# CHOCTAW BEACH FIRE STATION

PREPARED FOR:

# BOARD OF COUNTY COMMISSIONERS WALTON COUNTY, FLORIDA

UTILITY PROVIDERS ELECTRIC CHELCO SUNSHINE STATE ON-CALL MCI / VERIZON 605 WEST GARDEN STREET DERRICK MARSHALL 1490 E. NINE MILE RD. ORLANDO, FL 3280 PH: (800) 432-4770 112 HWY 20 WEST PENSACOLA, FL PH: (850) 835-4544 SEWER FORT WALTON BEACH, FL PH: (850) 475-7465 PH: (850) 880-6553 WATER OKALOOSA GAS DISTRICT CENTURYLINK 650 DENTON BLVD. 3542 ORANGE AVE TALLAHASSEE, FL FORT WALTON BEACH, FL FORT WALTON BEACH FL PH: (850) 544-1400

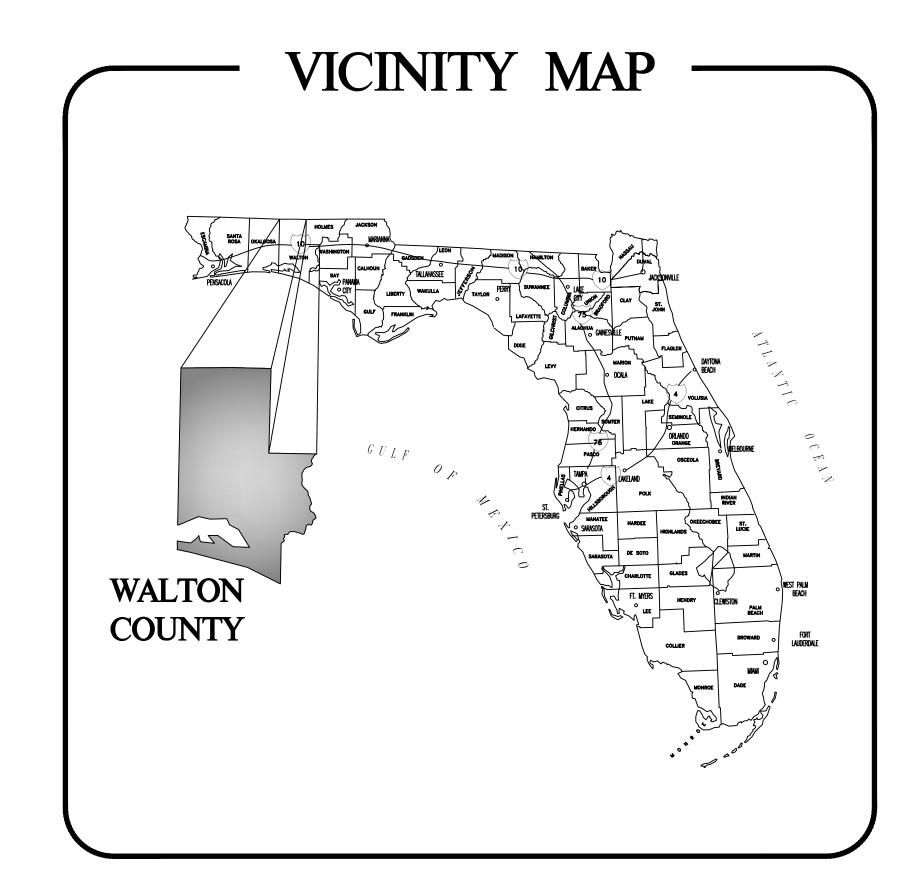
PROJECT NUMBER - 50144269 AUGUST 2023

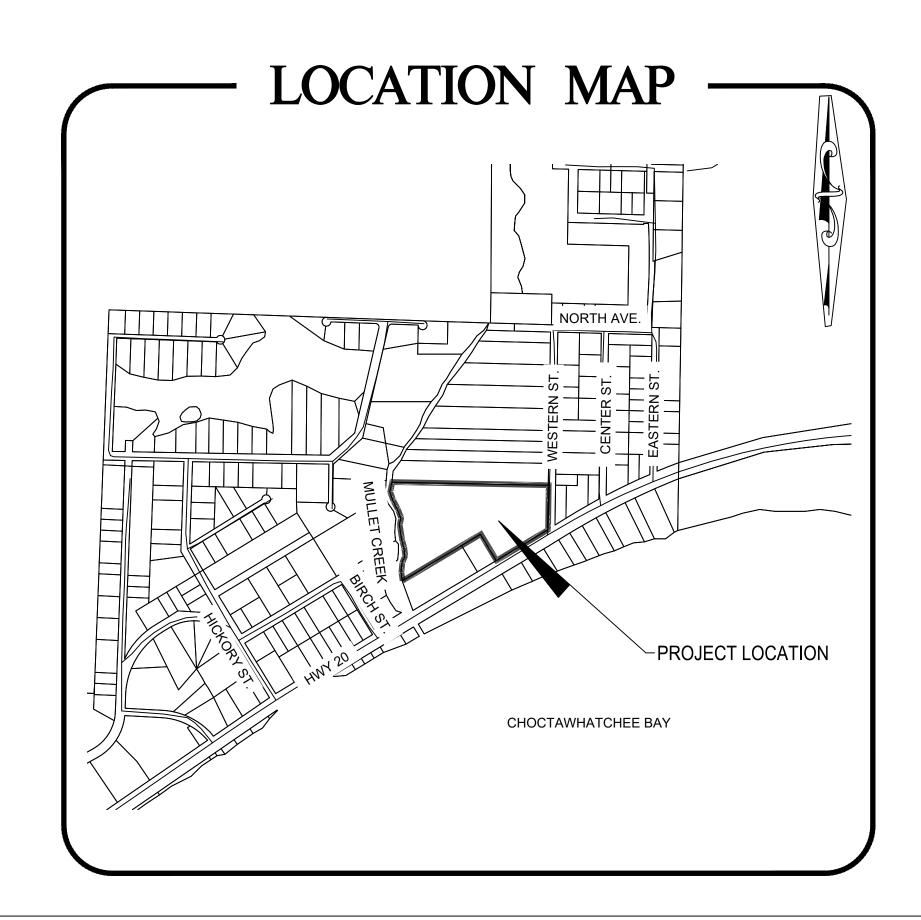
GOVERNING STANDARD PLANS:

FLORIDA DEPARTMENT OF TRANSPORTATION, FY 2020-21 STANDARD PLANS FOR ROAD AND BRIDGE CONSTRUCTION AND APPLICABLE INTERIM REVISIONS (IR'S)

STANDARD PLANS FOR ROAD CONSTRUCTION AND ASSOCIATED IR'S ARE AVAILABLE AT THE FOLLOWING WEBSITE: http://www.fdot.gov/design/standardplans

GOVERNING STANDARD SPECIFICATIONS: FLORIDA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, JANUARY 2021





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**COVER SHEET** 

PROJECT NO.

50144269

CITY OF FREEPORT

112 HWY 20 WEST

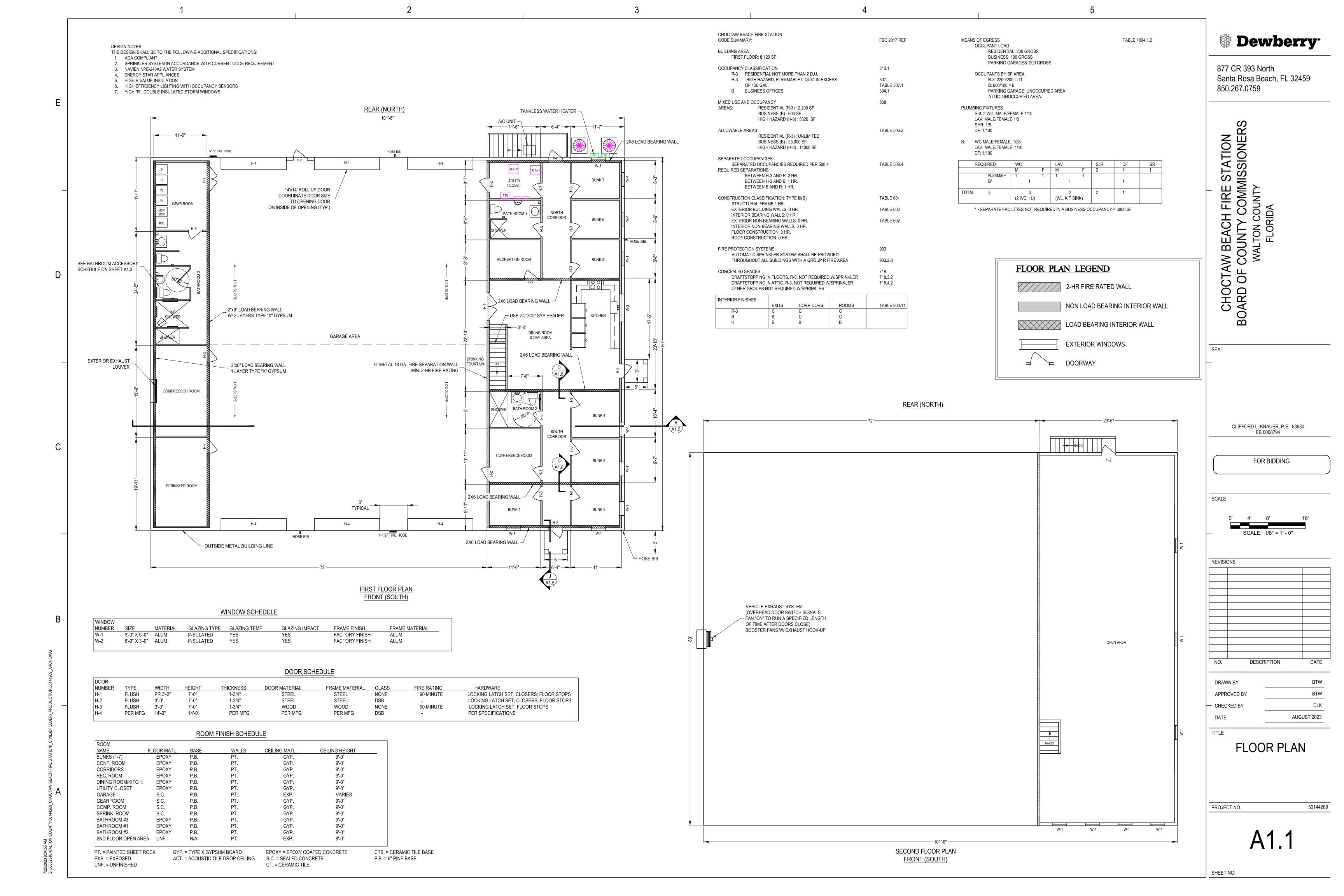
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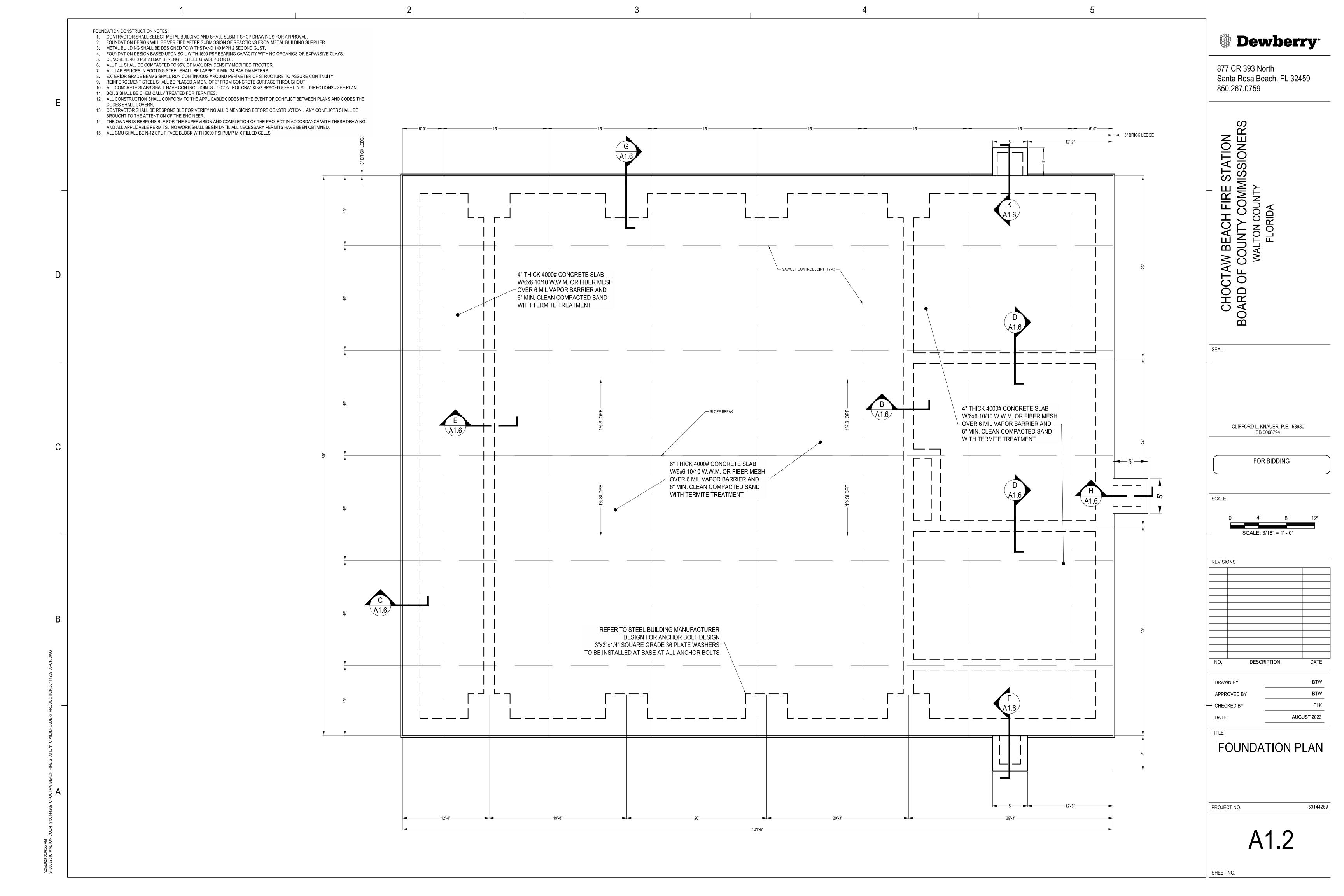
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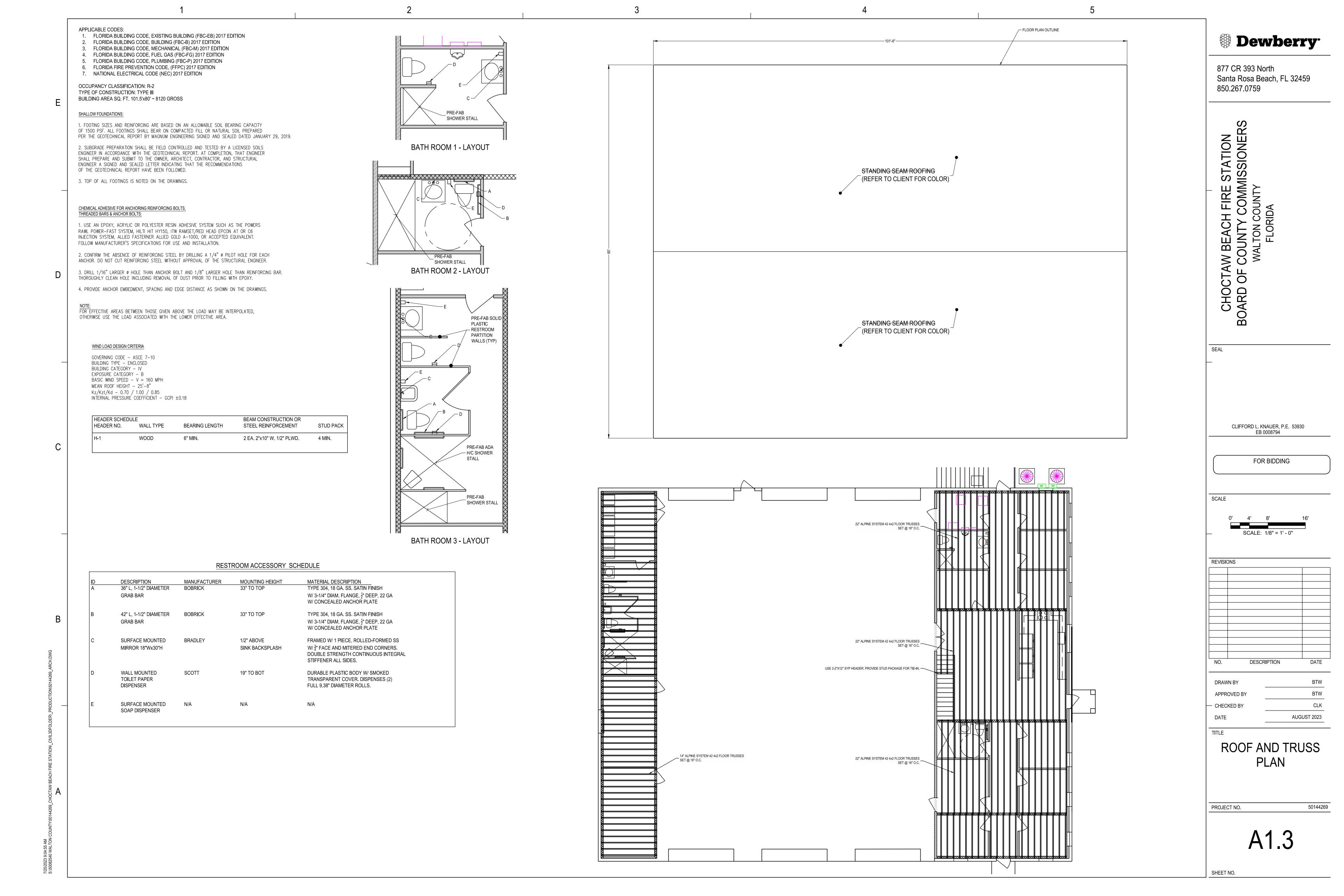
MR. GLENN BAILEY

20 HUGHES ST. NE

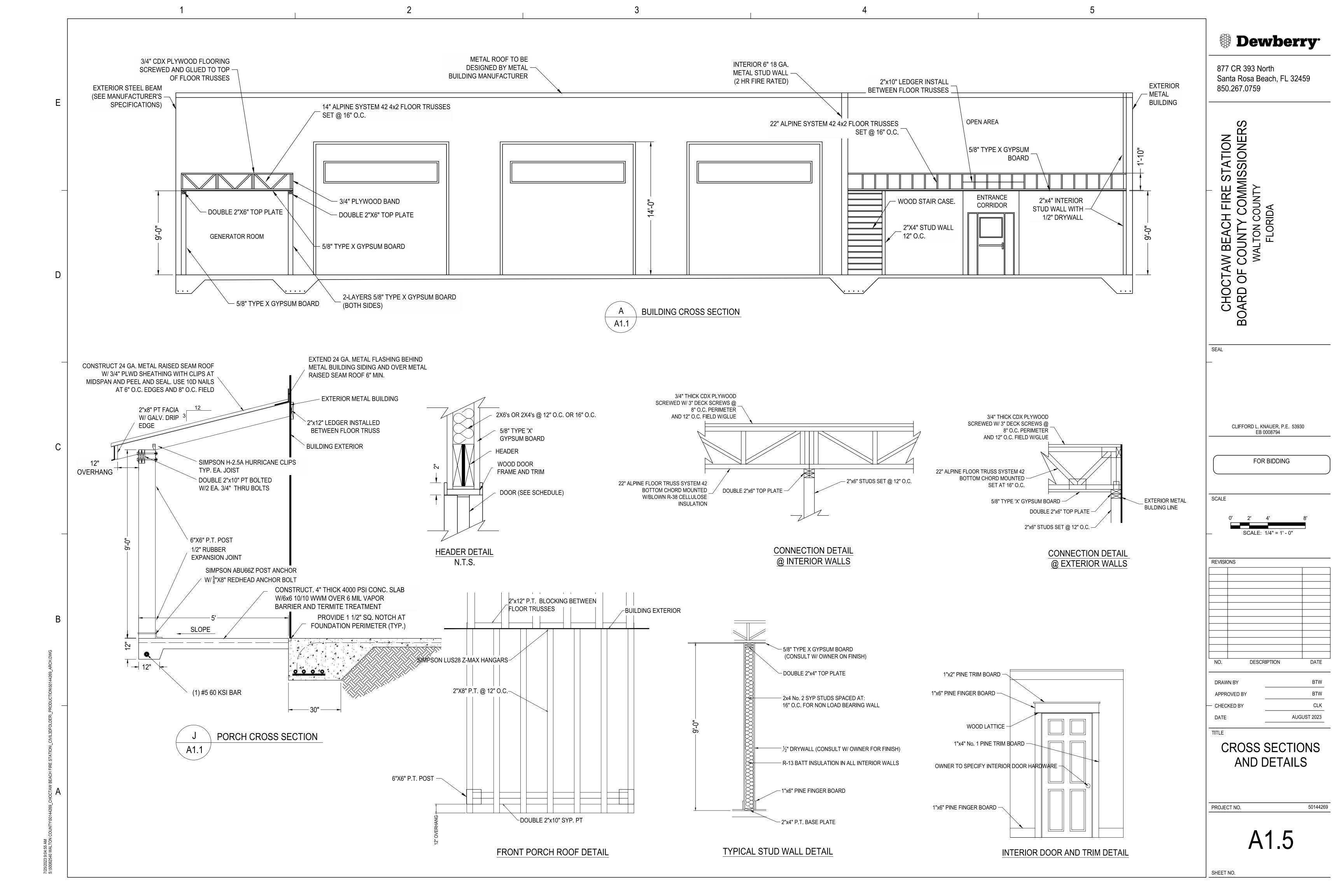
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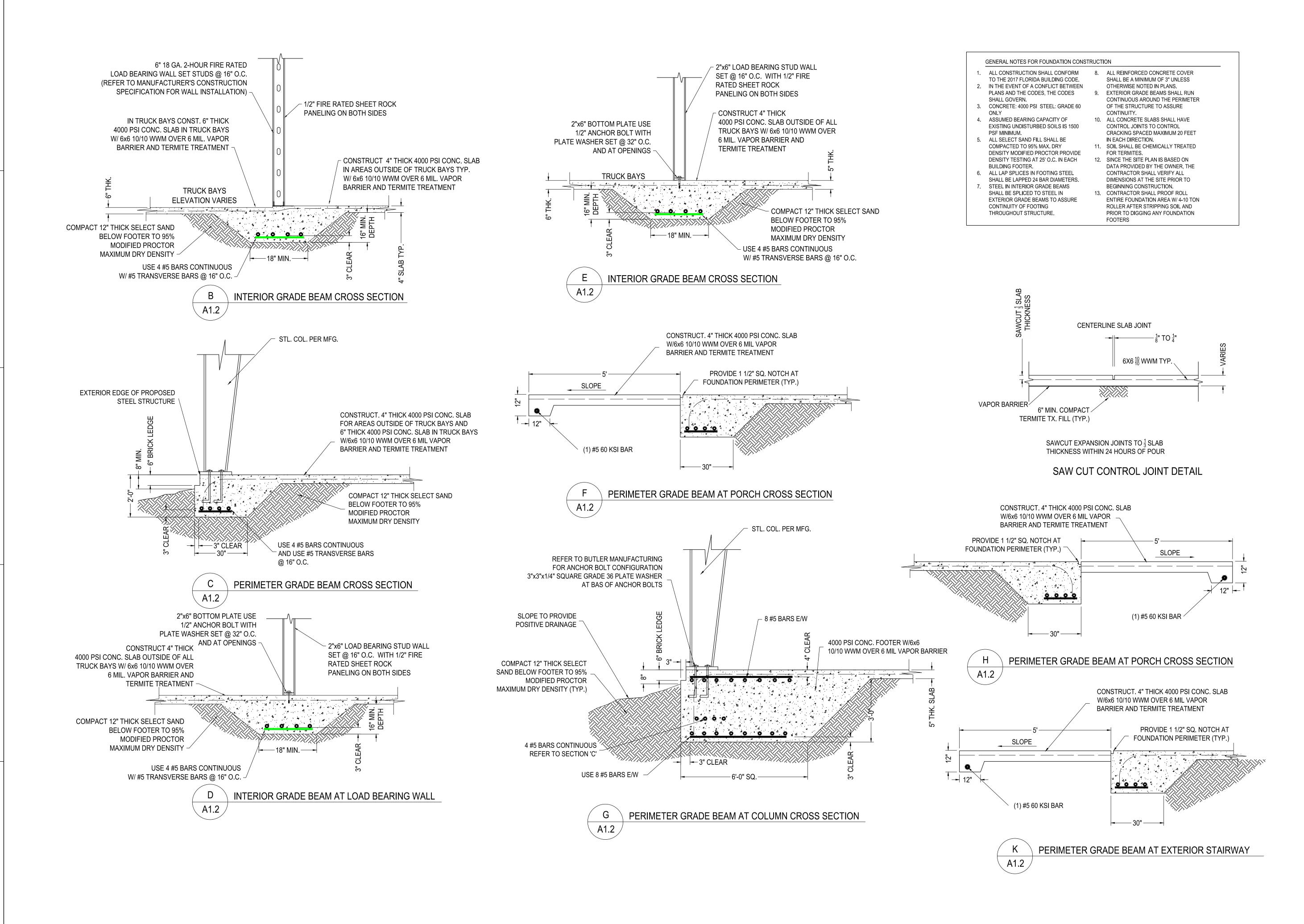












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SCALE

SEAL

0' 4' 8' 16'

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

> FOUNDATION DETAILS

PROJECT NO.

A16

50144269

1. THE "NATIONAL DESIGN SPECIFICATION FOR STRESS-GRADE LUMBER AND IT'S FASTENINGS" AND FLORIDA BUILDING CODE 2010 EDITION, AND THE NATIONAL DESIGN STANDARD FOR METAL PLATE, CONNECTED WOOD TRUSS CONSTRUCTION.

2. IN ACCORDANCE WITH RULE 61G15-31.003 OF THE FLORIDA ADMINISTRATIVE CODE THE TRUSS SYSTEM ENGINEER, A DELEGATED ENGINEER, SHALL SUBMIT SHOP DRAWINGS AND CALCULATIONS FOR REVIEW TO ARCHITECT / ENGINEER FOR THE ASSEMBLAGE OF PREFABRICATED, ENGINEERED WOOD TRUSSES AND TRUSS GIRDERS, TOGETHER WITH ALL BRACING, CONNECTIONS AND OTHER STRUCTURAL ELEMENTS AND ALL SPACING AND LOCATION CRITERIA (TRUSS PLACEMENT PLAN), THAT, IN COMBINATION, FUNCTION TO SUPPORT THE DEAD, LIVE AND WIND LOADS APPLICABLE TO THE ROOF TRUSS SYSTEM, THE TRUSS SYSTEM DOES NOT INCLUDE WALLS, OR ANY OTHER STRUCTURAL SUPPORT SYSTEMS. THESE SHOP DRAWINGS AND CALCULATIONS SHALL BE SIGNED AND SEALED BY THE TRUSS SYSTEM

3. IN ACCORDANCE WITH RULE 61G15-31.003 OF THE FLORIDA ADMINISTRATIVE CODE, THE TRUSS DESIGN ENGINEER, A DELEGATED ENGINEER, SHALL DESIGN THE INDIVIDUAL TRUSSES OF THE TRUSS SYSTEM, BUT DOES NOT DESIGN THE TRUSS SYSTEM. THE TRUSS DESIGN ENGINEER SHALL SUBMIT SHOP (PIECE) DRAWINGS AND CALCULATIONS FOR EACH DIFFERENT TRUSS AND TRUSS GIRDER THAT TOGETHER COMPRISE THE TRUSS SYSTEM. THESE SHOP DRAWINGS AND CALCULATIONS SHALL BE SIGNED AND SEALED BY THE TRUSS DESIGN ENGINEER.

4. THE TRUSS SYSTEM ENGINEER AND THE TRUSS DESIGN ENGINEER SHALL EACH BE RESPONSIBLE FOR THEIR OWN WORK. HOWEVER, THEY MAY BE THE SAME INDIVIDUAL PROVIDING TWO SEPARATE SERVICES.

5. THE LOADS, LAYOUTS AND CONNECTIONS PROVIDED ON THE STRUCTURAL CONSTRUCTION DOCUMENTS ARE THE MINIMUMS TO BE FOLLOWED BY THE TRUSS SYSTEM ENGINEER AND THE TRUSS DESIGN ENGINEER.

6. USE STRESS-RATED TIMBER FOR ALL WOOD STRUCTURAL MEMBERS. USE WOOD STRUCTURAL MEMBERS WITH A MINIMUM BENDING STRESS OF 1200 PSI & MODULUS OF ELASTICITY NOT LESS THAN 1,400,000 PSI WHEN USED AT 19% MAXIMUM MOISTURE CONTENT.

7. PRESSURE TREATMENT OF ALL STRUCTURAL LUMBER SHALL BE IN ACCORDANCE WITH AWPA STANDARDS C1 AND C2, LATEST EDITIONS WITH A WATERBORNE PRESERVATIVE IN ACCORDANCE WITH STANDARD P5, LATEST EDITION. ALL LUMBER TO BE KILN-DRIED AFTER TREATMENT TO A MOISTURE CONTENT NOT TO EXCEED 19% OVEN-DRY BASIS, PER STANDARD C2. ALL LUMBER LESS THAN 4"x4" (NOMINAL SIZE) TO BE TREATED TO THE ABOVE GROUND REQUIREMENTS OF C2.

8. ANCHOR ROOF TRUSSES TO TOP PLATE W/ H-10 TRUSS CLIPS TYP.

9. SUBMIT SHOP DRAWINGS AND CALCULATIONS FOR REVIEW TO ARCHITECT/ENGINEER FOR PRE-FABRICATED, ENGINEERED WOOD TRUSSES SHOWING ALL MATERIALS, CONNECTIONS, ERECTION PROCEDURE, BRACING, BRIDGING, ATTACHMENT TO THE STRUCTURE, DESIGN LOADS (INCLUDING CONCENTRATED LOADS DUE TO EQUIPMENT, ETC.). SHOP DRAWINGS AND CALCULATIONS SHALL BE PREPARED, BY OR UNDER THE SUPERVISION OF AND SIGNED AND SEALED BY A DELEGATED ENGINEER, SEE NOTES "SHOP DRAWINGS AND OTHER SUBMITTALS".

10. THE DESIGN AND ERECTION OF WOOD TRUSSES, INCLUDING PERMANENT BRACING, SHALL CONFORM TO THE COMMENTARY AND RECOMMENDATIONS OF THE TRUSS PLATE INSTITUTE. THESE CALCULATIONS ARE TO BE PROVIDED BY THE TRUSS MANUFACTURER AND SUBMITTED AS STATED PREVIOUSLY ON THIS DRAWING. IN ADDITION TO CONTINUOUS LATERAL BRACING OF TOP AND BOTTOM CHORDS (DESIGNED BY DELEGATED ENGINEER BUT SPACED NOT MORE THAN 10'-0" O.C.). PROVIDE DIAGONAL BRACING (MIN. 2" THICK NOMINAL LUMBER) AS

A. IN THE PLANE OF THE TOP CHORD - LOCATE BETWEEN LATERAL BRACING. SET AT 45° ANGLES.REPEAT AT MAX 20'-0" INTERVALS.

B. IN THE PLANE OF THE WEB MEMBERS (PERPENDICULAR TO TRUSSES) - AT EACH WEB MEMBER REQUIRING CONTINUOUS LATERAL BRACING BUT NOT MORE THAN 16'-0" INTERVALS, SPACING BETWEEN SETS OF DIAGONALS SHALL NOT EXCEED 20'-0" OR TWICE THE HORIZONTAL RUN AT THE DIAGONAL.

C. IN THE PLANE OF THE BOTTOM CHORD - PLACE BETWEEN CONTINUOUS LATERAL BRACING AT 45° ANGLES AT EACH END OF BUILDING.

D. ANCHOR ALL DIAGONAL BRACING TO REINFORCED MASONRY WALLS OR REINFORCED CONCRETE MEMBERS WITH PRE-FABRICATED (MIN. 12 gg) GALVANIZED STEEL STRAPS OR FRAMING CONNECTORS. FASTEN STRAPS TO MASONRY WITH 2 1/2" MASONRY ANCHORS OR (4) .17" Øx1 1/2" POWDER DRIVEN PINS IF INTO CONCRETE AND TO WOOD MEMBERS WITH NOT LESS THAN (6) 16d NAILS.

11. MINIMUM DESIGN LOADS FOR ROOF TRUSSES: 50 PSF LIVE LOAD TOP CHORD TOP CHORD 10 PSF DEAD LOAD PSF DEAD LOAD BOTTOM CHORD SEE ROOF FRAMING PLAN FOR NET WIND UPLIFT LOAD & WIND PRESSURES BASED ON ASCE7. THE WEIGHT OF ROOFING & CEILING MAY NOT BE USED TO REDUCE WIND UPLIFT LOADS.

WOOD FRAMING & SHEATHING

1. WOOD CONSTRUCTION SHALL COMPLY WITH AF & PA NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION AND CHAPTER 23 OF FBC.

2. MANUFACTURED LUMBER, S4S AND GRADESTAMPED, TO COMPLY WITH PS20 AND APPLICABLE GRADING RULES OF INSPECTION AGENCIES CERTIFIED BY ALSC'S BOARD OF REVIEW.

3. PROVIDE SEASONED LUMBER WITH 19% MOISTURE CONTENT AT THE TIME OF DRESSING AND SHIPMENT, FOR SIZES 2" OR LESS IN THICKNESS.

4. COMPLY WITH "DESIGN SPECIFICATION FOR METAL PLATE CONNECTED ROOF TRUSSES".

5. ALL STRUCTURAL LUMBER TO BE MIN SOUTHERN YELLOW PINE NO. 2 S4S, GRADESTAMPED. ALL OTHER LUMBER PER ARCHITECTURAL SPECIFICATIONS.

6. USE LUMBER WITH MINIMUM Fb 1050 / 1200 PSI FOR SINGLE/REPETITIVE USE AND A MOULES OF ELASTICITY, "E" OF 1,200,000 PSI (FOR WALLS AND BEAMS). PARALLEL STRAND LUMBER SHALL HAVE MINIMUM Fb 2900 PSI, Ex2,000,000 PSI & Fv x 290 PSI. EXTERIOR STUD WALLS TO BE CONSTRUCTED USING TIMBERSTRAND LSL.

7. AT ALL BUILT-UP WOOD AND BEAM BEARING LOCATIONS A MINIMUM OF (4) 2x6 STUD MEMBERS TO BE USED U.O.N.

8 MICRO-LAM LVL BEAMS USED AS MULTIPLE ASSEMBLY BEAMS TO BE CONNECTED WITH 3 ROWS OF 16d NAILS @ 12" O.C.

9. ONE PIECE OF 3 1/2" THICK MICRO-LAM LVL MAY BE SUBSTITUTED FOR TWO PIECES OF 1 3/4".

10. THE INDIVIDUAL STUDS OF BUILT-UP COLUMNS TO BE ADEQUATELY FASTENED TO DEVELOP COMPOSITE ACTION OF THE ASSEMBLY.

11. DO NOT SPLICE STRUCTURAL MEMBERS BETWEEN SUPPORTS, U.O.N.

12. AT ALL BUILT-UP WOOD COLUMNS USE (2) HUGHES AS 5B ANCHOR TIE DOWNS OR EQUIV. AT BASE AND AT TOP OF BUILT-UP COLUMN. BEAMS OR TRUSS GIRDERS BEARING ON BUILT-UP COLUMNS TO BE ANCHORED W/WWUC WOOD TO WOOD UPLIFT CONNECTOR.

13. USE MANUFACTURERS REQUIRED SIZE AND NUMBER OF NAILS OR BOLTS FOR ANCHOR TIE DOWNS, HURRICANE CLIPS AND ALL CONNECTORS.

14. SECURELY ATTACH CARPENTRY WORK TO SUBSTRATES AND SUPPORTING MEMBERS USING FASTENERS OF SIZE THAT WILL NOT PENETRATE MEMBERS WHERE THE OPPOSITE SIDE WILL BE EXPOSED TO VIEW OR RECEIVE FINISH MATERIALS.

15. 3/4" PLYWOOD ROOF SHEATHING TO BE APA RATED 32/16 EXPOSURE I NAILED TO SUPPORTING MEMBERS WITH 10d NAILS @ 8" O.C. AND 4" O.C. ALONG THE EDGES. PROVIDE 1/16"SPACE AT END JOIST AND 1/8" AT EDGE JOINTS. PROVIDE PLY CLIPS ALONG EDGE JOINT AT MID SPAN BETWEEN

16. 3/4" PLYWOOD WALL SHEATHING TO BE NAILED TO WALL STUDS WITH 10d NAILS @ 8" O.C. AND 4" O.C. ALONG THE EDGES WITH CLIPS.

17. GYPSUM WALL SHEATHING AT EXTERIOR WALLS, LOAD BEARING WALLS AND INTERIOR WALLS INTERSECTING WALLS TO BE BLOCKED AND SECURED TO STUDS WITH DRYWALL NAILS AT 7" O.C. AND 4" O.C. ALONG THE EDGES.

18. PROVIDE CONT. LATERAL BRACING AND/OR BLOCKING BETWEEN CHORDS OF TRUSSES AS REQUIRED OR AS NOTED BY TRUSS MANUFACTURER TO ADEQUATELY TRANSFER LOADS TO

19. CONTRACTOR TO VERIFY THAT HURRICANE CLIPS/TIE DOWNS SHOWN WILL RESIST WIND UPLIFT FROM ROOF TRUSSES. IF UPLIFT VALUE FROM ROOF TRUSS MANUFACTURER EXCEEDS CAP, OF THE HURRICANE CLIPS/TIE DOWN, THE CONTRACTOR SHALL PROVIDE A CONNECTOR TO SAFELY RESIST THE UPLIFT LOADS.

20. PLACE FLAT STRAPPING BETWEEN STUDS AT ENDS OF ALL BEAM BEARING LOCATIONS, W/ 1 1/4"x30"x16 GA FLAT STRAP W/ (24) 10d NAILS TO BE PLACED AT ENDS OF BUILT-UP WOOD

21. ANCHOR BOLTS TO BE 1/2"x10" LONG W/ 2" SQ. WASHERS & SPACED 24" O.C. U.O.N. FIRST ANCHOR BOLT IS TO BE PLACED MAX 4" FROM EACH CORNER.

22. EXTERIOR END WALLS AT VAULTED OR CATHEDRAL CEILING LOCATIONS TO BE BALLOON FRAMED FROM SILL PLATE TO ROOF DIAPHRAGM.

23. PROVIDE THREADED ROD TIE-DOWN SYSTEM AT LOCATIONS NOTED ON PLANS.

24. ALL PRESSURE TREATED LUMBER TO BE ALKALINE COPPER QUAT (ACQ) TREATED, KILN DRIED AND CONNECTED WITH STAINLESS STEEL FASTENERS.

25. ALL CONNECTORS AND PLATES SHALL BE STAINLESS STEEL U.O.N. TRUSS PLATES AT INTERIOR LOCATIONS MAY BE GALVANIZED.

26. AT ENDS OF ALL SHEAR WALLS PLACE MIN. (3) BUILT-UP STUD GROUP. INSTALL SIMPSON HD101 HOLDDOWN ANC. AT BUILT-UP STUD GROUP ENDS OF SHEAR WALLS TO PROVIDE CONTINUOUS LOAD PATH FROM FRAMING LEVEL TO PRE-CAST BEAM LEVEL.

27. EXTERIOR WALLS TO BE FRAMED WITH TIMBERSTRAND LSL WALL STUDS AT ALL LOCATIONS. PROVIDE 1 ROW OF TIMBERSTRAND LSL BLKG. FOR WALLS UP TO 14' HIGH AND 2 ROWS FOR WALLS GREATER THAN 14' HIGH, NAIL STUDS TO PLATES W/ (3) 16d (3 1/2") END NAILS. 2x6 MEMBERS @ 12" O.C. TO BE USED FOR WALLS UP TO 14'-0". FOR END WALLS AND GABELS PROVIDE 3x6 MEMBERS @ 12" O.C.

28. THE ENGINEER SHOULD BE NOTIFIED OF ANY DEVIATIONS FROM THE PLANS OR TRUSS SHOP

29. PERMANENT TRUSS BOTTOM CHORD LATERAL BRACING, CONSISTING OF 2x4 GRADE MARKED LUMBER. NAILED W/ MIN. (2) 16d NAILS PER TRUSS AND LAPPED AT LEAST TWO TRUSSES, SHALL BE SPACED NO GREATER THAN 15'-0".

30. PRE-ENGINEERED TRUSS BRACING PER TRUSS MANUFACTURER TO BE A MINIMUM OF 2x4 OF THE SAME SPECIES AS TRUSS.

31. CEILING TO BE A MINIMUM OF 1/2" GYPSUM WITH 5d COOLER NAILS OR GWB-54 1 1/2" NAILS INSTALLED AT 10" O.C. AND 7" ALONG EDGES.

32. ALL TIMBER PRODUCTS SHALL BE INSPECTED IN ACCORDANCE WITH SECTION 951 AND SHALL MEET SPECIFICATIONS UNDER SECTION 952, 953, 954, AND 955 OF THE 2013 FDOT STANDARD SPECIFICATIONS.

33. CONTRACTOR MAY USE ALTERNATE STRAP AND ANCHOR MANUFACTURER FOR CONNECTIONS AND SHALL SUBMIT SHOP DRAWINGS TO STRUCTURAL ENGINEER OF RECORD FOR APPROVAL.

CONCRETE MASONRY

1. CONSTRUCT MASONRY IN ACCORDANCE WITH SPECIFICATION SECTIONS 04200 AND 04230, ACI 530/ASCE 5, "BUILDING CODE REQUIREMENTS FOR CONCRETE M530.1 / ASCE 6,"SPECIFICATIONS FOR THE DESIGN AND CONSTRUCTION OF LOAD BEARING CONCRETE MASONRY".

2. THE STRUCTURE IS SUPPORTED BY BEARING WALLS, U.O.N. ERECT MASONRY PRIOR TO CASTING CONCRETE COLUMNS WITHIN BEARING WALLS OR CASTING BEAMS AND SLABS SUPPORTED BY BEARING WALLS.

3. USE 50% SOLID, NOMINAL 8X8X16, CONCRETE MASONRY UNITS CONFIRMING TO ASTM C90. LAY UP UNITS IN RUNNING BOND. SAWCUT UNITS WHICH ARE NOT IN MULTIPLES OF 8". UNITS SHALL BE AT LEAST 8" LONG. BAND CORNERS BY LAPPING ENDS 8" IN SUCCESSIVE VERTICAL COURSES. DESIGN OF WALLS IS BASED ON A F'M OF 1500 PSI.

4. USE TYPE S MORTAR IN ACCORDANCE WITH ASTM C270 EXCEPT USE TYPE M MORTAR BELOW GRADE. HEAD AND BED JOINTS SHALL BE 3/8" FOR THE THICKNESS OF THE FACE SHELL. WEBS ARE TO BE FULLY MORTARED IN ALL COURSES OF PIERS, COLUMNS AND PILASTERS, IN THE STARTING COURSE, AND WHERE AN ADJACENT CELL IS TO BE GROUTED. REMOVE MORTAR PROTRUSIONS EXTENDING 1/2" OR MORE INTO CELLS TO BE GROUTED.

5. USE STANDARD (9 GAGE) HORIZONTAL JOINT REINFORCING CONFORMING TO ASTM A-82 IN EVERY OTHER COURSE. OVERLAP DISCONTINUOUS ENDS 6". USE PREFABRICATED CORNERS. USE TRUSS TYPE, EXCEPT USE LADDER TYPE IN WALLS WITH VERTICAL REINFORCING. EXTEND JOINT REINFORCING A MINIMUM OF 4" INTO TIE COLUMNS.

6. USE FINE GROUT CONFORMING TO ASTM C-476, WITH A MINIMUM COMPRESSIVE STRENGTH OF 2500 PSI IN 28 DAYS. AGGREGATE TO CONFORM TO ASTM C404 FOR FINE GROUT, WITH SLUMP OF 8" TO 10". GROUT ALL MASONRY CELLS. ALLOW MORTAR TO CURE 24 HOURS PRIOR TO GROUTING. PROVIDE CLEANOUT OPENINGS AT THE BASE OF CELLS CONTAINING REINFORCING STEEL TO CLEAN THE CELL AND TO TIE THE VERTICAL BAR TO THE DOWEL. IN HIGH-LIFT GROUTING, USE 5'-0" (MAXIMUM) LIFTS, WITH 1/2" HOUR TO 1 HOUR BETWEEN LIFTS. VIBRATE EACH LIFT AND RECONSOLIDATE THE PREVIOUS LIFT.

7. USE ASTM A-615 GRADE 60 REINFORCING STEEL. REINFORCE WALLS WHERE INDICATED ON THE DRAWINGS AND AT ALL INTERSECTIONS, EACH SIDE OF OPENINGS AND AT THE ENDS OF WALLS. USE BAR SPACERS AT 10'-0" O.C. WHERE GROUT POUR HEIGHT EXCEEDS 10'-0".

8. AT BOND/TIE BEAM CORNERS AND INTERSECTIONS, PLACE 1 #5 X 5'-0" T & B CORNER BAR,

WITH 30" LEGS EACH WAY, AT THE EXTERIOR FACE.

9. BEAMS NOT SCHEDULED ARE MINIMUM 8" X 12" TIE BEAMS WITH 2 #5 BARS TOP AND BOTTOM AND #3 TIES SPACED AT 48" O.C. TYPICAL AND 4 TIES AT 12" O.C. AT ENDS AND INTERSECTIONS, U.O.N. COLUMNS NOT SCHEDULED ARE MINIMUM 8" X 12" TIE COLUMNS WITH 4 #5 VERTICAL BARS AND #2 TIES AT 12" O.C. USE 30" LAP SPLICES. HOOK ALL BARS AT DISCONTINUOUS ENDS.

10. REINFORCED MASONRY WALL CONSTRUCTION SHALL BE INSPECTED BY AN ENGINEER OR ARCHITECT IN ACCORDANCE WITH ACI 530.1/ASCE 6.

11. WHERE ANCHOR BOLTS, WEDGE ANCHORS OR ANCHORS SET IN EPOXY ARE SET IN A MASONRY WALL, FILL CELLS WITH GROUT FOR BOLTED COURSE, ONE COURSE ABOVE AND TWO COURSES BELOW.

12. PROVIDE LINTELS OR HEADERS WITH MINIMUM 8" BEARING OVER ALL MASONRY OPENINGS.

13. USE PRESSURE TREATED WOOD FOR WOOD IN CONTACT WITH MASONRY.

14. ALL CELLS SHALL BE SOLID FILLED W/ GROUT CONFORMING TO ASTM C-476.

15. ALL P.T. FURRING SHALL BE ANCHORED W/ 2 1/2" TAPCON SCREWS @ 16" O.C. TYP.

SHALLOW FOUNDATIONS:

1. ALL CONSTRUCTION SHALL CONFORM TO THE 2017 FLORIDA BUILDING CODE.

2. IN THE EVENT OF A CONFLICT BETWEEN PLANS AND THE CODES, THE CODES SHALL GOVERN.

3. CONCRETE: 3500 PSI STEEL: GRADE 60 ONLY

4. FOUNDATION DESIGN, SOIL PREPARATION AND COMPACTION ARE ASSUMED 1500 PSI BEARING CAPACITY.

5. ALL SELECT SAND FILL SHALL BE COMPACTED TO 95% MAX. DRY DENSITY MODIFIED PROCTOR PROVIDE DENSITY TESTING AT 25' O.C. IN EACH BUILDING FOOTER.

6. ALL LAP SPLICES IN FOOTING STEEL SHALL BE LAPPED 24 BAR DIAMETERS.

7. STEEL IN INTERIOR GRADE BEAMS SHALL BE SPLICED TO STEEL IN EXTERIOR GRADE BEAMS TO ASSURE CONTINUITY OF FOOTING THROUGHOUT STRUCTURE.

8. ALL REINFORCED CONCRETE COVER SHALL BE A MINIMUM OF 3" UNLESS OTHERWISE NOTED ON PLANS.

9. EXTERIOR GRADE BEAMS RUN CONTINUOUS AROUND THE PERIMETER OF THE STRUCTURE TO ASSURE CONTINUITY.

10. ALL CONCRETE SLABS SHALL HAVE CONTROL JOINTS TO CONTROL CRACKING SPACED MAXIMUM 25 FEET IN EACH DIRECTION.

11. SOIL SHALL BE CHEMICALLY TREATED FOR TERMITES.

12. SINCE SITE PLAN IS BASED ON DATA PROVIDED BY THE OWNER, THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AT THE SITE PRIOR TO BEGINNING CONSTRUCTION.

CHEMICAL ADHESIVE FOR ANCHORING REINFORCING BOLTS, THREADED BARS & ANCHOR BOLTS

1. USE AN EPOXY, ACRYLIC OR POLYESTER RESIN ADHESIVE SYSTEM SUCH AS THE POWERS RAWL POWER-FAST SYSTEM, HILTI HIT HY150, ITW RAMSET/RED HEAD EPCON AT OR C6 INJECTION SYSTEM, ALLIED FASTERNER ALLIED GOLD A-1000, OR ACCEPTED EQUIVALENT. FOLLOW MANUFACTURER'S SPECIFICATIONS FOR USE AND INSTALLATION.

2. CONFIRM THE ABSENCE OF REINFORCING STEEL BY DRILLING A 1/4" Ø PILOT HOLE FOR EACH ANCHOR. DO NOT CUT REINFORCING STEEL WITHOUT APPROVAL OF THE STRUCTURAL ENGINEER.

3. DRILL 1/16" LARGER Ø HOLE THAN ANCHOR BOLT AND 1/8" LARGER HOLE THAN REINFORCING BAR. THOROUGHLY CLEAN HOLE INCLUDING REMOVAL OF DUST PRIOR TO FILLING WITH EPOXY.

4. PROVIDE ANCHOR EMBEDMENT, SPACING AND EDGE DISTANCE AS SHOWN ON THE DRAWINGS.

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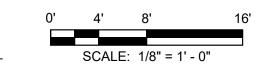
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**GENERAL NOTES** 

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AUGUST 2023

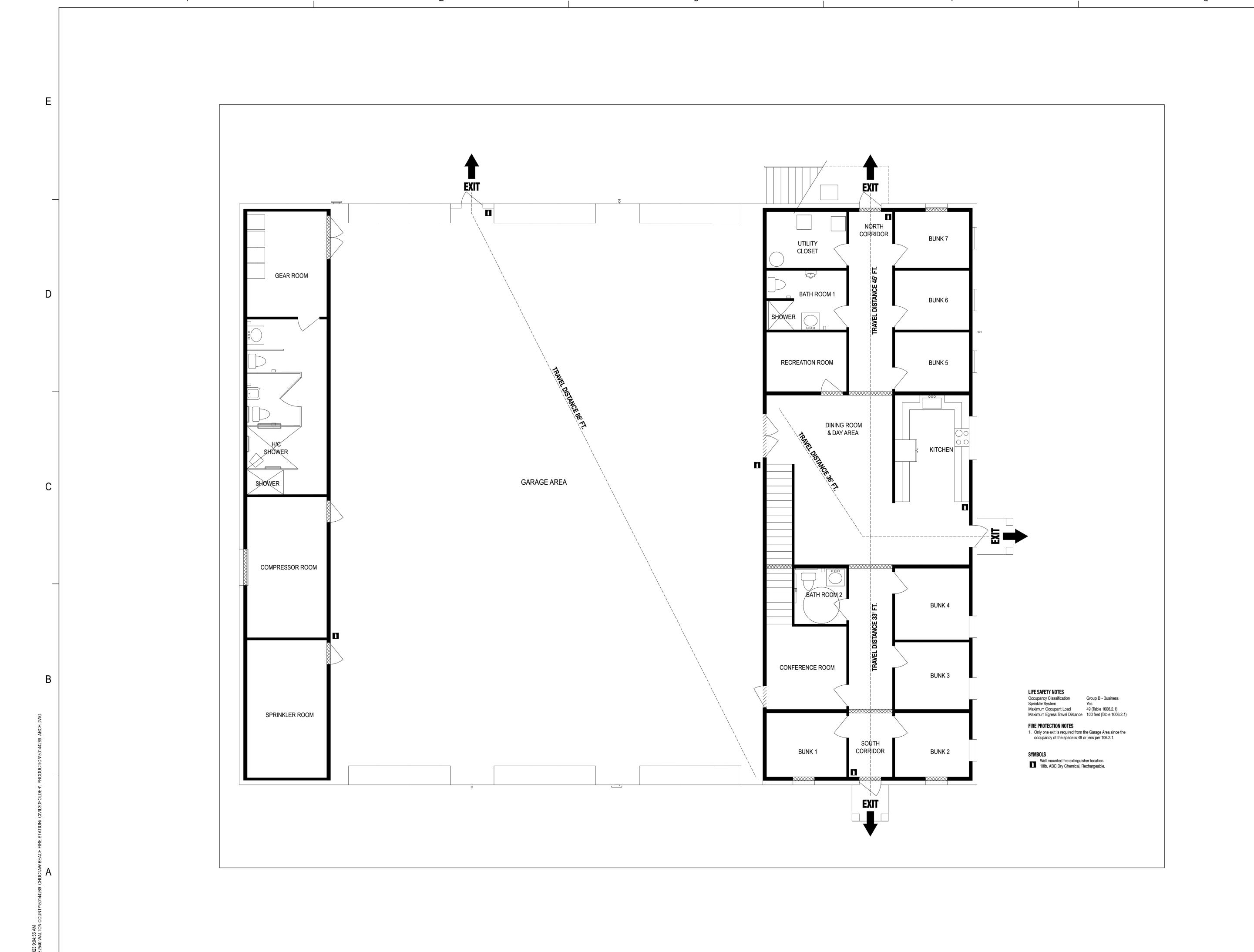
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WALTON COUNTY
FLORIDA

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AUGUST 2023

DESCRIPTION

LIFE SAFETY PLAN

PROJECT NO. 50144269

A1.8

- ELECTRICAL COMPONENTS, DEVICES, AND ACCESSORIES: NEW, LISTED AND LABELED AS DEFINED IN NFPA 70, ARTICLE 100, BY A TESTING AGENCY ACCEPTABLE TO AUTHORITIES HAVING JURISDICTION, AND MARKED FOR INTENDED
- 2. IDENTIFICATION DEVICE COLORS: USE THOSE PRESCRIBED BY ANSI A13.1, NFPA 70, AND THESE SPECIFICATIONS.
- COLORED ADHESIVE MARKING TAPE FOR RACEWAYS, WIRES, AND CABLES: SELF-ADHESIVE VINYL TAPE, NOT LESS THAN 1 INCH WIDE BY 3 MILS THICK (25
- MM WIDE BY 0.08 MM THICK). TAPE MARKERS FOR CONDUCTORS: VINYL OR VINYL-CLOTH, SELF-ADHESIVE,
- WRAPAROUND TYPE WITH PREPRINTED NUMBERS AND LETTERS. ENGRAVED-PLASTIC LABELS, SIGNS, AND INSTRUCTION PLATES: ENGRAVING STOCK, MELAMINE PLASTIC LAMINATE PUNCHED OR DRILLED FOR MECHANICAL FASTENERS 1/16-INCH (1.6-MM) MINIMUM THICKNESS FOR SIGNS UP TO 20 SQ. IN. (129 SQ. CM) AND 1/8-INCH (3.2-MM) MINIMUM THICKNESS FOR LARGER SIZES. ENGRAVED LEGEND IN BLACK LETTERS ON WHITE BACKGROUND.
- 6. PULL STRINGS: PROVIDE PULL STRINGS IN ALL SPARE OR EMPTY CONDUITS AND
- COORDINATE NAMES, ABBREVIATIONS, COLORS, AND OTHER DESIGNATIONS USED FOR ELECTRICAL IDENTIFICATION WITH CORRESPONDING DESIGNATIONS INDICATED IN THE CONTRACT DOCUMENTS OR REQUIRED BY CODES AND STANDARDS. USE CONSISTENT DESIGNATIONS THROUGHOUT PROJECT.
- CUT, CHANNEL, CHASE, AND DRILL WALLS, PARTITIONS, CEILINGS, AND OTHER SURFACES REQUIRED TO PERMIT ELECTRICAL INSTALLATIONS. PERFORM CUTTING BY SKILLED MECHANICS OF TRADES INVOLVED. SLEEVE ALL CABLE PENETRATIONS OF WALLS. SEAL ALL CONDUIT PENETRATIONS.
- 9. REPAIR, REFINISH AND TOUCH UP DISTURBED FINISH MATERIALS AND OTHER SURFACES TO MATCH ADJACENT UNDISTURBED SURFACES.
- 10. ALL WORK SHALL COMPLY WITH ALL CODES & STANDARDS LISTED ON THE PLANS. WITHIN 30 DAYS OF NOTICE TO PROCEED, CONTRACTOR SHALL ARRANGE AND ATTEND A MEETING ON-SITE WITH A REPRESENTATIVE OF THE UTILITY TO COORDINATE REQUIREMENTS AND SCHEDULING OF INSTALLATION OF NEW SERVICE.

### GROUNDING AND BONDING

- 1. EQUIPMENT GROUNDING CONDUCTORS: COMPLY WITH NFPA 70, ARTICLE 250, FOR TYPES, SIZES, AND QUANTITIES OF EQUIPMENT GROUNDING CONDUCTORS, UNLESS SPECIFIC TYPES, LARGER SIZES, OR MORE CONDUCTORS THAN REQUIRED BY NFPA 70 ARE INDICATED.
- INSTALL INSULATED EQUIPMENT GROUNDING CONDUCTORS IN ALL FEEDERS AND BRANCH CIRCUITS.
- 3. ALL GROUNDING CONDUCTORS SHALL BE COPPER; COMPLY WITH DIVISION 16 SECTION "CONDUCTORS AND CABLES" AND ASTM B, AS APPLICABLE.
- 4. EQUIPMENT GROUNDING CONDUCTORS: INSULATED WITH GREEN-COLORED INSULATION.

## CONDUCTORS AND CABLES

- 1. CONDUCTOR MATERIAL: COPPER COMPLYING WITH NEMA WC 5 OR 7: SOLID CONDUCTOR FOR NO. 10 AWG AND SMALLER, STRANDED FOR NO. 8 AWG AND LARGER. ALUMINUM CONDUCTORS PERMITTED ONLY WHERE SPECIFICALLY CALLED OUT ON POWER RISER DIAGRAM.
- CONDUCTOR INSULATION TYPES: TYPE THHN-THWN COMPLYING WITH NEMA WC OR WC 7.
- TYPE NM CABLE: NOT PERMITTED.
- TYPE MC CABLE: PERMITTED FOR 15A/20A BRANCH CIRCUITS ONLY, IN CONCEALED LOCATIONS, WHERE ALLOWED BY CODE.
- EXPOSED FEEDERS, AND FEEDERS CONCEALED IN CONCRETE OR BELOW SLAB OR BELOW GRADE: TYPE THHN-THWN, SINGLE CONDUCTORS IN RACEWAY.
- BRANCH CIRCUITS & FEEDERS CONCEALED IN CEILINGS, WALLS, AND PARTITIONS: TYPE THHN-THWN, SINGLE CONDUCTORS IN RACEWAY, OR MC CABLE WHERE ALLOWED BY NOTE 4, ABOVE. CONCEAL CABLES AND RACEWAYS IN FINISHED WALLS, CEILINGS, AND FLOORS.
- USE MANUFACTURER-APPROVED PULLING COMPOUND OR LUBRICANT WHERE NECESSARY; COMPOUND USED MUST NOT DETERIORATE CONDUCTOR OR INSULATION. DO NOT EXCEED MANUFACTURER'S RECOMMENDED MAXIMUM PULLING TENSIONS AND SIDEWALL PRESSURE VALUES.
- 9. INSTALL EXPOSED CABLES PARALLEL AND PERPENDICULAR TO SURFACES OF EXPOSED STRUCTURAL MEMBERS, AND FOLLOW SURFACE CONTOURS WHERE
- 10. MAKE SPLICES AND TAPS THAT ARE COMPATIBLE WITH CONDUCTOR MATERIAL AND THAT POSSESS EQUIVALENT OR BETTER MECHANICAL STRENGTH AND INSULATION RATINGS THAN UNSPLICED CONDUCTORS.
- 11. WIRING AT OUTLETS: INSTALL CONDUCTOR AT EACH OUTLET, WITH AT LEAST 6 INCHES (150 MM) OF SLACK.
- 12. FREE CABLES ABOVE CEILING, NOT IN CONDUIT SHALL BE PLENUM RATED.

## RACEWAYS AND BOXES

- ELECTRICAL COMPONENTS, DEVICES, AND ACCESSORIES: LISTED AND LABELED AS DEFINED IN NFPA 70, ARTICLE 100, BY A TESTING AGENCY ACCEPTABLE TO AUTHORITIES HAVING JURISDICTION. AND MARKED FOR INTENDED USE.
- 2. UNLESS OTHERWISE NOTED, PROVIDE NEMA 1 ENCLOSURES IN INDOOR LOCATIONS, NEMA 3R ENCLOSURES IN OUTDOOR LOCATIONS.
- MINIMUM RACEWAY SIZE: 1/2" TRADE SIZE. KEEP RACEWAYS AT LEAST 6 INCHES (150 MM) AWAY FROM PARALLEL RUNS OF
- HOT-WATER PIPES. INSTALL HORIZONTAL RACEWAY RUNS ABOVE WATER PIPING. PROTECT STUB-UPS FROM DAMAGE WHERE CONDUITS RISE THROUGH FLOOR SLABS. ARRANGE SO CURVED PORTIONS OF BENDS ARE NOT VISIBLE ABOVE FINISHED SLAB.
- MAKE BENDS AND OFFSETS SO ID IS NOT REDUCED. KEEP LEGS OF BENDS IN SAME PLANE AND KEEP STRAIGHT LEGS OF OFFSETS PARALLEL, UNLESS
- OTHERWISE INDICATED.

CONDUCTOR ACROSS FLEXIBLE CONNECTIONS.

- CONCEAL CONDUIT AND EMT WITHIN FINISHED WALLS AND CEILINGS. INSTALL EXPOSED RACEWAYS PARALLEL OR AT RIGHT ANGLES TO NEARBY
- SURFACES OR STRUCTURAL MEMBERS AND FOLLOW SURFACE CONTOURS AS MUCH AS POSSIBLE. FLEXIBLE CONNECTIONS: USE MAXIMUM OF 72 INCHES (1830 MM) OF FLEXIBLE CONDUIT FOR RECESSED AND SEMIRECESSED LIGHTING FIXTURES; FOR EQUIPMENT SUBJECT TO VIBRATION, NOISE TRANSMISSION, OR MOVEMENT; AND FOR ALL

MOTORS. USE LFMC IN DAMP OR WET LOCATIONS. INSTALL SEPARATE GROUND

#### <u>WIRING DEVICES</u>

- STRAIGHT-BLADE-TYPE RECEPTACLES: COMPLY WITH NEMA WD 1, NEMA WD 6, DSCC W-C-596G, AND UL 498. STRAIGHT-BLADE AND LOCKING RECEPTACLES:
- HEAVY-DUTY GRADE. 2. GFCI RECEPTACLES: STRAIGHT BLADE, HEAVY-DUTY GRADE, WITH INTEGRAL NEMA WD 6, CONFIGURATION 5-20R DUPLEX RECEPTACLE; COMPLYING WITH UL 498 AND UL 943. DESIGN UNITS FOR INSTALLATION IN A 2-3/4-INCH-(70-MM-) DEEP OUTLET BOX WITHOUT AN ADAPTER.
- SINGLE- AND DOUBLE-POLE SWITCHES: COMPLY WITH DSCC W-C-896F AND UL
- 4. SNAP SWITCHES: HEAVY-DUTY GRADE, QUIET TYPE.
- FINISHES: WHITE, UNLESS OTHERWISE INDICATED OR REQUIRED BY NFPA 70. PROVIDE STAINLESS COVERPLATES INSTALL DEVICES AND ASSEMBLIES LEVEL, PLUMB, AND SQUARE WITH BUILDING
- ARRANGEMENT OF DEVICES: UNLESS OTHERWISE INDICATED, MOUNT FLUSH, WITH LONG DIMENSION VERTICAL. GROUP ADJACENT SWITCHES UNDER SINGLE, MULTIGANG WALL PLATES.
- REMOVE WALL PLATES AND PROTECT DEVICES AND ASSEMBLIES DURING PAINTING. ADJUST LOCATIONS OF FLOOR SERVICE OUTLETS AND SERVICE POLES TO SUIT
- ARRANGEMENT OF PARTITIONS AND FURNISHINGS. 10. AFTER INSTALLING WIRING DEVICES AND AFTER ELECTRICAL CIRCUITRY HAS BEEN ENERGIZED, TEST FOR PROPER POLARITY, GROUND CONTINUITY, AND COMPLIANCE WITH REQUIREMENTS.
- 11. TEST GFCI OPERATION WITH BOTH LOCAL AND REMOTE FAULT SIMULATIONS ACCORDING TO MANUFACTURER'S WRITTEN INSTRUCTIONS.

#### **ENCLOSED SWITCHES**

- 1. ENCLOSED SWITCHES SHALL BE MANUFACTURED BY SQUARE-D, CUTLER-HAMMER, GE. OR SIEMENS.
- 2. EXTERIOR ENCLOSED SWITCHES SHALL BE LOCKABLE. MOUNT INDIVIDUAL WALL-MOUNTING SWITCHES WITH TOPS AT UNIFORM HEIGHT,
- UNLESS OTHERWISE INDICATED.
- 4. ENCLOSED SWITCHES SHALL BE UL LISTED FOR THE APPLICATION USED; ENCLOSURES SHALL BE NEMA 1 FOR INDOORS, NEMA 3R FOR OUTDOORS.
- 5. PROVIDE FUSES FOR ALL FUSIBLE SWITCHES. 6. FIELD-COORDINATE EXACT LOCATION OF SWITCHES WITH EQUIPMENT SERVED, AND
- OTHER TRADES, TO ASSURE MINIMUM N.E.C. CLEARANCE REQUIREMENTS ARE MET. 7. PROVIDE PERMANENT LABELING OF EACH SWITCH TO INDICATE PANEL AND CIRCUIT SWITCH IS FED FROM (E.G., "A-4,6"). FOR CONDENSER UNITS, ALSO INDICATE AREA

EQUIPMENT SERVES (E.G., "RM 101"). PROVIDE WEATHERPROOF LABELING OF

#### PANELBOARDS

EXTERIOR SWITCHES.

- 1. MANUFACTURERS: PANELBOARDS SHALL BE MANUFACTURED BY SQUARE-D, CUTLER-HAMMER, GE, OR SIEMENS.
- 2. ENCLOSURES: FLUSH— AND SURFACE—MOUNTED CABINETS. NEMA PB 1, TYPE 1, OR TYPE 3R AS INDICATED.
- 3. PHASE AND GROUND BUSES: HARD-DRAWN COPPER, 98 PERCENT CONDUCTIVITY. 4. SERVICE EQUIPMENT LABEL: UL LABELED FOR USE AS SERVICE EQUIPMENT FOR
- PANELBOARDS WITH MAIN SERVICE DISCONNECT SWITCHES.
- 5. FUTURE DEVICES: MOUNTING BRACKETS, BUS CONNECTIONS, AND NECESSARY APPURTENANCES REQUIRED FOR FUTURE INSTALLATION OF DEVICES. 6. PANELBOARD SHORT-CIRCUIT RATING: SERIES RATED TO INTERRUPT SYMMETRICAL
- SHORT-CIRCUIT CURRENT AS NOTED ON THE PANEL SCHEDULES. . MAIN OVERCURRENT PROTECTIVE DEVICES: CIRCUIT BREAKER.
- 8. MOLDED-CASE CIRCUIT BREAKER: UL 489, WITH INTERRUPTING CAPACITY TO MEET AVAILABLE FAULT CURRENTS. 9. PROVIDE AS-BUILT PANEL DIRECTORIES, CLEARLY INDICATING DEVICES/EQUIPMENT SERVED AND LOCATION (E.G., "RECEPTACLES-RM 101"). IN THE CASE OF

- LIGHTING FIXTURES: PER LIGHTING FIXTURE SCHEDULE.
- PROVIDE LOW-VOLTAGE CABLING AS REQUIRED FOR DIMMING AND CONTROL. WHERE EXIT SIGNS ARE USED, THEY SHALL BE LED-TYPE. FIXTURES: SET LEVEL, PLUMB, AND SQUARE WITH CEILINGS AND WALLS. INSTALL

CONDENSER UNITS, PANEL DIRECTORIES SHALL INDICATE MECHANICAL DESIGNATION

AS WELL AS THE AREA THE MECHANICAL UNIT SERVES (E.G., "HP-1 RM 101").

- LAMPS IN EACH FIXTURE. PROVIDE BLOCKING, BACKBOXES, SUPPORTS, STEMS, COUPLINIGS, AND OTHER
- HARDWARE AS NEEDED FOR A COMPLETE FUNCTIONAL INSTALLATION.
- FOR EMERGENCY LIGHTING, PROVIDE UNSWITCHED NORMAL POWER CONDUCTOR AS INDICATED ON THE PLANS.

## <u>FIRE ALARM</u>

- 1. THE CONTRACTOR SHALL FURNISH ALL LABOR AND EQUIPMENT FOR A COMPLETE NEW ADDRESSABLE FIRE ALARM SYSTEM AND SHALL POSSESS THE APPROPRIATE EC OR E.F. LICENSE AS REQUIRED BY THE STATE OF FLORIDA.
- 2. THE FIRE ALARM SYSTEM SHALL BE INSTALLED, INSPECTED, TESTED AND CERTIFIED PER APPROPRIATE NFPA 12, 12A, 70, 72, 72E, 90A AND 101. ANY OTHER APPLICABLE CODE SHALL APPLY TO MEET STATE OF FLORIDA AND FIRE MARSHAL REQUIREMENTS. THE EQUIPMENT SHALL BE APPROVED BY UNDERWRITERS LABORATORIES, INC., SHALL COMPLY WITH NFPA CODES AND REGULATIONS AND MEET REQUIREMENTS OF THE AMERICANS WITH DISABILITIES ACT.
- IN ADDITION TO DEVICES SHOWN ON THE PLAN, THE CONTRACTOR SHALL PROVIDE ALL CARDS, MODULES, POWER SUPPLIES, AMPLIFIERS, CABLING, AND OTHER EQUIPMENT AS MAY BE NECESSARY TO SERVE ALL DEVICES SHOWN. 4. THE FIRE ALARM SYSTEM CONTRACTOR SHALL BE RESPONSIBLE FOR A PERIOD OF
- ONE YEAR FOR EQUIPMENT, MATERIALS AND WORKMANSHIP OF THE MODIFICATIONS OF THE SYSTEM, AS SHOWN ON THESE PLANS. ALL CIRCUITS SHALL BE CLASS B. PROVIDE SURGE SUPPRESSION ON ALL CIRCUITS
- ENTERING THE BUILDING. CONTRACTOR SHALL TEST AND CERTIFY SYSTEM PRIOR TO COMPLETION OF THE
- 7. THE FIRE ALARM CONTRACTOR SHALL APPLY FOR, AND OBTAIN, A SEPARATE PERMIT FOR ALL FIRE ALARM WORK. PROVIDE ALL SHOP DRAWINGS REQUIRED FOR PERMITTING, INCLUDING: A. PLANS SHOWING NEW ALARM DEVICE, MODULE AND PANEL LAYOUT,
- SPECIFICATIONS AND INFORMATION (INCLUDING CANDELA USED IN THE SCOPE OF WORK); B. THE SPECIFICATIONS SHOULD CLEARLY NOTE OR DEMONSTRATE COMPATIBILITY WITH ANY EXISTING COMPONENTS AND COMPLIANCE WITH THE
- SYNCHRONIZATION REQUIREMENT OF NFPA 72: C. A RISER DIAGRAM SHOWING DEVICES AND WIRING NOTES OR SCHEDULE; D. POWER CALCULATIONS WITH STANDBY POWER VALUES.

### PACKAGED ENGINE GENERATORS

- 1. MANUFACTURERS: GENERATOR SHALL BE MANUFACTURED BY CATERPILLAR, CUMMINS, KOHLER, AKSA POWER, LJ POWER GENERATORS, GILLETTE GENERATORS, OR TAYLOR POWER SYSTEMS. OTHER MANUFACTURERS MUST BE APPROVED BY THE ENGINEER PRIOR TO SUBMITTING A BID.
- 2. RATINGS: 120/208V, THREE-PHASE; STANDBY POWER RATING AS NOTED ON
- 3. ENCLOSURES: WEATHERPROOF, SOUND-ATTENUATING ENCLOSURE, RATED FOR 120MPH WIND VELOCITY.
- 4. ENGINE: 4-CYCLE INDUSTRIAL WATER-COOLED. NATURAL GAS FUELED. WITH ELECTRONIC CONTROL, CERTIFIED TO US EPA SI STATIONARY EMISSION REGULATION 40 CFR, PART 60.
- 5. ALTERNATOR: CLASS H INSULATION, 150 C TEMPERATURE RISE, 1% VOLTAGE REGULATION (NO LOAD TO FULL LOAD), LESS THAN 5% THD. WITH PERMANENT MAGNET EXCITATION. 6. LISTINGS AND STANDARDS: UL LISTED TO UL 2200. DESIGNED TO ALLOW FOR
- INSTALLED COMPLIANCE WITH REQUIREMENTS OF NFPA 110 LEVEL 1. MAIN OVERCURRENT PROTECTIVE DEVICES: CIRCUIT BREAKER, 100% RATED. 8. GENERATOR-MOUNTED CONTROL PANEL: DESIGNED AND BUILT BY THE SYSTEM MANUFACTURER AND INCORPORATING 100% SOLID-STATE CIRCUITRY, SEALED DUST-TIGHT. WATERTIGHT MODULAR COMPONENTS AND INSTRUMENTATION. THE
- PANEL SHALL BE SHOCK MOUNTED TO THE GENERATOR. 9. MOUNTING: THE ENGINE-GENERATOR SET SHALL BE MOUNTED ON A STRUCTURAL
- 10. CRITICAL GRADE SILENCER MUST BE ENCLOSED WITHIN THE UNIT IN A SEPARATE DISCHARGE BOX WITH THERMAL GRADE WRAPPING. 11. UNIT SHALL BE SUPPLIED WITH A LEAD-ACID STARTING BATTERY, WITH A BATTERY
- CHARGER, INSTALLED INSIDE UNIT ENCLOSURE. 12. PROTECTIVE DEVICES: SAFETY SHUTOFFS FOR HIGH WATER TEMPERATURE. LOW OIL PRESSURE, ELECTRICAL OVER-SPEED, AND ENGINE OVER-CRANK SHALL BE
- 13. AN ENGINE-MOUNTED THERMAL CIRCULATION WATER HEATER INCORPORATING AN ADJUSTABLE THERMOSTATIC SWITCH SHALL BE FURNISHED TO MAINTAIN ENGINE JACKET WATER TO 90°F.
- 14. INSTALLATION SHALL INCLUDE STARTUP AND FOUR-HOUR LOAD-BANK TESTING BY MANUFACTURER-CERTIFIED INSTALLER.
- 15. WARRANTY: MANUFACTURER'S ONE-YEAR WARRANTY. 16. PROVIDE EQUIPMENT SUBMITTAL INCLUDING SHOP DRAWINGS, WIRING DIAGRAMS, AND
- VENDOR'S SELECTION INFO, TO DEMONSTRATE 10% MAXIMUM VOLTAGE DIP. 17. PROVIDE OPERATION AND MAINTENANCE AND TRAINING TO OWNER'S REPRESENTATIVE.
- 18. REMOTE ANNUCIATOR: NFPA 110 COMPLIANT (LEVEL 1).
- 2. ATS SHALL BE 3-POLE, SOLID NEUTRAL, OPEN-TRANSITION (BREAK-BEFORE-MAKE), 208V, COMPLIANT WITH REQUIREMENTS OF NFPA 110 FOR
- 3. ATS CURRENT RATING SHALL BE A CONTINUOUS RATING WHEN THE SWITCH IS INSTALLED IN AN ENCLOSURE, AND SHALL CONFORM TO NEMA TEMPERATURE RISE
- 4. ATS SHALL BE RATED FOR 42,000 AIC, MINIMUM.
- SETTINGS, AND PROGRAMMABLE EXCERCISER.
- 7. ATS SHALL INCLUDE ADJUSTABLE TIME DELAY ON RETRANSFER TO NORMAL SOURCE, PROGRAMMABLE 0-60 MINUTES FACTORY SET AT 30 MINUTES, IF THE EMERGENCY SOURCE FAILS DURING THE RETRANSFER TIME DELAY, THE TRANSFER SWITCH CONTROLS SHALL AUTOMATICALLY BYPASS THE TIME DELAY AND
- 8. ATS SHALL INCLUDE TIME DELAY ON TRANSFER TO EMERGENCY, PROGRAMMABLE
- 9. A SET OF CUSTOMER CONTACTS SHALL BE PROVIDED TO INDICATE BOTH EMERGENCY AND NORMAL SOURCE POSITION.
- 10. ATS SHALL BE SUPPLIED WITH ONE-YEAR MANUFACTURE'S WARRANTY.

CODES AND STANDARDS

FLORIDA FIRE PREVENTION CODE, SEVENTH EDITION.

FLORIDA BUILDING CODE, SEVENTH EDITION.

NATIONAL ELECTRICAL CODE (NEC), 2017 EDITION

NATIONAL FIRE ALARM CODE, 2016 EDITION

NFPA 70

NFPA 72

## AUTOMATIC TRANSFER SWITCH (ATS)

- 1. MANUFACTURERS: THE SUPPLIER OF THE ATS SHALL BE THE SAME AS THAT OF THE ENGINE-GENERATOR SET. BASIS OF DESIGN IS ASCO SERIES 300 GROUP G.
- LEVEL 1 SYSTEM, CURRENT RATING AS NOTED ON THE PLAN/RISER.
- STANDARDS.
- 5. ATS SHALL INCLUDE AN ELECTRONIC CONTROL PANEL, WITH FIELD-ADJUSTABLE
- ATS SHALL INCLUDE ADJUSTABLE TIME DELAY TO OVERRIDE MOMENTARY NORMAL SOURCE FAILURE PRIOR TO ENGINE START. FIELD PROGRAMMABLE 0-10 SECONDS FACTORY SET AT 3 SECONDS.
- IMMEDIATELY RETRANSFER TO THE NORMAL POSITION.
- 0-5 MINUTES, FACTORY SET AT 1 SECOND.

# Ям $\langle M \rangle$ ATS $\bullet$ FS FACP

CBB

# ELECTRICAL LEGEND HIGH BAY FIXTURE.

1 X 4 LIGHTING FIXTURE. WALL-MOUNTED LIGHTING FIXTURE LENGTH AS INDICATED WITH EMERGENCY BATTERY PACK. STRIP LIGHT.

RECESSED CAN LIGHTING FIXTURE

WALL-MOUNTED LIGHTING FIXTURE

POLE-MOUNTED AREA LIGHT.

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LED EXIT SIGN WITH INTEGRAL BATTERY AND INVERTER. PROVIDE UNSWITCHED HOT CONDUCTOR.

COMBINATION LED EXIT SIGN AND EMERGENCY AREA LIGHT WITH INTEGRAL BATTERY. PROVIDE UNSWITCHED HOT CONDUCTOR.

LED EXIT LIGHT, SAME AS ABOVE, WALL MOUNTED

WATTSTOPPER #PW-101, OR APPROVED EQUAL.

HOT CONDUCTOR. 120V/20A QUIET-TYPE SNAP SWITCH. SWITCHES SHALL BE MOUNTED 48" A.F.F. UNLESS NOTED

WALL-MOUNTED EMERGENCY LIGHTING FIXTURE, WITH INTEGRAL BATTERY. PROVIDE UNSWITCHED

"3" INDICATES 3-WAY SWITCH, "4" INDICATES 4-WAY SWITCH. WALL-SWITCH WITH OCCUPANCY SENSOR; MOUNT 48" A.F.F., UNLESS NOTED OTHERWISE.

ROOM OCCUPANCY SENSOR (LOW-VOLTAGE). UNLESS NOTED OTHERWISE, CEILING MOUNTED WATTSTOPPER #DT-300, OR APPROVED EQUAL. PROVIDE ROOM CONTROLLER(S) (#BZ-250) AS REQUIRED.

2 CHANNEL 24 HOUR/7 DAY PROGRAMMABLE ASTRONOMICAL TIME CLOCK (WITH BATTERY BACKUP) AS MANUFACTURED BY TORK OR APPROVED EQUAL. PROVIDE CONTACTOR(S) AS REQUIRED TO SERVE ALL CIRCUITS SHOWN.

20A/120V DUPLEX RECEPTACLE. MOUNT AT 18" A.F.F., UNLESS NOTED OTHERWISE. "USB" INDICATES INTEGRAL DUAL USB CHARGING PORTS.

20A/120V DUPLEX RECEPTACLE. MOUNT AT 48" A.F.F., UNLESS NOTED OTHERWISE. 120V/20A QUAD RECEPTACLE. NEW RECEPTACLES SHALL BE MOUNTED 18" A.F.F., UNLESS NOTED OTHERWISE.

240V/30A DRYER RECEPTACLE WITH 3/4" C.-3 #10, #10 GND, TO PANEL. 120V/20A DUPLEX RECEPTACLE, WITH INTEGRAL GFI PROTECTION. RECEPTACLES SHALL BE MOUNTED 18" A.F.F., UNLESS NOTED OTHERWISE.

"WP" INDICATES CAST-ALUMINUM WEATHERPROOF IN USE COVER. 120V/20A DUPLEX RECEPTACLE, WITH INTEGRAL GFI PROTECTION. RECEPTACLES SHALL BE MOUNTED 48" A.F.F. UNLESS NOTED OTHERWISE.

240V/50A RANGE RECEPTACLE WITH 1" C.-3 #6, #10 GND, TO PANEL. PROVIDE JUNCTION.

ENCLOSED SAFETY SWITCH NON-FUSED, RATING AND CIRCUITING AS INDICATED ON THE PLANS. FIELD-LOCATE TO ASSURE 36" FRONT CLEARANCE.

ENCLOSED SAFETY SWITCH FUSED, RATING AND CIRCUITING AS INDICATED ON THE PLANS. FIELD-LOCATE TO ASSURE 36" FRONT CLEARANCE.

MOTOR RATED 20A SNAP SWITCH FOR DISCONNECT MEANS.

ELECTRICAL PANEL. SEE RISER PANEL SCHEDULES.

CIRCUIT CONDUCTORS IN CONDUIT OR CABLE. MIINIMUM CONDUCTOR SIZE SHALL BE #12 AWG. 120V CIRCUIT HOMERUNS LONGER THAN 100FT SHALL BE #10 AWG, MINIMUM. PROVIDE DEDICATED GREEN EQUIPMENT GROUNDING CONDUCTOR IN ALL RACEWAYS. MC CABLE ALLOWED IN CONCEALED LOCATIONS, WHERE ALLOWED BY CODE.

CONDUCTORS IN CONDUIT, CONCEALED IN WALLS, CEILING, OR BELOW GRADE. HOMERUN TO PANEL INDICATED.

CEILING-MOUNTED EXHAUST FAN. COORDINATE WITH MECHANICAL.

ELECTRIC MOTOR. AUTOMATIC TRANSFER SWITCH.

GENERATOR ANNUNCIATOR PANEL

EMERGENCY POWER OFF PUSH BUTTON. ROLLING DOOR CONTROL UP/DOWN/STOP. FURNISHED WITH ROLLING DOOR. COORDINATE

INSTALLATION WITH MANUFACTURER'S RECOMMENDATIONS. FIRE ALARM SYSTEM DUCT SMOKE DETECTOR, WITH REMOTE INDICATOR AND SHUTDOWN RELAY. FIELD COORDINATE LOCATION WITH MECHANICAL INSTALLER.

FIRE ALARM SYSTEM SMOKE DETECTOR

FIRE ALARM SYSTEM MANUAL PULL STATION MOUNT AT 48" A.F.F. FIRE ALARM SYSTEM HORN/STROBE DEVICE. MOUNT 84" A.F.F. 75/110 CANDELA FIELD-SELECTABLE, UNLESS NOTED OTHERWISE.

FIRE ALARM SYSTEM STROBE DEVICE. MOUNT 84" A.F.F. 75/110 CANDELA FIELD-SELECTABLE, UNLESS NOTED OTHERWISE.

FIRE ALARM SYSTEM FLOW SWITCH. FIRE ALARM CONTROL PANEL.

FIRE ALARM SYSTEM TAMPER SWITCH.

COMMUNICATIONS OUTLET, MOUNTED 18" A.F.F. UNLESS NOTED OTHERWISE. PROVIDE DEVICE BOX, WITH 3/4" C. STUBBED INTO ACCESSIBLE CEILING SPACE. PROVIDE (2) CAT-6 CABLES TO TELCOM BACKING BOARD.

COMMUNICATIONS OUTLET, MOUNTED ABOVE WORK SURFACE (44" A.F.F. UNLESS NOTED OTHERWISE). PROVIDE DEVICE BOX, WITH 3/4" C. STUBBED INTO ACCESSIBLE CEILING SPACE. PROVIDE (2) CAT-6 CABLES TO TELCOM BACKBOARD. WHERE "TV" IS INDICATED, ALSO PROVIDE RG6 CABLING TO TELCOM BACKBOARD.

COMMUNICATIONS BACKBOARD.

<u>ABBREVIATIONS</u> EWC ELECTRIC WATER COOLER. WEATHERPROOF.

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**Dewberry** 

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SEAL

DESCRIPTION

James M. Lamb, State of Florida, Professional Enginee

sealed by James M. Lamb on the date indicated here.

and sealed and the signature must be verified on any

License No. 52688. This item has been digitally signed and

Printed copies of this document are not considered signed

FOR CONSTRUCTION

APPLIED RESEARCH AND DESIGN, INC.

2623 S. BLAIR STONE ROAD

TALLAHASSEE, FL 32301

LEGEND & NOTES

JML

50144269

MAY 2022

SHEET NO.

PROJECT NO.

DRAWN BY

APPROVED BY

CHECKED BY

DATE

TYPE: NEMA-1, SURFACE

RATING: 22,000 AIC

CKT DESCRIPTION

3 LTS-GARAGE

5 LTS-GARAGE

9 LTS-2ND FLOOR

11 TIME CLOCK (TC)

13 REC-WASHER

15 REC-WASHER

17 REC-DRYER

21 REC-DRYER

25 AIR COMPR

31 GAS UNIT HTRS

33 SITE SIGNAGE

47 VEHICLE EXH. CONTROLLER 20 1 0.10

\* RED HANDLE LOCKABLE BREAKER

SERVICE: 120/208V, 3-PHASE, 4-WIRE

TOTAL CONNECTED LOAD (KVA):

49 VEHICLE EXHUAST FAN

GF = GFCITYPE BREAKER

MAIN: 200A MLO

LOCATION: SEE PLAN

RATING: 10,000 AIC

CKT DESCRIPTION

3 LTS-SITE

1 LTS-BLDG EXTERIOR

5 REC-GEAR RM,R.R.

7 REC-COMPR. RM.

11 REC-GARAGE

13 REC-GARAGE

15 REC-GARAGE

17 REC-GARAGE

19 REC-GARAGE

21 ROLL-UP DOOR

23 ROLL-UP DOOR

25 ROLL-UP DOOR

27 ROLL-UP DOOR

29 ROLL-UP DOOR

31 ROLL-UP DOOR

39 FUEL PUMP

41 SPARE

33 GEN BATT CHGR

35 GEN BLOCK HTR

TOTAL CONNECTED LOAD (KVA):

9 REC-SPRINKLER RM.

TYPE: NEMA-1, SURFACE

35 AHU-2

39 HP-2

43 SPARE

45 SPARE

1 LTS-EQ. RMS,R.R

7 LTS-BUNK RM, KIT., ETC.

C LOAD BKR P DESCRIPTION

1.26 | 0.20 | 20 | 1 | WH (GAS)

4.70 4.60

5.54

0.20 20 1 WH (GAS)

1.00 | 20G | 1 | REC-REF

20 1 SPARE

0.20 | 20 \* | 1 | FIRE ALARM

0.25 | 20 | 1 | EF COMPR RM

1.00 | 20 | 1 | REC-REF

1.00 | 20 | 1 | REC-REF

11.87 | 200 | 3 | PANEL B

4.00 | 50 ST | 2 | RANGE

20 | 1 | SPARE

20 | 1 | SPARE

ST = SHUNT TRIP

0.36 20 1 REC-UTILITY RM. COMMS

0.36 20 1 REC-UTILITY RM. COMMS

0.90 | 20 | 1 | REC-BUNK RM., R.R.,ETC

0.90 20 1 REC-RECREATION RM.

1.62 0.72 20 1 REC-UTILITY RM., R.R.

1.08 0.36 20 1 REC-KITCHEN

1.54 | 1.00 | 20 | 1 | REC-KITCHEN

1.70 0.50 20 1 REC-KITCHEN HOOD

2.28 | 1.08 | 20 | 1 | REC-DINING RM.

2.28 | 1.08 | 20 | 1 | REC-BUNK RMS

1.72 | 0.72 | 20 | 1 | REC-2ND FLOOR

1.08 | 20 | 1 | REC-BUNK RMS

0.36 | 20 | 1 | REC-KITCHEN

1.00 | 20 | 1 | REC-KITCHEN

0.90 | 20 | 1 | REC-CONF. RM.

0.54 20 1 REC-2ND FLOOR

1.50 | 20 | 1 | DFU-1/DFU-1

1.50 | 20 | 1 | DFU-1/DFU-1

30 2 SPARE

1.00 | 20 | 1 | REC-KITCHEN

12.84

0.10 20 1 SPARE

4.00 50 2

B C LOAD BKR P DESCRIPTION

14.27 | 12.77 |

20 | 1 | SPARE

4.10 | 1.60 | 20 | 1 | REC-ICE MACH

4.60 50 2 AHU-1

3.40 | 60 | 2 | HP-1

0.30 | 20 | 1 | REC-RANGE (GAS)

PANEL: A

5.12

4.90

2.75

6.54

14.34

6.10

38.11 | 42.01 | 36.87

PANEL: B

1.80

1.00

11.87 | 10.59 | 10.52

0.00

32.98 KVA 91.6 AMPS

116.99 KVA 325.0 AMPS

0.40

1.06

2.50 80 | 3 | 5.54 | 6.54

5.54

5.54

1.00

30 3 2.10 6.10

20 | 1 | 1.03 | 1.39

20 | 1 | 0.54 | 0.90

20 | 1 | 0.80 | 1.80

20 | 1 | 1.20 | 2.70

1.00 1.54

1 44

20 | 1 | 0.29

20 1 0.90

20 | 1 | 0.54

20 1 0.72

20 | 1 | 0.72 |

20 1 0.54

20 1 0.54

20 1 1.20

20 1 1.20

20 | 1 | 1.20

20 1 1.20

20 | 1 | 0.30

30 2 1.00

20 1 1.00

20 1

20 1 120

2.30 | 14.17

1.50 4.90

2.50 2.70

1.00

0.00

20 | 1 | 1.00 | 2.00

20 | 1 | 1.06

20 | 1 | 0.52

20 1 0.10

30 2 2.50

30 | 2 | 2.50

25 2 1.50

**Dewberry** 

Santa Rosa Beach, FL 32459

877 CR 393 North

850.267.0759

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SCALE: AS NOTED

REVISIONS

APPLIED RESEARCH AND DESIGN, INC. 2623 S. BLAIR STONE ROAD TALLAHASSEE, FL 32301 FL CA#8948

JAMES M. LAMB, PE#52688 Tel: (850) 668-6324 -- E-mail: jlamb@ard-eng.com

1	KITCHEN REVISIONS	2/23/23
NO.	DESCRIPTION	DATE
	/NI DV	MDC

DRAWN BY	MRC
APPROVED BY	JML
— CHECKED BY	JML
DATE	MAY 2022

RISER DIAGRAM & SCHEDULES

PROJECT NO.

50144269

SHEET	NO.

**Lighting Fixture Schedule** TYPE DESCRIPTION MNFR/SUPPLIER **LAMPS NOTES** MODEL# A 4 FT LED SURFACE WRAP AROUND 39-4-L52/840-A-DIM-UNV H.E. WILLIAMS 37.2W LED OR EQUAL B 4 FT LED LENSED STRIP H.E. WILLIAMS 76R-4-L52/840-DIM-UNV 35.8W LED OR EQUAL C 4 FT LED WALL MOUNT WRAP AROUND H.E. WILLIAMS 76R-4-L52/840-DIM-UNV PROVDE 10W EMERGENCY BATTERY 35.8W LED OR EQUAL BACKUP WHERE INDICATED D LED HIGH BAY H.E. WILLIAMS GH-2-L240/840-FA-DIM-176.8W LED MOUNT 18'-0" AFF OR EQUAL E1 WHITE THERMOPLASTIC LED EXIT LIGHT CHLORIDE VERWEM WITH UNIT OR EQUAL E2 WHITE THERMOPLASTIC LED CHLORIDE VLTCR3R WITH UNIT EMERGENCY/EXIT LIGHT COMBO OR EQUAL EM EMERGENCY BATTERY LIGHT UNIT CHLORIDE MOUNT 7'-6" AFF CLU2-N-W WITH UNIT OR EQUAL F1 LED WALL PACK VWP-V-L60-740-T3-DBZ-70W LED MOUNT 17'-0" AFF H.E. WILLIAMS OR EQUAL CGL-DIM-UNV F2 LED WALL PACK H.E. WILLIAMS /WM-L20-740-T3-DBZ-CGL 25W LED MOUNT 8'-0" AFF OR EQUAL DIM-UNV G LED SLIM SURFACE DOWN LIGHT LIGHTOLIER S7R-840-10 14.4W LED OR EQUAL P1 | LED POLE MOUNTED AREA LIGHT GARDCO ECF-S-32L-700-NW-G2-AR-73W LED PROVIDE DIRECT BURY FIBERGLASS POLE OR EQUAL 4-UNV FIXTURE MOUNTING HEIGHT 20 FT AFF, 130MPH WIND LOAD

R1 GROUND MOUNTED FLAG POLE LIGHT

VERIFY ALL CEILING FINISHES, FIXTURE TRIMS, AND VOLTAGES PRIOR TO ORDERING AND PROVIDE AS REQUIRED.

GARDCO

OR EQUAL

FIXTURES SHOWN ARE BASIS OF DESIGN; FIXTURES OF SIMILAR STYLE, PERFORMANCE, AND ELECTRICAL CHARACTERISTICS THAT ARE

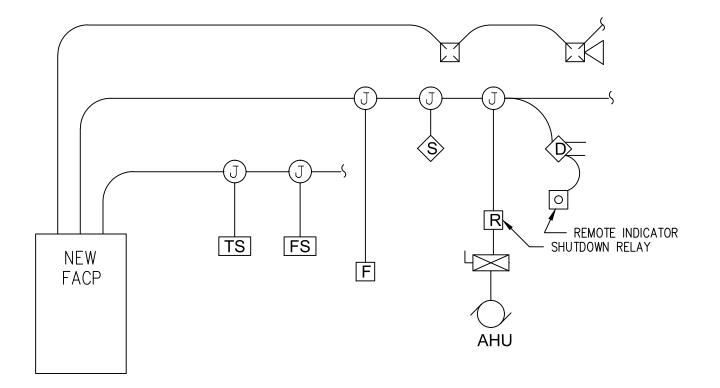
DFCS SP 1200 CW-G2-UNV-

62W LED

PROVIDE NECESSARY MOUNTING

HARDWARE AND FIELD ADJUST AIM

- ACCEPTABLE TO THE OWNER AND ENGINEER WILL BE ALLOWED. PROVIDE ALL LOW-VOLTAGE WIRING AS REQUIRED, FOR DIMMING AND CONTROLS.
- 4. PROVIDE LAMPS/BALLASTS/DRIVERS WITH ALL FIXTURES.
- PROVIDE ALL BOXES, BACKBOXES, SUPPORTS, FEEDS, TRIMS, STEMS, ROUGH-INS AND BLOCKING AS MAY BE REQUIRED FOR INSTALLATION.
- PROVIDE FIRE RATED BOXES OR OTHER MEANS TO MAINTAIN RATED CEILINGS WHERE RECESSED FIXTURES ARE USED.



# FIRE ALARM RISER

## NO SCALE

# FIRE ALARM SEQUENCE OF OPERATION

FINISHED FLOOR

- 1. FIRE-ALARM SIGNAL INITIATION SHALL BE BY ONE OR MORE OF THE FOLLOWING DEVICES: MANUAL STATIONS, SMOKE DETECTORS, HEAT DETECTORS, HOOD FIRE SUPPRESSION SYSTEM, OR DUCT SMOKE
- 2. FIRE-ALARM SIGNAL SHALL INITIATE THE FOLLOWING ACTIONS: CONTINUOUSLY OPERATE ALARM-NOTIFICATION APPLIANCES; IDENTIFY ALARM AT THE FIRE-ALARM CONTROL UNIT AND REMOTE ANNUNCIATORS; TRANSMIT
- AN ALARM SIGNAL TO THE REMOTE ALARM RECEIVING STATION; RECORD EVENTS IN THE SYSTEM MEMORY. . SYSTEM TROUBLE SIGNAL INITIATION SHALL BE BY ONE OR MORE OF THE FOLLOWING DEVICES AND ACTIONS: OPEN CIRCUITS, SHORTS, AND GROUNDS IN DESIGNATED CIRCUITS; OPENING, TAMPERING WITH, OR REMOVING ALARM-INITIATING AND SUPERVISORY SIGNAL-INITIATING DEVICES; LOSS OF PRIMARY POWER AT FIRE-ALARM CONTROL UNIT: GROUND OR A SINGLE BREAK IN FIRE-ALARM CONTROL UNIT INTERNAL CIRCUITS; ABNORMAL AC VOLTAGE AT FIRE-ALARM CONTROL UNIT; BREAK IN STANDBY BATTERY CIRCUITRY; FAILURE OF BATTERY
- CHARGING; ABNORMAL POSITION OF ANY SWITCH AT FIRE-ALARM CONTROL UNIT OR ANNUNCIATOR. 4. SYSTEM TROUBLE AND SUPERVISORY SIGNAL ACTIONS: INITIATE NOTIFICATION APPLIANCE AND ANNUNCIATE

AT FIRE-ALARM CONTROL UNIT AND REMOTE ANNUNCIATORS.

PROVIDE WARNING RIBBON PER NEC 300.5 D 3; UNDERGROUND SERVICE CONDUCTORS THAT ARE NOT ENCASED IN CONCRETE AND THAT ARE BURIED 18 INCHES OR MORE BELOW GRADE SHALL HAVE THEIR LOCATION IDENTIFIED BY A WARNING RIBBON THAT IS PLACED IN THE TRENCH AT LEAST 12 INCHES

CALL SUNSHINE 811 OR GO ONLINE TO www.sunshine811.com, AT LEAST TWO FULL BUSINESS DAYS BEFORE DIGGING TO

SERVICE EQUIPMENT IN OTHER THAN DWELLING UNITS SHALL BE LEGIBLY MARKED IN THE FIELD WITH THE MAXIMUM AVAILABLE FAULT CURRENT. THE FIELD MARKING(S) SHALL INCLUDE THE DATE THE FAULT CURRENT CALCULATION WAS PERFORMED AND BE OF SUFFICIENT DURABILITY TO WITHSTAND THE ENVIRONMENT INVOLVED.

NOTE:
ARC FLASH WARNING LABELS ARE REQUIRED ON ALL EQUIPMENT DESIGNATED IN NEC, ART. 110.16, INCLUDING ALL EQUIPMENT SHOWN ON THE RISER, AND ANY OTHER ELECTRICAL EQUIPMENT, SUCH AS SWITCHBOARDS, PANELBOARDS, INDUSTRIAL CONTROL PANELS, METER SOCKET ENCLOSURES, AND MOTOR CONTROL CENTERS, THAT ARE IN OTHER THAN DWELLING UNITS, AND ARE LIKELY TO REQUIRE EXAMINATION, ADJUSTMENT, SERVICING OR MAINTENANCE WHILE ENERGIZED; EQUIPMENT SHALL BE FIELD MARKED TO WARN QUALIFIED PERSONS OF POTENTIAL ELECTRIC ARC FLASH HAZARDS. THE MARKING SHALL BE LOCATED SO AS TO BE CLEARLY VISIBLE TO QUALIFIED PERSONS BEFORE EXAMINATION, ADJUSTMENT, SERVICING, OR MAINTENANCE OF THE EQUIPMENT.

# SERVICE DEMAND LOAD:

HVAC: 20.6KVA @ 100% 20.6KVA LIGHTING: 5.2KVA @ 125% 6.5KVA RECEPTACLES: 12.6KVA 1ST 10KVA @ 100% 10.0KVA REMAINDER @ 50% 1.3KVA EQUIPMENT: 54.3KVA @ 100%

- PROVIDE NEW 400A/3P AUTOMATIC TRANSFER SWITCH, OPEN TRANSITION, WITH NEMA-1 ENCLOSURE AND PROGRAMMABLE EXCERCISER; ASCO SERIES 300 GROUP G OR EQUAL. — NEW 2 SETS: 2" C.-4 #3/0, #3 GND, EACH. NEW 2 SETS: 2" C.−3 #3/0, #3 GND, EACH. — - NEW 2" C.-4 #3/0, SERVICE DISCONNECT; PROVIDE SIGN: "GENERATOR ISOLATION SWITCH" — #6 GND. NEW 400A SELF-CONTAINED NEW NEW NEW NEW METER BASE, PER UTILITY ATS PANEL A PANEL B 400A/3P REQUIREMENTS. PROVIDE SIGN: "GENERATOR ON-SITE" 400A MLO 200A MLO 208V GENERATOR 120/208V 120/208V - PROVIDE NEW 100KW/125KVA 120/208V FUSED 100KW PROVIDE GENERATOR EMERGENCY 3-PH 3-PH THREE-PHASE NATURAL-GAS GENERATOR NEMA-3R 400A MCB SHUTDOWN BUTTON AT METER; SET, NFPA 110 COMPLIANT, WITH SOUND-120/208V PROVIDE 3/4" C. (CONTROLS) TO GENERATOR ATTENUATING WEATHERPROOF ENCLOSURE, CONTROL PANEL. PROVIDE SIGN: BLOCK HEATER, BATTERY CHARGER, "GENERATOR EMERGENCY SHUTDOWN SWITCH" REMOTE ANNUNCIATOR (AT BUILDING), 400A/3P UNIT-MOUNTED BREAKER, STARTUP, 4-HOUR LOAD BANK TESTING, ONE-YEAR SERVICE CONTRACT, AND ONE-YEAR NEW 400A 120/208V 3-PHASE SERVICE WARRANTY. PROVIDE PAD PER DETAILS. TO UTILITY TRANSFORMER/PEDESTAL PROVIDE 2 SETS: 2" C.-4 #3/0, #3 GND, EACH; BASIS OF DESIGN: CATERPILLER #DG100-2 2 SETS: 2" C.-3 #3/0, EACH. 1" C.-(CONTROLS); 1" C.-4 #10, #10 GND (BLOCK HTR/BATT CHGR); 1" C-SPARE. PROVIDE NEW GROUND RODS PER PAD DETAIL, BOND TO GENERATOR FRAME WITH #4 GND. NEW SERVICE GROUND PER NEC 250.50 PROVIDE #1/0 GROUND TO BUILDING STEEL AND COLD-WATER PIPING: PROVIDE #4 GND TO FOOTER STEEL AND NEW GROUND RÖD. PROVIDE INTERSYSTEM BONDING TERMINAL

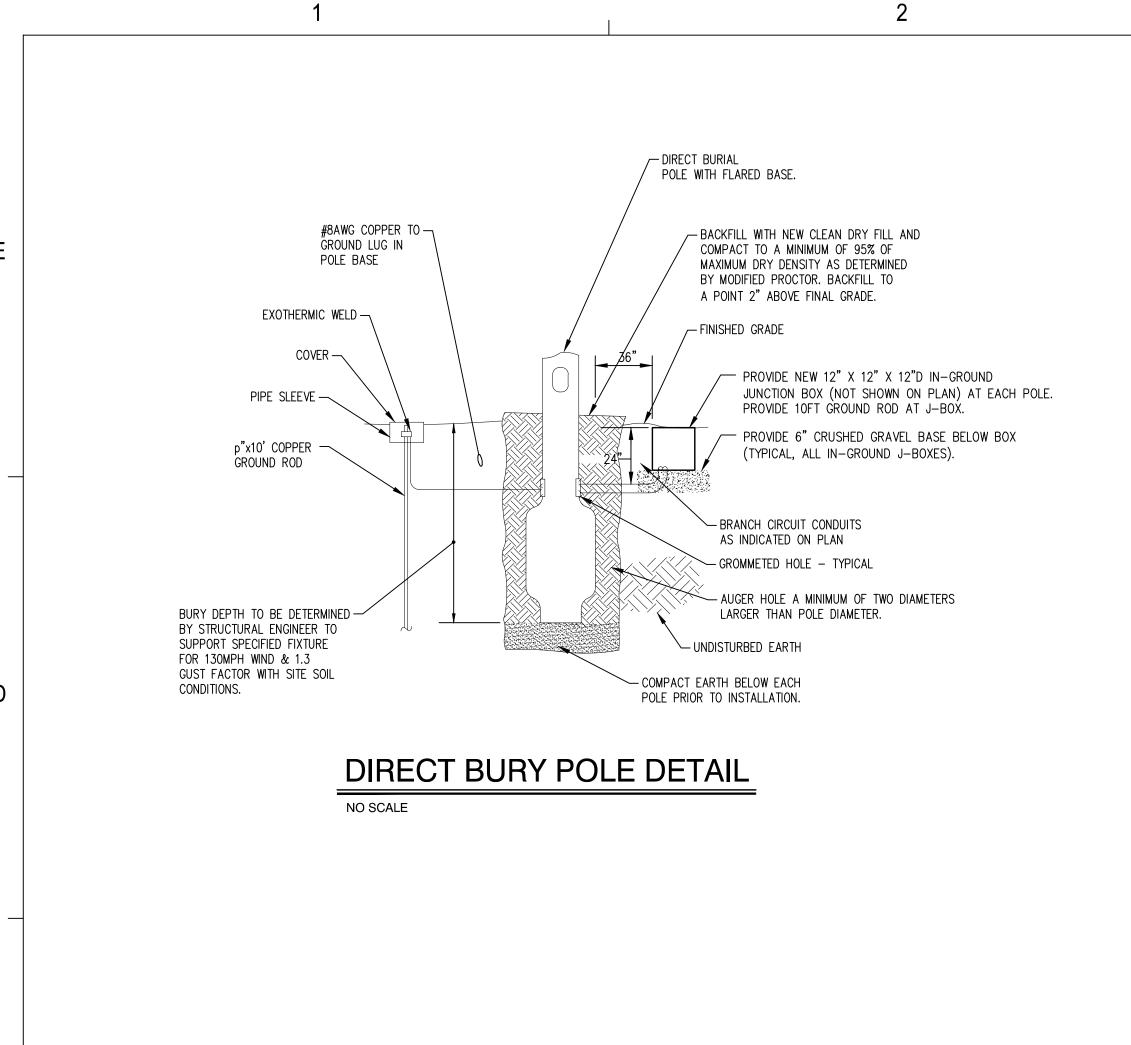
RISER DIAGRAM

PER NEC 250.94.

NO SCALE

ABOVE THE UNDERGROUND INSTALLATION. HAVE UTILITIES LOCATED AND MARKED.

54.3KVA TOTAL DEMAND LOAD: 92.7KVA = 257A @ 120/208V 3-PH



PROVIDE 0.040" (MIN.) GAUGE **GENERATOR** ALUMINUM SIGN, WEATHERPROOF, RADIUS CORNERS, CHAMFERED EDGES — **EMERGENCY** TEXT SHALL BE 1" HIGH (MIN.), ALL 10" INSTALL AT GENERATOR SHUTDOWN **EMERGENCY** CAPS, UV STABLE INK, WHITE LETTERING SHUTDOWN SWITCH. ON RED, TYPE I (ENGINEER GRADE) REFLECTIVE SHEETING. + SWITCH PRE-DRILLED (3/16") HOLE, TYPICAL OF (2) PROVIDE ENGRAVED NAMEPLATE, WITH WHITE LETTERING ON RED BACKGROUND. (UV-STABLIZED, WEATHERPROOF, SCRATCH-**GENERATOR** RESISTANT) ■ INSTALL AT METER ON SITE PRE-DRILLED HOLE, TYPICAL OF FOUR CORNERS. PERMANENTLY SECURE TO EQUIPMENT.

PROVIDE GROUND ROD AT EACH CORNER

PROVIDE #2 BARE COPPER COUNTERPOISE GROUND RING

TO GROUND RODS, AND BOND TO GENERATOR FRAME. ----

STUB-UP CONDUITS (SIZE/QUANTITY PER PLANS);

LOCATE PER GENSET CONDUIT ENTRY TEMPLATE

(PROVIDED BY MANUFACTURER).

12 INCHES FROM PERIMETER.

PROVIDE #4 REBAR,

WIRE MESH IN CENTER

THIRD OF SLAB

GENERATOR PAD SECTION — -

6" MINIMUM SLAB THICKNESS —

**GENERATOR PAD SECTION** 

NOTES:

1. LEVEL AND COMPACT SITE AS MAY BE REQUIRED PRIOR TO FORMING PAD.

2. ANCHOR BOLTS SHALL BE CAST INTO SURFACE OF PAD; SIZE, QUANTITY,

AND LOCATION OF ANCHOR BOLTS SHALL BE PER MANUFACTURER'S

GRADE TO ASSURE PAD DOES NOT CREATE DRAINAGE ISSUES.

NO SCALE

NO SCALE

RECOMMENDATIONS.

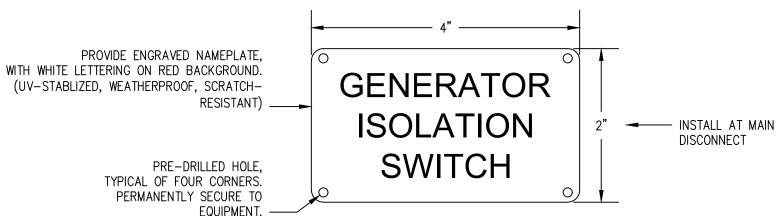
8"

**GENERATOR PAD LAYOUT** 

PROVIDE 3000PSI CONCRETE, 8 GA. WIRE MESH (6" X 6")

24" BELOW GRADE AROUND PERIMETER OF PAD; CAD-WELD

OF GENERATOR PAD (FOUR TOTAL) —



2. PROVIDE ATTACHMENT MEANS AS NECESSARY TO PERMANENTLY AND SECURELY ATTACH SIGN TO EQUIPMENT.

# GENERATOR SIGN DETAILS

NO SCALE



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CHOCTAW BEACH FIRE STATION
BOARD OF COUNTY COMMISSIONERS
WALTON COUNTY
FLORIDA

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FOR CONSTRUCTION

SCALE: AS NOTED

APPLIED RESEARCH AND DESIGN, INC. 2623 S. BLAIR STONE ROAD TALLAHASSEE, FL 32301

FL CA#8948 JAMES M. LAMB, PE#52688 Tel: (850) 668-6324 -- E-mail: jlamb@ard-eng.com

REVISIONS DESCRIPTION DRAWN BY

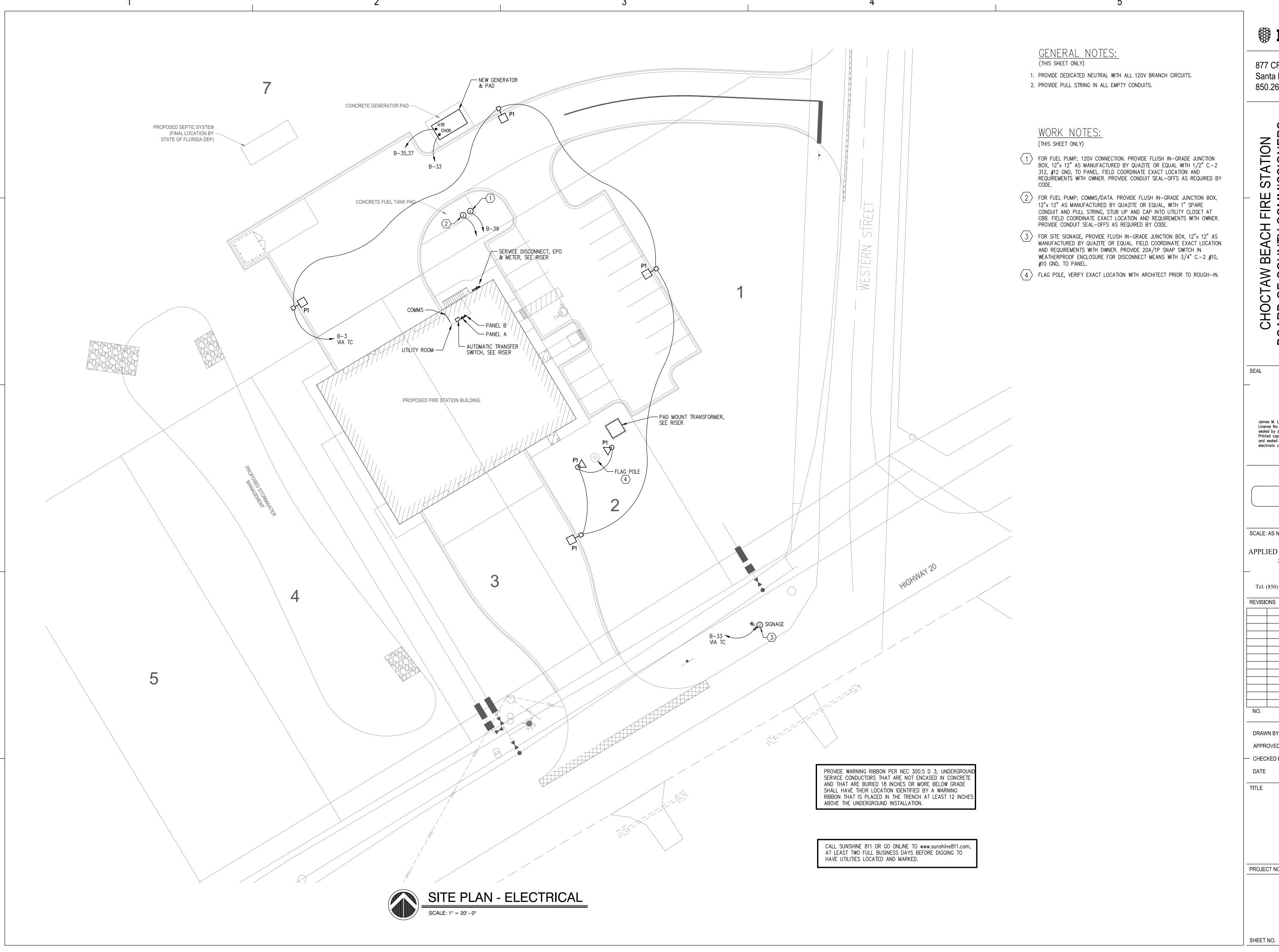
APPROVED BY CHECKED BY MAY 2022 DATE

**DETAILS** 

PROJECT NO. 50144269

SHEET NO.

EQUIPMENT. GENERAL SIGN NOTES: 1. SEE PLANS, ELEVATION, AND RISER FOR SIGN LOCATIONS.



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CHOCTAW BEACH FIRE STATION
BOARD OF COUNTY COMMISSIONERS
WALTON COUNTY
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Tel: (850) 668-6324 -- E-mail: jlamb@ard-eng.com

DESCRIPTION DRAWN BY

APPROVED BY CHECKED BY MAY 2022 DATE

> SITE PLAN -**ELECTRICAL**

PROJECT NO.

50144269

FIRST FLOOR PLAN - POWER & SYSTEMS SCALE: 3/16" = 1' - 0"

GENERAL NOTES:

(THIS SHEET ONLY)

1. PROVIDE DEDICATED NEUTRAL WITH ALL 120V BRANCH CIRCUITS.

2. PROVIDE PULL STRING IN ALL EMPTY CONDUITS.

WORK NOTES: (THIS SHEET ONLY)

- $\langle 1 \rangle$  AHU-1; 208V, 1PH, PROVIDE NEW 60A/2P 240V N.F. NEMA-1 SAFETY SWITCH, WITH 3/4" C.-2 #6, #10 GND, TO PANEL. PROVIDE A SIMPLEX RECEPTACLE (NOT SHOWN) FOR CONDENSATE PUMP, CONNECT TO NEAREST 120V RECEPTACLE CIRCUIT. MOUNT AT OR NEAR AHU.
- $\langle 2 \rangle$  HP-1; 208V, 1PH, PROVIDE NEW 60A/2P 240V N.F. NEMA-3R SAFETY SWITCH, WITH 3/4" C.-2 #6, #10 GND, TO PANEL.
- 3 DFU-1 OUTDOOR UNIT; 115V, 1PH, PROVIDE NEW 30A/2P 240V FUSED NEMA-3R SAFETY SWITCH (FUSE AS RECOMMENDED BY MANUFACTURER), WITH 3/4" C.-2 #10, #10 GND, TO PANEL. PROVIDE POWER/CONTROL CABLING PER MANUFACTURER'S REQUIREMENTS TO INDOOR UNIT.
- 4 DFU-1 INDOOR UNIT; 115V, 1PH, PROVIDE POWER/CONTROL CABLING PER MANUFACTURER'S REQUIREMENTS FROM OUTDOOR UNIT. PROVIDE 20A MOTOR-RATED SNAP SWITCH AT INDOOR UNIT (NOT SHOWN) FOR DISCONNECT MEANS. PROVIDE SIMPLEX RECEPTACLE (NOT SHOWN) FOR CONDENSATE PUMP IF REQUIRED, CONNECT TO NEAREST 120V RECEPTACLE CIRCUIT, MOUNT AT OR NEAR
- 5 GAS UNIT HEATER; COORDINATE EXACT LOCATION WITH MECHANICAL INSTALLER. PROVIDE NEW 20A/1P SNAP SWITCH AT UNIT FOR DISCONNECT MEANS IF NOT PROVIDED WITH UNIT. PROVIDE LINE VOLTAGE THERMOSTAT CONTROL (NOT SHOWN). PROVIDE 1/2" C.-2 #12, #12 GND, TO PANEL.
- $\langle 6 \rangle$  GWH; GAS TANKLESS WATER HEATER, PROVIDE NEW 20A/1P MOTOR-RATED SNAP SWITCH IN WEATHERPROOF ENCLOSURE (NOT SHOWN) FOR DISCONNECT MEANS WITH 1/2" C.-2 #12, #12 GND, TO PANEL.
- ⟨ 7 ⟩ RANGE HOOD; PROVIDE POWER CONNECTION AS SOWN. PROVIDE FIRE ALARM CONNECTION TO HOOD FIRE SUPPRESSION SYSTEM TO SHUNT-TRIP POWER TO RANGE UPON ACTIVATION OF HOOD FIRE SUPPRESSION.
- $\langle 8 \rangle$  PROVIDE 2'-6"x 4'x 3/4"PLYWOOD BACKBOARD AS INDICATED. PAINT WITH 2 COATS OF FIRE RETARDANT PAINT. PROVIDE COPPER GROUND BAR CONNECTED TO BUILDING SYSTEM GROUND WITH #6 AWG. PROVIDE 2" CONDUIT TO RIGHT OF WAY, COORDINATE WITH UTILITY. PROVIDE CAT-6 PATCH PANEL, AND TERMINATE/TEST ALL STATION CABLES FOR COMPLIANCE WITH CAT-6 REQUIREMENTS (INCLUDING ATTENUATION AND CROSS-TALK).
- (9) MOTORIZED DOOR; FIELD COORDINATE EXACT LOCATION AND CONNECTION REQUIREMENTS WITH VENDOR AND FIELD VERIFY LOCATION AND REQUIREMENTS FOR CONTROLS WITH OWNER/VENDOR PRIOR TO ROUGH-IN. PROVIDE 1/2" C.-2 #12, #12 GND, TO PANEL.
- (10) COMPRESSOR ROOM FAN; PROVIDE NEW 20A/1P MOTOR-RATED SNAP SWITCH AT UNIT FOR DISCONNECT MEANS IF NOT PROVIDED WITH UNIT. PROVIDE 1/2" C.-2 #12, #12 GND, TO PANEL.
- (11) AIR COMPRESSOR; (SUPPLIED BY OWNER, INSTALLED BY CONTRACTOR). PROVIDE NEW 100A/3P 240V FUSED NEMA-1 SAFETY SWITCH (FUSE PER NAMEPLATE REQUIREMENTS). PROVIDE 1-1/2" C.-3 #4, #8 GND, TO PANEL
- EWC; IF RECEPTACLE IS ACCESSIBLE PROVIDE AS INDICATED. IF EQUIPMENT COVERS THE RECEPTACLE MAKING IT INACCESSIBLE PROVIDE A STANDARD 20A DUPLEX RECEPTACLE, WITH GECI BREAKER AT PANEL.
- (13) ELECTRIC RANGE: PROVIDE 50A 120/240V RANGE RECEPTACLE, WITH 3 #6, #10 GND, TO PANEL; PROVIDE PROVIDE CONNECTION TO PANEL TO SHUNT-TRIP POWER UPON ACTIVATION OF FIRE PROTECTION SYSTEM.
- $\langle 14 \rangle$  AHU-2; 208V, 1PH, PROVIDE NEW 30A/2P 240V N.F. NEMA-1 SAFETY SWITCH, WITH 3/4" C.-2 #10, #10 GND, TO PANEL. PROVIDE A SIMPLEX RECEPTACLE (NOT SHOWN) FOR CONDENSATE PUMP, CONNECT TO NEAREST 120V RECEPTACLE CIRCUIT. MOUNT AT OR NEAR AHU.
- $\langle 15 \rangle$  HP-2; 208V, 1PH, PROVIDE NEW 30A/2P 240V N.F. NEMA-3R SAFETY SWITCH, WITH 3/4" C.-2 #8, #10 GND, TO PANEL.
- PROVIDE CONNECTIONS FOR TAMPER AND FLOW SWITCHES. VERIFY EXACT LOCATION AND QUANTITY WITH FIRE PROTECTION CONTRACTOR.
- MECHANICAL VEHICLE EXHAUST SYSTEM CONTROLLER, PROVIDE 120V CONNECTION AS REQUIRED. COORDINATE REQUIREMENTS AND CONNECTIONS WITH INSTALLING CONTRACTOR. MAKE CONNECTIONS AS REQUIRED FOR EXHAUST FAN, 208V, 3 PH, 5HP, SEE SHEET E1.3.

**Dewberry** 

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CHOCTAW BEACH FIRE STATION
BOARD OF COUNTY COMMISSIONER
WALTON COUNTY
FLORIDA

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SCALE: AS NOTED

APPLIED RESEARCH AND DESIGN, INC. 2623 S. BLAIR STONE ROAD TALLAHASSEE, FL 32301 FL CA#8948 JAMES M. LAMB, PE#52688 Tel: (850) 668-6324 -- E-mail: jlamb@ard-eng.com

REVISIONS				
1	KITCHEN REVISIONS	2/23/23		
NO	DECORIDATION			
NO.	DESCRIPTION	DATE		
		MDO		

DRAWN BY APPROVED BY CHECKED BY MAY 2022 DATE

FIRST FLOOR PLAN -POWER & SYSTEMS

PROJECT NO.

50144269

GENERAL NOTES:

(THIS SHEET ONLY)

1. PROVIDE POWER PACKS AS REQUIRED FOR OCCUPANCY SENSORS.

2. ALL WALL MOUNTED OCCUPANCY SENSORS ARE MANUAL ON/AUTOMATIC OFF.

PROVIDE ALL LOW VOLTAGE CONTROL CABLING FOR LIGHTING, PLENUM RATED.

4. PROVIDE SEPARATE NEUTRAL FOR EACH 120V BRANCH CIRCUIT.

WORK NOTES: (THIS SHEET ONLY)

2 CHANNEL 24 HOUR/7 DAY PROGRAMMABLE ASTRONOMICAL TIME CLOCK (WITH BATTERY BACKUP) AS MANUFACTURED BY TORK OR APPROVED EQAUL. PROVIDE CONTACTOR(S) AS REQUIRED TO SERVE ALL CIRCUITS SHOWN.

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TALLAHASSEE, FL 32301
FL CA#8948

JAMES M. LAMB, PE#52688
Tel: (850) 668-6324 -- E-mail: jlamb@ard-eng.com

APPROVED BY

CHECKED BY

DATE

MAY 2022

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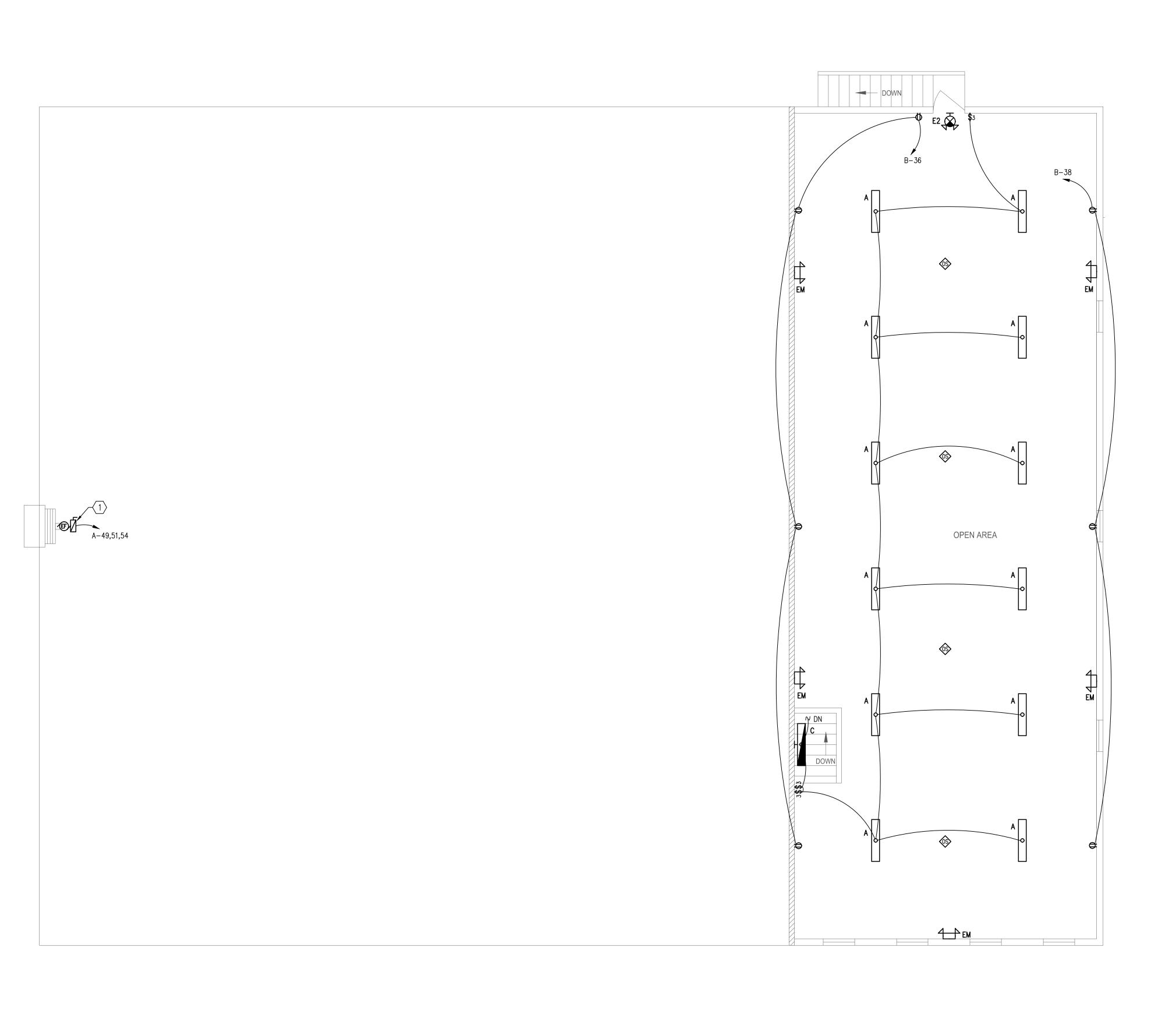
FIRST FLOOR PLAN -LIGHTING

PROJECT NO.

F1 2

50144269





GENERAL NOTES:

(THIS SHEET ONLY)

1. PROVIDE POWER PACKS AS REQUIRED FOR OCCUPANCY SENSORS.

- 2. ALL WALL MOUNTED OCCUPANCY SENSORS ARE MANUAL ON/AUTOMATIC OFF.
- PROVIDE ALL LOW VOLTAGE CONTROL CABLING FOR LIGHTING, PLENUM RATED.
- 4. PROVIDE SEPARATE NEUTRAL FOR EACH 120V BRANCH CIRCUIT.

WORK NOTES: (THIS SHEET ONLY)

VEHICLE EXHAUST SYSTEM; PROVIDE NEW 30A/3P 240V FUSED NEMA-1 SAFETY SWITCH (FUSED AS RECOMMENDED BY MANUFACTURER), WITH 3/4" C.-3 #10, #10 GND, TO PANEL. PROVIDE CONNECTION TO OVERHEAD DOOR SWITCH TO SIGNAL FAN "ON" AND TO RUN A SPECIFIED TIME AFTER DOORS CLOSE (BOOSTER FAN WITH EXHAUST HOOK-UP). VERIFY REQUIREMENTS, VOLTAGE, SIZE, ETC. WITH VENDOR PRIOR TO ROUGH-IN AND MAKE ALL CONNECTIONS AS REQUIRED.

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WALTON COUNTY
FLORIDA

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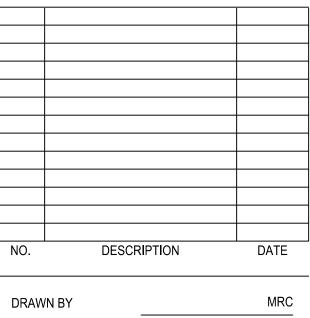
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SCALE: AS NOTED

APPLIED RESEARCH AND DESIGN, INC. 2623 S. BLAIR STONE ROAD TALLAHASSEE, FL 32301 FL CA#8948

JAMES M. LAMB, PE#52688 Tel: (850) 668-6324 -- E-mail: jlamb@ard-eng.com



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APPROVED BY	JML
— CHECKED BY	JML
DATE	MAY 2022
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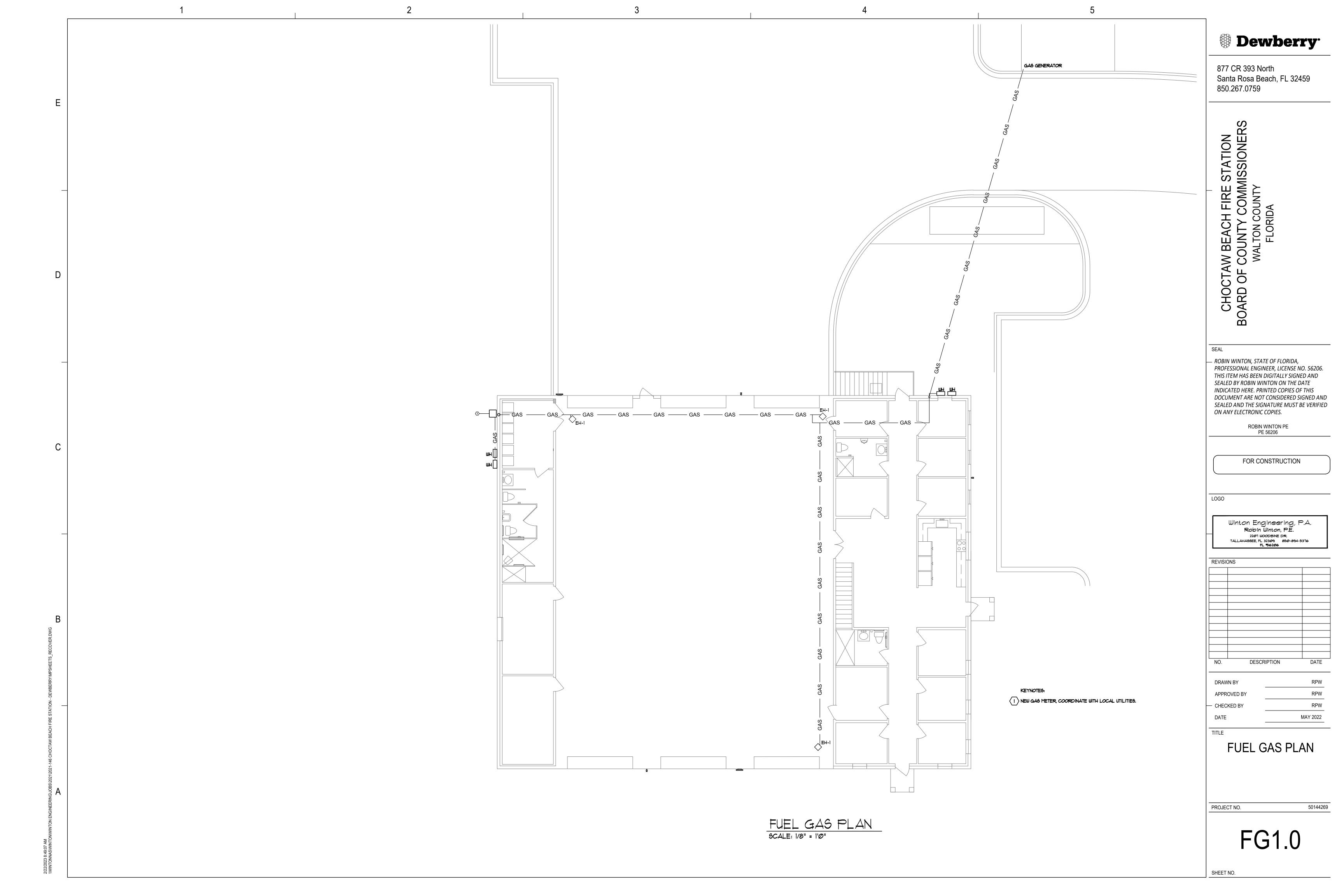
# SECOND FLOOR PLAN -ELECTRICAL

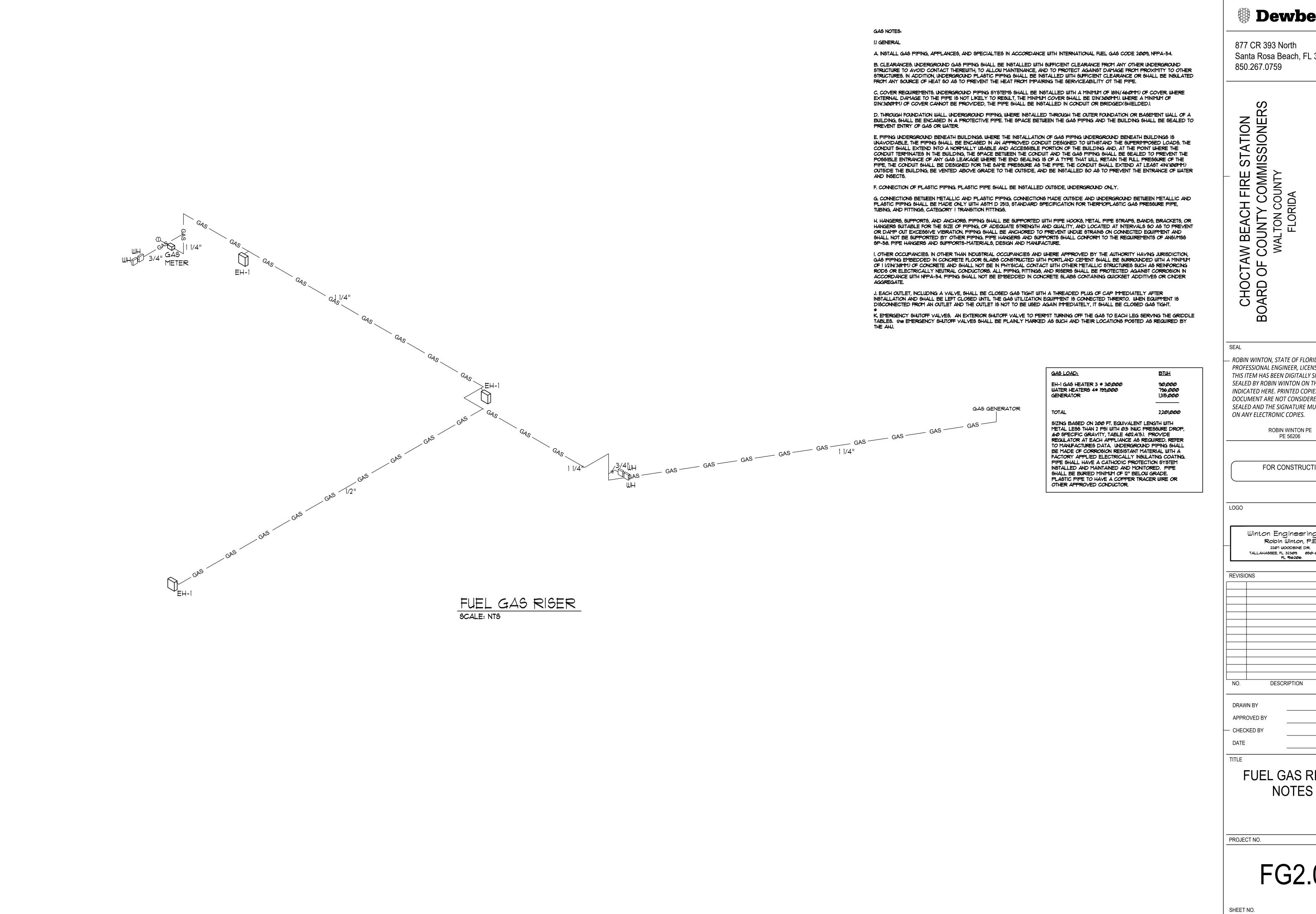
PROJECT NO.

50144269

SHEET NO.

SECOND FLOOR PLAN - ELECTRICAL SCALE: 3/16" = 1' - 0"





877 CR 393 North Santa Rosa Beach, FL 32459

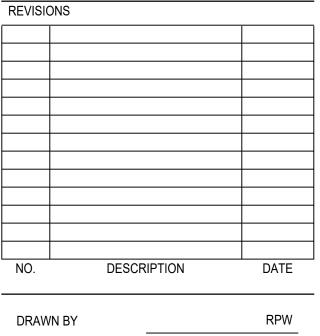
OCTAW BEACH FIRE STATION
D OF COUNTY COMMISSIONERS
WALTON COUNTY
FLORIDA

ROBIN WINTON, STATE OF FLORIDA, PROFESSIONAL ENGINEER, LICENSE NO. 56206. THIS ITEM HAS BEEN DIGITALLY SIGNED AND SEALED BY ROBIN WINTON ON THE DATE INDICATED HERE. PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED AND THE SIGNATURE MUST BE VERIFIED ON ANY ELECTRONIC COPIES.

> ROBIN WINTON PE PE 56206

FOR CONSTRUCTION

Winton Engineering, P.A. Robin Winton, P.E 2207 WOODBINE DR. TALLAHA66EE, FL 323Ø9 85Ø-894-5376 FL \*562Ø6



FUEL GAS RISER

MAY 2022

50144269

ASSOCIATION (NEMA).

DUCT A IS
BROKEN TO
SHOW DUCT B

DUCT A RUNS

M BELOW DUCT B.

DUCT A CONTINUES
ON ANOTHER
DRAWING. SEE

KEYNOTE.

INSIDE DIMENSIONS, WIDTH BY HEIGHT FIRE DAMPER. 2 HOUR RATING

RECTANGULAR DUCT,

—**●** FD RECTANGULAR DUCT ELBOW WITH VANES. DOUBLE WIDTH ROUND SHEET METAL DUCT TAKEOFF

WITH SPIN-IN FITTING 8' OF FLEX ALLOWED HARD PIPE UP TO FLEX AND MANUAL DAMPER SUPPLY AIR DUCT END SECTION

20x12

RETURN, EXHAUST OR O/A DUCT END SECTION SUPPLY AIR DIFFUSER PLAN VIEW

MECHANICAL LEGEND

RETURN AIR GRILLE PLAN VIEW RECTANGULAR DUCT, TRANSITION 24" RD. DRYWELL FOR CONDENSATE DRAIN

BALANCING DAMPER

BYMBOL QUANTITY

SYMBOL CFM

Ø - 75

80 - 105

110 - 175

180 - 270

275 - 325

330 - 800

805 - 1200

1205 - 1500

I. ALL DIFFUSER TO BE TITUS TYPE TMS OR EQUAL.

2. RETURN GRILLES TO BE TITUS 350RL TYPE.

CEILING DIFFUSER SCHEDULE

SIZE

NECK RINOUT FACE DIMENSION
PLANT DUCT HARD | 1 AY-IN

0 - 60 6"¢ 8"¢ 12 × 12 24 × 24

65 - 150 8"\$ 8"\$ 16 × 16 24 × 24

| 200 - 250 | 10"+ | 10"+ | 20 × 20 | 24 × 24

| 255 - 395 | 10"¢ | 12"¢ | 20 × 20 | 24 × 24

| 400 - 550 | 12"¢ | 12"¢ | 24 × 24 | 24 × 24

| 555 - 595 | 12"¢ | 14"¢ | 24 × 24 | 24 × 24

600 - 745 | 14"¢ | 14"¢ | 24 × 24 | 24 × 24

| 150 - 1000 | 16"+ | 16"+ | 30 × 30 | 30 × 30

SIZE

8×6

10×6

10 × 10

 $12 \times 12$ 

18 × 12

 $24 \times 24$ 

 $24 \times 24$ 

 $24 \times 24$ 

• THESE SIZES ARE TO BE USED UNLESS OTHERWISE NOTED ON DRAWINGS.

CEILING RETURN AIR OR

EXHAUST REGISTER SCHEDULE

HARD

SIZE CEILING CEILING

RUNOUT SIZE \*

10×6

12 × 6

12 × 8

14 × 8

2Ø × 8

26 X 10

 $26 \times 12$ 

 $26 \times 14$ 

HE∠	AT PUMP SPLIT SYSTEM SCH	HEDULE		
INDOO	OR UNIT DESIGNATION		AHU-1	∆HU-2
OUTDO	OOR UNIT DESIGNATION		HP-1	HP-2
AIR Q	NANTITIES			
	TOTAL SUPPLY AIR	CFM	1,660	סרד
	OUTSIDE AIR	CFM	140	TØ
HEATI	NG AND COOLING CAPACITIES			
	TOTAL HEATING CAPACITY	BTUH	42,000	22,000

	SENSIBLE COOLING CAPACITY	втин	36,000	18,000
	TOTAL COOLING CAPACITY	BTUH	48,000	24,000
AIR TE	EMPERATURES			
	COOLING COIL ENTERING	°Fdb-°Fwb	80-67	80-67
	COOLING COIL LEAVING	°Fdb-°Fwb	55-54	55-54
	HEATING COIL ENTERING AND LEAVING	°Fdb-°Fdb	52-95	52-95
INDOC	OR UNIT DATA			
	EXTERNAL STATIC PRESSURE (INCL. FILTER)	IN. H2Ø	Ø.T	Ø.T

INDOC	INDOOR UNIT DATA					
	EXTERNAL STATIC PRESSURE (INCL. FILTER)	IN. H2Ø	Ø.7	Ø.T		
	BLOWER MOTOR	<b>₽</b>	1/3	1/3		
	ELECTRICAL CHARACTERISTICS	V/PH	208-230/1	208-230/1		
	CONDENSATE DRAIN SIZE	IN.	3/4"	3/4"		
	FILTER LOCATION		UNIT	UNIT		
ELECTRIC HEAT DATA						
	HEATING TYPE		ELECTRIC	ELECTRIC		

	HEATING TYPE		ELECTRIC	ELECTRI
	LOCATION		SUPPLY	SUPPLY
	ACTUAL HEATING CAPACITY (NOMINAL CAP.)	E	8	4
	VOLTAGE	V/PH	208-230/1	208-230
OUTDO	OOR UNIT DATA			
	NUMBER OF COMPRESSORS/NUMBER OF STAGES	NO.	1	1
	ELECTRICAL CHARACTERISTICS	<b>√</b>	208-230/1	208-230
	MCA/MOCP	AMPS (EACH)	24.6/60	14.6/25

	UNIT WEIGHT	LBS.	237	184
REFRI	GERANT TYPE		R-410A	R-410A
REFRI	GERANT SUCTION AND LIQUID LINE SIZES	ININ.	MFG	MFG
SEER	ÆER		14/11.5	14/11.5
COP	(HEATING)		-	-
HSPF	(HEATING)		8.2	8.2
MANUF	-ACTURER		DAIKIN	DAIKIN
MODE	L NUMBER (INDOOR UNIT)		ARUF48	ARUF24C

- 1. ALL AHU'S TO BE VARIABLE SPEED WITH HUMIDITY CONTROL.
- 2. TISTAT TO BE HONEYWELL VISION PRO 8000 TYPE WITH HUMIDITY CONTROL. 3. PROVIDE SINGLE POINT OF POWER.

4. PROVIDE 2" FILTER & RACK.

MODEL NUMBER (OUTDOOR UNIT)

- 5. MANUFACTURE TO PROVIDE TRANSFORMER FOR ELECTRIC HEATERS. 6. PROVIDE LONG LINE ACCESSORY FOR REFRIGERANT LINE IF NEEDED.
- 7. PROVIDE CONDENSATE PUMP FOR ALL AHU'S.
- 8. REFER TO MANUFACTURE FOR INSTALL AND SERVICE CLEARANCE.

### 2. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO COORDINATE HIS WORK WITH THAT OF OTHER TRADES. SEE ARCHITECTURAL SECTIONS FOR A DESCRIPTION OF WORK AND

1. THE WORK DESCRIBED HEREINAFTER SHALL BE INSTALLED SUBJECT

TO THE NON TECHNICAL SPECIFICATIONS. THIS SECTION APPLIES TO ALL

AIR CONDITIONING, SHEETMETAL, PIPING, AND AUTOMATIC TEMPERATURE

SEQUENCE OF CONSTRUCTION. THE DRAWINGS ARE ESSENTIALLY DIAGRAMMATIC IN NATURE, THEY ARE, HOWEVER, AS ACCURATE AS SCALE PERMITS AND THE CONTRACTOR SHALL FOLLOW THEM AS CLOSELY AS POSSIBLE. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY ALL CONDITIONS RELATING TO THE WORK IN THE FIELD PRIOR TO PROCEEDING. WITH THE WORK. THE CONTRACTOR SHALL VERIFY ALL WALLS, PARTITIONS, AND STRUCTURAL SYSTEMS BEFORE INSTALLATION AND FABRICATION OF ANY DUCTWORK OR PIPING SYSTEMS. ALL OFFSETS REQUIRED FOR INSTALLATION OF DUCTWORK, OR PIPING SHALL BE INCLUDED IN THE SCOPE OF WORK AT NO ADDITIONAL COST TO THE OWNER THE ENGINEER SHALL BE THE SOLE INTERPRETER OF THE DRAWINGS.

3. ALL MATERIALS SHALL BE NEW AND OF BEST QUALITY AND SHALL BE THE PRODUCTS OF REPUTABLE MANUFACTURERS. MATERIALS AND EQUIPMENT SHALL BE PROPERLY STORED AND PROTECTED FROM THE WEATHER AT ALL TIMES DURING CONSTRUCTION TO PREVENT UNNECESSARY CORROSION AND FOULING. ALL WORK SHALL BE DONE IN A NEAT AND WORKMANLIKE MANNER BY SKILLED AND COMPETENT MECHANICS, ANY WORKER CONSIDERED INCOMPETENT OR UNFIT FOR WORK ON THIS CONSTRUCTION PROJECT SHALL BE PROMPTLY REMOVED BY THE CONTRACTOR UNDER THE DIRECTION OF THE ENGINEER.

4. THE WORK SHALL COMPLY WITH ALL APPLICABLE CODES, REGULATIONS, ORDINANCES, ETC., WHETHER FEDERAL, STATE OR LOCAL. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SECURING ANY PERMITS AND PAYING ANY FEES REQUIRED IN ORDER TO PROCEED WITH THE WORK.

5. THE CONTRACTOR IS REQUIRED TO ATTEND ALL CONSTRUCTION CONFERENCES INCLUDING THE PRE-BID CONFERENCE, THE PRE-CONSTRUCTION CONFERENCE AND THE OWNER'S PROGRESS MEETINGS AS SCHEDULED BY THE ARCHITECT OR THE OWNER. FAILURE TO MAKE REFERENCES IN THE SPECIFICATIONS TO ANY ITEMS OF THE WORK SHOWN BY THE DRAWINGS, AND NECESSARY TO THE COMPLETION OF THE WORK SHALL NOT RELIEVE THE CONTRACTOR OF THE FULL RESPONSIBILITY TO FURNISH THE MATERIALS AND PERFORM THE WORK OF SUCH ITEMS, IN A MANNER COMPARABLE TO OTHER ITEMS OF SIMILAR NATURE FOR WHICH DETAILED SPECIFICATIONS ARE INCLUDED. DRAWINGS AND SPECIFICATIONS ARE INTENDED TO CLEARLY SET FORTH ALL WORK, AND THE DETAILED DESCRIPTION IS ADDED TO ASSIST IN ESTABLISHING THE SCOPE AND THE LOCATION OF THE SEVERAL PARTS OF THE WORK. COLLECTIVELY, THEY SHALL GOVERN AND CONTROL THE SCOPE, CHARACTER AND DESIGN OF THE WORK, AND ANY ITEM CALLED FOR IN ANY ONE OF THE DOCUMENTS SHALL BE AS THOUGH REQUIRED IN ALL.

6. ALL CUTTING AND PATCHING SHALL BE DONE BY WORKMEN SKILLED IN THE TRADES INVOLVED. ALL CUTTING SHALL BE DONE IN SUCH A MANNER AS NOT TO ENDANGER OR DAMAGE FACILITIES. ALL PATCHING SHALL FINISH FLUSH AND SMOOTH AND SHALL MATCH EXISTING ADJOINING SURFACES.

1. SEE GENERAL REQUIREMENTS FOR ELECTRICITY AND WATER. THE MECHANICAL CONTRACTOR IS RESPONSIBLE FOR FURNISHING ALL FUEL REQUIRED FOR THE OPERATION OF HIS CONSTRUCTION EQUIPMENT.

8. ALL FINISHED FIELD INSTALLED PRESSURE PIPING SYSTEMS SHALL BE

9. WORK CONSISTS OF FURNISHING ALL LABOR, MATERIALS, TOOLS, EQUIPMENT, TRANSPORTATION, SCAFFOLDING, SERVICES, SUPERVISION, PLANT, AND PERFORMING ALL OPERATIONS REQUIRED TO PROPERLY COMPLETE ALL WORK IN ACCORDANCE WITH THESE SPECIFICATIONS AND AS INDICATED ON THE APPLICABLE DRAWINGS, SUBJECT TO TERMS AND CONDITIONS OF THE CONTRACT. THE CONTRACTOR IS REQUIRED TO HAVE A QUALIFIED AND EXPERIENCED GENERAL SUPERINTENDENT AND EXPERIENCED SUPERINTENDENT FOR EACH

# MECHANICAL GENERAL NOTES

INVOLVED ON THE JOB WHEN ANY WORK IS IN PROGRESS. ALL WORK SHALL CONFORM WITH ALL LOCAL AND STATE ORDINANCES OR REGULATIONS GOVERNING THE INSTALLATION OF SUCH EQUIPMENT. IF WORK, AS LAID OUT, INDICATED OR SPECIFIED IS RECOGNIZED TO BE CONTRARY TO OR CONFLICTING WITH LOCAL ORDINANCES OR REGULATIONS, THE CONTRACTOR SHALL REPORT SAME TO THE ENGINEER BEFORE SUBMITTING A BID. THE ENGINEER WILL THEN ISSUE INSTRUCTIONS AS TO PROCEDURE. IF CONTRACTOR FAILS TO NOTIFY THE ENGINEER OF CONFLICTS OR OMISSIONS NOTED ABOVE, ALL CHANGES REQUIRED TO COMPLY WITH ORDINANCES AND REGULATIONS SHALL BE MADE WITHOUT ADDITIONAL EXPENSE TO THE OWNER.

10. THE LATEST EDITIONS OF THE ESTABLISHED STANDARDS OF THE FOLLOWING ORGANIZATIONS, AND INDIVIDUAL STANDARDS NAMED SHALL BE FOLLOWED THE SAME AS IF THEY WERE FULLY WRITTEN HEREIN AND CONSTITUTE A PART OF THE SPECIFICATION REQUIREMENTS EXCEPT WHERE OTHERWISE SPECIFIED:

1. FLORIDA BUILDING CODE, 2020 1TH EDITION. 2. FLORIDA PLUMBING CODE, 2020 1TH EDITION. 3. FLORIDA MECHANICAL CODE, 2020 1TH EDITION. 4. NFPA 10, NATIONAL ELECTRICAL CODE

SHALL BE APPROVED BY THE ENGINEER.

EXAMINATION HAD BEEN MADE.

ELECTRICAL CONTRACTOR

5. NFPA 101, LIFE SAFETY CODE 6. NFPA 90/A, STANDARD FOR THE INSTALLATION OF AIR CONDITIONING AND VENTILATION SYSTEMS 7. NFPA 91, STANDARD FOR THE INSTALLATION OF BLOWER AND EXHAUST 8. OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION REGULATIONS.

THE FOREGOING RULES, STANDARDS, REGULATIONS, SPECIFICATIONS, RECOMMENDATIONS AND REQUIREMENTS SHALL BE FOLLOWED BY THE CONTRACTOR AS MINIMUM REQUIREMENTS. THEY SHALL NOT RELIEVE THE CONTRACTOR FROM FURNISHING AND INSTALLING HIGHER GRADES OF MATERIALS AND WORKMANSHIP WHICH ARE SPECIFIED HEREIN OR INDICATED ON THE DRAWINGS.

11. THE INTERIOR FACE OF DUCTWORK HOUSING SUPPLY, RETURN OR EXHAUST AIR DIFFUSERS, REGISTERS OR GRILLES SHALL BE PAINTED "FLAT-BLACK" SO WHEN VIEWED FROM BELOW AND ABOVE NOTHING BEYOND SURFACE OF AIR DEVICE IS VISIBLE.

12. THERMOSTAT/SENSOR WIRING TO BE RUN INSIDE WALLS/COLUMNS OR IN ATTIC SPACE. THE USE OF WIREMOLD OR EXTERNAL RACEWAY

13. A COMPLETE CERTIFIED TEST AND BALANCE REPORT SHALL BE SUPPLIED BY AN INDEPENDENT CERTIFIED TEST AND BALANCE AGENCY TO THE ENGINEER IN WRITING PER AABC TEST AND BALANCE REPORT MANUAL (LATEST EDITION) PRIOR TO JOB ACCEPTANCE BY OWNER THE REPORT SHALL BE SIGNED AND SEALED BY A REGISTERED ENGINEER IN THE STATE OF FLORIDA.

14. THE SUBMISSION OF A BID OR PROPOSAL WILL BE CONSTRUED AS EVIDENCE THAT THE CONTRACTOR HAS FAMILIARIZED HIMSELF/HERSELF WITH THE PLANS, SPECIFICATIONS AND BUILDING SITE. CLAIMS MADE SUBSEQUENT TO THE PROPOSAL FOR MATERIALS AND OR LABOR DUE TO DIFFICULTIES ENCOUNTERED WILL NOT BE RECOGNIZED, UNLESS DIFFICULTIES COULD NOT HAVE BEEN FORESEEN EVEN THOUGH PROPER

15. ALL POWER WIRING, RELAYS, PANELS, TRANSFORMERS, DISCONNECT SWITCHES FOR HYAC EQUIPMENT SHALL BE FURNISHED AND INSTALLED BY THE ELECTRICAL CONTRACTOR. ALL CONTROL WIRING, RELAYS, PANELS SENSORS (OR THERMOSTATS) SHALL BE FURNISHED AND INSTALLED BY THE HYAC CONTRACTOR. ALL MOTOR STARTERS SHALL BE FURNISHED BY THE HVAC CONTRACTOR AND INSTALLED BY THE

16. ALL DUCTS TO HAVE AIR EXTRACTORS (ADJUSTABLE TYPE) ON SQUARE OR RECTANGULAR TAKEOFFS WITH SPIN-IN VOLUME DAMPERS ON ROUND OR OVAL TAKE-OFFS. SPIRAL DUCT TAKE-OFFS HAVE NO EXTRACTORS INSTALL FLEXIBLE DUCT CONNECTORS AT ALL FANS AND AIR HANDLING UNITS.

17. FLEXIBLE DUCTS MUST COMPLY WITH UL 181 AND SHALL NOT EXCEED EIGHT FEET IN LENGTH± REMAINING BRANCH LINE SHALL BE GALVANIZED METAL WITH 2" EXTERNAL INSULATION. FLEXIBLE DUCTS SHALL HAVE FOIL BACKING (FSK TYPE).

18. ANY CONDENSATION ON SURFACES OF HYAC EQUIPMENT, DUCTWORK OR PIPING WILL BE CORRECTED BY THE CONTRACTOR. WRAP WITH INSULATING TAPE OR EXTERNAL INSULATION HAVING A VAPOR BARRIER.

19. INSULATION OUTSIDE OF THE BUILDING SHALL BE WRAPPED WITH ALUMINUM. INSIDE ALL SUPPLY, RETURN, EXHAUST AND FRESH AIR DUCTS SHALL BE GALYANIZED METAL, COMPLETELY SEALED, FINISHED WITH 2" EXTERNAL INSULATION HAVING VAPOR, RETARDING JACKET (FSK TYPE). INSULATION SHALL COMPLY WITH UL 181 AND MUST HAVE FLAME SPREAD RATING OF 25 AND A SMOKE DEVELOPED RATING NO HIGHER

20. ROOM SENSORS OR THERMOSTATS SHALL BE MOUNTED AT 48 INCHES ABOVE FINISHED FLOOR.

21. THERMOSTATS TO BE 1 DAY PROGRAMMABLE WITH DIGITAL DISPLAY. PROVIDE AND INSTALL A LOCK BOX FOR ALL THERMOSTATS.

22. SMOKE DETECTORS (SEE DRAWINGS) SHALL BE IONIZATION TYPE AS APPROVED BY THE ENGINEER COORDINATE THE INSTALLATION WITH THE ELECTRICAL CONTRACTOR. CONTRACTOR SHALL VERIFY THAT DETECTORS ARE COMPATIBLE WITH FIRE ALARM SYSTEMS. IF UNIT SELECTION IS NOT COMPATIBLE THE CONTRACTOR SHALL PURCHASE AND INSTALL PROPER UNIT TO INSURE LIFE SAFETY PROTECTION. SMOKE DETECTORS SHALL AUTOMATICALLY SOUND AUDIBLE ALARM AND TURNOFF FANS.

23. FURNISH AND INSTALL ACCESS DOORS(18"x18" MINIMUM) IN ALL DRYWALL CEILINGS FOR ACCESS TO MECHANICAL EQUIPMENT.

24. COORDINATE THE INSTALLATION OF ALL AUX. COND. DRAINS LOCATED IN WALLS WITH THE GENERAL CONTRACTOR. COORDINATE THE INSTALLATION OF ALL MAIN COND. DRAINS LOCATED IN WALLS AND CHASES WITH THE PLUMBING CONTRACTOR.

25. THE CONTRACTOR SHALL NOT FABRICATE ANY AIR DISTRIBUTION DUCTWORK UNTIL IT HAS BEEN VERIFIED THAT SUFFICIENT CLEARANCES ARE AVAILABLE FOR THE INSTALLATION OF HVAC SYSTEMS CONSIDERING REQUIREMENTS FOR PIPING, LIGHT FIXTURES, CEILING SYSTEMS, FLOOR SYSTEMS, FOUNDATIONS, AND STRUCTURES. IF A CONFLICT ARISES CONTACT THE ENGINEER FOR PERMISSION IT REPOUTE SYSTEM. ALL DUCTWORK SHALL BE ROUTED AT THE EXPENSE OF THE

26. DEVIATION FROM MATERIALS, METHODS, AND PROCEDURES SET FORTH HEREIN MUST BE APPROVED IN WRITING BY THE ENGINEER. APPROYAL WILL NOT BE GIVEN UNLESS THE ENGINEER IS SATISFIED THAT THE PROPOSED SYSTEMS ARE SUPERIOR IN PERFORMANCE, DURABILITY, LONGEVITY, AND RELIABILITY TO THAT SPECIFIED.

27. APPROVALS OF EQUIPMENT OR SYSTEMS OTHER THAN THAT SHOWN MUST BE WITHIN TEN (10) WORKING DAYS PRIOR TO BID DATE.

28. ALL DUCT AND PIPE SIZES SHOWN ARE CLEAR NET INSIDE DIMENSIONS.

29. ALL AIR DISTRIBUTION DUCTWORK SHALL BE AIR TIGHT AND FREE OF LEAKS, AND SHALL BE INSPECTED FOR LEAKS PRIOR TO INSTALLATION OF FAN UNITS OR FINISHED FLOOR/CEILING SYSTEM. DUCTWORK SHALL BE SEALED WITH AIR DUCT SEALER PER SMACNA

30. EQUIPMENT, DUCTWORK, DAMPERS, LOUVERS, GRILLES, REGISTERS, DIFFUSERS, OTHER AIR DISTRIBUTIONS EQUIPMENT AND MATERIALS SHALL CONFORM TO THE LATEST EDITIONS OF THE FOLLOWING:

(A) ASHRAE (B) SBCCI

(C) SMACNA (D) NEPA

(E) AMCA STANDARD HANDBOOK 99 (F) AIR DIFFUSION COUNCIL TEST CODE 1062R3 (G) SBCCI STANDARD MECHANICAL CODE

DUCTLESS SPLIT SYSTEM SCHEDULE

(K) AGA (L) UL FIRE RESISTANCE DIRECTORY

STANDARDS AND UL RATING.

31. INSULATE ALL REFRIGERANT LINES WITH 3/4" ARMAFLEX OR EQUIVALENT INSULATION: PROVIDE WITH WEATHERPROOF ALUMINUM JACKET ON LINES OUTSIDE.

32. ALL MATERIALS SHALL BE LISTED BY THE UNDERWRITERS LABORATORIES (UL) OR NATIONAL ELECTRICAL MANUFACTURER'S

33. REFRIGERANT PIPING SHALL BE SIZED IN STRICT ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS FOR LIQUID, VAPOR HORIZONTAL AND VAPOR RISERS.

34. TUBING SHALL BE INSTALLED WITH MOISTURE INDICATOR SIGHT GLASS LOCATED IN THE LIQUID LINE ADJACENT TO THE OUTDOOR UNIT.

35. THOROUGHLY CLEAN REFRIGERANT PIPE FITTINGS BEFORE ASSEMBLY. ALL JOINTS ARE TO BE MADE WITH SILVER ALLOY BRAZE MELTING ABOVE 1100 DEGREES F. NO ACID FLUX IS TO BE USED ON ANY JOINT.

36. ALL CONDENSATE DRAINS SHALL TERMINATE INTO ROOF GUTTER. SECURE TO ROOF SEAMS WITH APPROVED CLIP.

37. ALL WORK AND MATERIALS SHALL BE WARRANTED (PARTS AND LABOR) FOR A PERIOD OF ONE YEAR FROM DATE OF FINAL ACCEPTANCE BY OWNER. AN ADDITIONAL WARRANTY (PARTS ONLY) SHALL INCLUDE 4 YEARS ON ALL COMPRESSORS, WITH NINE YEARS ON ALL HEAT EXCHANGERS.

38. CONTRACTOR SHALL SUPPLY, TO THE ENGINEER, 6 SETS OF SUBMITTALS ON THE FOLLOWING: ITEMS:

A. AIR DISTRIBUTION (DIFFUSER, GRILLE AND REGISTERS)

B. HEATING/AIR CONDITIONING EQUIPMENT

DAMPERS FANS

E. INSULATION MATERIALS F. CONTROLS

G. PIPING

NOTE: THESE ITEMS MUST BE APPROVED BY THE ENGINEER PRIOR TO CONTRACTOR ORDERING.

39. ALL FEES, PERMITS, TAPS, LICENSE, INSURANCE, AND BONDS SHALL BE PAID BY THIS CONTRACTOR FOR ALL RELATED WORK.

40. ROUTE REFRIGERANT PIPING AS SHOWN ON DRAWINGS. MANUFACTURE TO SIZE REFRIGERANT PIPING.

41. PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED UNLESS EMBOSSED AND THE SHA AUTHENTICATION CODE MUST BE VERIFIED ON ELECTRONIC COPIES.

# **Dewberry**

877 CR 393 North Santa Rosa Beach, FL 32459 850.267.0759

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COMMISS BE 50 ŌΩ SH. AR  $\mathcal{O}$  $\mathbf{\Omega}$ 

SEAL

ROBIN WINTON, STATE OF FLORIDA, PROFESSIONAL ENGINEER, LICENSE NO. 56206. THIS ITEM HAS BEEN DIGITALLY SIGNED AND SEALED BY ROBIN WINTON ON THE DATE INDICATED HERE. PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED AND THE SIGNATURE MUST BE VERIFIED ON ANY ELECTRONIC COPIES.

> ROBIN WINTON PE PE 56206

FOR CONSTRUCTION

LOGO

Winton Engineering, P.A. Robin Winton, P.E 2201 WOODBINE DR. TALLAHA<del>SS</del>EE, FL 323*0*9 *850-8*94-5376 **FL \*56206** 

REVISIONS DESCRIPTION DRAWN BY APPROVED BY

**MECHANICAL NOTES** 

MAY 2022

50144269

PROJECT NO.

CHECKED BY

DATE

SHEET NO.

XHAUST FAN SCHEI					
JNIT DESIGNATION		<b>E</b> F-1	EF-2	EF-3	EF-4
AIR FLOW	CFM	140	70	800	38Ø
STATIC PRESSURE	IN. WC	Ø.5	Ø.5	Ø.5	Ø.5
-AN MOTOR POWER	HР	15 <i>0</i> W	100W	.Ø98 HP	111ØW
AN SPEED	RPM	1,050	<b>T</b> 32	1725	1,050
ORIVE		DIRECT	DIRECT	DIRECT	DIRECT
BONES	SONES	3.5	1.5	11	3.5
UEIGHT	LBS	10	10	10	10
ELECTRICAL CHARACTERISTICS	<b>∨/PH</b>	115/1	115/1	115/1	115/1
1ANUFACTURER		GREENHECK	GREENHECK	GREENHECK	COOK
MODEL NUMBER		5P-B15Ø	5P-B110	SE1-10-440	GC-542

DZ145D48 | DZ145D24

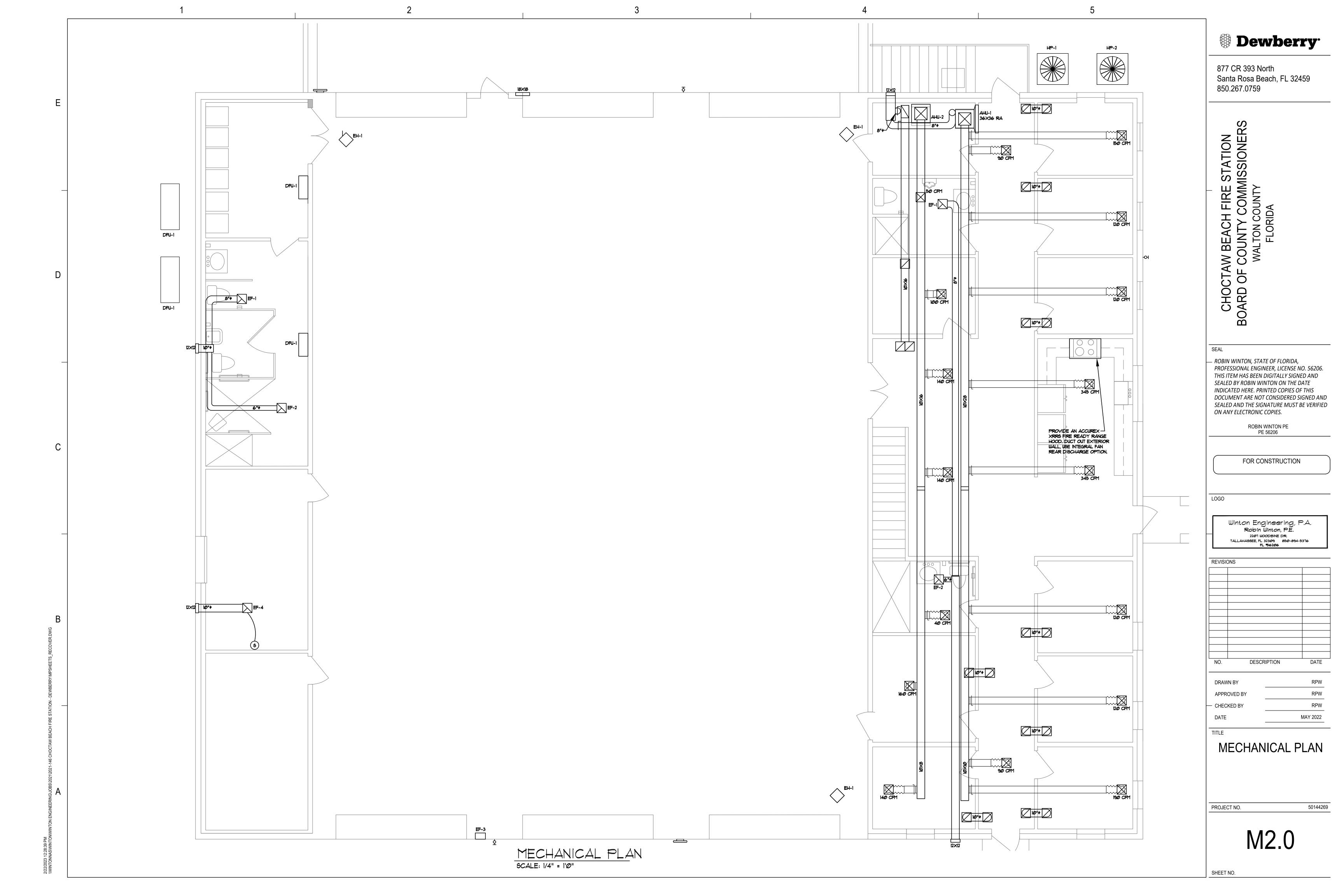
- 1. MOUNT ALL EXHAUST FANS IN ACCORDANCE WITH MFG INSTRUCTIONS.
- 4. PROVIDE BACK-DRAFT DAMPER FOR ALL EXHAUST 5. EXHAUST FAN FOR ELECTRICAL ROOM TO RUN CONTINUOUSLY.
- B. WIRE EXHAUST FANS IN ROOM THEY SERVE TO LIGHT SWITCH.
- 2. PROVIDE FAN SPEED CONTROLLERS FOR ALL EXHAUST FANS.

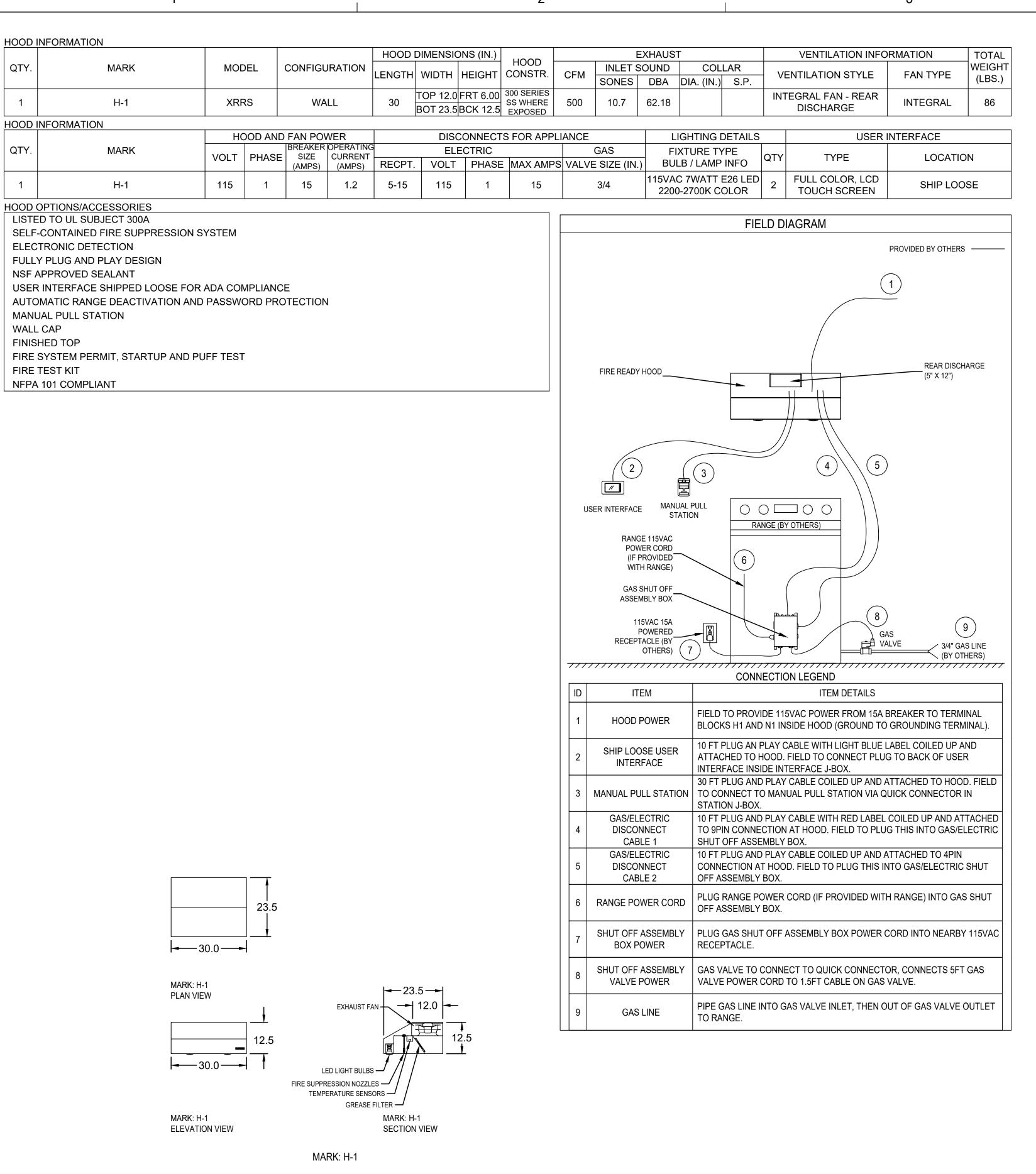
INDO	DOR UNIT DESIGNATION		DFU-1
<i>o</i> ut!	DOOR UNIT DESIGNATION		DFU-1
HEA	TING AND COOLING CAPACITIES		
	TOTAL COOLING CAPACITY	BTUH	8,260
INDO	OOR UNIT DATA		
	AIR QUANTITY (HIGH SPEED)	CFM	327
	ELECTRICAL CHARACTERISTICS	V/PH	115/1
	CONDENSATE DRAIN SIZE	IN.	0.65
	UNIT WEIGHT	LBS.	18
<i>O</i> UTI	DOOR UNIT DATA		
	ELECTRICAL CHARACTERISTICS	V/PH	115/1
	MIN. CIRCUIT AMPACITY	AMPS	12
REFRIGERANT TYPE			R-410A
SEE	R		16
MANUFACTURER			CARRIER
MOD	PEL NUMBER (INDOOR UNIT)		40MVC009
MOD	PEL NUMBER (OUTDOOR UNIT)		38MVCØØ9

1. WALL MOUNTED UNIT.

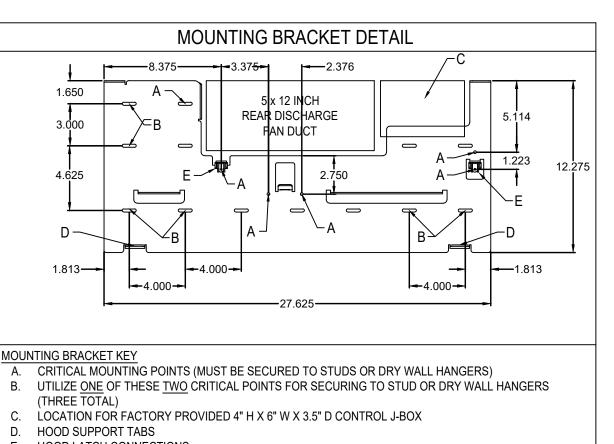
2. PROVIDE LONG LINE ACCESSORY FOR REFRIGERANT LINE IF NEEDED.

3. PROVIDE CONDENSATE PUMP FOR ALL AHU'S.





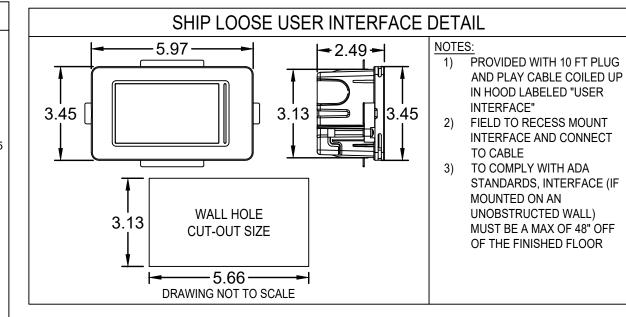
QTY

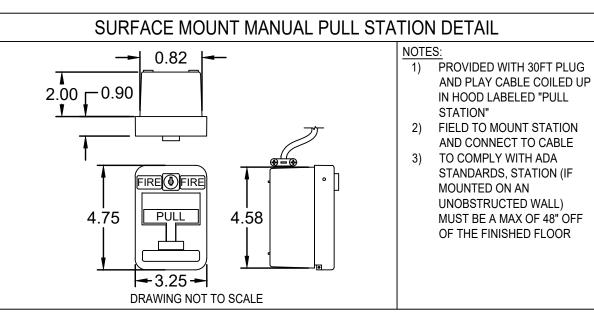


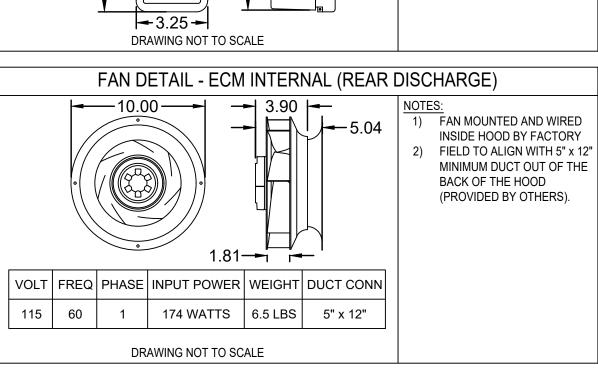
HOOD LATCH CONNECTIONS

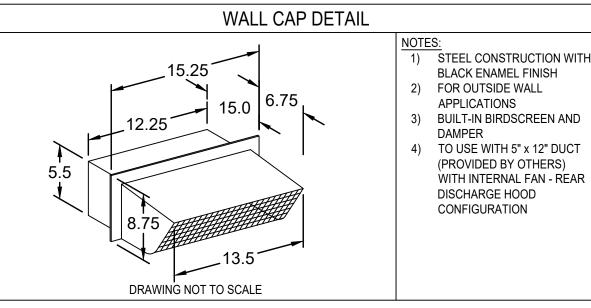
CRITICAL MOUNTING POINTS SHOWN ABOVE.

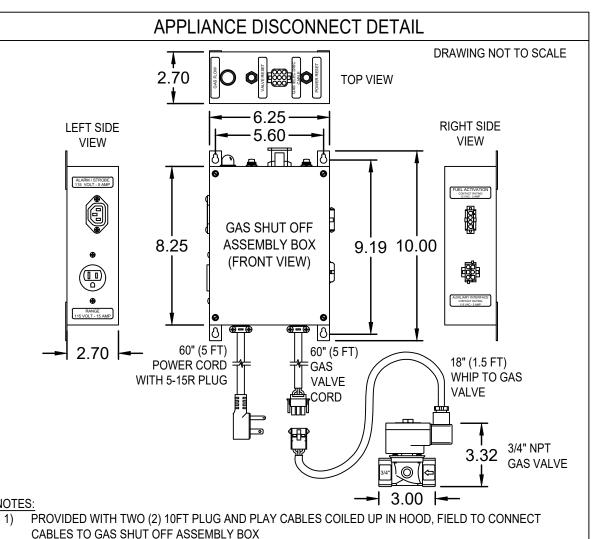
BEFORE MOUNTING, SITUATE MOUNTING BRACKET ON WALL, MAKING SURE CRITICAL MOUNTING POINTS ARE MET AND DISTANCE FROM BOTTOM OF BRACKET TO COOKING SURFACE IS BETWEEN 24 AND 30 INCHES. CUT OUT SPACE IN WALL FOR FACTORY PROVIDED CONTROL J-BOX AND SECURE IN PLACE. SECURE MOUNTING BRACKET TO WALL USING THE PROPER FIELD PROVIDED FASTENERS USING











FIELD TO MOUNT GAS SHUT OFF ASSEMBLY AND RUN GAS PIPING

RECEPTACLE LABELED "RANGE"

FIELD TO PLUG 5FT CORD WITH 5-15R PLUG INTO 115VAC RECEPTACLE BEHIND RANGE

FIELD TO PLUG RANGE POWER CORD (IF APPLICABLE) INTO GAS SHUT OFF ASSEMBLY BOX 115VAC

**Dewberry** 

877 CR 393 North Santa Rosa Beach, FL 32459 850.267.0759

TATION SIONERS W BEACH FIRE STACOUNTY COUNTY FLORIDA CHOCTAW E BOARD OF CO

SEAL

ROBIN WINTON, STATE OF FLORIDA, PROFESSIONAL ENGINEER, LICENSE NO. 56206. THIS ITEM HAS BEEN DIGITALLY SIGNED AND SEALED BY ROBIN WINTON ON THE DATE INDICATED HERE. PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED AND THE SIGNATURE MUST BE VERIFIED ON ANY ELECTRONIC COPIES.

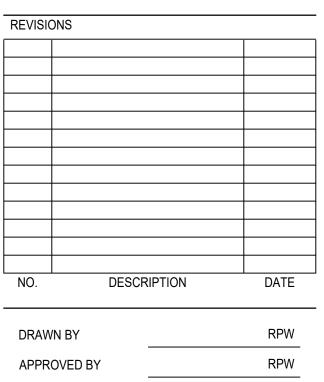
> **ROBIN WINTON PE** PE 56206

FOR CONSTRUCTION

LOGO

Winton Engineering, P.A. Robin Winton, P.E. 22/07 WOODBINE DR.

TALLAHASSEE, FL 32309 850-894-5376 FL 56206



CHECKED BY MAY 2022 DATE

KITCHEN HOOD

50144269

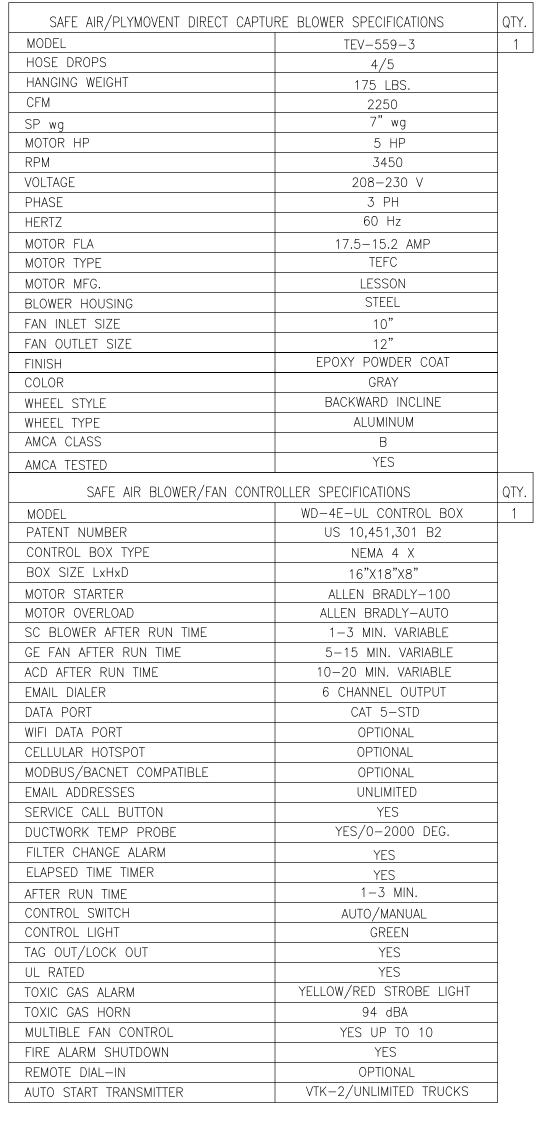
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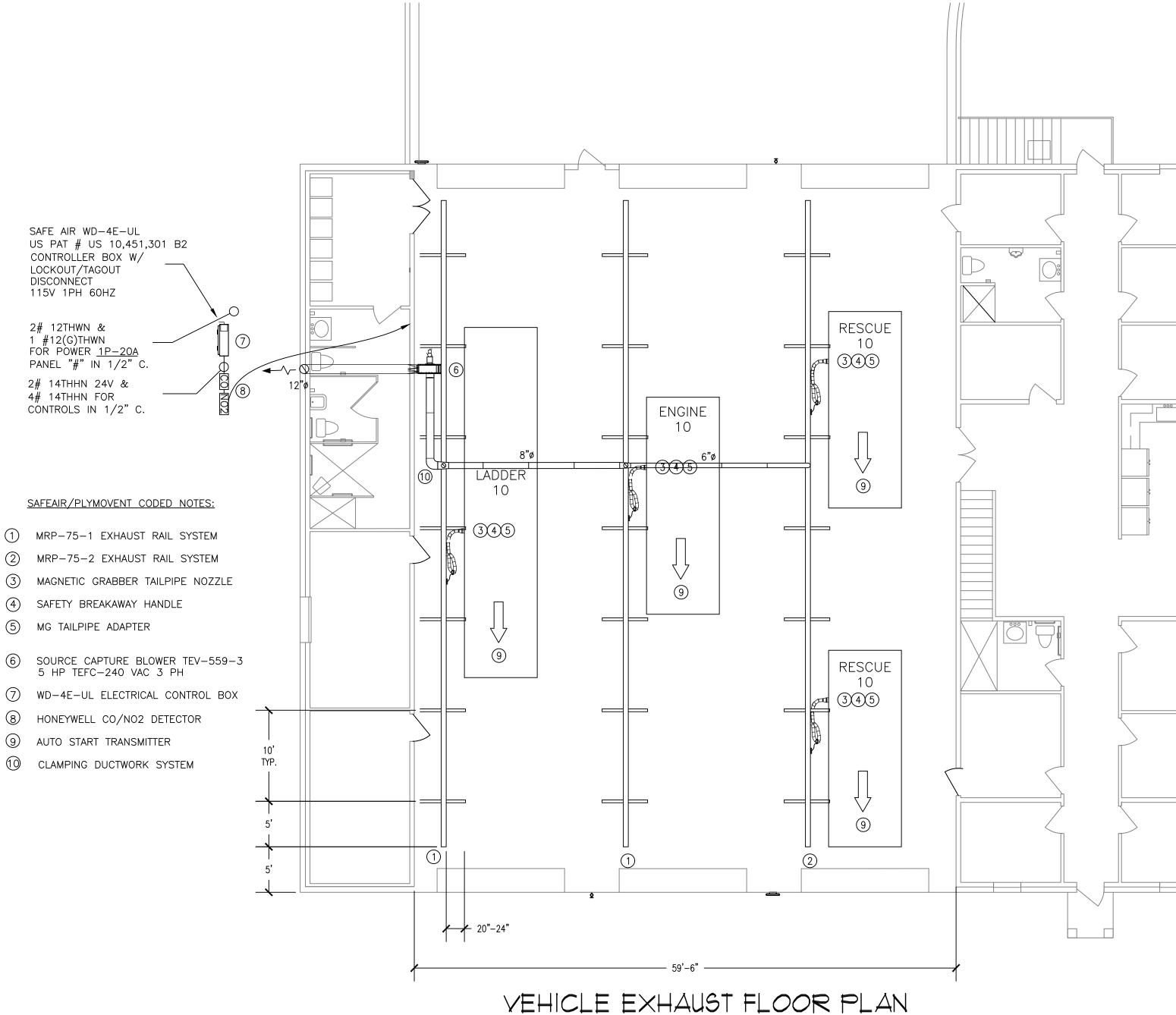
SHEET NO.

TITLE

MECHANICAL PLAN







# EXHAUST SYSTEM-GENERAL NOTES & SPECIFICATIONS

- THIS PROJECT IS DESIGNED AND PROVIDED BY SAFE AIR CORPORATION. FOR DETAILS ON PROJECT PLEASE CONTACT THE FOLLOWING: SAFE AIR CORPORATION— sales@safeairco.com—WAYNE
- LUTZ-wlutz@safeairco.com-800-798-8820.

  2. THE EQUIPMENT SPECIFICATIONS LISTED IN DRAWINGS ARE TO BE PROVIDED IN FULL WITH NO CHANGES OR
- 3. THE FINAL SHOP DRAWING MUST SHOW THE DETAILS OF VEHICLE LOCATIONS, NUMBER OF VEHICLES, DIRECTION OF EXIT FROM STATION AND BE APPROVED BY OWNER.
  4. ALL EXHAUST FANS AND BLOWERS SHALL MEET AMCA TEST
- STANDARDS FOR PERFORMANCE AND BE MOUNTED IN THE BAY AREA OR BE NOA RATED FOR OUTSIDE INSTALLATION.

  5. ALL ELECTRICAL CONTROLS AND WIRING COMPONENTS SHALL BE UL OR ETL LISTED.
- 6. ALL ELECTRICAL (120-460V), CONTROL WIRE (24V) AND DATA (CAT-5) IS THE SCOPE OF WORK OF THE ELECTRICAL/CONTROLS CONTRACTOR. THE ELECTRICAL CONTRACTOR SHALL COORDINATE WITH SAFE AIR AND ALL OTHER TRADES WITH ANY UPDATES OR CHANGES TO ELECTRICAL SUPPLY THAT MAY CHANGE AND EFFECT BLOWER/EXHAUST FANS/MOTORIZE DAMPER POWER
- 7. ALL WIRING WILL BE RUN IN EMT CONDUIT WITH WATER—TIGHT FITTING. THE MINIMUM WIRE SIZE SHALL BE #12 THHN MULTI—STRAND COPPER WIRE OR LARGER BASED ON NEC LOAD CHART FOR HORSE POWER FULL LOAD AMPERAGE AND SIZED ONE CONDUCTOR LARGER AND #14 THHN MULTI—STRAND COPPER WIRE FOR LOW VOLTAGE CONTROL WIRING.

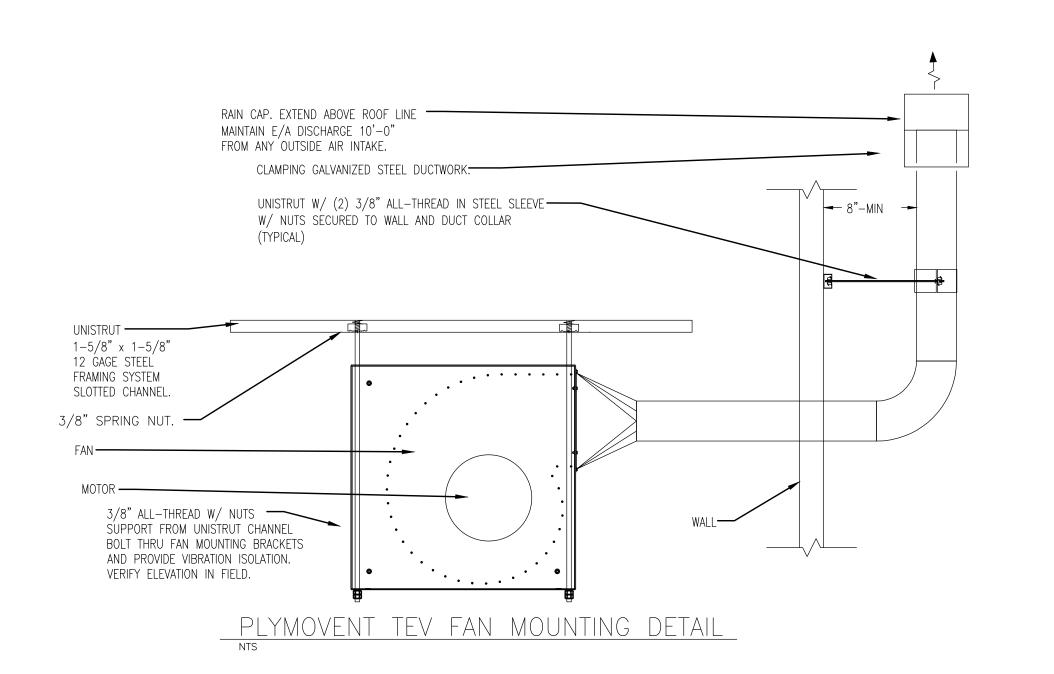
REQUIREMENT BY EMAIL TO ALL TRADES.

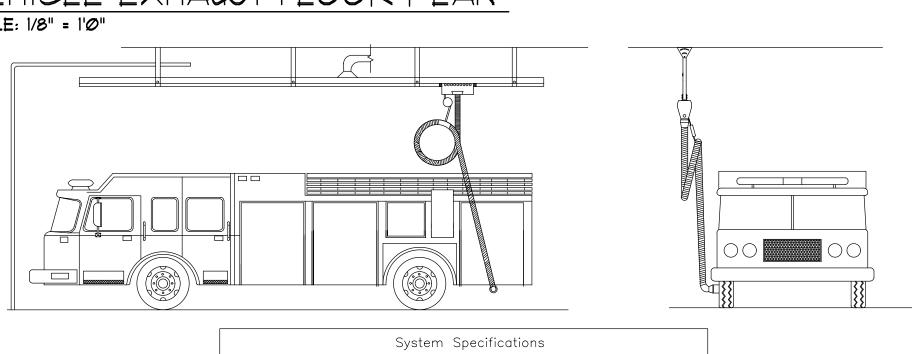
- 8. ALL WIRING SHALL BE COLOR CODED AS NOTED OR LABELED ON BOTH ENDS AND CONTROL SYSTEMS LABELED WITH THE PANEL/BREAKER THAT SUPPLIES THE CONTROLLER.
- 9. ALL MECHANICAL INSTALLATION OF SOURCE CAPTURE
  EQUIPMENT AND DUCTWORK IS THE SCOPE OF WORK OF
  MECHANICAL CONTRACTOR OR SAFE AIR AS NOTED
- MECHANICAL CONTRACTOR OR SAFE AIR AS NOTED.

  10. ALL TRADES MUST MEET FEDERAL, STATE AND CITY CODES FOR THE TRADE THAT YOU REPRESENT.
- 11. LOCATIONS ON DOCUMENTS ARE APPROXIMATE LOCATIONS OF TYPICALLY REQUIRED EQUIPMENT AND MAY NOT IDENTIFY ALL SCHEDULED EQUIPMENT FROM SAFE AIR.

12. FINAL START-UP, TRAINING AND COMMISSIONING IS

PROVIDED BY SAFE AIR.





System Specifications						
Туре	Length	Number of supports	Weight	Qty.		
MRP-75-1	71'	7	328 lbs	2		
MRP-75-2	71'	7	358 lbs	1		

SAFE AIR/PLYMOVENT MRP TYPICAL DETAIL

NTS

# **Dewberry**

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WALTON COUNTY
FLORIDA

SEAL

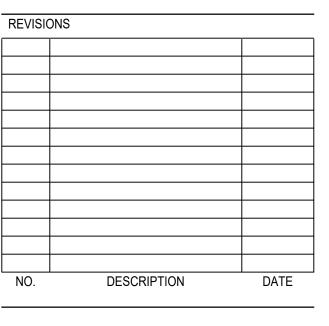
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> ROBIN WINTON PE PE 56206

FOR CONSTRUCTION

LOGO

Winton Engineering, P.A.
Robin Winton, P.E.
2207 WOODBINE DR
TALLAHASSEE, FL 32309 850-894-5376
FL 456206



DRAWN BY	RPW
APPROVED BY	RPW
CHECKED BY	RPW
DATE	MAY 2022

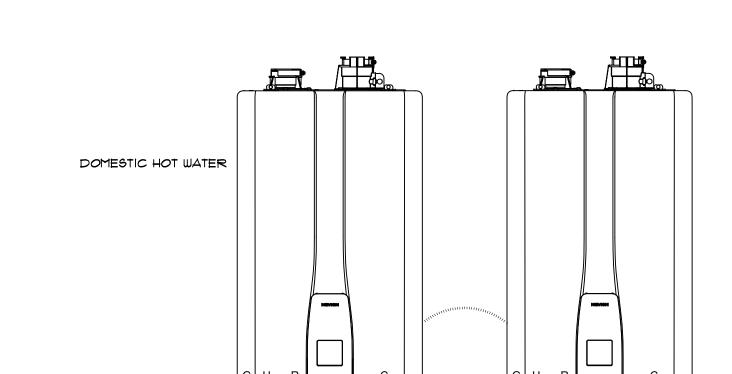
VEHICLE EXHAUST PLAN

PROJECT NO.

M4C

50144269

5YMBOL	FIXTURE TYPE	RUN-OUT SIZES		•	
311 DOL		WASTE	CW	HW	DESCRIPTION
P-1	WATER CLOSET-ADA	3"	1"	-	KOHLER K-3493 HIGHLINE ELONGATED TOILET K-4650 LUSTRA ELONGATED OPEN-FRONT SEAT
P-2	WALL MOUNT LAVATORY - ADA	1-1/2"	1/2"	1/2"	KOHLER K-1991-4N BRENHAM PROVIDE CONCEALED WALL HANGER KOHLER K-10213-4 FORTE FAUCET
P-3	SELF RIMMING KITCHEN SINK	2"	1/2"	1/2"	ELKAY MODEL MCC33224 STRAINER ELKAY LK-18B WITH CHROME SUPPLIES STOPS AND P- T4S BRASS B-2742
P-4	SHOWER	2"	1/2"	1/2"	MOEN BALANCING VALVE \$2510 FLOOR TO HAVE FLOOR DRAIN AS TUG62213 ADA SHOWER TRIM KIT PROVIDE DIVERTER VALVE IF ADA, PROVIDE FOLD-UP SEAT, GRAB BAR, AND ANY NECESSA ACCESSORY FOR ADA STANDARD PER FLORIDA CODE
P-5	UTILITY SINK	3"	1/2"	1/2"	UTILITUB 12C TUB COMBO KIT PROVIDE MOP HOLDER UNIT TO COME WITH 6" SWING END WITH HOSE END
P-6	URINAL - ADA	2"	1"	-	KOHLER K-4960-ET BARDON URINAL SLOAN ROYAL 186-05 05 GPF FLUSH VALVE
FD	FLOOR DRAIN	3"	-	-	JR \$MITH 2210 PROVIDE BRONZE COVER
WH	WATER HEATER	-	1/2"	1/2"	NAVIEN NPE-240A2 199,000 BTUH 120/1 MAX 4A PROVIDE WITH COMFORT FLOW RECIRCULATION SYSTEM
WASHER	WASHING MACHINE CONNECTION	3"	1/2"	1/2"	LAUNDRY BOX REFER TO DETAIL
₩B	HOSE BIBB	-	1/2"	-	FROST PROOF WITH LOCK BOX JR SMITH 5509QT
†P	TRAP PRIMER	3"	1/2"	_	SIOUX XHIEF 695-01 PRIMEPERFECT TRAP PRIMER



SCALE: NTS

TANKLESS WATER HEATER DETAIL

PLUMBING NOTES:

I.I DESCRIPTION:

A. THE NON-TECHNICAL SPECIFICATIONS AND GENERAL CONDITIONS OF THESE SPECIFICATIONS ARE APPLICABLE IN FULL HERETO.

B. INCLUDE ALL EQUIPMENT, MATERIAL AND LABOR REQUIRED FOR COMPLETE AND OPERATING PLUMBING SYSTEMS. DUE TO THE SMALL SCALE OF THE FLOOR PLANS AND DIAGRAMMATIC RISER DIAGRAMS, SOME ITEMS INVOLVED MAY NOT BE INCLUDED.

1.2 WORK INCLUDED:

A. WORK WILL INCLUDE, BUT NOT BE LIMITED TO THE FOLLOWING SYSTEMS COMPLETE WITH ALL REQUIRED ACCESSORIES:

1. A SYSTEM OF SANITARY SOIL, WASTE AND VENT PIPING. 2. A SYSTEM OF DOMESTIC HOT AND COLD WATER PIPING. 3. PLUMBING FIXTURES, EQUIPMENT, ACCESSORIES, TRIM AS SPECIFIED

4. WATER SERVICE TO EACH FIXTURE REQUIRING SUCH SERVICE. 5. SANITARY BUILDING DRAINS AND FIXTURE BRANCHES FROM EACH FIXTURE REQUIRING SUCH SERVICE. 6. PIPING INCIDENTAL TO HEATING AND AIR CONDITIONING WORK TO THE

1.3 LAWS AND CODES:

EXTENT HEREIN SPECIFIED.

A. THE CONTRACTOR SHALL INSTALL ALL WORK IN STRICT COMPLIANCE WITH ALL APPLICABLE CODES AND BE INCLUSIVE OF ALL STATE, AND LOCAL CODES. ALL PROVISIONS OF THIS SECTION APPLY TO ALL PLUMBING WORK.

B. THE CONTRACTOR SHALL OBTAIN AND PAY FOR ALL PERMITS, FEES AND CHARGES REQUIRED INCIDENTAL TO THE WORK INVOLVED THAT MAY BE NECESSARY FOR FULLY COMPLETING THE WORK.

C. THE CONTRACTOR SHALL MAKE ALL NECESSARY TESTS REQUIRED BY LOCAL AUTHORITIES, LEGAL REGULATIONS AND RETURN TO THE ENGINEER ANY CERTIFICATE OF APPROVAL ISSUED FOR ALL PLUMBING WORK SIGNED BY THE INSPECTING ADMINISTRATIVE AUTHORITY IN CHARGE OF EACH PARTICULAR PART OF THE WORK.

1.4 QUALIFICATIONS:

A. THE CONTRACTOR SHALL BE A LICENSED PLUMBER CERTIFIED BY THE STATE.

1.5 DRAWINGS:

A. IN THE INTEREST OF CLEARNESS, THE WORK IS NOT ALWAYS SHOWN TO SCALE OR EXACT LOCATION. CHECK ALL MEASUREMENTS, LOCATION OF PIPE, DUCTS AND EQUIPMENT WITH THE DETAIL ARCHITECTURAL STRUCTURAL AND ELECTRICAL DRAWINGS, AND LAY OUT WORK SO AS TO FIT IN WITH CEILING GRIDS, LIGHTING AND OTHER PARTS. WHERE DOUBT ARISES AS TO THE MEANING OF THE PLANS AND SPECIFICATIONS, OBTAIN THE ENGINEER'S DECISION BEFORE PROCEEDING WITH PARTS AFFECTED OTHERWISE ASSUME LIABILITY FOR DAMAGE TO OTHER WORK AND FOR MAKING NECESSARY CORRECTIONS TO WORK IN QUESTION.

1.6 CHANGES AND CONFLICTS:

4. IF DURING CONSTRUCTION DESIRABLE OR NECESSARY CHANGES BECOME APPARENT, ADVISE THE ENGINEER AND SECURE HIS DECISION IN WRITING. OTHERWISE, MAKE NO DEVIATION FROM THE SYSTEM AS DETAILED.

1.7 GUARANTEE AND SERVICE:

A. THE CONTRACTOR SHALL GUARANTEE ALL PIPING, EQUIPMENT, FIXTURES AND RELATED MATERIALS FOR A PERIOD OF ONE (1) YEAR FROM DATE OF ACCEPTANCE AGAINST DEFECTS DUE TO FAULTY WORKMANSHIP OR MATERIALS. SUCH DEFECTS WILL BE CORRECTED PROMPTLY AFTER NOTIFICATIONS BY THE ENGINEER AND AT THE CONTRACTOR'S EXPENSE WITH NO COST TO THE OWNER.

B. THE CONTRACTOR SHALL ALSO FURNISH WITHOUT CHARGE, ANY REASONABLE SERVICE IN MAKING MINOR ADJUSTMENTS TO FIXTURES AND EQUIPMENT FOR THE SAME PERIOD, BUT THIS SERVICE WILL NOT INCLUDE THE REPLACEMENT OF PARTS DAMAGED BY MALICIOUSNESS OR YANDALISM AFTER ACCEPTANCE BY THE OWNER, OR CLEARING OF OBSTRUCTION FROM SEWERS CAUSED BY OTHER THAN DEFECTS IN THE

C. THE CONTRACTOR SHALL PUT ALL ITEMS INSTALLED UNDER THIS DIVISION INTO OPERATION AND WILL INSTRUCT THE OWNER'S MAINTENANCE PERSONNEL IN ALL POINTS REQUIRING SERVICE AND MAINTENANCE.

1.8 SUBMITTAL DATA:

A. WITHIN 30 DAYS AFTER AWARD OF CONTRACT, SUBMIT FOR APPROVAL A COMPLETE SCHEDULE OF MATERIAL AND EQUIPMENT PROPOSED. PARTIAL LISTS WILL NOT BE CONSIDERED. INCLUDE CATALOG DATA, SCHEDULED CAPACITIES, ETC., WHERE SUBSTITUTIONS ARE PROPOSED. FOLLOW PROCEDURES SET FORTH IN THE GENERAL CONDITIONS.

B. UPON REQUEST, SUBMIT SHOP DRAWINGS SHOWING PROPOSED ARRANGEMENT OF EQUIPMENT, PIPING, FLOOR DRAINS, POWER REQUIREMENTS AND CONTROLS, IN ANY CASE, SUBMIT DETAIL LAYOUTS OF POTENTIAL CONFLICTS AT PLUMBING DROPS, EQUIPMENT ROOMS, TIGHT CEILINGS, ETC.

1.9 EXISTING CONDITIONS:

EXPANSION TANK

A. THE CONTRACTOR SHALL VISIT THE SITE AND BECOME ACQUAINTED WITH ALL JOB CONDITIONS. NO CONSIDERATIONS WILL BE GIVEN AFTER BID OPENING FOR ALLEGED MISUNDERSTANDING REGARDING UTILITY CONNECTIONS, PERMITS, FEES, ETC.

CONDENSATE DRAIN TO GROUND

- DOMESTIC COLD WATER

B. THE DRAWINGS INDICATE SYSTEMS WHICH ARE LOCATED IN EXISTING PARTITIONS AND BEHIND WALLS. THE CONTRACTOR SHALL LOCATE AND YERIFY ALL PIPING CONNECTIONS AND INCLUDE IN HIS BID CONTINGENCIES FOR THE RELOCATION OF SUCH SYSTEMS IF CONNECTIONS CAN NOT BE MADE AS SHOWN ON THE DRAWINGS.

C. THE CONTRACTOR IS REQUIRED TO CONNECT TO EXISTING PLUMBING SYSTEMS FOR THE CONSTRUCTION OF THIS PROJECT AND IS REQUIRED TO KEEP DISRUPTION OF THE EXISTING SYSTEMS TO A MINIMUM. SCHEDULE CONNECTION TO EXISTING SYSTEMS IN ADVANCE AND ADVISE THE OWNER TO THE LENGTH OF TIME SUCH SYSTEMS WILL NOT BE IN OPERATION. THE CONTRACTOR SHALL MAKE CONNECTIONS AFTER HOURS OR ON WEEKENDS IF REQUESTED BY THE OWNER NO CONSIDERATIONS WILL BE GIVEN AFTER BID OPENING FOR ALLEGED MISUNDERSTANDING

REGARDING UTILITY CONNECTIONS, PERMITS, FEES, ETC.

LIØ PHASING:

A. INTERRUPT EXISTING SERVICES ONLY AT TIMES APPROVED BY THE OWNER. HOLD INTERRUPTIONS TO THE MINIMUM IN DURATION AND

FREQUENCY. I.II AS-BUILT DRAWINGS:

A. OMIT

A. FURNISH FIVE (5) COPIES OF MAINTENANCE INSTRUCTIONS, OPERATING INSTRUCTIONS AND PARTS LISTS FOR ALL FIXTURES AND EQUIPMENT BOUND INTO FIVE (5) MANUALS, LOOSE SHEETS WILL NOT BE ACCEPTED. ONE MANUAL WILL BE SUBMITTED TO THE ENGINEER COMPLETE, PRIOR TO FINAL INSPECTION AND FINAL PAYMENT, THE REMAINING FOUR (4) MANUALS WILL BE SUBMITTED TO THE ENGINEER.

1.13 COORDINATION OF WORK WITH OTHER TRADES:

CONTRACTS PERTAINING TO THIS PROJECT.

A. THE CONTRACTOR SHALL LAYOUT AND PROCEED WITH THIS WORK SO THAT THIS WORK WILL BE EXECUTED IN HARMONY WITH ALL OTHER

B. ALL ELECTRICAL POWER WIRING REQUIRED FOR INSTALLATION OF EQUIPMENT UNDER THIS SECTION IS SPECIFIED UNDER ELECTRICAL DIVISION. PLUMBING CONTRACTOR SHALL FURNISH AND INSTALL ALL CONTROLS, AND CONTROL WIRING AS SPECIFIED OR REQUIRED TO PROPERLY COMPLETE THE INSTALLATION. CONTROL CONDUIT IS SPECIFIED UNDER ELECTRICAL DIVISION TO THE EXTENT SHOWN ON ELECTRICAL DRAWINGS ALL OTHER CONTROL CONDUIT SHALL BE PROVIDED UNDER THIS SECTION OF WORK. ALL ELECTRICAL WORK PERFORMED UNDER THIS SECTION SHALL MEET REQUIREMENTS SET FORTH IN THE ELECTRICAL DIVISION.

C. PIPE SLEEVES - FIT ALL PIPES PASSING THROUGH MASONRY AND JOB CAST CONCRETE CONSTRUCTION WITH SLEEVES. SLEEVES SHALL BE CUT FLUSH WITH EACH SURFACE, 1/2" LARGER IN DIAMETER THAN THE PASSING PIPE OR COVER, BUILT-IN AS WORK PROGRESSES. SLEEVES THROUGH JOISTS AND BEAMS SHALL BE OF GALVANIZED STEEL PIPE OTHER SLEEVES SHALL BE OF 16 GAUGE GALVANIZED IRON, MAKE SPACE BETWEEN FLOOR SLEEVES AND PASSING PIPES WATERTIGHT BY

CAULKING WITH FIREPROOF PACKING AND PLASTIC WATERPROOF

D. ACCESS PANELS AND DOORS:

CAULKING COMPOUND.

1. FURNISH TO GENERAL CONTRACTOR FOR INSTALLATION WHEREVER REQUIRED FOR ACCESS TO VALVES, AIR VENTS OR SIMILAR DEVICES. DOORS SHALL BE SUITABLE FOR WALL FINISH INVOLVED, 12" X 16" UNLESS OTHERWISE INDICATED, FIRE RATED WHERE FIRE WALLS ARE PENETRATED, MILCOR, PHILIP CAREY, ZURN OR OTHER APPROVED

2. WHERE DEVICE OCCURS ABOVE A LIFT-OUT ACOUSTICAL CEILING PANEL, IDENTIFY THE PANEL WITH A 3/4" \*8 ROUND HEAD SELF-THREADING SCREW, SCREWED INTO PANEL WITH ONLY THE HEAD SHOWING. BEFORE INSERTING, PAINT HEAD OF SCREW WITH APPROPRIATE COLOR AS SPECIFIED UNDER PIPE IDENTIFICATION AND COLOR CODING.

E. CUTTING AND PATCHING:

1. OPENINGS ARE TO BE LAID OUT AND BUILT-IN FURNISH DETAILED LAYOUT DRAWINGS TO OTHER TRADES IN ADVANCE OF THEIR WORK PIPING WITHIN OR BEHIND WALLS MUST BE INSTALLED BEFORE WALL IS ERECTED. OTHERWISE WALLS, ETC., AFFECTED MUST BE REWORKED BY TRADE WHICH ERECTED SAME AT EXPENSE OF THE CONTRACTOR HASING AND CUITING OF NEW WORK WILL NOT BE ACCEPTED 2. CUTOUTS IN COUNTERTOPS SHALL BE MADE BY MILLWORK CONTRACTOR UPON RECEIPT OF PROPER TEMPLATES. OPENINGS IN EXISTING WALLS SHALL BE MADE BY TRADE REQUIRING SAME, WITH REPAIRING AND PATCHING REQUIRED THEREBY DONE BY THE RESPECTIVE TRADE WHOSE WORK IS DAMAGED.

F. PAINTING AND FINISHING:

1. CLEAN AND PAINT WITH TWO COATS OF ENAMEL ALL EXPOSED FERROUS METAL PARTS OF MECHANICAL EQUIPMENT LOCATED IN MACHINERY ROOMS, ABOVE CEILINGS. ETC. (INCLUDE BLACK STEEL PIPE, UNCOATED CAST IRON PIPE, HANGERS, BRACKETS, ETC.). 2. PAINTING OF SURFACES IN FINISHED AREAS IS SPECIFIED UNDER SECTION "PAINTING". WHERE FACTORY FINISHED ITEMS ARE MARRED OR SCRATCHED, REPLACE THE ITEM, OR UPON APPROVAL, REFINISH OR TOUCHUP AS REQUIRED TO BRING TO A LIKE-NEW CONDITION.

G. CONNECTIONS FOR EQUIPMENT FURNISHED BY OTHERS:

I. THE PLUMBING CONTRACTOR SHALL PROVIDE FLOOR DRAINS REQUIRED FOR THIS EQUIPMENT AS SCHEDULED ON THE DRAWINGS 2. ALL REQUIRED WATER SUPPLY LINES WILL BE EXTENDED TO WITHIN 2'-O" OF EQUIPMENT LOCATIONS AND TERMINATED WITH A GATE YALVE. FINAL CONNECTIONS TO EQUIPMENT WILL BE MADE BY THE PLUMBING CONTRACTOR AND COORDINATED WITH THE GENERAL CONTRACTOR AND 1.14 MISCELLANEOUS REQUIREMENTS:

A. MATERIALS AND EQUIPMENT - NEW AND OF BEST QUALITY IN EVERY RESPECT. PIPE AND FITTINGS SHALL CONFORM TO THE ASTM STANDARD DESIGNATED FOR PIPE OF EACH MATERIAL. EQUIPMENT SHALL BE ESSENTIALLY THE STANDARD PRODUCT OF THE MANUFACTURER AND UL APPROVED WHERE COMMERCIALLY AVAILABLE. WHERE TWO OR MORE UNITS OF THE SAME CLASS OF EQUIPMENT ARE REQUIRED, THESE UNITS SHALL BE PRODUCTS OF A SINGLE MANUFACTURER HOWEVER, THE COMPONENT PARTS OF EACH UNIT NEED NOT BE.

B. WORKMANSHIP - FIRST CLASS AND IN ACCORDANCE WITH BEST PRACTICE. PIPE SHALL BE CUT CLEAN, PROPERLY REAMED, THREADED OR SOLDERED, ERECTED PLUMB AND SECURE. MAKE CHANGES IN PIPE SIZE WITH REDUCING FITTINGS WITHOUT THE USE OF BUSHINGS. WORK SHALL BE EXECUTED BY EXPERIENCED MECHANICS AND SHALL PRESENT A NEAT APPEARANCE. INSTALL EQUIPMENT IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.

C. AT ALL STAGES OF INSTALLATION, PROTECT PIPE OPENINGS, FIXTURES AND EQUIPMENT AGAINST THE ENTRANCE OF FOREIGN MATERIALS, AND FROM DAMAGE BY THE ELEMENTS, MORTAR, PAINT, ETC.

D. FACTORY FINISHES - MANUFACTURER'S STANDARD UNLESS OTHERWISE STATED. SUBMIT COLOR DRAWINGS FOR LOCATION. CARDS FOR SELECTION WHERE CHOICE EXISTS.

E. EXPANSION - PROVIDE FOR EXPANSION AND CONTRACTION OF ALL PIPING AND MAKE PROPER PROVISIONS SO THAT EXCESSIVE STRAIN WILL NOT OCCUR ON PIPING OR OTHER

F. SAFETY PROVISIONS - PROVIDE COVERS OR GUARDS ON ALL HOT, MOVING AND PROJECTING ITEMS WHICH COULD BE A HAZARD TO OCCUPANTS OF THE BUILDING OR TO SERVICE

G. CLEANING AND ADJUSTING - UPON COMPLETION OF WORK, CLEAR ALL DRAINS, TRAPS, LEAVE WORK IN CLEAN AND OPERATING CONDITION.

H. ESCUTCHEONS - WHERE PIPES PASS THROUGH FLOORS, WALLS AND CEILINGS, PROVIDE PRESSED CHROME-PLATED BRASS OR STEEL PLATES SECURELY FASTENED IN PLACE.

PART 3- EXECUTION

3.1 SANITARY PIPING:

A. SCOPE - PROVIDE A SYSTEM OF SOIL, WASTE AND VENT PIPING CONNECTING ALL PLUMBING 3.5 PIPE HANGERS AND SUPPORTS: PER FT FO FIXTURES, EQUIPMENT, ETC., TO THE BUILDING DRAIN SYSTEM, WITH CONSOLIDATED VENT

CONNECTIONS EXTENDING THROUGH THE BUILDING ROOF, ALL AS SHOWN ON THE DRAWINGS.

B. FREEZE PROTECT ALL EXPOSED SANITARY PIPING.

C. LAYING OUT WORK - VENTS FROM ANY FIXTURE, WHEN CONNECTED TO VENT LINE SERVING OTHER FIXTURES, SHALL BE EXECUTED AT LEAST SIX (6) INCHES ABOVE FLOOD LEVEL RIM OF HIGHEST OF SUCH FIXTURES TO PREVENT USE OF VENT LINES AS A WASTE. MAKE CHANGES IN DIRECTION BY APPROPRIATE USE OF 45 DEGREE YS, 1/2" YS, OR LONG SWEEP 1/4, 1/6, 1/8 OR 1/16 3. CAST IRON PIPE - REFER TO SANITARY PIPING BENDS, SANITARY TS OR SHORT 1/4 BENDS MAY BE USED ON VERTICAL STACKS OR DRAINAGE LINES WHERE CHANGE IN DIRECTION OF FLOW IS FROM HORIZONTAL TO VERTICAL EXCEPT THAT LONG-TURN TY'S SHALL BE USED WHEN TWO FIXTURES ARE INSTALLED BACK TO BACK WITH COMMON DRAIN, STRAIGHT TS, ELLS AND CROSSES MAY BE USED ON VENT LINES, MAKE NO CHANGE IN DIRECTION OF FLOW GREATER THAN 90 DEGREES. WHERE DIFFERENT SIZES OF DRAINAGE PIPES OR FITTINGS ARE CONNECTED, USE STANDARD INCREASERS AND REDUCERS OF PROPER SIZE. DO NOT REDUCE SIZE OF DRAINAGE PIPING IN DIRECTION OF FLOW. DRILLING AND TAPPING OF HOUSE DRAINS, SOIL, WASTE OR VENT PIPES, AND USE OF SADDLE HUBS AND BANDS ARE PROHIBITED.

D. DO NOT BEGIN WORK UNTIL ELEVATION OF FINAL CONNECTION POINT 18 VERIFIED AND GRADING OF ENTIRE SYSTEM CAN BE DETERMINED.

E. HANGERS - SUPPORT PIPE ADJACENT TO EACH FITTING AND ON CENTERS NOT EXCEEDING FIVE FEET WITH HANGERS AS SPECIFIED HEREINAFTER. RIGIDLY SUPPORT BASE OF VERTICAL RUNS WITH SOLID MASONRY OR CONCRETE.

F. IN ADDITION, PROVIDE ADEQUATE SWAY BRACING TO STABILIZE ALL COMPONENTS OF THE

SYSTEM. PROVIDE SPECIAL SUPPORT FOR FIXTURE ARMS, CLOSET BENDS, ETC. G. GRADING - UNIFORM AND NOT LESS THAN 1/8" PER FOOT FOR PIPE 4" AND OVER, AND NOT

LESS THAN 1/4" PER FOOT FOR 2" AND 3" PIPING. H. WASTE ARMS - PYC DWY OR IPS BRASS PIPE TYPICAL IPS BRASS PIPE AT URINALS.

I. TEST FITTINGS - NOT SHOWN ON THE DRAWINGS: PROVIDE WHERE REQUIRED FOR PARTIAL

J. PIPING TO BE CAST IRON OR PVC - DWV IN ACCORDANCE WITH FPC 2020 1TH EDITION.

3.3 WATER PIPING:

A. SCOPE - CONNECT TO UTILITIES AS SHOWN ON THE DRAWINGS AND COORDINATE WITH THE

B. GENERAL WORKMANSHIP - CUT ACCURATELY TO MEASUREMENTS ESTABLISHED AT SITE AND WORK INTO PLACE WITHOUT SPRINGING OR FORCING, PROPERLY CLEARING ALL OPENINGS, FINISHED CEILINGS, ETC. ROUTE THROUGH PREVIOUSLY BUILT-IN SLEEVES AND AVOID EXCESSIVE CUTTING OR OTHER WEAKENING OF THE STRUCTURE, REAM ALL PIPE TO REMOVE BURRS, MAKE CHANGES IN DIRECTION AND SIZE WITH FITTINGS, CAP OR PLUG OPEN PIPE ENDS DURING INSTALLATION TO KEEP OUT FOREIGN MATERIAL. MAKE CONNECTIONS CAREFULLY TO INSURE UNRESTRICTED FLOW, ELIMINATE AIR POCKETS AND TO PERMIT COMPLETE DRAINAGE OF THE SYSTEMS. FREEZE PROTECT ALL EXPOSED WATER PIPING.

WHERE LOW POINTS ARE REQUIRED BECAUSE OF LONG RUNS OR WHERE SECTIONS MAY BE VALVED OFF, PROVIDE WITH 3/4" GLOBE VALVE AND HOSE NIPPLE FOR DRAINAGE AT LOW POINT. MAKE ALL CONNECTIONS TO RISERS AND FIXTURES FROM TOP OF MAINS.

C. GRADING - GRADE PIPE UPWARD FROM SOURCE TO FACILITATE DRAINAGE AND AIR RELIEF.

D. NIPPLES - OF SAME MATERIAL AS PIPE IN WHICH THEY ARE INSTALLED PROVIDE EXTRA STRONG WHEN UNTHREADED PORTION IS LESS THAN I" LONG.

E. PIPING TO BE COPPER OR CPVC.

3.4 WATER PIPING SPECIALTIES:

A. UNIONS - 150 LB. RATED CAST BRASS GROUND-JOINT TYPE IN COPPER PIPE, GALVANIZED MALLEABLE IRON IN WROUGHT IRON OR GALVANIZED PIPE.

B. PROVIDE IN ALL SIZES OR THREADED PIPE. AND IN SWEAT JOINTED PIPE OVER I", SO AS TO FACILITATE EASY REPAIRS. IN SUCH LINES INSTALL ADJACENT TO WATER HEATERS, PUMPS, TANKS, ETC., INTO WHICH PIPING IS TERMINATED AND ON AT LEAST ONE SIDE OF VALVES, COCKS. STRAINERS, ETC., AND OTHER DEVICES WHICH OCCUR IN PIPING RUNS.

C. PROVIDE DIELECTRIC UNIONS BETWEEN FERROUS AND NON-FERROUS PIPING (INCLUDING PIPING AND WATER HEATER STUBS WHERE DIFFERENT).

D. YALVES - PROVIDE WHERE SHOWN AND/OR SPECIFIED, INCLUDING ALL FIXTURES OR EQUIPMENT NOT FURNISHED WITH STOPS. ALL VALVES OF EACH TYPE SHALL BE THE PRODUCT OF ONE MANUFACTURER, STOCKHAM UNITS AS INDICATED BELOW, OR EQUALS BY CRANE OR WALWORTH. ALL VALVES SHALL BE RATED 200 LB. WWP.

E. BALL VALVES 2" AND SMALLER - S-201 BR CAST BRONZE FOR THREADED PIPE.

F. SHOCK ABSORBERS - CERTIFIED BY PLUMBING AND DRAINAGE INSTITUTE STANDARD PDI-WH201. PROVIDE WHERE INDICATED.

G. WALL HYDRANTS (TYPICAL) - SEE FIXTURE SCHEDULE, FURNISH VACUUM BREAKER ON EACH

H. YARD HYDRANTS (TYPICAL) - NON-FREEZE 3/4" CHROMIUM PLATED BRONZE HOSE BIBB WITH LOOSE KEY, WADE W-8620 WITH INTEGRAL BACKFLOW PREVENTER OR APPROVED EQUAL. FURNISH YACUUM BREAKER ON EACH HYDRANT. INSTALL FLUSH WITH FINISH GRADE. SEE

I. PRESSURE REDUCING VALVES - WATTS/MUESCO SERIES I 15 AS SIZED ON DRAWING, FURNISH WITH WATTS NO. 175 OR 17F "Y" TYPE STRAINER, CRANE OR STOCKHAM.

J. THERMOMETERS - "ANY ANGLE" TYPE WITH 9 INCH SCALE AND SUITABLE TEMPERATURE RANGE, AS MANUFACTURED BY TRERICE TYPE BX. THERMOMETERS SHALL BE MERCURY ACTUATED WITH PHENOL CONDENSATE WITH ALUMINUM OR BRASS CASES AND 6" SOCKET WITH EXTENSION NECK. LOCATE SO AS TO BE CONVENIENT FOR READING. EQUAL PRODUCT BY WESKLER, MARSH OR MAXWELL MOORE WILL BE ACCEPTED.

K. PRESSURE GAGES - BOURDON TUBE TYPE, AS MANUFACTURED BY TRERICE NO. 600 FIXTURES, DUCTS AND PIPE. ADJUST ALL VALVES, PACK STUFFING BOXES, REMOVE RUBBISH AND COMPLETE WITH CAST ALUMINUM CASE, NO. 872 VIBRATION OR PULSATION SNUBBER AND NO. 735 NEEDLE VALVE, GAGE DIALS SHALL BE NOT LESS THAN 4-1/2" AND CASES SHALL BE OF ALUMINUM ALLOY. FURNISH WITH SUITABLE PRESSURE RANGES FOR EACH APPLICATION. EQUAL PRODUCTS BY WESKIER, MARSH OR ASHCROFT WILL BE ACCEPTED.

L. VACUUM BREAKER - WATTS NO. 36A , CRANE OR STOCKHAM.

M. HOT WATER PIPING TO INSULATED PER FLORIDA PLUMBING CODE.

A. SPACING - INSTALL SUPPORTS AS REQUIRED TO PREVENT SAGS, BENDS OR VIBRATION IN ANY CASE PROVIDE WITHIN SIX INCHES OF ELBOWS AND VALVES, AT ENDS OF BRANCHES OVER FIVE FEET, AND ON CENTERS NOT EXCEEDING THE FOLLOWING:

1. COPPER TUBING - UP TO 1". 6 FEET: OVER 1", 8 FEET 2. STEEL PIPE - UP TO 1-1/4", 8 FEET: 1-1/2" AND 2", 10 FEET: 2" THROUGH 3-1/2", 12 FEET OVER 3-1/2", 16 FEET

B. EQUAL PRODUCTS - EQUIVALENT DEVICES BY GRINNELL. ELSEN. STOCKHAM OR CRANE WILL

C. HANGER RODS - OF MILD STEEL, THREADED AS REQUIRED. USE NOT SMALLER THAN 3/8" RODS FOR PIPE 2" AND UNDER, 1/2" RODS FOR PIPES 2-1/2" THROUGH 6", BUT GENERALLY AS STANDARD FOR THE HANGER SELECTED. SUPPORT RODS WITH THREADED INSERTS, EXPANSION

D. AT TYPICAL SUSPENDED HORIZONTAL PIPE - ADJUSTABLE CLEVIS OR SPLIT-RING TYPE, EQUAL TO FEE & MASON 239 OR 215.

E. WHERE IN CONTACT WITH COPPER PIPE - SAME AS ABOVE EXCEPT HANGERS COPPER

F. VERTICAL PIPING ALONG WALL - FEE & MASON #241 RISER CLAMPS AT FLOORS AND #336 STAND-OFF BRACKETS TOGGLE BOLTED TO WALL. PLACE UNDER HUBS OR COUPLINGS WHERE AT ALL POSSIBLE. GRINNELL OR WATTS.

G. ON INSULATED LINES - SIZE HANGER LOOPS TO FIT OVER INSULATION, AND PROVIDE 12" LONG, 22 GAUGE GALVANIZED SHEET METAL HALF-ROUND SADDLES TO PROTECT INSULATION.

H. SUPPORTS FOR WATER SUPPLY PIPING IN SPACES BEHIND PLUMBING FIXTURES - ABS BRACKETS AND U-BOLTS. SECURE THE TWO-PIECE BRACKETS TO CAST IRON STACKS. U-BOLTS SHALL BE SIZED TO BEAR ON THE PIPE. BRACKETS SHALL BE P & M BRACKET CO., OR EQUAL.

I. AT HORIZONTAL PIPING ALONG WALL - FEE & MASON #146 I-HOOKS.

3.7 FIXTURE SUPPORTS AND CONNECTIONS:

SHIELDS OR BEAM CLAMPS.

A. GENERAL - ALL FIXTURES INCLUDING LAYATORIES, URINALS, WATER CLOSETS, ELECTRIC WATER COOLERS, ETC., MUST BE SECURELY FASTENED TO THE WALLS OR FLOOR.

B. WALL MOUNTED FIXTURES - SUPPORT ALL WALL MOUNTED FIXTURES WITH 3/16" THICK  $\times$  3-1/2" HIGH PLATES FULL LENGTH OF FIXTURE, MOUNTED BEHIND WALL. WHERE FIXTURES ARE BACK TO BACK ON A SOLID WALL, MOUNT WITH BOLTS FROM FIXTURE HANGER TO FIXTURE HANGER. DO NOT USE TOGGLE BOLTS OR EXPANSION BOLTS EXCEPT AS NOTED. WHERE FIXTURES ARE MOUNTED ON SOLID WALLS FINISHED BOTH SIDES, INSTALL FIXTURE WITH PLATED TOGGLE BOLTS. WHERE FIXTURES ARE MOUNTED ON WELDED STUDS, EMPLOY 3/16" STEEL HANGER PLATES PLACED ON WALL BEFORE LATHING. PLATES SHALL BE 16" X 8" MINIMUM SIZE, AND SHALL HAVE WELDED-ON BOLT STUDS. WHERE FIXTURES ARE MOUNTED ON WOOD OR LIGHT GAUGE STEEL STUDS, EMPLOY PRESSURE TREATED BLOCKING OF 2 X 10 NOMINAL SIZE WELL SECURED INTO STUD LINE WITH NON-CORROSIVE FASTENERS. FIT BEHIND STUD FLANGES, USING ESPECIALLY PLACED STUDS AS REQUIRED.

C. FLOOR CONNECTIONS - PROVIDE FLOOR FLANGES, SCREWED OR CAULKED TO DRAINAGE PIPE. BOLT THE CONNECTION AND MAKE TIGHT TO FIXTURE WITH SETTING RING OR POLYETHYLENE GASKET FLANGE.

D. WASTE ARMS TO FIXTURES - AS SPECIFIED HEREINBEFORE. WHERE COPPER OR BRASS PIPE IS SPECIFIED, ALL JOINTS DOWNSTREAM FROM TRAP SHALL HAVE SOLDERED JOINTS.

E. STERILIZATION - THE COMPLETED SUPPLY LINE SHALL BE STERILIZED AS REQUIRED BY STATE LAW BEFORE ACCEPTANCE FOR DOMESTIC OPERATION.

Dewberry

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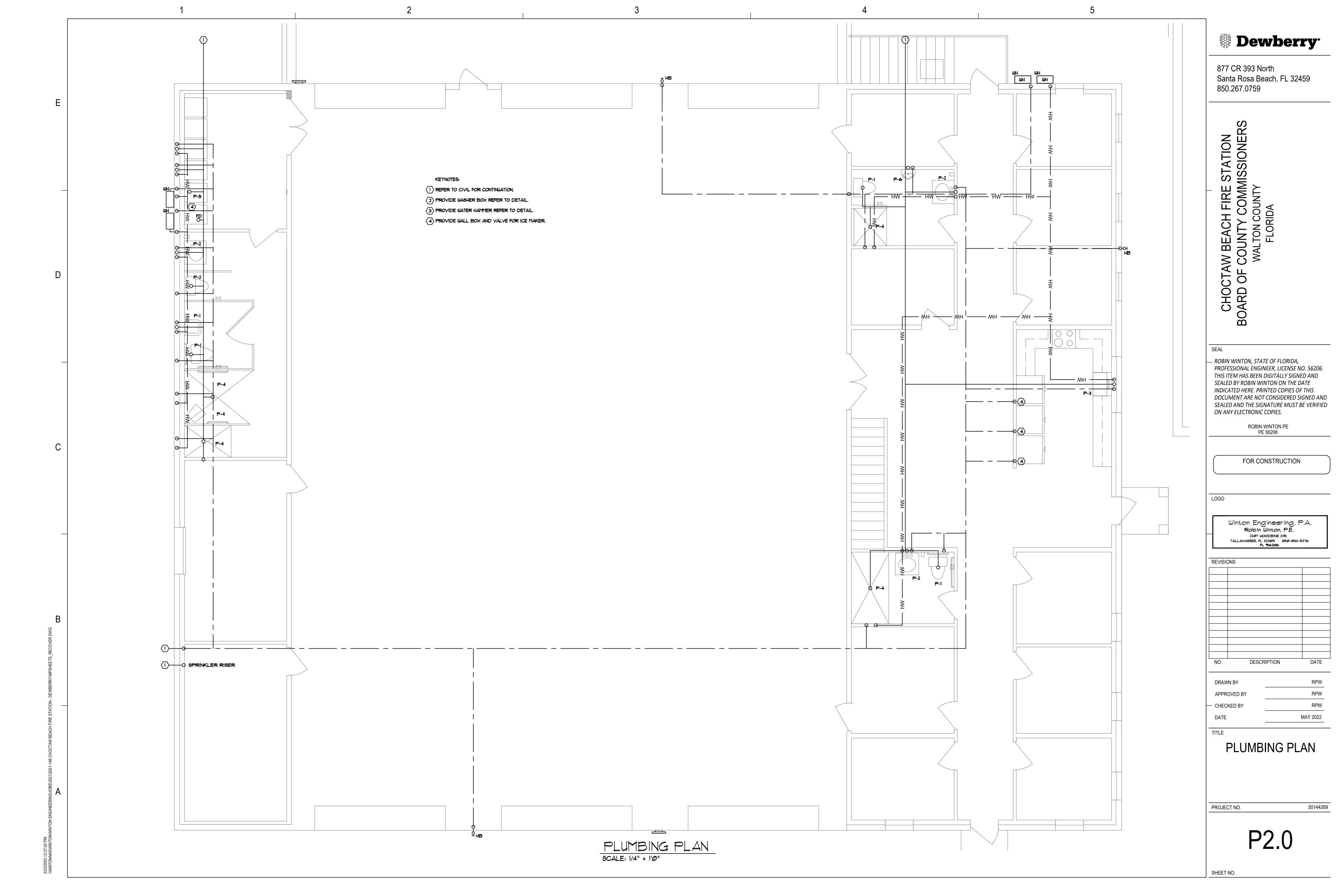
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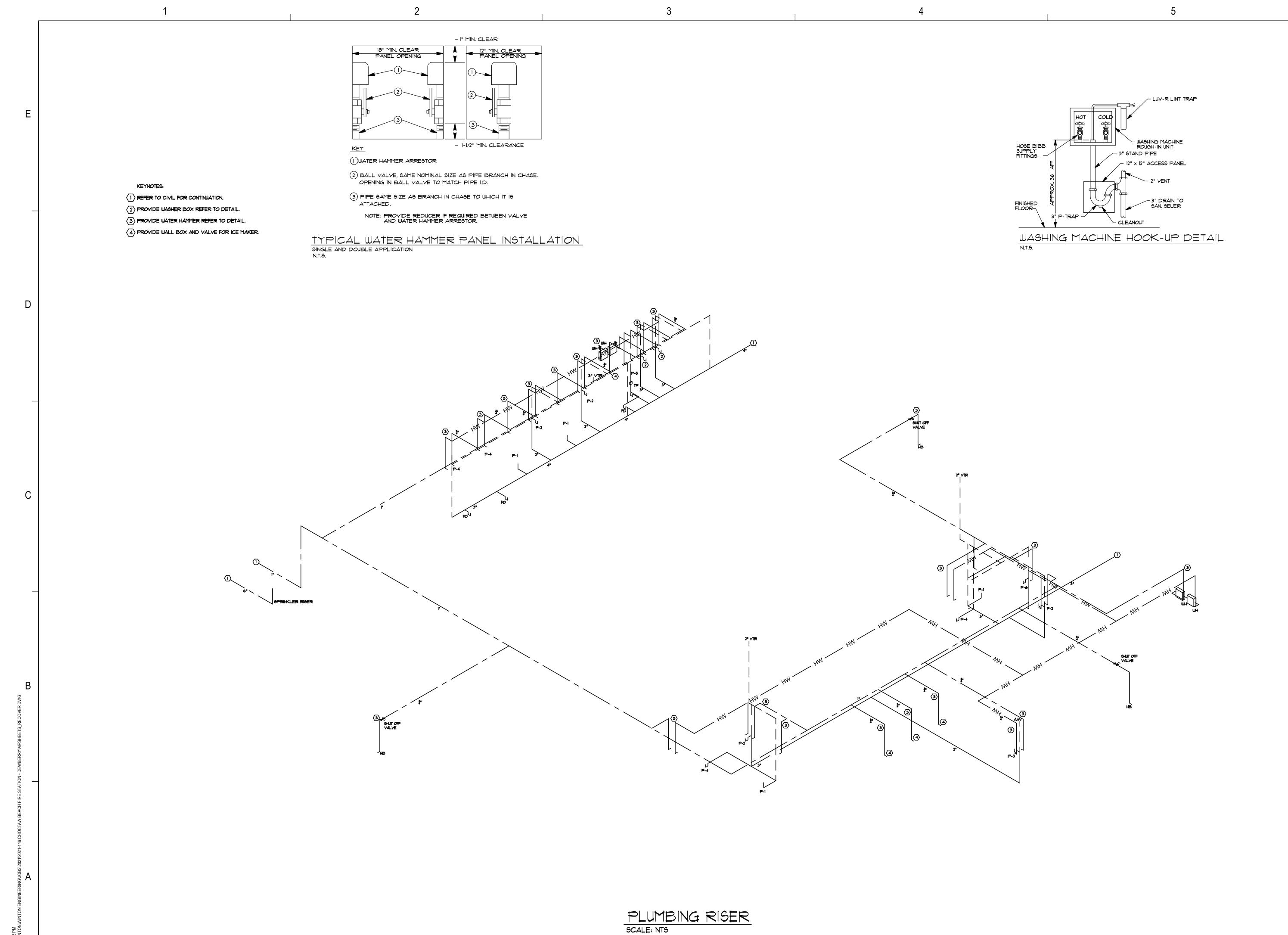
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DOMESTIC HOT WATER

DOMESTIC RECIRCULATION RETURN -





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APPROVED BY RPW

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DATE MAY 2022

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