

PROPOSED LEGEND
SANITARY M.H.
CLEAN OUT
CATCH BASIN
CATCH BASIN
STORM M.H.
HYDRANT
GATE VALVE & WELL
SHUT OFF
STORM
SANITARY
WATERMAN
P.R. ELEVATION
F.G. FINISH GRADE
F.F. FINISH FLOOR
I.E. INVERT ELEVATION
T.C. TOP OF CURB
G.U. GUTTER
EXISTING LEGEND
BENCHMARK
TRAVERSE POINT
MONUMENT
IRON PIPE
IRON R.C.D.
SANITARY M.H.
CLEAN OUT
CATCH BASIN
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HYDRANT
GATE VALVE & WELL
SHUT OFF
TELEPHONE MANHOLE
GAS VALVE
UTILITY POLE
GUY ANCHOR
LIGHT POLE
SIGN
MAILBOX
DECIDUOUS TREE
CONIFEROUS TREE
CONIFEROUS BUSH
DECIDUOUS BUSH
TREE LINE
CHAINLINK FENCE
WOOD FENCE
WALL STONE OR BLOCK
OVERHEAD UTILITIES
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SPOT ELEVATION
F.G. FINISH GRADE
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T.C. TOP OF CURB
G.U. GUTTER

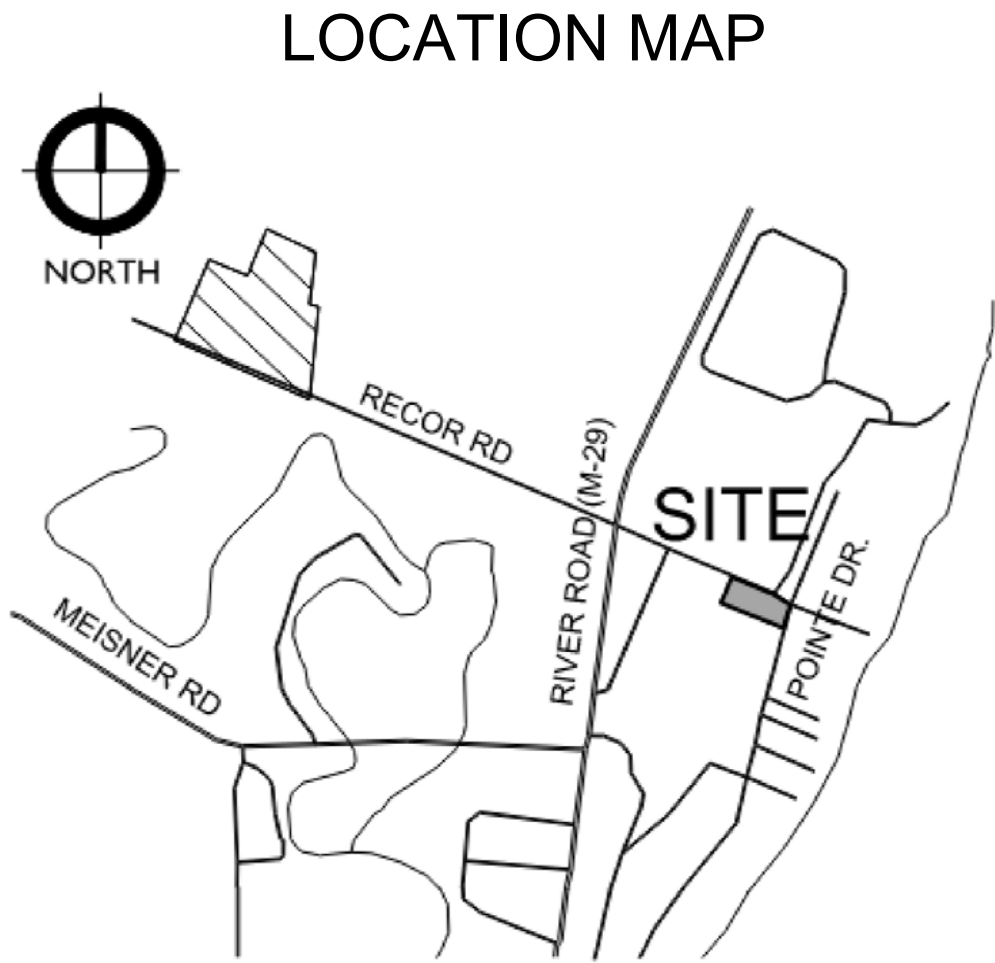
PROPOSED EAST CHINA TOWNSHIP

DPW Service Building

5111 River Road, East China MI 48054

PREPARED FOR:

100% CD: 11.18.2024



Project Control Engineering, Inc.

Engineers Surveyors Consultants

P.O. Box 307 2420 Pte. Tremble

Road Algonac, Mi. 48001

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1601 E. Cesar E. Chavez Ave

Lansing, Michigan 48906

(Phone) 517.487.2511

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DEVELOPER / OWNER

EAST CHINA TOWNSHIP

5111 RIVER ROAD
EAST CHINA, MI 48054

FCE

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Engineers Surveyors Consultants

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DRAWING STATUS:

☐ PRELIMINARY CONSTRUCTION

☒ FINAL CONSTRUCTION

☐ RECORD DOCUMENTS

SEAL:

DATE: 11/18/2024

REVISION DATE:

SHEET TITLE: NEW DPW SERVICE BUILDING

PROJECT:

811 Know what's below
Call before you dig.

JOB NUMBER: 21-102

DRAWN BY: CTW

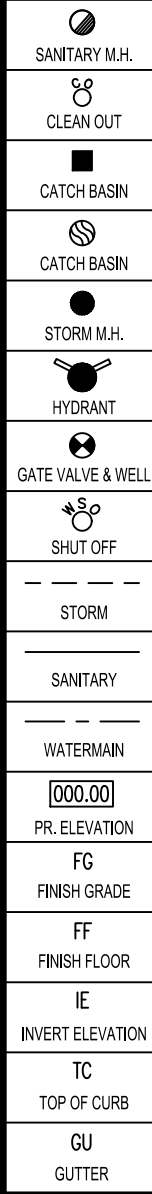
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DRAWING ID: COVER

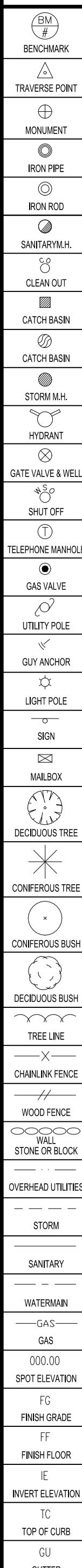
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G-000

PROPOSED LEGEND



EXISTING LEGEND



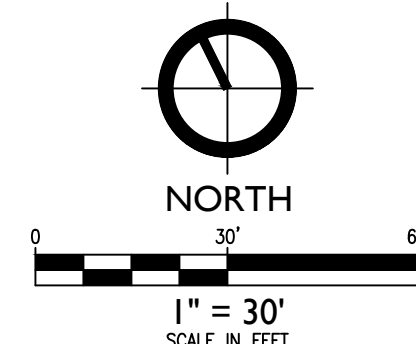
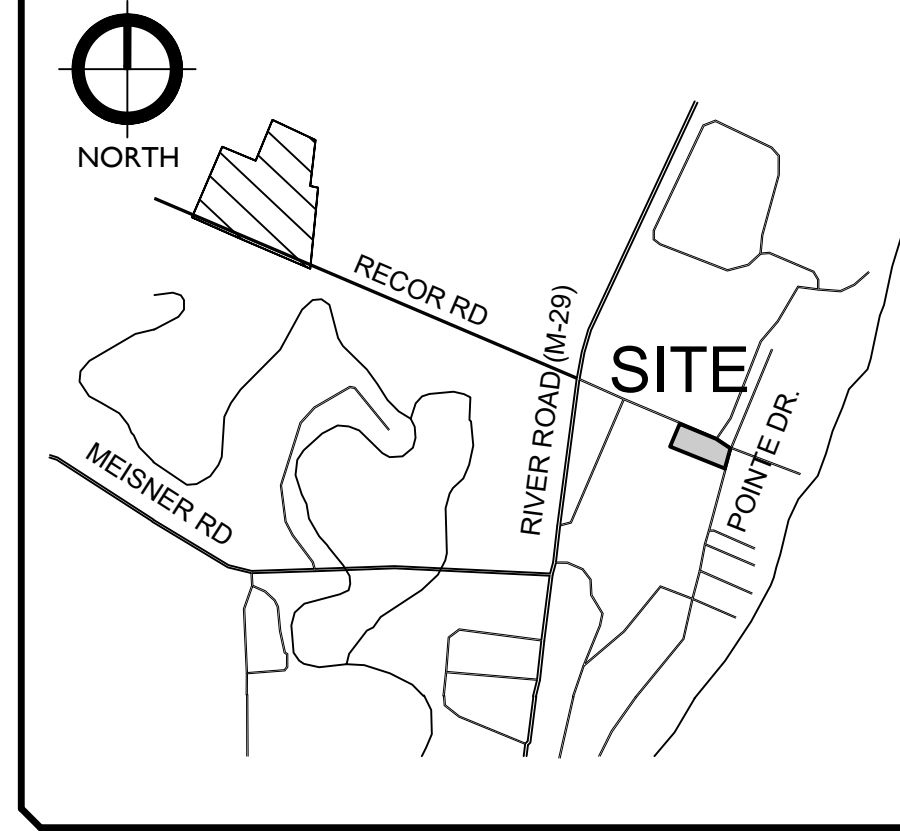
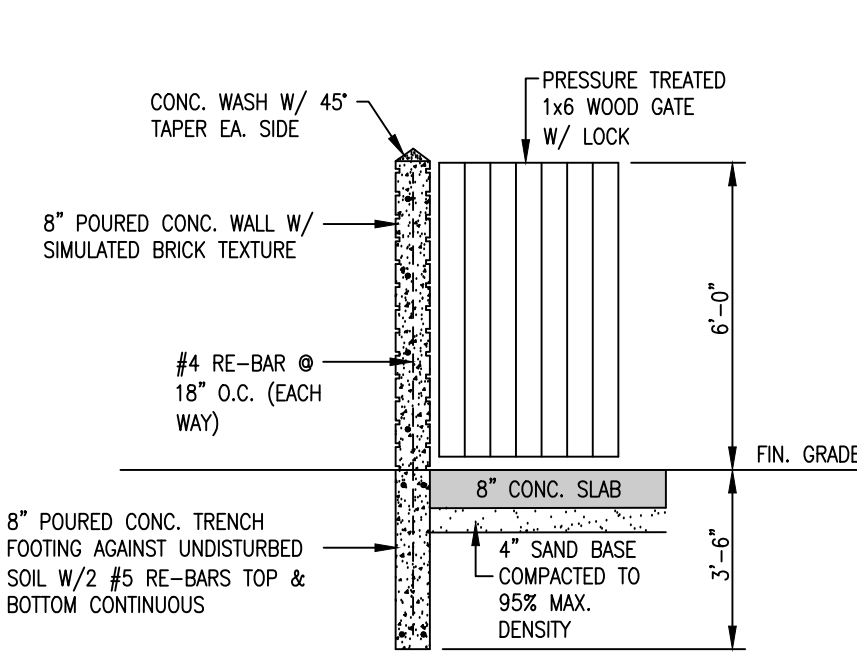
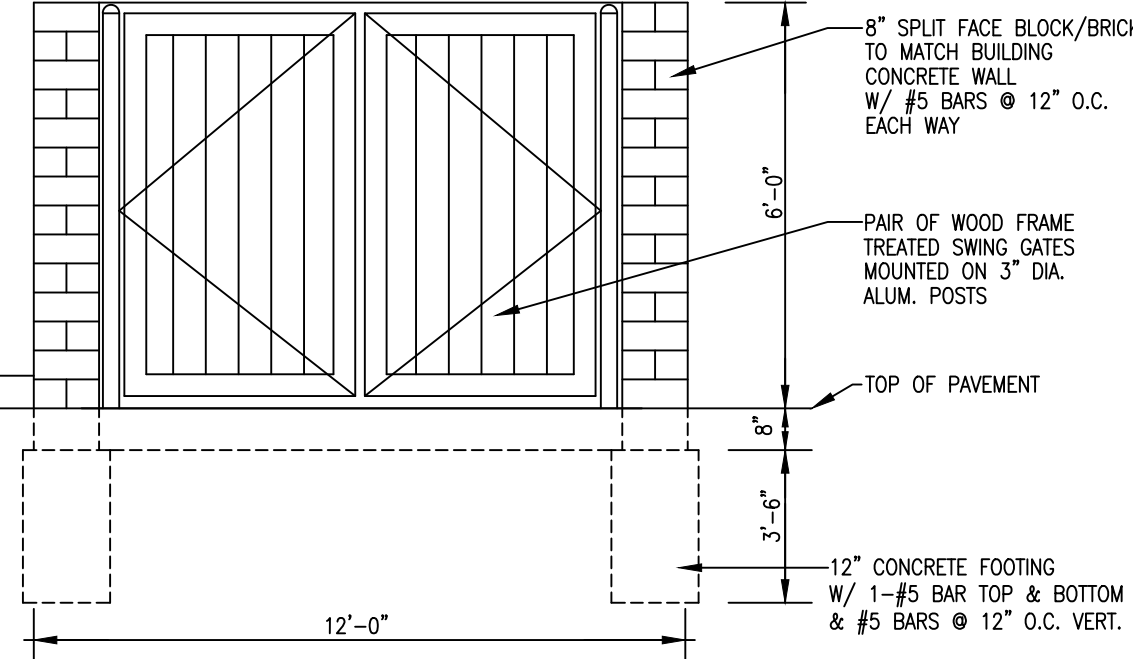
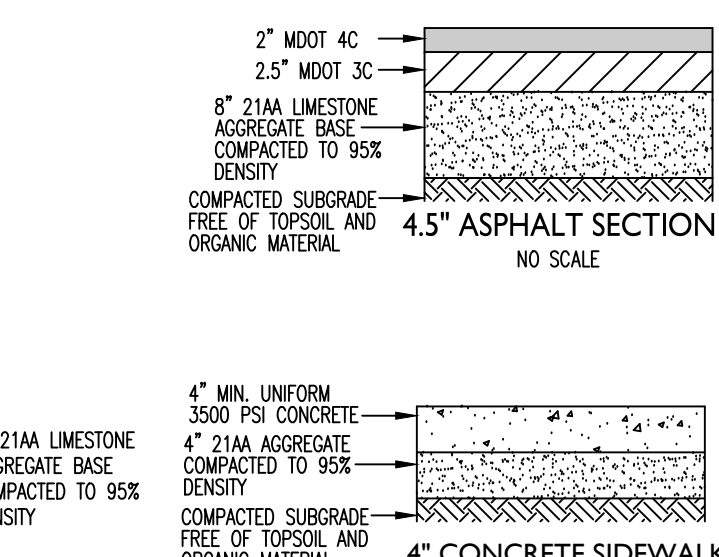
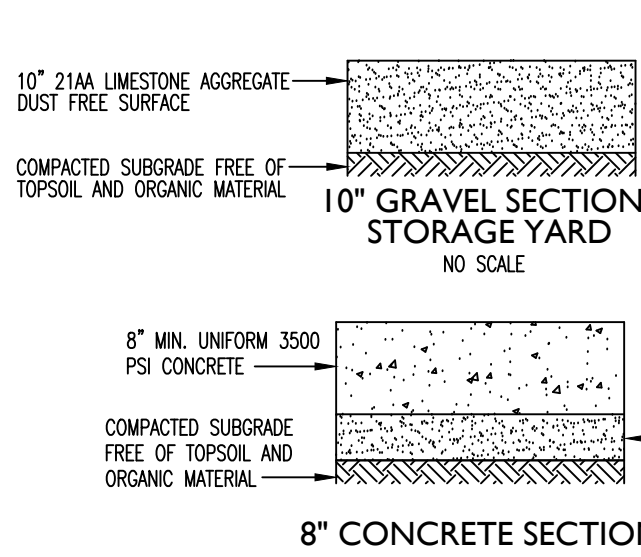
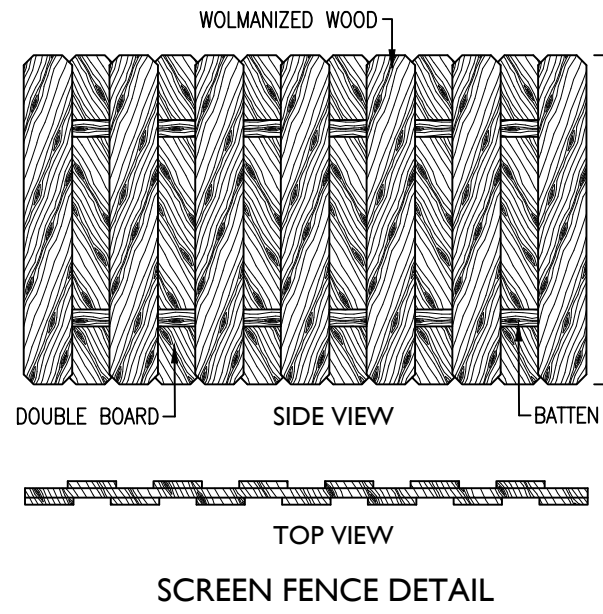
PROPERTY DESCRIPTION

LOT 8, SUPERVISOR'S D.M. SNODGRASS PLAT, ST. CLAIR COUNTY RECORDS, L.S.G. P.31.

BENCHMARKS

BM #300 SOUTHWEST CORNER OF WATER DEPARTMENT IN POWER POLE. BENCH TIE ON POINTE DRIVE. ELEV. 588.44

BM #301 ARROW ON HYDRANT ON THE SOUTHERLY SIDE OF RECOR ROAD, 300 FT FROM INTERSECTION OF POINTE DRIVE AND RECOR ROAD. ELEV. 590.12



PAVING QUANTITIES

ASPHALT	700 TN
21A AGGREGATE	2,050 TN
22A AGGREGATE	620 TN
CONCRETE, 8 IN.	343 SY
CONCRETE CURB AND GUTTER	204 LF

MISCELLANEOUS QUANTITIES

FENCING 523 TN

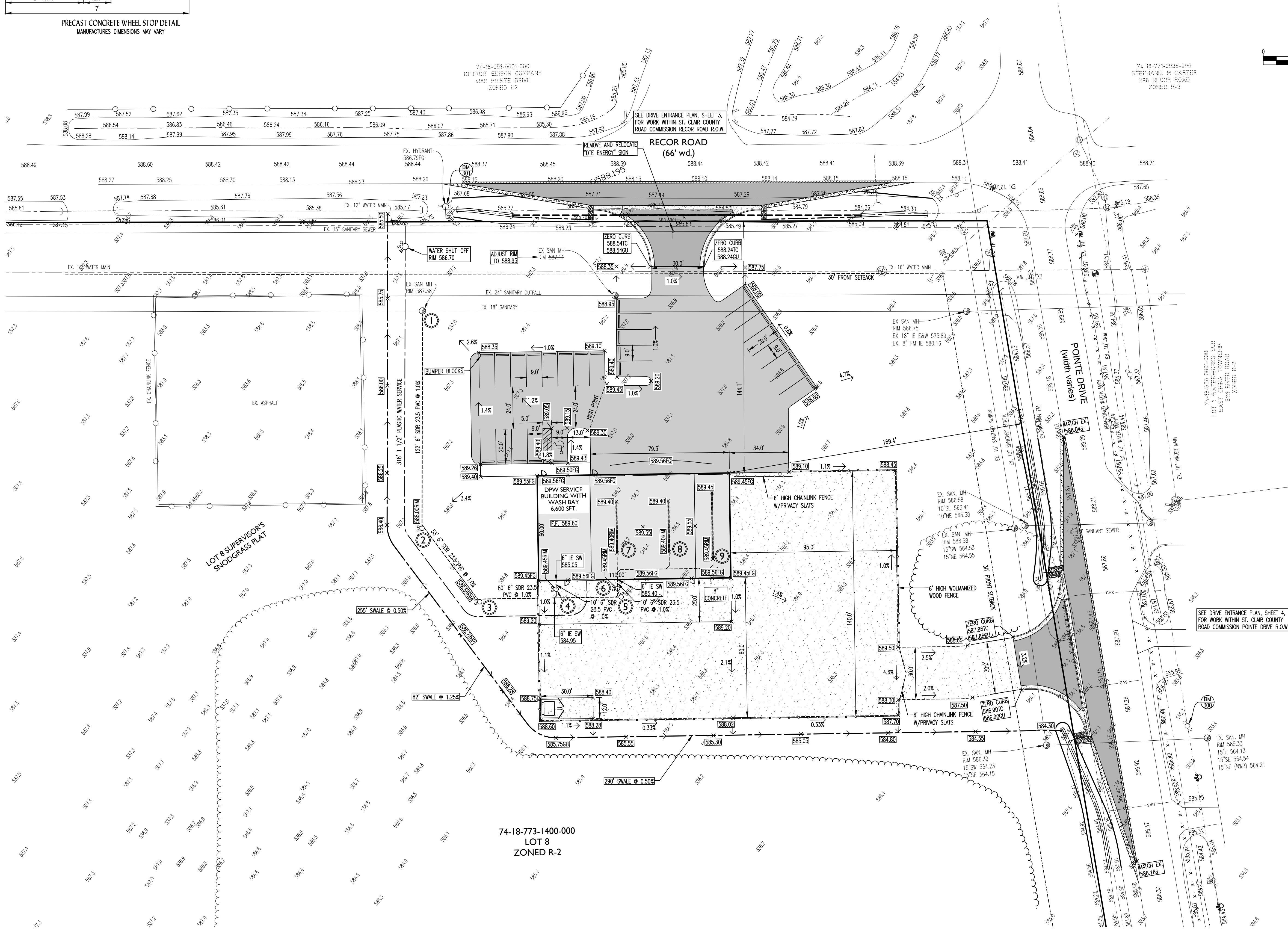
UTILITY STRUCTURE SCHEDULE

- EX. SANITARY MH
RM 587.15
EX. 18" IE SE/NW 576.26±
6" IE SW 582.75 W/INTERNAL
DROP CONNECTION
- CLEANOUT
RM 588.00
6" IE NE/SE 583.97
- CLEANOUT
RM 588.55
6" IE NE/SE 584.50
- CLEANOUT
RM 588.45
6" IE NE/SE 585.00
- CLEANOUT
RM 589.40
6" IE NW/NE 585.30
- CLEANOUT
RM 589.45
6" IE NE/SE 585.35
- CATCH BASIN
RM 589.40
6" IE SW 585.55
- CATCH BASIN
RM 589.40
6" IE SW 585.85
- CATCH BASIN
RM 589.45
6" IE SW 586.05

UTILITY INFORMATION, AS SHOWN, INDICATES APPROXIMATE LOCATIONS AND TYPES OF FACILITIES ONLY, AS DISCLOSED TO THIS FIRM BY THE VARIOUS UTILITY COMPANY'S RECORDS. NO GUARANTEE IS GIVEN OR IMPLIED AS TO THE COMPLETENESS OR ACCURACY THEREOF.

PRIOR TO CONSTRUCTION, ALL LOCATION AND DEPTHS OF EXISTING OVERHEAD AND UNDERGROUND UTILITIES (IN CONFLICT WITH THE CONSTRUCTION OF PROPOSED IMPROVEMENTS) SHALL BE VERIFIED IN THE FIELD.

DURING CONSTRUCTION, CONTRACTOR SHALL USE EXTREME CAUTION WHEN OPERATING NEAR OVERHEAD AND/OR BURIED UTILITIES. CALL MISS DIG.



74-18-773-1400-000
LOT 8
ZONED R-2

EAST CHINA TOWNSHIP

5111 RIVER ROAD
EAST CHINA,
MICHIGAN 48054
PHONE: 810-765-8879



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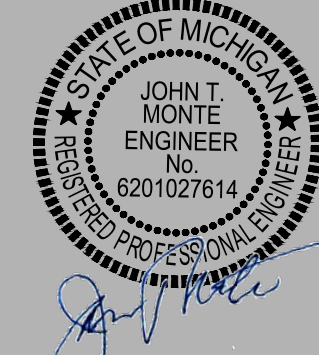
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SEAL:



DATE: 8/22/2023

1/15/2024 PER SCORC REVIEW
1/23/2024 PER SCORC REVIEW
1/19/2024 PER SCORC REVIEW
4/29/2024 PER SCORC REVIEW
10/27/2024 GRADING MODIFICATIONS PER PCE
5/12/2025 PER TOWNSHIP

GRADING AND UTILITY PLAN

EAST CHINA TOWNSHIP
PROPOSED DPW FACILITY

SHEET TITLE: PROJECT:



JOB NUMBER:

21-102

DRAWN BY:

ACG

CHECK BY:

JTM

DRAWING ID:

21-102 engineering

SCALE:

1" = 30'

C-2

PROPOSED
LEGEND

- SANITARY M.H.
- CLEAN OUT
- CATCH BASIN
- CATCH BASIN
- STORM M.H.
- HYDRANT
- GATE VALVE & WELL
- SHUT OFF
- STORM
- SANITARY
- WATERMAIN
- PR. ELEVATION
- FG FINISH GRADE
- FF FINISH FLOOR
- IE INVERT ELEVATION
- TC TOP OF CURB
- GU GUTTER

EXISTING
LEGEND

- BENCHMARK
- TRAVERSE POINT
- MONUMENT
- IRON PIPE
- IRON ROD
- SANITARY M.H.
- CLEAN OUT
- CATCH BASIN
- CATCH BASIN
- STORM M.H.
- HYDRANT
- GATE VALVE & WELL
- SHUT OFF
- TELEPHONE MANHOLE
- GAS VALVE
- UTILITY POLE
- GUY ANCHOR
- LIGHT POLE
- SIGN
- MAILBOX
- DECIDUOUS TREE
- CONIFEROUS TREE
- CONIFEROUS BUSH
- DECIDUOUS BUSH
- TREE LINE
- CHAINLINK FENCE
- WOOD FENCE
- WALL
- STONE OR BLOCK
- OVERHEAD UTILITIES
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- SANITARY
- WATERMAIN
- GAS
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- SPOT ELEVATION
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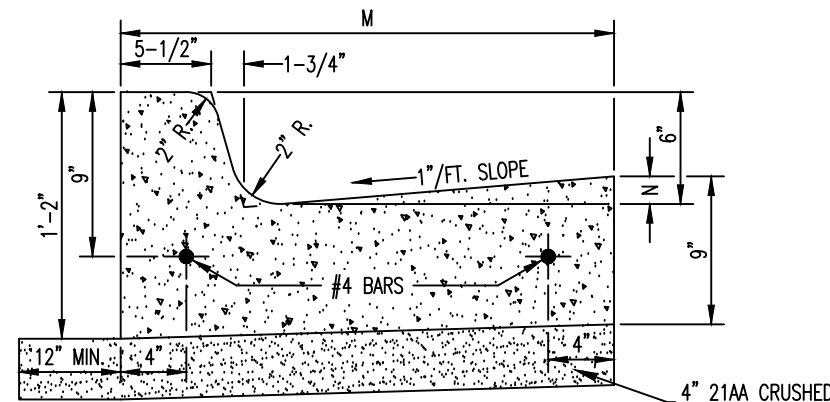
DURING CONSTRUCTION, CONTRACTOR SHALL USE EXTREME CAUTION WHEN OPERATING NEAR OVERHEAD AND/OR BURIED UTILITIES. CALL MISS DIG.

General Restoration Requirements:

All trees and shrubs must be removed within the limits of ditching on either side of culvert. All bare ground within the road right-of-way shall be restored with topsoil and grass. Stabilization is required for any bare soil areas to meet Michigan State soil erosion requirements. Slopes not stabilized will be rejected.

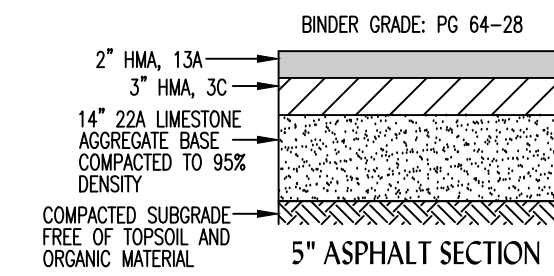
DITCHING & RESTORATION REQUIREMENTS:

Ditching Minimums:
3H:1V front slope minimum
2H:1V back slope minimum
2 foot ditch bottom
Shoulder material 23A limestone
MDOT Turf Establishment spec 816
Top soil - 3" (three inches in depth)
Fertilizer, Chemical Nutrient, Cl A at 220 lbs/ac
Seeding, Mixture TDS at 200 lbs/ac
Straw Mulch Blanket



DETAIL	DIMENSIONS	LANE TIES	CONCRETE
F6	2'-6" 1-7/8"	OMITTED	CU. YD. / LIN. FT.

CONCRETE CURB AND GUTTER,
MDOT DETAIL R-30, TYPE F6



BINDER GRADE: PG 64-28

5" ASPHALT SECTION
NO SCALE

NOTE

NO STORM WATER DETENTION IS PROPOSED. THE TOWNSHIP HAS AGREED TO PARTICIPATE IN A PROJECT TO UPGRADE THE DITCH AND STORM DRAIN ALONG RECOR ROAD FROM THE SITE TO THE OUTLET AT THE ST. CLAIR RIVER.

BENCHMARKS

BM #300 SOUTHWEST CORNER OF WATER DEPARTMENT IN POWER POLE. BENCH TIE ON PONTE DRIVE. ELEV. 588.44

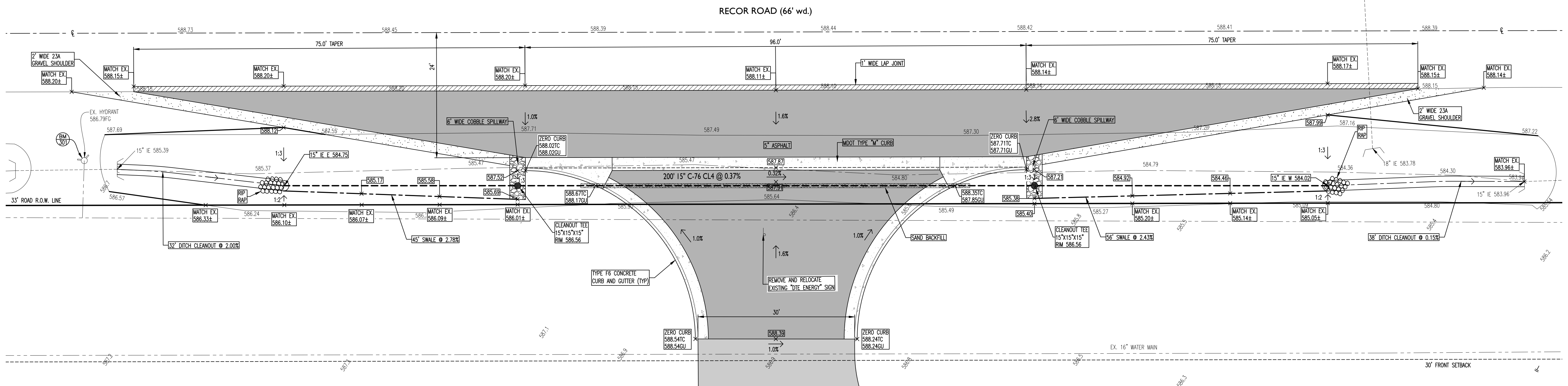
BM #301 ARROW ON HYDRANT ON THE SOUTHERLY SIDE OF RECOR ROAD, 300 FT FROM INTERSECTION OF PONTE DRIVE AND RECOR ROAD. ELEV. 590.12



NORTH

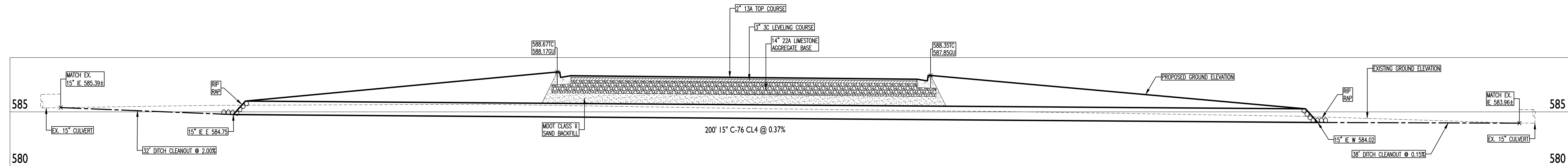
1" = 10'

SCALE IN FEET



RECOR ROAD CULVERT PROFILE

SCALE: 1" = 10' HORIZONTAL
1" = 5' VERTICAL



DEVELOPER / OWNER

EAST CHINA
TOWNSHIP

5111 RIVER ROAD
EAST CHINA,
MICHIGAN 48054
PHONE: 810-765-8879



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DATE: 8/22/2023

1/15/2024 PER SCORC REVIEW
1/23/2024 PER SCORC REVIEW
1/19/2024 PER SCORC REVIEW
4/28/2024 PER SCORC REVIEW

ENTRANCE PLAN
RECOR ROAD

EAST CHINA TOWNSHIP
PROPOSED DPW FACILITY

SHEET TITLE:

PROJECT:



Know what's
below
Call
before you dig.

JOB NUMBER:

21-102

DRAWN BY:

ACG

CHECK BY:

JTM

DRAWING ID:

21-102 engineering_rev2

SCALE:

1" = 10'

C-3

PROPOSED	
	SANITARY M.H.
	CLEAN OUT
	CATCH BASIN
	CATCH BASIN
	STORM M.H.
	HYDRANT
	GATE VALVE & WELL
	SHUT OFF
STORM	
SANITARY	
WATER MAIN	
	PR. ELEVATION
	FINISH GRADE
	FINISH FLOOR
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	TOP OF CURB
	GUTTER
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	TELEPHONE MANHOLE
	GAS VALVE
	UTILITY POLE
	GUY ANCHOR
	LIGHT POLE
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	MANHOLE
	DECIDUOUS TREE
	CONIFEROUS TREE
	CONIFEROUS BUSH
	DECIDUOUS BUSH
	TREE LINE
	CHAIN-LINK FENCE
	WOOD FENCE
	WALL
	STONE OR BLOCK
OVERHEAD UTILITIES	
STORM	
SANITARY	
WATER MAIN	
	GAS
	GAS
	0.00/0.00
	SPOT ELEVATION
	FINISH GRADE
	FINISH FLOOR
	INVERT ELEVATION
	TOP OF CURB
	GUTTER

CONCRETE FLAT WORK

- Reinforcing steel bars shall be ASTM A 615 grade 60, deformed. Welded wire fabric shall be ASTM A 185, flat sheets only.
- Reinforcing steel detailing and placing shall follow ACI 315 and ACI 318.
- All bars shall be clean and free from rust and scale. Bars shall be accurately placed and wired securely to suitable chairs and spacers. Provide proper lapping. Provide bent bars at all corners. Space chair supports at 48" centers.
- Unless otherwise noted, concrete paving shall be reinforced with one layer of 6" x 6" #8 welded wire fabric. Use flat sheets only.
- Unless otherwise noted, concrete floor slabs shall be reinforced with one layer 6" x 6" #10/10 welded wire fabric. Use flat sheets only.
- Unless otherwise noted, elevated composite floor slabs shall be reinforced with one layer 6" x 6" #10/10 welded wire fabric. Use flat sheets only. See plans for size and spacing of bar reinforcement along composite beams.
- Thickened slabs shall be supplemented with bar reinforcement as indicated on the plans.
- Concrete walls shall not be reinforced unless otherwise noted.
- Inspect granular SUBBASE for proper grades and adequate compaction as previously specified prior to placing any concrete.
- Inspect compacted gravel and sand base prior to allowing placement of concrete for slabs.
- Coordinate all buried work with other trades.
- Layout concrete-paved areas. Place all curbing and pavement in the right-of-way as indicated on the plans. Get permission from the appropriate authorities and provide traffic barriers as necessary. Remove and dispose all debris properly off site.
- Provide all stakes and forms necessary to perform concrete paving.
- Provide temporary shoring for composite floor slab.
- Install 6 mil. polyethylene vapor barrier with 6" laps, sealed with tape under floor slab on ground. Joints at pipes and other penetrations shall be sealed with bituminous plastic cement.
- FOR TRENCH FOUNDATIONS ONLY**
Supply and install rigid perimeter insulation. Place insulation horizontally along the interior perimeter of the exterior foundation walls below the floor slab. Insulation shall be 2" x 24" (R=10) Extruded polystyrene. Expanded polystyrene (Bead-Board) or polycyanurate insulation shall not be permitted for this application.
All rigid perimeter foam plastic insulation for foundations and for protection board shall have a Flame spread of 25 or less and a Smoke Development less than 450 when tested in accordance with ASTM E-84 and shall be labeled.
- Construction of concrete paving shall be governed by "Guide for Design and Construction of Concrete Parking Lots" ACI 308R-87 and "Texturing Concrete Pavements" ACI 325.6R-88.

18. Minimum ultimate compressive strength of concrete at 28 days, with max. W/C Ratio, shall be:

	W/C Ratio	Cement Content lb/cu. yd.
Topping for precast	0.40	567 (6 sack)
Concrete paving	0.40	567 (6 sack)

(Use High Early Concrete when necessary for early traffic demands)

	W/C Ratio	Cement Content lb/cu. yd.
Air entrained	0.46	564 (6 sack)
Interior ground slab	0.51	540 (5 3/4 sack)
Composite floor slab	0.51	540 (5 3/4 sack)
All other concrete	0.58	470 (5 sack)

Portland Cement shall be ASTM C 150 Type I, use one brand throughout the project.

Aggregates shall be ASTM C 33 requirements, coarse grading ASTM C 33 Size 57.

Only non-chloride admixtures may be used, if needed.

All Concrete Paving exposed to the weather shall be air entrained with approved additives, per ASTM C 260 and air entraining shall be limited to 6% plus or minus 1-1/2%.

Maximum slump is as follows: Slabs: 5"

Concrete supplier shall design and submit the concrete mix he proposes to use for each type. Follow methods specified in ACI 301.84.

Quality Control Tests shall be arranged by the Contractor.

One set of 3 standard concrete cylinders shall be made for each day pour, each strength concrete or each 100 cubic yard, per ASTM C 31.

One compressive strength test shall be made at 7 days and 2 at 28 days, for each set of cylinders, per ASTM C 39.

Submit reports to Owner within 24 hours of testing.

Consolidate placed concrete by mechanical vibrating equipment supplemented by hand spading, rodding or tamping. Use equipment and procedures for consolidation of concrete in accordance with ACI recommended practices. Water shall not be added at the jobsite to increase slump.

Broom finish exterior slabs, walks and pavement unless noted otherwise.

Tolerance shall be 1/8" maximum in 10 feet from a true plane.

Provide steel trowel finish for interior slabs and broom finish for exterior slabs. Tolerance shall be 1/8" maximum in 10 feet from a true plane.

Provide expansion, construction and control joints at locations as indicated on drawings. Expansion and Construction Joints shall be comprised of a joint filler and a joint sealant. The joint filler shall be Foamtech H 1/2" Closed Cell Crosslinked Polyethylene Joint material with a peel off top or equal (www.nwinc.com). Alternate can be 1/2" premoiled bituminous impregnated fiberboard. The top edge shall be protected with a temporary cap to be installed by this contractor and removed by caulking contractor after concrete is placed on both sides. Expansion joint shall be BOMETAL # 1020 or equal.

Controlled expansion joints need not be sealed.

Control joints shall be hand tooled for exterior work and sawcut for interior work.

Sawcut control joints are to be cut as soon after initial set as possible.

Out the joints as soon as the surface will not be torn or abraded by the cutting action.

Do not wait more than 8 hours after initial set.

Zip-cap preformed control joints may be used as an alternate to sawcutting.

Concrete slabs shall be moist cured.

A liquid membrane-forming curing compound conforming to ASTM C 309 may be used for curbs, walks, exterior slabs and paving.

Curing compound shall not be used on any interior walls or slabs intended to receive finishes as adhesion will be impaired.

Protect concrete from freezing during cold weather following ACI 306. Temperature of concrete should be 60 to 70 degrees Fahrenheit when placed. Heat aggregate and cement if frozen. Cover work completely and insulate for 7 days. Protect from premature drying due to wind or applied heat. Apply heat if concrete temperature cannot be maintained at 50 degrees Fahrenheit. Allow concrete to gradually cool down for 24 hours after heating is discontinued. Any hot-weather concreting shall be performed in strict accordance with ACI 318 including MBC modification and shall be properly protected.

Remove all lath from exposed surfaces to assure a neat and clean finish appearance. Hand scrub or power wash as necessary.

Provide one year written warranty against defects in materials and workmanship.

The Contractor shall keep the premises and surrounding area free from the accumulation of waste materials or rubbish caused by operations under contract. The Subcontractor shall be responsible for the complete removal and disposal of his trade's debris.

CONCRETE FORM WORK

Forms shall conform to shape, lines, and dimensions of members as called for and shall be sufficiently tight to prevent leakage of concrete. Forms shall be properly braced, tied together, so as to maintain position and shape. Forms for exposed concrete shall be braced so as to provide dimensions called for and shall have caulked joints. Bottoms of excavations shall be flat and level, free from debris, loose dirt or mud. No concrete shall be placed on soft, wet, soggy or frozen earth.

Forms shall be wood or metal as follows:

- Wood for exposed surfaces shall be standard grade or better lumber. Exposed surfaces shall require a form liner of 3/16", smooth one side, treated hard pressed fiber board, or Douglas Fir Plywood equal to Exterior Plyform, minimum 5-ply, 5/8" thick.
- Metal shall be as approved, to produce surfaces equal to those specified for wood. Forms shall be coated using nonstaining mineral oil or a form coating compound before placing reinforcing.
- Form ties shall be bolt and rod type so designed that upon removal of form no metals shall be within 1" of surface. Exposed concrete shall have galvanized ties.
- Joints not indicated on plans shall be located so as to least impair strength of structure. Where joint is to be made, surface of concrete shall be thoroughly cleaned, all lath removed. In addition, vertical joints, thoroughly wetted, flashed with coat of neat cement immediately before placing of new concrete.
- Coordinate the foundation work with the mechanical contractor, and electrical contractor in locating conductors and sleeves in the footings and foundations. Coordinate all buried work with other trades.
- Supply and install reinforcing related to formed concrete work.
- Reinforcing steel bars shall be ASTM A 615 grade 60, deformed. Welded wire fabric shall be

Reinforcing steel detailing and placing shall follow ACI 315 and ACI 318.

All bars shall be clean and free from rust and scale. Bars shall be accurately placed and wired securely to suitable chairs and spacers. Provide proper lapping. Provide bent bars at all corners. Space chair supports at 48" centers.

Concrete footings shall be reinforced as indicated on the plans.

Concrete foundations shall be reinforced as indicated on the plans.

Concrete piers shall be reinforced as indicated on the plans.

Construction of reinforced concrete shall be governed by "Specifications for Structural Concrete for Buildings" ACI 301-84, and "Building Code Requirements for Reinforced Concrete" ACI 318-83.

Minimum ultimate compressive strength of concrete at 28 days, with max. W/C Ratio, shall be:

	W/C Ratio	Cement Content lb/cu. yd.
Air entrained	0.46	564 (6 sack)
Interior slabs on ground	0.51	540 (5 3/4 sack)
All other concrete	0.58	470 (5 sack)

Portland Cement shall be ASTM C 150 Type I, use one brand throughout the project.

Aggregates shall be ASTM C 33 requirements, coarse grading ASTM C 33 Size 57.

Only non-chloride admixtures may be used, if needed.

Concrete supplier shall design and submit the concrete mix he proposes to use for each type. Follow methods specified in ACI 301.84.

Maximum slump is as follows:

Footings, Pier and grade beams: 4"

Quality Control Tests shall be arranged by the Contractor.

One set of 3 standard concrete cylinders shall be made for each day pour, each strength concrete or each 100 cubic yard, per ASTM C 31.

One compressive strength test shall be made at 7 days and 2 at 28 days, for each set of cylinders, per ASTM C 39.

Submit reports to Owner within 24 hours of testing.

Only exterior concrete exposed to the weather shall be air entrained with approved additives, per ASTM C 260 and air entraining shall be limited to 6% plus or minus 1-1/2%.

Surfaces of metal and concrete shall be thoroughly cleaned before placing fill. Concrete surfaces shall have lath removed and shall be dampened, but not saturated, before placing fill.

Consolidate placed concrete by mechanical vibrating equipment supplemented by hand SC spading, rodding or tamping. Use equipment and procedures for consolidation of concrete in accordance with ACI recommended practices. Water shall not be added at the jobsite to increase slump.

Provide expansion and control joints at locations as indicated on drawings. Expansion Joints shall be comprised of a joint filler and a joint sealant.

The joint filler shall be 1/2" premoiled bituminous impregnated fiberboard. The top edge shall be protected with a temporary cap to be removed after concrete is placed on both sides.

The joint sealer shall be hot poured bituminous asphalt.

Waterstops shall be flat, high tensile synthetic rubber or virgin PVC, dumbbell type, 6 inches wide, having minimum center thickness of 1/4 inch, and complying with material and physical properties of Corps of Engineers Specification CRD-C 513 or CRD-C 572. Stops shall be provided with coupler sleeves for joints in straight runs and with sleeves and fittings for corners and intersections, or shall be provided with job-made or factory-made, heat sealed joints, as is appropriate for the materials used, in accordance with manufacturer's recommendations.

POUR SLAB W/ WWF IN UPPER 1/3 OF SLAB. CUT 50% WIRE AT C.J. CUT 1/8"x1/4" SLAB DEPTH WITHIN 8 HOURS OF POUR. (15'-0" O.C. EACH WAY TYP.)

POUR SLAB W/ WWF IN UPPER 1/3 OF SLAB. CUT 50% WIRE AT C.J. CAST STRIP INTO POUR AND REMOVE CAP AFTER SET.

CAP & CAULK 1/2" EXPANSION JOINT FILLER W/ BOMETAL #1620 EXP. STRIP CAP, SPACED @ 25" O.C. MAX

USE 1/2"x SLAB DEPTH PREMOILED BITUMINOUS IMPREGNATED JOINT FILLER AS SEPARATOR

Typ. Isolated Footing
SCALE: 1/2" = 1'-0"

Typ. Thickened Edge Slab
SCALE: 1/2" = 1'-0"

Typ. Thickened Edge Slab
SCALE: 1/2" = 1'-0"

Typ. Floor Thickened Slab Detail
SCALE: 3/4" = 1'-0"

Typ. Floor Construction Joint
SCALE: 1" = 1'-0"

Typ. Floor Movement Joint Details
SCALE: NTS

CONCRETE SLAB (OFFICE):
- 4" CONCRETE SLAB W/ EPOXY FINISH, TYP.
- 66 W/ 1.4W/1.4 WWP @ UPPER 1/3 OF SLAB
- 6 MIL VAPOR BARRIER
- 4" MIN. COMPACTED SAND
- COMPACTED SUB-GRADE

CONCRETE SLAB (EQUIP BAYS):
- 8" CONCRETE, MIN. 4000 PSI, BROOM FINISH
AND HEAVY DUTY CONC SEALER W/ GRIT
- #8 WIRE MESH & #4 ROD @ 2' O.C.
- 6 MIL VAPOR BARRIER
- 4" MIN. COMPACTED SAND
- COMPACTED SUB-GRADE
NOTE: PITCH FLOOR TO TRENCH DRAINS

1-HR RATED WALL (UNDER STAIR)
- (1) LAYER 5/8" TYPE 'X' GYP. BD.
- 2x4 WOOD STUDS @ 16" O.C.
- (1) LAYER 5/8" TYPE 'X' GYP. BD.
- METAL PANEL (SERVICE SIDE)

2-HR RATED LOAD BEARING WALL
- (2) LAYERS 5/8"

DEVELOPER / OWNER EAST CHINA TOWNSHIP 5111 River Road East China, MI 48054	
PCE Project Control Engineering, Inc. Engineers Surveyors Consultants P.O. Box 307 2420 Poe Tremble Road Algonac, MI 48001 Phone 810.794.1331 Fax 810.794.3331 www.pce-eng.com	
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DRAWING STATUS: ☐ PRELIMINARY CONSTRUCTION ☒ FINAL CONSTRUCTION ☐ RECORD DOCUMENTS	
SEAL: 	
DATE: 11/16/2024 REV. DATE:	
FOUNDATION PLAN FRAMING PLAN & DETAILS	NEW DPW SERVICE BUILDING
SHEET TITLE:	PROJECT:
811 Know what's below Call before you dig.	
JOB NUMBER: 21-102	
DRAWN BY: CTW	
CHECK BY: A.T..P.E.	
DRAWING ID: Foundation Plan & Details	
SCALE: 1/8" = 1'-0"	
A-100	

GYPSUM BOARD, INSULATION AND METAL STUDS
Gypsum Board Work:

A. Provide and install gypsum wall panels such as USG Sheetrock brand SV or equal with tapered edges. All gypsum wallboard shall conform with ASTM C36. All Gypsum sheathing shall conform with ASTM C79. Include the following types as required:

- In general, board shall be 5/8" thick.
- Board for walls shall be 5/8" thick unless indicated otherwise.
- Use Type 'X' fire retardant gypsum board on all fire rated assemblies. Board thickness shall depend upon the design requirements.
- Moisture and mold resistant board shall be used in all toilet rooms, janitor closets and mechanical rooms.
- 1" gypsum liner board for fire rated shaft wall assemblies as indicated.
- 1. All gypsum board shall be installed horizontally across the partition and wall framing except as approved otherwise.
- 2. When resilient channels or furring must be installed horizontally, the board may be run vertically. Be extremely careful to prevent waves in appearance.
- 3. All gypsum board at sound walls shall extend to the underside of structure, roof deck, floor deck, etc. as indicated on plan/ ceiling plan
- 4. All gypsum board shall be glued and screwed to the wood or metal studs. Screws shall be of the self-tapping variety and shall be spaced at 12" o.c.

B. Provide and install tile backer board panels. Include the following types as required:

- In general, board shall be 5/8" thick.
- Board for interior partitions scheduled for ceramic wall tile shall be USG Durock, or equal. Board shall be comprised of an aggregated Portland Cement core with vinyl-coated woven glass-fiber mesh embedded in the back and front surfaces. (a gypsum core will not be accepted in this application).
- Underlayment Board (when indicated on plans) for floors and countertops scheduled for ceramic tile shall be USG 5/16" Durock Underlayment, or equal.
- Interior tile backerboard shall be installed to well-braced 20 gauge minimum metal studs with self-drilling type S-12 Durock screws with flat wafer head capable of being driven flush to surface of tile backerboard. Fasteners shall have Climaseal corrosion resistant finish.
- Underlayment and Exterior Board shall be installed in accordance with manufacturer's printed instructions.

C. Provide and install USG Sheetrock brand flexible metal tape on corner beads that have two 7/16" wide galvanized steel strips with a 1/16" gap between strips at all outside corners. Install expansion joints and trims as necessary, and whenever gypsum board abuts another material. One piece metal or plastic corner bead will not be accepted.

- All trim beads and accessories shall be a 2-piece metal reinforced unless otherwise indicated.
- Plastic trims shall be used such as tear-away L-trim only where the gypsum board terminated against a dissimilar metal or incompatible material.

D. All joints and interior corners shall be reinforced with USG Perf a Tape reinforcing tape prior to finishing with joint compound.

E. All of the materials shall be part of a single system supplied by a single source manufacturer, USG or equal.

- All ceilings shall be finished in a manner to receive paint where exposed.
- All concealed portions of walls and drops located below the ceiling line shall be finished accordingly to receive paint or wallcoverings as indicated.

F. Provide and install Tile Backerboard behind all wall tile indicated on plans. Tile backerboard shall be USG Fiberock Tile Backerboard. Board shall be 5/8" thick and fastened with corrosion-resistant screws spaced 8" o.c. per manufacturers requirements.

Insulation Work:

A. Sound Insulation.

- 1 ½" Thermofiber SAFB mineral wool attenuating fire batt insulation x appropriate widths for wall stud spacing OR 3 ½" unfaced fiberglass sound attenuating blanket insulation x appropriate widths for wall stud spacing.
- Sound insulation in partition walls shall extend to underside of structure, roof deck, floor deck, ect. As indicated on plan / ceiling plan OR sound insulation in partition walls shall extend to 6" above the ceiling line in all locations EXCEPT at toilet and mechanical rooms.
- Sound insulation toilet rooms and mechanical room partitions shall extend to the underside of structure, roof deck, floor deck, etc.
- All insulation shall have a flame spread index of not more than 25 and a smoke-developed index of not more than 450.

B. Exterior Wall Sheathing Rigid Insulation.

- ½" (R-3.0 min) extruded polystyrene insulation. All insulation shall have a flame spread index of not more than 25 and a smoke-developed index of not more than 450.

C. Exterior Wall Blanket Insulation:

- (R-19) Kraft faced fiberglass insulation.

D. Ceiling Blanket Insulation.

- Refer to drawings for location & thickness.
- For exposed conditions, where ceiling panels are not in direct contact with the insulation, the insulation facings must meet limitations of flame spread rating less than 25 and smoke developed rating less than 450. For conditions where gypsum board ceiling panels are in direct contact with the insulation, the insulation may be kraft faced.
- Insulation shall be installed in two layers. The top layer shall consist of unfaced (R=19) fiberglass insulation. The bottom layer shall consist of (R=19) fiberglass insulation with an attached vapor barrier facing. The facing tabs shall be stapled to the sides of the bottom chords of the trusses.

Provide and install gypsum wall panels such as USG Sheetrock brand SW or equal with tapered edges. All gypsum wallboard shall conform with ASTM C36. All Gypsum sheathing shall conform with ASTM C79. Include the following types as required:

- In general, board shall be 5/8" thick.
- Board for walls shall be 5/8" thick unless indicated otherwise.
- Use Type 'X' fire retardant gypsum board on all fire rated assemblies. Board thickness shall depend upon the design requirements.
- Moisture and mold resistant board shall be used in all toilet rooms, janitor closets and mechanical rooms.
- 1" gypsum liner board for fire rated shaft wall assemblies as indicated.
- 1. All gypsum board shall be installed horizontally across the partition and wall framing except as approved otherwise.
- 2. When resilient channels or furring must be installed horizontally, the board may be run vertically. Be extremely careful to prevent waves in appearance.
- 3. All gypsum board at sound walls shall extend to the underside of structure, roof deck, floor deck, etc. as indicated on plan/ ceiling plan
- 4. All gypsum board shall be glued and screwed to the wood or metal studs. Screws shall be of the self-tapping variety and shall be spaced at 12" o.c.

B. Provide and install tile backer board panels. Include the following types as required:

- In general, board shall be 5/8" thick.
- Board for interior partitions scheduled for ceramic wall tile shall be USG Durock, or equal. Board shall be comprised of an aggregated Portland Cement core with vinyl-coated woven glass-fiber mesh embedded in the back and front surfaces. (a gypsum core will not be accepted in this application).
- Underlayment Board (when indicated on plans) for floors and countertops scheduled for ceramic tile shall be USG 5/16" Durock Underlayment, or equal.
- Interior tile backerboard shall be installed to well-braced 20 gauge minimum metal studs with self-drilling type S-12 Durock screws with flat wafer head capable of being driven flush to surface of tile backerboard. Fasteners shall have Climaseal corrosion resistant finish.
- Underlayment and Exterior Board shall be installed in accordance with manufacturer's printed instructions.

C. Provide and install USG Sheetrock brand flexible metal tape on corner beads that have two 7/16" wide galvanized steel strips with a 1/16" gap between strips at all outside corners. Install expansion joints and trims as necessary, and whenever gypsum board abuts another material. One piece metal or plastic corner bead will not be accepted.

- All trim beads and accessories shall be a 2-piece metal reinforced unless otherwise indicated.
- Plastic trims shall be used such as tear-away L-trim only where the gypsum board terminated against a dissimilar metal or incompatible material.

D. All joints and interior corners shall be reinforced with USG Perf a Tape reinforcing tape prior to finishing with joint compound.

E. All of the materials shall be part of a single system supplied by a single source manufacturer, USG or equal.

- All ceilings shall be finished in a manner to receive paint where exposed.
- All concealed portions of walls and drops located below the ceiling line shall be finished accordingly to receive paint or wallcoverings as indicated.

F. Provide and install Tile Backerboard behind all wall tile indicated on plans. Tile backerboard shall be USG Fiberock Tile Backerboard. Board shall be 5/8" thick and fastened with corrosion-resistant screws spaced 8" o.c. per manufacturers requirements.

Insulation Work:

A. Sound Insulation.

- 1 1/2" Thermofiber SAFB mineral wool attenuating fire batt insulation x appropriate widths for wall stud spacing OR 3 1/2" unfaced fiberglass sound attenuating blanket insulation x appropriate widths for wall stud spacing.
- Sound insulation in partition walls shall extend to underside of structure, roof deck, floor deck, etc. As indicated on plan / ceiling plan OR sound insulation in partition walls shall extend to 6" above the ceiling line in all locations EXCEPT at toilet and mechanical rooms.
- Sound insulation toilet rooms and mechanical room partitions shall extend to the underside of structure, roof deck, floor deck, etc.
- All insulation shall have a flame spread index of not more than 25 and a smoke-developed index of not more than 450.

B. Exterior Wall Sheathing Rigid Insulation.

- 1/2" (R-3.0 min) extruded polystyrene insulation. All insulation shall have a flame spread index of not more than 25 and a smoke-developed index of not more than 450.

C. Exterior Wall Blanket Insulation:

- (R-19) Kraft faced fiberglass insulation.

D. Ceiling Blanket Insulation.

- Refer to drawings for location & thickness.
- For exposed conditions, where ceiling panels are not in direct contact with the insulation, the insulation facings must meet limitations of flame spread rating less than 25 and smoke developed rating less than 450. For conditions where gypsum board ceiling panels are in direct contact with the insulation, the insulation may be kraft faced.
- Insulation shall be installed in two layers. The top layer shall consist of unfaced (R=19) fiberglass insulation. The bottom layer shall consist of (R=19) fiberglass insulation with an attached vapor barrier facing. The facing tabs shall be stapled to the sides of the bottom chords of the trusses.

- A. Sound Insulation.
 - 1 ½" Thermofiber SAFB mineral wool attenuating fire batt insulation x appropriate widths for wall stud spacing OR 3 ½" unfaced fiberglass sound attenuating blanket insulation x appropriate widths for wall stud spacing.
 - Sound insulation in partition walls shall extend to underside of structure, roof deck, floor deck, ect. As indicated on plan / ceiling plan OR sound insulation in partition walls shall extend to 6" above the ceiling line in all locations EXCEPT at toilet and mechanical rooms.
 - Sound insulation toilet rooms and mechanical room partitions shall extend to the underside of structure, roof deck, floor deck, etc.
 - All insulation shall have a flame spread index of not more than 25 and a smoke-developed index of not more than 450.
- B. Exterior Wall Sheathing Rigid Insulation.
 - ½" (R-3.0 min) extruded polystyrene insulation. All insulation shall have a flame spread index of not more than 25 and a smoke-developed index of not more than 450.
- C. Exterior Wall Blanket Insulation:
 - (R-19) Kraft faced fiberglass insulation.
- D. Ceiling Blanket Insulation.
 - Refer to drawings for location & thickness.
 - For exposed conditions, where ceiling panels are not in direct contact with the insulation, the insulation facings must meet limitations of flame spread rating less than 25 and smoke developed rating less than 450. For conditions where gypsum board ceiling panels are in direct contact with the insulation, the insulation may be kraft faced.
 - Insulation shall be installed in two layers. The top layer shall consist of unfaced (R=19) fiberglass insulation. The bottom layer shall consist of (R=19) fiberglass insulation with an attached vapor barrier facing. The facing tabs shall be stapled to the sides of the bottom chords of the trusses.

The image contains two technical drawings of wall assemblies, labeled F and E.

Drawing F: 42" HIGH MEZZANINE WALL
 This drawing shows a cross-section of a wall with a height of 42 inches. The top is labeled (4 1/2" NOMINAL). The wall consists of two vertical sections of 2x4 wood studs spaced at 48 inches on center. These sections are anchored to a floor made of 3 1/2 x 3 1/2 inch L-shaped joists. The wall is covered with a metal panel on the service side and a metal panel (mezzanine side). A layer of 1/2 inch gypsum board is shown between the two metal panels, centered between the studs.

Drawing E: TYP. 1-HR RA PARTITION
 This drawing shows a cross-section of a partition wall with a height of 42 inches. The top is labeled (4" NOMINAL). The wall is constructed from two layers of 1/2 inch wood structural panel, with an acoustic insulation layer between them. The wall is anchored to a floor made of 2x4 wood studs spaced at 48 inches on center. The wall is covered with a metal panel on the service side and a metal panel (mezzanine side). A layer of 1/2 inch gypsum board is shown between the two metal panels, centered between the studs.

Metal studs for interior partitions and rated wall or ceiling assemblies shall be 2 1/2" CH shaft studs, 3 5/8" or 6" Series ST standard 25 gauge galvanized steel as manufactured by United States Gypsum and shall be installed in accordance with manufacturer's instructions. All studs shall be installed in full lengths without splices. All studs shall be spaced at a minimum of 16" o.c.

- Metal studs that extend beyond the ceiling by more than 6" shall have metal blocking at the ceiling line to prevent waves in the gypsum board and provide anchorage for the wall angles of the suspended ceiling system.
- All metal studs at sound walls shall extend to the underside of structure, roof deck, floor deck, etc. as indicated.
- All metal stud walls that extend to the underside of the structure above shall be provided with a head track that allows for the deflection of floor or roof beams and decks, either with a double track system or slip track system, such as those manufactured by Dietrich Metal Framing.

B. All runner tracks and shoes for interior partitions shall be not less than 22 gauge galvanized and cold rolled steel.

C. Provide all rough hardware and fasteners as necessary for the proper completion of this work.

D. Supply and install acoustic sealant for all partition walls. Sealant shall be USG Acoustical Sealant or equal and shall be used at all partition perimeters. Apply two beads of acoustic sealant to all metal runners at floor and roof and at any perimeter studs. The sealant shall be held back from the face of gypsum board.

E. Supply and install ceiling access panels. Nystrom insulated fire rated flush access panels. Door shall be self-latching with automatic closer and interior release mechanism.

F. Supply and install wall access panels equal to Bauco Plus II. Panels to be for 5/8" gypsum wall board.

G. Do all work in strict accordance with the manufacturer's printed instructions.

H. Provide one year written guarantee warranting against defects in material and workmanship.

	24x48 ACOUSTIC LAY-IN CEILING TILE & GRID @ 8'-0" TYP. A.F.F. UNLESS NOTED OTHERWISE
	GYP. BD. CEILING @ 8'-0" TYP. A.F.F. UNLESS NOTED OTHERWISE
	2x4 LED LIGHT FIXTURE
	2x2 LED LIGHT FIXTURE
	1x4 SURFACE MT LED LIGHT FIXTURE
	RECESSED CAN LED LIGHT FIXTURE
	LED SURFACE MT FIXTURE
	2x4 LED SURFACE MT FIXTURE
	SURFACE MT LIGHT FIXTURE
	EMERGENCY/EXIT LIGHT
	SUPPLY AIR DIFFUSER
	RETURN AIR GRILLE
	EXHAUST GRILLE

WALL TYPES

NOTE: CONTRACTOR OPTION @ ALL INTERIOR **NON-BEARING** WALLS TO BE OF METAL STUD IN LIEU OF WOOD STUD.

Wall Type	Height / Thickness	Stud Spacing	Construction Details
F	42" HIGH MEZZANINE WALL	16" (4x4 NOMINAL)	4x4 WOOD POSTS @ 48" O.C., ANCHORED TO FLOOR w/ 3/4 x 3 1/2 L, (1) LAYER 5/8" GYP. BD., METAL PANEL (SERVICE SIDE), 2x4 WOOD STUDS @ 48" O.C. (CENTERED BETWEEN POSTS), METAL PANEL (MEZZANINE SIDE)
E	TYP. 1-HR RATED PARTITION	16" (5" NOMINAL)	(1) LAYER 5/8" TYPE 'X' GYP. BD., ACUSTIC INSULATION, 2x4 WOOD STUDS @ 16" O.C. METAL PANEL (SERVICE SIDE)
D	TYP. 2-HR RATED LOAD BEARING WALL	16" (8 1/2" NOMINAL)	(1) LAYER 5/8" TYPE 'X' GYP. BD., ACUSTIC INSULATION, 2x6 WOOD STUDS @ 16" O.C., 1/2" OSB SHEATHING, (2) LAYERS 5/8" TYPE 'X' GYP. BD. (SERVICE SIDE), METAL PANEL
C	TYP. LOAD BEARING WALL	16" (7" NOMINAL)	5/8" GYP. BD. (ONE SIDE), 2x6 WOOD STUDS @ 16" O.C., ACUSTIC INSULATION, 1/2" OSB SHEATHING, 5/8" GYP. BD. (ONE SIDE)
B	INTERIOR PARTITION	16" (7" NOMINAL)	5/8" GYP. BD. (EA. SIDE), 2x6 WOOD STUDS @ 16" O.C., ACUSTIC INSULATION
A	TYP. INTERIOR PARTITION	16" (5" NOMINAL)	5/8" GYP. BD. (EA. SIDE), 2x4 WOOD STUDS @ 16" O.C., ACUSTIC INSULATION

*ALL INTERIOR WALLS TO BE TYPE 'A' TYPICAL UNLESS NOTED OTHERWISE

OCCUPANT LOAD:
 - B (BUSINESS)= 1800 GROSS / 100 = 18 OCCUPANTS (7 ACTUAL)
 - SZ (GARAGE)= 4800 GROSS / 200 = 24 OCCUPANTS
 TOTAL OCCUPANTS = 42 OCCUPANTS

PUMING FIXTURE REQUIREMENTS:
 MALE: 1 WC, 1 U, 2 LAV
 FEMALE: 2 WC, 2 LAV
 DRINKING FOUNTAIN: 1 BF

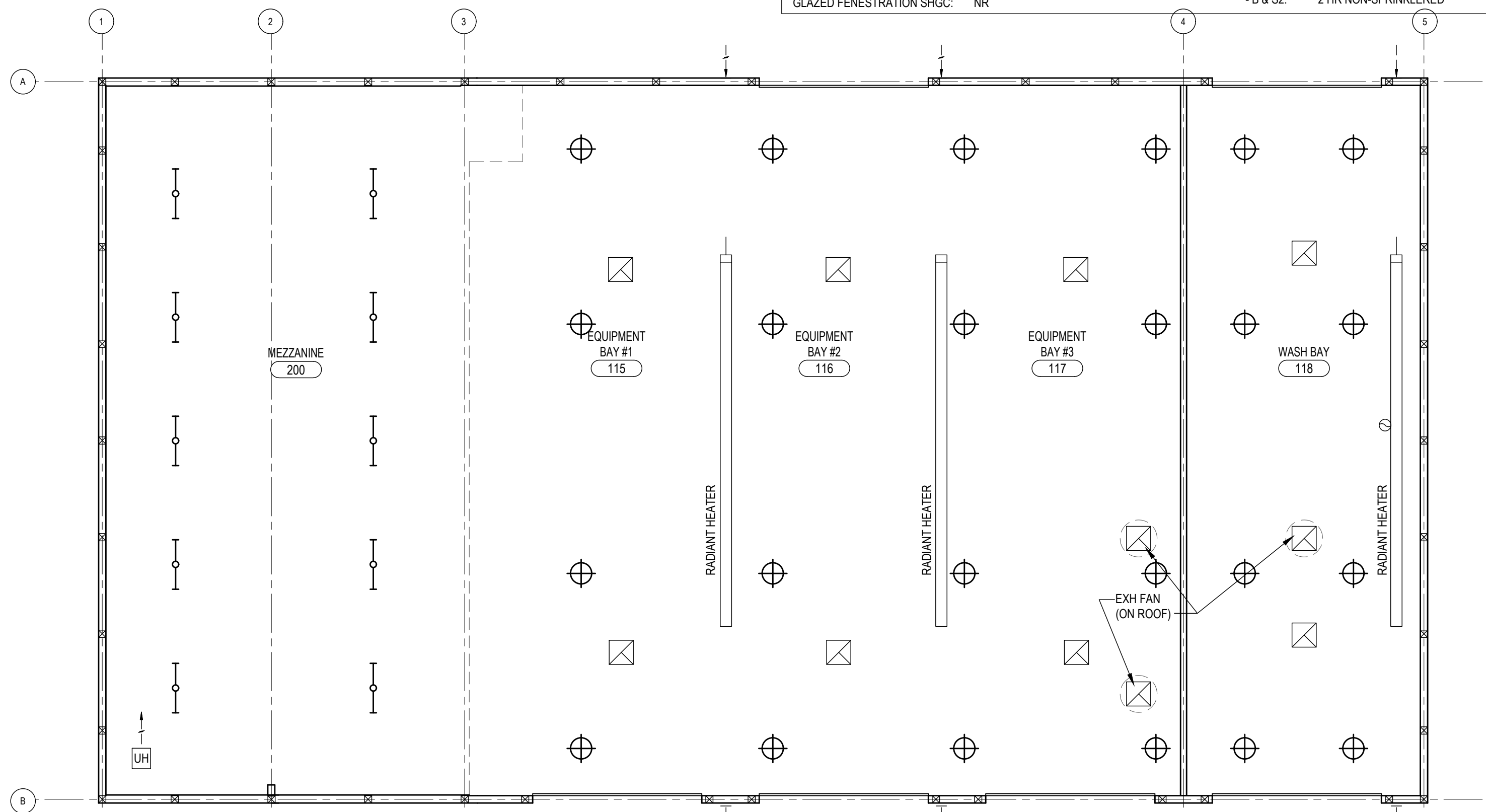
MI UNIFORM ENERGY CODE MIN. REQUIREMENTS:
CLIMATE ZONE 5
 CEILING R-VALUE: R-49/38
 WOOD FRAME WALL R-VALUE: R-20 or 13+5
 FLOOR R-VALUE: R-30
 BASEMENT WALL R-VALUE: R-10/13
 SLAB R-VALUE, DEPTH: R-10, 2 FT
 CRAWLSPACE WALL R-VALUE: R-15/19
 PENETRATION U-FACTOR: 0.35
 SKYLIGHT U-FACTOR: 0.60

2015	Michigan Building Code	
2015	Michigan Mechanical Code	
2017	National Electrical Code With MI Electrical Code	
2018	Michigan Plumbing Code	
2017	Michigan Fire Protection Code	
	ASHRAE 90.1 - 2013 (w amendments)	
	Nat. Fire Protection Assoc. 101 - Life Safety	
2009	ANSI A117.1 - 2010 ADA Standards	

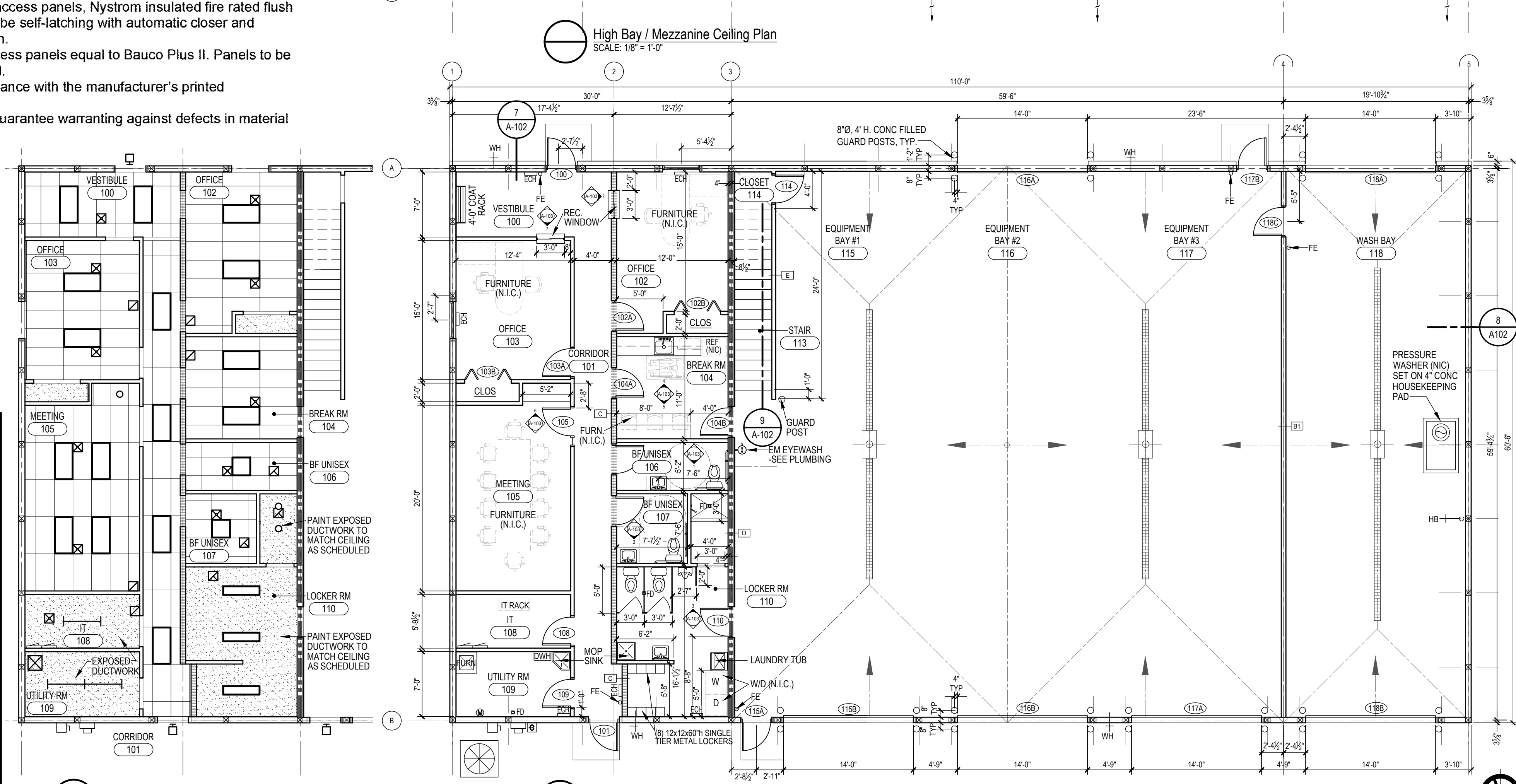
CONSTRUCTION TYPE: VB

USE GROUP:		
- B (BUSINESS)		1800 GSF
- S2 (LOW HAZARD STORAGE)		1800 GSF
(PARKING GARAGE)		4800 GSF
TOTAL AREA		9600 GSF

REQUIRED SEPARATION OF OCCUPANCIES (508.40):
 1. A & S2 2. NP, NW, SP, PP, BB, EB, EB

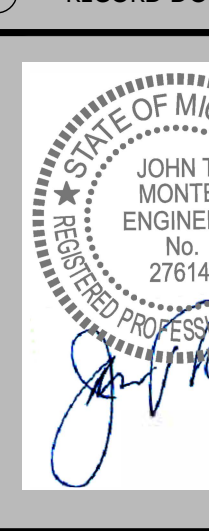


High Bay / Mezzanine Ceiling Plan
SCALE: 1/8" = 1'-0"

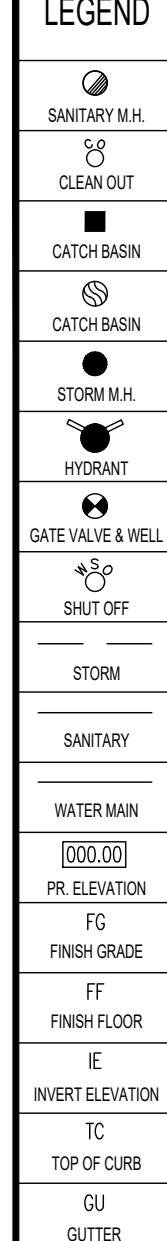


Low Bay (Office) Ceiling Plan
SCALE: 1/8" = 1'-0"

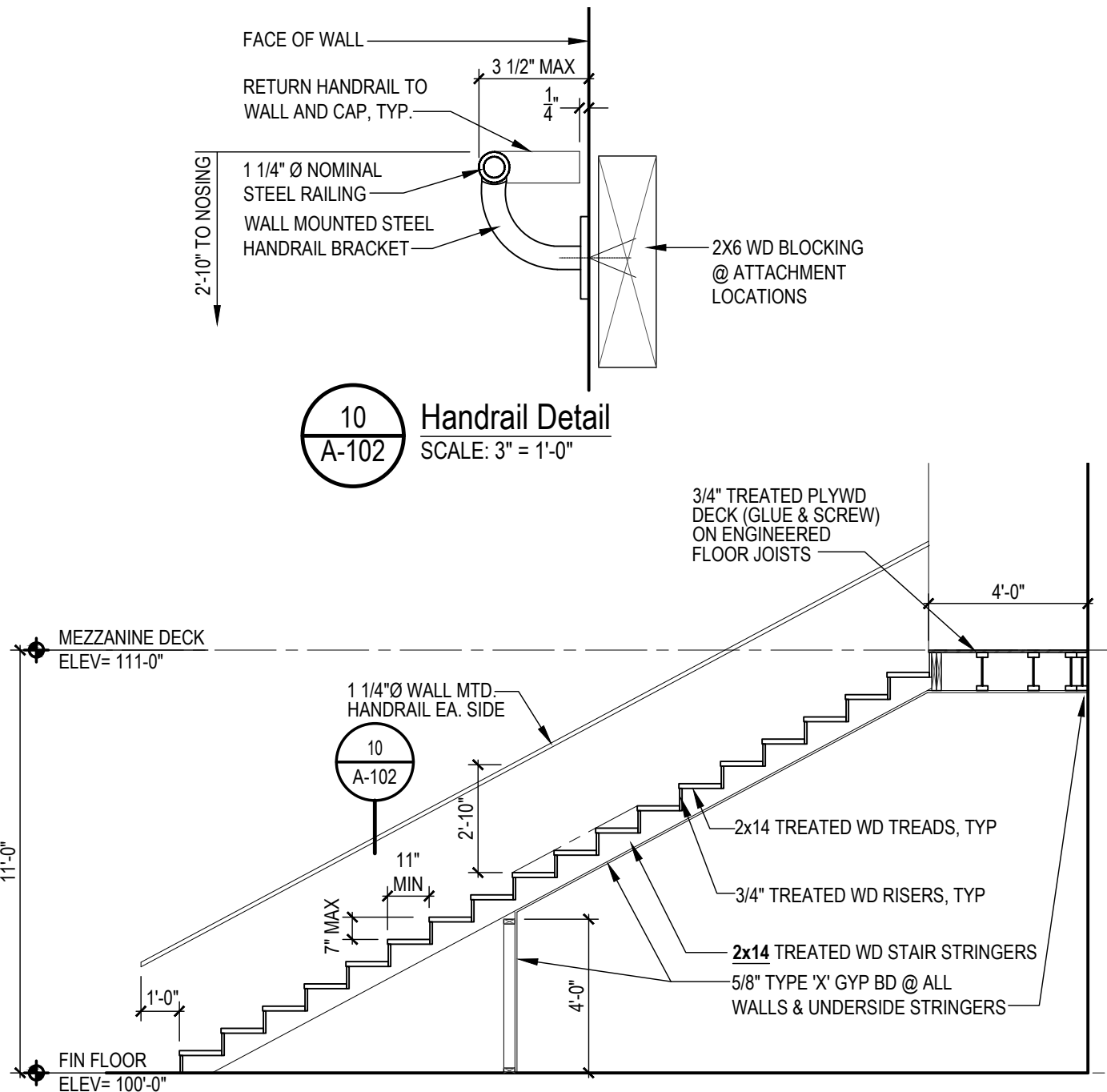
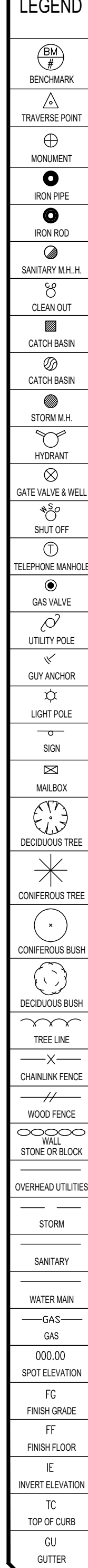
Ground Floor Plan
SCALE: 1/8" = 1'-0"

DEVELOPER / OWNER EAST CHINA TOWNSHIP 5111 River Road East China, MI 48054	
 Project Control Engineering, Inc. Engineers Surveyors Consultants P.O. Box 307 2420 Pot. Tremble Road Algonac, MI 48001 Phone 810.794.1931 Fax 810.794.3331 www.pce-eng.com	
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DRAWING STATUS: ☐ PRELIMINARY CONSTRUCTION ☒ FINAL CONSTRUCTION ☐ RECORD DOCUMENTS	
SEAL:  DATE: 11/18/2024 REV. DATE:	
FLOOR AND CEILING PLANS	NEW DPW SERVICE BUILDING
SHEET TITLE:	PROJECT:
 Know what's below Call before you dig.	
JOB NUMBER: 21-102	
DRAWN BY: CTW	
CHECK BY: A.T.,P.E.	
DRAWING ID: Floor and Ceiling Plans	
SCALE: 1/8" = 1'-0"	
A-101	

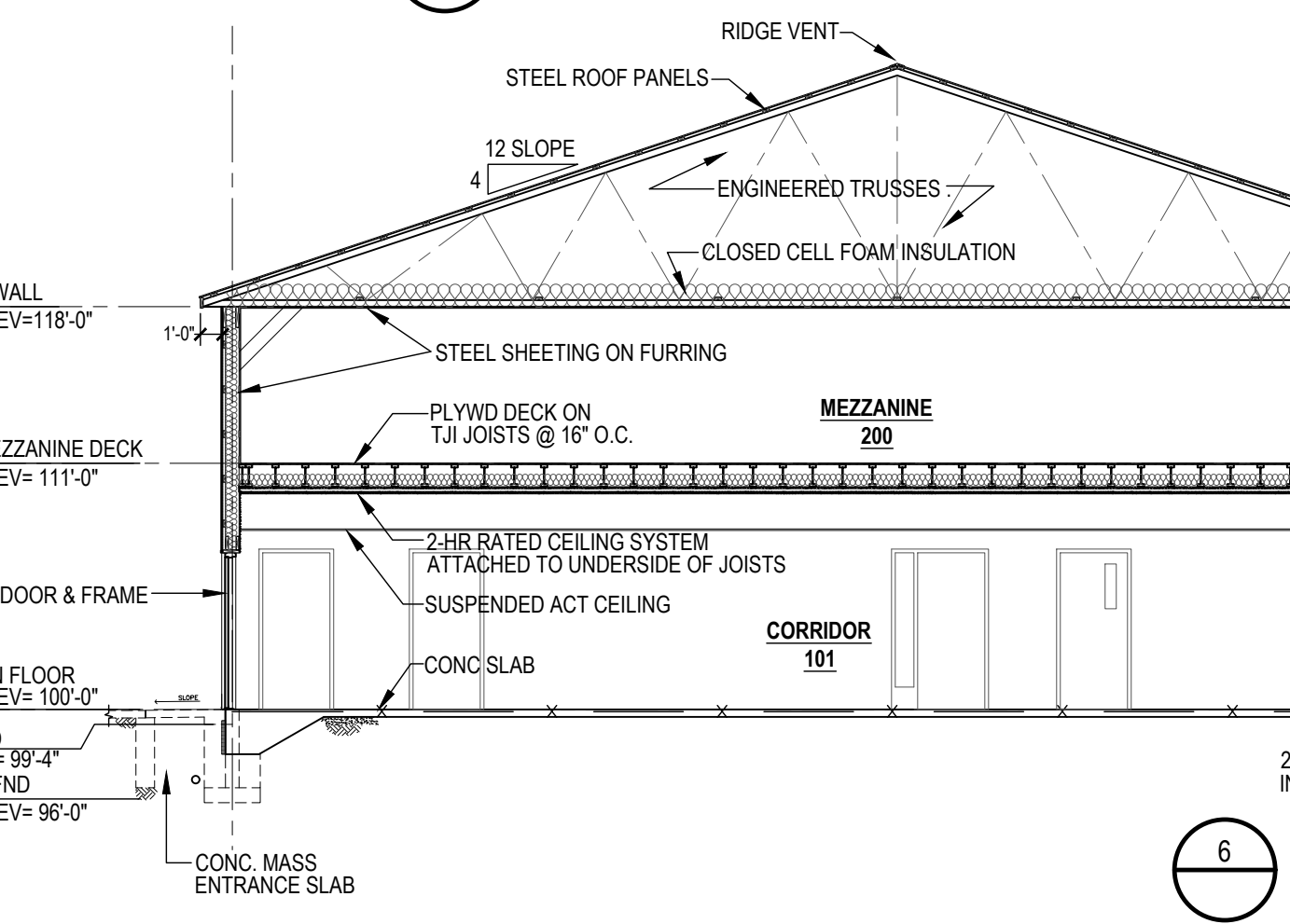
PROPOSED LEGEND



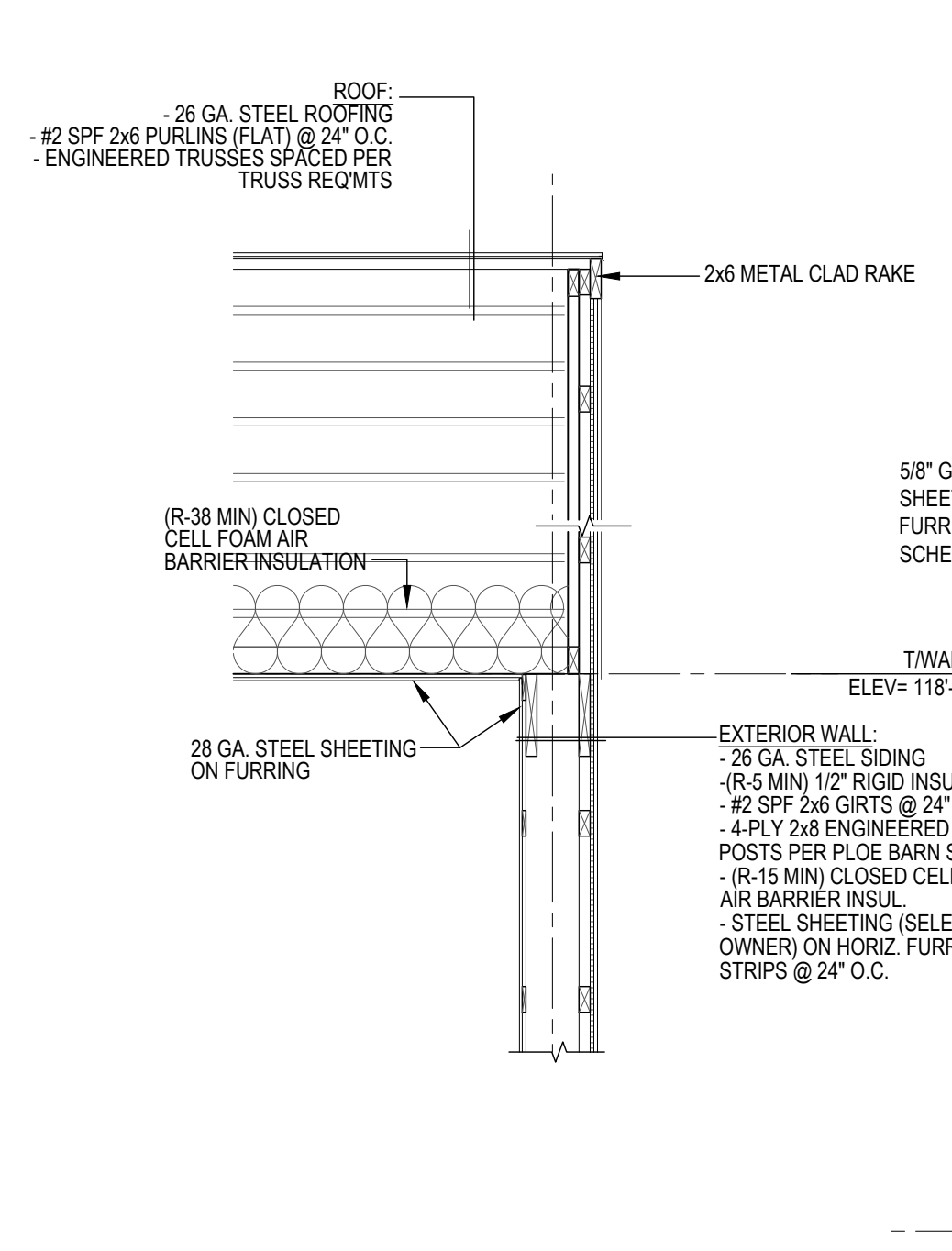
EXISTING LEGEND



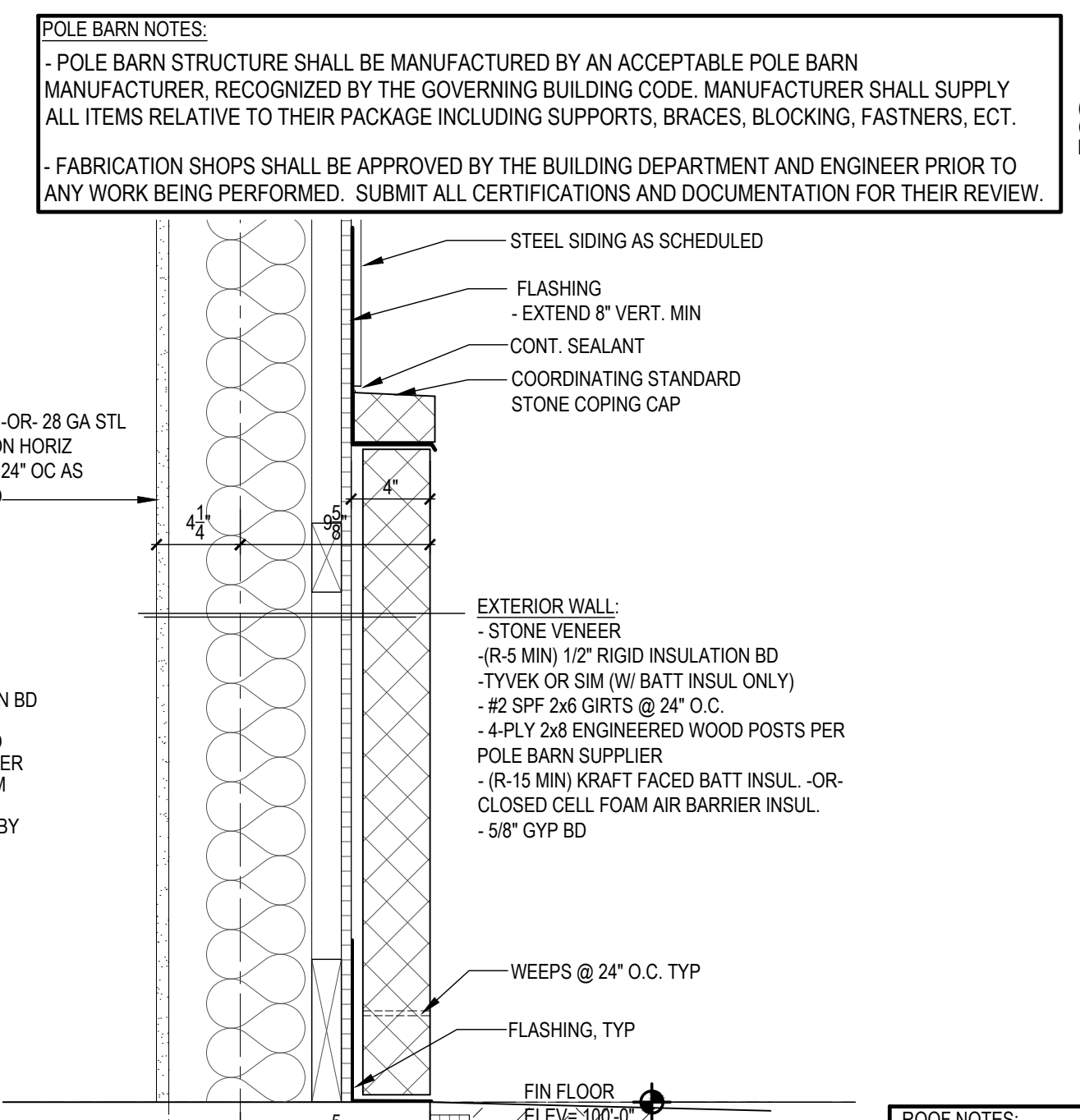
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SCALE: 3\"/>



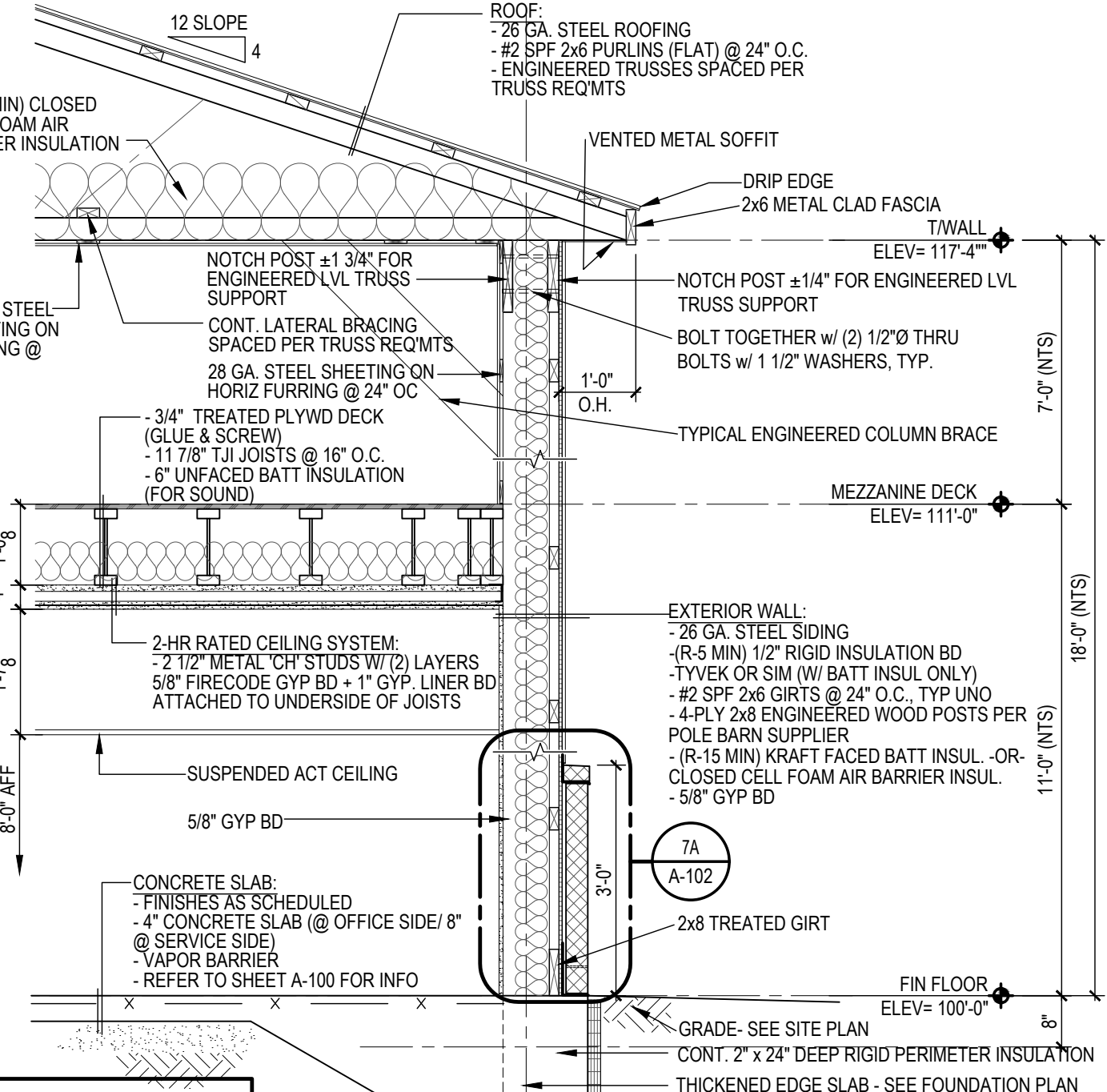
9 Mezzanine Stair
SCALE: 1/4\"/>



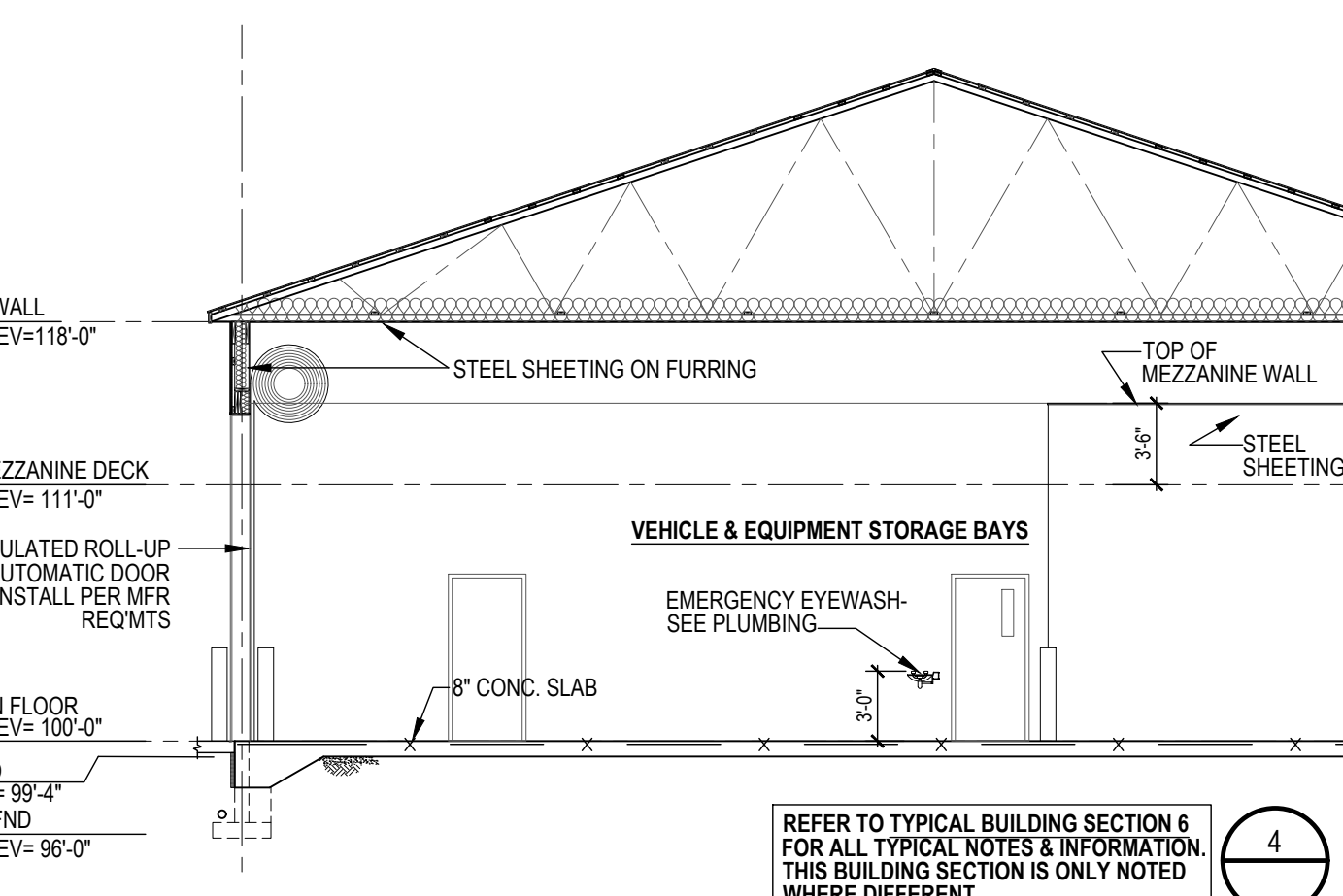
8 Detail (Equipment Bay Wall)
SCALE: 1/2\"/>



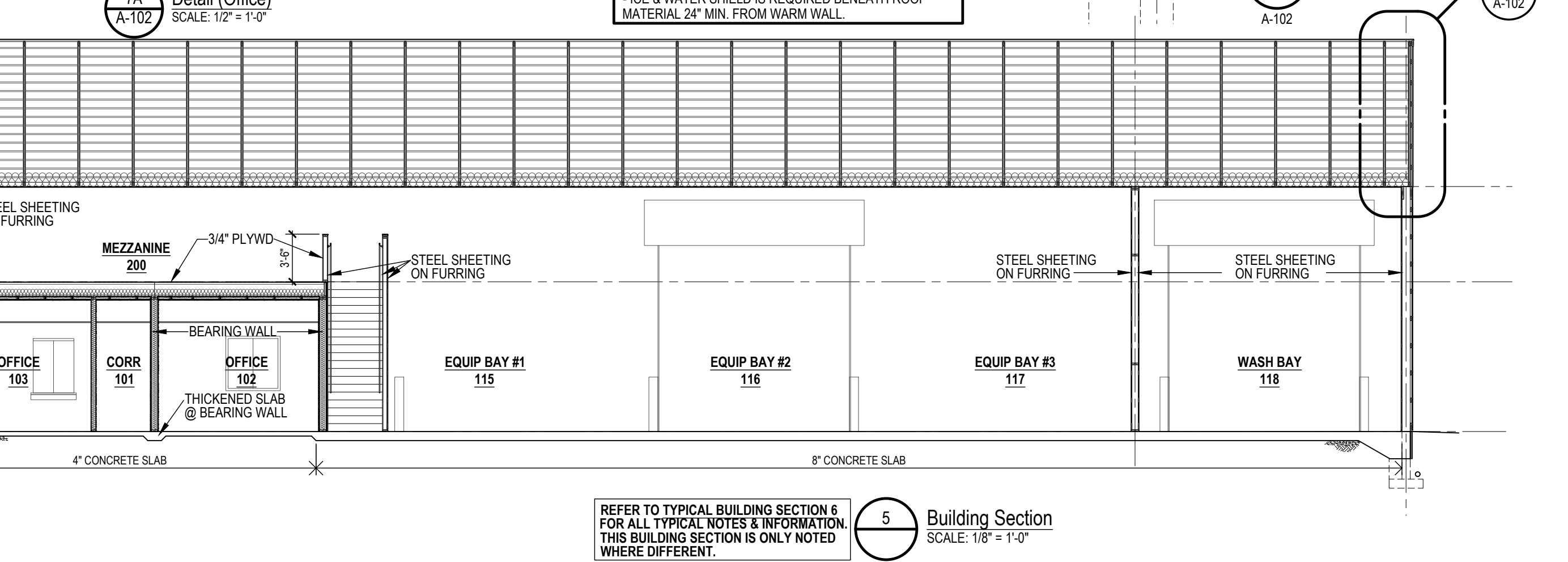
7A Detail (Office)
SCALE: 1/2\"/>



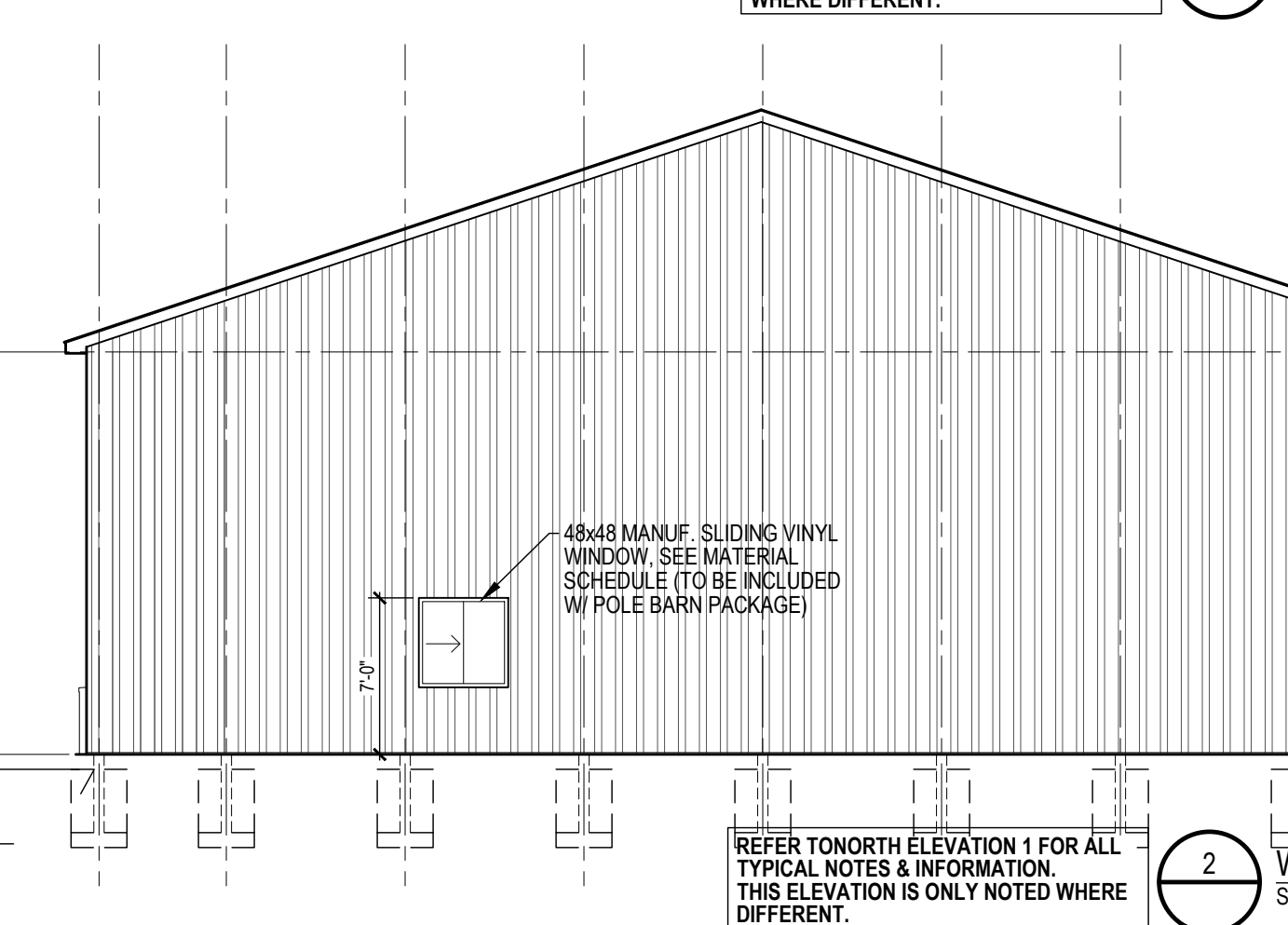
7 Detail (Office Wall)
SCALE: 1/2\"/>



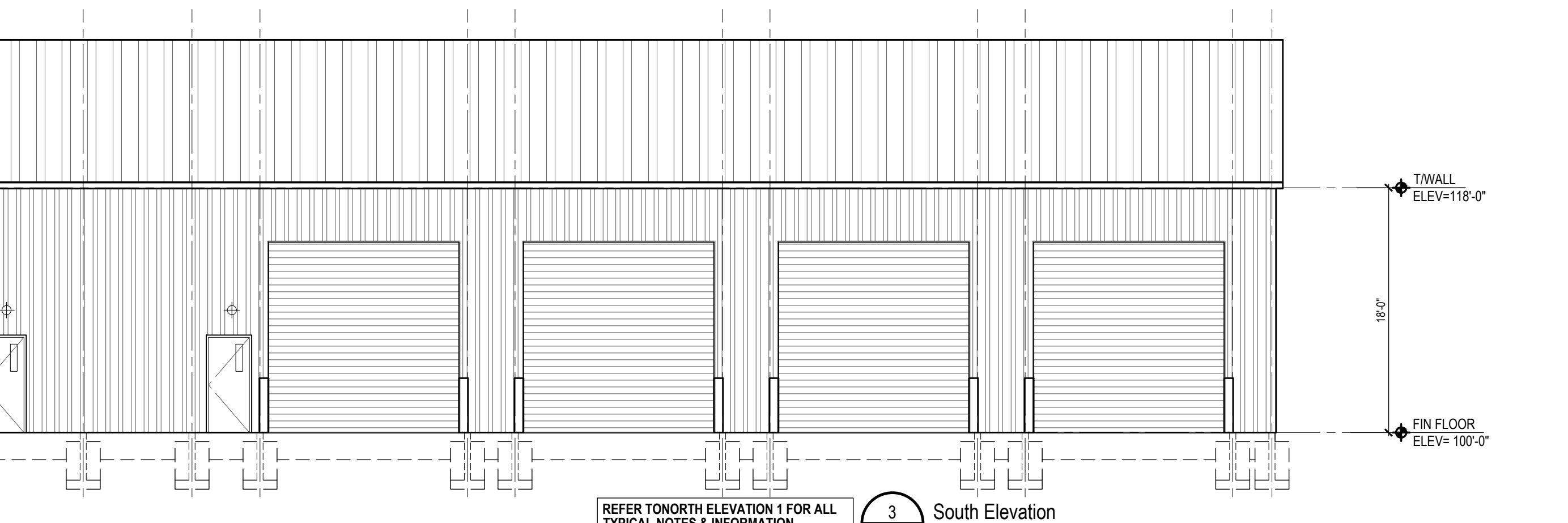
6 Typical Building Section
SCALE: 1/8\"/>



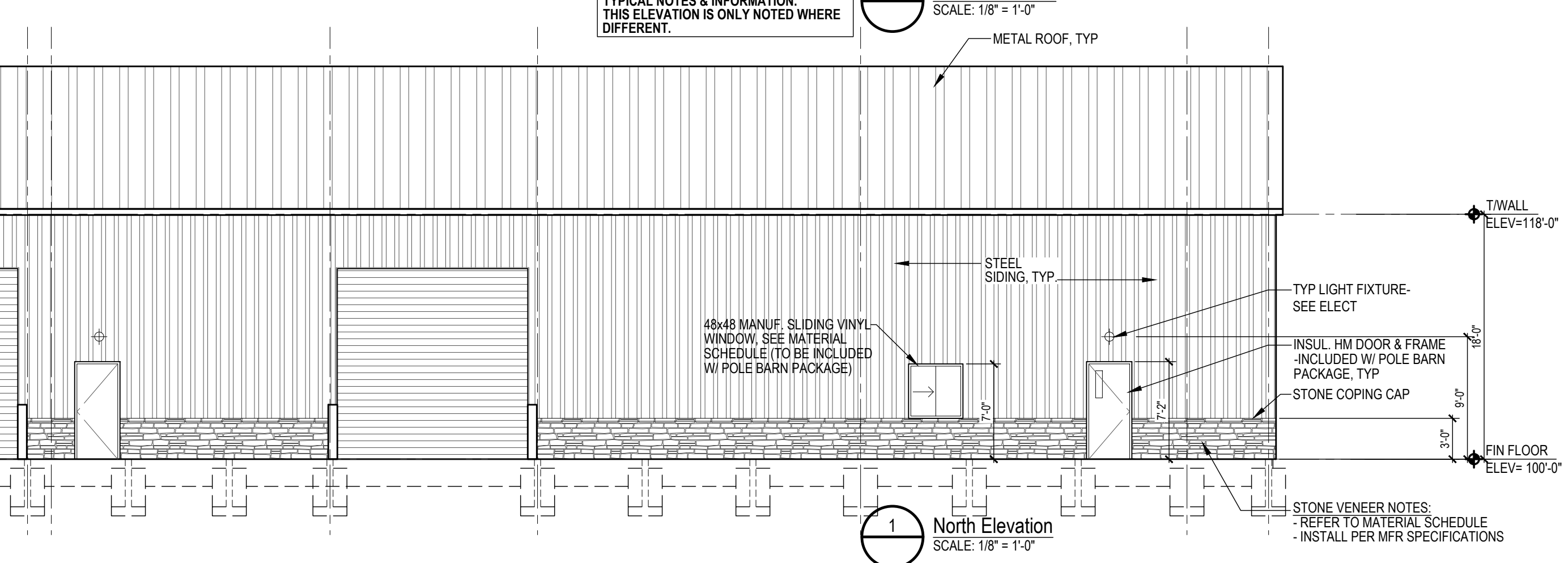
5 Building Section
SCALE: 1/8\"/>



4 Building Section
SCALE: 1/8\"/>



3 South Elevation
SCALE: 1/8\"/>



1 North Elevation
SCALE: 1/8\"/>



2 West Elevation / East Elevation Sim
SCALE: 1/8\"/>

POLE BARN NOTES:
- POLE BARN STRUCTURE SHALL BE MANUFACTURED BY AN ACCEPTABLE POLE BARN MANUFACTURER, RECOGNIZED BY THE GOVERNING BUILDING CODE. MANUFACTURER SHALL SUPPLY ALL ITEMS RELATIVE TO THEIR PACKAGE INCLUDING SUPPORTS, BRACES, BLOCKING, FASTNERS, ECT.
- FABRICATION SHOPS SHALL BE APPROVED BY THE BUILDING DEPARTMENT AND ENGINEER PRIOR TO ANY WORK BEING PERFORMED. SUBMIT ALL CERTIFICATIONS AND DOCUMENTATION FOR THEIR REVIEW.

ROOF NOTES:
- ROOF VENTILATION: MIN. FREE AREA TO 1/150 W/ 50% AT RIDGE & 50% AT SOFFIT.
- VENT EAVES (OR GABLE ENDS)
- ICE & WATER SHIELD IS REQUIRED BENEATH ROOF MATERIAL 24\"/>

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☒ FINAL CONSTRUCTION
☐ RECORD DOCUMENTS

DATE: 11/18/2024
REV. DATE:

ELEVATIONS & SECTIONS
NEW DPW SERVICE BUILDING
SHEET TITLE: PROJECT:

811 Know what's below
Call before you dig.
JOB NUMBER: 21-102
DRAWN BY: CTW
CHECK BY: A.T.,P.E.
DRAWING ID: Elevations & Sections
SCALE: 1/8\"/>

PROPOSED
SANITARY M.H.
CLEAN OUT
CATCH BASIN
CATCH BASIN
STORM M.H.
HYDRANT
GATE VALVE & WELL
SHUT OFF
STORM
SANITARY
WATER MAIN
000.00
P.R. ELEVATION
F.G.
FINISH GRADE
FF
FINISH FLOOR
IE
INVERT ELEVATION
TC
TOP OF CURB
GU
GUTTER
EXISTING
BENCHMARK
TRAVERSE POINT
MONUMENT
IRON PIPE
IRON ROD
SANITARY M.H.
CLEAN OUT
CATCH BASIN
CATCH BASIN
STORM M.H.
HYDRANT
GATE VALVE & WELL
SHUT OFF
TELEPHONE MANHOLE
GAS VALVE
UTILITY POLE
GUY ANCHOR
LIGHT POLE
SIGN
DS MAILBOX
DECIDUOUS TREE
CONIFEROUS TREE
CONIFEROUS BUSH
DECIDUOUS BUSH
TREE LINE
CHAINLINK FENCE
WOOD FENCE
NAIL STONE OR BLOCK
OVERHEAD UTILITIES
STORM
SANITARY
WATER MAIN
GAS
000.00
SPOT ELEVATION
F.G.
FINISH GRADE
FF
FINISH FLOOR
IE
INVERT ELEVATION
TC
TOP OF CURB
GU
GUTTER

MATERIAL SCHEDULE

FLOOR		
SEALED CONCRETE	INDUSTRIAL PENETRATING CONCRETE FLOOR SEALER, RESISTANT TO WATER, CHEMICALS, OIL, ABRASIONS AND SLIP COMPLYING WITH ANSI A326.3 FOR DCOF DYNAMIC COEFFICIENT OF FRICTION); ≥0.60	
EPOXY	LOW VOC EPOXY FLOOR COATING COMPLYING WITH ANSI A326.3 FOR DCOF DYNAMIC COEFFICIENT OF FRICTION); ≥0.42 COLOR TO BE SELECTED FROM MANUFACTURER STANDARD OPTIONS.	
TILE (FLOOR & WALL)	PORCELAIN OR CERAMIC TILE ON APPROPRIATE SUBSTRAT FOR LOCATION COMPLYING WITH ANSI A326.3 FOR DCOF DYNAMIC COEFFICIENT OF FRICTION); ≥0.60 SIZE AND COLOR TO BE SELECTED FROM MANUFACTURER STANDARD OPTIONS	
RUBBER TREAD & RISER	RUBBER TREADS WITH GRIT TAPE INSERT, COORDINATING RUBBER RISERS. COLOR TO BE SELECTED FROM MANUFACTURER STANDARD OPTIONS.	
BASE		
RUBBER	4" HIGH COVE RUBBER BASE. COLOR TO BE SELECTED FROM MANUFACTURER STANDARD OPTIONS.	
WALL		
PAINT	A. (WALLS) LOW VOC, DURABLE LATEX BASED PAINT, SATIN FINISH PRIMER + TWO FINISH COATS. COLORS TO BE SELECTED FROM MANUFACTURER STANDARD OPTIONS. B. (DOORS & HM FRAMES) LOW VOC ALKYD BASED ENAMEL PAINT. RUST INHIBITING PRIMER + TWO FINISH COATS. COLORS TO BE SELECTED FROM MANUFACTURER STANDARD OPTIONS	
METAL PANEL, INTERIOR	28 GAGE, PROFILE AND FINISH TO BE SELECTED FROM MANUFACTURER STANDARD OPTIONS.	
CEILING		
2x4 ACT	2x4 ACoustICAL LAY-IN CEILING TILE, ARMSTRONG 'CIRRUS' SQUARE EDGE, WHITE (DESIGN BASIS) STANDARD SUSPENDED GRID SYSTEM, WHITE	
EXTERIOR		
METAL PANEL, EXTERIOR	26 GAGE, PROFILE AND FINISH TO BE SELECTED FROM MANUFACTURER STANDARD OPTIONS.	
STONE VENEER	VIVACE STONE BY BRAMPTON BRICK (DESIGN BASIS) SUPPLIER: ARLINGTON MASONRY SUPPLY SIZE & FINISH: MULTI-DIMENSIONAL / EMBOSSED, TEXTURED COLOR: TO BE SELECTED FROM MANUFACTURER STANDARD OPTIONS.	
EXTERIOR VINYL WINDOW	DESIGN BASIS: ANDERSON SERIES 100 (COMPOSITE 40% WD FIBER/ 60% THERMOPLASTIC POLYMER) - GLIDING WINDOW UNIT, INSECT SCREEN, HIGH PERFORMANCE LOW-E, DUAL SEALED INSULATING GLASS UNITS, FULL MFR WARRANTY	

FINISH SCHEDULE

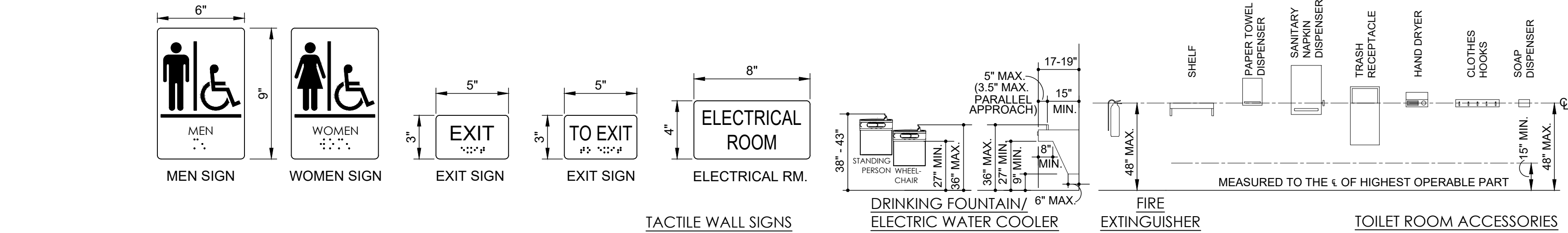
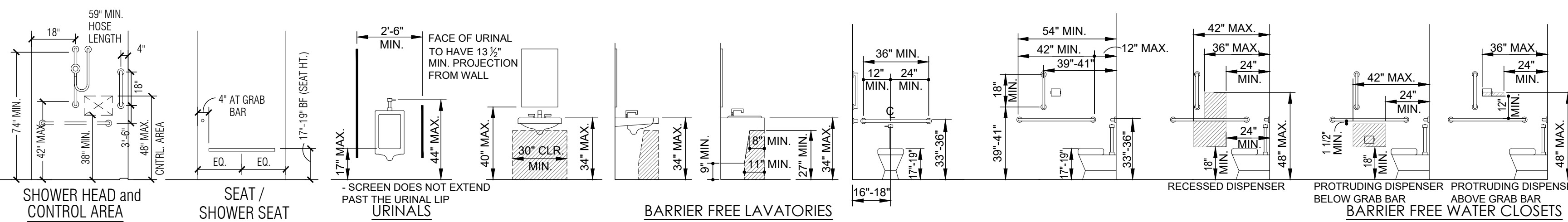
ROOM	FLOOR	BASE	WALLS	CEILING	REMARKS
100 VESTIBULE	EPOXY	RUBBER	PAINT	2x4 ACT 8'-0"	
101 CORRIDOR	EPOXY	RUBBER	PAINT	2x4 ACT 8'-0"	
102 OFFICE	EPOXY	RUBBER	PAINT	2x4 ACT 8'-0"	CLOSET CEILING: 8'-7 1/2" GWB PAINT
103 OFFICE	EPOXY	RUBBER	PAINT	2x4 ACT 8'-0"	CLOSET CEILING: 8'-7 1/2" GWB PAINT
104 BREAK ROOM	EPOXY	RUBBER	PAINT	2x4 ACT 8'-0"	
105 MEETING	EPOXY	RUBBER	PAINT	2x4 ACT 8'-0"	
106 BF UNISEX	EPOXY	RUBBER	PAINT	2x4 ACT 8'-0"	
107 BF UNISEX	EPOXY	RUBBER	PAINT	2x4 ACT 8'-0"	
108 IT	EPOXY	RUBBER	PAINT	2x4 ACT 8'-0"	
109 UTILITY RM	EPOXY	RUBBER	PAINT	2x4 ACT 8'-0"	
110 LOCKER RM	EPOXY	RUBBER	PAINT	2x4 ACT 8'-0"	
111 LOCKER RM SHOWER	EPOXY / TILE @ SHOWER	EPOXY / TILE @ SHOWER	EPOXY / TILE @ SHOWER	EPOXY / TILE @ SHOWER	
113 STAIR	RUBBER TREAD & RISER		METAL PNL		
114 CLOSET	SEALED CONC		PAINT		
115 EQUIP. BAY #1	SEALED CONC		METAL PNL	METAL PNL 18'-0"	
116 EQUIP. BAY #2	SEALED CONC		METAL PNL	METAL PNL 18'-0"	
117 EQUIP. BAY #3	SEALED CONC		METAL PNL	METAL PNL 18'-0"	
118 WASH BAY	SEALED CONC		METAL PNL	METAL PNL 18'-0"	
200 MEZZANINE	PLY WD		METAL PNL	METAL PNL 7'-0"	

DOOR SCHEDULE

DR #	LOCATION	DR SIZE	FRAME TYPE	MAT'L	DOOR TYPE	MAT'L	HARDWARE	COMMENTS
100	100 VESTIBULE	3'-0" x 7'-0"	1	H.M.	B	H.M.	PANIC HARDWARE (HORIZ. BAR & LATCHING DEVICE w/ PROPER LATCH BOLT LENGTH, EXTERIOR KEYS, LEVER w/ THUMBTURN, STEEL BALL BEARING HINGES, CLOSER, WEATHER-STRIPPING, SEALS, ALUM. THRESHOLD, KICK PLATE PUSH SIDE)	INSULATED DOOR
101	101 CORRIDOR	3'-0" x 7'-0"	1	H.M.	B	H.M.	PANIC HARDWARE (HORIZ. BAR & LATCHING DEVICE w/ PROPER LATCH BOLT LENGTH, EXTERIOR KEYS, LEVER w/ THUMBTURN, STEEL BALL BEARING HINGES, CLOSER, WEATHER-STRIPPING, SEALS, ALUM. THRESHOLD, KICK PLATE PUSH SIDE)	INSULATED DOOR
102A	102 OFFICE	3'-0" x 7'-0"	1	KD.M.	B	WOOD	(3) BALL BEARING HINGES, OFFICE LOCKSET	
102B	102 CLOSET	5'-0" x 7'-0"	1	KD.M.	B	WOOD	BI-FOLD DOOR w/ BI-FOLD PACKAGE HARDWARE, DUMMY PULLS	
103A	103 OFFICE	3'-0" x 7'-0"	1	KD.M.	B	WOOD	(3) BALL BEARING HINGES, OFFICE LOCKSET	
103B	103 CLOSET	5'-0" x 7'-0"	1	KD.M.	B	WOOD	BI-FOLD DOOR w/ BI-FOLD PACKAGE HARDWARE, DUMMY PULLS	
104A	104 BREAK ROOM	3'-0" x 7'-0"	1	KD.M.	B	WOOD	(3) BALL BEARING HINGES, PASSAGE LOCKSET, CLOSER, KICK PLATE PUSH SIDE	90 MIN. RATED DOOR / FRAME
104B	104 BREAK ROOM	3'-0" x 7'-0"	1	H.M.	B	H.M.	(3) BALL BEARING HINGES, PASSAGE LOCKSET, CLOSER, KICK PLATE PUSH SIDE	90 MIN. RATED DOOR / FRAME
105	105 MEETING	3'-0" x 7'-0"	2	KD.M.	A	WOOD	(3) BALL BEARING HINGES, PASSAGE LOCKSET	
106	106 UNISEX	3'-0" x 7'-0"	1	KD.M.	A	WOOD	(3) BALL BEARING HINGES, PRIVACY LOCKSET w/ OCCUPIED INDICATOR, CLOSER	
107	107 UNISEX	3'-0" x 7'-0"	1	KD.M.	A	WOOD	(3) BALL BEARING HINGES, PRIVACY LOCKSET w/ OCCUPIED INDICATOR, CLOSER	
107	107 J.C.	4'-0" x 7'-0"	1	--	A	WOOD	STANDARD BI-FOLD HARDWARE KIT	
108	108 IT	3'-0" x 7'-0"	1	KD.M.	A	WOOD	(3) BALL BEARING HINGES, STORAGE LOCKSET	
109	109 UTILITY RM	3'-0" x 7'-0"	1	KD.M.	A	WOOD	(3) BALL BEARING HINGES, PASSAGE LOCKSET, KICK PLATE BOTH SIDES	90 MIN. RATED DOOR / FRAME
110	110 LOCKER ROOM	3'-0" x 7'-0"	1	H.M.	A	H.M.	(3) BALL BEARING HINGES, PASSAGE LOCKSET, CLOSER, KICK PLATE BOTH SIDES	
114	114 CLOSET	3'-0" x 7'-0"	1	H.M.	A	H.M.	(3) BALL BEARING HINGES, PASSAGE LOCKSET, CLOSER	45 MIN. RATED DOOR / FRAME
115A	115 EQUIP. BAY #1	3'-0" x 7'-0"	1	H.M.	A	H.M.	PANIC HARDWARE (HORIZ. BAR & LATCHING DEVICE w/ PROPER LATCH BOLT LENGTH, EXTERIOR KEYS, LEVER w/ THUMBTURN, STEEL BALL BEARING HINGES, CLOSER, WEATHER-STRIPPING, SEALS, ALUM. THRESHOLD, KICK PLATE PUSH SIDE)	INSULATED DOOR
115B	115 EQUIP. BAY #1	14'-0" x 14'-0"		STEEL	D	STEEL		INSULATED ROLL-UP DOOR, POWER OPERATED
116A	116 EQUIP. BAY #2	14'-0" x 14'-0"		STEEL	D	STEEL		INSULATED ROLL-UP DOOR, POWER OPERATED
116B	116 EQUIP. BAY #2	14'-0" x 14'-0"		STEEL	D	STEEL		INSULATED ROLL-UP DOOR, POWER OPERATED
117A	117 EQUIP. BAY #3	14'-0" x 14'-0"		STEEL	D	STEEL		INSULATED ROLL-UP DOOR, POWER OPERATED
117B	117 EQUIP. BAY #3	3'-0" x 7'-0"	1	H.M.	A	H.M.	PANIC HARDWARE (HORIZ. BAR & LATCHING DEVICE w/ PROPER LATCH BOLT LENGTH, EXTERIOR KEYS, LEVER w/ THUMBTURN, STEEL BALL BEARING HINGES, CLOSER, WEATHER-STRIPPING, SEALS, ALUM. THRESHOLD, KICK PLATE PUSH SIDE)	INSULATED CORE DOOR
118A	118 WASH BAY	14'-0" x 14'-0"		STEEL	D	STEEL		INSULATED ROLL-UP DOOR, POWER OPERATED
118B	118 WASH BAY	14'-0" x 14'-0"		STEEL	D	STEEL		INSULATED ROLL-UP DOOR, POWER OPERATED
118C	118 WASH BAY	3'-0" x 7'-0"	1	H.M.	B	H.M.	(3) BALL BEARING HINGES, PASSAGE LOCKSET, KICK PLATE BOTH SIDES	

TYPICAL DOOR & HARDWARE NOTES:

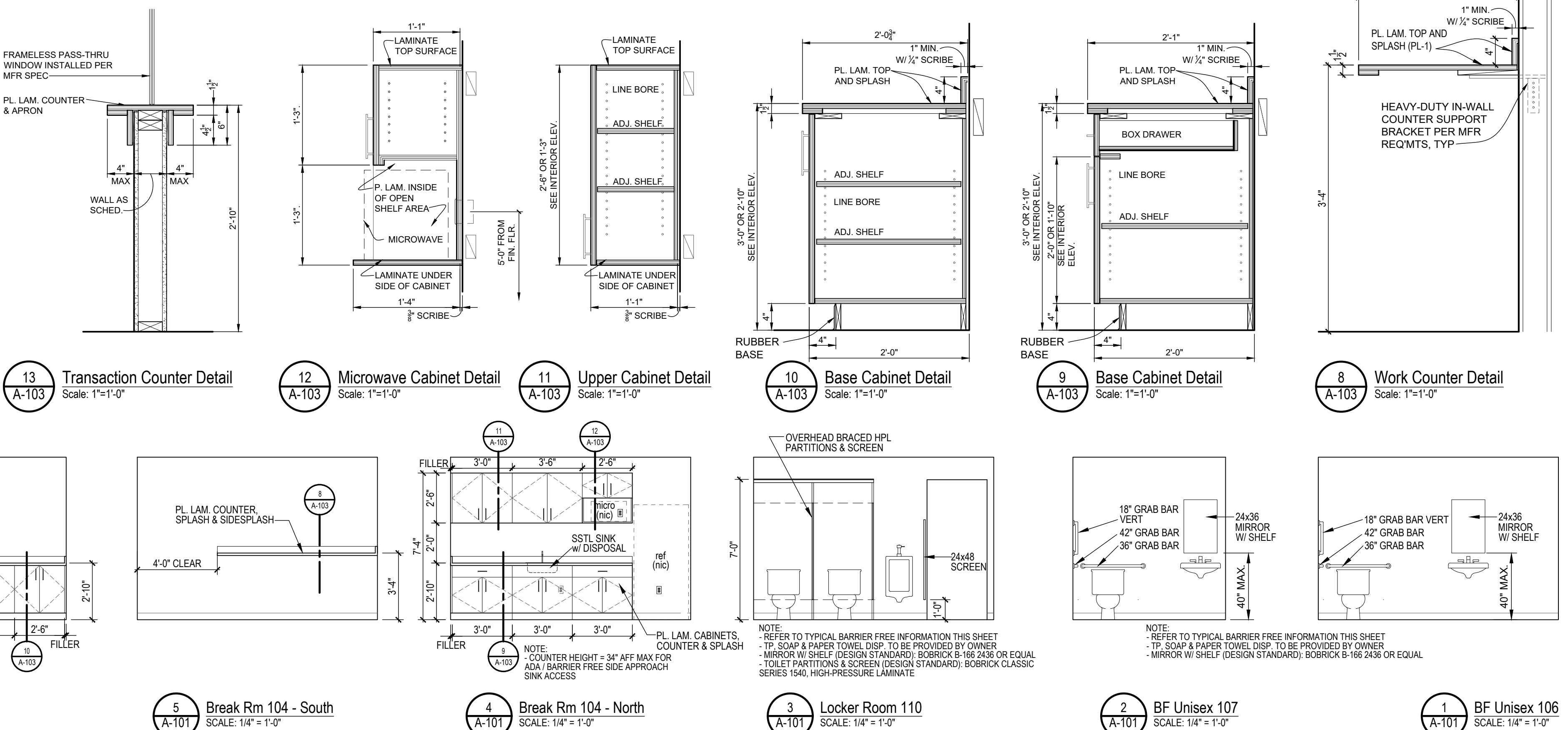
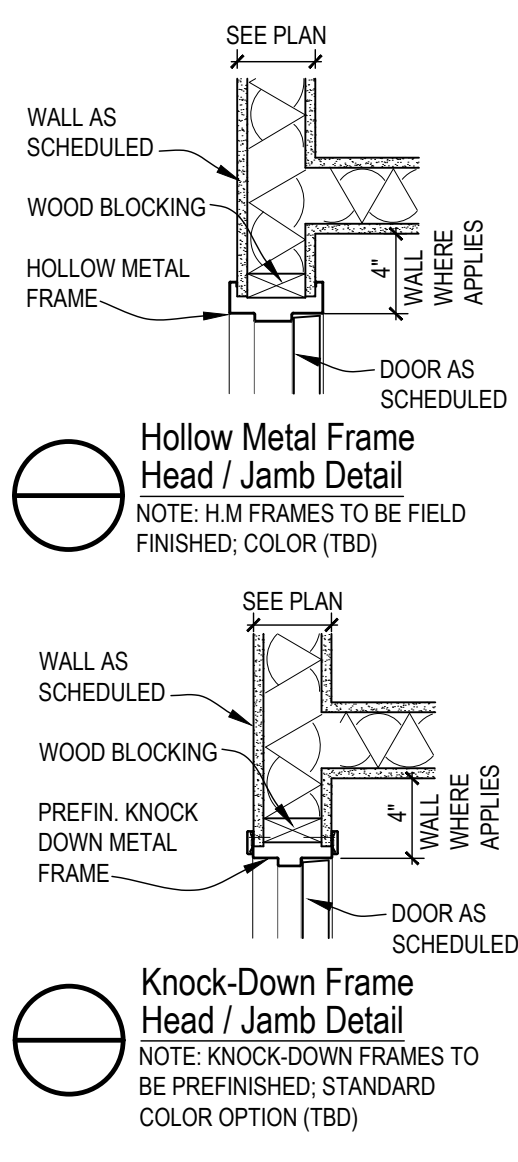
- EXTERIOR HOLLOW METAL DOORS ARE TO BE INSULATED TYPE, INTERIOR HOLLOW METAL DOORS TO BE 16 GAUGE KNOCK-DOWN TYPE.
- ALL DOOR FRAMES ARE TO RECEIVE (3) DOOR SILENCERS, TYPICAL.
- DOOR (AND FLOOR) THRESHOLDS SHALL NOT EXCEED ONE HALF INCH (1-1/2") IN HEIGHT. THRESHOLDS EXCEEDING ONE QUARTER (1/4") IN HEIGHT SHALL HAVE A 1:2 BEVEL.
- ALL LOCKS ARE TO BE KEYPER FOR THE REQUIREMENTS OF THE OWNER.
- DOOR HARDWARE FINISH TO BE US26D.
- ALL INTERIOR WOOD DOORS TO BE SOLID CORE, PAINT GRADE.
- ALL HARDWARE ITEMS FOR LISTED FIRE DOOR ASSEMBLIES SHALL COMPLY WITH THE REQUIREMENTS OF THE NFPA AND SHALL BEAR THE UL OR FMCC FOR THE OPENING CLASSIFICATION INDICATED IN THE DOOR SCHEDULE, AND SHALL COMPLY WITH THE REQUIREMENTS OF THE STATE FIRE MARSHALL OR OTHER AUTHORITIES HAVING JURISDICTION.
- ADA / BARRIER FREE NOTED ROOMS: DOORS AND HARDWARE SHALL COMPLY WITH APPLICABLE ADA CODES, GUIDELINES & REQUIREMENTS.
- DOOR CLOSERS SHALL MEET OPENING FORCE AND SWEEP PERIOD REQUIREMENTS. CLOSERS TO BE ON ROOM SIDE (NOT CORRIDOR / PUBLIC SPACE SIDE)
- PROVIDE THE APPROPRIATE DOOR STOPS (DOMED FLOOR STOP - OR - WALL STOP).



TYPICAL BARRIER FREE MOUNTING HEIGHTS AND LOCATIONS

FRAME TYPES

DOOR TYPES



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SCALE:

DATE: 11/18/2024
REV. DATE:

INTERIOR ELEVATIONS SCHEDULES & DETAILS

NEW DPW SERVICE BUILDING

SHEET TITLE: PROJECT:

811 Know what's below
Call before you dig.

JOB NUMBER: 21-102

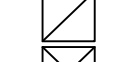
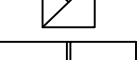
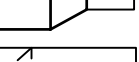
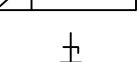
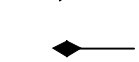
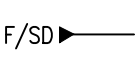
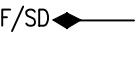
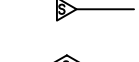
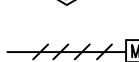
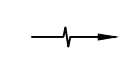
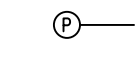
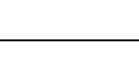
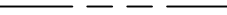
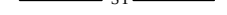
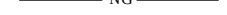
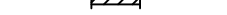
DRAWN BY: CTW

CHECK BY: A.T.,P.E.

DRAWING ID: Interior Elevations & Details

SCALE: As Noted

A-103

HVAC ABBREVIATIONS	GENERAL SYMBOLS	PIPING SYMBOLS	GENERAL HVAC NOTES	MECHANICAL DRAWING INDEX
AC AIR CONDITIONING(ER) ACCU AIR COOLED CONDENSING UNIT AFF ABOVE FINISHED FLOOR AHU AIR HANDLING UNIT ALT ALTERNATIVE AMB AMBIENT BDD BACKDRAFT DAMPER B.O.D. BOTTOM OF DUCT CC CEILING CASSETTE CONV CONNECTOR CFM CUBIC FEET PER MINUTE CU CONDENSING UNIT DB DRY BULB TEMPERATURE DOAS DEDICATED OUTSIDE AIR SYSTEM EA EXHAUST AIR EAT ENTERING AIR TEMPERATURE EBB ELECTRIC BASEBOARD ECUH ELECTRIC CABINET UNIT HEATER EF EXHAUST FAN EG EXHAUST GRILLE EUH ELECTRIC UNIT HEATER EXH EXHAUST F/SD COMBINATION FIRE/SMOKE DAMPER FC FAN COIL G LOW PRESSURE GAS GPM GALLONS PER MINUTE HR HEATING HOT WATER RETURN HS HEATING HOT WATER SUPPLY HP HORSEPOWER OR HEAT PUMP HVAC HEATING/VENTILATING/AIR CONDITIONING LAT LEAVING AIR TEMPERATURE MAX MAXIMUM MBH BTU PER HOUR (THOUSAND) MFR MANUFACTURER NFPA NATIONAL FIRE PROTECTION ASSOCIATION OA OUTSIDE AIR OD OUTSIDE DIAMETER P PUMP PRV PRESSURE REDUCING VALVE PSI POUNDS PER SQUARE INCH RA RETURN AIR RG RETURN GRILLE RL REFRIGERANT LIQUID RP RADIANT PANEL RS REFRIGERANT SUCTION RTU ROOF TOP UNIT SA SUPPLY AIR SD SUPPLY DIFFUSER SG SUPPLY GRILLE SP STATIC PRESSURE TG TRANSFER GRILLE TU TERMINAL UNIT TXV THERMAL EXPANSION VALVE UH UNIT HEATER VFD VARIABLE FREQUENCY DRIVE WB WET BULB TEMPERATURE X- EXISTING	 KEY NOTE -- DEMOLITION  KEY NOTE -- NEW WORK  CONNECTION POINT, NEW TO EXISTING  DEMOLITION END POINT  THERMOMETER  PRESSURE GAUGE  PENDANT FIRE PROTECTION SPRINKLER HEAD  UPRIGHT FIRE PROTECTION SPRINKLER HEAD SHEET METAL SYMBOLS  SUPPLY AIR DUCT  RETURN AIR DUCT  EXHAUST AIR DUCT  BALANCE DAMPER  CONICAL TEE  90° TEE WITH 45° APPROACH  TRANSITION CONCENTRIC  TRANSITION ECCENTRIC  RETURN AIR GRILLE WITH INSULATED DUCT BOOT  BELLMOUTH BRANCH TAKE-OFF WITH MANUAL BALANCING DAMPER  VERTICAL FIRE DAMPER  HORIZONTAL FIRE DAMPER  VERTICAL COMBINATION FIRE SMOKE DAMPER  HORIZONTAL COMBINATION FIRE SMOKE DAMPER  VERTICAL SMOKE DAMPER  HORIZONTAL SMOKE DAMPER  MOTORIZED DAMPER  AIR FLOW DIRECTION  PRESSURE GAUGE CONTROL SYMBOLS  THERMOSTAT  LINE VOLTAGE REVERSE ACTING THERMOSTAT  TEMPERATURE SENSOR  TIMER OVERRIDE  HUMIDISTAT  DUCT SMOKE DETECTOR, INSTALLED BY M.T.C. PROVIDED AND WIRED BY E.T.C.  TEST PORT	 COLD WATER  HOT WATER  140 °F HOT WATER  HOT WATER RETURN  SANITARY  STORM  FIRE PROTECTION  NATURAL GAS  PIPE TURNED UP  PIPE TURNED DOWN  PIPE OUT OF TOP  PIPE OUT OF BOTTOM  PIPE ANCHOR  PIPE ALIGNMENT GUIDE  PIPE EXPANSION JOINT  STRAINER  UNION  SHUT-OFF VALVE  CHECK VALVE  2-WAY TEMPERATURE CONTROL VALVE  3-WAY TEMPERATURE CONTROL VALVE  CIRCUIT BALANCE VALVE  HEATING HOT WATER SUPPLY  HEATING HOT WATER RETURN  CHILLED WATER SUPPLY  CHILLED WATER RETURN  CONDENSER WATER SUPPLY  CONDENSER WATER RETURN  REFRIGERANT LIQUID  REFRIGERANT SUCTION  CONDENSATE DRAIN  COMPRESSED AIR  NATURAL GAS PIPE  GAS METER  HEAT PUMP WATER RETURN  HEAT PUMP WATER SUPPLY	1. ALL WORK SHALL COMPLY WITH APPLICABLE REQUIREMENTS OF FEDERAL, STATE AND LOCAL CODES. 2. ALL PERMITS SHALL BE TAKEN OUT AND PAID FOR BY THE CONTRACTOR DIRECTLY RESPONSIBLE 3. CONTRACTOR SHALL VERIFY WITH THE PROPER UTILITY COMPANY THE LOCATION OF ALL EXISTING BELOW GROUND UTILITIES AND THEIR SERVICE CONNECTION, IF NECESSARY 4. THE ENGINEERS APPROVAL OF SHOP DRAWINGS SHALL NOT RELIEVE THE GENERAL CONTRACTOR OR SUBCONTRACTOR FROM RESPONSIBILITY FOR DEVIATIONS FROM THE DRAWINGS OR SPECIFICATIONS UNLESS HE HAS, IN WRITING, CALLED THE ENGINEERS ATTENTION TO SUCH DEVIATIONS AT THE TIME OF SUBMISSIONS, NOR SHALL IT RELIEVE HIM FROM THE RESPONSIBILITY FOR ERRORS OF ANY SORT IN THE SHOP DRAWINGS 5. SHOULD THE CONTRACTOR ENCOUNTER CONFLICT BETWEEN THESE PLANS AND SPECIFICATIONS, EITHER AMONG THEMSELVES OR WITH THE REQUIREMENTS OF ANY AND ALL REVIEWING AND PERMIT-ISSUING AGENCIES, HE/SHE SHALL SEEK CLARIFICATION IN WRITING FROM THIS ENGINEER BEFORE COMMENCEMENT OF CONSTRUCTION. FAILURE TO DO SO SHALL BE AT THE SOLE EXPENSE TO THE CONTRACTOR 6. UNLESS OTHERWISE NOTED THE CONTRACTOR SHALL FURNISH AS-BUILT DRAWINGS INDICATING ALL CHANGES AND DEVIATIONS FROM APPROVED DRAWINGS. 7. THE ENGINEER WILL NOT BE RESPONSIBLE FOR FIELD DESIGN CHANGES MADE BY THE CONTRACTOR WHERE THE ENGINEER HAS NOT APPROVED THESE DESIGN CHANGES. 8. APPLY AND CONSTRUCT ALL SYSTEMS AND MATERIALS ACCORDING TO EACH MANUFACTURER'S WRITTEN SPECIFICATIONS, INSTRUCTIONS AND RECOMMENDATIONS. 9. THESE DRAWINGS ARE DIAGRAMMATIC & INDICATE THE GENERAL EXTENT OF THE WORK. PROVIDE PLUMBING AND HVAC SYSTEMS COMPLETE PER SPECIFICATION AND PER APPLICABLE CODES INCLUDING ALL NECESSARY OFFSETS, FITTINGS, SPECIAL RADIIUS OR MITERED ELBOWS WHICH ARE REQUIRED DUE TO SPACE CONSTRAINTS OR OTHER STRUCTURAL CONDITIONS. 10. CONTRACTOR SHALL COORDINATE HIS WORK WITH THE WORK OF ALL OTHER TRADES. VERIFY ALL CLEARANCES PRIOR TO THE FABRICATION OF ANY WORK. 11. DUCTWORK/PIPING SHALL NOT BE LOCATED OVER ELECTRICAL EQUIPMENT/PANELS. PROVIDE REQUIRED CLEARANCE IN FRONT OF ELECTRICAL EQUIPMENT. DUCTWORK/PIPING SHALL NOT INTERFERE WITH ELECTRICAL EQUIPMENT CLEARANCE. 12. THE CONTRACTOR SHALL PROVIDE ALL MISCELLANEOUS SUPPORTING STEEL, ETC. FOR THE PROPER INSTALLATION OF ALL MECHANICAL SYSTEMS. 13. COORDINATE FLOOR, WALL, ROOF PENETRATIONS, LOUVER SIZES, PAD LOCATIONS ETC. WITH ARCHITECTURAL TRADES. 14. REFER TO ARCHITECTURAL REFLECTED CEILING PLANS FOR EXACT LOCATION OF GRILLES, REGISTERS, AND DIFFUSERS. COORDINATE GRILLES, REGISTERS AND DIFFUSER LOCATIONS WITH LIGHT FIXTURES AND THE CEILING GRID. 15. PIPING SHALL NOT BE INSTALLED IN A LOCATION THAT RESTRICTS THE ACCESS TO MECHANICAL DEVICES REQUIRING ACCESS. 16. COORDINATE AND PROVIDE ACCESS DOORS IN HARD CEILING AREAS FOR ACCESS TO BALANCING DAMPERS, ETC. REFER TO ARCHITECTURAL DRAWINGS FOR CEILING TYPES. 17. FOR EQUIPMENT VALVING, COMPONENT, AND PIPING ARRANGEMENT, REFER TO PIPING DIAGRAMS AND DETAILS. 18. 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. 19. MAXIMUM LENGTH OF FLEXIBLE DUCT SHALL BE 8'-0". FLEXIBLE DUCT ELBOWS SHALL BE LIMITED TO ONE (1) PER DUCT SECTION. FLEXIBLE DUCT IS NOT ALLOWED WHERE EXPOSED TO OCCUPIED SPACES. 20. LOCATE EXHAUST OUTLETS OF VENTILATION SYSTEMS, COMBUSTION EQUIPMENT STACKS, AND PLUMBING VENTS AT LEAST 10 FEET FROM OUTDOOR AIR INTAKES 21. LOCATE OUTDOOR INTAKES AT LEAST 6 FEET ABOVE GROUND LEVEL OR 3 FEET ABOVE ROOF LEVEL UNLESS OTHERWISE INDICATED. 22. NOTIFY OWNER OF ANY PIPING OR DUCTWORK DEMOLITION THAT MAY AFFECT NORMAL OPERATION OF OTHER AREAS. 23. FIELD VERIFY LOCATIONS OF EXISTING PIPING THAT MAY CONFLICT WITH NEW CONSTRUCTION AND RELOCATE AS NEEDED 24. PROVIDE MANUAL AIR VENTS WITH 3/4" HOSE CONNECTION AT ALL HIGH POINTS. 25. OFFSET PIPING TO ACCOMMODATE LARGE DUCTWORK. 26. PROVIDE PIPE, DUCTWORK AND EQUIPMENT IDENTIFICATION ON ALL NEW WORK. ALL GAS PIPING SHALL BE PAINTED YELLOW. 27. THE CONTRACTOR SHALL FIELD VERIFY THE SIZES, LOCATION, ELEVATIONS, AND DETAILS OF ALL EXISTING CONDITIONS THAT MAY AFFECT THE WORK. 28. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING THE INTEGRITY OF ALL EQUIPMENT AND MATERIALS IN A "NEW" CONDITION DURING CONSTRUCTION. 29. DRAWING INDICATE REQUIRED SIZES AND POINTS OF TERMINATION OF PIPES AND DUCTS AND SUGGESTED ROUTES. IT IS NOT INTENTION OF DRAWINGS TO INDICATE ALL NECESSARY OFFSETS. INSTALL WORK IN MANNER TO CONFORM TO STRUCTURE, AVOID OBSTRUCTIONS, PRESERVE HEADROOM AND KEEP OPENINGS AND PASSAGEWAYS CLEAR. DO NOT SCALE FROM DRAWINGS 30. ANY INFORMATION FOUND ON THE DRAWINGS AND NOT IN THE SPECIFICATIONS, OR FOUND IN THE SPECIFICATIONS AND NOT IN THE DRAWINGS, SHALL BE CONSTRUED AS TO BE INCLUDED IN BOTH THE SPECIFICATIONS AND THE DRAWINGS. ANY CONFLICT BETWEEN THE PLANS AND THE SPECIFICATIONS WILL BE INTERPRETED BY THE ARCHITECT. IN THE EVENT OF CONFLICT, FOR THE PURPOSE OF BIDDING, THE CONTRACTOR SHALL PRESUME THE MOST EXPENSIVE COMBINATION OF QUALITY AND QUANTITY OF WORK SHALL PREVAIL.	M001 MECHANICAL ABBREVIATIONS, SYMBOLS & NOTES P101 UNDERGROUND PLUMBING PLAN P102 FIRST FLOOR PLUMBING PLAN P201 PLUMBING SCHEDULES DETAILS M101 FIRST FLOOR HVAC PLAN M102 MEZZANINE LEVEL HVAC PLAN M201 MECHANICAL SCHEDULES AND DETAILS
NOTE: ALL ABBREVIATIONS AND SYMBOLS SHOWN ON THIS SHEET MAY NOT BE USED ON THIS PROJECT.				



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NO.	DESCRIPTION	DATE
	100% CD	11/18/2024

EAST CHINA TOWNSHIP
DPW BUILDING

DRAWING TITLE

MECHANICAL TITLE SHEET

PROJECT NO.

DATE
11/15/2024

DRAWN
CJL

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JDL

M001

CAD FILE NO.

SCALE
NTS

SHEET
1 OF 7



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PLUMBING NOTES

1. PROVIDE A MIFAB TRAP SEAL AT ALL CATCH BASINS AND FLOOR DRAINS.

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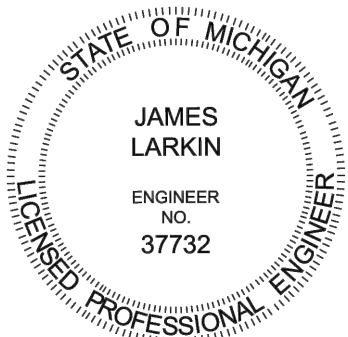
EAST CHINA TOWNSHIP
DPW BUILDING

DRAWING TITLE
UNDERGROUND PLUMBING PLAN

PROJECT NO.
DATE 11/15/2024
DRAWN CJL
CHECKED JDL

P101

CAD FILE NO.
SCALE 1/4" = 1'-0" SHEET 2 OF 7



James Larkin
Professional Engineer



UNDERGROUND PLUMBING PLAN

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



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PLUMBING NOTES

- 1" REDUCED PRESSURE BACKFLOW PREVENTOR. ZURN 975XL2 W/ BALL VALVES INSTALL HORIZONTALLY. EXTEND DRAIN LINE TO FLOOR DRAIN.
- PROVIDE AN AIR ADMITTANCE VALVE UNDER THE SINK FOR SANITARY VENTING.
- VENT FROM HOT WATER PRESSURE WASHER TO ROOF. COORDINATE SIZE AND MATERIALS WITH PRESSURE WASHER MANUFACTURER.
- 3" COMBUSTION AIR AND 3" VENT FROM WATER HEATER (DWH-1) TO CONCENTRIC TERMINATION KIT AT EXTERIOR WALL.
- 3/4" CW TO POWER WASHER. PROVIDE A BACKFLOW PREVENTOR AND SHUT-OFF VALVE AT THE POWER WASHER
- EXTEND A 1 1/4" DRAIN FROM EYEWASH TO THE FLOOR. DISCHARGE AT THE FLOOR 2 FT FROM EYEWASH CENTERLINE.

NO.	DESCRIPTION	DATE
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EAST CHINA TOWNSHIP DPW BUILDING

DRAWING TITLE

FIRST FLOOR PLUMBING PLAN

PROJECT NO.

DATE 11/15/2024

DRAWN CJL

CHECKED JDL

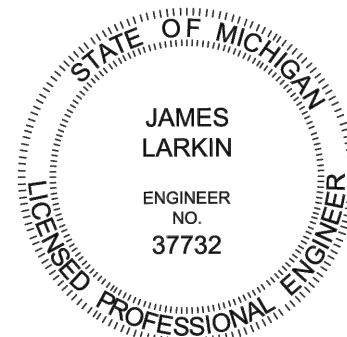
P102

CAD FILE NO.

SCALE 1/4" = 1'-0" SHEET 3 OF 7

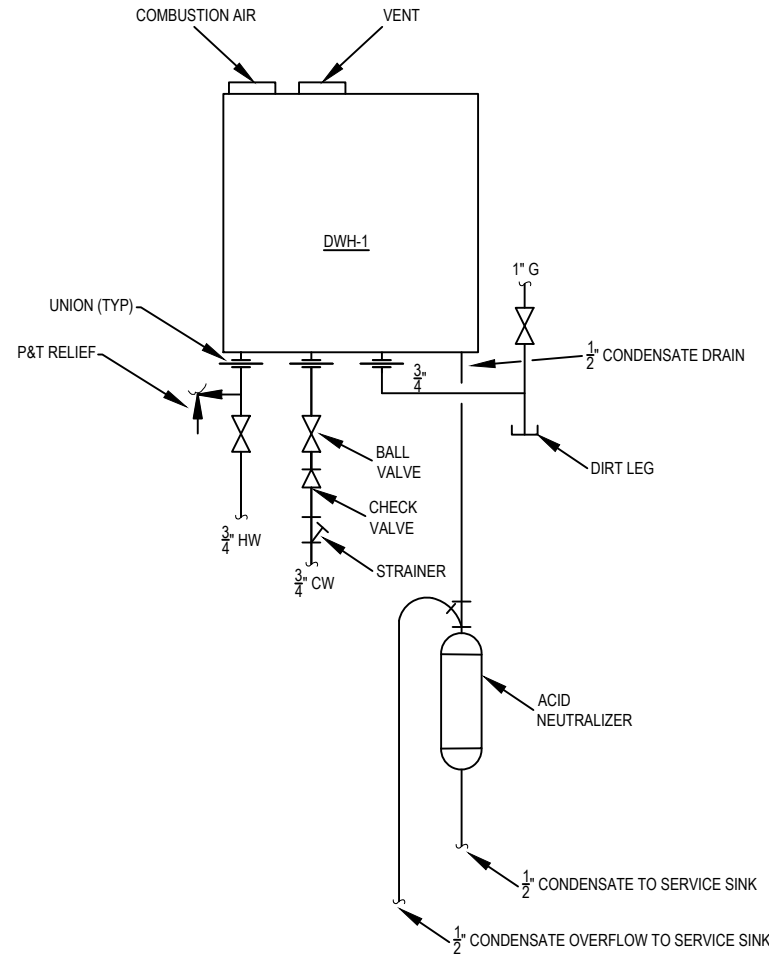
FIRST FLOOR PLUMBING PLAN

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



James Larkin





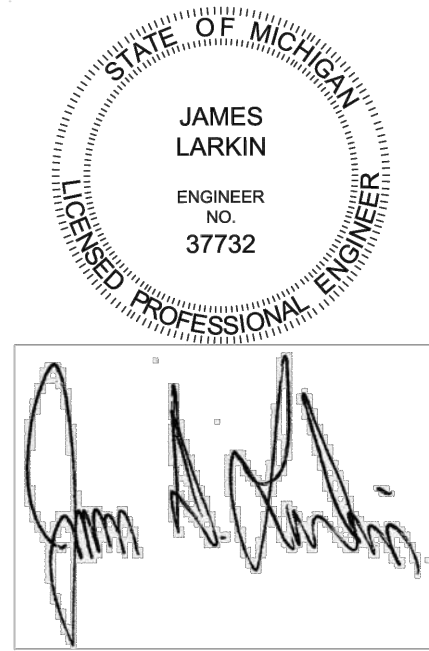
WATER HEATER DETAIL

NTS

PLUMBING FIXTURE SCHEDULE								
TAG	MANUFACTURER	MODEL	DESCRIPTION	CW	HW	WASTE	VENT	NOTES
SS-1	FIAT	MSB2424	24" x 24" MOP SERVICE BASIN WITH 830 AA FAUCET, HOSE / BRACKET COMBO AND MOP HANGER BRACKET	3/4"	2"	3"	1 1/2"	
SH-1	DELTA	TRINSIC 1705	PRESSURE BALANCED SHOWER SYSTEM WITH SHOWER HEAD, SHOWER ARM, HAND SHOWER, SLIDE BAR, HOSE, VALVE TRIM AND MULTICHOICE ROUGH-IN. CHROME FINISH	1/2"	1/2"	2"	1 1/2"	
WC-1	AMERICAN STANDARD	2467.016	CADET CHAIR HEIGHT, ELONGATED BOWL, WHITE VITREOUS CHINA, 1.6 GPF, PRESSURE ASSISTED TOILET. PROVIDE AN OPEN FRONT SEAT WITH CHECK HINGE.	1/2"	-	4"	2"	
UR-1	AMERICAN STANDARD	6590.001	WASHBROOK FLOWISE 0.125 GPF, ULTRA HIGH EFFICIENCY URINAL SYSTEM, EXPOSED TOP SPUD, SLOAN MODEL ROYAL 186 FLUSH VALVE. PROVIDE WITH WALL HANGERS AND ALL ACCESSORIES FOR A COMPLETE INSTALLATION.	3/4"	-	2"	1 1/2"	
L-1	AMERICAN STANDARD	0355.012	LUCERNE, WALL HUNG LAVATORY SINK, WHITE VITREOUS CHINA, LESS OVERFLOW, GRID STRAINER. 20 3/4" X 17 3/8" X 5 5/8", ADA COMPLIANT. DELTA CLASSIC FAUCET, MODEL 583LF-WF, CHROME, SINGLE HANDLE, ADA COMPLIANT.	1/2"	1/2"	1 1/2"	1 1/2"	1
DWH-1	LOCHINVAR	540H	ON-DEMAND, GAS FIRED WATER HEATER, 199,000 BTUH INPUT, 120V/60HZ/1PH, 0.74 AMPS 22"x18"x11". PROVIDE A CONCENTRIC VENT KIT.	4-2"	2"	-	3" or 4"	
TD-1	ZURN	Z882-12	12" WIDE, PRE-SLOPED, TRENCH DRAIN SYSTEM 26' LONG, BLACK ACID RESISTANT EPOXY COATED CLASS C DUCTILE GRATE. PROVIDE A 12"x24"x24" CATCH BASIN WITH END OUTLET.	-	-	3"	-	
TD-2	ZURN	Z882-12	12" WIDE, PRE-SLOPED, TRENCH DRAIN SYSTEM, BLACK ACID RESISTANT EPOXY COATED CLASS C DUCTILE GRATE. PROVIDE A 12"x24"x24" CATCH BASIN WITH END OUTLET.	-	-	4"	-	
FD	ZURN	FD-2200	CAST IRON FLOOR DRAIN WITH NICKEL STRAINER	-	-	2"-3"	-	
SK-1	AMERICAN STANDARD	-	COLONY 25x22 STAINLESS STEEL, DROP-IN SINK WITH COLONY PRO SINGLE CONTROL FAUCET.	1/2"	1/2"	1 1/2"	1 1/2"	
WH-1	ZURN	Z1321	NON FREEZE WALL HYDRANT, ANTI-SIPHON, AUTO DRAINING.	3/4"	-	-	-	
HB-1	ZURN	Z1341XL	INDOOR WALL FAUCET WITH VACUUM BREAKER	3/4"	-	-	-	
PRESSURE WASHER	WHITCO	4018 ENG	NATURAL GAS FIRED, HOT WATER PRESSURE WASHER. 4.0GPM @ 1800PSI, 5HP, 230-1PH, 22AMPS. 365 CFH NATURAL GAS	3/4"	-	-	-	
WB-1	OATEY	QUADTRO	WASHING MACHINE OUTLET BOX WITH SHUT-OFF VALVES FOR COLD AND HOT WATER, WATER HAMMER ARRESTORS AND A 2" DRAIN OPENING	1/2"	1/2"	2"	1 1/2"	
LT-1	FIAT	TAT1	HEAVY DUTY LAUNDRY TUB WITH LEGS. 20"x24" BASIN. 4" CENTERSET CHROME PLATED FAUCET WITH WRIST BLADE HANDLES.	1/2"	1/2"	2"	1 1/2"	
EEW-1	BRADLEY	HALO S19224	WALL MOUNTED EYE/ FACE WASH BRADTECH GALV STEEL PIPING, BRASS BALL VALVE, PLASTIC BOWL NO DUST COVER, 304SS HANDLE, WASTE TAILPIECE.	1/2"	-	1 1/4"	-	

NOTES:

1. INSULATE EXPOSED DRAIN PIPING, UNDER LAVATORIES, WITH TRUEBRO #102G



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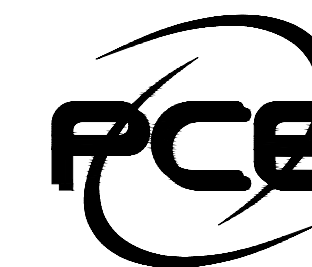
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NO.	DESCRIPTION	DATE
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EAST CHINA TOWNSHIP
DPW BUILDING

DRAWING TITLE	
PLUMBING SCHEDULES & DETAILS	
PROJECT NO.	
DATE	11/15/2024
DRAWN	CJL
CHECKED	JDL
P201	
CAD FILE NO.	
SCALE	NTS
SHEET	4 OF 7



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HVAC NOTES

- 3" VENT AND 3" COMBUSTION AIR FROM FURNACE THROUGH THE EXTERIOR WALL. TERMINATE PER FURNACE MANUFACTURERS RECOMMENDATIONS.
- EXHAUST FAN WALL CAP.
- BALANCE THE OUTSIDE AIR TO THE FLOW RATE INDICATED.
- PROVIDE A 24V MOTORIZED DAMPER WIRED TO OPEN WHEN FURNACE FAN IS "ON"
- EXTEND A $\frac{3}{8}$ " REFRIGERANT LIQUID LINE AND A $\frac{1}{8}$ " REFRIGERANT SUCTION LINE FROM CONDENSING UNIT TO FURNACE COIL.
- AIR COMPRESSOR AND FILTER PROVIDED BY OWNER. CONNECT THE COMPRESSED AIR PIPING TO THE DISCHARGE SIDE OF THE FILTER.

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EAST CHINA TOWNSHIP DPW BUILDING

DRAWING TITLE
FIRST FLOOR HVAC PLAN

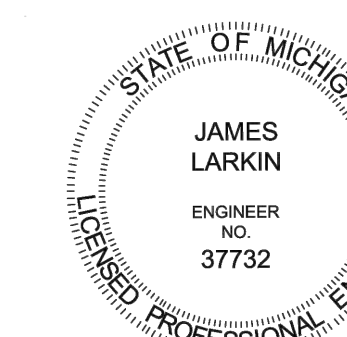
PROJECT NO.
DATE 11/15/2024
DRAWN CJL
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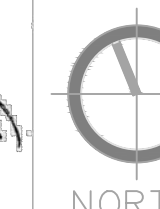
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SCALE $\frac{1}{4}" = 1'-0"$ SHEET 5 OF 7

FIRST FLOOR HVAC PLAN

Scale: $\frac{1}{4}" = 1'-0"$



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HVAC NOTES

- 4" CONCRETE PAD UNDER POWER WASHER.
- 12"Ø VENT TO ROOF
- INSTALL EXHAUST DUCTWORK IN THE TRUSS SPACE ABOVE THE CEILING.
- 4" COMBUSTION AIR INTAKE WALL CAP FOR RADIANT HEATER. INSTALL AT 15'-0" AFF.
- 4" VENT WALL CAP FOR RADIANT HEATER. INSTALL AT 15'-0" AFF.
- INSTALL RADIANT HEATER AT 15'-0" AFF. COORDINATE LOCATION WITH LIGHTING, OVERHEAD DOORS AND OTHER EQUIPMENT.
- INSTALL RADIANT HEATER REFLECTOR ON A 30 DEGREE ANGLE.

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EAST CHINA TOWNSHIP DPW BUILDING

DRAWING TITLE

MEZZANINE LEVEL HVAC PLAN

PROJECT NO.

DATE 11/15/2024

DRAWN C.JL

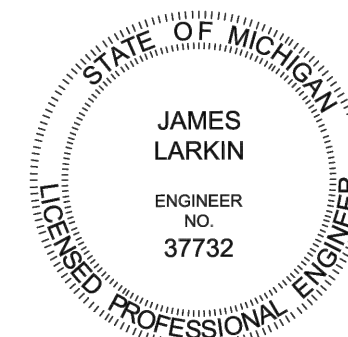
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SCALE 1/8" = 1'-0" SHEET

6 OF 7

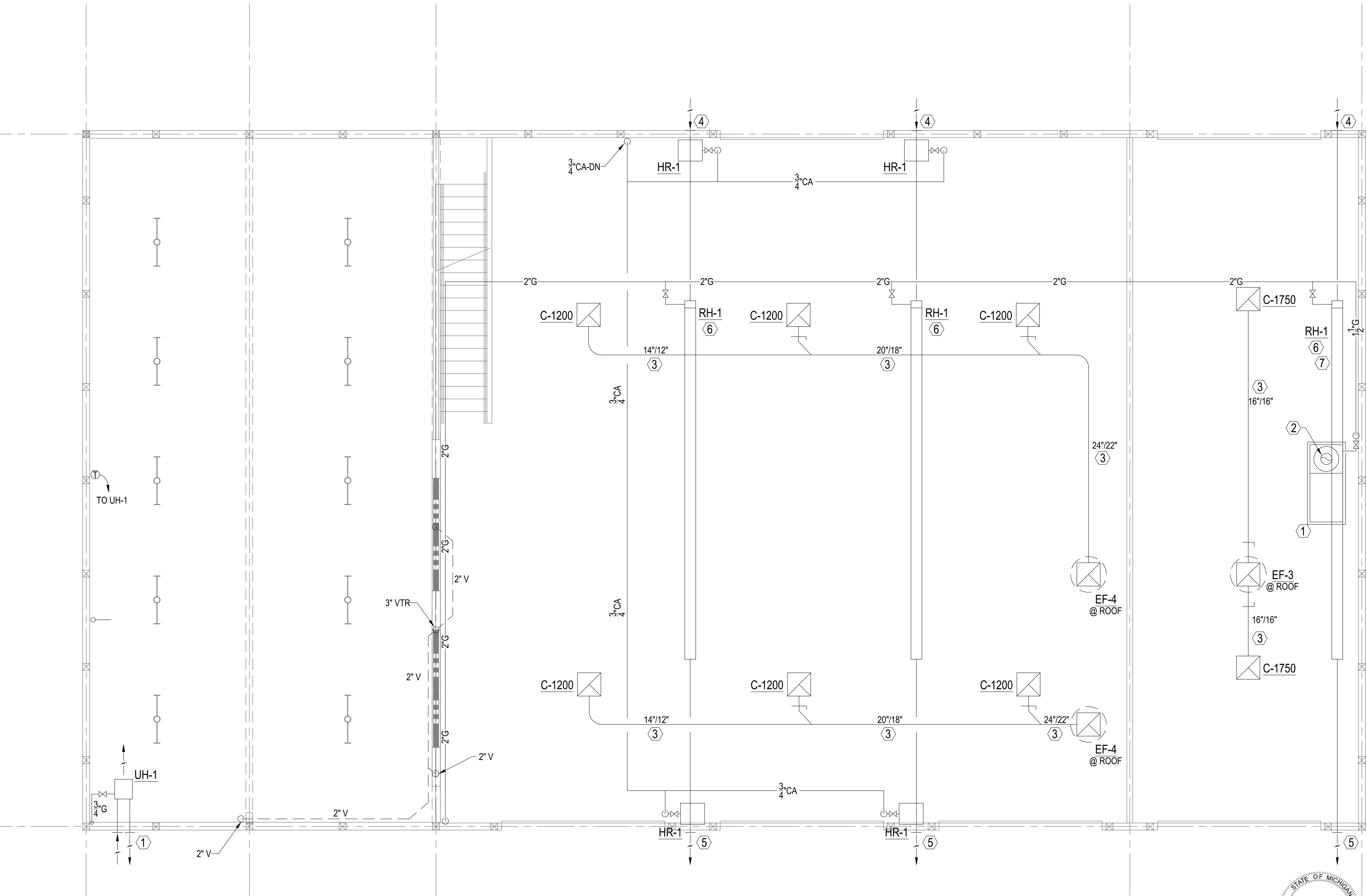


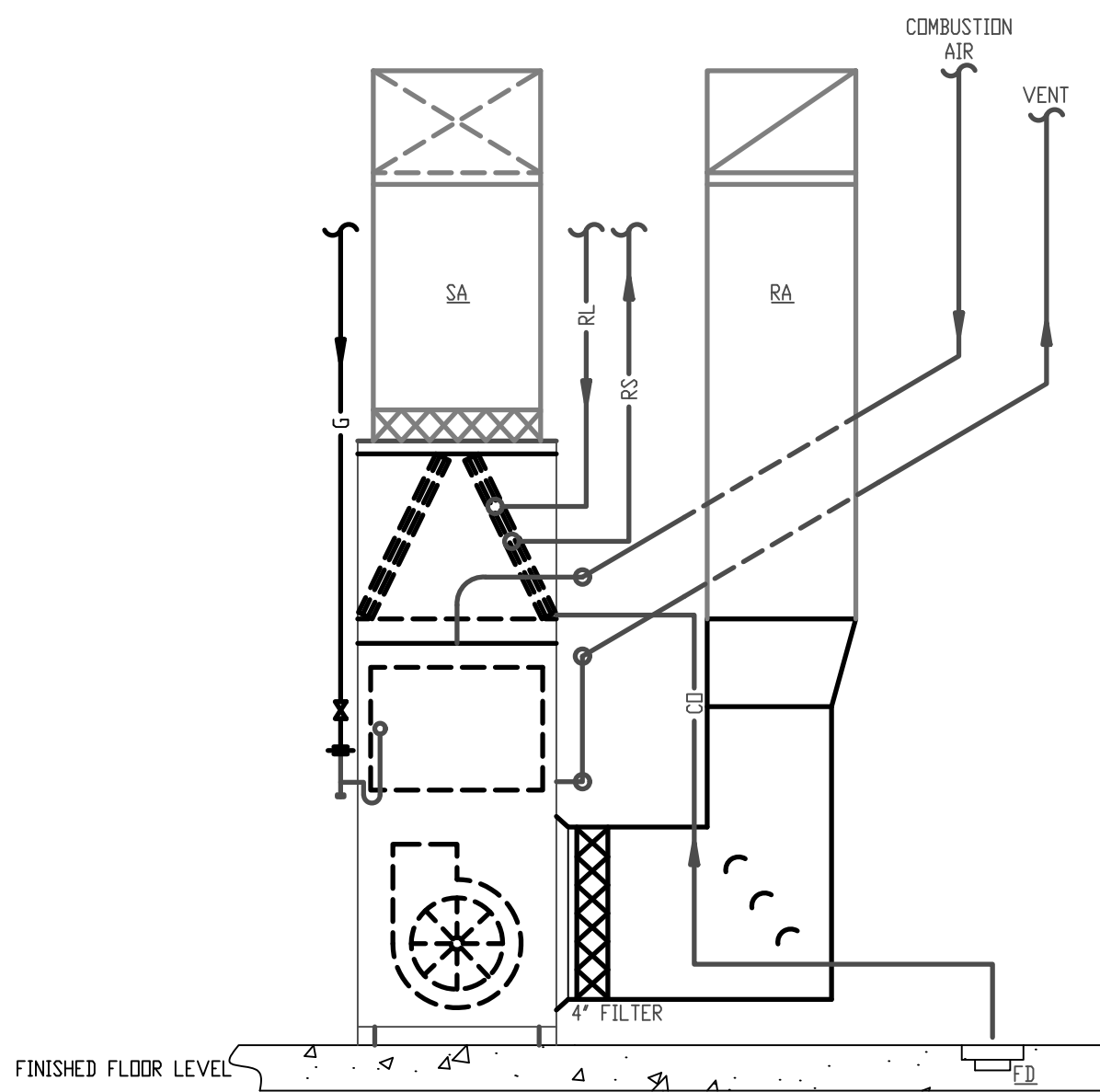
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MEZZANINE LEVEL HVAC PLAN

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





TYPICAL FURNACE DETAIL
NO SCALE

MISCELLANEOUS EQUIPMENT SCHEDULE									
TAG	MANUF.	MODEL	DESCRIPTION	RATINGS	ELECTRICAL				OPTIONS
					VOLTAGE	PHASE	HP	MCA	
F-1	BRYANT	926TA60100V21	GAS FIRED FURNACE	1600 CFM @ 0.5" W.C., 100 MBH INPUT, 96% EFFICIENCY, TWO-STAGE GAS VALVE, MULTI-SPEED ECM MOTOR, PROVIDE A MATCHING 4 TON COOLING COIL WITH TXV.	120	1	1.0	13.3	3" CONCENTRIC VENT KIT, DRAIN KIT AND EXTERIOR FILTER RACK WITH 2" PLEATED FILTERS
CU-1	BRYANT	048-C	CONDENSING UNIT	48 MBH NOMINAL, 2-STAGE SCROLL COMPRESSOR, R-410A REFRIGERANT, 1/8" LIQUID LINE, 1-1/8" SUCTION LINE, MOP=80A	208/230	1	N/A	37.3	PROGRAMMABLE THERMOSTAT.
UH-1	MODINE	PTC-085	UNIT HEATER	GAS FIRED, SEPARATED COMBUSTION, HIGH EFFICIENCY CONDENSING UNIT HEATER, 85 MBH INPUT, 79 MBH OUTPUT, 1650 CFM, 442BT, 43FT THROW, 1/8 HP, 120V/1PH, 4.4 AMPS	120	1	1/8	4.4	PROGRAMMABLE THERMOSTAT.
HR-1	COXREEL	P-LP-450	COMPRESSED AIR HOSE REEL	50' OF 3/4" COMPRESSED AIR HOSE RATED AT 250 PSI, HEAVY DUTY STEEL CONSTRUCTION, SPRING RETRACTABLE.	--	--	--	--	-

REGISTERS, GRILLE & DIFFUSERS SCHEDULE									
TAG	MODEL	NECK SIZE	FACE SIZE	CFM RANGE	PATTERN	MOUNT	MATERIAL	100 FPM THROW	REMARKS
A	R-OMNI	6"- 8"	12" x 12"	80 - 200	360°	LAY-IN	ALUMINUM	6 FT	1,2,3,4
B	50 F	12" x 12"	12" x 12"	100 - 380	--	LAY-IN	ALUMINUM	--	1,2,3,4
C	33RL-55	24" x 24"	24" x 24"	1200 - 1750	--	SURFACE	ALUMINUM	--	1,2,3,4
D	300 FL	8" x 6"	10" x 8"	110	2-WAY	DUCT	ALUMINUM	15 FT	1,2,3,4,5

- BASED ON : TITUS
- NOTES:
1. MAX. NC = 30
 2. MAX. APD = 0.10 INCHES
 3. SELECT BORDER TO MATCH ROOM FINISH SCHEDULE.
 4. WHITE POWDER COATED FINISH
 5. INTEGRAL BALANCING DAMPER

RADIANT HEATER SCHEDULE													
TAG	MANUF.	MODEL	GAS TYPE	MBH IN	LENGTH	MOUNTING HEIGHT	WEIGHT	MOUNTING ANGLE	ELECTRICAL				REMARKS
									VOLTAGE	PHASE	IGNITION CURRENT	RLA	
RH-1	RE-VERBA-RAY	HL2-55-30-75	NATURAL	75	30 FT	15'	195	0°- 30°	120	1	4.8	1.1	1,2,3,4,5

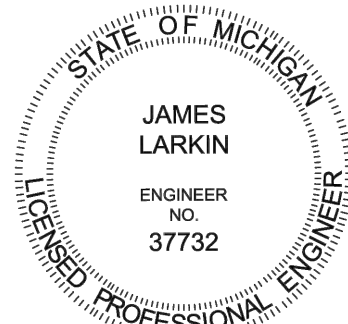
- NOTES:
1. PROVIDE A 24V, 2-STAGE DIGITAL, 7-DAY PROGRAMMABLE THERMOSTAT.
 2. PROVIDE ANGLE MOUNTING BRACKETS AND TUBE HEATER CHAIN SETS AS REQUIRED.
 3. PROVIDE VENT PACKAGE FOR INTAKE AND EXHAUST.
 4. PROVIDE A TWO-STAGE GAS VALVE.
 5. STAINLESS STEEL CONSTRUCTION.

EXHAUST FAN SCHEDULE										
TAG	MANUF.	MODEL	CFM	ESP	HP	RPM	DRIVE	ELECTRICAL		NOTES
								VOLTAGE	PHASE	
EF-1	GREENHECK	SP-110-VG	100	0.25	1/4	1285	DIRECT	120	1	1
EF-2	GREENHECK	SP-A200-QD	200	0.25	1/4	1350	DIRECT	120	1	1
EF-3	GREENHECK	GB-180	3500	0.25	1.0	990	BELT	208	3	2,3
EF-4	GREENHECK	GB-180	3600	0.25	1.0	990	BELT	208	3	2,3

- NOTES:
1. PROVIDE A WC-4 WALL CAP.
 2. PROVIDE A ROOF CURB TO MATCH ROOF SLOPE.
 3. PROVIDE A MOTORIZED BACKDRAFT DAMPER.

ELECTRIC HEATER SCHEDULE												
TAG	MANUFACTURER	MODEL	LOCATION	CFM	MIN. MBH	KW	EAT (°F)	LAT (°F)	ELECTRICAL			REMARKS
									VOLTAGE	PHASE	FLA	
ECH-1	Q MARK	SSH04008	VARIOUS	350	13.6	4.0	65	100	240	1	19.2	15 3/4" L x 19 3/8" H x 4" D 1-7

- NOTES:
1. PROVIDE A DISCONNECT SWITCH.
 2. 1" THROW AWAY FILTERS.
 3. UNIT MOUNTED TWO-STAGE THERMOSTAT
 4. FRONT INLET/FRONT OUTLET
 5. BASE KIT
 6. ON-OFF SWITCH
 7. SURFACE MOUNTING FRAME



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NO.	DESCRIPTION	DATE
	100% CD	11/18/2024

EAST CHINA TOWNSHIP DPW BUILDING

DRAWING TITLE

HVAC SCHEDULES & DETAILS

PROJECT NO.

DATE 11/15/2024

DRAWN CJL

CHECKED JDL

M201

CAD FILE NO.

SCALE NTS

SHEET 7 OF 7

ELECTRICAL SYMBOLS LEGEND

OUTLETS	FIXTURES	SERVICE and EQUIPMENT
○ SINGLE RECEPTACLE (120 VOLT)	□ LIGHT FIXTURE	TVSS TRANSIENT VOLTAGE SURGE SUPPRESSION
⊕ DUPLEX RECEPTACLE	— STRIP FIXTURE	VFD VARIABLE FREQUENCY DRIVE
⊕ EMERGENCY RECEPTACLE	⊕ EMERGENCY LIGHT FIXTURE	T TRANSFORMER
⊕ DOUBLE DUPLEX RECEPTACLE	⊕ IN-GRADE LIGHT FIXTURE	□ DISCONNECT SWITCH
⊕ FLUSH FLOOR BOX	⊕ SPOTLIGHT (number of heads shown)	⊕ MAGNETIC STARTER
⊕ SURFACE FLOOR BOX	⊕ EXIT SIGN (face & direction as shown)	COMB. STARTER
⊕ SPECIAL EQUIPMENT RECEPTACLE	⊕ WALL MOUNT LIGHT FIXTURE	PANELBOARD, SURFACE MOUNTED
▼ TELEPHONE OUTLET	⊕ CEILING LIGHT FIXTURE	PANELBOARD, FLUSH MOUNTED
▼ DATA OUTLET	— TRACK & FIXTURE	WEATHERHEAD
▼ TELEPHONE / DATA OUTLET	○ STREET TYPE POLE FIXTURE	UTILITY METER, AS REQUIRED
■ POWER POLE	□ POLE MOUNTED LIGHT FIXTURE	DIGITAL EQUIPMENT METER, AS REQUIRED
○ JUNCTION BOX	□ EXTERIOR WALL MOUNT LIGHT FIXTURE	CT CURRENT TRANSFORMERS
⊕ WALL JUNCTION BOX	□ WALLPACK LIGHT FIXTURE	GEN GENERATOR, KW SHOWN
□ PULL (JUNCTION) BOX	● SPECIAL PURPOSE LIGHT FIXTURE	TE TELEPHONE TERMINAL BOARD
□ UNDERFLOOR JUNCTION BOX	□ HIGH BAY LIGHT FIXTURE	GROUND CONNECTION PER N.E.C.
⊕ CEILING MOUNTED WIFI	⊕ EMERGENCY EGRESS LIGHT FIXTURE (number of heads shown)	WIREWAY
	⊕ DOCK LIGHT FIXTURE	TS TRANSFER SWITCH
SWITCHES	CIRCUITRY and RACEWAYS	CB ENCLOSED CIRCUIT BREAKER
\$ SINGLE-POLE SWITCH	— CONDUIT INSTALLED (by E.C.)	CAP CAPACITOR
\$ THREE-WAY SWITCH	— CONDUIT INSTALLED (by others)	CONTROL
\$ FOUR-WAY SWITCH	— CONDUIT STUB UP	⊕ THERMOSTAT
\$ SWITCH WITH PILOT LIGHT	— CONDUIT STUB DOWN	⊕ HUMIDISTAT
\$ THERMAL OVERLOAD SWITCH	→ HOME RUN (with circuit numbers)	⊕ PHOTOCELL (voltage as required)
\$ MANUAL MOTOR SWITCH	— END OF CONDUIT RUN	⊕ TIME CLOCK (24 hour U.O.N.)
\$ LOW VOLTAGE CONTROLLER	— END OF CONDUIT RUN, CAP AND STAKE	⊕ PUSHBUTTON STATION (number of buttons indicated)
\$ TIME SWITCH	— "CONDUIT RUN CONTINUES" INDICATION	CT CONTROL TRANSFORMER
⊕ DIMMER SWITCH	— FLEXIBLE PIGTAILS/CONNECTIONS	LC LIGHTING CONTACTOR
MECHANICAL	— WM WIREMOLD AS SPECIFIED	IR IRRIGATION CONTROLLER (120 volt xxVA connection by x/C)
~ SINGLE PHASE MOTOR	— PM PLUGMOLD AS SPECIFIED	
~ THREE PHASE MOTOR	— BD BUS DUCT	SOUND and SIGNAL
~ RESISTANCE HEATER, KW SHOWN	— UFD UNDERFLOOR DUCT	S SPEAKER
~ PIPE TRACE HEATER		⊕ WALL MOUNTED SPEAKER
~ ELECTRIC UNIT HEATER		⊕ WALL MOUNTED SPEAKER / CLOCK COMBO
~ ELECTRIC WATER HEATER		⊕ SINGLE FACE CLOCK
NURSE CALL		⊕ DUAL FACE CLOCK
NCC NURSE CALL CONTROLLER		⊕ VIDEO INPUT
M MASTER STATION		⊕ AUDIO / VIDEO INPUT
P EMERGENCY PULL STATION		⊕ BELL
E EMERGENCY PUSH STATION		⊕ VOLUME CONTROL
CB CODE BLUE STATION		⊕ BUZZER
A PENDENT INTERFACE		⊕ CHIME
B BED / LIGHT INTERFACE		⊕ TELEVISION OUTLET
B1 SINGLE BED STATION		⊕ MICROPHONE OUTLET
B2 DUAL BED STATION		⊕ INTERCOM OUTLET
SR STAFF REGISTER STATION		⊕ CAMERA
S STAFF STATION		⊕ DOOR CONTACT
DS DUTY STATION		⊕ MOTION DETECTOR
DESIGNATIONS		⊕ BEAM DETECTOR
◇ DEMOLITION NOTE		⊕ KEY PAD
△ PLAN NOTE		SSCP SECURITY SYSTEM CONTROL PANEL
△ ADDENDUM NOTE		CCTV CCTV CONTROL PANEL
		CR CARD READER
		SS STUDENT STATION
		AS ADMINISTRATION STATION
		TS TEACHER STATION
		GB GLASS BREAK

GENERAL ELECTRICAL NOTES

- ALL WALL AND FLOOR PENETRATIONS ARE TO BE SEALED TO MAINTAIN ORIGINAL RATING.
- ALL CONDUITS TO BE FIELD ROUTED ALONG EXISTING PIPING AND STRUCTURAL STEEL.
- THE DIVISION 26 CONTRACTOR SHALL BE RESPONSIBLE FOR PATCHING THE WALLS TO MATCH THE ADJACENT SURFACES BEHIND ALL SURFACE MOUNTED EQUIPMENT.
- CONTRACTOR SHALL FIELD VERIFY ALL EQUIPMENT VOLTAGES AND LOADS PRIOR TO INSTALLING SERVICE TO EQUIPMENT.

DATA AND PHONE NOTES

- COORDINATE AND PROVIDE ALL BACKBOX, RACEWAY, AND FINAL LOCATION OF DEVICE INDICATED DATA CONTRACTOR.
- ELECTRICAL CONTRACTOR TO PROVIDE RACEWAY TO ACCESSIBLE CEILING SPACE.

SECURITY AND CAMERA NOTES

- COORDINATE AND PROVIDE ALL BACKBOX, RACEWAY, AND FINAL LOCATION OF DEVICE INDICATED ON SECURITY CONTRACTOR.
- ELECTRICAL CONTRACTOR TO PROVIDE RACEWAY TO ACCESSIBLE CEILING SPACE .

ABBREVIATIONS LEGEND

A AMPS	GC GENERAL CONTRACTOR	P POLE
AC ABOVE COUNTER	GFI GROUND FAULT INTERRUPTER	P PUMP
ACU AIR CONDITIONING UNIT	GROUND GROUND	PB PULL BOX
AFF ABOVE FINISHED FLOOR		PNL PANEL
AFJ AUTHORITY HAVING JURISDICTION	H HUMIDIFIER	PRV POWER ROOF VENTILATOR
AHU AIR HANDLING UNIT	HID HIGH INTENSITY DISCHARGE	PVC POLY VINYL CLORIDE
AIC AMPS INTERRUPTING CAPACITY	HOA HAND-OFF-AUTO SELECTOR SWITCH	PWR POWER
AS ABOVE SHELF	HP HORSEPOWER	
ATS AUTOMATIC TRANSFER SWITCH	HR HOUR	RECEPT RIGID GALVANIZED STEEL CONDUIT
	HVAC HEATING/VENTILATING/AIR CONDITIONING	RTU ROOF TOP UNIT
B BOILER	IG ISOLATED GROUND	
BC BELOW COUNTER	IMC INTERMEDIATE METAL CONDUIT	SF SUPPLY FAN
BLDG BUILDING	JB JUNCTION BOX	SPEC SPECIFICATIONS
CHLR- COND (C) CHILLER	LC LIGHT CONTROL	SW SWITCH
CKT CIRCUIT	LT LIGHTING	SWBD SWITCHBOARD
CKT BKR CIRCUIT BREAKER	LTG LIQUID TIGHT FLEXIBLE METAL CONDUIT	TCC TEMPERATURE CONTROL CONTRACTOR
CT- COOLING TOWER		TR TAMPER PROOF RECEPTACLE
CU- CONDENSING UNIT		TS TAMPER PROOF SWITCH
CUH- CABINET UNIT HEATER		TYP TYPICAL
DFU DUCT FURNACE	MAX MAXIMUM	UF UNDER FLOOR
DISC DISCONNECT	MC MECHANICAL CONTRACTOR	UH UNIT HEATER
DWG DRAWING	MCC MOTOR CONTROL CENTER	UL UNDERWRITERS' LABORATORIES, INC.
DWH DOMESTIC WATER HEATER	MIN MINIMUM	UNO UNLESS NOTED OTHERWISE
	MLO MAIN LUG ONLY	
EBB- ELECTRIC BASEBOARD	MT MOUNT	V VOLTS
EC ELECTRICAL CONTRACTOR	MTD MOUNTED	VL VERIFY LOCATION WITH OWNER
EF EXHAUST FAN	MTG MOUNTING	
EM EMERGENCY	MUAU MAKE-UP AIR UNIT	W WATTS
EMT ELECTRICAL METALLIC TUBING		W/ WITH
EWC ELECTRIC WATER COOLER	NC NORMALLY CLOSED	W/O WITHOUT
EXIST (E) EXISTING	NIC NOT IN CONTRACT	WP WEATHER PROOF
	NL NIGHT LIGHT	
	NO NORMALLY OPEN	
	NTS NOT TO SCALE	XFMR TRANSFORMER
FLA FULL LOAD AMPS		
FLEX FLEXIBLE CONDUIT		
FLR FLOOR		
FLUOR FLUORESCENT		
FSES FOOD SERVICE EQUIP. SUPPLIER		
F/S FIRE/SMOKE		
FU FURNACE		

LIGHTING FIXTURE SCHEDULE						
TYPE	MANUFACTURER	CATALOG NO.	DESCRIPTION AND COMMENTS	BALLAST INFO	FIXTURE MOUNTING HEIGHT	LAMPS
LA	LITHONIA OR EQUAL	JEBL-12000LM-PFL-MVOLT-40K-80CRI-NLTAIR-RSBOR6	LED HIGH BAY FIXTURE WITH BUILT IN SENSOR AND WIRELESS MESH SYSTEM.	0-10V	22 FOOT AFF	12000 LUMENS 95W, 4000K LED
LAEM	LITHONIA OR EQUAL	JEBL-12000LM-PFL-MVOLT-40K-80CRI-NLTAIR-RSBOR6	LED HIGH BAY FIXTURE WITH BUILT IN SENSOR AND WIRELESS MESH SYSTEM. PROVIDE REMOTE 90 MINUTE 14W EMERGENCY BATTERY BACKUP.	0-10V	22 FOOT AFF	12000 LUMENS 95W, 4000K LED
LB	LSI METALUX DAY BRIGHT COLUMBIA	AST-4-4L-SA-UNV-840 4SNLED-LD5-42SL-SLN-UNV-PI/CPH-L840-CD-1-AYC-CHAIN/SET FSS430L840-UNV-DIM MPS4-40LW-CW-EDU-EOR / INT & CSHC	CHAIN HUNG LED 4' STRIP LIGHT FIXTURE WITH FEED THROUGH WIRING.	0-10V	9 FOOT AFF	3000 LUMEN 33W, 4000K LED
LBEM	LSI METALUX DAY BRIGHT COLUMBIA	AST-4-4L-SA-UNV-840-EM10 4SNLED-LD5-42SL-SLN-UNV-EL14W-PI/CPH-L840-CD-1-AYC-CHAIN/SET FSS430L840-UNV-DIM-EMLED MPS4-40LW-CW-EDU-ELL14-EOR / INT & CSHC	CHAIN HUNG LED 4' STRIP LIGHT FIXTURE WITH FEED THROUGH WIRING, PROVIDE EMERGENCY BATTERY BACKUP.	0-10V	9 FOOT AFF	3000 LUMEN 33W, 4000K LED
LC	LSI LITHONIA COLUMBIA DAY BRIGHT	OPT224-LED-FS1-UNV-DIM 2BLT2 20L ADP GZ1 LP840 LCAT22-40MWG-EDU 2FGXG20L840-2-RS-UNV-DIM	LED 2X2 TROFFER.	0-10V	GRID	2000 LUMENS 16W, 4000K LED
LC0EM	LSI LITHONIA COLUMBIA DAY BRIGHT	OPT224-LED-FS1-UNV-DIM-EM 2BLT2-20L-ADP-GZ1-LP840-E10WLCP LCAT22-40MWG-EDU-ELL14 2FGXG20L840-2-RS-UNV-DIM-BSL10LST	LED 2X2 TROFFER, PROVIDE EMERGENCY BATTERY BACKUP.	0-10V	GRID	2000 LUMENS 16W, 4000K LED
LDEM	LSI EVENLITE MCGRAW EDISON GARDCO	GST-2L-FT-UNV-40K7-BLK-BB WW-EM-BZ-CT ISW-SA1-E-740-U-T2-BZ 102L-16L-530-NW-G1-3-EBPC-UNV-QD-BZ	EXTERIOR EGRESS WALL PACK, PROVIDE EMERGENCY BATTERY BACKUP.	0-10V	9 FOOT ABOVE GRADE	1600 LUMENS 15W, 4000K LED
LE	LSI LITHONIA COLUMBIA	OPT24-LED-FS1-UNV-DIM 2BLT4 20L ADP GZ1 LP840 LCAT24-40MWG-EDU	LED 2X4	0-10V	GRID	4000 LUMENS 30W, 4000K LED
LEEM	LSI LITHONIA COLUMBIA	OPT24-LED-FS1-UNV-DIM-EM 2BLT4-20L-ADP-GZ1-LP840-E10WLCP LCAT24-40MWG-EDU-ELL14	LED 2X4, PROVIDE EMERGENCY BATTERY BACKUP.	0-10V	GRID	4000 LUMENS 30W, 4000K LED
LF	LITHONIA OR EQUAL	LDN4-40T7-L04AR-LSS-MVOLT-EZ1	4 INCH LED CAN LIGHT	0-10V	GRID	750 LUMEN 9W, 4000K LED
LH	MCGRAW EDISON OR EQUAL	GALN-SA4B-740-U-T4FT	LED SITE LIGHT - POLE MOUNTED - TYPE 4 FORWARD THROW DISTRIBUTION	0-10V	30 FOOT ABOVE GRADE	22000 LUMENS 108W, 4000K LED
LH POLE	LSI HUBBELL LIGHTING LITHONIA LYTEPOLES	4SD-B3-S07G27-S-BLK SSS-4-11-27-CW-B5-OT-N-BZ SSS-27-4C-DM19AS-DOBXD 101-5011-27-D1-DB	EXTERIOR STRAIGHT STEEL POLE. COORDINATE FINISH COLOR WITH LIGHT FIXTURE.	-	-	-
LG	MCGRAW EDISON OR EQUAL	GALN-SA2B-740-U-T4FT	LED SITE LIGHT - WALL MOUNTED - TYPE 4 FORWARD THROW DISTRIBUTION	0-10V	17 FOOT ABOVE GRADE	12000 LUMEN 82W, 4000K LED
LJ	LITHONIA OR EQUAL	FML4W-48-AL06-SEF-840-MVOLT	4' SURFACE MOUNT LINEAR LIGHT, WET LISTED.	0-10V	CEILING	5000 LUMENS 50W, 4000K LED
LJEM	LITHONIA OR EQUAL	FML4W-48-AL06-SEF-840-MVOLT	4' SURFACE MOUNT LINEAR LIGHT, WET LISTED. PROVIDE 14W REMOTE BATTERY BACKUP.	0-10V	CEILING	5000 LUMENS 50W, 4000K LED
LK	LITHONIA OR EQUAL	6VF-18TRT-6LRF1-MVOLT	6" WATER RATED LED DOWNLIGHT	-	RECESSED	1200 LUMENS 18W, 4000K LED
XA	LSI LITHONIA COMPASS CHLORIDE	VE-U-6-R-1C-WB-SA EDO-1-R-WM ELS19NE ER44RL	LED SURFACE MOUNT EDGE LIT EXIT SIGN.	-	UNIVERSAL	LED

- LIGHTING NOTES
- ALL LIGHT FIXTURE FINISHES SHALL BE APPROVED BY OWNER/ARCHITECT PRIOR TO ORDER.

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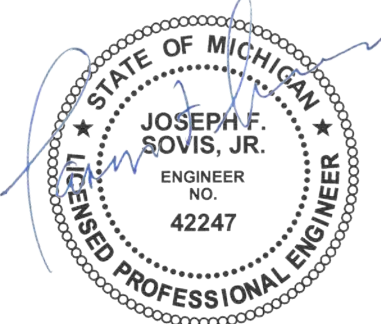
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DRAWING STATUS:
☐ PRELIMINARY CONSTRUCTION
☒ FINAL CONSTRUCTION
☐ RECORD DOCUMENTS

SEAL:


DATE: 11/18/2024
REV. DATE:

ELECTRICAL SYMBOLS, NOTES, ABBRV. & LIGHT FIXTURES

NEW DPW SERVICE BUILDING

811 Know what's below
Call before you dig.

JOB NUMBER: 21-102

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SCALE: -

DIVISION 26
ELECTRICAL SPECIFICATIONS

DIVISION 26 - ELECTRICAL SPECIFICATIONS

DESCRIPTION OF WORK
WORK SHALL INCLUDE, BUT IS NOT NECESSARILY LIMITED TO, THE FOLLOWING:

1. DEMOLITION
2. TEMPORARY POWER AND LIGHTING
3. CONDUIT AND RACEWAYS
4. CONDUCTORS
5. GROUNDING
6. SAFETY DISCONNECT SWITCHES
7. DEVICES, SWITCHES AND RECEPTACLES
8. DISTRIBUTION, LIGHTING AND RECEPTACLE PANELS
9. METERING EQUIPMENT
10. TRANSFORMERS - MEDIUM AND LOW VOLTAGE
11. MOTOR STARTERS AND CONTROLS
12. LIGHTING, LIGHTING CONTACTORS AND CONTROLS
13. SECURITY AND COMMUNICATION SYSTEMS

STANDARDS

ELECTRICAL MATERIALS AND EQUIPMENT SHALL CONFORM TO THE REQUIREMENTS LISTED BELOW. ALL ELECTRICAL MATERIALS AND EQUIPMENT SHALL BE INSTALLED IN ACCORDANCE WITH THE RECOMMENDATIONS OF THE MANUFACTURER. IN THE ABSENCE OF SPECIFIC INSTRUCTION IN THE TECHNICAL SPECIFICATIONS, EQUIPMENT AND INSTALLATION SHALL CONFORM TO THE FOLLOWING APPLICABLE CODES, STANDARDS AND REGULATIONS, LATEST EDITIONS:

1. AMERICAN SOCIETY FOR TESTING MATERIALS (ASTM).
2. AMERICAN NATIONAL STANDARD INSTITUTE (ANSI).
3. UNDERWRITER'S LABORATORIES, INC. (UL).
4. AMERICAN WELDING SOCIETY CODE (AWS).
5. LOCAL BUILDING, ELECTRICAL, AND FIRE CODES.
6. NATIONAL ELECTRICAL CODE (NEC).
7. SERVICE RULES AND REGULATIONS OF LOCAL ELECTRICAL UTILITY COMPANY.
8. NATIONAL ELECTRICAL MANUFACTURER'S ASSOCIATION (NEMA).
9. U.S. DEPARTMENT OF HEALTH & HUMAN SERVICES "HRS-M-HF" 84_1.
10. OCCUPATIONAL SAFETY AND HEALTH ACT (OSHA).
11. NATIONAL FIRE PROTECTION ASSOCIATION (NFPA).
12. AMERICANS WITH DISABILITIES ACT (ADA).

CODES AND ORDINANCES

COMPLY WITH ALL LOCAL, STATE AND NATIONAL CODES AND ORDINANCES. COMPLY WITH OWNER'S SPECIFICATIONS, GUIDELINES AND REQUIREMENTS. BIDDERS SHALL FAMILIARIZE THEMSELVES WITH CODE REQUIREMENTS FOR THE TYPE OF FACILITY WHERE THE WORK IS BEING PERFORMED.

PERMITS AND INSPECTION FEES

THE CONTRACTOR SHALL OBTAIN AND PAY FOR ALL REQUIRED PERMITS AND INSPECTION FEES. FINAL INSPECTION CERTIFICATES BY THE AUTHORITIES HAVING JURISDICTION, INCLUDING THE LOCAL ELECTRICAL INSPECTOR AND FIRE MARSHAL, SHALL BE OBTAINED BY THE CONTRACTOR. COPIES SHALL BE SUBMITTED IN DUPLICATE TO THE OWNER.

SUBMITTALS

SUBMIT PRODUCT DATA, SHOP DRAWINGS, WIRING DIAGRAMS, AND DESCRIPTIVE LITERATURE FOR ALL ELECTRICAL MATERIALS AND EQUIPMENT TO BE INSTALLED UNDER THIS CONTRACT. MAKE SUBMITTALS WITHIN THIRTY (30) DAYS AFTER THE SIGNING OF THE CONTRACT. PRODUCT SHIPMENTS ARE NOT PERMITTED UNTIL SUBMITTALS HAVE RECEIVED FINAL APPROVAL.

AS-CONSTRUCTED DOCUMENTS

UPON PROJECT COMPLETION, THE CONTRACTOR SHALL PROVIDE A MARKED-UP COPY OF THE ORIGINAL CONTRACT DOCUMENTS TO THE OWNER, INDICATING CHANGES, ADDITIONS AND MODIFICATIONS TO THE ORIGINAL DESIGN. DRAWINGS SHALL BE MANUALLY-PREPARED.

OPERATION & MAINTENANCE MANUALS

PROVIDE OPERATING INSTRUCTIONS AND MAINTENANCE INFORMATION, FOR EACH SYSTEM AND EQUIPMENT SPECIFIED, FOR USE BY FACILITY OPERATION AND MAINTENANCE PERSONNEL. MANUALS SHALL BE PROVIDED IN 3-RING BINDERS OR ELECTRONIC COPIES. THE MANUALS SHALL INCLUDE:

1. WIRING DIAGRAMS, CONTROL DIAGRAMS, AND CONTROL SEQUENCE FOR EACH SYSTEM AND ITEM OF EQUIPMENT.
2. START-UP, PROPER ADJUSTMENT, OPERATING, LUBRICATION, AND SHUTDOWN PROCEDURES.
3. SAFETY PRECAUTIONS.
4. THE PROCEDURE TO BE FOLLOWED IN THE EVENT OF EQUIPMENT FAILURE.
5. OTHER ITEMS OF INSTRUCTION AS RECOMMENDED BY THE MANUFACTURER OF EACH SYSTEM OR ITEM OF EQUIPMENT.

TRAINING

DURING OR UPON COMPLETION OF THE PROJECT, CONTRACTOR SHALL PROVIDE TRAINING OF OPERATION AND MAINTENANCE PERSONNEL FOR ALL REQUIRED ELECTRICAL COMPONENTS AND SYSTEMS. TRAINING SHALL BE CONDUCTED AT THE OWNER'S FACILITY. COORDINATE WITH THE OWNER FOR SCHEDULE.

SIGNAGE AND IDENTIFICATION OF SYSTEMS AND EQUIPMENT

1. OPERATING INSTRUCTIONS: PRINT OR ENGRAVE INSTRUCTIONS AND FRAME UNDER GLASS OR APPROVED LAMINATED PLASTIC. POST INSTRUCTIONS IN VIEW OF EQUIPMENT. PROVIDE WEATHER-RESISTANT MATERIALS FOR EXTERIOR APPLICATIONS.
2. EQUIPMENT: PROVIDE NAMEPLATES FOR ALL EQUIPMENT AND DEVICES. NAMEPLATES SHALL BE SELF-ADHESIVE WITH ENGRAVED, LAMINATED ACRYLIC OR MELAMINE LABELS. PROVIDE NAMEPLATES WITH WHITE LETTERS ON A BLACK BACKGROUND. MINIMUM LETTER HEIGHT SHALL BE 1/8-INCH.
3. WARNING SIGNS: PROVIDE A SELF-ADHESIVE WARNING LABEL THAT IS FACTORY PRINTED AND MULTI-COLOR. COMPLY WITH N.E.C. 70 AND 29 CFR 1910.145. LABELS FOR MULTIPLE POWER SOURCES SHALL READ: "DANGER - ELECTRICAL SHOCK HAZARD - EQUIPMENT HAS MULTIPLE POWER SOURCES". LABELS FOR OTHER EQUIPMENT REQUIRING WORK SPACE CLEARANCES SHALL READ: "WARNING - OSHA REGULATION - AREA IN FRONT OF ELECTRICAL EQUIPMENT MUST BE KEPT CLEAR FOR 36-INCHES".
4. ARC-FLASH WARNING SIGNS: PROVIDE A SELF-ADHESIVE ARC-FLASH WARNING LABEL ON ALL SAFETY SWITCHES, STARTERS, SWITCHBOARDS, PANELBOARDS AND OTHER REQUIRED EQUIPMENT. LABEL SHALL READ: "WARNING: ARC FLASH AND SHOCK HAZARD. APPROPRIATE PPE AND TOOLS REQUIRED WHEN WORKING ON THIS EQUIPMENT."

GUARANTEE

PROVIDE WRITTEN GUARANTEE FOR ALL LABOR AND MATERIALS FOR ONE (1) YEAR AFTER OWNER'S WRITTEN ACCEPTANCE OF THE PROJECT.

LAYOUT OF THE WORK

THE CONTRACTOR SHALL EXAMINE THE AREA OF WORK, AND ALL OTHER DISCIPLINE DRAWINGS, BEFORE PROCEEDING WITH THE LAYOUT AND INSTALLATION OF THE ELECTRICAL WORK. LOCATE ELECTRICAL EQUIPMENT ESSENTIALLY AS SHOWN ON THE DRAWINGS. EXACT LOCATION OF EQUIPMENT SHALL BE DETERMINED AT THE JOB SITE, TO SUIT ACTUAL CONDITIONS. THE CONTRACTOR SHALL COORDINATE WITH OTHER TRADES PRIOR TO INSTALLATION, SO THAT ALL COMPONENTS WILL BE INSTALLED IN PROPER RELATIONSHIP AND SEQUENCE.

DEMOLITION

CONTRACTOR SHALL REMOVE ALL EQUIPMENT AND MATERIAL INDICATED ON THE DEMOLITION PLANS OR AS REQUIRED TO INSTALL THE EQUIPMENT THAT IS PART OF THIS CONTRACT. LIGHT FIXTURES INDICATED TO BE REUSED SHALL BE REMOVED, CLEANED AND RE-LAMPED BEFORE REINSTALLING. REMOVED LIGHT FIXTURES TO BE DEMOLISHED SHALL BE TURNED OVER TO THE OWNER UNLESS OTHERWISE SPECIFIED. ALL OTHER ELECTRICAL DEMOLITION ITEMS SHALL BE REMOVED FROM THE SITE. EXISTING CONDUITS MAY BE REUSED WHEN PRACTICAL. CONTRACTOR SHALL PATCH EXISTING WALL AND CEILING OPENINGS IN FINISHED AREAS UPON REMOVAL OF ELECTRICAL EQUIPMENT. CONTRACTOR SHALL PROTECT ALL EXISTING ELECTRICAL EQUIPMENT, INDICATED TO REMAIN, DURING CONSTRUCTION PERIOD.

CUTTING AND PATCHING

ALL NECESSARY CUTTING AND PATCHING OF THE BUILDING WALLS, FLOORS AND CEILINGS REQUIRED FOR REMOVAL OR INSTALLATION OF THE NEW WORK, SHALL BE FURNISHED BY THE CONTRACTOR. NO STRUCTURAL MEMBERS OF THE BUILDING SHALL BE CUT WITHOUT PRIOR APPROVAL OF THE ENGINEER. ALL NECESSARY PATCHING AND PAINTING OF SURFACES SHALL BE BY CONTRACTOR. PAINT SHALL MATCH EXISTING.

TEMPORARY POWER AND LIGHTING

CONTRACTOR SHALL SUPPLY TEMPORARY POWER AND LIGHTING IN NEW WORK AREAS AND EXISTING AREAS WHERE POWER OR LIGHTING IS BEING MODIFIED. THIS INCLUDES POWER TO EXISTING CRITICAL AND LIFE SAFETY SYSTEMS. TEMPORARY LIGHTING SHALL EQUAL OR EXCEED EXISTING LIGHT LEVELS. MINIMUM ILLUMINATION LEVEL SHALL BE 30-FOOT-CANDLES. COORDINATE ALL POWER AND LIGHTING SHUTDOWNS WITH OWNER.

ELECTRICAL SERVICE

CONTRACTOR SHALL CONTACT THE LOCAL ELECTRIC UTILITY COMPANY TO COORDINATE THE INSTALLATION OF NEW ELECTRICAL SERVICE. ALL WORK SHALL COMPLY WITH LOCAL ELECTRICAL UTILITY COMPANY RULES AND REGULATIONS. CONTRACTOR SHALL INCLUDE ALL CHARGES FOR NEW SERVICE IN BASE BID. NORMAL SECONDARY SERVICE IS 120/208 VOLT, 3-PHASE, 4 WIRE, AS INDICATED ON DRAWINGS. CONTRACTOR SHALL PROVIDE NEW SERVICE ENTRANCE CONDUIT AND CONDUCTORS FROM THE UTILITY TRANSFORMER TO THE NEW METERING CUBICLE OR CURRENT TRANSFORMER (CT) CABINET AS APPLICABLE.

CONTRACTOR SHALL PROVIDE AND INSTALL METERING EQUIPMENT, PANELS, DISCONNECTS AND EQUIPMENT AS SHOWN. ALL SERVICE EQUIPMENT SHALL BE RATED AS "SUITABLE FOR USE AS SERVICE EQUIPMENT." ELECTRICAL WATT-HOUR METER AND CURRENT TRANSFORMERS SHALL BE PROVIDED BY THE UTILITY COMPANY AND INSTALLED BY THE CONTRACTOR, UNLESS NOTED OTHERWISE.

GROUNDING

ALL ELECTRICAL EQUIPMENT SHALL BE GROUNDED IN A MANNER APPROVED BY THE AUTHORITY HAVING JURISDICTION. PROVIDE GROUND RODS AND BARE COPPER GROUND CONDUCTORS AT UTILITY TRANSFORMER PAD. PROVIDE A GROUND ROD AND GROUND CONDUCTOR AT THE BUILDING MAIN DISCONNECT SWITCH. PROVIDE A GROUND CONDUCTOR IN ALL POWER RACEWAYS. GROUND ELECTRICAL SYSTEMS PER NEC ARTICLE 250 OR AS DETAILED ON THE DRAWINGS.

ELECTRICAL DISTRIBUTION, RECEPTACLE AND LIGHTING PANELS

DISTRIBUTION PANELS SHALL BE CIRCUIT BREAKER TYPE, WITH COPPER BUS, SERVICE ENTRANCE RATED, 22,000 AIC RATED, SURFACE OR FLUSH-MOUNTED AS SHOWN. VOLTAGE AS INDICATED ON THE DRAWINGS. SUPPLY WITH BRANCH CIRCUIT BREAKERS AS INDICATED ON THE DRAWINGS. SQUARE D TYPE QMB OR EQUAL.

RECEPTACLE AND LIGHTING PANELS SHALL BE CIRCUIT BREAKER TYPE, SURFACE OR FLUSH-MOUNTED AS SHOWN, WITH COPPER BUS, MINIMUM 10,000 AIC RATED, HINGED LOCKABLE DOOR, BOLT-ON CIRCUIT BREAKERS WITH MAIN BREAKER OR MAIN LUGS ONLY (MLO) AS INDICATED ON THE DRAWINGS. VOLTAGE AS INDICATED ON THE DRAWINGS. SUPPLY WITH BRANCH CIRCUIT BREAKERS AS INDICATED ON THE PANEL SCHEDULES. SQUARE D TYPE NQ OR NF OR EQUAL.

PROVIDE GROUND FAULT CIRCUIT INTERRUPTING AND ARC FLASH CIRCUIT INTERRUPTING CIRCUIT BREAKERS WHERE INDICATED.

WIRE AND CABLE

SECONDARY FEEDERS SHALL BE TYPE THWN-2 or XHHW-2, 600V RATED, COLORED BLACK OR COLOR CODED. BRANCH CIRCUIT WIRING SHALL BE TYPE THWN-2 OR XHHW-2, 600V RATED, 7 STRAND, #12 AWG MINIMUM, COLORED HOT-BLACK, NEUTRAL-WHITE AND GROUND-GREEN. BARE COPPER GROUND WIRE SHALL BE STRANDED TYPE.

ALL BRANCH CIRCUIT WIRING SHALL BE CONTINUOUS BETWEEN JUNCTION BOXES, WITH SPLICES MADE ONLY WITHIN BOXES. SOLDERLESS PRESSURE-TYPE CONNECTORS, PROPERLY INSULATED, SHALL BE USED FOR ALL SPLICES. NO POWER WIRE SMALLER THAN #12 AWG MAY BE USED UNLESS SPECIFIED UNDER DESCRIPTIONS OF SPECIAL SYSTEMS.

LABEL ALL CONDUCTORS WITH CIRCUIT NUMBERS AT BOTH ENDS, MINIMUM.

CONDUIT AND BOXES

CONDUIT SHALL BE 3/4" MINIMUM. EXPOSED OUTDOOR CONDUIT SHALL BE RGC. BELOW GRADE CONDUIT SHALL BE SCHEDULE 40 PVC OR HDPE. EXPOSED INTERIOR CONDUIT SHALL BE EMT. CONDUIT INSTALLED IN INDUSTRIAL FACILITIES SHALL BE RGC. CONDUIT FOR CONDUCTORS GREATER THAN 480-VOLTS SHALL BE RGC. CONCEALED INTERIOR CONDUIT SHALL BE EMT. CONDUIT AND BOXES IN CORROSIVE ENVIRONMENTS SHALL BE PVC-COATED RGC. BELOW GRADE, NON-METALLIC CONDUIT CONTAINING DATA AND COMMUNICATIONS WIRING, SHALL BE INSTALLED WITH A TRACER WIRE.

WHERE FLEXIBLE CONNECTIONS ARE REQUIRED, SUCH AS CONNECTIONS TO MOTORS AND LIGHT FIXTURES, LIQUID-TIGHT, FLEXIBLE METAL CONDUIT SHALL BE USED, WHERE PERMITTED BY THE NEC.

EXTERIOR RGC CONDUIT JOINTS SHALL BE MADE WATERTIGHT BY COATING THREADS WITH A ZINC PAINT.

EXTERIOR-MOUNTED DEVICE BOXES AND BOXES INSTALLED IN INDUSTRIAL FACILITIES SHALL BE CAST TYPE. INTERIOR OUTLET BOXES SHALL BE PRESSED STEEL, COMPLETE WITH PLASTER RING IF NECESSARY, FOR EACH SWITCH, RECEPTACLE OR DEVICE SHOWN. CEILING OUTLET BOXES SHALL BE 4-INCH OCTAGON, 1-1/2-INCH DEEP. EACH OUTLET SHALL BE RIGIDLY SUPPORTED FROM THE BUILDING CONSTRUCTION (INDEPENDENT OF THE RACEWAY SYSTEM). LIGHT FIXTURE BOXES SHALL BE SUPPLIED WITH FIXTURE SUPPORT HARDWARE AND SUPPORTED TO WITHSTAND 80 LBS.

DEVICES

WALL SWITCHES SHALL BE 20A RATED, SPECIFICATION GRADE, TOGGLE TYPE, SINGLE-POLE, TWO-POSITION. PROVIDE 3-WAY AND 4-WAY AND TWO-POLE SWITCHES WHERE INDICATED. COLOR SELECTED BY OWNER OR MATCH EXISTING. LUTRON, LEVITON, G.E. OR EQUAL.

RECEPTACLES SHALL BE 20A RATED, SPECIFICATION GRADE, 125VAC, 3-WIRE DUPLEX TYPE, NEMA 5-20R UNLESS NOTED OTHERWISE. PROVIDE GROUND FAULT CIRCUIT INTERRUPTING RECEPTACLES AND ARC FLASH CIRCUIT INTERRUPTING RECEPTACLES WHERE REQUIRED OR AS INDICATED. COLOR SELECTED BY OWNER OR MATCH EXISTING. LEVITON, G.E. OR EQUAL.

PROVIDE IN-USE, HINGED LOCKABLE COVERS FOR ALL EXTERIOR-MOUNTED RECEPTACLES. NICKEL OR GALVANIZED STEEL COVERS IN INDUSTRIAL FACILITIES AND NICKEL, PLASTIC COVERS (MATCHING OWNER'S EXISTING COVERS) IN FINISHED AREAS.

SUPPORTS AND HANGERS

PROVIDE AND INSTALL NECESSARY STEEL BRACKETS, RODS, CHANNELS, CLAMPS, ETC., FOR SUPPORT OF ALL WORK UNDER THIS CONTRACT. MOUNT SECURELY TO CEILING OR WALL.

SAFETY DISCONNECT SWITCHES

SAFETY DISCONNECT SWITCHES SHALL BE CIRCUIT BREAKER OR FUSED TYPE, 250VAC OR 480VAC, CLASS A, HEAVY DUTY, DUAL HORSEPOWER RATED IN NEMA 1 ENCLOSURE OR WEATHER-PROOF AS INDICATED ON DRAWINGS. BUILDING SAFETY DISCONNECT SWITCHES SHALL BE RATED FOR "SERVICE ENTRANCE.". VOLTAGE, CURRENT RATING, NUMBER OF POLES, CIRCUIT BREAKER OR FUSES AS INDICATED. CONSTRUCTION SHALL BE SUCH THAT, WHEN THE SWITCH HANDLE IS IN THE "ON" POSITION, THE COVER CANNOT BE OPENED. SWITCHES FOR 30-AMPERE TO 200-AMPERE LOADING SHALL BE SQUARE D TYPE HD OR EQUAL.

MOTOR STARTERS

THREE-PHASE MOTOR STARTERS SHALL BE COMBINATION TYPE, 250VAC OR 480VAC AS REQUIRED, CLASS A, HEAVY DUTY, DUAL HORSEPOWER RATED WITH OVERLOADS AND TIME DELAY SWITCH. UNITS SHALL BE SQUARE D OR EQUAL.

FRACTIONAL HORSEPOWER MOTOR STARTERS SHALL BE TOGGLE TYPE, 120VAC WITH RED PILOT LIGHT.

LIGHTING FIXTURES

PROVIDE AND INSTALL LIGHT FIXTURES AS SPECIFIED IN THE LIGHTING FIXTURE SCHEDULE. ALL LIGHTING FIXTURES AND COMPONENTS SHALL BE U.L., D.L.C., ENERGY STAR AND E.T.L. APPROVED. EMERGENCY LIGHT FIXTURES AND EXIT SIGNS SHALL BE CONNECTED TO THE CIRCUIT SUPPLYING NORMAL POWER TO LIGHTING FIXTURES IN THE AREA THEY SERVE, AHEAD OF ANY SWITCHES.

PROVIDE CONCRETE FOUNDATIONS, GROUNDING AND POLES FOR POLE-MOUNTED EXTERIOR LIGHTS. REFER TO LIGHT FIXTURE SCHEDULE AND DETAILS ON THE DRAWINGS FOR POLE AND MOUNTING ARM SPECIFICATIONS.

LIGHTING CONTROL

PROVIDE A LIGHTING CONTROL PANEL AS DETAILED ON THE DRAWINGS. PANEL SHALL BE MULTI-ZONE, PROGRAMMABLE TYPE WITH ASTRONOMICAL TIME CLOCK. PROVIDE CEILING AND WALL-MOUNTED OCCUPANCY SENSORS AND SWITCHES AS SHOWN ON THE DRAWINGS. HONEYWELL, EATON, LUTRON, EDWARDS, LEVITON, SCHNEIDER OR EQUAL.

LIGHTING CONTACTORS

PROVIDE AN ELECTRICALLY-HELD LIGHTING CONTACTOR AS SHOWN ON THE DRAWINGS. CONTACTOR SHALL BE FURNISHED IN A NEMA 12 ENCLOSURE AND SHALL HAVE A HAND-OFF-AUTO SELECTOR SWITCH ON THE COVER. PROVIDE EXTERIOR MOUNTED PHOTOCELL WHERE SHOWN. SUPPLY WITH NEMA 3R ENCLOSURE FOR EXTERIOR LOCATIONS. CONTACTOR SHALL BE 3-POLE MINIMUM, RATED FOR VOLTAGE AND AMPERAGE AS SHOWN ON THE DRAWINGS. SQUARE D CLASS 8903 OR EQUAL.

SECURITY AND COMMUNICATION SYSTEMS

ELECTRICAL CONTRACTOR SHALL INSTALL RACEWAYS, J-HOOKS AND BOXES REQUIRED FOR THE SECURITY AND COMMUNICATION SYSTEMS WHERE REQUIRED AND SHALL INSTALL PULL STRING IN ALL COMMUNICATIONS RACEWAYS. ELECTRICAL CONTRACTOR SHALL PROVIDE REQUIRED POWER CIRCUITS FOR SECURITY AND COMMUNICATION SYSTEM CONTROLLERS.

SECURITY AND COMMUNICATION SYSTEM CONTROLLERS AND COMPONENTS SHALL BE PROVIDED AND INSTALLED BY LICENSED SECURITY AND COMMUNICATIONS CONTRACTORS. PROVIDE A COMPLETE SYSTEM INCLUDING, BUT NOT LIMITED TO: DATA OUTLETS, CARD READERS, PUSHBUTTON STATIONS, DOOR LOCK HARDWARE, ALARM LIGHTS AND HORNS, CABLES, MONITORS AND CONTROLLERS AS DETAILED ON THE DRAWINGS.

SECURITY AND COMMUNICATIONS CONTRACTOR SHALL PROVIDE AND INSTALL ALL CABLES, OUTLETS, CONNECTORS AND DEVICES REQUIRED. DATA AND SECURITY CABLES SHALL BE CATEGORY 6, UNLESS OTHERWISE INDICATED. PROVIDE CONTINUOUS CABLES BETWEEN DEVICES AND CONTROLLERS, PATCH PANELS OR SERVERS. NO SPLICING IS ALLOWED. WORKSTATION OUTLETS SHALL ALL BE PROVIDED WITH TWO PORTS, ONE FOR VOICE AND ONE FOR DATA. PROVIDE AND INSTALL CABLES ABOVE SUSPENDED CEILINGS IN PATHWAYS, CABLE TRAY OR J-HOOKS. BOTH ENDS OF ALL CABLES SHALL BE IDENTIFIED. PROVIDE ALL REQUIRED TESTS. PROVIDE AS-CONSTRUCTED DRAWINGS TO THE OWNER. SIEMENS, JOHNSON CONTROLS, HONEYWELL, SCHNEIDER, ADT OR EQUAL.

END OF DIVISION 26

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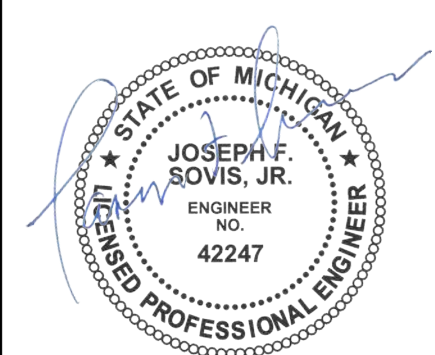
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ELECTRICAL SPECIFICATION

NEW DPW SERVICE BUILDING

SHEET TITLE:

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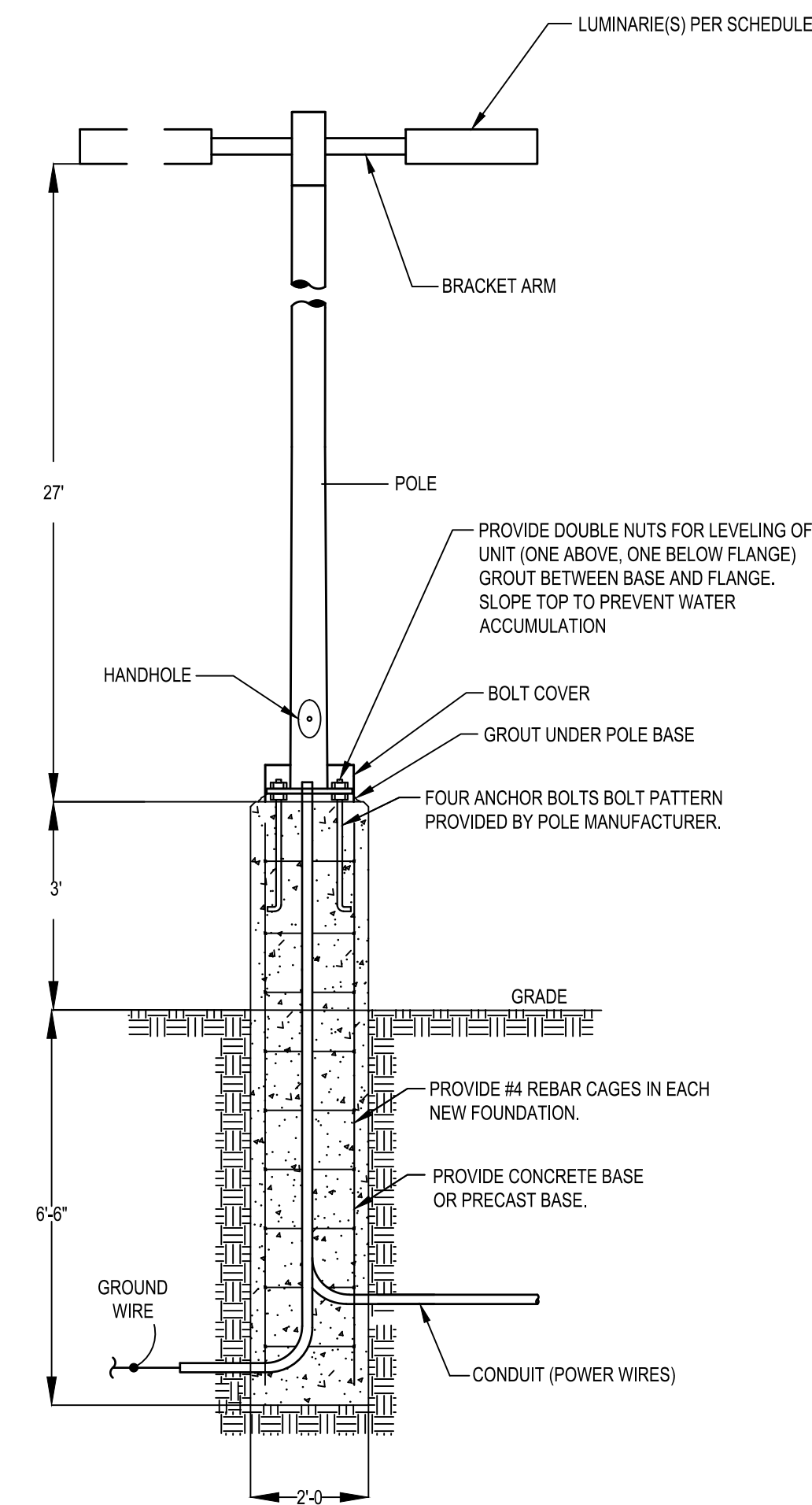
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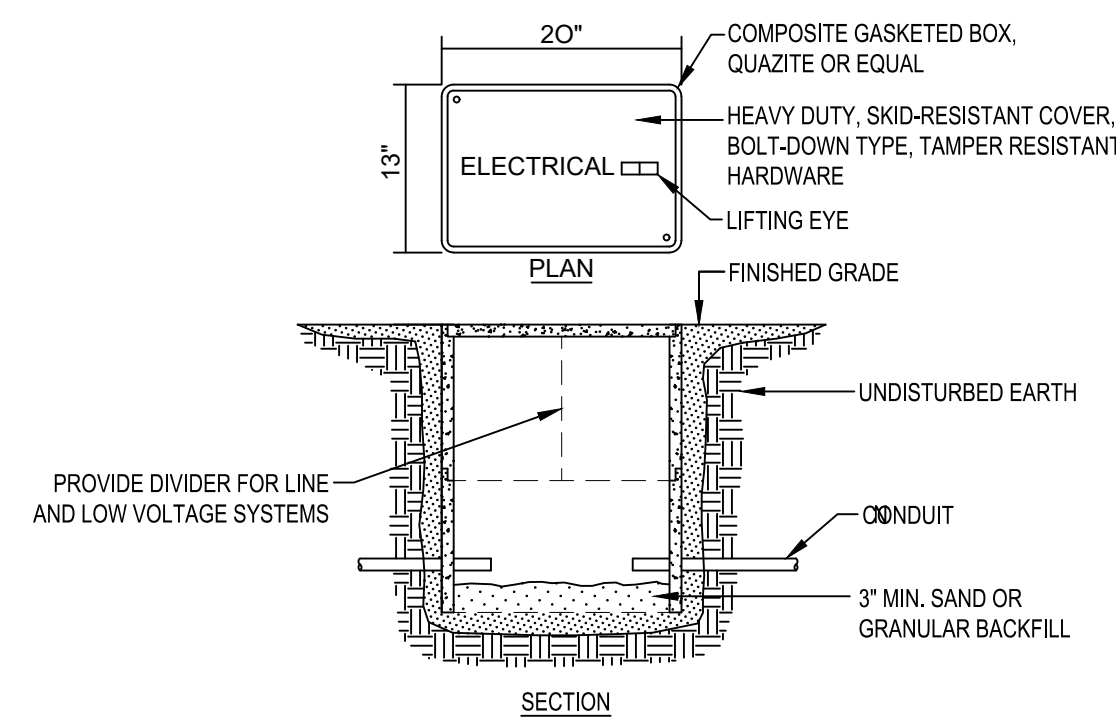
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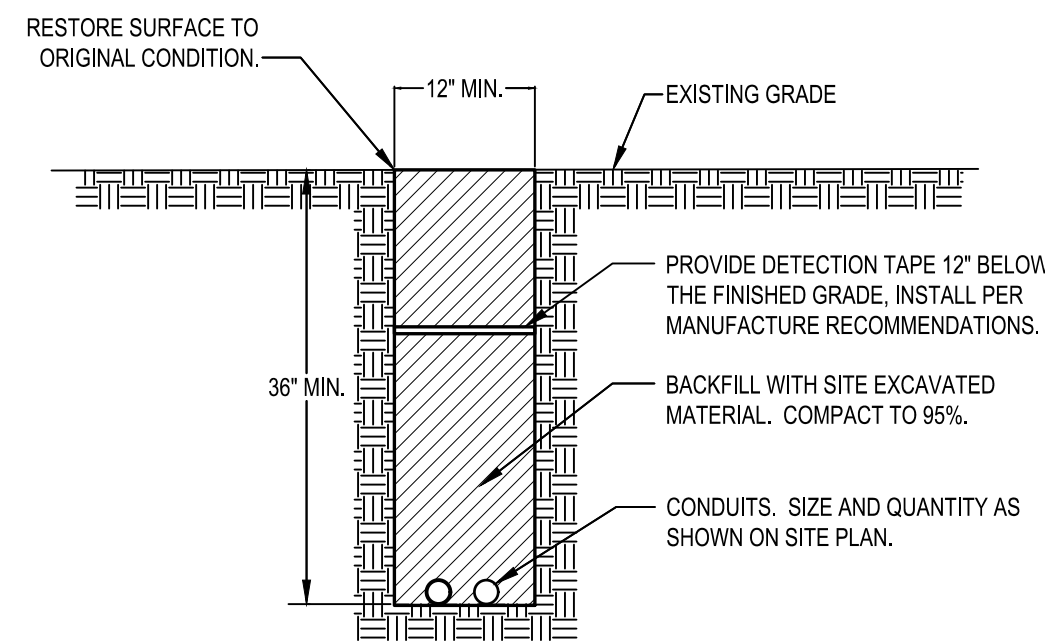
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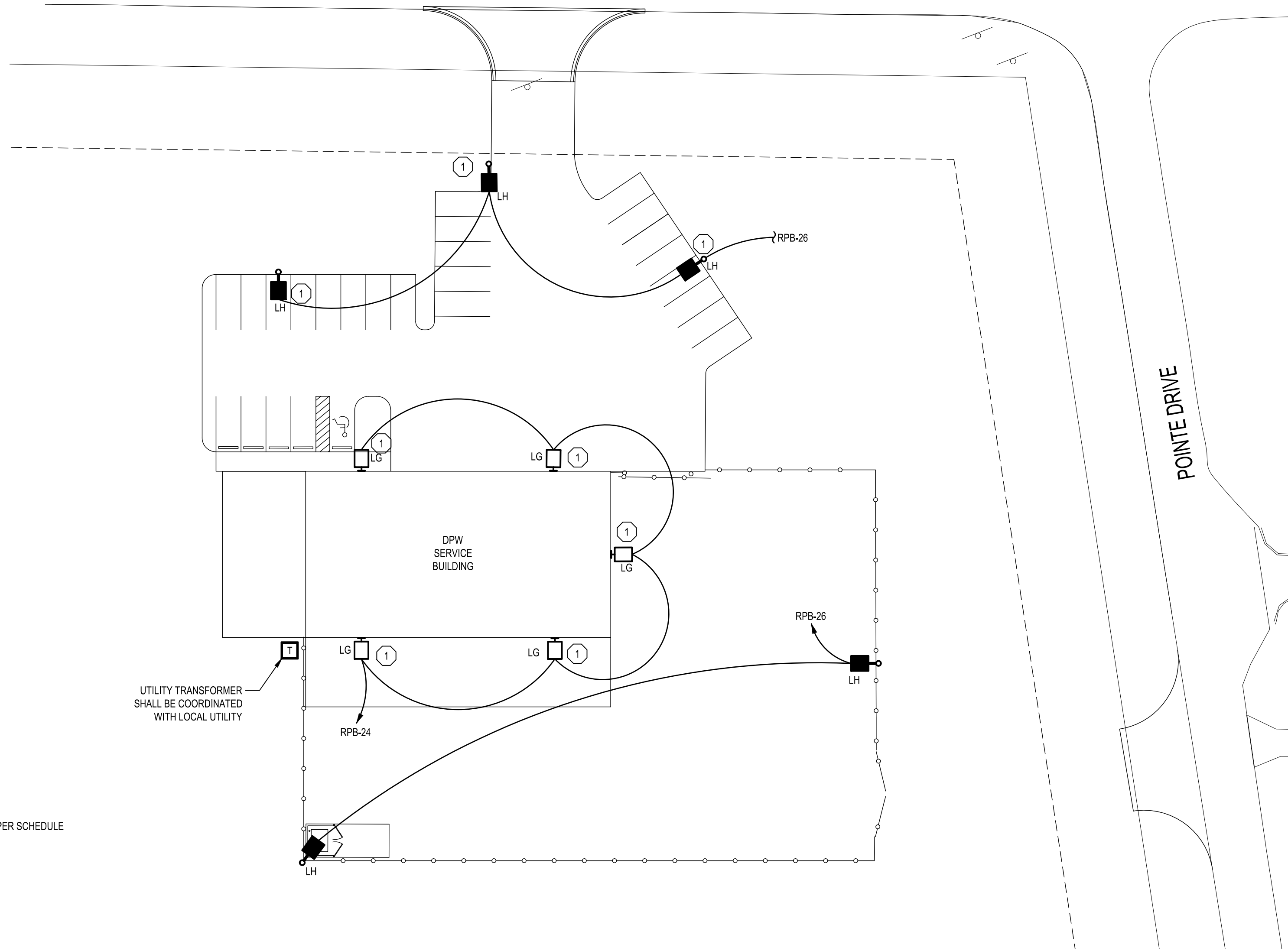
3 TYPICAL LIGHT FIXTURE POLE DETAIL
SCALE: NTS



2 ELECTRICAL HANDHOLE DETAIL
SCALE: NTS



1 TYPICAL TRENCH DETAIL
SCALE: NTS



ELECTRICAL - SITE PLAN
0' 1' 5' 10' 20' 40' 75'
SCALE: 1" = 30'-0"

GENERAL ELECTRICAL NOTES

- CONTRACTOR SHALL COORDINATE UNDERGROUND CONDUIT ROUTING PATH IN THE FIELD BASED ON SITE CONDITIONS. USE DIRECTIONAL BORE OR TRENCHING OR A COMBINATION BASED ON SITE CONDITIONS.

ELECTRICAL KEY NOTES

- ALL EXTERIOR LIGHTS SHALL BE CONTROLLED BY A PHOTO CELL. CONTRACTOR SHALL PROVIDE LIGHTING CONTRACTOR TO CONTROL MULTIPLE CIRCUITS WITH SINGLE PHOTOCELL.

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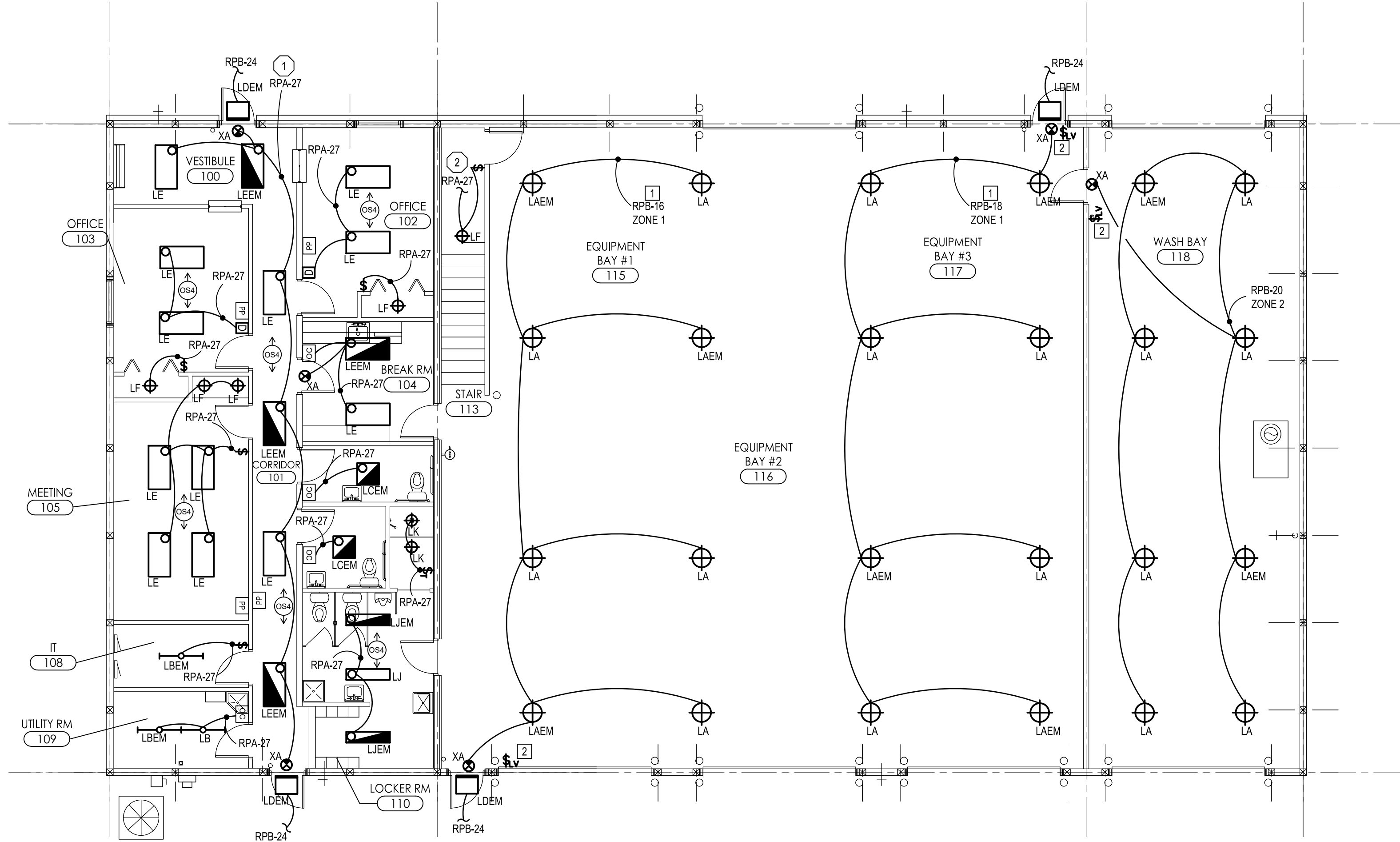
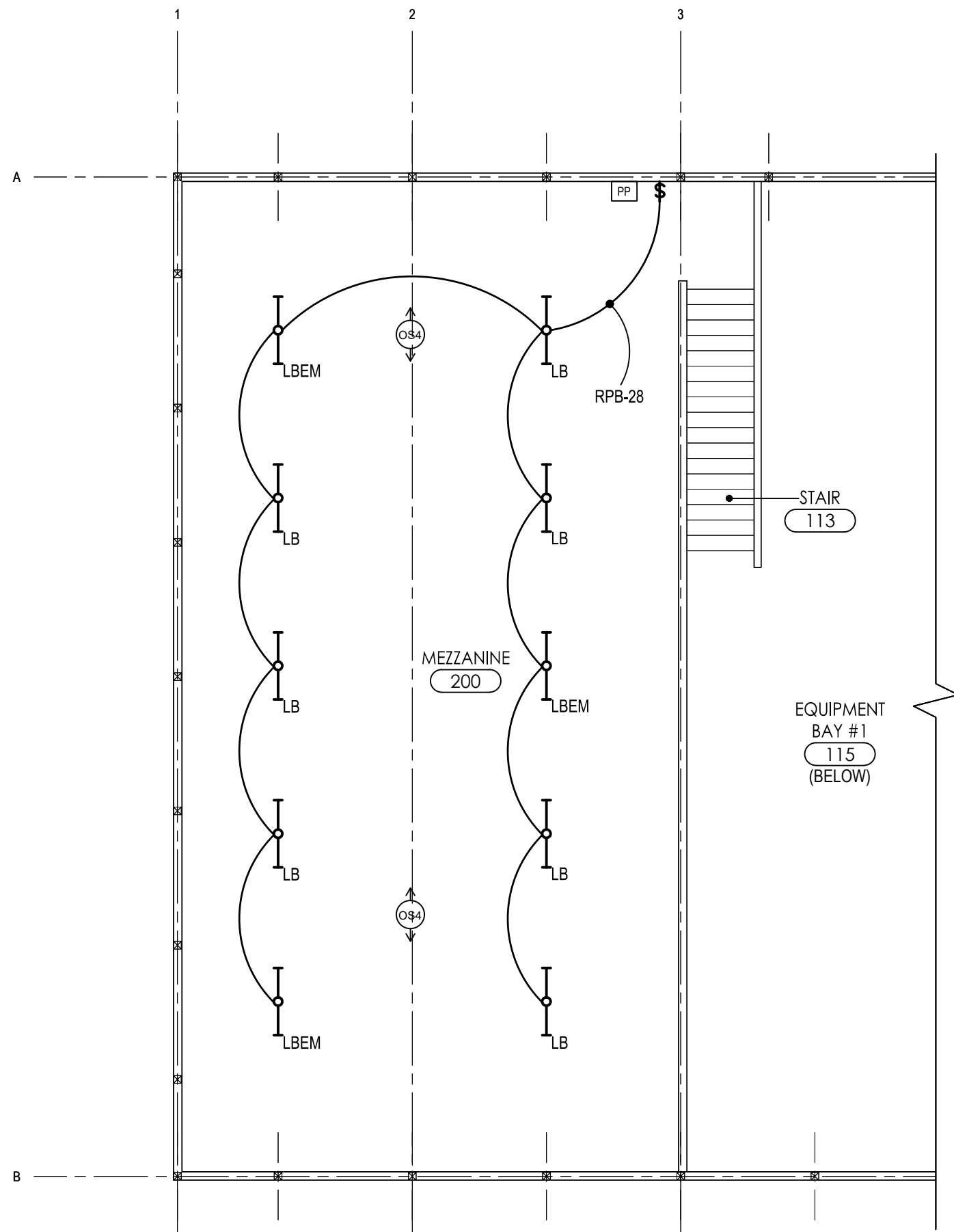
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JOSEPH F. SOVIS, JR.
ENGINEER
NO. 42247
REGISTERED PROFESSIONAL ENGINEER

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ELECTRICAL SITE PLAN
NEW DPW SERVICE BUILDING
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ELECTRICAL - FLOOR PLAN - LIGHTING

0 1 5 10 20
SCALE: 1/8" = 1'-0"

ELECTRICAL KEY NOTES

- 1 CONTRACTOR SHALL PROVIDE PROGRAMMABLE TIME SWITCH FOR CONTROLS. COORDINATE WITH OWNER TO SET LIGHTING SCHEDULE.
- 2 SWITCH AND LIGHT LOCATED UNDER STAIRWELL

LIGHTING CONTROL NOTES

- 1 LIGHTING SHALL HAVE INTEGRATED OCCUPANCY SENSORS AND CONTROL SYSTEM. DURING HOURS OF OPERATION LIGHTING SHALL BE CONTROLLED BY TIME CLOCK SCHEDULE. DURING OFF HOURS LIGHTS SHALL BE ON OCCUPANCY. WHEN ONE LIGHT IN THE ZONE DETECTS OCCUPANCY THE ENTIRE ZONE SHALL TURN ON SIMULTANEOUSLY.
- 2 SWITCH SHALL TURN ON AND OFF ALL ZONES IN THE SPACE.

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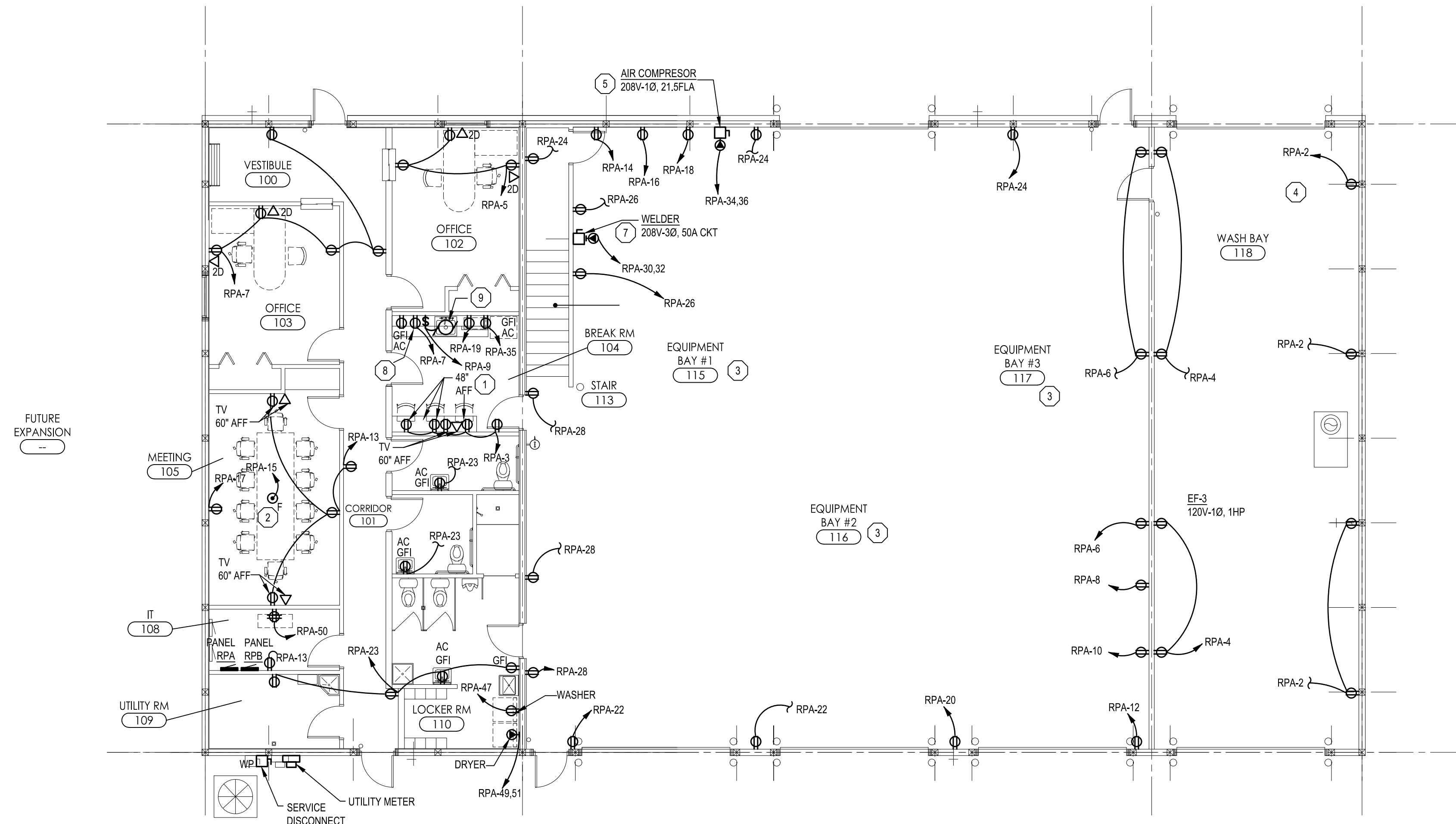
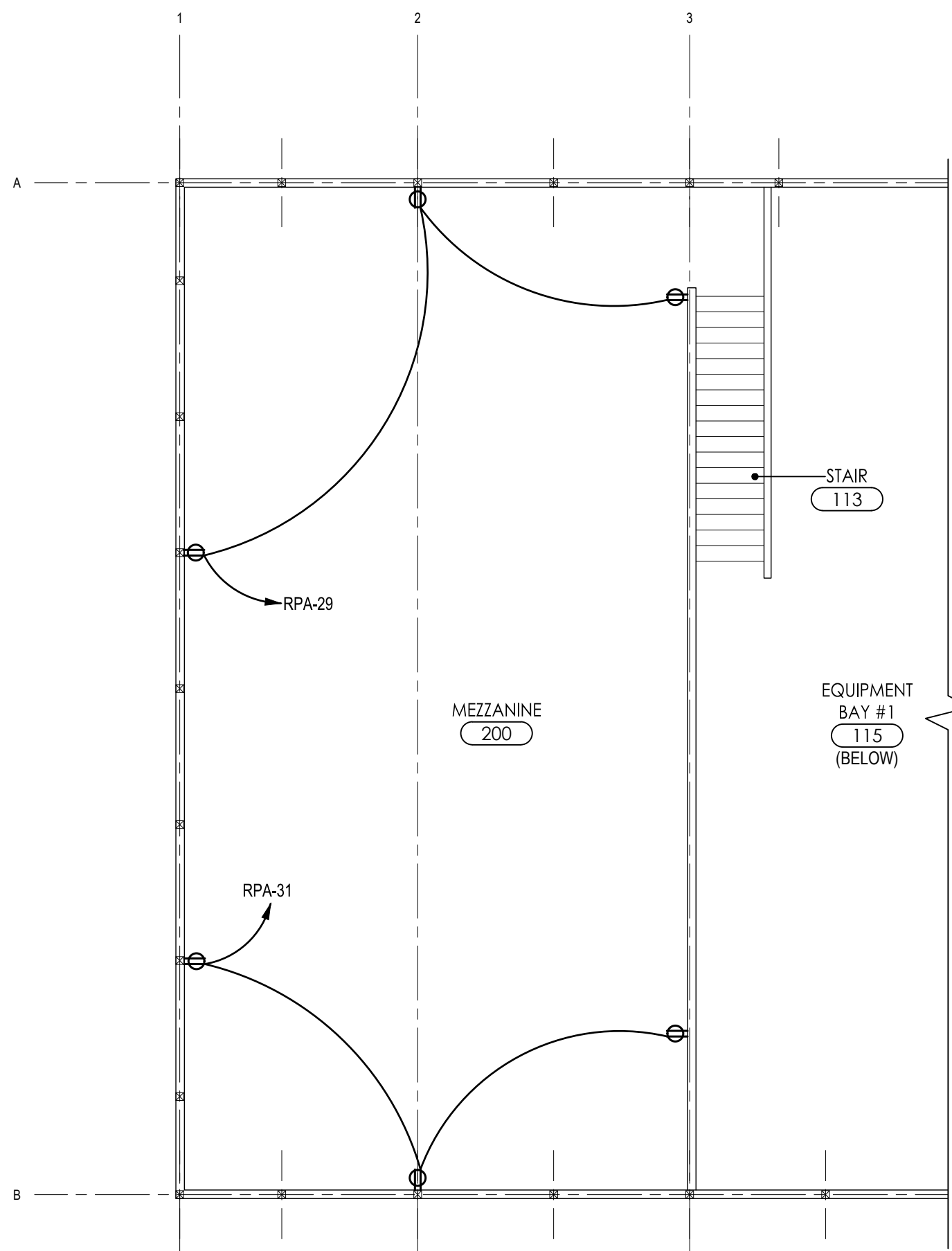
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ELECTRICAL - FLOOR PLAN - POWER

0 1 5 10 20
SCALE: 1/8" = 1'-0"

ELECTRICAL KEY NOTES

- 1 CONTRACTOR SHALL PROVIDE DUPLEX RECEPTACLE WITH 2 INAUGURATED USB PORT.
- 2 CONTRACTOR SHALL PROVIDE (2) DUPLEX RECEPTACLE AND (4) DATA JACKS. CONTRACTOR SHALL PROVIDE AN 1-INCH CONDUIT FOR LOW VOLTAGE CABLING.
- 3 ALL RECEPTACLE IN THIS AREA SHALL BE GFI AND MOUNTED AT 48-INCH ABOVE FINISHED, UNLESS NOTED OTHERWISE.
- 4 ALL RECEPTACLE IN THIS AREA SHALL BE GFI, WATERPROOF, AND MOUNTED AT 48-INCH ABOVE FINISHED, UNLESS NOTED OTHERWISE.
- 5 COORDINATE POWER REQUIREMENTS WITH OWNER PROVIDED AIR COMPRESSOR.
- 6 NOT USED.
- 7 COORDINATE PLUG TYPE AND VOLTAGE WITH OWNER.
- 8 RECEPTACLE FOR MICROWAVE MOUNTED AT 60" AFF. CONTRACTOR SHALL COORDINATE HEIGHT AND LOCATION WITH ARCHITECTURAL DRAWINGS AND FINAL MILLWORK.
- 9 CONNECTION FOR GARBAGE DISPOSAL, COORDINATE CONNECTION WITH PROVIDED GARBAGE DISPOSAL.

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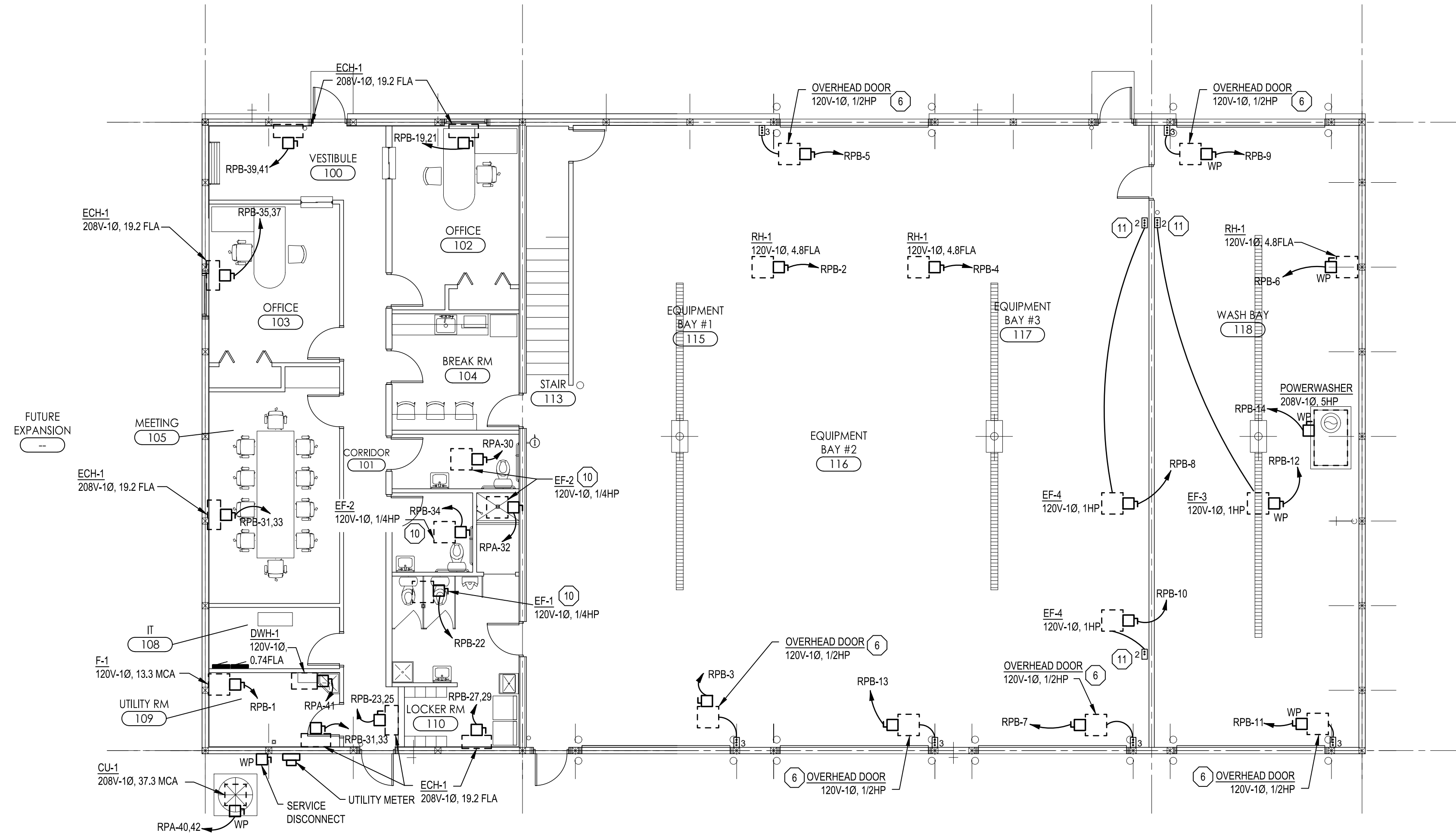
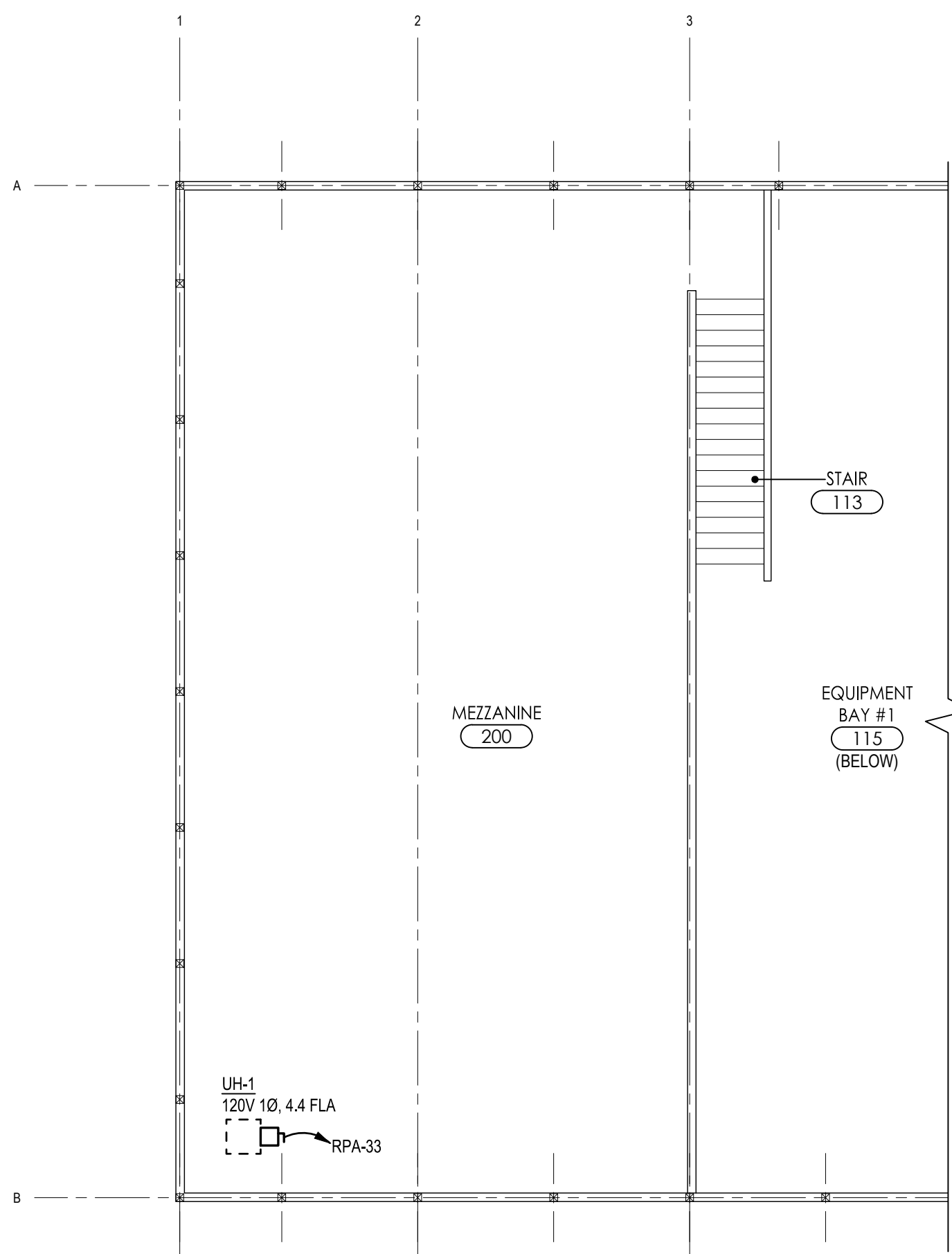
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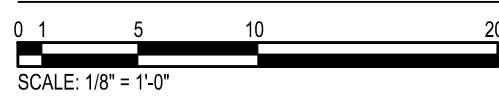
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ELECTRICAL FLOOR PLAN
POWER
NEW DPW SERVICE BUILDING

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ELECTRICAL - FLOOR PLAN - POWER



ELECTRICAL KEY NOTES

- 1 NOT USED.
- 2 NOT USED.
- 3 NOT USED.
- 4 NOT USED.
- 5 NOT USED.
- 6 COORDINATE OVERHEAD DOOR CONTROLS WITH OVERHEAD DOOR PROVIDER, PROVIDE CONDUIT AND WIRE TO DOOR CONTROLLER LOCATION.
- 7 NOT USED.
- 8 NOT USED.
- 9 NOT USED.
- 10 CONTRACTOR SHALL INTERLOCK EXHAUST FAN WITH LIGHTING CONTROLS.
- 11 CONTRACTOR SHALL PROVIDE AN ON/OFF PUSHBUTTON FOR CONTROL OF EXHAUST FAN. COORDINATE FINAL LOCATION WITH OWNER AND MECHANICAL CONTRACTOR.

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**ELECTRICAL FLOOR PLAN
MECHANICAL**

NEW DPW SERVICE BUILDING

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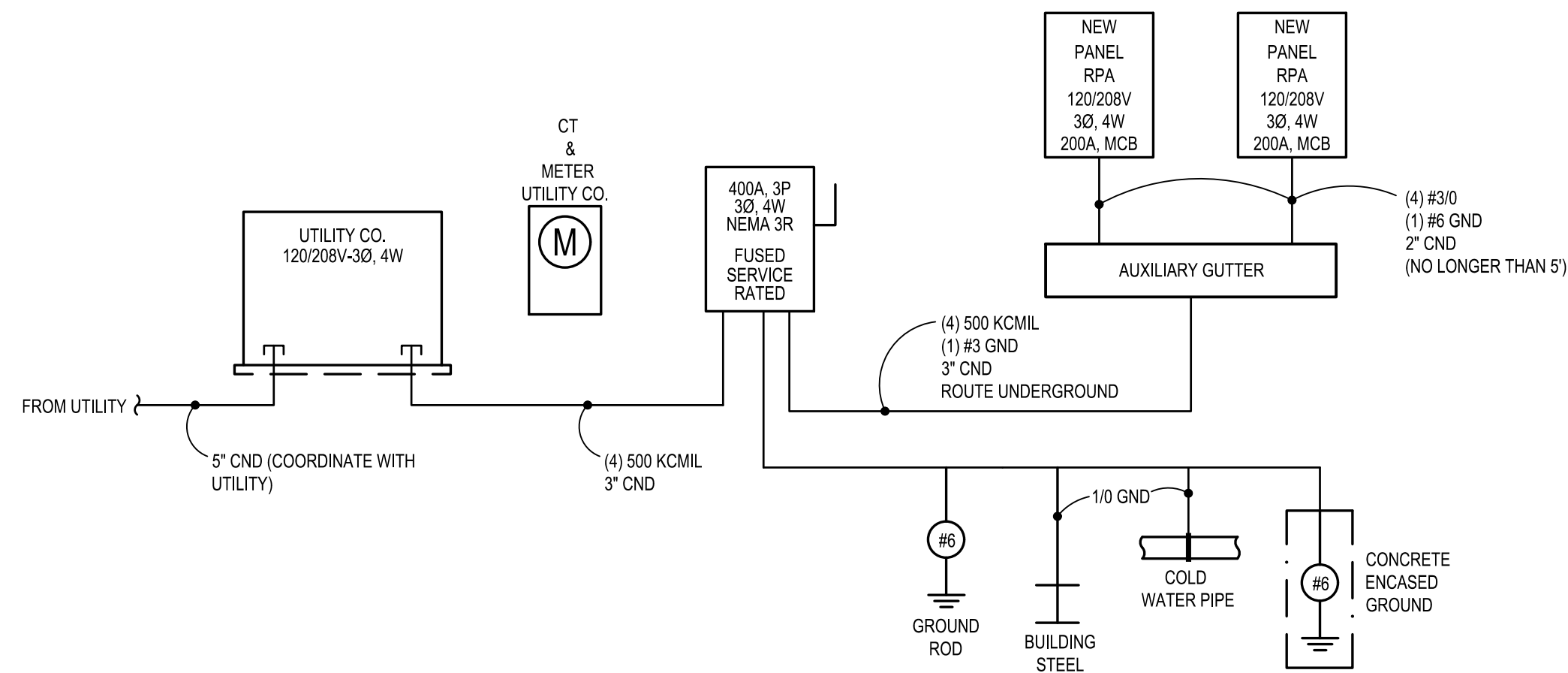
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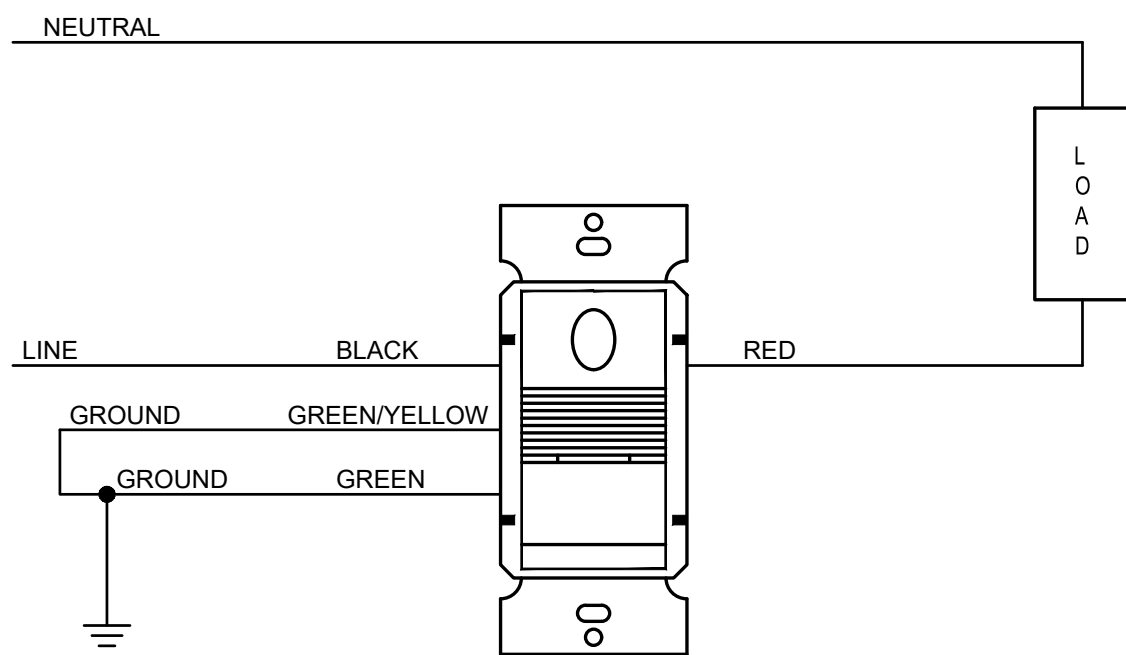


SERVICE CALCULATION		
Volts: 208 / 120	PHASE: 3	WIRE: 4
SERVICE SIZE: 400		
LOAD DESCRIPTION		VA
PANEL RPA		0
PANEL RPB		64342
NEW TOTAL DEMAND VA:		64342
NEW TOTAL DEMAND AMPS:		179

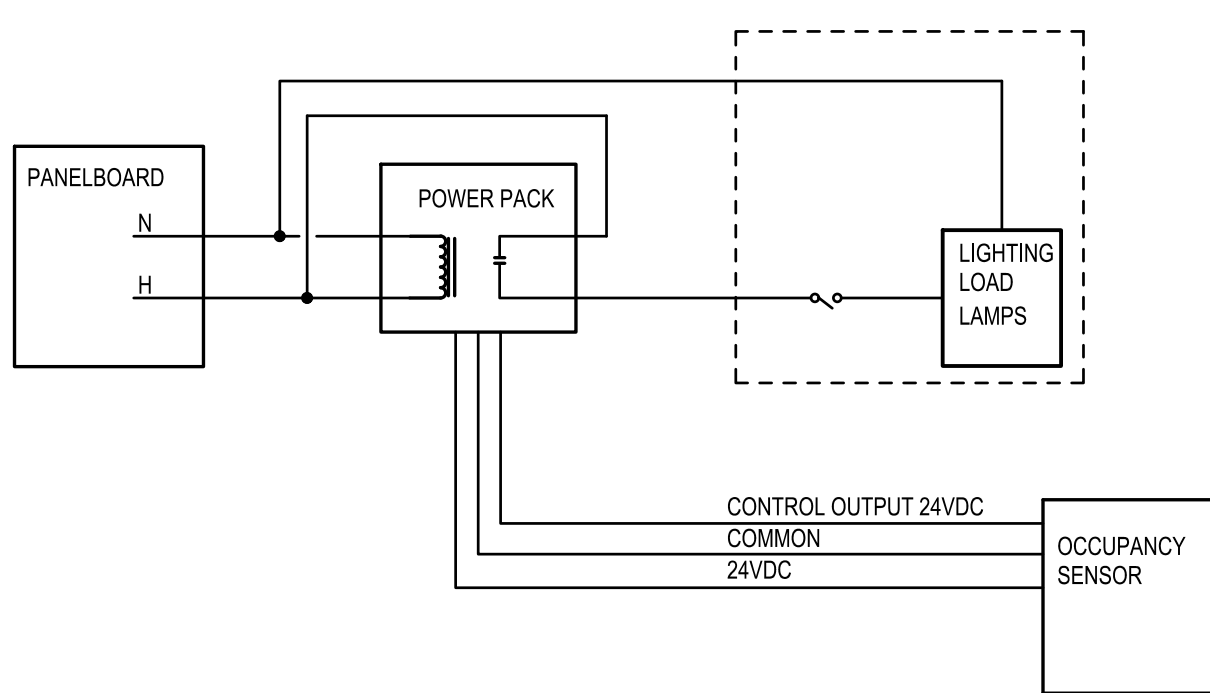
1 ELECTRICAL RISER DIAGRAM
SCALE: N.T.S.

PANEL "RPA"									
LOCATION: RM110			MOUNTING: SURFACE			A.I.C. RATING: 22 KA			
SUPPLY FROM: MAIN DISC			ENCLOSURE: NEMA 1			NOTES:			
VOLTS: 208 / 120			PHASE: 3			WIRE: 4			AMPS: 200 MAIN: MCB
BRKR	DESCRIPTION	CIRCUIT	PHASE LOADS			CIRCUIT	DESCRIPTION	BRKR	
A	P	VA	A	B	C	VA	A	P	
20	1	OFFICE/ VEST RECEPTACLES	900	1	1260	2	360 WASH BAY RECEPTACLES	20	1
20	1	BREAK RM RECEPTACLES	720	3	1080	4	360 WASH BAY RECEPTACLES	20	1
20	1	OFFICE/CORR. RECEPTACLES	900	5	1440	6	540 EQUIPMENT BAY RECEPTACLES	20	1
20	1	BREAK ROOM DEDICATED RCP.	1000	7	1180	8	180 EQUIPMENT BAY DEDICATED	20	1
20	1	GARBAGE DISPOSAL	500	9	680	10	180 EQUIPMENT BAY DEDICATED	20	1
20	1	BREAK RM DEDICATED RECEPT.	180	11	360	12	180 EQUIPMENT BAY DEDICATED	20	1
20	1	MEETING/CORR. RECEPTACLES	720	13	900	14	180 EQUIPMENT BAY DEDICATED	20	1
20	1	MEETING FLOOR BOX	180	15	360	16	180 EQUIPMENT BAY DEDICATED	20	1
20	1	RESTROOM/MEETING RECEPT.	180	17	360	18	180 EQUIPMENT BAY DEDICATED	20	1
20	1	BREAK RM DEDICATED RECEPT.	180	19	360	20	180 EQUIPMENT BAY DEDICATED	20	1
20	1	EW	500	21	860	22	360 EQUIPMENT BAY RECEPTACLES	20	1
20	1	LOCKER RM/BREAK RECEPT.	1080	23	1620	24	540 EQUIPMENT BAY RECEPTACLES	20	1
20	1	BREAK RM RECEPTACLES	360	25	720	26	360 EQUIPMENT BAY RECEPTACLES	20	1
20	1	LIGHTING	691	27	1411	28	720 EQUIPMENT BAY RECEPTACLES	20	1
20	1	MEZZANINE RECEPTACLES	540	29	1236	30	696 BF UNISEX 108 EF-2	20	1
20	1	MEZZANINE RECEPTACLES	540	31	1236	32	696 LOCKER 112 SHOWER EF-2	20	1
20	1	MEZZANINE UH-1	528	33	1224	34	696 BF UNISEX 109 EF-2	20	1
20	1	BREAK RM MICROWAVE	1000	35	4994	36	3994 CORR. ECH-1	30	1
20	1	SPARE		37	3994	38	3994 UTILITY ECH-1	30	1
20	1	SPARE		39	3879	40	3879 CU-1	50	2
20	1	DWH-1	88	41	3967	42	3879 -	20	1
20	1	SPARE		43	3994	44	3994 UTILITY ECH-1	30	1
20	1	SPARE		45	3879	46	3879 CU-1	50	2
20	1	SPARE		47	3879	48	3879 -	20	1
20	1	SPARE		49	1000	50	1000 IT RACK	20	1
20	1	SPARE		51	0	52	SPARE	20	1
20	1	SPARE		53	0	54	SPARE	20	1
		CONNECTED	14644	13373	17856	TOTAL CONNECTED LOAD		45873 VOLT-AMPS	
		TOTAL CONNECTED	45873					127.33 AMPS	

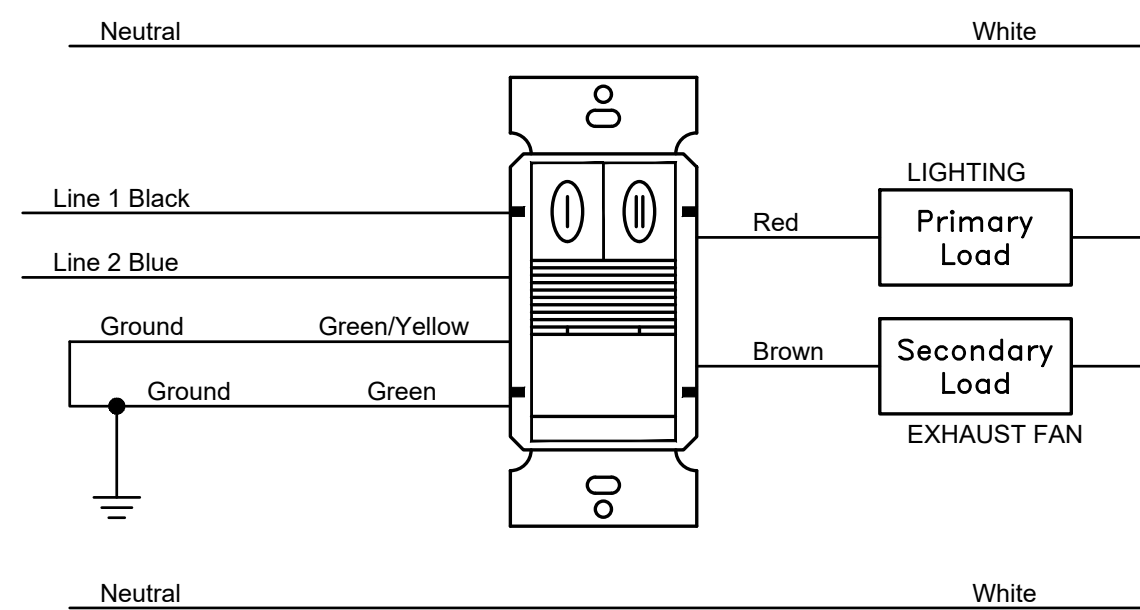
PANEL "RPB"									
LOCATION: RM101			MOUNTING: SURFACE			A.I.C. RATING: 22 KA			
SUPPLY FROM: MAIN DISC			ENCLOSURE: NEMA 1			NOTES:			
VOLTS: 208 / 120			PHASE: 3			WIRE: 4			AMPS: 200 MAIN: MCB
BRKR	DESCRIPTION	CIRCUIT	PHASE LOADS			CIRCUIT	DESCRIPTION	BRKR	
A	P	VA	A	B	C	VA	A	P	
20	1	F-1	1596	1	2172	2	576 EQUIPMENT BAY RH-1	20	1
20	1	OH DOOR	1176	3	1752	4	576 EQUIPMENT BAY RH-1	20	1
20	1	OH DOOR	1176	5	1752	6	576 WASH BAY RH-1	20	1
20	1	OH DOOR	1176	7	3096	8	1920 EQUIPMENT BAY EF-4	20	1
20	1	OH DOOR	1176	9	3096	10	1920 EQUIPMENT BAY EF-4	20	1
20	1	OH DOOR	1176	11	3096	12	1920 WASH BAY EF-3	20	1
20	1	OH DOOR	1176	13	1872	14	696 RM109 EF-1	20	1
30	2	RM109 ECH-1	1997	15	2757	16	760 BAY 1/2 LIGHTING	20	1
-	-	-	1997	17	2757	18	760 BAY 2/3 LIGHTING	20	1
30	2	RM103 ECH-1	1997	19	2757	20	760 WASH BAY LIGHTING	20	1
-	-	-	1997	21	2693	22	696 LOCKER ROOM 112 EF-1	20	1
30	2	RM101 ECH-1	1997	23	2467	24	470 EXTERIOR LIGHTING	20	1
-	-	-	1997	25	2537	26	540 EXTERIOR LIGHTING	20	1
30	2	RM112 ECH-1	1997	27	2327	28	330 MEZZANINE LIGHTING	20	1
-	-	-	1997	29	4597	30	2600 WELDER	50	2
30	2	RM107 ECH-1	1997	31	4597	32	2600 -	-	-
-	-	-	1997	33	4233	34	2236 AIR COMPRESSOR	30	2
30	2	RM102 ECH-1	1997	35	4233	36	2236 -	-	-
-	-	-	1997	37	1997	38	SPARE	20	1
30	2	RM100 ECH-1	1997	39	1997	40	SPARE	20	1
-	-	-	1997	41	1997	42	SPARE	20	1
20	1	WASHER	1000	43	1000	44	SPARE	20	1
30	2	DRYER	2280	45	2280	46	SPARE	20	1
-	-	-	2280	47	2280	48	SPARE	20	1
20	1	SPARE	49	0	0	50	SPARE	20	1
20	1	SPARE	51	0	0	52	SPARE	20	1
20	1	SPARE	53	0	0	54	SPARE	20	1
		CONNECTED	20028	21135	23179	TOTAL CONNECTED LOAD		64342 VOLT-AMPS	
		TOTAL CONNECTED	64342					178.60 AMPS	



3 WALL MOUNTED OCCUPANCY SENSOR DETAIL
SCALE: NTS



2 OCCUPANCY SENSOR DETAIL
SCALE: NTS



1 TYPICAL OCCUPANCY SENSOR & EXHAUST FAN WIRING DETAIL
SCALE: N.T.S.

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☒ FINAL CONSTRUCTION
☐ RECORD DOCUMENTS

SEAL:



DATE: 08-03-2023

REV. DATE:

ELECTRICAL RISER

NEW DPW SERVICE BUILDING

SHEET TITLE:

PROJECT:



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