REVELS TURF & TRACTOR
RAWLS CHURCH ROAD
FUQUAY-VARINA, NORTH CAROLINA

SCOPE OF WORK:

NEW PRE-ENGINEERED METAL BUILDING (29,920 SF) FOR OFFICES, STORAGE, AND SHOP AREA FOR NON-COMMERCIAL VEHICLES.

NC DEPT. OF INSURANCE 2018 APPENDIX B

BUILDING CODE SUMMARY FOR ALL COMMERCIAL PROJECTS
(EXCEPT 1 & 2-FAMILY DWELLINGS AND TOWNHOUSES)
(REPRODUCE THE FOLLOWING DATAON THE BUILDING PLANS SHEET 1 OR 2)

NC

Name Of Project: REVELS TURF & TRACTOR
Address: RAWLS CHURCH ROAD, FUQUAY-VARINA, NC
Zip Code: 27526
Owner Or Authorized Agent: W. S. Architects, PA — Phone: (919) 779-9797, E-mail ginger@wsarchitectspa.com
Owned By: [ ] City/County [X] Private [ ] State
Code Enforcement Jurisdiction: [ ] Town (1) [X] County - Harnett [ ] State

LEAD DESIGN PROFESSIONAL: W. S. ARCHITECTS, PA

Designer	FIRM	NAME	LIC. #	TELEPHONE	E-MAIL
Architectural:	W. S. Architects, PA	Ginger S. Summer	11075	(919) 779-9797	ginger@wsarchitectspa.com
Civil	Stewart-Proctor	---	---	---	---
Electrical:	Burke Design Group	Benjamin E Burke	22038	(919) 771-1916	ben@bdg-nc.com
Fire Alarm:	---	---	---	---	---
Plumbing:	Burke Design Group	Benjamin E Burke	22038	(919) 771-1916	ben@bdg-nc.com
Mechanical:	Burke Design Group	Benjamin E Burke	22038	(919) 771-1916	ben@bdg-nc.com
Sprinkler-Standpipe:	---	---	---	---	---
Structural:	Ross Linden	Brian Ross	---	---	---
Retaining Walls >5' High:	---	---	---	---	---
Other:	---	---	---	---	---

2018 NC BUILDING CODE: [X] New Building [ ] Shell/Core [ ] 1st Time Interior Completions
[ ] Addition [ ] Phased Construction - Shell Core

2018 NC **EXISTING BUILDING CODE:** [ ] Prescriptive [ ] Alteration Level I [ ] Historic Property
[ ] Repair [ ] Alteration Level II [ ] Change of Use
[ ] Chapter 14 [ ] Alteration Level III

CONSTRUCTED: (date) --- CURRENT OCCUPANCY(S) (Ch. 3): ---
RENOVATED: (date) --- PROPOSED OCCUPANCY(S) (Ch. 3): B & S-1
OCCUPANCY CATEGORY (Table 1604.5): Current: --- Proposed: II

BASIC BUILDING DATA

CONSTRUCTION TYPE: [ ] I-A [ ] II-A [ ] III-A [ ] IV [ ] V-A
[ ] I-B [X] II-B [ ] III-B [ ] V-B
SPRINKLERS: [X] NO [ ] PARTIAL [ ] NFPA 13 [ ] NFPA 13R [ ] NFPA 13D
STANDPIPES: [X] NO CLASS [ ]I [ ] II [ ] III [ ] WET [ ] DRY
PRIMARY FIRE DISTRICT: [X] NO [ ] YES **FLOOD HAZARD AREA:** [X] NO [ ] YES
SPECIAL INSPECTIONS REQUIRED: [ ] NO [X] YES

GROSS BUILDING AREA

	EXISTING (SF)	NEW (SF)	SUB-TOTAL	TENANT
3RD FLOOR	---	---	---	---
2ND FLOOR	---	---	---	---
MEZZANINE	---	---	---	---
1ST FLOOR	---	29,920	---	---
BASEMENT	---	---	---	---
TOTAL	---	29,920	---	---

ALLOWABLE AREA:

PRIMARY OCCUPANCY:
[ ] ASSEMBLY [ ] A-1 [ ] A-2 [ ] A-3 [ ] A-4 [ ] A-5
[X] BUSINESS
[ ] EDUCATIONAL
[ ] FACTORY [ ] F-1 Moderate [ ] F-2 Low
[ ] HIGH-HAZARD [ ] H-1 Detonate [ ] H-2 Deflagrate [ ] H-3 Combust [ ] H-4 Health [ ] H-5 HPM
[ ] INSTITUTIONAL [ ] I-1 [ ] I-2 [ ] I-3 [ ] I-4
I-1 Condition [ ] 1 [ ] 2
I-2 Condition [ ] 1 [ ] 2
I-3 Condition [ ] 1 [ ]2 [ ] 3 [ ] 4 [ ] 5
[ ] MERCANTILE
[ ] RESIDENTIAL [ ] R-1 [ ] R-2 [ ] R-3 [ ] R-4
[X] STORAGE [X] S-1 Moderate [ ] S-2 Low [ ] HIGH-PILED
[ ] PARKING GARAGE [ ] OPEN [ ] ENCLOSED [ ] REPAIR GARAGE
[ ]UTILITY & MISCELLANEOUS

ACCESSORY OCCUPANCY CLASSIFICATION(S): ____
INCIDENTAL USES (Table 509): ____
This separation is not exempt as a Non-Separated Use (see exceptions).
SPECIAL USES (Chapter 4 - List Code Sections): ____
SPECIAL PROVISIONS (Chapter 5 - List Code Sections): ____
MIXED OCCUPANCY: Separation: NON SEPARATED MIXED USE Exception: ____

$$\frac{\text{Actual Area of Occupancy A}}{\text{Allowable Area of Occupancy A}} + \frac{\text{Actual Area of Occupancy B}}{\text{Allowable Area of Occupancy B}} \leq 1$$

$$\_\_\_\_ + \_\_\_\_ + \ldots = \_\_\_\_ \leq 1.00$$

	STORY NO.	DESCR'N AND USE	(A) BLDG AREA PER STORY (ACTUAL)	(B) TABLE 506.2 [4] AREA	(C) AREA FOR OPEN SPACE INCREASE [1,5]	(D) ALLOWABLE AREA OR UNLIMITED [2,3]
	1	BUSINESS	12,208	23,000	17,250	40,250 per flr.
MOST RESTRICTIVE →	1	STORAGE (S1)	17,711	17,500	13,125	30,625 per flr.
	---	---	---	---	---	---
	---	---	---	---	---	---

1. Frontage Area Increases From Section 506.2 Are Competed Thus:
   A. Perimeter Which Fronts A Public Way Or Open Space Having 20 Ft Min. Width = ---' (F).
   B. Total Building Perimeter = ---' (P).
   C. Ratio (F/P) = (20/30) = ---.
   D. W= Minimum Width Of Public Way = --- (W)
2. Unlimited area applicable under conditions of Section 507.
3. Max. Building Area = Total No. Of Stories In The Building X D (maximum 3 stories) (506.2).
4. The Maximum Area Of Open Parking Garages Must Comply With 406.5.4. The Maximum Area Of Air Traffic Control Towers Must Comply With 412.3.1.
5. Frontage increase is based on the unsprinklered area value in Table 506.2.

ALLOWABLE HEIGHT

	ALLOWABLE (TABLES 504.3 & 504.4)	SHOWN ON PLANS	CODE REFERENCE
BUILDING HEIGHT IN FEET	55 (FT)	20 (FT) MEAN ROOF	---
BUILDING HEIGHT IN STORIES	2 (STORIES ABOVE GRADE PLANE)	1 (STORIES)	---

1. Provide code reference if the "Shown on Plans" quantity is not based on Table 504.3 or 504.4.

NC DEPT. OF INSURANCE 2018 APPENDIX B BUILDING CODE SUMMARY — CONTINUED

FIRE PROTECTION REQUIREMENTS

BUILDING ELEMENT	FIRE SEP'N DIST. (FT)	RATING REQ'D	RATING PROV'D (W/ ____* REDUCTION)	DETAIL # AND SHEET #	DES. # FOR RATED ASS'Y	DES. # FOR RATED PENET'N	DES. # FOR RATED JOINTS
STRUCTURAL FRAME, INCLUDING COLUMNS GIRDERS, TRUSSES	---	0	---	---	---	---	---
BEARING WALLS							
EXTERIOR							
NORTH	30'+	0	---	---	---	---	---
EAST	30'+	0	---	---	---	---	---
WEST	30'+	0	---	---	---	---	---
SOUTH	30'+	0	---	---	---	---	---
INTERIOR	---	---	---	---	---	---	---
NONBEARING WALLS AND PARTITIONS							
EXTERIOR							
NORTH	---	---	---	---	---	---	---
EAST	---	---	---	---	---	---	---
WEST	---	---	---	---	---	---	---
SOUTH	---	---	---	---	---	---	---
INTERIOR WALL & PARTITIONS		0	---	---	---	---	---
FLOOR CONSTRUCTION		---	---	---	---	---	---
INCLUDING SUPPORTING BEAMS AND JOISTS							
FLOOR CEILING ASSEMBLY		---	---	---	---	---	---
COLUMNS SUPPORTING FLOORS		---	---	---	---	---	---
ROOF CONSTRUCTION		---	---	---	---	---	---
INCLUDING SUPPORTING BEAMS AND JOISTS							
ROOF CEILING ASSEMBLY		---	---	---	---	---	---
COLUMNS SUPPORTING ROOF		---	---	---	---	---	---
SHAFTS ENCLOSURES-EXIT		---	---	---	---	---	---
SHAFTS ENCLOSURES-LID		---	---	---	---	---	---
CORRIDOR SEPARATION		0**	---	---	---	---	---
OCCUPANCY/FIRE AREA SEPARATION		2	2	---	U419	---	---
		3	3	---	U904/U419	---	---
PARTY/FIRE WALL SEPARATION		---	---	---	---	---	---
SMOKE BARRIER SEPARATION		---	---	---	---	---	---
SMOKE PARTITION		---	---	---	---	---	---
TENANT/DWELL. UNIT/SLEEP. UNIT SEP. INCIDENTAL USE SEPARATION		---	---	---	---	---	---

*INDICATE SECTION NO. PERMITTING REDUCTION
** PER FOOTNOTE 'F' ON TABLE 1020.1

PERCENTAGE OF WALL OPENING CALCULATIONS

FIRE SEPARATION DISTANCE (FEET) FROM PROPERTY LINES	DEGREE OF OPENINGS PROTECTION (TABLE 705.8)	ALLOWABLE AREA (%)	ACTUAL SHOWN ON PLANS (%)
N 30'+	UP, NS	NO LIMIT	---
E 30'+	UP, NS	NO LIMIT	---
S 30'+	UP, NS	NO LIMIT	---
W 30'+	UP, NS	NO LIMIT	---

LIFE SAFETY SYSTEM REQUIREMENTS

EMERGENCY LIGHTING: [X] YES [ ] NO — SMOKE DETECTION SYSTEMS: [ ] YES [X] NO
EXIT SIGNS: [X] YES [ ] NO — PANIC HARDWARE: [ ] YES [X] NO
FIRE ALARM: [ ] YES [X] NO

LIFE SAFETY PLAN REQUIREMENTS

SHEET NUMBER A0.3

[X] FIRE AND/OR SMOKE RATED WALL LOCATIONS (CHAPTER 7)
[ ] ASSUMED AND REAL PROPERTY LINE LOCATIONS (IF NOT ON SITE PLAN)
[ ] EXTERIOR WALL OPENING AREA WITH RESPECT TO DISTANCE TO ASSUMED PROPERTY LINES (705.8)
[X] OCCUPANCY USE FOR EACH AREA AS IT RELATES TO OCCUPANT LOAD CALCULATION (TABLE 1004.1.2)
[X] OCCUPANT LOADS FOR EACH AREA
[X] EXIT ACCESS TRAVEL DISTANCES (1017)
[ ] COMMON PATH OF TRAVEL DISTANCES (1006.2.1 & 1006.3.2(1))
[ ] DEAD END LENGTHS (1020.4)
[X] CLEAR EXIT WIDTHS FOR EACH EXIT DOOR
[X] MAXIMUM CALCULATED OCCUPANT LOAD CAPACITY EACH EXIT DOOR CAN ACCOMMODATE BASED ON EGRESS WIDTH (1005.3)
[X] ACTUAL OCCUPANT LOAD FOR EACH DOOR
[ ] A SEPARATE SCHEMATIC PLAN INDICATING WHERE FIRE RATED FLOOR/CEILING AND/OR ROOF STRUCTURE IS PROVIDED FOR PURPOSES OF OCCUPANCY SEPARATION
[ ] LOCATION OF DOORS WITH PANIC HARDWARE (1010.1.10)
[ ] LOCATION OF DOORS WITH DELAYED EGRESS LOCKS AND THE AMOUNT OF THE DELAY (1010.1.9.7)
[ ] LOCATION OF DOORS WITH ELECTROMAGNETIC EGRESS LOCKS (1010.1.9.9)
[ ] LOCATION OF DOORS EQUIPPED WITH HOLD-OPEN DEVICES
[ ] LOCATION OF EMERGENCY ESCAPE WINDOWS (1030)
[X] THE SQUARE FOOTAGE OF EACH FIRE AREA (202)
[ ] THE SQUARE FOOTAGE OF EACH SMOKE COMPARTMENT FOR OCCUPANCY CLASSIFICATION I-2 (407.5)
[ ] NOTE ANY CODE EXCEPTIONS ON TABLE NOTES THAT MAY HAVE BEEN UTILIZED REGARDING THE ITEMS ABOVE

ACCESSIBLE DWELLING UNITS (SECTION 1107)

TOTAL UNITS	ACCESSIBLE UNITS REQ'D	ACCESSIBLE UNITS PROV'D	TYPE A UNITS REQ'D	TYPE A UNITS PROV'D	TYPE B UNITS REQ'D	TYPE B UNITS PROV'D	TOTAL ACCESSIBLE UNITS PROV'D
---	---	---	---	---	---	---	---

ACCESSIBLE PARKING (SECTION 1106) see site plan by Stewart-Proctor

LOT OR PARKING AREA	TOTAL # OF SPACES REQ'D	TOTAL # OF SPACES PROVID'D	# OF ACCESSIBLE SPACES PROVIDED: REG. WITH 5' ACCESS AISLE	VAN SPACES WITH 132" ACCESS AISLE	VAN SPACES WITH 8' ACCESS AISLE	TOTAL # ACCESSIBLE PROVIDED
EXISTING	---	---	---	---	---	---
PROPOSED	---	---	---	---	---	---
TOTAL	---	---	---	---	---	---

PLUMBING FIXTURE REQUIREMENT (TABLE 403.1)

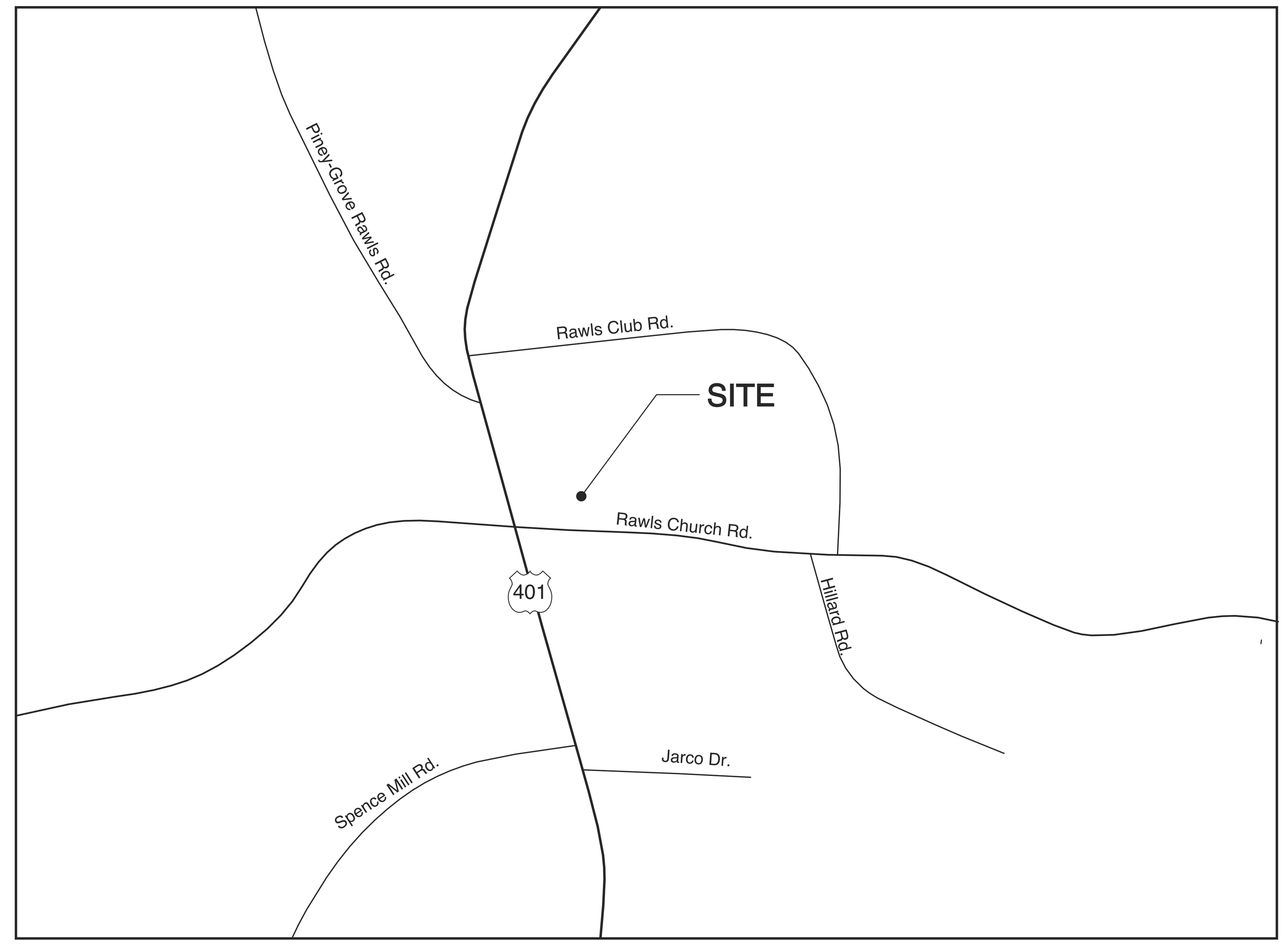
104 MALES / 104 FEMALES

USE		WATERCLOSETS MALE	WATERCLOSETS FEMALE	WATERCLOSETS UNISEX	URINALS	LAVATORIES MALE	LAVATORIES FEMALE	LAVATORIES UNISEX	SERVICE SINK	DRINKING FOUNTAINS REGULAR	DRINKING FOUNTAINS ACCESSIBILE
SPACE	EXIST'G	---	---	---	---	---	---	---	---	---	---
	NEW	4	4	---	---	4	4	---	1	1	1
	REQ'D	4	4	---	---	3	3	---	1	1	1

SPECIAL APPROVALS

Special Approval: (Local Jurisdiction, Dept of Insurance, OSC, DPI, DHHS, etc., describe below)

na



VICINITY MAP
SCALE: NTS

NC DEPT. OF INSURANCE 2018 APPENDIX B BUILDING CODE SUMMARY — CONTINUED

ENERGY SUMMARY

ENERGY REQUIREMENTS:
The following data shall be considered minimum and any special attribute required to meet the energy code shall also be provided. Each Designer shall furnish the required portions of the project information for the plan data sheet. If performance method, state the annual energy cost for the standard reference design vs annual cost for the proposed design.

Existing building envelope complies with code: ____

Exempt Building: ____ Provide code or statutory refrence:

Climate Zone: 4A

Method of Compliance: PRESCRIPTIVE
(If "Other" specify source here) ____

THERMAL ENVELOPE (Prescriptive method only)

Roof/ceiling Assembly (each assembly)
Description of assembly: metal roof w/ liner system & thermal blcok
U-Value of total assembly: ---
R-Value of insulation: R-25 + R-11
Skylights in each assembly
U-Value of skylight: 0.60
Total square footage of skylights in each assembly : tbd

Exterior Walls (each assembly)
Description of assembly: Brick veneer | mtl bldg.
U-Value of total assembly: ---
R-Value of insulation: R-19 batt+ R-5 rigid | R-25 liner sys.
Openings (windows or doors with glazing)
U-Value of assembly 0.32
Solar heat gain coefficient 0.25
Projection factor ---
Door R-Values: opaque 0.50 U-factor; entrance 0.77 U-factor; other 0.45 U-factor

Walls below grade (each assembly)
Description of assembly: na
U-Value of total assembly: na
R-Value of insulation: na

Floors over unconditioned space (each assembly)
Description of assembly: na
U-Value of total assembly: na
R-Value of insulation: na

Floors slab on grade
Description of assembly: SLAB ON GRADE
U-Value of total assembly: ---
R-Value of insulation: R-10
Horizontal/Vertical requirement: 1 FT
Slab heated : NO

STRUCTURAL DESIGN (PROVIDE ON SHEET 1 OR 2 OF THE STRUCTURAL SHEETS)

DESIGN LOADS: see structural dwgs

IMPORTANCE FACTORS: WIND (I_W) --- ; SNOW (I_S) --- ; SEISMIC (I_E) ---
LIVE LOADS: ROOF --- psf; MEZZANINE na psf; FLOOR ---
GROUND SNOW LOAD: --- psf
WIND LOAD: ULTIMATE WIND SPEED --- mph (ASCE-7)
EXPOSURE CATEGORY ---
WIND BASE SHEARS (FOR MWFRS) Vx = --- K Vy = --- K
SEISMIC DESIGN CATEGORY [ ] A [ ] B [ ] C [ ] D

PROVIDE THE FOLLOWING SEISMIC DESIGN PARAMETERS:
OCCUPANCY CATEGORY (TABLE 1604.5) [ ] I [ ] II [ ] III [ ] IV
SPECTRAL RESPONSE ACCELERATION S_S 0.166%g S_1 0.081%g
SITE CLASSIFICATION (ASCE 7) [ ] A [ ] B [ ] C [ ] D
[ ] Field Test [ ] Presumptive [ ] Historical Data
BASIC STRUCTURAL SYSTEM (check one)
[ ] BEARING WALL [ ] DUAL W/SPECIAL MOMENT FRAME
[ ] BUILDING FRAME [ ] DUAL W/INTERMEDIATE R/C OR SPECIAL STEEL
[ ] MOMENT FRAME [ ] INVERTED PENDULUM
ANALYSIS PROCEDURE [ ] SIMPLIFIED [ ] EQUIVALENT LATERAL FORCE [ ] DYNAMIC
ARCHITECTURAL, MECHANICAL, COMPONENTS ANCHORED [ ] YES [ ] NO

LATERAL DISIGN CONTROL: EARTHQUAKE [ ] WIND [ ]
SOIL BEARING CAPACITIES:
FIELD TEST (PROVIDE COPY OF TEST REPORT) ---- psf
PRESUMPTIVE BEARING CAPACITY --- psf
PILE SIZE, TYPE, AND CAPACITY ----

NOTICE TO CONTRACTOR
All construction must comply with current NC Building Codes and is subject to field inspection and verification.
Reviewed for Code Compliance
12/06/2023
Harnett COUNTY NORTH CAROLINA

GENERAL NOTES

I: FOR THIS PROJECT:

A) A **PROJECT EXPEDITOR** WILL BE DESIGNATED BY THE OWNER TO PROVIDE GENERAL ADMINISTRATION OF THESE DOCUMENTS FOR THE OWNER. THE OWNER SHALL BE THE PROJECT EXPEDITOR UNLESS OTHERWISE STIPULATED BY WRITTEN AGREEMENT WITH ANOTHER PARTY.

B) THESE DOCUMENTS ARE SCHEMATIC IN NATURE AND ARE INTENDED TO CONVEY THE DESIGN INTENT OF THE ARCHITECT. IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY ALL DIMENSIONS, EXISTING CONDITIONS, ETC. FOR THE PROPER IMPLEMENTATION OF THESE DRAWINGS. DO NOT SCALE THE DRAWINGS.

C) THE ARCHITECTS SCOPE OF WORK DOES NOT INCLUDE CONSTRUCTION OBSERVATION UNLESS OTHERWISE DESIGNATED IN WRITING BY THE OWNER.

THE CONTRACTOR IS IN CHARGE OF THE WORK AND COMPLIANCE WITH THESE DOCUMENTS IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR. THE ARCHITECT WILL BEAR NO RESPONSIBILITY FOR FAILURE OF THE CONTRACTOR TO FULLY COMPLY WITH ALL INCLUSIVE DOCUMENTS.

USE OF THESE DOCUMENTS WILL CONSTITUTE AGREEMENT BY THE CONTRACTOR TO THESE CONDITIONS.

D) "THE GENERAL CONDITIONS OF THE CONTRACT FOR THE CONSTRUCTION OF THE BUILDINGS" OF THE AMERICAN INSTITUTE OF ARCHITECTS DOCUMENT A-201, LATEST EDITION, ARE HEREBY MADE PART OF THE DOCUMENTS. IN THE EVENT OF A CONFLICT, THESE GENERAL NOTES AND CONTRACT SUPERSEDE "AIA DOCUMENT A-201".

II: ALL WORK UNDER THIS CONTRACT SHALL:

A) CONFORM TO STATE, LOCAL AND NATIONAL CODES AND ORDINANCES AS ARE APPLICABLE TO THE WORK INCLUDING BUT NOT LIMITED TO THE NORTH CAROLINA STATE BUILDING CODE, THE AMERICANS WITH DISABILITIES ACT (ADA), NATIONAL ELECTRIC CODES, ASTM SPECIFICATIONS, AND OSHA SAFETY REGULATIONS.

B) COMPLY WITH ALL LAWS, ORDINANCES, CODES, RULES AND REGULATIONS PERTAINING TO ENVIRONMENTAL PROTECTION (EPA). THE COST OF ALL REQUIRED INSPECTIONS AND PERMITS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.

III: UNLESS OTHERWISE DIRECTED BY THE ARCHITECT, THE CONTRACTOR SHALL:

A) SUPPLY AND PAY FOR ALL LABOR, TRANSPORTATION, MATERIALS, TOOLS, APPARATUS, LIGHTS, POWER, HEAT, SANITARY FACILITIES, WATER, SCAFFOLDING, AND INCIDENTALS NECESSARY FOR THE COMPLETION OF HIS WORK.

B) INSTALL, MAINTAIN AND REMOVE ALL EQUIPMENT, OTHER UTENSILS OR THINGS USED FOR THE CONSTRUCTION PRIOR TO TURNING OVER THE PROJECT., IF SUCH ITEMS ARE LEFT AFTER COMPLETION OF THE PROJECT, THEY SHALL BECOME PROPERTY OF THE OWNER. THE OWNER MAY PROMPTLY DISPOSE OF SUCH ITEMS, AND WILL NOT BE SUBJECT TO CLAIMS OF THE CONTRACTOR RESULTING FROM SUCH DISPOSITION.

C) CONSTRUCT IN THE BEST AND PROFESSIONAL MANNER, A COMPLETE JOB AND EVERYTHING INCIDENTAL THERETO, AS SHOWN OR REASONABLY IMPLIED FROM THE PLANS, ALL WORK SHALL BE COMPLETED IN ACCORDANCE WITH THE DOCUMENTS.

D) VERIFY ALL DIMENSIONS AND CONDITIONS PRIOR TO PROCEEDING WITH THE WORK AND NOTIFY THE ARCHITECT IN WRITING OF ANY DISCREPANCIES DISCOVERED OR LACK OF REQUIRED INFORMATION TO REQUEST CLARIFICATION. IF THE CONTRACTOR OBSERVES THE DOCUMENTS TO BE CONTRARY TO GOVERNING LAWS, ORDINANCES, CODES, RULES AND REGULATIONS OR OTHERWISE QUESTIONABLE CONDITIONS, HE SHALL PROMPTLY NOTIFY THE ARCHITECT IN WRITING FOR INSTRUCTIONS PRIOR TO PROCEEDING WITH THE WORK.

E) KEEP THE BUILDING AND SURROUNDING AREA REASONABLY FREE FROM RUBBISH AT ALL TIMES. AT A MINIMUM, DEBRIS SHALL BE REMOVED FROM THE SITE ON A WEEKLY BASIS OR AS DIRECTED BY PROJECT EXPEDITOR.

F) LOCATE ALL EXISTING UTILITIES. THE CONTRACTOR MAY NOT INTERFERE WITH ADJACENT UTILITIES UNLESS PRIOR NOTICE AND PERMISSION IS RECEIVED FROM THOSE WHO MAY AS A RESULT OF THIS INTERFERENCE BE AFFECTED.

G) PRIOR TO ANY WORK, CALL "NC ONE CALL CENTER" @ 800-632-4949 AND OTHER LOCATING SERVICES AS TO CONFIRM LOCATION OF UTILITIES.

H) PRIOR TO FINAL INSPECTION AND ACCEPTANCE OF THE BUILDING, EACH CONTRACTOR SHALL CLEAN HIS PORTION OF THE WORK, INCLUDING GLASS, HARDWARE FIXTURES, MASONRY, TILE AND MARBLE (USING NO ACID), CLEAN AND WAX ALL FLOORS AS SPECIFIED, AND COMPLETELY PREPARE THE BUILDING FOR USE BY THE OWNER.

I) FILE WITH THE OWNER CURRENT INSURANCE CERTIFICATIONS IN THE AMOUNTS REQUESTED BY THE OWNER FOR BUILDER'S RISK, WORKMEN'S COMPENSATION, COMPREHENSIVE GENERAL LIABILITY, BODILY INJURY AND PROPERTY DAMAGE. THIS INSURANCE SHALL INDEMNIFY THE OWNER AND THE ARCHITECT OF ANY AND ALL COSTS, CLAIMS, SUITS AND JUDGEMENTS FOR PROPERTY DAMAGE AND PERSONAL INJURY (INCLUDING GENERAL) ARISING OUT OF THE CONTRACTOR'S ACTIONS.

J) PROVIDE ALL NECESSARY SAFETY MEASURES FOR THE PROTECTION OF ALL PERSONS OF THE WORK, INCLUDING THE REQUIREMENTS OF THE A.G.C. ACCIDENT PREVENTION MANUAL IN CONSTRUCTION AS AMENDED, AND SHALL FULLY COMPLY WITH ALL STATE LAWS OR REGULATIONS AND NORTH CAROLINA STATE BUILDING CODE REQUIREMENTS TO PREVENT ACCIDENT OR INJURY TO PERSONS ON OR ABOUT THE LOCATION OF THE WORK.

K) CLEARLY MARK OR POST SIGNS WARNING OF HAZARDS EXISTING, AND BARRICADE EXCAVATIONS, ELEVATOR SHAFTS, STAIRWELLS AND SIMILAR HAZARDS. PROTECT AGAINST DAMAGE OR INJURY RESULTING FROM FALLING MATERIALS AND MAINTAIN ALL PROTECTIVE DEVICES AND SIGNS THROUGHOUT THE PROGRESS OF THE WORK

WEEKS SUMMER ARCHITECTS

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3305-109 Durham Drive
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919.779.9797
www.wsarchitectspa.com

W. S. ARCHITECTS, PA — CERT. NO. 50549 — NORTH CAROLINA — RALEIGH, NC

GINGER S. SUMMER — REGISTERED ARCHITECT — 11075 — NORTH CAROLINA — RALEIGH, NC
DocuSigned by: Ginger S. Summer
E9D28345662C422...
11/10/2023

PROJECT TITLE
REVELS TURF & TRACTOR
RAWLS CHURCH ROAD
FUQUAY-VARINA, NORTH CAROLINA

PROJECT NO.
2232b

DRAWING TITLE
COVER SHEET

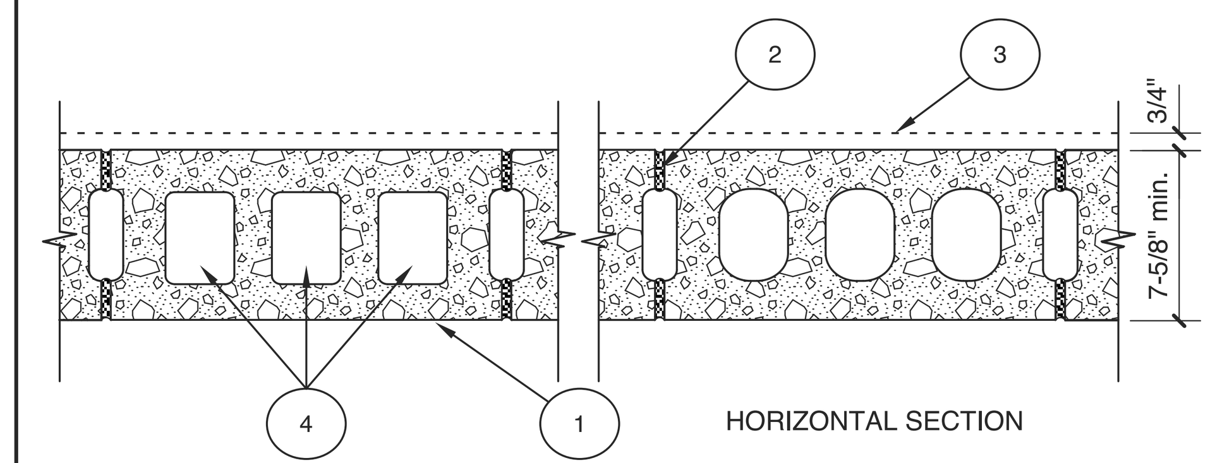
SHEET 1 OF 14

A0.1

PLOT DATE 11/10/23
REVISION COUNTY COM. (1) 11/10/23

Design No. U904

Bearing Wall Rating--3 Hr.
Nonbearing Wall Rating--3 Hr.



HORIZONTAL SECTION

1. **Concrete Blocks*** - Various designs. Classifications C-3 (3hr.) See Concrete Blocks category for list of eligible manufacturers.

2. Mortar- Blocks fold in full bed of mortar, nom. 3/8" thick, of not less than 2-1/4 and not more than 3-1/2 parts of clean sharp sand to one part Portland cement (proportioned by volume) and not more than 50 percent hydrated lime (by cement volume). Vertical joints staggered.

3. Portland cement stucco or gypsum plaster-Add 1/2 hr. to classification if used. Attached to concrete blocks.

4. Loose Masonry Fill- If all core spaes are filled with loose dry expanded slag, expanded clay or shale (Rotory Kiln Process), water repellant vermiculite masonry fill insulation, or silicone treated perlite loose fill insulation add 1 hr. to classification.

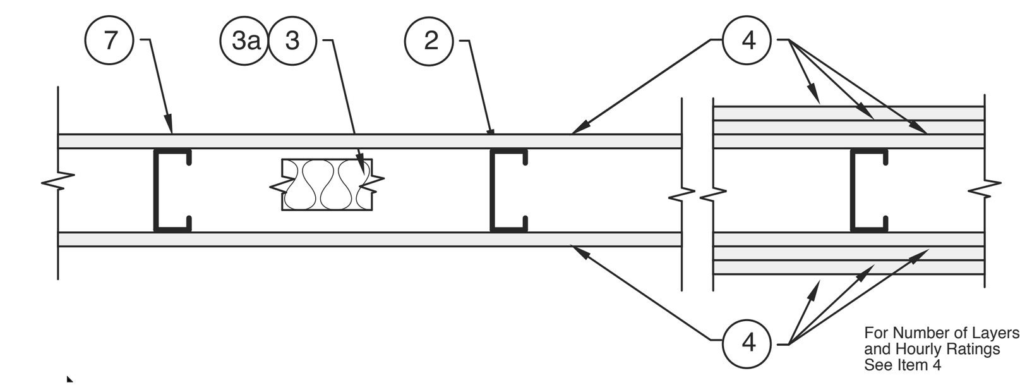
5. Foamed Plastic* - (Optional-Not Shown) 1-1/2 in. thick max, 4 ft wide sheathing attached to concrete blocks (Item 1).
ATLAS ROOFING CORP-EnergyShield Pro Wall Insulation, EnergyShield Pro 2 Wall Insulation, EnergyShield CGF Pro, EnergyShield Ply Pro, EnergyShield
DUPONT DE NEMOURS, INC. - Type Thermax Sheathing, Thermax Light Duty Insulation, Thermax Heavy Duty Insulation, Thermax Metal Building Board, Thermax White Finish Insulation, Thermax ci Exterior Insulation, Thermax XARMOR ci Exterior Insulation, Thermax IH Insulation, Thermax Plus Liner Panel, Thermax Heavy Duty Plus (HDP), TUFF-RTM ci Insulation, Thermax Butler Stylwall Insulation Board and Thermax Morton Heavy Duty Insulation Board
FIRESTONE BUILDING PRODUCTS CO L L C - "EnvergeTM CI Foil Exterior Wall Insulation" and "EnvergeTM CI Glass Exterior Wall Insulation"
HUNTER PANELS, A DIVISION OF CARLISLE CONSTRUCTION MATERIALS, LLC - Type "Xci-Class A", "Xci 286", "Xci Foil (Class A)"
RMAX, A BUSINESS UNIT OF SIKA CORPORATION - Types "TSX-8500", "ECOMAXci FR", "TSX-8510", "ECOMAX xi FR White", "ECOMAXci", "ECOMAXci FR Air Barrier", "Thermasheath-XP", "Thermasheath", "Durasheath"
JOHNS MANVILLE - Type "AP Foil-Faced Foam Sheathing"

5A. Building Units* - As an alternate to Item 5, min. 1-in thick polyisocyanurate composite foamed plastic insulation boards, nom. 48 by 48 or 96 in.
ATLAS ROOFING CORP - EnergyShield
RMAX, A BUSINESS UNIT OF SIKA CORPORATION - Thermasheath-SI", "ECOBASEci", "ThermaBase-CI", "ECOMAXci FR Ply", "ECOMAXci Ply".

* Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.

Design No. U419

Nonbearing Wall Ratings 1, 2, 3 or 4 Hr
(See Items 3 & 4)



1. Floor and Ceiling Runners — (Not shown) — Channel shaped, fabricated from min 25 MSG (min 20 MSG when Item 4A is used) corrosion-protected steel, min width to accommodate stud size, with min 1 in. long legs, attached to floor and ceiling with fasteners 24 in. OC max.

2. Steel Studs — Channel shaped, fabricated from min 25 MSG (min 20 MSG when Item 4A is used) corrosion-protected steel, min width as indicated under Item 4, min 1-1/4 in. flanges and 1/4 in. return, spaced a max of 24 in. OC. Studs to be cut 3/8 to 3/4 in. less than assembly height.

3. Batts and Blankets* — (Required as indicated under Item 4) — Mineral wool batts, friction fitted between studs and runners. Min nom thickness as indicated under Item 4. See Batts and Blankets (BKNV or BZJZ) Categories for names of Classified companies.

3A. Batts and Blankets* — (Optional) — Placed in stud cavities, any glass fiber or mineral wool insulation bearing the UL Classification Marking as to Surface Burning Characteristics and/or Fire Resistance. See Batts and Blankets (BKNV or BZJZ) Categories for names of Classified companies.

4. Gypsum Board* — Gypsum panels with beveled, square or tapered edges, applied vertically or horizontally. Vertical joints centered over studs and staggered one stud cavity on opposite sides of studs. Vertical joints in adjacent layers (multilayer systems) staggered one stud cavity. Horizontal joints need not be backed by steel framing. Horizontal edge joints and horizontal butt joints on opposite sides of studs need not be staggered. Horizontal edge joints and horizontal butt joints in adjacent layers (multilayer systems) staggered a min of 12 in. The thickness and number of layers for the 1 hr, 2 hr, 3 hr and 4 hr ratings are as follows:

Wallboard Protection on Each Side of Wall

Rating	Min Stud Depth	No. of Layers & Thkns of Panel	Min Thkns of Insulation (Item 3)
1	3-1/2	1 layer, 5/8 in. thick	Optional
1	2-1/2	1 layer, 1/2 in. thick	1-1/2 in.
1	1-5/8	1 layer, 3/4 in. thick	Optional
2	1-5/8	2 layers, 1/2 in. thick	Optional
2	1-5/8	2 layers, 5/8 in. thick	Optional
2	3-1/2	1 layer, 3/4 in. thick	3 in.
3	1-5/8	3 layers, 1/2 in. thick	Optional
3	1-5/8	2 layers, 3/4 in. thick	Optional
3	1-5/8	3 layers, 5/8 in. thick	Optional
4	1-5/8	4 layers, 5/8 in. thick	Optional
4	1-5/8	4 layers, 1/2 in. thick	Optional
4	2-1/2	2 layers, 3/4 in. thick	2 in.

CANADIAN GYPSUM COMPANY — 1/2 in. thick Type C, IP-X2 or IPC-AR; WRC, 5/8 in. thick Type AR, C, IP-AR, IP-X1, IP-X2, IPC-AR, SCX, SHX, WRX or WRC; 3/4 in. thick Type IP-X3, ULTRACODE, ULTRACODE SHC or ULTRACODE WRC.

UNITED STATES GYPSUM CO — 1/2 in. thick Type C, IP-X2, IPC-AR or WRC; 5/8 in. thick Type SCX, SHX, WRX, IP-X1, AR, C, WRC, FRX-G, IP-AR, IP-X2, IPC-AR ; 3/4 in. thick Type IP-X3, ULTRACODE, ULTRACODE SHC or ULTRACODE WRC.

USG MEXICO S A DE C V — 1/2 in. thick Type C, IP-X2, IPC-AR or WRC; 5/8 in. thick Type AR, C, IP-AR, IP-X1, IP-X2, IPC-AR, SCX, SHX, WRX, WRC or; 3/4 in. thick Type IP-X3, ULTRACODE, ULTRACODE SHC or ULTRACODE WRC.

4A. Gypsum Board* — (As an alternate to Item 4) — 5/8 in. thick gypsum panels, installed as described in Item 4 with Type S-12 steel screws. The length and spacing of the screws as specified under Item 5.

CANADIAN GYPSUM COMPANY — Type FRX

UNITED STATES GYPSUM CO — Type FRX

4B. Gypsum Board* — (As an alternate to Items 4 and 4A) — 5/8 in. thick, 2 ft. wide, tongue and groove edge, applied horizontally as the outer layer to one side of the assembly. Secured as described in Item 5. Joint covering (Item 7) not required.

CANADIAN GYPSUM COMPANY — Type SHX.

UNITED STATES GYPSUM CO — Type SHX.

USG MEXICO S A DE C V — Type SHX.

5. Fasteners — (Not shown) — Type S or S-12 steel screws used to attach panels to studs (Item 2) or furring channels (Item 6). Single layer systems: 1 in. long for 1/2 and 5/8 in. thick panels or 1-1/4 in. long for 3/4 in. thick panels, spaced 8 in. OC when panels are applied horizontally, or 8 in. OC along vertical and bottom edges and 12 in. OC in the field when panels are applied vertically. Two layer systems: First layer- 1 in. long for 1/2 and 5/8 in. thick panels or 1-1/4 in. long for 3/4 in. thick panels, spaced 16 in. OC. Second layer- 1-5/8 in. long for 1/2 in., 5/8 in. thick panels or 2-1/4 in. long for 3/4 in. thick panels, spaced 16 in. OC with screws offset 8 in. from first layer. Three-layer systems: First layer- 1 in. long for 1/2 in., 5/8 in. thick panels, spaced 24 in. OC. Second layer- 1-5/8 in. long for 1/2 in., 5/8 in. thick panels, spaced 24 in. OC. Third layer- 2-1/4 in. long for 1/2 in., 5/8 in. thick panels or 2-5/8 in. long for 5/8 in. thick panels, spaced 12 in. OC. Screws offset min 6 in. from layer below. Four-layer systems: First layer- 1 in. long for 1/2 in., 5/8 in. thick panels, spaced 24 in. OC. Second layer- 1-5/8 in. long for 1/2 in., 5/8 in. thick panels, spaced 24 in. OC. Third layer- 2-1/4 in. long for 1/2 in. thick panels or 2-5/8 in. long for 5/8 in. thick panels, spaced 24 in. OC. Fourth layer- 2-5/8 in. long for 1/2 in. thick panels or 3 in. long for 5/8 in. thick panels, spaced 12 in. OC. Screws offset min 6 in. from layer below.

6. Furring Channels — (Optional, not shown, for single or double layer systems) — Resilient furring channels fabricated from min 25 MSG corrosion-protected steel, spaced vertically a max of 24 in. OC. Flange portion attached to each intersecting stud with 1/2 in. long Type S-12 steel screws. Not for use with Item 4A.

7. Joint Tape and Compound — Vinyl or casein, dry or premixed joint compound applied in two coats to joints and screw heads of outer layers. Paper tape, nom 2 in. wide, embedded in first layer of compound over all joints of outer layer panels. Paper tape and joint compound may be omitted when gypsum panels are supplied with a square edge.

8. Siding, Brick or Stucco — (Optional, not shown) — Aluminum, vinyl or steel siding, brick veneer or stucco, meeting the requirements of local code agencies, installed over gypsum panels. Brick veneer attached to studs with corrugated metal wall ties attached to each stud with steel screws, not more than each sixth course of brick.

9. Caulking and Sealants* — (Optional, not shown) — A bead of acoustical sealant applied around the partition perimeter for sound control.

UNITED STATES GYPSUM CO — Type AS

*Bearing the UL Classification Mark

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REGISTERED ARCHITECT
11075
NORTH CAROLINA
RALEIGH, NC

DocuSigned by:
E9D28345662C422...
10/25/2023

PROJECT TITLE
REVELS TURF & TRACTOR
RAWLS CHURCH ROAD
FUQUAY-VARINA, NORTH CAROLINA

PROJECT NO.
2232b

DRAWING TITLE
UL'S

SHEET 2 OF 14

A0.2

PLOT DATE 10/25/23
REVISION ---

OCCUPANT LOAD

	BUSINESS	10,518 sf	100 sf GROSS	106	BUSINESS AREA 173
	EXERCISE	1,276 sf	50 sf GROSS	26	
	UNCONC. ASSEMBLY	373sf	15 sf NET	25	
	STORAGE	4,759 sf	300sf GROSS	16	
	F1	968 sf	100 sf GROSS	10	SHOP AREA 34
	REPAIR GARAGE (S1)	11,969 sf	500 sf GROSS	24	
	TOTAL OCCUPANTS				207

WALL LEGEND

- BRICK VENEER EXT. WALL WITH METAL STUD BACK UP
- EXT. METAL WALL PANEL WITH LINER INSUL. SYSTEM & FURRING W/ DRYWALL
- EXT. METAL WALL PANEL WITH LINER INSUL. SYSTEM MTL. LINER PANELS AS SCHED.
- 2 HOUR RATED FIRE BARRIER (PER U419)
- 3 HOUR RATED FIRE BARRIER (SEE 8/A4.2)
- FULL HEIGHT MTL STUD WALL W/ SOUND BATT INSUL. (PER 3/A4.2)
- FULL HEIGHT WALL 6" MTL STUDS SIM TO 3/A4.2 WITH 8' METAL LINER PANELS
- PARTIAL HEIGHT WALL 3 5/8" MTL STUDS (PER 4/A4.2)

EGRESS REQ. & CODE REF.

COMMON PATH OF TRAVEL = 75' MAX.

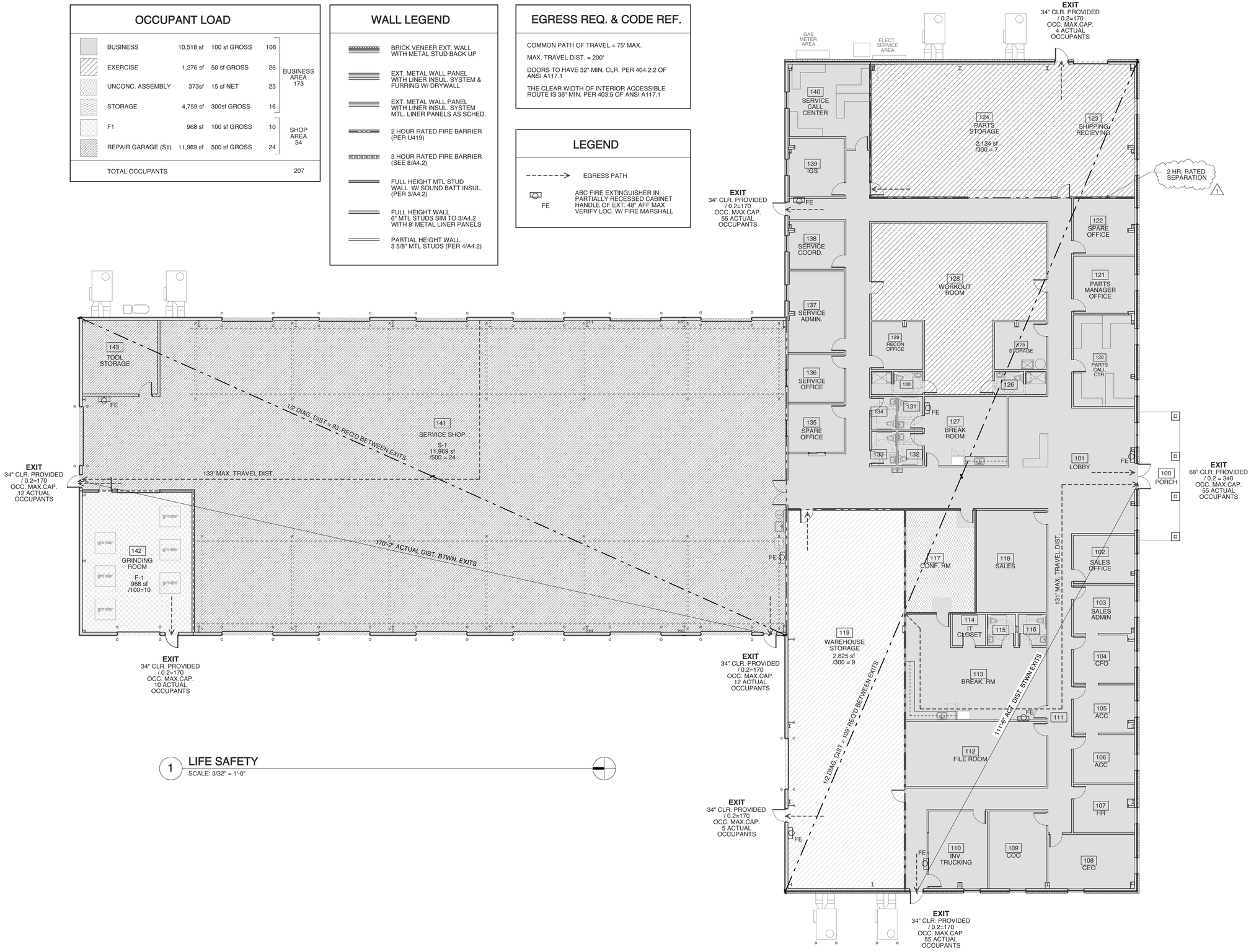
MAX. TRAVEL DIST. = 200'

DOORS TO HAVE 32" MIN. CLR. PER 404.2.2 OF ANSI A117.1

THE CLEAR WIDTH OF INTERIOR ACCESSIBLE ROUTE IS 36" MIN. PER 403.5 OF ANSI A117.1

LEGEND

- EGRESS PATH
- FE — ABC FIRE EXTINGUISHER IN PARTIALLY RECESSED CABINET HANDLE OF EXT. 48" AFF MAX VERIFY LOC. W/ FIRE MARSHALL



1 LIFE SAFETY
SCALE: 3/32" = 1'-0"

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12/1/2023

PROJECT TITLE
REVELS TURF & TRACTOR
RAWLS CHURCH ROAD
FUQUAY-VARINA, NORTH CAROLINA

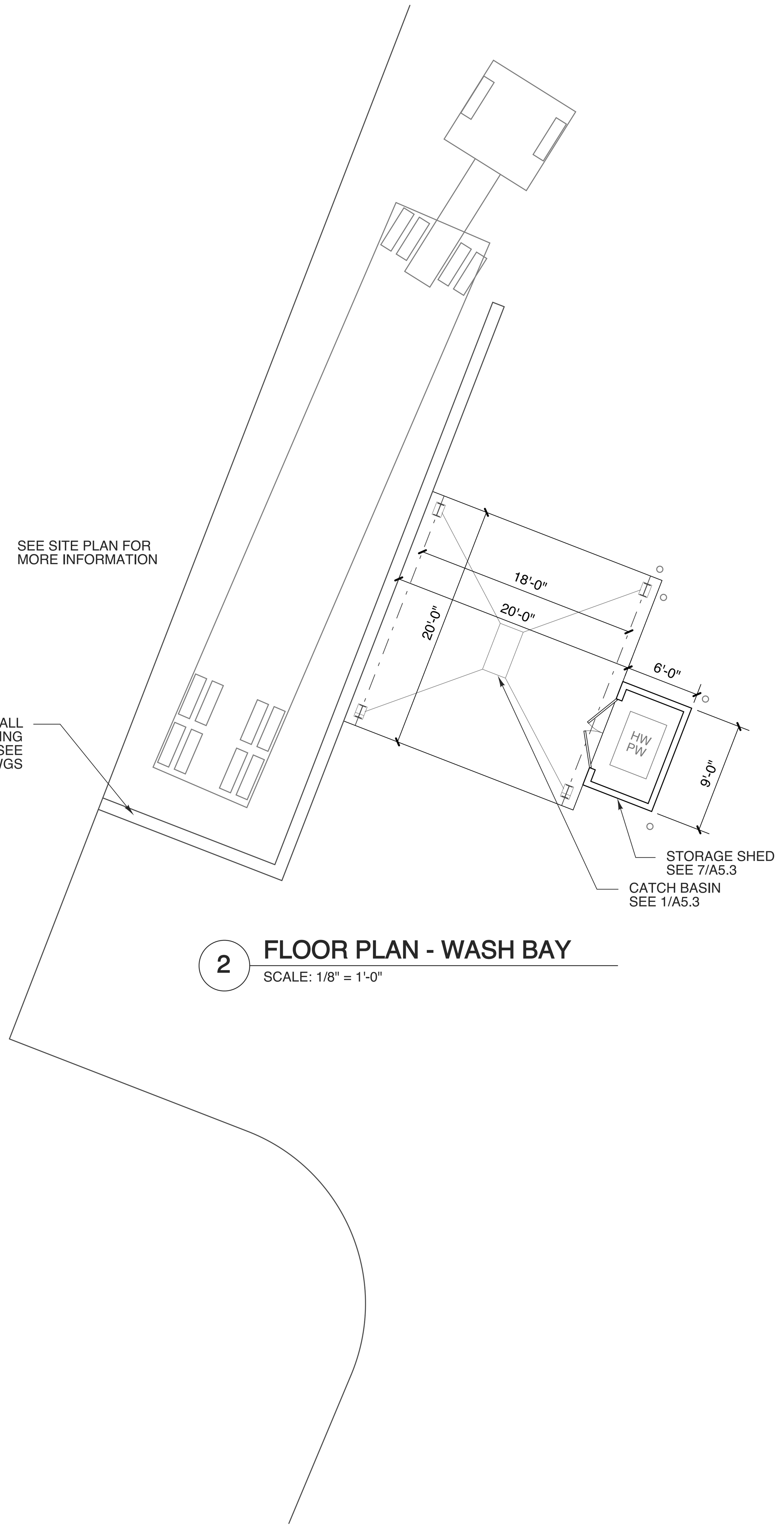
PROJECT NO.
2232b

DRAWING TITLE
LIFE SAFETY

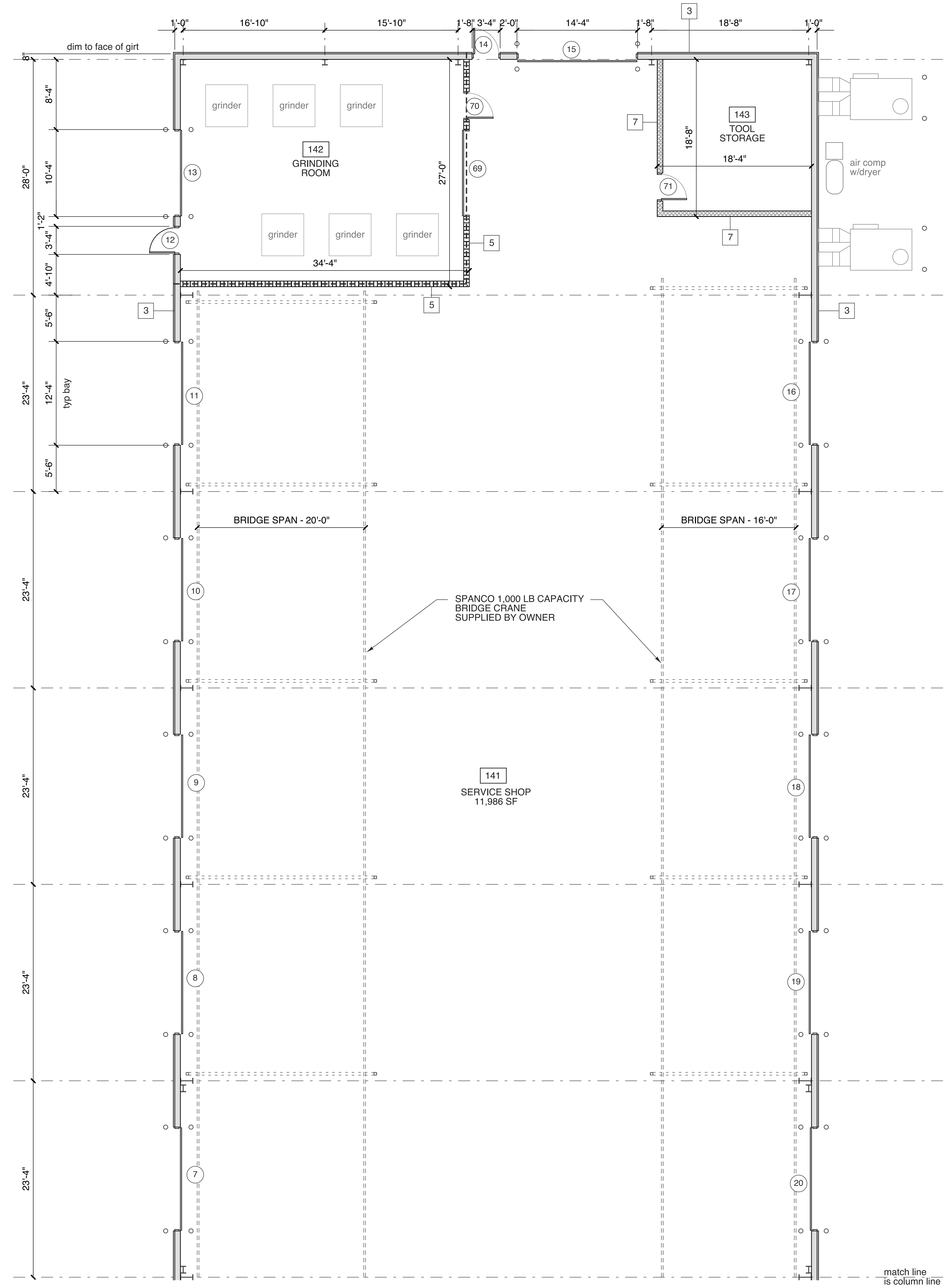
SHEET 3 OF 14

A0.3

PLOT DATE 12/1/23
REVISION COUNTY COM. 1 11/10/23



2 FLOOR PLAN - WASH BAY
SCALE: 1/8" = 1'-0"



1 FLOOR PLAN - PARTIAL
SCALE: 1/8" = 1'-0"

WALL LEGEND

1. BRICK VENEER EXT. WALL WITH METAL STUD BACK UP
2. EXT. METAL WALL PANEL WITH LINER INSUL. SYSTEM & FURRING W/ DRYWALL
3. EXT. METAL WALL PANEL WITH LINER INSUL. SYSTEM MTL. LINER PANELS AS SCHED.
4. 2 HOUR RATED FIRE BARRIER (PER U419)
5. 3 HOUR RATED FIRE BARRIER (SEE 8/A4.2)
6. FULL HEIGHT MTL STUD WALL W/ SOUND BATT INSUL. (PER 3/A4.2)
7. FULL HEIGHT WALL 6" MTL STUDS SIM TO 3/A4.2 WITH 8' METAL LINER PANELS

typ. int. wall u.n.o. — PARTIAL HEIGHT WALL 3 5/8" MTL STUDS (PER 4/A4.2)

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PROJECT TITLE
REVELS TURF & TRACTOR
RAWLS CHURCH ROAD
FUQUAY-VARINA, NORTH CAROLINA

PROJECT NO.
2232b

DRAWING TITLE
REAR SECT-PLAN

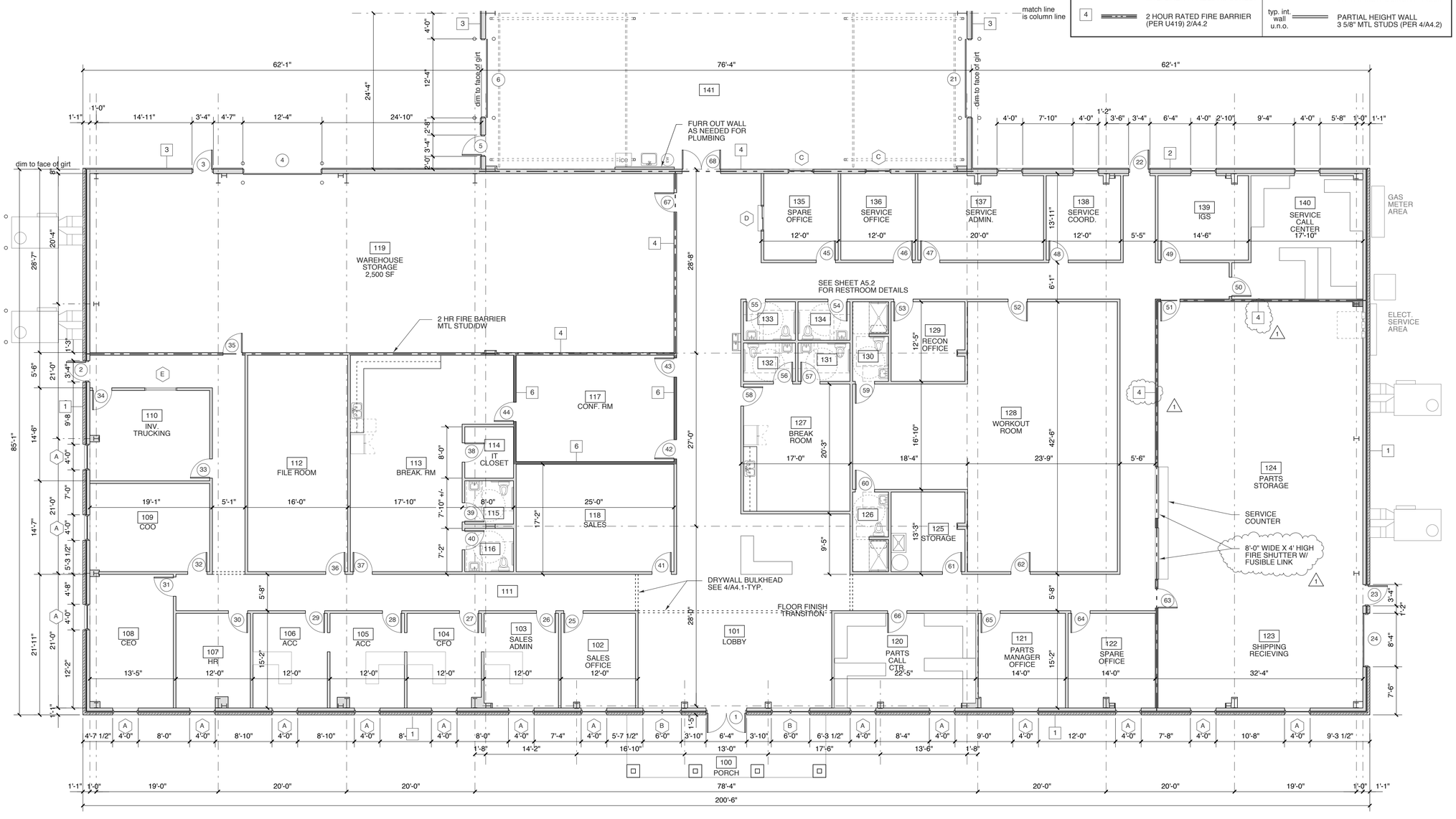
SHEET 4 OF 14

A1.1

PLOT DATE 10/25/23
REVISION ---

WALL LEGEND

1	BRICK VENEER EXT. WALL WITH METAL STUD BACK UP	5	3 HOUR RATED FIRE BARRIER (SEE 8/A4.2)
2	EXT. METAL WALL PANEL WITH LINER INSUL. SYSTEM & FURRING W/ DRYWALL	6	FULL HEIGHT MTL STUD WALL W/ SOUND BATT INSUL. (PER 3/A4.2)
3	EXT. METAL WALL PANEL WITH LINER INSUL. SYSTEM MTL. LINER PANELS AS SCHED.	7	FULL HEIGHT WALL 6" MTL STUDS SIM TO 3/A4.2 WITH 8' METAL LINER PANELS
4	2 HOUR RATED FIRE BARRIER (PER U419) 2/A4.2	typ. int. wall u.n.o.	PARTIAL HEIGHT WALL 3 5/8" MTL STUDS (PER 4/A4.2)



1 FLOOR PLAN - PARTIAL
SCALE: 1/8" = 1'-0"

10' 0 2' 4' 6' 8' 10'

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REVELS TURF & TRACTOR
RAWLS CHURCH ROAD
FUQUAY-VARINA, NORTH CAROLINA

PROJECT NO.
2232

DRAWING TITLE
FRONT PLAN

SHEET 5 OF 14

A1.2

PLOT DATE 11/10/23
REVISION COUNTY COM. 1 11/10/23

ROOF DRAINAGE LEGEND

▫	3.5" x 5" VERTICAL LEADER
— · — · —	7" EAVE GUTTER @ 0.5% SLOPE
— — — —	8" EAVE GUTTER @ 0.5% SLOPE

ALL ROOF PENETRATIONS TO BE PAINTED TO MATCH ROOF.

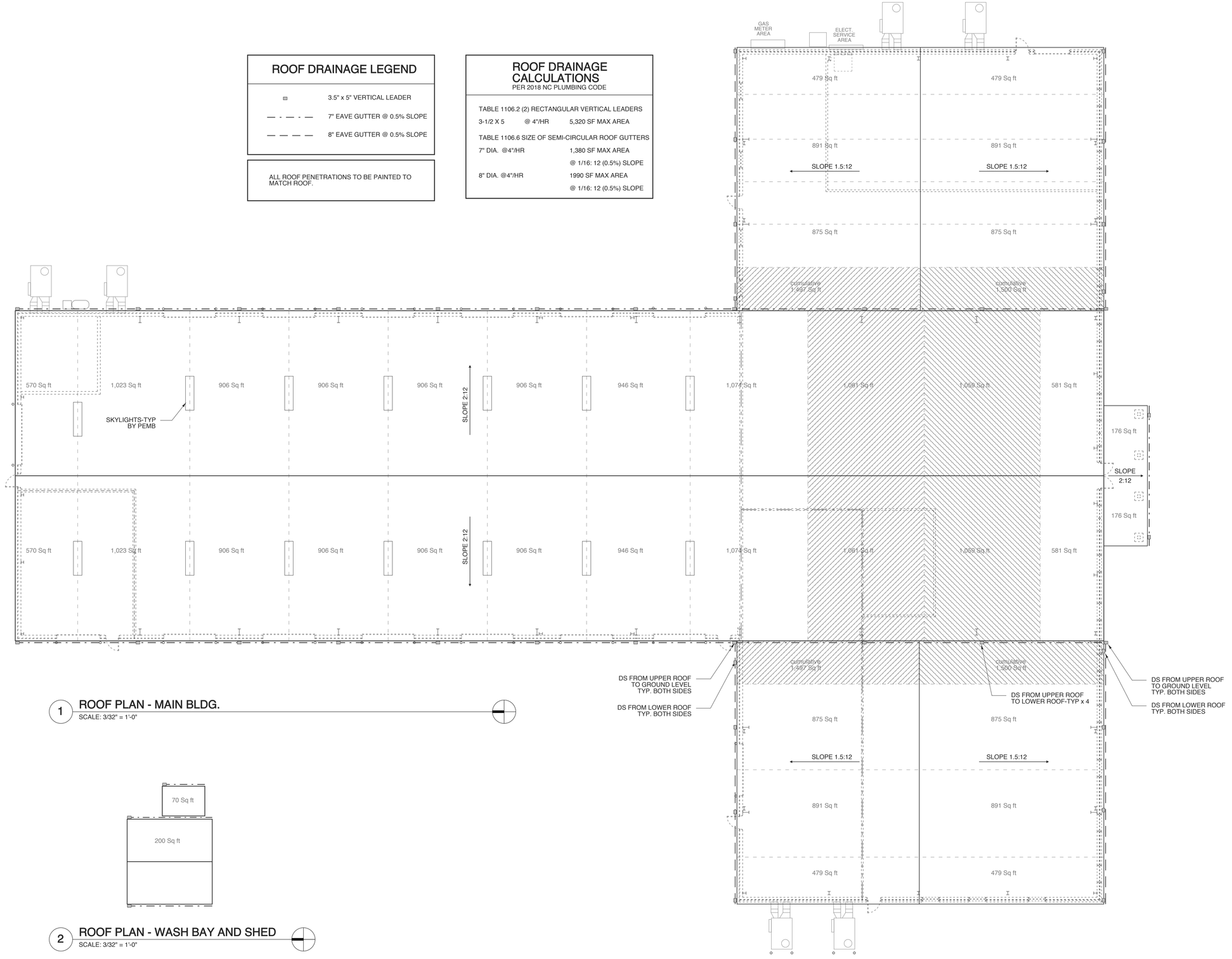
ROOF DRAINAGE CALCULATIONS
PER 2018 NC PLUMBING CODE

TABLE 1106.2 (2) RECTANGULAR VERTICAL LEADERS

3-1/2 X 5	@ 4"/HR	5,320 SF MAX AREA

TABLE 1106.6 SIZE OF SEMI-CIRCULAR ROOF GUTTERS

7" DIA. @4"/HR	1,380 SF MAX AREA @ 1/16: 12 (0.5%) SLOPE
8" DIA. @4"/HR	1990 SF MAX AREA @ 1/16: 12 (0.5%) SLOPE



1 ROOF PLAN - MAIN BLDG.
SCALE: 3/32" = 1'-0"

2 ROOF PLAN - WASH BAY AND SHED
SCALE: 3/32" = 1'-0"

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PROJECT TITLE
REVELS TURF & TRACTOR
RAWLS CHURCH ROAD
FUQUAY-VARINA, NORTH CAROLINA

PROJECT NO.
2232b

DRAWING TITLE
ROOF PLAN

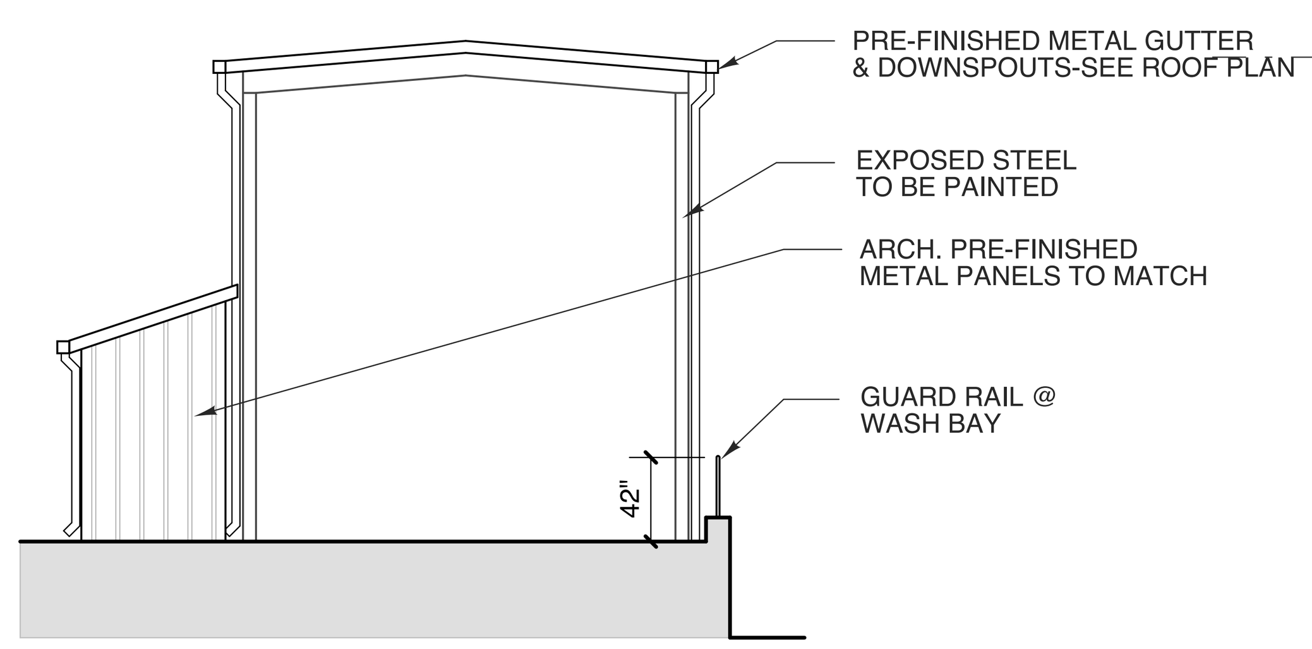
SHEET 6 OF 14

A1.3

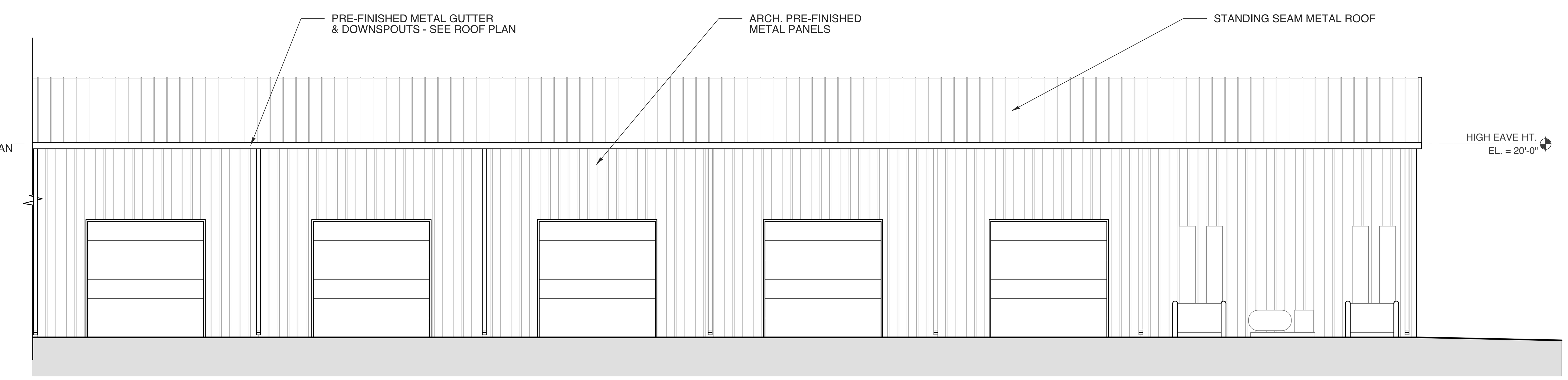
PLOT DATE 10/25/23
REVISION ---

This original sheet is 24" x 36"; other dimensions indicate it has been altered.

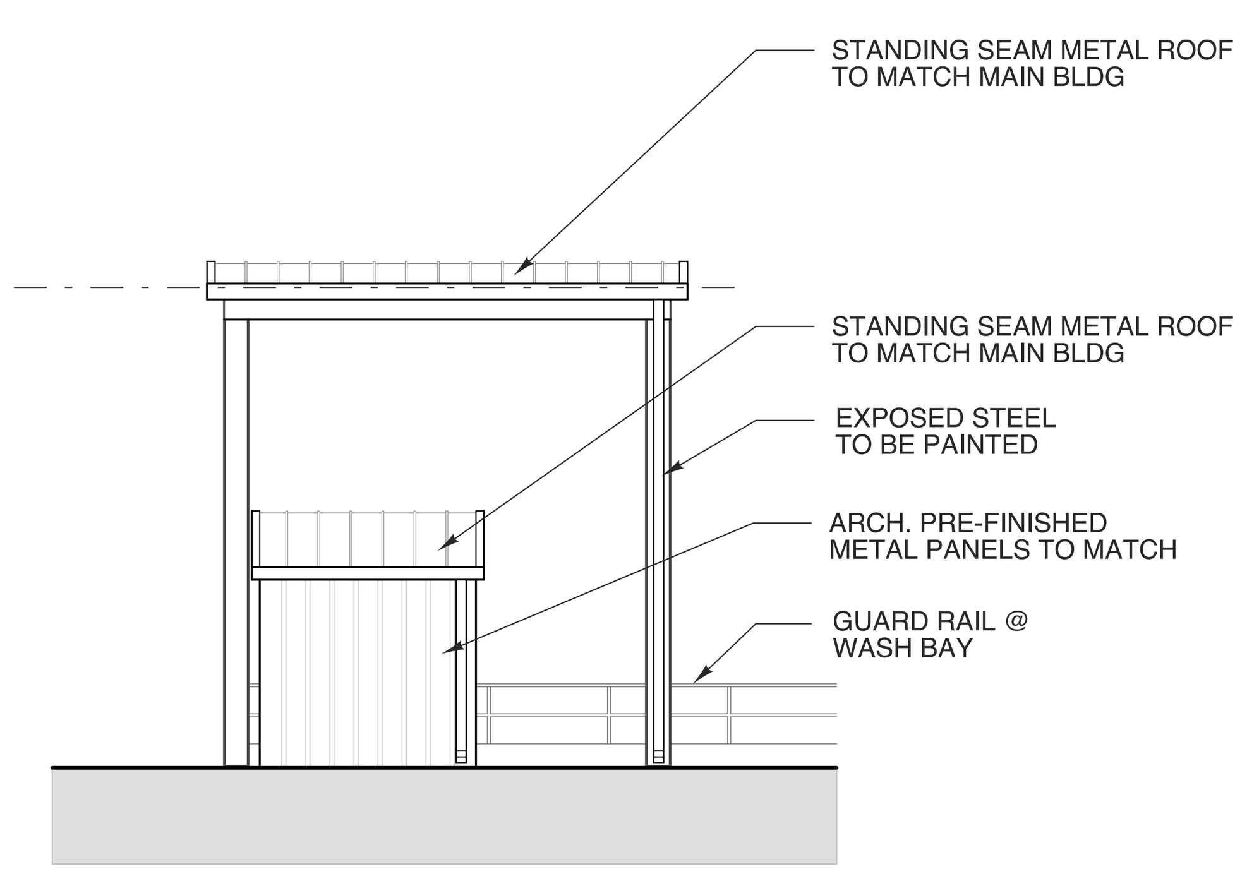
3 FRONT ELEVATION (SOUTH) - facing street
SCALE: 1/8" = 1'-0"



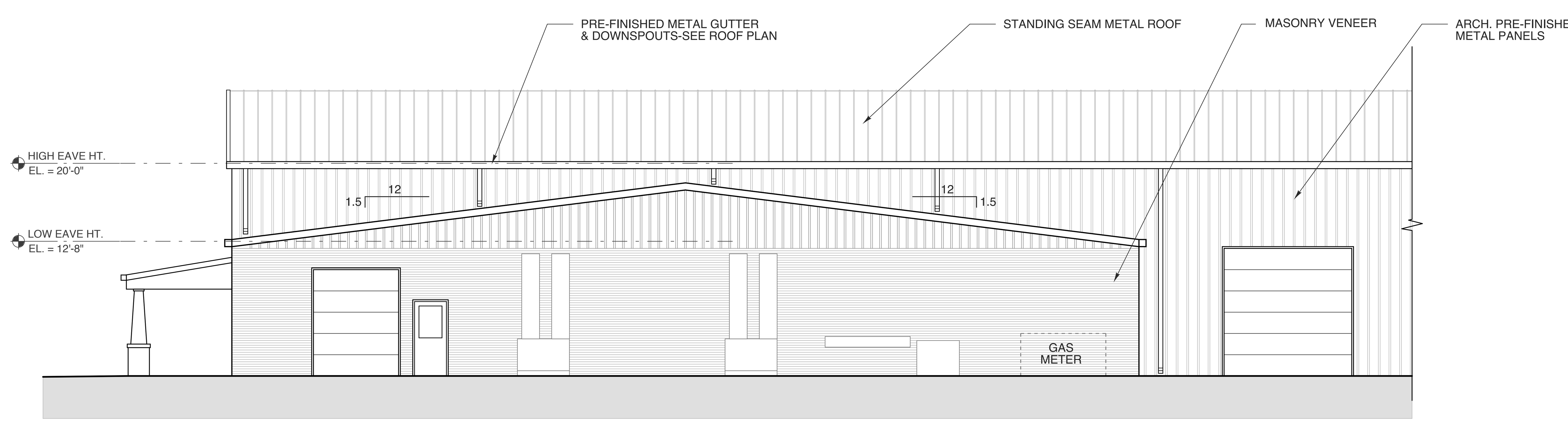
4 WASH BAY ELEVATION (NORTH)
SCALE: 1/8" = 1'-0"



2 SIDE ELEVATION (EAST) partial
SCALE: 1/8" = 1'-0"



5 WASH BAY ELEVATION (EAST)
SCALE: 1/8" = 1'-0"



1 SIDE ELEVATION (EAST) partial
SCALE: 1/8" = 1'-0"

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PROJECT TITLE
REVELS TURF & TRACTOR
RAWLS CHURCH ROAD
FUQUAY-VARINA, NORTH CAROLINA

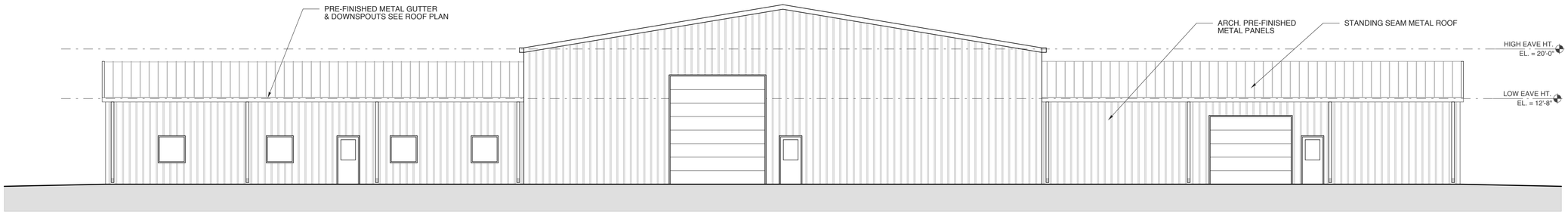
PROJECT NO.
2232b

DRAWING TITLE
ELEVATIONS

SHEET 7 OF 14

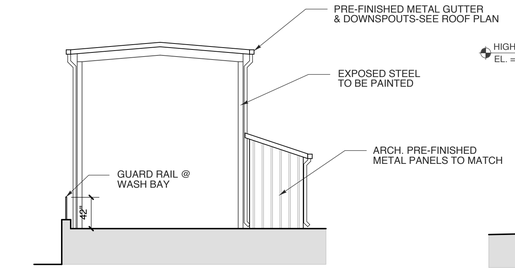
A 2.1

PLOT DATE 10/25/23
REVISION ---



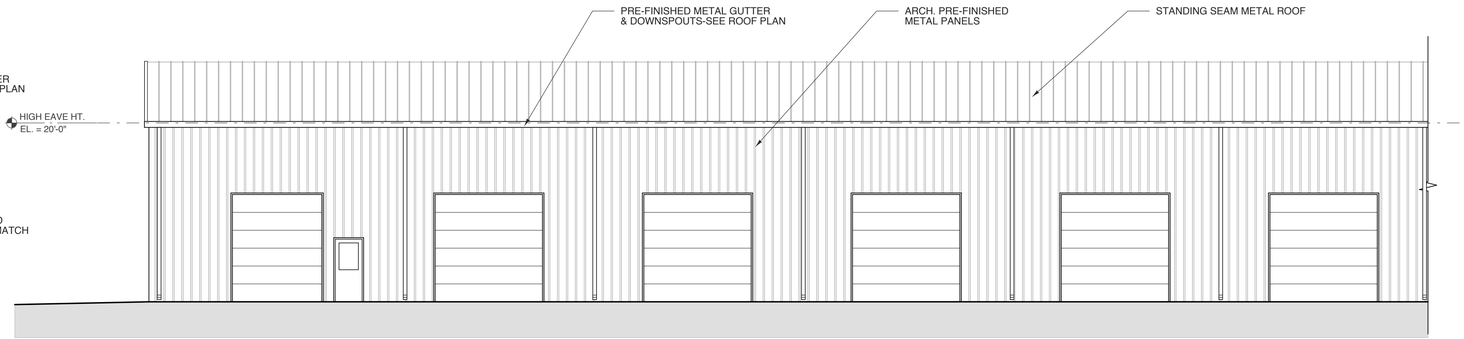
3 REAR ELEVATION (NORTH)

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



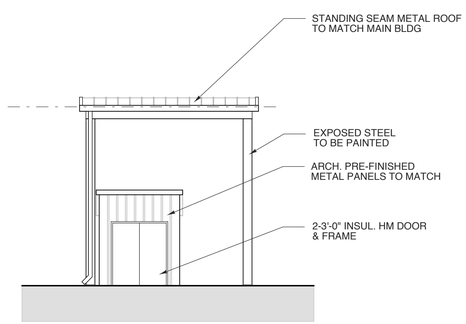
4 WASH BAY ELEVATION (SOUTH)

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



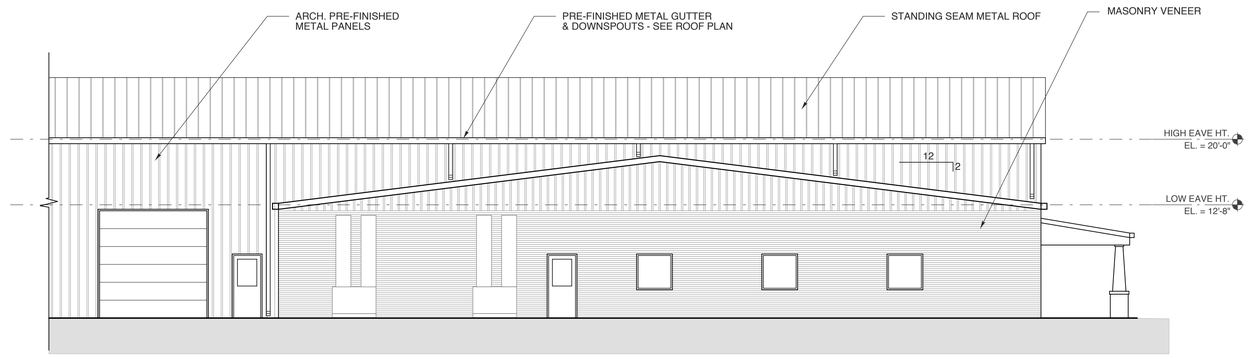
2 SIDE ELEVATION (WEST) partial

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



5 WASH BAY ELEVATION (WEST)

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



1 SIDE ELEVATION (WEST) partial

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

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10/25/2023

PROJECT TITLE
REVELS TURF & TRACTOR
RAWLS CHURCH ROAD
FUQUAY-VARINA, NORTH CAROLINA

PROJECT NO.
2232b

DRAWING TITLE
ELEVATIONS

SHEET 8 OF 114

A2.2

PLOT DATE 10/25/23
REVISION ---

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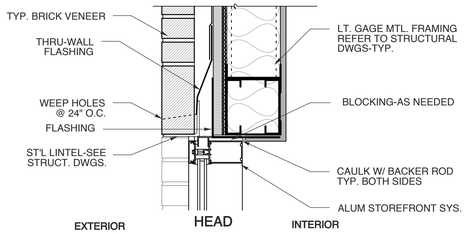
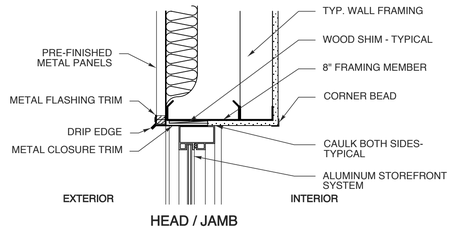
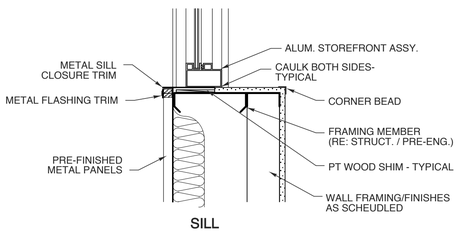
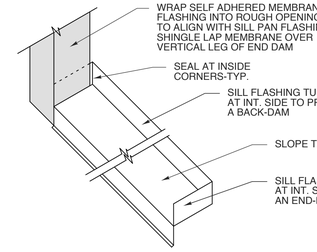


5 **ALUMINUM WINDOWS @ brick**
SCALE: 1 1/2"= 1'-0"

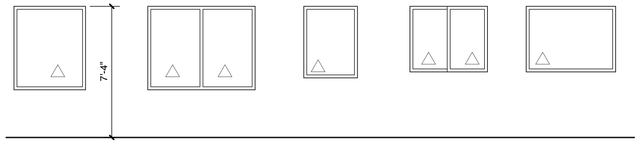




6 **ALUM. STOREFRONT @ METAL PANELS**
SCALE: 1 1/2"= 1'-0"



4 **TYP. FLASHING**
SCALE: NTS

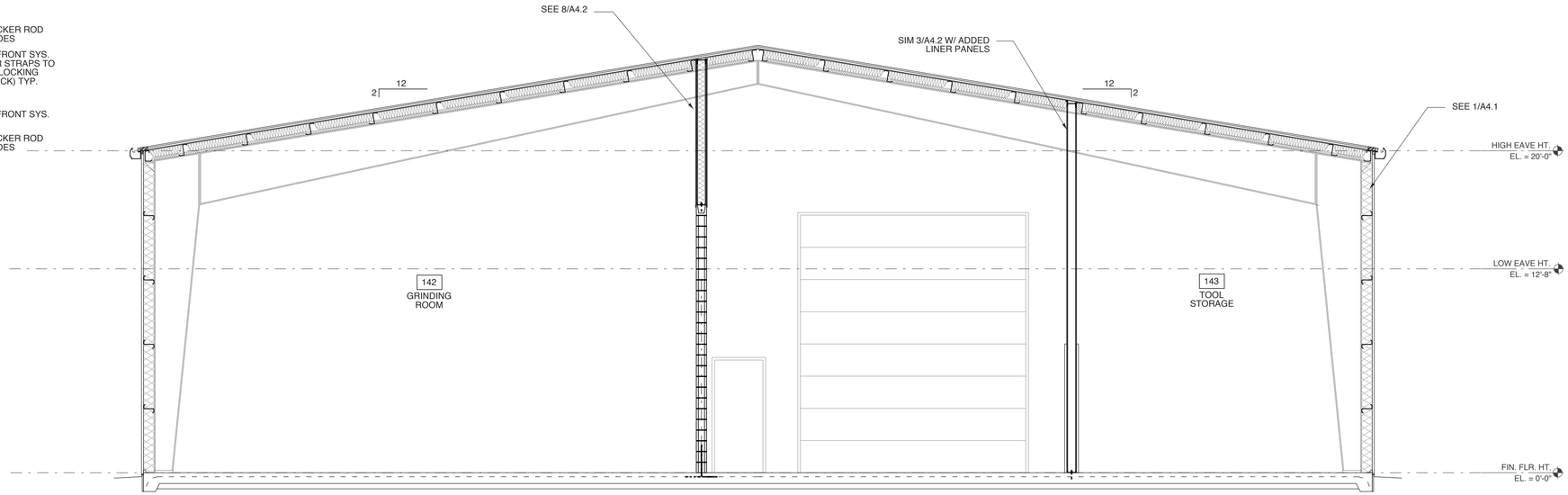


3 **WINDOW TYPES** △ INDICATES TEMPERED GLASS
SCALE: 1/4" = 1'-0"

WINDOW SCHEDULE

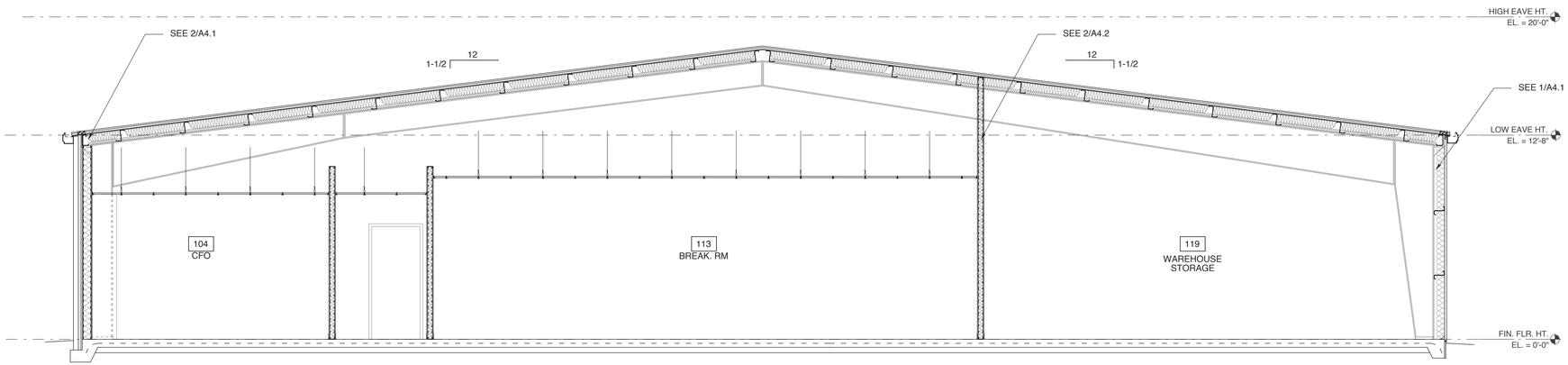
MARK	W SIZE H	MATERIAL	GLASS	REMARKS
A	4'-0" x 4'-8"	ALUMINUM	1" INSUL. LOW E GLASS	FIXED
B	6'-0" x 4'-8"	ALUMINUM	1" INSUL. LOW E GLASS	FIXED
C	3'-0" x 4'-0"	ALUMINUM	90 MIN. RATED GLASS	FIXED
D	4'-4" x 3'-8"	ALUMINUM	TEMPERED GLASS	SLIDER
E	5'-0" x 3'-8"	ALUMINUM	TEMPERED GLASS	FIXED

NOTES:
-SEE WINDOW TYPE ELEVATIONS AND DETAILS.
-FIELD VERIFY ALL EXISTING OPENING SIZES. DIMENSIONS GIVEN FOR REFERENCE.
-INCLUDE THERMAL BREAK PER MANUFACTURER'S STANDARDS WITH ALL FRAMES.
-ALL WINDOWS TO MEET NCSBC SECTION 1609.1.2



2 **BUILDING SECTION**
SCALE: 1/4" = 1'-0"

SEE STRUCTURAL DRAWINGS FOR FOUNDATION AND FRAMING INFORMATION



1 **BUILDING SECTION**
SCALE: 1/4" = 1'-0"

SEE STRUCTURAL DRAWINGS FOR FOUNDATION AND FRAMING INFORMATION

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11075
NORTH CAROLINA
RALEIGH, NC
DocuSigned by:
Ginger S. Summer
10/25/2023

PROJECT TITLE
REVELS TURF & TRACTOR
RAWLS CHURCH RD.
FUQUAY-VARIN, NC

PROJECT NO.
2232b

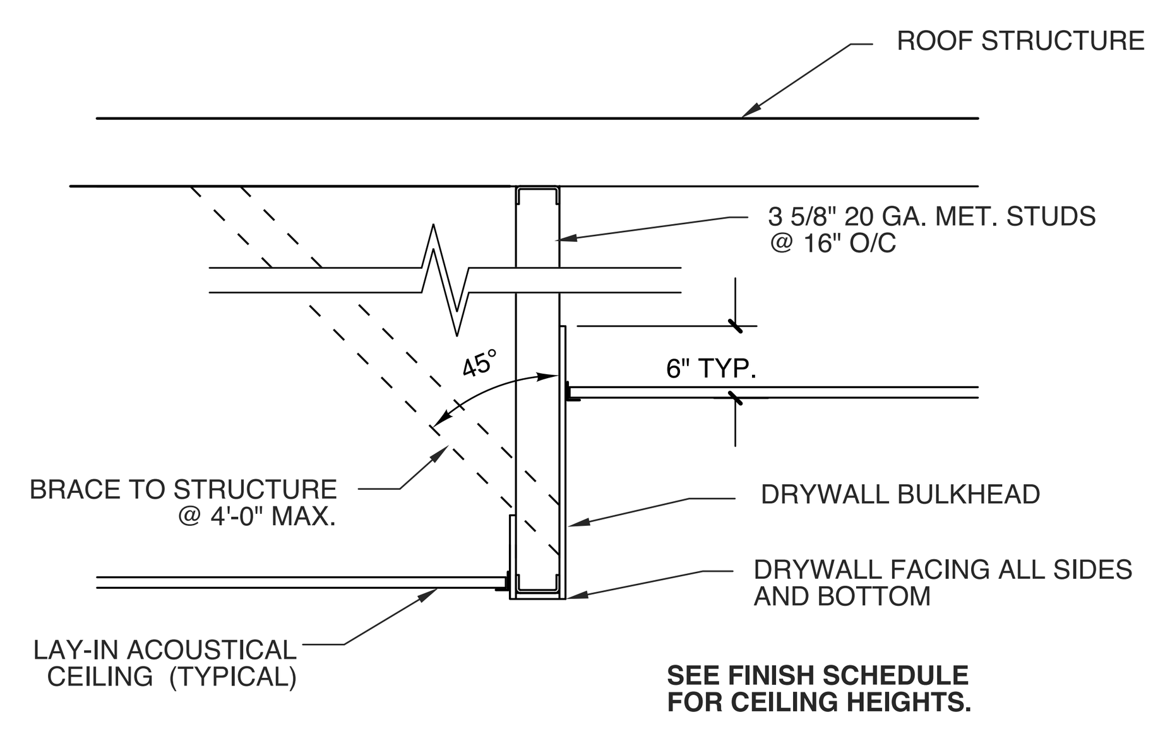
DRAWING TITLE
BLDG. SECTIONS

SHEET 9 OF 14

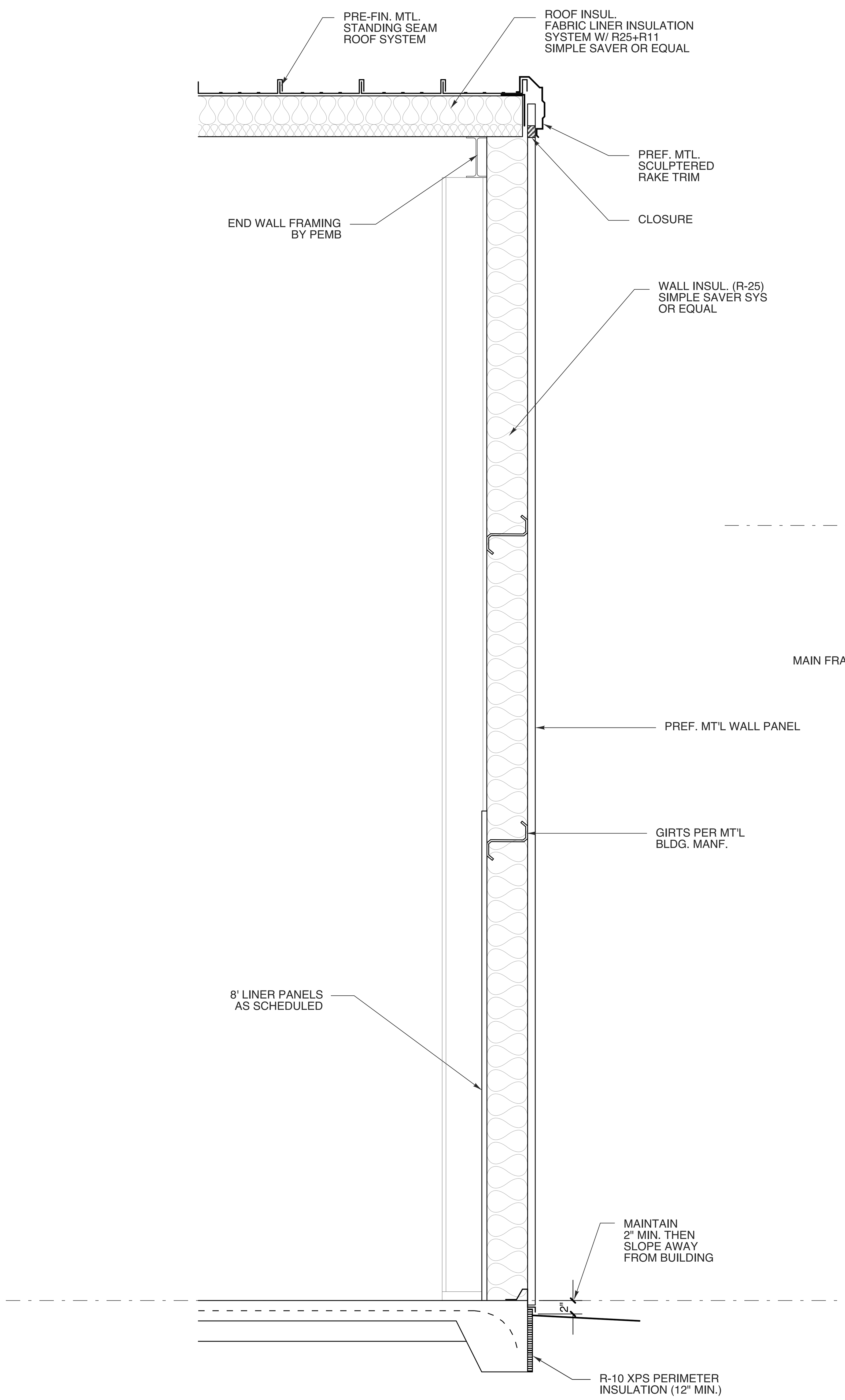
A3

PLOT DATE 10/25/23
REVISION ---

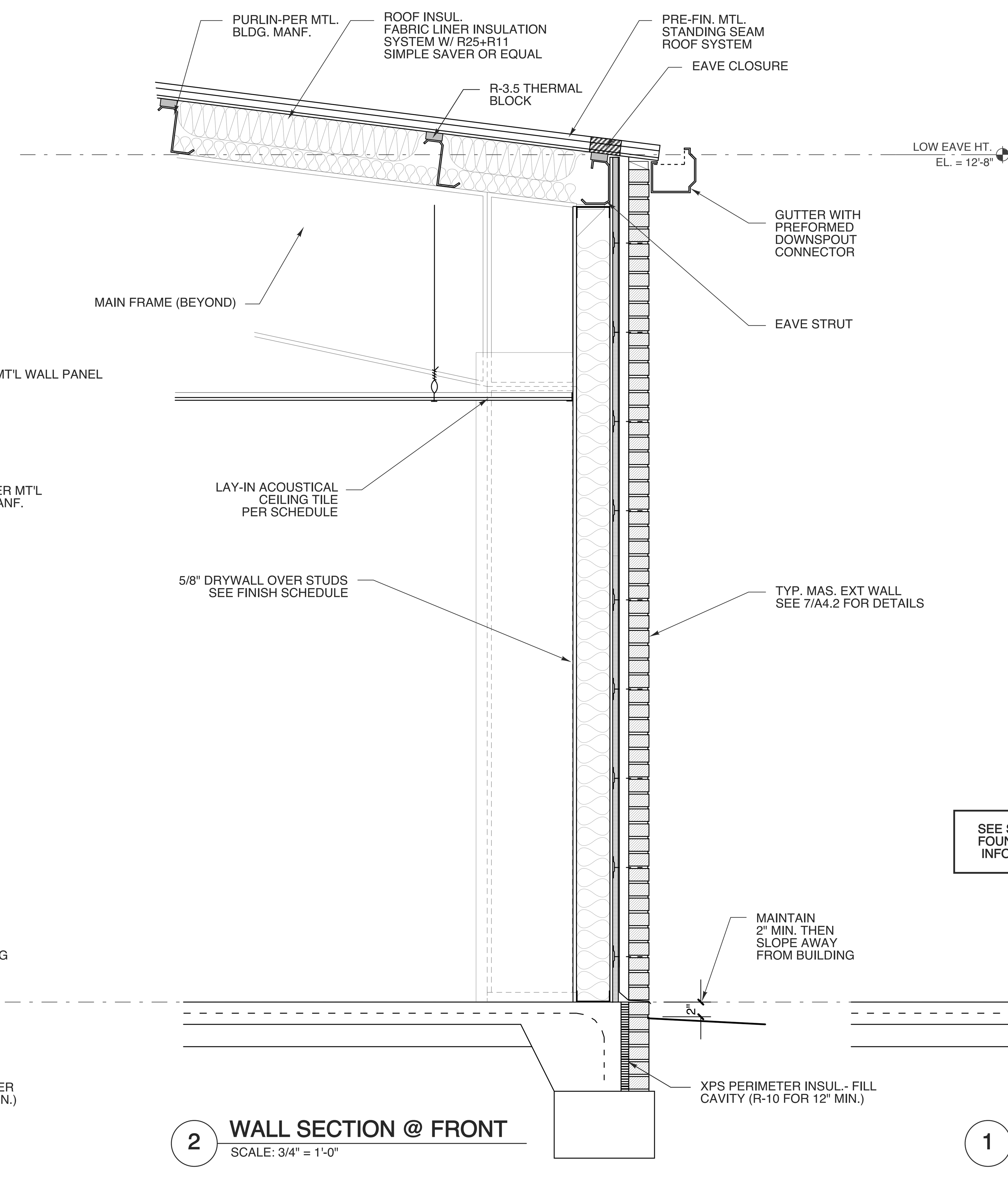
This original sheet is 24" x 36"; other dimensions indicate it has been altered.



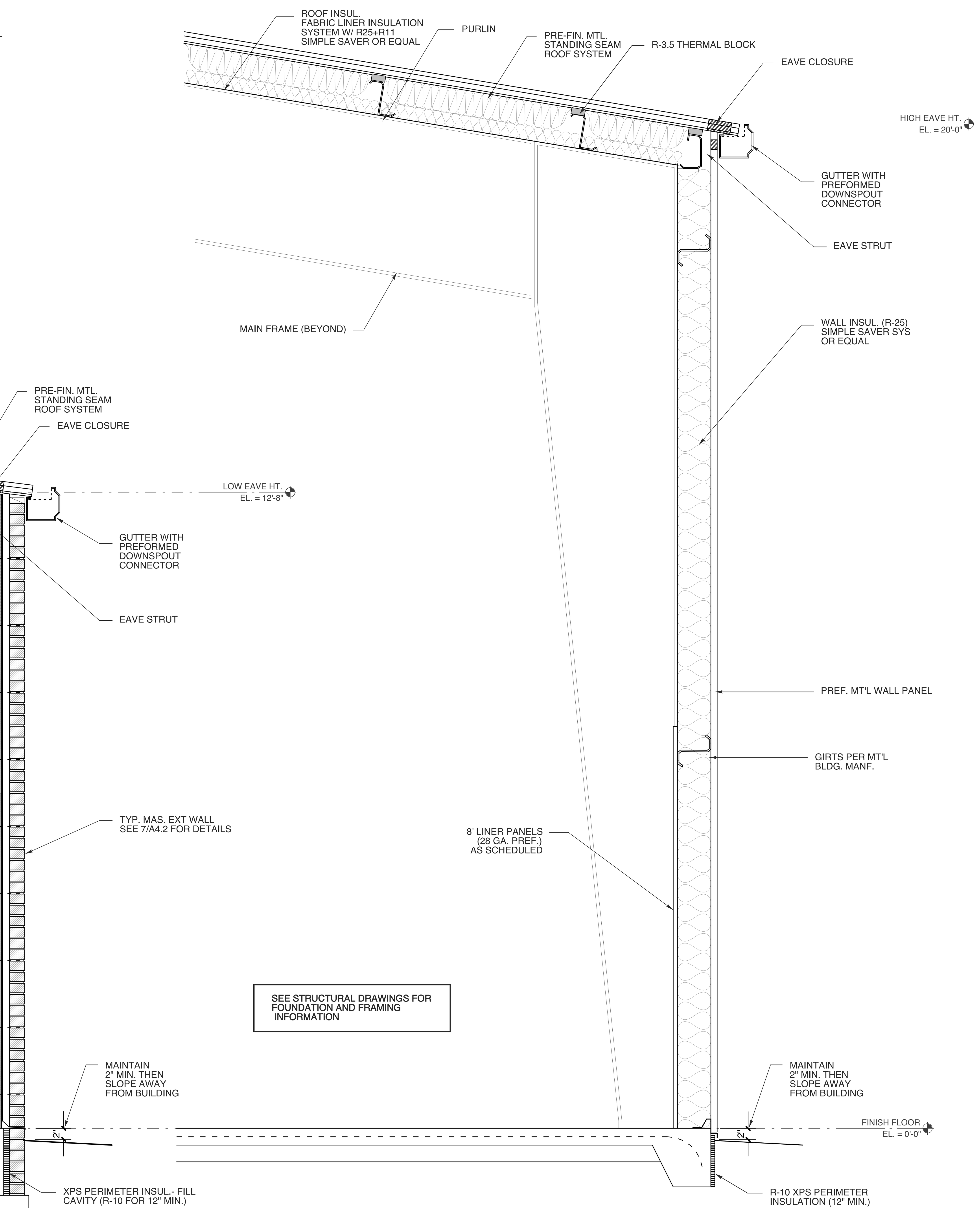
4 DRYWALL BULKHEAD
SCALE: 3/4" = 1'-0"



3 WALL SECTION @ SIDE
SCALE: 3/4" = 1'-0"



2 WALL SECTION @ FRONT
SCALE: 3/4" = 1'-0"



1 WALL SECTION @ REAR
SCALE: 3/4" = 1'-0"

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10/25/2023

PROJECT TITLE
REVELS TURF & TRACTOR
RAWLS CHURCH ROAD
FUQUAY-VARINA, NORTH CAROLINA

PROJECT NO.
2232b

DRAWING TITLE
WALL SECTIONS

SHEET 10 OF 14

A4.1

PLOT DATE 10/25/23
REVISION ---

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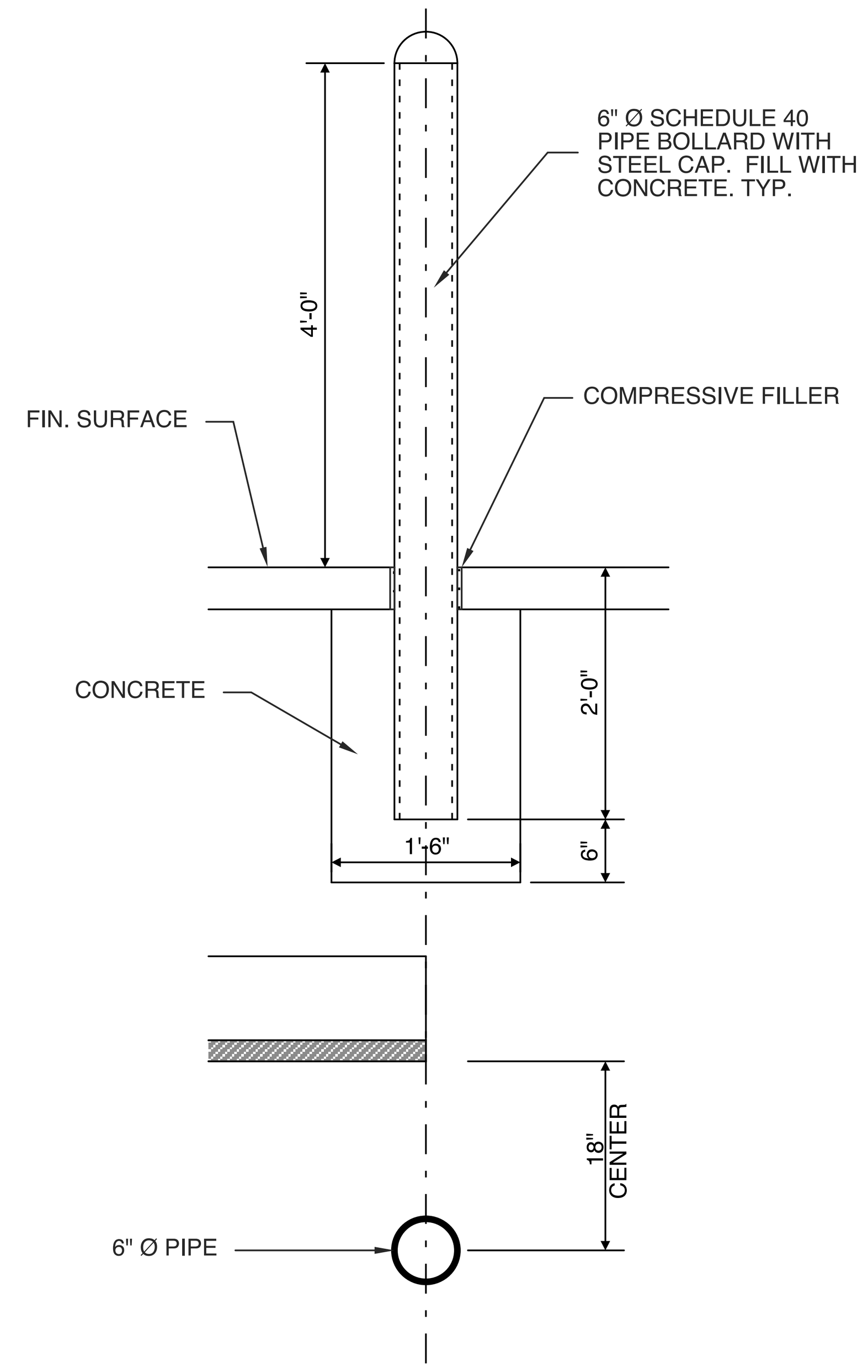
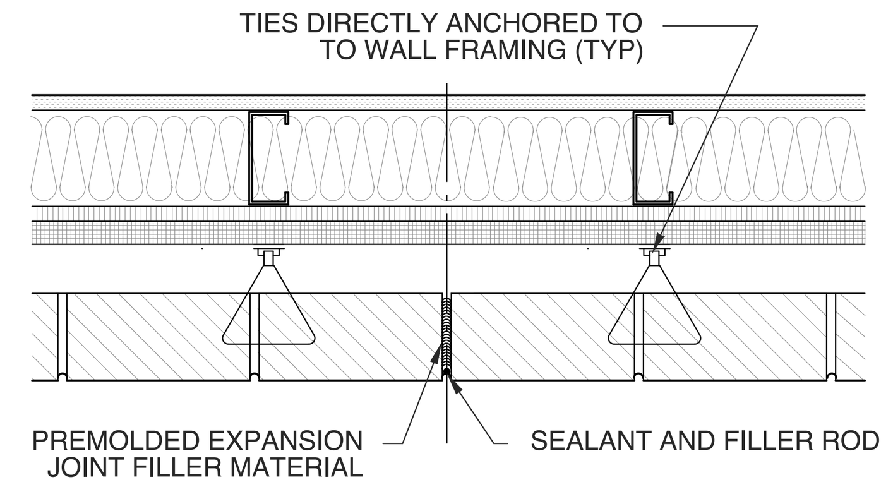
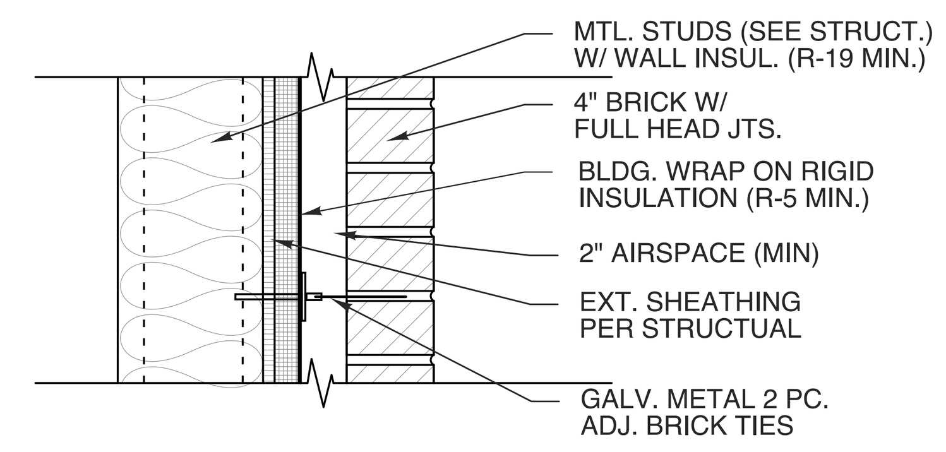


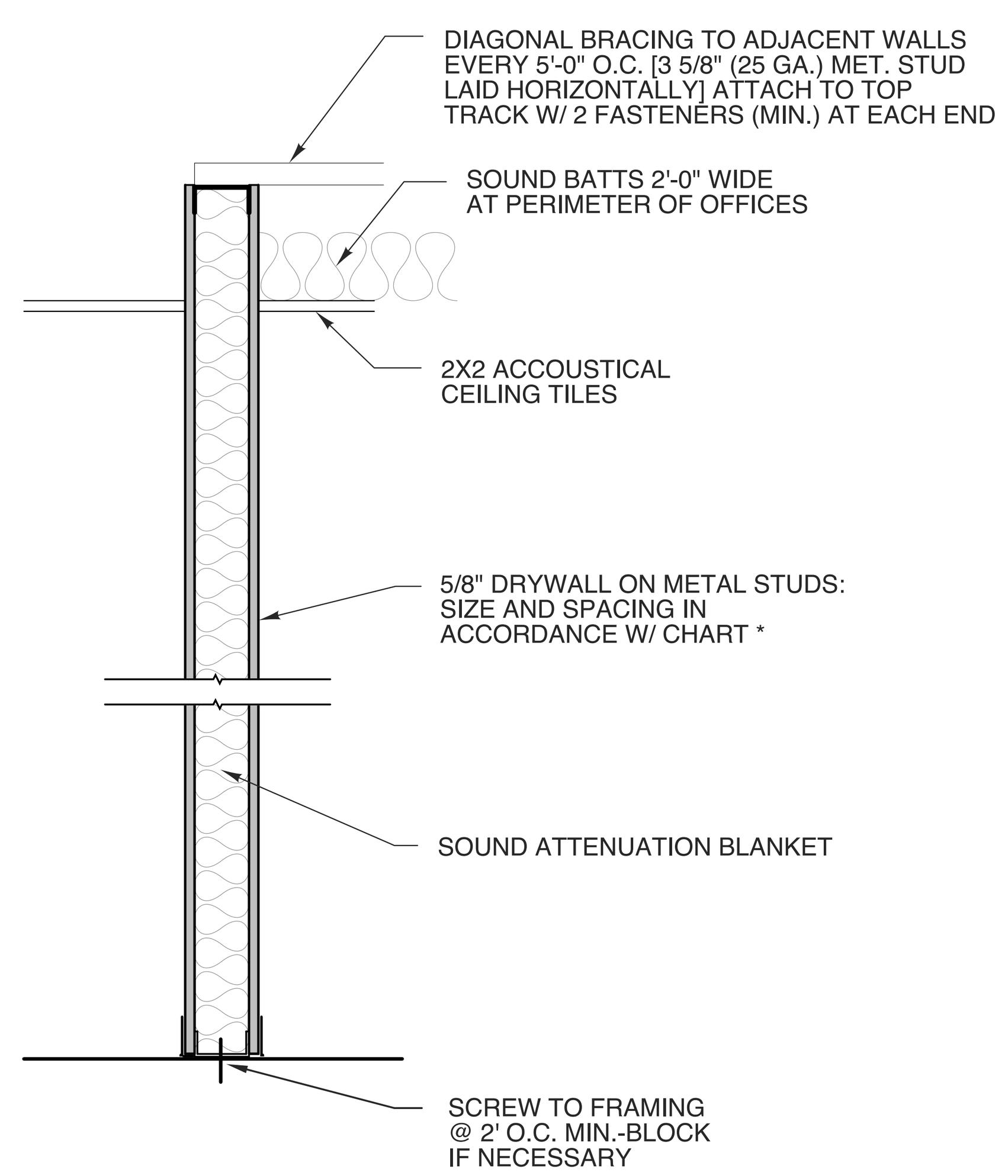
5 BOLLARD DETAIL
SCALE: 3/4" = 1'-0"



6 TYP. MAS. EXP. JOINT
SCALE: 1 1/2"=1'-0"



7 TYP. EXT. MAS. WALL
SCALE: 1 1/2" = 1'-0"



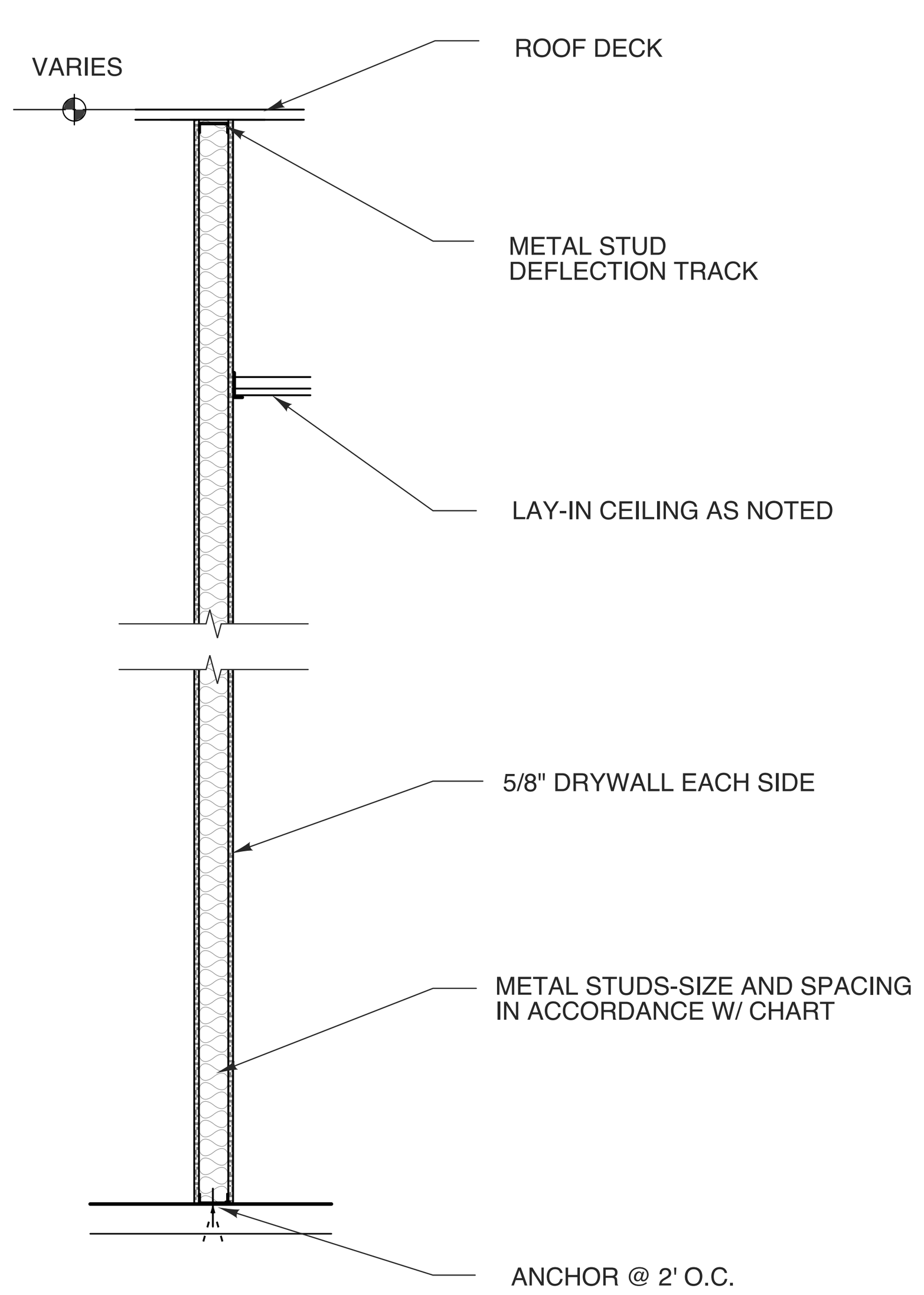
4 NON-RATED WALL SECTION
SCALE: NTS

* MAXIMUM STUD HEIGHTS FOR INTERIOR TENANT SEPARATION WALLS

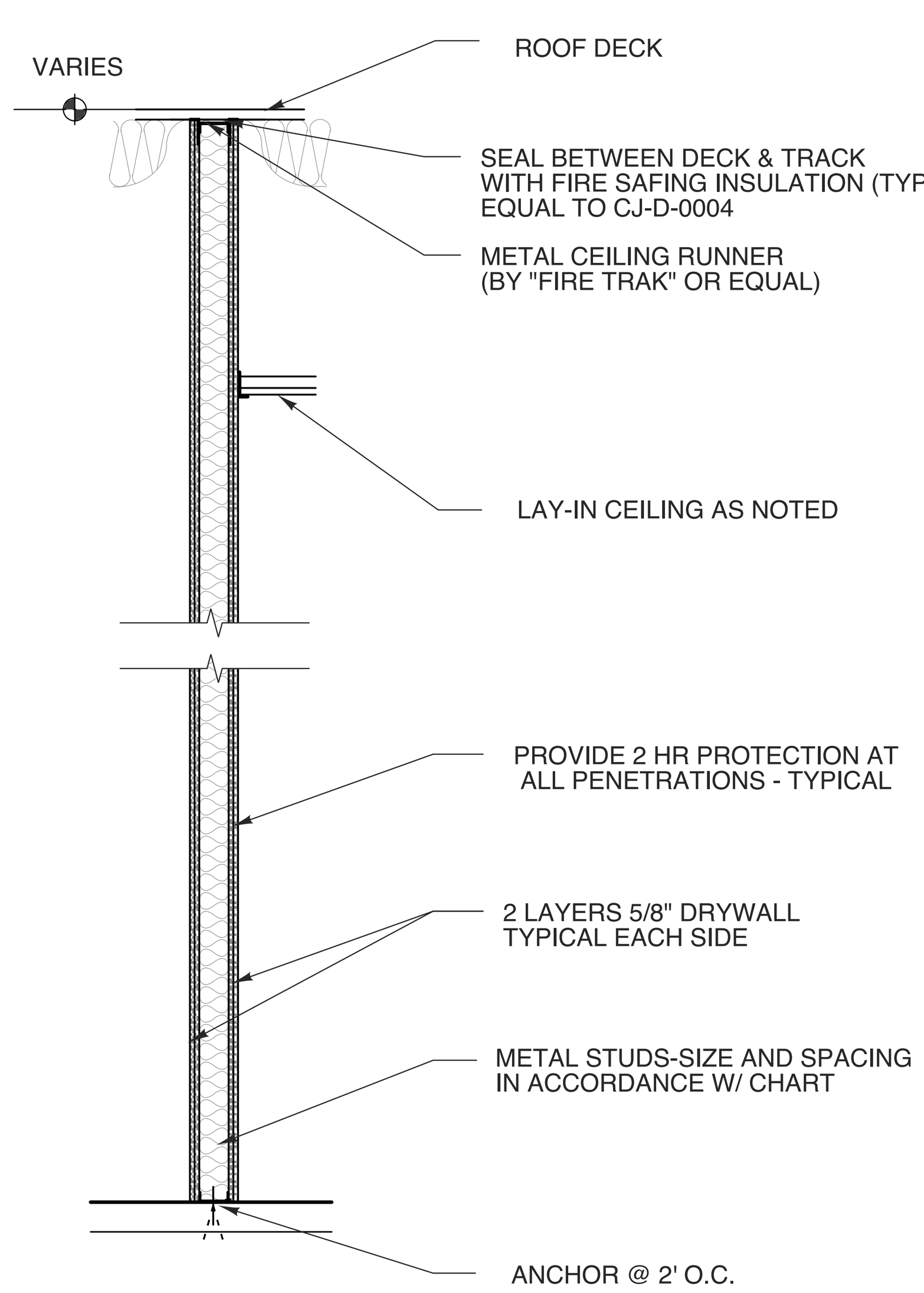
Size	Gauge	O.C. Spacing	Max. Height
2 1/2"	25 ga.	12" 16" 24"	13'-11" 12'- 8" 11'-1"
3 5/8"	24 ga.	12" 16" 24"	18'-6" 16'-10" 14'-8"
3 1/2"	25 ga.	12" 16" 24"	18'-0" 16'-4" 14'-4"
6"	25 ga.	12" 16" 24"	27'-7" 26'-0" 21'-10"
8"	25 ga.	12" 16" 24"	34'-10" 31'-7" 27'-7"

Top track by Fire Trak Corp. or equal and of same gauge as stud

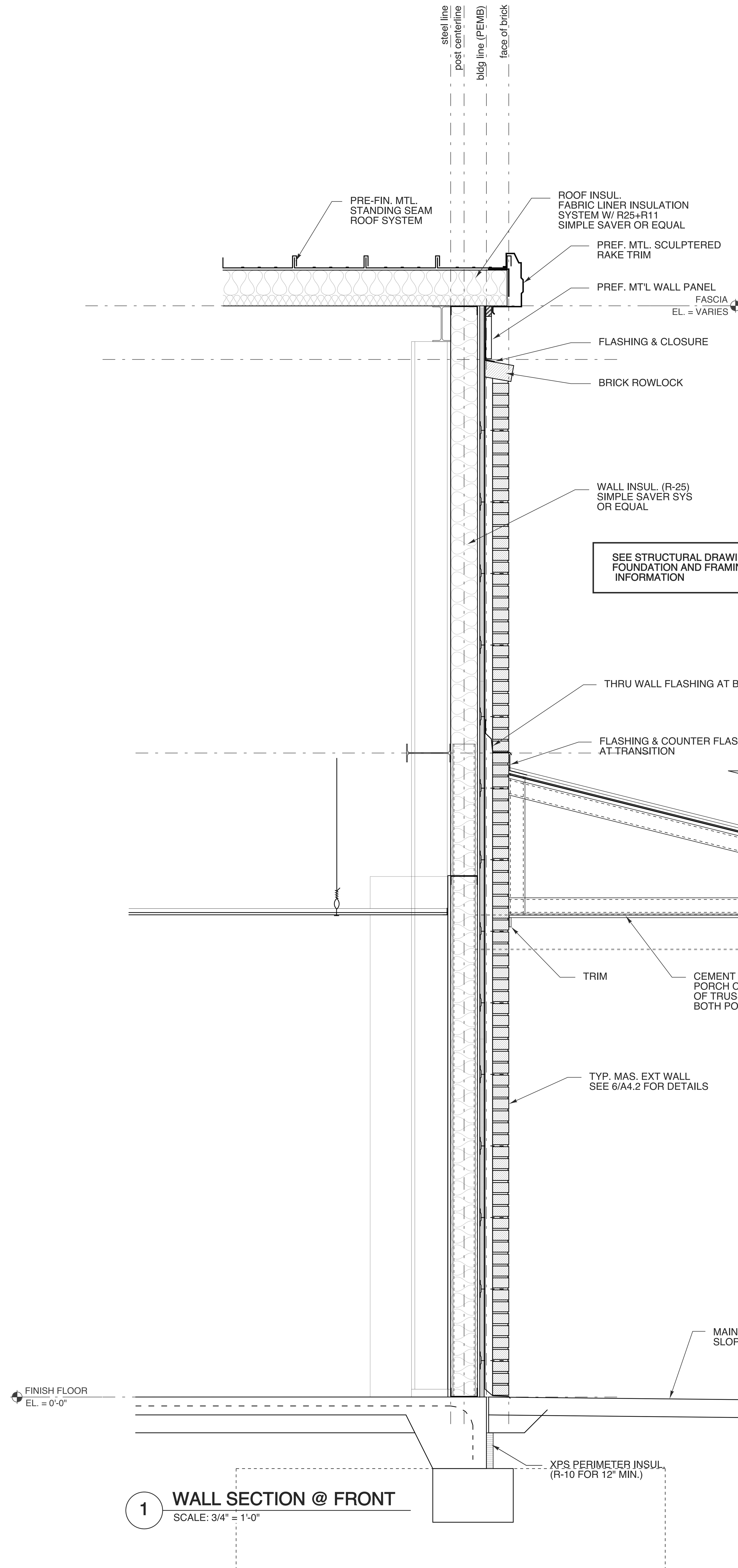
* Based upon information furnished by Dietrich for CWN type steel studs.
(alternate stud types and gauges shall be approved by the architect)



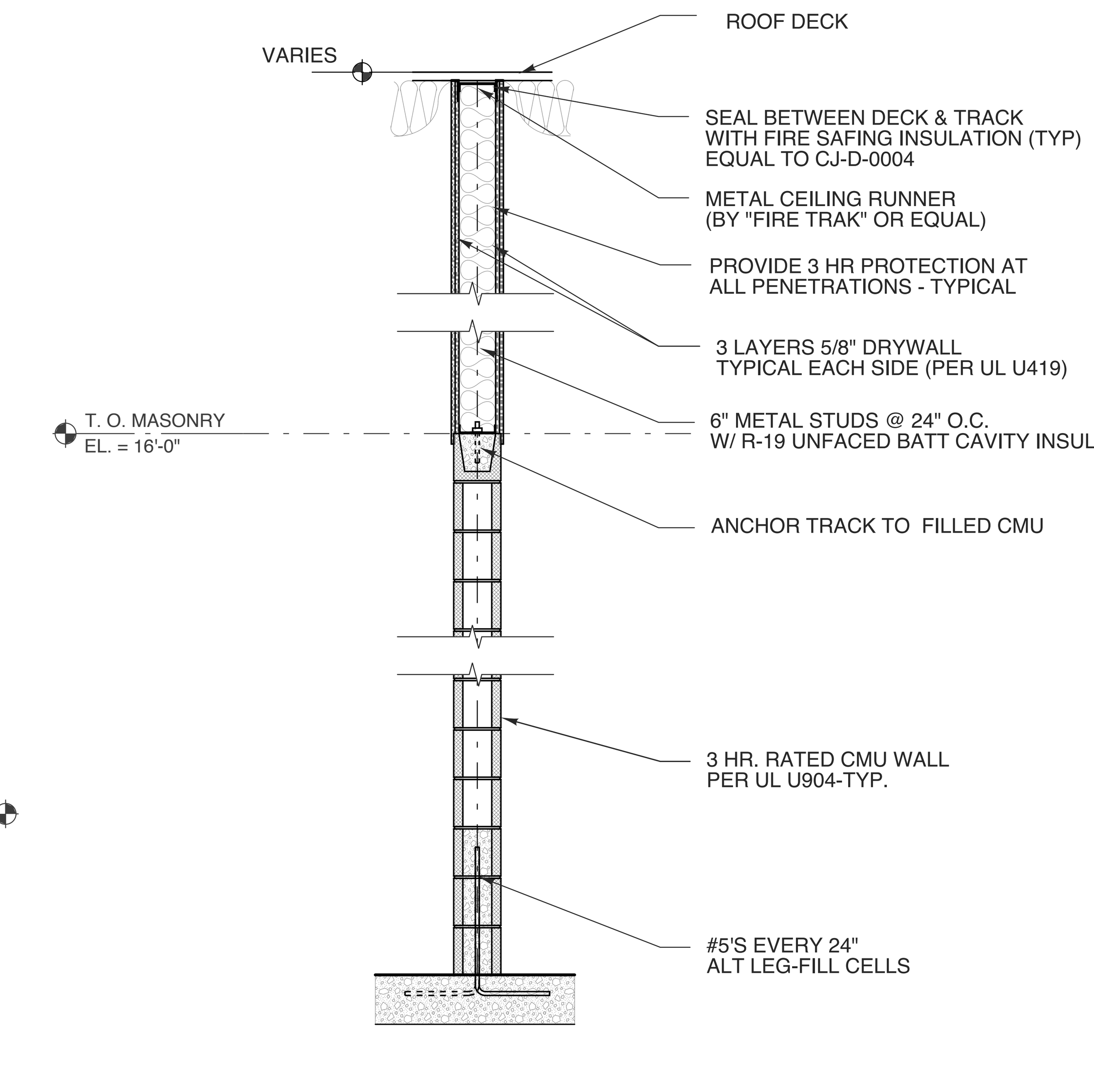
3 FULL HEIGHT WALL SECTION
SCALE: 1/2" = 1'-0"



2 2 HOUR SEPARATION WALL
SCALE: 1/2" = 1'-0"



1 WALL SECTION @ FRONT
SCALE: 3/4" = 1'-0"



8 3 HOUR SEPARATION WALL
SCALE: 1/2" = 1'-0"

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2232b

DRAWING TITLE
WALL SECTIONS

SHEET 11 OF 14

A4.2

PLOT DATE 10/25/23
REVISION ---

This original sheet is 24" x 36"; other dimensions indicate it has been altered.

DOOR SCHEDULE

	DOOR			FRAME		HDWR SET NO.	REMARKS
MARK	SIZE	MAT'L	TYPE	TYPE	DETAILS		
33	3'-0" x 7'-0" x 1-3/4"	SC WD	D	C	---	---	---
34	3'-0" x 7'-0" x 1-3/4"	SC WD	D	C	---	---	---
35	3'-0" x 7'-0" x 1-3/4"	SC WD	G	E	---	---	90 MIN. RATED
36	3'-0" x 7'-0" x 1-3/4"	SC WD	C	C	---	---	---
37	3'-0" x 7'-0" x 1-3/4"	SC WD	J	C	---	---	---
38	3'-0" x 7'-0" x 1-3/4"	SC WD	F	C	---	---	---
39	3'-0" x 7'-0" x 1-3/4"	SC WD	C	C	---	---	---
40	3'-0" x 7'-0" x 1-3/4"	SC WD	C	C	---	---	---
41	3'-0" x 7'-0" x 1-3/4"	SC WD	C	C	---	---	---
42	3'-0" x 7'-0" x 1-3/4"	SC WD	D	C	---	---	---
43	3'-0" x 7'-0" x 1-3/4"	SC WD	D	C	---	---	---
44	3'-0" x 7'-0" x 1-3/4"	SC WD	C	C	---	---	---
45	3'-0" x 7'-0" x 1-3/4"	SC WD	D	C	---	---	---
46	3'-0" x 7'-0" x 1-3/4"	SC WD	D	C	---	---	---
47	3'-0" x 7'-0" x 1-3/4"	SC WD	D	C	---	---	---
48	3'-0" x 7'-0" x 1-3/4"	SC WD	D	C	---	---	---
49	3'-0" x 7'-0" x 1-3/4"	SC WD	D	C	---	---	---
50	3'-0" x 7'-0" x 1-3/4"	SC WD	D	C	---	---	---
51	3'-0" x 7'-0" x 1-3/4"	SC WD	G	E	---	---	---
52	3'-0" x 7'-0" x 1-3/4"	SC WD	D	C	---	---	---
53	3'-0" x 7'-0" x 1-3/4"	SC WD	D	C	---	---	---
54	3'-0" x 7'-0" x 1-3/4"	SC WD	C	C	---	---	---
55	3'-0" x 7'-0" x 1-3/4"	SC WD	C	C	---	---	---
56	3'-0" x 7'-0" x 1-3/4"	SC WD	C	C	---	---	---
57	3'-0" x 7'-0" x 1-3/4"	SC WD	C	C	---	---	---
58	3'-0" x 7'-0" x 1-3/4"	SC WD	J	C	---	---	---
59	3'-0" x 7'-0" x 1-3/4"	SC WD	C	C	---	---	---
60	3'-0" x 7'-0" x 1-3/4"	SC WD	C	C	---	---	---
61	3'-0" x 7'-0" x 1-3/4"	SC WD	C	C	---	---	---
62	3'-0" x 7'-0" x 1-3/4"	SC WD	D	C	---	---	---
63	3'-0" x 7'-0" x 1-3/4"	SC WD	G	E	---	---	---
64	3'-0" x 7'-0" x 1-3/4"	SC WD	D	C	---	---	---
65	3'-0" x 7'-0" x 1-3/4"	SC WD	D	C	---	---	---
66	3'-0" x 7'-0" x 1-3/4"	SC WD	D	C	---	---	---
67	3'-0" x 7'-0" x 1-3/4"	SC WD	G	E	---	---	90 MIN. RATED
68	2-3'-0" x 7'-0" x 1-3/4"	HM	E	E	---	---	90 MIN. RATED
69	10'-0" x 10'-0"	MTL	H	D	---	---	90 MIN. RATED, COILING
70	3'-0" x 7'-0" x 1-3/4"	HM	E	E	---	---	90 MIN. RATED
71	3'-0" x 7'-0" x 1-3/4"	HM	K	C	---	---	---

NOTES:

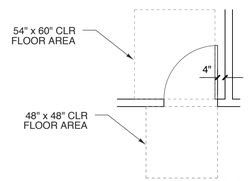
- COORDINATE KEYING OF HARDWARE WITH OWNER
- ALL DOORS TO MEET NCSBC SECTION 1609.1.2
- DOOR HANDLES TO BE SCHLAGE ND-SERIES, TRIM-TBD, FINISH-SATIN NICKEL
- DOOR HINGES TO BE IVES 5BB1/HW OR APPROVED EQUAL
- DOOR CLOSERS TO BE LCN 4040 SERIES OR EQUAL
- PANIC HARDWARE TO BE VON DUPRIN 35 A SERIES
- DOOR SLABS TO BE PREFINISHED CLEAR WHITE BIRCH
- PUSH/PULL HARWARE & KICK PLATE FINISHES TO MATCH HANDLESETS
- RATED FRAMES TO BE TGP FIREFRAMES OR APPROVED EQUAL

HARDWARE SETS

1. PANIC HARDWARE WITH CLOSER
2. PUSH / PULL SET WITH CLOSER
3. STOREROOM FUNCTION LOCKSET
4. STOREROOM FUNCTION LOCKSET WITH CLOSER
5. PRIVACY SET
6. PASSAGE SET
7. PRIVACY SET W/ CLOSER
8. PRIVACY SET W/ CLOSER, INTEGRATED ASTRAGAL & FLUSH BOLTS

DOOR SCHEDULE

	DOOR			FRAME		HDWR SET NO.	REMARKS
MARK	SIZE	MAT'L	TYPE	TYPE	DETAILS		
1	2- 3'-0" x 7'-0" x 1-3/4"	ALUM	A	A	---	---	---
2	3'-0" x 7'-0" x 1-3/4"	INSUL HM	B	B	---	---	---
3	3'-0" x 7'-0" x 1-3/4"	INSUL HM	B	B	---	---	---
4	12'-0" x 10'-0"	INSUL MTL.	H	D	---	---	INSUL. SECTIONAL OVERHEAD
5	3'-0" x 7'-0" x 1-3/4"	INSUL HM	B	B	---	---	---
6	12'-0" x 12'-0"	INSUL MTL.	H	D	---	---	INSUL. SECTIONAL OVERHEAD
7	12'-0" x 12'-0"	INSUL MTL.	H	D	---	---	INSUL. SECTIONAL OVERHEAD
8	12'-0" x 12'-0"	INSUL MTL.	H	D	---	---	INSUL. SECTIONAL OVERHEAD
9	12'-0" x 12'-0"	INSUL MTL.	H	D	---	---	INSUL. SECTIONAL OVERHEAD
10	12'-0" x 12'-0"	INSUL MTL.	H	D	---	---	INSUL. SECTIONAL OVERHEAD
11	12'-0" x 12'-0"	INSUL MTL.	H	D	---	---	INSUL. SECTIONAL OVERHEAD
12	3'-0" x 7'-0" x 1-3/4"	INSUL HM	B	B	---	---	---
13	10'-0" x 12'-0"	INSUL MTL.	H	D	---	---	INSUL. SECTIONAL OVERHEAD
14	3'-0" x 7'-0" x 1-3/4"	INSUL HM	B	B	---	---	---
15	14'-0" x 16'-0"	INSUL MTL.	H	D	---	---	INSUL. SECTIONAL OVERHEAD
16	12'-0" x 12'-0"	INSUL MTL.	H	D	---	---	INSUL. SECTIONAL OVERHEAD
17	12'-0" x 12'-0"	INSUL MTL.	H	D	---	---	INSUL. SECTIONAL OVERHEAD
18	12'-0" x 12'-0"	INSUL MTL.	H	D	---	---	INSUL. SECTIONAL OVERHEAD
19	12'-0" x 12'-0"	INSUL MTL.	H	D	---	---	INSUL. SECTIONAL OVERHEAD
20	12'-0" x 12'-0"	INSUL MTL.	H	D	---	---	INSUL. SECTIONAL OVERHEAD
21	12'-0" x 12'-0"	INSUL MTL.	H	D	---	---	INSUL. SECTIONAL OVERHEAD
22	3'-0" x 7'-0" x 1-3/4"	INSUL HM	B	B	---	---	---
23	3'-0" x 7'-0" x 1-3/4"	INSUL HM	B	B	---	---	---
24	8'-0" x 10'-0"	INSUL MTL.	H	D	---	---	INSUL. SECTIONAL OVERHEAD
25	3'-0" x 7'-0" x 1-3/4"	SC WD	D	C	---	---	---
26	3'-0" x 7'-0" x 1-3/4"	SC WD	D	C	---	---	---
27	3'-0" x 7'-0" x 1-3/4"	SC WD	D	C	---	---	---
28	3'-0" x 7'-0" x 1-3/4"	SC WD	D	C	---	---	---
29	3'-0" x 7'-0" x 1-3/4"	SC WD	D	C	---	---	---
30	3'-0" x 7'-0" x 1-3/4"	SC WD	D	C	---	---	---
31	3'-0" x 7'-0" x 1-3/4"	SC WD	D	C	---	---	---
32	3'-0" x 7'-0" x 1-3/4"	SC WD	D	C	---	---	---

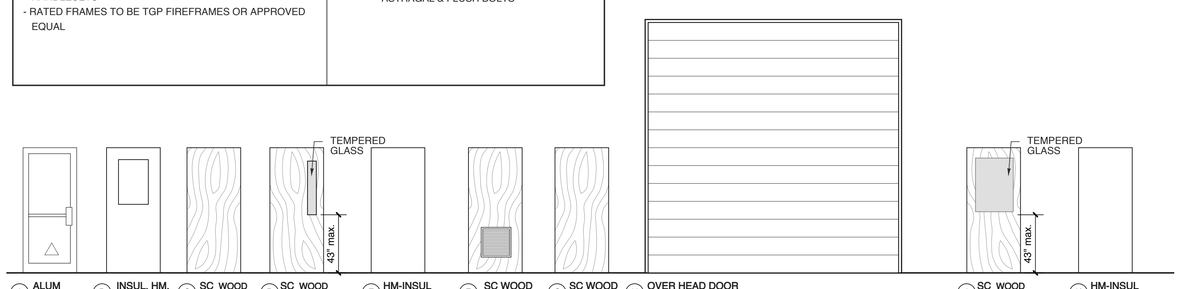


3 TYP. DOOR LOCATION
SCALE: 1/4"= 1'-0"

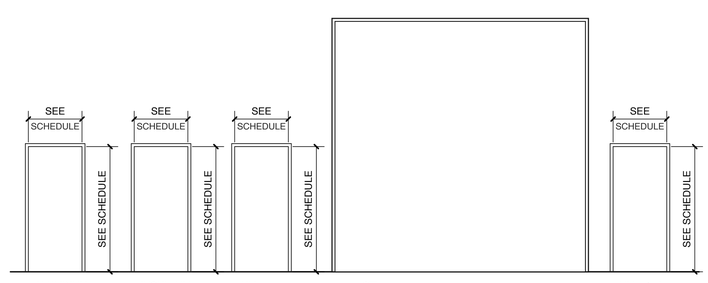
ROOM FINISH SCHEDULE

MARK	ROOM NAME	FLOOR	BASE	WALL N	WALL E	WALL S	WALL W	WAINSCOT	CEILING MATERIAL	CEILING HGT.	REMARKS / NOTES
100	PORCH	CONCRETE	---	---				---	---	---	---
101	LOBBY	WALK OFF CARPET TILE	RUBBER	PT. DW.				---	ACT	9'/10'	---
102	SALES OFFICE	LVT	RUBBER	PT. DW.				---	ACT	9'-0"	---
103	SALES ADMIN	LVT	RUBBER	PT. DW.				---	ACT	9'-0"	---
104	CFO	LVT	RUBBER	PT. DW.				---	ACT	9'-0"	---
105	ACC	LVT	RUBBER	PT. DW.				---	ACT	9'-0"	---
106	ACC	LVT	RUBBER	PT. DW.				---	ACT	9'-0"	---
107	HR	LVT	RUBBER	PT. DW.				---	ACT	9'-0"	---
108	CEO	LVT	RUBBER	PT. DW.				---	ACT	9'-0"	---
109	COO	LVT	RUBBER	PT. DW.				---	ACT	9'-0"	---
110	INV. TRUCKING	LVT	RUBBER	PT. DW.				---	ACT	9'-0"	---
111	CORRIDOR	LVT	RUBBER	PT. DW.				---	ACT	9'-0"	---
112	FILE ROOM	LVT	RUBBER	PT. DW.				---	ACT	9'-0"	---
113	BREAK ROOM	LVT	RUBBER	PT. DW.				---	ACT	10'-0"	---
114	IT CLOSET	LVT	RUBBER	PT. DW.				---	ACT	9'-0"	---
115	RESTROOM	LVT	RUBBER	PT. DW.				---	ACT	9'-0"	EPOXY PT. OR TILE WET WALL
116	RESTROOM	LVT	RUBBER	PT. DW.				---	ACT	9'-0"	EPOXY PT. OR TILE WET WALL
117	CONF. ROOM	LVT	RUBBER	PT. DW.				---	ACT	9'-0"	SOUND BATTS IN PERIMETER WALLS
118	SALES	LVT	RUBBER	PT. DW.				---	ACT	9'-0"	---
119	WAREHOUSE/STORAGE	SEALED CONC.	RUBBER	PT. DW.				---	ACT	9'-0"	---
120	PARTS CALL CENTER	LVT	RUBBER	PT. DW.				---	ACT	9'-0"	---
121	PARTS SERVICE MAN.	LVT	RUBBER	PT. DW.				---	ACT	9'-0"	---
122	SPARE OFFICE	LVT	RUBBER	PT. DW.				---	ACT	9'-0"	---
123	SHIPPING/RECEIVING	SEALED CONC.	RUBBER	PT. DW.				---	---	---	---
124	PARTS STORAGE	SEALED CONC.	RUBBER	PT. DW.				---	---	---	---
125	STORAGE	LVT	RUBBER	PT. DW.				---	ACT	9'-0"	---
126	RESTROOM	LVT	RUBBER	PT. DW.				---	ACT	9'-0"	EPOXY PT. ALL WALLS
127	BREAK ROOM	LVT	RUBBER	PT. DW.				---	ACT	10'-0"	---
128	WORK OUT ROOM	LVT	RUBBER	PT. DW.				---	ACT	10'-0"	---
129	RECON OFFICE	LVT	RUBBER	PT. DW.				---	ACT	9'-0"	---
130	RESTROOM	LVT	RUBBER	PT. DW.				---	ACT	9'-0"	EPOXY PT. ALL WALLS
131	RESTROOM	LVT	RUBBER	PT. DW.				---	ACT	9'-0"	EPOXY PT. ALL WALLS
132	RESTROOM	LVT	RUBBER	PT. DW.				---	ACT	9'-0"	EPOXY PT. ALL WALLS
133	RESTROOM	LVT	RUBBER	PT. DW.				---	ACT	9'-0"	EPOXY PT. ALL WALLS
134	RESTROOM	LVT	RUBBER	PT. DW.				---	ACT	9'-0"	EPOXY PT. ALL WALLS
135	SPARE OFFICE	LVT	RUBBER	PT. DW.				---	ACT	9'-0"	---
136	SERVICE OFFICE	LVT	RUBBER	PT. DW.				---	ACT	9'-0"	---
137	SERVICE ADMIN.	LVT	RUBBER	PT. DW.				---	ACT	9'-0"	---
138	SERVICE COORD.	LVT	RUBBER	PT. DW.				---	ACT	9'-0"	---
139	IGS	LVT	RUBBER	PT. DW.				---	ACT	9'-0"	---
140	SERVICE CALL CENTER	LVT	RUBBER	PT. DW.				---	ACT	9'-0"	---
141	SERVICE SHOP AREA	SEALED CONC.	RUBBER	PT. DW/CMU@ ADJ. WALLS				8' LINER PANELS	---	---	---
142	GRINDING ROOM	SEALED CONC.	RUBBER	PT. CMU				8' LINER PANELS	---	---	---
143	TOOL STORAGE	SEALED CONC.	RUBBER	PT. DW.				8' LINER PANELS	---	---	---

CONFIRM FINISHES WITH OWNER



2 DOOR TYPES
SCALE: 1/4" = 1'-0"
△ INDICATES TEMPERED GLASS



1 DOOR FRAME TYPES
SCALE: 1/4" = 1'-0"
△ INDICATES TEMPERED GLASS

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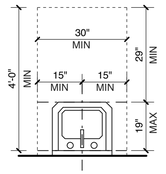
DRAWING TITLE
SCHEDULES

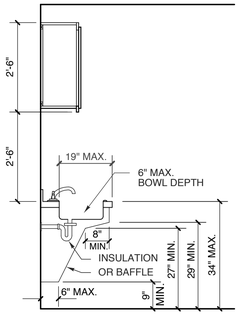
SHEET 12 OF 14

A5.1

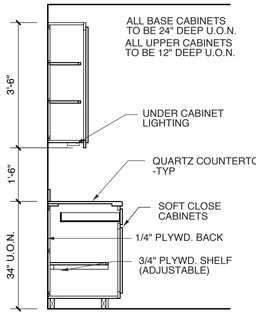
PLOT DATE 11/10/23
REVISION COUNTY COM. 1 11/10/23



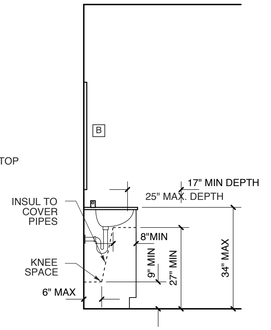
17 HC LAVATORY PLAN
SCALE: 1/2" = 1'-0"



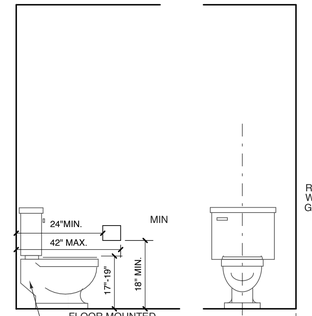
16 ACCESSIBLE SINK
SCALE: 1/2" = 1'-0"



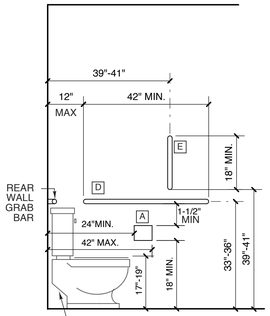
15 TYP. CABINET
SCALE: 1/2" = 1'-0"

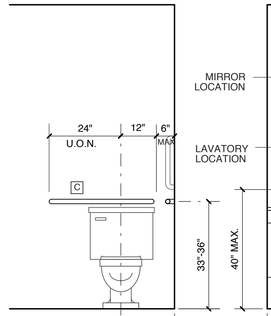


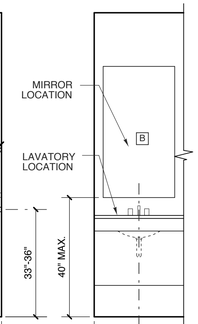
14 HC LAV. SECTION
SCALE: 1/2"= 1'-0"



13 TYPICAL HEIGHTS







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3305-109 Durham Drive
Raleigh, North Carolina 27603
919.779.9797
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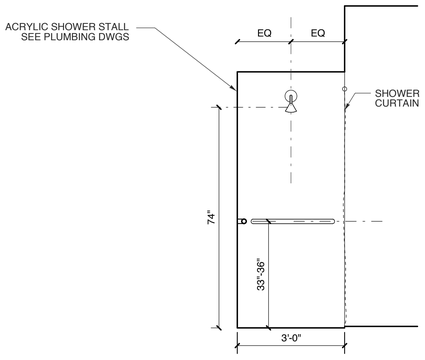
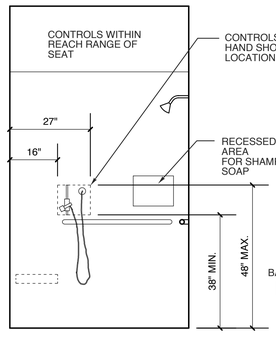
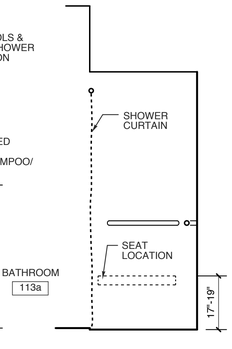


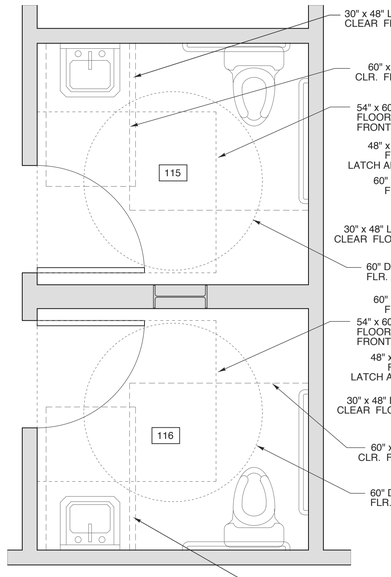
2 HC SHOWER (ROLL-IN)
SCALE: 1/2" = 1'-0"



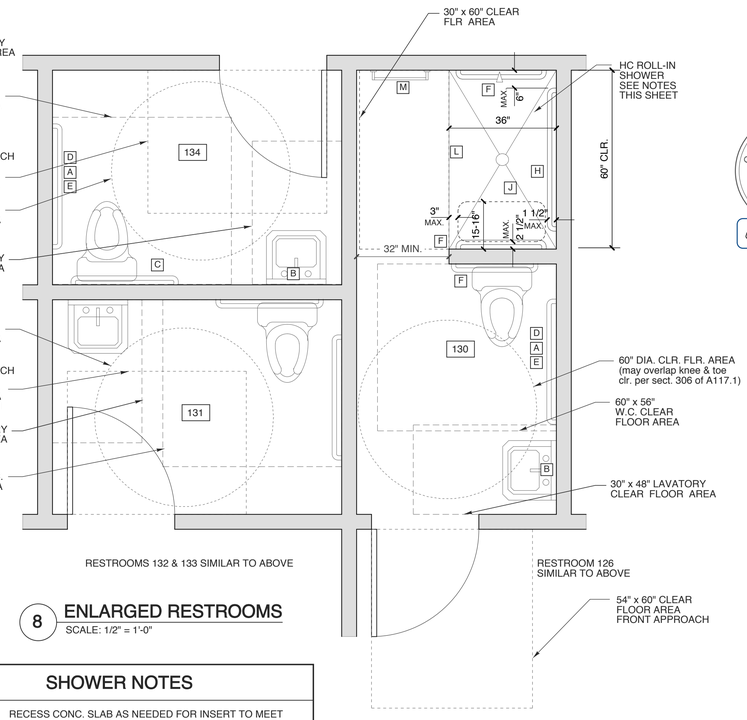
11 HC SHOWER (ROLL-IN)
SCALE: 1/2" = 1'-0"



10 HC SHOWER (ROLL-IN)
SCALE: 1/2" = 1'-0"



9 ENLARGED RESTROOMS
SCALE: 1/2" = 1'-0"



8 ENLARGED RESTROOMS
SCALE: 1/2" = 1'-0"

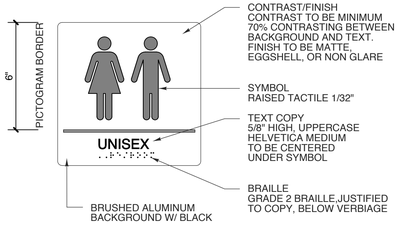
TOILET ACCESSORY SCHEDULE

MARK	ITEM	MOUNT
A	SURFACE-MOUNTED TOILET TISSUE DISPENSER (B-685)	RE: ELEV.
B	WELDED FRAME MIRROR (B-2908-1830)	RE: ELEV.
C	36" HORIZONTAL GRAB BAR (B-6806.99 X 36)	33"-36" A.F.S.
D	42" HORIZONTAL GRAB BAR (B-6806.99 X 42)	33"-36" A.F.S.
E	18" VERTICAL GRAB BAR (B-6806.99 X 18)	RE: ELEV.
F	24" HORIZONTAL GRAB BAR (B-6806.99 X 24)	33"-36" A.F.S.
G	TWO-WALL SHOWER GRAB BAR (B-6861.99)	33"-36" A.F.S.
H	48" HORIZONTAL GRAB BAR (B-6806.99 X 48)	33"-36" A.F.S.
J	FOLDING SHOWER SEAT (B-5191)	PER ANSI
K	REV. FOLDING SHOWER SEAT (B-5181)	PER ANSI
L	BREAK AWAY SHOWER CURTAIN ROD & FLANGES (1" DIA. SATIN STAINLESS) ELCOMA	---
M	SURFACE-MOUNTED TOWEL BAR (B-6737 X 24)	48" MAX. A.F.S.

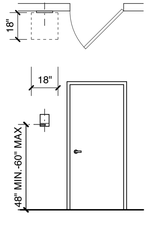
MANUFACTURER: BOBRICK WASHROOM EQUIPMENT U.N.O. OR APPROVED EQUAL-SEE SPECIFICATION

FINISH: SATIN STAINLESS STEEL

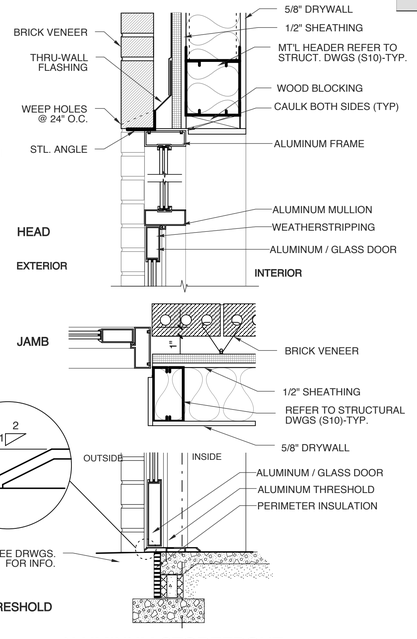
NOTE: GC TO INSTALL BLOCKING FOR ALL TOILET ACCESSORIES AS REQ'D.



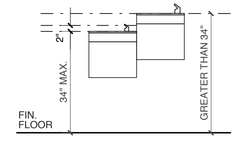
7 TYP. SIGNAGE
SCALE: 3" = 1'-0"



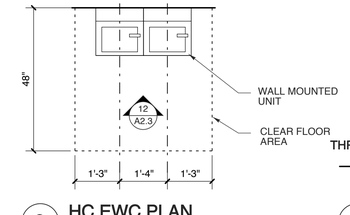
6 SIGNAGE PLACEMENT
SCALE: 1/4" = 1'-0"



5 ALUMINUM STOREFRONT DOOR W/ TRANSOM
SCALE: 1 1/2" = 1'-0"



4 HC EWC ELEVATION
SCALE: 1/2" = 1'-0"



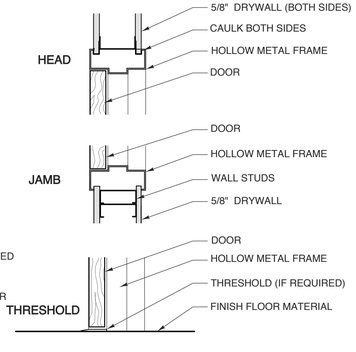
3 HC EWC PLAN
SCALE: 1/2" = 1'-0"

SHOWER NOTES

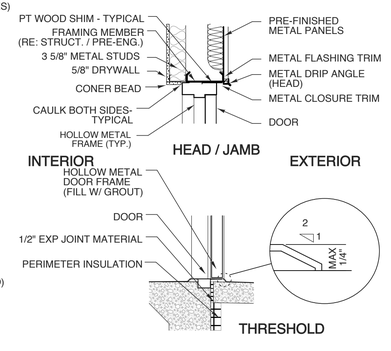
RECESS CONC. SLAB AS NEEDED FOR INSERT TO MEET ADA THRESHOLD REQUIREMENTS.

BOTH SHOWERS TO COMPLY WITH REQUIREMENTS OF ROLL-IN SHOWER COMPARTMENTS PER A117.1 SECTION 608.2.2

THE HAND SHOWER WILL HAVE A HOSE 59 IN. MIN. IN LENGTH THAT CAN BE USED ALSO AS A FIXED SHOWER HEAD. THE HAND SHOWER SHALL HAVE A CONTROL WITH A NONPOSITIVE SHUT-OFF FEATURE.



2 INT. SOLID WOOD DOOR
SCALE: 1 1/2"= 1'-0"



1 HM DOOR @ MTL. PANEL
SCALE: 3/4" = 1'-0"

GINGER S. SUMMER
REGISTERED ARCHITECT
11075
NORTH CAROLINA
RALEIGH, NC
10/25/2023

PROJECT TITLE
REVELS TURF & TRACTOR
RAWLS CHURCH RD.
FUQUAY-VARINA, NC

PROJECT NO.
2232b

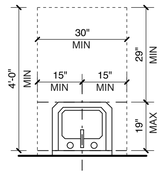
DRAWING TITLE
DETAILS

SHEET 13 OF 14

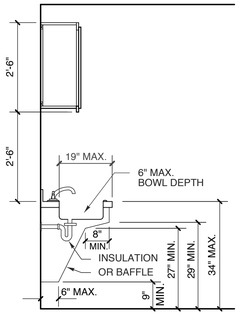
A5.2

PLOT DATE 10/25/23
REVISION ---

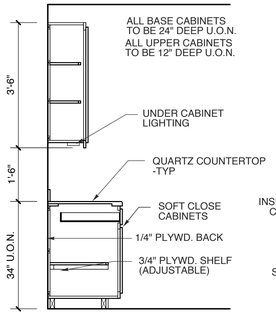
This original sheet is 24" x 36"; other dimensions indicate it has been altered.



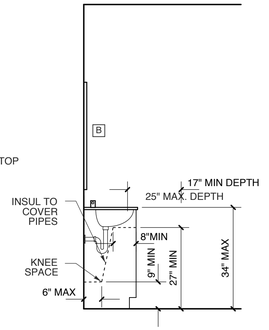
17 HC LAVATORY PLAN
SCALE: 1/2" = 1'-0"



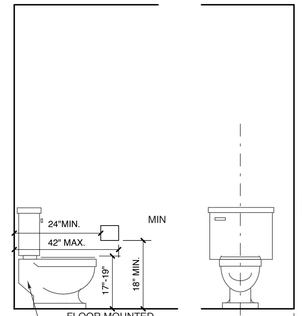
16 ACCESSIBLE SINK
SCALE: 1/2" = 1'-0"



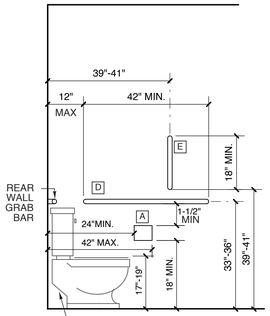
15 TYP. CABINET
SCALE: 1/2" = 1'-0"

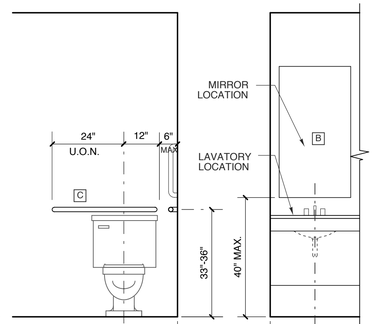


14 HC LAV. SECTION
SCALE: 1/2"= 1'-0"



13 TYPICAL HEIGHTS





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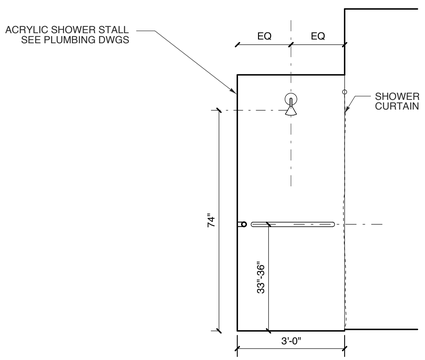
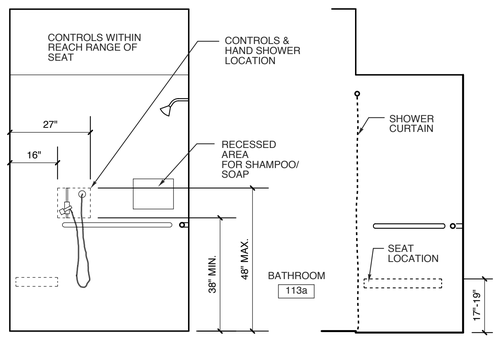
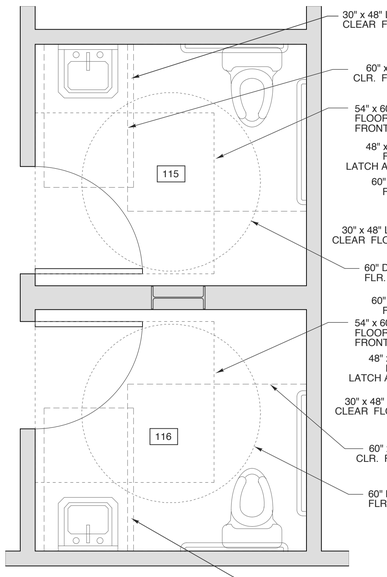


2 HC SHOWER (ROLL-IN)
SCALE: 1/2" = 1'-0"

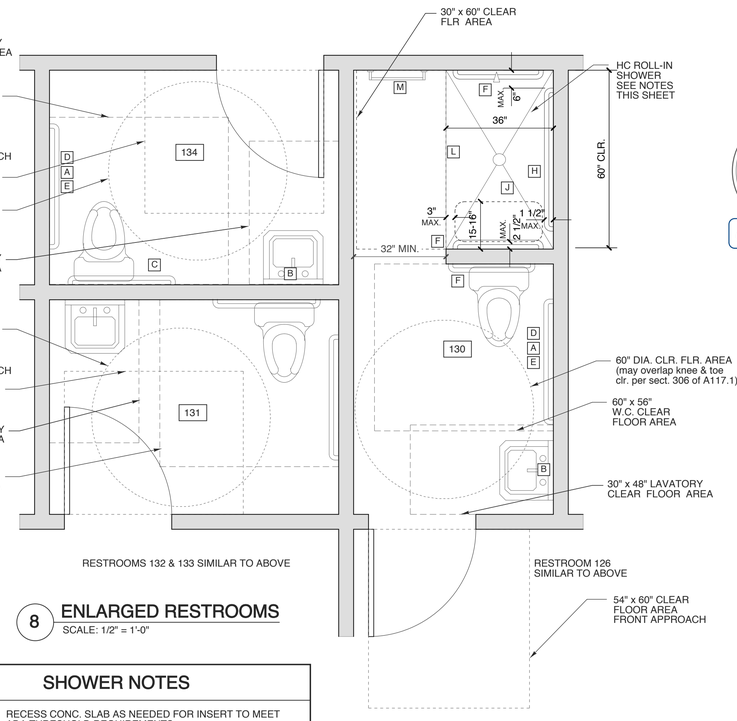


11 HC SHOWER (ROLL-IN)
SCALE: 1/2" = 1'-0"

10 HC SHOWER (ROLL-IN)
SCALE: 1/2" = 1'-0"



9 ENLARGED RESTROOMS
SCALE: 1/2" = 1'-0"



8 ENLARGED RESTROOMS
SCALE: 1/2" = 1'-0"

TOILET ACCESSORY SCHEDULE

MARK	ITEM	MOUNT
A	SURFACE-MOUNTED TOILET TISSUE DISPENSER (B-685)	RE: ELEV.
B	WELDED FRAME MIRROR (B-2908-1830)	RE: ELEV.
C	36" HORIZONTAL GRAB BAR (B-6806.99 X 36)	33"-36" A.F.S.
D	42" HORIZONTAL GRAB BAR (B-6806.99 X 42)	33"-36" A.F.S.
E	18" VERTICAL GRAB BAR (B-6806.99 X 18)	RE: ELEV.
F	24" HORIZONTAL GRAB BAR (B-6806.99 X 24)	33"-36" A.F.S.
G	TWO-WALL SHOWER GRAB BAR (B-6861.99)	33"-36" A.F.S.
H	48" HORIZONTAL GRAB BAR (B-6806.99 X 48)	33"-36" A.F.S.
J	FOLDING SHOWER SEAT (B-5191)	PER ANSI
K	REV. FOLDING SHOWER SEAT (B-5181)	PER ANSI
L	BREAK AWAY SHOWER CURTAIN ROD & FLANGES (1" DIA. SATIN STAINLESS) ELCOMA	---
M	SURFACE-MOUNTED TOWEL BAR (B-6737 X 24)	48" MAX. A.F.S.

MANUFACTURER: BOBRICK WASHROOM EQUIPMENT U.N.O. OR APPROVED EQUAL-SEE SPECIFICATION

FINISH: SATIN STAINLESS STEEL

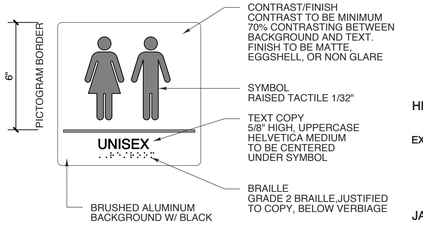
NOTE: GC TO INSTALL BLOCKING FOR ALL TOILET ACCESSORIES AS REQ'D.

SHOWER NOTES

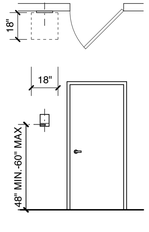
RECESS CONC. SLAB AS NEEDED FOR INSERT TO MEET ADA THRESHOLD REQUIREMENTS.

BOTH SHOWERS TO COMPLY WITH REQUIREMENTS OF ROLL-IN SHOWER COMPARTMENTS PER A117.1 SECTION 608.2.2

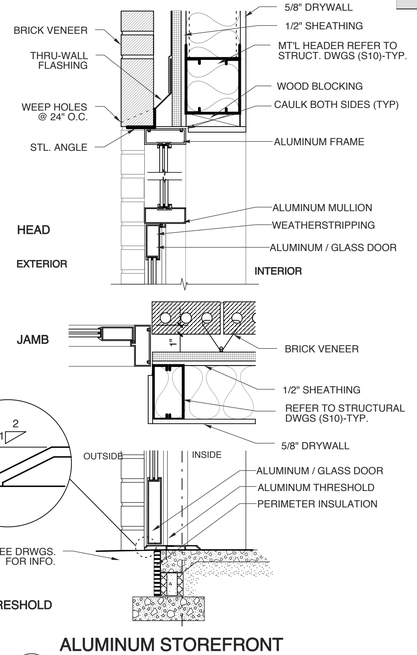
THE HAND SHOWER WILL HAVE A HOSE 59 IN. MIN. IN LENGTH THAT CAN BE USED ALSO AS A FIXED SHOWER HEAD. THE HAND SHOWER SHALL HAVE A CONTROL WITH A NONPOSITIVE SHUT-OFF FEATURE.



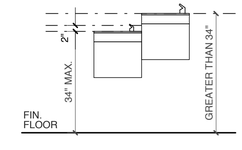
7 TYP. SIGNAGE
SCALE: 3" = 1'-0"



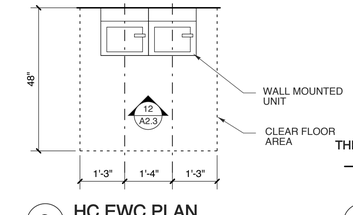
6 SIGNAGE PLACEMENT
SCALE: 1/4" = 1'-0"



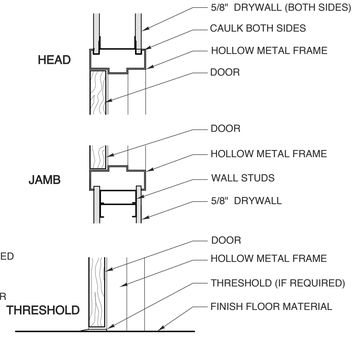
5 ALUMINUM STOREFRONT DOOR W/ TRANSOM
SCALE: 1 1/2" = 1'-0"



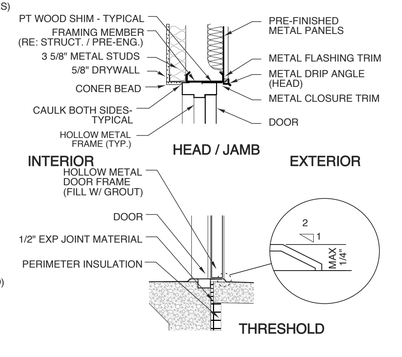
4 HC EWC ELEVATION
SCALE: 1/2" = 1'-0"



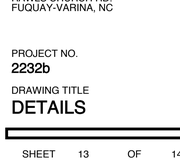
3 HC EWC PLAN
SCALE: 1/2" = 1'-0"



2 INT. SOLID WOOD DOOR
SCALE: 1 1/2"= 1'-0"



1 HM DOOR @ MTL. PANEL
SCALE: 3/4" = 1'-0"



PROJECT TITLE
REVELS TURF & TRACTOR
RAWLS CHURCH RD.
FUQUAY-VARINA, NC

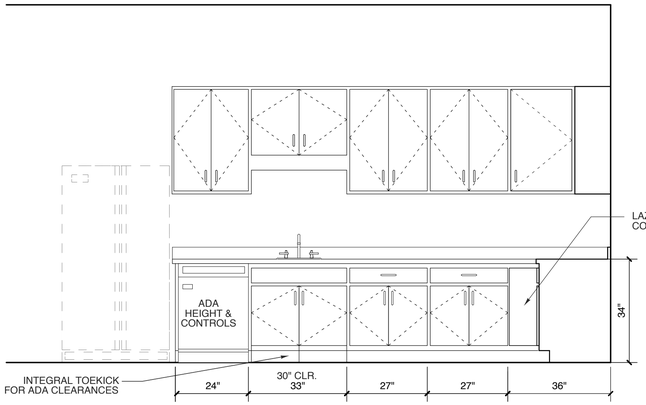
PROJECT NO.
2232b

DRAWING TITLE
DETAILS

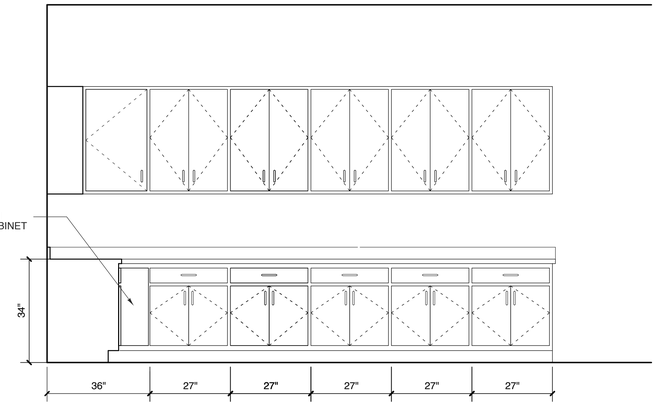
SHEET 13 OF 14

A5.2

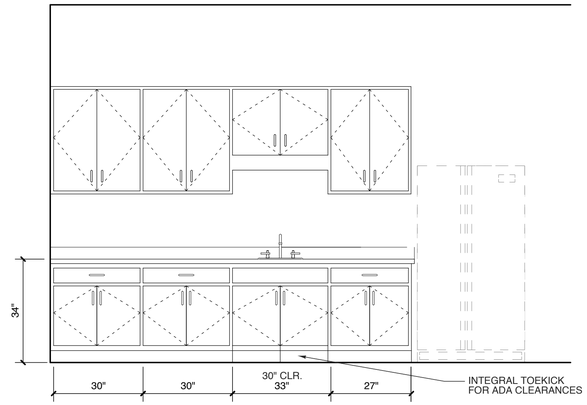
PLOT DATE 11/10/23
REVISION ---



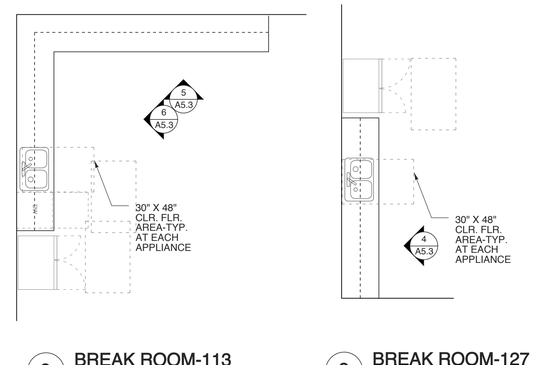
6 BREAK ROOM 113 ELEVATION
SCALE: 1/2" = 1'-0"



5 BREAK ROOM 113 ELEVATION
SCALE: 1/2" = 1'-0"

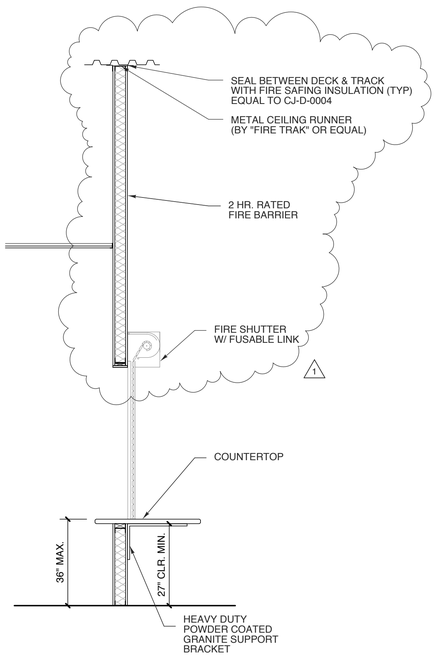


4 BREAK ROOM 127 ELEVATION
SCALE: 1/2" = 1'-0"

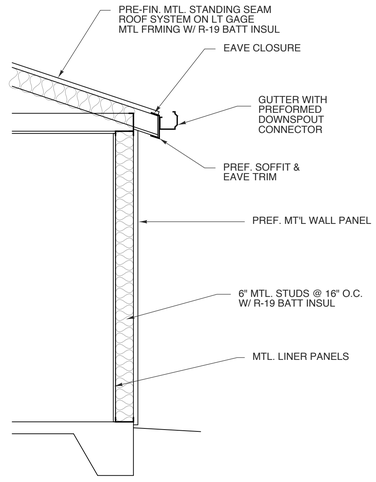


3 BREAK ROOM-113
SCALE: 1/4" = 1'-0"

2 BREAK ROOM-127
SCALE: 1/4" = 1'-0"

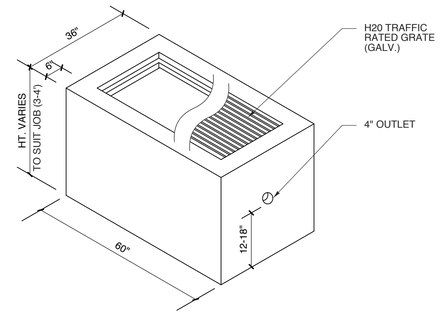


8 SERVICE CTR.
SCALE: 1/2" = 1'-0"



7 STORAGE SHED
SCALE: 1/2" = 1'-0"

NOTES:
-4,000 PSI CONC @ 28 DAYS
-FLOOR SLOPES TO DRAIN
-SEE SITE PLAN FOR
CONTINUATION OF DRAIN



1 24" x 48" CATCH BASIN
SCALE: nts

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919.779.9797
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GINGER S. SUMMER
REGISTERED ARCHITECT
11075
NORTH CAROLINA
RALEIGH, NC
DocuSigned by:
Ginger S. Summer
11/10/2023

PROJECT TITLE
REVELS TURF & TRACTOR
RAWLS CHURCH RD.
FUQUAY-VARINA, NC

PROJECT NO.
2232b

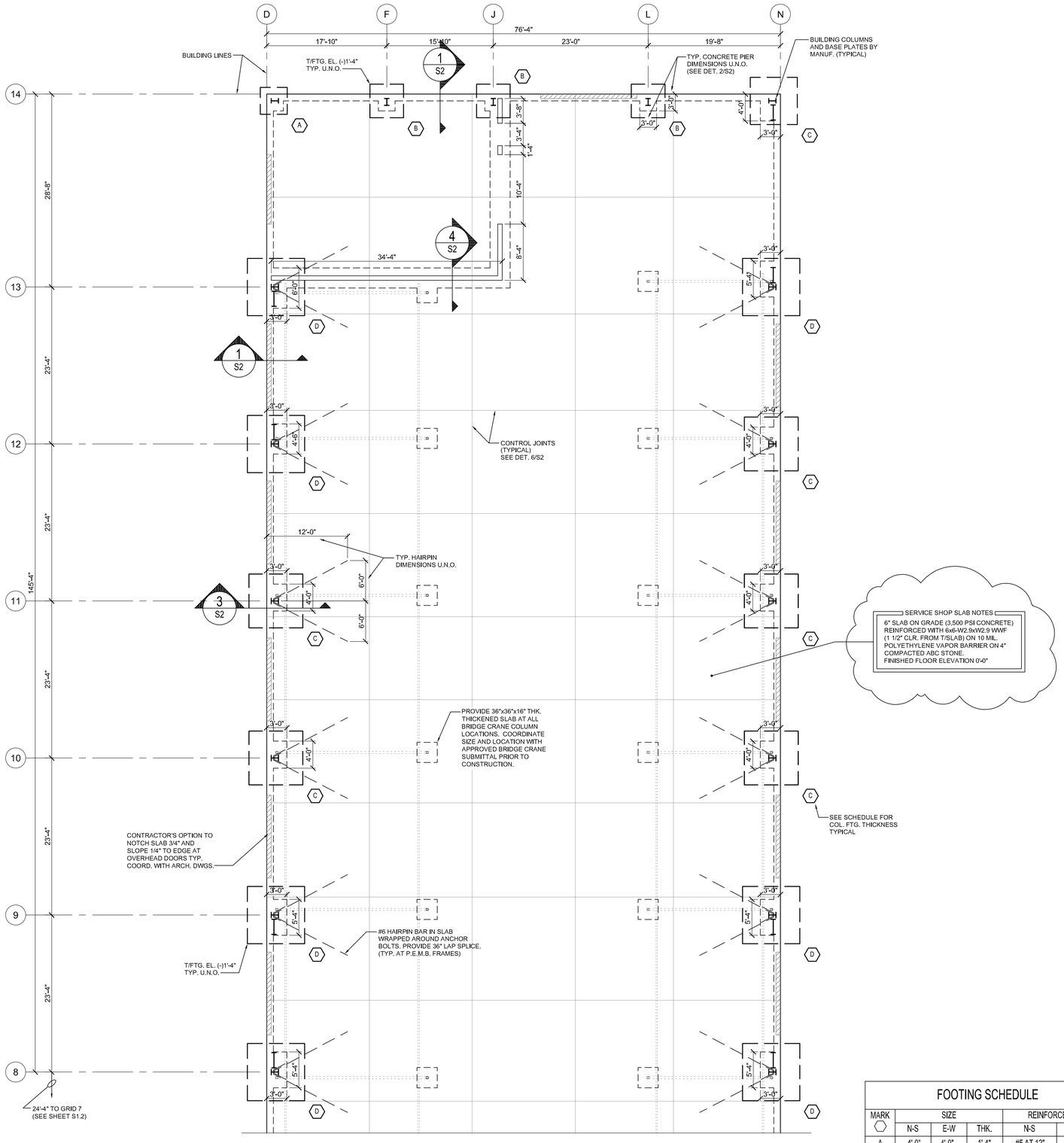
DRAWING TITLE
DETAILS

SHEET 14 OF 14

A5.3

PLOT DATE 11/10/23
REVISION COUNTY COM. 1 11/10/23

This original sheet is 24" x 36"; other dimensions indicate it has been altered.



1 S1.1 PARTIAL SLAB AND FOUNDATION PLAN

1/8" = 1'-0"

FOOTING SCHEDULE					
MARK	SIZE			REINFORCEMENT	
	N-S	E-W	THK.	N-S	E-W
A	4'-0"	4'-0"	1'-4"	#5 AT 12"	#5 AT 12"
B	5'-0"	5'-0"	1'-4"	#5 AT 12"	#5 AT 12"
C	8'-0"	8'-0"	2'-0"	#6 AT 12"	#6 AT 12"
D	8'-6"	8'-6"	2'-0"	#6 AT 12"	#6 AT 12"
E	9'-0"	9'-0"	2'-0"	#6 AT 12"	#6 AT 12"

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TEL 919.832.5680 WWW.ROSSLINDEN.COM
NC LICENSE NO. C-2364

NORTH CAROLINA PROFESSIONAL SEAL 25539 ENGINEER BRIAN M. ROSS
10-20-2023
SEAL NOT VALID UNLESS SIGNED AND DATED

PROJECT TITLE
REVELS TURF & TRACTOR
RAWLS CHURCH RD.
FUQUAY-VARINA, NC

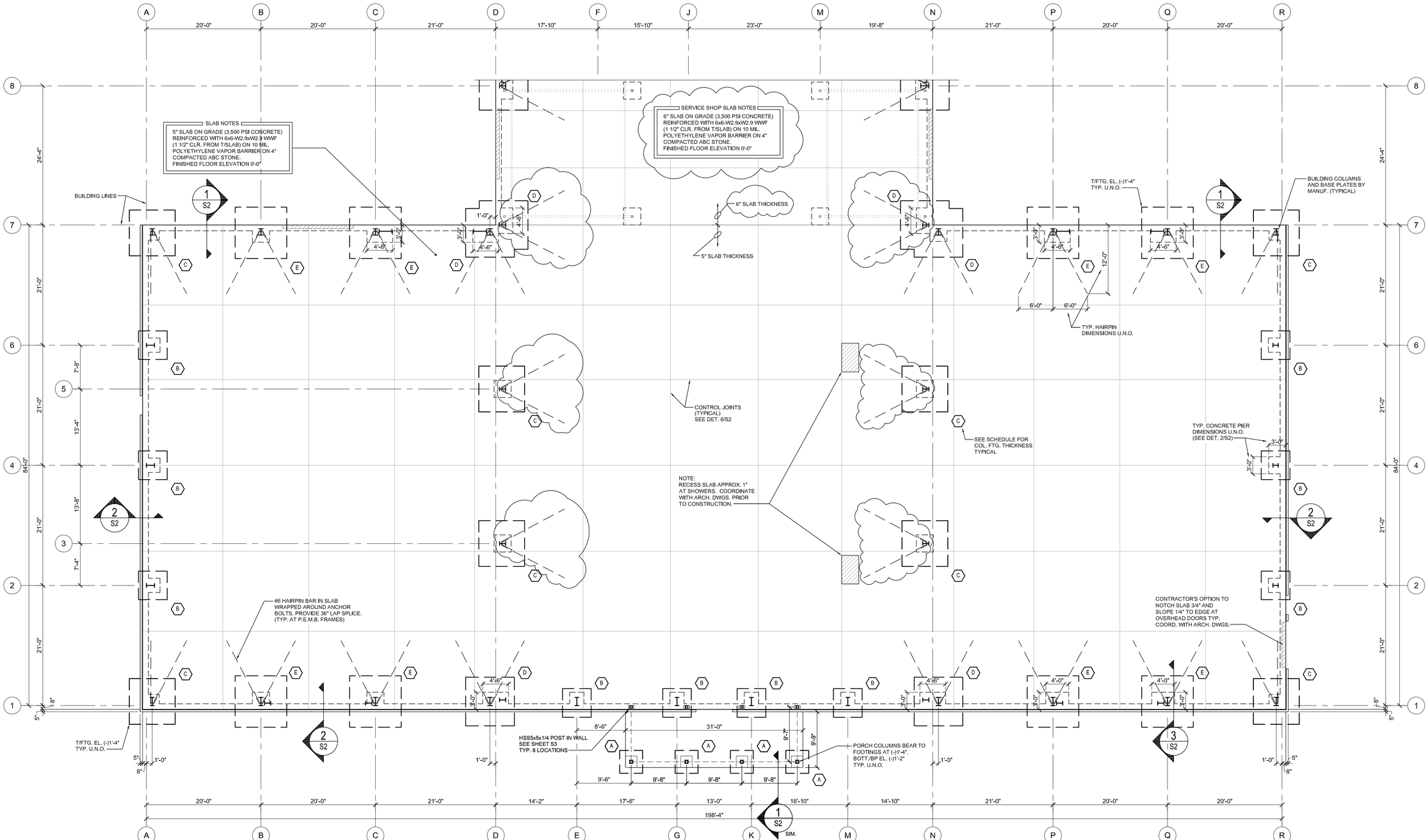
PROJECT NO.
C230405

DRAWING TITLE
FOUNDATION PLAN

SHEET 0 OF 0

S1.1

PLOT DATE 10/20/2023
REVISION 11/15/2023



FOOTING SCHEDULE					
MARK ⬡	SIZE			REINFORCEMENT	
	N-S	E-W	THK.	N-S	E-W
A	4'-0"	4'-0"	1'-4"	#5 AT 12"	#5 AT 12"
B	5'-0"	5'-0"	1'-4"	#5 AT 12"	#5 AT 12"
C	8'-0"	8'-0"	2'-0"	#6 AT 12"	#6 AT 12"
D	8'-6"	8'-6"	2'-0"	#6 AT 12"	#6 AT 12"
E	9'-0"	9'-0"	2'-0"	#6 AT 12"	#6 AT 12"

1 S1.2 PARTIAL SLAB AND FOUNDATION PLAN
1/8" = 1'-0"

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NORTH CAROLINA PROFESSIONAL SEAL 25539 ENGINEER BRIAN M. ROSS
10-20-2023
SEAL NOT VALID UNLESS SIGNED AND DATED

PROJECT TITLE
REVELS TURF & TRACTOR
RAWLS CHURCH RD.
FUQUAY-VARINA, NC

PROJECT NO.
C230405

DRAWING TITLE
FOUNDATION PLAN

SHEET 0 OF 0

S1.2

PLOT DATE 10/20/2023
REVISION 11/15/2023

STRUCTURAL NOTES

I. GENERAL

1. DESIGN CODES

NORTH CAROLINA BUILDING CODE, 2018 EDITION
(AMENDED 2015 INTERNATIONAL BUILDING CODE)

ACI BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE
(ACI 318-14)

AISC MANUAL OF STEEL CONSTRUCTION - ALLOWABLE STRESS DESIGN
NINTH EDITION

ASCE 7-10 MINIMUM DESIGN LOADS FOR BUILDINGS AND OTHER
STRUCTURES

2. DESIGN LOADS

LIVE LOADS: FLOOR: 100 PSF
ROOF: 20 PSF

ULTIMATE DESIGN WIND SPEED: 116 MPH (RISK CATEGORY II)

GROUND SNOW LOAD: 15 PSF

SITE CLASS D
Ss = 0.172
S1 = 0.083

SEE PRE-ENGINEERING METAL BUILDING DRAWINGS BY OTHERS FOR FULL STRUCTURAL DESIGN LOAD SUMMARY USED FOR BUILDING DESIGN.

3. ALL ELEVATIONS ARE REFERENCED FROM FINISHED FLOOR ELEVATION OF 0'-0".

4. BUILDING DESIGN AND MAXIMUM FOUNDATION REACTIONS PROVIDED BY VP BUILDINGS, PRELIMINARY REACTION REPORT, DATED 4 OCTOBER 2023. FOUNDATION DESIGN IS BASED ON MAXIMUM AND MINIMUM LOADING CONDITIONS PROVIDED BY THE BUILDING DESIGNER. FINAL SEALED FOUNDATION REACTIONS SHALL BE PROVIDED OR REVIEW PRIOR TO CONSTRUCTION.

5. SEE BUILDING DRAWINGS FOR COLUMN AND BASE PLATE SIZES AND LOCATIONS.

6. ANCHOR BOLT DESIGN PROVIDED BY BUILDING DESIGNER. ANCHOR BOLT EMBEDMENT ONLY IS PROVIDED ON DRAWING S1.3.

7. ENGINEER'S SEAL APPLIES TO STRUCTURAL COMPONENTS ONLY AND DOES NOT CERTIFY ARCHITECTURAL LAYOUT OR DIMENSIONAL ACCURACY.

8. ROSS LINDEN ENGINEERS PC ASSUMES NO LIABILITY FOR CHANGES OR MODIFICATIONS MADE TO THESE DRAWINGS BY OTHERS, OR FOR CONSTRUCTION METHODS, OR FOR ANY DEVIATION FROM THESE DRAWINGS.

II. CONCRETE

1. UNLESS OTHERWISE NOTED, ALL CONCRETE SHALL HAVE THE FOLLOWING STRENGTH AND SLUMP REQUIREMENTS:
3,500 PSI 28-DAY COMPRESSIVE STRENGTH, MAX. 5" SLUMP.

2. ALL CONCRETE SHALL BE MOIST CURED PER ACI 301 OR CURED WITH AN APPROVED CURING COMPOUND. CONTRACTOR SHALL VERIFY THAT THE CURING COMPOUND IS COMPATIBLE WITH FLOOR COVERING ADHESIVES, COATINGS, OR TOPPINGS TO BE USED. CONCRETE SHALL BE CURED FOR A MINIMUM OF 7 DAYS.

3. UNLESS OTHERWISE NOTED, ALL REINFORCING STEEL SHALL BE NEW BILLET STEEL, CONFORMING TO ASTM A-615, GRADE 60, DEFORMED.

4. UNLESS OTHERWISE NOTED, ALL DETAILING, FABRICATION, AND PLACING OF REINFORCING STEEL SHALL CONFORM TO THE MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE STRUCTURES. (ACI 315)

5. ALL BAR SPLICES SHALL BE CLASS "B" TENSION SPLICES PER ACI 318-14, UNLESS OTHERWISE SHOWN.

6. ANCHOR BOLTS TO BE ASTM A36 OR A307.

7. CONTRACTOR SHALL REFER TO DRAWINGS OF OTHER TRADES AND VENDOR DRAWINGS FOR EMBEDDED ITEMS AND RECESSES NOT SHOWN ON THE STRUCTURAL DRAWINGS.

8. ALL SPREAD FOOTINGS BEARING ON NATIVE SOIL OR STRUCTURAL FILL ARE DESIGNED FOR AN ALLOWABLE BEARING PRESSURE OF 2,500 PSF. A GEOTECHNICAL REPRESENTATIVE SHALL INSPECT ALL FOOTING EXCAVATIONS TO CONFIRM ALLOWABLE BEARING PRESSURES

9. PROVIDE TWO (2) #5 x 4'-0" LONG DIAGONAL BARS IN TOP FACE OF ALL SLABS (1" CLEAR) AT ALL RE-ENTRANT CORNERS. SEE PLAN FOR LOCATIONS.

10. CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING, PROTECTING, AND RELOCATING AS REQUIRED ALL SERVICE AND UTILITY LINES IN VICINITY OF THE WORK SITE.

11. ALL DOWELS WHICH ARE TO BE DRILLED AND GROUTED INTO EXISTING CONCRETE SHALL BE DONE WITH AN EPOXY GROUT. DRILL HOLE WITH DIAMETER 1/8" LARGER THAN DOWEL OR AS RECOMMENDED BY GROUT SUPPLIER. USE HIT-RE 500 V3 BY HILTI OR APPROVED EQUAL.

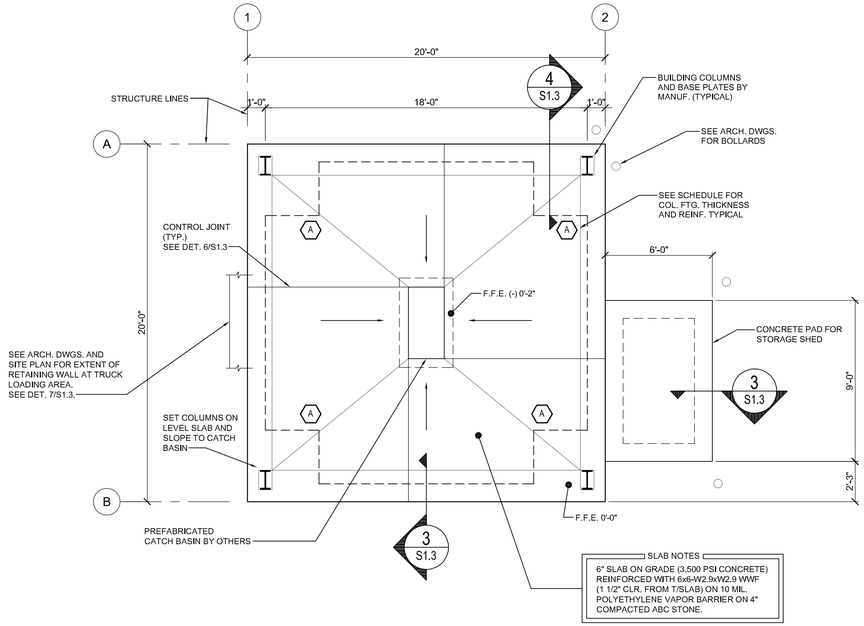
III. LIGHT GAUGE STEEL FRAMING

1. INSTALLATION OF LIGHT GAUGE STEEL FRAMING SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.

2. WALL STUDS SHALL HAVE THE FOLLOWING MINIMUM PROPERTIES:
16" MAX. SPACING
STUD DEPTH = 3 5/8" (SEE ARCH. DWGS.)
FLANGE WIDTH = 1 5/8" MIN.
18 GAUGE STEEL
SEE ARCH. DWGS. FOR WALL HEIGHT

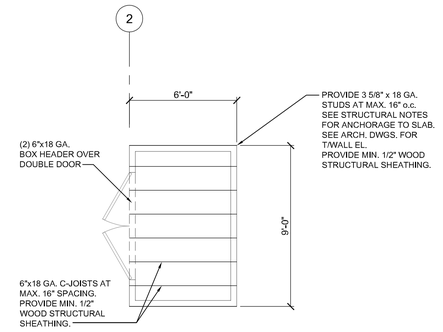
3. PROVIDE MIN. 18 GA. BOTTOM TRACK AND ANCHOR TO SLAB WITH POWDER ACTUATED FASTENERS AT 16" O.C. USE HILTI DS FASTENERS WITH 0.177" SHANK DIAMETER AND 1 7/16" EMBEDMENT. WELD STUDS TO TRACK EACH SIDE -or- PROVIDE (2) NO. 10 SCREWS (ONE EACH SIDE OF TRACK).

4. DETAILED SHOP DRAWINGS SHALL BE PROVIDED FOR REVIEW AND APPROVAL PRIOR TO CONSTRUCTION.

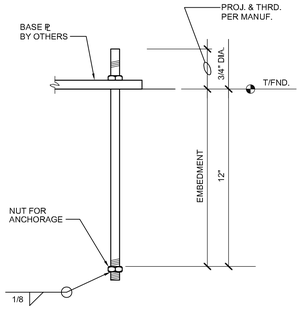


1 S1.3 SLAB AND FOUNDATION PLAN
1/4" = 1'-0"

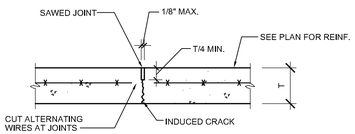
FOOTING SCHEDULE					
MARK	SIZE			REINFORCEMENT	
⬡	N-S	E-W	THK.	N-S	E-W
A	4'-0"	4'-0"	1'-4"	#5 AT 12"	#5 AT 12"



2 S1.3 STORAGE SHED FRAMING PLAN
1/4" = 1'-0"

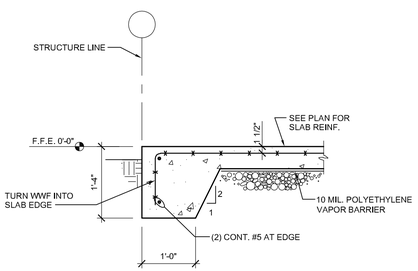


5 S1.3 TYP. ANCHOR BOLT DETAIL
NO SCALE

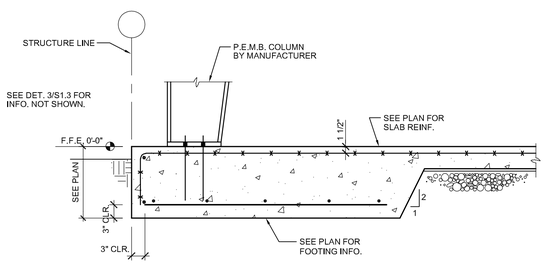


NOTES: 1. SAW JOINTS AS SOON AS CONCRETE WILL NOT RAVEL UNDER SAW BLADE.
2. ADD 20" LONG SMOOTH DOWELS AT ALL CONSTRUCTION JOINTS (APPLICABLE IF SLAB IS POURED OVER MULTIPLE DAYS).

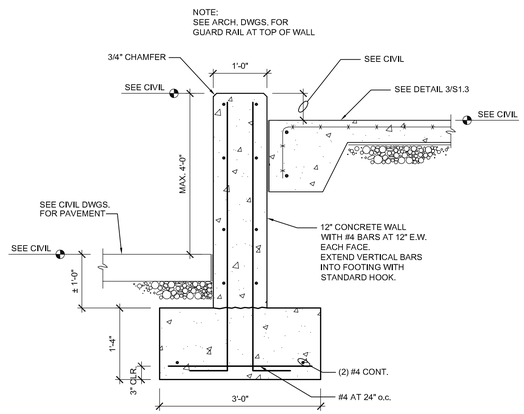
6 S1.3 DETAIL - TYP. SLAB CONTROL JOINT
1" = 1'-0"



3 S1.3 DETAIL - SLAB EDGE
3/4" = 1'-0"



4 S1.3 SECTION - COLUMN FOOTING
3/4" = 1'-0"



7 S1.3 SECTION - RETAINING WALL
3/4" = 1'-0" TRUCK LOADING AREA

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NC LICENSE NO. C-2364

NORTH CAROLINA PROFESSIONAL SEAL 25539 ENGINEER BRIAN M. ROSS
11-17-2023
SEAL NOT VALID UNLESS SIGNED AND DATED

PROJECT TITLE
REVELS TURF & TRACTOR
RAWLS CHURCH RD.
FUQUAY-VARINA, NC

PROJECT NO.
C230405

DRAWING TITLE
WASH BAY PLAN AND DETAILS

SHEET 0 OF 0

S1.3

PLOT DATE 11/17/2023
REVISION

STRUCTURAL NOTES

I. GENERAL

1. DESIGN CODES

NORTH CAROLINA BUILDING CODE, 2018 EDITION
(AMENDED 2015 INTERNATIONAL BUILDING CODE)

ACI BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE
(ACI 318-14)

AISC MANUAL OF STEEL CONSTRUCTION - ALLOWABLE STRESS DESIGN
NINTH EDITION

ASCE 7-10 MINIMUM DESIGN LOADS FOR BUILDINGS AND OTHER STRUCTURES

2. DESIGN LOADS

LIVE LOADS: FLOOR: 100 PSF
ROOF: 20 PSF

ULTIMATE DESIGN WIND SPEED: 116 MPH (RISK CATEGORY II)

GROUND SNOW LOAD: 15 PSF

SITE CLASS D
Ss = 0.172
S1 = 0.083

SEE PRE-ENGINEERING METAL BUILDING DRAWINGS BY OTHERS FOR FULL STRUCTURAL DESIGN LOAD SUMMARY USED FOR BUILDING DESIGN.

3. ALL ELEVATIONS ARE REFERENCED FROM FINISHED FLOOR ELEVATION OF 0'-0".

4. BUILDING DESIGN AND MAXIMUM FOUNDATION REACTIONS PROVIDED BY VP BUILDINGS, JOB NUMBER 23-018589-01, DATED 26 SEPTEMBER 2023. FOUNDATION DESIGN IS BASED ON MAXIMUM AND MINIMUM LOADING CONDITIONS PROVIDED BY THE BUILDING DESIGNER.

5. SEE BUILDING DRAWINGS FOR COLUMN AND BASE PLATE SIZES AND LOCATIONS.

6. ANCHOR BOLT DESIGN PROVIDED BY BUILDING DESIGNER. ANCHOR BOLT EMBEDMENT ONLY IS PROVIDED ON DRAWING S2.

7. ENGINEER'S SEAL APPLIES TO STRUCTURAL COMPONENTS ONLY AND DOES NOT CERTIFY ARCHITECTURAL LAYOUT OR DIMENSIONAL ACCURACY.

8. ROSS LINDEN ENGINEERS PC ASSUMES NO LIABILITY FOR CHANGES OR MODIFICATIONS MADE TO THESE DRAWINGS BY OTHERS, OR FOR CONSTRUCTION METHODS, OR FOR ANY DEVIATION FROM THESE DRAWINGS.

II. CONCRETE

1. UNLESS OTHERWISE NOTED, ALL CONCRETE SHALL HAVE THE FOLLOWING STRENGTH AND SLUMP REQUIREMENTS:
3,500 PSI 28-DAY COMPRESSIVE STRENGTH, MAX. 5" SLUMP.

2. ALL CONCRETE SHALL BE MOIST CURED PER ACI 301 OR CURED WITH AN APPROVED CURING COMPOUND. CONTRACTOR SHALL VERIFY THAT THE CURING COMPOUND IS COMPATIBLE WITH FLOOR COVERING ADHESIVES, COATINGS, OR TOPPINGS TO BE USED. CONCRETE SHALL BE CURED FOR A MINIMUM OF 7 DAYS.

3. UNLESS OTHERWISE NOTED, ALL REINFORCING STEEL SHALL BE NEW BILLET STEEL, CONFORMING TO ASTM A-615, GRADE 60, DEFORMED.

4. UNLESS OTHERWISE NOTED, ALL DETAILING, FABRICATION, AND PLACING OF REINFORCING STEEL SHALL CONFORM TO THE MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE STRUCTURES. (ACI 315)

5. ALL BAR SPLICES SHALL BE CLASS "B" TENSION SPLICES PER ACI 318-14, UNLESS OTHERWISE SHOWN.

6. ANCHOR BOLTS TO BE ASTM A36 OR A307.

7. CONTRACTOR SHALL REFER TO DRAWINGS OF OTHER TRADES AND VENDOR DRAWINGS FOR EMBEDDED ITEMS AND RECESSES NOT SHOWN ON THE STRUCTURAL DRAWINGS.

8. ALL SPREAD FOOTINGS BEARING ON NATIVE SOIL OR STRUCTURAL FILL ARE DESIGNED FOR AN ALLOWABLE BEARING PRESSURE OF 2,500 PSF. A GEOTECHNICAL REPRESENTATIVE SHALL INSPECT ALL FOOTING EXCAVATIONS TO CONFIRM ALLOWABLE BEARING PRESSURES

9. PROVIDE TWO (2) #5 x 4'-0" LONG DIAGONAL BARS IN TOP FACE OF ALL SLABS (1" CLEAR) AT ALL RE-ENTRANT CORNERS. SEE PLAN FOR LOCATIONS.

10. CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING, PROTECTING, AND RELOCATING AS REQUIRED ALL SERVICE AND UTILITY LINES IN VICINITY OF THE WORK SITE.

11. CONTRACTOR SHALL VERIFY ALL SIZES AND LOCATIONS OF ALL MECHANICAL AND ELECTRICAL OPENINGS AND EQUIPMENT PADS WITH THE MECHANICAL AND ELECTRICAL DETAILS AND SHOP DRAWINGS BY OTHERS. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO PROVIDE ALL OPENINGS AND SLEEVES FOR PROPER DISTRIBUTION FOR ALL UTILITIES THROUGHOUT THE BUILDING.

12. ALL DOWELS WHICH ARE TO BE DRILLED AND GROUTED INTO EXISTING CONCRETE SHALL BE DONE WITH AN EPOXY GROUT. DRILL HOLE WITH DIAMETER 1/8" LARGER THAN DOWEL OR AS RECOMMENDED BY GROUT SUPPLIER. USE HIT-RE 500 V3 BY HILTI OR APPROVED EQUAL.

III. STRUCTURAL STEEL

1. ALL STRUCTURAL STEEL WIDE FLANGE BEAMS AND COLUMNS, UNLESS NOTED, SHALL CONFORM TO THE REQUIREMENTS OF ASTM A992 OR ASTM A572, GRADE 50. ANGLES AND CHANNELS SHALL CONFORM TO ASTM A36. TUBES SHALL CONFORM TO ASTM A500, GRADE B.

2. ALL DETAILING, FABRICATION, AND ERECTION OF STRUCTURAL STEEL, UNLESS OTHERWISE NOTED, SHALL CONFORM TO THE REQUIREMENTS OF THE AISC SPECIFICATIONS FOR BUILDINGS, LATEST EDITION.

3. UNLESS OTHERWISE NOTED, ALL SHOP CONNECTIONS SHALL BE MADE BY WELDING OR HIGH STRENGTH BOLTING. (3/4" DIAMETER BOLTS, MINIMUM)

4. WELDS SHALL BE MADE WITH E-70XX ELECTRODES BY CERTIFIED WELDERS.

5. ALL COLUMN ANCHOR BOLT HOLES TO BE OVERSIZED IN ACCORDANCE WITH RECOMMENDATIONS OF "AISC" MANUAL FOR "DETAILING FOR STEEL CONSTRUCTION."

6. UNLESS OTHERWISE NOTED, ALL FIELD CONNECTIONS SHALL BE MADE WITH 3/4" DIAMETER HIGH STRENGTH BOLTS (ASTM A-325). CONNECTIONS SHALL BE DESIGNED AS BEARING TYPE WITH THREADS IN SHEAR PLANE. BOLTS SHALL BE TIGHTENED TO THE SNUG TIGHT CONDITION PER "AISC" UNLESS NOTED OTHERWISE ON THE DRAWINGS.

7. UNLESS OTHERWISE SHOWN, ALL BEAM CONNECTIONS SHALL BE STANDARD FRAMED OR SEATED CONNECTIONS AS SHOWN IN PART 4 OF THE AISC MANUAL OF STEEL CONSTRUCTION.

8. GUSSET PLATES SHALL BE 3/8" THICK MINIMUM.

9. CONTRACTOR TO PROVIDE ADEQUATE BRACING FOR STRUCTURE SO THAT IT WILL BE STABLE DURING ALL STAGES OF CONSTRUCTION. THE STRUCTURE IS DESIGNED FOR A COMPLETED CONDITION ONLY AND THEREFORE MAY REQUIRE ADDITIONAL SUPPORT TO MAINTAIN STABILITY BEFORE COMPLETION.

IV. LIGHT GAUGE STEEL FRAMING

1. INSTALLATION OF LIGHT GAUGE STEEL FRAMING SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.

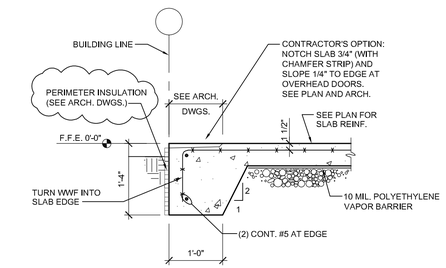
2. WALL STUDS SHALL HAVE THE FOLLOWING MINIMUM PROPERTIES:
16" MAX. SPACING
STUD DEPTH = 6" (SEE ARCH. DWGS.)
FLANGE WIDTH = 1 5/8" MIN.
16 GAUGE STEEL
L/600 MAX. DEFLECTION AT BRICK VENEER
SEE ARCH. DWGS. FOR GIRT HEIGHT

3. PROVIDE MIN. 18 GA. BOTTOM TRACK AND ANCHOR TO SLAB WITH POWDER ACTUATED FASTENERS AT 16" O.C. USE HILTI DS FASTENERS WITH 0.177" SHANK DIAMETER AND 1 7/16" EMBEDMENT. WELD STUDS TO TRACK EACH SIDE -or- PROVIDE (2) NO. 10 SCREWS (ONE EACH SIDE OF TRACK).

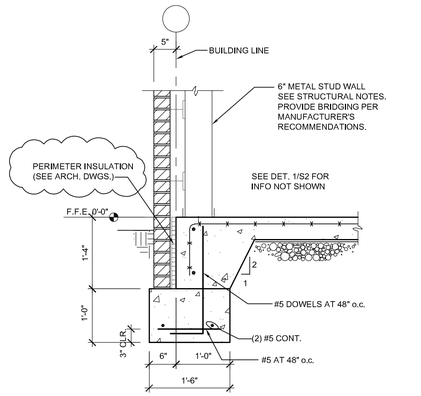
4. ATTACH STUDS TO BUILDING STRUCTURE WITH CLIP ANGLE AND SCREW CONNECTION DETAILS PROVIDED BY SUPPLIER. CONNECTION OF EACH WALL STUD TO TO BUILDING STRUCTURE SHALL CONSIST OF A MINIMUM OF (3) No. 12 SCREWS.

5. PROVIDE MINIMUM (2) 8" x 18 GA. BOX HEADER AT ALL FRAMED WINDOW AND DOOR OPENINGS UP TO A CLEAR SPAN OF 6'-4". PROVIDE A MINIMUM OF (2) KING STUDS AT EACH END OF EACH HEADER. PROVIDE INSULATION PER ARCHITECTURAL DRAWINGS.

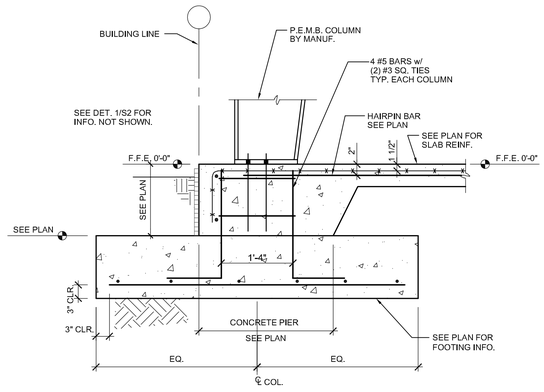
6. DETAILED SHOP DRAWINGS SHALL BE PROVIDED FOR REVIEW AND APPROVAL PRIOR TO CONSTRUCTION.



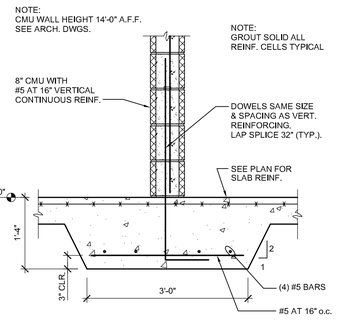
1 S2 DETAIL - SLAB EDGE
3/4" = 1'-0"



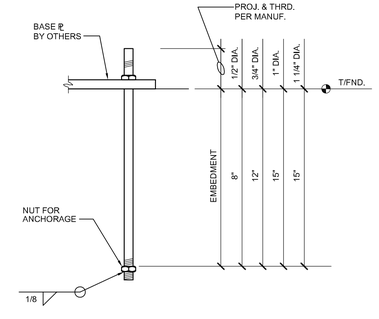
2 S2 DETAIL - SLAB EDGE
3/4" = 1'-0"
BRICK VENEER



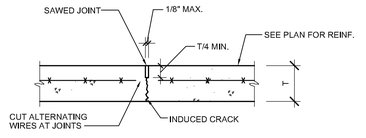
3 S2 SECTION - COLUMN FOOTING
3/4" = 1'-0"



4 S2 SECTION - CMU WALL
3/4" = 1'-0"



5 S2 TYP. ANCHOR BOLT DETAIL
NO SCALE



NOTES: 1. SAW JOINTS AS SOON AS CONCRETE WILL NOT RAVEL UNDER SAW BLADE.
2. ADD 20" LONG SMOOTH DOWELS AT ALL CONSTRUCTION JOINTS (APPLICABLE IF SLAB IS POURED OVER MULTIPLE DAYS).

6 S2 DETAIL - TYP. SLAB CONTROL JOINT
1" = 1'-0"

WEEKS SUMMER ARCHITECTS

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NORTH CAROLINA PROFESSIONAL SEAL 25539 ENGINEER BRIAN M. ROSS
10-20-2023
SEAL NOT VALID UNLESS SIGNED AND DATED

PROJECT TITLE
REVELS TURF & TRACTOR
RAWLS CHURCH RD.
FUQUAY-VARINA, NC

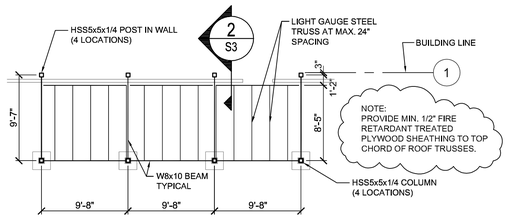
PROJECT NO.
C230405

DRAWING TITLE
STRUCTURAL NOTES AND DETAILS

SHEET 0 OF 0

S2

PLOT DATE 10/20/2023
REVISION (REVIEW COMMENTS) 11/22/2023



1 S3 PORCH FRAMING PLAN

1/8" = 1'-0"

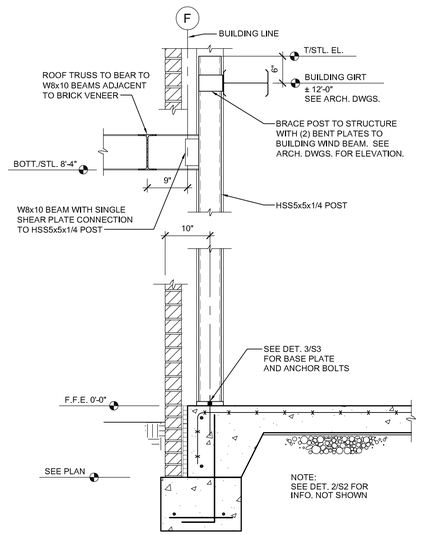
LIGHT GA. STEEL TRUSS NOTES:

1. TRUSS DESIGN LOADS:
   20 PSF TOP CHORD LL
   10 PSF TOP CHORD DL
   10 PSF BOTTOM CHORD DL
   115 MPH WIND

2. TRUSSES SHALL BE PLACED AT MAX. 24" o.c. SPACING WITH 3:12 PITCH. SEE ARCH. DRAWINGS.

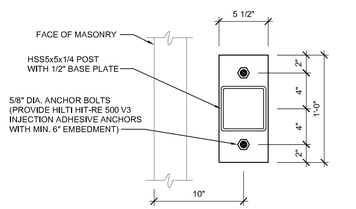
3. PROVIDE DETAILED SHOP DRAWINGS FOR REVIEW AND APPROVAL PRIOR TO FABRICATION. TRUSS PROFILES SHALL BE ENGINEERED AND SEALED BY THE TRUSS MANUFACTURER.

4. SUPPORT TRUSSES AT BEARING LOCATIONS INDICATED ON PLAN. INSTALLATION SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS.



2 S3 SECTION AT STEEL POST

3/4" = 1'-0" PORCH CONNECTION TO BUILDING



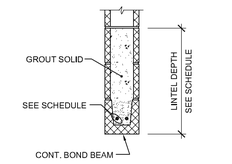
3 S3 POST BASE PLATE

1 1/2" = 1'-0"

LINTEL SCHEDULE

WALL TYPE	CLEAR OPENING WIDTH	DESCRIPTION	LINTEL DEPTH
8" CMU	LESS THAN 4'-0"	8" BOND BEAM WITH (1) #5 BAR	8" (1 COURSE)
8" CMU	4'-0" TO 10'-4"	8" BOND BEAM WITH (2) #5 BAR	16" (2 COURSES)
4" BRICK	4'-0" MAX.	L 3 1/2 x 3 1/2 x 1/4	
4" BRICK	6'-4" MAX.	L 5 x 3 1/2 x 1/4 (LLV)	
4" BRICK	8'-4" MAX.	L 6 x 3 1/2 x 5/16 (LLV)	

LINTEL NOTES:
1. LINTEL SCHEDULE SHALL APPLY UNLESS NOTED OTHERWISE
2. PROVIDE MIN. 8" BEARING FOR ALL LINTEL ANGLES U.N.O.
3. PROVIDE MIN. 8" BEARING FOR CMU LINTELS U.N.O.
4. PLACE BARS IN BOTTOM OF BOND BEAM.
5. FOR LINTELS CONSISTING OF MULTIPLE COURSES OF CMU, PLACE BARS IN BOTTOM OF BOND BEAM AND GROUT THE ENTIRE LINTEL SOLID IN ONE LIFT.
6. SEE DETAIL 4/S3 FOR DEFINITION OF LINTEL DEPTH.



4 S3 LINTEL DETAIL

3/4" = 1'-0"

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NC LICENSE NO. C-2364

NORTH CAROLINA PROFESSIONAL SEAL 25539 ENGINEER BRIAN M. ROSS
10-20-2023
SEAL NOT VALID UNLESS SIGNED AND DATED

PROJECT TITLE
REVELS TURF & TRACTOR
RAWLS CHURCH RD.
FUQUAY-VARINA, NC

PROJECT NO.
C230405

DRAWING TITLE
PORCH PLAN AND DETAILS

SHEET 0 OF 0

S3

PLOT DATE 10/20/2023
REVISION (REVIEW COMMENTS) 11/22/2023

DIVISION 15A – PLUMBING

1.1 DESCRIPTION OF THE WORK

A. Work under this section includes, but is not necessarily limited to, furnishing and installing the following:
   1. Plumbing fixtures, water heaters, and any other equipment necessary.
   2. Cold and hot water piping and insulation.
   3. DWV piping.
   4. Natural gas piping.
   5. Connection of all equipment; drain, vent, water, gas.

B. All work under this contract shall be installed in compliance with the latest edition of the following codes and standards insofar as they apply.
   1. The National Electrical Code.
   2. 2018 N.C. Building Code: Plumbing, and all applicable category codes.
   3. American Society of Sanitary Engineering Standard 1010.
   4. All local codes and ordinances.

C. These codes are minimum standards. If codes require a more stringent method of construction than the specifications require, the codes shall govern.

D. The Plumbing Contractor shall be licensed in the State of North Carolina and have all local licenses required for the work.

E. Obtain all permits, licenses, inspections, etc., required for the work, and pay for the same.

1.2 INTENT

A. The intent of these specifications and accompanying drawings is to convey as reasonably as possible the requirements for a complete job ready for the building to operate. The Plumbing Contractor shall take this into consideration and include in his base bid allowance for contingencies as will allow him to provide minor pieces of equipment and labor not specifically indicated but required for the job to operate properly, at no additional cost to the Owner. The PC shall determine and coordinate with existing conditions.

1.3 COORDINATION

A. Coordinate work with other contractors. Notify Architect of apparent conflicts early to expedite construction. If structural damage appears imminent, stop work and notify Architect for a decision before resuming operations.

B. Locations shown are approximate. The Plumbing Contractor shall refer to the architectural drawings for placement of equipment, fixtures, etc. Where locations are not clear, the Contractor shall obtain the exact locations from the Architect.

C. Coordinate all exterior piping connections w/Architect, site contractor/plans. Verify manhole elevations and provide backwater valves as required if flood level rims are below next upstream manhole cover elevation. Fixtures with flood level rims above upstream manhole shall not discharge thru bw valve. Notify engineer of backwater valve requirement, any issue prior to bid.

1.4 SHOP DRAWINGS

A. Shop drawings shall be submitted for plumbing fixtures and for pipe. These may consist of the manufacturer's standard catalog or tear sheets and shall have the exact items being offered clearly identified.

PART 2 – PRODUCTS

2.1 FIXTURES

A. Each fixture shall be properly supported from the building structure as required to the end effect that all fixtures and accessories will be held rigidly in place. Water pipes supplying the fixtures must also be held rigidly in place.

B. Provide loose key angle stops and chrome plated supply pipe water supplies to fixtures.

C. All exposed piping traps and accessories for fixtures shall be chrome plated. Provide chrome plated escutcheon plates where pipes enter walls.

D. Provide shutoff valves for all sinks, water heaters, toilets, washing machines, refrigerator icemaker, exterior hose bibbs and all other plumbing fixtures.

E. Provide trap primers for all floor drains in areas not served by hose bibbs.

2.2 PIPING

A. Drain–Waste–Vent: All DWV piping shall be Schedule 40 PVC–DWV u.o.n., with the following exceptions: Use cast iron piping in all return air plenums, penetrations of rated walls/floors/ceilings, and in areas/walls adjacent to cooking equipment exhaust hoods. Review Arch. and Mech. drawings. ABS or cast iron piping shall be used for drainage/discharge with a temperature greater than 140 deg. F for a minimum distance of 10'–0".

B. Hot and cold water piping above grade: Type "L" copper w/solder joints (ASTM–B88), hard drawn with wrought copper fittings (ANSI B16.22). PEX piping with copper fittings may be used with owner/tenant approval and as allowed per code. Copper piping shall be used in areas/walls adjacent to cooking equipment exhaust hoods. Review Arch. and Mech. drawings.

C. Cold water piping below grade: Type "K" copper (ASTM–B8A) soft drawn.

D. Natural gas piping shall be black steel pipe with screwed or welded joints. Support all piping as required by code. Use commercial style hangers, pipe strapping will not be allowed. Provide dirtleg, union, shut–off valve and flexible connection to all equipment. Pressure test all piping prior to putting into use. Verify size requirements prior to installation. Coordinate requirements with local gas company prior to submitting bid. Provide all components necessary for a complete operation system. Label piping per code. Paint exterior and exposed gas lines per code and building owner.

E. Hangers: Use pipe hangers where required on 8–foot centers with saddles to avoid crushing insulation.

F. Solder: 95/5. Lead free.

G. Unions: Provide unions where indicated on drawings, in long runs of piping (except drainage) and at equipment to provide convenient disassembly. Provide dielectric unions when connecting copper tubing to equipment and piping made of ferrous materials.

2.3 CLEANOUTS

A. Hex plugs in rough areas: Recessed plugs with cover plates in exposed locations.

2.4 SHOCK ARRESTERS

A. Provide shock arresters as required by codes, manufacturer's recommendations and accepted industry standards for qualify construction. Provide for all quick closing valves.

PART 3 – EXECUTION

3.1 CONNECTIONS

A. This contract includes complete connection of cold water, hot water, drain, vent, and natural gas piping as required. All fittings, valves, accessories, cutoffs, drains, etc., required to complete such connections shall be included.

B. The connection to water closets shall be made watertight with gasket and wax ring. Floor flanges shall be caulked into position. Plastic caps shall be provided on the tie down bolts, and shall be secured in place by screwing down on threaded brass washers.

C. Where water pipes connect to exposed chrome plated trim, use proper chrome plated escutcheons.

3.2 SERVICE ACCESS

A. All valves and accessories shall be insulated so that they can be properly serviced. In no case shall the Plumbing Contractor install equipment or other components in situations that do not meet code requirements or manufacturer's requirements. Provide access doors as required to access valves, etc.

3.3 ROUTING OF PIPING

A. Coordinate routing of piping with others, line up work true to or at right angle to adjacent surfaces and in a workmanlike manner. Support all interior piping from building structure by means of hanger or inserts to maintain pitch of lines, to prevent vibration, and to secure piping place.

B. Space pipe hangers per NCSBC– Plumbing Sect. 308.5 and Fuel Gas Code Sect. 415.1.

C. Pipe hangers for insulated lines shall have suitable saddles to protect insulation.

3.4 INSULATION

A. All H/W and C/W piping shall be insulated with a min. of 1" inch elastomeric insulation (R–6.5 min.) in unconditioned areas. See NCSBC–Plumbing Sect. 305 for all protection requirements. All H/W piping of circulating systems shall be insulated with 1" insul–ation per Sect. C404.4 of the NCSBC 2018 Energy Conservation Code.

B. Provide pre–fabricated insulation kits for all sink and lavatory exposed drain and supply piping.

3.5 INSPECTIONS AND TESTS

A. Before being concealed, all water, soil and vent piping shall be tested to determine if they are water– and air–tight.

B. Prior to placing into service, entire system shall be tested for leaks in strict accordance with state and local codes.

3.6 STERILIZATION OF PIPING

A. Sterilize the new water piping thoroughly with a solution containing not less than 50 parts per million of available chlorine, using liquid chlorine, or sodium hydrochloride solution, introduced into the system in an approved manner. The sterilizing solution shall remain in the system in an approved manner. The sterilizing solution shall remain in the system for a period of 24 hours. After sterilization, flush the solution from the system with clean water until the residual chlorine content is not greater than 0.2 parts per million, unless otherwise directed.

3.7 SERVICE PRESSURE

A. Provide approved water–pressure reducing valve (PRV) if service pressure exceeds 80 psi to reduce pressure to 80 psi static or less and as required per NCSBC–Plumbing Sect. 604.8.

3.8 DRAINDOWN

A. Contractor to provide for complete plumbing system drain down.

3.9 CLEAN UP

A. During construction, keep the site clear of debris and upon completion, and before final inspection, clean up the premises to remove all evidence of his work. In addition, upon completion of construction, clean, wash, and/or polish all fixtures, equipment and exposed material and leave them bright and clean.

3.10 GUARANTEES

A. Guarantee all materials and labor included in the plumbing work for a period of one year from date of final acceptance by the Owner.

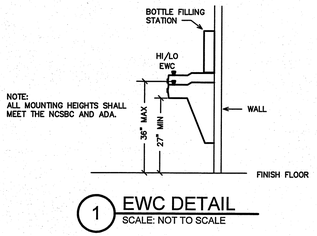
B. Any defects in the system which become evident during the guarantee period shall be corrected without cost to the Owner. This shall include the replacing of defective materials where required, and the repair of damage caused by leaking pipes, etc., and damage to building surfaces caused in making repairs.

GENERAL NOTES – PLUMBING

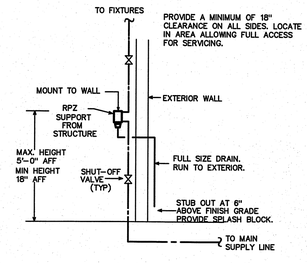
1. ALL WORK SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE STATE CODE, ALL LOCAL AND OTHER APPLICABLE CODES.
2. ALL WORK SHALL BE PERFORMED BY EXPERIENCED AND SKILLED CRAFTSMEN. THE PLUMBING CONTRACTOR (PC) SHALL COORDINATE ALL OF HIS WORK WITH THE GENERAL CONTRACTOR (GC).
3. THE PLUMBING PLANS AND SPECIFICATIONS SHALL BE THOROUGHLY REVIEWED PRIOR TO PURCHASING MATERIALS AND INSTALLATION AND ALL DISCREPANCIES OR INTERFERENCES BROUGHT TO THE ENGINEERS ATTENTION.
4. THESE PLANS ARE DIAGRAMMATIC AND MAY NOT SHOW MINOR DETAILS AND LOCATIONS. THE PC SHALL PROVIDE ALL MISC. ITEMS NEEDED FOR A COMPLETE SYSTEM REGARDLESS IF NOTED ON THE DRAWINGS OR NOT. FOR DIMENSIONS REFER TO ARCHITECTURAL PLANS.
5. THE GC SHALL PROVIDE ALL WALL, FLOOR AND ROOF OPENINGS OF THE SIZE AND LOCATION REQUIRED BY THE PC AND SHALL BE RESPONSIBLE FOR PAINTING AND FLOOR FINISHES. THE LOCATIONS.
6. ALL NEW WATER PIPING SHALL BE INSTALLED TIGHT TO STRUCTURE, ADEQUATELY SUPPORTED AND PROTECTED AND PROPERLY PITCHED TO ALLOW TOTAL DRAINAGE.
7. ALL WATER PIPING SHALL BE HYDROSTATICALLY TESTED FOR A MINIMUM OF 15 MINUTES AT A MINIMUM OF 100 PSIG BEFORE COVERING AND ALL LEAKS CORRECTED. THE ENTIRE WATER DISTRIBUTION SYSTEM SHALL BE DISINFECTED PRIOR TO PLACING IN SERVICE.
8. PROVIDE MIN. 18" SHOCK ABSORBERS WITH STOPS ON ALL HOT AND COLD WATER FIXTURE RUNS AS REQUIRED BY CODE.
9. VENT LINES SHALL SLOPE UP TO ALL STACKS AND TERMINATE A MIN. OF 12" ABOVE ROOF LINE.
10. PROVIDE CUT SHEETS ON ALL PLUMBING FIXTURES FOR ARCHITECT AND OWNER APPROVAL PRIOR TO ORDERING ANY FIXTURES.
11. PROVIDE/VERIFY HIGH TEMPERATURE HOT WATER (HTHW) AT 120 DEGREES F (MAX).
    PROVIDE/VERIFY MEDIUM TEMPERATURE HOT WATER (MTHW) AT 110 DEGREES F (MAX), PROVIDE MTHW TO ALL LAVATORIES. PROVIDE ASSE 1070 THERMOSTATIC MIXING VALVE (TMV)– WATTS LFUSG–B 'LEAD FREE' GUARDIAN (OR EQUAL) AS REQUIRED FOR EACH LAV UNIT.
    PROVIDE/VERIFY LOW TEMPERATURE HOT WATER (LTHW) AT 85 DEGREES F (MAX) TO EYEWASH (SEE FIXTURE SCHEDULE– THERM. MIXING VALVE INCLUDED IN SPECIFICATION)
    LOCATE ALL MIXING VALVES IN A MAINTENANCE ACCESSIBLE AREA BELOW FIXTURE, ABOVE CEILING, OR AS REQUIRED. VERIFY REQUIRED CERTIFICATIONS FOR ALL MIXING VALVES– PROVIDE/VERIFY ASSE 1070 AND 1071 THERMOSTATIC MIXING VALVES WHERE REQUIRED, AND ASSE 1016 THERMOSTATIC/PRESSURE BALANCING VALVES WHERE REQUIRED (SHOWERS, WITH MAX. SETTING OF 120 DEG. F), AND PER CODE WHETHER OR NOT SHOWN/NOTED ON PLANS.
12. PROVIDE CLEANOUTS AS REQUIRED BY CODE. NOT MORE THAN 100 FEET FOR 4" DRAIN.
13. PROPERLY SEAL ALL PIPING PENETRATIONS PER APPLICABLE PENETRATION SYSTEM DETAIL (THIS SHEET) THROUGH FIRE BARRIER WALLS/FLOORS/CEILINGS– ALL MAY NOT BE SHOWN, VERIFY RATINGS/BARRIERS W/ARCH. PROVIDE CAST IRON FOR ALL DWV PIPING THROUGH FIRE BARRIERS.

LOAD SUMMARY – PLUMBING

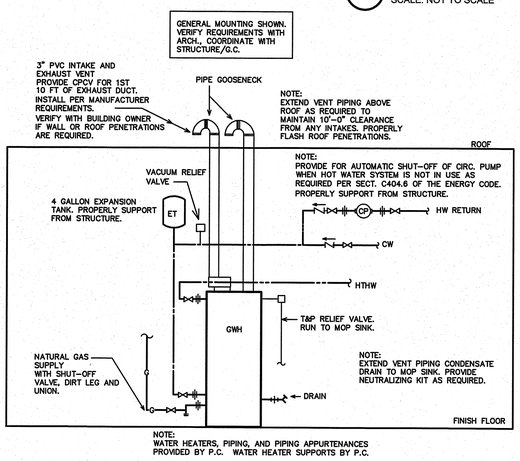
WASTE DEMAND (FU)	WATER DEMAND (FU)	WATER DEMAND (GPM)
55.0	62.5	32.7



1 EWC DETAIL
SCALE: NOT TO SCALE



2 RPZ-WB MOUNTING DETAIL
SCALE: NOT TO SCALE



3 GWH DETAIL
SCALE: NOT TO SCALE

System No. W-L-1001

March 28, 2003

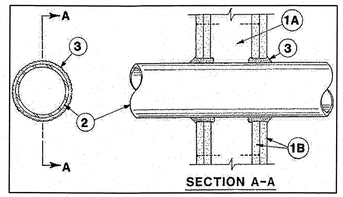
(Formerly System No. 147)

F Ratings -- 1, 2, 3 and 4 Hr (See Items 2 and 3)

T Ratings -- 0, 1, 2, 3, and 4 Hr (See Item 3)

L Rating At Ambient - less than 1 CFM/sq ft

L Rating At 400 F - less than 1 CFM/sq ft



1. Wall Assembly -- The 1,2,3 or 4 hr fire-rated gypsum wallboard/stud wall assembly shall be constructed of the materials and in the manner described in the individual U300 or U400 Series Wall or Partition Designs in the UL Fire Resistance Directory and shall include the following construction features:

A. Studs -- Wall framing may consist of either wood studs (max 2 h fire rated assemblies) or steel channel studs. Wood studs to consist of nom 2 by 4 in. lumber spaced 16 in. OC with nom 2 by 4 in. lumber end plates and cross braces. Steel studs to be min 3-5/8 in. wide by 1-3/8 in. deep channels spaced max 24 in. OC.

B. Gypsum Board* -- Nom 1/2 or 5/8 in. thick, 4 ft. wide with square or tapered edges. The gypsum wallboard type, thickness, number of layers, fastener type and sheet orientation shall be as specified in the individual U300 or U400 Series Design in the UL Fire Resistance DIrectory. Max diam of opening is 26 in.

2. Through-Penetrant-- One metalic pipe, conduit or tubing installed either concentrically or eccentrically with the firestop system. The annular space between pipe, conduit, or tubing and periphery of opening shall be min of 0 in. (point contact) to max 2 in. Pipe, conduit or tubing to be rigidly supported on both sides of wall assembly. The following types and sizes of metallic pipes, conduits or tubing may be used:

A. Steel Pipe -- Nom 24 in. diam (or smaller) Schedule 10 (or heavier) steel pipe.

B. Iron Pipe -- Nom 24 in. diam (or smaller) service weight (or heavier) cast iron soil pipe, nom 12 in. diam (or smaller) or Class 50 (or heavier) ductile iron pressure pipe.

C. Conduit -- Nom 6 in. diam (or smaller) steel conduit or nom 4 in diam (or smaller) steel electrical metallic tubing.

D. Copper Tubing -- Nom 6 in. diam (or smaller) Type L (or heavier) copper tubing.

E. Copper Pipe -- Nom 6 in. diam (or smaller) Regular (or heavier) copper tubing.

F. through Penetrating Product* -- Flexible Metal Piping The following types of steel flexible metal gas piping may be used:

1. Nom 2 in diam (or smaller) steel flexible metal gas piping. Plastic covering on piping may or may not be removed on both sides of floor or wall assembly.

OMEGA FLEX INC

2. Nom 1 in diam (or smaller) steel flexible metal gas piping. Plastic covering on piping may or may not be removed on both sides of floor or wall assembly.

TITLEFLEX CORP

A BUNDY CO

3. Nom 1 in diam (or smaller) steel flexible metal gas piping. Plastic covering on piping may or may not be removed on both sides of floor or wall assembly.

WARD MFG INC

3. Fill, Void or Cavity Material* -- Caulk -- Min 5/8, 1-1/4,1-7/8 and 2-1/2 in. thickness for caulk for 1,2,3 and 4 hr rated assemblies, respectively, applied within annulus, flush with both surfaces of wall. Min 1/4 in. dia bead of caulk applied to gypsum board/penetrant interface at point contact location on both sides of wall. The hourly F rating of the firestop system is dependent upon the hourly fire rating of the wall assembly in which it is installed, as shown in the following table. The hourly T rating of the firestop system is dependent upon the type or size of the pipe or conduit and the hourly fire rating of the wall assembly in which it is installed, as tabulated below:

Max Pipe or Conduit Diam In	F RATING Hr	T RATING Hr
1	1 or 2	0+, 1 or 2
1	3 or 4	3 or 4
4	1 or 2	0
6	3 or 4	0
12	1 or 2	0

+When copper pipe is used, T Rating is 0 h.

3M COMPANY-- CP 25WB+.

*Bearing the UL Classification Mark

4 PENETRATION DETAIL
SCALE: NOT TO SCALE

SYMBOL LEGEND – PLUMBING

SYMBOL	DESCRIPTION (U.O.N.)
	WASTE PIPING (W)
	VENT PIPING (V)
	COLD WATER PIPING (CW)
	HOT WATER PIPING (HW)
HTHW	HIGH TEMPERATURE HW PIPING (HTHW) 120 DEG. F
MTHW	MEDIUM TEMPERATURE HW PIPING (MTHW) 110 DEG. F
LTHW	LOW TEMPERATURE HW PIPING (LTHW) 85 DEG. F
HWR	HW RETURN PIPING (HWR)
G	NATURAL GAS PIPING (G)
	CHECK VALVE
	BALANCING VALVE
	CIRCULATION PUMP
	SHUT–OFF VALVE
	DIELECTRIC UNION
COFF	CLEANOUT FINISH FLOOR
WCO/HCO	WALL/HORIZONTAL CLEANOUT
COFG	CLEANOUT FINISH GRADE–PROVIDE FLUSH CONCRETE COLLAR AND BRONZE COVER
	VENT THRU ROOF (VTR)
A.A.V.	AIR ADMITTANCE VALVE
A.F.F.	ABOVE FINISHED FLOOR
U.O.N.	UNLESS OTHERWISE NOTED
	2 HOUR FIRE BARRIER
	3 HOUR FIRE BARRIER

FIXTURE SCHEDULE – PLUMBING *

CP * CIRCULATING PUMP
TACO MODEL 110, 115 VOLT, 1/12 HP. SECURELY SUPPORT FROM STRUCTURE. PROVIDE AQUASTAT, TIMER, CHECK VALVES AS REQUIRED.

ET * EXPANSION TANK
AMTROL MODEL ST–5, 2.0 GALLON, STEEL CONSTRUCTION, NON–ASME RATED.

EWC * HIGH/LOW ELECTRIC WATER COOLER WITH BOTTLE FILLER
ELKAY DUAL LEVEL ELECTRIC WATER COOLER WITH FILTERED BOTTLE FILLER LZSTL8WSSK, STAINLESS STEEL, ADA COMPLIANT. PIPE TO SINGLE DRAIN AND SUPPLY LINE. VERIFY INSTALLATION CLEARANCE REQUIREMENTS PRIOR TO ORDERING. VERIFY OPTIONS–HI/LO SIDE (COORDINATE MODEL NUMBER), ETC., WITH OWNER AND ARCHITECT.

EW * EYEWASH (PROVIDE WITH LTHW)
BRADLEY BARRIER–FREE WALL MOUNT HALO EYEWASH S19–224. COORDINATE EXACT MODEL/MOUNTING LOCATION W/OWNER. PROVIDE W/BRADLEY NAVIGATOR EMERGENCY S19–2000 EFX8 MIXING VALVE, INSTALL IN ACCESSIBLE LOCATION. SET OUTFLOW TO SPECIFIED LTHW TEMPERATURE (85 DEG. F).

FD * FLOOR DRAIN
ZURN MODEL Z415 WITH HEEL–PROOF TYPE B STRAINER, CAST IRON W/NICKEL BRONZE TOP, 5" STRAINER WITH 3" CONNECTION. PROVIDE TRAP PRIMER CONNECTION IF REQUIRED.

FPHB * FREEZE PROOF HOSE BIBB
WOODFORD MODEL #19. FREEZE PROOF HOSE BIBB WITH BACKFLOW PREVENTER. COORDINATE MOUNTING W/TENANT. PROVIDE TEE KEY OR LOCK SL–17 IF REQUIRED. VERIFY MOUNTING LOCATION, COORDINATE STEM LENGTH PER WALL THICKNESS.

GWH * NATURAL GAS WATER HEATER
AO SMITH MODEL BTXL–100, DIRECT VENT, 100,000 BTUH, 75 GALLON, 1" INLET AND OUTLET, 145 GPH RECOVERY AT 80 DEGREE RISE. PROVIDE EXHAUST AND INTAKE VENTS PER MANUFACTURERS RECOMMENDATION. VERIFY INSTALLATION CLEARANCES PRIOR TO ORDERING.

HB * WALL HOSE BIBB
WOODFORD MODEL #24 ANTI–SIPHON HOSE BIBB W/TEE KEY. COORDINATE MOUNTING W/TENANT. PROVIDE STEM LOCK SL–24 IF REQUIRED.

LT * LAVATORY (WALL MOUNT)
KOHLER CHESAPEAKE LAVATORY, K–1728, VITREOUS CHINA, 4" CENTERS, ADA COMPLIANT. PROVIDE DELTA MODEL 523LF–HGMHDF FAUCET, 0.5 GPM MAX WITH GRID STRAINER. PROVIDE P–TRAP AND SHUT–OFF VALVES.

MS * MOP SINK BASIN WITH FAUCET
BASIN– FLORESTONE MODEL MSR–3624 MOLDED MOP RECEPTOR, 3" DRAIN SIZE. INTEGRAL DRAIN REQUIRES MINIMUM 6" DIAMETER X 1 1/2" DEEP RECESS IN SUBFLOOR. LEVEL AS NEEDED, USE WEDGE–LOCK SEAL PER MANUFACTURER'S SPECIFICATIONS. USE WATER TO CHECK FOR PROPER DRAINAGE UPON ATTACHING DRAIN PIPE AND PRIOR TO FINISHING WALLS. VERIFY SIZE PRIOR TO ORDERING.
FAUCET– SPEAKMAN MODEL MR–371 FAUCET WITH VACUUM BREAKER. PROVIDE 5' HOSE AND MOP HANGER.

RPZ–WB * 1" REDUCED PRESSURE BACKFLOW PREVENTER FOR WASH BAY
WATTS MODEL #LF009M2QT, 1" REDUCED PRESSURE BACKFLOW PREVENTER, 'LEAD FREE' CONSTRUCTION. VERIFY INSTALLATION LOCATION/CLEARANCES.

SI * BREAK ROOM SINK
ELKAY LR2918 DOUBLE BASIN STAINLESS STEEL SINK (MODEL LRAD2918 IF ADA COMPLIANCE REQUIRED), 18 GA., SELF–RIMMING, FURNISHED WITH THREE FAUCET HOLES AND CENTER DRAIN. PROVIDE ELKAY COMMERCIAL FAUCET MODEL LK810A1075BL2 WITH TWO LEVER HANDLES, CHROME PLATED BRASS P–TRAP AND SHUT–OFF VALVES. COORDINATE EXACT UNIT WITH OWNER AND GENERAL CONTRACTOR. COORDINATE SIZE WITH CABINETRY PRIOR TO ORDERING.

SHR * ACCESSIBLE STALL, SHOWER HEAD/FAUCET/ADA ACCESSORIES
AQUATIC BATHWARE 6036BFSC PRE–FABRICATED FIBERGLASS SHOWER STALL. PROVIDE HAND–HELD SHOWER ASSEMBLY W/SLIDE BAR,–PRESSURE BALANCING MIXING VALVE AND ALL OTHER COMPONENTS REQUIRED FOR ADA COMPLIANCE, GRAB BAR, SEAT, CURTAIN/ROD, ETC. COORDINATE OPTIONS AND HANDING WITH ARCH. BEFORE ORDERING AND ROUTE ALL PLUMBING AS REQUIRED REGARDLESS OF HOW SHOWN ON PLANS.

US * UTILITY SINK
FLORESTONE MODEL FM–1, FLOOR MOUNTED SINK TO COME WITH 4 HEAVY DUTY MOLDED LEGS, WITH 1 1/2" DRAIN OPENING, 20 GALLON CAPACITY. PROVIDE FAUCET, P–TRAP, AND SHUT–OFF VALVES.

VB * ICE MAKER VALVE BOX
OATEY VALVE BOX WITH 3/8" BRONZE SHUT–OFF VALVE. FLUSH TO WALL.

WC * WATER CLOSET (ADA FLUSH TANK)
KOHLER HIGHLINE WATER CLOSET, K–3979, ADA COMPLIANT 1.6 GPF. PROVIDE PROPER OPEN FRONT ADA SEAT, K–7637 SUPPLY AND STOP, WAX SEAL, CLOSET BOLT KIT. PROVIDE MODEL WITH FLUSH CONTROL ON SIDE OPPOSITE GRAB BAR.

YH * FREEZE PROOF YARD HYDRANT
WOODFORD MODEL #Y1, FREEZELESS YARD HYDRANT WITH 1" INLET. VERIFY BURY DEPTH REQUIREMENT, COORDINATE LOCATION WITH OWNER/SITE. VERIFY FROST LINE DEPTH FOR DRAIN HOLE DEPTH/INSTALL REQUIREMENT. PROVIDE PROPER 'NONPOTAPLE' SIGNAGE PER NCSBC–PLUMBING SECT. 608.7.

* OR APPROVED EQUAL. SUBMIT ALL ITEMS FOR APPROVAL BY TENANT AND ARCHITECT PRIOR TO ORDERING.
ALL OTHER PLUMBING FIXTURES SHOWN ARE PROVIDED BY THE TENANT AND INSTALLED BY THE PLUMBING CONTRACTOR. SEE PLANS FOR NUMBER AND LOCATION. COORDINATE ALL REQUIREMENTS WITH EQUIPMENT SERVED.

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NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 22038 BENJAMIN E. BURKE
11/30/23

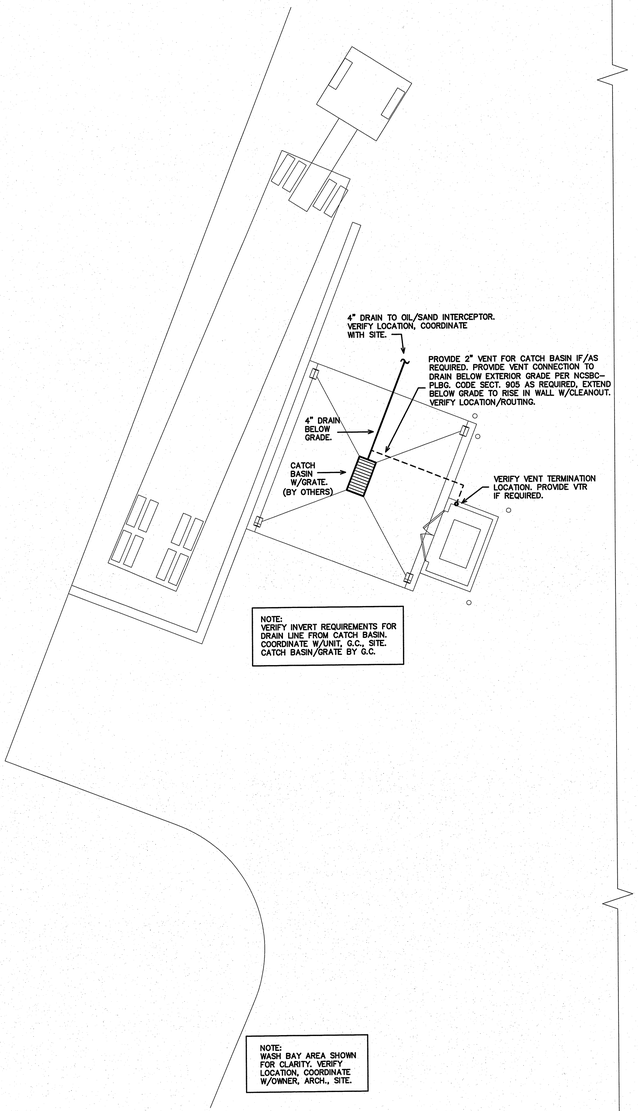
PROJECT TITLE
REVELS TURF & TRACTOR
RAWLS CHURCH ROAD
FUQUAY–VARINA, NORTH CAROLINA

PROJECT NO.
2232

DRAWING TITLE
PLUMBING SPECIFICATIONS

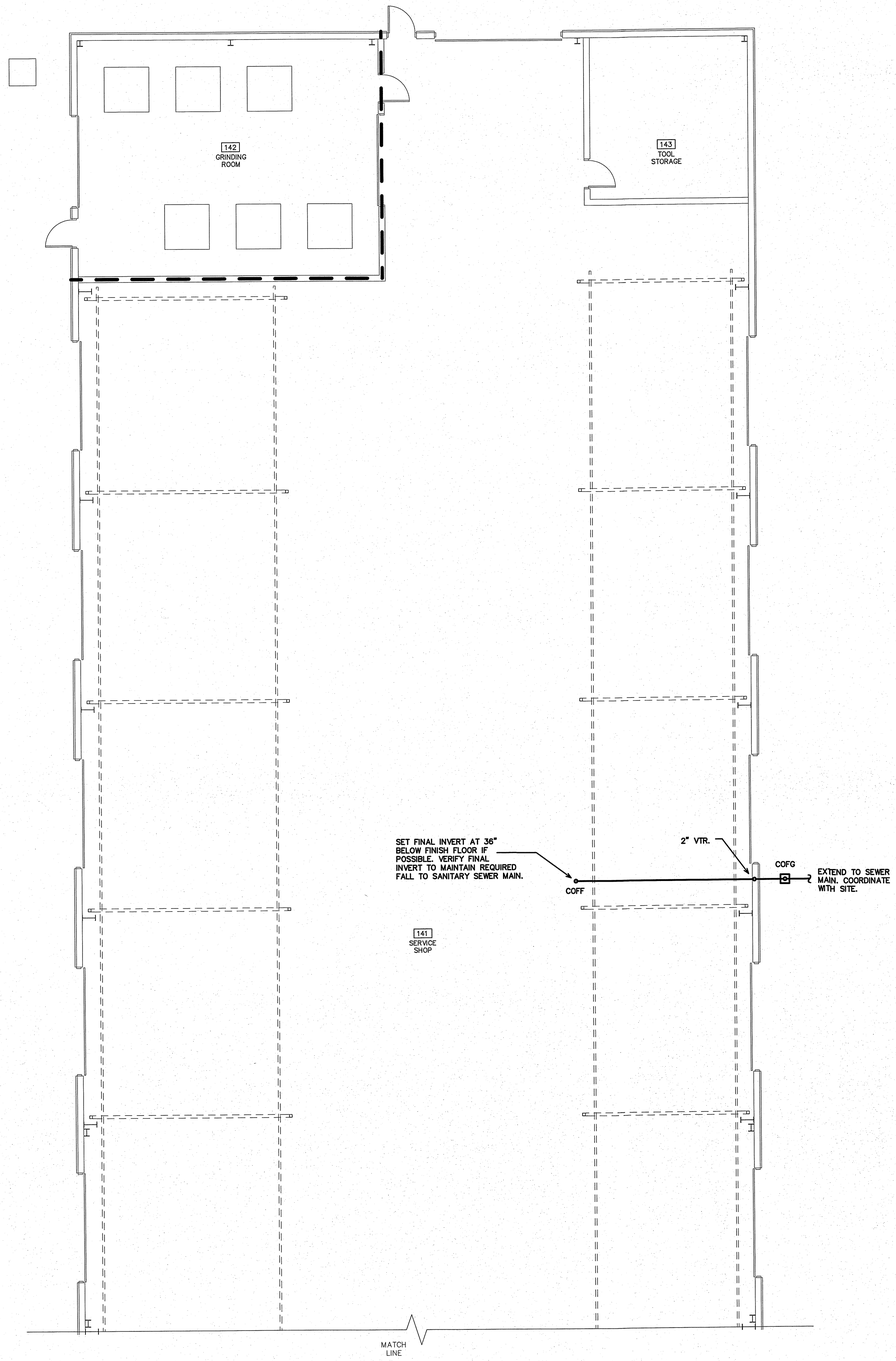
P1

PLOT DATE 12/01/23



2 WASH BAY DWV PLAN
SCALE: 1/8" = 1'-0"

BREAK LINE



1 NORTH DWV PLAN
SCALE: 1/8" = 1'-0"

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11/30/23

PROJECT TITLE
REVELS TURF & TRACTOR
RAWLS CHURCH ROAD
FUQUAY-VARINA, NORTH CAROLINA

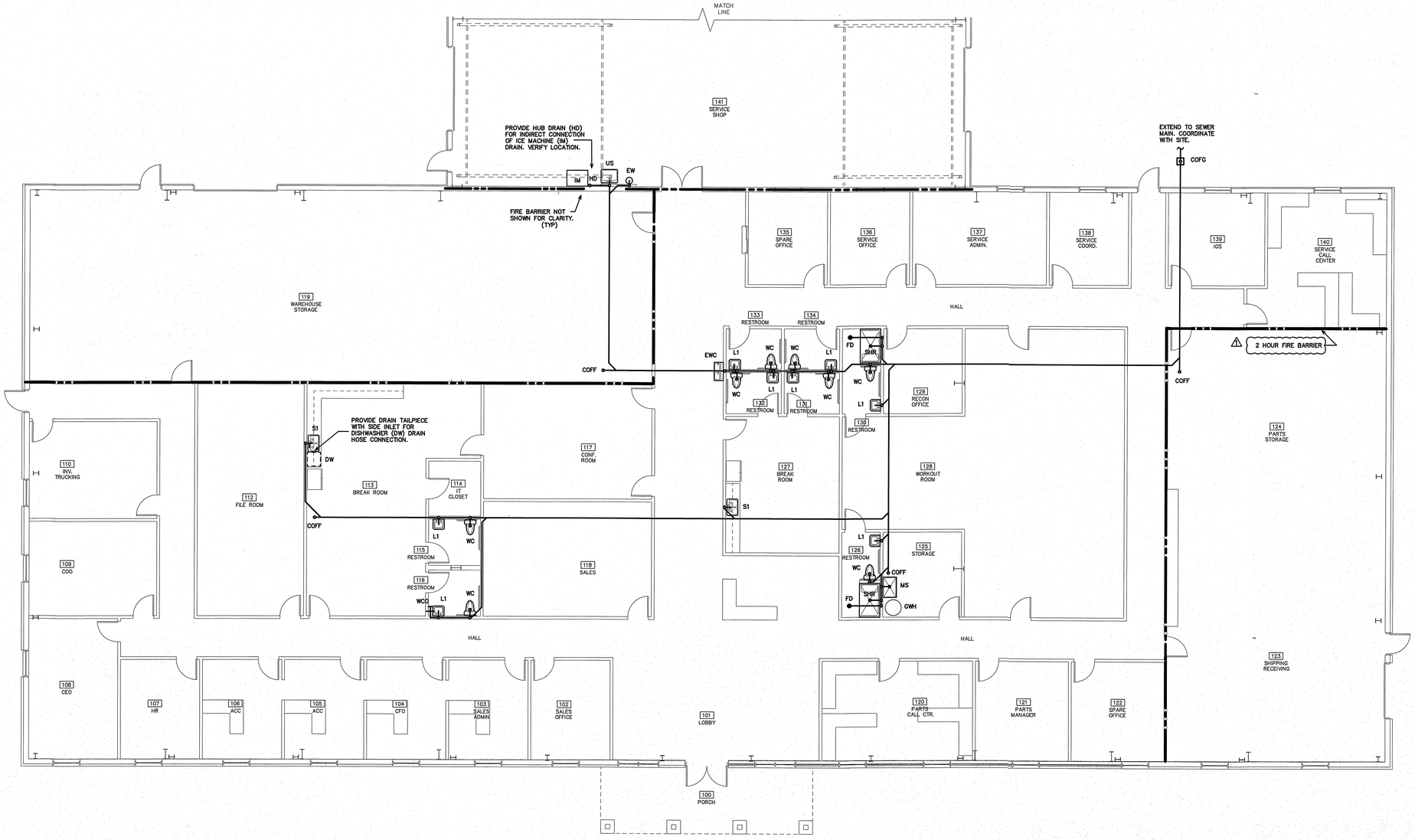
PROJECT NO.
2232

DRAWING TITLE
NORTH DWV PLAN

P2.1

PLOT DATE 12/01/23

NOTE:
VERIFY QUANTITY AND LOCATION OF ALL FLOOR DRAINS W/OWNER, ARCH. PROVIDE TRAP PRIMERS (NOT SHOWN) FOR ALL FLOOR DRAINS IN AREAS NOT SERVED BY HOSE BIBBS. (TYP)



1 SOUTH DWV PLAN
SCALE: 1/8" = 1'-0"

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11/30/23

PROJECT TITLE
REVELS TURF & TRACTOR
RAWLS CHURCH ROAD
FUQUAY–VARINA, NORTH CAROLINA

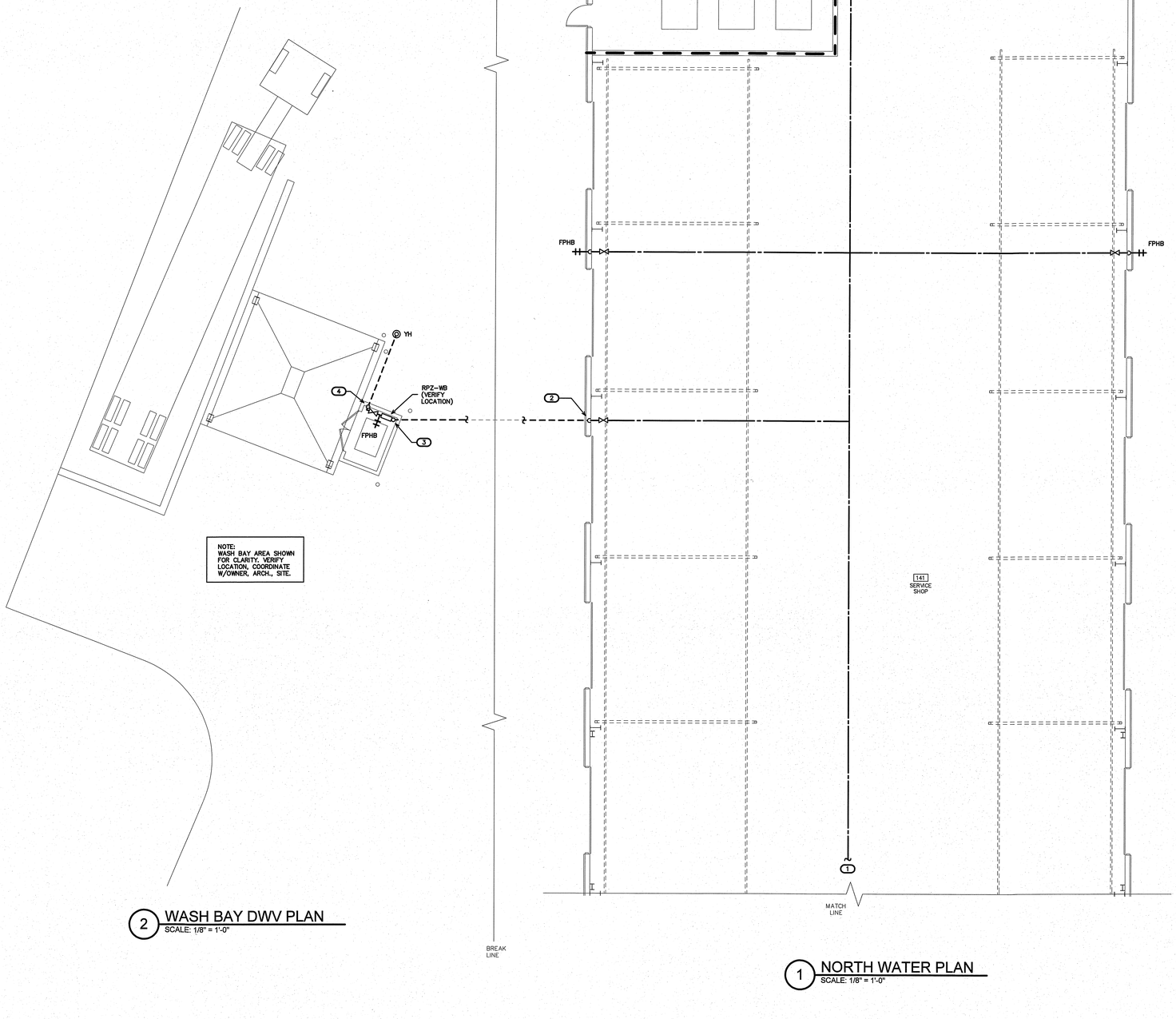
PROJECT NO.
2232

DRAWING TITLE
SOUTH DWV PLAN

P2.2

PLOT DATE	12/01/23
⚠ AHJ COMMENTS	11/30/23

This original sheet is 24" x 36"; other dimensions indicate it has been altered.



NOTE:
PROPERLY PROTECT/INSULATE ALL PIPING IN UNCONDITIONED AREAS. VERIFY ROUTING OF WATER LINES W/ARCH. ALL LINES, VALVES, CP, ETC. SHOWN FOR CLARITY- VERIFY LOCATIONS OF ALL COMPONENTS. COORDINATE WITH ALL TRADES. COORDINATE W/DWV PLAN. PROVIDE TRAP PRIMERS (NOT SHOWN) FOR ANY FLOOR DRAINS IN AREAS NOT SERVED BY HOSE BIBBS. VERIFY QUANTITY/MOUNTING LOCATIONS OF ALL HB, FPHB, YH W/ARCH., OWNER. (TYP)

KEY NOTES FOR SHEET P3.1

1. SEE SHEET P3.2 FOR CONTINUATION. VERIFY ROUTING IN SHOP AREA, COORDINATE WITH OWNER, ARCHITECT, G.C. STRUCTURE, ALL TRADES AND ANY OVERHEAD EQUIPMENT.
2. DROP TO RUN 1" CW BELOW GRADE TO WASH BAY. VERIFY LOCATION. EXTEND 1" CW BELOW GRADE TO WASH BAY, VERIFY LOCATION/ROUTING. COORDINATE WITH OWNER, ARCHITECT, G.C., AND SITE.
3. RISE TO MAIN SHUT-OFF VALVE A.F.F., VERIFY LOCATION. CONNECT TO RPZ-WB.
4. DROP TO RUN BELOW GRADE TO YARD HYDRANT (YH). VERIFY LOCATION/ROUTING.

NOTE:
WASH BAY AREA SHOWN FOR CLARITY. VERIFY LOCATION, COORDINATE W/OWNER, ARCH., SITE.

2 WASH BAY DWV PLAN
SCALE: 1/8" = 1'-0"

1 NORTH WATER PLAN
SCALE: 1/8" = 1'-0"

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11/30/23

PROJECT TITLE
REVELS TURF & TRACTOR
RAWLS CHURCH ROAD
FUQUAY-VARINA, NORTH CAROLINA

PROJECT NO.
2232

DRAWING TITLE
NORTH WATER PLAN

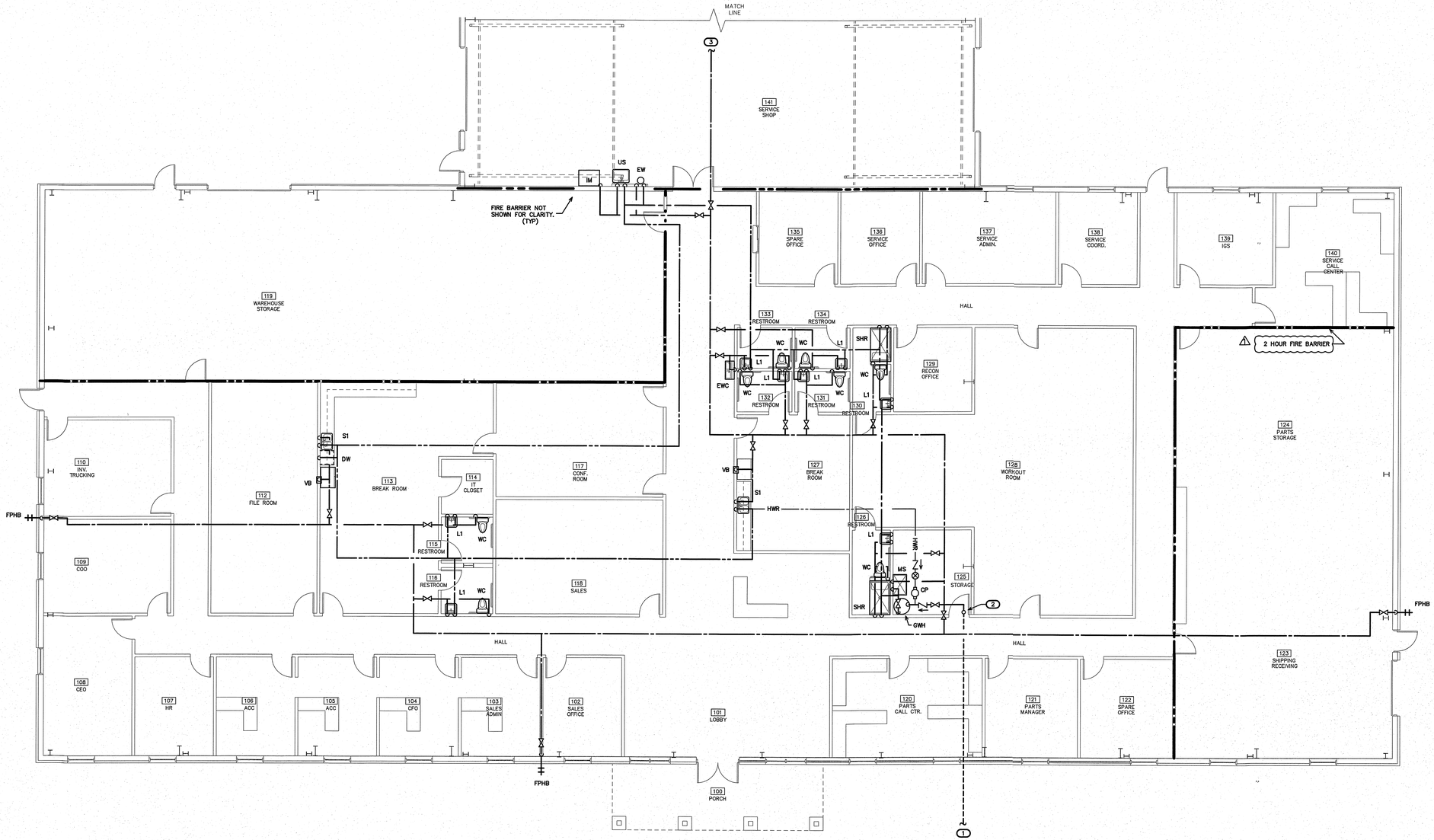
P3.1

PLOT DATE 12/01/23

NOTE:
PROPERLY PROTECT/INSULATE ALL PIPING IN UNCONDITIONED AREAS. VERIFY ROUTING OF WATER LINES W/ARCH. ALL LINES, VALVES, CP, ETC., SHOWN FOR CLARITY- VERIFY LOCATIONS OF ALL COMPONENTS, COORDINATE WITH ALL TRADES. COORDINATE W/DWV PLAN. PROVIDE TRAP PRIMERS (NOT SHOWN) FOR ANY FLOOR DRAINS IN AREAS NOT SERVED BY HOSE BIBBS. VERIFY QUANTITY/MOUNTING LOCATIONS OF ALL HB. FPHB W/ARCH., OWNER. PROVIDE PROPER ASSE 1070 TMV (NOT SHOWN) AT/FOR EACH LAVATORY FOR MTHW TO FAUCET. (TYP)

KEY NOTES FOR SHEET P3.2

1. 1-1/2" CW BELOW GRADE TO RPZ/METER/ SUPPLY MAIN. COORDINATE WITH SITE.
2. RISE CW FROM BELOW GRADE TO MAIN SHUT-OFF VALVE A.F.F., RISE TO RUN CW MAIN ABOVE CEILING. VERIFY LOCATION, RISE IN WALL W/ACCESS DOOR IF REQUIRED.
3. SEE SHEET P3.1 FOR CONTINUATION. VERIFY ROUTING IN SHOP AREA, COORDINATE WITH OWNER, ARCHITECT, G.C. STRUCTURE, ALL TRADES AND ANY OVERHEAD EQUIPMENT.



1 SOUTH WATER PLAN
SCALE: 1/8" = 1'-0"

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11/30/23

PROJECT TITLE
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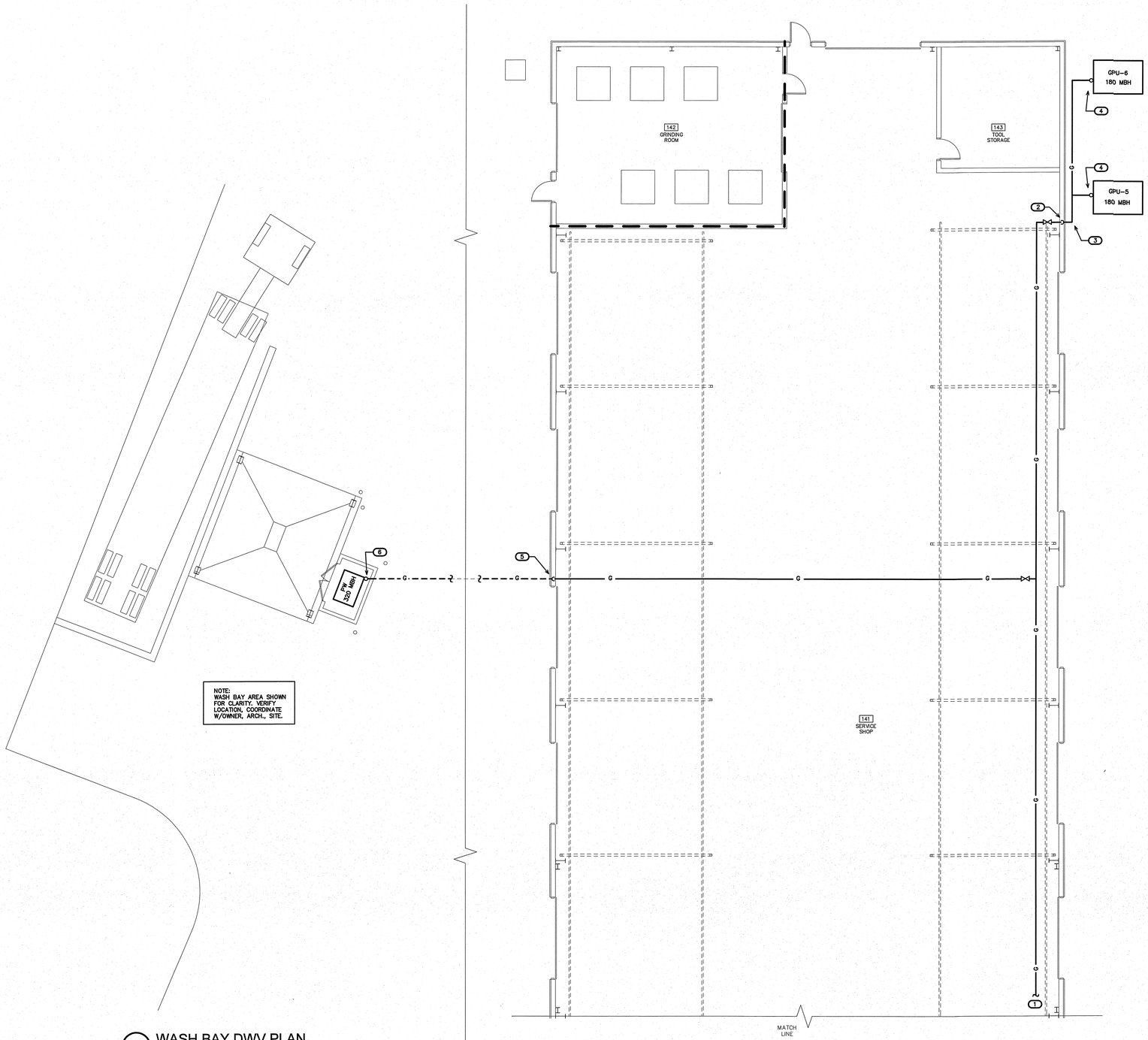
RAWLS CHURCH ROAD
FUQUAY-VARINA, NORTH CAROLINA

PROJECT NO.
2232

DRAWING TITLE
SOUTH WATER PLAN

P3.2

PLOT DATE	12/01/23
⚠ AHJ COMMENTS	11/30/23



NOTE:
WASH BAY AREA SHOWN FOR CLARITY. VERIFY LOCATION, COORDINATE W/OWNER, ARCH., SITE.

2 WASH BAY DWV PLAN
SCALE: 1/8" = 1'-0"

1 NORTH NATURAL GAS PLAN
SCALE: 1/8" = 1'-0"

NOTE:
VERIFY ALL GAS EQUIPMENT LOAD TOTALS, VERIFY GAS METER LOCATION PRIOR TO BID. VERIFY LINE SIZES. TOTAL DEVELOPED LINE LENGTHS (TDL). NOTIFY ENGINEER OF ANY DISCREPANCIES FOR POSSIBLE REVIEW AND/OR RE-SIZING OF GAS LINES.

NOTE:
ANY SHUT-OFF VALVES, HOOD FIRE SUPPRESSION VALVES, AND REGULATORS MUST BE ACCESSSIBLE. VENT REGULATORS TO EXTERIOR IF/AS REQUIRED. PAINT ANY INTERIOR OR EXTERIOR EXPOSED GAS LINES PER CODE AND BUILDING STANDARD. PROVIDE PROPER LABELING FOR ALL 2 PSI PIPING. PROVIDE PROPER STAND-OFFS/SUPPORTS FOR GAS LINES ON ROOF/EXTERIOR WALLS, BELOW ROOF, ETC. PROPERLY SEAL ROOF/EXT. WALL PENETRATIONS SO AS NOT TO VOID ANY EXISTING WARRANTIES. VERIFY ROUTING OF ALL GAS LINES, COORDINATE W/STRUCTURE, ALL TRADES, OWNER, ARCH., G.C.

KEY NOTES FOR SHEET P4.1

1. NATURAL GAS LINE BELOW ROOF STRUCTURE. SEE SHEET P4.2 FOR CONTINUATION. VERIFY ROUTING IN SERVICE SHOP AREA, COORDINATE WITH OWNER, ARCHITECT, G.C. STRUCTURE, ALL TRADES AND ANY OVERHEAD EQUIPMENT.
2. DROP TO RUN ABOVE GRADE TO EQUIPMENT. VERIFY LOCATION.
3. EXTEND BRANCH LINE ABOVE GRADE (ON WALL OR AS REQUIRED) TO EQUIPMENT. VERIFY ROUTING, COORDINATE W/OWNER, ARCH., G.C., ALL TRADES.
4. CONNECT TO HVAC GAS PACKAGE UNIT (GPU). VERIFY LOCATION. COORDINATE W/UNIT, MECH. PLANS. PROVIDE PROPER REGULATOR.
5. DROP TO RUN GAS LINE BELOW GRADE TO WASH BAY PRESSURE WASHER. VERIFY LOCATION. EXTEND GAS LINE GRADE TO PRESSURE WASHER, VERIFY LOCATION/ROUTING, COORDINATE WITH OWNER, ARCHITECT, G.C., AND SITE.
6. RISE TO CONNECT TO PRESSURE WASHER (PW). VERIFY LOCATION, COORDINATE W/EQUIPMENT. PROVIDE PROPER REGULATOR.

UNDERGROUND STEEL GAS PIPING CORROSION PROTECTION:
PIPE SHALL HAVE A FACTORY-APPLIED, ELECTRICALLY-INSULATING COATING. FITTINGS AND JOINTS BETWEEN SECTIONS OF COATED PIPE SHALL BE COATED IN ACCORDANCE WITH THE COATING MFR SPECS. UNDERGROUND PIPING SYSTEMS SHALL BE INSTALLED A MIN. DEPTH OF 12 INCHES BELOW GRADE, AND SHALL BE REPUBLIC STEEL X-TRU-COAT (OR EQUAL), PLASTIC COATED SCHEDULE 40 ASTM A-53 STEEL PIPE W/WELDED JOINTS, USING X-TRU-TAPE AND PRIMER AT EACH JOINT. WRAP JOINTS SPIRALLY WITH A MINIMUM OVERLAP OF 1/2 TAPE WIDTH. EXTEND WRAP NOT LESS THAN 3" ABOVE GRADE. PROVIDE HIGH VOLTAGE HOLIDAY DETECTOR TEST OF COATING TO CHECK FOR HOLIDAYS. PROVIDE CATHODIC PROTECTION TO MEET REQUIREMENTS OF NACE STANDARD RP0169. ALL UNDERGROUND GAS PIPING PROTECTION SHALL COMPLY WITH NCSBC FUEL GAS SECT. 404.

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4/30/23

PROJECT TITLE
REVELS TURF & TRACTOR
RAWLS CHURCH ROAD
FUQUAY-VARINA, NORTH CAROLINA

PROJECT NO.
2232

DRAWING TITLE
NORTH NATURAL GAS PLAN

P4.1

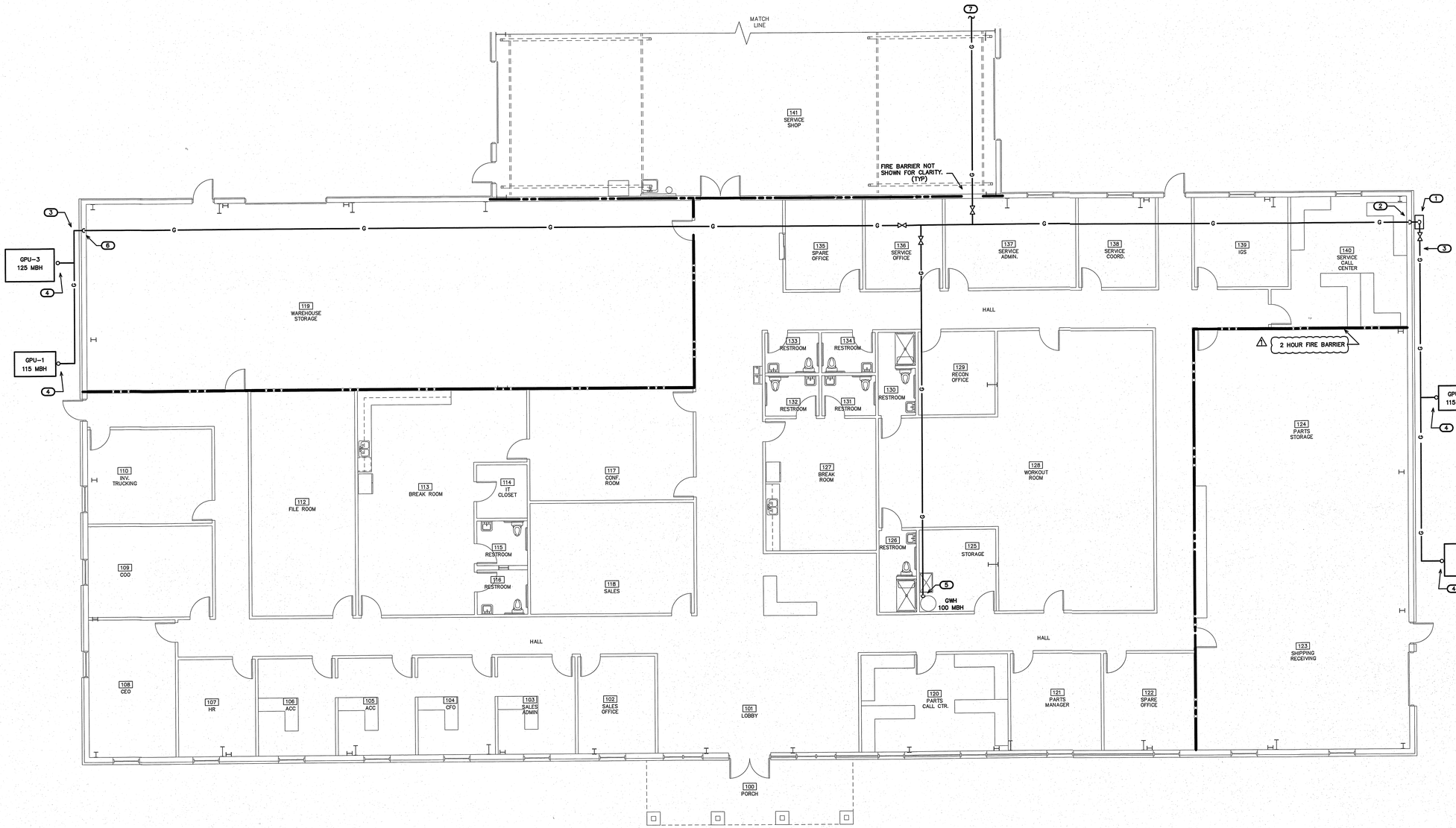
PLOT DATE 12/01/23

NOTE:
VERIFY ALL GAS EQUIPMENT LOAD TOTALS, VERIFY GAS METER LOCATION PRIOR TO BID. VERIFY LINE SIZES, TOTAL DEVELOPED LINE LENGTHS (TDL), NOTIFY ENGINEER OF ANY DISCREPANCIES FOR POSSIBLE REVIEW AND/OR RE-SIZING OF GAS LINES.

NOTE:
ANY SHUT-OFF VALVES, HOOD FIRE SUPPRESSION VALVES, AND REGULATORS MUST BE ACCESSSIBLE. VENT REGULATORS TO EXTERIOR IF/AS REQUIRED. PAINT ANY INTERIOR OR EXTERIOR EXPOSED GAS LINES PER CODE AND BUILDING STANDARD. PROVIDE PROPER LABELING FOR ALL 2 PSI PIPING. PROVIDE PROPER STAND-OFFS/SUPPORTS FOR GAS LINES ON ROOF/EXTERIOR WALLS, BELOW ROOF, ETC. PROPERLY SEAL ROOF/EXT. WALL PENETRATIONS SO AS NOT TO VOID ANY EXISTING WARRANTIES. VERIFY ROUTING OF ALL GAS LINES, COORDINATE W/STRUCTURE, ALL TRADES, OWNER, ARCH., G.C.

KEY NOTES FOR SHEET P4.2

1. PROVIDE MEDIUM PRESSURE (2 PSI) NATURAL GAS METER/SERVICE FOR BUILDING MAIN. VERIFY LOCATION, COORDINATE WITH GAS COMPANY.
2. RISE TO RUN ABOVE CEILING/BELOW ROOF STRUCTURE. VERIFY LOCATION/ROUTING.
3. EXTEND BRANCH LINE ABOVE GRADE (ON WALL OR AS REQUIRED) TO EQUIPMENT. VERIFY ROUTING, COORDINATE W/OWNER, ARCH., G.C., ALL TRADES.
4. CONNECT TO HVAC GAS PACKAGE UNIT (GPU). VERIFY LOCATION, COORDINATE W/UNIT, MECH. PLANS. PROVIDE PROPER REGULATOR.
5. DROP/CONNECT TO NATURAL GAS WATER HEATER (GWH). VERIFY LOCATION, PROVIDE REGULATOR.
6. DROP TO RUN ABOVE GRADE TO EQUIPMENT. VERIFY LOCATION.
7. SEE SHEET P4.1 FOR CONTINUATION. VERIFY ROUTING IN SERVICE SHOP AREA, COORDINATE WITH OWNER, ARCHITECT, G.C. STRUCTURE, ALL TRADES AND ANY OVERHEAD EQUIPMENT.



1 SOUTH NATURAL GAS PLAN
SCALE: 1/8" = 1'-0"

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11/30/23

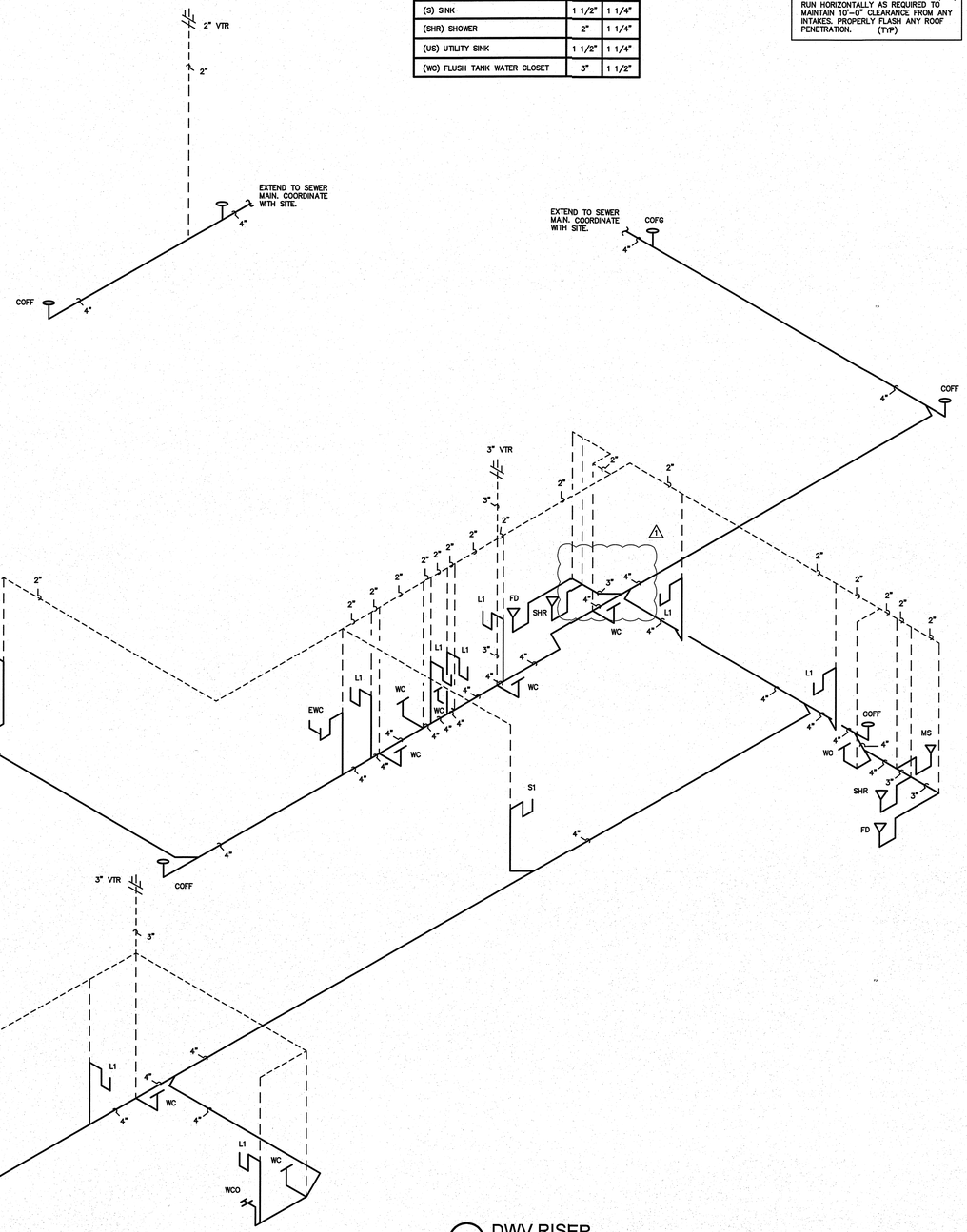
PROJECT TITLE
REVELS TURF & TRACTOR
RAWLS CHURCH ROAD
FUQUAY-VARINA, NORTH CAROLINA

PROJECT NO.
2232

DRAWING TITLE
SOUTH NATURAL GAS PLAN

P4.2

PLOT DATE	12/01/23
⚠ AHJ COMMENTS	11/30/23



(VERIFY ALL EQUIPMENT REQUIREMENTS PRIOR TO ROUGH-IN)

PIPE SIZING SCHEDULE		
FIXTURE TYPE	DRAIN	VENT
(DW) DISHWASHER	3/4"	–
(EWC) ELECTRIC WATER COOLER	1 1/4"	1 1/4"
(EW) EYEWASH	1 1/4"	1 1/4"
(FD) FLOOR DRAIN	3"	1 1/2"
(HD) HUB DRAIN	1 1/2"	1 1/4"
(L) LAVATORY	1 1/2"	1 1/4"
(MS) MOP SINK	3"	1 1/2"
(S) SINK	1 1/2"	1 1/4"
(SHR) SHOWER	2"	1 1/4"
(US) UTILITY SINK	1 1/2"	1 1/4"
(WC) FLUSH TANK WATER CLOSET	3"	1 1/2"

RISER NOTES:

REPRESENTATIVE SIZES ARE GIVEN FOR EACH TYPE OF FIXTURE.
SEE PIPE SIZING SCHEDULE.
MINIMUM 2" DRAIN LINE SIZE UNDER SLAB.
MAINTAIN PIPE SIZES SHOWN UNTIL LARGER SIZE IS REACHED.
PIPE SIZES ARE MINIMUMS FOR INDIVIDUAL FIXTURES U.O.N.

NOTE:

PROVIDE PROPER VENT THRU ROOF (VTR). RUN HORIZONTALLY AS REQUIRED TO MAINTAIN 10'-0" CLEARANCE FROM ANY INTAKES. PROPERLY FLASH ANY ROOF PENETRATION. (TYP)

1 DWV RISER

SCALE: NOT TO SCALE

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SEAL 22038
BENJAMIN E. BURKE

11/30/23

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PROJECT NO.
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DRAWING TITLE
DWV RISER

P5

PLOT DATE	12/01/23
△1 AHJ COMMENTS	11/30/23

(VERIFY ALL EQUIPMENT REQUIREMENTS PRIOR TO ROUGH-IN)

PIPE SIZING SCHEDULE		
FIXTURE TYPE	CW	HW
(DW) DISHWASHER	1/2" *	–
(EWC) ELECTRIC WATER COOLER	1/2" *	–
(EW) EYEWASH	1/2" *	1/2" *
(FPHB) FREEZE PROOF HOSE BIBB	3/4"	–
(HB) HOSE BIBB	3/4"	3/4"
(IM) ICE MACHINE	1/2" *	–
(L) LAVATORY	1/2"	1/2"
(MS) MOP SINK	1/2"	1/2"
(S) SINK	1/2"	1/2"
(SHR) SHOWER	1/2"	1/2"
(uS) UTILITY SINK	1/2"	1/2"
(VB) VALVE BOX	1/2" *	–
(WC) FLUSH TANK WATER CLOSET	1/2"	–

* PROVIDE BACKFLOW PREVENTER PER NCSBC-PLUMBING SECT. 608.3, EX: ASSE 1024 (WATTS SERIES 7 OR EQUAL) ASSE 1022 (WATTS SERIES SD-3 EQUAL) ETC., WHERE REQUIRED IF NOT AN INTEGRAL PART OF THE EQUIPMENT.

RISER NOTES:

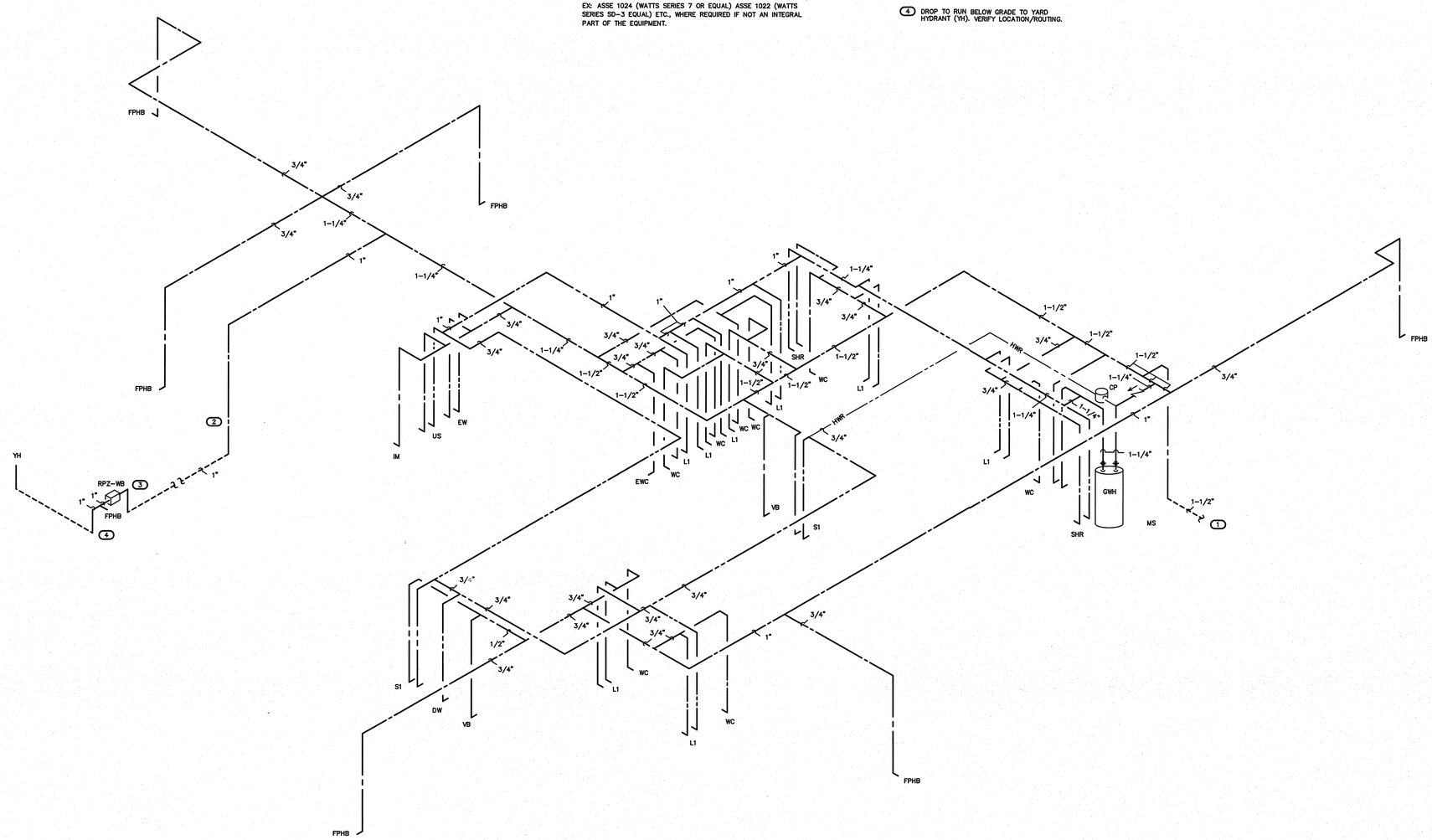
REPRESENTATIVE SIZES ARE GIVEN FOR EACH TYPE OF FIXTURE. SEE PIPE SIZING SCHEDULE.

MAINTAIN PIPE SIZES SHOWN UNTIL LARGER SIZE IS REACHED. PIPE SIZES ARE MINIMUMS FOR INDIVIDUAL FIXTURES U.O.N.

NOTE:
SEE PLAN FOR SHUT-OFF VALVE LOCATIONS. COORDINATE LOCATION AND NUMBER WITH LOCAL INSPECTIONS DEPARTMENT. PROVIDE ACCESS DOORS IF REQUIRED.

KEY NOTES FOR SHEET P6

1. 1-1/2" CW BELOW GRADE TO RPZ/METER/ SUPPLY MAIN. COORDINATE WITH SITE.
2. DROP TO RUN 1" CW BELOW GRADE TO WASH BAY. VERIFY LOCATION. EXTEND 1" CW BELOW GRADE TO WASH BAY, VERIFY LOCATION/ROUTING. COORDINATE WITH OWNER, ARCHITECT, G.C., AND SITE.
3. RISE TO MAIN SHUT-OFF VALVE A.F.F., VERIFY LOCATION. CONNECT TO RPZ-WB.
4. DROP TO RUN BELOW GRADE TO YARD HYDRANT (YH). VERIFY LOCATION/ROUTING.



1 WATER RISER
SCALE: NOT TO SCALE

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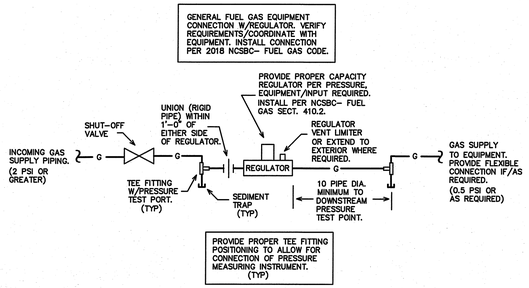
DRAWING TITLE
WATER RISER

P6

PLOT DATE 12/01/23



2 EQUIPMENT CONNECTION DETAIL
SCALE: NOT TO SCALE

NATURAL GAS PIPING LOAD SUMMARY		
LINE SEGMENT (SEE GAS RISER)	CONNECTED GAS LOAD (BTUH)	MAX. DEVELOPED LENGTH (FT.)
A	230,000	60
B	1,020,000	400

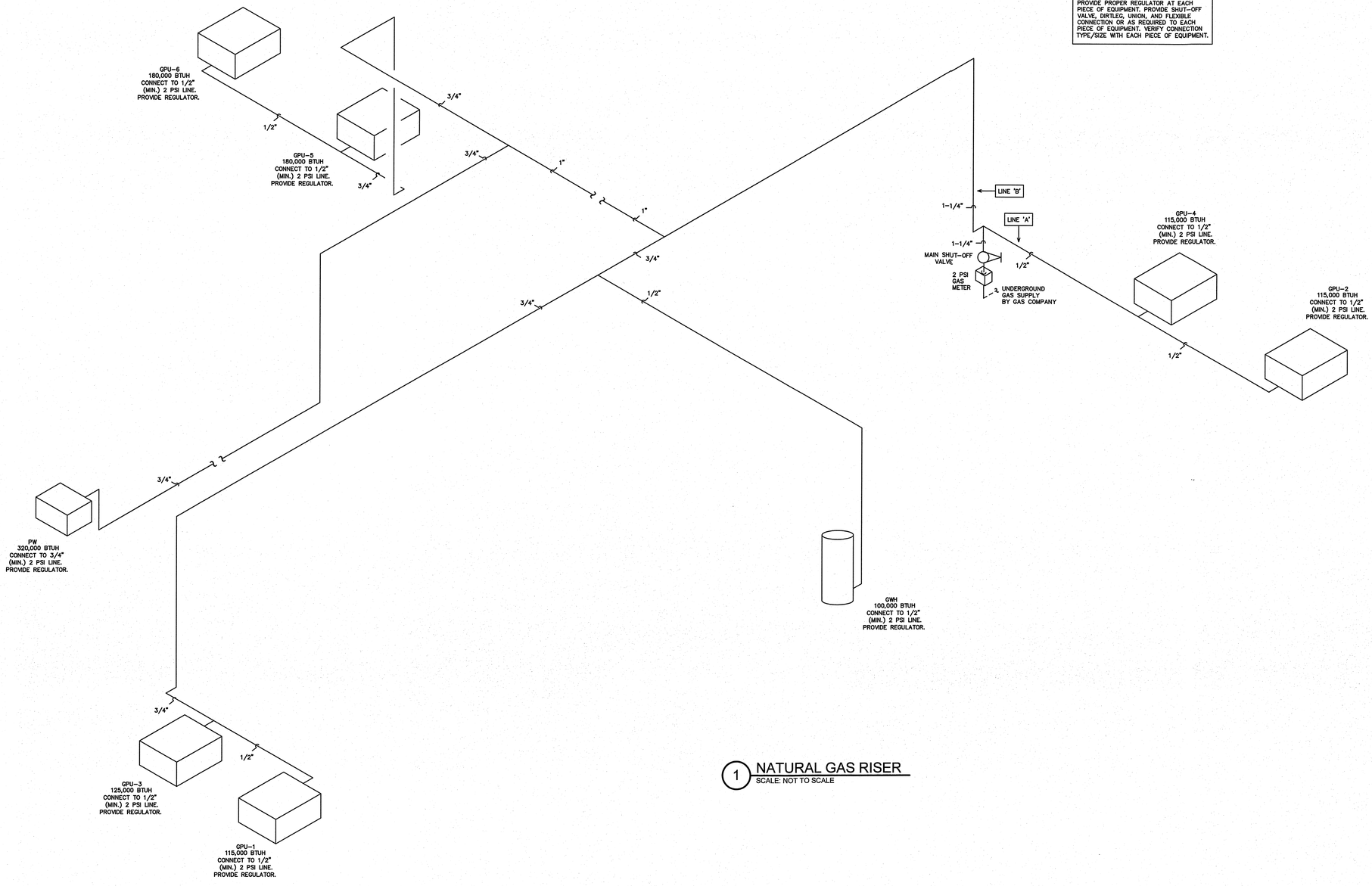
PER 2018 NCSBC, FUEL GAS CODE, TABLE 402.4(5) – PIPE SIZES ARE BASED UPON A INITIAL PRESSURE OF 2 PSI AND A PRESSURE DROP OF 1 PSI. ALL GAS PIPE SIZES SHOWN ON RISER ARE NOMINAL INSIDE DIAMETER.

TOTAL CONNECTED LOAD (OVERALL) = 1,250,000 BTUH

NOTE:
VERIFY ALL GAS EQUIPMENT LOAD TOTALS, VERIFY GAS METER LOCATION PRIOR TO BID. VERIFY LINE SIZES, TOTAL DEVELOPED LINE LENGTHS (TDL). NOTIFY ENGINEER OF ANY DISCREPANCIES FOR POSSIBLE REVIEW AND/OR RE–SIZING OF GAS LINES.

NOTE:
NAT. GAS PRESSURE FOR THE BUILDING MAIN IS TO BE AT 2 PSI. PROVIDE PROPER REGULATORS AT EACH PIECE OF GAS EQUIPMENT. VENT REGULATORS TO EXTERIOR IF REQUIRED. PROVIDE PROPER LABELING ON 2 PSI PIPING. PROVIDE REGULATOR/CONNECTION PER NCSBC– FUEL GAS SECT. 410.2 AND ALL OTHER APPLICABLE SECTIONS. EQUIPMENT CONNECTIONS/REGULATORS NOT SHOWN ON RISER– SEE CONNECTION DETAIL THIS SHEET.

NOTE:
PROVIDE PROPER REGULATOR AT EACH PIECE OF EQUIPMENT. PROVIDE SHUT–OFF VALVE, DIRTLEG, UNION, AND FLEXIBLE CONNECTION OR AS REQUIRED TO EACH PIECE OF EQUIPMENT. VERIFY CONNECTION TYPE/SIZE WITH EACH PIECE OF EQUIPMENT.



1 NATURAL GAS RISER
SCALE: NOT TO SCALE

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NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 22036 BENJAMIN E. BURKE
11/28/23

PROJECT TITLE
REVELS TURF & TRACTOR
RAWLS CHURCH ROAD
FUQUAY–VARINA, NORTH CAROLINA

PROJECT NO.
2232

DRAWING TITLE
NATURAL GAS RISER

P7

PLOT DATE 12/01/23

Revels MT

GAS PACK SCHEDULE

GAS PACK UNIT #1 (GPU-1)	
GPU #1 GAS HEAT ELECTRIC COOLING SINGLE PACKAGE UNIT	* CARRIER MODEL #48HCEA06A2A5-0A0A0 GAS HEAT ELECTRIC COOLING SINGLE PACKAGE UNIT; 12.5 EER; 57,500 BTUH NET COOLING; 2000 CFM; 208 VOLT, 3 PHASE; COMP 15.9 RLA; OFM 1.4 FLA; IFM 6.9 FLA; 29 MCA, 40A MOCP; 5 TONS. PROVIDE PROGRAMMABLE THERMOSTAT/HUMIDISTAT, "HUMIDIMIZER" HOT GAS REHEAT, ACCESS PANELS, FILTER RACK, AND COIL GUARDS. 115,000 BTUH INPUT NATURAL GAS. PROVIDE WITH MOTORIZED DAMPER TO CLOSE OUTSIDE AIR INTAKE WHEN UNIT IS NOT IS USE PER 2018 NC ENERGY CODE.
GAS PACK UNIT #2 (GPU-2)	
GPU #2 GAS HEAT ELECTRIC COOLING SINGLE PACKAGE UNIT	* CARRIER MODEL #48HCEA06A2A5-0A0A0 GAS HEAT ELECTRIC COOLING SINGLE PACKAGE UNIT; 12.5 EER; 57,500 BTUH NET COOLING; 2000 CFM; 208 VOLT, 3 PHASE; COMP 15.9 RLA; OFM 1.4 FLA; IFM 6.9 FLA; 29 MCA, 40A MOCP; 5 TONS. PROVIDE PROGRAMMABLE THERMOSTAT/HUMIDISTAT, "HUMIDIMIZER" HOT GAS REHEAT, ACCESS PANELS, FILTER RACK, AND COIL GUARDS. 115,000 BTUH INPUT NATURAL GAS. PROVIDE WITH MOTORIZED DAMPER TO CLOSE OUTSIDE AIR INTAKE WHEN UNIT IS NOT IS USE PER 2018 NC ENERGY CODE.
GAS PACK UNIT #3 (GPU-3)	
GPU #3 GAS HEAT ELECTRIC COOLING SINGLE PACKAGE UNIT	* CARRIER MODEL #48HCED07A2A5-0A0A0 GAS HEAT ELECTRIC COOLING SINGLE PACKAGE UNIT; 12 EER; 73,000 BTUH NET COOLING; 2400 CFM; 208 VOLT, 3 PHASE; COMP ❷ 19.6 RLA EA; OFM 2 ❷ 1.5 FLA EA.; IFM 5.2 FLA; 33 MCA, 50A MOCP; 6 TONS. PROVIDE PROGRAMMABLE THERMOSTAT/HUMIDISTAT. ENTHALPY BASED ECONOMIZER WITH BAROMETRIC RELIEF DAMPER, "HUMIDIMIZER" HOT GAS REHEAT, ACCESS PANELS, FILTER RACK, AND COIL GUARDS. 125,000 BTUH INPUT NATURAL GAS. PROVIDE MOTORIZED DAMPER TO CLOSE OUTSIDE AIR INTAKE WHEN UNIT IS NOT IS USE PER 2018 NC ENERGY CODE.
GAS PACK UNIT #4 (GPU-4)	
GPU #4 GAS HEAT ELECTRIC COOLING SINGLE PACKAGE UNIT	* CARRIER MODEL #48HCEA06A2A5-0A0A0 GAS HEAT ELECTRIC COOLING SINGLE PACKAGE UNIT; 12.5 EER; 57,500 BTUH NET COOLING; 2000 CFM; 208 VOLT, 3 PHASE; COMP 15.9 RLA; OFM 1.4 FLA; IFM 6.9 FLA; 29 MCA, 40A MOCP; 5 TONS. PROVIDE PROGRAMMABLE THERMOSTAT/HUMIDISTAT, "HUMIDIMIZER" HOT GAS REHEAT, ACCESS PANELS, FILTER RACK, AND COIL GUARDS. 115,000 BTUH INPUT NATURAL GAS. PROVIDE WITH MOTORIZED DAMPER TO CLOSE OUTSIDE AIR INTAKE WHEN UNIT IS NOT IS USE PER 2018 NC ENERGY CODE.
GAS PACK UNIT #5 (GPU-5)	
GPU #5 GAS HEAT ELECTRIC COOLING SINGLE PACKAGE UNIT	* CARRIER MODEL #48HCED08A2A5-0A0A0 GAS HEAT ELECTRIC COOLING SINGLE PACKAGE UNIT; 12 EER; 89,000 BTUH NET COOLING; 3000 CFM; 208 VOLT, 3 PHASE; COMP (2) ❷ 13.6 RLA EA; OFM (2) ❷ 1.5 FLA EA.; IFM 5.8 FLA; 39 MCA, 50A MOCP; 7.5 TONS. PROVIDE PROGRAMMABLE THERMOSTAT/HUMIDISTAT. ENTHALPY BASED ECONOMIZER WITH BAROMETRIC RELIEF DAMPER, "HUMIDIMIZER" HOT GAS REHEAT, 2-SPEED FAN, MEDIUM STATIC DRIVE, ACCESS PANELS, FILTER RACK, HAIL COIL GUARDS. 180,000 BTUH INPUT NATURAL GAS. PROVIDE MOTORIZED DAMPER TO CLOSE OUTSIDE AIR INTAKE WHEN UNIT IS NOT IS USE PER 2018 NC ENERGY CODE.
GAS PACK UNIT #6 (GPU-6)	
GPU #6 GAS HEAT ELECTRIC COOLING SINGLE PACKAGE UNIT	* CARRIER MODEL #48HCED08A2A5-0A0A0 GAS HEAT ELECTRIC COOLING SINGLE PACKAGE UNIT; 12 EER; 89,000 BTUH NET COOLING; 3000 CFM; 208 VOLT, 3 PHASE; COMP (2) ❷ 13.6 RLA EA; OFM (2) ❷ 1.5 FLA EA.; IFM 5.8 FLA; 39 MCA, 50A MOCP; 7.5 TONS. PROVIDE PROGRAMMABLE THERMOSTAT/HUMIDISTAT. ENTHALPY BASED ECONOMIZER WITH BAROMETRIC RELIEF DAMPER, "HUMIDIMIZER" HOT GAS REHEAT, 2-SPEED FAN, MEDIUM STATIC DRIVE, ACCESS PANELS, FILTER RACK, HAIL COIL GUARDS. 180,000 BTUH INPUT NATURAL GAS. PROVIDE MOTORIZED DAMPER TO CLOSE OUTSIDE AIR INTAKE WHEN UNIT IS NOT IS USE PER 2018 NC ENERGY CODE.

* OR APPROVED EQUAL

Revels MT

DUCTLESS SPLIT SYSTEM HEAT PUMP SCHEDULE

DHP-1 OUTDOOR HEAT PUMP UNIT	* MITSUBISHI MODEL #MUZ-GL12NA, 1 TON OUTDOOR HEAT PUMP UNIT, 23.1 SEER. 208 VOLT, 1 PHASE, CONDENSING UNIT 9A MCA, 15A MOCP. FAN COIL UNIT IS POWERED VIA FIELD PROVIDED WIRING FROM OUTDOOR UNIT. SERVES (1) INDOOR FAN-COIL UNIT (DFC-1).
DFC-1 DIRECT EXPANSION FAN COIL UNIT	* MITSUBISHI MODEL #MSZ-GL12NA FAN COIL UNIT. NET COOLING CAPACITY = 12,000 BTUH, 145 CFM LO TO 399 CFM HI. 1 TON NOMINAL. PROVIDE WIRED PROGRAMMABLE THERMOSTAT, AND CONDENSATE PUMP. FAN MOTOR 0.76, FLA 208 VOLT. SINGLE PH.

Revels MT

EXHAUST FAN SCHEDULE

EXHAUST FAN #1 (EF-1)	* CARNES MODEL# VCDD010C EXHAUST FAN, 93 CFM @ 1/4" SP, 640 RPM, 1.1 AMPS, 120V. THE ELECTRICAL CONTRACTOR SHALL PROVIDE THE SWITCH AND WIRE THE UNIT. THE HVAC CONTRACTOR SHALL PROVIDE UNIT, 6" RIGID DUCT TO ROOF CAP. LOCATE EXHAUST TERMINATION A MINIMUM OF 10'-0" FROM ANY INTAKES. PROVIDE WALL MOUNTED THERMOSTAT TO CONTROL FAN.
EXHAUST FAN #2 (EF-2)	* CARNES MODEL# VCDD010C EXHAUST FAN, 93 CFM @ 1/4" SP, 640 RPM, 1.1 AMPS, 120V. THE ELECTRICAL CONTRACTOR SHALL PROVIDE THE SWITCH AND WIRE THE UNIT. THE HVAC CONTRACTOR SHALL PROVIDE UNIT, 6" RIGID DUCT TO ROOF CAP. LOCATE EXHAUST TERMINATION A MINIMUM OF 10'-0" FROM ANY INTAKES. FAN IS FOR HEAT REMOVAL. PROVIDE WALL MOUNTED THEROSTAT TO CONTROL FAN.
EXHAUST FAN #3 (EF-3)	* CARNES MODEL# VCDD010C EXHAUST FAN, 93 CFM @ 1/4" SP, 640 RPM, 1.1 AMPS, 120V. THE ELECTRICAL CONTRACTOR SHALL PROVIDE THE SWITCH AND WIRE THE UNIT. THE HVAC CONTRACTOR SHALL PROVIDE UNIT, 6" RIGID DUCT TO ROOF CAP. LOCATE EXHAUST TERMINATION A MINIMUM OF 10'-0" FROM ANY INTAKES.
EXHAUST FAN #4 (EF-8)	* CARNES MODEL# VCDD010C EXHAUST FAN, 93 CFM @ 1/4" SP, 640 RPM, 1.1 AMPS, 120V. THE ELECTRICAL CONTRACTOR SHALL PROVIDE THE SWITCH AND WIRE THE UNIT. THE HVAC CONTRACTOR SHALL PROVIDE UNIT, 6" RIGID DUCT TO **WADE CAP.** LOCATE EXHAUST TERMINATION A MINIMUM OF 10'-0" FROM ANY INTAKES.
EXHAUST FAN #5 (EF-5)	* CARNES MODEL# VCDD010C EXHAUST FAN, 93 CFM @ 1/4" SP, 640 RPM, 1.1 AMPS, 120V. THE ELECTRICAL CONTRACTOR SHALL PROVIDE THE SWITCH AND WIRE THE UNIT. THE HVAC CONTRACTOR SHALL PROVIDE UNIT, 6" RIGID DUCT TO ROOF CAP. LOCATE EXHAUST TERMINATION A MINIMUM OF 10'-0" FROM ANY INTAKES.
EXHAUST FAN #6 (EF-6)	* CARNES MODEL# VCDD010C EXHAUST FAN, 93 CFM @ 1/4" SP, 640 RPM, 1.1 AMPS, 120V. THE ELECTRICAL CONTRACTOR SHALL PROVIDE THE SWITCH AND WIRE THE UNIT. THE HVAC CONTRACTOR SHALL PROVIDE UNIT, 6" RIGID DUCT TO ROOF CAP. LOCATE EXHAUST TERMINATION A MINIMUM OF 10'-0" FROM ANY INTAKES.
EXHAUST FAN #7 (EF-7)	* CARNES MODEL# VCDD010C EXHAUST FAN, 93 CFM @ 1/4" SP, 640 RPM, 1.1 AMPS, 120V. THE ELECTRICAL CONTRACTOR SHALL PROVIDE THE SWITCH AND WIRE THE UNIT. THE HVAC CONTRACTOR SHALL PROVIDE UNIT, 6" RIGID DUCT TO ROOF CAP. LOCATE EXHAUST TERMINATION A MINIMUM OF 10'-0" FROM ANY INTAKES.
EXHAUST FAN #8 (EF-8)	* CARNES MODEL# VCDD010C EXHAUST FAN, 93 CFM @ 1/4" SP, 640 RPM, 1.1 AMPS, 120V. THE ELECTRICAL CONTRACTOR SHALL PROVIDE THE SWITCH AND WIRE THE UNIT. THE HVAC CONTRACTOR SHALL PROVIDE UNIT, 6" RIGID DUCT TO ROOF CAP. LOCATE EXHAUST TERMINATION A MINIMUM OF 10'-0" FROM ANY INTAKES.

* OR APPROVED EQUAL

NOTE: RUN EXHAUST DUCTS HORIZONTALLY AS REQUIRED TO MAINTAIN 10'-0" MINIMUM SEPARATION FROM ANY INTAKES.

GENERAL NOTES – MECHANICAL

1. ALL WORK SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE STATE CODE AND ALL LOCAL AND OTHER APPLICABLE CODES.
2. ANY PERMITS AND INSPECTION FEES SHALL BE SECURED AND PAID FOR BY THE MECHANICAL CONTRACTOR (MC).
3. ALL WORK SHALL BE PERFORMED BY EXPERIENCED AND SKILLED CRAFTSMEN. THE MC SHALL COORDINATE ALL OF HIS WORK WITH THE GENERAL CONTRACTOR (GC) AND OTHER TRADES.
4. THE LOCATION OF ALL DUCT, PIPING AND EQUIPMENT SHALL BE ADJUSTED TO ACCOMMODATE ANTICIPATED OR ENCOUNTERED INTERFERENCES.
5. THESE PLANS ARE DIAGRAMMATIC AND MAY NOT SHOW MINOR DETAILS AND LOCATIONS. FOR DIMENSIONS REFER TO THE ARCHITECTURAL PLANS.
6. THE MC SHALL BE RESPONSIBLE FOR ALL ELECTRICAL STARTERS INTERLOCKS, CONTROL WIRING CONDUIT AND POWER WIRING FROM DISCONNECTS TO HIS EQUIPMENT, USING A LICENSED ELECTRICIAN.
7. THE MC SHALL USE FIRE DAMPERS FOR PROTECTION OF THE OPENING IN ACCORDANCE WITH STATE AND LOCAL CODES IN ALL LOCATIONS WHERE PENETRATIONS OF RATED WALLS AND FLOORS OCCUR. SEE ARCHITECTURAL PLANS FOR RATED WALL AND FLOOR LOCATIONS. PROVIDE ACCESS DOORS AT ALL DAMPER LOCATIONS. LOCATE DOORS FOR EASY ACCESS.
8. INSTALL FLEXIBLE CONNECTORS ON SUPPLY AND RETURN DUCTWORK AHU. ALL MECHANICAL EQUIPMENT SHALL OPERATE FREE OF OBJECTIONAL NOISE AND VIBRATION.
9. INSTALL TURNING VANES IN SUPPLY DUCTS AT ALL ELBOWS AND SPLITTER DAMPERS. PROVIDE BALANCING DAMPERS IN ALL DUCTS WHERE SHOWN OR REQUIRED FOR SYSTEM BALANCING.
10. DUCT DIMENSIONS ARE SHOWN INSIDE CLEAR.
11. THE MC SHALL KEEP THE PREMISES CLEAR OF DEBRIS FROM HIS WORK DURING CONSTRUCTION AND LEAVE THE AREA AND BUILDING CLEAN AT THE COMPLETION OF HIS WORK. HE SHALL ALSO LEAVE CLEAN ALL EXPOSED EQUIPMENT IN HIS CONTRACT.
12. PROVIDE ALL REQUIRED ROOF PENETRATIONS FOR THE INSTALLATION OF THE NEW EQUIPMENT. ALL FLASHINGS ARE BY THE MECHANICAL CONTRACTOR. ALL ROOFING WORK SHALL BE DONE BY A LICENSED ROOFING CONTRACTOR SO AS TO MAINTAIN ORIGINAL WARRANTY.
13. THE M.C. SHALL COORDINATE WITH AND PROVIDE EQUIPMENT SPEC. SHEETS TO THE GENERAL AND ELECTRICAL CONTRACTORS FOR REVIEW PRIOR TO ORDERING EQUIPMENT.
14. PROPERLY SUPPORT ALL DUCT WORK, AND EQUIP FROM STRUCTURE. PROVIDE ALL STRUCTURAL SUPPORTS FOR THE LOADS AS REQUIRED AT NO ADDITIONAL COST TO THE OWNER.

AIR DISTRIBUTION SCHEDULE

MARK	* MANUFACTURER	MODEL NO.	NECK SIZE	FACE SIZE	MATERIAL	SERVICE	NOTES
A	CARNES	SPAB224	SEE FLEXIBLE DUCT SCHEDULE	24" X 24"	STEEL	SUPPLY	LAY-IN CEILING, WHITE 4-WAY BLOW
B	CARNES	RTDBH	12" X 4"	14" X 6"	STEEL	SUPPLY	DUCT MOUNTED, WHITE
C	CARNES	RTDBH	18" X 6"	20" X 8"	STEEL	SUPPLY	DUCT MOUNTED, WHITE
RA	CARNES	SPRB22	SEE FLEXIBLE DUCT SCHEDULE	24" X 24"	STEEL	RETURN	LAY-IN CEILING, WHITE
RB	CARNES	RSABH	8" X 6"	10" X 8"	STEEL	RETURN	WHITE, DUCT MOUNTED
RC	CARNES	RSHAH	24" X 36"	26" X 38"	STEEL	RETURN	WHITE, SIDEWALL MOUNTED HEAVY DUTY
RD	CARNES	RSABH	36" X 24"	38" X 26"	STEEL	RETURN	WHITE, DUCT MOUNTED,
RF	CARNES	RSABH	12" X 8"	14" X 10"	STEEL	RETURN	WHITE, DUCT MOUNTED,
RF	CARNES	RSABH	12" X 8"	14" X 10"	STEEL	RETURN	WHITE, SIDE WALL OR DUCT MOUNTED,
TA	CARNES	RSABH	24" X 12"	26" X 14"	STEEL	TRANSFER	WHITE, SIDE WALL MOUNTED

* OR APPROVED EQUAL

OUTDOOR AIR CALCULATIONS

(SERVICE BAY AREA ONLY)

OUTSIDE AIR PROVIDED BY NATURAL VENTILATION PER NCSBC: MECHANICAL CODE, SECTION 402. 14430 SQ.FT. TOTAL X 0.04 = 577 SQ.FT. REQUIRED FREE AREA. OPERABLE DOORS TO EXTERIOR PROVIDE 1728 SQ.FT. OF FREE AREA.

FOR ADDITIONAL VENTILATION PROVIDE 450 CFM EACH IN GPU-5 & GPU-6

LEGEND – MECHANICAL

- 12 X 8 — RECTANGULAR DUCTWORK. INSIDE CLEAR DIMENSION INDICATED (WIDTH X HEIGHT)
- FLEXIBLE DUCTWORK
- 12" DIA. — ROUND GALVANIZED STEEL DUCT INSIDE CLEAR DIMENSION INDICATED.
- EX 6" DIA. — ROUND GALVANIZED STEEL EXHAUST DUCT INSIDE CLEAR DIMENSION INDICATED.
- MD — MANUAL BALANCING DAMPER
- DUCT MOUNTED SUPPLY AIR DIFFUSER
- SUPPLY DIFFUSER
- RETURN GRILLE
- T AHU-1 — WALL MOUNTED THERMOSTAT/HUMIDISTAT. MOUNT AT 48" AFF. (UNIT SERVED IS INDICATED)
- X / XXX — GRILLE TYPE / MIN. CFM
- SD — DUCT TYPE SMOKE DETECTOR
- RAID — REMOTE INITATING DEVICE WITH AUDIBLE AND VISUAL LOCAL ALARM
- FD — FIRE DAMPER
- 2 HOUR FIRE BARRIER
- 3 HOUR FIRE BARRIER

APPENDIX B

2018 BUILDING CODE SUMMARY FOR ALL COMMERCIAL PROJECTS

MECHANICAL DESIGN
(PROVIDE ON THE MECHANICAL SHEETS IF APPLICABLE)
MECHANICAL SUMMARY

MECHANICAL SYSTEMS, SERVICE SYSTEM AND EQUIPMENT

Thermal Zone 4A

winter dry bulb 16F
summer dry bulb 93F

Interior Design Conditions

winter dry bulb 72F
summer dry bulb 75F
relative humidity 50%

Building Heating Load 375,900 BTU/hr

Building Cooling Load 374,200 BTU/hr

Mechanical Spacing Conditioning System

Unitary – The tenant space is served the following systems:

(1) 6 Ton gas package units with dx cooling.
(3) 5 Ton gas package unit with dx cooling.
(2) 7.5 Ton gas package units with dx cooling.

Boiler – Not applicable to this project.

Chiller – Not applicable to this project.

Equipment efficiencies

Efficiencies and outputs are listed on equipment schedules – See drawings.

OA SCHEDULE

OUTDOOR VENTILATION AIR PROVIDED PER TABLE 403.3 NCSBC MECHANICAL CODE. (OFFICE AREA ONLY)

APPLICATION	SQUARE FOOTAGE (SF)	AREA OUTDOOR AIR FLOW RATE (CFM/SF)	PEOPLE OUTDOOR AIR FLOW RATE (CFM/PERSON)	OCCUPANCY DENSITY RATE (# PEOPLE/ 1000SF)	OCCUPANCY (# PEOPLE)	AREA OUTDOOR AIR FLOW (CFM)	PEOPLE OUTDOOR AIR FLOW (CFM)	TOTAL (CFM)
OFFICE	5877	0.06	5	5	29	145	353	498
CONFERENCE	408	0.06	5	50	20	25	100	125
CORRIDOR	3217	0.06	–	–	–	237	–	193
STORAGE	2116	0.12	–	–	–	266	–	254
WAREHOUSE	2540	0.06	–	–	–	152	–	152
WORKOUT ROOM	1243	0.06	20	10	13	77	260	337
TOTAL REQUIRED								1559

OUTDOOR AIR PROVIDED FROM EACH HVAC UNIT *

HVAC UNIT	OUTDOOR AIR (CFM)
GPU-1	400
GPU-2	400
GPU-3	360
GPU-4	400
TOTAL PROVIDED	1560

APPLICATION	CFM
TOILETS	70 CFM/FLUSHING FIXTURE

8 FLUSHING FIXTURE X 70 CFM = 560 CFM

EXHAUST PROVIDED BY FOUR EXHAUST FANS, MAKE UP AIR BY TRANSFER AIR

* SET OUTDOOR AIR DAMPER CONTROLS TO PROVIDE OUTDOOR AIR AS INDICATED IN THIS SCHEDULE.

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NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 22038 BENJAMIN E. BURKE
11/30/23

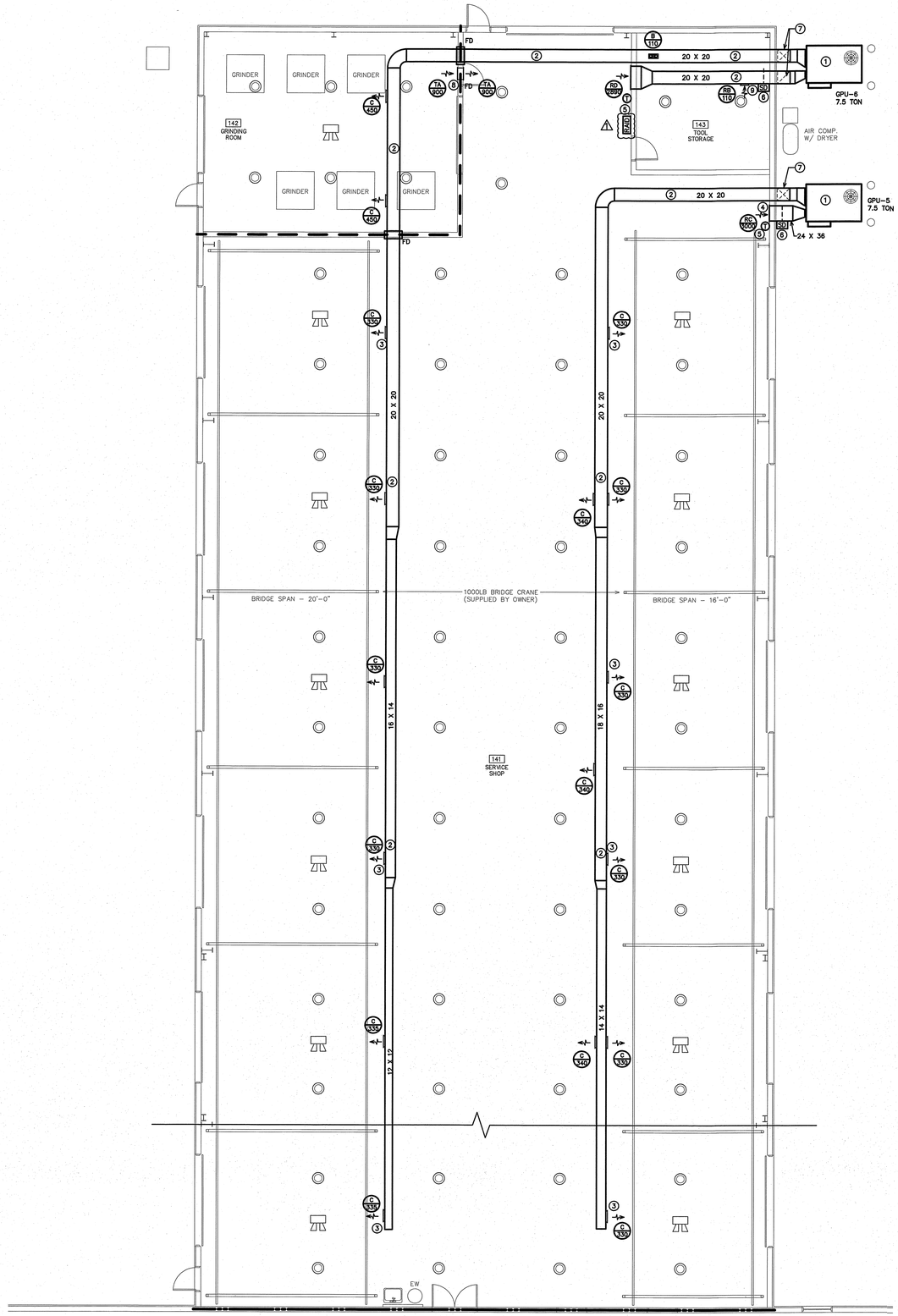
PROJECT TITLE
REVELS TURF & TRACTOR
RAWLS CHURCH RD.
FUQUAY-VARINA, NORTH CAROLINA

PROJECT NO.
2232

DRAWING TITLE
LIGHTING PLAN

M1

PLOT DATE 12/01/23
⚠ AHJ COMMENTS 11/30/23



1 NORTH HVAC PLAN
SCALE: 1/8" = 1'-0"

KEY NOTES FOR M2.1

1. GAS PACKAGE UNIT MOUNTED ON 4" THICK CONCRETE PAD. SEE DETAIL 1/M3. PROVIDE ALL MANUFACTURER'S REQUIRED CLEARANCES AROUND UNIT.
2. RUN DUCTWORK EXPOSED OVERHEAD IN THIS ROOM. SEE DETAIL 2/M3. ALL EXPOSED DUCTWORK SHALL HAVE INTERNAL DUCT LINER INSULATION AND HAVE "PAINT-GRIP" GALVANIZED FINISH. FINAL PAINTING BY GENERAL CONTRACTOR.
3. DUCT MOUNTED SUPPLY AIR REGISTER. SEE DETAIL 2/M3. (TYPICAL).
4. LOW SIDE WALL RETURN AIR GRILLE. MOUNT WITH BOTTOM AT 8" AFF.
5. MOUNT THERMOSTAT AT 48" AFF.
6. INSTALL DUCT TYPE SMOKE DETECTOR IN RETURN AIR DUCT FOR UNIT SHUTDOWN. PROVIDE ACCESS DOOR IN DUCT. SEE DETAIL 1/M3 AND SPECIFICATIONS CONCERNING THE SMOKE DETECTOR.
7. RUN DUCTWORK UP EXPOSED, TIGHT AGAINST WALL ON EXTERIOR OF BUILDING TO HIGH OVERHEAD IN THE SPACE. ALL EXPOSED DUCTWORK SHALL HAVE INTERNAL DUCT LINER INSULATION, AND BE SEALED WATERTIGHT.
8. HIGH SIDE WALL MOUNTED RETURN AIR TRANSFER GRILLE ON BOTH SIDES OF WALL. PROVIDE FIRE DAMPER IN WALL BETWEEN TRANSFER GRILLES.
9. DUCT MOUNTED RETURN AIR GRILLE.

NOTE:

MOTOR VEHICLES IN THE SERVICE SHOP AREA WILL HAVE THEIR ENGINES RUNNING ONLY FOR THE DURATION REQUIRED TO MOVE THE MOTOR VEHICLE IN AND OUT OF THE BUILDING. THEREFORE MECHANICAL VENTILATION AND SOURCE CAPTURE EXHAUST ARE NOT REQUIRED PER NCSBC: MECHANICAL CODE SECTION 502.14, EXCEPTION NO. 3.

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Corp. License # C-2652

NORTH CAROLINA BOARD OF EXAMINERS FOR PROFESSIONAL ENGINEERS AND LAND SURVEYORS SEAL 22030 ENGINEER BENJAMIN E. BURKE

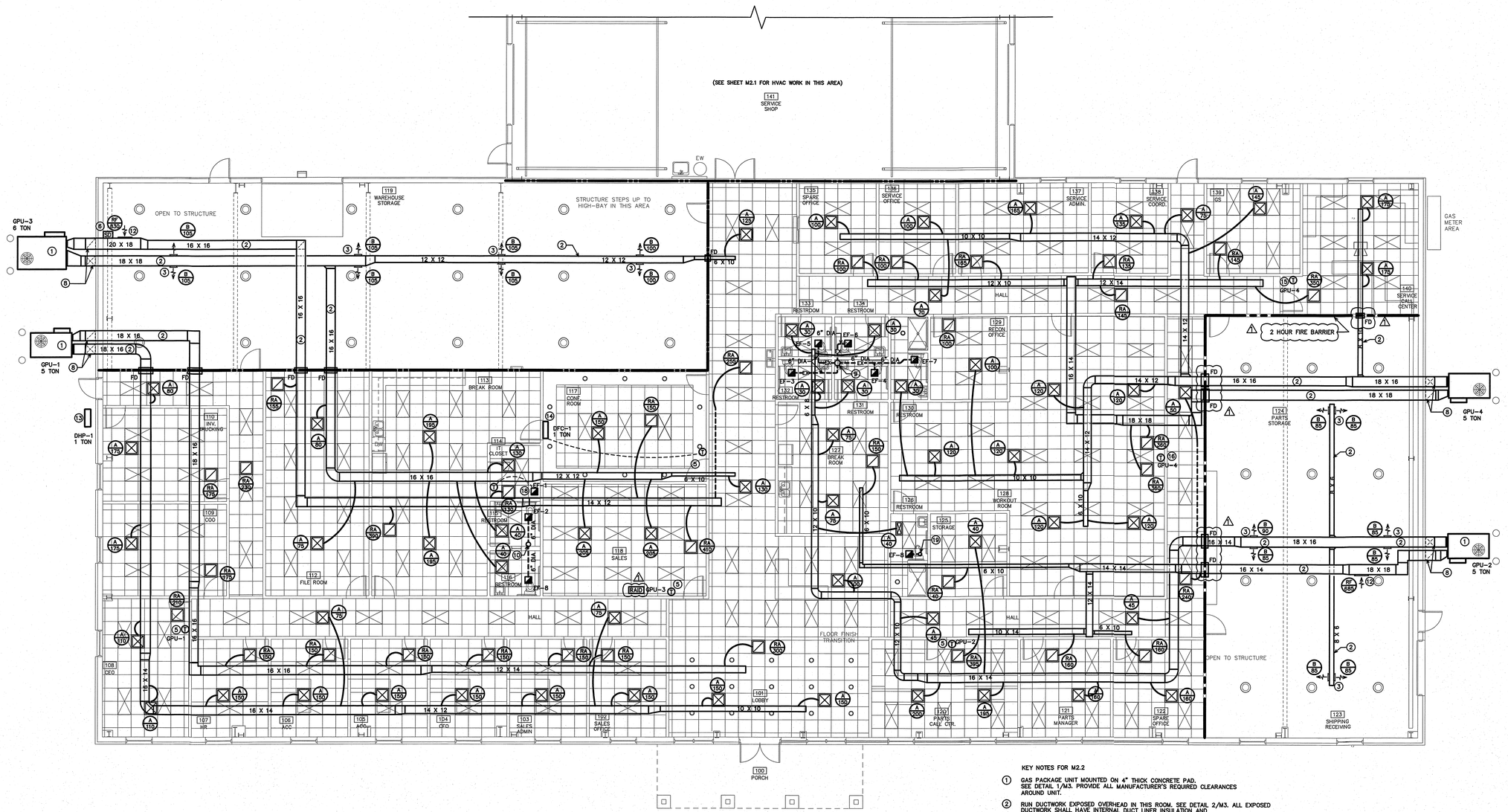
PROJECT TITLE
REVELS TURF & TRACTOR
RAWLS CHURCH RD.
FUQUAY-VARINA, NORTH CAROLINA

PROJECT NO.
2232

DRAWING TITLE
NORTH HVAC PLAN

M2.1

PLOT DATE 12/01/23



1 SOUTH HVAC PLAN
SCALE: 1/8" = 1'-0"

FLEXIBLE DUCTWORK SIZES
MAXIMUM CFM'S

SIZES	SUPPLY	RETURN
6"	100	100
8"	115	115
10"	250	250
12"	400	350
14"	550	500
16"	NA	900

(CHANGE OUT EXISTING FLEX DUCTS AND COLLARS AS REQUIRED TO GET NEW CFM'S SHOWN)

FLEXIBLE DUCTWORK NOTES

1) INSTALL FLEXIBLE DUCTWORK RUNS AS STRAIGHT AS POSSIBLE.
2) DO NOT ALLOW FLEXIBLE DUCT TO SAG BETWEEN SUPPORTS.
3) DO NOT STRETCH A SHORT SECTION TO FIT A SLIGHTLY LONGER SECTION. THIS DISTORTS THE DUCT SHAPE AND IMPEDES AIR FLOW.
4) DO NOT CRUSH DUCTWORK TO FIT IN A SPACE SMALLER THAN ITS ORIGINAL OUTSIDE DIAMETER. MAXIMUM ALLOWABLE DEFORMATION IS 15% OF ORIGINAL VOLUME.
5) USE RIGID 90 DEGREE ELBOWS AT ANY LOCATION WHERE THE DUCTWORK BECOMES DISTORTED.
6) EXTREME CARE SHALL BE TAKEN TO ELIMINATE ANY REDUCTION IN FLOW WITHIN THE FLEXIBLE DUCTS. THE MECH. CONTRACTOR WILL BE REQUIRED TO REPLACE THE FLEXIBLE DUCT WITH RIGID IF PROPER FLOW IS NOT OBTAINED.
7) SIZE ALL FLEXIBLE DUCT SO AS NOT TO EXCEED MAXIMUM CFM'S GIVEN IN TABLE.

KEY NOTES FOR M2.2

1. GAS PACKAGE UNIT MOUNTED ON 4" THICK CONCRETE PAD. SEE DETAIL 1/M3. PROVIDE ALL MANUFACTURER'S REQUIRED CLEARANCES AROUND UNIT.
2. RUN DUCTWORK EXPOSED OVERHEAD IN THIS ROOM. SEE DETAIL 2/M3. ALL EXPOSED DUCTWORK SHALL HAVE INTERNAL DUCT LINER INSULATION AND HAVE "PAINT-GRIP" GALVANIZED FINISH. FINAL PAINTING BY GENERAL CONTRACTOR.
3. DUCT MOUNTED SUPPLY AIR REGISTER. SEE DETAIL 2/M3. (TYPICAL).
4. DUCT MOUNTED RETURN AIR GRILLE.
5. MOUNT THERMOSTAT AT 48" AFF.
6. INSTALL DUCT TYPE SMOKE DETECTOR IN RETURN AIR DUCT FOR UNIT SHUTDOWN. PROVIDE ACCESS DOOR IN DUCT. SEE DETAIL 1/M3 AND SPECIFICATIONS CONCERNING THE SMOKE DETECTOR.
7. NOT USED.
8. RUN DUCTWORK UP EXPOSED, TIGHT AGAINST WALL ON EXTERIOR OF BUILDING TO HIGH OVERHEAD IN THE SPACE. ALL EXPOSED DUCTWORK SHALL HAVE INTERNAL DUCT LINER INSULATION, AND BE SEALED WATERTIGHT.
9. 12" DIA. RIGID EXHAUST DUCT UP TO ROOF MOUNTED EXHAUST HOOD. EXHAUST DISCHARGE SHALL BE 10'-0" MIN. FROM ANY OUTSIDE AIR INTAKE.
10. 8" DIA. RIGID EXHAUST DUCT UP TO ROOF MOUNTED EXHAUST HOOD. EXHAUST DISCHARGE SHALL BE 10'-0" MIN. FROM ANY OUTSIDE AIR INTAKE.
11. NOT USED.
12. DUCT MOUNTED RETURN AIR GRILLE.
13. DUCTLESS SPLIT SYSTEM OUTDOOR HEAT PUMP UNIT MOUNTED ON 4" THICK CONCRETE PAD. PROVIDE ALL MANUFACTURER'S REQUIRED CLEARANCES AROUND UNIT.
14. WALL MOUNTED DUCTLESS SPLIT SYSTEM FAN-COIL UNIT MOUNT WITH BOTTOM AT 7'-0" AFF. COORDINATE FINAL LOCATION WITH ARCHITECT AND OWNER TO ACCOMMODATE THE ARRANGEMENT OF THE CONFERENCE ROOM. RUN PUMPED CONDENSATE CONCEALED IN WALL AND ABOVE CEILING TO ROOF. RUN REFRIGERANT PIPING CONCEALED IN WALL AND ABOVE CEILING TO OUTDOOR HEAT PUMP UNIT.
15. PRIMARY THERMOSTAT FOR GPU-4. MOUNT AT 48" AFF.
16. SECONDARY (SLAVE) THERMOSTAT FOR GPU-4. MOUNT AT 48" AFF.
17. HIGH SIDE WALL MOUNTED RETURN AIR GRILLE.
18. EXHAUST FAN FOR HEAT REMOVAL. FAN SHALL DISCHARGE ABOVE CEILING. FAN SHALL BE CONTROLLED BY WALL MOUNTED THERMOSTAT.
19. 6" DIA. RIGID EXHAUST DUCT UP TO ROOF MOUNTED EXHAUST HOOD. EXHAUST

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NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 22038 BENJAMIN E. BURKE
11/30/23

PROJECT TITLE
REVELS TURF & TRACTOR
RAWLS CHURCH RD.
FUQUAY-VARINA, NORTH CAROLINA

PROJECT NO.
2232

DRAWING TITLE
SOUTH HVAC PLAN

M2.2

PLOT DATE	12/01/23
⚠ AHJ COMMENTS	11/30/23

This original sheet is 24" x 36"; other dimensions indicate it has been altered.

DIVISION 15 B – HEATING, VENTILATING AND AIR CONDITIONING

1.1 DESCRIPTION OF THE WORK

A. Work under this section includes, but is not necessarily limited to, furnishing and installing the following:

1. Heating, ventilation, and air conditioning equipment.
2. Ductwork.
3. Grilles and diffusers.
4. Controls and control wiring.
5. Condensate piping.

B. All work under this contract shall be installed in compliance with the latest edition of the following codes and standards insofar as they apply:

1. ASHRAE Guide
2. National Electric Code.
3. 2018 NC State Building Code: Mech Code.
4. The Electrical Specifications for this project.
5. SMACNA HVAC Duct Construction Standards.
6. All local codes and ordinances.
7. ARI rating.
8. 2018 NC State Building Code: Energy Conservation Code.

C. These codes are minimum standards. If codes require a more stringent method of construction than the specifications require, the codes shall govern.

D. The HVAC Contractor shall be licensed in North Carolina and have all local licenses required for the work.

1.2 INTENT

A. The intent of these specification and the accompanying drawing is to convey as reasonably as possible the requirements for a complete job ready for the building to operate. The HVAC Contractor shall take this into consideration and include in his bid allowance for contingencies as will allow him to provide minor pieces of equipment and labor not specifically indicated but required for the job to operate properly, at no additional cost to the Owner.

1.3 COORDINATION

A. Coordinate work with other contractors. Notify Owner of apparent conflicts early to expedite construction. If structural damage appears imminent, stop work and notify Owner for a decision before resuming operations.

B. Locations shown are approximate. The HVAC Contractor shall verify with owner, the placement of equipment, fixtures, outlets, etc. The drawings do not give exact details as to elevations and locations of various pipes, fittings, ducts, conduit, etc., and do not show all offsets and other installation details which may be required.

C. Changes in duct or piping design caused by obstructions shall be submitted to Engineer in sketch form for study and comment prior to execution. Additional cost will not be allowed for this type of work.

1.4 SHOP DRAWINGS

A. Shop drawings shall be submitted for all major items of equipment, These may consist of the manufacturer's standard catalog or tear sheets and shall have the exact items being offered clearly identified. Shop drawings shall include but are not limited to the following:

1. All equipment and accessories.
2. Grilles and diffusers.
3. Unit sizes and requirements.

PART 2 –PRODUCTS

2.1 EQUIPMENT

A. All air handling devices must have the manufacturer's recommended filter rack, for 1" thick filters.

2.2 PIPING

A. Condensate drain piping shall be PVC pipe. Provide tee and plug at changes in direction. Route pipe to proper termination point. All condensate piping shall be insulated with flexible elastomeric insulation. Provide copper piping in plenum areas.

2.3 DUCTWORK

A. Ductwork shall be built in accordance with SMACNA HVAC Duct construction standards. Furnish and install all supply, return, and ventilation ductwork shown, together with splitters, deflectors, dampers, etc. This work shall be constructed of new galvanized prime grade steel sheets. The gauges of metal to be used and the construction and bracing of joints shall be in accordance with the SMACNA recommendations.

B. Seal all sheet metal joints with fiber impregnated mastic.

C. Support from building structure on strap hangers not over 8 feet apart.

D. Use manufactured turning vanes in each elbow where required or where indicated on drawings.

E. Flexible connectors shall be 3 inches wide, of fireproof material and used to isolate noise between equipment and ductwork on supply and return side of all units.

F. Round runouts, where used, shall be built in accordance with the above standards, and each runout shall also have manufactured side take off, adjustable quadrant damper at all accessible locations and shall be of Owens Corning INL-25 flexible duct with UL label. Flex duct lengths allowed up to 14 feet. Duct must be supported with sufficient hangers in order to prevent sags. Serpentine routing will not be permitted. Quadrant damper to be 22 gauge easily adjustable manually with exterior handle (similar to H&C Kwik-set) and is not to be mounted in side take-off.

2.4 DUCT INSULATION (LOW PRESSURE)

A. All insulation, linings, coverings and adhesives shall have a flame spread classification of 25 or less and a smoke developed rating of not more than 50, exposed exterior piping.

B. All duct insulation shall comply with Section 604, of the N. C. Building Code: Mechanical Code

C. All supply and return ductwork shall be completely insulated, either internally or externally.

D. Rectangular ductwork shall be lined with two-inch thick, 1.5 lb. per cubic foot density, duct liner, Armstrong, CSG Ultraliner, Johns Manville or approved equal.

E. As an alternative to duct liner rectangular duct may be wrapped with Class 1 – 2", 3/4 lb. density (R-6.5) thick reinforced foil back fiberglass insulation, Owens-corning Series ED or equal. Tape shall be Kraft reinforced foil tape or equal.

F. Exhaust air duct does not require insulation, unless otherwise noted on the plans.

G. Insulation shall be held inplace with adhesive and welding pins 16" on center.

H. Duct dimensions shown on the drawings are Net Inside Dimensions

2.5 THERMOSTATS

A. Provide programmable electronic thermostats.
B. Submit proposed thermostats for approval.

2.6 ROOF PENETRATIONS

A. Provide pre-manufactured roof flashings compatible with equipment served.
B. Coordinate roof work with roof system used. Provide proper flashing as required.
C. Provide 1 year warranty on all roof work performed.

2.7 DUCT SMOKE DETECTORS

A. Install duct mounted smoke detectors in GPU-5, & GPU-6 only. The duct smoke detectors shall be supplied and wired by the Fire Alarm Contractor. Provide access doors and wire to unit for unit shut-down. Install per code.

B. Duct detectors are not required in GPU-1, GPU-2, GPU-3, GPU-4 & GPU-7 since air flows are 2000 cfm or less per NCSBC: Mechanical Code, Section 606.2.

PART 3 – EXECUTION

3.1 PIPING

A. The HVAC Contractor shall coordinate such routing with others, to line his work true to adjacent spaces and in a workmanlike manner and to use only short radius 90 degree elbows. Where required, piping to be sturdily supported and separated in a manner satisfactory to the Engineer.

B. The HVAC Contractor shall paint all exterior refrigerant piping. with UV resistant paint as recommended by the closed cell insulation manufacturer.

C. Insulate all condensate lines for their entire length with 1/2" closed cell insulation. Install insulation per the manufacturers recommendations.

3.2 ELECTRICAL WORK

A. The electrical contractor shall provide all switches, starters, wire conduit for the air conditioning, heating and ventilation equipment. Control wiring shall be by the heating and air conditioning contractor.

B. HVAC Contractor is responsible for verifying that power terminals have been properly grounded prior to operating equipment and must find connections to all equipment including control wiring.

C. All materials and workmanship shall be in accordance with the electrical specifications for the project. All wiring shall be color coded, and as-built wiring diagram prepared showing all connections and colors of wiring and delivered to the Owner.

D. Furnish certification for acceptance of control wiring from local electrical inspector prior to acceptance.

3.3 CLEAN UP

A. During construction, keep the site clean of debris. Upon completion, and before final inspection, clean up the premises to remove all evidence of work. In addition upon completion of construction leave equipment clean.

B. Furnish one box of clean filters, for each size required, at the time of final inspection to the owner.

3.4 OPERATOR'S MANUAL AND DIAGRAM

A. The HVAC Contractor shall prepare in one copy a manual describing the proper maintenance and operation of the systems. This manual shall not consist of standard factory instructions (although these may be included) but shall be prepared to describe this particular job.

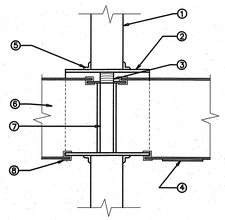
B. The manual shall be bound, indexed, dated and signed by the HVAC Contractor.

C. Qualified representative of the HVAC contractor shall meet with the designated representatives of the Owner and the Owner's representative shall be instructed in the proper operation and maintenance of the control system and other systems.

3.5 GUARANTEE

A. Guarantee all materials and labor included in the HVAC work for a period of one year from date of final acceptance by the owner. In addition, motor compressors shall be a nonprorated five year warranty. Any part or parts of the work or equipment which prove to be defective during the guarantee period shall be replaced at no additional cost to the owner or tenant.

B. All air flows must be measured and balanced to within 10% of design airflows. All equipment used must have a current certification. Provide two copies of the balance report to the owner at closeout. The HVAC contractor shall return and re-balance to occupant comfort after 90 days from close-out. Provide all balance dampers needed for satisfactory operation regardless if shown on the drawings or not, and shift location of thermostats thermostats if required for occupancy comfort.



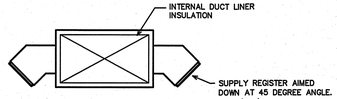
KEY NOTES FOR 3/M3

1. 2-HOUR OR 3-HOUR RATED GYPSUM BOARD WALL. SEE PLANS FOR WALL TYPES AND LOCATIONS.
2. 14 GALVANIZED STEEL SLEEVE. FASTEN TO FIRE DAMPER FRAME.
3. CURTAIN
4. ACCESS DOOR. TYPICAL AT ALL FIRE DAMPERS.
5. 1-1/2" X 1-1/2" X 1/8" STEEL ANGLE. FASTEN TO SLEEVE.
6. DUCTWORK SIZE VARIES.
7. DYNAMIC FIRE DAMPER.
8. PROVIDE BREAK-AWAY JOINTS AT DUCT CONNECTIONS TO FIRE DAMPER AND SLEEVE.

RATED GYPSUM WALL PENETRATION

NOTE: THIS DETAIL IS FOR GENERAL DESIGN INTENT ONLY. INSTALL FIRE DAMPER PER MANUFACTURERS INSTRUCTIONS.

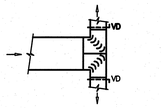
3 FIRE DAMPER DETAIL
SCALE: NOT TO SCALE



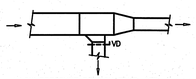
NOTE:

ALL EXPOSED DUCT SHALL HAVE DUCT LINER INSULATION.

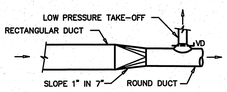
2 DUCT MOUNTED REGISTER DETAIL
SCALE: NOT TO SCALE



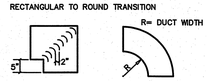
LOW PRESSURE TEE



LOW PRESSURE BRANCH TAKE-OFF



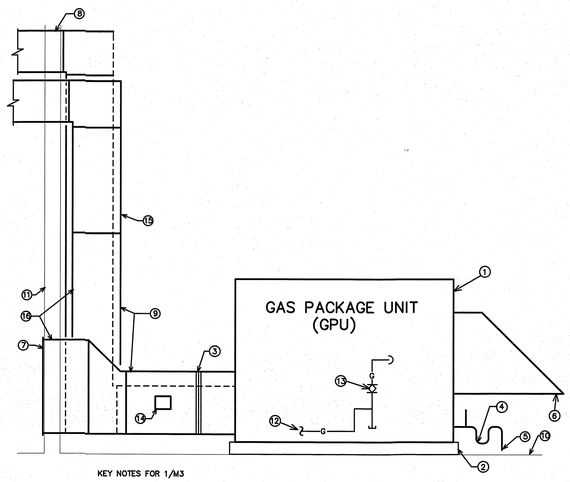
RECTANGULAR TO ROUND TRANSITION



SQUARE THROAT ELBOW FULL RADIUS ELBOW

LOW PRESSURE DUCT ELBOWS

4 DUCT CONSTRUCTION DETAIL
SCALE: NOT TO SCALE



KEY NOTES FOR 1/M3

1. GAS PACKAGE UNIT MOUNTED AT GRADE.
2. 4" THICK CONCRETE PAD.
3. FLEXIBLE CONNECTIONS (TYPICAL).
4. PROVIDE CONDENSATE DRAIN TRAP. SIZE PER MANUFACTURERS RECOMMENDATIONS.
5. CONDENSATE DRAIN. RUN TO GRADE
6. OUTSIDE AIR DAMPER AND HOOD. SET UNIT CONTROLS TO PROVIDE FOR SCHEDULED OUTDOOR AIR AS THE MINIMUM.
7. SIDEWALL MOUNTED RETURN AIR GRILLE. MOUNT WITH BOTTOM AT 8" AFF
8. SUPPLY DUCT TO ABOVE
9. OUTDOOR DUCTWORK SHALL BE SEALED WATERTIGHT AND HAVE INTERNAL INSULATION.
10. GRADE.
11. EXTERIOR WALL.
12. GAS LINE TO UNIT PROVIDED BY PLUMBING CONTRACTOR. FINAL CONNECTION AND START UP BY MECH. CONTRACTOR.
13. GAS SHUT-OFF VALVE, UNION AND FLEXIBLE HOSE.
14. DUCT TYPE SMOKE DETECTOR IN RETURN AIR DUCT. SMOKE DETECTOR FURNISHED BY MC. PROVIDE RAIL, (REMOTE ALARM INTIATING DEVICE) LOCATE ADJACENT TO TSTAT. PROVIDE FOR FAN SHUT-DOWN PROVIDE ACCESS DOOR IN DUCT. INSTALL PER CODE. SMOKE DETECTORS ONLY REQUIRED ON GPU-5 AND GPU-6.
15. RETURN DUCT.
16. SEE PLANS FOR UNITS THAT HAVE LOW SIDEWALL RETURNS AND ONES WHERE RETURN DUCTS GO ABOVE THE CEILING.

1 TYPICAL HORIZONTAL GAS PACKAGE UNIT DETAIL
SCALE: NOT TO SCALE

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NORTH CAROLINA REGISTERED PROFESSIONAL ENGINEER SEAL 22038 BENJAMIN E. BURKE
11/23/23

PROJECT TITLE
REVELS TURF & TRACTOR
RAWLS CHURCH RD.
FUQUAY–VARINA, NORTH CAROLINA

PROJECT NO.
2232

DRAWING TITLE
HVAC SPECIFICATION & DETAILS

M3

PLOT DATE	12/01/23
⚠ AHJ COMMENTS	11/30/23

System No. W-L-1001

March 28, 2003

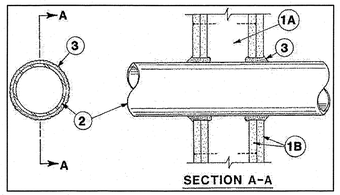
(Formerly System No. 147)

F Ratings -- 1, 2, 3 and 4 Hr (See Items 2 and 3)

T Ratings -- 0, 1, 2, 3, and 4 Hr (See Item 3)

L Rating At Ambient - less than 1 CFM/sq ft

L Rating At 400 F - less than 1 CFM/sq ft



1. Wall Assembly -- The 1,2,3 or 4 hr fire-rated gypsum wallboard/stud wall assembly shall be constructed of the materials and in the manner described in the individual U300 or U400 Series Wall or Partition Designs in the UL FIre Resistance Directory and shall include the following construction features:

A. Studs -- Wall framing may consist of either wood studs (max 2 h fire rated assemblies) or steel channel studs. Wood studs to consist of nom 2 by 4 in. lumber spaced 16 in. OC with nom 2 by 4 in. lumber end plates and cross braces. Steel studs to be min 3-5/8 in. wide by 1-3/8 in. deep channels spaced max 24 in. OC.

B. Gypsum Board* -- Nom 1/2 or 5/8 in. thick, 4 ft. wide with square or tapered edges. The gypsum wallboard type, thickness, number of layers, fastener type and sheet orientation shall be as specified in the individual U300 or U400 Series Design in the UL Fire Resistance DIrectory. Max diam of opening is 26 in.

2. Through-Penetrant-- One metalic pipe, conduit or tubing installed either concentrically or eccentrically with the firestop system. The annular space between pipe, conduit, or tubing and periphery of opening shall be min of 0 in. (point contact) to max 2 in. Pipe, conduit or tubing to be rigidly supported on both sides of wall assembly. The following types and sizes of metallic pipes, conduits or tubing may be used:

A. Steel Pipe -- Nom 24 in. diam (or smaller) Schedule 10 (or heavier) steel pipe.

B. Iron Pipe -- Nom 24 in. diam (or smaller) service weight (or heavier) cast iron soil pipe, nom 12 in. diam (or smaller) or Class 50 (or heavier) ductile iron pressure pipe.

C. Conduit -- Nom 6 in. diam (or smaller) steel conduit or nom 4 in diam (or smaller) steel electrical metallic tubing.

D. Copper Tubing -- Nom 6 in. diam (or smaller) Type L (or heavier) copper tubing.

E. Copper Pipe -- Nom 6 in. diam (or smaller) Regular (or heavier) copper tubing.

F. through Penetrating Product* -- Flexible Metal Piping The following types of steel flexible metal gas piping may be used:

1. Nom 2 in diam (or smaller) steel flexible metal gas piping. Plastic covering on piping may or may not be removed on both sides of floor or wall assembly.

OMEGA FLEX INC

2. Nom 1 in diam (or smaller) steel flexible metal gas piping. Plastic covering on piping may or may not be removed on both sides of floor or wall assembly.

TITLEFLEX CORP

A BUNDY CO

3. Nom 1 in diam (or smaller) steel flexible metal gas piping. Plastic covering on piping may or may not be removed on both sides of floor or wall assembly.

WARD MFG INC

3. Fill, Void or Cavity Material* -- Caulk -- Min 5/8, 1-1/4,1-7/8 and 2-1/2 in. thickness for caulk for 1,2,3 and 4 hr rated assemblies, respectively, applied within annulus, flush with both surfaces of wall. Min 1/4 in. dia bead of caulk applied to gypsum board/penetrant interface at point contact location on both sides of wall. The hourly F rating of the firestop system is dependent upon the hourly fire rating of the wall assembly in which it is installed, as shown in the following table. The hourly T rating of the firestop system is dependent upon the type or size of the pipe or conduit and the hourly fire rating of the wall assembly in which it is installed, as tabulated below:

Max Pipe or Conduit Diam In	F RATING Hr	T RATING Hr
1	1 or 2	0+, 1 or 2
1	3 or 4	3 or 4
4	1 or 2	0
6	3 or 4	0
12	1 or 2	0

+When copper pipe is used, T Rating is 0 h.

3M COMPANY -- CP 25WB+.

*Bearing the UL Classification Mark

4 PENETRATION DETAIL
SCALE: NOT TO SCALE

DIVISION 16 – ELECTRICAL

PART 1 – GENERAL

1.1 DESCRIPTION OF THE WORK

A. Work under this section includes, but is not necessarily limited to, furnishing and installing the following:
1. Electrical service and service equipment.
2. Lighting and power distribution system.
3. Provide lighting fixtures selected by owner with lamps to match.
4. Wiring devices, boxes, cover plates, etc.
5. Source of power for all items of equipment.
6. Grounding.
7. Other requirements and/or systems where shown.

B. All work shall be complete and items, equipment, etc., shall be electrically connected for proper and correct operation.

C. All work under this contract shall be installed in accordance with the latest edition of the following codes and standards insofar as they apply:
1. The 2017 National Electrical Code.
2. The National Electrical Safety Code.
3. Underwriter's Laboratories, Inc., Standards and approved listings.
4. Electrical Testing Labatories standards.
5. North Carolina Building Code, Latest Edition and Revisions.
6. All local codes and ordinances.

D. The Electrical Contractor shall be licensed in the State of North Carolina and have all local licenses required for the work.

E. Obtain all permits, licenses, inspections, etc., required for the work and pay for the same. Furnish final certificate of inspection and approval from the electrical inspector having jurisdiction prior to acceptance of the work.

F. All work shall be done by skilled mechanics and shall present a neat, trim, workmanlike condition when complete.

1.2 INTENT

A. The intent of these specifications and the accompanying drawings is to convey as reasonably as possible the requirements for a complete job ready for the building to operate. The Electrical Contractor shall take this into consideration and include in his base bid allowance for contingencies as will allow him to provide minor pieces of equipment and labor not specifically indicated but required for the job to operate properly, at no additional cost to the Owner.

1.3 COORDINATION

A. Coordinate work with other contractors. Notify Architect of apparent conflicts early to expedite construction. If structural damage appears imminent, stop work and notify Architect for a decision before resuming operations.

B. Locations shown are approximate. The drawings do not give exact details as to elevations and locations of various pipes, fittings, ducts, conduit, etc., and do not show all offsets and other installation details which may be required. Coordinate all locations with architect before any rough-in.

1.4 SHOP DRAWNGS

A. Shop drawings shall be submitted for panels and service equipment, lighting, wiring devices, and cover plates. These may consist of the manufacturer's standard catalog or tear sheets and shall have the exact items being offered clearly identified.

PART 2 – PRODUCTS AND MATERIALS

2.1 GENERAL

A. All material shall be new and shall bear the manufacturer's name, trade name, and UL label where such standard has been established for the particular material. Materials shall be the standard products of manufacturer's regularly engaged in the manufacturer of the required type of equipment and the manufacturer's latest approved design.
1. Boxes installed in concealed locations shall be set flush with the finished surfaces.
2. Provide rated boxes in all fire barriers & walls installed per code.

2.2 NOT USED

2.3 CONDUCTORS

A. Conductors shall be color coded, sizes #8 and larger may be color taped on the job. Color coding shall be: Standard Practice.

B. Conductors shall be manufactured by Dodge, Southwire or approved equal. Conductors shall meet the latest requirements of NEMA and IPCEA and shall be UL approved.

C. Metallic sheathed "MC" cable may be used where allowed by N.E.C.

D. Conductors shall be spliced and taped as follows:
1. Size #10 and #12, use Ideal "Wing Nuts" or T&B "Piggy" connectors. Connectors shall be rated for 150 degrees C for use in recessed lighting fixtures.
2. Size #8 and larger shall be solderless screw and screw-clamping type, smoothly covered and shaped with rubber gum type with final cover vinyl plastic electrical type. In lieu of rubber gum and vinyl plastic type, factory fabricated approved preformed insulating covers may be used. All connectors shall be UL approved.
3. No split-bolt type connectors may be used.

E. All branch wire and connections shall be copper and sized per National Electric Code.

F. All conductors shall be continuous without splice between junction, outlet, device boxes, etc. No splicing will be permitted in panelboard cabinets, safety switches, etc.

G. All wiring in mechanical spaces shall be plenum rated.

H. Provide GFI protection within 6'-0" of any sink.

I. All multi-wire branch circuits shall comply with 2017 NEC, 210.4(B).

J. All wiring at medical facilities shall comply with 2017 NEC, 517.1.

2.4 PANELBOARDS, SAFETY SWITCHES

A. Panelboards shall comply with NEMA Standard PB 1 – Latest Edition and as manufactured by Square D or ITE–Siemens.

B. The contractor shall be responsible for correctly phasing the circuits in the panelboards.

C. Safety switches shall be general duty type, size and rating as required for load service. Safety switches shall be fused or unfused as shown and/or as required. Safety switches serving motor loads shall be horsepower rated for load served.

2.5 NOT USED

2.6 WIRING DEVICES

A. Wiring devices shall be commercial grade by Bryant, Leviton, or approved equal. With matching cover. Color by Architect.

B. Wiring devices installed under a Kitchen Hood shall have stainless steel covers.

C. Wiring devices installed over counters shall comply with ANSI A117.1.

2.7 NOT USED

2.8 CONDUIT

A. PVC conduit will be allowed where N.E.C. approved.

B. All service conduit shall be rigid where exposed below 8'–0" AFF or exposed to the elements or hazardous conditions.

PART 3 – EXECUTION

3.1 CIRCUIT GROUNDING

A. All circuits shall contain an insulated, green, copper grounding conductor, sized in accordance with Table 250–95 of the NEC. Grounding conductors shall be connected to equipment grounding bus in panelboard and securely attached and grounded to the device or enclosure at the other end.

3.2 GROUNDING TYPE CONVENIENCE OUTLETS AND SWITCHES

A. Outlets and switches shall be solidly grounded to equipment grounding system with a green colored insulated conductor. Electrical connections shall be continuous from equipment ground bus in panelboard to the hex nut on the convenience outlet or switch.

3.3 MOTORS

A. All motors shall be connected to conduit system with short length (minimum length 24" and maximum length 36") of flexible liquidtight conduit.

3.4 NOT USED

3.5 EQUIPMENT LABELING

A. Provide permanent name plates for all panelboards, safety switches, wiring troughs, etc., for identification of equipment controlled, services, etc. Nameplates shall be securely and permanently attached to equipment with stainless steel screws. Nameplates shall include the name of the equipment and where it is fed from.

B. All switch plates, receptacle plates and outlet covers shall be labeled with machine printed vinyl labels identifying the circuit(s) within.

C. All empty conduit runs shall be identified and indicated where they terminate.

D. Provide typewritten directory in each panelboard to clearly identify each circuit, service, etc.

3.6 NOT USED

3.7 NOT USED

3.8 JUNCTION AND/OR PULL BOXES

A. Boxes shall be installed where necessary to avoid excessive runs and/or too many bends between outlets.

3.9 PULL WIRE

A. Leave pull wire in each empty conduit run.

3.10 NOT USED

3.11 GROUNDING

A. All grounding shall be in accordance with Article 250 of the NEC. In addition, the following requirements shall be met:
1. Grounding conductors shall be installed as to permit the shortest and most direct path from equipment to ground. All connections to grounding conductors shall be accessible.
2. Equipment ground continuity shall be maintained through flexible metal conduit.
3. All wiring devices equipped with grounding connection shall be solidly grounded to ground system with grounding conductors.
4. The frame of all lighting fixtures shall be securely grounded to the equipment ground system with grounding conductors.
5. All equipment enclosures, and non–current–carrying metallic parts of electrical equipment, raceway systems, etc., shall be effectively and adequately bonded to ground.
6. All equipment enclosures, and non–current–carrying metallic parts of electrical equipment, raceway systems, etc., shall be effectively and adequately bonded to ground.

3.12 ELECTRICAL WORK IN CONNECTION WITH OTHER WORK

A. PLUMBING WORK: The Electrical Contractor shall furnish and install switches and devices as shown and electrically connect electric water heaters, etc. All other electrical work required will be performed by the PLUMBING CONTRACTOR.

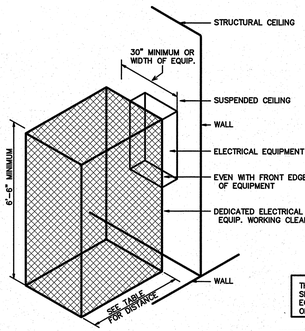
B. HEATING AND AIR CONDITIONING WORK: The Electrical Contractor shall provide all disconnect switches, starters, and associated hardware for the equipment furnished including all line and load side wiring and conduit. Final connections to the equipment will be by the HVAC contractor. All control wiring will be accomplished by the HVAC contractor. Coordinate all work associated with the HVAC contractor.

3.13 CLEAN UP

A. During construction, keep the site clean of debris. Upon completion, and before final inspection, clean up the premises to remove all evidence of work. In addition upon completion of construction leave equipment clean.

3.14 GUARANTEE

A. Guarantee all materials and labor included in the electrical work for a period of one year from date of final acceptance by the Owner. Any part or parts of the work or equipment which prove to be defective during the guarantee period shall be replaced at no additional cost to the Owner.



ELECTRICAL EQUIPMENT WORKING CLEARANCE PER ARTICLE 110–26 OF N.E.C.

WORKING CLEARANCES				
VOLTAGE TO GROUND NOMINAL	MIN. CLEAR DISTANCE IN FEET			
	CONDITION:	1	2	3
0–150		3	3	3
151–600		3	3–1/2	4

THIS FIGURE ILLUSTRATES THE WORKING SPACE IN FRONT OF THE ELECTRICAL EQUIPMENT REQUIRED BY SECTION 110–16 OF THE N.E.C.

WHERE THE CONDITIONS ARE AS FOLLOWS:

1 EXPOSED LIVE PARTS ON ONE SIDE AND NO LIVE OR GROUNDED PARTS ON THE OTHER SIDE OF THE WORKING SPACE, OR EXPOSED LIVE PARTS ON BOTH SIDES EFFECTIVELY GUARDED BY SUITABLE WOOD OR INSULATED BUSBARS OPERATING AT NOT OVER 300V SHALL NOT BE CONSIDERED LIVE PARTS.

2 EXPOSED LIVE PARTS ON ONE SIDE AND GROUNDED PARTS ON THE OTHER SIDE.

3 EXPOSED LIVE PARTS ON BOTH SIDES OF THE WORK SPACE (NOT GUARDED AS PROVIDED IN CONDITION 1) WITH THE OPERATOR BETWEEN.

1 ELECTRICAL CLEARANCES
SCALE: NTS

GENERAL NOTES

1 ALL ELECTRICAL WORK SHALL BE IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE AND ALL LOCAL CODES HAVING JURISDICTION.

2 ALL BRANCH CIRCUIT CONDUCTORS TO BE COPPER (SERVICE CONDUCTORS MAY BE ALUMINUM WITH SAME AMPACITY AS COPPER CONDUCTORS. RE–SIZE CONDUCTERS AND CONDUIT PER NEC.)

3 ALL CIRCUITS TO BE 2 #12, 1 #12 GND IN 1/2" EMT CONDUIT AS A MINIMUM. PROVIDE WIRING FOR LARGER CIRCUITS AS REQUIRED BY NEC. RIGID CONDUIT IS REQUIRED WHERE EXPOSED BELOW 8'–0" A.F.F.

4 ALL EMPTY CONDUIT RUNS IN EXCESS OF 10 FEET SHALL BE PROVIDED WITH A PULL WIRE OR FISH TAPE/CORD.

5 CONTRACTOR SHALL VERIFY THAT ALL DOOR SWINGS ARE CORRECT BEFORE INSTALLING LIGHT SWITCH OUTLETS.

6 ALL BRANCH CIRCUIT CONDUCTORS FROM THE PANEL TO THE FIRST OUTLET SHALL BE INCREASED TO THE NEXT LARGER SIZE WHERE THE LENGTH OF THE HOME RUN EXCEEDS 120 FEET ON 120V AND 208V CIRCUITS.

7 THE CORRECT NUMBER OF WIRES MAY NOT BE INDICATED FOR ALL CIRCUITS, ONLY THOSE WHERE CLARIFICATION IS NECESSARY. THE ELECTICAL CONTRACTOR SHALL PROVIDE ALL WIRES NECESSARY FOR THE PROPER FUNCTION OF THE SYSTEM WHETHER INDICATED ON DRAWINGS OR NOT.

8 THE CONTRACTOR SHALL BE RESPONSIBLE FOR CORRECTLY PHASING THE CIRCUITS IN THE PANELBOARDS.

9 THE ELECTRICAL CONTRACTOR SHALL VERIFY THE TYPE OF CEILING SYSTEM WITH THE GENERAL CONTRACTOR TO INSURE THAT ALL LIGHTING FIXTURES ARE COMPATIBLE WITH THE CEILING SYSTEM BEING INSTALLED. LIGHTING FIXTURES SHOULD NOT BE ORDERED UNTIL TYPE OF CEILING HAS BEEN VERIFIED.

10 ELECTRICAL REQUIREMENTS INDICATED ON DRAWINGS MAY DIFFER FROM ACTUAL EQUIPMENT FURNISHED. IF FURNISHED EQUIPMENT DIFFERS FROM RATINGS ON DRAWINGS CONTRACTOR SHALL NOTIFY ARCHITECT/ENGINEER FOR APPROPRIATE ACTION TO BE TAKEN.

11 IT SHALL BE THE RESPONSIBILITY OF THE ELECTRICAL CONTRACTOR TO COORDINATE EXACT BREAKER REQUIREMENTS FOR ALL EQUIPMENT PRIOR TO ORDERING PANEL. ADJUST BREAKER AND WIRE SIZES AS REQUIRED.

12 PROVIDE BOXES, JACKS, WIRING AND CONDUIT FROM LOCATIONS SHOWN TO MTP LOCATION. VERIFY EXACT REQUIREMENTS WITH OWNER.

13 ELECTRICAL CONTRACTOR SHALL PROVIDE ALL DISCONNECTS FOR MECHANICAL & PLUMBING EQUIPMENT. DISCONNECTS SHALL BE PER MANUFACTURES RECOMMENDATIONS AND FUSED PER NAME PLATE. PROVIDE NEMA 3R ENCLOSURES ON EXTERIOR. COORDINATE FUSE SIZES.

14 THE EC SHALL MEET WITH THE ARCHITECT AND TENANT PRIOR TO INSTALLING OUTLET BOXES TO VERIFY LOCATIONS AND MOUNTING HEIGHTS OF RECEPTACLES AND TELEPHONE OUTLETS.

APPENDIX B

2018 BUILDING CODE SUMMARY FOR ALL COMMERCIAL PROJECTS

ELECTRICAL DESIGN
(PROVIDE ON THE ELECTRICAL SHEETS IF APPLICABLE)
ELECTRICAL SUMMARY

ELECTRICAL SYSTEM AND EQUIPMENT

Method of Compliance

Energy Code:	Prescriptive	X	Energy Cost Budget	
ASHRAE 90.1:	Prescriptive	X	Energy Cost Budget	

Lighting Schedule

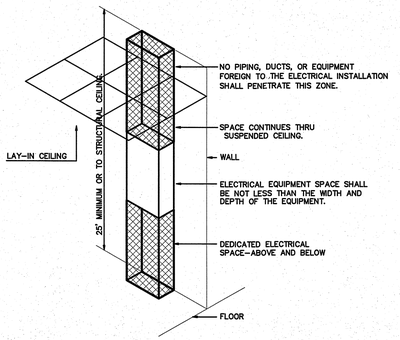
lamp type required in fixture number of lamps in fixture ballast type used in fixture number of ballasts in fixture total wattage in fixture	See Light Fixture Schedule
total interior wattage specified vs. allowed	20294VA/26567VA
total exterior wattage specified vs. allowed	630VA/750VA

Additional Prescriptive Compliance

	506.2.1 More Efficient Mechanical Equipment
X	506.2.2 Reduced Lighting Power Density
	506.2.3 Energy Recovery Ventilation Systems
	506.2.4 Higher Efficiency Service Water Heater
	506.2.5 On–Site Supply of Renewable Energy
	506.2.6 automatic Daylighting Control System

ELECTRICAL LEGEND

X O_X X	LIGHT FIXTURE: LETTER DENOTES FIXTURE TYPE (REFER TO LIGHTING PLAN AND FIXTURE SCHEDULE). NL = NIGHT LIGHT (NOT SWITCHED/ALWAYS ON)
(S) U WP/GFI	DUPLEX RECEPTACLE – 120V; MOUNT 18" TO CENTER AFF UNLESS NOTED OTHERWISE; "WP" INDICATES WEATHER PROOF, "GFI" INDICATES GROUND FAULT CURRENT INTERRUPT PROTECTED. "U" INDICATES RECEPTACLE WITH (2) USB PORTS. (S) INDICATES SHUNT TRIP BREAKER, OR WIRING THROUGH RELAYS IN HOOD CONTROL CABINET
	QUADRAPLEX RECEPTACLE – 120V
(FB) (CM)	FLOOR BOX (FB) OR CEILING–MOUNT (CM) POWER & DATA CONNECTIONS. PROVIDE A COMPLETE POWER/DATA FLOOR/CEILING BOX SYSTEM W/ ALL ACCESSORIES. COLOR/FINISH BY ARCH.
TV	TELEVISION/MONITOR POWER & DATA LOCATION. PROVIDE TELE/DATA BOX/CONDUIT & COAX CABLE BACK TO MTP VERIFY EXACT HEIGHT/LOCATIONS.
	SPECIAL PURPOSE RECEPTACLE – REFER TO POWER PLAN AND PANEL SCHEDULE
	DISCONNECTING MEANS AS REQUIRED BY CODE
S	LIGHT SWITCH
S_M	SWITCH WITH INTEGRAL PIR/US MOTION SENSOR FOR AUTOMATIC SHUT–OFF WITH UP TO 2 HOUR ADJUSTABLE DELAY.
S_D	DIMMABLE LIGHT SWITCH
S	MOTOR RATED SWITCH
S HD	HAND DRYER (THINAIR TYPE. CONFIRM W/ ARCH/OWNER)
J	JUNCTION BOX
J CCTV	CLOSED–CIRCUIT TELEVISION / SECURITY CAM PROVIDE CAT 6 WIRING TO EACH DEVICE.
J CR	DOOR W/ CARD–READER/SWIPE ENTRY
	TELE/DATA OUTLET – PROVIDE JUNCTION BOX WITH 3/4" CONDUIT WITH BUSHINGS & PULL STRING TO ABOVE CEILING OR OTHER CONCEALED ACCESSABLE LOCATION. PROVIDE J–HOOK SYSTEM FROM CONDUIT TERMINATION TO MTP.
MTP	MAIN TELEPHONE PANEL – PROVIDE FIRE RESISTANT 4'x8'x3/4" PLYWOOD BACKBOARD, TWO 2" CONDUITS BACK TO TELEPHONE SERVICE ENTRY POINT AND ONE 2" CONDUIT BACK TO CABLE TV SERVICE ENTRY POINT. FIELD VERIFY EXACT LOCATIONS.
TC	MULTI–CIRCUIT TIME CLOCK
	SINGLE–POLE HOMERUN TO PANELBOARD
	TWO–POLE OR 3–POLE HOMERUN TO PANELBOARD
EXIT	EXIT LIGHT (CM) CEILING MOUNT (DS) DOUBLE SIDED DIRECTIONAL ARROW(S)
	EMERGENCY EGRESS FIXTURE
PC	PHOTOCELL
	BRANCH CIRCUIT WIRING
	SWITCH LEG
	GROUND CONNECTION
PANEL A	DISTRIBUTION PANEL (VERIFY TYPE/REQUIREMENTS)
	TWO HOUR FIRE BARRIER
	THREE HOUR FIRE BARRIER
W	WIRELESS ACCESSS POINT



ELECTRICAL EQUIPMENT DEDICATED SPACE PER ARTICLE 110.26.F.1 OF N.E.C.

2 DEDICATED SPACE
SCALE: NTS

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NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 22039 BENJAMIN E. BURKE
11/30/23

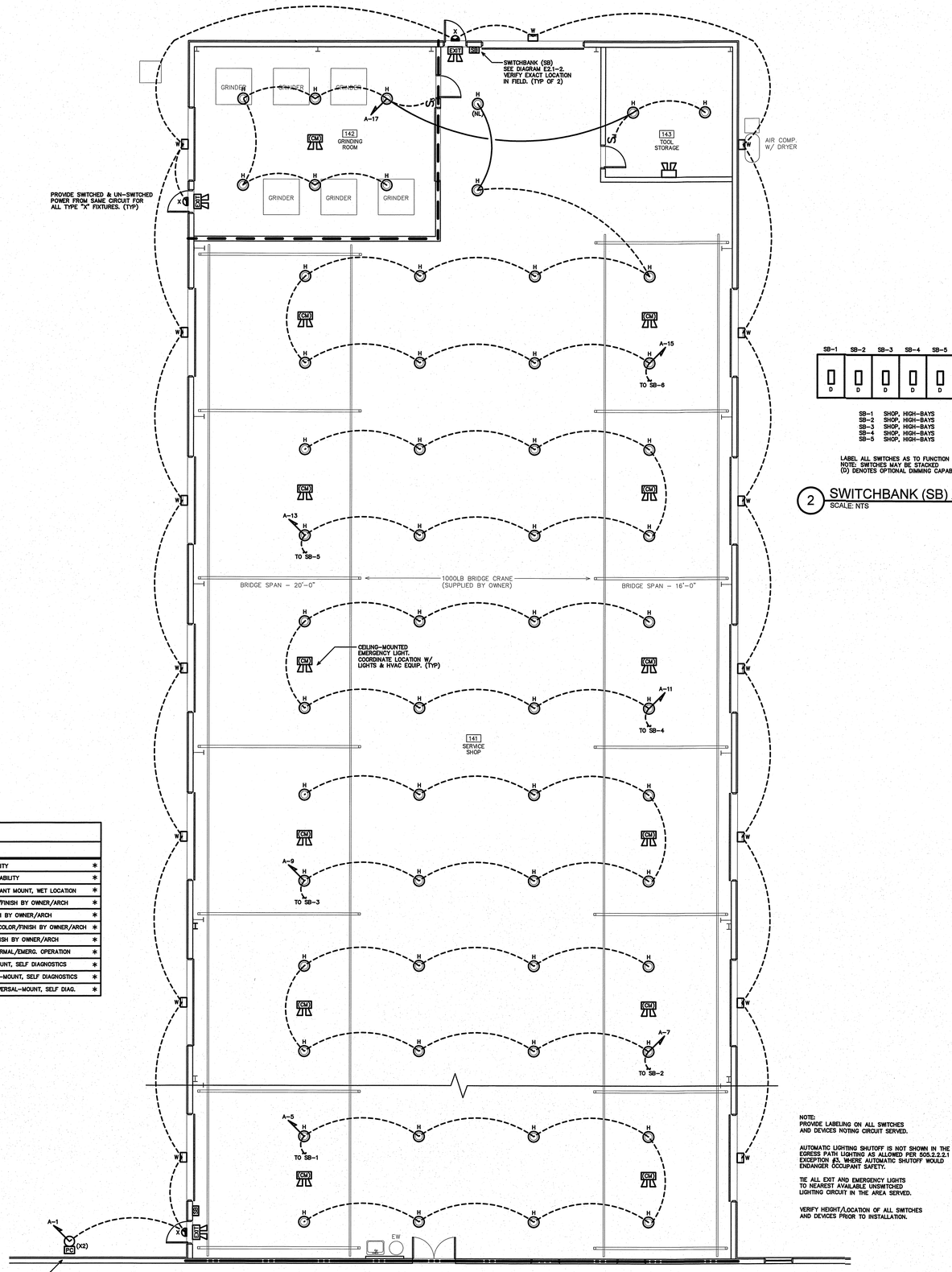
PROJECT TITLE
REVELS TURF & TRACTOR
RAWLS CHURCH RD.
FUQUAY–VARINA, NORTH CAROLINA

PROJECT NO.
2232

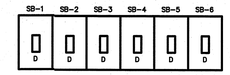
DRAWING TITLE
ELECTRICAL SPECS

E1

PLOT DATE 12/01/23



1 NORTH FLOOR PLAN
SCALE: 1/8" = 1'-0"



SB-1 SHOP, HIGH-BAYS
SB-2 SHOP, HIGH-BAYS
SB-3 SHOP, HIGH-BAYS
SB-4 SHOP, HIGH-BAYS
SB-5 SHOP, HIGH-BAYS

LABEL ALL SWITCHES AS TO FUNCTION
NOTE: SWITCHES MAY BE STACKED
(D) DENOTES OPTIONAL DIMMING CAPABILITY

2 SWITCHBANK (SB) X2
SCALE: NTS

Revels E2.1

LIGHTING SCHEDULE *

MARK	MANUFACTURER	CATALOG NO.	VOLT.	LAMPS NO.	LAMPS TYPE	LAMPS W	BALLAST TYPE	W/ FIXTURE	REMARKS	
B	LITHONIA	CPX-2X4-4000LM-30K-M2	120	–	LED	–	–	40	LED 2X4 LAY-IN FIXTURE, DIMMING CAPABILITY	*
C	PRESCOLITE	LF6LED04-6MFLED6G430K	120	–	LED	–	–	20	LED 6" RECESSED CAN LIGHT, DIMMING CAPABILITY	*
CL	PRESCOLITE	LTC-6RD-(S/P)30L35KBMD	120	–	LED	–	–	25	LED 6" CYLINDER LIGHT, SURFACE OR PENDANT MOUNT, WET LOCATION	*
F	BIG ASS FANS	HAIKU	120	–	LED	–	–	50	52" INDOOR/OUTDOOR CEILING FAN, COLOR/FINISH BY OWNER/ARCH	*
H	LITHONIA	JEBL-18L-40K-80CRI	120	–	LED	–	–	136	LED HIGH BAY LIGHT FIXTURE, COLOR/FINISH BY OWNER/ARCH	*
S	PRESCOLITE	LTC-6RD-W30L35KBMD	120	–	LED	–	–	25	LED 6" CYLINDER SCONCE, WET LOCATION, COLOR/FINISH BY OWNER/ARCH	*
W	HUBBELL	S01-40-3K7-FT-UNV-BLT	120	–	LED	–	–	40	LED WALL PACK, WET LOCATION, COLOR/FINISH BY OWNER/ARCH	*
X	COMPASS	CUSO	120	–	LED	–	–	10	EMERG. EGRESS FIXTURE – DUAL MODE, NORMAL/EMERG. OPERATION	*
EXIT	COMPASS	CEL	120	–	LED	–	–	–	LED EXIT SIGN W/ BATTERY, UNIVERSAL-MOUNT, SELF DIAGNOSTICS	*
EXIT	COMPASS	CU2	120	–	LED	–	–	–	LED EMERG. LIGHT W/ BATTERY, UNIVERSAL-MOUNT, SELF DIAGNOSTICS	*
EXIT	COMPASS	CCRG	120	–	LED	–	–	–	LED EXIT/EMERG. COMBO W/ BATTERY, UNIVERSAL-MOUNT, SELF DIAG.	*

* OR APPROVED EQUAL. PROVIDE CUT SHEETS FOR OWNER APPROVAL PRIOR TO ORDERING FIXTURES.
CATALOG NUMBERS ARE FOR REFERENCE ONLY, ACTUAL NUMBERS MAY VARY.
THE EMERGENCY LIGHTS AND EXIT SIGNS MUST HAVE INTEGRAL BATTERIES, CHARGERS AND TEST SWITCHES.

NOTE:
PROVIDE LABELING ON ALL SWITCHES AND DEVICES NOTING CIRCUIT SERVED.

AUTOMATIC LIGHTING SHUTOFF IS NOT SHOWN IN THE EGRESS PATH LIGHTING AS ALLOWED PER 505.2.2.2.1 EXCEPTION #3, WHERE AUTOMATIC SHUTOFF WOULD ENDANGER OCCUPANT SAFETY.

TIE ALL EXIT AND EMERGENCY LIGHTS TO NEAREST AVAILABLE UNSWITCHED LIGHTING CIRCUIT IN THE AREA SERVED.

VERIFY HEIGHT/LOCATION OF ALL SWITCHES AND DEVICES PRIOR TO INSTALLATION.

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11/30/23

PROJECT TITLE
REVELS TURF & TRACTOR
RAWLS CHURCH RD.
FUQUAY-VARINA, NORTH CAROLINA

PROJECT NO.
2232

DRAWING TITLE
LIGHTING PLAN

E2.1

PLOT DATE 12/01/23

1 SOUTH FLOOR PLAN
SCALE: 1/8" = 1'-0"

Revels E2.2

LIGHTING SCHEDULE *

MARK	MANUFACTURER	CATALOG NO.	VOLT.	LAMPS NO.	LAMPS TYPE	LAMPS W	BALLAST TYPE	W/ FIXTURE	REMARKS	
B	LITHONIA	CPX-2X4-4000LM-30K-M2	120	–	LED	–	–	40	LED 2X4 LAY-IN FIXTURE, DIMMING CAPABILITY	*
C	PRESCOLITE	LF6LEDG4-6MFLED6G430K	120	–	LED	–	–	20	LED 6" RECESSED CAN LIGHT, DIMMING CAPABILITY	*
CL	PRESCOLITE	LTC-6RD-(S/P)30L35K8MD	120	–	LED	–	–	25	LED 6" CYLINDER LIGHT, SURFACE OR PENDANT MOUNT, WET LOCATION	*
F	BIG ASS FANS	HAIKU	120	–	LED	–	–	50	52" INDOOR/OUTDOOR CEILING FAN, COLOR/FINISH BY OWNER/ARCH	*
H	LITHONIA	JEBL-18L-40K-80CRI	120	–	LED	–	–	136	LED HIGH BAY LIGHT FIXTURE, COLOR/FINISH BY OWNER/ARCH	*
S	PRESCOLITE	LTC-6RD-W30L35K8MD	120	–	LED	–	–	25	LED 6" CYLINDER SCONCE, WET LOCATION, COLOR/FINISH BY OWNER/ARCH	*
U	PHILLIPS	HUE LIGHTSTRIP PLUS	120	–	LED	–	–	3W/FT	LED FLEX STRIP (UNDERCOUNTER) LIGHTING, COLOR/FINISH BY ARCH	*
W	HUBBELL	SG1-40-3K7-FT-UNV-BLT	120	–	LED	–	–	40	LED WALL PACK, WET LOCATION, COLOR/FINISH BY OWNER/ARCH	*
X	COMPASS	CUSO	120	–	LED	–	–	10	EMERG. EGRESS FIXTURE – DUAL MODE, NORMAL/EMERG. OPERATION	*
EXIT	COMPASS	CEL	120	–	LED	–	–	–	LED EXIT SIGN W/ BATTERY, UNIVERSAL-MOUNT, SELF DIAGNOSTICS	*
	COMPASS	CU2	120	–	LED	–	–	–	LED EMERG. LIGHT W/ BATTERY, UNIVERSAL-MOUNT, SELF DIAGNOSTICS	*
EXIT	COMPASS	CCRG	120	–	LED	–	–	–	LED EXIT/EMERG. COMBO W/ BATTERY, UNIVERSAL-MOUNT, SELF DIAG.	*

* OR APPROVED EQUAL. PROVIDE CUT SHEETS FOR OWNER APPROVAL PRIOR TO ORDERING FIXTURES. CATALOG NUMBERS ARE FOR REFERENCE ONLY, ACTUAL NUMBERS MAY VARY.

THE EMERGENCY LIGHTS AND EXIT SIGNS MUST HAVE INTEGRAL BATTERIES, CHARGERS AND TEST SWITCHES.

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11/30/23

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REVELS TURF & TRACTOR
RAWLS CHURCH RD.
FUQUAY-VARINA, NORTH CAROLINA

PROJECT NO.
2232

DRAWING TITLE
LIGHTING PLAN

E2.2

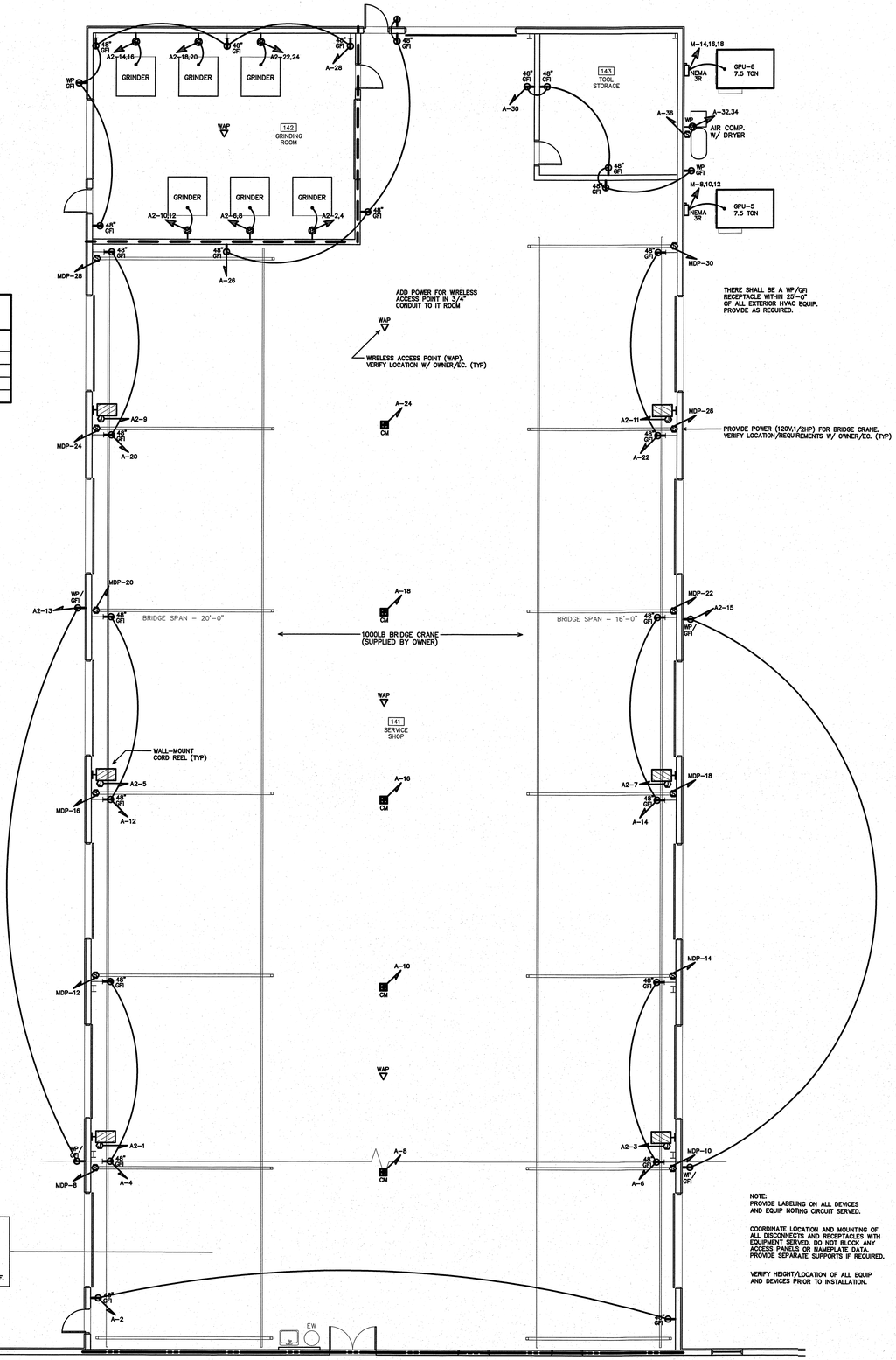
PLOT DATE	12/01/23
⚠ AHJ COMMENTS	11/30/23

Revels E3.1

EQUIPMENT WIRING SCHEDULE

EQUIPMENT	MCA	MOCP	VOLTS	PH	WIRE SIZE
GRINDER	12.0A	20A	240V	1	3-#12, 1-#12 GND IN 1/2" CONDUIT
AIR COMP.	31.0A	50A	240V	1	3-#6, 1-#10 GND IN 3/4" CONDUIT
AIR COMP. (DRYER)	9.1A	20A	120V	1	2-#12, 1-#12 GND IN 1/2" CONDUIT
BRIDGE CRANE	10.0A	20A	120V	1	2-#12, 1-#12 GND IN 1/2" CONDUIT

NOTE:
THE ELECTRICAL CONTRACTOR SHALL VERIFY ALL EQUIPMENT ELECTRICAL REQUIREMENTS PRIOR TO ROUGH-IN AND RELEASING GEAR. ADJUST BREAKER, WIRE SIZES, ETC. AS REQUIRED.



1 NORTH FLOOR PLAN
SCALE: 1/8" = 1'-0"

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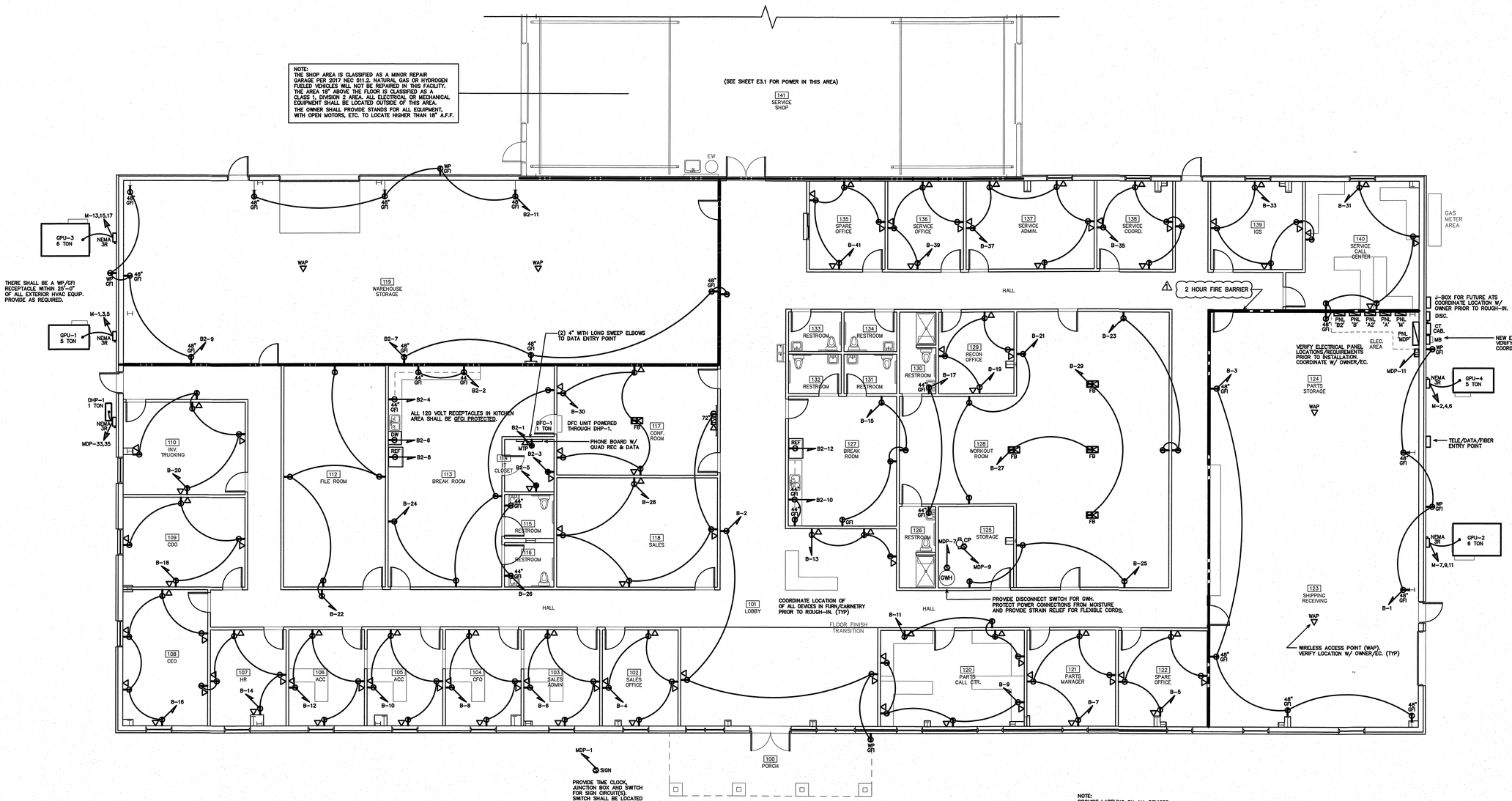
RAWLS CHURCH RD.
FUQUAY-VARINA, NORTH CAROLINA

PROJECT NO.
2232

DRAWING TITLE
POWER PLAN

E3.1

PLOT DATE 12/01/23



1 SOUTH FLOOR PLAN
SCALE: 1/8" = 1'-0"

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11/30/23

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RAWLS CHURCH RD.
FUQUAY-VARINA, NORTH CAROLINA

PROJECT NO.
2232

DRAWING TITLE
POWER PLAN

E3.2

PLOT DATE	12/01/23
⚠ AHJ COMMENTS	11/30/23

VERIFY PANEL LOCATION, REQUIREMENTS, AND MOUNTING TYPE. COORDINATE W/ EC. (TYP)

Revels E4

NEW PANEL- 'MDP'

MAKE: EATON | TYPE: PRL1a | OR APPROVED EQUAL
RATING: 208/120V 3 PHASE 4 WIRE | MOUNTING: SURFACE | MINIMUM AIC: VERIFY
MLO MAIN CIRCUIT BREAKER | EQUIPMENT GROUND BUS [X]YES [ ]NO | SERVICE ENTRY RATED [ ]YES [X]NO

LOAD SERVICE	CKT BRKR	WATTS PER PHASE A	B	C	CKT NO	NEUTRAL A B C	CKT NO	WATTS PER PHASE A	B	C	CKT BRKR	LOAD SERVICE
SIGN	20A	1200			1		2	----			20A	SPARE
SIGN	20A		1200		3		4		----		20A	SPARE
SPARE	20A			----	5		6			----	20A	SPARE
GWH CNTRLS	20A	300			7		8	1200			20A	BRIDGE CRANE
CIRC PUMP	20A		500		9		10		1200		20A	BRIDGE CRANE
TIMECLOCK	20A			300	11		12			1200	20A	BRIDGE CRANE
CO DETECTORS	20A	100			13		14	1200			20A	BRIDGE CRANE
CCTV/SECURITY	20A		100		15		16		1200		20A	BRIDGE CRANE
SPARE	20A			----	17		18			1200	20A	BRIDGE CRANE
SPARE	20A	----			19		20	1200			20A	BRIDGE CRANE
SPARE	20A		----		21		22		1200		20A	BRIDGE CRANE
SPARE	20A			----	23		24			1200	20A	BRIDGE CRANE
SPACE		----			25		26	1200			20A	BRIDGE CRANE
SPACE			----		27		28		1200		20A	BRIDGE CRANE
SPACE				----	29		30			1200	20A	BRIDGE CRANE
SPACE		----			31		32	20598				PANEL 'A'
DHP-1	20A		936		33		34		21651		225A	.
.				936	35		36			18836		.
PANEL 'M'		21120			37		38	11280				PANEL 'B'
.	225A		21120		39		40		10440		225A	.
.				21120	41		42			11580		.
NOTES	SUB-TOTALS 'B'	22720	23856	22856		600A BUS	36678	36891	35216	SUB-TOTALS 'A'		
NOTE: ALL PANEL SCHEDULES TO MEET NEC 408.4 REQUIREMENTS						600A LUGS	22720	23856	22856	SUB-TOTALS 'B'		TOTAL CONNECTED LOAD
						600A FEED	59398	60747	58072	GRAND TOTAL		
						VERIFY SIZE	495A	508A	484A	AMPS/PHASE		

NEC ALLOWABLE DEMAND FACTORS

1. DEMAND FACTORS PER NEC 220
2. LARGEST OF: NEC TABLE 220.12 OR CONNECTED LOAD
3. NEC TABLE 220.56
4. NEC 220.51
5. NEC 220.43A, 200 VA/LINEAR FT
6. NON-COINCIDENT LOADS, LARGEST OF THE TWO LOADS IS COUNTED

DIVERSIFIED LOAD SUMMARY

LOAD TYPE	DEMAND FACTOR(6)	A	B	C	TOTAL DIVERSIFIED LOAD
GENERAL LIGHTING (2)	125%	8548	9639	9255	27442
TRACK LIGHTING	125%	----	----	----	----
GENERAL USE / RECEPTACLES	≤10KVA@208	3333	3333	3334	10000
	>10KVA@208	4454	4724	4093	13271
MOTORS AND EQUIPMENT (LARGEST)	125%	4175	4175	4175	12525
MOTORS AND EQUIPMENT (ALL OTHERS)	100%	17780	18716	18716	55212
WATER HEATERS	125%	----	----	----	----
KITCHEN EQUIPMENT (3)	100%	1200	----	2400	3600
FIX. ELEC. SPACE HEAT. (4)	100%	----	----	----	----
SHOW WINDOW LIGHTS (5)	125%	----	----	----	----
SIGN	125%	1500	1500	----	3000
MISC	100%	12000	12200	9892	34092
PHASE (TOTAL VA)		52990	54287	51865	159142
	TOTAL AMPS	442A	452A	432A	VOLT AMPS VOLTS X 1.732 = 442A TOTAL AMPS

Revels E4

NEW PANEL- 'A'

MAKE: EATON | TYPE: PRL1a | OR APPROVED EQUAL
RATING: 208/120V 3 PHASE 4 WIRE | MOUNTING: SURFACE | MINIMUM AIC: VERIFY
MLO MAIN CIRCUIT BREAKER | EQUIPMENT GROUND BUS [X]YES [ ]NO | SERVICE ENTRY RATED [ ]YES [X]NO

LOAD SERVICE	CKT BRKR	WATTS PER PHASE A	B	C	CKT NO	NEUTRAL A B C	CKT NO	WATTS PER PHASE A	B	C	CKT BRKR	LOAD SERVICE
LTS: EXT	20A	630			1		2	360			20A	REC: SHOP
LTS: EXT	20A		815		3		4		360		20A	REC: SHOP
LTS: SHOP	20A			1088	5		6			360	20A	REC: SHOP
LTS: SHOP	20A	1088			7		8	360			20A	REC: SHOP
LTS: SHOP	20A		1088		9		10		360		20A	REC: SHOP
LTS: SHOP	20A			1088	11		12			360	20A	REC: SHOP
LTS: SHOP	20A	1088			13		14	360			20A	REC: SHOP
LTS: SHOP	20A		1360		15		16		360		20A	REC: SHOP
LTS: GRINDING,TOOLS	20A			1088	17		18			360	20A	REC: SHOP
LTS: WAREHOUSE,STOR	20A	1224			19		20	360			20A	REC: SHOP
LTS: WAREHOUSE,STOR	20A		1224		21		22		360		20A	REC: SHOP
LTS: PARTS STOR	20A			816	23		24			360	20A	REC: SHOP
LTS: SHIPPING/RECEIVING	20A	816			25		26	720			20A	REC: SHOP
LTS: PARTS,HALL	20A		1240		27		28		900		20A	REC: GRINDING
LTS: LOBBY,BREAK,HALL	20A			1080	29		30			900	20A	REC: SHOP,TOOLS
LTS: WORKOUT,STOR	20A	1032			31		32	3600			50A	AIR COMP.
LTS: RECON,RESTROOMS	20A		960		33		34		3600		.	.
LTS: SERVICE	20A			1104	35		36			1092	20A	AIR COMP. DRYER
LTS: OFFICES	20A	960			37		38	8000				PANEL 'A2'
LTS: SALES,CONF	20A		1024		39		40		8000		100A	.
LTS: BREAK,FILE,HALL	20A			1160	41		42			8000		.
NOTES	SUB-TOTALS 'B'	6838	7711	7404		225A BUS	13760	13940	11432	SUB-TOTALS 'A'		
						225A LUGS	6838	7711	7404	SUB-TOTALS 'B'		TOTAL CONNECTED LOAD
						225A FEED	20598	21651	18836	GRAND TOTAL		
						VERIFY SIZE	172A	180A	157A	AMPS/PHASE		

NEC ALLOWABLE DEMAND FACTORS

1. DEMAND FACTORS PER NEC 220
2. LARGEST OF: NEC TABLE 220.12 OR CONNECTED LOAD
3. NEC TABLE 220.56
4. NEC 220.51
5. NEC 220.43A, 200 VA/LINEAR FT
6. NON-COINCIDENT LOADS, LARGEST OF THE TWO LOADS IS COUNTED

DIVERSIFIED LOAD SUMMARY

LOAD TYPE	DEMAND FACTOR(6)	A	B	C	TOTAL DIVERSIFIED LOAD
GENERAL LIGHTING (2)	125%	8548	9639	9255	27442
TRACK LIGHTING	125%	----	----	----	----
GENERAL USE / RECEPTACLES	≤10KVA@208	2160	2340	2340	6840
	>10KVA@208	----	----	----	----
MOTORS AND EQUIPMENT (LARGEST)	125%	----	----	----	----
MOTORS AND EQUIPMENT (ALL OTHERS)	100%	----	----	----	----
WATER HEATERS	125%	----	----	----	----
KITCHEN EQUIPMENT (3)	100%	----	----	----	----
FIX. ELEC. SPACE HEAT. (4)	100%	----	----	----	----
SHOW WINDOW LIGHTS (5)	125%	----	----	----	----
SIGN	125%	----	----	----	----
MISC	100%	11600	11600	9092	32292
PHASE (TOTAL VA)		22308	23579	20687	66574
	TOTAL AMPS	186A	198A	172A	VOLT AMPS VOLTS X 1.732 = 185A TOTAL AMPS

Revels E4

NEW PANEL- 'B'

MAKE: EATON | TYPE: PRL1a | OR APPROVED EQUAL
RATING: 208/120V 3 PHASE 4 WIRE | MOUNTING: SURFACE | MINIMUM AIC: VERIFY
MLO MAIN CIRCUIT BREAKER | EQUIPMENT GROUND BUS [X]YES [ ]NO | SERVICE ENTRY RATED [ ]YES [X]NO

LOAD SERVICE	CKT BRKR	WATTS PER PHASE A	B	C	CKT NO	NEUTRAL A B C	CKT NO	WATTS PER PHASE A	B	C	CKT BRKR	LOAD SERVICE
REC: SHIPPING,PARTS	20A	720			1		2	720			20A	REC: EXT,LOBBY
REC: SHIPPING,PARTS	20A		720		3		4		720		20A	REC: SALES OFFICE
REC: OFFICE	20A			720	5		6			720	20A	REC: SALES ADMIN
REC: PARTS MANAGER	20A	720			7		8	720			20A	REC: CFO
REC: PARTS CALL CTR	20A		720		9		10		720		20A	REC: ACC
REC: PARTS CALL CTR	20A			720	11		12			720	20A	REC: ACC
REC: LOBBY	20A	540			13		14	900			20A	REC: HR
REC: BREAK	20A		720		15		16		900		20A	REC: CEO
REC: RESTROOM	20A			360	17		18			720	20A	REC: COO
REC: OFFICE	20A	720			19		20	900			20A	REC: TRUCKING
REC: WORKOUT	20A		540		21		22		900		20A	REC: FILE ROOM
REC: WORKOUT	20A			540	23		24			720	20A	REC: BREAK
REC: WORKOUT	20A	540			25		26	360			20A	REC: RESTROOM
REC: WORKOUT	20A		360		27		28		900		20A	REC: SALES
REC: WORKOUT	20A			360	29		30			900	20A	REC: CONF
REC: SERVICE CALL CTR	20A	900			31		32	----			20A	SPARE
REC: IGS	20A		900		33		34		----		20A	SPARE
REC: SERVICE COORD	20A			900	35		36			----	20A	SPARE
REC: SERVICE ADMIN	20A	900			37		38	2840				PANEL 'B2'
REC: OFFICE	20A		720		39		40		1620		100A	.
REC: OFFICE	20A			720	41		42			3480		.
NOTES	SUB-TOTALS 'B'	5040	4680	4320		225A BUS	8240	5760	7260	SUB-TOTALS 'A'		
						225A LUGS	5040	4680	4320	SUB-TOTALS 'B'		TOTAL CONNECTED LOAD
						225A FEED	11280	10440	11580	GRAND TOTAL		
						VERIFY SIZE	94A	87A	97A	AMPS/PHASE		

NEC ALLOWABLE DEMAND FACTORS

1. DEMAND FACTORS PER NEC 220
2. LARGEST OF: NEC TABLE 220.12 OR CONNECTED LOAD
3. NEC TABLE 220.56
4. NEC 220.51
5. NEC 220.43A, 200 VA/LINEAR FT
6. NON-COINCIDENT LOADS, LARGEST OF THE TWO LOADS IS COUNTED

DIVERSIFIED LOAD SUMMARY

LOAD TYPE	DEMAND FACTOR(6)	A	B	C	TOTAL DIVERSIFIED LOAD
GENERAL LIGHTING (2)	125%	----	----	----	----
TRACK LIGHTING	125%	----	----	----	----
GENERAL USE / RECEPTACLES	≤10KVA@208	3333	3333	3334	10000
	>10KVA@208	3374	3554	2923	9851
MOTORS AND EQUIPMENT (LARGEST)	125%	----	----	----	----
MOTORS AND EQUIPMENT (ALL OTHERS)	100%	----	----	----	----
WATER HEATERS	125%	----	----	----	----
KITCHEN EQUIPMENT (3)	100%	1200	----	2400	3600
FIX. ELEC. SPACE HEAT. (4)	100%	----	----	----	----
SHOW WINDOW LIGHTS (5)	125%	----	----	----	----
SIGN	125%	----	----	----	----
MISC	100%	----	----	----	----
PHASE (TOTAL VA)		7907	6887	8657	23451
	TOTAL AMPS	68A	57A	72A	VOLT AMPS VOLTS X 1.732 = 65A TOTAL AMPS

Revels E4

NEW PANEL- 'M'

MAKE: EATON | TYPE: PRL1a | OR APPROVED EQUAL
RATING: 208/120V 3 PHASE 4 WIRE | MOUNTING: SURFACE | MINIMUM AIC: VERIFY
MLO MAIN CIRCUIT BREAKER | EQUIPMENT GROUND BUS [X]YES [ ]NO | SERVICE ENTRY RATED [ ]YES [X]NO

LOAD SERVICE	CKT BRKR	WATTS PER PHASE A	B	C	CKT NO	NEUTRAL A B C	CKT NO	WATTS PER PHASE A	B	C	CKT BRKR	LOAD SERVICE
GPU-1		2900			1		2	2900				GPU-4
.	40A		2900		3		4		2900		40A	.
.				2900	5		6			2900		.
GPU-2		3340			7		8	4320				GPU-5
.	50A		3340		9		10		4320		50A	.
.				3340	11		12			4320		.
GPU-3		3340			13		14	4320				GPU-6
.	50A		3340		15		16		4320		50A	.
.				3340	17		18			4320		.
SPACE		----			19		20	----				SPACE
SPACE			----		21		22		----			SPACE
SPACE				----	23		24			----		SPACE
SPACE		----			25		26	----				SPACE
SPACE			----		27		28		----			SPACE
SPACE				----	29		30			----		SPACE
NOTES	SUB-TOTALS 'B'	9580	9580	9580		225A BUS	11540	11540	11540	SUB-TOTALS 'A'		
						225A LUGS	9580	9580	9580	SUB-TOTALS 'B'		TOTAL CONNECTED LOAD
						225A FEED	21120	21120	21120	GRAND TOTAL		
						VERIFY SIZE	178A	178A	178A	AMPS/PHASE		

NEC ALLOWABLE DEMAND FACTORS

1. DEMAND FACTORS PER NEC 220
2. LARGEST OF: NEC TABLE 220.12 OR CONNECTED LOAD
3. NEC TABLE 220.56
4. NEC 220.51
5. NEC 220.43A, 200 VA/LINEAR FT
6. NON-COINCIDENT LOADS, LARGEST OF THE TWO LOADS IS COUNTED

DIVERSIFIED LOAD SUMMARY

LOAD TYPE	DEMAND FACTOR(6)	A	B	C	TOTAL DIVERSIFIED LOAD
GENERAL LIGHTING (2)	125%	----	----	----	----
TRACK LIGHTING	125%	----	----	----	----
GENERAL USE / RECEPTACLES	≤10KVA@208	----	----	----	----
	>10KVA@208	----	----	----	----
MOTORS AND EQUIPMENT (LARGEST)	125%	----	----	----	----
MOTORS AND EQUIPMENT (ALL OTHERS)	100%	17780	17780	17780	53340
WATER HEATERS	125%	----	----	----	----
KITCHEN EQUIPMENT (3)	100%	----	----	----	----
FIX. ELEC. SPACE HEAT. (4)	100%	----	----	----	----
SHOW WINDOW LIGHTS (5)	125%	----	----	----	----
SIGN	125%	----	----	----	----
MISC	100%	----	----	----	----
PHASE (TOTAL VA)		21955	21955	21955	65865
	TOTAL AMPS	183A	183A	183A	VOLT AMPS VOLTS X 1.732 = 183A TOTAL AMPS

Revels E4

NEW PANEL- 'A2'

MAKE: EATON | TYPE: PRL1a | OR APPROVED EQUAL
RATING: 208/120V 3 PHASE 4 WIRE | MOUNTING: SURFACE | MINIMUM AIC: VERIFY
MLO MAIN CIRCUIT BREAKER | EQUIPMENT GROUND BUS [X]YES [ ]NO | SERVICE ENTRY RATED [ ]YES [X]NO

LOAD SERVICE	CKT BRKR	WATTS PER PHASE A	B	C	CKT NO	NEUTRAL A B C	CKT NO	WATTS PER PHASE A	B	C	CKT BRKR	LOAD SERVICE
CORD REEL	20A	1000			1		2	1500			20A	GRINDER
CORD REEL	20A		1000		3		4		1500		.	.
CORD REEL	20A			1000	5		6			1500		.
CORD REEL	20A	1000			7		8	1500			20A	GRINDER
CORD REEL	20A		1000		9		10		1500		.	.
CORD REEL	20A			1000	11		12			1500		.
REC: EXTERIOR	20A	360			13		14	1500			20A	GRINDER
REC: EXTERIOR	20A		360		15		16		1500		.	.
SPARE	20A			----	17		18			1500		.
SPARE	20A	----			19		20	1500			20A	GRINDER
SPARE	20A		----		21		22		1500		.	.
SPARE	20A			----	23		24			1500		.
SPACE		----			25		26	----				SPACE
SPACE			----		27		28		----			SPACE
SPACE				----	29		30			----		SPACE
NOTES	SUB-TOTALS 'B'	2000	2000	2000		100A BUS	6000	6000	6000	SUB-TOTALS 'A'		
						100A LUGS	2000	2000	2000	SUB-TOTALS 'B'		TOTAL CONNECTED LOAD
						100A FEED	8000	8000	8000	GRAND TOTAL		
						VERIFY SIZE	67A	67A	67A	AMPS/PHASE		

NEC ALLOWABLE DEMAND FACTORS

1. DEMAND FACTORS PER NEC 220
2. LARGEST OF: NEC TABLE 220.12 OR CONNECTED LOAD
3. NEC TABLE 220.56
4. NEC 220.51
5. NEC 220.43A, 200 VA/LINEAR FT
6. NON-COINCIDENT LOADS, LARGEST OF THE TWO LOADS IS COUNTED

DIVERSIFIED LOAD SUMMARY

LOAD TYPE	DEMAND FACTOR(6)	A	B	C	TOTAL DIVERSIFIED LOAD
GENERAL LIGHTING (2)	125%	----	----	----	----
TRACK LIGHTING	125%	----	----	----	----
GENERAL USE / RECEPTACLES	≤10KVA@208	----	----	----	----
	>10KVA@208	----	----	----	----
MOTORS AND EQUIPMENT (LARGEST)	125%	----	----	----	----
MOTORS AND EQUIPMENT (ALL OTHERS)	100%	----	----	----	----
WATER HEATERS	125%	----	----	----	----
KITCHEN EQUIPMENT (3)	100%	----	----	----	----
FIX. ELEC. SPACE HEAT. (4)	100%	----	----	----	----
SHOW WINDOW LIGHTS (5)	125%	----	----	----	----
SIGN	125%	----	----	----	----
MISC	100%	8000	8000	8000	24000
PHASE (TOTAL VA)		8000	8000	8000	24000
	TOTAL AMPS	67A	67A	67A	VOLT AMPS VOLTS X 1.732 = 67A TOTAL AMPS

Revels E4

NEW PANEL- 'B2'

MAKE: EATON | TYPE: PRL1a | OR APPROVED EQUAL
RATING: 208/120V 3 PHASE 4 WIRE | MOUNTING: SURFACE | MINIMUM AIC: VERIFY
MLO MAIN CIRCUIT BREAKER | EQUIPMENT GROUND BUS [X]YES [ ]NO | SERVICE ENTRY RATED [ ]YES [X]NO

LOAD SERVICE	CKT BRKR	WATTS PER PHASE A	B	C	CKT NO	NEUTRAL A B C	CKT NO	WATTS PER PHASE A	B	C	CKT BRKR	LOAD SERVICE
REC: MTP	20A	360			1		2	360			20A	REC: BREAK
REC: IT	20A		360		3		4		180		20A	REC: BREAK
REC: IT	20A			360	5		6			1200	20A	DISHWASH (6)
REC: WAREHOUSE	20A	720			7		8	1200			20A	REFRIG (6)
REC: WAREHOUSE	20A		720		9		10		360		20A	REC: BREAK
REC: WAREHOUSE	20A			720	11		12			1200	20A	REFRIG
SPARE	20A	----			13		14	----			20A	SPARE
SPARE	20A		----		15		16		----		20A	SPARE
SPARE	20A			----	17		18			----	20A	SPARE
SPACE		----			19		20	----				SPACE
SPACE			----		21		22		----			SPACE
SPACE				----	23		24			----		SPACE
SPACE		----			25		26	----				SPACE
SPACE			----		27		28		----			SPACE
SPACE				----	29		30			----		SPACE
NOTES	SUB-TOTALS 'B'	1080	1080	1080		100A BUS	1560	540	2400	SUB-TOTALS 'A'		
(6) GFCI BREAKER						100A LUGS	1080	1080	1080	SUB-TOTALS 'B'		TOTAL CONNECTED LOAD
						100A FEED	2640	1620	3480	GRAND TOTAL		
						VERIFY SIZE	22A	14A	29A	AMPS/PHASE		

NEC ALLOWABLE DEMAND FACTORS

1. DEMAND FACTORS PER NEC 220
2. LARGEST OF: NEC TABLE 220.12 OR CONNECTED LOAD
3. NEC TABLE 220.56
4. NEC 220.51
5. NEC 220.43A, 200 VA/LINEAR FT
6. NON-COINCIDENT LOADS, LARGEST OF THE TWO LOADS IS COUNTED

DIVERSIFIED LOAD SUMMARY

LOAD TYPE	DEMAND FACTOR(6)	A	B	C	TOTAL DIVERSIFIED LOAD
GENERAL LIGHTING (2)	125%	----	----	----	----
TRACK LIGHTING	125%	----	----	----	----
GENERAL USE / RECEPTACLES	≤10KVA@208	1440	1620	1080	4140
	>10KVA@208	----	----	----	----
MOTORS AND EQUIPMENT (LARGEST)	125%	----	----	----	----
MOTORS AND EQUIPMENT (ALL OTHERS)	100%	----	----	----	----
WATER HEATERS	125%	----	----	----	----
KITCHEN EQUIPMENT (3)	100%	1200	----	2400	3600
FIX. ELEC. SPACE HEAT. (4)	100%	----	----	----	----
SHOW WINDOW LIGHTS (5)	125%	----	----	----	----
SIGN	125%	----	----	----	----
MISC	100%	----	----	----	----
PHASE (TOTAL VA)		2640	1620	3480	7740
	TOTAL AMPS	22A	14A	29A	VOLT AMPS VOLTS X 1.732 = 22A TOTAL AMPS

Revels E4

EQUIPMENT WIRING SCHEDULE

EQUIPMENT	MCA	MOCP	VOLTS	PH	WIRE SIZE
GPU-1	29.0	40A	208V	3	4-#8, 1-#10 GND IN 1" CONDUIT
GPU-2	33.0	50A	208V	3	4-#8, 1-#10 GND IN 1" CONDUIT
GPU-3	33.0	50A	208V	3	4-#8, 1-#10 GND IN 1" CONDUIT
GPU-4	29.0	40A	208V	3	4-#8, 1-#10 GND IN 1" CONDUIT
GPU-5	39.0	50A	208V	3	4-#8, 1-#10 GND IN 1" CONDUIT
GPU-6	39.0	50A	208V	3	4-#8, 1-#10 GND IN 1" CONDUIT
DHP-1	9.0A	15A	208V	1	3-#12, 1-#12 GND IN 1/2" CONDUIT

NOTE:
THE ELECTRICAL CONTRACTOR SHALL VERIFY ALL EQUIPMENT ELECTRICAL REQUIREMENTS PRIOR TO ROUGH-IN AND RELEASING GEAR. ADJUST BREAKER, WIRE SIZES, ETC. AS REQUIRED.

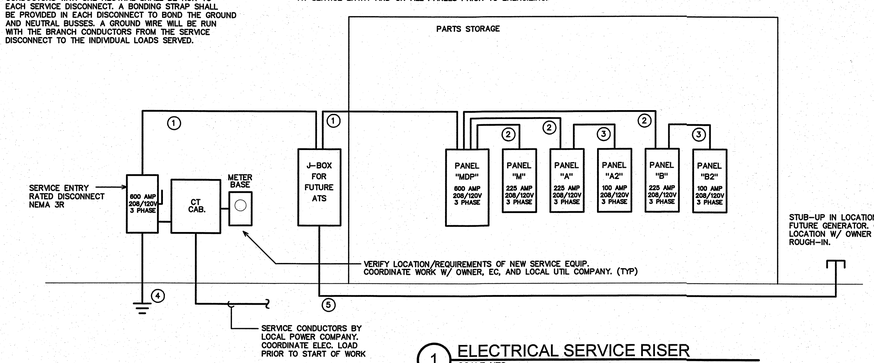
TIE SERVICE GROUNDS AND TROUGH CASE GROUND TOGETHER (PER NEC 250-58). THE TROUGH GROUND SHALL BE BONDED TO THE SERVICE NEUTRAL IN THE TROUGH. THREE SERVICE CONDUCTORS WITH ONE NEUTRAL SHALL BE RUN TO EACH SERVICE DISCONNECT. A BONDING STRAP SHALL BE PROVIDED IN EACH DISCONNECT TO BOND THE GROUND AND NEUTRAL BUSSES. A GROUND WIRE WILL BE RUN WITH THE BRANCH CONDUCTORS FROM THE SERVICE DISCONNECT TO THE INDIVIDUAL LOADS SERVED.

VERIFY AVAILABLE FAULT CURRENT AT SERVICE LOCATION WITH LOCAL POWER COMPANY. PROVIDE INFORMATION TO ENGINEER TO CALCULATE MINIMUM PANEL AIC RATING PRIOR TO RELEASING GEAR. AIC RATING ON PANELS ARE FOR PERMIT REVIEW AND PRICING ONLY. EC SHALL PROVIDE LABELING INDICATING FAULT CURRENT AT SERVICE ENTRY AND ON ALL PANELS PRIOR TO ENERGIZING.

RISER WIRING SCHEDULE

1. 600A: (2 SETS) 4-#350MCM, 1-#1 CU GND, IN (2) 3" CONDUIT
2. 225A: 4-#4/0, 1-#4 CU GND, IN 2 1/2" CONDUIT
3. 100A: 4-#3, 1-#8 CU GND, IN 1 1/4" CONDUIT
4. #3/0 CU GND TO BUILDING STEEL, FOUNDATION STEEL AND METALLIC WATER MAIN AND #6 CU GND TO 10' X 5/8" DRIVEN GROUND ROD
5. (2) 3" CONDUIT W/ PULL STRING

NOTE:
UNLESS OTHERWISE NOTED ALL OTHER CIRCUITS ARE 20A,120V. PROVIDE 2-#12, 1-#12 CU GND IN 1/2" CONDUIT.
SEE EQUIPMENT SCHEDULES FOR ADDITIONAL WIRE SIZES.



1 ELECTRICAL SERVICE RISER
SCALE: NTS

WEEKS SUMMER ARCHITECTS

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PROJECT NO.
2232

DRAWING TITLE
PANELS & RISER

E4

PLOT DATE	12/01/23
⚠ AHJ COMMENTS	11/30/23