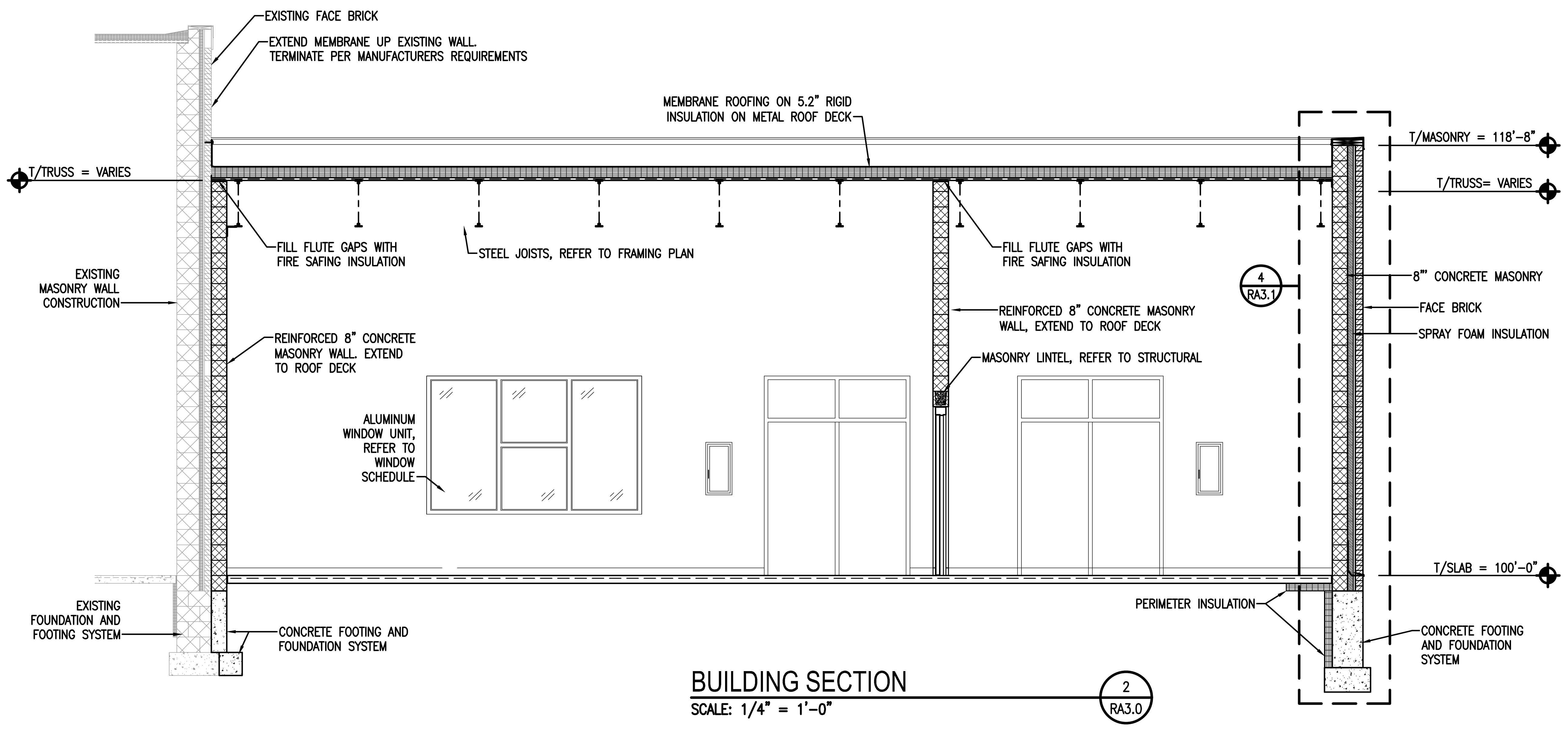
R-A2.1


EXTEND MEMBRANE UP VERTICAL WALL, TERMINATE PER MANUFACTURERS REQUIREMENTS.
MEMBRANE ROOFING ON 5.2" RIGID INSULATION ON METAL ROOF DECK
STEEL BEAM, REFER TO FRAMING
T/MASONRY = 112'-8"
BEAM BEARING = 110'-8"
B/SOLDIER COURSE 108'-8"
EXISTING MASONRY WALL CONSTRUCTION
ACOUSTICAL TILE IN METAL GRID
8" CONCRETE MASONRY WALL
DOOR AND FRAME, REFER TO DOOR SCHEDULE
DOOR AND FRAME, REFER TO DOOR SCHEDULE
2
RA3.2
1
RA3.2
9'-0"
POUR NEW SLAB INTO/OVER EXISTING FOUNDATION AS NEEDED. FIELD VERIFY
FLOORING AS SCHEDULED
T/SLAB = 100'-0"
EXISTING FOUNDATION SYSTEM
4" REINFORCE CONCRETE SLAB ON VAPOR BARRIER
PERIMETER INSULATION

BUILDING SECTION

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

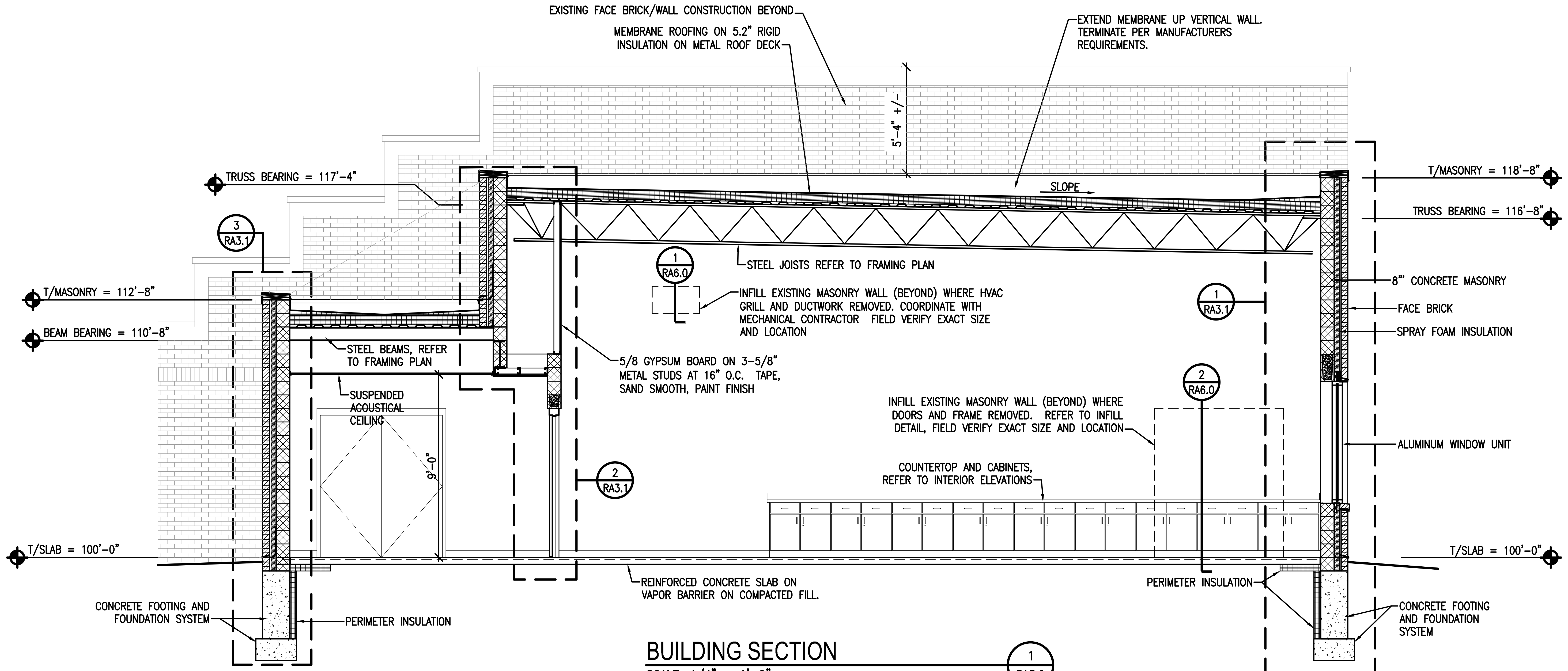
3
RA3.0


EXISTING FACE BRICK
EXTEND MEMBRANE UP EXISTING WALL. TERMINATE PER MANUFACTURERS REQUIREMENTS
MEMBRANE ROOFING ON 5.2" RIGID INSULATION ON METAL ROOF DECK
T/MASONRY = 118'-8"
T/TRUSS = VARIES
T/TRUSS= VARIES
FILL FLUTE GAPS WITH FIRE SAFING INSULATION
STEEL JOISTS, REFER TO FRAMING PLAN
FILL FLUTE GAPS WITH FIRE SAFING INSULATION
EXISTING MASONRY WALL CONSTRUCTION
4
RA3.1
8" CONCRETE MASONRY
FACE BRICK
SPRAY FOAM INSULATION
REINFORCED 8" CONCRETE MASONRY WALL, EXTEND TO ROOF DECK
REINFORCED 8" CONCRETE MASONRY WALL. EXTEND TO ROOF DECK
MASONRY LINTEL, REFER TO STRUCTURAL
ALUMINUM WINDOW UNIT, REFER TO WINDOW SCHEDULE
T/SLAB = 100'-0"
PERIMETER INSULATION
EXISTING FOUNDATION AND FOOTING SYSTEM
CONCRETE FOOTING AND FOUNDATION SYSTEM
CONCRETE FOOTING AND FOUNDATION SYSTEM

BUILDING SECTION

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

2
RA3.0


EXISTING FACE BRICK/WALL CONSTRUCTION BEYOND
MEMBRANE ROOFING ON 5.2" RIGID INSULATION ON METAL ROOF DECK
EXTEND MEMBRANE UP VERTICAL WALL. TERMINATE PER MANUFACTURERS REQUIREMENTS.
5'-4" +/-
SLOPE
TRUSS BEARING = 117'-4"
T/MASONRY = 118'-8"
TRUSS BEARING = 116'-8"
3
RA3.1
STEEL JOISTS REFER TO FRAMING PLAN
1
RA6.0
INFILL EXISTING MASONRY WALL (BEYOND) WHERE HVAC GRILL AND DUCTWORK REMOVED. COORDINATE WITH MECHANICAL CONTRACTOR FIELD VERIFY EXACT SIZE AND LOCATION
T/MASONRY = 112'-8"
BEAM BEARING = 110'-8"
1
RA3.1
8" CONCRETE MASONRY
FACE BRICK
SPRAY FOAM INSULATION
STEEL BEAMS, REFER TO FRAMING PLAN
5/8 GYPSUM BOARD ON 3-5/8" METAL STUDS AT 16" O.C. TAPE, SAND SMOOTH, PAINT FINISH
SUSPENDED ACOUSTICAL CEILING
2
RA6.0
INFILL EXISTING MASONRY WALL (BEYOND) WHERE DOORS AND FRAME REMOVED. REFER TO INFILL DETAIL, FIELD VERIFY EXACT SIZE AND LOCATION
9'-0"
2
RA3.1
ALUMINUM WINDOW UNIT
COUNTERTOP AND CABINETS, REFER TO INTERIOR ELEVATIONS
T/SLAB = 100'-0"
T/SLAB = 100'-0"
REINFORCED CONCRETE SLAB ON VAPOR BARRIER ON COMPACTED FILL.
PERIMETER INSULATION
CONCRETE FOOTING AND FOUNDATION SYSTEM
PERIMETER INSULATION
CONCRETE FOOTING AND FOUNDATION SYSTEM

BUILDING SECTION

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

1
RA3.0

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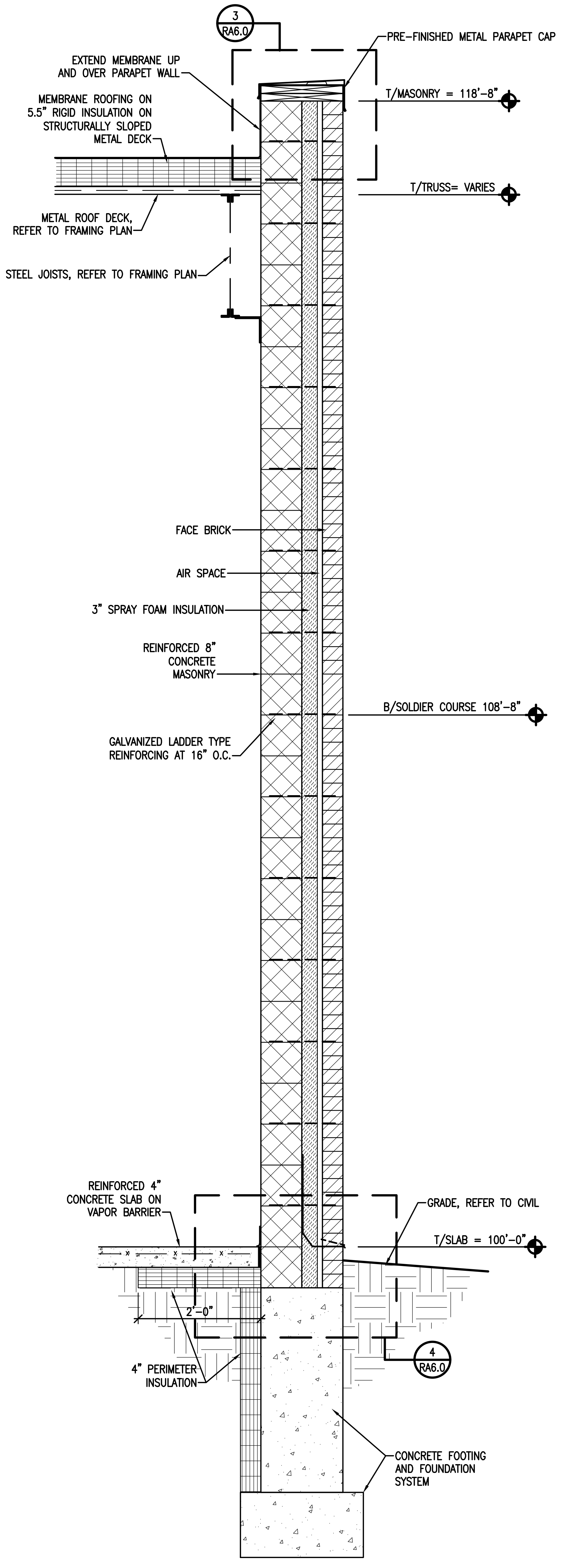
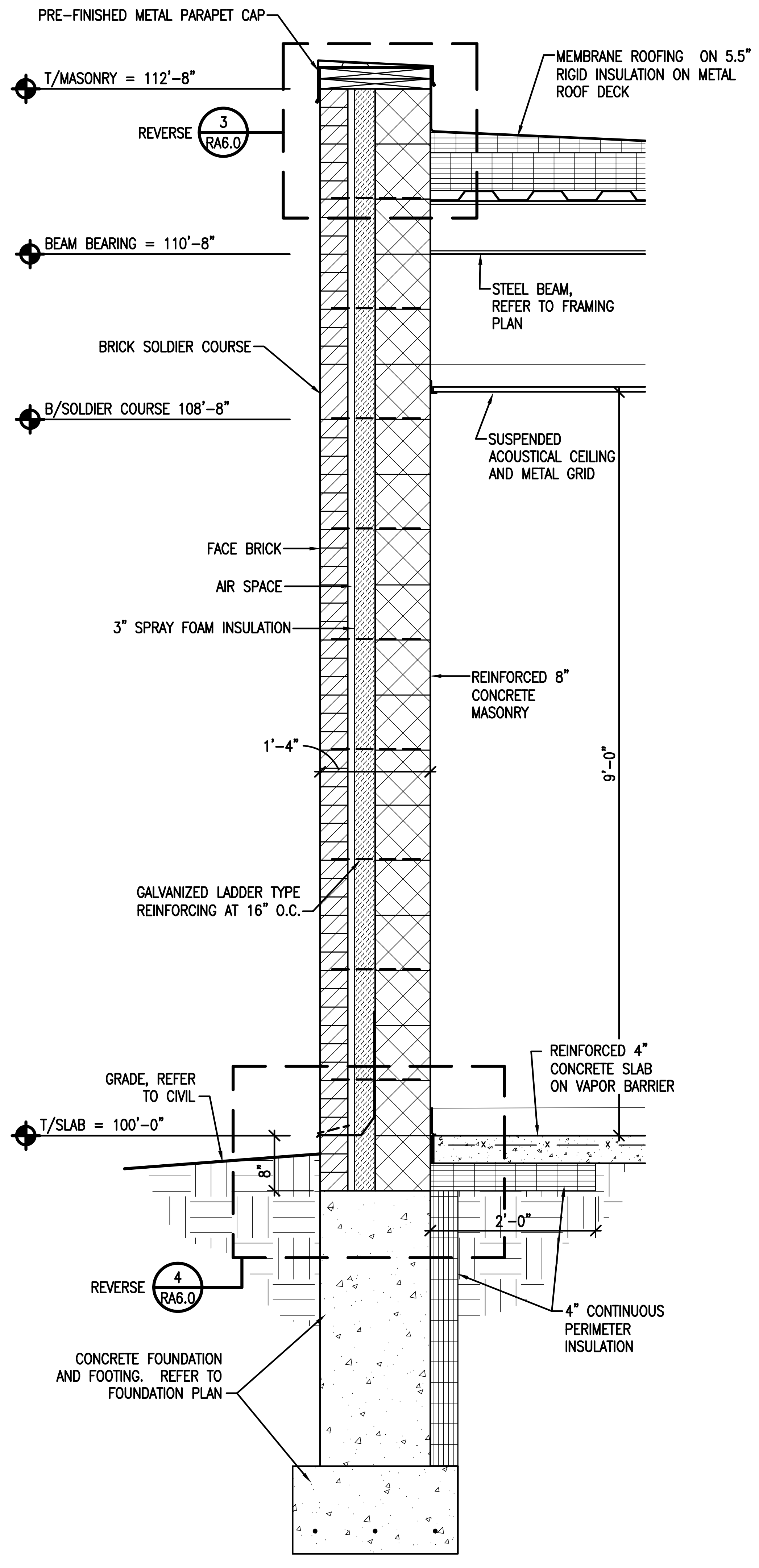
BUILDING SECTIONS

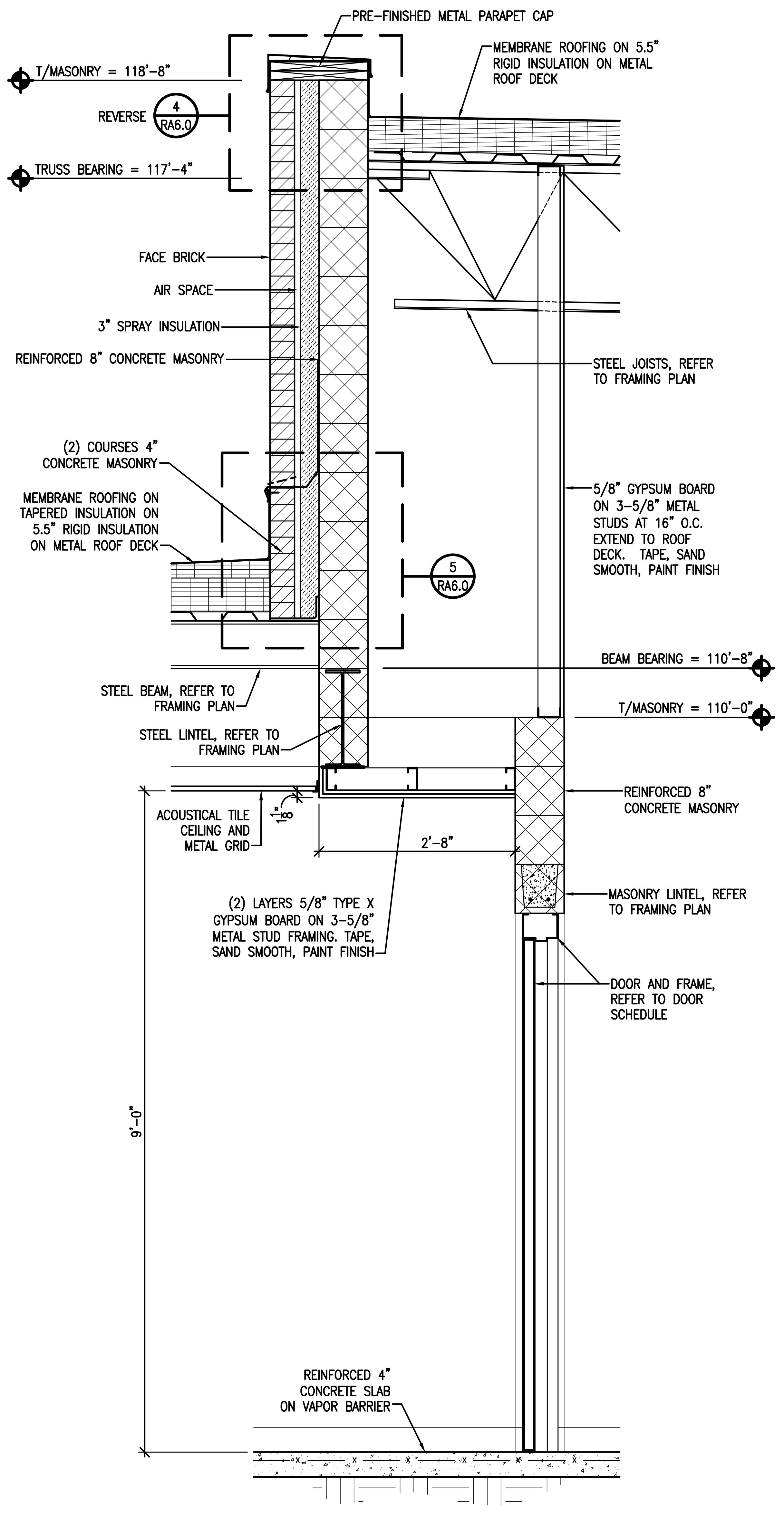
R-A3.0


3 RA6.0
PRE-FINISHED METAL PARAPET CAP
EXTEND MEMBRANE UP AND OVER PARAPET WALL
MEMBRANE ROOFING ON 5.5" RIGID INSULATION ON STRUCTURALLY SLOPED METAL DECK
T/MASONRY = 118'-8"
T/TRUSS= VARIES
METAL ROOF DECK, REFER TO FRAMING PLAN
STEEL JOISTS, REFER TO FRAMING PLAN
FACE BRICK
AIR SPACE
3" SPRAY FOAM INSULATION
REINFORCED 8" CONCRETE MASONRY
B/SOLDIER COURSE 108'-8"
GALVANIZED LADDER TYPE REINFORCING AT 16" O.C.
REINFORCED 4" CONCRETE SLAB ON VAPOR BARRIER
GRADE, REFER TO CIVIL
T/SLAB = 100'-0"
2'-0"
4 RA6.0
4" PERIMETER INSULATION
CONCRETE FOOTING AND FOUNDATION SYSTEM

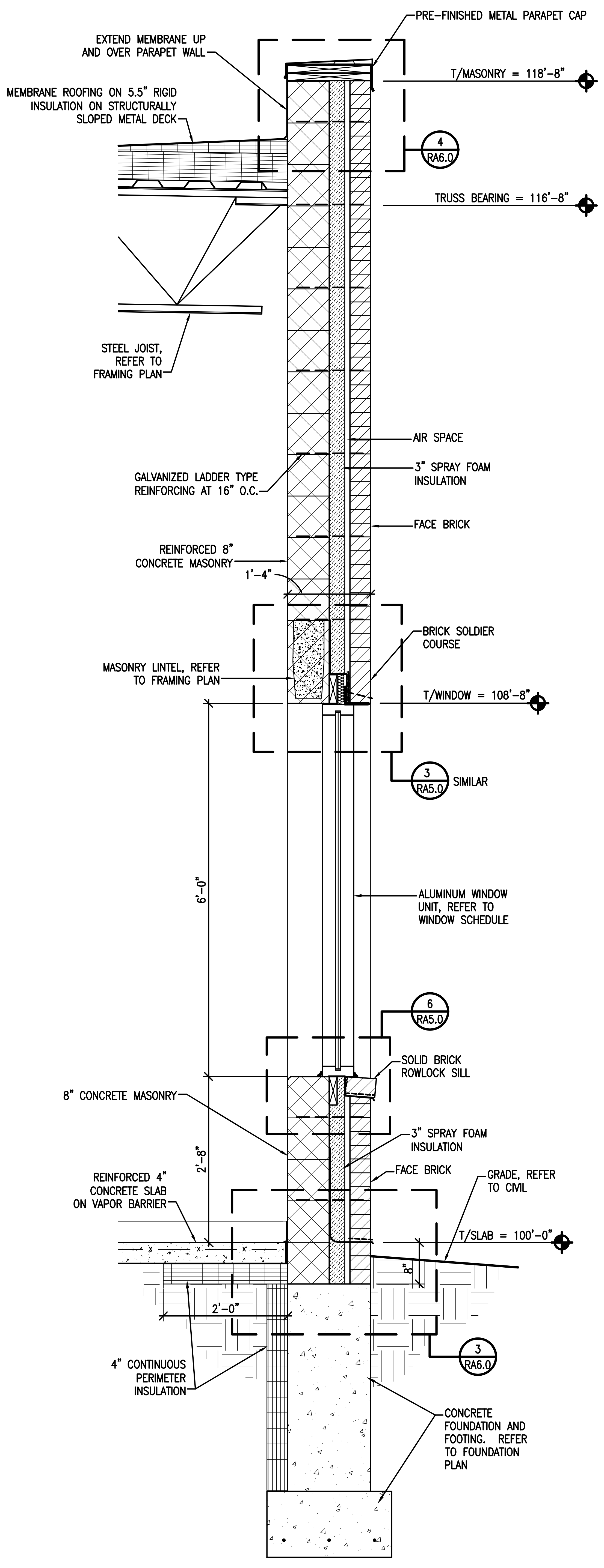
WALL SECTION 4 RA3.1
SCALE: 3/4" = 1'-0"


PRE-FINISHED METAL PARAPET CAP
T/MASONRY = 112'-8"
MEMBRANE ROOFING ON 5.5" RIGID INSULATION ON METAL ROOF DECK
REVERSE 3 RA6.0
BEAM BEARING = 110'-8"
STEEL BEAM, REFER TO FRAMING PLAN
BRICK SOLDIER COURSE
B/SOLDIER COURSE 108'-8"
SUSPENDED ACOUSTICAL CEILING AND METAL GRID
FACE BRICK
AIR SPACE
3" SPRAY FOAM INSULATION
REINFORCED 8" CONCRETE MASONRY
1'-4"
9'-0"
GALVANIZED LADDER TYPE REINFORCING AT 16" O.C.
GRADE, REFER TO CIVIL
REINFORCED 4" CONCRETE SLAB ON VAPOR BARRIER
T/SLAB = 100'-0"
8"
2'-0"
REVERSE 4 RA6.0
4" CONTINUOUS PERIMETER INSULATION
CONCRETE FOUNDATION AND FOOTING. REFER TO FOUNDATION PLAN

WALL SECTION 3 RA3.1
SCALE: 3/4" = 1'-0"


PRE-FINISHED METAL PARAPET CAP
T/MASONRY = 118'-8"
MEMBRANE ROOFING ON 5.5" RIGID INSULATION ON METAL ROOF DECK
REVERSE 4 RA6.0
TRUSS BEARING = 117'-4"
FACE BRICK
AIR SPACE
3" SPRAY INSULATION
REINFORCED 8" CONCRETE MASONRY
STEEL JOISTS, REFER TO FRAMING PLAN
(2) COURSES 4" CONCRETE MASONRY
MEMBRANE ROOFING ON TAPERED INSULATION ON 5.5" RIGID INSULATION ON METAL ROOF DECK
5/8" GYPSUM BOARD ON 3-5/8" METAL STUDS AT 16" O.C. EXTEND TO ROOF DECK. TAPE, SAND SMOOTH, PAINT FINISH
5 RA6.0
BEAM BEARING = 110'-8"
STEEL BEAM, REFER TO FRAMING PLAN
T/MASONRY = 110'-0"
STEEL LINTEL, REFER TO FRAMING PLAN
REINFORCED 8" CONCRETE MASONRY
ACOUSTICAL TILE CEILING AND METAL GRID
8"
2'-8"
MASONRY LINTEL, REFER TO FRAMING PLAN
(2) LAYERS 5/8" TYPE X GYPSUM BOARD ON 3-5/8" METAL STUD FRAMING. TAPE, SAND SMOOTH, PAINT FINISH
DOOR AND FRAME, REFER TO DOOR SCHEDULE
9'-0"
REINFORCED 4" CONCRETE SLAB ON VAPOR BARRIER

WALL SECTION 1 RA3.1
SCALE: 3/4" = 1'-0"


PRE-FINISHED METAL PARAPET CAP
EXTEND MEMBRANE UP AND OVER PARAPET WALL
T/MASONRY = 118'-8"
MEMBRANE ROOFING ON 5.5" RIGID INSULATION ON STRUCTURALLY SLOPED METAL DECK
4 RA6.0
TRUSS BEARING = 116'-8"
STEEL JOIST, REFER TO FRAMING PLAN
AIR SPACE
3" SPRAY FOAM INSULATION
GALVANIZED LADDER TYPE REINFORCING AT 16" O.C.
FACE BRICK
REINFORCED 8" CONCRETE MASONRY
1'-4"
BRICK SOLDIER COURSE
MASONRY LINTEL, REFER TO FRAMING PLAN
T/WINDOW = 108'-8"
3 RA5.0 SIMILAR
6'-0"
ALUMINUM WINDOW UNIT, REFER TO WINDOW SCHEDULE
6 RA5.0
SOLID BRICK ROWLOCK SILL
8" CONCRETE MASONRY
3" SPRAY FOAM INSULATION
2'-8"
FACE BRICK
REINFORCED 4" CONCRETE SLAB ON VAPOR BARRIER
GRADE, REFER TO CIVIL
T/SLAB = 100'-0"
8"
2'-0"
3 RA6.0
4" CONTINUOUS PERIMETER INSULATION
CONCRETE FOUNDATION AND FOOTING. REFER TO FOUNDATION PLAN

WALL SECTION 1 RA3.1
SCALE: 3/4" = 1'-0"

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ARCHITECTURE
ENGINEERING
CONSULTING

INTEGRATED DESIGNS INC.

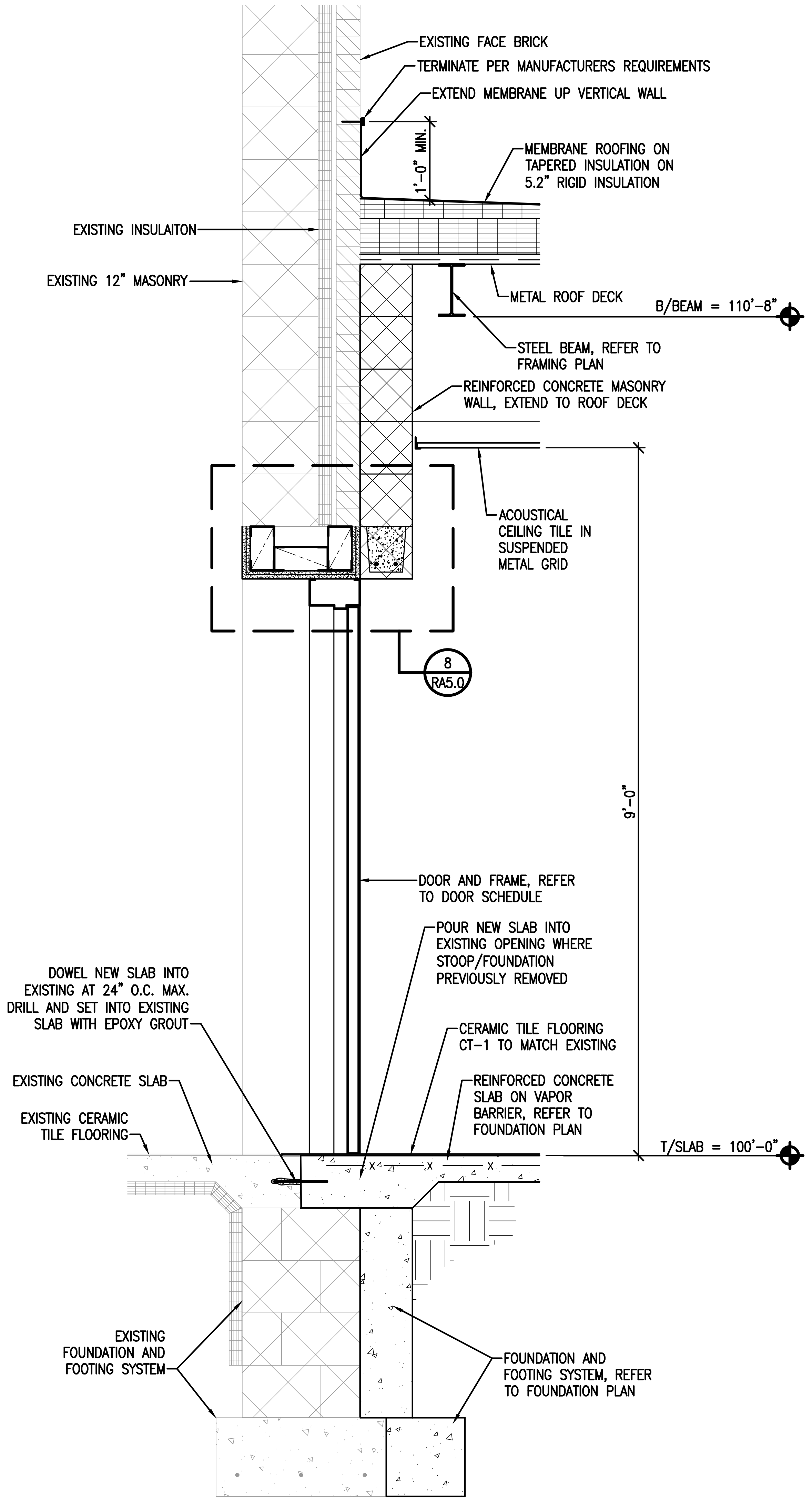
BEAL CITY PUBLIC SCHOOLS
2024 BOND WORK
MT PLEASANT, MICHIGAN
PROJECT NO. 22-037

	BY	DATE
DESIGN	---	---
DRAWN	---	---
CHECKED	---	---
APPROVED	---	---

NO.	REVISIONS	DATE
B	FINAL REVIEW	3-14-25
0	FOR CONSTRUCTION	3-27-25

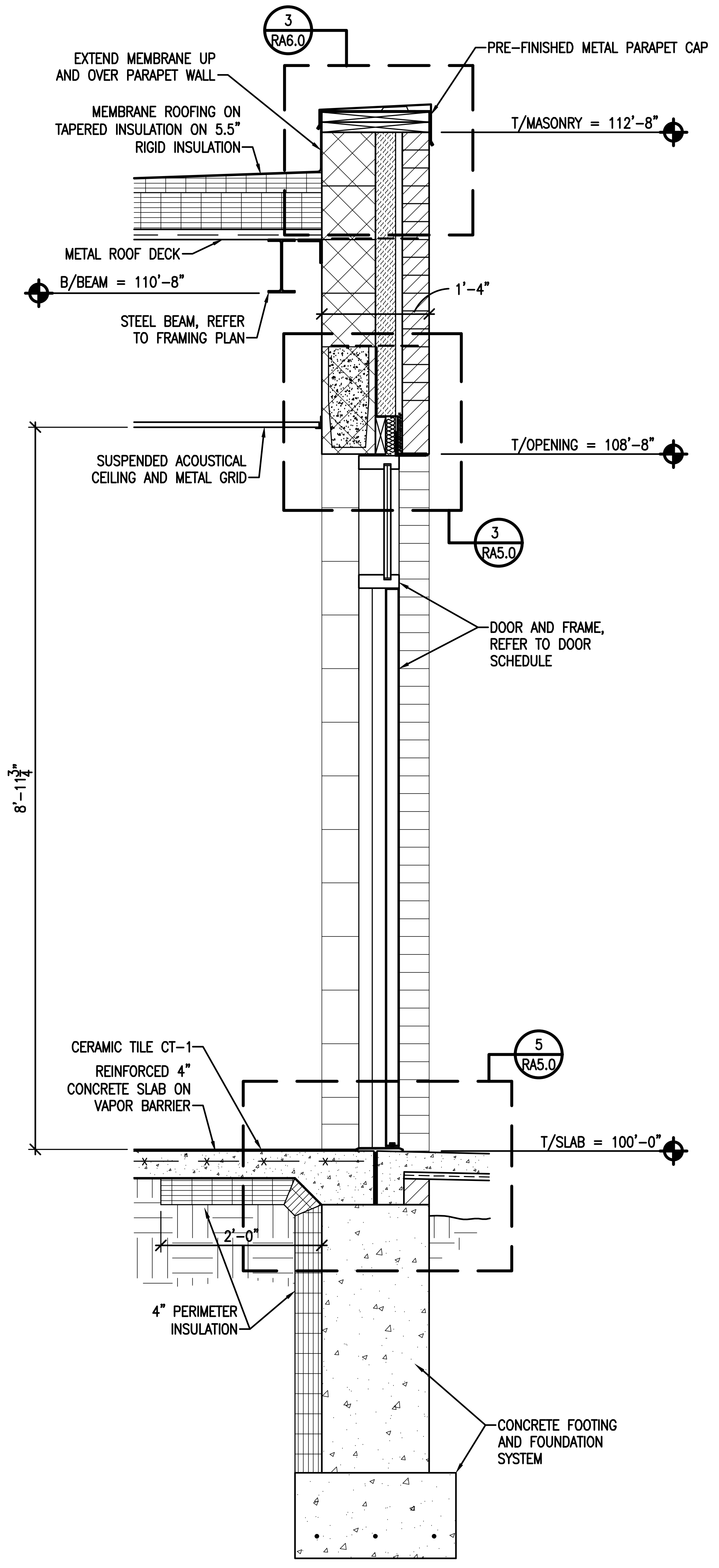
WALL SECTIONS

R-A3.1



EXISTING FACE BRICK
TERMINATE PER MANUFACTURERS REQUIREMENTS
EXTEND MEMBRANE UP VERTICAL WALL
1'-0" MIN.
MEMBRANE ROOFING ON TAPERED INSULATION ON 5.2" RIGID INSULATION
EXISTING INSULAITON
EXISTING 12" MASONRY
METAL ROOF DECK
B/BEAM = 110'-8"
STEEL BEAM, REFER TO FRAMING PLAN
REINFORCED CONCRETE MASONRY WALL, EXTEND TO ROOF DECK
ACOUSTICAL CEILING TILE IN SUSPENDED METAL GRID
8
RA5.0
9'-0"
DOOR AND FRAME, REFER TO DOOR SCHEDULE
POUR NEW SLAB INTO EXISTING OPENING WHERE STOOP/FOUNDATION PREVIOUSLY REMOVED
DOWEL NEW SLAB INTO EXISTING AT 24" O.C. MAX. DRILL AND SET INTO EXISTING SLAB WITH EPOXY GROUT
CERAMIC TILE FLOORING CT-1 TO MATCH EXISTING
EXISTING CONCRETE SLAB
REINFORCED CONCRETE SLAB ON VAPOR BARRIER, REFER TO FOUNDATION PLAN
EXISTING CERAMIC TILE FLOORING
T/SLAB = 100'-0"
EXISTING FOUNDATION AND FOOTING SYSTEM
FOUNDATION AND FOOTING SYSTEM, REFER TO FOUNDATION PLAN

WALL SECTION 2 RA3.2
SCALE: 3/4" = 1'-0"



3
RA6.0
PRE-FINISHED METAL PARAPET CAP
EXTEND MEMBRANE UP AND OVER PARAPET WALL
MEMBRANE ROOFING ON TAPERED INSULATION ON 5.5" RIGID INSULATION
T/MASONRY = 112'-8"
METAL ROOF DECK
B/BEAM = 110'-8"
1'-4"
STEEL BEAM, REFER TO FRAMING PLAN
SUSPENDED ACOUSTICAL CEILING AND METAL GRID
T/OPENING = 108'-8"
3
RA5.0
DOOR AND FRAME, REFER TO DOOR SCHEDULE
8'-11¾"
CERAMIC TILE CT-1
REINFORCED 4" CONCRETE SLAB ON VAPOR BARRIER
5
RA5.0
T/SLAB = 100'-0"
2'-0"
4" PERIMETER INSULATION
CONCRETE FOOTING AND FOUNDATION SYSTEM

WALL SECTION 1 RA3.2
SCALE: 3/4" = 1'-0"

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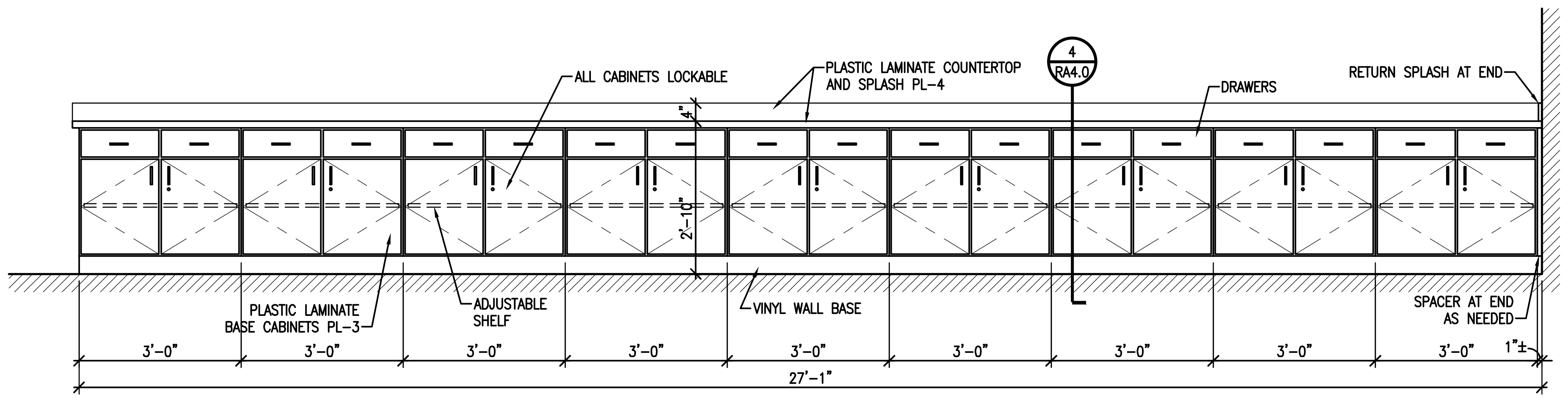
CHECKED	---	---
APPROVED	---	---

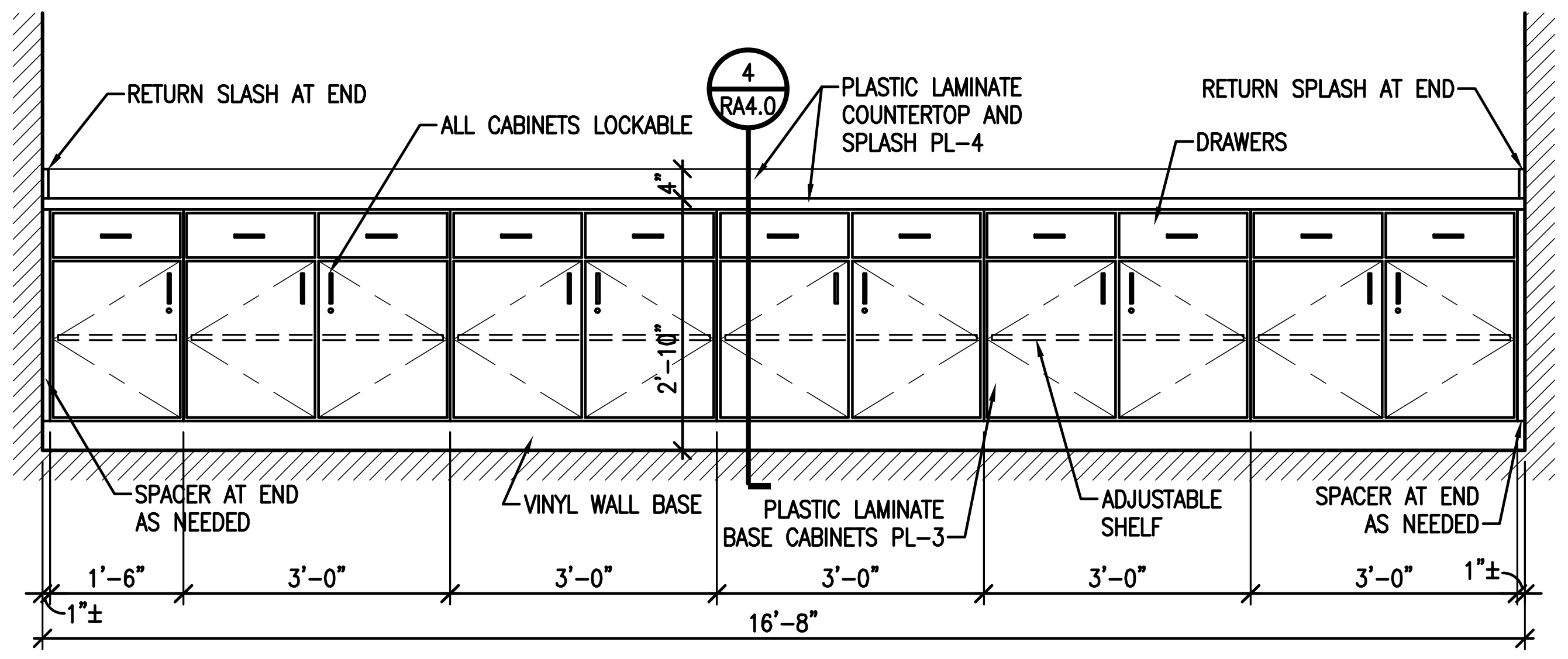
WALL SECTIONS

R-A3.2



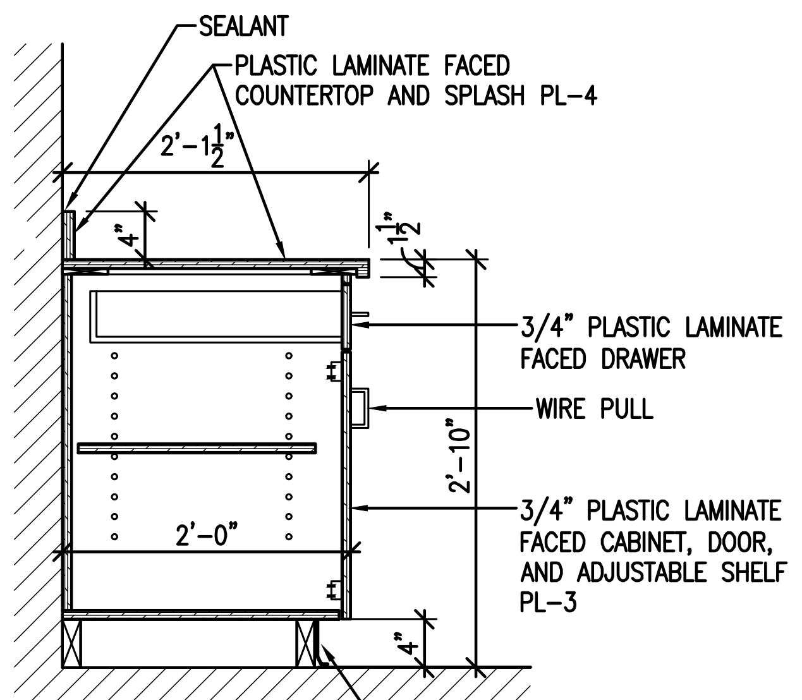
ALL CABINETS TO BE LOCKABLE

INTERIOR ELEVATION
SCALE: 1/2" = 1'-0"
3
RA4.0

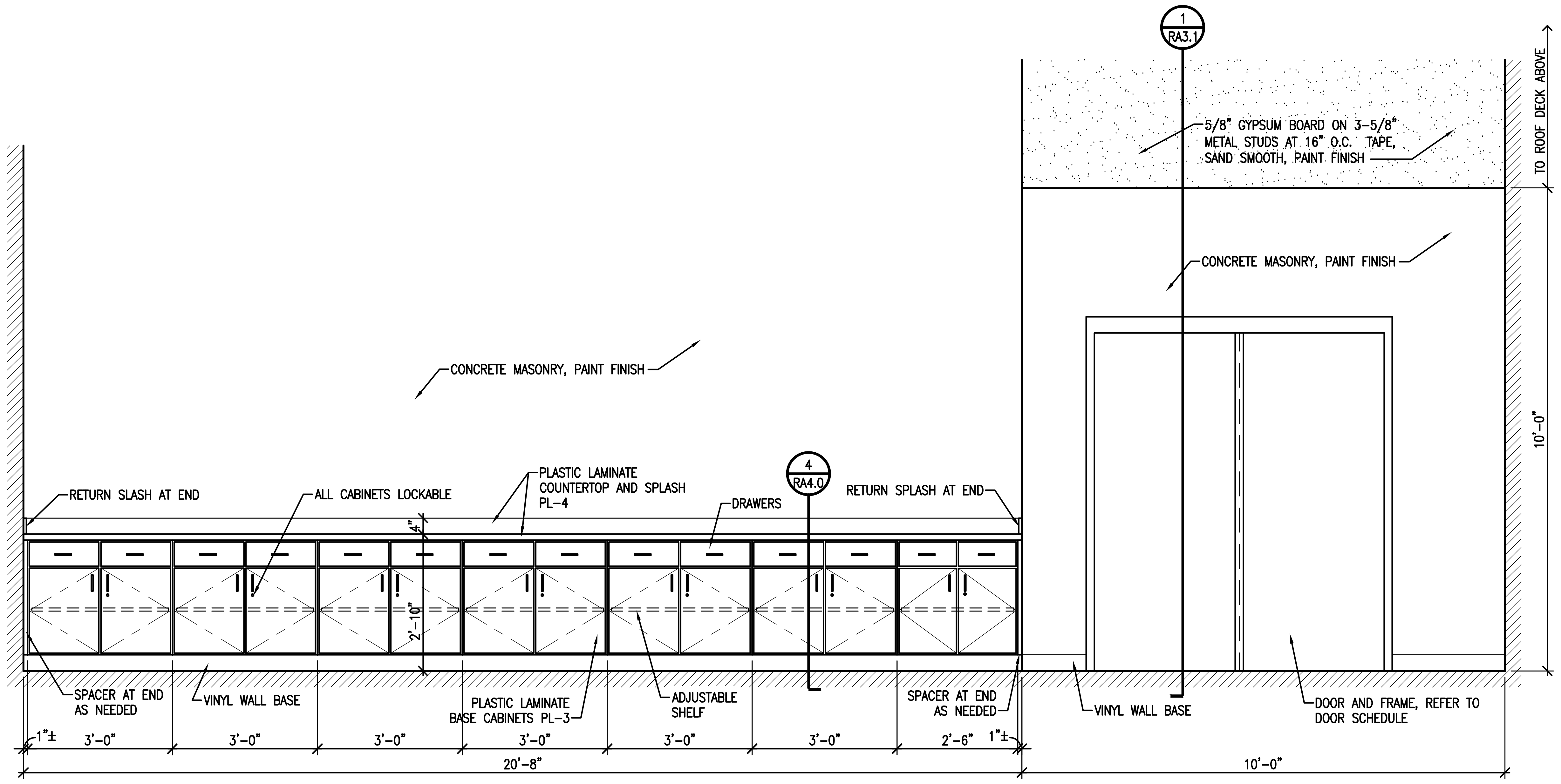


ALL CABINETS TO BE LOCKABLE

INTERIOR ELEVATION
SCALE: 1/2" = 1'-0"
2
RA4.0


SEALANT
PLASTIC LAMINATE FACED COUNTERTOP AND SPLASH PL-4
2'-1½"
4"
1½"
3/4" PLASTIC LAMINATE FACED DRAWER
WIRE PULL
2'-10"
3/4" PLASTIC LAMINATE FACED CABINET, DOOR, AND ADJUSTABLE SHELF PL-3
2'-0"
4"
VINYL BASE

CASEWORK SECTION
SCALE: 3/4" = 1'-0"
4
RA4.0


1
RA3.1
TO ROOF DECK ABOVE
5/8" GYPSUM BOARD ON 3-5/8" METAL STUDS AT 16" O.C. TAPE, SAND SMOOTH, PAINT FINISH
CONCRETE MASONRY, PAINT FINISH
CONCRETE MASONRY, PAINT FINISH
10'-0"
RETURN SLASH AT END
ALL CABINETS LOCKABLE
PLASTIC LAMINATE COUNTERTOP AND SPLASH PL-4
DRAWERS
4
RA4.0
RETURN SPLASH AT END
4"
2'-10"
SPACER AT END AS NEEDED
VINYL WALL BASE
PLASTIC LAMINATE BASE CABINETS PL-3
ADJUSTABLE SHELF
SPACER AT END AS NEEDED
VINYL WALL BASE
DOOR AND FRAME, REFER TO DOOR SCHEDULE
1"±
3'-0"
3'-0"
3'-0"
3'-0"
3'-0"
3'-0"
2'-6"
1"±
20'-8"
10'-0"

ALL CABINETS TO BE LOCKABLE

INTERIOR ELEVATION
SCALE: 1/2" = 1'-0"
1
RA4.0

IDI
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2024 BOND WORK
MT PLEASANT, MICHIGAN
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NO.	REVISIONS	DATE
A	DD REVIEW	1-16-25
B	FINAL REVIEW	3-14-25
0	FOR CONSTRUCTION	3-27-25

	BY	DATE
DESIGN	---	---
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CHECKED	---	---
APPROVED	---	---

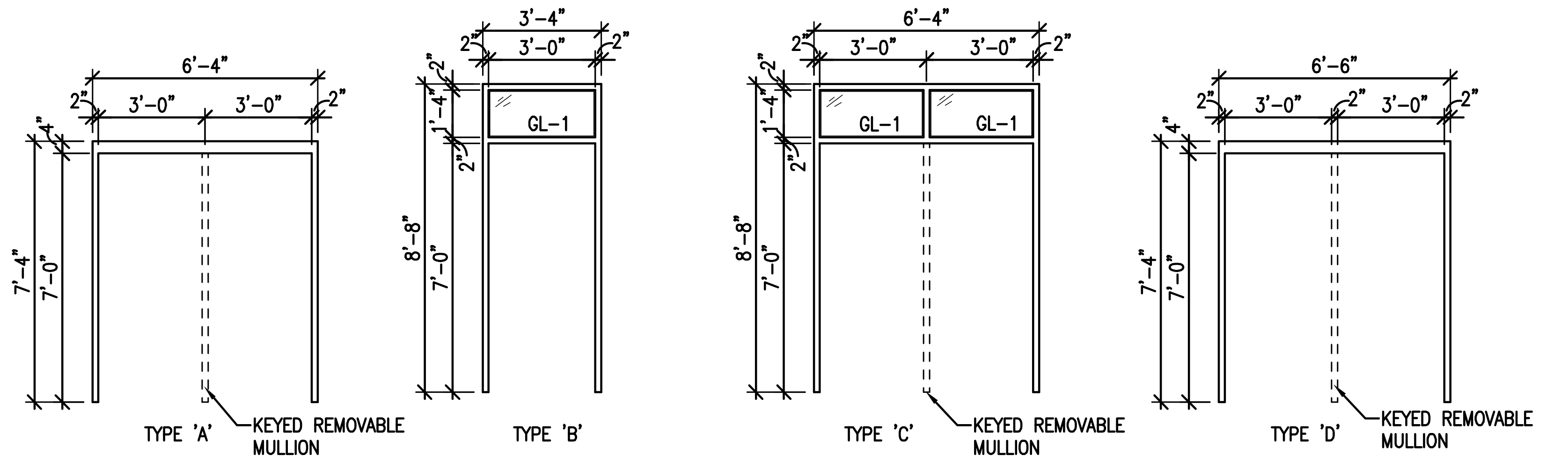
INTERIOR ELEVATIONS

R-A4.0

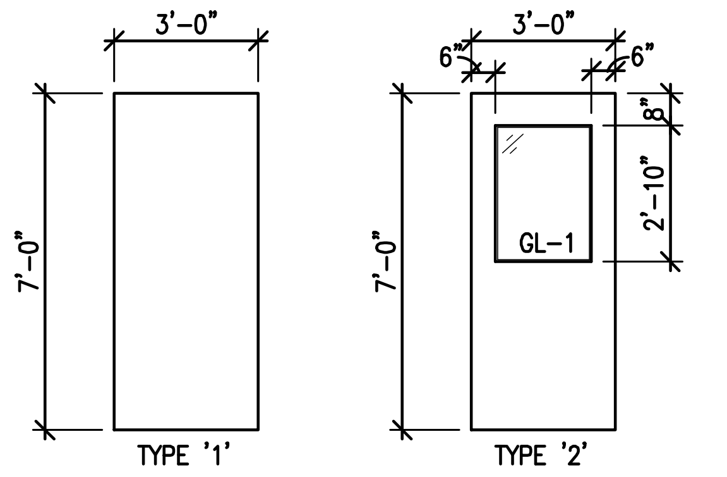
DOOR SCHEDULE

DOOR NUMBER	FRAME		DOOR				HARDWARE SET	DETAIL REFERENCE			* REMARKS *
	MATERIAL	TYPE	MATERIAL	TYPE	FIRE RATING	SIZE		HEAD	JAMB	THRESHOLD	
380.0	HM	A *	HM	1	90 MIN.	(2) 3'-0" x 7'-0"	03	8/RA5.0	9/RA5.0		7-3/4" FRAME DEPTH
380.1	ALUM	D	FRP	2		(2) 3'-0" x 7'-0"	11	3/RA5.0	4/RA5.0	5/RA5.0	
381.0	HM	A	HM	1	20 MIN.	(2) 3'-0" x 7'-0"	04	1/RA5.0	2/RA5.0		
381.1	ALUM	B	FRP	1		(2) 3'-0" x 7'-0"	15	3/RA5.0	4/RA5.0	5/RA5.0	
382.0	HM	A	HM	1		(2) 3'-0" x 7'-0"	02	1/RA5.0	2/RA5.0		
382.1	ALUM	C	FRP	1		(2) 3'-0" x 7'-0"	10	3/RA5.0	4/RA5.0	5/RA5.0	
344.0	ALUM	B	FRP	1		3'-0" x 7'-0"	09	10/RA5.0	12/RA5.0	11/RA5.0	

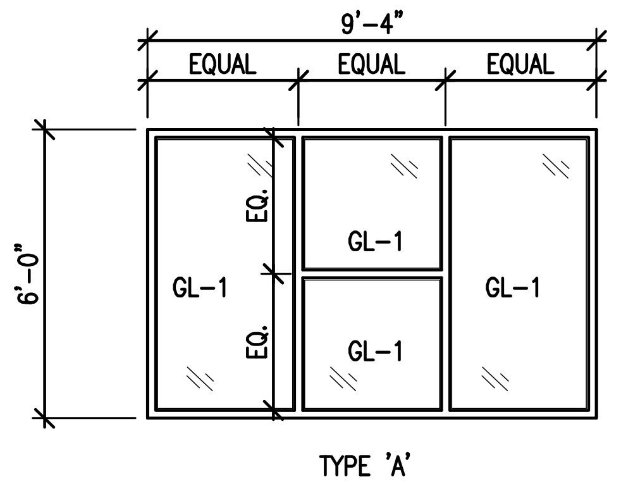
FRAME TYPES



DOOR TYPES



WINDOW TYPES



ROOM FINISH SCHEDULE

ROOM		CEILING TYPE	FLOOR	BASE	WALLS					* REMARKS *
NUMBER	NAME				TYPICAL	NORTH	EAST	SOUTH	WEST	
343	CORRIDOR (EXISTING)	EXIST	EXIST	EXIST						
380	CORRIDOR	ACT-1	CT-1	CTB-1		PNT-1	PNT-1	PNT-1	PNT-1	
381	LEARNING LAB 1	EXPOSED	LVT-1	VB-1	*	PNT-1	PNT-1	PNT-1	PNT-1	REFER TO SPECIFICATIONS FOR ACOUSTICAL WALL PANEL TREATMENT
382	LEARNIGN LAB 2	EXPOSED	CONC-1	VB-1		PNT-1	PNT-1	PNT-1	PNT-1	
346	CLASSROOM (EXISTING)	EXIST	CPT-1*	VB-1*		PNT-1	PNT-1			PATCH EXISTING CARPET & WALL BASE AS NEEDED

WINDOW SCHEDULE

WINDOW DESIG.	FRAME		WINDOW			DETAIL REFERENCE			REMARKS
	MATERIAL	TYPE	TYPE	GLAZING	SIZE	HEAD	JAMB	SILL	
A	ALUM	A	FIXED	GL-1	9'-4" x 6'-0"	3/RA5.0 SIM.	7/RA5.0	6/RA5.0	

GENERAL NOTES TO DOOR AND WINDOW SCHEDULES

1. DOOR NUMBER: SEE FLOOR PLAN(S) FOR LOCATION OF DOORS/WINDOWS.
2. FRAME: SEE CODE TO "DOOR/WINDOW SCHEDULE" FOR DEFINITION OF DESIGNATIONS IN MATERIAL COLUMN. SEE "DOOR FRAMES" OR "WINDOW TYPES" FOR DESCRIPTION OF DESIGNATIONS IN FRAME TYPE COLUMN.
3. DOOR: SEE CODE TO "DOOR/WINDOW SCHEDULE" FOR DEFINITION OF DESIGNATIONS IN MATERIAL COLUMN. SEE "DOOR TYPES" FOR DESCRIPTION OF DESIGNATIONS IN DOOR TYPE COLUMN.
4. WINDOW: SEE CODE TO "DOOR/WINDOW SCHEDULE" FOR DEFINITION OF DESIGNATIONS IN GLAZING COLUMN.
5. FIRE RATING: LABELING INDICATED IS PER NFPA 80. LABELS SHALL BE APPROVED AND PERMANENTLY AFFIXED.
6. SIZE: SIZE IS GIVEN AS WIDTH x HEIGHT.
7. HARDWARE SET: SEE HARDWARE SPECIFICATIONS FOR DESCRIPTIONS.
8. ALL INTERIOR AND EXTERIOR WINDOWS WITHIN 24" TO THE VERTICAL EDGE OF AN INTERIOR OR EXTERIOR DOOR MUST CONTAIN TEMPERED SAFETY GLASS.

CODE TO DOOR AND WINDOW SCHEDULES

SIM.	SIMILAR
EXIST	EXISTING TO REMAIN
ALUM	ALUMINUM
HM	HOLLOW METAL
FRP	FIBER-REINFORCED PLASTIC
EXPOSED	EXPOSED STRUCTURE, PAINT FINISH
GL-1	INSULATED LAMINATED SAFETY GLAZING

GENERAL NOTES TO FIN. SCHEDULE

1. ROOM: SEE FLOOR PLAN(S) FOR LOCATION OF ROOM NUMBERS AND NAMES.
2. CEILING TYPE, FLOOR, AND BASE: SEE "CODE TO ROOM FINISH SCHEDULE" FOR DEFINITION OF DESIGNATIONS.
3. WALLS: SEE "CODE TO ROOM FINISH SCHEDULE" FOR DEFINITION OF DESIGNATIONS IN TYPICAL, NORTH, SOUTH, EAST, AND WEST COLUMNS.
4. REMARKS: SEE "REMARKS TO FINISH SCHEDULE".
5. SIGN TYPE: SEE SPECIFICATIONS FOR SIGN TYPES. LOCATE SIGN INDICATED ON WALL OUTSIDE ROOM NEAR MAIN ROOM DOOR.

CODE TO FINISHES

-- CEILING FINISHES --

ACT-1	24X24 SCHOOL ZONE FINE FISSURED, HIGH ACOUSTICAL SQUARE LAY IN ACOUSTICAL CEILING TILE (1810), IN SUSPENDED 15/16" METAL GRID. COLOR: WHITE, NRC: 0.70
GB-2	SUSPENDED GYPSUM BOARD CEILING, (3) LAYERS 5/8" TYPE 'X' GYPSUM BOARD ON 3-5/8" METAL STUD FRAMING AT 16" O.C. MAX. TAPE, SAND SMOOTH, PAINT FINISH PT-3

-- LVT TILE --

LVT-1	LUXURY VINYL TILE, REFER TO SPECIFICAITONS

-- CARPET --

CPT-1	MATCH EXISTING CARPET: TARKETT, STYLE: STACK 9, COLOR: MINERAL SPRING, SIZE: 9"X36", INSTALLATION: PATCH INTO EXISTING ADJACENT CARPET

-- RESILIENT BASE --

VB-1	4" VINYL BASE - COVED. JOHNSONITE, COLOR GATEWAY WG

-- CERAMIC TILE --

CT-1	CERAMIC TILE, CROSSVILLE, PORCELAIN STONE, CROSS-COLORS MINGLES, COLOR: A900 MICA UNPOLISHED, SIZE: 12"X12", GROUT: TBD, INSTALLATION: STANDARD.
CTB-1	CERAMIC TILE COVED BASE, CROSSVILLE, PORCELAIN STONE, CROSS-COLORS MINGLES, COLOR: A900 MICA UNPOLISHED, SIZE: 6"X8". GROUT: TBD.

-- CONCRETE --

CONC-1	SEALED CONCRETE

--CABINETRY --

PL-3	PLASTIC LAMINATE - WILSONART, COLOR: TAN ECHO 7941K-18 LINEARITY FINISH
PL-4	PLASTIC LAMINATE - WILSONART, COLOR: BEIGE PAMPAS 4170-60 MATTE FINISH

-- PAINT FINISH --

NOTE: ALL COLORS TO BE VERIFIED WITH ARCHITECT AND/OR OWNER PRIOR TO INSTALLATION.

NOTE: BLOCK FILLER WITH PT FINISH ON ALL CONCRETE MASONRY. EPOXY PAINT FINISH WHERE INDICATED AND IN MOISTURE PREVALENT AREAS. BRICK SHALL NOT BE PAINTED UNLESS OTHERWISE NOTED.

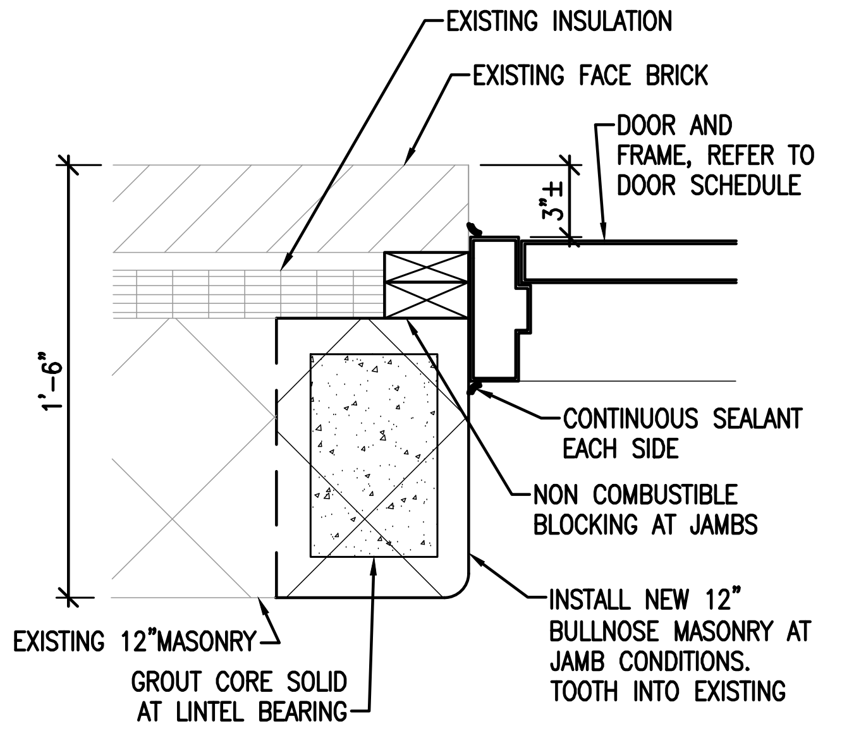
PT-1 (WALLS) SHERWIN WILLIAMS, COLOR: DISTRICT STANDARD WALL COLOR, FIELD VERIFY COLOR AND FINISH WITH OWNER
FINISH: B66W01151 - PRO INDUSTRIAL DTM ACRYLIC SEMI-GLOSS EXTRA WHITE
B1-16/32, 1/128
Y3-2Y, 17/32, 1/128

PT-2 (DOORS) SHERWIN WILLIAMS, COLOR: DISTRICT STANDARD DOOR/FRAME COLOR, FIELD VERIFY COLOR AND FINISH WITH OWNER

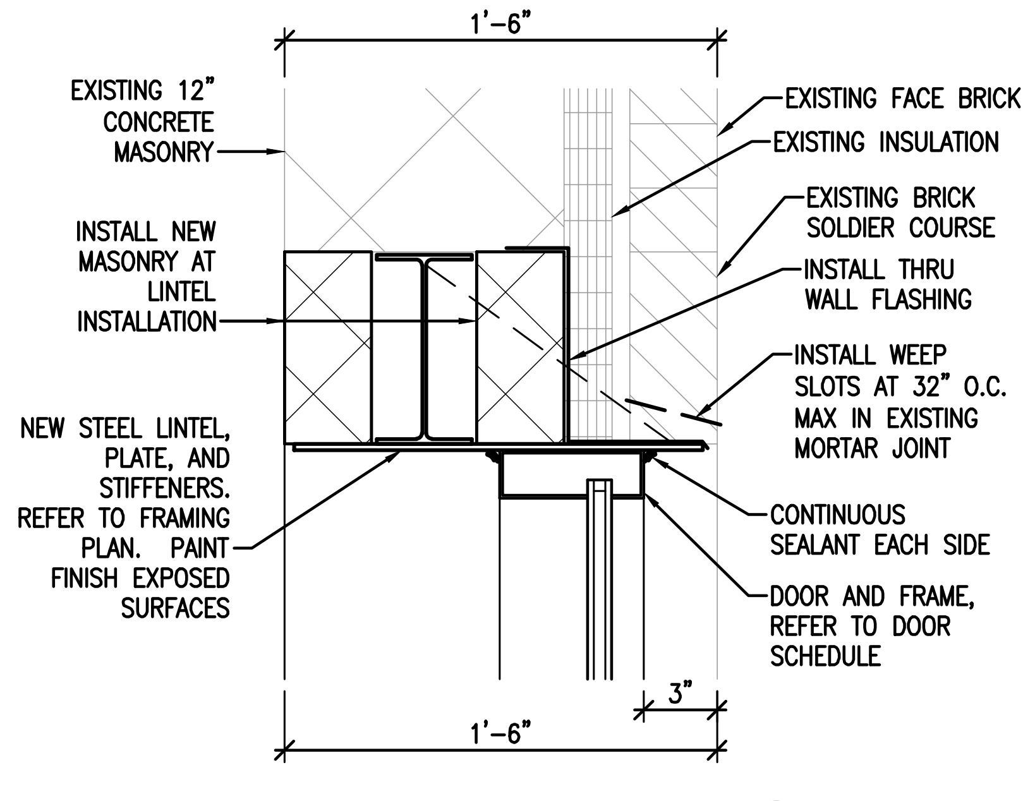
FRAME FINISH: B66T00604 - PRO INDUSTRIAL HIGH PERFORMANCE ACRYLIC GLOSS ULTRA DEEP
W1-2Y, 50/32, 1/128
L1-10Y, 18/32
R3-59/32, 1/64, 1/128

DOOR FINISH: TO MATCH EXISTING, FIELD VERIFY COLOR AND FINISH WITH OWNER

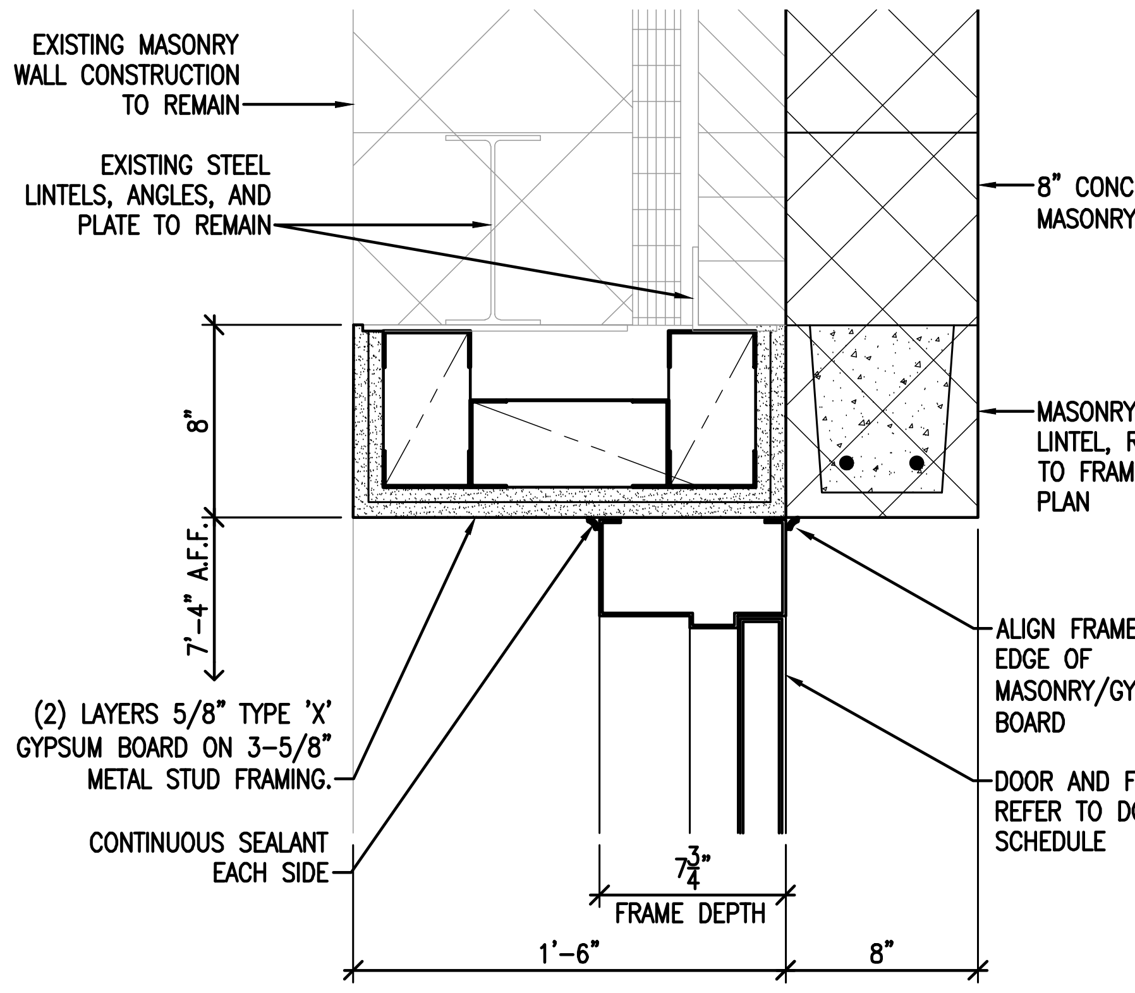
PT-3 - CEILING - UNLESS OTHERWISE NOTED, SHERWIN WILLIAMS, STANDARD CEILING PAINT, WHITE, FLAT FINISH


EXISTING INSULATION
EXISTING FACE BRICK
DOOR AND FRAME, REFER TO DOOR SCHEDULE
3"±
1'-6"
CONTINUOUS SEALANT EACH SIDE
NON COMBUSTIBLE BLOCKING AT JAMBS
INSTALL NEW 12" BULLNOSE MASONRY AT JAMB CONDITIONS. TOOTH INTO EXISTING
EXISTING 12"MASONRY
GROUT CORE SOLID AT LINTEL BEARING

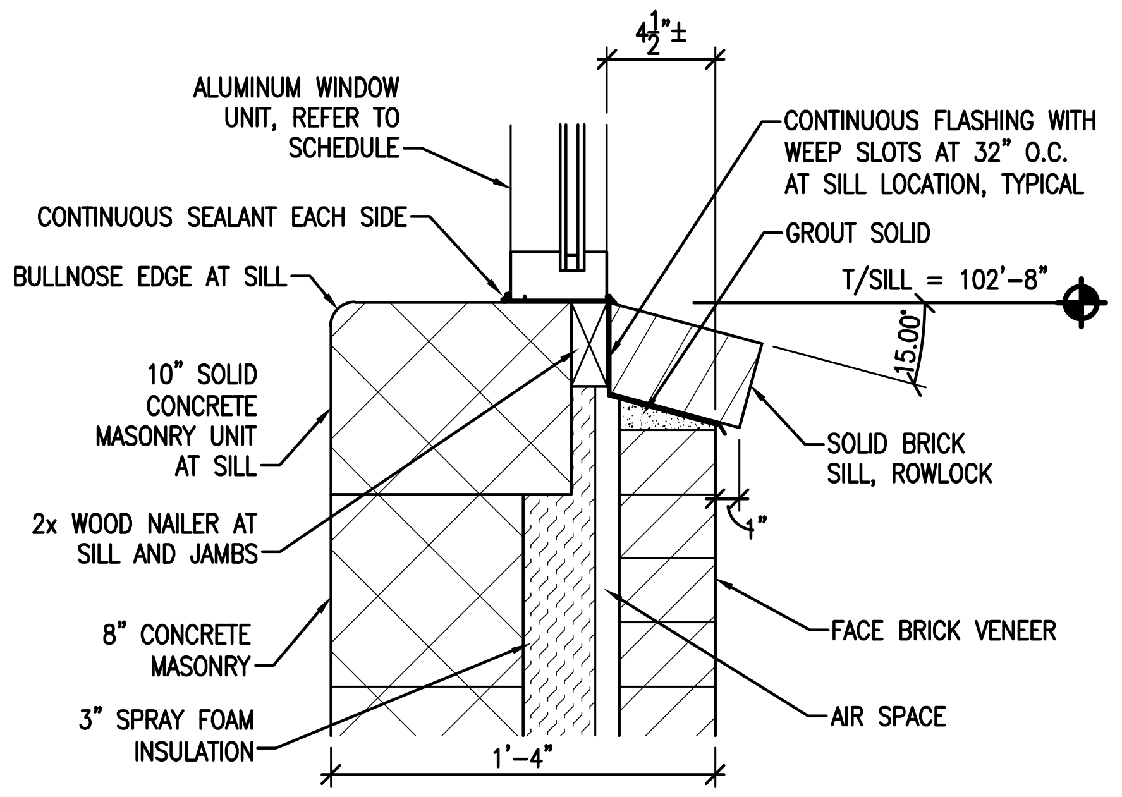
JAMB DETAIL
SCALE: 1-1/2" = 1'-0"
12 RA5.0


1'-6"
EXISTING 12" CONCRETE MASONRY
INSTALL NEW MASONRY AT LINTEL INSTALLATION
NEW STEEL LINTEL, PLATE, AND STIFFENERS. REFER TO FRAMING PLAN. PAINT FINISH EXPOSED SURFACES
EXISTING FACE BRICK
EXISTING INSULATION
EXISTING BRICK SOLDIER COURSE
INSTALL THRU WALL FLASHING
INSTALL WEEP SLOTS AT 32" O.C. MAX IN EXISTING MORTAR JOINT
CONTINUOUS SEALANT EACH SIDE
DOOR AND FRAME, REFER TO DOOR SCHEDULE
3"
1'-6"

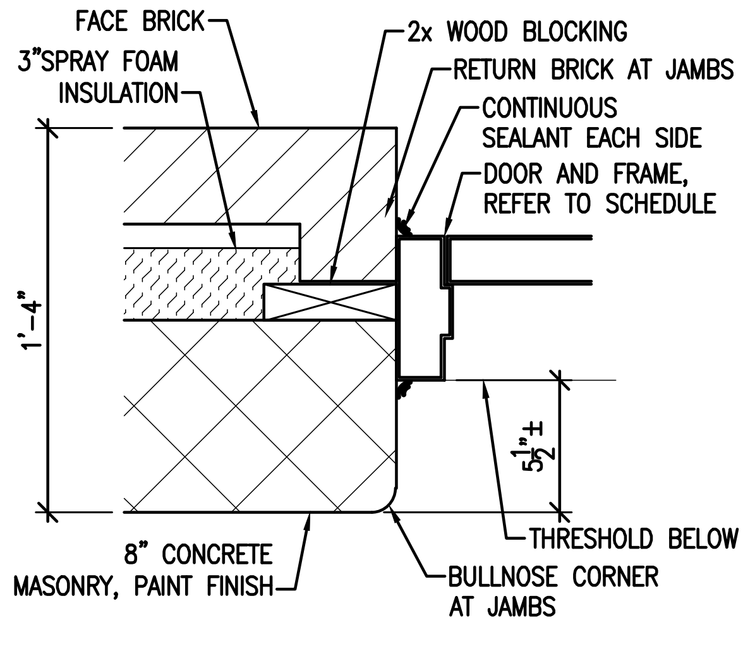
HEAD DETAIL
SCALE: 1-1/2" = 1'-0"
10 RA5.0


EXISTING MASONRY WALL CONSTRUCTION TO REMAIN
EXISTING STEEL LINTELS, ANGLES, AND PLATE TO REMAIN
8" CONCRETE MASONRY
MASONRY LINTEL, REFER TO FRAMING PLAN
8"
7'-4" A.F.F.
(2) LAYERS 5/8" TYPE 'X' GYPSUM BOARD ON 3-5/8" METAL STUD FRAMING.
CONTINUOUS SEALANT EACH SIDE
ALIGN FRAME WITH EDGE OF MASONRY/GYPSUM BOARD
DOOR AND FRAME, REFER TO DOOR SCHEDULE
7¾"
FRAME DEPTH
1'-6"
8"

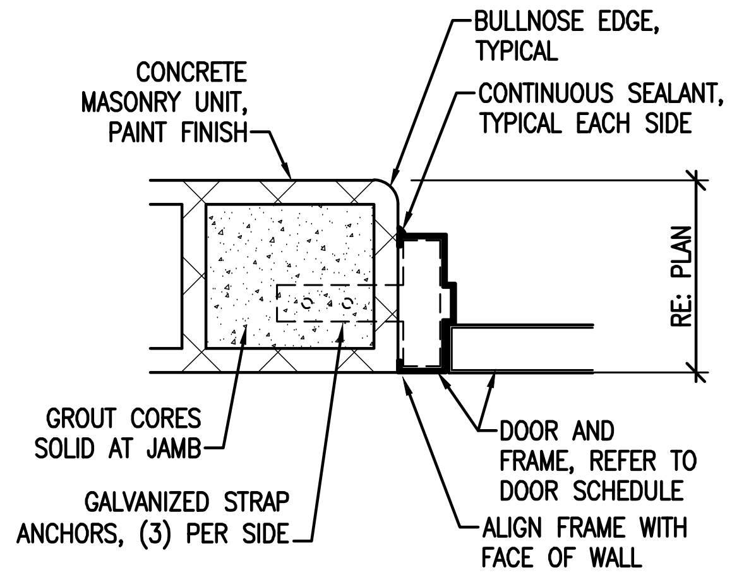
HEAD DETAIL
SCALE: 1-1/2" = 1'-0"
8 RA5.0


4½"±
ALUMINUM WINDOW UNIT, REFER TO SCHEDULE
CONTINUOUS SEALANT EACH SIDE
BULLNOSE EDGE AT SILL
10" SOLID CONCRETE MASONRY UNIT AT SILL
2x WOOD NAILER AT SILL AND JAMBS
8" CONCRETE MASONRY
3" SPRAY FOAM INSULATION
CONTINUOUS FLASHING WITH WEEP SLOTS AT 32" O.C. AT SILL LOCATION, TYPICAL
GROUT SOLID
T/SILL = 102'-8"
15.00°
SOLID BRICK SILL, ROWLOCK
1"
FACE BRICK VENEER
AIR SPACE
1'-4"

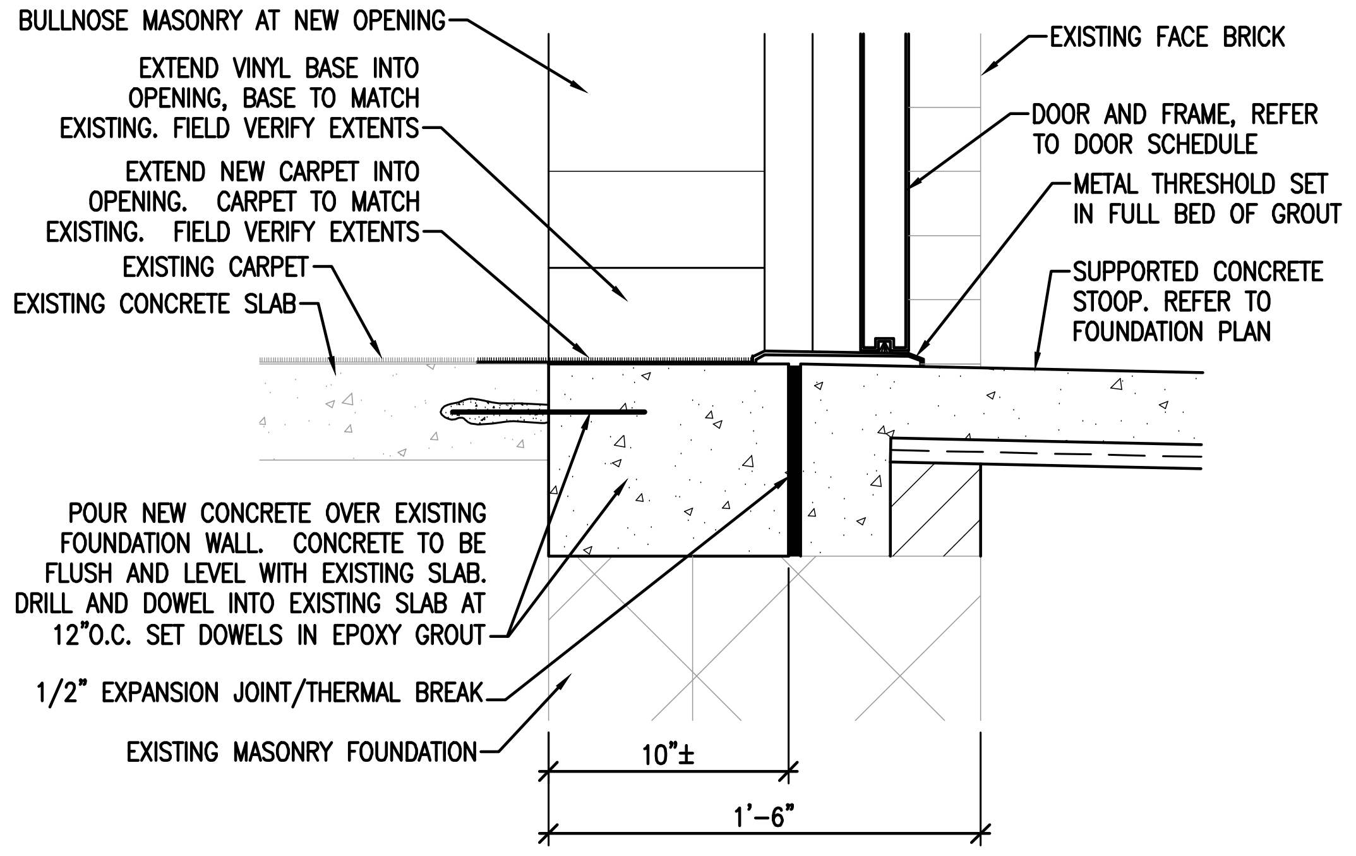
SILL DETAIL
SCALE: 1-1/2" = 1'-0"
6 RA5.0



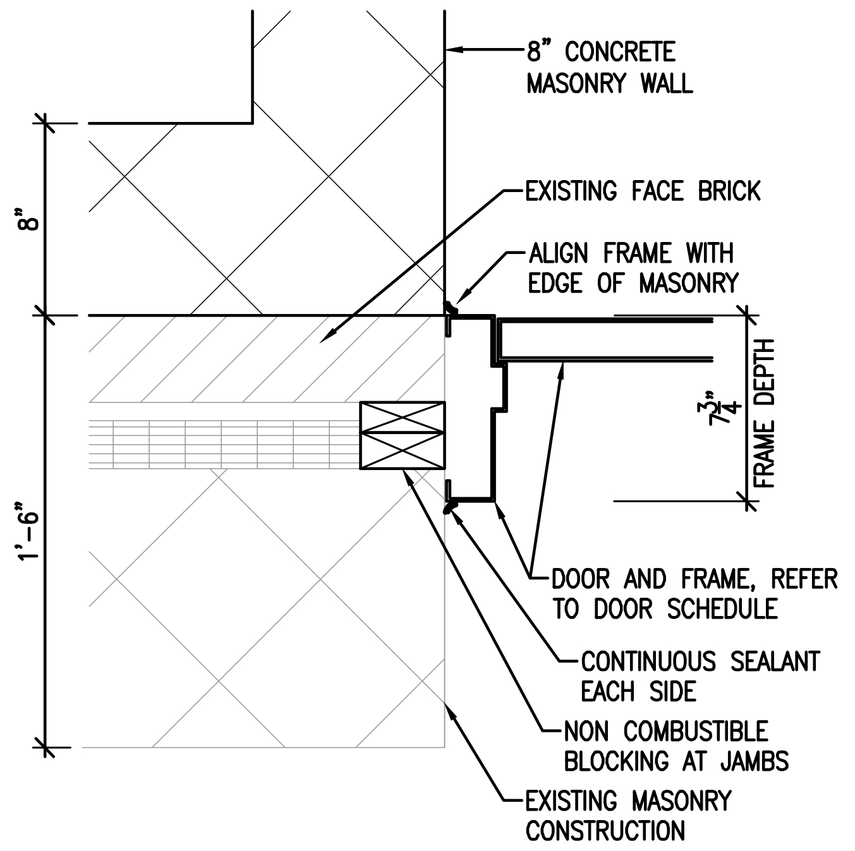
JAMB DETAIL
SCALE: 1-1/2" = 1'-0"
4 RA5.0


CONCRETE MASONRY UNIT, PAINT FINISH
BULLNOSE EDGE, TYPICAL
CONTINUOUS SEALANT, TYPICAL EACH SIDE
RE: PLAN
GROUT CORES SOLID AT JAMB
GALVANIZED STRAP ANCHORS, (3) PER SIDE
DOOR AND FRAME, REFER TO DOOR SCHEDULE
ALIGN FRAME WITH FACE OF WALL

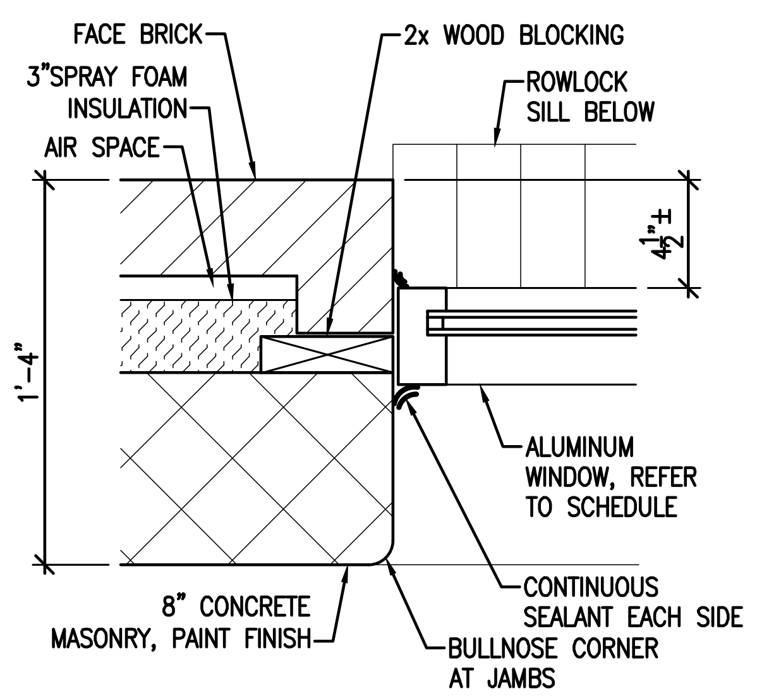
DOOR JAMB DETAIL
SCALE: 1-1/2" = 1'-0"
2 RA5.0


BULLNOSE MASONRY AT NEW OPENING
EXTEND VINYL BASE INTO OPENING, BASE TO MATCH EXISTING. FIELD VERIFY EXTENTS
EXTEND NEW CARPET INTO OPENING. CARPET TO MATCH EXISTING. FIELD VERIFY EXTENTS
EXISTING CARPET
EXISTING CONCRETE SLAB
EXISTING FACE BRICK
DOOR AND FRAME, REFER TO DOOR SCHEDULE
METAL THRESHOLD SET IN FULL BED OF GROUT
SUPPORTED CONCRETE STOOP. REFER TO FOUNDATION PLAN
POUR NEW CONCRETE OVER EXISTING FOUNDATION WALL. CONCRETE TO BE FLUSH AND LEVEL WITH EXISTING SLAB. DRILL AND DOWEL INTO EXISTING SLAB AT 12"O.C. SET DOWELS IN EPOXY GROUT
1/2" EXPANSION JOINT/THERMAL BREAK
EXISTING MASONRY FOUNDATION
10"±
1'-6"

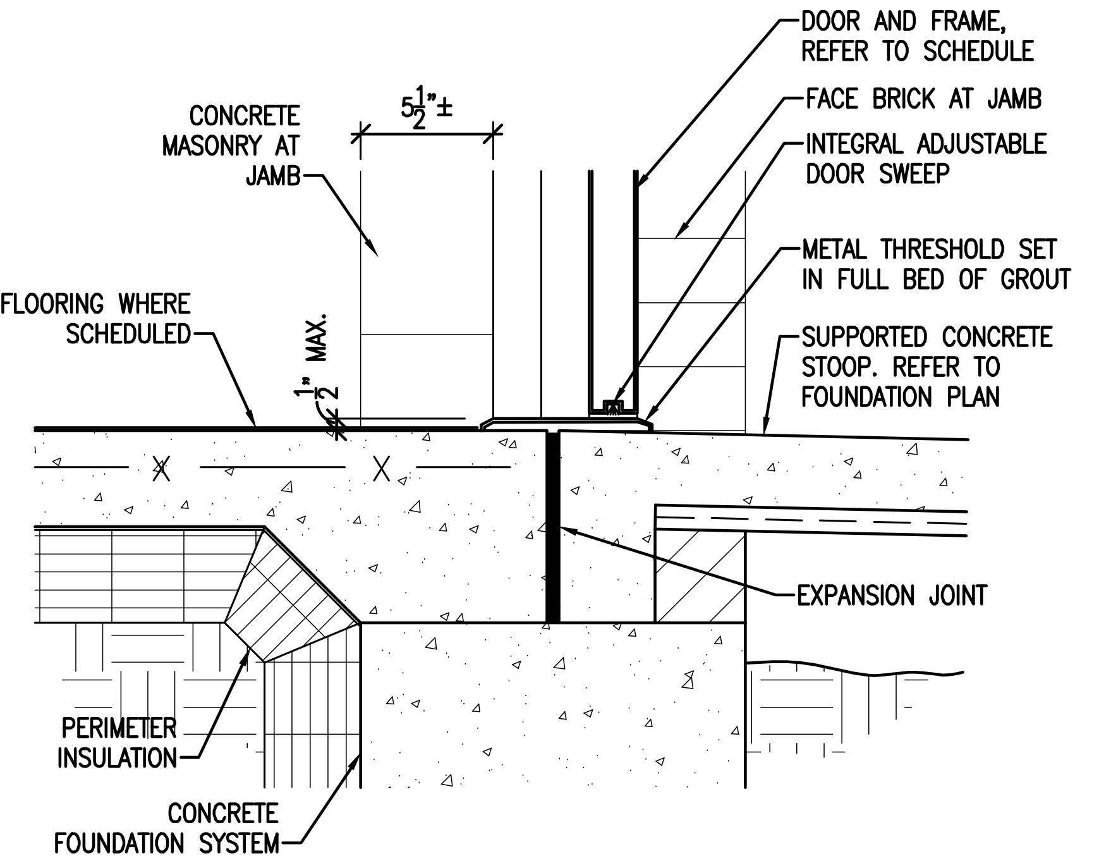
THRESHOLD DETAIL
SCALE: 1-1/2" = 1'-0"
11 RA5.0


8" CONCRETE MASONRY WALL
8"
1'-6"
EXISTING FACE BRICK
ALIGN FRAME WITH EDGE OF MASONRY
7¾"
FRAME DEPTH
DOOR AND FRAME, REFER TO DOOR SCHEDULE
CONTINUOUS SEALANT EACH SIDE
NON COMBUSTIBLE BLOCKING AT JAMBS
EXISTING MASONRY CONSTRUCTION

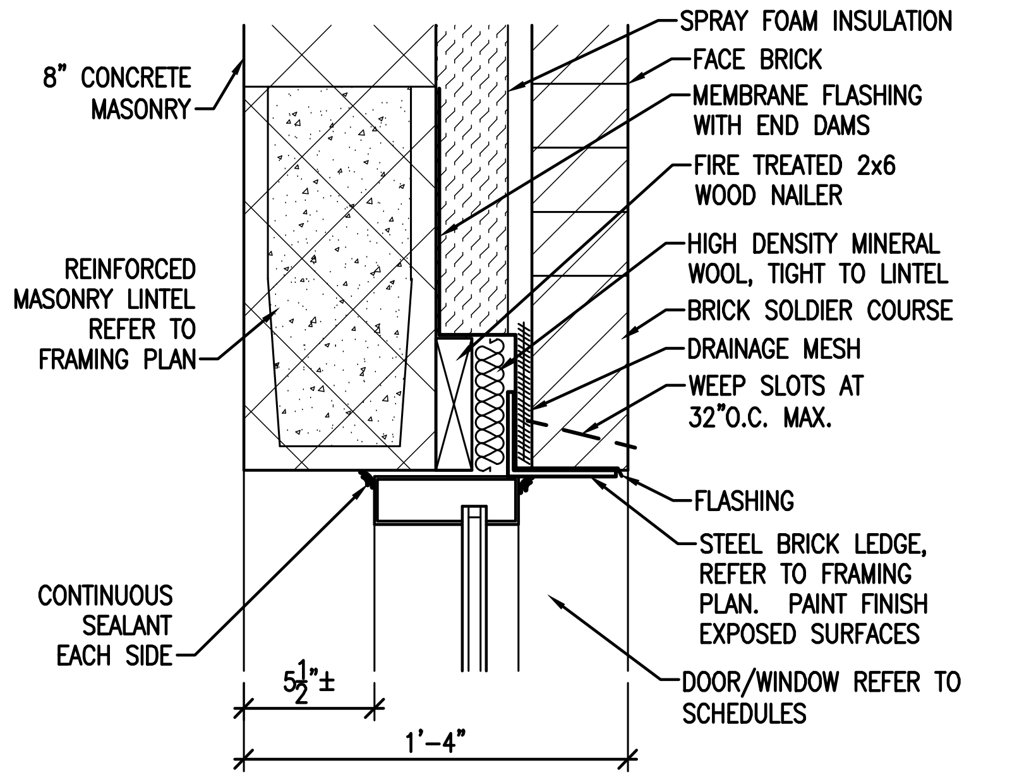
JAMB DETAIL
SCALE: 1-1/2" = 1'-0"
9 RA5.0



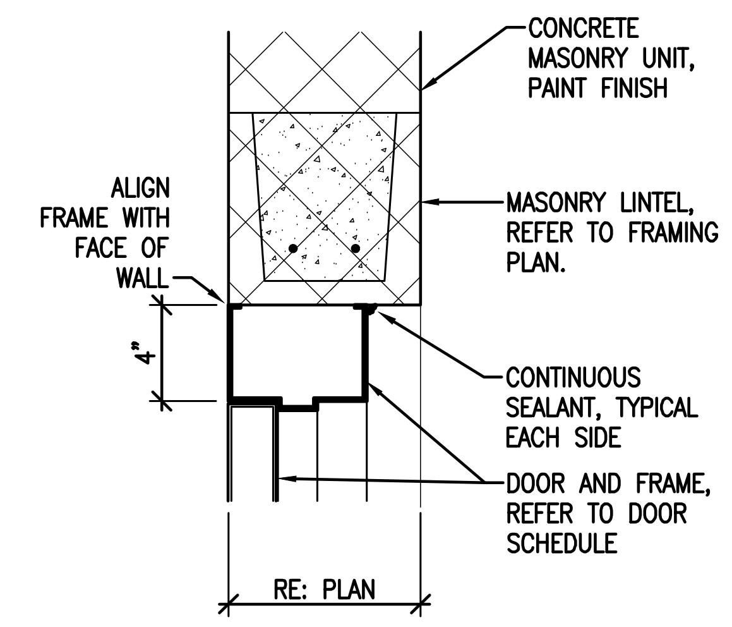
JAMB DETAIL
SCALE: 1-1/2" = 1'-0"
7 RA5.0


CONCRETE MASONRY AT JAMB
5½"±
DOOR AND FRAME, REFER TO SCHEDULE
FACE BRICK AT JAMB
INTEGRAL ADJUSTABLE DOOR SWEEP
METAL THRESHOLD SET IN FULL BED OF GROUT
SUPPORTED CONCRETE STOOP. REFER TO FOUNDATION PLAN
FLOORING WHERE SCHEDULED
½" MAX.
EXPANSION JOINT
PERIMETER INSULATION
CONCRETE FOUNDATION SYSTEM

THRESHOLD DETAIL
SCALE: 1-1/2" = 1'-0"
5 RA5.0


8" CONCRETE MASONRY
REINFORCED MASONRY LINTEL REFER TO FRAMING PLAN
SPRAY FOAM INSULATION
FACE BRICK
MEMBRANE FLASHING WITH END DAMS
FIRE TREATED 2x6 WOOD NAILER
HIGH DENSITY MINERAL WOOL, TIGHT TO LINTEL
BRICK SOLDIER COURSE
DRAINAGE MESH
WEEP SLOTS AT 32"O.C. MAX.
FLASHING
STEEL BRICK LEDGE, REFER TO FRAMING PLAN. PAINT FINISH EXPOSED SURFACES
CONTINUOUS SEALANT EACH SIDE
DOOR/WINDOW REFER TO SCHEDULES
5½"±
1'-4"

HEAD DETAIL
SCALE: 1-1/2" = 1'-0"
3 RA5.0


CONCRETE MASONRY UNIT, PAINT FINISH
MASONRY LINTEL, REFER TO FRAMING PLAN.
ALIGN FRAME WITH FACE OF WALL
4"
CONTINUOUS SEALANT, TYPICAL EACH SIDE
DOOR AND FRAME, REFER TO DOOR SCHEDULE
RE: PLAN

DOOR HEAD DETAIL
SCALE: 1-1/2" = 1'-0"
1 RA5.0

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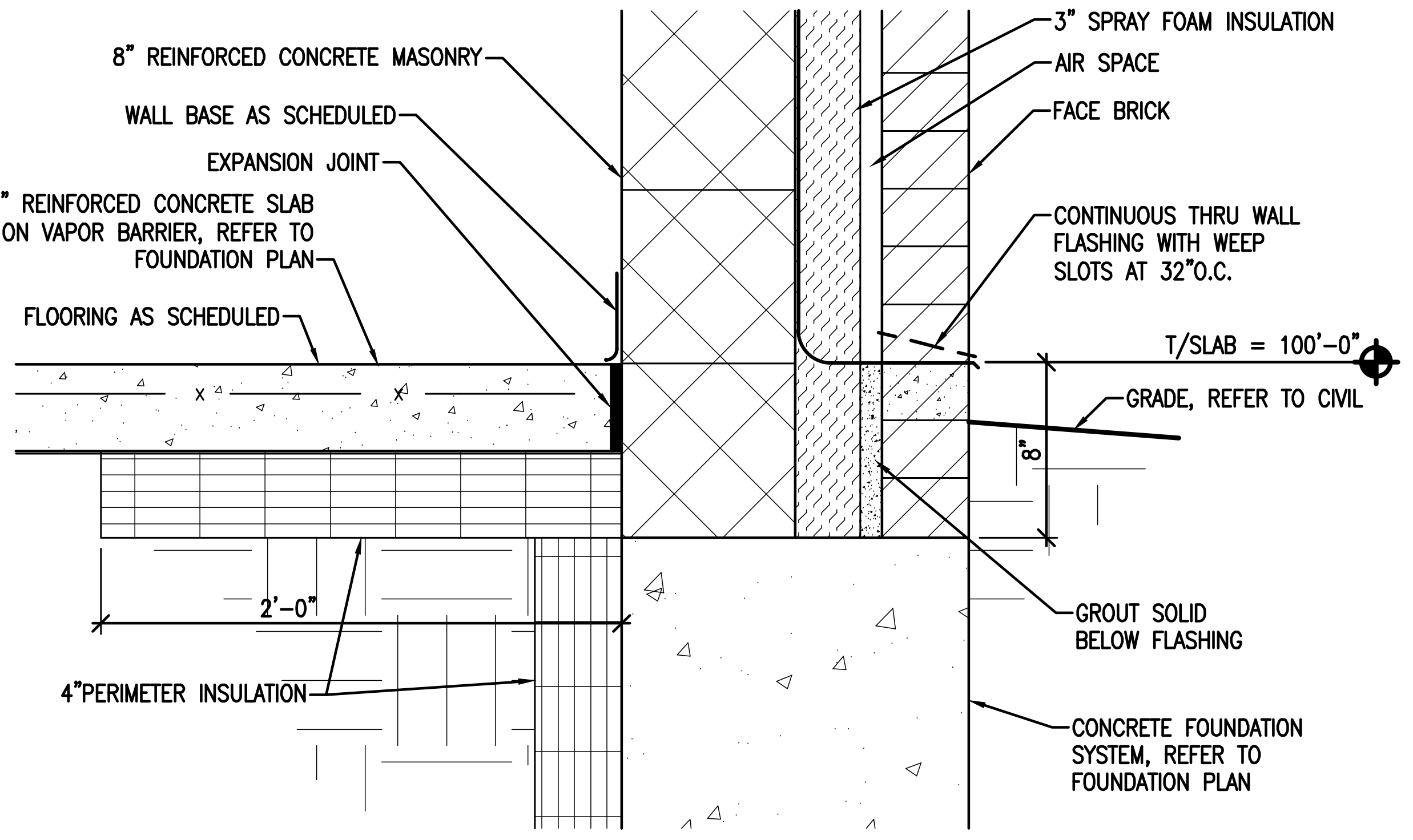
BEAL CITY PUBLIC SCHOOLS
2024 BOND WORK
MT PLEASANT, MICHIGAN
PROJECT NO. 22-037

NO.	REVISIONS	DATE
B	FINAL REVIEW	3-14-25
0	FOR CONSTRUCTION	3-27-25

	BY	DATE
DESIGN	---	---
DRAWN	---	---
CHECKED	---	---
APPROVED	---	---

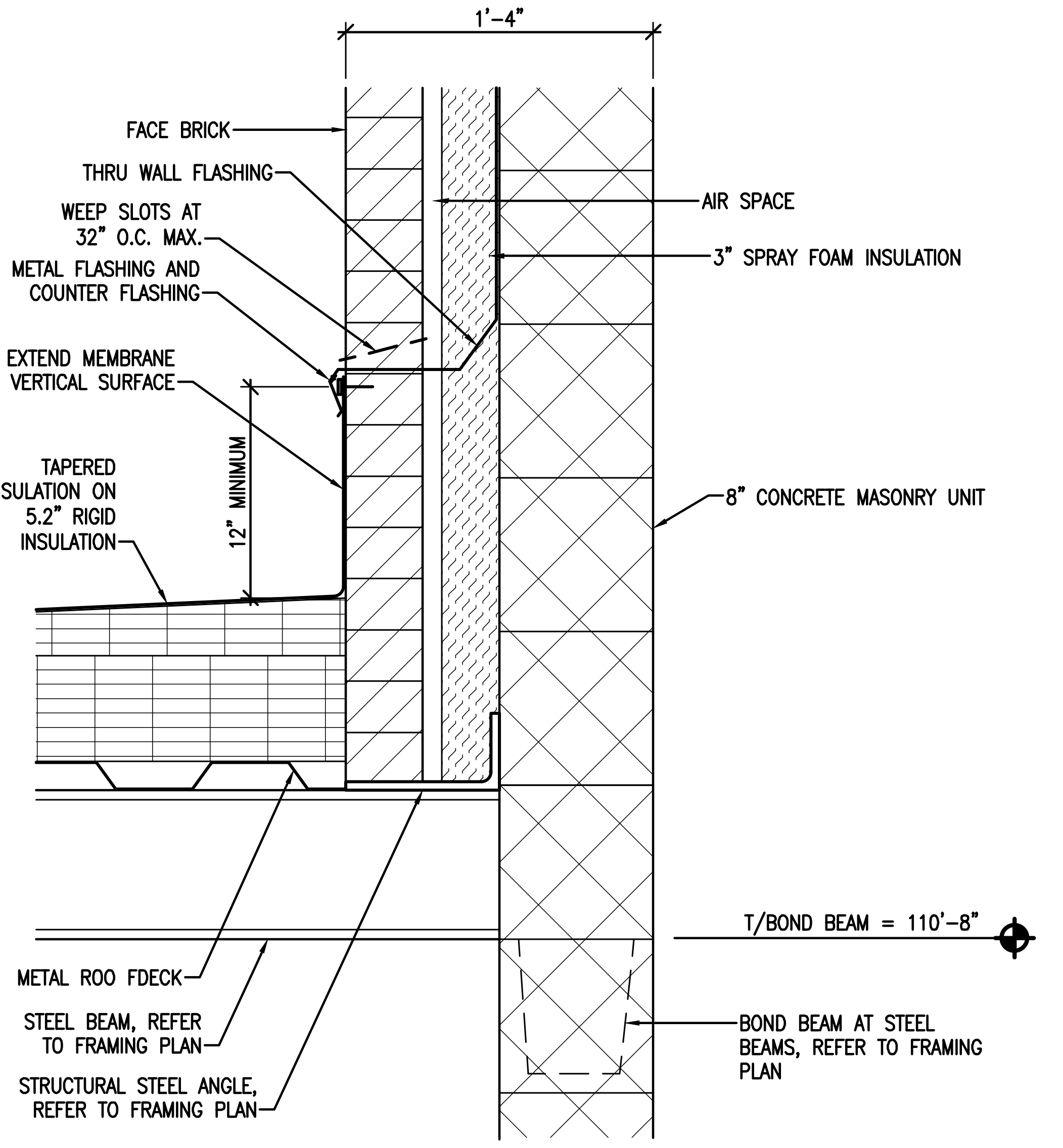
SCHEDULES AND DETAILS

R-A5.0


8" REINFORCED CONCRETE MASONRY
WALL BASE AS SCHEDULED
EXPANSION JOINT
4" REINFORCED CONCRETE SLAB ON VAPOR BARRIER, REFER TO FOUNDATION PLAN
FLOORING AS SCHEDULED
2'-0"
4"PERIMETER INSULATION
3" SPRAY FOAM INSULATION
AIR SPACE
FACE BRICK
CONTINUOUS THRU WALL FLASHING WITH WEEP SLOTS AT 32"O.C.
T/SLAB = 100'-0"
GRADE, REFER TO CIVIL
8"
GROUT SOLID BELOW FLASHING
CONCRETE FOUNDATION SYSTEM, REFER TO FOUNDATION PLAN

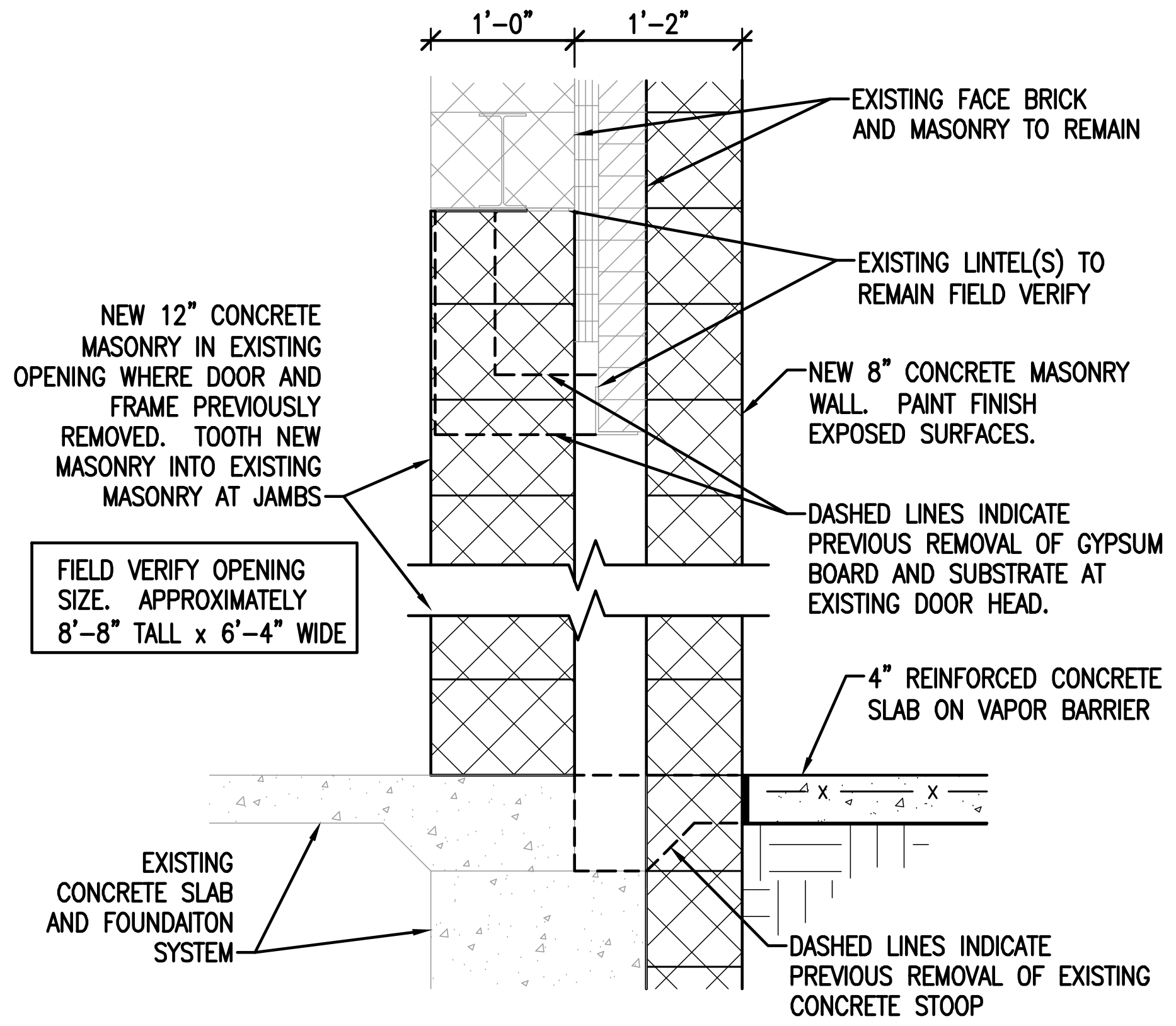
DETAIL
SCALE: 1-1/2" = 1'-0"

3
RA6.0


1'-4"
FACE BRICK
THRU WALL FLASHING
WEEP SLOTS AT 32" O.C. MAX.
METAL FLASHING AND COUNTER FLASHING
EXTEND MEMBRANE UP VERTICAL SURFACE
TAPERED INSULATION ON 5.2" RIGID INSULATION
12" MINIMUM
AIR SPACE
3" SPRAY FOAM INSULATION
8" CONCRETE MASONRY UNIT
METAL ROO FDECK
STEEL BEAM, REFER TO FRAMING PLAN
STRUCTURAL STEEL ANGLE, REFER TO FRAMING PLAN
T/BOND BEAM = 110'-8"
BOND BEAM AT STEEL BEAMS, REFER TO FRAMING PLAN

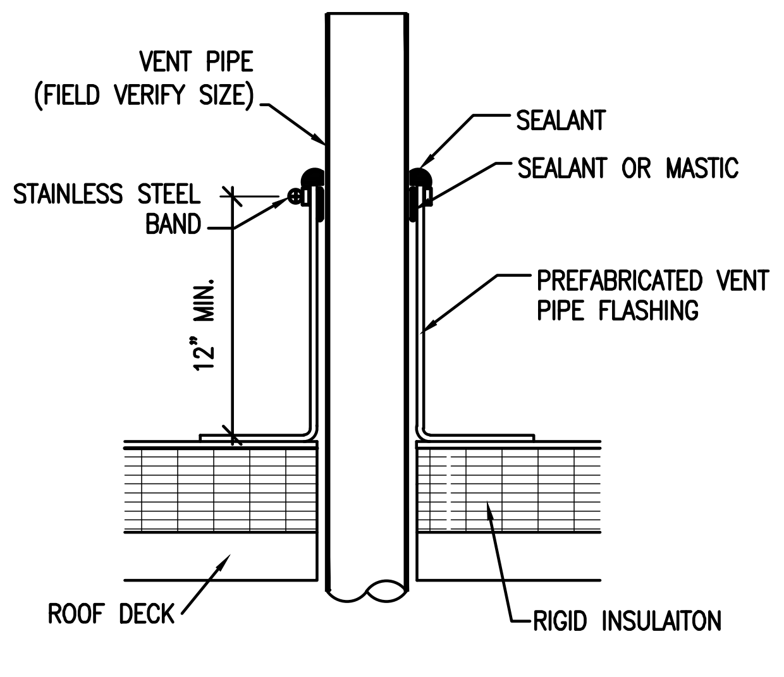
DETAIL
SCALE: 1-1/2" = 1'-0"

5
RA6.0

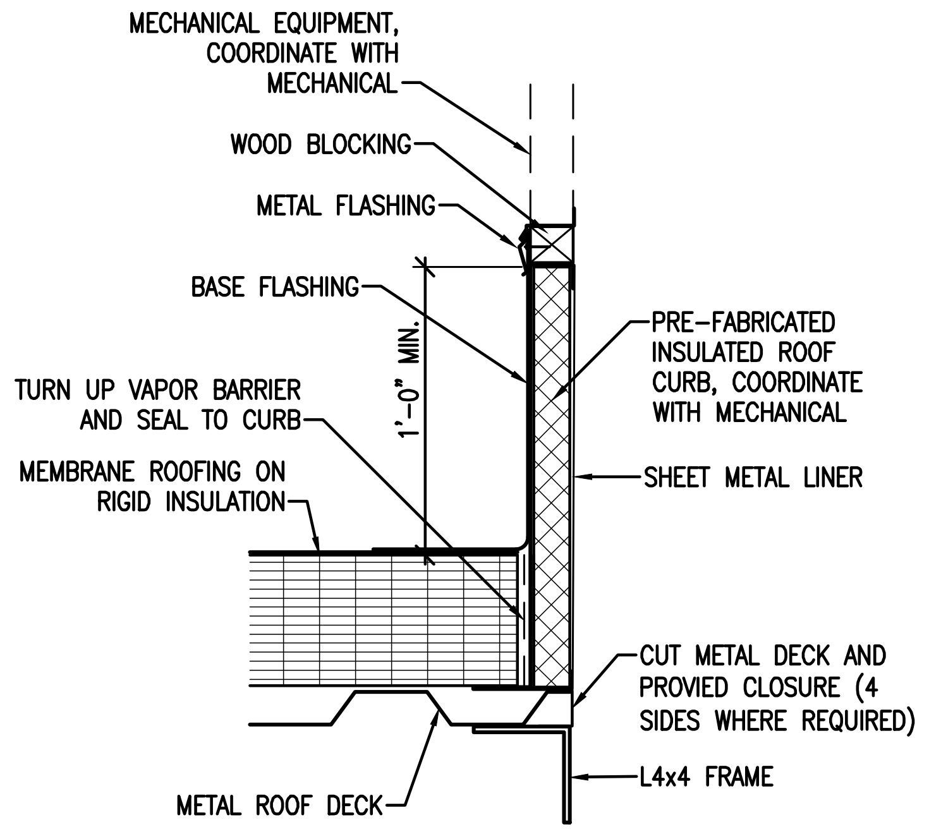

1'-0"
1'-2"
EXISTING FACE BRICK AND MASONRY TO REMAIN
EXISTING LINTEL(S) TO REMAIN FIELD VERIFY
NEW 12" CONCRETE MASONRY IN EXISTING OPENING WHERE DOOR AND FRAME PREVIOUSLY REMOVED. TOOTH NEW MASONRY INTO EXISTING MASONRY AT JAMBS
NEW 8" CONCRETE MASONRY WALL. PAINT FINISH EXPOSED SURFACES.
DASHED LINES INDICATE PREVIOUS REMOVAL OF GYPSUM BOARD AND SUBSTRATE AT EXISTING DOOR HEAD.
FIELD VERIFY OPENING SIZE. APPROXIMATELY 8'-8" TALL x 6'-4" WIDE
4" REINFORCED CONCRETE SLAB ON VAPOR BARRIER
EXISTING CONCRETE SLAB AND FOUNDAITON SYSTEM
DASHED LINES INDICATE PREVIOUS REMOVAL OF EXISTING CONCRETE STOOP

MASONRY INFILL DETAIL
SCALE: 3/4" = 1'-0"

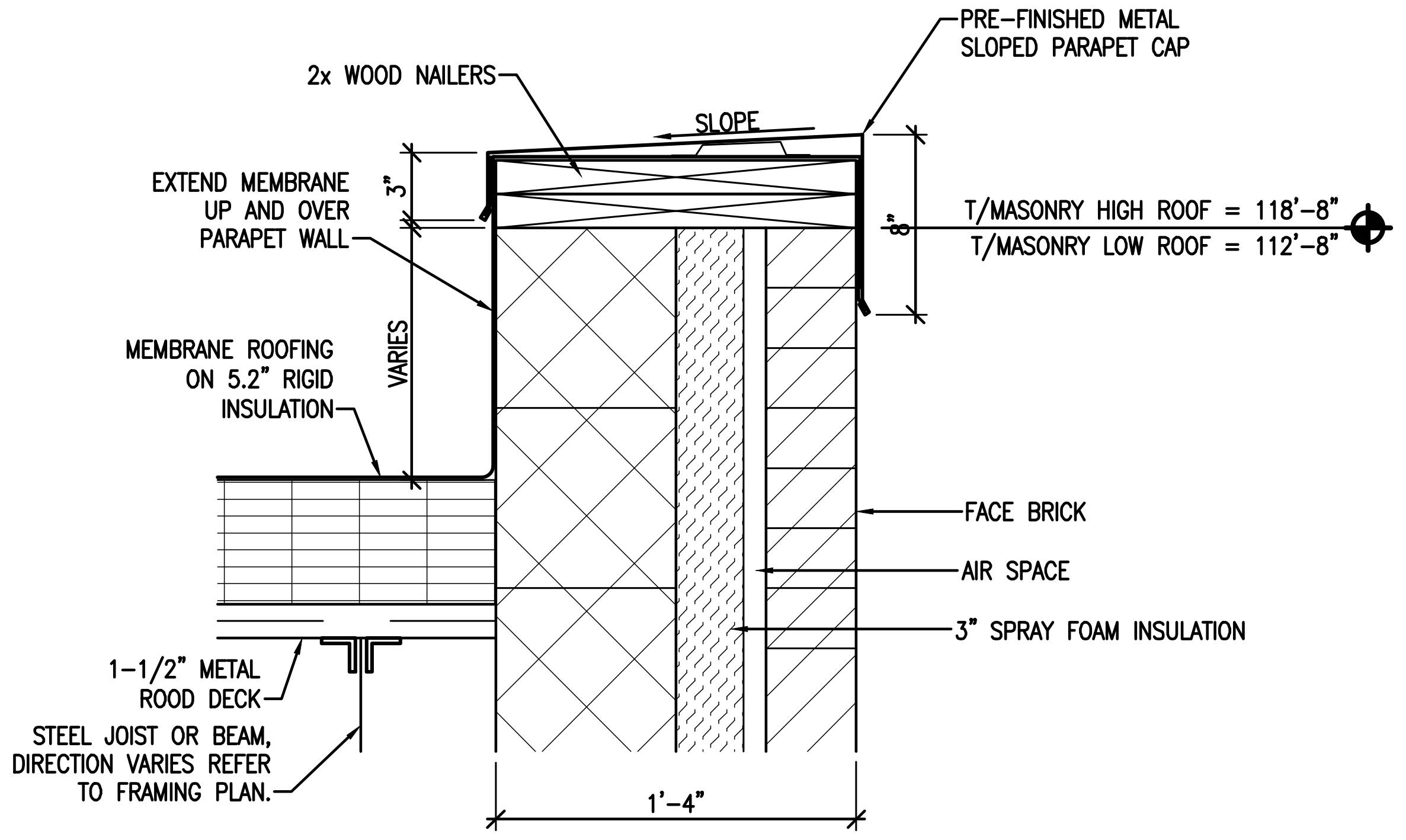
2
RA6.0



TYPICAL ROOF VENT
SCALE: 1-1/2" = 1'-0"

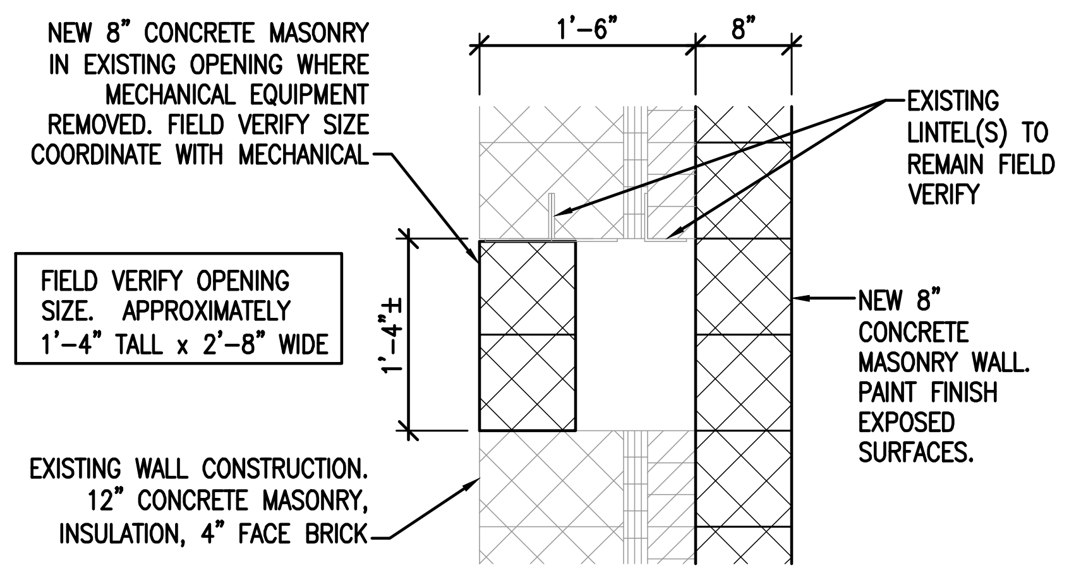

MECHANICAL EQUIPMENT, COORDINATE WITH MECHANICAL
WOOD BLOCKING
METAL FLASHING
BASE FLASHING
1'-0" MIN.
TURN UP VAPOR BARRIER AND SEAL TO CURB
MEMBRANE ROOFING ON RIGID INSULATION
PRE-FABRICATED INSULATED ROOF CURB, COORDINATE WITH MECHANICAL
SHEET METAL LINER
CUT METAL DECK AND PROVIED CLOSURE (4 SIDES WHERE REQUIRED)
L4x4 FRAME
METAL ROOF DECK

TYPICAL MECHANICAL CURB
SCALE: 1-1/2" = 1'-0"


2x WOOD NAILERS
SLOPE
PRE-FINISHED METAL SLOPED PARAPET CAP
EXTEND MEMBRANE UP AND OVER PARAPET WALL
3"
8"
VARIES
T/MASONRY HIGH ROOF = 118'-8"
T/MASONRY LOW ROOF = 112'-8"
MEMBRANE ROOFING ON 5.2" RIGID INSULATION
FACE BRICK
AIR SPACE
3" SPRAY FOAM INSULATION
1-1/2" METAL ROOD DECK
STEEL JOIST OR BEAM, DIRECTION VARIES REFER TO FRAMING PLAN.
1'-4"

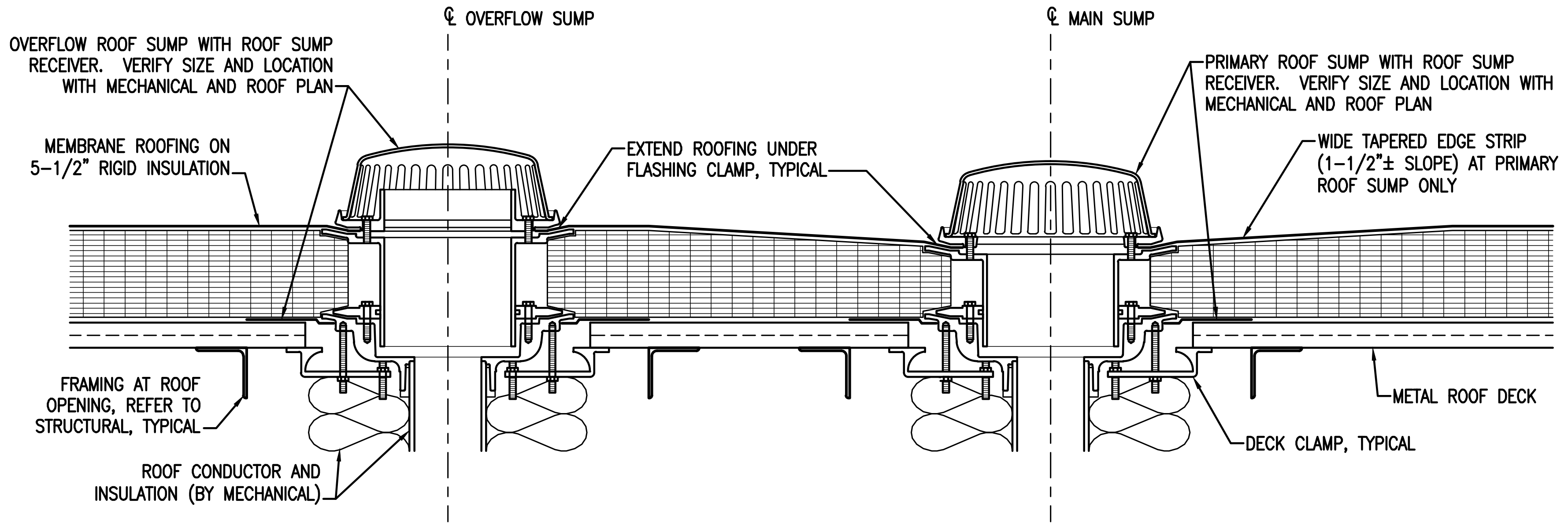
DETAIL
SCALE: 1-1/2" = 1'-0"

4
RA6.0


1'-6"
8"
NEW 8" CONCRETE MASONRY IN EXISTING OPENING WHERE MECHANICAL EQUIPMENT REMOVED. FIELD VERIFY SIZE COORDINATE WITH MECHANICAL
EXISTING LINTEL(S) TO REMAIN FIELD VERIFY
FIELD VERIFY OPENING SIZE. APPROXIMATELY 1'-4" TALL x 2'-8" WIDE
1'-4"±
NEW 8" CONCRETE MASONRY WALL. PAINT FINISH EXPOSED SURFACES.
EXISTING WALL CONSTRUCTION. 12" CONCRETE MASONRY, INSULATION, 4" FACE BRICK

MASONRY INFILL DETAIL
SCALE: 3/4" = 1'-0"

1
RA6.0


℄ OVERFLOW SUMP
℄ MAIN SUMP
OVERFLOW ROOF SUMP WITH ROOF SUMP RECEIVER. VERIFY SIZE AND LOCATION WITH MECHANICAL AND ROOF PLAN
MEMBRANE ROOFING ON 5-1/2" RIGID INSULATION
EXTEND ROOFING UNDER FLASHING CLAMP, TYPICAL
PRIMARY ROOF SUMP WITH ROOF SUMP RECEIVER. VERIFY SIZE AND LOCATION WITH MECHANICAL AND ROOF PLAN
WIDE TAPERED EDGE STRIP (1-1/2"± SLOPE) AT PRIMARY ROOF SUMP ONLY
FRAMING AT ROOF OPENING, REFER TO STRUCTURAL, TYPICAL
ROOF CONDUCTOR AND INSULATION (BY MECHANICAL)
METAL ROOF DECK
DECK CLAMP, TYPICAL

TYPICAL ROOF SUMP AND OVERFLOW DETAIL
SCALE: 1-1/2" = 1'-0"

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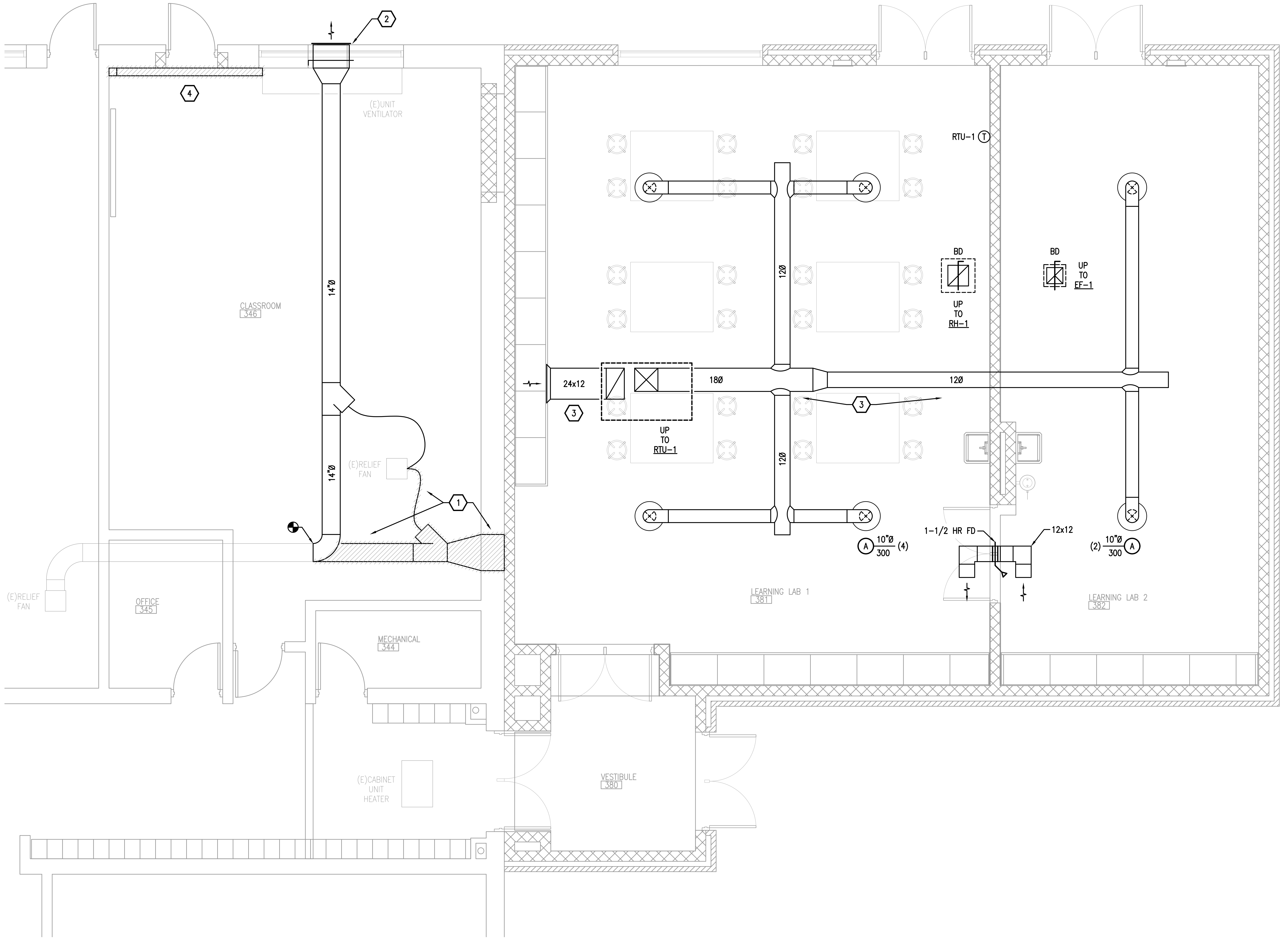
BEAL CITY PUBLIC SCHOOLS
2024 BOND WORK
MT PLEASANT, MICHIGAN
PROJECT NO. 22-037

NO.	REVISIONS	DATE
B	FINAL REVIEW	3-14-25
0	FOR CONSTRUCTION	3-27-25

	BY	DATE
DESIGN	-	-
DRAWN	-	-
CHECKED	-	-
APPROVED	-	-

DETAILS

R-A6.0



MECHANICAL PLAN

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

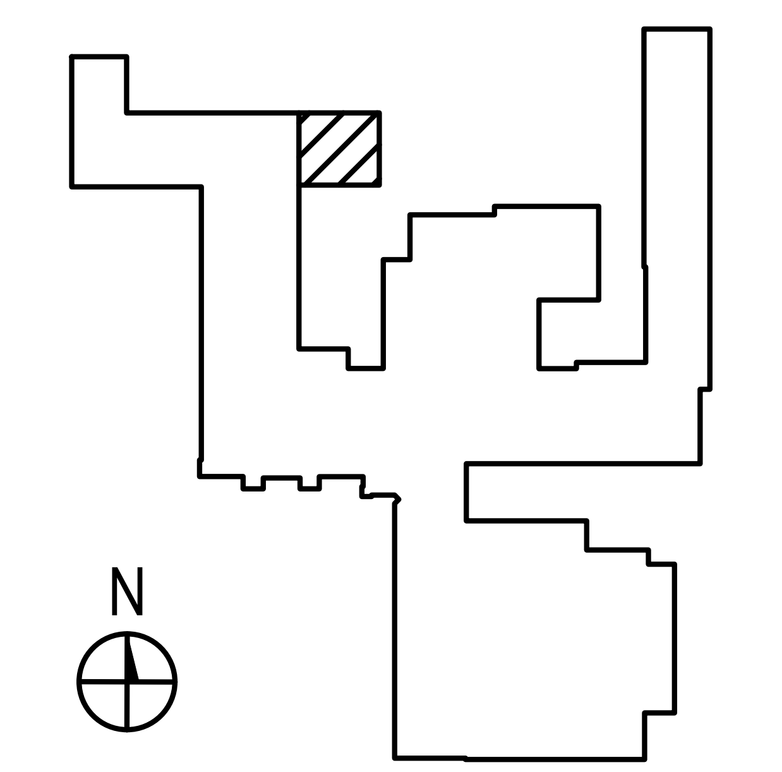
KEYNOTES

1. REMOVE SECTION OF RELIEF DUCT AS SHOWN; REMOVE PORTION OF DUCT THROUGH WALL AND CAP/PATCH, REMOVE FLEX DUCT FROM FAN SERVING CLASSROOM 344, AND REMOVE PORTION OF COMBINED RELIEF DUCT. FIELD MEASURE SIZE OF COMBINED RELIEF DUCT. SALVAGE EXTERIOR LOUVER FOR REINSTALLATION.
2. EXTEND/REWORK RELIEF DUCT AND FITTINGS AS SHOWN AND TERMINATE THROUGH NORTH WALL. REINSTALL SALVAGED LOUVER. CENTER OVER WINDOW APPROXIMATELY 12'–0" ABOVE FINISHED FLOOR.
3. INSTALL 1" ACOUSTICAL LINER ON ALL RETURN DUCT AND SUPPLY AIR MAIN.
4. REMOVE HYDRONIC PIPE AND SHEETMETAL ENCLOSURE DOWN WALL AND HORIZONTALLY SERVING EXISTING UNIT VENTILATOR. EXTEND HYDRONIC PIPE, OF SIZE TO MATCH EXISTING, ABOVE CEILING AND DOWN TO EXISTING UNIT VENTILATOR DOWN WALL TO RIGHT OF NEW DOOR. PROVIDE NEW SHEETMETAL ENCLOSURE FOR ALL SURFACE MOUNTED EXPOSED PIPING. COLOR TO MATCH EXISTING WALL. REFER TO DETAIL ON SHEET M4.0 FOR ADDITIONAL INFORMATION.

GENERAL NOTES

1. THESE DRAWINGS ARE DIAGRAMMATIC AND INDICATE THE GENERAL EXTENT OF THE WORK. PROVIDE MECHANICAL SYSTEMS COMPLETE PER SPECIFICATION, SMACNA STANDARDS, AND PER APPLICABLE CODES.
2. CONTRACTOR SHALL COORDINATE THEIR WORK WITH THE WORK OF ALL OTHER TRADES. VERIFY ALL CLEARANCES PRIOR TO THE FABRICATION OF ANY WORK.
3. DUCTWORK/PIPING SHALL NOT BE LOCATED OVER ELECTRICAL EQUIPMENT/PANELS. PROVIDE REQUIRED CLEARANCE IN FRONT OF OR ABOVE ELECTRICAL EQUIPMENT. DUCTWORK/PIPING SHALL NOT INTERFERE WITH ELECTRICAL EQUIPMENT CLEARANCE.
4. THE CONTRACTOR SHALL PROVIDE SUPPLEMENTAL STEEL AS REQUIRED FOR THE PROPER SUPPORT OF ALL MECHANICAL SYSTEMS.
5. COORDINATE FLOOR, WALL, ROOF PENETRATIONS, LOUVER SIZES, PAD LOCATIONS, ETC. WITH ARCHITECTURAL TRADES.
6. ALL THERMOSTATS OR TEMPERATURE SENSORS SHALL BE PROVIDED WITH INSULATED BASES.
7. PIPING SHALL NOT BE INSTALLED IN A LOCATION THAT RESTRICTS THE ACCESS TO MECHANICAL DEVICES REQUIRING ACCESS.
8. PROVIDE CODE REQUIRED CLEARANCE/ACCESS DOORS FOR DAMPERS AND VALVES LOCATED IN WALLS OR ABOVE HARD CEILINGS. COORDINATE LOCATIONS WITH ARCHITECT.
9. FOR EQUIPMENT VALVING, COMPONENT, AND PIPING ARRANGEMENT REFER TO PIPING DIAGRAMS AND DETAILS.
10. BRANCH DUCTWORK TO GRILLES, REGISTERS, AND DIFFUSERS SHALL BE THE SAME SIZE AS THE GRILLE, REGISTER, OR DIFFUSER NECK SIZE WHERE NO DUCT SIZE IS INDICATED ON PLAN.
11. COORDINATE PAINTING OF DUCTS AND DIFFUSERS WITH ARCHITECTURAL TRADES.

KEY PLAN



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BEAL CITY PUBLIC SCHOOLS
2024 BOND WORK
MT PLEASANT, MICHIGAN
PROJECT NO. 22-037

NO.	REVISIONS	DATE
A	DES. DEVELOPMENT	01.16.25
B	FINAL OWNER REVIEW	03.14.25
0	FOR CONSTRUCTION	03.27.25

	BY
DESIGN	CRP
DRAWN	CRP
CHECKED	SLB
APPROVED	SLB

MECHANICAL
NEW WORK PLAN

R-M2.0

PACKAGED ROOFTOP AIR-CONDITIONING UNIT SCHEDULE

SYM	SUPPLY AIRFLOW (CFM)	MINIMUM OUTSIDE AIRFLOW (CFM)	SUPPLY FAN			COOLING COIL (DX)						HEATING COIL (NATURAL GAS)						FILTER	ELECTRICAL			DISCONNECT			DIMENSIONS			WEIGHT (LBS)	MANUFACTURER AND MODEL
			E.S.P. (IN.WC.)	FAN TYPE	DRIVE TYPE	TOTAL CAPACITY (MBH)	SENSIBLE CAPACITY (MBH)	EAT (DB°F)	EAT (WB°F)	LAT (DB°F)	LAT (WB°F)	INPUT (MBH)	OUTPUT (MBH)	PRESSURE MIN-MAX (IN WG)	STAGES OR MODULATION TURNDOWN	EAT (DB°F)	LAT (DB°F)		MROPD	MCA	VOLTS/ PHASE	FURN. BY	INST. BY	TYPE	LENGTH (FT.)	HEIGHT (FT.)	WIDTH (FT.)		
RTU-1	1800	653	0.5	SWSI AF	DIRECT, ECM	59.0	45.9	83.1	68.2	60.1	58.1	100.0	81.0	5-14	2-STAGE	44.6	86.2	2" MERV 8	45	29.0	208-230/3	MAN'F	MAN'F	NON-FUSED SWITCH	5.82	3.91	3.69	788	TRANE YSK060

NOTE:
1. 100% ECONOMIZER, COMPARATIVE ENTHALPY WITH BAROMETRIC RELIEF WITH WEATHER HOODS.
2. DEMAND CONTROL VENTILATION.
3. FIELD POWERED 115V GFI RECEPTACLE.
4. BACNET/MSTP CARD, FACTORY INSTALLED. INTEGRATE INTO EXISTING BAS

EXHAUST FAN SCHEDULE

SYM	SERVICE	TYPE	AIRFLOW (CFM)	E.S.P. (IN WG)	FAN RPM	MOTOR			ELECTRICAL		DISCONNECT			MANUFACTURER AND MODEL
						HP	MOP	DRIVE	VOLTS	PHASE	FURN. BY	INST. BY	TYPE	
EF-1	383 SHOP	DOWN BLAST	330	0.21	1050	1/40	15	DIRECT	115	1	ELEC.	ELEC.	NON-FUSED SWITCH	GREENHECK G-090-E

NOTES:
1. PROVIDE WITH GRAVITY BACKDRAFT DAMPER.
2. PROVIDE WITH 24" PRE-MANUFACTURED CURB.
3. FAN SHALL BE CONTROLLED VIA ON/OFF SWITCH.

GRILLE, REGISTER, DIFFUSER SCHEDULE

SYM	PURPOSE	FACE SIZE	NECK SIZE	MOUNTING	FINISH	MATERIAL	TYPE	MODEL	REMARKS
A	SUPPLY	16"x6"	SEE PLANS	DUCT	PRIMED FOR FIELD PAINTING	STEEL	ROUND CONE	RCDA	FULLY ADJUSTABLE

NOTES:
1. MODEL NUMBERS ARE PRICE UNLESS OTHERWISE NOTED.
2. REFER TO ARCHITECTURAL CEILING PLAN AND COORDINATE FRAME TYPE ACCORDINGLY.

GRAVITY VENTILATOR SCHEDULE

SYM	PURPOSE	AIRFLOW	THROAT VELOCITY (FPM)	STATIC PRESSURE DROP (IN WG)	OVERALL WIDTH (IN)	OVERALL LENGTH (IN)	OVERALL HEIGHT (IN)	CURB CAP WIDTH (IN)	CURB CAP LENGTH (IN)	ROOF OPENING WIDTH (IN)	ROOF OPENING LENGTH (IN)	CURB HEIGHT (IN)	MANUFACTURER AND MODEL
RH-1	RELIEF	650	448	0.022	29	29	23	26	26	16	16	24	GREENHECK GRSR-16

NOTES:
1. PROVIDE WITH BIRD SCREEN AND GRAVITY BACKDRAFT DAMPER.

VENTILATION SCHEDULE

SYM	SERVES	AREA (SF)	OCCUPANT LOAD	REQUIRED OUTSIDE AIR RATE		
				CFM/ PERSON	CFM/ SF	TOTAL
RTU-1	381 STEM	1200	25	10	0.12	394
	383 SHOP	660	14	10	0.18	259
					TOTAL:	653

NATURAL GAS REQUIREMENTS

SYM	EQUIPMENT	CAPACITY (CFH)	REQUIRED OPERATING PRESSURE (IN.WC.)
RTU-1	ROOFTOP UNIT	100	4.5-14
GWH-1	WATER HEATER	120	3.5-10.5
	TOTAL ADDED	220	

BAS INPUT/OUTPUT SUMMARY FORM

PROJECT:
ROBOTICS ADDITION
BEAL CITY PUBLIC SCHOOLS
EXISTING CONTROLS CONTRACTOR IS TRI-CITY CONTROLS

SYSTEM DESCRIPTION:

ROOFTOP UNIT (RTU-1)

		HARDWARE POINTS																									APPLICATION SOFTWARE											NOTES
		INPUTS														OUTPUTS																						
		DIGITAL						ANALOG								DIGITAL						ANALOG																
SYM.	POINT DESCRIPTION	AUX CONTACT/DPS	CURRENT SWITCH	FLOW SWITCH	STATUS	INITIATE	3RD PARTY INTERFACE	PRESSURE	TEMPERATURE	HUMIDITY	LEVEL	POSITION	MOISTURE SENSOR	CURRENT	DIFF. PRESSURE	START/STOP	HI/LOW	OPEN/CLOSE	OFF/AUTO	INNITIATE		DAMPER POSITION	VALVE POSITION	SPEED CONTROL	VSD/VANE DAMPER	TEMP RESET	PROPORTIONAL P	P + INTEGRAL PI	P + I + DERIVITIVE PID	ENHANCED PID	ADAPTIVE CONTROL	SETPOINT DISP & ADJ	HIGH/LOW ALARM	FLOATING ALARM	ABNORMAL ALARM	RUNTIME TOTALS	TOTALIZATION	
RTU	FAN START/STOP															X																						
RTU	FAN STATUS		X																																X			
RTU	RELIEF AIR DAMPER POSITION																					X																
RTU	OUTSIDE AIR DAMPER POSITION																					X							X									
RTU	RETURN AIR TEMP.								X																													
RTU	MIXED AIR TEMP.								X																								X					
RTU	DISCHARGE AIR TEMP.								X																								X					
RTU	SPACE TEMP.								X																													
RTU	GAS BURNER INITIATE																						X															
RTU	ACCU INITIATE																			X																		
RTU	SMOKE DETECTOR				X																																	WIRED TO SUPPLY FAN
RTU	CO2 LEVEL										X																											ABOVE 800 PPM
RTU	BAS INTERFACE						X																															VERIFY BACNET/IP
RTU	LOW LIMIT FREEZE-STAT				X																																	

ROOFTOP UNIT SEQUENCE OF OPERATIONS:
NOTE: ALL SETPOINTS AND TIME INTERVALS SHALL BE ADJUSTABLE BY THE SYSTEM OPERATOR.

1. WITH THE SUPPLY FAN'S HAND/OFF/AUTO SWITCH IN THE "AUTO" POSITION, THE SUPPLY FAN SHALL BE AUTOMATICALLY STARTED AND STOPPED WITH THE DDC SYSTEM OCCUPANCY SCHEDULE. THE UNIT SHALL USE AN OPTIMAL START ALGORITHM FOR MORNING START-UP. THIS ALGORITHM SHALL MINIMIZE THE UNOCCUPIED WARM-UP OR COOL-DOWN PERIOD WHILE STILL ACHIEVING COMFORT CONDITIONS BY THE START OF SCHEDULED OCCUPIED PERIOD.

2. OCCUPIED MODE: WHEN THE DDC SYSTEM ENERGIZES THE SUPPLY FAN IT SHALL RUN CONTINUOUSLY. THE RETURN, RELIEF AND OUTSIDE AIR DAMPERS WILL MODULATE TO MAINTAIN MINIMUM OUTSIDE AIRFLOW AS DETERMINED BY THE OUTSIDE AIR DAMPER'S MINIMUM POSITION.

3. THE SUPPLY FAN WILL PROVE FLOW TO THE DDC SYSTEM WITH ITS CURRENT SENSING SWITCH. IF THE FAN FAILS, THE SYSTEM WILL BE DE-ENERGIZED AND AN ALARM WILL BE SENT TO THE DDC SYSTEM.

4. THE DISCHARGE AIR TEMPERATURE SENSOR SHALL MODULATE THE DX STAGES OF COOLING, MIXED AIR DAMPERS, AND THE STAGED GAS BURNER TO MAINTAIN THE DISCHARGE AIR TEMPERATURE.

5. ECONOMIZER MODE: WHEN THE OUTSIDE AIR TEMPERATURE IS LESS THAN THE RETURN AIR TEMPERATURE, DDC SHALL MODULATE THE MIXED AIR DAMPERS AND DX STAGES OF COOLING TO MAINTAIN THE DISCHARGE AIR TEMPERATURE WHILE MAINTAINING THE MINIMUM OUTSIDE AIRFLOW. WHEN THE OUTSIDE AIR TEMPERATURE IS GREATER THAN THE RETURN AIR TEMPERATURE, DDC SHALL MODULATE THE MIXED AIR DAMPERS TO MAINTAIN THE MINIMUM OUTSIDE AIRFLOW.

6. UNOCCUPIED MODE: IF THE SPACE TEMPERATURE SENSORS DROPS BELOW 60°F, THE SUPPLY FAN SHALL BE ENERGIZED, THE OUTSIDE AND RELIEF DAMPERS SHALL REMAIN CLOSED, THE RETURN DAMPER SHALL BE FULLY OPENED AND THE GAS BURNER SHALL ENABLE. AFTER ALL OF THE SPACES HAVE REACHED 63°F (ADJ), THE UNIT SHALL BE DE-ENERGIZED.

7. WHEN THE SUPPLY FAN IS DE-ENERGIZED, THE OUTSIDE AND RELIEF DAMPERS SHALL BE CLOSED. THE RETURN AIR DAMPER SHALL BE OPEN.

8. THE SUPPLY FAN SHALL BE STARTED IF THE MANUAL OVERRIDE COMMAND IS EXECUTED AT THE CENTRAL BMS WORKSTATION. THE FAN SHALL RUN UNTIL PLACED BACK IN AUTOMATIC MODE FROM THE CONTROLLER OR CENTRAL WORKSTATION.

9. THE DDC SYSTEM SHALL MONITOR THE SPACE CO2 (THROUGH THE RETURN AIR CO2 SENSOR) AND MODULATE THE MIXED AIR DAMPERS TO MAINTAIN A MAXIMUM LEVEL OF 1000 PPM, SUBJECT TO A MIX AIR TEMPERATURE LOW LIMIT TEMPERATURE OF 45°F.

10. AN ALARM SHALL SOUND THE DISCHARGE AIR TEMPERATURE RISES ABOVE OR FALLS BELOW THE DISCHARGE AIR TEMPERATURE COOLING HIGH OR COOLING LOW LIMITS FOR A DURATION OF 1 MINUTE.

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BEAL CITY PUBLIC SCHOOLS
2024 BOND WORK
MT PLEASANT, MICHIGAN
PROJECT NO. 22-037

	BY
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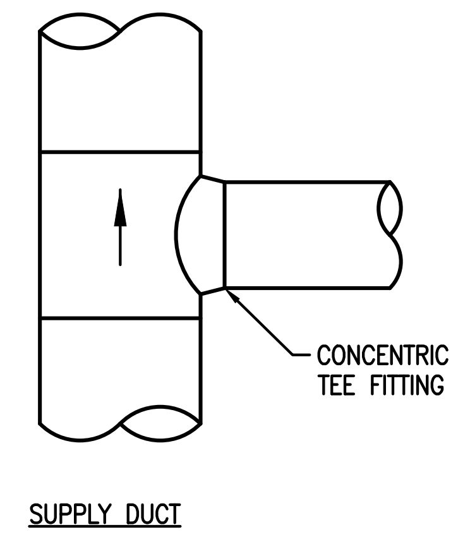
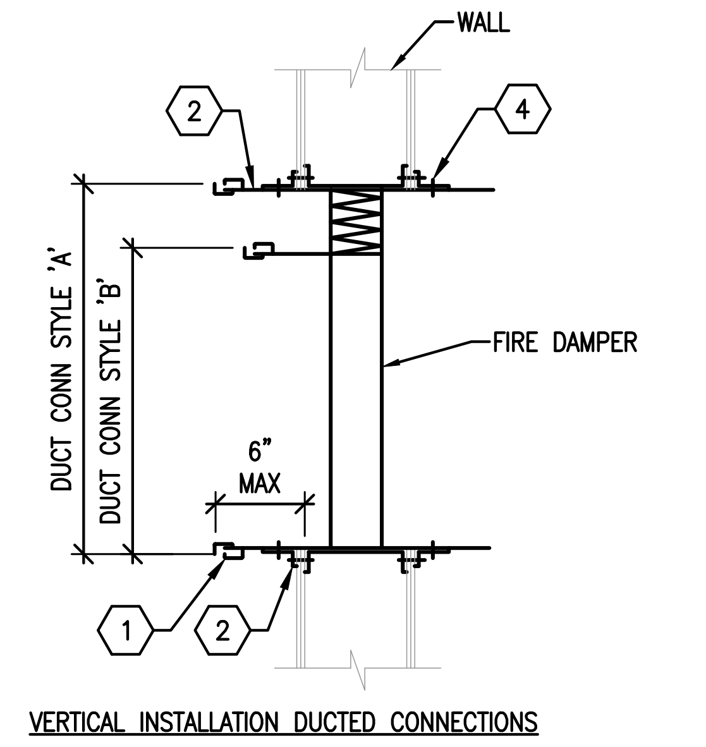
MECHANICAL
SCHEDULES

R-M3.0



ROUND DUCT BRANCH TAKE-OFF DETAIL

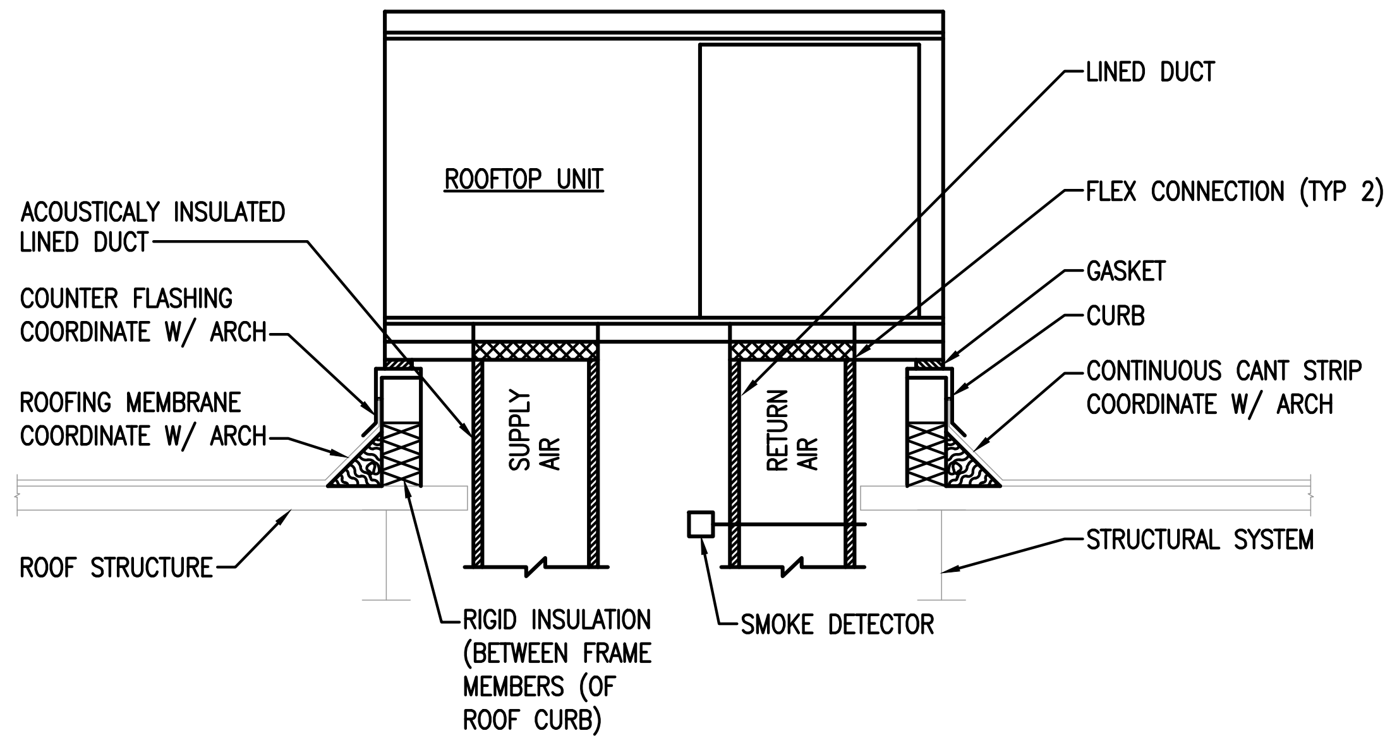
N.T.S. TYP.



NOTES:
1. S-SLIP DUCT CONNECTION.
2. 16 GAUGE SHEET METAL SLEEVE.
3. 1 1/2" x 1 1/2" x 16" GA OR HEAVIER ANGLE, SNUG TO SLEEVE AND WALL ALL AROUND.
4. BOLTS, SHEET METAL SCREWS (#10), OR 3/16" STEEL RIVETS @ MIN. 8" OC STARTING 2" FROM EACH CORNER

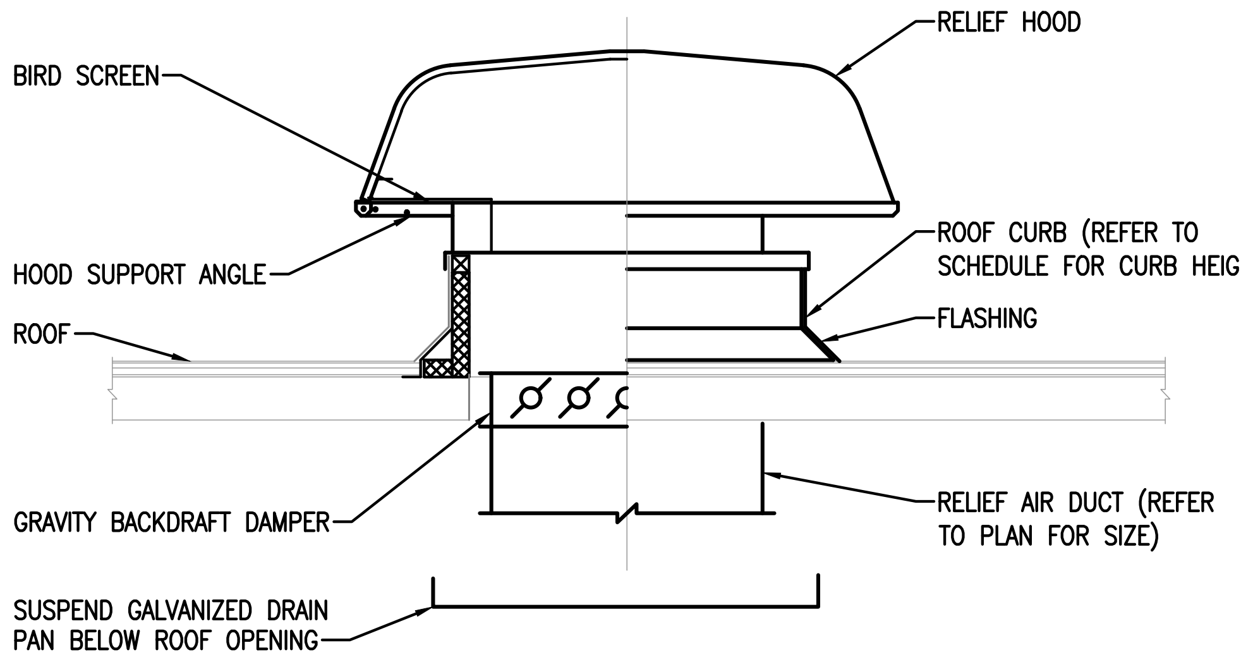
FIRE DAMPER INSTALLATION DETAIL

N.T.S.


ROOFTOP UNIT
LINED DUCT
FLEX CONNECTION (TYP 2)
ACOUSTICALY INSULATED LINED DUCT
COUNTER FLASHING COORDINATE W/ ARCH
GASKET
CURB
CONTINUOUS CANT STRIP COORDINATE W/ ARCH
ROOFING MEMBRANE COORDINATE W/ ARCH
SUPPLY AIR
RETURN AIR
ROOF STRUCTURE
STRUCTURAL SYSTEM
RIGID INSULATION (BETWEEN FRAME MEMBERS (OF ROOF CURB)
SMOKE DETECTOR

PACKAGED COMMERCIAL ROOFTOP UNIT MOUNTING DETAIL

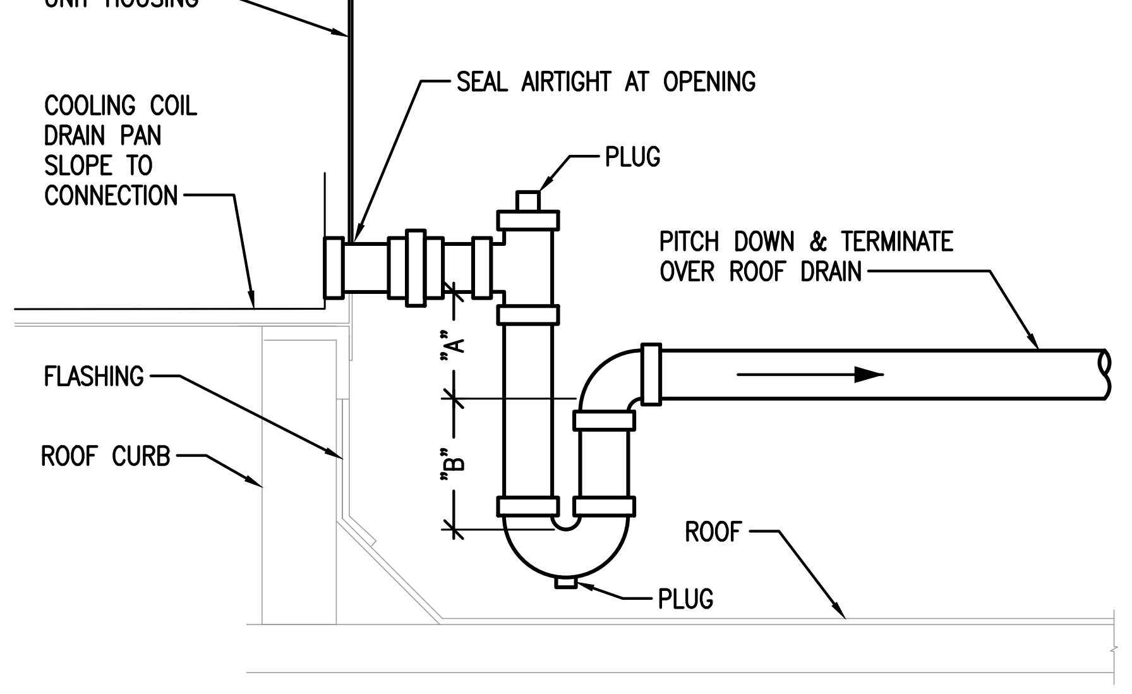
N.T.S.


RELIEF HOOD
BIRD SCREEN
HOOD SUPPORT ANGLE
ROOF CURB (REFER TO SCHEDULE FOR CURB HEIGHT)
FLASHING
ROOF
GRAVITY BACKDRAFT DAMPER
RELIEF AIR DUCT (REFER TO PLAN FOR SIZE)
SUSPEND GALVANIZED DRAIN PAN BELOW ROOF OPENING

RELIEF HOOD INSTALLATION DETAIL

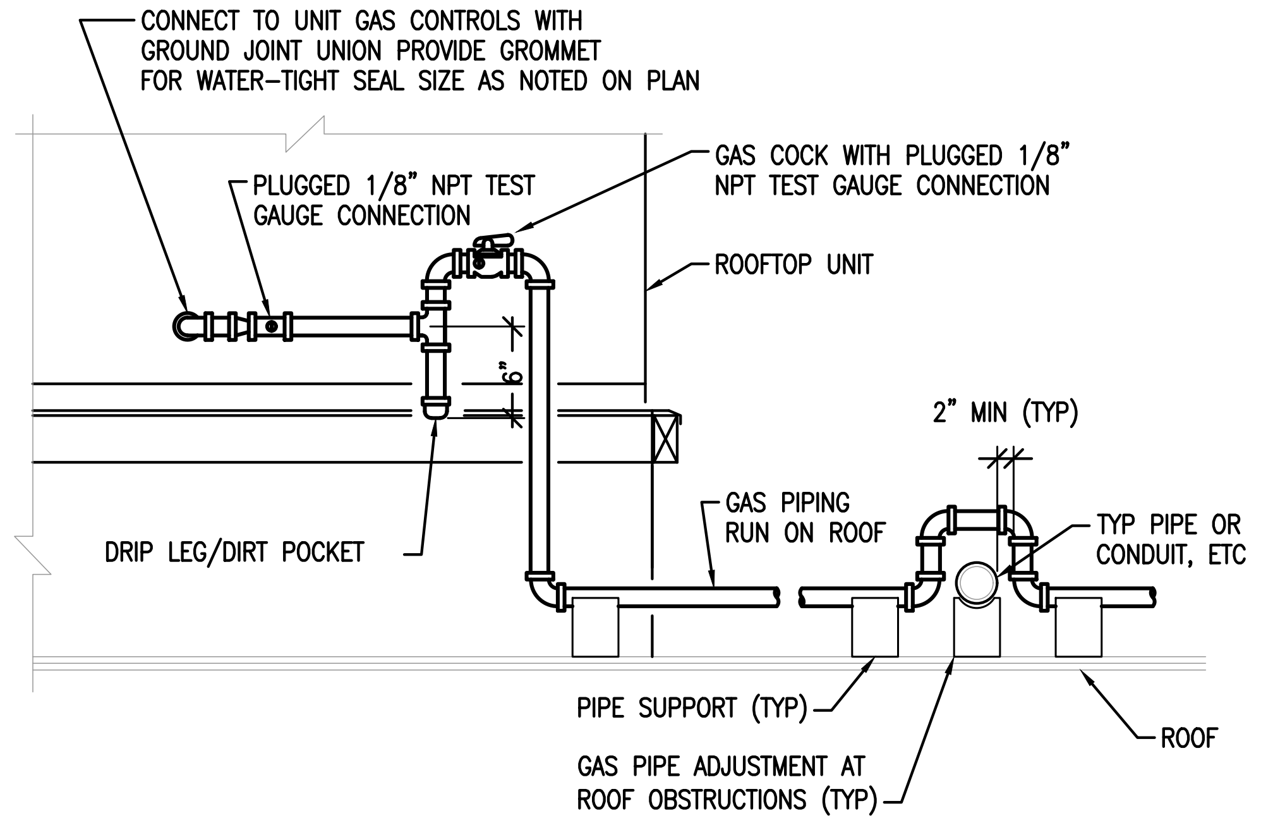
N.T.S.

NOTES:
FOR DRAW THROUGH UNIT
DIM "A" = 1/2 OF DIM "B"
DIM "B" = FAN SUCTION STATIC PRESS PLUS 2"


ROOFTOP UNIT HOUSING
SEAL AIRTIGHT AT OPENING
COOLING COIL DRAIN PAN SLOPE TO CONNECTION
PLUG
PITCH DOWN & TERMINATE OVER ROOF DRAIN
FLASHING
"A"
"B"
ROOF CURB
ROOF
PLUG

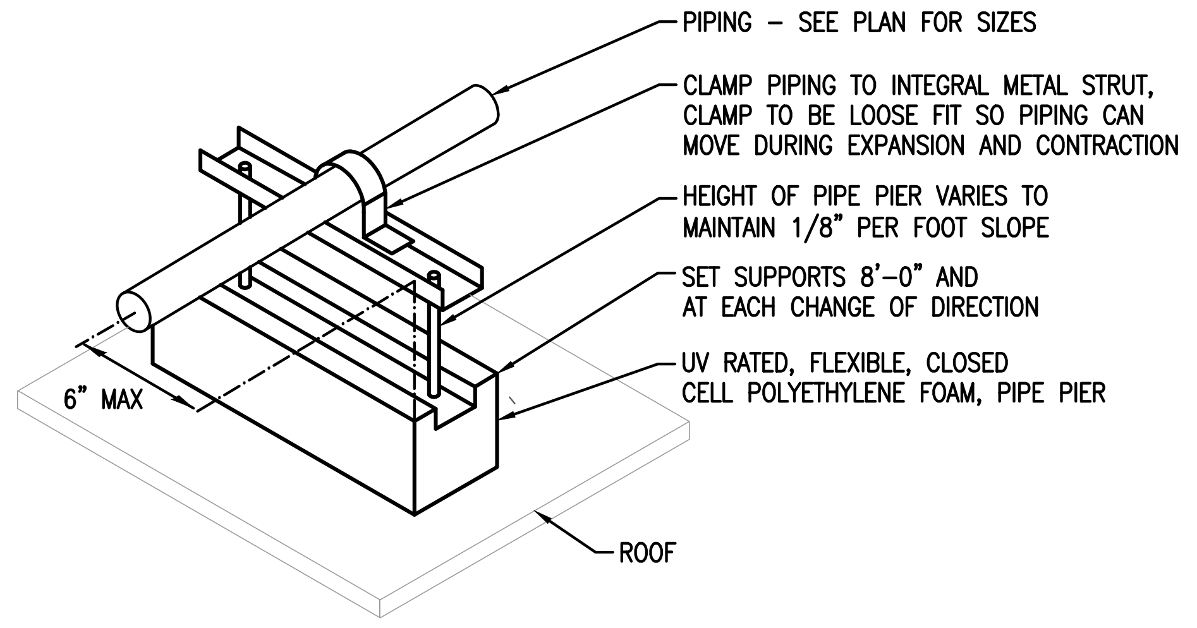
ROOFTOP UNIT COOLING COIL DRAIN PAN TRAP DETAIL

N.T.S.


CONNECT TO UNIT GAS CONTROLS WITH GROUND JOINT UNION PROVIDE GROMMET FOR WATER-TIGHT SEAL SIZE AS NOTED ON PLAN
PLUGGED 1/8" NPT TEST GAUGE CONNECTION
GAS COCK WITH PLUGGED 1/8" NPT TEST GAUGE CONNECTION
ROOFTOP UNIT
6"
2" MIN (TYP)
GAS PIPING RUN ON ROOF
TYP PIPE OR CONDUIT, ETC
DRIP LEG/DIRT POCKET
PIPE SUPPORT (TYP)
ROOF
GAS PIPE ADJUSTMENT AT ROOF OBSTRUCTIONS (TYP)

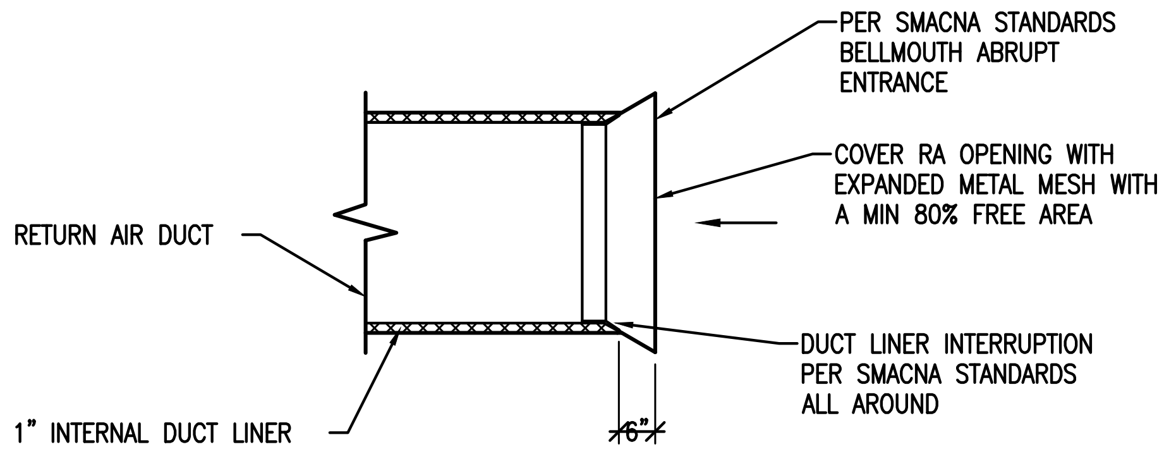
ROOFTOP UNIT GAS PIPING CONNECTION DETAIL

N.T.S.


PIPING – SEE PLAN FOR SIZES
CLAMP PIPING TO INTEGRAL METAL STRUT, CLAMP TO BE LOOSE FIT SO PIPING CAN MOVE DURING EXPANSION AND CONTRACTION
HEIGHT OF PIPE PIER VARIES TO MAINTAIN 1/8" PER FOOT SLOPE
SET SUPPORTS 8'-0" AND AT EACH CHANGE OF DIRECTION
UV RATED, FLEXIBLE, CLOSED CELL POLYETHYLENE FOAM, PIPE PIER
6" MAX
ROOF

GAS PIPE SUPPORT ROOF DETAIL

N.T.S. TYP.


PER SMACNA STANDARDS BELLMOUTH ABRUPT ENTRANCE
COVER RA OPENING WITH EXPANDED METAL MESH WITH A MIN 80% FREE AREA
RETURN AIR DUCT
DUCT LINER INTERRUPTION PER SMACNA STANDARDS ALL AROUND
1" INTERNAL DUCT LINER
6"

PLENUM RETURN BELLMOUTH W/O DAMPER DETAIL

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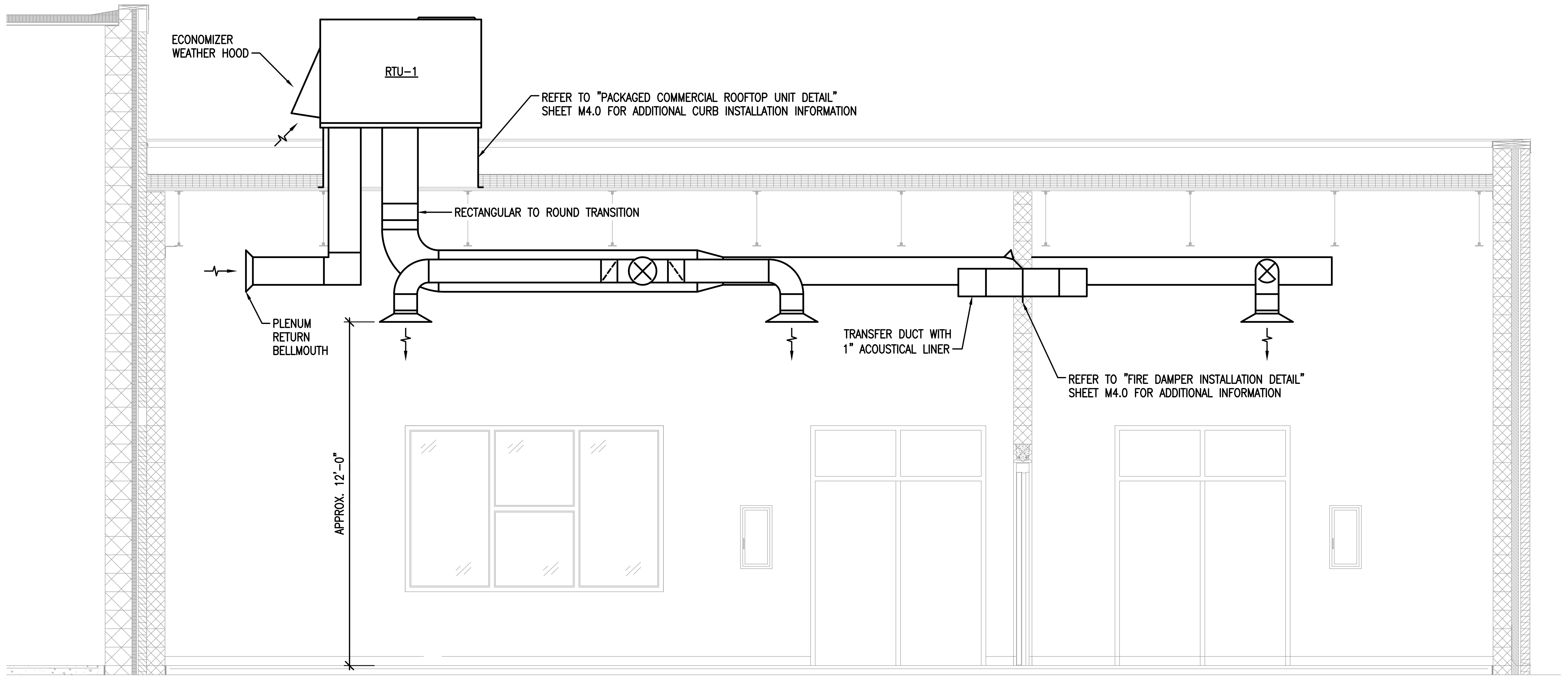
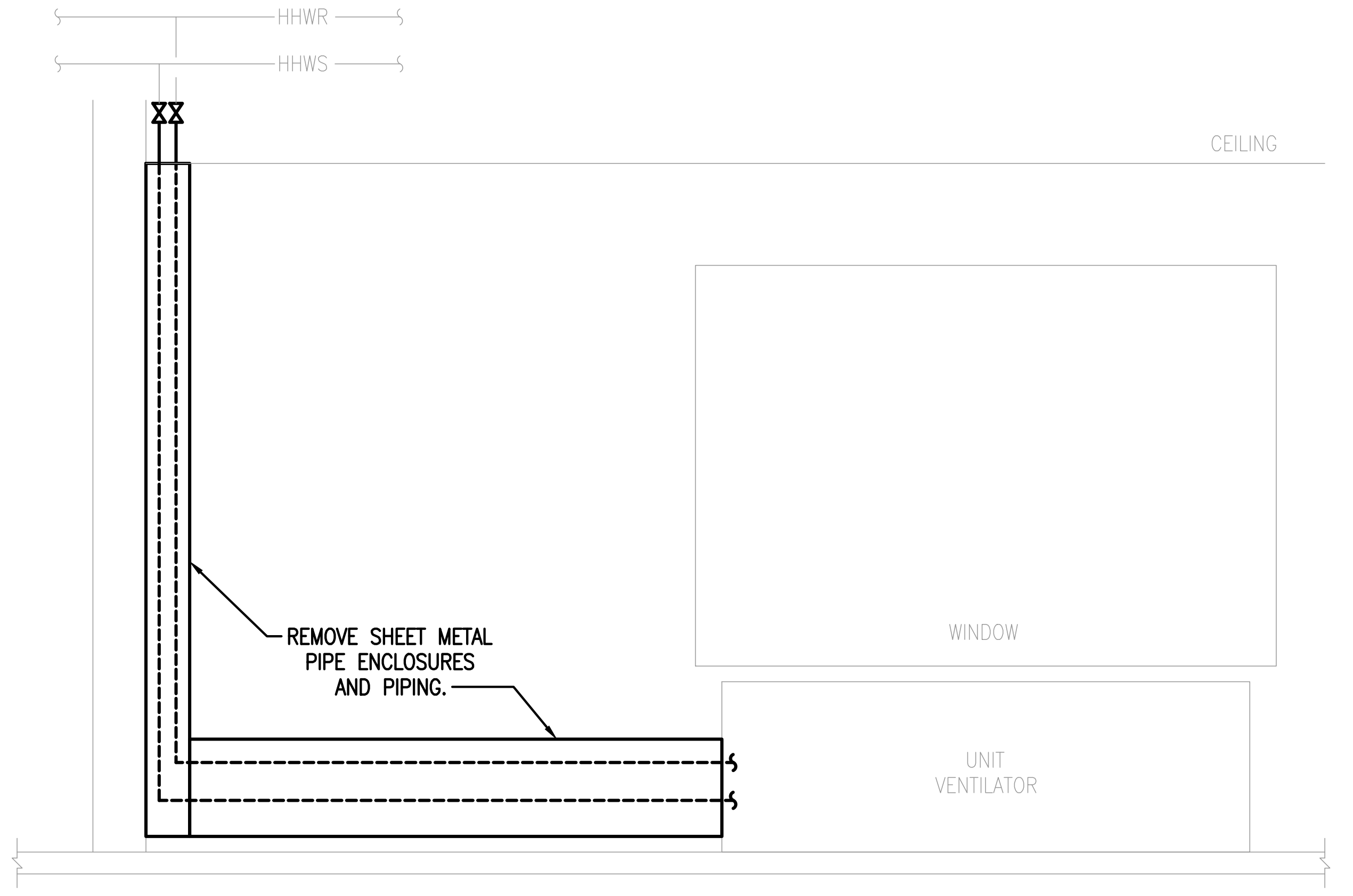
MECHANICAL
DETAILS

R-M4.0

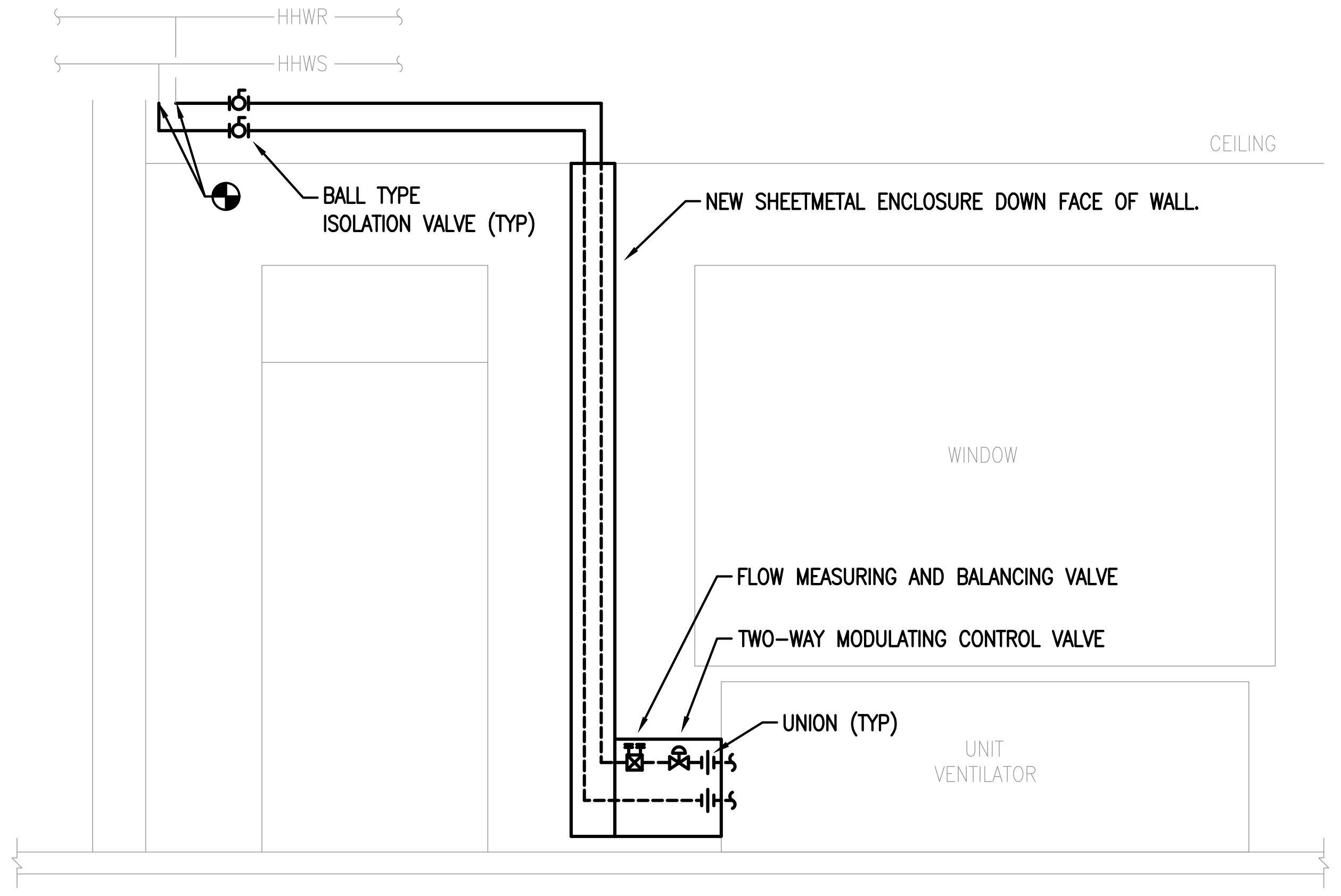

ECONOMIZER WEATHER HOOD
RTU-1
REFER TO "PACKAGED COMMERCIAL ROOFTOP UNIT DETAIL" SHEET M4.0 FOR ADDITIONAL CURB INSTALLATION INFORMATION
RECTANGULAR TO ROUND TRANSITION
PLENUM RETURN BELLMOUTH
TRANSFER DUCT WITH 1" ACOUSTICAL LINER
REFER TO "FIRE DAMPER INSTALLATION DETAIL" SHEET M4.0 FOR ADDITIONAL INFORMATION
APPROX. 12'-0"

HVAC SYSTEM SECTION DETAIL

N.T.S.



EXISTING


HHWR
HHWS
CEILING
BALL TYPE ISOLATION VALVE (TYP)
NEW SHEETMETAL ENCLOSURE DOWN FACE OF WALL.
WINDOW
FLOW MEASURING AND BALANCING VALVE
TWO-WAY MODULATING CONTROL VALVE
UNION (TYP)
UNIT VENTILATOR

NEW

UNIT VENTILATOR PIPING DIAGRAM - CLASSROOM 344

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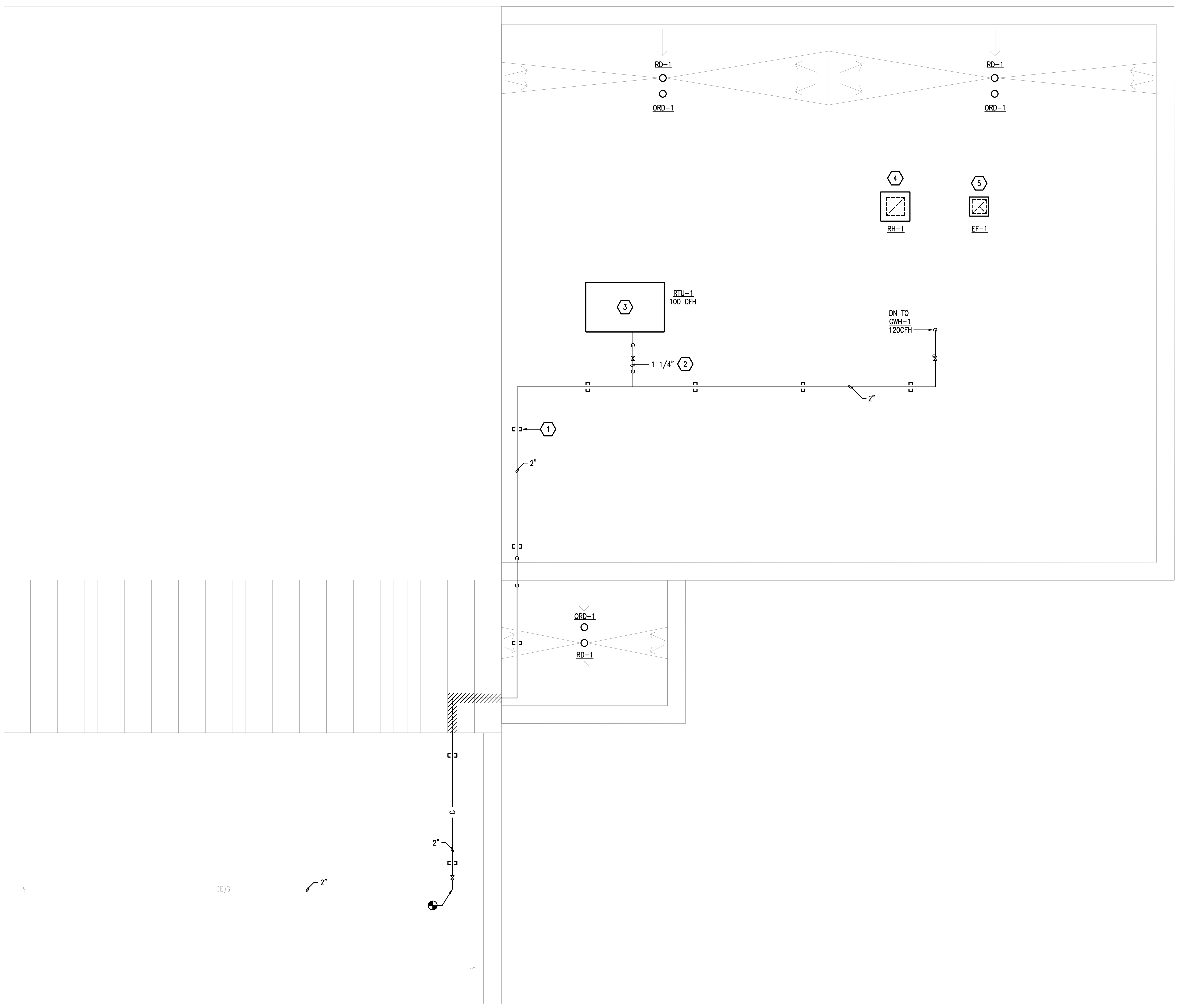
MECHANICAL
DETAILS

R-M4.1



MECHANICAL AND PLUMBING ROOF PLAN

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

KEYNOTES

1. REFER TO "GAS PIPE SUPPORT DETAIL" ON SHEET M4.0.
2. REFER TO "ROOFTOP UNIT GAS PIPING CONNECTION DETAIL" ON SHEET M4.0.
3. REFER TO "PACKAGED COMMERCIAL ROOFTOP UNIT MOUNTING DETAIL" ON SHEET M4.0.
4. REFER TO "RELIEF HOOD INSTALLATION DETAIL" ON SHEET M4.0.
5. REFER TO MANUFACTURER'S INSTALLATION INSTRUCTIONS FOR EXHAUST FAN. INSTALL ON PREMANUFACTURERED, INSULATED CURB WITHOUT CANT STRIP AND SELF-FLASHING FLANGE.

GENERAL NOTES

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5. COORDINATE FLOOR, WALL, ROOF PENETRATIONS, LOUVER SIZES, PAD LOCATIONS, ETC. WITH ARCHITECTURAL TRADES.
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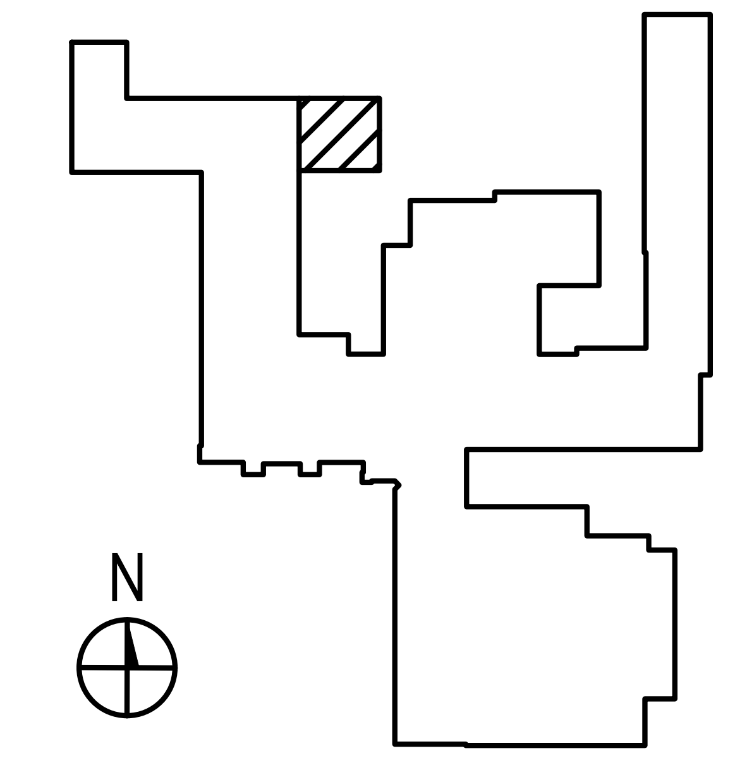
8. PROVIDE CODE REQUIRED CLEARANCE/ACCESS DOORS FOR DAMPERS AND VALVES LOCATED IN WALLS OR ABOVE HARD CEILINGS. COORDINATE LOCATIONS WITH ARCHITECT.
9. FOR EQUIPMENT VALVING, COMPONENT, AND PIPING ARRANGEMENT REFER TO PIPING DIAGRAMS AND DETAILS.
10. BRANCH DUCTWORK TO GRILLES, REGISTERS, AND DIFFUSERS SHALL BE THE SAME SIZE AS THE GRILLE, REGISTER, OR DIFFUSER NECK SIZE WHERE NO DUCT SIZE IS INDICATED ON PLAN.
11. COORDINATE FINAL DUCT SIZE AND ROUTING WITH TRUSS WEBS.

KEY PLAN



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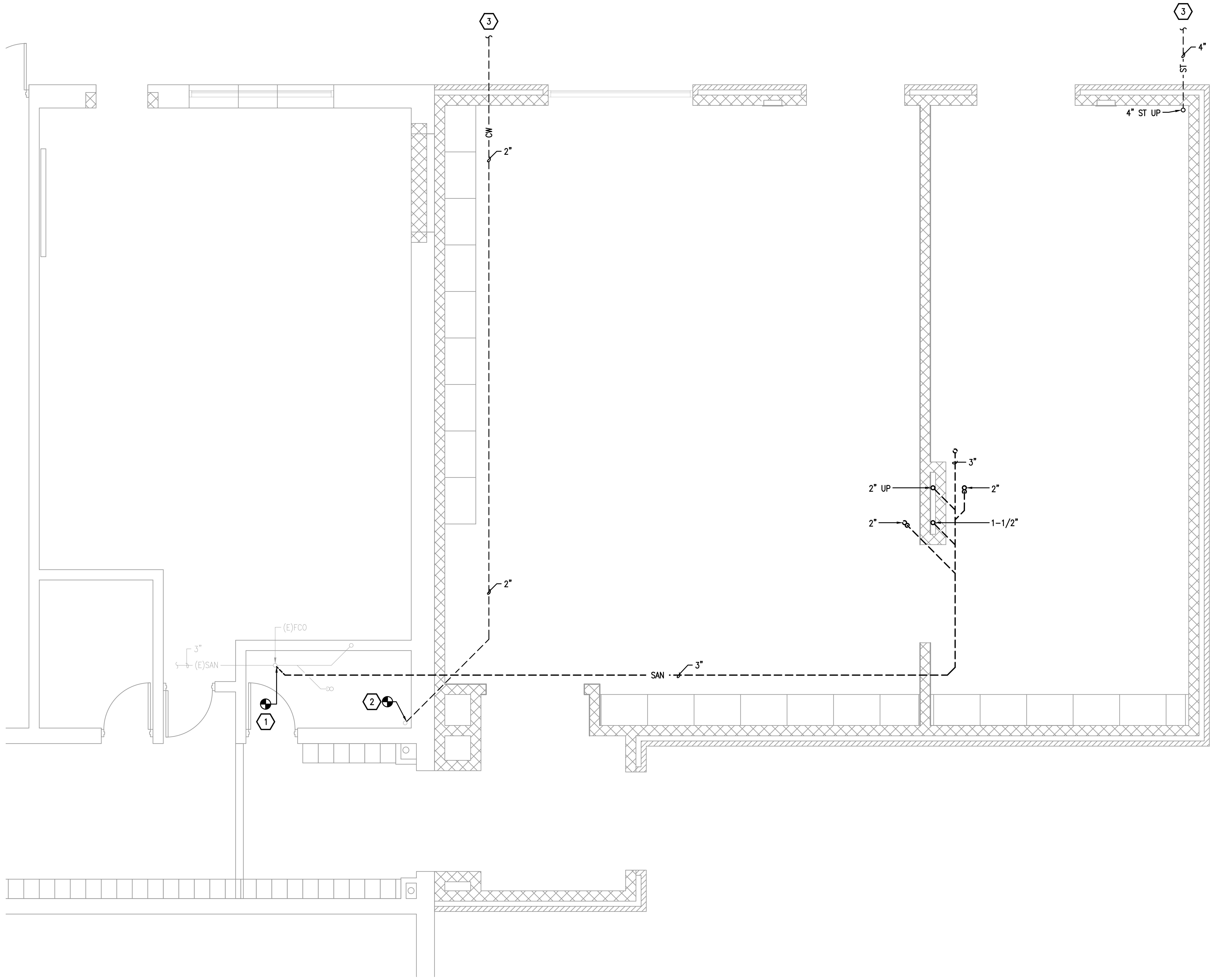
MECHANICAL & PLUMBING
ROOF PLAN

R-MP2.0



PLUMBING PLAN - BELOW GRADE

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

⬡ KEYNOTES ⬡

1. FIELD VERIFICATION OF EXISTING UNDERGROUND SANITARY LINE REQUIRED FOR TIE–IN TO ADDITION. COORDINATE SAWCUTTING AND PATCHING OF FLOOR SLAB WITH ARCHITECTURAL TRADES.
2. TIE INTO EXISTING DOMESTIC COLD WATER LINE BELOW SLAB. CORE AND SLEEVE THROUGH FOOTING AS REQUIRED.
3. COORDINATE CONTINUATION OF BELOW GRADE PIPING WITH CIVIL.

GENERAL NOTES

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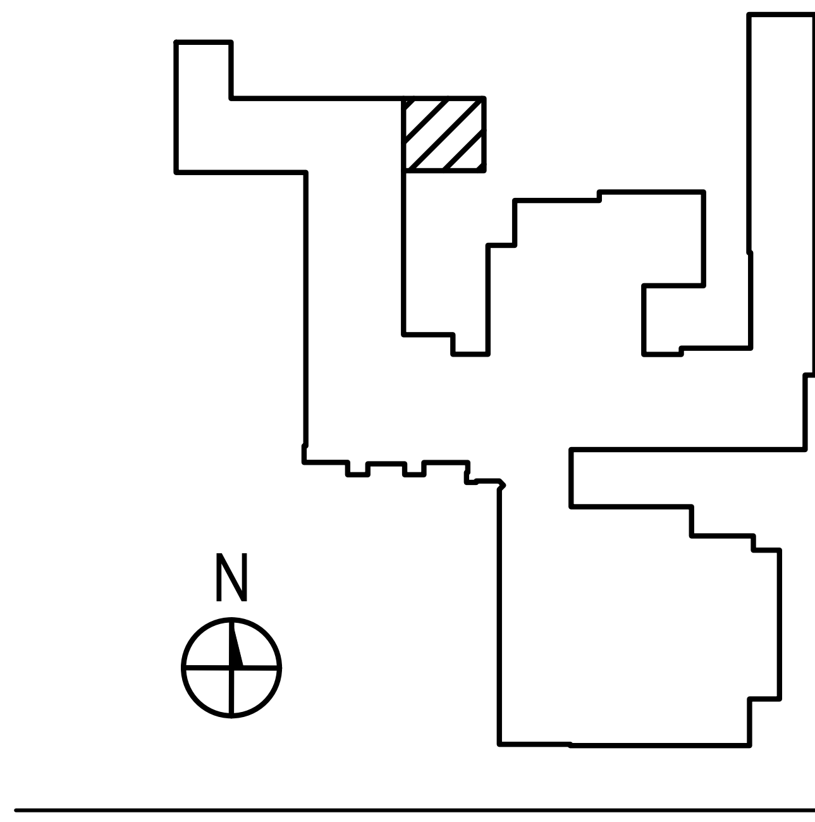
KEY PLAN



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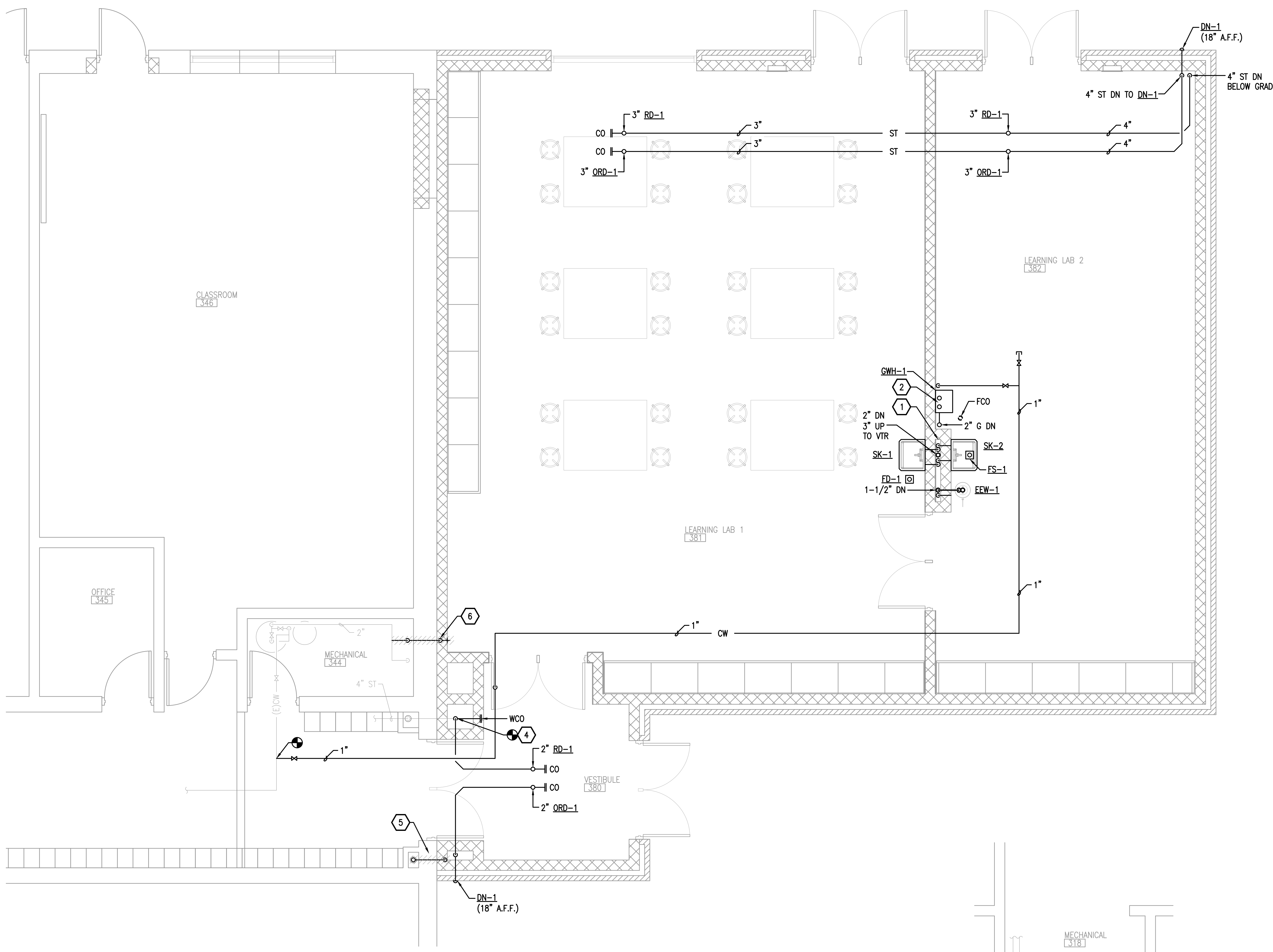
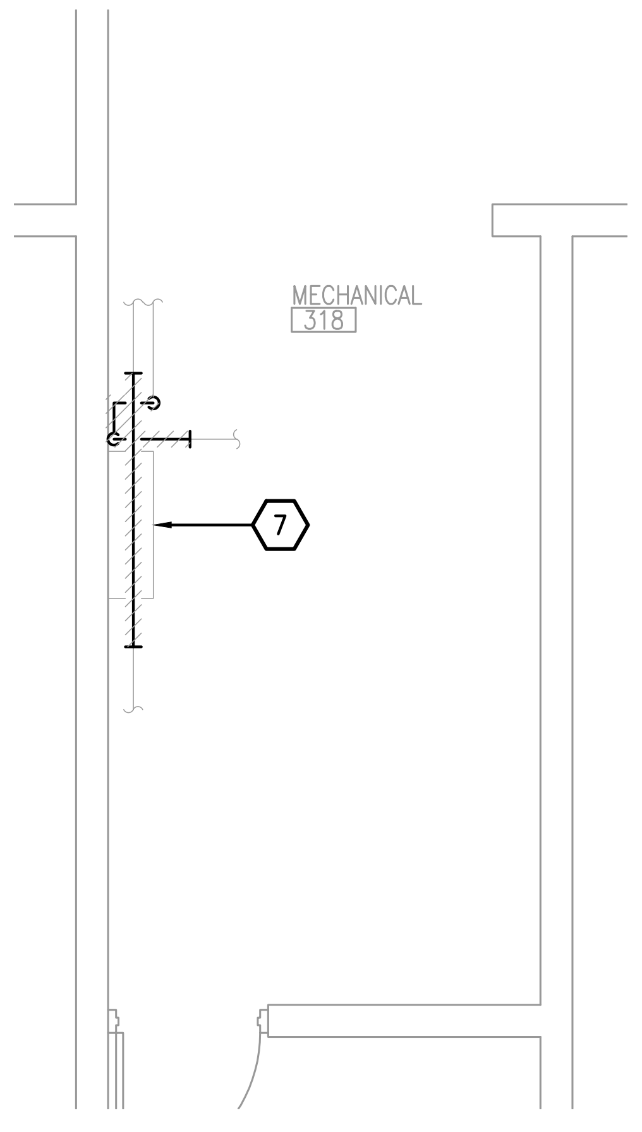
PLUMBING PLAN
BELOW GRADE

R-P2.0



PLUMBING PLAN - ABOVE GRADE

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



PLUMBING PLAN
BOILER ROOM RENOVATIONS

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

⬡ KEYNOTES ⬡

1. REFER TO PIPING DETAIL ON SHEET P3.0 FOR ADDITIONAL INFORMATION.
2. TERMINATE FLUE AND AIR INTAKE THROUGH ROOF WITH CONCENTRIC VENT KIT.
3. PROVIDE CLEANOUT AT BASE OF STACK.
4. TIE IN NEW STORM DRAIN TO EXISTING IN CHASE. PROVIDE CLEANOUT AT BASE OF STACK.
5. REMOVE EXISTING ABANDONED VERTICAL STORM PIPE WITHIN CHASE. REMOVE DISCHARGE PIPE AND ELBOW OUTSIDE AND CAP BELOW GRADE.
6. ABANDONED IRRIGATION PIPE DOWN THROUGH GRADE. REMOVE SECTION OF PIPE WITH HOSEBIB AND CAP BELOW GRADE. REMOVE BACK TO MAIN SUPPLY PIPE AND CAP.
7. REWORK 1/2" DOMESTIC COLD WATER PIPING AROUND NEW ELECTRICAL PANEL. MAINTAIN ALL REQUIRED CLEARANCES FOR ELECTRICAL PANEL. COORDINATE WITH ELECTRICAL CONTRACTOR FOR EXACT PANEL LOCATION.

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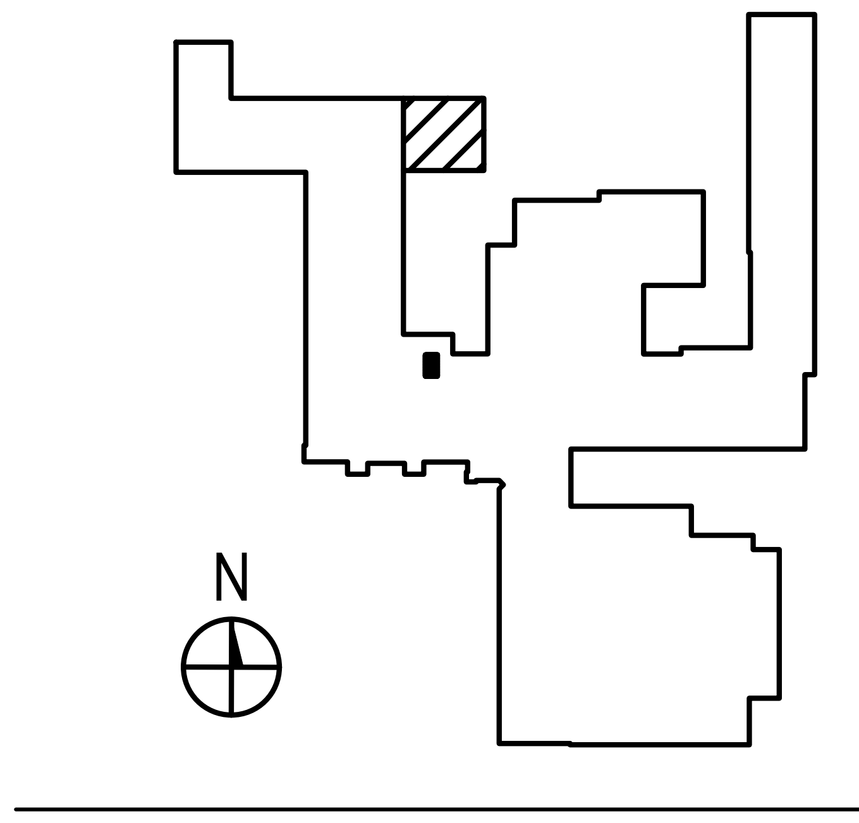
KEY PLAN



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0	FOR CONSTRUCTION	03.27.25

	BY
DESIGN	CRP
DRAWN	CRP
CHECKED	SLB
APPROVED	SLB

PLUMBING PLAN
ABOVE GRADE

R-P2.1

PLUMBING FIXTURE SCHEDULE

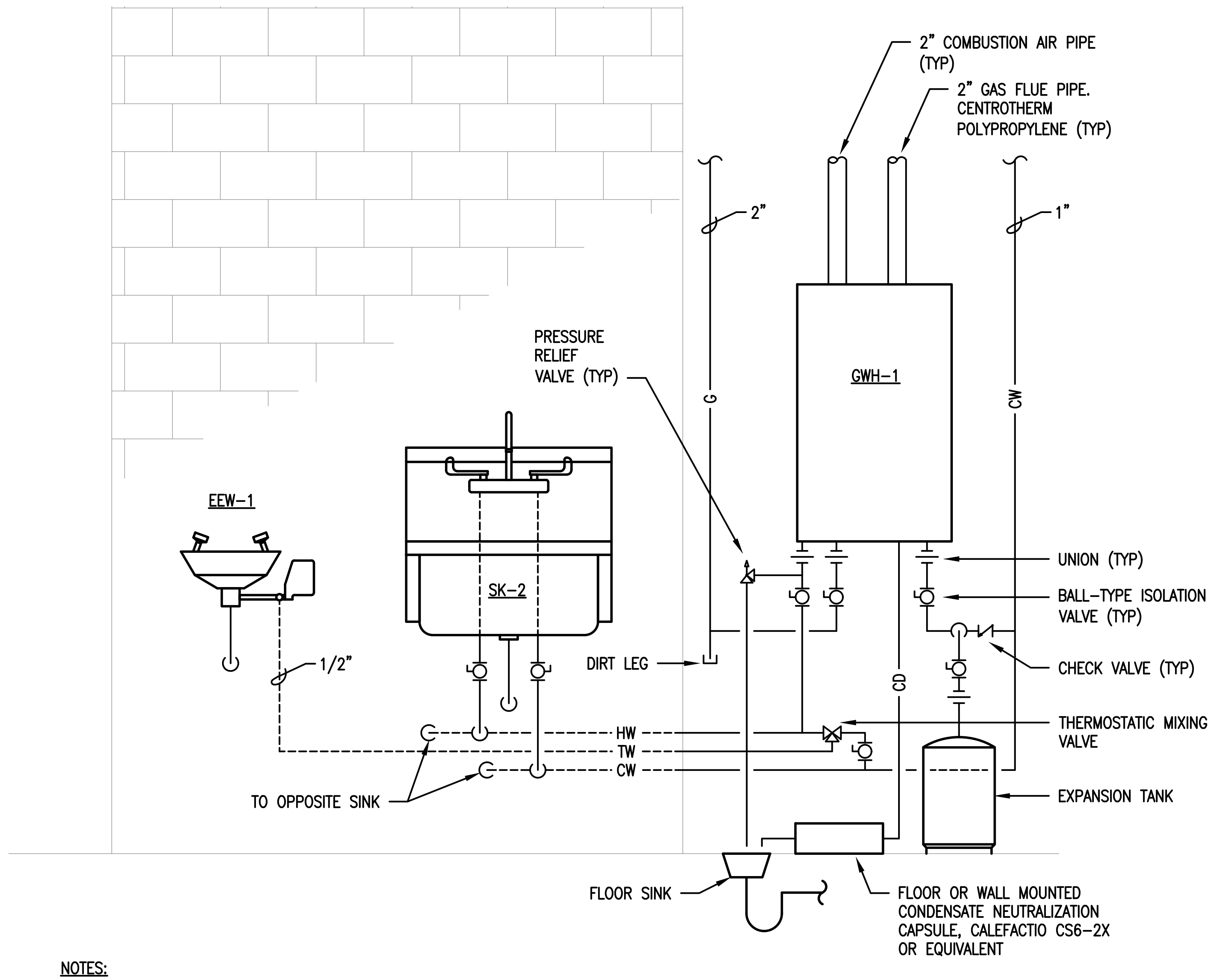
SYM	DESCRIPTION	WASTE	VENT	CW	HW	TEPID
DC–1	DOWNSPOUT COVER – ZURN #Z199–DC, ROUND STAINLESS STEEL WITH SECURED PERFORATED HINGED STRAINER.	–	–	1/2"	–	–
EEW–1	EMERGENCY EYE/FACE WASH – GUARDIAN #GBF1724, EYE/FACE WASH, WALL MOUNTED, STAINLESS STEEL, BARRIER FREE. MIXING VALVE – GUARDIAN #G6020	1 1/4"	–	–	–	1/2"
FD–1	FLOOR DRAIN – ZURN #Z415B DURA–COATED CAST IRON BODY WITH BOTTOM NO HUB OUTLET, COMBINATION INVERTIBLE MEMBRANE CLAMP AND ADJUSTABLE COLLAR WITH SEEPAGE SLOTS AND 5"Ø POLISHED NICKEL BRONZE, LIGHT–DUTY STRAINER. PROVIDE WITH SURESEAL OR EQUIVALENT WATERLESS INLINE TRAP SEAL.	SEE PLANS	–	–	–	–
FS–1	FLOOR SINK – ZURN #FD2375, 12"X12"X6" DEEP, CAST IRON BODY WITH WHITE ACID–RESISTING PORCELAIN ENAMEL INTERIOR COATING, AND AN ABS ANTI–SPLASH DOME STRAINER. NO HUB OUTLET. PROVIDE WITH HALF–GRATE TOP. PROVIDE WITH SURESEAL OR EQUIVALENT WATERLESS INLINE TRAP SEAL.	SEE PLANS	–	–	–	–
SK–1	WORK SINK – SANI–LAV 5A4F, WALL MOUNTED SINK, 16 GAUGE STAINLESS STEEL, 19" x 15–1/2" x 15" COMPARTMENT, WITH SUPPORT BRACKETS, SPLASH MOUNT FAUCET WITH 10" SWIVEL SPOUT AND 4" WING LEVERS, STRAINER ASSEMBLY WITH BASKET, WALL–MOUNTING BRACKET AND FAUCET MOUNTING KIT. ADA COMPLIANT PROVIDE WITH ASSE 1070 COMPLIANT MIXING VALVE, HOT AND COLD WATER SUPPLY STOPS, MCGUIRE MANUFACTURING "PW" SERIES ADJUSTABLE P–TRAP KIT WITH "PROWRAP" INSULATION, CLEAN OUT PLUG AND SUPPLY COVERS.	3"	1 1/2"	1/2"	1/2"	–
SK–2	WORK SINK – SANI–LAV 504F, WALL MOUNTED SINK, 16 GAUGE STAINLESS STEEL, 22" x 17" x 10–1/2" COMPARTMENT, WITH SUPPORT BRACKETS, SPLASH MOUNT FAUCET WITH 10" SWIVEL SPOUT AND 4" WING LEVERS, STRAINER ASSEMBLY WITH BASKET, WALL–MOUNTING BRACKET AND FAUCET MOUNTING KIT. PROVIDE WITH ASSE 1070 COMPLIANT MIXING VALVE, HOT AND COLD WATER SUPPLY STOPS, MCGUIRE MANUFACTURING "PW" SERIES ADJUSTABLE P–TRAP KIT WITH "PROWRAP" INSULATION, CLEAN OUT PLUG AND SUPPLY COVERS.	3"	1 1/2"	1/2"	1/2"	–
RD–1 ORD–1	ROOF DRAIN – ZURN #Z165; COMBINATION MAIN ROOF AND OVERFLOW DRAIN WITH LOW SILHOUETTE DOMES AND DOUBLE TOP–SET DECK PLATE. 8–3/8" DIA. DOMES.	1 1/2"	1 1/2"	1/2"	1/2"	–
TS–1	TRAP SEAL – SURESEAL. IN–LINE FLOOR DRAIN TRAP SEAL, PREASSEMBLED, ABS PLASTIC HOUSING, NEOPRENE RUBBER DIAPHRAGM WITH 2" SOFT RUBBER GASKETS, ASSE 1072.	1 1/2"	1 1/2"	1/2"	1/2"	–

FUEL-FIRED, DOMESTIC-WATER HEATER (TANKLESS, ON-DEMAND) SCHEDULE

SYM	NATURAL GAS INPUT (MBH)	GAS PRESS. MIN.–MAX. (IN.–WC)	FLOW RATE AT 67°F RISE (GPM)	MINIMUM FLOW (GPM)	ELECTRICAL (EA. MODULE)			CONNECTIONS (EA. MODULE)					DISCONNECT (EA. MODULE)			WEIGHT (LB/MODULE)	MANUFACTURER AND MODEL
					VOLTS	PHASE	MAX. POWER CONSUMPTION (WATTS/AMPS)	CW (IN)	HW (IN)	GAS (IN)	EXHAUST (IN)	INTAKE (IN)	FURN. BY	INST. BY	TYPE		
GWH–1	120	3.5–10.5	3.4	0.5	120	1	200/2	3/4	3/4	3/4	2"	2"	ELEC.	ELEC.	NON–FUSED SWITCH	62	NAVIEN – NPE–150S2

NOTES:

1. FURNISH WITH WALL MOUNT KIT, INCLUDING ALL NECESSARY BALL VALVES, UNIONS, END CAPS, COUPLINGS, STRUTS, CLAMPS, FLEX CONNECTIONS, ETC.


2" COMBUSTION AIR PIPE (TYP)
2" GAS FLUE PIPE. CENTROTHERM POLYPROPYLENE (TYP)
2"
1"
G
CW
GWH–1
PRESSURE RELIEF VALVE (TYP)
EEW–1
SK–2
1/2"
DIRT LEG
UNION (TYP)
BALL–TYPE ISOLATION VALVE (TYP)
CHECK VALVE (TYP)
CD
HW
TW
CW
THERMOSTATIC MIXING VALVE
TO OPPOSITE SINK
EXPANSION TANK
FLOOR SINK
FLOOR OR WALL MOUNTED CONDENSATE NEUTRALIZATION CAPSULE, CALEFACTIO CS6–2X OR EQUIVALENT

NOTES:

1. REFER TO PLUMBING FIXTURE MANUFACTURER'S INSTALLATION INSTRUCTIONS FOR EXACT MOUNTING HEIGHTS.
2. INSTALL PVC JACKET ON INSULATED PLUMBING PIPING WERE SURFACE MOUNTED AND ACCESSIBLE (10' AND BELOW) FOR PROTECTION FROM SCRATCHING, DENTING, AND OTHER DAMAGE. PROVIDE REMOVEABLE COVERS ON VALVES AND FREQUENTLY MAINTAINED COMPONENTS.

PLUMBING PIPING DETAIL

N.T.S. TYP.

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2024 BOND WORK
MT PLEASANT, MICHIGAN
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PLUMBING
DETAILS & SCHEDULES

R-P3.0

ELECTRICAL SYMBOL LIST

NOTE: SOME SYMBOLS SHOWN MAY NOT APPLY TO THIS PROJECT

⊠	2'x2' RECESSED LIGHTING FIXTURE
⊠	2'x4' RECESSED LIGHTING FIXTURE
□	2'x2' SURFACE MOUNTED LIGHTING FIXTURE
▭	2'x4' SURFACE MOUNTED LIGHTING FIXTURE
⊙	PENDANT DECORATIVE LIGHTING FIXTURE
▭	PENDANT LINEAR LIGHTING FIXTURE
□	HIGH-BAY LIGHTING FIXTURE
	WALL MOUNTED LIGHTING FIXTURE
	WALL SCONCE
○	POLE MOUNTED LIGHTING FIXTURE
	LIGHTED EXIT SIGN WITH DIRECTIONAL ARROWS SHADED AREA INDICATES FACE
	LIGHTED EXIT SIGN - WALL MOUNTED
	EMERGENCY LIGHTING UNIT
W X	WALL STATION X - WALL STATION TYPE
$	SINGLE POLE TOGGLE SWITCH
$_3	3-WAY TOGGLE SWITCH
$_4	4-WAY TOGGLE SWITCH
$_D	DIMMER SWITCH
$_K	KEY OPERATED SWITCH
C	AREA CONTROLLER
R	REMOTE RELAY SWITCH
TC	TIME CLOCK
Ⓢ	OCCUPANCY SENSOR
Ⓟ	PHOTOCELL

	DUPLEX RECEPTACLE
	ABOVE COUNTER DUPLEX RECEPTACLE
	QUAD RECEPTACLE
	ABOVE COUNTER QUAD RECEPTACLE
	SPECIALTY RECEPTACLE
⊖	CEILING MOUNTED DUPLEX RECEPTACLE
◐	HARD WIRED POWER CONNECTION
⊙	FLOORBOX / POKE-THROUGH
Ⓙ	JUNCTION BOX
• •	POWER POLE
	RACEWAY
▭	CORD REEL
$_M	MOTORIZED SWITCH
▣	PUSH BUTTON
▼ X	DATA OUTLET 'X' INDICATES PORT COUNT
▼ X	ABOVE COUNTER DATA OUTLET 'X' INDICATES PORT COUNT
▼ X	CEILING MOUNTED DATA OUTLET 'X' INDICATES PORT COUNT
A	WIRELESS ACCESS POINT

XA/XP/XV	NON-FUSED DISCONNECT SWITCH XA - AMP RATING / XP - POLES QUANTITY / XV - VOLTAGE RATING
XA/XP/XV/XAF	FUSED DISCONNECT SWITCH XA - AMP RATING / XP - POLES QUANTITY / XV - VOLTAGE RATING / XAF - FUSE RATING
XX	STARTER SWITCH
	BRANCH CIRCUIT BREAKER PANEL
▭	DISTRIBUTION PANEL
T	TRANSFORMER
ATS	AUTOMATIC TRANSFER SWITCH
	BELL DEVICE
S	WALL MOUNTED SPEAKER
S	CELING MOUNTED SPEAKER
	WALL MOUNTED SINGLE FACE CLOCK
	CELING MOUNTED SINGLE FACE CLOCK
	WALL MOUNTED DOUBLE FACE CLOCK
	CEILING MOUNTED DOUBLE FACE CLOCK
I	INTERCOM
▣ B	DOOR RELEASE BUZZER
DL	DOOR LOCK
K	KEY PAD
CR	CARD READER
PS	DOOR POSITION SWITCH
	SECURITY CAMERA

F	FIRE ALARM MANUAL PULL STATION
SD	SMOKE DETECTOR
DD	DUCT MOUNTED SMOKE DETECTOR
CO	CARBON MONOXIDE DETECTOR
HD	HEAT DETECTOR
TS	TAMPER SWITCH
FS	FLOW SWITCH
DH	MAGNETIC DOOR HOLD OPEN
XXcd	WALL MOUNTED AUDIO FIRE ALARM DEVICE XXcd - CANDELA RATING
F XXcd	CEILING MOUNTED AUDIO FIRE ALARM DEVICE XXcd - CANDELA RATING
XXcd	WALL MOUNTED VISUAL FIRE ALARM DEVICE XXcd - CANDELA RATING
F XXcd	CELING MOUNTED VISUAL FIRE ALARM DEVICE XXcd - CANDELA RATING
XXcd	WALL MOUNTED COMBO VISUAL & AUDIO FIRE ALARM DEVICE XXcd - CANDELA RATING
F XXcd	CEILING MOUNTED COMBO VISUAL & AUDIO FIRE ALARM DEVICE XXcd - CANDELA RATING
▭	FIRE ALARM CONTROL PANEL

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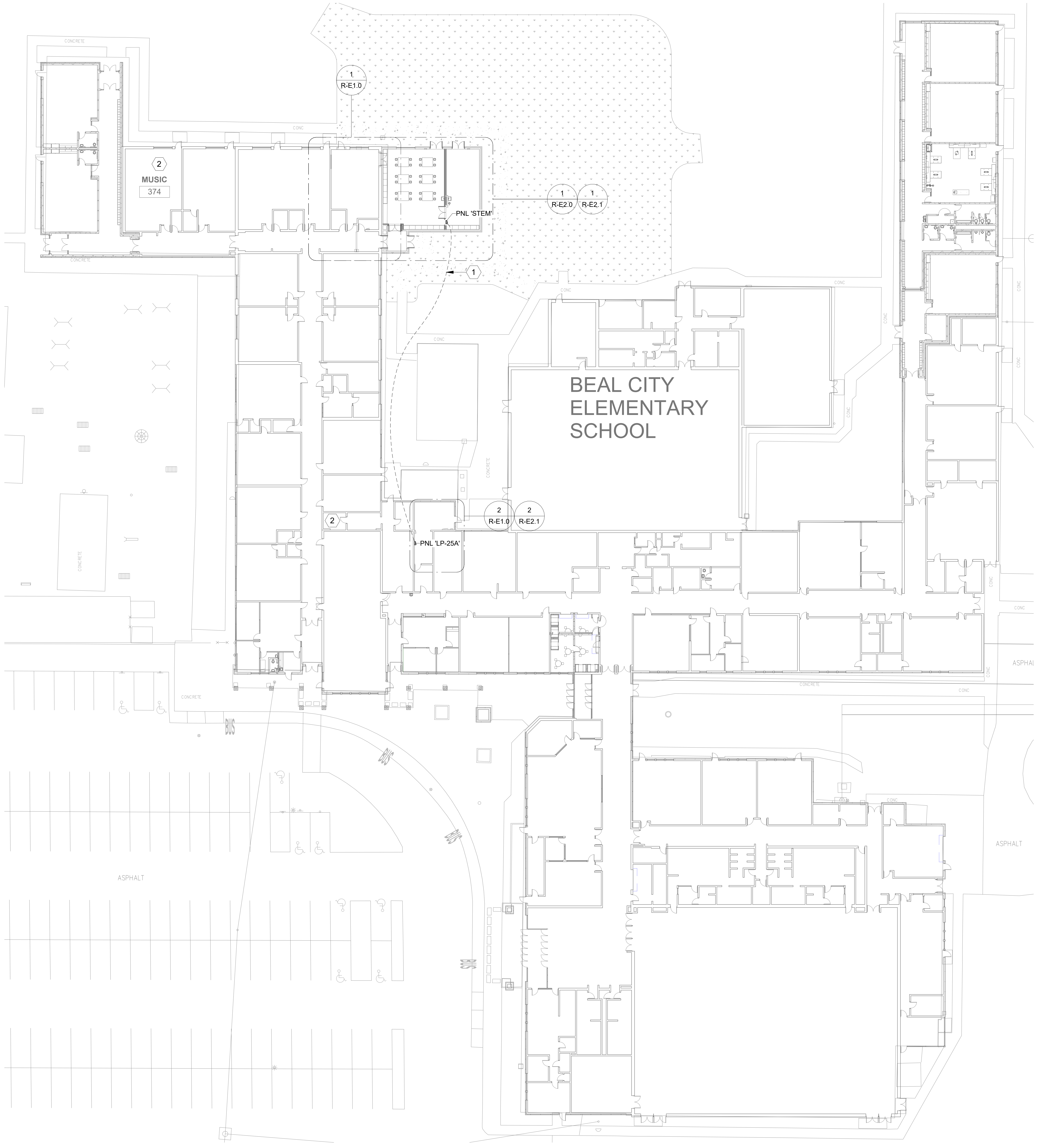
ELECTRICAL SYMBOL
LEGEND

R-E0.0



1 **ELECTRICAL COMPOSITE PLAN**
1" = 30'-0"

KEYNOTES

1. APPROXIMATE ROUTE FOR PANEL 'STEM' FEEDER. CONTRACTOR SHALL FIELD VERIFY ROUTE PRIOR TO BIDDING. SEE SHEET R-E3.0 FOR FEEDER SIZE.
2. EXISTING IDF LOCATION.

GENERAL NOTES

1. UNLESS NOTED OTHERWISE, All LIGHTING, DEVICES, EQUIPMENT, CIRCUITRY, ETC. DENOTED WITH BOLD (DARK) LINES REPRESENT WORK TO BE PERFORMED. All LIGHTING, DEVICES, EQUIPMENT, CIRCUITRY, ETC. DENOTED WITH LIGHT (SCREENED) LINES REPRESENT EXISTING TO REMAIN AND BE MAINTAINED.
2. EXISTING CONDITIONS SHOWN ON THESE DRAWINGS HAVE BEEN OBTAINED FROM EXISTING DRAWINGS AND FIELD INSPECTIONS. CONTRACTOR SHALL VERIFY EXACT LOCATIONS. REPORT DISCREPANCIES TO ARCHITECT/ENGINEER BEFORE DEMOLITION.
3. All NEW FEEDER AND BRANCH CIRCUIT CONDUIT AND WIRING SHALL BE RUN CONCEALED WITHIN EXISTING WALL CAVITIES OR ABOVE CEILINGS. EXPOSED RACEWAY ACCEPTABLE ONLY WHERE APPROVED BY OWNER, CONSTRUCTION MANAGER AND ENGINEER IN WHICH CASES WIREMOLD 700 (IVORY), OR EQUAL, SURFACE MOUNTED RACEWAY IS ACCEPTABLE. CONTRACTORS SHALL FIELD VERIFY EXISTING CONSTRUCTION CONDITIONS PRIOR TO BIDDING.

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ELECTRICAL COMPOSITE
PLAN

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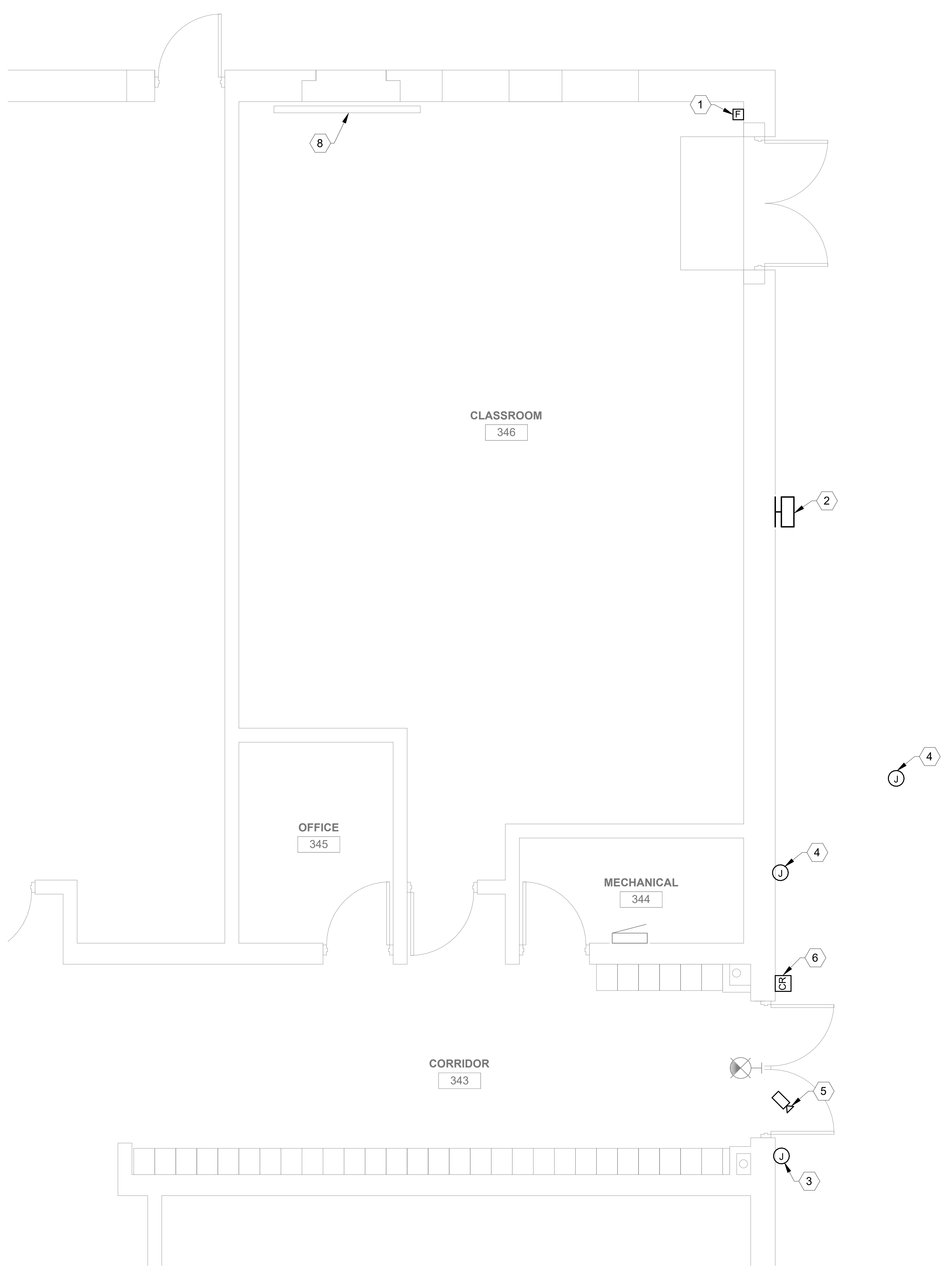
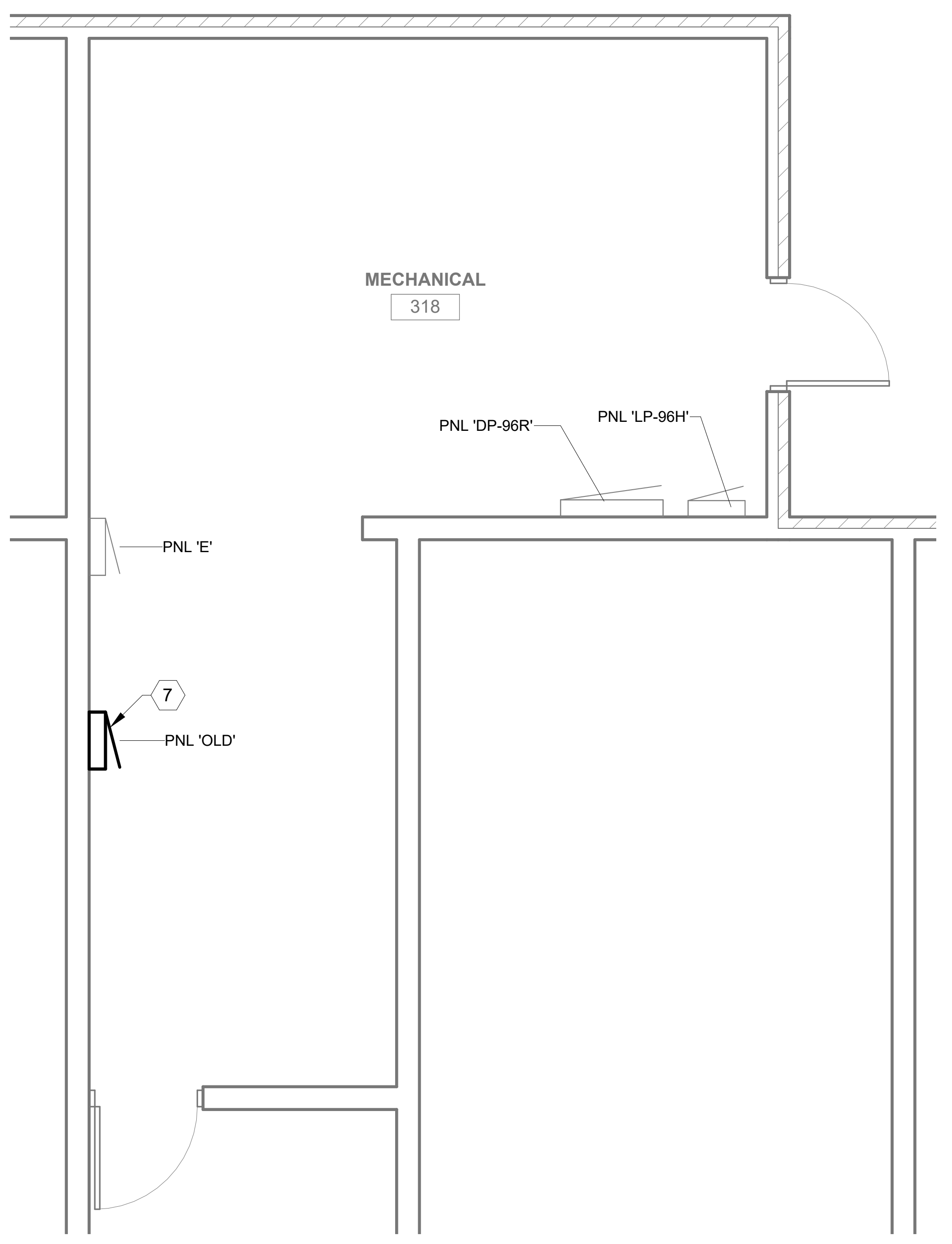


ELECTRICAL DEMO PLAN - LEARNING LAB

1 1/4" = 1'-0"



ELECTRICAL DEMO PLAN - MECHANICAL ROOM

2 1/4" = 1'-0"

KEYNOTES

1. REMOVE EXISTING PULL STATION AND WIRING BACK TO NEAREST BOX. SALVAGE PULL STATION FOR RE-USE IN NEW LOCATION. SEE NEW WORK PLANS. PROVIDE BLANK COVER.
2. REMOVE EXISTING LIGHT FIXTURE AND WIRING BACK TO NEAREST BOX. SALVAGE LIGHT FIXTURE FOR RE-USE IN NEW LOCATION. SEE NEW WORK PLANS.
3. REMOVE EXISTING CONDUIT AND WIRE. CONDUIT IS BELIEVED TO SERVE IRRIGATION CONTROL FOR THE PRACTICE FIELD. VERIFY THIS CIRCUIT PRIOR TO DEMOLITION.
4. REMOVE EXISTING CONDUIT AND WIRE FEEDING WELL PUMP. VERIFY CIRCUIT PRIOR TO DEMOLITION. BREAKER SHALL BE RE-USED TO FEED NEW WELL.
5. REMOVE EXISTING SECURITY CAMERA, BOX AND WIRING BACK TO SOURCE. TURN OVER CAMERA TO OWNER.
6. REMOVE EXISTING CARD READER, CONTROLLER, ETC. EXISTING DOOR SHALL BE REMOVED AND REPLACED DURING CONSTRUCTION. TURN DOOR SECURITY EQUIPMENT OVER TO OWNER.
7. EXISTING PANEL AND FEEDER SHALL BE REPLACED. SEE SHEET R-E2.1 & R-E3.0 FOR ADDITIONAL DETAILS.
8. REMOVE CIRCUITRY AND LOW VOLTAGE RACEWAY WITHIN WALL TO ACCOMMODATE NEW DOORWAY. ENSURE CONTINUITY TO REMAINING DEVICES ON CIRCUIT.

GENERAL NOTES

1. UNLESS NOTED OTHERWISE, ALL LIGHTING, DEVICES, EQUIPMENT, CIRCUITRY, ETC. DENOTED WITH BOLD (DARK) LINES REPRESENT WORK TO BE PERFORMED. ALL LIGHTING, DEVICES, EQUIPMENT, CIRCUITRY, ETC. DENOTED WITH LIGHT (SCREENED) LINES REPRESENT EXISTING TO REMAIN AND BE MAINTAINED.
2. EXISTING CONDITIONS SHOWN ON THESE DRAWINGS HAVE BEEN OBTAINED FROM EXISTING DRAWINGS AND FIELD INSPECTIONS. CONTRACTOR SHALL VERIFY EXACT LOCATIONS. REPORT DISCREPANCIES TO ARCHITECT/ENGINEER BEFORE DEMOLITION.

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ELECTRICAL
DEMOLITION PLANS

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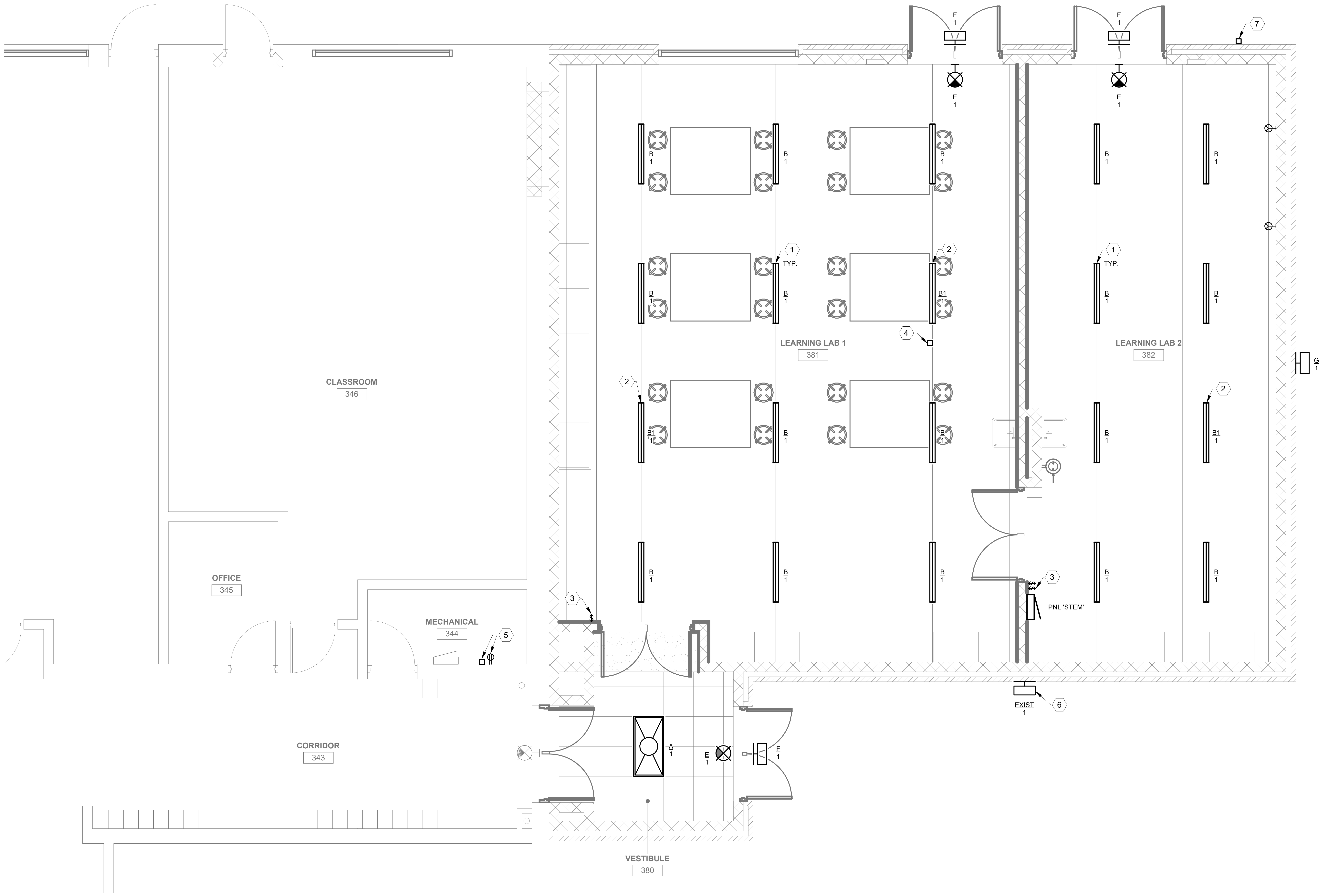

ELECTRICAL LIGHTING PLAN

① 1/4" = 1'-0"

KEYNOTES

1. FIXTURE SHALL BE SUSPENDED AT APPROXIMATELY 12' AFF.
2. LIGHT FIXTURE SHALL BE PROVIDED WITH INTEGRAL EMERGENCY BACK-UP BATTERY. FIXTURE SHALL BE CONTROLLED BY WALL STATION/INTEGRAL SENSOR AND AUTOMATICALLY SWITCH TO 'ON' IN THE EVENT OF NORMAL POWER FAILURE.
3. PROVIDE COOPER WAVELINX #W2L-RL-S2-W 2 BUTTON, RAISE/LOWER, 2 SCENE WALL STATION.
4. PROVIDE COOPER WAVELINX #WAC2-120 WIRELESS AREA CONTROLLER (WAC) NEAR BOTTOM OF ROOF JOIST. WAC SHALL BE POWERED VIA POE CAT6. SEE KEYNOTE #5 FOR POWER SUPPLY LOCATION.
5. INSTALL WAVELINX POWER SUPPLY (PROVIDED WITH WAC) NEW DUPLEX RECEPTACLE. UTILIZE NEAREST RECEPTACLE CIRCUIT. DEVICE LOCATION IS APPROXIMATE. FIELD LOCATE WITHIN ROOM. PROVIDE (1) CAT6 FROM POWER SUPPLY TO WAC SHOWN IN KEYNOTE #4. TERMINATE BOTH ENDS PER SPECIFICATIONS.
6. RE-INSTALL FIXTURE SALVAGED DURING DEMOLITION.
7. PROVIDE LINE VOLTAGE PHOTOCELL TO CONTROL TYPE 'G' AND TYPE 'EXIST' FIXTURES.

GENERAL NOTES

1. UNLESS NOTED OTHERWISE, All LIGHTING, DEVICES, EQUIPMENT, CIRCUITRY, ETC. DENOTED WITH BOLD (DARK) LINES REPRESENT WORK TO BE PERFORMED. All LIGHTING, DEVICES, EQUIPMENT, CIRCUITRY, ETC. DENOTED WITH LIGHT (SCREENED) LINES REPRESENT EXISTING TO REMAIN AND BE MAINTAINED.
2. EXISTING CONDITIONS SHOWN ON THESE DRAWINGS HAVE BEEN OBTAINED FROM EXISTING DRAWINGS AND FIELD INSPECTIONS. CONTRACTOR SHALL VERIFY EXACT LOCATIONS. REPORT DISCREPANCIES TO ARCHITECT/ENGINEER BEFORE DEMOLITION.
3. All NEW FEEDER AND BRANCH CIRCUIT CONDUIT AND WIRING SHALL BE RUN CONCEALED WITHIN EXISTING WALL CAVITIES OR ABOVE CEILINGS. EXPOSED RACEWAY ACCEPTABLE ONLY WHERE APPROVED BY OWNER, CONSTRUCTION MANAGER AND ENGINEER IN WHICH CASES WIREMOLD 700 (IVORY), OR EQUAL, SURFACE MOUNTED RACEWAY IS ACCEPTABLE. CONTRACTORS SHALL FIELD VERIFY EXISTING CONSTRUCTION CONDITIONS PRIOR TO BIDDING.

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ELECTRICAL LIGHTING PLAN

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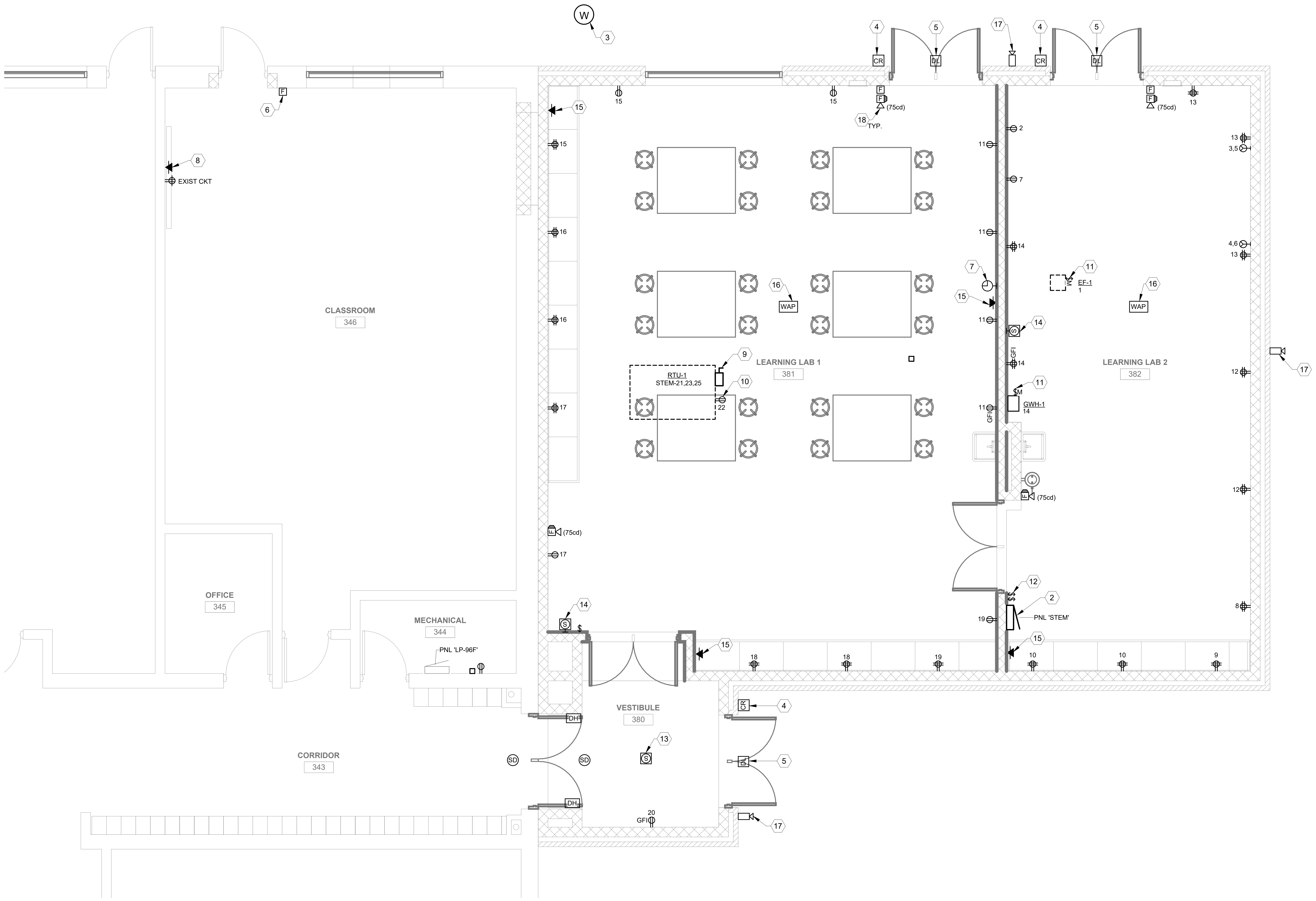
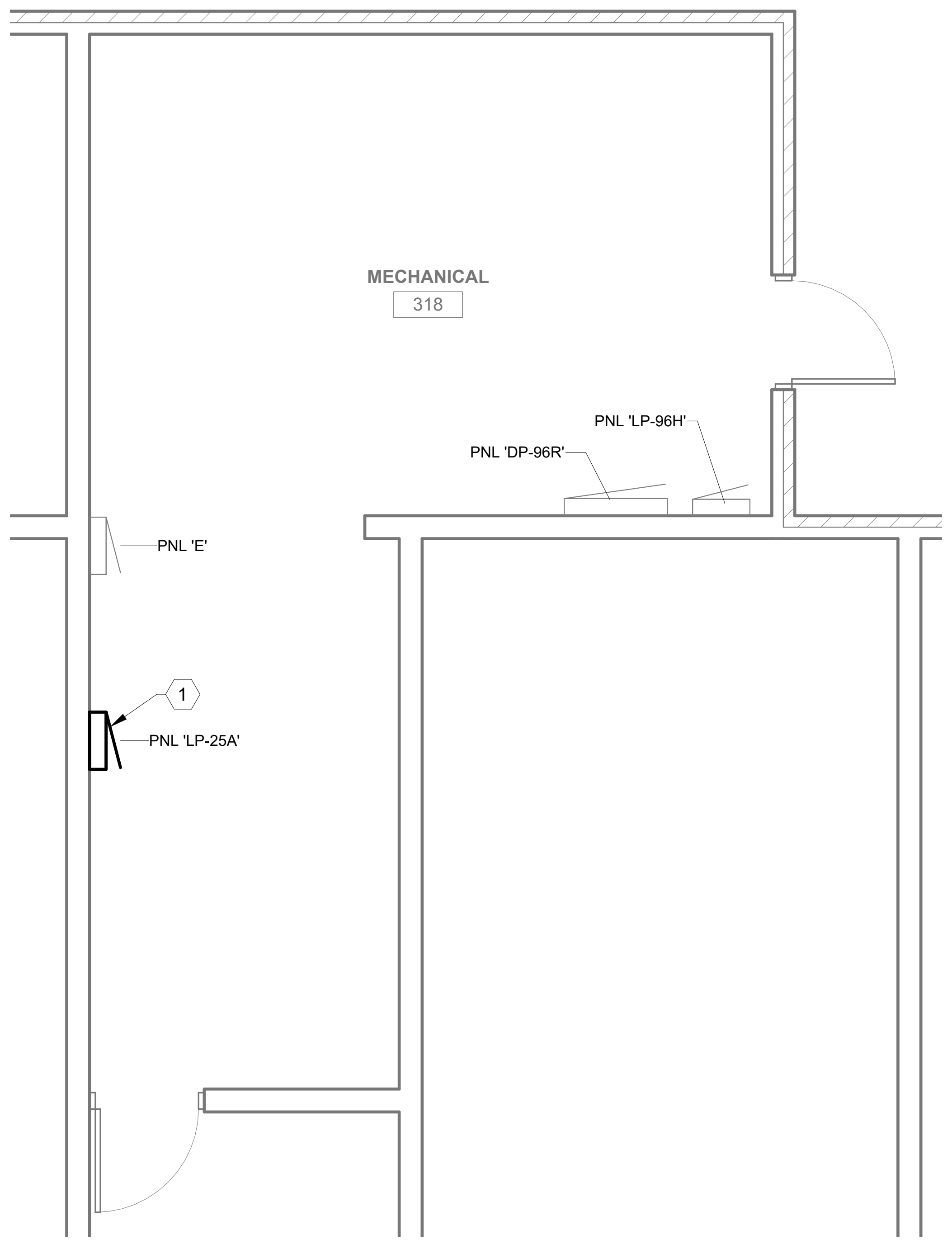


ELECTRICAL NEW WORK POWER PLAN

1 1/4" = 1'-0"



ELECTRICAL PLAN - MECHANICAL ROOM

2 1/4" = 1'-0"

KEYNOTES

1. PROVIDE NEW 225A PANEL. SEE PANEL SCHEDULE AND RISER DIAGRAM ON SHEET R-E3.0 FOR ADDITIONAL DETAILS.
2. PROVIDE NEW 100A PANEL. SEE PANEL SCHEDULE AND RISER DIAGRAM ON SHEET R-E3.0 FOR ADDITIONAL DETAILS.
3. NEW WELL SHALL BE DRILLED UNDER SEPARATE CONTRACT. EXACT LOCATION AND SIZE TO BE DETERMINED. CARRY AN ALLOWANCE FOR (1) 1PH, 208V, 50A CIRCUIT TO GO 70' FROM PANEL 'LP-96F'. BREAKER SHALL BE RE-USED FROM OLD WELL.
4. PROVIDE NEW CARD READER TO MATCH EXISTING BUILDING ACCESS CONTROL SYSTEM. PROVIDE ALL REQUIRED WIRING, DEVICES, PROGRAMMING, ETC. FOR A COMPLETE AND OPERABLE SYSTEM.
5. PROVIDE CONNECTION TO EXISTING BUILDING ACCESS CONTROL SYSTEM TO NEW ELECTRIC STRIKE HARDWARE SET AT DOOR. PROVIDE ALL REQUIRED WIRING, DEVICES, PROGRAMMING, ETC. FOR A COMPLETE AND OPERABLE SYSTEM.
6. INSTALL PULL STATION SALVAGED DURING DEMOLITION.
7. PROVIDE 12" DIAMETER ANALOG FACE, WIRELESS PRIMEX CLOCK, BATTERY OPERATED TO MATCH EXISTING CLOCKS IN BUILDING. COORDINATE EXACT LOCATION WITH OWNER PRIOR TO HANGING CLOCK.

KEYNOTES

8. APPROXIMATE SMARTBOARD OUTLET LOCATION. PROVIDE 2-GANG, DEEP BOX WITH 1-GANG RING AND (2) 3/4" CONDUIT FROM BOX UP TO ABOVE ACCESSIBLE CEILING SPACE. PROVIDE PLASTIC BUSHINGS ON CONDUIT ENDS. PROVIDE (1) USB-C CABLE FROM THIS OUTLET LOCATION TO TEACHER'S DESK. EXACT DEVICE LOCATION AND HEIGHT TO BE DETERMINED.
9. FACTORY INSTALLED DISCONNECT. PROVIDE BRANCH CIRCUITRY AS INDICATED.
10. FACTORY INSTALLED CONVENIENCE RECEPTACLE. PROVIDE BRANCH CIRCUITRY AS INDICATED.
11. PROVIDE 120V TOGGLE STYLE SWITCH AND CIRCUITRY AS INDICATED.
12. PROVIDE 120V TOGGLE STYLE SWITCH TO CONTROL EF-1. LABEL SWITCH ACCORDINGLY.
13. PROVIDE 8" CEILING MOUNTED SPEAKER TO MATCH EXISTING PA SYSTEM IN BUILDING. CONNECT TO EXISTING CLASSROOM/CORRIDOR ZONE IN VICINITY.
14. PROVIDE WALL MOUNTED SPEAKER TO MATCH EXISTING PA SYSTEM IN BUILDING. CONNECT TO EXISTING CLASSROOM/CORRIDOR ZONE IN VICINITY.

KEYNOTES

15. PROVIDE 2-GANG, DEEP BOX WITH 1-GANG RING AND (1) 1" CONDUIT FROM BOX UP AND OVER TO ABOVE CORRIDOR CEILING. PROVIDE PLASTIC BUSHINGS ON CONDUIT ENDS. PROVIDE (2) CAT-6 CABLES FROM THIS OUTLET LOCATION TO EXISTING NETWORK RACK IN ROOM 374. SEE R-E0.1 FOR ROOM LOCATION. TERMINATE BOTH ENDS PER SPECIFICATIONS. COORDINATE EXACT OUTLET LOCATION WITH OWNER PRIOR TO ROUGH-IN.
16. WIRELESS ACCESS POINT PROVIDED BY OWNER AND INSTALLED BY CONTRACTOR. PROVIDE (1) 3/4" CONDUIT FROM WAP TO ABOVE CORRIDOR CEILING. PROVIDE (1) CAT-6 CABLE FROM WAP TO NETWORK RACK IN ROOM 374. SEE R-E0.1 FOR ROOM LOCATION. TERMINATE BOTH ENDS PER SPECIFICATIONS. PROVIDE 10' SLACK CABLE AT WAP LOCATION.
17. SECURITY CAMERA PROVIDED BY OWNER AND INSTALLED BY CONTRACTOR. COORDINATE EXACT LOCATION WITH OWNER PRIOR TO ROUGH-IN. PROVIDE (1) 3/4" CONDUIT FROM CAMERA TO ABOVE CORRIDOR CEILING. PROVIDE (1) CAT-6 CABLE FROM CAMERA TO NETWORK RACK IN ROOM 374. SEE R-E0.1 FOR ROOM LOCATION.
18. ALL FIRE ALARM DEVICES SHALL BE SIMPLEX BRAND TO MATCH EXISTING. PROVIDE ALL NECESSARY WIRING, DEVICES, PROGRAMMING, ETC. FOR A COMPLETE AND OPERABLE SYSTEM.

GENERAL NOTES

1. UNLESS NOTED OTHERWISE, All LIGHTING, DEVICES, EQUIPMENT, CIRCUITRY, ETC. DENOTED WITH BOLD (DARK) LINES REPRESENT WORK TO BE PERFORMED. All LIGHTING, DEVICES, EQUIPMENT, CIRCUITRY, ETC. DENOTED WITH LIGHT (SCREENED) LINES REPRESENT EXISTING TO REMAIN AND BE MAINTAINED.
2. EXISTING CONDITIONS SHOWN ON THESE DRAWINGS HAVE BEEN OBTAINED FROM EXISTING DRAWINGS AND FIELD INSPECTIONS. CONTRACTOR SHALL VERIFY EXACT LOCATIONS. REPORT DISCREPANCIES TO ARCHITECT/ENGINEER BEFORE DEMOLITION.
3. All NEW FEEDER AND BRANCH CIRCUIT CONDUIT AND WIRING SHALL BE RUN CONCEALED WITHIN EXISTING WALL CAVITIES OR ABOVE CEILINGS. EXPOSED RACEWAY ACCEPTABLE ONLY WHERE APPROVED BY OWNER, CONSTRUCTION MANAGER AND ENGINEER IN WHICH CASES WIREMOLD 700 (IVORY), OR EQUAL, SURFACE MOUNTED RACEWAY IS ACCEPTABLE. CONTRACTORS SHALL FIELD VERIFY EXISTING CONSTRUCTION CONDITIONS PRIOR TO BIDDING.

ARCHITECTURE
ENGINEERING
CONSULTING

INTEGRATED DESIGNS, INC.

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BEAL CITY PUBLIC SCHOOLS
2024 BOND WORK
MT. PLEASANT, MICHIGAN
PROJECT NO. 22-037

NO.	REVISIONS	DATE
A	DESIGN DEVELOPEMENT	01.16.25
B	FINAL OWNER REVIEW	03.14.25
0	FOR CONSTRUCTION	03.27.25

	BY
DESIGN	BAD
DRAWN	BAD
CHECKED	AJM
APPROVED	AJM

ELECTRICAL POWER PLANS

R-E2.1

Branch Panel: OLD

Location: MECHANICAL 318
Supply From: DP-96R
Mounting: SURFACE
Enclosure: TYPE 1

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

A.I.C. Rating:
Mains Type: COPPER
Mains Rating: 400
MCB Rating: MLO

Notes:
EXISTING PANEL TO BE REPLACED WITH 225A PANEL LP-25A. CONTRACTOR SHALL VERIFY EXISTING CIRCUITS DURING PANEL CHANGE AND UPDATE NEW PANEL SCHEDULE.

CKT	Circuit Description	Trip	Poles	A		B		C		Poles	Trip	Circuit Description	CKT
1	EXISTING CIRCUITRY	20 A	1	0	0					1	20 A	EXISTING CIRCUITRY	2
3	EXISTING CIRCUITRY	20 A	1			0	0			1	20 A	EXISTING CIRCUITRY	4
5	EXISTING CIRCUITRY	20 A	1					0	0	1	20 A	EXISTING CIRCUITRY	6
7	EXISTING CIRCUITRY	20 A	1	0	0					1	20 A	EXISTING CIRCUITRY	8
9	EXISTING CIRCUITRY	20 A	1			0	0			1	20 A	EXISTING CIRCUITRY	10
11	EXISTING CIRCUITRY	20 A	1					0	0	1	20 A	EXISTING CIRCUITRY	12
13	EXISTING CIRCUITRY	20 A	1	0	0					1	20 A	EXISTING CIRCUITRY	14
15	EXISTING CIRCUITRY	20 A	1			0	0			1	20 A	EXISTING CIRCUITRY	16
17	EXISTING CIRCUITRY	20 A	1					0	0	1	20 A	EXISTING CIRCUITRY	18
19	EXISTING CIRCUITRY	20 A	1	0	0					1	20 A	EXISTING CIRCUITRY	20
21	EXISTING CIRCUITRY	20 A	1			0	0			1	20 A	EXISTING CIRCUITRY	22
23	EXISTING CIRCUITRY	20 A	1					0	0	1	20 A	EXISTING CIRCUITRY	24
25	EXISTING CIRCUITRY	20 A	1	0	0					1	20 A	EXISTING CIRCUITRY	26
27	EXISTING CIRCUITRY	20 A	1			0	0			1	20 A	EXISTING CIRCUITRY	28
29	EXISTING CIRCUITRY	20 A	1					0	0	1	20 A	EXISTING CIRCUITRY	30
31	EXISTING CIRCUITRY	20 A	1	0	0					1	20 A	EXISTING CIRCUITRY	32
33	EXISTING CIRCUITRY	20 A	1			0	0			1	20 A	EXISTING CIRCUITRY	34
35	EXISTING CIRCUITRY	20 A	1					0	0	1	20 A	EXISTING CIRCUITRY	36
37	SPARE	100 A	3	0	0					3	100 A	SPARE	38
39	--	--	--			0	0			--	--	--	40
41	--	--	--					0	0	--	--	--	42
			Total Load:	0 VA		0 VA		0 VA					
			Total Amps:	0 A		0 A		0 A					

Legend:

Panel Totals
Total Conn. Load: 0 VA
Total Conn.: 0 A

Notes:

Branch Panel: LP-25A

Location: MECHANICAL 318
Supply From: DP-96R
Mounting: SURFACE
Enclosure: TYPE 1

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

A.I.C. Rating: 10kAIC
Mains Type: COPPER
Mains Rating: 225A
MCB Rating: MLO

Notes:
THIS PANEL REPLACES PANEL 'OLD'. CONTRACTOR SHALL VERIFY EXISTING CIRCUITS DURING PANEL CHANGE AND UPDATE NEW PANEL SCHEDULE.

CKT	Circuit Description	Trip	Poles	A		B		C		Poles	Trip	Circuit Description	CKT
1	EXISTING CIRCUITRY	20 A	1	0	0					1	20 A	EXISTING CIRCUITRY	2
3	EXISTING CIRCUITRY	20 A	1			0	0			1	20 A	EXISTING CIRCUITRY	4
5	EXISTING CIRCUITRY	20 A	1					0	0	1	20 A	EXISTING CIRCUITRY	6
7	EXISTING CIRCUITRY	20 A	1	0	0					1	20 A	EXISTING CIRCUITRY	8
9	EXISTING CIRCUITRY	20 A	1			0	0			1	20 A	EXISTING CIRCUITRY	10
11	EXISTING CIRCUITRY	20 A	1					0	0	1	20 A	EXISTING CIRCUITRY	12
13	EXISTING CIRCUITRY	20 A	1	0	0					1	20 A	EXISTING CIRCUITRY	14
15	EXISTING CIRCUITRY	20 A	1			0	0			1	20 A	EXISTING CIRCUITRY	16
17	EXISTING CIRCUITRY	20 A	1					0	0	1	20 A	EXISTING CIRCUITRY	18
19	EXISTING CIRCUITRY	20 A	1	0	0					1	20 A	EXISTING CIRCUITRY	20
21	EXISTING CIRCUITRY	20 A	1			0	0			1	20 A	EXISTING CIRCUITRY	22
23	EXISTING CIRCUITRY	20 A	1					0	0	1	20 A	EXISTING CIRCUITRY	24
25	EXISTING CIRCUITRY	20 A	1	0	0					1	20 A	EXISTING CIRCUITRY	26
27	EXISTING CIRCUITRY	20 A	1			0	0			1	20 A	EXISTING CIRCUITRY	28
29	EXISTING CIRCUITRY	20 A	1					0	0	1	20 A	EXISTING CIRCUITRY	30
31	EXISTING CIRCUITRY	20 A	1	0	0					1	20 A	EXISTING CIRCUITRY	32
33	EXISTING CIRCUITRY	20 A	1			0	0			1	20 A	EXISTING CIRCUITRY	34
35	EXISTING CIRCUITRY	20 A	1					0	0	1	20 A	EXISTING CIRCUITRY	36
37	EXISTING CIRCUITRY	20 A	1	0	10723					3	100 A	PANEL 'STEM'	38
39	EXISTING CIRCUITRY	20 A	1			0	10678			--	--	--	40
41	EXISTING CIRCUITRY	20 A	1					0	10238	--	--	--	42
			Total Load:	10723 VA		10678 VA		10238 VA					
			Total Amps:	90 A		90 A		85 A					

Legend:

Panel Totals
Total Conn. Load: 31640 VA
Total Conn.: 88 A

Notes:

Branch Panel: STEM

Location: LEARNING LAB 2 382
Supply From: LP-25A
Mounting: SURFACE
Enclosure: TYPE 1

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

A.I.C. Rating: 10kAIC
Mains Type: COPPER
Mains Rating: 100A
MCB Rating: MLO

Notes:

CKT	Circuit Description	Trip	Poles	A		B		C		Poles	Trip	Circuit Description	CKT
1	LIGHTING - 380, 381, 382, EF-1	20 A	1	1221	1000					1	20 A	RECEPT - BAND SAW	2
3	CNC ROUTER	20 A	2			2080	1976			2	30 A	VERTICAL MILL	4
5	--	--	--					2080	1976	--	--	--	6
7	DRILL PRESS	20 A	1	1800	500					1	20 A	RECEPT - LEARNING LAB #2	8
9	RECEPT - LEARNING LAB #2	20 A	1			800	720			1	20 A	RECEPT - LEARNING LAB #2	10
11	Receptacle	20 A	1					720	720	1	20 A	RECEPT - LEARNING LAB #2	12
13	RECEPT - LEARNING LAB #2	20 A	1	1080	920					1	20 A	RECEPT - LEARNING LAB #2	14
15	RECEPT - LEARNING LAB #1	20 A	1			720	720			1	20 A	RECEPT - LEARNING LAB #1	16
17	RECEPT - LEARNING LAB #1	20 A	1					540	720	1	20 A	RECEPT - LEARNING LAB #1	18
19	RECEPT - LEARNING LAB #1	20 A	1	540	180					1	20 A	RECEPT - 380	20
21	RTU-1	45 A	3			3482	180			1	20 A	RECEPT - RTU CONV. OUTLET	22
23	--	--	--					3482	--	1	--	SPACE	24
25	--	--	--	3482	--					1	--	SPACE	26
27	SPACE	--	1			--	--			1	--	SPACE	28
29	SPACE	--	1					--	--	1	--	SPACE	30
31	SPACE	--	1	--	--					1	--	SPACE	32
33	SPACE	--	1			--	--			1	--	SPACE	34
35	SPACE	--	1					--	--	1	--	SPACE	36
37	SPACE	--	1	--	--					1	--	SPACE	38
39	SPACE	--	1			--	--			1	--	SPACE	40
41	SPACE	--	1					--	--	1	--	SPACE	42
			Total Load:	10723 VA		10678 VA		10238 VA					
			Total Amps:	90 A		90 A		85 A					

Legend:

Panel Totals
Total Conn. Load: 31640 VA
Total Conn.: 88 A

Notes:

LIGHTING FIXTURE SCHEDULE

TYPE	DESCRIPTION	MANUFACTURER	VOLTS
A	2X4 LAY-IN	METALUX #24CZ2-55-UNV-L840-CD1-WPS	120V
B	4' STRIP LIGHT	METALUX #4SNX-81HL-LW-UNV-L940-CD1-WPS-U & Y-TOGGLE-10-2PK	120V
B1	4' STRIP LIGHT	METALUX #4SNX-81HL-LW-UNV-L940-CD1-EL14W-WPS-U & Y-TOGGLE-10-2PK	120V
E	EXIT SIGN	SURE-LITES #APCH7RG	120V
F	EXTERIOR EGRESS	ISOLITE #OWL-EM-BZ-MB	120V
G	EXTERIOR AREA LIGHT	RAB #WPLED26	120V

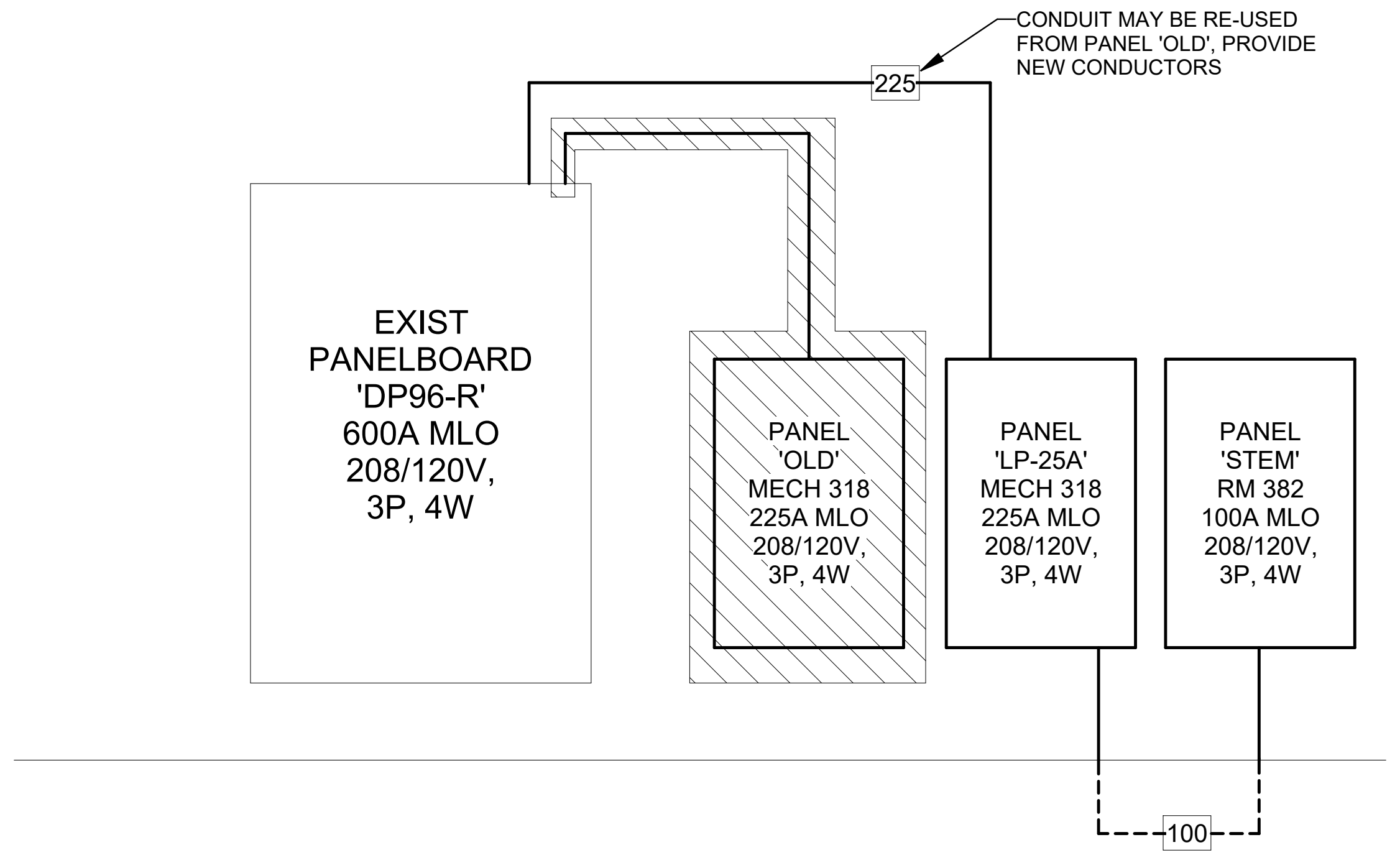
FEEDER SCHEDULE

○	FEEDER SCHEDULE
100	1 1/4"C - 4 #2 THHN/THWN & 1 #8 GND (CU)
225	2"C - 4 #4/0 THHN/THWN & 1 #4 GND (CU)

LOAD SCHEDULE

SWITCHBOARD 'MDP'	CONNECTED LOAD (KVA)
EXISTING HISTORICAL MAX LOAD	431
ADDED LOAD	31.6
TOTAL LOAD	462.6

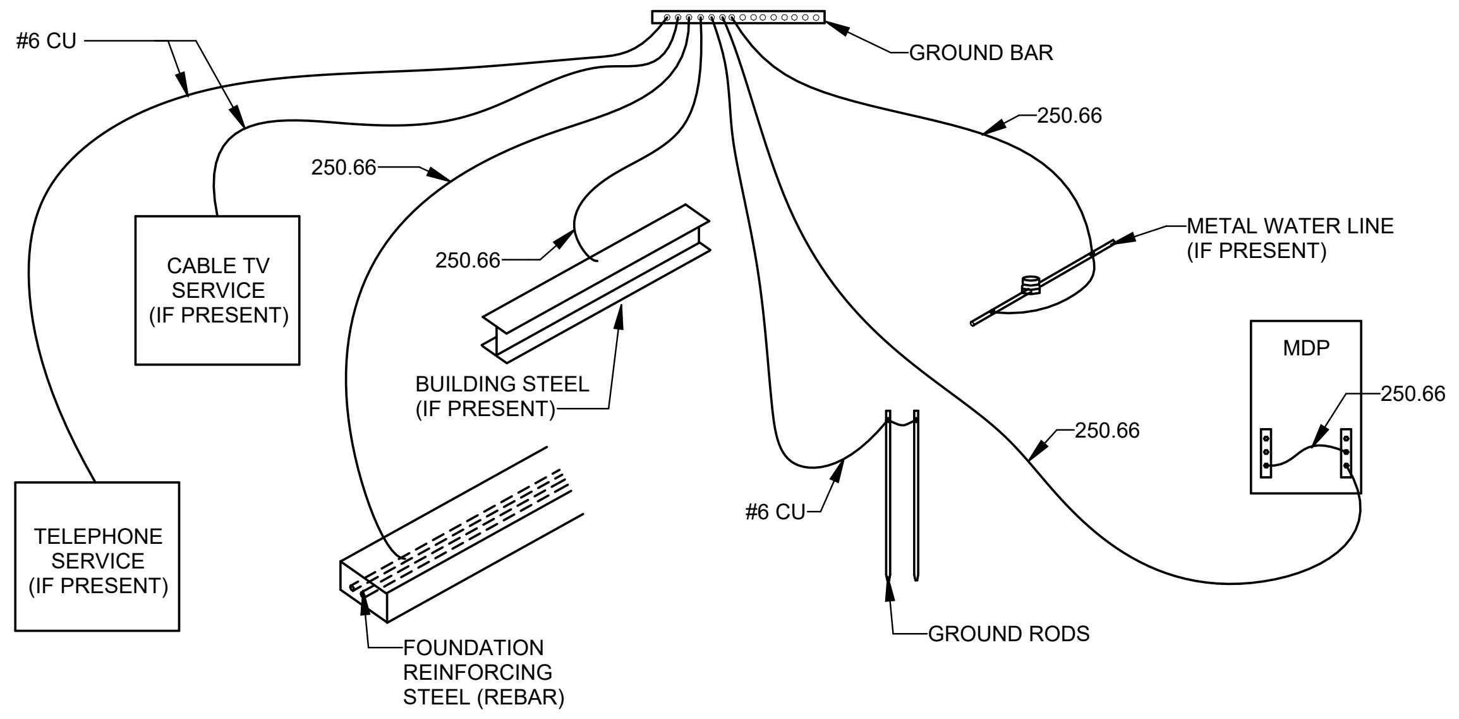
SERVICE SIZE IS ADEQUATE FOR ADDED LOAD


CONDUIT MAY BE RE-USED FROM PANEL 'OLD', PROVIDE NEW CONDUCTORS
225
EXIST PANELBOARD 'DP96-R' 600A MLO 208/120V, 3P, 4W
PANEL 'OLD' MECH 318 225A MLO 208/120V, 3P, 4W
PANEL 'LP-25A' MECH 318 225A MLO 208/120V, 3P, 4W
PANEL 'STEM' RM 382 100A MLO 208/120V, 3P, 4W
100

NOTE:
PROVIDE GROUNDING PER NATIONAL ELECTRICAL CODE (NEC) ARTICLE 250. CONNECT TO BUILDING ADDITION FOUNDATION REINFORCING STEEL AND WATER SERVICE.

PARTIAL RISER DIAGRAM

N.T.S.


#6 CU
GROUND BAR
250.66
CABLE TV SERVICE (IF PRESENT)
250.66
250.66
METAL WATER LINE (IF PRESENT)
MDP
250.66
BUILDING STEEL (IF PRESENT)
250.66
#6 CU
TELEPHONE SERVICE (IF PRESENT)
FOUNDATION REINFORCING STEEL (REBAR)
GROUND RODS

GROUNDING/BONDING DETAIL

N.T.S.

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	BY
DESIGN	BAD
DRAWN	BAD
CHECKED	AJM
APPROVED	AJM

ELECTRICAL SCHEDULES & RISER

R-E3.0

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